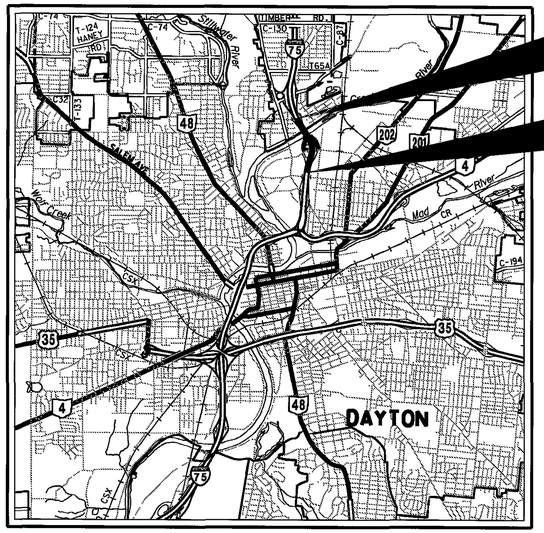

LOCATION MAP

LATITUDE: N 39°47'05" LONGITUDE: W 84°11'05"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE & DIVIDED HIGHWAY

UNDIVIDED STATE & FEDERAL ROUTES

OTHER ROADS

DESIGN DESIGNATION	IR-75
CURRENT ADT (2006)	105,700
DESIGN YEAR ADT (2026)	124,400
DESIGN HOURLY VOLUME (2026)	11,270
DIRECTIONAL DISTRIBUTION	51%
TRUCKS (24 HOUR B&C)	26%
DESIGN SPEED	60 MPH
LEGAL SPEED	55 MPH

DESIGN FUNCTIONAL CLASSIFICATION - URBAN INTERSTATE

DESIGN EXCEPTIONS - SEE SHEET 2

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:

TranSystems
5747 PERIMETER DRIVE, SUITE 240, DUBLIN, OH 43017

ENGINEERS SEAL:
FOR ENTIRE PLAN EXCEPT STRUCTURES (SHEETS 1-235)
STATE OF OHIO HENRI JOSEPH FOUCHER E-66947 REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 7/30/07

ENGINEERS SEAL:
FOR STRUCTURES (SHEETS 236-302)
STATE OF OHIO JONATHAN DAVID HREN 69952 REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 7/31/2007

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MOT-75-14.60

PRESTRESSED CONCRETE OPTION
CITY OF DAYTON
MONTGOMERY COUNTY

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PROJECT DESCRIPTION

THE PROJECT CONSISTS OF COMPLETE REPLACEMENT OF THE EXISTING IR-75 STRUCTURE OVER THE GREAT MIAMI RIVER WITH A NEW 3 SPAN CONTINUOUS AND COMPOSITE HYBRID STEEL PLATE GIRDER STRUCTURE, RAMP MODIFICATIONS IN ALL FOUR QUADRANTS OF THE IR-75 AND STANLEY AVENUE INTERCHANGE, AND SEVERAL RAMP CLOSURES WITHIN THE PROJECT LIMITS.

EARTH DISTURBED AREAS	
PROJECT EARTH DISTURBED AREA	11.25 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.60 ACRES
NOI EARTH DISTURBED AREA	11.85 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2005 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (I) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

APPROVED Rex Dickey, P.E., P.S. /mw
DATE 8-3-07 DISTRICT DEPUTY DIRECTOR

APPROVED James E. Beasley II
DATE 9-12-07 DIRECTOR, DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS

														SUPPLEMENTAL SPECIFICATIONS	
BP-2.1	07/16/04	GR-5.2	1/16/04	DM-1.4	04/21/06	TC-52.10	01/19/07	MT-95.32	09/05/06	MT-105.11	10/18/02	HL-60.11	01/19/07		
BP-2.2	07/16/04	GR-5.3	1/16/04	DM-4.1	07/19/02	TC-52.20	01/19/07	MT-95.40	10/20/06	MT-110.20	10/18/02	HL-60.12	01/19/07		
BP-2.3	07/16/04	RM-3.1	04/18/03	DM-4.3	07/19/02	TC-61.10	01/19/01	MT-98.12	04/19/02	MT-120.00	03/01/00	HL-60.21	01/19/07	800	10/19/07
BP-2.4	07/16/04	RM-4.2	10/20/06	DM-4.4	07/19/02	TC-65.10	01/21/05	MT-98.13	04/19/02	HL-10.11	01/16/04	HL-60.31	01/19/07	802	04/15/05
BP-3.1	07/16/04	RM-4.3	01/19/07	TC-9.10	01/19/01	TC-65.11	01/21/05	MT-98.14	04/19/02	HL-10.12	01/19/07	A-1-69	07/19/02	832	04/25/06
BP-5.1	07/28/00	RM-4.4	01/19/07	TC-12.30	01/19/01	TC-71.10	01/19/07	MT-98.15	07/16/04	HL-10.13	01/17/03	AS-1-81	07/19/02	833	02/12/03
BP-6.1	07/28/00	RM-4.5	01/19/07	TC-21.10	01/19/01	TC-72.20	01/21/05	MT-98.16	04/19/02	HL-10.31	07/20/01	EXJ-6-06	01/20/06	872	10/30/03
F-1.1	07/16/04	CB-1.1	07/15/05	TC-21.20	01/19/01	TC-73.10	01/19/01	MT-98.17	10/18/02	HL-20.11	04/19/02	PCB-91	07/19/02	873	10/30/03
F-3.1	07/28/00	CB-2.1	07/15/05	TC-22.10	01/19/01	TC-81.10	05/01/00	MT-98.18	10/18/02	HL-20.13	01/21/05	PSID-1-99	04/20/07	898	07/21/06
F-3.3	07/28/00	CB-2.2	07/15/05	TC-22.20	01/19/01	TC-82.10	04/19/02	MT-98.19	10/18/02	HL-20.21	01/19/07	SBR-1-99	07/19/02		
GR-1.1	07/16/04	HW-1.1	01/21/05	TC-31.21	04/20/01	TC-83.10	01/19/07	MT-99.20M	1/30/95	HL-30.11	01/21/05				
GR-2.1	01/16/04	HW-2.1	04/21/06	TC-41.20	01/19/01	TC-83.20	01/19/07	MT-101.60	09/20/06	HL-30.21	01/19/07				
GR-3.1	01/19/07	HW-2.2	04/21/06	TC-41.40	07/16/04	TC-84.20	01/19/07	MT-101.70	10/18/02	HL-30.22	01/21/05				
GR-3.2	01/19/07	MH-1.2	01/20/06	TC-42.20	07/16/04	TC-85.20	05/01/00	MT-102.10	10/20/06	HL-40.10	01/19/07				
GR-4.2	01/19/07	DM-1.1	04/21/06	TC-51.11	04/20/01	MT-95.30	09/05/06	MT-102.20	09/05/06	HL-50.11	01/19/07				
GR-5.1	04/18/03	DM-1.2	10/21/05	TC-51.12	04/20/01	MT-95.31	09/05/06	MT-105.10	10/18/02	HL-50.21	01/19/07				

SPECIAL PROVISIONS

OEPA RENO DEMO
USACE AND EPA PERMIT

FEDERAL PROJECT NO. E033(774)

PID NO. 23828

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

PRESTRESSED CONCRETE OPTION
MOT-75-14.60

1/314

MOT - IR-75-14.60
070523 PID - 23828
DIST 07 12/19/2007

IR-75

CURVE 1
PI Sta = 430+60.98
Δ = 9° 52′ 38″ (RT)
Dc = 1° 30′ 21″
R = 3,805.10′
T = 328.79′
L = 655.96′
E = 14.18′
PC = 427+32.19
PT = 433+88.15
emax = EXIST

CURVE 2
PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
TS = 440+44.02
SC = 443+94.02
CS = 452+26.71
ST = 455+76.71
emax = 0.06

CURVE 3
PI Sta = 486+88.63
Δ = 46° 39′ 31″ (RT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 1,647.35′
L = 3,110.57′
E = 340.09′
PC = 470+41.29
PT = 501+15.86
emax = EXIST

STANLEY AVENUE

CURVE 4
PI Sta = 8+00.03
Δ = 40° 00′ 00″ (LT)
Dc = 5° 00′ 00″
R = 1,145.92′
Ls = 200.00′
Theta = 5° 00′ 00″
LT = 133.39′
ST = 66.72′
x = 199.85′
y = 5.81′
k = 99.97′
p = 1.45′
Δc = 30° 00′ 00″ (LT)
Lc = 600.00′
Ts = 517.58′
Es = 75.09′
TS = 2+82.45
SC = 4+82.45
CS = 10+82.45
ST = 12+82.45
emax = EXIST

CURVE 5
PI Sta = 15+97.39
Δ = 14° 23′ 20″ (RT)
Dc = 10° 00′ 00″
R = 572.96′
T = 72.32′
L = 143.89′
E = 4.55′
PC = 15+25.07
PCC = 16+68.96
emax = EXIST

CURVE 6
PI Sta = 17+14.47
Δ = 12° 59′ 19″ (RT)
Dc = 14° 20′ 00″
R = 399.74′
T = 45.50′
L = 90.62′
E = 2.58′
PCC = 16+68.96
PT = 17+59.58
emax = EXIST

RAMP N-6

PI Sta = 448+65.51
Δ = 50° 22′ 03″ (RT)
Dc = 25° 55′ 32″
R = 221.00′
T = 103.92′
L = 194.28′
E = 23.21′
PC = 447+61.59
PT = 449+55.87
emax = 0.059

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI Sta = 454+03.75
Δ = 60° 47′ 49″ (LT)
D1 = 11° 15′ 00″
R1 = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
Fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
Δ1 = 28° 25′ 57″ (LT)
Δ2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
e1 = 0.06
e2 = 0.06
CS = 453+30.19
SC = 455+30.19

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

RAMP N-6A

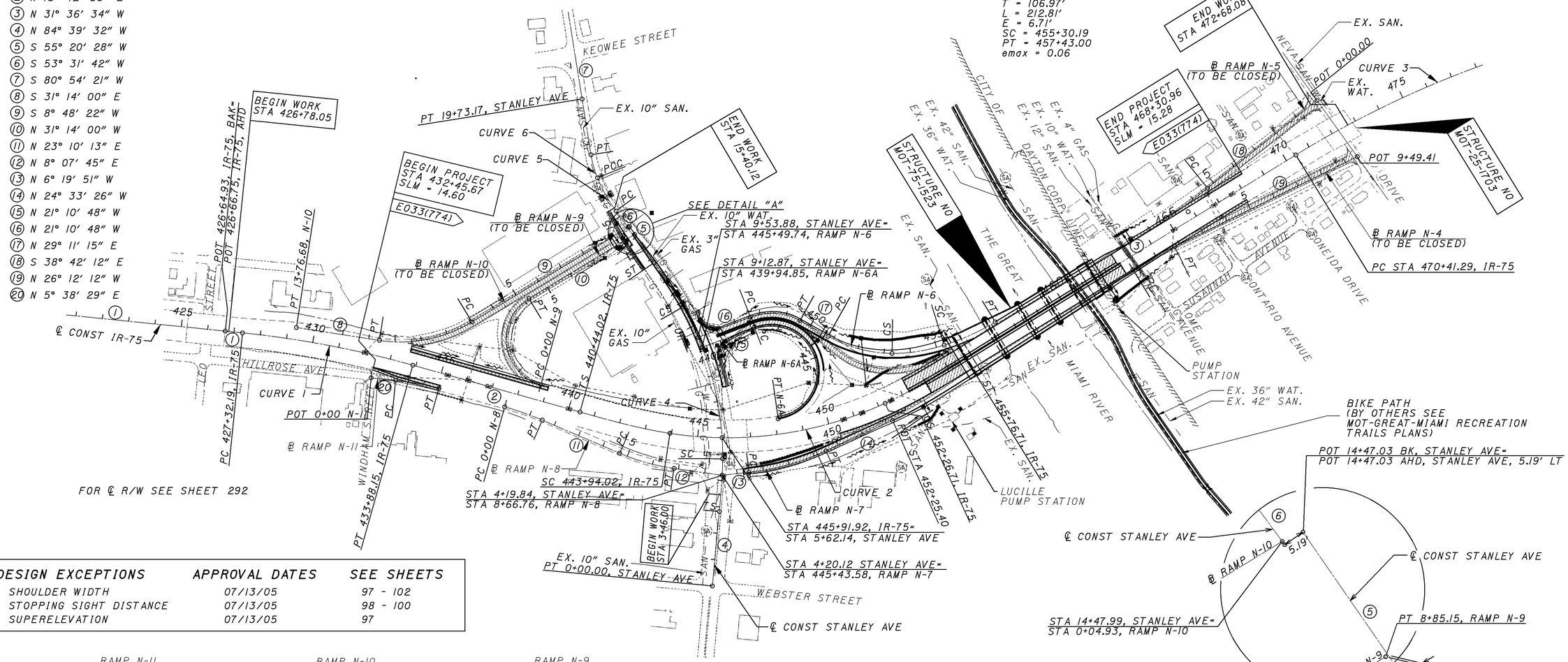
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

RAMP N-7

PI Sta = 447+97.91
Δ = 18° 13′ 35″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 153.18′
L = 303.77′
E = 12.21′
PC = 446+44.72
PT = 449+48.50
emax = 0.038

BEARINGS

① N 5° 49′ 15″ E
② N 15° 42′ 53″ E
③ N 31° 36′ 34″ W
④ N 84° 39′ 32″ W
⑤ S 55° 20′ 28″ W
⑥ S 53° 31′ 42″ W
⑦ S 80° 54′ 21″ W
⑧ S 31° 14′ 00″ E
⑨ S 8° 48′ 22″ W
⑩ N 31° 14′ 00″ W
⑪ N 23° 10′ 13″ E
⑫ N 8° 07′ 45″ E
⑬ N 6° 19′ 51″ W
⑭ N 24° 33′ 26″ W
⑮ N 21° 10′ 48″ W
⑯ N 21° 10′ 48″ W
⑰ N 29° 11′ 15″ E
⑱ S 38° 42′ 12″ E
⑲ N 26° 12′ 12″ W
⑳ N 5° 38′ 29″ E



DESIGN EXCEPTIONS	APPROVAL DATES	SEE SHEETS
SHOULDER WIDTH	07/13/05	97 - 102
STOPPING SIGHT DISTANCE	07/13/05	98 - 100
SUPERELEVATION	07/13/05	97

RAMP N-11

PI Sta = 1+76.40
Δ = 9° 59′ 27″ (RT)
Dc = 6° 00′ 00″
R = 954.93′
T = 83.47′
L = 166.51′
E = 3.64′
PC = 0+92.93
PT = 2+59.45
emax = N/A

RAMP N-10

PI Sta = 8+84.95
Δ = 40° 02′ 21″ (LT)
Dc = 11° 00′ 00″
R = 520.87′
T = 189.78′
L = 363.99′
E = 33.50′
PC = 6+95.17
PT = 10+59.16
emax = N/A

RAMP N-9

PI Sta = 4+15.30
Δ = 133° 08′ 04″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 415.30′
L = 418.25′
E = 272.63′
PC = 0+00.00
PT = 4+18.25
emax = N/A

RAMP N-8

PI Sta = 0+75.49
Δ = 7° 32′ 17″ (RT)
Dc = 5° 00′ 00″
R = 1,145.92′
T = 75.49′
L = 150.76′
E = 2.48′
PC = 0+00.00
PT = 1+50.76
emax = EXIST

PI Sta = 5+76.35
Δ = 15° 02′ 28″ (LT)
Dc = 7° 00′ 00″
R = 818.51′
T = 108.06′
L = 214.87′
E = 7.10′
PC = 4+68.29
PT = 6+83.17
emax = EXIST

RAMP N-5

PI Sta = 7+07.87
Δ = 7° 05′ 38″ (RT)
Dc = 2° 00′ 00″
R = 2,864.79′
T = 177.57′
L = 354.69′
E = 5.50′
PC = 5+30.30
PT = 8+84.99
emax = N/A

RAMP N-4

PI Sta = 0+90.17
Δ = 5° 24′ 22″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 90.17′
L = 180.20′
E = 2.13′
PC = 0+00.00
PT = 1+80.20
emax = N/A

HORIZONTAL SCALE IN FEET
0 100 200 400

SCHEMATIC PLAN

MOT-75-14.60

Plotted By: Jfanthony Date: 7/31/2007 Time: 12:14:29 AM
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CENTERLINE OF CONSTRUCTION IR-75			
STATION	NORTHING	EASTING	DESCRIPTION
426+66.75	653935.772821	1495060.384519	POT
427+32.19	654000.875420	1495067.021172	PC
433+88.15	654644.506024	1495189.326603	PT
440+44.02	655276.115927	1495366.058939	TS
443+94.02	655616.411306	1495446.908290	SC
452+26.71	656429.520230	1495333.272572	CS
455+76.71	656734.612184	1495162.227369	ST
470+41.29	657981.906478	1494394.600168	PC

PROJECT BENCHMARKS								
BENCHMARK	ELEVATION	CENTERLINE	STATION	OFFSET	SIDE	DESCRIPTION	NORTHING	EASTING
BM #1	748.29	IR-75	432+23.75	107.10'	RT	IRON PIN FOUND	654460.826100	1495252.536000
BM #2	745.33	IR-75	456+65.11	147.31'	RT	CROSS NOTCH ON TOP OF HEADWALL	656887.108300	1495241.343600
BM #3	745.33	IR-75	460+86.35	287.02'	RT	MIAMI CONSERVANCY DISTRICT CONTROL MONUMENT NO. 2	657319.084800	1495139.545000
BM #4	758.30	IR-75	455+55.04	253.59'	LT	IRON PIN FOUND	656583.344600	1494957.556700
BM #5	745.41	STANLEY AVE	6+87.18	71.38'	RT	BENCHMARK SET	655869.060500	1495326.873300

CALCULATED MPD
CHECKED AM

BENCHMARKS & REFERENCES

MOT-75-14.60

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LEGEND

PROPOSED

IR-75 MAINLINE

(1) ITEM 204 - SUBGRADE COMPACTION
(2) ITEM 302 - 10" ASPHALT CONCRETE BASE, PG64-22
(3) ITEM 304 - 4" AGGREGATE BASE
(4) ITEM 304 - 6" AGGREGATE BASE
(5) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE @ 0.040 GAL/SQ YD
(6) ITEM 526 - REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN
(7) ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
(8) ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
(9) ITEM 605 - 6" PIPE UNDERDRAIN
(10) ITEM 606 - GUARDRAIL, TYPE 5
(11) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1
(12) ITEM 622 - TYPE D CONCRETE BARRIER

RAMPS & STANLEY AVENUE

(13) ITEM 305 - 8" CONCRETE BASE
(14) ITEM 442 - 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
(15) ITEM 608 - 4" CONCRETE SIDEWALK
(16) ITEM 609 - TYPE 2 COMBINATION CURB & GUTTER
(17) ITEM 609 - TYPE 2A CURB
(18) ITEM 609 - CONCRETE MEDIAN
(19) ITEM 609 - TYPE 6 CURB (19" DEPTH)
(20) ITEM 407 - TACK COAT, 702.13 @ 0.075 GAL/SQ YD

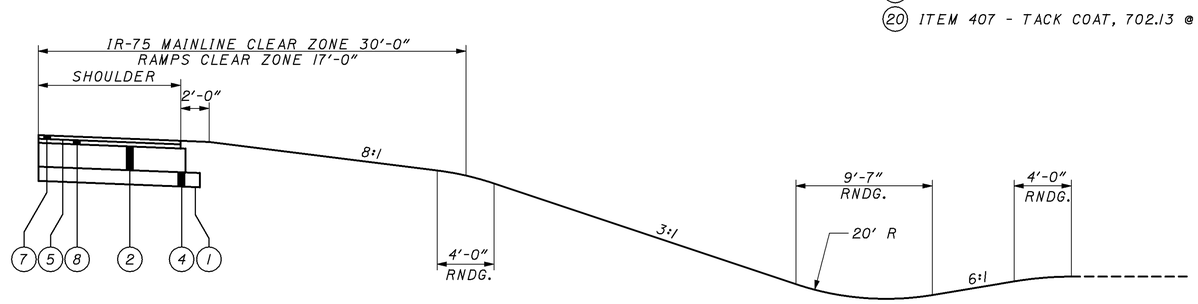
EXISTING

IR-75 MAINLINE

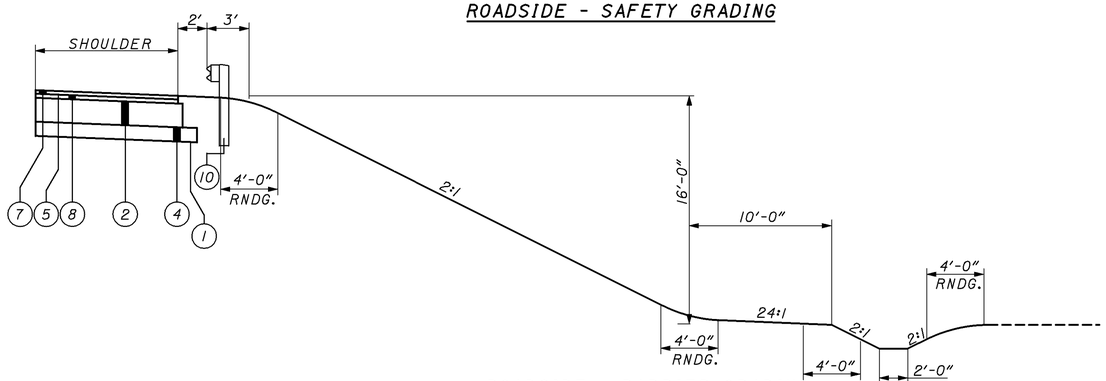
(A) ITEM 446 - 1-1/4" ASPHALT CONCRETE SURFACE COURSE
(B) ITEM 446 - 1-1/4" ASPHALT CONCRETE INTERMEDIATE COURSE
(C) ITEM 451 - 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(D) SUBBASE
(E) ITEM 302 - BITUMINOUS AGGREGATE BASE
(F) WATERPROOF AGGREGATE BASE
(G) ITEM 304 - AGGREGATE BASE
(H) ITEM 605 - 6" UNDERDRAIN
(I) ITEM 451 - STANDARD LONGITUDINAL JOINT
(J) ITEM 602 - TYPE B-50 CONCRETE BARRIER
(K) ITEM 606 - GUARDRAIL

RAMPS & STANLEY AVENUE

(C) 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(D) 6" SUBBASE
(L) ITEM 411 - STABILIZED CRUSHED AGGREGATE SHOULDER
(M) ITEM 451 - STANDARD LONGITUDINAL KEY JOINT
(N) ITEM 609 - TYPE 2 CURB & GUTTER
(O) ITEM 609 - TYPE 2A CURB
(P) ITEM 608 - 4" CONCRETE SIDEWALK
(Q) ITEM 609 - PORTLAND CEMENT CONCRETE MEDIAN
(R) BITUMINOUS SURFACE TREATMENT
(S) 8" CONCRETE BASE
(T) 7" SUBBASE
(U) 1.5" ASPHALT CONCRETE SURFACE COURSE
(V) 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE



ROADSIDE - SAFETY GRADING



ROADSIDE - BARRIER GRADING

TYPICAL SECTIONS - LEGEND AND DETAILS

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:30 AM
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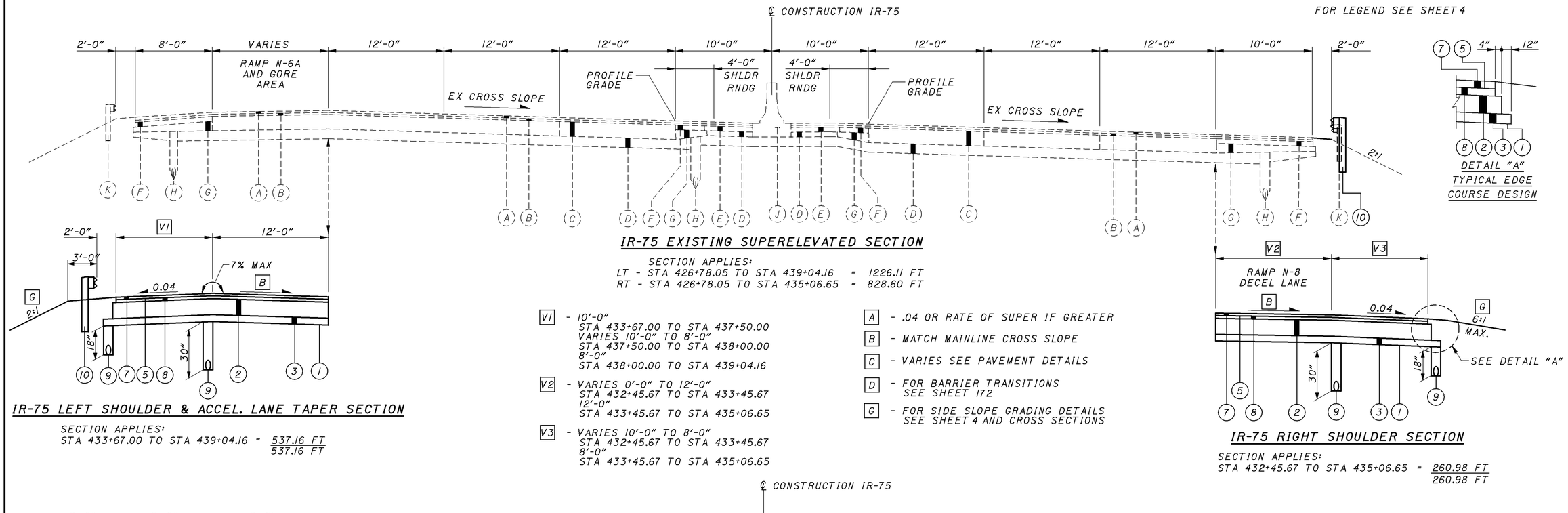


IR-75 LEFT SHOULDER & ACCEL. LANE TAPER SECTION

SECTION APPLIES:
STA 433+67.00 TO STA 439+04.16 - 537.16 FT / 537.16 FT

IR-75 EXISTING SUPERELEVATED SECTION

SECTION APPLIES:
LT - STA 426+78.05 TO STA 439+04.16 - 1226.11 FT
RT - STA 426+78.05 TO STA 435+06.65 - 828.60 FT

VI - 10'-0"
STA 433+67.00 TO STA 437+50.00
VARIES 10'-0" TO 8'-0"
STA 437+50.00 TO STA 438+00.00
8'-0"
STA 438+00.00 TO STA 439+04.16

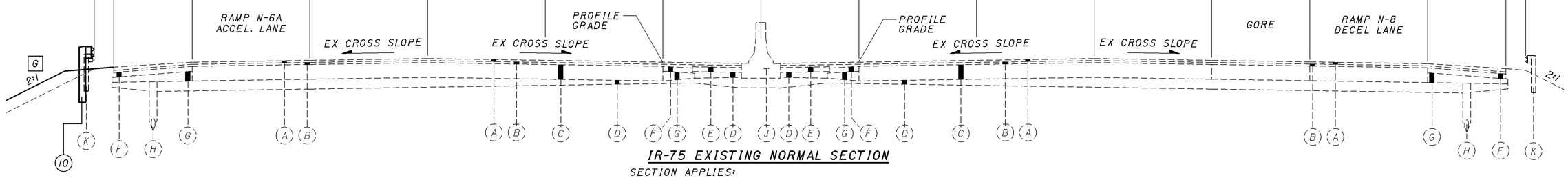
V2 - VARIES 0'-0" TO 12'-0"
STA 432+45.67 TO STA 433+45.67
12'-0"
STA 433+45.67 TO STA 435+06.65

V3 - VARIES 10'-0" TO 8'-0"
STA 432+45.67 TO STA 433+45.67
8'-0"
STA 433+45.67 TO STA 435+06.65

A - .04 OR RATE OF SUPER IF GREATER
B - MATCH MAINLINE CROSS SLOPE
C - VARIES SEE PAVEMENT DETAILS
D - FOR BARRIER TRANSITIONS SEE SHEET 172
G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

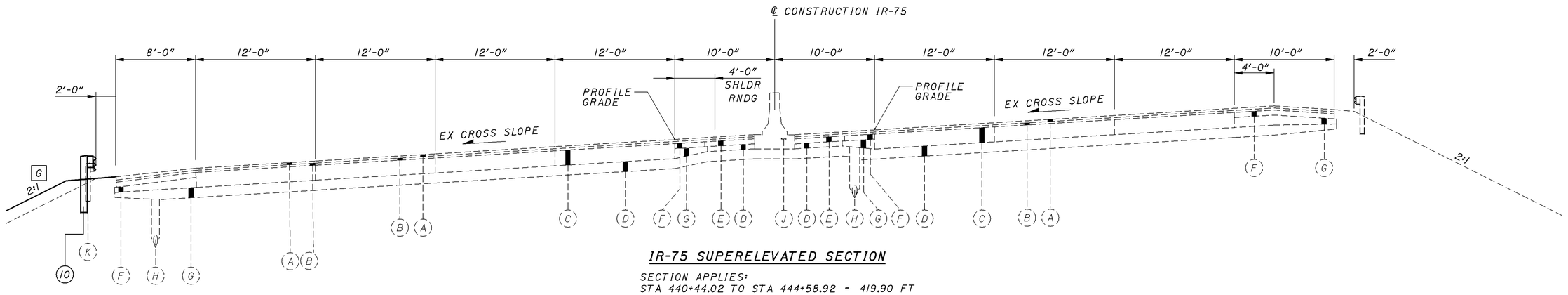
IR-75 RIGHT SHOULDER SECTION

SECTION APPLIES:
STA 432+45.67 TO STA 435+06.65 - 260.98 FT / 260.98 FT



IR-75 EXISTING NORMAL SECTION

SECTION APPLIES:
LT - STA 439+04.16 TO STA 440+44.02 = 139.86 FT
RT - STA 435+06.65 TO STA 440+44.02 = 537.37 FT



IR-75 SUPERELEVATED SECTION

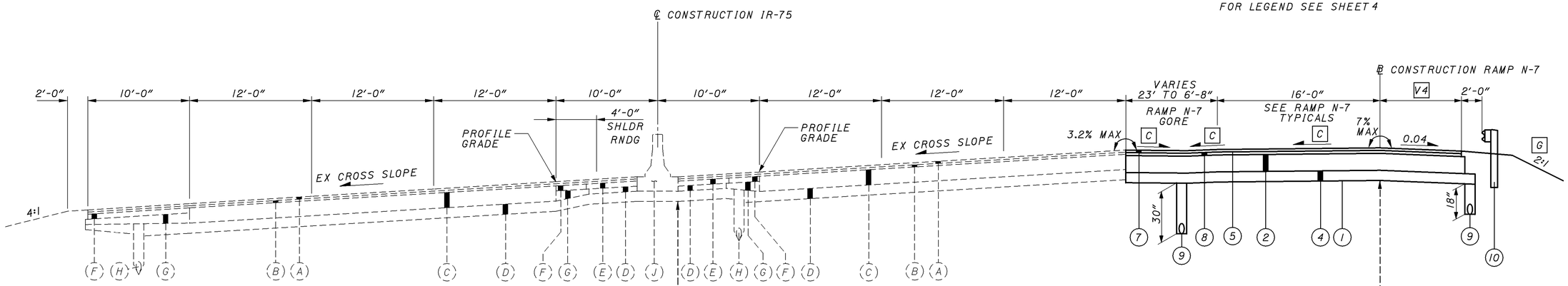
SECTION APPLIES:
STA 440+44.02 TO STA 444+58.92 = 419.90 FT

TYPICAL SECTIONS - IR-75

MOT-75-14.60

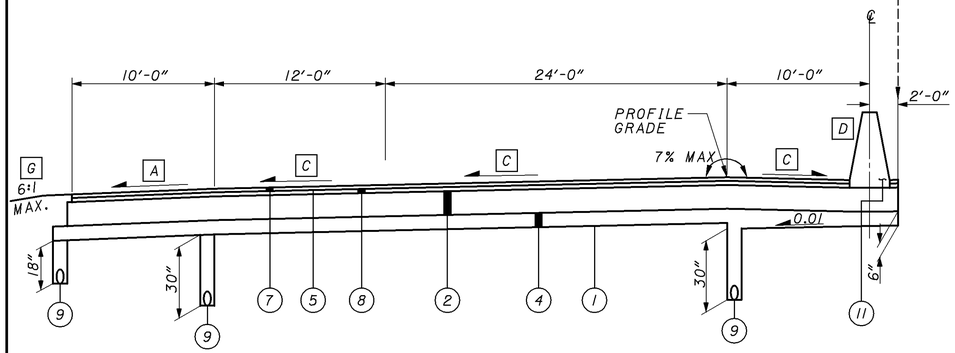
Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:30 AM
Filename: G:\C004\0066\Road\General\23828gy01.dgn

FOR LEGEND SEE SHEET 4



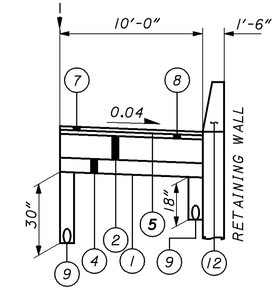
IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 450+29.63 TO STA 454+00.00 = 370.37 FT



IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 453+27.33 TO STA 454+00.00 = 72.67 FT
72.67 FT



SECTION APPLIES:
STA 453+50.00 TO STA 454+00.00 = 50.00 FT
50.00 FT

V4 - 6'-0"
STA 450+29.63 TO STA 451+75.40
6'-0" TO 8'-0"
STA 451+75.40 TO STA 452+25.40
8'-0"
STA 452+25.40 TO STA 453+00.00
VARIES 8'-0" TO 10'-0"
STA 453+00.00 TO STA 453+50.00

A - .04 OR RATE OF SUPER IF GREATER
B - MATCH MAINLINE CROSS SLOPE
C - VARIES SEE PAVEMENT DETAILS
D - FOR BARRIER TRANSITIONS SEE SHEET 172
G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

TYPICAL SECTIONS - IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:30 AM
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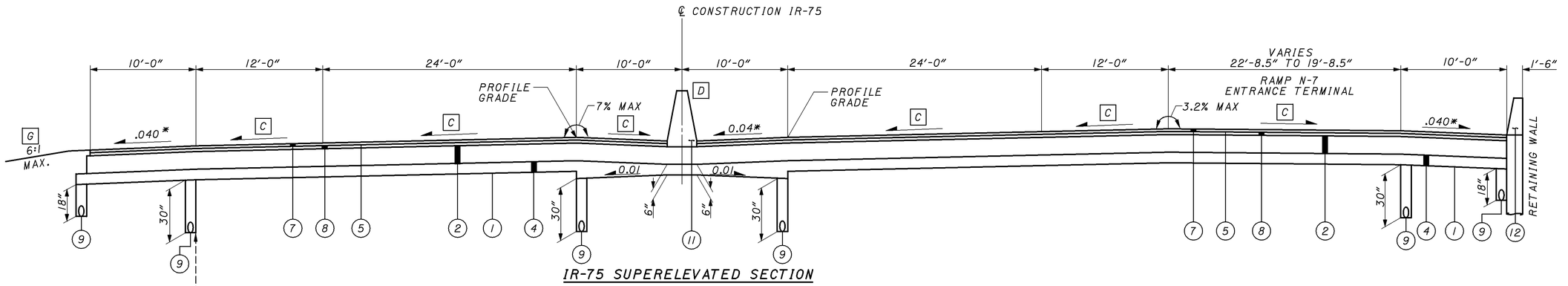
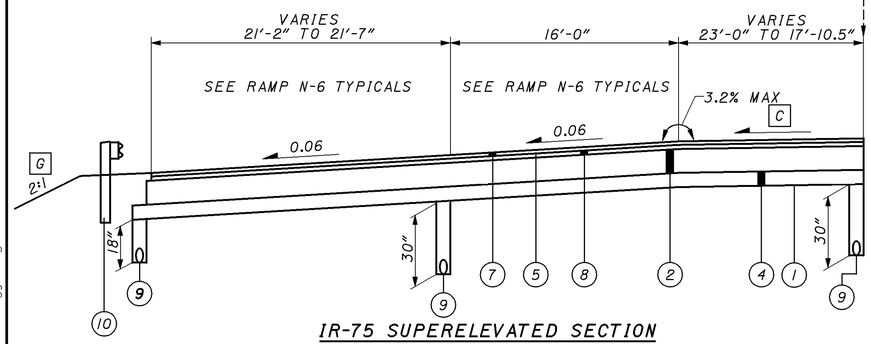
FOR LEGEND SEE SHEET 4



IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 454+00.00 TO STA 455+49.69 - 149.69 FT / 149.69 FT



IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 455+28.28 TO STA 455+49.69 - 21.41 FT / 21.41 FT

* .040 TO .016 FROM STA 455+29.69 TO STA 455+49.69

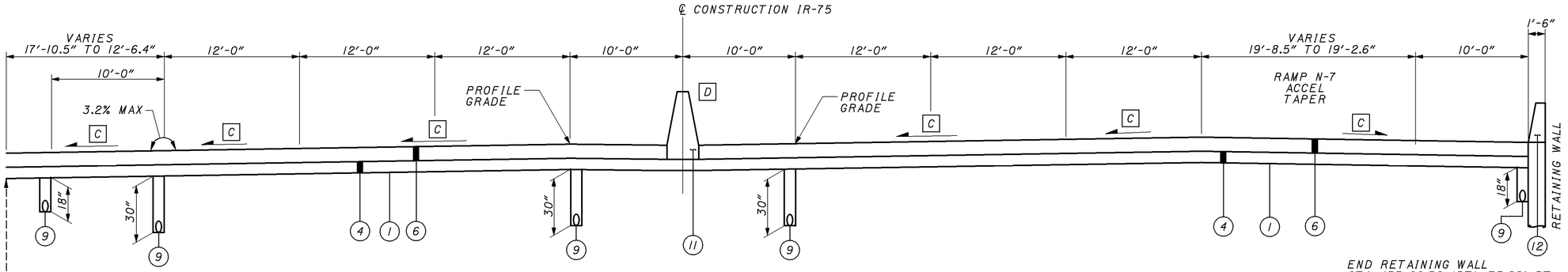
- A - .04 OR RATE OF SUPER IF GREATER
- B - MATCH MAINLINE CROSS SLOPE
- C - VARIES SEE PAVEMENT DETAILS
- D - FOR BARRIER TRANSITIONS SEE SHEET 172
- G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

TYPICAL SECTIONS - IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:30 AM
Filename: G:\C004\0066\Road\General\23828gy01.dgn

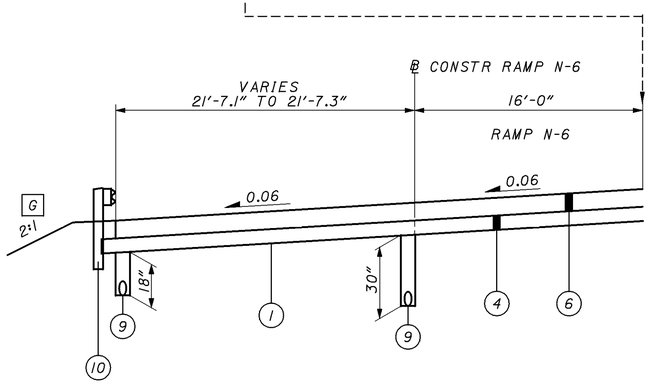
FOR LEGEND SEE SHEET 4



GREAT MIAMI RIVER BRIDGE APPROACH SLAB SUPERELEVATED SECTION

SECTION APPLIES:
STA 455+49.69 TO STA 455+74.69 = 25.00 FT / 25.00 FT

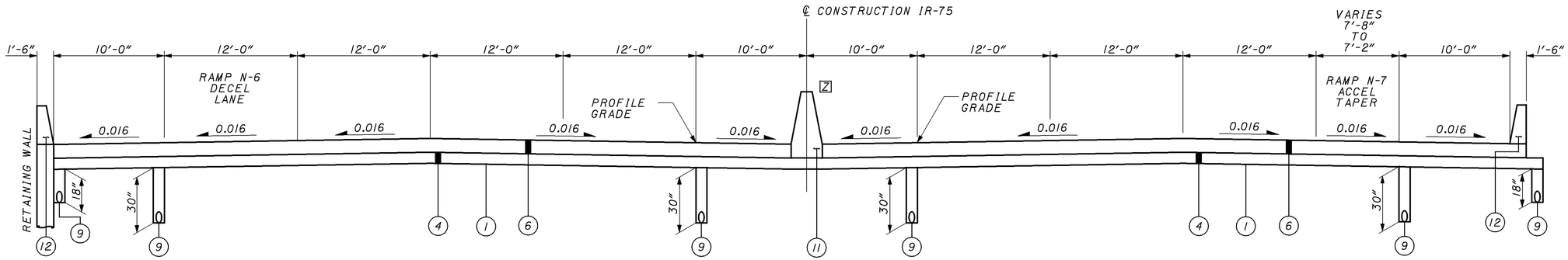
END RETAINING WALL
STA 455+66.32 (RT), 75.88' RT
AS PER RET WALL
SHEET 2/12



FIRST GUARDRAIL POST:

STA 455+55.81 (℄ RAMP N-6) 21.00' LEFT=
STA 455+61.90 (℄ IR-75) 99.05' LEFT

- A - .04 OR RATE OF SUPER IF GREATER
- B - MATCH MAINLINE CROSS SLOPE
- C - VARIES SEE PAVEMENT DETAILS
- D - FOR BARRIER TRANSITIONS SEE SHEET 172
- G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS
- H - FOR APPROACH SLAB DETAILS SEE BRIDGE PLANS



BEGIN RETAINING WALL
STA 461+61.86 (LT)
AS PER RET WALL
SHEET 7/12

GREAT MIAMI RIVER BIRDGE APPROACH SLAB NORMAL SECTION

SECTION APPLIES:
STA 461+52.53 TO STA 461+77.53 = 25.00 FT / 25.00 FT

FIRST GUARDRAIL POST:

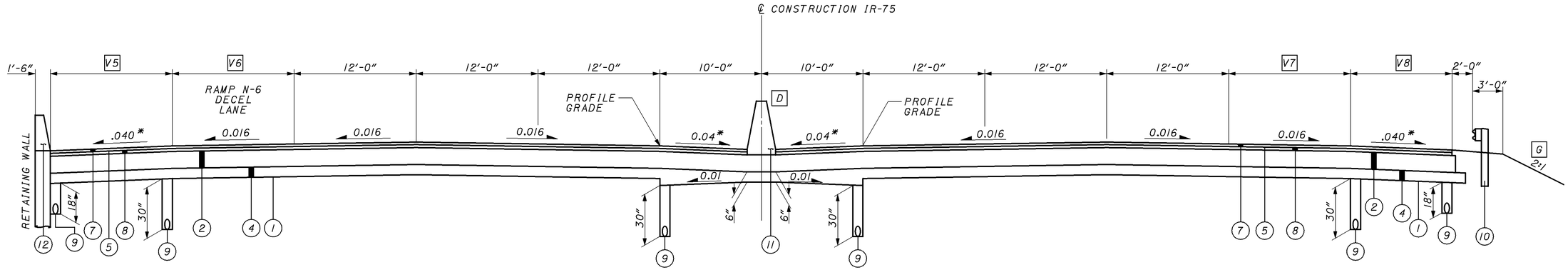
STA 461+67.49 (℄ IR-75) 63.36' RIGHT

TYPICAL SECTIONS - IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:30 AM
Filename: G:\C004\D0066\Road\General\23828gy01.dgn

FOR LEGEND SEE SHEET 4

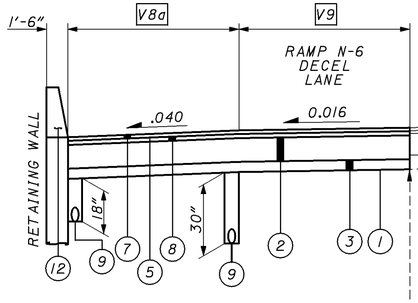


* .016 TO .040
FROM STA 461+77.53
TO STA 461+97.53

IR-75 NORMAL SECTION

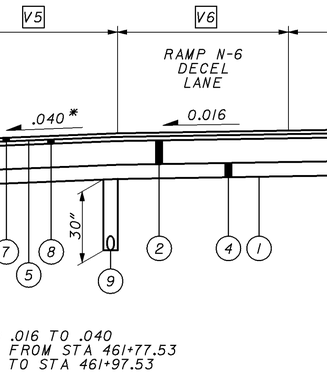
SECTION APPLIES:
STA 461+77.53 TO STA 462+50.00 LT = 72.47 FT
STA 461+77.53 TO STA 462+59.80 RT = 82.27 FT

* .016 TO .040
FROM STA 461+77.53
TO STA 461+97.53



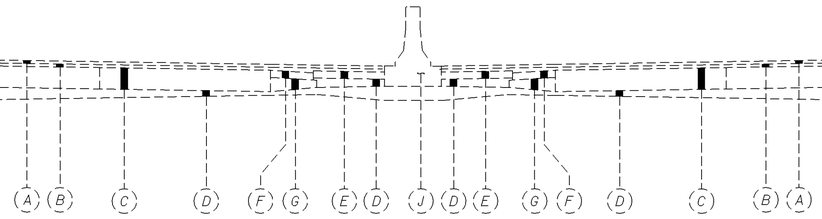
IR-75 SHOULDER & RAMP N-6 DECEL LANE

SECTION APPLIES:
STA 462+50.00 TO STA 463+40.00 = 90.00 FT
90.00 FT



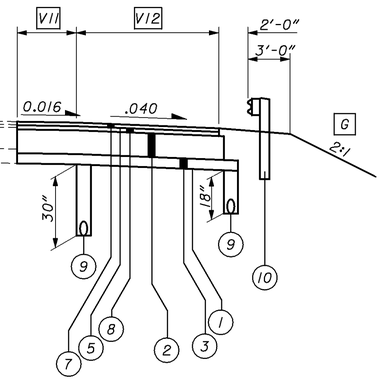
IR-75 SHOULDER SECTION

SECTION APPLIES:
STA 463+40.00 TO STA 468+30.96 = 490.96 FT
490.96 FT



IR-75 NORMAL SECTION

SECTION APPLIES:
STA 462+50.00 TO STA 468+30.96 LT = 580.96 FT
STA 462+59.80 TO STA 467+94.07 RT = 534.27 FT



V5 - 10'-0"
STA 461+77.53 TO STA 462+28.07
VARIES 10'-0" TO 10'-5.4"
STA 462+28.07 TO STA 462+50.00

V6 - 12'-0"
STA 461+77.53 TO STA 462+28.07
VARIES 12'-0" TO 9'-4.4"
STA 462+28.07 TO STA 462+50.00

V7 - VARIES 7'-2" TO 5'-6"
STA 461+77.53 TO STA 462+59.80

V8 - 10'-0"
STA 461+77.53 TO STA 461+87.53
VARIES 10'-0" TO 8'-0"
STA 461+87.53 TO STA 462+37.53
8'-0"
STA 462+37.53 TO STA 462+59.80

V8a - VARIES 10'-5.4" TO 12'-0.0"
STA 462+50.00 TO STA 463+28.07
12'-0"
STA 463+28.07 TO STA 463+40.00

V9 - VARIES 9'-4.4" TO 0'-0.0"
STA 462+50.00 TO STA 463+28.07

V10 - 12'-0"
STA 463+40.00 TO STA 463+50.00
VARIES 12'-0" TO 10'-0"
STA 463+50.00 TO STA 464+00.00
10'-0"
STA 464+00.00 TO STA 468+30.96

V11 - VARIES 5'-6" TO 0'-0"
STA 462+59.80 TO STA 465+35.40

V12 - 8'-0"
STA 462+59.80 TO STA 464+85.40
VARIES 8'-0" TO 10'-0"
STA 464+85.40 TO STA 465+35.40
10'-0"
STA 465+35.40 TO STA 467+94.07

A - .04 OR RATE OF SUPER IF GREATER

B - MATCH MAINLINE CROSS SLOPE

C - VARIES SEE PAVEMENT DETAILS

D - FOR BARRIER TRANSITIONS SEE SHEET 172

G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

TYPICAL SECTIONS - IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:30 AM
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FOR LEGEND SEE SHEET 4

V13 - VARIES 5'-8.7" TO 6'-0"
STA 446+18.66 TO STA 446+38.47
6'-0"
STA 446+38.47 TO STA 447+06.79

V13a - VARIES 3'-4.3" TO 0'-0"
STA 446+18.66 TO STA 446+38.47
0'-0"
STA 446+38.47 TO STA 447+06.79

V14 - VARIES 5'-4.5" TO 6'-0"
STA 440+63.04 TO STA 440+90.15
6'-0"
STA 440+90.15 TO STA 441+50.77

V15 - VARIES 0'-0" TO 2"-0"
STA 441+50.77 TO STA 442+51.97

V16 - VARIES 2'-0" TO 3'-0"
STA 446+25.00 TO STA 446+55.00
3'-0"
STA 446+55.00 TO STA 450+21.25
SEE MAINLINE TYPICALS FOR CONTINUATION

V17 - 6'-0"
STA 446+55.00 TO STA 451+75.40
VARIES 6'-0" TO 8'-0"
STA 451+75.40 TO STA 452+25.40

V18 - 6'-0"
STA 449+55.87 TO STA 451+57.94
VARIES 6'-0" TO 21'-0"
STA 451+57.94 TO STA 455+32.94
21'-0"
STA 455+32.94 TO STA 455+42.94
USE DUAL UNDERDRAIN SYSTEM WHEN SHOULDER WIDTH IS GREATER THAN 8 FEET

V19 - 3'-0"
STA 444+50.00 TO STA 445+50.00
0'-0"
STA 445+50.00 TO STA 448+12.70

V20 - 6'-0"
STA 444+50.00 TO STA 447+62.70
VARIES 6'-0" to 8'-0"
STA 447+62.70 TO STA 448+12.70

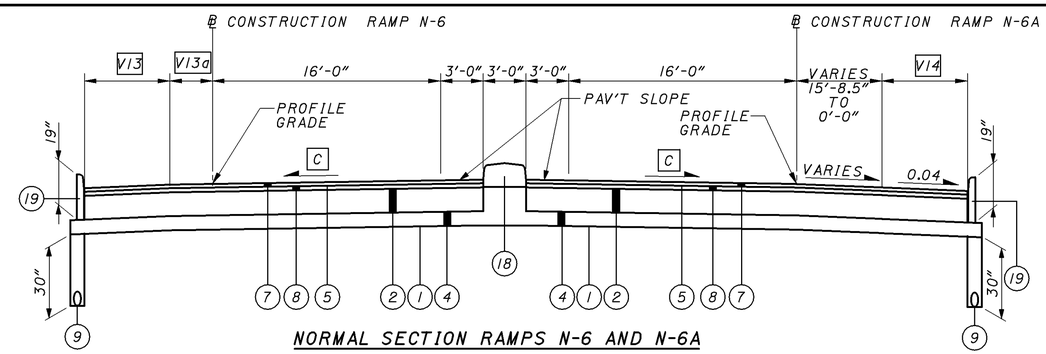
A - .04 OR RATE OF SUPER IF GREATER

B - MATCH MAINLINE CROSS SLOPE

C - VARIES SEE PAVEMENT DETAILS

D - FOR BARRIER TRANSITIONS SEE SHEET 172

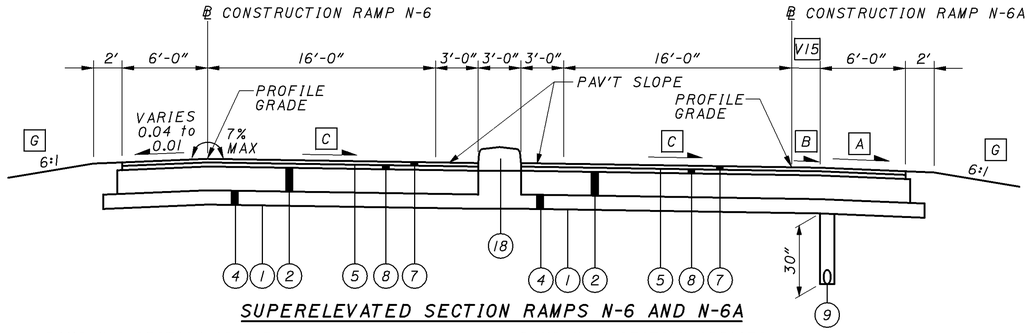
G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS



NORMAL SECTION RAMPS N-6 AND N-6A

RAMP N-6 SECTION APPLIES:
STA 446+18.66 TO STA 447+06.79 - 88.13 FT
88.13 FT

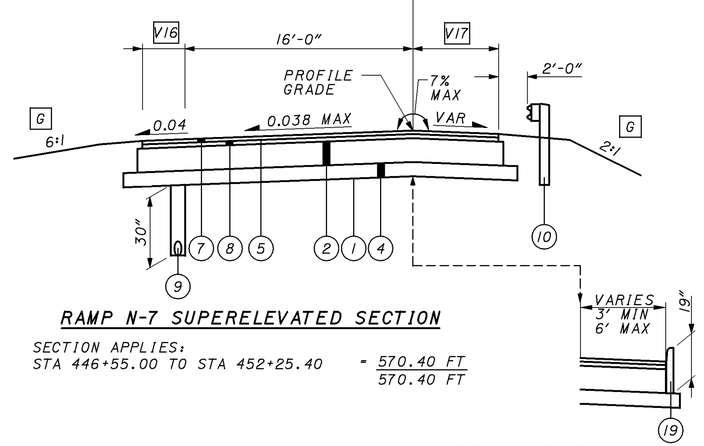
RAMP N-6A SECTION APPLIES:
STA 440+63.04 TO STA 441+50.77 - 87.73 FT
87.73 FT



SUPERELEVATED SECTION RAMPS N-6 AND N-6A

RAMP N-6 SECTION APPLIES:
STA 447+06.79 TO STA 449+55.87 - 249.08 FT
249.08 FT

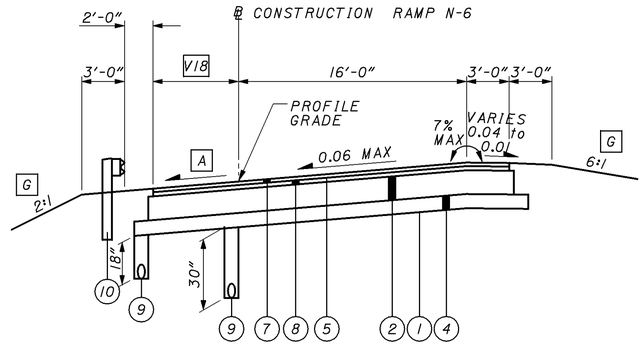
RAMP N-6A SECTION APPLIES:
STA 441+50.77 TO STA 443+64.20 - 213.43 FT
213.43 FT



RAMP N-7 SUPERELEVATED SECTION

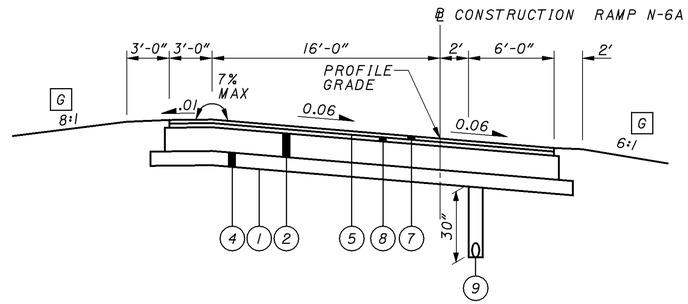
SECTION APPLIES:
STA 446+55.00 TO STA 452+25.40 - 570.40 FT
570.40 FT

SECTION APPLIES:
STA 446+25.00 TO STA 446+55.00 - 30.00 FT
30.00 FT



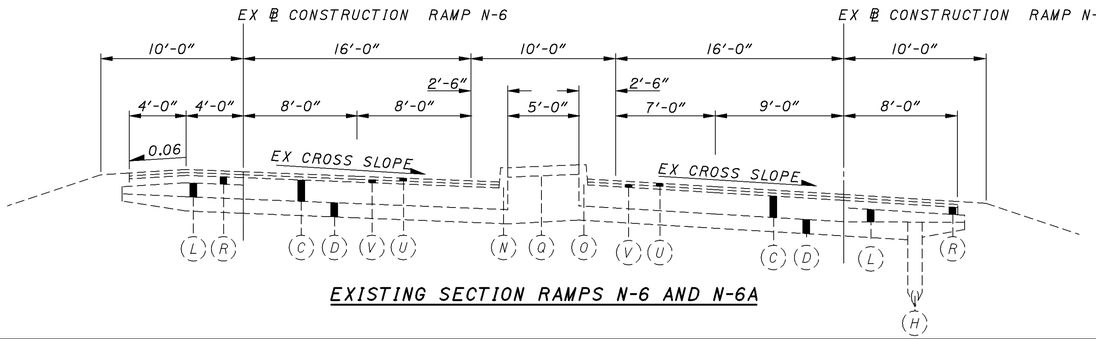
SUPERELEVATED SECTION RAMP N-6

SECTION APPLIES:
STA 449+55.87 TO STA 455+42.94 - 587.07 FT
587.07 FT

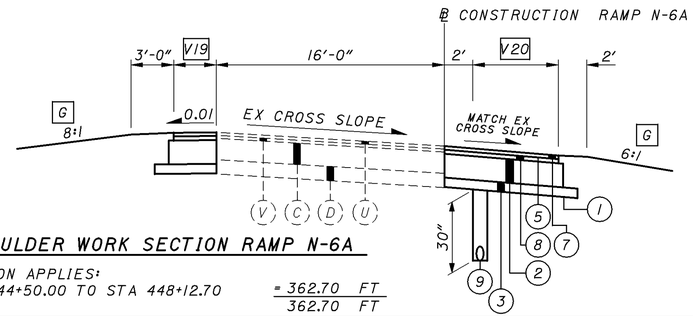


SUPERELEVATED SECTION RAMP N-6A

SECTION APPLIES:
STA 443+64.20 TO STA 444+50.00 - 85.80 FT
85.80 FT



EXISTING SECTION RAMPS N-6 AND N-6A



SHOULDER WORK SECTION RAMP N-6A

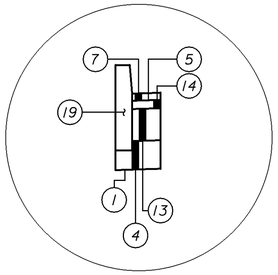
SECTION APPLIES:
STA 444+50.00 TO STA 448+12.70 - 362.70 FT
362.70 FT

TYPICAL SECTIONS RAMPS N-6, N-6A AND N-7

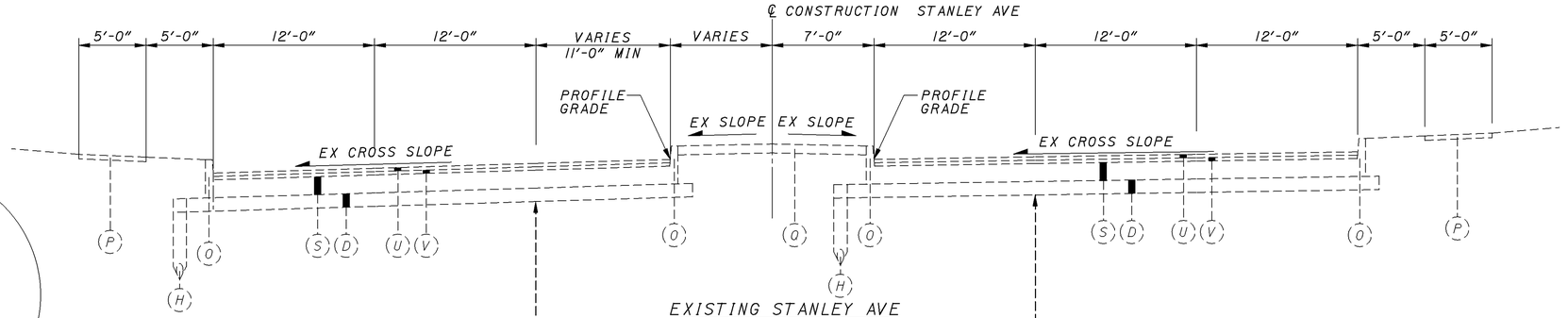
MOT-75-14.60

Plotted By: Jfanthony Date: 7/31/2007 Time: 12:14:31 AM
Filename: G:\C004\0066\Road\General\23828gy02.dgn

FOR LEGEND SEE SHEET 4



DETAIL A



EXISTING STANLEY AVE

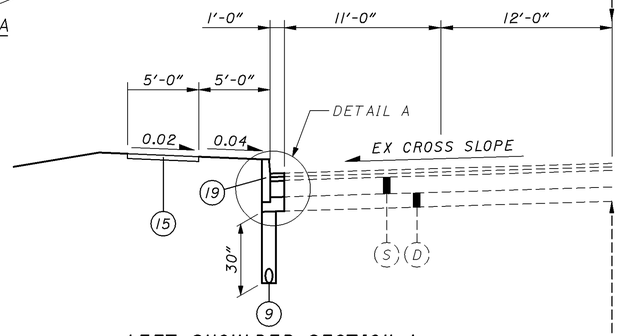
V21 - VARIES 12'-0" TO 13'-0"
STA 7+48.87 TO STA 7+71.08
13'-0"
STA 7+71.08 TO STA 8+47.15
13'-0" TO 13'-3"
STA 8+47.15 TO STA 8+52.50

V22 - 13'-0"
STA 13+84.00 TO STA 14+29.27
VARIES 13'-0" TO 1'-0"
STA 14+29.27 TO STA 15+20.77

V23 - 12'-0"
STA 8+52.50 TO STA 9+73.91
VARIES 12'-0" TO 1'-0"
STA 9+73.91 TO STA 10+18.03

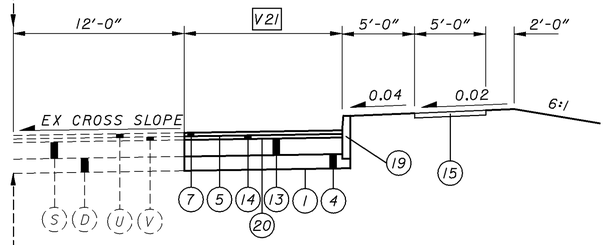
V24 - VARIES 0'-0" TO 52'-3.5"
STA 8+52.50 TO STA 9+07.28
VARIES 45'-8" TO 0'-0"
STA 9+50.94 TO STA 9+73.91

V24a - VARIES 0'-0" TO 6'-0"
STA 8+52.50 TO STA 9+07.28
VARIES 6'-0" TO 0'-0"
STA 9+50.94 TO STA 10+18.03



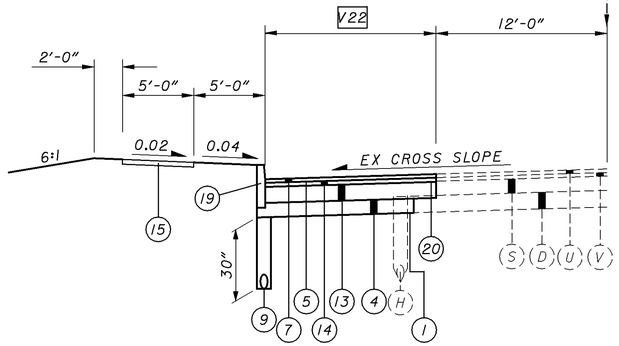
LEFT SHOULDER SECTION A

SECTION APPLIES:
STA 9+49.39 TO STA 10+00.68 = 51.29 FT
STA 12+83.00 TO STA 13+84.00 = 101.00 FT
STA 15+20.77 TO STA 15+29.63 = 8.86 FT
161.15 FT



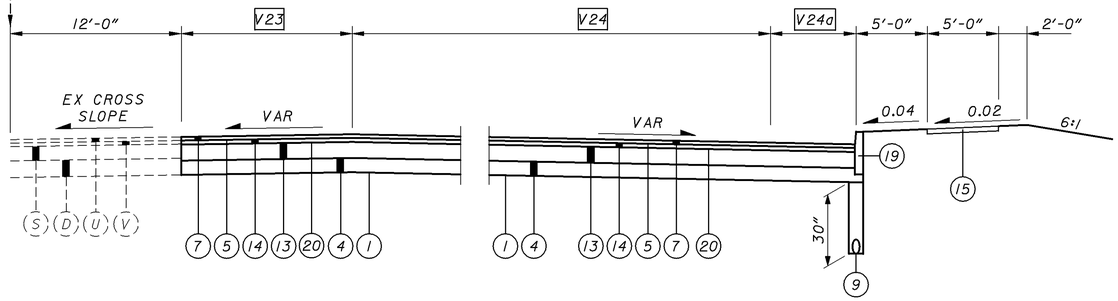
CURB SECTION RIGHT

SECTION APPLIES:
STA 7+48.87 TO STA 8+52.50 = 103.63 FT
103.63 FT



EASTBOUND ADD LANE

SECTION APPLIES:
STA 13+84.00 TO STA 15+20.77 = 136.77 FT
136.77 FT



LANE DROP TO RAMP N-6A & INTERSECTION AREA WITH CURB & GUTTER

SECTION APPLIES:
STA 8+52.50 TO STA 10+18.03 = 165.53 FT
DEDUCT FOR RAMP N-6 & N-6A PAVEMENT:
STA 9+07.28 TO STA 9+50.94 = 43.66 FT
121.87 FT

TYPICAL SECTIONS - STANLEY AVENUE CURB SECTIONS

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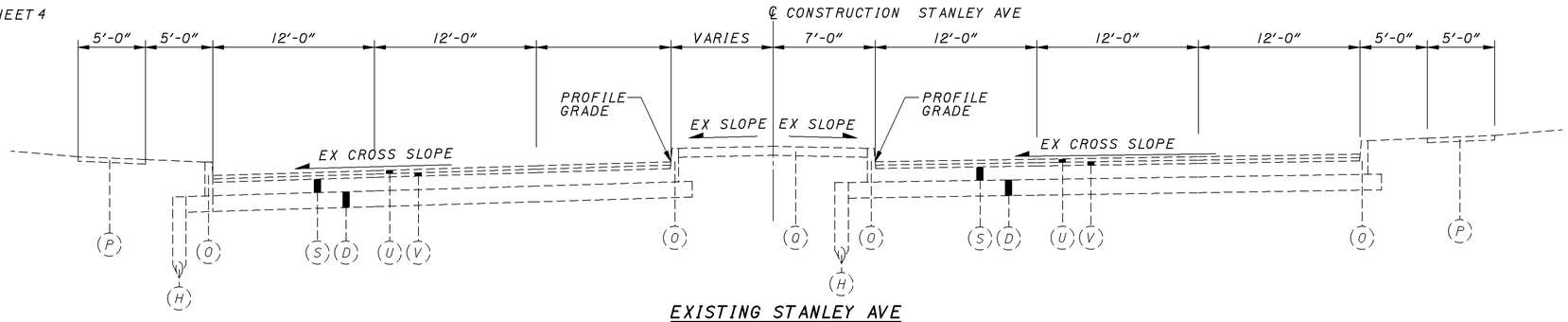
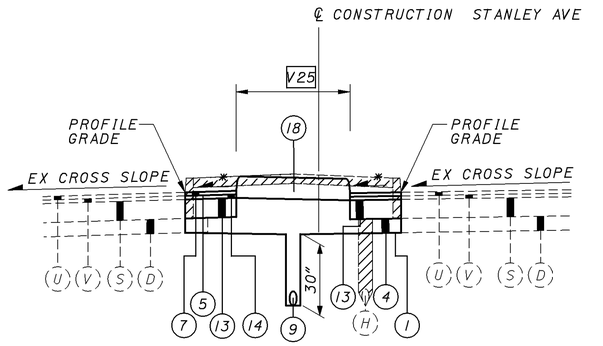
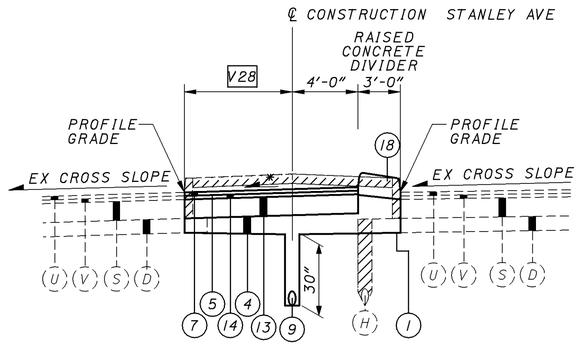


EXISTING STANLEY AVE



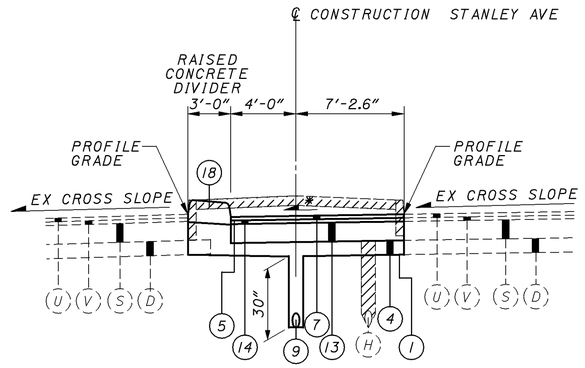
STANLEY AVE - FULL-WIDTH CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 9+00.25 TO STA 9+09.26 = 9.01 FT
9.01 FT



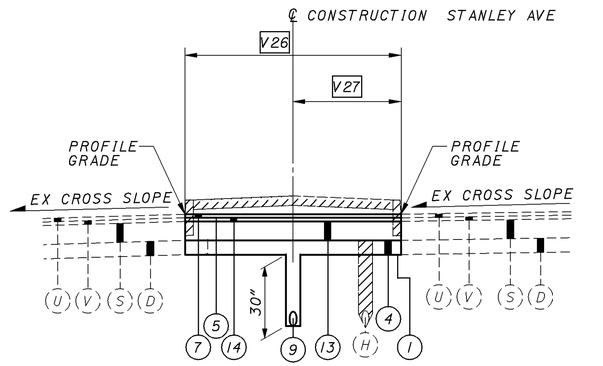
STANLEY AVE - 3-FOOT CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 9+80.00 TO STA 11+45.00 = 165.00 FT
165.00 FT



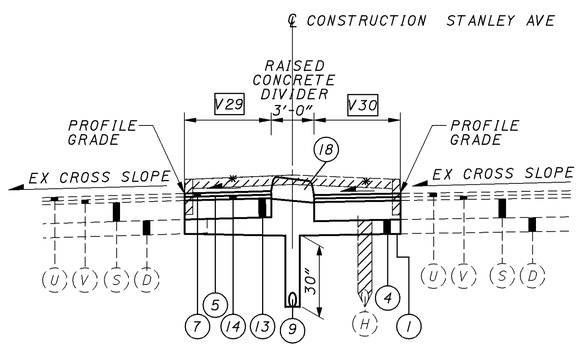
STANLEY AVE - 3-FOOT CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 12+04.22 TO STA 12+44.50 = 40.29 FT
40.29 FT



STANLEY AVE - PAVED MEDIAN SECTION

SECTION APPLIES:
STA 9+09.26 TO STA 9+80.00 = 70.74 FT
STA 12+44.50 TO STA 14+16.05 = 171.55 FT
242.29 FT



STANLEY AVE - 3-FOOT CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 11+45.00 TO STA 12+04.22 = 59.22 FT
59.22 FT

V25 - VARIES 18'-5" TO 0'-0" (9'-2.3" RADIUS)
STA 9+00.25 TO STA 9+09.26

V26 - VARIES 18'-2" TO 17'-3"
STA 9+09.26 TO STA 9+80.00
VARIES 14'-2" TO 7'-0"
STA 12+44.50 TO STA 14+16.05

V27 - VARIES 7'-2" TO 0'-0"
STA 12+44.50 TO STA 14+16.05

V28 - VARIES 10'-3" TO 8'-0"
STA 9+80.00 TO STA 11+45.00

V29 - VARIES 12'-0" TO 0'-0"
STA 11+45.00 TO STA 12+04.22

V30 - VARIES 0'-0" TO 11'-2.6"
STA 11+45.00 TO STA 12+04.22

* - MATCH EXISTING PAVEMENT CROSS SLOPE

TYPICAL SECTIONS - STANLEY AVENUE, MEDIAN SECTIONS

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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ELECTRIC:

DAYTON POWER & LIGHT
1900 DRYDEN RD
DAYTON, OHIO 45439
(937)-331-4088
ATTN: KYLE KING

DAYTON STREET LIGHTS
1736 E. MONUMENT AVE
BUILDING #23
DAYTON, OHIO 45402
(937) 333-3850
ATTN: DUANE EARLY

SIGNALS:

CITY OF DAYTON
DEPARTMENT OF PUBLIC WORKS
DIVISION OF CIVIL ENGINEERING
101 WEST THIRD STREET
P.O. BOX 22
DAYTON, OH 45401
(937) 333-4087
ATTN: JOHN ZELINSKI

TELECOMMUNICATIONS:

TIME WARNER CABLE
275 LEO ST
DAYTON, OH 45404
(937) 425-8858
ATTN: DENNIS RAPP

SANITARY/STORM/WATER:

DAYTON CITY WATER & SEWER
320 WEST MONUMENT AVE
DAYTON, OHIO 45402
(937) 333-3737
ATTN: SCOTT HOLMES

MONTGOMERY COUNTY
SANITARY ENGINEERING DEPARTMENT
1850 SPAULDING ROAD
KETTERING, OHIO 45432
(937) 781-2500
ATTN: CHARLIE SCHAFFER

GAS:

VECTREN ENERGY DELIVERY OF OHIO, INC.
4285 N. JAMES H. MCGEE BLVD
DAYTON, OHIO 45427
(937) 440-1973
ATTN: CHUCK KANOY

UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. NAVD 1988 DATUM.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ENVIRONMENTAL COMMITMENTS MADE & RESOURCES TO BE AVOIDED

1. ANY UNAVOIDABLE CUTTING OF TREES WITH SUITABLE ROOSTING AND BROAD-REARING HABITAT FOR THE INDIANA BAT (LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES) WILL BE PERFORMED ONLY BEFORE APRIL 15 OR AFTER SEPTEMBER 15 WHEN THE SPECIES WOULD NOT BE USING SUCH HABITATS.

2. TRAFFIC WILL BE MAINTAINED ALONG STANLEY AVENUE DURING CONSTRUCTION. THE NEWS MEDIA WILL RECEIVE A PRESS RELEASE FROM ODOT PRIOR TO CONSTRUCTION. THE PRESS RELEASE WILL INCLUDE ANY NECESSARY PROJECT DETOURS. FIRE, POLICE, SCHOOLS AND EMERGENCY SERVICES WILL BE NOTIFIED PRIOR TO ANY PROJECT DETOURS AS WELL.

3. ALL CONSTRUCTION WORK WILL BE PERFORMED IN ACCORDANCE WITH ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS. SECTION 107.19 REQUIRES CONTRACTORS "TO TAKE ALL NECESSARY PRECAUTIONS AND ACTIONS TO PREVENT POLLUTION OF STREAMS, LAKES, AND RESERVOIRS WITH FUELS, OILS, BITUMENS, CALCIUM CHLORIDE, OR OTHER HARMFUL MATERIAL "AND "TO PREVENT POLLUTION OF THE ATMOSPHERE FROM PARTICULATE AND GASEOUS MATTER." STANDARD CONSTRUCTION PLAN NOTES DIRECT THE CONTRACTOR TO TAKE PRECAUTIONS TO PREVENT INCIDENTAL DISCHARGES INTO STREAMS ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL (INCLUDING PIER FOUNDATION EXCAVATION AND REMOVAL OF TEMPORARY FILL), AND THE DISCHARGE OF DEMOLITION DEBRIS. ONLY CLEAN, NON-ERODIBLE MATERIAL SHALL BE USED FOR TEMPORARY FILL, AND ALL TEMPORARY FILL WILL BE REMOVED AND THE STREAM BOTTOM RETURNED TO NEAR NATURAL CONDITIONS WHEN WORK IS COMPLETED, IN ACCORDANCE WITH THE CONDITIONS OF NATIONWIDE PERMIT 33.

4. THE PERIOD OF IN-STREAM WORK WILL BE LIMITED TO MINIMIZE IMPACTS TO AQUATIC FAUNA IN ACCORDANCE WITH THE ECOLOGICAL COORDINATION MOA. AS SPECIFIED IN THE MOA, IN-STREAM CONSTRUCTION ACTIVITIES WILL BE LIMITED TO JUNE 15TH THROUGH APRIL 15TH.

5. NO WORK IN WATERWAYS MAY TAKE PLACE UNTIL THE CONTRACTOR HAS CONFIRMED, WITH THE ODOT PROJECT ENGINEER, THAT ALL PERMITS HAVE BEEN OBTAINED FROM THE USACE AND THE EPA.

6. PRIOR TO BRIDGE REMOVAL, THE UNDERSIDE OF THE BRIDGE WILL BE EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY THE INDIANA BAT, BETWEEN APRIL 15TH AND SEPTEMBER 15TH, IN ACCORDANCE WITH THE USFWS RECOMMENDATION IN THE ECOLOGICAL MOA COORDINATION.

7. THE SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LOCATION AND DESIGN MANUAL, AND STANDARD DRAWINGS WILL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.

8. THE PROJECT WILL BE COORDINATED WITH THE MIAMI CONSERVANCY DISTRICT AND THE CITY OF DAYTON CHIEF BUILDING OFFICIAL (FEMA DESIGNATED FLOODPLAIN ADMINISTRATOR) TO ENSURE THAT IT IS IN COMPLIANCE WITH ALL OF THEIR DESIGN CRITERIA.

9. THE PROJECT WILL BE COORDINATED WITH THE FIVE RIVERS METROPARKS REGARDING THE PROPOSED RIVER CORRIDOR BIKE PATH EXTENSION ALONG THE NORTH BANK. IF THE BIKEWAY IS CONSTRUCTED, IT WILL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION WHEN THE INTERCHANGE CONSTRUCTION IS COMPLETE. ANY AREAS WHERE TURF IS DISTURBED WILL BE RESTORED. IN THIS WAY, THE PROJECT WILL NOT HAVE A PERMANENT IMPACT ON THE BIKEWAY. TEMPORARY CLOSURE OF THE BIKEWAY (IF PRESENT) WOULD ALSO BE REQUIRED. ODOT WOULD POST A TEMPORARY DETOUR OF THE BIKEWAY DURING THE CONSTRUCTION PERIOD, WHICH IS EXPECTED TO LAST 20 MONTHS. THIS DETOUR WOULD LIKELY CONNECT THE PATH TO THE NEARBY SURFACE STREETS UPSTREAM AND DOWNSTREAM OF THE BRIDGE, AND BICYCLISTS WOULD BE DIRECTED TO USE NEVA DRIVE (LOCATED ABOUT THREE BLOCKS NORTH OF THE LEVEE) TO CROSS UNDER I-75.

10. A PRE-CONSTRUCTION NOTIFICATION WILL BE SUBMITTED TO THE CORPS OF ENGINEERS, LOUISVILLE DISTRICT IN ACCORDANCE WITH THE CONDITIONS OF NATIONWIDE PERMIT 33 FOR TEMPORARY ACCESS FOR BRIDGE CONSTRUCTION.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, SUPERINTENDENT OR HIS REPRESENTATIVE, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY SHALL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE. ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

EXISTING PLANS

EXISTING PLANS ENTITLED MOT-25-15.88 MAY BE INSPECTED IN THE ODOT DISTRICT 7 OFFICE IN SIDNEY, OHIO.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

CALCULATED MPD
CHECKED AM

GENERAL NOTES

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CLEARING AND GRUBBING

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	1	0	1

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

ITEM 204 - PROOF ROLLING

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 602 - CONCRETE MASONRY, AS PER PLAN

CONSTRUCT REINFORCED CONCRETE BULKHEADS AT EACH END OF THE EXISTING REINFORCED CONCRETE BOX CULVERT AS DETAILED IN THE CROSS SECTION FOR IR-75 AT STA. 463+05.56. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL INCIDENTAL LABOR AND MATERIALS FOR CONSTRUCTING THE WALL INCLUDING ALL THE REINFORCING STEEL DOWELS AND BARS.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SS444	SLOTTED RAIL TERMINAL POST LAYOUT AND ERECTION DETAILS SRT-350 (12.5, 8 POST)	7/12/99 Rev. 1	8/27/99
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6/21/97 Rev. 1	3/6/98

2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36" W X 12" H FOR THE SRT-350 AND 14" W X 20" H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOTSEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SSS265M	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18".

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 607 - FENCE REBUILT, TYPE CLT

THIS ITEM SHALL INCLUDE THE CAREFUL RECONDITIONING AND REERECTION OF FENCE AND COMPONENT PARTS AS DIRECTED BY THE ENGINEER. FENCE OR COMPONENT PARTS WHICH ARE DAMAGED OR ARE OTHERWISE UNSATISFACTORY FOR REUSE SHALL BE REPLACED IN KIND BY THE CONTRACTOR. ANY NEW PARTS WHICH ARE NEEDED, AS DETERMINED BY THE ENGINEER, SHALL BE SUPPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

THE AMOUNT OF REBUILT FENCE TO BE PAID FOR WILL BE THE NUMBER OF FEET REBUILT, COMPLETE IN PLACE AND MEASURED AS PROVIDED FOR IN 607.09.

PAYMENT FOR THE ABOVE WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 607, FENCE REBUILT, TYPE CLT. AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 140 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, THE CONTRACTOR IS ADVISED THAT COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

THE FEDERAL AVIATION ADMINISTRATION
GREAT LAKES REGIONAL OFFICE
AIR TRAFFIC DIVISION AGL-530
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS 60018
(847) 294-7566

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
(614) 793-5046

CALCULATED MPD CHECKED AM

GENERAL NOTES

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FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES SHALL BE MADE IN ACCORDANCE WITH ITEM 607.

INSTALLATION OF PROPOSED FENCE - LEFT SIDE OF RAMP N-6

THE EXISTING FENCE BETWEEN STA 450+42.38 AND STA 455+44.94 ON RAMP N-6 SHALL BE REMOVED, AND NEW FENCE BETWEEN STA 450+42.38 AND STA 455+71.89 SHALL BE INSTALLED PRIOR TO THE BEGINNING OF ANY WORK ON THE WESTSIDE OF RAMP N-6 OUTSIDE THE EXISTING LA-R/W. PAY ITEMS FOR REMOVAL OF FENCE AND CONSTRUCTION OF NEW FENCE HAVE BEEN INCLUDED UNDER ITEM 202, FENCE REMOVED, AND ITEM 607, FENCE, TYPE CLT RESPECTIVELY.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613 (LOW STRENGTH MORTAR BACKFILL), SAND, OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED.

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES SHALL BE MADE BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. THE STUB SHALL MEET THE REQUIREMENTS OF 707 AND HAVE A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THE FIELD WELDED JOINT, IF USED, SHALL BE THOROUGHLY CLEANED AND REGALVANIZED OR OTHERWISE SUITABLY REPAIRED. WELDING SHALL MEET THE REQUIREMENTS OF 513.21.

A MASONRY COLLAR, AS PER STANDARD DRAWING DM-1.1, WILL BE REQUIRED TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS PROVIDED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 603 OR 522.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

THIS WORK SHALL ALSO INCLUDE CLEANING MEDIAN INLETS OF ABRASIVES AND SALT RESIDUES LEFT BY DEPARTMENT OR LOCAL GOVERNMENT AND ICE CONTROL OPERATIONS.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY CITY FORCES.

CITY OF DAYTON
DEPARTMENT OF PUBLIC WORKS
DIVISION OF CIVIL ENGINEERING
101 WEST THIRD STREET
P.O. BOX 22
DAYTON, OH 45401
(937) 333-4087
ATTN: JOHN ZELINSKI

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST 2 EACH

659, REPAIR SEEDING AND MULCHING 1435 SQ. YD

659, INTER-SEEDING 1435 SQ. YD.

659, COMMERCIAL FERTILIZER 4 TON

659, LIME 5.9 ACRES

659, WATER 159 M. GAL.

659, MOWING 65 M. SQ. FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

CALCULATED MPD
CHECKED AM

GENERAL NOTES

MOT-75-14.60

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314

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ITEM 614, MAINTAINING TRAFFIC

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND CITY ENGINEER, CITY OF DAYTON (937) 333-3840, AT LEAST 48 HOURS IN ADVANCE (EXCLUSIVE OF SATURDAY, SUNDAY, OR HOLIDAYS) OF HIS INTENT TO DIVERT TRAFFIC, AND TWO WEEKS IN ADVANCE OF A DETOUR. NOTIFY ODOT ROADWAY SERVICE MANAGER (937) 497-6877 TWO WEEKS IN ADVANCE OF A DETOUR.

SEQUENCE OF CONSTRUCTION

MAINTAIN A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION ON IR 75 AND A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION ON STANLEY AVENUE AT ALL TIMES BY UTILIZING EXISTING PAVEMENT, COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410, AND 614. DURING EACH PHASE OF CONSTRUCTION ALL NEW PAVEMENT SHALL BE BUILT TO FINISHED GRADE AND PERMANENT PAVEMENT MARKINGS INSTALLED ONCE NORMAL TRAFFIC CONDITIONS ARE RESTORED.

PLACE TEMPORARY PAVEMENT WEDGES TO MEET EXISTING PAVEMENT AND BRIDGE EXPANSION JOINTS MILLING OFF PRIOR TO PLACEMENT OF SURFACE COURSE. PAYMENT FOR THE TEMPORARY ASPHALT WEDGES AND THEIR SUBSEQUENT REMOVAL IS INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC. A 50':1" ASPHALT WEDGE SHALL BE PROVIDED.

PHASE 1A

STANLEY AVENUE

DIVERT STANLEY AVENUE TRAFFIC BY ERECTING TEMPORARY TRAFFIC CONTROL SIGNS AND DRUMS AS SHOWN ON THE PLANS. ON STANLEY AVENUE, MAINTAIN A MINUMUM TWO LANES IN THE EASTBOUND DIRECTION EAST OF RAMPS N-9 & N-10, ONE LANE BETWEEN KEOWEE STREET AND RAMPS N-9 & N-10, AND ONE LANE IN THE WESTBOUND DIRECTION. REMOVE THE EXISTING CONCRETE MEDIAN ALONG STANLEY AVENUE, AND CONSTRUCT NEW PAVEMENT AND NEW CONCRETE MEDIAN.

INSTALL A WORK ZONE TRAFFIC SIGNAL AT THE INTERSECTION OF STANLEY AVENUE AND RAMPS N-9 AND N-10. PROVIDE VEHICULAR DETECTION FOR THE WESTBOUND LEFT-TURN MOVEMENT, THE APPROACH ON RAMP 9 AND THE DRIVEWAY APPROACH OPPOSITE RAMP N-9. COVER SIGNAL HEADS FOR USE IN PHASE 1B. CONTACT THE CITY OF DAYTON 7 DAYS PRIOR TO SIGNAL OPERATION AND CHANGING OF SIGNAL TIMING. WZ TRAFFIC SIGNAL CONTROLLER SHALL BE FULLY COMPATIBLE WITH EXISTING TRAFFIC SIGNAL SYSTEM INTERCONNECT AND SHALL INCLUDE ALL OF THE NECESSARY FIBER OPTIC INTERCONNECT EQUIPMENT TO TIE INTO EXISTING AERIAL ENCLOSURE AT APPROX. STA. 15+00.

MAINTAIN TRAFFIC ON RAMPS N-9 AND N-10 BY ERECTING TRAFFIC CONTROL SIGNS AND DRUMS AS SHOWN ON THE PLANS. REMOVE THE EXISTING MEDIAN AND PROVIDE PAVEMENT FOR MAINTAINING TRAFFIC BETWEEN RAMPS N-9 N-10 AT THE INTERSECTION WITH STANLEY AVENUE. THIS WILL ALLOW ADDITIONAL TURNING MOVEMENTS AT THE INTERSECTION DURING PHASE 1B.

IR-75 MAINLINE

MAINTAIN A MINIMUM OF TWO NORTHBOUND LANES ON IR-75 BY ERECTING TRAFFIC CONTROL SIGNS AND PORTABLE CONCRETE BARRIER AS SHOWN ON THE PLANS. REMOVE MEDIAN BARRIER AND REMOVE OVERHEAD SIGN TRUSS (STA. 455+09, OFFSET 0') AND FOUNDATION AND REPLACE WITH 442 ASPHALT CONCRETE TYPE 2 AND 50" PCB PRIOR TO PHASE 1B (SEE DETAILS SHEETS 83A-83C).

GREAT MIAMI RECREATIONAL TRAIL CLOSURE

CLOSE THE GREAT MIAMI RECREATIONAL TRAIL, BY ERECTING TYPE III BARRICADES AND ROAD CLOSURE SIGNS AT BIKE PATH STA 62+45.49 AND STA 66+17.47.

THE CLOSURE OF BIKEPATH WITHIN PROJECT LIMITS LISTED SHALL BE PERFORMED BY CONTRACTOR PRIOR TO, OR DURING THE START OF PHASE 1B CONSTRUCTION.

PHASE 1B

IR-75 MAINLINE

MAINTAIN A MINIMUM OF TWO LANES IN BOTH DIRECTIONS ON IR-75 BY ERECTING TRAFFIC CONTROL SIGNS, DRUMS, AND PCB AS SHOWN ON THE PLANS. TRAFFIC SHALL BE SHIFTED TO THE MEDIAN SIDE DURING THIS PHASE. ALL WORK ON THE MAINLINE ROADWAY AND THE GREAT MIAMI RIVER BRIDGE SHALL BE PERFORMED ON THE OUTSIDE IN BOTH DIRECTIONS.

MAINTAIN TRAFFIC ON RAMP N-9 AT ALL TIMES DURING THIS PHASE. IN ORDER TO BUILD THE ACCELERATION LANE AND SHOULDER PAVEMENT FOR RAMP N-6A ALONG THE MAINLINE EDGE, AND MAINTAIN TRAFFIC ON RAMP N-9 AT ALL TIMES, THE WORK SHALL BE COMPLETED IN TWO PARTS. ERECT TRAFFIC CONTROL SIGNS, DRUMS AND PCB AS SHOWN ON THE PLANS FOR WORK DURING PART 1. PAVEMENT FOR MAINTAINING TRAFFIC SHALL BE BUILT ALONG THE SOUTH EDGE OF RAMP N-9 TO FACILITATE TRAFFIC ACCESS TO RAMP N-9 DURING PART 2. BUILD THE ACCELERATION LANE FOR RAMP N-6A AS SHOWN ON THE PLANS. DURING PART 2, SHIFT THE RAMP N-9 TRAFFIC TO UTILIZE THE PAVEMENT BUILT DURING PART 1. BUILD THE REMAINDER OF THE ACCELERATION LANE AND SHOULDER ALONG THE MAINLINE. BUILD ADDITIONAL PAVEMENT FOR MAINTAING TRAFFIC FROM THE EDGE OF NEW SHOULDER TO THE EXISTING PAVEMENT OF RAMP N-9. RAMP N-9 SHALL BE OPEN TO TRAFFIC AT ALL TIMES DURING THIS PAHSE.

SIGNS ON MAINLINE IR-75 LEADING TO RAMP N-4 SHALL BE MODIFIED IN PREPARATION FOR THE RAMP CLOSURE AS SHOWN ON THE PLANS. LIKEWISE, LEAD-IN SIGNS FROM NEVA DRIVE TO SOUTHBOUND IR-75 SHALL BE REMOVED PRIOR TO CLOSING RAMP N-5. ERECT TRAFFIC CONTROL SIGNS, DRUMS AND PCB TO CLOSE RAMPS N-4 AND N-5. REMOVE EXISTING PAVEMENT ON RAMPS N-4 AND N-5 AND REGRADE AS SHOWN ON THE PLANS. CONSTRUCT NEW SHOULDER PAVEMENT ON IR-75 THROUGH BOTH RAMP TERMINALS.

STANLEY AVENUE

SHIFT TRAFFIC AS SHOWN ON PLANS TO MAINTAIN A MINIMUM OF TWO LANES IN THE EASTBOUND DIRECTION AND ONE LANE IN THE WESTBOUND DIRECTION. OPEN THE WESTBOUND LEFT-TURN LANE AT THE INTERSECTION OF STANLEY AVENUE AND RAMPS N-9 AND N-10. UNCOVER THE WORK ZONE TRAFFIC SIGNAL HEADS AND PROVIDE A PROTECTED PERMITTED PHASING FOR THE WESTBOUND LEFT TURN MOVEMENT LEAVING ALL OTHER MOVEMENTS TO BE PERMITTED.

RAMPS

AFTER ACTIVATING THE WORK ZONE TRAFFIC SIGNAL AND ALLOWING ALL MOVEMENTS AT THE INTERSECTION OF STANLEY AVENUE AND RAMPS N-9 AND N-10, CLOSE RAMPS N-6, N-6A AND N-7 BY ERECTING TRAFFIC CONTROL SIGNS, DRUMS AND PCB ALONG STANLEY AVENUE AND THE MAINLINE AS SHOWN ON THE PLANS. MODIFICATIONS NECESSARY FOR LEAD IN SIGNS AND INSTALLATION OF NEW SIGNS SHALL BE COMPLETED PRIOR TO CLOSING OF RAMPS N-6, N-6A AND N-7.

COMPLETE CONSTRUCTION OF RAMPS N-6, N-6A, N-7 AND STANLEY AVENUE INTERSECTION, AND PERMANENT TRAFFIC SIGNAL INSTALLATION AT THE INTERSECTION OF RAMPS N-6 AND N-6A AND STANLEY AVENUE.

MAINTAIN TRAFFIC ON RAMP N-8 AT ALL TIMES DURING THIS PHASE. ERECT TRAFFIC CONTROL SIGNS AND DRUMS ON IR-75, HILLROSE AVENUE, AND WINDHAM ROAD IN PREPARATION OF THE PERMANENT CLOSING OF RAMP N-11. MODIFY ALL LEAD IN SIGNS TO RAMP N-11 PRIOR TO CLOSING THE RAMP. COMPLETE THE REMOVAL OF EXISTING RAMP N-11 PAVEMENT AND CONSTRUCT IR-75 PAVEMENT AND SHOULDER. INSTALL PERMANENT FENCE ALONG THE RIGHT-OF-WAY TO CLOSE ANY ACCESS TO IR-75 VIA RAMP N-11.

PHASE 2

STANLEY AVENUE

MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC IN BOTH DIRECTIONS ON STANLEY AVENUE. COMPLETE ALL WORK ALONG THE SOUTH SIDE OF STANLEY AVENUE INCLUDING THE NEW ACCESS DRIVE INTO SIMCLAR PROPERTY.

RAMPS

PREPARE TO PERMANENTLY CLOSE RAMPS N-9 AND N-10 TO TRAFFIC BY ERECTING TRAFFIC CONTROL SIGNS AND DRUMS. MODIFY ALL LEAD IN SIGNS ALONG STANLEY AVENUE PRIOR TO CLOSING RAMPS N-9 AND N-10.

REGRADE RAMPS N-9 AND N-10 AS SHOWN ON THE PLANS. REMOVE ALL PAVEMENT FOR MAINTAINING TRAFFIC AND WORK ZONE TRAFFIC SIGNAL FROM PRIOR PHASES.

ERECT TRAFFIC CONTROL SIGNS AND DRUMS ON AND MAINTAIN ONE TEN-FOOT LANE ON RAMP N-7 AS SHOWN ON THE PLANS. REMOVE PAVEMENT FOR MAINTAINING TRAFFIC AND PERFORM FINAL GRADING. REMOVE THE GUARDRAIL, BARRIER DESIGN, TYPE 5 AT THE GORE BETWEEN RAMP N-7 AND THE MAINLINE AND RE-ERECT GUARDRAIL, TYPE 5.

IR-75 MAINLINE

SHIFT THE MAINLINE TRAFFIC FROM THE MEDIAN SIDE ON TO THE NEW PAVEMENT COMPLETED ON THE OUTSIDE. MAINTAIN A MINIMUM OF TWO LANES IN BOTH DIRECTIONS ON IR-75 BY ERECTING TRAFFIC CONTROL SIGNS, DRUMS, AND PCB AS SHOWN ON THE PLANS. BUILD THE MEDIAN SIDE OF THE ROADWAY AND THE GREAT MIAMI RIVER BRIDGE, MEDIAN BARRIER AND INSTALL CANTILEVER OVERHEAD SIGN SUPPORT, STA. 455+30, OFFSET 0'.

PHASE 3

STANLEY AVENUE

MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC IN BOTH DIRECTIONS ON STANLEY AVENUE. PERMANENTLY CLOSE EXISTING DRIVE INTO SIMCLAR PROPERTY DIRECTLY OPPOSITE RAMPS N-6 AND N-6A. REMOVE THE EXISTING PAVEMENT AND COMPLETE THE CONSTRUCTION OF SIDEWALK, CURB AND PAVEMENT.

IR-75 MAINLINE

MAINTAIN A MINIMUM OF TWO LANES IN THE NORTHBOUND DIRECTION AND THREE LANES IN THE SOUTHBOUND DIRECTION ON IR-75 AS SHOWN ON THE PLANS.

LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS EXCEPT DURING CONSTRUCTION ON STRUCTURE:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING
EASTER	

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM, MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM, TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM, WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM, THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM, MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM, MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM, MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

LANE CLOSURE/REDUCTION REQUIRED

THE MAXIMUM LENGTH AND DURATION OF LANE CLOSURES AND LANE RESTRICTIONS SHALL BE AS SPECIFIED IN THE PLANS. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED.

LANE CLOSURES AND LANE RESTRICTIONS NOT SPECIFIED IN THE PLANS SHALL ONLY BE IMPLEMENTED DURING THE TIME PERIODS LISTED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S PERMITTED LANE CLOSURE WEB SITE WHICH IS LOCATED AT:

https://dotaw100.dot.state.oh.us/plcm/plcm_web.jsp

THE PERMITTED CLOSURE TIMES LISTED ON THE WEBSITE, 14 CALLENDAR DAYS PRIOR TO THE BID LETTING DATE, SHALL BE IN EFFECT FOR THIS PROJECT.

NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES.

THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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MAINTENANCE OF TRAFFIC - GENERAL NOTES

MOT-75-14.60

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NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

ESTIMATED QUANTITIES

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B	200	CU. YD.
ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C	200	CU. YD.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	250	CU. YD.
ITEM 616, WATER	50	M. GAL.

ROAD CLOSED SIGN

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCHES ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES, GATES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

SOUTH AND EAST OF RAMP N-11 EAST AND WEST OF IR-75
EAST AND WEST OF RAMP N-10
NORTH OF RAMP N-9
NORTH OF RAMP N-6
EAST OF RAMP N-6A
EAST AND WEST OF RAMP N-5
SOUTH OF RAMP N-4.

SIGNS AND BARRICADES

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS:

SOUTH OF RAMP N-11 EAST AND WEST OF IR-75
NORTH OF RAMP N-9
NORTH OF RAMP N-5
NORTH OF RAMP N-4

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 5 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR)

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (AND OFFICIAL PATROL CAR WITH WORKING TOP-MOUNTED EMERGENCY FLASHING LIGHTS) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC ON INTERSTATE 75 ONLY OR AS DIRECTED BY THE ENGINEER, FOR THE FOLLOWING TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION.

LAW ENFORCEMENT OFFICERS (LEOS) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. IF CONTRACTORS WISH TO UTILIZE LEOS FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE USE OF MORE THAN ONE LEO PER CONSTRUCTION ACTIVITY SHALL BE AT THE CONTRACTOR'S EXPENSE UNLESS PREVIOUSLY APPROVED BY THE PROJECT ENGINEER.

LEOS ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

OHIO STATE HIGHWAY PATROL
400 SMITH DRIVE
CLAYTON, OHIO 45322
(937) 832-4794

CITY OF DAYTON POLICE DEPT.
417 E. HELENA STREET
DAYTON, OHIO 45422
(937) 333-2677

MONTGOMERY COUNTY SHERIFF'S DEPARTMENT
345 W. SECOND STREET
DAYTON, OHIO 45422
(937) 225-4357

LAW ENFORCEMENT OFFICERS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR). THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR	1000	HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER	500	M. GAL

ITEM 622, PORTABLE CONCRETE BARRIER, 50", AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50 INCH PORTABLE CONCRETE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1. PLEASE NOTE THAT SCD RM-4.1 WAS UPDATED 10-20-06 TO PROVIDE A PCB WHICH IS COMPATIBLE WITH NCHRP 350 CRITERIA.

PORTABLE CONCRETE BARRIER, 32 INCHES HIGH WITH AN 18 INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE ENGINEER. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING SYSTEMS OR AN APPROVED EQUAL:

CARSONITE MODULAR GLARE SCREEN
CARSONITE INTERNATIONAL
605 BOB GIFFORD BLVD.
EARLY BRANCH, SOUTH CAROLINA 29916 702-883-5104 OR 800-648-7974

TRINITY GLAREFOIL
TRINITY INDUSTRY
1170 N. STATE ST.,
GIRARD, OHIO 44420 330-545-4373

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE CONCRETE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE CONCRETE BARRIER, 50 INCH, AS PER PLAN.

ITEM 614, REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 100 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 200 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY

ITEM 614, WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT (R2-1) (45 SPEED LIMIT) SIGNS AND SUPPORTS WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO WORK ZONE LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE DAYS, SUCH AS DURING WINTER SHUTDOWNS.

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MAINTENANCE OF TRAFFIC - GENERAL NOTES

MOT-75-14.60

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THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 CONSECUTIVE CALENDAR DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF A DIRECTIONAL ROADWAY OF DIVIDED HIGHWAYS. THE FIRST WORK ZONE SPEED LIMIT SIGN SHALL BE PLACED 500 FEET IN ADVANCE OF THE LANE REDUCTION OR SHIFT TAPER OR AT A POINT WHEREVER CONSTRUCTION BEGINS, WHICHEVER COMES FIRST. THE SIGN SHALL BE REPEATED EVERY 1 MILE FOR 55 MPH ZONES AND EVERY ONE-HALF MILE FOR 50 MPH AND 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.

REDUCED SPEED AHEAD SIGNS SHALL BE ERECTED IN ADVANCE OF THE SPEED REDUCTION, APPROXIMATELY 1300 FEET ON MULTI-LANE HIGHWAYS AND 500 FEET ON 2-LANE HIGHWAYS.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R2-1 (SPEED LIMIT) SIGNS SHALL BE USED ON UNDIVIDED ROADWAYS. R2-1 (SPEED LIMIT) AND R2-H2A SIGNS SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R2-1 AND R2-H2A SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS. THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO ITEM 630, GROUND MOUNTED SUPPORTS, NO. 3 POSTS.

WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

614, WORK ZONE SPEED LIMIT SIGN 13 EACH

ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

I-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO WORK ZONE LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

THE SIGNS SHALL BE DUAL MOUNTED. THE FIRST SIGN SHALL BE PLACED BETWEEN THE "ROAD WORK AHEAD" (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614 - DOUBLE FINES IN WORK ZONE SIGNS 7 EACH

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY.

EXCAVATION FOR MAINTAINING TRAFFIC	37 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC	87 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE QUADGUARD CZ, (24 INCHES WIDE SIX BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

   THE LENGTH OF THE SIX-BAY QUADGUARD CZ IS 20'-9" (6.33 METERS). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES	5/13/99 REV. J	8/27/99
35-40-10	QUADGUARD SYSTEM CONCRETE PAD, CZ, QG	11/19/97 REV. D	8/27/99
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 REV. F	8/27/99
35405IZ	QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG, 24, 30, 36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG	6/25/99 REV. F	8/27/99
35400260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 REV. C	8/27/99

2. THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

   THE TRACC IS 21'-0" (6.4 METERS) LONG AND 2'-7" (0.8 METERS) WIDE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE- APPROVED SHOP DRAWINGS:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS	3/12/99 REV. 1	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/99	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS	6/30/99 REV. 1	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS	6/30/99	8/27/99

3. THE BARRIER SYSTEMS, INC. TAU-II IMPACT ATTENUATOR, DISTRIBUTED BY ROAD SYSTEMS, INC., SALES SUPPORT, 2183 ELM TRACE, AUSTINTOWN, OH 44515, (TELEPHONE 330-799-9291).

   THE TAU-II FOR THIS NOTE IS A PARALLEL 8-BAY UNIT 24' LONG AND 35" WIDE). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
A040416	UNIVERSAL TAU-II PARTS LIST	4/22/04	10/16/04
A040420	UNIVERSAL TAU-II FOUNDATION, FLUSH MOUNT BACKSTOP	4/28/04	10/16/04
A040105	UNIVERSAL TAU-II FOUNDATION, PCB BACKSTOP (REFERENCED ON A04020)	1/07/04	10/16/04
B040239	APPLICATION, FLUSH MOUNT BACKSTOP (TYPICAL FOR PARALLEL 60 MPH UNIT)	4/21/04	10/16/04

4. THE GREAT CZ IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC.

   THIS ATTENUATOR MAY BE USED UNTIL JANUARY 1, 2007 IF THE ITEM WAS PURCHASED BEFORE OCTOBER 1, 1998 AND IS IN THE CONTRACTOR'S INVENTORY. THIS PROJECT IS SCHEDULED TO LAST UNTIL NOVEMBER OF 2007, AND THEREFORE THE CONTRACTOR SHOULD PROVIDE ANOTHER ODOT APPROVED ATTENUATOR BEYOND JANUARY 1, 2007.

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY ONE TO SIX UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, FIVE INSTALLED UNITS REQUIRE ONE SPARE PARTS PACKAGE AND SEVEN INSTALLED UNITS REQUIRE TWO SPARE PARTS PACKAGES.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 614, WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL OR BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, AND REPAIR COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

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MAINTENANCE OF TRAFFIC - GENERAL NOTES

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EXTRA ADVANCE WARNING SIGNS (NOTE A)

AN EXTRA ADVANCE WARNING SIGN GROUP CONSISTS OF TWO W20-1 (ROAD WORK AHEAD) SIGNS, TWO W20-5 (RIGHT/LEFT LANE CLOSED AHEAD) SIGNS WITH W16-3A DISTANCE PLATES, AND TWO W3-H7 (WATCH FOR STOPPED TRAFFIC) SIGNS AND REQUIRED WARNING LIGHTS.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE EXTRA ADVANCE WARNING SIGN GROUPS AS SHOWN ON SCD MT-95.30 OR MT-95.40 AT THE FOLLOWING DISTANCES IN ADVANCE OF THE LANE TAPERS WITH THE APPROPRIATE W16-3A DISTANCE PLATES:

1.) IR-75 NORTHBOUND LANE TAPER (LEFT LANE ENDS)
STATION 441+50
PHASE 1A
PROVIDE SIGN GROUPS AT 2 MILES

2.) IR-75 SOUTHBOUND SHOULDER TAPER (LEFT SHOULDER CLOSED)
STATION 459+08
PHASE 1A
PROVIDE SIGN GROUPS AT 2 MILES

3.) IR-75 NORTHBOUND LANE TAPER (RIGHT LANE ENDS)
STATION 421+42
PHASE 1B
PROVIDE SIGN GROUPS AT 2 MILES

4.) IR-75 SOUTHBOUND LANE TAPER (RIGHT LANE ENDS)
STATION 477+34
PHASE 1B
PROVIDE SIGN GROUPS AT 2 MILES

5.) IR-75 NORTHBOUND LANE TAPER (LEFT LANE ENDS)
STATION 433+88
PHASE 2
PROVIDE SIGN GROUPS AT 2 MILES

6.) IR-75 SOUTHBOUND LANE TAPER (LEFT LANE ENDS)
STATION 485+00
PHASE 2
PROVIDE SIGN GROUPS AT 2 MILES

7.) IR-75 NORTHBOUND LANE TAPER (RIGHT LANE ENDS)
STATION 440+75
PHASE 3
PROVIDE SIGN GROUPS AT 2 MILES

THE CONTRACTOR SHALL HAVE AN ADDITIONAL EXTRA ADVANCE WARNING SIGN GROUP (6 SIGNS AND 2 DISTANCE PLATES) AVAILABLE FOR USE WHEN DIRECTED BY THE ENGINEER. THE DISTANCE PLATES FOR THIS GROUP SHALL BE ABLE TO BE MODIFIED IN THE FIELD TO SHOW APPROPRIATE WHOLE MILES TO THE LANE TAPER.

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING EXTRA ADVANCE WARNING SIGN GROUPS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

MAINTENANCE OF CANOE TRAFFIC

CANOE TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT EITHER THROUGH EXISTING RIVER CHANNEL OR THROUGH PORTAGE TRAIL APPROVED BY THE ENGINEER.

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT.

1. APPROXIMATELY 1/4 MILE UPSTREAM, ADVANCED WARNING TYPE SIGNS ON BOTH BANKS

2. APPROXIMATELY 300 FEET (90 METERS) UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST ON BOTH BANKS

3. APPROXIMATELY 1/4 (0.6 KILOMETER) MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS ON BOTH BANKS

4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST OF BOTH BANKS

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE WATER LEVEL, UNOBSTRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CONTRACTOR SHALL NOTIFY LOCAL CANOE LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING CANOE TRAFFIC.

PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OF-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

IN THE EVENT PIPES ARE USED TO DIVERT OR CARRY RIVER WATER, BOTH THE INLET AND OUTLET ENDS SHALL BE ADEQUATELY PROTECTED BY GRATES OR FENCE SO THAT PEOPLE OR CANOES ARE NOT DRAWN THROUGH OR HELD BY THEM.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON AN AS NEEDED BASIS AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THIS LIST IS AVAILABLE ON THE ODOT WEBSITE AT HTTP://WWW.DOT.STATE.OH.US/TESTLAB/APPLISTS/MISC/PCMS.HTM. THE LIST CURRENTLY CONTAINS CLASS I, II AND III UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 1250 FT., 850 FT. AND 650 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS ARE THE BEGINNING AND END OF WORK AT THE IR-75 NORTHBOUND AND SOUTHBOUND APPROACHES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH-INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN,
AS PER PLAN 20 SIGN-MONTH

WORKSITE TRAFFIC SUPERVISOR

CONTRACTOR SHALL EMPLOY (OTHER THAN THE SUPERINTENDENT) AND SUBJECT TO THE APPROVAL OF THE ENGINEER, A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS). THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS)

2. OHIO LABORER'S TRAINING CENTER, PHONE NUMBER 1-800-635-7570, TRAFFIC CONTROL SUPERVISORS CLASS.

3. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528

THE WTS POSITION IS ESTABLISHED FOR THE PURPOSE OF MONITORING AND CORRECTING ANY TRAFFIC CONTROL DEFICIENCIES IN THE WORK ZONE. THE WTS MUST ALSO COORDINATE WITH ALL LAW ENFORCING AGENCIES RESPONSIBLE FOR THE ROADWAY UNDER CONSTRUCTION AND RETRIEVE ALL CRASH REPORTS (OH-1) THAT OCCUR DURING THE CONSTRUCTION SEASON. THE WTS SHALL OVERSEE ALL OPERATIONS THAT AFFECT THE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC THROUGH THE WORK ZONE. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS MAIN DUTY WHILE THE WORK ZONE IS IN PLACE.

THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR OR SUBCONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ETC. IN LIEU OF THE WTS BEING PRESENT WHEN A SUBCONTRACTOR HAS A WORK ZONE IN PLACE, THE CONTRACTOR MAY USE HIS OWN PERSONNEL THAT IS A CERTIFIED WTS. THE CONTRACTOR OR SUBCONTRACTOR MUST PRESENT A COPY OF HIS WTS CERTIFICATION TO THE PROJECT ENGINEER. A WTS MUST BE PRESENT WHEN THE WORK ZONE IS BEING SET UP.

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DAILY, INCLUDING WEEKENDS AND HOLIDAYS, THE WTS SHALL SPEND A MINIMUM OF ONE HOUR REVIEWING THE WORK ZONE AND/OR CRASH DATA FOR DEFICIENCIES AND MAINTAINING THE WORK ZONE. THE WTS MUST RETRIEVE/COLLECT ALL CRASH REPORTS (OH-1) FROM ALL LAW ENFORCING AGENCIES, EVALUATE THE CRASHES, AND RECOMMEND SOLUTIONS TO ADDRESS ANY ISSUES THAT ARE POTENTIALLY CREATING CRASHES WITHIN THE WORK ZONE. THE WTS MUST PRESENT HIS/HER SOLUTIONS TO THE ENGINEER AND THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) FOR APPROVAL AT ALL PROJECT PROGRESS MEETINGS, uPON APPROVAL BY THE ENGINEER AND THE DWZTM, THE CONTRACTOR MUST IMPLEMENT THE RECOMMENDED SOLUTIONS TO THE WORK ZONES WITHIN ONE WEEK. THESE HOURS MAY BE ADJUSTED BY THE ENGINEER BUT MUST BE PERFORMED ONCE A DAY DURING THE CONSTRUCTION SEASONS. THE WTS MUST INSPECT THE WORK ZONE AT THE BEGINNING AND THE END OF EACH WORK DAY AND ONE TIME PER WEEK DURING THE HOURS OF DARKNESS.

A RECORD OF EACH DAYS REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER THE FOLLOWING WORK DAY. ALSO IN WRITING THE WTS REPORT SHALL INCLUDE: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, VISIBILITY, TRAFFIC FLOW CONDITIONS, INCIDENTS, ACCIDENTS, CONGESTION POINTS, ADEQUACY OF ADVANCED WARNING SIGNS BEYOND PROJECT LIMITS, INTERACTION OF WORK VEHICLES AND TRAFFIC, PROPER STORAGE OF MATERIALS AND EQUIPMENT.

IF THE RESTRICTIONS ARE SHORT TERM, THE WTS SHALL MONITOR THE ZONE FOR COMPLIANCE. DURING THE LANE CLOSURE HE SHALL MAKE SURE ALL TRAFFIC CONTROL ITEMS ARE FUNCTIONING PROPERLY. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS'S MAIN DUTY DURING IMPLEMENTATION OF ZONES OR SHORT TERM ZONES. THE WTS SHALL HAVE THE AUTHORITY TO HAVE DEFICIENCIES CORRECTED AS SOON AS POSSIBLE. THE WTS SHALL PROVIDE THE DISTRICT WORK ZONE TRAFFIC CONTROL ENGINEER A SKETCH OF THE TRAFFIC CONTROL PLAN (TCP) EVERY DAY THERE IS TO BE A SHORT TERM TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THIS TCP SHALL SHOW HOW THE WORK ZONES ARE TO BE IMPLEMENTED.

THE WTS SHALL BE AVAILABLE ON A 24-HOUR BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. A 24-HOUR PHONE NUMBER SHALL BE MADE AVAILABLE TO THE PROJECT ENGINEER IN ORDER TO CONTACT THE WTS. THE WTS SHALL HAVE A PAGER AND THE PHONE NUMBER PROVIDED TO THE PROJECT ENGINEER.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE, SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO DEDUCT $500.00 PER DAY FROM MONEY DUE TO THE CONTRACTOR, NOT AS A PENALTY, BUT AS A LIQUIDATION DAMAGE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORK SITE TRAFFIC SUPERVISOR.

ITEM 614, WORKSITE TRAFFIC SUPERVISOR 20 MONTHS

WORK ZONE PAVEMENT MARKING REMOVAL

EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PER THE REQUIREMENTS OF CMS 614.11 EXCEPT THAT WATER BLASTING SHALL BE THE ONLY APPROVED METHOD.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO CMS 614 OR CMS 621 AS SPECIFIED HEREIN.

- RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.
- RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCT 15 THROUGH APRIL 11.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO CMS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER CMS 202.10.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE SURFACE COURSE OF THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH EQUIVALENT TO THE DEPTH OF THE PROPOSED SURFACE COURSE, AS DETERMINED BY THE ENGINEER.

THE FOLLOWING BID ITEMS SHOULD BE INCLUDED IN THE PLANS:

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
SQUARE YARDS
ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN
1156 EACH

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKERS ON CONCRETE SURFACES

RAISED PAVEMENT MARKERS IN WORK ZONES, INSTALLED ON TO CONCRETE SURFACES, SHALL BE ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS. WZRPMS ARE INTENDED FOR USE ONLY DURING THE NON-SNOW-PLOWING SEASON. WZRPMS SHALL NOT BE PROVIDED DURING THE SNOW-PLOWING SEASON.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCT 15 THROUGH APRIL 11.

WHERE A TEMPORARY ALIGNMENT WILL REMAIN IN USE THROUGH THE WINTER, THE WZRPMS SHALL BE REMOVED PRIOR TO THE BEGINNING OF THE SNOW-PLOWING SEASON AND REPLACED APPROXIMATELY APRIL 1, OR AS OTHERWISE DETERMINED BY THE ENGINEER.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS.

AN ESTIMATED QUANTITY OF 243 EACH OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

ITEM SPECIAL - LINEAR DELINEATION

3MTM SCOTCHLITETM LINEAR DELINEATION SYSTEM (LDS) SHALL BE INSTALLED ON ALL CONCRETE BARRIER, PERMANENT OR TEMPORARY, LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVEL LANE UNDER EITHER OF THE FOLLOWING CONDITIONS:

ALONG TAPERS AND TRANSITION AREAS

ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES

THE LDS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE. PANELS SHALL BE PROVIDED AT THE RATE OF ONE PER SECTION OF PORTABLE CONCRETE BARRIER OR ONE PANEL EVERY 10 FEET, SPACED EVENLY ALONG THE LENGTH OF THE RUN. THE PANELS SHALL BE MOUNTED SUCH THAT THE TOPS OF THE PANELS ARE 26-INCHES FROM THE BASE OF THE CONCRETE BARRIER.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING 3MTM SCOTCHLITETM LINEAR DELINEATION SYSTEM (LDS).

AN ESTIMATED QUANTITY OF LINEAR FEET OF ITEM SPECIAL LINEAR DELINEATION, HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY. ALONG RUNS OF CONCRETE BARRIER WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN BEING DELINEATED, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL PANELS.

CONCRETE BARRIER DELINEATION

OBJECT MARKERS SHALL BE INSTALLED ON ALL PERMANENT CONCRETE BARRIER, LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. OBJECT MARKER SPACING SHALL BE 50 FEET.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING OBJECT MARKERS.

AN ESTIMATED QUANTITY OF EACH OF ITEM 614 OBJECT MARKER, -WAY HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

GUARDRAIL DELINEATION

OBJECT MARKERS SHALL BE INSTALLED ON ALL GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKER SPACING SHALL BE APPROXIMATELY 50 FEET.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING OBJECT MARKERS.

AN ESTIMATED QUANTITY OF 11 EACH OF ITEM 614 OBJECT MARKERS, ONE-WAY HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

CALCULATED

MILLING AND RESURFACING

MILL 1.5" OF EXISTING PAVEMENT AND RESURFACE WITH ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) BETWEEN THE FOLLOWING STATION RANGES:

PHASE 1B	PHASE 2
461+77.53 TO 468+70.72, LT	446+87.30 TO 455+49.69, LT
461+77.53 TO 468+50.94, RT	446+87.30 TO 455+49.69, RT
478+26.00 TO 487+26.00, LT	461+77.53 TO 476+65.28, LT
	461+77.53 TO 468+55.01, RT
	478+26.00 TO 487+56.00, LT

THE FOLLOWING BID ITEMS HAVE BEEN INCLUDED IN THE PLANS FOR MILLING AND RESURFACING OF THE PAVEMENT AREAS WITHIN THE PROJECT LIMITS.

AN ESTIMATED QUANTITY OF 17947 SY OF ITEM 202 PAVEMENT REMOVED, AND AN ESTIMATED QUANTITY OF 2243 CY OF ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) HAVE BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR IS ADVISED THAT ADJACENT CONSTRUCTION OPERATIONS INCLUDING, BUT NOT LIMITED TO MOT-75-13.11, MAY IMPACT THE PROJECT SCHEDULE, SEQUENCE OF CONSTRUCTION AND/OR TRAFFIC CONTROL BETWEEN ADJACENT CONSTRUCTION ZONES. THE CONTRACTOR IS REQUIRED TO COORDINATE ALL MAINTENANCE OF TRAFFIC OPERATIONS WITH THOSE OF ADJACENT CONSTRUCTION PROJECTS.

COOPERATION WITH THE ENGINEER, INSPECTORS AND ALL OTHER CONTRACTORS ON OR ADJACENT TO THE PROJECT IS REQUIRED AS PER CMS 105.08.

ITEM SPECIAL, 614, WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE TRAFFIC SIGNAL CONTROLLER SHALL BE 100% COMPATIBLE WITH EXISTING TRAFFIC SIGNAL SYSTEM INTERCONNECT AND WITH EAGLE ACTRA VERSION 3.3.4. THE WORK ZONE TRAFFIC SIGNAL SHALL INCLUDE A FOUR FIBER SINGLE MODE (4SM) FIBER OPTIC DROP CABLE WHICH SHALL BE FUSION SPLICED IN THE EXISTING AERIAL SPLICE ENCLOSURE AT STA. 15+00 LT, STANLEY AVENUE. THE DROP CABLE THE BE TERMINATED WITH FOUR ST TYPE CONNECTORS IN THE WORK ZONE SIGNAL CONTROLLER CABINET. THE DROP CABLE SHALL BE CONNECTED TO THE CONTROLLER WITH TWO SINGLE MODE ST-FC DUPLEX PATCH CORDS. CONTACT THE CITY OF DAYTON AT 937-333-4088 WITH AT LEAST SEVEN DAYS NOTICVE FOR A SPLICE SHART AND TIMING PARAMETERS.

THE COST OF LABOR AND MATERIALS FOR THE DROP CABLE, SLACK INSTALLATIONS, FUSION SPLICING, FAN-OUT KIT, CONNECTORS, PATCH CORDS AND ANY INCIDENTALS FOR A COMPLETE CONNECTION SHALL BE INCIDENTAL THE THE WORK ZONE TRAFFIC SIGNAL PAY ITEM.

EAK
CHECKED
AM

MAINTENANCE OF TRAFFIC - GENERAL NOTES

MOT-75-14.60

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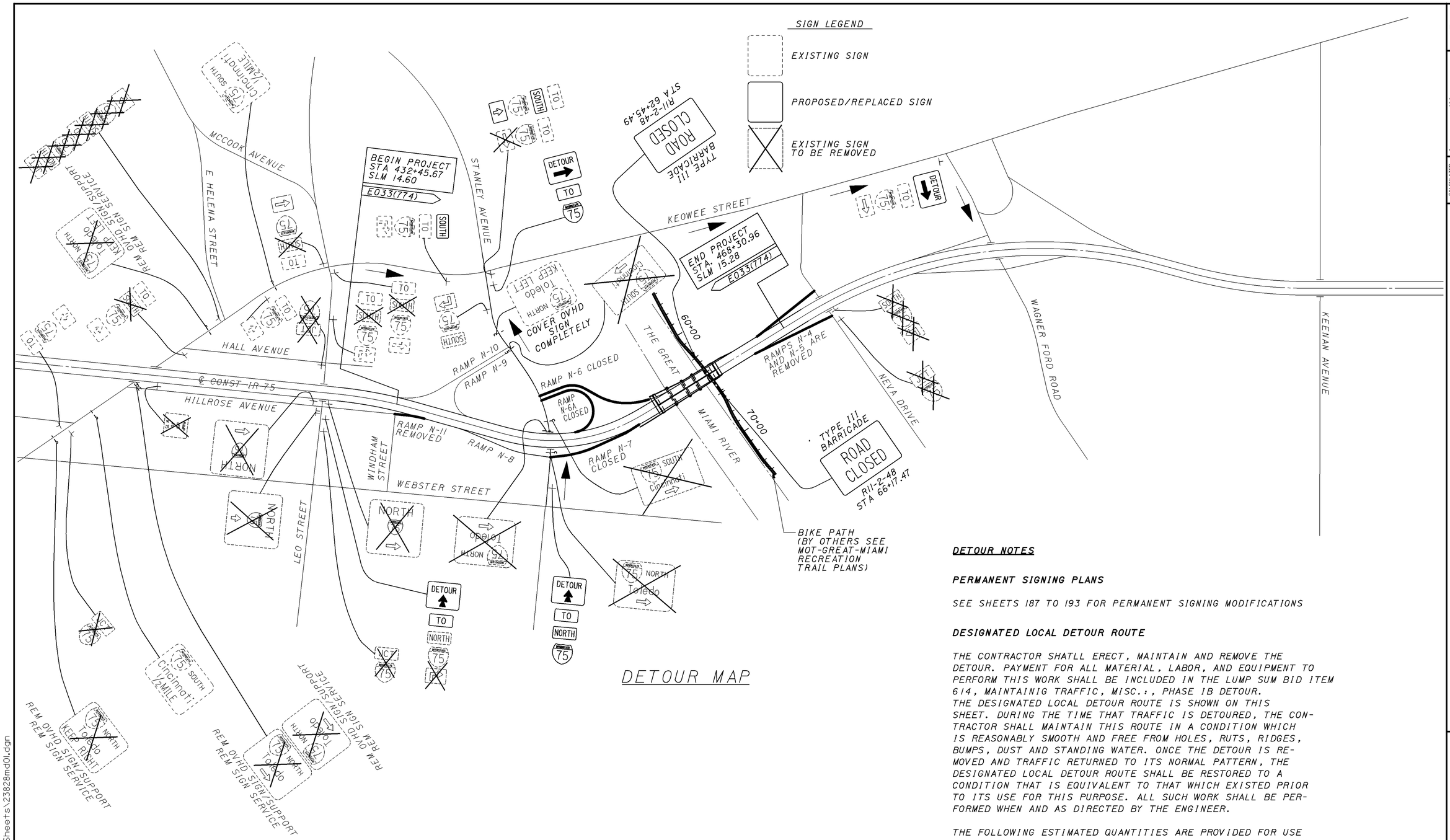

DETOUR MAP

DETOUR NOTES

PERMANENT SIGNING PLANS

SEE SHEETS 187 TO 193 FOR PERMANENT SIGNING MODIFICATIONS

DESIGNATED LOCAL DETOUR ROUTE

THE CONTRACTOR SHATLL ERECT, MAINTAIN AND REMOVE THE DETOUR. PAYMENT FOR ALL MATERIAL, LABOR, AND EQUIPMENT TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM 614, MAINTAINIG TRAFFIC, MISC.:, PHASE IB DETOUR. THE DESIGNATED LOCAL DETOUR ROUTE IS SHOWN ON THIS SHEET. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE. FOR THE PURPOSE OF BID COMARISONS, QUANTITIES LISTED ARE BASED UPON A UNIT MEASUREMENT OF 100 FEET OF A 12-FOOT LANE. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A WRITTEN ESTIMATE OF EXPECTED QUANTITIES BEING USED ON THE PROJECT

ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR	*135 SQ. YD.*
ITEM 423, CRACK SEALING, MISC.: MOT DETOUR	*135 SQ. YD.*
ITEM 642, PAVEMENT MARKING, MISC.: MOT DETOUR	*200 FT*
ITEM 614, MAINTAINING TRAFFIC, MISC.: PHASE IB DETOUR	*LUMP*

HORIZONTAL SCALE IN FEET
0 200 400 800

CALCULATED HJF
CHECKED AM

MAINTENANCE OF TRAFFIC DETOUR PLAN PHASE 1B

MOT-75-14.60

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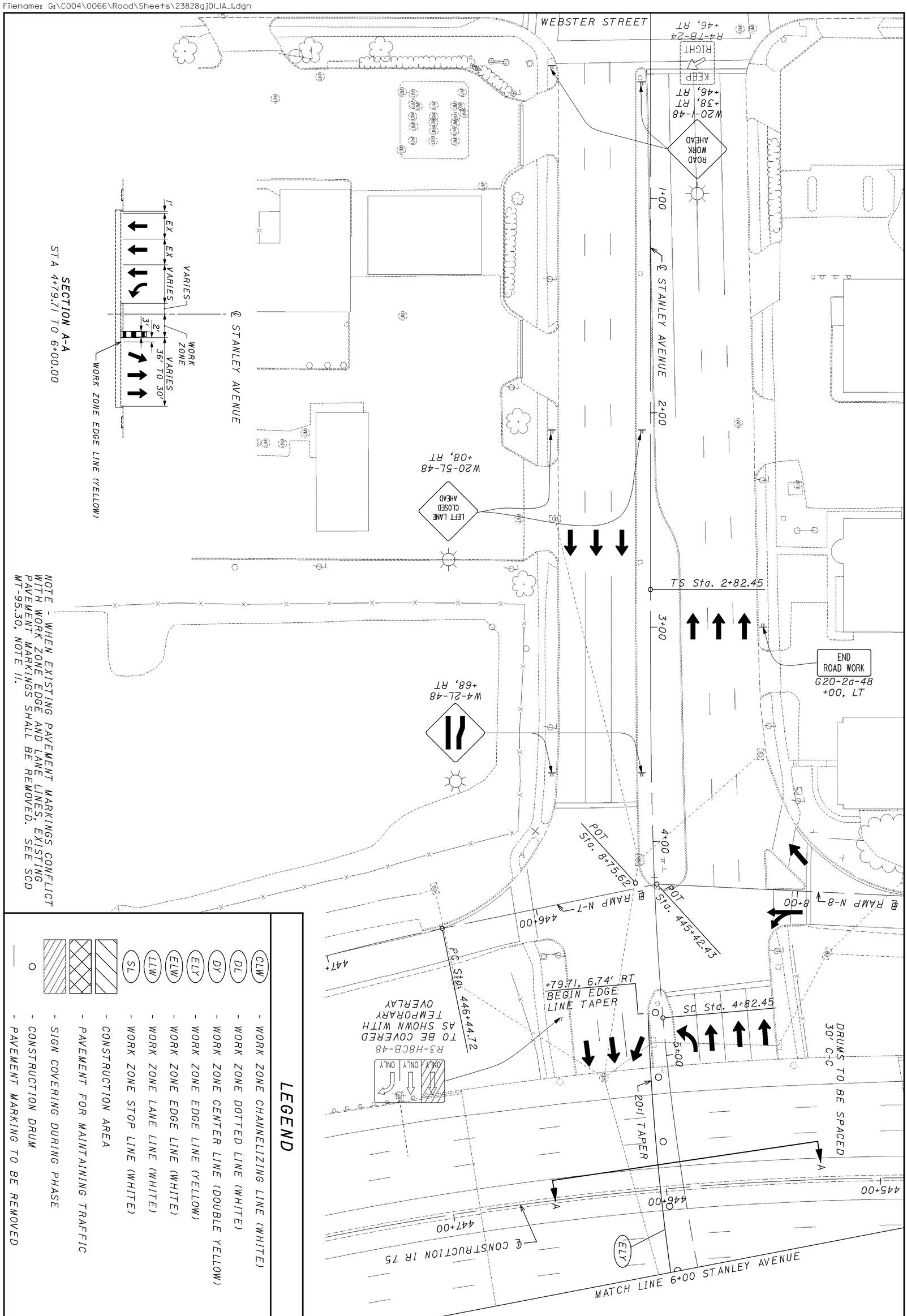

NOTE - WHEN EXISTING PAVEMENT MARKINGS CONFLICT WITH WORK ZONE EDGE AND LANE LINES, EXISTING PAVEMENT MARKINGS SHALL BE REMOVED. SEE SCD MT-95.30, NOTE 11.

LEGEND

- CLW - WORK ZONE CHANNELIZING LINE (WHITE)
- DL - WORK ZONE DOTTED LINE (WHITE)
- DY - WORK ZONE CENTER LINE (DOUBLE YELLOW)
- ELY - WORK ZONE EDGE LINE (YELLOW)
- ELW - WORK ZONE EDGE LINE (WHITE)
- LLW - WORK ZONE LANE LINE (WHITE)
- SL - WORK ZONE STOP LINE (WHITE)
- CONSTRUCTION AREA
- PAVEMENT FOR MAINTAINING TRAFFIC
- SIGN COVERING DURING PHASE
- CONSTRUCTION DRUM
- PAVEMENT MARKING TO BE REMOVED

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 1A

CALCULATED EAK
CHECKED AM
HORIZONTAL SCALE IN FEET
0 20 10 40

SEE SHEET 21 FOR LEGEND.

℄ STANLEY AVENUE

SECTION C-C
STA 8+02.00 TO 11+50.00

STA 7+19.71 TO STA 11+50.00, LT & RT,
DRUMS TO BE SPACED 60' C-C

MATCH LINE 6+00 STANLEY AVENUE

MATCH LINE 11+50 STANLEY AVENUE

7+00
8+00
9+00
10+00
11+00

℄ STANLEY AVENUE

20:1 TAPER

STA 6+00.00 TO STA 7+19.71, RT,
DRUMS TO BE SPACED 30' C-C

+24.91, 19.09' RT
END EDGE LINE TAPER

B
B
C
C

ELY
ELY

℄ RAMP N-6A

℄ RAMP N-6

441+00
446+00
447+00

Sta. 10+82.45 CS

OBSCURED

SOUTH
M3-3-36
INTERSTATE
75
M1-1-12-36
M5-1-30
+78, RT

SECTION B-B
STA 6+00.00 TO 8+02.00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

22
314

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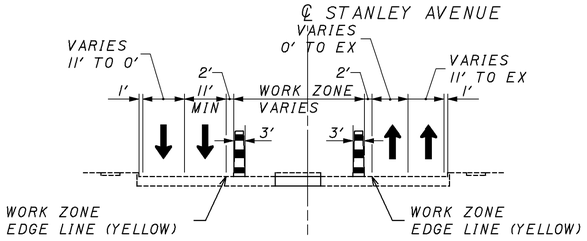
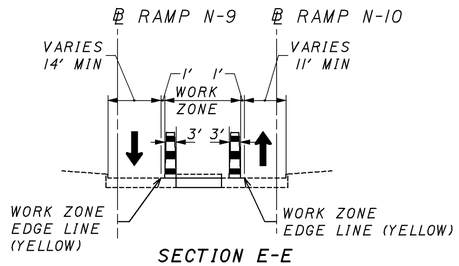
SEE SHEET 21 FOR LEGEND.

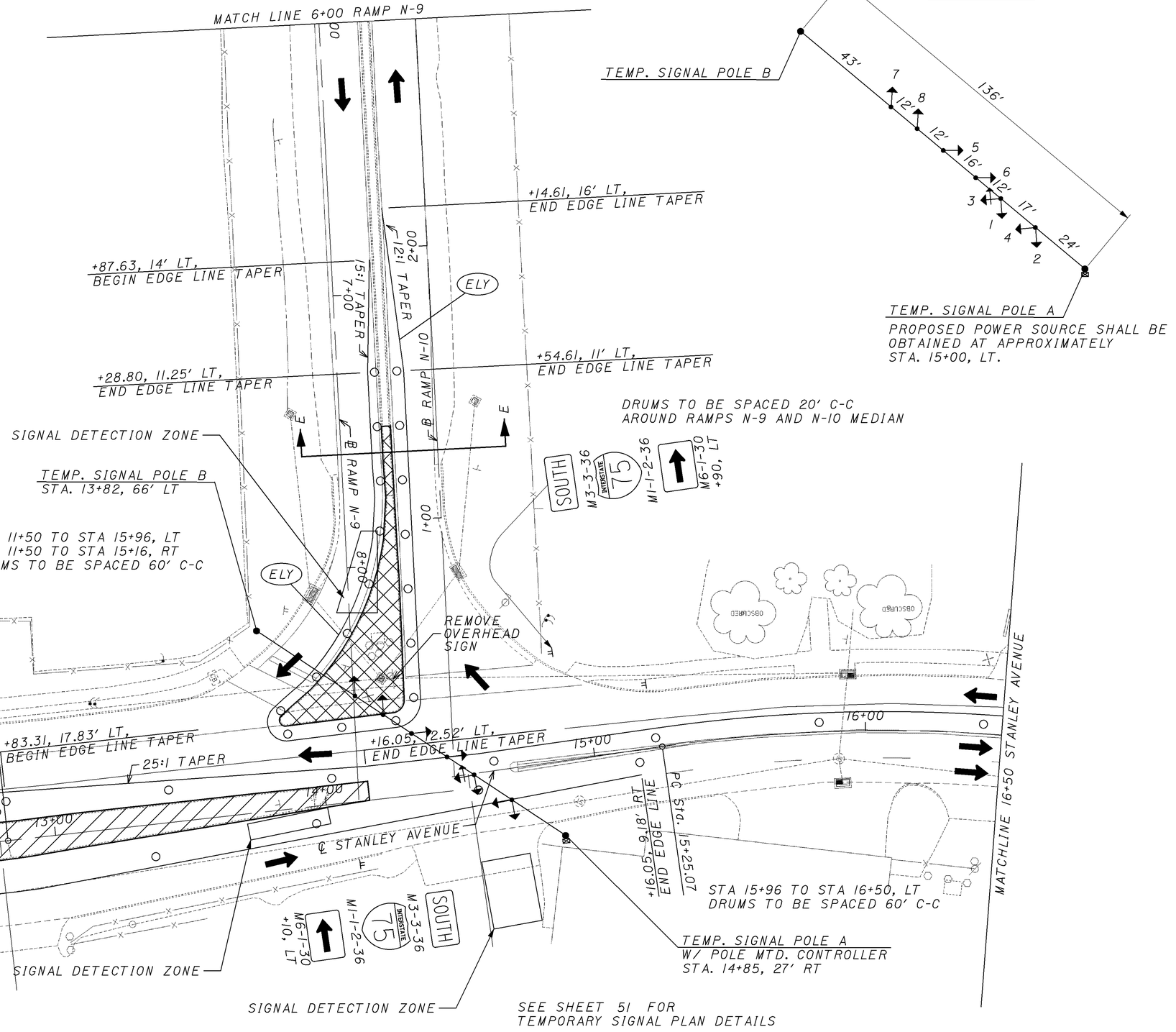
= CONCRETE MEDIAN TO BE REMOVED AND PAVEMENT FOR MAINTAINING TRAFFIC TO BE CONSTRUCTED FOR USE IN PHASE 1B



SECTION D-D
STA 11+50.00 TO 16+50.00



SECTION E-E
STA 7+28.80.00 TO 8+60.00, RAMP N-9
STA 1+54.61 TO 0+24.00, RAMP N-10



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

23
314

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SECTION F-F
STA 16+50.00 TO 21+00.00

SEE SHEET 21 FOR LEGEND.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

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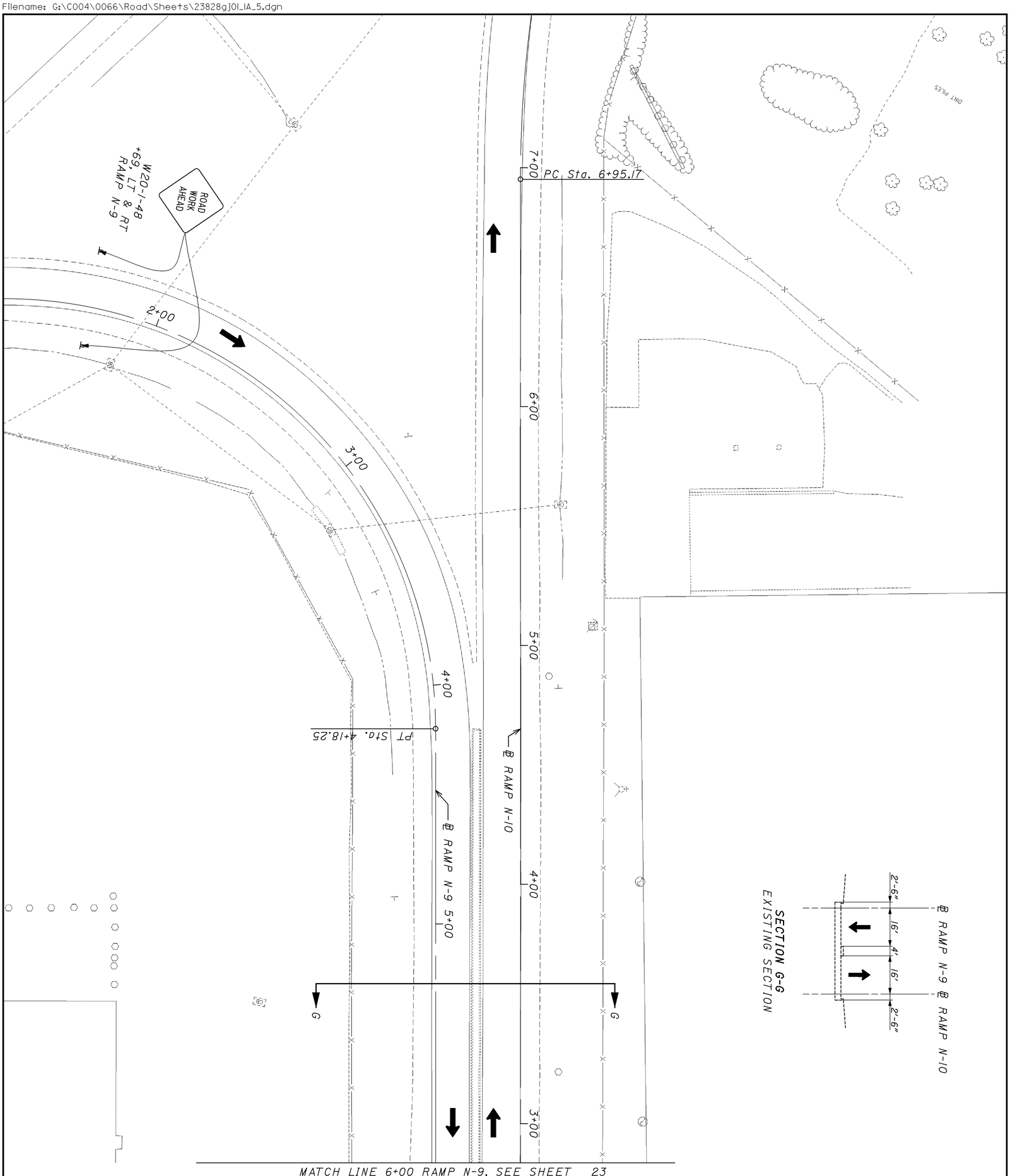

SECTION G-G
EXISTING SECTION

SEE SHEET 21 FOR LEGEND.

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 1A

CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET

N

SECTION H-H
STA 429+30.00 TO STA 441+00.00

SEE SHEET 21 FOR LEGEND.

END ROAD WORK
G20-2a-48

1600′

1000′

+30, 1.5′ RT
BEGIN DRUM TAPER

H

℄ CONSTRUCTION IR 75

413+00

430+00

440+00

(IMAGINARY LINE)

TS Sta 440+44.02

DRUMS TO BE SPACED 40′ C-C

26:1 TAPER

MATCH LINE 441+00 IR 75

2+00

℄ RAMP N-8

3+00

ROAD WORK AHEAD
W20-1-48

ROAD WORK AHEAD
W20-1-48

LEFT LANE CLOSED AHEAD
W20-5L-48
+30, ℄ & RT

W4-2L-48
+30, ℄ & RT

ADVANCE SIGNING TO BE PROVIDED BY OTHERS (SEE SHEETS 115 AND 125 OF PROJECT MOT-75-13.11). VERIFY INSTALLATION AND INSTALL IF NECESSARY AT THE LOCATION INDICATED.

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

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℄ IR 75

VARIES 10′ | 12′ | 12′ | 12′ | 10′ | 10′ | VARIES 12′ TO 2′-11″ | 12′ | 12′ | 10′

3′ 2′

WORK ZONE EDGE LINE (YELLOW)

SECTION I-I

STA 441+50.00 TO STA 446+50.00

MATCH LINE 441+00 IR 75

W1-6R-48

DRUMS TO BE SPACED 40′ C-C

℄ CONSTRUCTION IR 75

26:1 TAPER

442+00

443+00

444+00

445+00

446+00

55:1 TAPER

ELY

+50.00, 10′ RT
END DRUM TAPER
BEGIN EDGE LINE TAPER

(IMAGINARY LINE)

SC Sta. 443+94.02

I

℄ CONSTRUCTION STANLEY AVENUE

7+00

6+00

5+00

SC Sta. 4+82.45

MATCH LINE 446+50 IR 75

SEE SHEET 21 FOR LEGEND.

PC Sta. 4+68.29

PT Sta. 6+83.17

4+00 ℄ RAMP N-8

5+00

6+00

7+00

8+00

4+00

POT Sta. 445+42.43

POT Sta. 8+75.62

℄ RAMP N-7

DENSE VEGETATION

DENSE VEGETATION

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EAK

CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

27
314

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℄ IR 75

VARIES 2'-11" TO 0'

VARIES

10' 12' 12' 12' 10' WORK ZONE 2' 12' 12' 10'

3'

WORK ZONE EDGE LINE (WHITE)

DRUMS TO BE SPACED 40' C-C, 446+50.00 TO 452+00.00

SEE SHEET 21 FOR LEGEND.

SECTION J-J
STA 445+50.00 TO STA 451+45.00

J

PT Sta. 448+12.70

℄ RAMP N-6A

448+00

447+00

WORK ZONE IMPACT ATTENUATOR

451+00

16:1 TAPER

MATCH LINE 452+00 IR 75

+14, 3.5' RT BEGIN PCB

+45, 22' RT EDGE LINE END TAPER

+45, 3.5' RT TAPER BEGIN PCB

450+00

449+00

℄ CONSTRUCTION IR 75

448+00

447+00

55:1 TAPER

ELY

MATCH LINE 446+50 IR 75

451+00

450+00

℄ RAMP N-7

449+00

PT Sta. 449+48.50

PC Sta. 446+44.72

448+00

447+00

N

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

28
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:38 AM
Filename: G:\C004\0066\Road\Sheets\23828gj0l_1A_8.dgn

453+00
CS Sta. 453+
454+00
455+00
SC Sta. 455+30.19
456+00
457+00
PT Sta. 457+43.00
℄ RAMP N-6
IA-9
+88, 3.5' LT
END PCB TAPER
+88, 10' LT
BEGIN DRUM TAPER
+00, 9' LT
BEGIN PCB TAPER
457+00
ST Sta. 455+76.71
456+00
℄ CONSTRUCTION IR 75
26:1 TAPER
(IMAGINARY LINE)
MATCH LINE 457+50 IR 75
+25, 9' LT
BEGIN PCB
455+00
454+00
453+00
CS Sta.
452+26.71
+56.11
+52.11
50" PCB, APP
+00, 21' RT
END PCB
+00, 22' RT
END EDGE LINE
MATCH LINE 452+00 IR 75
16:1 TAPER
+25, 21' RT
END PCB TAPER
ELY
IA-9
DRUMS TO BE SPACED 40' C-C
℄ IR 75
VARIES FROM 15' TO 1' MIN
10' 12' 12' 12' WORK ZONE 1' 12' 12' 10'
WORK ZONE
EDGE LINE (WHITE)
POT Sta. 452+25.40
NOW OR FORMERLY DENSE
NOW OR FORMERLY STATION
NOW OR FORMERLY STATION
SECTION IA-9-IA-9
STA 452+00.00 TO STA 456+00.00
SEE SHEET 21 FOR LEGEND.

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:39 AM
Filename: G:\C004\0066\Road\Sheets\23828gl01A_9.dgn

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

29
314

DRUMS TO BE SPACED 40' C-C

SEE SHEET 21 FOR LEGEND.

MATCH LINE 457+50 IR 75

26:1 TAPER

(IMAGINARY LINE)

458+00

459+00

℄ CONSTRUCTION IR 75

+08, 1.5' LT
END DRUM TAPER

500'

500'

LEFT SHOULDER CLOSED

W21-5BL-48

NEXT 1/10 MILE

W16-4-30

+08, ℄ & LT

8+00

464+00

1500'

LEFT SHOULDER CLOSED

W21-5BL-48

1000 FT

W16-3A-30

+08, ℄ & LT

3+00

469+00

ROAD WORK AHEAD

W20-1-48

+08, ℄ & LT

2+00

3+00

484+00

485+00

END ROAD WORK

G20-2-48

+08, ℄

LT Sta. 1+80.20

DENSE VEGETATION

DENSE VEGETATION

HORIZONTAL SCALE IN FEET

0 10 20 40

CALCULATED E.AK

CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

29A
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:39 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_1A_10.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:40 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_1.dgn

ADVANCE SIGNING TO BE PROVIDED BY OTHERS (SEE SHEETS 115 AND 125 OF PROJECT MOT-75-13.11). VERIFY INSTALLATION AND INSTALL IF NECESSARY AT THE LOCATION INDICATED.

W20-1-48
ROAD WORK AHEAD

W20-1-48
ROAD WORK AHEAD

END ROAD WORK
G20-2a-48

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

NOTE - WHEN EXISTING PAVEMENT MARKINGS CONFLICT WITH WORK ZONE EDGE AND LANE LINES, EXISTING PAVEMENT MARKING SHALL BE REMOVED.

395+00

W20-5R-48
+42, ℄ & RT
RIGHT LANE CLOSED AHEAD

1600'

411+00 ℄ CONSTRUCTION IR 75

W4-2R-48
+42, ℄ & RT

1000'

+42,
BEGIN DRUM SHOULDER TAPER

DRUMS TO BE SPACED 20' C-C

422+00

+40.67, 46' RT
BEGIN EDGE LINE TAPER
BEGIN LANE LINE TAPER

W1-6L-48

47:1 TAPER

ELW

LLW

MATCH LINE 423+00 IR 75

SEE SHEET 21 FOR LEGEND.

SECTION L-L
STA 422+40.67 TO STA 423+00.00

SEE MOT-75-13.11 PROJECT MOT PLANS FOR SOUTHBOUND SECTION

℄ IR 75

10'
12'
12'
VARIES 12' TO 10'-9"
2'
3'

WORK ZONE LANE LINE (WHITE)
WORK ZONE EDGE LINE (WHITE)

MOT-75-14.60

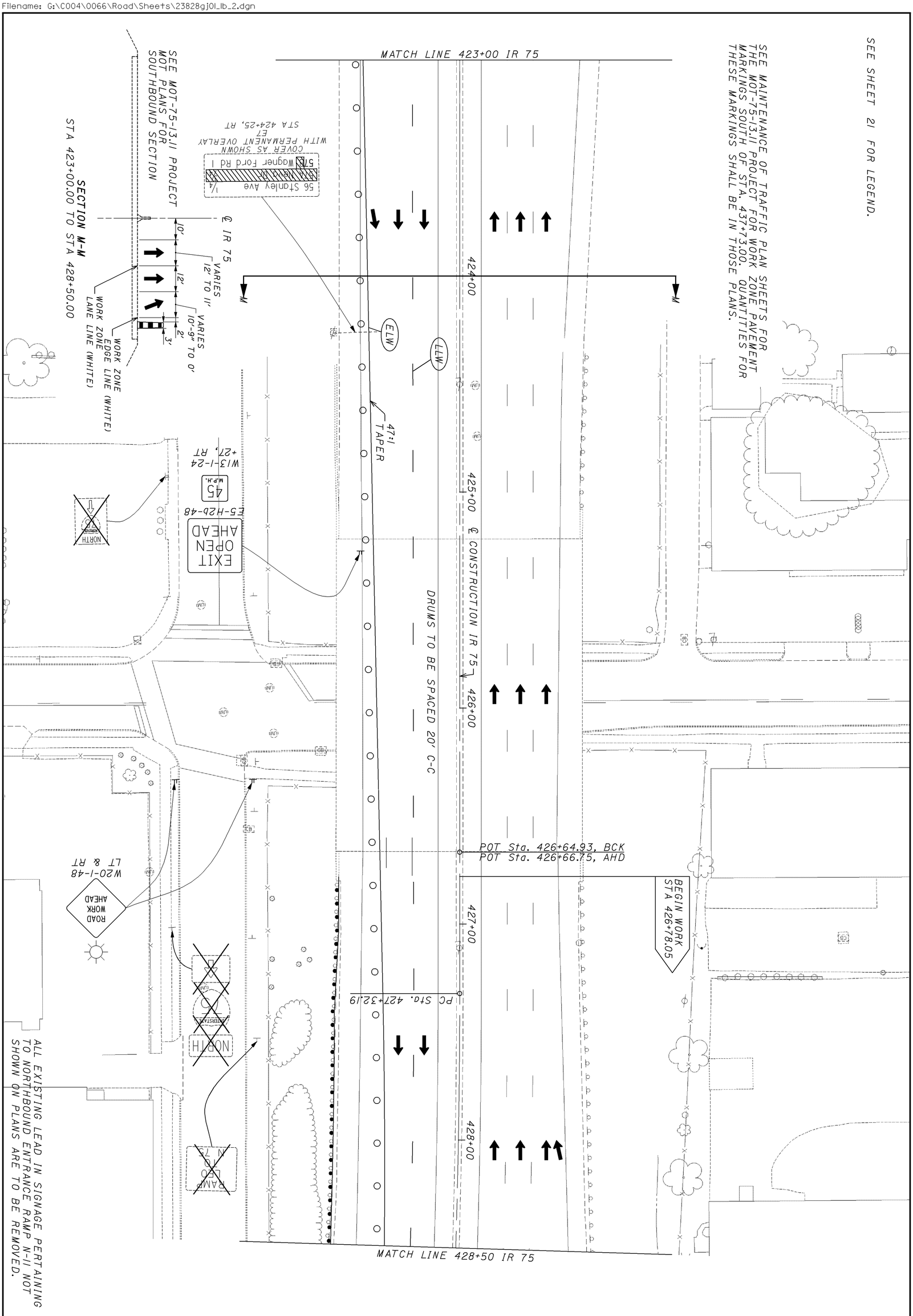
MAINTENANCE OF TRAFFIC - PHASE 1B

CALCULATED EAK
CHECKED AM

0 20
10 40
HORIZONTAL SCALE IN FEET

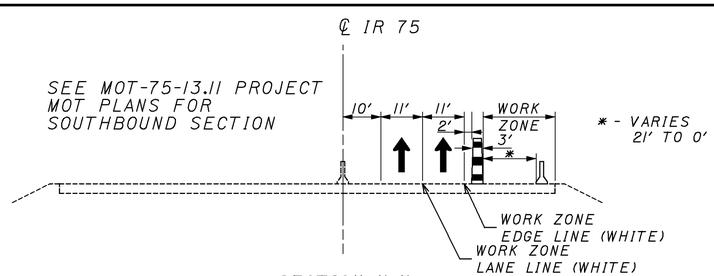
N

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:41 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_2.dgn



35 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 10 40 HORIZONTAL SCALE IN FEET	N

SEE MOT-75-13.11 PROJECT MOT PLANS FOR SOUTHBOUND SECTION



SECTION N-N
STA 429+00.67 TO STA 433+67.00

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

MATCH LINE 428+50 IR 75

429+00 430+00 431+00 432+00 433+00

℄ CONSTRUCTION IR 75

℄ RAMP N-10

00+13 00+12 00+11 00+01

DENSE VEGETATION

BEGIN PROJECT STA 432+45.67 SLM = 14.60

PT Sta. 10+59.16

+44.19, 12′ LT END EDGE LINE

+44.19, 13′ LT END PCB

+24.19, 13′ LT END PCB TAPER

ELY 00+

16:1 TAPER

+67, 34′ LT BEGIN EDGE LINE

+67, 35′ LT BEGIN PCB

Sta. 433+88.15

ELW

LLW

47:1 TAPER

TAPERED END SECTION

+00.67, 32′ RT END EDGE LINE TAPER
END LANE LINE TAPER

+09.67, 55′ RT BEGIN PCB TAPER

DRUMS TO BE SPACED 20′ C-C, LT & RT

+45.67, 34′ RT END PCB TAPER

16:1 TAPER

MATCH LINE 434+00 IR 75

BARRICADE

0+00

POT Sta. 0+00.00

℄ RAMP N-11

PC Sta. 0+92.93

ROAD CLOSED
R11-2-48
LT & RT
300 FT
W16-3A-30

ROAD CLOSED
R11-2-48

ALL EXISTING LEAD IN SIGNAGE PERTAINING TO NORTHBOUND ENTRANCE RAMP N-11 NOT SHOWN ON PLANS ARE TO BE REMOVED.

SEE SHEET 21 FOR LEGEND.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:30:35 PM
Filename: g:\co04\0066\road\sheets\23828g10l_lb_3.dgn

SEE SHEET 21 FOR LEGEND.

℄ IR 75

WORK ZONE 2′ | 12′ | 1′ | 12′ | 10′ | 10′ | 11′ | 11′ | 2′ WORK ZONE 2′

WORK ZONE EDGE LINE (WHITE)
WORK ZONE LANE LINE (WHITE)

SECTION O-O
STA 434+00.00 TO STA 435+27.28

℄ RAMP N-9

WORK ZONE 1′ | 11′ | 2′-6″

WORK ZONE EDGE LINE (YELLOW)
WORK ZONE EDGE LINE (WHITE)

SECTION N-9
STA 0+00.00 TO STA 1+00.00

MATCH LINE 8+00 RAMP N-10

REPEAT BEGIN PCB 19+28.19 LT

℄ RAMP N-10

ELY

53

WORK ZONE IMPACT ATTENUATOR

16:1 TAPER

0

THIS WORK COMPLETED IN 2 PARTS. SEE SHEET 39 FOR PART 2.

MATCH LINE 2+00 RAMP N-9, SHEET 53

+95.98, 3.29′ RT
END 25° CURVE
BEGIN 30° CURVE

ELW

℄ RAMP N-9

N-9

STANLEY AVENUE

EXIT 56

EXIT

W20-H9-48

25 M.P.H.

W13-1-24
+14, LT

+00.00, 5.50′ RT
BEGIN 25° CURVE

+25.00, 13.00′ LT
BEGIN EDGE LINE TAPER

+00.00, 7.79′ LT
END EDGE LINE TAPER, BEGIN PCB

00+1

ELY

N-9

PC

00+0

+04.16, 51.5′ LT
BEGIN PCB TAPER

17:1 TAPER

16:1 TAPER

CLW

MATCH LINE 434+00 IR 75

ELW

+14.16, 52.5′ LT
+14.16, 63.5′ LT
BEGIN CHANNELIZING LINE AND EDGE LINE TAPER

℄ CONSTRUCTION IR 75

435+00 | 436+00 | 437+00 | 438+00 | 439+00

MATCH LINE 439+50 IR 75

DRUMS TO BE SPACED 20′ C-C, LT & RT

LLW

DLW

+87.28, 32′ RT
BEGIN CHANNELIZING LINES

CLW

+69.55
BEGIN DRUMS

DRUMS TO BE SPACED 20′ C-C, LT & RT

ELW

+06.65, 34′ RT
END PCB

10.5:1 TAPER (IR 75)

CLW

7:1 TAPER (IR 75)

2+00

0+00

℄ RAMP N-8

1+00

PT Sta. 2+59.45

+27.28, 32′ RT
BEGIN EDGE LINE TAPER

EXIT OPEN
E5-2-48
+24′ RT

PC Sta. 0+00.00

+87.28, 56.63′ RT
BEGIN EDGE LINE TAPER

Nevada Dr

EXIT 57A

1/2 MILE

PT Sta. 1+50.76

W20-H9-48

45 M.P.H.

W13-1-24
+80, RT

EXIT

0

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B, PART 1

MOT-75-14.60

37
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:42 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_1b_4.dgn

* = VARIES, 1'-9" MIN

℄ IR 75

VARIES 14'-9" TO 11'-5" WORK ZONE

3' 1' * * 12' 12' 10' 10' 11' 11' 2' 3' WORK ZONE

WORK ZONE EDGE LINE (WHITE)

WORK ZONE EDGE LINE (WHITE)

WORK ZONE CHANNELIZING LINE (WHITE)

WORK ZONE EDGE LINE (WHITE)

WORK ZONE LANE LINE (WHITE)

WORK ZONE EDGE LINE (WHITE)

SECTION P-P
STA 439+50.00 TO STA 442+34.16

SEE SHEET 21 FOR LEGEND.

P

DRUMS TO BE SPACED 20' C-C, LT & RT

17:1 TAPER

ELW

16:1 TAPER

+39.94, 35' & 41' LT
END PCB TAPER

TS Sta. 440+44.02

WORK ZONE IMPACT ATTENUATOR

℄ CONSTRUCTION IR 75

CLW

+34.16, 34' LT
END CHANNELIZING LINE TAPER

DLW

SC Sta. 443+94.02

MATCH LINE 439+50 IR 75

440+00 441+00 442+00 443+00 444+00

MATCH LINE 445+00 IR 75

+47.36, 32' RT
END CHANNELIZING LINE
BEGIN EDGE LINE

LLW

ELW

CLW

2+00 3+00 4+00 5+00 6+00 7+00

7:1 TAPER (IR 75)

+47.36, 69.22' RT, IR 75
END CHANNELIZING LINE TAPER

PC Sta. 4+68.29

℄ RAMP N-8

PT Sta. 6+83.17

DENSE VEGETATION

DENSE VEGETATION

+82.28' RT

G20-2a-48 END ROAD WORK

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EAK

CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B, PART 1

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:43 AM
Filename: G:\C004\0066\Road\Sheets\23828gj0L_lb_5.dgn

℄ RAMP N-10

5+00

4+00

PT Sta. 4+18.25

+18.25, 3.75' RT
+18.25, 14.25' LT
END EDGE LINES

3+00

℄ RAMP N-9

18'

2'

WORK ZONE

2'

WORK ZONE EDGE LINE (YELLOW)

WORK ZONE EDGE LINE (WHITE)

PAVEMENT FOR MAINTAINING TRAFFIC CONSTRUCTED IN PHASE IB PART I

SECTION N-9-2

STA 1+18.00 TO STA 4+18.25

N-9-2

2+00

N-9-2

ELW

℄ RAMP N-9

1+00

+93.73, 12.66' LT
BEGIN PCB

EXIT

W20-H9-48

25 M.P.H.

W13-1-24
+65, LT

ELY

CLW

PC

00+0

+06.80, 34.0' LT
END CHANNELIZING LINE

+06.80, 34.0' LT
BEGIN CHANNELIZING LINE

+53.12, 44' LT
BEGIN 31° CURVE
BEGIN EDGE LINE TAPER

437+00

438+00

439+00

440+00

441+00

℄ CONSTRUCTION IR 75

MATCH LINE 439+50 IR 75

16:1 TAPER

10:1 TAPER
+04.16, 44' LT
BEGIN EDGE LINE TAPER
+04.16, 45' LT
BEGIN PCB TAPER

443+00

+04.16, 34' LT
END EDGE LINE TAPER

ELW

SC Sta. 443+94.02

444+00

445+00

+96.16, 57' LT
END PCB TAPER

TAPERED END SECTION

SEE SHEET 21 FOR LEGEND.

NORTHBOUND TRAFFIC DOES NOT CHANGE BETWEEN PHASE IB PART I AND PART 2. FROM STA 437+06.80 BACK AND STA 445+54.16 AHEAD, PHASE IB PART I AND PART 2 ARE THE SAME.

THIS WORK COMPLETED IN 2 PARTS. SEE SHEET 37 FOR PART I.

EXIT OPEN

E5-2-48
+88, LT

DRUMS TO BE SPACED 20' C-C, LT

DLW

ELW

TS Sta. 440+44.02

MATCH LINE 439+50 IR 75

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B, PART 2

MOT-75-14.60

39
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:44:44 AM
Filename: G:\C004\0066\Road\Sheets\23828g101_lb_4a.dgn

SEE SHEETS 47 - 52 FOR STANLEY AVENUE MOT DURING PHASE IB.

SEE SHEET 21 FOR LEGEND.

IR 75 - DRUMS TO BE SPACED 40' C-C
STA 445+00 TO STA 450+50.00, RT
DRUMS TO BE SPACED 20' C-C
STA 446+00 TO STA 450+50, LT

MATCH LINE 446+50 RAMP N-6A

STANLEY AVENUE

EXIT OPEN
E5-2-48
+54, LT

℄ CONSTRUCTION IR 75

MATCH LINE 445+00 IR 75

DLW

+54.16, 34' LT
END EDGE
LINE TAPER

ELW

LLW

446+00

447+00

448+00

449+00

450+00

+46.71, 10' RT
BEGIN EDGE
LINE TAPER

+34.25, 34' LT
BEGIN EDGE LINE TAPER

+44.25, 10' LT
BEGIN EDGE LINE TAPER

55:1
TAPER

60:1
TAPER

16:1 TAPER

+21.98, 30' RT
END PCB TAPER

+56.71, 6.5' & 28.5' RT
END EDGE LINE TAPER

MATCH LINE 450+50 IR 75

W4-1R-48

PT Sta. 448+12.70

℄ RAMP N-6A

Q

+49.98, 47' RT
BEGIN PCB TAPER

WITH OVERLAY AS SHOWN
PERMANENT OVERLAY
E7
STA 447+16

5' x 5' Corner Ford Rd/I-94
58 Meeamore Rd
2

SC Sta. 4+82.45

POT Sta. 445+42.43

POT Sta. 8+75.63

℄ RAMP N-8

℄ RAMP N-7

8+00

5+00

4+00

446+44.72
POT Sta.

BARRICADE,
TYPE III

PT Sta. 449+48.50

℄ IR 75

WORK ZONE | 3' | 2' | 12' | 12' | 10' | 10' | 11' | 11' | 2' | 3' | WORK ZONE

WORK ZONE EDGE LINE (WHITE)

WORK ZONE LANE LINE (WHITE)

WORK ZONE EDGE LINE (WHITE)

* - RAMP N-6A CLOSED DURING PHASE IB
RAMP N-7 CLOSED DURING PHASE IB

SECTION Q-Q
STA 445+54.16 TO STA 447+46.71

N

0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:45 AM
Filename: G:\C004\0066\Road\Sheets\23828g10l_lb_6.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:46 AM
Filename: G:\C004\0066\Road\Sheets\23828g101_lb_7.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:47 AM
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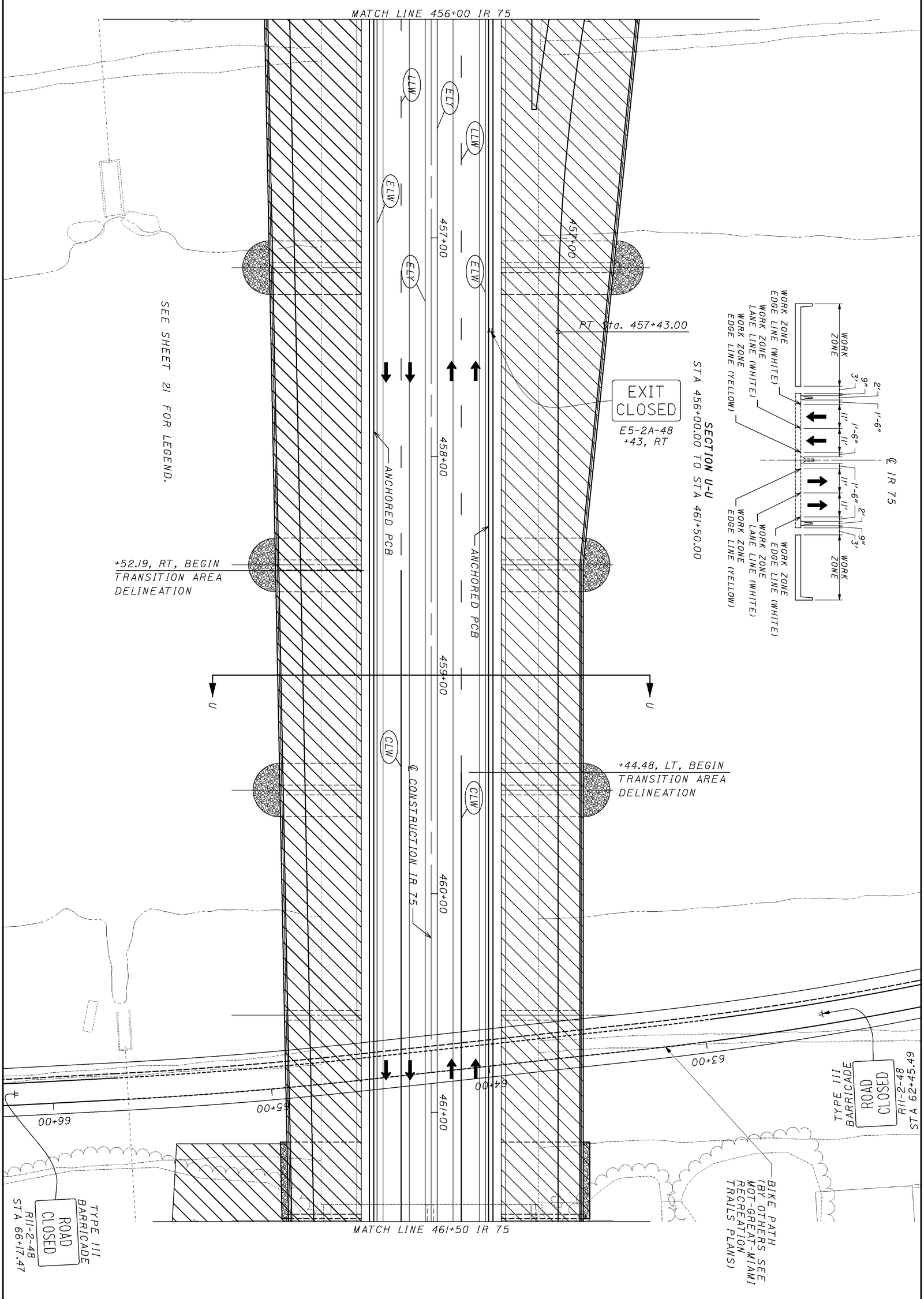
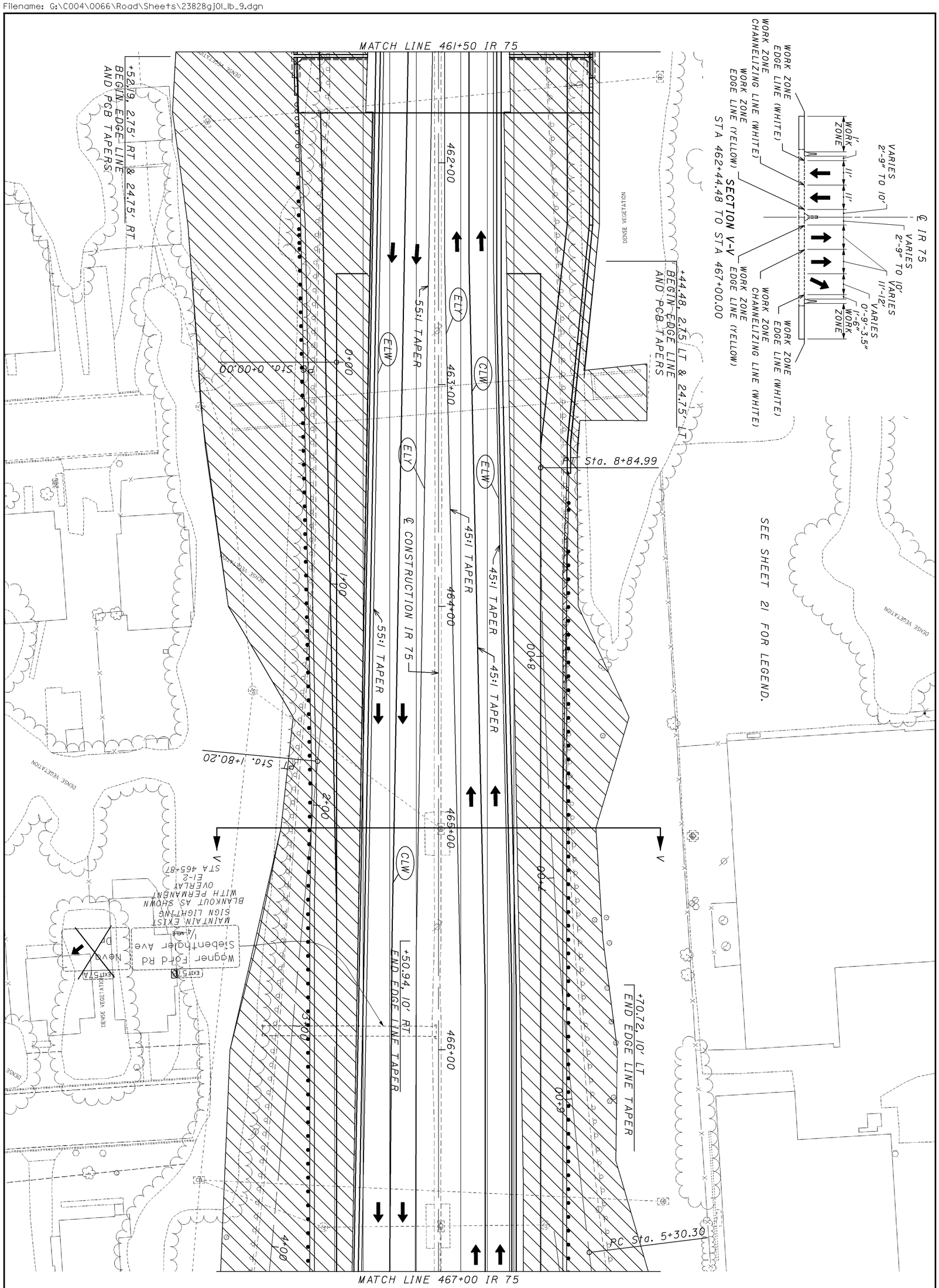


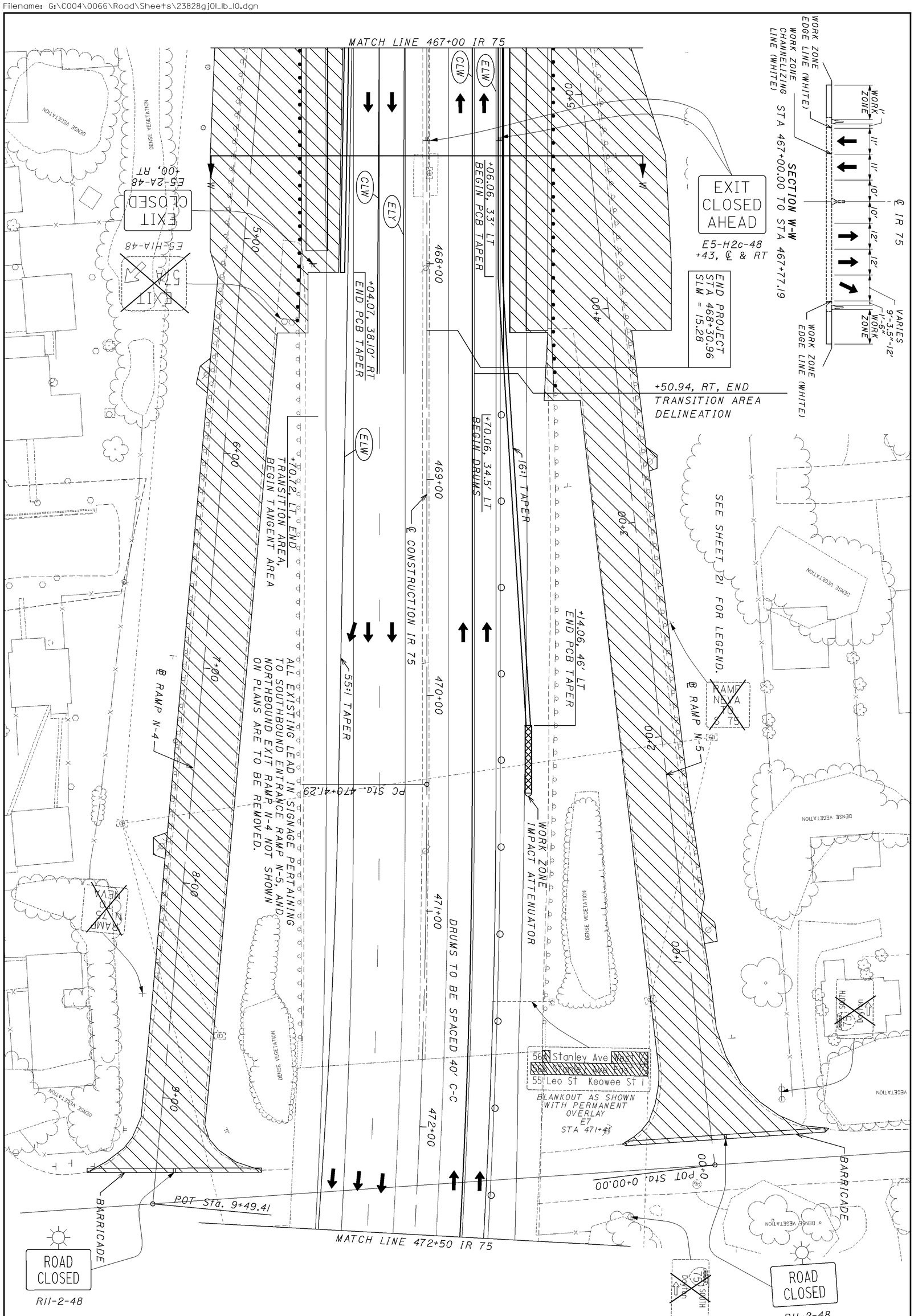
42 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:48 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_9.dgn



43 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET	N

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:50 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_10.dgn



44 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 10 40 HORIZONTAL SCALE IN FEET

SEE SHEET 21 FOR LEGEND.
DRUMS TO BE SPACED 40' C-C
DRUMS TO BE SPACED 20' C-C, RAMP N-3

END WORK
STA 472+68.08

PT Sta. 14+27.3
+49.06, 32' LT (IR 75)
+03.41, 14.71' LT (N-3)
BEGIN EDGE
LINE TAPER

MATCH LINE 472+50 IR 75

14+00 13+00 12+00 11+00 10+00

ELW
CLW
DLW

46:1 TAPER
(RAMP N-3)

473+00 474+00 475+00 476+00 477+00

+20.94, 46' RT
END EDGE
LINE TAPER

℄ CONSTRUCTION IR 75

MATCH LINE 478+00 IR 75

MAINLINE GUIDE SIGN CHANGES SHALL BE PERFORMED PRIOR TO PHASE IB.

+26, LT, END
TANGENT AREA DELINEATION,
BEGIN TRANSITION AREA
DELINEATION

PC Sta. 7+16.76

(IMAGINARY LINE)

23:1 TAPER

+00, 14' LT
END CHANNELIZING
LINE TAPER

9+00 8+00 7+00 6+00 5+00 4+00

46:1 TAPER
(RAMP N-3)

+32.94, 0.21' LT
END EDGE LINE TAPER
BEGIN DRUM TAPER

+09.45, 10' RT
END DRUM TAPER

17.5:1 TAPER

MATCH LINE 478+00 IR 75

+26, 32' LT
BEGIN CHANELLIZING
LINE TAPER

+26, 32' LT
BEGIN EDGE LINE TAPER

150:1 TAPER

479+00 480+00 481+00 482+00 483+00

MATCH LINE 483+50 IR 75

+26, LT, END
G20-2-48
END
ROAD WORK

Wagner Ford Rd
Siebelthaler Ave

BLANKOUT AS SHOWN
WITH PERMANENT
OVERLAY
STA 481+50±, RT

BLANKOUT AS SHOWN
WITH PERMANENT
OVERLAY
STA 483+50±, RT

EXIT
57

MAINTENANCE OF TRAFFIC - PHASE 1B

CALCULATED E.AK
CHECKED AM

HORIZONTAL SCALE IN FEET
0 10 20 40

MOT-75-14.60

45
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:50 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_ll.dgn

(IMAGINARY LINE)
37.5: TAPER
+75, 6' RT
END DRUM TAPER
PT
3+12.99
3+00
2+00
1+00
PC
ROAD WORK AHEAD
W20-1-48
+14, RT
+26, LT, END
TRANSITION AREA
DELINEATION
MATCH LINE 483+50 IR 75
+26, 34' LT
END EDGE LINE TAPER
55:1 TAPER
484+00
485+00
486+00
+56, 34' LT
BEGIN EDGE LINE TAPER
487+00
488+00
MAINLINE GUIDE SIGN CHANGES SHALL BE PERFORMED PRIOR TO PHASE IB.
DRUMS TO BE SPACED 40' C-C.
W1-6L-48
+16, 46' LT
END EDGE LINE TAPER
BEGIN DRUM TAPER
(IMAGINARY LINE)
22:1 TAPER
55:1 TAPER
+36, 56' LT
END DRUM TAPER
495+00
496+00
506+00
522+00
548+00
W4-2L-48
+36, ℄ & RT
LEFT LANE CLOSED AHEAD
W20-5L-48
+36, ℄ & RT
ROAD WORK AHEAD
W20-1-48
+36, ℄ & RT
1000'
1600'
2600'
EXIT 57
Neff Rd
Wagner Ford Rd
Siebenthaler Ave
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±
EXIT 56
Stanley Ave
1 MILE
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±

N

HORIZONTAL SCALE IN FEET
0 10 20 40

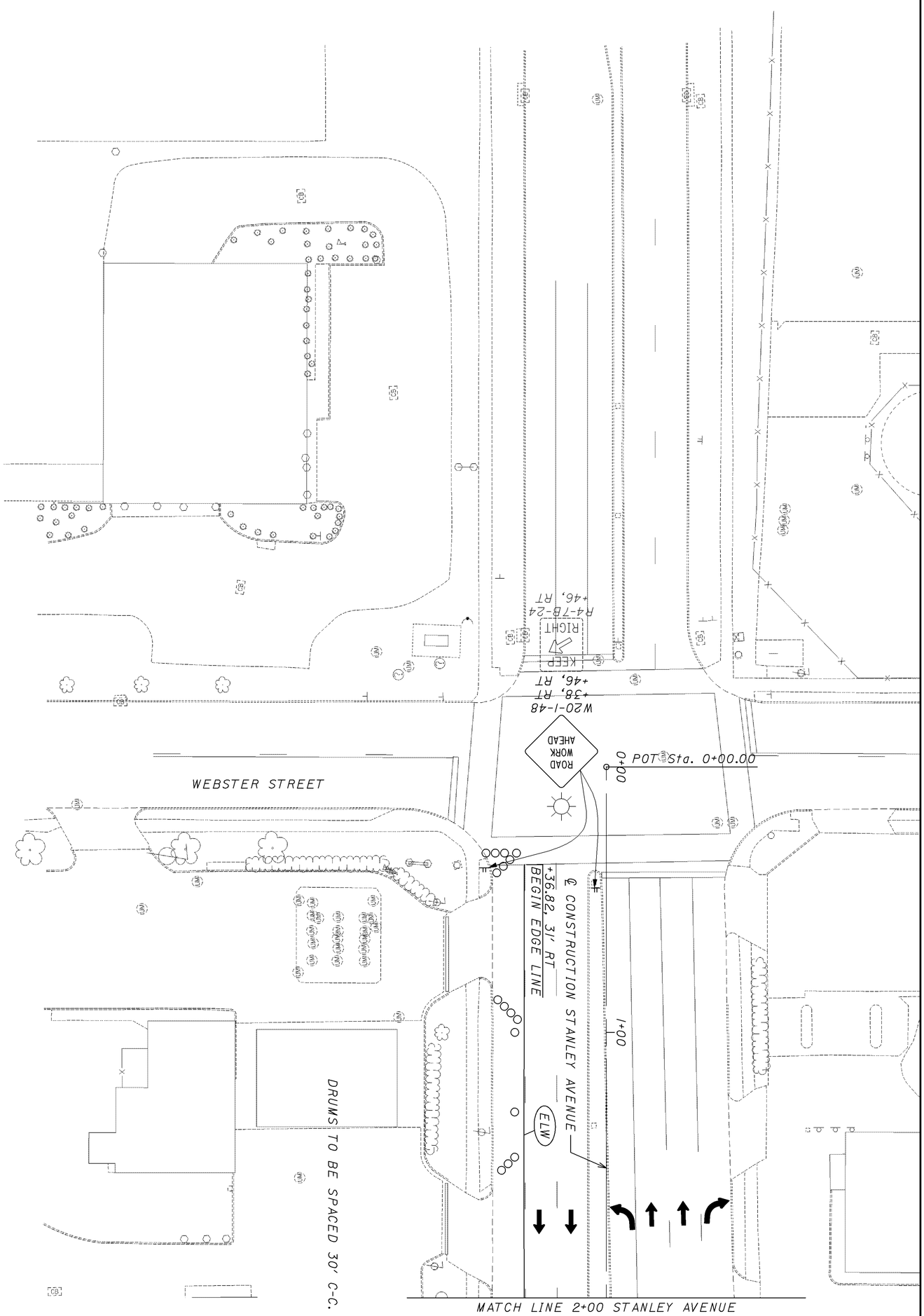
CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:51 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_1b_11a.dgn

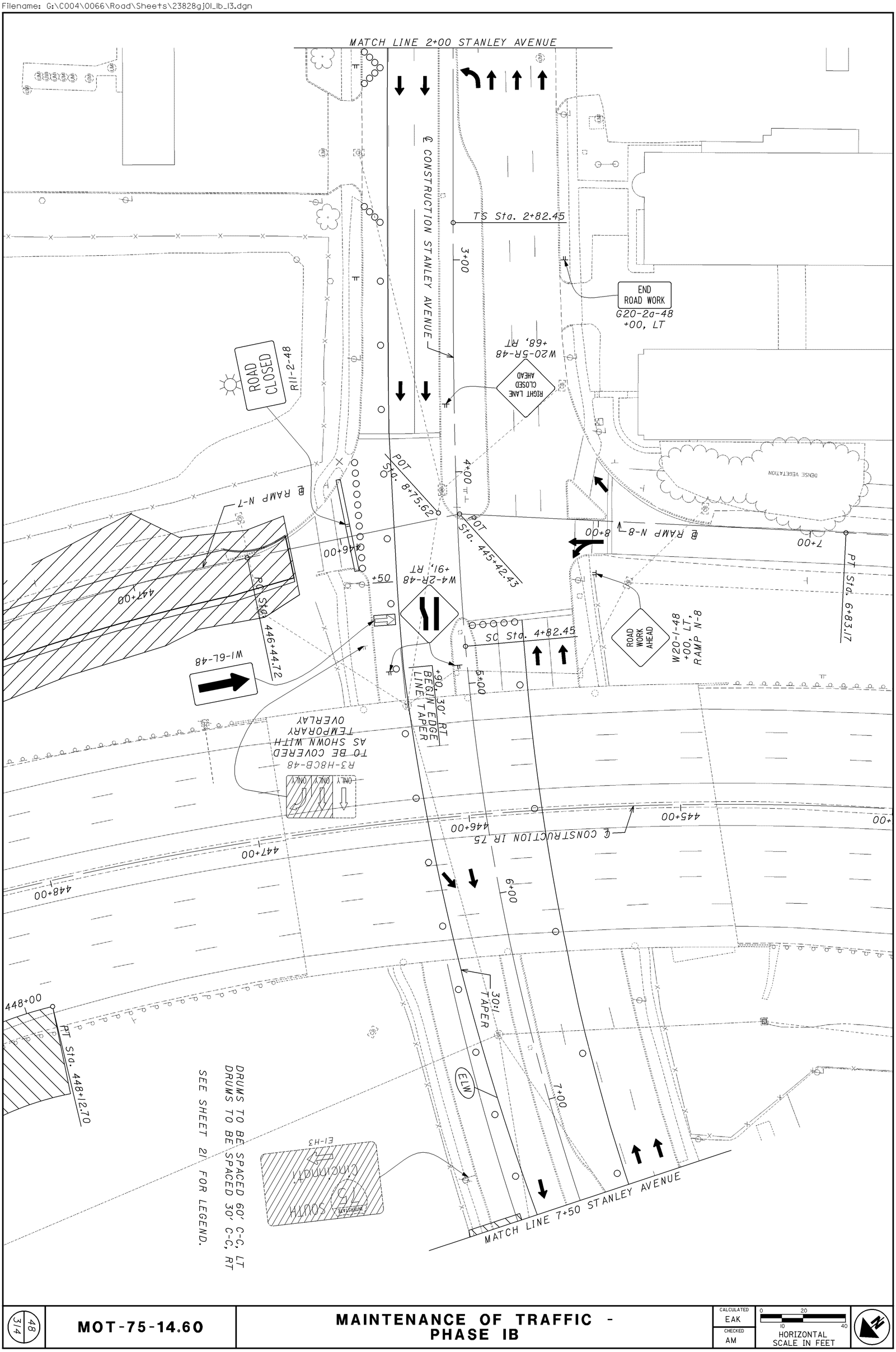
Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:51 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_12.dgn



SEE SHEET 21 FOR LEGEND.

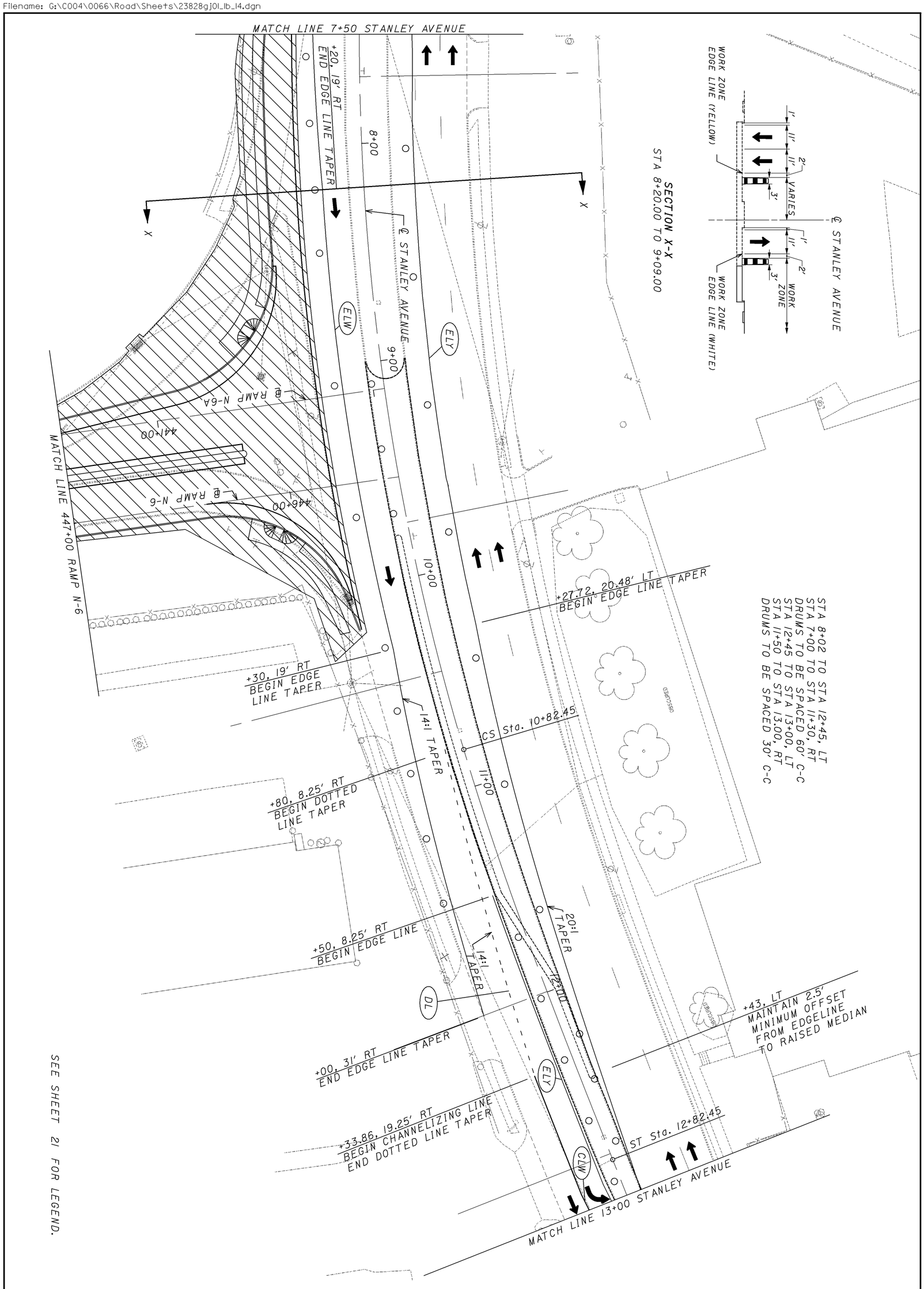
47 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE IB	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:52 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_13.dgn



314 / 48	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE IB	CALCULATED EAK / CHECKED AM	0 10 20 40 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:53 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_14.dgn



49 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

MATCH LINE 7+50 RAMP N-9

R4-7-48
+47, LT,
RAMP N-9

+49,
BEGIN CENTER LINE

℄ RAMP N-9

℄ RAMP N-10

7+00

2+00

1+00

8+00

Z

Z

+05,
STOP BAR
END CENTER LINE

DY

PAVT FOR
MAINTAING TRAFFIC
PLACED IN PHASE IA

+22,
STOP BAR
BEGIN CENTER LINE
BEGIN CHANNELIZING LINE

RIGHT LANE
MUST
TURN RIGHT

R3-7R-30
+22, LT

Y

SL

CLW

TLW

CLW

ELY

+88.11, 2.42' LT
END EDGE
LINE TAPER

20:1
TAPER

14+00

15+00

16+00

17+00

18+00

SL

DY

ELY

SL

℄ STANLEY AVENUE

CLW

PC Sta. 15+25.07

PCC Sta. 16+68.96

PT Sta. 17+59.58

+72, 10' LT
END CENTER LINE
END CHANNELIZING LINE

RIGHT LANE
MUST
TURN RIGHT

R3-7R-30
+85, LT

MATCH LINE 13+00 STANLEY AVENUE

Y

+90, RT
STOP BAR

43' RT
STOP BAR

SL

DRUMS TO BE SPACED 30' C-C

SEE SHEET 51 FOR
TEMPORARY SIGNAL PLAN DETAILS

MATCH LINE 18+50 STANLEY AVENUE

VARIES
2' TO 1'

VARIES
11' MIN

℄ STANLEY AVENUE

VARIES
2' TO 1'

1'

11'

VARIES
19'-6" TO 0'

3'

3'

11'

11'

1'

WORK ZONE
EDGE LINE (YELLOW)

WORK ZONE
CHANNELIZING LINE (WHITE)

WORK ZONE
EDGE LINE (YELLOW)

SECTION Y-Y
STA 13+00.00 TO 13+90.00

℄ RAMP N-9 ℄ RAMP N-10

VARIES
2'-6" TO 16'-6"

16'

16'

VARIES
13' TO 2'-6"

WORK ZONE
CENTER LINE
DOUBLE SOLID (YELLOW)

SECTION Z-Z
STA 7+49.00 TO 8+15.00, RAMP N-9
STA 0+68.00 TO 1+35.00, RAMP N-10

SEE SHEET 21 FOR LEGEND.

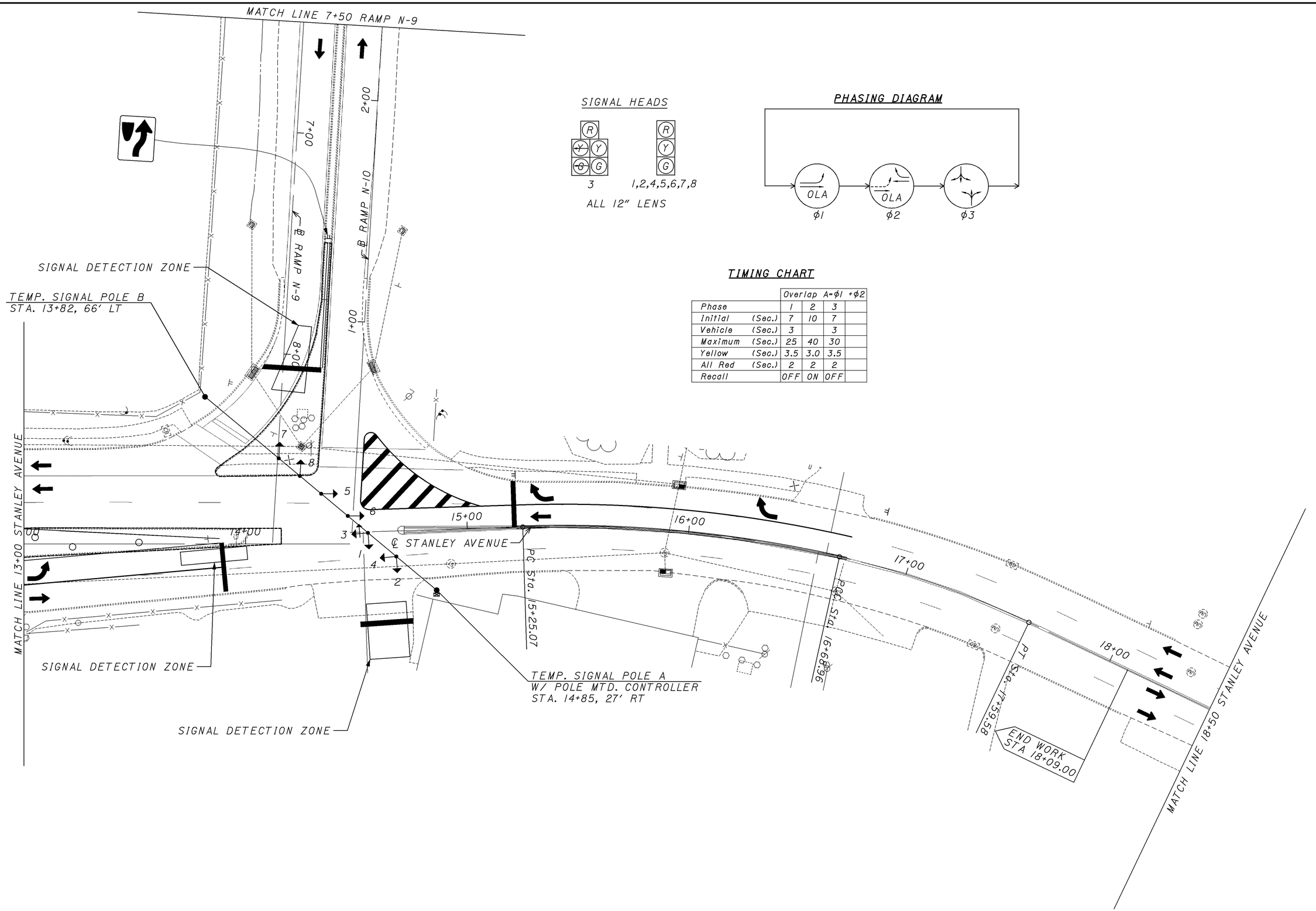
HORIZONTAL
SCALE IN FEET
0 10 20 40

CALCULATED SSS
CHECKED HJF

MAINTENANCE OF TRAFFIC - PHASE IB

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:53 AM
Filename: G:\C004\0066\Road\Sheets\23828g10I_Ib_I5.dgn



TIMING CHART

		Overlap A=ϕ1 +ϕ2			
Phase		1	2	3	
Initial	(Sec.)	7	10	7	
Vehicle	(Sec.)	3		3	
Maximum	(Sec.)	25	40	30	
Yellow	(Sec.)	3.5	3.0	3.5	
All Red	(Sec.)	2	2	2	
Recall		OFF	ON	OFF	

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SSS
CHECKED HJF

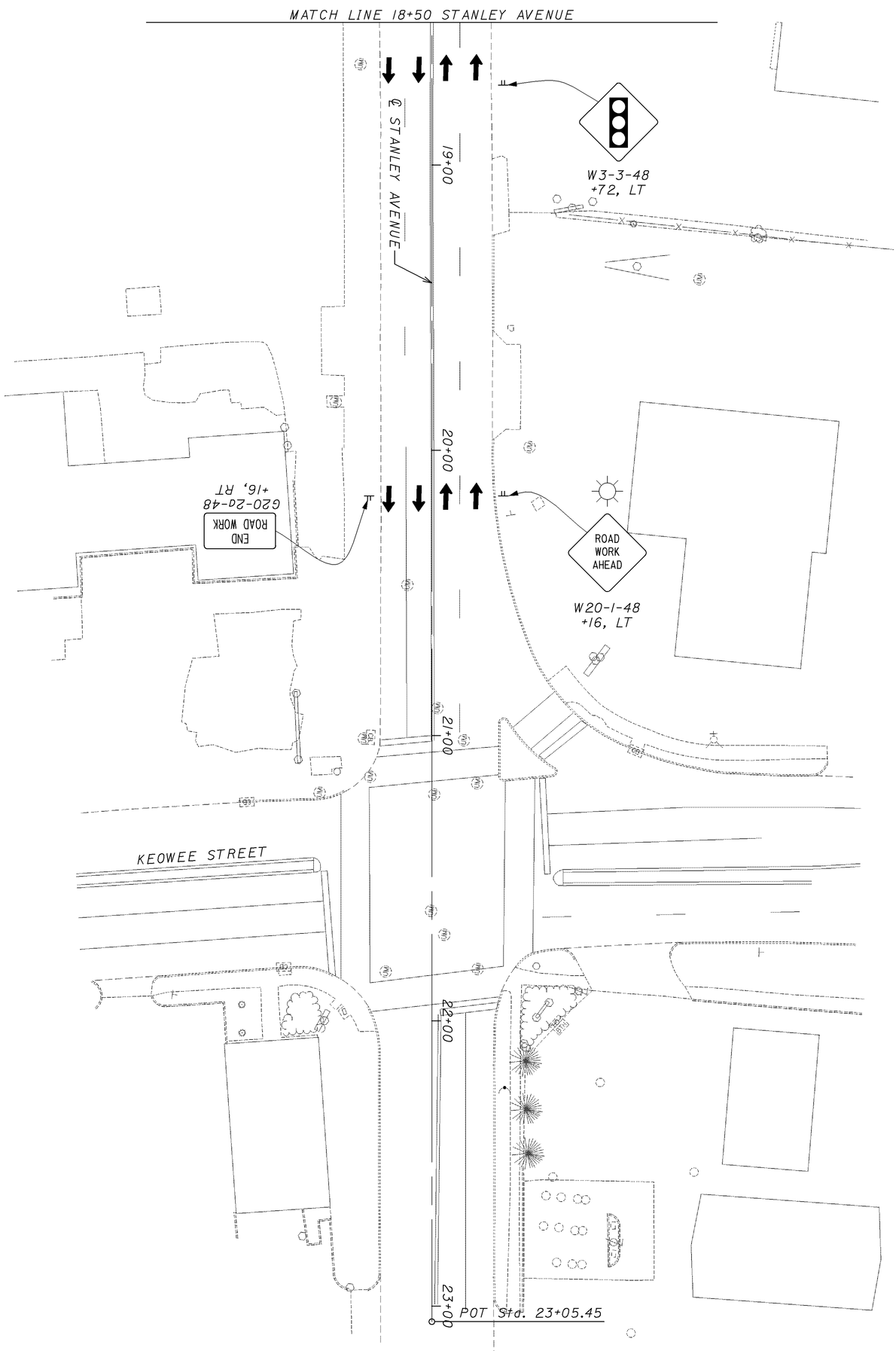
MAINTENANCE OF TRAFFIC - PHASE IB - TEMPORARY SIGNAL PLAN

MOT-75-14.60

51
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:54 AM
Filename: G:\C004\0066\Road\Sheets\23828g101_IB_I15_tempsig.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:55 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_16.dgn



SEE SHEET 21 FOR LEGEND.

SEE SHEET 21 FOR LEGEND.

N-10

MATCH LINE 8+00 RAMP N-10

WORK ZONE IMPACT ATTENUATOR

N-10

PC Sta. 6+95.17

+99.19, 12' LT END EDGE LINE TAPER

DRUMS TO BE SPACED 40' C-C.

+18.25, 11' LT END EDGE LINE

+19.19, 16' LT BEGIN EDGE LINE TAPER

ROAD WORK AHEAD

W20-1-48 +00, LT & RT RAMP N-10

7+00 ELY 6+00 45:1 TAPER 5+00 4+00 3+00

4+00 5+00 6+00

MATCH LINE 7+50 RAMP N-9, SEE SHEET 53

PT Sta. 4+18.25

3+00

W3-3-48 +65, RT

W3-1-24

W1-1R-36

MATCH LINE 2+00 RAMP N-9 31

℄ RAMP N-10

VARIES 16'-0" TO 12'-0"

WORK ZONE

3'

WORK ZONE EDGE LINE (YELLOW)

EXISTING EDGE LINE (WHITE)

SECTION N-10

STA 4+19.19 TO STA 8+00.00

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EAK CHECKED AM

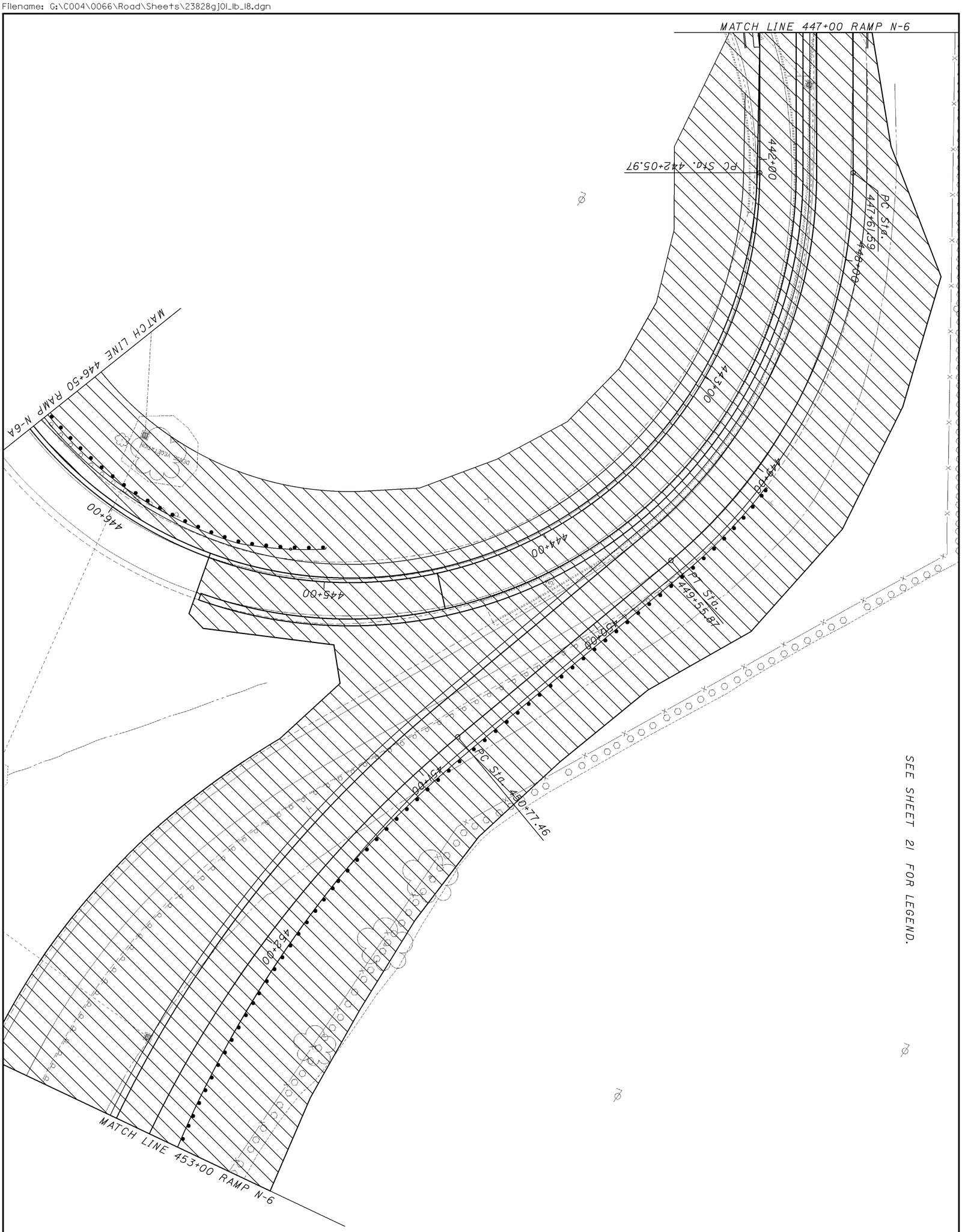
MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

53 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:55 AM
Filename: G:\C004\0066\Road\Sheets\23828g101_1b_17.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:56 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_lb_18.dgn



54 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

ADVANCE SIGNING TO BE PROVIDED BY OTHERS (SEE SHEETS 115 AND 125 OF PROJECT MOT-75-13.11). VERIFY INSTALLATION AND INSTALL IF NECESSARY AT THE LOCATION INDICATED.

SEE SHEET 21 FOR LEGEND.

N

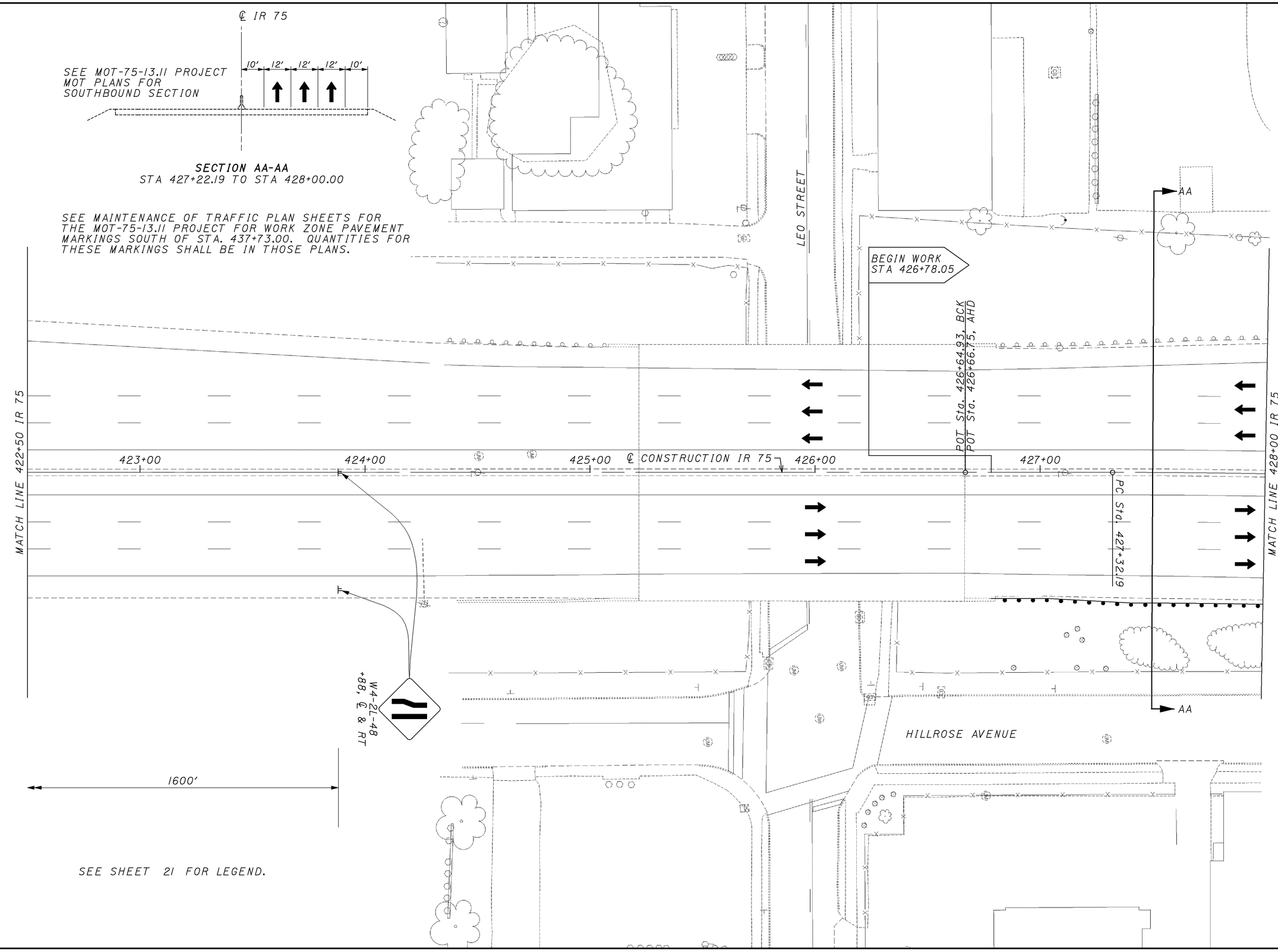
0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EAK CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: mpdonnelly Date: 7/31/2007 Time: 3:06:35 PM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_0.dgn



Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:57 AM
Filename: G:\C004\0066\Road\Sheets\23828g101_2.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

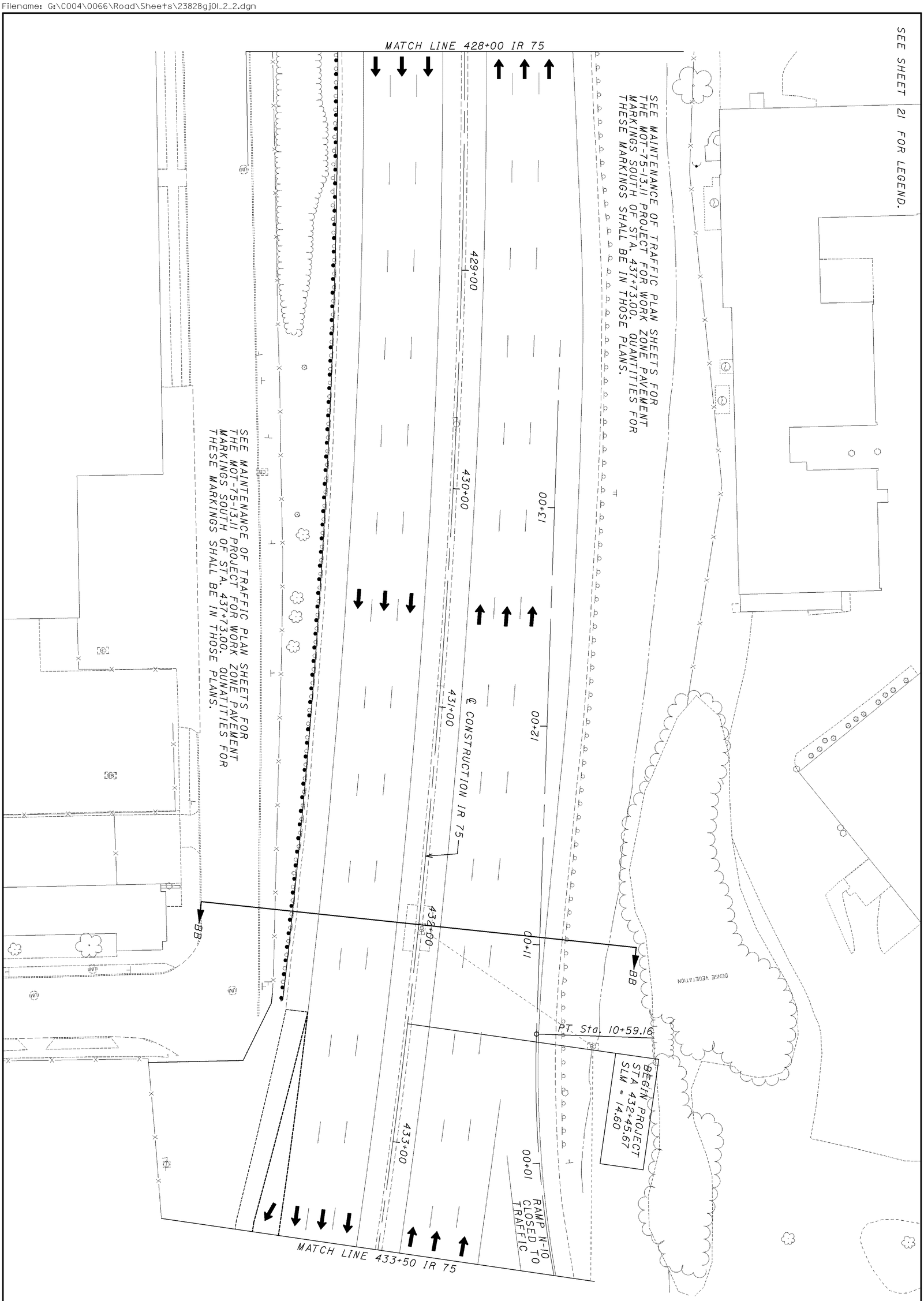
CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

56
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:58 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_2.dgn



57 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET	N

SEE SHEET 21 FOR LEGEND.

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

MATCH LINE 7+00 RAMP N-10

MATCH LINE 2+50 RAMP N-9

℄ IR 75 VARIES 12′ TO 6′-8″

WORK ZONE 1.5′ 12′ 12′ 12′ VAR. 10′ 12′ 12′ 12′ 10′ 2′ 2′ 3′

WORK ZONE EDGE LINE (WHITE)

WORK ZONE CHANNELIZING LINE (WHITE)

WORK ZONE EDGE LINE (YELLOW)

SECTION CC-CC

STA 433+88.15 TO STA 439+00.00

EXIT CLOSED E5-2A-48 +25, LT

W1-6R-48

℄ RAMP N-10

℄ RAMP N-9

℄ RAMP N-8

00+6

00+8

00+0

00+1

CC

STANLEY AVENUE (EXIT 56A) EAST

KEOWEE ST LEO ST 1/4 MILE (EXIT 55) E1-H1

WEBSTER ST (EXIT 54C) 4

EXIT ONLY E1-2

CHILDREN'S MEDICAL CENTER NEXT LEFT

ELW

CLW

ELY

MATCH LINE 433+50 IR 75

MATCH LINE 439+00 IR 75

433+88.15 LT

+67.00, 48.6′ LT, BEGIN PCB

+73, 10′, 22′, 34′ & 46′ LT BEGIN WORK ZONE PAVT MARKING TAPERS

℄ CONSTRUCTION IR 75

434+00

435+00

436+00

437+00

438+00

+88.31, ℄ BEGIN DRUM TAPER

IMAGINARY LINE

22:1 TAPER

+08.31, 10′ RT END DRUM TAPER BEGIN EDGE LINE & DRUM TAPER

55:1 TAPER

0+00

1+00

PC Sta. 0+00.00

DRUMS TO BE PLACED 40′ C-C, RT

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

N

0 10 20 40 HORIZONTAL SCALE IN FEET

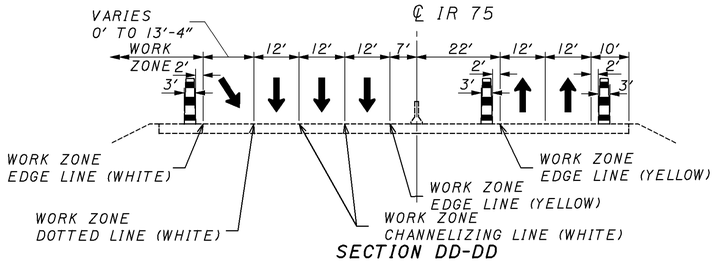
CALCULATED EAK CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

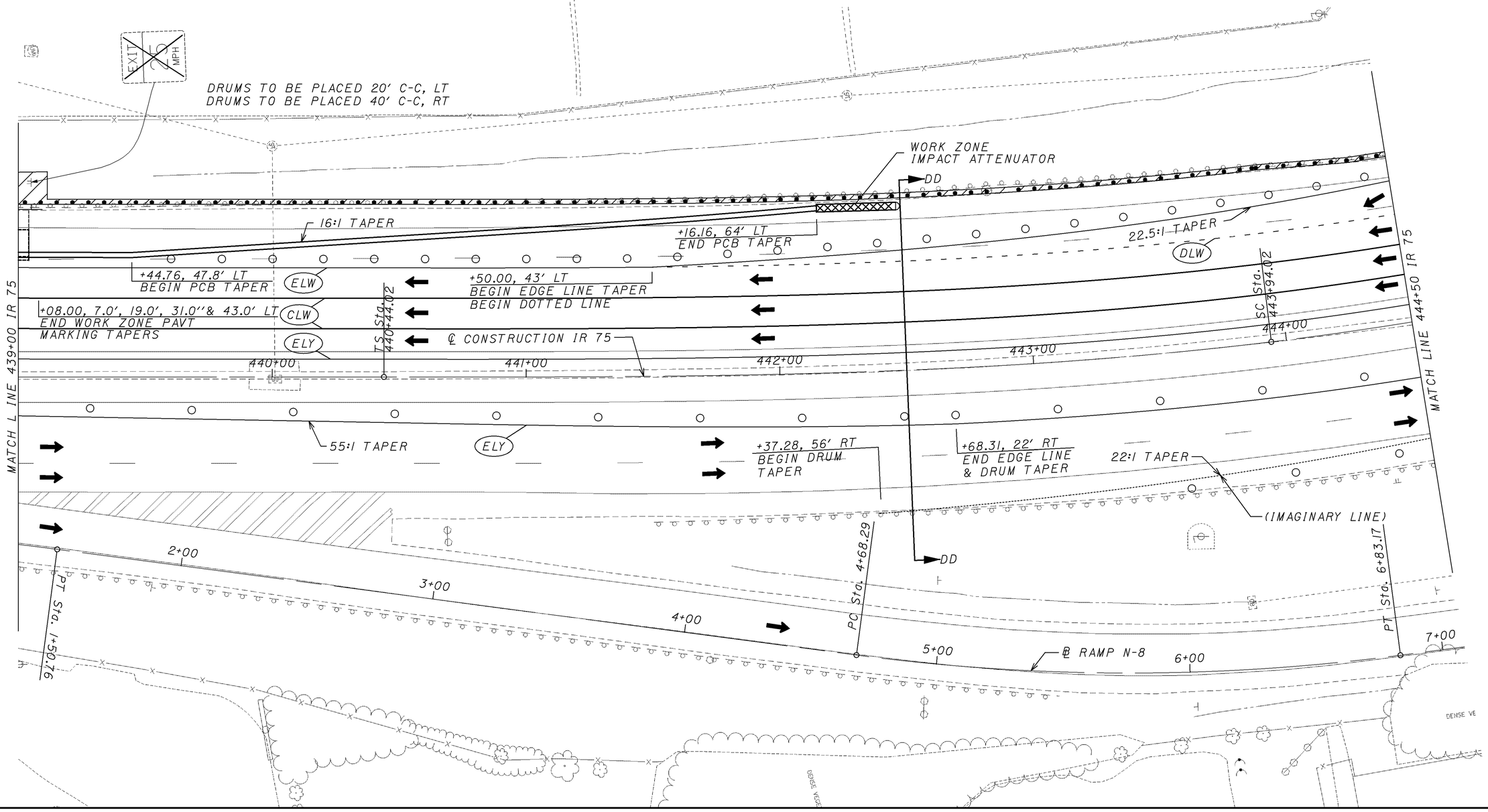
MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:58 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_3.dgn

SEE SHEET 21 FOR LEGEND.



SECTION DD-DD
STA 441+50.00 TO STA 444+50.00



Plotted By: jfanthony Date: 7/31/2007 Time: 12:14:59 AM
Filename: G:\C004\0066\Road\Sheets\23828g10L2_4.dgn

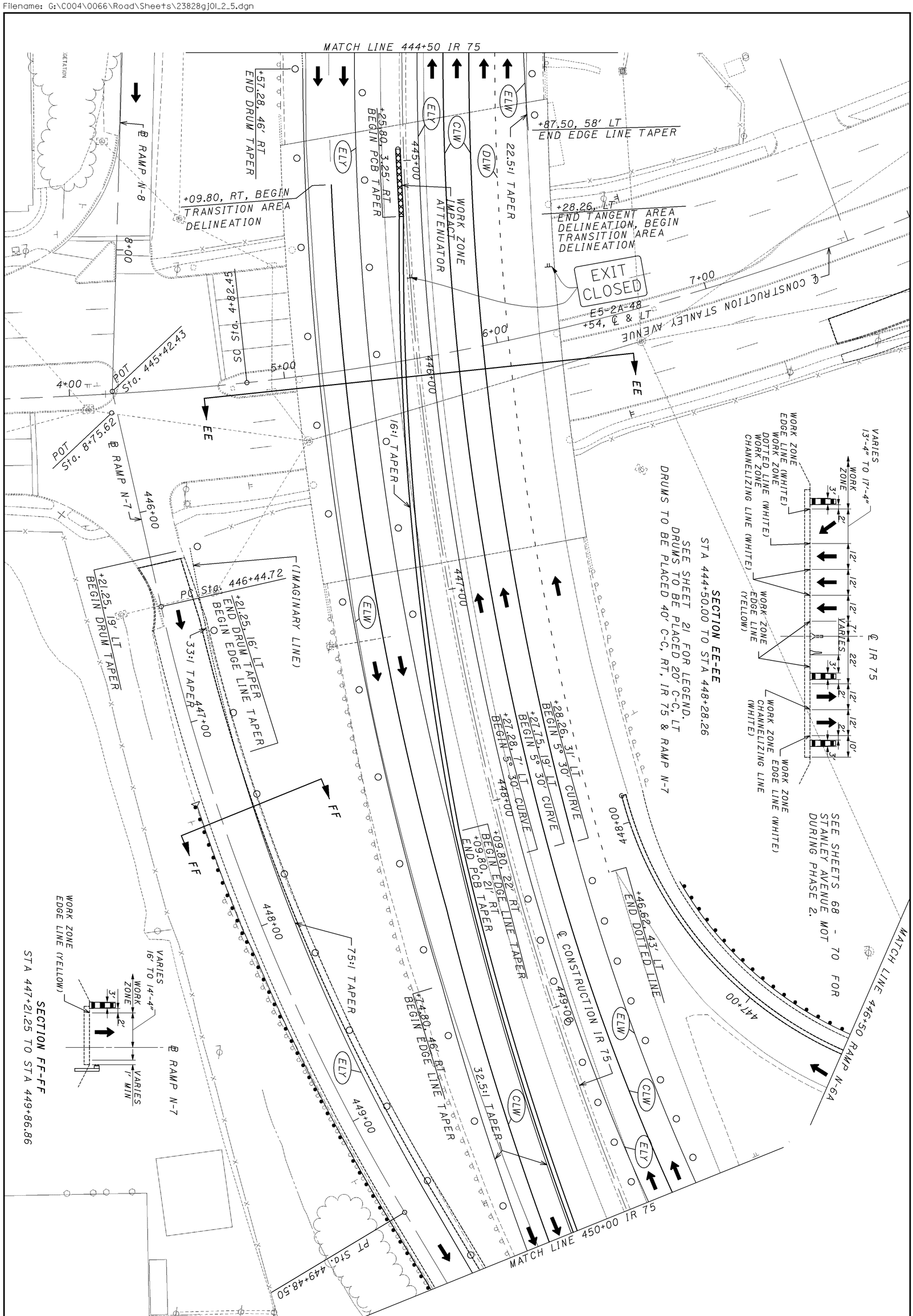
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

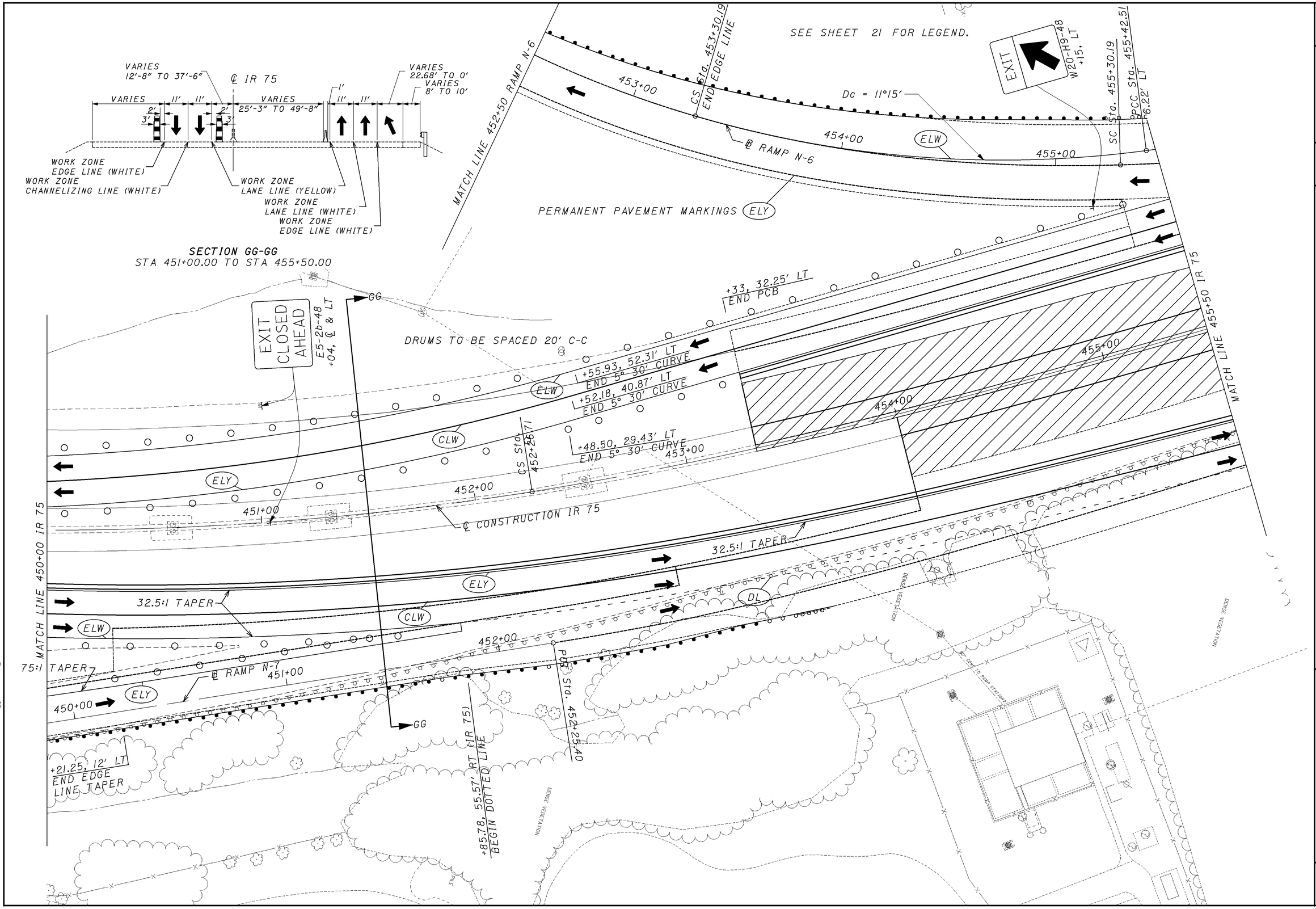
MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:00 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_5.dgn



60 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED EAK / CHECKED AM	HORIZONTAL SCALE IN FEET (0, 20, 10, 40)

SECTION GG-GG
STA 451+00.00 TO STA 455+50.00



N

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

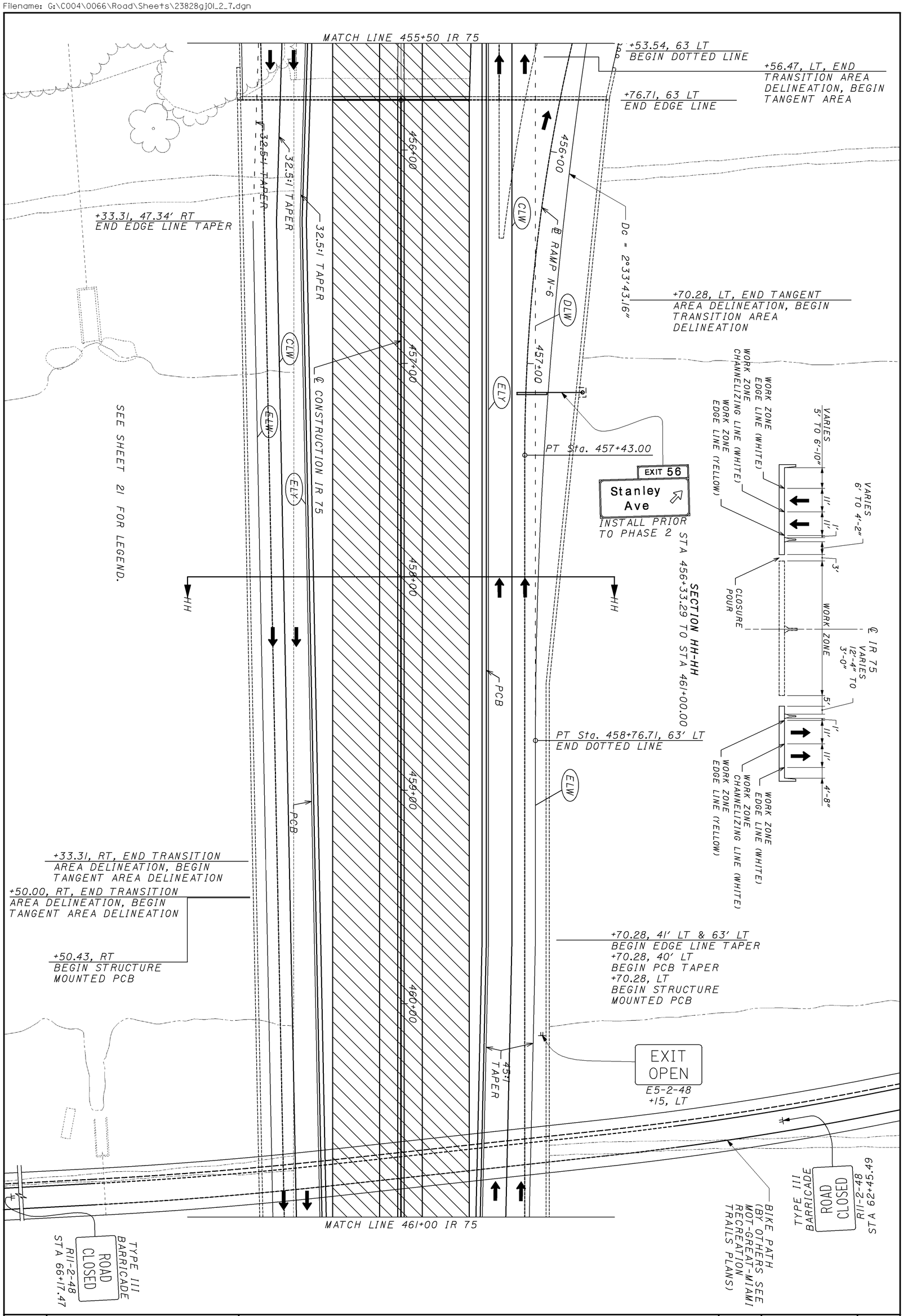
MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

61
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:00 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_6.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:01 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_7.dgn



MOT-75-14.60

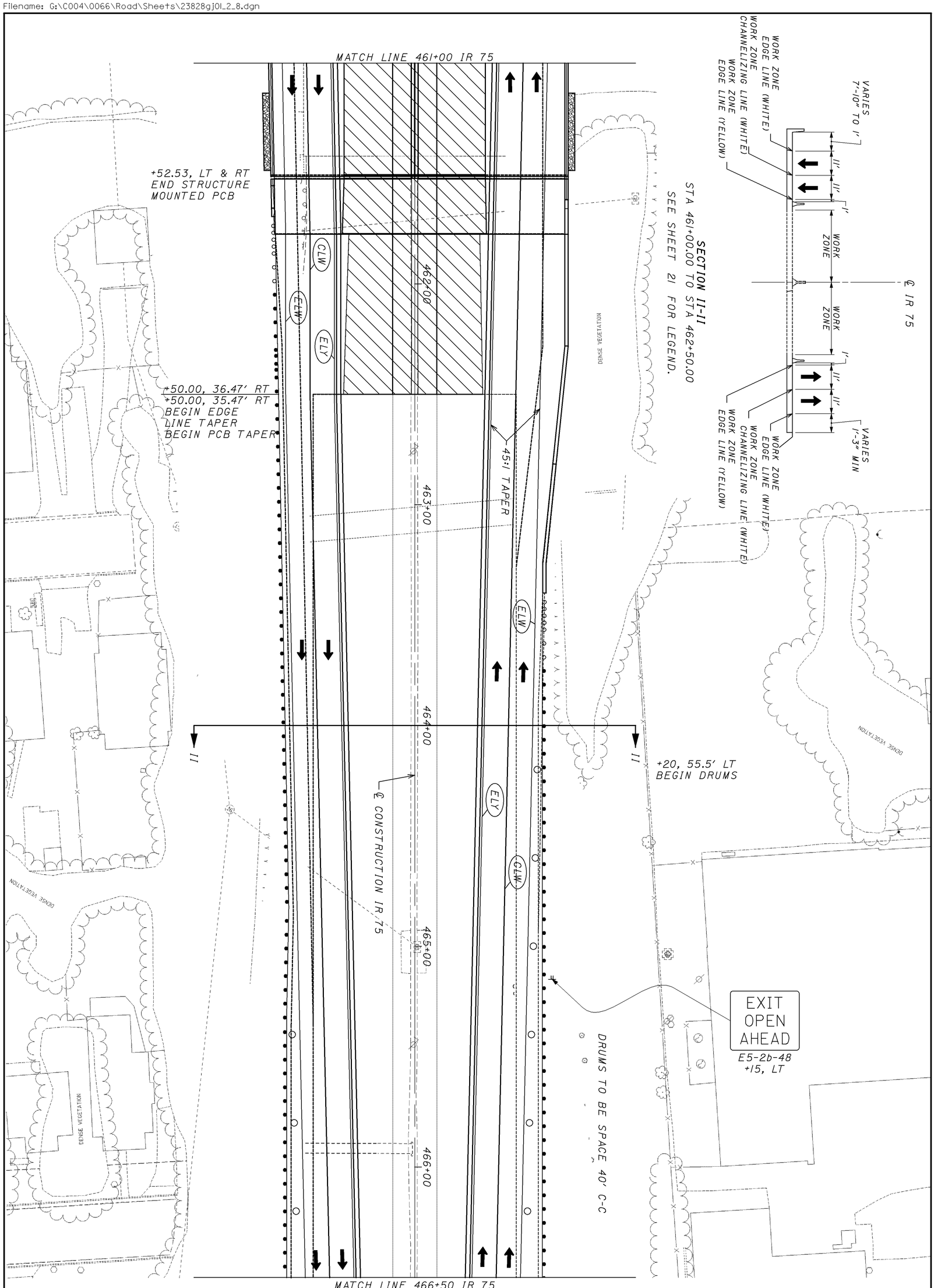
MAINTENANCE OF TRAFFIC - PHASE 2

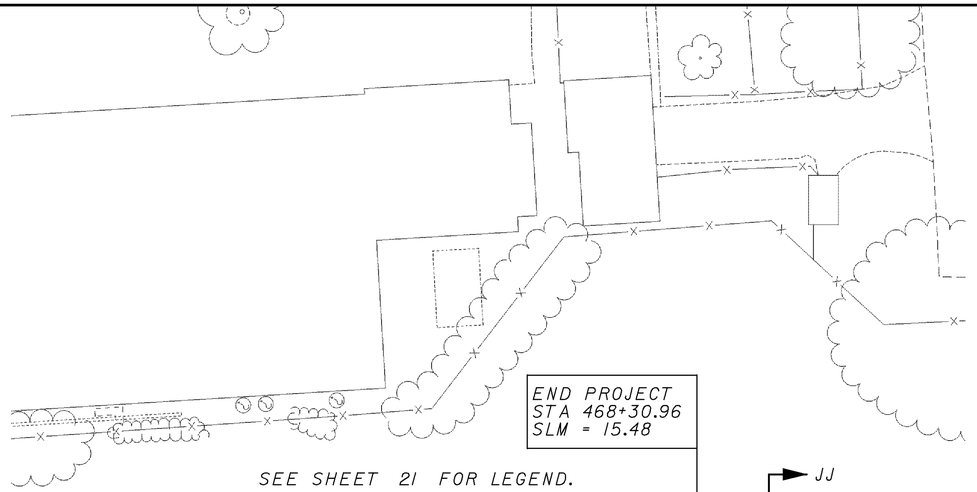
CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET

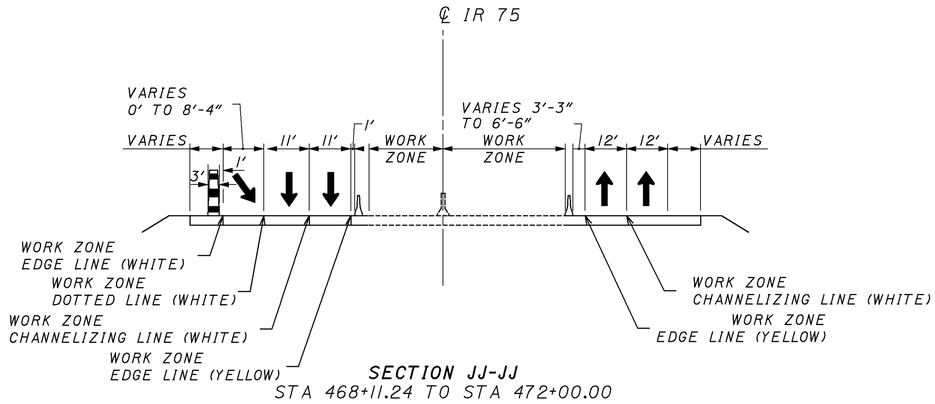
N

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:02 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_8.dgn

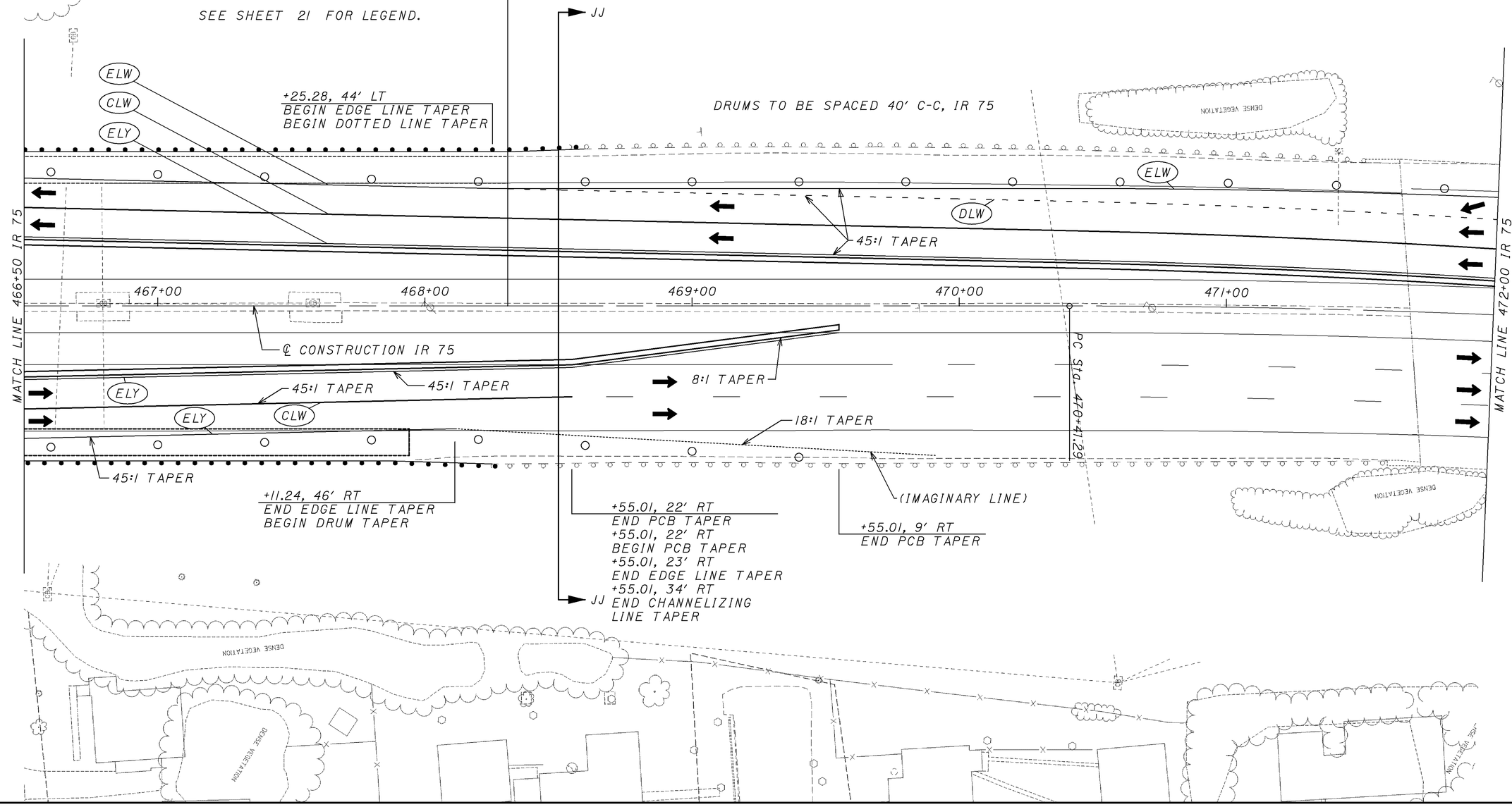




SEE SHEET 21 FOR LEGEND.



SECTION JJ-JJ
STA 468+11.24 TO STA 472+00.00



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:03 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_9.dgn

SECTION KK-KK
STA 472+00.00 TO STA 473+65.28

SEE SHEET 21 FOR LEGEND.

DRUMS TO BE SPACED 40' C-C, IR 75

NEVA DRIVE
DENSE VEGETATION
00+0
POT Sta. 0+00.00
END WORK
STA 472+68.08
ELW
DLW
CLW
ELY
CLW
PT Sta. 14+27.34
KK
+65.28, 9' LT
BEGIN PCB TAPER
+65.28, 10' LT & 44' LT
END EDGE LINE TAPERS
+65.28, 32' LT
END DOTTED LINE TAPER
+65.28, 22' LT
BEGIN CHANNELIZING LINE TAPER
+45.28, 4' LT
END PCB TAPER
+45.28, 10' LT
BEGIN DRUM TAPER
+65.28, LT, END
TRANSITION AREA
DELINEATION, BEGIN
TANGENT AREA
DELINEATION
14+00
13+00
12+00
11+00
10+0
MATCH LINE 472+00 IR 75
45:1 TAPER
473+00
474+00
16:1 TAPER
WORK ZONE
IMPACT ATTENUATOR
475+00
27.5:1 TAPER
476+00
℄ CONSTRUCTION IR 75
477+00
+65.28, 2' LT
END DRUM TAPER
MATCH LINE 477+50 IR 75
POT Sta. 9+49.41
DENSE VEGETATION
KK
END ROAD WORK
G20-2-36
+55, ℄ & RT

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:03 AM
Filename: G:\C004\0066\Road\Sheets\23828g101_2_10.dgn

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

DRUMS TO BE SPACED 40' C-C, IR 75
DRUMS TO BE SPACED 20' C-C, RAMP N-3 TAPER

SEE SHEET 21 FOR LEGEND.

℄ EX RAMP

0 9+00 8+00 PC Sta. 7+16.76 7+00 6+00 5+00

+26, 32' LT & 44' LT
BEGIN EDGE LINE TAPERS

+00, 0' LT & 14' LT
BEGIN DRUM TAPERS
END EDGE LINE TAPERS

(IMAGINARY LINE)

MATCH LINE 477+50 IR 75

ELW ELY CLW

16:1 TAPER 18:1 TAPER 12.5:1 TAPER 33:1 TAPER

+26, 32' LT
BEGIN EDGE LINE TAPER

150:1 TAPER

478+00 479+00 480+00 481+00 482+00

℄ CONSTRUCTION IR 75

+26, LT, END
TANGENT AREA
DELINEATION, BEGIN
TRANSITION AREA
DELINEATION

MATCH LINE 483+00 IR 75

(IMAGINARY LINE)

4+00 3+00 2+00

PT Sta. 3+12.99

+00, 3' LT & 8' RT
END DRUM TAPERS

DRUMS TO BE SPACED 40' C-C

ROAD WORK AHEAD

W20-1-48
+14, RT

+26, LT, END
TRANSITION AREA
DELINEATION

55:1 TAPER

MATCH LINE 483+00 IR 75

+26, 34' LT
END EDGE LINE TAPER

ELW

484+00 485+00 486+00 487+00

+56, 34' LT
BEGIN EDGE LINE TAPER

℄ CONSTRUCTION IR 75

MATCH LINE 488+00 IR 75

N

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

66
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:04 AM
Filename: G:\C004\0066\Road\Sheets\23828gj0l_2_ll.dgn

DRUMS TO BE SPACED 40′ C-C.

SEE SHEET 21 FOR LEGEND.

MATCH LINE 488+00 IR 75

55:1 TAPER

ELW

489+00

490+00

491+00

492+00

493+00

MATCH LINE 493+50 IR 75

+16, 46′ LT
END EDGE LINE TAPER
BEGIN DRUM TAPER

W1-6L-48

DRUMS TO BE SPACED 40′ C-C.

(IMAGINARY LINE)

22:1 TAPER

55:1 TAPER

+36, 56′ LT
END DRUM TAPER

494+00

495+00

496+00

506+00

522+00

548+00

W4-2L-48
+36, ℄ & RT

W20-5L-48
+36, ℄ & RT

LEFT LANE CLOSED AHEAD

W20-1-48
+36, ℄ & RT

ROAD WORK AHEAD

1000′

1600′

2600′

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:04 AM
Filename: G:\C004\0066\Road\Sheets\23828gj0l_2_12.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:05 AM
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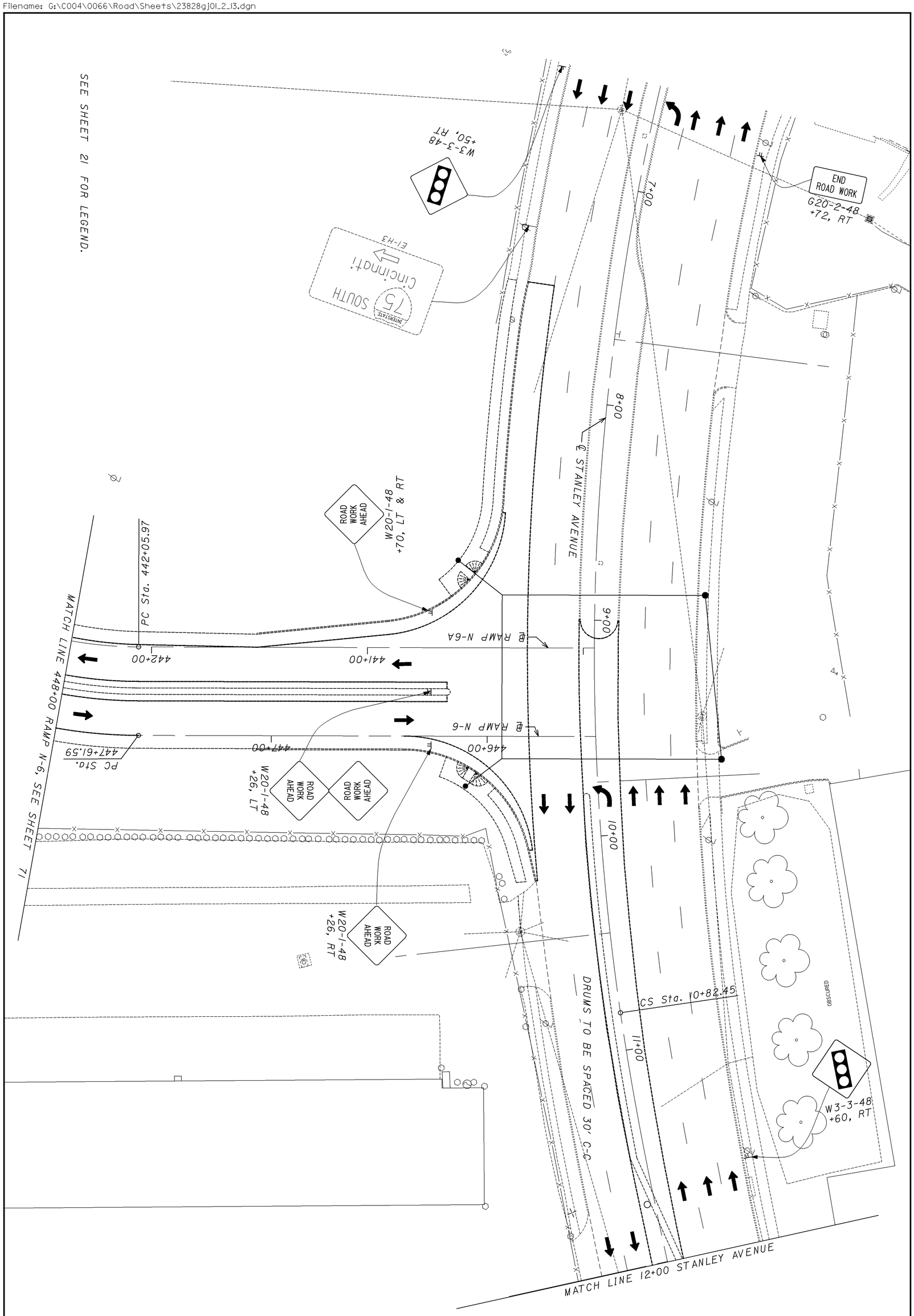

68 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET	N

SEE SHEET 21 FOR LEGEND.

℄ STANLEY AVENUE

VARIES 4′ TO 7′
VARIES 3′ TO 0′
VARIES 12′ TO 17′
VARIES 12′ TO 0′
VARIES 7′-3″ TO 1′-9″
VARIES 11′-3″ TO 10′-1.5″
WORK ZONE
3′ 2′ 1′ 3′ 2′ 1′

SECTION LL-LL
STA 12+00.00 TO 13+84.00

MATCH LINE 2+00 RAMP N-10

℄ RAMP N-9
℄ RAMP N-10
7+00
8+00
1+00

ROAD CLOSED
R11-2-48

BARRICADE, TYPE III
BARRICADE, TYPE III

LL

+36, 43′ LT
BEGIN EDGE LINE TAPER

℄ STANLEY AVENUE

ELW

ST Sta. 12+82.45

6:1 TAPER

+84, 19′ LT
END EDGE LINE TAPER

13+00
14+00
15+00
16+00
17+00

27:1 TAPER
27:1 TAPER
ELY

+40, 11′ LT & 0′ RT
END EDGE LINE TAPER, BACK
BEGIN EDGE LINE TAPER, AHEAD

PC Sta. 15+25.07
PC Sta. 16+68.96

DRUMS TO BE SPACED 30′ C-C

MATCH LINE 12+00 STANLEY AVENUE

MATCH LINE 17+50 STANLEY AVENUE

LL
MM

VARIES 11′ TO 12′-9″
VARIES 8′ TO 1′
1′ 3′ 2′ 2′ EX EX 3′

WORK ZONE EDGE LINE (WHITE)
WORK ZONE EDGE LINE (YELLOW)

SECTION MM-MM
STA 15+40.00 TO 17+50.00

OBSCURED

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: Jfanthony Date: 7/31/2007 Time: 12:15:06 AM
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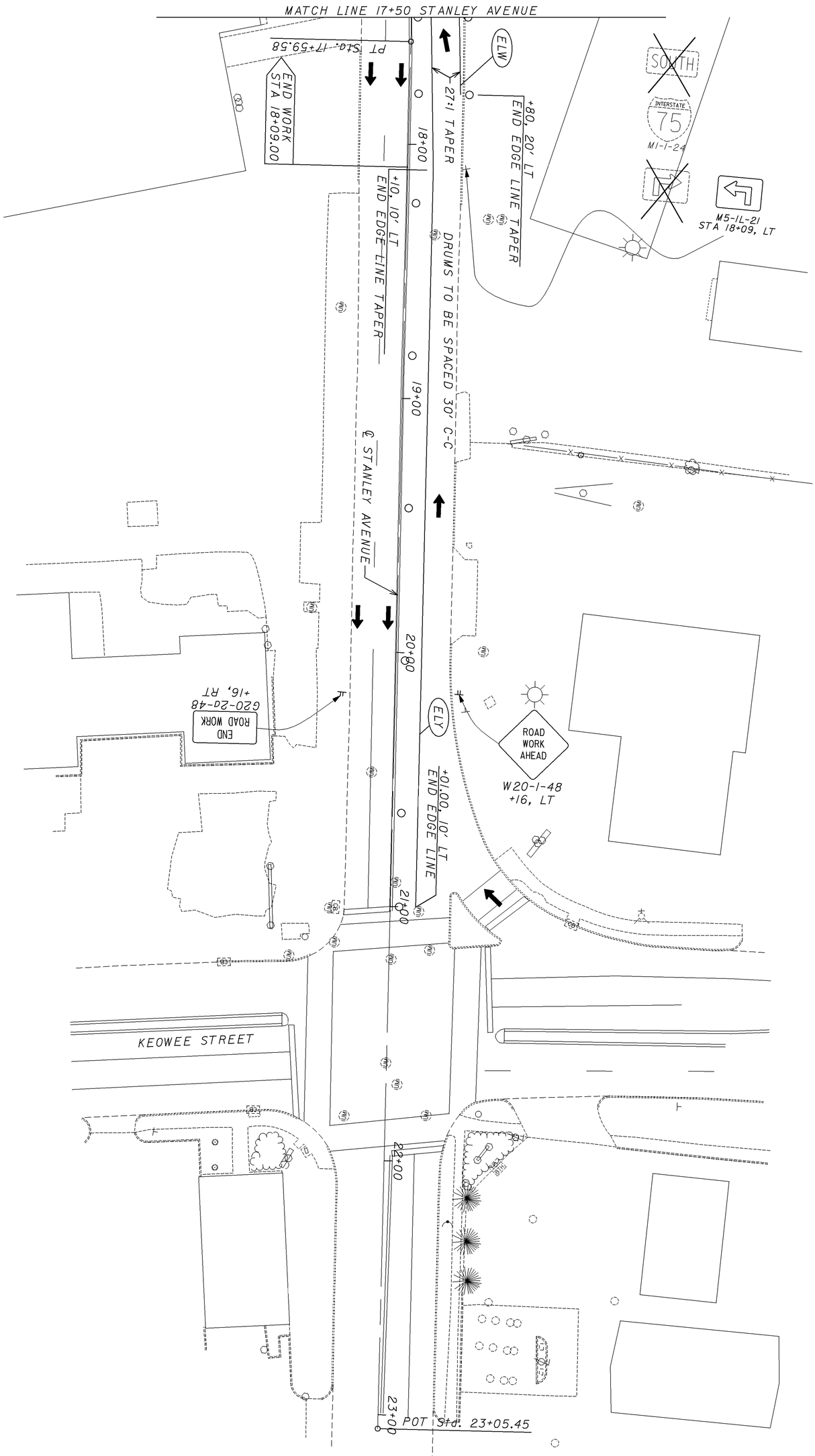

SEE SHEET 21 FOR LEGEND.

70 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED / CHECKED	0 20 / 10 40 HORIZONTAL SCALE IN FEET

SEE SHEET 21 FOR LEGEND.

SECTION ZZ-ZZ
STA 442+37.25 TO STA 443+64.20

MATCH LINE 448+00 RAMP N-6, SEE SHEET 68

MATCH LINE 446+50 RAMP N-6A

DENSE VEGETATION

ZZ

443+00

℄ RAMP N-6A

℄ RAMP N-6

446+00

444+00

445+00

449+00

PT Sta. 449+55.87

450+00

451+00

PC Sta. 450+77.46

452+00

MATCH LINE 452+50 RAMP N-6

℄

℄

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

71
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:07 AM
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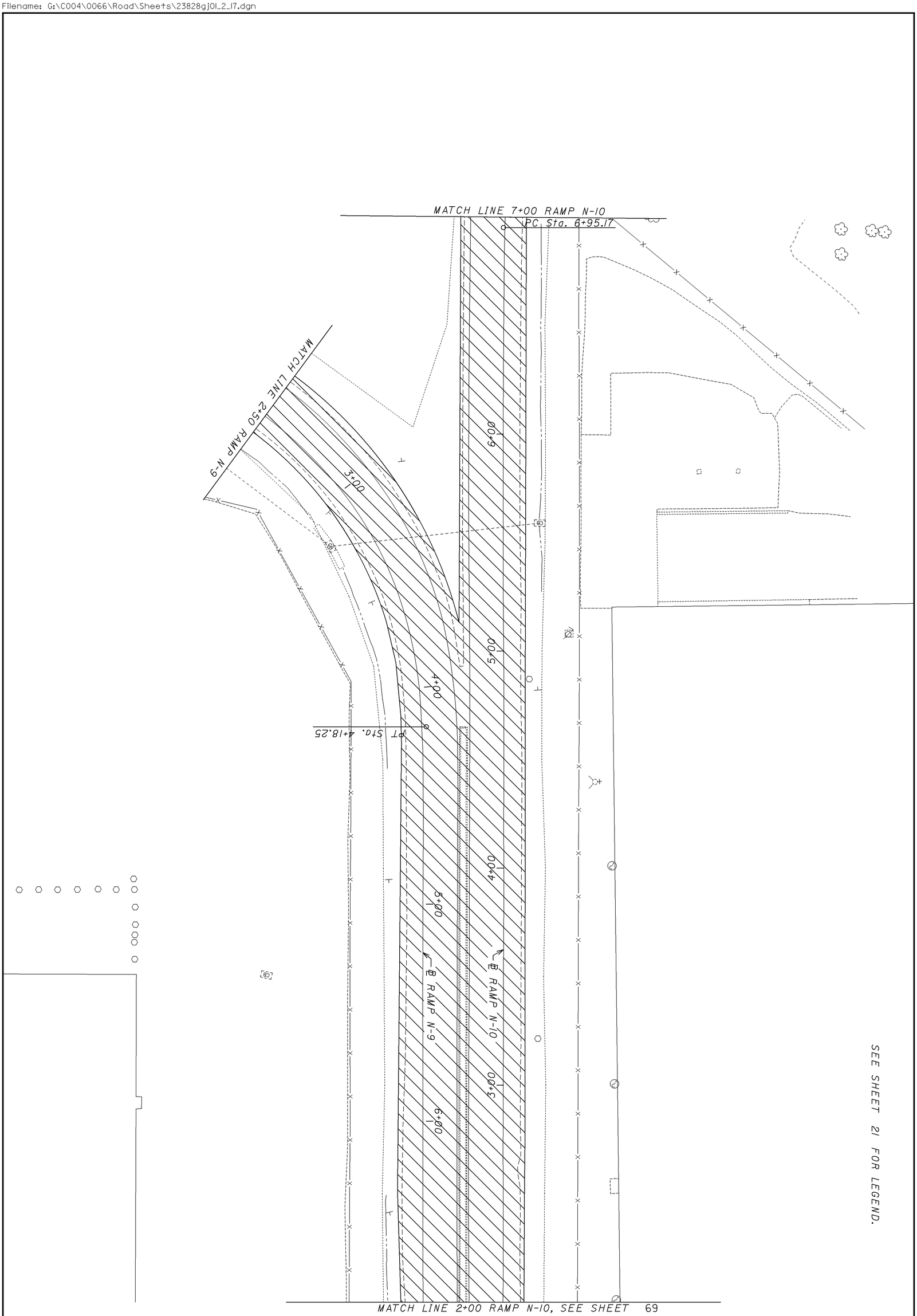

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 2

CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET

SEE SHEET 21 FOR LEGEND.

℄ STANLEY AVENUE

VARIES
9'-9" TO 7'-5"

WORK ZONE

1' 11' 1' 11' 4' 3' 12' 12'

3'

WORK ZONE
EDGE LINE (WHITE)

SECTION RR-RR
STA 9+80 TO 11+50

DRUMS TO BE SPACED 30' C-C

DRUMS TO BE SPACED 30' C-C

END ROAD WORK

G20-2-48
+72, RT

+52, 34' LT
BEGIN EDGE LINE

SC Sta.
443+94.02

445+00

446+00

6+00

7+00

8+00

9+00

10+00

11+00

CS Sta.
10+82.45

MATCH LINE 11+50 STANLEY AVENUE

℄ STANLEY AVENUE

ELW

LLW

RR

RR

℄ RAMP N-6A

℄ RAMP N-6

441+00

446+00

OBSCURED

N

0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 3

MOT-75-14.60

78
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:08 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_3_1.dgn

SECTION SS-SS
STA 12+00 TO 15+28.88
SEE SHEET 21 FOR LEGEND.
DRUMS TO BE SPACED 30' C-C

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 3

MOT-75-14.60

79
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:09 AM
Filename: G:\C004\0066\Road\Sheets\23828gj01_3_2.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:09 AM
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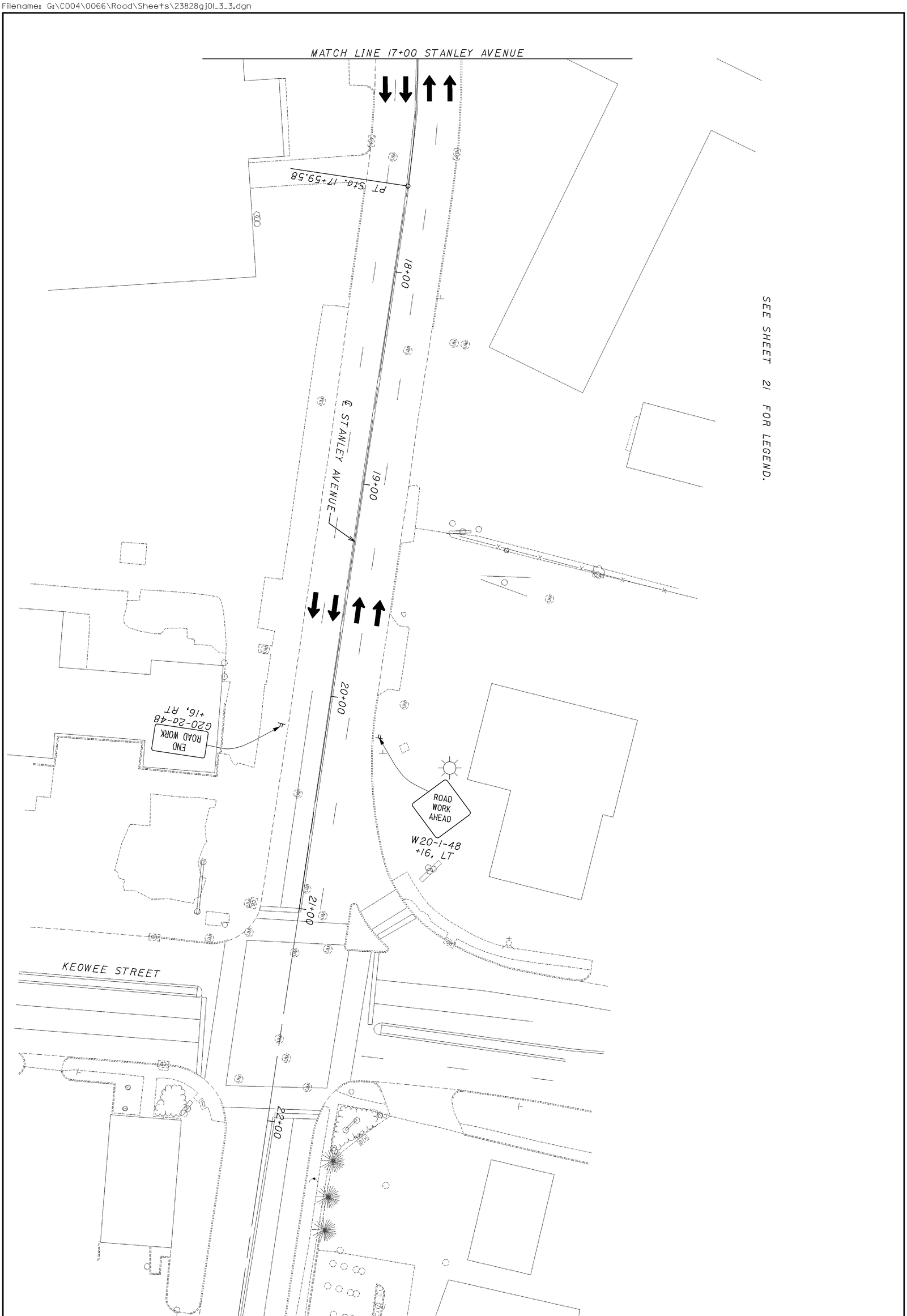

80 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 3	CALCULATED EAK / CHECKED AM	0 10 20 40 HORIZONTAL SCALE IN FEET

Plotted By: mpdonnelly Date: 8/2/2007 Time: 4:26:35 PM
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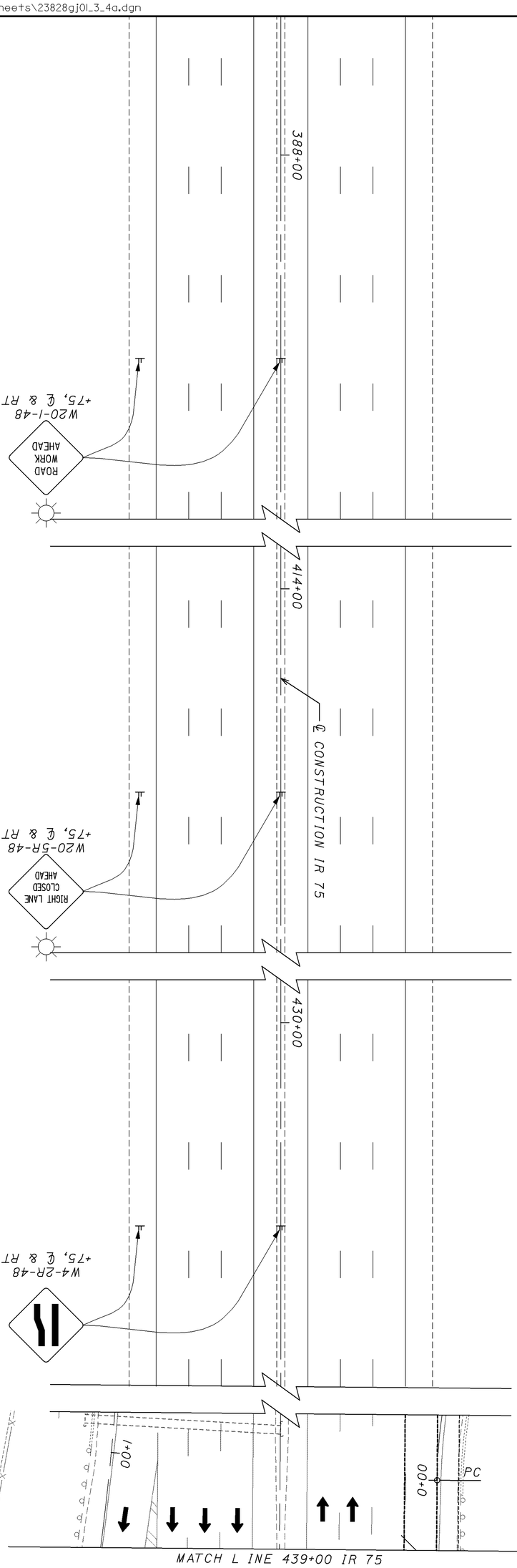

SEE SHEET 21 FOR LEGEND.

SEE SHEET 21 FOR LEGEND.

℄ IR 75

VARIES
12' TO 6'-10"

10' 12' 12' 12' 10' 10' 12' 12' 10'

2'

3'

WORK ZONE
EDGE LINE (WHITE)

SECTION NN-NN
STA 440+70.70 TO STA 444+50.00

NN

MATCH L INE 439+00 IR 75

TS Sta. 440+44.02

℄ CONSTRUCTION IR 75

440+00 441+00 442+00 443+00 444+00

SC Sta. 443+94.02

MATCH LINE 444+50 IR 75

55:1 TAPER

ELW

+74.70, 46' RT
BEGIN EDGE LINE TAPER

2+00 3+00 4+00 5+00 6+00 7+00

PT Sta. 1+56.76

PC Sta. 4+68.29

PT Sta. 6+83.17

℄ RAMP N-8

DRUMS TO BE SPACED 40' C-C

W1-6L-48

DENSE VEGE

DENSE VE

0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 3

MOT-75-14.60

80B
314

Plotted By: mpdonnelly Date: 8/2/2007 Time: 4:26:39 PM
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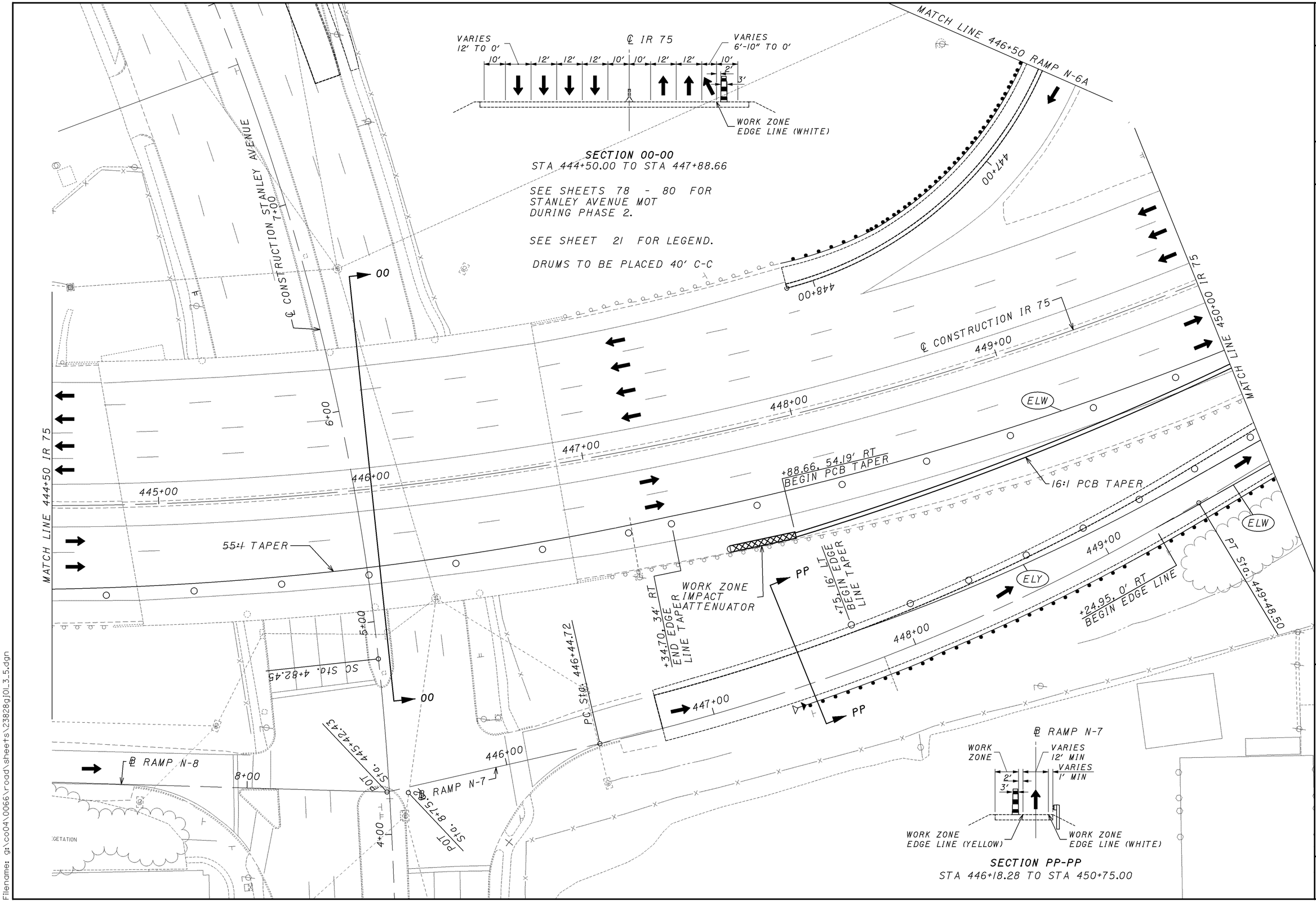
VARIES
12' TO 0'
℄ IR 75
VARIES
6'-10" TO 0'
10' 12' 12' 12' 10' 10' 12' 12' 10'
2'
3'
WORK ZONE
EDGE LINE (WHITE)
SECTION 00-00
STA 444+50.00 TO STA 447+88.66
SEE SHEETS 78 - 80 FOR
STANLEY AVENUE MOT
DURING PHASE 2.
SEE SHEET 21 FOR LEGEND.
DRUMS TO BE PLACED 40' C-C
MATCH LINE 446+50 RAMP N-6A
℄ CONSTRUCTION STANLEY AVENUE
7+00
6+00
5+00
4+00
8+00
00
℄ CONSTRUCTION IR 75
449+00
448+00
447+00
446+00
445+00
MATCH LINE 444+50 IR 75
MATCH LINE 450+00 IR 75
ELW
ELY
+88.66, 54.19' RT
BEGIN PCB TAPER
16:1 PCB TAPER
55:1 TAPER
WORK ZONE
IMPACT
ATTENUATOR
+34.70, 34' RT
END EDGE
LINE TAPER
+75, 16' LT
BEGIN EDGE
LINE TAPER
+24.95, 0' RT
BEGIN EDGE LINE
PT Sta. 449+48.50
PC Sta. 446+44.72
SO Sta. 4+82.45
POT Sta. 445+42.43
POT Sta. 8+75.88
℄ RAMP N-8
℄ RAMP N-7
PP
PP
℄ RAMP N-7
WORK ZONE
VARIES
12' MIN
VARIES
1' MIN
2'
3'
WORK ZONE
EDGE LINE (YELLOW)
WORK ZONE
EDGE LINE (WHITE)
SECTION PP-PP
STA 446+18.28 TO STA 450+75.00
HORIZONTAL
SCALE IN FEET
0 10 20 40
CALCULATED
EAK
CHECKED
AM
MAINTENANCE OF TRAFFIC -
PHASE 3
MOT-75-14.60
80C
314
Plotted By: mpdonnelly Date: 8/2/2007 Time: 4:26:41 PM
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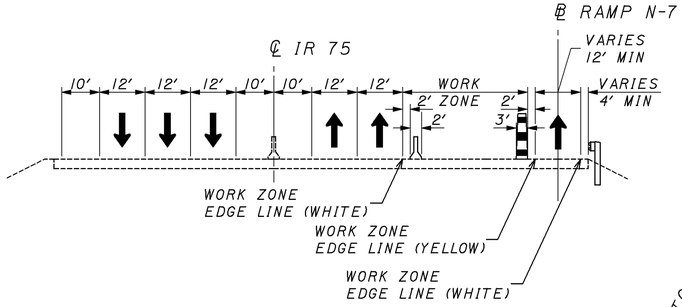

SECTION QQ-QQ
STA 450+00.00 TO STA 455+50.00

SEE SHEET 21 FOR LEGEND.

MATCH LINE 452+50 RAMP N-6

CS Sta. 453+30.19

453+00

454+00

℄ RAMP N-6

455+00

SC Sta. 455+30.19

MATCH LINE 455+50 IR 75

DRUMS TO BE SPACED 40' C-C, IR 75
DRUMS TO BE SPACED 30' C-C, RAMP N-7

QQ

CS Sta. 452+26.71

453+00

452+00

451+00

℄ CONSTRUCTION IR 75

+06.61, 36' RT
END PCB

22.5:1 TAPER

+49.07, 67.73' RT
END EDGE LINE

ELW

+79.70, 36' RT
END PCB TAPER

MATCH LINE 450+00 IR 75

16:1 PCB TAPER

452+00

+85.38, 63' RT & 75' RT
BEGIN EDGE LINE TAPER

℄ RAMP N-7

451+00

450+00

ELY

ELW

QQ

POT Sta. 452+25.10

EDGE VEGETATION

PIPE

DEPOT ACCESS TO RAMP N-7

DEPOT ACCESS STATION

DEPOT ACCESS STATION

CALCULATED EAK
CHECKED AM

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 3

MOT-75-14.60

80D
314

Plotted By: mpdonnelly Date: 8/2/2007 Time: 4:26:44 PM
Filename: g:\co04\0066\road\sheets\23828gl01_3_6.dgn

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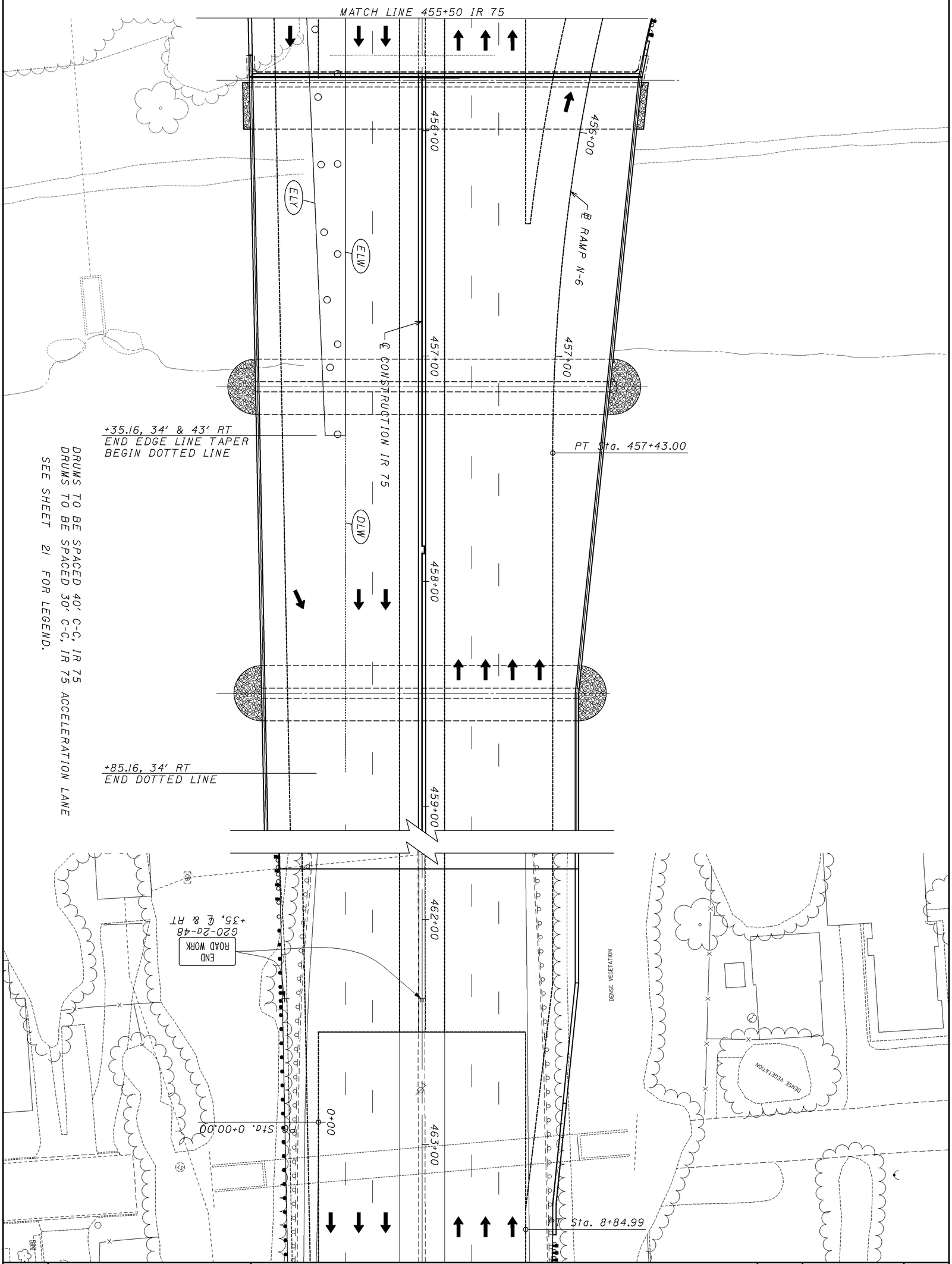
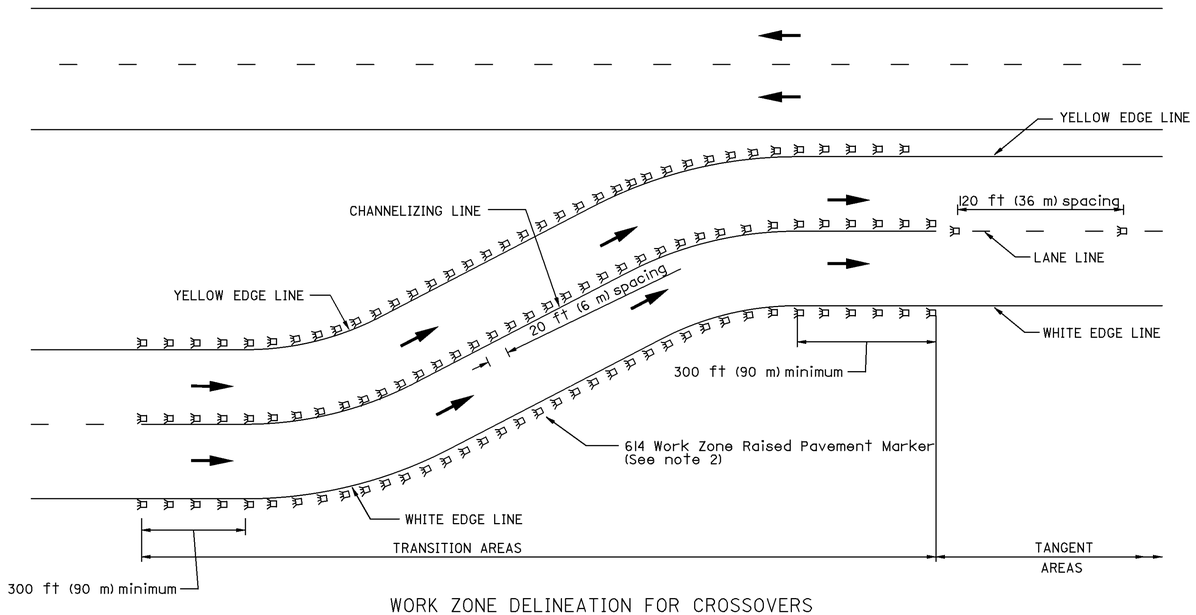
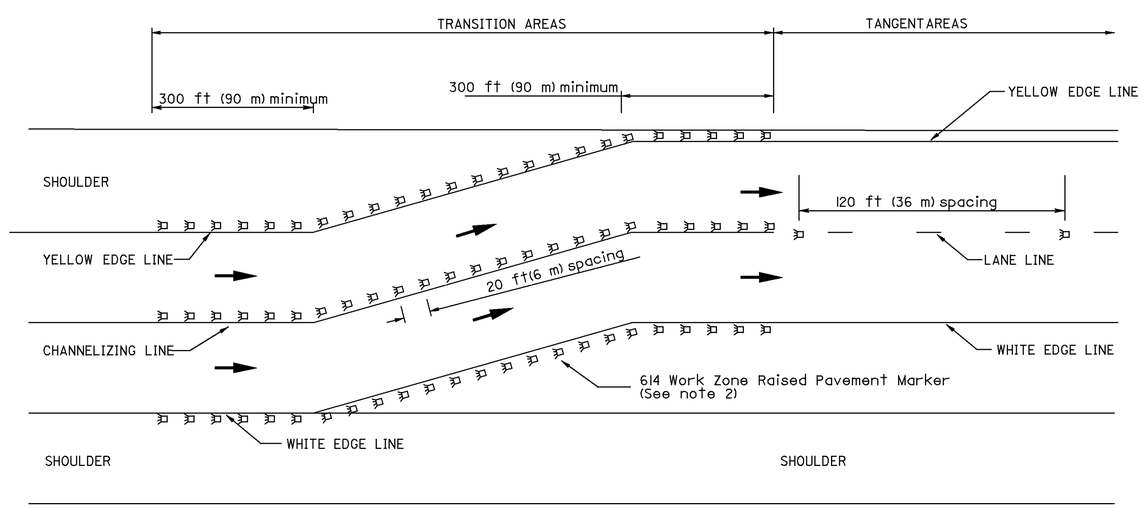


308 / 314	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 3	CALCULATED EAK / CHECKED AM	0 10 20 40 HORIZONTAL SCALE IN FEET



WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION FOR LANE SHIFTS

NOTES

1. This drawing presents delineation procedures for freeways and expressways on concrete surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. The Work Zone Raised Pavement Markers (WZRPMs) shown on this drawing are intended for use only during the non-snow-plowing season. WZRPMs shall not be provided during the snow-plowing season. The snow-plowing season shall be from October 16 through March 31 or as otherwise specified in the plans. Where a temporary alignment will remain in use through the winter, the WZRPMs shall be removed prior the beginning of snow-plowing season and replaced approximately April 1, or as otherwise determined by the Engineer
3. All material furnished shall be listed on the Department's Qualified Products Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of WZRPMs shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas WZRPMs shall be provided only along the lane lines, spaced at 120 feet (36 m) center-to-center.
7. The WZRPMs shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the WZRPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the WZRPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the WZRPMs shall be centered between dashes.
9. The WZRPMs shall be removed when they are no longer appropriate.

11/27/06

WORK ZONE DELINEATION ON CONCRETE SURFACES

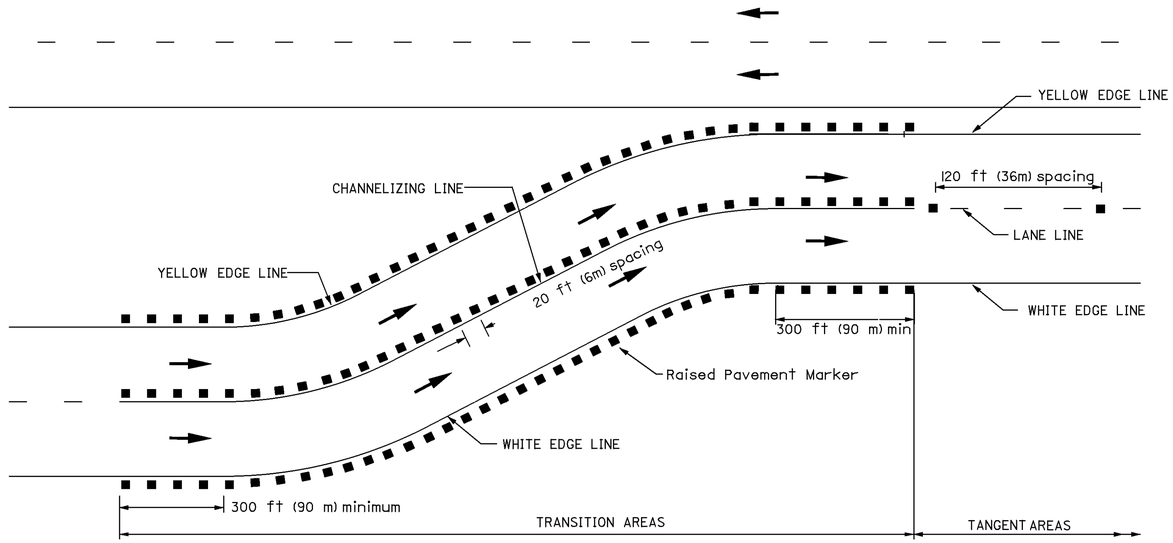
OFFICE OF TRAFFIC ENGINEERING

209931

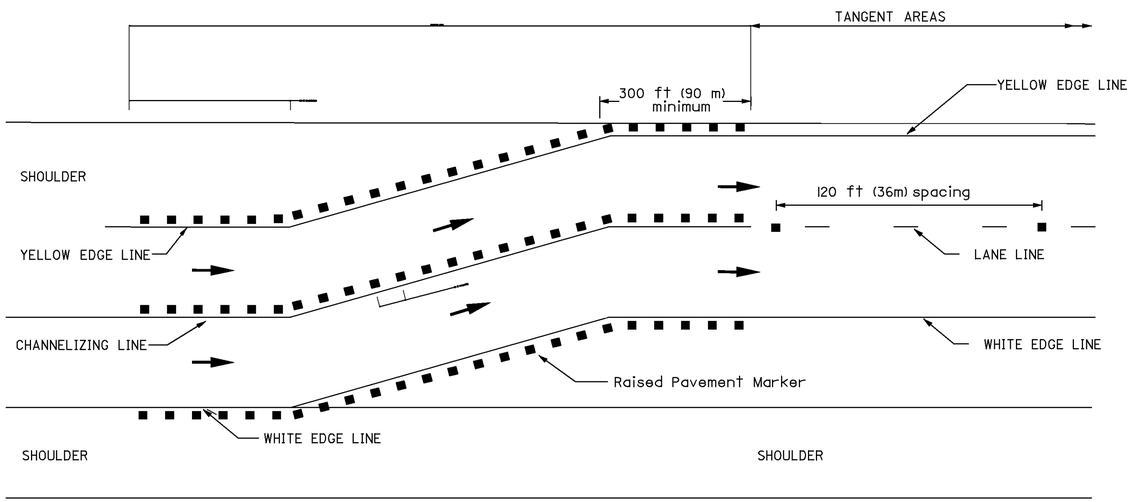
1/1

81
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:10 AM
Filename: G:\C004\0066\Road\Sheets\23828p103.dgn



WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION FOR LANE SHIFTS

NOTES

1. This drawing presents delineation procedures for freeways and expressways on asphalt surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 inches (1.2 m)shall be as per the tangent area delineation.
2. Raised Pavement Markers shall meet the following seasonal specifications:

   a) Raised Pavement Markers in place during the normal construction season may be either 621 Raised Pavement Markers or 614 Work Zone Raised Pavement Markers (WZRPMs). The normal construction season with regard to use of WZRPMs shall be the period from April 1 through October 15.

   b) At locations where it is intended that Raised Pavement Markers will winter over, 621 Raised Pavement Markers shall be provided.

   c) At locations where it is intended that work will continue beyond October 15 but will be completed prior to the beginning of snow-plowing season, 614 WZRPMs may remain in place until such time. Snow-plowing season shall be as specified in the plans. If snow-plowing season is not specified in the plans, it shall be assumed that snow-plowing season runs from October 16 through March 31. If project delays, not the fault of ODOT, cause work to extend into the snow-plowing season, the contractor shall be responsible for replacing WZRPMs with 621 Raised Pavement Markers, as determined by the Engineer, at the contrator's expense.
3. All material furnished shall be listed on the Department's Prequalified Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of raised pavement markers (RPMs) shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas RPMs shall be provided only along the lane lines, spaced at 120 foot (36 m) center-to-center.
7. The RPMs shall be 1-way, facing oncomming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the RPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the RPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the RPMs shall be centered between dashes.
9. The RPMs shall be removed when they are no longer appropriate.
10. Holes resulting from removal of 621 RPMs shall be filledas per 202.10. If removal of the 621 RPMs does not take place immediately after the highlighted alignment becomes invalid, the reflectors within the 621 RPMs shall be removed.
11. Following removal of 621 RPMs resurfacing of the transition shall be performed. The resurfacing shall be performed at the time the surface course is being applied. In preparation for resurfacing, the existing pavement shall be removed to a depth necessary to match the level of the intermediate course of the proposed pavement.

11-27-06

WORK ZONE DELINEATION ON ASPHALT SURFACES

OFFICE OF TRAFFIC ENGINEERING

209930

1 / 1

82
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:10 AM
Filename: G:\C004\0066\Road\Sheets\23828pi03.dgn

GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. The suggested treatments are intended for high volume projects that will last at least seven days and have an active work zone 1 mile [1.6 km] or less in length. For guidance on the use of this sheet, see L&D Manual Volume One, Section 500. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.

2. While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.

3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.

4. The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.

5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing RM-4.2 and Item 622.

6. When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.

7. When W8-9 (Low Shoulder) signs or W8-9a (Shoulder Drop-Off) signs or W8-11 (Uneven Lanes) signs are required, they shall be placed 750 feet [230 m] in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all inter secting roadways within the limits of the condition. When the drop-off condition extends more than 0.5 mile [800 m], additional signs should be erected at intervals of 1.0 mile [1600 m] or less.

8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate a difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.

9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10 feet [3.0 m], drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5 inches [125] and approval is granted by the Project Engineer.

10. Pavement Repairs (or similar work):

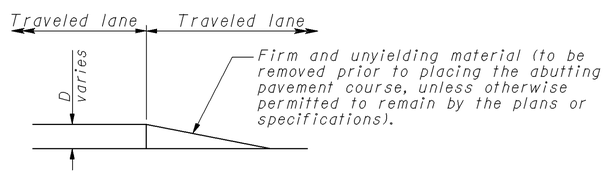
    a. Lengths greater than 60 feet [18 m] - utilize appropriate treatment from Condition I.

    b. Lengths of 60 feet [18 m] or less - repairs shall be effected in accordance with CMS 255.08. Drums may be used as a separtor adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT
(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition I only.

2. W8-11 sign required.

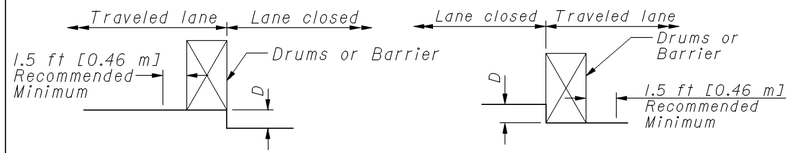


CONDITION I
DROP-OFFS BETWEEN TRAVELED LANES

1. These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D - inches (mm)	Treatment
<1-1/2 [<40]	Erect W8-11 sign.
1-1/2 - 3 [40-75]	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
> 3 - 5 [>75-125]	Lane closure utilizing drums as shown below.
> 5 [>125]	Lane closure utilizing portable concrete barrier as shown below.

* Cones may be used for daytime only conditions.

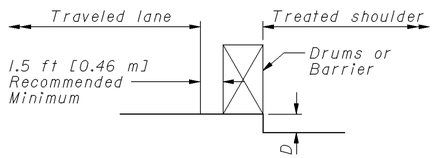


CONDITION II
DROP-OFFS WITHIN GRADED SHOULDER AREA

1. The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
2. The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials or concrete). For the purpose herein, its maximum width shall be considered to be 12 feet [3.6 m].

D - inches (mm)	Treatment
<1-1/2 [<40]	1) Erect W8-9a signs.
>1-1/2 - 5 [>40-125]	1) If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If minimum. lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
>5 - 12 [125-305] Daylight only	If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below.
>5 - 24 [>125-610]	1) If minimum lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums.
>24 [> 610]	Lane closure utilizing portable concrete barrier as shown below.

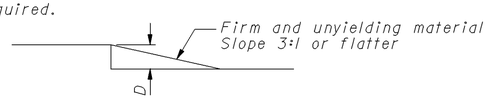
* Minimum lane widths shall be 10 ft [3.0 m] unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment may not be used within a bitumunos shoulder where a hot longitudnal joint per CMS 401.15 is required.

2. W8-9 signs required.

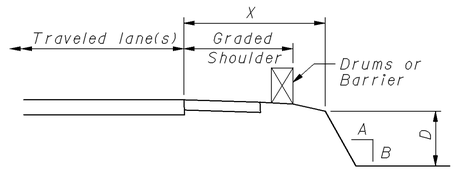


CONDITION III
DROP-OFFS BEYOND GRADED SHOULDER OR BACK OF CURB

1. See Note 2 under Condition II.
2. Use Chart A or B below, as applicable.

CHART A

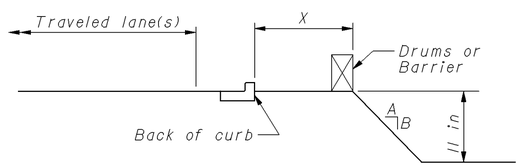
USE FOR: 1. Uncurbed Facilities
2. Curbed Facilities, where:
   a. Curbs are less than 6 inch [150] in height
   b. Curbs are 6 inch [150] or greater in height and the legal speed is greater than 40 mph [70 km/hr].



X feet (m)	D inch (mm)	A/B	Treatment Required	
			Day	Night
0 - 4 [0 - 1.2]	Any	Any	(a)	(a)
4 - 30 [1.2 - 9.1]	Any	3:1 or Flatter	None	None
4 - 12 [1.2 - 3.6]	< 3 [< 75]	Steeper than 3:1	None	None
4 - 12 [1.2 - 3.6]	> 3 - < 12 [> 75 - < 305]	Steeper than 3:1	Drums	Drums
4 - 12 [1.2 - 3.6]	> 12 [> 305]	Steeper than 3:1	Drums	Barrier
> 12 - 20 [> 3.6 - 6.1]	< 12 [< 305]	Steeper than 3:1	None	None
> 12 - 20 [> 3.6 - 6.1]	> 12 - 24 [> 305 - < 610]	Steeper than 3:1	Drums	Drums
> 12 - 20 [> 3.6 - 6.1]	> 24 [> 610]	Steeper than 3:1	Drums	Barrier
> 20 - 30 [> 6.1 - 9.1]	< 24 [< 610]	Steeper than 3:1	None	None
> 20 - 30 [> 6.1 - 9.1]	> 24 [> 610]	Steeper than 3:1	Drums	Barrier
> 30 [> 9.1 m]	Any	Any	None	None
(a) Use treatment specified under Condition II.				

CHART B

USE FOR: Curbed facilities, where the curb is 6 inches [150 mm] or greater in height and the legal speed is 40 mph [70 km/h] or less.



X feet (m)	D inch (mm)	A/B	Treatment Required	
			Day	Night
0 - 10 [0-3.0 m]	< 12 [< 305]	Any	None	Drums
0 - 10 [0-3.0 m]	> 12 [> 305]	Any	Drums	Drums
> 10 [> 3.0 m]	Any	Any	None	None

11-27-06

DROPOFFS IN WORK ZONES

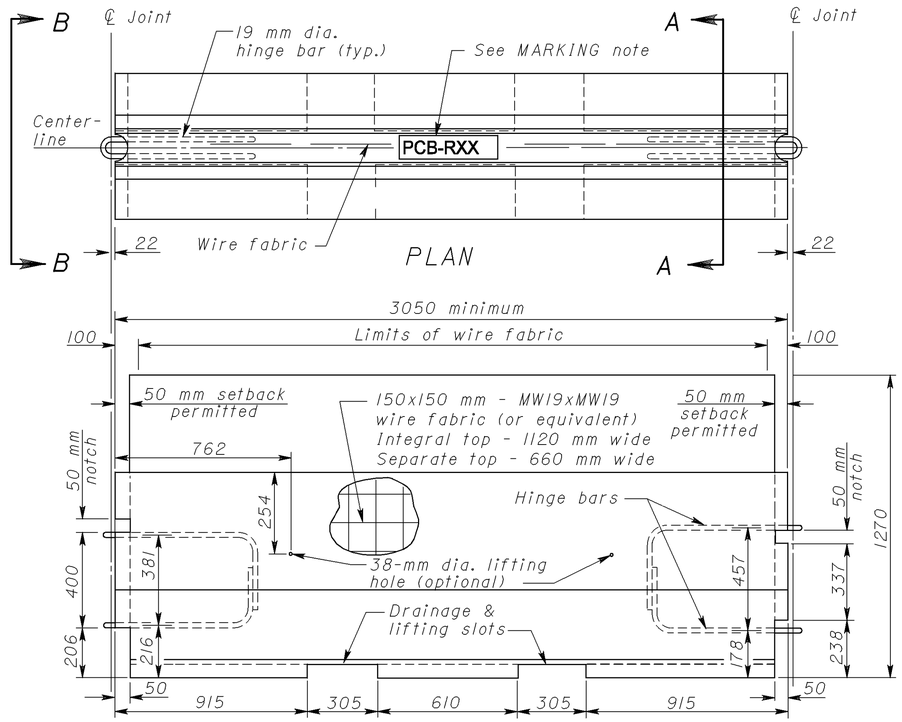
OFFICE OF TRAFFIC ENGINEERING

2010190

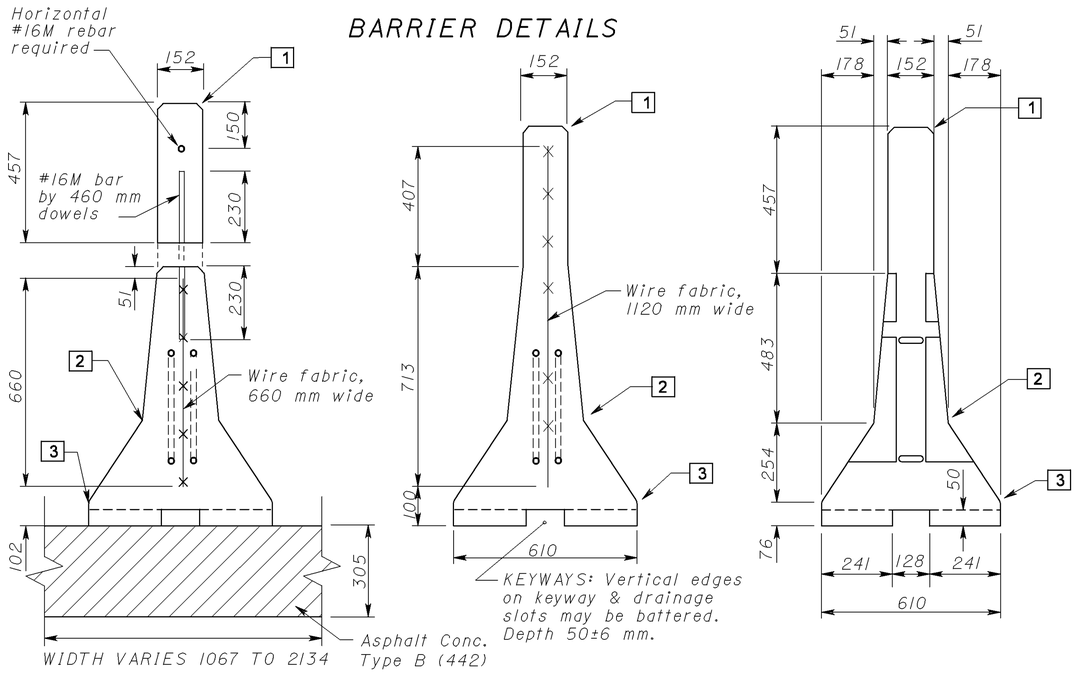
1 / 1

83
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:10 AM
Filename: G:\C004\0066\Road\Sheets\23828p103.dgn



BARRIER DETAILS



LEGEND

1. 25-mm Radius or 19-mm chamfer, all top and end corners.
2. Permissible 250-mm radius.
3. Permissible 25-mm radius.

Asphalt Concrete, Type B, 12" (442)

NOTES

1270-mm PCB: The upper 457 mm of the barrier shall be constructed integrally with the bottom portion using wire fabric extending as shown throughout, or separately using #16M rebar dowels at maximum spacing of 915 mm. Start and end dowels 150 mm from barrier segment ends.

WIRE FABRIC: Shall meet the requirements of CMS 709.10.

CONNECTING HARDWARE: Bolts, washers and hex nuts shall be galvanized after fabrication per CMS 711.02 and shall meet the requirements of CMS 711.09, except that the Rotational Capacity test specified in ASTM A 325M shall be waived.

In lieu of the pin and loop connections detailed on this SCD, barrier sections with "J-J Hooks" end connections may be utilized.

Transistion barrier sections with pin and loop connections on one end and "J-J Hooks" on the other shall be used to connect runs of "J-J Hooks" barrier to other permited barrier types. The heights of the transition sections shall be the same as the barrier runs being connected.

"J-J Hooks" is a trademark of the Easi-Set Industries, P.O. box 300, Midland, VA 22728, (540) 439-8911 or (800) 547-4045.

HINGE AND REINFORCING BARS: The 19-mm hinge bars and #16M reinforcing bars shall meet the requirements of CMS 509.

HINGE BAR PLACEMENT: For placement, see "Detail at Hinged Connection" on SCD RM-4.2. For open and closed joint connections of adjacent barriers, see "Joint Connection Details" on RM-4.2.

HANDLING DEVICES: Such devices may be used in lieu of the lifting slot for moving the barrier. They may be of any design sufficient to handle the weight of the section being lifted. No handling devices shall protrude from the surface of the barrier when in place.

MARKING: All barrier segments shall be marked as shown, where XX indicates the year cast. These markings shall be permanently impressed in the barrier using a minimum of 50-mm high lettering.

Each segment shall have, on its top, a unique identification as to its manufacturer and, somewhere on the barrier, the day and month that the barrier was manufactured.

See CMS 622 for additional information.

SUBGRADE: Upon removal of existing barrier and sign foundation, backfill using Type B Asphalt Concrete (CMS Item 442) to and to grade under 50" PCB limits.

Item 442, Asphalt Concrete, Misc.: Type B, 12", shall be paid for by cubic yard, in place and accepted.

All dimensions are in millimeters unless otherwise noted.

CONVERSION OF METRIC UNITS ON THIS SHEET

THE METRIC UNITS ON THIS SHEET SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

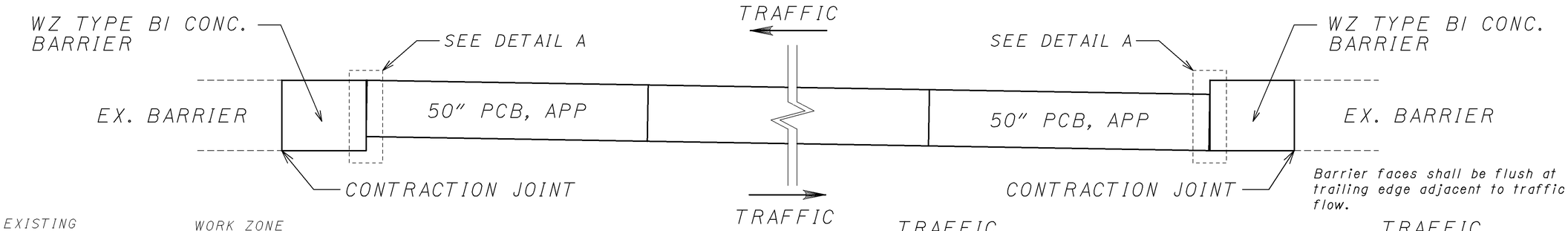
metric units

50-INCH PORTABLE CONCRETE BARRIER, AS PER PLAN

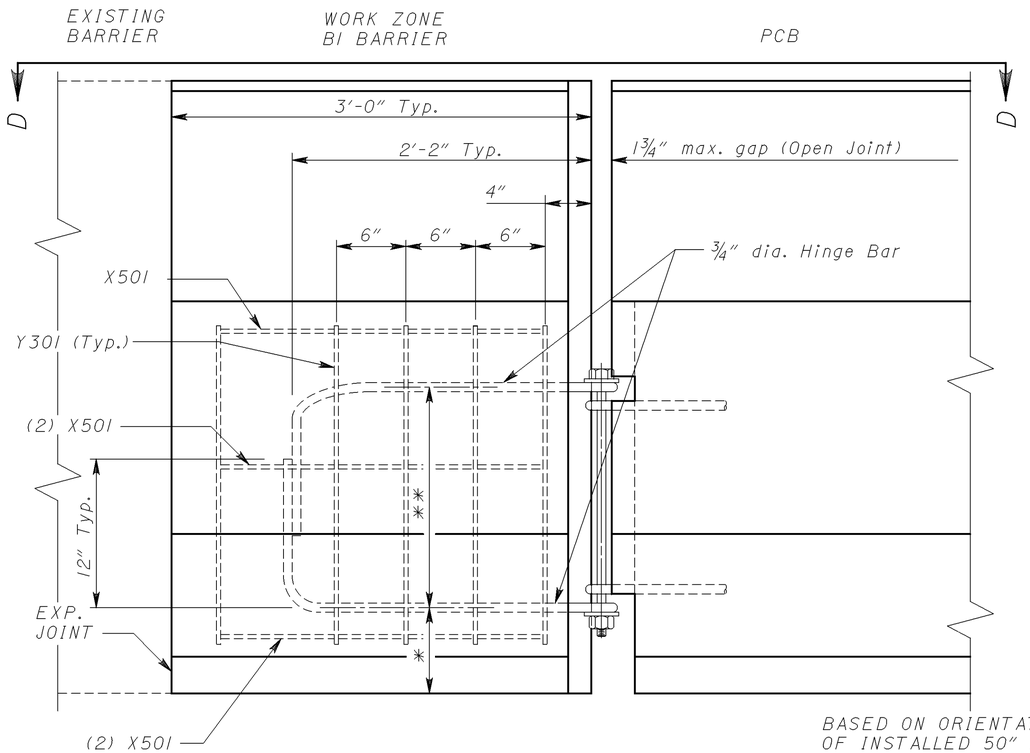
MOT-75-14.60

83A
314

Plotted By: mpdonnelly Date: 7/31/2007 Time: 3:00:02 PM
Filename: g:\C004\0066\Road\Sheets\23828mm-50pcb.dgn



Barrier faces shall be flush at trailing edge adjacent to traffic flow.



DETAIL A ELEVATION

BASED ON ORIENTATION OF INSTALLED 50" PCB, DIMENSIONS WILL VARY AND BE PAIRED AS FOLLOWS:

ONE SECTION WILL HAVE * = 8½", ** = 15",

AND THE OTHER WILL HAVE * = 7", ** = 18".

DETAIL AT HINGED CONNECTION WITH FIXED MEDIAN BARRIER

NOTES

GENERAL: See CMS 622 for additional information.

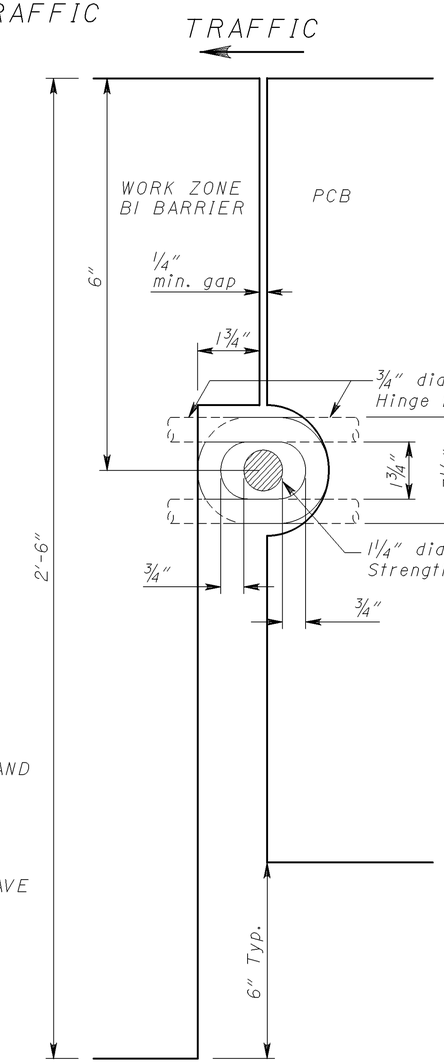
CONNECTING HARDWARE: Bolts, washers and hex nuts shall be galvanized after fabrication per CMS 711.02 and shall meet the requirements of CMS 711.09 except that the Rotational Capacity test specified in ASTM A 325 shall be waived.

In lieu of the pin and loop connections detailed on this Standard Construction Drawing, barrier sections with "J-J Hooks" end connections may be utilized.

Transition barrier sections with pin and loop connections on one end and "J-J Hooks" on the other shall be used to connect runs of "J-J Hooks" barrier to other permitted barrier types. The heights of the transition sections shall be the same as the barrier runs being connected.

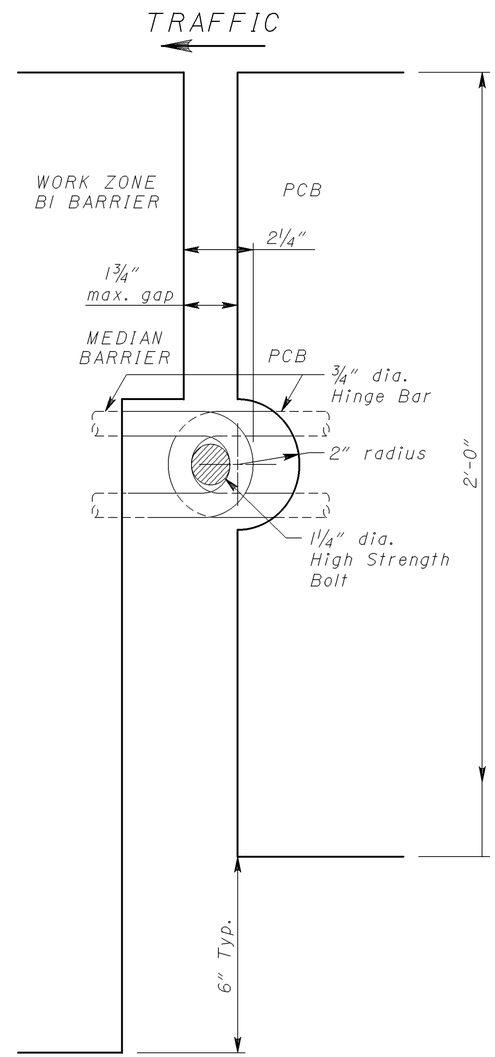
"J-J Hooks" is a trademark of Easi-Set Industries, P.O. Box 300, Midland, VA 22728, (540) 439-8911 or (800) 547-4045.

HINGE AND REINFORCING BARS: The ¾" [19] hinge may be ASTM A-36. Rebars shall meet the requirements of CMS 509. Black steel is permitted.



CLOSED JOINT

Barriers shall initially be placed close together so that Bolts can be easily inserted through Hinge Bar loop.



OPEN JOINT

Barrier joints shall be fully open before the Nut is tightened onto Bolt.

DETAIL A PLAN

VIEW D-D
JOINT CONNECTION DETAILS

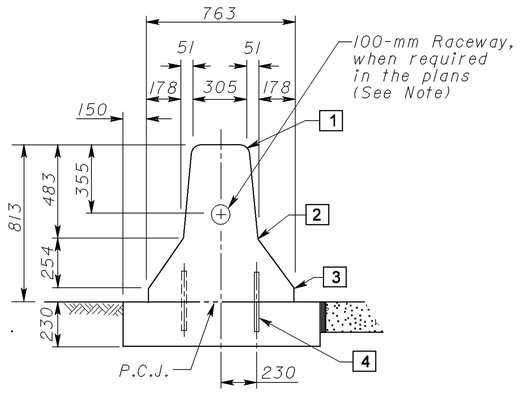
BARRIER, MISC.: WORK ZONE TYPE B1 CONCRETE BARRIER

MOT-75-14.60

1 / 2

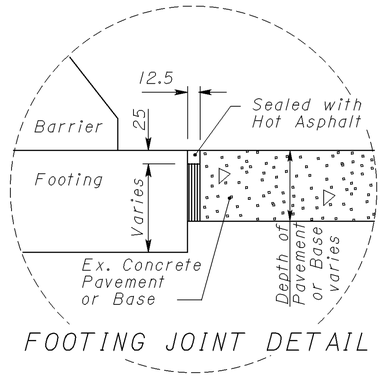
83B / 314

Plotted By: mpdonnelly Date: 7/31/2007 Time: 3:00:02 PM
Filename: g:\C004\0066\Road\Sheets\23828mm-50pcb.dgn



TYPE B

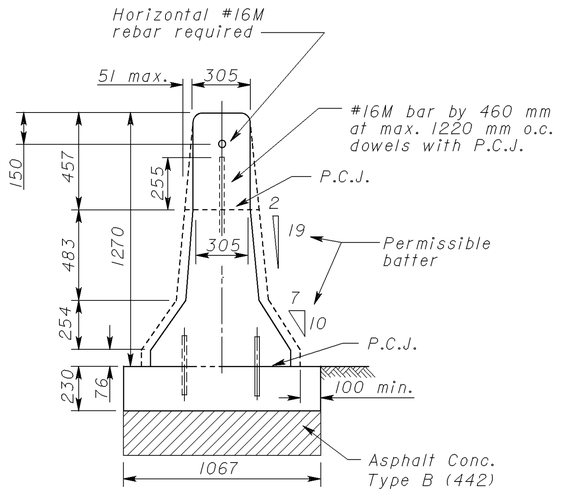
NORMAL SECTION



FOOTING JOINT DETAIL

LEGEND

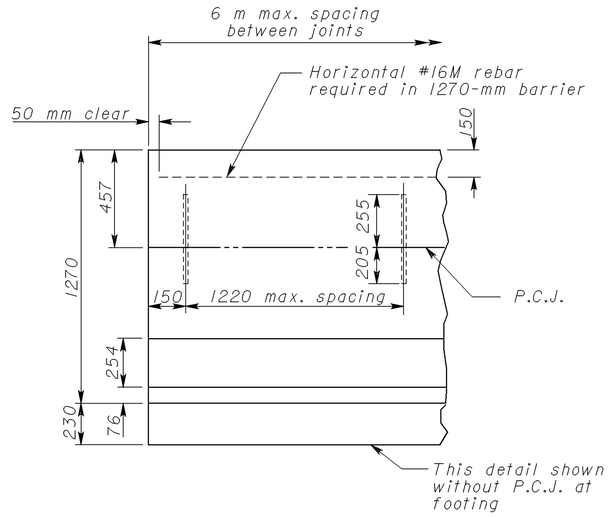
1. 25-mm radius or 19-mm chamfer.
2. Permissible 250-mm radius.
3. Permissible 25-mm radius.
4. #25M epoxy coated deformed steel bars, 305 mm long, spaced 1220 mm between successive bars on a staggered pattern except in Type D. Omit dowels when the top is constructed integrally with the base.



TYPE BI

TYPICAL SECTION

See Type B Normal Section Details for dimensions that are not shown.



1270-mm BARRIER

BARRIER ELEVATIONS

NOTES

JOINTS: Unsealed contraction joints shall be constructed between work zone barrier and existing barrier.

Contraction joints may be constructed with metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled or sawed joints shall have a 75-mm minimum depth. All joints shall be constructed for the full height of the barrier including the footing. Sawing shall be done as soon as curing will allow, to prevent spalling.

FOOTING JOINTS: The vertical walls between the barrier footing and a concrete pavement or concrete base shall be provided with a sealed joint as shown. Sealing material shall conform to CMS 705.04.

P.C.J. = Permissible Construction Joint

MEASUREMENT: Item 622, Barrier, Misc.: Work Zone Type BI Concrete Barrier, shall be paid for by feet and shall include all necessary hardware as detailed in these plans to provide connection to 50" PCB.

SUBGRADE: Upon removal of existing barrier and sign foundation, backfill using Type B Asphalt Concrete (CMS Item 442) to base of footing under barrier replacement.

Item 442, Asphalt Concrete, Misc.: Type B, 12", shall be paid for by cubic yard, in place and accepted.

1270-mm BARRIER: High barrier shall be built in locations specified in the plans. Construct the lower 813 mm of the barrier base using the same dimensions as shown in the corresponding Normal Section. The upper 457 mm may be constructed integral with the bottom, or separately with #15M rebar dowels at 1220 mm maximum spacing. Start and end dowels 150 mm from barrier contraction joints.

All dimensions are in millimeters unless otherwise noted.

CONVERSION OF METRIC UNITS ON THIS SHEET

THE METRIC UNITS ON THIS SHEET SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

metric units

BARRIER, MISC.: WORK ZONE TYPE B1 CONCRETE BARRIER

MOT-75-14.60

2/2

83C 314

Plotted By: mpdonnelly Date: 7/31/2007 Time: 3:00:03 PM
Filename: g:\C004\0066\Road\Sheets\23828mm-50pcb.dgn

SHEET NUMBER																								FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
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																															ROADWAY	
LUMP																											LUMP		201	11000	LUMP		CLEARING AND GRUBBING	
				LUMP																							LUMP		202	11000	LUMP		STRUCTURE REMOVED	
																								1			1		202	20010	1	EACH	HEADWALL REMOVED	
		17947	12715																							27235	3427		202	23000	30662	SQ YD	PAVEMENT REMOVED	
			7461																							5281	2180		202	23010	7461	SQ YD	PAVEMENT REMOVED, ASPHALT	
				2297																						1969	328		202	30000	2297	SQ FT	WALK REMOVED	
				1047																						296	751		202	30600	1047	SQ YD	CONCRETE MEDIAN REMOVED	
				426																							426		202	30700	426	FT	CONCRETE BARRIER REMOVED	
				1397																						1348	49		202	32000	1397	FT	CURB REMOVED	
				509																						448	61		202	35100	509	FT	PIPE REMOVED, 24" AND UNDER	
																							319	10			329		202	35200	329	FT	PIPE REMOVED, OVER 24"	
				4676																						2894	1782		202	38000	4676	FT	GUARDRAIL REMOVED	
				1																						1			202	58000	1	EACH	MANHOLE REMOVED	
				13																						10	3		202	58100	13	EACH	CATCH BASIN REMOVED	
																					1						1		202	58700	1	EACH	MANHOLE ABANDONED	
				85																						85			SPECIAL	20270000	85	FT	FILL AND PLUG EXISTING CONDUIT	
				923																						399	524		202	75000	923	FT	FENCE REMOVED	
				LUMP																							LUMP		202	98000	LUMP		REMOVAL MISC.: STEEL ENCASED CONC. BOLLARDS	
										2846		389	208	1359		521		412	165	191		938				3245	3784		203	10000	7029	CU YD	EXCAVATION	
										4517		61	103	10528		63		967	873	955		251				13550	4768		203	20000	18318	CU YD	EMBANKMENT	
										1220				994												994	1220		203	20001	2214	CU YD	EMBANKMENT, AS PER PLAN	236
			16186																							1739	14447		204	10000	16186	SQ YD	SUBGRADE COMPACTION	
																										1	7		204	45000	8	HOUR	PROOF ROLLING	
					550.0	637.5		1187.5			637.5				225.0		562.5									562.5	3237.5		606	13000	3800.0	FT	GUARDRAIL, TYPE 5	
															1												1		606	22000	1	EACH	ANCHOR ASSEMBLY, B-98	
																	1									1			606	22010	1	EACH	ANCHOR ASSEMBLY, TYPE E-98	
					1	1					1																3		606	26500	3	EACH	ANCHOR ASSEMBLY, TYPE T	
								1									1									1	1		606	35000	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE I	
					1	1		1			1																4		606	35100	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
					78		399	579	64		514																1634		607	23000	1634	FT	FENCE, TYPE CLT	
																											224		607	23004	224	FT	FENCE REBUILT, TYPE CLT	
																					2687						2687		608	10000	2687	SQ FT	4" CONCRETE WALK	
																					335						335		608	15000	335	SQ FT	8" CONCRETE WALK	
																					3						3		608	49001	3	EACH	CURB RAMP, AS PER PLAN	168
							202	62																			264		622	10100	264	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE BI	
							1	1																			2		622	10200	2	EACH	BARRIER TRANSITION	
																															EROSION CONTROL	
	2																										2		659	00100	2	EACH	SOIL ANALYSIS TEST	
										8731		1637	1420	6079		2034		1093	2858	3754		1087				18875	9818		659	10000	28693	SQ YD	SEEDING AND MULCHING	
	1435																										1435		659	14000	1435	SQ YD	REPAIR SEEDING AND MULCHING	
	1435																										1435		659	15000	1435	SQ YD	INTER-SEEDING	
	4																										4		659	20000	4	TON	COMMERCIAL FERTILIZER	
	5.9																										5.9		659	31000	5.9	ACRE	LIME	
	159																										159		659	35000	159	MGAL	WATER	
	65																										65		659	40000	65	MSF	MOWING	

CALCULATED EAK
CHECKED AM

GENERAL SUMMARY

MOT-75-14.60

Plotted By: acscheiderer Date: 8/28/2007 Time: 3:09:33 PM
Filename: g:\C004\0066\Road\General\23828gg01.dgn

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																									EROSION CONTROL (CONTINUED)	
			181	174	446	37	215											215	838		670	00700	1053	SQ YD	DITCH EROSION PROTECTION	
																			LUMP		832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
																			20000		832	30000	20000	EACH	EROSION CONTROL	
																									DRAINAGE	
											8.5								8.5		511	46600	8.5	CU YD	CLASS C CONCRETE, HEADWALL	
			0.8	0.3	0.6														1.7		602	20000	1.7	CU YD	CONCRETE MASONRY	
				8.9															8.9		602	20001	8.9	CU YD	CONCRETE MASONRY, AS PER PLAN	
																										14
	683																	11	672		603	00510	683	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	619																		619		603	00900	619	FT	6" CONDUIT, TYPE B	
								381											381		603	04400	381	FT	12" CONDUIT, TYPE B	
								55											55		603	04600	55	FT	12" CONDUIT, TYPE C	
					63	39		65											167		603	05900	167	FT	15" CONDUIT, TYPE B	
			183	20		119		113											435		603	06100	435	FT	15" CONDUIT, TYPE C	
			55	82	34														171		603	06700	171	FT	15" CONDUIT, TYPE F	
					180														180		603	07400	180	FT	18" CONDUIT, TYPE B	
											10								10		603	21100	10	FT	48" CONCUIT, TYPE C	
								3											3		604	00400	3	EACH	CATCH BASIN, NO. 3	
			1	2	1	1		4											9		604	00800	9	EACH	CATCH BASIN, NO. 3A	
				1	2	1		3											7		604	04500	7	EACH	CATCH BASIN, NO. 2-2B	
				1				1											2		604	31500	2	EACH	MANHOLE, NO. 3	
	7																		7		604	36600	7	EACH	PRECAST REINFORCED CONCRETE OUTLET	
	4520																	463	4057		605	11100	4520	FT	6" SHALLOW PIPE UNDERDRAINS	
	1634																	133	1501		605	13300	1634	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
	2492																		2492		605	14000	2492	FT	6" BASE PIPE UNDERDRAINS	
				340															340		613	41200	340	CU YD	LOW STRENGTH MORTAR BACKFILL	
																									PAVEMENT	
				302																302	253	01000	302	SQ YD	PAVEMENT REPAIR	
				21																21	301	46000	21	CU YD	ASPHALT CONCRETE BASE, PG64-22	
		3954																453	3501		302	46000	3954	CU YD	ASPHALT CONCRETE BASE, PG64-22	
		2507																290	2217		304	20000	2507	CU YD	AGGREGATE BASE	
		1050																	1050		305	12000	1050	SQ YD	8" CONCRETE BASE	
		78																	78		407	13900	78	GAL	TACK COAT, 702.13	
		604																64	540		407	14000	604	GAL	TACK COAT FOR INTERMEDIATE COURSE	
2243		628																66	2805		442	10000	2871	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
		725																77	648		442	10100	725	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
				13																13	448	47020	13	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22	
			20	40	20														80		609	24510	80	FT	CURB, TYPE 4-C	
					83	85	31	759										31	927		609	26000	958	FT	CURB, TYPE 6	
					107			84											191		609	72000	191	SQ YD	CONCRETE MEDIAN	
																									WATERWORK	
									LUMP										LUMP		503	11101	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN	180A
										274	75								349		SPECIAL	63822102	349	FT	SPECIAL - 36" PRESTRESSED CONCRETE CYLINDER PIPE WITH FITTINGS, AWWA C301	180B
										8	8								16		SPECIAL	69098000	16	EACH	MISC.: EXISTING WATERMAIN JOINT REHAB.	180B

CALCULATED EAK
CHECKED AM

GENERAL SUMMARY

MOT-75-14.60

Plotted By: acscheiderer Date: 10/2/2007 Time: 11:54:50 AM
Filename: g:\C004\0066\Road\General\23828gg02.dgn

SHEET NUMBER																		FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
17	18	19	20	20A	90													HSP	FED/ STATE	100% LOCAL						
				135															135		251	01000	135	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR	
200																			200		410	12000	200	CU YD	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
200																			200		410	13000	200	CU YD	TRAFFIC COMPACTED SURFACE, TYPE C	
				135															135		423	98100	135	SQ YD	CRACK SEALING, MISC.: MOT DETOUR	
					17														17		442	90000	17	CU YD	ASPHALT CONCRETE, MISC.: TYPE B, 12"	
1000																			1000		614	11100	1000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	83A
					1														1		SPECIAL	614I1300	1	EACH	WORK ZONE TRAFFIC SIGNAL	
			20																20		614	11500	20	MONTHS	WORKSITE TRAFFIC SUPERVISOR	
					8866														8866		614	11600	8866	FT	TRANSITION AREA DELINEATION	
					2243														2243		614	11610	2243	FT	TANGENT AREA DELINEATION	
					10														10		614	12338	10	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
	13																		13		614	12470	13	EACH	WORK ZONE SPEED LIMIT SIGN	
	7																		7		614	12484	7	EACH	WORK ZONE INCREASED PENALTIES SIGN	
100																			100		614	12510	100	SQ FT	REPLACEMENT SIGN	
200																			200		614	12600	200	EACH	REPLACEMENT DRUM	
			243																243		614	12800	243	EACH	WORK ZONE RAISED PAVEMENT MARKER	
			1156																1156		614	12801	1156	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	
250																			250		614	13000	250	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	81
			12208																12208		614	13171	12208	FT	LINEAR DELINEATOIN, AS PER PLAN	
					285														285		614	13300	285	EACH	BARRIER REFLECTOR, TYPE B	20
			11		285														296		614	13350	296	EACH	OBJECT MARKER, ONE WAY	
		20																	20		614	18601	20	SIGN-MONTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
				LUMP															LUMP		614	18002	LUMP		MAINTAINING TRAFFIC, MISC.: PHASE IB DETOUR	
					0.78														0.78		614	20200	0.78	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I	
					0.21														0.21		614	20300	0.21	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE II	
					0.03														0.03		614	21200	0.03	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
					0.01														0.01		614	21300	0.01	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II	
					4.30														4.3		614	22200	4.30	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
					0.52														0.52		614	22300	0.52	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II	
					2862														2862		614	23400	2862	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	
					3692														3692		614	24400	3692	FT	WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I	
					81														81		614	25400	81	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 740.06, TYPE I	
					67														67		614	26400	67	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
					34														34		614	26600	34	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II	
					163														163		615	20000	163	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
550																			550		616	10000	550	MGAL	WATER	
					10520														10520		622	40020	10520	FT	PORTABLE CONCRETE BARRIER, 32"	
					96														96		622	40031	96	FT	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	83A
					1586														1586		622	40040	1586	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	
					6														6		622	90000	6	FT	BARRIER, MISC.: WORK ZONE TYPE BI CONCRETE BARRIER	83B-83C
				200															200		642	50020	200	FT	PAVEMENT MARKING, MISC.: MOT DETOUR	
																									FOR TRAFFIC CONTROL GENERAL SUMMARY	181
																									FOR TRAFFIC SIGNAL GENERAL SUMMARY	213
																									FOR LIGHTING GENERAL SUMMARY	225
																									FOR STRUCTURE QUANTITIES	239
																									FOR RETAINING WALL QUANTITIES	291
																		LUMP		SPECIAL	10810000	LUMP		CPM PROGRESS SCHEDULE	
																		LUMP		614	11000	LUMP		MAINTAINING TRAFFIC	
																		20		619	16020	20	MONTH	FIELD OFFICE, TYPE C	
																		LUMP		623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
																		LUMP		624	10000	LUMP		MOBILIZATION	

CALCULATED EAK
CHECKED AM

GENERAL SUMMARY

MOT-75-14.60

Plotted By: acscheiderer Date: 8/22/2007 Time: 3:18:30 PM
Filename: g:\C004\0066\Road\General\23828gg03.dgn

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442 ASPHALT CONCRETE, MISC.: TYPE B, (T-12")	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	TRANSITION AREA DELINEATION	TANGENT AREA DELINEATION	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE)	WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW)	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE)	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (YELLOW)	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE)	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE)	WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE)	WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I	WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE)	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE)	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	622 PORTABLE CONCRETE BARRIER, 32"	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	BARRIER, MISC.: WORK ZONE BI BARRIER
					CY	EA	FT	FT	EA	EA	EA	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	SY	FT	FT	FT	FT
21	4+79.71	6+00.00	RT	IA													0.02												
22	6+00.00	11+50.00	RT	IA													0.10												
	8+02.00	11+50.00	LT	IA													0.07												
23	11+50.00	15+16.05	RT	IA													0.07												
	11+50.00	16+50.00	LT	IA													0.09												
	6+68.80	8+62.30	LT & RT	IA													0.08												
	7+48.80	8+56.87	LT & RT	IA																					163				
				IA		1																							
24	16+50.00	21+00.00	LT	IA													0.09												
27	441+50.00	446+50.00	RT	IA													0.09												
28	446+50.00	452+00.00	RT	IA													0.10												
	451+14.00	452+00.00	RT	IA					1	3	3															86			
29	452+00.00	456+00.00	RT	IA													0.08												
	452+00.00	456+00.00	RT	IA						9	9															400			
	454+25.00	456+88.00	LT	IA					1	6	6															263			
	454+56.11	455+52.11	MEDIAN	IA																							96		
	454+56.11	455+52.11	MEDIAN	IA	17																								
	454+56.11	454+59.11	MEDIAN	IA																									3
	455+49.11	455+52.11	MEDIAN	IA																									3
34	422+40.67	423+00.00	RT	IB								0.01																	
	422+40.67	423+00.00	RT	IB												0.01													
35	423+00.00	428+50.00	RT	IB								0.10																	
	423+00.00	428+50.00	RT	IB												0.10													
36	428+50.00	434+00.00	RT	IB								0.10																	
	428+50.00	434+00.00	RT	IB												0.10													
	433+67.00	434+00.00	RT	IB												0.01													
	429+09.67	434+00.00	RT	IB						11	11															490			
	433+67.00	434+00.00	LT	I						2	2															33			
	8+98.91	9+44.19	LT	IB															0.01										
	9+02.02	9+44.19	LT	IB						1	1															45			
37	434+00.00	439+50.00	RT	IB								0.10																	
	434+00.00	437+87.28	RT	IB												0.07													
	434+00.00	439+50.00	LT	IB						12	12															550			
	434+00.00	435+06.65	RT	I						3	3															107			
	435+27.28	437+87.28	RT	IB																					260				
	437+87.28	439+50.00	RT	IB																	327								
	434+00.00	439+14.16	LT	IB												0.10													
	8+00.00	8+98.91	LT	IB															0.02										
	8+28.19	9+02.02	LT	IB					1	3	3															74			
	1+00.00	439+14.16	LT	IB													0.03												
	1+00.00	439+50.00	LT	IB						5	5															180			
	439+14.16	439+50.00	LT	IB																	36								
	439+14.16	439+50.00	LT	IB																	36								
	1+46.98	439+50.00	LT	IB												0.04													
38	439+50.00	445+00.00	RT	IB								0.10																	
	439+50.00	440+47.36	RT	IB																	97								
	439+50.00	440+47.36	RT	IB																	98								
	440+47.36	445+00.00	RT	IB												0.09													
	439+50.00	440+39.94	LT	IB					1	3	3															90			
	439+50.00	440+39.94	LT	IB					1	3	3															90			
	439+50.00	445+00.00	LT	IB												0.10													
	439+50.00	442+34.16	LT	IB																	283								
	439+50.00	442+34.16	LT	IB																	283								
	442+34.16	445+00.00	LT	IB																		266							
TOTALS CARRIED TO SHEET 90					17	1	0	0	5	61	61	0.41	0.00	0.00	0.00	0.62	0.82	0.00	0.03	1160	526	0	0	0	163	2408	96	0	6

CALCULATED EAK
CHECKED AM

SUMMARY OF TRAFFIC MAINTENANCE

MOT-75-14.60

87
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:16 AM
Filename: G:\C004\0066\Road\General\23828gs01_MOT.dgn

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442	614																615	622			
					ASPHALT CONCRETE, MISC.: TYPE B, (T-12")	SPECIAL - WORK ZONE TRAFFIC SIGNAL	TRANSITION AREA DELINEATION	TANGENT AREA DELINEATION	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE)	WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW)	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE)	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (YELLOW)	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE)	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE)	WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE)	WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I	WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE)	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE)	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE CONCRETE BARRIER, 32"	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	BARRIER, MISC.: WORK ZONE BI BARRIER
					CY	EA	FT	FT	EA	EA	EA	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	SY	FT	FT	FT	FT
39	437+06.80	438+06.80	LT	IB																100									
	0+93.73	443+96.16	LT	IB						13	13															618			
	1+17.72	438+06.80	LT	IB																72									
	438+06.80	443+04.16	LT	IB																	497								
	4+18.25	439+50.00	LT	IB												0.14													
	1+17.72	4+18.25	LT	IB													0.06												
	439+50.00	445+54.16	LT	IB												0.11													
40	445+00.00	450+50.00	RT	IB								0.10																	
	445+00.00	450+50.00	RT	IB												0.10													
	447+46.71	450+50.00	RT	IB													0.06												
	447+49.98	450+50.00	RT	IB					1	7	7															300			
	445+00.00	445+54.16	LT	IB																	54								
	445+00.00	450+50.00	LT	IB												0.10													
	450+44.25	450+50.00	LT	IB								0.01																	
	450+44.25	450+50.00	LT	IB													0.01												
41	450+50.00	453+33.00	LT	IB													0.05												
	450+50.00	453+33.00	LT	IB								0.05																	
	450+50.00	453+33.00	LT	IB												0.05													
	453+33.00	455+76.71	LT	IB						6	6															245			
	455+76.71	456+00.00	LT	IB						1	1																20		
	450+50.00	454+00.00	RT	IB													0.07												
	450+50.00	454+00.00	RT	IB								0.07																	
	450+50.00	454+00.00	RT	IB												0.07													
	450+50.00	455+76.71	RT	IB						12	12															527			
	455+76.71	456+00.00	RT	IB						1	1																20		
	453+33.00	456+00.00	LT	IB															0.05										
	453+33.00	456+00.00	LT	IB									0.05																
	453+33.00	456+00.00	LT	IB															0.05										
	454+00.00	456+00.00	RT	IB															0.04										
	454+00.00	456+00.00	RT	IB									0.04																
	454+00.00	456+00.00	RT	IB															0.04										
42	456+00.00	459+44.48	LT	IB									0.07						0.07	0.07									
	459+44.48	461+50.00	LT	IB			206																						
	456+00.00	461+50.00	LT	IB						12	12																550		
	456+00.00	458+52.19	RT	IB									0.05						0.05	0.05									
	458+52.19	461+50.00	RT	IB			298																						
	456+00.00	461+50.00	RT	IB						12	12																550		
43	461+50.00	467+00.00	LT	IB			550																						
	461+50.00	461+77.19	LT	IB						2	2																30		
	461+77.19	467+00.00	LT	IB						11	11															520			
	461+50.00	467+00.00	RT	IB			550																						
	461+50.00	461+77.19	RT	IB						2	2																30		
	461+77.19	467+00.00	RT	IB						11	11															520			
44	467+00.00	468+70.72	LT	IB			171																						
	467+00.00	468+50.94	RT	IB			151																						
	468+70.72	472+50.00	LT	IB				379																					
	467+00.00	470+14.06	LT	IB					1	7	7															320			
	468+50.94	472+50.00	RT	IB												0.08													
	467+00.00	468+04.07	RT	IB						3	3															104			
45	472+50.00	478+26.00	LT	IB				576																					
	478+26.00	483+50.00	LT	IB			524																						
	472+50.00	473+20.94	RT	IB								0.01																	
	473+49.06	479+26.00	LT	IB																	577								
	14+03.41	5+00.00	LT	IB												0.17													
	479+26.00	5+00.00	LT	IB																318									
46	483+50.00	487+26.00	LT	IB				376																					
	487+26.00	494+16.00	LT	IB												0.13													
47	0+36.82	2+00.00	RT	IB												0.03													
48	2+00.00	7+50.00	RT	IB												0.10													
TOTALS CARRIED TO SHEET 90					0	0	2450	1331	2	100	100	0.24	0.21	0.00	0.00	1.08	0.25	0.21	0.21	490	1128	0	0	0	0	3154	0	1200	0

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC SUBSUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:17 AM
Filename: G:\C004\0066\Road\General\23828gs02_MOT.dgn

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442 ASPHALT CONCRETE, MISC.: TYPE B, (T-12")	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 TRANSITION AREA DELINEATION	614 TANGENT AREA DELINEATION	614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE)	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	622 PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	622 BARRIER, MISC.: WORK ZONE BI BARRIER
					CY	EA	FT	FT	EA	EA	EA	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	SY	FT	FT	FT	FT
49	7+50.00	12+00.00	RT	1B												0.09													
	8+02.00	13+00.00	LT	1B													0.09												
	11+50.00	13+00.00	RT	1B													0.03												
	10+80.00	12+33.86	RT	1B																	114								
	12+33.86	13+00.00	RT	1B																66									
50	13+00.00	13+88.11	LT	1B													0.02												
	13+00.00	13+88.11	RT	1B													0.02												
	13+00.00	13+90.00	RT	1B																90									
	13+90.00	13+90.00	RT	1B																			22						
	8+05.00	8+05.00	LT & RT	1B																				34					
	7+49.00	8+15.00	LT	1B											0.01														
	14+50.35	14+74.53	RT	1B																			24						
	14+52.32	15+22.00	LT	1B																166		81							
	15+22.00	15+22.00	LT	1B																			21						
	15+22.00	16+72.00	CL	1B										0.03															
	15+22.00	16+72.00	LT	1B																150									
53	4+19.19	8+00.00	LT	1B															0.07										
58	436+08.31	439+00.00	RT	2													0.06												
	433+67.00	439+00.00	LT	2						12	12															533			
	437+73.00	439+00.00	LT	2			127																						
59	439+00.00	439+08.00	LT	2			8																						
	439+00.00	444+50.00	RT	2													0.11												
	439+00.00	442+16.16	LT	2					1	7	7															316			
	439+08.00	444+50.00	LT	2				542																					
	441+50.00	444+50.00	LT	2																	300								
60	444+50.00	445+09.80	RT	2													0.01												
	444+57.28	445+09.80	RT	2												0.01													
	445+09.80	450+00.00	RT	2			490																						
	445+25.80	450+00.00	RT	2					1	11	11															480			
	446+15.00	449+86.86	LT	2													0.07												
	447+21.25	449+86.86	RT	2													0.05												
	444+50.00	445+28.26	LT	2				78																					
	445+28.26	450+00.00	LT	2			472																						
	444+50.00	448+46.62	LT	2																	397								
61	450+00.00	455+50.00	LT	2			550																						
	450+00.00	455+50.00	RT	2			550																						
	450+00.00	455+50.00	RT	2						12	12															560			
	451+85.78	455+50.00	RT	2																	364								
	449+86.86	451+00.00	LT	2						3	3															110			
	449+86.86	450+21.25	LT	2													0.01												
	449+86.86	451+85.78	RT	2													0.04												
	450+21.25	452+00.00	LT	2																179									
	453+30.19	455+48.35	LT	2												0.04													
	453+33.00	455+50.00	LT	2						5	5															217			
62	455+48.35	458+76.71	LT	2												0.06													
	455+50.00	455+56.47	LT	2			6																						
	455+56.47	456+70.28	LT	2				114																					
	456+70.28	461+00.00	LT	2			430																						
	455+50.00	459+33.31	RT	2			383																						
	459+33.31	459+50.00	RT	2				17																					
	459+20.00	461+00.00	RT	2			180																						
	455+50.00	459+50.43	RT	2						9	9															400			
	459+50.43	461+00.00	RT	2						4	4																150		
	455+50.00	459+70.28	LT	2						9	9															420			
	459+70.28	461+00.00	LT	2						4	4																130		
	455+53.64	458+76.71	LT	2																	323								
TOTALS CARRIED TO SHEET 90					0	0	3196	751	2	76	76	0.00	0.00	0.03	0.01	0.20	0.51	0.00	0.07	651	1498	81	67	34	0	3036	0	280	0

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED AML

CHECKED AM

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:18 AM
Filename: G:\C004\0066\Road\General\23828gs03_MOT.dgn

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED EAK CHECKED AM

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442 ASPHALT CONCRETE, MISC.: TYPE B, (T-12") CY	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL EA	TRANSITION AREA DELINEATION FT	TANGENT AREA DELINEATION FT	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL) EA	BARRIER REFLECTOR, TYPE B EA	OBJECT MARKER, ONE WAY EA	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE) MILE	WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE) MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW) MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (YELLOW) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW) MILE	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE) FT	WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE) FT	WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I FT	WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE) FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE) FT	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	622 PORTABLE CONCRETE BARRIER, 32" FT	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED FT	BARRIER, MISC.: WORK ZONE BI BARRIER FT
63	461+00.00	461+52.53	LT	2						2	2																	53		
	461+00.00	466+50.00	LT	2			550																							
	461+52.53	466+50.00	LT	2						11	11																	497		
	461+00.00	461+52.53	RT	2						2	2																	53		
	461+00.00	466+50.00	RT	2			550																							
	461+52.53	466+50.00	RT	2						11	11																	497		
64	466+50.00	472+00.00	LT	2			550																							
	466+50.00	472+00.00	LT	2						12	12																	550		
	468+25.28	472+00.00	LT	2												0.07														
	468+25.28	472+00.00	LT	2																		375								
	466+50.00	468+55.01	RT	2			205																							
	466+50.00	467+80.43	RT	2						4	4																	130		
	468+55.01	469+55.01	RT	2													0.02													
65	472+00.00	476+65.28	LT	2			465																							
	476+65.28	477+50.00	LT	2				85																						
	472+00.00	477+50.00	LT	2												0.10														
	472+00.00	473+65.28	LT	2																		165								
	472+00.00	474+45.28	LT	2					1	6	6																	245		
	473+65.28	477+50.00	LT	2																	385									
66	477+50.00	478+26.00	LT	2				76																						
	477+50.00	5+00.00	LT	2												0.09														
	478+26.00	487+26.00	LT	2			900																							
	479+26.00	5+00.00	LT	2													0.06													
	477+50.00	479+26.00	LT	2																	176									
	487+26.00	488+00.00	LT	2													0.01													
67	488+00.00	494+16.00	LT	2													0.12													
69	12+36.00	17+50.00	LT	2												0.10														
	15+40.00	17+50.00	LT	2													0.04													
70	17+50.00	17+80.00	LT	2												0.01														
	17+50.00	21+01.00	LT	2													0.07													
78	8+52.00	11+50.00	LT	3								0.06																		
	8+52.00	11+50.00	LT	3												0.06														
79	11+50.00	15+28.88	LT	3								0.07																		
	11+50.00	15+28.88	LT	3												0.07														
		TOTALS FROM SHEET 87			17	1	0	0	5	61	61	0.41	0.00	0.00	0.00	0.62	0.82	0.00	0.03	1160	526	0	0	0	163	2408	96	0	6
		TOTALS FROM SHEET 88			0	0	2450	1331	2	100	100	0.24	0.21	0.00	0.00	1.08	0.25	0.21	0.21	490	1128	0	0	0	0	3154	0	1200	0
		TOTALS FROM SHEET 89			0	0	3196	751	2	76	76	0.00	0.00	0.03	0.01	0.20	0.51	0.00	0.07	651	1498	81	67	34	0	3036	0	280	0
		TOTALS FROM THIS SHEET			0	0	3220	161	1	48	48	0.13	0.00	0.00	0.00	0.50	0.32	0.00	0.00	561	540	0	0	0	0	1919	0	106	0
TOTALS CARRIED TO GEN. SUM.					17	1	8866	2243	10	285	285	0.78	0.21	0.03	0.01	4.30		0.52		2862	3692	81	67	34	163	10520	96	1586	6

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:19 AM
Filename: G:\C004\0066\Road\General\23828gs04_MOT.dgn

REF NO.	BEGINNING SHEET NO.	ENDING SHEET NO.	STATION FROM	STATION TO	SIDE	603 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	603 6" CONDUIT, TYPE B	604 PRECAST REINFORCED CONCRETE OUTLET	605 6" SHALLOW PIPE UNDERDRAINS (D=30")	605 6" UNCLASSIFIED PIPE UNDERDRAINS	605 6" BASE PIPE UNDERDRAINS (D=18")	INVERT @ BEGINNING OF RUN	INVERT @ IST BEND	INVERT @ 2ND BEND	INVERT @ 3RD BEND	INVERT @ 4TH BEND	INVERT @ OUTLET OF RUN	OUTLETS TO	BENDS AND BRANCHES 6" X 45°	6" X 90°	6" X 6" TEE	6" X 6" WYE	6" X 6" CROSS	END CAP
						FT	FT	EA	FT	FT	FT								NO.	NO.	NO.	NO.	NO.	NO.
	IR 75																							
1-U	97	98	433+67.00	436+06.19	LT	11				240		745.23	741.93	741.83				4-U		1		1		1
2-U	97	98	432+45.67	435+06.65	RT	8			260			746.56	741.53				741.51	3-U		1				1
3-U	97	98	432+45.67	436+01.19	RT	105				261		747.38**	746.86	741.51	741.48		741.32	EX CB	1	1	1			
4-U	97	98	433+67.00	436+06.19	LT	86			240			744.65	740.84	740.39			740.30	EX CB	1	1				
5-U			NOT	USED																				
6-U			NOT	USED																				
7-U	98	98	436+17.46	439+04.16	LT	85			287			745.49	740.83	740.32			740.26	EX CB	1					1
8-U	98	98	436+17.46	439+04.16	LT	11				288		746.27**	746.20	741.91	741.81			7-U	1		1	1		
9-U	99	99	446+43.65	452+44.94	RT	11*			463*	133*		758.44	757.95	757.91	740.67	740.59	740.56	EX CB	3	1				1
10-U	99	99	452+25.40	453+44.71	RT	9		1			125	760.95	760.82	760.79	759.45		759.36	SLOPE	2	1				1
11-U	99	100	453+27.33	455+77.03	LT		37		247			764.27	757.20				755.78	12-U		1				
12-U	99	100	453+27.33	455+77.03	LT	138			245			763.57	755.78	755.38			740.58	EX MH			2			
13-U	99	100	453+27.33	455+72.07	LT						242	764.20	763.01	762.96	756.33			12-U	2	1				1
14-U	99	100	453+47.35	455+75.03	RT	9			231			764.57	760.31				760.27	PR CB		1				
15-U	99	100	453+47.35	455+75.03	RT						232	765.19					760.95	PR CB						
16-U	100	100	454+00.00	455+75.03	RT					176		764.27	760.65				760.60**	EX UD	1					
17-U	100	100	461+52.19	462+50.00	LT		19			98		766.65	764.75				764.51	18-U		1				
18-U	100	100	461+52.19	462+50.00	RT	20	43	1	98			766.65	764.51				763.71	SLOPE					1	
19-U			NOT	USED																				
20-U	100	100	461+52.19	462+50.00	RT				98			766.71	763.96					18-U			1			
21-U	100	100	461+52.19	461+80.28	RT					30		767.27	767.00	766.97			766.78	PR CB		2				
22-U	100	100	461+83.05	462+50.00	RT	6					67	767.10	764.64	764.59				18-U		1		1		
23-U	100	100	461+52.19	463+42.86	LT	11				191		766.64	763.99				763.83	PR CB		1				
24-U	100	100	461+52.19	463+42.86	LT						189	767.30					763.57	PR CB						
25-U	100	102	462+51.00	466+69.00	RT	35		1	418			764.70	758.36				758.01	SLOPE			1			1
26-U	100	102	462+51.00	466+69.00	RT	11					418	765.37	758.96	758.86				25-U			1	1		1
27-U	100	102	463+43.86	466+69.00	LT	35		1	325			763.01	758.36				758.01	SLOPE			1			1
28-U	100	102	463+45.60	466+69.00	LT	11					323	763.42	758.96	758.86				27-U			1	1		1
29-U	102	102	466+69.00	468+30.96	LT				162			759.43					758.36	27-U						1
30-U	102	102	466+69.00	468+30.96	LT						164	760.31**	760.01				758.96	27-U	1					
31-U	102	102	466+69.00	467+94.07	RT				125			759.30	758.36					25-U						1
32-U	102	102	466+69.00	467+94.07	RT						127	760.12**	759.60				758.96	25-U	1					
	RAMP N-6																							
33-U	122	122	445+90.73	446+20.03	LT						39	739.84					739.47	PR CB						1
34-U			NOT	USED																				
35-U	122	122	446+22.03	447+06.79	LT					85		740.31					739.32	PR CB						1
36-U	122	122	450+16.66	452+06.94	LT	17		1	190			750.79	746.72				746.54	SLOPE		1				1
37-U	122	122	452+07.94	455+73.81	LT	21		1	366			762.09	750.82				749.56	SLOPE		1				
38-U	122	122	452+07.94	455+37.29	LT	6					329	760.74	751.29	750.99				37-U		1		1		1
39-U	122	122	455+40.13	455+70.07	LT					30		761.77					761.60	PR CB						
	RAMP N-6A																							
40-U	129	129	440+41.95	440+79.68	RT				53			739.97					738.44	PR CB	1					1
41-U	129	129	448+12.70	446+00.00	RT	16		1	212			757.30**	756.66	749.80			749.64	SLOPE	1	1				
42-U	129	129	446+01.00	441+94.38	RT	21			384			749.83	740.73				740.52	PR CB	1					1
43-U	129	129	441+89.38	440+79.68	RT				116			740.38	739.81	739.57			738.44	PR CB		2				1
	STANLEY AVENUE																							
44-U			NOT	USED																				
45-U	146	146	9+10.85	11+36.43	MEDIAN		257					739.01	738.04				737.86	PR CB	1					1
46-U	146	146	9+58.82	10+00.68	LT						41	738.90	738.65				738.63**	EX UD	1					1
47-U	146	146	9+90.09	10+40.11	RT					56		739.75	739.55				739.47	EX MH	1					1
48-U			NOT	USED																				
49-U	146	147	11+36.43	11+73.17	MEDIAN		40					739.04	738.88				738.82	PR CB	1					1
50-U			NOT	USED																				
51-U	147	147	11+94.00	14+16.05	MEDIAN		223					740.69	739.20				739.17	PR CB	1					1
52-U	147	147	12+93.00	14+07.29	LT						124	740.44	739.56				739.57**	EX UD	1					1
53-U	147	147	14+12.00	14+85.00	LT						72	740.52					740.01	PR CB						1
54-U	147	147	14+85.00	15+29.65	LT					46		740.67					740.52	PR CB						1
ALLOCATED TOTALS CARRIED TO GEN. SUM.*						11	0	0	463	133	0													
ALLOCATED TOTALS CARRIED TO GEN. SUM.						672	619	7	4057	1501	2492													
GRAND TOTAL CARRIED TO GEN. SUM.						683	619	7	4520	1634	2492	TOTALS FOR INFORMATION ONLY							23	20	9	6	1	27

COLUMNS TO RIGHT ARE FOR INFORMATION ONLY.
** - FIELD VERIFY EXISTING LOCATION AND ELEVATION
* - HIGHWAY SAFETY PROGRAM (HSP)

CALCULATED EAK
CHECKED AM

UNDERDRAIN SUBSUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:19 AM
Filename: G:\C004\00661\Road\General\23828gs01_undr.dgn

STATION FROM	STATION TO	LOCATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	204 SUBGRADE COMPACTION A/9	302 ASPHALT CONCRETE BASE, PG64-22 (T-10") 10A/(12x27)	304 AGGREGATE BASE (T-4") 4A/(12x27)	304 AGGREGATE BASE (T-6") 6A/(12x27)	305 8" CONCRETE BASE A/9	407 TACK COAT FOR INTERMEDIATE COURSE 0.040A/9	407 TACK COAT, 702.13 0.075A/9	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.75") 1.75A/(12x27)	
				FT	FT	SQ FT	SQ YD	CU YD	CU YD	CU YD	SQ YD	GAL	GAL	CU YD	CU YD	CU YD	
433+67.00	439+04.16	IR-75	LT	537.16	15.33	8234.66	914.96		101.66								
					14.33	7697.50		237.58									
					14.00	7520.24						33.42		34.82		40.62	
432+45.67	433+45.67	IR-75	RT	100.00	16.33	1633.00	181.44		20.16								
					15.33	1533.00		47.31									
					15.00	1500.00						6.67		6.94		8.10	
433+45.67	435+06.65	IR-75	RT	160.98	21.33	3433.70	381.52		42.39								
					20.33	3272.72		101.01									
					20.00	3219.60						14.31		14.91		17.39	
450+29.63	452+85.40	IR-75	GORE	CAD	GENERATED	3365.00	373.89			62.31							
				CAD	GENERATED	3365.00		103.86									
				CAD	GENERATED	3365.00						14.96		15.58		18.18	
452+85.40	454+35.24	IR-75	RT	CAD	GENERATED	3665.00	407.22			67.87							
				CAD	GENERATED	3665.00		113.12									
				CAD	GENERATED	3665.00						16.29		16.97		19.80	
453+27.33	455+28.28	IR-75	LT	200.95	57.33	11520.46	1280.05			213.34							
					56.33	11319.51		349.37									
					56.00	11253.20						50.01		52.10		60.78	
455+28.28	455+50.03	IR-75	LT	21.75	46.00	1000.50	111.17			18.53							
					46.00	1000.50		30.88									
					46.00	1000.50						4.45		4.63		5.40	
454+00.00	455+50.03	IR-75	RT	150.03	46.00	6901.38	766.82			127.80							
					46.00	6901.38		213.01									
					46.00	6901.38						30.67		31.95		37.28	
454+35.24	455+50.03	IR-75	RT	CAD	GENERATED	2415.00	268.33			44.72							
				CAD	GENERATED	2415.00		74.54									
				CAD	GENERATED	2415.00						10.73		11.18		13.04	
450+21.25	451+75.40	N-7		154.15	23.33	3596.32	399.59*			66.60*							
					22.33	3442.17		106.24*									
					22.00	3391.30						15.07*		15.70*		18.32*	
451+75.40	452+25.40	N-7		50.00	24.33	1216.50	135.17*			22.53*							
					23.33	1166.50		36.00*									
					23.00	1150.00						5.11*		5.32*		6.21*	
452+25.40	452+85.40	IR-75	RT	60.00	25.33	1519.80	168.87			28.14							
					24.33	1459.80		45.06									
					24.00	1440.00						6.40		6.67		7.78	
452+85.40	453+00.00	IR-75	RT	14.60	9.33	136.22	15.14			2.52							
					8.33	121.62		3.75									
					8.00	116.80						0.52		0.54		0.63	
453+00.00	453+50.00	IR-75	RT	50.00	10.33	516.50	57.39			9.56							
					9.33	466.50		14.40									
					9.00	450.00						2.00		2.08		2.43	
453+50.00	455+50.03	IR-75	RT	200.03	11.33	2266.34	251.82			41.97							
					10.33	2066.31		63.78									
					10.00	2000.30						8.89		9.26		10.80	
461+77.53	462+59.80	IR-75	RT	82.27	46.00	3784.42	420.49			70.08							
					46.00	3784.42		116.80									
					46.00	3784.42						16.82		17.52		20.44	
461+77.53	462+59.80	IR-75	RT	CAD	GENERATED	525.00	58.33			9.72							
				CAD	GENERATED	525.00		16.20									
				CAD	GENERATED	525.00						2.33		2.43		2.84	
461+77.53	462+37.53	IR-75	RT	60.00	10.33	619.80	68.87			11.48							
					9.33	559.80		17.28									
					9.00	540.00						2.40		2.50		2.92	
TOTALS* CARRIED TO SHEET 94							534.76	142.24	0.00	89.13	0.00	20.18	0.00	21.02	0.00	24.53	
TOTALS CARRIED TO SHEET 94							5726.31	1547.95	164.21	708.04	0.00	220.87	0.00	230.08	0.00	268.43	

* - HIGWAY SAFETY PROGRAM (HSP)

CALCULATED AML CHECKED AM

PAVEMENT CALCULATIONS

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:20 AM
Filename: G:\C004\0066\Road\General\23828gs01_pavt.dgn

STATION FROM	STATION TO	LOCATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	204 SUBGRADE COMPACTION A/9	302 ASPHALT CONCRETE BASE, PG64-22 (T-10") 10A/(12x27)	304 AGGREGATE BASE (T-4") 4A/(12x27)	304 AGGREGATE BASE (T-6") 6A/(12x27)	305 8" CONCRETE BASE A/9	407 TACK COAT FOR INTERMEDIATE COURSE 0.040A/9	407 TACK COAT, 702.13 0.075A/9	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.75") 1.75A/(12x27)	
				FT	FT	SQ FT	SQ YD	CU YD	CU YD	CU YD	SQ YD	GAL	GAL	CU YD	CU YD	CU YD	
462+37.53	462+59.80	IR-75	RT	22.27	9.33	207.78	23.09			3.85							
					8.33	185.51		5.73									
					8.00	178.16						0.79		0.82		0.96	
462+59.80	465+35.40	IR-75	RT	CAD	GENERATED	760.00	84.44		9.38								
				CAD	GENERATED	760.00		23.46									
				CAD	GENERATED	760.00						3.38		3.52		4.10	
462+59.80	464+85.40	IR-75	RT	225.60	9.33	2104.85	233.87		25.99								
					8.33	1879.25		58.00									
					8.00	1804.80						8.02		8.36		9.75	
464+85.40	465+35.40	IR-75	RT	50.00	10.33	516.50	57.39		6.38								
					9.33	466.50		14.40									
					9.00	450.00						2.00		2.08		2.43	
465+35.40	467+94.07	IR-75	RT	258.67	11.33	2930.73	325.64		36.18								
					10.33	2672.06		82.47									
					10.00	2586.70						11.50		11.98		13.97	
461+77.53	462+28.07	IR-75	LT	50.54	68.00	3436.72	381.86			63.64							
					68.00	3436.72		106.07									
					68.00	3436.72						15.27		15.91		18.56	
462+28.07	462+50.00	IR-75	LT	21.93	66.91	1467.34	163.04			27.17							
					66.91	1467.34		45.29									
					66.91	1467.34						6.52		6.79		7.93	
462+50.00	463+40.00	IR-75	LT	CAD	GENERATED	1390.00	154.44		17.16								
				CAD	GENERATED	1390.00		42.90									
				CAD	GENERATED	1390.00						6.18		6.44		7.51	
463+40.00	464+00.00	IR-75	LT	60.00	12.33	739.80	82.20		9.13								
					11.33	679.80		20.98									
					11.00	660.00						2.93		3.06		3.56	
464+00.00	468+30.96	IR-75	LT	430.96	11.33	4882.78	542.53		60.28								
					10.33	4451.82		137.40									
					10.00	4309.60						19.15		19.95		23.28	
446+55.00	450+21.25	N-7		366.25	27.67	10134.14	1126.02*			187.67*							
					25.67	9401.64		290.17*									
					25.00	9156.25						40.69*		42.39*		49.46*	
446+25.00	446+55.00	N-7		CAD	GENERATED	708.00	78.67*			13.11*							
				CAD	GENERATED	658.00		20.31*									
				CAD	GENERATED	635.00						2.82*		2.94*		3.43*	
440+25.85	440+82.26	N-6A		CAD	GENERATED	3750.00	416.67			69.44							
				CAD	GENERATED	3450.00		106.48									
				CAD	GENERATED	3450.00						15.33		15.97		18.63	
445+80.76	446+23.80	N-6		CAD	GENERATED	2140.00	237.78			39.63							
				CAD	GENERATED	1890.00		58.33									
				CAD	GENERATED	1890.00						8.40		8.75		10.21	
440+82.26	441+51.12	N-6A		CAD	GENERATED	2150.00	238.89			39.81							
				CAD	GENERATED	1931.00		59.60									
				CAD	GENERATED	1931.00						8.58		8.94		10.43	
446+23.80	447+06.79	N-6		CAD	GENERATED	2300.00	255.56			42.59							
				CAD	GENERATED	2060.00		63.58									
				CAD	GENERATED	2060.00						9.16		9.54		11.13	
441+51.12	443+64.20	N-6A		213.08	29.83	6356.18	706.24			117.71							
					27.33	5823.48		179.74									
					27.00	5753.16						25.57		26.64		31.07	
447+06.79	449+55.87	N-6		249.08	27.83	6931.90	770.21			128.37							
					25.33	6309.20		194.73									
					25.00	6227.00						27.68		28.83		33.63	
TOTALS* CARRIED TO SHEET 94							1204.69	310.48	0.00	200.78	0.00	43.51	0.00	45.33	0.00	52.89	
TOTALS CARRIED TO SHEET 94							4673.85	1199.16	164.50	532.21	0.00	170.46	0.00	177.58	0.00	207.15	

* = HIGWAY SAFETY PROGRAM (HSP)

PAVEMENT CALCULATIONS

CALCULATED AML CHECKED AM

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:21 AM
Filename: G:\C004\0066\Road\General\23828gs02_pavt.dgn

STATION FROM	STATION TO	LOCATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	204 SUBGRADE COMPACTION A/9	302 ASPHALT CONCRETE BASE, PG64-22 (T-10") 10A/(12x27)	304 AGGREGATE BASE (T-4") 4A/(12x27)	304 AGGREGATE BASE (T-6") 6A/(12x27)	305 8" CONCRETE BASE A/9	407 TACK COAT FOR INTERMEDIATE COURSE 0.040A/9	407 TACK COAT, 702.13 0.075A/9	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.75") 1.75A/(12x27)
				FT	FT	SQ FT	SQ YD	CU YD	CU YD	CU YD	SQ YD	GAL	GAL	CU YD	CU YD	CU YD
443+64.20	444+50.00	N-6A		85.80	29.67	2545.69	282.85			47.14						
					27.67	2374.09		73.27								
					27.00	2316.60						10.30		10.73		12.51
449+55.87	451+57.94	N-6		202.07	27.67	5591.28	621.25			103.54						
					25.67	5187.14		160.10								
					25.00	5051.75						22.45		23.39		27.29
451+57.94	455+47.98	N-6		390.04	20.33	7929.51	881.06			146.84						
					19.33	7539.47		232.70								
					19.00	7410.76						32.94		34.31		40.03
451+57.94	455+47.98	N-6		CAD	GENERATED	5825.00	647.22			107.87						
				CAD	GENERATED	5500.00		169.75								
				CAD	GENERATED	5220.00						23.20		24.17		28.19
455+28.28	455+49.69	I-75 GORE	LT	CAD	GENERATED	425.00	47.22			7.87						
				CAD	GENERATED	425.00		13.12								
				CAD	GENERATED	425.00						1.89		1.97		2.30
444+50.00	445+50.00	N-6A	LT	100.00	4.33	433.00	48.11		5.35							
					3.33	333.00		10.28								
					3.00	300.00						1.33		1.39		1.62
444+50.00	447+62.70	N-6A	RT	312.70	9.33	2917.49	324.17		36.02							
					8.33	2604.79		80.39								
					8.00	2501.60						11.12		11.58		13.51
447+62.70	448+12.70	N-6A	RT	50.00	10.33	516.50	57.39		6.38							
					9.33	466.50		14.40								
					9.00	450.00						2.00		2.08		2.43
7+48.87	7+71.08	STANLEY AVE	RT	22.21	13.00	288.73	32.08			5.35						
					12.50	277.63					30.85	1.23	2.31	1.29	1.29	
7+71.08	8+52.50	STANLEY AVE	RT	81.42	13.50	1099.17	122.13			20.36						
					13.00	1058.46					117.61	4.70	8.82	4.90	4.90	
9+49.39	10+00.68	STANLEY AVE	LT	51.29	1.50	76.94	8.55			1.42						
					1.00	51.29					5.70	0.23	0.43	0.24	0.24	
12+83.00	13+84.00	STANLEY AVE	LT	101.00	1.50	151.50	16.83			2.81						
					1.00	101.00					11.22	0.45	0.84	0.47	0.47	
15+20.77	15+29.63	STANLEY AVE	LT	8.86	1.50	13.29	1.48			0.25						
					1.00	8.86					0.98	0.04	0.07	0.04	0.04	
13+84.00	14+29.27	STANLEY AVE	LT	45.27	13.50	611.15	67.91			11.32						
					13.00	588.51					65.39	2.62	4.90	2.72	2.72	
14+29.27	15+20.77	STANLEY AVE	LT	CAD	GENERATED	655.00	72.78			12.13						
				CAD	GENERATED	636.00					70.67	2.83	5.30	2.94	2.94	
9+09.00	14+16.05	STANLEY AVE	MEDIAN	CAD	GENERATED	6620.00	735.56			122.59						
				CAD	GENERATED	6620.00					735.56	29.42	55.17	30.65	30.65	
13+38.60	13+71.64	DRIVEWAY	LT	CAD	GENERATED	721.92	80.21									
				CAD	GENERATED	603.67				11.18						
				CAD	GENERATED	355.04					8.77	1.58		1.64	1.64	
				CAD	GENERATED	128.43					3.17					
TOTALS* FROM SHEET 92							534.76	142.24	0.00	89.13	0.00	20.18	0.00	21.02	0.00	24.53
TOTALS* FROM SHEET 93							1204.69	310.48	0.00	200.78	0.00	43.51	0.00	45.33	0.00	52.89
TOTALS* FROM THIS SHEET							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS FROM SHEET 92							5726.31	1547.95	164.21	708.04	0.00	220.87	0.00	230.08	0.00	268.43
TOTALS FROM SHEET 93							4673.85	1199.16	164.50	532.21	0.00	170.46	0.00	177.58	0.00	207.15
TOTALS FROM THIS SHEET							4046.80	754.01	47.75	600.67	1049.92	148.33	77.84	154.51	44.89	127.88
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY*							1739	453	290		0	64	0	66	77	
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY							14447	3501	2217		1050	540	78	562	648	
GRAND TOTAL CARRIED TO GENERAL SUMMARY							16186	3954	2507		1050	604	78	628	725	

NOTE- ALL PAVEMENT REMOVAL AREAS ARE CADD GENERATED

PAVT REMOVAL SHOWN ON PLAN SHEETS

LOCATION	STATION	SURFACE AREA	202 PAVEMENT REMOVED, ASPHALT	202 PAVEMENT REMOVED
		SQ FT	SQ YD	SQ YD
RAMP N-10	0+49.62	15850.00*		1761.11*
		7826.00*	869.56*	
RAMP N-9	1+14.66	15190.00*		1687.78*
		7080.00*	786.67*	
RAMP N-6A	440+50.00	9921.00*		1102.33*
		4478.00*	497.56*	
RAMP N-6	451+25.00	15800.00*		1755.56*
		6919.00*	768.78*	
RAMP N-4	4+36.30	7479.00*		831.00*
		4285.00*	476.11*	
RAMP N-5	7+91.00	7036.00*		781.78*
		3073.00*	341.44*	
RAMP N-11	0+31.59	3461.00*		384.56*
		3114.00*	346.00*	
RAMP N-7	446+25.00	8855.00*		983.89*
		4425.00*	491.67*	
I-75				
RT	450+29.63	6330.00	703.33	
LT	453+27.33	7610.00		845.56
LT	453+27.33	4586.00	509.56	
RT	454+00.00	5064.00		562.67
RT	454+00.00	1165.00	129.44	
LT	461+67.18	7779.00		864.33
LT	461+67.18	7620.00	846.67	
RT	461+67.18	10389.00		1154.33
RT	461+67.18	6249.00	694.33	
			5281.12	9288.01
			2180.00	3426.89
			5281	9288
			2180	3427
			7461	12715

*- HIGWAY SAFETY PROGRAM (HSP)

CALCULATED AML CHECKED AM

PAVEMENT CALCULATIONS

MOT-75-14.60

94 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:22 AM
Filename: G:\C004\0066\Road\General\23828gs03_pavt.dgn

SHEET NO.	REF NO.	STATION FROM	STATION TO	SIDE		202 STRUCTURE REMOVED	WALK REMOVED	CONCRETE MEDIAN REMOVED	CONCRETE BARRIER REMOVED	CURB REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	MANHOLE REMOVED	CATCH BASIN REMOVED	SPECIAL- FILL AND PLUG EXISTING CONDUIT	FENCE REMOVED	REMOVAL MISC.; STEEL ENCASED CONC. BOLLARDS
							SF	SY	SY	FT	FT	FT	EA	EA	FT	FT	
97	I-R	426+78.05	432+37.83	RT								552					
98	I-R	438+10.53	438+79.47	LT					71								
	2-R	438+79.47	444+00.00	LT								512					
99	I-R	444+00.00	444+56.92	LT								54					
	2-R	447+81.31	454+00.00	RT								627*					
	3-R	453+27.33	454+00.00	MEDIAN					73								
	4-R	450+07.85	453+70.41	RT												399*	
100	I-R	454+00.00	455+74.69	MEDIAN					175								
	2-R	454+00.00	455+58.77	RT								161					
	3-R	461+52.53	462+59.80	MEDIAN					107								
	4-R	461+47.83	464+00.00	LT								252					
	5-R	461+41.52	464+00.00	LT												370	
	6-R	461+49.68	464+00.00	RT								251					
	7-R	461+51.51	462+36.27	RT												90	
	8-R	461+80.65	461+81.45	RT							8			1			
	9-R	463+01.07	463+12.98	BOTH		LUMP											
102	I-R	464+00.00	470+91.57	LT								697*					
	2-R	464+00.00	471+34.20	RT								737*					
	3-R	464+00.00	464+63.47	LT												64	
	4-R	466+79.00	466+79.00	LT									1		47		
122	I-R	445+91.14	447+19.16	RT						112*							
	2-R	446+04.90	446+97.82	LT						97*							
	3-R	447+19.16	450+33.47	RT				193*									
	4-R	449+52.31	455+62.77	BOTH								650*					
	5-R	452+63.33	452+63.33	RT										1*			
	6-R	450+49.00	453+39.00	LT													LUMP*
129	I-R	440+39.02	441+63.55	BOTH						155*							
	2-R	440+56.85	442+23.81	RT						194*							
	3-R	440+40.57	440+50.06	RT							49*			1*			
	4-R	440+40.57	441+04.74	RT							69*			1*			
	5-R	441+04.74	441+67.29	BOTH							85*			1*			
	6-R	445+71.22	447+62.70	RT								183*					
138	I-R	4+18.26	7+33.41	LT				92*									
146	I-R	7+49.00	8+26.97	RT						84*							
	2-R	7+69.09	8+32.59	RT			306*										
	3-R	8+28.45	9+65.75	RT						148*							
	4-R	8+36.17	9+65.75	RT			541*										
	5-R	9+00.22	11+50.00	MEDIAN				423									
	6-R	9+49.40	10+00.68	LT						49							
	7-R	9+32.09	10+00.76	LT			328										
	8-R	9+71.80	10+18.03	RT						55*							
	9-R	10+04.12	10+04.12	RT										1*			
	10-R	9+72.87	10+18.03	RT			249*										
	11-R	10+92.00	11+36.39	MEDIAN							45			1			
	12-R	11+33.36	11+36.39	MEDIAN							8			1			
	13-R	10+04.12	10+40.11	RT											38*		
147	I-R	11+50.00	14+00.99	MEDIAN				328									
	2-R	12+83.00	14+15.54	LT						161*							
	3-R	12+83.00	13+75.79	LT			456*										
	4-R	13+86.40	14+37.01	LT						218*							
	5-R	13+89.35	14+32.35	LT			183*										
	6-R	14+02.77	14+25.19	LT							41*			1*			
	7-R	13+99.39	14+25.19	LT							26*			1*			
	8-R	14+25.19	14+60.35	LT							49*			1*			
	9-R	14+34.75	14+37.01	LT				11*									
	10-R	14+59.44	15+29.65	LT						124*							
	11-R	14+93.55	15+40.12	LT			234*										
	12-R	07+42.61	08+08.75	RT							66*			1*			
	13-R	00+80.17	01+42.19	RT							63*			1*			
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY*						0	1969	296	0	1348	448	2894	1	10	85	399	LUMP
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY						LUMP	328	751	426	49	61	1782	0	3	0	524	0
GRAND TOTAL CARRIED TO GEN. SUM.						LUMP	2297	1047	426	1397	509	4676	1	13	85	923	LUMP

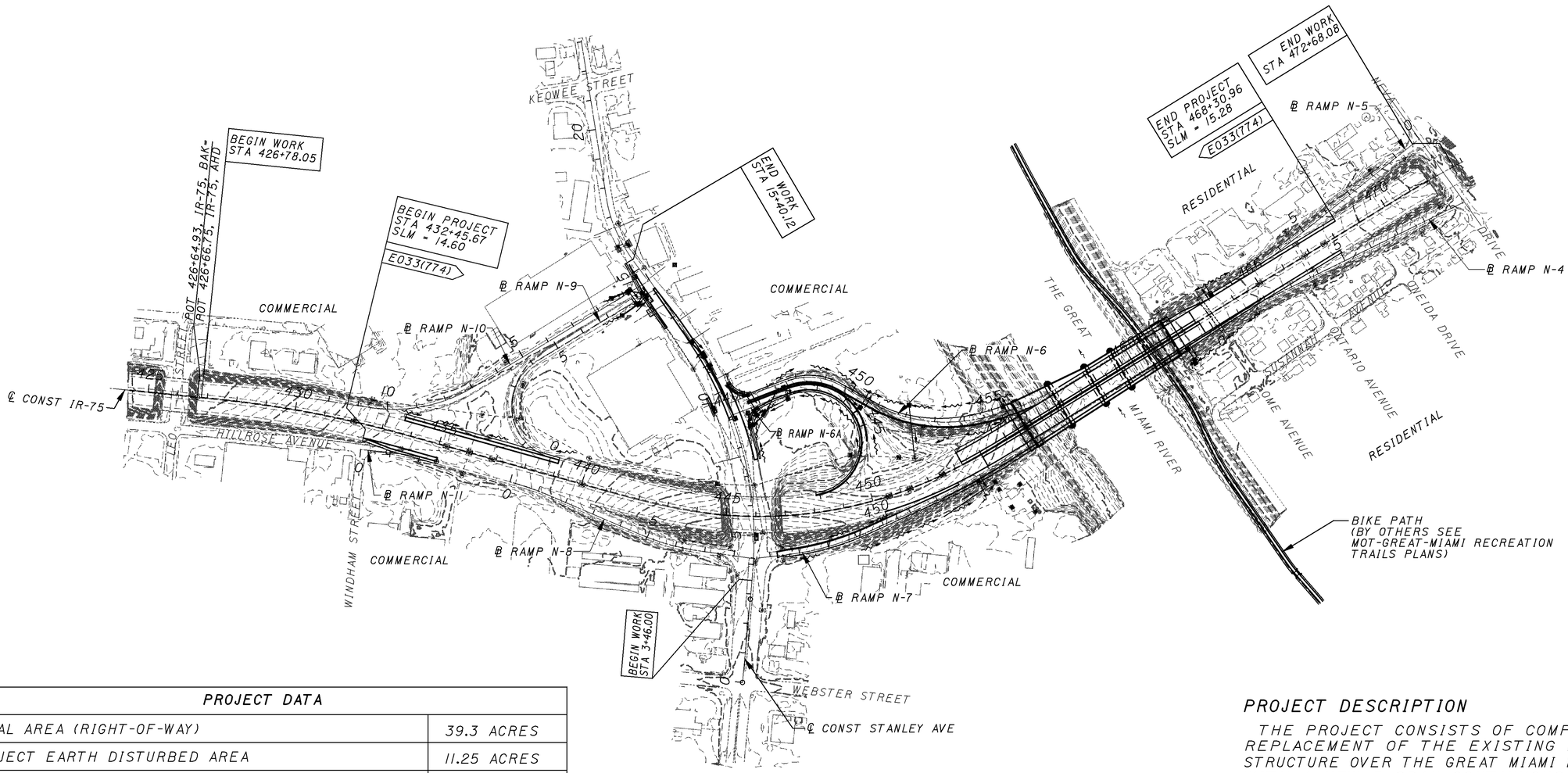
*= HIGWAY SAFETY PROGRAM (HSP)

CALCULATED EAK CHECKED AM

REMOVAL SUBSUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:22 AM
Filename: G:\C004\0066\Road\General\23828gs0l_rem.dgn



PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY)	39.3 ACRES
PROJECT EARTH DISTURBED AREA	11.25 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	.60 ACRES
NOI EARTH DISTURBED AREA	11.85 ACRES
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	.82
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	.80
IMPERVIOUS AREA FOR PRE-CONSTRUCTION SITE	32.66 ACRES
IMPERVIOUS AREA FOR POST-CONSTRUCTION SITE	30.86 ACRES
IMMEDIATE RECEIVING WATERS	MIAMI RIVER
SUBSEQUENT RECEIVING WATERS	MIAMI RIVER
TOTAL MAXIMUM DAILY LOAD (MIAMI RIVER)	N/A

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF COMPLETE REPLACEMENT OF THE EXISTING IR-75 STRUCTURE OVER THE GREAT MIAMI RIVER WITH A NEW 5 SPAN CONTINUOUS AND COMPOSITE PRECAST, PRESTRESSED CONCRETE STRUCTURE, RAMP MODIFICATIONS IN ALL FOUR QUADRANTS OF THE IR-75 AND STANLEY AVENUE INTERCHANGE, AND SEVERAL RAMP CLOSURES WITHIN THE PROJECT LIMITS.

USGS QUADRANT NO. - 39084-G2-TF-024
(DAYTON NORTH, OHIO)
LATITUDE: N 39° 47′ 05″
LONGITUDE: 84° 11′ 05″

HORIZONTAL SCALE IN FEET
0 100 200 400

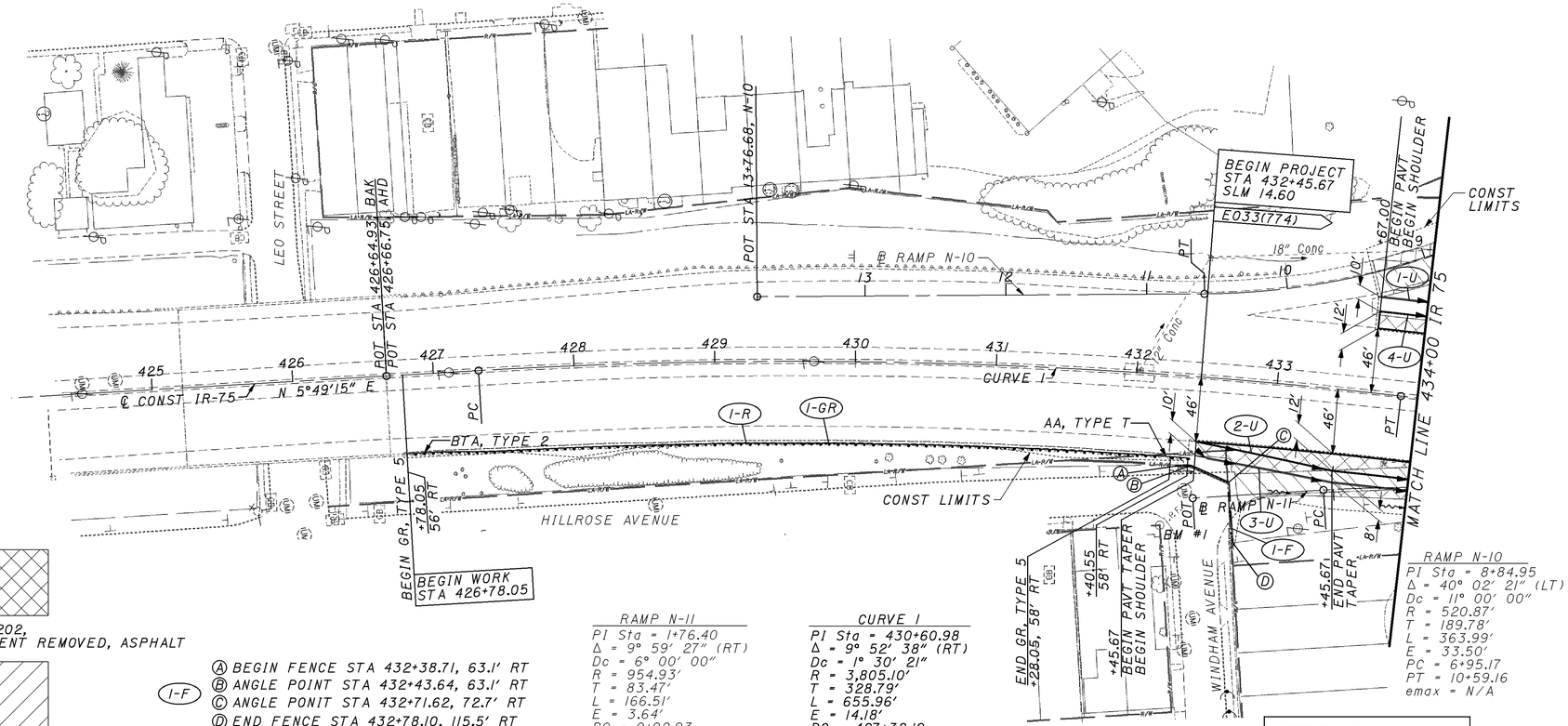
CALCULATED MPD
CHECKED AM

PROJECT SITE PLAN

MOT-75-14.60

96
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:24 AM
Filename: G:\C004\0066\Road\Sheets\23828gs01.dgn



ITEM 202,
PAVEMENT REMOVED, ASPHALT

ITEM 202,
PAVEMENT REMOVED

1-F
Ⓐ BEGIN FENCE STA 432+38.71, 63.1' RT
Ⓑ ANGLE POINT STA 432+43.64, 63.1' RT
Ⓒ ANGLE PONIT STA 432+71.62, 72.7' RT
Ⓓ END FENCE STA 432+78.10, 115.5' RT

RAMP N-11
PI Sta = 1+76.40
Δ = 9° 59' 27" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 83.47'
L = 166.51'
E = 3.64'
PC = 0+92.93
PT = 2+59.45
emax = N/A

CURVE 1
PI Sta = 430+60.98
Δ = 9° 52' 38" (RT)
Dc = 1° 30' 21"
R = 3,805.10'
T = 328.79'
L = 655.96'
E = 14.18'
PC = 427+32.19
PT = 433+88.15
emax = EXIST

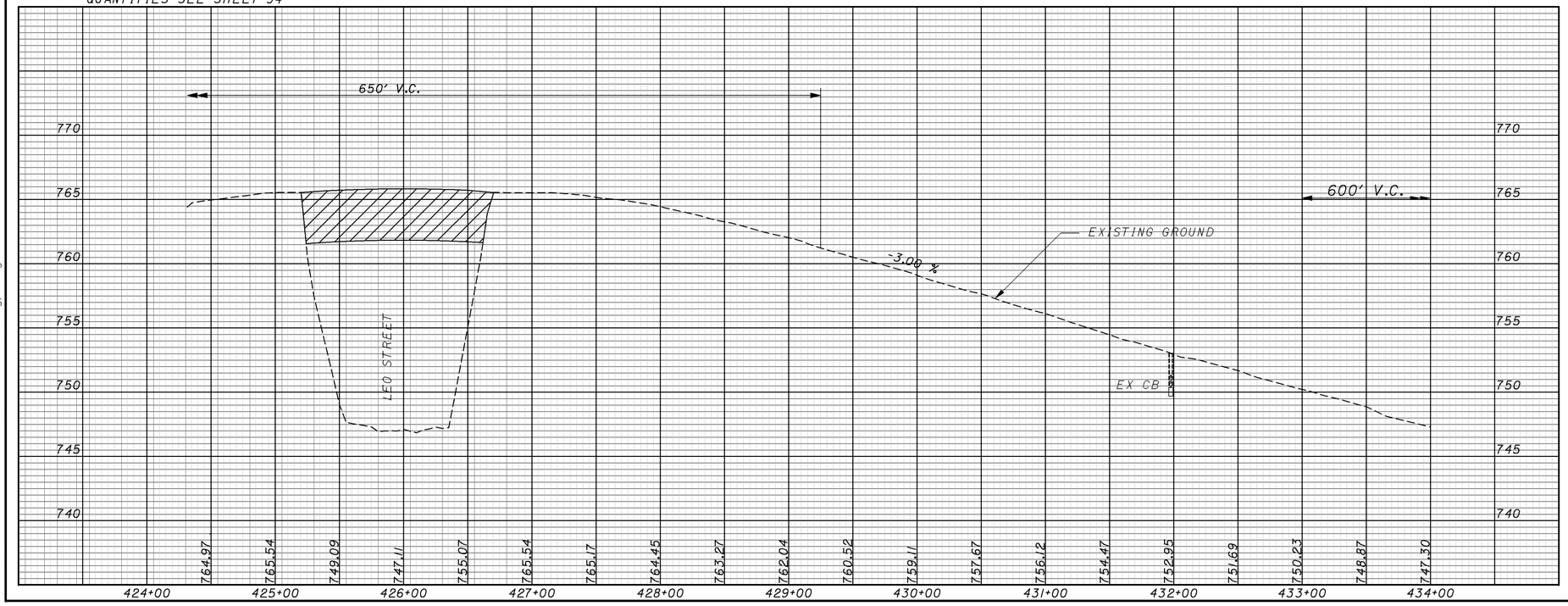
RAMP N-10
PI Sta = 8+84.95
Δ = 40° 02' 21" (LT)
Dc = 11° 00' 00"
R = 520.87'
T = 189.78'
L = 363.99'
E = 33.50'
PC = 6+95.17
PT = 10+59.16
emax = N/A

SITE BM # 1
IRON PIN FOUND
STA 432+23.75, ℄ IR-75
107.10' RT
ELEV 748.29

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

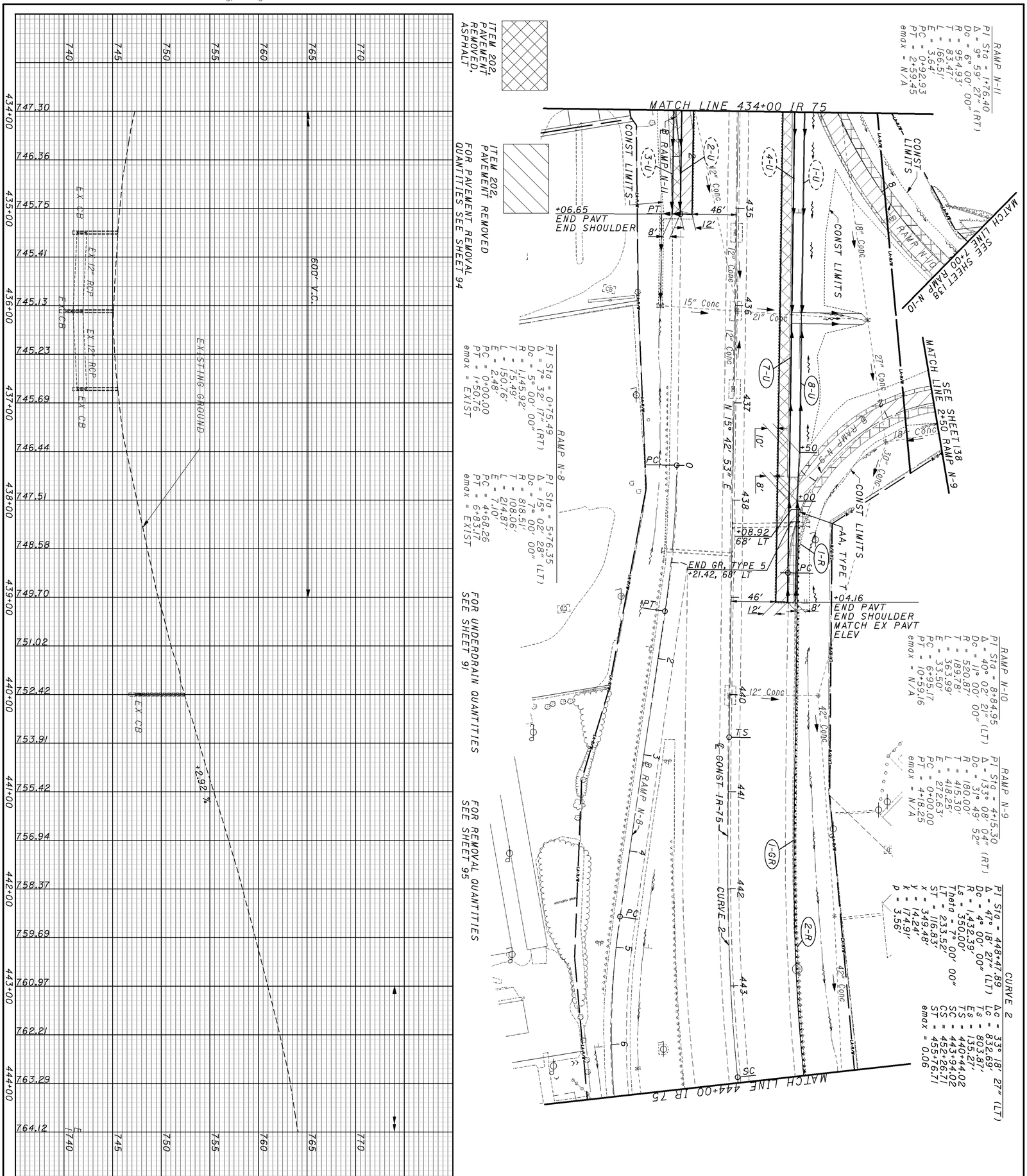
FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95



| REF NO. | STATION FROM | STATION TO | SIDE | | |

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:26 AM
Filename: G:\C004\0066\Road\Sheets\23828gp02.dgn



REF NO.	STATION FROM	STATION TO	SIDE	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE T	606 BRIDGE ASSEMBLY, TYPE 2
				FT	EA	EA
1-GR	438+21.42	444+58.92	LT	637.50	1	1
TOTALS CARRIED TO GENERAL SUMMARY				637.50	1	1

98 314	MOT-75-14.60	PLAN AND PROFILE IR-75 STA. 434+00.00 TO STA 444+00.00	CALCULATED MPD CHECKED AM	0 50 25 100 HORIZONTAL SCALE IN FEET	N

SITE BM # 5
BENCHMARK SET
STA 6+87.18, ℄ STANLEY AVE.
71.38' RT
ELEV 745.41

CURVE 2

PI Sta = 448+49.09	Δc = 33° 18' 27" (LT)
Δ = 47° 18' 27" (LT)	Lc = 832.69'
Dc = 4° 00' 00"	Ts = 803.87'
R = 1,432.39'	Es = 135.27'
Ls = 350.00'	TS = 440+44.02
Theta = 7° 00' 00"	SC = 443+94.02
LT = 233.52'	CS = 452+26.71
ST = 116.83'	ST = 455+76.71
x = 349.48'	emax = 0.06
y = 14.24'	
k = 174.91'	
p = 3.56'	

ITEM 670
DITCH EROSION PROTECTION

ITEM 202,
PAVEMENT REMOVED,
ASPHALT

ITEM 202,
PAVEMENT
REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

FOR RAMP N-7 SEE SHEET 134

FOR MEDIAN BARRIER TRANSITIONS SEE SHEET 172

FOR RETAINING WALL PLANS SEE SHEETS 287 - 298

* FOR STORM SEWER DETAILS SEE SHEET 111

MATCH LINE 444+00 IR-75

MATCH LINE 454+00 IR-75

RAMP N-6
SEE SHEET 122

RAMP N-6A
SEE SHEET 129

℄ CONST STANLEY AVE

BM #5

℄ CONST IR-75

℄ RAMP N-6

℄ RAMP N-6A

℄ RAMP N-7

℄ RAMP N-8

CONST LIMITS

CURVE 2

STA 445+91.92, IR-75 =
STA 5+62.14, STANLEY AVE

STA 4+19.84, STANLEY AVE =
STA 8+66.76, RAMP N-8

STA 4+20.12, STANLEY AVE =
STA 445+43.58, RAMP N-7

+27.33
BEGIN TYPE BI
BARRIER TRANSITION

+29.63

+70.41
127.03' RT

ANGLE POINT
+51.20, 129.63' RT

+07.85, IR-75
170.10' RT

PROP
RETAINING
WALL

BEGIN
WALL

END GR TYPE 5
66' LT

BTA, TYPE 2

BTA, TYPE 1

EX 10" GAS

EX 3" TRAFFIC SIGNAL INTERCONNECT

EX 10" SAN

EX 10" WATER

94.43°

7.5'X433'

7.5'X118'

7.5'X257'

7.5'X100'

(1-EC) (1-R) (1-GR) (1-B) (1-C) (1-D*) (1-F) (2-D) (2-EC) (2-R) (3-R) (3-U) (4-R) (9-U) (10-U) (11-U) (12-U) (14-U) (15-U) (37-U) (38-U) (41-U)

REF NO.	STATION FROM	STATION TO	SIDE
1-B	453+27.33	455+49.69	MEDIAN
1-C	453+34.50	453+50.00	RT
1-D	453+47.35	453+47.35	RT
2-D	452+00.23	453+70.00	RT
1-EC	453+00.00	454+00.00	RT
2-EC	451+81.00	452+99.00	LT
1-F	450+07.85	453+70.41	RT

TOTALS CARRIED TO GENERAL SUMMARY

602 CONCRETE MASONRY	603 15" CONDUIT, TYPE C	603 15" CONDUIT, TYPE F	604 CATCH BASIN, NO. 3A	607 FENCE, TYPE CLT	609 CURB, TYPE 4-C	622 BARRIER TRANSITION	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI	670 DITCH EROSION PROTECTION
CY	FT	FT	EA	FT	FT	EA	FT	SY
0.8	183	55	1	399	20	1	202	181

CURVE 2	
PI Sta = 448+49.09	Δc = 33° 18′ 27″ (LT)
Δ = 47° 18′ 27″ (LT)	Lc = 832.69′
Dc = 4° 00′ 00″	Ts = 803.87′
R = 1,432.39′	Es = 135.27′
Ls = 350.00′	TS = 440+44.02
Theta = 7° 00′ 00″	SC = 443+94.02
LT = 233.52′	CS = 452+26.71
ST = 116.83′	ST = 455+76.71
x = 349.48′	emax = 0.06
y = 14.24′	
k = 174.91′	
p = 3.56′	

NOTE:

RECONSTRUCT BIKE PATH FROM STA 62+95.49 TO STA 65+67.47 TO ORIGINAL GRADE. (REFER MOT-GREAT MIAMI RECREATION TRAIL PLANS IN THIS AREA FOR INFORMATION)

BIKE PATH RECONSTRUCTION QUANITIES

ITEM 253 - PAVEMENT REPAIR - 302 SQ YD
(TO REPAIR AND RECONDITION THE AGGREGATE PORTION OF BIKE PATH)

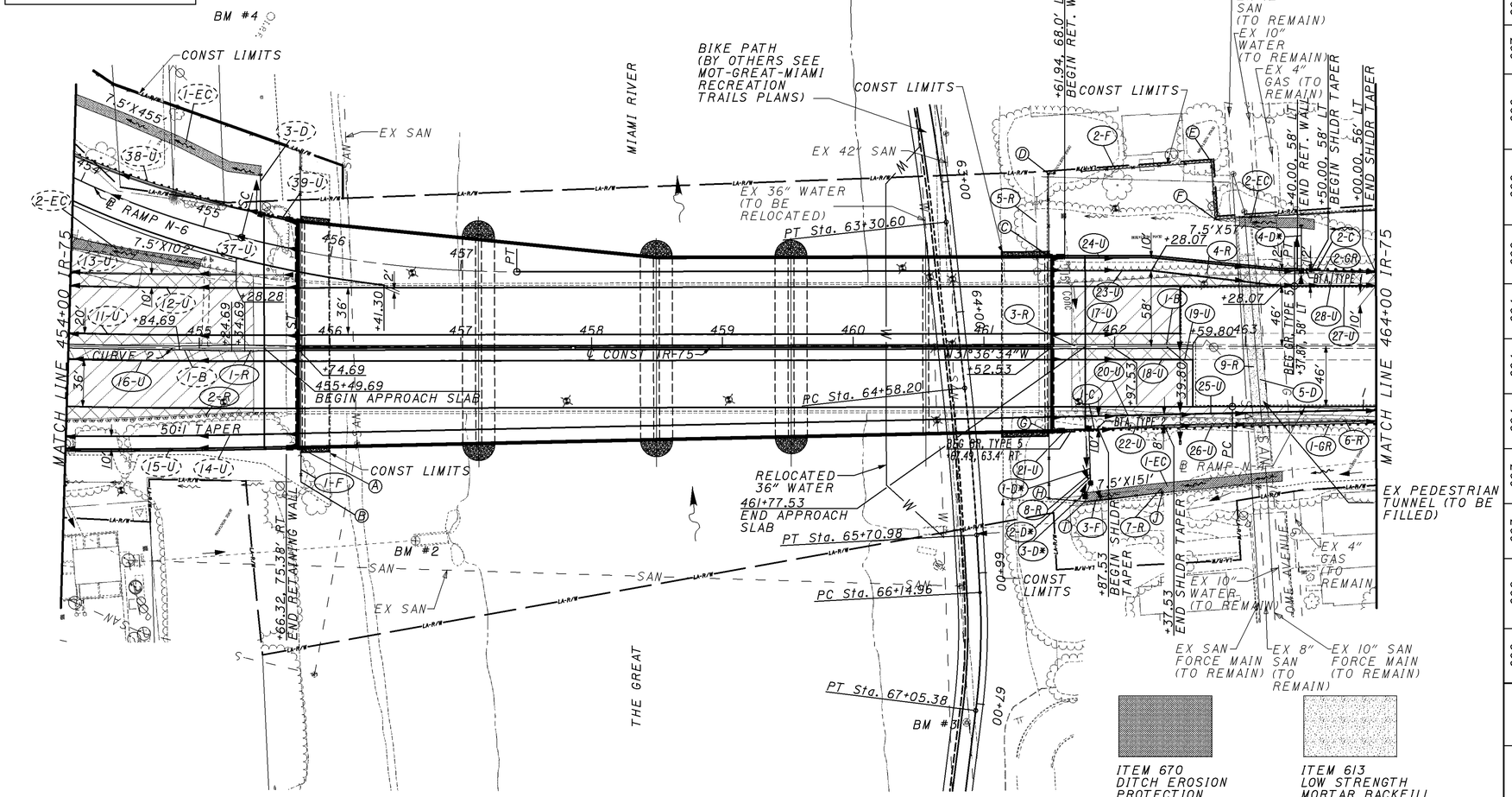
ITEM 301 - 2½" ASPHALT CONCRETE BASE - 21 CU YD

ITEM 448 - 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22 - 13 CU YD

QUANTITIES CARRIED TO GENERAL SUMMARY

* FOR STORM SEWER DETAILS SEE SHEETS 113 AND 115 .
FOR STRUCTURES SEE SHEETS 236 - 286
FOR RETAINING WALL PLANS SEE SHEETS 287 - 298
FOR UNDERDRAIN QUANTITIES SEE SHEET 91
FOR REMOVAL QUANTITIES SEE SHEET 95
FOR MEDIAN BARRIER TRANSITIONS SEE SHEET 172
FOR PEDESTRIAN TUNNEL DETAILS SEE SHEET 114
FOR WATER WORKS PLANS SEE SHEETS 180A - 180D
FOR BIKE PATH PLANS REFER TO MOT-GREAT-MIAMI RECREATION TRAIL PLANS.

SITE BM # 4
IRON PIN FOUND
STA 455+55.04, ℄ IR-75
253.59′ LT
ELEV 758.30



SITE BM # 2
CROSS NOTCH ON TOP OF HEADWALL
STA 456+65.11, ℄ IR-75
147.31′ RT
ELEV 745.33

SITE BM # 3
MIAMI CONSERVANCY DISTRICT CONTROL MONUMENT NO. 2
STA 460+86.35, ℄ IR-75
287.02′ RT
ELEV. 745.33

(1-F) Ⓐ BEGIN FENCE STA 455+77.61, 76.7′ LT
Ⓑ END FENCE STA 455+77.61, 102.4′ LT

(2-F) Ⓒ BEGIN FENCE STA 461+49.61, 69.5′ LT
Ⓓ ANGLE POINT STA 461+49.61, 132.2′ LT
Ⓔ ANGLE POINT STA 462+74.09, 140.9′ LT
Ⓕ ANGLE POINT STA 462+77.02, 97.3′ LT

(3-F) Ⓖ BEGIN FENCE STA 461+49.61, 65.2′ RT
Ⓗ ANGLE POINT STA 461+49.61, 116.1′ RT
Ⓘ ANGLE POINT STA 461+77.19, 118.3′ RT
Ⓙ END FENCE STA 462+36.27, 111.60′ RT

ITEM 670 DITCH EROSION PROTECTION

ITEM 613 LOW STRENGTH MORTAR BACKFILL

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

REF NO.	STATION FROM	STATION TO	SIDE	602 CONCRETE MASONRY	602 CONCRETE MASONRY, AS PER PLAN	603 15" CONDUIT, TYPE C	603 15" CONDUIT, TYPE F	604 CATCH BASIN, NO. 3A	604 CATCH BASIN, NO. 2-2B	604 MANHOLE, NO. 3	606 GUARDRAIL, TYPE 5	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2	607 FENCE, TYPE CLT	609 CURB, TYPE 4-C	613 LOW STRENGTH MORTAR BACKFILL	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	622 BARRIER TRANSITION	670 DITCH EROSION PROTECTION
				CY	CY	FT	FT	EA	EA	EA	FT	EA	EA	FT	FT	CY	FT	EA	SY
1-B	461+77.53	462+59.80	MEDIAN																
1-C	461+68.67	461+87.53	RT																
2-C	463+40.00	463+55.59	LT																
1-D	461+80.28	461+81.45	RT							1									
2-D	461+80.65	461+81.45	RT				8							26					
3-D	461+77.19	461+81.45	RT				12							415					
4-D	463+42.86	463+42.86	LT	0.3				1	1				1	138					
5-D	463+00.98	463+12.98	BOTH		8.9		37												
1-EC	461+77.00	463+28.00	RT								662.50	1			20				
2-EC	462+96.00	463+53.00	LT								525.00				20				
1-F	455+77.61	455+77.61	RT							1						340			126
2-F	461+49.61	464+00.00	LT					1	1								62	1	48
3-F	461+49.61	462+36.27	RT					1											
1-GR	461+67.49	468+25.23	RT				45												
2-GR	463+37.87	468+59.55	LT																174
TOTALS CARRIED TO GENERAL SUMMARY				0.3	8.9	20	82	2	1	1	1187.50	1	1	579	40	340	62	1	174

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MPD
CHECKED AM

PLAN IR-75
STA. 454+00.00 TO STA. 464+00.00

MOT-75-14.60

100
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:29 AM
Filename: G:\C004\0066\Road\Sheets\23828gp04_plan.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:31 AM
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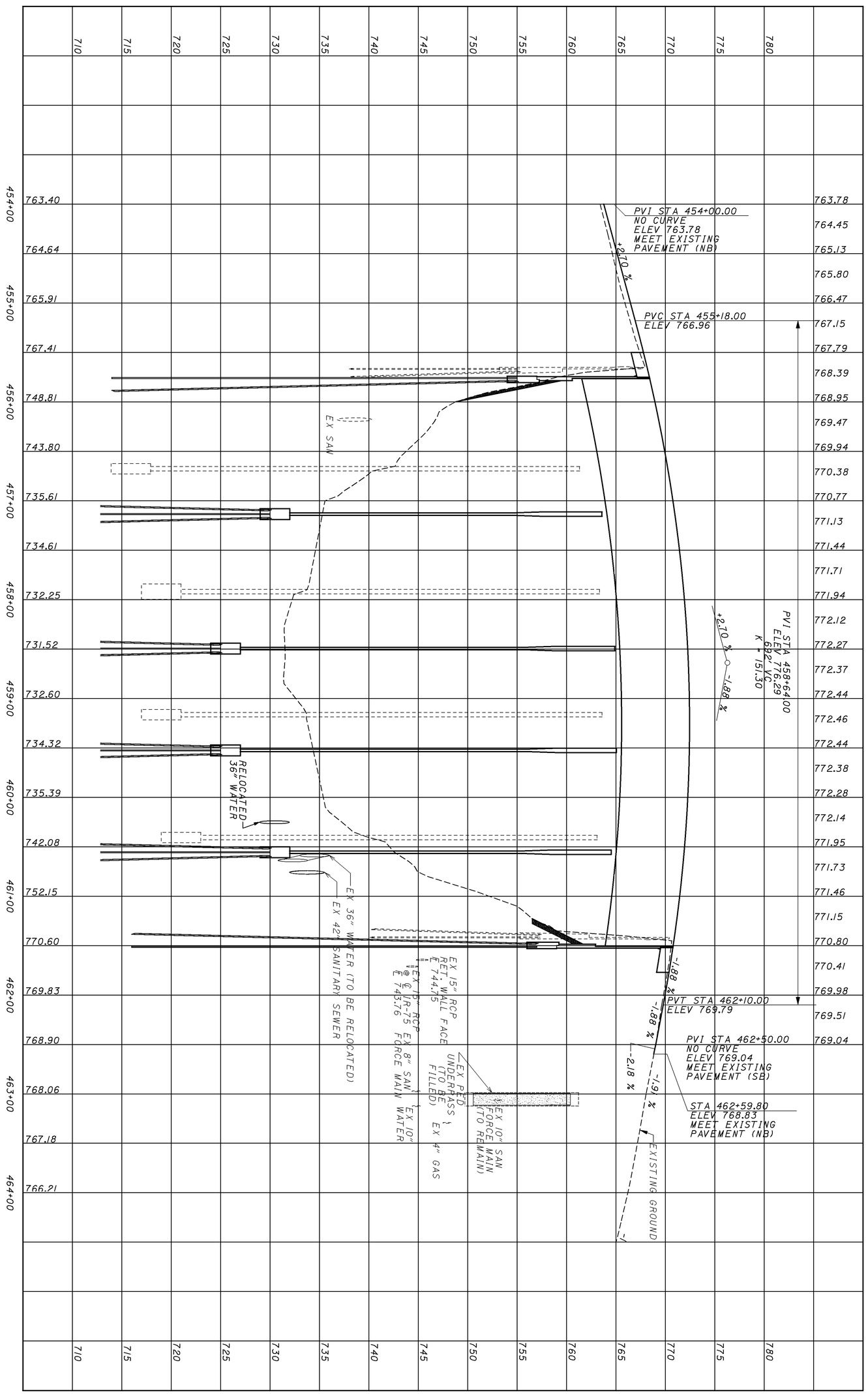


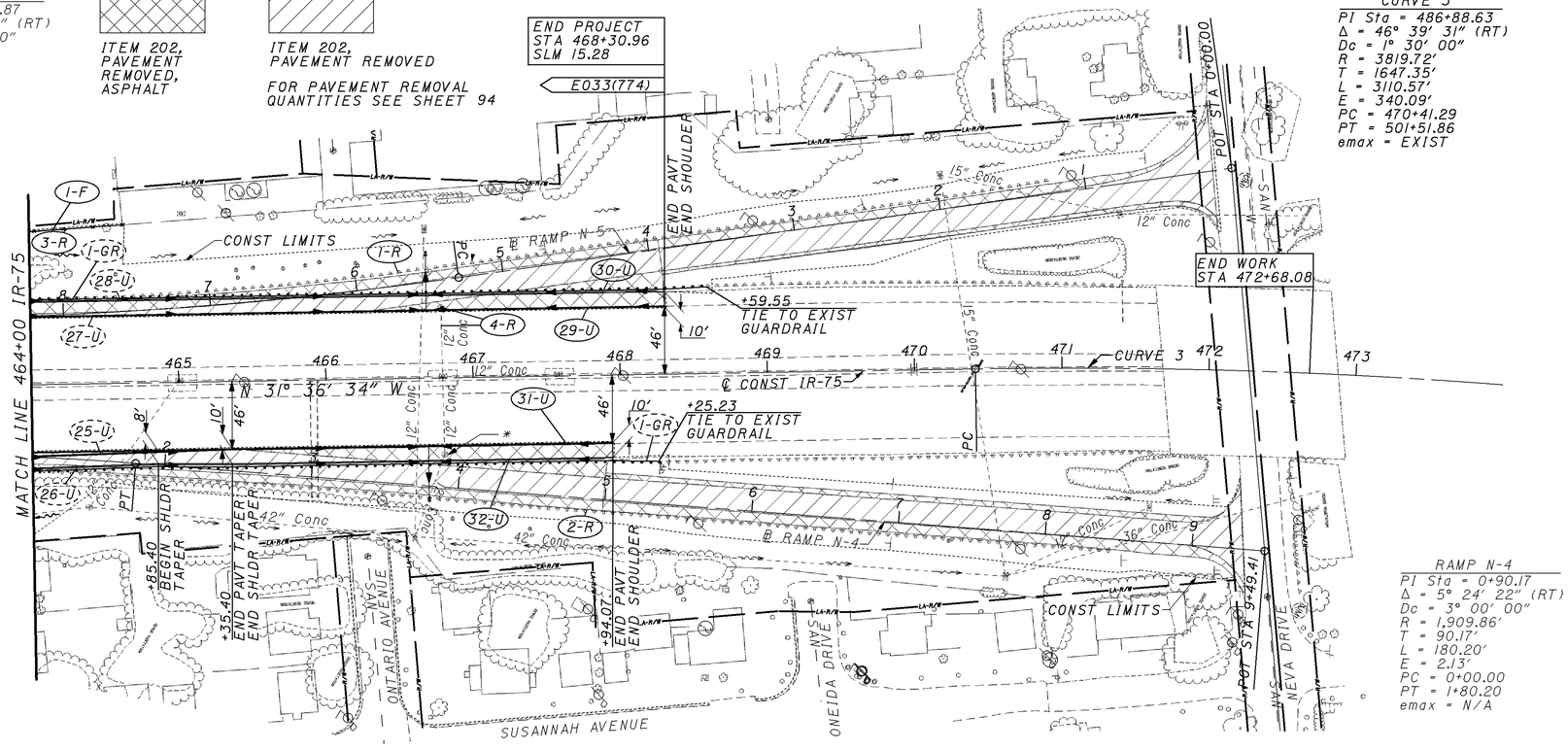
101 / 314	**MOT-75-14.60**	**PROFILE IR-75** **STA. 454+00.00 TO STA. 464+00.00**	CALCULATED MPD CHECKED AM

RAMP N-5
PI Sta = 7+07.87
Δ = 7° 05′ 38″ (RT)
Dc = 2° 00′ 00″
R = 2,864.79′
T = 177.57′
L = 354.69′
E = 5.50′
PC = 5+30.30
PT = 8+84.99
emax = N/A

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94



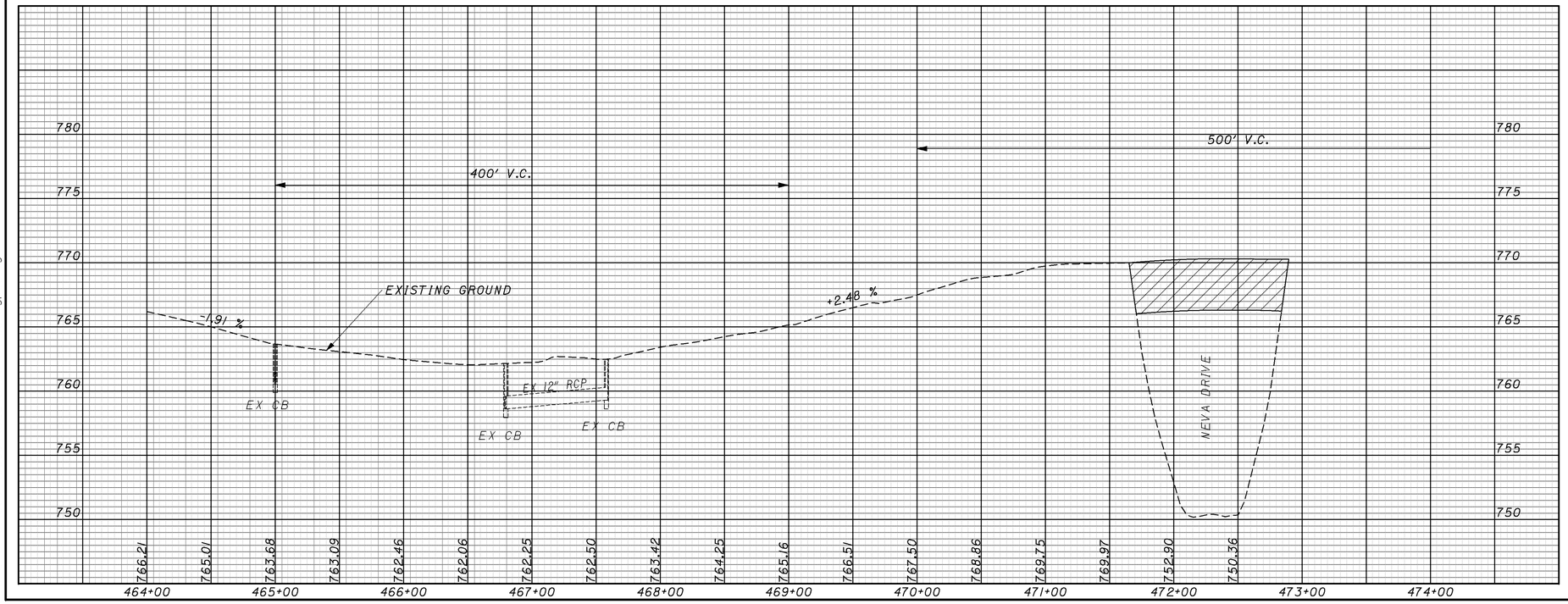
CURVE 3
PI Sta = 486+88.63
Δ = 46° 39′ 31″ (RT)
Dc = 1° 30′ 00″
R = 3819.72′
T = 1647.35′
L = 3110.57′
E = 340.09′
PC = 470+41.29
PT = 501+51.86
emax = EXIST

RAMP N-4
PI Sta = 0+90.17
Δ = 5° 24′ 22″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 90.17′
L = 180.20′
E = 2.13′
PC = 0+00.00
PT = 1+80.20
emax = N/A

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

* = MANHOLE ABANDONED DURING PREVIOUS PROJECT (DND)



REF NO.	STATION FROM	STATION TO	SIDE		
1-F	464+00.00	464+63.47	LT		
607				FENCE, TYPE CLT	FT
TOTALS CARRIED TO GENERAL SUMMARY					

	64
	64

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MPD
CHECKED AM

PLAN AND PROFILE IR-75
STA. 464+00.00 TO STA. 474+00.00

MOT-75-14.60

102
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:32 AM
Filename: G:\C004\0066\Road\Sheets\23828gp05.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2	33	0	1	0	3
10	36	0	2	0	3
3	7	0	1	0	1
4	14	0	1	0	1
4		0	0	0	1
90	SHEET TOTAL			0	8

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

760 / 750

R/W

12:1

2:1

HILLROSE AVENUE

428+50.00
763.37

428+00.00
764.43

427+50.00
765.13

427+32.19
765.30

427+00.00
765.56

▨ = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 427+00.00 TO STATION 428+50.00

MOT-75-14.60

103
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3		431+00.00	0	1		
	14				0	2
2		430+50.00	0	1		
	14				0	2
3		430+00.00	0	1		
	14				0	2
2		429+50.00	0	1		
	11				0	2
2		429+00.00	0	1		
	11				0	2
	64	SHEET TOTAL			0	10

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

750 R/W 12:1 R/W HILLROSE AVENUE 750

760 750 R/W 12:1 R/W HILLROSE AVENUE 750

760 750 R/W 12:1 R/W HILLROSE AVENUE 750

760 750 R/W 12:1 R/W HILLROSE AVENUE 750

760 740 R/W 12:1 R/W HILLROSE AVENUE 740

760 750 R/W 12:1 R/W HILLROSE AVENUE 750

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

SHEET TOTAL

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 429+00.00 TO STATION 431+00.00

MOT-75-14.60

104
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
17	91
19	63
2	19
6	40
8	31
	244

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

760 / 750 / 740

R/W

8:1 6:1

77.1' RT
E=746.2

433+45.54
748.99

R/W

EX. 18"

8:1 6:1

74.5' RT
E=747.0

433+00.00
750.23

EX CATCH BASIN
STA. 432+46.07, 85.37' LT
GRATE ELEVATION=744.53
E 12" (SE)= 742.83 (FIELD VERIFY)
E 18" (N)= 742.33 (FIELD VERIFY)

R/W

12:1 2:1

PROP R/W

HILLROSE AVENUE AND WINDHAM STREET

432+45.67
751.81

EX STRM (12")

EX CB
432+01.88
753.13

R/W

12:1 2:1

PROP R/W

HILLROSE AVENUE

R/W

12:1 2:1

HILLROSE AVENUE

431+50.00
754.59

EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4	19	3	40
0	29	0	30
0	1	1	2
1	1	1	1
0	0	1	1
		0	1
		5	74

SHEET TOTAL

SHEET TOTAL

CALCULATED EAK

CHECKED AM

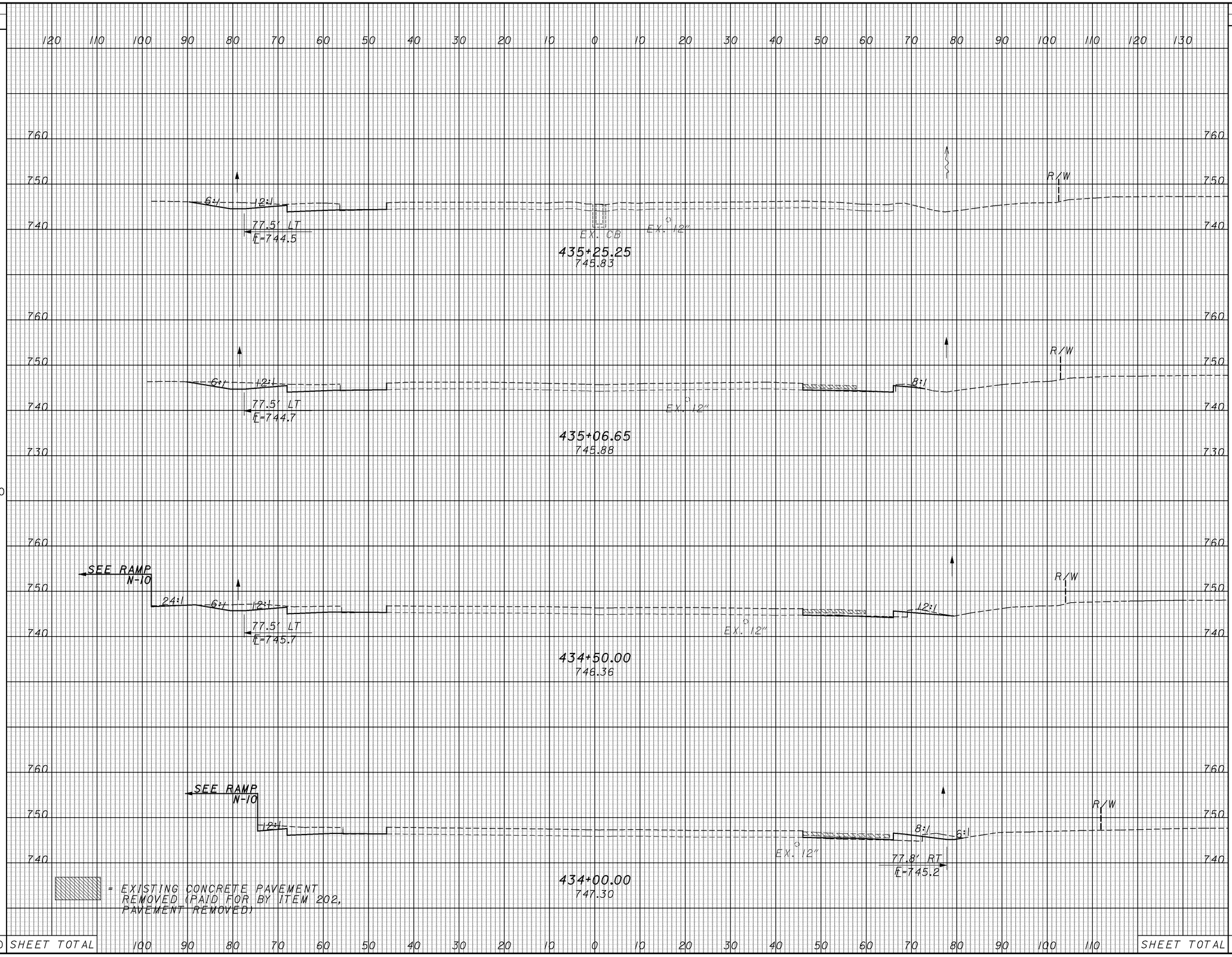
CROSS SECTIONS - IR-75
STATION 431+50.00 TO STATION 433+45.54

MOT-75-14.60

105
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
22	53
29	230
44	186
23	121
	590



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36	1	26	1
39	3	85	7
42	4	69	15
32	12	36	31
SHEET TOTAL		216	54

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 434+00.00 TO STATION 435+25.25

MOT-75-14.60

106
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING	
END WIDTH	SQ. YDS.
28	85
15	190
62	257
21	59
	591

END AREA	
CUT	FILL
29	1
19	2
34	1
40	0

VOLUME	
CUT	FILL
32	2
43	2
76	1
35	0
186	5

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 435+50.00 TO STATION 436+85.75

MOT-75-14.60

107 / 314

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

760 750 740 730

6:1 6:1 74.6' LT E=744.5

EX. CB

436+85.75
745.77

R/W

6:1 6:1 74.2' LT E=744.4

EX. UNKN SIZE

436+50.00
745.50

129.4' LT EL-743.43 0.30% 77.5' LT EL-743.6 8:1

2'@0.50%

EX. CB

436+05.68
745.42

15"@1.00%

EX. CB

6:1 12:1 77.5' LT E=744.1

EX. 18"

EX. UNKN SIZE

EX. 12"

435+50.00
745.60

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

SHEET TOTAL

SHEET TOTAL

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828x01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		SHEET TOTAL				
12	108	438+50.00	6	2	10	16
27	97	438+00.00	5	15	31	15
8	92	437+50.00	29	1	55	2
25	42	437+00.00	30	1	16	1
	339	SHEET TOTAL			112	34

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 437+00.00 TO STATION 438+50.00

MOT-75-14.60

108
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
61	195	83	178	87	176
61		81	153		
13	75	6	0	12	2
	270 SHEET TOTAL			99	178

CALCULATED EAK

CHECKED AM

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

℄ RAMP N-7

760 / 750 / 740

EX. CB

450+58.42
759.77

Elev 755.18
Off 98.94 RT

1:1 8'-0" 1:1 2:1

Elev 746.91
Off 115.21 RT

24:1 2:1 2:1

8'-0"

137.0' RT
℄=744.0

R/W

℄ RAMP N-7

760 / 750 / 740

450+29.63
759.99

Elev 753.61
Off 106.70 RT

1:1 8'-0" 1:1 2:1

Elev 745.88
Off 122.42 RT

24:1 2:1 2:1

8'-0"

140.2' RT
℄=744.4

R/W

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

760 / 750 / 740

R/W

6:1 6:1

75.2' LT
℄=748.1

= PROPOSED BENCHING

439+04.16
749.73

R/W

760 / 750 / 740

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

SHEET TOTAL

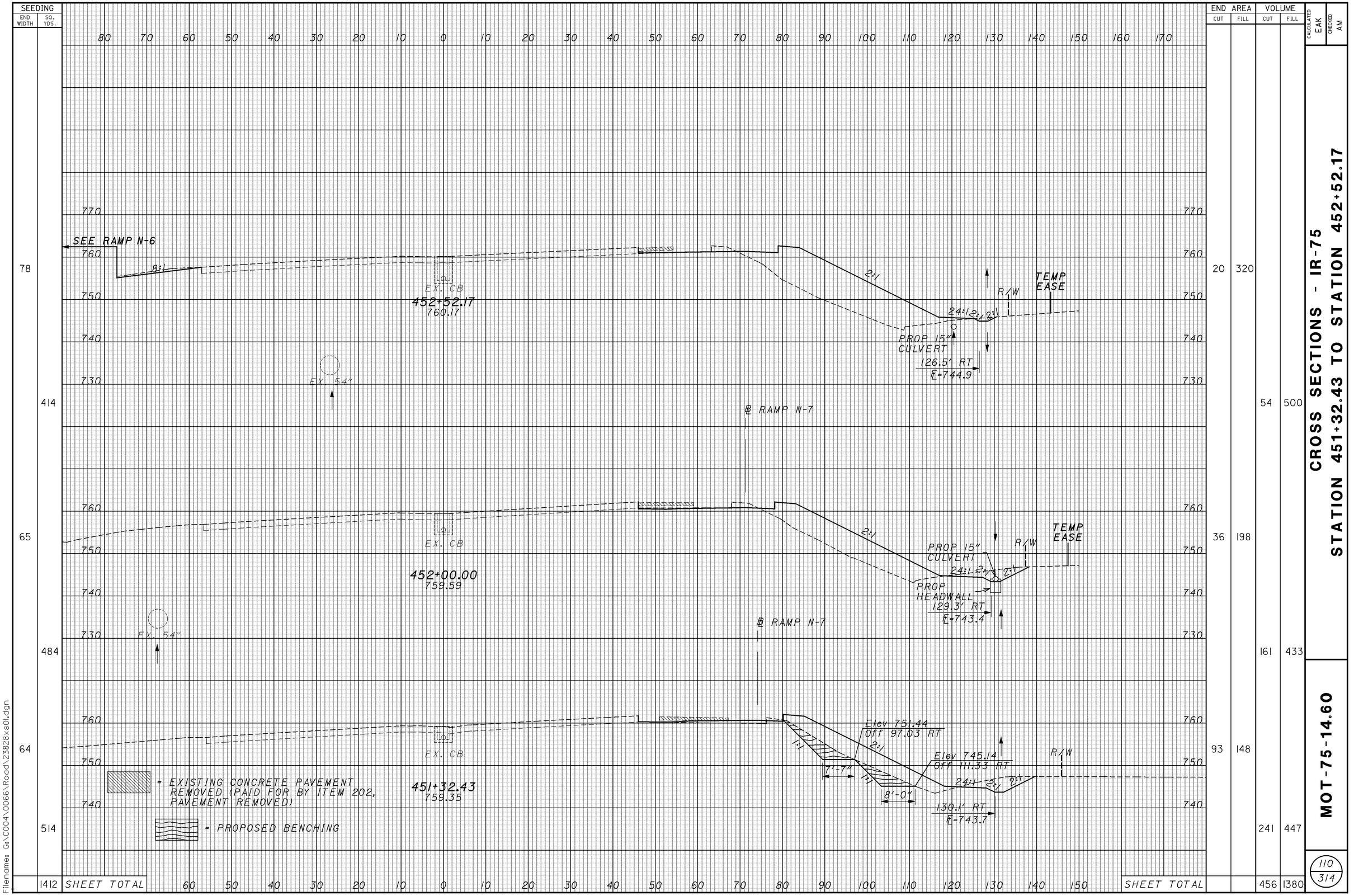
CROSS SECTIONS - IR-75
STATION 439+04.16 TO STATION 450+58.42

MOT-75-14.60

109
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
78	414		20	320	54	500
65	484		36	198	161	433
64	514		93	148	241	447
	1412	SHEET TOTAL			456	1380



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75

STATION 451+32.43 TO STATION 452+52.17

MOT-75-14.60

110 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM

Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
53	13	59	321	4	30
62	381	56	477	83	750
81	422	37	367	50	609
SHEET TOTAL 816				SHEET TOTAL 137	1389

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

770 760 750 740 730

SEE RAMP N-6

8:1

762.28
453+50.00
762.14

RETAINING WALL

PROP 15" CULVERT

EX. 54"

129.4' RT
E-744.0

R/W

TEMP EASE

24:1 2:1 2:1

CATCH BASIN NO. 3A
STA. 453+47.35, 79.63' RT
GRATE ELEVATION-763.87
E 15" (E)-759.84

5.0' X 15"
F @ 0.50%

453+48.00
762.08

30.0' X 15"
F @ 50.00%

18.0' X 15"
F @ 4.77%

PROP HEADWALL

130.2' RT
E-744.6

453+00.00
761.01

127.7' RT
E-744.7

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK
CHECKED AM

CROSS SECTIONS - IR-75
STATION 453+00.00 TO STATION 453+50.00

MOT-75-14.60

111
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING			END AREA		VOLUME			
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL	CALCULATED EAK	CHECKED AM
		140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110						
		ITEM 203, EMBANKMENT, AS PER PLAN SUBTOTAL 1 CARRIED TO SHEET 117				565		
44		BEGIN BRIDGE STA 455+74.69; CATCH BASIN NO. 3A STA. 455+46.97, 102.6' LT GRATE ELEVATION=763.75 E 15" (W)=759.88; 4.0' X 15" F @ 0.50%; 18.6' X 15" F @ 3.00%; 10.4' X 15" F @ 50.00%; PROP HEADWALL 134.5' LT E=754.1; 767.79 455+50.00 767.71	47	356				
	150	130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120			54	403		
10		SEE RAMP N-6; 8:1; 64.4' LT E=764.1; 766.47 455+00.00 765.91	11	79				
	72	BEGIN ITEM 203, EMBANKMENT, AS PER PLAN			17	162		
16		SEE RAMP N-6; 8:1; 70.7' LT E=761.7; 765.13 454+50.00 764.64	7	96				
	114				14	206		
25		SEE RAMP N-6; 8:1; 78.9' LT E=759.2; 763.78 454+00.00 763.40; RETAINING WALL; EX 54"@0.30%	8	127				
	217 -46 171	= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)			62	415		
	507	SHEET TOTAL 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 SHEET TOTAL			147	621		

CROSS SECTIONS - IR-75
STATION 453+50.00 TO STATION 455+00.00

MOT-75-14.60

112
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING	
END WIDTH	SQ. YDS.
58	336 -42 294
61	
	294

END AREA		VOLUME	
CUT	FILL	CUT	FILL
93	163		
114	275		
		195	413
		195	413

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 455+50.00 TO STATION 462+28.07

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:34 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

770 760 750 740 730

769.45
462+28.07
769.28

Elev 761.84
Off 72.22 RT
Elev 754.79
Off 87.28 RT
Elev 748.17
Off 101.90 RT
5'-11"
2:1
1:1
8'-0"
8'-0"
107.9' RT
E=747.4
R/W
166.6' RT
EX. 42"

790 780 770 760 750 740 730

RETAINING WALL

CATCH BASIN NO. 3A
STA. 461+80.28, 63.1' RT
GRATE ELEVATION=770.04
E 15" (E)=766.28

5.0' X 15"
F @ 1.00%
35.9' X 15"
F @ 50.00%
Elev 761.97
Off 72.58 RT
Elev 753.42
Off 89.13 RT

MANHOLE NO. 3
STA. 461+81.44, 104.19' RT
GRATE ELEVATION=752.62
E 18" (E)=742.03
E 15" (W)=742.23
E 15" (W)=747.98
E 15" (E)=742.23
Elev 746.43
Off 104.12 RT

770.37
461+77.19
770.21

5' 2"
2:1
1:1
1:1
8'-0"
PUMP HOUSE STRUCTURE

EX CB
EX 15" TYPE B

MASONRY COLLAR
8.0' X 15" C
MATCH EX SLOPE
EX CB (TBR)
11.5' X 15"
C @ 1.00%

CATCH BASIN NO. 2-2B
STA. 461+77.19, 114.50' RT
GRATE ELEVATION=745.93
E 15" (W)=742.35

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

= PROPOSED BENCHING

BEGIN ITEM 203, EMBANKMENT, AS PER PLAN
END BRIDGE STA 461+52.53

294	SHEET TOTAL

SHEET TOTAL

SEEDING END WIDTH	SEEDING SQ. YDS.
72	201 -37 164
89	215 -31 184
52	306 -42 264
	612

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
143	79		
106	208	104	120
113	156		
			242
115	98		
193	242	410	276

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 462+78.07 TO STATION 463+28.07

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:35 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

770 / 760 / 750 / 740 / 730

Elev 757.38
Off 77.03 LT
2:1
1:1
2'
9'-9"
R/W

463+28.07
767.58

Elev 756.97
Off 78.86 RT
Elev 749.85
Off 93.98 RT
10'-11"
3:1
8'-0"
98.3' RT
E=749.4
EX. 42"

SECTION A-A

1'-0" TYP.
B
10'-0"
#5 BAR DOWEL 1'-9" LONG (TYP.) DOWEL 1' INTO EX. CONCRETE
8'-0"
1'-6" TYP.
B

SECTION B-B

1'-0"
#5 BAR @ 12" (TYP.)
ITEM 602 CONCRETE MASONRY, AS PER PLAN FOR QUANTITY, SEE SHEET 100
0'-6"

ITEM 602 CONCRETE MASONRY, AS PER PLAN
ITEM 602 CONCRETE MASONRY, AS PER PLAN
2:1
2'
A
A
Elev 756.29
Off 81.61 RT
Elev 749.19
Off 96.71 RT
12'-3"
8'-0"
100.1' RT
E=749.0
94.0' LT
E=750.12
EX 10" FORCE MAIN, TO REMAIN IN PLACE

463+05.56
767.96

LIMITS OF REMOVAL
39'-5"
ITEM 202, STRUCTURE REMOVED
LIMITS OF REMOVAL
28'-11"
ITEM 202, STRUCTURE REMOVED
EX. 42"

ITEM 203, EMBANKMENT, AS PER PLAN
SUBTOTAL 2 CARRIED TO SHEET 117

RETAINING WALL
END ITEM 203, EMBANKMENT, AS PER PLAN

Elev 755.38
Off 84.50 RT
Elev 748.58
Off 99.30 RT
13'-0"
8'-0"
103.1' RT
E=748.4

462+78.07
768.43

= TO BE FILLED AND SEALED WITH ITEM 613, LOW STRENGTH MORTAR BACKFILL

= ITEM 202, STRUCTURE REMOVED

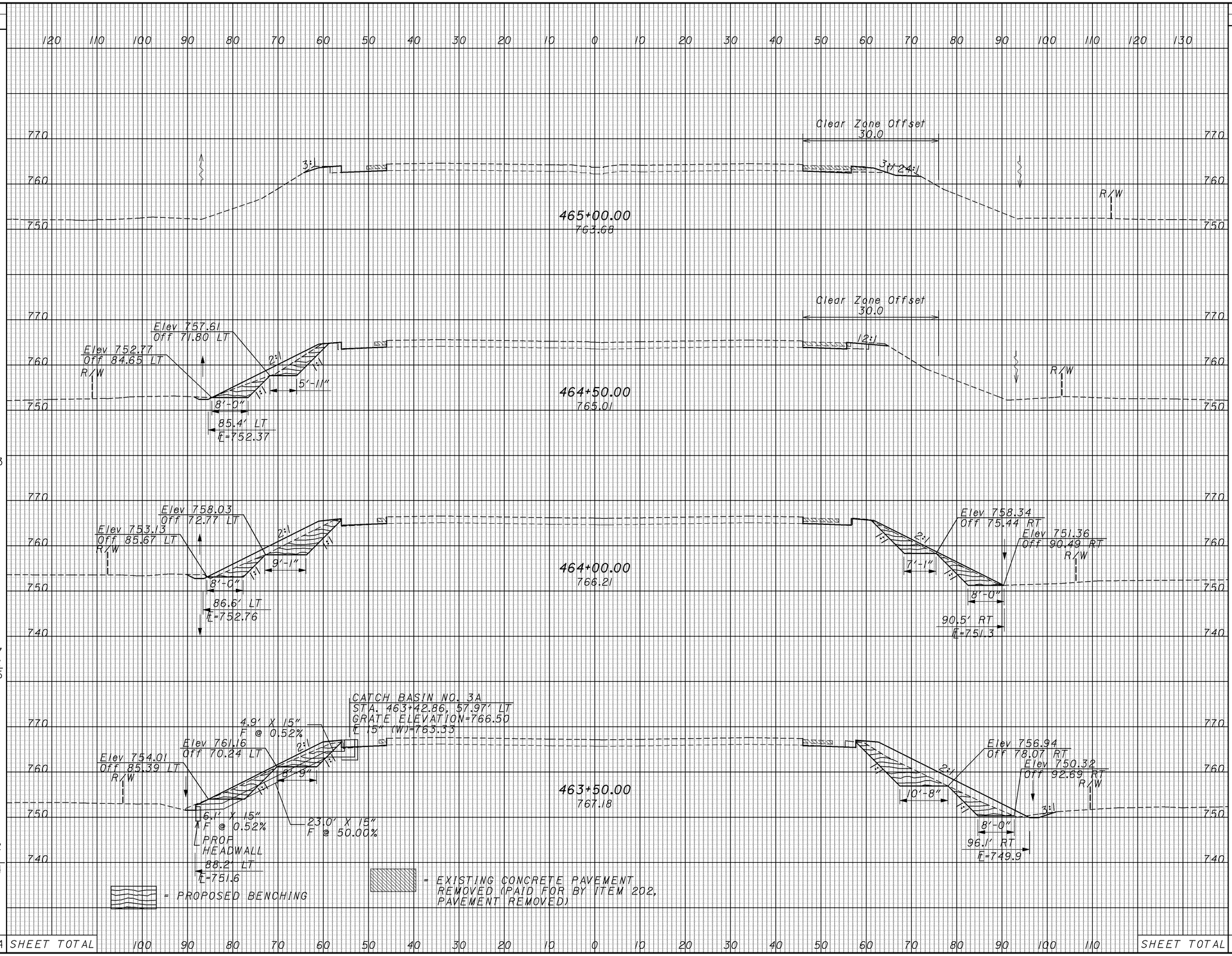
= PROPOSED BENCHING

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

SHEET TOTAL

SHEET TOTAL

SEEDING	
END WIDTH	SQ. YDS.
24	
	192
45	
	333
75	
	447 - 2 = 445
86	
	192 - 18 = 174
	1144



END AREA		VOLUME	
CUT	FILL	CUT	FILL
14	11		
		56	38
47	30		
		147	71
112	47		
		236	120
143	83		
		116	66
		555	295

CALCULATED EAK

CHECKED AM

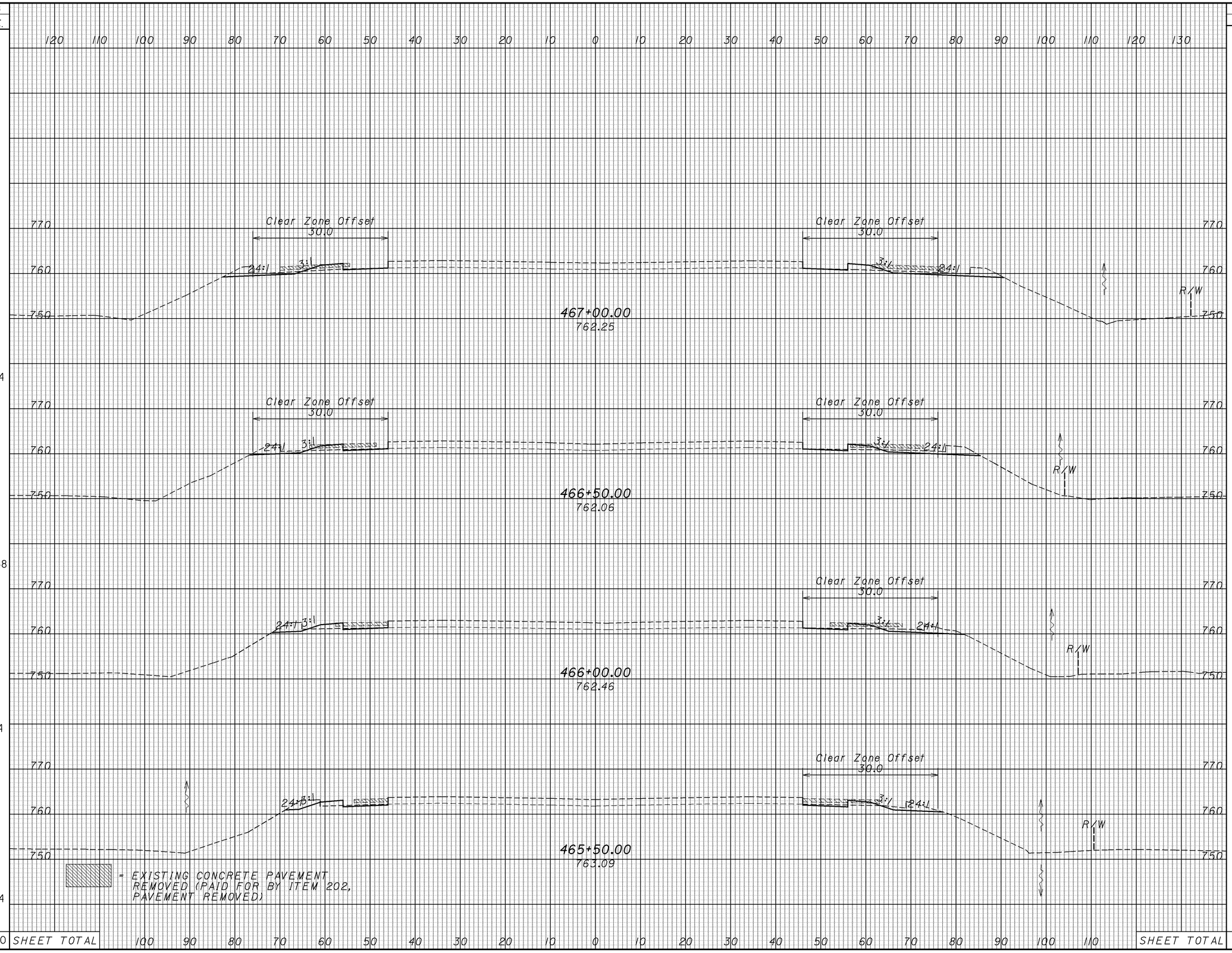
CROSS SECTIONS - IR-75
STATION 463+50.00 TO STATION 465+00.00

MOT-75-14.60

115
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:35 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
62	314	467+00.00 762.25	35	16	63	27
51		466+50.00 762.06	33	13		
42	258	466+00.00 762.46	26	13	55	24
35	214	465+50.00 763.09	25	11	47	22
	164				36	20
	950	SHEET TOTAL			201	93



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75

STATION 465+50.00 TO STATION 467+00.00

MOT-75-14.60

116
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:35 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	8731	IR-75 GRAND TOTAL CARRIED TO GENERAL SUMMARY			2846	4517
						565
						413
						242
						1220
		760				
		770				
	83	760			38	38
		750				
		770				
	433	760			65	60
		750				
	73	760			32	27
		750				
	375	760			62	40
	808	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110			127	100

Clear Zone Offset 30.0

3:1 4:1

468+00.00
763.46

467+50.00
762.50

R/W

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75

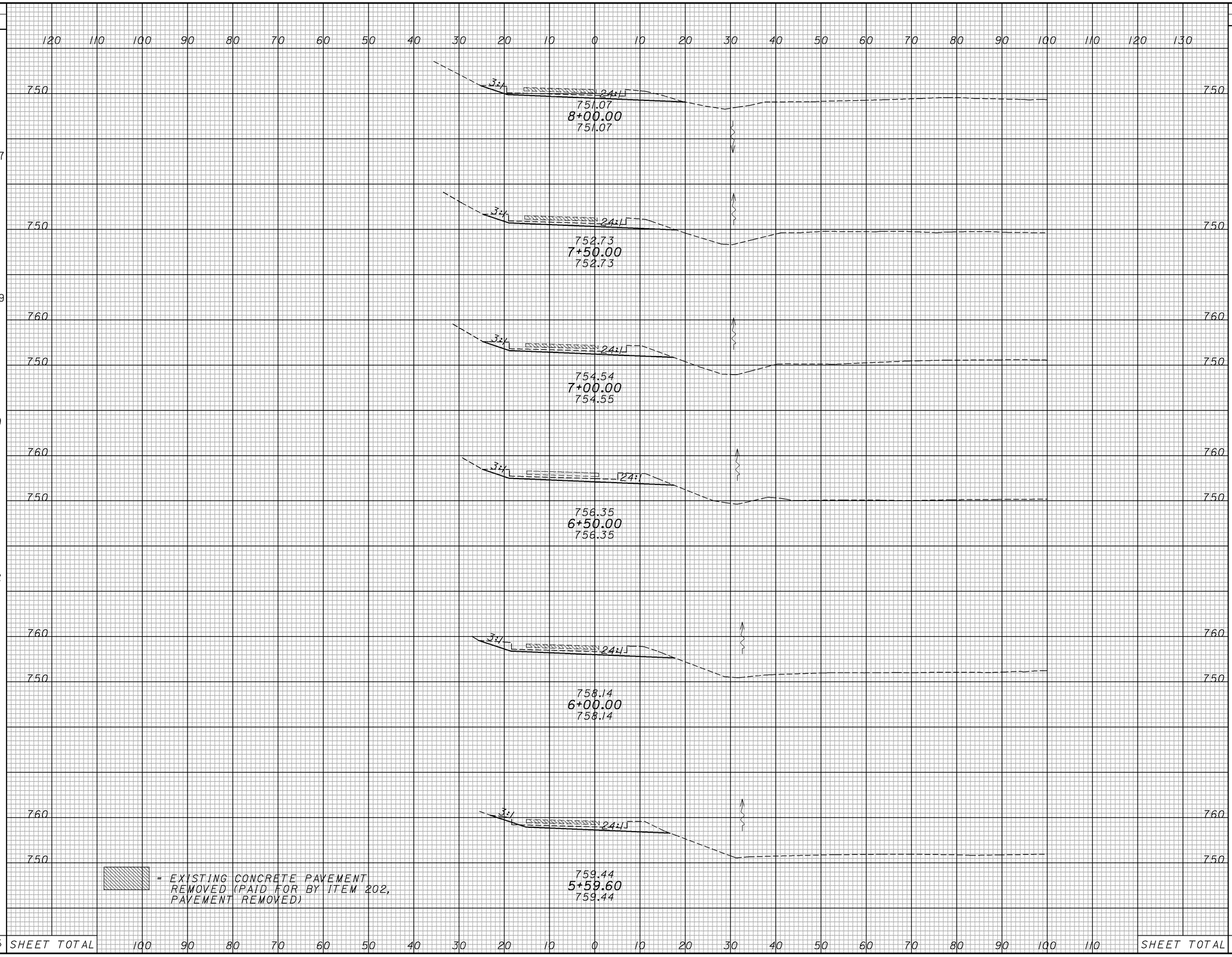
STATION 467+50.00 TO STATION 468+50.00

MOT-75-14.60

117
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:35 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
46	247
43	239
43	239
43	242
44	189
40	
	1156



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
39	0		
		70	0
37	0		
		68	0
36	0		
		71	0
41	0		
		73	0
38	0		
		52	1
32	1		
SHEET TOTAL		334	1

CALCULATED EAK
CHECKED AM

CROSS SECTIONS - RAMP N-4
STATION 5+59.60 TO STATION 8+00.00

MOT-75-14.60

118
314

Plotted By: jfanthony Date: 8/1/2007 Time: 4:34:34 PM
Filename: G:\C004\0066\Road\23828xs0L_N4.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	1637	RAMP N-4 GRAND TOTAL CARRIED TO GENERAL SUMMARY ... RAMP N-4 GRAND TOTAL CARRIED TO GENERAL SUMMARY			389	61
37		750 / 740 — 24:1 — 749.82 9+00.00 749.82	1	26		
	228				10	42
45		750 / 740 — 3:1, 24:1 — 749.95 8+50.00 749.95	10	19		
	253	= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)			45	18
	481	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 SHEET TOTAL			55	60

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-4
STATION 8+50.00 TO STATION 9+00.00

MOT-75-14.60

119
314

Plotted By: jfanthony Date: 8/1/2007 Time: 4:34:34 PM
Filename: G:\C004\0066\Road\23828xs0L_N4.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
34	197	760 / 750 — 751.49 — 2+00.00 — 751.49	19	2	37	4
37	211	760 / 750 / 740 — 749.67 — 1+50.00 — 749.67	21	2	24	26
39	211	760 / 750 / 740 — 748.26 — 1+00.00 — 748.26	5	26	5	65
37		750 / 740 — 748.50 — 0+50.00 — 748.50	0	44		
	619	SHEET TOTAL			66	95

▨ = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-5
STATION 0+50.00 TO STATION 2+00.00

MOT-75-14.60

120
314

Plotted By: jfanthony Date: 8/1/2007 Time: 4:34:35 PM
Filename: G:\C004\0066\Road\23828x501_N5.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	1420	RAMP N-5 GRAND TOTAL CARRIED TO GENERAL SUMMARY			208	103
39	104	760 / 750 — 2:1 / 24:1 — 758.58 3+73.46 758.58	19	1	18	1
41	236	760 / 750 — 2:1 / 24:1 — 757.70 3+50.00 757.70	22	1	43	2
44	244	760 / 750 — 2:1 / 24:1 — 755.73 3+00.00 755.73	24	1	43	2
44	217	760 / 750 — 2:1 / 24:1 — 753.76 2+50.00 753.76	22	1	38	3
	801	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		142	8

▨ = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-5
STATION 2+50.00 TO STATION 3+73.46

MOT-75-14.60

121 / 314

Plotted By: jfanthony Date: 8/1/2007 Time: 4:34:35 PM
Filename: G:\C004\0066\Road\23828xs01_N5.dgn

RAMP N-6

PI Sta = 448+65.51
Δ = 50° 22′ 03″ (RT)
Dc = 25° 55′ 32″
R = 221.00′
T = 103.92′
L = 194.28′
E = 23.21′
PC = 447+61.59
PT = 449+55.87
emax = 0.059

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI = 454+03.75
Δ = 60° 47′ 49″ (LT)
D1 = 11° 15′ 00″
R1 = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
p = 1.31′
Δ1 = 28° 25′ 57″
Δ2 = 14° 21′ 53″
T1 = 73.56′
T2 = 126.44
e1 = 0.06
e2 = 0 06 ′
CS = 453+30.19
SC = 455+30.19

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

6-R ITEM 202, REMOVAL MISC.: STEEL ENCASED CONC. BOLLARDS BEGIN STA. 450+49, LT END STA. 453+39, LT.

ITEM 670, DITCH EROSION PROTECTION

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, CONC MEDIAN REMOVED

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED MPD CHECKED AM

POC STA 9+53.88, STANLEY AVE = PT STA 445+49.74, RAMP N-6

POC STA 9+12.87, STANLEY AVE = PT STA 439+94.85, RAMP N-6A

℄ RAMP N-6 N 21° 10′ 48″ W

℄ RAMP N-6A N 29° 11′ 15″ E

BEGIN GR. TYPE S +18.31, 60′ LT

PT 155.87 IN-6 END CONCRETE MEDIAN

BEGIN SHLDR TAPER +57.94, 6′ LT

END SHLDR TAPER +32.94, 21′ LT (IN-6)

BEGIN GR. TYPE S +55.81, 21.0′ LT

AA, TYPE T

BTA, TYPE 2

4′X82′

7.5′X433′

7.5′X102′

5′X118′

12″ DOUBLE TRUNK TREE

18″ TREE

9″ TREE

6 TREES

2 12″ TREES

BM #4

TREE BUNCH (< 6″)

CONST LIMITS

EDGE OF GRAVEL

℄ CONST STANLEY AVE

℄ CONST IR-75

SAN 900-201

36″ Conc

54″ Conc

12″ Copod

EX 10″ GAS

EX 10″ WATER

EX 10″ SAN

EX 3″ TRAFFIC CONTROL INTERCONNECT

EX SAN

BM #5

+90.18

+27.33, IR-75 BEGIN SHLDR

+41.30 IR-75

SITE BM # 4
IRON PIN FOUND
STA 455+05.32, ℄ IR-75
176.48′ LT
ELEV 758.30

SITE BM # 5
BENCHMARK SET
STA 6+87.18, ℄ STANLEY AVE.
71.38′ RT
ELEV 745.41

Ⓐ BEGIN FENCE STA 450+42.36, 41.5′ LT
Ⓑ ANGLE POINT STA 451+21.74, 49.6′ LT
Ⓒ ANGLE POINT STA 453+89.72, 80.0′ LT
Ⓓ ANGLE POINT STA 455+60.38, 74.1′ LT
Ⓔ END FENCE STA 455+71.89, 22.8′ LT

FOR UNDERDRAIN QUANTITIES SEE SHEET 91
FOR REMOVAL QUANTITIES SEE SHEET 95
* FOR STORM SEWER DETAILS SEE SHEET 112 , 126

PVI STA 446+28.12
ELEV = 742.55
70′ VC

PVI STA 448+70.00
ELEV = 749.00
164′ VC

PVI STA 451+14.00
ELEV = 752.05
146′ VC

STA 445+93.12 ELEV 743.11

STA 446+63.12 ELEV 743.49

STA 447+88.00 ELEV 746.82

STA 449+52.00 ELEV 750.03

STA 450+41.00 ELEV 751.14

STA 451+87.00 ELEV 754.30

STA 455+74.71 ELEV 766.25

STA 457+43.00 ELEV 770.75

+1.60 %
+2.67 %
+1.25 %
+3.08 %

PROPOSED PROFILE

EXISTING GROUND

PROP 15″

PROP 18″

EX 24″ RCP STA 445+80.76 ELEV 743.31 MEET EXISTING

GRADE GRAPHIC

445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00

PLAN AND PROFILE
RAMP N-6

MOT-75-14.60

122
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:37 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_N6.dgn

SHEET NO.	REF NO.	STATION FROM	STATION TO	SIDE	602 CONCRETE MASONRY CY	603 15" CONDUIT, TYPE B FT	603 15" CONDUIT, TYPE F FT	603 18" CONDUIT, TYPE B FT	604 CATCH BASIN, NO. 3A EA	604 CATCH BASIN, NO. 2-2B EA	606 GUARDRAIL, TYPE 5 FT	606 ANCHOR ASSEMBLY, TYPE T EA	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2 EA	607 FENCE, TYPE CLT FT	609 CURB, TYPE 4-C FT	609 CURB, TYPE 6 FT	609 CONCRETE MEDIAN SY	670 DITCH EROSION PROTECTION SY
122	1-C	446+23.80	447+06.79	LT												83		
	2-C	446+17.16	449+55.87	RT													107	
	3-C	455+32.94	455+53.33	LT											20			
	1-D	450+50.00	450+50.00	RT	0.3	63				1								
	2-D	452+00.99	452+53.19	RT				180		1								
	3-D	455+40.13	455+40.13	LT	0.3		34		1									
	1-EC	451+00.00	455+33.00	LT														361
	2-EC	454+00.00	455+02.00	RT														85
	1-F	450+42.36	455+71.89	LT										514				
	1-GR	449+05.81	455+55.81	LT							637.50	1	1					
TOTALS CARRIED TO GEN. SUM.					0.6	63	34	180	1	2	637.50	1	1	514	20	83	107	446

CALCULATED EAK
CHECKED AM

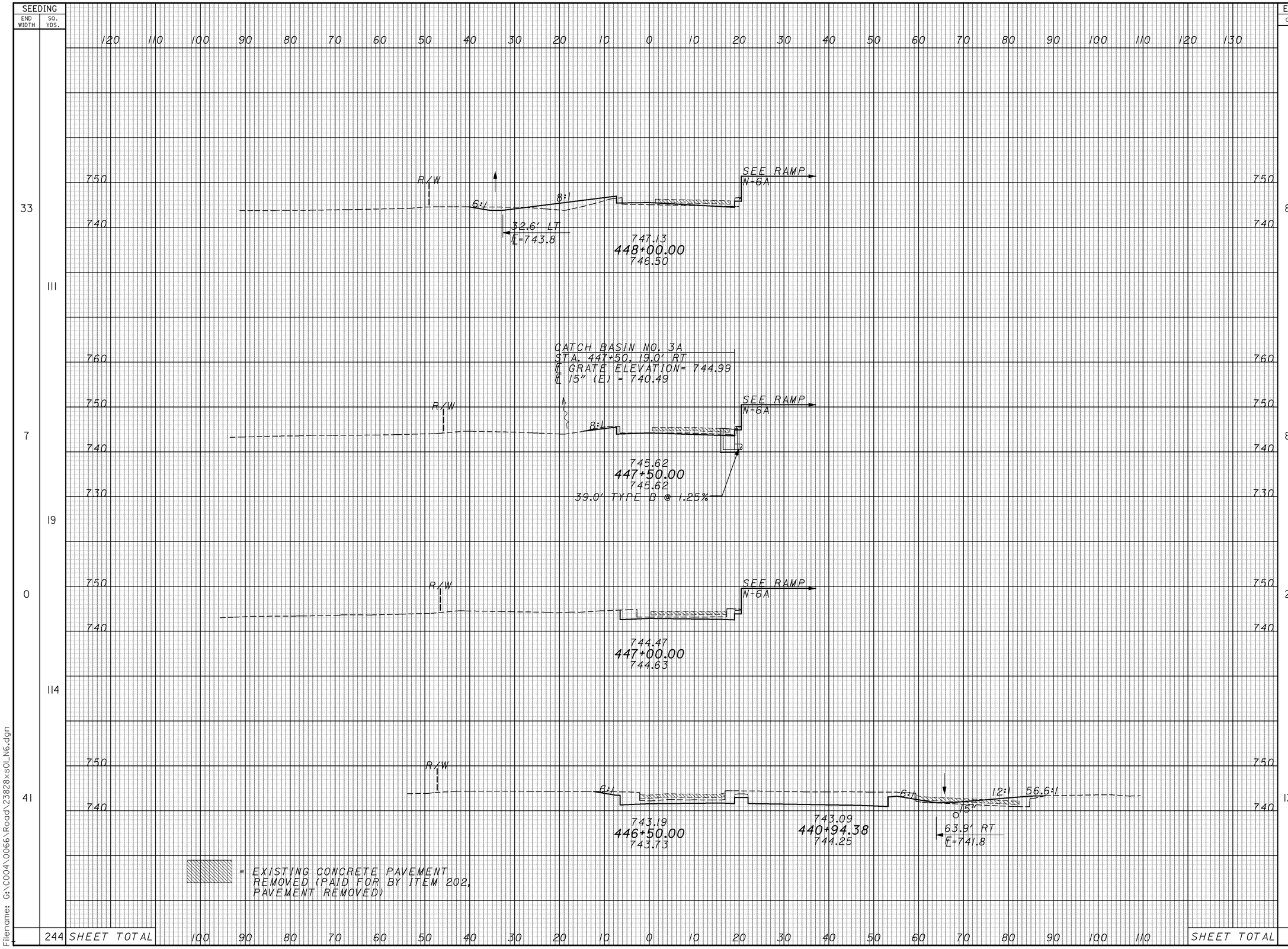
RAMP N-6 SUBSUMMARY

MOT-75-14.60

123
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:39 AM
Filename: G:\C004\0066\Road\General\23828gs0l_n6.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
33	111		8	27	15	26
7	19		8	1	28	1
0	114		22	0	148	25
41			138	27		
	244	SHEET TOTAL			191	52



CALCULATED EAK
CHECKED AM

CROSS SECTIONS - RAMP N-6
STATION 446+50.00 TO STATION 448+00.00

MOT-75-14.60

124
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:39 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
33	197	760 / 750 / 740 / 730	48	34	86	44
38	214	750 / 740	45	13	79	36
39	206	750 / 740	40	26	64	50
35	189	750 / 740	29	28	34	51
	806	SHEET TOTAL			263	181

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

SEE RAMP N-6A

R/W

4:1

2:1

1:1

11'-7"

750.63
450+00.00
750.57

26.9' LT
E=742.0

SEE RAMP N-6A

Elev 745.37
Off 20.67 LT

R/W

6:1

3:1

1:1

8'-3"

8'-0"

750.00
449+50.00
749.68

31.5' LT
E=742.5

Elev 745.11
Off 21.66 LT

SEE RAMP N-6A

R/W

6:1

3:1

8:1

1:1

8'-0"

10'-10"

749.26
449+00.00
748.55

31.9' LT
E=742.9

Elev 745.15
Off 17.89 LT

SEE RAMP N-6A

R/W

6:1

3:1

8:1

1:1

8'-0"

8'-2"

747.50
448+50.00
747.50

27.6' LT
E=743.4

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

= PROPOSED BENCHING

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-6
STATION 448+50.00 TO STATION 450+00.00

MOT-75-14.60

125
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:40 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
136	692 -39 653	58	650	102	955
113	511	52	381	101	534
71	344	57	196	81	276
53	239	30	102	72	126
	1747 SHEET TOTAL			356	1891 SHEET TOTAL

CALCULATED EAK

CHECKED AM

CATCH BASIN NO. 2-2B
STA. 452+00, 40.90' LT
E GRATE ELEVATION=740.20
E 18" (SE)=737.95

Prop. R/W
R/W
2:1
44:1
180.0' X 18" R.C.P. @ 0.50%
FOR STORM DETAILS SEE SHEET 180
39.9' LT
E=740.2
754.70
452+00.00
742.28

SEE MAINLINE
43:1
Prop. R/W
R/W
34.6' LT
E=740.7
753.25
451+50.00
742.08

SEE RAMP N-6A
42:1
Prop. R/W
R/W
3:1
31.7' LT
E=741.1
48.5' RT
E=750.0
752.10
451+00.00
745.11

CATCH BASIN NO. 2-2B
STA. 450+50, 33.4' RT
E GRATE ELEVATION= 749.59
E 15" (W) = 746.92
SEE RAMP N-6A
8:1
Prop. R/W
R/W
HW=2.1 OR HW=2.2
62.3' TYPE B @ 8.72%
33.4' RT
E=749.9
28.9' LT
E=741.5
751.26
450+50.00
749.67

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

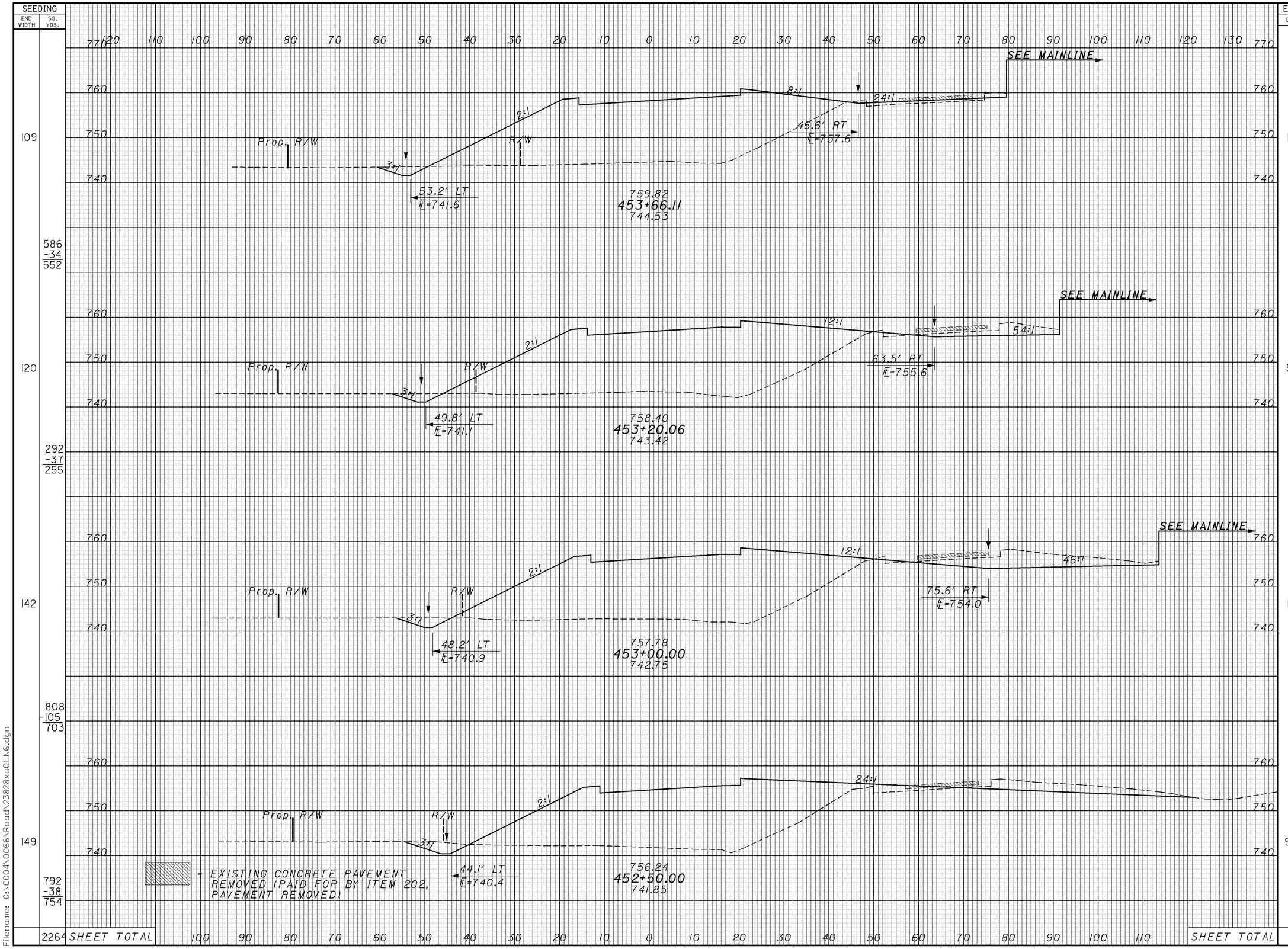
CROSS SECTIONS - RAMP N-6
STATION 450+50.00 TO STATION 452+00.00

MOT-75-14.60

126
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:40 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
109	586 -34 552	19	968	65	1679
120	292 -37 255	57	1001	68	736
142	808 -105 703	125	981	200	1724
149	792 -38 754	91	881	138	1418
	2264 SHEET TOTAL			471	5557



CALCULATED EAK

CHECKED AM

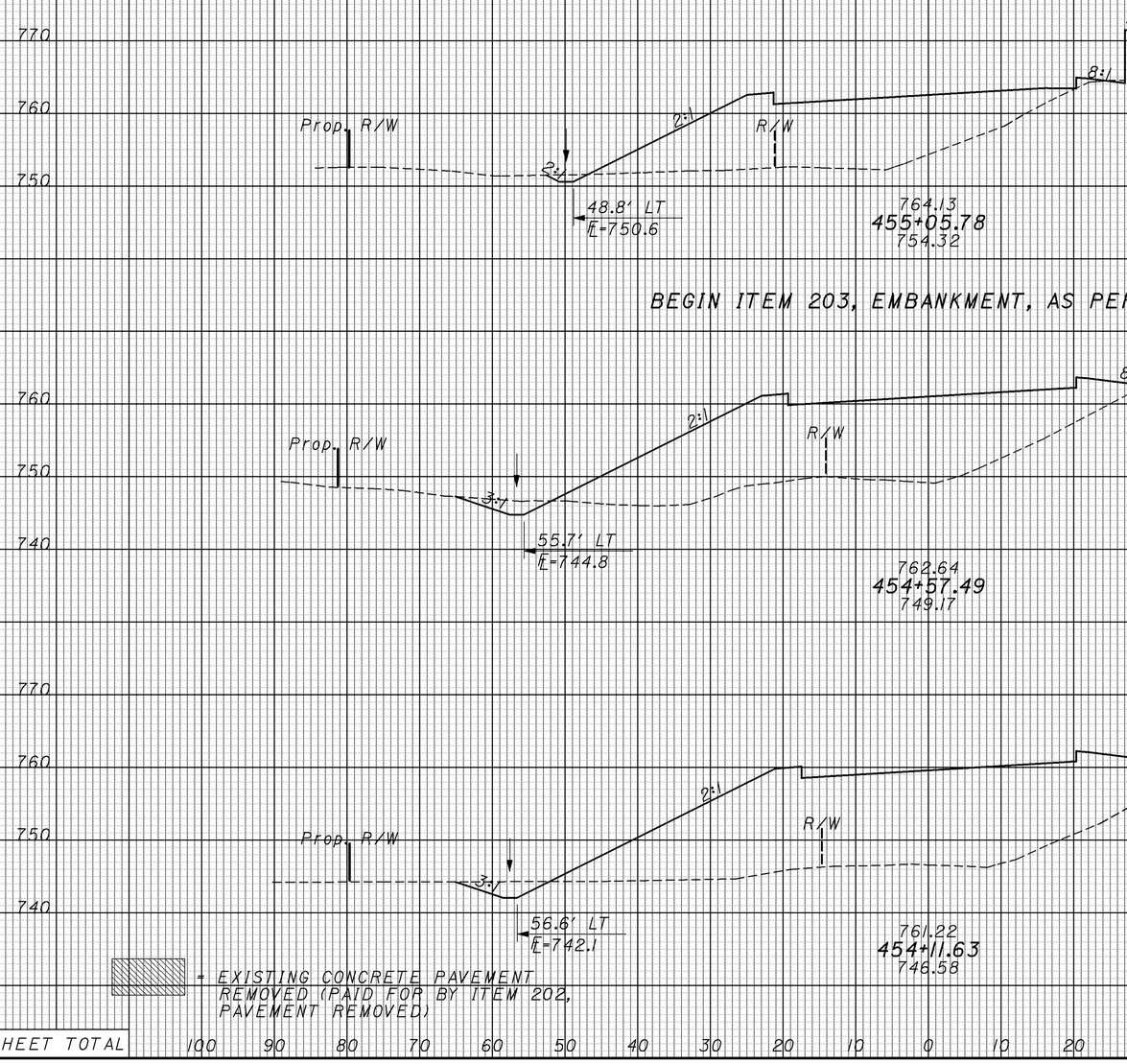
CROSS SECTIONS - RAMP N-6
STATION 452+50.00 TO STATION 453+66.11

MOT-75-14.60

127 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:40 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	6079	RAMP N-6 GRAND TOTAL CARRIED TO GENERAL SUMMARY			1359	10528
		ITEM 203, EMBANKMENT, AS PER PLAN GRAND TOTAL CARRIED TO GENERAL SUMMARY				994
41	287 -40 247		4	441	18	994
66	367 -35 332		16	670	29	1303
78	473 -34 439		18	864	31	1544
	1018	SHEET TOTAL			78	2847



CALCULATED EAK

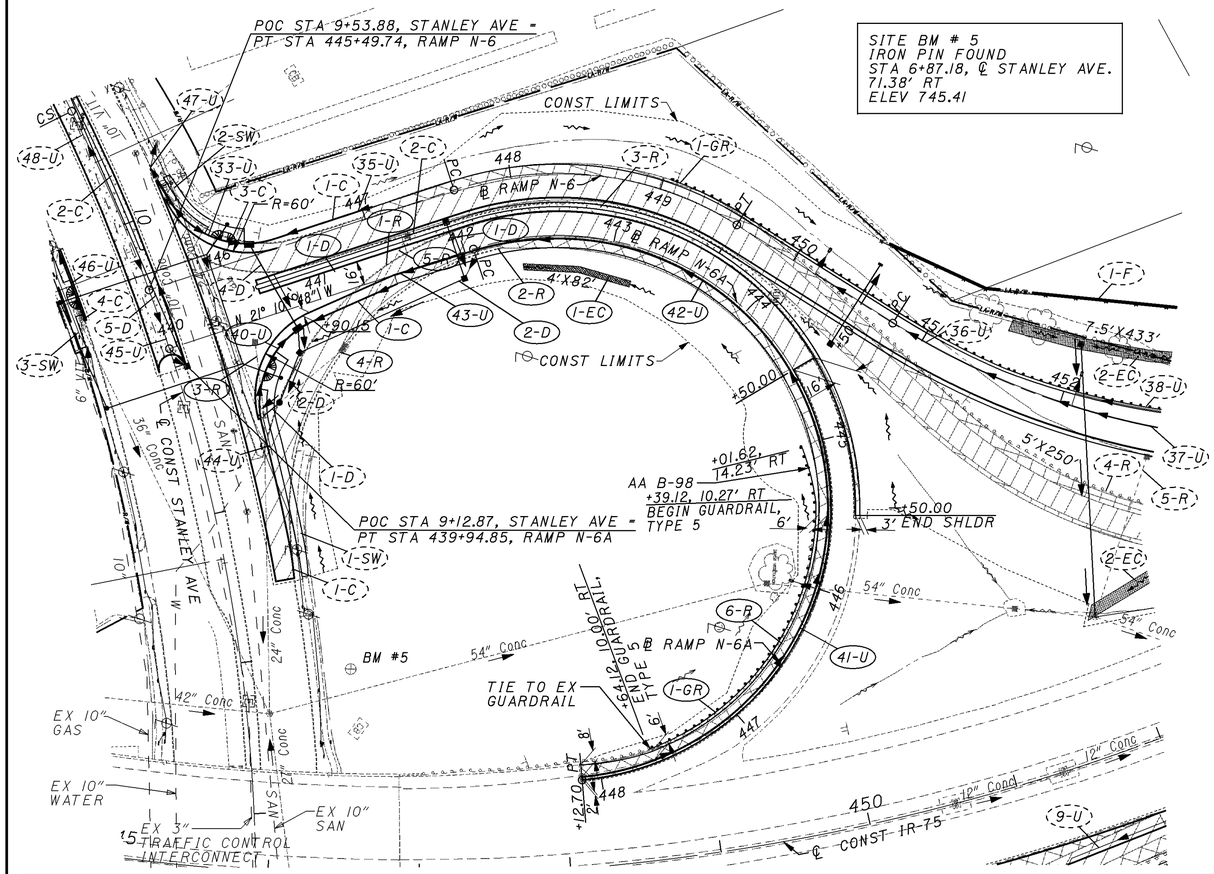
CHECKED AM

CROSS SECTIONS - RAMP N-6
STATION 454+11.63 TO STATION 455+05.78

MOT-75-14.60

128
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:40 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn



RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07' 50" (RT)
Dc = 31° 49' 52"
R = 180.00'
T = 1,564.01'
L = 606.74'
E = 1,754.33'
PC = 442+05.97
PT = 448+12.70
emax = 0.06

FOR UNDERDRAIN QUANTITIES SEE SHEET 91
FOR REMOVAL QUANTITIES SEE SHEET 95
FOR STORM SEWER DETAIL SEE SHEET 124, 130

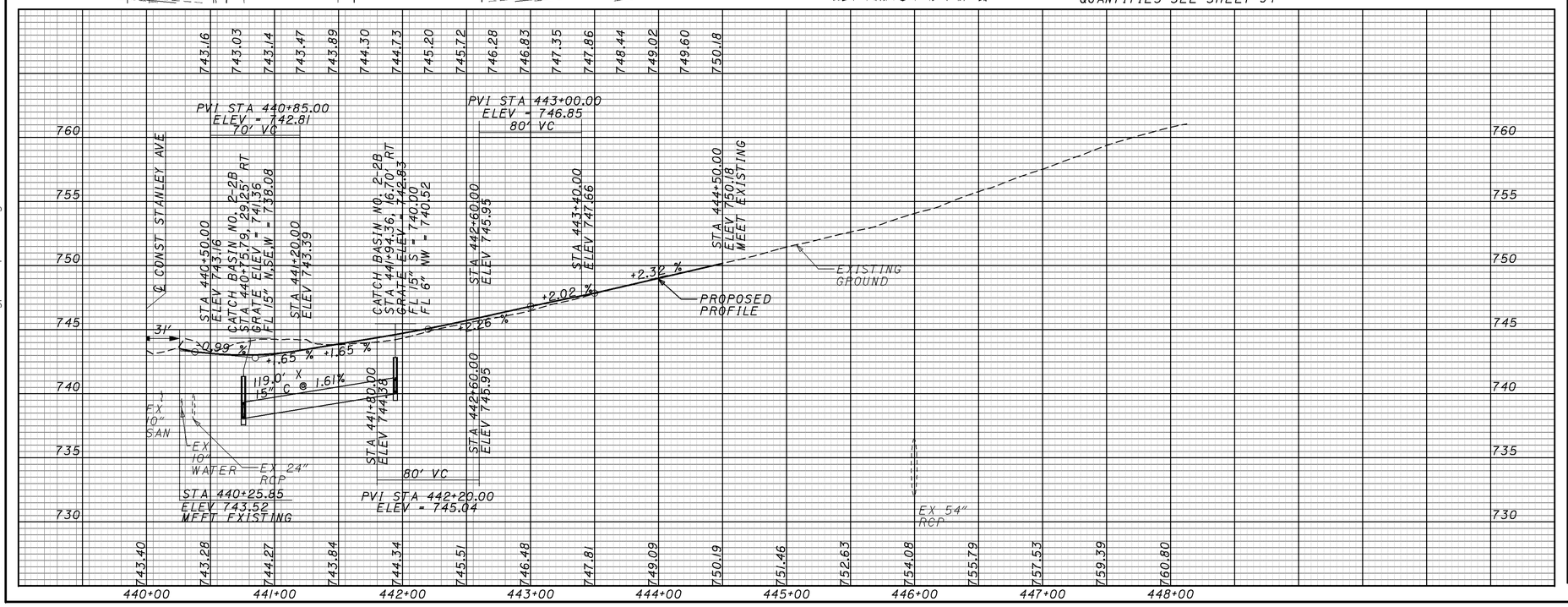
ITEM 202, CONC MEDIAN REMOVED

ITEM 670, DITCH EROSION PROTECTION

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94



REF NO.	STATION FROM	STATION TO	SIDE	603 15" CONDUIT, TYPE B	603 15" CONDUIT, TYPE C	604 CATCH BASIN, NO. 3A	604 CATCH BASIN, NO. 2-2B	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE B-98	609 CURB, TYPE 6	670 DITCH EROSION PROTECTION
				FT	FT	EA	EA	FT	EA	FT	SQ
I-C	440+82.26	441+51.12	RT							85	
I-D	441+94.38	441+94.38	LT	39		1					37
2-D	441+94.38	440+75.79	RT		119		1		1		
I-EC	442+37.00	443+19.00	RT					225.00			
I-GR	445+39.12	447+64.12	RT								
TOTALS CARRIED TO GENERAL SUMMARY				39	119	1	1	225.00	1	85	37

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MPD
CHECKED AM

PLAN AND PROFILE
RAMP N-6A

MOT-75-14.60

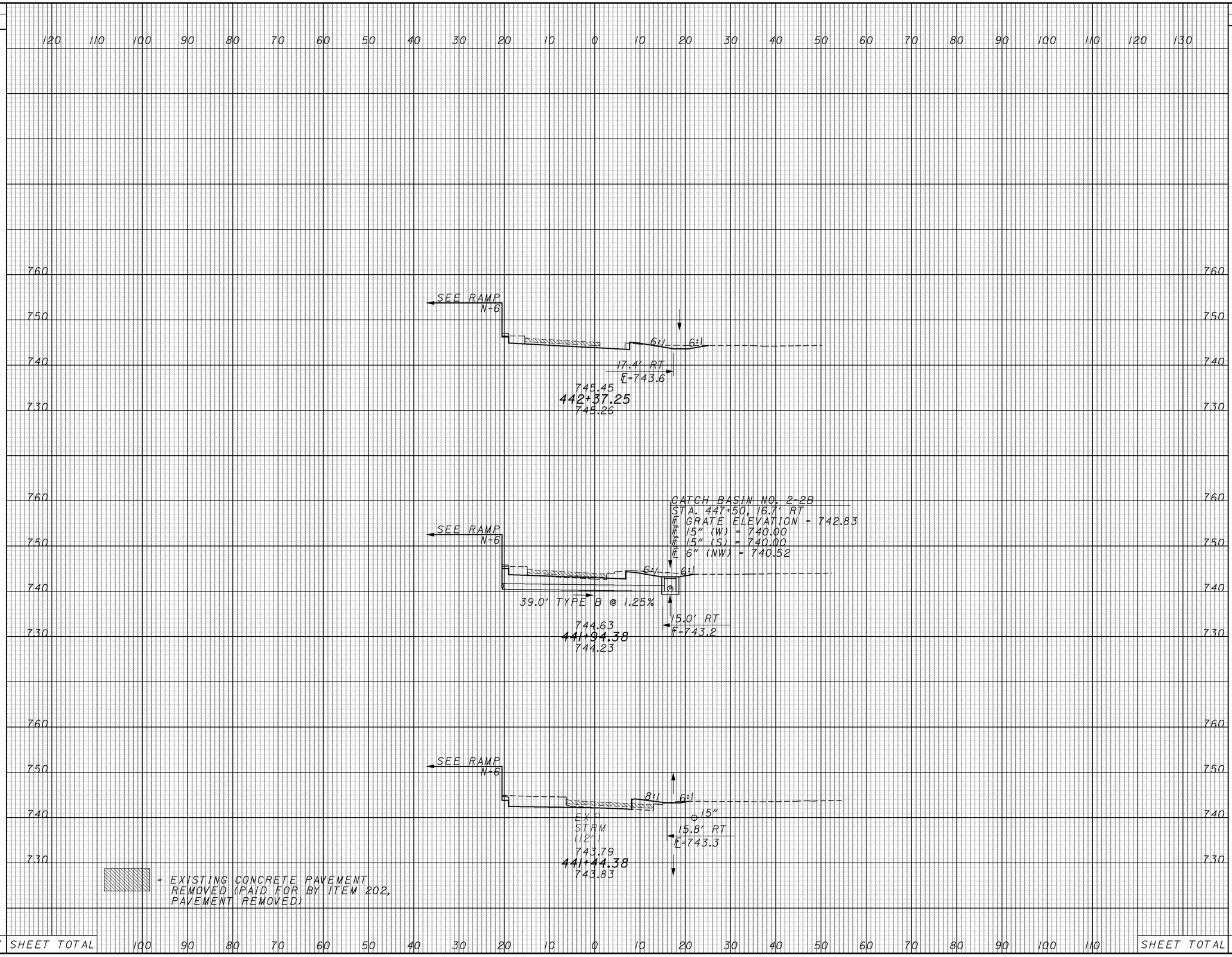
129
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:41 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_N6A.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
18	79	14	2	29	4
15	78	23	3	52	14
13		33	12		
	157	SHEET TOTAL		81	18

CALCULATED EAK

CHECKED AM



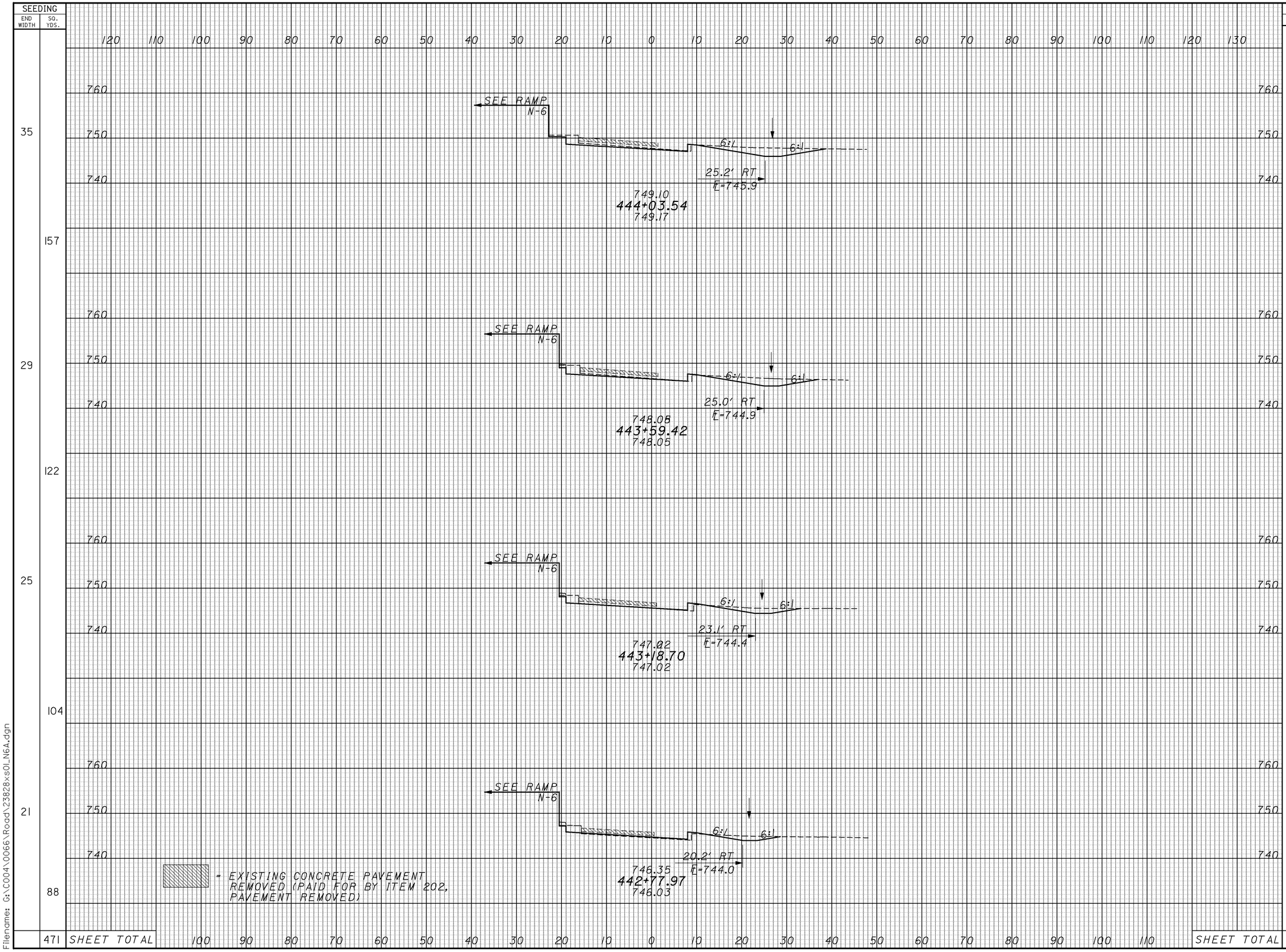
CROSS SECTIONS - RAMP N-6A
STATION 441+44.38 TO STATION 442+37.25

MOT-75-14.60

130
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:42 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
35	157	43	1	65	2
29	122	36	2	42	4
25	104	20	3	26	7
21	88	15	6	22	6
	471			155	19



CALCULATED EAK

CHECKED AM

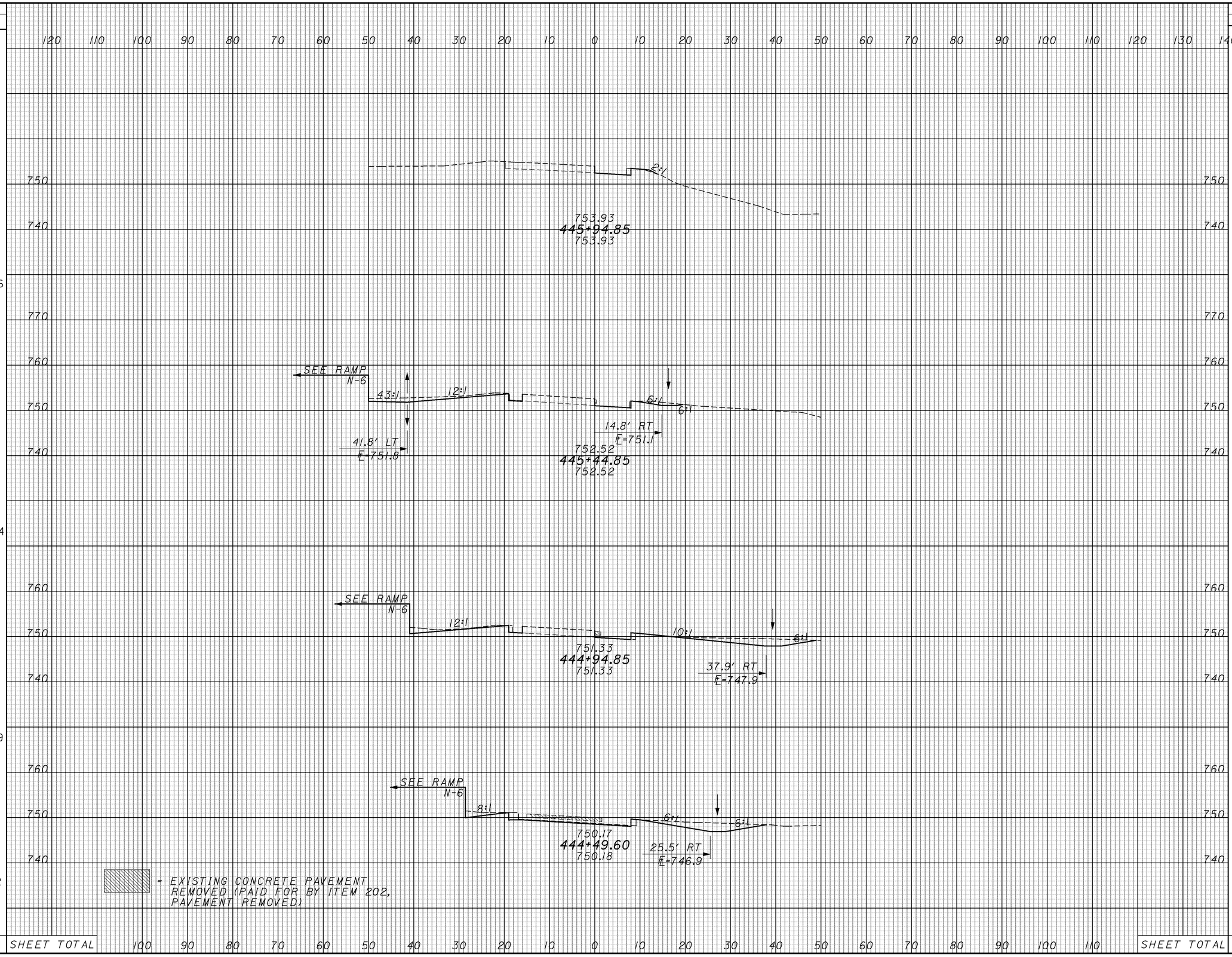
CROSS SECTIONS - RAMP N-6A
STATION 442+77.97 TO STATION 444+03.54

MOT-75-14.60

131
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:42 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
6	
	136
43	
	294
63	
	259
40	
	192
	881



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2	1		
		23	1
23	0		
		56	2
37	2		
		67	3
43	2		
		73	3
		219	9

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-6A
STATION 444+49.60 TO STATION 445+94.85

MOT-75-14.60

132
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:42 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	2034	RAMP N-6A GRAND TOTAL CARRIED TO GENERAL SUMMARY			521	63
5	25	760 / 750 — 12:1 — 760.68 / 447+94.85 / 760.68	0	2	1	2
4	25	760 / 750 — 12:1 — 759.20 / 447+44.85 / 759.20	1	0	3	1
5	236	760 / 750 — 4:1 — 757.37 / 446+94.85 / 757.37	2	1	31	7
80	239	750 / 740 — 2:1, 1:1 — Elev 746.84 Off 27.92 RT — 8'-7" — 755.61 / 446+44.85 / 755.61	31	7	31	7
		= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)				
		= PROPOSED BENCHING				
	525	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		66	17

CALCULATED EAK

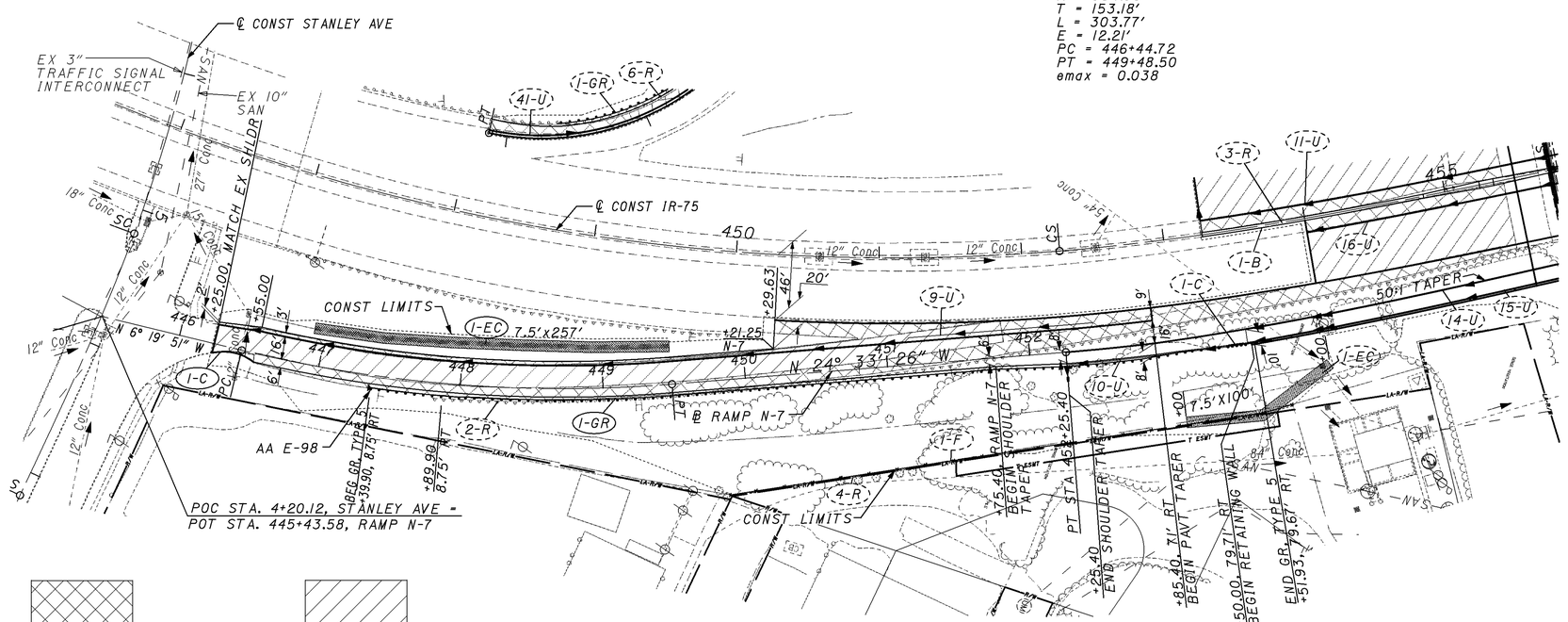
CHECKED AM

CROSS SECTIONS - RAMP N-6A
STATION 446+44.85 TO STATION 447+94.85

MOT-75-14.60

133 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:42 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn



RAMP N-7
PI Sta = 447+97.91
Δ = 18° 13' 35" (LT)
Dc = 6° 00' 00"
R = 954.93'
T = 153.18'
L = 303.77'
E = 12.21'
PC = 446+44.72
PT = 449+48.50
emax = 0.038

ITEM 670, DITCH EROSION PROTECTION

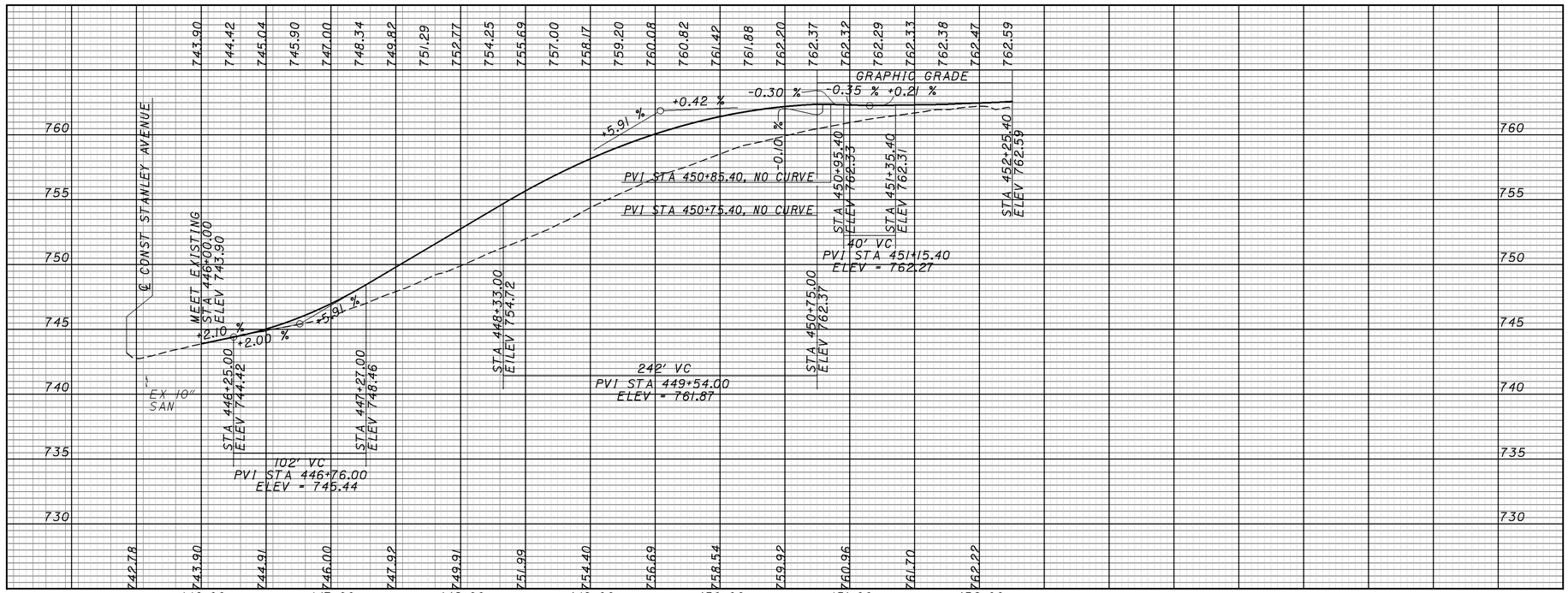
ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95



REF NO.	STATION FROM	STATION TO	SIDE	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE E-98	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1	609 CURB, TYPE 6	670 DITCH EROSION PROTECTION
				FT	EA	EA	FT	SY
I-C	446+25.00	446+55.01	RT				31*	
I-EC	446+92.00	449+49.00	LT					215*
I-GR	447+87.90,	453+51.93,	RT	562.50*	1*	1*		
	RAMP N-7	IR-75						
TOTALS CARRIED TO GENERAL SUMMARY				562.50	1	1	31	215

*= HIGWAY SAFETY PROGRAM (HSP)

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MPD
CHECKED AM

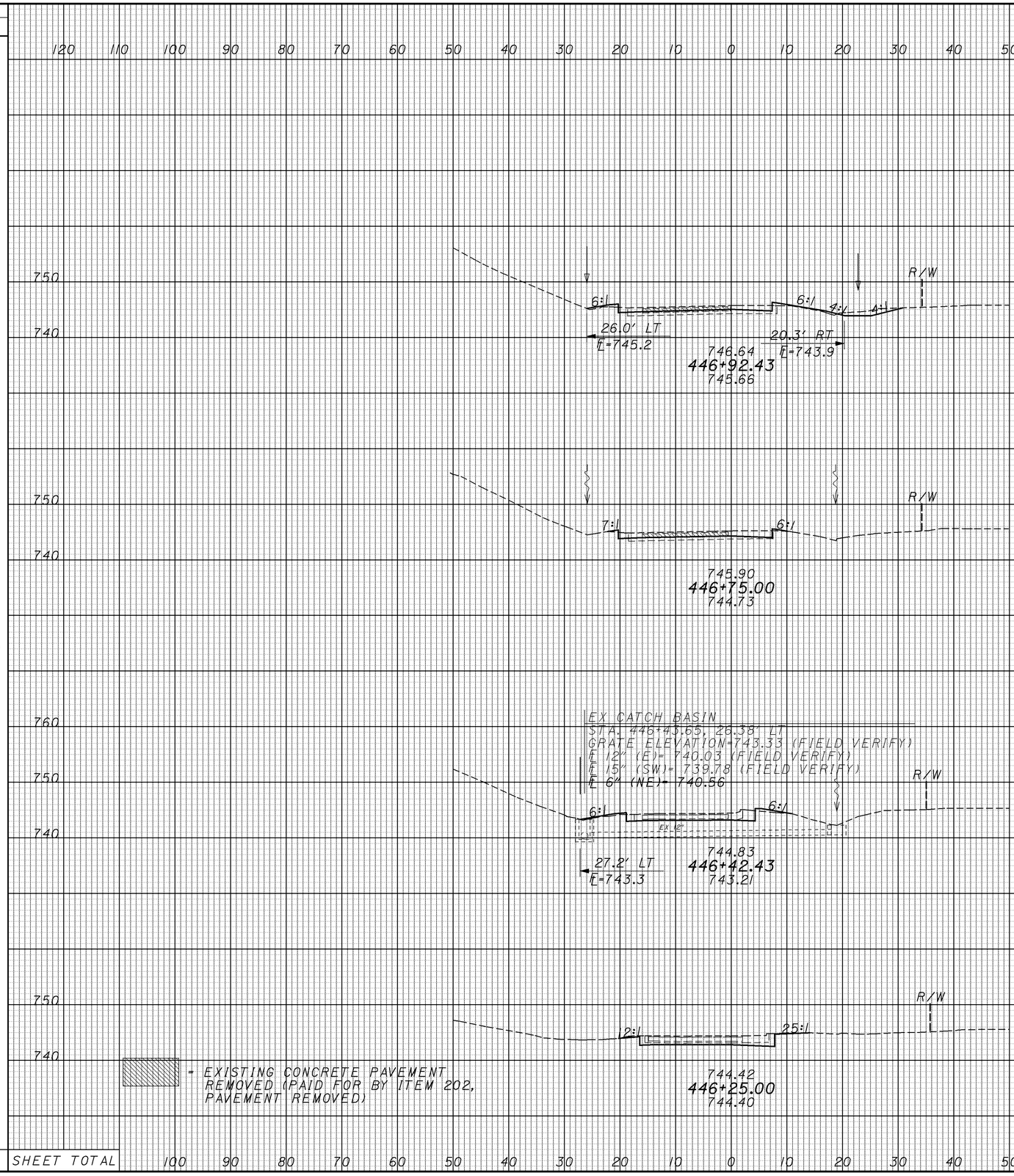
PLAN AND PROFILE
RAMP N-7

MOT-75-14.60

134
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:44 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_N7.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
30	34
5	36
15	24
10	42
	94



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
AM			
28	5		
		17	2
26	1		
		34	3
30	4		
		23	1
42	0		
		74	6

CALCULATED EAK
CHECKED AM

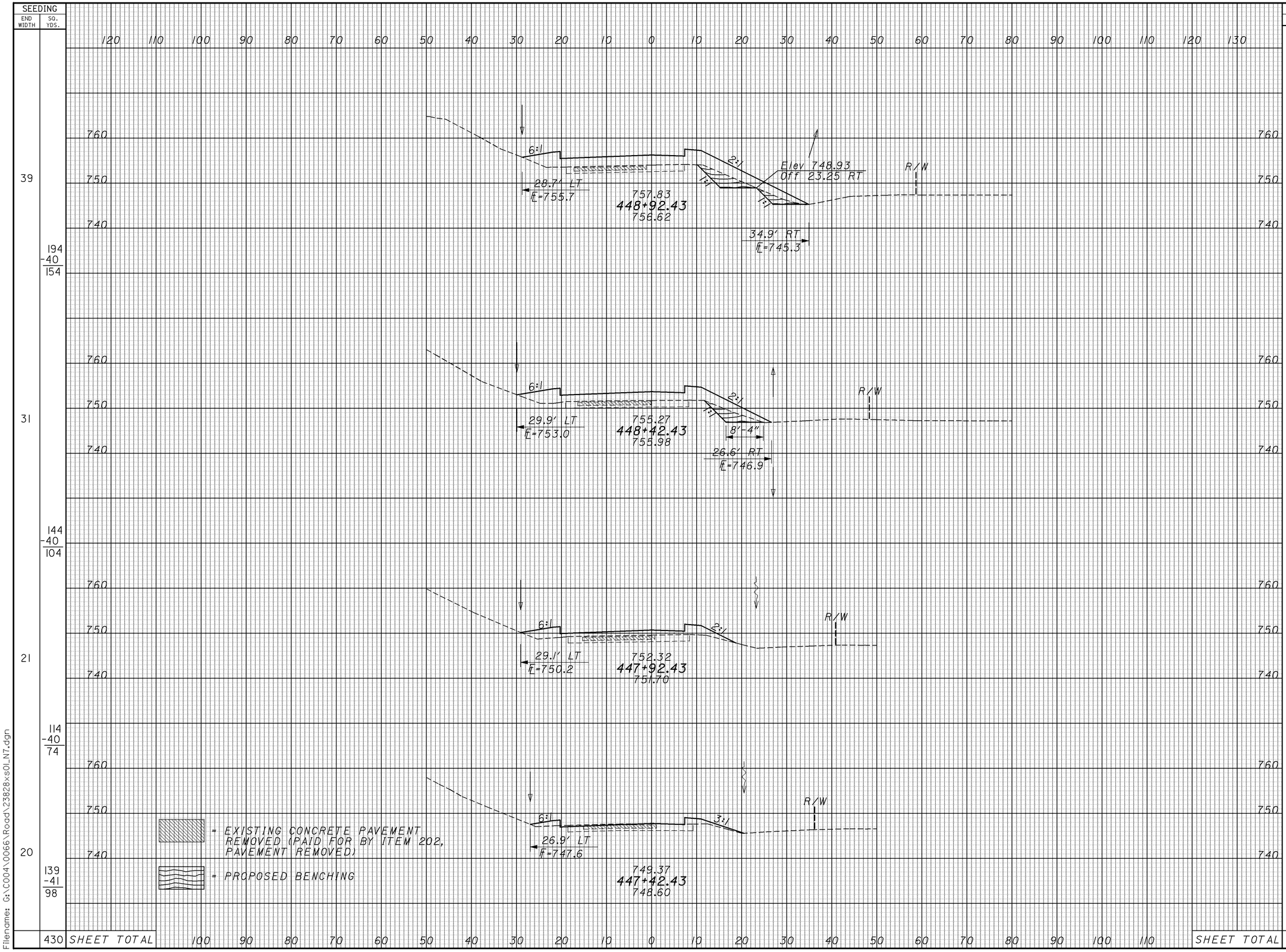
CROSS SECTIONS - RAMP N-7
STATION 446+25.00 TO STATION 446+92.43

MOT-75-14.60

135
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:45 AM
Filename: G:\C004\0066\Road\23828xs01_N7.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
39	194 -40 154		33	138	48	227
31			19	107		
	144 -40 104				18	151
21			0	56		
	114 -40 74				4	66
20	139 -41 98		4	15		
					30	19
	430	SHEET TOTAL			100	463



CALCULATED EAK

CHECKED AM

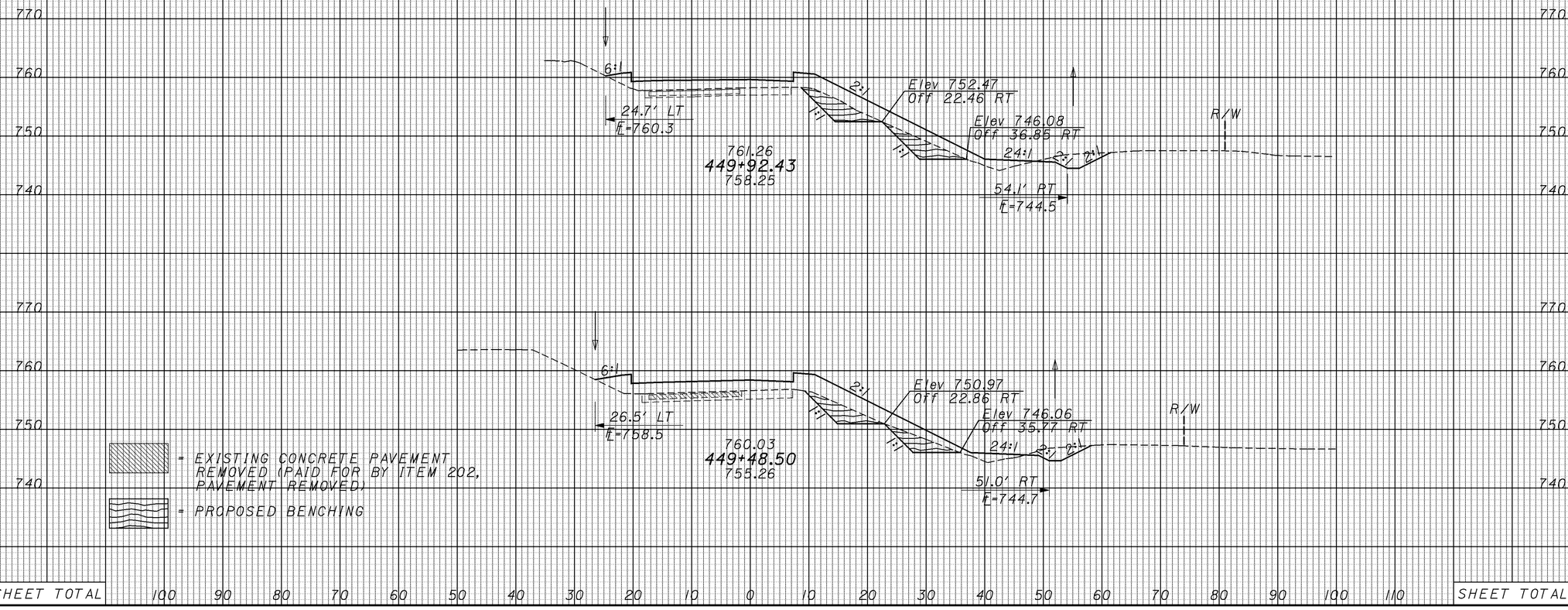
CROSS SECTIONS - RAMP N-7
STATION 447+42.43 TO STATION 448+92.43

MOT-75-14.60

136
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:46 AM
Filename: G:\C004\0066\Road\23828xs01_N7.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	1093	RAMP N-7 GRAND TOTAL CARRIED TO GENERAL SUMMARY			412	967
		RAMP N-7 GRAND TOTAL CARRIED TO GENERAL SUMMARY				



63	303		86	126	129	213
61	311 -45 266		72	136	109	285
	569	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110			238	498

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-7

STATION 449+48.50 TO STATION 449+92.43

MOT-75-14.60

137 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:46 AM

Filename: G:\C004\0066\Road\23828x501_N7.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MPD
CHECKED AM

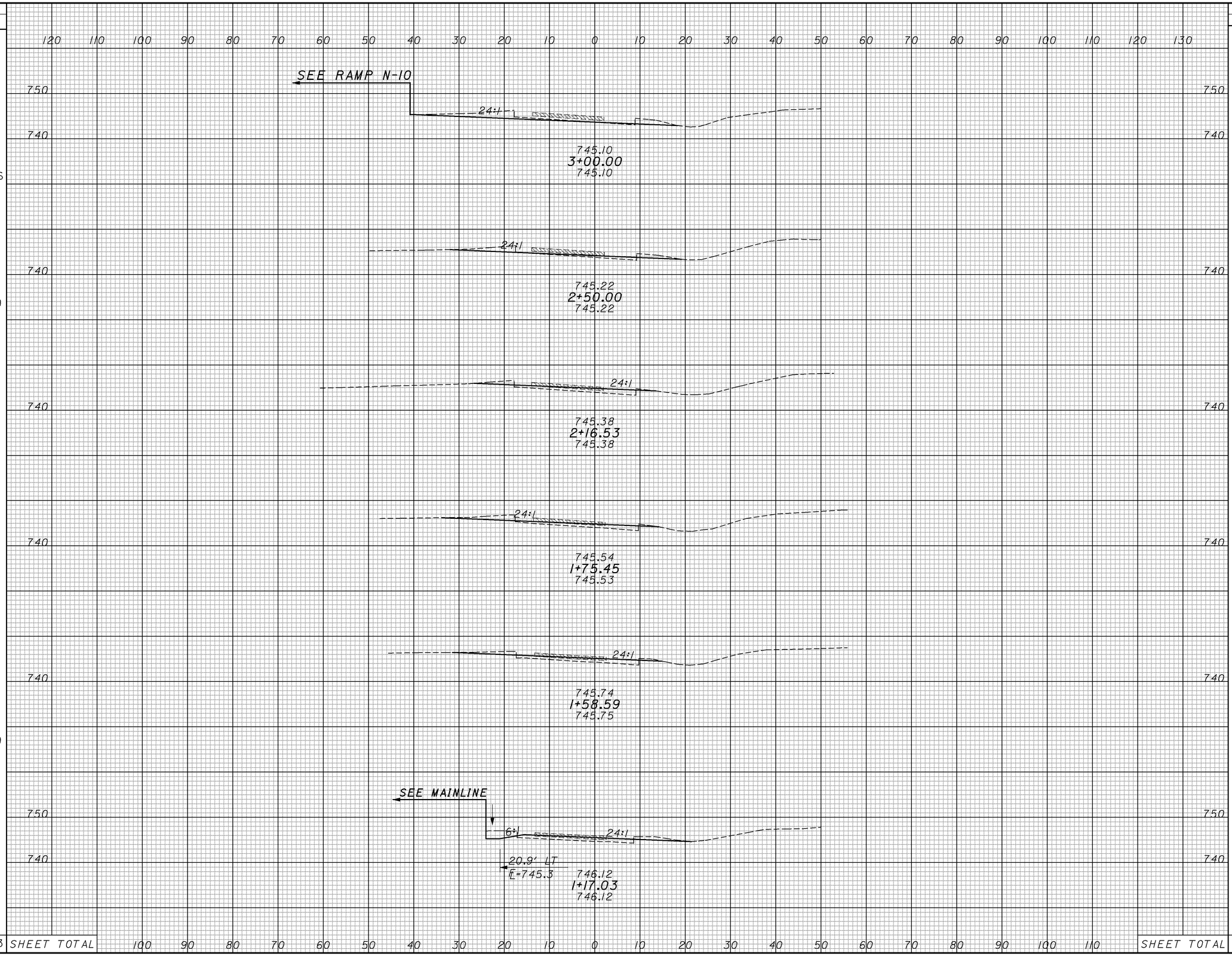
PLAN RAMPS N-9 & N-10

MOT-75-14.60

138
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:47 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_n98n10.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
59	306	28	1	40	8
51	169	15	8	12	18
40	201	5	21	11	30
48	88	10	18	5	12
46	219	7	21	18	32
49		16	20		
	983 SHEET TOTAL			86	100



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-9
STATION 1+17.03 TO STATION 3+00.00

MOT-75-14.60

139
314

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:31:02 PM
Filename: g:\co04\0066\road\23828xs01_n9.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36	200	SEE RAMP N-10 24:1 24:1 744.33 5+33.41 744.33	1	43	2	119
36	200	SEE RAMP N-10 24:1 744.46 4+83.41 744.46	1	85	3	144
36	193	SEE RAMP N-10 24:1 24:1 744.67 4+33.41 744.67	2	71	4	97
38	206	SEE RAMP N-10 24:1 744.65 3+86.43 744.64	3	40	18	36
52	279	SEE RAMP N-10 24:1 24:1 744.85 3+45.26 744.85	21	7	41	7
	1078	SHEET TOTAL			68	403

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-9
STATION 3+45.26 TO STATION 5+33.41

MOT-75-14.60

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:31:03 PM
Filename: g:\co04\0066\road\23828xs01_n9.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	2858	RAMP N-9 GRAND TOTAL CARRIED TO GENERAL SUMMARY — RAMP N-9 GRAND TOTAL CARRIED TO GENERAL SUMMARY			165	873
37	203	SEE RAMP N-10 750 740 24:1 743.99 7+33.41 743.99	2	31	4	98
36	200	SEE RAMP N-10 750 740 24:1 743.98 6+83.41 743.98	2	75	3	110
36	197	SEE RAMP N-10 750 740 24:1 744.06 6+33.41 744.06	1	44	2	81
35	197	SEE RAMP N-10 750 740 24:1 744.20 5+83.41 744.20	1	44	2	81
	797	SHEET TOTAL			11	370

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-9
STATION 5+83.41 TO STATION 7+33.41

MOT-75-14.60

141
314

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:3:04 PM
Filename: g:\co04\0066\road\23828xs01_n9.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		1+00.00				
34	192	1+50.00	1	35	2	67
35	194	2+00.00	1	37	3	66
35	192	2+50.00	2	34	3	69
34	189	3+00.00	1	40	3	66
34	47	3+50.00	2	31	2	12
70	337		9	49	43	61
75			47	29		
	1151	SHEET TOTAL			56	341

SEE RAMP N-9

744.48
3+50.00
744.48

SEE RAMP N-9

744.32
3+00.00
744.31

SEE RAMP N-9

744.21
2+50.00
744.21

SEE RAMP N-9

743.98
2+00.00
743.98

SEE RAMP N-9

743.86
1+50.00
743.86

52.3' LT
E=742.6

743.79
1+41.89
743.79

50.0' LT
E=742.4

7.4' RT
E=742.3

743.64
1+00.00
743.62

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK
CHECKED AM

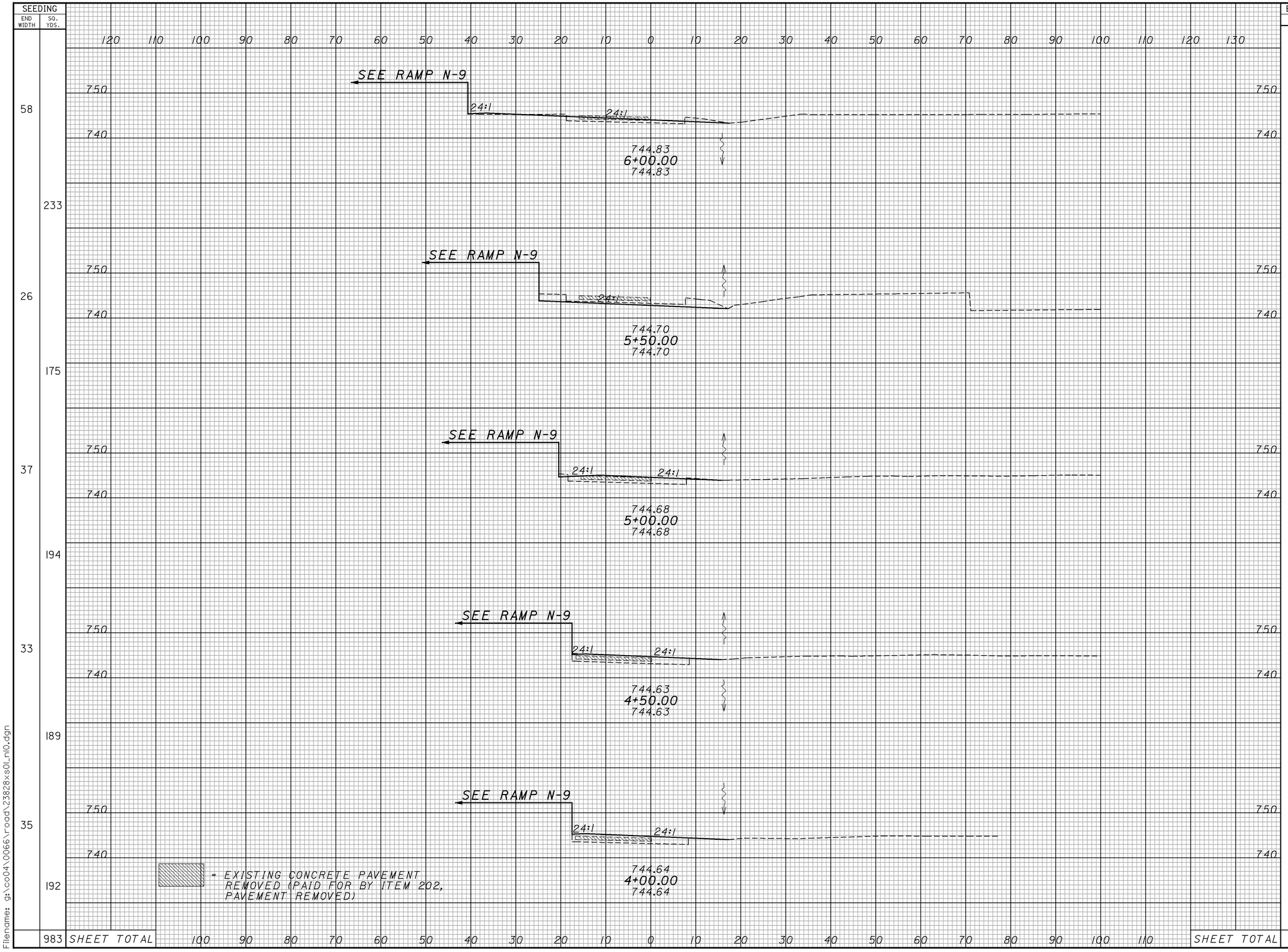
CROSS SECTIONS - RAMP N-10
STATION 1+00.00 TO STATION 3+50.00

MOT-75-14.60

142
314

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:31:07 PM
Filename: g:\co04\0066\road\23828xs0Ln10.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
58	233	8	22	38	20
26	175	33	0	32	32
37	194	2	35	3	70
33	189	1	41	1	78
35	192	0	43	1	72
	983			75	272



CALCULATED EAK

CHECKED AM

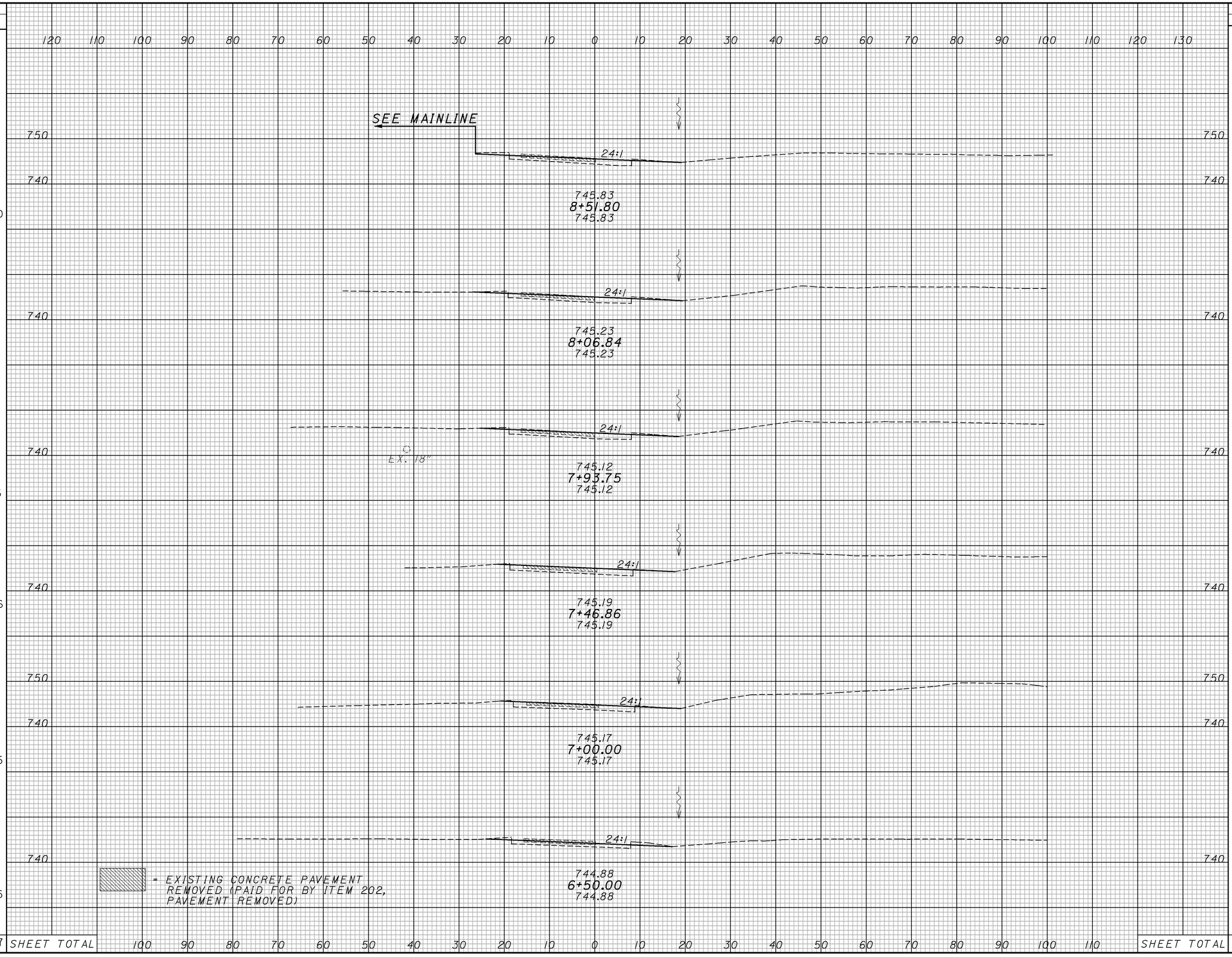
CROSS SECTIONS - RAMP N-10
STATION 4+00.00 TO STATION 6+00.00

MOT-75-14.60

143
314

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:31:07 PM
Filename: g:\co04\00066\road\23828xs01_n10.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
46	230
46	65
44	216
39	206
40	225
41	275
	1217



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5	29		
4	30	7	49
3	31	2	15
1	34	3	56
1	31	2	56
6	21	6	48
		13	40
SHEET TOTAL		33	264

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-10
STATION 6+50.00 TO STATION 8+51.80

MOT-75-14.60

144
314

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:31:06 PM
Filename: g:\co04\00066\road\23828xs01_n10.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	3754	RAMP N-10 GRAND TOTAL CARRIED TO GENERAL SUMMARY			191	955
		RAMP N-10 GRAND TOTAL CARRIED TO GENERAL SUMMARY				
0		750 740	0	0		
	137	748.64 9+59.40 748.62			11	25
45		SEE MAINLINE 12:1 6:1 24:1 750 740	11	25		
	266	18.9' LT ℄=746.8 747.09 9+04.47 747.09 = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)			16	53
	403	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		27	78

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-10
STATION 9+04.47 TO STATION 9+59.40

MOT-75-14.60

Plotted By: mpdonnelly Date: 8/2/2007 Time: 2:31:06 PM
Filename: g:\co04\0066\road\23828xs01_n10.dgn

BEGIN WORK STA 3+46.00

EX 10" GAS

℄ EX. ASPH. COMM. DRIVE

EX 10" WATER

EX 10" SAN

℄ CONST STANLEY AVE

STA 9+53.88, STANLEY AVE= STA 445+49.74, RAMP N-6

BEGIN WALK +32.09, 51.79' LT

SIGNAL POLE +66.81, 53.89' LT

STA 9+12.87, STANLEY AVE= STA 439+94.85, RAMP N-6A

SIGNAL POLE +87.22, 51.05' LT

DRIVEWAY CLOSED

END WALK +00.76, 50.87' LT

STA 7+69.41, STANLEY AVE= STA 0+00.00, EXISTING COMM. DRIVE

STA 9+75.04, STANLEY AVE= STA 0+00.00, EXISTING COMM. DRIVE

CONST LIMITS

FULL DEPTH PAVT

EX 3" TRAFFIC SIGNAL INTERCONNECT

CURB R-9.2'

PROP 3' MEDIAN

Sta 10+45.11, STANLEY AVE= STA 10+00.00, EXISTING COMM. DRIVE

MATCH LINE 11+50 STANLEY AVENUE SEE SHEET 147

BM #5

MANHOLE ABANDONED, CONNECT PIPE THROUGH

END WALK, +18.03, 36.36' RT

END CURB, +18.03, 31.64' RT

END RADIUS RETURN +04.09, 32.17' RT

BEGIN RADIUS RETURN +52.50, 43.00' RT

SIGNAL POLE +74.49, 63.83' RT

END WALK +83.15, 72.48' RT

SIGNAL POLE +73.81, 61.24' RT

BEGIN WALK +69.08, 73.14' RT

BEGIN RADIUS RETURN +50.94, 88.67' RT

℄ RAMP N-6

END RADIUS RETURN +07.28, 95.31' RT

℄ RAMP N-6A

CONST LIMITS

SEE SHEET 122 & 129 RAMP N-6 & N-6A

SITE BM # 5
BENCHMARK SET
STA 6+87.18, ℄ STANLEY AVE.
71.38' RT
ELEV 745.41

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

*FOR STORM SEWER DETAILS SEE SHEET 152 & 179

FOR CURB RAMP DETAILS SEE SHEET 167

FOR INTERSECTION DETAILS SEE SHEET 158

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

PIPE REMOVED

CB OR MH REMOVED

CURVE DATA

PI Sta = 8+00.03
Δ = 40° 00' 00" (LT)
Dc = 5° 00' 00"
R = 1,145.92'
Ls = 200.00'
Theta = 5° 00' 00"
LT = 133.39'
ST = 66.72'
x = 199.85'
y = 5.81'
k = 99.97'
p = 1.45'

Δc = 30° 00' 00" (LT)
Lc = 600.00'
Ts = 517.58'
Es = 75.09'
TS = 2+82.45
SC = 4+82.45
CS = 10+82.45
ST = 12+82.45
emax = EXIST

CATCH BASIN NO. 3A
STA 8+98.33, 7.14' RT
GRATE ELEV = 743.10
FL 12" W = 739.65
FL 6" W = 738.65

STA 9+50.00 ELEV 742.85

EXISTING GROUND

PROPOSED PROFILE

239.1' X 12" B @ 0.95%

-0.71 %

+0.89 %

CATCH BASIN NO. 3
STA 11+36.39, 7.16' RT
GRATE ELEV = 741.57
FL 12" E,S,W = 737.37
FL 6" SE = 737.86
FL 6" SW = 738.82

58.5' X 12" B @ 0.90%

EX 12" RCP

STA 10+70.90 ELEV 741.99

PVI STA 11+30.90
ELEV = 741.56
120' VC

EX 3" TRAFFIC SIGNAL INTERCONNECT

EX 10" WATER

EX 42" RCP

EX 36" RCP

742.85 742.67 742.49 742.32 742.14 741.96 741.84 741.80 741.84

744.45 744.42 744.08 743.72 743.55 743.20 742.96 742.69 742.25 742.17

750 745 740 735 730 725 720

7+00 8+00 9+00 10+00 11+00

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED MPD CHECKED AM

PLAN AND PROFILE STANLEY AVENUE STA. 5+83.72 TO STA. 11+50.00

MOT-75-14.60

146 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:51 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_st_20_l.dgn

ITEM 202, PAVEMENT REMOVED

PIPE REMOVED

× CB OR MH REMOVED

FOR STORM SEWER DETAILS SEE SHEET 179

FOR DRIVE DETAILS SEE SHEET 167

FOR INTERSECTION DETAILS SEE SHEET 158

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

ITEM 202, CONC MEDIAN REMOVED

EX. 10' x 10' WATER METER PIT TO REMAIN UNDISTURBED

ITEM 202, PAVEMENT REMOVED, ASPHALT

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

SEE SHEET 138
MATCH LINE 1+50 RAMP N-10

SEE SHEET 146
MATCH LINE 11+50 STANLEY AVENUE

CURVE DATA
PI Sta = 15+97.39
Δ = 14° 23' 20" (RT)
Dc = 10° 00' 00"
R = 572.96'
T = 72.32'
L = 143.89'
E = 4.55'
PC = 15+25.07
PCC = 16+68.96
emax = EXIST

CURVE DATA
PI Sta = 17+14.46
Δ = 12° 59' 19"
Dc = 14° 20' 00"
R = 399.74'
T = 45.50'
L = 90.62'
E = 2.58'
PCC = 16+68.96
PT = 17+59.58
emax = EXIST

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MPD
CHECKED AM

PLAN AND PROFILE STANLEY AVENUE
STA. 11+50.00 TO STA. 17+42.78

MOT-75-14.60

147
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:52 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_st_20_2.dgn

SHEET NO.	REF NO.	STATION FROM	STATION TO	SIDE	603 12" CONDUIT, TYPE B FT	603 12" CONDUIT, TYPE C FT	603 15" CONDUIT, TYPE B FT	603 15" CONDUIT, TYPE C FT	604 CATCH BASIN, NO. 3 EA	604 CATCH BASIN, NO. 3A EA	604 CATCH BASIN, NO. 2-2B EA	604 MANHOLE, NO. 3 EA	604 MANHOLE ABANDONED EA	608 4" CONCRETE WALK SF	608 8" CONCRETE WALK SF	608 CURB RAMP, AS PER PLAN EA		609 CURB, TYPE 6 FT	609 CONCRETE MEDIAN SY					
146	1-C	7+49.00	9+03.65	RT														394						
	2-C	9+00.22	9+00.25	MEDIAN														29						
	3-C	9+55.52	10+18.03	RT														83						
	4-C	9+49.40	10+00.69	LT														49						
	5-C	9+80.00	11+50.00	MEDIAN															52					
	1-D	8+53.85	8+59.19	RT				14				1												
	2-D	8+59.19	8+85.56	RT				36			1													
	3-D	8+85.56	8+99.65	RT				16	1															
	4-D	8+99.65	9+59.27	RT			65		1															
	5-D	8+98.33	11+36.39	MEDIAN	239					1														
	6-D	11+33.36	11+36.39	MEDIAN	8				1															
	7-D	11+36.39	00+94.00	MEDIAN	59					1														
	8-D	8+53.85	8+53.85	RT									1											
	1-SW	7+48.87	8+68.61	RT										784	67	1								
	2-SW	9+78.24	10+18.03	RT										370	75	1								
	3-SW	9+32.09	10+00.76	LT										363	73	1								
147	1-C	11+50.00	12+44.50	MEDIAN															32					
	2-C	12+83.00	15+29.65	LT														204						
	2-D	13+99.39	14+10.00	LT				11		1														
	3-D	14+02.77	14+10.00	LT				36			1													
	4-D	14+02.77	14+60.35	LT		55					1													
	5-D	14+10.00	14+85.00	LT	75					1														
	1-SW	12+83.00	15+40.10	LT										1170	120									
TOTALS CARRIED TO GEN. SUM.					381	55	65	113	3	4	3	1	1	2687	335	3		759	84					

CALCULATED EAK CHECKED AM

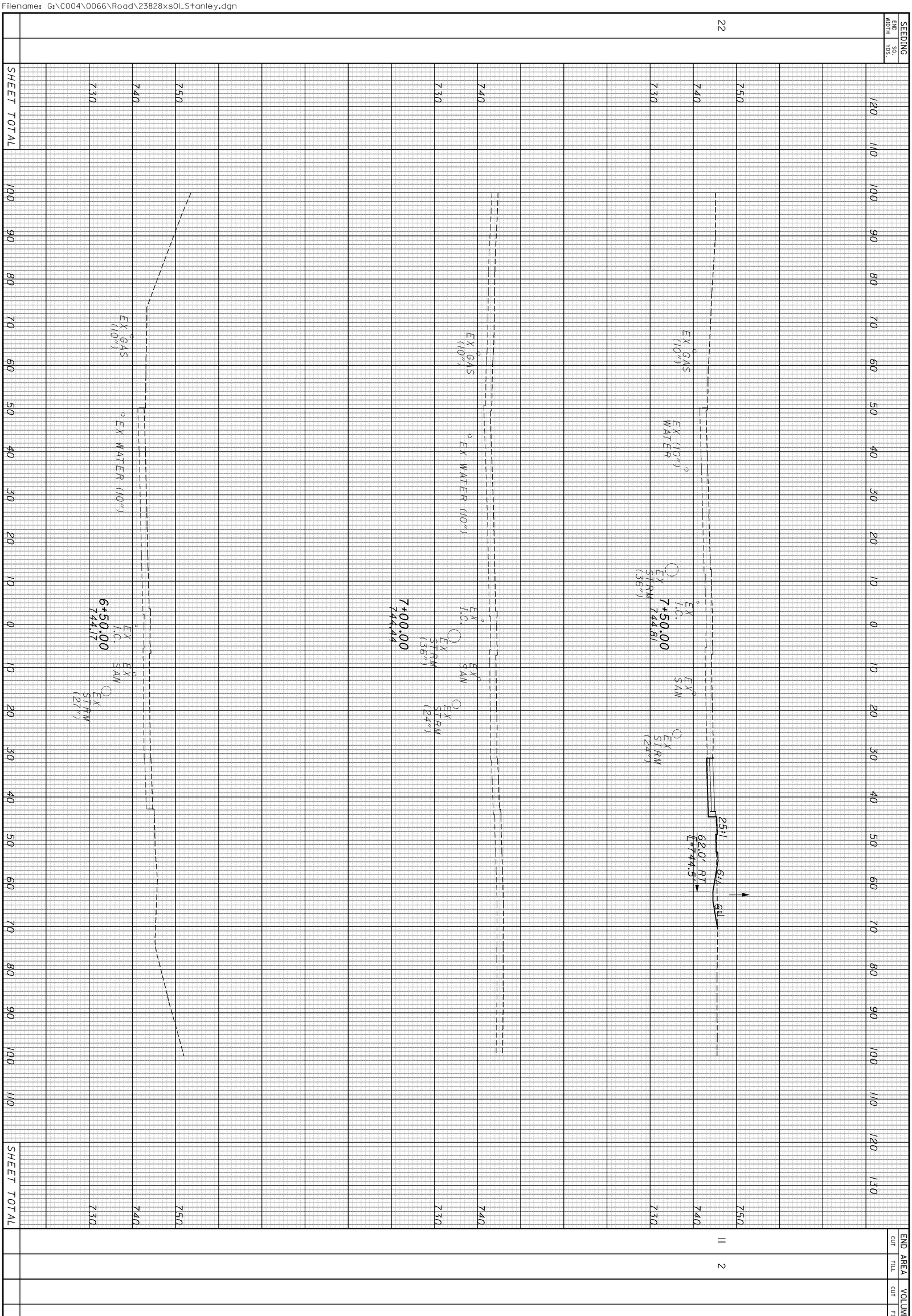
STANLEY AVENUE SUBSUMMARY

MOT-75-14.60

148
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:53 AM
Filename: G:\C004\0066\Road\General\23828gs01_st.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:54 AM
Filename: G:\C004\0066\Road\23828xs01_Stanley.dgn



149
314

MOT-75-14.60

CROSS SECTIONS - STANLEY AVENUE
STATION 6+50.00 TO STATION 7+50.00

CALCULATED EAK
CHECKED AM

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
7	106		140	0	147	19
31	139		19	21	19	39
19	114		2	21	12	21
	359	SHEET TOTAL			178	79

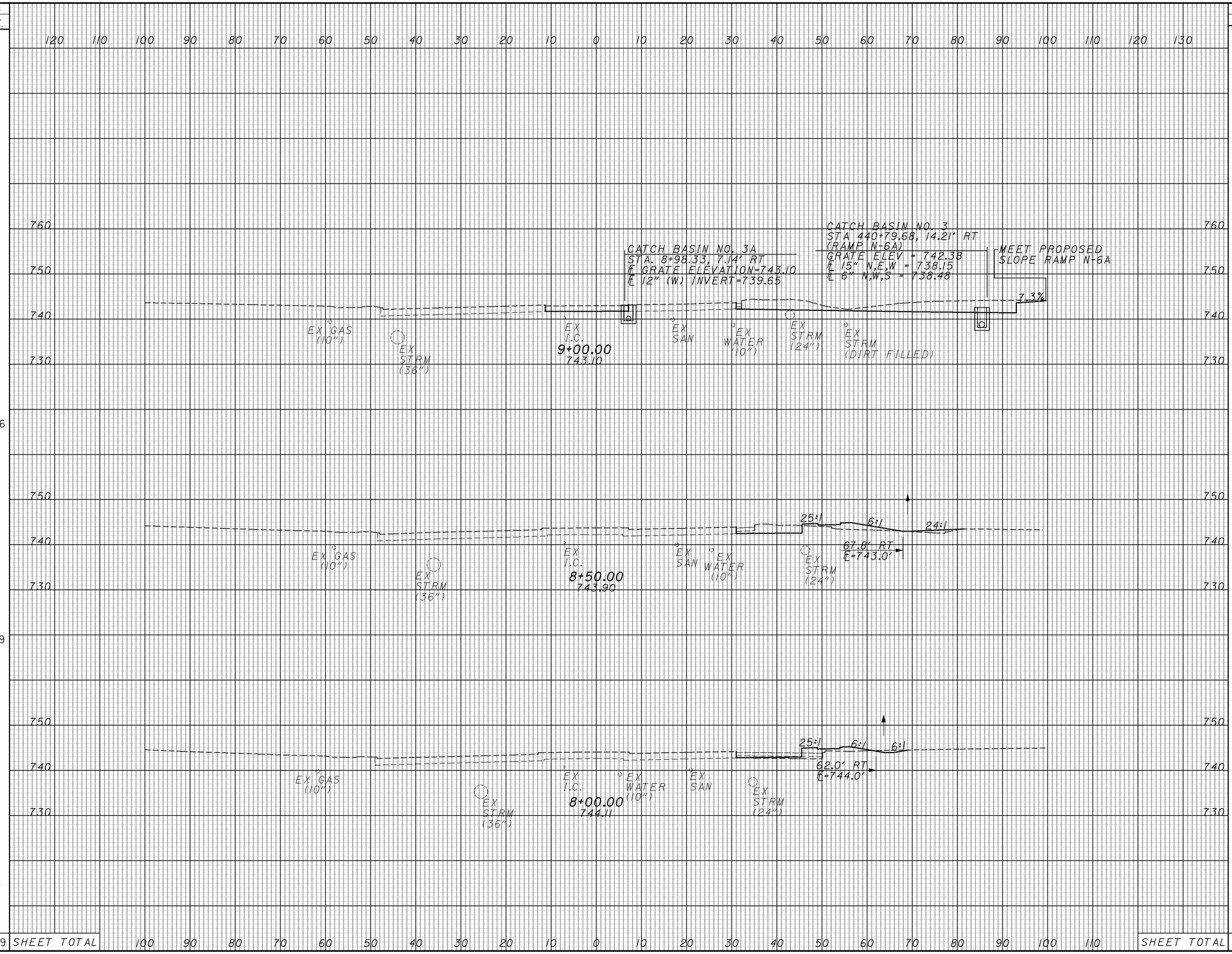
CALCULATED EAK

CHECKED AM

CROSS SECTIONS - STANLEY AVENUE
STATION 8+00.00 TO STATION 9+00.00

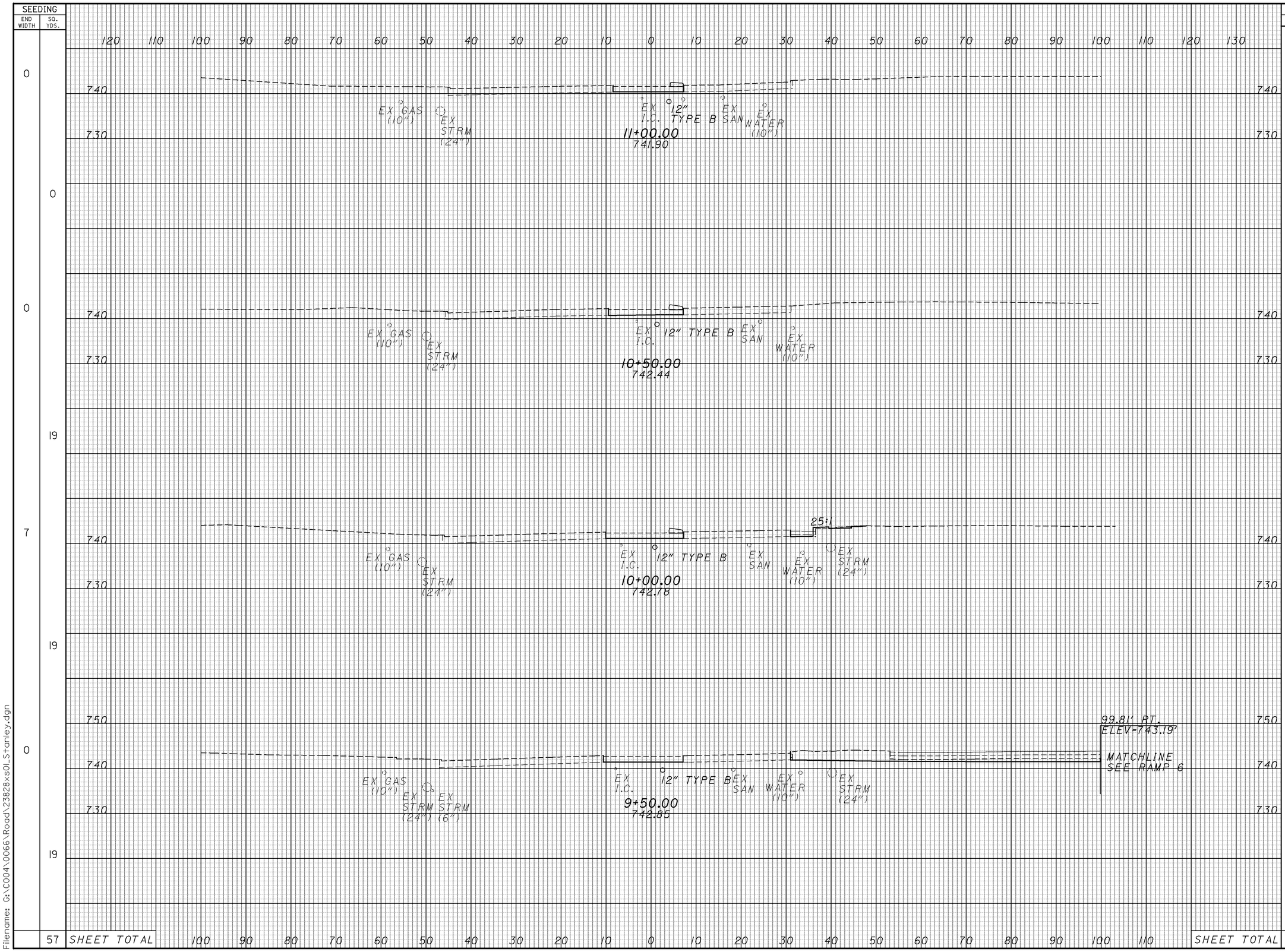
MOT-75-14.60

150
314



Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:54 AM
Filename: G:\C004\0066\Road\23828xs01_Stanley.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0		19	0		
	0			36	0
0		20	0		
	19			39	3
7		22	3		
	19			110	3
0		97	0		
	19			219	0
	57 SHEET TOTAL			404	6



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - STANLEY AVENUE
STATION 9+50.00 TO STATION 11+00.00

MOT-75-14.60

151
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:54 AM
Filename: G:\C004\0066\Road\23828x50L_Stanley.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
0	0	43	0	56	0
0	0	17	0	33	0
0	0	19	0	34	0
0	0	18	0	34	0
0	SHEET TOTAL			157	0

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - STANLEY AVENUE STATION 11+50.00 TO STATION 13+00.00

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:54 AM
Filename: G:\C004\0066\Road\23828x01_Stanley.dgn

SEEDING			END AREA		VOLUME		
STATION	END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
120							
110							
100							
90							
80							
70							
60							
50							
40							
30							
20							
10							
0	54	164	49	22	88	20	
10							
20							
30							
40							
50							
60							
70							
80							
90							
100							
110							
120							
130							
0	5	0	46	0			
50	12	0	21	0	52	0	
100	0	0			9	0	
SHEET TOTAL	176				149	20	

SEE RAMP N-10

CATCH BASIN NO. 3A
STA. 14+10.00, 42.95' LT
F GRATE ELEVATION=743.30
F 15" (E,S) INVERT=737.34
F 12" (W) INVERT=737.59

14:1

EX GAS (10")

36.0' X 15" C @ 0.50%

EX STRM (12")

EX SAN

EX I.C.

EX WATER (10")

EX GAS (3")

14+00.00
743.69

CATCH BASIN NO. 2-2B
STA. 14+02.77, 77.79' LT
F GRATE ELEVATION=741.97
F 12" (W) INVERT=737.77
F 15" (SW) INVERT=737.52

FOR SIMCLAR DRIVE PLAN & PROFILE, SEE SHEET 178

PROPOSED SIMCLAR DRIVE

EX GAS (10")

EX STRM (12")

EX SAN

EX I.C.

EX WATER (10")

EX GAS (3")

13+50.00
744.57

12:1

EX GAS (10")

EX STRM (12")

EX SAN

EX I.C.

EX WATER (10")

EX GAS (3")

13+08.00
743.04

CALCULATED EAK
CHECKED AM

CROSS SECTIONS - STANLEY AVENUE
STATION 13+50.00 TO STATION 14+00.00

CROSS STATION

MOT-75-14.60

153
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:54 AM
Filename: G:\C004\0066\Road\23828x501_Stanley.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	1087	STANLEY AVENUE GRAND TOTAL CARRIED TO GENERAL SUMMARY	STANLEY AVENUE GRAND TOTAL CARRIED TO GENERAL SUMMARY		938	251
		740 EX SAN; EX STRM (15") — 16+50.00 742.94				
		740 EX GAS (6"); EX SAN; EX STRM (15") — 16+00.00 743.19				
		740 EX GAS (6"); EX SAN; EX STRM (15") — 15+50.00 743.32				
14		25:1; 740 EX GAS (10"); EX WATER (8"); EX SAN; EX WATER (10"); EX STRM (15") — 15+00.00 743.40	3	2		
	192				4	64
55		SEE RAMP N-10; VAR.; 19:1; 750 740 730 EX GAS (10"); 12" TYPE "B"; EX SAN; EX WATER (10"); EX GAS TEL (3"); EX SAN — 14+50.00 743.37	1	67		
	303				46	82
	495	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		50	146

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - STANLEY AVENUE STATION 14+50.00 TO STATION 16+50.00

MOT-75-14.60

154 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:54 AM
Filename: G:\C004\0066\Road\23828x501_Stanley.dgn

SUPERELEVATION TABLE

P.I. STA. 448+22.50 | Dc = 4° 00′ 00″

CALCULATED AM | CHECKED AML

LEFT SIDE (36′)					LEFT SIDE (24′)					LEFT SIDE (12′)					CENTERLINE CONTROL			RIGHT SIDE (12′)					RIGHT SIDE (24′)					RIGHT SIDE (36′)					REMARKS
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	
	222:1					222:1					222:1				759.79	452+25.40	760.21	12.00	0.0600	0.72		760.93	12.00	0.0600	0.72		761.65	12.00	0.0600	0.72		762.37	
															759.81	452+26.71	760.23	12.00	0.0600	0.72	222:1	760.95	12.00	0.0600	0.72	222:1	761.67	12.00	0.0600	0.72	222:1	762.39	CS
															760.13	452+50.00	760.53	12.00	0.0571	0.69		761.22	12.00	0.0571	0.69		761.90	12.00	0.0571	0.69		762.59	
															760.16	452+52.17	760.56	12.00	0.0568	0.68		761.24	12.00	0.0568	0.68		761.92	12.00	0.0568	0.68		762.61	
															760.46	452+72.75	760.81	12.00	0.0542	0.65		761.46	12.00	0.0542	0.65		762.11	12.00	0.0542	0.65		762.76	
															760.49	452+75.00	760.84	12.00	0.0540	0.65		761.49	12.00	0.0540	0.65		762.13	12.00	0.0540	0.65		762.78	
															760.70	452+85.40	761.07	12.00	0.0527	0.63		761.70	12.00	0.0527	0.63		762.33	12.00	0.0527	0.63		762.97	
															761.01	453+00.00	761.40	12.00	0.0508	0.61		762.01	12.00	0.0508	0.61		762.62	12.00	0.0508	0.61		763.23	
															761.55	453+25.00	761.95	12.00	0.0477	0.57		762.52	12.00	0.0477	0.57		763.09	12.00	0.0477	0.57		763.67	
759.89		-0.57	-0.0474	12.00	760.46		-0.57	-0.0474	12.00	761.03		-0.57	-0.0474	12.00	761.60	453+27.33	762.00	12.00	0.0474	0.57		762.57	12.00	0.0474	0.57		763.14	12.00	0.0474	0.57		763.71	Begin Work LT
760.17		-0.56	-0.0464	12.00	760.73		-0.56	-0.0464	12.00	761.28		-0.56	-0.0464	12.00	761.84	453+35.40	762.20	12.00	0.0464	0.56		762.76	12.00	0.0464	0.56		763.31	12.00	0.0464	0.56		763.87	
760.55		-0.54	-0.0450	12.00	761.09		-0.54	-0.0450	12.00	761.63		-0.54	-0.0450	12.00	762.17	453+46.45	762.47	12.00	0.0450	0.54		763.01	12.00	0.0450	0.54		763.55	12.00	0.0450	0.54		764.09	
760.68		-0.53	-0.0446	12.00	761.21		-0.53	-0.0446	12.00	761.75		-0.53	-0.0446	12.00	762.28	453+50.00	762.56	12.00	0.0446	0.53		763.09	12.00	0.0446	0.53		763.63	12.00	0.0446	0.53		764.16	
760.87		-0.53	-0.0439	12.00	761.40		-0.53	-0.0439	12.00	761.92		-0.53	-0.0439	12.00	762.45	453+55.66	762.70	12.00	0.0439	0.53		763.23	12.00	0.0439	0.53		763.75	12.00	0.0439	0.53		764.28	
761.54		-0.50	-0.0414	12.00	762.04		-0.50	-0.0414	12.00	762.53		-0.50	-0.0414	12.00	763.03	453+75.00	763.17	12.00	0.0414	0.50		763.67	12.00	0.0414	0.50		764.16	12.00	0.0414	0.50		764.66	
762.40		-0.46	-0.0383	12.00	762.86		-0.46	-0.0383	12.00	763.32		-0.46	-0.0383	12.00	763.78	454+00.00	763.78	12.00	0.0383	0.46		764.24	12.00	0.0383	0.46		764.70	12.00	0.0383	0.46		765.16	Begin Work RT
763.18		-0.42	-0.0352	12.00	763.61		-0.42	-0.0352	12.00	764.03		-0.42	-0.0352	12.00	764.45	454+25.00	764.45	12.00	0.0352	0.42		764.87	12.00	0.0352	0.42		765.29	12.00	0.0352	0.42		765.72	
763.32		-0.42	-0.0346	12.00	763.74		-0.42	-0.0346	12.00	764.15		-0.42	-0.0346	12.00	764.57	454+29.34	764.57	12.00	0.0346	0.42		764.99	12.00	0.0346	0.42		765.40	12.00	0.0346	0.42		765.82	
763.51		-0.41	-0.0339	12.00	763.92		-0.41	-0.0339	12.00	764.32		-0.41	-0.0339	12.00	764.73	454+35.25	764.73	12.00	0.0339	0.41		765.14	12.00	0.0339	0.41		765.54	12.00	0.0339	0.41		765.95	
763.98		-0.38	-0.0321	12.00	764.36		-0.38	-0.0321	12.00	764.75		-0.38	-0.0321	12.00	765.13	454+50.00	765.13	12.00	0.0321	0.38		765.51	12.00	0.0321	0.38		765.90	12.00	0.0321	0.38		766.28	
764.76		-0.35	-0.0289	12.00	765.11		-0.35	-0.0289	12.00	765.45		-0.35	-0.0289	12.00	765.80	454+75.00	765.80	12.00	0.0289	0.35		766.15	12.00	0.0289	0.35		766.49	12.00	0.0289	0.35		766.84	
764.99		-0.34	-0.0280	12.00	765.33		-0.34	-0.0280	12.00	765.66		-0.34	-0.0280	12.00	766.00	454+82.45	766.00	12.00	0.0280	0.34		766.34	12.00	0.0280	0.34		766.67	12.00	0.0280	0.34		767.01	
765.51		-0.34	-0.0280	12.00	765.85		-0.31	-0.0258	12.00	766.16		-0.31	-0.0258	12.00	766.47	455+00.00	766.47	12.00	0.0258	0.31		766.78	12.00	0.0258	0.31		767.09	12.00	0.0258	0.31		767.40	
765.61		-0.34	-0.0280	12.00	765.95		-0.31	-0.0254	12.00	766.25		-0.31	-0.0254	12.00	766.56	455+03.03	766.56	12.00	0.0254	0.31		766.87	12.00	0.0254	0.31		767.17	12.00	0.0254	0.31		767.48	
766.27		-0.34	-0.0280	12.00	766.61		-0.27	-0.0227	12.00	766.88		-0.27	-0.0227	12.00	767.15	455+25.00	767.15	12.00	0.0227	0.27		767.42	12.00	0.0227	0.27		767.69	12.00	0.0227	0.27		767.97	
766.98		-0.34	-0.0280	12.00	767.32		-0.23	-0.0195	12.00	767.56		-0.23	-0.0195	12.00	767.79	455+50.00	767.79	12.00	0.0195	0.23		768.02	12.00	0.0195	0.23		768.26	12.00	0.0195	0.23		768.49	
767.66		-0.34	-0.0280	12.00	768.00		-0.20	-0.0164	12.00	768.19		-0.20	-0.0164	12.00	768.39	455+75.00	768.39	12.00	0.0164	0.20		768.59	12.00	0.0164	0.20		768.78	12.00	0.0164	0.20		768.98	
767.71		-0.34	-0.0280	12.00	768.04		-0.19	-0.0162	12.00	768.24		-0.19	-0.0162	12.00	768.43	455+76.71	768.43	12.00	0.0162	0.19		768.62	12.00	0.0162	0.19		768.82	12.00	0.0162	0.19		769.01	ST
767.75		-0.34	-0.0280	12.00	768.09		-0.19	-0.0160	12.00	768.28		-0.19	-0.0160	12.00	768.47	455+78.36	768.47	12.00	0.0160	0.19		768.66	12.00	0.0160	0.19		768.85	12.00	0.0160	0.19		769.05	
768.29		-0.34	-0.0280	12.00	768.63		-0.16	-0.0133	12.00	768.79		-0.16	-0.0133	12.00	768.95	456+00.00	768.95	12.00	0.0160	0.19		769.14	12.00	0.0160	0.19		769.33	12.00	0.0133	0.16		769.49	
768.89		-0.34	-0.0280	12.00	769.23		-0.12	-0.0102	12.00	769.35		-0.12	-0.0102	12.00	769.47	456+25.00	769.47	12.00	0.0160	0.19		769.66	12.00	0.0160	0.19		769.85	12.00	0.0102	0.12		769.98	
769.44		-0.34	-0.0280	12.00	769.77		-0.08	-0.0070	12.00	769.86		-0.08	-0.0070	12.00	769.94	456+50.00	769.94	12.00	0.0160	0.19		770.13	12.00	0.0160	0.19		770.32	12.00	0.0070	0.08		770.41	
769.95		-0.34	-0.0280	12.00	770.29		-0.05	-0.0039	12.00	770.33		-0.05	-0.0039	12.00	770.38	456+75.00	770.38	12.00	0.0160	0.19		770.57	12.00	0.0160	0.19		770.76	12.00	0.0039	0.05		770.81	
770.01		-0.34	-0.0280	12.00	770.34		-0.04	-0.0035	12.00	770.38		-0.05	-0.0035	13.00	770.43	456+77.97	770.43	12.00	0.0160	0.19		770.62	12.00	0.0160	0.19		770.81	12.00	0.0035	0.04		770.86	
770.45	222:1	-0.30	-0.0252	12.00	770.75		-0.01	-0.0008	12.00	770.76		-0.01	-0.0008	14.00	770.77	457+00.00	770.77	12.00	0.0160	0.19		770.96	12.00	0.0160	0.19		771.15	12.00	0.0008	0.01		771.16	
770.57		-0.29	-0.0245	12.00	770.86		0.00	0.0000	12.00	770.86		0.00	0.0000	12.00	770.86	457+06.23	770.86	12.00	0.0160	0.19		771.05	12.00	0.0160	0.19		771.24	12.00	0.0000	0.00		771.24	FLAT
770.92		-0.27	-0.0221	12.00	771.19		0.03	0.0023	12.00	771.16		0.03	0.0023	12.00	771.13	457+25.00	771.13	12.00	0.0160	0.19		771.32	12.00	0.0160	0.19		771.51	12.00	-0.0023	-0.03		771.49	
771.34		-0.23	-0.0190	12.00	771.57		0.07	0.0055	12.00	771.51		0.07	0.0055	12.00	771.44	457+50.00	771.44	12.00	0.0160	0.19		771.63	12.00	0.0160	0.19		771.82	12.00	-0.0055	-0.07		771.76	
771.71		-0.19	-0.0160	12.00	771.90		0.10	0.0085	12.00	771.80		0.10	0.0085	12.00	771.70	457+73.88	771.70	12.00	0.0160	0.19		771.89	12.00	0.0160	0.19		772.08	12.00	-0.0085	-0.10		771.98	
771.72		-0.19	-0.0160	12.00	771.92		0.10	0.0086	12.00	771.81		0.10	0.0086	12.00	771.71	457+75.00	771.71	12.00	0.0160	0.19		771.90	12.00	0.0160	0.19		772.09	12.00	-0.0086	-0.10		771.99	
772.03		-0.19	-0.0160	12.00	772.22		0.14	0.0117	12.00	772.08		0.14	0.0117	12.00	771.94	458+00.00	771.94	12.00	0.0160	0.19		772.13	12.00	0.0160	0.19		772.32	12.00	-0.0117	-0.14		772.18	
772.28		-0.19	-0.0160	12.00	772.48		0.18	0.0149	12.00	772.30		0.18	0.0149	12.00	772.12	458+25.00	772.12	12.00	0.0160	0.19		772.31	12.00	0.0160	0.19		772.50	12.00	-0.0149	-0.18		772.33	
772.37		-0.19	-0.0160	12.00	772.56		0.19	0.0160	12.00	772.37		0.19	0.0160	12.00	772.18	458+34.10	772.18	12.00	0.0160	0.19		772.37	12.00	0.0160	0.19		772.56	12.00	-0.0160	-0.19		772.37	NC
772.46		-0.19	-0.0160	12.00	772.65		0.19	0.0160	12.00	772.46		0.19	0.0160	12.00	772.27	458+50.00	772.27	12.00	0.0160	0.19		772.46	12.00	0.0160	0.19		772.65	12.00	-0.0160	-0.19		772.46	

SEE SHEET 162 FOR GORE AREA AND ACCELERATION LANE DETAIL.

SUPERELEVATION TABLE - IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:55 AM
Filename: G:\C004\0066\Road\General\23828ge01.dgn

SUPERELEVATION TABLE - RAMP N-7

P.I. STA. 447+97.91 | Dc = 6° 00′ 00″

LEFT SIDE					BASELINE CONTROL		REMARKS
EDGE ELEVATION	TRANSITION RATE	*ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	
744.44		0.02	0.0015	13.72	446+25.00	744.42	Begin Work
744.90		-0.14	-0.0088	15.62	446+50.00	745.04	
745.59		-0.31	-0.0191	16.00	446+75.00	745.90	
746.53	152:1	-0.47	-0.0294	16.00	447+00.00	747.00	
747.50		-0.61	-0.0380	16.00	447+20.96	748.11	FS
747.73		-0.61	-0.0380	16.00	447+25.00	748.34	
749.21		-0.61	-0.0380	16.00	447+50.00	749.82	
750.68		-0.61	-0.0380	16.00	447+75.00	751.29	
752.16		-0.61	-0.0380	16.00	448+00.00	752.77	
753.64		-0.61	-0.0380	16.00	448+25.00	754.25	
755.08		-0.61	-0.0380	16.00	448+50.00	755.69	
756.39		-0.61	-0.0380	16.00	448+75.00	757.00	
757.56		-0.61	-0.0380	16.00	449+00.00	758.17	
758.29		-0.61	-0.0380	16.00	449+17.50	758.90	
758.64		-0.56	-0.0349	16.00	449+25.00	759.20	
759.62		-0.41	-0.0253	16.00	449+48.50	760.03	PT
759.68	152:1	-0.40	-0.0247	16.00	449+50.00	760.08	
760.59		-0.23	-0.0145	16.00	449+75.00	760.82	
760.95		-0.16	-0.0100	16.00	449+86.03	761.11	

*NEGATIVE CORRECTIONS MEANING BELOW PROFILE GRADE
POSITIVE CORRECTIONS MEANING ABOVE PROFILE GRADE.

SUPERELEVATION TABLE - RAMP N-6A

P.I. STA. 457+69.98 | Dc = 31° 49′ 52″

LEFT SIDE					BASELINE CONTROL		REMARKS
EDGE ELEVATION	TRANSITION RATE	*ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	
743.44		-0.08	-0.0051	16.00	440+25.85	743.52	
743.20		-0.08	-0.0051	16.00	440+37.85	743.28	
743.16		0.00	0.0000	16.00	440+50.00	743.16	
743.15		0.09	0.0055	16.00	440+63.04	743.06	
743.20		0.17	0.0109	16.00	440+75.00	743.03	
743.31	143:1	0.26	0.0160	16.00	440+86.36	743.05	NC
743.40		0.26	0.0160	16.00	441+00.00	743.14	
743.73		0.26	0.0160	16.00	441+25.00	743.47	
744.15		0.26	0.0160	16.00	441+50.00	743.89	
744.16		0.26	0.0160	16.00	441+50.77	743.90	
744.72		0.42	0.0265	16.00	441+75.00	744.30	
745.33		0.60	0.0374	16.00	442+00.00	744.73	
745.48		0.64	0.0400	16.00	442+05.97	744.84	PC
745.97		0.77	0.0483	16.00	442+25.00	745.20	
746.67		0.95	0.0591	16.00	442+50.00	745.72	
746.73		0.96	0.0600	16.00	442+51.97	745.77	FS
747.24		0.96	0.0600	16.00	442+75.00	746.28	
747.79		0.96	0.0600	16.00	443+00.00	746.83	
748.31		0.96	0.0600	16.00	443+25.00	747.35	
748.82		0.96	0.0600	16.00	443+50.00	747.86	
749.40		0.96	0.0600	16.00	443+75.00	748.44	
749.98		0.96	0.0600	16.00	444+00.00	749.02	
750.56		0.96	0.0600	16.00	444+25.00	749.60	
751.14		0.96	0.0600	16.00	444+50.00	750.18	

CALCULATED AM | CHECKED AML

SUPERELEVATION TABLE - RAMP N-7 AND RAMP N-6A

MOT-75-14.60

156
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:55 AM
Filename: G:\C004\0066\Road\General\23828ge02.dgn

SUPERELEVATION TABLE - RAMP N-6

P.I. STA. 448+65.51	Dc = 25° 55′ 32″

BASELINE CONTROL		RIGHT SIDE					
PROFILE GRADE	STATION	WIDTH	CROSS SLOPE	*ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS
743.31	445+80.76	16.00	0.0051	0.08	143:1	743.39	
743.12	445+92.77	16.00	0.0051	0.08		743.20	
743.02	446+00.00	16.00	0.0083	0.13		743.15	
742.90	446+17.82	16.00	0.0160	0.26		743.16	NC
742.91	446+25.00	16.00	0.0160	0.26		743.17	
742.98	446+34.98	16.00	0.0160	0.26	143:1	743.24	
743.19	446+50.00	16.00	0.0094	0.15		743.34	
743.80	446+75.00	16.00	-0.0015	-0.02		743.78	
744.47	447+00.00	16.00	-0.0124	-0.20		744.27	
745.14	447+25.00	16.00	-0.0233	-0.37		744.77	
745.80	447+50.00	16.00	-0.0343	-0.55		745.25	
746.11	447+61.59	16.00	-0.0393	-0.63		745.48	PC
746.47	447+75.00	16.00	-0.0452	-0.72		745.75	
747.13	448+00.00	16.00	-0.0561	-0.90		746.23	
747.30	448+06.59	16.00	-0.0590	-0.94		746.36	FS
747.74	448+25.00	16.00	-0.0590	-0.94		746.80	
748.30	448+50.00	16.00	-0.0590	-0.94		747.36	
748.81	448+75.00	16.00	-0.0590	-0.94		747.87	
748.94	448+81.66	16.00	-0.0590	-0.94	143:1	748.00	
749.26	449+00.00	16.00	-0.0510	-0.82		748.44	
749.66	449+25.00	16.00	-0.0401	-0.64		749.02	
750.00	449+50.00	16.00	-0.0291	-0.47		749.53	
750.08	449+55.87	16.00	-0.0266	-0.43		749.65	PT
750.32	449+75.00	16.00	-0.0182	-0.29		750.03	
750.63	450+00.00	16.00	-0.0073	-0.12		750.51	
750.84	450+16.66	16.00	0.0000	0.00		750.84	FLAT

*NEGATIVE CORRECTIONS MEANING BELOW PROFILE GRADE
POSITIVE CORRECTIONS MEANING ABOVE PROFILE GRADE.

P.I. STA. 452+06.48	Dc = 11° 15′ 00″

BASELINE CONTROL		RIGHT SIDE					
PROFILE GRADE	STATION	WIDTH	CROSS SLOPE	*ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS
750.84	450+16.66	16.00	0.0000	0.00	172:1	750.84	FLAT
750.94	450+25.00	16.00	0.0030	0.05		750.99	
751.26	450+50.00	16.00	0.0120	0.19		751.45	
751.64	450+75.00	16.00	0.0211	0.34		751.97	
751.68	450+77.46	16.00	0.0220	0.35		752.03	PC
752.10	451+00.00	16.00	0.0301	0.48		752.58	
752.63	451+25.00	16.00	0.0392	0.63		753.26	
753.25	451+50.00	16.00	0.0482	0.77		754.02	
753.94	451+75.00	16.00	0.0572	0.92		754.86	
754.17	451+82.67	16.00	0.0600	0.96		755.13	FS
754.70	452+00.00	16.00	0.0600	0.96		755.66	
755.47	452+25.00	16.00	0.0600	0.96		756.43	
756.24	452+50.00	16.00	0.0600	0.96		757.20	
757.01	452+75.00	16.00	0.0600	0.96		757.97	
757.78	453+00.00	16.00	0.0600	0.96		758.74	
758.55	453+25.00	16.00	0.0600	0.96		759.51	
758.71	453+30.19	16.00	0.0600	0.96		759.67	CS

P.I. STA. 456+37.16	Dc = 6° 45′ 00″

BASELINE CONTROL		RIGHT SIDE					
PROFILE GRADE	STATION	WIDTH	CROSS SLOPE	*ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS
759.33	453+50.00	16.00	0.0600	0.96		760.29	
760.10	453+75.00	16.00	0.0600	0.96		761.06	
760.87	454+00.00	16.00	0.0600	0.96		761.83	
761.64	454+25.00	16.00	0.0600	0.96		762.60	
762.41	454+50.00	16.00	0.0600	0.96		763.37	
763.18	454+75.00	16.00	0.0600	0.96		764.14	
763.95	455+00.00	16.00	0.0600	0.96		764.91	
764.72	455+25.00	16.00	0.0600	0.96		765.68	
764.88	455+30.19	16.00	0.0600	0.96		765.84	SC
765.49	455+50.00	16.00	0.0600	0.96		766.45	
766.26	455+75.00	16.00	0.0600	0.96		767.22	
766.96	456+00.00	16.00	0.0600	0.96		767.92	
767.66	456+25.00	16.00	0.0600	0.96		768.62	
768.37	456+50.00	16.00	0.0600	0.96		769.33	
769.04	456+75.00	16.00	0.0600	0.96		770.00	
769.15	456+79.00	16.00	0.0600	0.96	200:1	770.11	FS
769.75	457+00.00	16.00	0.0534	0.86		770.61	
770.36	457+25.00	16.00	0.0456	0.73		771.09	
770.75	457+43.00	16.00	0.0400	0.64		771.39	PT

CALCULATED AM
CHECKED AML

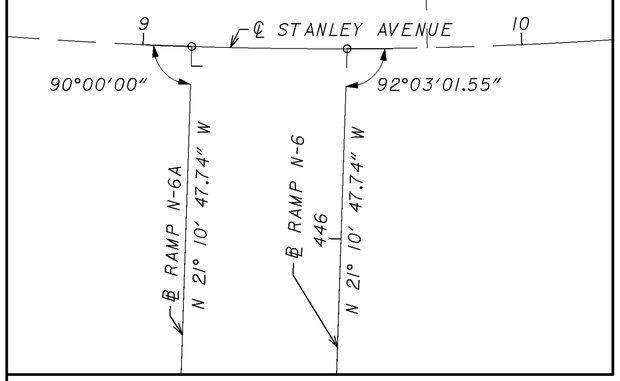
SUPERELEVATION TABLE - RAMP N-6

MOT-75-14.60

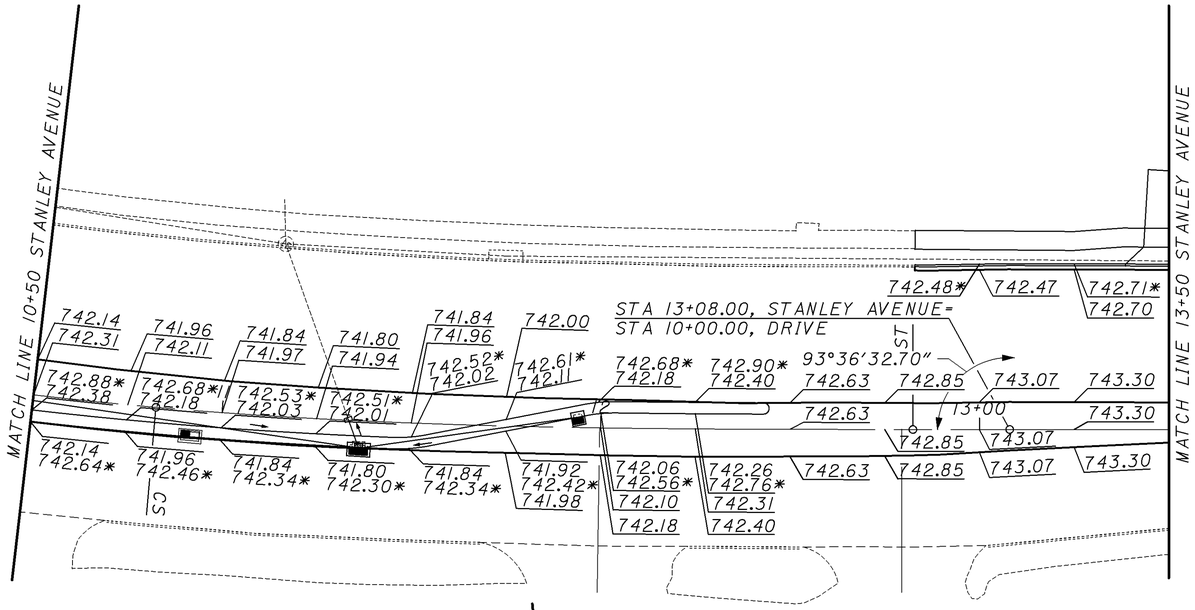
157
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:56 AM
Filename: G:\C004\0066\Road\General\23828ge02.dgn

ANGLES MEASURED FROM RAMP BASELINE
TO A LINE TANGENT TO CURVE ON STANLEY AVENUE.

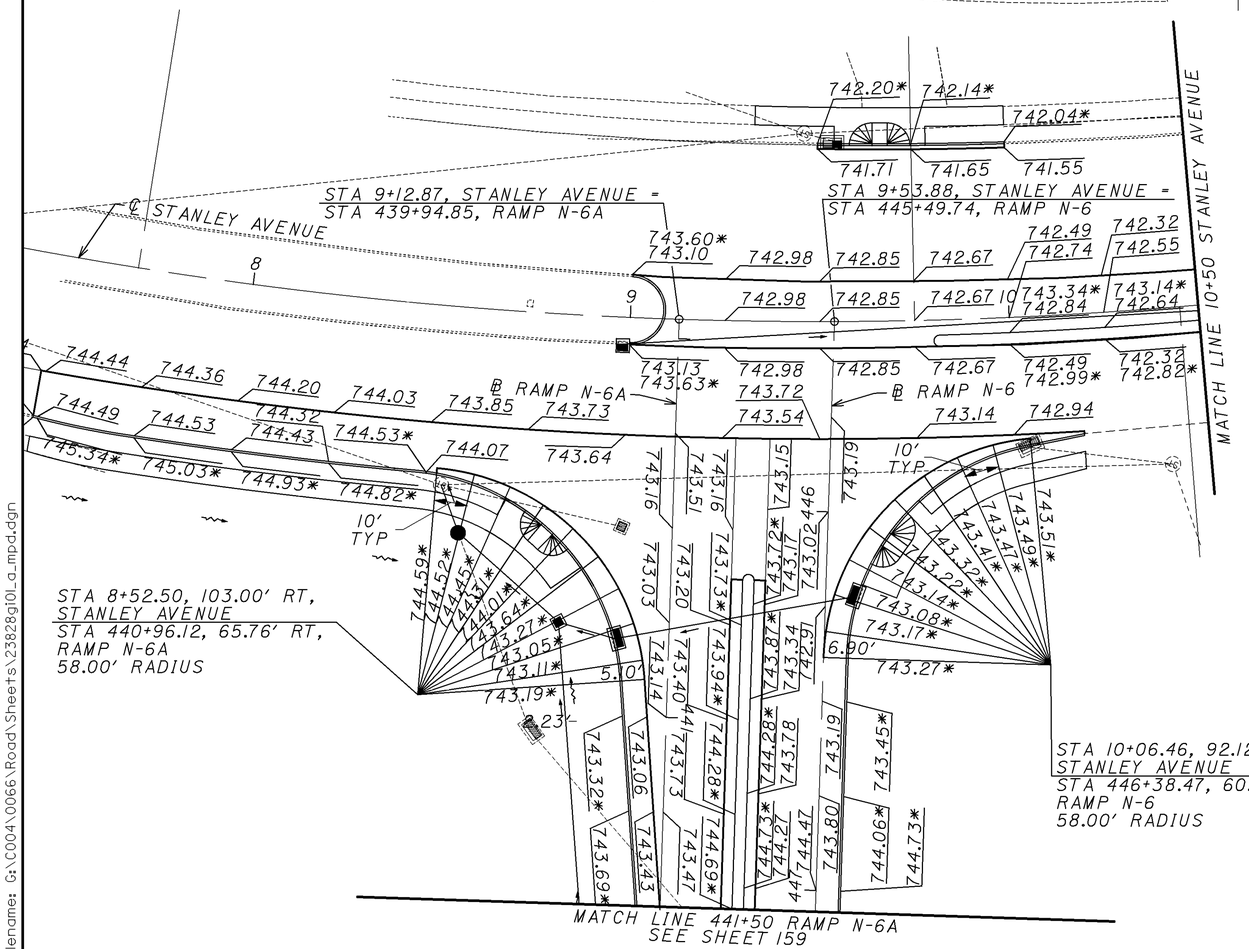


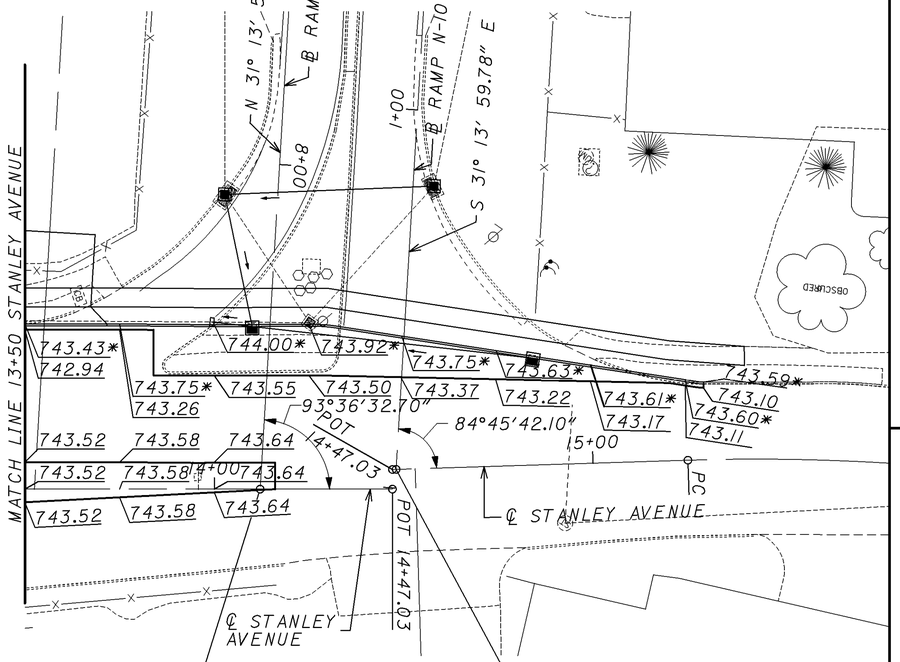
NOTES - 1. * INDICATES TOP OF CURB ELEVATION.
2. FOR PAVEMENT WIDTH DIMENSIONS SEE SHEET 146 & 147



STANLEY AVENUE

PI Sta = 8+00.03	PI Sta = 15+97.39
Δ = 40° 00' 00" (LT)	Δ = 14° 23' 20" (RT)
Dc = 5° 00' 00"	Dc = 10° 00' 00"
R = 1,145.92'	R = 572.96'
Ls = 200.00'	T = 72.32'
Theta = 5° 00' 00"	L = 143.89'
LT = 133.39'	E = 4.55'
ST = 66.72'	PC = 15+25.07
x = 199.85'	PCC = 16+68.96
y = 5.81'	emax = EXIST
k = 99.97'	
p = 1.45'	
Δc = 30° 00' 00" (LT)	
Lc = 600.00'	
Ts = 517.58'	
Es = 75.09'	
T.S. = 2+82.45	
S.C. = 4+82.45	
C.S. = 10+82.45	
S.T. = 12+82.45	
emax = EXIST	





HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AML

INTERSECTION DETAILS STANLEY AVENUE

MOT-75-14.60

158
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:56 AM
Filename: G:\C004\0066\Road\Sheets\23828gi01_a_mpd.dgn

RAMP N-6	
PI Sta = 448+65.51	PI Sta = 452+06.48
Δ = 50° 22′ 03″ (RT)	Δ = 28° 25′ 57″ (LT)
Dc = 25° 55′ 32″	Dc = 11° 15′ 00″
R = 221.00′	R = 509.30′
T = 103.92′	T = 129.03′
L = 194.28′	L = 252.73′
E = 23.21′	E = 16.09′
PC = 447+61.59	PC = 450+77.46
PT = 449+55.87	CS = 453+30.19
emax = 0.059	emax = 0.06

RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

PC Sta. 447+61.59

℄ RAMP N-6

PT Sta. 449+55.87

PC Sta. 442+05.97

℄ RAMP N-6A

PC S10. 450+77.46

MATCH LINE 441+50 RAMP N-6A
SEE SHEET 158

MATCH LINE 446+00 RAMP N-6A
SEE SHEET 160

MATCH LINE 452+30 RAMP N-6
SEE SHEET 161

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 122 AND 129 .

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AML

INTERCHANGE DETAILS - RAMP N-6 AND RAMP N-6A

MOT-75-14.60

159
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:58 AM
Filename: G:\C004\0066\Road\Sheets\23828g102.dgn

IR-75
PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
T.S. = 440+44.02
S.C. = 443+94.02
C.S. = 452+26.71
S.T. = 455+76.71
emax = 0.06

RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

RAMP N-7
PI Sta = 447+97.91
Δ = 18° 13′ 35″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 153.18′
L = 303.77′
E = 12.21′
PC = 446+44.72
PT = 449+48.50
emax = 0.038

MATCH SEE SHEET 159 LINE 446+00 RAMP N-6A

PT Sta. 448+12.70

760.68 760.02 759.27 758.34 757.41 756.56 755.67 754.74 753.96 754.08 754.86 755.79 756.68 757.53 758.46 759.39 760.14 760.80

℄ RAMP N-6

℄ CONSTRUCTION I.R. 75

STA 445+91.92, I.R.-75= STA 5+62.14, STANLEY AVE

SC Sta. 4+82.45

STA 4+19.84, STANLEY AVE= STA 8+66.76, RAMP N-8

PC Sta. 446+44.72

N 6° 19′ 51″ W

744.44 744.44 744.90 745.04 745.59 745.90 746.53 747.00 747.73 748.34 749.21 749.82 750.68 751.29 752.16 752.77 753.64 754.25 755.08 755.69 756.39 757.00 757.56 758.17 758.64 759.20 759.68 760.08 760.59 760.82 761.26 761.42 761.72 761.88

762.43 762.63

℄ STANLEY AVENUE

TS Sta. 2+82.45

STA 4+20.12 STANLEY AVE= STA 445+43.58, RAMP N-7

℄ RAMP N-7

PT Sta. 449+48.50

MATCH LINE 450+50 RAMP N-7 SEE SHEET 161

445 446 447 448 449 450

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEET 134.

HORIZONTAL SCALE IN FEET 0 20 40

CALCULATED MPD CHECKED AML

INTERCHANGE DETAILS - RAMP N-7 AND IR-75

MOT-75-14.60

160 / 314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:15:59 AM
Filename: G:\C004\0066\Road\Sheets\23828gi03.dgn

IR-75

PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
T.S. = 440+44.02
S.C. = 443+94.02
C.S. = 452+26.71
S.T. = 455+76.71
emax = 0.06

RAMP N-6

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI = 454+03.75
Δ = 60° 47′ 49″ (LT)
DI = 11° 15′ 00″
RI = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
Δ1 = 28° 25′ 57″ (LT)
Δ2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
e1 = 0.06
e2 = 0.06
CS = 453+30.19
SC = 455+30.19

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 99 AND 122.

SEE SHEET 159
MATCH LINE 452+50 RAMP N-6

756.24 757.20 757.01 757.97 757.78 758.14 758.55 759.51 759.33 760.29 760.10 761.06 760.87 761.83 761.64 762.60 762.41 763.37 763.18 764.14 763.95 764.91 764.72 765.68 765.49 766.45

453 454 455 456

CS Sta. 453+30.19
℄ RAMP N-6
SC Sta. 455+30.19

760.34 760.68 761.54 762.40 763.18 764.98 764.76 765.51
760.89 761.21 762.04 762.86 763.61 764.36 765.11 765.85 766.27 766.98
761.43 761.75 762.53 763.32 764.03 764.75 765.45 766.16 766.61 767.32
761.98 762.28 763.03 763.78 764.45 765.13 765.80 766.47 766.88 767.56
761.70 762.06 762.79 763.51 764.15 764.81 765.46 766.14 767.15 767.79
764.15 764.81 765.46 766.14 766.85 767.47
764.45 765.13 765.80 766.47 766.85 767.47
764.87 765.51 766.15 766.78 767.15 767.79
765.29 765.90 766.49 767.09 767.42 768.02
765.16 765.72 766.28 766.84 767.40 767.97 768.26
766.83 767.37 767.92 768.49
767.12 767.67 768.45
768.19

N 31° 36′ 34″ W
ST Sta. 455+76.71

℄ CONSTRUCTION IR 75
451 452 453 454 455 456
CS Sta. 452+26.71
POT Sta. 452+25.40
PROP RETAINING WALL

762.20 762.05 761.92 761.96 761.98 762.19 762.37 762.59 762.78 763.23 763.67 764.16 764.66
762.04 762.21 762.16 762.13 762.17 762.22 762.31 762.37 762.70 762.95 763.39 763.80 764.26 764.73 765.20 765.74 766.28 766.83 767.37 767.92 768.45
762.20 762.37 762.32 762.29 762.33 762.47 762.53 762.93 763.25 763.69 764.04 764.47 764.89 765.32 765.59 766.02 766.57 767.12 767.67 768.19

451 N 24° 33′ 26″ W
℄ RAMP N-7
452

MATCH LINE 452+50 RAMP N-7
SEE SHEET 160

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AML

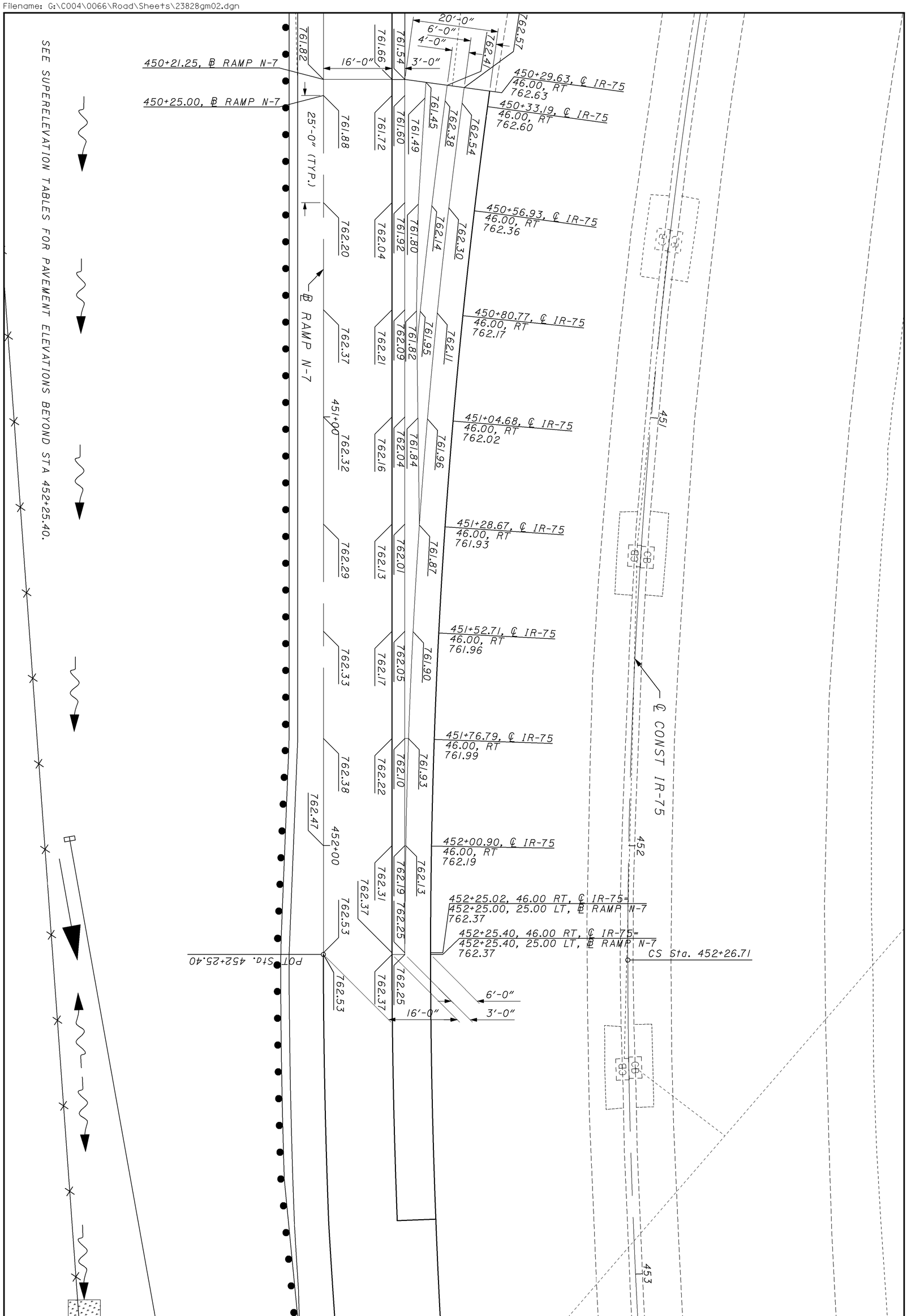
INTERCHANGE DETAILS - RAMP N-6, RAMP N-7, AND IR-75

MOT-75-14.60

161
314

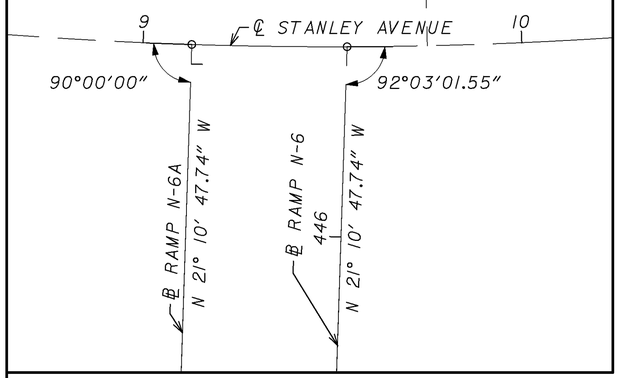
Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:00 AM
Filename: G:\C004\0066\Road\Sheets\23828gi04.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:01 AM
Filename: G:\C004\0066\Road\Sheets\23828gm02.dgn



162 / 314	MOT-75-14.60	GORE DETAILS - RAMP N-7 AND IR-75	CALCULATED MPD / CHECKED AML	HORIZONTAL SCALE IN FEET (0, 10, 20)

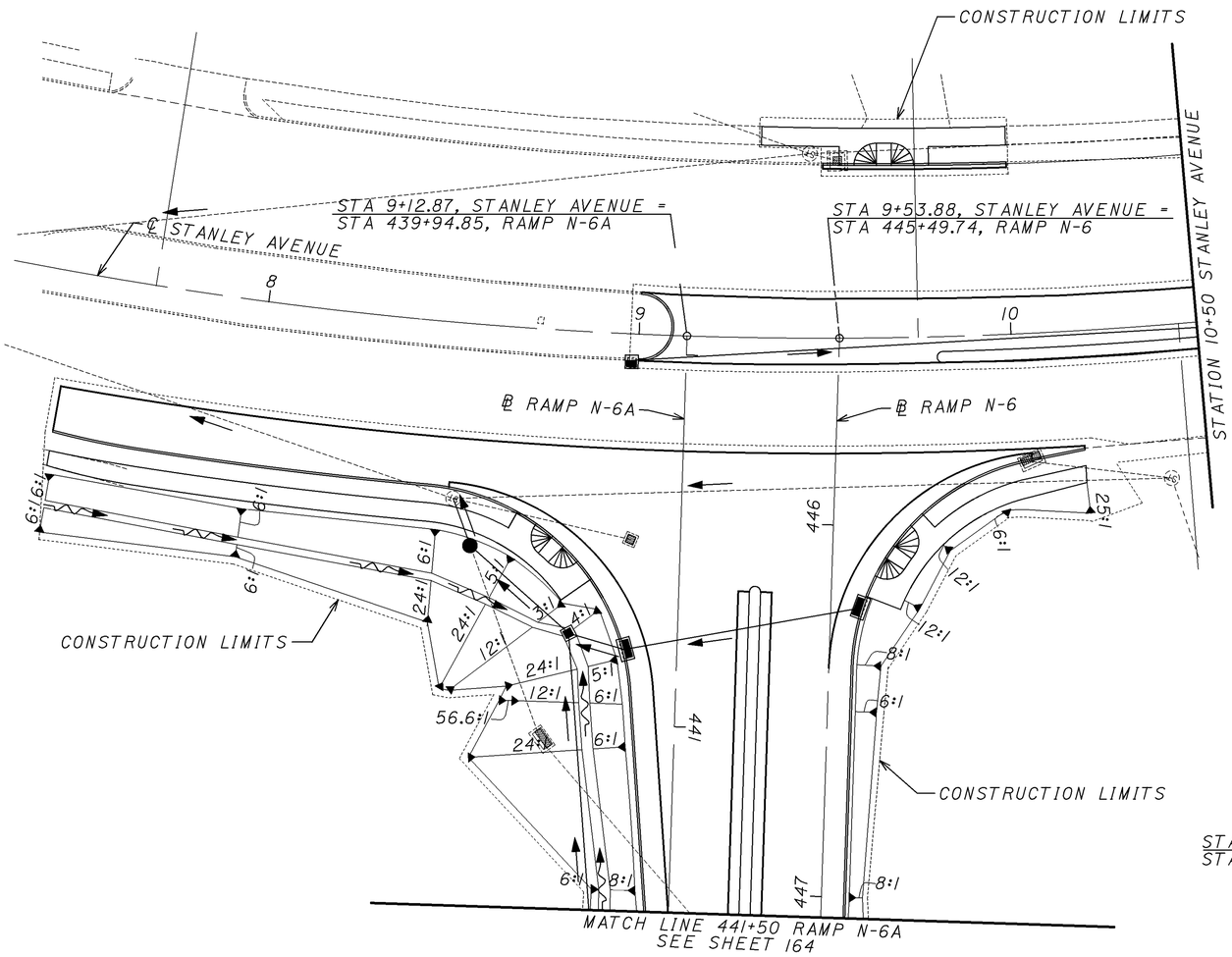
ANGLES MEASURED FROM RAMP BASELINE
TO A LINE TANGENT TO CURVE ON STANLEY AVENUE.

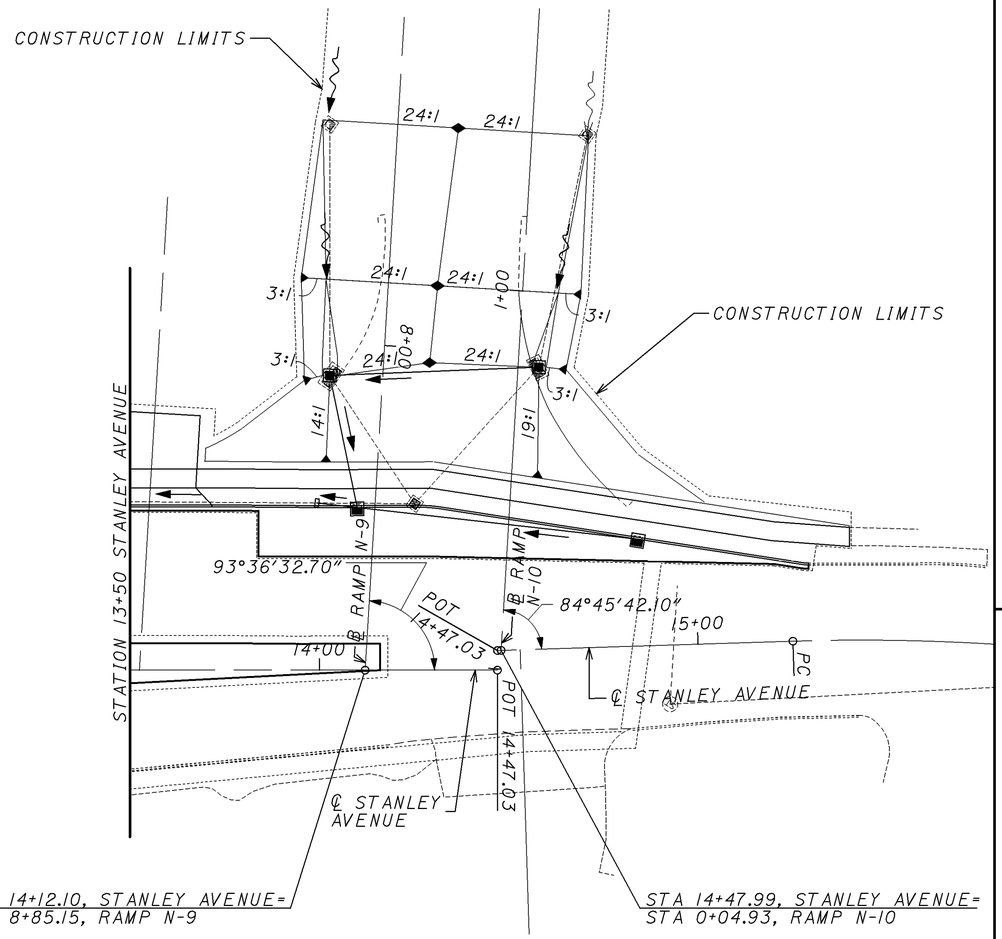


NOTE: FOR PAVEMENT WIDTH DIMENSIONS
SEE SHEETS 146 & 147

STANLEY AVENUE

PI Sta = 8+00.03	PI Sta = 15+97.39
Δ = 40° 00' 00" (LT)	Δ = 14° 23' 20" (RT)
Dc = 5° 00' 00"	Dc = 10° 00' 00"
R = 1,145.92'	R = 572.96'
Ls = 200.00'	T = 72.32'
Theta = 5° 00' 00"	L = 143.89'
LT = 133.39'	E = 4.55'
ST = 66.72'	PC = 15+25.07
x = 199.85'	PCC = 16+68.96
y = 5.81'	emax = EXIST
k = 99.97'	
p = 1.45'	
Δc = 30° 00' 00" (LT)	
Lc = 600.00'	
Ts = 517.58'	
Es = 75.09'	
T.S. = 2+82.45	
S.C. = 4+82.45	
C.S. = 10+82.45	
S.T. = 12+82.45	
emax = EXIST	





HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AM

GRADING PLAN
STANLEY AVENUE

MOT-75-14.60

163
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:03 AM
Filename: G:\C004\0066\Road\Sheets\23828xg01.dgn

RAMP N-6	
PI Sta = 448+65.51	PI Sta = 452+06.48
Δ = 50° 22′ 03″ (RT)	Δ = 28° 25′ 57″ (LT)
Dc = 25° 55′ 32″	Dc = 11° 15′ 00″
R = 221.00′	R = 509.30′
T = 103.92′	T = 129.03′
L = 194.28′	L = 252.73′
E = 23.21′	E = 16.09′
PC = 447+61.59	PC = 450+77.46
PT = 449+55.87	CS = 453+30.19
emax = 0.059	emax = 0.06

RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 122 AND 129 .

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AM

GRADING PLAN - RAMP N-6 AND RAMP N-6A

MOT-75-14.60

164
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:04 AM
Filename: G:\C004\0066\Road\Sheets\23828xg02.dgn

IR-75	RAMP N-6A	RAMP N-7
PI Sta = 448+49.09	PI Sta = 453+47.75	PI Sta = 447+97.91
Δ = 47° 18′ 27″ (LT)	Δ = 193° 07′ 50″ (RT)	Δ = 18° 13′ 35″ (LT)
Dc = 4° 00′ 00″	Dc = 31° 49′ 52″	Dc = 6° 00′ 00″
R = 1,432.39′	R = 180.00′	R = 954.93′
Ls = 350.00′	T = 1,564.01′	T = 153.18′
Theta = 7° 00′ 00″	L = 606.74′	L = 303.77′
LT = 233.52′	E = 1,754.33′	E = 12.21′
ST = 116.83′	PC = 442+05.97	PC = 446+44.72
x = 349.48′	PT = 448+12.70	PT = 449+48.50
y = 14.24′	emax = 0.06	emax = 0.038
k = 174.91′		
p = 3.56′		
Δc = 33° 18′ 27″ (LT)		
Lc = 832.69′		
Ts = 803.87′		
Es = 135.27′		
T.S. = 440+44.02		
S.C. = 443+94.02		
C.S. = 452+26.71		
S.T. = 455+76.71		
emax = 0.06		

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 129 AND 134 .

HORIZONTAL SCALE IN FEET

CALCULATED MPD CHECKED AM

GRADING PLAN - RAMP N-7 AND IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:04 AM
Filename: G:\C004\0066\Road\Sheets\23828xg03.dgn

IR-75

PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
T.S. = 440+44.02
S.C. = 443+94.02
C.S. = 452+26.71
S.T. = 455+76.71
emax = 0.06

RAMP N-6

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

PI = 454+03.75
Δ = 60° 47′ 49″ (LT)
D1 = 11° 15′ 00″
R1 = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
Δ1 = 28° 25′ 57″ (LT)
Δ2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
e1 = 0.06
e2 = 0.06
CS = 453+30.19
SC = 455+30.19

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 99 AND 122.

SEE SHEET 164
MATCH LINE 452+50 RAMP N-6

SEE SHEET 165
MATCH LINE 450+50 RAMP N-7

℄ CONSTRUCTION-IR 75

℄ RAMP N-6

℄ RAMP N-7

CS Sta. 453+30.19

SC Sta. 455+30.19

ST Sta. 455+76.71

POT Sta. 452+25.40

CS Sta. 452+26.71

451 N 24° 33′ 26″ W

N 31° 36′ 34″ W

CONSTRUCTION LIMITS

PROP RETAINING WALL

451 452 453 454 455 456

24:1 12:1 8:1 6:1 3:1 2:1

HORIZONTAL SCALE IN FEET
0 20 40

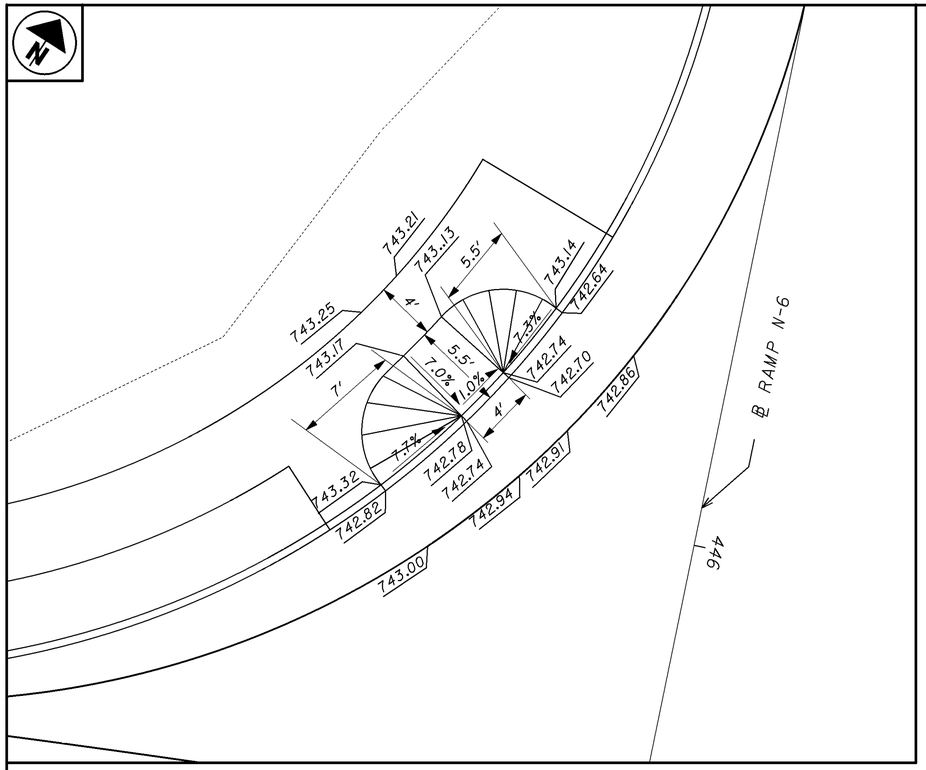
CALCULATED MPD
CHECKED AM

GRADING PLAN - RAMP N-6, RAMP N-7, AND IR-75

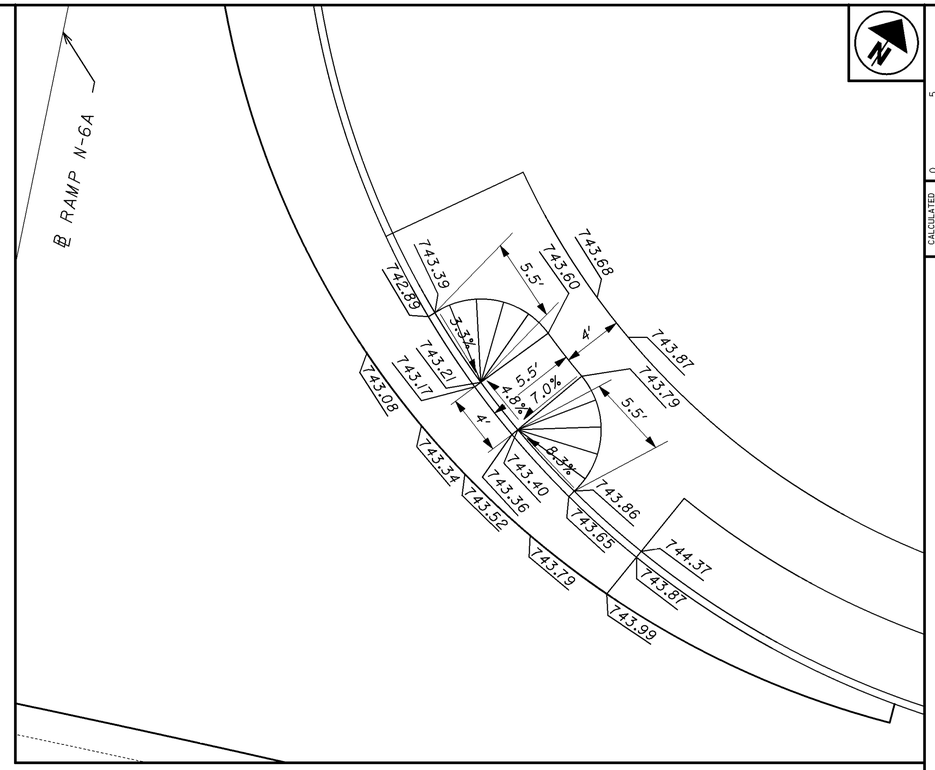
MOT-75-14.60

166
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:06 AM
Filename: G:\C004\0066\Road\Sheets\23828xg04.dgn

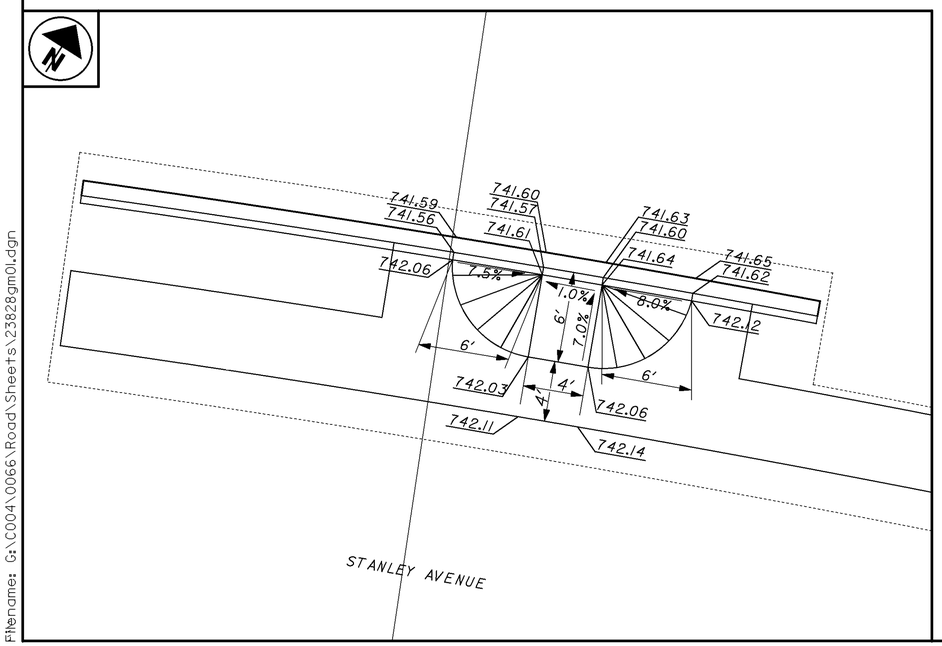


RAMP N-6 CURB RAMP DETAIL



RAMP N-6A CURB RAMP DETAIL

STANLEY CURB RAMP DETAIL



NOTE:

1) RAMP SHALL HAVE A COARSE BROOM FINISH BY THE BROOMING TRANSVERSE TO THE RAMP SLOPES EXCEPT DOMED AREA

2) FOR CURB RAMP DETAILS, AS PER PLAN, SEE SHEET 168

3) FOR CURB RAMP WITH TRUNCATED DOMES PLAN INSERT SHEETS, SEE SHEETS 168 - 171

HORIZONTAL SCALE IN FEET
0 5 10

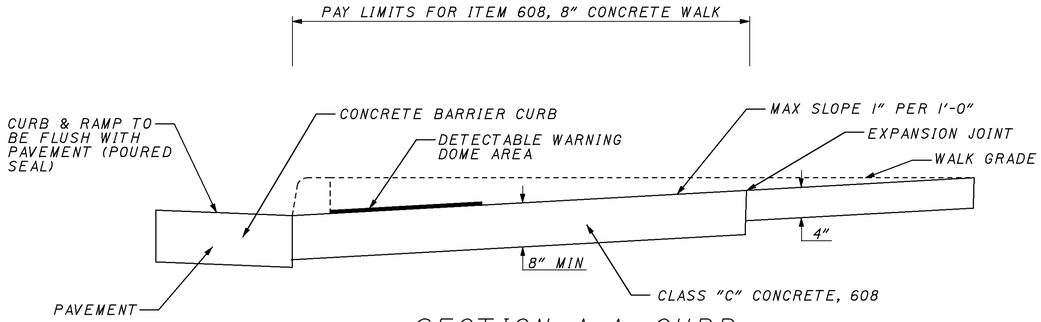
CALCULATED MPD
CHECKED AM

RAMP N-6, RAMP N-6A & STANLEY AVENUE CURB RAMP ELEVATION DETAILS

MOT-75-14.60

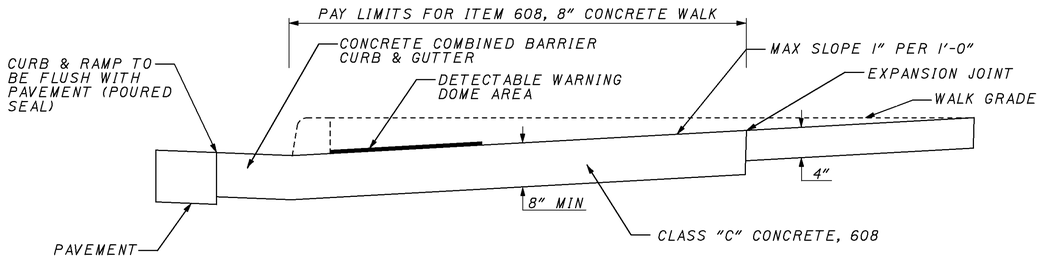
167
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:06 AM
Filename: G:\C004\0066\Road\Sheets\23828gm01.dgn



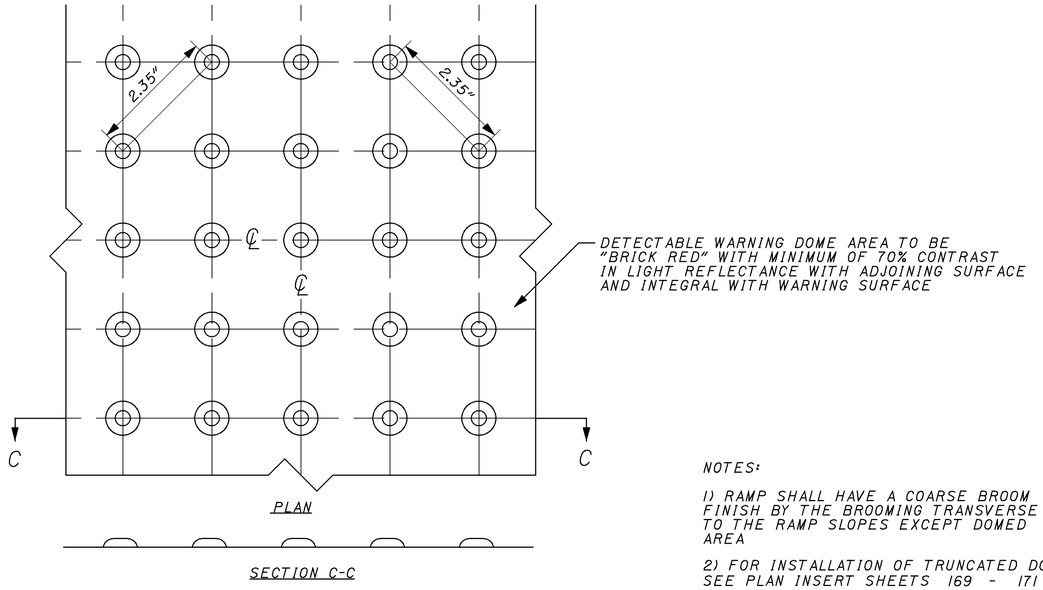
SECTION A-A, CURB

(RAMP CONSTRUCTED THROUGH CURB)
NOT TO SCALE



SECTION B-B, COMBINED CURB & GUTTER

(CURB CONSTRUCTED THRU RAMP)
NO SCALE



PLAN

SECTION C-C

DETECTABLE WARNING DOMES AREA

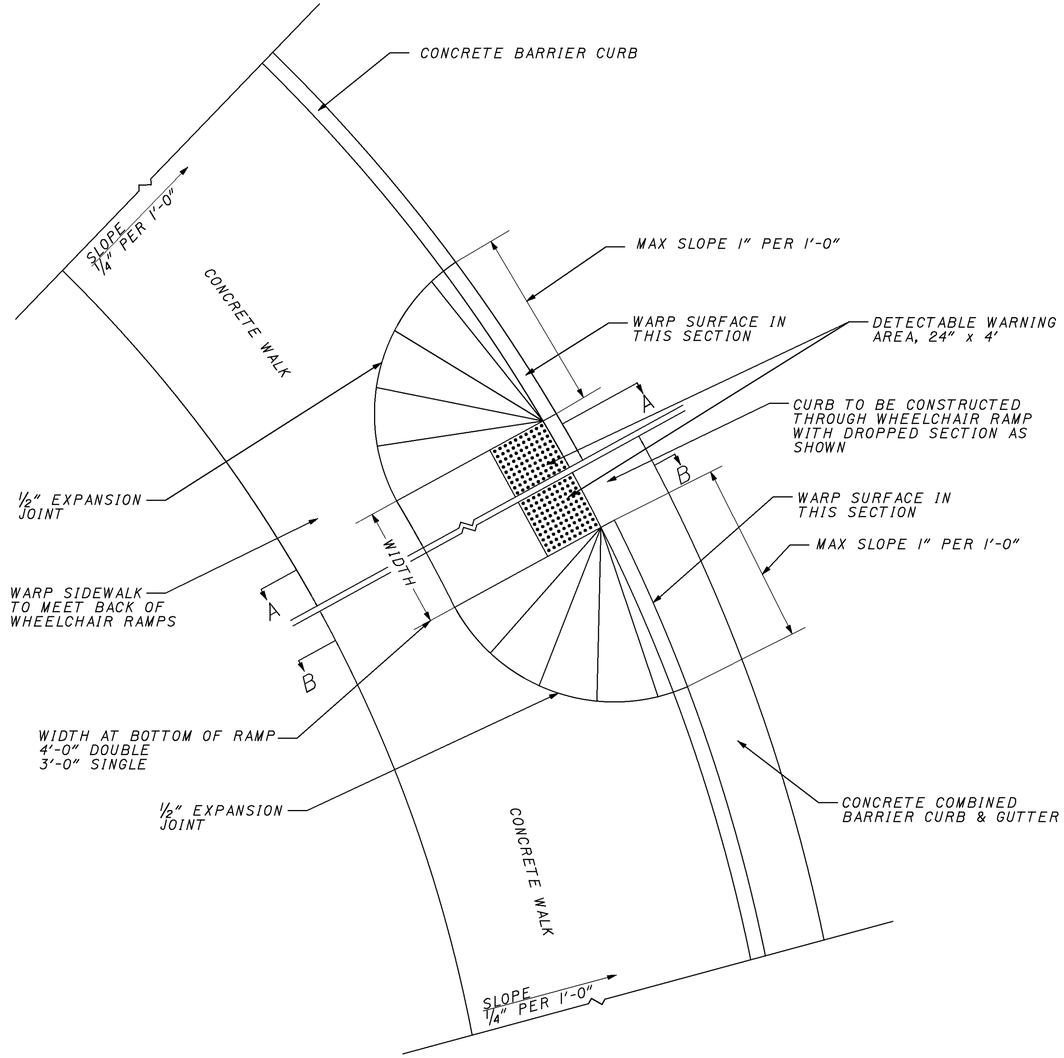
NO SCALE

NOTES:

1) RAMP SHALL HAVE A COARSE BROOM FINISH BY THE BROOMING TRANSVERSE TO THE RAMP SLOPES EXCEPT DOMED AREA

2) FOR INSTALLATION OF TRUNCATED DOMES, SEE PLAN INSERT SHEETS 169 - 171

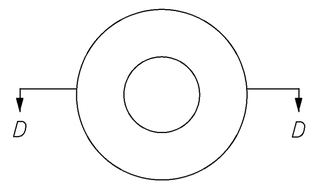
3) FOR CURB RAMP ELEVATION DETAILS SEE SHEET 167



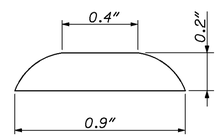
PLAN

FLARED WHEELCHAIR RAMP

NO SCALE



TOP



SECTION D-D

DETECTABLE WARNING DOME

NO SCALE

ALL DETAILS INCORPORATED FROM CITY OF DAYTON, OHIO, STANDARDS FOR STREET IMPROVEMENTS, FLARED WHEELCHAIR RAMP (14A-11048)

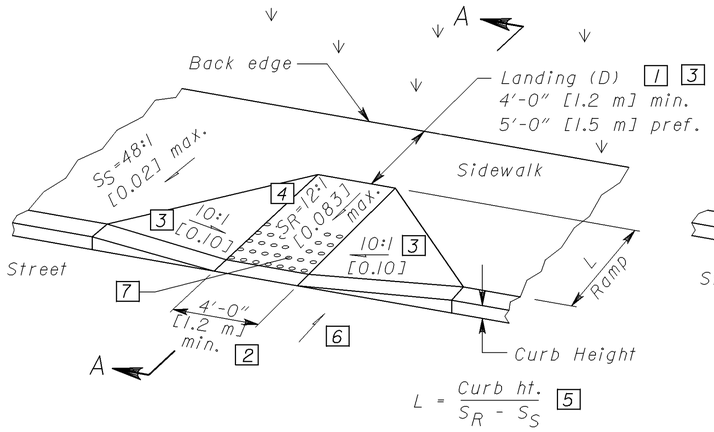
CALCULATED MPD
CHECKED AM

CURB RAMP, AS PER PLAN

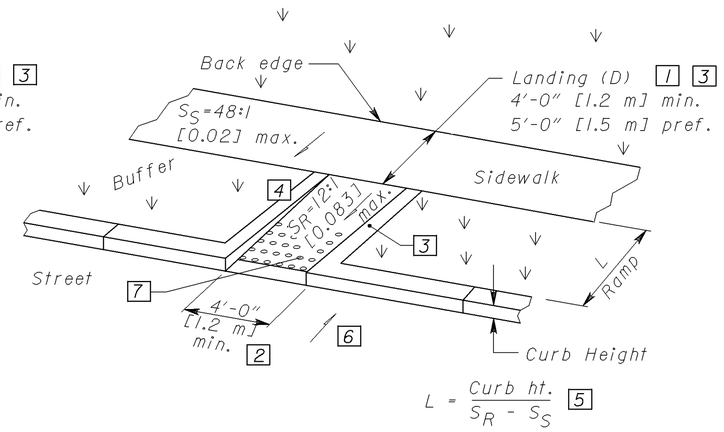
MOT-75-14.60

168
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:07 AM
Filename: G:\C004\0066\Road\Sheets\23828gm01_sod.dgn

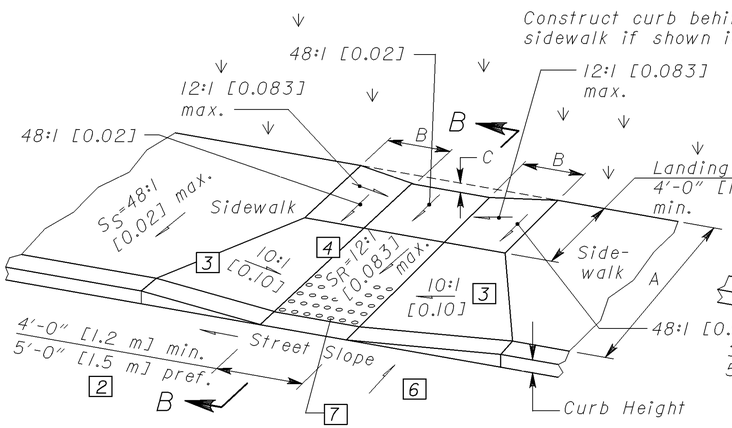


Type A1 (Perpendicular with flared sides)

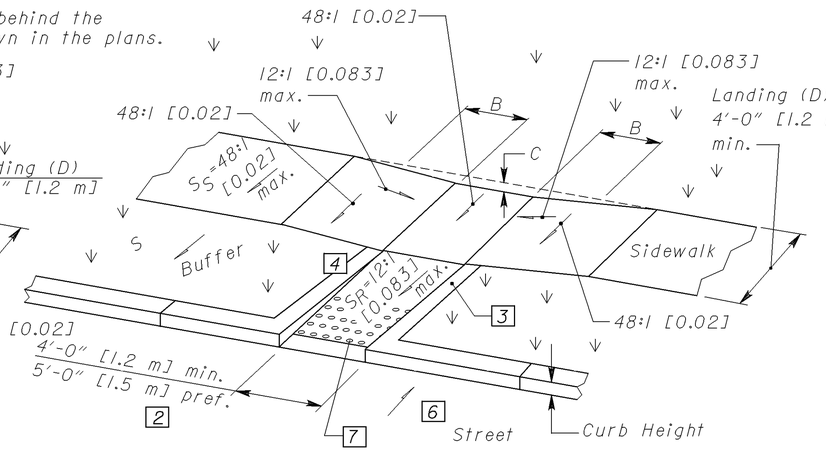


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

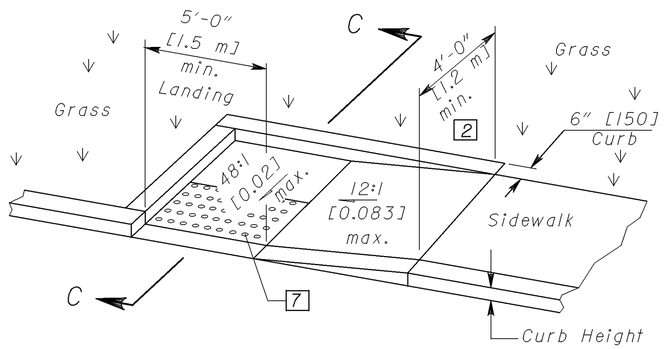


Type C1 (Combined with flared sides)



Type C2 (Combined with returned curb)

COMBINED CURB RAMP DETAILS

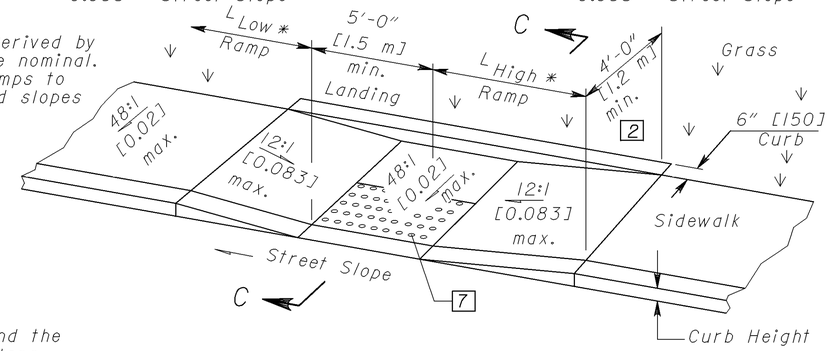


Type B1 (Single sided Parallel)

Street Slope	Ramp Length @ 1"/ft [0.083]	
	LLOW SIDE *	LHIGH SIDE *
0.01	5'-5" [1.6 m]	6'-10" [2.1 m]
0.02	4'-10" [1.5 m]	7'-11" [2.4 m]
0.03	4'-5" [1.3 m]	9'-5" [2.9 m]
0.04	4'-1" [1.2 m]	11'-8" [3.6 m]
0.05	3'-9" [1.1 m]	15'-2" [4.6 m]
* Measured along the back of a 6" [150] high curb.		

Dimensions derived by equations are nominal. Construct ramps to meet required slopes and existing conditions.

For Parallel Ramps construct curb behind the sidewalk if required elsewhere in the plans.



Type B2 (Double sided Parallel)

PARALLEL CURB RAMP DETAILS

LEGEND

1. Dimension may be reduced to 3'-0" [915] in existing sidewalks if the landing is unconstrained along the back edge.
2. May be reduced to 3'-4" [1.02 m] in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
3. Where landing width (D) has been reduced to 3'-0" [915] the flared sides shall have a maximum slope of 12:1 [0.083].

   Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheel chair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.
4. The slope of the ramp toward the curb is preferred to be 12:1 [0.083] or flatter related to the horizontal.

   In existing sidewalks, where the maximum ramp slope (S_R) is not feasible, it may be reduced as follows:

   A) 10:1 [0.10] for a max. rise of 6" [150],
   B) 8:1 [0.125] for a max. rise of 3" [75],
   C) 6:1 [0.167] over a max. run of 2'-0" [610] for historic areas where a flatter slope is not feasible.
5. The minimum length of a perpendicular ramp is 6' [2.0 m] from the back of a 6" [150] curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
6. Gutter counter slopes at the foot of perpendicular curb ramps should not exceed 20:1 [0.05] over a distance of 2'-0" [610] from the curb.
7. Detectable Warnings (truncated domes) are to be installed in the location shown. Dimensions of the domes are 24" [610] from the back of the curb by the width of the ramp. See DETECTABLE WARNINGS NOTES on Sheet 3.

See Sheet 3 for Sections.

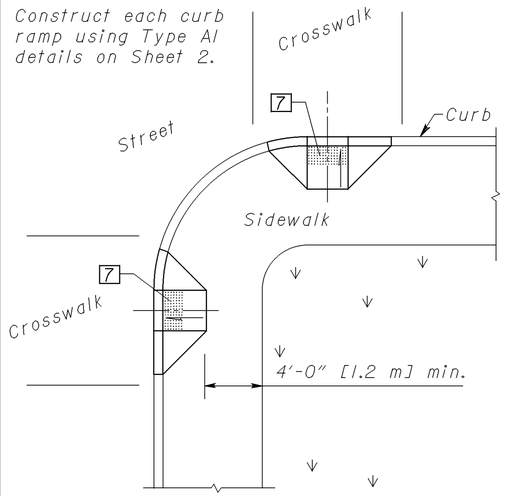
THIS DRAWING REPLACES BP-7.1 DATED 7-28-00.

CURB RAMPS WITH TRUNCATED DOMES

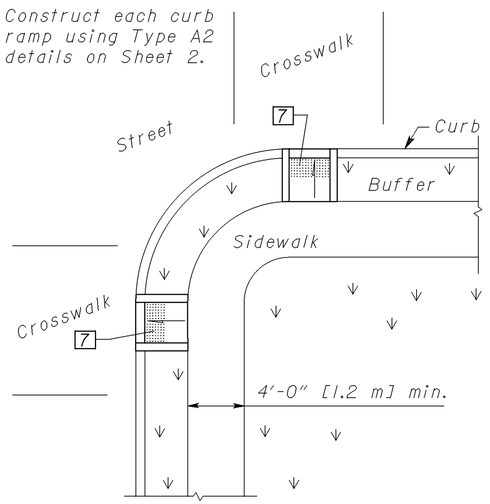
01-19-07

MOT-75-14.60

Plotted By: jfanthony Date: 7/3/2007 Time: 12:16:07 AM
Filename: G:\C004\0066\Road\Sheets\23828pi01.dgn

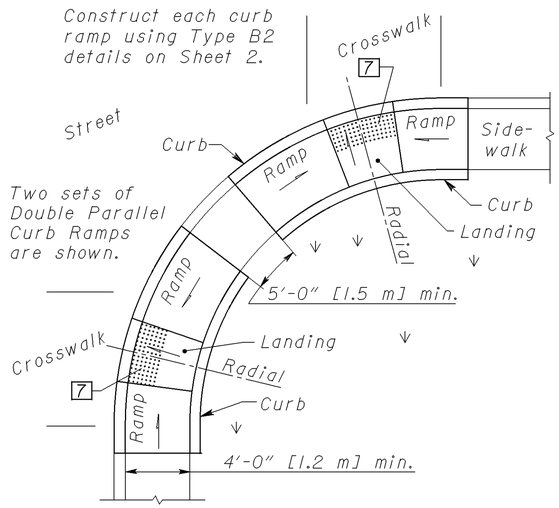


Use curb ramps with flared sides at locations with wide sidewalks.



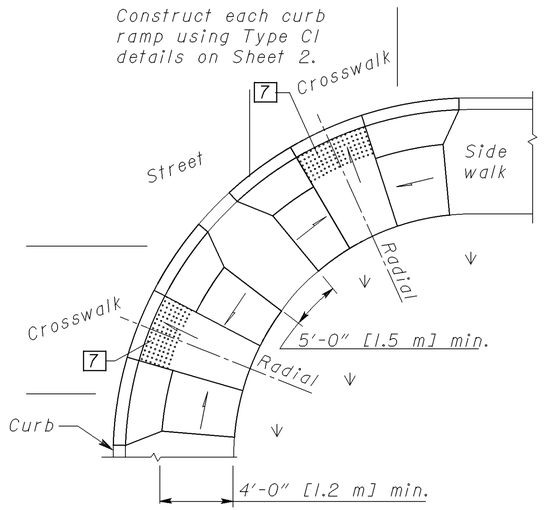
Use curb ramps with returned curbs where buffer is wide enough to accommodate ramp slope.

PERPENDICULAR CURB RAMPS



Place on streets having wide turning radius and where sidewalks are narrow.

PARALLEL CURB RAMPS



Curb ramp placement where streets have wide turning radius, and sufficient sidewalks width.

COMBINATION CURB RAMPS

PREFERRED CONSTRUCTION PLACEMENT

CURB RAMP NOTES

GENERAL: *This drawing shows curb ramp types details and placement examples for new curb ramp construction, including the installation of truncated domes. To retrofit existing curb ramps with truncated domes, see* **SCD BP-7.2.**

Curb ramp types are shown on Sheet 2 and include Perpendicular, Parallel, and Combined types as specified to be constructed in the locations shown on the project plans. The contractor may adjust the placement of curb ramps if existing field conditions warrant, according to CONSTRUCTION PLACEMENT details (this sheet), and with the approval of the Engineer.

DETECTABLE WARNINGS: *Install Truncated Domes on each curb ramp with approved materials, as shown on Sheet 3. Install these proprietary products as per manufacturer's written instructions.*

DRAINAGE: *Contractor is to ensure the base of each constructed curb ramp allows for proper drainage, without exceeding allowable cross slope or ramp slopes. Vertical change in level exceeding 1/8" [3] between the 1) pavement and gutter, and 2) gutter and ramp, are not allowed.*

SURFACE TEXTURE: *Texture of concrete surfaces by coarse brooming transverse to the ramp slopes and is to be rougher than the adjacent walk.*

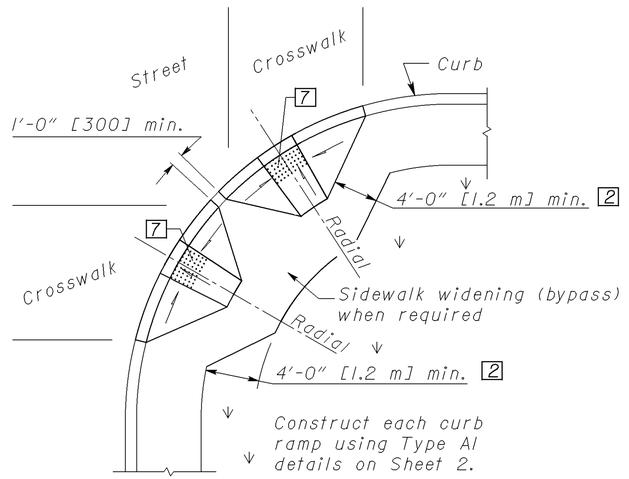
JOINTS: *Provide expansion joints in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. Provide a 1/2" [13] Item 705.03 expansion joint filler around the edge of ramps built in existing concrete walks. Lines shown on this drawing indicate the ramp edges and slope changes, and do not necessarily indicate joint lines.*

PAYMENT: *Measure Walk and Curb, Items 608 and 609, through the curb ramp area paid for under their respective Items. Removal of existing curb, walk (or existing curb ramps) are paid under Item 202.*

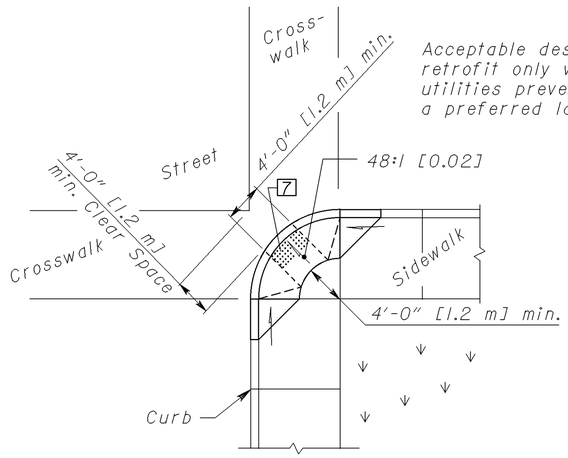
New curb ramps constructed in curb and walks are paid for under ***Item 608 - Curb Ramp, Type ____ (A1, A2, B1, B2, C1, or C2), Each*** *and includes the cost of any additional materials and installation (including truncated domes), grading, forming and finishing. Curb ramps constructed in existing curb and walk are paid under* ***Item 608 - Curb Ramp, Type____ (A1, A2, B1, B2, C1, C2, or D) Square Foot [Meter],*** *includes the cost of furnishing and installing all materials, (including truncated domes), grading, forming, and finishing of the curb and walk of the curb ramp.*

For LEGEND, See Sheet 2.

Acceptable design on corners with wide turning radius where user is able to manuever within crosswalk limits so as not to encroach into adjacent vehicle lanes.



PERPENDICULAR RAMPS



Use this design only for existing walks, and when site constraints prohibit other designs. The diagonal Type D ramp may be constructed as either a Perpendicular, Parallel or Combination curb ramp type. Avoid using where curb radii are less than 20'-0" [6.0 m]. Since these are unique designs, each occurance should be individually detailed on the project plans.

DIAGONAL RAMP (Type D)

ACCEPTABLE CONSTRUCTION PLACEMENT

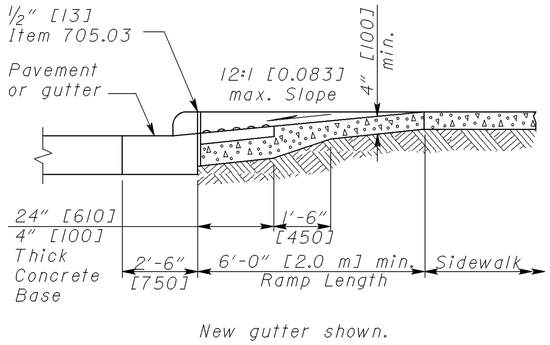
THIS DRAWING REPLACES BP-7.1 DATED 7-28-00.

CURB RAMPS WITH TRUNCATED DOMES

01-19-07

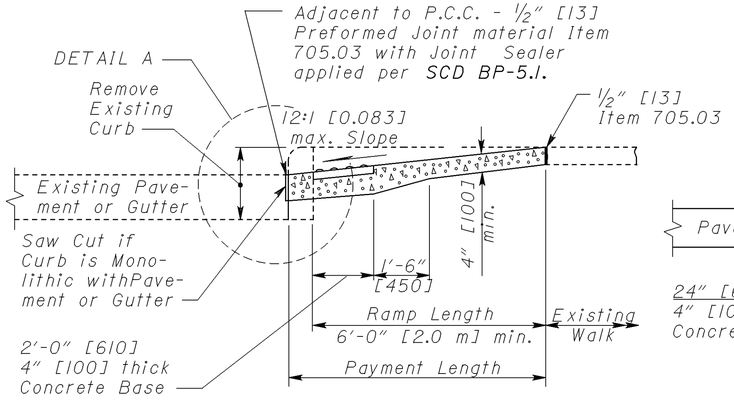
MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:07 AM
Filename: G:\C004\0066\Road\Sheets\23828p101.dgn

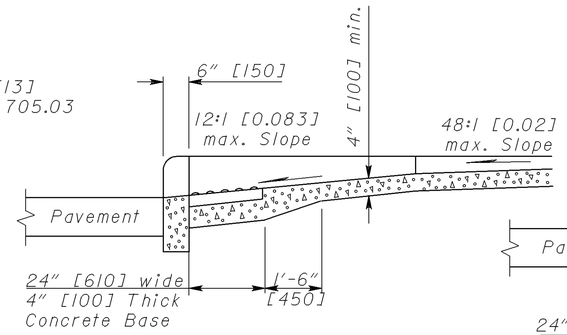


New gutter shown.

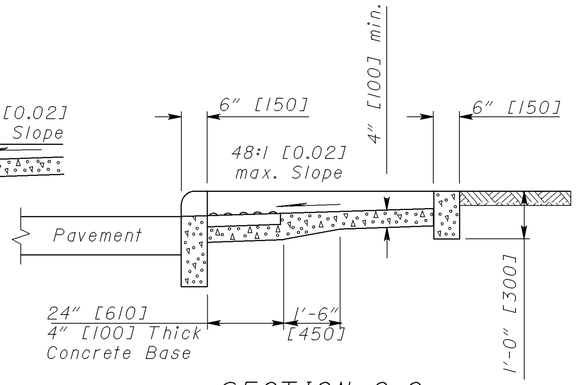
SECTION A-A
NORMAL DETAIL
See Sheet 2.



SECTION A-A
EXISTING WALK DETAIL
See Sheet 2.



SECTION B-B
See Sheet 2.



SECTION C-C
See Sheet 2.

DETECTABLE WARNINGS NOTES

PLACEMENT: Truncated domes are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or at blended curbs. A 24" [610] strip of domes is to be installed for the full width of the ramp. Typical street corner placement locations are shown on Sheet 1.

Ramp cross sections underneath truncated domes are a 4" [100] thick concrete base. Ramp cross sectional details shown here depict nominal 2" [50] thick pavers. Increase base thickness to maintain the 4" [50] thickness if using deeper pavers. Do not decrease thickness for thinner products. See DETAIL A.

ALIGNMENT: Truncated domes should be aligned with the primary direction of pedestrian travel as shown on the DOME ALIGNMENT Detail. Normally the domes should be flush with the back of the curb, but in skewed conditions can be up to 6" [150] to 8" [200] behind the curb, as shown on the DOME ALIGNMENT ON RADIUSED CURB Detail. For non-standard layouts, dome materials may have to be mitered and placed segmentally (see TREATMENT AT BLENDED CURBS Detail on SCD BP-7.2).

VISUAL CONTRAST: Color of the truncated domes should contrast with surrounding concrete walk and ramp. Use of a red blend is recommended for concrete curb ramps. Black is not an acceptable color.

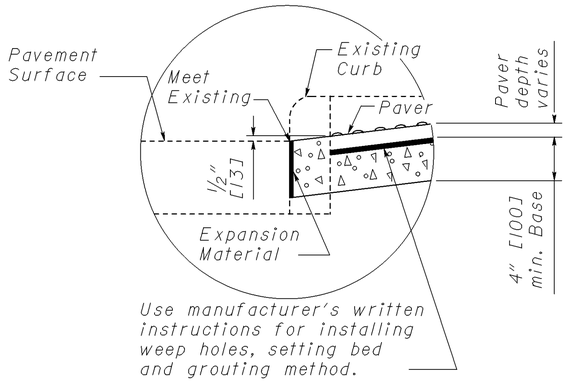
PRODUCTS: Approved products include clay and concrete pavers, cast iron, and cast-in-place engineered plastics and a listing of them may be found on the Office of Roadway Engineering Service's Truncated Domes Approved List (at www.dot.state.oh.us/roadwayengineering/index.asp). Install products as per manufacturer's printed instructions, with added instructions for pavers shown below.

If using pavers, setting bed and joints to be grouted in accordance with manufacturer's written instructions and provide written copies to the Engineer. If the installation method requires a grout bed, bonding group or other cementatious materials, provide documentation that the materials have freeze thaw resistance equal to the pavers.

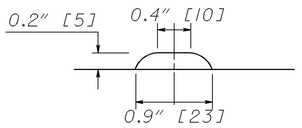
Mortared joints are to be flush with top surface and struck so as to give a smooth surface. Pavers shall be laid such that joints are level with adjoining joints to provide a smooth transition from brick to brick and brick to concrete surface.

The width of paver joints are to be between 5/32" [4] and 1/16" [1.5]. Pavers should not directly touch each other unless they have spacing bars.

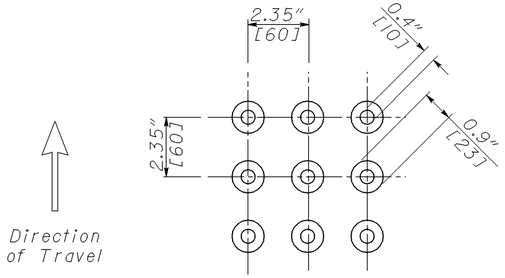
The surface of any two adjacent units should not differ by more than 1/8" [3] in height. Place pavers in a running bond pattern. Face of all pavers are to be clean of cement and protected to avoid chipping during installation.



DETAIL A

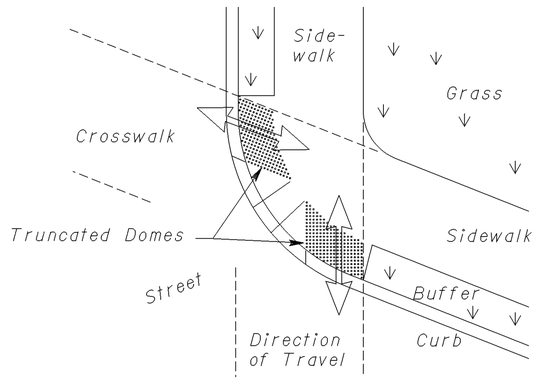


HEIGHT AND DIAMETER



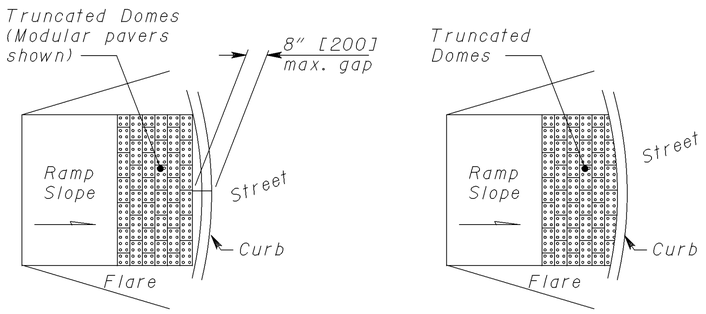
SQUARE PATTERN, PARALLEL ALIGNMENT

TRUNCATED DOMES DETAILS



Orient In-line domes alignment
with primary direction of travel.

DOME ALIGNMENT



PREFERRED METHOD

ALTERNATE METHOD

Use Preferred Method for aligning truncated domes unless curb curvature would produce gap more than 8" [200] from front of curb to the domes. If gap will be greater than 8" [200] miter truncated dome product to match the back of the curb as shown in the Alternate Method. NOTE: Some approved Truncated Domes products are easier to miter than others.

DOME ALIGNMENT ON RADIUSED CURB

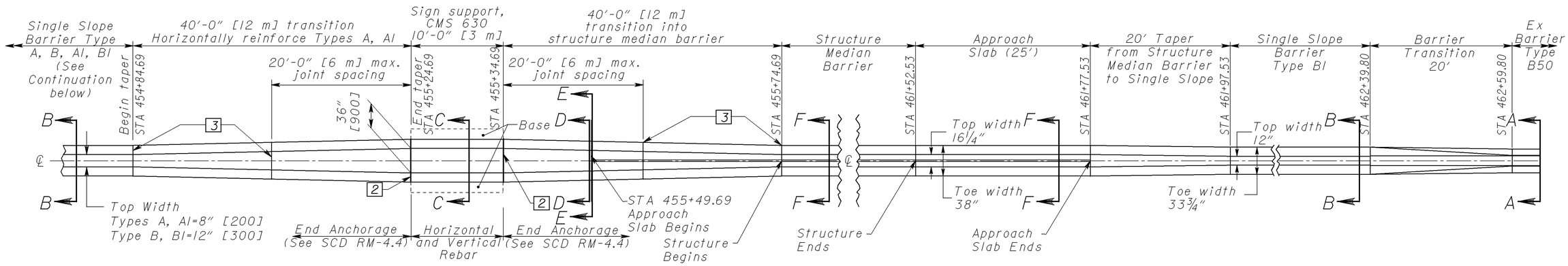
Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:08 AM
Filename: G:\C004\0066\Road\Sheets\23828p101.dgn

THIS DRAWING REPLACES BP-7.1 DATED 7-28-00.

CURB RAMPS WITH TRUNCATED DOMES

01-19-07

MOT-75-14.60



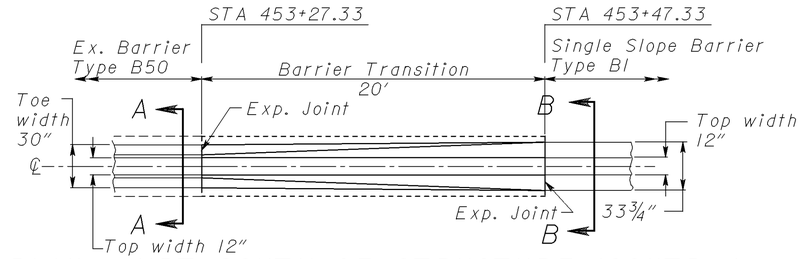
PLAN - SIGN SUPPORT TRANSITION, SOUTH OF STRUCTURE

PLAN - MEDIAN BARRIER TRANSITIONS NORTH OF STRUCTURE

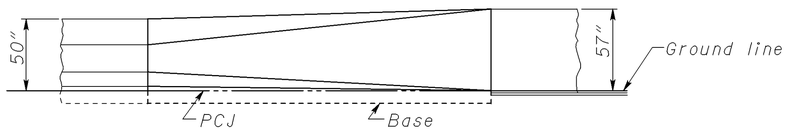
LEGEND

2 Expansion joint, ?" [19] min. Preformed Filler, CMS 705.03 (SCD RM-4.4).

3 Contraction joint (SCD RM-4.4).



PLAN - MBT SOUTH OF STRUCTURE (CONTD...)

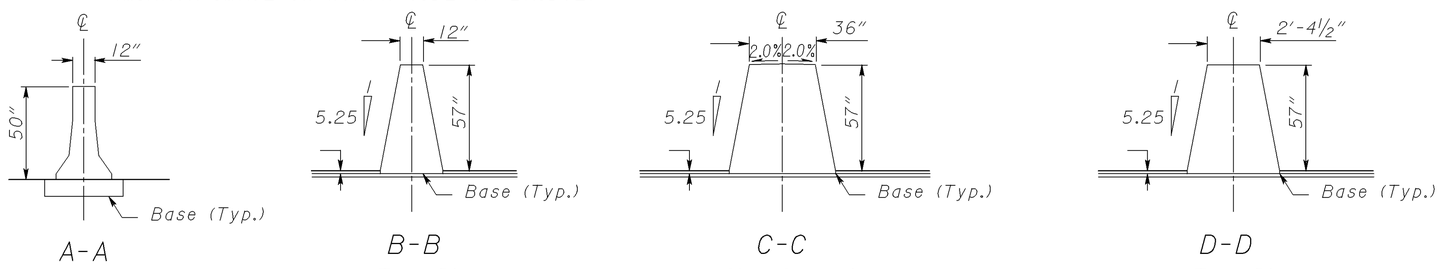


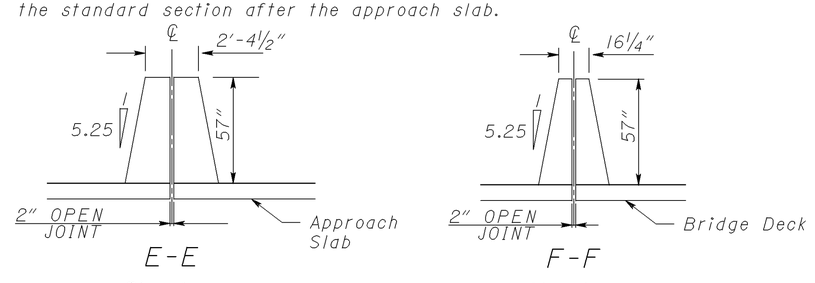
Existing NJ Shape Type BI to Single Slope Type BI Connection

1.5" Surface Course — 1.5" Surface Course — 1.5" Surface Course

ELEVATION

(MIRROR IMAGE ON NORTH SIDE OF BRIDGE)





BARRIER TRANSITION STATIONS:

SECTION AA TO SECTION BB
STA. 453+27.33 TO STA. 453+47.33

SECTION BB TO SECTION CC
STA. 454+84.69 TO STA. 455+24.69

SECTION CC TO SECTION DD
STA. 455+34.69 TO STA. 455+49.69

SECTION DD TO SECTION EE
STA. 455+49.69

SECTION EE TO SECTION FF
STA. 455+49.69 TO STA. 455+74.69

SECTION FF TO SECTION BB
STA. 461+77.53 TO STA. 461+97.53
(NORTH SIDE OF BRIDGE)

SECTION BB TO SECTION AA
STA. 462+39.80 TO STA. 462+59.80
(NORTH SIDE OF BRIDGE)

NOTES

ADJACENT CONCRETE BARRIER RUNS: Remove any tapered end sections, Impact attenuators, or other guardrail hardware from existing barrier end.

The barrier to barrier transition is not intended to be used at transition sections (those shown on **SCD RM-4.4**), Inlets, or on Type C or CI Barrier.

Terminate the adjacent single slope end with a reinforced End Anchor as detailed on the SCD's.

BARRIER FACE TRANSITION: To prevent vehicle snagging, a smooth transition from the safety shape face to the single slope face is made over a 20' [6 m] length. The actual shape of the Transition is dependent on both the adjacent NJ barrier and the single slope barrier Types, as detailed on the plans. The contractor and Engineer will agree on a construction method to ensure a smooth barrier face.

MATERIALS: Materials are same for those shown on **RM-4.3** and **RM-4.5**, except that cast-in-place is the only acceptable method. Edges may be chamfered or radiused as shown on those drawings.

CONCRETE BASE: Construct base as shown on the NJ shape insert sheets, including the methods detailing the footing joint, Permissible Construction Joint (PCJ), and Dowelling requirements. The width of the base matches the existing NJ barrier.

JOINTS: Construct joints as shown on respective barrier drawings.

PAYMENT: This Barrier to Barrier Transition shall include all material and labor needed to construct this 20' transition section, including any raceways, reinforcing steel, dowels and other necessary incidentals. Payment shall be made at the unit price for **Item 622 - Barrier Transition, Each.**

MEDIAN ON APPROACH SLABS: The shape of the median on approach slabs shall be the same as the shape of the median on the structure. The shape of the median on the approach slab shall be transitioned to the standard section after the approach slab.

CALCULATED MPD CHECKED AM

MEDIAN BARRIER TRANSITION DETAILS

MOT-75-14.60

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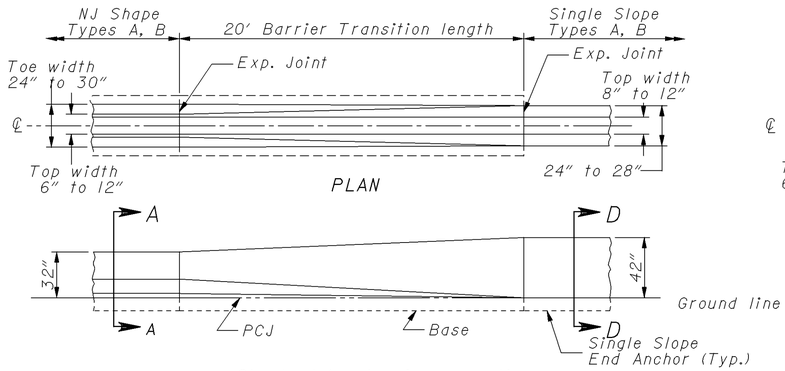
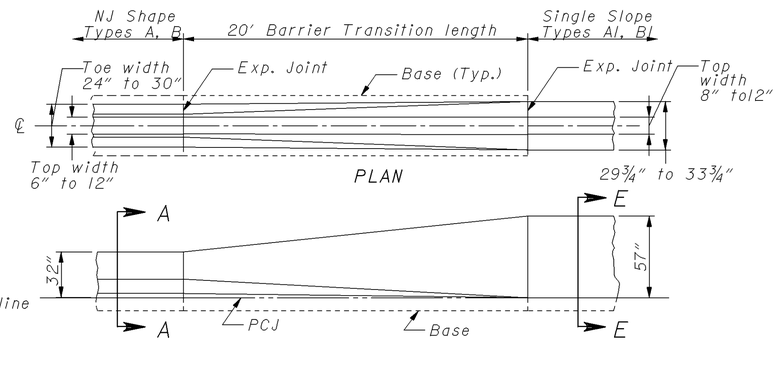


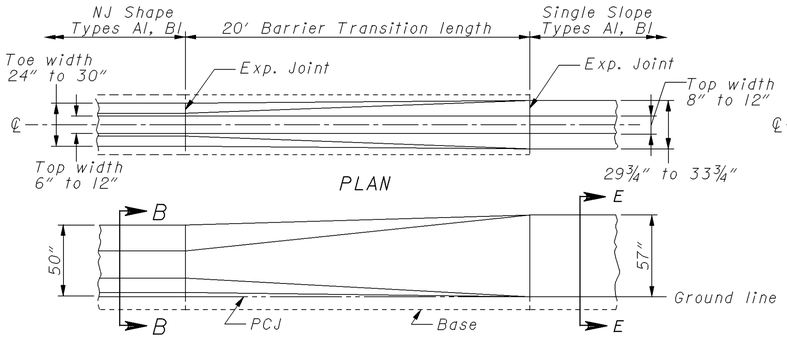
Standard low barrier connection

ELEVATION



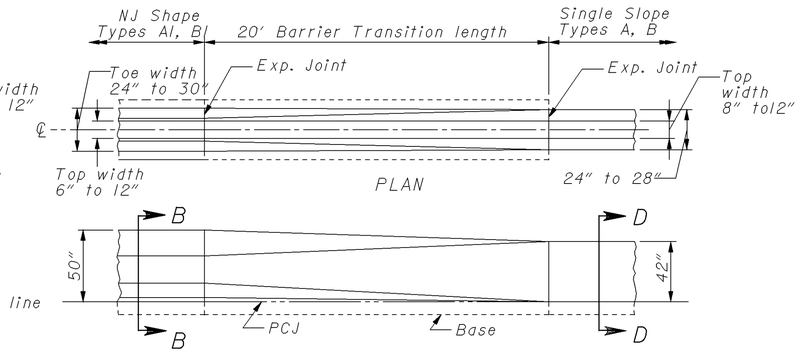
Atypical use

ELEVATION



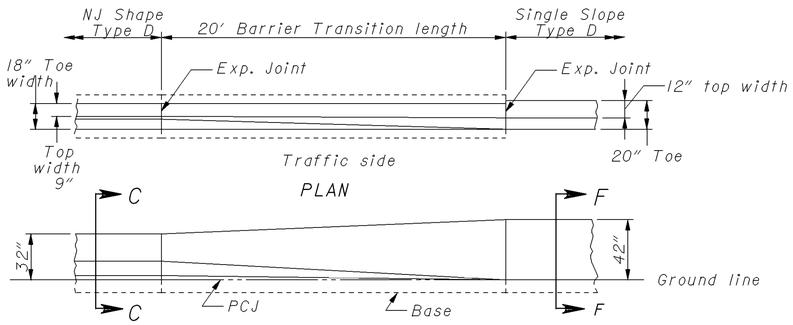
Standard tall barrier connection

ELEVATION



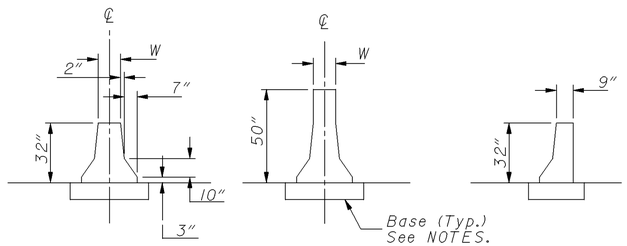
Atypical use

ELEVATION



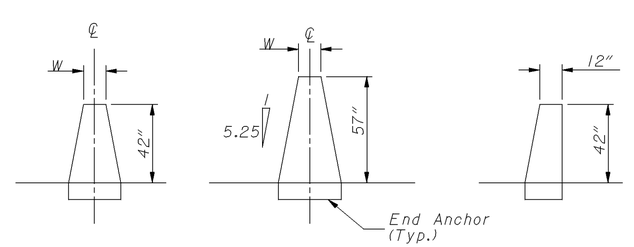
Standard Roadside barrier connection

ELEVATION



NJ SHAPE SECTIONS

See Plan Insert sheets for specific NJ Shape Concrete barrier details.



SINGLE SLOPE SECTIONS

See SCD RM-4.3 and RM-4.5 for specific Single Slope concrete barrier details.

NOTES

GENERAL: This insert details the Barrier Transition, to connect existing NJ Concrete Barrier (safety shape) to a new run of Single Slope Concrete Barrier at locations shown on the plans. For NJ barrier shape and other details see the respective plan insert sheets. For Single Slope barrier details, see SCD RM-4.3 (RM-4.5 for Type D).

ADJACENT CONCRETE BARRIER RUNS: Remove any tapered end sections, Impact attenuators, or other guardrail hardware from existing barrier end. The barrier to barrier transition is not intended to be used at transition sections (those shown on SCD RM-4.4), Inlets, or on Type C or C1 Barrier. If proposed adjacent single slope barrier is Type A or A1, the Barrier Transiton should contain horizontal reinforcing steel similiar to that required in the respective single slope barrier. Reinforcement is not shown and should be detailed separately. The adjacent single slope end should be terminated with a reinforced End Anchor as detailed on the SCDs.

BARRIER FACE TRANSITION: To prevent vehicle snagging, a smooth transition from the safety shape face to the single slope face is made over a 20' length. The actual shape of the Transition is dependent on both the adjacent NJ barrier and the single slope barrier Types, as detailed on the plans. The contractor and Engineer will agree on a construction method to ensure a smooth barrier face.

MATERIALS: Materials are same for those shown on RM-4.3 and RM-4.5, except that cast-in-place is the only acceptable method. Edges may be chamfered or radiused as shown on those drawings.

CONCRETE BASE: Construct base as shown on the NJ shape insert sheets, including the methods detailing the footing joint, Permissible Construction Joint (PCJ), and Dowelling requirements. The width of the base matches the existing NJ barrier.

JOINTS: Construct joints as shown on respective barrier drawings.

RACEWAYS: When specified, place raceway(s) to match raceway elevation in adjoining segments. Place to obtain maximum concrete cover.

METRIC UNITS: Refer to respective barrier drawings or inserts for metric dimensions.

PAYMENT: This Barrier Transiton shall include all material and labor needed to construct this 20' section, including any raceways, reinforcing steel, dowels and other necessary incidentals. Payment shall be made at the unit price for Item 622 - Barrier Transition, Each.

CALCULATED MPD CHECKED AM

NJ SHAPE TO SINGLE BARRIER TRANSITION

MOT-75-14.60

172A
314

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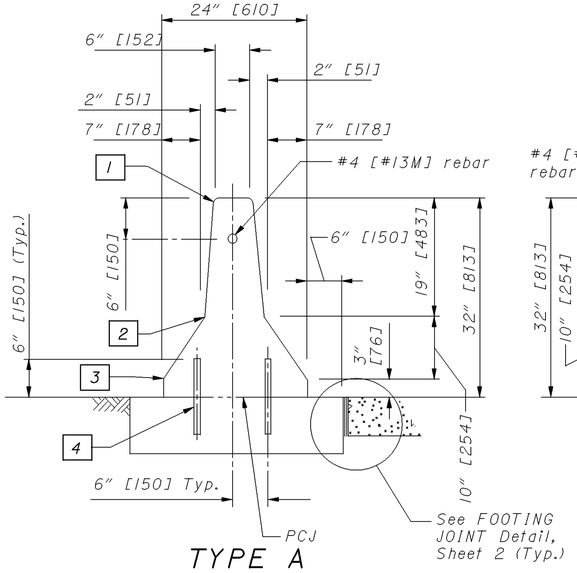
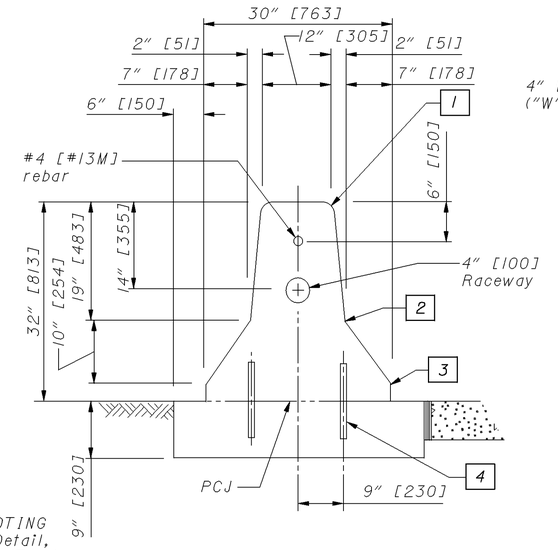
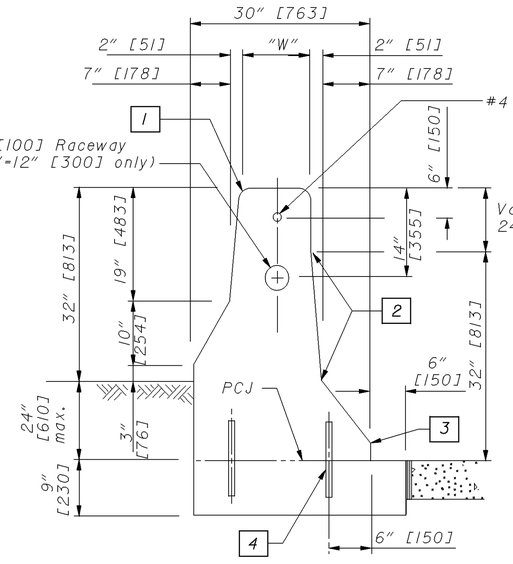


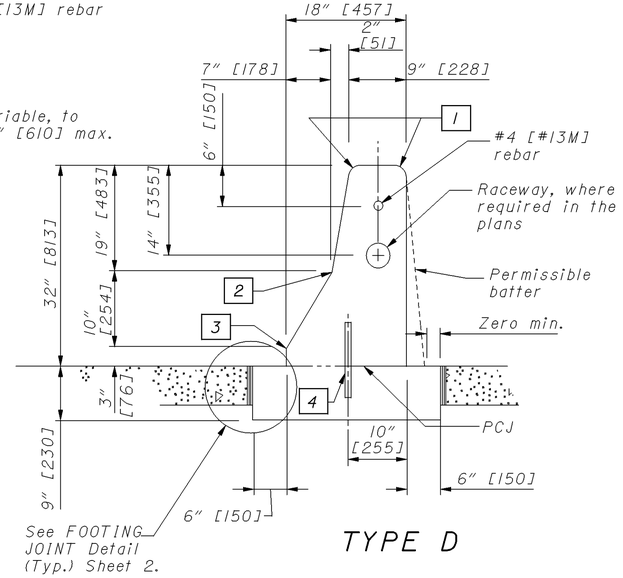
TYPE A



TYPE B



TYPE C

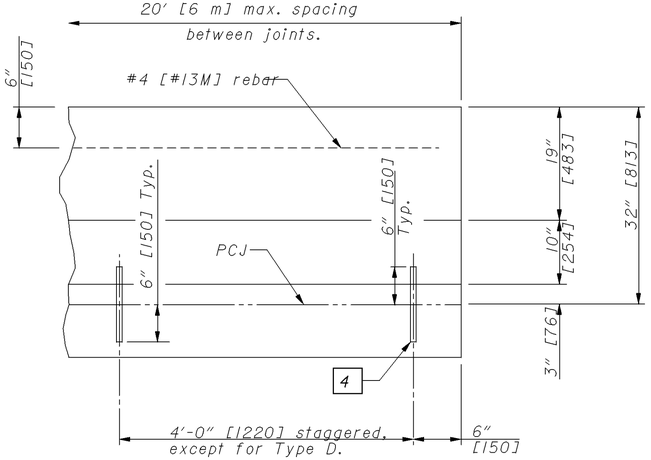


TYPE D

NORMAL 32 INCH SECTIONS

"W" = 6" [152] or 12" [305] barrier width, as specified in the plans.

All metric dimensions (in brackets []) are in millimeters unless otherwise noted.



32" [813-mm] BARRIER

BARRIER ELEVATION

NOTES

JOINTS: Unsealed contraction joints spaced at 20' [6 m] maximum shall be constructed throughout the run of Concrete Barrier except that expansion joints shall be used at the center line of and around each bridge pier column and on either side of overhead sign supports, inlets and light pole foundations. If the inlet top is slip formed, the expansion joints adjacent to it may be omitted.

Contraction joints may be constructed with metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled joints, and sawed joints shall have a 3" [75] minimum depth. All joints shall be constructed for the full height of the barrier including the footing. Sawing shall be done as soon as curing will allow, to prevent spalling.

FOOTING JOINTS: The vertical walls between the barrier footing and a concrete pavement or concrete base shall be provided with a sealed joint as shown on Sheet 2. Sealing material shall conform to CMS 705.04.

PCJ = Permissible Construction Joint

MEASUREMENT: Item 622, Concrete Barrier, including transitions and pier sections as detailed on the New Jersey Shape Barrier Transition drawing, is paid for in linear feet [meters] as one of the four types (A, B, C or D) or as Type A1 and B1, (for 50" [1270] high barrier), with appropriate deductions for other items such as:

Item 604 - I-3 Median Inlet	20 Lin Ft. [6 Meters].
Item 625 - Light Pole Foundation or Pullbox	2.5 Lin. Ft. [1 Meter].
Item 630 - Overhead Sign Support Foundation	10 Lin. Ft. [3 Meters].
Item 630 - Barrier Wall Assembly	10 Lin. Ft. [3 Meters].

TRANSITIONS: Linear transitions between the different types of barrier detailed on this Standard Drawing shall occur between contraction joints spaced no closer than 10' [3 m].

RACEWAY: The contractor shall ensure that the electrical raceway is clear of internal obstructions. Cost of the 4" [100] polyvinyl chloride raceway and No. 10 AWG copper-clad or aluminum-clad wire if needed for future installation of circuits shall be included in the unit cost per Linear Foot [Meter] for Item 622 - Concrete Barrier, Type ____ .

STATION MARKING: The Station marking shall be impressed in the "green" concrete on both sides at the top of the barrier if specified in the plans. The cost shall be incidental to the unit cost per Linear Foot [Meter] bid for Item 622 - Concrete Barrier, Type ____ .

REFLECTORIZATION: Barrier reflectorization shall be installed in accordance with CMS 626.

LEGEND

1. 1" [25] radius or ¾" [19] chamfer.
2. Permissible 10" [250] radius.
3. Permissible 1" [25] radius.
4. #8 [#25M] epoxy coated Deformed Steel Bars, 1'-0" [305] long, spaced 4'-0" [1220] between successive Bars on a staggered pattern except in Type D. Omit Dowels when the top is constructed integrally with the Base.

10-20-06

NEW JERSEY SHAPE BARRIER (Sheet 1 of 2)

MOT-75-14.60

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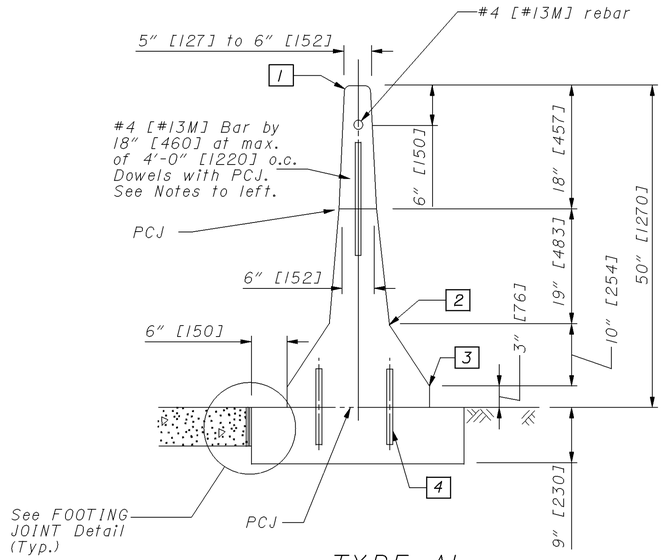
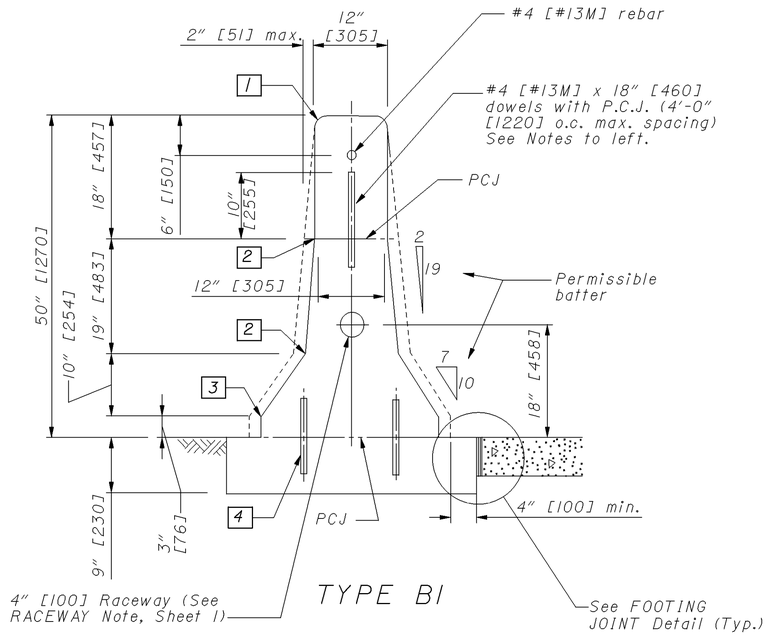


TYPE AI

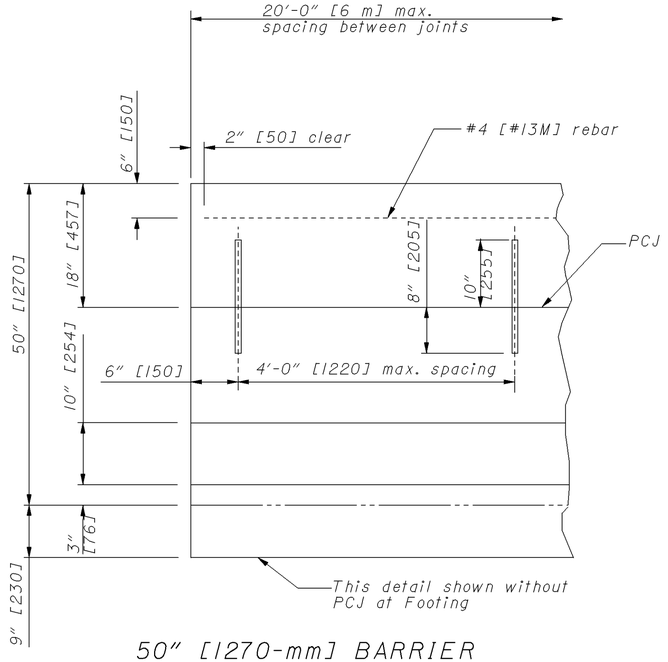


TYPE BI

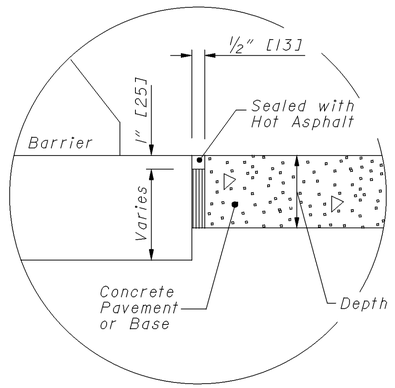
50" [1270-mm] BARRIERS - TYPICAL SECTIONS

See Type A and Type B Normal Section Details (Sheet 1) for dimensions that are not shown.

All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.



50" [1270-mm] BARRIER
BARRIER ELEVATION



FOOTING JOINT DETAIL
See FOOTING NOTE on Sheet 1.

NOTES

50" [1270-mm] BARRIER: High barrier shall be built in locations specified in the plans. Construct the lower 32" [813] of the barrier base using the same dimensions as as shown in the corresponding Normal Section on Sheet 1. The upper 18" [457] may be constructed integrally with the bottom, or separately with #4 [#13M] rebar dowels at 4'-0" [1220] maximum spacing.

Start and end dowels 6" [150] from barrier contraction joints.

LEGEND

1. 1" [25] radius or 3/4" [19] chamfer.
2. Permissible 10" [250] radius.
3. Permissible 1" [25] radius.
4. #8 [#25M] epoxy coated deformed Steel Bars, 1'-0" [305] long, spaced 4'-0" [1220] between successive Bars on a staggered pattern except in Type D. Omit Dowels when the top is constructed integrally with the Base.

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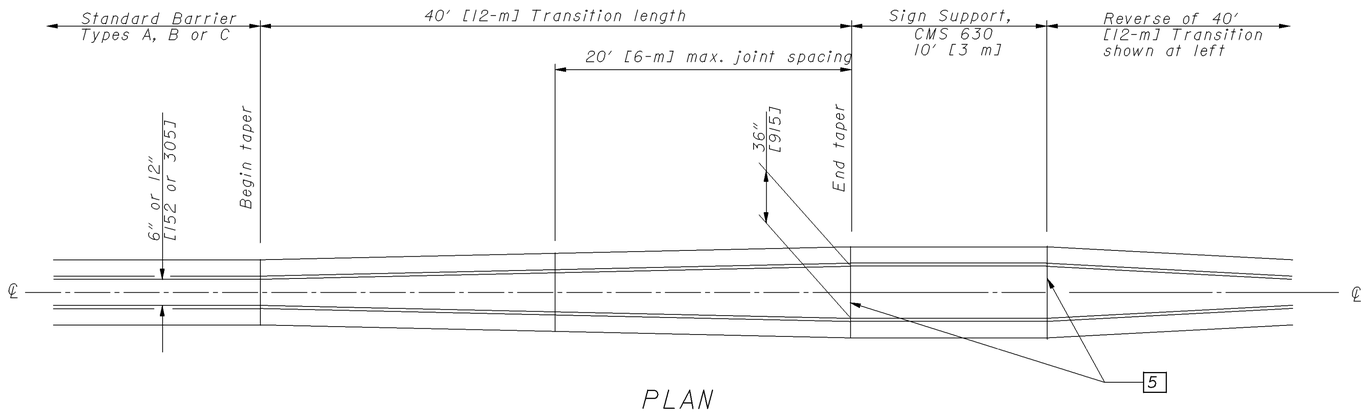
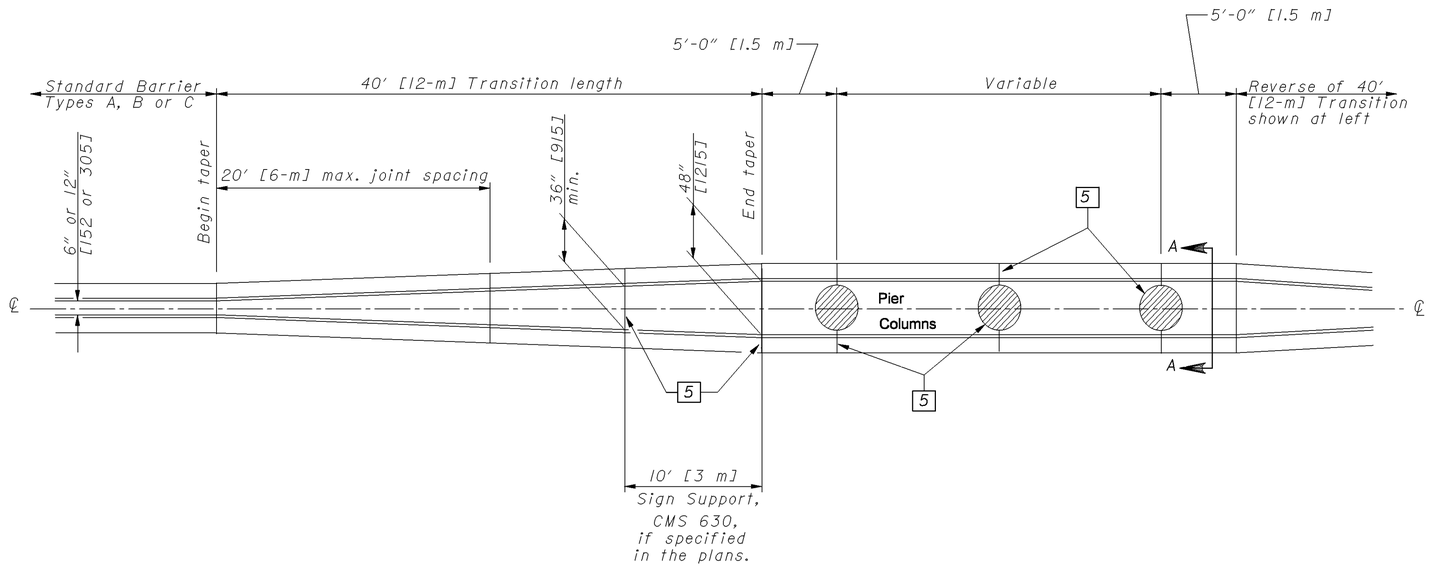


PLAN

SIGN SUPPORT TRANSITION

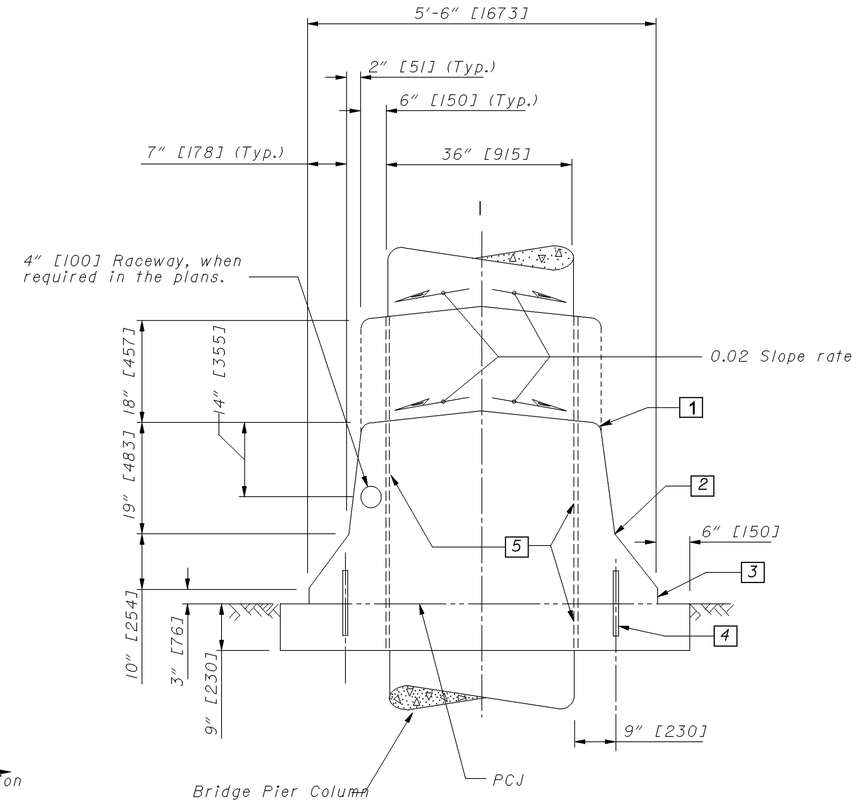
(For 50″ [1270] Barriers, the upper 18″ [457] varies from 6″ or 12″ [152 or 305] to 36″ [915] in width.)



PLAN

BRIDGE PIER TRANSITION

(With Sign Support)



SECTION A-A

All metric dimensions (in brackets []) are in millimeters unless otherwise noted.

NOTES

STANDARD BARRIERS: Types A, B, and C Concrete Barriers shall be constructed as shown on the New Jersey Shape Barrier insert or as detailed in the plans.

LEGEND

1. 1″ [25] radius or ¾″ [19] chamfer.
2. Permissible 10″ [250] radius.
3. Permissible 1″ [25] radius.
4. #8 [#25M] epoxy coated deformed Steel Bars, 12″ [300] long, spaced 2′ [600] between successive Bars on a staggered pattern. Dowel Bars shall begin 4′ [1220] from the leading edge of the End Terminal. Omit Dowels when the top is constructed integrally with the Base.
5. Expansion Joint, ¾″ [19] min. Preformed Filler, CMS 705.03.

10-20-06

NEW JERSEY SHAPE BARRIER TRANSITIONS

MOT-75-14.60

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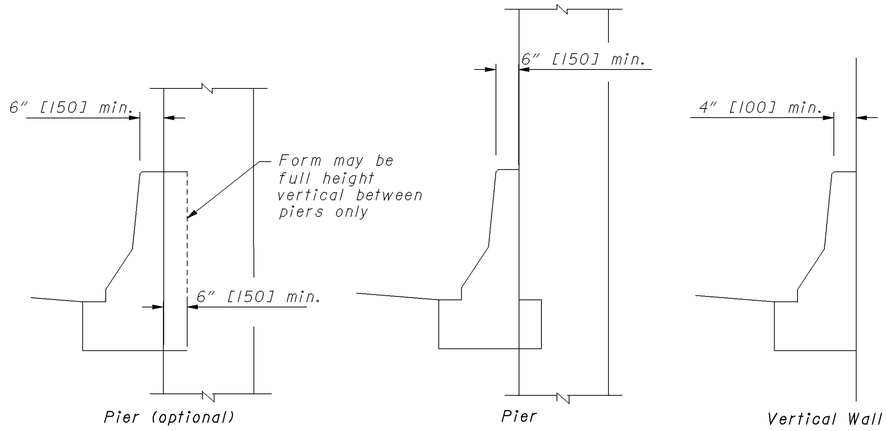
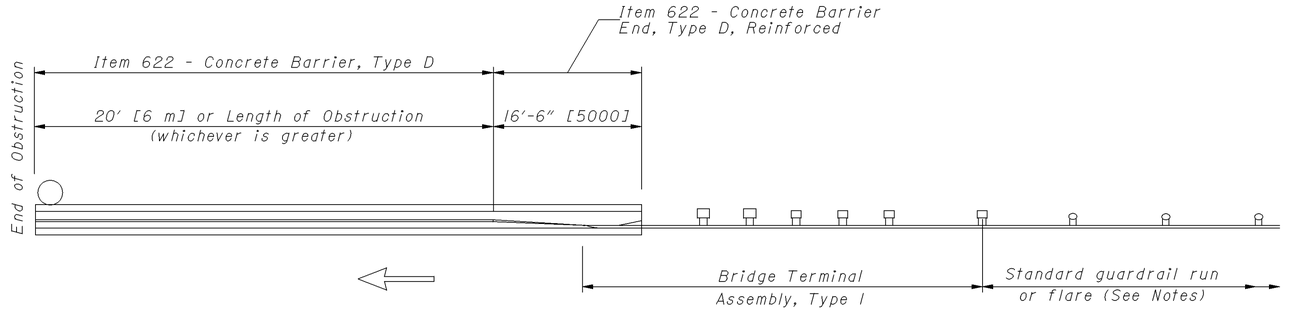
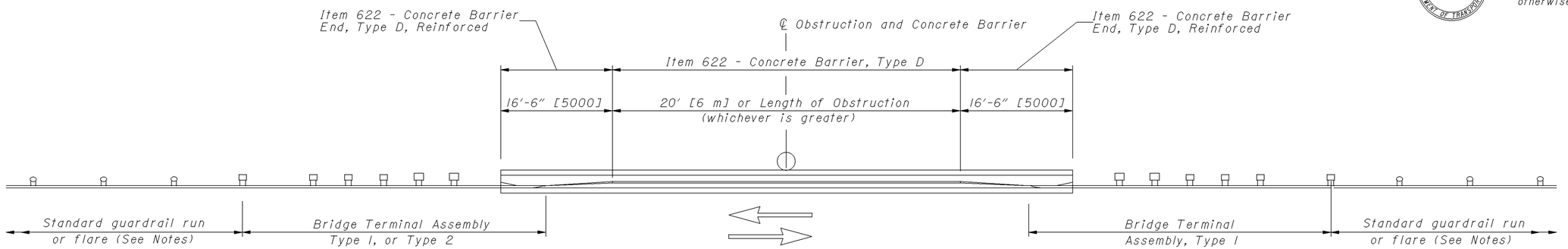


INCORPORATED INSTALLATIONS



DIRECTIONAL TRAVEL WHERE NO TRAILING GUARDRAIL IS USED.



BI-DIRECTIONAL TRAVEL OR UNI-DIRECTIONAL TRAVEL WHERE TRAILING GUARDRAIL IS USED.

TYPICAL INSTALLATIONS

NOTES

LOCATION: Concrete barrier at obstructions shall be constructed with the toe of the barrier slope at the normal guardrail offset from the roadway. Installations within continuous runs shall be constructed so that no approach or trailing guardrail tapers are required to connect to the barrier.

TYPE D BARRIER: See the New Jersey Shape Barrier insert for Type D Concrete Barrier details.

REINFORCING: All reinforcing bars shall be epoxy coated and shall meet the requirements of CMS 509.

INCORPORATED INSTALLATIONS: For barrier installations that cannot be constructed at the normal guardrail offset, the incorporated installations shown may be installed at vertical walls, piers or other similar obstructions. For pier-incorporated installations the contractor may use the optional treatment, forming the back face of the Type D Concrete Barrier to the location shown (between piers only), with any additional cost being included in the cost of Item 622.

GUARDRAIL: For Types 1 and 2 Bridge Terminal Assemblies and their connections to barrier, see SCD GR-3.1 and GR-3.2, respectively.

For uni-directional roadways where trailing guardrail is used and is located beyond the Clear Zone of opposite direction traffic, use Type 2 Bridge Terminal Assembly.

Barrier installations that cannot be constructed at the normal guardrail offset and are to be connected to approach or trailing guardrail runs shall have a 25:1 guardrail taper to meet the existing or normal guardrail offset. Installations that are not to be connected to approach or trailing guardrail runs shall include the standard guardrail flare as shown on SCD GR-5.1.

PAYMENT: Payment for Item 622, Concrete Barrier, Type D shall include all materials, labor and reinforcing steel required to construct the barrier as shown.

All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.

10-20-06

NJ SHAPE BARRIER AT OBSTRUCTIONS (Sht. 1/2)

MOT-75-14.60

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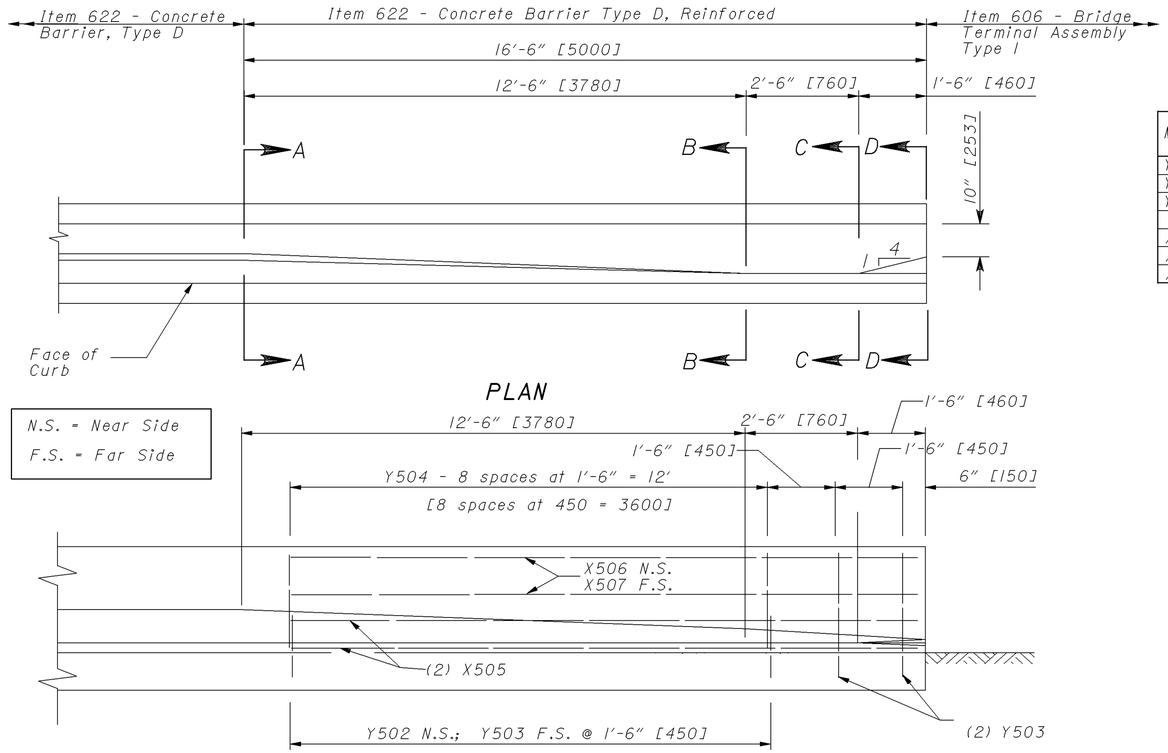


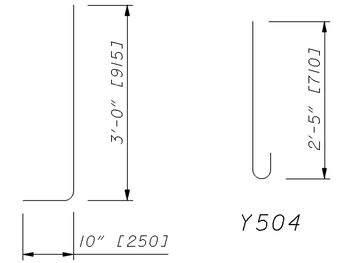
ELEVATION

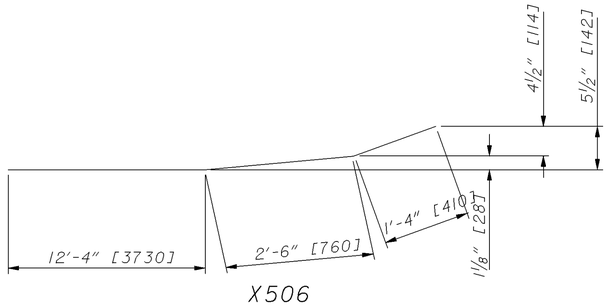
TYPE D REINFORCED BARRIER END SECTION

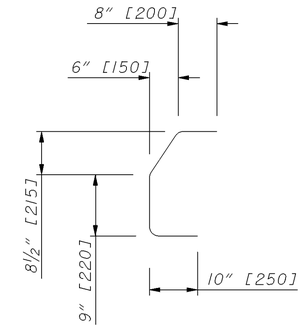
See Sheet 1 for Notes

REINFORCING BAR LIST

MARK	SIZE	LENGTH	SHAPE	NO.	WEIGHT [MASS] (lb)	(kg)
Y502	#5 [#16M]	2'-10" [850]	Bent	9	26.6	[12]
Y503	#5 [#16M]	3'-9" [1140]	Bent	13	50.8	[23]
Y504	#5 [#16M]	3'-0" [915]	Bent	9	28.2	[13]
X505	#5 [#16M]	16'-2" [4900]	Straight	4	67.5	[31]
X506	#5 [#16M]	16'-2" [4900]	Bent	2	33.7	[15]
X507	#5 [#16M]	16'-2" [4900]	Straight	2	33.7	[15]
		TOTAL (for info. only):			240	[109]

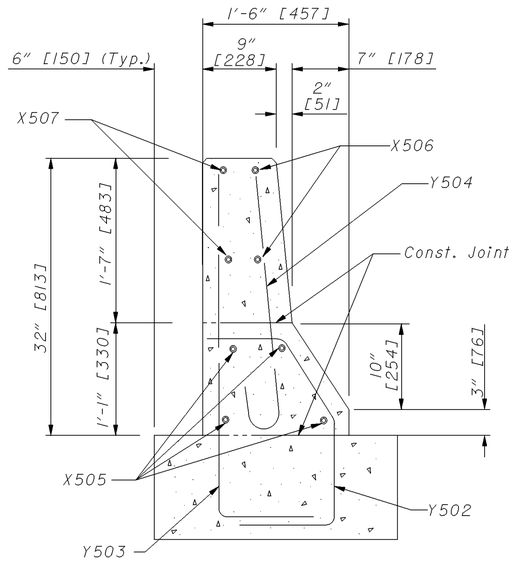




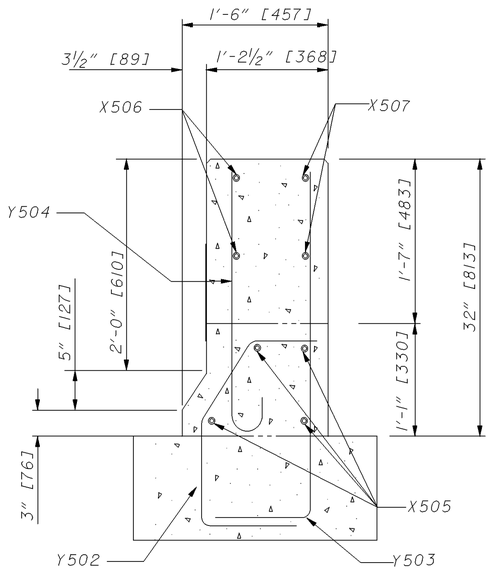


BENDING DIAGRAMS

All metric dimensions (in brackets []) are in millimeters unless otherwise noted.



SECTION A-A



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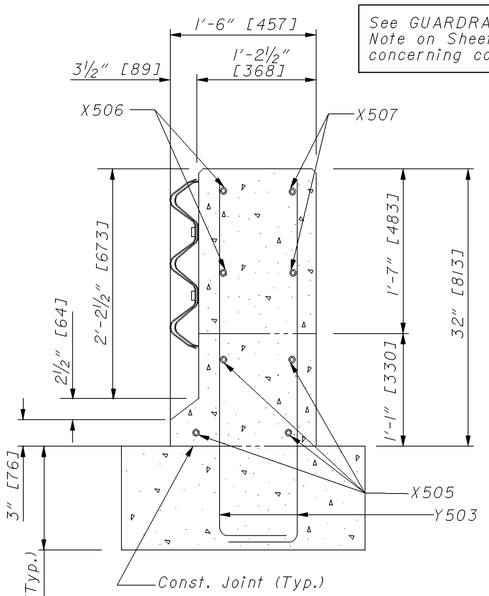

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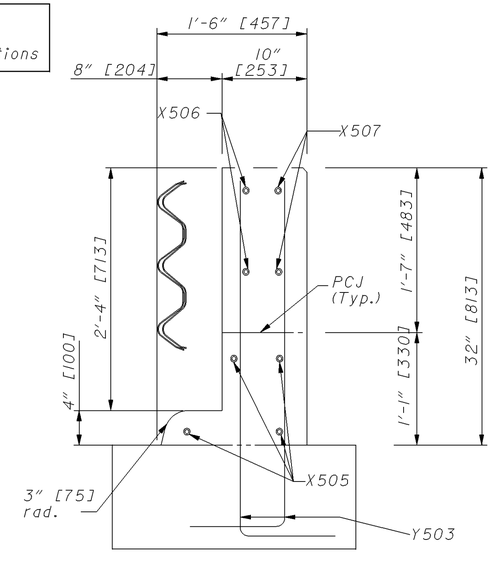

SECTION D-D

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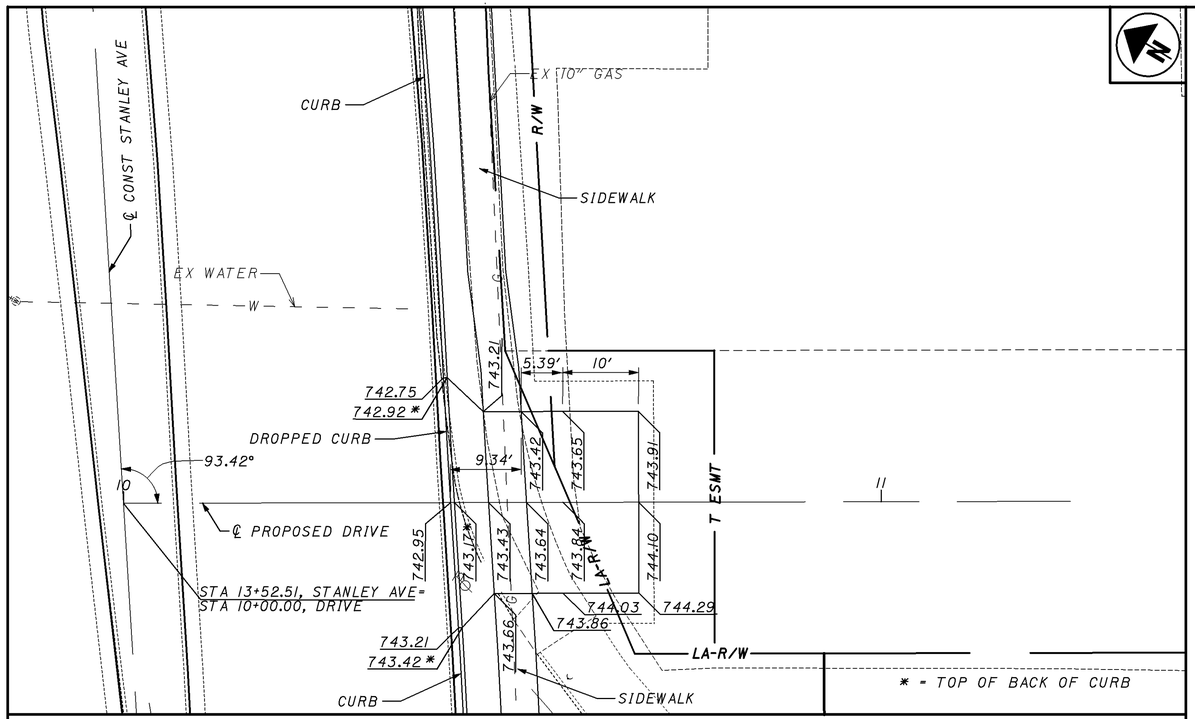
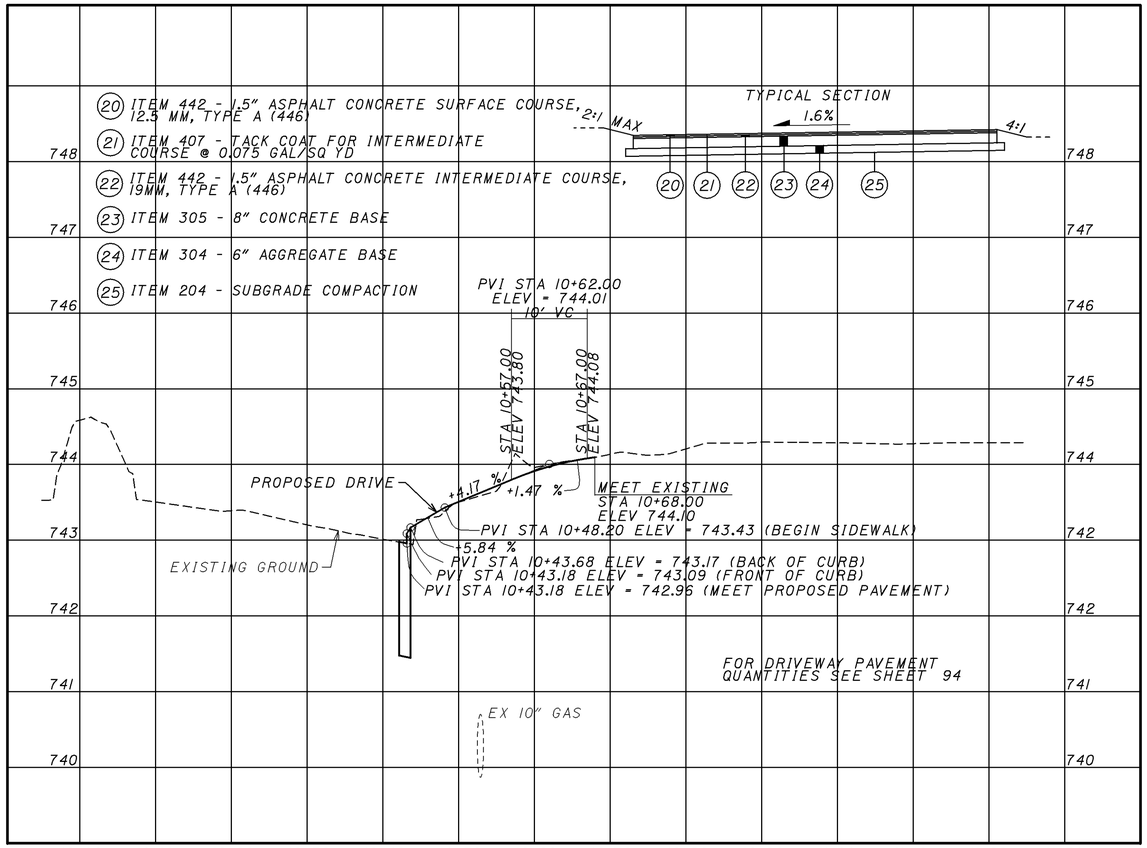
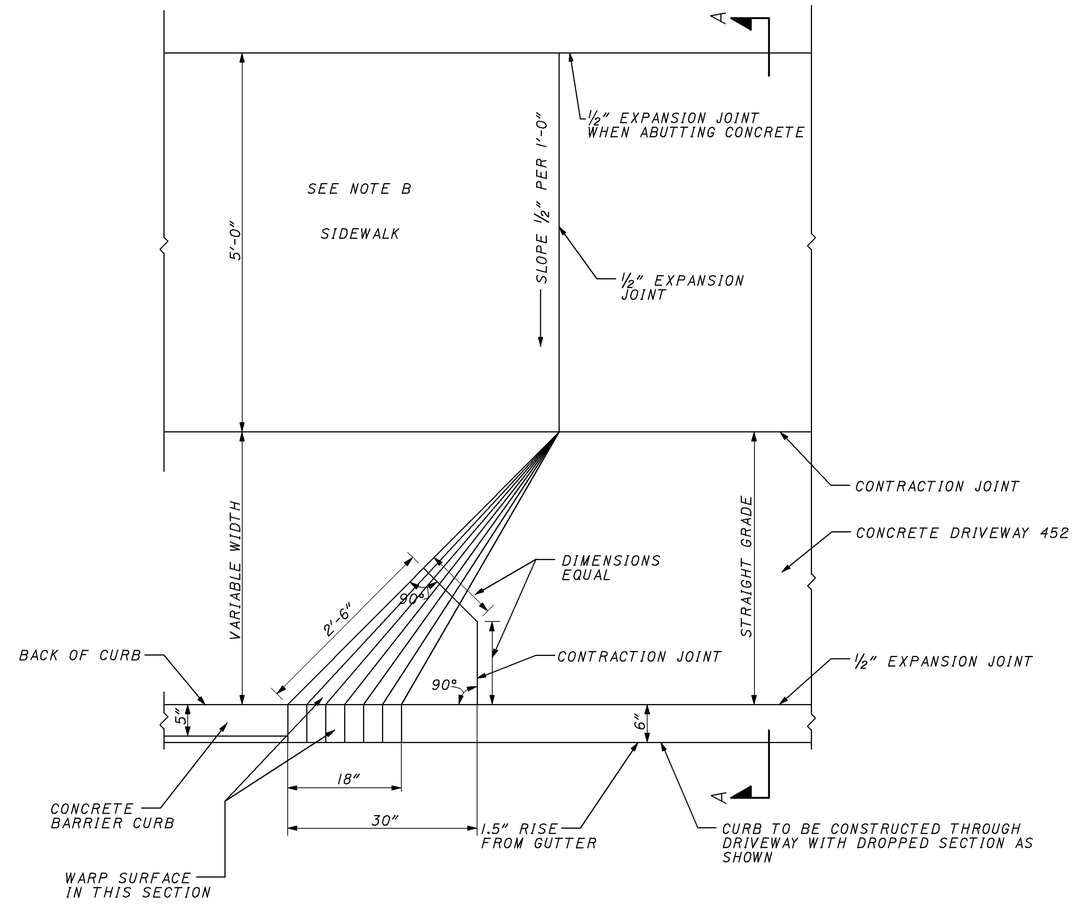
10-20-06

MOT-75-14.60 NJ SHAPE BARRIER AT OBSTRUCTIONS (Sht. 2/2)



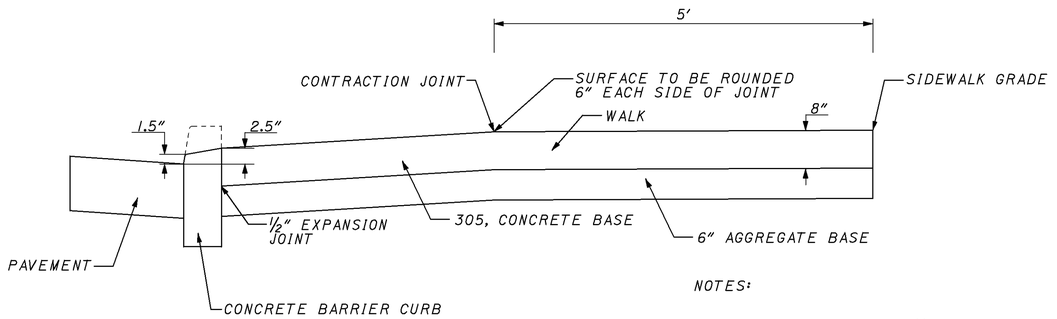




PLAN

CONSTRUCTION FOR DRIVEWAY WITH CURB

(NOT TO SCALE)



SECTION A-A

(NOT TO SCALE)

NOTES:

A) WARP SIDEWALK FROM ¼" PER 1' SLOPE TO ½" PER 1' SLOPE AT DRIVEWAY. THIS WARPING IS TO BE DONE WITHIN 5 TO 10 FEET OF THE DRIVEWAY EDGES.

B) DRIVEWAYS SHALL HAVE A CONTRACTION JOINT CONSTRUCTED IN THE CENTER FOR THE FULL LENGTH OF THE DRIVEWAY

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED MPD
CHECKED AM

SIMCLAR DRIVE DETAIL

MOT-75-14.60

178
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:10 AM
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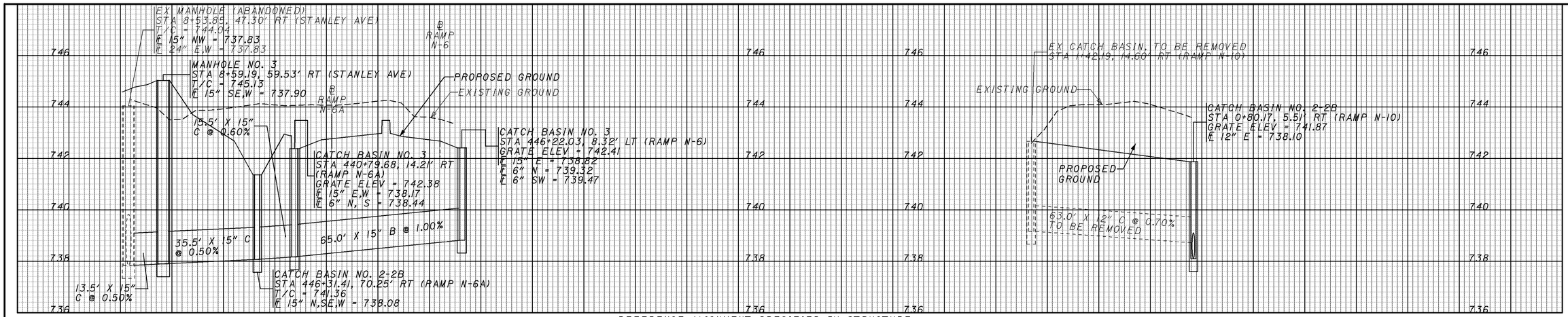

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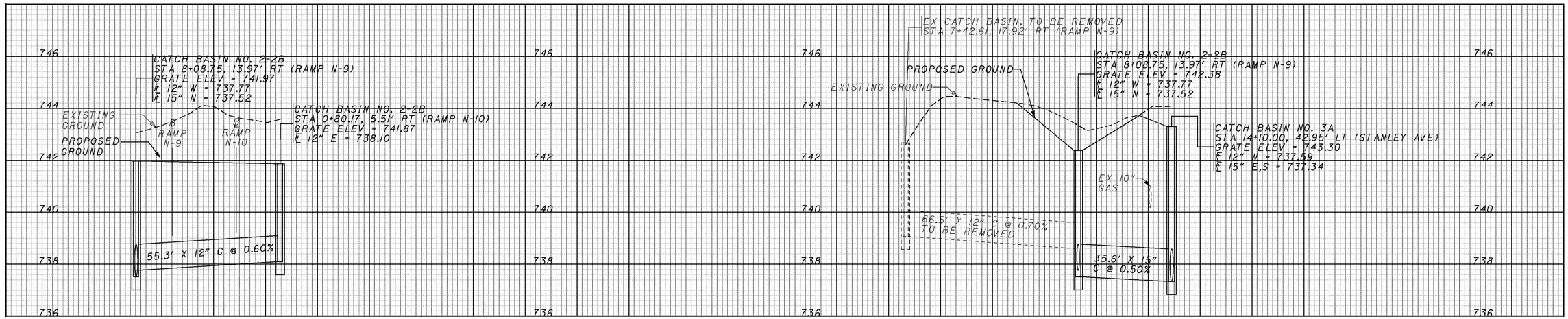

REFERENCE ALIGNMENT SPECIFIED BY STRUCTURE

CALCULATED EAK CHECKED AM

STORM SEWER PROFILES

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:11 AM
Filename: G:\C004\0066\Road\Sheets\23828df01.dgn

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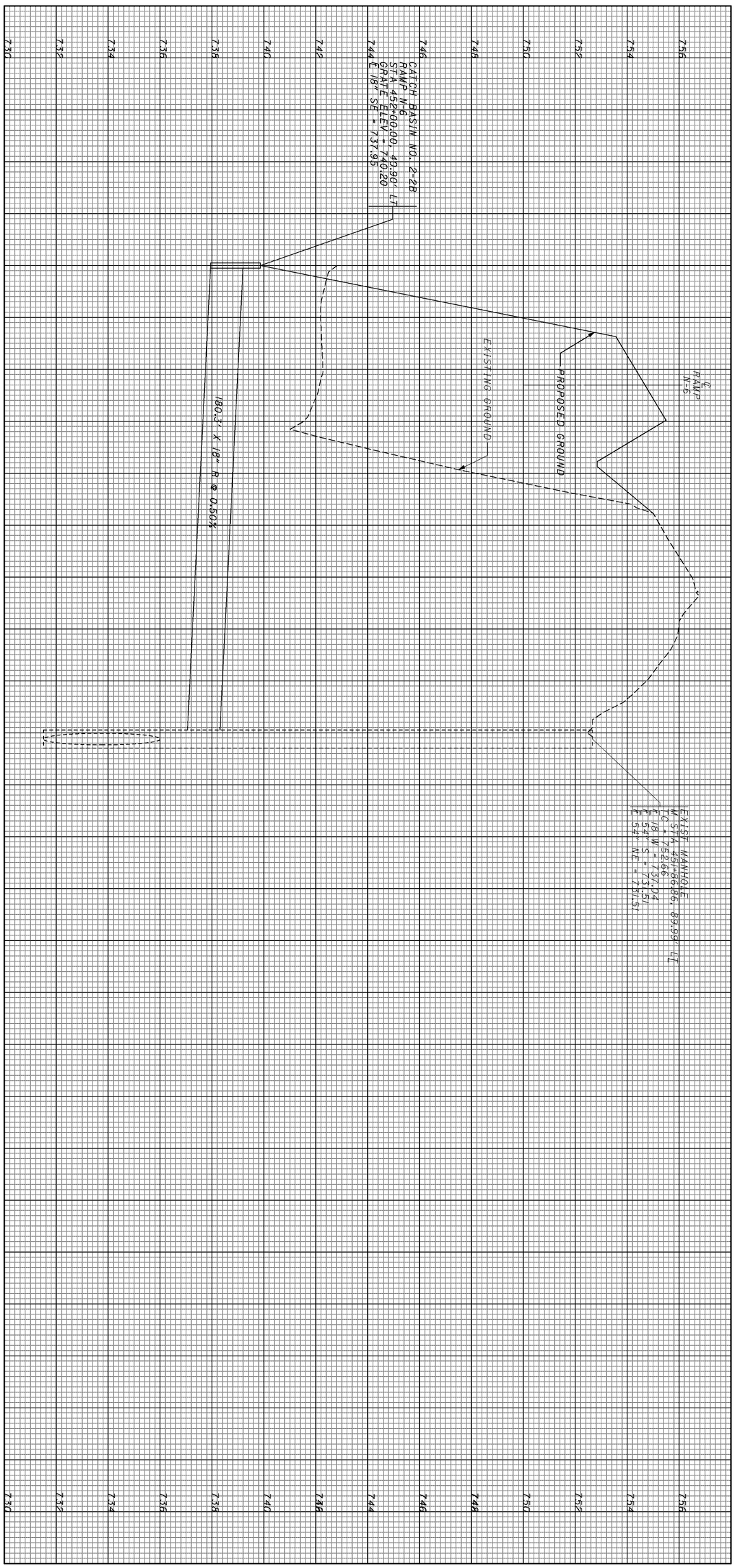


180 / 314	MOT-75-14.60	STORM SEWER PROFILES	CALCULATED EAK / CHECKED AM

DEPTH OF COVER FOR WATER MAINS

ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM COVER OF 54" OVER THE TOP OF THE PIPES. THIS DOES NOT MEAN ALL WATER MAINS SHALL BE INSTALLED AT THE MINIMUM DEPTH. THE PROFILES FOR THE PIPING SYSTEMS SHOW THE ACTUAL ELEVATIONS AT WHICH THESE LINES ARE TO BE INSTALLED. THE PROFILES PROVIDE THE MINIMUM REQUIRED COVER AND ALSO PROVIDE THE MINIMUM CLEARANCES BETWEEN OTHER UTILITIES.

EXISTING UTILITY SERVICES

THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING, MAINTAINING, REPAIRING AND RECONNECTING ALL UTILITY SERVICES FROM PRIVATE RESIDENTIAL HOUSES OR BUISNESSES FOR GAS, WATER, TELEPHONE, ELECTRIC, CABLE, SEWER, ETC. COORDINATION WITH EACH UTILITY AND/OR SERVICE CUSTOMER IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

WATER MAIN SYSTEM

ALL PROPOSED 36" WATER MAIN PROVIDED SHALL BE PRESTRESSED CONCRETE CYLINDER PIPE MANUFACTURED IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARD C301 FOR PRESTRESSED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, FOR WATER AND OTHER LIQUIDS. THE PIPE SHALL BE FURNISHED COMPLETE WITH GASKETS, GROUT BANDS, AND LUBRICANT AS REQUIRED FOR PROPER INSTALLATION AND COMPLETION OF THE LINE. PIPE SHALL BE DESIGNED FOR AN INTERNAL WORKING PRESSURE OF 140 POUND PER SQUARE INCH, A SURGE PRESSURE ALLOWANCE OF 70 PSI (40 PERCENT OF THE INTERNAL WORKING PRESSURE) AND AN EARTH COVER AS SHOWN ON THE PLANS WITH AN AASHTO HS-20 TRUCK LIVE LOAD, ALL IN ACCORDANCE WITH THE AWWA STANDARD C304 FOR DESIGN OF PRESTRESSED CONCRETE CYLINDER PIPE. THE EXTERNAL LOADING SHALL BE BASED ON A SOIL DENSITY OF 120 POUNDS PER CUBIC FOOT AND A PIPE BEDDING AS PER ODOT ITEM 638.05. THE PIPE JOINTS SHALL BE OF A RESTRAINT SYSTEM DESIGN SUITABLE FOR A FIELD TEST PRESSURE OF 210 PSI.

RESTRAINED JOINTS

ALL NEW WATER PIPING SHALL BE DESIGNED AND PROVIDED WITH RESTRAINED JOINT SYSTEMS. THE EXISTING 36" PRESTRESSED CONCRETE PIPE WAS MANUFACTURED AND PROVIDED BY PRICE BROTHERS COMPANY (PHONE NUMBER 1-800-543-5147). SOME OF THE EXISTING PIPE JOINTS WILL REQUIRE REHABILITATION TO CONVERT THEM TO RESTRAINED JOINTS. ALL EXISTING 36" PIPE JOINTS WITHIN 125 LINEAR FEET OF THE PROPOSED 45 DEGREE BEND FITTINGS, AT EACH RECONNECTION POINT TO EXISTING PIPE, SHALL BE REHABILITATED TO RESTRAINED JOINTS AS SHOWN ON THE "JOINT REHABILITATION DETAIL OF EXISTING CONCRETE PRESSURE PIPE" ON SHEET NUMBER 180B. ALL JOINT REHABILITATION SHALL BE DONE IN FULL CONFORMANCE WITH PRICE BROTHERS COMPANY RECOMMENDATIONS. THESE JOINT REHABILITATIONS MAY BE EXECUTED WHILE THE EXISTING PIPE IS PRESSURIZED, BUT SHALL ABSOLUTELY BE EXECUTED PRIOR TO REPRESSURIZING THE COMPLETED AND RELOCATED WATER LINE SYSTEM.

COORDINATION OF EXISTING WATER SERVICES

DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN WATER SERVICE OF THE EXISTING 36" TRANSMISSION MAIN FOR AS LONG AS POSSIBLE. CONTRACTOR SHALL SCHEDULE AND COORDINATE WORK SO THE DOWN TIME (DISRUPTION) ON THE EXISTING 36" WATER MAIN IS HELD TO THE ABSOLUTE MINIMUM. SERVICE SHALL NOT BE DISRUPTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND NOT WITHOUT 48 HOUR PRIOR NOTICE TO THE ENGINEER AND UTILITY OWNER (THE CITY OF DAYTON WATER DEPARTMENT) AND NOT BEFORE PRIOR APPROVAL OF THE ENGINEER. WATER SERVICE DISRUPTIONS SHALL BE LIMITED TO A PERIOD OF TIME THAT IS NOT LONGER THAN 96 HOURS. ONLY ONE PERIOD OF INTERRUPTION SHOULD BE CONSIDERED TO MAKE THE RECONNECTION FROM THE EXISTING 36" MAIN TO THE PROPOSED 36" RELOCATED WATER MAIN. THE DISRUPTION OF SERVICE SHALL NOT BE PERMITTED TO OCCUR DURING THE HIGH DEMAND SEASON WHICH ARE THE MONTHS OF JUNE, JULY OR AUGUST. CONTACT FOR THE WATER UTILITY OWNER, SHALL BE MR. SCOTT HOLMES, CHIEF ENGINEER, CITY OF DAYTON WATER DEPARTMENT, AT PHONE NUMBER 937-333-3737. EXISTING WATER PRESSURE IS APPROXIMATELY 140 PSI. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR REMOVAL OF PRESSURE AND PURGING THE EXISTING PIPE OF WATER FOR RELOCATION WORK.

CLEARANCE BETWEEN UTILITIES

THERE SHALL BE A MINIMUM HORIZONTAL CLEARANCE OF 10' 0" BETWEEN THE EXTERIOR EDGES OF THE WATER AND SANITARY PIPES.

THERE SHALL BE A MINIMUM VERTICAL CLEARANCE OF 1'-6" BETWEEN THE EXTERIOR EDGES OF THE WATER AND SANITARY PIPES. WHEN CROSSING PERPENDICULAR, THE WATER PIPING SHALL BE LOCATED ABOVE THE SANITARY PIPES WHEN THEY CROSS. ALSO, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SUCH THAT BOTH JOINTS WILL BE OF EQUAL DISTANCE AND AS FAR FROM THE SEWER AS POSSIBLE. IF WATER MAIN CROSSES BELOW SANITARY SEWERS, THE SANITARY SEWER MUST BE WATER MAIN MATERIAL FOR THAT SPAN.

THE WATER PIPING SHALL ALSO MAINTAIN A MINIMUM VERTICAL EXTERNAL CLEARANCE 1' 6" BETWEEN STORM PIPES AND WATER PIPE IF THEY CROSS.

WATER MAIN TESTING PRESSURE

TESTING PRESSURE SHALL BE 150% OF THE STATIC OPERATING PRESSURE BUT NOT GREATER THAN 210 PSI. DESIGN OPERATING PRESSURE IS 140 PSI. NEW SYSTEM MAY BE BULKHEADED AND PRESSURE TESTED PRIOR TO RECONNECTION TO EXISTING WATER MAIN.

EXISTING UTILITY MARKING

THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES MARKED WITHIN THE PROJECT LIMITS PRIOR TO DIGGING.

TRENCH RESTORATION

TRENCH SHALL BE RESTORED TO MATCH PRECONSTRUCTION CONDITIONS.

EXISTING UTILITIES

ALTHOUGH A CONCERTED ATTEMPT TO LOCATE THE UNDERGROUND UTILITIES ON THE PROJECT WAS UNDERTAKEN, THE ACTUAL LOCATIONS MAY VARY FROM WHAT IS SHOWN ON THE PLANS. THEREFORE, THE CONTRACTOR SHALL VERIFY LOCATIONS OF THE EXISTING UTILITIES PRIOR TO THE EXECUTION OF THE PROPOSED WORK.

OPERATION OF EXISTING VALVES

ONLY CITY OF DAYTON PERSONNEL SHALL OPERATE MAIN LINE WATER VALVES. EXISTING ISOLATION VALVES ARE LOCATED AT STA. 58+10 AND STA. 118+35 ON THE 36" CONCRETE WATER MAIN. THE STATIONING REFERS TO THE CITY OF DAYTON'S RECORD DRAWINGS FOR THE EXISTING PIPE LINE ALSO KNOWN AS THE "NORTH DAYTON - WATER MAIN, 36" HIGH SERVICE INTERCONNECT". ALL STATIONING SHOWN ON THESE DRAWINGS, REGARDING THE WATER LINE PROFILE, IS BASED UPON THE STATIONING ESTABLISHED ON THE CITY OF DAYTON RECORD DRAWINGS. THE EXISTING BLOW-OFF VALVE LOCATED AT THE I-75 CENTERLINE STATION 460+64.57, RT. 166.91' IS EQUIVALENT WATER LINE STATION 80+02.

RECONNECTION TO EXISTING WATER MAIN

THE CONTRACTOR SHALL BE ADVISED THAT ANY CLOSURE PIECES OR SLEEVES REQUIRED TO CONNECT SECTIONS OF THE CONCRETE MAIN LINE CONNECTIONS, REGARDLESS OF WHETHER THEY ARE SPECIFICALLY SHOWN ON THE CONSTRUCTION DRAWINGS OR NOT, SHALL BE PROVIDED AND INSTALLED AT THE CONTRACTOR'S EXPENSE, AS AN INCIDENTAL TO THE PAY ITEMS.

TAPS ON WATER LINE

NO TAPS OR SERVICE CONNECTIONS SHALL BE PERMITTED TO THE PROPOSED 36" CONCRETE WATER LINE.

CHANGES TO WATER LINE PLANS

NO ADDITIONS, DELETIONS, OR REVISIONS TO THE PROPOSED WATER MAIN ARE TO BE MADE WITHOUT APPROVAL BY THE ENGINEER AND THE CITY OF DAYTON DEPARTMENT OF WATER.

INSPECTION OF WATER LINE

BOTH THE OHIO DEPARTMENT OF TRANSPORTATION AND THE CITY OF DAYTON'S DEPARTMENT OF WATER PERSONNEL WILL INSPECT THE WATER MAIN INSTALLATION.

DISINFECTION OF WATER MAIN

THE COMPLETED WATER MAIN SHALL BE DISINFECTED IN ACCORDANCE WITH THE AWWA C651 STANDARD AND IN FULL COMPLIANCE WITH THE CITY OF DAYTON DEPARTMENT OF WATER STANDARD REQUIREMENTS.

PROTECTION OF ADJACENT STRUCTURES

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR PROTECTING THE STABILITY AND STRUCTURAL INTEGRITY OF ALL EXISTING ADJACENT STRUCTURES (INCLUDING BUT NOT LIMITED TO, EXISTING BRIDGE PIERS AND ABUTMENTS, AND EXISTING STORM AND SANITARY SEWERS DURING THE INSTALLATION, REHABILITATION AND TESTING OF THE PROPOSED 36" WATER LINE. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PROTECTING THE EXISTING 36" WATER MAIN TO MAINTAIN EXISTING SERVICE UNTIL THE SCHEDULED DISRUPTION OF SERVICE IS AUTHORIZED.

CONFORMANCE WITH CITY OF DAYTON

ALL WORK SHALL CONFORM TO THE CITY OF DAYTON, CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION). NO CONSTRUCTION SHALL COMMENCE UNTIL CITY OF DAYTON PERMITS HAVE BEEN ISSUED AS REQUIRED.

OHIO UTILITIES PROTECTION SERVICES (OUPS)

FORTY-EIGHT HOURS PRIOR TO ANY CONSTRUCTION, EXCAVATION OR DIGGING, THE CONTRACTOR SHALL CALL AND NOTIFY THE OHIO UTILITIES PROTECTION SERVICES (OUPS) AT 1-800-362-2764. ALL OTHER AGENCIES, WHICH MIGHT HAVE UNDERGROUND UTILITIES IN THIS AREA AND ARE NOT MEMBERS OF OUPS, SHALL BE NOTIFIED DIRECTLY BY THE CONTRACTOR.

APPROVAL OF PLANS

APPROVAL OF THE PLANS SHALL BECOME VOID IF CONSTRUCTION HAS NOT COMMENCED WITHIN TWELVE (12) MONTHS FROM THE DATE APPROVED BY THE DEPARTMENT OF WATER. IN ADDITION, THE PLANS SHALL BECOME VOID IF CONSTRUCTION IS NOT COMPLETED WITHIN TWO (2) YEARS FROM THE DATE APPROVED BY THE DEPARTMENT OF WATER.

APPROVED William B. Gilli

DATE 12/06/05 **City of Dayton, Director of Water**

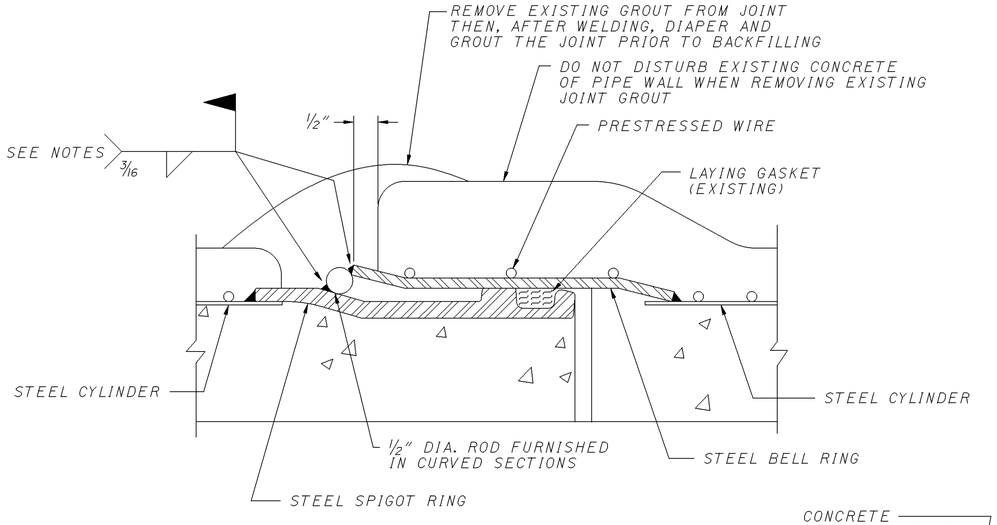
APPROVAL OF SHEETS 180A, 180B, 180C & 180D OF 314.

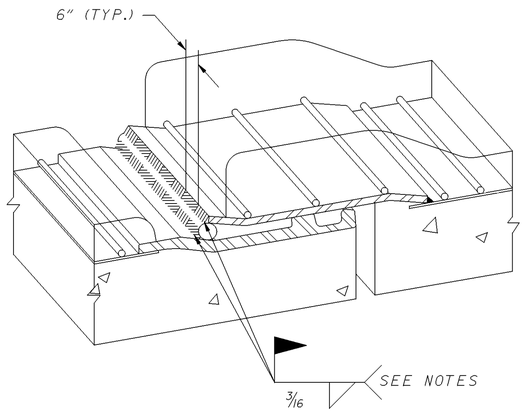
CALCULATED JFA CHECKED JAP

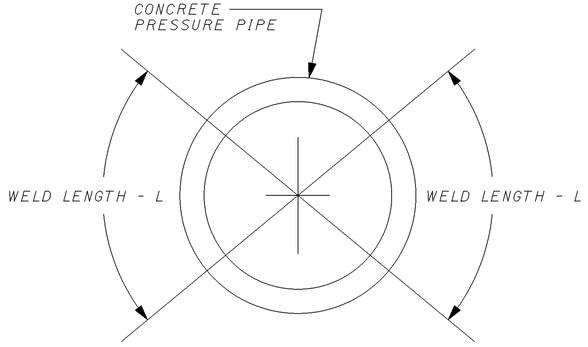
WATER WORK GENERAL NOTES

MOT-75-14.60

180A 314







WELD LENGTH, L=30"
(60" TOTAL WELD PER JOINT)
(BASED ON 45° ELBOW AT 210 PSI TEST PRESSURE)

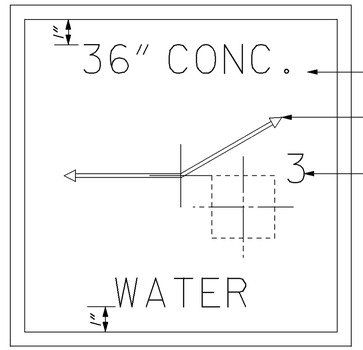
//// FIRST PASS ||||| SECOND PASS

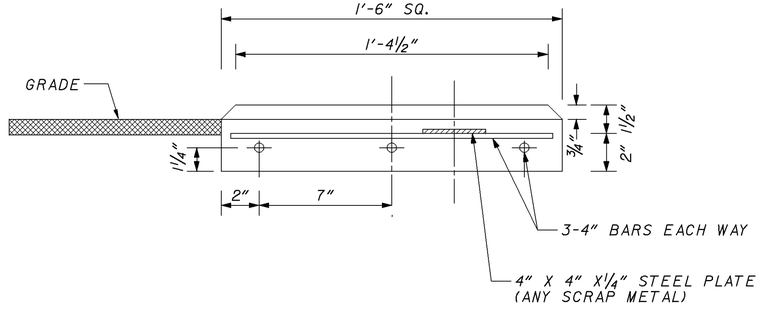
NOTES:

1. CONTRACTOR SHALL CAREFULLY REMOVE MORTAR COATING FROM EXISTING 36" PIPE JOINT TO EXPOSE THE STEEL PLATE OF THE JOINT AND PROVIDE CLEAN STEEL SURFACES. DO NOT DISASSEMBLE PIPE JOINTS TO PERFORM JOINT REHABILITATION.
2. AFTER JOINT IS PREPARED, INSTALL NEW 1/2" DIAMETER STEEL ROD INTO THE JOINT AND WELD AS SHOWN ON DETAIL AND NOTED BELOW. STEEL ROD SHALL BE MILD, LOW CARBON STEEL COMFORMING TO ASTM A36 OR ASTM A283.
3. EXISTING STEEL BELL RINGS AND STEEL SPIGOT RINGS ARE FABRICATED FROM MILD, LOW CARBON STEEL.
4. WELDS MUST BE OF QUALITY AND SUFFICIENT PENETRATION TO DEVELOP THE FULL STRENGTH OF THE STEEL CYLINDER.
5. FIELD WELDS MUST BE MADE IN SERIES OF 6" LONG INTERMITTENT WELDS TO AVOID OVERHEATING GASKET.
6. PORTIONS OF JOINT CIRCUMFERENCE TO BE WELDED DEPENDS UPON LONGITUDINAL THRUST TO BE RESTRAINED. FOR THIS PROJECT, WELD EACH OF THE THREE ROD SECTIONS A LENGTH OF 12" ON EACH AND OPPOSITE SIDE OF THE ROD. THE TOTAL WELD LENGTH FOR EACH JOINT WILL BE 72".
7. USE ONLY LOW HYDROGEN WELDING RODS THAT ARE EITHER E6010 OR E6011.
8. THRUST RESTRAINT REQUIREMENT IS BASED UPON 3 FEET OF EARTH COVER OVER THE PIPE AND AT LEAST 125 FEET OF THE EXISTING PRECAST CONCRETE CYLINDER PIPE MUST BE TIED TO THE PROPOSED 45° ELBOWS.

JOINT REHABILITATION DETAIL OF EXISTING CONCRETE PRESSURE PIPE

NOT TO SCALE





NOTE:
CONTRACTOR WILL SET DEFLECTION FOR CORRECT ORIENTATION OF ARROWS FOR EACH MARKER.

MARKERS FOR 36" CONCRETE WATER MAIN

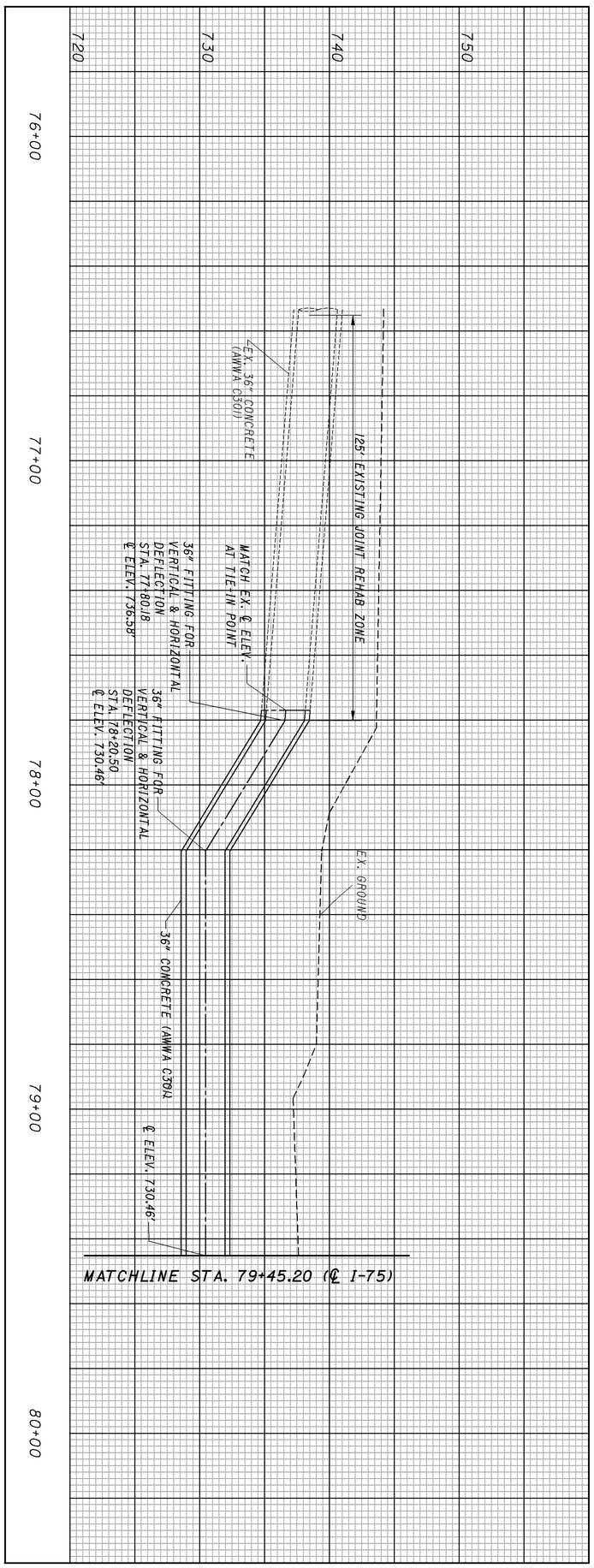
NOT TO SCALE

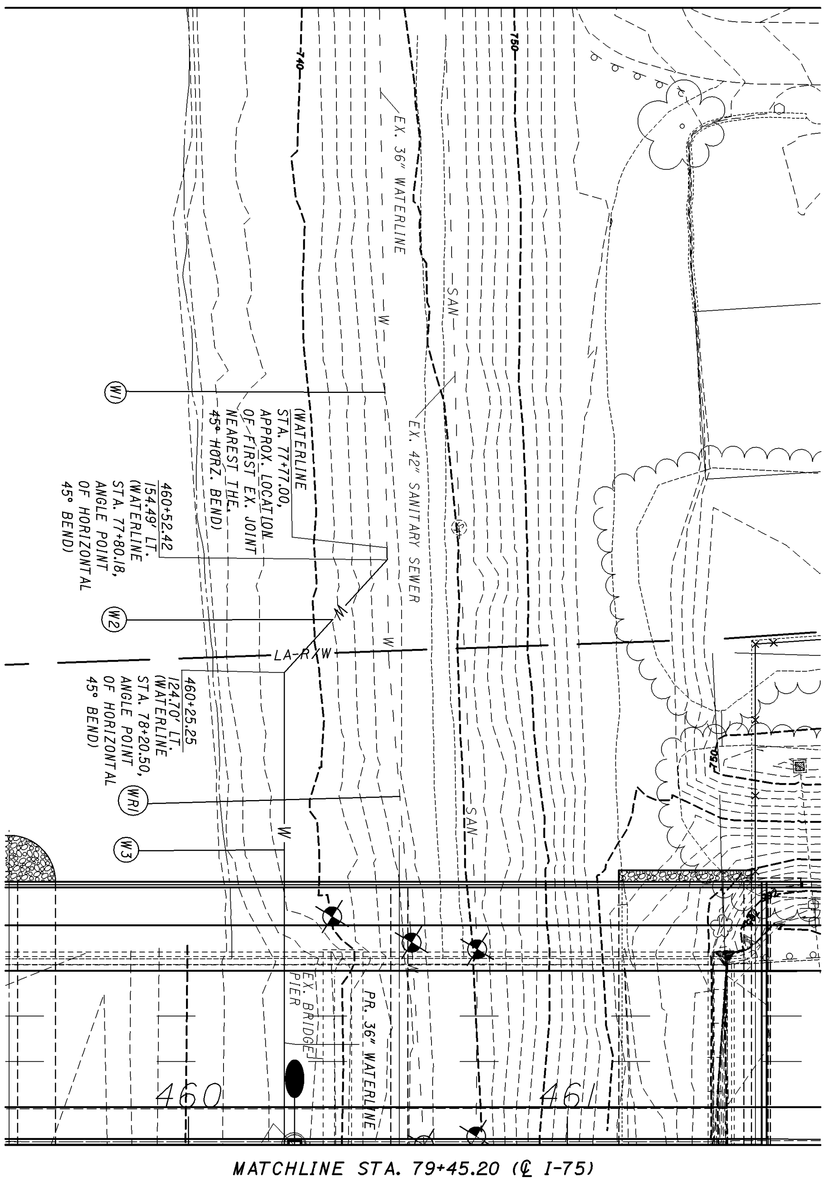
DRAWN JFA CHECKED JAP

WATER MAIN DETAILS

MOT-75-14.60

180B 314





REF NO.	STATION FROM	STATION TO	SIDE	202 PIPE REMOVED, OVER 24"	638 36" PRESTRESSED CONCRETE CYLINDER PIPE	690 SPECIAL-MISC., EXISTING WATERMAIN JOINT REHAB,
				LIN. FT.	LIN. FT.	EACH
W1	76+55.18	77+80.18	L			8
W2	77+77.00	78+20.50	L		43.5	
W3	78+20.50	80+50.78	L		230.5	
WR1	77+77.00	80+96 (AHEAD)	L	319		
TOTALS CARRIED TO GENERAL SUMMARY				319	274.0	8

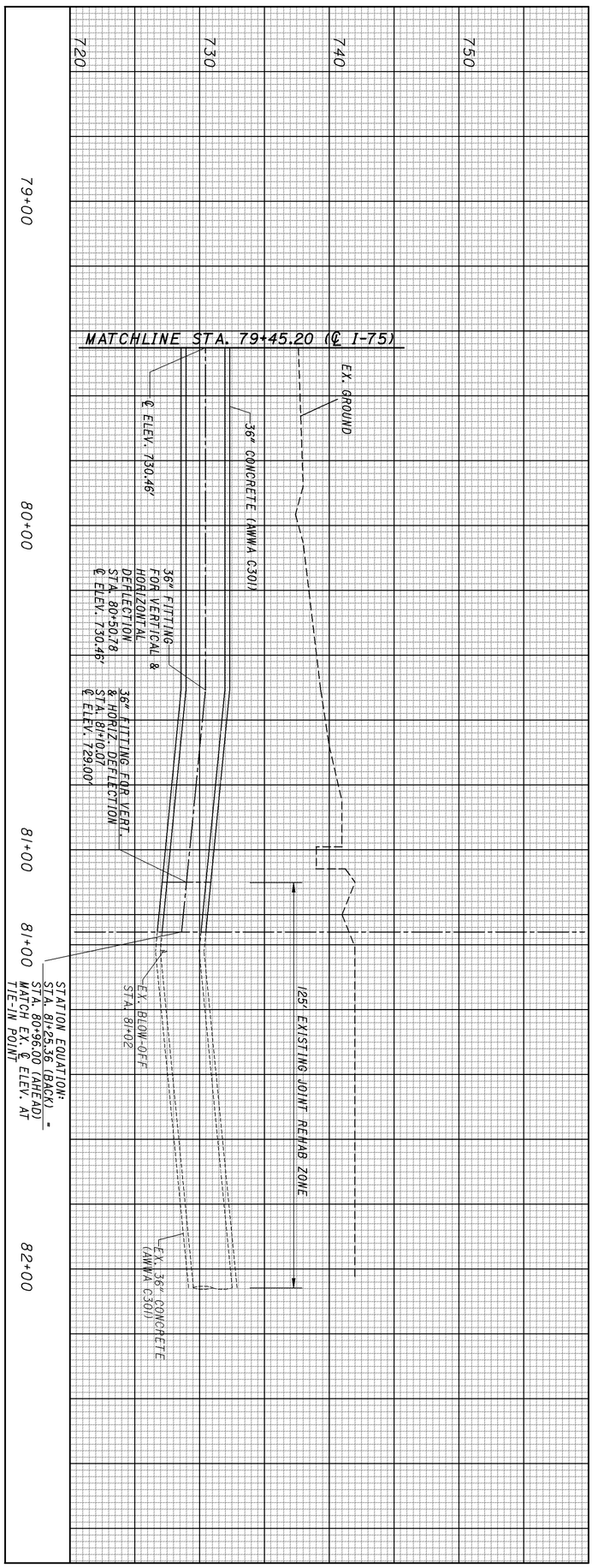
314 180C

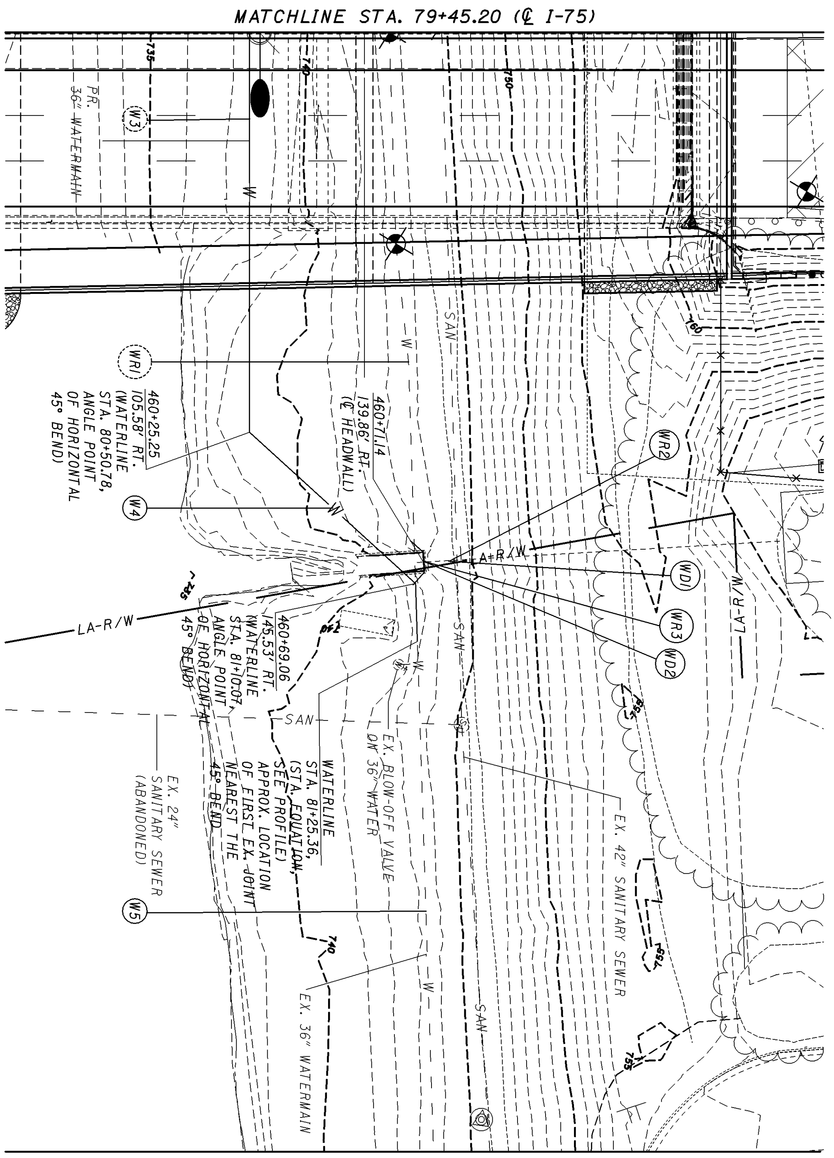
MOT-75-14.60

PLAN AND PROFILE
WATER WORKS

CALCULATED
CHECKED

0 10 20 40
HORIZONTAL SCALE IN FEET





REF NO.	STATION FROM	STATION TO	SIDE	202 HEADWALL REMOVED	202 PIPE REMOVED, OVER 24"	511 CLASS C CONCRETE HEADWALL	603 48" CONDUIT, TYPE C	638 36" PRESTRESSED CONCRETE CYLINDER PIPE	690 SPECIAL-MISC. EXISTING WATERMAIN JOINT REHAB,						
				EACH	LIN. FT.	CU. YD.	LIN. FT.	LIN. FT.	EACH						
W4	80+50.78	81+25.36 (BACK)						74.5							
W5	81+10.07 (BACK)	82+05.71 (AHEAD)							8						
WD1	81+60.66		L				10								
WD2	81+60.66		L			8.5									
WR2	81+60.66		L		10										
WR3	81+60.66		L	1											
TOTALS CARRIED TO GENERAL SUMMARY				1	10	8.5	10	74.5	8						

314 | 180D

MOT-75-14.60

PLAN AND PROFILE
WATER WORKS

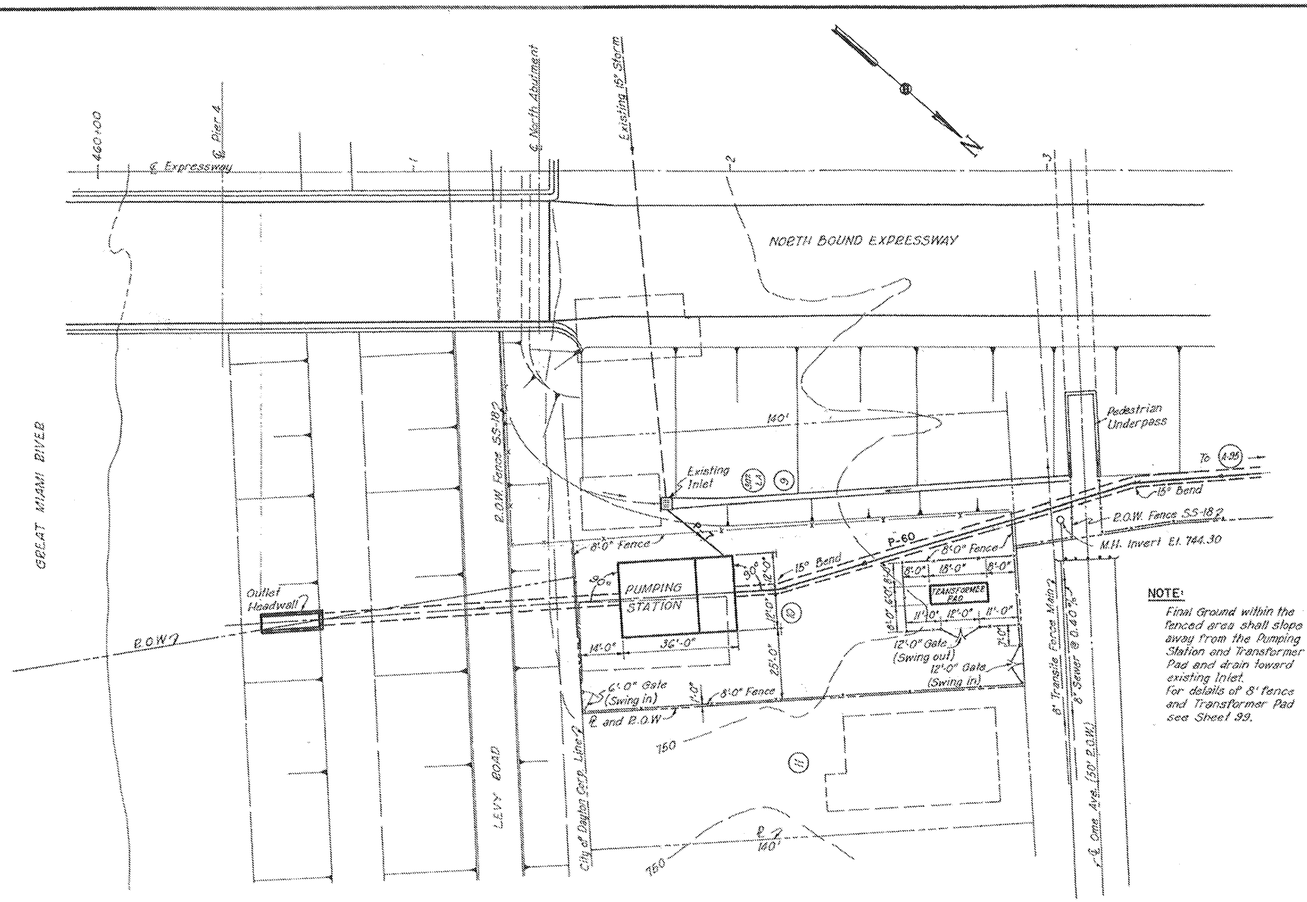
CALCULATED JFA
CHECKED JAP

0 20 10 40
HORIZONTAL SCALE IN FEET

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	TYPE FUNDS
2	OHIO		

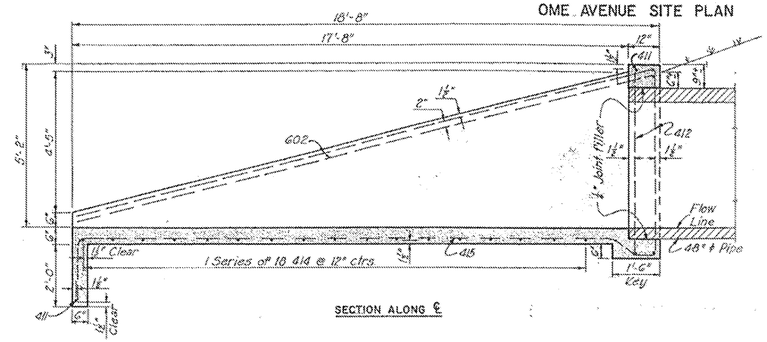
79/144

MONTGOMERY COUNTY
CITY OF DAYTON
DAYTON EXPRESSWAY SYSTEM
EXPRESSWAY-PART
MOT-25-15.88
OME AVENUE SITE PLAN

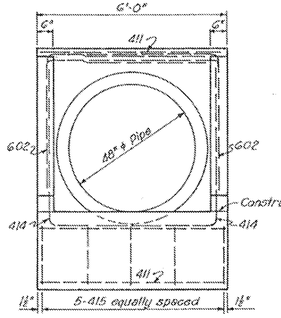


SITE PLAN
Scale: 1"=20'

NOTE:
Final Ground within the fenced area shall slope away from the Pumping Station and Transformer Pad and drain toward existing Inlet.
For details of 8' Fence and Transformer Pad see Sheet 99.



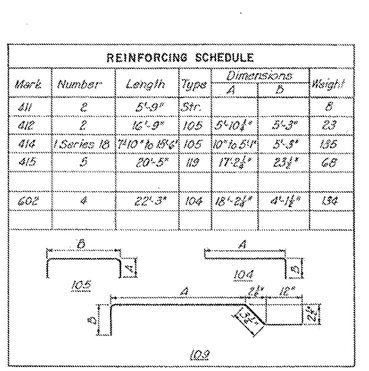
SECTION ALONG ℄



END ELEVATION

REINFORCING SCHEDULE

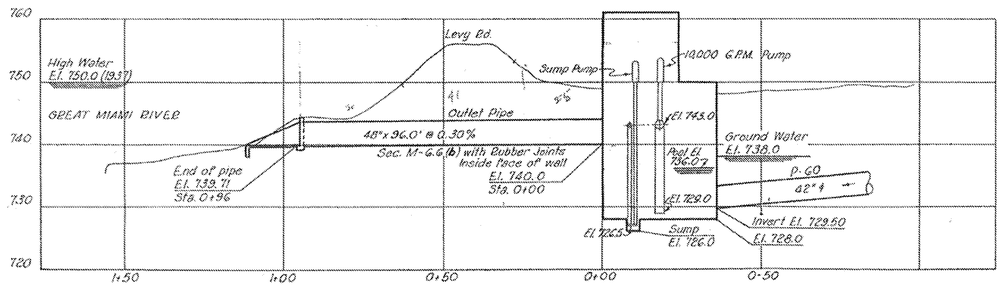
Mark	Number	Length	Type	Dimensions A	Dimensions B	Weight
411	2	5'-9"	Str.			8
412	2	16'-9"	105	5'-10½"	5'-3"	23
414	1 Series 18	7'10" to 19'6"	105	10" to 5'1"	5'-3"	135
415	5	20'-5"	119	17'-2½"	23½"	68
602	4	22'-3"	104	18'-2½"	4'-1½"	134



HEADWALL QUANTITIES

Culvert Size	Unit Quantity Conc. C.Y.	Unit Quantity Steel lbs.	No. Headwl. Req'd.	Total Quantities Conc. C.Y.	Total Quantities Steel lbs.	F-E Sq. Ft. Exc.
48"	4.35	368	1	4.35	368	16

HEADWALL DETAILS FOR OUTLET PIPE
Scale: ½"=1'-0"



PROFILE AT PUMPING STATION
Scale: 1"=20' Horiz., 1"=10' Vert.

SCALE As Shown	HOWARD, NEEDLES, TAMMEN & BERGENDOFF	
MADE JGS DATE 10-23-57	CONSULTING ENGINEERS	
TRCD CW DATE 11-24-57	KANSAS CITY	NEW YORK
CKD R.J.D. DATE 12-24-57	944 SHEET 3.79	

THIS SHEET WAS REPRODUCED FROM SHEET 79/144 OF MOT-25-15.88 AND REPRESENTS DETAILS THAT ARE FOR INFORMATION PURPOSES TO RECONSTRUCT THE 48" PIPE AND THE HEADWALL AS SPECIFIED ON SHEET 180D.

CALCULATED JFA
CHECKED AM

DRAINAGE DETAILS

MOT-75-14.60

180E/314

SHEET NUMBER								FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
182	183		184	185		186		HSP	FED/ STATE	100% LOCAL						
															RAISED PAVEMENT MARKERS, DELINEATORS AND BARRIER REFLECTORS	
						200			200		202	54000	200	EACH	RAISED PAVEMENT MARKER REMOVED	
						56		10	46		620	10300	56	EACH	DELINEATOR, TYPE C, POST MOUNTED	
						26		6	20		620	15300	26	EACH	DELINEATOR, TYPE D, POST MOUNTED	
						249		19	230		621	00100	249	EACH	RPM	
						58			58		626	00100	58	EACH	BARRIER REFLECTOR, TYPE A	
						53			53		626	00200	53	EACH	BARRIER REFLECTOR, TYPE B	
															SIGNING	
			3						3		625	32000	3	EACH	GROUND ROD	
			55	27.5				14	68.5		630	02100	82.5	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
			28	114				56	86		630	03100	142	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
			70.5	35.5				35.5	70.5		630	04100	106	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
				87.2					87.2		630	06500	87.2	FT	GROUND MOUNTED SUPPORT, W6X9 BEAM	
			16.5						16.5		630	08100	16.5	FT	ONE WAY SUPPORT, NO. 4 POST	
				4					4		630	09000	4	EACH	BREAKAWAY BEAM CONNECTION	
			1						1		630	20800	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	194
			1						1		630	21000	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	195
			1						1		630	31300	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-9.10, DESIGN 3	196
			4						4		630	74500	4	EACH	OVERHEAD SIGN SUPPORT, MISC.: ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT	195
			82.3	44.1				25.3	101.1		630	80100	126.4	SQ FT	SIGN, FLAT SHEET	
				48					48		630	80200	48	SQ FT	SIGN, GROUND MOUNTED EXTRUSHEET	
			521						521		630	80224	521	SQ FT	SIGN, OVERHEAD EXTRUSHEET	
			121.5	9.5					131		630	80400	131	SQ FT	SIGN, PERMANENT OVERLAY	
			6						6		630	81000	6	EACH	MAINLINE REFERENCE MARKER	
			1	2				1	2		630	81010	3	EACH	RAMP REFERENCE MARKER	
			3						3		630	81020	3	EACH	CONCRETE MEDIAN BARRIER SIGN BRACKET	
				4					4		630	84500	4	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
			2						2		630	84510	2	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
			23	78				6	95		630	84900	101	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				2					2		630	85400	2	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
			20	67				7	80		630	86002	87	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			6	4					10		630	87400	10	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
			1	3					4		630	87500	4	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
			1	5					6		630	89702	6	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	
			4	7					11		631	94412	11	EACH	REMOVAL OF SIGN SERVICE AND DISPOSAL	
															PAVEMENT MARKINGS	
	1.03							0.2	0.83		644	00100	1.03	MILE	EDGE LINE, 4"	
3.17									3.17		644	00101	3.17	MILE	EDGE LINE, AS PER PLAN	187
	0.51								0.51		644	00200	0.51	MILE	LANE LINE, 4"	
3.36									3.36		644	00201	3.36	MILE	LANE LINE, AS PER PLAN	187
	0.10								0.10		644	00300	0.10	MILE	CENTER LINE	
357	1445							414	1388		644	00400	1802	FT	CHANNELIZING LINE	
	112								112		644	00500	112	FT	STOP LINE	
	340								340		644	00600	340	FT	CROSSWALK LINE	
	48								48		644	00700	48	FT	TRANSVERSE/DIAGONAL LINE	
	57								57		644	00900	57	SQ FT	ISLAND MARKING	
	5								5		644	01300	5	EACH	LANE ARROW	
1962									1962		644	01510	1962	FT	DOTTED LINE, 6"	
0.44									0.44		646	10001	0.44	MILE	EDGE LINE, AS PER PLAN	187
0.54									0.54		646	10101	0.54	MILE	LANE LINE, AS PER PLAN	187
674									674		646	20501	674	FT	DOTTED LINE, AS PER PLAN	187
															ALTERNATE ITEMS	
									0.44		646	10001	0.44	MILE	EDGE LINE, AS PER PLAN (ALTERNATE BID)	187
									0.54		646	10101	0.54	MILE	LANE LINE, AS PER PLAN (ALTERNATE BID)	187
									674		646	20501	674	FT	DOTTED LINE, AS PER PLAN (ALTERNATE BID)	187

CALCULATED SSS
CHECKED HJF

TRAFFIC CONTROL GENERAL SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:20 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tg01.dgn

SHEET NO.	LOCATION	STATION		SIDE	644					646												
					EDGE LINE, AS PER PLAN, WHITE	EDGE LINE, AS PER PLAN, YELLOW	LANE LINE, AS PER PLAN	CHANNELIZING LINE	DOTTED LINE, AS PER PLAN, WHITE	EDGE LINE, AS PER PLAN, WHITE	EDGE LINE, AS PER PLAN, YELLOW	LANE LINE, AS PER PLAN	DOTTED LINE, AS PER PLAN, WHITE									
		FROM	TO		MILE	MILE	MILE	FT	FT	MILE	MILE	MILE	FT									
	I.R. 75	422+00	455+50	RT			0.63															
	I.R. 75	422+00	455+50	RT			0.63															
	I.R. 75	422+00	440+44	RT	0.35																	
	I.R. 75	427+32	455+50	LT			0.53															
	I.R. 75	427+32	455+50	LT			0.53															
	I.R. 75	427+32	448+13	LT	0.39																	
188	I.R. 75	432+46	436+03	RT					357													
188	I.R. 75	433+04	443+70	LT					1066													
188	I.R. 75	436+03	438+68	RT			0.05															
188	I.R. 75	438+68	440+44	RT				178														
188	I.R. 75	443+70	448+57	LT			0.09															
188	I.R. 75	440+44	454+35	RT	0.26																	
	I.R. 75	422+00	455+50	RT		0.63																
	I.R. 75	427+32	455+50	LT		0.53																
189	I.R. 75	448+57	449+23	LT				66														
189	I.R. 75	449+23	455+28	LT	0.11																	
189	I.R. 75	452+25	455+50	RT	0.06																	
189	I.R. 75	454+35	457+31	RT			0.06															
189	I.R. 75	455+28	456+41	LT				113														
189	I.R. 75	455+50	461+77	LT								0.24										
189	I.R. 75	455+50	461+77	RT								0.24										
189	I.R. 75	455+50	461+77	RT						0.12												
189	I.R. 75	455+50	461+77	RT							0.12											
189	I.R. 75	455+50	461+77	LT							0.12											
189	I.R. 75	456+41	459+49	LT								0.06										
189	I.R. 75	457+43	461+77	LT						0.08												
189	I.R. 75	457+31	461+77	RT									446									
189	I.R. 75	459+49	461+77	LT									228									
190	I.R. 75	461+77	473+21	RT			0.21															
190	I.R. 75	461+77	473+21	RT			0.21															
190	I.R. 75	461+77	473+21	RT		0.21																
190	I.R. 75	461+77	473+21	LT			0.21															
190	I.R. 75	461+77	473+21	LT			0.21															
190	I.R. 75	461+77	473+21	LT		0.21																
190	I.R. 75	461+77	473+21	RT	0.21																	
190	I.R. 75	461+77	473+21	LT	0.21																	
190	I.R. 75	461+77	465+65	RT					388													
190	I.R. 75	461+77	463+28	LT					151													
* = HIGHWAY SAFETY PROGRAM																						
ALLOCATED HSP GRAND TOTAL																						
ALLOCATED FED / STATE GRAND TOTAL					1.59	1.58	3.36	357	1962	0.2	0.24	0.54	674									
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY					3.17		3.36	357	1962	0.44		0.54	674									

CALCULATED SSS
CHECKED HJF

PAVEMENT MARKING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:21 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts02.dgn

SHEET NO.	LOCATION	STATION		SIDE	644																		
					EDGE LINE, WHITE, 4"	EDGE LINE, YELLOW, 4"	LANE LINE, 4"	CENTER LINE	CHANNELIZING LINE	ISLAND MARKING, YELLOW	STOP LINE	CROSSWALK LINE	TRANSVERSE/ DIAGONAL LINE	LANE ARROW									
		FROM	TO		MILE	MILE	MILE	FT	FT	SQ FT	FT	FT	FT	EACH									
191	STANLEY AVENUE	4+50	7+11	RT			0.05																
191	STANLEY AVENUE	4+50	7+74	RT			0.06																
191	STANLEY AVENUE	6+50	7+50	LT			0.02																
191	STANLEY AVENUE	6+50	8+73	LT			0.04																
191	STANLEY AVENUE	6+50	8+73	LT			0.04																
192	STANLEY AVENUE	7+11	8+73	RT					162														
192	STANLEY AVENUE	7+74	8+73	RT					99														
192	STANLEY AVENUE	8+73		RT							41												
192	STANLEY AVENUE	8+76	9+62	RT								86											
192	STANLEY AVENUE	8+90	9+60	RT								70											
192	STANLEY AVENUE	9+62		LT & RT								94											
192	STANLEY AVENUE	9+72		LT & RT								90											
192	STANLEY AVENUE	9+81		LT							49												
192	STANLEY AVENUE	9+81	19+16	RT			0.18																
192	STANLEY AVENUE	9+81	12+49	LT & RT		0.05																	
192	STANLEY AVENUE	9+81	12+49	LT & RT		0.05																	
192	STANLEY AVENUE	9+81	10+81	LT					100														
192	STANLEY AVENUE	9+81	10+81	LT					100														
192	STANLEY AVENUE	9+81	11+31	LT					150														
192	STANLEY AVENUE	10+81	14+29	LT			0.07																
192	STANLEY AVENUE	10+81	19+16	LT			0.16																
192	STANLEY AVENUE	12+20	12+86	RT					66														
192	STANLEY AVENUE	12+49	12+86	LT				0.01															
192	STANLEY AVENUE	13+20	14+40	LT & RT		0.04				57			48										
192	STANLEY AVENUE	14+40	19+16	CL				0.09															
192	STANLEY AVENUE	7+76		RT										1									
192	STANLEY AVENUE	8+44		RT										1									
192	STANLEY AVENUE	10+11		LT										1									
192	STANLEY AVENUE	10+79		LT										1									
192	STANLEY AVENUE	12+56		RT										1									
189	RAMP N-6	445+77	457+43	LT	0.22																		
189	RAMP N-6	446+12		LT							22												
189	RAMP N-6	446+13	455+28	RT		0.17																	
189	RAMP N-6	455+28	456+41	RT					113														
189	RAMP N-6A	440+57	447+10	LT		0.12																	
189	RAMP N-6A	440+42	448+13	RT	0.15																		
189	RAMP N-6A	447+10	447+73	LT					63														
189	RAMP N-7	446+11	452+25	LT	0.12 *																		
189	RAMP N-7	446+11	450+21	RT		0.08 *																	
189	RAMP N-7	450+21	454+35	LT					414 *														
188	RAMP N-8	1+01	2+78	LT					178														
188	RAMP N-8	1+01	2+78	LT	0.03																		
* = HIGHWAY SAFETY PROGRAM																							
ALLOCATED HSP GRAND TOTAL					0.12	0.08			414														
ALLOCATED FED / STATE GRAND TOTAL					0.4	0.43	0.51	0.10	1031	57	112	340	48	5									
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY					1.03		0.51	0.10	1445	57	112	340	48	5									

CALCULATED SSS CHECKED HJF

PAVEMENT MARKING SUB-SUMMARY

MOT-75-14.60

183
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:21 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts02.dgn

SHEET	REFERENCE NUMBER	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	625	630																				631
							GROUND ROD	SIGN, FLAT SHEET	SIGN, OVERHEAD EXTRUSHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	ONE WAY SUPPORT, NO. 4 POST	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	OVERHEAD SIGN SUPPORT, TYPE TC-9.10, DESIGN 3	OVERHEAD SIGN SUPPORT, MISC., ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	RAMP REFERENCE MARKER	MAINLINE REFERENCE MARKER	CONCRETE MEDIAN BARRIER SIGN BRACKET	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REVMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	SIGN, PERMANENT OVERLAY	REMOVAL OF SIGN SERVICE AND DISPOSAL
							EACH	SQ FT	SQ FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	EACH
187	S1	IR-75	424+25	RT	E7																							
187	S2	IR-75	431+50	LT	R2-1	48x60		20				16.5/17.5														1	2	36	
187	S3	IR-75	430+00	LT	R2-1																					1	2		
188	S4	IR-75	435+04	LT	W4-1R																	1							
188	S5a	IR-75	438+25	LT	E1-H3																	1							
188	S5	IR-75	438+54	RT	E1-H3															2	1								
188	S6-S7	IR-75	440+00	CL	D10-H5	14x48																						36	
189	S8	IR-75	447+16	RT	E7															2	1								
189	S9-S10	IR-75	450+00	CL	D10-H5	14x48																				1	2		
189	S11-S11a	IR-75	453+04	RT	1-H15	36x24		6		14.5/15.5												1							
189	S12	IR-75	455+09	LT	E1-2																	1		1					
	S13				E1-H3																	1							1
	S14				E1-H3													1											
189	S15	IR-75	455+30	CL	E1-2	180x132	1		165					1															
	S17				E1-5	108x24			18																				
189	S16	IR-75	457+53.61	LT	E1-H3	168x72	1		84																				
	S18				E1-5	96x24			16						1		4			2	1					2	1		
190	S19-S20	IR-75	460+00	CL	D10-H5	14x48																				1	2		
190	S21	IR-75	461+65	LT	1-H2a	40x20																							
191	S22-S22a	STANLEY AVENUE	6+32	BRIDGE MTD.	E1-H3	96x84			56																	1	2		1
190	S23-S24	IR-75	461+77	RT	R2-1	48x60		20				17.5/19																2	
190	S25	IR-75	465+87	RT	E1-2																	1							
	S26				E1-H3																							43	
190	S27	IR-75	471+41	LT	E7																				1				
191	S28-S29	STANLEY AVENUE	4+50	RT	E1-H3	96x84			56																	2	1		1
192	S30-S31	STANLEY AVENUE	9+82	CL	D3 (2)																					1			
	S32				R6-2													1											
192	S33-S33a	STANLEY AVENUE	8+85	RT	E1-H3	108x84	1		126							1										1			1
192	S34	STANLEY AVENUE	13+83	CL	SPECIAL																					1	1		
	S35				R3-2																					1			
	S36				R4-7B																							4.5	
192	S37	STANLEY AVENUE	15+95	LT	E1-H3																								
192	S38	STANLEY AVENUE	18+09	LT	M5-1L	21x15		2.2																		1			
	S39				M5-1R																								
																										1			
189	S40	RAMP N-6	445+96	RT	R5-1																					1	1		
	S41				R6-1R																					1	2		
189	S42	RAMP N-6	446+04	RT	D1-H6																					1			
189	S43	RAMP N-6	446+18	LT	R5-H10e																					1	1		
	S44				R5-1																					1			
	S45				R6-1R																					1	1		
189	S46a	RAMP N-6	446+31	LT	R1-2																								
189	S46	RAMP N-6	446+50	LT	R-15B	30x18		3.8																					
	S47			LT	R5-1	30x30		6.3					16.5																	
	S48			LT	R6-1R	36x12		6																					
189	S49	RAMP N-6	451+50	LT	D1-H5	108x24		18		12.5/12.5																1	1		
189	S50	RAMP N-6	449+09	LT	D10-H5a														1										
189	S51	RAMP N-6	449+25	LT	D10-H5a	30x30					14/14															1	1		
189	S52	RAMP N-6	451+42	RT	R5-1a																								
* = HIGHWAY SAFETY PROGRAM																													
ALLOCATED HSP GRAND TOTAL																													
ALLOCATED FED / STATE GRAND TOTAL							3	82.3	521.0	55.0	28.0	70.5	16.5	1	1	1	4	2	1	6	3	6	1	1	22	19	121.5	4
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY							3	82.3	521.0	55.0	28.0	70.5	16.5	1	1	1	4	2	1	6	3	6	1	1	23	20	121.5	4

CALCULATED SSS
CHECKED HJF

SIGNING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:22 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts03.dgn

SHEET	REFERENCE NUMBER	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630																631						
							SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED SUPPORT, W6X9 BEAM	BREAKAWAY BEAM CONNECTION	RAMP REFERENCE MARKER	GROUND MOUNTED BEAM SUPPORT FOUNDATION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REVMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	SIGN, PERMANENT OVERLAY	REMOVAL OF SIGN SERVICE AND DISPOSAL						
							SQ FT	SQ FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	EACH						
189	S53-S53a	RAMP N-6	451+50	LT & RT	R5-1a	36x24	12			14.5/14.5																			
189	S54-S55	RAMP N-6	454+12	RT	D10-H7														2	1									
189	S56-S57	RAMP N-6	454+25	LT	D10-H7	2 (18x12)	3		13.5																				
189	S58	RAMP N-6	454+52	LT	E5-1a	72x60		30				18.6/18.2	2		2														
189	S59	RAMP N-6A	440+62	RT	R-15B														1	1									
189	S60	RAMP N-6A	440+90	RT	R-15B	30x18	3.8		13.5/13.5																				
189	S61-S62	RAMP N-6A	444+17	RT	D10-H5a	30x30				14.5/14.5				1					1	1									
189	S63-S64	RAMP N-7	446+53	RT	R5-H10e	30x30	6.3 *			14/14 *									1 *	1 *									
189	S65-S66	RAMP N-7	447+44	RT	D10-H5a	30x30				14/14 *				1 *					1 *	1 *									
189	S67-S70	RAMP N-7	449+24	RT	D10-H7	2 (18x12)	3 *		14 *										2 *	1 *									
189	S71-S72	RAMP N-7	449+64	LT	W4-1R	48x48	16 *				17/18.5 *								1 *	2 *									
189	S73	RAMP N-7	451+44	RT	R1-2														1 *	2 *									
190	S74-S82	RAMP N-4	0+00 to 9+49	LT & RT															9	13									
190	S83-S87	RAMP N-5	0+00 to 8+85	LT & RT															3	9	2								
188	S88-S98	RAMP N-9	0+00 to 8+85	LT & RT															11	10									
188	S99-S103	RAMP N-10	0+00 to 13+77	RT													1		4	4			1						
188	S104-S108	RAMP N-11	0+00 to 2+59	LT & RT															5	4									
187	S109-S114	HILLROSE AVENUE	427+00 to 432+0	LT & RT															6	5									
193	S115	KEOWEE STREET														1		1					1						
193	S116	KEOWEE STREET														1		1					1						
193	S117-S118	KEOWEE STREET															2	1					2						
193	S119	KEOWEE STREET																	1										
193	S120	KEOWEE STREET														1		1					1						
193	S121-S127	KEOWEE STREET																	7	1									
193	S128	KEOWEE STREET														1		1					1						
193	S129	HILLROSE AVENUE																	1	1									
193	S130	HILLROSE AVENUE																	1	2									
193	S131-S133	LEO STREET																	3	1									
193	S134	LEO STREET																	1	1									
193	S135	LEO STREET																	1	1									
193	S136-S137	LEO STREET																	2	1									
193	S138	LEO STREET																	1										
193	S139	LEO STREET																	1										
193	S140	LEO STREET																	1										
193	S141-S142	NEVA DRIVE																	2	1									
193	S143-S145	NEVA DRIVE																	3	1									
193	S146	IR-75	481+50	RT																		1.6							
193	S147	IR-75	483+50	RT																		1.6							
193	S148	IR-75	514+18	LT																		4.7							
193	S149	IR-75	514+18	LT																		1.6							
193	S150-S151	KEOWEE STREET																	2	1									
193	S152-S153	LEO STREET																	2	1									
193	S154	RAMP N-8	7+00	LT															1										
190	S155	IR-75	461+65	LT	E8-H2	72x36		18				26.0/24.4	2		2														
* = HIGHWAY SAFETY PROGRAM																													
ALLOCATED HSP GRAND TOTAL							25.3		14	56	35.5			1					6	7									
ALLOCATED FED / STATE GRAND TOTAL							18.8	48	13.5	58		87.2	4	1	4	4	3	5	72	60	2	9.5	7						
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY							44.1	48	27.5	114	35.5	87.2	4	2	4	4	3	5	78	67	2	9.5	7						

CALCULATED SSS
CHECKED HJF

SIGNING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:21 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts03.dgn

SHEET NO.	LOCATION	STATION FROM	STATION TO	SIDE	INTERVAL	202 RPM REMOVED	620 DELINEATOR, TYPE C, POST MOUNTED	620 DELINEATOR, TYPE D, POST MOUNTED	621 RPM, WHITE	621 RPM, WHITE/RED	621 RPM, YELLOW/RED	626 BARRIER REFLECTOR, TYPE A	626 BARRIER REFLECTOR, TYPE B
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
	I.R. 75	422+00	473+21	RT	120	44			44				
	I.R. 75	422+00	473+21	RT	120	44			44				
	I.R. 75	427+32	473+21	LT	120	40			40				
	I.R. 75	427+32	473+21	LT	120	40			40				
	I.R. 75	443+70	448+57	LT	120	6							
189	I.R. 75	454+35	457+31	RT	120	4							
188	I.R. 75	436+03	438+68	RT	120	4							
189	RAMP N-6	446+12	450+52	LT	40	12			11				
189	RAMP N-6	450+52	454+52	LT	80	6			5				
188	I.R. 75	438+68	440+44	RT	40					6			
188	I.R. 75	438+68	440+44	RT	40					6			
189	RAMP N-6A	440+63	447+10	LT	80						10		
189	I.R. 75	448+57	449+23	LT	40					3			
189	RAMP N-6	446+19	455+30	LT	80						13		
189	I.R. 75	455+28	456+41	LT	40					4			
189	I.R. 75	455+28	456+41	LT	40					4			
189	RAMP N-7	446+11	450+21	RT	80						7 *		
189	RAMP N-7	450+30	454+35	RT	40					12 *			
189	RAMP N-6	445+50	449+56	LT	50		10						
189	RAMP N-6	449+56	455+30	LT	75		10						
189	RAMP N-6	449+56	455+30	RT	75			10					
189	RAMP N-6	455+30	457+43	LT	90		4						
189	RAMP N-6	457+43	463+28	LT	200		4						
189	RAMP N-6A	439+95	448+13	RT	50		18						
189	RAMP N-6A	444+00	448+13	LT	50			10					
189	RAMP N-7	446+11	450+21	LT	90			6 *					
189	RAMP N-7	446+11	450+21	RT	90		6 *						
189	RAMP N-7	450+21	454+35	RT	200		4 *						
189	I.R. 75	453+27	455+76	CL	50								12
189	I.R. 75	453+50	455+76	RT	100								4
189	I.R. 75	455+60	461+51	LT	100								7
189	I.R. 75	455+76	461+70	RT	100								7
189	I.R. 75	455+76	461+51	CL	100								14
190	I.R. 75	461+51	462+60	CL	100								6
187	I.R. 75	426+78	432+42	RT	100							7	
188	I.R. 75	438+07	444+59	LT	100							8	
189	RAMP N-6A	445+00	447+64	RT	50							7	
189	I.R. 75	447+72	453+50	RT	100							7	
189	RAMP N-6	449+05	455+54	LT	50							14	
190	I.R. 75	461+70	468+25	RT	100							8	
190	I.R. 75	461+51	463+40	LT	100								3
190	I.R. 75	463+40	468+60	LT	100							7	
* = HIGHWAY SAFETY PROGRAM													
ALLOCATED HSP GRAND TOTAL							10 *	6 *		12 *	7 *		
ALLOCATED FED / STATE GRAND TOTAL						200	46	20	184	23	23	58	53
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						200	56	26	249			58	53

CALCULATED SSS
CHECKED HJF

RPM, DELINEATOR, AND REFLECTOR SUB-SUMMARY

MOT-75-14.60

186
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:22 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts01.dgn

PAVEMENT MARKING LEGEND

- (WE) EDGE LINE (WHITE)
- (YE) EDGE LINE (YELLOW)
- (LL) LANE LINE
- (YD) DOTTED LINE (YELLOW)
- (WD) DOTTED LINE (WHITE)
- (DY) CENTER LINE (SOLID, DOUBLE)
- (SB) CENTER LINE (BROKEN, SINGLE)
- (CH) CHANNELIZING LINE
- (SL) STOP LINE
- (XW) CROSSWALK LINE
- (YT) TRANSVERSE LINE (YELLOW)
- (IY) ISLAND MARKING (YELLOW)
- (A) LANE ARROW
- (W) WORD ON PAVEMENT

SIGNING LEGEND

- EXISTING SIGN
- PROPOSED/REPLACED SIGN
- EXISTING SIGN TO BE REMOVED

TRAFFIC CONTROL GENERAL NOTES

ITEM 644, THERMOPLASTIC PAVEMENT MARKING, AS PER PLAN

THE MARKINGS FURNISHED SHALL BE 6" LINES.

PAYMENT SHALL BE AT THE NORMAL CONTRACT UNIT PRICE AS SPECIFIED IN ITEM 644.

ITEM 646, EPOXY PAVEMENT MARKING, AS PER PLAN

THE EPOXY PAVEMENT MARKING MATERIAL FURNISHED UNDER THESE ITEMS SHALL BE EPOPLEX LS-60 AS FURNISHED BY EPOPLEX, MAPLE SHADE, NEW JERSEY.

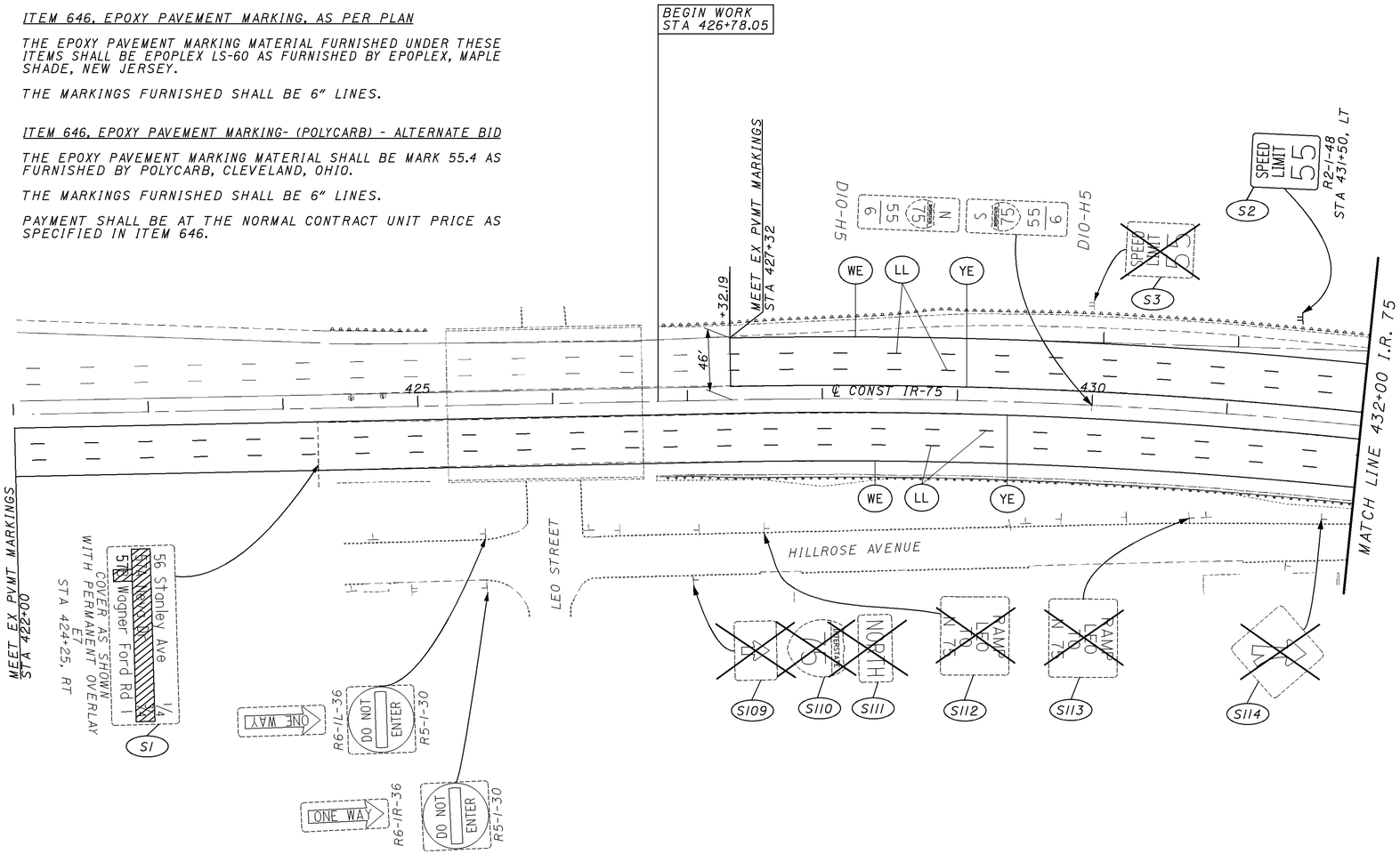
THE MARKINGS FURNISHED SHALL BE 6" LINES.

ITEM 646, EPOXY PAVEMENT MARKING- (POLYCARB) - ALTERNATE BID

THE EPOXY PAVEMENT MARKING MATERIAL SHALL BE MARK 55.4 AS FURNISHED BY POLYCARB, CLEVELAND, OHIO.

THE MARKINGS FURNISHED SHALL BE 6" LINES.

PAYMENT SHALL BE AT THE NORMAL CONTRACT UNIT PRICE AS SPECIFIED IN ITEM 646.



NOTE:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

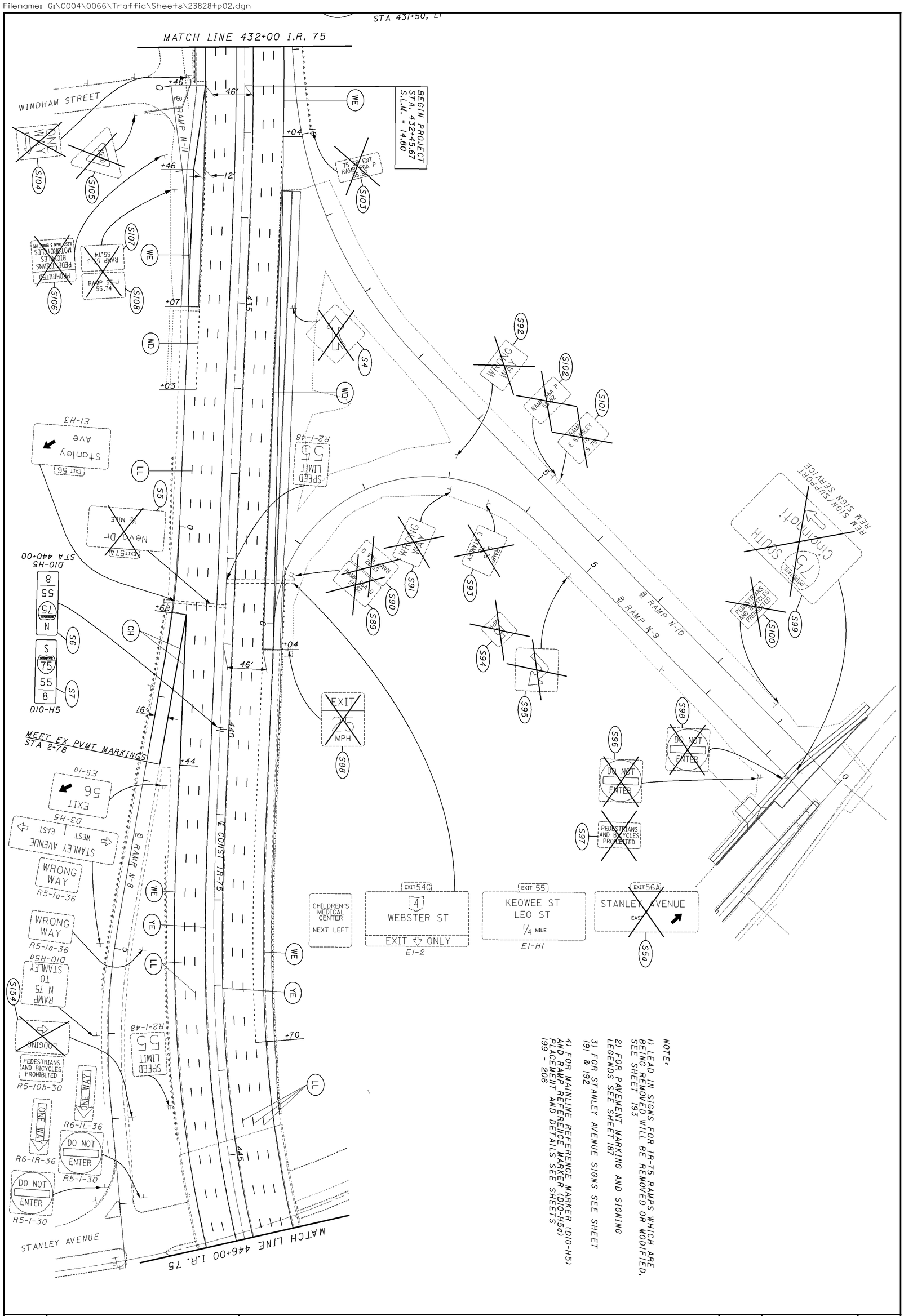
SIGNING AND PAVEMENT MARKINGS
IR-75 STA 422+00 TO 432+00

MOT-75-14.60

187
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:23 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp01.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:26 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp02.dgn



NOTE:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

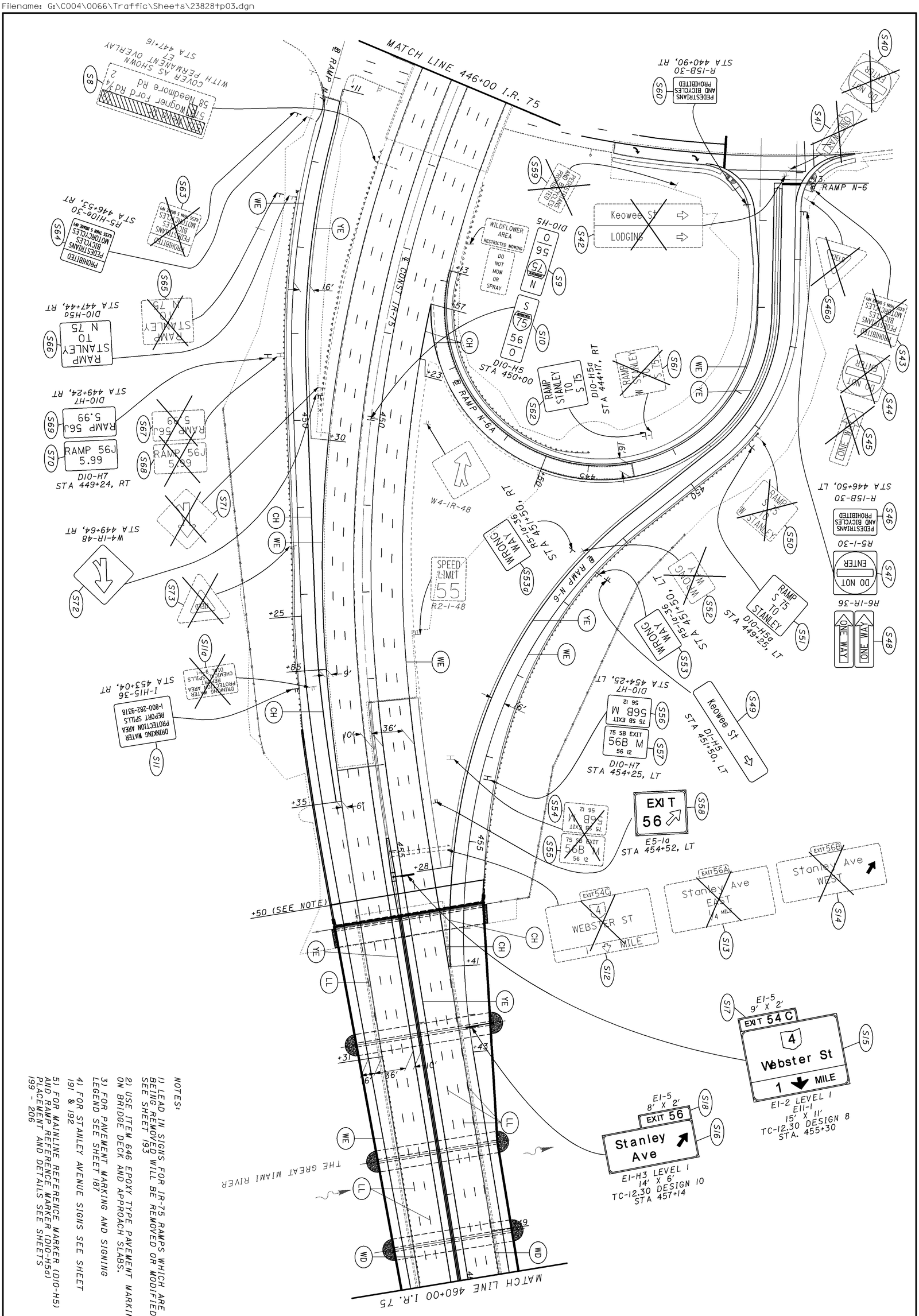
2) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

3) FOR STANLEY AVENUE SIGNS SEE SHEET 191 & 192

4) FOR MAINLINE REFERENCE MARKER (D10-H5) AND RAMP REFERENCE MARKER (D10-H5a) PLACEMENT AND DETAILS SEE SHEETS 199 - 206

314 / 188	MOT-75-14.60	SIGNING AND PAVEMENT MARKINGS IR-75 STA 432+00 TO 446+00	CALCULATED SSS / CHECKED HJF	0 50 25 100 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:29 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp03.dgn



NOTES:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

2) USE ITEM 646 EPOXY TYPE PAVEMENT MARKINGS ON BRIDGE DECK AND APPROACH SLABS.

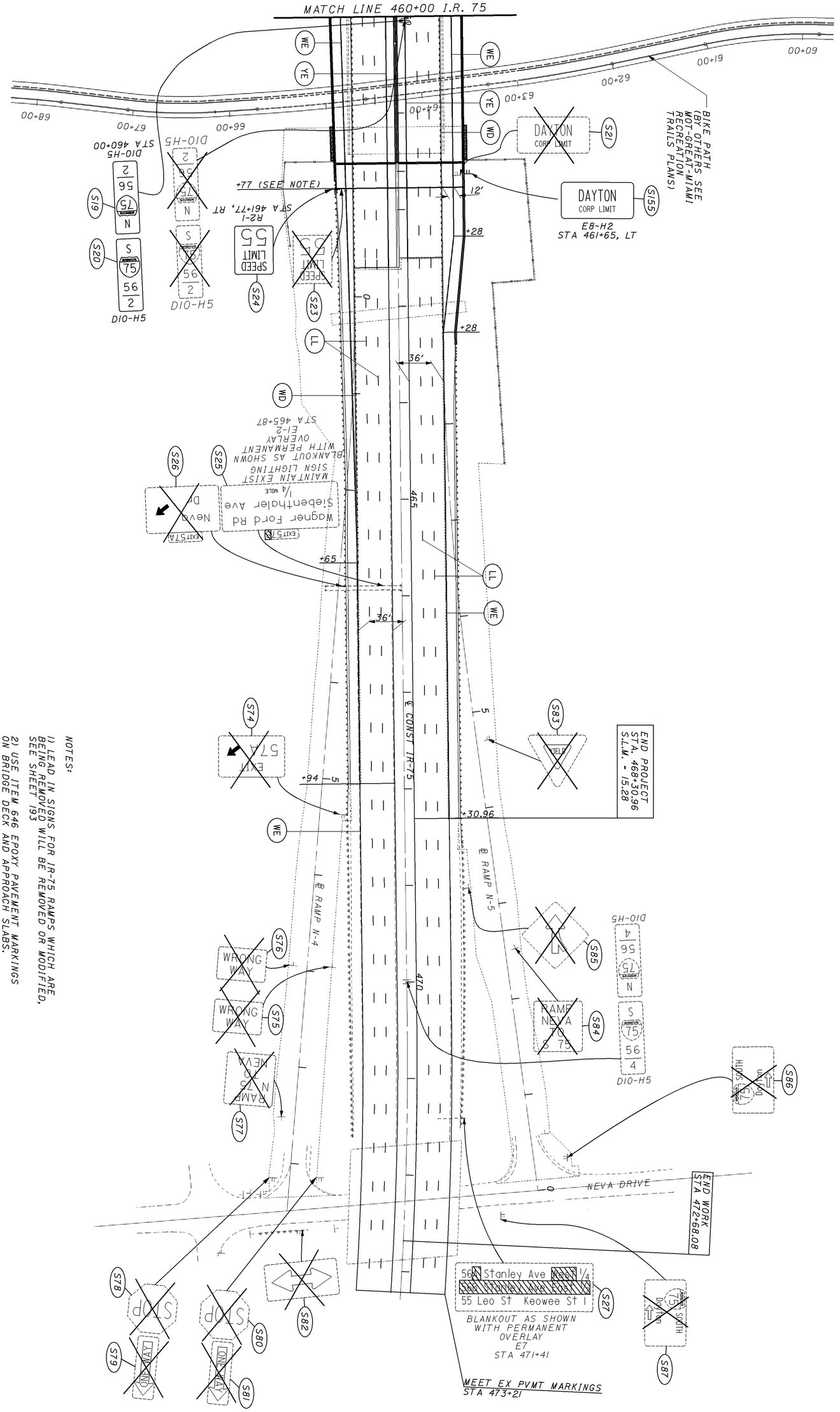
3) FOR PAVEMENT MARKING AND SIGNING LEGEND SEE SHEET 187.

4) FOR STANLEY AVENUE SIGNS SEE SHEET 191 & 192

5) FOR MAINLINE REFERENCE MARKER (DIO-H5) AND RAMP REFERENCE MARKER (DIO-H5a) PLACEMENT AND DETAILS SEE SHEETS 199 - 206

314 / 189	MOT-75-14.60	SIGNING AND PAVEMENT MARKINGS IR-75 STA 446+00 TO 460+00	CALCULATED SSS / CHECKED HJF	0 50 25 100 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:32 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp04.dgn



NOTES:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

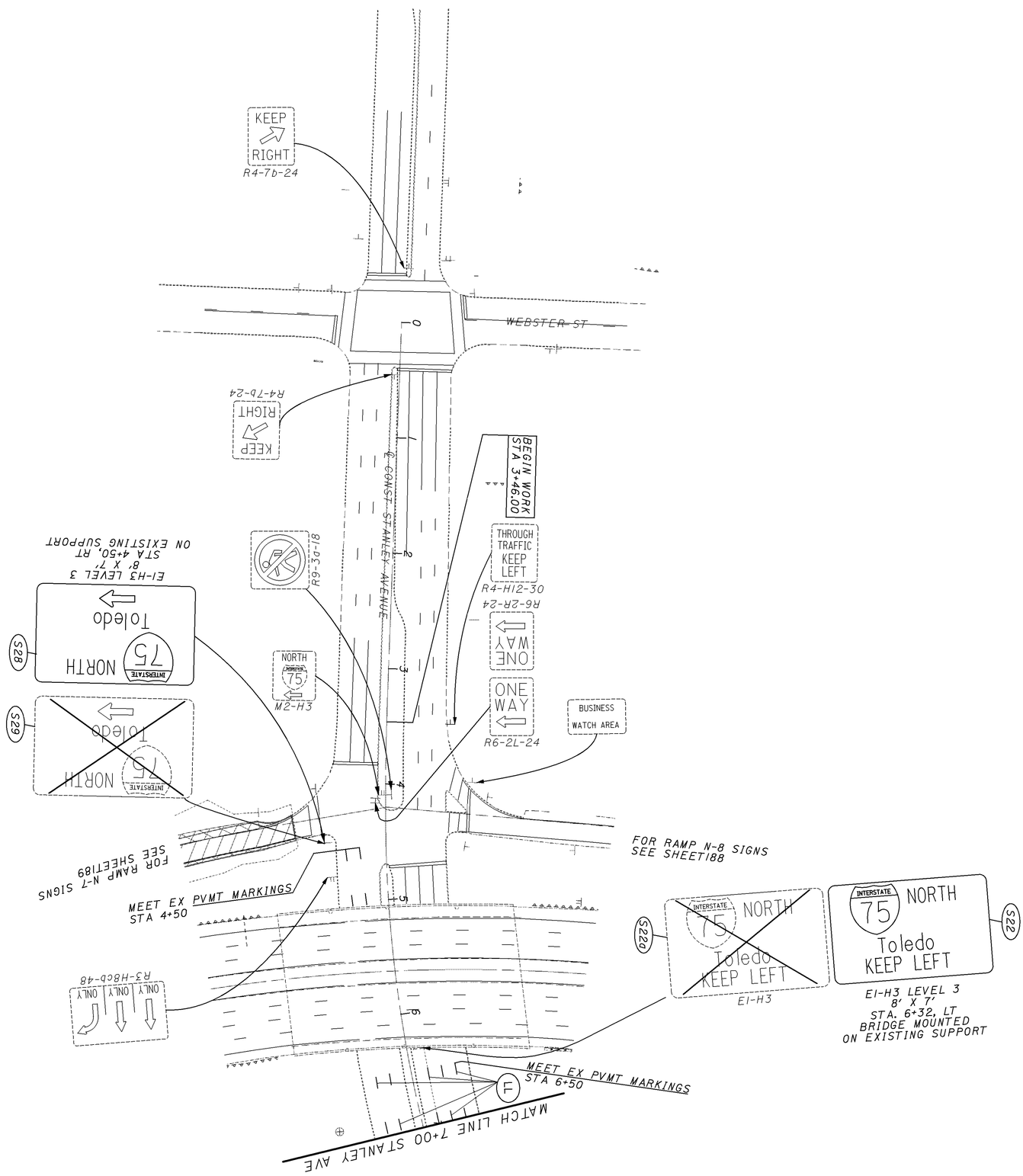
2) USE ITEM 646 EPOXY PAVEMENT MARKINGS ON BRIDGE DECK AND APPROACH SLABS.

3) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

4) FOR MAINLINE REFERENCE MARKER (DIO-H5) AND RAMP REFERENCE MARKER (DIO-H5a) PLACEMENT AND DETAILS SEE SHEETS 199 - 206

190/314	MOT-75-14.60	SIGNING AND PAVEMENT MARKINGS IR-75 STA 460+00 TO 475+00	CALCULATED SSS / CHECKED HJF	0 50 25 100 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:34 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp_stanley01.dgn



NOTES:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

2) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

MOT-75-14.60

SIGNING & PAVEMENT MARKINGS
STANLEY AVENUE STA 0+00 TO STA 7+00

CALCULATED SSS
CHECKED HJF

0 50
25 100
HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:35 AM
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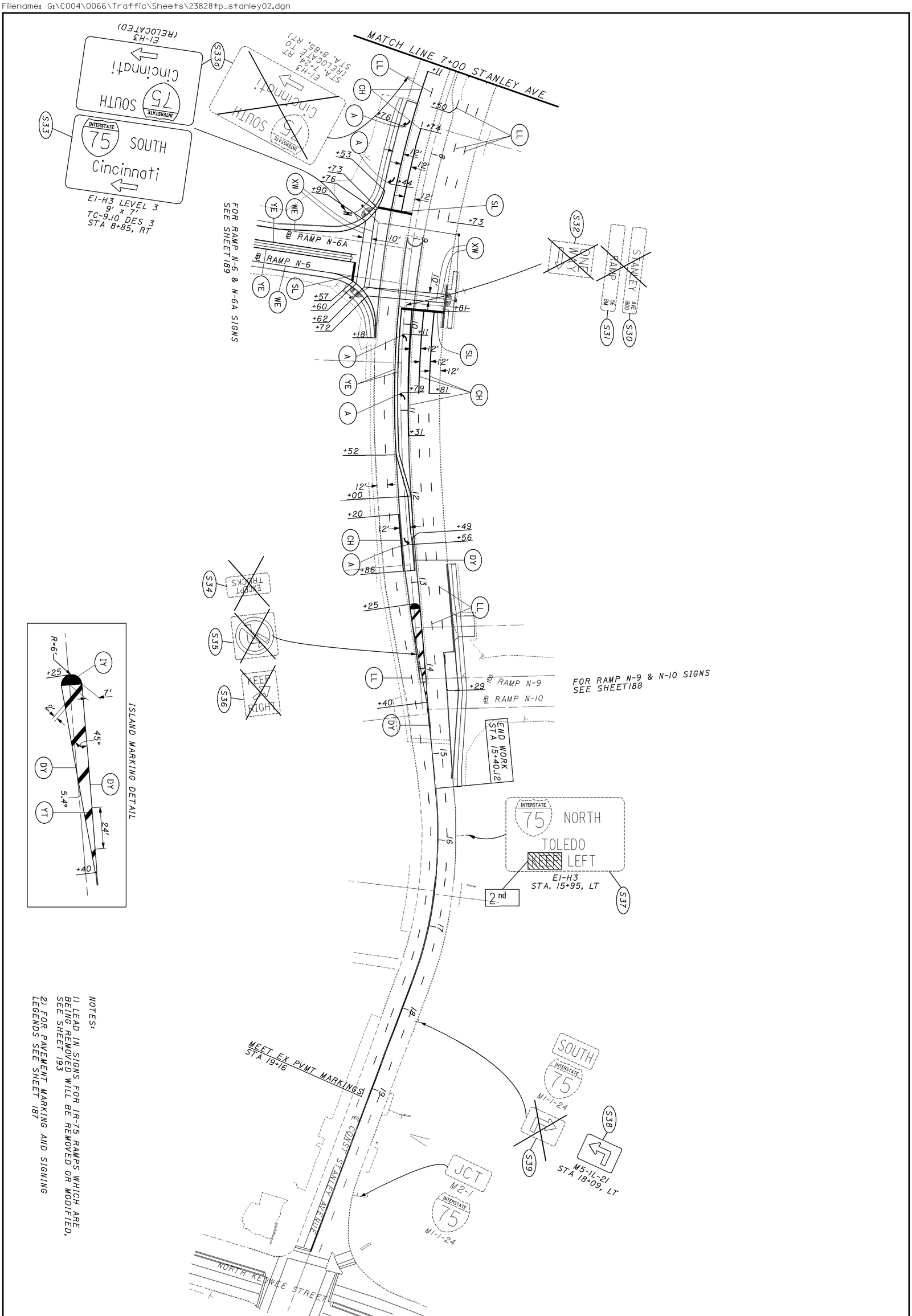


NOTES:
1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED. SEE SHEET 193
2) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

192 / 314	MOT-75-14.60	SIGNING & PAVEMENT MARKINGS STANLEY AVENUE STA 7+00 TO STA 19+16	CALCULATED SSS / CHECKED HJF	0 25 50 100 HORIZONTAL SCALE IN FEET

BEGIN PROJECT
STA 432+45.67
SLM 14.60
E033(774)

END PROJECT
STA. 468+30.96
SLM 15.28
E033(774)

KEOWEE STREET
STANLEY AVENUE
MCCOOK AVENUE
E HELENA STREET
HALL AVENUE
HILLROSE AVENUE
℄ CONST IR 75
RAMP N-6
RAMP N-6A
RAMP N-11
RAMP N-8
RAMP N-7
WINDHAM STREET
LEO STREET
WEBSTER STREET
THE GREAT MIAMI RIVER
NEVA DRIVE
WAGNER FORD ROAD
KEENAN AVENUE

BIKE PATH
(BY OTHERS SEE
MOT-GREAT-MIAMI
RECREATION
TRAILS PLANS)

S120 REM OVHD SIGN SUPPORT
S121 S122 S123 S124 S125 S126 S127
S128 REM OVHD SIGN SUPPORT
S129 S130 S131 S132 S133 S134 S135 S136 S137 S138 S139 S140
S141 S142 S143 S144 S145
S146 Wagner Ford Rd Siebenthaler Ave (EXIT 57N)
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 481+50±, RT
S147 EXIT 57
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 483+50±, RT
S148 Stanley Ave 1 MILE (EXIT 56)
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±
S149 Neff Rd Wagner Ford Rd Siebenthaler Ave (EXIT 57N)
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±
S150 S151 REM OVHD SIGN/SUPPORT REM SIGN SERVICE
S152 S153
S115 KEEP RIGHT TO OHIO REM OVHD SIGN/SUPPORT REM SIGN SERVICE
S116 Cincinnati 2 MILES REM OVHD SIGN/SUPPORT REM SIGN SERVICE
S117 TO OHIO REM OVHD SIGN/SUPPORT REM SIGN SERVICE
S118 TO OHIO REM OVHD SIGN SUPPORT REM SIGN SERVICE

SIGN LEGEND

EXISTING SIGN

PROPOSED/REPLACED SIGN

EXISTING SIGN TO BE REMOVED

NOTES:

1) SIGNS SHOWN ARE LEAD-IN SIGNS THAT WILL BE MODIFIED OR REMOVED AND OTHER SIGNING MODIFICATIONS BEYOND THE PROJECT LIMITS

HORIZONTAL SCALE IN FEET
0 200 400 800

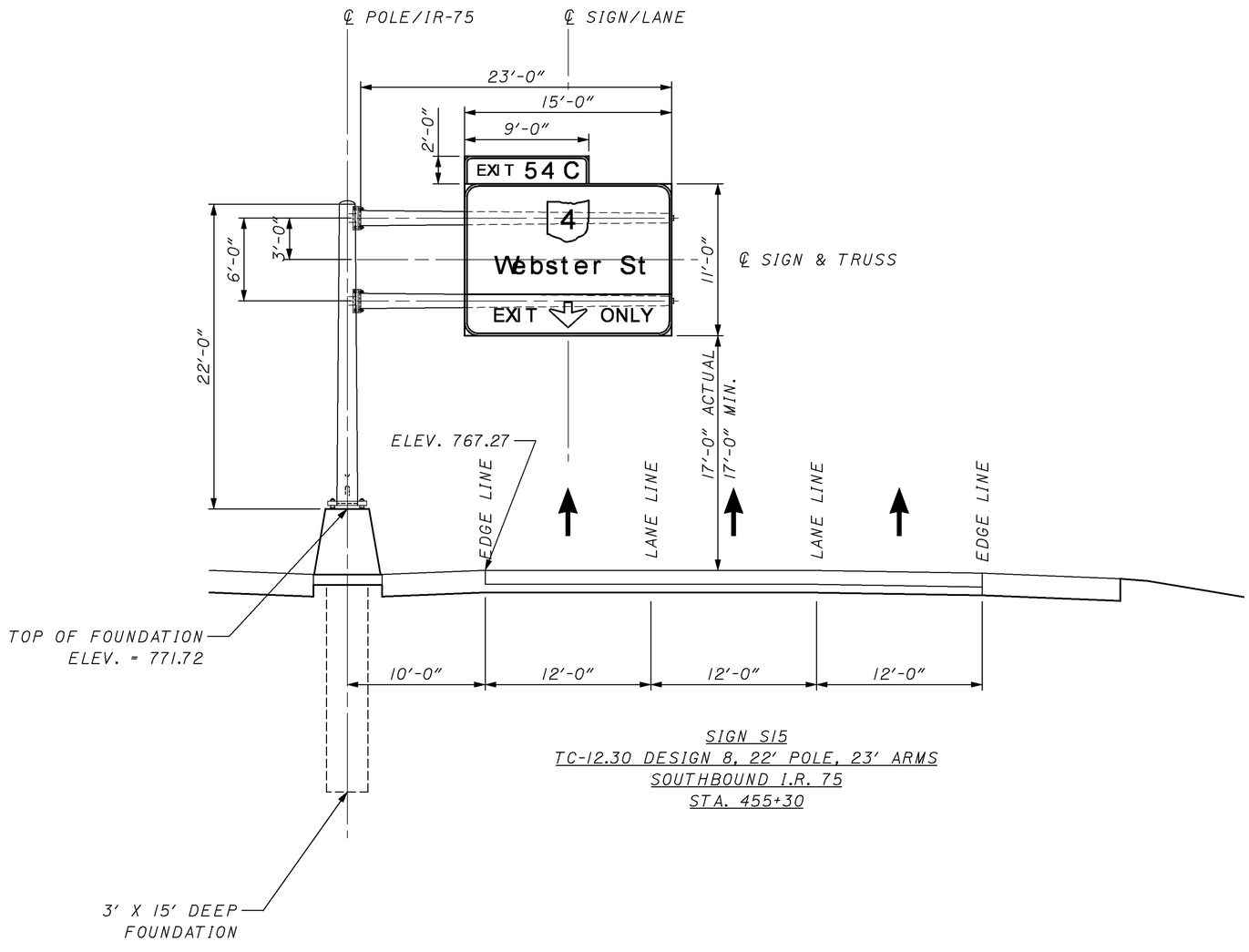
CALCULATED SSS
CHECKED HJF

LEAD-IN SIGNS & SIGNS BEYOND PROJECT LIMITS

MOT-75-14.60

193
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:36 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp_ir75_leadin.dgn



SIGN S15
TC-12.30 DESIGN 8, 22' POLE, 23' ARMS
SOUTHBOUND I.R. 75
STA. 455+30

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:37 AM
Filename: G:\C004\0066\Traffic\Sheets\23828te01.dgn

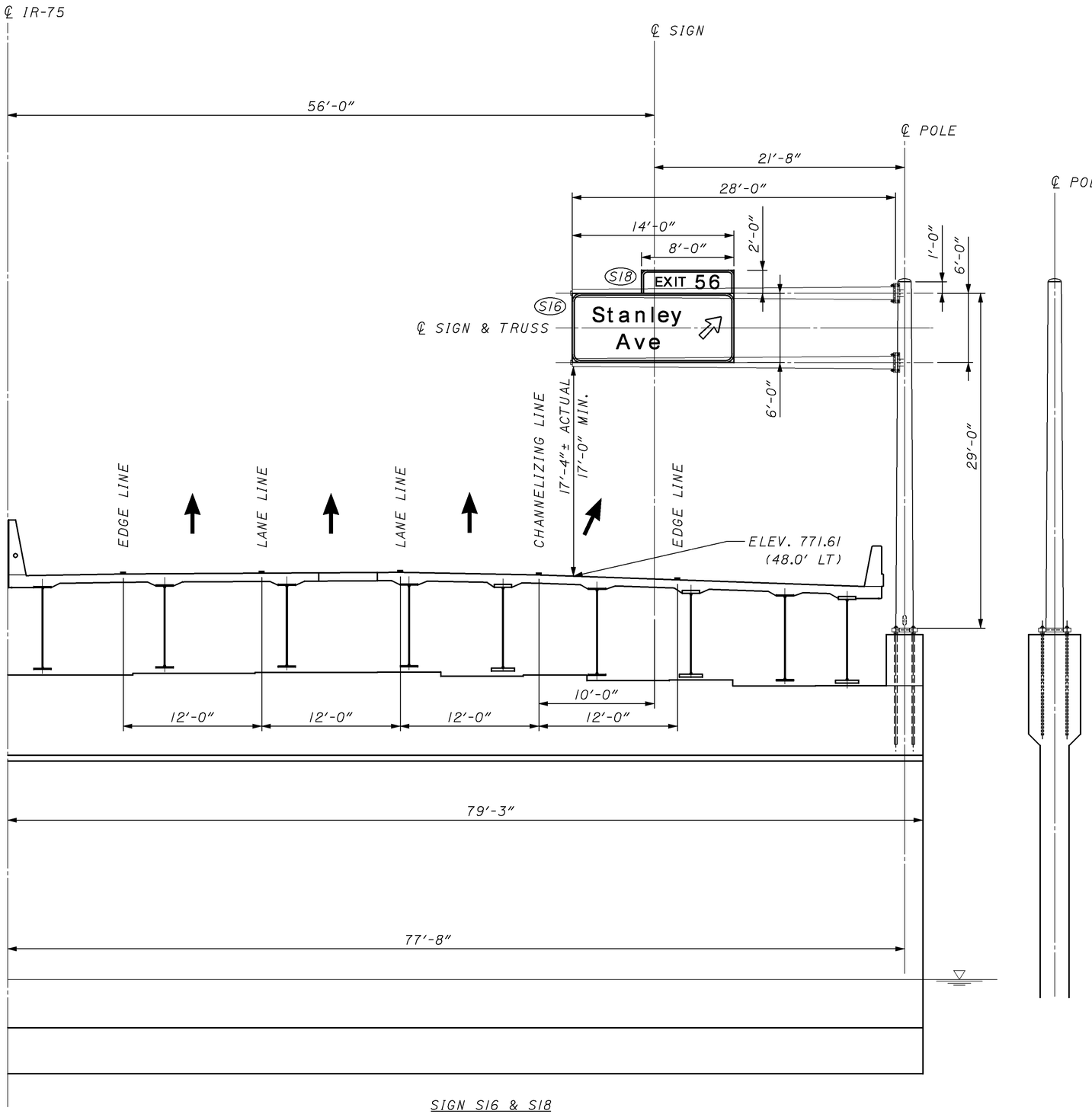
HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED SSS
CHECKED HJF

SIGN ELEVATIONS
S15 & S17

MOT-75-14.60

194
314



SIGN S16 & S18
TC-12.30 DESIGN 10, 30′ POLE, 28′ ARMS
SOUTHBOUND IR-75
STA. 457+53.61, LT

NOTES:

ANCHOR BOLTS SUPPLIED WITH SIGN SUPPORT SHALL BE PLACED IN PIER CAP. SEE BRIDGE PLANS FOR PIER AND ADDITIONAL DETAILS.

630, OVERHEAD SIGN SUPPORT, MISC.: ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT

WHEN A SIGN SUPPORT IS MOUNTED ON A BRIDGE PIER, THE ANCHOR BOLTS SUPPLIED WITH THE SUPPORTS SHALL BE USED.

IN ADDITION, THERE IS NO FOUNDATION CONSTRUCTION ITEM IN WHICH TO INCLUDE THE SETTING OF THE ANCHOR BOLTS. THUS, THE SETTING OF THE ANCHOR BOLTS INTO THE PIER IS ALSO PART OF THIS WORK. THE SETTING OF THE BOLTS SHALL BE DONE WHEN THE STRUCTURE IS CONSTRUCTED.

PAYMENT WILL BE MADE AT EACH SUCH SUPPORT LOCATION AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "OVERHEAD SIGN SUPPORT, MISC.: ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT" AND SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING THE SET OF ANCHOR BOLTS REQUIRED.

HORIZONTAL SCALE IN FEET
0 5 10

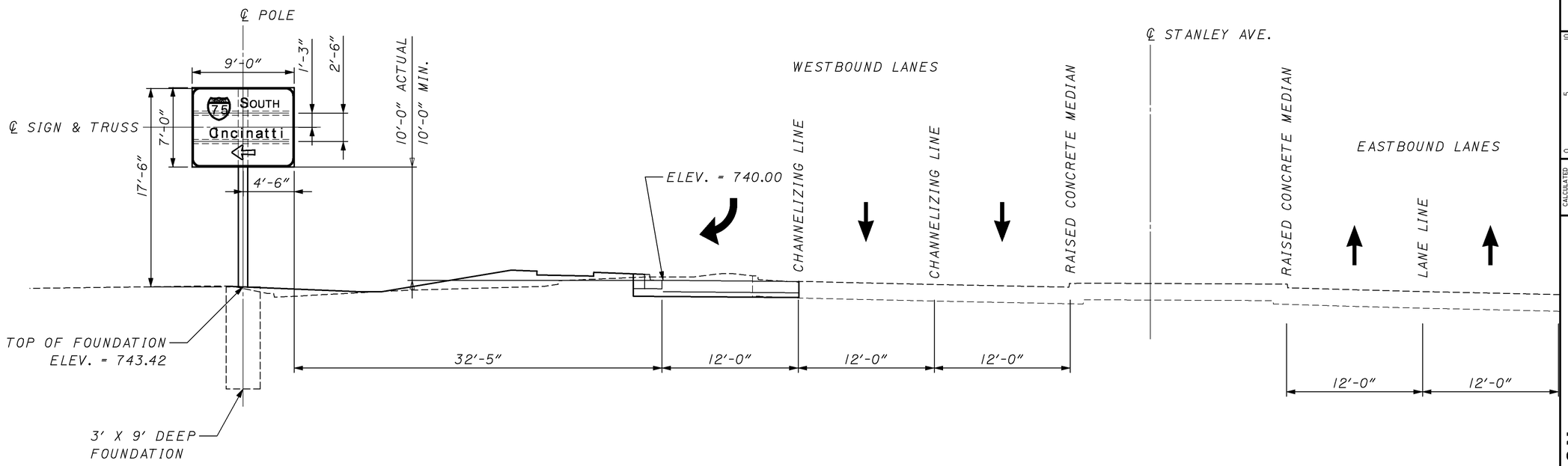
CALCULATED SSS
CHECKED HJF

SIGN ELEVATIONS & S16 S18

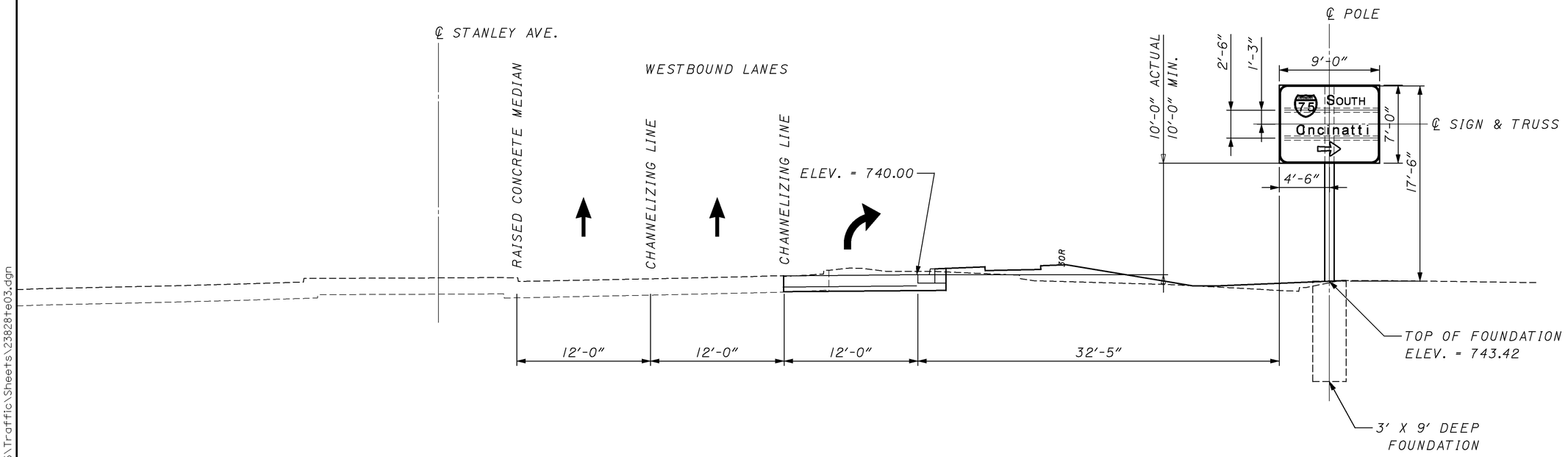
MOT-75-14.60

195
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:38 AM
Filename: G:\C004\0066\Traffic\Sheets\23828te02.dgn



SIGN S33
TC-9.10 DESIGN 3, 17.5′ POLE, 9′ ARMS
EASTBOUND STANLEY AVE.
STA. 8+85, RT



SIGN S33a
(MOUNTED BACK TO BACK ON SAME POLE)
TC-9.10 DESIGN 3, 17.5′ POLE, 9′ ARMS
WESTBOUND STANLEY AVE.
STA. 8+85, RT

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED SSS
CHECKED HJF

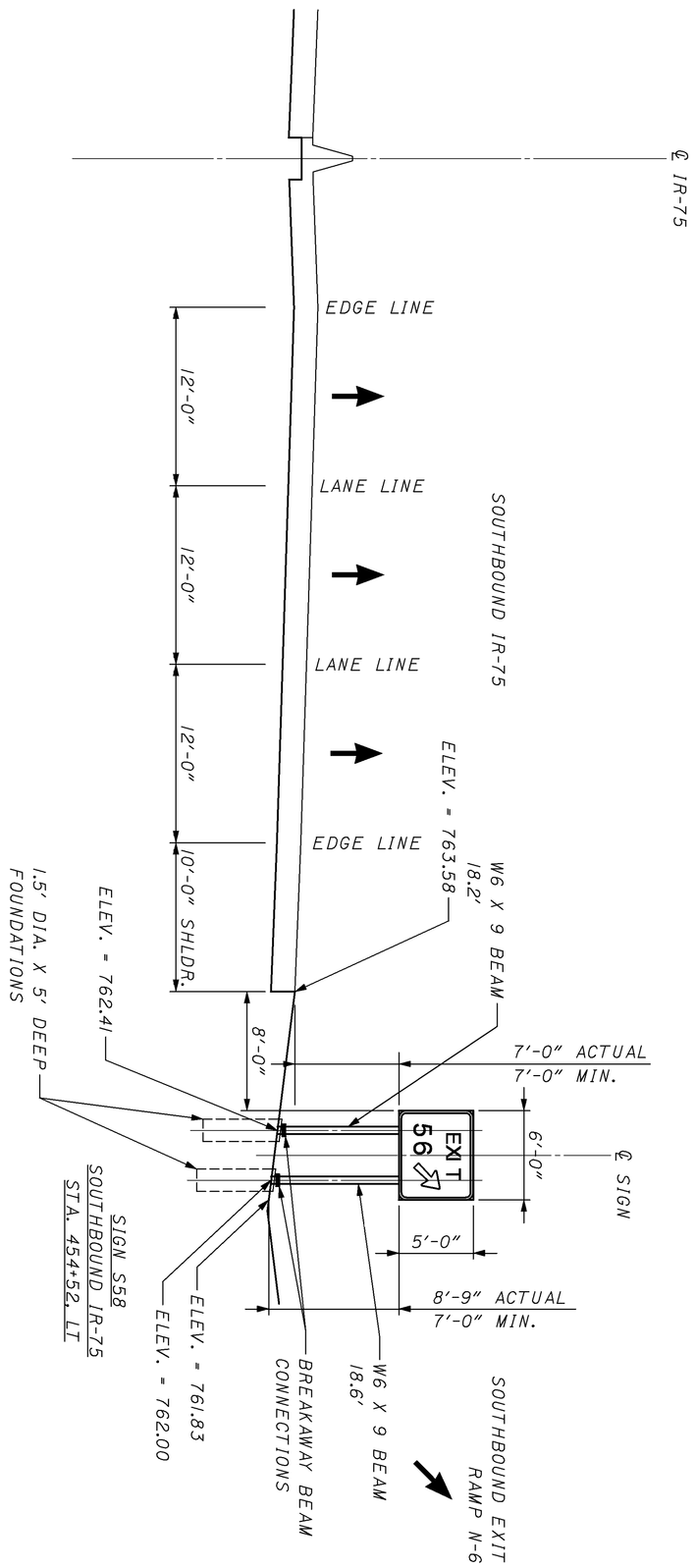
SIGN ELEVATION AND S33 & S33a

MOT-75-14.60

196
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:38 AM
Filename: G:\C004\0066\Traffic\Sheets\23828te03.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:39 AM
Filename: G:\C004\0066\Traffic\Sheets\23828te04.dgn



314 / 197	MOT-75-14.60	SIGN ELEVATION S58	CALCULATED SSS CHECKED HJF	0 5 10 HORIZONTAL SCALE IN FEET

SIGN S155
SOUTHBOUND IR-75
STA. 461+65, LT

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED SSS
CHECKED HJF

SIGN ELEVATION

S155

MOT-75-14.60

198
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:39 AM
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ITEM 630 MAINLINE REFERENCE MARKERS

REFERENCE MARKERS SHALL BE LOCATED AND INSTALLED AS INDICATED ON THESE PLANS. THE DEFAULT INSTALLATION SHALL BE AT 2/10THS OF A MILE INCREMENTS (0, 2, 4, 6, 8).

THE CONTRACTOR SHALL LAYOUT ALL REFERENCE MARKER LOCATIONS TO ASSURE PROPER PLACEMENT. THE LAYOUT SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATIONS ARE STARTED.

THE WHOLE DIGIT REFERENCE MARKERS, E.G. 16.0, SHALL BE PLACED AT THE SAME STATION AS THE MILE MARKER.

MAINLINE REFERENCE MARKERS SHALL BE INSTALLED IN THE MEDIAN AS INDICATED ON SHEET 2. ON RAMPS, THE REFERENCE MARKERS SHALL BE INSTALLED ON THE RIGHT SIDE. FOR DIRECTIONAL MAINLINE SEGMENTS, THE MARKER SHALL BE PLACED ON THE LEFT SIDE.

THE HEIGHT OF THE REFERENCE MARKERS SHALL BE SUCH THAT A UNIFORM APPEARANCE IS PRESENTED TO THE MOTORIST.

WHEN A REFERENCE MARKER IS OBSTRUCTED BY A SIGN TRUSS, BRIDGE, PIER OR THE LIKE, THE REFERENCE MARKER SHALL BE RELOCATED ± 50 FEET FROM THE LAYOUT LOCATION OR NOT INSTALLED WITH THE APPROVAL OF THE ENGINEER.

IF ANY MILE MARKERS ARE MISSING, A PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 30 DAYS IN ADVANCE OF THE PLANNED REFERENCE MARKER INSTALLATION. THE ENGINEER WILL CONTACT THE OFFICE OF TECHNICAL SERVICES WHICH WILL LOCATE THE LONGITUDINAL POSITION OF MISSING MILE MARKERS BY MEANS OF A POINT MARK ON THE PAVEMENT EDGE.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER EACH FOR 630 MAINLINE REFERENCE MARKER AND SHALL INCLUDE ALL LABOR AND MATERIAL FOR INSTALLATION. THE SUMMARY TOTAL IS FOR ESTIMATING ONLY. PAYMENT WILL BE FOR THE ACTUAL NUMBER INSTALLED.

ITEM 630 RAMP REFERENCE MARKERS

ANY RAMP LESS THAN 1056 FEET IN LENGTH SHALL HAVE ONLY ONE RAMP REFERENCE MARKER PLACED AT THE MIDPOINT OF THE LENGTH OF THE RAMP. ANY RAMP OVER 1056 FEET IN LENGTH SHALL HAVE A MINIMUM OF TWO RAMP MARKERS. AT THE DISCRETION OF THE ENGINEER, ADDITIONAL RAMP MARKERS MAYBE USED BASED UPON RAMP GEOMETRICS, SIGHT DISTANCE, AND LENGTH. ALL RAMP MARKINGS SHALL BE EVENLY SPACED BETWEEN THE GORE AREAS OF THE RAMP.

FOR SYSTEM-TO-SYSTEM INTERCHANGES WHEN RAMPS MAY SPLIT BEYOND THE MAINLINE, OR COLLECT BEFORE THE MAINLINE, A RAMP MARKER SHALL BE PLACED AT THE MIDPOINT OF THE DISTANCE BETWEEN THE MAINLINE AND THE RAMP SPLIT. ALL RAMP MARKERS SHALL BE PLACED ON THE RIGHT.

ADJUSTMENTS MAY BE MADE FOR BRIDGES AND OTHER OBSTRUCTIONS. AT THE DISCRETION OF THE ENGINEER, ADDITIONAL RAMP MARKERS MAY BE PLACED DUE TO RAMP LENGTH AND SIGHT DISTANCE CONDITIONS.

FINAL ADJUSTMENTS AND DETERMINATION OF NEED SHALL BE AT THE DISCRETION OF THE ENGINEER.

FOR INTERSTATE ROUTE REFERENCES ON RAMP MARKERS THE NUMERICAL DESIGNATION ONLY SHALL BE USED IN THE DESCRIPTION. FOR US AND STATE ROUTES, THE PREFIXES OF "US" AND "SR", AS APPROPRIATE, SHALL BE USED WITH THE NUMERICAL ROUTE DESIGNATION. THE DIRECTIONAL ORDINATE (N, S, E, W) SHALL PRECEDE THE ROUTE DESIGNATION.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER EACH FOR 630 RAMP REFERENCE MARKER AND SHALL INCLUDE ALL LABOR AND MATERIAL FOR INSTALLATION. THE SUMMARY TOTAL IS FOR ESTIMATING ONLY. PAYMENT WILL BE FOR THE ACTUAL NUMBER INSTALLED.

LIGHT POLE MOUNTING

WHERE LIGHT POLES EXIST IN THE MEDIAN, THE REFERENCE MARKERS SHALL BE INSTALLED ON THE LIGHT POLE IF THE LAYOUT LOCATION IS WITHIN ± 50 FEET OF THE LIGHT POLE. NO REFERENCE MARKERS SHALL BE ATTACHED TO LIGHT POLES EQUIPPED WITH LOWERING DEVICES.

ITEM 630 CONCRETE MEDIAN BARRIER SIGN BRACKET

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING THE CONCRETE MEDIAN BARRIER SIGN BRACKET DETAILED ON SHEET 3.

PAYMENT SHALL BE AT THE UNIT PRICE BID PER EACH FOR 630 CONCRETE MEDIAN BARRIER SIGN BRACKET. THIS PRICE WILL BE FULL COMPENSATION FOR ALL NECESSARY MATERIALS (INCLUDING THE POST), LABOR, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH BRACKET FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:39 AM
Filename: G:\C004\0066\Traffic\Sheets\23828t101.dgn

01-23-04

CALCULATED SSS
CHECKED HJF

GENERAL NOTES

OFFICE OF TRAFFIC ENGINEERING

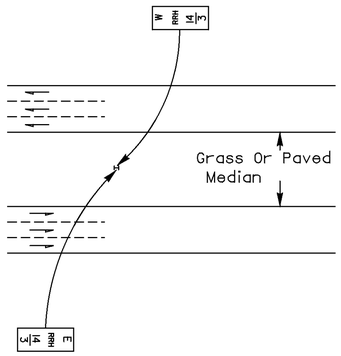
URBAN FREEWAY REFERENCE MARKERS

SIGNING PLAN INSERT SHEET

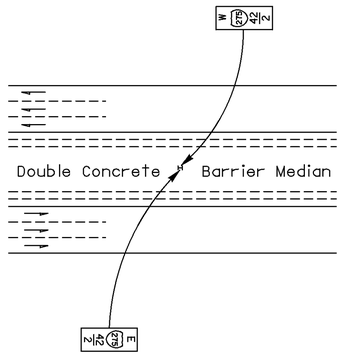
MOT-75-14.60

Typical Reference Marker Placement

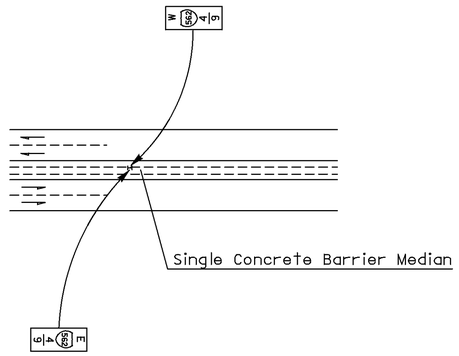
Median



Double Concrete Barrier Median

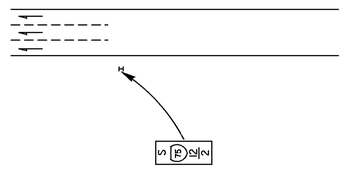


Single Concrete Barrier Median

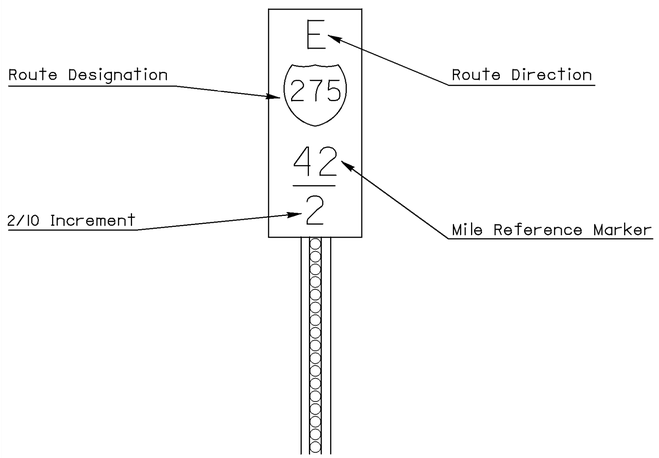


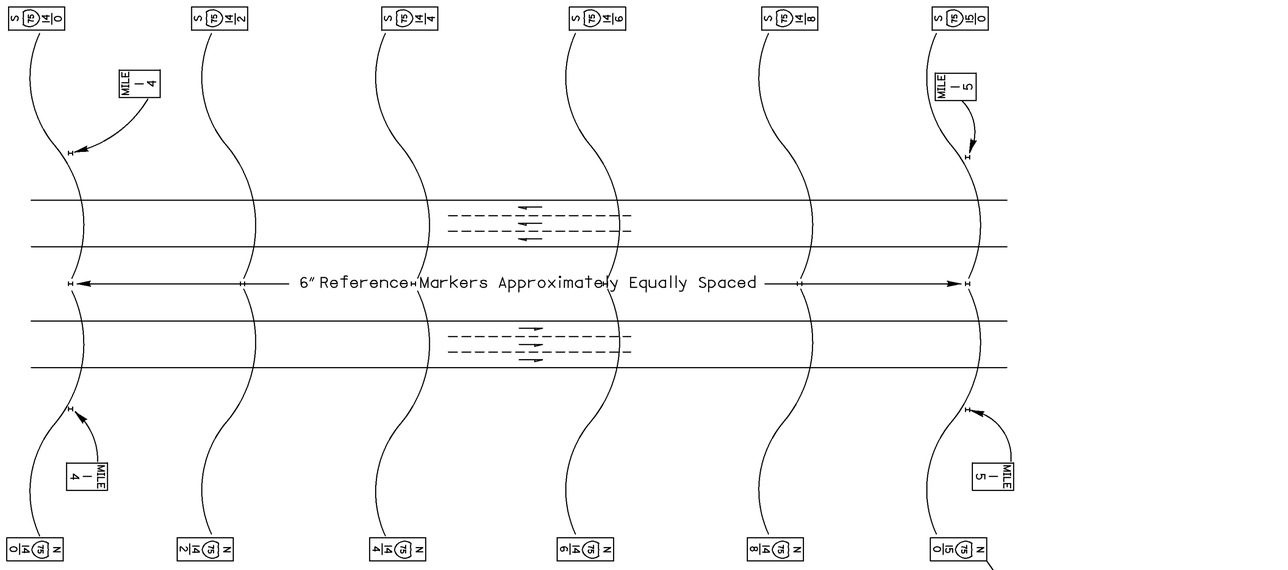
No Median Single Direction Traffic

Note: See Separate Sheet For Ramp Marker Installation.



NOTE: Placement other than those depicted here may apply.





Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:40 AM
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12-23-03

CALCULATED SSS
CHECKED HJF

TYPICAL REFERENCE MARKER PLACEMENT

OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

SIGNING PLAN INSERT SHEET

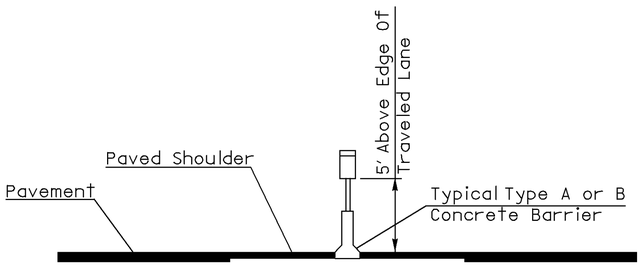
MOT-75-14.60

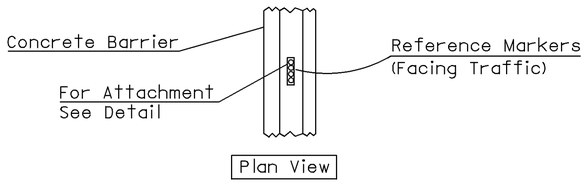
2 / 8

200
314

Typical Mainline Reference Marker Installation Plans

Single Median Barrier

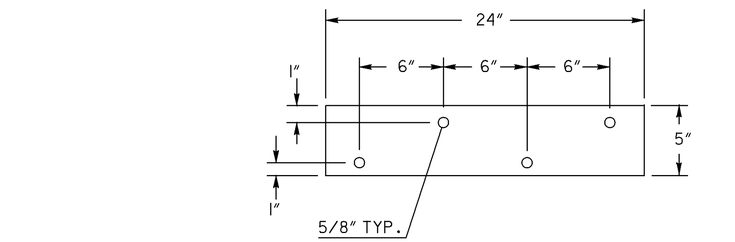


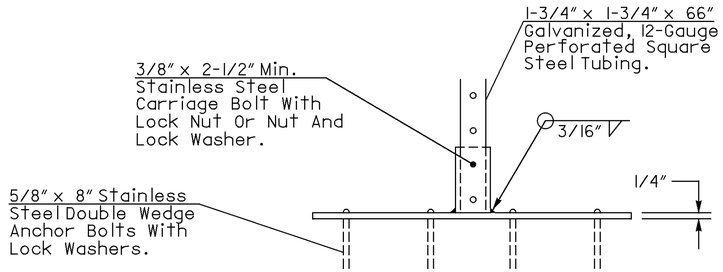


Note:

1. Typical installed height is 2' from top of barrier wall to bottom of sign.

Barrier Mounting Bracket



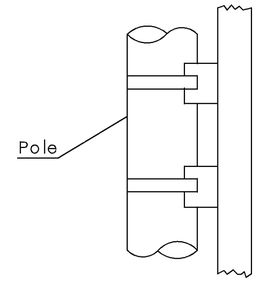


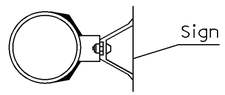
Note:

1. All Hardware Shall Be Galvanized Steel Or Stainless Steel As Specified.
2. All Work And Materials Shall Be In Accordance With Standard Specification.
3. 5/8" x 7" Stainless Anchor Bolts May Be Used If 8" Lengths Are Not Available.

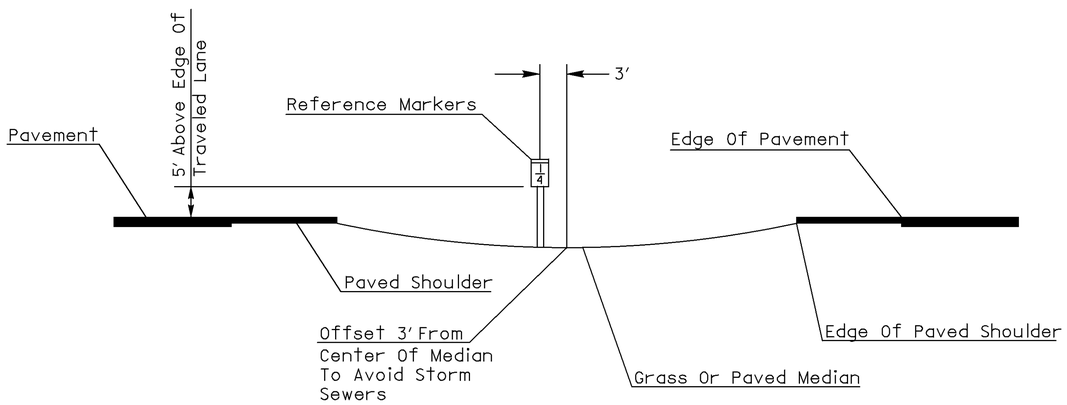
Light Poles

See TC-41.40 For Attachment

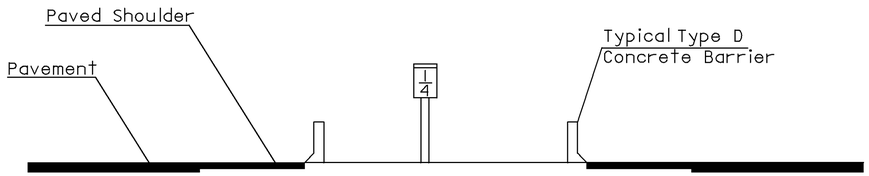




Median



Double Median Barrier



Note:

1. Typical installed height on a raised median is 4' from top of median to bottom of sign.

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12-23-03

CALCULATED SSS CHECKED HJF

REFERENCE MARKER INSTALLATION PLANS

SIGNING PLAN INSERT SHEET

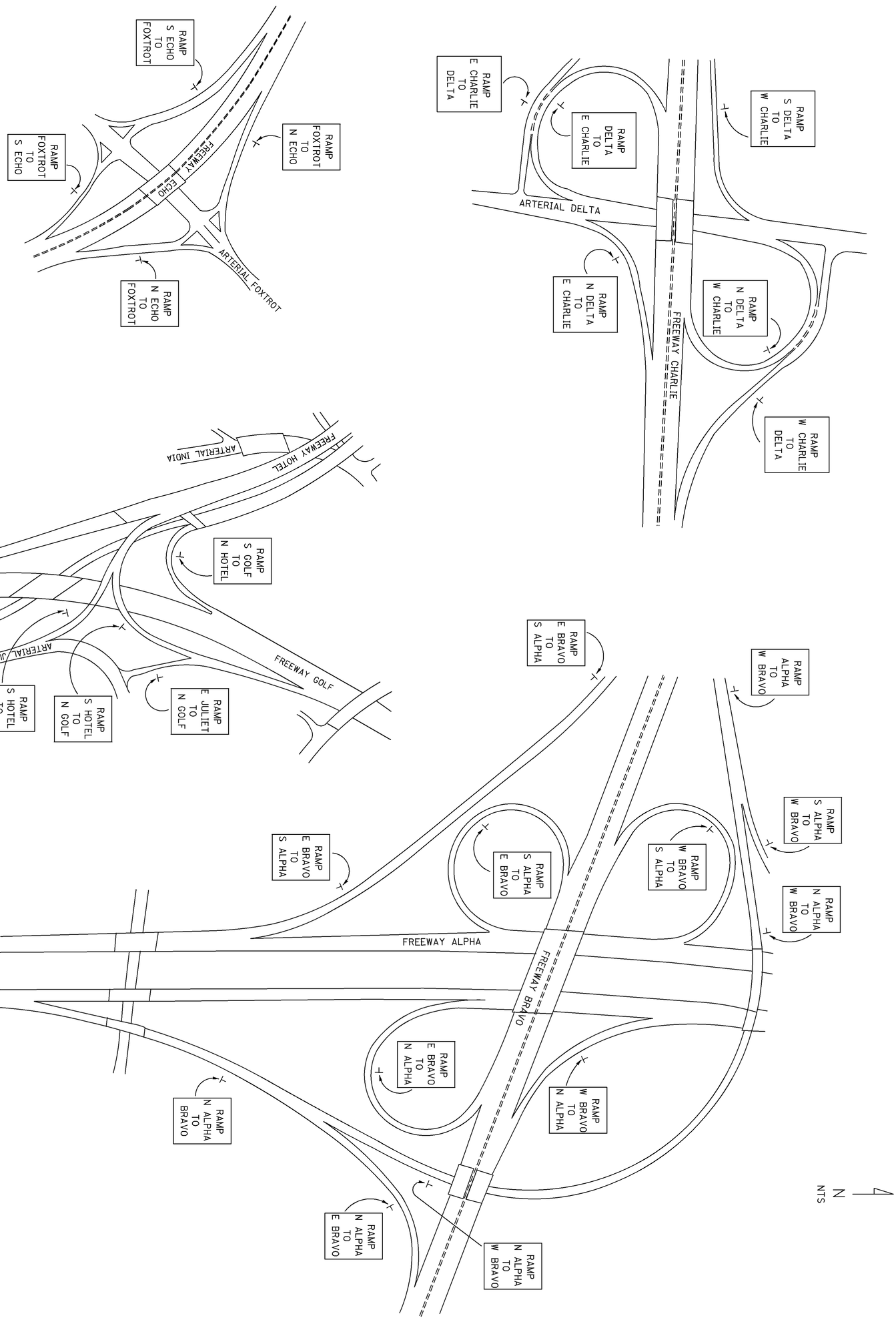
OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:40 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ti04.dgn

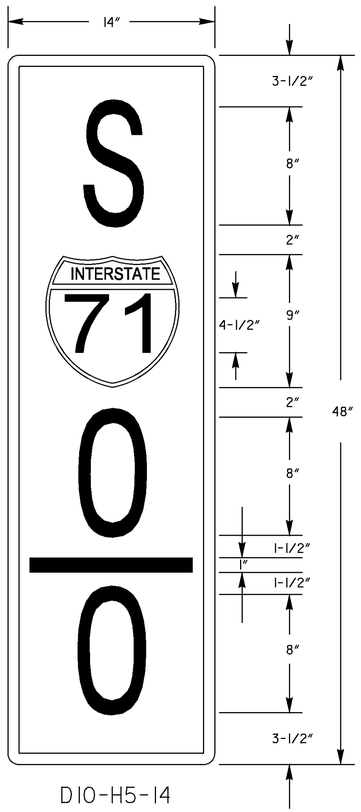
Typical Ramp Marker Installation



4/8	URBAN FREEWAY REFERENCE MARKERS	OFFICE OF TRAFFIC ENGINEERING	TYPICAL RAMP MARKER INSTALLATION	12-23-03
202/314	MOT-75-14.60	SIGNING PLAN INSERT SHEET		CALCULATED SSS / CHECKED HJF

Typical Reference Markers

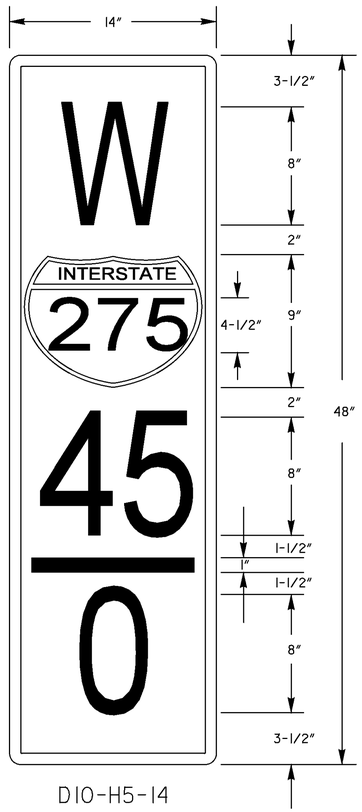
Mainline



D10-H5-14

Note:
Blue Background
Red Background on "Interstate" Portion of Shield
White Letters
White Border
White Divider Line
White Shield Outline

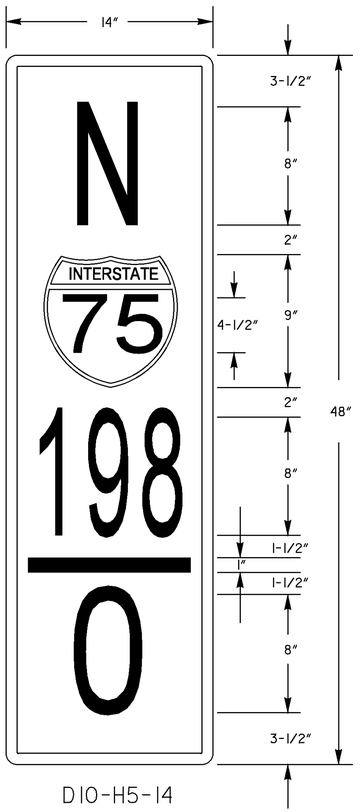
Note:
Divider Line Width = 1″
Divider Line Thickness = 1″
Border Width = 3/4″



D10-H5-14

Note:
Shield Width = 9″ for all 1-Digit and 2-Digit Routes
Shield Width = 11″ for all 3-Digit Routes

Note:
All Letters Series 'C'
All Numbers Series 'C', Unless Noted
3-Digit Mile Designation Shall Be Series 'B'



D10-H5-14

2-02-04

TYPICAL REFERENCE MARKERS

OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

CALCULATED SSS
CHECKED HJF

SIGNING PLAN INSERT SHEET

MOT-75-14.60

5 / 8

203
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:41 AM
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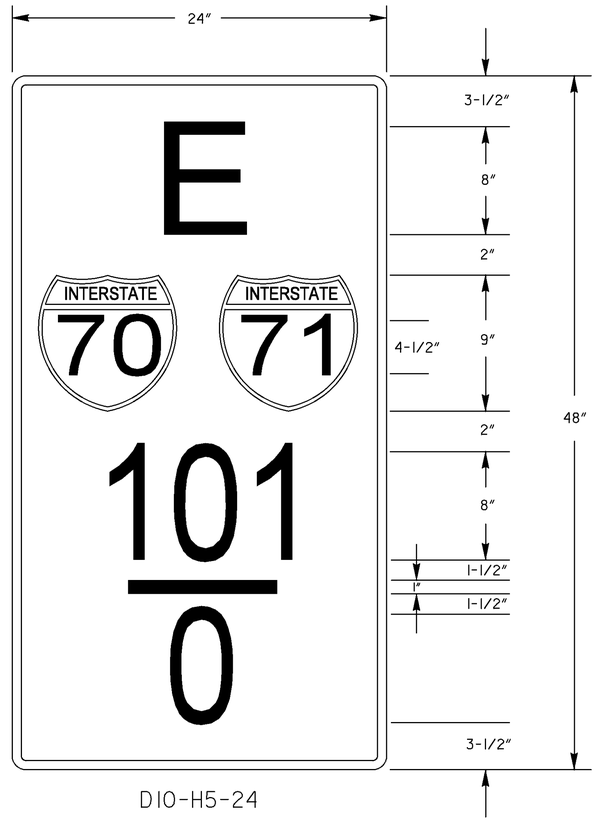
Typical Reference Markers
Mainline - Dual/Overlap Routes



D10-H5-24

Note:
- Blue Background
- Red Background on Interstate Portion of Shield
- White Letters
- White Border
- White Divider Line
- White Shield Outline

Note:
- Divider Line Width = 11″
- Divider Line Thickness = 1″
- Border Width = 3/4″

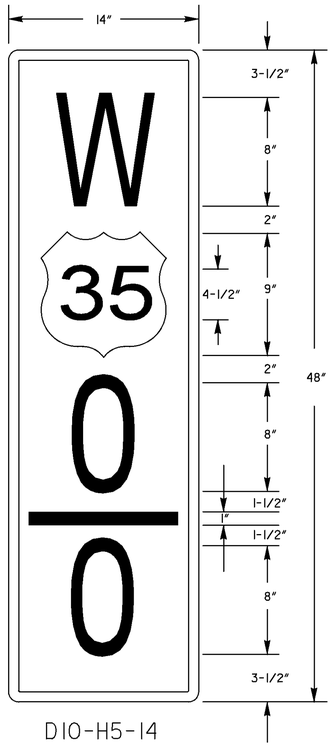
Note:
- Shield Width = 9″ for all 1-Digit and 2-Digit Routes
- Shield Width = 11″ for all 3-Digit Routes

Note:
- All Letters Series 'C'
- All Numbers Series 'C'

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:41 AM
Filename: G:\C004\0066\Traffic\Sheets\23828t106.dgn

Typical Reference Markers

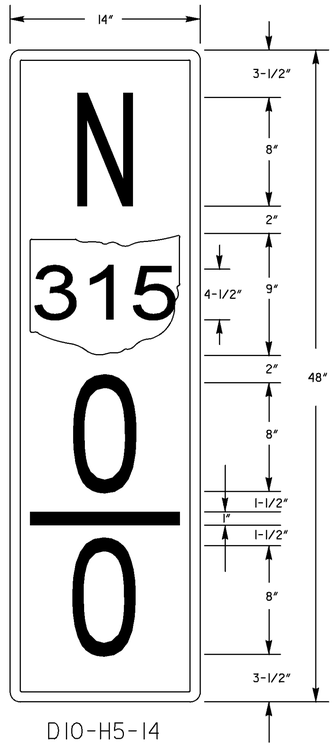
Mainline



D10-H5-14

Note:
- Blue Background
- White Letters, Unless Noted
- Black Numbers for US and State Routes
- White Border
- White Divider Line
- White Shield Background

Note:
- Divider Line Width = 11″
- Divider Line Thickness = 1″
- Border Width = 3/4″



D10-H5-14

Note:
- Shield Width = 9″ for all 1-Digit and 2-Digit Routes
- Shield Width = 11″ for all 3-Digit Routes

Note:
- All Letters Series 'C'
- All Numbers Series 'C', Unless Noted
- 3-Digit Mile Designation Shall Be Series 'B'

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:41 AM
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TYPICAL REFERENCE MARKERS

OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

2-02-04

CALCULATED SSS

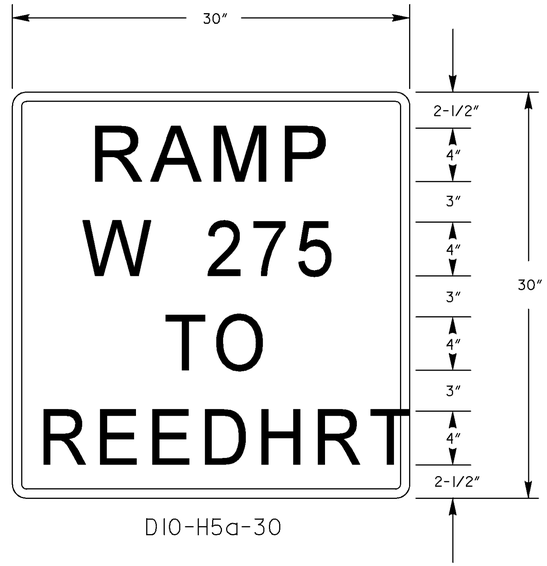
CHECKED HJF

SIGNING PLAN INSERT SHEET

MOT-75-14.60

Typical Reference Markers

Ramp



D10-H5a-30

Note:
- Blue Background
- White Letters
- White Border
- Border Width = 3/4″
- All Letters Series 'C'
- No Marker Installation on Bridges
- See Ramp Marker Installation Detail Sheets for Placement
- See Quantities for Specific Ramp Marker Lettering

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:42 AM
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2-02-04

TYPICAL REFERENCE MARKERS

OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

CALCULATED SSS
CHECKED HJF

SIGNING PLAN INSERT SHEET

MOT-75-14.60

UTILITIES

A LISTING OF ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS IS LOCATED IN THE PROJECT GENERAL NOTES.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

625 JUNCTION BOX, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS ITEM 632 AND CMS 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. JUNCTION BOXES SHALL BE CONSTRUCTED OF PVC.

2. JUNCTION BOXES SHALL BE SIZED AS INDICATED IN THE PLANS (3 EACH 8"x8"x7" AND 1 EACH 12"x12"x6").

3. JUNCTION BOXES SHALL HAVE TERMINAL CONNECTIONS FOR THE AMOUNT AND SIZE OF CONDUCTOR CABLE AS SHOWN IN THE PLANS.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH FOR ITEM 625, JUNCTION BOX, AS PER PLAN AND SHALL INCLUDE ALL MATERIAL, LABOR, CONDUIT FITTINGS AND ELBOW TO INSIDE OF POLE, MOUNTING HARDWARE.AND OTHER INCIDENTALS NECESSARY FOR EACH JUNCTION BOX FURNISHED, IN PLACE AND ACCEPTED.

625 PULL BOX, MISC.: PULL BOX, 725.07, (BY SIZE), AS PER PLAN

17"x30" PULL BOXES SHALL HAVE A NOMINAL DEPTH OF 30". 24"x36" PULL BOXES SHALL HAVE A NOMINAL DEPTH OF 42".

THE PULL BOX COVER SHALL BE RATED AT A MINIMUM OF 22,500 POUNDS OVER A 10" SQUARE. THE WORDS "TRAFFIC SIGNAL" SHALL BE INTEGRALLY CAST AS PART OF THE COVER. A CONCRETE COLLAR SHALL BE PLACED AROUND THE PULL BOX WHERE RECOMMENDED IN THE MANUFACTURER'S INSTALLATION PROCEDURE.

REMOVAL OF EXISTING SIDEWALK OR PULL BOXES AND REPLACEMENT OF SIDEWALK REQUIRED FOR PULL BOX INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 625, PULL BOX, MISC.: PULL BOX, 725.07, (BY SIZE), AS PER PLAN.

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM DAYTON POWER & LIGHTING COMPANY AND SHALL BE AT A LOCATION DETERMINED BY THE POWER COMPANY. POWER SUPPLIED SHALL BE 120/240 VOLTS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER X SHALL THE CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINAL 120 VOLTS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY THE MAINTAINING AGENCY.

632 VEHICULAR SIGNAL HEAD, (LED), 3- AND 5-SECTION, 12" LENS, 1-WAY, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS ITEM 632 AND CMS 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC WITH A BLACK BODY, YELLOW DOOR, AND A BLACK TUNNEL VISOR THAT IS OPEN AT THE BOTTOM AND MEET ITE SPECIFICATIONS.

2. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

3. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

4. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING UP TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL FOR SIGNAL DISPLAYS OF TWO OR MORE SECTIONS.

5. SIGNAL HEADS SUSPENDED FROM SPAN WIRES SHALL BE PROVIDED WITH A PIVOT AND LOCK BALANCE ADJUSTER.

6. ALL BALANCE ADJUSTERS SHALL HAVE A MINIMUM THREE-QUARTER INCH EYE BOLT AND THREE- QUARTER INCH WIDE SLOT. EYE BOLTS ARE CAST FROM 316 STAINLESS STEEL AND PROVIDED WITH A SATIN FINISH. THREE-QUARTER INCH BODY HALVES ARE CAST FROM A MINIMUM 65-45-12 DUCTILE IRON AND PROVIDED WITH A BRIGHT ZINC FINISH (ZNI). BALANCE ADJUSTERS SHALL ONLY BE USED WHERE NECESSARY. BALANCE ADJUSTERS SHALL BE USED ON ONE-WAY HEADS.

7. THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.

8. LAMPS: LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE THE 12 INCH SIZE. LED SIGNAL LAMP UNITS SHALL BE PROVIDED FOR ALL SIGNAL LENS TYPES.

632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

1. LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE TYPE D2.

2. THE LED LAMP UNIT SHALL DISPLAY THE SOLID SYMBOL FOR THE UPRAISED HAND AND A SYMBOL FOR THE WALKING PERSON.

3. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF A BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.

4. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

5. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

6. OVERLAY CONFIGURATION OF THE SYMBOLS FOR THE UPRAISED HAND OR THE WALKING PERSON SHALL BE USED.

7. THE BOTTOM OF THE SIGNAL HEADS SHALL BE NINE FEET ABOVE THE GROUND LINE.

8. 1-1/2 " CONDUIT BRACKET ARM HUB PLATES SHALL BE BOLTED TO POLES AND SHALL BE FIELD LOCATED BY CITY OF DAYTON.

632 PEDESTRIAN PUSHBUTTON, AS PER PLAN

THE PUSHBUTTON SHALL BE THE 2 INCH MUSHROOM PLUNGER TYPE.

PUSHBUTTONS SHALL BE WIRED WITH ONE CONTINUOUS RUN OF 3-CONDUCTOR SIGNAL CABLE FROM THE PUSHBUTTON TO THE CONTROLLER CABINET WITHOUT SPLICING.

632 MESSENGER WIRE, 7 STRAND,5/16" DIAMETER WITH ACCESSORIES, AS PER PLAN

MESSENGER WIRE SHALL BE5/16INCH DIAMETER, 7 STRAND, COPPER CLAD, EXTRA HIGH STRENGTH, AND 40% CONDUCTIVITY. ALL LASHING RODS SHALL BE COPPER. STRAIN INSULATORS SHALL BE PROVIDED WHERE TROLLEY WIRES EXIST. LASHING ROD AND STRAIN INSULATORS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 632 MESSENGER WIRE, AS PER PLAN.

FIBER OPTIC INTERCONNECT SPECIFICATIONS

APPLICABLE STANDARDS:

MATERIALS AND EQUIPMENT SUPPLIED AS PART OF THE FIBER OPTIC SYSTEM SHALL COMPLY WITH THE LATEST ISSUE OF THE FOLLOWING DOCUMENTS:

RUS RURAL UTILITY SERVICE MATERIAL ACCEPTANCE LIST

REA SPECIFICATIONS FOR FILLED OPTIC CABLES

EIA-STD-RS-455 STANDARD TEST PROCEDURES FOR FIBER OPTIC FIBERS, CABLES, TRANSDUCERS, CONNECTING AND TERMINATING DEVICES

MIL-STD-202 TEST METHODS FOR ELECTRONIC AND ELECTRICAL COMPONENT PARTS

MIL-STD-454 STANDARD GENERAL REQUIREMENTS FOR ELECTRONIC EQUIPMENT

MIL-STD-810 ENVIRONMENTAL TEST METHODS AND ENGINEERING GUIDELINES

EIA/TIA-598 TUBE AND FIBER COLOR CODE

NFPA-70-1993 NATIONAL ELECTRICAL CODE ARTICLE 770, OPTICAL FIBER CABLE

QUALIFICATIONS TO INSTALL TRAFFIC SIGNAL FIBER OPTIC SYSTEM

IN ADDITION TO THE PRE-QUALIFICATION REQUIREMENTS OF THE OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS, SECTION 102.01, THE CONTRACTOR SHALL MEET THE FOLLOWING QUALIFICATIONS.

THE CONTRACTOR PERFORMING ANY TASK REQUIRING THE OPENING OF THE FIBER OPTIC CABLE JACKET, INSTALLATION OF FIBER OPTIC CONNECTORS, SPLICING FIBERS, OR THE TESTING OF FIBER OPTIC CABLE SHALL UTILIZE AT LEAST ONE SUPERVISING FIBER OPTIC TECHNICIAN. SUPERVISING FIBER OPTIC TECHNICIANS AND FIBER OPTIC TECHNICIANS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS.

1) SUPERVISING FIBER OPTIC TECHNICIANS AND FIBER OPTIC TECHNICIANS SHALL HAVE ATTENDED AND SUCCESSFULLY COMPLETED AT LEAST ONE COMPREHENSIVE "INSTALLATION OF FIBER OPTIC PRODUCTS SCHOOL". A MAJOR MANUFACTURER OF FIBER OPTIC PRODUCTS OR AN APPROVED INDEPENDENT SCHOOL WILL CONDUCT THIS SCHOOL THAT ENCOMPASSES ALL ASPECTS OF FIBER OPTIC TECHNICIAN CERTIFICATION.

2) THE SUPERVISING FIBER OPTIC TECHNICIAN SHALL DEMONSTRATE A MINIMUM OF ONE CONTINUOUS YEAR OF WORK EXPERIENCE WHERE THE SPLICING, TERMINATION, AND TESTING OF FIBER OPTIC CABLE WITH AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) WAS A PRIMARY RESPONSIBILITY.

CALCULATED SSS CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

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THE BIDDER SHALL HAVE AVAILABLE ALL OF THE CONSTRUCTION EQUIPMENT AND BUCKET/LINE TRUCKS TO PERFORM THE FIBER OPTIC WORK REQUIRED BY THIS CONTRACT.

THE BIDDER SHALL BE EXPERIENCED AND ACTIVELY ENGAGED IN TRAFFIC SIGNAL FIBER OPTIC INSTALLATION WORK.

FAILURE TO MEET ALL OF THE ABOVE QUALIFICATIONS MAY BE GROUNDS FOR THE LOW BIDDER BEING DISQUALIFIED AT THE DISCRETION OF THE DEPARTMENT.

GENERAL FIBER OPTIC CABLE REQUIREMENTS:

THIS SPECIFICATION RECOGNIZES THE FOLLOWING ACCEPTED DESIGNS FOR THIS PROJECT.

OUTSIDE PLANT CABLE (OSP): DUCT, ARMORED, LOOSE TUBE, DOUBLE MDPE JACKETED IN AN UNDERGROUND CONDUIT CONFIGURATION.

OUTSIDE PLANT CABLE (OSP): AERIAL, ARMORED, LOOSE TUBE, DOUBLE MDPE JACKETED IN A FIGURE 8 OR LASHED CONFIGURATION.

1. OPTICAL FIBER CHARACTERISTICS

THE FOLLOWING OPTICAL FIBER CHARACTERISTICS SHALL APPLY: SINGLE-MODE (DISPERSION UN-SHIFTED)

THE SINGLE-MODE FIBER SHALL MEET EIA/TIA-492CAAA, "DETAIL SPECIFICATION FOR CLASS IVA DISPERSION-UNSHIFTED SINGLE-MODE OPTICAL FIBERS," AND ITU RECOMMENDATION G.652, "CHARACTERISTICS OF A SINGLE-MODE OPTICAL FIBRE CABLE."

EACH OPTICAL FIBER SHALL CONSIST OF A GERMANIA-DOPED SILICA CORE SURROUNDED BY A CONCENTRIC GLASS CLADDING. THE FIBER SHALL BE MATCH-CLAD DESIGN. ALL FIBERS IN THE CABLE SHALL BE USABLE FIBERS AND SHALL BE SUFFICIENTLY FREE OF SURFACE IMPERFECTIONS AND ILLUSIONS TO MEET THE OPTICAL, MECHANICAL, AND ENVIRONMENTAL REQUIREMENTS OF THESE SPECIFICATIONS.

EACH OPTICAL FIBER SHALL BE PROOF TESTED BY THE FIBER MANUFACTURER AT A MINIMUM OF 100 kpsi (0.7 Gn/m2).

THE FIBER SHALL BE COATED WITH A DUAL LAYER ACRYLATE PROTECTIVE COATING. THE COATING SHALL BE IN PHYSICAL CONTACT WITH THE CLADDING SURFACE AND SHALL BE MECHANICALLY OR CHEMICALLY STRIPPABLE WITHOUT DAMAGING THE FIBER.

THE REQUIRED FIBER GRADE SHALL REFLECT THE MAXIMUM INDIVIDUAL ATTENUATION TO GUARANTEE THE REQUIRED PERFORMANCE OF EVERY FIBER IN THE CABLE.

THE FIBER SHALL COMPLY WITH ALL OPTICAL AND MECHANICAL REQUIREMENTS OVER AN OPERATING TEMPERATURE RANGE OF -40*C TO +70*C.

THE OPTICAL FIBER SHALL BE PRODUCED BY COMMSCOPE, CORNING OR U.S. MANUFACTURERED EQUAL. IF A CABLE MANUFACTURER CHOOSES TO UTILIZE OPTICAL FIBER OTHER THAN COMMSCOPE OR CORNING, SAID MANUFACTURER OF CABLE SHALL SUBMIT ITS OPTICAL FIBER FOR PRE-APPROVAL. THIS APPROVAL WILL CONSIST OF SPLICE COMPATIBILITY BETWEEN SAID MANUFACTURER AND COMMSCOPE OR CORNING. THESE TESTS AND THEIR DATA SHALL BE PERFORMED AND COMPILED BY AN ENGINEER-APPROVED INDEPENDENT LABORATORY, SUCH AS BELLCORE, THAT CAN DEMONSTRATE A THREE YEAR HISTORY OF THE PERFORMANCE OF SUCH TESTS. TESTING WILL BE AT THE EXPENSE OF THE CONTRACTOR.

2. OPTICAL FIBER SPECIFICATION TABLE SINGLE-MODE (DISPERSION UN-SHIFTED)

GEOMETRY:

CLADDING DIAMETER (um)	125.0 * 0.7
CORE-TO-CLADDING CONCENTRICITY (um)	<= 0.5
CLADDING NON-CIRCULARITY	<= 1.0 %

MODE	FIELD DIAMETER (um)
1310 nm	9.2 * 0.4
1550 nm	10.4 * 0.8

COATING DIAMETER (um)	245 * 5
COLORED FIBER NOMINAL DIAMETER (um)	253 - 259
FIBER CURL RADIUS OF CURVATURE (m)	> 4.0 m

OPTICAL:

CABLED FIBER ATTENUATION (dB/km)	
1310 nm	<= 0.4
1550 nm	<= 0.3
POINT DISCONTINUIT (dB)	
1310 nm	<= 0.1
1550 nm	<= 0.1

MACROBEND ATTENUATION (dB)		
TURNS	MANDREL OD	
1	32 * 2 mm	< 0.50 AT 1550 nm
100	50 * 2 mm	< 0.05 AT 1310 nm
100	50 * 2 mm	< 0.10 AT 1550 nm
100	60 * 2 mm	< 0.05 AT 1550 nm

CABLE CUTOFF WAVELENGTH (nm)	< 1260
ZERO DISPERSION WAVELENGTH (nm)	1302 <= X <= 1322
ZERO DISPERSION SLOPE (SO) (ps/(nm**km))	<= 0.092
TOTAL DISPERSION (ps/(nm?km))	
1285-1330 nm	<= 3.5
1550 nm	<= 18
CABLED POLARIZATION MODE DISPERSION (ps/(km)1/2)	<= 0.5
IEEE 802.3 GBE - 1300 nm LASER DISTANCE (m)	UP TO 5000
WATER PEAK ATTENUATION: 1383 * 3 nm (dB/km)	<= 2.1

SINGLE-MODE (DISPERSION UN-SHIFTED) WITH LOW WATER PEAK:

THE SINGLE-MODE LOW WATER PEAK FIBER UTILIZED IN THE OPTICAL FIBER CABLE SHALL MEET EIA/TIA-492CAAB, "DETAIL SPECIFICATION FOR CLASS IVA DISPERSION-UNSHIFTED SINGLE-MODE OPTICAL FIBERS WITH LOW WATER PEAK," AND ITU RECOMMENDATION G.652.C, "CHARACTERISTIC OF A SINGLE-MODE OPTICAL FIBRE CABLE." THESE FIBERS SHALL HAVE THE SAME SPECIFIED PERFORMANCE AND GEOMETRY VALUES AS STANDARD DISPERSION UN-SHIFTED FIBER (SECTION 2) EXCEPT AS NOTED BELOW.

MODE FIELD DIAMETER (um)	
1550 nm	10.4 * 0.5
POINT DISCONTINUITY (dB)	
1310 nm	<= 0.05
1550 nm	<= 0.05

MACROBEND ATTENUATION (dB)		
TURNS	MANDREL OD	
100	60 * 2 mm	< 0.05 AT 1625 nm

TOTAL DISPERSION (PS/(Nm*km))	
1625 nm	<= 22
CABLED FIBER ATTENUATION: 1383 * 3 nm (dB/km)	<= 0.4

3. COLOR CODING

BUFFER TUBES AND INDIVIDUAL OPTICAL FIBERS WITHIN THOSE BUFFER TUBES SHALL ADHERE TO EIA-TIA-598-B, "OPTICAL FIBER CABLE COLOR CODING"

1=BLUE
2=ORANGE
3=GREEN
4=BROWN
5=SLATE
6=WHITE
7=RED
8=BLACK
9=YELLOW
10=VIOLET
11=ROSE
12=AQUA

THE COLORING MATERIAL SHALL BE STABLE OVER THE TEMPERATURE RANGE OF THE CABLE, SHALL NOT BE SUSCEPTIBLE TO MIGRATION, AND SHALL NOT AFFECT THE TRANSMISSION CHARACTERISTICS OF THE OPTICAL FIBERS. COLOR CODED BUFFERED FIBERS SHALL NOT ADHERE TO ONE ANOTHER

4. PACKING AND SHIPPING

THE COMPLETED CABLE SHALL BE PACKAGED FOR SHIPMENT ON NON-RETURNABLE WOODEN REELS. REQUIRED CABLE LENGTHS SHALL BE STATED IN THE PURCHASE ORDER.

THE DIAMETER OF THE DRUM SHALL BE AT LEAST 20 TIMES THE DIAMETER OF THE CABLE.

TOP AND BOTTOM ENDS OF THE CABLE SHALL BE AVAILABLE FOR TESTING.

BOTH ENDS OF THE CABLE SHALL BE SEALED TO PREVENT THE INGRESS OF MOISTURE.

THE CABLE SHALL BE COVERED WITH A THERMAL WRAP. THE OUTER END OF THE CABLE SHALL BE SECURELY FASTENED TO THE REEL HEAD SO AS TO PREVENT THE CABLE FROM BECOMING LOOSE IN TRANSIT. THE INNER END OF THE CABLE SHALL PROJECT A MINIMUM OF 6.5 FEET (2 METERS) INTO A SLOT IN THE SIDE OF THE REEL OR THE INNER SLOT OF THE DRUM, IN SUCH A MANNER TO MAKE IT AVAILABLE FOR TESTING. AN ARBOR HOLE OF 1-1/2 INCH (40 mm) MINIMUM IS REQUIRED.

EACH REEL SHALL HAVE A WEATHER RESISTANT REEL TAG ATTACHED IDENTIFYING THE REEL AND CABLE.

THE REEL TAG SHALL INCLUDE THE FOLLOWING INFORMATION:

CABLE NUMBER GROSS WEIGHT
SHIPPED CABLE LENGTH IN METERS
JOB ORDER NUMBER
PRODUCT NUMBER
CUSTOMER ORDER NUMBER
DATE CABLE WAS TESTED
ORDER NUMBER
CABLE LENGTH MARKINGS
ITEM NUMBER A: TOP (INSIDE END OF CABLE) B: BOTTOM (OUTSIDE END OF CABLE)

THE REEL (ONE FLANGE) MARKING SHALL INCLUDE:

"MANUFACTURER'S NAME"
COUNTRY OF ORIGIN (E.G., USA)
AN ARROW INDICATING PROPER DIRECTION OF ROLL WHEN HANDLING
FORK LIFT-HANDLING ILLUSTRATION
"DO NOT SHIP REEL ON SIDE" OR
"DO NOT LAY REEL ON ITS SIDE"

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

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EACH CABLE SHALL BE ACCOMPANIED BY A CABLE DATA SHEET. THE CABLE DATA SHEET SHALL INCLUDE THE FOLLOWING INFORMATION:

MANUFACTURER'S CABLE NUMBER
MANUFACTURER'S PRODUCT NUMBER
MANUFACTURER'S FACTORY ORDER NUMBER
CUSTOMER NAME
ALTERNATE CUSTOMER
CUSTOMER CABLE NUMBER
CUSTOMER PURCHASE ORDER NUMBER
ALTERNATE CODE MARK FOR INFORMATION
ORDERED LENGTH
MAXIMUM BILLABLE LENGTH
ACTUAL SHIPPED LENGTH
MEASURED ATTENUATION OF EACH FIBER
BANDWIDTH SPECIFICATION (FOR LENGTHS > 1000 m) (WHERE APPLICABLE)

THE FOLLOWING STANDARDS ARE MINIMUM REQUIRED FOR OUTSIDE PLANT FIBER OPTIC CABLE IN ADDITION TO THE GENERAL REQUIREMENTS DEFINED ABOVE.

ALL CABLE SHALL BE OUTSIDE PLANT DOUBLE MDPE JACKETED, ARMORED, DRY CORE (WATER BLOCK TAPE) LOOSE TUBE. ARMORED CABLE SHALL BE REQUIRED FOR ALL OUTSIDE PLANT CABLE TYPES ON THIS PROJECT.

THE CABLE SHALL MEET ALL REQUIREMENTS STATED IN THIS SPECIFICATION. THE CABLE SHALL BE AN ACCEPTED PRODUCT OF THE UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE (RUS) 7 CFR 1755.900 AND MEET THE REQUIREMENTS OF ANSI/ICEA STANDARD FOR FIBER OPTIC OUTSIDE PLANT COMMUNICATIONS CABLE, ANSI/ICEA S-87-640-1999. FIBER OPTIC CABLE MANUFACTURER MUST BE 100% VERTICALLY INTEGRATED WITH THE FIBER MANUFACTURER. THE CABLE MANUFACTURER MUST BE ABLE TO PROVIDE A 25 YEAR WARRANTY ON ALL FIBER OPTIC COMPONENTS. CABLE MANUFACTURER MUST BE ABLE TO PROVIDE ALL FIBER TYPES REQUIRED FROM THE SAME FIBER MANUFACTURER. THE CABLE MANUFACTURER MUST BE ABLE TO PROVIDE CABLE, CONNECTORS, HARDWARE, SPLICE EQUIPMENT AND TEST EQUIPMENT UNDER THE SAME MANUFACTURER'S NAME.

ALL FIBER OPTIC CABLE ON THIS PROJECT SHALL BE FROM A MANUFACTURER WHO IS REGULARLY ENGAGED IN THE PRODUCTION OF THIS MATERIAL. ALL OUTSIDE PLANT LOOSE TUBE FIBER OPTIC CABLE AND ALL OUTSIDE PLANT LOOSE TUBE DROP CABLES USED ON THIS PROJECT SHALL BE FROM THE SAME MANUFACTURER.

1. CABLE MARKING CHARACTERISTICS

CABLE JACKETS SHALL BE MARKED WITH THE MANUFACTURER'S NAME, MONTH AND YEAR OF MANUFACTURE, SEQUENTIAL FOOT MARKINGS, A TELECOMMUNICATION HANDSET SYMBOL AS REQUIRED BY SECTION 350G OF THE NATIONAL ELECTRICAL SAFETY CODE® (NESC®), FIBER COUNT, AND FIBER TYPE. THE ACTUAL LENGTH OF THE CABLE SHALL BE WITHIN -/+1% OF THE LENGTH MARKINGS. THE PRINT COLOR SHALL BE WHITE, WITH THE EXCEPTION THAT CABLE JACKETS CONTAINING ONE OR MORE COEXTRUDED WHITE STRIPES, WHICH SHALL BE PRINTED IN LIGHT BLUE. THE HEIGHT OF THE MARKING SHALL BE APPROXIMATELY 0.098 INCH (2.5 mm).

2. GENERAL CABLE PERFORMANCE SPECIFICATIONS

THE MAXIMUM PULLING TENSION SHALL BE 2700 N (608 lbf) DURING INSTALLATION (SHORT TERM) AND 890 N (200 lbf) LONG TERM INSTALLED.

THE SHIPPING, STORAGE, AND OPERATING TEMPERATURE RANGE OF THE CABLE SHALL BE -40°C TO +70°C. THE INSTALLATION TEMPERATURE RANGE OF THE CABLE SHALL BE -30°C TO +70°C.

WHEN TESTED IN ACCORDANCE WITH FOTP-3, "PROCEDURE TO MEASURE TEMPERATURE CYCLING EFFECTS ON OPTICAL FIBERS, OPTICAL CABLE, AND OTHER PASSIVE FIBER OPTIC COMPONENTS," THE CHANGE IN ATTENUATION AT EXTREME OPERATIONAL TEMPERATURES (-40°C AND +70°C) SHALL NOT

EXCEED 0.15 dB/km AT 1550 nm FOR SINGLE-MODE FIBER AND 0.3 dB/km AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-81, "COMPOUND FLOW (DRIP) TEST FOR FILLED FIBER OPTIC CABLE," THE CABLE SHALL EXHIBIT NO FLOW (DRIP OR LEAK) OF FILLING AND/OR FLOODING MATERIAL AT 70°C.

WHEN TESTED IN ACCORDANCE WITH FOTP-82, "FLUID PENETRATION TEST FOR FLUID-BLOCKED FIBER OPTIC CABLE," A 3 FOOT (ONE METER) LENGTH OF UNAGED CABLE SHALL WITHSTAND A 3 FOOT (ONE METER) STATIC HEAD OR EQUIVALENT CONTINUOUS PRESSURE OF WATER FOR ONE HOUR WITHOUT LEAKAGE THROUGH THE OPEN CABLE END.

WHEN TESTED IN ACCORDANCE WITH FOTP-41, "COMPRESSIVE LOADING RESISTANCE OF FIBER OPTIC CABLES," THE CABLE SHALL WITHSTAND A MINIMUM COMPRESSIVE LOAD OF 220 N/cm (125 lbf/in) APPLIED UNIFORMLY OVER THE LENGTH OF THE SAMPLE. THE 220 N/cm (125 lbf/in) LOAD SHALL BE APPLIED AT A RATE OF 2.5 mm (0.1 in) PER MINUTE. THE LOAD SHALL BE MAINTAINED FOR A PERIOD OF 1 MINUTE. THE LOAD SHALL THEN BE DECREASED TO 110 N/cm (63 lbf/in). ALTERNATIVELY, IT IS ACCEPTABLE TO REMOVE THE 220 N/cm (125 lbf/in) LOAD ENTIRELY AND APPLY THE 110 N/cm (63 lbf/in) LOAD WITHIN FIVE MINUTES AT A RATE OF 2.5 mm (0.1 in) PER MINUTE. THE 110 N/cm (63 lbf/in) LOAD SHALL BE MAINTAINED FOR A PERIOD OF 10 MINUTES. ATTENUATION MEASUREMENTS SHALL BE PERFORMED BEFORE RELEASE OF THE 110 N/cm (63 lbf/in) LOAD. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBERS AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-104, "FIBER OPTIC CABLE CYCLIC FLEXING TEST," THE CABLE SHALL WITHSTAND 25 MECHANICAL FLEXING CYCLES AROUND A SHEAVE DIAMETER NOT GREATER THAN 20 TIMES THE CABLE DIAMETER. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.1 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-25, "REPEATED IMPACT TESTING OF FIBER OPTIC CABLES AND CABLE ASSEMBLIES," EXCEPT THAT THE NUMBER OF CYCLES SHALL BE TWO AT THREE LOCATIONS ALONG A THREE FOOT (ONE METER) CABLE LENGTH AND THE IMPACT ENERGY SHALL BE AT LEAST 4.4 nm (IN ACCORDANCE WITH ICEA S-87-640)", THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-33, "FIBER OPTIC CABLE TENSILE LOADING AND BENDING TEST," USING A MAXIMUM MANDREL AND SHEAVE DIAMETER OF 560 mm, THE CABLE SHALL WITHSTAND A RATED TENSILE LOAD OF 2670N (601 lbf) AND RESIDUAL LOAD OF 30% OF THE RATED INSTALLATION LOAD. THE AXIAL FIBER STRAIN SHALL BE 60% OF THE FIBER PROOF LEVEL AFTER COMPLETION OF 60 MINUTE CONDITIONING AND WHILE THE CABLE IS UNDER THE RATED INSTALLATION LOAD. THE AXIAL FIBER STRAIN SHALL BE 20% OF THE FIBER PROOF LEVEL AFTER COMPLETION OF 10 MINUTE CONDITIONING AND WHILE THE CABLE IS UNDER THE RESIDUAL LOAD. THE CHANGE IN ATTENUATION AT RESIDUAL LOAD AND AFTER LOAD REMOVAL SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-85, "FIBER OPTIC CABLE TWIST TEST," A LENGTH OF CABLE NO GREATER THAN 6.5 FEET (2 METERS) SHALL WITHSTAND 10 CYCLES OF MECHANICAL TWISTING. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-37, "LOW OR HIGH TEMPERATURE BEND TEST FOR FIBER OPTIC CABLE," THE CABLE SHALL WITHSTAND FOUR FULL TURNS AROUND A MANDREL EQUAL TO 20 TIMES THE CABLE DIAMETER AFTER CONDITIONING FOR FOUR HOURS AT TEST TEMPERATURES OF -30°C AND +60°C. NEITHER THE INNER NOR OUTER SURFACES OF THE JACKET SHALL EXHIBIT VISIBLE CRACKS, SPLITS, TEARS, OR OTHER OPENINGS. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.30 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.50 dB AT 1300 nm FOR MULTI-MODE FIBER.

3. QUALITY ASSURANCE PROVISIONS

ALL CABLED OPTICAL FIBERS > 3280 FEET (1000 METERS) IN LENGTH SHALL BE 100% ATTENUATION TESTED. THE ATTENUATION OF EACH FIBER SHALL BE PROVIDED WITH EACH CABLE REEL.

THE CABLE MANUFACTURER SHALL BE TL 9000 REGISTERED.

AT THE REQUEST OF THE ENGINEER, THE CONTRACTOR SHALL HAVE THE CABLE MANUFACTURER PROVIDE INSTALLATION PROCEDURES AND TECHNICAL SUPPORT CONCERNING THE ITEMS CONTAINED IN THESE SPECIFICATIONS.

THE COST OF MEETING ALL REQUIREMENTS OF THIS SECTION SHALL BE INCIDENTAL TO THE PROJECT.

FIBER OPTIC CABLE INSTALLATION REQUIREMENTS

THESE REQUIREMENTS SHALL APPLY TO ALL FIBER OPTIC CABLE BEING INSTALLED ON THIS PROJECT. THE FIBER OPTIC TRUNK CABLE AND DROP CABLE SHALL BE INSTALLED TO FOLLOW THE PATH AS SHOWN ON THE CONSTRUCTION PLAN SET. THE CONTRACTOR SHALL NOTIFY THE CITY OF DAYTON 48 HOURS PRIOR TO ALL FIBER OPTIC CABLE INSTALLATION. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO UTILIZE EXISTING MESSENGER CLAMPS AND CONDUIT TO INSTALL THE FIBER OPTIC TRUNK CABLE.

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A DETAILED CONSTRUCTION AND INSTALLATION PROCEDURE (SOP) COVERING ALL ASPECTS OF THE CONSTRUCTION AND INSTALLATION PROCESS FOR EACH SPECIFIC CABLE TYPE TO BE USED ON THIS PROJECT. THE SOP WILL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK ON THE PROJECT.

UNDERGROUND INSTALLATION

A DETECTABLE TAPE SYSTEM IS NOT REQUIRED WHEN INSTALLING FIBER OPTIC CABLE IN EXISTING CONDUIT; HOWEVER, A TONE WIRE SHALL BE INSTALLED IN ALL CITY OWNED CONDUIT TO PROVIDE A METHOD OF LOCATING FIBER/CONDUIT BETWEEN PULL BOXES. THE TONE WIRE SHALL HAVE SUFFICIENT LENGTH STORED WITHIN THE PULL BOXES TO PROVIDE FOR THE ATTACHMENT OF ELECTRONIC EQUIPMENT.

FIBER OPTIC CABLE INSTALLED IN CONDUIT SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

A. NO MORE THAN TWO 90 DEGREE CHANGES IN DIRECTION PER CABLE PULL.

B. CIRCUITOUS PULLS AND PULLS EXCEEDING 1000 FEET SHALL BE MADE BY BACK FEEDING OR CENTER FEEDING OF CABLE.

C. AFTER INSTALLATION THERE SHALL BE NO TENSION EXCEPT DUE TO CABLE WEIGHT.

D. TENSION OF CABLE SHALL BE MONITORED WITH A TENSIOMETER DURING INSTALLATION.

E. THE APPLIED TENSION SHALL NOT EXCEED CABLE MANUFACTURER RECOMMENDATIONS. IN NO CASE SHALL TENSION EXCEED 400 POUNDS (182 kg).

F. THE CENTRAL STRENGTH MEMBER AND THE ARAMID YARD SHALL BE DIRECTLY ATTACHED TO THE PULLING EYE. "BASKET GRIP" OR "CHINESE FINGER" TYPE ATTACHMENTS SHALL NOT BE PERMITTED. A BREAKAWAY SWIVEL SHALL BE USED ON ALL PULLS.

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

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WHENEVER UNREELED CABLE IS PLACED ON THE PAVEMENT OR SURFACE ABOVE A MANHOLE, PROVIDE BARRICADES OR OTHER MEANS OF PREVENTING VEHICULAR OR PEDESTRIAN TRAFFIC THROUGH THE AREA.

A "FIGURE-EIGHT" CONFIGURATION SHOULD BE USED TO PREVENT KINKING OR TWISTING WHEN THE CABLE MUST BE UNREELED OR BACK FED. FIBER OPTIC CABLE SHOULD NOT BE COILED IN A CONTINUOUS DIRECTION EXCEPT FOR LENGTHS OF 100 FEET OR LESS. THE PREFERRED SIZE FOR THE FIGURE-EIGHT" IS ABOUT 15 FEET IN LENGTH; WITH EACH LOOP 5 FEET TO 8 FEET IN DIAMETER. TRAFFIC CONES SPACED 10 FEET APART ARE USEFUL GUIDES DURING "FIGURE-EIGHTING". WHEN "FIGURE-EIGHTING" LONG LENGTHS OF CABLE, CARE SHOULD BE TAKEN TO RELIEVE PRESSURE ON THE CABLE AT THE CROSSOVER OF THE EIGHT. THIS CAN BE DONE BY PLACING CARDBOARD SHIMS AT THE CROSSOVER OR BY FORMING A SECOND "FIGURE-EIGHT". THE "FIGURE-EIGHT" MAY NEED TO BE FLIPPED OVER TO OBTAIN THE PULLING EYE, THIS CAN BE EASILY ACCOMPLISHED BY THREE PEOPLE, ONE AT EACH END AND ONE IN THE CENTER. THE CABLE CAN THEN BE PULLED OFF THE "FIGURE-EIGHT" THE REMAINING DISTANCE.

AERIAL INSTALLATION

THE CONTRACTOR SHALL REMOVE EXISTING COPPER CABLE PRIOR TO INSTALLING FIBER OPTIC CABLE, UNLESS SPECIFIED OTHERWISE. WHERE EXISTING MESSENGER CLAMPS ARE NOT REUSABLE OR WHERE THEY DO NOT EXIST, THE CONTRACTOR SHALL INSTALL NEW MESSENGER CLAMPS OF SIMILAR TYPE TO GRIP THE MESSENGER CABLE. THIS SHALL INCLUDE CLAMPS FOR SUSPENDING THE CABLE FROM BRIDGES. THE COST OF ALL CLAMPS AND HARDWARE SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC CABLE. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO INSTALLING FIBER OPTIC CABLE ON EXISTING WOOD POLES.

ANY SECTIONS OF CABLE SHOWN IN THE PLANS TO BE CONTAINED IN CONTROLLERS, CABINETS, POLES, CONDUITS, OR SUPPORTED ON MESSENGER WIRE INSTALLED FOR OTHER PURPOSES SHALL HAVE THE SUPPORTING MESSENGER AND JACKET WEB NEATLY REMOVED BY THE USE OF A TOOL SPECIFICALLY DESIGNED AND SIZED FOR THIS PURPOSE. DEVIATIONS FROM THE CABLE ROUTING SHOWN IN THE PLAN, FOR THE SOLE PURPOSE OF REDUCING THE AMOUNT OF MESSENGER TO BE REMOVED, WILL NOT BE PERMITTED.

UTILIZATION OF EXISTING MESSENGER WIRE, NOT PROVIDED BY THE PROJECT OR DESIGNATED THEREIN AS AVAILABLE FOR USE, IS PROHIBITED. SPAN WIRE MESSENGER WHICH SUPPORTS SIGNAL HEADS AND/OR OVERHEAD SIGNS SHALL NOT BE USED TO SUPPORT FIBER OPTIC CABLE. DEVIATION FROM THE CABLE ROUTING SHOWN IN THE PLANS, FOR THE PURPOSE OF REDUCING THE NEED FOR SEPARATE MESSENGER WIRE, WILL NOT BE PERMITTED.

FIBER OPTIC CABLE INSTALLED AERIALLY SHALL BE PROVIDED WITH A SAG OF 3% TO 5% UNLESS EXISTING CABLES WILL BE SHARING THE POLE IN WHICH CASE A SAG MATCHING THE EXISTING CABLES SHALL BE PROVIDED.

THE MINIMUM BEND RADIUS FOR BOTH AERIAL AND CONDUIT INSTALLATIONS SHALL BE 10 TIMES THE CABLE DIAMETER UNDER NO LOAD AND 20 TIMES THE CABLE DIAMETER UNDER APPLIED LOAD.

CABLE SPLICING SHALL BE HELD TO A MINIMUM AND THE SPLICE LOCATIONS WILL BE PRE-APPROVED BY THE ENGINEER. ALL SPLICES SHALL BE FUSION SPLICES PROTECTED BY INDIVIDUAL HEAT SHRINK SLEEVES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE OF ONE MILE BETWEEN ENTIRE CABLE SPLICE LOCATIONS. CABLE SPLICES OF ONLY THE REQUIRED BUFFER TUBES WILL BE ALLOWED ONLY AT FIBER OPTIC DROP LOCATIONS. FIBERS THAT HAVE A DEFINED USE OR ARE DESIGNATED AS BEING SPLICED IN THE SPLICE CHART SHALL BE CONNECTED AND SPLICED. NO SPLICES BETWEEN INTERSECTIONS WILL BE ALLOWED EXCEPT WHERE DESIGNATED IN THE PLANS. IN THE CASE OF FIBER OPTIC CABLES FURNISHED AND INSTALLED BY THE CONTRACTOR, THE COST FOR THE QUANTITY OF EXCESS CABLE LEFT ON INDIVIDUAL REELS AND THE COST FOR ADDITIONAL SPLICES NOT SHOWN IN THE PLANS SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC CABLE.

<u>632 INTERCONNECT CABLE MISC.: FIBER OPTIC CABLE, 12 FIBER SINGLE-MODE, AS PER PLAN</u>

FIBER OPTIC CABLE ON THIS PROJECT IS OUTSIDE PLANT CABLE AND INCLUDES CABLES THAT ARE SPLICED TO CONNECT TO EACH OTHER AND SPLICED TO INCORPORATE DROP CABLES INTO THE SYSTEM.

THIS SPECIFICATION PROVIDES THE DESIGN AND CONSTRUCTION REQUIREMENTS FOR ARMORED, DOUBLE JACKETED, AERIAL AND UNDERGROUND OPTICAL FIBER CABLES. SPECIFICATIONS SET FORTH IN THE GENERAL FIBER OPTIC CABLE REQUIREMENTS FOR OUTSIDE PLANT CABLES APPLIES TO THE FIBER OPTIC CABLE.

1. CENTRAL MEMBER

THE CENTRAL MEMBER SHALL CONSIST OF A DIELECTRIC; GLASS REINFORCED PLASTIC (GRP) ROD. THE PURPOSE OF THE CENTRAL MEMBER IS TO PROVIDE TENSILE STRENGTH AND PREVENT BUCKLING. THE CENTRAL MEMBER SHALL BE OVERCOATED WITH A THERMOPLASTIC WHEN REQUIRED TO ACHIEVE DIMENSIONAL SIZING TO ACCOMMODATE BUFFER TUBES/FILLERS.

2. LOOSE TUBE CONSTRUCTION

THE LOOSE BUFFER TUBES SHALL BE GEL FILLED OR WRAPPED WITH A WATER BLOCKING TAPE AND CONTAIN INDIVIDUAL FIBERS FROM TWO TO TWELVE PER TUBE. FOR HYBRID CABLES, ALL SINGLE-MODE SHALL BE CONTAINED IN FIRST LOOSE TUBES (I.E. 1/BLUE, 2/ORANGE, ETC.) AS SHOWN IN TYPICAL DRAWINGS. BALANCE OF LOOSE TUBES SHALL CONTAIN MULTI-MODE, IF SPECIFIED.

THE BUFFER TUBES SHALL PERMIT AND BE DEMONSTRATED TO ALLOW FOR A SAFE INTENTIONAL "SCORING" AND BREAKOUT ENTRY WITHOUT JEOPARDIZING THE INTERNAL FIBERS. THIS IS REFERRED TO AS AN ACCEPTABLE "SCORE AND SNAP" PROPERTY. THE ENGINEER'S DETERMINATION OF "SCORE AND SNAP" AND "SAFE ENTRY" WILL BE FINAL AND WILL BE DETERMINED VIA GENERAL OBSERVATION OF THE PRODUCTION SAMPLE AS SUBMITTED FOR APPROVAL.

3. FILLERS

FILLERS MAY BE INCLUDED IN THE CABLE CORE TO LEND SYMMETRY TO THE CABLE CROSS-SECTION WHERE NEEDED. FILLERS SHALL BE PLACED SO THAT THEY DO NOT INTERRUPT THE CONSECUTIVE POSITIONING OF THE BUFFER TUBES. IN DUAL LAYER CABLES, ANY FILLER SHALL BE PLACED IN THE INNER LAYER. FILLERS SHALL BE NOMINALLY 0.098 INCH OR 0.118 INCH (2.5 mm OR 3.0 mm) IN OUTER DIAMETER.

4. RIPCORD

NON-ARMORED CABLES SHALL CONTAIN ONE RIPCORD UNDER THE SHEATH FOR EASY SHEATH REMOVAL. ARMORED CABLES SHALL CONTAIN TWO RIPCORDS UNDER THE STEEL ARMOR FOR EASY ARMOR REMOVAL. ADDITIONALLY, ARMORED CABLES THAT HAVE AN INNER SHEATH WILL ALSO CONTAIN ONE RIPCORD UNDER THE INNER SHEATH.

5. CORE CONSTRUCTION

BUFFER TUBES SHALL BE STRANDED AROUND THE DIELECTRIC CENTRAL MEMBER USING THE REVERSE OSCILLATION, OR "S-Z", STRANDING PROCESS. WATER SWELLABLE YARN(S) SHALL BE APPLIED LONGITUDINALLY ALONG THE CENTRAL MEMBER DURING STRANDING.

TWO POLYESTER YARN BINDERS SHALL BE APPLIED CONTRAHELICALLY WITH SUFFICIENT TENSION TO SECURE EACH BUFFER TUBE LAYER TO THE DIELECTRIC CENTRAL MEMBER WITHOUT CRUSHING THE BUFFER TUBES. THE BINDERS SHALL BE NON-HYGROSCOPIC, NON-WICKING, AND DIELECTRIC WITH LOW SHRINKAGE.

FOR SINGLE LAYER CABLES, A WATER SWELLABLE TAPE SHALL BE APPLIED LONGITUDINALLY AROUND THE OUTSIDE OF THE STRANDED TUBES/FILLERS. THE WATER SWELLABLE TAPE SHALL BE NON-NUTRITIVE TO FUNGUS, ELECTRICALLY NON-CONDUCTIVE, AND HOMOGENOUS. IT SHALL ALSO BE FREE FROM DIRT AND FOREIGN MATTER.

6. ARMOR

THE ARMOR SHALL BE COMPOSED OF A CORRUGATED STEEL TAPE, PLASTIC-COATED ON BOTH SIDES FOR CORROSION RESISTANCE, AND SHALL BE APPLIED WITH AN OVERLAPPING SEAM WITH THE CORRUGATIONS IN REGISTER. ALL ARMOR SPLICES SHALL BE GROUNDED AND RE-COATED WITH PLASTIC TO MAINTAIN THE ARMOR'S CORROSION RESISTANCE. THE OUTER JACKET SHALL BE APPLIED OVER THE CORRUGATED STEEL TAPE ARMOR.

7. OUTER JACKET

THE OUTER SHEATH JACKET SHALL BE COMPOSED OF MDPE. THE OUTER JACKET MATERIAL USED IN CONSTRUCTION OF THIS CABLE SHALL BE FUNGUS INERT AS DESCRIBED IN REQUIREMENT 4 OF MIL-STD-454. THE OUTER JACKET MATERIAL SHALL BE SUITABLE FOR LONG-TERM EXPOSURE TO SUNLIGHT AND WEATHER, WITH A LIFE EXPECTANCY IN ACCESS OF 20 YEARS. SUITABILITY SHALL BE DETERMINED IN ACCORDANCE WITH MIL-STD-810, METHOD 505. THE OUTER JACKET SHALL BE SMOOTH AND BE FREE FROM HOLES, SPLITS, BLISTERS, AND OTHER SURFACE FLAWS.

THE MDPE JACKET MATERIAL SHALL BE AS DEFINED BY ASTM D1248, TYPE II, CLASS C, CATEGORY 4 AND GRADES J4, E7 AND E8.

8. SUPPORT MESSENGER

THE CONTRACTOR WILL BE PERMITTED TO USE EITHER OF TWO TYPES OF INTERCONNECT CABLE CONSTRUCTION AND INSTALLATION FOR AERIAL CABLE RUNS (IF ANY) AS SHOWN ON THE PLANS:

INTEGRAL MESSENGER TYPE OPTICAL INTERCONNECT CABLE WITH 1/4 INCH (6 mm) MESSENGER MEETING THE REQUIREMENTS OF 732.18. UNDER THIS METHOD ANY SECTIONS OF CABLE SHOWN IN THE PLANS TO BE CONTAINED IN CONTROLLERS, CABINETS, POLES, CONDUITS, OR SUPPORTED ON MESSENGER WIRE INSTALLED FOR OTHER PURPOSES SHALL HAVE THE SUPPORTING MESSENGER AND JACKET WEB NEATLY REMOVED BY THE USE OF A TOOL SPECIFICALLY DESIGNED AND SIZED FOR THIS PURPOSE. DEVIATIONS FROM THE CABLE ROUTING SHOWN IN THE PLAN, FOR THE SOLE PURPOSE OF REDUCING THE NEED FOR SEPARATE MESSENGER WIRE, WILL NOT BE PERMITTED.

IN EITHER CASE, THE NUMBER OF SPLICE LOCATIONS SHALL BE KEPT TO A MINIMUM AND MESSENGER AND CABLE ARMOR SHALL BE GROUNDED AT SPLICE LOCATIONS SUCH THAT MAXIMUM SAFETY IS CONSIDERED.

9. CABLE CONSTRUCTION

BEGINNING FROM THE CENTRAL MEMBER TO THE OUTER SHEATH, BUFFER TUBES ARE STRANDED OVER A CENTRAL ANTI-BUCKLING MEMBER IN A PROCESS KNOWN AS REVERSE OSCILLATED STRANDING OR "SZ" STRANDING. A LAYER OF U.S. MANUFACTURED ARAMID YARNS, ALONG WITH AT LEAST ONE RIPCORD, SHALL BE APPLIED OVER THE BUFFER TUBE BUNDLE. CABLE CORE INTERSTICES SHALL BE SURROUNDED BY A WATER (BLOCK) SWELLABLE TAPE AND A LAYER OF HIGH STRENGTH GLASS YARNS SHALL SURROUND THE TAPE. AN MDPE INNER JACKET SHALL SURROUND THE ARAMID YARNS THEN ARMOR ADDED AND THE CABLE WILL BE JACKETED WITH MEDIUM DENSITY POLYETHYLENE (MDPE).

WHERE A FIGURE 8 TYPE CABLE IS SELECTED, THE INTEGRAL MESSENGER SHALL BE INCLUDED WITHIN THE OUTER JACKET.

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

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THIS ITEM SHALL ALSO INCLUDE CABLE MOUNTING ACCESSORIES SUCH AS POLE CLAMPS TO INSTALL AERIAL CABLE ON EXISTING POLES. CONTRACTOR SHALL FOLLOW CABLE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND THE RECOMMENDATIONS IN THE FIBER OPTIC CABLE INSTALLATION REQUIREMENTS.

632 INTERCONNECT, MISC.: SLACK INSTALLATION, AS PER PLAN

PROPER STORAGE OF SLACK CABLE, BOTH LONG TERM AND SHORT TERM WILL BE REQUIRED. THE CONTRACTOR SHALL NOT LEAVE SLACK CABLE LYING FREE ON THE GROUND, BOTTOM OF A PULL BOX, OR FLOOR OF A BUILDING EXCEPT DURING THE ACTUAL PULLING PROCESS. AT ALL OTHER TIMES, THE CABLE SHALL BE NEATLY MOUNTED, ADHERING TO THE BEND RADIUS REQUIREMENTS, ON RACKS OR BAYS. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, SHOP DRAWINGS OF MATERIALS AND INSTALLATION REQUIREMENTS FOR THE ANCHORED MOUNTING CHANNELS TO BE INSTALLED IN PULL BOXES AND MANHOLES, AS WELL AS, AERIAL HARDWARE.

SLACK STORAGE REQUIREMENTS ARE LISTED BELOW. THE FOLLOWING LENGTHS OF SLACK CABLE ARE MINIMUM:

DP&L MANHOLE	80 FEET
24"X36"X42" PULL BOX	70 FEET
TRAFFIC SIGNAL CONTROLLER CABINET	20 FEET
AERIAL STORAGE	150 FEET
EXISTING PULL BOX	0 FEET

ALL COSTS FOR MATERIALS, EQUIPMENT, AND LABOR TO PROVIDE A SLACK INSTALLATION SHALL BE INCLUDED IN THE PRICE BID PER EACH INSTALLATION FOR ITEM 632 INTERCONNECT, MISC.: SLACK INSTALLATION, AS PER PLAN. THIS SHALL INCLUDE THE COST OF THE FIBER OPTIC CABLE AND MOUNTING HARDWARE USED IN THE SLACK INSTALLATION. THE LINEAR QUANTITY OF FIBER OPTIC CABLE NECESSARY FOR THE SLACK INSTALLATION IS NOT SEPARATELY ITEMIZED IN ITEM 632 INTERCONNECT CABLE MISC.: FIBER OPTIC CABLE, (BY SIZE), AS PER PLAN.

632 INTERCONNECT, MISC.: PATCH CORD, AS PER PLAN

ALL FACTORY ASSEMBLIES PRE-FITTED WITH CONNECTORS SHALL ADHERE TO THE APPLICABLE CABLE, CORDAGE, AND FIBER SPECIFICATIONS STATED IN THIS SPECIFICATION. ALL PATCH CORDS SHALL MEET NEC JACKETING REQUIREMENTS FOR THIS PROJECT'S APPLICATION AND SHALL HAVE OUTER JACKET COLORATION OF ORANGE FOR MULTI-MODE PATCH CORDS AND YELLOW FOR SINGLE-MODE PATCH CORDS. ALL DUPLEX PATCH CORDS, ZIP CORD OR ROUND, SHALL HAVE CONNECTOR BOOTS OF TWO (2) COLORS; WHITE OR OFF WHITE FOR ONE LEG OF THE DUPLEX CORD (NON-PRINTED ZIP LEG) AND RED FOR THE OPPOSITE LEG (PRINTED ZIP LEG) OF THE DUPLEX CORD.

ONLY ONE MANUFACTURER'S CONNECTOR SHALL BE USED ON ANY ONE ASSEMBLY OR GROUP OF ASSEMBLIES USED WITHIN THE PROJECT. NO SPLICES OF ANY TYPE ARE ALLOWED WITHIN AN ASSEMBLY. EACH ASSEMBLY SHALL BE FULLY TESTED AND THOSE TEST RESULTS PLACED ON A TEST TAG FOR EACH MATED PAIR OF CONNECTORS, WHICH SHALL THEN BE ATTACHED TO ONE END OF EACH PAIR WITHIN THE ASSEMBLY. EACH ASSEMBLY SHALL BE INDIVIDUALLY PACKAGED WITHIN A PLASTIC BAG AND THAT BAG SHALL HAVE THE SUBMITTED MANUFACTURER'S PART NUMBER MARKED CLEARLY ON THE OUTSIDE OF SAID BAG.

COST FOR THE PATCH CORD SHALL BE AT THE BID ITEM PRICE FOR EACH ITEM 632 INTERCONNECT, MISC.: PATCH CORD, AS PER PLAN.

632 INTERCONNECT, MISC.: FAN-OUT KIT, 12 FIBER, AS PER PLAN

FAN-OUT KITS SHALL BE PROVIDED FOR LOOSE TUBE FIBER OPTIC CABLE TERMINAL ENDS THAT NEED TO BE FITTED WITH CONNECTORS. THE FAN-OUT KIT SHALL BE AN INDIVIDUAL BUFFER TUBE TYPE KIT. ALL FAN-OUT KITS SHALL HAVE A MINIMUM OF 24 INCHES (610 mm) OF TUBING COVERING EACH FIBER WHEN INSTALLATION IS COMPLETE. ANY EXTRA FIBERS AT THE CONTROLLER CABINET END THAT ARE NOT CONNECTORIZED SHALL BE INSERTED INTO THE FAN-OUT KIT AND SPOOLED IN THE INTERCONNECT CENTER FOR FUTURE USE. FAILURE TO MEET THESE REQUIREMENTS WILL RESULT IN THE CONTRACTOR REPLACING THE INSTALLATION AT THE CONTRACTOR'S EXPENSE.

PRIOR TO ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL; CATALOG CUT SHEETS, GENERAL SPECIFICATIONS, AND STANDARD OPERATING PROCEDURES FOR THE KIT THAT IS TO BE UTILIZED ON THE PROJECT. ONLY ONE MANUFACTURER'S FAN-OUT KIT MAY BE USED THROUGHOUT THE PROJECT. FAN-OUT KITS SHALL BE RATED FOR OUTDOOR USE.

COST FOR THE CONNECTORS USED WITH THE FAN-OUT KIT WILL BE ITEMIZED SEPARATELY. COST FOR LOOSE TUBE FAN-OUT KITS SHALL BE PAID AT THE BID ITEM PRICE FOR EACH ITEM 632 INTERCONNECT, MISC.: FAN-OUT KIT, 6 FIBER, AS PER PLAN AND SHALL INCLUDE ALL COSTS FOR MATERIAL, EQUIPMENT, TOOLS, AND LABOR TO PROVIDE AND INSTALL THE FAN-OUT KIT.

632 INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN

FIBER OPTIC CONNECTORS SHALL BE FIELD INSTALLABLE ST COMPATIBLE, CERAMIC FERRULE, WITH THE FIBER PERMANENTLY SECURED WITHIN THE FERRULE WITH EPOXY, (HEAT SET OR AIR DRIED), CHEMICALLY CURED, OR A HOT MELT ADHESIVE AS SPECIFIED BY THE CONNECTOR AND/OR THE EPOXY MANUFACTURER. WHEN CONNECTORS ARE INSTALLED OUTSIDE OF A CONTROLLED ENVIRONMENTAL LOCATION, THE CONNECTOR OPERATING TEMPERATURE SHALL BE BETWEEN -40°C AND +70°C. FOR THOSE APPLICATIONS WITHIN A CONTROLLED ENVIRONMENTAL LOCATION, THE OPERATING TEMPERATURE SHALL BE MINIMUM -20°C TO +60°C.

THE PROCEDURE FOR THE TERMINATION OF CONNECTORS USED SHALL MEET THE PROCESS SET OUT IN THE CONNECTOR MANUFACTURER'S STANDARD OPERATING PROCEDURE (SOP) FOR FIELD INSTALLATION. THIS SOP SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. UNLESS RECOMMENDED OTHERWISE BY THE MANUFACTURER, EACH FIBER SHALL BE CLEAVED, CLEANED, AND RECEIVE MULTIPLE POLISHINGS WITH INCREASINGLY FINE GRIT POLISHING PADS. THE APPROVED SOP WILL BE THE BASIS FOR INSPECTION.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH OF ITEM 632 INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN.

632 INTERCONNECT, MISC.: FUSION SPLICE, AS PER PLAN

SPLICING OF FIBER OPTIC CABLE WILL NOT BE PERMITTED EXCEPT IN EMERGENCY CONDITIONS OR AS SPECIFIED ON THE PLANS. FIBER OPTIC CABLE RUNS AND REQUIRED LOOPING OF THE CABLE SHALL BE PROVIDED IN ONE CONTINUOUS LENGTH. SPLICING SHALL BE BY TRAINED, AUTHORIZED PERSONS ONLY. ALL FIBER SPLICES ARE HOUSED IN SPLICE TRAYS INSIDE AN ENCLOSURE. A REINFORCED HEAT SHRINK SLEEVE SHALL PROVIDE STRAIN RELIEF FOR EACH FUSION SPLICE.

ALL FUSION SPLICING EQUIPMENT SHALL BE IN GOOD WORKING ORDER, PROPERLY CALIBRATED, AND MEETING INDUSTRY STANDARDS AND SAFETY REGULATIONS. CABLE PREPARATION, ENCLOSURE INSTALLATION, AND SPLICING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE ACCEPTED AND APPROVED INDUSTRY STANDARDS.

THE FUSION SPLICER USED ON THIS JOB MUST AUTOMATICALLY ALIGN FIBERS, DETERMINE CLEAVE QUALITY, FUSE THE FIBERS, AND PROVIDE THE OPERATOR WITH REFERENCE ESTIMATED SPLICE LOSS MEASUREMENTS. THE AVERAGE SPLICE LOSS SHALL BE 0.1 dB OR LESS PER FIBER SPLICE FOR MULTI-MODE AND SINGLE-MODE FIBERS. THE AVERAGE SPLICE LOSS IS DEFINED AS THE SUMMATION OF THE LOSS AS MEASURED IN BOTH DIRECTIONS USING AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) THROUGH THE FUSION SPLICE, DIVIDED BY TWO. NO INDIVIDUAL SPLICE LOSS MEASURED IN A SINGLE DIRECTION SHALL EXCEED 0.15 dB FOR MULTI-MODE OR SINGLE-MODE FIBER. A QUANTITY OF ONE FUSION SPLICE CONSISTS OF A PAIR OF FIBER ENDS THAT REQUIRE SPLICING.

632 INTERCONNECT, MISC.: FIBER OPTIC CABLE TESTING, AS PER PLAN

1. PRE-INSTALLATION TESTING

PRIOR TO ANY WORK, THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT ANY AND ALL FIBER OPTIC CABLE THAT SHALL BE USED ON THIS PROJECT HAS BEEN DELIVERED TO THE WORK SITE AND/OR THE CONTRACTOR'S STORAGE FACILITY WITHIN THIS SECTION'S SPECIFICATIONS. COMPLIANCE WITH THIS REQUIREMENT MAY BE ACCOMPLISHED IN ONE OF TWO WAYS.

(a) THE CONTRACTOR IS REQUIRED TO TEST A REPRESENTATIVE SAMPLE (MINIMUM 1 FIBER PER EACH RIBBON OR LOOSE TUBE) ON EACH REEL OF CABLE PRIOR TO INSTALLATION ACCORDING TO THE TESTING PROCEDURE OUTLINED BELOW UNDER "CONTINUITY TESTING".

UPON COMPLETION OF THESE TEST PROCEDURES, THE CONTRACTOR SHALL ISSUE TO THE ENGINEER ALL TEST DATA AS SPECIFIED AND A "LETTER OF QUALITY ASSURANCE" FROM THE CONTRACTOR STATING THAT THE FIBER OPTIC CABLE HAS BEEN DELIVERED TO THE CONSTRUCTION SITE AND/OR THE CONTRACTOR'S STORAGE FACILITY WITH THE SPECIFICATIONS REQUIRED BY THESE SPECIFICATIONS. UPON RECEIPT OF THE LETTER OF QUALITY ASSURANCE AND THE ENGINEER'S ACKNOWLEDGEMENT OF SAID RECEIPT, THE CONTRACTOR MAY COMMENCE INSTALLATION OF SAID CABLE AT THE CONTRACTOR'S RISK.

(b) THE CONTRACTOR MAY CERTIFY TO THE ENGINEER THAT THE FIBER OPTIC CABLE HAS BEEN DELIVERED TO THE SITE AND/OR HIS STORAGE FACILITY WITHIN THIS SECTION'S SPECIFICATION, IF THE CONTRACTOR SUPPLIES TO THE ENGINEER THE COMPLETE FACTORY TEST RESULTS, ACCOMPANIED BY A "LETTER OF QUALITY ASSURANCE" FROM THE CONTRACTOR. UPON RECEIPT OF THE LETTER OF QUALITY ASSURANCE, AND THE ENGINEER'S ACKNOWLEDGEMENT OF SAID RECEIPT, THE CONTRACTOR MAY COMMENCE INSTALLATION OF SAID CABLE AT THE CONTRACTOR'S RISK.

2. TESTING AFTER TERMINATION AND/OR SPLICING

UPON COMPLETION OF THE PULLS, ALL SPLICES, AND ALL TERMINATION OF CABLE ENDS, EACH AND ALL FIBERS WITHIN EACH SECTION OF THE CABLE PULL SHALL BE TESTED FOR CONTINUITY, EVENTS ABOVE 0.30 dB, AND TOTAL ATTENUATION OF THE CABLE. THE TEST SHALL BE CONDUCTED ACCORDING TO THE TESTING PROCEDURE AS OUTLINED BELOW.

THIS TEST PROCEDURE SHALL BE WITNESSED BY THE ENGINEER. NO EVENT SHALL EXCEED 0.30 dB. IF ANY EVENT IS DETECTED ABOVE THE MAXIMUM LEVEL, THE CONTRACTOR SHALL REPLACE OR REPAIR THAT EVENT POINT, TO THE SATISFACTION OF THE ENGINEER. THE TOTAL dB LOSS OF THIS TRACE, LESS EVENTS, SHALL NOT EXCEED THE MANUFACTURER'S PRODUCTION SPECIFICATIONS AS FOLLOWS:

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

211
314

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FIBER	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)
MULTI-MODE	850	3.5
	1300	1.0
SINGLE-MODE	1310	0.5
	1550	0.4

IF THE TOTAL LOSS EXCEEDS THESE SPECIFICATIONS, THE CONTRACTOR SHALL REPLACE OR REPAIR THAT CABLE RUN AT THE CONTRACTOR'S EXPENSE, BOTH LABOR AND MATERIALS. ELEVATED ATTENUATION DUE TO EXCEEDING THE PULLING TENSION DURING INSTALLATION WILL REQUIRE THE REPLACEMENT OF THE CABLE RUN AT THE CONTRACTOR'S EXPENSE, BOTH LABOR AND MATERIALS.

UPON COMPLETION, THE CONTRACTOR SHALL ISSUE TO THE ENGINEER ALL TRACES AND LOSS/LENGTH PRINT OUTS AND COMPUTER FILES (ASCII FORMAT) FOR APPROVAL.

NOTE: AT THE CONTRACTOR'S OPTION, THE ENGINEER WILL ALLOW THE "DIRECTIONAL/ AVERAGING" PROCESS OF THE OTDR TESTING, PARTICULARLY WHEN SPLICE LOSSES ARE BEING UNFAVORABLY IMPACTED BY "MODE FIELD DIAMETER MISALIGNMENT", "CORE OFFSET", OR "CORE MISALIGNMENT".

3. CONTINUITY TESTING

THIS TEST IS FOR CONTINUITY AND ATTENUATION PER KILOMETER (3280 FEET), ALONG WITH A GRAPHIC REPRESENTATION OF THE OPTICAL FIBER, "TRACE". THE TEST SHALL BE CONDUCTED ON THE 850 nm MULTI-MODE, 1300 nm MULTI-MODE, 1550 nm SINGLE-MODE WAVELENGTHS WITH AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) BY A QUALIFIED TECHNICIAN.

THE METHOD OF CONNECTIVITY BETWEEN THE OTDR AND THE CABLE SHALL BE A FACTORY PATCH CORD OF A LENGTH EQUAL TO THE "DEAD ZONE" OF THE OTDR WITH THE SPLICE TO THE PREPARED END OF THE FACTORY FIBER VIA "LAB SPLICE" OR THE CONTRACTOR CAN USE A FACTORY "FIBER BOX" OF 328 FEET MINIMUM WITH NO SPLICES WITHIN THE BOX. IF A PATCH CORD IS UTILIZED, THE LENGTH OF THE PATCH CORD SHALL BE STORED ON A FIBER STORAGE BOBBIN WITH A MINIMUM DIAMETER OF 2 FEET.

THE FIBER "TRACES" CREATED BY THE OTDR SHALL DEMONSTRATE THAT THE CABLE HAS PERFORMANCE CAPABILITIES WITHIN -3% TO +3% OF THE FACTORY TEST DOCUMENTATION THAT CAME WITH THE REEL OF FIBER OR 1% OF THE CABLE'S PUBLISHED PRODUCTION dB LOSS PER KILOMETER (3280 FEET) PLUS THE MAXIMUM OTDR ERROR LEVEL AS NOTED BY THE MANUFACTURER OF THE OTDR (TYPICALLY +2%).

EACH TRACE SHALL BE PRINTED (HARD COPY) AND SAVED ON DISK FOR FUTURE REFERENCE.

4. EQUIPMENT

AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) SHALL BE CAPABLE OF TESTING SINGLE-MODE AND MULTI-MODE FIBERS AS PART OF THIS SECTION. THE OTDR SHALL PROVIDE IMMEDIATE REPORT DISPLAYS AND THE ABILITY TO GRAPH, PRINT, AND MAGNETICALLY STORE TEST DATA. THIS ITEM INCLUDES ALL EQUIPMENT NECESSARY TO OPERATE THE OTDR IN LABORATORY AND FIELD CONDITIONS.

633 CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TSI, AS PER PLAN

THE CONTROLLER SHALL BE AN EAGLE EPAC300 (3708M42) - NEMA TS-2 TYPE TWO. THE REMAINDER OF THE CONTROLLER ASSEMBLY EQUIPMENT WILL BE NEMA TS2 TYPE ONE.

THE MALFUNCTION MANAGEMENT UNIT (MMU) WILL BE AN EDI MMU 16E OR EQUAL. THE MMU SETTINGS FOR MINIMUM YELLOW TIMING ON ALL CHANNELS SHALL BE SET AT THREE AND ONE HALF SECONDS.

THE CABINET SHALL BE AN EAGLE M-36 CABINET. THE CONTROLLER CABINET SHALL BE TESTED AT THE CITY OF DAYTON TRAFFIC SIGNAL SHOP LOCATED AT 520 KISER STREET (333-2202)

THE CABINET SHALL BE ORIENTED TO FACE THE SIDEWALK.

AN EAGLE TF5012 LOAD BAY SHALL BE PROVIDED IN THE CABINET.

CORNING WCH-02P CONNECTOR HOUSING WITH TWO (2) 12 FIBER ST COMPATIBLE SINGLEMODE CONNECTOR PANELS SHALL BE INCLUDED.

A LIGHTENING PROTECTION DEVICE SUCH AS AN EPCO ARRESTOR #SHA-1250 AND A BASE #SHA-1250-BASE-A (OR APPROVED EQUAL) SHALL BE PROVIDED.

TEN DAY TEST REQUIREMENTS

CITY OF DAYTON REQUIRES A TEN DAY TEST TO START AFTER THE SIGNAL INSTALLATION IS 100% COMPLETE. NO PARTIAL TESTS WILL BE CONDUCTED. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE ENGINEER AND DAYTON STATING THAT THE SIGNAL INSTALLATION IS 100% COMPLETE AND A START DATE FOR THE TEN DAY TEST IS REQUESTED. IF LESS THAN 100% COMPLETION IS DETECTED UPON INSPECTION BY THE CITY OR ANY MALFUNCTION IS DETECTED, THAN THE TEN DAY TEST SHALL BE COMPLETELY RESTARTED.

THE CONTRACTOR SHALL CONTACT JOHN ZELINSKI, (937) 333-4087, 7 DAYS PRIOR TO THE TEN DAY PERFORMANCE TEST. RAMP SHALL NOT BE OPEN UNTIL THE COMPLETION OF THE INSPECTION.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS, INTERCONNECTION ITEMS AND MASTER CONTROL EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

212
314

Plotted By: acschelderer Date: 10/2/2007 Time: 10:10:10 AM
Filename: g:\C004\0066\Traffic\Sheets\23828cn01_REVbrzozowski.dgn

SHEET NUMBER								FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				214	215	216		HSP	FED/ STATE	100% LOCAL						
															TRAFFIC SIGNAL & INTERCONNECT	
				10				10			625	25400	10	FT	CONDUIT, 2", 725.04	
				70				70			625	25402	70	FT	CONDUIT, 2", 725.05	
				42				42			625	25502	42	FT	CONDUIT, 3", 725.05	
						529		529			625	25802	529	FT	CONDUIT, CONCRETE ENCASED , 3"	
						434		434			625	25900	434	FT	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT , 3"	
				101		529		630			625	29000	630	FT	TRENCH	
				4				4			625	29901	4	EACH	JUNCTION BOX, AS PER PLAN	207
						4		4			625	31510	4	EACH	PULL BOX REMOVED	
				1		1		2			625	31600	2	EACH	PULL BOX, MISC.: PULL BOX, 725.07, 17" X 30", AS PER PLAN	207
				1		4		5			625	31600	5	EACH	PULL BOX, MISC.: PULL BOX, 725.07, 24" X 36", AS PER PLAN	207
				5				5			625	32000	5	EACH	GROUND ROD	
				2				2			630	79500	2	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
				4.5				4.5			630	80100	4.5	SQ FT	SIGN, FLAT SHEET	
				5				5			632	05001	5	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, AS PER PLAN	207
				2				2			632	05081	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, AS PER PLAN	207
				4				4			632	20721	4	EACH	PEDESTRIAN SIGNAL HEAD (LED) , TYPE D2, AS PER PLAN PER PLAN	207
				7				7			632	25000	7	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
				4				4			632	25010	4	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
				2				2			632	26001	2	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN	207
				3				3			632	26500	3	EACH	DETECTOR LOOP	
				399				399			632	30101	399	FT	MESSENGER WIRE, 7 STRAND, 5/16" DIAMETER WITH ACCESSORIES, AS PER PLAN	207
				378				378			632	40300	378	FT	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG	
				175				175			632	40500	175	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
				309				309			632	40700	309	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
				128				128			632	41200	128	FT	SIGNAL CABLE, 12 CONDUCTOR, NO. 14 AWG	
				142				142			632	43300	142	FT	SIGNAL CABLE, MISC.: SIGNAL CABLE, 21 CONDUCTOR, NO. 14 AWG	
						623		623			632	62810	623	FT	INTERCONNECT CABLE, MISC.: FIBER OPTIC CABLE, 12 FIBER SINGLE-MODE, AS PER PLAN	210
						2		2			632	62820	2	EACH	INTERCONNECT, MISC.: SLACK INSTALLATION, AS PER PLAN	211
						2		2			632	62820	2	EACH	INTERCONNECT, MISC.: PATCH CORD, AS PER PLAN	211
						1		1			632	62820	1	EACH	INTERCONNECT, MISC.: FAN-OUT KIT, 12 FIBER, AS PER PLAN	211
						8		8			632	62820	8	EACH	INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN	211
						56		56			632	62820	56	EACH	INTERCONNECT, MISC.: FUSION SPLICE, AS PER PLAN	211
								LUMP			632	62830	LUMP	LS	INTERCONNECT, MISC.: FIBER OPTIC CABLE TESTING, AS PER PLAN	211
					4			4			632	64000	4	EACH	STRAIN POLE FOUNDATION	
					350			350			632	65200	350	FT	LOOP DETECTOR LEAD-IN CABLE	
					375			375			632	68300	375	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
					375			375			632	69800	375	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
					1			1			632	70000	1	EACH	POWER SERVICE	
					4			4			632	84600	4	EACH	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 6	
					1			1			633	67100	1	EACH	CABINET FOUNDATION	
					1			1			633	01581	1	EACH	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN	212
					1			1			633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL SUMMARY

MOT-75-14.60

213
314

Plotted By: acscheiderer Date: 10/2/2007 Time: 10:23:07 AM
Filename: g:\C004\0066\Traffic\Sheets\23828cg01_REVbrzozowski.dgn

SHEET NO.	LOCATION	SIDE	625								630		632											
			CONDUIT, 2", 725.04	CONDUIT, 2", 725.05	CONDUIT, 3", 725.05	TRENCH	JUNCTION BOX. AS PER PLAN	PULL BOX. MISC.;PULL BOX, 725.07, 17" X 30", AS PER PLAN	PULL BOX. MISC.;PULL BOX. 725.07, 24" X 36", AS PER PLAN	GROUND ROD	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN. FLAT SHEET	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS. 1-WAY. AS PER PLAN	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS. 1-WAY. AS PER PLAN	PEDESTRIAN SIGNAL HEAD (LED) . TYPE D2. AS PER PLAN	COVERING OF VEHICULAR SIGNAL HEAD	COVERING OF PEDESTRIAN SIGNAL HEAD	PEDESTRIAN PUSHBUTTON, AS PER PLAN	DETECTOR LOOP	MESSENGER WIRE, 7 STRAND. 5/16" DIAMETER WITH ACCESSORIES, AS PER PLAN	SIGNAL CABLE. 3 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. 5 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. 7 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. 12 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. MISC.;SIGNAL CABLE. 21 CONDUCTOR. NO. 14 AWG
			FT	FT	FT	FT	EACH	EACH	EACH	EACH	SQ. FT.	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT
217	9+65 (L2) (L3)	RT							1															
217	10+40 (L1)	LT						1																
217	9+71 (CONTROLLER)	RT								1														
217	9+75 (POLE A)	RT					1			1					2		2	1						
217	8+74 (POLE B)	RT					1			1	1	2.25			1		1							
217	8+87 (POLE C)	LT					1			1	1	2.25												
217	9+67 (POLE D)	LT					1			1					1		1	1						
217	PB-1 TO CNTR'L (L2) (L3)																		2					
217	PB-2 TO CNTR'L (L1)																		1					
217	PB2 TO POLE D			70		70																		
217	PB-1 TO CNTR'L				12	6																		
217	PB-1 TO POLE A				30	15																		
217	POLE A TO CNTR'L		10			10																		142
217	POLE A TO POLE B	RT																					128	
220	POLE A -> S-1																				56			
220	POLE A -> S-2																					47		
220	POLE A -> S-3																					262		
220	POLE A -> PED HEAD A	RT																		26				
220	POLE A -> PED HEAD C	RT																		26				
220	POLE A PUSHBUTTON -> CNTR'L	RT																		50				
220	POLE B -> PED HEAD B	RT																		26				
220	POLE C-> S-4																				38			
220	POLE C-> S-5																				25			
220	POLE D -> S-6																				34			
220	POLE D -> S-7																				22			
220	POLE D -> PED HEAD D	LT																		26				
220	POLE D PUSHBUTTON -> CNTR'L	LT																		224				
217	POLE A, B, C, D																			399				
217	9+63 (S-1)												1			1								
217	9+63 (S-2)													1		1								
217	8+88 (S-3)													1		1								
217	8+88 (S-4)												1			1								
217	8+88 (S-5)												1			1								
217	9+41 (S-6)												1			1								
217	9+54 (S-7)												1			1								

SHEET NO.	LOCATION	SIDE	632						633																	
			STRAIN POLE FOUNDATION	LOOP DETECTOR LEAD-IN CABLE	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	POWER SERVICE	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 6	CABINET FOUNDATION	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN																
			EACH	FT	FT	FT	EACH	EACH	EACH	EACH																
2I7	9+7I (CONTROLLER)	RT							I	I																
2I7	9+75 (POLE A)	RT	I				I	I																		
2I7	8+74 (POLE B)	RT	I					I																		
2I7	8+87 (POLE C)	LT	I					I																		
2I7	9+67 (POLE D)	LT	I					I																		
2I7	PB-I TO CNTR'L (L2) (L3)			46																						
2I7	PB-2 TO CNTR'L (LI)			304																						
2I7	POLE A TO POWER SOURCE				375																					
2I7	POLE A TO POWER SOURCE					375																				
	✱ = HIGHWAY SAFETY PROGRAM																									
	ALLOCATED HSP GRAND TOTAL		4 ✱	350 ✱	375 ✱	375 ✱	I ✱	4 ✱	I ✱	I ✱																
	TOTAL THIS SHEET		4	350	375	375	I	4	I	I																
	GRAND TOTAL CARRIED TO TRAFFIC SIGNAL GENERAL SUMMARY		4	350	375	375	I	4	I	I																

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL SUB-SUMMARY

MOT-75-14.60

215
314

Plotted By: jfanthony Date: 7/3I/2007 Time: I2:I6:44 AM
Filename: G:\C004\0066\Traffic\Sheets\23828es02.dgn

SHEET NO.	LOCATION	SIDE	625						632																			
			CONDUIT, CONCRETE ENCASED, 3"	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3"	TRENCH	PULL BOX REMOVED	PULL BOX, MISC.:PULL BOX, 725.07, 17" X 30", AS PER PLAN	PULL BOX, MISC.:PULL BOX, 725.07, 24" X 36", AS PER PLAN	INTERCONNECT CABLE, MISC.:FIBER OPTIC CABLE, 12-FIBER SINGLE-MODE, AS PER PLAN	INTERCONNECT, MISC.:SLACK INSTALLATION, AS PER PLAN	INTERCONNECT, MISC.:PATCH CORD, AS PER PLAN	INTERCONNECT, MISC.:FAN-OUT KIT, 12-FIBER, AS PER PLAN	INTERCONNECT, MISC.:FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN	INTERCONNECT, MISC.:FUSION SPLICE, AS PER PLAN													
			FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH													
218	4+07 TO 4+76	CL							69																		
218	4+76 TO 5+31	CL							55	1				8													
218	5+31 TO 6+74	CL							143																		
218	6+74 TO 8+73	CL				1		1	199																		
218	8+73 TO 8+88	LT & RT		150				1	75																		
218	8+88 TO 9+66	RT		164					82																		
218	9+66 TO 10+17	RT	60		60			1		1																	
218	10+17 TO 12+51	RT	239		239	1	1																				
218	12+51 TO 14+82	RT	230		230	2		1																			
218	14+82 RT TO 14+90 LT LIGHTING PULL BOX	RT & LT		56																							
218	14+82 RT TO 15+06 LT EX. PULL BOX	RT & LT		64																							
218	EX. PB TO EX. UTIL POLE TO EX. AERIAL FO	LT												48													
218	9+71 (CONTROLLER)	RT									2	1	8														
* = HIGHWAY SAFETY PROGRAM																											
ALLOCATED HSP GRAND TOTAL			529 *	434 *	529 *	4 *	1 *	4 *	623 *	2 *	2 *	1 *	8 *	56 *													
TOTAL THIS SHEET			529	434	529	4	1	4	623	2	2	1	8	56													
GRAND TOTAL CARRIED TO TRAFFIC SIGNAL GENERAL SUMMARY			529	434	529	4	1	4	623	2	2	1	8	56													

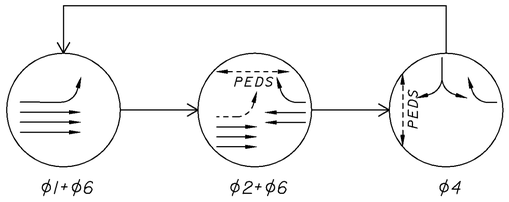
CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL INTERCONNECT SUB-SUMMARY

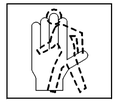
MOT-75-14.60

Plotted By: acscheiderer Date: 10/2/2007 Time: 10:25:28 AM
Filename: g:\C004\0066\Traffic\Sheets\23828cs03_ic_REVbrzozowski.dgn

PHASING DIAGRAM

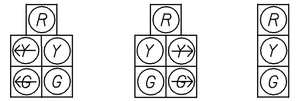


PEDESTRIAN SIGNAL HEADS
(L.E.D, SYMBOLIC)



(TYPE D-2)
A,B,C,D

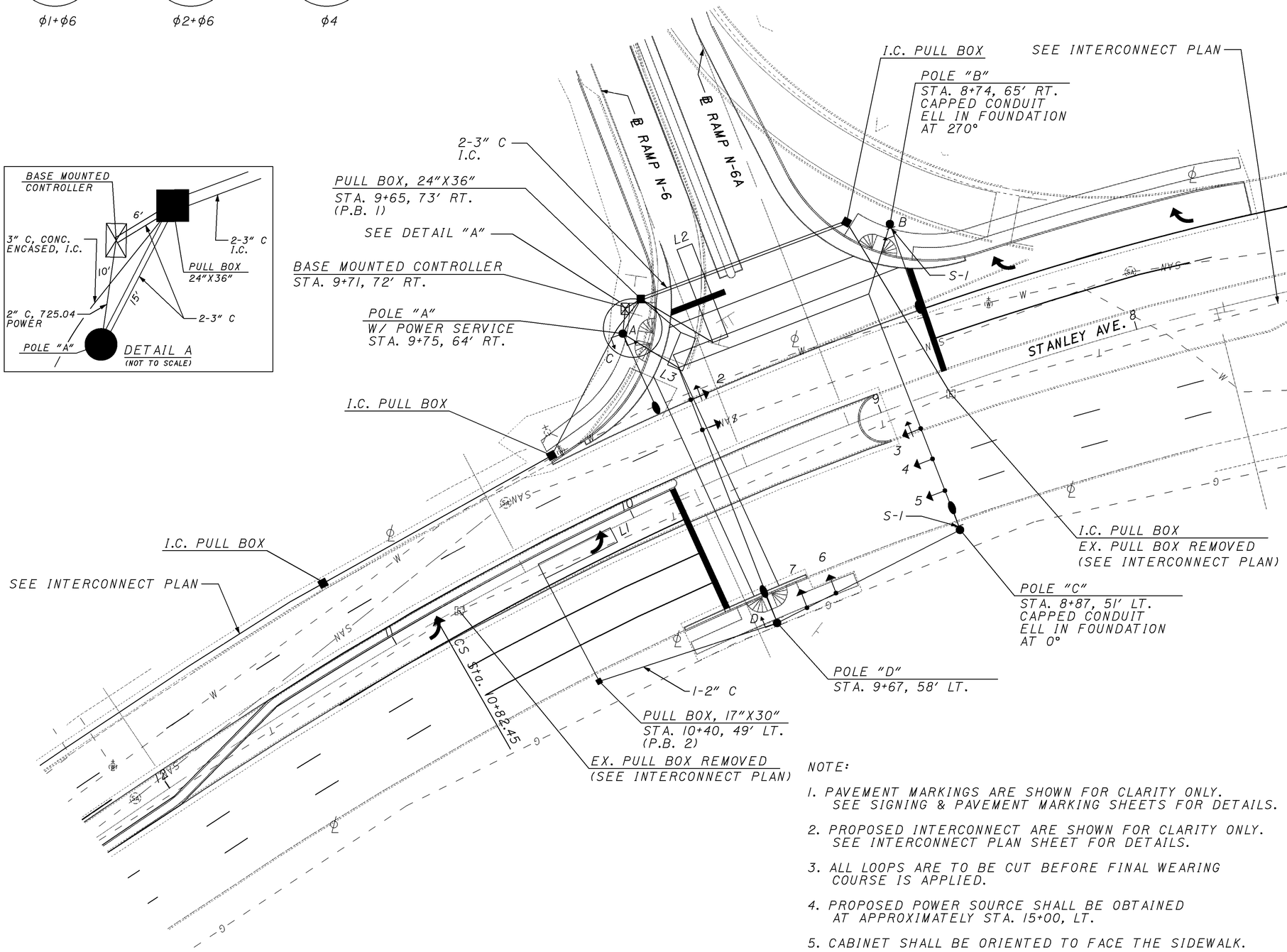
VEHICULAR SIGNAL HEADS
(L.E.D)



3 | 2 | 1,4,5,6,7
ALL 12" LENS

SIGNS

R9-3a-18
(ON POLES B & C)
2 ea.
S-1



NOTE:

1. PAVEMENT MARKINGS ARE SHOWN FOR CLARITY ONLY. SEE SIGNING & PAVEMENT MARKING SHEETS FOR DETAILS.
2. PROPOSED INTERCONNECT ARE SHOWN FOR CLARITY ONLY. SEE INTERCONNECT PLAN SHEET FOR DETAILS.
3. ALL LOOPS ARE TO BE CUT BEFORE FINAL WEARING COURSE IS APPLIED.
4. PROPOSED POWER SOURCE SHALL BE OBTAINED AT APPROXIMATELY STA. 15+00, LT.
5. CABINET SHALL BE ORIENTED TO FACE THE SIDEWALK.

LEGEND

- EX. POWER POLE
- EX. ELEC. BOX
- CONTROLLER
- PULL BOX
- SIGNAL STRAIN POLE
- CONDUIT
- 3 SECTION SIGNAL HEADS
- 5 SECTION SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- LOOP DETECTOR

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL PLAN
STANLEY AVENUE AT RAMPS N-6 AND N-6A

MOT-75-14.60

217
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:46 AM
Filename: G:\C004\0066\Traffic\Sheets\23828cp01.dgn

NOTE:

1. PAVEMENT MARKINGS ARE SHOWN FOR CLARITY ONLY. SEE SIGNING & PAVEMENT MARKING SHEETS FOR DETAILS.
2. PROPOSED SIGNAL IS SHOWN FOR CLARITY ONLY. SEE TRAFFIC SIGNAL PLAN SHEETS FOR DETAILS.

EX. SIGNAL CONTROLLER

EX. PULL BOX

RAMP N-8

EX. 48-FIBER SM
IN CONDUIT (BY OTHERS)
PROP. 12-FIBER SM

I.R. 75

RAMP N-7

EX. PULL BOX
BY OTHERS

EX. 24"X36" PULL BOX
BY OTHERS

EX. PULL BOX
PROP. 8 FUSION SPLICES
SLACK INSTALLATION

PROP. 24"X36" PULL BOX
STA. 8+73, 2' LT.
(EX. PULL BOX
TO BE REMOVED)

STANLEY AVE.

EX. PULL BOX
BY OTHERS

EX. CONDUIT,
EX. 48-FIBER SM,
PROP. 12-FIBER SM

2-3" C, JACKED OR DRILLED
UNDER PAVEMENT,
REROUTED 48-FIBER SM
PROP. 12-FIBER SM

PROP. 24"X36" PULL BOX
STA. 8+88, 71' RT

2-3" C, JACKED OR DRILLED
UNDER PAVEMENT
REROUTED 48-FIBER SM
PROP. 12-FIBER SM

RAMP N-6A

RAMP N-6

SIGNAL PULL BOX
24"X36"

EX. PULL BOX
TO BE REMOVED

3" C, CONC.
ENCASED,
REROUTED
48-FIBER SM

PROP. 24"X36" PULL BOX
STA. 10+17, 34' RT

3" C, CONC.
ENCASED,
REROUTED
48-FIBER SM

SIGNAL CONTROLLER CABINET
2 ST-FC DUPLEX PATCH CORDS, 3' LONG
12 FIBER FAN OUT KIT
8 ST CONNECTORS
SLACK INSTALLATION

TIE REROUTED 48-FIBER SM
I.C. INTO EXISTING AERIAL
F.O. SPLICE ENCLOSURE

PROP. 48 FUSION SPLICES

(ENCLOSURE AND SPLICE TRAY
INSTALLED BY OTHERS PER
MOT-CABLE UPGRADE, PID 75312)

2-3" C, JACKED OR DRILLED
UNDER PAVEMENT,
(1) TO STA. 15+06, 34' LT, EX. PB
W/REROUTED 48-FIBER SM
(1) TO STA. 14+90, 30' LT
LIGHTING PULL BOX

RAMP N-9

RAMP N-10

EX. PULL BOX
TO BE REMOVED

3" C, CONC.
ENCASED,
REROUTED
48-FIBER SM

3" C, CONC.
ENCASED,
REROUTED
48-FIBER SM

PROP. 24"X36" PULL BOX
STA. 14+82, 25' RT.

PROP. 17"X30" PULL BOX
STA. 12+51, 34.5' RT
REMOVE A SUFFICIENT AMOUNT OF THE
EXISTING POLE FOUNDATION TO PROVIDE
FOR THE INSTALLATION OF A PULL BOX AND
TO ROUTE A LIGHTING CONDUIT BYPASS
BENEATH THE PULL BOX.

MATCH LINE 15+00, STANLEY AVE.

STA. 15+06, 34' LT
EX. PULL BOX
TO BE RETAINED

MATCH LINE 15+00, STANLEY AVE.

EX. AERIAL I.C.
(BY OTHERS)

STANLEY AVE.

N. KEOWEE ST.

EX. SIGNAL CONTROLLER

SEQUENCE OF INTERCONNECT WORK TO BE PERFORMED:

THE 48-FIBER SM CABLE SHALL REMAIN IN PLACE UNTIL THE NEW CONDUIT PATH IS INSTALLED. THE 48-FIBER SM CABLE MAY ONLY BE TAKEN OUT OF SERVICE FOR A MAXIMUM OF 24 HOURS.

1. CONSTRUCT PROPOSED INTERCONNECT PATH INCLUDING THE REMOVAL OF THE EXISTING PULL BOX AT STA. 8+73± AND INSTALLING NEW PULL BOX. EXISTING INTERCONNECT CABLE SHALL REMAIN INTACT WHILE CHANGING PULL BOX AT STA. 8+73±.
2. DISCONNECT INTERCONNECT CABLE AT THE EXISTING AERIAL SPLICE ENCLOSURE LOCATED AT APPROXIMATELY STA. 15+00±. PULL EXISTING CABLE FROM THE WEST AND REROUTE VIA NEW CONDUIT RUN BACK TO AERIAL SPLICE ENCLOSURE BYPASSING LOCAL CONTROLLER CABINET. (USE EX. SLACK AS NEEDED)
3. INSTALL NEW 12-FIBER SM INTERCONNECT CABLE FROM EXISTING SPLICE ENCLOSURE IN PULL BOX AT STA. 5+30± TO NEW CONTROLLER CABINET LOCATION AT STA. 9+71±.

LEGEND

- EX. POWER POLE
- EX. ELEC. BOX
- CONTROLLER
- PULL BOX
- SIGNAL STRAIN POLE
- CONDUIT
- 3 SECTION SIGNAL HEADS
- 5 SECTION SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- LOOP DETECTOR

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SSS
CHECKED HJF

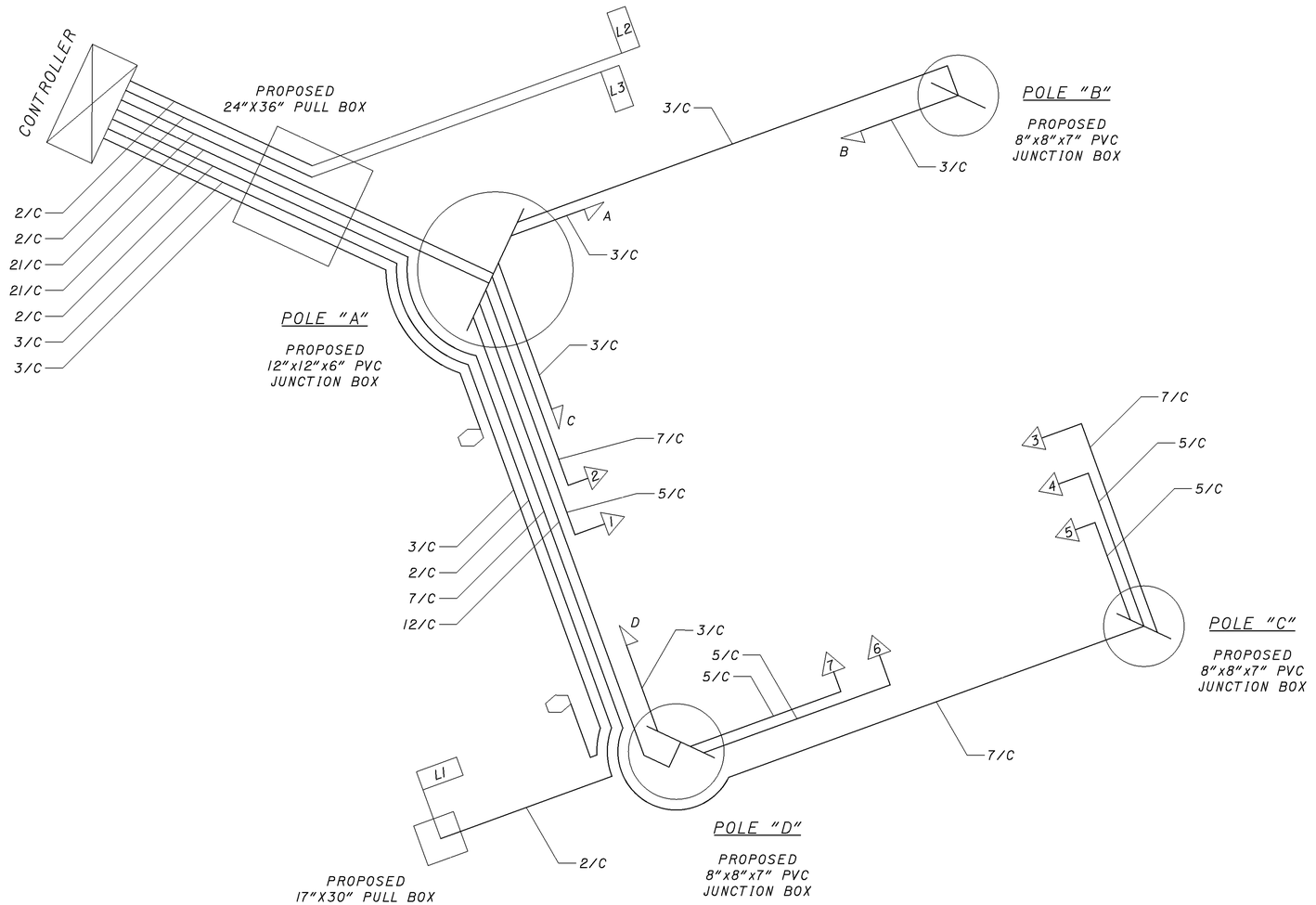
TRAFFIC SIGNAL INTERCONNECT PLAN
I.R. 75 NB RAMPS TO NORTH KEOWEE STREET

MOT-75-14.60

218
314

Plotted By: acscheiderer Date: 10/2/2007 Time: 10:32:06 AM
Filename: g:\C004\0066\Traffic\Sheets\23828cp02_REVbrzozowski.dgn

SIGNAL WIRING DIAGRAM
STANLEY AVENUE, RAMP N-6, RAMP N-6A



21-CONDUCTOR CABLE

1	RED	R	
2	ORANGE	~~Y~~	EASTBOUND
3	GREEN	~~G~~	LEFT
4	RED/BLACK	R	
5	ORANGE/BLACK	Y	EASTBOUND
6	GREEN/BLACK	G	
7	RED/WHITE	R	
8	ORANGE/WHITE	Y	SOUTHBOUND
9	GREEN/WHITE	G	
10	RED/GREEN	R	
11	ORANGE/GREEN	Y	WESTBOUND
12	WHITE/RED	G	
13	WHITE/BLACK	DW	NORTH
14	WHITE	W	CROSSWALK
15	BLUE/BLACK	DW	SOUTH
16	BLUE	W	CROSSWALK
17	BLUE/RED	DW	WEST
18	BLUE/WHITE	W	CROSSWALK
19	BLACK/RED	DW	EAST
20	BLACK/WHITE	W	CROSSWALK
21	BLACK	GROUND	

3/C PEDESTRIAN PUSHBUTTONS

RED
WHITE
BLACK - SPARE

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL
- PEDESTRIAN SIGNAL
- PULLBOX
- CONTROLLER
- PUSHBUTTON
- PVC JUNCTION BOX
- LI — INDUCTIVE LOOP

WIRING NOTES:

1. THE 6-FIBER SM INTERCONNECT CABLE ACCESSES CONTROLLER CABINET VIA ADJACENT 24"X36" PULL BOX. THE 48-FIBER INTERCONNECT TRUNK LINE PASSES THROUGH THIS PULL BOX AND BYPASSES THE LOCAL CONTROLLER CABINET. SEE INTERCONNECT PLANS FOR ADDITIONAL INFORMATION AND DETAILS.

2. LIGHTING UNITS ON COMBINATION-TYPE STRAIN POLES ARE TO BE CONNECTED TO LIGHTING CIRCUITS ON RESPECTIVE SIDE OF STANLEY AVENUE. DISTRIBUTION CABLE ENTERS STRAIN POLE FOUNDATION VIA SEPARATE CONDUIT, POLE AND BRACKET CABLE IS THEN USED FOR SERVICING LUMINAIRES.

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL WIRING DIAGRAM
STANLEY AVENUE, RAMP N-6 AND N-6A

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:47 AM
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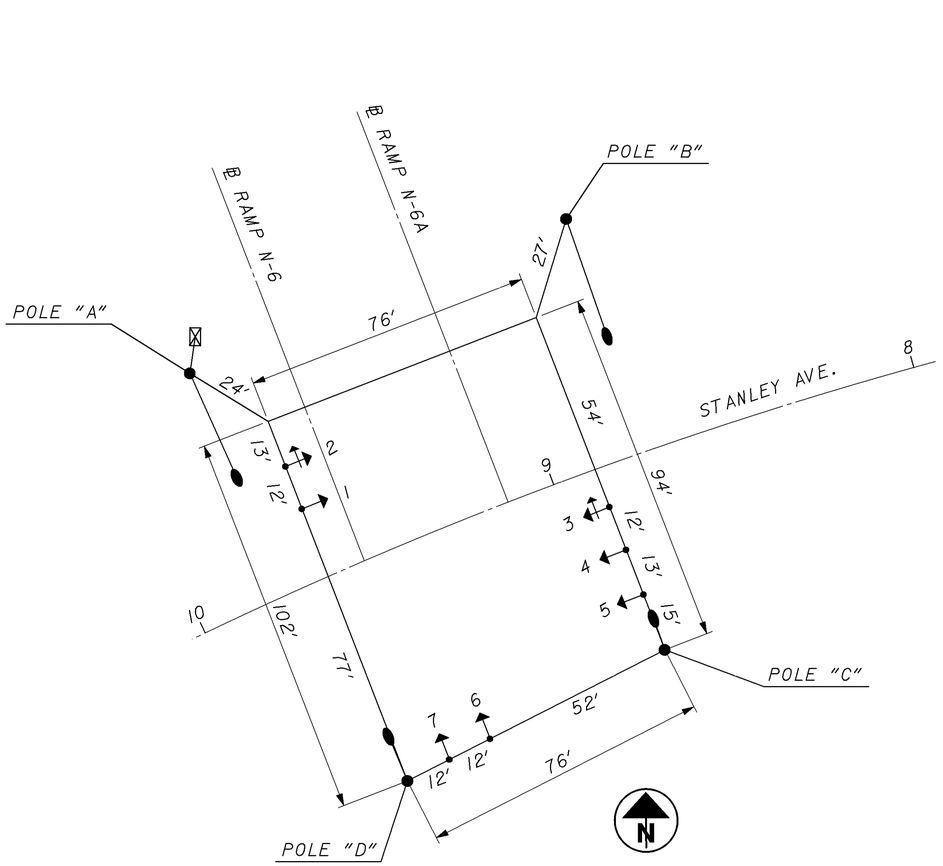
TRAFFIC SIGNAL DETECTOR CHART

LOOP DESIGNATION	SIZE (FT.)	NUMBER OF TURNS	PULSE OR PRESENCE	DELAY (SEC.)	EXTENSION SEC.)	OVERRIDE PHASE	CONNECT TO DETECTOR UNIT (UNIT # / CHANNEL)	ASSOCIATED CONTROLLER PHASE
L1	6 X 30	3	PRESENCE	3		1	1 / 1	1
L2	6 X 35	3	PRESENCE	3		4	2 / 1	4
L3	6 X 13	4	PRESENCE	12		4	3 / 1	4

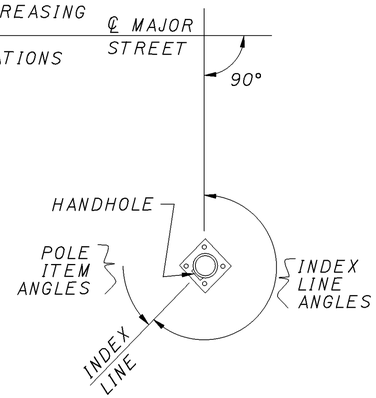
PLAN DETAILS FOR STRAIN POLES

FROM SHEET NO.	REFERENCE STREET ℄ STANLEY AVE. STATION & OFFSET	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	SPAN WIRE ATTACH. HT. (FT.)	INDEX ANGLE (DEG.)	ANGLES (DEG.) FROM INDEX LINE							
							PEDESTRIAN SIGNALS	PEDESTRIAN PUSH BUTTONS		POWER SERVICE	CABLE ENTRANCE 12" FROM TOP	LUMINAIRE BRACKET	JUNCTION BOX	2" EMPTY CAPPED
217	9+75, 64' RT.	A	6	40	28	145	225/315	225		0	180	215	0	
217	8+74, 65' RT.	B	6	40	28	215	135	180			180	145	0	270
217	8+87, 51' LT.	C	6	40	28	140					180	220	0	0
217	9+67, 58' LT.	D	6	40	28	220	45	140			180	140	0	

NOTES:
1. ALL ANGLES ARE MEASURED CLOCKWISE.
2. THE INDEX LINE GOES THROUGH THE CENTER OF THE HANDHOLE.
3. ALL POLES ARE COMBINATION STRAIN POLES.
4. NOMINAL LUMINAIRE MOUNTING HEIGHT SHALL BE 40'.



SPAN DIAGRAM



TRAFFIC SIGNAL CONTROLLER TIMING CHART - ACTUATED

INTERSECTION: STANLEY AVE. @ IR-75 SB RAMPS
MAINTAINING AGENCY: CITY OF DAYTON

Start Up

Start In: ○ y/r flash or ● all red
Time for Flash or All Red: 10 sec.
First Phases: ϕ2 & ϕ6
Color Displayed: ● Green ○ Yellow

Dual Entry ○
Rest In Red: ○ Ring 1 ○ Ring 2

Overlap	A	B	C	D
Phases				

Phase			1	2	3	4	5	6	7	8
Movement			EBL	WBT		SB		EBT		
Minimum Green (Initial)		(Sec.)	7	30		7		30		
Added Initial		*(Sec./Actuation)								
Passage (Preset Gap)		(Sec.)	2.0	3.8		2.0		3.8		
Time Before Reduction		*(Sec.)								
Minimum Gap		*(Sec.)								
Time To Reduce		*(Sec.)								
Max. Green I		(Sec.)	20	60		35		60		
Max. Green II		(Sec.)	20	60		35		60		
Yellow Change		(Sec.)	3.0	4.0		3.0		4.0		
All Red Clearance		(Sec.)	2.0	2.0		2.0		2.0		
Walk		(Sec.)		7		7				
Pedestrian Clearance		(Sec.)		25		29				
Recall	Maximum	(On/Off)								
	Minimum	(On/Off)								
	Pedestrian	(On/Off)		ON						
Memory		(On/Off)								
Call To Non Actuated	No. 1			ON				ON		
	No. 2									

* Volume Density Controls

CALCULATED SSS CHECKED HJF

TRAFFIC SIGNAL PLAN DETAILS
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

220
314

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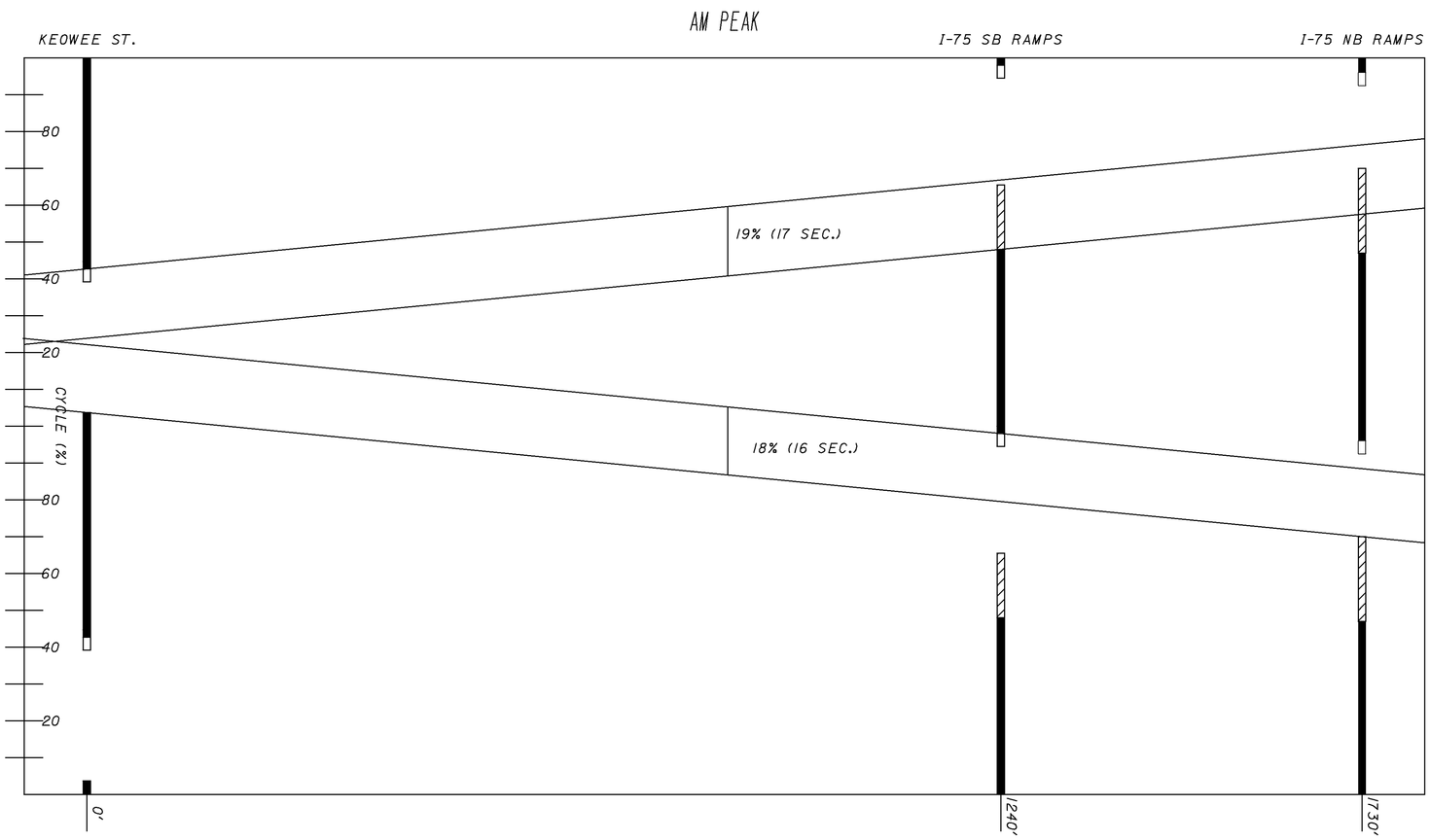

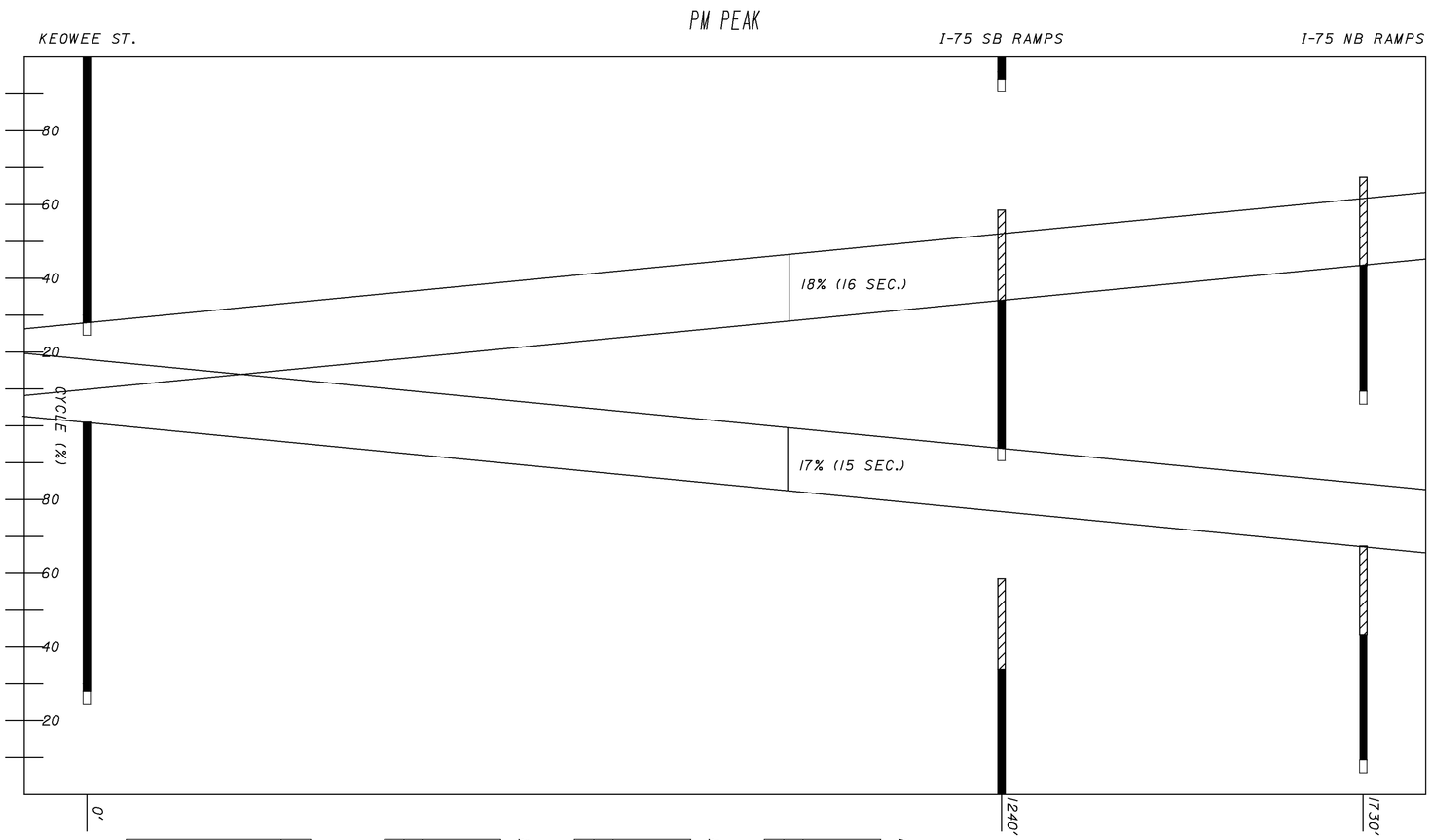

LEGEND

- ■ RED INDICATION ON STANLEY AVENUE
- □ AMBER INDICATION ON STANLEY AVENUE
- ☒ EASTBOUND DIRECTIONAL PHASE ON STANLEY AVENUE

I-75 NB RAMPS

TIMING PLAN	CYCLE LENGTH (SECONDS)	FULL DEMAND PHASE SPLITS (%)				OFFSET (%)
		NB	EBT	EBL	WB	
AM PEAK	90	49	51	23	28	96
PM PEAK	90	32	68	24	44	10

I-75 SB RAMPS

TIMING PLAN	CYCLE LENGTH (SECONDS)	FULL DEMAND PHASE SPLITS (%)				OFFSET (%)
		EBT	SB	EBL	WB	
AM PEAK	90	52	48	21	31	98
PM PEAK	90	62	38	28	34	94

KEOWEE ST.

TIMING PLAN	CYCLE LENGTH (SECONDS)	FULL DEMAND PHASE SPLITS (%)								OFFSET (%)
		SBL	NBT	EB	NBL	SBT	WB			
AM PEAK	90	33	26	41	16	43	41			43
PM PEAK	90	31	40	29	16	56	29			28

221/314

MOT-75-14.60

TRAFFIC SIGNAL TIME SPACE DIAGRAM
STANLEY AVENUE

CALCULATED APM
CHECKED HJF

UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

202, LUMINAIRE REMOVED FOR REUSE

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LUMINAIRE AND PROPERLY STORING IT ON THE PROJECT SITE FOR RE-ERECTION.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LUMINAIRE REMOVED FOR REUSE" FOR EACH LUMINAIRE REMOVED AND STORED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, LIGHT POLE REMOVED FOR STORAGE

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE INCLUDING THE BRACKET ARM(S), TRANSFORMER BASE (IF ANY) AND PROPERLY STORING THIS ASSEMBLY ON THE PROJECT SITE UNTIL RE-ERECTED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT POLE REMOVED FOR STORAGE," FOR EACH POLE REMOVED AND STORED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, LIGHT TOWER REMOVED FOR STORAGE

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT TOWER, INCLUDING LOWERING DEVICE AND PROPERLY STORING IT ON THE PROJECT SITE FOR RE-ERECTION.

THE TOWER SHALL BE PROPERLY SUPPORTED TO PREVENT BENDING OF THE POLE OR DAMAGE TO THE LOWERING DEVICE DURING STORAGE ON THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT TOWER REMOVED FOR STORAGE" FOR EACH TOWER REMOVED AND STORED AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE FOUNDATION TO A MINIMUM OF 1 FOOT BELOW FINISHED GRADE, OR REMOVING THE FOUNDATION COMPLETELY, BACKFILLING THE RESULTANT DEPRESSION WITH COMPACTED SOIL AND RESTORING THE DISTURBED AREA.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN" FOR EACH FOUNDATION REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, PULL BOX REMOVED

THIS ITEM OF WORK WILL CONSIST OF REMOVING AND PROPERLY DISPOSING OF AN EXISTING PULL BOX. THE RESULTANT OPENING SHALL THEN BE BACKFILLED TO GRADE WITH SUITABLE COMPACTED SOIL AND RESTORED TO MATCH THE SURROUNDING AREA.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "PULL BOX REMOVED" FOR EACH PULL BOX REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, DISCONNECT EXISTING CIRCUIT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR TRANSFORMER BASE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED FROM THE PULL BOX SO THAT NO CABLE IS LEFT IN THE BOX.

DISCONNECTION AT A TRANSFORMER BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ALL DUCT-CABLE NOT TO BE REUSED SHALL BE REMOVED FROM THE TRANSFORMER BASE AND THE EXISTING CONDUIT IN THE FOUNDATION SHALL BE CLEANED OF ALL CABLE AND DEBRIS SO THAT THE NEW DUCT-CABLE CAN BE INSTALLED. ALL EXISTING CABLE TO REMAIN ACTIVE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT CABLE LEFT FOR RE-CONNECTION.

THOSE WIRES THAT ARE TO REMAIN ON ACTIVE CIRCUITS SHALL HAVE A WATER-RESISTANT SEAL AT THE CUT END. THE WATER-RESISTANT SEAL SHALL BE ACCOMPLISHED BY PLUGGING THE DEACTIVATED PORT OF AN EXISTING CONNECTOR KIT OR BY INSTALLING A CABLE SPLICE KIT ON THE CUT END OF THE CABLE.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 202, "DISCONNECT EXISTING CIRCUIT, AS PER PLAN" AT EACH LOCATION WHERE DISCONNECTION IS REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, LUMINAIRE, CONVENTIONAL, 200 WATT HPS, 120 VOLT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS WITH AN IES II-M-SC DISTRIBUTION AND 200 WATT HIGH PRESSURE SODIUM LAMPS SHALL BE AMERICAN ELECTRIC "SERIES 126" WITH PHOTOMETRIC DISTRIBUTION AE38491, COOPER "OVD" WITH PHOTOMETRIC DISTRIBUTION OVD2S2F, GENERAL ELECTRIC "M-400" WITH PHOTOMETRIC DISTRIBUTION 1014, OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "LUMINAIRE, CONVENTIONAL, 200 WATT HPS, 120 VOLT, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, LUMINAIRE, UNDERPASS, 100 WATT HPS, 120 VOLT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR UNDERPASS LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR UNDERPASS LIGHTING UNITS SHALL BE AMERICAN ELECTRIC "SIDELIGHT SERIES 582" WITH PHOTOMETRIC DISTRIBUTION AE208II, COOPER "WALL LIGHT" WITH PHOTOMETRIC DISTRIBUTION WPK15SXX, GENERAL ELECTRIC "VERSAFLOOD II WALLIGHTER" WITH PHOTOMETRIC DISTRIBUTION 8578, HOLOPHANE "WALLPACK II" TEST WITH PHOTOMETRIC DISTRIBUTION 33263, OR EQUAL AS APPROVED BY THE ENGINEER.

LUMINAIRES FOR UNDERPASS LIGHTING UNIT WHICH ARE WALL MOUNTED SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10-AMPERE FUSES.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "LUMINAIRE, UNDERPASS, 100 WATT HPS, 120 VOLT, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX," OSRAM SYLVANIA "LUMALUX," PHILIPS "CERAMALUX," OR EQUAL APPROVED BY THE ENGINEER.

625, RE-ERECT EXISTING LIGHT POLE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF RE-ERECTING AN EXISTING LIGHT POLE REMOVED FROM A PREVIOUS LOCATION ON THE PROJECT SITE. THE LIGHT POLE WILL BE INSTALLED ON A NEW FOUNDATION AS INDICATED IN THE PLAN.

WHERE THE POLE WILL BE INSTALLED ON A NEW FOUNDATION, NEW ANCHOR BOLTS SHALL BE FURNISHED. MEDIAN BARRIER FOUNDATIONS REQUIRE SPECIAL ANCHOR BOLTS. REFERENCE STANDARD DRAWING HL-20.13 AND SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEET FOR CONSTRUCTION DETAILS.

IN ADDITION, THE EXISTING LIGHT POLE IDENTIFICATION DECAL SHALL BE REMOVED, AND A NEW DECAL FOR THE NEW IDENTIFICATION NUMBER FURNISHED AND INSTALLED.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "RE-ERECT EXISTING LIGHT POLE, AS PER PLAN" FOR EACH POLE RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, RE-ERECT EXISTING LIGHT TOWER, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF RE-ERECTING AN EXISTING LIGHT TOWER PREVIOUSLY REMOVED AND STORED BY THIS PROJECT.

WHEN REQUIRED, ADDITIONAL LUMINAIRE BRACKET ARMS SHALL BE ADDED TO THE EXISTING LUMINAIRE BRACKETS RELOCATED ALONG WITH THE NECESSARY ADJUSTMENTS AND ADDITIONS TO THE LUMINAIRE WIRING TO ENABLE THE LUMINAIRES TO BE MOUNTED SYMMETRICALLY AROUND THE LUMINAIRE MOUNTING RING.

WHERE THE TOWER WILL BE INSTALLED ON A NEW FOUNDATION, NEW ANCHOR BOLTS SHALL BE FURNISHED.

THE TOWER AND LOWERING MECHANISM SHALL BE CLEANED AND LUBRICATED.

CALCULATED SSS CHECKED HJF

LIGHTING GENERAL NOTES

MOT-75-14.60

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ANY REPAIRS AND ADJUSTMENTS NECESSARY TO RETURN THE TOWER AND MECHANISM TO GOOD OPERATING CONDITION SHALL BE MADE.

THE EXISTING LIGHT TOWER IDENTIFICATION DECAL SHALL BE REMOVED, AND A NEW DECAL FOR THE NEW IDENTIFICATION NUMBER FURNISHED AND INSTALLED.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "RE-ERECT EXISTING LIGHT TOWER, AS PER PLAN" FOR EACH TOWER RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, MEDIAN LIGHT POLE FOUNDATION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A MEDIAN LIGHT POLE FOUNDATION. IN ADDITION TO THE STANDARD DRAWING HL-20.13, REFERENCE SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEETS FOR CONSTRUCTION DETAILS.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "MEDIAN LIGHT POLE FOUNDATION, AS PER PLAN" FOR EACH FOUNDATION INSTALLED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN

IN LIEU OF THE SETTINGS SHOWN IN THE STANDARD DRAWINGS, SET THE TOPS OF LIGHT TOWER FOUNDATIONS, WITH OR WITHOUT MAINTENANCE PLATFORMS, TO PROJECT 6 TO 12 INCHES (152.4 TO 304.8 MILLIMETERS) ABOVE FINISHED GRADE OR PLATFORM FLOOR ON THE UP-SLOPE SIDE OF FOUNDATION. THIS PROJECTION SHALL BE INCLUDED IN THE TOTAL DEPTH OF THE FOUNDATION.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET (6.1 METERS). AN ANIMAL GUARD SHALL BE INCLUDED AT THE OUTLET END OF THE DRAIN. PER CMS 625.20, PULL BOXES SHALL INCLUDE UNDERDRAINS AND NO SEPARATE PAY ITEM SHALL BE PROVIDED.

CONDUIT EXPANSION AND DEFLECTION

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, APPLETON TYPE AX, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4" OR 8" TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, APPLETON TYPE DF, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

625, LIGHTING MISC.: POWER SERVICE REFURBISHED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF THOSE PORTIONS OF AN EXISTING POWER SERVICE NOT BEING REUSED AND THE INSTALLATION OF NEW POWER SERVICE COMPONENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

ALL EXISTING LIGHTING CIRCUIT CABLES AND SPLICES SHALL BE REMOVED FROM THE ADJACENT EXISTING PULL BOX AND FROM CONDUIT BETWEEN THE PULL BOX AND THE POWER SERVICE ENCLOSURE. WHERE EXISTING CONDUIT IS TO BE REUSED, THE CONDUIT SHALL BE CLEANED OF MUD AND DEBRIS. THE ENCLOSURE AND OTHER RELATED COMPONENTS OF THE POWER SERVICE SHALL BE CLEANED OF ALL MUD, DEBRIS AND EXISTING FUSES SHALL BE REMOVED AND DISCARDED.

THE EXISTING CONTROL TRANSFORMER, PHOTOCELL AND CONTACTOR COIL SHALL BE REMOVED AND SHALL BE REPLACED WITH A NEW LINE VOLTAGE CONTACTOR COIL AND A NEW PHOTO CELL. THE POWER SERVICE SHALL BE WIRED AS SHOWN IN STANDARD DRAWINGS AND AS DETAILED IN THE PLANS.

THE GROUND AREA IN THE VICINITY OF THE POWER SERVICE SHALL BE FREE OF ALL DEBRIS, AND SHALL HAVE GRASS TRIMMED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "LIGHTING MISC.: POWER SERVICE REFURBISHED, AS PER PLAN" AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY WORKMANLIKE MANNER.

625, POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

1900 DRYDEN ROAD, DAYTON, OH 45439
DAYTON POWER & LIGHT
(937) 331-4088
ATTN: KYLE KING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHARGES MADE BY THE POWER COMPANY FOR WORK BY THE COMPANY IN CONJUNCTION WITH THE ESTABLISHMENT OF THE REQUIRED SERVICE.

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING, THE POWER SERVICE ELECTRICAL ENERGY ACCOUNT SHALL BE TRANSFERRED TO THE MAINTAINING AGENCY NOTED IN THE PLANS.

THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

SPECIAL, MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT.

CALCULATED SSS
CHECKED HJF

LIGHTING GENERAL NOTES

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:51 AM
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625, REERECT EXISTING LUMINAIRE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF RE-ERECTING AN EXISTING LUMINAIRE REMOVED FROM A PREVIOUS LOCATION ON THE PROJECT SITE. THE LUMINAIRE WILL BE INSTALLED ON A RELOCATED POLE AS INDICATED IN THE PLAN.

THE LUMINAIRE SHALL BE THOROUGHLY CLEANED AND A NEW LAMP SHALL BE FURNISHED AND INSTALLED.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "REERECT EXISTING LUMINIARE, AS PER PLAN" FOR EACH POLE RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, CONDUIT CLEANED AND CABLES REMOVED

THIS ITEM SHALL CONSIST OF CLEANING AN EXISTING CONDUIT BY REMOVING EXISTING CABLES, MUD AND DEBRIS SO THAT NEW CABLE CAN BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF EXISTING CONDUIT AS REQUIRED. MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF OF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED" PER FOOT OF CONDUIT CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

631, REMOVAL OF LUMINAIRE AND DISPOSAL, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING SIGN LIGHTING LUMINAIRE. THE LUMINAIRE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

REPLACEMENT LUMINAIRE SHALL BE PROVIDED UNDER SEPARATE PAY ITEM AND SHALL INCLUDE NEW MOUNTING HARDWARE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 631, "REMOVAL OF LUMINAIRE, AS PER PLAN" FOR EACH LUMINAIRE REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

TRAFFIC SURVEILLANCE GENERAL NOTES

625, CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROAD SIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G" AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNALS CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER.

THIS VARIETY OF 4" MULTI-CELL CONDUIT IS SPECIFICALLY FOR INSTALLATION UNDER PAVEMENT IN A NEW EXCAVATION OR WHEN THE CONDUIT IS TO BE INSTALLED USING A TRENCHLESS TECHNOLOGY.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTERDUCT THE INNERDUCTS SHALL BE NOMINAL 1.25 INCH INSIDE DIAMETER, TYPE DB PVC PER NEMA TC-8 WITH A BELL INSERTION DEPTH OF1.75 INCHES MINIMUM. THE OUTER DUCT SHALL BE NOMINAL 4 INCH (INSIDE DIAMETER), TYPE SCHEDULE 80 PVC PER NEMA.

THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY, TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY ONE *" NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS. THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

BRIDGE ATTACHMENT HARDWARE, SUPPORT SPACING AND EXPANSION FITTINGS USED SHALL CONFOLIN TO THE CONDUIT MANUFACTURER'S RECOMMENDATIONS.

ALL JOINTS WILL BE JOINED AND SECURED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL HANGERS AND HANGER HARDWARE SHALL BE GALVANIZED.

HOLES FOR EXPANSION ANCHORS SHALL BE DRILLED AS PER CMS 510.03. EXPANSION ANCHORS SHALL BE SET WITH EPOXY ADHESIVE.

THREAD ADHESIVE SHALL BE USED ON BOTH THE ANCHOR BOLT MACHINE SCREW AND THE CONDUIT CLAMP SCREW AND NUT.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE NUMBER OF FEET OF CONDUIT FURNISHED AND INSTALLED. MEASURED FROM CENTER TO CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTING AND APPURTENANCES, JOINTS, BENDS, GROUNDS, AND CONCRETE ENCASEMENT WHERE SPECIFIED.

THE TRENCH WILL BE MEASURED BY THE NUMBER OF FEET OF TRENCH COMPLETED AS PER ODOT CMS SECTION 625.20.

BASIS OF PAYMENT

THE PAYMENT FOR THESE ITEMS WILL BE MADE FOR THE ACCEPTED LINEAR FOOT QUANTITIES AT THE CONTRACT PRICES.

625, PULL BOX, MISC.: PULL BOX, 725.08, 32"

PULL BOX SHALL BE CONCRETE, AND CONSTRUCTED IN ACCORDANCE WITH CMS 625.

ALL PULL BOX LIDS SHALL BE M,ARKED "TRAFFIC".

DRAINS SHALL BE INSTALLED PER HL-30.11 AND SHALL BE INCLUDED IN PULL BOX PAY ITEM PER CMS 625.20.

NEENAH R-1792-HL OR JORDAN 1475A FRAMES AND LIDS SHALL BE USED. FRAMES AND LIDS SHALL BE OF THE SAME MANUFACTURER.

PULL BOXES MAY BE POURED IN PLACE OR PRE-CAST. IF THEY ARE POURED IN PLACE, ALL STEEL SHALL BE INSPECTED BEFORE THE POUR IS MADE. CLASS "C" CONCRETE SHALL BE USED FROM AN ODOT APPROVED PLANT. CERTIFICATION FOR ALL STEEL AND ALL CONCRETE TICKETS SHALL BE FURNISHED.

IF THE PULL BOXES ARE PRE-CAST, CERTIFICATION FROM THE MANUFACTURER SHALL BE FURNISHED.

NO PAYMENT WILL BE MADE FOR UNINSPECTED OR UNDOCUMENTED PULL BOXES.

625, MEDIAN PULL BOX, AS PER PLAN

MEDIAN PULL BOXES SHALL BE INSTALLED BY REMOVING A SECTION OF EXISTING MEDIAN BARRIER, INSTALLING THE NEW PULL BOX AND REPLACING THE MEDIAN BARRIER. CARE SHALL BE TAKEN NOT TO DAMAGE THE THE EXISTING MEDIAN RACE-WAYS WHEN REMOVING THE SECTION OF MEDIAN BARRIER.

CONDUIT AND DOWEL CONNECTIONS SHALL BE AS PER PLAN OR AS DIRECTED BY THE ENGINEER.

REPLACEMENT BARRIER SHALL MATCH EXISTING IN SIZE AND TYPE AND SHALL BE INCLUDED UNDER THIS PAY ITEM.

625, CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 40

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROAD SIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNAL CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT. THE INNERDUCTS SHALL BE NOMINAL 1.25 INCH INSIDE DIAMETER, TYPE DB PVC PER NEMA TC-8 WITH A BELL INSERTION DEPTH OF 1.75 INCHES MINIMUM. THE OUTER DUCT SHALL BE NOMINAL 4 INCH (INSIDE DIAMETER), TYPE SCHEDULE 40 PVC, CARLON TYPE SCHEDULE 40 AND 80 OR APPROVED EQUIVALENT.

THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, ONE *" NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS. THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY, IN ADDITION THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM,

INSTALLED IN TRENCH

INSTALLATION WILL BE IN 24" DEEP TRENCH, EXCEPT AS NOTED ON THE PLANS.

ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED. MEASURED FROM CENTER TO CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTING AND APPURTENANCES, JOINTS, BENDS, GROUNDS, AND CONCRETE ENCASEMENT WHERE SPECIFIED.

THE TRENCH WILL BE MEASURED BY THE NUMBER OF FEET OF TRENCH COMPLETED AS PER CMS SECTION 625.20.

BASIS OF PAYMENT

THE PAYMENT FOR THIS ITEM IS INCLUDED IN THE QUANTITIES FOR CONCRETE BARRIER, TYPE BI, BARRIER TRANSITIONS, STRUCTURE MEDIAN BARRIER AND RIGID OVERHEAD SIGN SUPPORT FOUNDATION IN MEDIAN BARRIER.

CALCULATED SSS
CHECKED HJF

LIGHTING GENERAL NOTES & TRAFFIC SURVEILLANCE GENERAL NOTES

MOT-75-14.60

224
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:51 AM
Filename: G:\C004\0066\Road\Sheets\23828n01-withITS.dgn

SHEET NUMBER								FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			226	227	229	230		HSP	FED/ STATE	100% LOCAL						
															LIGHTING	
				2					2		202	75300	2	EACH	PULL BOX REMOVED	222
				2					2		202	75360	2	EACH	LIGHT TOWER REMOVED FOR STORAGE	222
				11					11		202	75402	11	EACH	LIGHT POLE REMOVED FOR STORAGE	222
				9					9		202	75500	9	EACH	LIGHT POLE FOUNDATION REMOVED	222
				14					14		202	75506	14	EACH	LUMINAIRE REMOVED	222
				8					8		202	75508	8	EACH	LUMINAIRE REMOVED FOR REUSE	222
				2					2		202	75541	2	EACH	LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN	
				13					13		202	75801	13	EACH	DISCONNECT EXISTING CIRCUIT, AS PER PLAN	222
			15						15		625	00500	15	EACH	CONNECTOR KIT, TYPE II	
			13						13		625	00600	13	EACH	CONNECTOR KIT, TYPE III	
			8						8		625	01004	8	EACH	CONNECTOR KIT, TYPE VII B	
			32						32		625	01500	32	EACH	CABLE SPLICING KIT	
			4						4		625	14100	4	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
			2						2		625	15201	2	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN	223
			1						1		625	17960	1	EACH	BRACKET ARM, 8'	
			1						1		625	18200	1	EACH	BRACKET ARM, 15'	
			2						2		625	18510	2	EACH	BRACKET ARM, 30'	
									1		625	20000	1	EACH	PORTABLE WINCH DRIVE POWER UNIT	
			2077						2077		625	23200	2077	FT	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
			250						250		625	23300	250	FT	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	
			1216						1216		625	23400	1216	FT	NO. 10 AWG POLE AND BRACKET CABLE	
			2322						2322		625	24100	2322	FT	1-1/2" DUCT CABLE WITH TWO NO. 4 AWG 5000 VOLT CABLES	
			205						205		625	25500	205	FT	CONDUIT, 3", 725.04	
			37						37		625	25900	37	FT	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT , 3-INCH	
			35						35		625	25910	35	FT	CONDUIT CLEANED AND CABLES REMOVED	224
			19						19		625	26251	19	EACH	LUMINAIRE, CONVENTIONAL, AS PER PLAN	222
			8						8		625	27501	8	EACH	LUMINAIRE, UNDERPASS, AS PER PLAN	222
			2206						2206		625	29000	2206	FT	TRENCH	
			2						2		625	29910	2	EACH	TRANSITION JUNCTION BOX	
			2						2		625	29940	2	EACH	BARRIER JUNCTION BOX	
			12						12		625	30700	12	EACH	PULL BOX, 725.08, 18"	
				8					8		625	32000	8	EACH	GROUND ROD	
				1					1		625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM	
				1					1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	223
				1					1		625	34011	1	EACH	POWER SERVICE REFURBISHED, AS PER PLAN	223
				6					6		625	35001	6	EACH	REERECT EXISTING LIGHT POLE, AS PER PLAN	222
				2					2		625	35021	2	EACH	RE-ERECT EXISTING LIGHT TOWER, AS PER PLAN	223
				8					8		625	35100	8	EACH	REERECT EXISTING LUMINAIRE	224
				2206					2206		SPECIAL	62536000	2206	FT	PLASTIC CAUTION TAPE	
									LUMP		SPECIAL	62540000	LUMP		MAINTAIN EXISTING LIGHTING	223
			2						2		625	98000	2	EACH	LIGHTING, MISC.: MEDIAN LIGHT POLE FOUNDATION	223
				1					1		631	87150	1	EACH	BALLAST, TYPE CMRI-175-120	
				1					1		631	89200	1	EACH	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP	
				1					1		631	94201	1	EACH	REMOVAL OF LUMINAIRE AND DISPOSAL, AS PER PLAN	224
				1					1		632	70300	1	EACH	CONDUIT RISER, 1-1/2" DIAMETER	
															TRAFFIC SURVEILLANCE	
					105	358		463			625	25920	463	FT	CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED	224
					1	2		3			625	31501	3	EACH	MEDIAN PULL BOX, AS PER PLAN	224
					1	3		4			625	31600	4	EACH	PULL BOX, MISC.: PULL BOX, 725.08, 32"	224

CALCULATED SSS CHECKED HJF

TRAFFIC SURVEILLANCE GENERAL SUMMARY

LIGHTING & TRAFFIC SURVEILLANCE

MOT-75-14.60

Plotted By: acscheiderer Date: 8/22/2007 Time: 4:18:17 PM
Filename: g:\C004\0066\Road\Sheets\23828lg01-withITS.dgn

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625 CONNECTOR KIT, TYPE II EACH	625 CONNECTOR KIT, TYPE III EACH	625 CONNECTOR KIT, TYPE VII B EACH	625 CABLE SPLICING KIT EACH	625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EACH	625 MEDIAN LIGHT POLE FOUNDATION, AS PER PLAN EACH	625 LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN EACH	625 BRACKET ARM, 8' EACH	625 BRACKET ARM, 15' EACH	625 BRACKET ARM, 30' EACH	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE FT	625 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE FT	625 NO. 10 POLE AND BRACKET CABLE FT	625 1-1/2" DUCT CABLE WITH TWO NO. 4 AWG 5000 VOLT CABLES FT	625 CONDUIT, 3", 725.04 FT	625 CONDUIT, JACKED OR DRILLED UNDER PAVEMENT 3-INCH FT	625 CONDUIT CLEANED AND CABLES REMOVED FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, UNDERPASS, AS PER PLAN EACH	625 TRENCH FT	625 TRANSITION JUNCTION BOX EACH	625 BARRIER JUNCTION BOX EACH	625 PULL BOX, 725.08, 18" EACH
1	228	LT	IR-75	427+20 CCB																								
2	229	RT	RAMP N-10	5+08 XB2-3 TO 5+08 XPB1																								
3		LT	IR-75	438+40 B2-2																								
4		LT	RAMP N-8	6+06 B5-2 TO 8+07 SI-7																								
5	230	LT	IR-75	446+31 XPB2 TO 447+20 XPB3																								
6		℄	IR-75	453+30 BJB1			2																				1	
7		RT	IR-75	453+30 BJB1 TO 454+45 B5-4												250												
8		RT	IR-75	454+00 XB5-4																								
9		RT	IR-75	454+45 B5-4 TO 454+45 BJB2			2				1				220				100						100		1	
10		℄	IR-75	455+65 TJB1																						1		
11		℄	IR-75	457+56 XA1-9																								
12		℄	IR-75	457+86 A1-9	1	1				1							65											
13		℄	IR-75	457+86 A1-9 TO 460+00 ML											448													
14		RT	RAMP N-6A	442+34 B25/PB1 TO 445+00 PB11				4							40			193			10			183			1	
15		LT/RT	RAMP N-6A	445+00 PB11 TO 445+00 PB12				4							94					37				174			2	
16		RT	RAMP N-6	452+48 B2-3 TO 450+94														184										
17		RT	RAMP N-6	452+48 B2-3							1																	
18	231	℄	IR-75	460+00 ML TO 460+28 A2-8											76													
19		℄	IR-75	460+28 A2-8	1	1				1							65											
20		℄	IR-75	460+28 A2-8 TO 462+58 TJB2											480													
21		℄	IR-75	462+58 TJB2			4																			1		
22		℄	IR-75	462+58 TJB2 TO 462+76 A1-8											56													
23		℄	IR-75	462+58 TJB2 TO 465+45 A2-7											593													
24		℄	IR-75	462+76 A1-8																								
25		℄	IR-75	465+45 A2-7																								
26		LT	IR-75	465+98 XPB4																								
27		RT	IR-75	465+98 XPB5																								
28		RT	RAMP N-4	3+10 XPB5 TO 9+21 NI-5																								
29		RT	RAMP N-5	0+48 NI-3 TO 6+23 XPB4																								
30			NEVA DR.	XLP1 TO NI-5	2			10										363			10	3	2	363			4	
31	232	LT/RT	STANLEY	3+46 SI-16 TO 3+47 SI-8																		2						
32		RT	STANLEY	4+50 SI-15																		1						
33		LT	STANLEY	4+55 SI-7 TO 4+64 XPB5																		1						
34		LT/RT	STANLEY	5+16 SI-UP17 TO 6+15 SI-UP22																			6					
35		LT	STANLEY	6+32 SI-SIGN1																								
36																												
37		LT	STANLEY	6+65 SI-6																		1						
38	233	LT	STANLEY	7+24 SI-SIGN2 TO 7+24 PB8				2																			1	
39		LT	STANLEY	7+66 SI-14 TO 7+74 PB7	1	1									36						8	1						
40		LT	STANLEY	7+74 PB7 TO 8+74 SI-13				2										116						106			1	
41		LT	STANLEY	8+42 B58/PB5 TO 8+87 SI-5				2										54						44			1	
42		RT	STANLEY	8+74 SI-13 TO 9+74 SI-12	1	1								1			140	115	105			1		105				
43		LT	STANLEY	8+87 SI-5 TO 9+67 SI-4	1	1						1					96	86				1		76				
44		LT	STANLEY	9+67 SI-4 TO 11+57 SI-3	1	1							1				110	193				1		183				
45		RT	STANLEY	9+74 SI-12 TO 10+75 PB6	1	1								1			140	123				1		113				
46		LT	STANLEY	10+06 B5-9																								
47		RT	STANLEY	10+75 PB6 TO 10+82 SI-11				2							34						7						1	
48		RT	STANLEY	10+82 SI-11 TO 12+31 SI-10	1	1											100	160				1		150				
49		LT	STANLEY	11+57 SI-3 TO 12+85 SI-2	1	1											100	137				1		127				
50		RT	STANLEY	12+31 SI-10 TO 13+81 SI-9	1	1			1								100	161				1		151				
51		LT	STANLEY	12+85 SI-2 TO 14+56 SI-1	1	1			1								100	180				1		170				
52		RT	STANLEY	13+81 SI-9 TO 14+90 ICPB4	1	1		2	1								100	177				1		101				
53		LT	STANLEY	14+56 SI-1 TO 14+90 PB9	1	1		4	1								100	45				1		35			1	
54		LT/RT	STANLEY	14+80 ICPB4 TO 14+90 CCS														35						25				
ALLOCATED FED/STATE GRAND TOTAL					15	13	8	32	4	2	2	1	1	2	2077	250	1216	2322	205	37	35	19	8	2206	2	2	12	
GRAND TOTAL CARRIED TO LIGHTING GENERAL SUMMARY					15	13	8	32	4	2	2	1	1	2	2077	250	1216	2322	205	37	35	19	8	2206	2	2	12	

CALCULATED SSS CHECKED HJF

LIGHTING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:52 AM
Filename: G:\C004\0066\Road\Sheets\23828ls01.dgn

LIGHTING SUB-SUMMARY

CALCULATED SSS CHECKED HJF

MOT-75-14.60

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625 GROUND ROD EACH	625 STRUCTURE GROUNDING SYSTEM EACH	625 POWER SERVICE, AS PER PLAN EACH	625 POWER SERVICE REFURBISHED, AS PER PLAN EACH	625 RE-ERECT EXISTING LIGHT POLE EACH	625 RE-ERECT EXISTING LIGHT TOWER EACH	625 REERECT EXISTING LUMINAIRE EACH	625 SPECIAL - PLASTIC CAUTION TAPE FT	631 BALLAST, TYPE CMRI-175-120 EACH	631 MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP EACH	631 REMOVAL OF LUMINAIRE AND DISPOSAL, AS PER PLAN EACH	632 CONDUIT RISER, 1-1/2" DIAMETER EACH	202 PULL BOX REMOVED EACH	202 LIGHT TOWER REMOVED FOR STORAGE EACH	202 LIGHT POLE REMOVED FOR STORAGE EACH	202 LIGHT POLE FOUNDATION REMOVED EACH	202 LUMINAIRE REMOVED EACH	202 LUMINAIRE REMOVED FOR REUSE EACH	202 LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN EACH	202 DISCONNECT EXISTING CIRCUIT, AS PER PLAN EACH
1	228	LT	IR-75	427+20 CCB				1																
2	229	RT	RAMP N-10	5+08 XB2-3 TO 5+08 XPB1													1	1				2	1	
3		LT	IR-75	438+40 B2-2																				1
4		LT	RAMP N-8	6+06 B5-2 TO 8+07 SI-7																				1
5	230	LT	IR-75	446+31 XPB2 TO 447+20 XPB3																				2
6		℄	IR-75	453+30 BJB1																				
7		RT	IR-75	453+30 BJB1 TO 454+45 B5-4																				
8		RT	IR-75	454+00 XB5-4														1				2	1	
9		RT	IR-75	454+45 B5-4 TO 454+45 BJB2	2					1	2	100												
10		℄	IR-75	455+65 TJB1																				
11		℄	IR-75	457+56 XA1-9															1			2		
12		℄	IR-75	457+86 A1-9		1			1		2													
13		℄	IR-75	457+86 A1-9 TO 460+00 ML																				
14		RT	RAMP N-6A	442+34 B25/PB1 TO 445+00 PB11								183												
15		LT/RT	RAMP N-6A	445+00 PB11 TO 445+00 PB12																				
16		RT	RAMP N-6	452+48 B2-3 TO 450+94								174												
17		RT	RAMP N-6	452+48 B2-3	2					1	2													
18	231	℄	IR-75	460+00 ML TO 460+28 A2-8																				
19		℄	IR-75	460+28 A2-8					1		2								1			2		
20		℄	IR-75	460+28 A2-8 TO 462+58 TJB2																				
21		℄	IR-75	462+58 TJB2																				
22		℄	IR-75	462+58 TJB2 TO 462+76 A1-8																				1
23		℄	IR-75	462+58 TJB2 TO 465+45 A2-7																				
24		℄	IR-75	462+76 A1-8																				1
25		℄	IR-75	465+45 A2-7																				1
26		LT	IR-75	465+98 XPB4													1							
27		RT	IR-75	465+98 XPB5																				1
28		RT	RAMP N-4	3+10 XPB5 TO 9+21 NI-5															3	3	3			1
29		RT	RAMP N-5	0+48 NI-3 TO 6+23 XPB4															2	2	2			1
30			NEVA DR.	XLP1 TO NI-5								363					1				5			1
31	232	LT/RT	STANLEY	3+46 SI-16 TO 3+47 SI-8																				
32		RT	STANLEY	4+50 SI-15																				
33		LT	STANLEY	4+55 SI-7 TO 4+64 XPB5																				1
34		LT/RT	STANLEY	5+16 SI-UP17 TO 6+15 SI-UP22																				
35		LT	STANLEY	6+32 SI-SIGN1									1	1	1									1
36																								
37		LT	STANLEY	6+65 SI-6																				
38	233	LT	STANLEY	7+24 SI-SIGN2 TO 7+24 PB8																				
39		LT	STANLEY	7+66 SI-14 TO 7+74 PB7																				
40		LT	STANLEY	7+74 PB7 TO 8+74 SI-13								106												
41		LT	STANLEY	8+42 B58/PB5 TO 8+87 SI-5								44							1	1	1			
42		RT	STANLEY	8+74 SI-13 TO 9+74 SI-12								105							1	1	1			
43		LT	STANLEY	8+87 SI-5 TO 9+67 SI-4								76												
44		LT	STANLEY	9+67 SI-4 TO 11+57 SI-3								183												
45		RT	STANLEY	9+74 SI-12 TO 10+75 PB6								113												
46		LT	STANLEY	10+06 B5-9															1	1	1			
47		RT	STANLEY	10+75 PB6 TO 10+82 SI-11																				
48		RT	STANLEY	10+82 SI-11 TO 12+31 SI-10								150												
49		LT	STANLEY	11+57 SI-3 TO 12+85 SI-2								127												
50		RT	STANLEY	12+31 SI-10 TO 13+81 SI-9	1				1			151												
51		LT	STANLEY	12+85 SI-2 TO 14+56 SI-1	1				1			170												
52		RT	STANLEY	13+81 SI-9 TO 14+90 ICPB4	1				1			101												
53		LT	STANLEY	14+56 SI-1 TO 14+90 PB9	1				1			35							1	1	1			
54		LT/RT	STANLEY	14+80 ICPB4 TO 14+90 CCS			1					25												
ALLOCATED FED/STATE GRAND TOTAL					8	1	1	1	6	2	8	2206	1	1	1	1	2	2	11	9	14	8	2	13
GRAND TOTAL CARRIED TO LIGHTING GENERAL SUMMARY					8	1	1	1	6	2	8	2206	1	1	1	1	2	2	11	9	14	8	2	13

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:52 AM
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LIGHTING PLAN SHEET NOTES:

1. EXISTING MEDIAN BARRIER HAS EXISTING 2" RACEWAY FOR LIGHTING.

N

0 25 50 100
HORIZONTAL
SCALE IN FEET

CALCULATED SSS
CHECKED HJF

IR-75
LIGHTING PLAN

MOT-75-14.60

228
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:53 AM
Filename: G:\C004\0066\Road\Sheets\23828lp01.dgn

TRAFFIC SURVEILLANCE SUBSUMMARY (THIS SHEET)

625	625	625			
MEDIAN PULL BOX, AS PER PLAN	PULL BOX, MISC.: PULL BOX, 725.08, 32"	CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED			
EACH	EACH	FT			
1	1	105			
TOTALS CARRIED TO GENERAL SUMMARY					
1	1	105			

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

SEE SHEETS 232 AND 233 FOR STANLEY AVE LIGHTING

XB2-3
REMOVE EXISTING TOWER
2-1000W, HPS, ASYM
RELOCATE ALONG PROPOSED RAMP N-6

ABANDON CONDUIT AND CABLES

REMOVE EX PB, XPB

ABANDON CONDUIT AND CABLES

B2 SIGN
ONE SIGN W/SIGN LIGHTING REMOVED
MAINTAIN SIGN WIRING TO REMAINING SIGNS

B2-2
EX TOWER
2-1000W HPS, ASYM
DISCONNECT EXISTING CIRCUIT
ABANDON DUCTCABLE ALONG RAMP N-9 TO B2-3
MAINTAIN SERVICE TO SIGN

BEGIN PROJECT
STA 432+45.67
SLM = 14.60

E033(774)

MATCH LINE 432+00 I.R. 75

EX MEDIAN PB

EX MEDIAN PB

EX MEDIAN PB

EX TRANSITION PB

EX MEDIAN PB

MATCH LINE 446+00 I.R. 75

℄ RAMP N-10

℄ RAMP N-9

℄ RAMP N-7

℄ RAMP N-8

B5 SIGN

EX PB

B5-1
EX TOWER
2-1000W HPS, ASYM

EX PB
DISCONNECT
EXISTING CIRCUIT

B5-2
EX TOWER
2-1000W HPS, ASYM
DISCONNECT EXISTING CIRCUIT

ABANDON CONDUIT AND CABLES

CONSTRUCT, STA 441+00, 0'-105' RT:
MEDIAN PULL BOX, 36", 0' RT
PULL BOX, 725.08, 32" ROUND, 105' RT
1-4" MULTICELL CONDUIT, SCH 80, JACKED OR DRILLED, 105'

WINDHAM STREET

STANLEY AVENUE

HORIZONTAL SCALE IN FEET
0 25 50 100

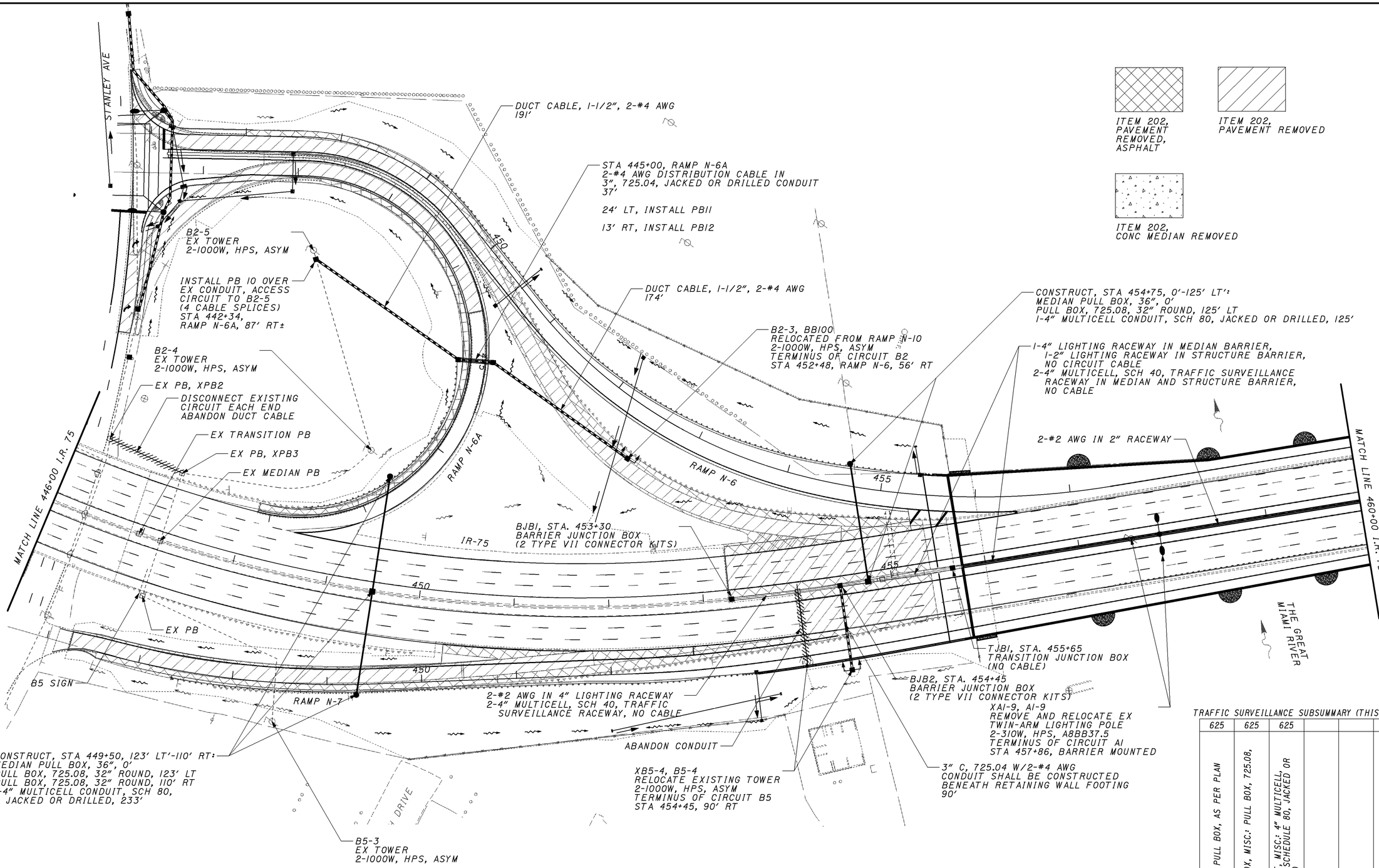
CALCULATED SSS
CHECKED HJF

IR-75
LIGHTING & TRAFFIC SURVEILLANCE PLAN

MOT-75-14.60

229
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:54 AM
Filename: G:\C004\0066\Road\Sheets\23828lp02-withITS.dgn



TRAFFIC SURVEILLANCE SUBSUMMARY (THIS SHEET)

625	625	625			
MEDIAN PULL BOX, AS PER PLAN	PULL BOX, MISC.: PULL BOX, 725.08, 32"	CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED			
EACH	EACH	FT			
2	3	358			
TOTALS CARRIED TO GENERAL SUMMARY					
2	3	358			

SEE SHEETS 232 AND 233 FOR STANLEY AVE LIGHTING

SEE SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEETS FOR MEDIAN BARRIER FOUNDATION DETAILS.

CALCULATED SSS
CHECKED HJF

IR-75, RAMP 6A & RAMP N-6A
LIGHTING & TRAFFIC SURVEILLANCE PLAN

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:55 AM
Filename: G:\C004\0066\Road\Sheets\23828p03-withITS.dgn

XA2-8, A2-8
REMOVE AND REERECT EX LIGHTING
TERMINUS OF CIRCUIT A2
STA 460+28, BARRIER MOUNTED

1-4" LIGHTING RACEWAY IN MEDIAN BARRIER,
1-2" LIGHTING RACEWAY IN STRUCTURE BARRIER,
4-#4 AWG LIGHTING CIRCUIT CABLE
2-4" MULTICELL, SCH 40, TRAFFIC SURVEILLANCE
RACEWAY IN MEDIAN AND STRUCTURE BARRIER,
NO CABLE

REMOVE EX PB, XPB4

END PROJECT
STA 468+30.96
SLM = 15.28

E033(774)

ABANDON CONDUIT
AND CABLES

EXISTING LIGHT POLE, XLP1
INSTALL 1-1/2" CONDUIT RISER, EXTEND EXISTING
CIRCUIT TO INCLUDE LIGHTING ALONG NEVA DRIVE

1-1/2" DUCT CABLE, 2-#4 AWG
142'

INSTALL PULL BOX PB2 OVER EXISTING
CONDUIT, ACCESS CIRCUIT AND
SPLICE TO NI-4 AND NI-3
(4 SPLICE KITS)

NI-3
EXISTING LIGHT POLE TO REMAIN
NEW 200W HPS LUMINAIRE

MAINTAIN EXISTING CIRCUIT
CABLE AND CONNECTIVITY

INSTALL PULL BOX, PB1
(2 SPLICE KITS)

AI-19
REMOVE EXISTING POLE
AND LUMINAIRE

NI-4
EXISTING LIGHT POLE
TO REMAIN
NEW 200W HPS LUMINAIRE

INSTALL PULL BOX PB3 OVER
EXISTING CONDUIT. ACCESS
LIGHTING CIRCUIT AND
SPLICE CIRCUIT TO A2-22
(4 SPLICE KITS)

AI-18
REMOVE EXISTING POLE
AND LUMINAIRE

END WORK
STA 472+68.08

BIKE PATH
(BY OTHERS SEE
MOT-GREAT-MIAMI
RECREATION
TRAILS PLANS)

EX. 2" RACEWAY, 4-#4 AWG

REMOVE CABLES AND
ABANDON CONDUIT
70'

STA. 465+98,
EX. TYPE IX J-BOX
DISCONNECT EXISTING
CIRCUIT AI TO RAMP N-5

OME AVENUE

NEVA DRIVE

℄ RAMP N-5

EX. PB

EX. TYPE IX J-BOX

NI-UP2
NEW 100W MV
UNDERPASS LIGHTING

NI-UP1
NEW 100W MV
UNDERPASS LIGHTING

EX. TYPE IX
J-BOX

AI-7

AI-6

EX PB

A2-6

63+00

64+00

MATCH LINE 460+00 I.R. 75

465

470

STA. 465+44.55, A2-7
DISCONNECT EXISTING
LIGHTING CIRCUIT A2 TO
THE SOUTH DURING
BRIDGE RECONSTRUCTION

MAINTAIN SIGN LIGHTING CIRCUIT
CONDUIT FROM MEDIAN TO EX PB
FOR SIGNS TO REMAIN
(SEE SIGNING PLANS)

STA. 462+58, TJB2
TRANSITION JUNCTION BOX

STA. 462+75.76, AI-8
DISCONNECT EXISTING
LIGHTING CIRCUIT AI TO
THE SOUTH DURING
BRIDGE RECONSTRUCTION

STA. 465+98, RT, XPB5
DISCONNECT EXISTING
CIRCUIT A2 TO RAMP N-4

A2-25
REMOVE EXISTING POLE
AND LUMINAIRE

OME AVENUE

ONTARIO AVENUE

A2-24
REMOVE EXISTING POLE
AND LUMINAIRE

ONEIDA DRIVE

℄ RAMP N-4

ABANDON CONDUIT
AND CABLES

A2-23
REMOVE EXISTING POLE
AND LUMINAIRE

1-1/2" DUCT CABLE, 2-#4 AWG
221'

INSTALL PULL BOX PB4 OVER EXISTING
CONDUIT, ACCESS CIRCUIT TO POLE NI-5
REMOVE CABLES AND CLEAN CONDUIT
(NO SPLICES)

NI-5
DISCONNECT EXISTING CIRCUIT
EXISTING LIGHT POLE TO REMAIN
NEW 200W HPS LUMINAIRE

EXISTING CONTROL CENTER A, CCA
CIRCUITS AI & A2
- LIGHTING FOR RAMPS N-4 AND N-5
BEING REMOVED.

ITEM 202,
PAVEMENT
REMOVED,
ASPHALT

ITEM 202,
PAVEMENT REMOVED

SEE SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEETS FOR MEDIAN BARRIER FOUNDATION DETAILS.

HORIZONTAL
SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

IR-75
LIGHTING & TRAFFIC SURVEILLANCE PLAN

MOT-75-14.60

231
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:56 AM
Filename: G:\C004\0066\Road\Sheets\23828lp04-withITS.dgn

PLAN SHEET NOTES:

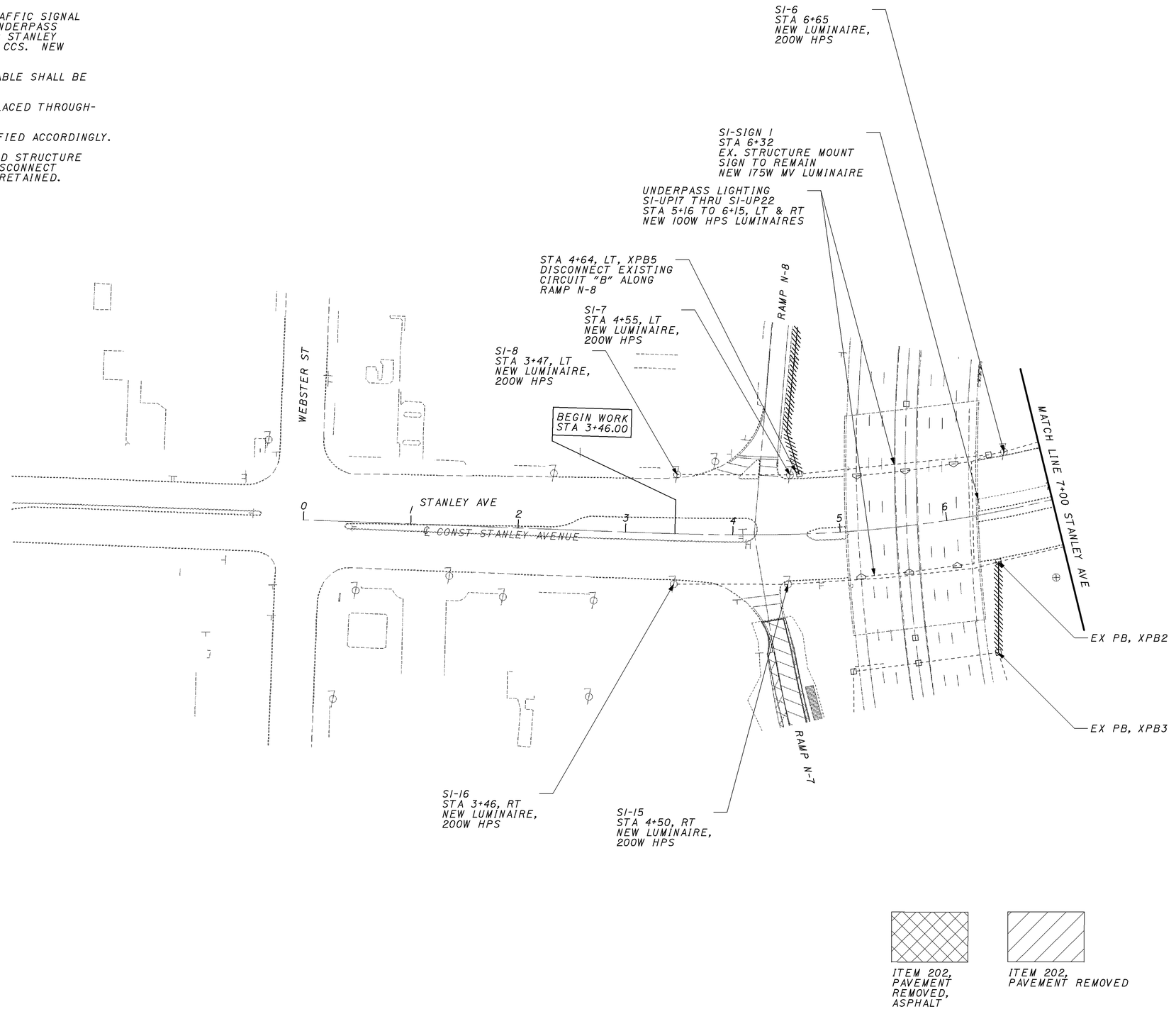
1. LIGHTING UNITS ON COMBINATION TYPE TRAFFIC SIGNAL STRAIN POLES AND EXISTING LIGHT POLES, UNDERPASS LIGHTING LIGHTING, AND SIGN LIGHTING ALONG STANLEY AVENUE SHALL BE ON NEW LIGHTING CIRCUIT, CCS. NEW SERVICE SHALL BE 120/240 VOLTS.

2. EXISTING CONDUITS AND DISTRIBUTION CABLE SHALL BE REUSED.

3. EXISTING LIGHTING UNITS SHALL BE REPLACED THROUGH-OUT THIS NEW LIGHTING CIRCUIT.

4. EXISTING CIRCUITS B2 AND B5 ARE MODIFIED ACCORDINGLY.

5. STANLEY AVENUE UNDERPASS LIGHTING AND STRUCTURE MOUNTED OVERHEAD SIGN HAVE SEPERATE DISCONNECT SWITCHES AND ARE EXISTING AND SHALL BE RETAINED.



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

STANLEY AVENUE LIGHTING PLAN

MOT-75-14.60

232
314

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:56 AM
Filename: G:\C004\0066\Road\Sheets\23828lp_stanley01.dgn

SI-SIGN 2, STA 7+24, 47' RT
EX. OVHD SIGN TO BE REMOVED

REMOVE A SUFFICIENT AMOUNT OF THE EXISTING POLE FOUNDATION TO ACCESS THE EXISTING CONDUIT AND TO PROVIDE FOR THE INSTALLATION OF A PULL BOX, PB8, TO REESTABLISH THE CIRCUIT ROUTING.
(2 SPLICE KITS)

B5-8
REMOVE AND RELOCATE
TO SI-2, STA 12+85, LT

REMOVE A SUFFICIENT AMOUNT OF THE EXISTING POLE FOUNDATION TO ACCESS THE EXISTING CONDUIT AND TO PROVIDE FOR THE INSTALLATION OF A PULL BOX, PB5, TO REESTABLISH THE CIRCUIT ROUTING.
(2 SPLICE KITS)

SI-5
STA 8+87, 51' LT
8' BRACKET ARM WITH LUMINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

SI-4
STA 9+67, 58' LT
15' BRACKET ARM WITH LUNINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

B5-9
REMOVE AND RELOCATE
TO SI-9, STA 13+81, 26' RT

REMOVE EXISTING POLE FOUNDATION SUFFICIENT ENOUGH TO PLACE NEW CONDUITS

REMOVE CABLES AND ABANDON CONDUIT

SI-2
STA 12+85, 45.5' RT
RELOCATED POLE ON NEW FOUNDATION.
NEW LUMINAIRE, 200W HPS

1-1/2" DUCT CABLE

1-1/2" DUCT CABLE

SI-3, 11+57, 47' LT
NEW LUMINAIRE,
200W HPS

1-1/2" DUCT CABLE

RAMP N-9

RAMP N-10

SI-1
REMOVE AND RELOCATE
TO STA 14+56, 36.5' LT
NEW 200W HPS LUMINIARE

END WORK
STA 15+40.12

STA 14+80, 52' LT
PROP. CONTROL CENTER CCS/POWER SERVICE

1-1/2" DUCT CABLE

1-1/2" DUCT CABLE

STA 14+90, 30.5' LT
INSTALL PB9
(4 SPLICE KITS)

MATCH LINE 7+00 STANLEY AVE

STANLEY AVE

I.C. PULL BOX

SI-14
STA 7+66, 48' RT
NEW LUMINAIRE,
200W HPS

STA 7+74, 48' RT
INSTALL PB7 OVER
EX. CONDUIT,
REMOVE CABLES AND
CLEAN CONDUIT
(2 SPLICE KITS)

1-1/2" DUCT CABLE

RAMP N-6A

RAMP N-6

ICPB1, I.C. PULL BOX

1-1/2" DUCT CABLE

SI-13
STA 8+74, 65' RT
30' BRACKET ARM WITH LUMINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

B2-9
REMOVE AND RELOCATE
TO SI-10, STA 12+31, 35' RT
NEW 200W HPS LUMINIARE

1-1/2" DUCT CABLE
IN I.C. TRENCH
(SEE DETAIL A)

SI-11, STA 10+82, 35' RT
NEW LUMINAIRE,
200W HPS

STA 10+75, 35' RT
INSTALL PB6 OVER EX CONDUIT,
REMOVE CABLES AND
CLEAN CONDUIT
(2 SPLICE KITS)

1-1/2" DUCT CABLE

SI-12
STA 9+74, 64' RT
30' BRACKET ARM WITH LUMINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

SIGPB, SIGNAL PULL BOX

1-1/2" DUCT CABLE
IN 3" C, 725.04, UNDER PAVEMENT

SI-9
STA 13+81, 26' RT
RELOCATED POLE
ON NEW FOUNDATION.
NEW 200W HPS LUMINAIRE

1-1/2" DUCT CABLE
IN I.C. TRENCH
(SEE DETAIL A)

ICPB3, I.C. PULL BOX

SI-10
STA 12+31, 35' RT
RELOCATED POLE ON NEW FOUNDATION.
NEW 200W HPS LUMINAIRE

STA. 12+51, 34.5' RT
REMOVE A SUFFICIENT AMOUNT OF THE EXISTING POLE FOUNDATION TO PROVIDE FOR THE INSTALLATION OF I.C. PULL BOX AND TO ROUTE A LIGHTING CONDUIT BYPASS BENEATH THE PULL BOX.

STA 14+85
1-1/2" DUCT CABLE
IN 3" C, 725.04, JACKED OR
DRILLED UNDER PAVEMENT
(INTERCONNECT PLAN)

ICPB4, I.C./LIGHTING PULL BOX
(2 SPLICE KITS)

1-1/2" DUCT CABLE
IN I.C. TRENCH
(SEE DETAIL A)

PLAN SHEET NOTES:

1. UPON THE REMOVAL OF EXISTING LIGHTING, THE EXISTING POLE FOUNDATION SHALL BE REMOVED TO A SUFFICIENT DEPTH SO THAT THE EXISTING LIGHTING CONDUIT CAN BE ACCESSED AND A PULL BOX INSTALLED AT THE APPROXIMATE LOCATION OF THE EXISTING FOUNDATION BEING REMOVED. FOUNDATION REMOVED IN AREAS WHERE FINAL GRADE IS NEW PAVEMENT, THE EXISTING FOUNDATION SHALL BE REMOVED AT A DEPTH BELOW THE PROPOSED SUBBASE.

2. BRACKET ARMS WITH LUMINAIRE INSTALLED ON COMBINATION TYPE SIGNAL STRAIN POLES SHALL HAVE A NOMINAL MOUNTING HEIGHT OF 41.7'. NEW ARMS SHALL MATCH EXISTING STANLEY AVE LIGHTING AS NEAR AS POSSIBLE.

3. INSTALL POLE FOUNDATION TO ACCESS EXISITING LIGHTING CIRCUIT. INSTALL RELOCATED POLE FROM STA ON NEW FOUNDATION. REMOVE ADJACENT EXISTING POLE FOUNDATION SUFFICIENT ENOUGH TO PROVIDE ACCESS TO EXISTING LIGHTING CONDUIT AND INSTALL A PULL BOX.

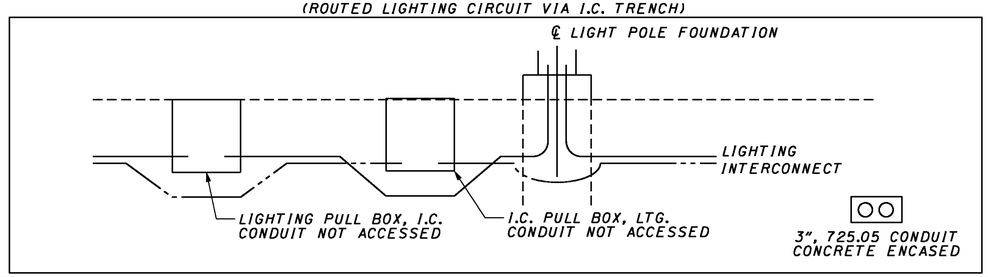
4. LIGHTING CIRCUIT DISTRIBUTION CABLE CONSISTS OF 2-#4 AWG IN DUCT CABLE OR CONDUIT AS NOTED.

ITEM 202,
PAVEMENT
REMOVED,
ASPHALT

ITEM 202,
PAVEMENT REMOVED

ITEM 202,
CONC MEDIAN REMOVED

DETAIL A
(ROUTED LIGHTING CIRCUIT VIA I.C. TRENCH)



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

STANLEY AVENUE
LIGHTING PLAN

MOT-75-14.60

233
314

Plotted By: acschelderer Date: 10/2/2007 Time: 11:12:16 AM
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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SSS

CHECKED HJF

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

770 760 750 740 730

SEE RAMP N-6

6:1

764.99
454+45.00
764.53

℄
IR 75

RAMP N-7

℄ LIGHT TOWER

2.7:1

B5-4, BB110
RELOCATED
STA 454+45.0, 90.0' RT
TOWER FOUNDATION, 36"x25'

PROP R/W

R/W

3:1

9:1

24:1

756.49
452+48.00
741.84

℄
RAMP N-6

℄ LIGHT TOWER

B2-3, BB100
RELOCATED FROM RAMP N-10
STA 452+48.0, 56.0' RT
TOWER FOUNDATION, 36"x25'

SHEET TOTAL

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

SHEET TOTAL

LIGHT TOWER FOUNDATION DETAIL

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 12:16:58 AM
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CONTROL CENTER	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NUMBER	EX. CIRCUIT LOAD (AMPS)	PROP. CIRCUIT LOAD (AMPS)	EX. FUSE SIZE (AMPS)	PROP. FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
CCA AT NEVA DR	480	23.85 (EX) 20.03 (PR)	#2 EXISTING	SC-100 (SINGLE)	A1	23.76	18.33	30		#2,#4	ODOT
					A2	25.92	23.40	30		#2,#4	
					A3	SPARE		30			
CCB AT LEO ST	480	46.31 (EX) 40.74 (PR)	#2 EXISTING	SC-100 (DOUBLE)	B1	19.41		30		#2,#4	ODOT
					B2	28.80	24.22	60		#2,#4	
					B3	SPARE		30			
					B4	19.31		30		#2,#4	
					B5	28.42	21.93	60		#2,#4	
					B6	SPARE		60			

NOTE: FOR ADDITIONAL CONTROL CENTER DETAILS, SEE STANDARD DRAWINGS

CONTROL CENTER	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NUMBER	EX. CIRCUIT LOAD (AMPS)	PROP. CIRCUIT LOAD (AMPS)	EX. FUSE SIZE (AMPS)	PROP. FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
CCS FOR STANLEY AVE	120/240	4.65	#4	SC-100 (SINGLE)							DAYTON
					S1		10.34		30	#4	

NOTE: FOR ADDITIONAL CONTROL CENTER DETAILS, SEE STANDARD DRAWINGS

CIRCUIT LEGEND

- EX CIRCUIT A1
- EX CIRCUIT A2
- EX CIRCUIT B1
- EX CIRCUIT B2
- EX CIRCUIT B4
- EX CIRCUIT B5
- EX CONDUIT ABANDONED
- EX LIGHT POLE/TOWER
- EX UNDERPASS LIGHTING
- EX OVHD LIT SIGNING
- EX CONTROL CENTER
- PROP CONTROL CENTER
- PROP CIRCUIT A1
- PROP CIRCUIT A2
- PROP CIRCUIT B2
- PROP CIRCUIT S1
- PROP CIRCUIT N1
- PROP/RELOCATED LIGHT POLE
- RELOCATED TOWER
- ~~500W~~ 250W — TOTAL SIGN WATTAGE MODIFIED (OW INDICATES SIGN LIGHTING REMOVED)

LIGHTING CONSTRUCTION NOTES:

1. RAMPS N-9 AND N-10 ARE BEING PERMANENTLY CLOSED. REMOVE EXISTING TOWER B2-3 AND RELOCATE ADJACENT TO PROPOSED REALIGNMENT OF RAMP N-6 AS SHOWN IN THE PLANS.

2. REMOVE AND RELOCATE EXISTING TOWER B5-4 ADJACENT TO RAMP N-7.

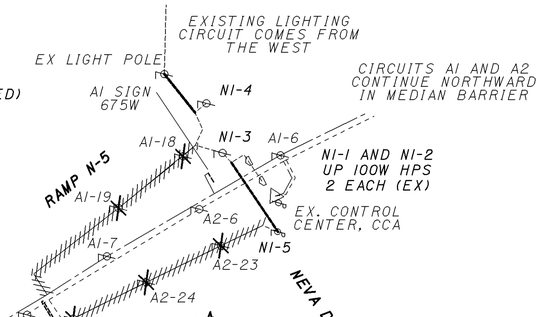
3. RAMPS N-4 AND N-5 ARE BEING PERMANENTLY CLOSED. REMOVE EXISTING RAMP LIGHTING, A2-23 THRU A2-25 AND A1-18 THRU A1-19 AND SALVAGE.

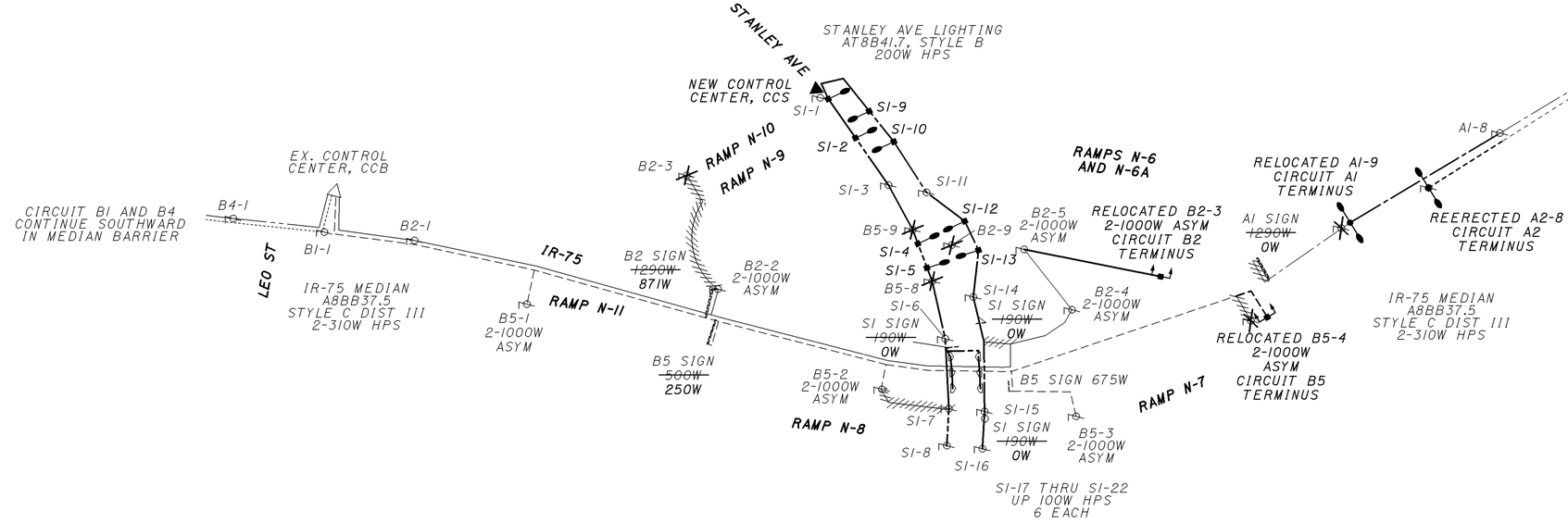
4. REMOVE AND RELOCATE LIGHT POLE S1-8 TO STA 12+46, RT ON STANLEY AVE AS SHOWN IN THE PLANS.

5. MAINLINE OVERHEAD SIGNING IS MODIFIED AS SHOWN IN THE SIGNING PLANS. ASSOCIATED SIGN LIGHTING CIRCUIT LOAD HAS BEEN ADJUSTED ACCORDINGLY.

6. LIGHTING UNITS ON COMBINATION TYPE TRAFFIC SIGNAL STRAIN POLES AND EXISTING LIGHT POLES, UNDERPASS LIGHTING LIGHTING, AND SIGN LIGHTING ALONG STANLEY AVENUE SHALL BE ON NEW LIGHTING CIRCUIT, CCS. NEW SERVICE SHALL BE 120/240 VOLTS. EXISTING CONDUITS AND DISTRIBUTION CABLE SHALL BE REUSED. EXISTING LUMINAIRES SHALL BE REPLACED THROUGHOUT THIS NEW LIGHTING CIRCUIT. EXISTING CIRCUITS B2 AND B5 ARE MODIFIED ACCORDINGLY.

7. EXISTING LIGHT POLES, UNDERPASS LIGHTING ALONG NEVA DRIVE SHALL ACCESS AND EXTEND AN EXISTING LIGHTING CIRCUIT TO THE WEST. EXISTING CIRCUITS A1 AND A2 ARE MODIFIED ACCORDINGLY.





TABULATION OF CIRCUIT LOADS

CIRCUIT B2

EX	PROP	DESC.	LOAD
8		1000W HPS	20.00 A
2		310W HPS	1.60 A
5	0	200W HPS	
1290W	871W	1 EA (SIGN)	1.82 A
290W		1 EA (SIGN)	0.80 A
			24.22 A
			11.63 kVA

CIRCUIT B5

EX	PROP	DESC.	LOAD
8		1000W HPS	20.00 A
7	0	200W HPS	
6	0	100W HPS	
500W	250W	1 EA (SIGN)	0.52 A
190W	0W	1 EA (SIGN)	
675W		1 EA (SIGN)	1.41 A
			21.93 A
			10.53 kVA

CIRCUIT S1 (NEW)

PROP	DESC.	LOAD
16	200W HPS	8.48 A
6	100W HPS	1.86 A
		10.34 A
		1.24 kVA

CIRCUIT A1

EX	PROP	DESC.	LOAD
18		310W HPS	14.40 A
8	4	200W HPS	2.12 A
2	0	100W HPS	
190W		1 EA (SIGN)	0.40 A
675W		1 EA (SIGN)	1.41 A
1290W	0W	1 EA (SIGN)	
			18.33 A
			8.80 kVA

CIRCUIT A2

EX	PROP	DESC.	LOAD
16		310W HPS	12.80 A
11	7	200W HPS	3.71 A
6		100W HPS	1.86 A
190W		3 EA (SIGN)	1.20 A
425W		1 EA (SIGN)	0.89 A
675W		1 EA (SIGN)	1.41 A
925W	735W	1 EA (SIGN)	1.53 A
			23.40 A
			11.23 kVA

HORIZONTAL SCALE IN FEET
0 100 200 400

CIRCUIT DIAGRAM

MOT-75-14.60

235
314

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BENCHMARK 1	BENCHMARK 2
SITE BM # 2 CROSS NOTCH ON TOP OF HEADWALL (℄ IR 75) STA. 456+65.11 147.31' RT, EL. 745.33	SITE BM # 3 MCD CONTROL, MONUMENT NO. 2 (℄ IR 75) STA. 460+86.44 287.01' RT, EL. 745.36

TRAFFIC DATA

I.R. 75
CURRENT YEAR (2006) = 105,700 ADT
DESIGN YEAR (2026) = 124,400 ADT
CURRENT YEAR (2006) = 27,482 ADTT
DESIGN YEAR (2026) = 32,344 ADTT

EXISTING STRUCTURE

TYPE: DUAL STRUCTURES - 5 SPAN CONTINUOUS STEEL RIVETED PLATE GIRDER WITH REINFORCED CONCRETE DECK SUPPORTED BY STUB ABUTMENTS ON PILES AND WALL TYPE PIERS
SPANS: 99'-6", 124'-4", 124'-4", 124'-4", 99'-6" c/c BEARINGS
ROADWAY: (2) - 40'-0" TOE TO TOE OF CURB
LOADING: CF2000
SKEW: NONE
ALIGNMENT: TANGENT
WEARING SURFACE: ASPHALT OVERLAY ON 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-72 (20'-0" LONG)
DATE BUILT: 1959
STRUCTURE FILE No.: 5708702

PROPOSED STRUCTURE

TYPE: 5 SPAN CONTINUOUS, PRESTRESED CONCRETE I-BEAMS WITH COMPOSITE REINFORCED CONCRETE DECK SUPPORTED BY REINFORCED CONCRETE SUBSTRUCTURES ON PILES.
SPANS: 136'-0", 136'-0", 103'-0", 103'-0", 94'-0" c/c BEARINGS
ROADWAY: NORTHBOUND = VARIES, 62'-1¼" MIN. TO 73'-7¼" MAX. F/F OF PARAPET
SOUTHBOUND = VARIES, 66'-5" MIN. TO 94'-6⅛" MAX. F/F OF PARAPET
LOADING: HS-25 AND ALTERNATE MILITARY LOADING, FWS = 60 LBS/FT²
SKEW: NONE
CROWN: VARIES (NORTHBOUND), VARIES (SOUTHBOUND)
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-81 (25'-0" LONG)
LATITUDE: 39°47'29" N
LONGITUDE: 8°11'8" W

BORING LOCATIONS

BORING	STATION	OFFSET	BORING	STATION	OFFSET
#4	455+18.71	41.22' RT.	#8	460+37.90	60.28' LT.
#5	456+62.95	57.34' LT.	#9	461+72.30	42.06' RT.
#6	457+80.95	40.79' RT.			
#7	459+04.90	40.08' RT.			

EXISTING HYDRAULIC DATA

V_{50} = 6.65 f/s EL.$_{50}$ = 747.61
V_{100} = 7.05 f/s EL.$_{100}$ = 748.67

HYDRAULIC DATA

DRAINAGE AREA = 1175 sq miles
Q_{50} = 35000 cfs V_{50} = 6.64 f/s EL.$_{50}$ = 747.63
Q_{100} = 40000 cfs V_{100} = 7.04 f/s EL.$_{100}$ = 748.70
MIN. CLEARANCE = 10.00' FOR 100 YEAR STORM
MIN. BOTTOM OF BEAM = EL. 758.70 AT STA 455+95.87

NOTES:

1. ALL SHEETS WITH PLAN DIMENSIONS ARE SHOWN HORIZONTAL.
2. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
3. THE PROPOSED PROFILE GRADE IS WITHIN BRIDGE LIMITS. SEE ROADWAY PLANS FOR PAVEMENT ELEVATIONS BEYOND BRIDGE LIMITS.
4. ABBREVIATIONS:
   TYP. - TYPICAL STA. - STATION EXIST. - EXISTING
   BRG. - BEARING FIX. - FIXED FWD. - FORWARD
   ABUT. - ABUTMENT PT. - POINT EXP. - EXPANSION
   EL. - ELEVATION APPR. - APPROACH
   MCD - MIAMI CONSERVANCY DISTRICT
   N.B. - NORTHBOUND
   S.B. - SOUTHBOUND
5. FOR PHASE CONSTRUCTION LIMITS, CURVE 2 CURVE DATA AND OTHER INFORMATION NOT SHOWN, SEE GENERAL PLAN AND ELEVATION SHEET 2/55.

FOUNDATION DATA:

ALL PILES SHALL BE HP 14x73 STEEL FRICTION PILES.
ESTIMATED PAY LENGTH:
REAR ABUTMENT = 45 FEET
PIER 1 = 25 FEET PIER 2 = 25 FEET
PIER 3 = 20 FEET PIER 4 = 20 FEET
FORWARD ABUTMENT = 45 FEET

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2000, CLEVELAND, OHIO 44113-2080
DATE: 5/26/05
REVIEWED: RER
STRUCTURE FILE NUMBER: 5708710
DRAWN: BTA
REVISED:
DESIGNED: NFF
CHECKED: MLR

MONTGOMERY COUNTY
STA. 455+74.69
STA. 461+52.53

SITE PLAN
BRIDGE NO. MOT-75-1523 (P.S. CONC. OPT.)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

1/55
236/314

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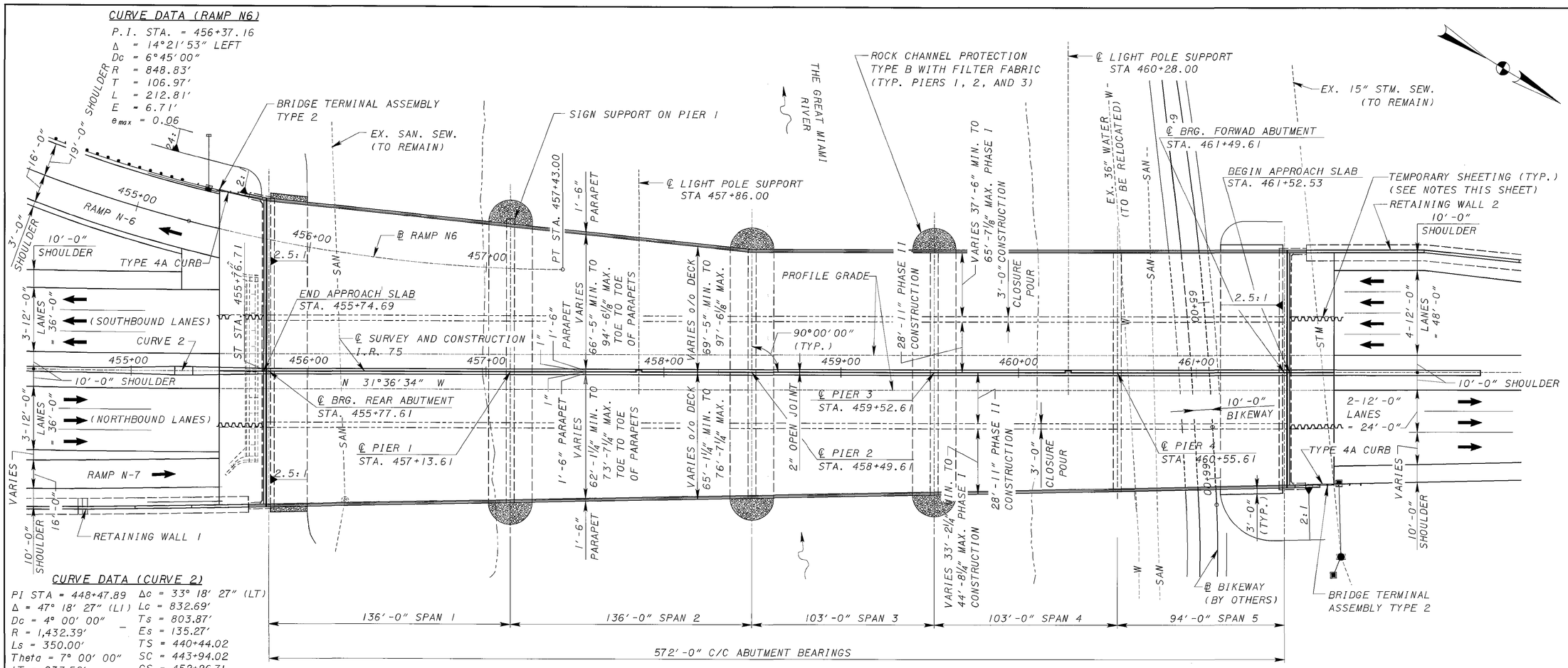

CURVE DATA (CURVE 2)

PI STA = 448+47.89
Δ = 47° 18' 27" (LT)
Dc = 4° 00' 00"
R = 1,432.39'
Ls = 350.00'
Theta = 7° 00' 00"
LT = 233.52'
ST = 116.83'
x = 349.48'
y = 14.24'
k = 174.91'
p = 3.56'

Δc = 33° 18' 27" (LT)
Lc = 832.69'
Ts = 803.87'
Es = 135.27'
TS = 440+44.02
SC = 443+94.02
CS = 452+26.71
ST = 455+76.71
emax = EXIST

GENERAL PLAN

TEMPORARY SHEETING NOTES

1. THE STEEL SHEET PILING SHALL CONFORM TO ASTM A328 AND SHALL HAVE THE FOLLOWING PROPERTIES:

TEMPORARY SHEETING DATA				
LOCATION	SECTION MODULUS REQUIRED (in^3/Ft)	MINIMUM YIELD STRESS, Fy (KSI)	TOP OF SHEETING ELEVATION	BOTTOM OF SHEETING ELEVATION
REAR ABUTMENT	47.0	38.5	769.0±	725.0±
FORWARD ABUTMENT*	32.2	38.5	771.0±	735.0±

* - THE CONTRACTOR IS TO FIELD LOCATE THE EXISTING 15" DIAMETER STORM SEWER UNDER THE PROPOSED APPROACH SLAB. THE SECTION OF TEMPORARY SHEETING ABOVE THE 15" STORM SEWER WILL NEED TO BE DRIVEN TO AN ELEVATION ABOVE THE BOTTOM OF WALL ELEVATION SHOWN IN THE TABLE IN ORDER NOT TO DAMAGE THE EXISTING STORM SEWER.

2. THE TEMPORARY SHEET PILING, INCLUDING INSTALLATION, SHALL BE PAID FOR UNDER ITEM 503 - COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN.

3. ALTERNATE SHEET PILING MEETING THE FOLLOWING PROPERTIES ARE PERMITTED:

ALTERNATE SHEETING SECTION MODULUS (in^3/Ft)		
MINIMUM YIELD STRESS, Fy (KSI)	50	60
SECTION MODULUS REQUIRED (in^3/Ft) AT REAR ABUTMENT	36.2	30.2
SECTION MODULUS REQUIRED (in^3/Ft) AT FORWARD ABUTMENT	24.8	20.7

4. THE CONTRACTOR, AT HIS OWN EXPENSE, MAY PROVIDE AN ALTERNATE DESIGN FOR THE TEMPORARY SHEETING, PER CMS 501.05 (B).

5. THE CONTRACTOR SHALL PRESERVE AND PROTECT THE POROUS BACKFILL BEHIND THE ABUTMENT AND THE AGGREGATE BASE UNDER THE APPROACH SLAB AGAINST DISPLACEMENT DURING PHASED CONSTRUCTION OPERATIONS.

6. TEMPORARY SHEETING TO BE REMOVED IN THE VICINITY OF THE PROPOSED FORWARD ABUTMENT FOOTING TO FACILITATE PHASE II CONSTRUCTION OPERATIONS.

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DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	5/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

GENERAL PLAN
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

STRUCTURE GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

A-1-69	REVISED	07-19-02
AS-1-81	REVISED	07-19-02
EXJ-6-06	REVISED	01-20-06
PCB-91	REVISED	07-19-02
PSID-1-99	REVISED	04-20-07
SBR-1-99	REVISED	07-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

832	DATED	04-25-06
898	DATED	07-21-06

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17th ADDITION, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

HS25 AND THE ALTERNATE MILITARY LOADING
FUTURE WEARING SURFACE (FWS) OF 60 LBS/SQ FT

DESIGN DATA:

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS QSC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60
MINIMUM YIELD STRENGTH 60,000 PSI

CONCRETE FOR PRESTRESSED BEAMS - COMPRESSIVE STRENGTH (FINAL) 7000 PSI
COMPRESSIVE STRENGTH (RELEASE) 5000 PSI

DIAPHRAGM CONCRETE - COMPRESSIVE STRENGTH 4500 PSI

PRESTRESSING STRAND - AREA = 0.167 SQ. IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

HP PILES - ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

REMOVE ABUTMENTS AND PIERS TO THE ELEVATIONS SHOWN ON THE REMOVAL DETAILS SHEET.

ITEM 203, EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 454+74.00 TO 462+53.00.

FRICTION TYPE PILES:

THE PILES ESTIMATED LENGTHS, ORDER LENGTHS, ULTIMATE BEARING VALUES, AND NUMBER OF DYNAMIC LOAD TESTING ITEMS ARE AS LISTED BELOW. PILES AT PIERS 1 THRU 3 INCLUDE AN ADDITIONAL 8 TONS PER PILE OF ULTIMATE BEARING DUE TO THE POSSIBILITY OF LOSING FRICTIONAL RESISTANCE DUE TO SCOUR.

REAR ABUTMENT PILES:
48 HP14x73 PILES 50 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 184 TONS PER PILE
1 DYNAMIC LOAD TESTING ITEMS

PIER 1 PILES:
78 HP14x73 PILES 30 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 198 TONS PER PILE
1 DYNAMIC LOAD TESTING ITEMS
1 STATIC LOAD TESTING ITEMS, 3 RESTRIKES

PIER 2 PILES:
66 HP14x73 PILES 30 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 192 TONS PER PILE

PIER 3 PILES:
66 HP14x73 PILES 25 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 198 TONS PER PILE

PIER 4 PILES:
66 HP14x73 PILES 25 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 184 TONS PER PILE
1 DYNAMIC LOAD TESTING ITEMS

FORWARD ABUTMENT PILES:
39 HP14x73 PILES 50 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 144 TONS PER PILE
1 DYNAMIC LOAD TESTING ITEMS

PILE SPLICES:

IN LIEU OF USING FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER: ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BLVD., CLIFTON, NEW JERSEY 07014. INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

BATTERED PILES:

THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1-UG}{\sqrt{(1+G^2)}}$$

U = COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G = RATE OF BATTER (1/3, 1/4, ETC.)

STATIC LOAD TEST:

PERFORM DYNAMIC TESTING ON THE FIRST TWO PRODUCTION PILES TO DETERMINE THE REQUIRED BLOW COUNT FOR THE SPECIFIED ULTIMATE BEARING VALUE. PERFORM THE STATIC LOAD TEST ON EITHER PILE. DO NOT OVER-DRIVE THE SELECTED PILE. DRIVE THE THIRD AND FOURTH PRODUCTION PILES TO 75% AND 85% OF THE DETERMINED BLOW COUNT, RESPECTIVELY. THE TEST PILES AND THE REDUCED CAPACITY PILES SHALL NOT BE BATTERED. AFTER INSTALLATION OF THE FIRST FOUR PRODUCTION PILES, CEASE ALL DRIVING OPERATIONS ON PILING REPRESENTED BY THE STATIC LOAD TESTING FOR A MINIMUM OF 7 DAYS. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE STATIC LOAD TEST PILE AND EACH REDUCED CAPACITY PILE. THE ENGINEER WILL REVIEW THE RESULTS OF THE PILE RESTRIKES AND ESTABLISH THE DRIVING CRITERIA FOR THE REMAINING PILING REPRESENTED BY THE TESTING.

FOR SUBSEQUENT STATIC LOAD TESTS, UPON COMPLETION OF A 10,000 FOOT INCREMENT OF DRIVEN LENGTH, REPEAT THE ABOVE PROCEDURE FOR THE INITIAL STATIC LOAD TEST. IF NECESSARY, THE ENGINEER WILL REVISE THE DRIVING CRITERIA FOR THE REMAINING PILING ACCORDINGLY.

WHEN PERFORMING THE RESTRIKE, IF THE PILE HAS NOT REACHED THE BLOW COUNT DETERMINED FOR THE PLAN SPECIFIED ULTIMATE BEARING VALUE, CONTINUE DRIVING THE PILE UNTIL THIS CAPACITY IS ACHIEVED.

MAINTENANCE OF TRAFFIC:

I.R. 75 TRAFFIC WILL BE MAINTAINED AT ALL TIMES. FOR MAINTENANCE OF TRAFFIC NOTES, PERMITTED LANE CLOSURE AND DETAILS, REFER TO ROADWAY PLANS AND STRUCTURE PHASE CONSTRUCTION DETAILS. NIGHTIME TEMPORARY CLOSURES MAY BE REQUIRED FOR GIRDER ERECTION.

UTILITY LINES:

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO MINIMUM.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM THE FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 509, EPOXY-COATED REINFORCING STEEL, AS PER PLAN:

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

MECHANICAL CONNECTORS

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S PROCEDURES. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125% OF THE YIELD STRENGTH OF THE BARS CONNECTED. ALL MECHANICAL CONNECTORS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY, AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL WHICH MEETS THE SPECIFICATIONS. CONNECTORS SHALL CONFORM WITH ITEM 509 AND SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE FOR ITEM 509-EPOXY COATED REINFORCING STEEL.

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

THE CONCRETE SEALING MATERIAL SHALL BE THE "LIGHT NEUTRAL" COLOR MEETING THE FEDERAL COLOR STANDARD NO. 17778 AS PER THE DETAILS ON THE PLANS.

ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), 15", AS PER PLAN:

FURNISH APPROACH SLABS CONFORMING TO CMS 526 EXCEPT CONCRETE SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 898, QC/QA CONCRETE, CLASS QSC2. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, PARAPET AND MEDIAN BARRIER CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, AND WATERPROOFING ON THE APPROACH SLABS AND ON THE BACKWALLS OF THE ABUTMENTS. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS. THE DEPARTMENT WILL INITIALLY PAY THE FULL BID PRICE TO THE CONTRACTOR UPON COMPLETING THE WORK. THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN:

THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND PARAPET IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN:

THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

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DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901
DESIGNED NFF | DRAWN MLR | REVIEWED RER | DATE 05/26/05
CHECKED JDH | REVISED | STRUCTURE FILE NUMBER 5708710

GENERAL NOTES (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

3/55

238/314

Plotted By: emack Date: 7/27/2007 Time: 3:41:38 PM
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MADE BY NFF DATE 04/25/05
CHECK'D BY ECM DATE 07/26/07

ESTIMATED QUANTITIES

STRUCTURE FILE NUMBER: 5708710

ITEM	EXTENSION	TOTAL*	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	AS PER PLAN REFERENCE SHEET NUMBER
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LUMP	3/55
202	22900	442	SQ YD	APPROACH SLAB REMOVED					442	
503	11101	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN					LUMP	3/55, 9-12/55
503	21300	LUMP		UNCLASSIFIED EXCAVATION					LUMP	
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION					LUMP	
506	11100	LUMP		STATIC LOAD TEST					LUMP	3/55
507	00300	11970	FT	STEEL PILES HP 14x73, FURNISHED	2400	1950	7620			
507	00350	10155	FT	STEEL PILES HP 14x73, DRIVEN	2160	1755	6240			
509	10001	1447570	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	33011	24678	377248	1012633		3/55
512	10100	8410	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	319	218	4458	3415		
512	10300	896	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN				896		
512	33000	25	SQ YD	TYPE 2 WATERPROOFING	14	11				
515	15050	96	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (72")				96		
515	20000	258	EACH	INTERMEDIATE DIAPHRAGMS				258		
516	11210	308	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	174	134				
516	13600	75	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	45	30				
516	13900	331	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	8	8			315	
516	43200	38	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (10" x 22" x 2.12")			38			
516	43300	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (12" x 18" x 3.62")			36			
516	43400	36	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (13.5" x 18.5" x 4.46")			36			
516	43400	42	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (14" x 22" x 4.51")			42			
516	43400	22	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (13.5" x 22" x 4.51")	22					
516	43400	18	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (15.5" x 15.5" x 4.89")		18				
518	21200	332	CU YD	POROUS BACKFILL WITH FILTER FABRIC	201	131				
518	40000	328	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	184	144				
518	40010	170	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	66	104				
523	20000	4	EACH	DYNAMIC LOAD TESTING	1	1	2			
523	20500	3	EACH	RESTRIKING			3			
601	20000	6	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION	3	3				
601	21000	631	SQ YD	CONCRETE SLOPE PROTECTION		631				
601	32100	371	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	371					
601	32104	930	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER			930			
898	10201	2844	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN				2844		3/55
898	10705	851	SQ YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), T=15", AS PER PLAN					851	3/55 & 15/55
898	11001	394	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN				394		3/55
898	20100	2102	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (PIER ABOVE FOOTING)			2102			
898	20150	457	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (ABUTMENT)	290	167				
898	20300	1108	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (FOOTING)	147	117	844			

* - ALL STRUCTURAL ITEMS PAID FOR WITH FEDERAL AND STATE FUNDS

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1907
REVIEWED RER DATE 05/26/05
STRUCTURE FILE NUMBER 5708710
DRAWN MLR REVISED
DESIGNED NFF CHECKED MLR

ESTIMATED QUANTITIES (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

4 / 55

239 / 314

Plotted By: acscheiderer Date: 8/23/2007 Time: 3:03:59 PM
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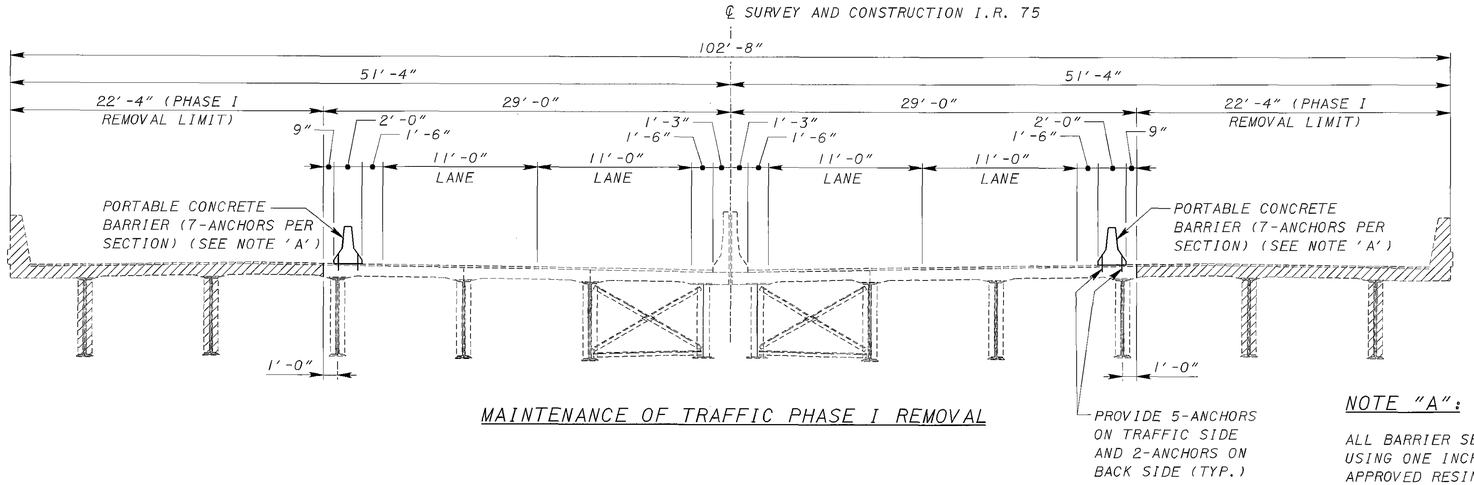
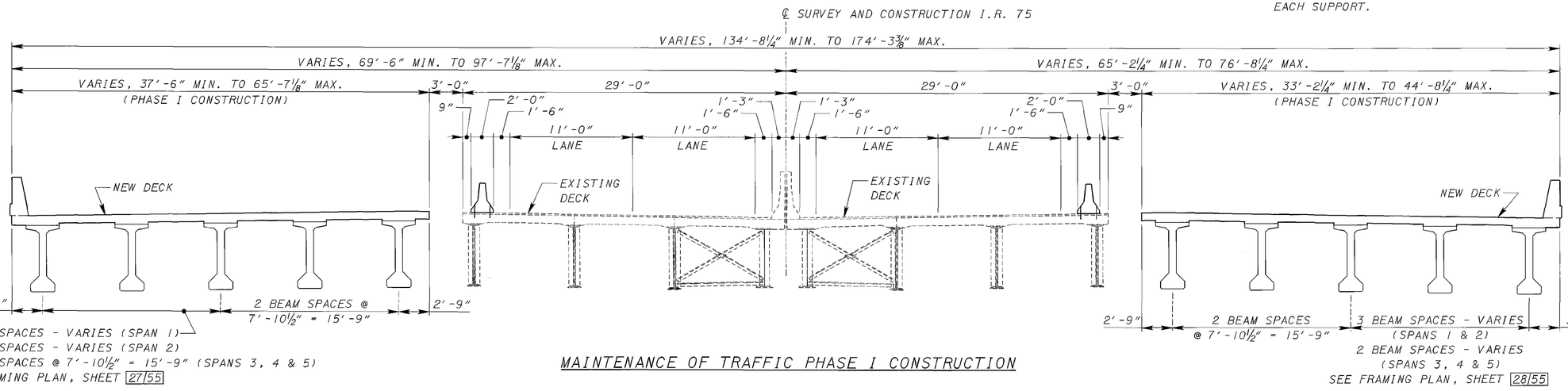


MAINTENANCE OF TRAFFIC PHASE I REMOVAL

NOTE "A":

ALL BARRIER SEGMENTS SHALL BE FASTENED TO THE BRIDGE DECK USING ONE INCH DIAMETER HIGH STRENGTH THROUGH BOLTS OR APPROVED RESIN ANCHORS. WHEN RESIN ANCHORS ARE USED THEY MUST BE EMBEDDED A MINIMUM OF 6½" INTO FIRM CONCRETE. ALL ANCHORS SHALL BE PLACED SYMMETRICAL ABOUT THE CENTER OF EACH SUPPORT.



5 BEAM SPACES - VARIES (SPAN 1)
3 BEAM SPACES - VARIES (SPAN 2)
2 BEAM SPACES @ 7'-10½" = 15'-9" (SPANS 3, 4 & 5)
SEE FRAMING PLAN, SHEET 27/55

SEE FRAMING PLAN, SHEET 28/55

MAINTENANCE OF TRAFFIC PHASE I CONSTRUCTION

SUGGESTED CONSTRUCTION SEQUENCE:

PHASE I

1. DIRECT I.R. 75 TRAFFIC TO OCCUPY THE TEMPORARY LANES SHOWN IN MAINTENANCE OF TRAFFIC PHASE I.
2. INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON THE PLANS.
3. REMOVE EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE I REMOVAL.
4. INSTALL TEMPORARY SHEETING AT ABUTMENTS.
5. REMOVE PART OF EXISTING SUBSTRUCTURE UNITS AS NECESSARY.
6. CONSTRUCT PART OF NEW SUBSTRUCTURE UNITS.
7. ERECT NEW BEAMS.
8. CONSTRUCT NEW DECK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE I CONSTRUCTION.

PHASE II

1. INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON THE PLANS.
2. DIRECT I.R. 75 TRAFFIC TOWARD NEWLY CONSTRUCTED DECK.
3. REMOVE REMAINING EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE II REMOVAL.
4. REMOVE REMAINING PARTS OF EXISTING SUBSTRUCTURE UNITS AS NECESSARY.
5. CONSTRUCT REMAINING PARTS OF NEW SUBSTRUCTURE UNITS.
6. REMOVE TEMPORARY SHEETING AS NECESSARY.
7. ERECT REMAINING NEW BEAMS.
8. CONSTRUCT NEW DECK AND MEDIAN BARRIER AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE II CONSTRUCTION.
9. PLACE CLOSURE DECK SECTION.
10. RESUME NORMAL TRAFFIC.

NOTES:

▨ - INDICATES REMOVAL

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
MFF	MLR	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

PHASE CONSTRUCTION DETAILS - PHASE I
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

5/55

240/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:04 PM
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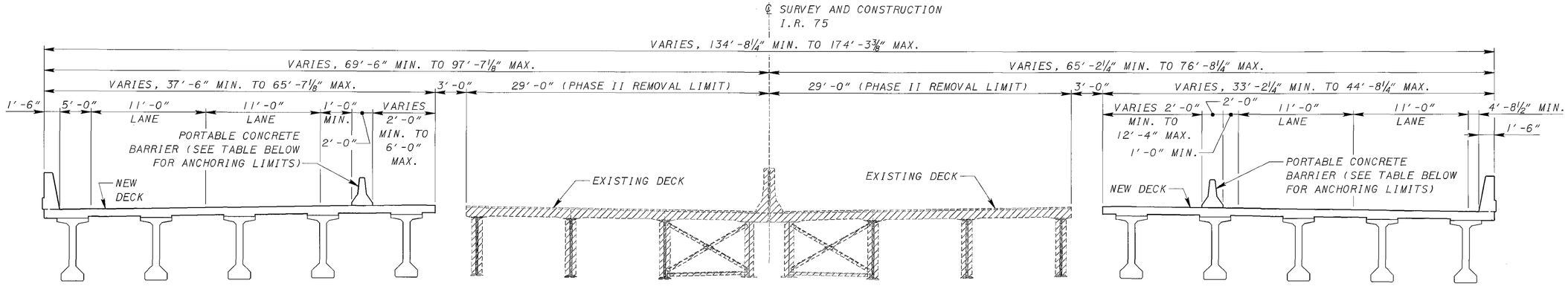
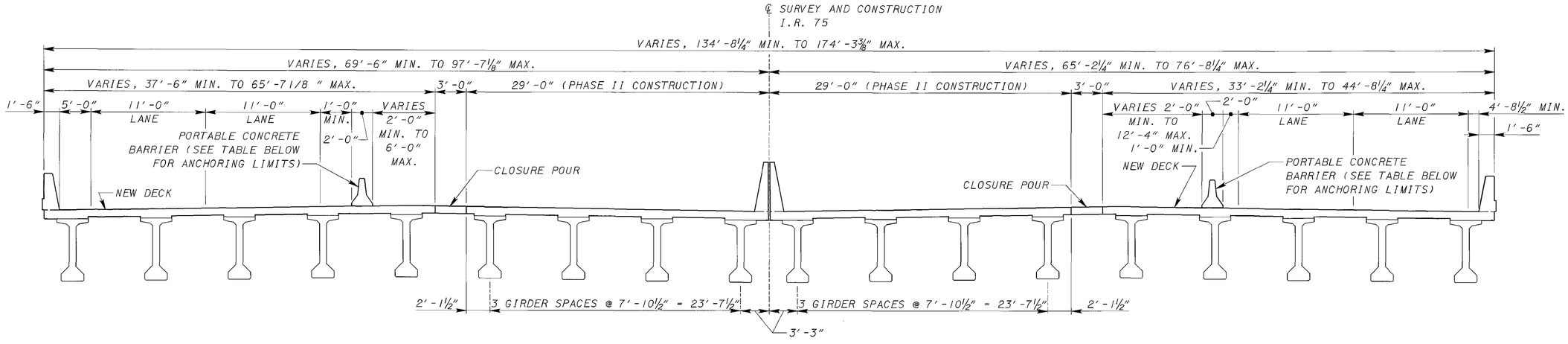


MAINTENANCE OF TRAFFIC PHASE II REMOVAL



MAINTENANCE OF TRAFFIC PHASE II CONSTRUCTION

PORTABLE CONCRETE BARRIER - ANCHORING REQUIREMENTS			
SOUTHBOUND		NORTHBOUND	
DISTANCE	NO. OF ANCHORS REQUIRED PER SEGMENT	DISTANCE	NO. OF ANCHORS REQUIRED PER SEGMENT
REAR ABUTMENT TO STA. 459+70.28	NONE REQUIRED	REAR ABUTMENT TO STA. 459+50.42	NONE REQUIRED
STA. 459+70.28 TO FORWARD ABUTMENT	2*	STA. 459+50.42 TO FORWARD ABUTMENT	2*

* CONTRACTOR TO AVOID DRILLING THROUGH SLAB REINFORCEMENTS

NOTES:

- INDICATES REMOVAL

1. FOR SUGGESTED CONSTRUCTION SEQUENCE, SEE SHEET 5/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
MFF	MLR	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

PHASE CONSTRUCTION DETAILS - PHASE II
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

6/55

241/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:05 PM
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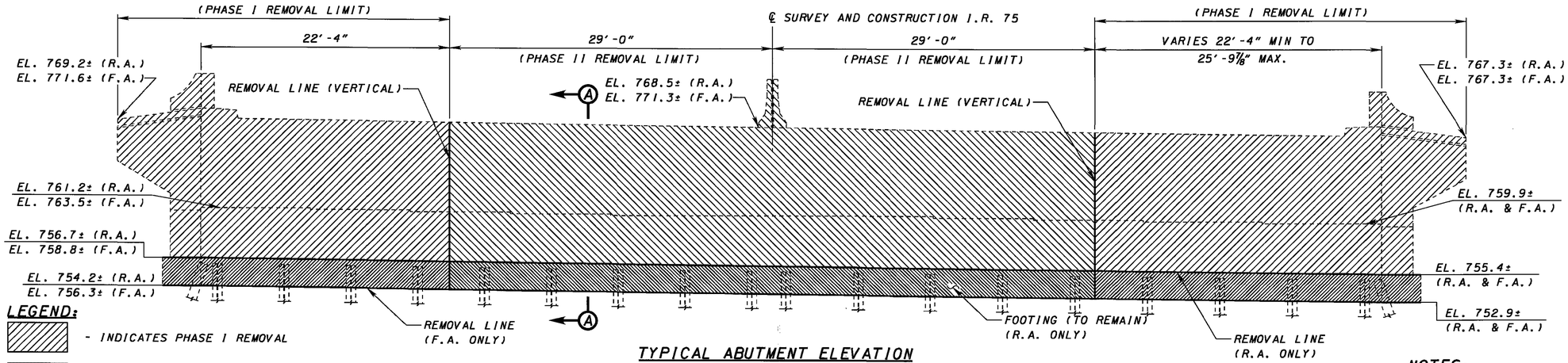
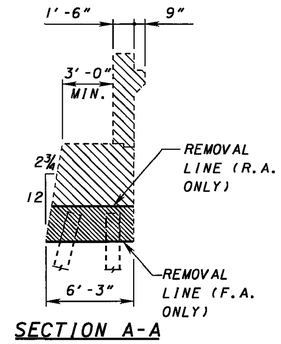


TYPICAL ABUTMENT ELEVATION

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND)



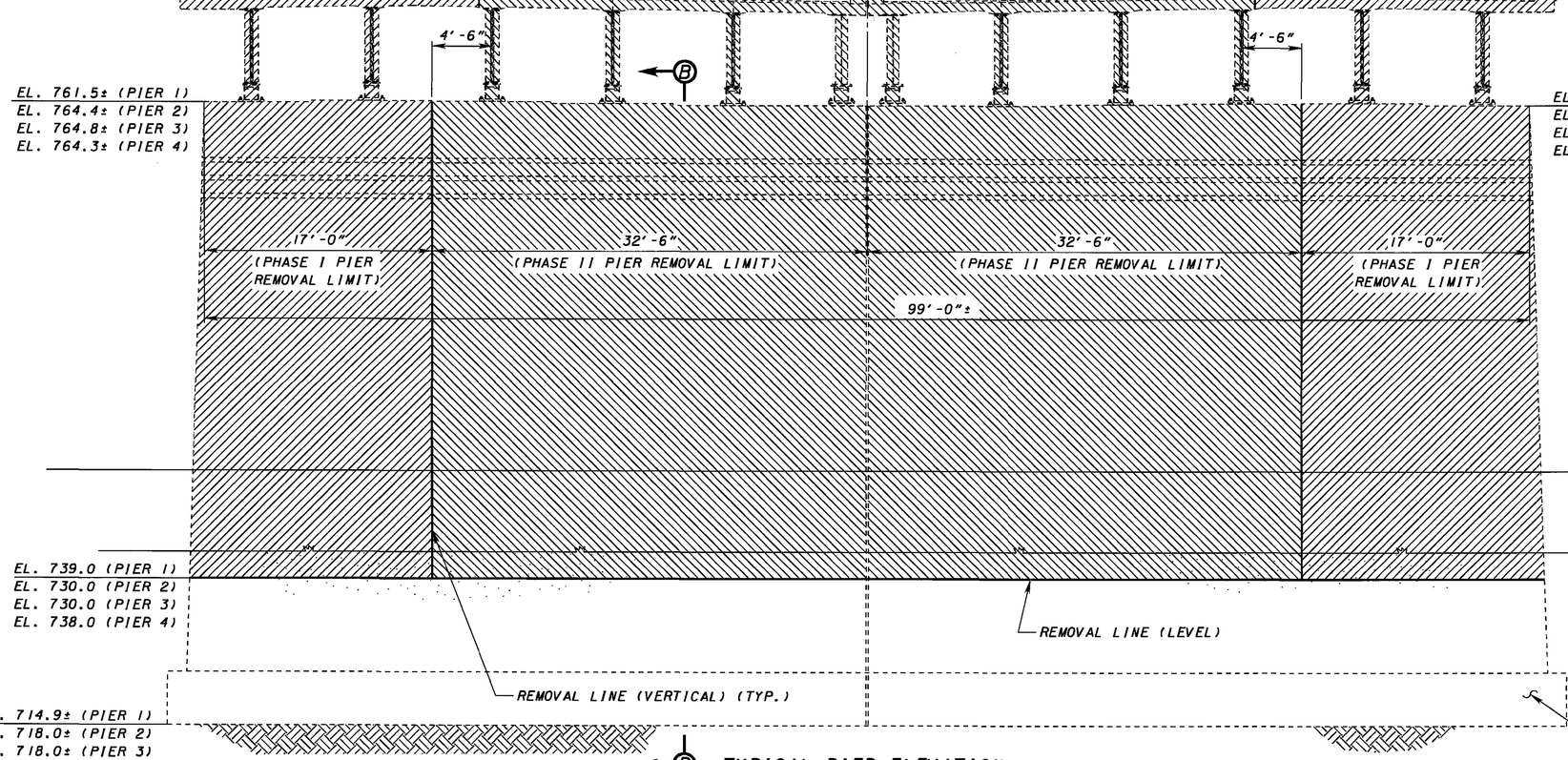
SECTION A-A

LEGEND:

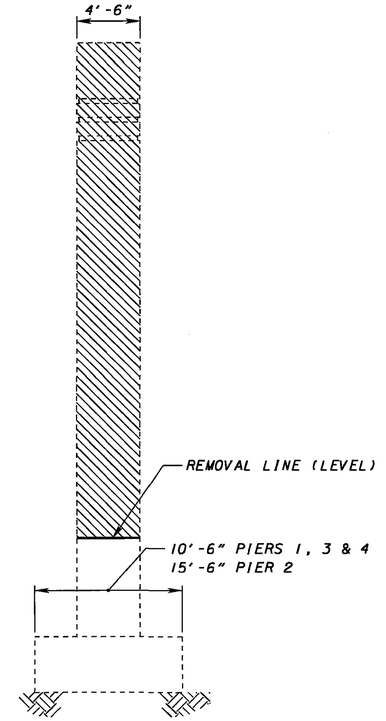
- INDICATES PHASE I REMOVAL
- INDICATES ADDITIONAL PHASE I REMOVAL FOR FORWARD ABUTMENT ONLY
- INDICATES PHASE II REMOVAL
- INDICATES ADDITIONAL PHASE II REMOVAL FOR FORWARD ABUTMENT ONLY

NOTES:

1. AREAS TO BE REMOVED SHALL BE PAID FOR UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.
2. FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 5/55 AND 6/55 .
3. ABBREVIATIONS:
   EL. - ELEVATION
   R.A. - REAR ABUTMENT
   F.A. - FORWARD ABUTMENT
   TYP. - TYPICAL



TYPICAL PIER ELEVATION



SECTION B-B

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE- SUITE 2000
CLEVELAND, OHIO 44113-1907

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	NFF	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

REMOVAL DETAILS

BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

7 / 55

242 / 314

Plotted By: acschelderer Date: 8/23/2007 Time: 3:04:47 PM
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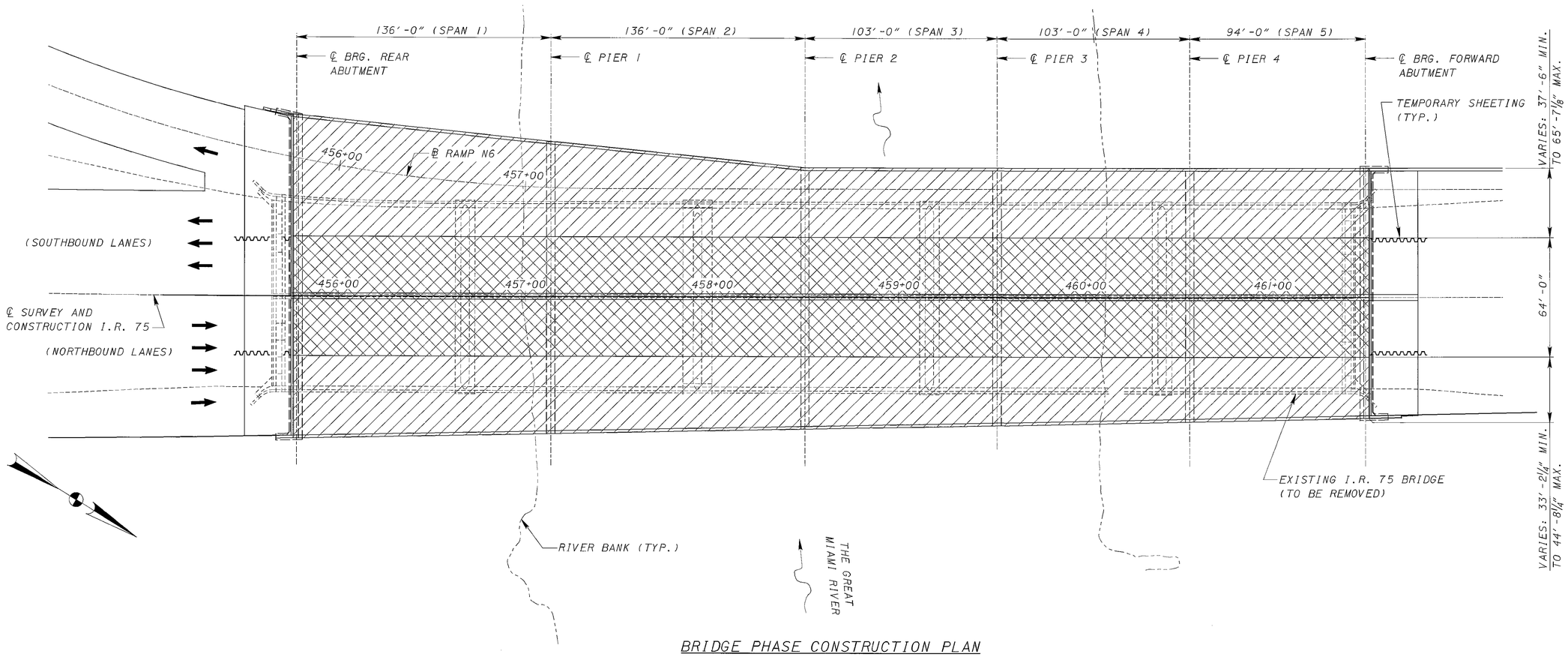

BRIDGE PHASE CONSTRUCTION PLAN

CONSTRUCTION SEQUENCE

THE PROPOSED WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING I.R. 75 BRIDGE OVER THE GREAT MIAMI RIVER AND THE CONSTRUCTION OF THE REPLACEMENT BRIDGE IN PHASES. REMOVAL AND CONSTRUCTION OPERATIONS ARE TO BE PERFORMED WHILE MAINTAINING TRAFFIC AND WATER FLOW. THE PERFORMANCE OF ALL PHASES OF WORK MUST BE COORDINATED TO SATISFY THE PROJECT MAINTENANCE OF TRAFFIC AND SAFETY REQUIREMENTS. SEE THE PROJECT MAINTENANCE OF TRAFFIC PLANS FOR ADDITIONAL MAINTENANCE OF TRAFFIC REQUIREMENTS.

PHASE I CONSTRUCTION:

1. BUILD STAGE 1 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 9/55 TO DEMOLISH AND CONSTRUCT THE EXTERIOR PORTIONS OF THE I.R. 75 BRIDGE IN SPANS 3 THROUGH 5.
2. CONSTRUCT THE EXTERIOR PORTIONS OF THE SUBSTRUCTURE FOR PIERS 2 THROUGH 4 AND THE FORWARD ABUTMENT.
3. SET THE SUPERSTRUCTURE BEAMS FOR THE EXTERIOR PORTIONS OF THE BRIDGE FOR SPANS 3 THROUGH 5.
4. REMOVE STAGE 1 AND BUILD STAGE 2 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 10/55 TO DEMOLISH AND CONSTRUCT THE EXTERIOR PORTIONS OF THE I.R. 75 BRIDGE IN SPANS 1 AND 2.
5. CONSTRUCT THE EXTERIOR PORTIONS OF THE SUBSTRUCTURE FOR PIER 1 AND THE REAR ABUTMENT.
6. SET THE SUPERSTRUCTURE BEAMS FOR THE EXTERIOR PORTIONS OF THE BRIDGE FOR SPANS 1 AND 2.
7. CONSTRUCT THE BRIDGE DECK FOR THE EXTERIOR PORTIONS OF THE BRIDGE. REFER TO SLAB PLAN FOR SEQUENCE.
8. MOVE TRAFFIC FROM THE EXISTING I.R. 75 BRIDGE TO THE NEWLY FINISHED PORTIONS OF THE BRIDGE.

PHASE II CONSTRUCTION:

1. REMOVE STAGE 2 AND BUILD STAGE 3 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 11/55 TO DEMOLISH AND CONSTRUCT THE INTERIOR PORTION OF THE I.R. 75 BRIDGE IN SPANS 1 AND 2.
2. CONSTRUCT THE INTERIOR PORTION OF THE SUBSTRUCTURE FOR PIERS 1 AND 2 AND THE REAR ABUTMENT.
3. SET THE SUPERSTRUCTURE BEAMS FOR THE INTERIOR PORTION OF THE BRIDGE FOR SPANS 1 AND 2.
4. REMOVE STAGE 3 AND BUILD STAGE 4 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 12/55 TO DEMOLISH AND CONSTRUCT THE INTERIOR PORTION OF THE I.R. 75 BRIDGE IN SPANS 3 THROUGH 5.
5. CONSTRUCT THE INTERIOR PORTION OF THE SUBSTRUCTURE FOR PIERS 3 AND 4 AND THE FORWARD ABUTMENT.
6. SET THE SUPERSTRUCTURE BEAMS FOR THE INTERIOR PORTION OF THE BRIDGE FOR SPANS 3 THROUGH 5.
7. CONSTRUCT THE BRIDGE DECK AND CLOSURE POURS FOR THE INTERIOR PORTION OF THE BRIDGE. REFER TO SLAB PLAN FOR SEQUENCE.
8. REMOVE STAGE 4 TEMPORARY CONSTRUCTION ACCESS.
9. OPEN NEW STRUCTURE TO TRAFFIC.

NOTES:

1. FOR ADDITIONAL MAINTENANCE OF TRAFFIC STAGING DETAILS, SEE MAINTENANCE OF TRAFFIC SHEETS.
2. FOR TEMPORARY CONSTRUCTION ACCESS STAGE CONSTRUCTION DETAILS AND NOTES, SEE SHEET 9/55 THROUGH 12/55.

LEGEND:

- PHASE I CONSTRUCTION
- PHASE II CONSTRUCTION

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
GHD	JLV	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

BRIDGE PHASE CONSTRUCTION AND NOTES
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

8 / 55

243 / 314

PLOTTED BY: ecmack DATE: 7/27/2007 TIME: 3:41:44 PM
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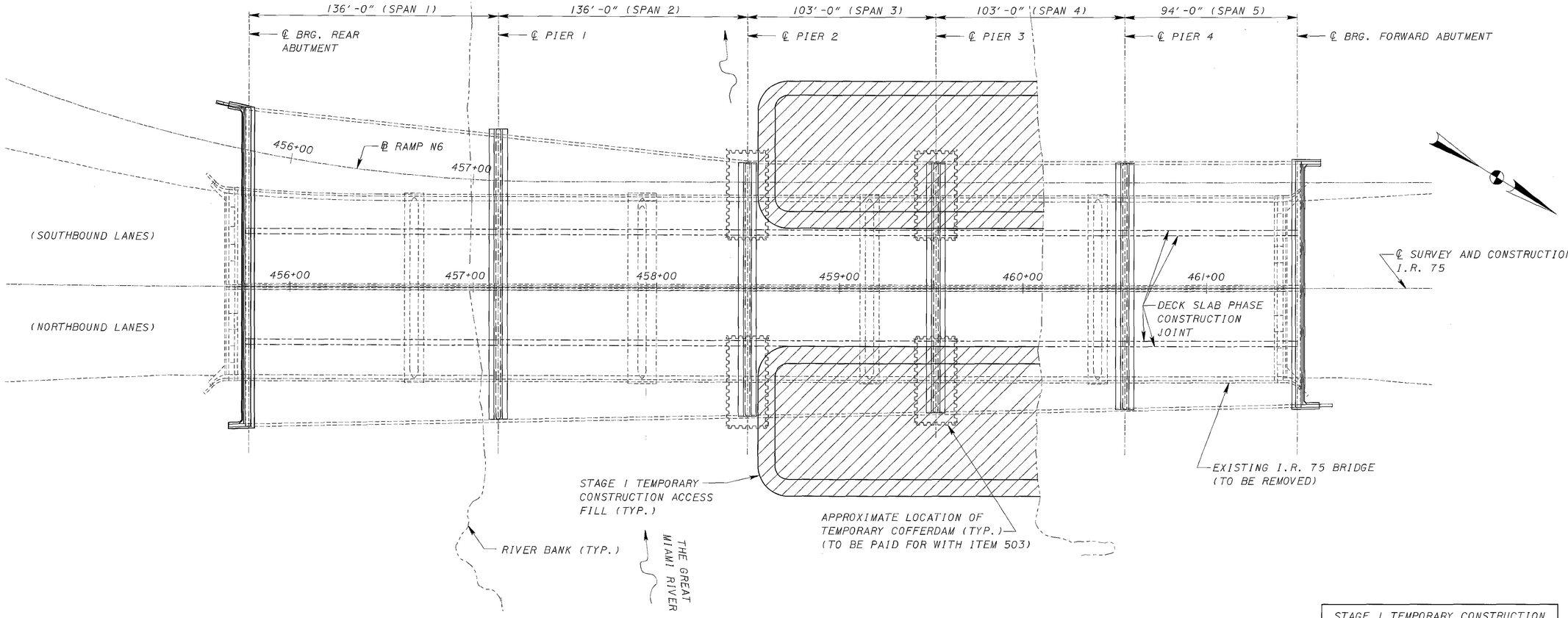
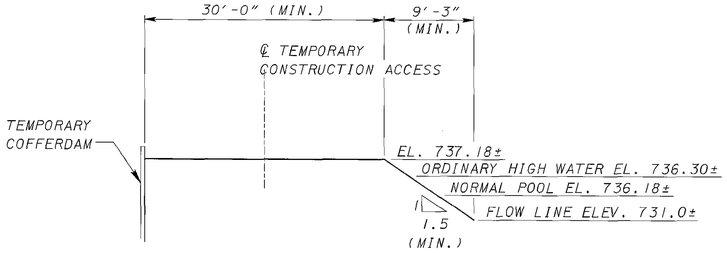


TEMPORARY CONSTRUCTION ACCESS - STAGE 1 PLAN

STAGE 1 TEMPORARY CONSTRUCTION ACCESS FILL
0.57 ACRES
4,900 CU.YD.



TYPICAL STAGE 1 CONSTRUCTION ACCESS SECTION ADJACENT TO COFFERDAM

NOTES:

1. FOR ADDITIONAL MAINTENANCE OF TRAFFIC STAGING DETAILS, SEE MAINTENANCE OF TRAFFIC SHEETS.
2. TEMPORARY CONSTRUCTION ACCESS SHOWN FOR REMOVAL OF EXISTING STRUCTURE AND CONSTRUCTION OF PROPOSED STRUCTURE. ANY MODIFICATIONS TO CONSTRUCTION ACCESS SHALL BE DIRECTED TO ODOT OFFICE OF ENVIRONMENTAL SERVICES FOR REVIEW. NO DELAYS WILL BE GRANTED FOR ANY REASON WITH RESPECT TO CONTRACTOR MODIFICATIONS TO CONSTRUCTION ACCESS.
3. THE PLACEMENT OF THE TEMPORARY CONSTRUCTION ACCESS MATERIALS SHALL BE PERFORMED BETWEEN JUNE 30 AND APRIL 15 OF THE FOLLOWING YEAR. CONSTRUCTION ACCESSES WHICH HAVE BEEN CONSTRUCTED TO THE ELEVATION SHOWN ON THE PLANS PRIOR TO APRIL 15 CAN BE ACCESSED AT ALL TIMES AND SHALL NOT BE CONSIDERED WORK WITHIN THE WATERWAY.
4. WORK WITHIN ANY CLOSED CELL COFFERDAMS SHALL NOT BE CONSIDERED WORK WITHIN THE RIVER DURING THE RESTRICTED DATES OF APRIL 15 THROUGH JUNE 30 AND SHALL BE SUBJECT TO THE DEWATERING SPECIFICATIONS OF CMS 107 AT ALL TIMES.
5. THE CONSTRUCTION ACCESSES SHALL BE CONSTRUCTED TO ODOT SUPPLEMENTAL SPECIFICATION 832 UNLESS OTHERWISE SPECIFIED ON THE PLANS AND STANDARD DRAWINGS.
6. AT NO TIME SHALL THE TEMPORARY CONSTRUCTION ACCESS AND COFFERDAMS BE BUILT TO IMPEDE NORMAL WATER FLOW.
7. TEMPORARY CULVERTS SHALL NOT BE REQUIRED. HOWEVER, NORMAL RIVER FLOW SHALL BE MAINTAINED AT ALL TIMES.
8. ALL TEMPORARY CONSTRUCTION ACCESS FILL MATERIAL SHALL BE REMOVED FROM THE RIVER AT THE COMPLETION OF THE PROJECT, AND THE RIVER BOTTOM RESTORED TO ITS ORIGINAL ELEVATIONS.
9. SEE PROJECT SPECIAL PROVISIONS FOR 404/401 PERMITS.
10. FOR PHASE CONSTRUCTION SEQUENCE NOTES, SEE SHEET 8/55.
11. ALL COSTS ASSOCIATED WITH CONSTRUCTING THE TEMPORARY CONSTRUCTION ACCESS FILLS SHALL BE PAID FOR BY THE CONTRACTOR IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 832.10.

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1991
DESIGNED GHD | DRAWN JLV | REVIEWED RER | DATE 05/26/05
CHECKED JDH | REVISED | STRUCTURE FILE NUMBER 5708710

TEMPORARY CONSTRUCTION ACCESS - STAGE 1
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

9/55

244/314

PLOTTED BY: ecmack DATE: 7/27/2007 TIME: 3:41:48 PM
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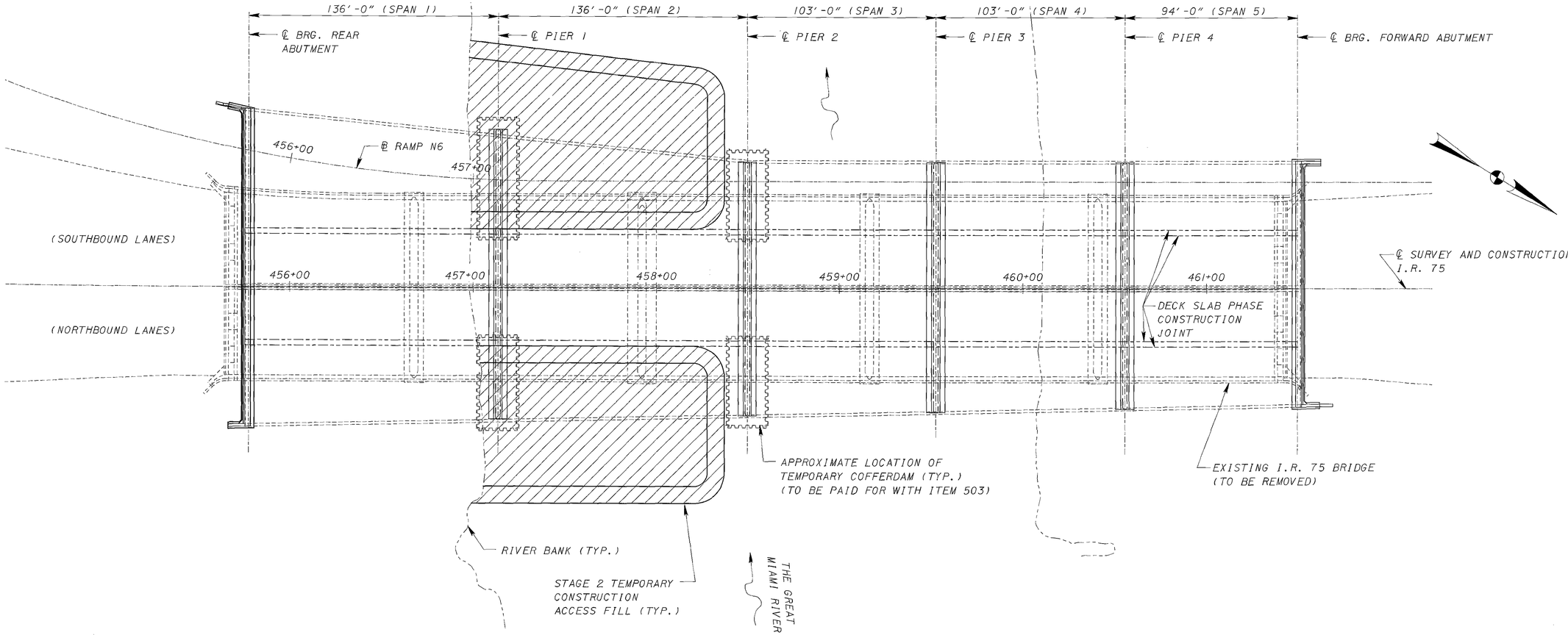
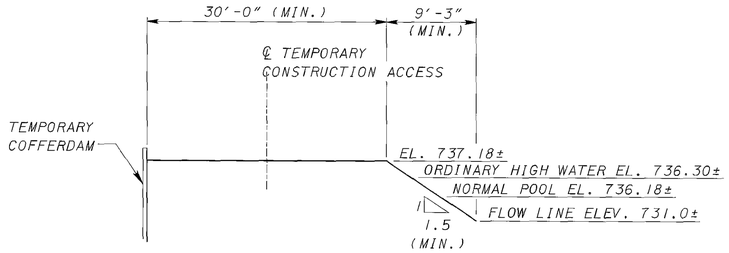


TEMPORARY CONSTRUCTION ACCESS - STAGE 2 PLAN

STAGE 2 TEMPORARY CONSTRUCTION ACCESS FILL
0.56 ACRES
4,875 CU.YD.



TYPICAL STAGE 2 CONSTRUCTION ACCESS SECTION ADJACENT TO COFFERDAM

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

NOTE:

1. FOR NOTES, SEE TEMPORARY CONSTRUCTION ACCESS - STAGE 1 SHEET.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113

DESIGNED	DRAWN	REVIEWED	DATE
GHD	JLV	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

TEMPORARY CONSTRUCTION ACCESS - STAGE 2
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

10/55

245/314

PLOTTED BY: eomack DATE: 7/27/2007 TIME: 3:41:53 PM
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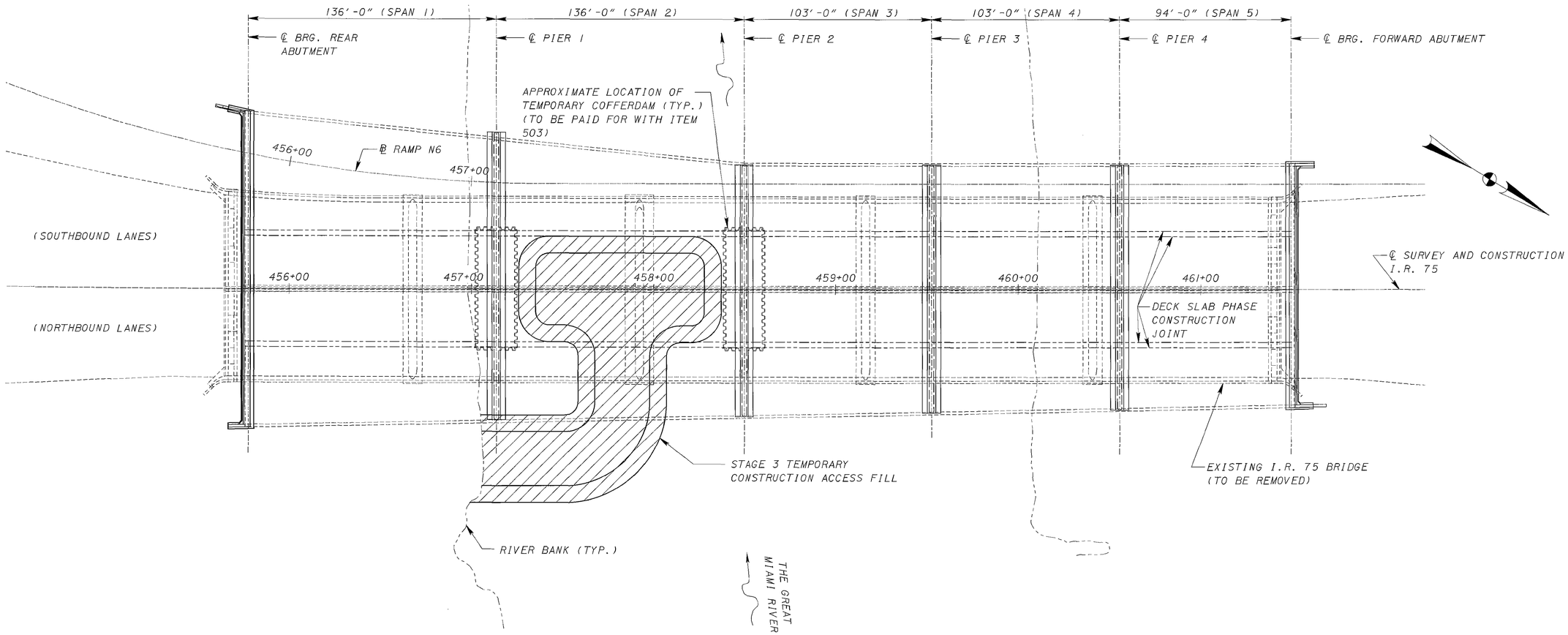
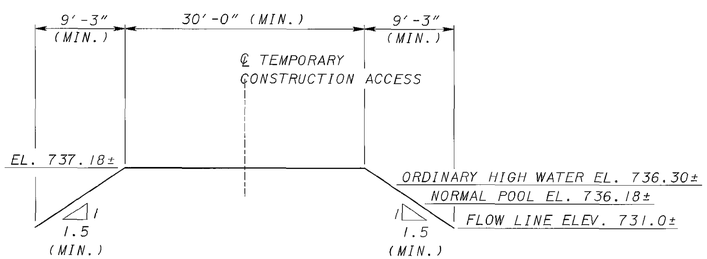


TEMPORARY CONSTRUCTION ACCESS - STAGE 3 PLAN

STAGE 3 TEMPORARY CONSTRUCTION ACCESS FILL
0.29 ACRES
2,325 CU. YD.



TYPICAL STAGE 3 CONSTRUCTION ACCESS SECTION

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

NOTE:

1. FOR NOTES, SEE TEMPORARY CONSTRUCTION ACCESS - STAGE 1 SHEET.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1909

DESIGNED	DRAWN	REVIEWED	DATE
GHD	JLV	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

TEMPORARY CONSTRUCTION ACCESS - STAGE 3
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

11/55

246/314

PLOTTED BY: ecmack DATE: 7/27/2007 TIME: 3:41:58 PM
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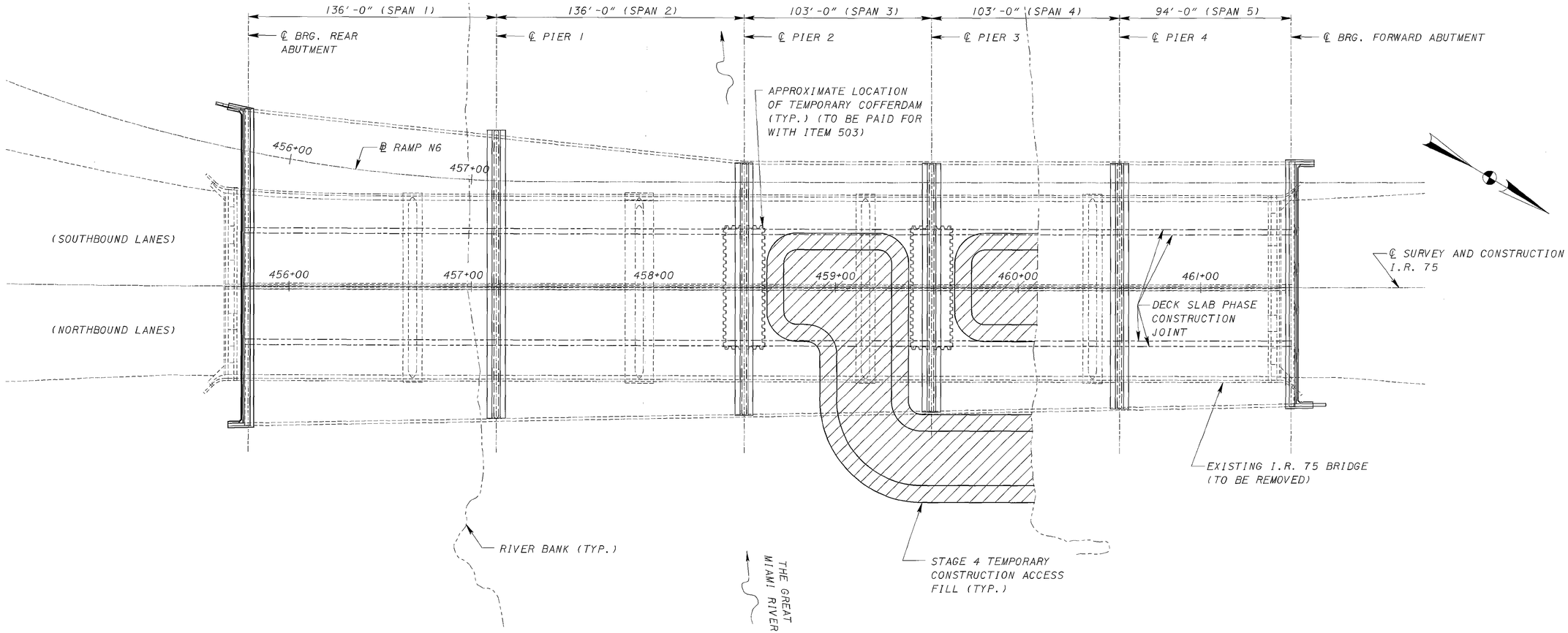
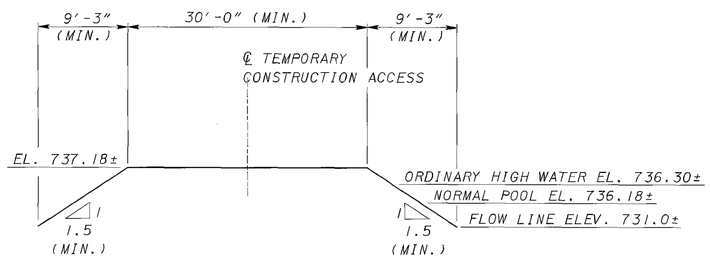


TEMPORARY CONSTRUCTION ACCESS - STAGE 4 PLAN



TYPICAL STAGE 4 CONSTRUCTION ACCESS SECTION

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

STAGE 4 TEMPORARY CONSTRUCTION ACCESS FILL
0.32 ACRES
2,565 CU.YD.

NOTE:

1. FOR NOTES, SEE TEMPORARY CONSTRUCTION ACCESS - STAGE 1 SHEET.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE - SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
GHD	JLV	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5706710	

TEMPORARY CONSTRUCTION ACCESS - STAGE 4
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

12/55

247/314

PLOTTED BY: emaek DATE: 7/27/2007 TIME: 3:42:03 PM
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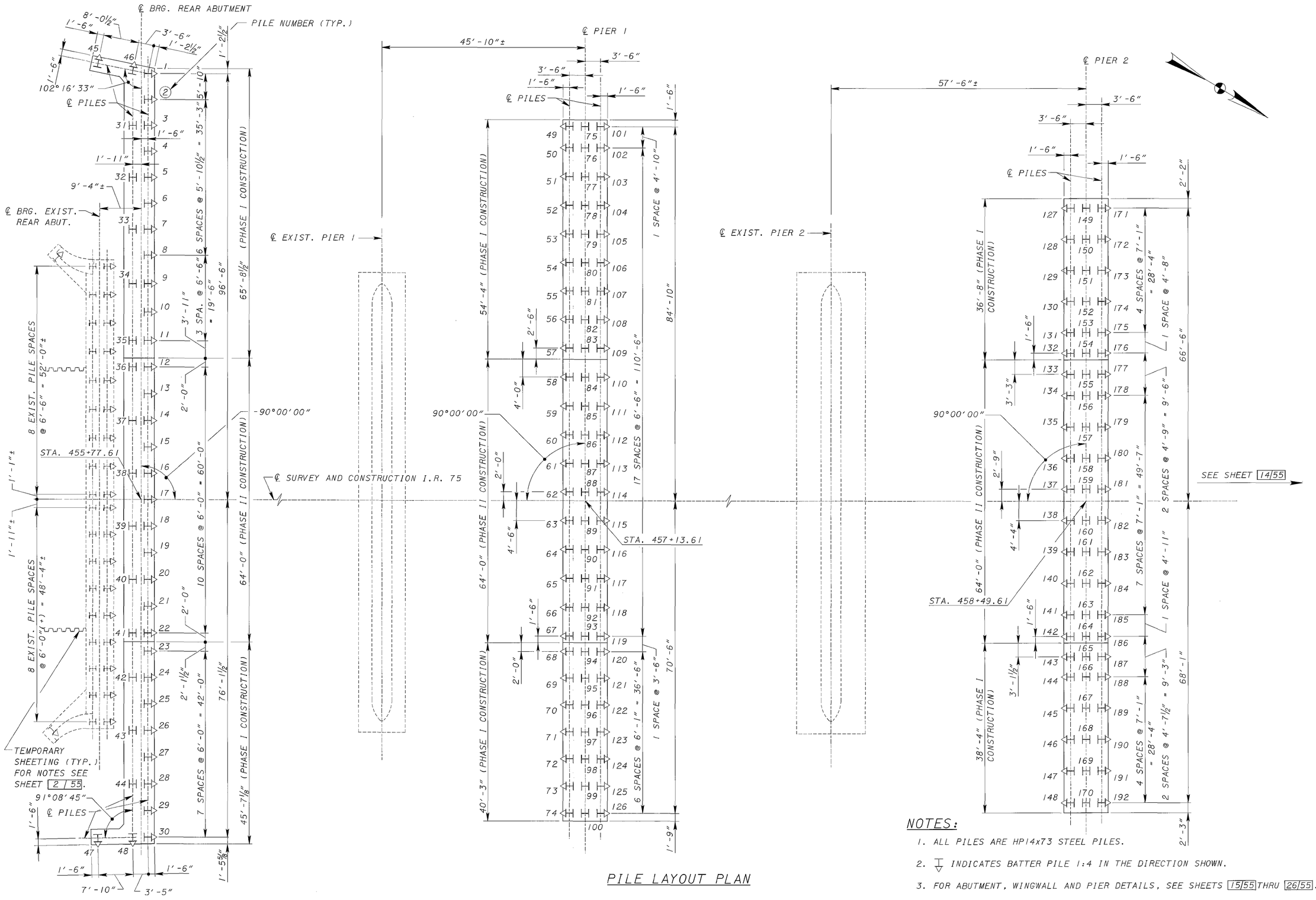

PILE LAYOUT PLAN

NOTES:

1. ALL PILES ARE HP14x73 STEEL PILES.
2. ▽ INDICATES BATTER PILE 1:4 IN THE DIRECTION SHOWN.
3. FOR ABUTMENT, WINGWALL AND PIER DETAILS, SEE SHEETS 15/55 THRU 26/55.
4. FOR PILING DATA, SEE SHEET 3/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

PILE LAYOUT PLAN
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

13/55

248/314

Plotted By: ecmack Date: 1/27/2007 Time: 3:41:37 PM
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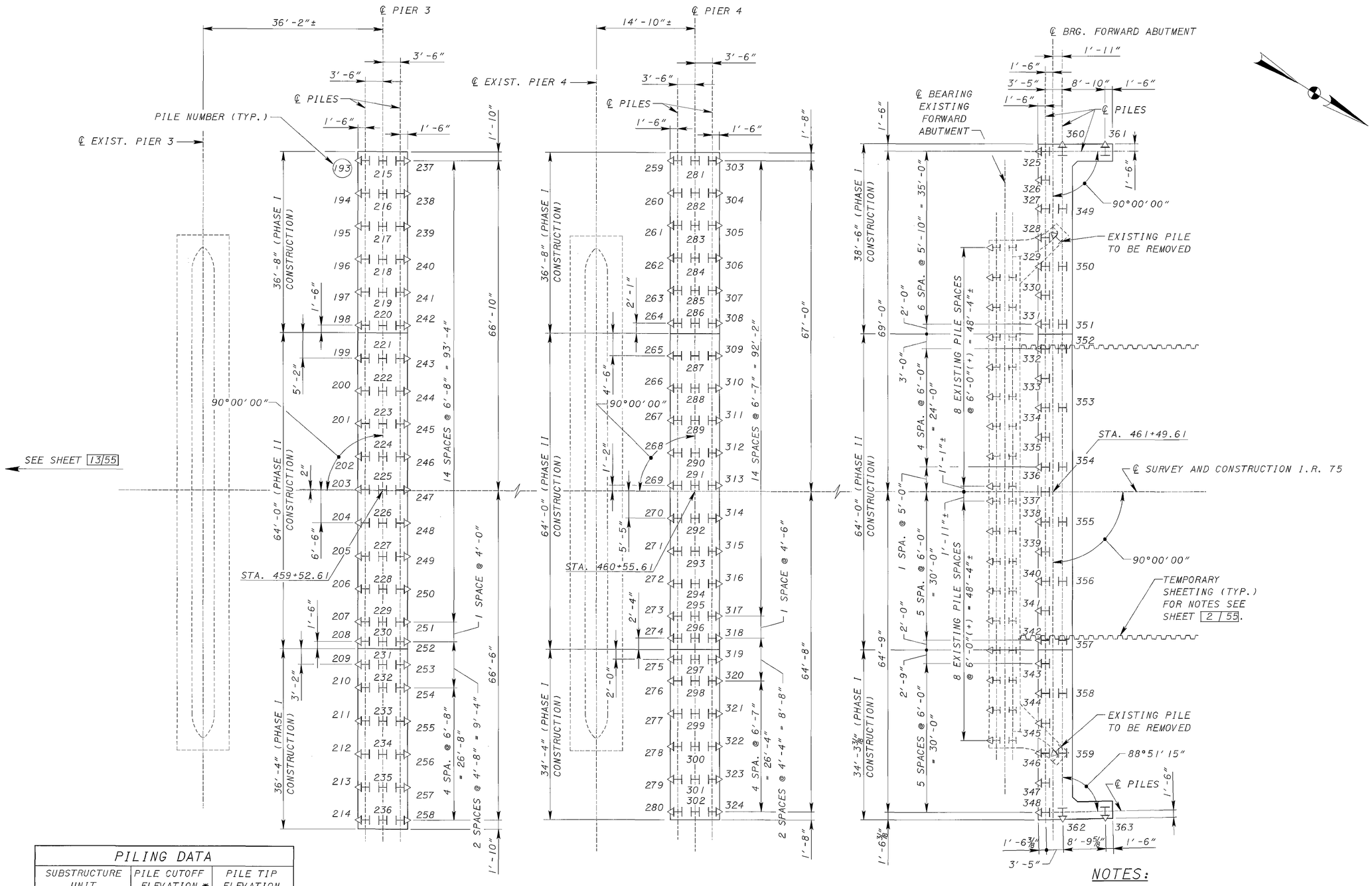

PILING DATA		
SUBSTRUCTURE UNIT	PILE CUTOFF ELEVATION *	PILE TIP ELEVATION
REAR ABUT.	751.75	-
PIER 1	730.50	708.00 **
PIER 2	725.50	704.00 **
PIER 3	725.50	708.00 **
PIER 4	730.50	715.00 **
FORWARD ABUT.	757.50	-

* - PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 1'-0" FOR ABUTMENTS, AND BOTTOM OF FOOTING ELEVATION + 1'-6" FOR PIERS.

** - ALL PIER PILES MUST BE DRIVEN TO THE PILE TIP ELEVATION SHOWN DUE TO SCOUR DEPTH.

PILE LAYOUT PLAN

NOTES:

1. FOR NOTES, SEE SHEET 13/55.
2. THE REMOVAL OF 2-EXISTING PILES AT THE FORWARD ABUTMENT SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURES REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

PILE LAYOUT PLAN
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

14/55

249/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:38 PM
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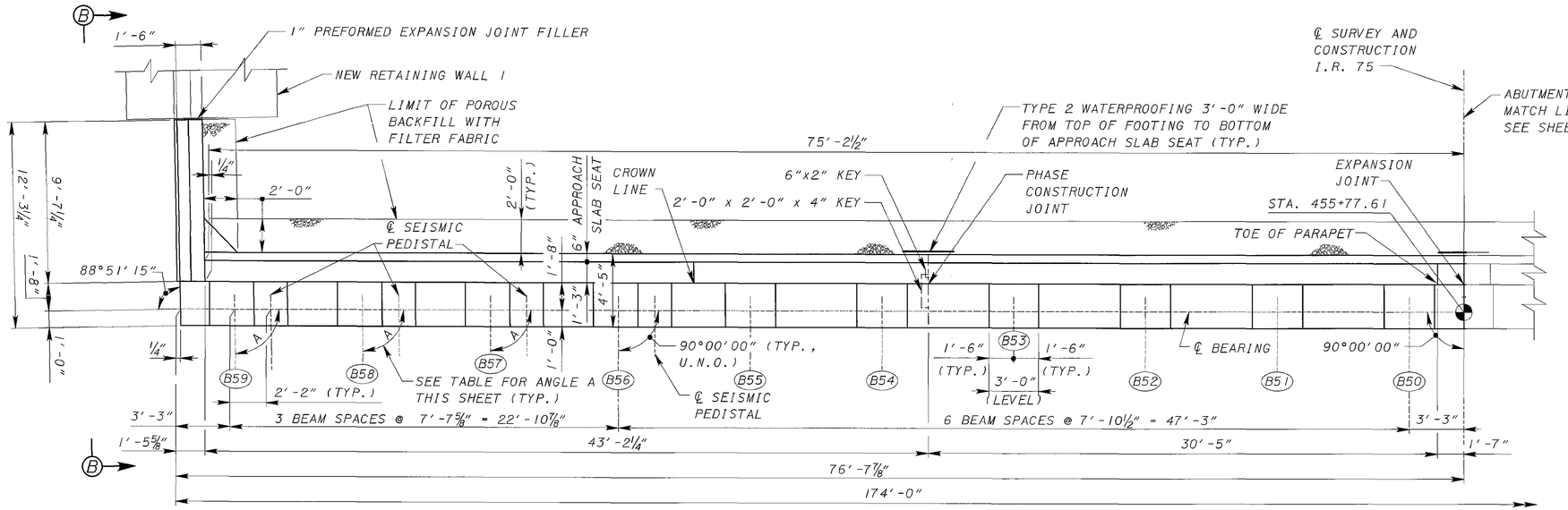


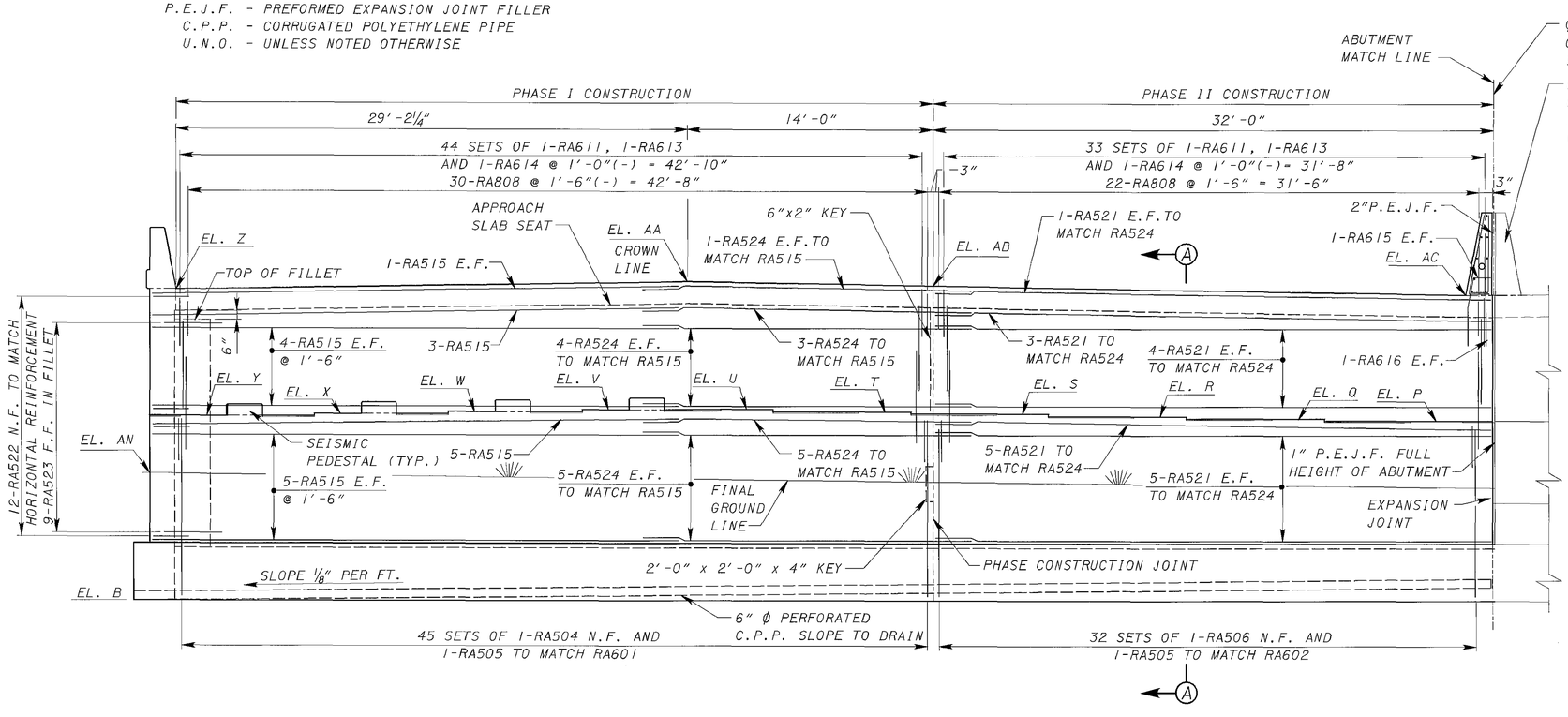
PART-PLAN

TABLE OF BEAM ANGLES	
BEAM	ANGLE A
B57	89°37'07"
B58	89°14'15"
B59	88°51'15"

TABLE OF ELEVATIONS	
LOCATION	ELEVATION
B	750.75
P	761.00
Q	761.13
R	761.25
S	761.38
T	761.51
U	761.64
V	761.62
W	761.50
X	761.37
Y	761.25
Z	768.53
AA	769.00
AB	768.77
AC	768.27
AN	758.25

LEGEND:

(BXX) = BEAM NUMBER
E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P. - CORRUGATED POLYETHYLENE PIPE
U.N.O. - UNLESS NOTED OTHERWISE



PART-ELEVATION
(PILES NOT SHOWN)

FOR MEDIAN BARRIER DETAIL SEE APPROACH SLAB PLAN. PAYMENT FOR MEDIAN BARRIER SHALL BE INCLUDED WITH ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), 15", AS PER PLAN.

NOTES:

1. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
2. BACKWALL CONCRETE: IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
3. SEALING OF BEAM SEATS: IF THE BEAMS SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
4. FOR FOOTING PLAN AND SECTION A-A, SEE SHEET 17/55.
5. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 17/55.
6. FOR ELEVATION B-B, SEE SHEET 18/55.
7. FOR BEARING DEVICES, SEE SHEET 49/55.
8. FOR APPROACH SLAB DETAILS, SEE SHEET 51/55.
9. FOR REINFORCING STEEL LIST, SEE SHEET 52/55.
10. FOR LAP LENGTH TABLE, SEE SHEET 17/55.
11. FOR EXPANSION JOINT DETAILS, SEE SHEET 50/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	NFF	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

REAR ABUMENT PLAN AND ELEVATION
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

15/55

250/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:33 PM
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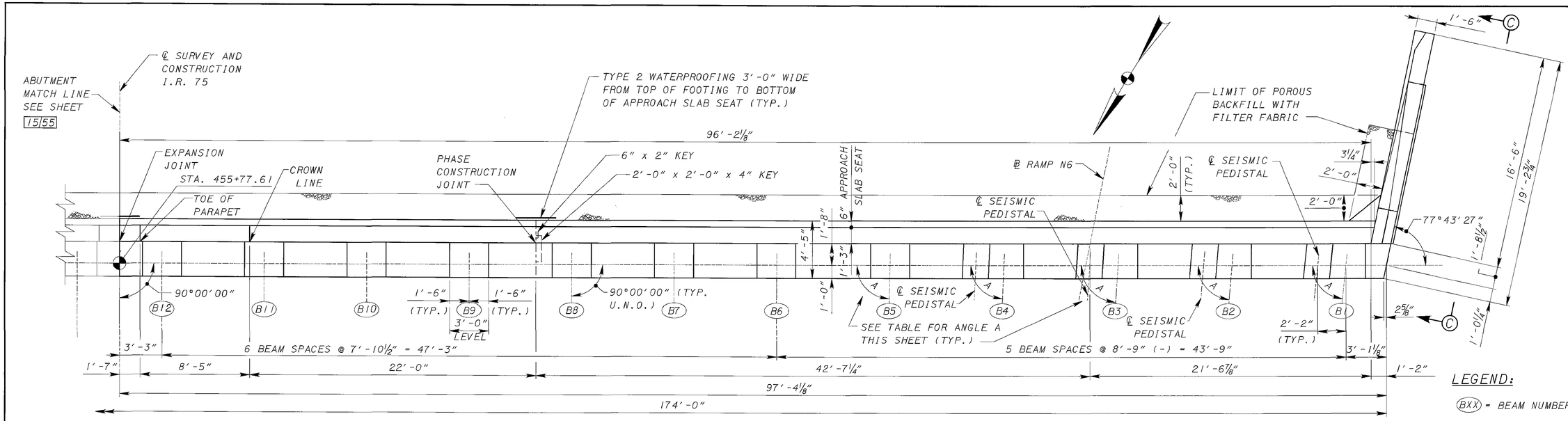
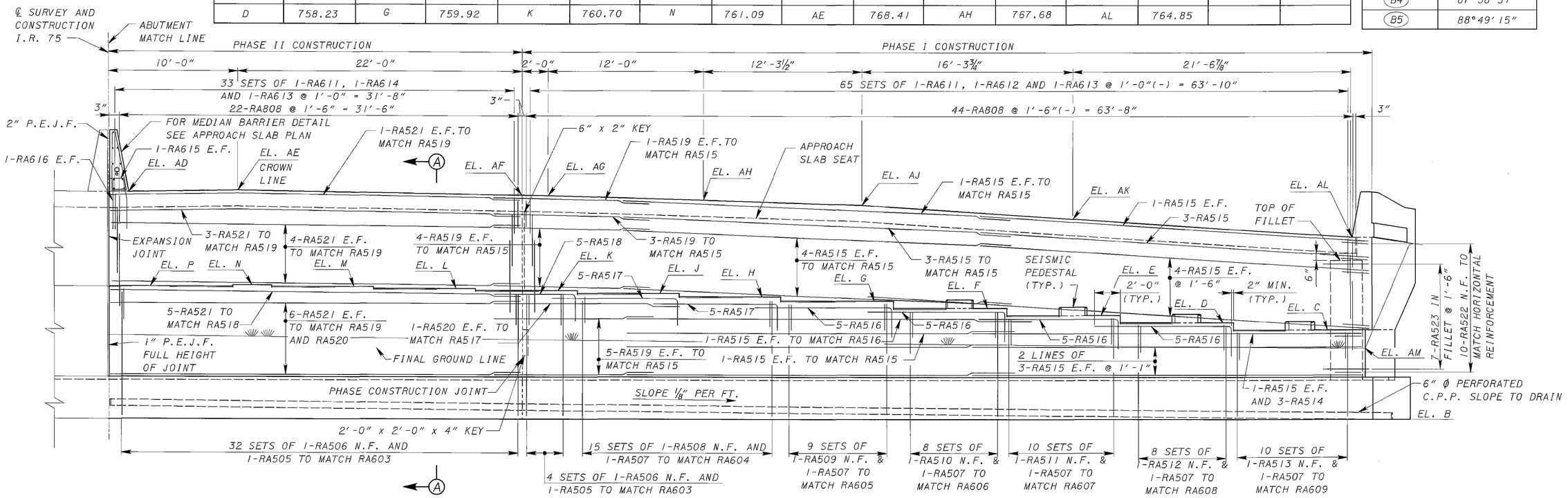


PART-PLAN

TABLE OF ELEVATIONS																
LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION
B	750.75	E	758.79	H	760.24	L	760.84	P	761.00	AF	768.05	AJ	767.31	AM	756.25
C	757.66	F	759.36	J	760.48	M	760.97	AD	768.28	AG	768.02	AK	766.25		
D	758.23	G	759.92	K	760.70	N	761.09	AE	768.41	AH	767.68	AL	764.85		

BEAM	ANGLE A
B1	84°07'17"
B2	85°17'28"
B3	86°27'54"
B4	87°38'31"
B5	88°49'15"



PART-ELEVATION

(PILES NOT SHOWN)

NOTES:

1. FOR ADDITIONAL NOTES SEE SHEET 15/55.
2. FOR ELEVATION C-C SEE SHEET 18/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	NFF	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708110	

REAR ABUMENT PLAN AND ELEVATION

(PRESTRESSED CONCRETE OPTION)

BRIDGE NO. MOT-75-1523

I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

16/55

251/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:34 PM
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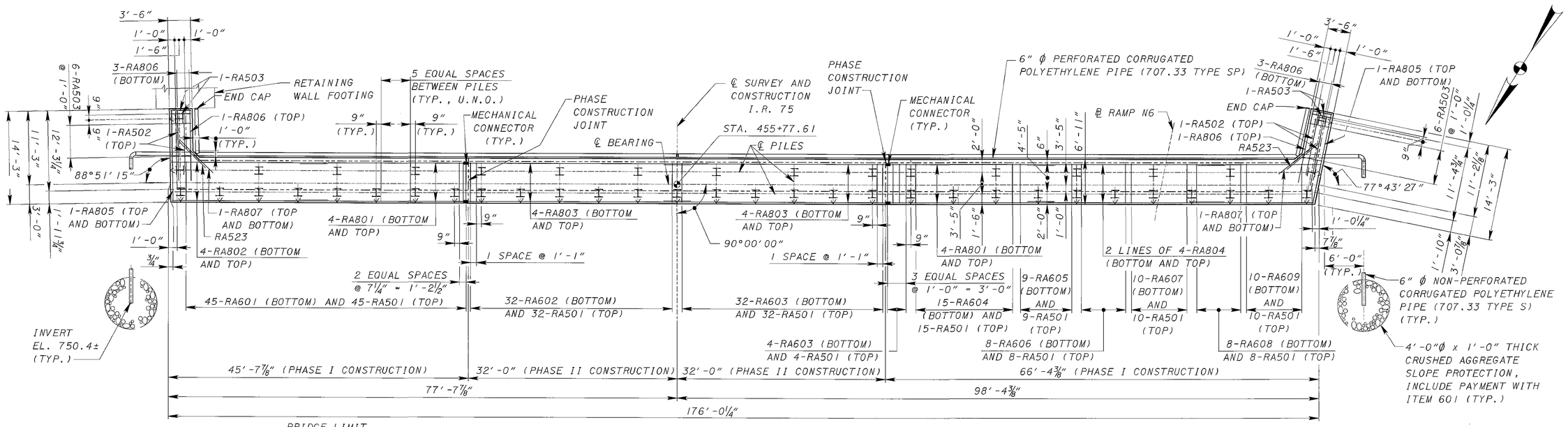
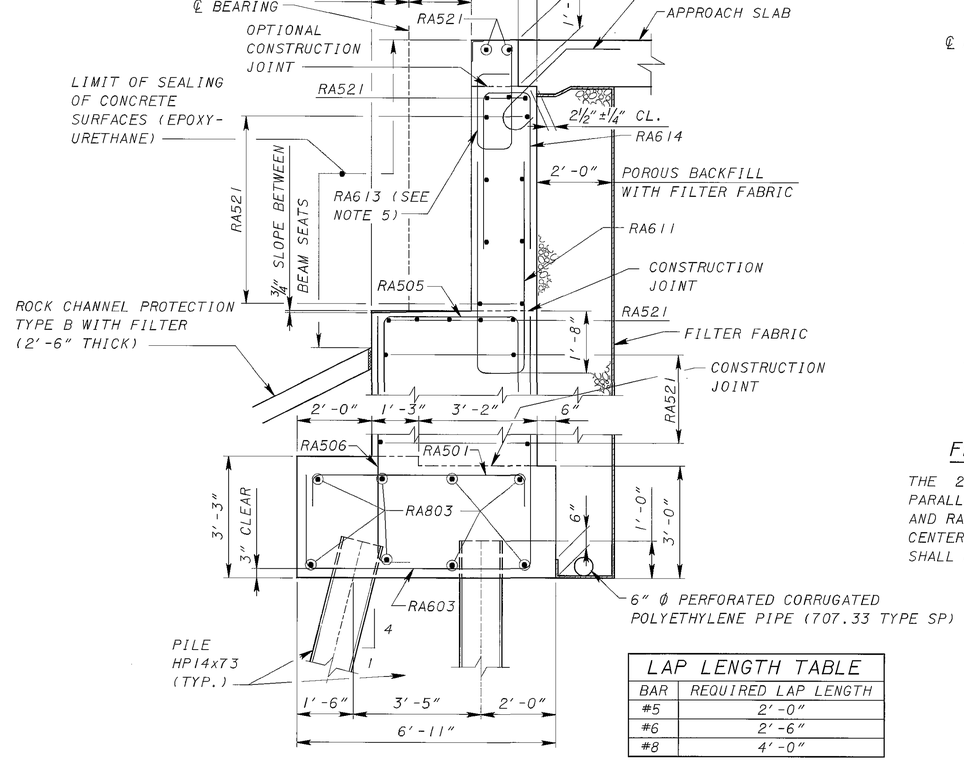


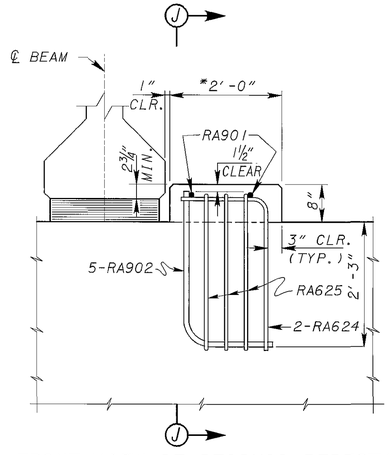
FOOTING PLAN



SECTION A-A

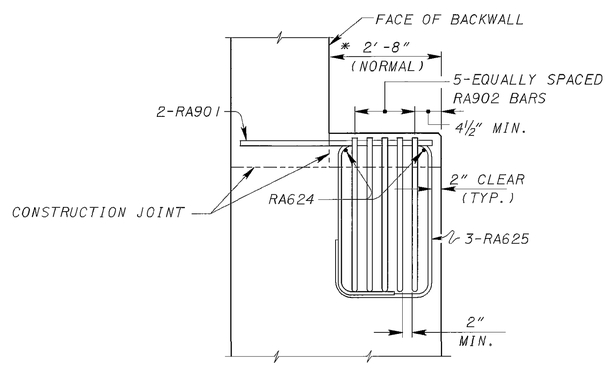
(EXPANSION JOINT ANCHOR NOT SHOWN)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	2'-6"
#8	4'-0"



FRONT VIEW OF SEISMIC PEDESTAL

THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE RA902 AND RA624 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE RA901 AND RA625 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION J-J

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE RA902 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.

NOTE:

1. FOR ABUTMENT PLAN AND ELEVATION SEE SHEET 15/55.
2. FOR ADDITIONAL NOTES SEE SHEET 15/55.
3. FOR PILE LOCATIONS, SEE SHEETS 13/55 AND 14/55.
4. FOR LOCATIONS OF SEISMIC PEDESTALS, SEE SHEETS 15/55 AND 16/55.
5. FOR PLACEMENT OF RA613 BARS, SEE SHEET 50/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	NFF	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708110	

REAR ABUTMENT FOOTING PLAN AND DETAILS
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

17/55

252/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:32 PM
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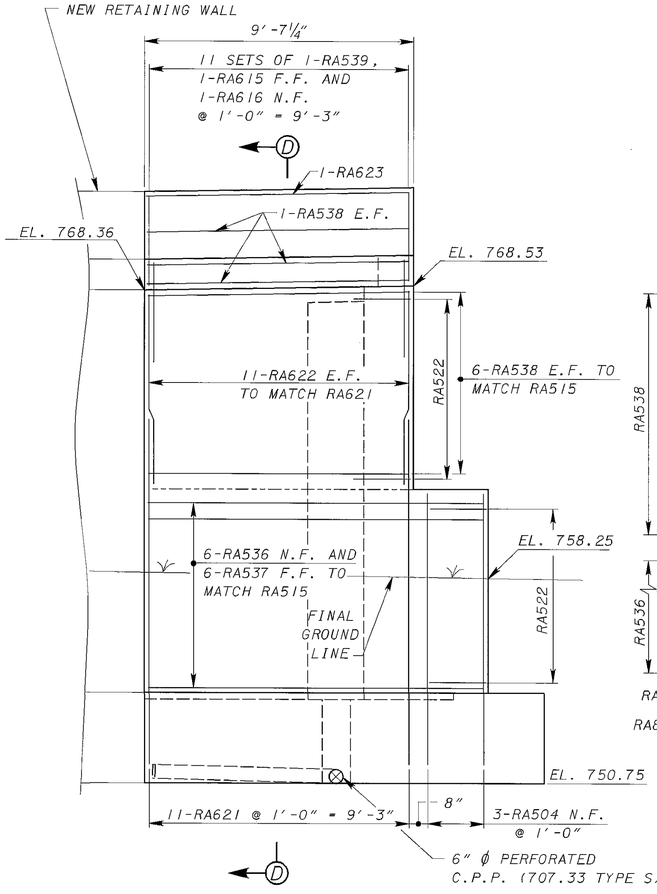
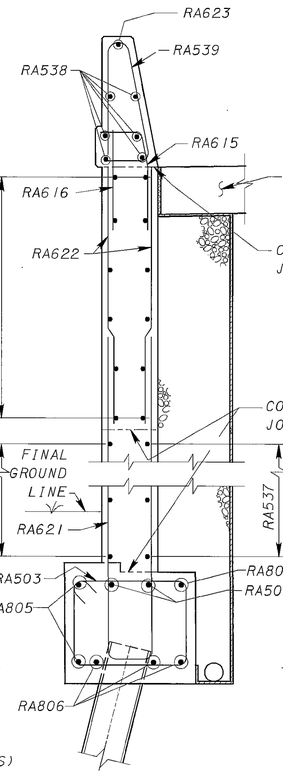
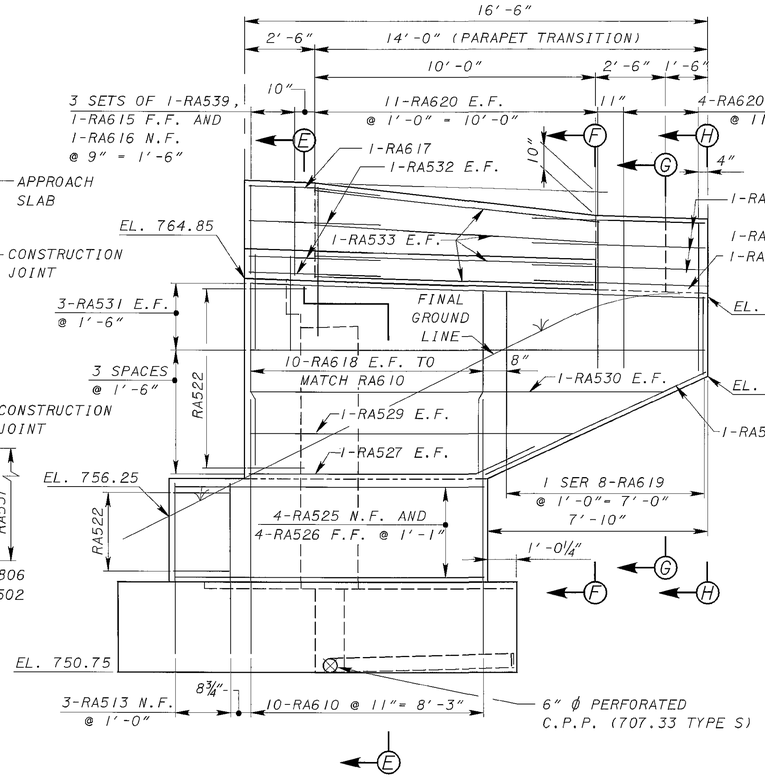


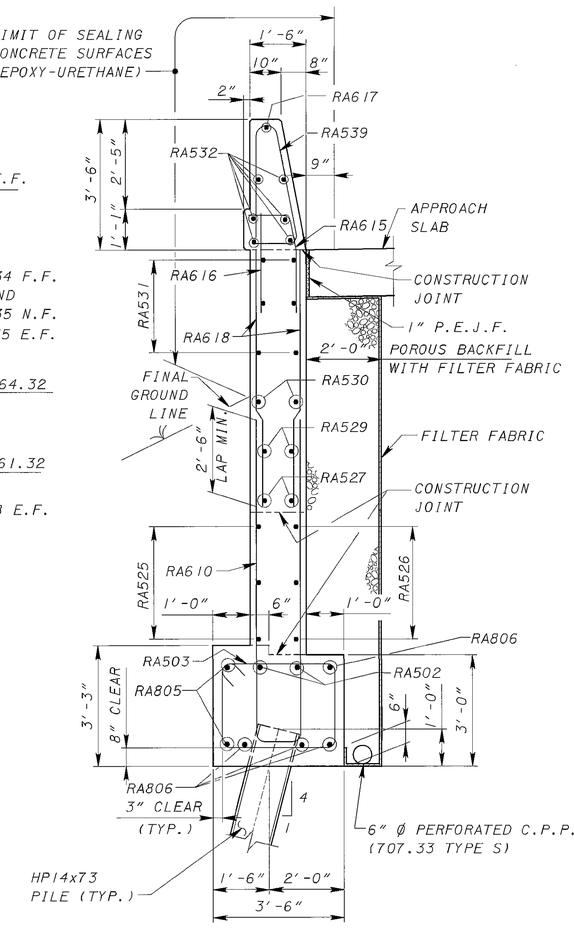
ELEVATION B-B
(PILES NOT SHOWN)



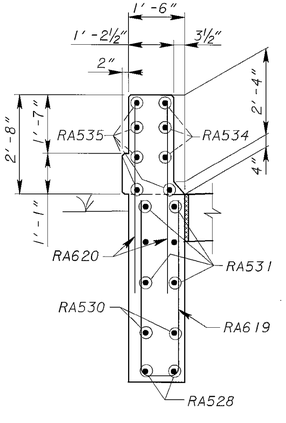
SECTION D-D
(FOR DETAILS NOT SHOWN SEE SECTION E-E)



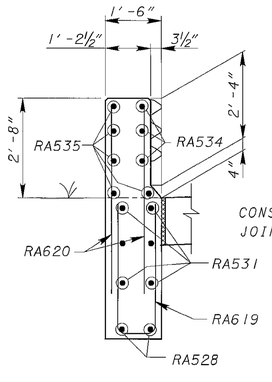
ELEVATION C-C
(PILES NOT SHOWN)



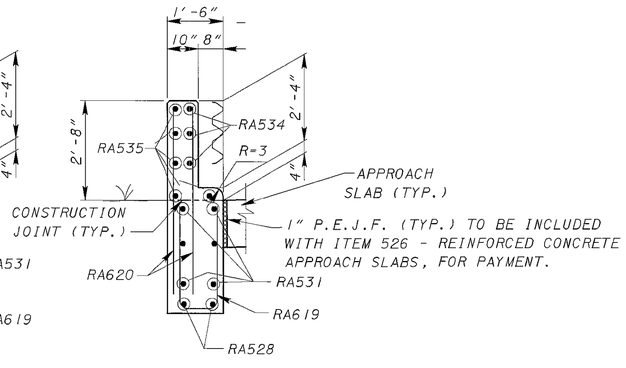
SECTION E-E



SECTION F-F



SECTION G-G



SECTION H-H

NOTES:

1. FOR ABUTMENT DETAILS, SEE SHEETS 15/55 AND 16/55.
2. FOR ADDITIONAL NOTES, SEE SHEET 15/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2200, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	NFF	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

REAR ABUTMENT WINGWALL DETAILS
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

18/55

253/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:34 PM
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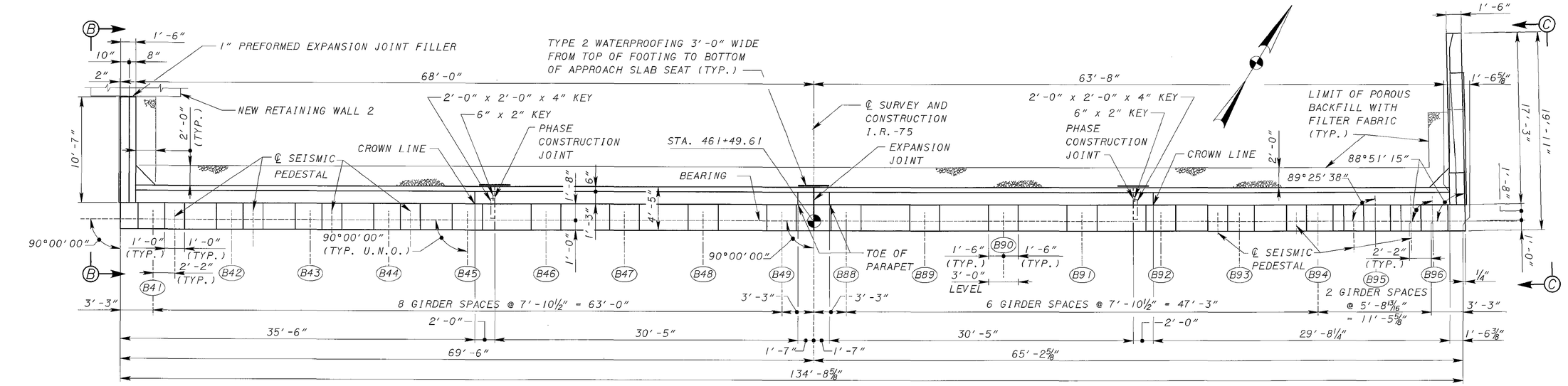

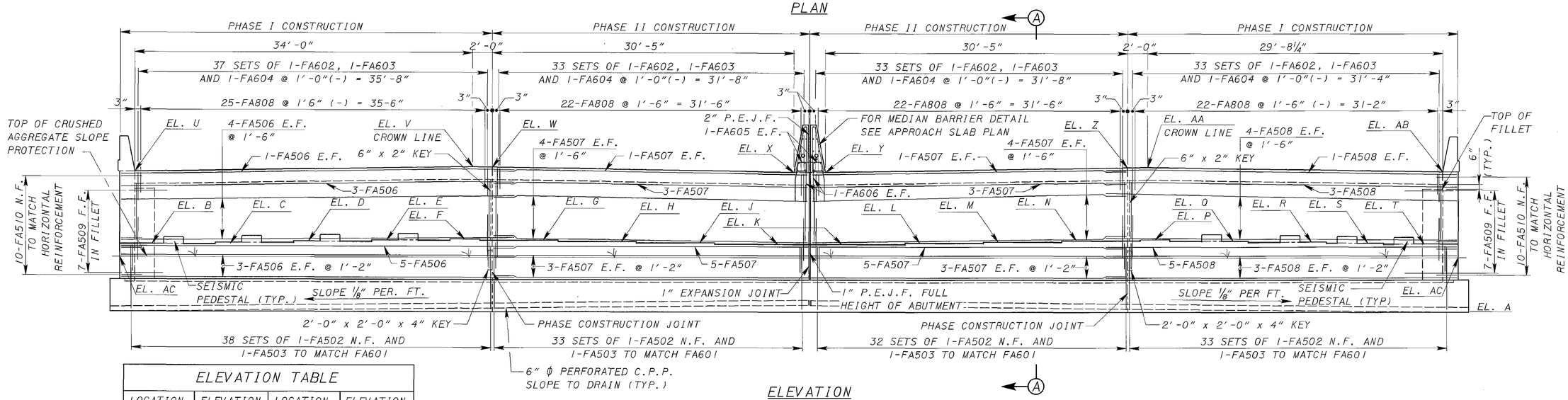

ELEVATION TABLE			
LOCATION	ELEVATION	LOCATION	ELEVATION
A	756.50	P	763.87
B	763.37	Q	763.75
C	763.49	R	763.62
D	763.62	S	763.53
E	763.75	T	763.44
F	763.87	U	770.62
G	763.77	V	771.16
H	763.64	W	771.13
J	763.52	X	770.65
K	763.39	Y	770.65
L	763.52	Z	771.13
M	763.64	AA	771.16
N	763.77	AB	770.69
		AC	762.00

LEGEND:

(BXX) = BEAM NUMBER
E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P - CORRUGATED POLYETHYLENE PIPE
U.N.O.- UNLESS NOTED OTHERWISE

NOTES:

1. FOR ADDITIONAL DETAIL NOTES REFER TO SHEET 15/55.
2. FOR FOOTING PLAN AND SECTION A-A, SEE SHEET 20/55.
3. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 20/55.
4. FOR ELEVATION B-B AND C-C, SEE SHEET 21/55.
5. FOR BEARING DEVICES, SEE SHEET 49/55.
6. FOR APPROACH SLAB DETAILS, SEE SHEET 51/55.
7. FOR REINFORCING STEEL LIST, SEE SHEET 53/55.
8. FOR LAP LENGTH TABLE, SEE SHEET 17/55.
9. FOR EXPANSION JOINT DETAILS, SEE SHEET 50/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901
REVIEWED NFF DATE 05/26/05
DRAWN RCK REVISED
DESIGNED BTA CHECKED JDH
STRUCTURE FILE NUMBER 5708710

FORWARD ABUTMENT PLAN AND ELEVATION (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

19/55

254/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:43:31 PM
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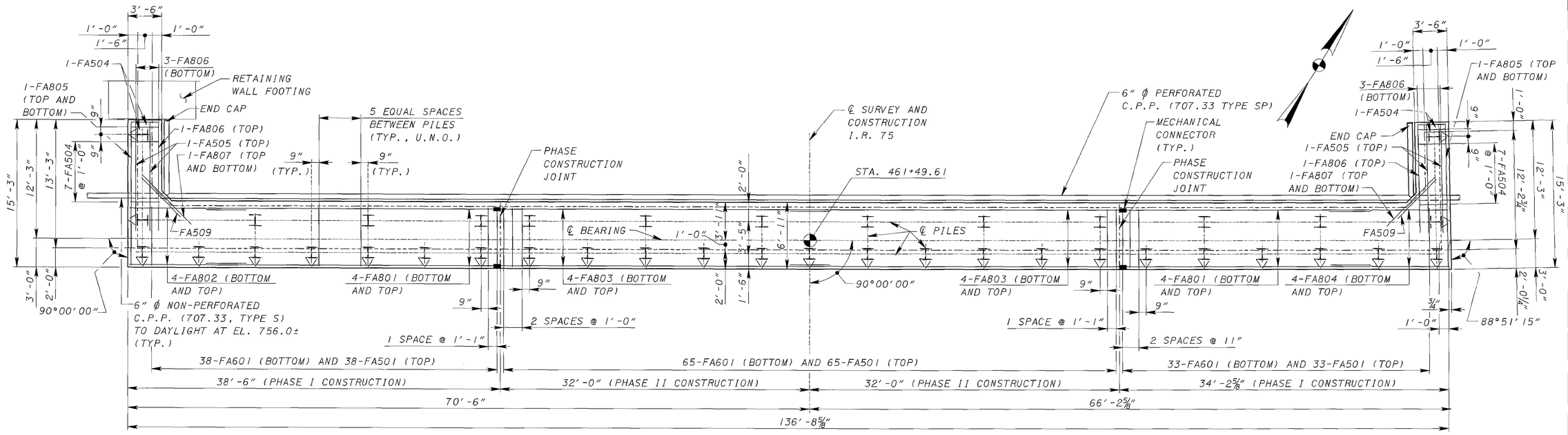
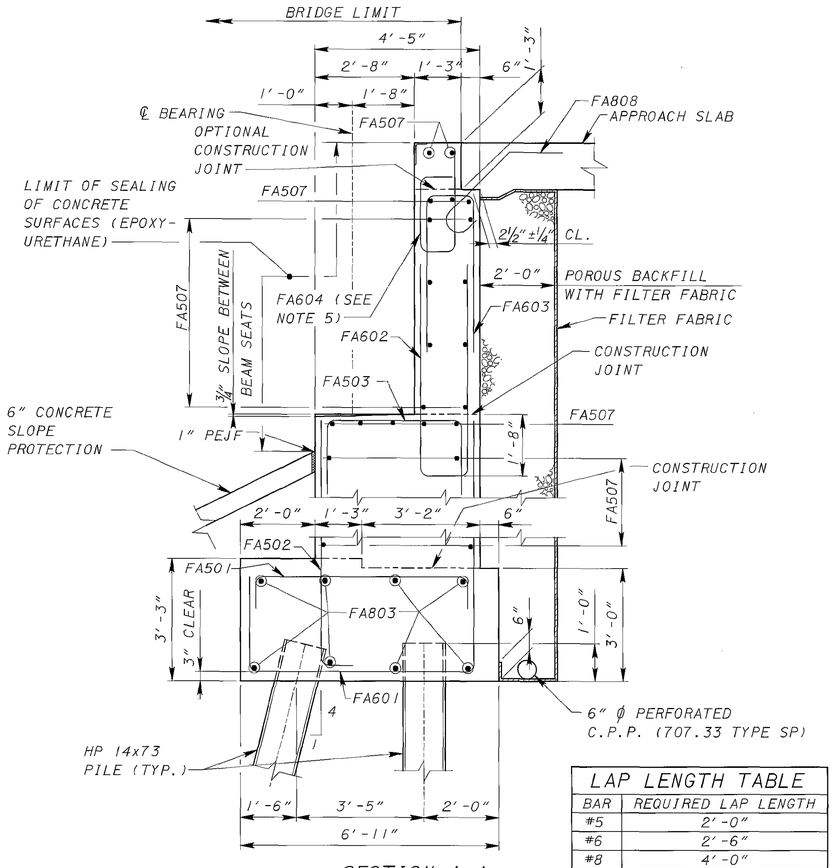


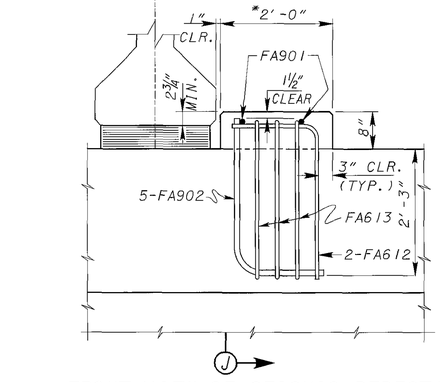
FOOTING PLAN



SECTION A-A

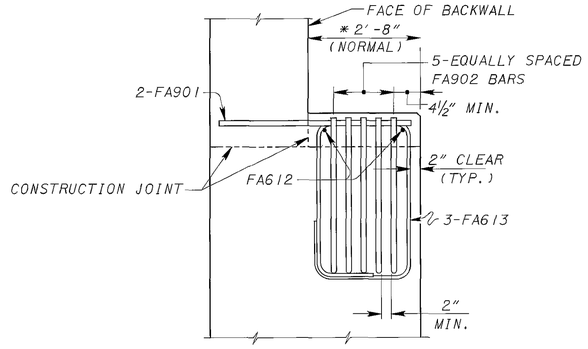
(EXPANSION JOINT ANCHOR NOT SHOWN)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	2'-6"
#8	4'-0"



FRONT VIEW OF SEISMIC PEDESTAL

THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE FA902 AND FA612 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE FA901 AND FA613 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION J-J

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE FA902 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.

NOTES:

1. FOR ABUTMENT PLAN AND ELEVATION, SEE SHEET 19/55.
2. FOR ADDITIONAL NOTES AND LEGEND, SEE SHEET 19/55.
3. FOR PILE LOCATIONS, SEE SHEETS 13/55 AND 14/55.
4. FOR LOCATION OF SEISMIC PEDESTAL, SEE SHEET 19/55.
5. FOR PLACEMENT OF FA604 BARS, SEE SHEET 50/55.
6. FOR NON-PERFORATED PIPE TERMINATION IN SIDE SLOPE DETAIL, SEE STANDARD DRAWING A-1-69, SHEET 1/5.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED BTA | DRAWN RCK | REVIEWED NFF | DATE 05/26/05

CHECKED JDH | REVISED | STRUCTURE FILE NUMBER 570810

PLAN
CONCRETE OPTION)
FORWARD ABUTMENT FOOTING PLAN
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCR
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

20/55

255/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:30 PM
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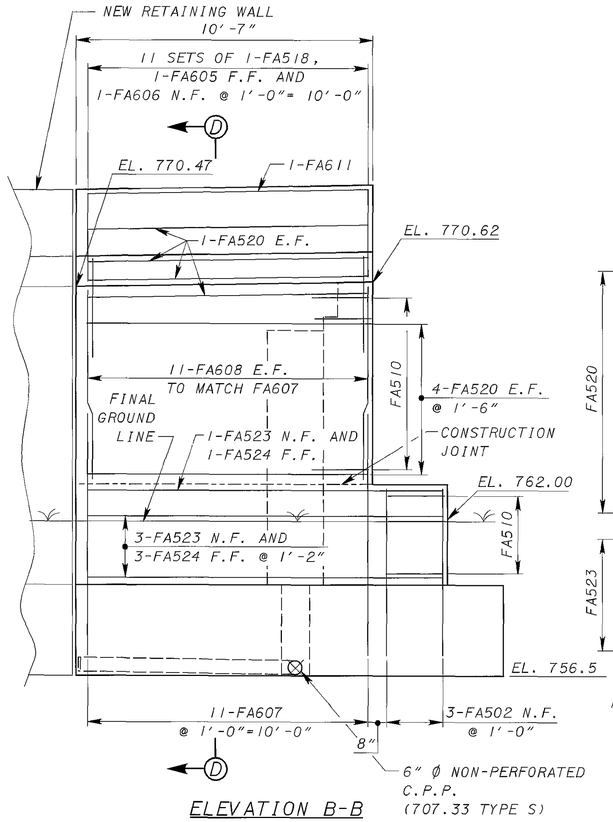
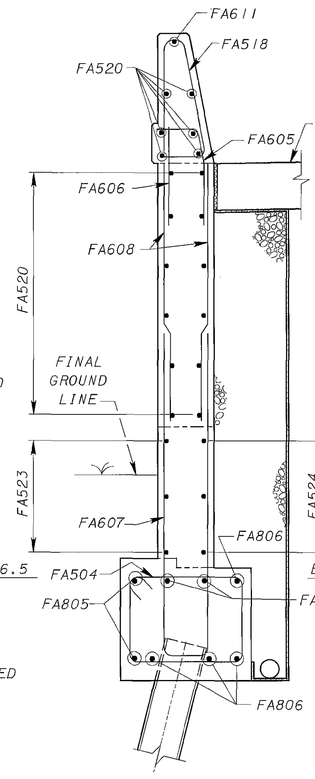
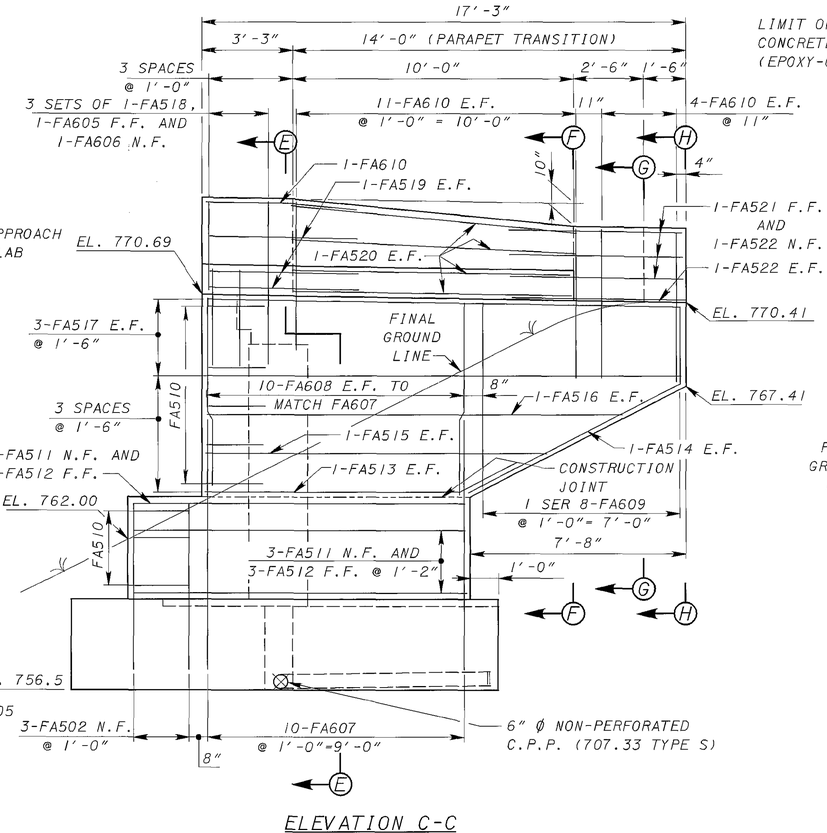


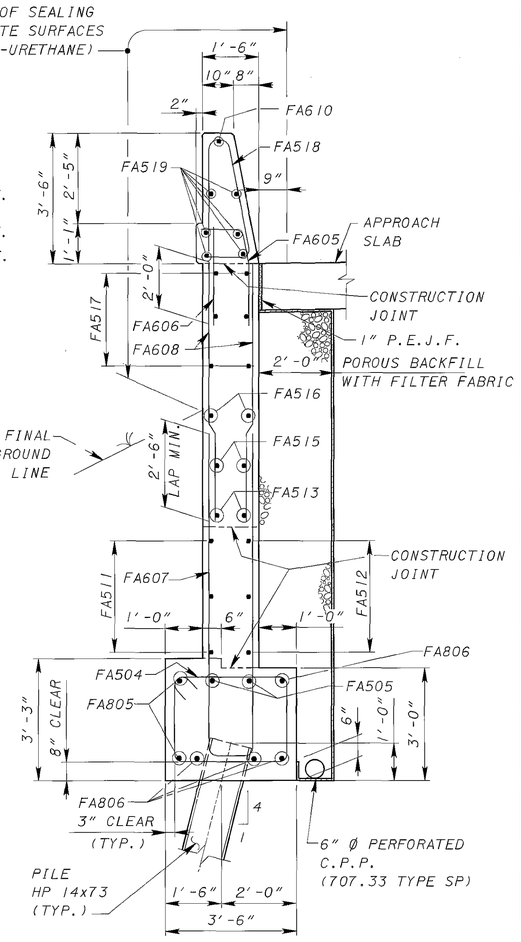
ELEVATION B-B
(PILES NOT SHOWN)



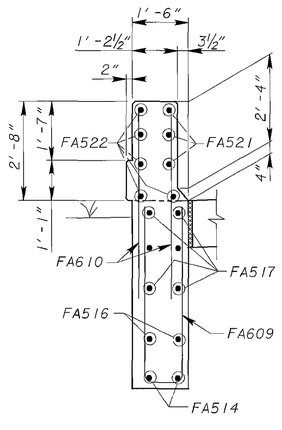
SECTION D-D
(FOR DETAILS NOT SHOWN, SEE SECTION E-E)



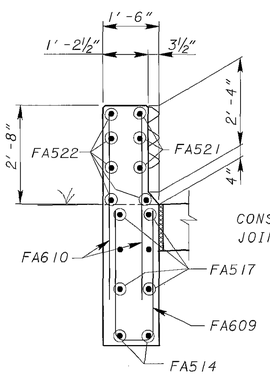
ELEVATION C-C
(PILES NOT SHOWN)



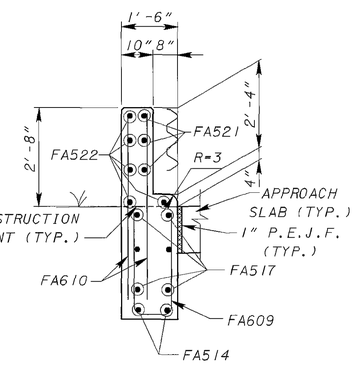
SECTION E-E



SECTION F-F



SECTION G-G



SECTION H-H

NOTES:

1. FOR ABUTMENT DETAILS, SEE SHEETS 19/55 AND 20/55.
2. FOR ADDITIONAL NOTES, SEE SHEET 15/55 AND 17/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 2000
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	NFF	05/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5709710	

FORWARD ABUTMENT WINGWALL DETAILS
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

21/55

256/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:32 PM
Filename: g:\co04\0066\bridge\concrete_alt\cadd\23828af03.dgn

℄ SURVEY AND CONSTRUCTION I.R. 75

158'-7"

54'-4" (PHASE I CONSTRUCTION) | 32'-0" (PHASE II CONSTRUCTION) | 32'-0" (PHASE II CONSTRUCTION) | 40'-3" (PHASE I CONSTRUCTION)

6'-2 7/16" | 3 SPA. @ 9'-10 1/2" = 29'-7 1/2" | 6 SPA. @ 7'-10 1/2" = 47'-3" | 3'-3" | 3'-3" | 6 SPA. @ 7'-10 1/2" = 47'-3" | 3 SPA. @ 6'-8 5/8"(+) = 20'-1 15/16" | 1'-7 1/16" BEAM SPACING

3'-2" | 10'-11" | 2 SPA. @ 9'-10 1/2" = 19'-9" | 2 SPA. @ 7'-10 1/2" = 15'-9" | 4'-9" | 22'-10 1/2" | 18'-3" | 2 SPA. @ 7'-10 1/2" = 15'-9" | 7'-1 1/2" | 12'-7 1/2" | 7'-10 1/2" | 2 SPA. @ 6'-9 1/8" = 13'-6 1/4" | 6'-2 3/4" | BEAM SEAT SPACING

B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B60 B61 B62 B63 B64 B65 B66 B67 B68 B69 — ℄ BEAM (TYP.)

84°07'17" | 86°04'21" | 88°01'59" | 2'-0" | ℄ BEARING | 2'-0" (TYP.) (U.N.O.) | 90°00'00" | 5'-1 1/2" | 89°37'07" | 89°14'15" | 88°51'15" | ℄ PIER I

2'-3" | 4'-6" | 2'-3" | 1'-2 1/2" | 1'-2 1/2" | 2'-9" | 2'-2" | 2'-2" | STA. 457+13.61 | 2'-2" | 2'-2" | 2'-9" | 90°00'00" (TYP.) (U.N.O.) | 89°37'07" | 89°14'15" | 88°51'15"

B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B50 B51 B52 B53 B54 B55 B56 B57 B58 B59 — BEAM NUMBER (TYP.)

84°07'17" | 85°17'28" | 87°38'31" | 86°27'54" | 88°49'15" | ℄ SEISMIC PEDESTAL | ℄ SEISMIC PEDESTAL

3'-2" | 6'-9" | 4 SPA. @ 5'-11 3/4" = 23'-11" | 2 SPA. @ 7'-10 1/2" = 15'-9" | 4'-9" | 22'-10 1/2" | 18'-3" | 2 SPA. @ 7'-10 1/2" = 15'-9" | 7'-1 1/2" | 12'-7 1/2" | 7'-10 1/2" | 2 SPA. @ 6'-9 1/8" = 13'-6 1/4" | 6'-2 3/4" | BEAM SEAT SPACING

5'-11 1/2" | 5 SPA. @ 5'-11 3/4"(-) = 29'-10 1/2" | 6 SPA. @ 7'-10 1/2" = 47'-3" | 3'-3" | 3'-3" | 6 SPA. @ 7'-10 1/2" = 47'-3" | 3 SPA. @ 6'-8 7/8"(-) = 20'-2 9/16" | 1'-6 7/16" BEAM SPACING

PLAN

BAR	REQUIRED LAP LENGTH
#5	2'-0"
#8	4'-0"
#10	6'-3"

54'-4" (PHASE I CONSTRUCTION) | 64'-0" (PHASE II CONSTRUCTION) | 40'-3" (PHASE I CONSTRUCTION)

67-P504 E.F. AND 67-P505 @ 10" TO MATCH P1003 | 77-P504 E.F. AND 77-P505 @ 10" TO MATCH P1003 | 50-P504 E.F. AND 50-P505 @ 10" TO MATCH P1003

SEE NOTE 6 | EL. 764.50 | 3'-0" x 1'-0" x 4" KEY (TYP.) | SEISMIC PEDESTAL (TYP.) | FOR BEAM SEAT ELEVATIONS, SEE TABLE OF BEAM SEAT ELEVATIONS, SHEET 26/55

6-P503 1-P503 E.F. | 6-P503 1-P503 E.F. | 6-P502 1-P502 E.F. | 6-P502 1-P502 E.F. | 6-P501 1-P501 E.F. | 6-P501 1-P501 E.F.

4-P503 @ 18" E.F. | 4-P503 @ 18" E.F. | 4-P502 @ 18" E.F. | 4-P502 @ 18" E.F. | 4-P501 @ 18" E.F. | 4-P501 @ 18" E.F.

EL. 754.61

16-P506 TO MATCH P503 BARS | 16-P503 @ 18"(-) E.F. | ** 16 SETS OF P402 @ 18"(-) | 67-P1003 @ 10" E.F. TO LAP P1002 | 16-P507 @ 18"(-) E.F. | CONSTRUCTION JOINT | 16-P502 @ 18"(-) E.F. | ** 16 SETS OF P402 @ 18"(-) | 77-P1003 @ 10" E.F. TO LAP P1002 | 16-P502 @ 18"(-) E.F. | CONSTRUCTION JOINT | 16-P501 @ 18"(-) E.F. | 50-P1003 @ 10" E.F. TO LAP P1002 | ** 16 SETS OF P402 @ 18"(-) | 16-P508 @ 18"(-) E.F. | 16-P506 TO MATCH P501 BARS | ROUNDED END (WALL ONLY, TYP. BOTH SIDES) SEE DETAIL D, SHEET 26/55 | APPROX. GROUND LINE EL. 735.6

** 34-P402 @ 20"(-) | NORMAL POOL EL. 736.18± | ** 39-P402 @ 20"(-) | ** 25-P402 @ 20"

67-P1002 @ 10" E.F. | 77-P1002 @ 10" E.F. | 50-P1002 @ 10" E.F.

EL. 729.00

10'-0" x 6" x 4" KEY (TYP.)

ELEVATION

(PILES AND FOOTING REINFORCING NOT SHOWN)

** SEE DETAIL D, SHEET 26/55.

LEGEND:

E.F. - EACH FACE
U.N.O. - UNLESS NOTED OTHERWISE

158'-7"

54'-4" (PHASE I CONSTRUCTION) | 64'-0" (PHASE II CONSTRUCTION) | 40'-3" (PHASE I CONSTRUCTION)

119-P1001 SPACED AS SHOWN BETWEEN PILES | 42-P1001 SPACED AS SHOWN BETWEEN PILES

4-P1001 @ 3 EQ. SPA. | 6 EQ. SPA. (TYP. U.N.O.) | ℄ SURVEY AND CONSTRUCTION I.R. 75 | 3-P1001 @ 2 EQ. SPA. | BATTER PILE (TYP.) | 9" (TYP.)

32'-0" | 32'-0"

P1001 | 8-P803* | 8-P804* | 8-P802* | 8-P802* | 8-P804* | 8-P801* | ℄ PIER 1, FOOTING AND PILE | P1001

3'-6" | 10'-0" | 3'-6" | 1'-6" | 1'-6" | 90°00'00"

℄ PILES | HP14x73 (TYP.) | MECHANICAL CONNECTOR (TYP.)

FOOTING PLAN

* - SPACED AS SHOWN IN SECTION A-A

NOTES:

1. FOR SECTION A-A, SEE SHEET 26/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 54/55.
3. FOR PILE SPACING, SEE SHEET 13/55.
4. FOR BEAM SEAT ELEVATIONS, SEE SHEET 26/55.
5. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 37/55.
6. LIMITS OF SEALING CONCRETE SURFACES, (EPOXY-URETHANE) AROUND SIGN POST FOUNDATION, SEE GENERAL NOTES 3/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/26/05
CHECKED	REV'SED	STRUCTURE FILE NUMBER	
NFF		5708110	

PIER 1 DETAILS (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523 IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

22/55

257/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:06 PM
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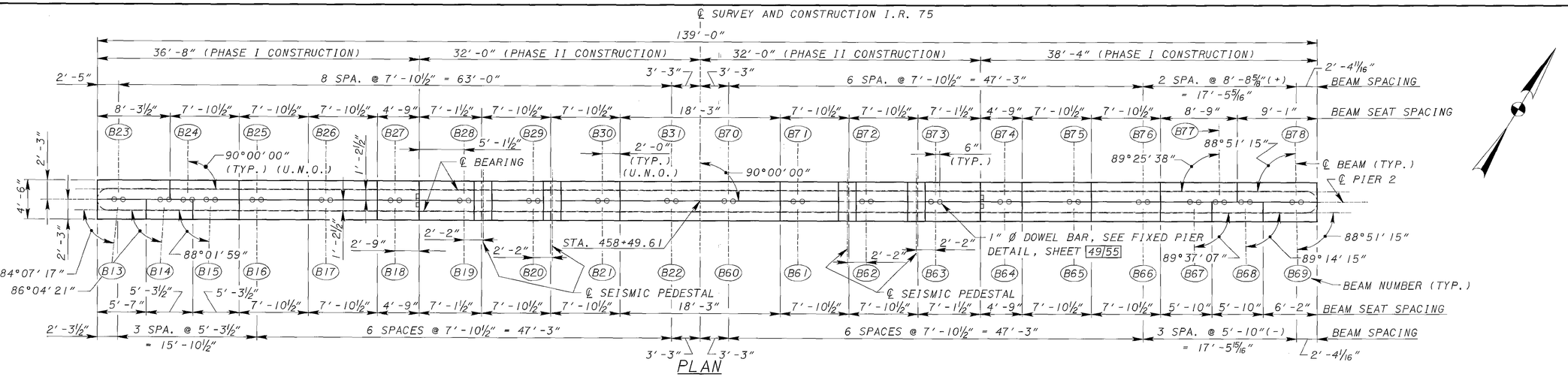

BAR	REQUIRED LAP LENGTH
#5	2'-0"
#8	4'-0"
#10	6'-3"

LEGEND:

* - SPACED AS SHOWN IN SECTION A-A
E.F. - EACH FACE
U.N.O. - UNLESS NOTED OTHERWISE

NOTES:

1. FOR SECTION A-A, SEE SHEET 26/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 54/55.
3. FOR PILE SPACING, SEE SHEET 13/55.
4. FOR BEAM SEAT ELEVATIONS, SEE SHEET 26/55.
5. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 37/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2000, CLEVELAND, OHIO 44113-1901

DESIGNED JDH | DRAWN CAG | CHECKED NFF | REVIEWED RER | REV'SED | DATE 5/26/05

STRUCTURE FILE NUMBER 570810

PIER 2 DETAILS (PRESTRESSED CONCRETE OPTION)

BRIDGE NO. MOT-75-1523 IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

23/55

258/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:06 PM
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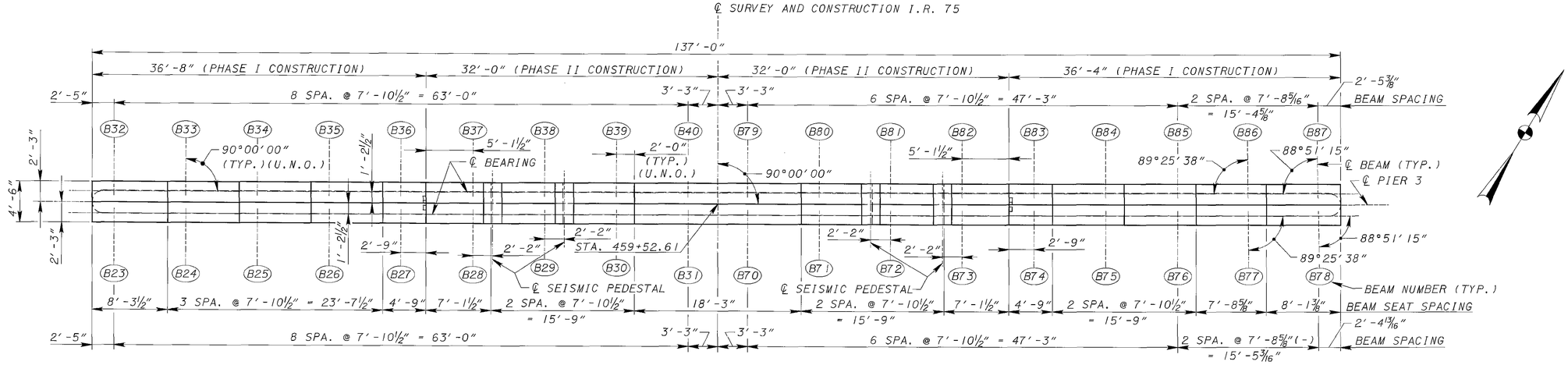
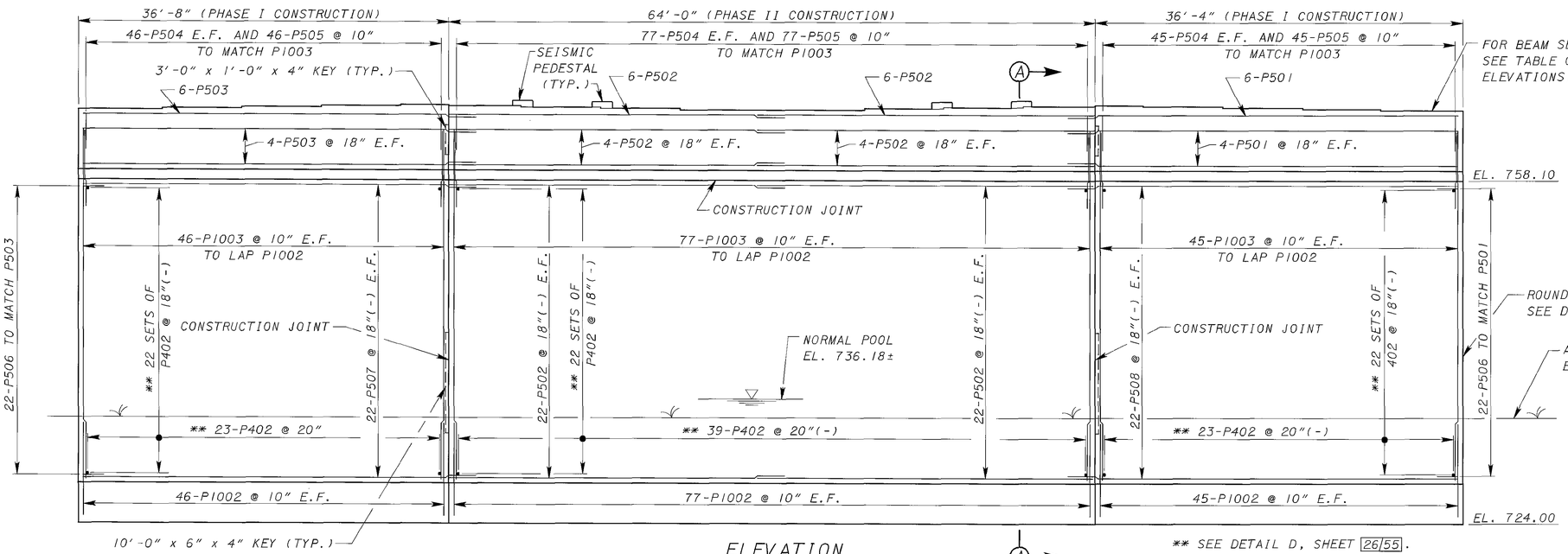


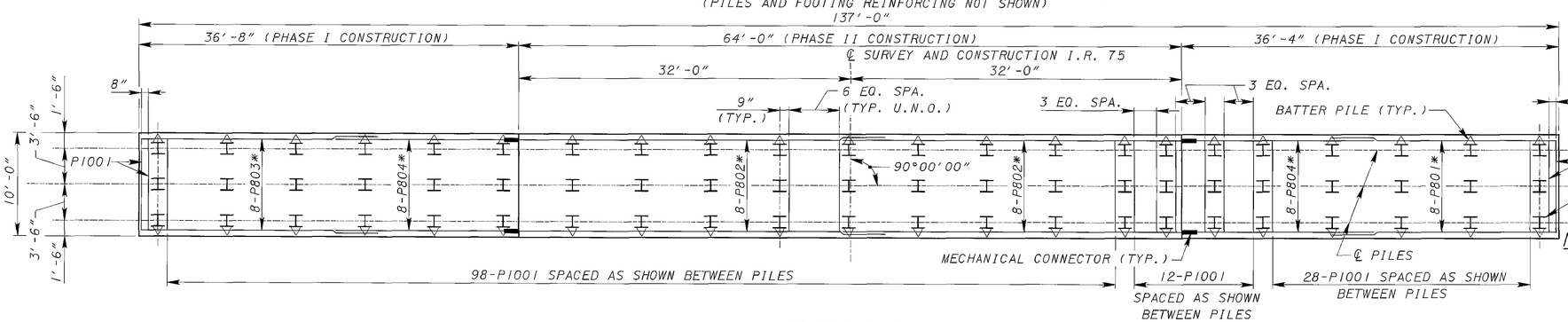
PLAN



BAR	REQUIRED LAP LENGTH
#5	2'-0"
#8	4'-0"
#10	6'-3"

ELEVATION

(PILES AND FOOTING REINFORCING NOT SHOWN)



FOOTING PLAN

LEGEND:

* - SPACED AS SHOWN IN SECTION A-A
E.F. - EACH FACE
U.N.O. - UNLESS NOTED OTHERWISE

NOTES:

1. FOR SECTION A-A, SEE SHEET 26/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 54/55.
3. FOR PILE SPACING, SEE SHEET 14/55.
4. FOR BEAM SEAT ELEVATIONS, SEE SHEET 26/55.
5. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 37/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE SUITE 800 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		570871 0	

PIER 3 DETAILS

BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

24/55

259/314

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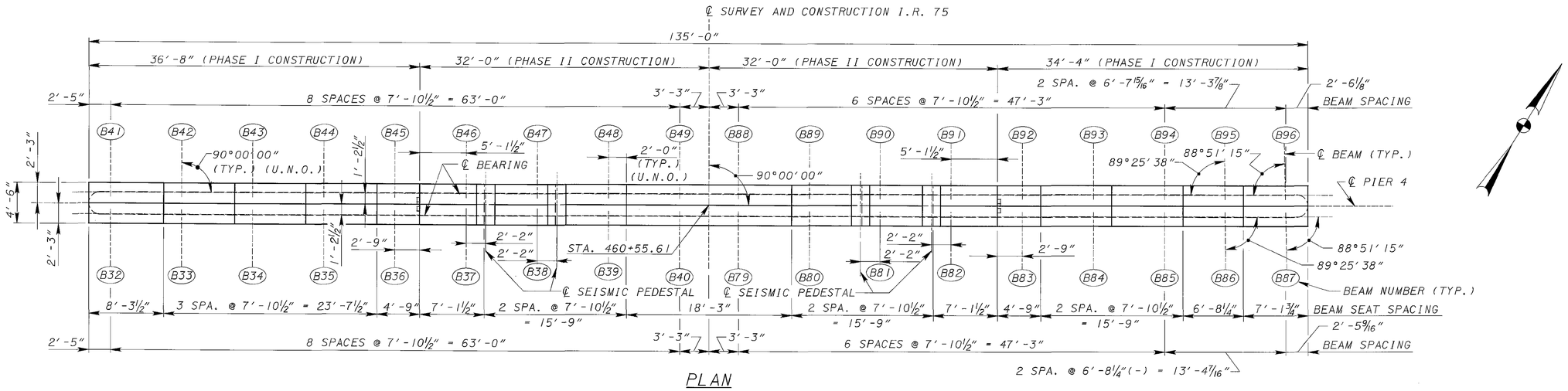
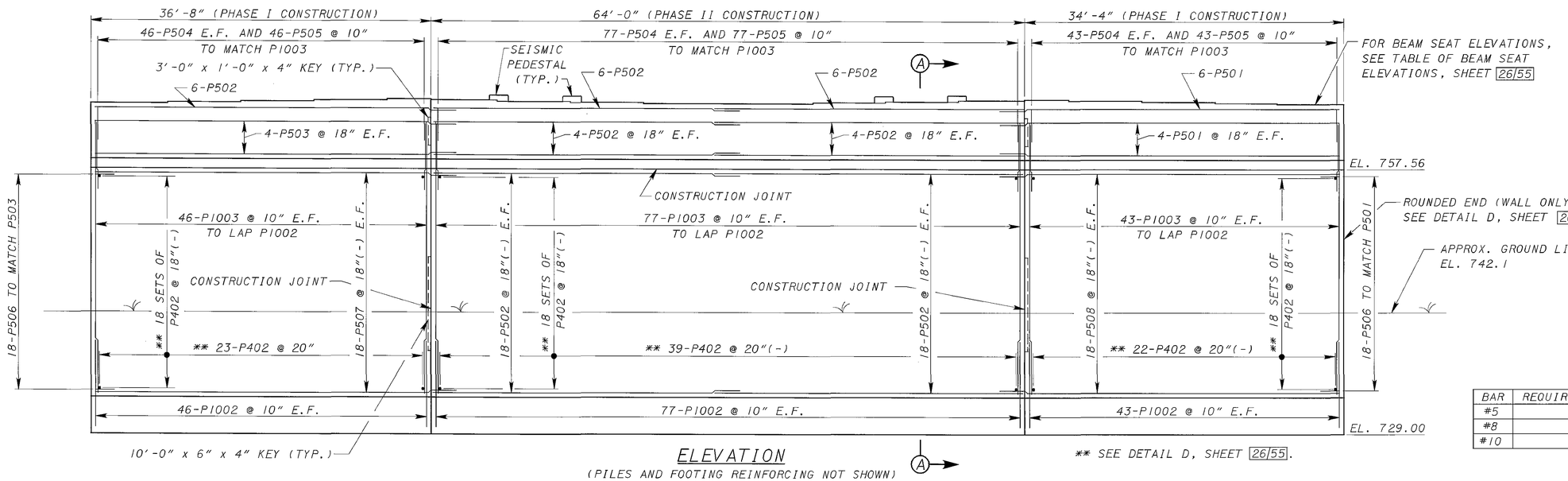


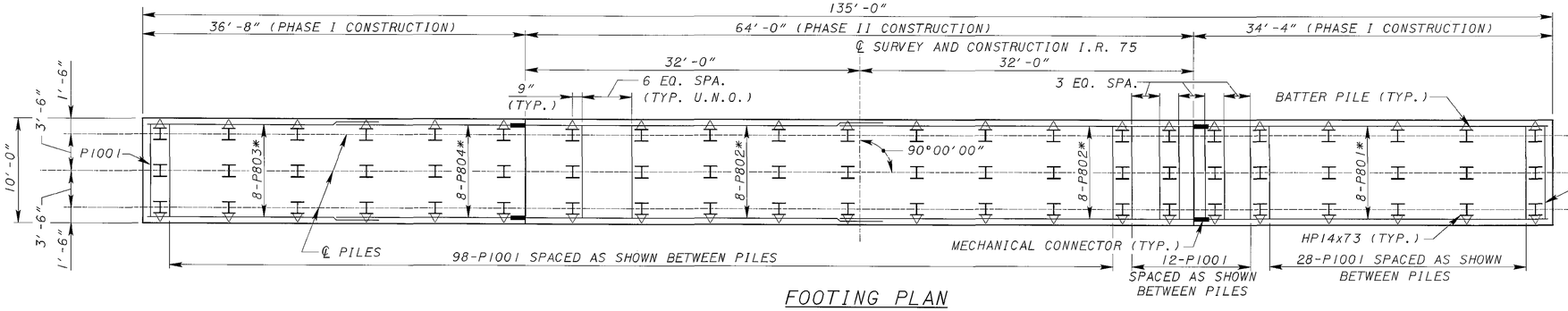
PLAN



ELEVATION

(PILES AND FOOTING REINFORCING NOT SHOWN)

BAR	REQUIRED LAP LENGTH
#5	2′-0″
#8	4′-0″
#10	6′-3″



FOOTING PLAN

* - SPACED AS SHOWN IN SECTION A-A

LEGEND:

E.F. - EACH FACE
U.N.O. - UNLESS NOTED OTHERWISE

NOTES:

1. FOR SECTION A-A, SEE SHEET 26/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 54/55.
3. FOR PILE SPACING, SEE SHEET 14/55.
4. FOR BEAM SEAT ELEVATIONS, SEE SHEET 26/55.
5. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 37/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

PIER 4 DETAILS (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523 I-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

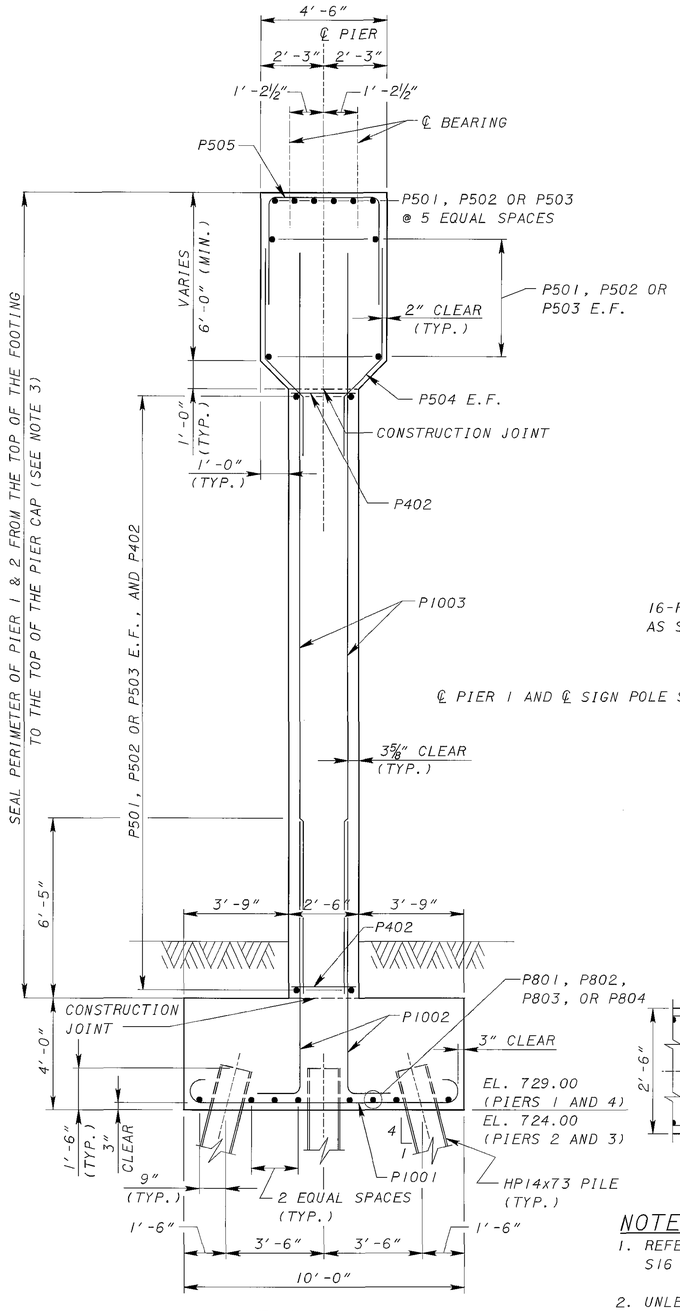
25/55

260/314

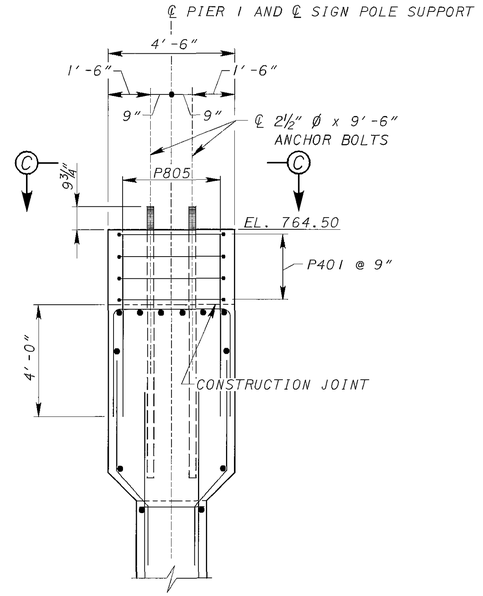
Plotted By: eamack Date: 7/27/2007 Time: 3:42:08 PM
Filename: g:\co04\0066\bridge\concrete_alt\cadd\23828p104.dgn

TABLE OF BEAM SEAT ELEVATIONS

LEFT BRIDGE					RIGHT BRIDGE				
SPAN 1					SPAN 1				
BEAM NUMBER	℄ BEARING LOCATION	BEAM SEAT ELEVATION	℄ BEARING LOCATION	BEAM SEAT ELEVATION	BEAM NUMBER	℄ BEARING LOCATION	BEAM SEAT ELEVATION	℄ BEARING LOCATION	BEAM SEAT ELEVATION
B1	REAR ABUTMENT	757.66	PIER 1	761.61	B50	REAR ABUTMENT	761.00	PIER 1	763.50
B2		758.23		761.91	B51		761.13		763.63
B3		758.79		762.21	B52		761.25		763.75
B4		759.36		762.51	B53		761.38		763.88
B5		759.92		762.81	B54		761.51		763.99
B6		760.24		763.11	B55		761.64		763.99
B7		760.48		763.42	B56		761.62		763.91
B8		760.70		763.61	B57		761.50		763.80
B9		760.84		763.62	B58		761.37		763.70
B10		760.97		763.62	B59		761.25		763.59
B11		761.09		763.61					
B12		761.00		763.50					
SPAN 2					SPAN 2				
B13	PIER 1	761.68	PIER 2	764.98	B60	PIER 1	763.53	PIER 2	765.00
B14		762.18		765.06	B61		763.66		765.13
B15		762.67		765.15	B62		763.78		765.25
B16		763.16		765.23	B63		763.91		765.38
B17		763.46		765.36	B64		764.02		765.48
B18		763.65		765.48	B65		764.01		765.36
B19		763.66		765.38	B66		763.94		765.23
B20		763.65		765.25	B67		763.83		765.14
B21		763.64		765.13	B68		763.72		765.04
B22		763.53		765.00	B69		763.61		764.95
SPAN 3					SPAN 3				
B23	PIER 2	765.08	PIER 3	765.11	B70	PIER 2	765.10	PIER 3	765.13
B24		765.20		765.23	B71		765.23		765.26
B25		765.33		765.36	B72		765.35		765.38
B26		765.46		765.49	B73		765.48		765.51
B27		765.58		765.61	B74		765.58		765.61
B28		765.48		765.51	B75		765.46		765.49
B29		765.35		765.38	B76		765.33		765.36
B30		765.23		765.26	B77		765.19		765.24
B31		765.10		765.13	B78		765.05		765.11
SPAN 4					SPAN 4				
B32	PIER 3	765.10	PIER 4	764.58	B79	PIER 3	765.12	PIER 4	764.60
B33		765.22		764.70	B80		765.25		764.73
B34		765.35		764.83	B81		765.37		764.85
B35		765.48		764.96	B82		765.50		764.98
B36		765.60		765.08	B83		765.60		765.08
B37		765.50		764.98	B84		765.48		764.96
B38		765.37		764.85	B85		765.35		764.83
B39		765.25		764.73	B86		765.23		764.72
B40		765.12		764.60	B87		765.10		764.62
SPAN 5					SPAN 5				
B41	PIER 4	764.56	FORWARD ABUTMENT	763.37	B88	PIER 4	764.58	FORWARD ABUTMENT	763.39
B42		764.68		763.49	B89		764.71		763.52
B43		764.81		763.62	B90		764.83		763.64
B44		764.94		763.75	B91		764.96		763.77
B45		765.06		763.87	B92		765.06		763.87
B46		764.96		763.77	B93		764.94		763.75
B47		764.83		763.64	B94		764.81		763.62
B48		764.71		763.52	B95		764.70		763.53
B49		764.58		763.39	B96		764.60		763.44



SECTION A-A



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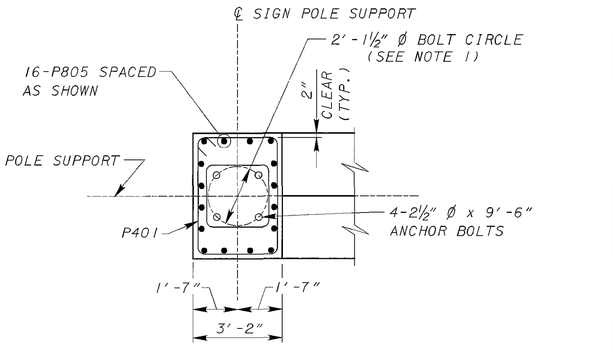
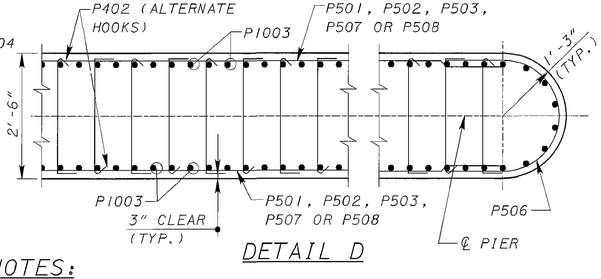


VIEW C-C



DETAIL D

NOTES:

1. REFER TO TRAFFIC DRAWING SIGN ELEVATIONS S16 AND S18 FOR MORE INFORMATION.
2. UNLESS OTHERWISE NOTED, BAR MARKS SHALL BE PREFIXED WITH "1" FOR PIER 1 AND "2" FOR PIER 2.
3. FOR SEALING OF CONCRETE SURFACES (EPOXY URETHANE) REQUIREMENTS, SEE GENERAL NOTES SHEET 3/55.
4. FOR PILE LAYOUT, SEE PILE LAYOUT PLAN, SHEETS 13/55 AND 14/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/26/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

PIER SECTIONS AND DETAILS (PRESTRESSED CONCRETE OPTION)

BRIDGE NO. MOT-75-1523 IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

26/55

261/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:08 PM
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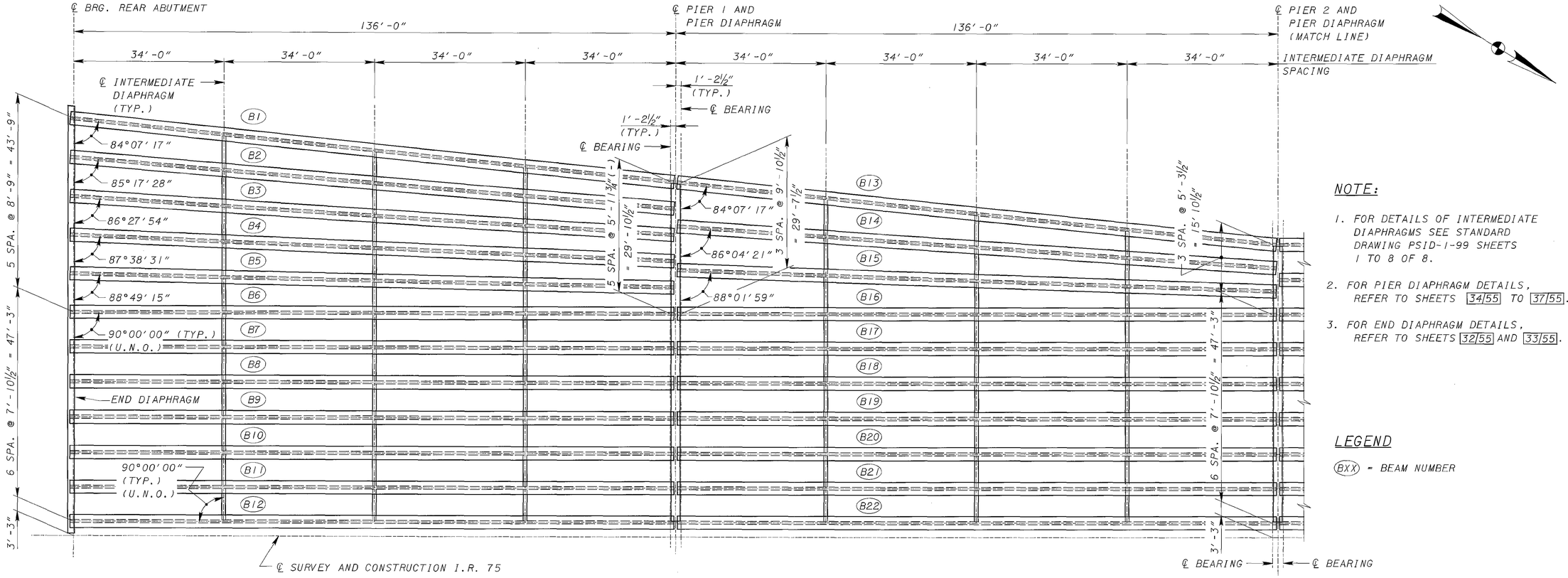


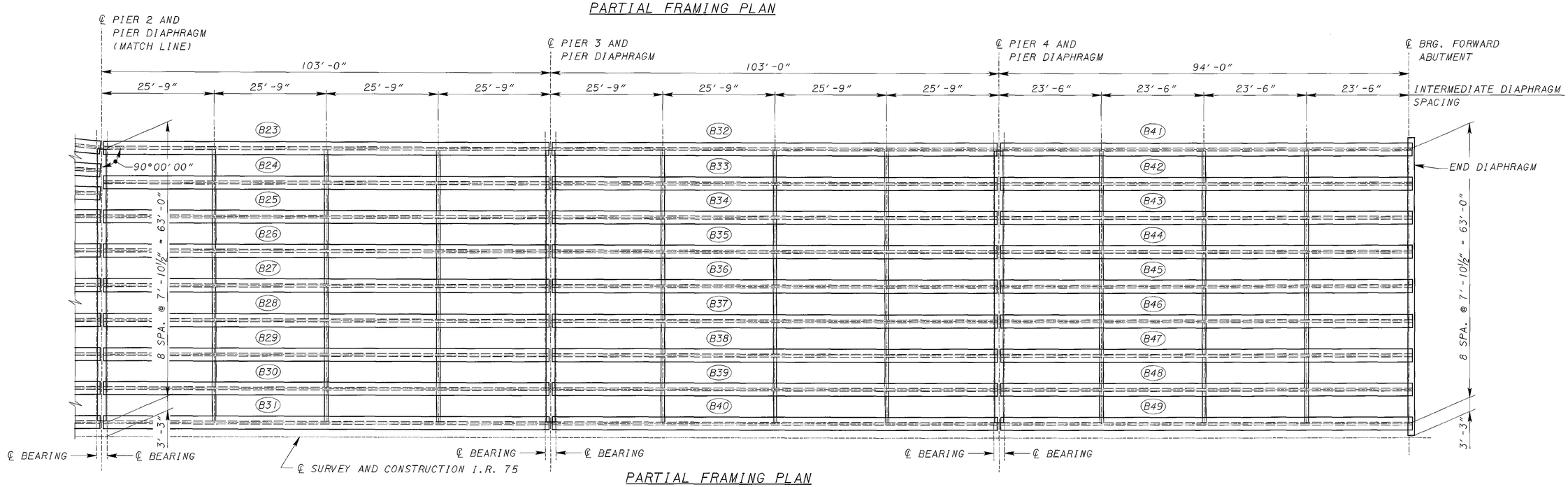
NOTE:

1. FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE STANDARD DRAWING PSID-1-99 SHEETS 1 TO 8 OF 8.
2. FOR PIER DIAPHRAGM DETAILS, REFER TO SHEETS 34/55 TO 37/55.
3. FOR END DIAPHRAGM DETAILS, REFER TO SHEETS 32/55 AND 33/55.

LEGEND

(BXX) = BEAM NUMBER

PARTIAL FRAMING PLAN



PARTIAL FRAMING PLAN

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

FRAMING PLAN - LEFT BRIDGE
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

27/55

262/314

Plotted By: eomack Date: 7/27/2007 Time: 3:42:21PM
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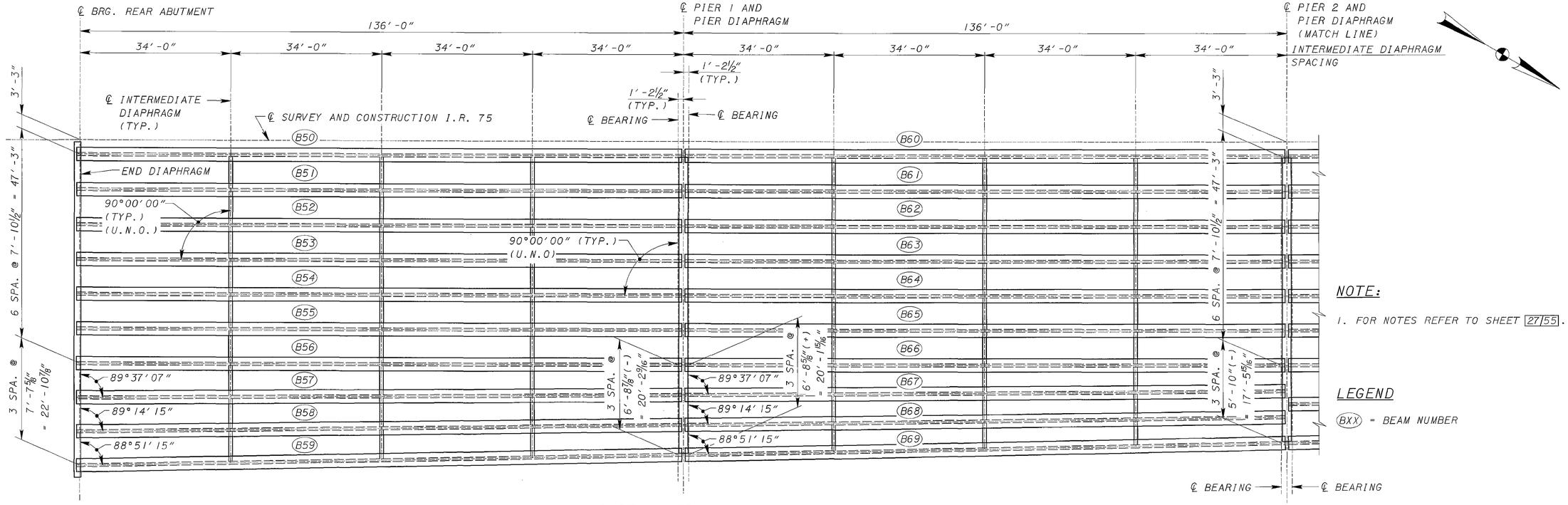
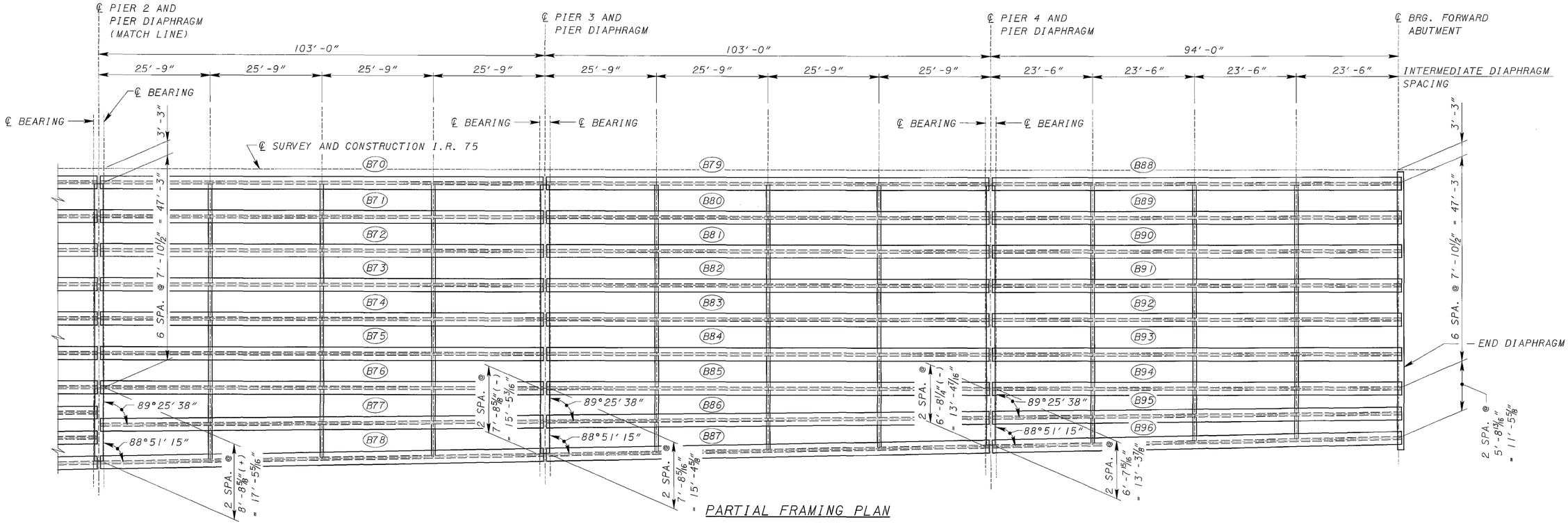


PARTIAL FRAMING PLAN



PARTIAL FRAMING PLAN

NOTE:

1. FOR NOTES REFER TO SHEET 27/55.

LEGEND

(BXX) = BEAM NUMBER

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 2000
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		57087 10	

FRAMING PLAN - RIGHT BRIDGE
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

28/55

263/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:22 PM
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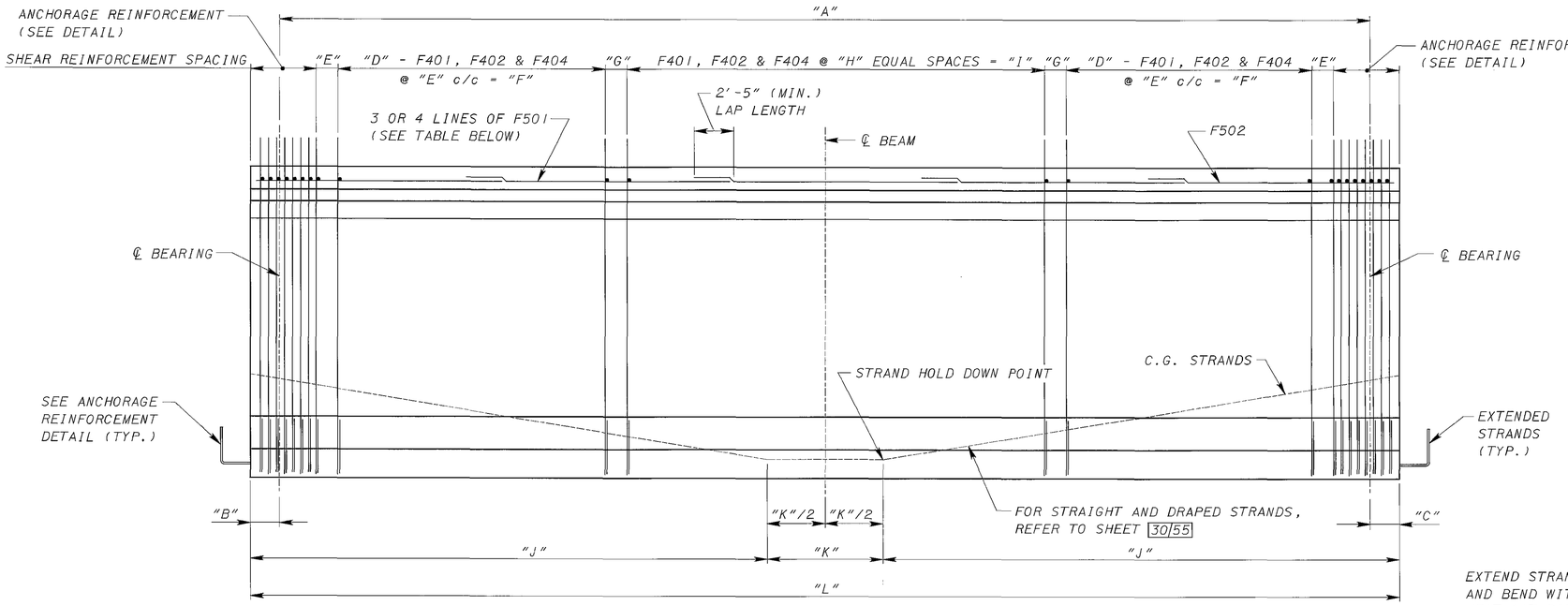
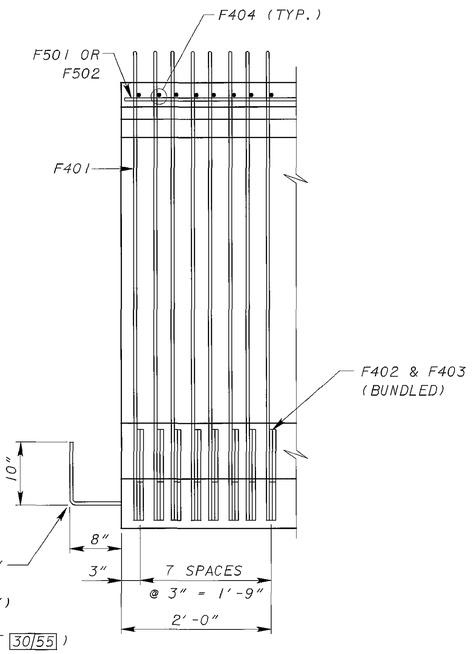


TYPICAL BEAM ELEVATION

(THREADED INSERTS AND 1¼" Ø SLEEVES FOR DIAPHRAGMS NOT SHOWN FOR CLARITY, REFER TO DIAPHRAGM DETAIL SHEETS 32/55 THRU 37/55 FOR LOCATIONS AND DETAILS)



ANCHORAGE REINFORCEMENT DETAIL

TABLE OF BEAM DIMENSIONS AND REINFORCEMENT

	BEAM NUMBER	NUMBER REQUIRED	DIMENSIONS "A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"	APPROXIMATE WEIGHT (LBS.)	F401 BARS REQ'D	F402 BARS REQ'D	F403 BARS REQ'D	F404 BARS REQ'D	NO. F501 LINES REQ'D	NO. F502 LINES REQ'D	F502 BARS LENGTH
LEFT BRIDGE	B1	1	135'-6 1/16"	8 3/4"	10"	21	6"	10'-0"	1'-6"	75	112'-0 7/8"	61'-8 3/16"	13'-8 1/2"	137'-0 7/8"	136,525	134	134	16	134	4	1	26'-6"
	B2	1	135'-3"	8 3/4"	10"	21	6"	10'-0"	1'-6"	75	111'-9 3/4"	61'-7"	13'-8 3/16"	136'-9 3/4"	136,265	134	134	16	134	4	1	26'-6"
	B3	1	135'-0 9/16"	8 3/4"	10"	21	6"	10'-0"	1'-6"	74	111'-7 5/16"	61'-5 11/16"	13'-7 5/16"	136'-7 5/16"	136,063	133	133	16	133	4	1	26'-6"
	B4	1	134'-10 7/8"	8 3/4"	10"	21	6"	10'-0"	1'-6"	74	111'-5 5/8"	61'-5"	13'-7 3/4"	136'-5 5/8"	135,923	133	133	16	133	4	1	26'-6"
	B5	1	134'-9 13/16"	8 3/4"	10"	21	6"	10'-0"	1'-6"	74	111'-4 9/16"	61'-4 7/16"	13'-7 5/8"	136'-4 9/16"	135,835	133	133	16	133	4	1	26'-6"
	B6 THRU B12	7	134'-9 1/2"	8 3/4"	10"	21	6"	10'-0"	1'-6"	74	111'-4 3/16"	61'-4 5/16"	13'-7 5/8"	136'-4 1/4"	135,809	133	133	16	133	4	1	26'-6"
	B13	1	134'-3 1/2"	10"	10"	41	1'-0"	40'-0"	1'-6"	33	49'-11 1/2"	61'-2 1/4"	13'-7 1/8"	135'-11 1/2"	135,414	132	132	16	132	4	1	26'-6"
	B14	1	133'-10 3/4"	10"	10"	41	1'-0"	40'-0"	1'-6"	33	49'-6 3/4"	61'-0"	13'-6 3/4"	135'-6 3/4"	135,020	132	132	16	132	4	1	26'-6"
	B15	1	133'-7 15/16"	10"	10"	41	1'-0"	40'-0"	1'-6"	33	49'-4"	60'-10 3/4"	13'-6 7/8"	135'-4"	134,792	132	132	16	132	4	1	26'-6"
	B16 THRU B22	7	133'-7"	10"	10"	21	6"	10'-0"	1'-6"	74	110-3"	60'-10 3/8"	13'-6 5/16"	135'-3"	134,709	133	133	16	133	4	1	26'-6"
	B23 THRU B40	18	100'-7"	10"	10"	7	1'-0"	6'-0"	1'-6"	56	84'-3"	46'-0 1/8"	10'-2 11/16"	102'-3"	101,841	87	87	16	87	3	1	19'-2"
	B41 THRU B49	9	92'-9 1/2"	10"	9"	7	1'-0"	6'-0"	1'-6"	51	76'-4 1/2"	42'-5 5/8"	9'-5 1/4"	94'-4 1/2"	93,998	82	82	16	82	3	1	11'-4"
RIGHT BRIDGE	B50 THRU B59	10	134'-9 1/2"	8 3/4"	10"	21	6"	10'-0"	1'-6"	74	111'-4 3/16"	61'-4 5/16"	13'-7 5/8"	136'-4 1/4"	135,809	133	133	16	133	4	1	25'-9"
	B60 THRU B69	10	133'-7"	10"	10"	21	6"	10'-0"	1'-6"	74	110-3"	60'-10 3/8"	13'-6 5/16"	135'-3"	134,709	133	133	16	133	4	1	25'-9"
	B70 THRU B87	18	100'-7"	10"	10"	7	1'-0"	6'-0"	1'-6"	56	84'-3"	46'-0 1/8"	10'-2 11/16"	102'-3"	101,841	87	87	16	87	3	1	19'-2"
	B88 THRU B96	9	92'-9 1/2"	10"	9"	7	1'-0"	6'-0"	1'-6"	51	76'-4 1/2"	42'-5 5/8"	9'-5 1/4"	94'-4 1/2"	93,998	82	82	16	82	3	1	11'-4"

NOTES:

1. FOR SECTION AT BEAM ENDS AND AT MIDSPAN, SEE SHEET 30/55.
2. FOR NUMBER OF STRANDS PER ROW, SEE SHEET 30/55.
3. FOR DETAILS NOT SHOWN, REFER TO O.D.O.T. STANDARD DRAWING PISD-1-99.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/30/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

BEAM DETAILS (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

29/55

264/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:28 PM
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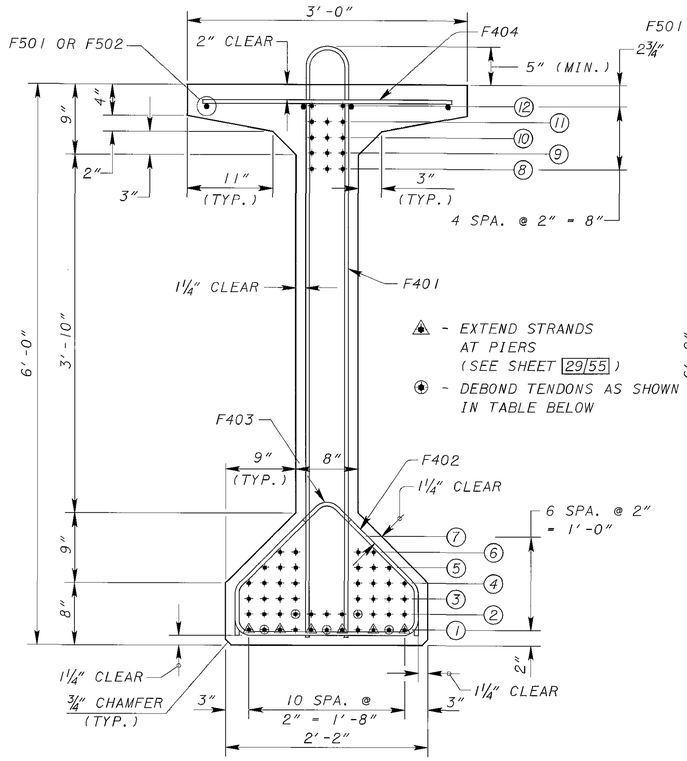
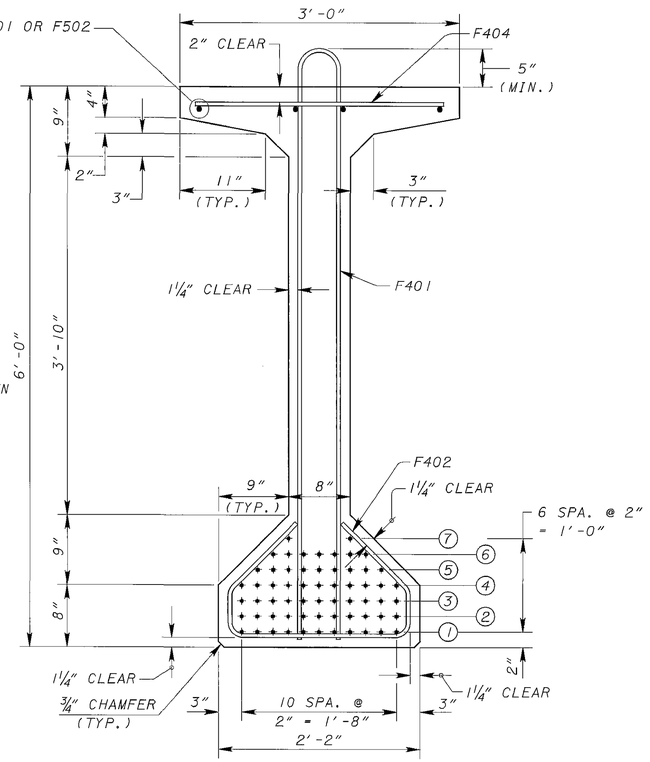
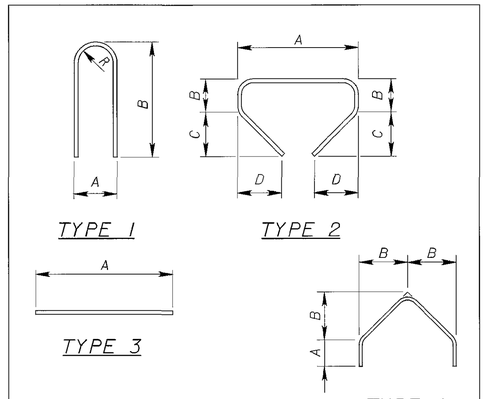


MODIFIED AASHTO TYPE 4 (72")
(AT BEAM ENDS)



MODIFIED AASHTO TYPE 4 (72")
(AT MID-SPAN)



BENDING DIAGRAMS
(ALL DIMENSIONS ARE OUT-TO-OUT)

MARK	TYPE	DIMENSIONS				
		A	B	C	D	R
F401	1	5½"	6'-4"			2¼"
F402	2	1'-11½"	6¼"	8½"	8½"	
F403	4	6¼"	11¾"			
F404	3	2'-8"				
F501	3	30'-0"				
F502	3	*				

* - SEE TABLE OF BEAM DIMENSIONS AND REINFORCEMENT FOR BAR LENGTH, SHEET 29/55

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST LETTER IDENTIFIES THE BAR LOCATION, THE NEXT DIGIT INDICATES THE INCH-POUND BAR SIZE AND THE REMAINING DIGITS ITS SEQUENCE NUMBER. ALL STEEL SHALL BE EPOXY COATED.

NUMBER OF STRANDS PER ROW

	SPAN	BEAM NUMBER	END OF BEAM: ROW NUMBER (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	TOTAL NUMBER OF STRANDS	DEBONDING: LENGTH	DEBONDING: NUMBER	MIDSPAN: ROW NUMBER (1)	(2)	(3)	(4)	(5)	(6)	(7)	TOTAL NUMBER OF STRANDS	CONCRETE STRENGTH (PSI): f'ci	f'c
LEFT BRIDGE	1	B1 THRU B5	11	11	8	8	6	4	2	3	3	3	3	3	65	18'-0"	5	11	11	11	11	9	7	5	65	5000	7000
	1	B6 THRU B12	11	11	8	8	6	-	-	3	3	3	3	2	58	18'-0"	5	11	11	11	11	9	3	2	58	5000	7000
	2	B13 THRU B15	11	11	8	8	6	4	2	3	3	3	3	3	65	18'-0"	5	11	11	11	11	9	7	5	65	5000	7000
	2	B16 THRU B22	11	11	8	8	6	-	-	3	3	3	3	2	58	18'-0"	5	11	11	11	11	9	3	2	58	5000	7000
	3	B23 THRU B31	11	8	4	-	-	-	-	-	-	-	3	3	29	-	-	11	11	7	-	-	-	-	29	5000	7000
	4	B32 THRU B40	11	8	4	-	-	-	-	-	-	-	3	3	29	-	-	11	11	7	-	-	-	-	29	5000	7000
	5	B41 THRU B49	11	11	-	-	-	-	-	-	-	-	-	3	25	-	-	11	11	3	-	-	-	-	25	5000	7000
RIGHT BRIDGE	1	B50 THRU B59	11	11	8	8	6	-	-	3	3	3	3	2	58	18'-0"	5	11	11	11	11	9	3	2	58	5000	7000
	2	B60 THRU B66	11	11	8	8	6	-	-	3	3	3	3	2	58	18'-0"	5	11	11	11	11	9	3	2	58	5000	7000
	2	B67 THRU B69	11	8	8	8	-	-	-	-	3	3	3	3	47	-	-	11	11	11	11	3	-	-	47	5000	7000
	3	B70 THRU B78	11	8	4	-	-	-	-	-	-	-	3	3	29	-	-	11	11	7	-	-	-	-	29	5000	7000
	4	B79 THRU B87	11	8	4	-	-	-	-	-	-	-	3	3	29	-	-	11	11	7	-	-	-	-	29	5000	7000
	5	B88 THRU B96	11	11	-	-	-	-	-	-	-	-	-	3	25	-	-	11	11	3	-	-	-	-	25	5000	7000

NOTES:

1. FOR BEAM ELEVATION AND BEAM DIMENSIONS, SEE SHEET 29/55.
2. BEAM AGE AT PLACEMENT OF PIER DIAPHRAGMS SHALL BE A MINIMUM OF 90 DAYS.
3. INITIAL PRESTRESSING LOAD PER STRAND = 33,318 LBS
4. SHIPPING STRANDS: THE FABRICATOR MAY ADD SHIPPING STRANDS AT THE LOCATIONS SHOWN ON SHEET 1 OF 8 OF ODOT STANDARD DRAWING PSID 1-99. THESE SHIPPING STRANDS OR ANY ADDITIONAL SHIPPING STRANDS SHALL BE DEBONDED FOR THE ENTIRE LENGTH OF THE BEAM EXCEPT FOR THE LAST 10'-0" AT EACH END. THE STRANDS SHALL BE CUT AFTER HANDLING OPERATIONS ARE COMPLETE.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE - SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/30/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

BEAM DETAILS (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

30/55

265/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:28 PM
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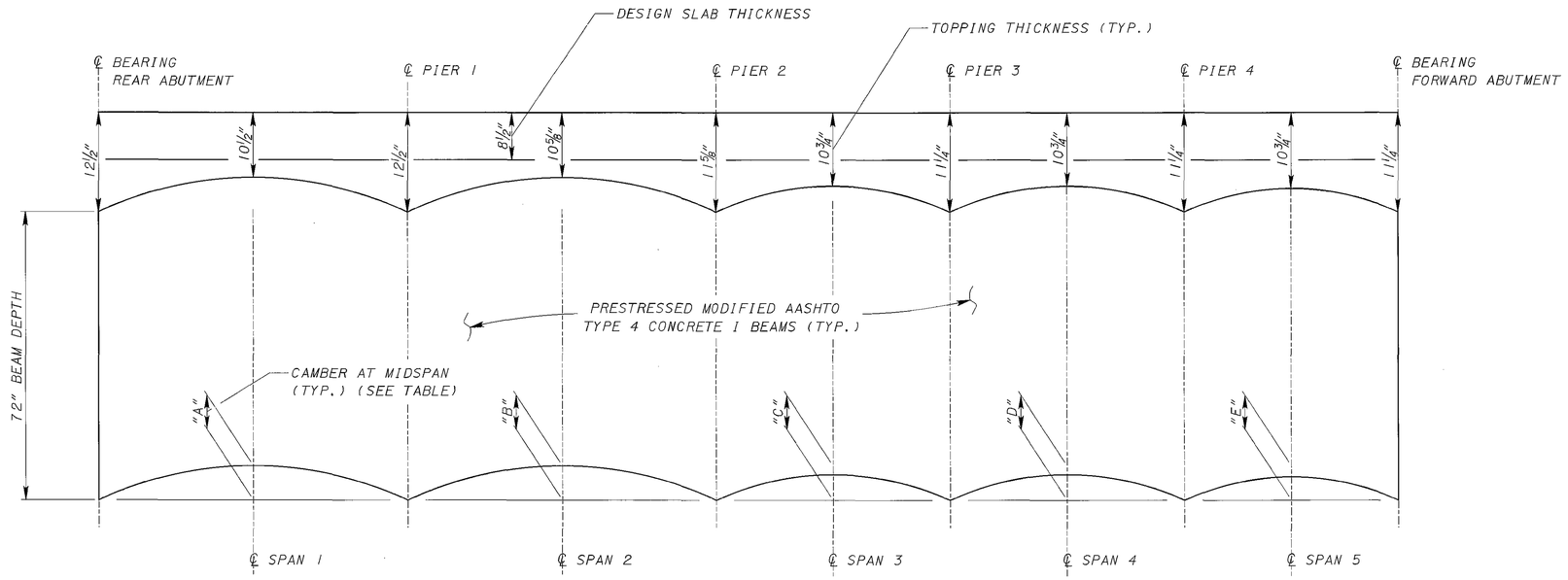

BEAM CAMBER AND DECK THICKNESS DIAGRAM

BEAM CAMBERS AT MIDSPAN

	SPAN 1 "A"			SPAN 2 "B"				SPAN 3 "C"		SPAN 4 "D"		SPAN 5 "E"	
	(B1) THRU (B5)	(B6) THRU (B12)	(B50) THRU (B59)	(B13) THRU (B15)	(B16) THRU (B22)	(B60) THRU (B66)	(B67) THRU (B69)	(B23) THRU (B31)	(B70) THRU (B78)	(B32) THRU (B40)	(B79) THRU (B87)	(B41) THRU (B49)	(B88) THRU (B96)
CAMBER AT TIME OF RELEASE DUE TO PRESTRESSING	5 15/16"	5 9/16"	5 3/8"	5 3/4"	5 7/16"	5 7/16"	4 9/16"	1 13/16"	1 13/16"	1 13/16"	1 13/16"	1 7/16"	1 7/16"
DEFLECTION DUE TO SELF WEIGHT	2 15/16"	2 15/16"	2 15/16"	2 7/8"	2 13/16"	2 13/16"	2 13/16"	15/16"	15/16"	15/16"	15/16"	11/16"	11/16"
CAMBER AT TIME OF RELEASE (NET)	3"	2 5/8"	2 7/16"	2 7/8"	2 5/8"	2 5/8"	1 11/16"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
CAMBER AT TIME OF ERECTION	5 1/4"	4 9/16"	4 1/4"	5 1/16"	4 9/16"	4 9/16"	2 15/16"	1 9/16"	1 9/16"	1 9/16"	1 9/16"	1 5/16"	1 5/16"
LONG TERM CAMBER	7 1/2"	6 9/16"	6 1/8"	7 1/4"	6 9/16"	6 9/16"	4 5/16"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	1 7/8"	1 7/8"

NOTES:

1. DECK SLAB THICKNESS FOR CONCRETE QUANTITIY:
   THE TOPPING THICKNESSES SHOWN FROM THE TOP OF THE DECK SLAB TO THE TOP OF THE TOP FLANGE ALONG THE CENTERLINE OF THE I-BEAM ARE THEORETICAL DIMENSIONS. THE HAUNCH DEPTH IS THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. THE DEPARTMENT WILL PAY FOR SUPERSTRUCTURE CONCRETE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE THEORETICAL HAUNCH DEPTHS AT MID-SPAN AND AT EACH BEAM BEARING EVEN THOUGH THE DEVIATION FROM THE DIMENSIONS SHOWN MAY BE NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ONCE ALL THE BEAMS ARE SET IN THEIR FINAL POSITION, THE ACTUAL CAMBER FOR EACH MEMBER WILL BE THE TOP OF THE BEAM ELEVATION AT MID-SPAN MINUS THE AVERAGE TOP OF BEAM ELEVATION AT EACH BEARING. THE ACTUAL TOPPING THICKNESS AT MID-SPAN WILL BE THE THEROETICAL DIMESION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.
2. FOR SCREED ELEVATIONS, SEE SHEETS 40/55 THRU 46/55.
3. FOR BEAM DETAILS, SEE SHEETS 29/55 AND 30/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

BEAM CAMBER AND DECK THICKNESS
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: eamack Date: 7/27/2007 Time: 3:42:32 PM
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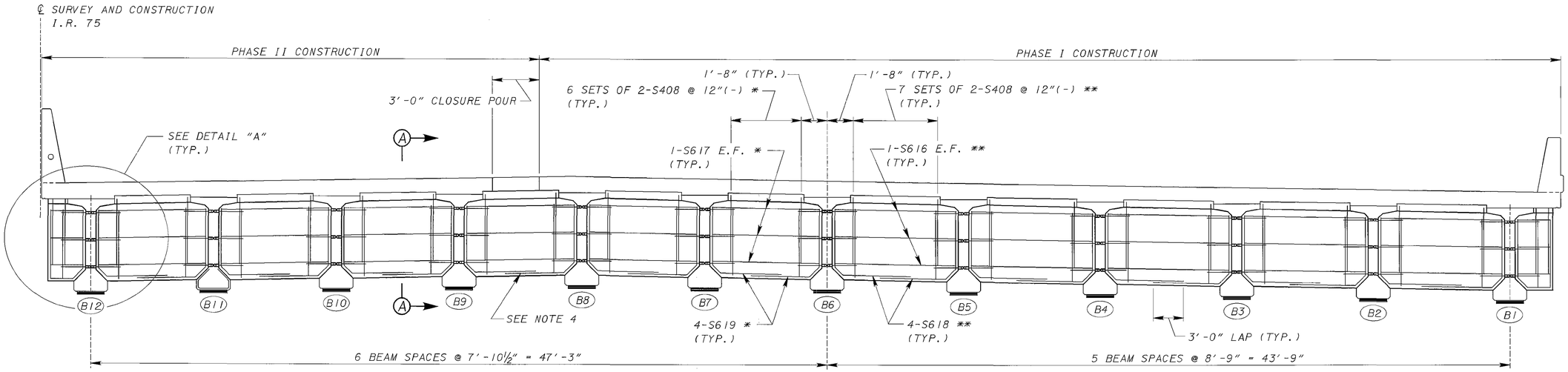
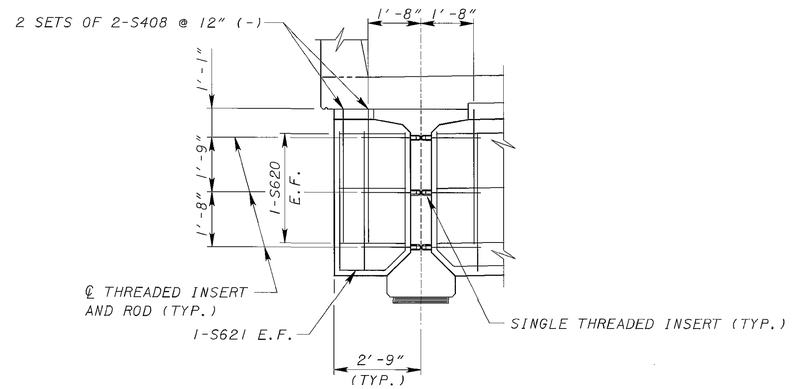
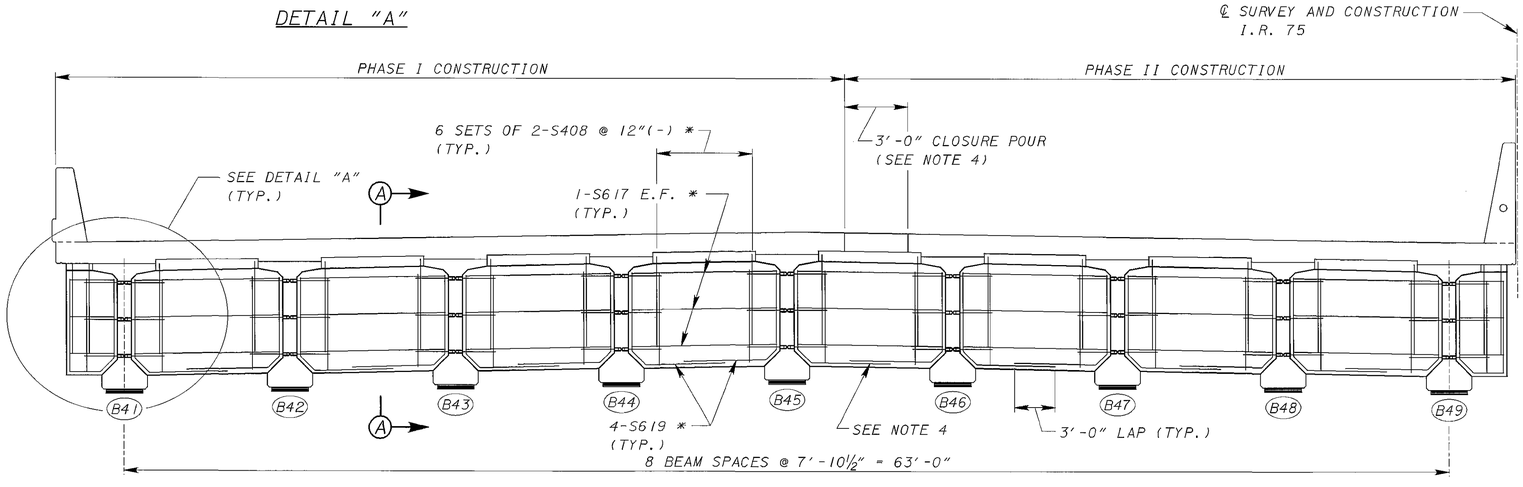


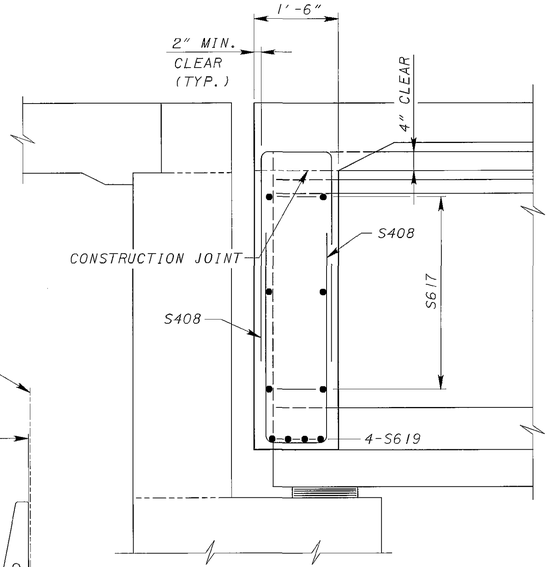
ELEVATION
REAR ABUTMENT



DETAIL "A"



ELEVATION
FORWARD ABUTMENT



SECTION A-A
(EXPANSION JOINT NOT SHOWN)

LEGEND:

* - TYPICAL BETWEEN BEAMS (B6) THRU (B12) AND BEAMS (B41) THRU (B49)

** - TYPICAL BETWEEN BEAMS (B1) THRU (B6)

(BXX) - BEAM NUMBER

E.F. - EACH FACE

NOTES:

1. FOR BEAM SPACING SEE FRAMING PLAN, SHEET 27/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
3. FOR DETAILS NOT SHOWN, REFER TO ODOT STANDARD DRAWING PISD-1-99.
4. DIAPHRAGMS AT CLOSURE POUR TO BE CAST DURING PHASE II CONSTRUCTION.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

END DIAPHRAGM DETAILS - LEFT BRIDGE

BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

32/55

267/314

Plotted By: ecmack Date: 7/21/2007 Time: 3:42:26 PM
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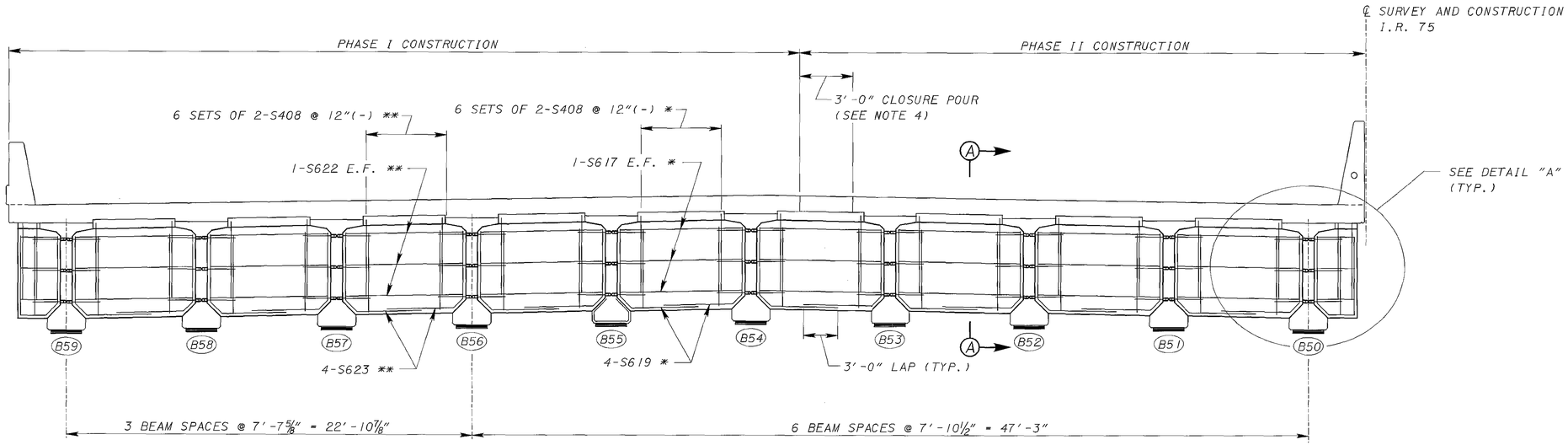
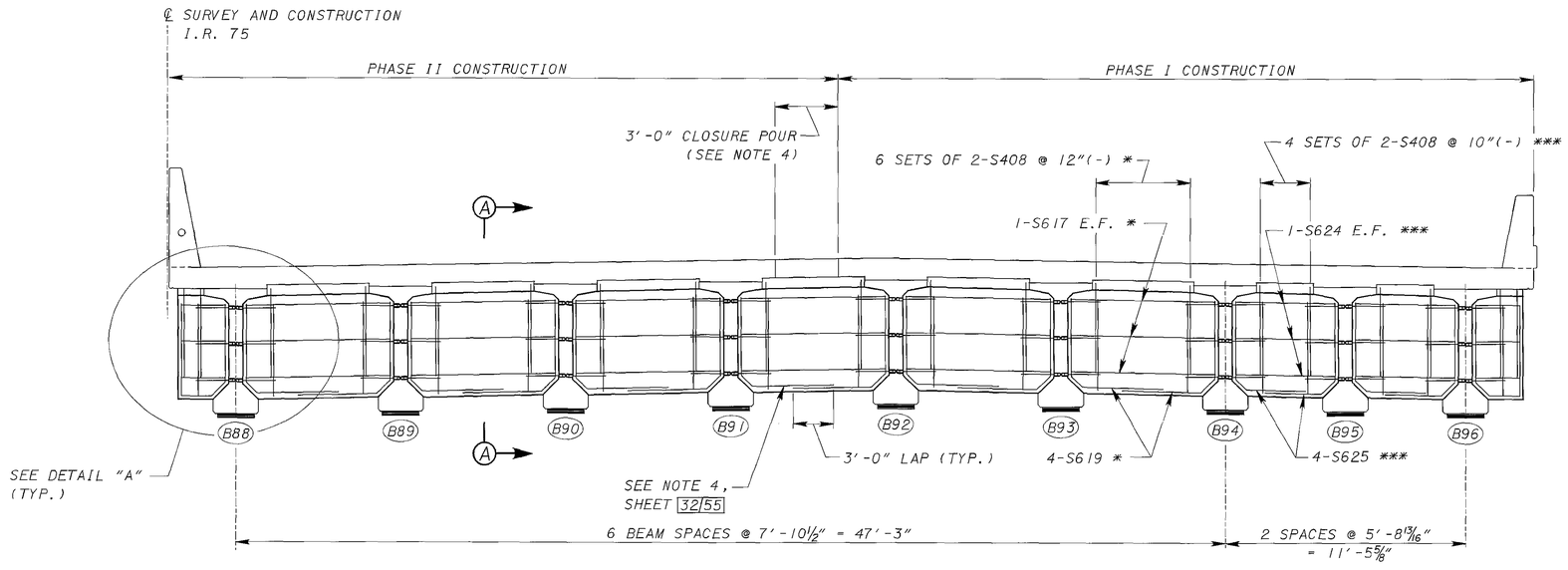


ELEVATION
REAR ABUTMENT



ELEVATION
FORWARD ABUTMENT

LEGEND:

* - TYPICAL BETWEEN BEAMS (B50) THRU (B56) AND BEAMS (B88) THRU (B94)

** - TYPICAL BETWEEN BEAMS (B56) THRU (B59)

*** - TYPICAL BETWEEN BEAMS (B94) THRU (B96)

(BXX) - BEAM NUMBER

NOTES:

1. FOR BEAM SPACING SEE FRAMING PLAN SHEET 32/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 32/55.
3. FOR DETAILS NOT SHOWN, REFER TO STANDARD DRAWING PSID-1-99.
4. DIAPHRAGMS AT CLOSURE POUR TO BE CAST DURING PHASE II CONSTRUCTION
5. FOR SECTION A-A AND DETAIL A, SEE SHEET 32/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	5/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

END DIAPHRAGM DETAILS - RIGHT BRIDGE
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

33/55

268/314

Plotted By: emack Date: 7/27/2007 Time: 3:42:27 PM
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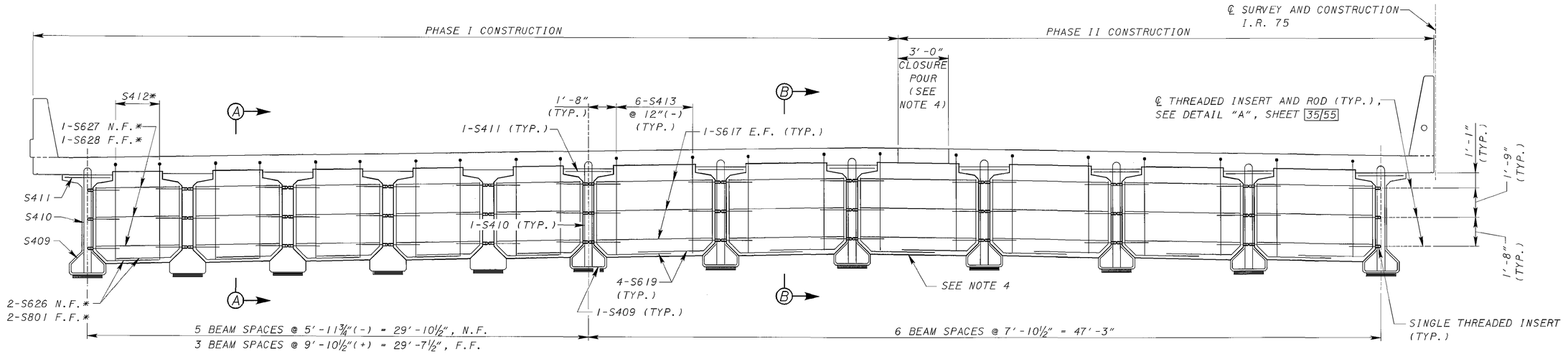
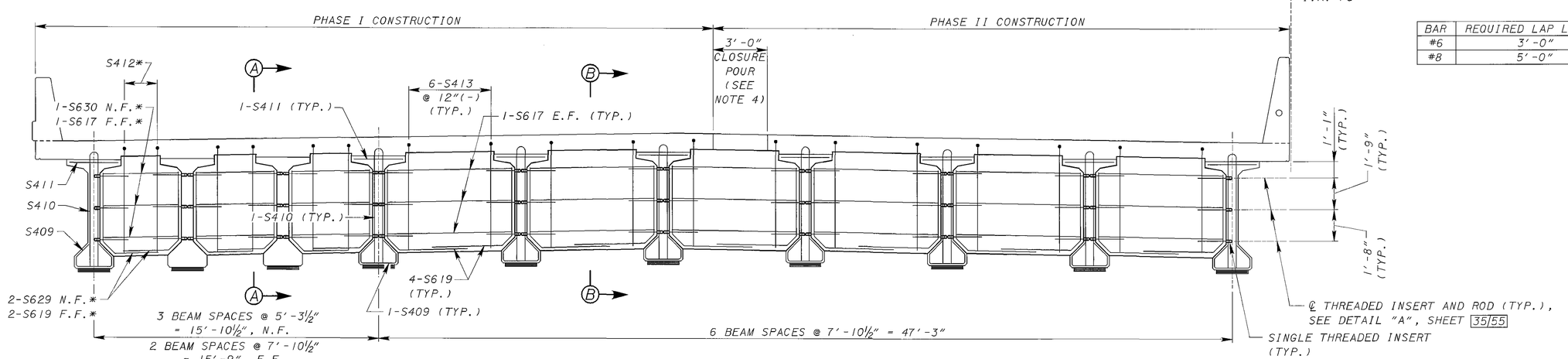


* - FOR PLACEMENT OF REINFORCING STEEL WITHIN VARIABLE SPACED DIAPHRAGMS, SEE PARTIAL PLAN, SHEET 35/55

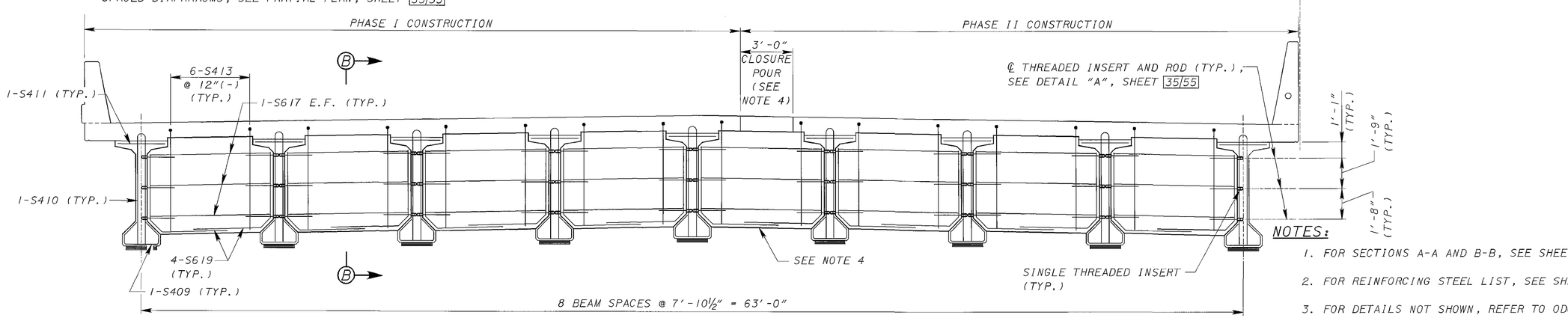
ELEVATION - PIER 1



BAR	REQUIRED LAP LENGTH
#6	3'-0"
#8	5'-0"

ELEVATION - PIER 2

* - FOR PLACEMENT OF REINFORCING STEEL WITHIN VARIABLE SPACED DIAPHRAGMS, SEE PARTIAL PLAN, SHEET 35/55



ELEVATION - PIERS 3 AND 4

NOTES:

1. FOR SECTIONS A-A AND B-B, SEE SHEET 35/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
3. FOR DETAILS NOT SHOWN, REFER TO ODOT STANDARD DRAWING PISD-1-99.
4. DIAPHRAGMS AT CLOSURE POUR TO BE CAST DURING PHASE II CONSTRUCTION.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2000, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

PIER DIAPHRAGM DETAILS - LEFT BRIDGE

BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

34/55

269/314

Plotted By: eamack Date: 7/27/2007 Time: 3:42:22 PM
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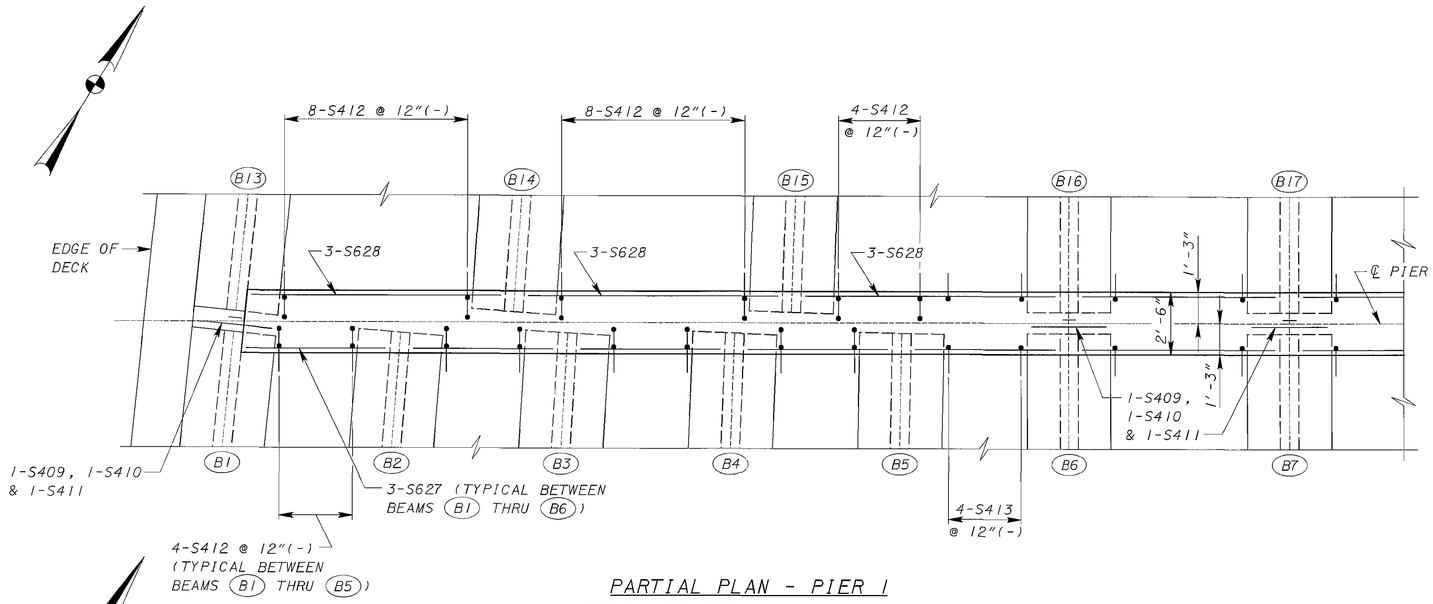
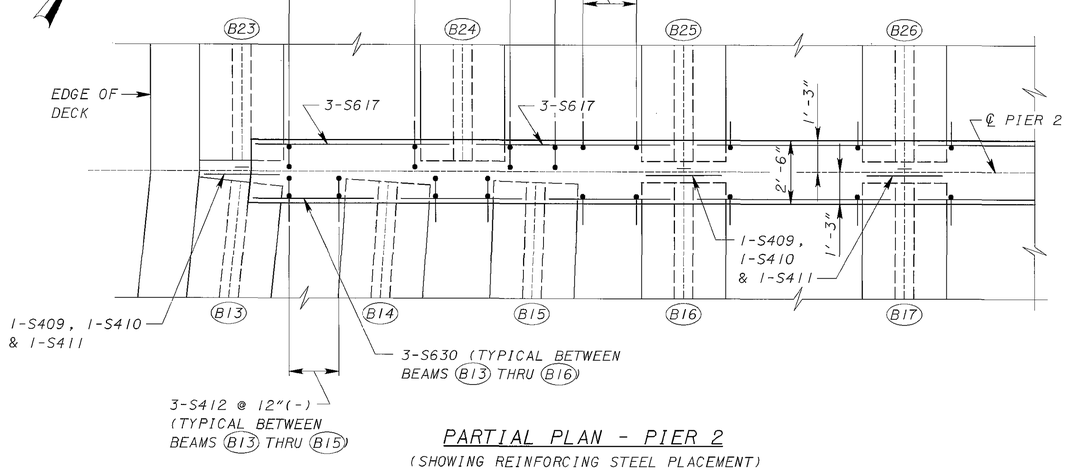


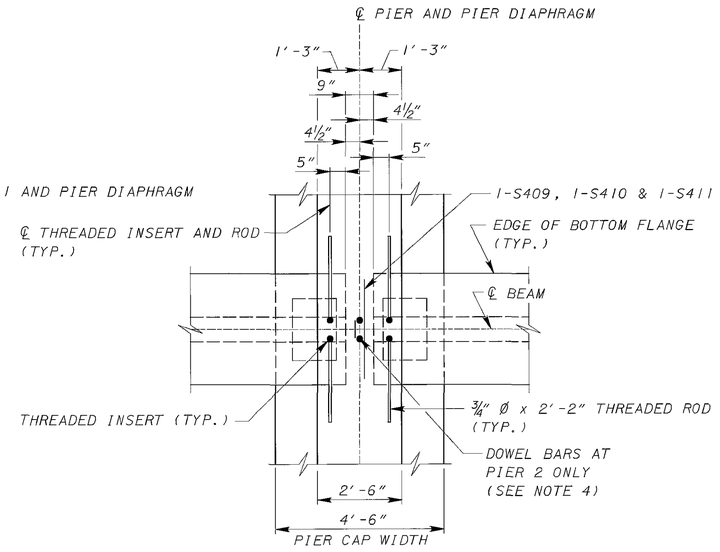
PARTIAL PLAN - PIER 1

(SHOWING REINFORCING STEEL PLACEMENT)

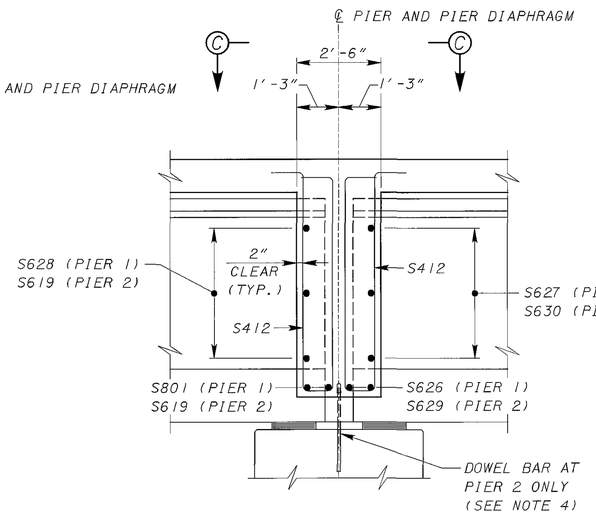


PARTIAL PLAN - PIER 2

(SHOWING REINFORCING STEEL PLACEMENT)

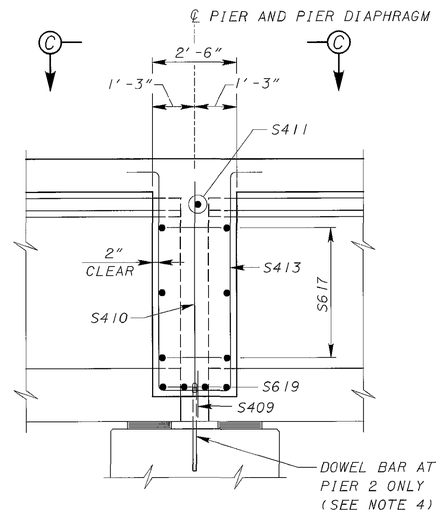


VIEW C-C



SECTION A-A

(PIERS 1 & 2 ONLY)



SECTION B-B

NOTES:

1. FOR PIER DIAPHRAGM ELEVATIONS, SHEET 34/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
3. FOR DETAILS NOT SHOWN, REFER TO ODOT STANDARD DRAWING PISD-1-99.
4. FOR DOWEL BAR DETAILS, SEE BEARING DETAILS SHEET 49/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

PIER DIAPHRAGM DETAILS - LEFT BRIDGE
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

35/55

270/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:23 PM
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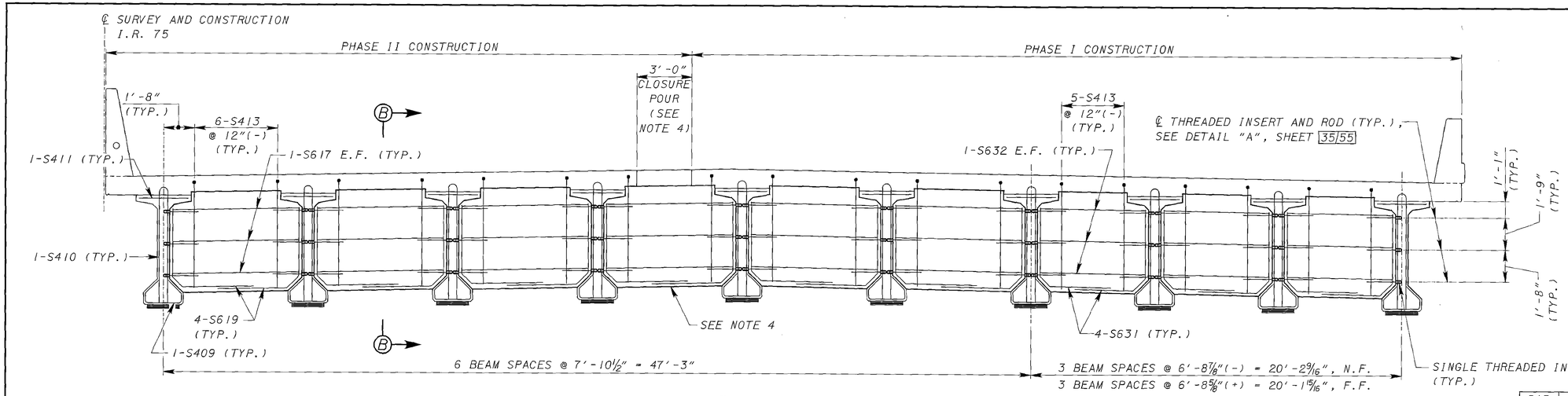
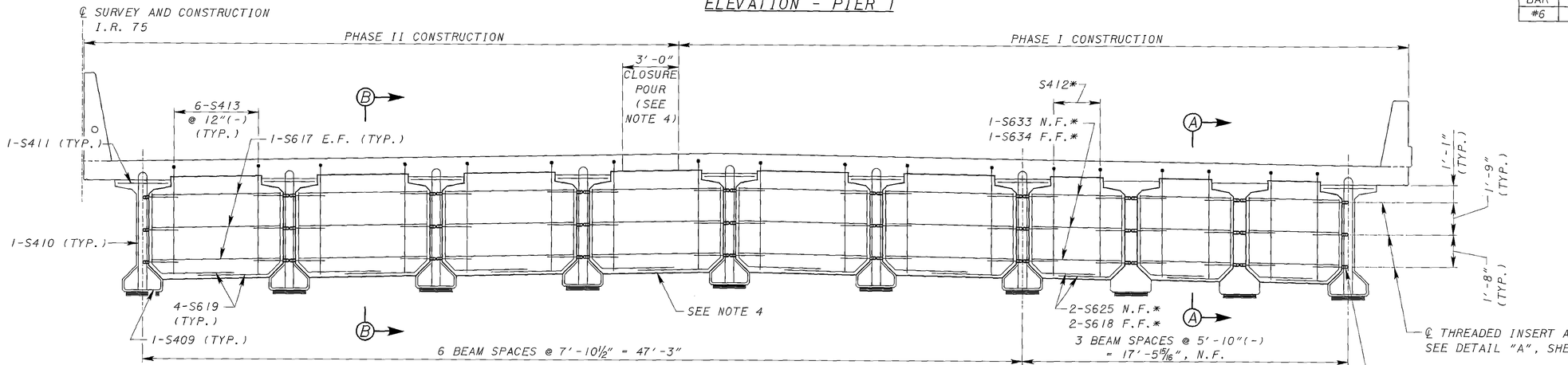


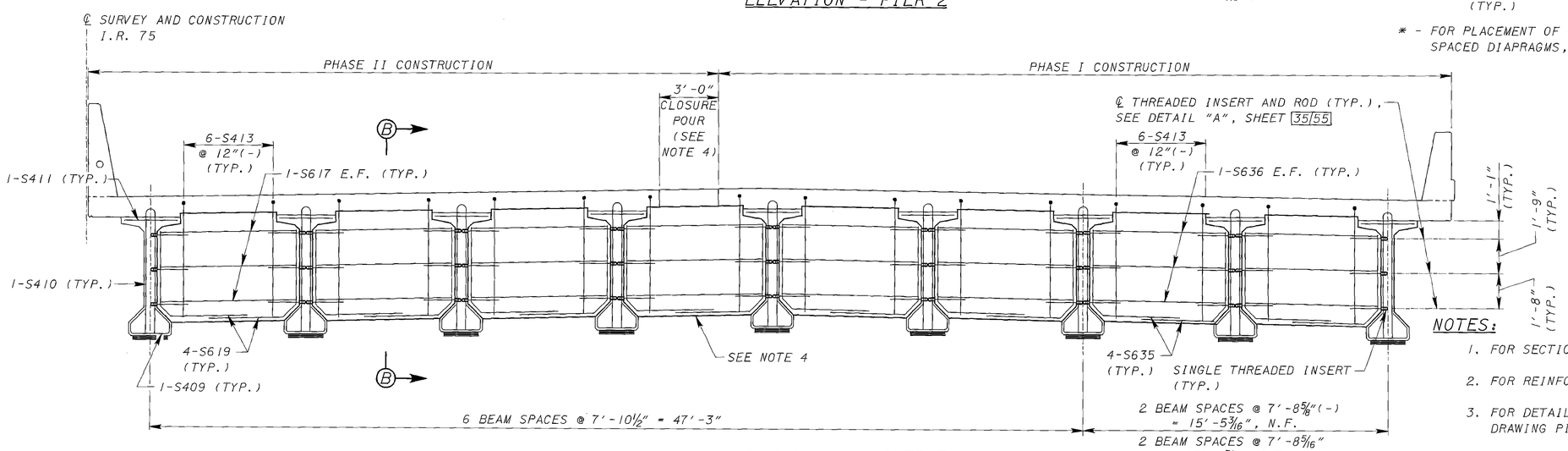
ELEVATION - PIER 1

BAR	REQUIRED LAP LENGTH
#6	3'-0"



ELEVATION - PIER 2

* - FOR PLACEMENT OF REINFORCING STEEL WITHIN VARIABLE SPACED DIAPRAGMS, SEE PARTIAL PLAN, SHEET 37/55



ELEVATION - PIER 3

NOTES:

1. FOR SECTIONS A-A AND B-B, SEE SHEET 37/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
3. FOR DETAILS NOT SHOWN, REFER TO ODOT STANDARD DRAWING PISD-1-99.
4. DIAPHRAGMS AT CLOSURE POUR TO BE CAST DURING PHASE II CONSTRUCTION.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

REVIEWED	DATE
RER	05/27/05
STRUCTURE FILE NUMBER	
57087.10	
DRAWN	REVISED
CAG	
DESIGNED	CHECKED
JDH	NFF

PIER DIAPHRAGM DETAILS - RIGHT BRIDGE
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

36/55

271/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:24 PM
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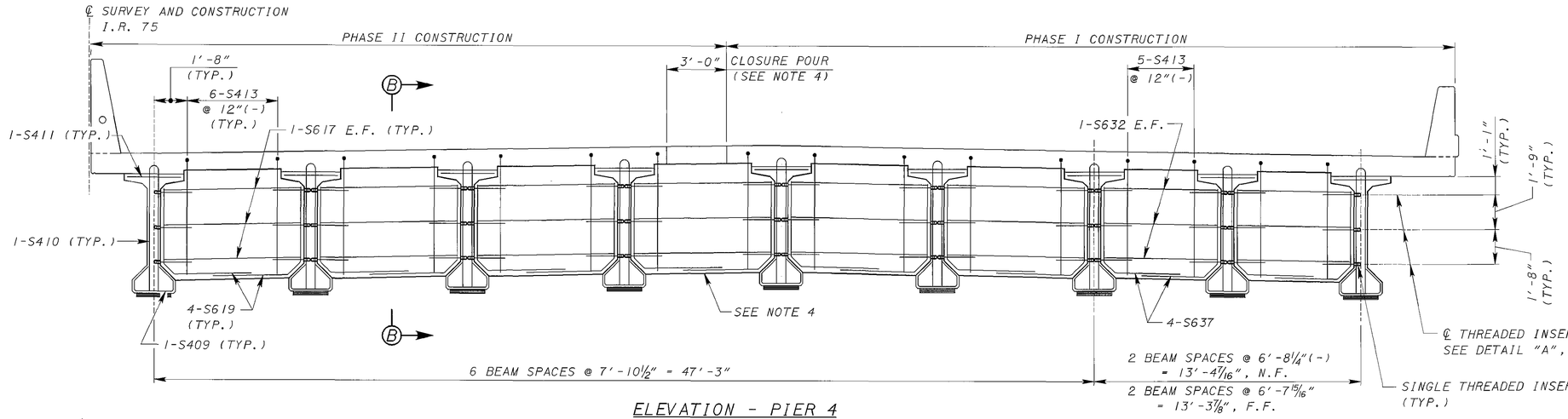
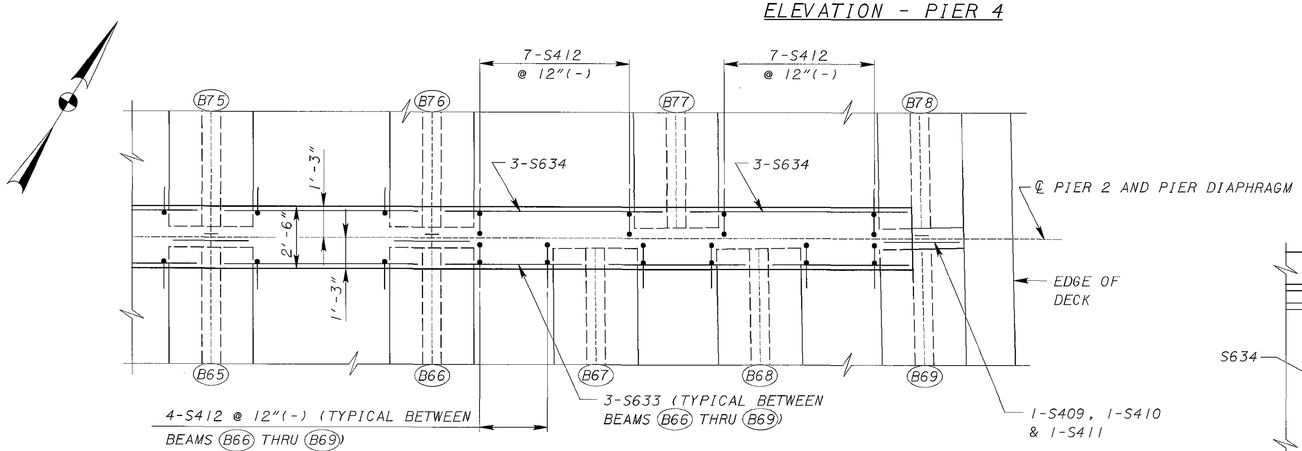


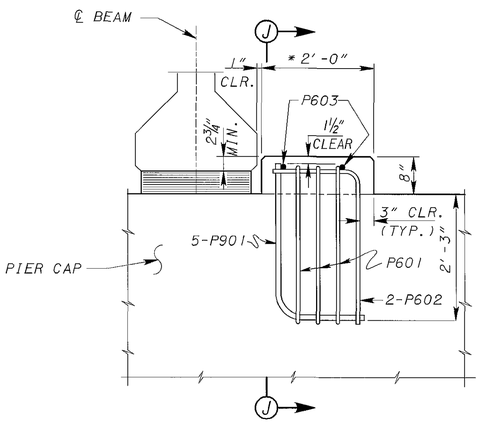
BAR	REQUIRED LAP LENGTH
#6	3'-0"

ELEVATION - PIER 4



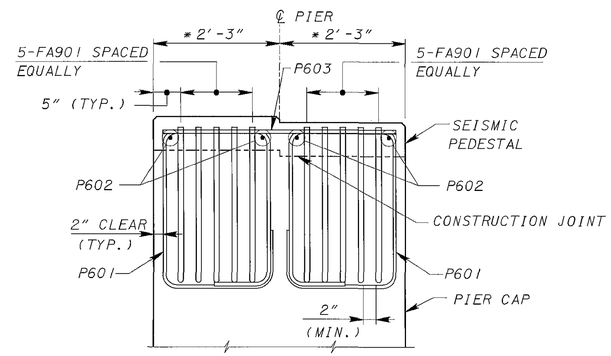
PARTIAL PLAN - PIER 2

(SHOWING REINFORCING STEEL PLACEMENT)



FRONT VIEW OF SEISMIC PEDESTAL AT PIER

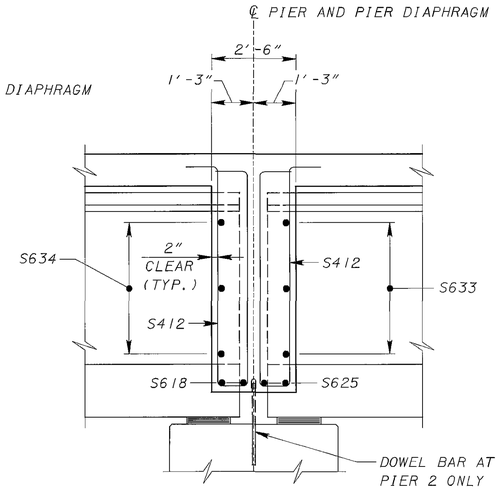
THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE FA901 AND FA602 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE FA601 AND FA603 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION J-J

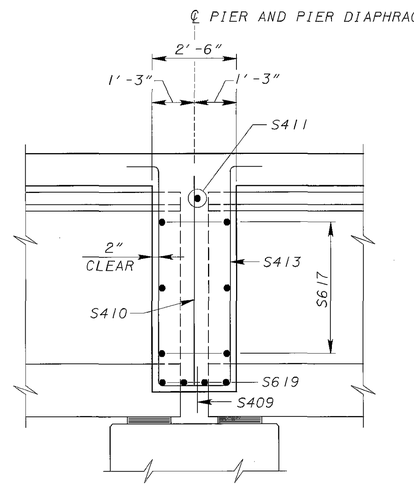
THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE FA901 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.



SECTION A-A

(PIER 2 ONLY)



SECTION B-B

NOTES:

1. FOR PIER DIAPHRAGM ELEVATIONS, SHEET 36/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
3. FOR DETAILS NOT SHOWN, REFER TO ODOT STANDARD DRAWING PISD-1-99.
4. DIAPHRAGMS AT CLOSURE POUR TO BE CAST DURING PHASE II CONSTRUCTION.
5. FOR DOWEL BAR DETAILS, SEE BEARING DETAILS SHEET 49/55.
6. FOR PIER DETAILS SEE SHEETS 22-25/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

PIER DIAPHRAGM DETAILS - RIGHT BRIDGE
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

37/55

272/314

Plotted By: eomack Date: 7/27/2007 Time: 3:42:25 PM
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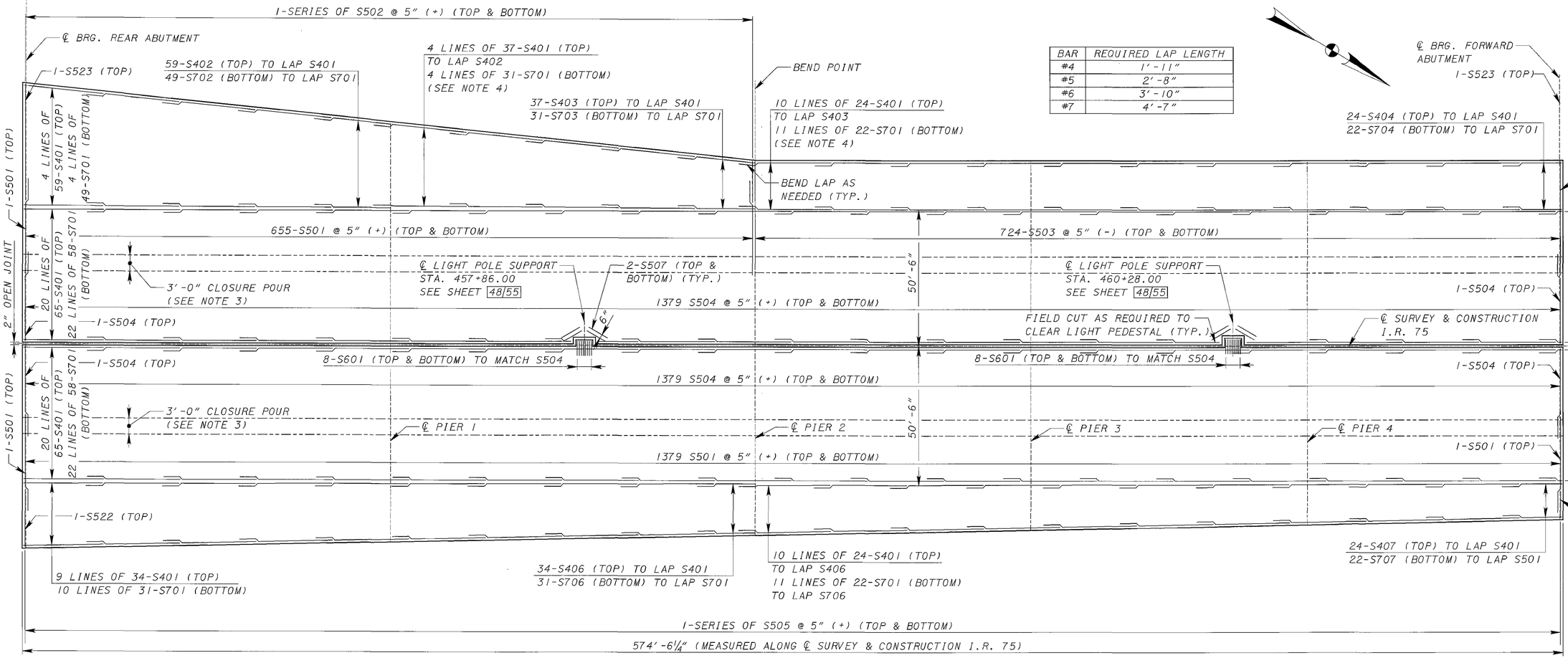
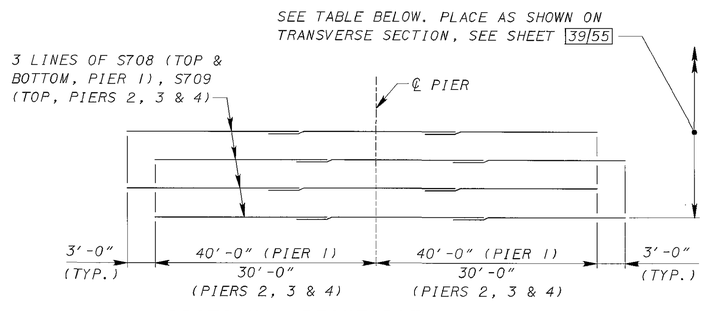
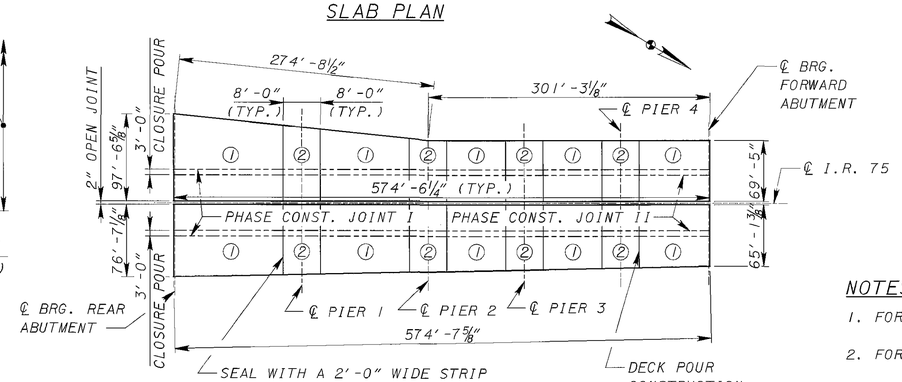




ADDITIONAL REINFORCEMENT OVER PIERS

NO. OF LINES OF ADDITIONAL REINFORCEMENT			
PIER	BRIDGE	TOP LAYER	BOTTOM LAYER
1	LEFT	123	94
	RIGHT	98	78
2	LEFT	101	-
	RIGHT	98	-
3	LEFT	88	-
	RIGHT	88	-
4	LEFT	88	-
	RIGHT	88	-

SLAB PLAN



DECK POURING SEQUENCE *

① POUR 1 - DECK POUR TO BE COMPLETED FIRST.
② POUR 2 - DECK AND PIER DIAPHRAGM POUR TO BE PLACED MONOLITHICALLY AFTER ADJACENT DECK POURS.

* END DIAPHRAGMS TO BE PLACED BEFORE ADJACENT DECK POURS.

NOTES:

1. FOR PARAPET DETAILS, SEE SHEETS 47/55 AND 48/55.
2. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
3. PLACE LONGITUDINAL REINFORCING STEEL ON EITHER SIDE OF CLOSURE POUR TO PROVIDE 2" CLEARANCE TO REINFORCEMENT DURING ALL CONSTRUCTION PHASES.
4. AT PIERS 1 & 2 IN THE TAPERED SPANS, LAP A LIMITED NUMBER OF BOTTOM LONGITUDINAL REINFORCING BARS. THE NUMBER OF LAPS SHALL MATCH THE NUMBER OF BARS IN ADJACENT SPAN.
5. FOR ADDITIONAL DECK POUR NOTES, SEE ODOT STANDARD DRAWING PSID-1-99.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	MLR	NFF	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

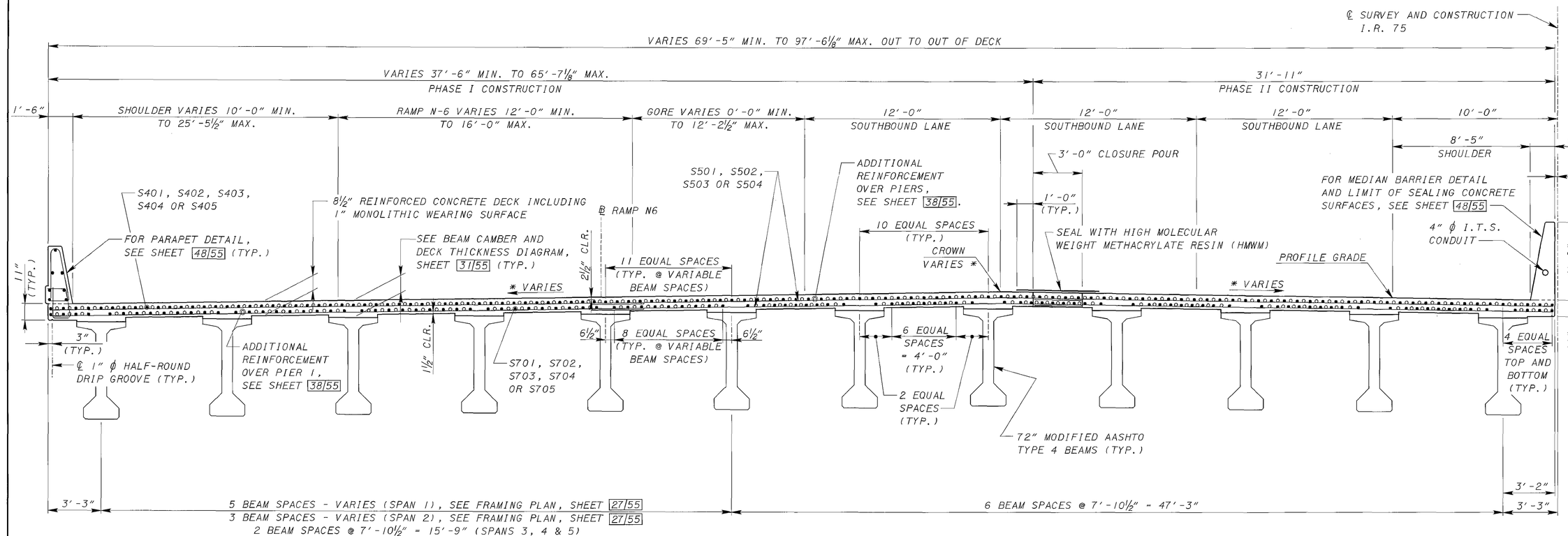
SLAB PLAN
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

38/55

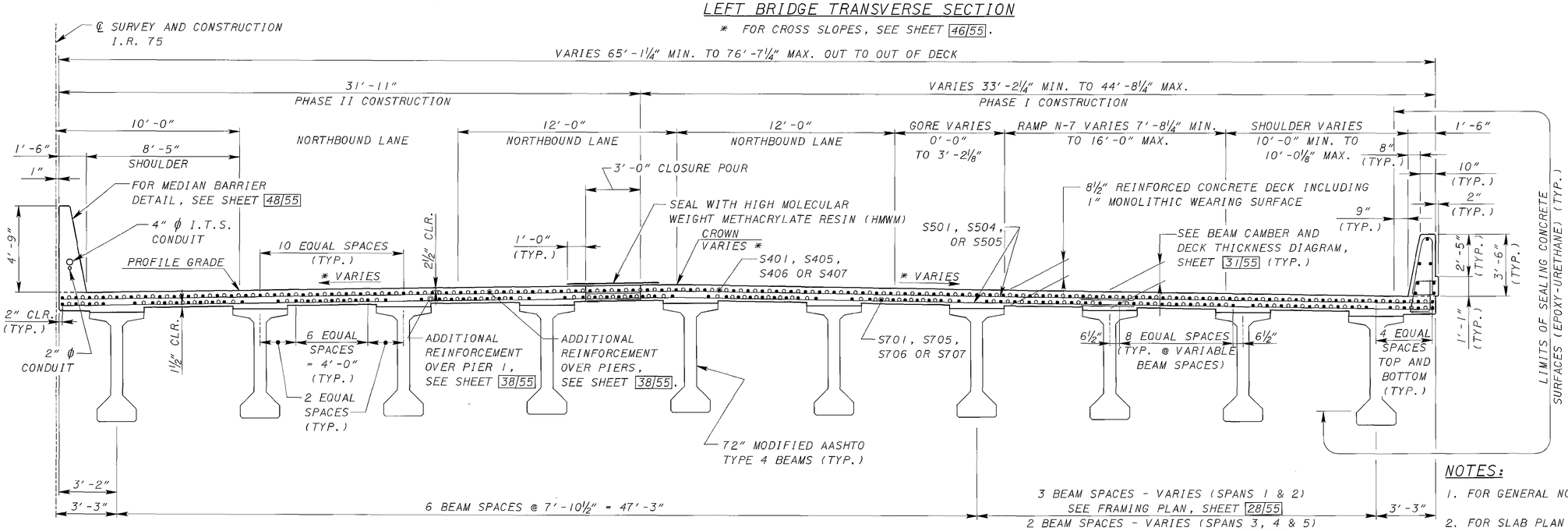
273/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:33 PM
Filename: g:\co04\0066\bridge\concrete_alt\cadd\23828sd2i.dgn



LEFT BRIDGE TRANSVERSE SECTION

* FOR CROSS SLOPES, SEE SHEET 46/55.



RIGHT BRIDGE TRANSVERSE SECTION

* FOR CROSS SLOPES, SEE SHEET 46/55.

LEGEND:

* - SEE SHEET 46/55

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3/55.
2. FOR SLAB PLAN, SEE SHEET 38/55.
3. COST OF THE 4" ϕ I.T.S. CONDUITS AND 2" ϕ CONDUIT SHALL BE INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSQC, SUPERSTRUCTURE (PARAPET)

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 2900
CLEVELAND, OHIO 44113-1920

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	NFF	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

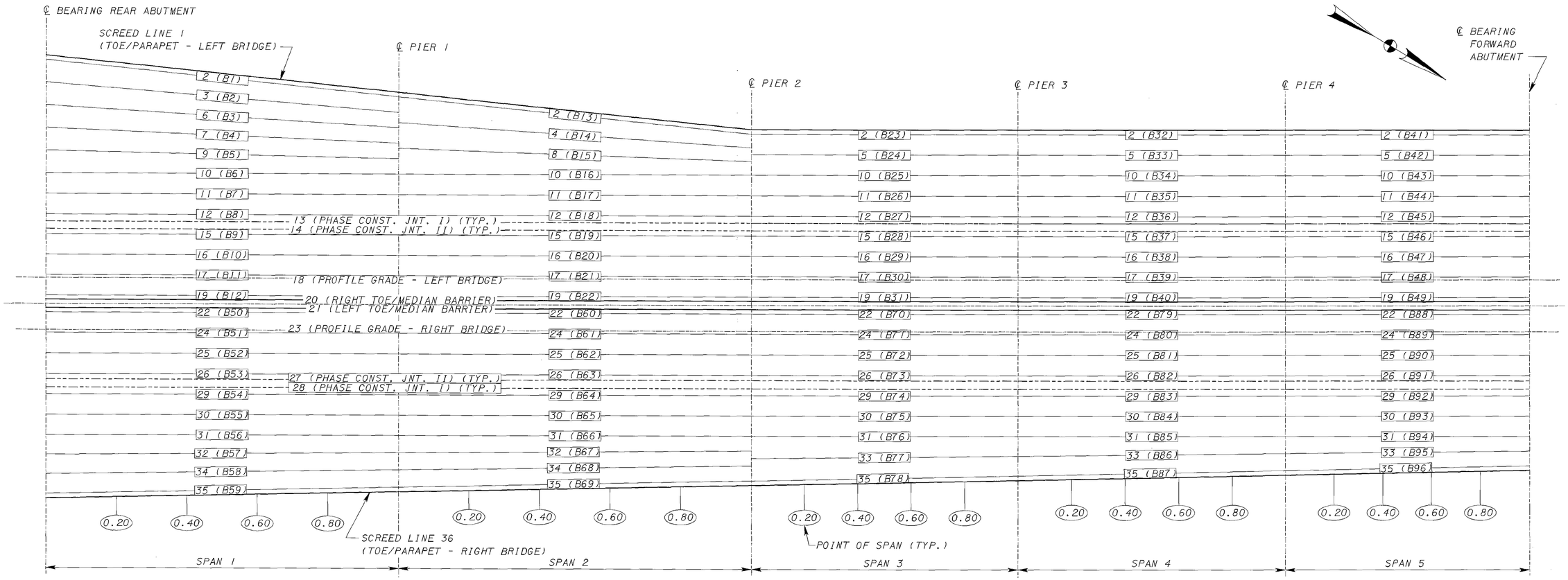
TRANSVERSE SECTION
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

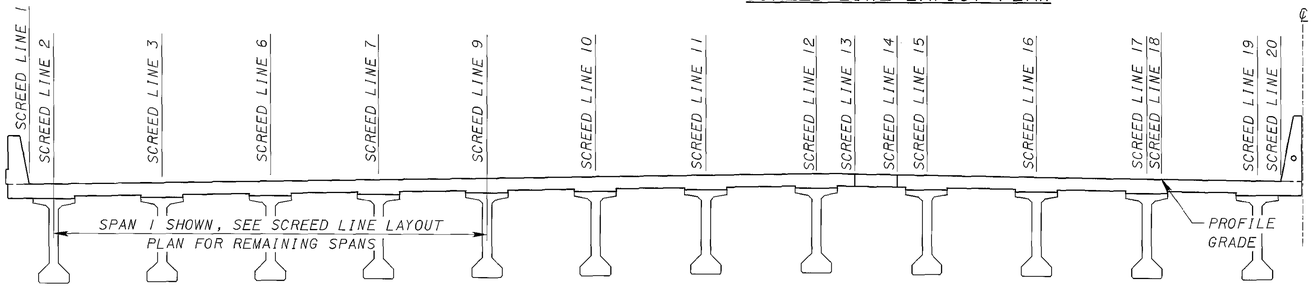
39/55

274/314

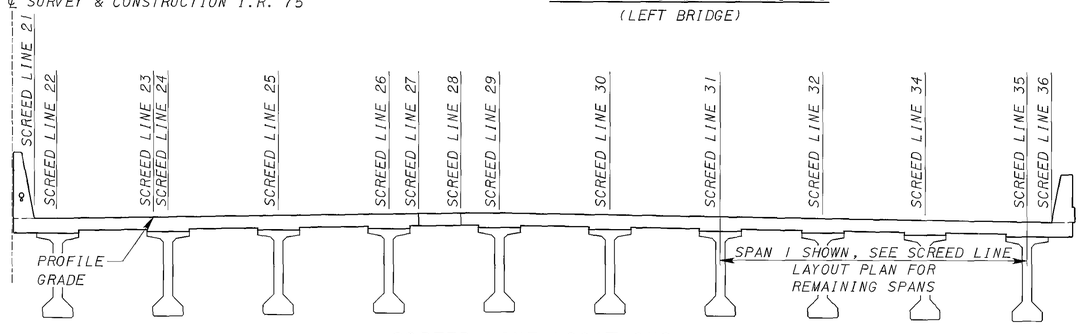
Plotted By: ecmack Date: 7/27/2007 Time: 3:42:38 PM
Filename: g:\co04\0066\bridge\concrete.dir\cadd\23828ts01.dgn



SCREED LINE LAYOUT PLAN



SCREED LINE LOCATIONS
(LEFT BRIDGE)



SCREED LINE LOCATIONS
(RIGHT BRIDGE)

NOTES:

SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1800
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	NFF	05/27/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		570871O	

SCREED ELEVATIONS
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:29 PM
Filename: g:\co04\0066\bridge\concrete.alt\cadd\23828sdl3.dgn

SCREED ELEVATIONS - LEFT BRIDGE SPANS 1 AND 2

LOCATION		℄ BEARING REAR ABUT.	0.2	0.4	0.5	0.6	0.8	℄ PIER 1	0.2	0.4	0.5	0.6	0.8	℄ PIER 2
SCREED LINE	STATION	455+77.61	456+04.81	456+32.01	456+45.61	456+59.21	456+86.41	457+13.61	457+40.81	457+68.01	457+81.61	457+95.21	458+22.41	458+49.61
LINE 1 TOE OF PARAPET (LEFT)	FINAL DECK ELEVATION	764.89	765.55	766.26	766.64	767.03	767.87	768.91	769.84	770.72	771.11	771.47	771.87	772.11
	SCREED ELEVATION	764.89	765.66	766.43	766.82	767.20	767.98	768.91	769.94	770.89	771.28	771.64	771.97	772.11
LINE 2	FINAL DECK ELEVATION	765.01	765.67	766.38	766.75	767.14	767.98	769.00	769.91	770.77	771.15	771.50	771.89	772.14
	SCREED ELEVATION	765.01	765.78	766.55	766.93	767.31	768.09	769.00	770.01	770.94	771.32	771.67	771.99	772.14
LINE 3	FINAL DECK ELEVATION	765.58	766.19	766.86	767.21	767.58	767.38	769.30	-	-	-	-	-	-
	SCREED ELEVATION	765.58	766.30	767.03	767.39	767.75	767.49	769.30	-	-	-	-	-	-
LINE 4	FINAL DECK ELEVATION	-	-	-	-	-	-	769.50	770.28	771.01	771.34	771.63	771.99	772.22
	SCREED ELEVATION	-	-	-	-	-	-	769.50	770.38	771.18	771.51	771.80	772.09	772.22
LINE 5	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	772.26
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	772.26
LINE 6	FINAL DECK ELEVATION	766.14	766.71	767.34	767.68	768.02	768.76	769.60	-	-	-	-	-	-
	SCREED ELEVATION	766.14	766.82	767.51	767.86	768.19	768.87	769.60	-	-	-	-	-	-
LINE 7	FINAL DECK ELEVATION	766.70	767.23	767.82	768.14	768.46	769.15	769.90	-	-	-	-	-	-
	SCREED ELEVATION	766.70	767.34	767.99	768.32	768.63	769.26	769.90	-	-	-	-	-	-
LINE 8	FINAL DECK ELEVATION	-	-	-	-	-	-	770.00	770.64	771.25	771.52	771.76	772.09	772.30
	SCREED ELEVATION	-	-	-	-	-	-	770.00	770.74	771.42	771.69	771.93	772.19	772.30
LINE 9	FINAL DECK ELEVATION	767.27	767.76	768.30	768.60	768.91	769.54	770.20	-	-	-	-	-	-
	SCREED ELEVATION	767.27	767.87	768.47	768.78	769.08	769.65	770.20	-	-	-	-	-	-
LINE 10	FINAL DECK ELEVATION	767.58	768.21	768.79	769.06	769.35	769.92	770.49	771.01	771.49	771.70	771.89	772.19	772.39
	SCREED ELEVATION	767.58	768.32	768.96	769.24	769.52	770.03	770.49	771.11	771.66	771.87	772.06	772.29	772.39
LINE 11	FINAL DECK ELEVATION	767.82	768.51	769.14	769.44	769.73	770.27	770.79	771.26	771.68	771.86	772.02	772.32	772.51
	SCREED ELEVATION	767.82	768.62	769.31	769.62	769.90	770.38	770.79	771.36	771.85	772.03	772.19	772.42	772.51
LINE 12	FINAL DECK ELEVATION	768.04	768.73	769.36	769.67	769.95	770.48	770.97	771.42	771.81	771.99	772.15	772.44	772.64
	SCREED ELEVATION	768.04	768.84	769.53	769.85	770.12	770.59	770.97	771.52	771.98	772.16	772.32	772.54	772.64
LINE 13 (PHASE CONST. JOINT I)	FINAL DECK ELEVATION	768.10	768.77	769.40	769.70	769.98	770.51	770.99	771.42	771.81	771.98	772.14	772.43	772.62
	SCREED ELEVATION	768.10	768.88	769.57	769.88	770.15	770.62	770.99	771.52	771.98	772.15	772.31	772.53	772.62
LINE 14 (PHASE CONST. JOINT II)	FINAL DECK ELEVATION	768.14	768.81	769.43	769.72	770.00	770.52	770.99	771.41	771.78	771.95	772.11	772.38	772.57
	SCREED ELEVATION	768.14	768.92	769.60	769.90	770.17	770.63	770.99	771.51	771.95	772.12	772.28	772.48	772.57
LINE 15	FINAL DECK ELEVATION	768.18	768.84	769.45	769.73	770.01	770.52	770.99	771.40	771.77	771.93	772.08	772.35	772.54
	SCREED ELEVATION	768.18	768.95	769.62	769.91	770.18	770.63	770.99	771.50	771.94	772.10	772.25	772.45	772.54
LINE 16	FINAL DECK ELEVATION	768.30	768.94	769.52	769.79	770.06	770.54	770.98	771.37	771.70	771.86	772.00	772.24	772.41
	SCREED ELEVATION	768.30	769.05	769.69	769.97	770.23	770.65	770.98	771.47	771.87	772.03	772.17	772.34	772.41
LINE 17	FINAL DECK ELEVATION	768.43	769.04	769.59	769.85	770.10	770.56	770.97	771.33	771.64	771.78	771.91	772.12	772.29
	SCREED ELEVATION	768.43	769.15	769.76	770.03	770.27	770.67	770.97	771.43	771.81	771.95	772.08	772.22	772.29
LINE 18 PROFILE GRADE (SOUTHBOUND)	FINAL DECK ELEVATION	768.45	769.05	769.60	769.86	770.11	770.56	770.97	771.33	771.64	771.77	771.89	772.11	772.27
	SCREED ELEVATION	768.45	769.16	769.77	770.04	770.28	770.67	770.97	771.43	771.81	771.94	772.06	772.21	772.27
LINE 19	FINAL DECK ELEVATION	768.34	768.94	769.50	769.75	770.00	770.46	770.86	771.22	771.53	771.66	771.79	772.00	772.16
	SCREED ELEVATION	768.34	769.05	769.67	769.93	770.17	770.57	770.86	771.32	771.70	771.83	771.96	772.10	772.16
LINE 20 TOE OF MEDIAN BARRIER (RIGHT)	FINAL DECK ELEVATION	768.31	768.92	769.47	769.73	769.97	770.43	770.83	771.19	771.50	771.63	771.76	771.97	772.13
	SCREED ELEVATION	768.31	769.03	769.64	769.91	770.14	770.54	770.83	771.29	771.67	771.80	771.93	772.07	772.13

NOTES:

1. FOR ADDITIONAL NOTES, TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 40/55.
2. FOR SCREED ELEVATIONS, SPANS 3, 4 AND 5, SEE SHEETS 42/55 AND 43/55.
3. FOR TABLE OF ANTICIPATED DEAD LOAD DEFLECTIONS, SEE SHEET 43/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE: SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	NFF	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		57087.10	

SCREED ELEVATIONS - LEFT BRIDGE SPANS 1 AND 2
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

41/55

276/314

Plotted By: eamack Date: 7/27/2007 Time: 3:42:29 PM
Filename: g:\co04\0066\bridge\concrete_dif\cadd\23828sd14.dgn

SCREED ELEVATIONS - LEFT BRIDGE SPANS 3 AND 4

LOCATION		℄ PIER 2	0.2	0.4	0.5	0.6	0.8	℄ PIER 3	0.2	0.4	0.5	0.6	0.8	℄ PIER 4
SCREED LINE	STATION	458+49.61	458+70.21	458+90.81	459+01.11	459+11.41	459+32.01	459+52.61	459+73.21	459+93.81	460+04.11	460+14.41	460+35.01	460+55.61
LINE 1 TOE OF PARAPET (LEFT)	FINAL DECK ELEVATION	772.11	772.20	772.26	772.28	772.29	772.30	772.28	772.23	772.15	772.10	772.04	771.91	771.74
	SCREED ELEVATION	772.11	772.23	772.31	772.34	772.34	772.33	772.28	772.26	772.20	772.16	772.09	771.94	771.74
LINE 2	FINAL DECK ELEVATION	772.14	772.23	772.29	772.31	772.32	772.33	772.30	772.25	772.18	772.13	772.07	771.94	771.77
	SCREED ELEVATION	772.14	772.26	772.34	772.37	772.37	772.36	772.30	772.28	772.23	772.19	772.12	771.97	771.77
LINE 3	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
LINE 4	FINAL DECK ELEVATION	772.22	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	772.22	-	-	-	-	-	-	-	-	-	-	-	-
LINE 5	FINAL DECK ELEVATION	772.26	772.35	772.41	772.43	772.45	772.45	772.43	772.38	772.30	772.25	772.20	772.06	771.90
	SCREED ELEVATION	772.26	772.38	772.46	772.49	772.50	772.48	772.43	772.41	772.35	772.31	772.25	772.09	771.90
LINE 6	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
LINE 7	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
LINE 8	FINAL DECK ELEVATION	772.30	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	772.30	-	-	-	-	-	-	-	-	-	-	-	-
LINE 9	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	-
LINE 10	FINAL DECK ELEVATION	772.39	772.48	772.54	772.56	772.57	772.58	772.66	772.51	772.43	772.38	772.32	772.19	772.02
	SCREED ELEVATION	772.39	772.51	772.59	772.62	772.62	772.61	772.66	772.54	772.48	772.44	772.37	772.22	772.02
LINE 11	FINAL DECK ELEVATION	772.51	772.60	772.67	772.69	772.70	772.70	772.68	772.63	772.55	772.50	772.45	772.31	772.15
	SCREED ELEVATION	772.51	772.63	772.72	772.75	772.75	772.73	772.68	772.66	772.60	772.56	772.50	772.34	772.15
LINE 12	FINAL DECK ELEVATION	772.64	772.73	772.79	772.81	772.82	772.83	772.81	772.76	772.68	772.63	772.57	772.44	772.28
	SCREED ELEVATION	772.64	772.76	772.84	772.87	772.87	772.86	772.81	772.79	772.73	772.69	772.62	772.47	772.28
LINE 13 (PHASE CONST. JOINT I)	FINAL DECK ELEVATION	772.62	772.71	772.77	772.79	772.80	772.81	772.79	772.74	772.66	772.61	772.55	772.42	772.26
	SCREED ELEVATION	772.62	772.74	772.82	772.85	772.85	772.84	772.79	772.77	772.71	772.67	772.60	772.45	772.26
LINE 14 (PHASE CONST. JOINT II)	FINAL DECK ELEVATION	772.57	772.66	772.72	772.74	772.76	772.76	772.74	772.69	772.61	772.56	772.51	772.37	772.21
	SCREED ELEVATION	772.57	772.69	772.77	772.80	772.81	772.79	772.74	772.72	772.66	772.62	772.56	772.40	772.21
LINE 15	FINAL DECK ELEVATION	772.54	772.63	772.69	772.71	772.72	772.73	772.71	772.66	772.58	772.53	772.47	772.34	772.17
	SCREED ELEVATION	772.54	772.66	772.74	772.77	772.77	772.76	772.71	772.69	772.63	772.59	772.52	772.37	772.17
LINE 16	FINAL DECK ELEVATION	772.41	772.50	772.56	772.58	772.60	772.60	772.58	772.53	772.45	772.40	772.35	772.21	772.05
	SCREED ELEVATION	772.41	772.53	772.61	772.64	772.65	772.63	772.58	772.56	772.50	772.46	772.40	772.24	772.05
LINE 17	FINAL DECK ELEVATION	772.29	772.38	772.44	772.46	772.47	772.48	772.45	772.40	772.33	772.28	772.22	772.09	771.92
	SCREED ELEVATION	772.29	772.41	772.49	772.52	772.52	772.51	772.45	772.43	772.38	772.34	772.27	772.12	771.92
LINE 18 PROFILE GRADE (SOUTHBOUND)	FINAL DECK ELEVATION	772.27	772.36	772.42	772.44	772.45	772.46	772.44	772.39	772.31	772.26	772.20	772.07	771.90
	SCREED ELEVATION	772.27	772.39	772.47	772.50	772.50	772.49	772.44	772.42	772.36	772.32	772.25	772.10	771.90
LINE 19	FINAL DECK ELEVATION	772.16	772.25	772.31	772.33	772.34	772.35	772.33	772.28	772.20	772.15	772.09	771.96	771.80
	SCREED ELEVATION	772.16	772.28	772.36	772.39	772.39	772.38	772.33	772.31	772.25	772.21	772.14	771.99	771.80
LINE 20 TOE OF MEDIAN BARRIER (RIGHT)	FINAL DECK ELEVATION	772.13	772.22	772.28	772.31	772.32	772.32	772.30	772.25	772.17	772.13	772.07	771.93	771.77
	SCREED ELEVATION	772.13	772.25	772.33	772.37	772.37	772.35	772.30	772.28	772.22	772.19	772.12	771.96	771.77

NOTES:

1. FOR ADDITIONAL NOTES, TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 40/55.
2. FOR SCREED ELEVATIONS, SPANS 1, 2 AND 5, SEE SHEETS 41/55 AND 43/55.
3. FOR TABLE OF ANTICIPATED DEAD LOAD DEFLECTIONS, SEE SHEET 43/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE - SUITE 2000
CLEVELAND, OHIO 44113-2001

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	NFF	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5706710	

SCREED ELEVATIONS - LEFT BRIDGE SPANS 3 AND 4
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

42/55

277/314

Plotted By: eomack Date: 7/27/2007 Time: 3:42:30 PM
Filename: g:\co04\0066\bridge\concrete_dt\cadd\23828sdl5.dgn

SCREED ELEVATIONS - LEFT BRIDGE SPAN 5

LOCATION		℄ PIER 4	0.2	0.4	0.5	0.6	0.8	℄ BEARING FWD. ABUT.
SCREED LINE	STATION	460+55.61	460+74.41	460+93.21	461+02.61	461+12.01	461+30.81	461+49.61
LINE 1 TOE OF PARAPET (LEFT)	FINAL DECK ELEVATION	771.74	771.57	771.38	771.27	771.16	770.91	770.65
	SCREED ELEVATION	771.74	771.59	771.42	771.31	771.20	770.93	770.65
LINE 2	FINAL DECK ELEVATION	771.77	771.60	771.40	771.29	771.18	770.94	770.68
	SCREED ELEVATION	771.77	771.62	771.44	771.33	771.22	770.96	770.68
LINE 3	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 4	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 5	FINAL DECK ELEVATION	771.90	771.73	771.53	771.42	771.31	771.07	770.80
	SCREED ELEVATION	771.90	771.75	771.57	771.46	771.35	771.09	770.80
LINE 6	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 7	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 8	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 9	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 10	FINAL DECK ELEVATION	772.02	771.85	771.66	771.55	771.44	771.19	770.93
	SCREED ELEVATION	772.02	771.87	771.70	771.59	771.48	771.21	770.93
LINE 11	FINAL DECK ELEVATION	772.15	771.98	771.78	771.67	771.56	771.32	771.05
	SCREED ELEVATION	772.15	772.00	771.82	771.71	771.60	771.34	771.05
LINE 12	FINAL DECK ELEVATION	772.28	772.10	771.91	771.80	771.69	771.45	771.18
	SCREED ELEVATION	772.28	772.12	771.95	771.84	771.73	771.47	771.18
LINE 13 (PHASE CONST. JOINT I)	FINAL DECK ELEVATION	772.26	772.08	771.89	771.78	771.67	771.43	771.16
	SCREED ELEVATION	772.26	772.10	771.93	771.82	771.71	771.45	771.16
LINE 14 (PHASE CONST. JOINT II)	FINAL DECK ELEVATION	772.21	772.04	771.84	771.73	771.62	771.38	771.11
	SCREED ELEVATION	772.21	772.06	771.88	771.77	771.66	771.40	771.11
LINE 15	FINAL DECK ELEVATION	772.17	772.00	771.81	771.70	771.59	771.34	771.08
	SCREED ELEVATION	772.17	772.02	771.85	771.74	771.63	771.36	771.08
LINE 16	FINAL DECK ELEVATION	772.05	771.88	771.68	771.57	771.46	771.22	770.95
	SCREED ELEVATION	772.05	771.90	771.72	771.61	771.50	771.24	770.95
LINE 17	FINAL DECK ELEVATION	771.92	771.75	771.55	771.45	771.33	771.09	770.83
	SCREED ELEVATION	771.92	771.77	771.59	771.49	771.37	771.11	770.83
LINE 18 PROFILE GRADE (SOUTHBOUND)	FINAL DECK ELEVATION	771.90	771.73	771.54	771.43	771.32	771.07	770.81
	SCREED ELEVATION	771.90	771.75	771.58	771.47	771.36	771.09	770.81
LINE 19	FINAL DECK ELEVATION	771.80	771.62	771.43	771.32	771.21	770.97	770.70
	SCREED ELEVATION	771.80	771.64	771.47	771.36	771.25	770.99	770.70
LINE 20 TOE OF MEDIAN BARRIER (RIGHT)	FINAL DECK ELEVATION	771.77	771.60	771.40	771.29	771.18	770.94	770.67
	SCREED ELEVATION	771.77	771.62	771.44	771.33	771.22	770.96	770.67

TABLE OF ANTICIPATED DEAD LOAD DEFLECTION
(INCHES)

	0.0	0.2	0.4	0.5	0.6	0.8	1.0
SPAN 1 (℄ BEARING REAR ABUT. TO ℄ PIER 1)	0.000	1.268	2.062	2.167	2.062	1.268	0.000
SPAN 2 (℄ PIER 1 TO ℄ PIER 2)	0.000	1.221	1.989	2.091	1.989	1.221	0.000
SPAN 3 (℄ PIER 2 TO ℄ PIER 3)	0.000	0.390	0.639	0.672	0.639	0.390	0.000
SPAN 4 (℄ PIER 3 TO ℄ PIER 4)	0.000	0.390	0.639	0.672	0.639	0.390	0.000
SPAN 5 (℄ PIER 4 TO ℄ BEARING FWD. ABUT.)	0.000	0.282	0.463	0.487	0.463	0.282	0.000

NOTES:

1. FOR ADDITIONAL NOTES, TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 40/55.
2. FOR SCREED ELEVATIONS, SPANS 1, 2, 3 AND 4, SEE SHEETS 41/55 AND 42/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	NFF	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

SCREED ELEVATIONS - LEFT BRIDGE SPAN 5
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

43/55

278/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:30 PM
Filename: g:\ca04\0066\bridge\concrete_alt\cadd\23828sd16.dgn

SCREED ELEVATIONS - RIGHT BRIDGE SPANS 1 AND 2

LOCATION		℄ BEARING REAR ABUT.	0.2	0.4	0.5	0.6	0.8	℄ PIER 1	0.2	0.4	0.5	0.6	0.8	℄ PIER 2
SCREED LINE	STATION	455+77.61	456+04.81	456+32.01	456+45.61	456+59.21	456+86.41	457+13.61	457+40.81	457+68.01	457+81.61	457+95.21	458+22.41	458+49.61
LINE 21 TOE OF MEDIAN BARRIER (LEFT)	FINAL DECK ELEVATION	768.31	768.92	769.47	769.73	769.97	770.43	770.83	771.19	771.50	771.63	771.76	771.97	772.13
	SCREED ELEVATION	768.31	769.03	769.64	769.91	770.14	770.54	770.83	771.29	771.67	771.80	771.93	772.07	772.13
LINE 22	FINAL DECK ELEVATION	768.34	768.94	769.50	769.75	770.00	770.46	770.86	771.22	771.53	771.66	771.79	772.00	772.16
	SCREED ELEVATION	768.34	769.05	769.67	769.93	770.17	770.57	770.86	771.32	771.70	771.83	771.96	772.10	772.16
LINE 23 PROFILE GRADE (NORTHBOUND)	FINAL DECK ELEVATION	768.45	769.05	769.60	769.86	770.11	770.56	770.97	771.33	771.64	771.77	771.89	772.11	772.27
	SCREED ELEVATION	768.45	769.16	769.77	770.04	770.28	770.67	770.97	771.43	771.81	771.94	772.06	772.21	772.27
LINE 24	FINAL DECK ELEVATION	768.47	769.07	769.62	769.88	770.13	770.58	770.99	771.34	771.65	771.79	771.91	772.12	772.29
	SCREED ELEVATION	768.47	769.18	769.79	770.06	770.30	770.69	770.99	771.44	771.82	771.96	772.08	772.22	772.29
LINE 25	FINAL DECK ELEVATION	768.59	769.20	769.75	770.01	770.25	770.71	771.11	771.47	771.78	771.92	772.04	772.25	772.41
	SCREED ELEVATION	768.59	769.31	769.92	770.19	770.42	770.82	771.11	771.57	771.95	772.09	772.21	772.35	772.41
LINE 26	FINAL DECK ELEVATION	768.72	769.32	769.87	770.13	770.38	770.83	771.24	771.60	771.91	772.04	772.16	772.38	772.54
	SCREED ELEVATION	768.72	769.43	770.04	770.31	770.55	770.94	771.24	771.70	772.08	772.21	772.33	772.48	772.54
LINE 27 (PHASE CONST. JOINT II)	FINAL DECK ELEVATION	768.76	769.36	769.91	770.17	770.41	770.87	771.27	771.63	771.94	772.08	772.20	772.41	772.57
	SCREED ELEVATION	768.76	769.47	770.08	770.35	770.58	770.98	771.27	771.73	772.11	772.25	772.37	772.51	772.57
LINE 28 (PHASE CONST. JOINT I)	FINAL DECK ELEVATION	768.80	769.40	769.96	770.21	770.46	770.92	771.32	771.68	771.99	772.13	772.25	772.46	772.62
	SCREED ELEVATION	768.80	769.51	770.13	770.39	770.63	771.03	771.32	771.78	772.16	772.30	772.42	772.56	772.62
LINE 29	FINAL DECK ELEVATION	768.85	769.44	770.00	770.25	770.50	770.95	771.35	771.71	772.01	772.15	772.27	772.48	772.64
	SCREED ELEVATION	768.85	769.55	770.17	770.43	770.67	771.06	771.35	771.81	772.18	772.32	772.44	772.58	772.64
LINE 30	FINAL DECK ELEVATION	768.97	769.54	770.07	770.31	770.54	770.97	771.35	771.67	771.95	772.07	772.18	772.36	772.51
	SCREED ELEVATION	768.97	769.65	770.24	770.49	770.71	771.08	771.35	771.77	772.12	772.24	772.35	772.46	772.51
LINE 31	FINAL DECK ELEVATION	768.96	769.52	770.03	770.27	770.49	770.91	771.27	771.59	771.85	771.97	772.07	772.24	772.39
	SCREED ELEVATION	768.96	769.63	770.20	770.45	770.66	771.02	771.27	771.69	772.02	772.14	772.24	772.34	772.39
LINE 32	FINAL DECK ELEVATION	768.84	769.40	769.91	770.15	770.38	770.79	771.16	771.48	771.75	771.87	771.97	772.15	772.29
	SCREED ELEVATION	768.84	769.51	770.08	770.33	770.55	770.90	771.16	771.58	771.92	772.04	772.14	772.25	772.29
LINE 33	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	772.25
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-	772.25
LINE 34	FINAL DECK ELEVATION	768.71	769.28	769.79	770.04	770.26	770.68	771.06	771.38	771.65	771.77	771.88	772.05	772.20
	SCREED ELEVATION	768.71	769.39	769.96	770.22	770.43	770.79	771.06	771.48	771.82	771.94	772.05	772.15	772.20
LINE 35	FINAL DECK ELEVATION	768.59	769.16	769.68	769.92	770.15	770.57	770.95	771.27	771.55	771.67	771.78	771.95	772.11
	SCREED ELEVATION	768.59	769.27	769.85	770.10	770.32	770.68	770.95	771.37	771.72	771.84	771.95	772.05	772.11
LINE 36 TOE OF PARAPET (RIGHT)	FINAL DECK ELEVATION	768.56	769.13	769.65	769.89	770.12	770.55	770.92	771.24	771.52	771.64	771.75	771.93	772.08
	SCREED ELEVATION	768.56	769.24	769.82	770.07	770.29	770.66	770.92	771.34	771.69	771.81	771.92	772.03	772.08

NOTES:

1. FOR ADDITIONAL NOTES, TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 40/55.
2. FOR SCREED ELEVATIONS, SPANS 3, 4 AND 5, SEE SHEETS 45/55 AND 46/55.
3. FOR TABLE OF ANTICIPATED DEAD LOAD DEFLECTIONS, SEE SHEET 43/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE - SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	NFF	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

SCREED ELEVATIONS - RIGHT BRIDGE SPANS 1 AND 2
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

44/55

279/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:31PM
Filename: g:\co04\0066\bridge\concrete_dt\cadd\23828sdl7.dgn

SCREED ELEVATIONS - RIGHT BRIDGE SPANS 3 AND 4

LOCATION		℄ PIER 2	0.2	0.4	0.5	0.6	0.8	℄ PIER 3	0.2	0.4	0.5	0.6	0.8	℄ PIER 4
SCREED LINE	STATION	458+49.61	458+70.21	458+90.81	459+01.11	459+11.41	459+32.01	459+52.61	459+73.21	459+93.81	460+04.11	460+14.41	460+35.01	460+55.61
LINE 21 TOE OF MEDIAN BARRIER (LEFT)	FINAL DECK ELEVATION	772.13	772.22	772.28	772.31	772.32	772.32	772.30	772.25	772.17	772.13	772.07	771.93	771.77
	SCREED ELEVATION	772.13	772.25	772.33	772.37	772.37	772.35	772.30	772.28	772.22	772.19	772.12	771.96	771.77
LINE 22	FINAL DECK ELEVATION	772.16	772.25	772.31	772.33	772.34	772.35	772.33	772.28	772.20	772.15	772.09	771.96	771.80
	SCREED ELEVATION	772.16	772.28	772.36	772.39	772.39	772.38	772.33	772.31	772.25	772.21	772.14	771.99	771.80
LINE 23 PROFILE GRADE (NORTHBOUND)	FINAL DECK ELEVATION	772.27	772.36	772.42	772.44	772.45	772.46	772.44	772.39	772.31	772.26	772.20	772.07	771.90
	SCREED ELEVATION	772.27	772.39	772.47	772.50	772.50	772.49	772.44	772.42	772.36	772.32	772.25	772.10	771.90
LINE 24	FINAL DECK ELEVATION	772.29	772.38	772.44	772.46	772.47	772.48	772.45	772.40	772.33	772.28	772.22	772.09	771.92
	SCREED ELEVATION	772.29	772.41	772.49	772.52	772.52	772.51	772.45	772.43	772.38	772.34	772.27	772.12	771.92
LINE 25	FINAL DECK ELEVATION	772.41	772.50	772.56	772.58	772.60	772.60	772.58	772.53	772.45	772.40	772.35	772.21	772.05
	SCREED ELEVATION	772.41	772.53	772.61	772.64	772.65	772.63	772.58	772.56	772.50	772.46	772.40	772.24	772.05
LINE 26	FINAL DECK ELEVATION	772.54	772.63	772.69	772.71	772.72	772.73	772.71	772.66	772.58	772.53	772.47	772.34	772.17
	SCREED ELEVATION	772.54	772.66	772.74	772.77	772.77	772.76	772.71	772.69	772.63	772.59	772.52	772.37	772.17
LINE 27 (PHASE CONST. JOINT II)	FINAL DECK ELEVATION	772.57	772.66	772.72	772.74	772.76	772.76	772.74	772.69	772.61	772.56	772.51	772.37	772.21
	SCREED ELEVATION	772.57	772.69	772.77	772.80	772.81	772.79	772.74	772.72	772.66	772.62	772.56	772.40	772.21
LINE 28 (PHASE CONST. JOINT I)	FINAL DECK ELEVATION	772.62	772.71	772.77	772.79	772.80	772.81	772.79	772.74	772.66	772.61	772.55	772.42	772.26
	SCREED ELEVATION	772.62	772.74	772.82	772.85	772.85	772.84	772.79	772.77	772.71	772.67	772.60	772.45	772.26
LINE 29	FINAL DECK ELEVATION	772.64	772.73	772.79	772.81	772.82	772.83	772.81	772.76	772.68	772.63	772.57	772.44	772.28
	SCREED ELEVATION	772.64	772.76	772.84	772.87	772.87	772.86	772.81	772.79	772.73	772.69	772.62	772.47	772.28
LINE 30	FINAL DECK ELEVATION	772.51	772.60	772.67	772.69	772.70	772.70	772.68	772.63	772.55	772.50	772.45	772.31	772.15
	SCREED ELEVATION	772.51	772.63	772.72	772.75	772.75	772.73	772.68	772.66	772.60	772.56	772.50	772.34	772.15
LINE 31	FINAL DECK ELEVATION	772.39	772.48	772.54	772.56	772.57	772.58	772.56	772.51	772.43	772.38	772.32	772.19	772.02
	SCREED ELEVATION	772.39	772.51	772.59	772.62	772.62	772.61	772.56	772.54	772.48	772.44	772.37	772.22	772.02
LINE 32	FINAL DECK ELEVATION	772.29	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	772.29	-	-	-	-	-	-	-	-	-	-	-	-
LINE 33	FINAL DECK ELEVATION	772.25	772.34	772.41	772.43	772.44	772.45	772.43	772.39	772.31	772.26	772.21	772.08	771.92
	SCREED ELEVATION	772.25	772.37	772.46	772.49	772.49	772.48	772.43	772.42	772.36	772.32	772.26	772.11	771.92
LINE 34	FINAL DECK ELEVATION	772.20	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	772.20	-	-	-	-	-	-	-	-	-	-	-	-
LINE 35	FINAL DECK ELEVATION	772.11	772.20	772.27	772.30	772.31	772.33	772.31	772.27	772.19	772.15	772.09	771.97	771.81
	SCREED ELEVATION	772.11	772.23	772.32	772.36	772.36	772.36	772.31	772.30	772.24	772.21	772.14	772.00	771.81
LINE 36 TOE OF PARAPET (RIGHT)	FINAL DECK ELEVATION	772.08	772.18	772.24	772.27	772.29	772.30	772.28	772.24	772.17	772.12	772.07	771.94	771.78
	SCREED ELEVATION	772.08	772.21	772.29	772.33	772.34	772.33	772.28	772.27	772.22	772.18	772.12	771.97	771.78

NOTES:

1. FOR ADDITIONAL NOTES, TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 40/55.
2. FOR SCREED ELEVATIONS, SPANS 1, 2 AND 5, SEE SHEETS 44/55 AND 46/55.
3. FOR TABLE OF ANTICIPATED DEAD LOAD DEFLECTIONS, SEE SHEET 43/55.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	NFF	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

SCREED ELEVATIONS - RIGHT BRIDGE SPANS 3 AND 4
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

45/55

280/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:31 PM
Filename: g:\co04\0066\bridge\concrete.dir\cadd\23828sdl8.dgn

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 5

LOCATION		℄ PIER 4	0.2	0.4	0.5	0.6	0.8	℄ BEARING FWD. ABUT.
SCREED LINE	STATION	460+55.61	460+74.41	460+93.21	461+02.61	461+12.01	461+30.81	461+49.61
LINE 21 TOE OF MEDIAN BARRIER (LEFT)	FINAL DECK ELEVATION	771.77	771.60	771.40	771.29	771.18	770.94	770.67
	SCREED ELEVATION	771.77	771.62	771.44	771.33	771.22	770.96	770.67
LINE 22	FINAL DECK ELEVATION	771.80	771.62	771.43	771.32	771.21	770.97	770.70
	SCREED ELEVATION	771.80	771.64	771.47	771.36	771.25	770.99	770.70
LINE 23 PROFILE GRADE (NORTHBOUND)	FINAL DECK ELEVATION	771.90	771.73	771.54	771.43	771.32	771.07	770.81
	SCREED ELEVATION	771.90	771.75	771.58	771.47	771.36	771.09	770.81
LINE 24	FINAL DECK ELEVATION	771.92	771.75	771.55	771.45	771.33	771.09	770.83
	SCREED ELEVATION	771.92	771.77	771.59	771.49	771.37	771.11	770.83
LINE 25	FINAL DECK ELEVATION	772.05	771.88	771.68	771.58	771.46	771.22	770.95
	SCREED ELEVATION	772.05	771.90	771.72	771.62	771.50	771.24	770.95
LINE 26	FINAL DECK ELEVATION	772.17	772.00	771.81	771.70	771.59	771.34	771.08
	SCREED ELEVATION	772.17	772.02	771.85	771.74	771.63	771.36	771.08
LINE 27 (PHASE CONST. JOINT II)	FINAL DECK ELEVATION	772.21	772.04	771.84	771.73	771.62	771.38	771.11
	SCREED ELEVATION	772.21	772.06	771.88	771.77	771.66	771.40	771.11
LINE 28 (PHASE CONST. JOINT I)	FINAL DECK ELEVATION	772.26	772.08	771.89	771.78	771.67	771.43	771.16
	SCREED ELEVATION	772.26	772.10	771.93	771.82	771.71	771.45	771.16
LINE 29	FINAL DECK ELEVATION	772.28	772.10	771.91	771.80	771.69	771.45	771.18
	SCREED ELEVATION	772.28	772.12	771.95	771.84	771.73	771.47	771.18
LINE 30	FINAL DECK ELEVATION	772.15	771.98	771.78	771.67	771.56	771.32	771.05
	SCREED ELEVATION	772.15	772.00	771.82	771.71	771.60	771.34	771.05
LINE 31	FINAL DECK ELEVATION	772.02	771.85	771.66	771.55	771.44	771.19	770.93
	SCREED ELEVATION	772.02	771.87	771.70	771.59	771.48	771.21	770.93
LINE 32	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 33	FINAL DECK ELEVATION	771.92	771.75	771.55	771.45	771.34	771.10	770.84
	SCREED ELEVATION	771.92	771.77	771.59	771.49	771.38	771.12	770.84
LINE 34	FINAL DECK ELEVATION	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-
LINE 35	FINAL DECK ELEVATION	771.81	771.64	771.45	771.35	771.24	771.00	770.74
	SCREED ELEVATION	771.81	771.66	771.49	771.39	771.28	771.02	770.74
LINE 36 TOE OF PARAPET (RIGHT)	FINAL DECK ELEVATION	771.78	771.62	771.43	771.32	771.21	770.98	770.72
	SCREED ELEVATION	771.78	771.64	771.47	771.36	771.25	771.00	770.72

NOTES:

1. FOR ADDITIONAL NOTES, TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 40/55.
2. FOR SCREED ELEVATIONS, SPANS 1, 2, 3 AND 4, SEE SHEETS 44/55 AND 45/55.
3. FOR TABLE OF ANTICIPATED DEAD LOAD DEFLECTIONS, SEE SHEET 43/55.

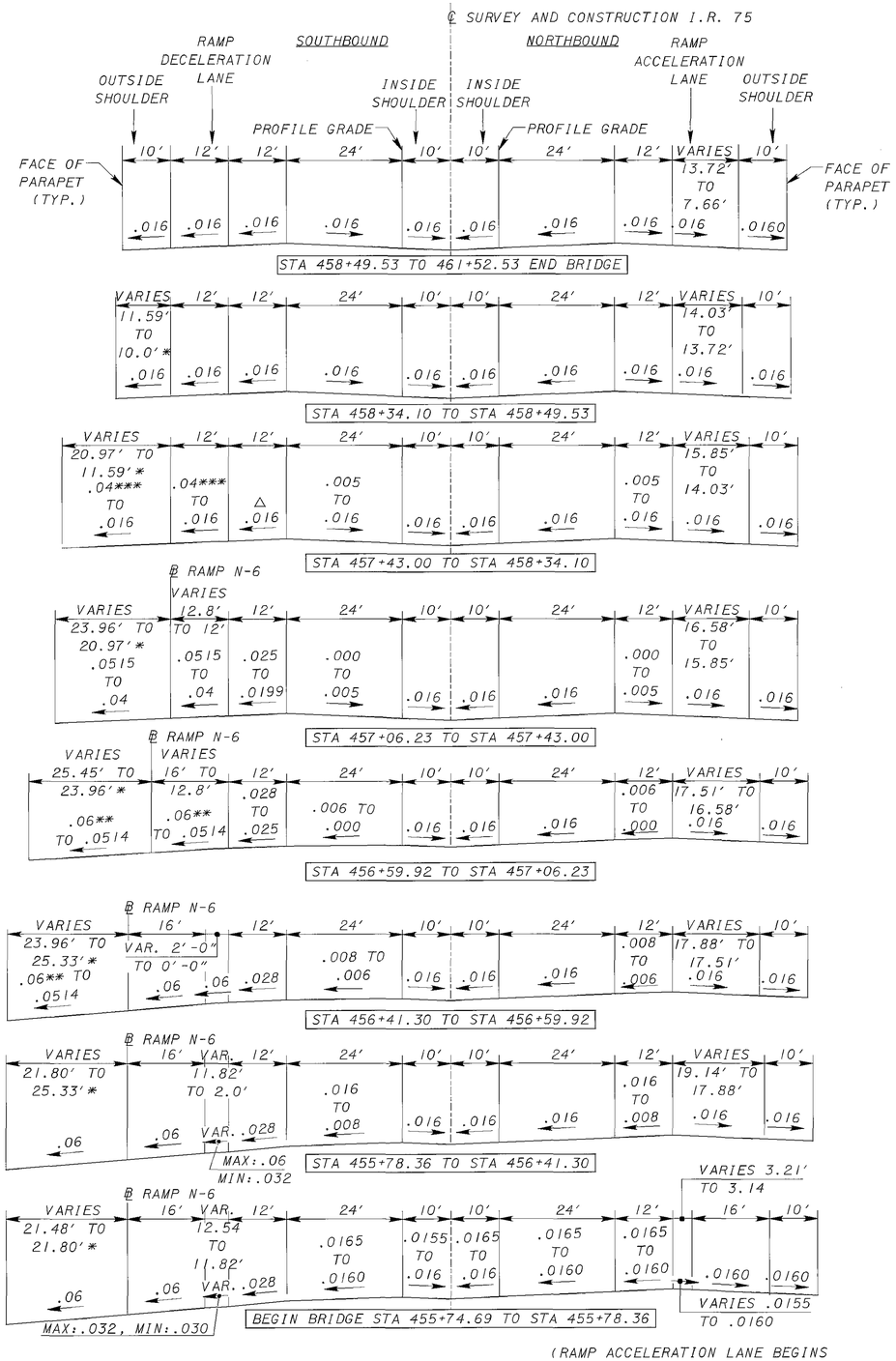
LEGEND:

* FACE OF BARRIER TAPERS FROM 96.4' LEFT OF ℄ AT STA 455+74.69 TO 68' LEFT OF ℄ AT STA 458+49.67

** SUPERELEVATION TRANSITION BEGINS AT STA. 456+79.00, RAMP N-6

*** TRANSITION ENDS AT STA. 458+19.80, I.R. 75

△ VARIES .0199 TO .016, STA. 457+43.00 TO 457+73.88



(RAMP ACCELERATION LANE BEGINS TAPER AT STA 452+85.40 FROM 25' TO 0' AT A RATE OF 50:1)

CROSS SLOPE TRANSITION DIAGRAM

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	NFF	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 5
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

46/55

281/314

Plotted By: eamack Date: 7/27/2007 Time: 3:42:32 PM
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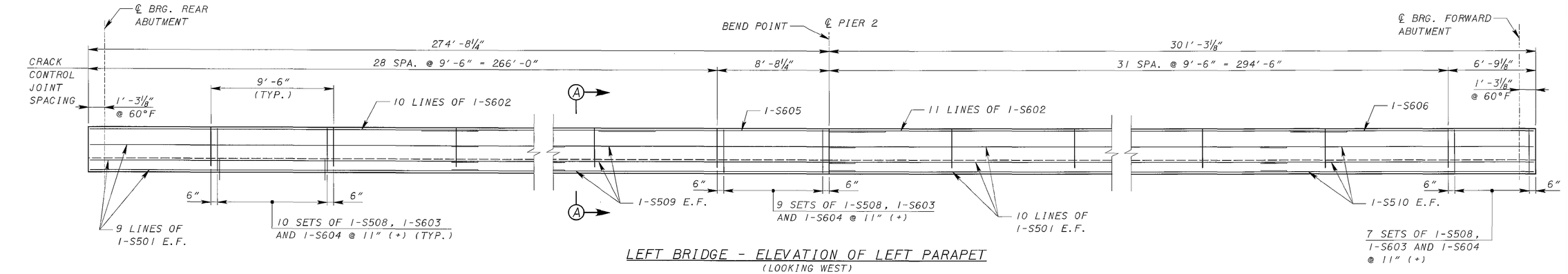
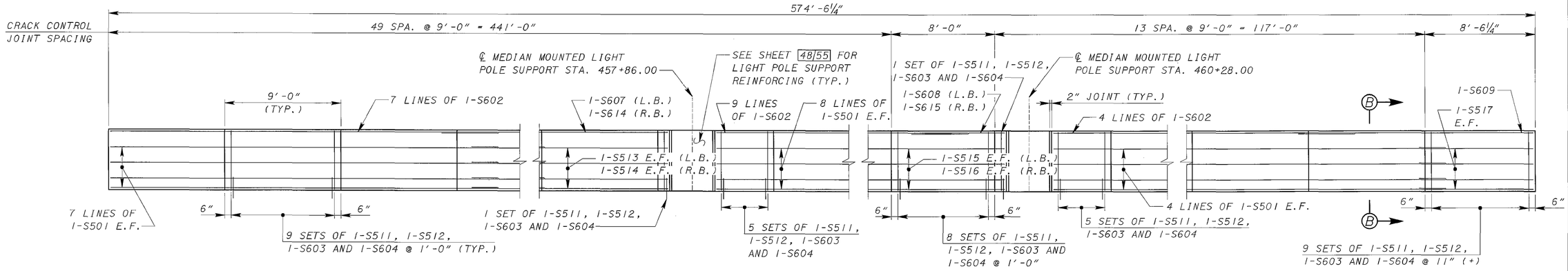
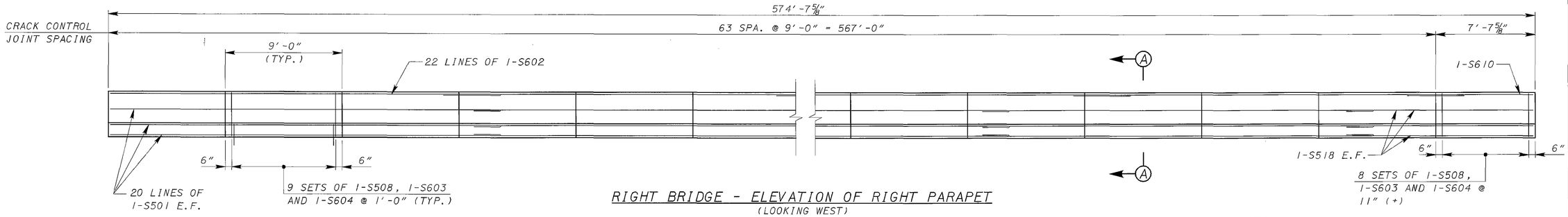


LEFT BRIDGE - ELEVATION OF LEFT PARAPET
(LOOKING WEST)



RIGHT BRIDGE - ELEVATION OF MEDIAN BARRIER
(LOOKING WEST)
(MEDIAN BARRIER ON LEFT BRIDGE SIMILAR, EXCEPT AS NOTED)



RIGHT BRIDGE - ELEVATION OF RIGHT PARAPET
(LOOKING WEST)

BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	4'-4"

LEGEND:

R.B. = RIGHT BRIDGE
L.B. = LEFT BRIDGE

NOTES:

1. FOR SLAB PLAN, SEE SHEET 39/55.
2. FOR PARAPET SECTIONS AND DETAILS, SEE SHEET 48/55.
3. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
4. FOR ADDITIONAL PARAPET DETAILS AND NOTES, SEE ODOT DRAWING SBR-1-99.
5. FOR CONTROL JOINTS FOR MEDIAN BARRIER, REFER TO DETAIL AND NOTES ON ODOT DRAWING SBR-1-99.

DESIGN AGENT: TranSystems, 55 PUBLIC SQUARE, SUITE 2000, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	MLR	NFF	05/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

PARAPET DETAILS
BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

47/55

282/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:25 PM
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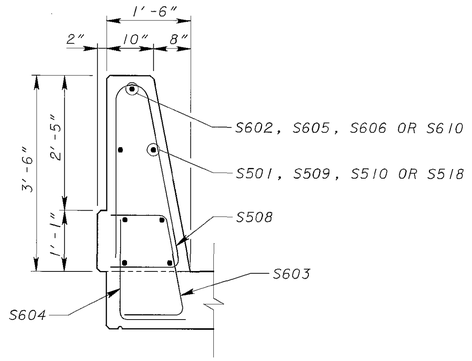
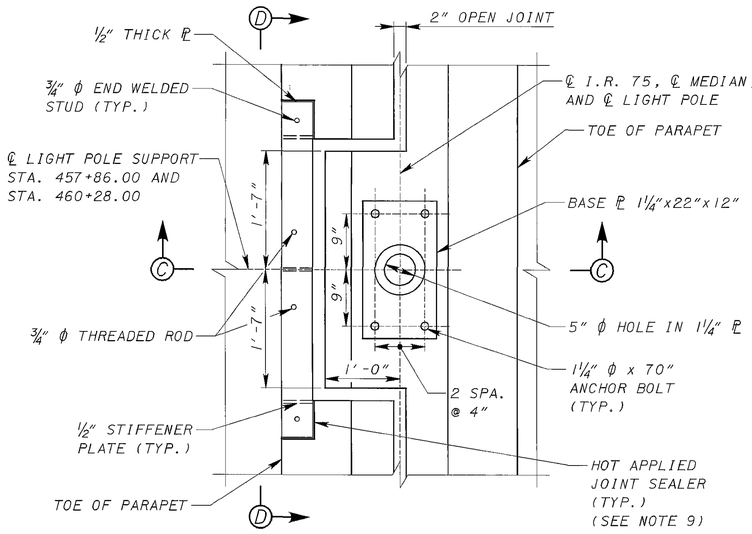
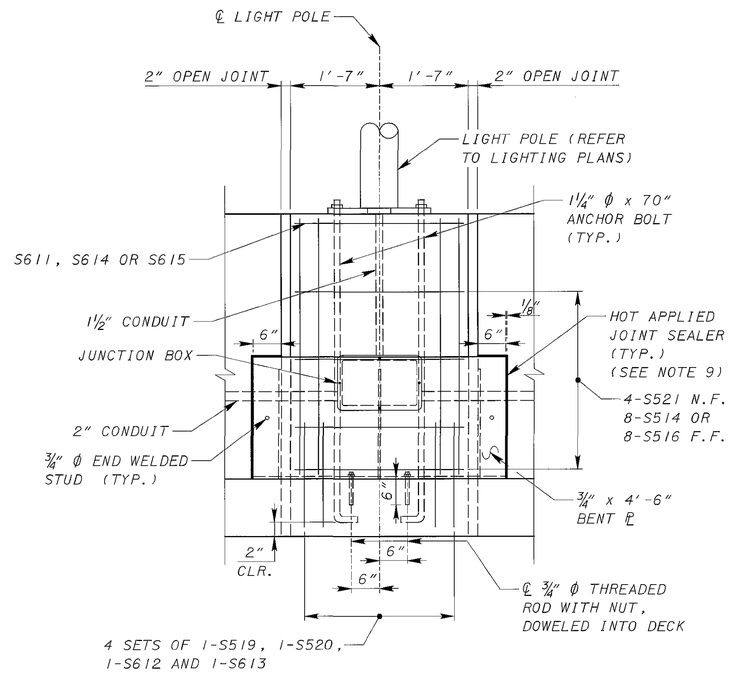


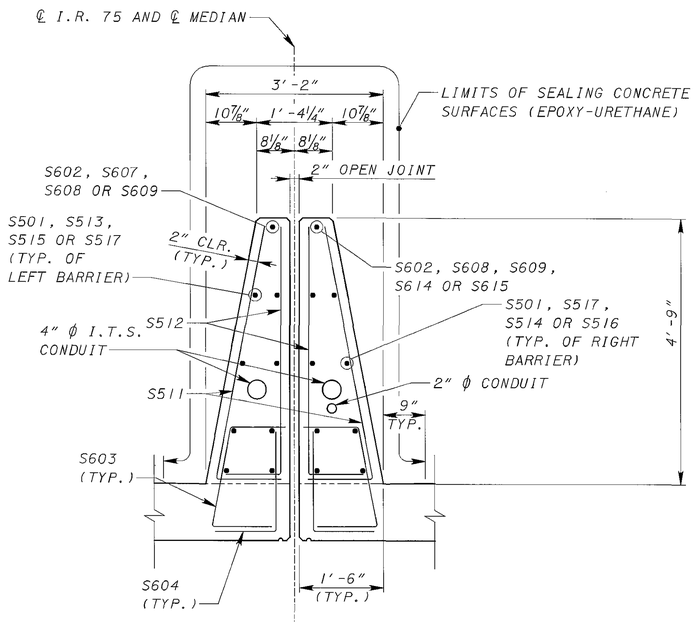
SECTION A-A



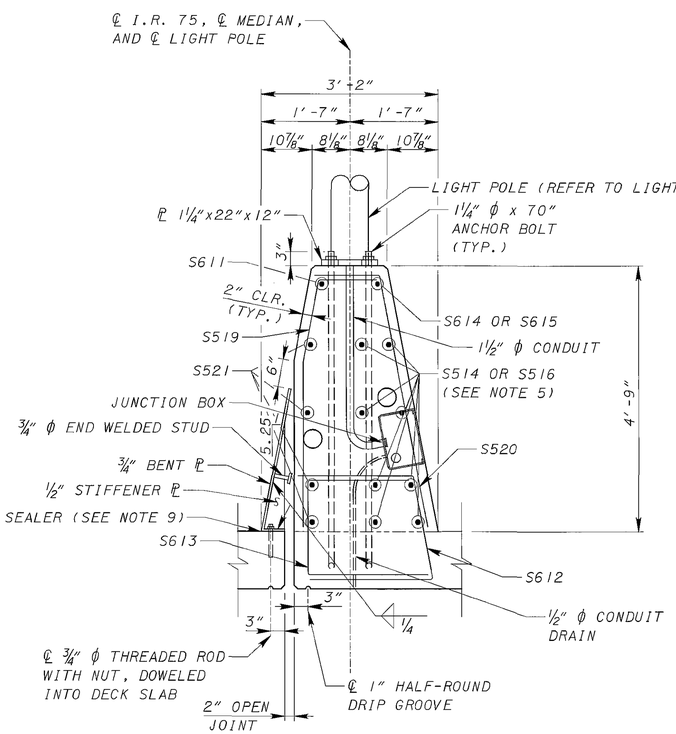
MEDIAN BARRIER DETAIL
AT LIGHT POLE SUPPORT PLAN



VIEW D-D
(DECK REINFORCEMENT NOT SHOWN)



SECTION B-B
(DECK REINFORCEMENT NOT SHOWN)



SECTION C-C
(DECK REINFORCEMENT NOT SHOWN)

NOTES:

1. FOR PARAPET DETAILS, SEE SHEET 47/55.
2. FOR SLAB PLAN, SEE SHEET 38/55.
3. FOR REINFORCING STEEL LIST, SEE SHEET 55/55.
4. FOR ADDITIONAL PARAPET DETAILS AND NOTES, SEE ODOT STANDARD DRAWING SBR-1-99.
5. FIELD CUTTING OF LONGITUDINAL REINFORCING BAR AT THE JUNCTION BOX SHALL BE INCLUDED WITH ITEM 509, REINFORCING STEEL, FOR PAYMENT.
6. THE 1¼" ϕ x 70" ANCHOR BOLTS, NUTS, BASE PLATE AND JUNCTION BOX SHALL BE INCLUDED WITH ITEM 625 FOR PAYMENT. (SEE LIGHTING PLAN)
7. ALL STRUCTURAL STEEL SHALL BE GALVANIZED ACCORDING TO 711.02. GALVANIZING OF STEEL, BASE PLATE, 1¼" ϕ ANCHOR BOLTS AND JUNCTION BOX SHALL BE INCLUDED WITH ITEM 625 FOR PAYMENT (SEE LIGHTING PLAN).
8. DECK SLAB CONCRETE REQUIRED AT THE LIGHT POLE SUPPORT SHALL BE INCLUDED WITH ITEM 898, CLASS QSC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN, FOR PAYMENT.
9. HOT APPLIED JOINT SEALER SHALL CONFORM TO 705.04 AND SHALL BE INCLUDED WITH ITEM 898, CLASS QSC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN, FOR PAYMENT.
10. FOR ADDITIONAL NOTES AND DETAILS, SEE ODOT STANDARD DRAWINGS HL-10.13 AND HL-20.14.
11. FOR CONDUIT TRANSITION FROM BRIDGE MEDIAN BARRIER TO ROADWAY BARRIER, REFER TO ODOT STANDARD DRAWING HL-30.33

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

REVIEWED NFF DATE 05/31/05
DRAWN MLR REVISED
DESIGNED BTA CHECKED JDH
STRUCTURE FILE NUMBER 5708710

PARAPET SECTIONS AND DETAILS

(PRESTRESSED CONCRETE OPTION)

BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:27 PM
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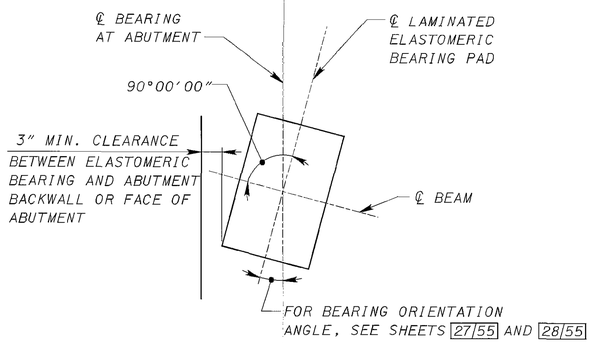
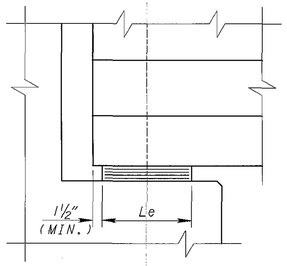
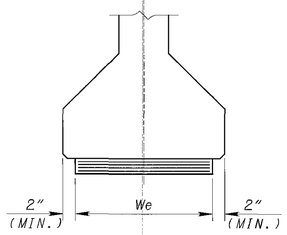


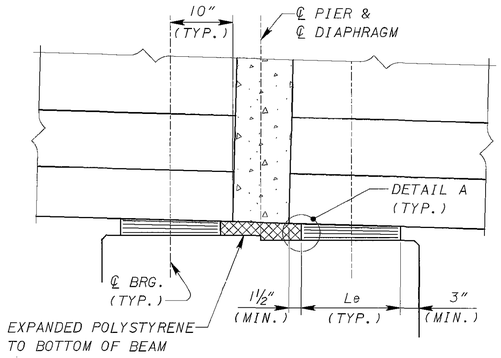
ABUTMENT BEARING ORIENTATION PLAN



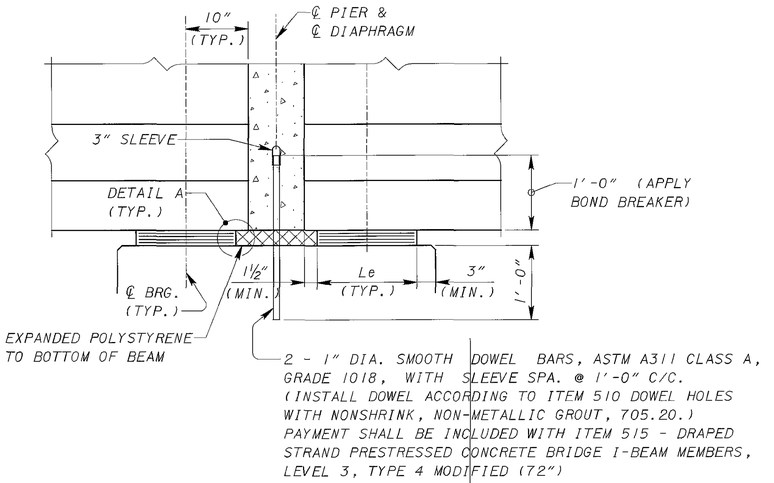
EXPANSION ABUTMENT DETAIL



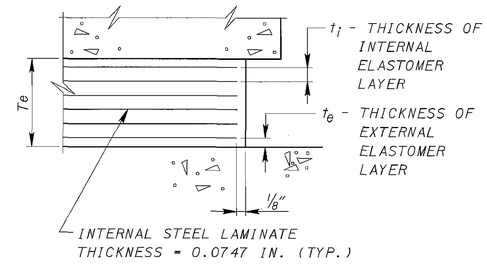
TYPICAL END VIEW



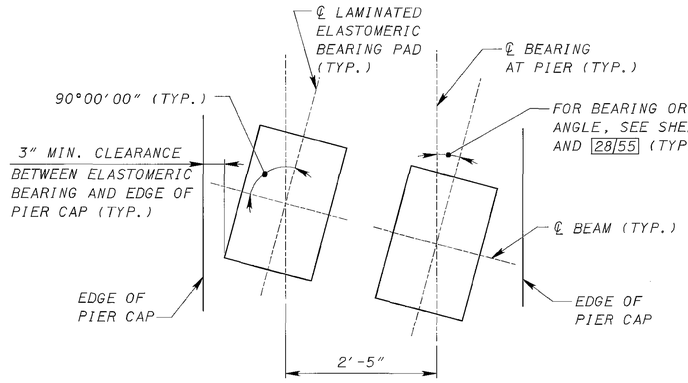
EXPANSION PIER DETAIL
(SEE NOTE 4)



FIXED PIER DETAIL
(SEE NOTE 4)



DETAIL A



PIER BEARING ORIENTATION PLAN

ELASTOMERIC BEARING DATA													
LOCATION	TYPE	NO. REQ'D	DL (KIP)	LL (KIP) WITHOUT IMPACT	TOTAL LOAD (DL+LL)	Le (in.)	We (in.)	t_i (in.)	t_e (in.)	NO. OF t_i's	NO. OF t_e's	NO. INTERNAL LAMINATES	Te (in.)
REAR ABUT.	EXP	22	166	69	235	13.5	22	0.66	0.38	5	2	6	4.508
PIER No.1	EXP	42	185	85	270	14	22	0.66	0.38	5	2	6	4.508
PIER No.2	FIXED	38	170	77	247	10	22	0.42	0.28	3	2	4	2.119
PIER No.3	EXP	36	130	69	199	12	18	0.36	0.25	7	2	8	3.618
PIER No.4	EXP	36	134	67	201	13.5	18.5	0.56	0.29	6	2	7	4.463
FWD. ABUT.	EXP	18	115	64	179	15.5	15.5	0.70	0.42	5	2	6	4.888

NOTES:

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
2. BEARING REPOSITIONING: IF THE CONCRETE IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.
3. BASIS OF PAYMENT - THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS LABOR, TESTING, PAINTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (NEOPRENE).
4. REINFORCMENT IN DIAPHRAGM NOT SHOWN FOR CLARITY.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED JDH | DRAWN RCK | REVIEWED RER | DATE 5/31/05

CHECKED NFF | REVISED | STRUCTURE FILE NUMBER 5708710

BEARING DETAILS
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:42 PM
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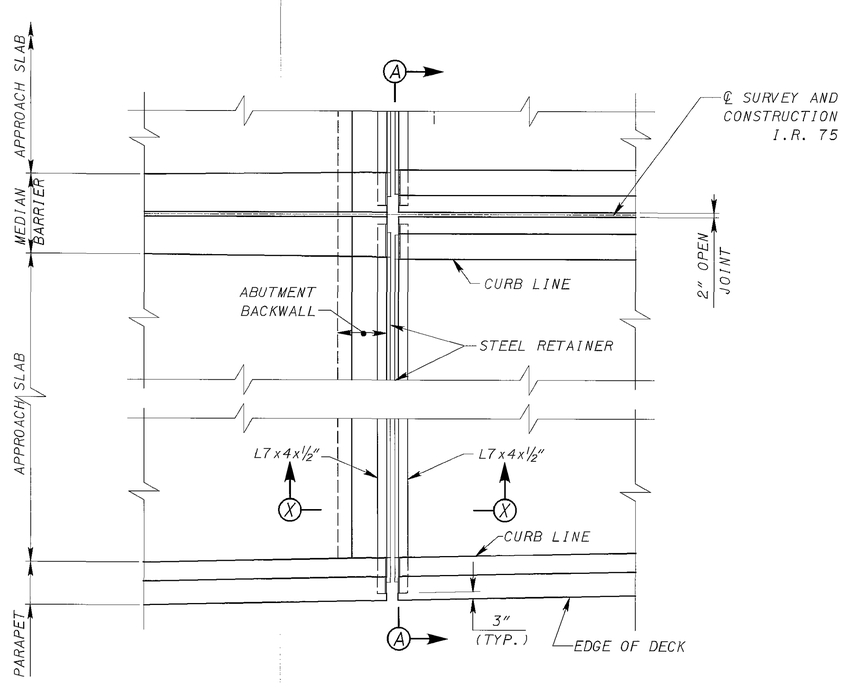
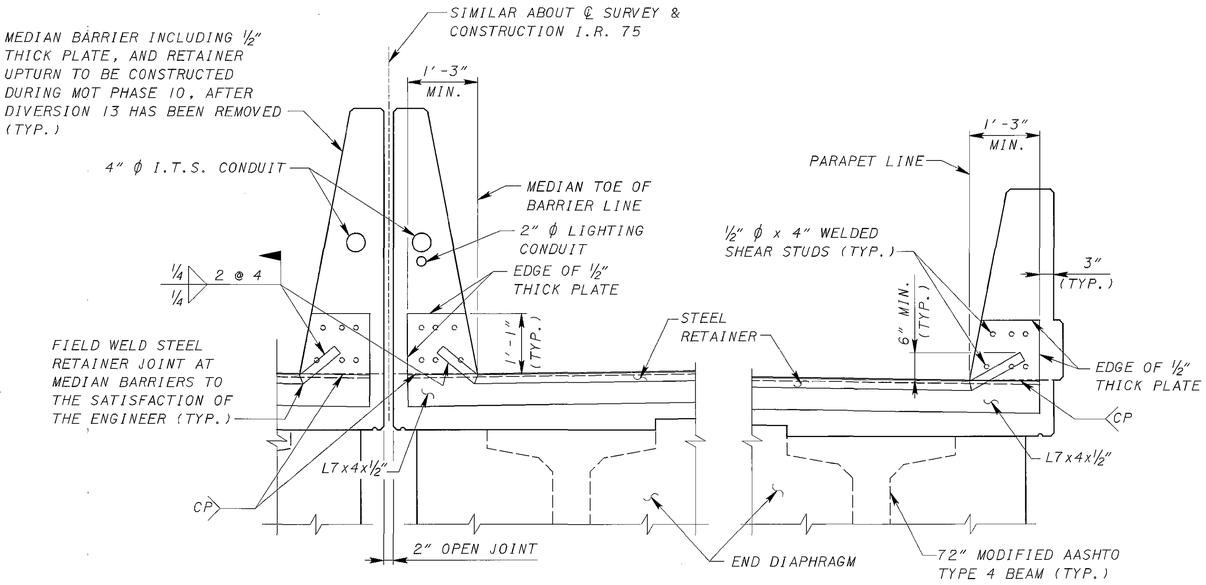
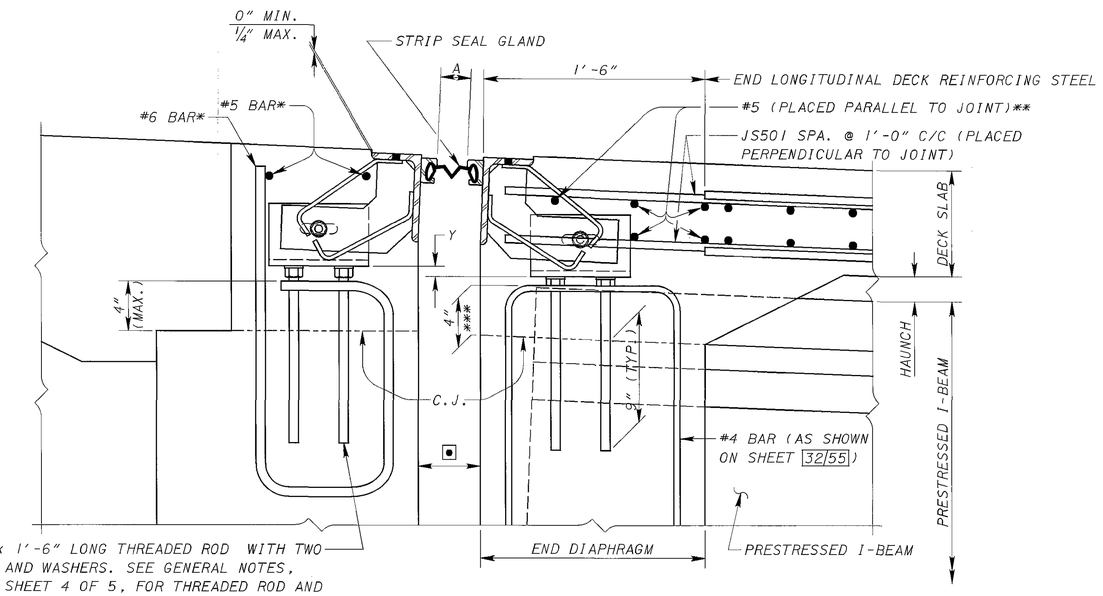


PART PLAN AT ABUTMENT

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR)



SECTION A-A



SECTION X-X

▣ - THIS DIMENSION IS THE SUM OF (2xSTEEL RETAINER WIDTH + DIM. A)
*** - MEASURED TO THE HIGHEST SIDE OF THE DIAPHRAGM
Y - %GRADE x (DIM. A + 18½")
%GRADE - INSTANTANEOUS PROFILE GRADE AT THE CENTERLINE OF THE JOINT

* SEE REAR ABUTMENT SHEET 17/55 AND FORWARD ABUTMENT SHEET 20/55

** SEE SLAB PLAN SHEET 38/55

4" STRIP SEAL JOINT WIDTH REAR ABUTMENT		
AMBIENT TEMP.	DIMENSION A	DIMENSION Y
90° F	1 5/16"	+7/16"
80° F	1 1/2"	+7/16"
70° F	1 11/16"	+7/16"
60° F	1 7/8"	+1/2"
50° F	2 1/8"	+1/2"
40° F	2 5/16"	+1/2"
30° F	2 1/2"	+1/2"

4" STRIP SEAL JOINT WIDTH FORWARD ABUTMENT		
AMBIENT TEMP.	DIMENSION A	DIMENSION Y
90° F	1 1/4"	-5/16"
80° F	1 7/16"	-5/16"
70° F	1 11/16"	-5/16"
60° F	1 7/8"	-5/16"
50° F	2 1/8"	-5/16"
40° F	2 5/16"	-5/16"
30° F	2 9/16"	-5/16"

NOTES:
MINIMUM JOINT OPENING (DIMENSION "A") AT TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 1½". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE MINIMUM 1½" OPENING.

A POSITIVE VALUE FOR DIMENSION Y INDICATES A POSITIVE INSTANTANEOUS PROFILE GRADE LOOKING UPSTATION. A NEGATIVE VALUE FOR DIMENSION Y INDICATES A NEGATIVE INSTANTANEOUS PROFILE GRADE LOOKING UPSTATION.

NOTES:

1. FOR ADDITIONAL DETAILS NOT SHOWN, REFER TO ODOT STANDARD BRIDGE DRAWING EXJ-6-06.
2. THE INSTALLATION SEQUENCE OF THE EXPANSION JOINT SHALL FOLLOW THE CONSTRUCTION PROCEDURE ON ODOT STANDARD DRAWING EXJ-6-06, SHEET 4 of 5 AND AS MODIFIED HEREIN.
3. NO JOINTS IN STRIP SEALS ARE ALLOWED UNLESS APPROVED BY THE DIRECTOR.
4. FOR JOINT TREATMENTS IN RETAINERS AND IN ARMOR STEEL, REFER TO ODOT STANDARD DRAWING EXJ-6-06, SHEET 4 of 5.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	RRC	RER	5/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708710	

STRIP SEAL EXPANSION JOINT DETAILS

BRIDGE NO. MOT-75-1523 (PRESTRESSED CONCRETE OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

50/55

285/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:41:36 PM
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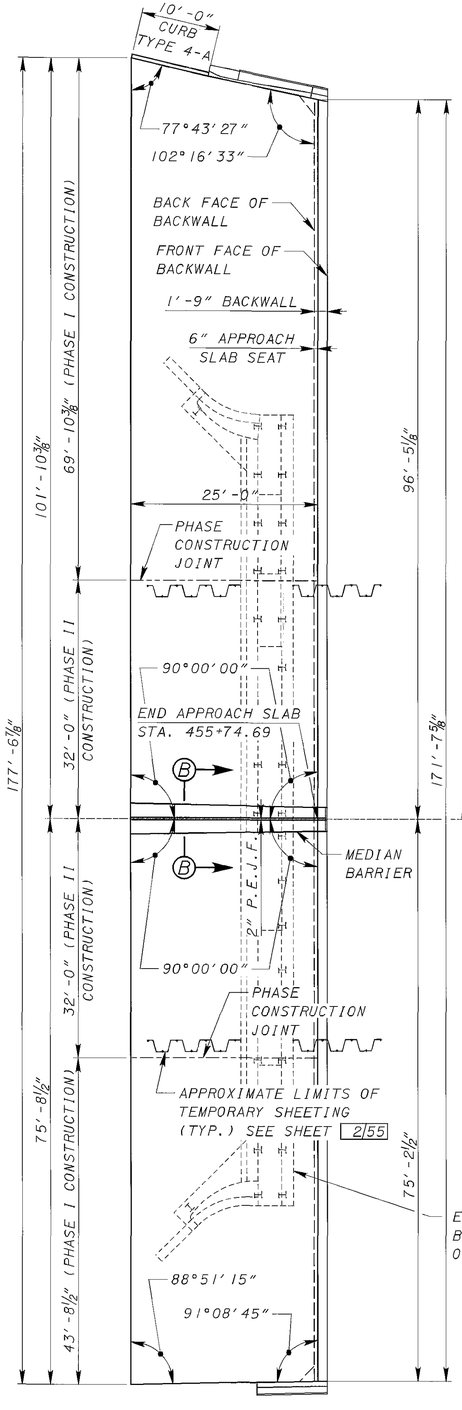
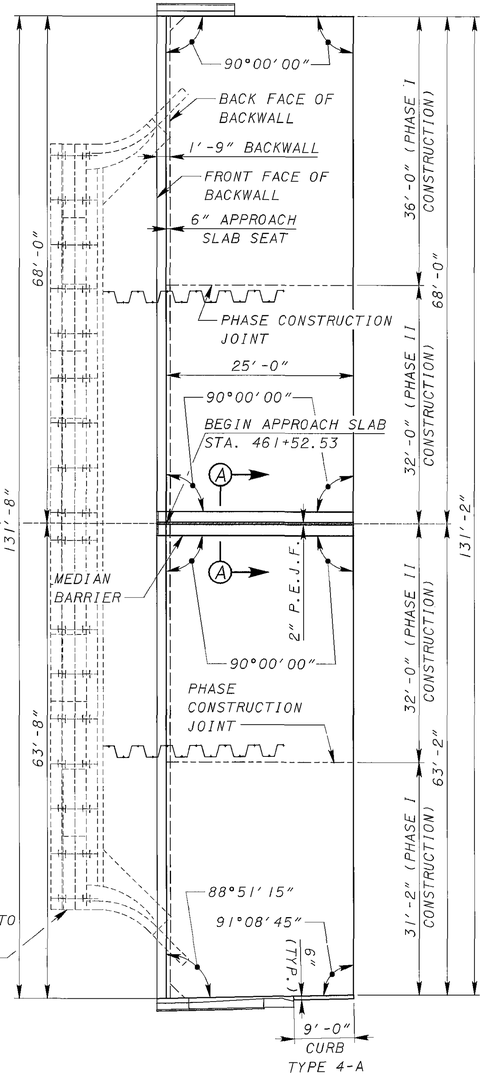
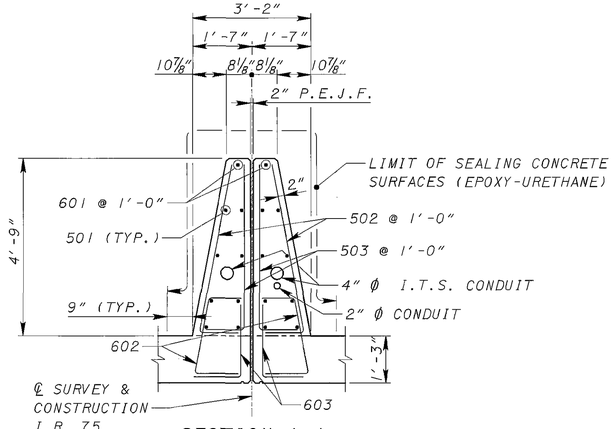


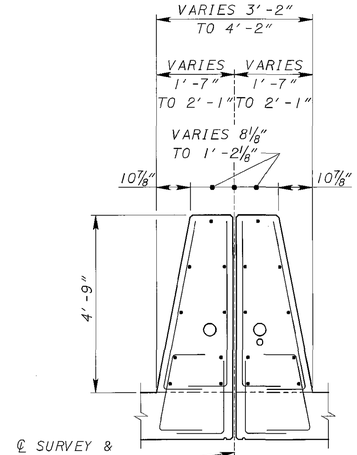
PLAN
REAR APPROACH SLAB



PLAN
FORWARD APPROACH SLAB



SECTION A-A



SECTION B-B

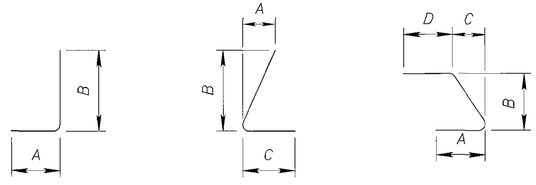
FOR REINFORCING STEEL AND CALLOUTS, SEE SECTION A-A

BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
MEDIAN BARRIER											
501	32	25'-11"	866	STR							
502	108	5'-6"	620	11	10 1/4"	4'-5"	1'-1"				
503	108	5'-5"	610	1	1'-1"	4'-5"					
601	4	25'-11"	156	STR							
602	108	4'-3"	689	29	1'-4"	2'-1"	4 1/2"	1'-1"			
603	108	3'-3"	528	1	1'-4"	2'-1"					

TOTAL WEIGHT OF REINFORCING = 3469 LBS

BAR BENDING DIAGRAM



NOTES:

1. FOR ADDITIONAL NOTES, DETAILS, SECTIONS, AND REINFORCING BARS NOT SHOWN HERE, SEE ODOT STANDARD DRAWING AS-1-81.
2. FOR CURB TYPE 4-A, REFER TO ODOT STANDARD DRAWING BP-5.1.
3. SEALING OF CONCRETE SURFACES ON MEDIAN PARAPETS IS INCLUDED WITH ITEM 512.
4. FOR TEMPORARY SHEETING NOTES, SEE GENERAL PLAN SHEET 2/55.
5. SEE ROADWAY SHEETS FOR ADDITIONAL MEDIAN BARRIER TRANSITION DETAILS.
6. FOR ITEMS INCLUDED WITH ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), 15", AS PER PLAN., SEE STRUCTURE GENERAL NOTES.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
MLR	MLR	NFF	05/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

APPROACH SLAB PLAN (PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

51/55

286/314

Plotted By: eamack Date: 1/27/2007 Time: 3:41:35 PM
Filename: g:\cco04\0066\bridge\concrete_dt\cadd\23828as01.dgn

BAR SCHEDULE

REAR ABUTMENT

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
RA501	109	64	9'-10"	1118	656	2	2'-0"	6'-1"	2'-0"				
RA502	4		9'-4"	39		STR.							
RA503	16		10'-11"	182		3	3'-0"	2'-2"					
RA504	45		10'-9"	505		1	10"	10'-0"					
RA505	49	64	9'-2"	468	612	2	2'-8"	4'-1"	2'-8"				
RA506		68	10'-4"		733	1	10"	9'-5"					
RA507	60		8'-4"	522		2	2'-3"	4'-1"	2'-3"				
RA508	15		9'-9"	153		1	10"	9'-0"					
RA509	9		9'-5"	88		1	10"	8'-8"					
RA510	8		8'-11"	74		1	10"	8'-2"					
RA511	10		8'-3"	86		1	10"	7'-6"					
RA512	8		7'-9"	65		1	10"	7'-0"					
RA513	10		7'-2"	75		1	10"	6'-5"					
RA514	3		12'-10"	40		STR.							
RA515	72		30'-0"	2253		STR.							
RA516	20		12'-11"	269		1	2'-5"	10'-7"					
RA517	10		11'-10"	123		1	2'-2"	9'-9"					
RA518	5		8'-4"	43		1	2'-2"	6'-3"					
RA519	23		12'-0"	288		STR.							
RA520	2		13'-5"	28		STR.							
RA521		58	31'-7"		1911	STR.							
RA522	22		3'-11"	90		1	2'-0"	2'-0"					
RA523	16		6'-4"	106		STR.							
RA524	28		18'-8"	545		STR.							
RA525	4		11'-0"	46		STR.							
RA526	4		6'-3"	26		STR.							
RA527	2		10'-3"	21		19	8'-4"	1'-9 5/8"	10 1/8"				
RA528	2		8'-3"	17		STR.							
RA529	2		11'-6"	24		STR.							
RA530	2		14'-8"	31		STR.							
RA531	6		16'-2"	101		STR.							
RA532	6		4'-6"	28		STR.							
RA533	8		10'-0"	83		STR.							
RA534	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1 1/2"	5"		
RA535	5		5'-6"	29		STR.							
RA536	6		11'-11	75		STR.							
RA537	6		7'-0"	44		STR.							
RA538	18		9'-3"	174		STR.							
RA539	14		7'-5"	108		23	1'-1"	3'-2"	3'-0"			3"	
RA601	45		18'-4"	1239		2	2'-7"	6'-1"	10'-0"				
RA602		32	18'-1"		869	2	2'-7"	6'-1"	9'-9"				
RA603	4	32	17'-9"	107	853	2	2'-7"	6'-1"	9'-5"				
RA604	15		17'-4"	391		2	2'-7"	6'-1"	9'-0"				
RA605	9		17'-0"	230		2	2'-7"	6'-1"	8'-8"				
RA606	8		16'-6"	198		2	2'-7"	6'-1"	8'-2"				
RA607	10		15'-10"	238		2	2'-7"	6'-1"	7'-6"				
RA608	8		15'-4"	184		2	2'-7"	6'-1"	7'-0"				
RA609	10		14'-9"	222		2	2'-7"	6'-1"	6'-5"				
RA610	10		18'-6"	278		2	8'-10"	1'-2"	8'-10"				
RA611	109	66	10'-7"	1733	1049	2	4'-9"	1'-5"	4'-9"				
RA612	65		12'-3"	1196		2	5'-7"	1'-5"	5'-7"				
RA613	109	66	6'-0"	982	595	7	2'-9"	11"	2'-0"	10"			
RA614	44	66	11'-7"	766	1148	2	5'-3"	1'-5"	5'-3"				
RA615	14	4	3'-10"	81	23	13	2'-0"	11"	2"	1'-1"			

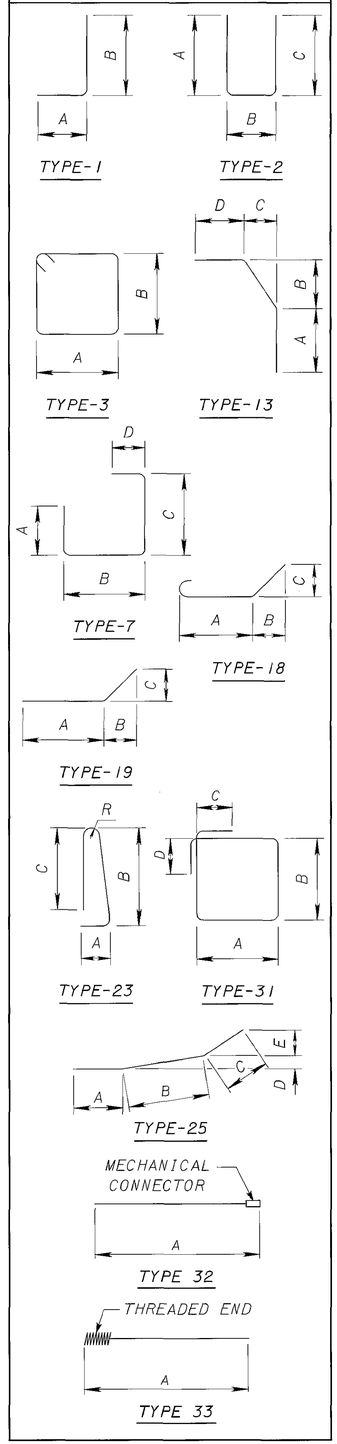
BAR SCHEDULE

REAR ABUTMENT

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
RA616	14	4	2'-11"	61	18	STR.							
RA617	1		4'-10"	7		STR.							
RA618	20		6'-7"	198		STR.							
	1 SERIES		13'-4"				6'-3"		6'-3"				
RA619	0F			118		2		1'-2"					6 1/8"
	8		6'-4"				2'-9"		2'-9"				
RA620	30		5'-7"	252		STR.							
RA621	11		25'-10"	427		2	12'-6"	1'-2"	12'-6"				
RA622	22		6'-9"	223		STR.							
RA623	1		9'-3"	14		STR.							
RA624	16		4'-3"	102		1	1'-7"	2'-10"					
RA625	24		11'-6"	412		31	2'-4"	2'-10"	1'-0"	1'-0"			
RA801	16		24'-9"	1057		32	24'-9"						
RA802	8		24'-9"	529		STR.							
RA803		16	34'-0"		1452	33	34'-0"						
RA804	16		25'-2"	1075		STR.							
RA805	4		13'-11"	149		STR.							
RA806	8		10'-5"	223		STR.							
RA807	4		7'-5"	79		STR.							
RA808	74	44	4'-11	971	578	18	2'-7"	1'-0"	1'-0"				
RA901	16		4'-1"	222		STR.							
RA902	40		4'-2"	567		1	1'-7"	2'-10"					

TOTAL WEIGHT FOR REAR ABUTMENT = 33,011 LBS (PHASE I = 22,514 LBS, PHASE II = 10,497 LBS)

BAR BENDING DIAGRAMS



NOTE:

FOR NOTES SEE SHEET 53/55.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1980

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	NFF	05/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH	JDH	570810	

REINFORCING STEEL LIST
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:10 PM
Filename: g:\co04\0066\bridge\concrete alt\cadd\23828r10.dgn

BAR SCHEDULE

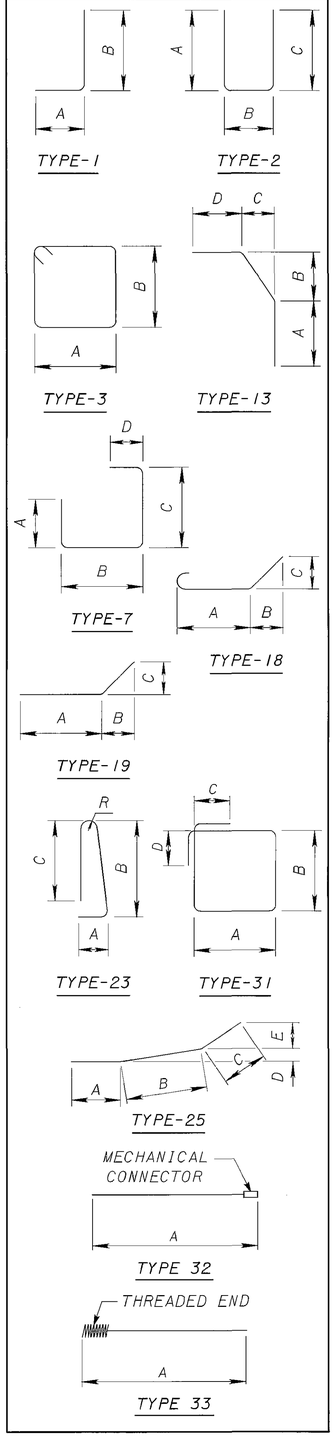
MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
FORWARD ABUTMENT													
FA501	71	65	7'-10"	580	531	2	1'-0"	6'-1"	1'-0"				
FA502	77	65	7'-0"	562	475	1	10"	6'-4"					
FA503	77	65	8'-10"	709	599	2	2'-6"	4'-1"	2'-6"				
FA504	18		10'-11"	205		3	3'-0"	2'-2"					
FA505	4		10'-10"	45		STR.							
FA506	24		39'-6"	989		STR.							
FA507		48	31'-8"		1585	STR.							
FA508	24		35'-3"	882		STR.							
FA509	14		5'-9"	84		STR.							
FA510	20		3'-10"	80		1	2'-0"	2'-0"					
FA511	4		11'-11"	50		STR.							
FA512	4		6'-9"	28		STR.							
FA513	2		11'-3"	23		19	9'-3"	1'-9"	11"				
FA514	2		8'-3"	17		STR.							
FA515	2		12'-1"	25		STR.							
FA516	2		14'-11"	31		STR.							
FA517	6		16'-11"	106		STR.							
FA518	14		7'-5"	108		23	1'-1"	3'-2"	3'-0"			3"	
FA519	6		5'-3"	33		STR.							
FA520	24		10'-0"	250		STR.							
FA521	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1½"	5"		
FA522	5		5'-6"	29		STR.							
FA523	4		12'-8"	53		STR.							
FA524	4		7'-8"	32		STR.							
FA601	71	65	14'-8"	1564	1432	2	2'-7"	6'-1"	6'-4"				
FA602	69	66	13'-1"	1356	1297	2	6'-0"	1'-5"	6'-0"				
FA603	69	66	9'-7"	993	950	2	4'-3"	1'-5"	4'-3"				
FA604	69	66	6'-0"	622	595	7	2'-9"	11"	2'-0"	10"			
FA605	14	4	3'-10"	81	23	13	2'-0"	11"	2"	1'-1"			
FA606	14	4	2'-11"	61	18	STR.							
FA607	21		18'-8"	589		2	8'-11"	1'-2"	8'-11"				
FA608	42		6'-9"	426		STR.							
	1 SER		13'-10"				6'-6"		6'-6"				
FA609	OF			121		2		1'-2"					6 7/16"
	8 BARS		6'-4"				2'-9"		2'-9"				
FA610	31		5'-7"	260		STR.							
FA611	1		10'-0"	15		STR.							
FA612	16		4'-3"	102		1	1'-7"	2'-10"					
FA613	24		11'-5"	412		31	2'-4"	2'-10"	1'-0"	1'-0"			
FA801	16		26'-0"	1111		32							
FA802	8		16'-5"	351		STR.							
FA803		16	34'-0"		1452	33							
FA804	8		12'-3"	262		STR.							
FA805	4		14'-11"	159		STR.							
FA806	8		11'-3"	240		STR.							
FA807	4		7'-2"	77		STR.							
FA808	47	44	4'-11"	617	578	18	2'-7"	1'-0"	1'-0"				
FA901	16		4'-1"	222		STR.							
FA902	40		4'-2"	567		1	1'-7"	2'-10"					

TOTAL WEIGHT FOR FORWARD ABUTMENT= 24,678 LBS (PHASE I = 15,143 LBS, PHASE II = 9535 LBS)

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.

BAR BENDING DIAGRAMS



NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:
   RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
   6: BAR SIZE DESIGNATION NO. 6
   01: SEQUENCE NUMBER

   BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

*2. REINFORCING BAR UTILIZING A MECHANICAL CONNECTOR. BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR USED.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE: SUITE 2000, CLEVELAND, OHIO 44113-1901

DESIGNED BTA | DRAWN RCK | REVIEWED NFF | DATE 05/31/05
CHECKED JDH | REVISED JDH | STRUCTURE FILE NUMBER 5708170

REINFORCING STEEL LIST
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

53/55

288/314

Plotted By: eamack Date: 7/27/2007 Time: 3:42:10 PM
Filename: g:\co04\0066\bridge\concrete.dir\cadd\23828r102.dgn

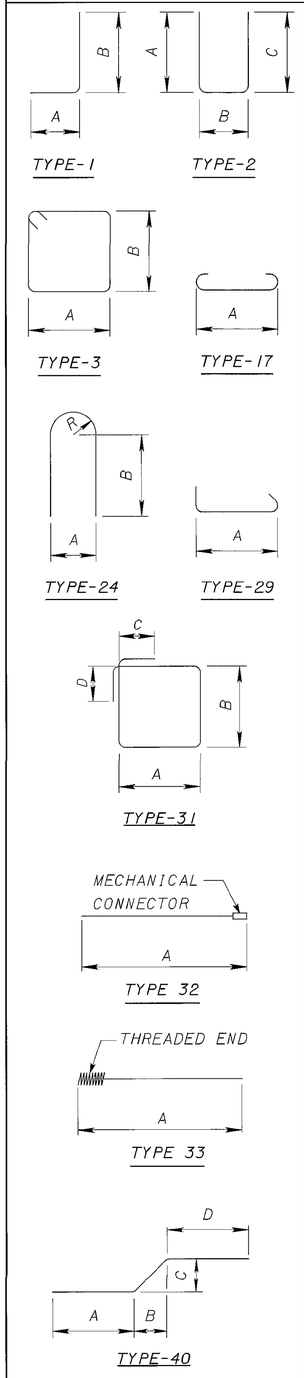
BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
PIER 1													
P401	4		14'-6"	39		3	2'-10"	4'-2"					
P402	944	624	3'-0"	1892	1250	29	2'-0"						
P501	64		22'-1"	1474		STR.							
P502		96	33'-0"		3304	STR.							
P503	64		29'-1"	1941		STR.							
P504	234	154	9'-0"	2197	1446	40	5'-2"	1'-2"	1'-2"	2'-3"			
P505	117	77	14'-3"	1739	1144	2	5'-2"	4'-2"	5'-2"				
P506	32		7'-1"	236		24	2'-0"	2'-0"				12"	
P507	32		28'-0"	935		STR.							
P508	32		21'-0"	701		STR.							
P601	24		11'-6"	412		31	2'-4"	2'-10"	1'-0"	1'-0"			
P602	16		4'-3"	102		1	1'-7"	2'-10"					
P603	8		4'-2"	50		STR.							
P801	8		14'-11"	319		STR.							
*P802		16	34'-0"		1452	33							
P803	8		29'-0"	619		STR.							
*P804	16		29'-2"	1246		32							
P805	16		6'-6"	278		STR.							
P901	40		4'-2"	567		1	1'-7"	2'-10"					
P1001	102	68	12'-4"	5413	3609	17	9'-6"						
P1002	234	154	11'-8"	11747	7731	1	1'-10"	10'-2"					
P1003	234	154	26'-9"	26935	17726	STR.							
TOTAL WEIGHT PIER 1 = 96,504 LBS (PHASE I = 58,842 LBS, PHASE II = 37,662 LBS)													
PIER 2													
P402	987	819	3'-0"	1978	1641	29	2'-0"						
P501	70		21'-1"	1539		STR.							
P502		112	33'-0"		3855	STR.							
P503	14		38'-6"	562		STR.							
P504	188	154	8'-1"	1585	1298	40	4'-2"	1'-2"	1'-2"	2'-3"			
P505	94	77	12'-4"	1209	991	2	4'-2"	4'-2"	4'-2"				
P506	42		7'-1"	310		24	2'-0"	2'-0"				12"	
P507	42		37'-5"	1639		STR.							
P508	42		20'-0"	876		STR.							
P601	24		11'-6"	412		31	2'-4"	2'-10"	1'-0"	1'-0"			
P602	16		4'-3"	102		1	1'-7"	2'-10"					
P603	8		4'-2"	50		STR.							
P801	8		21'-2"	452		STR.							
*P802		16	34'-0"		1452	33							
P803	8		19'-6"	417		STR.							
*P804	16		21'-0"	897		32							
P901	40		4'-2"	567		1	1'-7"	2'-10"					
P1001	72	61	12'-4"	3821	3237	17	9'-6"						
P1002	188	154	11'-8"	9438	7731	1	1'-10"	10'-2"					
P1003	188	154	35'-0"	28314	23193	STR.							
TOTAL WEIGHT PIER 2 = 97,566 LBS (PHASE I = 54,168 LBS, PHASE II = 43,398 LBS)													

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
PIER 3													
P402	1012	858	3'-0"	2028	1719	29	2'-0"						
P501	14		38'-2"	557		STR.							
P502		116	33'-0"		3993	STR.							
P503	14		38'-6"	562		STR.							
P504	182	154	8'-1"	1534	1298	40	4'-2"	1'-2"	1'-2"	2'-3"			
P505	91	77	12'-4"	1171	991	2	4'-2"	4'-2"	4'-2"				
P506	44		7'-1"	325		24	2'-0"	2'-0"				12"	
P507	44		37'-5"	1717		STR.							
P508	44		37'-1"	1702		STR.							
P601	24		11'-6"	412		31	2'-4"	2'-10"	1'-0"	1'-0"			
P602	16		4'-3"	102		1	1'-7"	2'-10"					
P603	8		4'-2"	50		STR.							
P801	8		19'-2"	409		STR.							
*P802		16	34'-0"		1452	33							
P803	8		19'-6"	417		STR.							
*P804	16		21'-0"	897		32							
P901	40		4'-2"	567		1	1'-7"	2'-10"					
P1001	75	67	12'-4"	3980	3556	17	9'-6"						
P1002	182	154	11'-8"	9137	7731	1	1'-10"	10'-2"					
P1003	182	154	35'-2"	27541	23304	STR.							
TOTAL WEIGHT PIER 3 = 97,152 LBS (PHASE I = 53,108 LBS, PHASE II = 44,044 LBS)													
PIER 4													
P402	810	702	3'-0"	1623	1407	29	2'-0"						
P501	14		36'-2"	528		STR.							
P502		100	33'-0"		3442	STR.							
P503	14		38'-6"	562		STR.							
P504	178	154	8'-1"	1501	1298	40	4'-2"	1'-2"	1'-2"	2'-3"			
P505	89	77	12'-4"	1145	991	2	4'-2"	4'-2"	4'-2"				
P506	36		7'-1"	266		24	2'-0"	2'-0"				12"	
P507	36		37'-5"	1405		STR.							
P508	36		35'-1"	1317		STR.							
P601	24		11'-6"	412		31	2'-4"	2'-10"	1'-0"	1'-0"			
P602	16		4'-3"	102		1	1'-7"	2'-10"					
P603	8		4'-2"	50		STR.							
*P801	8		34'-2"	730		32							
*P802		16	34'-0"		1452	33							
P803	8		22'-3"	475		STR.							
*P804	8		18'-5"	393		32							
P901	40		4'-2"	567		1	1'-7"	2'-10"					
P1001	72	68	12'-4"	3821	3609	17	9'-6"						
P1002	178	154	11'-8"	8936	7731	1	1'-10"	10'-2"					
P1003	178	154	29'-7"	22659	19604	STR.							
TOTAL WEIGHT PIER 4 = 86,026 LBS (PHASE I = 46,492 LBS, PHASE II = 39,534 LBS)													

BAR BENDING DIAGRAMS



NOTES:

1. FOR NOTES, SEE SHEET 53/55.

* SEE SHEET 53/55

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	CAG	RER	05/30/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708110	

REINFORCING STEEL LIST
(PRESTRESSED CONCRETE OPTION)
IR-75 OVER THE GREAT MIAMI RIVER
BRIDGE NO. MOT-75-1523

MOT-75-14.60
PID 23828

54/55

289/314

Plotted By: emack Date: 7/27/2007 Time: 3:42:11 PM
Filename: g:\co04\0066\bridge\concrete_df\cadd\23828r103.dgn

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
				SUPERSTRUCTURE									
S401	2130	1640	30'-0"	42685	32866	STR							
S402	59		25'-6"	1005		STR							
S403	37		26'-4"	651		STR							
S404	24		22'-2"	355		STR							
S405	48	82	12'-6"	401	685	STR							
S406	34		20'-5"	464		STR							
S407	24		22'-3"	357		STR							
S408	258	208	8'-6"	1465	1181	2	3'-9"	1'-2"	3'-9"				
S409	38	32	4'-10"	123	103	30	1'-11½"	6¼"	8½"	8½"			
S410	38	32	12'-11"	328	276	24	5½"	6'-4"					2½"
S411	38	32	2'-8"	68	57	STR							
S412	77		13'-7"	699		28	5'-10"	8"	5'-10"	11"			
S413	164	192	14'-10"	1625	1902	6	2'-2"	5'-10"	8"				
S501	4305	304	30'-0"	134703	9512	STR							
	2 SERIES		12'-10"										
S502	OF		TO	36720		STR							1/4"
	655		40'-11"										
S503	1448		40'-2"	60662		STR							
S504		5520	31'-7"		181837	STR							
	2 SERIES		8'-4"										
S505	OF		TO	40512		STR							1/16"
	1379		19'-10"										
S506	1		8'-4"	9		STR							
S507	16		4'-0"	67		STR							
S508	1181		7'-5"	9136		23	1'-1"	3'-2"	3'-0"				2¾"
S509	6		24'-7"	154		19	22'-7"	2'-0"	2½"				
S510	6		21'-1"	132		STR							
S511		1138	5'-6"		6528	11	10¼"	4'-5"	1'-1"				
S512		1138	5'-5"		6429	1	1'-1"	4'-5"					
S513		8	11'-7"		97	STR							
S514		8	17'-5"		145	STR							
S515		8	14'-2"		118	STR							
S516		8	20'-0"		167	STR							
S517		16	8'-10"		147	STR							
S518	6		14'-4"	90		STR							
S519		8	5'-6"		46	13	2'-11"	1'-6½"	3½"	1'-1"			
S520		8	6'-3"		52	19	4'-5"	2½"	1'-1"				
S521		8	2'-10"		24	STR							
S522	1		19'-10"	21		STR							
S523	1		40'-11"	43		STR							
S601		32	5'-0"		240	STR							
S602	43	40	30'-0"	1938	1802	STR							
S603	1181	1138	3'-9"	6652	6410	29	1'-1"	1'-9"	4"	1'-1"			
S604	1181	1138	2'-8"	4730	4558	1	1'-1"	1'-9"					
S605	1		22'-3"	33		19	17'-11"	4'-4"	5½"				
S606	1		18'-9"	28		STR							
S607		1	29'-8"		45	STR							
S608		1	7'-2"		11	STR							
S609		2	18'-2"		55	STR							
S610	1		9'-8"	15		STR							
S611		2	2'-10"		9	STR							
S612		8	6'-3"		75	29	2'-7"	1'-9"	4"	2'-1"			
S613		8	6'-1"		73	2	2'-1"	1'-9"	2'-7"				
S614		1	37'-10"		57	STR							

BAR SCHEDULE

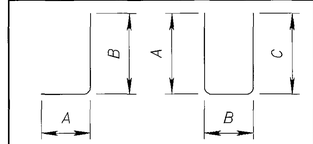
MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
S615		1	15'-4"		23	STR							
S616	30		7'-9"	349		STR							
S617	189	288	6'-11"	1963	2992	STR							
S618	24		9'-6"	342		13	3'-10"	7"	7"	4'-10"			
S619	252	384	9'-1"	3438	5239	13	3'-10"	7"	7"	4'-5"			
S620	24	24	2'-1"	75	75	STR							
S621	8	8	10'-4"	124	124	14	4'-5"	1'-6"	7"	7"	3'-10"		
S622	18		6'-8"	180		STR							
S623	24		8'-11"	321		13	3'-10"	7"	7"	4'-3"			
S624	12		4'-9"	86		STR							
S625	28		8'-0"	336		13	3'-10"	7"	7"	3'-4"			
S626	20		8'-1"	243		13	3'-10"	7"	7"	3'-5"			
S627	15		5'-0"	113		STR							
S628	9		8'-11"	121		STR							
S629	12		7'-9"	140		13	3'-10"	7"	7"	3'-1"			
S630	9		4'-4"	59		STR							
S631	24		8'-6"	306		13	3'-10"	7"	7"	3'-10"			
S632	30		5'-8"	255		STR							
S633	9		4'-10"	65		STR							
S634	6		7'-8"	69		STR							
S635	16		9'-0"	216		13	3'-10"	7"	7"	4'-4"			
S636	12		6'-8"	120		STR							
S637	16		8'-5"	202		13	3'-10"	7"	7"	3'-9"			
S701	2038	1628	30'-0"	124970	99829	STR							
S702	49		36'-2"	3622		STR							
S703	31		39'-8"	2513		STR							
S704	22		26'-1"	1173		STR							
S705	42	74	15'-1"	1295	2281	STR							
S706	31		19'-0"	1204		STR							
S707	22		21'-6"	967		STR							
S708	741	438	30'-9"	46574	27530	STR							
S709	933	720	24'-1"	45928	35443	STR							
S801	12		10'-11"	350		13	3'-10"	7"	7"	6'-4"			

TOTAL WEIGHT SUPERSTRUCTURE = 1,012,633 LBS (PHASE I = 583,590 LBS, PHASE II = 429,043 LBS)

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:
   - RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
   - 6: BAR SIZE DESIGNATION NO. 6
   - 01: SEQUENCE NUMBER
2. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

BAR BENDING DIAGRAMS



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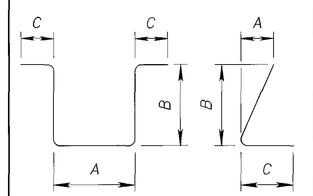

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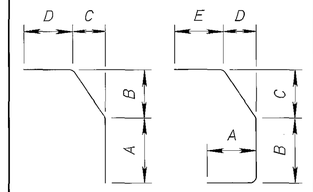

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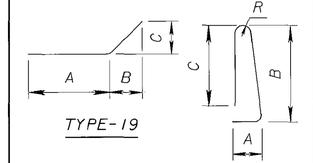

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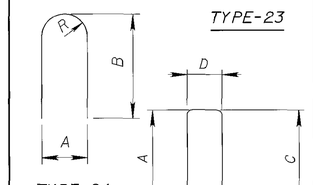
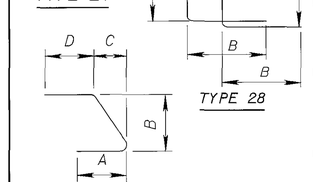


TYPE-23 TYPE-24 TYPE 28



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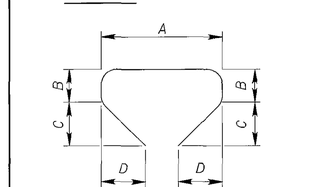

TYPE-30

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1900

DESIGNED	DRAWN	REVIEWED	DATE
MLR	MLR	NFF	05/31/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

REINFORCING STEEL LIST
(PRESTRESSED CONCRETE OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

55/55

290/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:11 PM
Filename: g:\co04\0066\bridge\concrete_dit\cadd\23828r104.dgn

RETAINING WALL GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

SBR-1-99 REVISED 07-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

898 DATED 07-16-04

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2003 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS QSC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60
GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 99 TONS PER PILE FOR THE PILES AT RETAINING WALL 1 AND 94 TONS PER PILE FOR THE PILES AT RETAINING WALL 2. THE ADDITION OF 5.0 TONS OF ULTIMATE BEARING VALUE PER PILE AT RETAINING WALL 1 IS DUE TO THE POSSIBILITY OF DOWN DRAG FORCES INDUCED BY EMBANKMENT SETTLEMENT.

RETAINING WALL 1:
36-HP 10 X 42 PILES 65 FEET LONG AND 30-HP 10 X 42 PILES 70 FEET LONG, ORDER LENGTH DYNAMIC LOAD TESTING ITEMS - 1

RETAINING WALL 2:
38-HP 10 X 42 PILES 50 FEET LONG AND 18-HP 10 X 42 PILES 55 FEET LONG, ORDER LENGTH DYNAMIC LOAD TESTING ITEMS - 1

BATTERED PILES:

THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1-UG}{\sqrt{(1+G^2)}}$$

U = COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G = RATE OF BATTER (1/3, 1/4, ETC.)

UTILITY LINES:

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM. FOR LIST OF UTILITY OWNER CONTACTS REFER TO ROADWAY GENERAL NOTES SHEETS.

ITEM 203 EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

INDEX OF SHEETS:

RETAINING WALL - GENERAL NOTES AND ESTIMATED QUANTITIES 1/12
RETAINING WALL 1 - GENERAL PLAN AND ELEVATION 2/12
RETAINING WALL 1 - FOUNDATION PLAN 3/12
RETAINING WALL 1 - PLAN AND ELEVATION 4/12 AND 5/12
RETAINING WALL 1 - SECTIONS 6/12
RETAINING WALL 2 - GENERAL PLAN AND ELEVATION 7/12
RETAINING WALL 2 - FOUNDATION PLAN 8/12
RETAINING WALL 2 - PLAN AND ELEVATION 9/12 AND 10/12
RETAINING WALL 2 - SECTIONS 11/12
RETAINING WALL - REINFORCING STEEL LIST 12/12

MADE BY RCK DATE 06/22/05
CHECK'D BY MLR DATE 06/23/05

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	RETAINING WALL # 1	RETAINING WALL # 2	AS PER PLAN SHEET NUMBER
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING	LUMP	LUMP	
503	21300	LUMP		UNCLASSIFIED EXCAVATION	LUMP	LUMP	
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION	LUMP	LUMP	
507	00100	7330	FT	STEEL PILES HP10X42, FURNISHED	4440	2890	
507	00150	6720	FT	STEEL PILES HP10X42, DRIVEN	4110	2610	
509	10000	61129	POUND	EPOXY COATED REINFORCING STEEL	34010	27119	
512	10100	713	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	456	257	
512	33000	47	SQ YD	TYPE 2 WATERPROOFING	31	16	
516	13600	95	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	56	39	
518	21200	310	CU YD	POROUS BACKFILL WITH FILTER FABRIC	210	100	
518	40000	406	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	224	182	
518	40010	39	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	14	25	
523	20000	2	EACH	DYNAMIC LOAD TESTING	1	1	
898	11000	63	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE(PARAPET)	35	28	
898	20000	357	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE	169	188	
898	20300	314	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (FOOTING)	231	83	

*-ALL RETAINING WALL ITEMS ARE PAID FOR WITH FEDERAL AND STATE FUNDS.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE- SUITE 2000
CLEVELAND, OHIO 44113-2007

REVIEWED RER DATE 06/18/05
DRAWN HD REVISED
DESIGNED NFF CHECKED BTA
STRUCTURE FILE NUMBER 5708710

RETAINING WALL-GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

1/12

291/314

Plotted By: acscheiderer Date: 8/28/2007 Time: 2:48:42 PM
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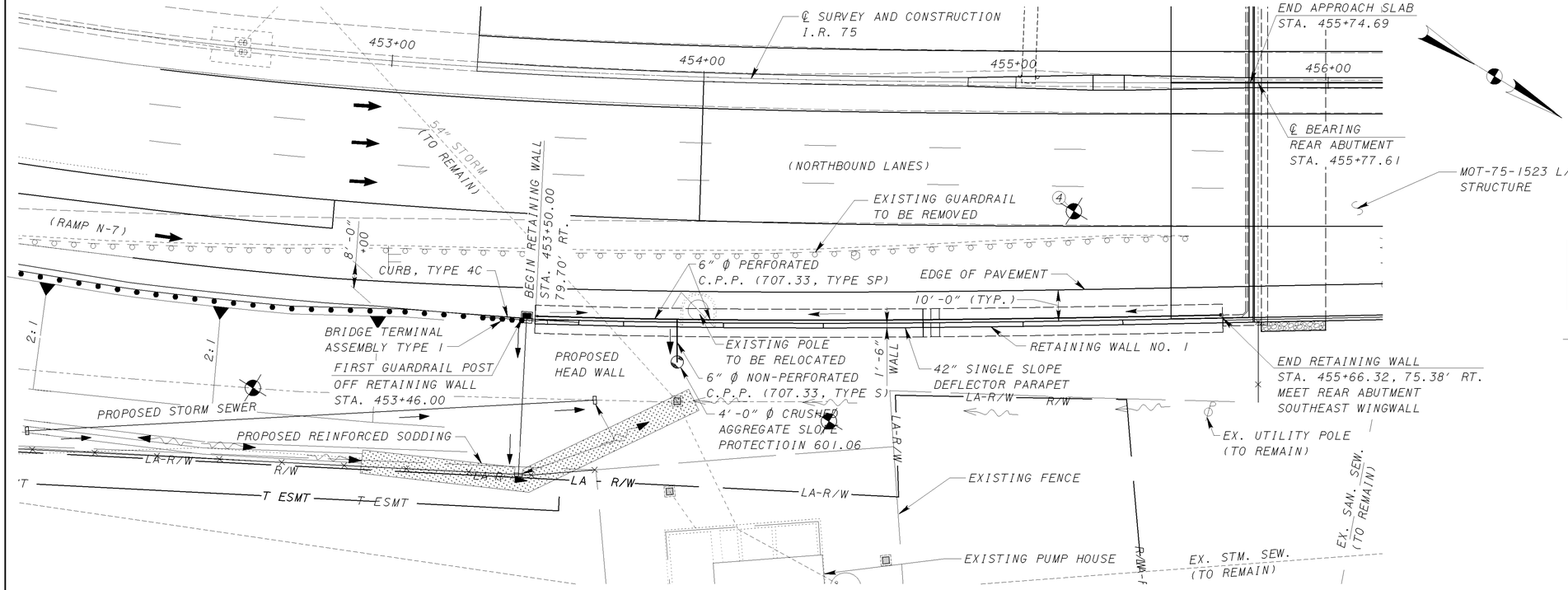
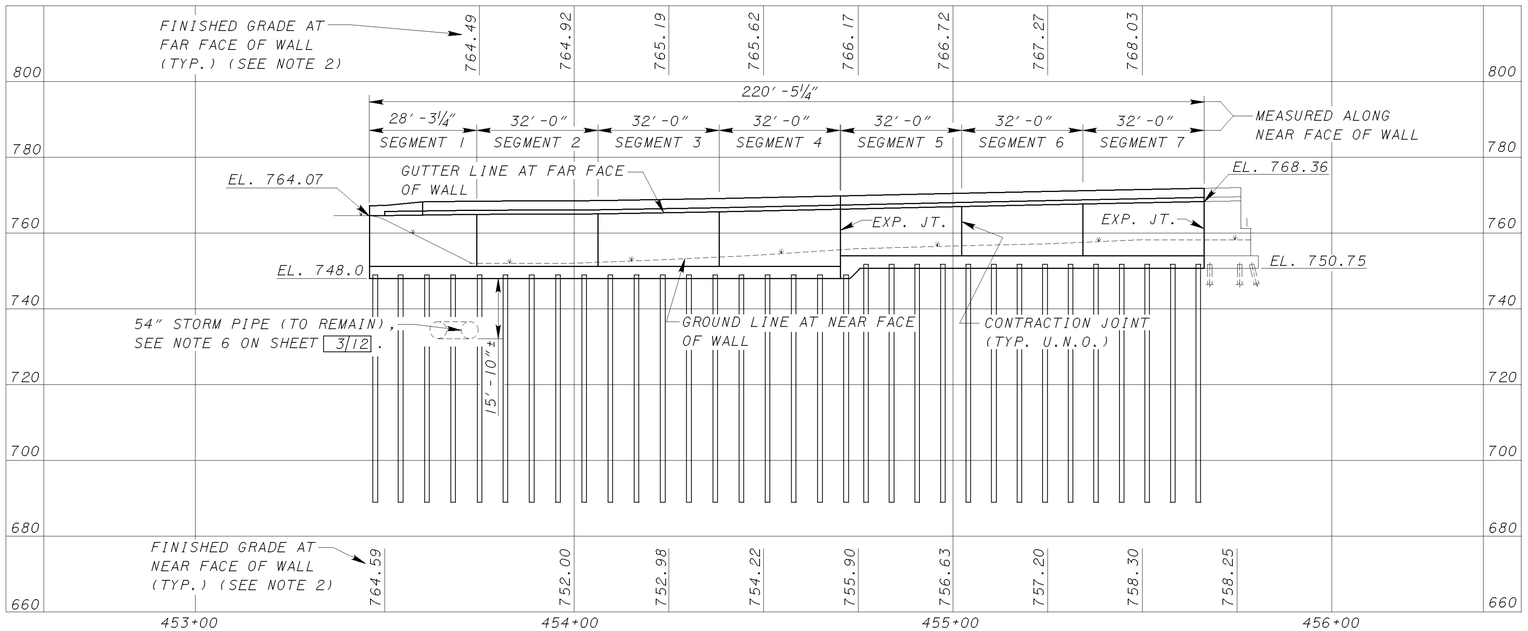


PLAN

BORING LOCATIONS		
BORING	STATION	OFFSET
#4	455+18.71	41.22' RT.

- DENOTES SOIL BORING LOCATION



RETAINING WALL ELEVATION

NOTES:

1. ABBREVIATIONS:
   TYP. - TYPICAL
   EL. - ELEVATION
   STA. - STATION
   U.N.O. - UNLESS NOTED OTHERWISE
   EXP. JT. - EXPANSION JOINT

2. FOR DETAILING PURPOSES, THE TERM "NEAR FACE" DEFINES THE FRONT, VISIBLE FACE OF THE WALL. THE TERM "FAR FACE" DEFINES THE BACK, EARTH RETAINING FACE OF THE WALL.

3. FOR ADDITIONAL NOTES, SEE SHEET 3/12.

FOUNDATION DATA:

ALL PILES SHALL BE HP 10x42 STEEL PILES

PILE ESTIMATED LENGTH:
RETAINING WALL I = 30 PILES @ 65 FT.
36 PILES @ 60 FT.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708110	

RETAINING WALL I GENERAL PLAN AND ELEVATION
BRIDGE NO. MOT-75-1523 L/R
STA. 453+50.00 TO STA. 455+61.30

MOT-75-14.60
PID 23828

2/12

292/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:14 PM
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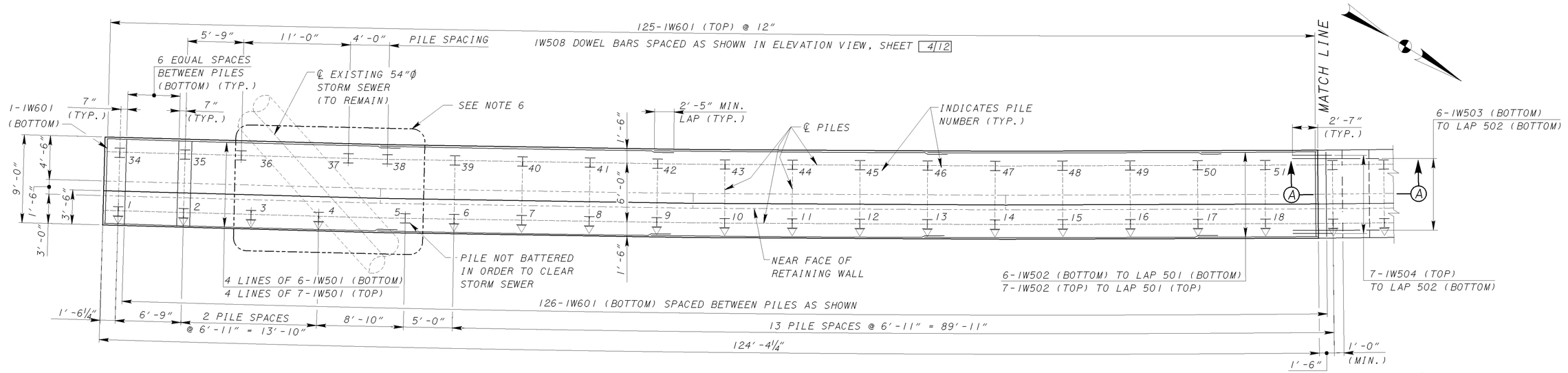
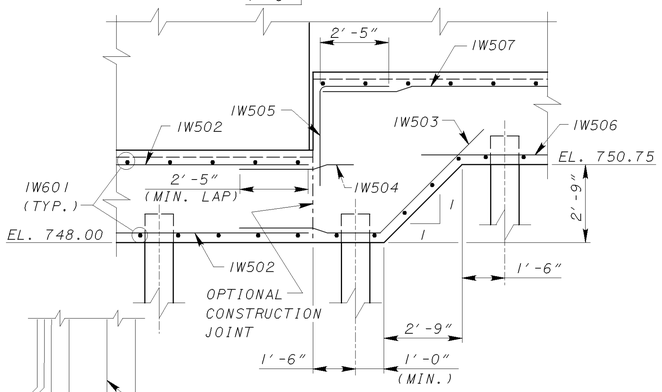
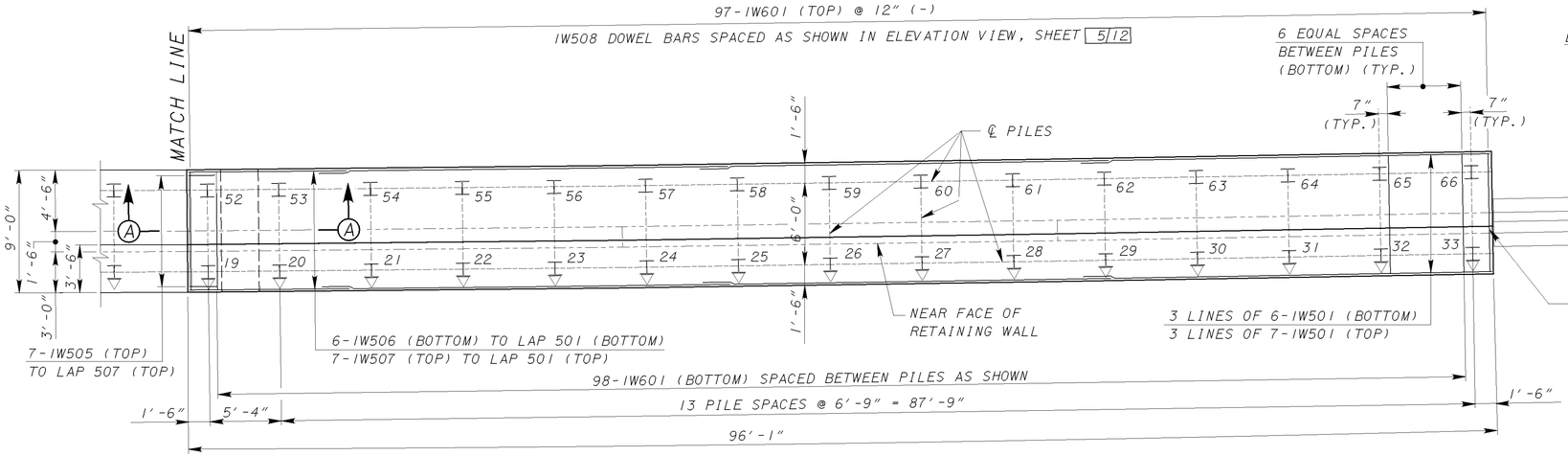


PARTIAL FOOTING PLAN



SECTION A-A



PARTIAL FOOTING PLAN

NOTES:

1. ALL PILES ARE HP 10x42
2. PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING PLUS 1'-0"
3. PILE LAYOUT DIMENSIONS ARE MEASURED AT BOTTOM OF FOOTING AND ALONG NEAR FACE OF RETAINING WALL.
4. PILES SHALL BE PLACED PERPENDICULAR TO NEAR FACE OF RETAINING WALL
5. ALL BATTERED PILES SHALL BE INCLINED 4 IN 12 IN THE DIRECTION SHOWN.
6. CONTRACTOR SHALL FIELD LOCATE EXISTING 54" Ø STORM SEWER AND ADJUST PILE SPACING TO CLEAR.
7. ALL REINFORCING BAR SPACINGS ARE MEASURED ALONG THE NEAR FACE OF THE RETAINING WALL.
8. FOR RETAINING WALL PLAN AND ELEVATION, SEE SHEETS 4|12 AND 5|12 .
9. FOR REINFORCING STEEL LIST, SEE SHEET 12|12.

LEGEND:

I - INDICATES VERTICAL PILE

I - INDICATES PILE BATTER IN DIRECTION SHOWN

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708110	

RETAINING WALL 1 - FOUNDATION PLAN
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:15 PM
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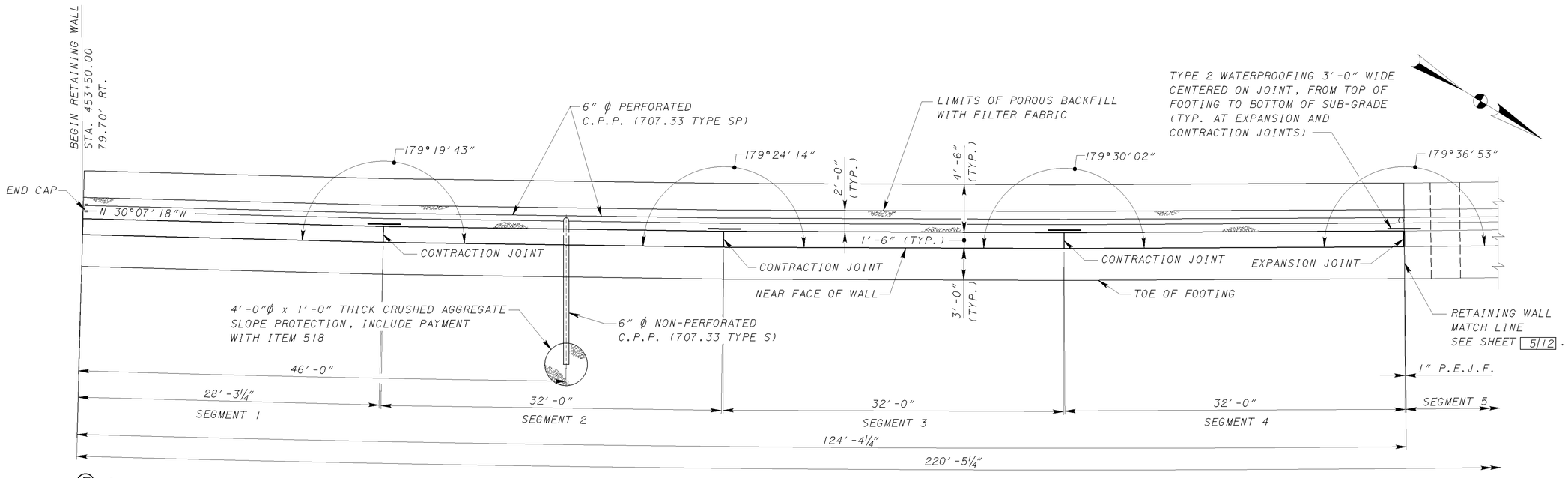
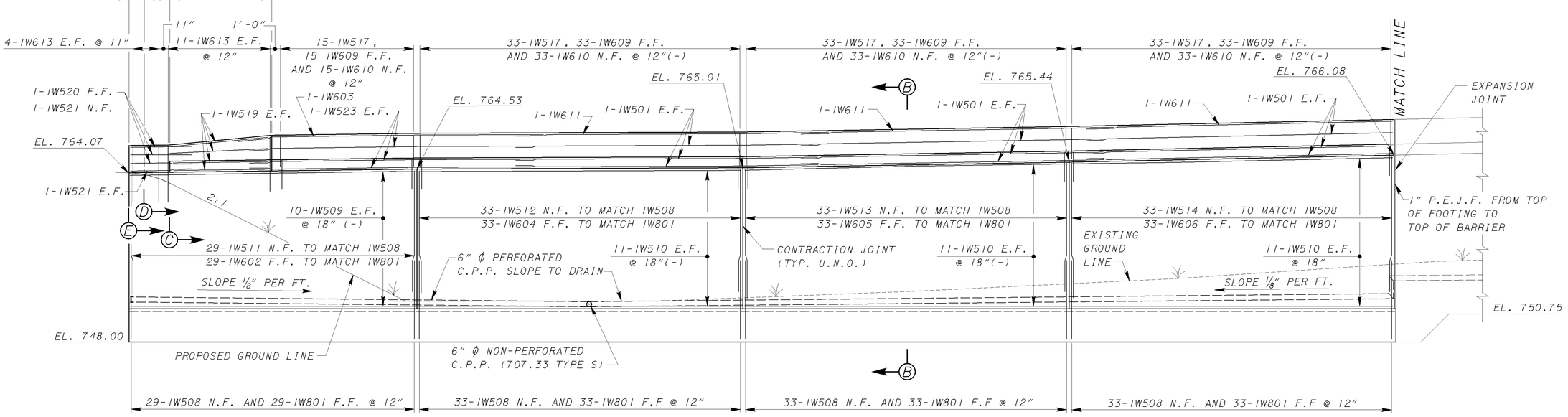


PLAN SEGMENTS 1 THRU 4

(PILES AND PARAPET NOT SHOWN FOR CLARITY)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0" (U.N.O.)
#6	3'-1"



ELEVATION SEGMENTS 1 THRU 4

(PILES AND PARAPET NOT SHOWN FOR CLARITY)

LEGEND:

E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P - CORRUGATED POLYETHYLENE PIPE
U.N.O. - UNLESS NOTED OTHERWISE
TYP. - TYPICAL

NOTES:

1. ALL REINFORCING BAR SPACINGS ARE MEASURED ALONG THE NEAR FACE OF THE WALL.
2. FOR FOOTING LAYOUT PLAN, SEE SHEET 3/12.
3. FOR SECTIONS B-B, C-C, D-D AND E-E, SEE SHEET 6/12.
4. FOR REINFORCING STEEL LIST, SEE SHEET 12/12.
5. FOR CONTRACTION AND EXPANSION JOINT DETAILS, SEE SHEET 11/12.
6. FOR ADDITIONAL NOTES, SEE SHEET 5/12.
7. SEE O.D.O.T. STANDARD DRAWING SBR-1-99 FOR ADDITIONAL 14'-0" PARAPET TRANSITION DETAILS.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1090, CLEVELAND, OHIO 44113-1901
DESIGNED BTA | DRAWN RCK | CHECKED NFF | REVISED
REVIEWED RER | DATE 06/18/05 | STRUCTURE FILE NUMBER 570810

RETAINING WALL 1 - PLAN AND ELEVATION
BRIDG NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

4/12

294/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:15 PM
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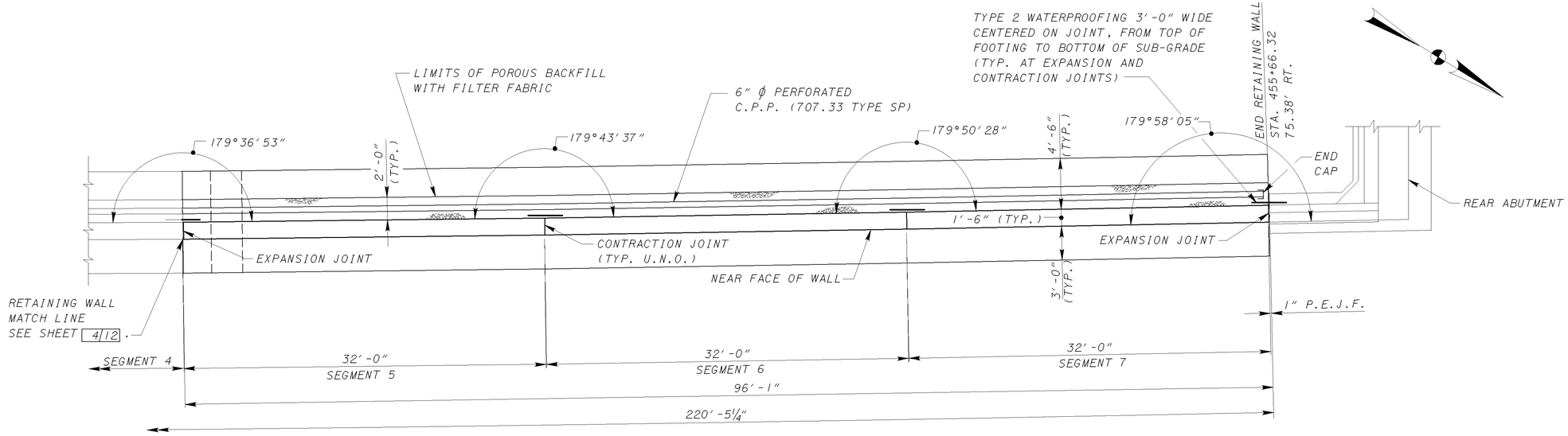
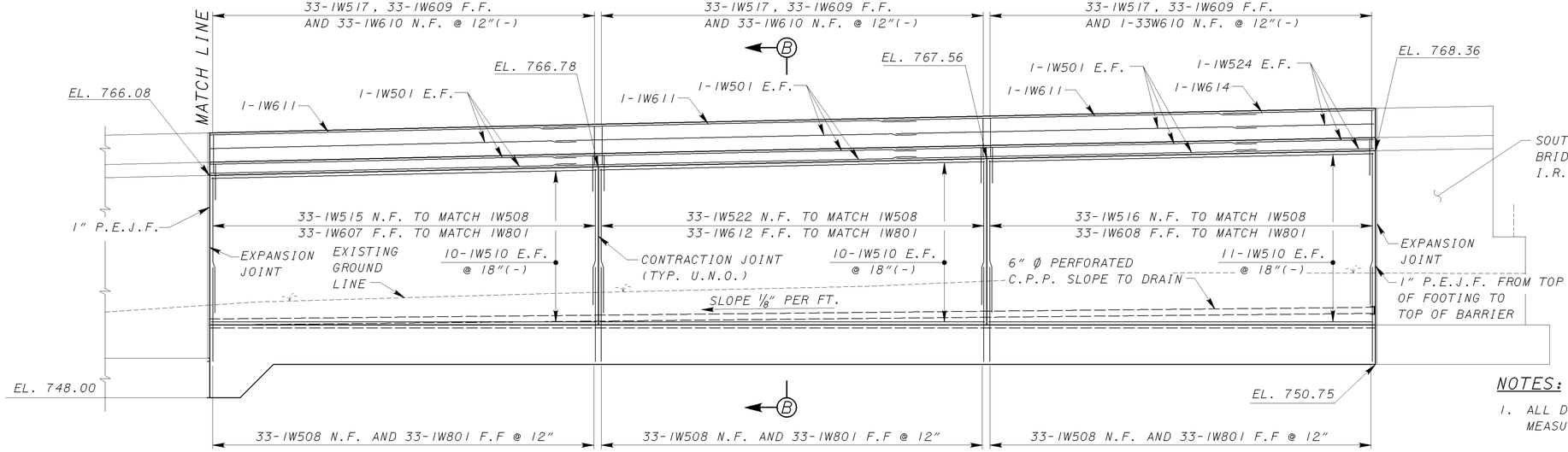


PLAN SEGMENTS 5 THRU 7

(PILES AND PARAPET NOT SHOWN FOR CLARITY)



ELEVATION SEGMENTS 5 THRU 7

(PILES AND FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0" (U.N.O.)
#6	3'-1"

LEGEND:

E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P - CORRUGATED POLYETHYLENE PIPE
U.N.O. - UNLESS OTHERWISE NOTED
TYP. - TYPICAL

NOTES:

1. ALL DIMENSIONS AND REINFORCING BAR SPACINGS ARE MEASURED ALONG THE NEAR FACE OF THE WALL.
2. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE RETAINING WALLS.
3. FOR FOOTING LAYOUT PLAN, SEE SHEET 3/12.
4. FOR SECTION B-B, SEE SHEET 6/12.
5. FOR REINFORCING STEEL LIST, SEE SHEET 12/12.
6. FOR CONTRACTION AND EXPANSION JOINT DETAILS, SEE SHEET 11/12.
7. FOR ADDITIONAL NOTES, SEE SHEET 4/12.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		570810	

RETAINING WALL 1 - PLAN AND ELEVATION
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

5/12

295
3/4

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:16 PM
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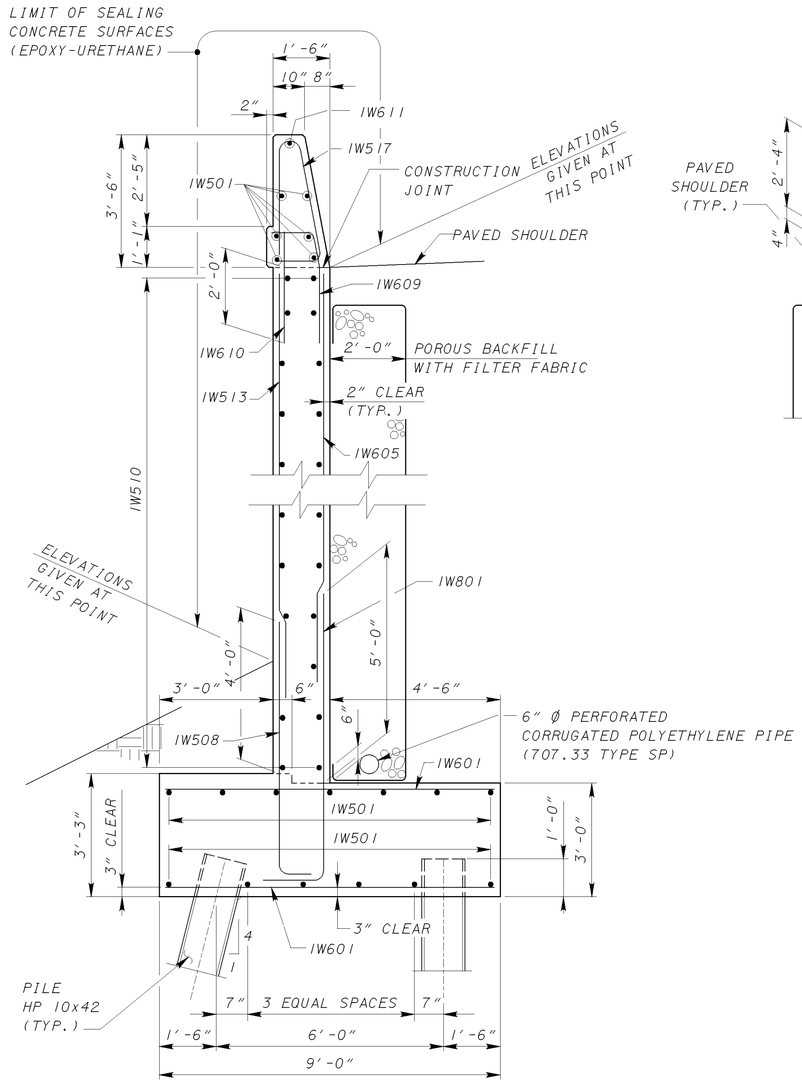
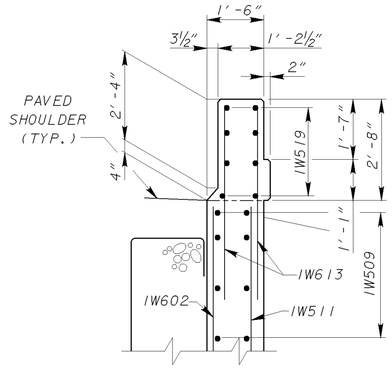
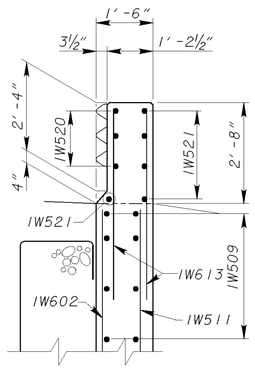


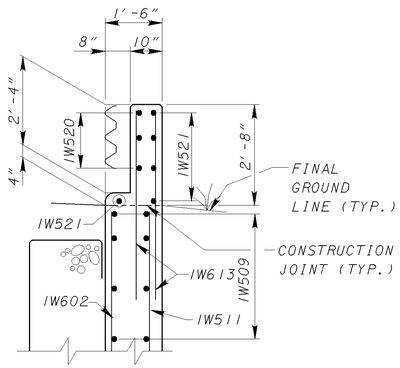
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE SUITE 1090 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		570810	

RETAINING WALL 1 - SECTIONS
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

6/12

296/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:16 PM
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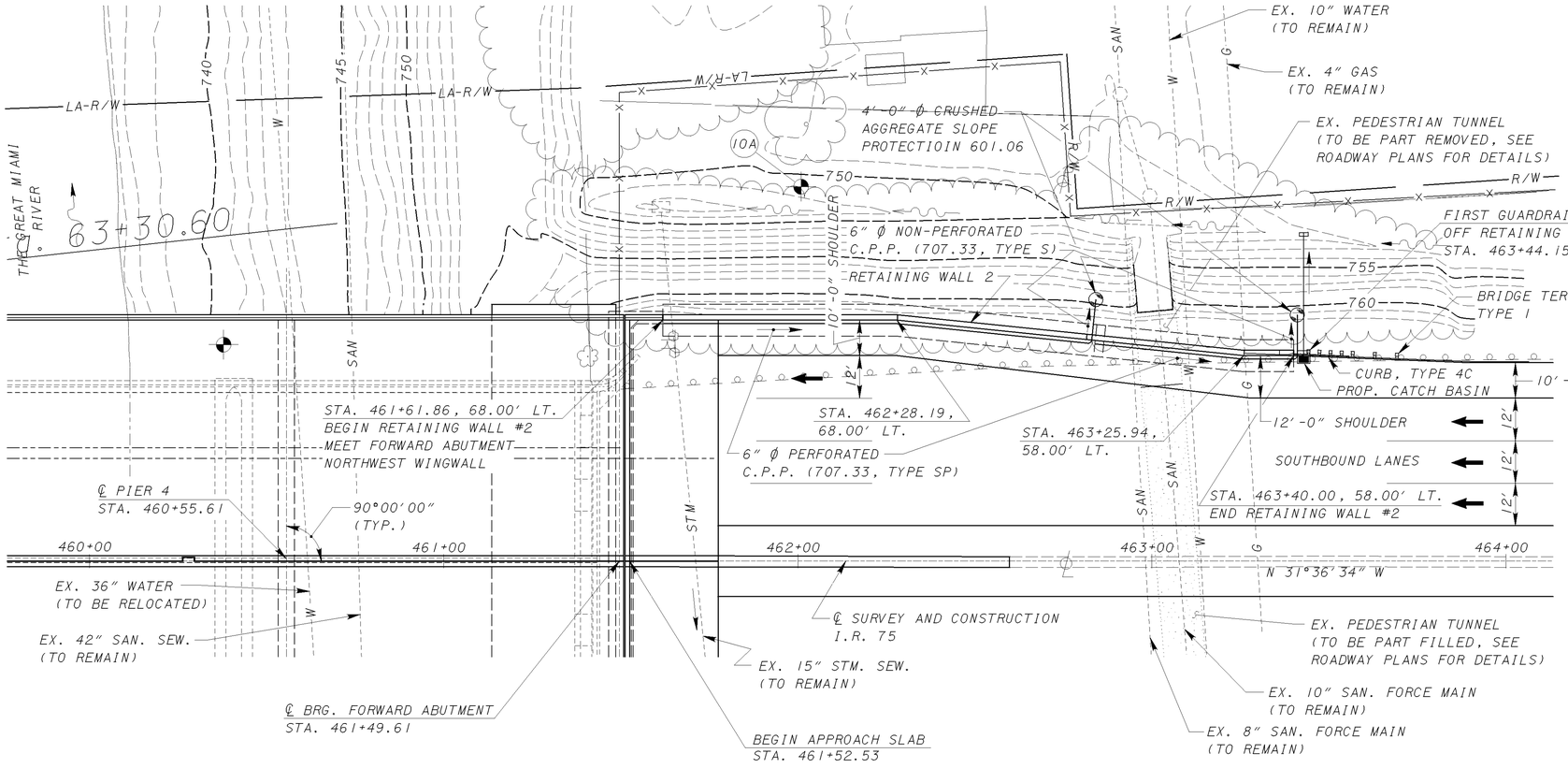
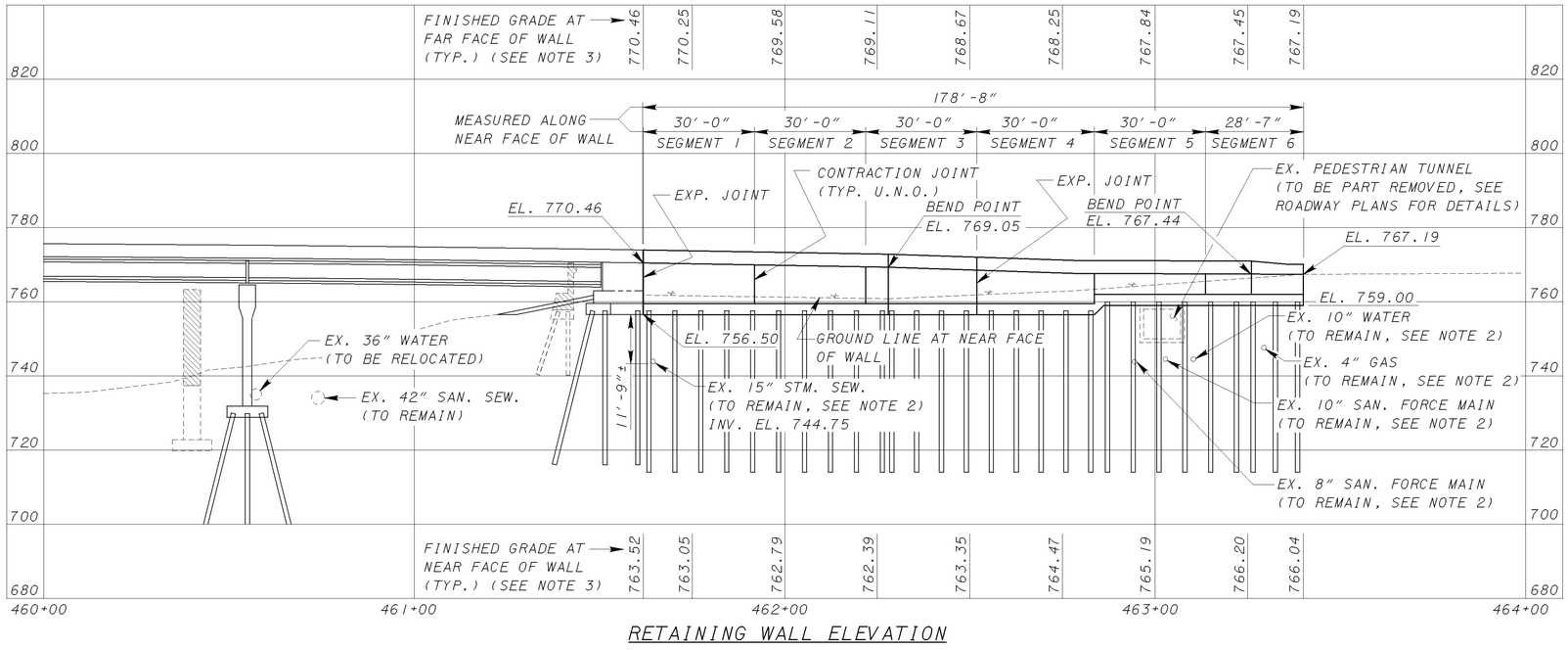


PLAN

BORING LOCATIONS		
BORING	STATION	OFFSET
#10A	462+00.93	105.69' LT.

- DENOTES SOIL BORING LOCATION



RETAINING WALL ELEVATION

NOTES:

1. ABBREVIATIONS:
   TYP. - TYPICAL
   EL. - ELEVATION
   STA. - STATION
   U.N.O. - UNLESS NOTED OTHERWISE
   EXP. - EXPANSION
2. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITES AND ADJUST PILE SPACING TO CLEAR, UTILITY LOCATIONS BY 1'-0". MAXIMUM PILE SPACING SHOULD BE LIMITED TO 9'-0" AT UTILITY LOCATIONS
3. FOR DETAILING PURPOSES, THE TERM "NEAR FACE" DEFINES THE FRONT, VISIBLE FACE OF THE WALL. THE TERM "FAR FACE" DEFINES THE BACK, EARTH RETAINING FACE OF THE WALL.
4. FOR ADDITIONAL NOTES, SEE SHEET 9/12.

FOUNDATION DATA:

ALL PILES SHALL BE HP 10x42 STEEL PILES

PILE ESTIMATED LENGTH:
RETAINING WALL 2 = 38 PILES @ 45 FT.
18 PILES @ 50 FT.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	RER	6/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708110	

RETAINING WALL 2 - GENERAL PLAN & ELEVATION
BRIDGE NO. MOT-75-15.60
STA. 461+61.94 TO STA. 463+40.00

MOT-75-14.60

7 / 12

297 / 314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:17 PM
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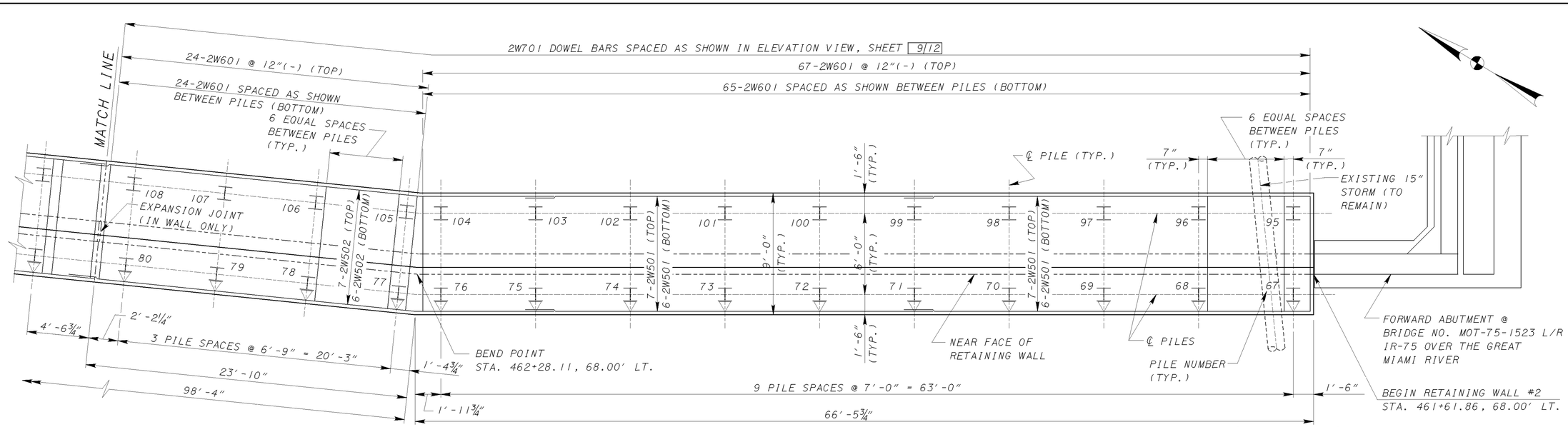
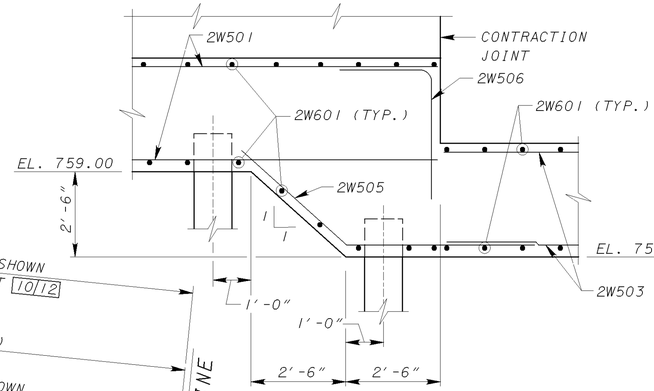
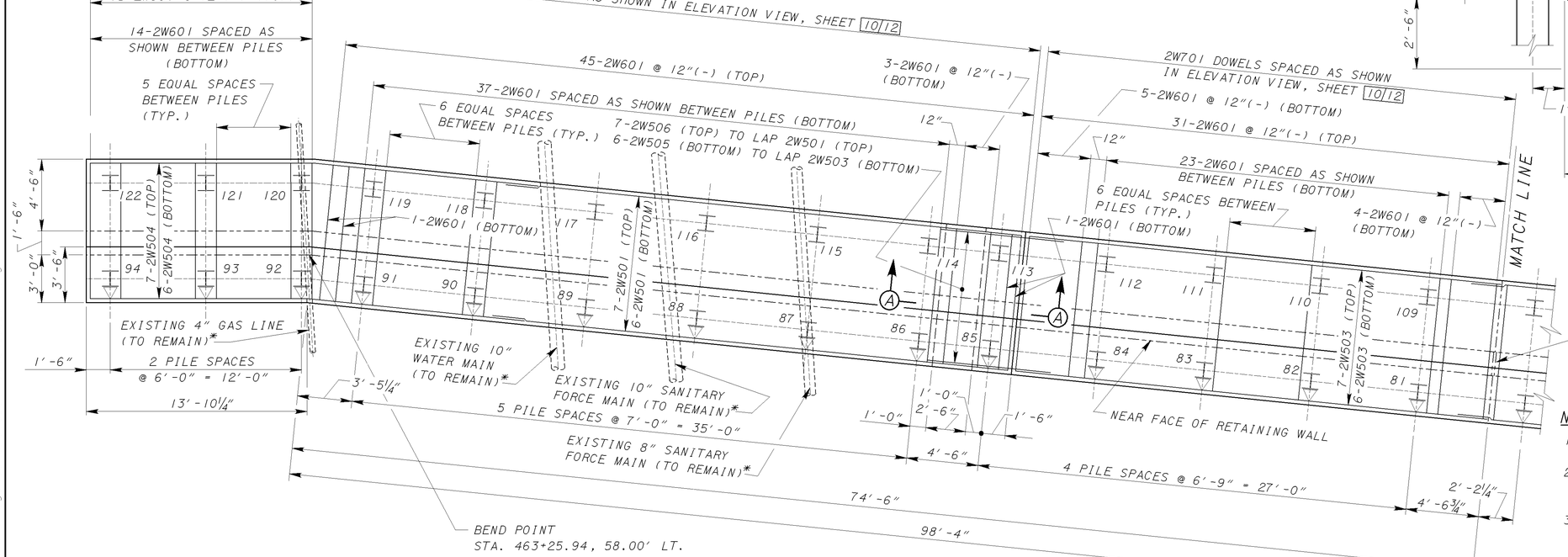


PARTIAL FOOTING PLAN

BAR	REQUIRED LAP LENGTH
#5	2'-5"



SECTION A-A



PARTIAL FOOTING PLAN

* - SEE NOTE 2 SHEET 7|12

LEGEND:

I - INDICATES VERTICAL PILE

I - INDICATES PILE BATTER IN DIRECTION SHOWN

NOTES:

1. ALL PILES ARE HP10x42.
2. PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING PLUS 1'-0".
3. ALL BATTERED PILES SHALL BE INCLINED 4 IN 12 IN DIRECTION SHOWN.
4. FOR RETAINING WALL PLAN AND ELEVATION, SEE SHEETS 9|12 AND 10|12.
5. FOR REINFORCING STEEL LIST, SEE SHEET 12|12.
6. PILES SHALL BE PLACED PERPENDICULAR TO NEAR FACE OF RETAINING WALL.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE SUITE 1090 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	RER	6/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708710	

RETAINING WALL 2 - FOUNDATION PLAN
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

8 / 12

298 / 314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:18 PM
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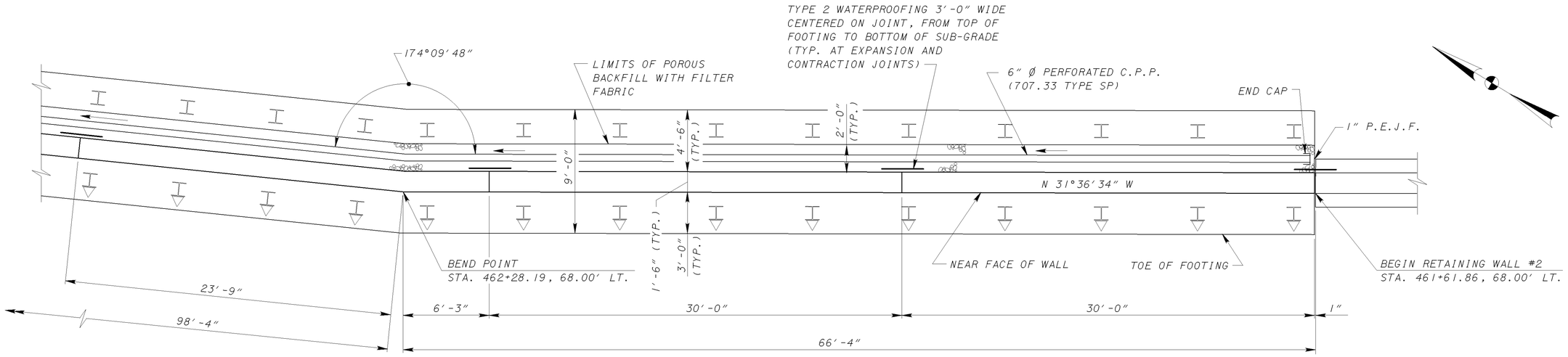
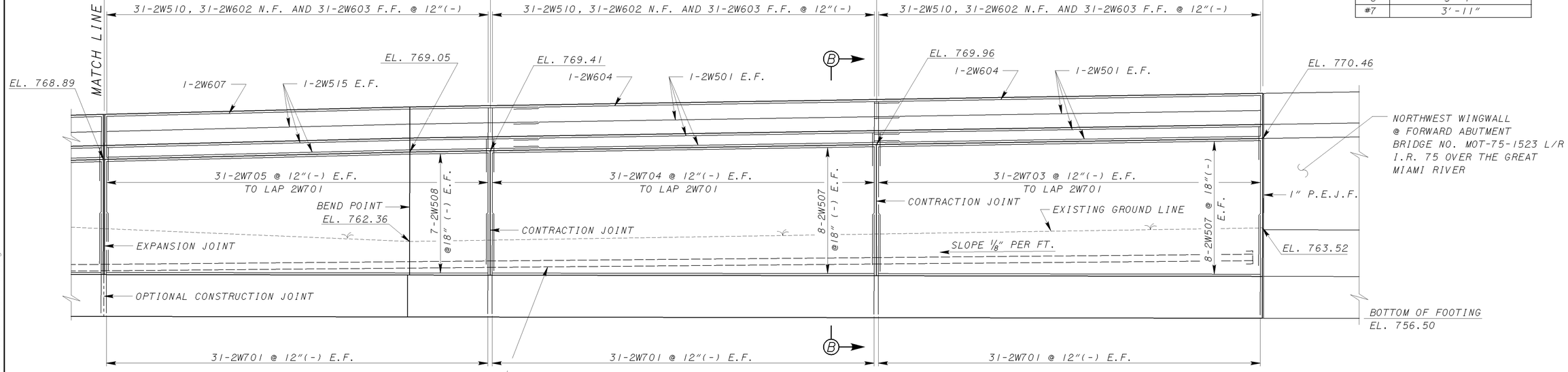


PLAN SEGMENTS 1 THRU 3

(PARAPET AND PILES NOT SHOWN FOR CLARITY)



ELEVATION SEGMENTS 1 THRU 3

(PILES AND FOOTING REINFORCING NOT SHOWN FOR CLARITY)

BAR	REQUIRED LAP LENGTH
#5	2′-0″
#6	3′-1″
#7	3′-11″

LEGEND:

E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P. - CORRUGATED POLYETHYLENE PIPE

NOTES:

1. ALL DIMENSIONS AND REINFORCING BAR SPACING ARE MEASURED ALONG THE NEAR FACE OF THE WALL.
2. FOR SECTION B-B, SEE SHEET 11/12.
3. FOR FOOTING PLAN AND REINFORCING, SEE SHEET 8/12.
4. FOR REINFORCING STEEL LIST, SEE SHEET 12/12.
5. FOR CONTRACTION AND EXPANSION JOINT DETAILS, SEE SHEET 11/12.
6. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE EDGE OF THE RETAINING WALL.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED BTA | DRAWN CAG | CHECKED NFF | REVISED | REVIEWED RER | DATE 6/18/05 | STRUCTURE FILE NUMBER 570810

RETAINING WALL 2 - PLAN & ELEVATION

BRIDGE NO. MOT-75-1523 L/R
I.R.-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:18 PM
Filename: G:\co04\0066\bridge\concrete_alt\cadd\23828rw12.dgn

END RETAINING WALL #2
STA. 463+40.00, 58.00' LT.

BEND POINT
STA. 463+25.94, 58.00' LT.

LIMITS OF POROUS BACKFILL WITH FILTER FABRIC

END CAP

6" Ø PERFORATED C.P.P. (707.33 TYPE SP)

TYPE 2 WATERPROOFING 3'-0" WIDE CENTERED ON JOINT, FROM TOP OF FOOTING TO BOTTOM OF SUB-GRADE (TYP. AT EXPANSION AND CONTRACTION JOINTS)

9'-0"

4'-6" (TYP.)

2'-0" (TYP.)

1'-6" (TYP.)

3'-0" (TYP.)

14'-0"

174°09'48"

14'-7"

30'-0"

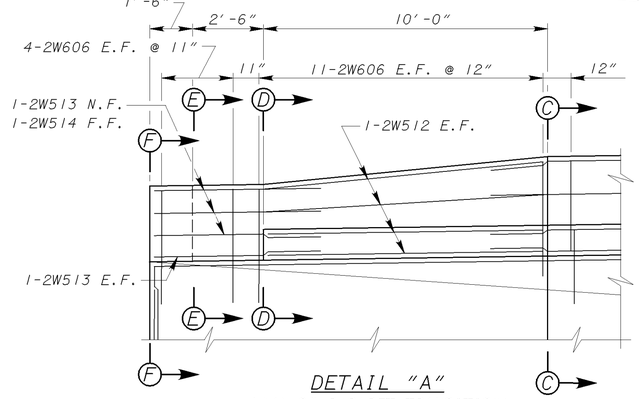
30'-0"

98'-4"

6" Ø NON-PERFORATED C.P.P. (707.33 TYPE S)

PLAN SEGMENTS 4 THRU 6
(PARAPET AND PILES NOT SHOWN FOR CLARITY)

4'-0"Ø x 1'-0" THICK CRUSHED AGGREGATE SLOPE PROTECTION, INCLUDE PAYMENT WITH ITEM 518 (TYP.)



DETAIL "A"
(14'-0" PARAPET TRANSITION)

LEGEND:

C.P.P. - CORRUGATED POLYETHYLENE PIPE
E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
TYP. - TYPICAL

28'-7" SEGMENT 6

30'-0" SEGMENT 5

30'-0" SEGMENT 4

14'-0" PARAPET TRANSITION

15-2W510, 15-2W602 N.F. AND 15-2W603 F.F. @ 12"(-)

31-2W510, 31-2W602 N.F. AND 31-2W603 F.F. @ 12"(-)

31-2W510, 31-2W602 N.F. AND 31-2W603 F.F. @ 12"(-)

MATCH LINE

SEE DETAIL "A"

EL. 767.44

EL. 767.19

EL. 767.94

EL. 768.13

EL. 768.89

1-2W605

1-2W511 E.F.

1-2W604

1-2W501 E.F.

1-2W604

1-2W501 E.F.

BEND POINT

5-2W509 @ 18"(-) E.F.

30-2W708 @ 12"(-) E.F. TO LAP 2W702

SLOPE 1/8" PER FT.

31-2W707 @ 12"(-) E.F. TO LAP 2W702

5-2W507 @ 18"(-) E.F.

CONTRACTION JOINT

CONTRACTION JOINT

31-2W706 @ 12"(-) E.F. TO LAP 2W701

7-2W507 @ 18"(-) E.F.

EXPANSION JOINT

EXISTING GROUND LINE

EL. 764.52

SLOPE 1/8" PER FT.

EL. 759.00

30-2W702 @ 12"(-) E.F.

31-2W702 @ 12"(-) E.F.

OPTIONAL CONSTRUCTION JOINT

BOTTOM OF FOOTING
EL. 756.50

6" Ø NON-PERFORATED C.P.P. (707.33, TYPE SP) SLOPE TO DRAIN

6" Ø PERFORATED C.P.P. (707.33, TYPE SP) SLOPE TO DRAIN

6" Ø NON-PERFORATED C.P.P. (707.33, TYPE S) SLOPE TO DRAIN

6" Ø PERFORATED C.P.P. (707.33, TYPE SP) SLOPE TO DRAIN

31-2W701 @ 12"(-) E.F.

BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	3'-1"
#7	3'-11"

ELEVATION SEGMENTS 4 THRU 6
(PILES AND FOOTING REINFORCING NOT SHOWN FOR CLARITY)

NOTES:

1. FOR ADDITIONAL NOTES, SEE SHEET 9/12.
2. FOR SECTIONS B-B, C-C, D-D, E-E AND F-F, SEE SHEET 11/12.
3. SEE O.D.O.T. STANDARD DRAWING SBR-1-99 FOR ADDITIONAL 14'-0" PARAPET TRANSITION DETAILS.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	RER	6/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708110	

RETAINING WALL 2 - PLAN & ELEVATION
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

10/12

300/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:19 PM
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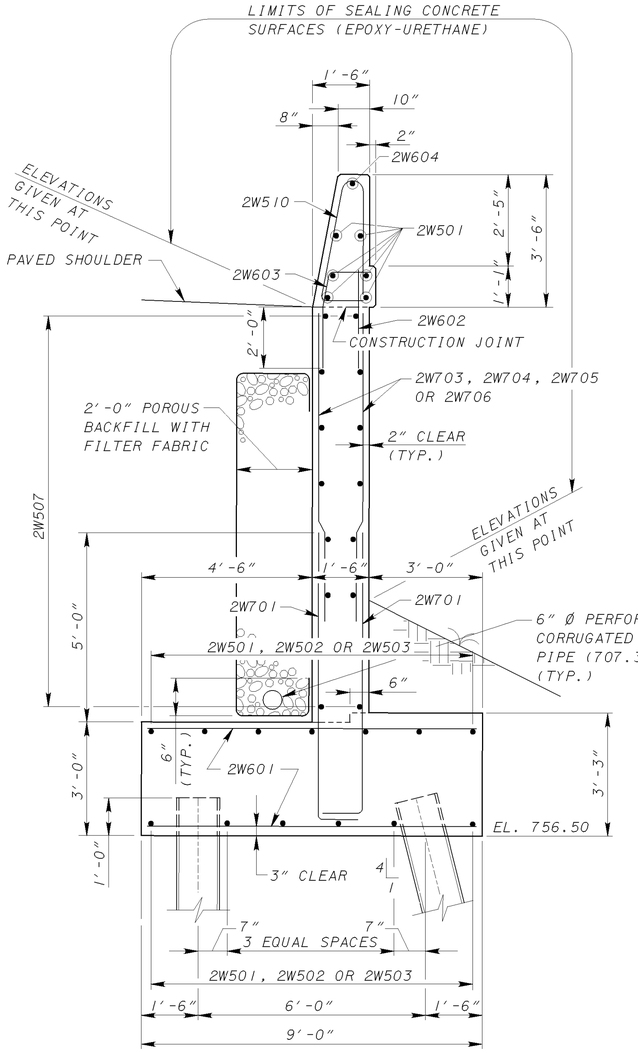
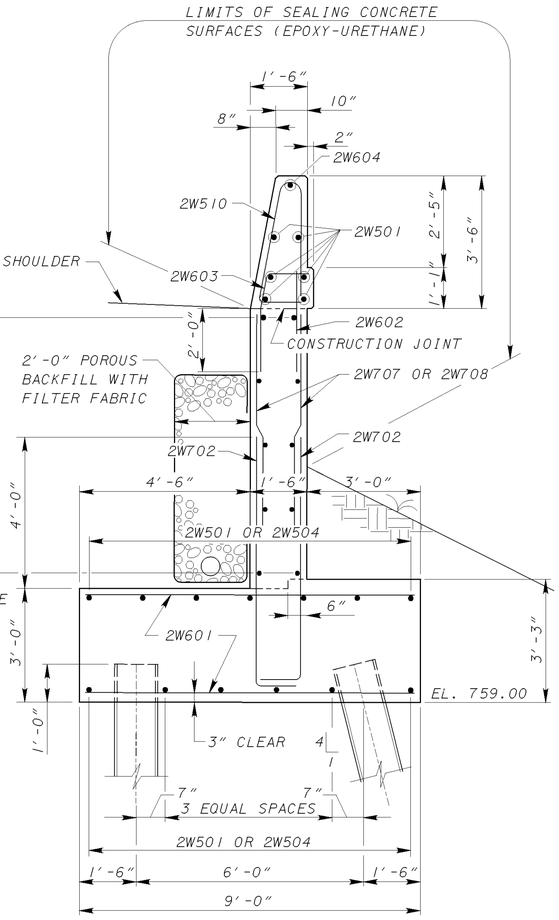


SECTION B-B



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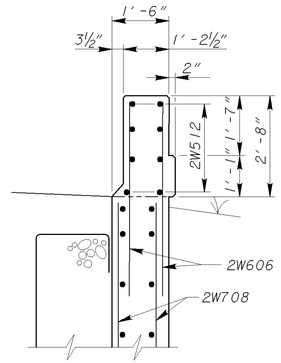

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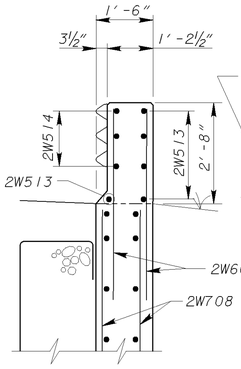
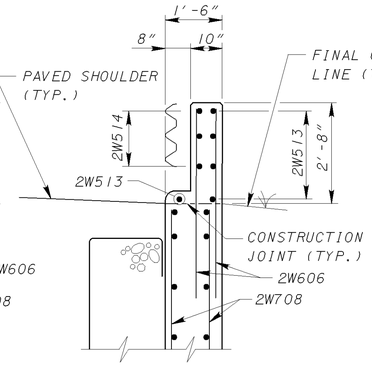
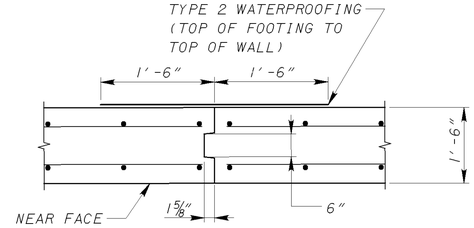


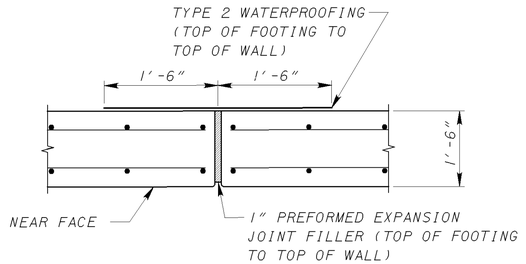
SECTION E-E



SECTION F-F



CONTRACTION JOINT



EXPANSION JOINT

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	RER	6/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708I0	

RETAINING WALL 2 - SECTIONS
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

11/12

301/314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:19 PM
Filename: g:\co04\0066\bridge\concrete.dt\cadd\23828rw14.dgn

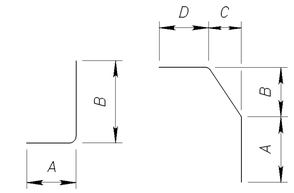
BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
RETAINING WALL 1													
1W501	127		30'-0"	3974		STR.							
1W502	13		13'-7"	184		STR.							
1W503	6		10'-0"	63		19	5'-0"	3'-7"	3'-7"				
1W504	7		4'-0"	29		STR.							
1W505	7		6'-0"	44		1	2'-5"	3'-8"					
1W506	6		9'-3"	58		STR.							
1W507	7		12'-11"	94		STR.							
1W508	227		7'-8"	1815		1	10"	6'-11"					
1W509	20		27'-11"	582		STR.							
1W510	128		31'-8"	4228		STR.							
1W511	29		11'-2"	338		STR.							
1W512	33		11'-7"	399		STR.							
1W513	33		12'-1"	416		STR.							
1W514	33		12'-8"	436		STR.							
1W515	33		10'-8"	367		STR.							
1W516	33		12'-2"	419		STR.							
1W517	213		7'-5"	1648		23	1'-1"	3'-2"	3'-0"			2¾"	
1W518	6		16'-1"	101		STR.							
1W519	8		10'-0"	83		STR.							
1W520	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1½"	5"		
1W521	5		5'-6"	29		STR.							
1W522	33		11'-5"	393		STR.							
1W523	6		28'-0"	175		STR.							
1W524	6		11'-8"	73		STR.							
1W601	448		8'-8"	5832		STR.							
1W602	29		11'-6"	501		STR.							
1W603	1		28'-8"	43		STR.							
1W604	33		12'-0"	595		STR.							
1W605	33		12'-4"	611		STR.							
1W606	33		13'-0'	644		STR.							
1W607	33		11'-0"	545		STR.							
1W608	33		12'-6"	620		STR.							
1W609	213		3'-11"	1253		13	2'-0"	11"	2"	1'-1"			
1W610	213		2'-11"	933		STR.							
1W611	6		30'-0"	270		STR.							
1W612	33		11'-9"	582		STR.							
1W613	30		5'-4"	240		STR.							
1W614	1		14'-11"	22		STR.							
1W801	227		8'-10"	5354		1	1'-4"	7'-8"					
TOTAL WEIGHT RETAINING WALL 1 = 34010 POUNDS													

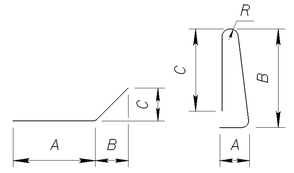
BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
RETAINING WALL 2													
2W501	63		30'-0"	1971		STR.							
2W502	13		37'-3"	505		19	26'-3"	11'-0"	1'-2"				
2W503	13		29'-10"	405		STR.							
2W504	13		30'-10"	418		19	17'-0"	13'-9"	1'-5"				
2W505	6		9'-8"	60		19	5'-0"	3'-4"	3'-4"				
2W506	7		5'-9"	42		1	2'-5"	3'-5"					
2W507	56		29'-8"	1733		STR.							
2W508	20		29'-10"	622		19	23'-9"	6'-1"	8"				
2W509	10		28'-3"	295		19	14'-5"	13'-9"	1'-5"				
2W510	170		7'-5"	1315		23	1'-1"	3'-2"	3'-0"			2¾"	
2W511	6		20'-6"	128		19	18'-6"	2'-0"	3"				
2W512	8		10'-0"	83		STR.							
2W513	5		5'-6"	29		STR.							
2W514	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1½"	5"		
2W515	6		33'-8"	211		19	23'-7"	10'-1"	1'-0"				
2W601	360		8'-8"	4686		STR.							
2W602	170		2'-11"	745		STR.							
2W603	170		3'-11"	1000		13	2'-0"	11"	2"	1'-1"			
2W604	4		30'-0"	180		STR.							
2W605	1		23'-11"	36		19	20'-7"	3'-1"	1'-4"				
2W606	30		5'-4"	240		STR.							
2W607	1		35'-10"	54		19	23'-7"	12'-2"	1'-3"				
2W701	248		8'-9"	4435		1	1'-2"	7'-9"					
2W702	122		7'-9"	1933		1	1'-2"	6'-9"					
2W703	62		9'-9"	1236		STR.							
2W704	62		9'-2"	1162		STR.							
2W705	62		8'-8"	1099		STR.							
2W706	62		8'-2"	1035		STR.							
2W707	62		5'-11"	750		STR.							
2W708	60		5'-8"	695		STR.							
TOTAL WEIGHT RETAINING WALL 2 = 27119 POUNDS													

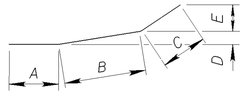
BAR BENDING DIAGRAMS



TYPE-1 TYPE-13



TYPE-19 TYPE-23



TYPE-25

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, 1W601:
   - 1W: LOCATION OF THE BAR IN THE STRUCTURE (RETAINING WALL 1)
   - 6: BAR SIZE DESIGNATION NO. 6
   - 01: SEQUENCE NUMBER

2. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 2000
CLEVELAND, OHIO 44113-1901

DESIGNED RCK
DRAWN RCK
CHECKED MLR
REVISED
REVIEWED RER
DATE 6/21/05
STRUCTURE FILE NUMBER 570810

RETAINING WALLS - REINFORCING STEEL LIST
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

12 / 12

302
314

Plotted By: ecmack Date: 7/27/2007 Time: 3:42:20 PM
Filename: g:\cc04\0066\bridge\concrete.glt\cadd\23828rwr101.dgn

CENTERLINE PLAT

MOT-75-14.60
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- LOCAL GOV. CONTROL MONUMENT
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET
- CROSS NOTCH FOUND
- SITE BM

BRIDGE LOCATION DETAIL -N.T.S.-

ENDDAM LOCATION 425+19.42 1.89 LT
I-75 S.B. BRIDGE
ENDDAM LOCATION 426+64.66 1.89 LT
425+19.40 1.02 RT ENDDAM LOCATION
BRIDGE I-75 N.B.
426+64.70 1.25 RT ENDDAM LOCATION
CENTERLINE OF R/W

STA 427+20.56
237.51 LT
654015.2176 N
1494830.0200 E

STA 427+20.56
237.51 LT
654015.2176 N
1494830.0200 E

STA 426+15.39
424.54 RT
653843.9485 N
1495478.1290 E

BEGIN ACQUISITION
STA. 431+54.43

STA 427+20.70
244.88 LT
654016.0937 N
1494822.7010 E

BEGIN WORK
STA. 426+78.05

STA 428+18.93
290.07 LT
654124.8100 N
1494789.3470 E

BEGIN PROJECT
STA. 432+45.67
SLM - 14.60

E033(774)

SUSPEND ACQUISITION
STA. 432+68.53

END WORK
STA. 15+40.12

END ACQUISITION
STA. 15+47.23

STA 427+32.19
STA 431+58.19
115.16 RT
654399.1865 N
1495246.4620 E

STA 431+74.44
247.20 RT
654386.2107 N
1495378.7680 E

STA 432+21.51
107.60 RT
654460.8261 N
1495252.5360 E
SITE BM #1
ELEV: 748.29

STA 432+39.69
239.43 RT
654447.4963 N
1495384.8340 E

STA 432+96.59
255.19 RT
654495.4091 N
1495412.8470 E

STA 435+13.76
687.39 RT
654582.5990 N
1495884.9170 E

STA 436+94.86
654.43 RT
654765.8950 N
1495901.9230 E

STA 445+28.43
594.29 RT
655718.8267 N
1496053.1890 E

STA 446+48.88
134.76 LT
655869.0605 N
1495326.8733 E
SITE BM #5
ELEV: 745.05

STA 447+64.09
568.87 RT
656049.0268 N
1496019.3330 E

STA 448+87.65
612.80 RT
656228.1216 N
1496036.4500 E

BEGIN WORK
STA. 3+46.00

STA 452+48.40
853.82 RT
6568/9.3330 N
1496092.3610 E

STA 453+32.69
934.56 RT
656969.2165 N
1496106.7030 E

STA 454+31.41
1029.56 RT
657134.3862 N
1496122.5530 E

RESUME ACQUISITION
STA. 451+25.93

END ACQUISITION
STA. 456+07.12

STA 455+02.45
175.44 LT
656582.0220 N
1495048.7706 E
SITE BM #4
ELEV: 745.33

BEGIN ACQUISITION
STA. 9+29.25

STA 456+62.02
148.47 RT
656887.1083 N
1495241.3436 E
SITE BM #2
ELEV: 745.33

MIAMI CONSERVANCY DISTRICT CONTROL MONUMENT NO. 2
STA 460+83.15
288.53 RT
657319.0848 N
1495139.5450 E
SITE BM #3
ELEV: 745.33

END PROJECT
STA. 468+30.96
SLM=15.28

END WORK
STA. 472+68.08

E033(774)

C/L RIGHT-OF-WAY & C/L CONSTRUCTION

POSITIONAL RELATIONSHIP BASED UPON CENTERLINE OF RIGHT-OF-WAY:

1. C/L CONSTRUCTION PC-1 = C/L RIGHT-OF-WAY 427+32.19, 0.27 LT.
2. C/L CONSTRUCTION INTERSECTION = C/L RIGHT-OF-WAY 429+20.36, 0.00 RT.
3. C/L CONSTRUCTION PT-1 = C/L RIGHT-OF-WAY 433+86.14, 0.81 RT.
4. C/L CONSTRUCTION TS-2 = C/L RIGHT-OF-WAY 440+42.01, 1.01 RT.
5. C/L CONSTRUCTION SC-2 = C/L RIGHT-OF-WAY 443+91.87, 1.27 RT.
6. C/L CONSTRUCTION CS-2 = C/L RIGHT-OF-WAY 452+23.86, 1.05 RT.
7. C/L CONSTRUCTION ST-2 = C/L RIGHT-OF-WAY 455+76.73, 1.09 RT.
8. C/L CONSTRUCTION PC-3 = C/L RIGHT-OF-WAY 470+38.31, 2.30 RT.

NOTES:

(1) - INDICATES REFERENCE POINT NUMBER (SEE SHEET 2)

SEE SHEET 2 OF 11 FOR CURVE INFORMATION

ALL COORDINATE AND DISTANCE VALUES ARE GROUND BASED UNLESS OTHERWISE SPECIFIED

ALL STATION AND OFFSET VALUES ARE REFERENCES TO THE CENTERLINE OF RIGHT-OF-WAY UNLESS OTHERWISE SPECIFIED

NOTE:

THE EXISTING RIGHT-OF-WAY WIDTH AND LOCATION WERE DETERMINED USING THE FOLLOWING RECORDS:
O.D.O.T RIGHT-OF-WAY PLANS FOR PROJECT NO. MOT-25-15.88 FROM DISTRICT SEVEN OFFICE, CITY OF DAYTON LOT DESIGNATIONS PER MONTGOMERY COUNTY TAX MAPS, VARIOUS MIAMI CONSERVANCY DISTRICT RECORDS, AND DEEDS AND SURVEY PLATS AS FOLLOWS:

DeeD References:	DeeD References:	Tax Maps-
Microfiche 73-430-E01	DB 1856 PG. 321	Book 57 Page 14 Book 156 Page 1
Microfiche 75-080-D02	DB 1860 PG 561	Book 57 Page 13 Book 4 Page 173
Microfiche 76-072-B10	DB 2180 PG 359	Book 57 Page 4 Book 6 Page 173
Microfiche 79-879-E11	DB 2111 PG 474	Book 167 Page 2 Book 5 Page 173
Microfiche 81-482-E02		
Microfiche 81-530-E01		
Microfiche 81-781-D09	Survey Plats	Miami Conservancy District Property Map Page 8
Microfiche 82-114-E06	Volume 2002 Page 216	
Microfiche 83-345-D06	Volume 89 Page 30	City of Dayton Ordinance No. 19732 (Street Name Change)
Microfiche 84-395-A11	Plat Book "X" Page 100	
Microfiche 85-1097-D11		

Preferred Surveying Company, Inc.
10172 International Boulevard• Cincinnati, Ohio 45246
Latitude 39°18' 03.1" North • Longitude 084°26' 31.5" West
Tel: 513.942.9420 • Fax 513.860.8220

RECEIVED _____, 20___
RECORDED _____, 20___
BOOK _____ PAGE _____
COUNTY RECORDER

STATE OF OHIO SCOTT R. LINDGREN S-7853 REGISTERED PROFESSIONAL SURVEYOR

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2004 BY PREFERRED SURVEYING COMPANY, INC. THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY: SCOTT R. LINDGREN SURVEYOR NO. 7853 DATE 11-02-05

BASIS FOR BEARINGS:

THE BEARINGS RECITED HEREIN ARE RELATIVE TO GRID SOUTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (1995 ADJUSTMENT) DATUM FROM GPS OBSERVATIONS BY PREFERRED SURVEYING COMPANY, INC., JULY, 2004.

PROJECT ADJUSTMENT FACTOR:

THE STATE PLANE COORDINATE TO GROUND COORDINATE PROJECT ADJUSTMENT FACTOR IS 1.000070565

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

N

HORIZONTAL SCALE IN FEET
0 100 200 400

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

CENTERLINE PLAT

MOT-75-14.60

1 / 11

303 / 314

MOT-75-14.60

EXISTING MONUMENTS			STATE PLANE COORDINATES NAD 83 (1995 ADJ.) OHIO SOUTH ZONE			PROJECT COORDINATES P.A.F. - 1.000070565	
POINT	STATION	OFFSET	NORTHING	EASTING		NORTHING	EASTING
1	434+06.56	1151.19LT	654974.2601	1494085.3420	PIPE FOUND	655020.4784	1494190.7721
2	434+41.17	861.89LT	654929.7210	1494373.2760	PIN FOUND	654975.9361	1494478.7265
3	434+50.93	780.21LT	654917.1351	1494454.5740	PIPE FOUND	654963.3493	1494560.0302
4	438+40.31	855.98LT	655312.5343	1494486.3970	PIPE FOUND	655358.7764	1494591.8554
5	437+00.07	1279.94LT	655291.5903	1494040.3410	CROSS NOTCH FOUND	655337.8310	1494145.7680
6	438+78.41	1375.41LT	655489.0418	1493996.4040	PIN FOUND	655535.2964	1494101.8279
7	440+29.84	1459.95LT	655657.6413	1493955.7430	PIPE FOUND	655703.9078	1494061.1640
8	456+14.89	1438.61LT	656014.0501	1493915.1400	CITY OF DAYTON CONTROL MONUMENT NO. 1091	656060.3417	1494020.5581
9	461+40.93	1247.25LT	656562.2567	1493801.9480	CITY OF DAYTON CONTROL MONUMENT NO. 1092	656608.5870	1493907.3581
10	448+06.64	315.12RT	656073.1840	1495760.7010	PIN FOUND	656119.4798	1495866.2494
11	447+94.87	378.44RT	656067.1304	1495825.4040	PIN FOUND	656113.4258	1495930.9569
12	447+75.88	490.59RT	656056.3245	1495939.7340	PIN FOUND	656102.6191	1496045.2950
13	449+04.18	536.29RT	656235.6125	1495956.8640	CROSS NOTCH FOUND	656281.9198	1496062.4262
14	450+37.91	693.32RT	656459.8101	1496061.0200	MAG NAIL FOUND	656506.1332	1496166.5895
15	451+64.94	786.12RT	656672.3488	1496083.4400	PIN FOUND	656718.6869	1496189.0111
16	452+08.50	817.46RT	656747.1362	1496085.6190	PIN FOUND	656793.4796	1496191.1903
17	452+06.96	821.78RT	656746.6821	1496090.5490	PIN FOUND	656793.0254	1496196.1206
18	454+63.26	1059.00RT	657184.1331	1496127.2440	PIN FOUND	657230.5073	1496232.8182
19	455+31.98	1063.90RT	657255.1190	1496089.8500	PIN FOUND	657301.4982	1496195.4216
20	455+84.93	1059.77RT	657299.7688	1496057.5090	PIN FOUND	657346.1512	1496163.0783
21	428+23.90	106.40LT	654107.2552	1494972.2460	PIN FOUND	654153.4123	1495077.7387
22	429+03.46	250.57LT	654209.2094	1494840.6230	CROSS NOTCH FOUND	654255.3737	1494946.1064
23	449+72.31	523.72LT	656061.0490	1494909.3900	PIN FOUND	656107.3439	1495014.8783
24	451+74.10	233.19RT	656473.0656	1495567.5240	PIN FOUND	656519.3896	1495673.0587
25	451+11.29	385.25RT	656457.2446	1495736.9140	PIN FOUND	656503.5675	1495842.4607
26	454+04.66	277.63RT	656728.0106	1495489.0760	PIN FOUND	656774.3526	1495594.6052
27	438+91.66	896.25LT	655372.8316	1494461.4460	PIN FOUND	655419.0780	1494566.9027

PROJECT ADJUSTMENT FACTOR:

THE STATE PLANE COORDINATE TO GROUND
COORDINATE PROJECT ADJUSTMENT FACTOR IS 1.000070565

CURVE INFORMATION:

CURVE	PI STA.	DELTA	DEGREE	RADIUS	TANGENT	ARC	CHD BEARING	LONG CHORD	PC STA	PT/PCC STA
C-1	-	9° 50′ 22″	1° 30′ 00″	3819.71	328.79	655.96			427+32.19	433+88.15
C-3	2+79.27	46° 39′ 31″	1° 30′ 00″	3819.72	-	3110.57			470+40.34	501+51.10
C-4, N-7	-	20° 59′ 54″	6° 00′ 00″	954.93	176.97	349.97			1+02.30	4+52.27
C-5,N-7	-	4° 18′ 42″	5° 00′ 00″	1145.92	43.14	86.23			6+59.06	7+45.30
C-6, N-9	4+15.30	133° 08′ 04″	-	180.00	415.3	418.25			0+00	4+18.25
C-7, N-10	-	40° 00′ 00″	11° 00′ 00″	520.87	198.58	363.64			6+93.48	10+57.12
C-8, N-6A	-	274° 25′ 49″	31° 49′ 52″	180.00	166.59	862.15			0+00	8+62.15
C-10, N-6	1+35.91	16° 12′ 00″	6° 00′ 00″	954.93	135.91	270.00			0+00	2+70.00
C-11, N-6	-	54° 58′ 00″	19° 05′ 55″	300.00	156.06	287.80			2+70.00	5+57.82
C-12, N-6	-	60° 45′ 38″	25° 48′ 32″	222.00	130.14	235.42			7+03.40	9+38.85
C-21, N-6	-	84° 28′ 34″	71° 37′ 11″	80.00	-	117.95			10+44.62	11+62.57
C-13, N-8	0+75.49	7° 32′ 17″	5° 00′ 00″	1145.92	75.49	150.76			0+00	1+50.76
C-14, N-8	5+76.35	15° 02′ 28″	7° 00′ 00″	818.51	108.06	214.87			4+68.29	6+83.16
C-15, N-11	1+71.67	9° 59′ 27″	6° 00′ 00″	954.93	83.47	166.51			0+88.20	2+54.74
C-25, N-4	-	5° 24′ 22″	3° 00′ 00″	1909.86	90.17	180.20			0+00	1+80.00
C-26, N-5	-	7° 05′ 38″	2° 00′ 00″	2864.79	177.57	354.69			5+30.30	8+84.81
C-28	15+90.19	16° 55′ 25″	9° 59′ 14″	573.69	85.35	169.45			14+04.84	16+74.29
C-29	17+17.98	12° 28′ 02″	14° 19′ 26″	400.00	43.69	87.04			16+74.29	17+61.33

LINE INFORMATION:

LINE NO.	BEARING & DISTANCE
L-1	N 05°46′33″ E 76.32′
L-2	N 15°36′54″ E 655.82′
L-3	N 31°39′24″ W 1464.58′
L-4	N 26°14′56″ W 769.24
L-5	N 38°44′46″ W 530.30′
L-6	N 08°44′59″ E 316.96′
L-7	S 31°15′02″ E 693.48′
L-8	S 31°15′02″ E 464.64′
L-9	N 05°37′27″ W 88.20′
L-10	N 15°36′54″ E 258.35′
L-11	N 23°09′16″ E 317.53
L-12	N 08°06′47″ E 180.27′
L-13	N 06°20′49″ W 102.30′
L-14	N 27°20′43″ W 206.79′
L-15	N 31°39′25″ W 298.20′
L-16	N 84°31′52″ W 279.21′
L-17	S 55°18′01″ W 36.20′
L-18	S 51°28′44″ W 58.03′
L-19	S 39°30′42″ W 145.58′
L-20	S 21°15′28″ E 105.78′

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	θs	Xc	Yc	K	P	TS	SC	CS	ST
C-2	448+47.51	350.00	233.52	-	116.83	7° 00′ 00″	349.48	14.24	-	-	440+44.10	443+93.97	452+25.76	455+75.76
C-27	7+88.07	200.00	133.39	-	66.72	-	199.85	5.81	99.97	1.45	2+79.21	4+79.21	10+82.58	12+82.58

☐ Preferred
☐☐ Surveying
☐☐☐ Company, Inc.
10172 International Boulevard· Cincinnati, Ohio 45246
Latitude 39°18′ 03.1″ North· Longitude 084°26′ 31.5″ West
Tel: 513.942.9420 ·Fax 513.860.8220

RECEIVED _____, 20____
RECORDED _____, 20____
BOOK _____ PAGE _____
COUNTY RECORDER

STATE OF OHIO · SCOTT R. LINDGREN · S-7853 · REGISTERED PROFESSIONAL SURVEYOR

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2004 BY PREFERRED SURVEYING COMPANY, INC. THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY: SCOTT R. LINDGREN SURVEYOR NO. 7853 — DATE 11-02-05

REV. BY	DATE	DESCRIPTION

PID NO. 23828
R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

CENTERLINE PLAT

MOT-75-14.60

2 / 11

305 / 314

REV. BY	DATE	DESCRIPTION
BCF/SRL	03/15/06	PARCEL 5 CHANGE TO WD TAKES
BCF/SRL	10/25/05	CHANGE TO PROJECT LIMITS
DATE COMPLETED		10/25/05

PROPERTY OWNERS:

(1) - City of Dayton - Parcel R72-05714-0016 - 1.065 Ac.

(2) - B & L Packaging, Inc., An Ohio Corporation - Parcel R72-05714-008 - 3.947 Ac.

(3) - Simclar, Inc., a Florida Corporation - Parcel R72-05714-0011
- Parcel R72-05714-0013 - Parcel R72-05714-0023 - 5.5624 Total Ac.

(4) - The City of Dayton, Ohio - Parcel R72-05714-0016 - 1.065 Ac.

(5) - Stanley Terminals, Incorporated, An Ohio Corporation
- Parcel R72-05714-0010 - 1.69 Ac.

(5-1) - Stanley Terminals, Incorporated, An Ohio Corporation
- Parcel - R72-05714-0027 - 1.443 Ac.

(6) - The City of Dayton, Ohio, a Municipal Corporation
- Parcel R72-05714-0026 - 2.287 Ac.

(7) - Board of County Commissioners, Montgomery County, Ohio
& Miami Conservancy District - See Note on R/W Sheet
- Parcel R72-05714-0001 - Unknown Ac.

(8) - Miami Conservancy District, Montgomery County, Ohio
- Parcel R72-05714-0001 - 0.80 Ac.

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

UTILITY CONTACT INFORMATION :

ELECTRIC:

DAYTON POWER & LIGHT
1900 DRYDEN RD
DAYTON, OHIO 45439
(937)-331-4088
ATTN: KYLE KING

DAYTON STREET LIGHTS
1736 E. MONUMENT AVE
BUILDING #23
DAYTON, OHIO 454402
(937) 333-3850
ATTN: DUANE EARLY

TELECOMMUNICATIONS:

TIME WARNER CABLE
275 LEO ST
DAYTON, OH 45404
(937) 425-8858
ATTN: DENNIS RAPP

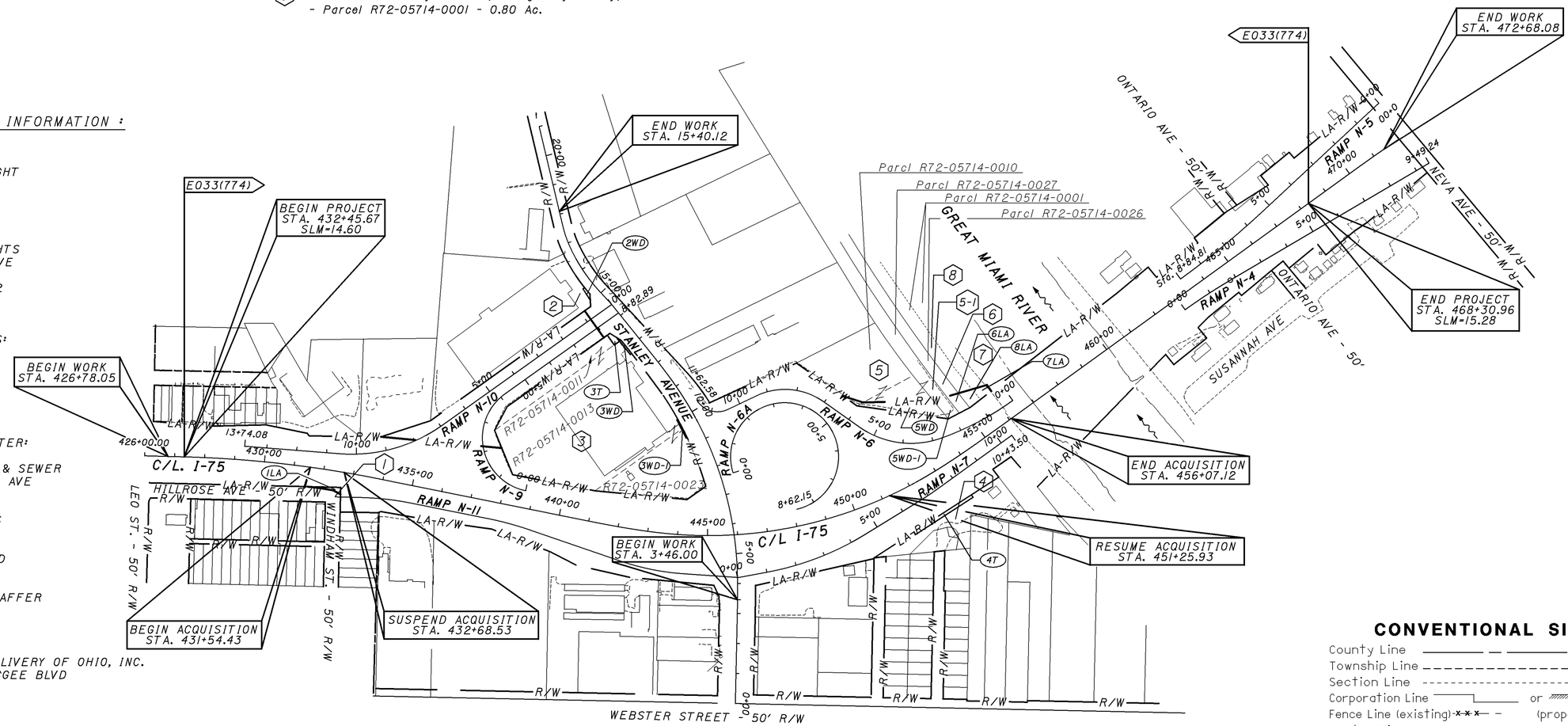
SANITARY/STORM/WATER:

DAYTON CITY WATER & SEWER
320 WEST MONUMENT AVE
DAYTON, OHIO 45402
(937) 333-3737
ATTN: SCOTT HOLMES

MONTGOMERY COUNTY
1850 SPAULDING ROAD
DAYTON, OHIO 45432
(937) 781-2500
ATTN: CHARLIE SCHAFFER

GAS:

VECTREN ENERGY DELIVERY OF OHIO, INC.
4285 N. JAMES H. MCGEE BLVD
DAYTON, OHIO 45427
(937) 440-1973
ATTN: CHUCK KANOY



NOTES: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

REFERENCE POINT INFORMATION IS CONTAINED IN THE CONSTRUCTION PLAN.

NOTE:
ALL PROPERTY AND STRUCTURES AFFECTED BY THE PROJECT ARE COMMERCIAL.

(1) - INDICATES SEE PROPERTY OWNER LISTING THIS SHEET

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits Construction Limits

SCALE IN FEET 0 100 200 400

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

PROPERTY MAP

MOT-75-14.60

3 / 11

306 / 314

TOTAL NUMBER OF :

6 OWNERSHIPS 0 OWNERSHIPS WITH STRUCTURES INVOLVED

11 PARCELS 0 OWNERSHIPS WITH "P" ITEMS

0 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD REFERENCE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1LA	CITY OF DAYTON	5	BOOK 1860, PG. 595	R72 05714 0016	1.065	0.0184	0.0184	0.0184	0.0	NONE	--	1.0466	STATE	TAKE IS FROM EXIST. R/W OF CITY STREET	--	--
2WD	B & L PACKAGING, INC.	6	DEED 87 0174 E 05	R72 05714 0008	3.947	0	0.0073	0	0.0073	NONE	3.9397	--	STATE		--	--
3WD	SIMCLAR, INC.	6	DEED 04-120132D	R72 05714 0011	5.5624	0	0.0010	0	0.0010	NONE	5.5388	--	STATE		--	--
		6		R72 05714 0013		0	0.0074	0	0.0074	NONE		--	STATE		--	
3WD-1		7		R72 05714 0013		0	0.0034	0	0.0034	NONE		--	STATE			
		7		R72 05714 0023		0	0.0034	0	0.0034	NONE		--	STATE			
	GRAND TOTAL						0.0152		0.0152						--	
3T		6	DEED 04-120132D	R72 05714 0013	4.1	0	0.0165	0	0.0165	NONE		--	STATE	DRIVEWAY CONSTRUCTION	--	--
4T	CITY OF DAYTON	8	VOL. 1827 PAGE 631	R72 05714 0016	1.065	0	0.0525	0	0.0525	NONE	--		STATE	MINOR GRADING PURPOSE	--	--
5WD	STANLEY TERMINALS INC	9	BOOK 2029, PG. 307	R72 05714 0010	1.69	0	0.2308	0	0.2308	NONE	1.4592	--	STATE		--	--
5WD-1		9	BOOK 2141, PG. 74	R72 05714 0027	1.443	0	0.0707	0	0.0707	NONE	1.3723	--	STATE		--	--
	GRAND TOTAL				3.133		0.3015		0.3015		2.8315					
6LA	CITY OF DAYTON	9	VOL. 1266 PAGE 156	R72 05714 0026	2.287	0	0.0575	0	0.0575	NONE	2.2295	--	STATE		--	--
7LA	BOARD OF COUNTY COMMISSIONERS &	9	SEE NOTE ON R.O.W.	R72 05714 0001	UNKNOWN	0	0.0372	0	0.0372	NONE	UNKNOWN	--	STATE		--	--
	MIAMI CONSERVANCY DISTRICT		PLAN SHEET 9 OF 11													
8LA	MIAMI CONSERVANCY DISTRICT	9	BOOK 402, PG 22	SEE REMARKS	0.800	0	0.0538	0	0.0538	NONE	0.7462	--	STATE	PARCEL NOT SHOWN ON AUDITOR'S TAX MAP. NO AUDITOR PARCEL NUMBER ASSIGNED	--	--

REV. BY	DATE	DESCRIPTION
BCF/SRL	03/15/06	PARCEL 5 NOW WD TAKES
BCF/SRL	10/25/05	CHANGES TO PARCEL 3

DATE COMPLETED 10/25/05

FEDERAL PROJECT NO.

PID NO. 23828

R/W DESIGNER R. B. ROSS

R/W REVIEWER S. LINDGREN

SUMMARY OF ADDITIONAL R/W

MOT-75-14.60

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

REV. BY	DATE	DESCRIPTION
BCF/SRL	11/21/05	CHANGE CONSTRUCTION LIMITS
BCF/SRL	10/25/05	CHANGE PROJECT LIMITS
DATE COMPLETED		11/21/05

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

BEGIN PROJECT STA. 432+45.67

Sta 431+29.42
110.86 LT
654417.8521 N
1495019.3885 E

S 59°22'23" W - 10.64'

N 4°56'43" E

169.65'

PT Sta. 10+57.12

DENSE VEGETATION

EX FENCE

Sta 431+36.40
103.00 LT
654423.2736 N
1495028.5458 E

EX GUARDRAIL (TBR)

TYPE 5 GUARDRAIL

PT Sta. 10+59.16
CONST. BASELINE

EX CB (TBR)

12+00 11+00 10+00

C-7

℄ RAMP N-10

Sta 432+99.46
126.96 LT
654592.2921 N
1495043.1704 E

239.54'

Sta 433+66.00
138.90 LT
654661.9195 N
1495049.1950 E

CONSTRUCTION LIMITS

N 7°24'31"E 397.45'

N 9° 33' 26" E LA-R/W 404.93'

N 13°46'17" W - 173.76'

EX FENCE

C/L R/W CURVE
520.87' RAD
40° 02' 21" DELTA
11° 00' 00" DEG
363.99' ARC
S 11° 12' 49" E
363.99' CHD

Sta 435+16.60
224.10 LT
654830.6883 N
1495007.8299 E

FUTURE VACATION AREA TO CITY OF DAYTON

LINE OF FUTURE VACATION LA-R/W TO CITY OF DAYTON

CONSTRUCTION LIMITS

18" Conc

RAMP N-10

C/L BASELINE CURVE
P.I. Sta = 8+84.95
I = 40° 02' 21" (RT)
Dc = 11° 00' 00"
R = 520.87'
T = 189.78'
L = 363.99'

CONSTRUCTION LIMITS

SEE DETAIL SHEET II OF II - MATCH LINE STA 7+00

SEE DETAIL SHEET II OF II - MATCH LINE STA 436+00

C/L R/W CURVE
3819.71' RAD
9° 50' 22" DELTA
1° 30' 00" DEG
655.96' ARC
N 10° 41' 43" E
655.96' CHD

Sta 10+58.36
0.36 LT
654518.3224 N
1495095.4078 E

Sta 10+57.12
0.00 LT
654519.6096 N
1495095.2450 E

SUSPEND ACQUISITION STA. 432+68.53

Sta 433+88.15
0.00 LT
654646.6587 N
1495189.0840 E

S.B. I-75

C-1

C/L I-75

℄ R/W IR-75

℄ CONSTRUCTION IR-75

431+00 432+00 433+00 434+00 435+00 436+00

Existing Barrier Wall

N 5°36'54" E 655.82' (℄ R/W)

N 5° 37' 56" E (℄ CONST.)

BEGIN ACQUISITION STA. 431+54.43

BEGIN WORK STA. 426+78.05

Sta 432+65.19
51.21 RT
654515.5320 N
1495207.6322 E

CONSTRUCTION LIMITS

EX MEDIAN JUNCTION BOX

Sta 433+86.14
0.81 RT
654644.5060 N
1495189.3266 E

PT Sta. 433+88.15
CONST. BASELINE

PT Sta. 433+88.15

ILA

Sta 432+68.53
74.06 RT
654513.2787 N
1495230.6073 E

S 13°27'14" W 42.71'

TYPE 5 GUARDRAIL

N 5°36'05" E - 109.96'

Sta 0+86.06
0.43 RT
654579.5477 N
1495246.4154 E

R = 954.97
CHD = N 10° 37' 09" E
DIST = 166.31
ARC = 166.52

12" Conc (DND)

N.B. I-75

C-15

C/L BASELINE CURVE
P.I. Sta = 430+60.98
I = 9° 52' 38" (RT)
Dc = 1° 30' 21"
R = 3,805.10'
T = 328.79'
L = 655.96'

Sta 431+54.43
65.25 RT
654406.0954 N
1495196.8992 E

EX FENCE

S 11°10'26" W 42.70'

LA-R/W

I.R.F.

I.R.S.

28.57'

33°07'26"

S 84°23'55" E 23.09'

WS

S 5°37'38" W - 88.31'

N 5° 38' 29" E

℄ RAMP N-11

PROPOSED FENCE

Sta 431+97.86
64.31 RT
654447.9886 N
1495205.1744 E

Sta 432+41.31
64.59 RT
654489.5313 N
1495215.1125 E

HILLROSE AVE.
50' R/W

0+00

POT Sta. 0+00.00
CONST. BASELINE

POT Sta. 0+00.00

PC Sta. 0+92.93
CONST. C/L

PT Sta. 0+88.20

Sta 0+88.20
0.00 RT
654581.7168 N
1495246.1920 E

Sta 2+52.69
0.85 RT
654742.9931 N
1495277.1123 E

N 15°37'00" E 258.35
N15°37'56"E (B/L)

C/L R/W RAMP N-8

C/L ℄L RAMP N-8

Sta 2+54.71
0.00 RT
654745.1714 N
1495276.8400 E

RAMP N-11

PT Sta. 2+59.45

CONSTRUCTION LIMITS

EX CB (DND)

N 14°10'47" E - 180.36'

Sta 431+58.19
115.16 RT
654399.1865 N
1495246.4620 E (Ex. Pin)

Sta 432+21.57
107.56 RT
654460.8905 N
1495252.5132 E

Sta 432+77.45
132.38 RT
654507.7061 N
1495289.3117 E

CONSTRUCTION LIMITS

N 5°17'58" E 126.83'

EX FENCE

Sta 434+13.80
105.50 RT
654642.9627 N
1495297.5937 E

Sta 434+05.90
111.20 RT
654633.8199 N
1495300.9569 E

Sta 432+21.51
107.60 RT
654460.8261 N
1495252.5360 E
(Ex. Pin)
SITE BM #1
ELEV: 748.29

Sta 432+51.02
85.38 RT
654493.9414 N
1495237.5483 E

POT Sta. 0+00.00
CONST. BASELINE

POT Sta. 0+00.00

50' R/W WINDHAM STREET

C/L BASELINE RAMP
P.I. Sta = 1+76.40
I = 9° 59' 27" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 83.47'
L = 166.51'

Sta 435+94.11
100.98 RT
654817.8296 N
1495341.7747 E

EX SIGN

NOTE
SEE CENTERLINE PLAT SHEET 2 OF 2 FOR C/L CURVE INFORMATION
ALL COORDINATE VALUES ARE GROUND COORDINATES

MONUMENT LEGEND

EXISTING R/W MONUMENT BOX
PROPOSED R/W MONUMENT BOX
EXISTING CONCRETE MONUMENT
PROPOSED CONCRETE MONUMENT
RAILROAD SPIKE FOUND
RAILROAD SPIKE SET
I.P.F. IRON PIN FOUND
I.P.F. IRON PIN FOUND W/ ID CAP
I.P.S. IRON PIN SET W/ ID CAP
P.F. IRON PIPE FOUND
P.S. IRON PIPE SET
P.K.F. P.K. NAIL FOUND
P.K.S. P.K. NAIL SET

1
CITY OF DAYTON, OHIO
R72-05714-0016
1.065 Ac.

HORIZONTAL SCALE IN FEET
0 20 40 80

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
STA 431+00 TO STA 436+00

MOT-75-14.60

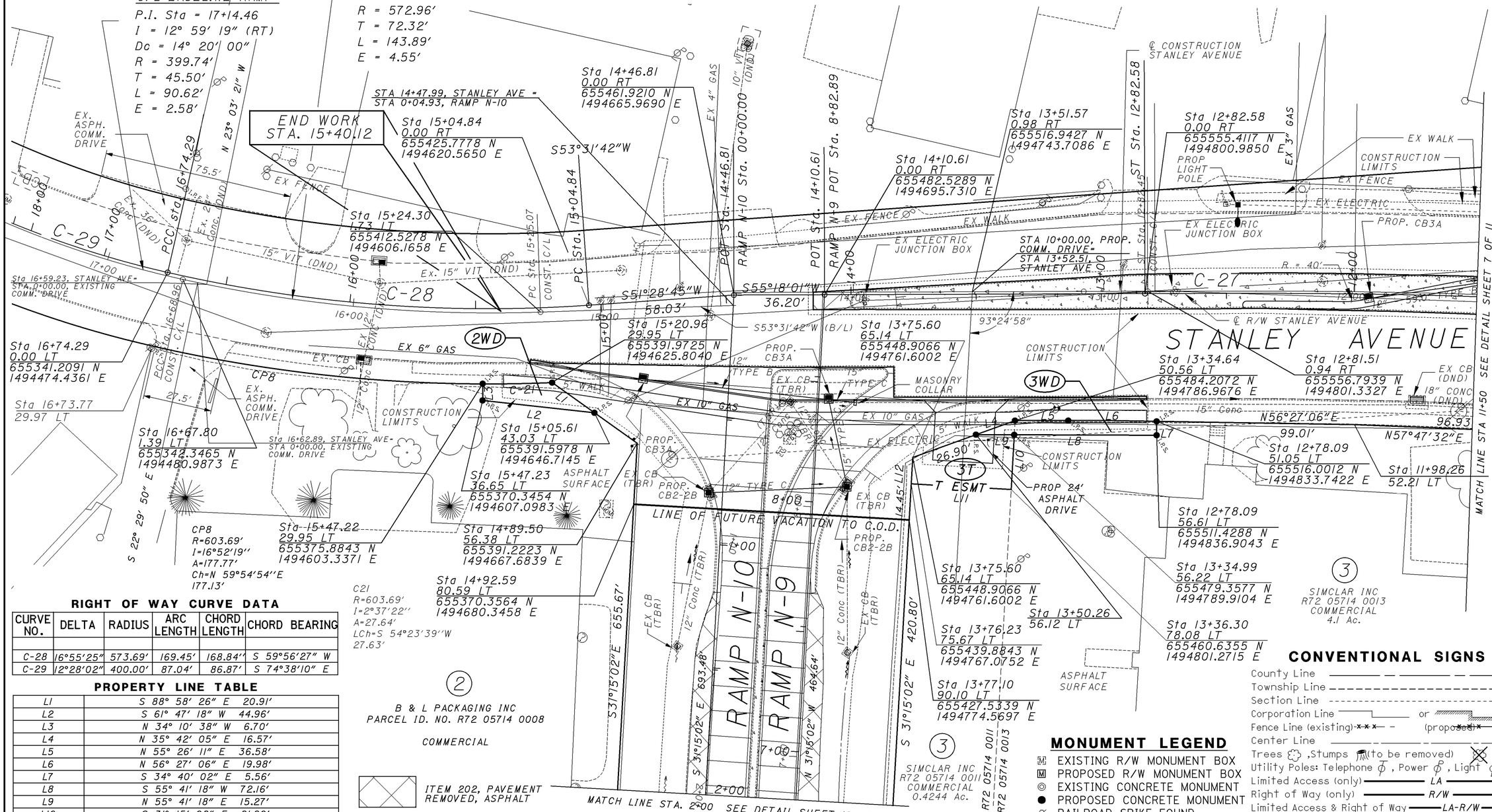
5 / 11

308 / 314

REV. BY	DATE	DESCRIPTION
BCF/SRL	10/25/05	ADD EX. DRIVE LABELS
DATE COMPLETED		10/25/05

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES



RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C-28	16°55'25"	573.69'	169.45'	168.84''	S 59°56'27" W
C-29	12°28'02"	400.00'	87.04'	86.87'	S 74°38'10" E

PROPERTY LINE TABLE

L1	S 88° 58' 26" E 20.91'
L2	S 61° 47' 18" W 44.96'
L3	N 34° 10' 38" W 6.70'
L4	N 35° 42' 05" E 16.57'
L5	N 55° 26' 11" E 36.58'
L6	N 56° 27' 06" E 19.98'
L7	S 34° 40' 02" E 5.56'
L8	S 55° 41' 18" W 72.16'
L9	N 55° 41' 18" E 15.27'
L10	S 31° 15' 02" E 21.90'
L11	S 58° 44' 58" W 40.00'
L12	N 31° 15' 02" W 10.55'
L13	N 55° 26' 11" E 36.58'
L14	N 56° 27' 06" E 19.98'

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	Os	Xc	Yc	K	P	TS	SC	CS	ST
C-27	7+88.07	200.00	133.39	-	66.72	-	199.85	5.81	99.97	1.45	2+79.21	4+79.21	10+82.58	12+82.58

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line or
- Fence Line (existing) (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Limited Access (only) LA
- Right of Way (only) R/W
- Limited Access & Right of Way LA-R/W
- Exist. Right of Way R/W
- Temp. Right of Way T ESMT
- Slope Easement SL ESMT
- Utility Easement U ESMT
- Property Line (in existing fence)
- Railroad
- Guardrail (existing) (proposed)
- Construction Limits

SCALE IN FEET

PID NO. 23828

R/W DESIGNER R. B. ROSS

R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
STA 11+50 TO STA 17+00

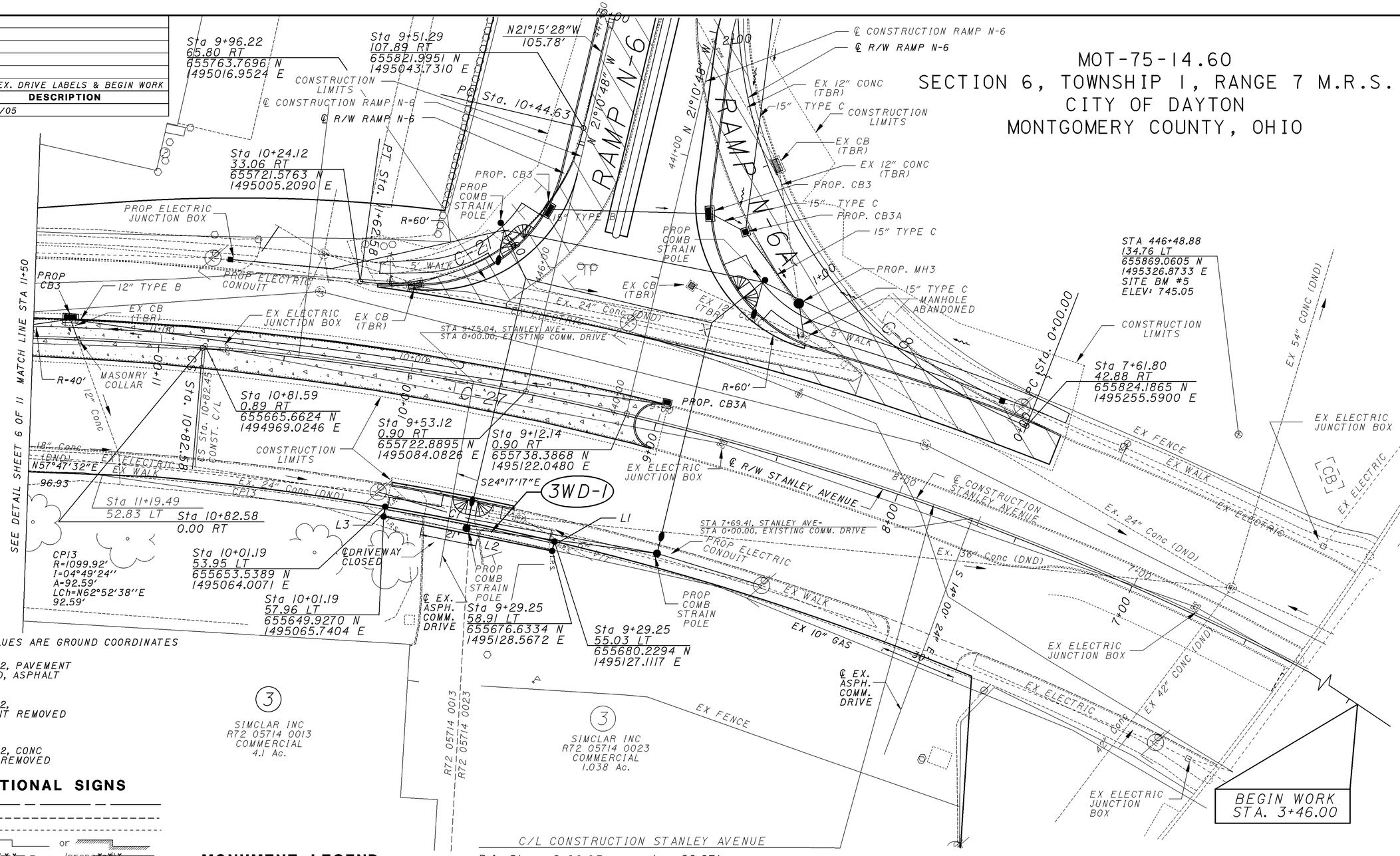
MOT-75-14.60

6 / 11

309 / 314

REV. BY	DATE	DESCRIPTION
BCF/SRL	10/25/05	ADD EX. DRIVE LABELS & BEGIN WORK
DATE COMPLETED		10/25/05

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO



SEE DETAIL SHEET 6 OF 11 MATCH LINE STA 11+50

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits Construction Limits

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

P.I. Sta = 8+00.03
I = 40° 00' 00" (LT)
Dc = 5° 00' 00"
R = 1,145.92'
Ls = 200.00'
Theta = 5° 00' 00"
LT = 133.39'
ST = 66.72'
x = 199.85'
y = 5.81'

k = 99.97'
p = 1.45'
Dc = 30° 00' 00" (LT)
Lc = 600.00'
Ts = 517.58'
Es = 75.09'
TS = 2+82.45
SC = 4+82.45
CS = 10+82.45
ST = 12+82.45

PROPERTY LINE TABLE

L1	S 22° 02' 11" E 3.88'
L2	S 66° 58' 14" W 68.27'
L3	N 25° 38' 11" W 4.01'

RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	3°34'11"	1099.92'	68.53'	68.53'	N 67°04'26" E
C8	274°25'49"	180.00'	862.15'	244.53'	N 34°02'06" E
C21	84°28'34"	80.00'	117.95'	107.55'	S 20°59'15" W

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	Os	Xc	Yc	K	P	TS	SC	CS	ST
C-27	7+88.07	200.00	133.39	-	66.72	-	199.85	5.81	99.97	1.45	2+79.21	4+79.21	10+82.58	12+82.58

SCALE IN FEET: 0, 10, 20, 40

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
STA 6 TO STA 11+50

MOT-75-14.60

7 / 11

310 / 314

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

REV. BY	DATE	DESCRIPTION
BCF/SRL	11/21/05	CHANGE CONSTRUCTION LIMITS
DATE COMPLETED	11/21/05	

SCALE IN FEET: 0, 10, 20, 40

PID NO. 23828

R/W DESIGNER: R. B. ROSS
R/W REVIEWER: S. LINDGREN

RIGHT OF WAY PLAN
STA 450+00 TO STA 455+00

MOT-75-14.60

8 / 11

311 / 314

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.R.F. IRON PIPE FOUND
- P.R.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

C/L CONSTRUCTION BASELINE I-75

P.I. Sta = 448+47.89	k = 174.91′
I = 47° 18′ 27″ (LT)	p = 3.56′
Dc = 4° 00′ 00″	Dc = 33° 18′ 27″ (LT)
R = 1,432.39′	Lc = 832.69′
Ls = 350.00′	Ts = 803.87′
Theta = 7° 00′ 00″	Es = 135.27′
LT = 233.52′	TS = 440+44.02
ST = 116.83′	SC = 443+94.02
x = 349.48′	CS = 452+26.71
y = 14.24′	ST = 455+76.71

Sta 452+25.76
0.00 LT
656430.8132 N
1495331.5299 E

CS Sta. 452+26.71 CONST. C/L

CS Sta. 452+25.76

Sta 4+52.27
0.00 LT
656247.5485 N
1495493.2921 E

PT Sta. 4+52.27

Sta 452+23.86
1.05 RT
656429.5202 N
1495333.2726 E

PC Sta. 6+59.06

POT Sta. 452+25.40 CONST. C/L

Sta 452+82.22
54.67 RT
656506.2670 N
1495355.8488 E

PT Sta. 7+45.30

Sta 450+05.60
174.40 RT
656272.1068 N
1495575.4373 E

Sta 450+06.46
171.95 RT
656272.3574 N
1495572.8193 E

Sta 451+47.27
144.40 RT
656411.5832 N
1495496.6447 E

Sta 6+59.06
0.00 RT
656431.2311 N
1495398.3030 E

Sta 6+82.40
12.54 RT
656457.8371 N
1495398.3952 E

Sta 451+47.27
154.48 RT
656415.2836 N
1495506.0190 E

Sta 450+41.09
182.43 RT
656312.6414 N
1495571.7636 E

Sta 451+74.66
233.48 RT
656473.7773 N
1495567.5407 E

Sta 452+02.73
246.50 RT
656509.0258 N
1495566.6169 E

Sta 453+57.08
131.66 RT
656611.5170 N
1495387.2548 E

Sta 453+57.08
141.66 RT
656616.3538 N
1495396.0073 E

Sta 454+61.08
134.18 RT
656706.8034 N
1495335.1207 E

Sta 454+59.70
101.62 RT
656688.8714 N
1495307.9122 E

Sta 455+32.60
102.56 RT
656752.6711 N
1495270.2641 E

C-2 | C-4 | C-5 | C-10

RAMP N-7

S. B. I-75 | N. B. I-75

CONSTRUCTION LIMITS | ℄ R/W IR 75 | ℄ CONSTRUCTION IR 75 | BARRIER MEDIAN | ℄ R/W RAMP N-6 | ℄ CONSTRUCTION RAMP N-7 | ℄ RAMP N-7

12″ Conc (DND) | 15″ Conc (DND) | 54″ Conc (DND) | 72″ Conc (DND) | EX 72″ CONC (DND)

EX ELECTRIC JUNCTION BOX | PROP ELECTRIC JUNCTION BOX | EX OVERHEAD SIGN (TYP.) | EX GUARDRAIL | EX ELECTRIC | PROP LIGHT POLE | TYPE 5 GUARDRAIL | 15″ TYPE F | 15″ TYPE C | PROP HW | PROP FENCE | PROP. RET WALLS

N 27° 20′ 43″ W 206.79′
N 24° 33′ 26″ W
N 31° 39′ 25″ W 298.20′
S 30° 32′ 41″ E 74.08′
N 28° 41′ 04″ W 158.70′
S 28° 41′ 04″ E 495.22′
N 28° 41′ 04″ W 227.90′
S 28° 41′ 04″ E 229.20′
N 56° 36′ 46″ E 32.59′
N 61° 04′ 26″ E 10.00′
108.62′
N 84° 31′ 57″ W 2.63′
S 68° 27′ 31″ W 10.08
S 1° 30′ 04″ E 35.26′
462.84′ S 84° 31′ 52″ E
470.34′ S 84° 31′ 52″ E

LINDORPH DRIVE
LUCILLE DRIVE (ASPHALT)

EDGE OF GRAVEL

CITY OF DAYTON
PARCEL ID. NO. R72 05714 0016

4T

CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line
- Fence Line (existing) / (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Limited Access (only) — LA
- Right of Way (only) — R/W
- Limited Access & Right of Way — LA-R/W
- Exist. Right of Way — R/W
- Temp. Right of Way — T ESMT
- Slope Easement — SL ESMT
- Utility Easement — U ESMT
- Property Line (in existing fence)
- Railroad
- Guardrail (existing) / (proposed)
- Construction Limits

ITEM 670 DITCH EROSION PROTECTION

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C-4	20°59′54″	954.93′	349.97′	348.02′	N 16°50′45″ W
C-5	4°18′42″	1145.92′	86.23′	86.21′	N 29°30′02″ W
C-10	16°12′00″	954.93′	270.00′	269.10′	S 23°33′16″ E

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	Θs	Xc	Yc	K	P	TS	SC	CS	ST
C-2	448+47.51	350.00	233.52	-	116.83	7° 00′ 00″	349.48	14.24	-	-	440+44.10	443+93.97	452+25.76	455+75.76

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

MOT-75-14.6
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	θs	Xc	Yc	K	P	TS	SC	CS	ST
C-2	448+47.51	350.00	233.52	-	116.83	7° 00′ 00″	349.48	14.24	-	-	440+44.10	443+93.97	452+25.76	455+75.76

RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C-10	16°12′00″	954.93′	270.00′	269.10′	S 23°33′16″ E
C-11	54°58′00″	300.00′	287.80′	287.82′	S 12°01′36″ W

REV. BY	DATE	DESCRIPTION
BCF/SRL	10/15/06	PARCEL 5 NOW WD TAKE
BCF/SRL	11/21/05	CHANGE CONSTRUCTION LIMITS
BCF/SRL	10/25/05	CHANGE IN PROJECT LIMITS
DATE COMPLETED		11/21/05

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

ITEM 202, PAVEMENT REMOVED, ASPHALT
ITEM 202, PAVEMENT REMOVED
ITEM 670 DITCH EROSION PROTECTION

Sta 451+25.93
365.58 LT
656209.7012 N
1495027.9218 E

S 39° 28′ 27″ W
55.63′

METAL POST ENCASED W/ CONC. TO BE REMOVED (TYP)

N 21° 41′ 48″ E
69.53′

PROP HW

Sta 451+61.50
317.00 LT
656252.6393 N
1495063.2849 E

S 24° 01′ 49″ E
23.72′

Sta 451+07.78
315.20 LT
656214.1998 N
1495079.9701 E

Sta 451+91.96
317.55 LT
656274.3033 N
1495053.6257 E

S 24° 01′ 50″ E 212.47′

STANLEY TERMINALS INC
PARCEL ID. NO.
COMMERCIAL
R72 05714 0010

STANLEY TERMINALS INC
PARCEL ID. NO.
COMMERCIAL
R72 05714 0010

STANLEY TERMINALS INC
PARCEL ID. NO.
R72 05714 0027

CITY OF DAYTON
PARCEL ID. NO.
R72035714 0026
VOL.1266 PG 156
SUBJECT TO INGRESS/EGRESS
EASEMENT TO M.C.D
D.B. 2272 Pg. 252

MIAMI CONSERVANCY DISTRICT
PARCEL ID. NO.
R72035714 0001

12" TWIN MAPLE
CONSTRUCTION LIMITS
PROP. CB2-2B
PROP FENCE
N 2° 39′ 05″ E 233.73′
LA-R/W
CONSTRUCTION LIMITS
Sta 454+27.59
200.16 LT
656507.7853 N
1495064.4377 E
18" MAPLE
6" MAPLE
EX GUARDRAIL
PROPOSED CONDUIT ELECTRIC
Sta 451+31.66
250.82 LT
656254.6185 N
1495133.6262 E
PT Sta. 451+57.62
B RAMP N-6
RAMP N-6
TO STANLEY AVENUE
C/L BASELINE RAMP
P.I. Sta = 452+06.48
I = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
18" TYPE B
PROP LIGHT POLE
EX CB (TBR)
METAL POST ENCASED W/ CONC. TO BE REMOVED (TYP)
CONSTRUCTION LIMITS
EX CB (DND)
EX 54" CONC (DND)
EX 12" CONC (TBR)
℄ R/W RAMP N-6
Sta 453+77.19
81.38 LT
656525.4474 N
1495191.3250 E
Sta 453+36.75
155.93 LT
656455.8565 N
1495144.5922 E
CS Sta. 452+26.17
CS Sta. 452+25.76
℄ R/W I - 75
℄ I - 75
Sta 452+25.76
0.00 LT
656430.8132 N
1495331.5299 E
PT Sta. 453+00.00
RESUME ACQUISITION
STA. 451+25.93
S.B. I-75
C-2
EX ELECTRIC JUNCTION BOX
PROP ELECTRIC JUNCTION BOX
EX ELECTRIC JUNCTION BOX
EX OVERHEAD SIGN (TBR)
Sta 454+34.57
121.27 LT
656553.5126 N
1495129.0703 E
Sta 454+76.87
115.89 LT
656591.5622 N
1495112.6286 E
Sta 455+75.76
0.00 LT
656735.7640 N
1495160.2331 E
CS Sta. 455+76.76
ST Sta. 455+75.76
PC Sta. 0+00.00
END ACQUISITION
STA. 456+07.12
END PROJECT
STA. 468+30.96
END WORK
STA. 472+68.08
N 31° 39′ 24″ W 1464.58
CONSTRUCTION LIMITS
℄ RAMP N-6
PROP BRIDGE STRUCTURE
Sta 456+46.84
45.99 LT
656772.1275 N
1495083.7860 E
Sta 455+61.27
111.71 LT
N33°40′33″W 618.09′
S54°43′25″W 44.17′
45.85′
42.24′
51.67′
47.24′
41.13′
N11°55′02″W
PROP FENCE
LA-R/W
9" MAPLE
46.05′
N54°43′15″E 79.17′
12" MAPLE
41.25′
S23°22′11″E
39.05′
6" MAPLES
PROP HW 2.67′
EX FENCE
EDGE OF GRAVEL
CP1
R=5769.65′
I=0°41′23″
A=69.45′
LCh=N56°18′13″E
69.45′
CP2
R=5729.65′
I=0°36′43″
A=61.19′
LCh=S56°05′40″W
61.19′
EX FENCE
Sta 454+73.39
185.29 LT
656689.8722 N
1495026.0089 E
Sta 455+13.38
171.66 LT
Sta 455+58.46
155.79 ℄ LT
656639.3172 N
1495036.6790 E
Sta 455+16.05
110.53 LT
656627.2280 N
1495097.2170 E
Sta 455+18.73
110.16 LT
656629.6772 N
1495096.1588 E
Sta 455+29.33
83.45 LT
656652.5816 N
1495113.4476 E
CC Sta. 454+00
P 454+00
CC Sta. 455+30.19
CC Sta. 452+70.00
455+00
456+00
453+00
454+00
C/L BASELINE RAMP
P.I. Sta = 454+22.66
I = 18° 00′ 00″ (LT)
Dl = 11° 15′ 00″
Rl = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
D1 = 28° 25′ 57″ (LT)
D2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
CS = 453+30.19
SC = 455+30.19
STA 455+02.45
175.44 LT
656582.0220 N
1495048.7706 E
SITE BM #4
ELEV: 745.33
** THE BOARD OF COUNTY COMMISSIONERS & THE MIAMI CONSERVANCY DISTRICT PARCEL ID. NO. - R72 05714 0001
5WD
5-1
5WD-1
6LA
8LA**
7LA*
5
6
7
8

NOTE
No documents were found where The Board of County Commissioners was given title to the property. The Montgomery County Auditor's Office shows The Board of County Commissioners as owner, but the tax map of the property shows The Miami Conservancy District as owner. It is believed that The Board of County Commissioners are in fact the owner of the property, either by Deed, which was never recorded, and/or by a Judgment, which is in archive records not found. Also shown as Parcel No. R72 05714 0001

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

C/L BASELINE RAMP
P.I. Sta = 456+37.16
I = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′

N58°23′26″E 25.02′
Sta 456+07.12
113.32 LT
656702.9839 N
1495047.3137 E

SCALE IN FEET 0 10 20 40

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
STA 452+00 TO STA 457+00

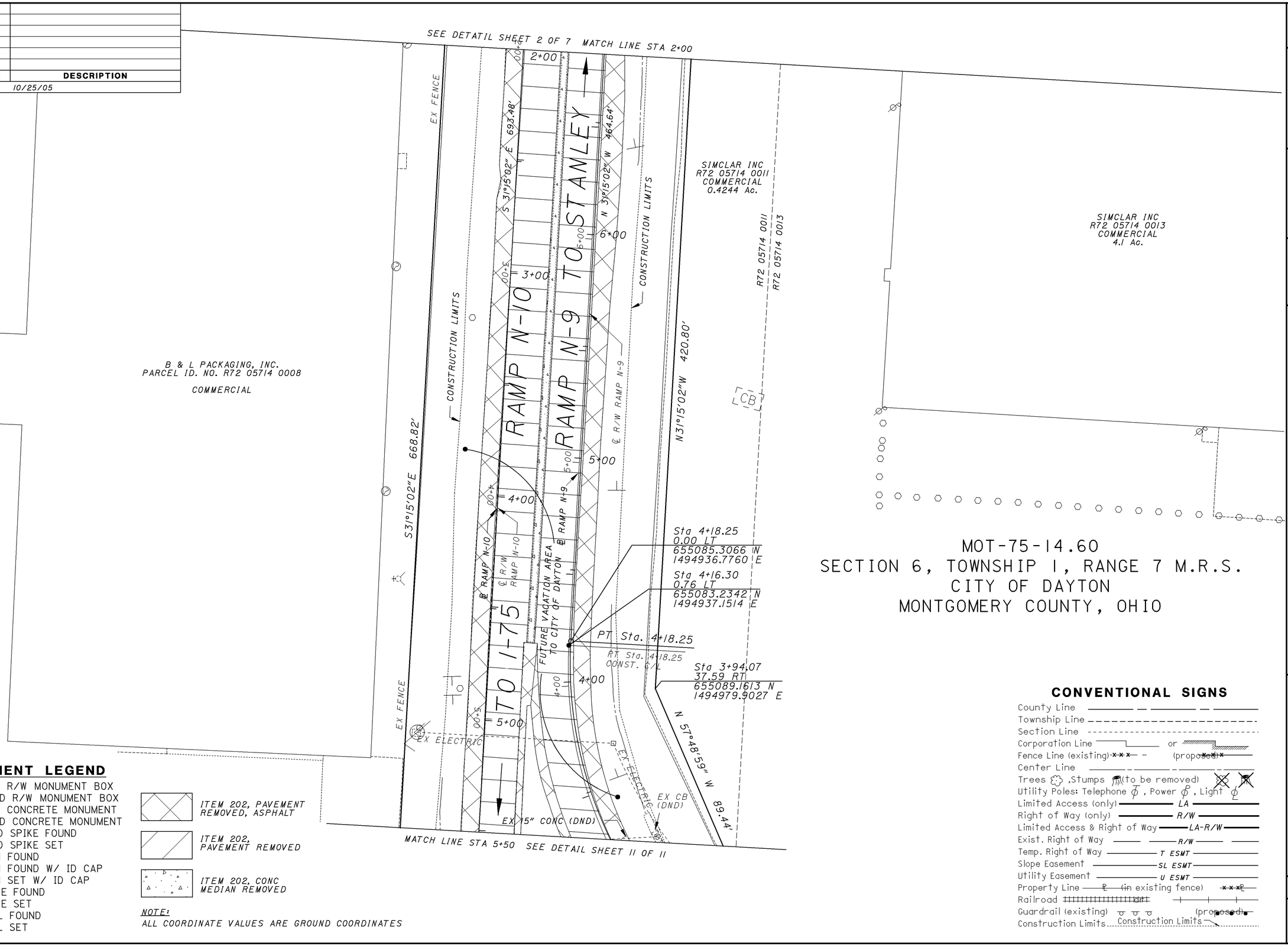
MOT-75-14.60

9 / 11

312 / 314

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 10/25/05



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line or
- Fence Line (existing) (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Limited Access (only) LA
- Right of Way (only) R/W
- Limited Access & Right of Way LA-R/W
- Exist. Right of Way R/W
- Temp. Right of Way T ESMT
- Slope Easement SL ESMT
- Utility Easement U ESMT
- Property Line (in existing fence)
- Railroad
- Guardrail (existing) (proposed)
- Construction Limits Construction Limits

SCALE IN FEET 0 10 20 40

PID NO. 23828

R/W DESIGNER R. B. ROSS

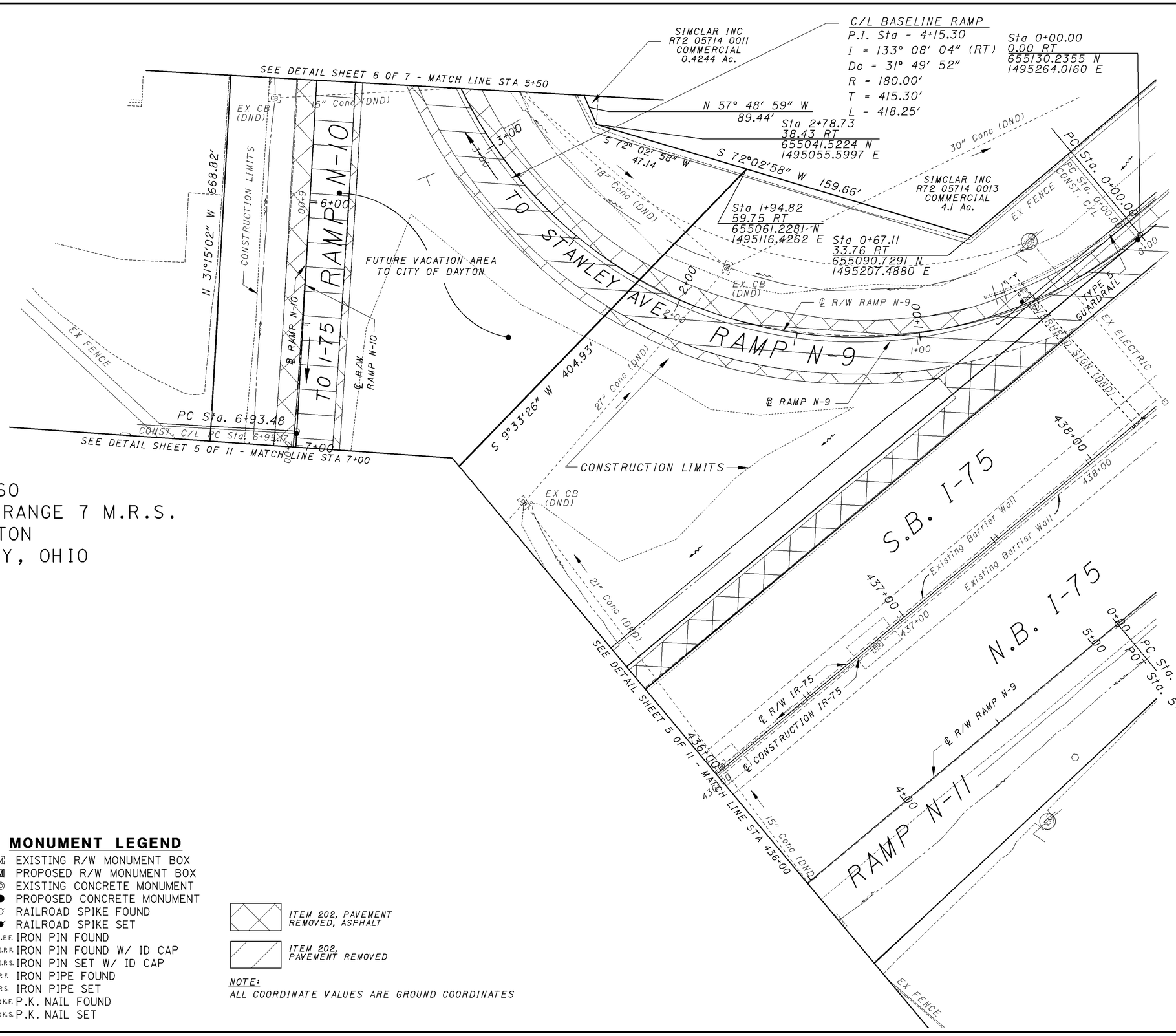
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
RAMP N-10 STA 2+00 TO STA 5+50

MOT-75-14.60

10 / 11

313 / 314


SEE DETAIL SHEET 6 OF 7 - MATCH LINE STA 5+50
SIMCLAR INC
R72 05714 0011
COMMERCIAL
0.4244 Ac.
C/L BASELINE RAMP
P.I. Sta = 4+15.30
I = 133° 08' 04" (RT)
Dc = 31° 49' 52"
R = 180.00'
T = 415.30'
L = 418.25'
Sta 0+00.00
0.00 RT
655130.2355 N
1495264.0160 E
N 57° 48' 59" W
89.44'
Sta 2+78.73
38.43 RT
655041.5224 N
1495055.5997 E
S 72° 02' 58" W
47.14
S 72°02'58" W 159.66'
SIMCLAR INC
R72 05714 0013
COMMERCIAL
4.1 Ac.
Sta 1+94.82
59.75 RT
655061.2281 N
1495116.4262 E
Sta 0+67.11
33.76 RT
655090.7291 N
1495207.4880 E
PC Sta. 0+00.00
CONST. C/L PC Sta. 0+00.00
EX FENCE
30" Conc (DND)
18" Conc (DND)
EX CB (DND)
EX CB (DND)
℄ R/W RAMP N-9
TYPE 5 GUARDRAIL
EX ELECTRIC
SIGN (DND)
EX CB (DND)
EX CB (DND)
EX CB

GEOLOGY OF THE SITE

Geologically, the site is in a glacial outwash deposit. The outwash deposit consists of water-laid, well-sorted gravel and sand horizontally layered deposited by affrading streams of melt water poured from a glacier. The bridge abutments consist of the embankment fill that was placed during the construction of the existing I-75.

EXPLORATION

Six exploration borings were made for the bridge foundation investigation using a truck-mounted boring rig. Standard penetration methods (ASTM D-1586) were used at maximum depth intervals of five feet. The field exploration work was performed on June 28, June 29, July 8, July 9, and July 12, 2004.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

The subgrade soil consists of embankment fill, undocumented and uncontrolled fill for the flood dike, brown or gray silt and clay (A-6a), brown gravel with sand (A-1-b), brown coarse and fine sand, greenish-gray silty clay (A-6b), gray gravel (A-1-a), greenish-gray silt and clay, greenish-gray sandy silt (A-4a), and brown or gray gravel with sand and silt (A-2-4). The asphalt pavement at the bridge abutments is about six inches thick. The concrete base beneath the asphalt pavement at the bridge abutments is between 6 and 12 inches thick.

Groundwater was observed in Borings 4, 5, 8, and 9 at elevations of 717.0 to 749.6 feet during the boring operations. Borings 6 and 7 were performed in the middle of the Great Miami River; the river water was above the bottom of the riverbed. Bedrock was not encountered to an elevation of 690 feet.

SYMBOLS OF ROCK TYPES

- COAL
- FIRE CLAY OR UNDERCLAY
- WEATHERED MUDSTONE
- MUDSTONE
- WEATHERED SHALE
- SHALE
- WEATHERED CLAY–SHALE
- CLAY–SHALE
- BOULDERS OR COBBLES
- WEATHERED SILTSTONE
- SILTSTONE
- WEATHERED SANDSTONE
- SANDSTONE
- LEACHED DOLOMITE
- DOLOMITE
- LEACHED LIMESTONE
- LIMESTONE

PARTICLE SIZE DEFINITIONS

11.8"	3"	0.1"		0.02"	0.003"	0.0002"
Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
		No. 10 SIEVE		No. 40 SIEVE	No. 200 SIEVE	

LEGEND

- AUGER BORING LOCATION
- TR — TOP OF ROCK
- W — INDICATES FREE WATER ELEVATION
- INDICATES STATIC WATER ELEVATION
- HORIZONTAL BAR ON BORING INDICATES THE DEPTH THE SAMPLE WAS TAKEN - PROFILE VIEW
- X/Y/Z — FIGURES BESIDE THE BORING IN PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST
  - X = NUMBER OF BLOWS FOR FIRST 6"
  - Y = NUMBER OF BLOWS FOR SECOND 6"
  - Z = NUMBER OF BLOWS FOR THIRD 6"

GENERAL INFORMATION

DRIVE SAMPLES

Drive sample borings are made by means of a mechanically-powered, rotary-type drill rig employing a 2" O.D., 1-1/2" I.D., split-spoon sampler, at continuous, 2-1/2 to 5-foot depth intervals driven by means of a 140-pound hammer with a free fall of 30 inches. The number of blows required to drive the sampler three 6-inch increments is considered the standard penetration test.

SAMPLING AND TESTING

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, type of sample, number of blows for the standard penetration test in three 6-inch increments, and a sample description based on laboratory test results, utilizing the ODOT classification system.

DAYTON, OHIO
TOLEDO, OHIO
LEXINGTON, KY
BOWSER MORNER®

DRAWN HGW | REVIEWED RJYT | DATE rev. 12-04 | PROJECT NO. 131651

CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

DRAWN	REVIEWED	DATE	PROJECT NO.
HGW	RJYT	rev. 12-04	131651

CLIENT
TRANSYSTEMS CORPORATION

HORIZONTAL SCALE IN FEET
0 30 60

Date Started 7/8/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 749.6
Date Completed 7/8/04 Casing: Length Dia.

Boring No. 4 Station & Offset Sta. 455+18.71; 41.22' Rt. Surface Elev. (ft) 767.6

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
767.6	0														
767.1					(FILL) ASPHALT pavement (6")										
766.6		22/33/39			(FILL)CONCRETE pavement (6") (FILL) Brown coarse and fine SAND, some gravel	1A								3.5	Visual
	2														
	4	20/20/14			(FILL) Brown coarse and fine SAND, some gravel	2A								4.5	Visual
	6	12/20/20			(FILL) Brown coarse and fine SAND, some gravel	3A								4.8	Visual
	8														
	10	18/18/20			(FILL) Brown coarse and fine SAND, some gravel	4A								3.1	Visual
	12	12/39/50(0.3')			(FILL) Brown coarse and fine SAND, some gravel	5A								5.3	Visual
	14	50(0.1')			(FILL) Brown coarse and fine SAND, some gravel	6A									Visual
751.6	16														
		10/19/20			(FILL) Dark brown coarse SAND, some gravel, some silt, trace glass	7A								11.0	Visual
	▼ 18														
		6/5/5			(FILL) Dark brown coarse SAND, some gravel, some silt, trace glass	8A								35.5	Visual
	20														
	22														
744.6															
	24	6/13/14			(ORIGINAL) Brown SILT and CLAY, trace gravel	9A								19.9	Visual
	26														
	28														
	30	50(0.1')			Brown SILT and CLAY, trace gravel	10A								-	Visual
	32														
734.6															
	34	13/20/30			Brown GRAVEL with sand, trace cobbles	11A								Sat.	Visual
	36														
	38														
	40	28/32/33			Brown GRAVEL with sand, trace cobbles	12A	28.7	21.5	37.3	8.9	3.6	NonPlastic		Sat.	A-1-b(0)
	42														
	44	26/30/34			Brown GRAVEL with sand, trace cobbles	13A								Sat.	Visual
	46														
	48														
717.6	50	18/20/34			Brown GRAVEL with sand, trace cobbles	14A								Sat.	Visual

Bottom of Boring at 50.0'

Date Started 6/29/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 723.4
Date Completed 6/29/04 Casing: Length Dia.

Boring No. 5 Station & Offset Sta. 456+62.95; 57.34' Lt. Surface Elev. (ft) 741.9

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
741.9	0														
741.3					(FILL) TOPSOIL (7")										
	2	6/8/9			(FILL) Brown SANDY SILT, some gravel	1A								8.9	Visual
738.4															
	4	3/4/5			(FILL) Brown GRAVEL with sand, silt and clay	2A								6.1	Visual
	6	4/4/5			(FILL) Brown GRAVEL with sand, silt and clay	3A								12.1	Visual
	8														
	10	3/4/7			(FILL) Brown GRAVEL with sand, silt and clay	4A								18.4	Visual
732.4															
	12	3/4/5			(FILL) Gray SANDY SILT, little gravel	5A								14.6	Visual
	14	1/2/3			(FILL) Gray SANDY SILT, little gravel	6A	25.8	14.4	19.2	23.7	16.9	20	8	9.8	A-4a(1)
	16	3/3/4			(FILL) Gray SANDY SILT, little gravel	7A								11.0	Visual
723.4	▼ 18														
	20	4/5/5			(ORIGINAL) Brown coarse and fine SAND, little gravel	8A								Sat.	Visual
	22														
718.9															
	24	9/16/17			Greenish gray SILTY CLAY, some gravel	9A								11.2	Visual
	26														
	28														
	30	51/100(0.4')			Greenish gray SILTY CLAY, some gravel	10A	23.6	7.1	4.5	27.6	37.2	36	17	9.9	A-6b(9)
	32														
	34	100(0.3')			Greenish gray SILTY CLAY, some gravel	11A								8.5	Visual
	36														
	38														
	40	100(0.3')			Greenish gray SILTY CLAY, some gravel	12A								8.7	Visual
	42														
	44	100(0.3')			Greenish gray SILTY CLAY, some gravel	13A								7.1	Visual
	46														
	48														
691.9	50	100(0.3')			Greenish gray SILTY CLAY, some gravel	14A								6.0	Visual

Bottom of Boring at 50.0'

BOWSER MORNER® DAYTON, OHIO TOLEDO, OHIO LEXINGTON, KY

PROJECT NO. 131651
DATE rev. 12-04
REVIEWED RJYT
DRAWN HGW
CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

Date Started 7/9/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) River Surface
Date Completed 7/9/04 Casing: Length Dia.

Boring No. 6 Station & Offset Sta. 457+80.95; 40.79' Rt. Surface Elev. (ft) 729.2'

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
729.2	0														
	2	3/17/15			Brown coarse SAND, little gravel	1A								Sat.	Visual
725.7	4	6/5/6			Gray GRAVEL, some sand	2A	57.6	31.4	6.1	2.7	2.2	NonPlastic		Sat.	A-1-a(0)
	6	5/5/4			Gray GRAVEL, some sand	3A								Sat.	Visual
	8	3/5/7			Gray GRAVEL, some sand	4A								Sat.	Visual
	10	14/30/32			Gray GRAVEL, some sand	5A								Sat.	Visual
	12	24/49/50(0.1')			Gray GRAVEL, some sand	6A								Sat.	Visual
	14	20/34/50(0.3')			Gray GRAVEL, some sand	7A								Sat.	Visual
711.7	16	13/32/40			Brown SILT and CLAY, little gravel	8A	11.5	8.7	12.5	38.9	28.4	28	11	16.2	A-6a(7)
	18														
	20														
	22														
705.2	24	50(0.4')			Greenish gray SILT and CLAY, trace gravel	9A								-	Visual
	26														
	28														
700.3		50(0.3')			Greenish gray SILT and CLAY, trace gravel (Auger refusal at 28.9')	10A								10.7	Visual

Bottom of Boring at 28.9'

Date Started 7/14/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) River Surface
Date Completed 7/14/04 Casing: Length Dia.

Boring No. 7 Station & Offset Sta. 459+04.90; 40.08' Rt. Surface Elev. (ft) 729.9'

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
729.9	0														
	2	8/5/4			Brown and gray SAND, some clay	1A								Sat.	Visual
725.9	4	2/3/4			Gray SANDY SILT, trace gravel	2A								11.8	Visual
724.9	6	3/3/4			Gray SILT and CLAY, trace gravel	3A	13.5	11.1	11.3	25.1	39.0	28	11	18.8	A-6a(6)
	8	7/7/14			Gray SILT and CLAY, trace gravel	4A								17.2	Visual
	10	14/20/30			Gray SILT and CLAY, trace gravel	5A								16.5	Visual
	12	35/50(0.3')			Gray SILT and CLAY, trace gravel	6A								19.0	Visual
714.9	14	50(0.4')			Greenish gray SANDY SILT, trace gravel	7A								11.5	Visual
	16	200(0.3')			Greenish gray SANDY SILT, trace gravel	8A	33.2	6.1	9.9	29.7	21.1	26	10	7.4	A-4a(3)
	18														
	20														
708.7		100(0.1')			Greenish gray SANDY SILT, trace gravel (Auger refusal at 21.2')	9A								8.9	Visual

Bottom of Boring at 21.2'

Date Started 6/28/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 717.0
Date Completed 6/28/04 Casing: Length Dia.

Boring No. 8 Station & Offset Sta. 460+37.90; 60.28' Lt. Surface Elev. (ft) 740.5

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
740.5	0														
740.0	2	7/10/15			(FILL) TOPSOIL (6") (FILL) Brown SANDY SILT, little gravel	1A								7.9	Visual
	4	3/3/4			(FILL) Brown SANDY SILT, little gravel	2A	32.3	14.6	16.8	19.7	16.6	23	10	9.5	A-4a(0)
	6	4/4/5			(FILL) Brown SANDY SILT, little gravel	3A								10.7	Visual
	8	2/3/3			(FILL) Brown SANDY SILT, little gravel	4A								15.6	Visual
731.0	10	3/4/5			(ORIGINAL) Greenish gray and brown SILT and CLAY, trace gravel	5A	8.2	7.5	10.0	32.1	42.2	30	13	16.7	A-6a(9)
	12	2/1/2			Greenish gray and brown SILT and CLAY, trace gravel	6A								15.3	Visual
	14	2/3/4			Greenish gray and brown SILT and CLAY, trace gravel	7A								15.2	Visual
	16	1/2/5			Greenish gray and brown SILT and CLAY, trace gravel	8A								12.9	Visual
	18														
	20														
	22														
717.0	24	100(0.3')			Gray GRAVEL with sand and silt	9A								Sat.	Visual
	26														
	28														
712.0	30	100(0.4')			Greenish gray SANDY SILT, little gravel	10A	14.6	5.1	3.8	33.4	43.1	23	8	11.4	A-4a(8)
	32														
	34	100(0.4')			Greenish gray SANDY SILT, little gravel	11A								10.4	Visual
	36														
	38														
	40	100(0.4')			Greenish gray SANDY SILT, little gravel	12A								5.7	Visual
	42														
	44	100(0.3')			Greenish gray SANDY SILT, little gravel	13A								9.7	Visual
	46														
	48														
690.5	50	100(.3')			Greenish gray SANDY SILT, little gravel	14A								6.0	Visual

Bottom of Boring at 50.0'

DAYTON, OHIO
TOLEDO, OHIO
LEXINGTON, KY

BOWSER MORNER

DRAWN HGW | REVIEWED RJYT | DATE rev. 12-04 | PROJECT NO. 131651

CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

Date Started 7/12/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 737.6

Date Completed 7/12/04 Casing: Length _____ Dia. _____

Boring No. 9 Station & Offset Sta. 461+72.30; 42.06' Rt, Surface Elev. (ft) 770.6

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics								ODOT Class
							% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	
770.6	0														
770.1					(FILL) ASPHALT pavement (6")										
769.1					(FILL) CONCRETE pavement (12")										
	2	12/24/24			(FILL) Brown GRAVEL with sand and silt	1A	50.8	24.2	9.4	8.6	7.0	23	8	5.4	A-2-4(0)
	4	24/40/50(0.3')			(FILL) Brown GRAVEL with sand and silt	2A								4.3	Visual
	6	12/24/19			(FILL) Brown GRAVEL with sand and silt	3A								6.9	Visual
	8	12/24/21			(FILL) Brown GRAVEL with sand and silt	4A								6.5	Visual
	10	18/30/24			(FILL) Brown GRAVEL with sand and silt	5A								7.2	Visual
	12	17/24/29			(FILL) Brown GRAVEL with sand and silt	6A								7.0	Visual
	14	21/28/13			(FILL) Brown GRAVEL with sand and silt	7A								6.5	Visual
	16	12/13/20			(FILL) Brown GRAVEL with sand and silt	8A								7.6	Visual
	18														
	20														
	22														
	24	12/24/20			(FILL) Brown GRAVEL with sand and silt	9A								12.7	Visual
	26														
	28														
	30	30/50(0.3')			(FILL) Brown GRAVEL with sand and silt	10A								-	Visual
	32														
737.6															
	34	21/12/24			(ORIGINAL) Brown GRAVEL with sand and silt	11A	62.4	14.8	7.5	9.6	5.7	26	10	Sat.	A-2-4(0)
	36														
	38														
		12/28/34			Brown GRAVEL with sand and silt	12A								Sat.	
730.6	40														

Bottom of Boring at 40.0'

DAYTON, OHIO
TOLEDO, OHIO
LEXINGTON, KY

BOWSER MORNER®

DRAWN HGW | REVIEWED RJYT | DATE rev 12-04 | PROJECT NO. 1316S1

CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

5 / 5

GENERAL INFORMATION

INTRODUCTION

This study includes the roadway improvement of a section of I-75 between Stations 433+00 and 463+00, the entrance and exit ramps, and a section of Stanley Avenue between Stations 0+00 and 14+00.

GEOLOGY OF THE SITE

Geologically, the site is in a glacial outwash deposit. The outwash deposit consists of water-laid, well-sorted gravel, and sand horizontally layered deposited by aggrading streams of melt water poured from a glacier. The existing roadways and the ramps are on the embankment fill that was placed during the construction of the I-75 and Stanley Avenue ramps.

EXPLORATION

Eight exploration borings were made using a truck-mounted boring rig. Standard penetration methods (ASTM D-1586) were used at maximum depth intervals of five feet. The field exploration work was performed on June 29, July 8, July 12, and July 13, 2004.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

The I-75 roadway in this area is over more than 10 feet of embankment fill. The embankment fill consists of 6 inches of asphalt pavement, 6 to 18 inches of concrete base, black or gray coarse and fine sand (A-3a), black fine sand, brown gravel with sand (A-1-b), brown gravel (A-1-a), and brown gravel with sand and silt (A-2-4). The subgrade soil along the ramp to Stanley Avenue consists of embankment fill; topsoil; dark brown sandy silt; brown silt and clay (A-6a); and brown gravel with sand, silt and clay (A-2-6). The subgrade soil along Stanley Avenue consists of undocumented fill, dark brown and gray silt and clay (A-6a), brown silty clay (A-6b), and brown sand.

Groundwater was observed only in Borings 11, 12, and 14 at elevations of 733.8 to 736.4 feet during the boring operations. Groundwater was not encountered in the remaining borings. Bedrock was not encountered in these borings.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS

DESCRIPTION	AASHTO CLASS	OHIO CLASS	% AGG.	% C,S	% F.S.	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-a(0)	A-1-a(0)	56.9	21.6	9.7	8.8	3.0	5	0.3	3.7	3
GRAVEL WITH SAND	A-1-b(0)	A-1-b(0)	50.6	20.1	14.3	15.0		10	1	9.7	3
FINE SAND	A-3(0)	A-3(0)	38.4	22.0	26.0	13.6		NON-PLASTIC		10.1	3
COARSE AND FINE SAND		A-3a(0)	20.4	12.6	46.4	13.8	6.8	NON-PLASTIC		10.5	2
GRAVEL WITH SAND AND SILT	A-2-4(0)	A-2-4(0)	41.0	26.6	12.3	12.7	7.4	25	8	16.0	2
GRAVEL WITH SAND, SILT AND CLAY	A-2-6(0)	A-2-6(0)	63.6	12.4	6.7	13.0	4.3	31	14	4.9	1
SANDY SILT	VISUAL CLASSIFICATION										
SILT AND CLAY	A-6(5)	A-6a(5)	11.0	14.6	28.0	28.4	18.0	32	13	17.4	3
SILTY CLAY	A-6(10)	A-6b(10)	0.4	2.5	23.6	41.1	32.4	39	16	25.7	1
SOD and/or TOPSOIL	VISUAL CLASSIFICATION										
ASPHALT	VISUAL CLASSIFICATION										
CONCRETE	VISUAL CLASSIFICATION										

INDICATES BORING LOCATION

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY

WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT

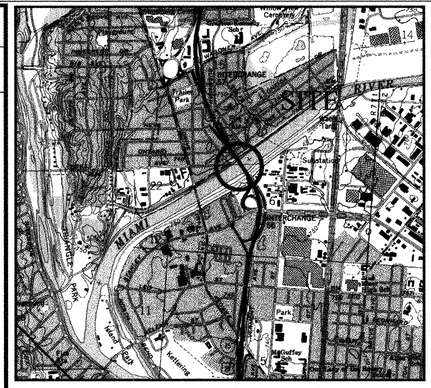
INDICATES A NON PLASTIC MATERIAL WITH A HIGH WATER CONTENT

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. e.g. 15

w FREE WATER

STATIC WATER LEVEL

NUMBER OF BLOWS FOR "STANDARD PENETRATION" TEST
X=NUMBER OF BLOWS FOR FIRST 150 mm
Y=NUMBER OF BLOWS FOR SECOND 150 mm
Z=NUMBER OF BLOWS FOR THIRD 150 mm



VICINITY MAP

PROJECT INDEX

STATIONS FROM	TO	SOIL PROFILE SHEET
433+00 (INTERSTATE 75)	463+00	2 & 3
0+00 (STANLEY AVENUE)	14+00	4
448+00 (RAMP N-6)	454+00	4
440+00 (RAMP N-6A)	449+00	4
446+00 (RAMP N-7)	453+00	4

SUMMARY OF SOIL TEST DATA

Boring Number	Station & Offset	Depth From	Depth To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class
1	433+57.92; 43.76' Rt.	1.0	2.5	22.7	16.9	37.9	14.3	8.2	NonPlastic		9.2	A-3a(0)
		3.5	5.0	18.1	8.3	54.9	13.2	5.5	NonPlastic		11.7	A-3a(0)
		5.5	7.0	(FILL) Dense black fine sand, little gravel							6.0	Visual
		8.5	10.0	(FILL) Gray coarse and fine sand, little gravel, trace clay							11.0	Visual
2	438+45.11; 61.22' Lt.	2.0	3.5	45.9	17.9	14.9	15.0	6.3	31	4	11.6	A-1-b(0)
		4.5	6.0	(FILL) Brown gravel with sand							30.1	Visual
		6.5	8.0	(FILL) Brown gravel with sand							29.8	Visual
		8.5	10.0	(FILL) Brown gravel with sand							28.3	Visual
3	451+20.07; 43.34' Rt.	1.0	2.5	57.2	22.4	9.9	7.4	3.1	NonPlastic		3.0	A-1-a(0)
		3.5	5.0	58.2	20.3	9.1	9.2	3.2	NonPlastic		3.2	A-1-a(0)
		6.0	7.5	(FILL) Brown gravel, some sand							3.1	Visual
		8.5	10.0	(FILL) Brown gravel, some sand							5.9	Visual
3A	447+39.18; 15.43' Rt.	1.0	3.0	37.7	25.6	20.9	12.1	3.7	NonPlastic		9.0	A-1-b(0)
		3.0	5.0	25.5	22.8	43.6	7.5	0.6	NonPlastic		12.7	A-3(0)
4	455+18.71; 41.22' Rt.	1.0	2.5	(FILL) Brown coarse and fine sand, some gravel							3.5	Visual
		3.5	5.0	(FILL) Brown coarse and fine sand, some gravel							4.5	Visual
		6.0	7.5	(FILL) Brown coarse and fine sand, some gravel							4.8	Visual
		8.5	10.0	(FILL) Brown coarse and fine sand, some gravel							3.1	Visual
4A	454+42.05; 109.26' Rt.	1.0	2.5	(FILL) Brown silt and clay, little gravel							13.9	Visual
		3.5	5.0	(FILL) Brown sandy silt, little gravel, trace glass							17.2	Visual
		6.0	7.5	45.0	18.6	16.3	20.1		NonPlastic		13.7	A-3(0)
		8.5	10.0	44.7	24.7	18.1	12.5		NonPlastic		3.8	A-3(0)
		11.0	12.5	Brown coarse and fine sand, some gravel							4.3	Visual
		13.5	15.0	Brown gravel with sand							8.3	Visual
		16.0	17.5	Brown gravel with sand							7.5	Visual
		18.5	20.0	Brown gravel with sand							8.6	Visual
		23.5	25.0	Brown gravel with sand							7.1	Visual
4B	452+65.66; 108.20' Rt.	1.0	2.5	(FILL) Brown coarse sand, little gravel, trace silt, trace ash, trace glass							12.4	Visual
		3.5	5.0	(FILL) Dark brown silty and clay, trace gravel, trace wood							14.5	Visual
		6.0	7.5	(FILL) Dark brown silty and clay, trace gravel, trace wood							10.3	Visual
		8.5	10.0	Brown gravel with sand, trace silt and clay							8.4	Visual
		11.0	12.5	Brown gravel with sand, trace silt and clay							9.6	Visual
		13.5	15.0	68.2	16.8	7.0	8.0		NonPlastic		8.5	A-1-b(0)
		16.0	17.5	Brown fine sand, little gravel, trace silt							14.4	Visual
		18.5	20.0	48.5	20.7	17.0	13.8		NonPlastic		11.0	A-1-b(0)
		23.5	25.0	Brown gravel with sand							8.3	Visual
		28.5	30.0	Brown gravel with sand							7.3	Visual

Boring Number	Station & Offset	Depth From	Depth To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class
10	462+68.65; 47.70' Rt.	1.0	2.5	32.3	33.9	13.4	11.3	9.1	21	7	4.7	A-2-4(0)
		3.5	5.0	(FILL) Brown gravel with sand and silt							3.4	Visual
		5.5	7.0	(FILL) Brown gravel with sand and silt							3.2	Visual
		8.5	10.0	(FILL) Brown gravel with sand and silt							4.7	Visual
10A	462+00.93; 105.69' Rt.	1.0	2.5	Brown silty clay, trace gravel							19.8	Visual
		3.5	5.0	64.1	16.4	6.5	13.0		Non Plastic		5.1	A-1-a(0)
		6.0	7.5	Brown gravel with sand, trace silt							5.1	Visual
		8.5	10.0	Brown gravel with sand, trace silt							5.9	Visual
		11.0	12.5	61.0	16.8	11.6	10.6		Non Plastic		4.9	A-1-a(0)
		13.5	15.0	Brown gravel with sand, trace silt							6.6	Visual
		16.0	17.5	Brown gravel with sand, trace silt							6.0	Visual
		18.5	20.0	Brown gravel with sand, trace silt							8.8	Visual
		23.5	25.0	Greenish-gray sandy silt, trace gravel							12.3	Visual
11	13+04.86; 37.0' Lt.	1.5	3.0	(FILL) Dark brown and gray silt and clay, little gravel, with organic odor							13.6	Visual
		3.5	5.0	(FILL)3.2	18.6	31.4	29.5	17.3	33	13	16.0	A-6a(4)
		5.5	7.0	Brown silty clay, trace gravel							27.1	Visual
		8.5	10.0	Brown sand, some silt, little gravel							Sat.	Visual
12	8+54.68; 36.05' Rt.	0.5	2.0	(FILL) Brown sand, some silt, trace gravel							5.2	Visual
		2.5	4.0	(FILL) Brown silt and clay							21.2	Visual
		5.5	7.0	0.4	2.5	23.6	41.1	32.4	39	16	25.7	A-6b(10)
		8.5	10.0	Brown sand, little silt, little gravel							Sat.	Visual
13	448+72.61; 8.19' Lt.	0.5	2.0	(FILL) Brown sand, some gravel, little silt							4.3	Visual
		2.5	4.0	29.1	14.4	20.0	21.7	14.8	30	11	14.9	A-6a(1)
		5.5	7.0	Dark brown sandy silt, trace gravel							13.9	Visual
		8.5	10.0	0.6	10.7	32.6	33.9	22.2	34	15	21.2	A-6a(6)
13A	444+34.14; 3.80 Rt.	1.0	3.0	55.3	22.1	10.1	9.8	2.7	16	1	4.9	A-1-a(0)
		3.0	5.0	49.7	19.3	11.3	14.0	5.7	28	8	11.3	A-2-4(0)
14	452+35.33; 0.66' Rt.	0.5	2.0	Brown gravel with sand, silt and clay							10.0	Visual
		2.5	4.0	63.6	12.4	6.7	13.0	4.3	31	14	4.9	A-2-6(0)
		4.5	6.0	Brown gravel with sand, silt and clay							4.9	Visual
		8.5	10.0	Brown gravel with sand, silt and clay							Sat.	Visual

BOWSER MORNER
DAYTON, OHIO
TOLEDO, OHIO
LEXINGTON, KY

PROJECT NO. 131651
DATE 05+05 rev
REVIEWED RJYT
DRAWN HGW
CLIENT TRANSYSTEMS CORPORATION

SOIL PROFILE
I-75 BRIDGE OVER GREAT MIAMI RIVER
MOT I-75-14.60

1 / 4

MATCHLINE STATION 433+00

MATCHLINE STATION 463+00

RAMP N-10

RAMP N-9

STANLEY AVE

RAMP 6-A

RAMP N-=6

INTERSTATE 75

INTERSTATE 75

RAMP N-8

RAMP N-7

#1 #2 #3 #3A #4 #4A #4B #5 #6 #7 #10 #10A #11 #12 #13 #13A #14

#1
43.76' Rt.
6" Asphalt pavement

#2
61.22' Lt.
6" Asphalt pavement

#3
43.34' Rt.
6" Asphalt pavement

#4
41.22' Rt.
6" Asphalt pavement

#10
47.70' Rt.
6" Asphalt pavement

780 770 760 750 740 730 720 710

433+00 434+00 435+00 436+00 437+00 438+00 439+00 440+00 441+00 442+00 443+00 444+00 445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00 458+00 459+00 460+00 461+00 462+00 463+00

INTERSTATE 75

0 100 200
HORIZONTAL SCALE IN FEET

DRAWN HGW | REVIEWED RJYT | DATE REV. 05-05 | PROJECT NO. 131651

CLIENT
TRANSYSTEMS CORPORATION

SOIL PROFILE – INTERSTATE 75
STA. 433+00 TO STA. 463+00

MOT I-75-14.60

INTERSTATE 75

N

HORIZONTAL SCALE IN FEET
0 100 200

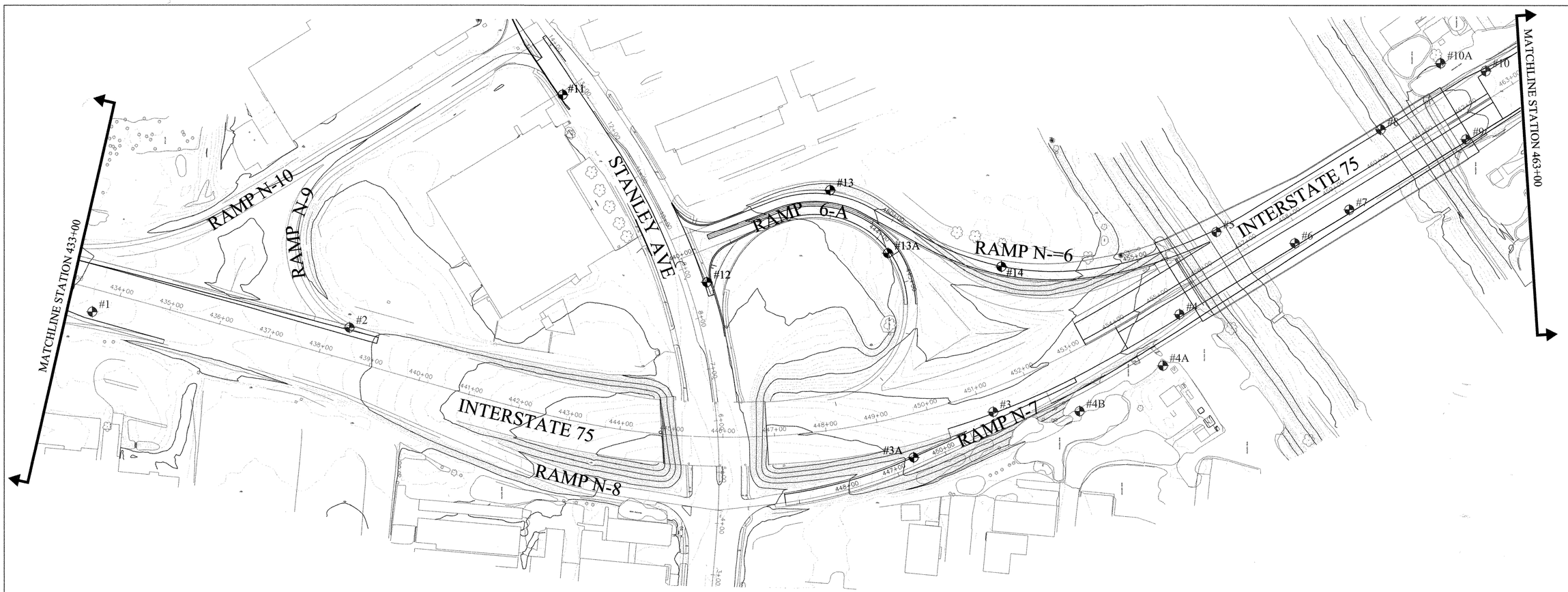
SOIL PROFILE – INTERSTATE 75
STA. 433+00 TO STA. 463+00

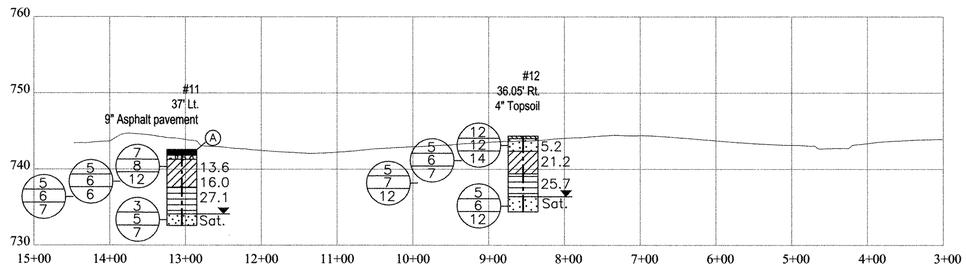
MOT I-75-14.60

DRAWN	REVIEWED	DATE	PROJECT NO.
HGW	RJYT	REV. 05-05	131651

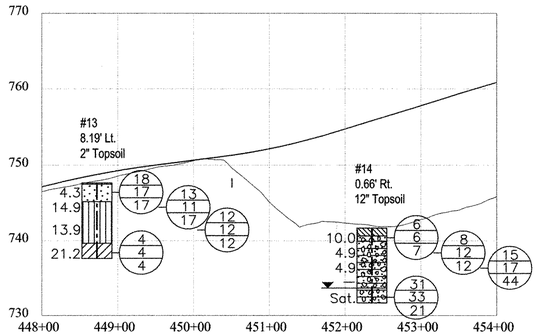
CLIENT
TRANSYSTEMS CORPORATION

3 / 4

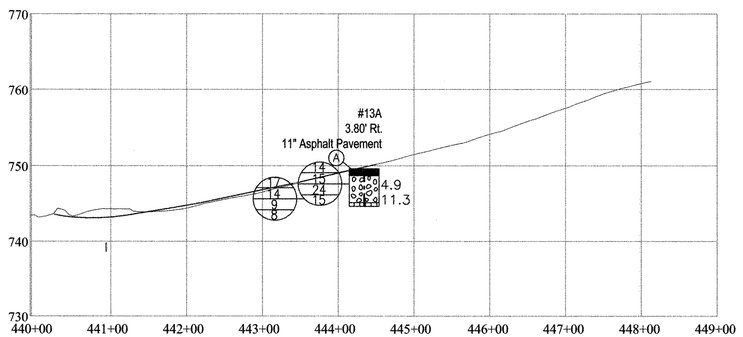




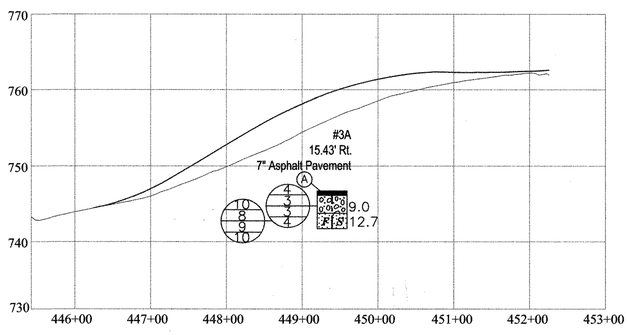
STANLEY AVENUE



RAMP N-6



RAMP N-6A



RAMP N-7

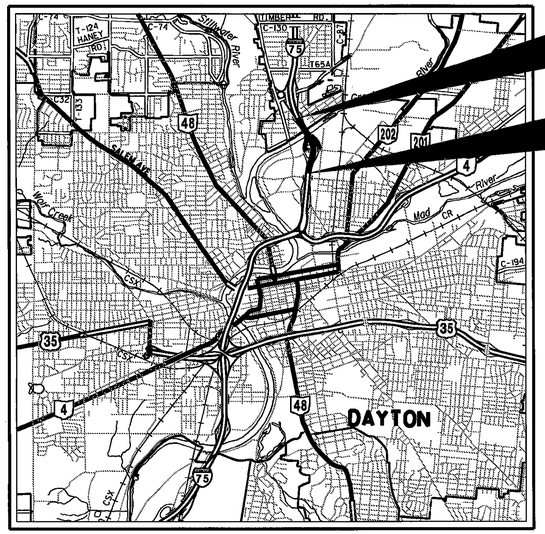
SOIL PROFILE - STANLEY AVENUE
RAMPS N-6, N-6A, AND N-7

MOT I-75-14.60

4 / 4

DRAWN	REVIEWED	DATE	PROJECT NO.
HGW	RJYT	rev. 05-05	131651

CLIENT
TRANSYSTEMS CORPORATION



LOCATION MAP

LATITUDE: N 39°47'05" LONGITUDE: W 84°11'05"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE & DIVIDED HIGHWAY

UNDIVIDED STATE & FEDERAL ROUTES

OTHER ROADS

DESIGN DESIGNATION IR-75

CURRENT ADT (2006)	105,700
DESIGN YEAR ADT (2026)	124,400
DESIGN HOURLY VOLUME (2026)	11,270
DIRECTIONAL DISTRIBUTION	51%
TRUCKS (24 HOUR B&C)	26%
DESIGN SPEED	60 MPH
LEGAL SPEED	55 MPH

DESIGN FUNCTIONAL CLASSIFICATION -
URBAN INTERSTATE

DESIGN EXCEPTIONS -
SEE SHEET 2

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:

TranSystems
5747 PERIMETER DRIVE, SUITE 240, DUBLIN, OH 43017

ENGINEERS SEAL:
FOR ENTIRE PLAN
EXCEPT STRUCTURES
(SHEETS 1-235)

STATE OF OHIO
HENRI JOSEPH FOUCHER
E-66947
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 7/30/07

ENGINEERS SEAL:
FOR STRUCTURES
(SHEETS 236-304)

STATE OF OHIO
JONATHAN DAVID HREN
69952
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 7/31/2007

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MOT-75-14.60

STEEL GIRDER OPTION
CITY OF DAYTON
MONTGOMERY COUNTY

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PROJECT DESCRIPTION

THE PROJECT CONSISTS OF COMPLETE REPLACEMENT OF THE EXISTING IR-75 STRUCTURE OVER THE GREAT MIAMI RIVER WITH A NEW 3 SPAN CONTINUOUS AND COMPOSITE HYBRID STEEL PLATE GIRDER STRUCTURE, RAMP MODIFICATIONS IN ALL FOUR QUADRANTS OF THE IR-75 AND STANLEY AVENUE INTERCHANGE, AND SEVERAL RAMP CLOSURES WITHIN THE PROJECT LIMITS.

EARTH DISTURBED AREAS	
PROJECT EARTH DISTURBED AREA	11.25 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.60 ACRES
NOI EARTH DISTURBED AREA	11.85 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2005 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (I) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

APPROVED Rex Dickey, P.E., P.S. /pkw
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED James G. Beasley II
DATE 9-12-07 DIRECTOR, DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	07/16/04	GR-5.2	1/16/04	DM-1.4	04/21/06	TC-52.10	01/19/07	MT-95.32	09/05/06	MT-105.11	10/18/02	HL-60.11	01/19/07
BP-2.2	07/16/04	GR-5.3	1/16/04	DM-4.1	07/19/02	TC-52.20	01/19/07	MT-95.40	10/20/06	MT-110.20	10/18/02	HL-60.12	01/19/07
BP-2.3	07/16/04	RM-3.1	04/18/03	DM-4.3	07/19/02	TC-61.10	01/19/01	MT-98.12	04/19/02	MT-120.00	03/01/00	HL-60.21	01/19/07
BP-2.4	07/16/04	RM-4.2	10/20/06	DM-4.4	07/19/02	TC-65.10	01/21/05	MT-98.13	04/19/02	HL-10.11	01/16/04	HL-60.31	01/19/07
BP-3.1	07/16/04	RM-4.3	01/19/07	TC-9.10	01/19/01	TC-65.11	01/21/05	MT-98.14	04/19/02	HL-10.12	01/19/07	A-1-69	07/19/02
BP-5.1	07/28/00	RM-4.4	01/19/07	TC-12.30	01/19/01	TC-71.10	01/19/07	MT-98.15	07/16/04	HL-10.13	01/17/03	AS-1-81	07/19/02
BP-6.1	07/28/00	RM-4.5	01/19/07	TC-21.10	01/19/01	TC-72.20	01/21/05	MT-98.16	04/19/02	HL-10.31	07/20/01	EXJ-4-87	07/19/02
F-1.1	07/16/04	CB-1.1	07/15/05	TC-21.20	01/19/01	TC-73.10	01/19/01	MT-98.17	10/18/02	HL-20.11	04/19/02	GSD-1-96	07/19/02
F-3.1	07/28/00	CB-2.1	07/15/05	TC-22.10	01/19/01	TC-81.10	05/01/00	MT-98.18	10/18/02	HL-20.13	01/21/05	PC-91	07/19/02
F-3.3	07/28/00	CB-2.2	07/15/05	TC-22.20	01/19/01	TC-82.10	04/19/02	MT-98.19	10/18/02	HL-20.21	01/19/07	SBR-1-99	07/19/02
GR-1.1	07/16/04	HW-1.1	01/21/05	TC-31.21	04/20/01	TC-83.10	01/19/07	MT-99.20M	1/30/95	HL-30.11	01/21/05		
GR-2.1	01/16/04	HW-2.1	04/21/06	TC-41.20	01/19/01	TC-83.20	01/19/07	MT-101.60	09/20/06	HL-30.21	01/19/07		
GR-3.1	01/19/07	HW-2.2	04/21/06	TC-41.40	07/16/04	TC-84.20	01/19/07	MT-101.70	10/18/02	HL-30.22	01/21/05		
GR-3.2	01/19/07	MH-1.2	01/20/06	TC-42.20	07/16/04	TC-85.20	05/01/00	MT-102.10	10/20/06	HL-40.10	01/19/07		
GR-4.2	01/19/07	DM-1.1	04/21/06	TC-51.11	04/20/01	MT-95.30	09/05/06	MT-102.20	09/05/06	HL-50.11	01/19/07		
GR-5.1	04/18/03	DM-1.2	10/21/05	TC-51.12	04/20/01	MT-95.31	09/05/06	MT-105.10	10/18/02	HL-50.21	01/19/07		

SUPPLEMENTAL SPECIFICATIONS	
800	10/19/07
802	04/15/05
832	04/25/06
833	02/12/03
872	10/30/03
873	10/30/03
885	11/04/05
898	07/16/06

SPECIAL PROVISIONS

OEPA RENO DEMO
USACE AND EPA PERMIT

FEDERAL PROJECT NO. E033(774)

PID NO. 23828

CONSTRUCTION PROJECT NO.:

RAILROAD INVOLVEMENT NONE

STEEL GIRDER OPTION
MOT-75-14.60

1/316

IR-75

CURVE 1
PI Sta = 430+60.98
Δ = 9° 52′ 38″ (RT)
Dc = 1° 30′ 21″
R = 3,805.10′
T = 328.79′
L = 655.96′
E = 14.18′
PC = 427+32.19
PT = 433+88.15
emax = EXIST

CURVE 2
PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
TS = 440+44.02
SC = 443+94.02
CS = 452+26.71
ST = 455+76.71
emax = 0.06

CURVE 3
PI Sta = 486+88.63
Δ = 46° 39′ 31″ (RT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 1,647.35′
L = 3,110.57′
E = 340.09′
PC = 470+41.29
PT = 501+15.86
emax = EXIST

STANLEY AVENUE

CURVE 4
PI Sta = 8+00.03
Δ = 40° 00′ 00″ (LT)
Dc = 5° 00′ 00″
R = 1,145.92′
Ls = 200.00′
Theta = 5° 00′ 00″
LT = 133.39′
ST = 66.72′
x = 199.85′
y = 5.81′
k = 99.97′
p = 1.45′
Δc = 30° 00′ 00″ (LT)
Lc = 600.00′
Ts = 517.58′
Es = 75.09′
TS = 2+82.45
SC = 4+82.45
CS = 10+82.45
ST = 12+82.45
emax = EXIST

CURVE 5
PI Sta = 15+97.39
Δ = 14° 23′ 20″ (RT)
Dc = 10° 00′ 00″
R = 572.96′
T = 72.32′
L = 143.89′
E = 4.55′
PC = 15+25.07
PCC = 16+68.96
emax = EXIST

CURVE 6
PI Sta = 17+14.47
Δ = 12° 59′ 19″ (RT)
Dc = 14° 20′ 00″
R = 399.74′
T = 45.50′
L = 90.62′
E = 2.58′
PCC = 16+68.96
PT = 17+59.58
emax = EXIST

RAMP N-6

PI Sta = 448+65.51
Δ = 50° 22′ 03″ (RT)
Dc = 25° 55′ 32″
R = 221.00′
T = 103.92′
L = 194.28′
E = 23.21′
PC = 447+61.59
PT = 449+55.87
emax = 0.059

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI Sta = 454+03.75
Δ = 60° 47′ 49″ (LT)
D1 = 11° 15′ 00″
R1 = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
Fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
Δ1 = 28° 25′ 57″ (LT)
Δ2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
e1 = 0.06
e2 = 0.06
CS = 453+30.19
SC = 455+30.19

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

RAMP N-6A

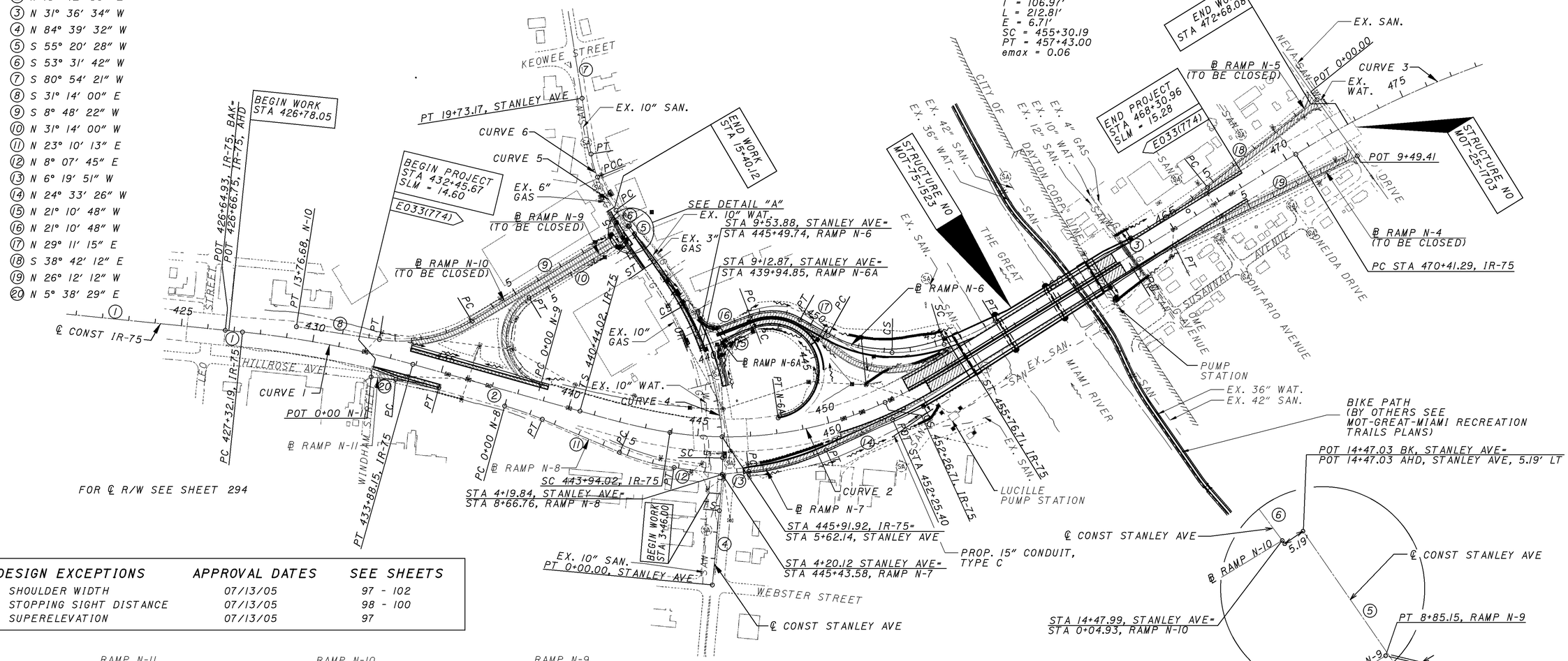
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

RAMP N-7

PI Sta = 447+97.91
Δ = 18° 13′ 35″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 153.18′
L = 303.77′
E = 12.21′
PC = 446+44.72
PT = 449+48.50
emax = 0.038

BEARINGS

① N 5° 49′ 15″ E
② N 15° 42′ 53″ E
③ N 31° 36′ 34″ W
④ N 84° 39′ 32″ W
⑤ S 55° 20′ 28″ W
⑥ S 53° 31′ 42″ W
⑦ S 80° 54′ 21″ W
⑧ S 31° 14′ 00″ E
⑨ S 8° 48′ 22″ W
⑩ N 31° 14′ 00″ W
⑪ N 23° 10′ 13″ E
⑫ N 8° 07′ 45″ E
⑬ N 6° 19′ 51″ W
⑭ N 24° 33′ 26″ W
⑮ N 21° 10′ 48″ W
⑯ N 21° 10′ 48″ W
⑰ N 29° 11′ 15″ E
⑱ S 38° 42′ 12″ E
⑲ N 26° 12′ 12″ W
⑳ N 5° 38′ 29″ E



DESIGN EXCEPTIONS	APPROVAL DATES	SEE SHEETS
SHOULDER WIDTH	07/13/05	97 - 102
STOPPING SIGHT DISTANCE	07/13/05	98 - 100
SUPERELEVATION	07/13/05	97

RAMP N-11
PI Sta = 1+76.40
Δ = 9° 59′ 27″ (RT)
Dc = 6° 00′ 00″
R = 954.93′
T = 83.47′
L = 166.51′
E = 3.64′
PC = 0+92.93
PT = 2+59.45
emax = N/A

RAMP N-10
PI Sta = 8+84.95
Δ = 40° 02′ 21″ (LT)
Dc = 11° 00′ 00″
R = 520.87′
T = 189.78′
L = 363.99′
E = 33.50′
PC = 6+95.17
PT = 10+59.16
emax = N/A

RAMP N-9
PI Sta = 4+15.30
Δ = 133° 08′ 04″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 415.30′
L = 418.25′
E = 272.63′
PC = 0+00.00
PT = 4+18.25
emax = N/A

RAMP N-8
PI Sta = 0+75.49
Δ = 7° 32′ 17″ (RT)
Dc = 5° 00′ 00″
R = 1,145.92′
T = 75.49′
L = 150.76′
E = 2.48′
PC = 0+00.00
PT = 1+50.76
emax = EXIST

PI Sta = 5+76.35
Δ = 15° 02′ 28″ (LT)
Dc = 7° 00′ 00″
R = 818.51′
T = 108.06′
L = 214.87′
E = 7.10′
PC = 4+68.29
PT = 6+83.17
emax = EXIST

RAMP N-5
PI Sta = 7+07.87
Δ = 7° 05′ 38″ (RT)
Dc = 2° 00′ 00″
R = 2,864.79′
T = 177.57′
L = 354.69′
E = 5.50′
PC = 5+30.30
PT = 8+84.99
emax = N/A

RAMP N-4
PI Sta = 0+90.17
Δ = 5° 24′ 22″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 90.17′
L = 180.20′
E = 2.13′
PC = 0+00.00
PT = 1+80.20
emax = N/A

HORIZONTAL SCALE IN FEET
0 100 200 400

SCHEMATIC PLAN

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:22 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gb01_STL.dgn

CENTERLINE OF CONSTRUCTION IR-75			
STATION	NORTHING	EASTING	DESCRIPTION
426+66.75	653935.772821	1495060.384519	POT
427+32.19	654000.875420	1495067.021172	PC
433+88.15	654644.506024	1495189.326603	PT
440+44.02	655276.115927	1495366.058939	TS
443+94.02	655616.411306	1495446.908290	SC
452+26.71	656429.520230	1495333.272572	CS
455+76.71	656734.612184	1495162.227369	ST
470+41.29	657981.906478	1494394.600168	PC

PROJECT BENCHMARKS								
BENCHMARK	ELEVATION	CENTERLINE	STATION	OFFSET	SIDE	DESCRIPTION	NORTHING	EASTING
BM #1	748.29	IR-75	432+23.75	107.10'	RT	IRON PIN FOUND	654460.826100	1495252.536000
BM #2	745.33	IR-75	456+65.11	147.31'	RT	CROSS NOTCH ON TOP OF HEADWALL	656887.108300	1495241.343600
BM #3	745.33	IR-75	460+86.35	287.02'	RT	MIAMI CONSERVANCY DISTRICT CONTROL MONUMENT NO. 2	657319.084800	1495139.545000
BM #4	758.30	IR-75	455+55.04	253.59'	LT	IRON PIN FOUND	656583.344600	1494957.556700
BM #5	745.41	STANLEY AVE	6+87.18	71.38'	RT	BENCHMARK SET	655869.060500	1495326.873300

CALCULATED MPD
CHECKED AM

BENCHMARKS & REFERENCES

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:23 AM
Filename: g:\C004\0066\Road\Sheets\23828rg01.dgn

LEGEND

PROPOSED

IR-75 MAINLINE

(1) ITEM 204 - SUBGRADE COMPACTION
(2) ITEM 302 - 10" ASPHALT CONCRETE BASE, PG64-22
(3) ITEM 304 - 4" AGGREGATE BASE
(4) ITEM 304 - 6" AGGREGATE BASE
(5) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE @ 0.040 GAL/SQ YD
(6) ITEM 526 - REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN
(7) ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
(8) ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
(9) ITEM 605 - 6" PIPE UNDERDRAIN
(10) ITEM 606 - GUARDRAIL, TYPE 5
(11) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1
(12) ITEM 622 - TYPE D CONCRETE BARRIER

RAMPS & STANLEY AVENUE

(13) ITEM 305 - 8" CONCRETE BASE
(14) ITEM 442 - 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
(15) ITEM 608 - 4" CONCRETE SIDEWALK
(16) ITEM 609 - TYPE 2 COMBINATION CURB & GUTTER
(17) ITEM 609 - TYPE 2A CURB
(18) ITEM 609 - CONCRETE MEDIAN
(19) ITEM 609 - TYPE 6 CURB (19" DEPTH)
(20) ITEM 407 - TACK COAT, 702.13 @ 0.075 GAL/SQ YD

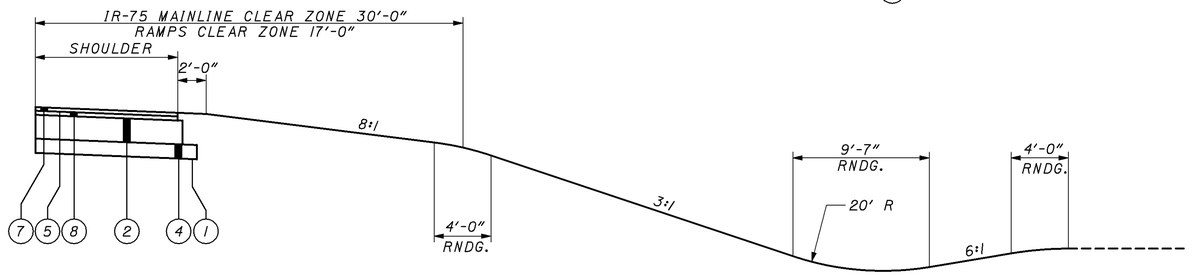
EXISTING

IR-75 MAINLINE

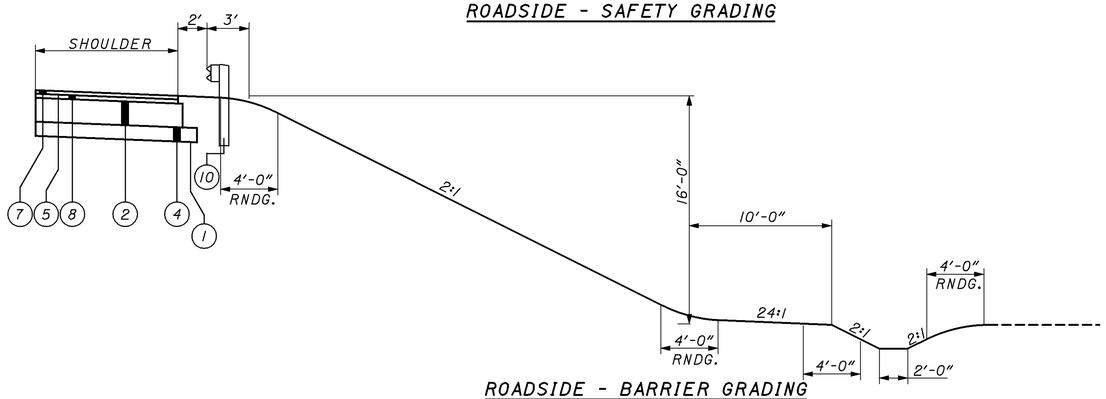
(A) ITEM 446 - 1-1/4" ASPHALT CONCRETE SURFACE COURSE
(B) ITEM 446 - 1-1/4" ASPHALT CONCRETE INTERMEDIATE COURSE
(C) ITEM 451 - 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(D) SUBBASE
(E) ITEM 302 - BITUMINOUS AGGREGATE BASE
(F) WATERPROOF AGGREGATE BASE
(G) ITEM 304 - AGGREGATE BASE
(H) ITEM 605 - 6" UNDERDRAIN
(I) ITEM 451 - STANDARD LONGITUDINAL JOINT
(J) ITEM 602 - TYPE B-50 CONCRETE BARRIER
(K) ITEM 606 - GUARDRAIL

RAMPS & STANLEY AVENUE

(C) 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(D) 6" SUBBASE
(L) ITEM 411 - STABILIZED CRUSHED AGGREGATE SHOULDER
(M) ITEM 451 - STANDARD LONGITUDINAL KEY JOINT
(N) ITEM 609 - TYPE 2 CURB & GUTTER
(O) ITEM 609 - TYPE 2A CURB
(P) ITEM 608 - 4" CONCRETE SIDEWALK
(Q) ITEM 609 - PORTLAND CEMENT CONCRETE MEDIAN
(R) BITUMINOUS SURFACE TREATMENT
(S) 8" CONCRETE BASE
(T) 7" SUBBASE
(U) 1.5" ASPHALT CONCRETE SURFACE COURSE
(V) 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE



ROADSIDE - SAFETY GRADING



ROADSIDE - BARRIER GRADING

TYPICAL SECTIONS - LEGEND AND DETAILS

MOT-75-14.60

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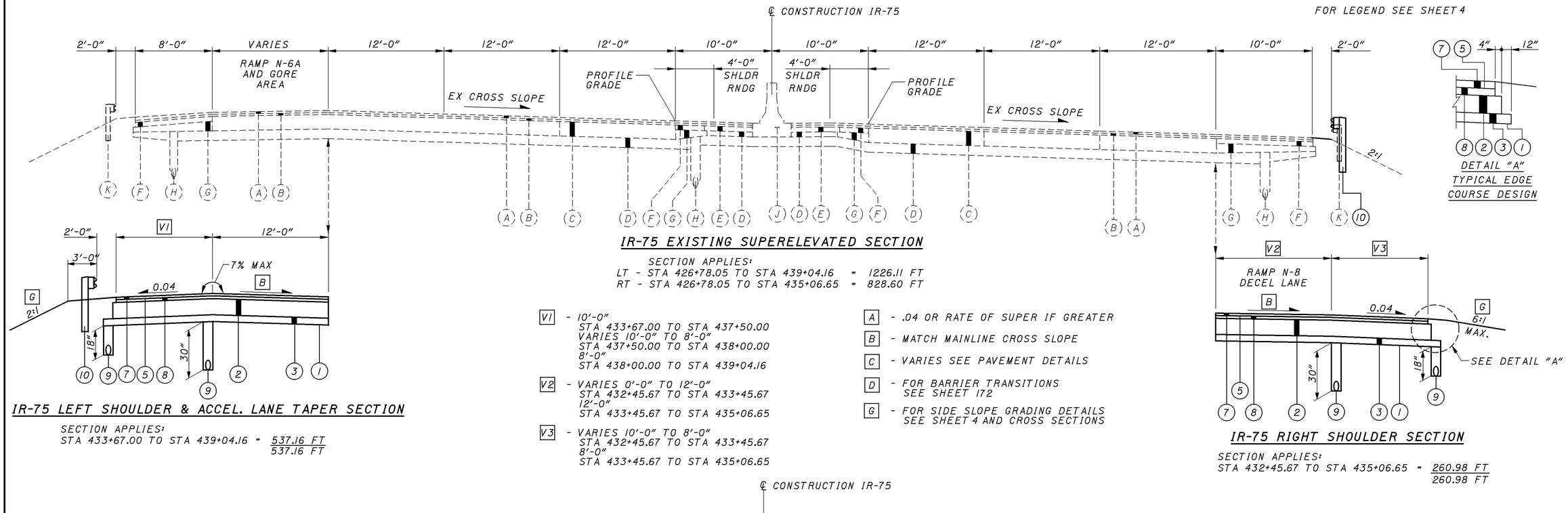


IR-75 LEFT SHOULDER & ACCEL. LANE TAPER SECTION

SECTION APPLIES:
STA 433+67.00 TO STA 439+04.16 - 537.16 FT / 537.16 FT

IR-75 EXISTING SUPERELEVATED SECTION

SECTION APPLIES:
LT - STA 426+78.05 TO STA 439+04.16 - 1226.11 FT
RT - STA 426+78.05 TO STA 435+06.65 - 828.60 FT

VI - 10'-0"
STA 433+67.00 TO STA 437+50.00
VARIES 10'-0" TO 8'-0"
STA 437+50.00 TO STA 438+00.00
8'-0"
STA 438+00.00 TO STA 439+04.16

V2 - VARIES 0'-0" TO 12'-0"
STA 432+45.67 TO STA 433+45.67
12'-0"
STA 433+45.67 TO STA 435+06.65

V3 - VARIES 10'-0" TO 8'-0"
STA 432+45.67 TO STA 433+45.67
8'-0"
STA 433+45.67 TO STA 435+06.65

A - .04 OR RATE OF SUPER IF GREATER

B - MATCH MAINLINE CROSS SLOPE

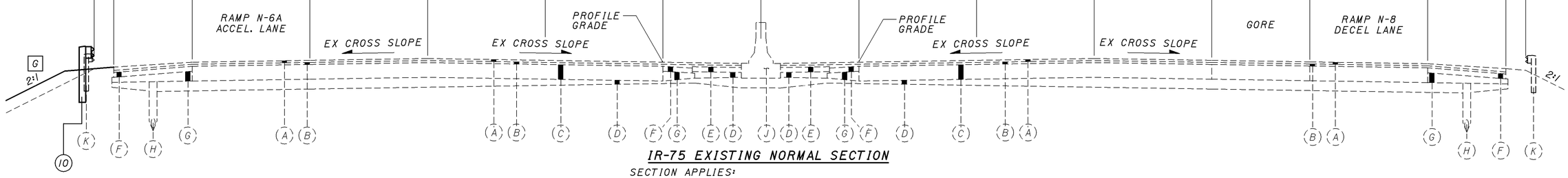
C - VARIES SEE PAVEMENT DETAILS

D - FOR BARRIER TRANSITIONS SEE SHEET 172

G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

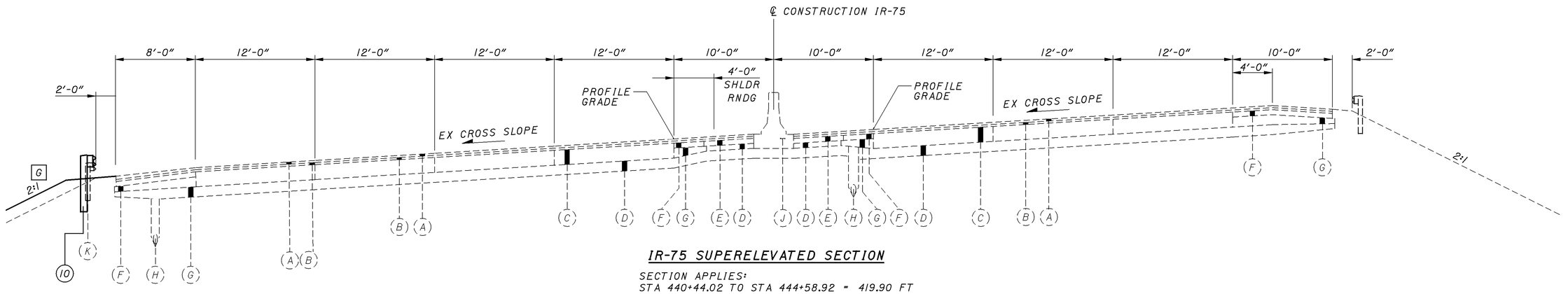
IR-75 RIGHT SHOULDER SECTION

SECTION APPLIES:
STA 432+45.67 TO STA 435+06.65 - 260.98 FT / 260.98 FT



IR-75 EXISTING NORMAL SECTION

SECTION APPLIES:
LT - STA 439+04.16 TO STA 440+44.02 = 139.86 FT
RT - STA 435+06.65 TO STA 440+44.02 = 537.37 FT



IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 440+44.02 TO STA 444+58.92 = 419.90 FT

TYPICAL SECTIONS - IR-75

MOT-75-14.60

5
316

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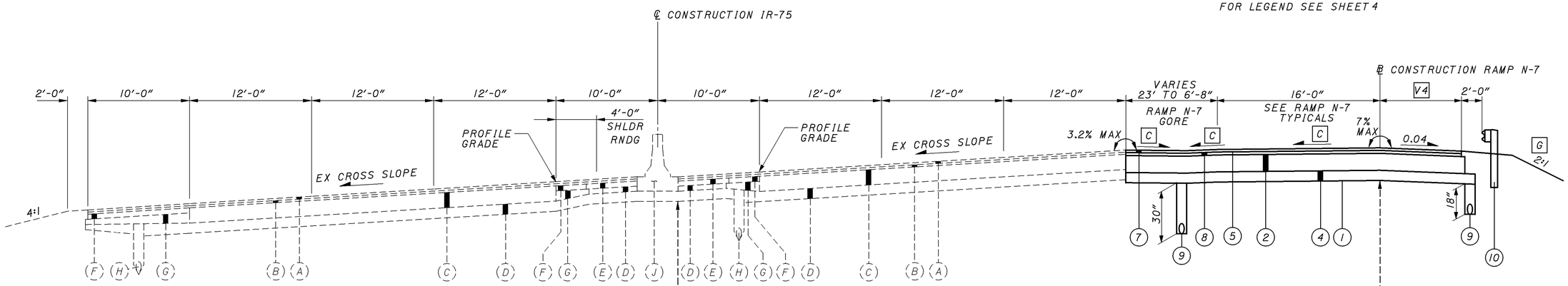
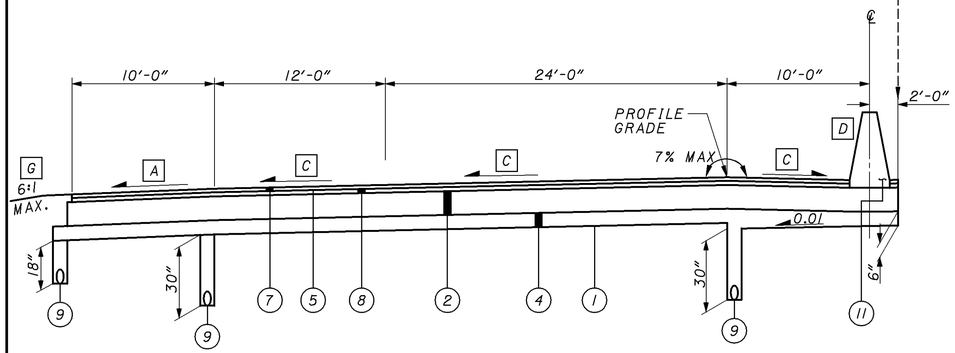
FOR LEGEND SEE SHEET 4



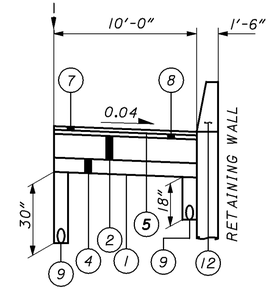
IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 450+29.63 TO STA 454+00.00 = 370.37 FT



IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 453+27.33 TO STA 454+00.00 = 72.67 FT
72.67 FT



SECTION APPLIES:
STA 453+50.00 TO STA 454+00.00 = 50.00 FT
50.00 FT

V4 - 6'-0"
STA 450+29.63 TO STA 451+75.40
6'-0" TO 8'-0"
STA 451+75.40 TO STA 452+25.40
8'-0"
STA 452+25.40 TO STA 453+00.00
VARIES 8'-0" TO 10'-0"
STA 453+00.00 TO STA 453+50.00

A - .04 OR RATE OF SUPER IF GREATER

B - MATCH MAINLINE CROSS SLOPE

C - VARIES SEE PAVEMENT DETAILS

D - FOR BARRIER TRANSITIONS SEE SHEET 172

G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

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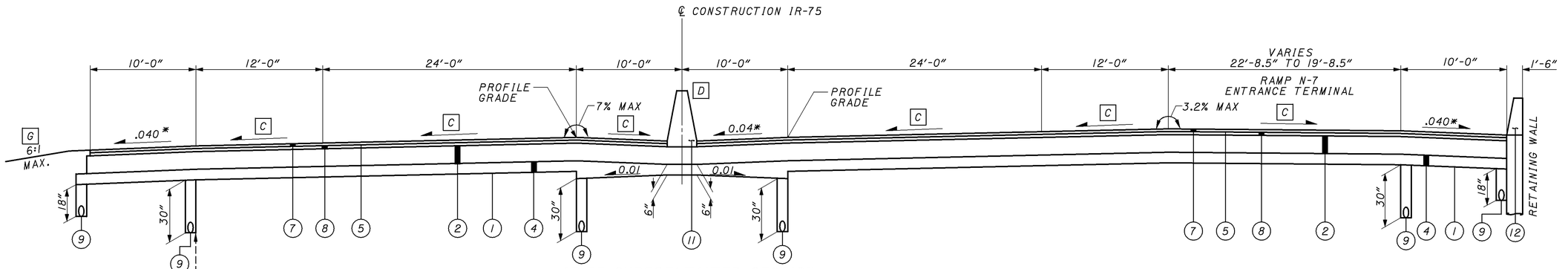
TYPICAL SECTIONS - IR-75

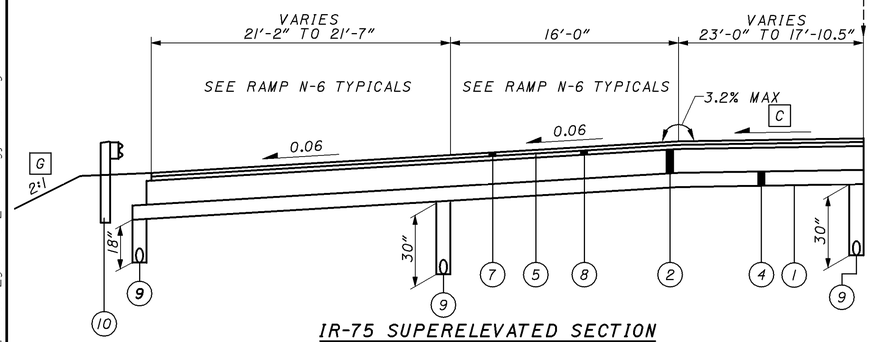
MOT-75-14.60

FOR LEGEND SEE SHEET 4



IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 454+00.00 TO STA 455+49.69 = 149.69 FT / 149.69 FT



IR-75 SUPERELEVATED SECTION

SECTION APPLIES:
STA 455+28.28 TO STA 455+49.69 = 21.41 FT / 21.41 FT

* .040 TO .016 FROM STA 455+29.69 TO STA 455+49.69

- A - .04 OR RATE OF SUPER IF GREATER
- B - MATCH MAINLINE CROSS SLOPE
- C - VARIES SEE PAVEMENT DETAILS
- D - FOR BARRIER TRANSITIONS SEE SHEET 172
- G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

TYPICAL SECTIONS - IR-75

MOT-75-14.60

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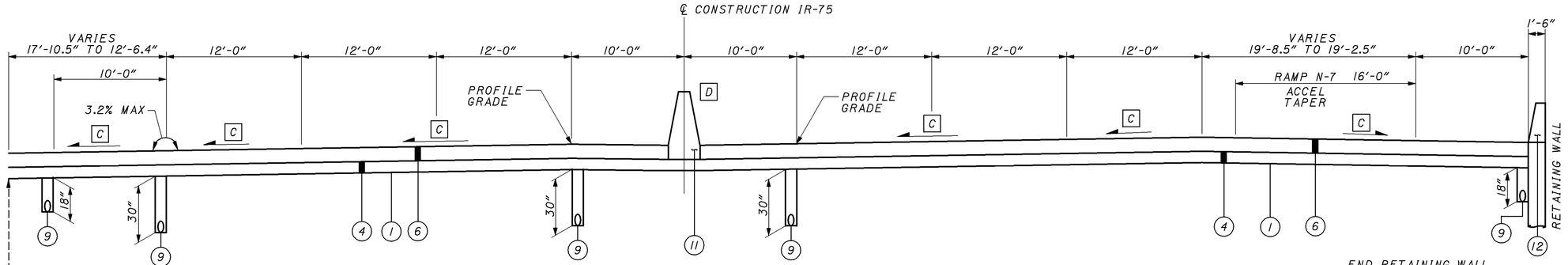
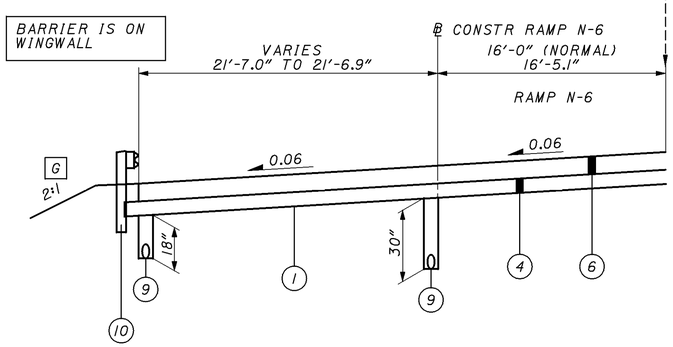
FOR LEGEND SEE SHEET 4



GREAT MIAMI RIVER BIRDGE APPROACH SLAB SUPERELEVATED SECTION

SECTION APPLIES:
STA 455+49.69 TO STA 455+74.69 = 25.00 FT / 25.00 FT

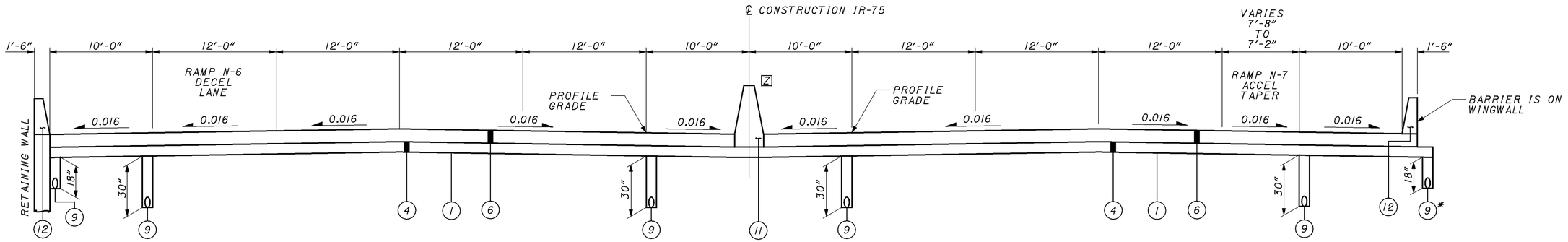
END RETAINING WALL
STA 455+66.32 (RT), 75.88' RT
AS PER RET WALL
SHEET 2/12



FIRST GUARDRAIL POST:

STA 455+45.29 (℄ RAMP N-6) 21.00' LEFT=
STA 455+51.86 (℄ IR-75) 101.35' LEFT

- A - .04 OR RATE OF SUPER IF GREATER
- B - MATCH MAINLINE CROSS SLOPE
- C - VARIES SEE PAVEMENT DETAILS
- D - FOR BARRIER TRANSITIONS SEE SHEET 172
- G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS



BEGIN RETAINING WALL
STA 461+61.86 (LT)
AS PER RET. WALL
SHEET 7/12

GREAT MIAMI RIVER BRIDGE APPROACH SLAB NORMAL SECTION

SECTION APPLIES:
STA 461+52.53 TO STA 461+77.53 = 25.00 FT / 25.00 FT

FIRST GUARDRAIL POST:

STA 461+75.49 (℄ IR-75) 63.20' RIGHT

TYPICAL SECTIONS - IR-75

MOT-75-14.60

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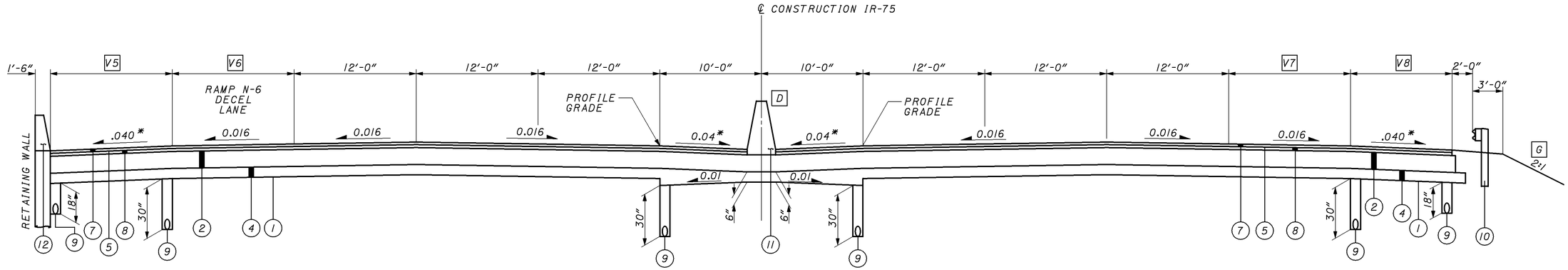
FOR LEGEND SEE SHEET 4

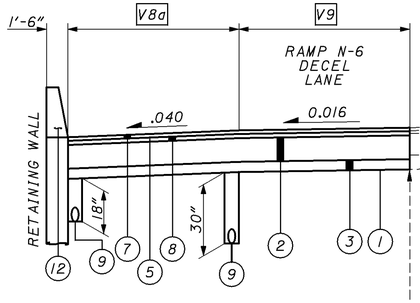


* .016 TO .040
FROM STA 461+77.53
TO STA 461+97.53

IR-75 NORMAL SECTION

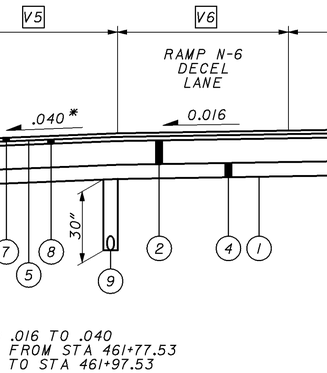
SECTION APPLIES:
STA 461+77.53 TO STA 462+50.00 LT = 72.47 FT
STA 461+77.53 TO STA 462+59.80 RT = 82.27 FT

* .016 TO .040
FROM STA 461+77.53
TO STA 461+97.53



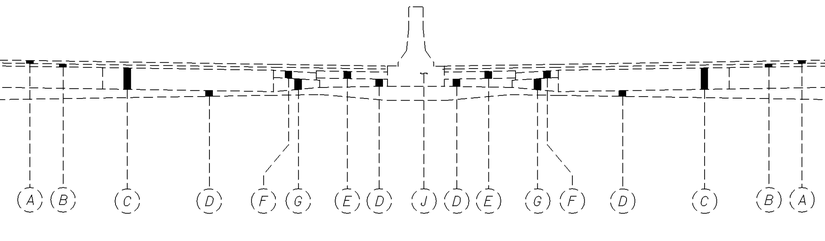
IR-75 SHOULDER & RAMP N-6 DECEL LANE

SECTION APPLIES:
STA 462+50.00 TO STA 463+40.00 = 90.00 FT
90.00 FT



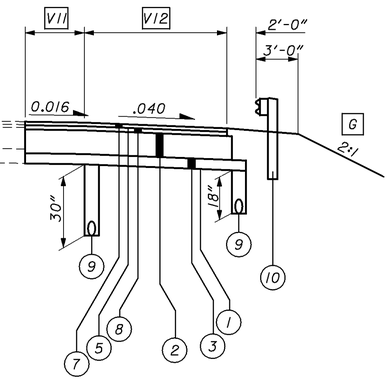
IR-75 SHOULDER SECTION

SECTION APPLIES:
STA 463+40.00 TO STA 468+30.96 = 490.96 FT
490.96 FT



IR-75 NORMAL SECTION

SECTION APPLIES:
STA 462+50.00 TO STA 468+30.96 LT = 580.96 FT
STA 462+59.80 TO STA 467+94.07 RT = 534.27 FT



V5 - 10'-0"
STA 461+77.53 TO STA 462+28.07
VARIES 10'-0" TO 10'-5.4"
STA 462+28.07 TO STA 462+50.00

V6 - 12'-0"
STA 461+77.53 TO STA 462+28.07
VARIES 12'-0" TO 9'-4.4"
STA 462+28.07 TO STA 462+50.00

V7 - VARIES 7'-2" TO 5'-6"
STA 461+77.53 TO STA 462+59.80

V8 - 10'-0"
STA 461+77.53 TO STA 461+87.53
VARIES 10'-0" TO 8'-0"
STA 461+87.53 TO STA 462+37.53
8'-0"
STA 462+37.53 TO STA 462+59.80

V8a - VARIES 10'-5.4" TO 12'-0.0"
STA 462+50.00 TO STA 463+28.07
12'-0"
STA 463+28.07 TO STA 463+40.00

V9 - VARIES 9'-4.4" TO 0'-0.0"
STA 462+50.00 TO STA 463+28.07

V10 - 12'-0"
STA 463+40.00 TO STA 463+50.00
VARIES 12'-0" TO 10'-0"
STA 463+50.00 TO STA 464+00.00
10'-0"
STA 464+00.00 TO STA 468+30.96

V11 - VARIES 5'-6" TO 0'-0"
STA 462+59.80 TO STA 465+35.40

V12 - 8'-0"
STA 462+59.80 TO STA 464+85.40
VARIES 8'-0" TO 10'-0"
STA 464+85.40 TO STA 465+35.40
10'-0"
STA 465+35.40 TO STA 467+94.07

A - .04 OR RATE OF SUPER IF GREATER

B - MATCH MAINLINE CROSS SLOPE

C - VARIES SEE PAVEMENT DETAILS

D - FOR BARRIER TRANSITIONS SEE SHEET 172

G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS

TYPICAL SECTIONS - IR-75

MOT-75-14.60

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FOR LEGEND SEE SHEET 4

V13 - VARIES 5'-8.7" TO 6'-0"
STA 446+18.66 TO STA 446+38.47
6'-0"
STA 446+38.47 TO STA 447+06.79

V13a - VARIES 3'-4.3" TO 0'-0"
STA 446+18.66 TO STA 446+38.47
0'-0"
STA 446+38.47 TO STA 447+06.79

V14 - VARIES 5'-4.5" TO 6'-0"
STA 440+63.04 TO STA 440+90.15
6'-0"
STA 440+90.15 TO STA 441+50.77

V15 - VARIES 0'-0" TO 2"-0"
STA 441+50.77 TO STA 442+51.97

V16 - VARIES 2'-0" TO 3'-0"
STA 446+25.00 TO STA 446+55.00
3'-0"
STA 446+55.00 TO STA 450+21.25
SEE MAINLINE TYPICALS FOR CONTINUATION

V17 - 6'-0"
STA 446+55.00 TO STA 451+75.40
VARIES 6'-0" TO 8'-0"
STA 451+75.40 TO STA 452+25.40

V18 - 6'-0"
STA 449+55.87 TO STA 451+57.94
VARIES 6'-0" TO 21'-0"
STA 451+57.94 TO STA 455+32.94
21'-0"
STA 455+32.94 TO STA 455+42.94
USE DUAL UNDERDRAIN SYSTEM WHEN SHOULDER WIDTH IS GREATER THAN 8 FEET

V19 - 3'-0"
STA 444+50.00 TO STA 445+50.00
0'-0"
STA 445+50.00 TO STA 448+12.70

V20 - 6'-0"
STA 444+50.00 TO STA 447+62.70
VARIES 6'-0" to 8'-0"
STA 447+62.70 TO STA 448+12.70

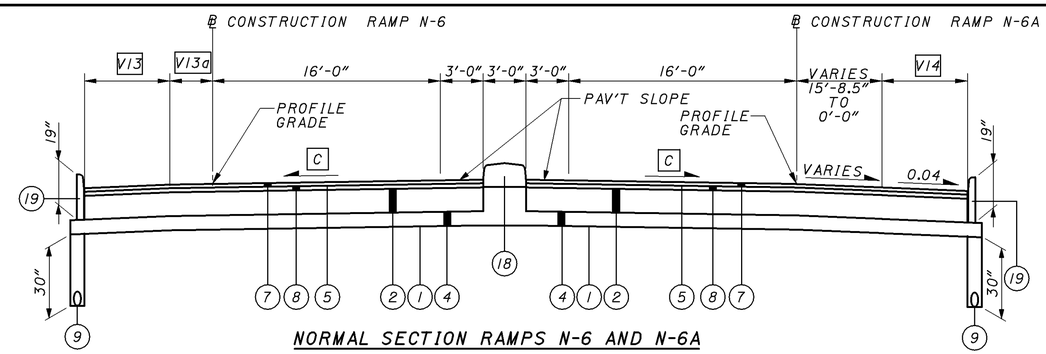
A - .04 OR RATE OF SUPER IF GREATER

B - MATCH MAINLINE CROSS SLOPE

C - VARIES SEE PAVEMENT DETAILS

D - FOR BARRIER TRANSITIONS SEE SHEET 172

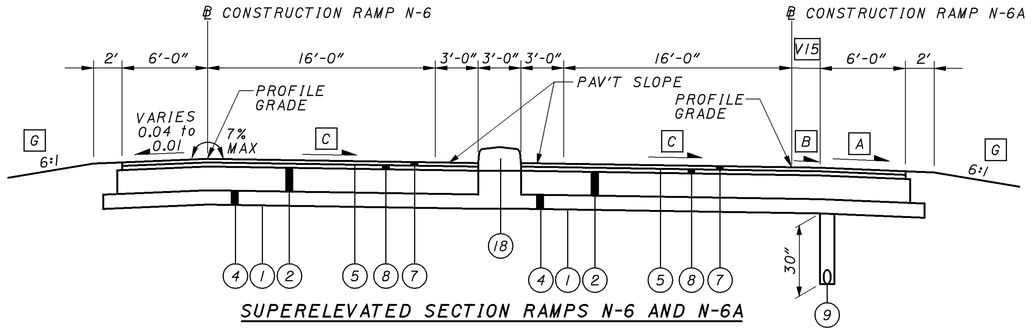
G - FOR SIDE SLOPE GRADING DETAILS SEE SHEET 4 AND CROSS SECTIONS



NORMAL SECTION RAMPS N-6 AND N-6A

RAMP N-6 SECTION APPLIES:
STA 446+18.66 TO STA 447+06.79 - 88.13 FT
88.13 FT

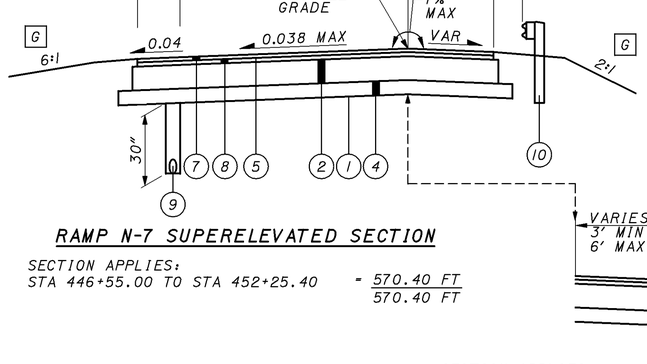
RAMP N-6A SECTION APPLIES:
STA 440+63.04 TO STA 441+50.77 - 87.73 FT
87.73 FT



SUPERELEVATED SECTION RAMPS N-6 AND N-6A

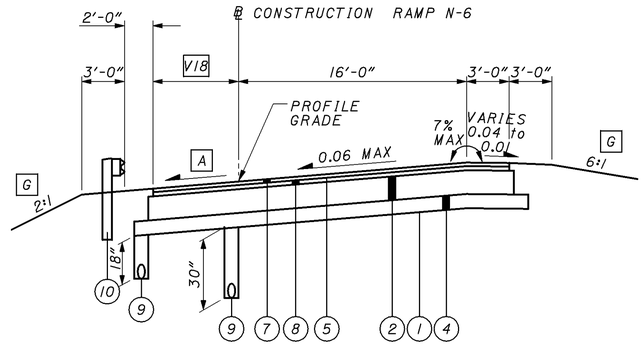
RAMP N-6 SECTION APPLIES:
STA 447+06.79 TO STA 449+55.87 - 249.08 FT
249.08 FT

RAMP N-6A SECTION APPLIES:
STA 441+50.77 TO STA 443+64.20 - 213.43 FT
213.43 FT



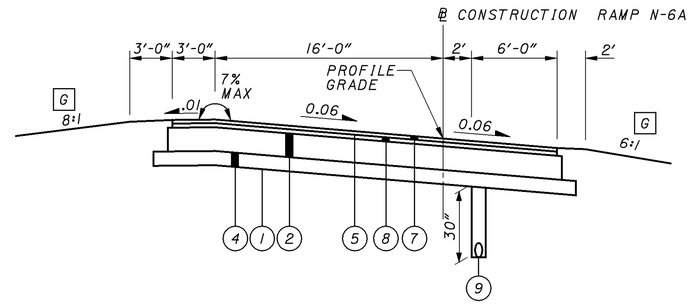
RAMP N-7 SUPERELEVATED SECTION

SECTION APPLIES:
STA 446+55.00 TO STA 452+25.40 - 570.40 FT
570.40 FT



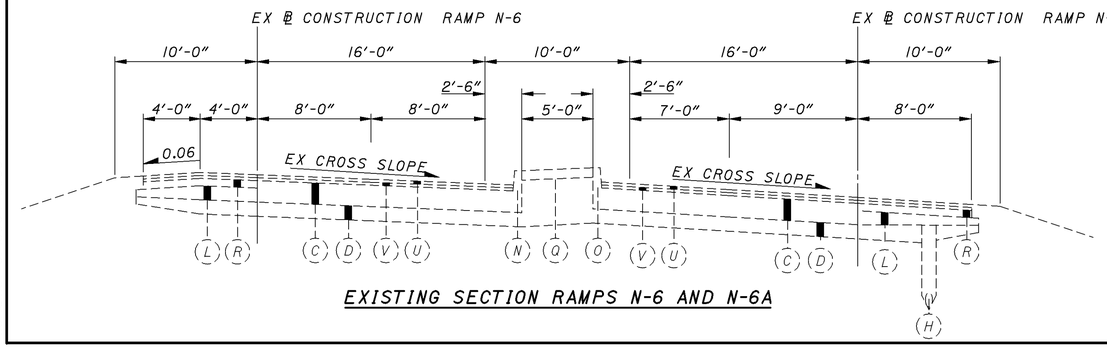
SUPERELEVATED SECTION RAMP N-6

SECTION APPLIES:
STA 449+55.87 TO STA 455+42.94 - 587.07 FT
587.07 FT

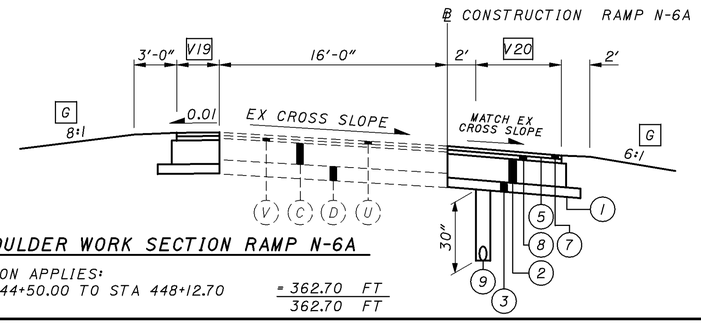


SUPERELEVATED SECTION RAMP N-6A

SECTION APPLIES:
STA 443+64.20 TO STA 444+50.00 - 85.80 FT
85.80 FT



EXISTING SECTION RAMPS N-6 AND N-6A



SHOULDER WORK SECTION RAMP N-6A

SECTION APPLIES:
STA 444+50.00 TO STA 448+12.70 - 362.70 FT
362.70 FT

TYPICAL SECTIONS RAMPS N-6, N-6A AND N-7

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:23 AM
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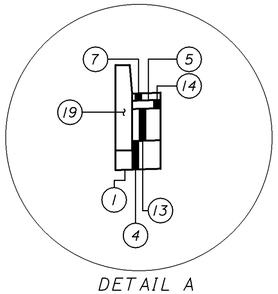
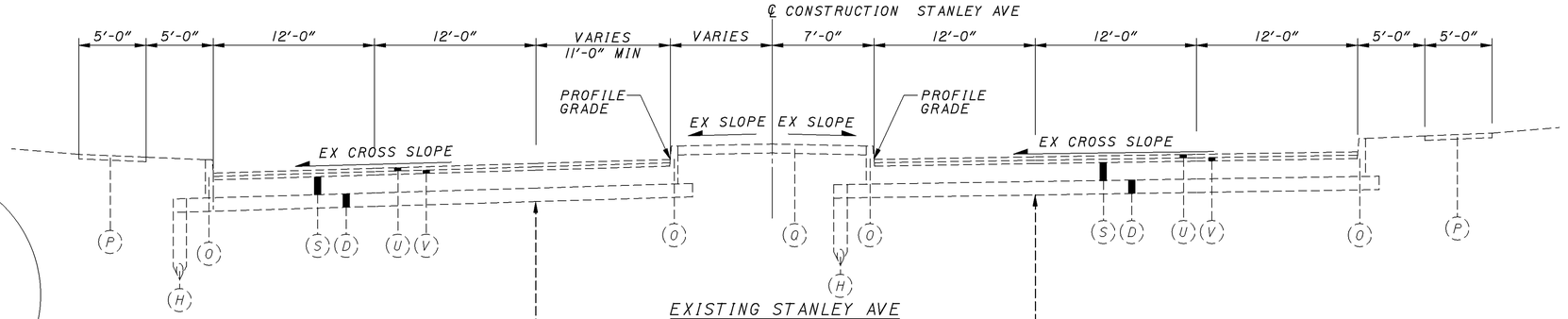
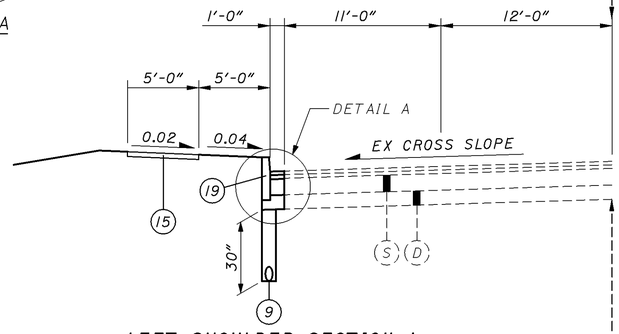
FOR LEGEND SEE SHEET 4



DETAIL A



EXISTING STANLEY AVE



LEFT SHOULDER SECTION A

SECTION APPLIES:

STA 9+49.39	TO STA 10+00.68	=	51.29 FT
STA 12+83.00	TO STA 13+84.00	=	101.00 FT
STA 15+20.77	TO STA 15+29.63	=	8.86 FT
			161.15 FT

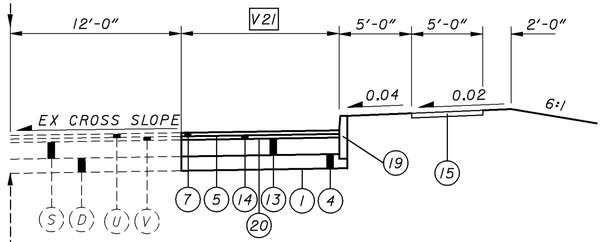
V21 - VARIES 12'-0" TO 13'-0"
STA 7+48.87 TO STA 7+71.08
13'-0"
STA 7+71.08 TO STA 8+47.15
13'-0" TO 13'-3"
STA 8+47.15 TO STA 8+52.50

V22 - 13'-0"
STA 13+84.00 TO STA 14+29.27
VARIES 13'-0" TO 1'-0"
STA 14+29.27 TO STA 15+20.77

V23 - 12'-0"
STA 8+52.50 TO STA 9+73.91
VARIES 12'-0" TO 1'-0"
STA 9+73.91 TO STA 10+18.03

V24 - VARIES 0'-0" TO 52'-3.5"
STA 8+52.50 TO STA 9+07.28
VARIES 45'-8" TO 0'-0"
STA 9+50.94 TO STA 9+73.91

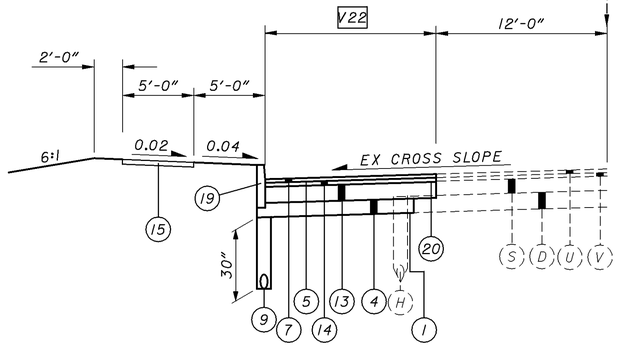
V24a - VARIES 0'-0" TO 6'-0"
STA 8+52.50 TO STA 9+07.28
VARIES 6'-0" TO 0'-0"
STA 9+50.94 TO STA 10+18.03



CURB SECTION RIGHT

SECTION APPLIES:

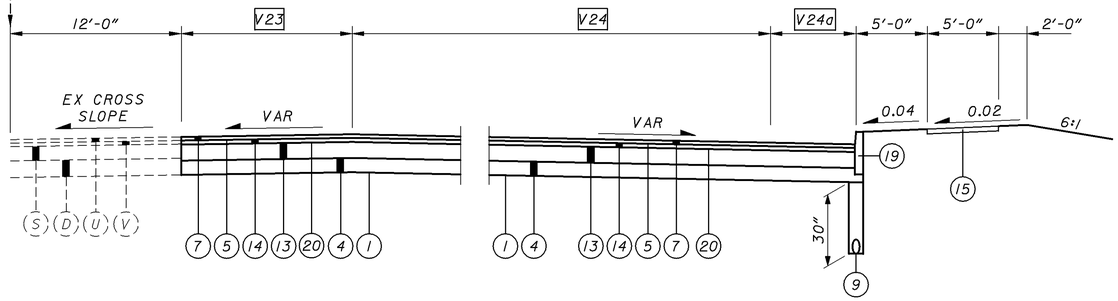
STA 7+48.87	TO STA 8+52.50	=	103.63 FT
			103.63 FT



EASTBOUND ADD LANE

SECTION APPLIES:

STA 13+84.00	TO STA 15+20.77	=	136.77 FT
			136.77 FT



LANE DROP TO RAMP N-6A & INTERSECTION AREA WITH CURB & GUTTER

SECTION APPLIES:

STA 8+52.50	TO STA 10+18.03	=	165.53 FT
DEDUCT FOR RAMP N-6 & N-6A PAVEMENT:			
STA 9+07.28	TO STA 9+50.94	=	43.66 FT
			121.87 FT

TYPICAL SECTIONS - STANLEY AVENUE CURB SECTIONS

MOT-75-14.60

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316

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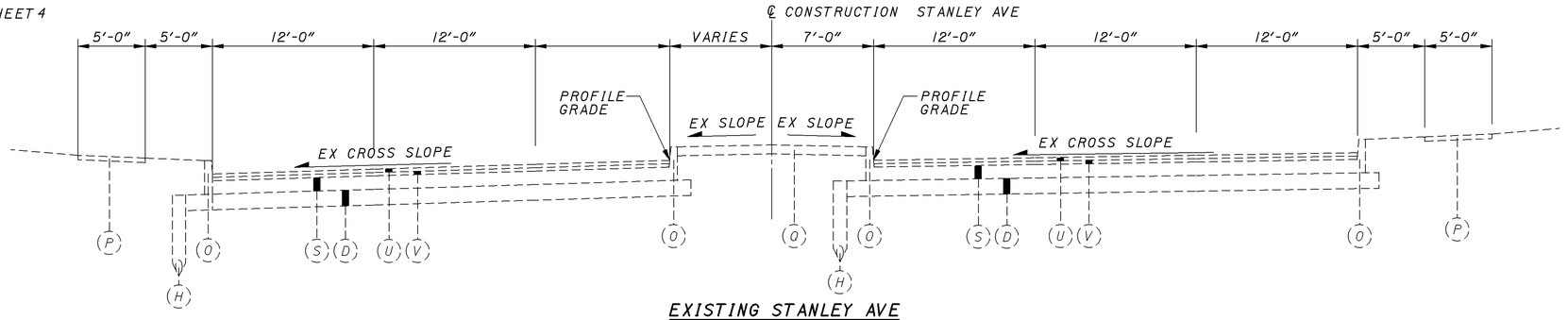
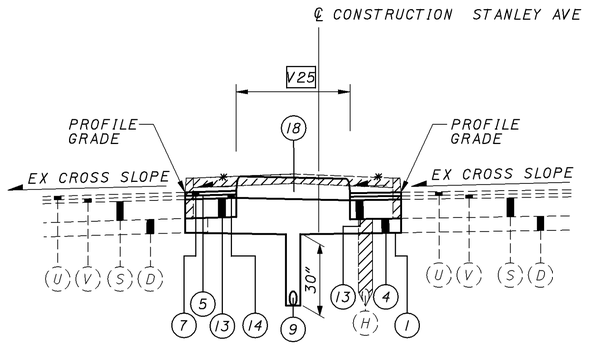
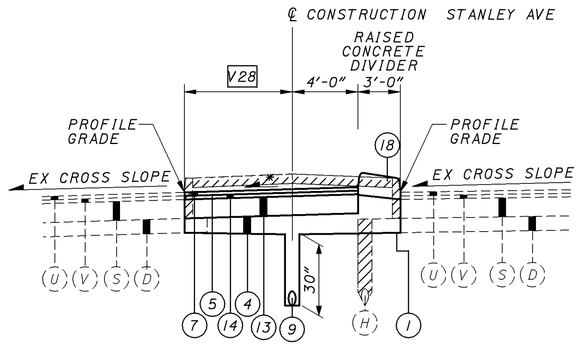


EXISTING STANLEY AVE



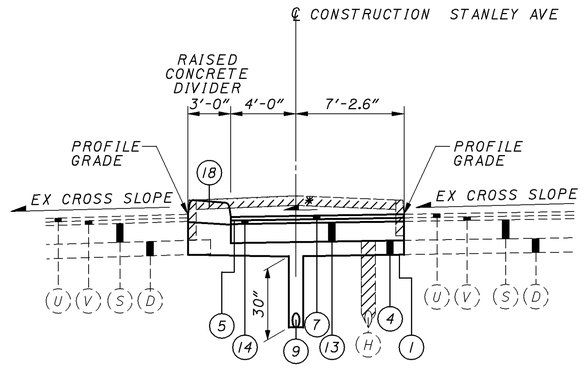
STANLEY AVE - FULL-WIDTH CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 9+00.25 TO STA 9+09.26 = 9.01 FT
9.01 FT



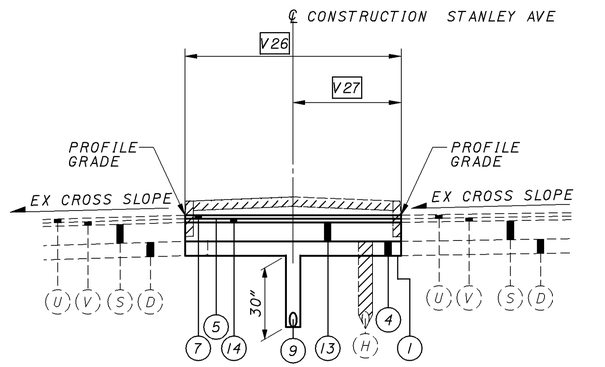
STANLEY AVE - 3-FOOT CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 9+80.00 TO STA 11+45.00 = 165.00 FT
165.00 FT



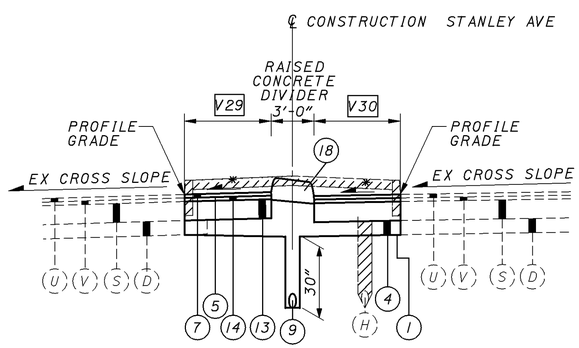
STANLEY AVE - 3-FOOT CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 12+04.22 TO STA 12+44.50 = 40.29 FT
40.29 FT



STANLEY AVE - PAVED MEDIAN SECTION

SECTION APPLIES:
STA 9+09.26 TO STA 9+80.00 = 70.74 FT
STA 12+44.50 TO STA 14+16.05 = 171.55 FT
242.29 FT



STANLEY AVE - 3-FOOT CONCRETE MEDIAN SECTION

SECTION APPLIES:
STA 11+45.00 TO STA 12+04.22 = 59.22 FT
59.22 FT

V25 - VARIES 18'-5" TO 0'-0" (9'-2.3" RADIUS)
STA 9+00.25 TO STA 9+09.26

V26 - VARIES 18'-2" TO 17'-3"
STA 9+09.26 TO STA 9+80.00
VARIES 14'-2" TO 7'-0"
STA 12+44.50 TO STA 14+16.05

V27 - VARIES 7'-2" TO 0'-0"
STA 12+44.50 TO STA 14+16.05

V28 - VARIES 10'-3" TO 8'-0"
STA 9+80.00 TO STA 11+45.00

V29 - VARIES 12'-0" TO 0'-0"
STA 11+45.00 TO STA 12+04.22

V30 - VARIES 0'-0" TO 11'-2.6"
STA 11+45.00 TO STA 12+04.22

* - MATCH EXISTING PAVEMENT CROSS SLOPE

TYPICAL SECTIONS - STANLEY AVENUE, MEDIAN SECTIONS

MOT-75-14.60

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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ELECTRIC:

DAYTON POWER & LIGHT
1900 DRYDEN RD
DAYTON, OHIO 45439
(937)-331-4088
ATTN: KYLE KING

DAYTON STREET LIGHTS
1736 E. MONUMENT AVE
BUILDING #23
DAYTON, OHIO 45402
(937) 333-3850
ATTN: DUANE EARLY

SIGNALS:

CITY OF DAYTON
DEPARTMENT OF PUBLIC WORKS
DIVISION OF CIVIL ENGINEERING
101 WEST THIRD STREET
P.O. BOX 22
DAYTON, OH 45401
(937) 333-4087
ATTN: JOHN ZELINSKI

TELECOMMUNICATIONS:

TIME WARNER CABLE
275 LEO ST
DAYTON, OH 45404
(937) 425-8858
ATTN: DENNIS RAPP

SANITARY/STORM/WATER:

DAYTON CITY WATER & SEWER
320 WEST MONUMENT AVE
DAYTON, OHIO 45402
(937) 333-3737
ATTN: SCOTT HOLMES

MONTGOMERY COUNTY
SANITARY ENGINEERING DEPARTMENT
1850 SPAULDING ROAD
KETTERING, OHIO 45432
(937) 781-2500
ATTN: CHARLIE SCHAFFER

GAS:

VECTREN ENERGY DELIVERY OF OHIO, INC.
4285 N. JAMES H. MCGEE BLVD
DAYTON, OHIO 45427
(937) 440-1973
ATTN: CHUCK KANOY

UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. NAVD 1988 DATUM.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ENVIRONMENTAL COMMITMENTS MADE & RESOURCES TO BE AVOIDED

1. ANY UNAVOIDABLE CUTTING OF TREES WITH SUITABLE ROOSTING AND BROAD-REARING HABITAT FOR THE INDIANA BAT (LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES) WILL BE PERFORMED ONLY BEFORE APRIL 15 OR AFTER SEPTEMBER 15 WHEN THE SPECIES WOULD NOT BE USING SUCH HABITATS.

2. TRAFFIC WILL BE MAINTAINED ALONG STANLEY AVENUE DURING CONSTRUCTION. THE NEWS MEDIA WILL RECEIVE A PRESS RELEASE FROM ODOT PRIOR TO CONSTRUCTION. THE PRESS RELEASE WILL INCLUDE ANY NECESSARY PROJECT DETOURS. FIRE, POLICE, SCHOOLS AND EMERGENCY SERVICES WILL BE NOTIFIED PRIOR TO ANY PROJECT DETOURS AS WELL.

3. ALL CONSTRUCTION WORK WILL BE PERFORMED IN ACCORDANCE WITH ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS. SECTION 107.19 REQUIRES CONTRACTORS "TO TAKE ALL NECESSARY PRECAUTIONS AND ACTIONS TO PREVENT POLLUTION OF STREAMS, LAKES, AND RESERVOIRS WITH FUELS, OILS, BITUMENS, CALCIUM CHLORIDE, OR OTHER HARMFUL MATERIAL "AND "TO PREVENT POLLUTION OF THE ATMOSPHERE FROM PARTICULATE AND GASEOUS MATTER." STANDARD CONSTRUCTION PLAN NOTES DIRECT THE CONTRACTOR TO TAKE PRECAUTIONS TO PREVENT INCIDENTAL DISCHARGES INTO STREAMS ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL (INCLUDING PIER FOUNDATION EXCAVATION AND REMOVAL OF TEMPORARY FILL), AND THE DISCHARGE OF DEMOLITION DEBRIS. ONLY CLEAN, NON-ERODIBLE MATERIAL SHALL BE USED FOR TEMPORARY FILL, AND ALL TEMPORARY FILL WILL BE REMOVED AND THE STREAM BOTTOM RETURNED TO NEAR NATURAL CONDITIONS WHEN WORK IS COMPLETED, IN ACCORDANCE WITH THE CONDITIONS OF NATIONWIDE PERMIT 33.

4. THE PERIOD OF IN-STREAM WORK WILL BE LIMITED TO MINIMIZE IMPACTS TO AQUATIC FAUNA IN ACCORDANCE WITH THE ECOLOGICAL COORDINATION MOA. AS SPECIFIED IN THE MOA, IN-STREAM CONSTRUCTION ACTIVITIES WILL BE LIMITED TO JUNE 15TH THROUGH APRIL 15TH.

5. NO WORK IN WATERWAYS MAY TAKE PLACE UNTIL THE CONTRACTOR HAS CONFIRMED, WITH THE ODOT PROJECT ENGINEER, THAT ALL PERMITS HAVE BEEN OBTAINED FROM THE USACE AND THE EPA.

6. PRIOR TO BRIDGE REMOVAL, THE UNDERSIDE OF THE BRIDGE WILL BE EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY THE INDIANA BAT, BETWEEN APRIL 15TH AND SEPTEMBER 15TH, IN ACCORDANCE WITH THE USFWS RECOMMENDATION IN THE ECOLOGICAL MOA COORDINATION.

7. THE SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LOCATION AND DESIGN MANUAL, AND STANDARD DRAWINGS WILL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.

8. THE PROJECT WILL BE COORDINATED WITH THE MIAMI CONSERVANCY DISTRICT AND THE CITY OF DAYTON CHIEF BUILDING OFFICIAL (FEMA DESIGNATED FLOODPLAIN ADMINISTRATOR) TO ENSURE THAT IT IS IN COMPLIANCE WITH ALL OF THEIR DESIGN CRITERIA.

9. THE PROJECT WILL BE COORDINATED WITH THE FIVE RIVERS METROPARKS REGARDING THE PROPOSED RIVER CORRIDOR BIKE PATH EXTENSION ALONG THE NORTH BANK. IF THE BIKEWAY IS CONSTRUCTED, IT WILL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION WHEN THE INTERCHANGE CONSTRUCTION IS COMPLETE. ANY AREAS WHERE TURF IS DISTURBED WILL BE RESTORED. IN THIS WAY, THE PROJECT WILL NOT HAVE A PERMANENT IMPACT ON THE BIKEWAY. TEMPORARY CLOSURE OF THE BIKEWAY (IF PRESENT) WOULD ALSO BE REQUIRED. ODOT WOULD POST A TEMPORARY DETOUR OF THE BIKEWAY DURING THE CONSTRUCTION PERIOD, WHICH IS EXPECTED TO LAST 20 MONTHS. THIS DETOUR WOULD LIKELY CONNECT THE PATH TO THE NEARBY SURFACE STREETS UPSTREAM AND DOWNSTREAM OF THE BRIDGE, AND BICYCLISTS WOULD BE DIRECTED TO USE NEVA DRIVE (LOCATED ABOUT THREE BLOCKS NORTH OF THE LEVEE) TO CROSS UNDER I-75.

10. A PRE-CONSTRUCTION NOTIFICATION WILL BE SUBMITTED TO THE CORPS OF ENGINEERS, LOUISVILLE DISTRICT IN ACCORDANCE WITH THE CONDITIONS OF NATIONWIDE PERMIT 33 FOR TEMPORARY ACCESS FOR BRIDGE CONSTRUCTION.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, SUPERINTENDENT OR HIS REPRESENTATIVE, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY SHALL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE. ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

EXISTING PLANS

EXISTING PLANS ENTITLED MOT-25-15.88 MAY BE INSPECTED IN THE ODOT DISTRICT 7 OFFICE IN SIDNEY, OHIO.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

CALCULATED MPD
CHECKED AM

GENERAL NOTES

MOT-75-14.60

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CLEARING AND GRUBBING

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	1	0	1

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

ITEM 204 - PROOF ROLLING

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 602 - CONCRETE MASONRY, AS PER PLAN

CONSTRUCT REINFORCED CONCRETE BULKHEADS AT EACH END OF THE EXISTING REINFORCED CONCRETE BOX CULVERT AS DETAILED IN THE CROSS SECTION FOR IR-75 AT STA. 463+05.56. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL INCIDENTAL LABOR AND MATERIALS FOR CONSTRUCTING THE WALL INCLUDING ALL THE REINFORCING STEEL DOWELS AND BARS.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SS444	SLOTTED RAIL TERMINAL POST LAYOUT AND ERECTION DETAILS SRT-350 (12.5, 8 POST)	7/12/99 Rev. 1	8/27/99
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6/21/97 Rev. 1	3/6/98

2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36" W X 12" H FOR THE SRT-350 AND 14" W X 20" H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOTSEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SSS265M	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18".

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 607 - FENCE REBUILT, TYPE CLT

THIS ITEM SHALL INCLUDE THE CAREFUL RECONDITIONING AND REERECTION OF FENCE AND COMPONENT PARTS AS DIRECTED BY THE ENGINEER. FENCE OR COMPONENT PARTS WHICH ARE DAMAGED OR ARE OTHERWISE UNSATISFACTORY FOR REUSE SHALL BE REPLACED IN KIND BY THE CONTRACTOR. ANY NEW PARTS WHICH ARE NEEDED, AS DETERMINED BY THE ENGINEER, SHALL BE SUPPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

THE AMOUNT OF REBUILT FENCE TO BE PAID FOR WILL BE THE NUMBER OF FEET REBUILT, COMPLETE IN PLACE AND MEASURED AS PROVIDED FOR IN 607.09.

PAYMENT FOR THE ABOVE WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 607, FENCE REBUILT, TYPE CLT. AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 140 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, THE CONTRACTOR IS ADVISED THAT COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

THE FEDERAL AVIATION ADMINISTRATION
GREAT LAKES REGIONAL OFFICE
AIR TRAFFIC DIVISION AGL-530
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS 60018
(847) 294-7566

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
(614) 793-5046

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FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES SHALL BE MADE IN ACCORDANCE WITH ITEM 607.

INSTALLATION OF PROPOSED FENCE - LEFT SIDE OF RAMP N-6

THE EXISTING FENCE BETWEEN STA 450+42.38 AND STA 455+44.94 ON RAMP N-6 SHALL BE REMOVED, AND NEW FENCE BETWEEN STA 450+42.38 AND STA 455+71.89 SHALL BE INSTALLED PRIOR TO THE BEGINNING OF ANY WORK ON THE WESTSIDE OF RAMP N-6 OUTSIDE THE EXISTING LA-R/W. PAY ITEMS FOR REMOVAL OF FENCE AND CONSTRUCTION OF NEW FENCE HAVE BEEN INCLUDED UNDER ITEM 202, FENCE REMOVED, AND ITEM 607, FENCE, TYPE CLT RESPECTIVELY.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613 (LOW STRENGTH MORTAR BACKFILL), SAND, OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED.

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES SHALL BE MADE BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. THE STUB SHALL MEET THE REQUIREMENTS OF 707 AND HAVE A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THE FIELD WELDED JOINT, IF USED, SHALL BE THOROUGHLY CLEANED AND REGALVANIZED OR OTHERWISE SUITABLY REPAIRED. WELDING SHALL MEET THE REQUIREMENTS OF 513.21.

A MASONRY COLLAR, AS PER STANDARD DRAWING DM-1.1, WILL BE REQUIRED TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS PROVIDED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 603 OR 522.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

THIS WORK SHALL ALSO INCLUDE CLEANING MEDIAN INLETS OF ABRASIVES AND SALT RESIDUES LEFT BY DEPARTMENT OR LOCAL GOVERNMENT AND ICE CONTROL OPERATIONS.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY CITY FORCES.

CITY OF DAYTON
DEPARTMENT OF PUBLIC WORKS
DIVISION OF CIVIL ENGINEERING
101 WEST THIRD STREET
P.O. BOX 22
DAYTON, OH 45401
(937) 333-4087
ATTN: JOHN ZELINSKI

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST 2 EACH

659, REPAIR SEEDING AND MULCHING 1435 SQ. YD

659, INTER-SEEDING 1435 SQ. YD.

659, COMMERCIAL FERTILIZER 4 TON

659, LIME 5.9 ACRES

659, WATER 159 M. GAL.

659, MOWING 65 M. SQ. FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

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GENERAL NOTES

MOT-75-14.60

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ITEM 614, MAINTAINING TRAFFIC

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND CITY ENGINEER, CITY OF DAYTON (937) 333-3840, AT LEAST 48 HOURS IN ADVANCE (EXCLUSIVE OF SATURDAY, SUNDAY, OR HOLIDAYS) OF HIS INTENT TO DIVERT TRAFFIC, AND TWO WEEKS IN ADVANCE OF A DETOUR. NOTIFY ODOT ROADWAY SERVICE MANAGER (937) 497-6877 TWO WEEKS IN ADVANCE OF A DETOUR.

SEQUENCE OF CONSTRUCTION

MAINTAIN A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION ON IR 75 AND A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION ON STANLEY AVENUE AT ALL TIMES BY UTILIZING EXISTING PAVEMENT, COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410, AND 614. DURING EACH PHASE OF CONSTRUCTION ALL NEW PAVEMENT SHALL BE BUILT TO FINISHED GRADE AND PERMANENT PAVEMENT MARKINGS INSTALLED ONCE NORMAL TRAFFIC CONDITIONS ARE RESTORED.

PLACE TEMPORARY PAVEMENT WEDGES TO MEET EXISTING PAVEMENT AND BRIDGE EXPANSION JOINTS MILLING OFF PRIOR TO PLACEMENT OF SURFACE COURSE. PAYMENT FOR THE TEMPORARY ASPHALT WEDGES AND THEIR SUBSEQUENT REMOVAL IS INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC. A 50':1" ASPHALT WEDGE SHALL BE PROVIDED.

PHASE 1A

STANLEY AVENUE

DIVERT STANLEY AVENUE TRAFFIC BY ERECTING TEMPORARY TRAFFIC CONTROL SIGNS AND DRUMS AS SHOWN ON THE PLANS. ON STANLEY AVENUE, MAINTAIN A MINUMUM TWO LANES IN THE EASTBOUND DIRECTION EAST OF RAMPS N-9 & N-10, ONE LANE BETWEEN KEOWEE STREET AND RAMPS N-9 & N-10, AND ONE LANE IN THE WESTBOUND DIRECTION. REMOVE THE EXISTING CONCRETE MEDIAN ALONG STANLEY AVENUE, AND CONSTRUCT NEW PAVEMENT AND NEW CONCRETE MEDIAN.

INSTALL A WORK ZONE TRAFFIC SIGNAL AT THE INTERSECTION OF STANLEY AVENUE AND RAMPS N-9 AND N-10. PROVIDE VEHICULAR DETECTION FOR THE WESTBOUND LEFT-TURN MOVEMENT, THE APPROACH ON RAMP 9 AND THE DRIVEWAY APPROACH OPPOSITE RAMP N-9. COVER SIGNAL HEADS FOR USE IN PHASE 1B. CONTACT THE CITY OF DAYTON 7 DAYS PRIOR TO SIGNAL OPERATION AND CHANGING OF SIGNAL TIMING. WZ TRAFFIC SIGNAL CONTROLLER SHALL BE FULLY COMPATIBLE WITH EXISTING TRAFFIC SIGNAL SYSTEM INTERCONNECT AND SHALL INCLUDE ALL OF THE NECESSARY FIBER OPTIC INTERCONNECT EQUIPMENT TO TIE INTO EXISTING AERIAL ENCLOSURE AT APPROX. STA. 15+00.

MAINTAIN TRAFFIC ON RAMPS N-9 AND N-10 BY ERECTING TRAFFIC CONTROL SIGNS AND DRUMS AS SHOWN ON THE PLANS. REMOVE THE EXISTING MEDIAN AND PROVIDE PAVEMENT FOR MAINTAINING TRAFFIC BETWEEN RAMPS N-9 N-10 AT THE INTERSECTION WITH STANLEY AVENUE. THIS WILL ALLOW ADDITIONAL TURNING MOVEMENTS AT THE INTERSECTION DURING PHASE 1B.

IR-75 MAINLINE

MAINTAIN A MINIMUM OF TWO NORTHBOUND LANES ON IR-75 BY ERECTING TRAFFIC CONTROL SIGNS AND PORTABLE CONCRETE BARRIER AS SHOWN ON THE PLANS. REMOVE MEDIAN BARRIER AND REMOVE OVERHEAD SIGN TRUSS (STA. 455+09, OFFSET 0') AND FOUNDATION AND REPLACE WITH 442 ASPHALT CONCRETE TYPE 2 AND 50" PCB PRIOR TO PHASE 1B (SEE DETAILS SHEETS 83A-83C).

GREAT MIAMI RECREATIONAL TRAIL CLOSURE

CLOSE THE GREAT MIAMI RECREATIONAL TRAIL, BY ERECTING TYPE III BARRICADES AND ROAD CLOSURE SIGNS AT BIKE PATH STA 62+45.49 AND STA 66+17.47.

THE CLOSURE OF BIKEPATH WITHIN PROJECT LIMITS LISTED SHALL BE PERFORMED BY CONTRACTOR PRIOR TO, OR DURING THE START OF PHASE 1B CONSTRUCTION.

PHASE 1B

IR-75 MAINLINE

MAINTAIN A MINIMUM OF TWO LANES IN BOTH DIRECTIONS ON IR-75 BY ERECTING TRAFFIC CONTROL SIGNS, DRUMS, AND PCB AS SHOWN ON THE PLANS. TRAFFIC SHALL BE SHIFTED TO THE MEDIAN SIDE DURING THIS PHASE. ALL WORK ON THE MAINLINE ROADWAY AND THE GREAT MIAMI RIVER BRIDGE SHALL BE PERFORMED ON THE OUTSIDE IN BOTH DIRECTIONS.

MAINTAIN TRAFFIC ON RAMP N-9 AT ALL TIMES DURING THIS PHASE. IN ORDER TO BUILD THE ACCELERATION LANE AND SHOULDER PAVEMENT FOR RAMP N-6A ALONG THE MAINLINE EDGE, AND MAINTAIN TRAFFIC ON RAMP N-9 AT ALL TIMES, THE WORK SHALL BE COMPLETED IN TWO PARTS. ERECT TRAFFIC CONTROL SIGNS, DRUMS AND PCB AS SHOWN ON THE PLANS FOR WORK DURING PART 1. PAVEMENT FOR MAINTAINING TRAFFIC SHALL BE BUILT ALONG THE SOUTH EDGE OF RAMP N-9 TO FACILITATE TRAFFIC ACCESS TO RAMP N-9 DURING PART 2. BUILD THE ACCELERATION LANE FOR RAMP N-6A AS SHOWN ON THE PLANS. DURING PART 2, SHIFT THE RAMP N-9 TRAFFIC TO UTILIZE THE PAVEMENT BUILT DURING PART 1. BUILD THE REMAINDER OF THE ACCELERATION LANE AND SHOULDER ALONG THE MAINLINE. BUILD ADDITIONAL PAVEMENT FOR MAINTAING TRAFFIC FROM THE EDGE OF NEW SHOULDER TO THE EXISTING PAVEMENT OF RAMP N-9. RAMP N-9 SHALL BE OPEN TO TRAFFIC AT ALL TIMES DURING THIS PAHSE.

SIGNS ON MAINLINE IR-75 LEADING TO RAMP N-4 SHALL BE MODIFIED IN PREPARATION FOR THE RAMP CLOSURE AS SHOWN ON THE PLANS. LIKEWISE, LEAD-IN SIGNS FROM NEVA DRIVE TO SOUTHBOUND IR-75 SHALL BE REMOVED PRIOR TO CLOSING RAMP N-5. ERECT TRAFFIC CONTROL SIGNS, DRUMS AND PCB TO CLOSE RAMPS N-4 AND N-5. REMOVE EXISTING PAVEMENT ON RAMPS N-4 AND N-5 AND REGRADE AS SHOWN ON THE PLANS. CONSTRUCT NEW SHOULDER PAVEMENT ON IR-75 THROUGH BOTH RAMP TERMINALS.

STANLEY AVENUE

SHIFT TRAFFIC AS SHOWN ON PLANS TO MAINTAIN A MINIMUM OF TWO LANES IN THE EASTBOUND DIRECTION AND ONE LANE IN THE WESTBOUND DIRECTION. OPEN THE WESTBOUND LEFT-TURN LANE AT THE INTERSECTION OF STANLEY AVENUE AND RAMPS N-9 AND N-10. UNCOVER THE WORK ZONE TRAFFIC SIGNAL HEADS AND PROVIDE A PROTECTED PERMITTED PHASING FOR THE WESTBOUND LEFT TURN MOVEMENT LEAVING ALL OTHER MOVEMENTS TO BE PERMITTED.

RAMPS

AFTER ACTIVATING THE WORK ZONE TRAFFIC SIGNAL AND ALLOWING ALL MOVEMENTS AT THE INTERSECTION OF STANLEY AVENUE AND RAMPS N-9 AND N-10, CLOSE RAMPS N-6, N-6A AND N-7 BY ERECTING TRAFFIC CONTROL SIGNS, DRUMS AND PCB ALONG STANLEY AVENUE AND THE MAINLINE AS SHOWN ON THE PLANS. MODIFICATIONS NECESSARY FOR LEAD IN SIGNS AND INSTALLATION OF NEW SIGNS SHALL BE COMPLETED PRIOR TO CLOSING OF RAMPS N-6, N-6A AND N-7.

COMPLETE CONSTRUCTION OF RAMPS N-6, N-6A, N-7 AND STANLEY AVENUE INTERSECTION, AND PERMANENT TRAFFIC SIGNAL INSTALLATION AT THE INTERSECTION OF RAMPS N-6 AND N-6A AND STANLEY AVENUE.

MAINTAIN TRAFFIC ON RAMP N-8 AT ALL TIMES DURING THIS PHASE. ERECT TRAFFIC CONTROL SIGNS AND DRUMS ON IR-75, HILLROSE AVENUE, AND WINDHAM ROAD IN PREPARATION OF THE PERMANENT CLOSING OF RAMP N-11. MODIFY ALL LEAD IN SIGNS TO RAMP N-11 PRIOR TO CLOSING THE RAMP. COMPLETE THE REMOVAL OF EXISTING RAMP N-11 PAVEMENT AND CONSTRUCT IR-75 PAVEMENT AND SHOULDER. INSTALL PERMANENT FENCE ALONG THE RIGHT-OF-WAY TO CLOSE ANY ACCESS TO IR-75 VIA RAMP N-11.

PHASE 2

STANLEY AVENUE

MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC IN BOTH DIRECTIONS ON STANLEY AVENUE. COMPLETE ALL WORK ALONG THE SOUTH SIDE OF STANLEY AVENUE INCLUDING THE NEW ACCESS DRIVE INTO SIMCLAR PROPERTY.

RAMPS

PREPARE TO PERMANENTLY CLOSE RAMPS N-9 AND N-10 TO TRAFFIC BY ERECTING TRAFFIC CONTROL SIGNS AND DRUMS. MODIFY ALL LEAD IN SIGNS ALONG STANLEY AVENUE PRIOR TO CLOSING RAMPS N-9 AND N-10.

REGRADE RAMPS N-9 AND N-10 AS SHOWN ON THE PLANS. REMOVE ALL PAVEMENT FOR MAINTAINING TRAFFIC AND WORK ZONE TRAFFIC SIGNAL FROM PRIOR PHASES.

ERECT TRAFFIC CONTROL SIGNS AND DRUMS ON AND MAINTAIN ONE TEN-FOOT LANE ON RAMP N-7 AS SHOWN ON THE PLANS. REMOVE PAVEMENT FOR MAINTAINING TRAFFIC AND PERFORM FINAL GRADING. REMOVE THE GUARDRAIL, BARRIER DESIGN, TYPE 5 AT THE GORE BETWEEN RAMP N-7 AND THE MAINLINE AND RE-ERECT GUARDRAIL, TYPE 5.

IR-75 MAINLINE

SHIFT THE MAINLINE TRAFFIC FROM THE MEDIAN SIDE ON TO THE NEW PAVEMENT COMPLETED ON THE OUTSIDE. MAINTAIN A MINIMUM OF TWO LANES IN BOTH DIRECTIONS ON IR-75 BY ERECTING TRAFFIC CONTROL SIGNS, DRUMS, AND PCB AS SHOWN ON THE PLANS. BUILD THE MEDIAN SIDE OF THE ROADWAY AND THE GREAT MIAMI RIVER BRIDGE, MEDIAN BARRIER AND INSTALL CANTILEVER OVERHEAD SIGN SUPPORT, STA. 455+30, OFFSET 0'.

PHASE 3

STANLEY AVENUE

MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC IN BOTH DIRECTIONS ON STANLEY AVENUE. PERMANENTLY CLOSE EXISTING DRIVE INTO SIMCLAR PROPERTY DIRECTLY OPPOSITE RAMPS N-6 AND N-6A. REMOVE THE EXISTING PAVEMENT AND COMPLETE THE CONSTRUCTION OF SIDEWALK, CURB AND PAVEMENT.

IR-75 MAINLINE

MAINTAIN A MINIMUM OF TWO LANES IN THE NORTHBOUND DIRECTION AND THREE LANES IN THE SOUTHBOUND DIRECTION ON IR-75 AS SHOWN ON THE PLANS.

LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS EXCEPT DURING CONSTRUCTION ON STRUCTURE:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING
EASTER	

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM, MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM, TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM, WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM, THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM, MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM, MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM, MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

LANE CLOSURE/REDUCTION REQUIRED

THE MAXIMUM LENGTH AND DURATION OF LANE CLOSURES AND LANE RESTRICTIONS SHALL BE AS SPECIFIED IN THE PLANS. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED.

LANE CLOSURES AND LANE RESTRICTIONS NOT SPECIFIED IN THE PLANS SHALL ONLY BE IMPLEMENTED DURING THE TIME PERIODS LISTED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S PERMITTED LANE CLOSURE WEB SITE WHICH IS LOCATED AT:

https://dotaw100.dot.state.oh.us/plcm/plcm_web.jsp

THE PERMITTED CLOSURE TIMES LISTED ON THE WEBSITE, 14 CALLENDAR DAYS PRIOR TO THE BID LETTING DATE, SHALL BE IN EFFECT FOR THIS PROJECT.

NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES.

THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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MAINTENANCE OF TRAFFIC - GENERAL NOTES

MOT-75-14.60

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NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

ESTIMATED QUANTITIES

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B	200	CU. YD.
ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C	200	CU. YD.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	250	CU. YD.
ITEM 616, WATER	50	M. GAL.

ROAD CLOSED SIGN

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCHES ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES, GATES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

SOUTH AND EAST OF RAMP N-11 EAST AND WEST OF IR-75
EAST AND WEST OF RAMP N-10
NORTH OF RAMP N-9
NORTH OF RAMP N-6
EAST OF RAMP N-6A
EAST AND WEST OF RAMP N-5
SOUTH OF RAMP N-4.

SIGNS AND BARRICADES

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS:

SOUTH OF RAMP N-11 EAST AND WEST OF IR-75
NORTH OF RAMP N-9
NORTH OF RAMP N-5
NORTH OF RAMP N-4

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 5 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR)

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (AND OFFICIAL PATROL CAR WITH WORKING TOP-MOUNTED EMERGENCY FLASHING LIGHTS) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC ON INTERSTATE 75 ONLY OR AS DIRECTED BY THE ENGINEER, FOR THE FOLLOWING TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION.

LAW ENFORCEMENT OFFICERS (LEOS) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. IF CONTRACTORS WISH TO UTILIZE LEOS FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE USE OF MORE THAN ONE LEO PER CONSTRUCTION ACTIVITY SHALL BE AT THE CONTRACTOR'S EXPENSE UNLESS PREVIOUSLY APPROVED BY THE PROJECT ENGINEER.

LEOS ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

OHIO STATE HIGHWAY PATROL
400 SMITH DRIVE
CLAYTON, OHIO 45322
(937) 832-4794

CITY OF DAYTON POLICE DEPT.
417 E. HELENA STREET
DAYTON, OHIO 45422
(937) 333-2677

MONTGOMERY COUNTY SHERIFF'S DEPARTMENT
345 W. SECOND STREET
DAYTON, OHIO 45422
(937) 225-4357

LAW ENFORCEMENT OFFICERS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR). THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR	1000	HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER	500	M. GAL

ITEM 622, PORTABLE CONCRETE BARRIER, 50", AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50 INCH PORTABLE CONCRETE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1. PLEASE NOTE THAT SCD RM-4.1 WAS UPDATED 10-20-06 TO PROVIDE A PCB WHICH IS COMPATIBLE WITH NCHRP 350 CRITERIA.

PORTABLE CONCRETE BARRIER, 32 INCHES HIGH WITH AN 18 INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE ENGINEER. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING SYSTEMS OR AN APPROVED EQUAL:

CARSONITE MODULAR GLARE SCREEN
CARSONITE INTERNATIONAL
605 BOB GIFFORD BLVD.
EARLY BRANCH, SOUTH CAROLINA 29916 702-883-5104 OR 800-648-7974

TRINITY GLAREFOIL
TRINITY INDUSTRY
1170 N. STATE ST.,
GIRARD, OHIO 44420 330-545-4373

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE CONCRETE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE CONCRETE BARRIER, 50 INCH, AS PER PLAN.

ITEM 614, REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 100 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 200 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY

ITEM 614, WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT (R2-1) (45 SPEED LIMIT) SIGNS AND SUPPORTS WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO WORK ZONE LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE DAYS, SUCH AS DURING WINTER SHUTDOWNS.

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MAINTENANCE OF TRAFFIC - GENERAL NOTES

MOT-75-14.60

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THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 CONSECUTIVE CALENDAR DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF A DIRECTIONAL ROADWAY OF DIVIDED HIGHWAYS. THE FIRST WORK ZONE SPEED LIMIT SIGN SHALL BE PLACED 500 FEET IN ADVANCE OF THE LANE REDUCTION OR SHIFT TAPER OR AT A POINT WHEREVER CONSTRUCTION BEGINS, WHICHEVER COMES FIRST. THE SIGN SHALL BE REPEATED EVERY 1 MILE FOR 55 MPH ZONES AND EVERY ONE-HALF MILE FOR 50 MPH AND 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.

REDUCED SPEED AHEAD SIGNS SHALL BE ERECTED IN ADVANCE OF THE SPEED REDUCTION, APPROXIMATELY 1300 FEET ON MULTI-LANE HIGHWAYS AND 500 FEET ON 2-LANE HIGHWAYS.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R2-1 (SPEED LIMIT) SIGNS SHALL BE USED ON UNDIVIDED ROADWAYS. R2-1 (SPEED LIMIT) AND R2-H2A SIGNS SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R2-1 AND R2-H2A SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS. THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO ITEM 630, GROUND MOUNTED SUPPORTS, NO. 3 POSTS.

WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

614, WORK ZONE SPEED LIMIT SIGN 13 EACH

ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

I-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO WORK ZONE LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

THE SIGNS SHALL BE DUAL MOUNTED. THE FIRST SIGN SHALL BE PLACED BETWEEN THE "ROAD WORK AHEAD" (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614 - DOUBLE FINES IN WORK ZONE SIGNS 7 EACH

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY.

EXCAVATION FOR MAINTAINING TRAFFIC	37 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC	87 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE QUADGUARD CZ, (24 INCHES WIDE SIX BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

   THE LENGTH OF THE SIX-BAY QUADGUARD CZ IS 20'-9" (6.33 METERS). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES	5/13/99 REV. J	8/27/99
35-40-10	QUADGUARD SYSTEM CONCRETE PAD, CZ, QG	11/19/97 REV. D	8/27/99
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 REV. F	8/27/99
35405IZ	QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG, 24, 30, 36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG	6/25/99 REV. F	8/27/99
35400260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 REV. C	8/27/99

2. THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

   THE TRACC IS 21'-0" (6.4 METERS) LONG AND 2'-7" (0.8 METERS) WIDE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE- APPROVED SHOP DRAWINGS:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS	3/12/99 REV. 1	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/99	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS	6/30/99 REV. 1	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS	6/30/99	8/27/99

3. THE BARRIER SYSTEMS, INC. TAU-II IMPACT ATTENUATOR, DISTRIBUTED BY ROAD SYSTEMS, INC., SALES SUPPORT, 2183 ELM TRACE, AUSTINTOWN, OH 44515, (TELEPHONE 330-799-9291).

   THE TAU-II FOR THIS NOTE IS A PARALLEL 8-BAY UNIT 24' LONG AND 35" WIDE). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
A040416	UNIVERSAL TAU-II PARTS LIST	4/22/04	10/16/04
A040420	UNIVERSAL TAU-II FOUNDATION, FLUSH MOUNT BACKSTOP	4/28/04	10/16/04
A040105	UNIVERSAL TAU-II FOUNDATION, PCB BACKSTOP (REFERENCED ON A04020)	1/07/04	10/16/04
B040239	APPLICATION, FLUSH MOUNT BACKSTOP (TYPICAL FOR PARALLEL 60 MPH UNIT)	4/21/04	10/16/04

4. THE GREAT CZ IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC.

   THIS ATTENUATOR MAY BE USED UNTIL JANUARY 1, 2007 IF THE ITEM WAS PURCHASED BEFORE OCTOBER 1, 1998 AND IS IN THE CONTRACTOR'S INVENTORY. THIS PROJECT IS SCHEDULED TO LAST UNTIL NOVEMBER OF 2007, AND THEREFORE THE CONTRACTOR SHOULD PROVIDE ANOTHER ODOT APPROVED ATTENUATOR BEYOND JANUARY 1, 2007.

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY ONE TO SIX UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, FIVE INSTALLED UNITS REQUIRE ONE SPARE PARTS PACKAGE AND SEVEN INSTALLED UNITS REQUIRE TWO SPARE PARTS PACKAGES.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 614, WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL OR BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, AND REPAIR COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

CALCULATED EAK CHECKED AM

MAINTENANCE OF TRAFFIC - GENERAL NOTES

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EXTRA ADVANCE WARNING SIGNS (NOTE A)

AN EXTRA ADVANCE WARNING SIGN GROUP CONSISTS OF TWO W20-1 (ROAD WORK AHEAD) SIGNS, TWO W20-5 (RIGHT/LEFT LANE CLOSED AHEAD) SIGNS WITH W16-3A DISTANCE PLATES, AND TWO W3-H7 (WATCH FOR STOPPED TRAFFIC) SIGNS AND REQUIRED WARNING LIGHTS.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE EXTRA ADVANCE WARNING SIGN GROUPS AS SHOWN ON SCD MT-95.30 OR MT-95.40 AT THE FOLLOWING DISTANCES IN ADVANCE OF THE LANE TAPERS WITH THE APPROPRIATE W16-3A DISTANCE PLATES:

1.) IR-75 NORTHBOUND LANE TAPER (LEFT LANE ENDS)
STATION 441+50
PHASE 1A
PROVIDE SIGN GROUPS AT 2 MILES

2.) IR-75 SOUTHBOUND SHOULDER TAPER (LEFT SHOULDER CLOSED)
STATION 459+08
PHASE 1A
PROVIDE SIGN GROUPS AT 2 MILES

3.) IR-75 NORTHBOUND LANE TAPER (RIGHT LANE ENDS)
STATION 421+42
PHASE 1B
PROVIDE SIGN GROUPS AT 2 MILES

4.) IR-75 SOUTHBOUND LANE TAPER (RIGHT LANE ENDS)
STATION 477+34
PHASE 1B
PROVIDE SIGN GROUPS AT 2 MILES

5.) IR-75 NORTHBOUND LANE TAPER (LEFT LANE ENDS)
STATION 433+88
PHASE 2
PROVIDE SIGN GROUPS AT 2 MILES

6.) IR-75 SOUTHBOUND LANE TAPER (LEFT LANE ENDS)
STATION 485+00
PHASE 2
PROVIDE SIGN GROUPS AT 2 MILES

7.) IR-75 NORTHBOUND LANE TAPER (RIGHT LANE ENDS)
STATION 440+75
PHASE 3
PROVIDE SIGN GROUPS AT 2 MILES

THE CONTRACTOR SHALL HAVE AN ADDITIONAL EXTRA ADVANCE WARNING SIGN GROUP (6 SIGNS AND 2 DISTANCE PLATES) AVAILABLE FOR USE WHEN DIRECTED BY THE ENGINEER. THE DISTANCE PLATES FOR THIS GROUP SHALL BE ABLE TO BE MODIFIED IN THE FIELD TO SHOW APPROPRIATE WHOLE MILES TO THE LANE TAPER.

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING EXTRA ADVANCE WARNING SIGN GROUPS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

MAINTENANCE OF CANOE TRAFFIC

CANOE TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT EITHER THROUGH EXISTING RIVER CHANNEL OR THROUGH PORTAGE TRAIL APPROVED BY THE ENGINEER.

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT.

1. APPROXIMATELY 1/4 MILE UPSTREAM, ADVANCED WARNING TYPE SIGNS ON BOTH BANKS

2. APPROXIMATELY 300 FEET (90 METERS) UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST ON BOTH BANKS

3. APPROXIMATELY 1/4 (0.6 KILOMETER) MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS ON BOTH BANKS

4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST OF BOTH BANKS

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE WATER LEVEL, UNOBSTRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CONTRACTOR SHALL NOTIFY LOCAL CANOE LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING CANOE TRAFFIC.

PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OF-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

IN THE EVENT PIPES ARE USED TO DIVERT OR CARRY RIVER WATER, BOTH THE INLET AND OUTLET ENDS SHALL BE ADEQUATELY PROTECTED BY GRATES OR FENCE SO THAT PEOPLE OR CANOES ARE NOT DRAWN THROUGH OR HELD BY THEM.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON AN AS NEEDED BASIS AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THIS LIST IS AVAILABLE ON THE ODOT WEBSITE AT HTTP://WWW.DOT.STATE.OH.US/TESTLAB/APPLISTS/MISC/PCMS.HTM. THE LIST CURRENTLY CONTAINS CLASS I, II AND III UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 1250 FT., 850 FT. AND 650 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS ARE THE BEGINNING AND END OF WORK AT THE IR-75 NORTHBOUND AND SOUTHBOUND APPROACHES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH-INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN,
AS PER PLAN 20 SIGN-MONTH

WORKSITE TRAFFIC SUPERVISOR

CONTRACTOR SHALL EMPLOY (OTHER THAN THE SUPERINTENDENT) AND SUBJECT TO THE APPROVAL OF THE ENGINEER, A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS). THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS)

2. OHIO LABORER'S TRAINING CENTER, PHONE NUMBER 1-800-635-7570, TRAFFIC CONTROL SUPERVISORS CLASS.

3. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528

THE WTS POSITION IS ESTABLISHED FOR THE PURPOSE OF MONITORING AND CORRECTING ANY TRAFFIC CONTROL DEFICIENCIES IN THE WORK ZONE. THE WTS MUST ALSO COORDINATE WITH ALL LAW ENFORCING AGENCIES RESPONSIBLE FOR THE ROADWAY UNDER CONSTRUCTION AND RETRIEVE ALL CRASH REPORTS (OH-1) THAT OCCUR DURING THE CONSTRUCTION SEASON. THE WTS SHALL OVERSEE ALL OPERATIONS THAT AFFECT THE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC THROUGH THE WORK ZONE. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS MAIN DUTY WHILE THE WORK ZONE IS IN PLACE.

THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR OR SUBCONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ETC. IN LIEU OF THE WTS BEING PRESENT WHEN A SUBCONTRACTOR HAS A WORK ZONE IN PLACE, THE CONTRACTOR MAY USE HIS OWN PERSONNEL THAT IS A CERTIFIED WTS. THE CONTRACTOR OR SUBCONTRACTOR MUST PRESENT A COPY OF HIS WTS CERTIFICATION TO THE PROJECT ENGINEER. A WTS MUST BE PRESENT WHEN THE WORK ZONE IS BEING SET UP.

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DAILY, INCLUDING WEEKENDS AND HOLIDAYS, THE WTS SHALL SPEND A MINIMUM OF ONE HOUR REVIEWING THE WORK ZONE AND/OR CRASH DATA FOR DEFICIENCIES AND MAINTAINING THE WORK ZONE. THE WTS MUST RETRIEVE/COLLECT ALL CRASH REPORTS (OH-1) FROM ALL LAW ENFORCING AGENCIES, EVALUATE THE CRASHES, AND RECOMMEND SOLUTIONS TO ADDRESS ANY ISSUES THAT ARE POTENTIALLY CREATING CRASHES WITHIN THE WORK ZONE. THE WTS MUST PRESENT HIS/HER SOLUTIONS TO THE ENGINEER AND THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) FOR APPROVAL AT ALL PROJECT PROGRESS MEETINGS, uPON APPROVAL BY THE ENGINEER AND THE DWZTM, THE CONTRACTOR MUST IMPLEMENT THE RECOMMENDED SOLUTIONS TO THE WORK ZONES WITHIN ONE WEEK. THESE HOURS MAY BE ADJUSTED BY THE ENGINEER BUT MUST BE PERFORMED ONCE A DAY DURING THE CONSTRUCTION SEASONS. THE WTS MUST INSPECT THE WORK ZONE AT THE BEGINNING AND THE END OF EACH WORK DAY AND ONE TIME PER WEEK DURING THE HOURS OF DARKNESS.

A RECORD OF EACH DAYS REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER THE FOLLOWING WORK DAY. ALSO IN WRITING THE WTS REPORT SHALL INCLUDE: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, VISIBILITY, TRAFFIC FLOW CONDITIONS, INCIDENTS, ACCIDENTS, CONGESTION POINTS, ADEQUACY OF ADVANCED WARNING SIGNS BEYOND PROJECT LIMITS, INTERACTION OF WORK VEHICLES AND TRAFFIC, PROPER STORAGE OF MATERIALS AND EQUIPMENT.

IF THE RESTRICTIONS ARE SHORT TERM, THE WTS SHALL MONITOR THE ZONE FOR COMPLIANCE. DURING THE LANE CLOSURE HE SHALL MAKE SURE ALL TRAFFIC CONTROL ITEMS ARE FUNCTIONING PROPERLY. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS'S MAIN DUTY DURING IMPLEMENTATION OF ZONES OR SHORT TERM ZONES. THE WTS SHALL HAVE THE AUTHORITY TO HAVE DEFICIENCIES CORRECTED AS SOON AS POSSIBLE. THE WTS SHALL PROVIDE THE DISTRICT WORK ZONE TRAFFIC CONTROL ENGINEER A SKETCH OF THE TRAFFIC CONTROL PLAN (TCP) EVERY DAY THERE IS TO BE A SHORT TERM TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THIS TCP SHALL SHOW HOW THE WORK ZONES ARE TO BE IMPLEMENTED.

THE WTS SHALL BE AVAILABLE ON A 24-HOUR BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. A 24-HOUR PHONE NUMBER SHALL BE MADE AVAILABLE TO THE PROJECT ENGINEER IN ORDER TO CONTACT THE WTS. THE WTS SHALL HAVE A PAGER AND THE PHONE NUMBER PROVIDED TO THE PROJECT ENGINEER.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE, SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO DEDUCT $500.00 PER DAY FROM MONEY DUE TO THE CONTRACTOR, NOT AS A PENALTY, BUT AS A LIQUIDATION DAMAGE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORK SITE TRAFFIC SUPERVISOR.

ITEM 614, WORKSITE TRAFFIC SUPERVISOR 20 MONTHS

WORK ZONE PAVEMENT MARKING REMOVAL

EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PER THE REQUIREMENTS OF CMS 614.11 EXCEPT THAT WATER BLASTING SHALL BE THE ONLY APPROVED METHOD.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO CMS 614 OR CMS 621 AS SPECIFIED HEREIN.

- RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.
- RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCT 15 THROUGH APRIL 11.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO CMS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER CMS 202.10.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE SURFACE COURSE OF THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH EQUIVALENT TO THE DEPTH OF THE PROPOSED SURFACE COURSE, AS DETERMINED BY THE ENGINEER.

THE FOLLOWING BID ITEMS SHOULD BE INCLUDED IN THE PLANS:

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
SQUARE YARDS
ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN
1156 EACH

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKERS ON CONCRETE SURFACES

RAISED PAVEMENT MARKERS IN WORK ZONES, INSTALLED ON TO CONCRETE SURFACES, SHALL BE ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS. WZRPMS ARE INTENDED FOR USE ONLY DURING THE NON-SNOW-PLOWING SEASON. WZRPMS SHALL NOT BE PROVIDED DURING THE SNOW-PLOWING SEASON.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCT 15 THROUGH APRIL 11.

WHERE A TEMPORARY ALIGNMENT WILL REMAIN IN USE THROUGH THE WINTER, THE WZRPMS SHALL BE REMOVED PRIOR TO THE BEGINNING OF THE SNOW-PLOWING SEASON AND REPLACED APPROXIMATELY APRIL 1, OR AS OTHERWISE DETERMINED BY THE ENGINEER.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS.

AN ESTIMATED QUANTITY OF 243 EACH OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

ITEM SPECIAL - LINEAR DELINEATION

3MTM SCOTCHLITETM LINEAR DELINEATION SYSTEM (LDS) SHALL BE INSTALLED ON ALL CONCRETE BARRIER, PERMANENT OR TEMPORARY, LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVEL LANE UNDER EITHER OF THE FOLLOWING CONDITIONS:

ALONG TAPERS AND TRANSITION AREAS

ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES

THE LDS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE. PANELS SHALL BE PROVIDED AT THE RATE OF ONE PER SECTION OF PORTABLE CONCRETE BARRIER OR ONE PANEL EVERY 10 FEET, SPACED EVENLY ALONG THE LENGTH OF THE RUN. THE PANELS SHALL BE MOUNTED SUCH THAT THE TOPS OF THE PANELS ARE 26-INCHES FROM THE BASE OF THE CONCRETE BARRIER.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING 3MTM SCOTCHLITETM LINEAR DELINEATION SYSTEM (LDS).

AN ESTIMATED QUANTITY OF LINEAR FEET OF ITEM SPECIAL LINEAR DELINEATION, HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY. ALONG RUNS OF CONCRETE BARRIER WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN BEING DELINEATED, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL PANELS.

CONCRETE BARRIER DELINEATION

OBJECT MARKERS SHALL BE INSTALLED ON ALL PERMANENT CONCRETE BARRIER, LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. OBJECT MARKER SPACING SHALL BE 50 FEET.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING OBJECT MARKERS.

AN ESTIMATED QUANTITY OF EACH OF ITEM 614 OBJECT MARKER, -WAY HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

GUARDRAIL DELINEATION

OBJECT MARKERS SHALL BE INSTALLED ON ALL GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKER SPACING SHALL BE APPROXIMATELY 50 FEET.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING OBJECT MARKERS.

AN ESTIMATED QUANTITY OF 11 EACH OF ITEM 614 OBJECT MARKERS, ONE-WAY HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

CALCULATED

MILLING AND RESURFACING

MILL 1.5" OF EXISTING PAVEMENT AND RESURFACE WITH ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) BETWEEN THE FOLLOWING STATION RANGES:

PHASE 1B	PHASE 2
461+77.53 TO 468+70.72, LT	446+87.30 TO 455+49.69, LT
461+77.53 TO 468+50.94, RT	446+87.30 TO 455+49.69, RT
478+26.00 TO 487+26.00, LT	461+77.53 TO 476+65.28, LT
	461+77.53 TO 468+55.01, RT
	478+26.00 TO 487+56.00, LT

THE FOLLOWING BID ITEMS HAVE BEEN INCLUDED IN THE PLANS FOR MILLING AND RESURFACING OF THE PAVEMENT AREAS WITHIN THE PROJECT LIMITS.

AN ESTIMATED QUANTITY OF 17947 SY OF ITEM 202 PAVEMENT REMOVED, AND AN ESTIMATED QUANTITY OF 2243 CY OF ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) HAVE BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR IS ADVISED THAT ADJACENT CONSTRUCTION OPERATIONS INCLUDING, BUT NOT LIMITED TO MOT-75-13.11, MAY IMPACT THE PROJECT SCHEDULE, SEQUENCE OF CONSTRUCTION AND/OR TRAFFIC CONTROL BETWEEN ADJACENT CONSTRUCTION ZONES. THE CONTRACTOR IS REQUIRED TO COORDINATE ALL MAINTENANCE OF TRAFFIC OPERATIONS WITH THOSE OF ADJACENT CONSTRUCTION PROJECTS.

COOPERATION WITH THE ENGINEER, INSPECTORS AND ALL OTHER CONTRACTORS ON OR ADJACENT TO THE PROJECT IS REQUIRED AS PER CMS 105.08.

ITEM SPECIAL, 614, WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE TRAFFIC SIGNAL CONTROLLER SHALL BE 100% COMPATIBLE WITH EXISTING TRAFFIC SIGNAL SYSTEM INTERCONNECT AND WITH EAGLE ACTRA VERSION 3.3.4. THE WORK ZONE TRAFFIC SIGNAL SHALL INCLUDE A FOUR FIBER SINGLE MODE (4SM) FIBER OPTIC DROP CABLE WHICH SHALL BE FUSION SPLICED IN THE EXISTING AERIAL SPLICE ENCLOSURE AT STA. 15+00 LT, STANLEY AVENUE. THE DROP CABLE THE BE TERMINATED WITH FOUR ST TYPE CONNECTORS IN THE WORK ZONE SIGNAL CONTROLLER CABINET. THE DROP CABLE SHALL BE CONNECTED TO THE CONTROLLER WITH TWO SINGLE MODE ST-FC DUPLEX PATCH CORDS. CONTACT THE CITY OF DAYTON AT 937-333-4088 WITH AT LEAST SEVEN DAYS NOTICVE FOR A SPLICE SHART AND TIMING PARAMETERS.

THE COST OF LABOR AND MATERIALS FOR THE DROP CABLE, SLACK INSTALLATIONS, FUSION SPLICING, FAN-OUT KIT, CONNECTORS, PATCH CORDS AND ANY INCIDENTALS FOR A COMPLETE CONNECTION SHALL BE INCIDENTAL THE THE WORK ZONE TRAFFIC SIGNAL PAY ITEM.

EAK
CHECKED
AM

MAINTENANCE OF TRAFFIC - GENERAL NOTES

MOT-75-14.60

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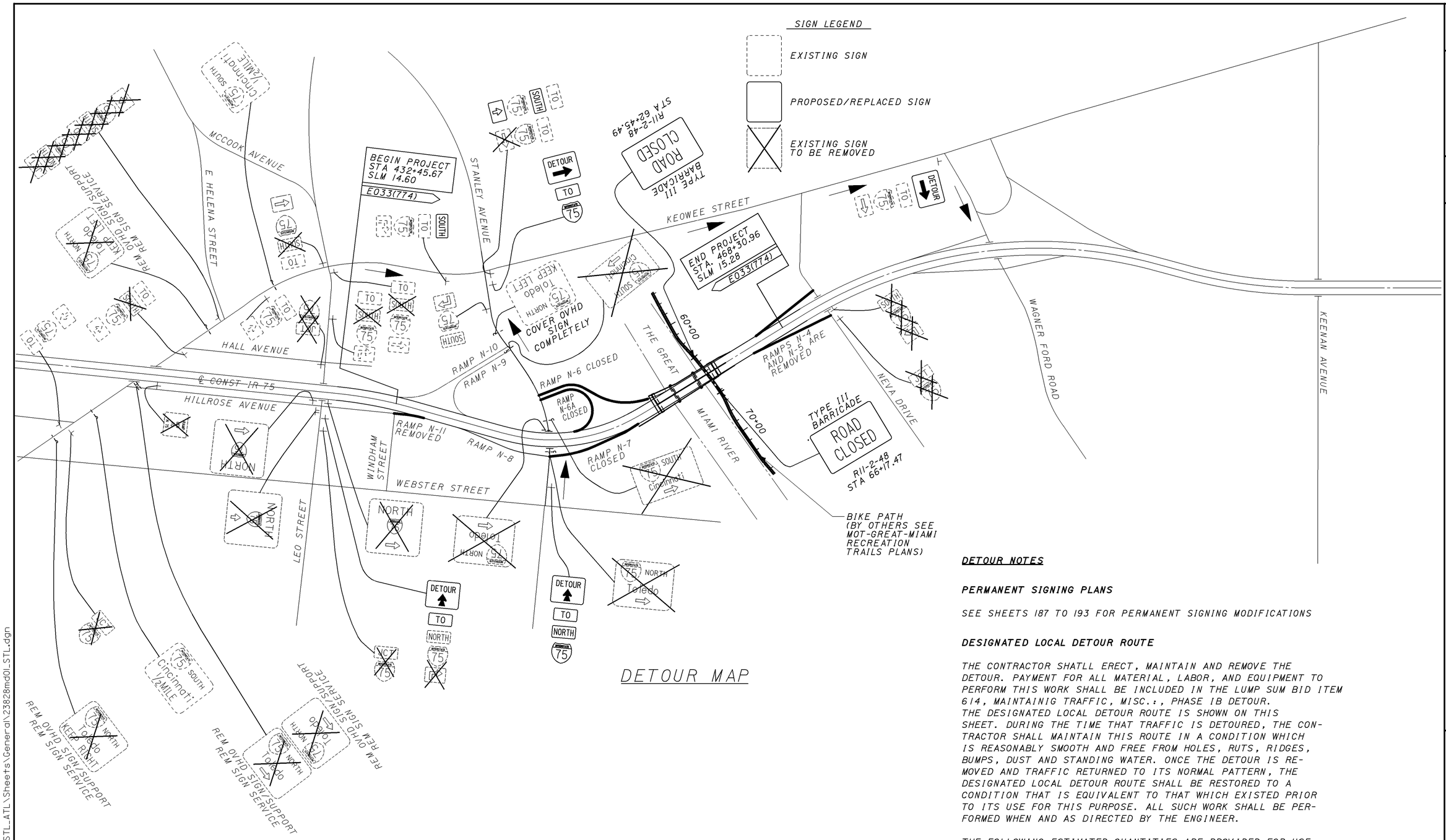

DETOUR MAP

DETOUR NOTES

PERMANENT SIGNING PLANS

SEE SHEETS 187 TO 193 FOR PERMANENT SIGNING MODIFICATIONS

DESIGNATED LOCAL DETOUR ROUTE

THE CONTRACTOR SHATLL ERECT, MAINTAIN AND REMOVE THE DETOUR. PAYMENT FOR ALL MATERIAL, LABOR, AND EQUIPMENT TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM 614, MAINTAINIG TRAFFIC, MISC.:, PHASE IB DETOUR. THE DESIGNATED LOCAL DETOUR ROUTE IS SHOWN ON THIS SHEET. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE. FOR THE PURPOSE OF BID COMARISONS, QUANTITIES LISTED ARE BASED UPON A UNIT MEASUREMENT OF 100 FEET OF A 12-FOOT LANE. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A WRITTEN ESTIMATE OF EXPECTED QUANTITIES BEING USED ON THE PROJECT

ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR	*135 SQ. YD.*
ITEM 423, CRACK SEALING, MISC.: MOT DETOUR	*135 SQ. YD.*
ITEM 642, PAVEMENT MARKING, MISC.: MOT DETOUR	*200 FT*
ITEM 614, MAINTAINING TRAFFIC, MISC.: PHASE IB DETOUR	*LUMP*

HORIZONTAL SCALE IN FEET
0 200 400 800

CALCULATED HJF
CHECKED AM

MAINTENANCE OF TRAFFIC DETOUR PLAN PHASE 1B

MOT-75-14.60

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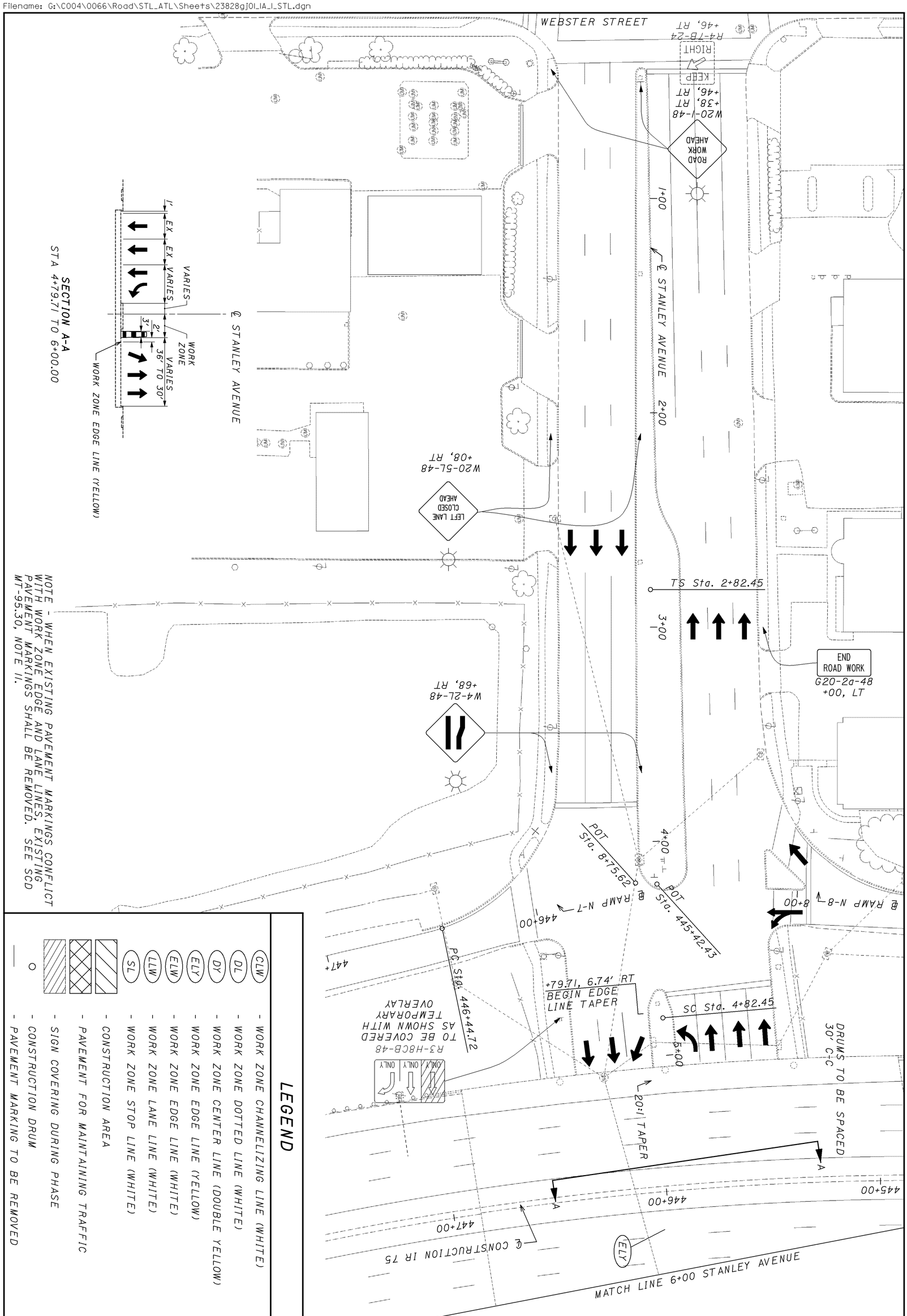

LEGEND

- CLW - WORK ZONE CHANNELIZING LINE (WHITE)
- DL - WORK ZONE DOTTED LINE (WHITE)
- DY - WORK ZONE CENTER LINE (DOUBLE YELLOW)
- ELY - WORK ZONE EDGE LINE (YELLOW)
- ELW - WORK ZONE EDGE LINE (WHITE)
- LLW - WORK ZONE LANE LINE (WHITE)
- SL - WORK ZONE STOP LINE (WHITE)
- CONSTRUCTION AREA
- PAVEMENT FOR MAINTAINING TRAFFIC
- SIGN COVERING DURING PHASE
- CONSTRUCTION DRUM
- PAVEMENT MARKING TO BE REMOVED

21/316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1A	CALCULATED EAK / CHECKED AM	HORIZONTAL SCALE IN FEET (0, 20, 10, 40)

SEE SHEET 21 FOR LEGEND.

℄ STANLEY AVENUE

SECTION C-C
STA 8+02.00 TO 11+50.00

STA 7+19.71 TO STA 11+50.00, LT & RT,
DRUMS TO BE SPACED 60' C-C

MATCH LINE 6+00 STANLEY AVENUE

MATCH LINE 11+50 STANLEY AVENUE

7+00
8+00
9+00
10+00
11+00

℄ STANLEY AVENUE

20:1 TAPER

STA 6+00.00 TO STA 7+19.71, RT,
DRUMS TO BE SPACED 30' C-C

+24.91, 19.09' RT
END EDGE LINE TAPER

ELY

B

C

CS Sta. 10+82.45

℄ RAMP N-6A

℄ RAMP N-6

441+00

446+00

447+00

OBSCURED

SOUTH
M3-3-36
INTERSTATE
75
M1-1-12-36
M5-1-30
+78, RT

℄ STANLEY AVENUE

SECTION B-B
STA 6+00.00 TO 8+02.00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

22
316

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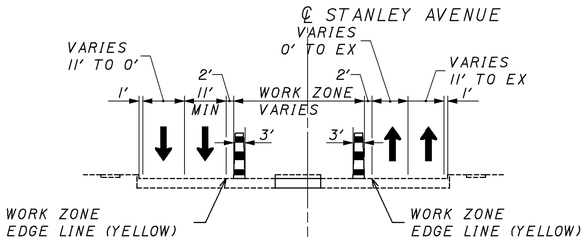
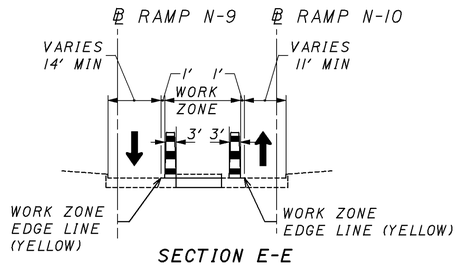
SEE SHEET 21 FOR LEGEND.

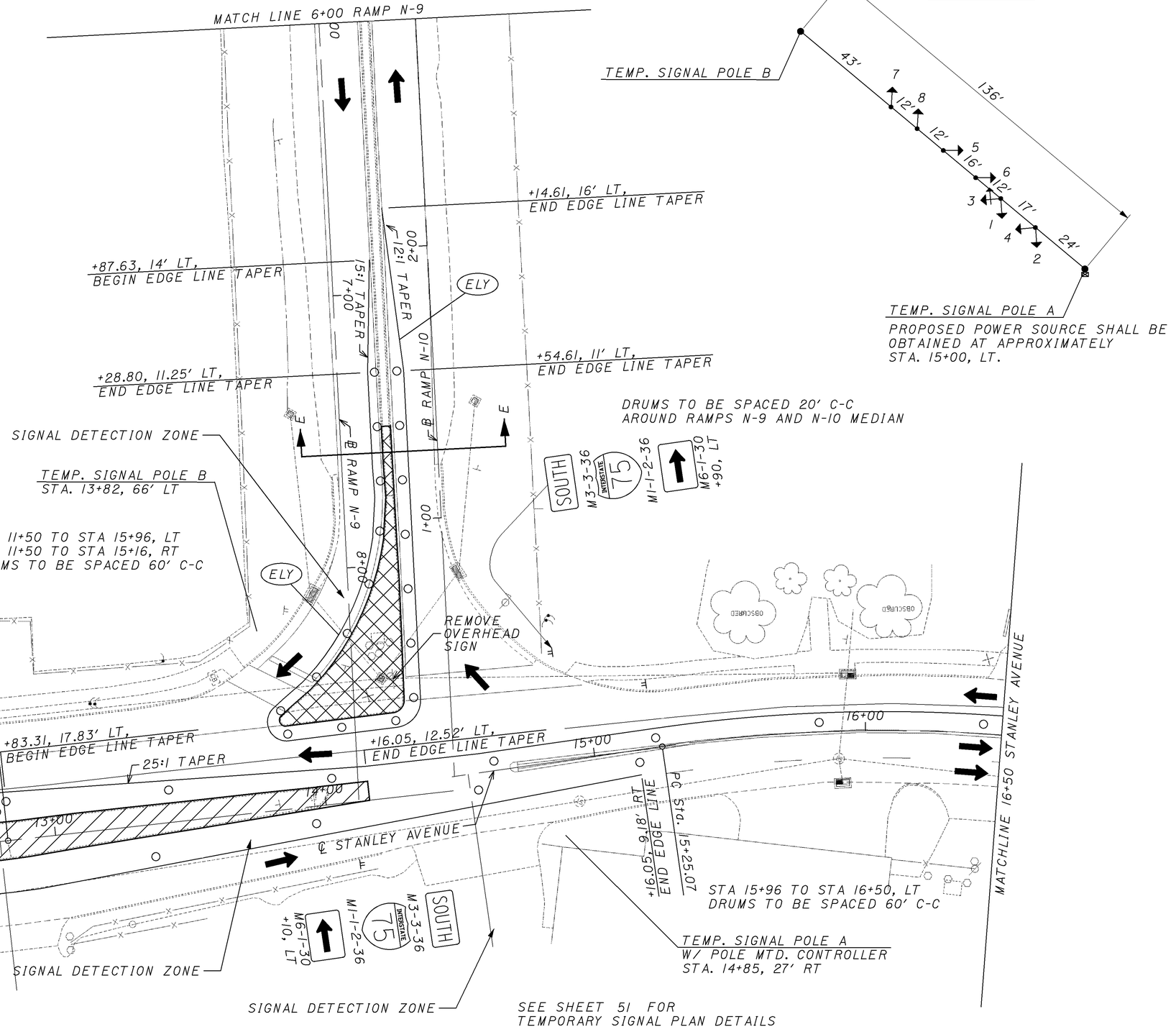
= CONCRETE MEDIAN TO BE REMOVED AND PAVEMENT FOR MAINTAINING TRAFFIC TO BE CONSTRUCTED FOR USE IN PHASE 1B



SECTION D-D
STA 11+50.00 TO 16+50.00



SECTION E-E
STA 7+28.80.00 TO 8+60.00, RAMP N-9
STA 1+54.61 TO 0+24.00, RAMP N-10



PROPOSED POWER SOURCE SHALL BE OBTAINED AT APPROXIMATELY STA. 15+00, LT.

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HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

SECTION F-F
STA 16+50.00 TO 21+00.00

SEE SHEET 21 FOR LEGEND.

HORIZONTAL SCALE IN FEET
0 10 20 40

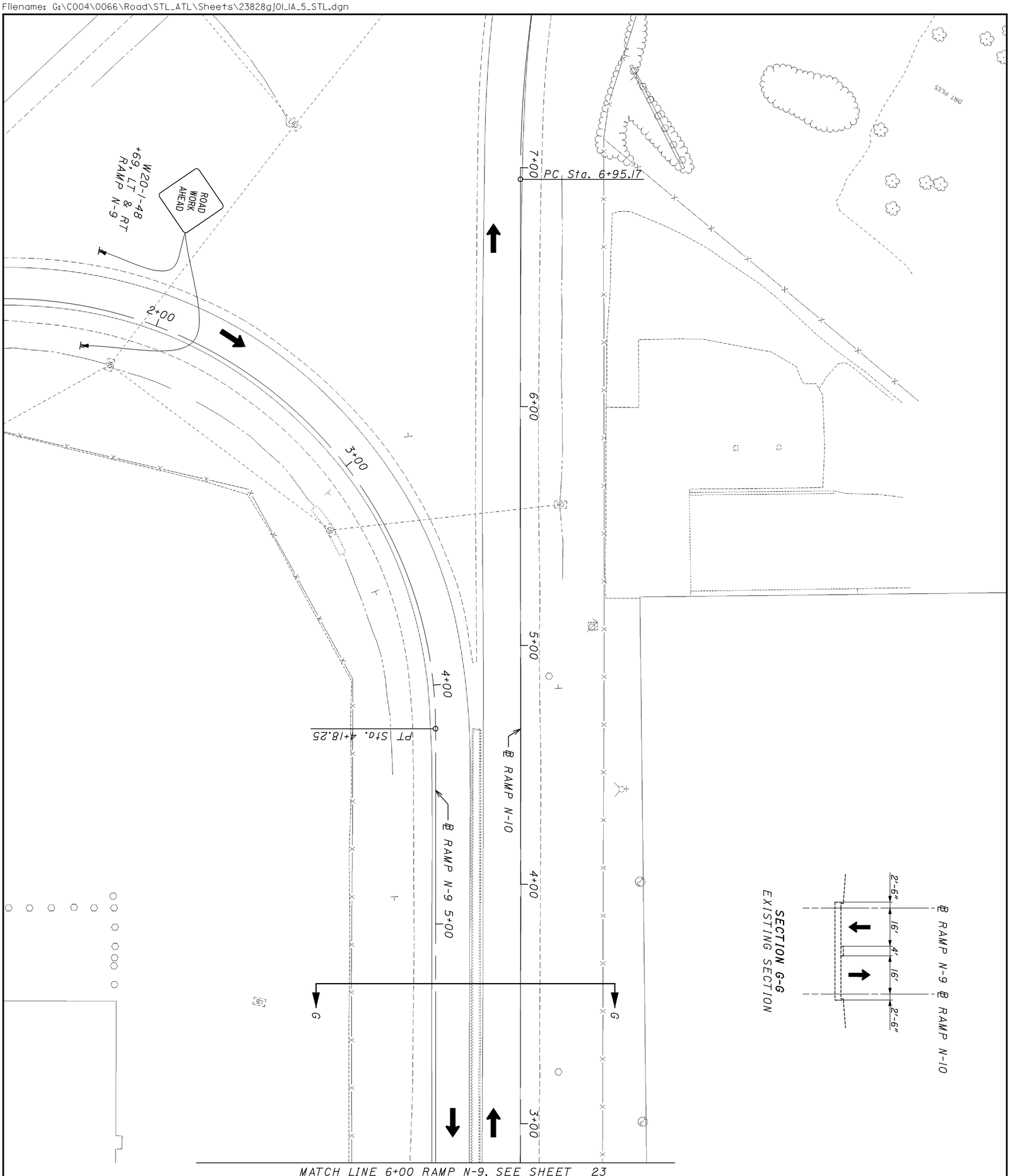
CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:29 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gJOL_IA_4_STL.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:29 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gj01_IA_5_STL.dgn



SECTION G-G
EXISTING SECTION

SEE SHEET 21 FOR LEGEND.

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 1A

CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET

SECTION H-H
STA 429+30.00 TO STA 441+00.00

SEE SHEET 21 FOR LEGEND.

END ROAD WORK
G20-2a-48

1600′

1000′

+30, 1.5′ RT
BEGIN DRUM TAPER

H

℄ CONSTRUCTION IR 75

413+00

430+00

440+00

(IMAGINARY LINE)

TS Sta
440+44.02

DRUMS TO BE SPACED 40′ C-C

26:1 TAPER

MATCH LINE 441+00 IR 75

ROAD WORK AHEAD
W20-1-48

W20-1-48

LEFT LANE CLOSED AHEAD
W20-5L-48
+30, ℄ & RT

W4-2L-48
+30, ℄ & RT

2+00

℄ RAMP N-8

3+00

ADVANCE SIGNING TO BE PROVIDED BY OTHERS (SEE SHEETS 115 AND 125 OF PROJECT MOT-75-13.11). VERIFY INSTALLATION AND INSTALL IF NECESSARY AT THE LOCATION INDICATED.

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:19 PM
Filename: G:\C004\0066\Road\Sheets\23828gJOL_1A_6.dgn

℄ IR 75

VARIES 10′ | 12′ | 12′ | 12′ | 10′ | 10′ | VARIES 12′ TO 2′-11″ | 12′ | 12′ | 10′

3′ 2′

WORK ZONE EDGE LINE (YELLOW)

SECTION I-I

STA 441+50.00 TO STA 446+50.00

MATCH LINE 441+00 IR 75

W1-6R-48

DRUMS TO BE SPACED 40′ C-C

26:1 TAPER

℄ CONSTRUCTION IR 75

442+00

443+00

444+00

445+00

446+00

55:1 TAPER

ELY

+50.00, 10′ RT
END DRUM TAPER
BEGIN EDGE LINE TAPER

(IMAGINARY LINE)

SC Sta. 443+94.02

I

℄ CONSTRUCTION STANLEY AVENUE 7+00

6+00

5+00

SC Sta. 4+82.45

MATCH LINE 446+50 IR 75

SEE SHEET 21 FOR LEGEND.

PC Sta. 4+68.29

PT Sta. 6+83.17

4+00 ℄ RAMP N-8

5+00

6+00

7+00

8+00

4+00

POT Sta. 445+42.43

POT Sta. 8+75.62

℄ RAMP N-7

446+0

DENSE VEGETATION

DENSE VEGETATION

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

27
316

Plotted By: Jfanthony Date: 7/31/2007 Time: 7:43:30 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828g10LIA_7.STL.dgn

DRUMS TO BE SPACED 40' C-C, 446+50.00 TO 452+00.00

SEE SHEET 21 FOR LEGEND.

SECTION J-J
STA 445+50.00 TO STA 451+45.00

J

PT Sta. 448+12.70

℄ RAMP N-6A

448+00

447+00

WORK ZONE IMPACT ATTENUATOR

451+00

16:1 TAPER

MATCH LINE 452+00 IR 75

+14, 3.5' RT BEGIN PCB

+45, 22' RT EDGE LINE END TAPER

+45, 3.5' RT TAPER BEGIN PCB

450+00

449+00

℄ CONSTRUCTION IR 75

448+00

447+00

55:1 TAPER

ELY

MATCH LINE 446+50 IR 75

451+00

450+00

℄ RAMP N-7

449+00

PT Sta. 449+48.50

448+00

447+00

PC Sta. 446+44.72

J

N

HORIZONTAL SCALE IN FEET
0 10 20 40

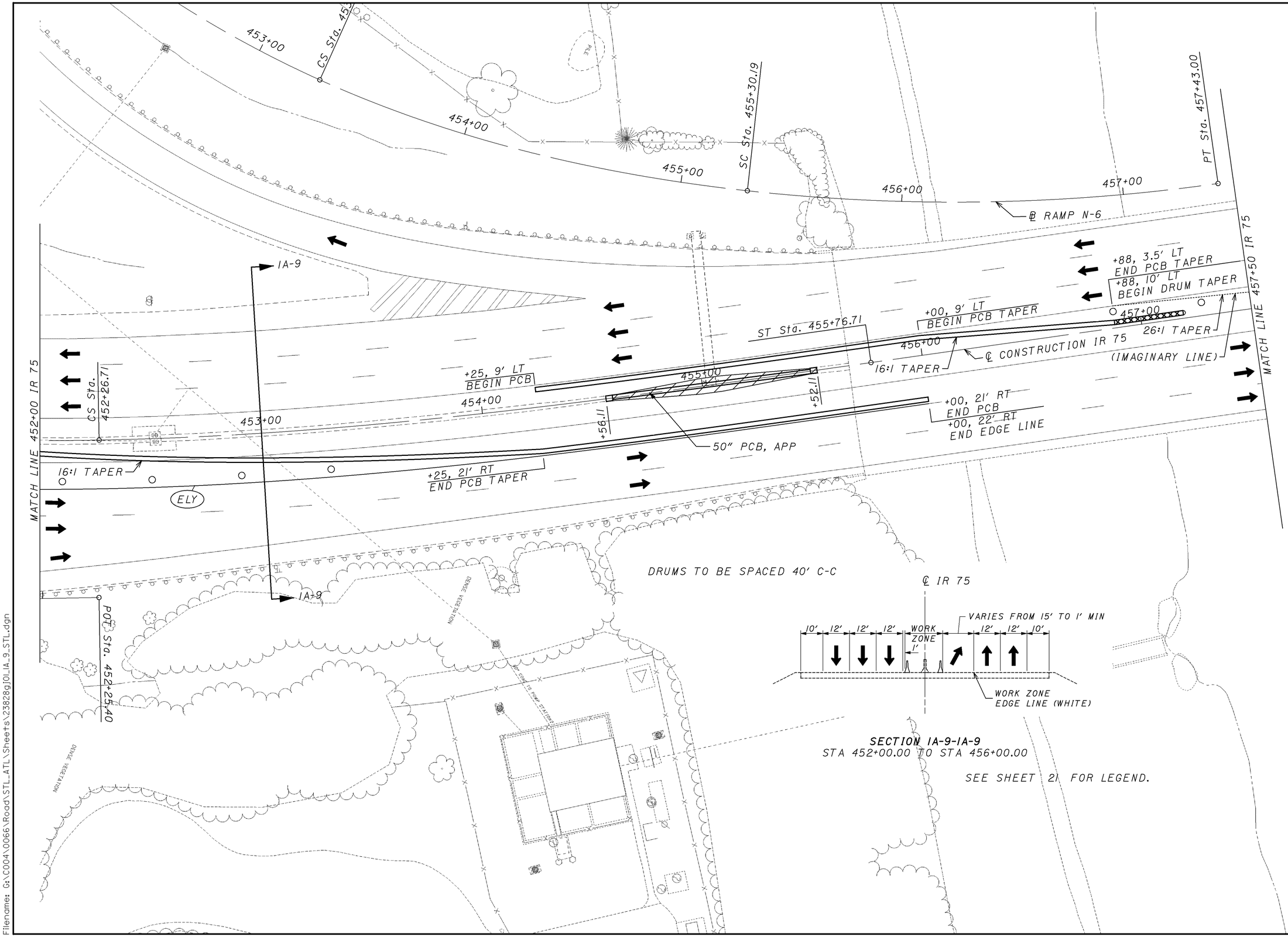
CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

28
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:31AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gJOL_IA_8_STL.dgn



SECTION IA-9-IA-9
STA 452+00.00 TO STA 456+00.00

SEE SHEET 21 FOR LEGEND.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:31 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828g|01A_9_STL.dgn

DRUMS TO BE SPACED 40' C-C

SEE SHEET 21 FOR LEGEND.

MATCH LINE 457+50 IR 75

26:1 TAPER

(IMAGINARY LINE)

458+00

459+00

℄ CONSTRUCTION IR 75

+08, 1.5' LT
END DRUM TAPER

500'

500'

LEFT SHOULDER CLOSED

W21-5BL-48

NEXT 1/10 MILE

W16-4-30

+08, ℄ & LT

00+8

464+00

1500'

LEFT SHOULDER CLOSED

W21-5BL-48

1000 FT

W16-3A-30

+08, ℄ & LT

3+00

469+00

ROAD WORK AHEAD

W20-1-48

+08, ℄ & LT

2+00

3+00

484+00

485+00

+00

+00

LT Sta. 1+80.20

END ROAD WORK

G20-2-48

+08, ℄

DENSE VEGETATION

DENSE VEGETATION

DENSE VEGETATION

HORIZONTAL SCALE IN FEET

0 10 20 40

CALCULATED EAK

CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1A

MOT-75-14.60

29A
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:32 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gj01A_10_STL.dgn

Plotted By: hjfoucher Date: 8/1/2007 Time: 6:55:48 PM
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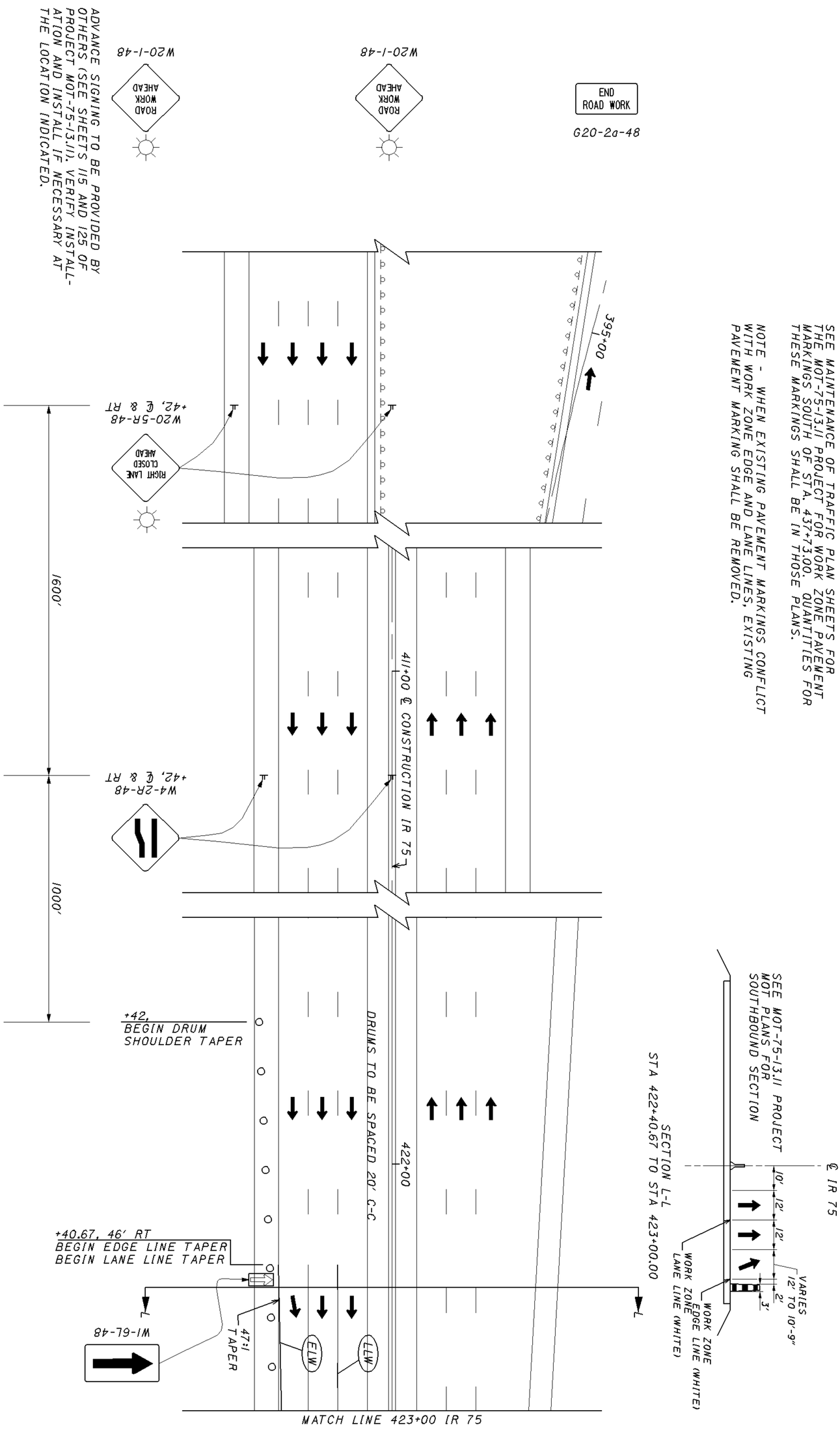


MOT-75-14.60

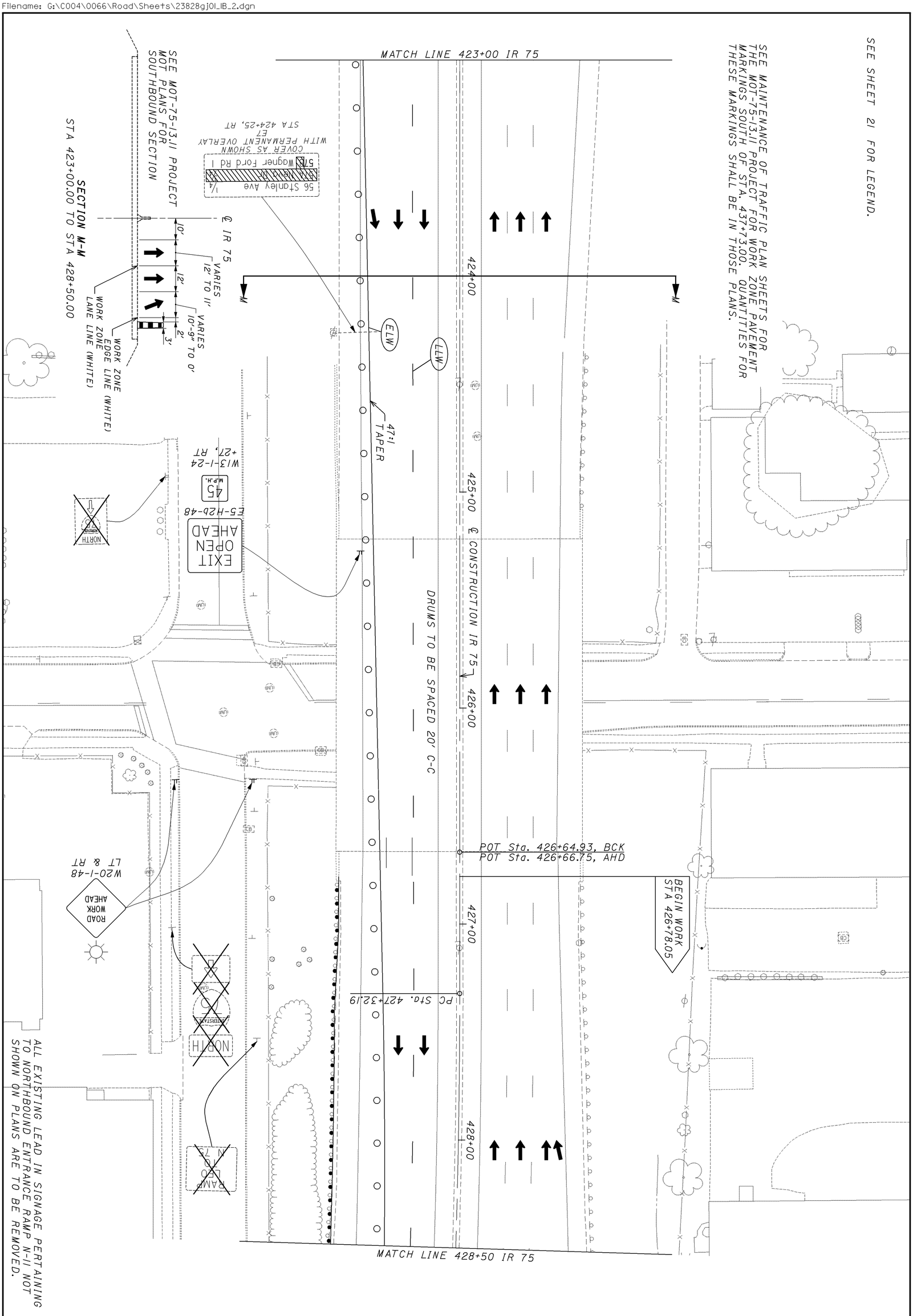
MAINTENANCE OF TRAFFIC - PHASE 1B

CALCULATED EAK
CHECKED AM

HORIZONTAL SCALE IN FEET
0 20
10 40

N

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:21 PM
Filename: G:\C004\0066\Road\Sheets\23828gj01_IB_2.dgn



35 / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 10 40 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:21 PM
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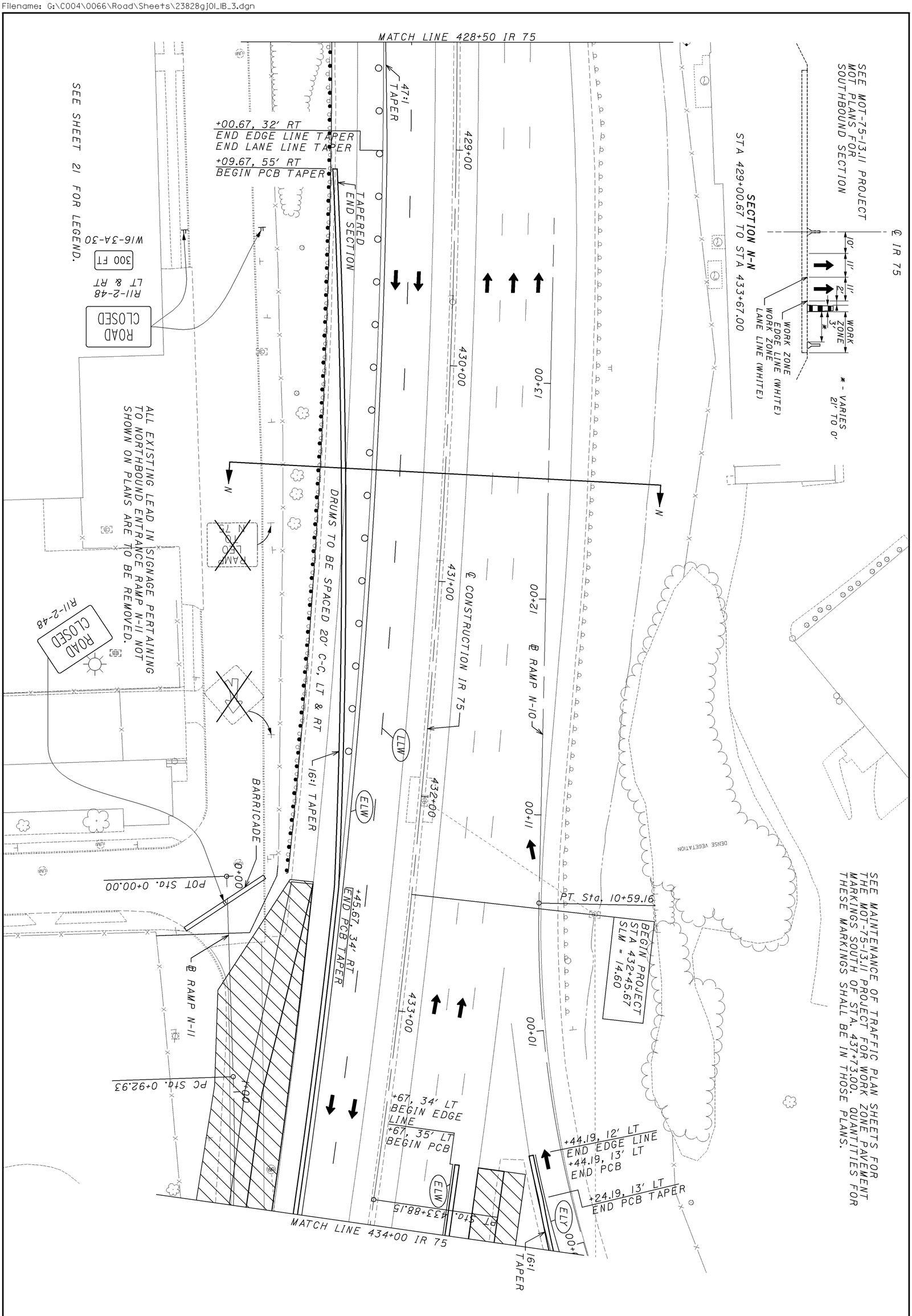


MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 1B

CALCULATED EAK
CHECKED AM

0 20
10 40
HORIZONTAL SCALE IN FEET

N

SEE SHEET 21 FOR LEGEND.

℄ IR 75

WORK ZONE 2′ | 12′ | 1′ | 12′ | 10′ | 10′ | 11′ | 11′ | 2′ WORK ZONE 2′

WORK ZONE EDGE LINE (WHITE)
WORK ZONE LANE LINE (WHITE)

SECTION O-O
STA 434+00.00 TO STA 435+27.28

℄ RAMP N-9

WORK ZONE 1′ | 11′ | 2′-6″

WORK ZONE EDGE LINE (YELLOW)
WORK ZONE EDGE LINE (WHITE)

SECTION N-9
STA 0+00.00 TO STA 1+00.00

MATCH LINE 8+00 RAMP N-10

REPEAT BEGIN PCB 19+28.19 LT

℄ RAMP N-10

ELY

53

WORK ZONE IMPACT ATTENUATOR

16:1 TAPER

0

THIS WORK COMPLETED IN 2 PARTS. SEE SHEET 39 FOR PART 2.

MATCH LINE 2+00 RAMP N-9, SHEET 53

+95.98, 3.29′ RT
END 25° CURVE
BEGIN 30° CURVE

ELW

℄ RAMP N-9

N-9

STANLEY AVENUE

EXIT 56A

EXIT

W20-H9-48

25 M.P.H.

W13-1-24
+14, LT

+00.00, 5.50′ RT
BEGIN 25° CURVE

+25.00, 13.00′ LT
BEGIN EDGE LINE TAPER

+00.00, 7.79′ LT
END EDGE LINE TAPER, BEGIN PCB

00+1

ELY

N-9

PC

00+0

+04.16, 51.5′ LT
BEGIN PCB TAPER

17:1 TAPER

16:1 TAPER

CLW

MATCH LINE 434+00 IR 75

ELW

+14.16, 52.5′ LT
+14.16, 63.5′ LT
BEGIN CHANNELIZING LINE AND EDGE LINE TAPER

℄ CONSTRUCTION IR 75

435+00 | 436+00 | 437+00 | 438+00 | 439+00

MATCH LINE 439+50 IR 75

DRUMS TO BE SPACED 20′ C-C, LT & RT

LLW

DLW

+87.28, 32′ RT
BEGIN CHANNELIZING LINES

CLW

+69.55
BEGIN DRUMS

DRUMS TO BE SPACED 20′ C-C, LT & RT

ELW

+06.65, 34′ RT
END PCB

10.5:1 TAPER (IR 75)

CLW

2+00

0+00

℄ RAMP N-8

1+00

7:1 TAPER (IR 75)

PT Sta. 2+59.45

+27.28, 32′ RT
BEGIN EDGE LINE TAPER

EXIT OPEN
E5-2-48
+24′, RT

PC Sta. 0+00.00

+87.28, 56.63′ RT
BEGIN EDGE LINE TAPER

New Dr

EXIT 57A

1/2 MILE

PT Sta. 1+50.76

W20-H9-48
45 M.P.H.
W13-1-24
+80, RT

EXIT

0

℄ CONSTRUCTION IR 75

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B, PART 1

MOT-75-14.60

37
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:34 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gJOL_IB_4_STL.dgn

℄ RAMP N-10

5+00

4+00

PT Sta. 4+18.25

+18.25, 3.75' RT
+18.25, 14.25' LT
END EDGE LINES

3+00

℄ RAMP N-9

18'

2'

WORK ZONE

2'

WORK ZONE EDGE LINE (YELLOW)

WORK ZONE EDGE LINE (WHITE)

PAVEMENT FOR MAINTAINING TRAFFIC CONSTRUCTED IN PHASE IB PART I

SECTION N-9-2

STA 1+18.00 TO STA 4+18.25

N-9-2

2+00

N-9-2

ELW

℄ RAMP N-9

1+00

+93.73, 12.66' LT
BEGIN PCB

EXIT

W20-H9-48

25 M.P.H.

W13-1-24
+65, LT

ELY

CLW

PC

00+0

+06.80, 34.0' LT
END CHANNELIZING LINE

+06.80, 34.0' LT
BEGIN CHANNELIZING LINE

+53.12, 44' LT
BEGIN 31° CURVE
BEGIN EDGE LINE TAPER

437+00

438+00

439+00

440+00

441+00

℄ CONSTRUCTION IR 75

MATCH LINE 439+50 IR 75

16:1 TAPER

10:1 TAPER

+04.16, 44' LT
BEGIN EDGE LINE TAPER

+04.16, 45' LT
BEGIN PCB TAPER

443+00

ELW

+04.16, 34' LT
END EDGE LINE TAPER

SC Sta. 443+94.02

444+00

445+00

+96.16, 57' LT
END PCB TAPER

TAPERED END SECTION

SEE SHEET 21 FOR LEGEND.

NORTHBOUND TRAFFIC DOES NOT CHANGE BETWEEN PHASE IB PART I AND PART 2. FROM STA 437+06.80 BACK AND STA 445+54.16 AHEAD, PHASE IB PART I AND PART 2 ARE THE SAME.

THIS WORK COMPLETED IN 2 PARTS. SEE SHEET 37 FOR PART I.

DRUMS TO BE SPACED 20' C-C, LT

DLW

ELW

TS Sta. 440+44.02

EXIT OPEN

E5-2-48
+88, LT

MATCH LINE 439+50 IR 75

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B, PART 2

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:23 PM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828g101_IB_4A_STL.dgn

* = VARIES, 1'-9" MIN

℄ IR 75

VARIES 14'-9" TO 11'-5" WORK ZONE

3' 1' * * 12' 12' 10' 10' 11' 11' 2' 3' WORK ZONE

WORK ZONE EDGE LINE (WHITE)

WORK ZONE EDGE LINE (WHITE)

WORK ZONE CHANNELIZING LINE (WHITE)

WORK ZONE EDGE LINE (WHITE)

WORK ZONE LANE LINE (WHITE)

SECTION P-P
STA 439+50.00 TO STA 442+34.16

SEE SHEET 21 FOR LEGEND.

P

DRUMS TO BE SPACED 20' C-C, LT & RT

17:1 TAPER

ELW

16:1 TAPER

+39.94, 35' & 41' LT
END PCB TAPER

TS Sta. 440+44.02

WORK ZONE IMPACT ATTENUATOR

℄ CONSTRUCTION IR 75

CLW

+34.16, 34' LT
END CHANNELIZING LINE TAPER

DLW

SC Sta. 443+94.02

MATCH LINE 439+50 IR 75

440+00 441+00 442+00 443+00 444+00

MATCH LINE 445+00 IR 75

+47.36, 32' RT
END CHANNELIZING LINE
BEGIN EDGE LINE

LLW

ELW

CLW

P

2+00 3+00 4+00 5+00 6+00 7+00

CLW

7:1 TAPER (IR 75)

+47.36, 69.22' RT, IR 75
END CHANNELIZING LINE TAPER

PC Sta. 4+68.29

PT Sta. 6+83.17

℄ RAMP N-8

DENSE VEGETATION

DENSE VEGETATION

T

END ROAD WORK G20-2a-48

+28.82' RT

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EAK

CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B, PART 1

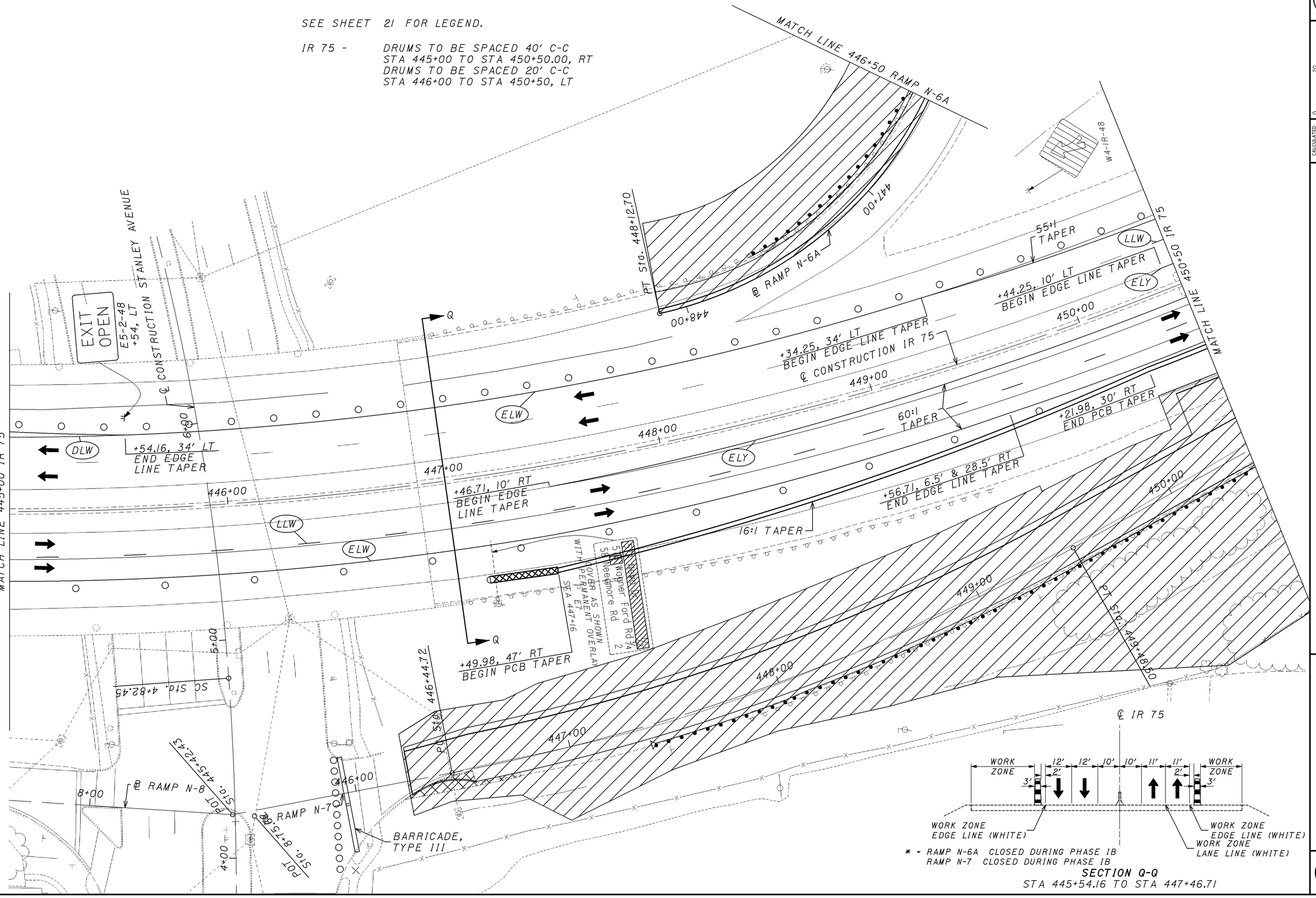
MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:23 PM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gj01_IB_5_STL.dgn

SEE SHEETS 47 - 52 FOR STANLEY AVENUE MOT DURING PHASE IB.

SEE SHEET 21 FOR LEGEND.

IR 75 - DRUMS TO BE SPACED 40' C-C
STA 445+00 TO STA 450+50.00, RT
DRUMS TO BE SPACED 20' C-C
STA 446+00 TO STA 450+50, LT



* - RAMP N-6A CLOSED DURING PHASE IB
RAMP N-7 CLOSED DURING PHASE IB

SECTION Q-Q
STA 445+54.16 TO STA 447+46.71

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:36 AM
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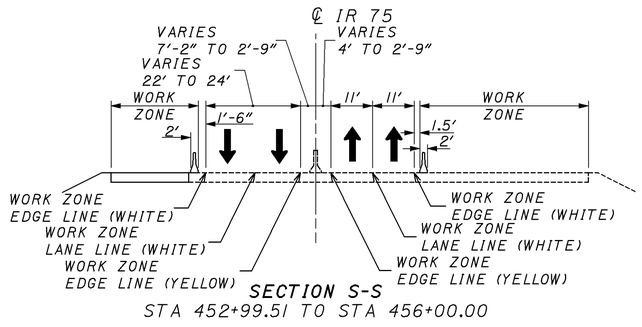

SECTION S-S

STA 452+99.51 TO STA 456+00.00

DRUMS TO BE SPACED 20' C-C

SEE SHEET 21 FOR LEGEND.

HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:37 AM
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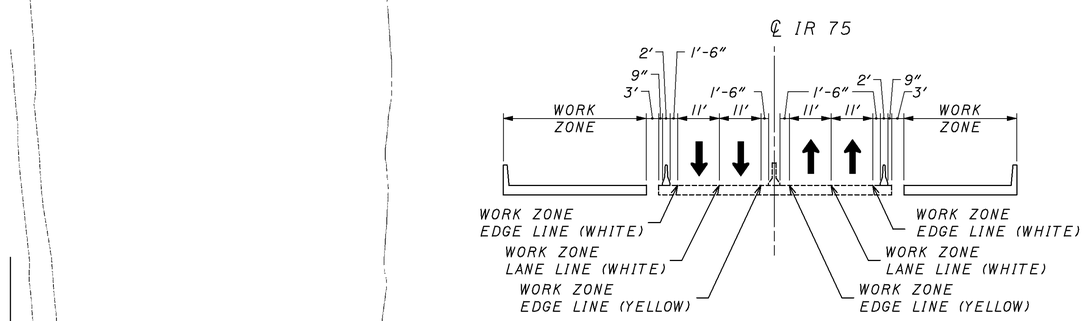

SECTION U-U
STA 456+00.00 TO STA 461+50.00

SEE SHEET 21 FOR LEGEND.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:38 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gj01_IB_8_STL.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:38 AM
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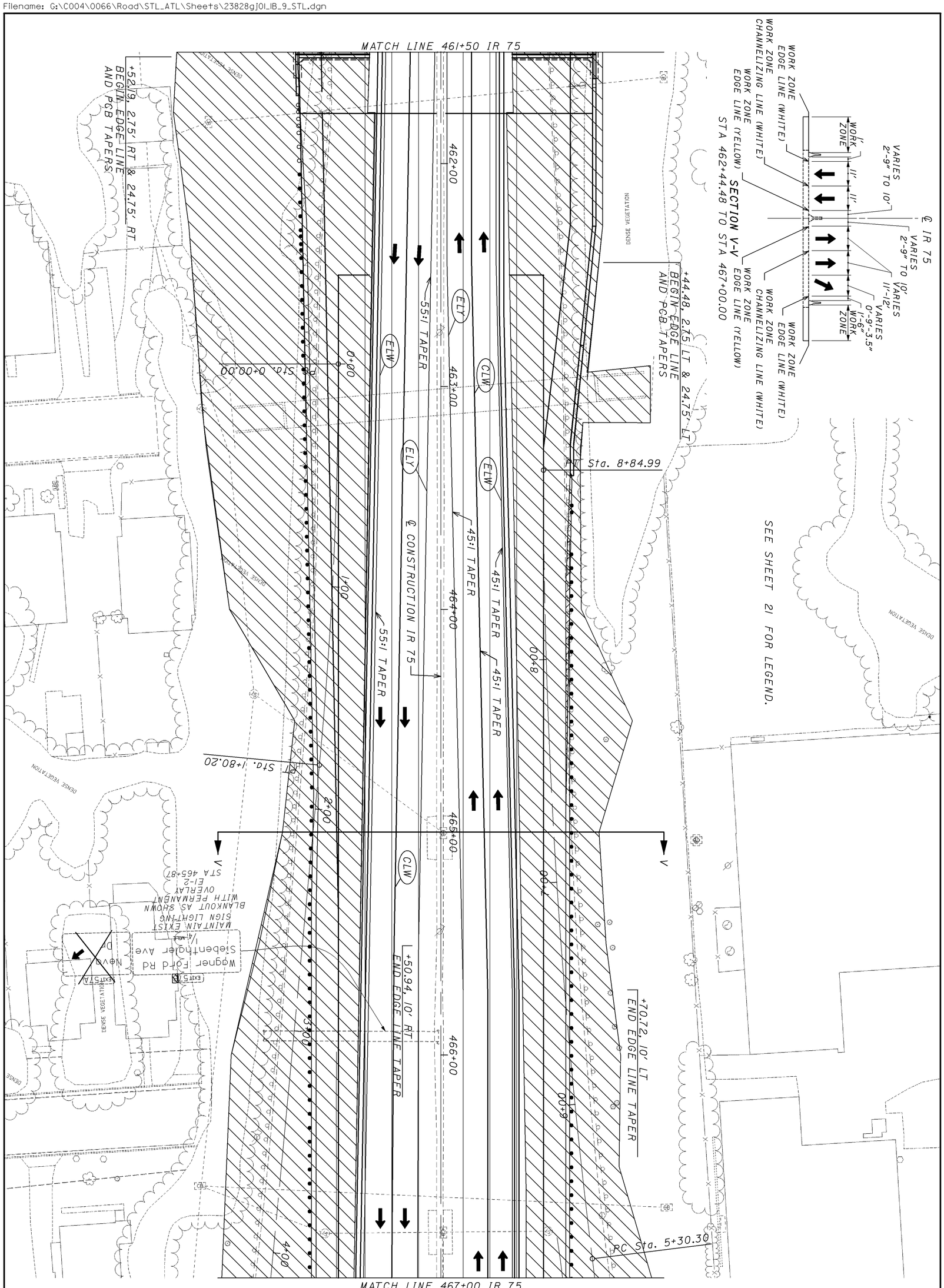

43 / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET	N

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:40 AM
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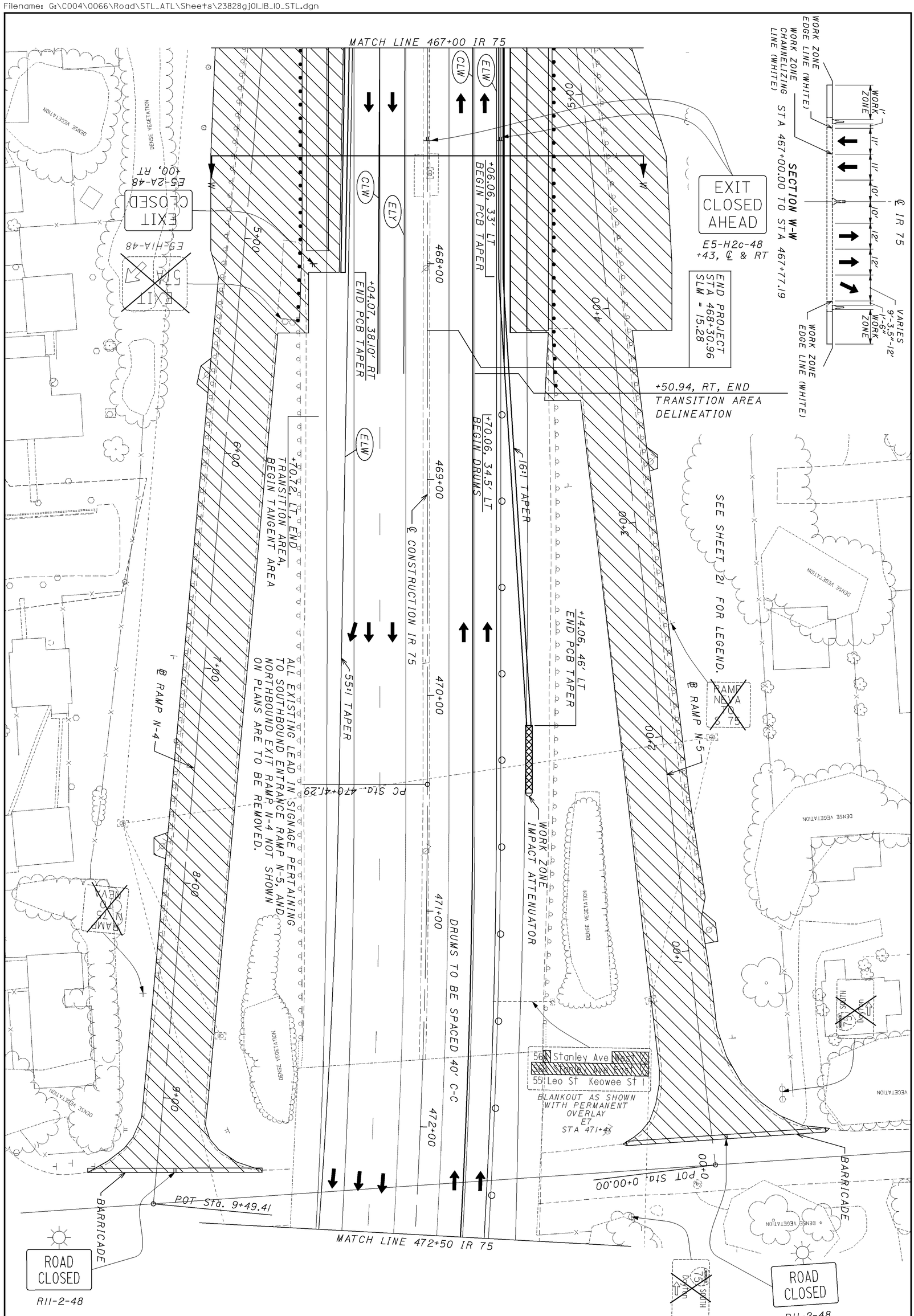


44 / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 1B	CALCULATED EAK / CHECKED AM	HORIZONTAL SCALE IN FEET (0, 20, 10, 40)

SEE SHEET 21 FOR LEGEND.
DRUMS TO BE SPACED 40' C-C
DRUMS TO BE SPACED 20' C-C, RAMP N-3

END WORK
STA 472+68.08

PT Sta. 14+27.3
+49.06, 32' LT (IR 75)
+03.41, 14.71' LT (N-3)
BEGIN EDGE
LINE TAPER

MATCH LINE 472+50 IR 75

14+00 13+00 12+00 11+00 10+00

ELW
CLW
DLW

46:1 TAPER
(RAMP N-3)

473+00 474+00 475+00 476+00 477+00

℄ CONSTRUCTION IR 75

+20.94, 46' RT
END EDGE
LINE TAPER

MATCH LINE 478+00 IR 75

DENSE VEGETAT

MAINLINE GUIDE SIGN CHANGES SHALL BE PERFORMED PRIOR TO PHASE IB.

+26, LT, END
TANGENT AREA DELINEATION,
BEGIN TRANSITION AREA
DELINEATION

PC Sta. 7+16.76

(IMAGINARY LINE)

23:1 TAPER

+00, 14' LT
END CHANNELIZING
LINE TAPER

9+00 8+00 7+00 6+00 5+00 4+00

46:1 TAPER
(RAMP N-3)

+32.94, 0.21' LT
END EDGE LINE TAPER
BEGIN DRUM TAPER

+09.45, 10' RT
END DRUM TAPER

17.5:1 TAPER

MATCH LINE 478+00 IR 75

+26, 32' LT
BEGIN CHANELLIZING
LINE TAPER

+26, 32' LT
BEGIN EDGE LINE TAPER

150:1 TAPER

MATCH LINE 483+50 IR 75

479+00 480+00 481+00 482+00 483+00

END
ROAD WORK
G20-2-48
+21, ℄ & RT

Wagner Ford Rd
Siebelthaler Ave

BLANKOUT AS SHOWN
WITH PERMANENT
OVERLAY
STA 481+50±, RT

BLANKOUT AS SHOWN
WITH PERMANENT
OVERLAY
STA 483+50±, RT

EXIT
57

MAINTENANCE OF TRAFFIC - PHASE 1B

CALCULATED EAK
CHECKED AM

HORIZONTAL SCALE IN FEET
0 10 20 40

MOT-75-14.60

45
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:40 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828g101B_1L_STL.dgn

(IMAGINARY LINE)
37.5: TAPER
+75, 6' RT
END DRUM TAPER
PC
PT
3+12.99
3+00
2+00
1+00
ROAD WORK AHEAD
W20-1-48
+14, RT
+26, LT, END
TRANSITION AREA
DELINEATION
MATCH LINE 483+50 IR 75
+26, 34' LT
END EDGE LINE TAPER
55:1 TAPER
484+00
485+00
486+00
+56, 34' LT
BEGIN EDGE LINE TAPER
487+00
488+00
MAINLINE GUIDE SIGN CHANGES SHALL BE PERFORMED PRIOR TO PHASE IB.
DRUMS TO BE SPACED 40' C-C.
+16, 46' LT
END EDGE LINE TAPER
BEGIN DRUM TAPER
W1-6L-48
(IMAGINARY LINE)
22:1 TAPER
55:1 TAPER
+36, 56' LT
END DRUM TAPER
495+00
496+00
506+00
522+00
548+00
W4-2L-48
+36, ℄ & RT
LEFT LANE CLOSED AHEAD
W20-5L-48
+36, ℄ & RT
ROAD WORK AHEAD
W20-1-48
+36, ℄ & RT
1000'
1600'
2600'
Exit 57
Neff Rd
Wagner Ford Rd
Siebenthaler Ave
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±
Exit 56
Stanley Ave
1 MILE
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±

N

HORIZONTAL SCALE IN FEET
0 10 20 40

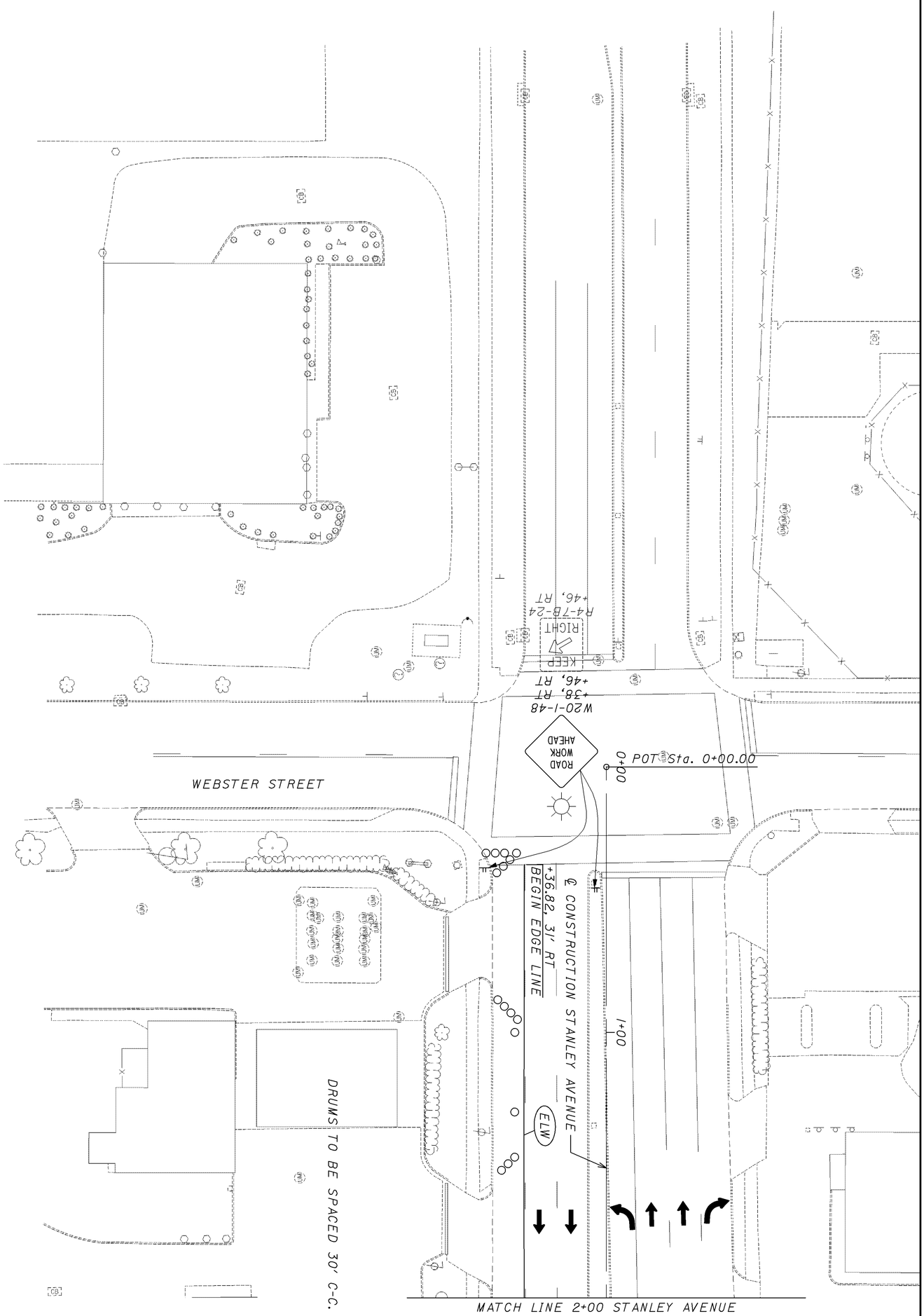
CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:41 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gJOL_IB_lla_STL.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:41 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gj01_IB_I2_STL.dgn



SEE SHEET 21 FOR LEGEND.

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:42 AM
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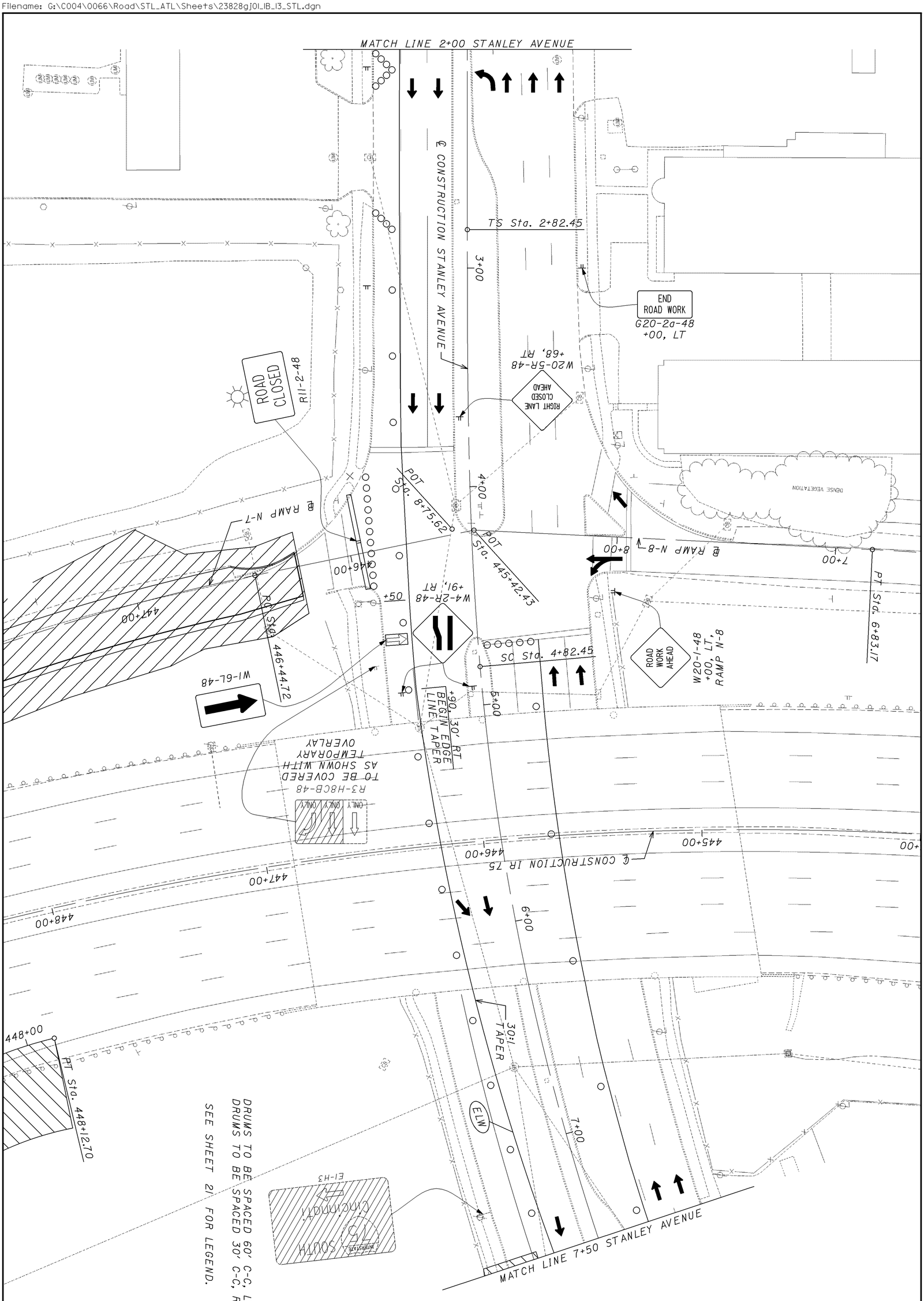
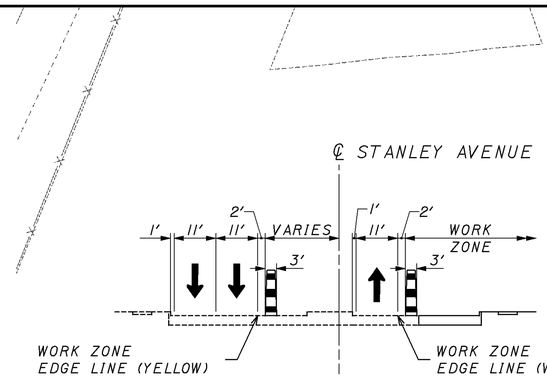


316 / 48	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE IB	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET



SECTION X-X
STA 8+20.00 TO 9+09.00

STA 8+02 TO STA 12+45, LT
STA 7+00 TO STA 11+30, RT
DRUMS TO BE SPACED 60' C-C
STA 12+45 TO STA 13+00, LT
STA 11+50 TO STA 13.00, RT
DRUMS TO BE SPACED 30' C-C

+43' LT MAINTAIN 25' OFFSET MINIMUM EDGELINE FROM RAISED MEDIAN TO

+27', 20.48' LT BEGIN EDGE LINE TAPER

CS Sta. 10+82.45

ST Sta. 12+82.45

20:1 TAPER

12+00

11+00

10+00

9+00

8+00

14:1 TAPER

CLW

ELY

ELW

DL

℄ STANLEY AVENUE

MATCH LINE 13+00 STANLEY AVENUE

MATCH LINE 7+50 STANLEY AVENUE

+20, 19' RT END EDGE LINE TAPER

℄ RAMP N-6A

℄ RAMP N-6

447+00

447+00

+30, 19' RT BEGIN EDGE LINE TAPER

+80, 8.25' RT BEGIN DOTTED LINE TAPER

+50, 8.25' RT BEGIN EDGE LINE

+00, 31' RT END EDGE LINE TAPER

+33.86, 19.25' RT CHANNELIZING LINE TAPER BEGIN DOTTED LINE END DOTTED LINE

MATCH LINE 447+00 RAMP N-6

OBSCURED

X

X

SEE SHEET 21 FOR LEGEND.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED E.AK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:43 AM
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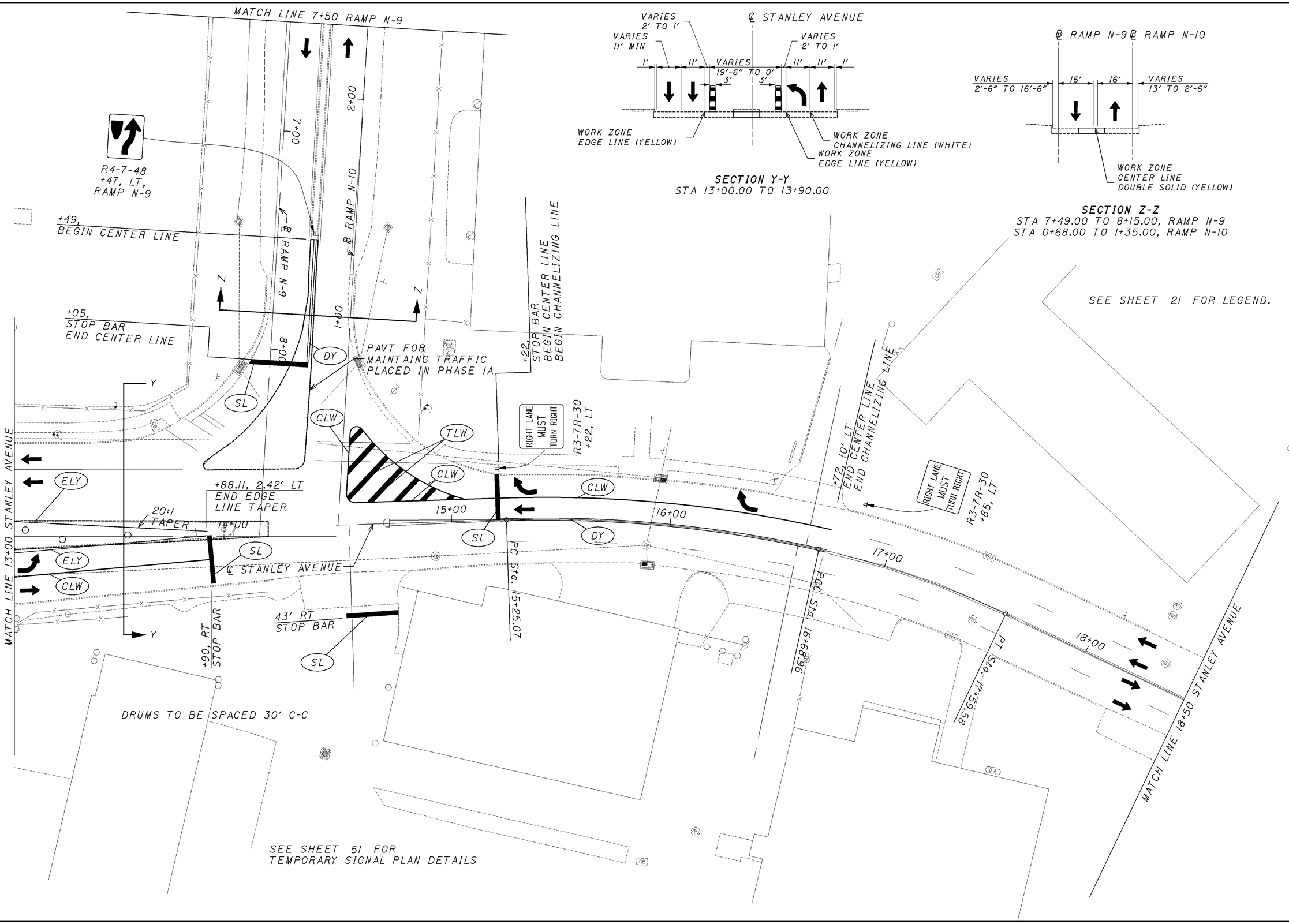

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:43 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828g101_IB_I5_STL.dgn

CALCULATED SSS
CHECKED HJF

MAINTENANCE OF TRAFFIC - PHASE IB

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:44 AM
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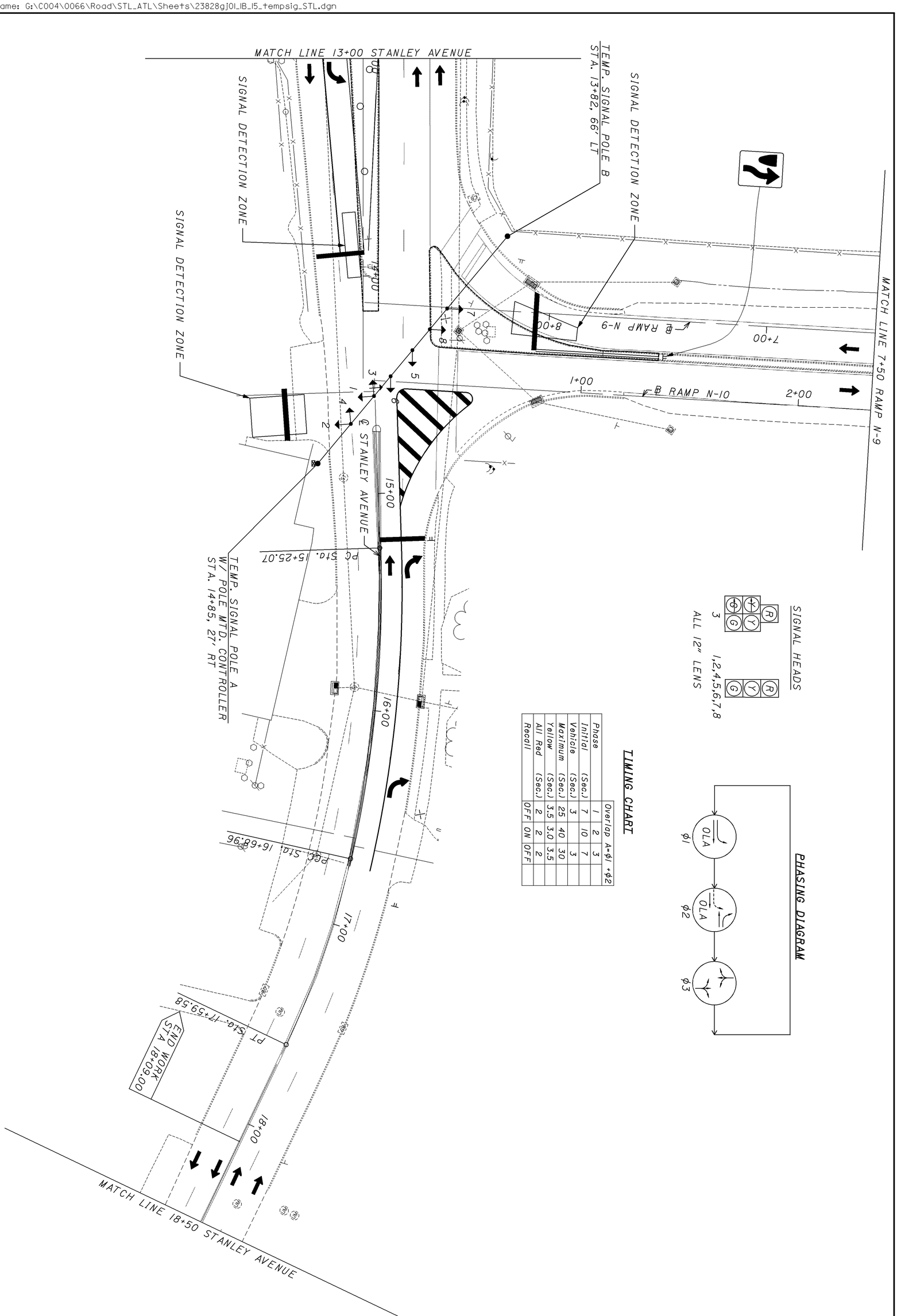

Phase				Overlap A=ϕ1 +ϕ2
		1	2	3
Initial	(Sec.)	7	10	7
Vehicle	(Sec.)	3		3
Maximum	(Sec.)	25	40	30
Yellow	(Sec.)	3.5	3.0	3.5
All Red	(Sec.)	2	2	2
Recall		OFF	ON	OFF

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE IB - TEMPORARY SIGNAL PLAN

CALCULATED SSS
CHECKED HJF

0 20
10 40
HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:44 AM
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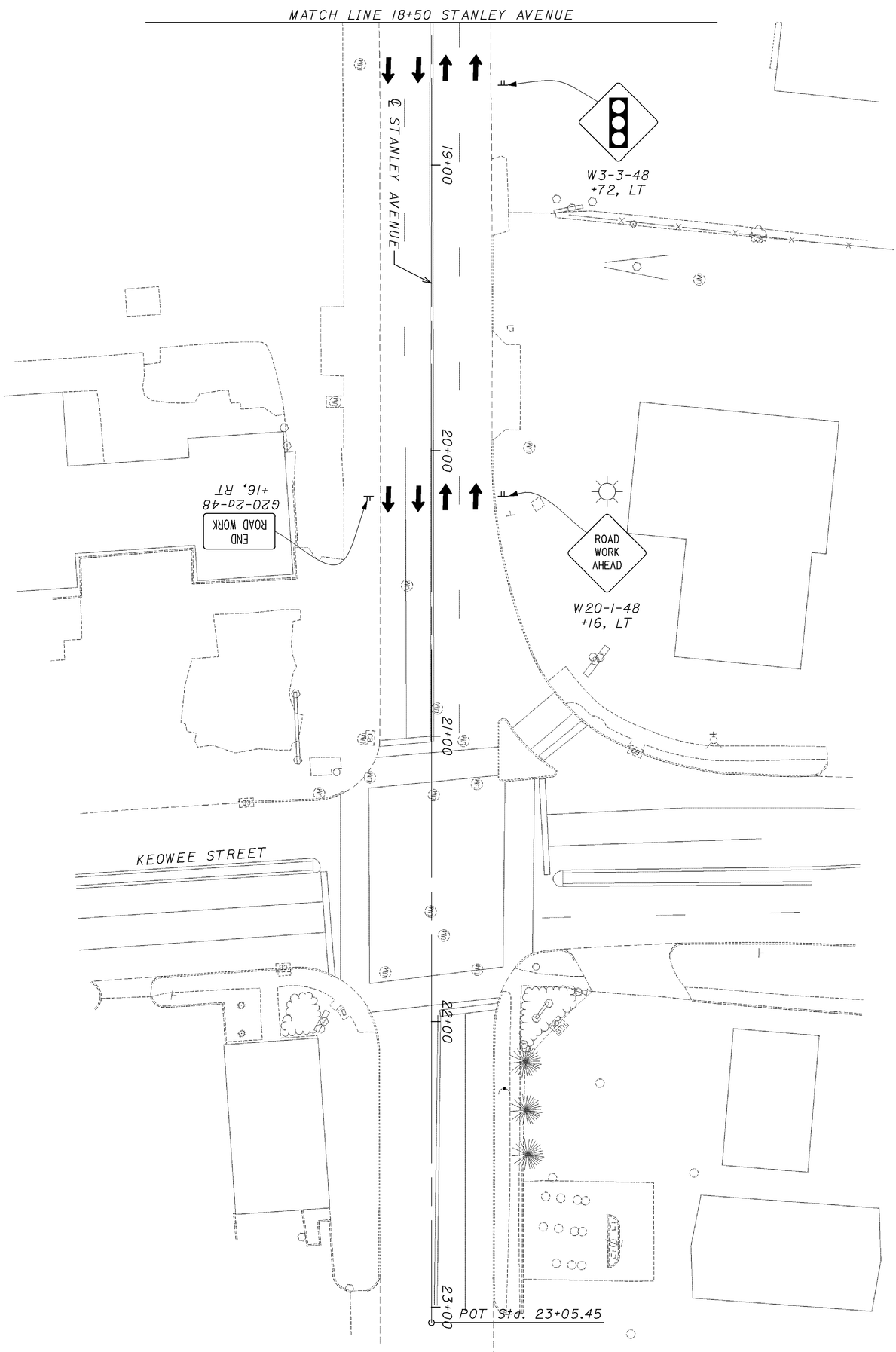

SEE SHEET 21 FOR LEGEND.

SEE SHEET 21 FOR LEGEND.

N-10

MATCH LINE 8+00 RAMP N-10

WORK ZONE IMPACT ATTENUATOR

N-10

PC Sta. 6+95.17

+99.19, 12' LT END EDGE LINE TAPER

DRUMS TO BE SPACED 40' C-C.

+18.25, 11' LT END EDGE LINE

+19.19, 16' LT BEGIN EDGE LINE TAPER

ROAD WORK AHEAD

W20-1-48 +00, LT & RT RAMP N-10

7+00 | 6+00 | 5+00 | 4+00 | 3+00

ELY

45:1 TAPER

4+00 | 5+00 | 6+00

MATCH LINE 7+50 RAMP N-9, SEE SHEET 53

PT Sta. 4+18.25

3+00

W3-3-48 +65, RT

W13-1-24

W1-1R-36

MATCH LINE 2+00 RAMP N-9 31

℄ RAMP N-10

VARIES 16'-0" TO 12'-0"

WORK ZONE

3'

WORK ZONE EDGE LINE (YELLOW)

EXISTING EDGE LINE (WHITE)

SECTION N-10

STA 4+19.19 TO STA 8+00.00

HORIZONTAL SCALE IN FEET

0 10 20 40

CALCULATED EAK

CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 1B

MOT-75-14.60

53
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:45 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828g101_IB_I7_STL.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:45 AM
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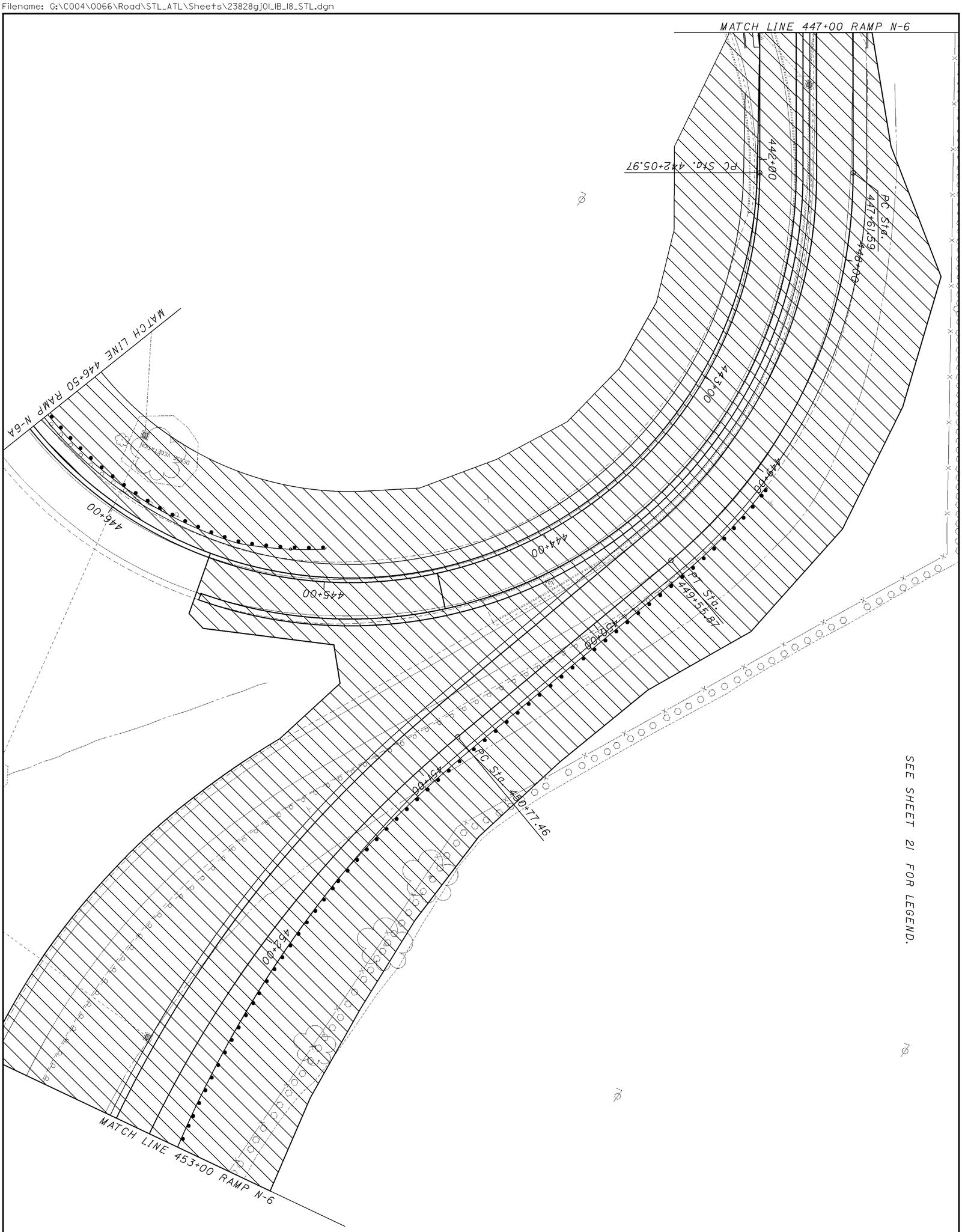

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 1B

CALCULATED EAK
CHECKED AM

0 20
10 40
HORIZONTAL SCALE IN FEET

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

ADVANCE SIGNING TO BE PROVIDED BY OTHERS (SEE SHEETS 115 AND 125 OF PROJECT MOT-75-13.11). VERIFY INSTALLATION AND INSTALL IF NECESSARY AT THE LOCATION INDICATED.

SEE SHEET 21 FOR LEGEND.

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EAK CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:24 PM
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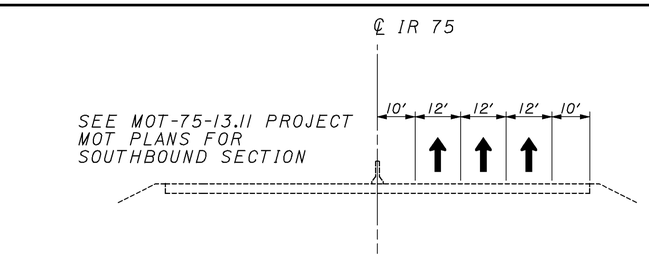


SEE MOT-75-13.11 PROJECT MOT PLANS FOR SOUTHBOUND SECTION

SECTION AA-AA
STA 427+22.19 TO STA 428+00.00

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

LEO STREET

BEGIN WORK
STA 426+78.05

AA

POT Sta. 426+64.93, BCK
POT Sta. 426+66.75, AHD

423+00 424+00 425+00 ℄ CONSTRUCTION IR 75 426+00 427+00

PC Sta. 427+32.19

MATCH LINE 422+50 IR 75

MATCH LINE 428+00 IR 75

W4-2L-48
+88, ℄ & RT

HILLROSE AVENUE

1600'

SEE SHEET 21 FOR LEGEND.

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:25 PM
Filename: G:\C004\0066\Road\Sheets\23828g101_2_1.dgn

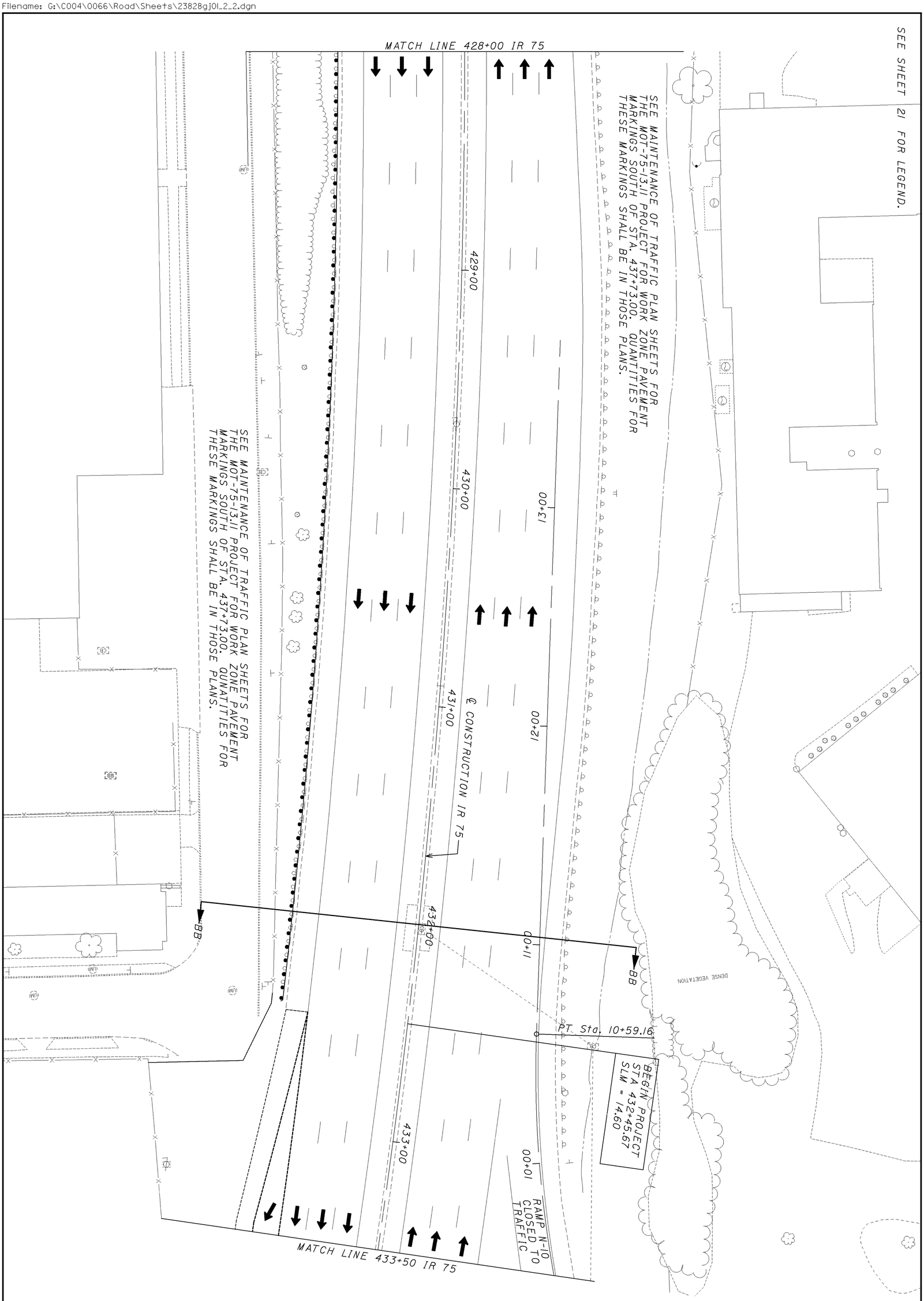
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:25 PM
Filename: G:\C004\0066\Road\Sheets\23828gj01_2_2.dgn



57 / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

SEE SHEET 21 FOR LEGEND.

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

MATCH LINE 7+00 RAMP N-10

MATCH LINE 2+50 RAMP N-9

℄ IR 75 VARIES 12′ TO 6′-8″

WORK ZONE 1.5′ 12′ 12′ 12′ VAR. 10′ 12′ 12′ 12′ 10′ 2′ 2′ 3′

WORK ZONE EDGE LINE (WHITE)
WORK ZONE CHANNELIZING LINE (WHITE)
WORK ZONE EDGE LINE (YELLOW)

SECTION CC-CC
STA 433+88.15 TO STA 439+00.00

EXIT CLOSED
E5-2A-48
+25, LT

W1-6R-48

℄ RAMP N-10

℄ RAMP N-9

℄ RAMP N-8

CC

00+8
00+6
00+4
00+0
1+00

EXIT 56A STANLEY AVENUE EAST

EXIT 55 KEOWEE ST LEO ST 1/4 MILE EI-H1

EXIT 54C WEBSTER ST

EXIT ONLY EI-2

CHILDREN'S MEDICAL CENTER NEXT LEFT

ELW
CLW
ELY

MATCH LINE 433+50 IR 75

MATCH LINE 439+00 IR 75

PT STA. 433+81.5

+67.00, 48.6′ LT,
BEGIN PCB

+73, 10′, 22′, 34′ & 46′ LT
BEGIN WORK ZONE PAVT
MARKING TAPERS

℄ CONSTRUCTION IR 75

434+00
435+00
436+00
437+00
438+00

+88.31, ℄
BEGIN DRUM TAPER

IMAGINARY LINE

22:1 TAPER

+08.31, 10′ RT
END DRUM TAPER
BEGIN EDGE LINE &
DRUM TAPER

55:1 TAPER

0+00

PC STA. 0+00.00

DRUMS TO BE PLACED 40′ C-C, RT

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR THE MOT-75-13.11 PROJECT FOR WORK ZONE PAVEMENT MARKINGS SOUTH OF STA. 437+73.00. QUANTITIES FOR THESE MARKINGS SHALL BE IN THOSE PLANS.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:26 PM
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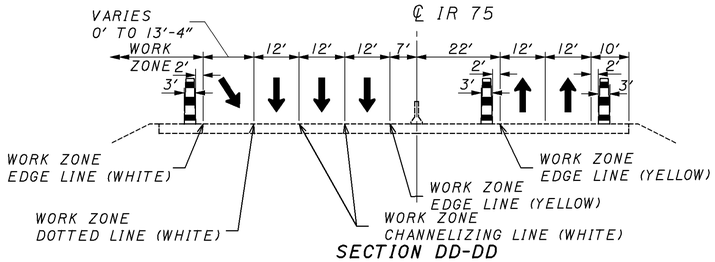
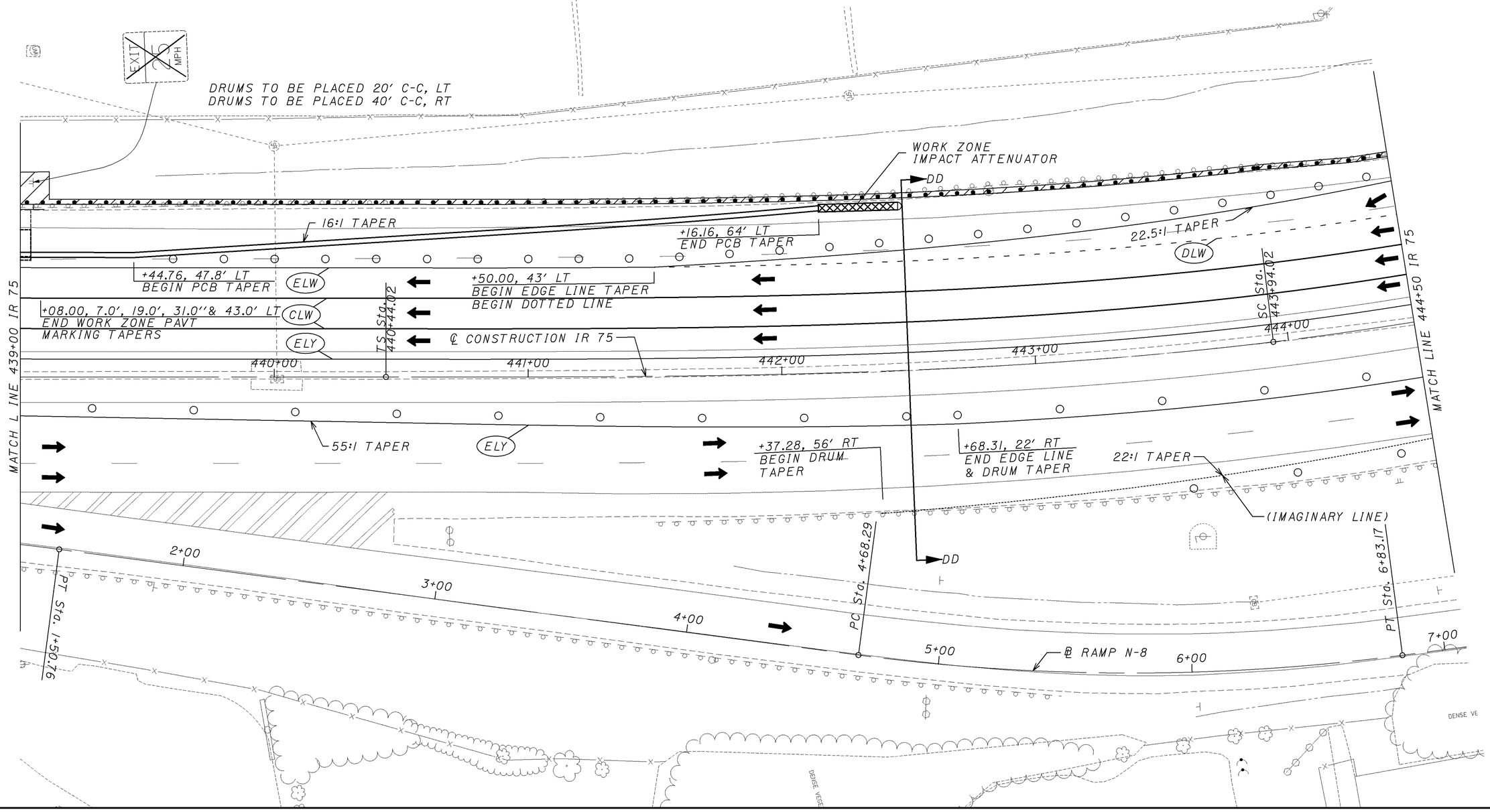
SEE SHEET 21 FOR LEGEND.



SECTION DD-DD
STA 441+50.00 TO STA 444+50.00



N

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:26 PM
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Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:49 AM
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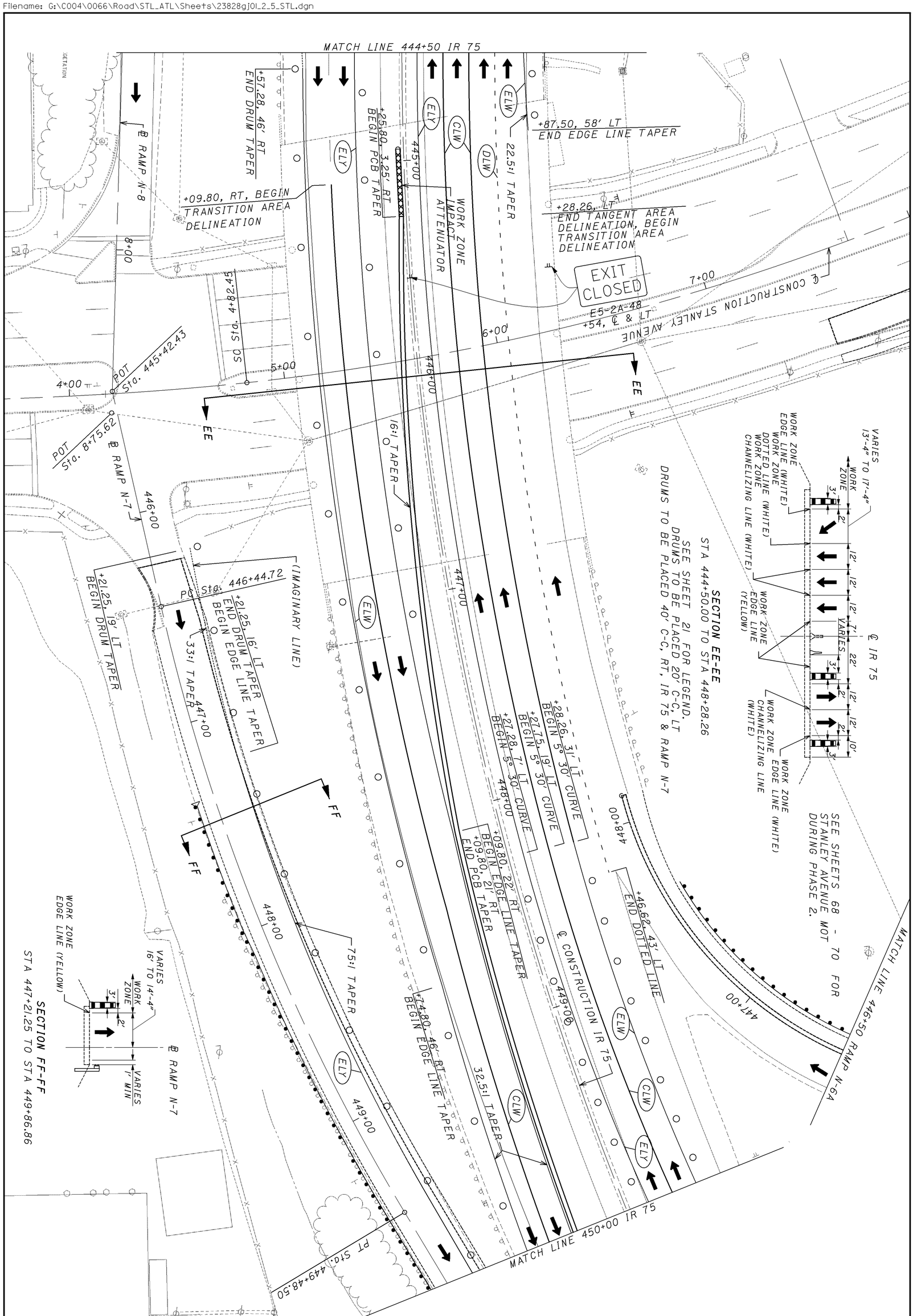
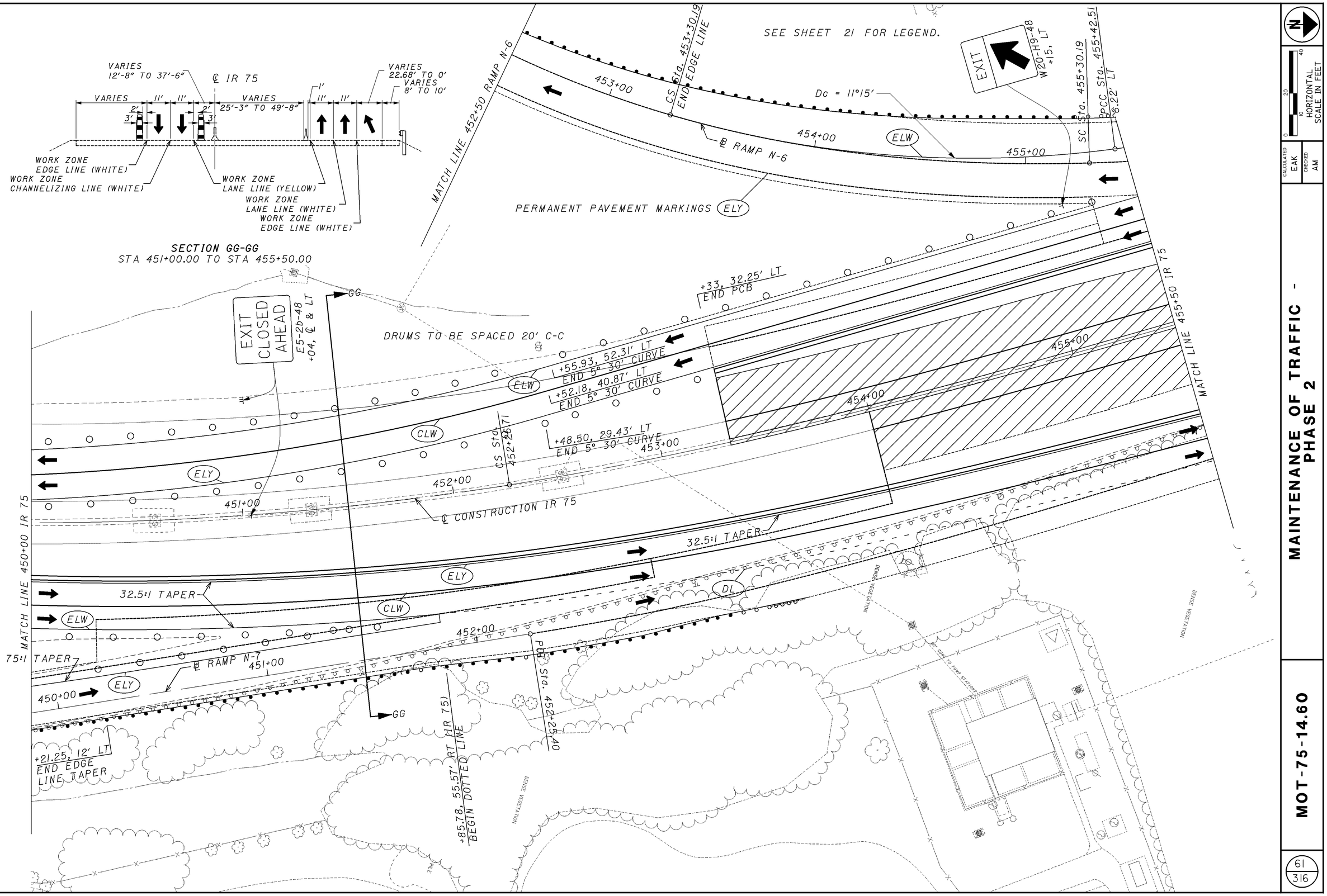


MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 2

CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:50 AM
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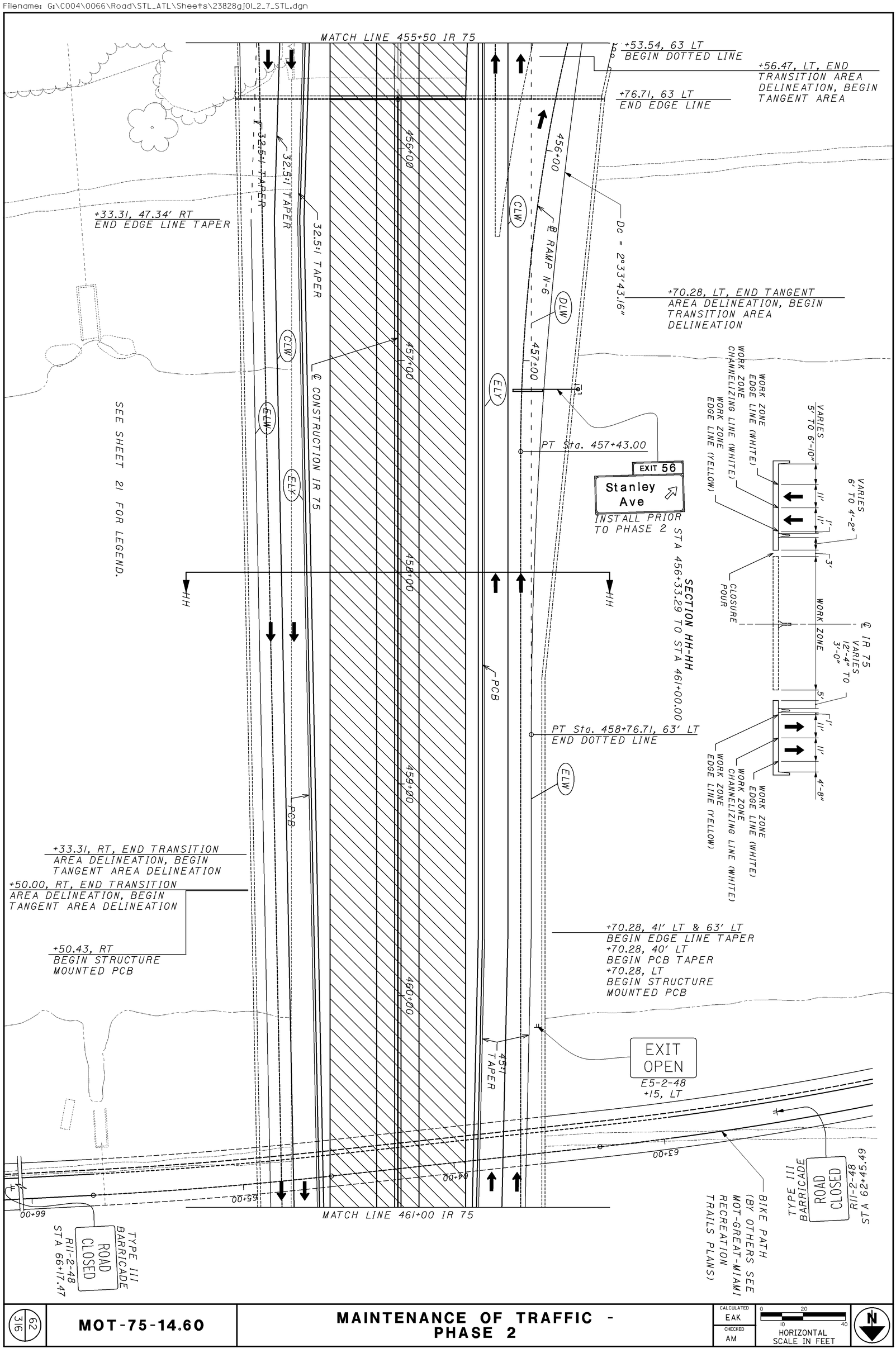


MOT-75-14.60

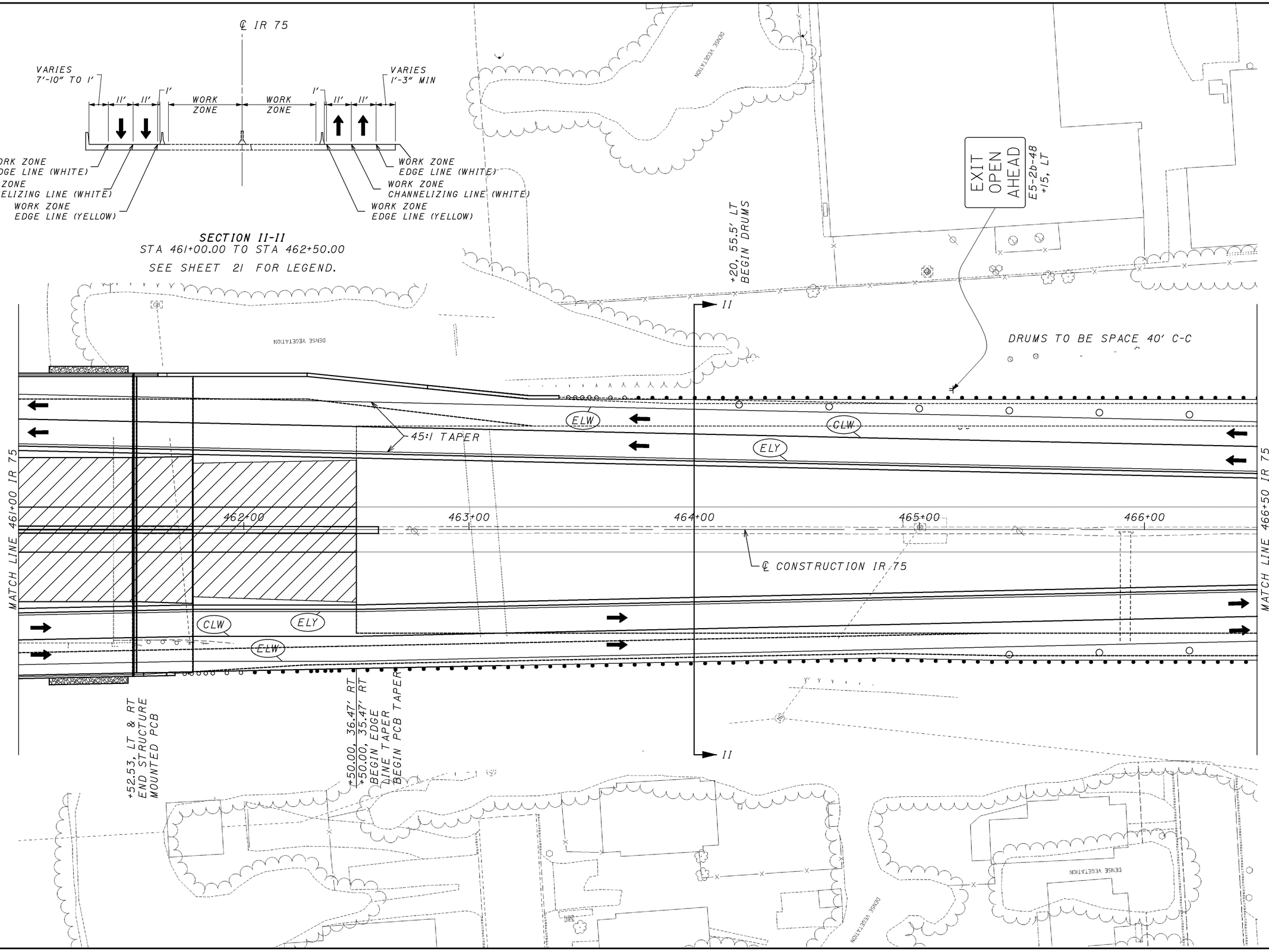
MAINTENANCE OF TRAFFIC - PHASE 2

CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET

SECTION II-II
STA 461+00.00 TO STA 462+50.00

SEE SHEET 21 FOR LEGEND.



N

HORIZONTAL SCALE IN FEET
0 10 20 40

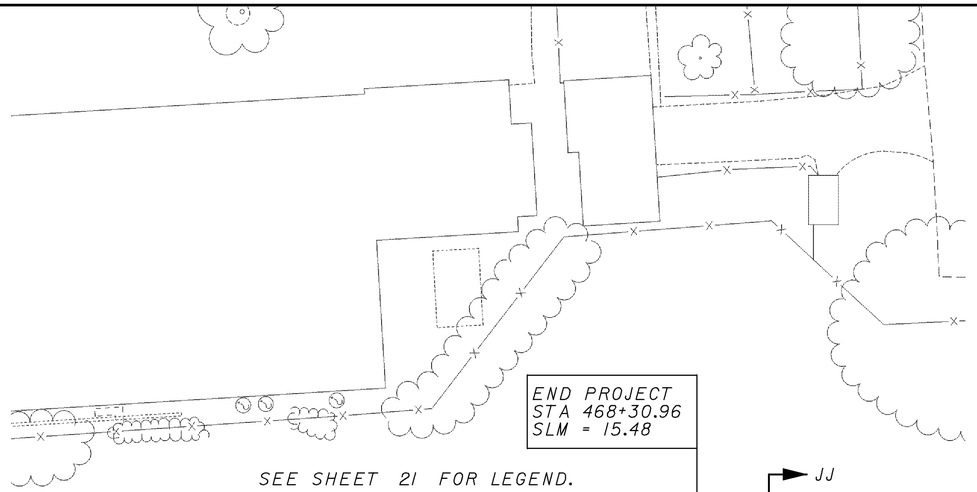
CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

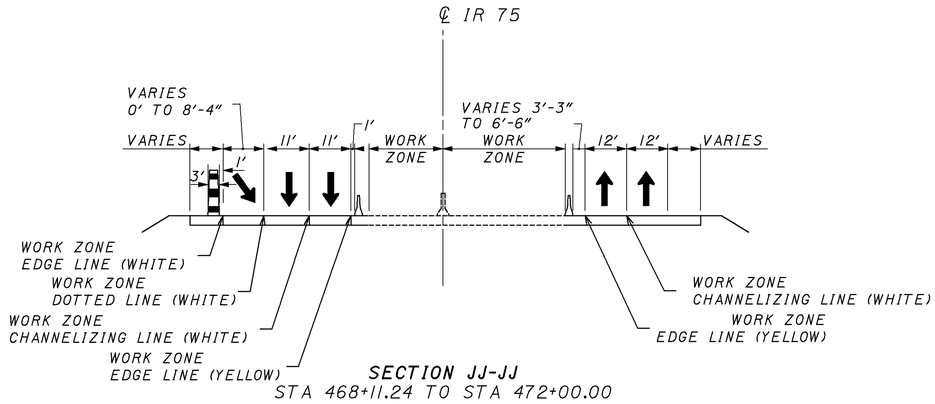
MOT-75-14.60

63
316

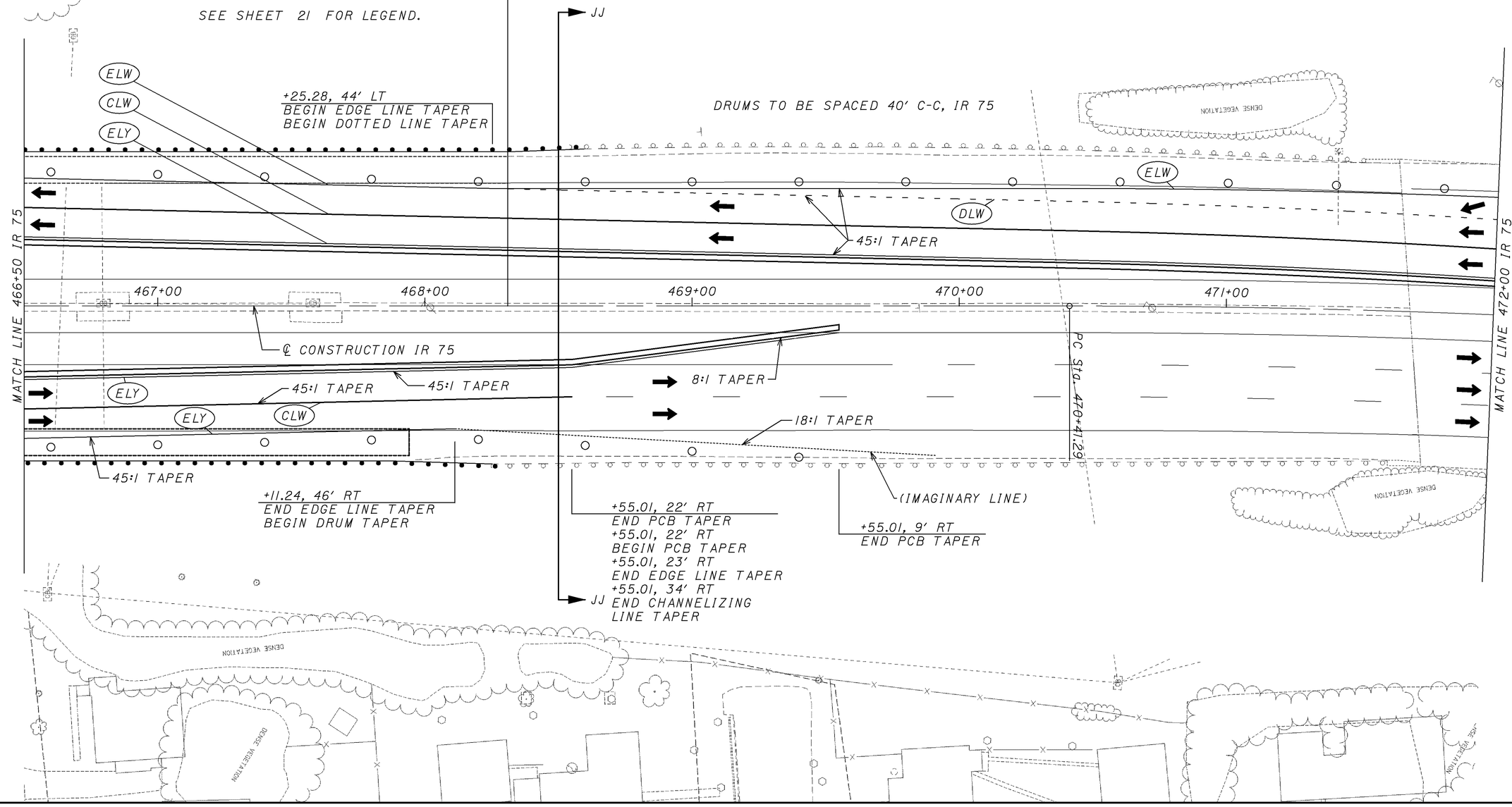
Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:51 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gj01_2_8_STL.dgn



SEE SHEET 21 FOR LEGEND.



SECTION JJ-JJ
STA 468+11.24 TO STA 472+00.00



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:51 AM
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Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:52 AM
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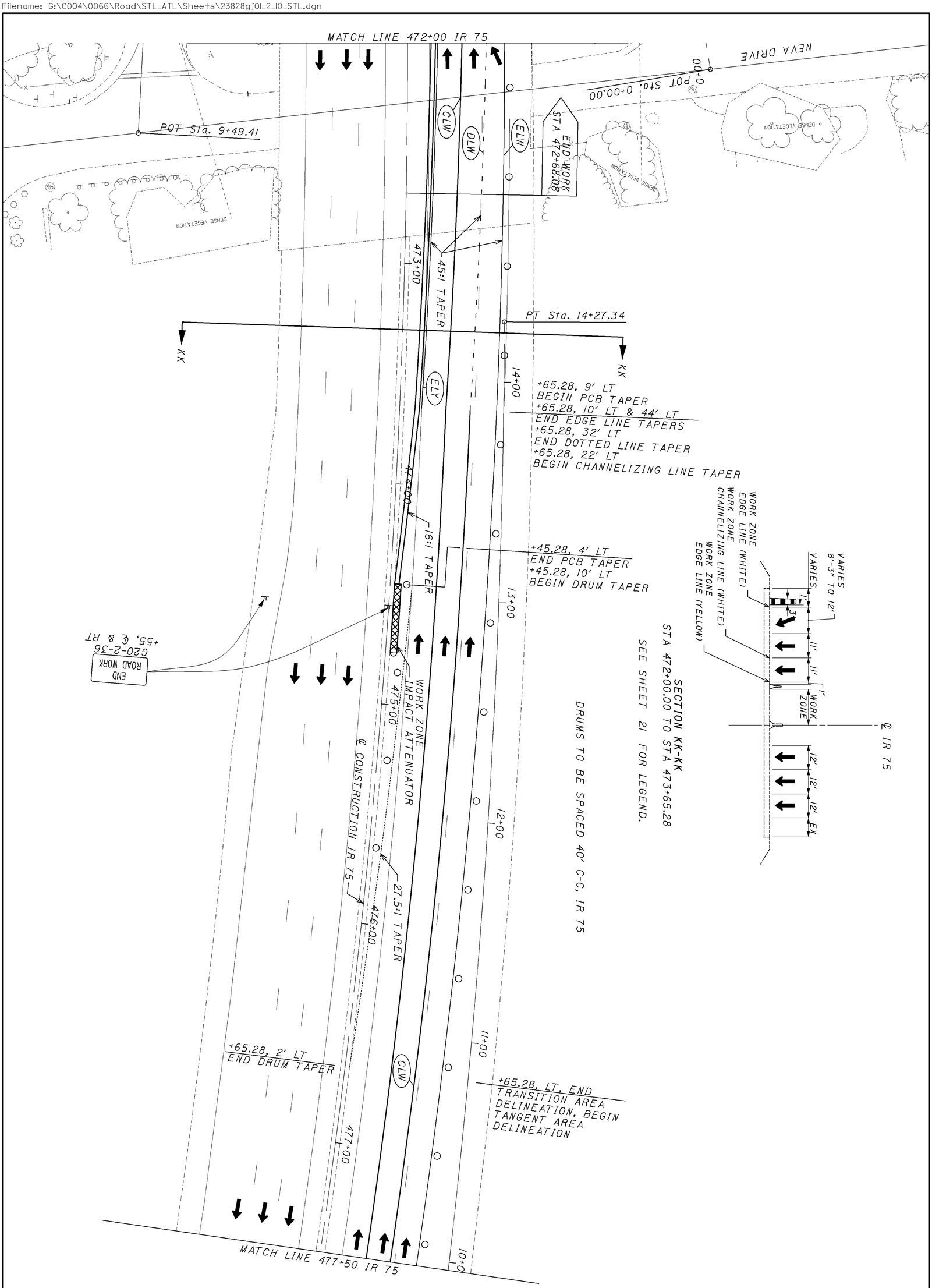

65/316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

DRUMS TO BE SPACED 40' C-C, IR 75
DRUMS TO BE SPACED 20' C-C, RAMP N-3 TAPER

SEE SHEET 21 FOR LEGEND.

℄ EX RAMP

0 9+00 8+00 PC Sta. 7+16.76 7+00 6+00 5+00

+26, 32' LT & 44' LT
BEGIN EDGE LINE TAPERS

+00, 0' LT & 14' LT
BEGIN DRUM TAPERS
END EDGE LINE TAPERS

(IMAGINARY LINE)

MATCH LINE 477+50 IR 75

ELW ELY CLW

16:1 TAPER 18:1 TAPER 12.5:1 TAPER 33:1 TAPER 150:1 TAPER

+26, 32' LT
BEGIN EDGE LINE TAPER

478+00 479+00 480+00 481+00 482+00

℄ CONSTRUCTION IR 75

+26, LT, END
TANGENT AREA
DELINEATION, BEGIN
TRANSITION AREA
DELINEATION

MATCH LINE 483+00 IR 75

(IMAGINARY LINE)

PT Sta. 3+92.99

4+00 3+00 2+00

+00, 3' LT & 8' RT
END DRUM TAPERS

DRUMS TO BE SPACED 40' C-C

ROAD WORK AHEAD

W20-1-48
+14, RT

+26, LT, END
TRANSITION AREA
DELINEATION

+26, 34' LT
END EDGE LINE TAPER

ELW

55:1 TAPER

484+00 485+00 486+00 487+00

+56, 34' LT
BEGIN EDGE LINE TAPER

℄ CONSTRUCTION IR 75

MATCH LINE 488+00 IR 75

N

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

66
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:52 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gj01_2_II_STL.dgn

DRUMS TO BE SPACED 40′ C-C.

SEE SHEET 21 FOR LEGEND.

MATCH LINE 488+00 IR 75

55:1 TAPER

ELW

489+00

490+00

491+00

492+00

493+00

MATCH LINE 493+50 IR 75

+16, 46′ LT
END EDGE LINE TAPER
BEGIN DRUM TAPER

W1-6L-48

DRUMS TO BE SPACED 40′ C-C.

(IMAGINARY LINE)

22:1 TAPER

55:1 TAPER

+36, 56′ LT
END DRUM TAPER

494+00

495+00

496+00

506+00

522+00

548+00

W4-2L-48
+36, ℄ & RT

W20-5L-48
+36, ℄ & RT

LEFT LANE CLOSED AHEAD

W20-1-48
+36, ℄ & RT

ROAD WORK AHEAD

1000′

1600′

2600′

MATCH LINE 493+50 IR 75

MATCH LINE 488+00 IR 75

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

67
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:53 AM
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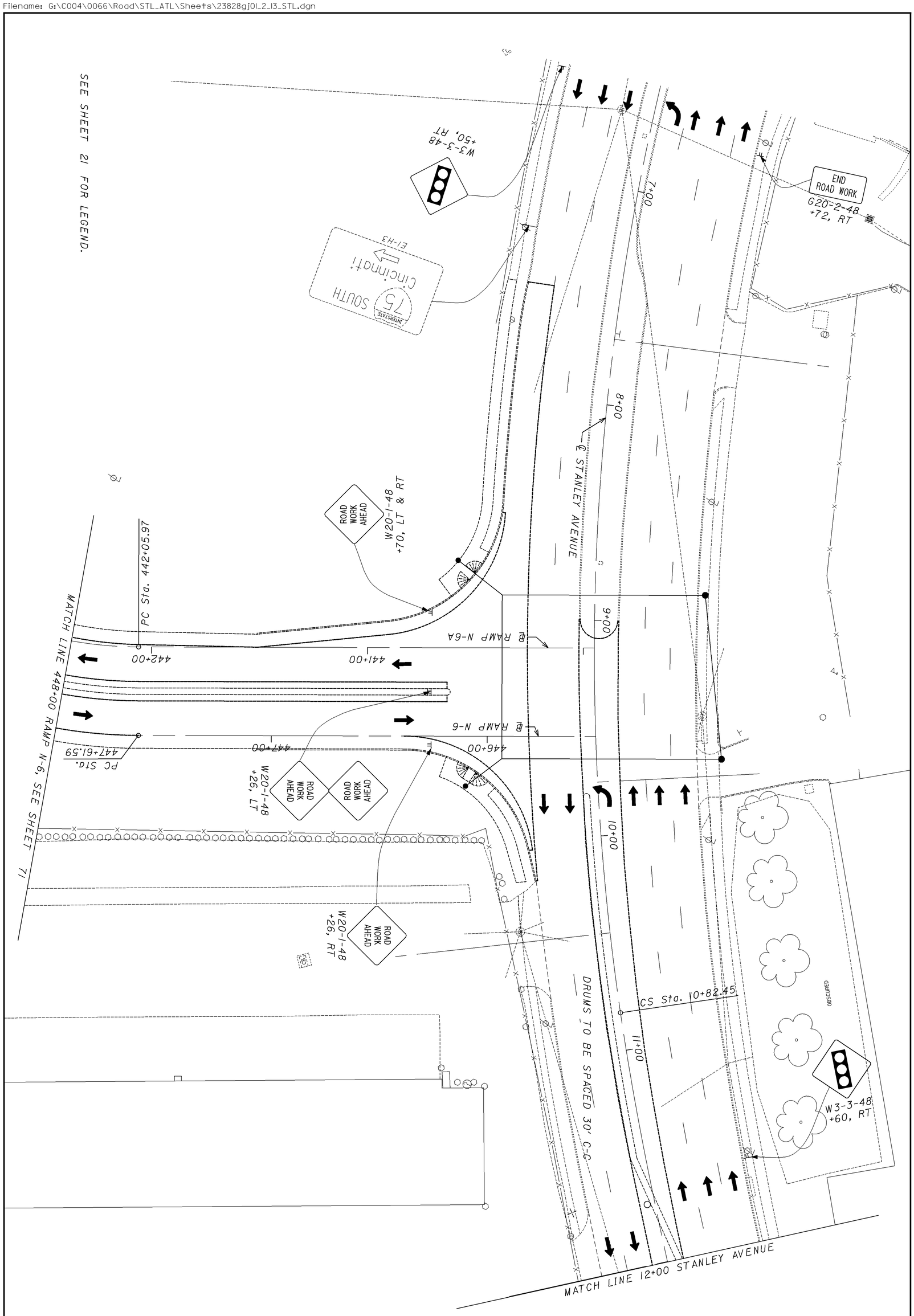

68 / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

SEE SHEET 21 FOR LEGEND.

SECTION LL-LL
STA 12+00.00 TO 13+84.00

SECTION MM-MM
STA 15+40.00 TO 17+50.00

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:54 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828g101_2_14_STL.dgn

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 2

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:55 AM
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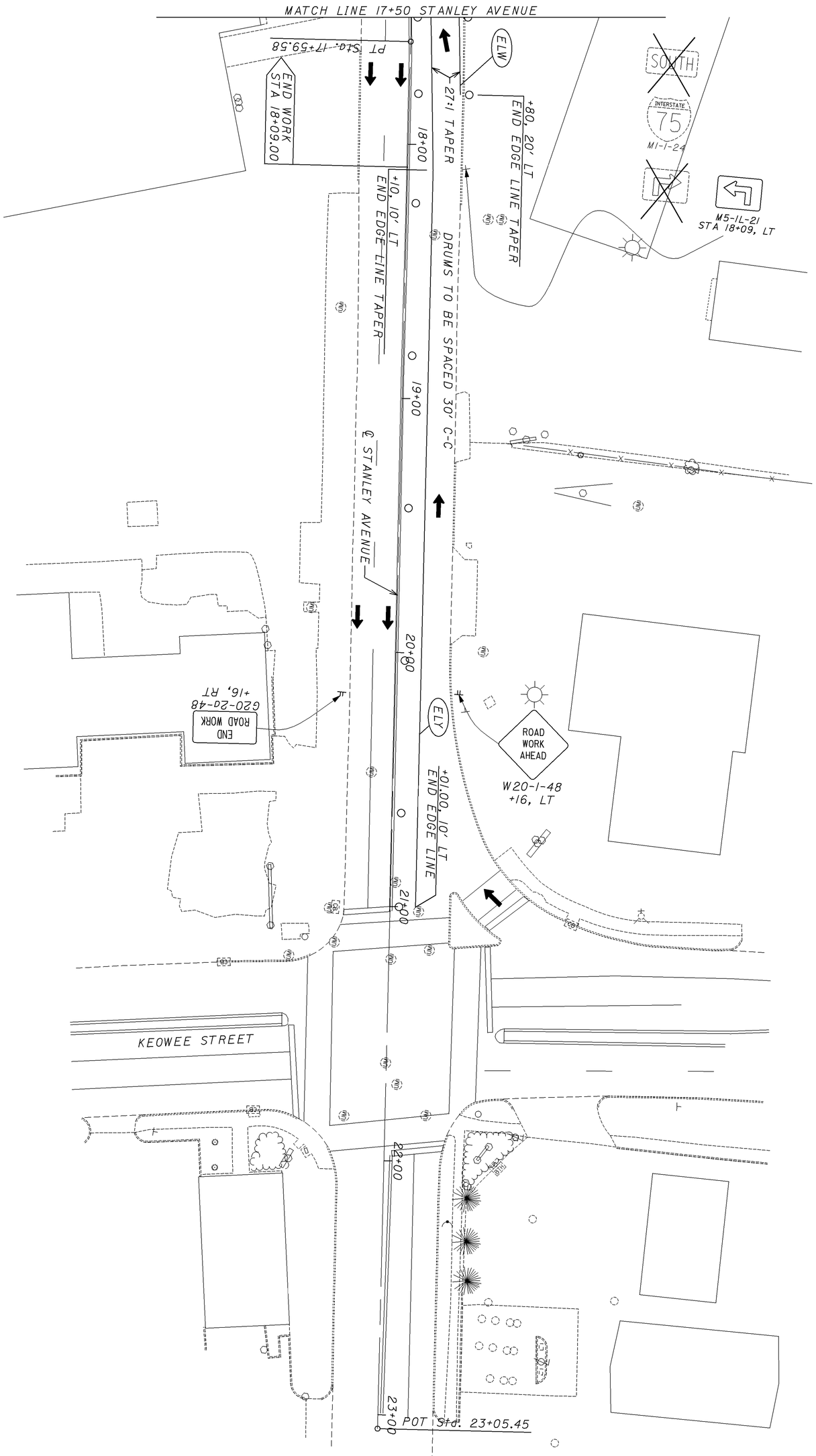

SEE SHEET 21 FOR LEGEND.

70/316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED / CHECKED	0 20 / 10 40 HORIZONTAL SCALE IN FEET

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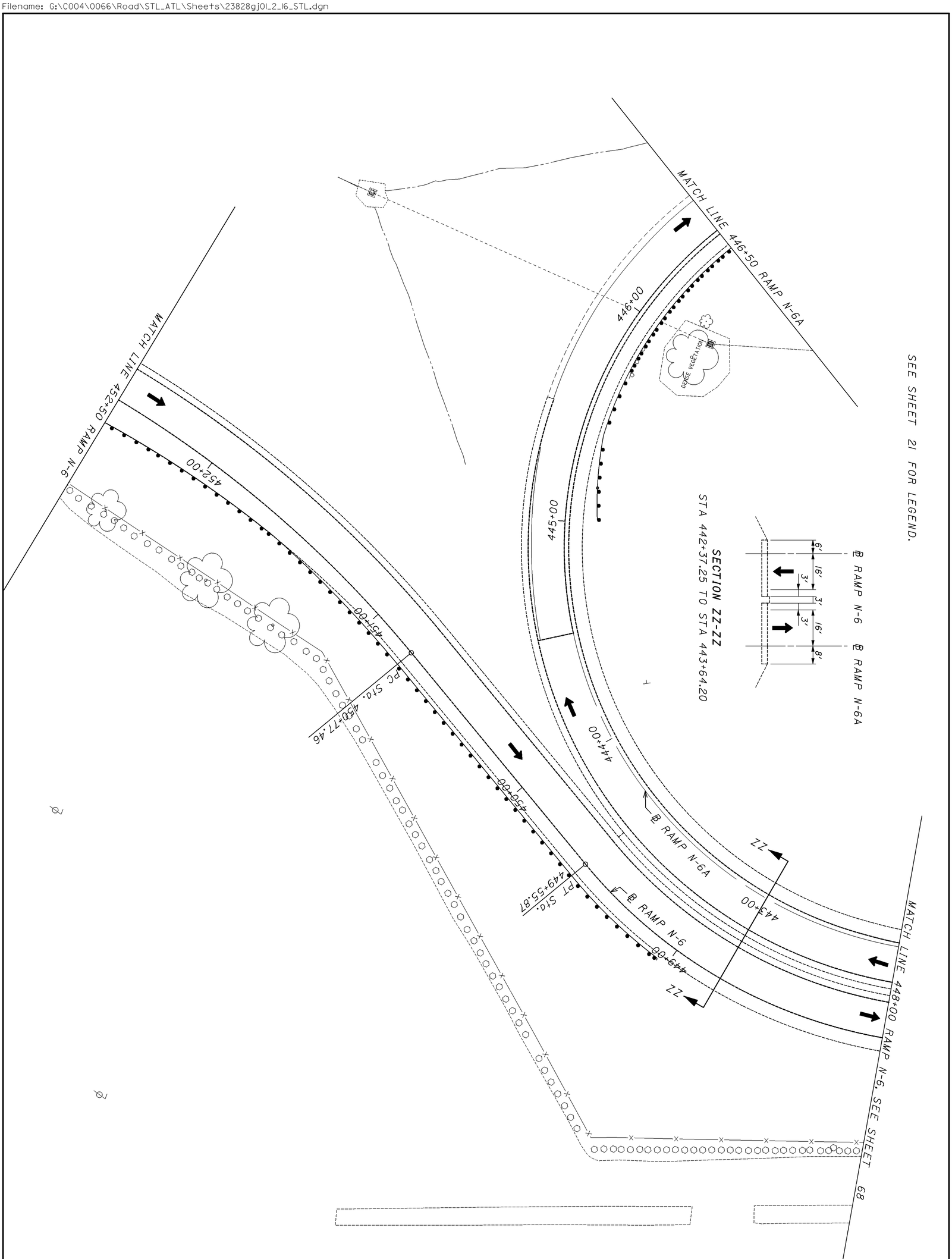

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 2

CALCULATED EAK
CHECKED AM

0 20
10 40
HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:56 AM
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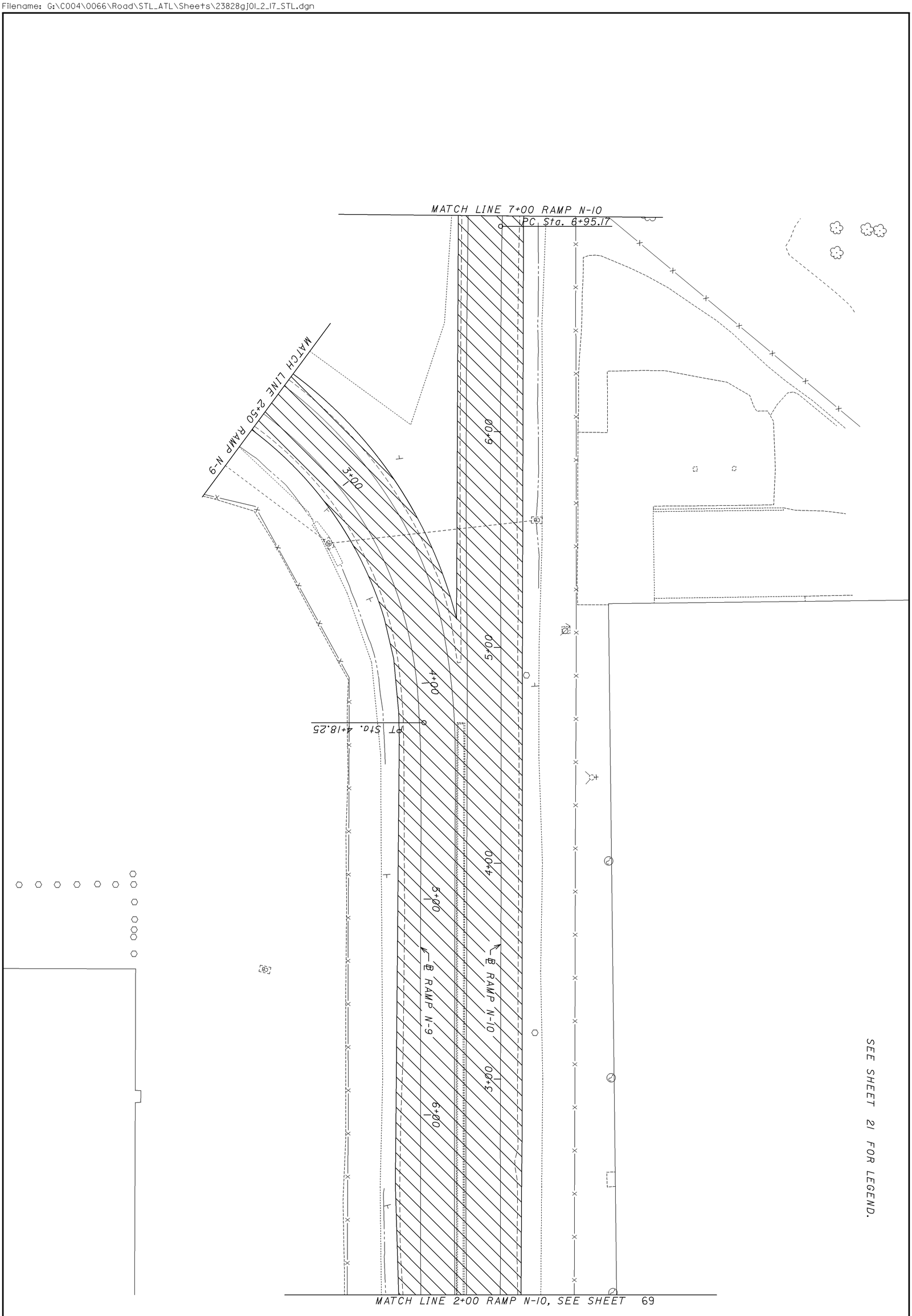

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 2

CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:56 AM
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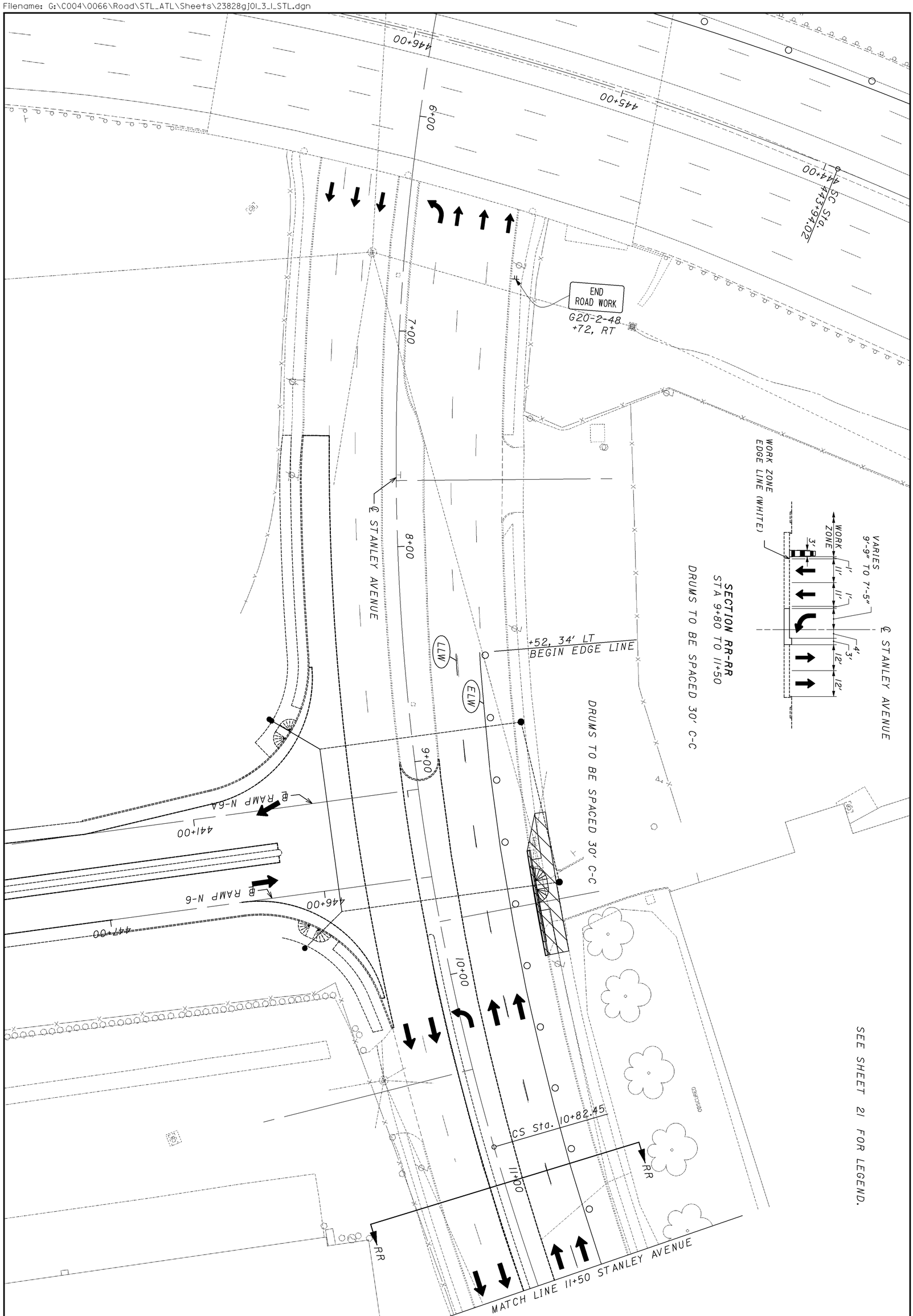

78 / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 3	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:57 AM
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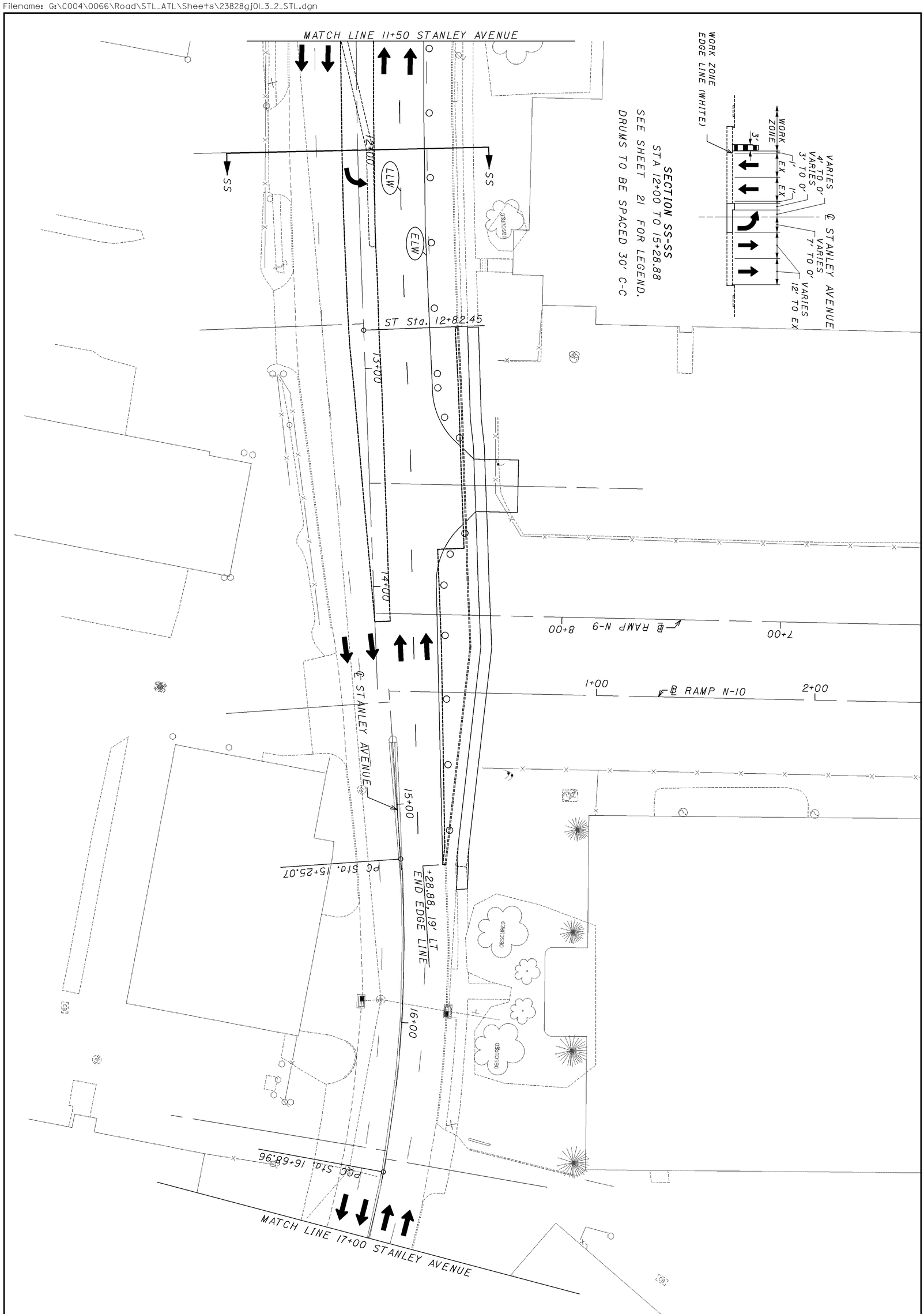

79/316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 3	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

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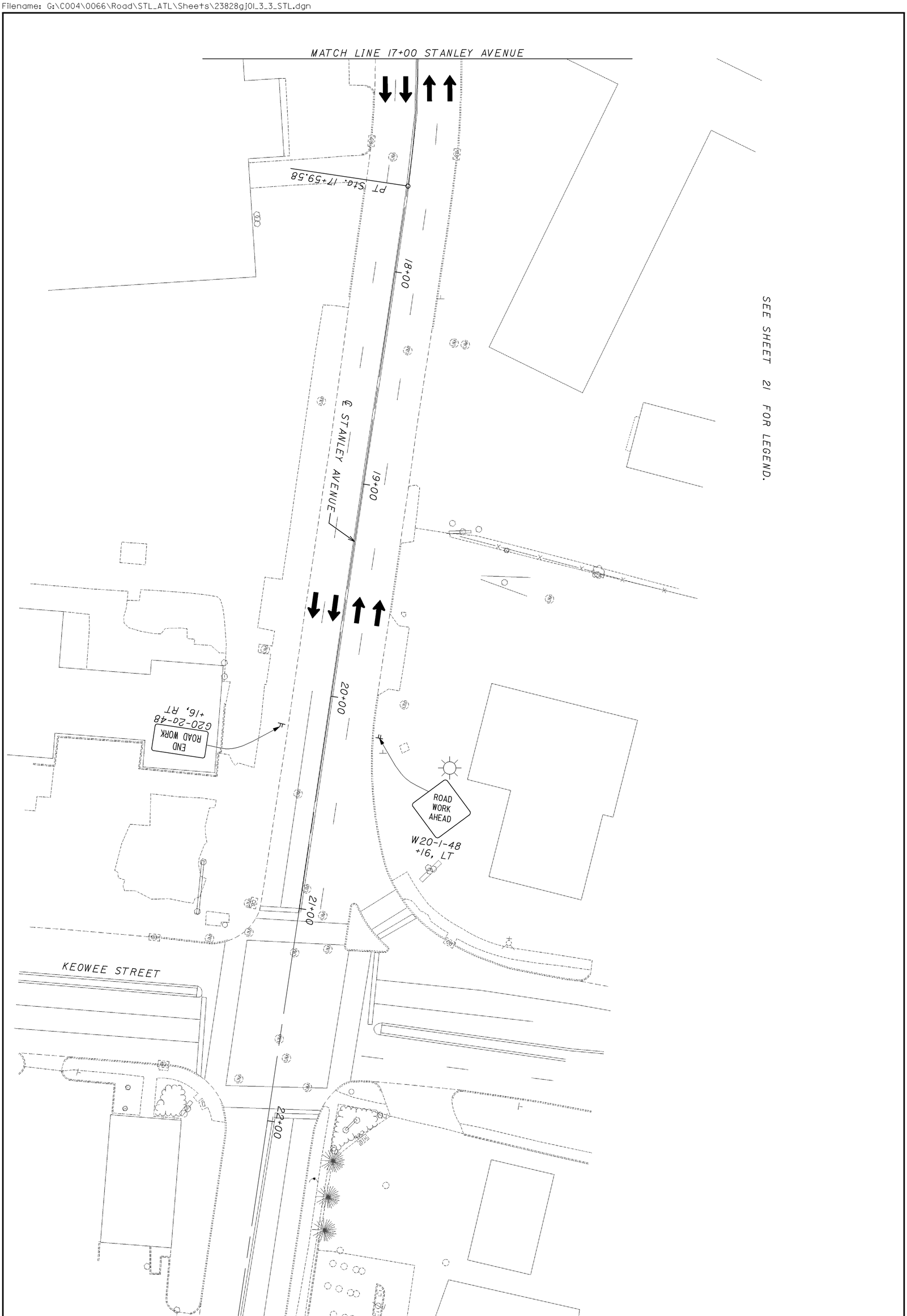

MOT-75-14.60

MAINTENANCE OF TRAFFIC - PHASE 3

CALCULATED EAK
CHECKED AM

0 10 20 40
HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:27 PM
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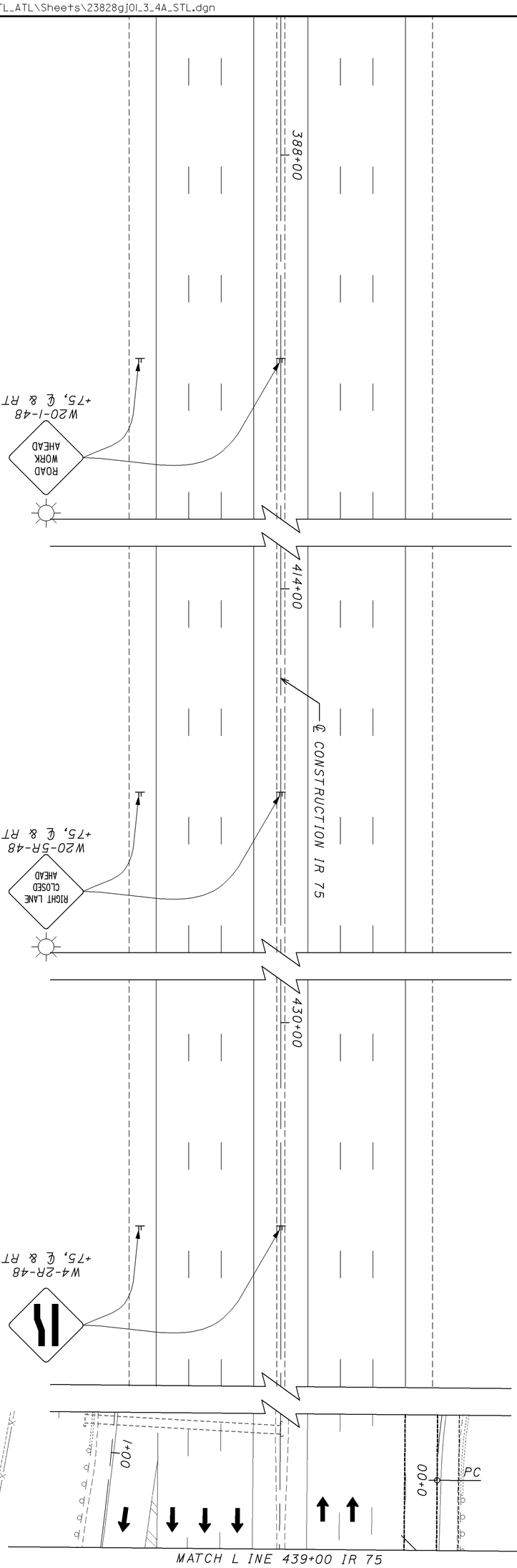


SEE SHEET 21 FOR LEGEND.

80A / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 3	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET

SEE SHEET 21 FOR LEGEND.

℄ IR 75

VARIES
12' TO 6'-10"

10' 12' 12' 12' 10' 10' 12' 12' 10'

2'

3'

WORK ZONE
EDGE LINE (WHITE)

SECTION NN-NN
STA 440+70.70 TO STA 444+50.00

NN

MATCH L INE 439+00 IR 75

PT Sta. 1+56.76

TS Sta. 440+44.02

℄ CONSTRUCTION IR 75

440+00 441+00 442+00 443+00 444+00

SC Sta. 443+94.02

MATCH LINE 444+50 IR 75

55:1 TAPER

ELW

+74.70, 46' RT
BEGIN EDGE LINE TAPER

2+00 3+00 4+00 5+00 6+00 7+00

PC Sta. 4+68.29

PT Sta. 6+83.17

℄ RAMP N-8

DRUMS TO BE SPACED 40' C-C

W1-6L-48

DENSE VEGE

DENSE VE

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:28 PM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gJ0L3_4_STL.dgn

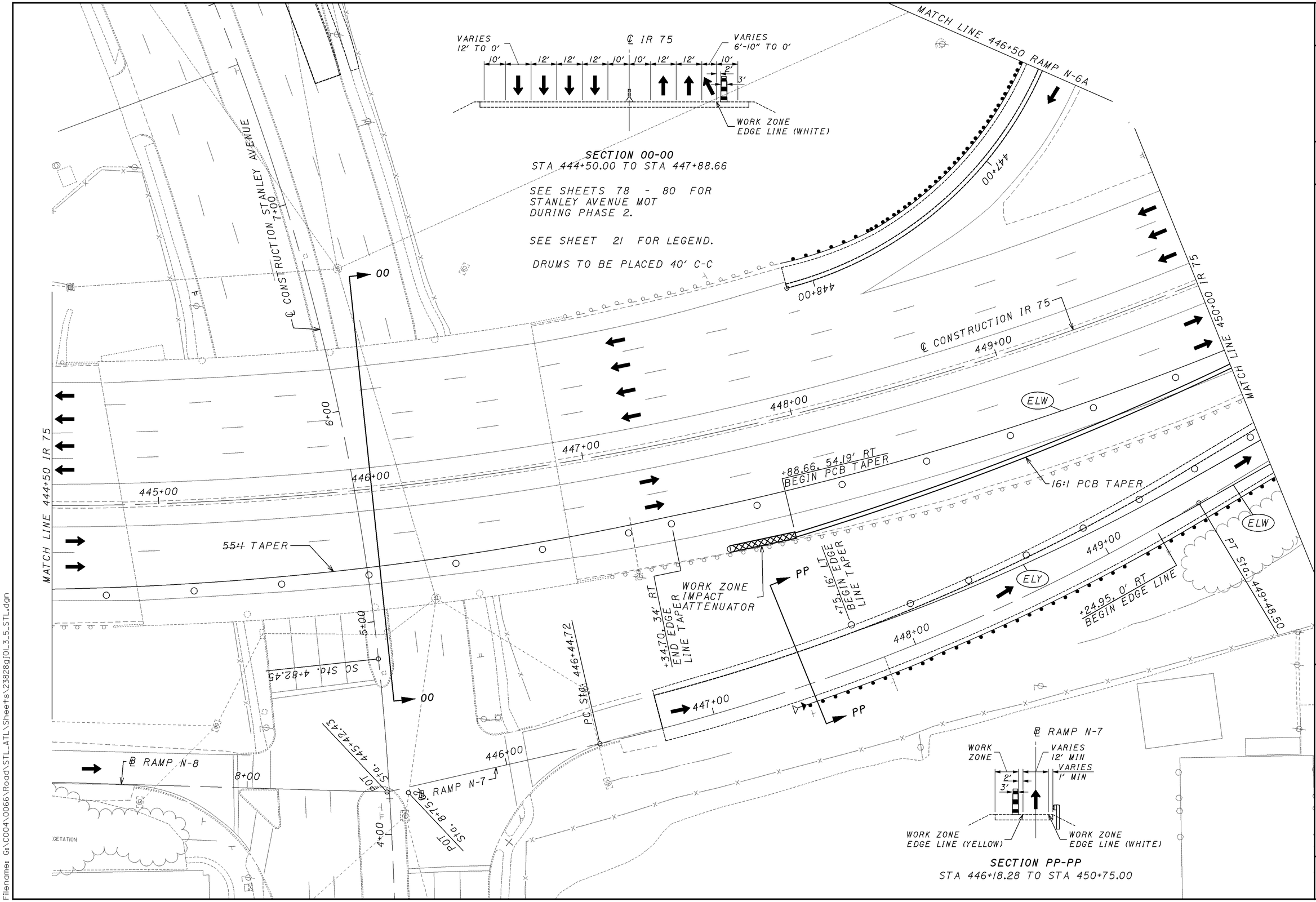
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 3

MOT-75-14.60

80B
316



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N

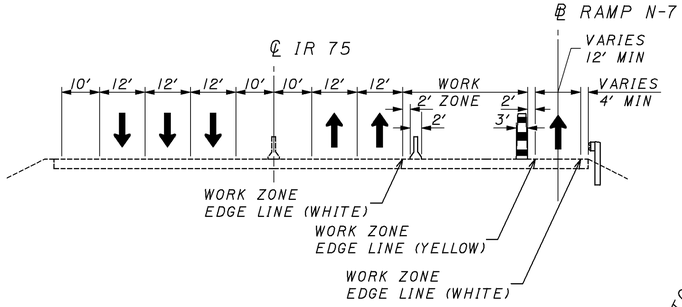
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 3

MOT-75-14.60

80C
316



SECTION QQ-QQ
STA 450+00.00 TO STA 455+50.00

SEE SHEET 21 FOR LEGEND.

MATCH LINE 452+50 RAMP N-6

CS Sta. 453+30.19

453+00

454+00

455+00

SC Sta. 455+30.19

℄ RAMP N-6

MATCH LINE 455+50 IR 75

DRUMS TO BE SPACED 40' C-C, IR 75
DRUMS TO BE SPACED 30' C-C, RAMP N-7

QQ

CS Sta. 452+26.71

452+00

451+00

℄ CONSTRUCTION IR 75

+06.61, 36' RT
END PCB

22.5:1 TAPER

+49.07, 67.73' RT
END EDGE LINE

ELW

+79.70, 36' RT
END PCB TAPER

MATCH LINE 450+00 IR 75

16:1 PCB TAPER

℄ RAMP N-7

450+00

ELY

ELW

QQ

POT Sta. 452+25.40

+85.38, 63' RT & 75' RT
BEGIN EDGE LINE TAPER

EDGE VEGETATION

PIPE

DENSE VEGETATION

DENSE VEGETATION

80' DOME TO DOME STATIONS

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:29 PM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gl01.3_6_STL.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC - PHASE 3

MOT-75-14.60

80D
316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:30 PM
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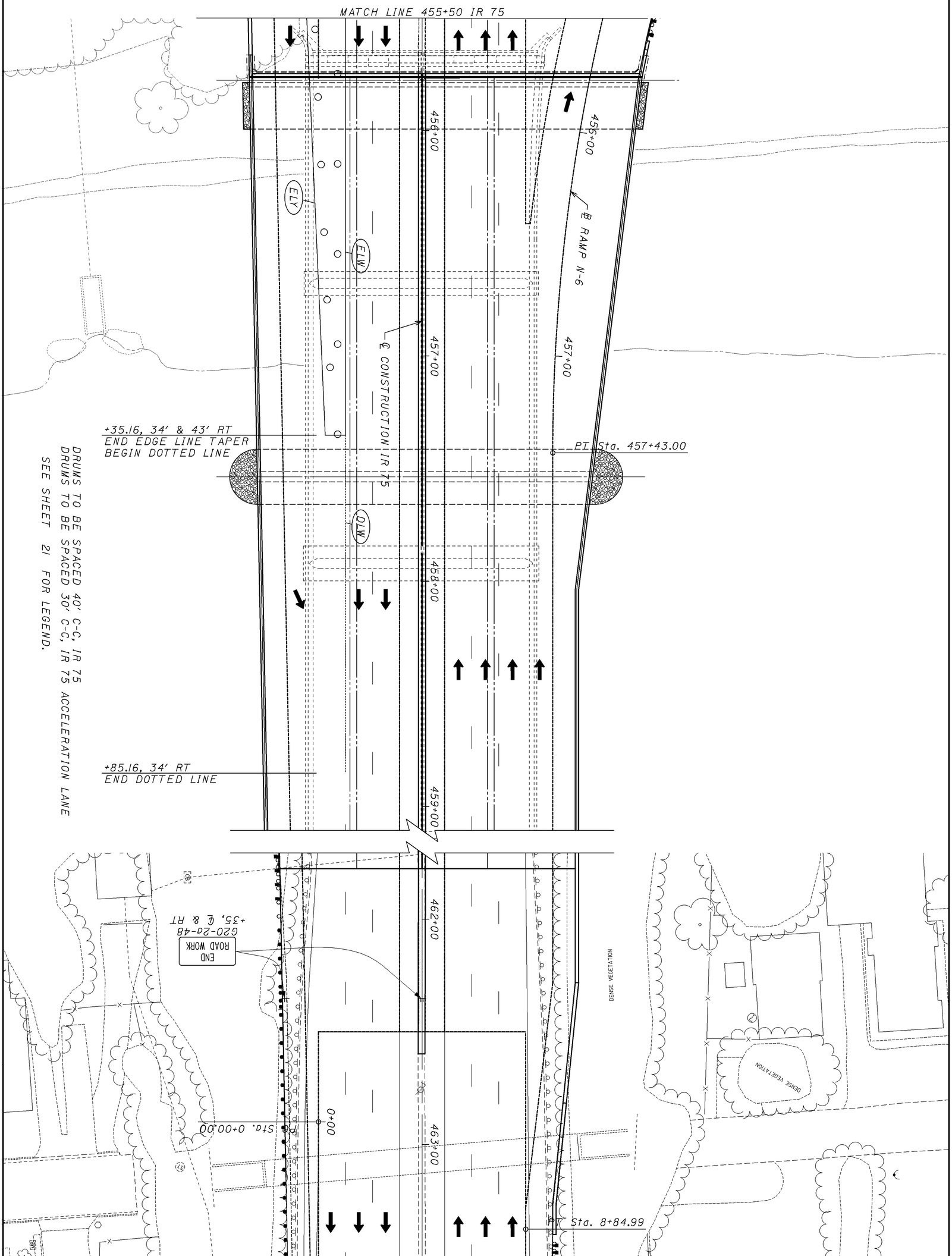
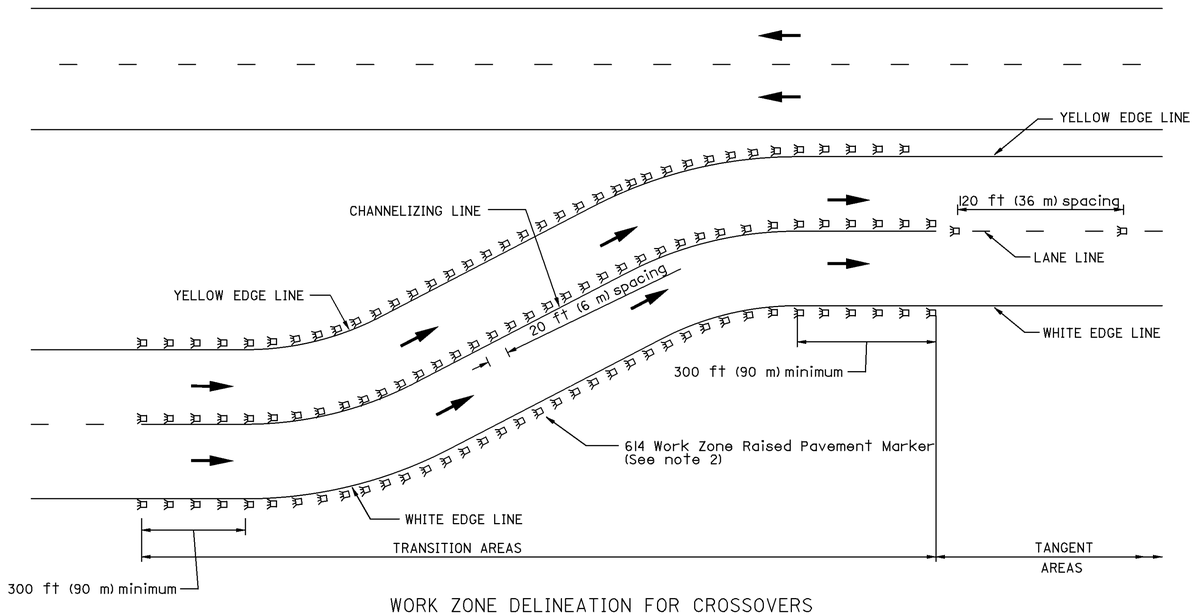
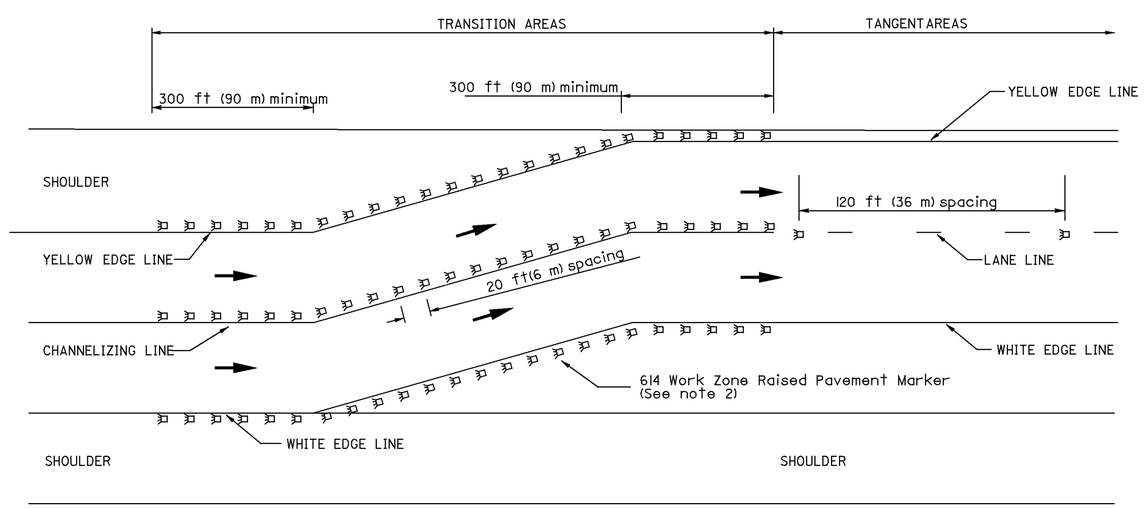


308 / 316	MOT-75-14.60	MAINTENANCE OF TRAFFIC - PHASE 3	CALCULATED EAK / CHECKED AM	0 20 / 10 40 HORIZONTAL SCALE IN FEET



WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION FOR LANE SHIFTS

NOTES

1. This drawing presents delineation procedures for freeways and expressways on concrete surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. The Work Zone Raised Pavement Markers (WZRPMs) shown on this drawing are intended for use only during the non-snow-plowing season. WZRPMs shall not be provided during the snow-plowing season. The snow-plowing season shall be from October 16 through March 31 or as otherwise specified in the plans. Where a temporary alignment will remain in use through the winter, the WZRPMs shall be removed prior the beginning of snow-plowing season and replaced approximately April 1, or as otherwise determined by the Engineer
3. All material furnished shall be listed on the Department's Qualified Products Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of WZRPMs shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas WZRPMs shall be provided only along the lane lines, spaced at 120 feet (36 m) center-to-center.
7. The WZRPMs shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the WZRPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the WZRPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the WZRPMs shall be centered between dashes.
9. The WZRPMs shall be removed when they are no longer appropriate.

11/27/06

WORK ZONE DELINEATION ON CONCRETE SURFACES

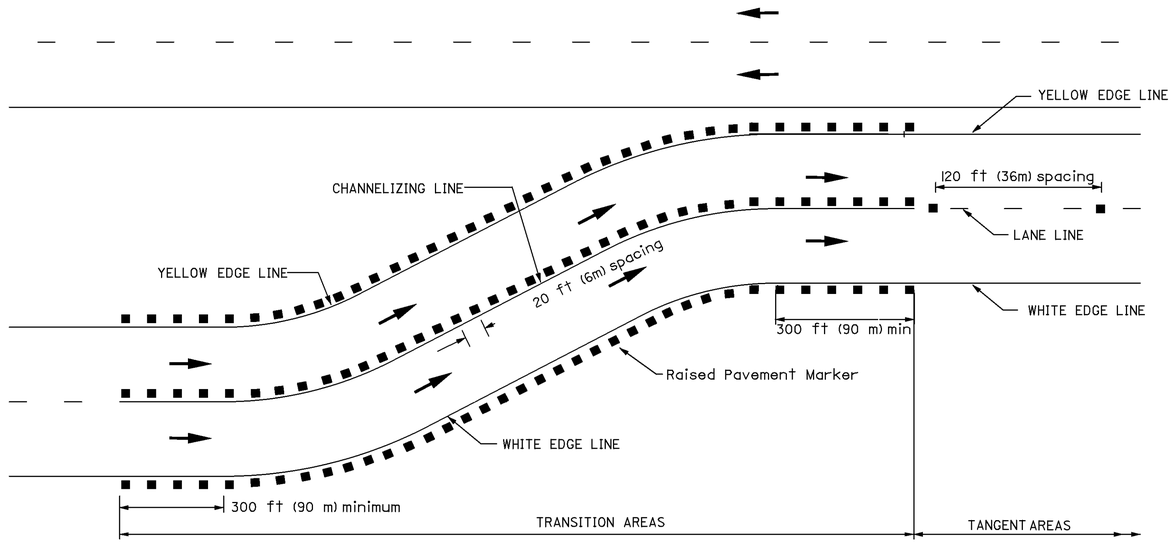
OFFICE OF TRAFFIC ENGINEERING

209931

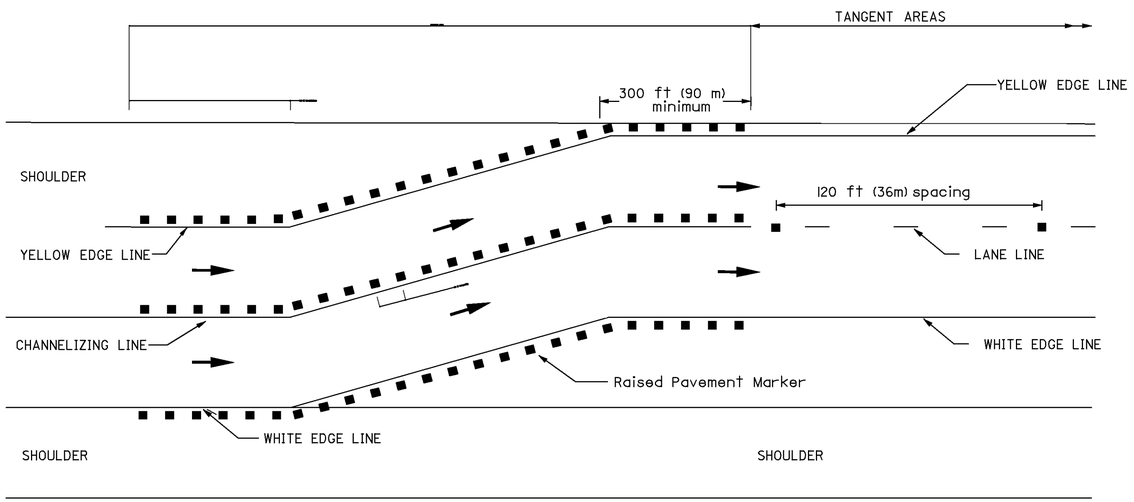
1/1

81
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:58 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828pi03_STL.dgn



WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION FOR LANE SHIFTS

NOTES

1. This drawing presents delineation procedures for freeways and expressways on asphalt surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 inches (1.2 m)shall be as per the tangent area delineation.
2. Raised Pavement Markers shall meet the following seasonal specifications:

   a) Raised Pavement Markers in place during the normal construction season may be either 621 Raised Pavement Markers or 614 Work Zone Raised Pavement Markers (WZRPMs). The normal construction season with regard to use of WZRPMs shall be the period from April 1 through October 15.

   b) At locations where it is intended that Raised Pavement Markers will winter over, 621 Raised Pavement Markers shall be provided.

   c) At locations where it is intended that work will continue beyond October 15 but will be completed prior to the beginning of snow-plowing season, 614 WZRPMs may remain in place until such time. Snow-plowing season shall be as specified in the plans. If snow-plowing season is not specified in the plans, it shall be assumed that snow-plowing season runs from October 16 through March 31. If project delays, not the fault of ODOT, cause work to extend into the snow-plowing season, the contractor shall be responsible for replacing WZRPMs with 621 Raised Pavement Markers, as determined by the Engineer, at the contrator's expense.
3. All material furnished shall be listed on the Department's Prequalified Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of raised pavement markers (RPMs) shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas RPMs shall be provided only along the lane lines, spaced at 120 foot (36 m) center-to-center.
7. The RPMs shall be 1-way, facing oncomming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the RPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the RPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the RPMs shall be centered between dashes.
9. The RPMs shall be removed when they are no longer appropriate.
10. Holes resulting from removal of 621 RPMs shall be filledas per 202.10. If removal of the 621 RPMs does not take place immediately after the highlighted alignment becomes invalid, the reflectors within the 621 RPMs shall be removed.
11. Following removal of 621 RPMs resurfacing of the transition shall be performed. The resurfacing shall be performed at the time the surface course is being applied. In preparation for resurfacing, the existing pavement shall be removed to a depth necessary to match the level of the intermediate course of the proposed pavement.

11-27-06

WORK ZONE DELINEATION ON ASPHALT SURFACES

OFFICE OF TRAFFIC ENGINEERING

209930

1 / 1

82
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:58 AM
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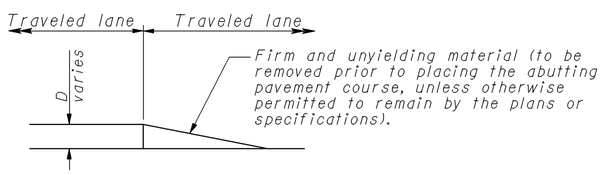
GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. The suggested treatments are intended for high volume projects that will last at least seven days and have an active work zone 1 mile [1.6 km] or less in length. For guidance on the use of this sheet, see L&D Manual Volume One, Section 500. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.
2. While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.
3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
4. The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing RM-4.2 and Item 622.
6. When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
7. When W8-9 (Low Shoulder) signs or W8-9a (Shoulder Drop-Off) signs or W8-11 (Uneven Lanes) signs are required, they shall be placed 750 feet [230 m] in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all inter secting roadways within the limits of the condition. When the drop-off condition extends more than 0.5 mile [800 m], additional signs should be erected at intervals of 1.0 mile [1600 m] or less.
8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate a difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10 feet [3.0 m], drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5 inches [125] and approval is granted by the Project Engineer.
10. Pavement Repairs (or similar work):
    a. Lengths greater than 60 feet [18 m] - utilize appropriate treatment from Condition I.
    b. Lengths of 60 feet [18 m] or less - repairs shall be effected in accordance with CMS 255.08. Drums may be used as a separtor adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT
(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition I only.
2. W8-11 sign required.

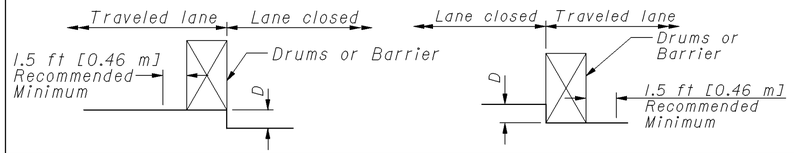


CONDITION I
DROP-OFFS BETWEEN TRAVELED LANES

1. These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D - inches (mm)	Treatment
<1-1/2 [<40]	Erect W8-11 sign.
1-1/2 - 3 [40-75]	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
> 3 - 5 [>75-125]	Lane closure utilizing drums as shown below.
> 5 [>125]	Lane closure utilizing portable concrete barrier as shown below.

* Cones may be used for daytime only conditions.

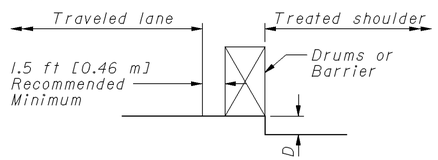


CONDITION II
DROP-OFFS WITHIN GRADED SHOULDER AREA

1. The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
2. The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials or concrete). For the purpose herein, its maximum width shall be considered to be 12 feet [3.6 m].

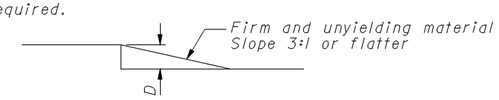
D - inches (mm)	Treatment
<1-1/2 [<40]	1) Erect W8-9a signs.
>1-1/2 - 5 [>40-125]	1) If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If minimum. lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
>5 - 12 [125-305] Daylight only	If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below.
>5 - 24 [>125-610]	1) If minimum lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums.
>24 [> 610]	Lane closure utilizing portable concrete barrier as shown below.

* Minimum lane widths shall be 10 ft [3.0 m] unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment may not be used within a bitumunos shoulder where a hot longitudnal joint per CMS 401.15 is required.
2. W8-9 signs required.

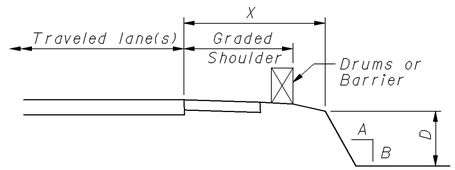


CONDITION III
DROP-OFFS BEYOND GRADED SHOULDER OR BACK OF CURB

1. See Note 2 under Condition II.
2. Use Chart A or B below, as applicable.

CHART A

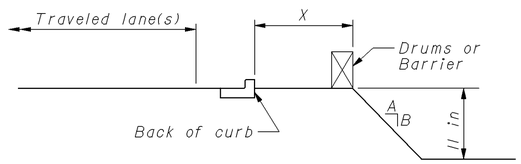
USE FOR: 1. Uncurbed Facilities
2. Curbed Facilities, where:
   a. Curbs are less than 6 inch [150] in height
   b. Curbs are 6 inch [150] or greater in height and the legal speed is greater than 40 mph [70 km/hr].



X feet (m)	D inch (mm)	A/B	Treatment Required	
			Day	Night
0 - 4 [0 - 1.2]	Any	Any	(a)	(a)
4 - 30 [1.2 - 9.1]	Any	3:1 or Flatter	None	None
4 - 12 [1.2 - 3.6]	< 3 [< 75]	Steeper than 3:1	None	None
4 - 12 [1.2 - 3.6]	> 3 - < 12 [> 75 - < 305]	Steeper than 3:1	Drums	Drums
4 - 12 [1.2 - 3.6]	> 12 [> 305]	Steeper than 3:1	Drums	Barrier
> 12 - 20 [> 3.6 - 6.1]	< 12 [< 305]	Steeper than 3:1	None	None
> 12 - 20 [> 3.6 - 6.1]	> 12 - 24 [> 305 - < 610]	Steeper than 3:1	Drums	Drums
> 12 - 20 [> 3.6 - 6.1]	> 24 [> 610]	Steeper than 3:1	Drums	Barrier
> 20 - 30 [> 6.1 - 9.1]	< 24 [< 610]	Steeper than 3:1	None	None
> 20 - 30 [> 6.1 - 9.1]	> 24 [> 610]	Steeper than 3:1	Drums	Barrier
> 30 [> 9.1 m]	Any	Any	None	None
(a) Use treatment specified under Condition II.				

CHART B

USE FOR: Curbed facilities, where the curb is 6 inches [150 mm] or greater in height and the legal speed is 40 mph [70 km/h] or less.



X feet (m)	D inch (mm)	A/B	Treatment Required	
			Day	Night
0 - 10 [0-3.0 m]	< 12 [< 305]	Any	None	Drums
0 - 10 [0-3.0 m]	> 12 [> 305]	Any	Drums	Drums
> 10 [> 3.0 m]	Any	Any	None	None

11-27-06

DROPOFFS IN WORK ZONES

OFFICE OF TRAFFIC ENGINEERING

2010190

1 / 1

83
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:43:58 AM
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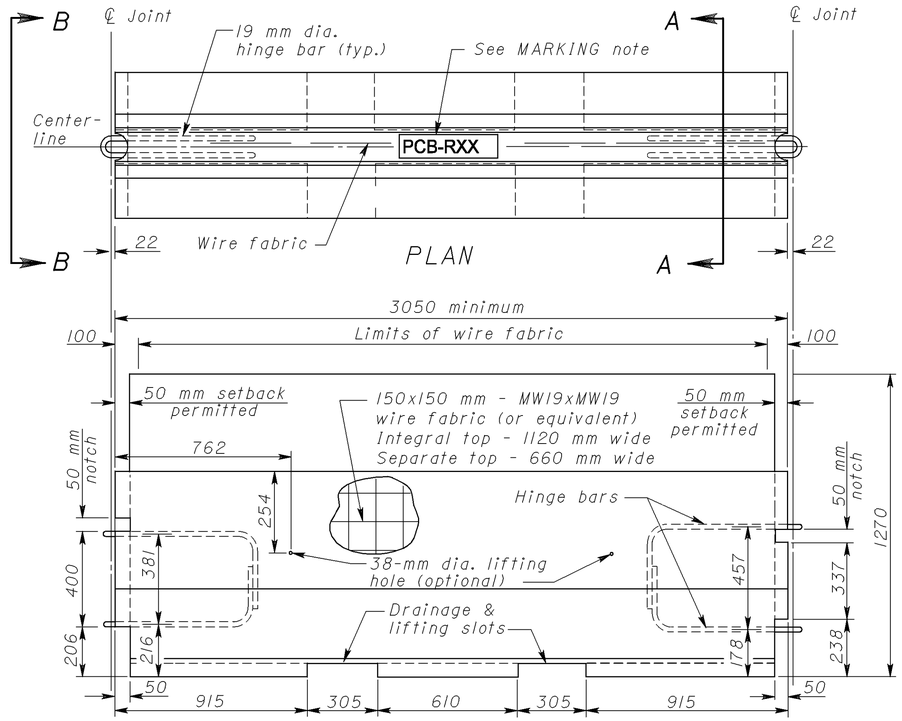
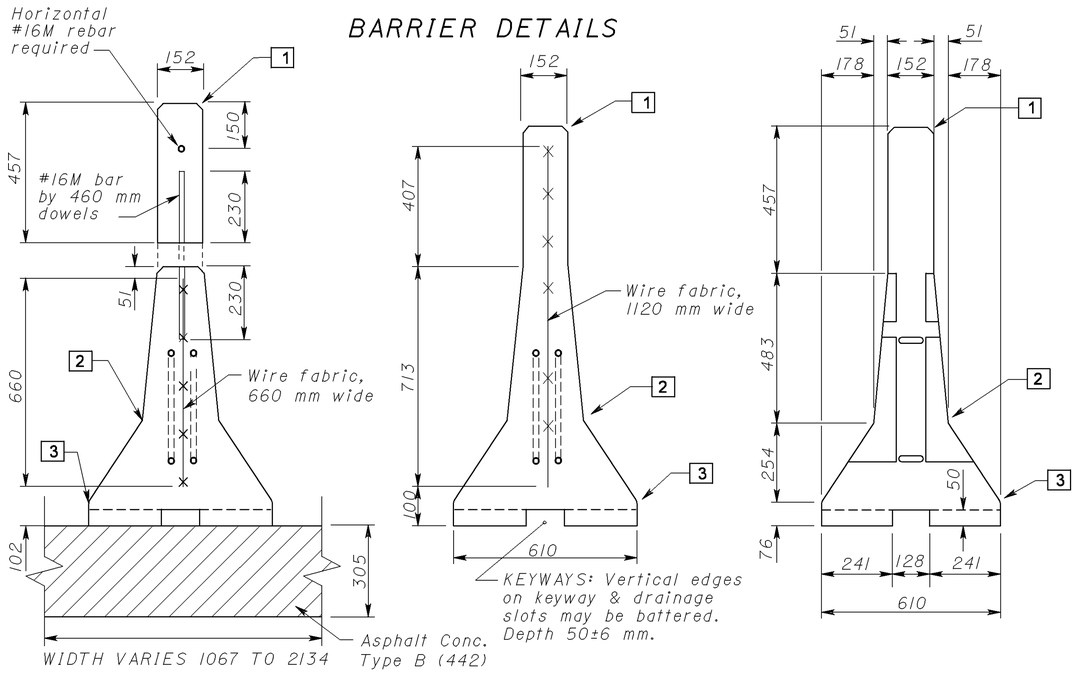


BARRIER DETAILS



LEGEND

1. 25-mm Radius or 19-mm chamfer, all top and end corners.
2. Permissible 250-mm radius.
3. Permissible 25-mm radius.

Asphalt Concrete, Type B, 12" (442)

NOTES

1270-mm PCB: The upper 457 mm of the barrier shall be constructed integrally with the bottom portion using wire fabric extending as shown throughout, or separately using #16M rebar dowels at maximum spacing of 915 mm. Start and end dowels 150 mm from barrier segment ends.

WIRE FABRIC: Shall meet the requirements of CMS 709.10.

CONNECTING HARDWARE: Bolts, washers and hex nuts shall be galvanized after fabrication per CMS 711.02 and shall meet the requirements of CMS 711.09, except that the Rotational Capacity test specified in ASTM A 325M shall be waived.

In lieu of the pin and loop connections detailed on this SCD, barrier sections with "J-J Hooks" end connections may be utilized.

Transistion barrier sections with pin and loop connections on one end and "J-J Hooks" on the other shall be used to connect runs of "J-J Hooks" barrier to other permited barrier types. The heights of the transition sections shall be the same as the barrier runs being connected.

"J-J Hooks" is a trademark of the Easi-Set Industries, P.O. box 300, Midland, VA 22728, (540) 439-8911 or (800) 547-4045.

HINGE AND REINFORCING BARS: The 19-mm hinge bars and #16M reinforcing bars shall meet the requirements of CMS 509.

HINGE BAR PLACEMENT: For placement, see "Detail at Hinged Connection" on SCD RM-4.2. For open and closed joint connections of adjacent barriers, see "Joint Connection Details" on RM-4.2.

HANDLING DEVICES: Such devices may be used in lieu of the lifting slot for moving the barrier. They may be of any design sufficient to handle the weight of the section being lifted. No handling devices shall protrude from the surface of the barrier when in place.

MARKING: All barrier segments shall be marked as shown, where XX indicates the year cast. These markings shall be permanently impressed in the barrier using a minimum of 50-mm high lettering.

Each segment shall have, on its top, a unique identification as to its manufacturer and, somewhere on the barrier, the day and month that the barrier was manufactured.

See CMS 622 for additional information.

SUBGRADE: Upon removal of existing barrier and sign foundation, backfill using Type B Asphalt Concrete (CMS Item 442) to and to grade under 50" PCB limits.

Item 442, Asphalt Concrete, Misc.: Type B, 12", shall be paid for by cubic yard, in place and accepted.

All dimensions are in millimeters unless otherwise noted.

CONVERSION OF METRIC UNITS ON THIS SHEET

THE METRIC UNITS ON THIS SHEET SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

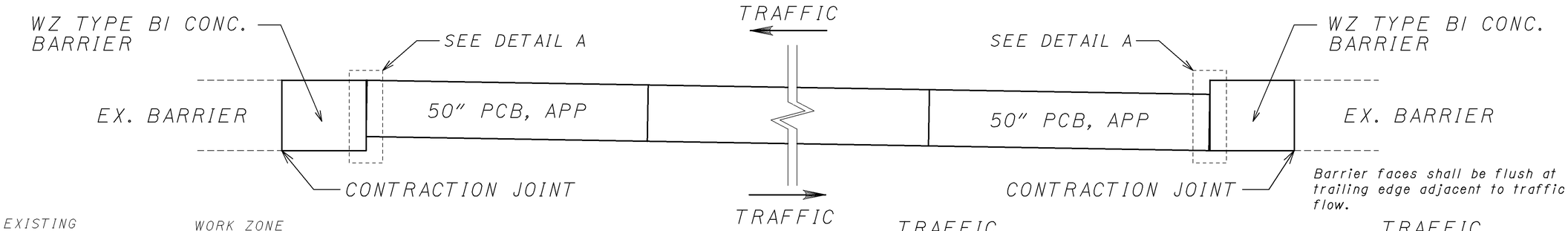
metric units

50-INCH PORTABLE CONCRETE BARRIER, AS PER PLAN

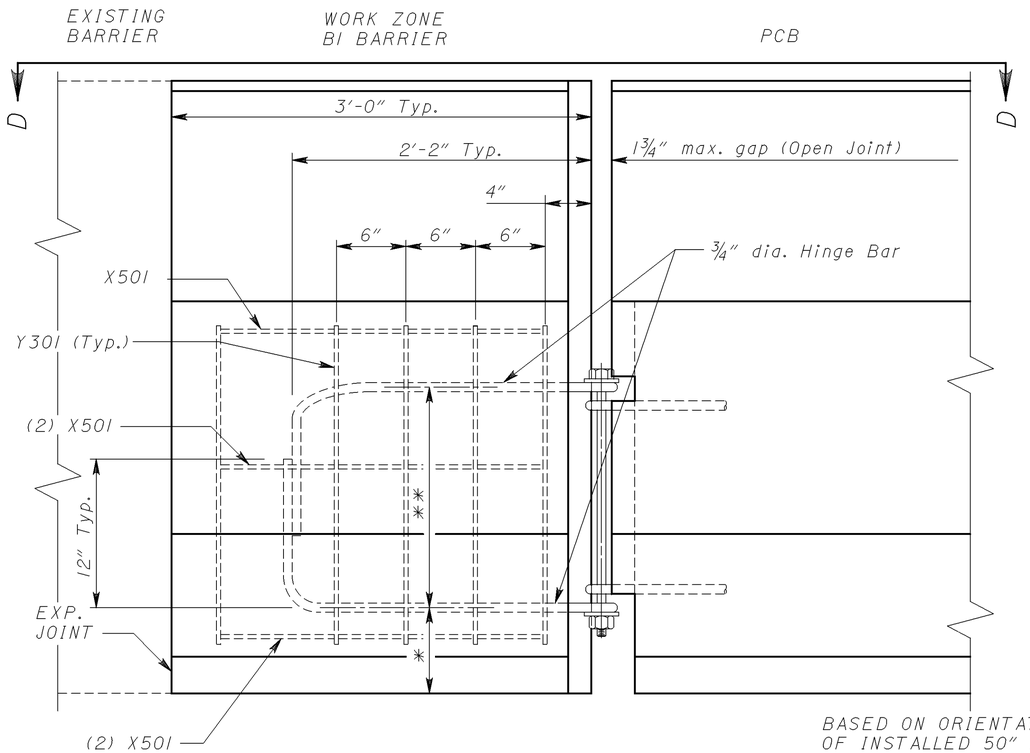
MOT-75-14.60

83A
316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:30 PM
Filename: G:\C004\0066\Road\Sheets\23828mm-50pcb.dgn



Barrier faces shall be flush at trailing edge adjacent to traffic flow.



DETAIL A ELEVATION

BASED ON ORIENTATION OF INSTALLED 50" PCB, DIMENSIONS WILL VARY AND BE PAIRED AS FOLLOWS:

ONE SECTION WILL HAVE * = 8½", ** = 15",

AND THE OTHER WILL HAVE * = 7", ** = 18".

DETAIL AT HINGED CONNECTION WITH FIXED MEDIAN BARRIER

NOTES

GENERAL: See CMS 622 for additional information.

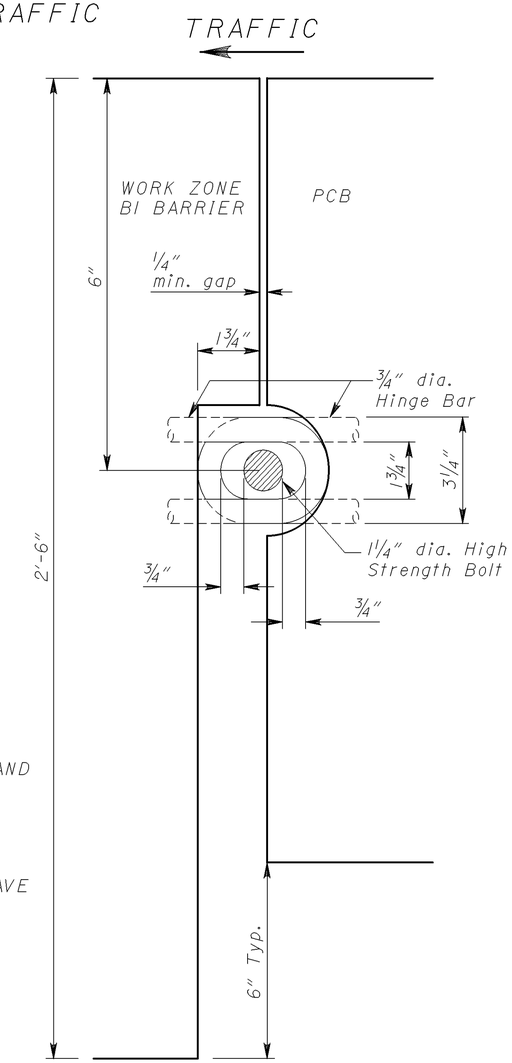
CONNECTING HARDWARE: Bolts, washers and hex nuts shall be galvanized after fabrication per CMS 711.02 and shall meet the requirements of CMS 711.09 except that the Rotational Capacity test specified in ASTM A 325 shall be waived.

In lieu of the pin and loop connections detailed on this Standard Construction Drawing, barrier sections with "J-J Hooks" end connections may be utilized.

Transition barrier sections with pin and loop connections on one end and "J-J Hooks" on the other shall be used to connect runs of "J-J Hooks" barrier to other permitted barrier types. The heights of the transition sections shall be the same as the barrier runs being connected.

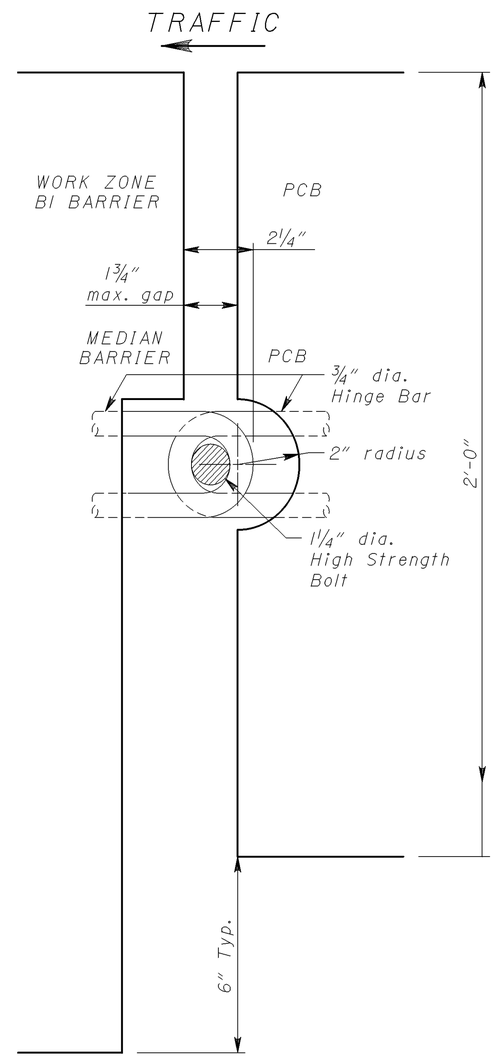
"J-J Hooks" is a trademark of Easi-Set Industries, P.O. Box 300, Midland, VA 22728, (540) 439-8911 or (800) 547-4045.

HINGE AND REINFORCING BARS: The ¾" [19] hinge may be ASTM A-36. Rebars shall meet the requirements of CMS 509. Black steel is permitted.



CLOSED JOINT

Barriers shall initially be placed close together so that Bolts can be easily inserted through Hinge Bar loop.



OPEN JOINT

Barrier joints shall be fully open before the Nut is tightened onto Bolt.

DETAIL A PLAN

VIEW D-D
JOINT CONNECTION DETAILS

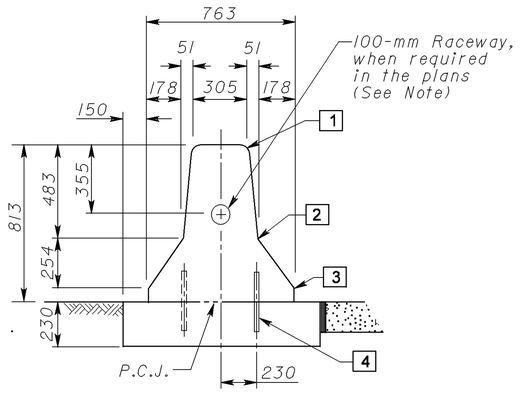
BARRIER, MISC.: WORK ZONE TYPE B1 CONCRETE BARRIER

MOT-75-14.60

1 / 2

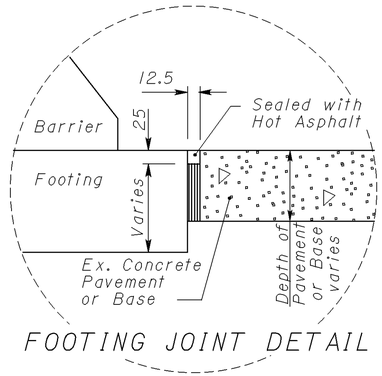
83B / 316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:31 PM
Filename: G:\C004\0066\Road\Sheets\23828mm-50pcb.dgn



TYPE B

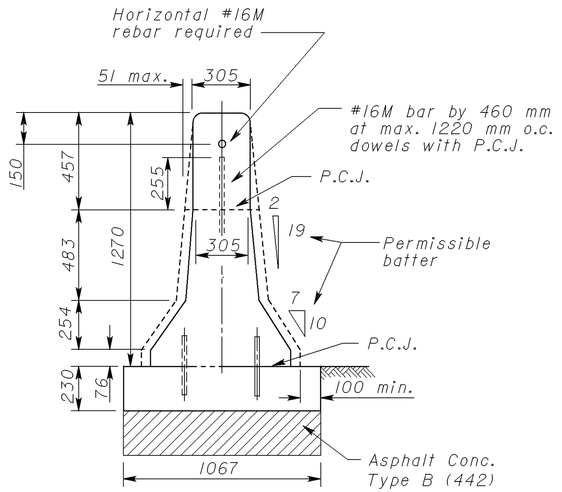
NORMAL SECTION



FOOTING JOINT DETAIL

LEGEND

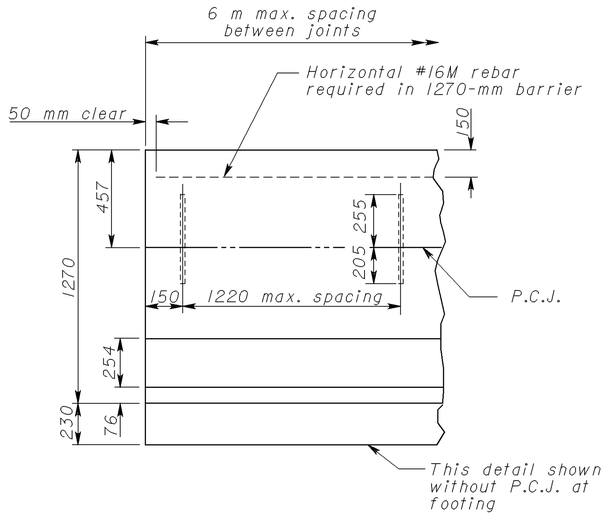
1. 25-mm radius or 19-mm chamfer.
2. Permissible 250-mm radius.
3. Permissible 25-mm radius.
4. #25M epoxy coated deformed steel bars, 305 mm long, spaced 1220 mm between successive bars on a staggered pattern except in Type D. Omit dowels when the top is constructed integrally with the base.



TYPE BI

TYPICAL SECTION

See Type B Normal Section Details for dimensions that are not shown.



1270-mm BARRIER

BARRIER ELEVATIONS

NOTES

JOINTS: Unsealed contraction joints shall be constructed between work zone barrier and existing barrier.

Contraction joints may be constructed with metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled or sawed joints shall have a 75-mm minimum depth. All joints shall be constructed for the full height of the barrier including the footing. Sawing shall be done as soon as curing will allow, to prevent spalling.

FOOTING JOINTS: The vertical walls between the barrier footing and a concrete pavement or concrete base shall be provided with a sealed joint as shown. Sealing material shall conform to CMS 705.04.

P.C.J. = Permissible Construction Joint

MEASUREMENT: Item 622, Barrier, Misc.: Work Zone Type BI Concrete Barrier, shall be paid for by feet and shall include all necessary hardware as detailed in these plans to provide connection to 50" PCB.

SUBGRADE: Upon removal of existing barrier and sign foundation, backfill using Type B Asphalt Concrete (CMS Item 442) to base of footing under barrier replacement.

Item 442, Asphalt Concrete, Misc.: Type B, 12", shall be paid for by cubic yard, in place and accepted.

1270-mm BARRIER: High barrier shall be built in locations specified in the plans. Construct the lower 813 mm of the barrier base using the same dimensions as shown in the corresponding Normal Section. The upper 457 mm may be constructed integral with the bottom, or separately with #15M rebar dowels at 1220 mm maximum spacing. Start and end dowels 150 mm from barrier contraction joints.

All dimensions are in millimeters unless otherwise noted.

CONVERSION OF METRIC UNITS ON THIS SHEET

THE METRIC UNITS ON THIS SHEET SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

metric units

BARRIER, MISC.: WORK ZONE TYPE B1 CONCRETE BARRIER

MOT-75-14.60

2/2

83C 316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:31 PM
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GENERAL SUMMARY

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																																ROADWAY	
LUMP																											LUMP		201	11000	LUMP		CLEARING AND GRUBBING	
				LUMP																							LUMP		202	11000	LUMP		STRUCTURE REMOVED	
		11947	12715																						27235	3427		202	23000	30662	SQ YD	PAVEMENT REMOVED	
			7461																						5281	2180		202	23010	7461	SQ YD	PAVEMENT REMOVED, ASPHALT	
				2297																					1969	328		202	30000	2297	SQ FT	WALK REMOVED	
				1047																					296	751		202	30600	1047	SQ YD	CONCRETE MEDIAN REMOVED	
				426																						426		202	30700	426	FT	CONCRETE BARRIER REMOVED	
				1397																					1348	49		202	32000	1397	FT	CURB REMOVED	
				509																					448	61		202	35100	509	FT	PIPE REMOVED, 24" AND UNDER	
				4676																					2894	1782		202	38000	4676	FT	GUARDRAIL REMOVED	
				1																					1			202	58000	1	EACH	MANHOLE REMOVED	
				13																					10	3		202	58100	13	EACH	CATCH BASIN REMOVED	
																					1					1		202	58700	1	EACH	MANHOLE ABANDONED	
				85																					85			SPECIAL	20270000	85	FT	FILL AND PLUG EXISTING CONDUIT	
				923																					399	524		202	75000	923	FT	FENCE REMOVED	
				LUMP																						LUMP		202	98000	LUMP		REMOVAL MISC.: STEEL ENCASED CONC. BOLLARDS	
										2846		389	208	1359		521		412	165	191		938			3245	3784		203	10000	7029	CU YD	EXCAVATION	
										4517		61	103	10528		63		967	873	955		251			13550	4768		203	20000	18318	CU YD	EMBANKMENT	
										1220				994											994	1220		203	20001	2214	CU YD	EMBANKMENT, AS PER PLAN	236
			16186																						1739	14447		204	10000	16186	SQ YD	SUBGRADE COMPACTION	
																									1	7		204	45000	8	HOUR	PROOF ROLLING	
					550.0	637.5		1187.5			612.5				225.0		562.5								562.5	3212.5		606	13000	3800.0	FT	GUARDRAIL, TYPE 5	
															1											1		606	22000	1	EACH	ANCHOR ASSEMBLY, B-98	
																	1								1			606	22010	1	EACH	ANCHOR ASSEMBLY, TYPE E-98	
					1	1					1															3		606	26500	3	EACH	ANCHOR ASSEMBLY, TYPE T	
								1									1								1	1		606	35000	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
					1	1		1			1															4		606	35100	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
					78		399	579	64		514															1634		607	23000	1634	FT	FENCE, TYPE CLT	
																										224		607	23004	224	FT	FENCE REBUILT, TYPE CLT	
																					2687					2687		608	10000	2687	SQ FT	4" CONCRETE WALK	
																					335					335		608	15000	335	SQ FT	8" CONCRETE WALK	
																					3					3		608	49001	3	EACH	CURB RAMP, AS PER PLAN	
							202	62																		264		622	10100	264	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
							1	1																		2		622	10200	2	EACH	BARRIER TRANSITION	
																																	168
																																EROSION CONTROL	
	2																									2		659	00100	2	EACH	SOIL ANALYSIS TEST	
										8731		1637	1420	6079		2034		1093	2858	3754		1087			18875	9818		659	10000	28693	SQ YD	SEEDING AND MULCHING	
	1435																									1435		659	14000	1435	SQ YD	REPAIR SEEDING AND MULCHING	
	1435																									1435		659	15000	1435	SQ YD	INTER-SEEDING	
	4																									4		659	20000	4	TON	COMMERCIAL FERTILIZER	
	5.9																									5.9		659	31000	5.9	ACRE	LIME	
	159																									159		659	35000	159	MGAL	WATER	
	65																									65		659	40000	65	MSF	MOWING	

CALCULATED EAK
CHECKED AM

MOT-75-14.60

84
316

Plotted By: acscheiderer Date: 8/22/2007 Time: 3:14:17 PM
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																									EROSION CONTROL (CONTINUED)	
			181	174	446	37	215											215	838		670	00700	1053	SQ YD	DITCH EROSION PROTECTION	
																			LUMP		832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
																			20000		832	30000	20000	EACH	EROSION CONTROL	
																									DRAINAGE	
			0.8	0.3	0.6														1.7		602	20000	1.7	CU YD	CONCRETE MASONRY	
				8.9															8.9		602	20001	8.9	CU YD	CONCRETE MASONRY, AS PER PLAN	
	683																	11	672		603	00510	683	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	14
	619																		619		603	00900	619	FT	6" CONDUIT, TYPE B	
								381											381		603	04400	381	FT	12" CONDUIT, TYPE B	
								55											55		603	04600	55	FT	12" CONDUIT, TYPE C	
					63	39		65											167		603	05900	167	FT	15" CONDUIT, TYPE B	
			183	20		119		113											435		603	06100	435	FT	15" CONDUIT, TYPE C	
			55	82	34														171		603	06700	171	FT	15" CONDUIT, TYPE F	
					180														180		603	07400	180	FT	18" CONDUIT, TYPE B	
								3											3		604	00400	3	EACH	CATCH BASIN, NO. 3	
			1	2	1	1		4											9		604	00800	9	EACH	CATCH BASIN, NO. 3A	
				1	2	1		3											7		604	04500	7	EACH	CATCH BASIN, NO. 2-2B	
				1				1											2		604	31500	2	EACH	MANHOLE, NO. 3	
	7																		7		604	36600	7	EACH	PRECAST REINFORCED CONCRETE OUTLET	
	4520																	463	4057		605	11100	4520	FT	6" SHALLOW PIPE UNDERDRAINS	
	1634																	133	1501		605	13300	1634	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
	2492																		2492		605	14000	2492	FT	6" BASE PIPE UNDERDRAINS	
				340															340		613	41200	340	CU YD	LOW STRENGTH MORTAR BACKFILL	
																									PAVEMENT	
				302																302	253	01000	302	SQ YD	PAVEMENT REPAIR	
				21																21	301	46000	21	CU YD	ASPHALT CONCRETE BASE, PG64-22	
		3954																453	3501		302	46000	3954	CU YD	ASPHALT CONCRETE BASE, PG64-22	
		2507																290	2217		304	20000	2507	CU YD	AGGREGATE BASE	
		1050																	1050		305	12000	1050	SQ YD	8" CONCRETE BASE	
		78																	78		407	13900	78	GAL	TACK COAT, 702.13	
		604																64	540		407	14000	604	GAL	TACK COAT FOR INTERMEDIATE COURSE	
2243		628																66	2805		442	10000	2871	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
		725																77	648		442	10100	725	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
				13																13	448	47020	13	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	
			20	40	20														80		609	24510	80	FT	CURB, TYPE 4-C	
					83	85	31	759										31	927		609	26000	958	FT	CURB, TYPE 6	
					107			84											191		609	72000	191	SQ YD	CONCRETE MEDIAN	

CALCULATED EAK
CHECKED AM

GENERAL SUMMARY

MOT-75-14.60

Plotted By: acscheiderer Date: 10/2/2007 Time: 11:59:01 AM
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																									MAINTENANCE OF TRAFFIC	
				135															135		251	01000	135	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR	
200																			200		410	12000	200	CU YD	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
200																			200		410	13000	200	CU YD	TRAFFIC COMPACTED SURFACE, TYPE C	
				135															135		423	98100	135	SQ YD	CRACK SEALING, MISC.: MOT DETOUR	
					17														17		442	90000	17	CU YD	ASPHALT CONCRETE, MISC.: TYPE B, 12"	83A
1000																			1000		614	11100	1000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
					1														1		SPECIAL	61411300	1	EACH	WORK ZONE TRAFFIC SIGNAL	
			20																20		614	11500	20	MONTHS	WORKSITE TRAFFIC SUPERVISOR	
					8866														8866		614	11600	8866	FT	TRANSITION AREA DELINEATION	
					2243														2243		614	11610	2243	FT	TANGENT AREA DELINEATION	
					10														10		614	12338	10	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
	13																		13		614	12470	13	EACH	WORK ZONE SPEED LIMIT SIGN	
	7																		7		614	12484	7	EACH	WORK ZONE INCREASED PENALTIES SIGN	
100																			100		614	12510	100	SQ FT	REPLACEMENT SIGN	
200																			200		614	12600	200	EACH	REPLACEMENT DRUM	
			243																243		614	12800	243	EACH	WORK ZONE RAISED PAVEMENT MARKER	
			1156																1156		614	12801	1156	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	81
250																			250		614	13000	250	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
			12208																12208		614	13171	12208	FT	LINEAR DELINEATION, AS PER PLAN	20
					285														285		614	13300	285	EACH	BARRIER REFLECTOR, TYPE B	
			11		285														296		614	13350	296	EACH	OBJECT MARKER, ONE WAY	
		20																	20		614	18601	20	SIGN-MONTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
				LUMP															LUMP		614	18002	LUMP		MAINTAINING TRAFFIC, MISC.: PHASE 1B DETOUR	
					0.78														0.78		614	20200	0.78	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I	
					0.21														0.21		614	20300	0.21	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE II	
					0.03														0.03		614	21200	0.03	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
					0.01														0.01		614	21300	0.01	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II	
					4.30														4.3		614	22200	4.30	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
					0.52														0.52		614	22300	0.52	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II	
					2862														2862		614	23400	2862	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	
					3692														3692		614	24400	3692	FT	WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I	
					81														81		614	25400	81	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 740.06, TYPE I	
					67														67		614	26400	67	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
					34														34		614	26600	34	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II	
					163														163		615	20000	163	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
550																			550		616	10000	550	MGAL	WATER	
					10520														10520		622	40020	10520	FT	PORTABLE CONCRETE BARRIER, 32"	
					96														96		622	40031	96	FT	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	83A
					1586														1586		622	40040	1586	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	
					6														6		622	90000	6	FT	BARRIER, MISC.: WORK ZONE TYPE BI CONCRETE BARRIER	83B-83C
				200															200		642	50020	200	FT	PAVEMENT MARKING, MISC.: MOT DETOUR	
																									FOR TRAFFIC CONTROL GENERAL SUMMARY	181
																									FOR TRAFFIC SIGNAL GENERAL SUMMARY	213
																									FOR LIGHTING GENERAL SUMMARY	225
																									FOR STRUCTURE QUANTITIES	242
																									FOR RETAINING WALL QUANTITIES	293
																		LUMP			SPECIAL	10810000	LUMP		CPM PROGRESS SCHEDULE	
																		LUMP			614	11000	LUMP		MAINTAINING TRAFFIC	
																		20			619	16020	20	MONTH	FIELD OFFICE, TYPE C	
																		LUMP			623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
																		LUMP			624	10000	LUMP		MOBILIZATION	

CALCULATED EAK
CHECKED AM

GENERAL SUMMARY

MOT-75-14.60

Plotted By: acscheiderer Date: 8/22/2007 Time: 3:16:10 PM
Filename: g:\C004\0066\Road\STL_ATL\Sheets\General\23828gg03_STL.dgn

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442 ASPHALT CONCRETE, MISC.: TYPE B, (T-12")	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 TRANSITION AREA DELINEATION	614 TANGENT AREA DELINEATION	614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE)	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	622 PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	622 BARRIER, MISC.: WORK ZONE BI BARRIER
					CY	EA	FT	FT	EA	EA	EA	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	SY	FT	FT	FT	FT
21	4+79.71	6+00.00	RT	IA													0.02												
22	6+00.00	11+50.00	RT	IA													0.10												
	8+02.00	11+50.00	LT	IA													0.07												
23	11+50.00	15+16.05	RT	IA													0.07												
	11+50.00	16+50.00	LT	IA													0.09												
	6+68.80	8+62.30	LT & RT	IA													0.08												
	7+48.80	8+56.87	LT & RT	IA																				163					
				IA		1																							
24	16+50.00	21+00.00	LT	IA													0.09												
27	441+50.00	446+50.00	RT	IA													0.09												
28	446+50.00	452+00.00	RT	IA													0.10												
	451+14.00	452+00.00	RT	IA					1	3	3															86			
29	452+00.00	456+00.00	RT	IA													0.08												
	452+00.00	456+00.00	RT	IA						9	9															400			
	454+25.00	456+88.00	LT	IA					1	6	6															263			
	454+56.11	455+52.11	MEDIAN	IA																							96		
	454+56.11	455+52.11	MEDIAN	IA	17																								
	454+56.11	454+59.11	MEDIAN	IA																									3
	455+49.11	455+52.11	MEDIAN	IA																									3
34	422+40.67	423+00.00	RT	IB								0.01																	
	422+40.67	423+00.00	RT	IB												0.01													
35	423+00.00	428+50.00	RT	IB								0.10																	
	423+00.00	428+50.00	RT	IB												0.10													
36	428+50.00	434+00.00	RT	IB								0.10																	
	428+50.00	434+00.00	RT	IB												0.10													
	433+67.00	434+00.00	RT	IB												0.01													
	429+09.67	434+00.00	RT	IB						11	11															490			
	433+67.00	434+00.00	LT	1						2	2															33			
	8+98.91	9+44.19	LT	IB															0.01										
	9+02.02	9+44.19	LT	IB						1	1															45			
37	434+00.00	439+50.00	RT	IB								0.10																	
	434+00.00	437+87.28	RT	IB												0.07													
	434+00.00	439+50.00	LT	IB						12	12															550			
	434+00.00	435+06.65	RT	1						3	3															107			
	435+27.28	437+87.28	RT	IB																			260						
	437+87.28	439+50.00	RT	IB																	327								
	434+00.00	439+14.16	LT	IB												0.10													
	8+00.00	8+98.91	LT	IB															0.02										
	8+28.19	9+02.02	LT	IB					1	3	3															74			
	1+00.00	439+14.16	LT	IB													0.03												
	1+00.00	439+50.00	LT	IB						5	5															180			
	439+14.16	439+50.00	LT	IB																	36								
	439+14.16	439+50.00	LT	IB																	36								
	1+46.98	439+50.00	LT	IB												0.04													
38	439+50.00	445+00.00	RT	IB								0.10																	
	439+50.00	440+47.36	RT	IB																	97								
	439+50.00	440+47.36	RT	IB																	98								
	440+47.36	445+00.00	RT	IB												0.09													
	439+50.00	440+39.94	LT	IB					1	3	3															90			
	439+50.00	440+39.94	LT	IB					1	3	3															90			
	439+50.00	445+00.00	LT	IB												0.10													
	439+50.00	442+34.16	LT	IB																	283								
	439+50.00	442+34.16	LT	IB																	283								
	442+34.16	445+00.00	LT	IB																		266							
TOTALS CARRIED TO SHEET 90					17	1	0	0	5	61	61	0.41	0.00	0.00	0.00	0.62	0.82	0.00	0.03	1160	526	0	0	0	163	2408	96	0	6

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC SUBSUMMARY

MOT-75-14.60

87
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:03 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\General\23828gs01_mot_STL.dgn

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442 ASPHALT CONCRETE, MISC.: TYPE B, (T-12")	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 TRANSITION AREA DELINEATION	614 TANGENT AREA DELINEATION	614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE)	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	622 PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	622 BARRIER, MISC.: WORK ZONE BI BARRIER
					CY	EA	FT	FT	EA	EA	EA	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	SY	FT	FT	FT	FT
39	437+06.80	438+06.80	LT	IB																100									
	0+93.73	443+96.16	LT	IB						13	13															618			
	1+17.72	438+06.80	LT	IB																72									
	438+06.80	443+04.16	LT	IB																	497								
	4+18.25	439+50.00	LT	IB												0.14													
	1+17.72	4+18.25	LT	IB													0.06												
	439+50.00	445+54.16	LT	IB												0.11													
40	445+00.00	450+50.00	RT	IB								0.10																	
	445+00.00	450+50.00	RT	IB												0.10													
	447+46.71	450+50.00	RT	IB													0.06												
	447+49.98	450+50.00	RT	IB					1	7	7															300			
	445+00.00	445+54.16	LT	IB																	54								
	445+00.00	450+50.00	LT	IB												0.10													
	450+44.25	450+50.00	LT	IB								0.01																	
	450+44.25	450+50.00	LT	IB													0.01												
41	450+50.00	453+33.00	LT	IB													0.05												
	450+50.00	453+33.00	LT	IB								0.05																	
	450+50.00	453+33.00	LT	IB												0.05													
	453+33.00	455+76.71	LT	IB						6	6															245			
	455+76.71	456+00.00	LT	IB						1	1																20		
	450+50.00	454+00.00	RT	IB													0.07												
	450+50.00	454+00.00	RT	IB								0.07																	
	450+50.00	454+00.00	RT	IB												0.07													
	450+50.00	455+76.71	RT	IB						12	12															527			
	455+76.71	456+00.00	RT	IB						1	1																20		
	453+33.00	456+00.00	LT	IB															0.05										
	453+33.00	456+00.00	LT	IB									0.05																
	453+33.00	456+00.00	LT	IB														0.05											
	454+00.00	456+00.00	RT	IB															0.04										
	454+00.00	456+00.00	RT	IB									0.04																
	454+00.00	456+00.00	RT	IB														0.04											
42	456+00.00	459+44.48	LT	IB									0.07					0.07	0.07										
	459+44.48	461+50.00	LT	IB			206																						
	456+00.00	461+50.00	LT	IB						12	12																550		
	456+00.00	458+52.19	RT	IB									0.05					0.05	0.05										
	458+52.19	461+50.00	RT	IB			298																						
	456+00.00	461+50.00	RT	IB						12	12																550		
43	461+50.00	467+00.00	LT	IB			550																						
	461+50.00	461+77.19	LT	IB						2	2																30		
	461+77.19	467+00.00	LT	IB						11	11															520			
	461+50.00	467+00.00	RT	IB			550																						
	461+50.00	461+77.19	RT	IB						2	2																30		
	461+77.19	467+00.00	RT	IB						11	11															520			
44	467+00.00	468+70.72	LT	IB			171																						
	467+00.00	468+50.94	RT	IB			151																						
	468+70.72	472+50.00	LT	IB				379																					
	467+00.00	470+14.06	LT	IB					1	7	7															320			
	468+50.94	472+50.00	RT	IB												0.08													
	467+00.00	468+04.07	RT	IB						3	3															104			
45	472+50.00	478+26.00	LT	IB				576																					
	478+26.00	483+50.00	LT	IB			524																						
	472+50.00	473+20.94	RT	IB								0.01																	
	473+49.06	479+26.00	LT	IB																	577								
	14+03.41	5+00.00	LT	IB												0.17													
	479+26.00	5+00.00	LT	IB																318									
46	483+50.00	487+26.00	LT	IB				376																					
	487+26.00	494+16.00	LT	IB												0.13													
47	0+36.82	2+00.00	RT	IB												0.03													
48	2+00.00	7+50.00	RT	IB												0.10													
TOTALS CARRIED TO SHEET 90					0	0	2450	1331	2	100	100	0.24	0.21	0.00	0.00	1.08	0.25	0.21	0.21	490	1128	0	0	0	0	3154	0	1200	0

CALCULATED EAK
CHECKED AM

MAINTENANCE OF TRAFFIC SUBSUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:04 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\General\23828gs02_mot_STL.dgn

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442 ASPHALT CONCRETE, MISC.: TYPE B, (T-12")	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 TRANSITION AREA DELINEATION	614 TANGENT AREA DELINEATION	614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE)	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE)	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	622 PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	622 BARRIER, MISC.: WORK ZONE BI BARRIER
					CY	EA	FT	FT	EA	EA	EA	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	SY	FT	FT	FT	FT
49	7+50.00	12+00.00	RT	1B												0.09													
	8+02.00	13+00.00	LT	1B													0.09												
	11+50.00	13+00.00	RT	1B													0.03												
	10+80.00	12+33.86	RT	1B																	114								
	12+33.86	13+00.00	RT	1B																66									
50	13+00.00	13+88.11	LT	1B													0.02												
	13+00.00	13+88.11	RT	1B													0.02												
	13+00.00	13+90.00	RT	1B																90									
	13+90.00	13+90.00	RT	1B																			22						
	8+05.00	8+05.00	LT & RT	1B																				34					
	7+49.00	8+15.00	LT	1B											0.01														
	14+50.35	14+74.53	RT	1B																			24						
	14+52.32	15+22.00	LT	1B																166		81							
	15+22.00	15+22.00	LT	1B																			21						
	15+22.00	16+72.00	CL	1B										0.03															
	15+22.00	16+72.00	LT	1B																150									
53	4+19.19	8+00.00	LT	1B															0.07										
58	436+08.31	439+00.00	RT	2													0.06												
	433+67.00	439+00.00	LT	2						12	12															533			
	437+73.00	439+00.00	LT	2			127																						
59	439+00.00	439+08.00	LT	2			8																						
	439+00.00	444+50.00	RT	2													0.11												
	439+00.00	442+16.16	LT	2					1	7	7															316			
	439+08.00	444+50.00	LT	2				542																					
	441+50.00	444+50.00	LT	2																	300								
60	444+50.00	445+09.80	RT	2													0.01												
	444+57.28	445+09.80	RT	2												0.01													
	445+09.80	450+00.00	RT	2			490																						
	445+25.80	450+00.00	RT	2					1	11	11															480			
	446+15.00	449+86.86	LT	2													0.07												
	447+21.25	449+86.86	RT	2													0.05												
	444+50.00	445+28.26	LT	2				78																					
	445+28.26	450+00.00	LT	2			472																						
	444+50.00	448+46.62	LT	2																	397								
61	450+00.00	455+50.00	LT	2			550																						
	450+00.00	455+50.00	RT	2			550																						
	450+00.00	455+50.00	RT	2						12	12															560			
	451+85.78	455+50.00	RT	2																	364								
	449+86.86	451+00.00	LT	2						3	3															110			
	449+86.86	450+21.25	LT	2													0.01												
	449+86.86	451+85.78	RT	2													0.04												
	450+21.25	452+00.00	LT	2																179									
	453+30.19	455+48.35	LT	2												0.04													
	453+33.00	455+50.00	LT	2						5	5															217			
62	455+48.35	458+76.71	LT	2												0.06													
	455+50.00	455+56.47	LT	2			6																						
	455+56.47	456+70.28	LT	2				114																					
	456+70.28	461+00.00	LT	2			430																						
	455+50.00	459+33.31	RT	2			383																						
	459+33.31	459+50.00	RT	2				17																					
	459+20.00	461+00.00	RT	2			180																						
	455+50.00	459+50.43	RT	2						9	9															400			
	459+50.43	461+00.00	RT	2						4	4																150		
	455+50.00	459+70.28	LT	2						9	9															420			
	459+70.28	461+00.00	LT	2						4	4																130		
	455+53.64	458+76.71	LT	2																	323								
TOTALS CARRIED TO SHEET 90					0	0	3196	751	2	76	76	0.00	0.00	0.03	0.01	0.20	0.51	0.00	0.07	651	1498	81	67	34	0	3036	0	280	0

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED AML

CHECKED AM

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:34 PM
Filename: G:\C004\0066\Road\General\23828gs03_mot.dgn

SUMMARY OF TRAFFIC MAINTENANCE

CALCULATED EAK CHECKED AM

SHEET NO.	STATION FROM	STATION TO	SIDE	PHASE	442 ASPHALT CONCRETE, MISC.: TYPE B, (T-12") CY	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL EA	TRANSITION AREA DELINEATION FT	TANGENT AREA DELINEATION FT	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL) EA	BARRIER REFLECTOR, TYPE B EA	OBJECT MARKER, ONE WAY EA	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I (WHITE) MILE	WORK ZONE LANE LINE, CLASS I, 740.06 TYPE II (WHITE) MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW) MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE II (DOUBLE YELLOW) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (YELLOW) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (WHITE) MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE II (YELLOW) MILE	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I (WHITE) FT	WORK ZONE DOTTED LINE, CLASS I, 740.06 TYPE I (WHITE) FT	WORK ZONE TRANSVERSE LINE, CLASS I, 740.06, TYPE I FT	WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I (WHITE) FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE II (WHITE) FT	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SY	622 PORTABLE CONCRETE BARRIER, 32" FT	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED FT	BARRIER, MISC.: WORK ZONE BI BARRIER FT
63	461+00.00	461+52.53	LT	2						2	2																	53	
	461+00.00	466+50.00	LT	2			550																						
	461+52.53	466+50.00	LT	2						11	11																497		
	461+00.00	461+52.53	RT	2						2	2																	53	
	461+00.00	466+50.00	RT	2			550																						
	461+52.53	466+50.00	RT	2						11	11																497		
64	466+50.00	472+00.00	LT	2			550																						
	466+50.00	472+00.00	LT	2						12	12																550		
	468+25.28	472+00.00	LT	2												0.07													
	468+25.28	472+00.00	LT	2																		375							
	466+50.00	468+55.01	RT	2			205																						
	466+50.00	467+80.43	RT	2						4	4																130		
	468+55.01	469+55.01	RT	2													0.02												
65	472+00.00	476+65.28	LT	2			465																						
	476+65.28	477+50.00	LT	2				85																					
	472+00.00	477+50.00	LT	2												0.10													
	472+00.00	473+65.28	LT	2																		165							
	472+00.00	474+45.28	LT	2					1	6	6																245		
	473+65.28	477+50.00	LT	2																	385								
66	477+50.00	478+26.00	LT	2				76																					
	477+50.00	5+00.00	LT	2												0.09													
	478+26.00	487+26.00	LT	2			900																						
	479+26.00	5+00.00	LT	2													0.06												
	477+50.00	479+26.00	LT	2																	176								
	487+26.00	488+00.00	LT	2													0.01												
67	488+00.00	494+16.00	LT	2													0.12												
69	12+36.00	17+50.00	LT	2												0.10													
	15+40.00	17+50.00	LT	2													0.04												
70	17+50.00	17+80.00	LT	2												0.01													
	17+50.00	21+01.00	LT	2													0.07												
78	8+52.00	11+50.00	LT	3								0.06																	
	8+52.00	11+50.00	LT	3												0.06													
79	11+50.00	15+28.88	LT	3								0.07																	
	11+50.00	15+28.88	LT	3												0.07													
		TOTALS FROM SHEET 87			17	1	0	0	5	61	61	0.41	0.00	0.00	0.00	0.62	0.82	0.00	0.03	1160	526	0	0	0	163	2408	96	0	6
		TOTALS FROM SHEET 88			0	0	2450	1331	2	100	100	0.24	0.21	0.00	0.00	1.08	0.25	0.21	0.21	490	1128	0	0	0	0	3154	0	1200	0
		TOTALS FROM SHEET 89			0	0	3196	751	2	76	76	0.00	0.00	0.03	0.01	0.20	0.51	0.00	0.07	651	1498	81	67	34	0	3036	0	280	0
		TOTALS FROM THIS SHEET			0	0	3220	161	1	48	48	0.13	0.00	0.00	0.00	0.50	0.32	0.00	0.00	561	540	0	0	0	0	1919	0	106	0
TOTALS CARRIED TO GEN. SUM.					17	1	8866	2243	10	285	285	0.78	0.21	0.03	0.01	4.30		0.52		2862	3692	81	67	34	163	10520	96	1586	6

MAINTENANCE

MOT-75-14.60

90
316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:34 PM
Filename: G:\C004\0066\Road\General\23828gs04_mot.dgn

UNDERDRAIN SUBSUMMARY

CALCULATED EAK CHECKED AM

REF NO.	BEGINNING SHEET NO.	ENDING SHEET NO.	STATION FROM	STATION TO	SIDE	603 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS FT	603 6" CONDUIT, TYPE B FT	604 PRECAST REINFORCED CONCRETE OUTLET EA	605 6" SHALLOW PIPE UNDERDRAINS (D=30") FT	605 6" UNCLASSIFIED PIPE UNDERDRAINS FT	605 6" BASE PIPE UNDERDRAINS (D=18") FT	INVERT @ BEGINNING OF RUN	INVERT @ IST BEND	INVERT @ 2ND BEND	INVERT @ 3RD BEND	INVERT @ 4TH BEND	INVERT @ OUTLET OF RUN	OUTLETS TO	BENDS AND BRANCHES 6" X 45° NO.	6" X 90° NO.	6" X 6" TEE NO.	6" X 6" WYE NO.	6" X 6" CROSS NO.	END CAP NO.
	IR 75																							
1-U	97	98	433+67.00	436+06.19	LT	11				240		745.23	741.93	741.83				4-U		1		1		1
2-U	97	98	432+45.67	435+06.65	RT	8			260			746.56	741.53				741.51	3-U		1				1
3-U	97	98	432+45.67	436+01.19	RT	105				261		747.38**	746.86	741.51	741.48		741.32	EX CB	1	1	1			
4-U	97	98	433+67.00	436+06.19	LT	86			240			744.65	740.84	740.39			740.30	EX CB	1	1				
5-U			NOT	USED																				
6-U			NOT	USED																				
7-U	98	98	436+17.46	439+04.16	LT	85			287			745.49	740.83	740.32			740.26	EX CB	1					1
8-U	98	98	436+17.46	439+04.16	LT	11				288		746.27**	746.20	741.91	741.81			7-U	1		1	1		
9-U	99	99	446+43.65	452+44.94	RT	11*			463*	133*		758.44	757.95	757.91	740.67	740.59	740.56	EX CB	3	1				1
10-U	99	99	452+25.40	453+44.71	RT	9		1			125	760.95	760.82	760.79	759.45		759.36	SLOPE	2	1				1
11-U	99	100	453+27.33	455+77.03	LT		37		247			764.27	757.20				755.78	12-U		1				
12-U	99	100	453+27.33	455+77.03	LT	138			245			763.57	755.78	755.38			740.58	EX MH			2			
13-U	99	100	453+27.33	455+72.07	LT						242	764.20	763.01	762.96	756.33			12-U	2	1				1
14-U	99	100	453+47.35	455+75.03	RT	9			231			764.57	760.31				760.27	PR CB		1				
15-U	99	100	453+47.35	455+75.03	RT						232	765.19					760.95	PR CB						
16-U	100	100	454+00.00	455+75.03	RT					176		764.27	760.65				760.60**	EX UD	1					
17-U	100	100	461+52.19	462+50.00	LT		19			98		766.65	764.75				764.51	18-U		1				
18-U	100	100	461+52.19	462+50.00	RT	20	43	1	98			766.65	764.51				763.71	SLOPE					1	
19-U			NOT	USED																				
20-U	100	100	461+52.19	462+50.00	RT				98			766.71	763.96					18-U			1			
21-U	100	100	461+52.19	461+80.28	RT					30		767.27	767.00	766.97			766.78	PR CB		2				
22-U	100	100	461+83.05	462+50.00	RT	6					67	767.10	764.64	764.59				18-U		1		1		
23-U	100	100	461+52.19	463+42.86	LT	11				191		766.64	763.99				763.83	PR CB		1				
24-U	100	100	461+52.19	463+42.86	LT						189	767.30					763.57	PR CB						
25-U	100	102	462+51.00	466+69.00	RT	35		1	418			764.70	758.36				758.01	SLOPE			1			1
26-U	100	102	462+51.00	466+69.00	RT	11					418	765.37	758.96	758.86				25-U			1	1		1
27-U	100	102	463+43.86	466+69.00	LT	35		1	325			763.01	758.36				758.01	SLOPE			1			1
28-U	100	102	463+45.60	466+69.00	LT	11					323	763.42	758.96	758.86				27-U			1	1		1
29-U	102	102	466+69.00	468+30.96	LT				162			759.43					758.36	27-U						1
30-U	102	102	466+69.00	468+30.96	LT						164	760.31**	760.01				758.96	27-U	1					
31-U	102	102	466+69.00	467+94.07	RT				125			759.30	758.36					25-U						1
32-U	102	102	466+69.00	467+94.07	RT						127	760.12**	759.60				758.96	25-U	1					
	RAMP N-6																							
33-U	122	122	445+90.73	446+20.03	LT						39	739.84					739.47	PR CB						1
34-U			NOT	USED																				
35-U	122	122	446+22.03	447+06.79	LT					85		740.31					739.32	PR CB						1
36-U	122	122	450+16.66	452+06.94	LT	17		1	190			750.79	746.72				746.54	SLOPE		1				1
37-U	122	122	452+07.94	455+73.81	LT	21		1	366			762.09	750.82				749.56	SLOPE		1				
38-U	122	122	452+07.94	455+37.29	LT	6					329	760.74	751.29	750.99				37-U		1		1		1
39-U	122	122	455+40.13	455+70.07	LT					30		761.77					761.60	PR CB						
	RAMP N-6A																							
40-U	129	129	440+41.95	440+79.68	RT				53			739.97					738.44	PR CB	1					1
41-U	129	129	448+12.70	446+00.00	RT	16		1	212			757.30**	756.66	749.80			749.64	SLOPE	1	1				
42-U	129	129	446+01.00	441+94.38	RT	21			384			749.83	740.73				740.52	PR CB	1					1
43-U	129	129	441+89.38	440+79.68	RT				116			740.38	739.81	739.57			738.44	PR CB		2				1
	STANLEY AVENUE																							
44-U			NOT	USED																				
45-U	146	146	9+10.85	11+36.43	MEDIAN		257					739.01	738.04				737.86	PR CB	1					1
46-U	146	146	9+58.82	10+00.68	LT						41	738.90	738.65				738.63**	EX UD	1					1
47-U	146	146	9+90.09	10+40.11	RT					56		739.75	739.55				739.47	EX MH	1					1
48-U			NOT	USED																				
49-U	146	147	11+36.43	11+73.17	MEDIAN		40					739.04	738.88				738.82	PR CB	1					1
50-U			NOT	USED																				
51-U	147	147	11+94.00	14+16.05	MEDIAN		223					740.69	739.20				739.17	PR CB	1					1
52-U	147	147	12+93.00	14+07.29	LT						124	740.44	739.56				739.57**	EX UD	1					1
53-U	147	147	14+12.00	14+85.00	LT						72	740.52					740.01	PR CB						1
54-U	147	147	14+85.00	15+29.65	LT					46		740.67					740.52	PR CB						1
ALLOCATED TOTALS CARRIED TO GEN. SUM.*						11	0	0	463	133	0													
ALLOCATED TOTALS CARRIED TO GEN. SUM.						672	619	7	4057	1501	2492													
GRAND TOTAL CARRIED TO GEN. SUM.						683	619	7	4520	1634	2492	TOTALS FOR INFORMATION ONLY							23	20	9	6	1	27

COLUMNS TO RIGHT ARE FOR INFORMATION ONLY.
** - FIELD VERIFY EXISTING LOCATION AND ELEVATION
* - HIGHWAY SAFETY PROGRAM (HSP)

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:07 AM
Filename: g:\C004\00666\Road\General\23828gs01_undr.dgn

MOT-75-14.60

STATION FROM	STATION TO	LOCATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	204 SUBGRADE COMPACTION A/9	302 ASPHALT CONCRETE BASE, PG64-22 (T-10") 10A/(12x27)	304 AGGREGATE BASE (T-4") 4A/(12x27)	304 AGGREGATE BASE (T-6") 6A/(12x27)	305 8" CONCRETE BASE A/9	407 TACK COAT FOR INTERMEDIATE COURSE 0.040A/9	407 TACK COAT, 702.13 0.075A/9	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.75") 1.75A/(12x27)	
				FT	FT	SQ FT	SQ YD	CU YD	CU YD	CU YD	SQ YD	GAL	GAL	CU YD	CU YD	CU YD	
433+67.00	439+04.16	IR-75	LT	537.16	15.33	8234.66	914.96		101.66								
					14.33	7697.50		237.58									
					14.00	7520.24						33.42		34.82		40.62	
432+45.67	433+45.67	IR-75	RT	100.00	16.33	1633.00	181.44		20.16								
					15.33	1533.00		47.31									
					15.00	1500.00						6.67		6.94		8.10	
433+45.67	435+06.65	IR-75	RT	160.98	21.33	3433.70	381.52		42.39								
					20.33	3272.72		101.01									
					20.00	3219.60						14.31		14.91		17.39	
450+29.63	452+85.40	IR-75	GORE	CAD	GENERATED	3365.00	373.89			62.31							
				CAD	GENERATED	3365.00		103.86									
				CAD	GENERATED	3365.00						14.96		15.58		18.18	
452+85.40	454+35.24	IR-75	RT	CAD	GENERATED	3665.00	407.22			67.87							
				CAD	GENERATED	3665.00		113.12									
				CAD	GENERATED	3665.00						16.29		16.97		19.80	
453+27.33	455+28.28	IR-75	LT	200.95	57.33	11520.46	1280.05			213.34							
					56.33	11319.51		349.37									
					56.00	11253.20						50.01		52.10		60.78	
455+28.28	455+50.03	IR-75	LT	21.75	46.00	1000.50	111.17			18.53							
					46.00	1000.50		30.88									
					46.00	1000.50						4.45		4.63		5.40	
454+00.00	455+50.03	IR-75	RT	150.03	46.00	6901.38	766.82			127.80							
					46.00	6901.38		213.01									
					46.00	6901.38						30.67		31.95		37.28	
454+35.24	455+50.03	IR-75	RT	CAD	GENERATED	2415.00	268.33			44.72							
				CAD	GENERATED	2415.00		74.54									
				CAD	GENERATED	2415.00						10.73		11.18		13.04	
450+21.25	451+75.40	N-7		154.15	23.33	3596.32	399.59*			66.60*							
					22.33	3442.17		106.24*									
					22.00	3391.30						15.07*		15.70*		18.32*	
451+75.40	452+25.40	N-7		50.00	24.33	1216.50	135.17*			22.53*							
					23.33	1166.50		36.00*									
					23.00	1150.00						5.11*		5.32*		6.21*	
452+25.40	452+85.40	IR-75	RT	60.00	25.33	1519.80	168.87			28.14							
					24.33	1459.80		45.06									
					24.00	1440.00						6.40		6.67		7.78	
452+85.40	453+00.00	IR-75	RT	14.60	9.33	136.22	15.14			2.52							
					8.33	121.62		3.75									
					8.00	116.80						0.52		0.54		0.63	
453+00.00	453+50.00	IR-75	RT	50.00	10.33	516.50	57.39			9.56							
					9.33	466.50		14.40									
					9.00	450.00						2.00		2.08		2.43	
453+50.00	455+50.03	IR-75	RT	200.03	11.33	2266.34	251.82			41.97							
					10.33	2066.31		63.78									
					10.00	2000.30						8.89		9.26		10.80	
461+77.53	462+59.80	IR-75	RT	82.27	46.00	3784.42	420.49			70.08							
					46.00	3784.42		116.80									
					46.00	3784.42						16.82		17.52		20.44	
461+77.53	462+59.80	IR-75	RT	CAD	GENERATED	525.00	58.33			9.72							
				CAD	GENERATED	525.00		16.20									
				CAD	GENERATED	525.00						2.33		2.43		2.84	
461+77.53	462+37.53	IR-75	RT	60.00	10.33	619.80	68.87			11.48							
					9.33	559.80		17.28									
					9.00	540.00						2.40		2.50		2.92	
TOTALS* CARRIED TO SHEET 94							534.76	142.24	0.00	89.13	0.00	20.18	0.00	21.02	0.00	24.53	
TOTALS CARRIED TO SHEET 94							5726.31	1547.95	164.21	708.04	0.00	220.87	0.00	230.08	0.00	268.43	

* - HIGWAY SAFETY PROGRAM (HSP)

CALCULATED AML CHECKED AM

PAVEMENT CALCULATIONS

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:08 AM
Filename: g:\C004\0066\Road\General\23828gs0L_pavt.dgn

STATION FROM	STATION TO	LOCATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	204 SUBGRADE COMPACTION A/9	302 ASPHALT CONCRETE BASE, PG64-22 (T-10") 10A/(12x27)	304 AGGREGATE BASE (T-4") 4A/(12x27)	304 AGGREGATE BASE (T-6") 6A/(12x27)	305 8" CONCRETE BASE A/9	407 TACK COAT FOR INTERMEDIATE COURSE 0.040A/9	407 TACK COAT, 702.13 0.075A/9	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.75") 1.75A/(12x27)	
				FT	FT	SQ FT	SQ YD	CU YD	CU YD	CU YD	SQ YD	GAL	GAL	CU YD	CU YD	CU YD	
462+37.53	462+59.80	IR-75	RT	22.27	9.33	207.78	23.09			3.85							
					8.33	185.51		5.73									
					8.00	178.16						0.79		0.82		0.96	
462+59.80	465+35.40	IR-75	RT	CAD	GENERATED	760.00	84.44		9.38								
				CAD	GENERATED	760.00		23.46									
				CAD	GENERATED	760.00						3.38		3.52		4.10	
462+59.80	464+85.40	IR-75	RT	225.60	9.33	2104.85	233.87		25.99								
					8.33	1879.25		58.00									
					8.00	1804.80						8.02		8.36		9.75	
464+85.40	465+35.40	IR-75	RT	50.00	10.33	516.50	57.39		6.38								
					9.33	466.50		14.40									
					9.00	450.00						2.00		2.08		2.43	
465+35.40	467+94.07	IR-75	RT	258.67	11.33	2930.73	325.64		36.18								
					10.33	2672.06		82.47									
					10.00	2586.70						11.50		11.98		13.97	
461+77.53	462+28.07	IR-75	LT	50.54	68.00	3436.72	381.86			63.64							
					68.00	3436.72		106.07									
					68.00	3436.72						15.27		15.91		18.56	
462+28.07	462+50.00	IR-75	LT	21.93	66.91	1467.34	163.04			27.17							
					66.91	1467.34		45.29									
					66.91	1467.34						6.52		6.79		7.93	
462+50.00	463+40.00	IR-75	LT	CAD	GENERATED	1390.00	154.44		17.16								
				CAD	GENERATED	1390.00		42.90									
				CAD	GENERATED	1390.00						6.18		6.44		7.51	
463+40.00	464+00.00	IR-75	LT	60.00	12.33	739.80	82.20		9.13								
					11.33	679.80		20.98									
					11.00	660.00						2.93		3.06		3.56	
464+00.00	468+30.96	IR-75	LT	430.96	11.33	4882.78	542.53		60.28								
					10.33	4451.82		137.40									
					10.00	4309.60						19.15		19.95		23.28	
446+55.00	450+21.25	N-7		366.25	27.67	10134.14	1126.02*			187.67*							
					25.67	9401.64		290.17*									
					25.00	9156.25						40.69*		42.39*		49.46*	
446+25.00	446+55.00	N-7		CAD	GENERATED	708.00	78.67*			13.11*							
				CAD	GENERATED	658.00		20.31*									
				CAD	GENERATED	635.00						2.82*		2.94*		3.43*	
440+25.85	440+82.26	N-6A		CAD	GENERATED	3750.00	416.67			69.44							
				CAD	GENERATED	3450.00		106.48									
				CAD	GENERATED	3450.00						15.33		15.97		18.63	
445+80.76	446+23.80	N-6		CAD	GENERATED	2140.00	237.78			39.63							
				CAD	GENERATED	1890.00		58.33									
				CAD	GENERATED	1890.00						8.40		8.75		10.21	
440+82.26	441+51.12	N-6A		CAD	GENERATED	2150.00	238.89			39.81							
				CAD	GENERATED	1931.00		59.60									
				CAD	GENERATED	1931.00						8.58		8.94		10.43	
446+23.80	447+06.79	N-6		CAD	GENERATED	2300.00	255.56			42.59							
				CAD	GENERATED	2060.00		63.58									
				CAD	GENERATED	2060.00						9.16		9.54		11.13	
441+51.12	443+64.20	N-6A		213.08	29.83	6356.18	706.24			117.71							
					27.33	5823.48		179.74									
					27.00	5753.16						25.57		26.64		31.07	
447+06.79	449+55.87	N-6		249.08	27.83	6931.90	770.21			128.37							
					25.33	6309.20		194.73									
					25.00	6227.00						27.68		28.83		33.63	
TOTALS* CARRIED TO SHEET 94							1204.69	310.48	0.00	200.78	0.00	43.51	0.00	45.33	0.00	52.89	
TOTALS CARRIED TO SHEET 94							4673.85	1199.16	164.50	532.21	0.00	170.46	0.00	177.58	0.00	207.15	

* = HIGWAY SAFETY PROGRAM (HSP)

CALCULATED AML CHECKED AM

PAVEMENT CALCULATIONS

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:09 AM
Filename: g:\C004\0066\Road\General\23828gs02_pavt.dgn

STATION FROM	STATION TO	LOCATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	204 SUBGRADE COMPACTION A/9	302 ASPHALT CONCRETE BASE, PG64-22 (T-10") 10A/(12x27)	304 AGGREGATE BASE (T-4") 4A/(12x27)	304 AGGREGATE BASE (T-6") 6A/(12x27)	305 8" CONCRETE BASE A/9	407 TACK COAT FOR INTERMEDIATE COURSE 0.040A/9	407 TACK COAT, 702.13 0.075A/9	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.5") 1.5A/(12x27)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T-1.75") 1.75A/(12x27)
				FT	FT	SQ FT	SQ YD	CU YD	CU YD	CU YD	SQ YD	GAL	GAL	CU YD	CU YD	CU YD
443+64.20	444+50.00	N-6A		85.80	29.67	2545.69	282.85			47.14						
					27.67	2374.09		73.27								
					27.00	2316.60						10.30		10.73		12.51
449+55.87	451+57.94	N-6		202.07	27.67	5591.28	621.25			103.54						
					25.67	5187.14		160.10								
					25.00	5051.75						22.45		23.39		27.29
451+57.94	455+47.98	N-6		390.04	20.33	7929.51	881.06			146.84						
					19.33	7539.47		232.70								
					19.00	7410.76						32.94		34.31		40.03
451+57.94	455+47.98	N-6		CAD	GENERATED	5825.00	647.22			107.87						
				CAD	GENERATED	5500.00		169.75								
				CAD	GENERATED	5220.00						23.20		24.17		28.19
455+28.28	455+49.69	I-75 GORE	LT	CAD	GENERATED	425.00	47.22			7.87						
				CAD	GENERATED	425.00		13.12								
				CAD	GENERATED	425.00						1.89		1.97		2.30
444+50.00	445+50.00	N-6A	LT	100.00	4.33	433.00	48.11		5.35							
					3.33	333.00		10.28								
					3.00	300.00						1.33		1.39		1.62
444+50.00	447+62.70	N-6A	RT	312.70	9.33	2917.49	324.17		36.02							
					8.33	2604.79		80.39								
					8.00	2501.60						11.12		11.58		13.51
447+62.70	448+12.70	N-6A	RT	50.00	10.33	516.50	57.39		6.38							
					9.33	466.50		14.40								
					9.00	450.00						2.00		2.08		2.43
7+48.87	7+71.08	STANLEY AVE	RT	22.21	13.00	288.73	32.08			5.35						
					12.50	277.63					30.85	1.23	2.31	1.29	1.29	
7+71.08	8+52.50	STANLEY AVE	RT	81.42	13.50	1099.17	122.13			20.36						
					13.00	1058.46					117.61	4.70	8.82	4.90	4.90	
9+49.39	10+00.68	STANLEY AVE	LT	51.29	1.50	76.94	8.55			1.42						
					1.00	51.29					5.70	0.23	0.43	0.24	0.24	
12+83.00	13+84.00	STANLEY AVE	LT	101.00	1.50	151.50	16.83			2.81						
					1.00	101.00					11.22	0.45	0.84	0.47	0.47	
15+20.77	15+29.63	STANLEY AVE	LT	8.86	1.50	13.29	1.48			0.25						
					1.00	8.86					0.98	0.04	0.07	0.04	0.04	
13+84.00	14+29.27	STANLEY AVE	LT	45.27	13.50	611.15	67.91			11.32						
					13.00	588.51					65.39	2.62	4.90	2.72	2.72	
14+29.27	15+20.77	STANLEY AVE	LT	CAD	GENERATED	655.00	72.78			12.13						
				CAD	GENERATED	636.00					70.67	2.83	5.30	2.94	2.94	
9+09.00	14+16.05	STANLEY AVE	MEDIAN	CAD	GENERATED	6620.00	735.56			122.59						
				CAD	GENERATED	6620.00					735.56	29.42	55.17	30.65	30.65	
13+38.60	13+71.64	DRIVEWAY	LT	CAD	GENERATED	721.92	80.21									
				CAD	GENERATED	603.67				11.18						
				CAD	GENERATED	355.04					8.77	1.58		1.64	1.64	
				CAD	GENERATED	128.43					3.17					
TOTALS* FROM SHEET 92							534.76	142.24	0.00	89.13	0.00	20.18	0.00	21.02	0.00	24.53
TOTALS* FROM SHEET 93							1204.69	310.48	0.00	200.78	0.00	43.51	0.00	45.33	0.00	52.89
TOTALS* FROM THIS SHEET							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS FROM SHEET 92							5726.31	1547.95	164.21	708.04	0.00	220.87	0.00	230.08	0.00	268.43
TOTALS FROM SHEET 93							4673.85	1199.16	164.50	532.21	0.00	170.46	0.00	177.58	0.00	207.15
TOTALS FROM THIS SHEET							4046.80	754.01	47.75	600.67	1049.92	148.33	77.84	154.51	44.89	127.88
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY*							1739	453	290		0	64	0	66	77	
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY							14447	3501	2217		1050	540	78	562	648	
GRAND TOTAL CARRIED TO GENERAL SUMMARY							16186	3954	2507		1050	604	78	628	725	

NOTE- ALL PAVEMENT REMOVAL AREAS ARE CADD GENERATED

PAVT REMOVAL SHOWN ON PLAN SHEETS

LOCATION	STATION	SURFACE AREA	202 PAVEMENT REMOVED, ASPHALT	202 PAVEMENT REMOVED
		SQ FT	SQ YD	SQ YD
RAMP N-10	0+49.62	15850.00*		1761.11*
		7826.00*	869.56*	
RAMP N-9	1+14.66	15190.00*		1687.78*
		7080.00*	786.67*	
RAMP N-6A	440+50.00	9921.00*		1102.33*
		4478.00*	497.56*	
RAMP N-6	451+25.00	15800.00*		1755.56*
		6919.00*	768.78*	
RAMP N-4	4+36.30	7479.00*		831.00*
		4285.00*	476.11*	
RAMP N-5	7+91.00	7036.00*		781.78*
		3073.00*	341.44*	
RAMP N-11	0+31.59	3461.00*		384.56*
		3114.00*	346.00*	
RAMP N-7	446+25.00	8855.00*		983.89*
		4425.00*	491.67*	
I-75				
RT	450+29.63	6330.00	703.33	
LT	453+27.33	7610.00		845.56
LT	453+27.33	4586.00	509.56	
RT	454+00.00	5064.00		562.67
RT	454+00.00	1165.00	129.44	
LT	461+67.18	7779.00		864.33
LT	461+67.18	7620.00	846.67	
RT	461+67.18	10389.00		1154.33
RT	461+67.18	6249.00	694.33	

SHEET NO.	REF NO.	STATION FROM	STATION TO	SIDE		202 STRUCTURE REMOVED	WALK REMOVED	CONCRETE MEDIAN REMOVED	CONCRETE BARRIER REMOVED	CURB REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	MANHOLE REMOVED	CATCH BASIN REMOVED	SPECIAL- FILL AND PLUG EXISTING CONDUIT	FENCE REMOVED	REMOVAL MISC.; STEEL ENCASED CONC. BOLLARDS
							SF	SY	SY	FT	FT	FT	EA	EA	FT	FT	
97	I-R	426+78.05	432+37.83	RT								552					
98	I-R	438+10.53	438+79.47	LT					71								
	2-R	438+79.47	444+00.00	LT								512					
99	I-R	444+00.00	444+56.92	LT								54					
	2-R	447+81.31	454+00.00	RT								627*					
	3-R	453+27.33	454+00.00	MEDIAN					73								
	4-R	450+07.85	453+70.41	RT												399*	
100	I-R	454+00.00	455+74.69	MEDIAN					175								
	2-R	454+00.00	455+58.77	RT								161					
	3-R	461+52.53	462+59.80	MEDIAN					107								
	4-R	461+47.83	464+00.00	LT								252					
	5-R	461+41.52	464+00.00	LT												370	
	6-R	461+49.68	464+00.00	RT								251					
	7-R	461+51.51	462+36.27	RT												90	
	8-R	461+80.65	461+81.45	RT							8			1			
	9-R	463+01.07	463+12.98	BOTH		LUMP											
102	I-R	464+00.00	470+91.57	LT								697*					
	2-R	464+00.00	471+34.20	RT								737*					
	3-R	464+00.00	464+63.47	LT												64	
	4-R	466+79.00	466+79.00	LT									1		47		
122	I-R	445+91.14	447+19.16	RT						112*							
	2-R	446+04.90	446+97.82	LT						97*							
	3-R	447+19.16	450+33.47	RT				193*									
	4-R	449+52.31	455+62.77	BOTH								650*					
	5-R	452+63.33	452+63.33	RT										1*			
	6-R	450+49.00	453+39.00	LT													LUMP*
129	I-R	440+39.02	441+63.55	BOTH						155*							
	2-R	440+56.85	442+23.81	RT						194*							
	3-R	440+40.57	440+50.06	RT							49*			1*			
	4-R	440+40.57	441+04.74	RT							69*			1*			
	5-R	441+04.74	441+67.29	BOTH							85*			1*			
	6-R	445+71.22	447+62.70	RT								183*					
138	I-R	4+18.26	7+33.41	LT				92*									
146	I-R	7+49.00	8+26.97	RT						84*							
	2-R	7+69.09	8+32.59	RT			306*										
	3-R	8+28.45	9+65.75	RT						148*							
	4-R	8+36.17	9+65.75	RT			541*										
	5-R	9+00.22	11+50.00	MEDIAN				423									
	6-R	9+49.40	10+00.68	LT						49							
	7-R	9+32.09	10+00.76	LT			328										
	8-R	9+71.80	10+18.03	RT						55*							
	9-R	10+04.12	10+04.12	RT										1*			
	10-R	9+72.87	10+18.03	RT			249*										
	11-R	10+92.00	11+36.39	MEDIAN							45			1			
	12-R	11+33.36	11+36.39	MEDIAN							8			1			
	13-R	10+04.12	10+40.11	RT											38*		
147	I-R	11+50.00	14+00.99	MEDIAN				328									
	2-R	12+83.00	14+15.54	LT						161*							
	3-R	12+83.00	13+75.79	LT			456*										
	4-R	13+86.40	14+37.01	LT						218*							
	5-R	13+89.35	14+32.35	LT			183*										
	6-R	14+02.77	14+25.19	LT							41*			1*			
	7-R	13+99.39	14+25.19	LT							26*			1*			
	8-R	14+25.19	14+60.35	LT							49*			1*			
	9-R	14+34.75	14+37.01	LT				11*									
	10-R	14+59.44	15+29.65	LT						124*							
	11-R	14+93.55	15+40.12	LT			234*										
	12-R	07+42.61	08+08.75	RT							66*			1*			
	13-R	00+80.17	01+42.19	RT							63*			1*			
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY*						0	1969	296	0	1348	448	2894	1	10	85	399	LUMP
ALLOCATED TOTALS CARRIED TO GENERAL SUMMARY						LUMP	328	751	426	49	61	1782	0	3	0	524	0
GRAND TOTAL CARRIED TO GEN. SUM.						LUMP	2297	1047	426	1397	509	4676	1	13	85	923	LUMP

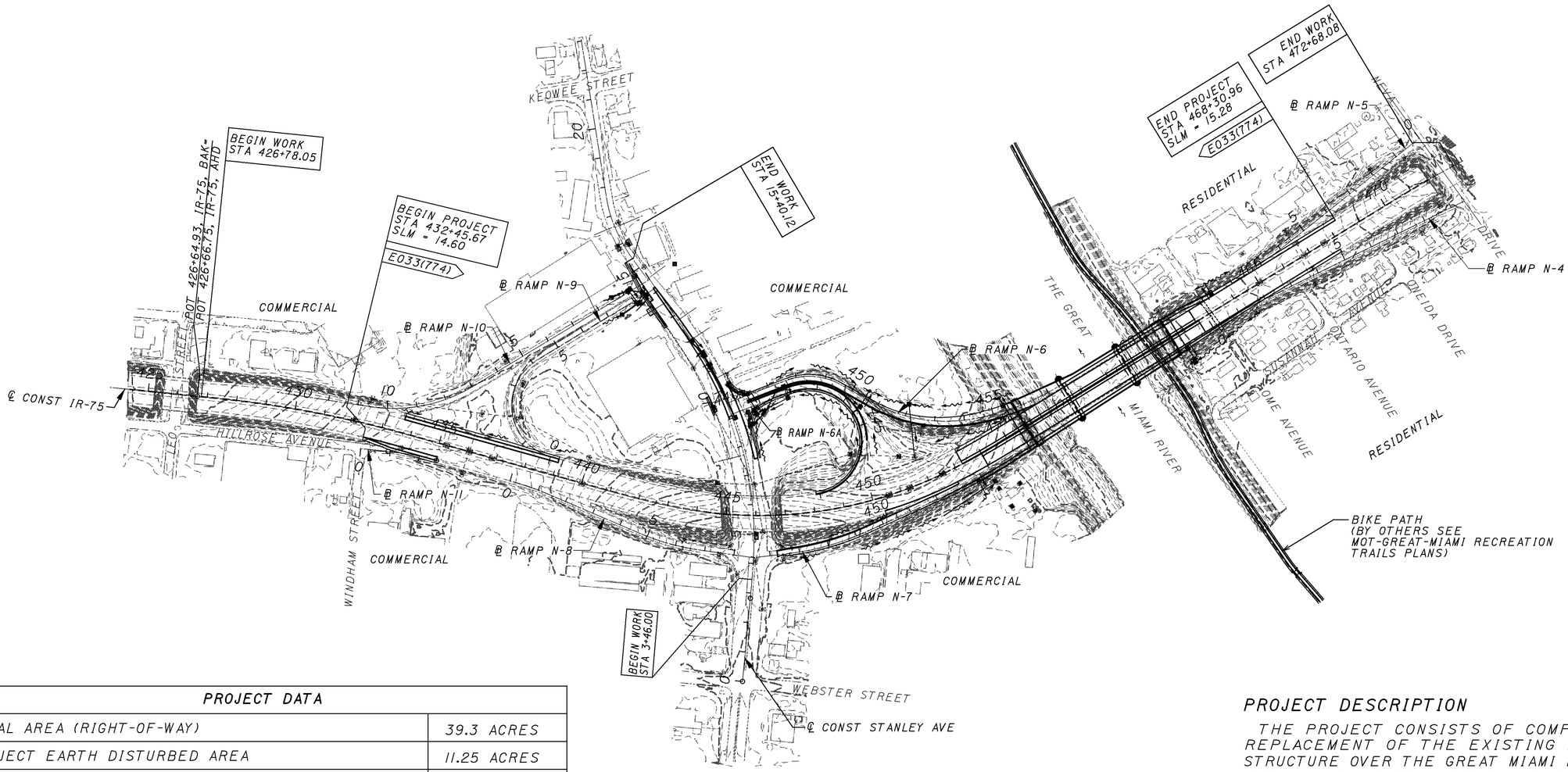
*= HIGWAY SAFETY PROGRAM (HSP)

CALCULATED EAK CHECKED AM

REMOVAL SUBSUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:10 AM
Filename: g:\C004\0066\Road\General\23828gs0l_rem.dgn



PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY)	39.3 ACRES
PROJECT EARTH DISTURBED AREA	11.25 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	.60 ACRES
NOI EARTH DISTURBED AREA	11.85 ACRES
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	.82
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	.80
IMPERVIOUS AREA FOR PRE-CONSTRUCTION SITE	32.66 ACRES
IMPERVIOUS AREA FOR POST-CONSTRUCTION SITE	30.86 ACRES
IMMEDIATE RECEIVING WATERS	MIAMI RIVER
SUBSEQUENT RECEIVING WATERS	MIAMI RIVER
TOTAL MAXIMUM DAILY LOAD (MIAMI RIVER)	N/A

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF COMPLETE REPLACEMENT OF THE EXISTING IR-75 STRUCTURE OVER THE GREAT MIAMI RIVER WITH A NEW 5 SPAN CONTINUOUS AND COMPOSITE PRECAST, PRESTRESSED CONCRETE STRUCTURE, RAMP MODIFICATIONS IN ALL FOUR QUADRANTS OF THE IR-75 AND STANLEY AVENUE INTERCHANGE, AND SEVERAL RAMP CLOSURES WITHIN THE PROJECT LIMITS.

USGS QUADRANT NO. - 39084-G2-TF-024
(DAYTON NORTH, OHIO)
LATITUDE: N 39° 47′ 05″
LONGITUDE: 84° 11′ 05″

N

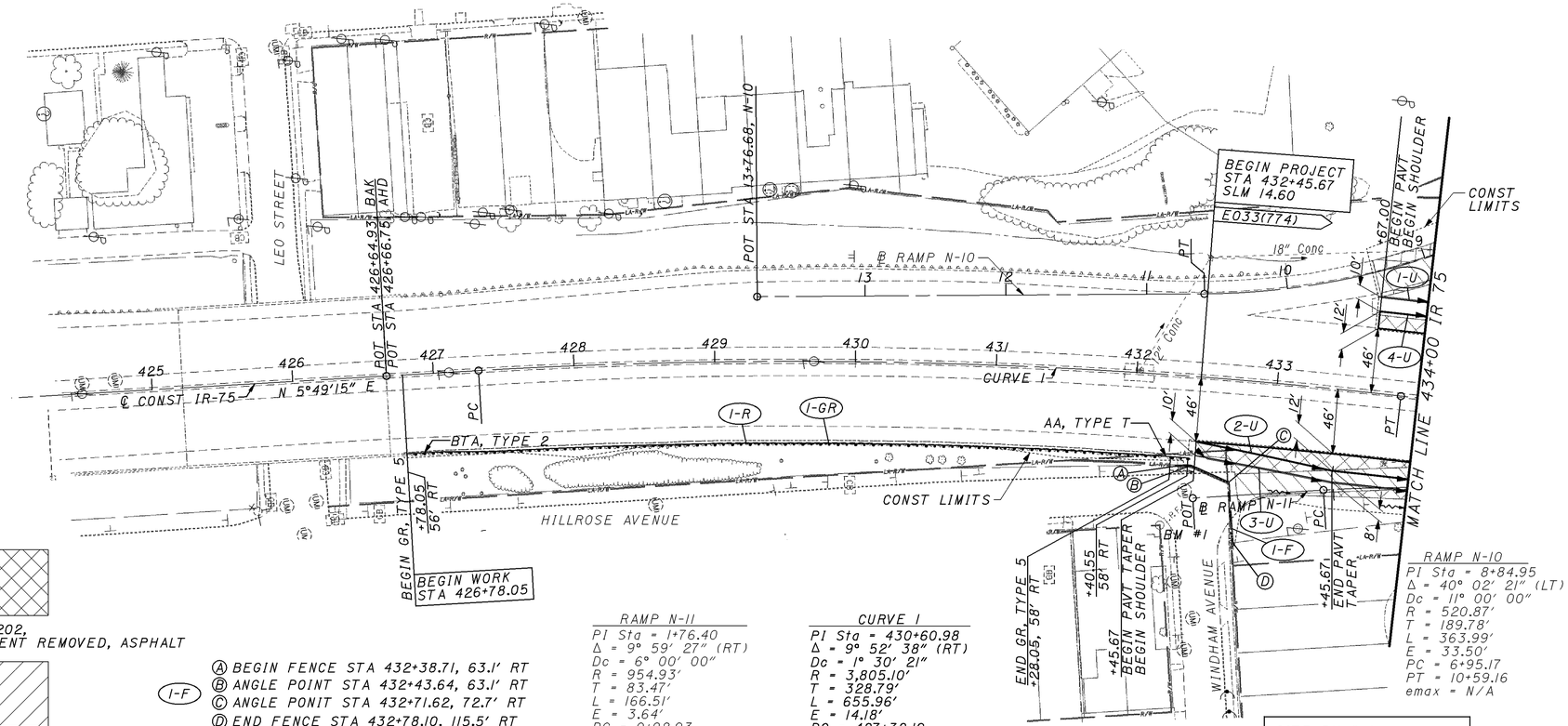
0 100 200 400
HORIZONTAL
SCALE IN FEET

CALCULATED MPD
CHECKED AM

PROJECT SITE PLAN

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:13 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gs01_STL.dgn



ITEM 202,
PAVEMENT REMOVED, ASPHALT

ITEM 202,
PAVEMENT REMOVED

I-F
Ⓐ BEGIN FENCE STA 432+38.71, 63.1' RT
Ⓑ ANGLE POINT STA 432+43.64, 63.1' RT
Ⓒ ANGLE PONIT STA 432+71.62, 72.7' RT
Ⓓ END FENCE STA 432+78.10, 115.5' RT

RAMP N-11
PI Sta = 1+76.40
Δ = 9° 59' 27" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 83.47'
L = 166.51'
E = 3.64'
PC = 0+92.93
PT = 2+59.45
emax = N/A

CURVE 1
PI Sta = 430+60.98
Δ = 9° 52' 38" (RT)
Dc = 1° 30' 21"
R = 3,805.10'
T = 328.79'
L = 655.96'
E = 14.18'
PC = 427+32.19
PT = 433+88.15
emax = EXIST

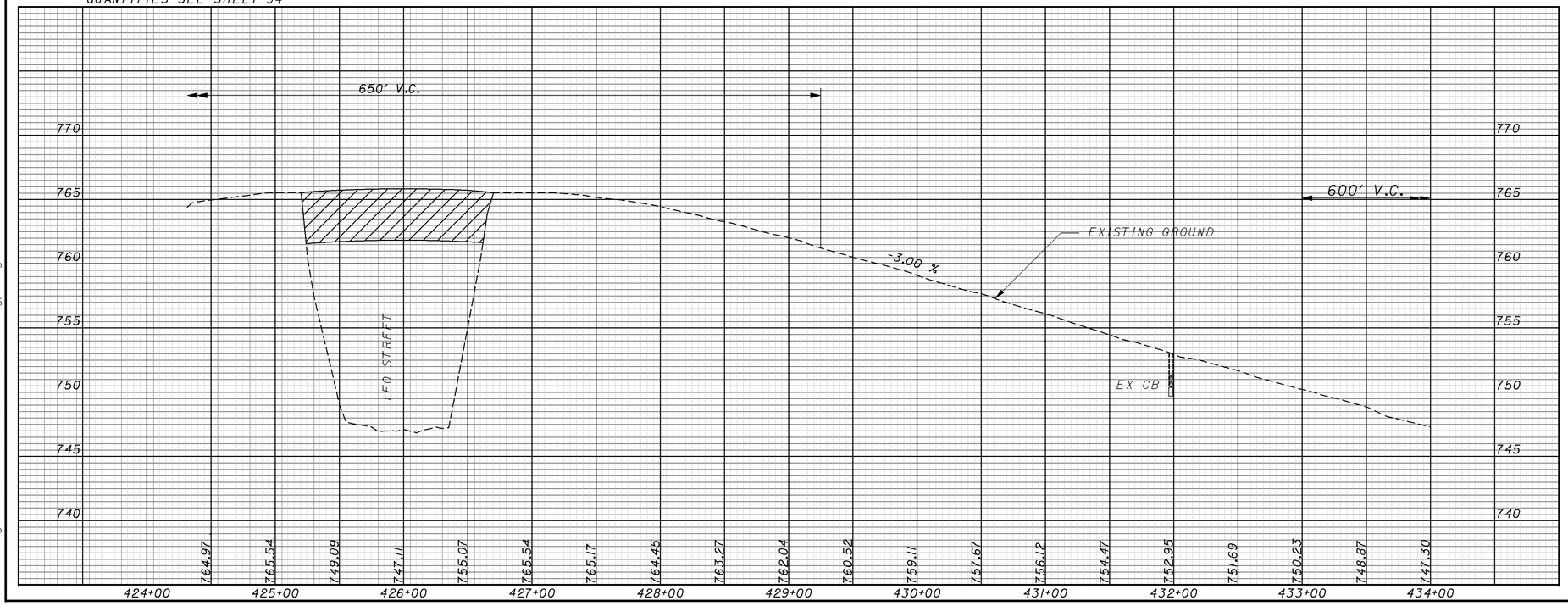
RAMP N-10
PI Sta = 8+84.95
Δ = 40° 02' 21" (LT)
Dc = 11° 00' 00"
R = 520.87'
T = 189.78'
L = 363.99'
E = 33.50'
PC = 6+95.17
PT = 10+59.16
emax = N/A

SITE BM # 1
IRON PIN FOUND
STA 432+23.75, ℄ IR-75
107.10' RT
ELEV 748.29

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

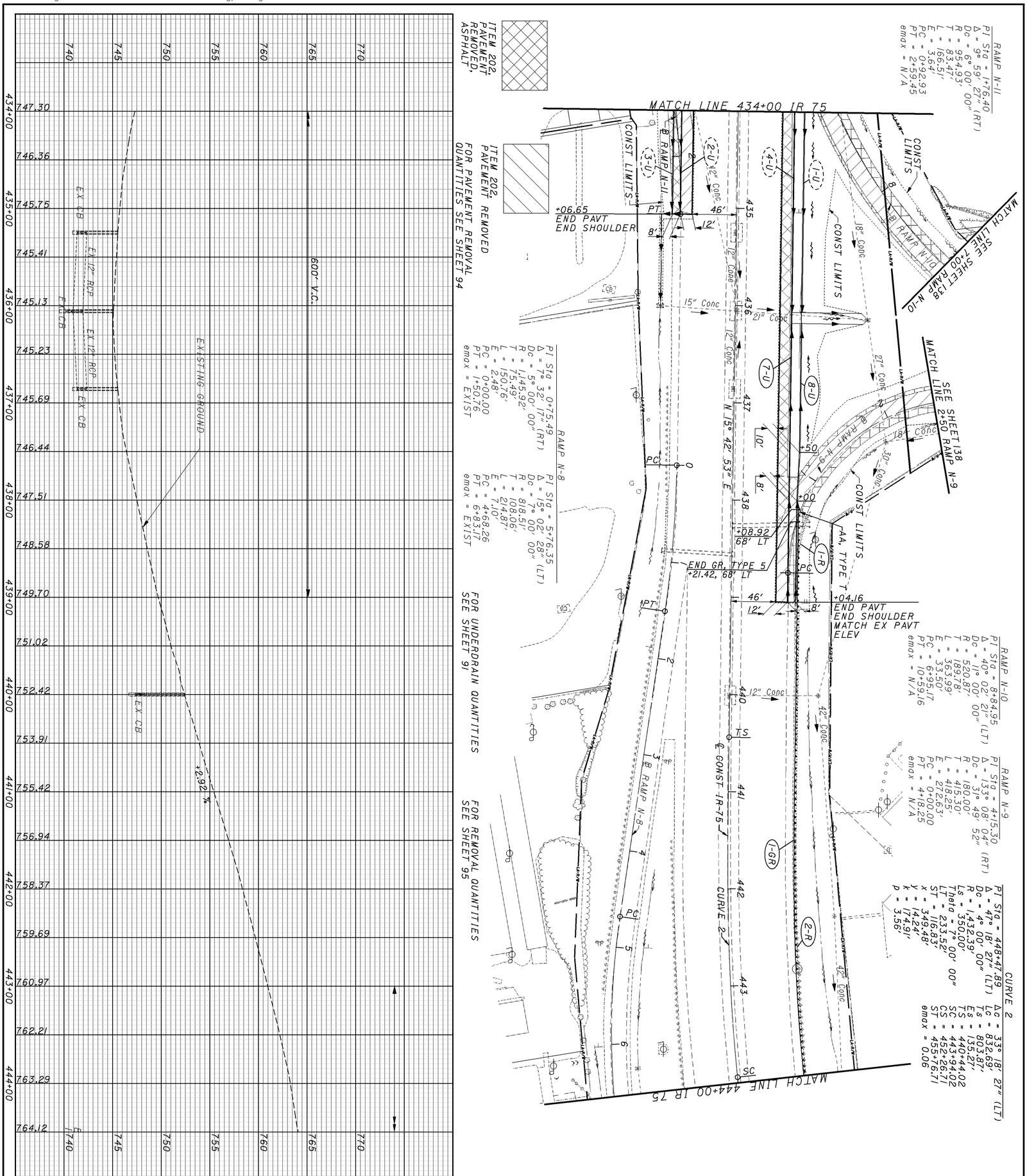
FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95



| REF NO. | STATION FROM | STATION TO | SIDE | | |

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:15 AM
Filename: g:\C004\0066\Road\Sheets\23828gp02.dgn



REF NO.	STATION FROM	STATION TO	SIDE	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE T	606 BRIDGE ASSEMBLY, TYPE 2
				FT	EA	EA
I-GR	438+21.42	444+58.92	LT	637.50	1	1
TOTALS CARRIED TO GENERAL SUMMARY				637.50	1	1

98
316

MOT-75-14.60

PLAN AND PROFILE IR-75
STA. 434+00.00 TO STA 444+00.00

CALCULATED MPD
CHECKED AM

0 50
25 100
HORIZONTAL SCALE IN FEET

SITE BM # 5
BENCHMARK SET
STA 6+87.18, ℄ STANLEY AVE.
71.38' RT
ELEV 745.41

CURVE 2

PI Sta = 448+49.09	Δc = 33° 18' 27" (LT)
Δ = 47° 18' 27" (LT)	Lc = 832.69'
Dc = 4° 00' 00"	Ts = 803.87'
R = 1,432.39'	Es = 135.27'
Ls = 350.00'	TS = 440+44.02
Theta = 7° 00' 00"	SC = 443+94.02
LT = 233.52'	CS = 452+26.71
ST = 116.83'	ST = 455+76.71
x = 349.48'	emax = 0.06
y = 14.24'	
k = 174.91'	
p = 3.56'	

ITEM 670
DITCH EROSION PROTECTION

ITEM 202,
PAVEMENT REMOVED,
ASPHALT

ITEM 202,
PAVEMENT
REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

FOR RAMP N-7 SEE SHEET 134

FOR MEDIAN BARRIER TRANSITIONS SEE SHEET 172

FOR RETAINING WALL PLANS SEE SHEETS 287 - 298

* FOR STORM SEWER DETAILS SEE SHEET 111

MATCH LINE 444+00 IR-75

MATCH LINE 454+00 IR-75

RAMP N-6A SEE SHEET 129

RAMP N-6 SEE SHEET 122

℄ CONST STANLEY AVE

BM #5

CONST LIMITS

℄ RAMP N-6A

℄ RAMP N-6

℄ RAMP N-7

℄ RAMP N-8

℄ CONST IR-75

CURVE 2

STA 445+91.92, IR-75 =
STA 5+62.14, STANLEY AVE

STA 4+19.84, STANLEY AVE =
STA 8+66.76, RAMP N-8

STA 4+20.12, STANLEY AVE =
STA 445+43.58, RAMP N-7

+07.85, IR-75
170.10' RT

+27.33
BEGIN TYPE BI
BARRIER TRANSITION

+29.63

+70.41
127.03' RT

ANGLE POINT
+51.20, 129.63' RT

50.00' RET.
BEGIN WALL
79.70' RT

PROP RETAINING WALL

BTA, TYPE 1

BTA, TYPE 2

END GR TYPE 5
+58.92, 66' LT

EX 10" GAS

EX 3" TRAFFIC SIGNAL INTERCONNECT

EX 10" SAN

EX 10" WATER

94.43°

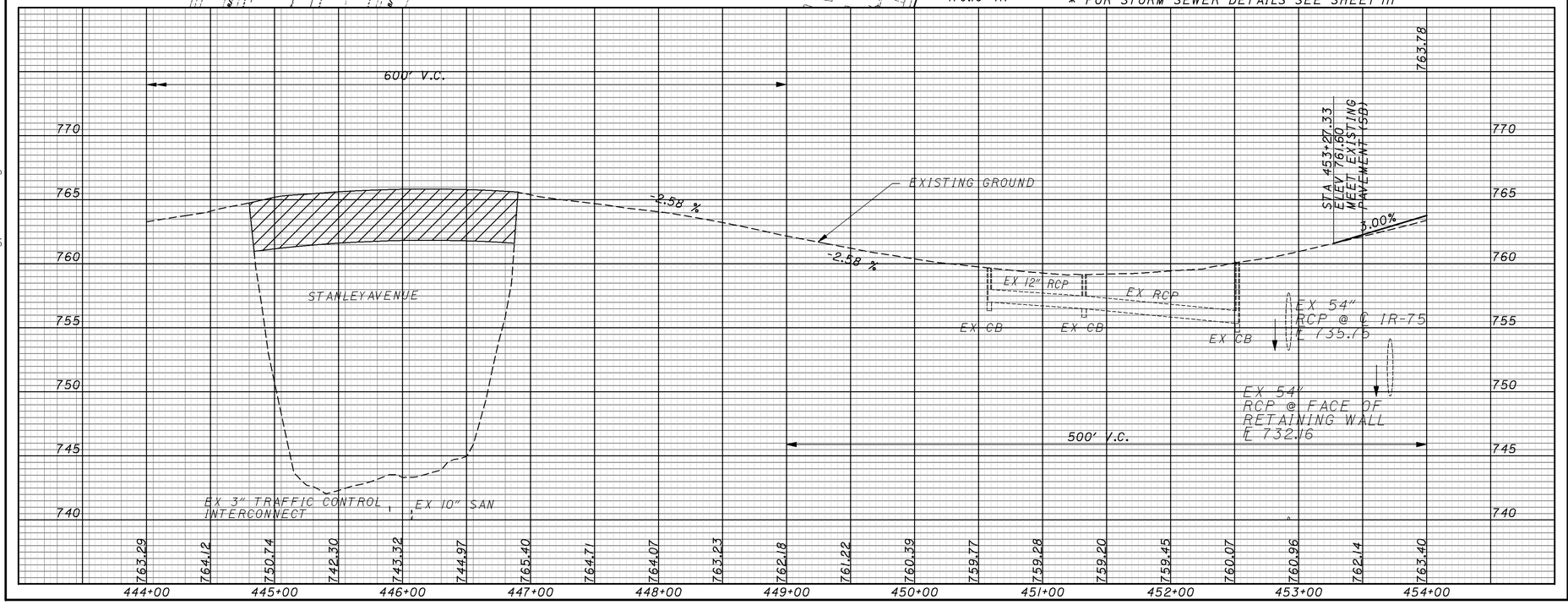
7.5'X433'

7.5'X118'

7.5'X257'

7.5'X100'

(1-EC) (38-U) (37-U) (2-D) (2-EC) (13-U) (3-R) (12-U) (11-U) (1-B) (14-U) (41-U) (9-U) (1-C) (15-U) (1-D*) (10-U) (2-D) (2-R) (1-F) (4-R)



REF NO.	STATION FROM	STATION TO	SIDE	602 CONCRETE MASONRY	603 15" CONDUIT, TYPE C	603 15" CONDUIT, TYPE F	604 CATCH BASIN, NO. 3A	607 FENCE, TYPE CLT	609 CURB, TYPE 4-C	622 BARRIER TRANSITION	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE BI	670 DITCH EROSION PROTECTION
				CY	FT	FT	EA	FT	FT	EA	FT	SY
I-B	453+27.33	455+49.69	MEDIAN							1	202	
I-C	453+34.50	453+50.00	RT									83
I-D	453+47.35	453+47.35	RT	0.3		55	1		20			98
2-D	452+00.23	453+70.00	RT	0.5	183							
I-EC	453+00.00	454+00.00	RT									181
2-EC	451+81.00	452+99.00	LT					399				
I-F	450+07.85	453+70.41	RT									
TOTALS CARRIED TO GENERAL SUMMARY				0.8	183	55	1	399	20	1	202	181

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MPD
CHECKED AM

PLAN AND PROFILE IR-75
STA. 444+00.00 TO STA. 454+00.00

MOT-75-14.60

99
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:18 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gp03_STL.dgn

CURVE 2	
PI Sta = 448+49.09	Δc = 33° 18′ 27″ (LT)
Δ = 47° 18′ 27″ (LT)	Lc = 832.69′
Dc = 4° 00′ 00″	Ts = 803.87′
R = 1,432.39′	Es = 135.27′
Ls = 350.00′	TS = 440+44.02
Theta = 7° 00′ 00″	SC = 443+94.02
LT = 233.52′	CS = 452+26.71
ST = 116.83′	ST = 455+76.71
x = 349.48′	emax = 0.06
y = 14.24′	
k = 174.91′	
p = 3.56′	

NOTE:

RECONSTRUCT BIKE PATH FROM STA 62+95.49 TO STA 65+67.47 TO ORIGINAL GRADE. (REFER MOT-GREAT MIAMI RECREATION TRAIL PLANS IN THIS AREA FOR INFORMATION)

BIKE PATH RECONSTRUCTION QUANITIES

ITEM 253 - PAVEMENT REPAIR - 302 SQ YD
(TO REPAIR AND RECONDITION THE AGGREGATE PORTION OF BIKE PATH)

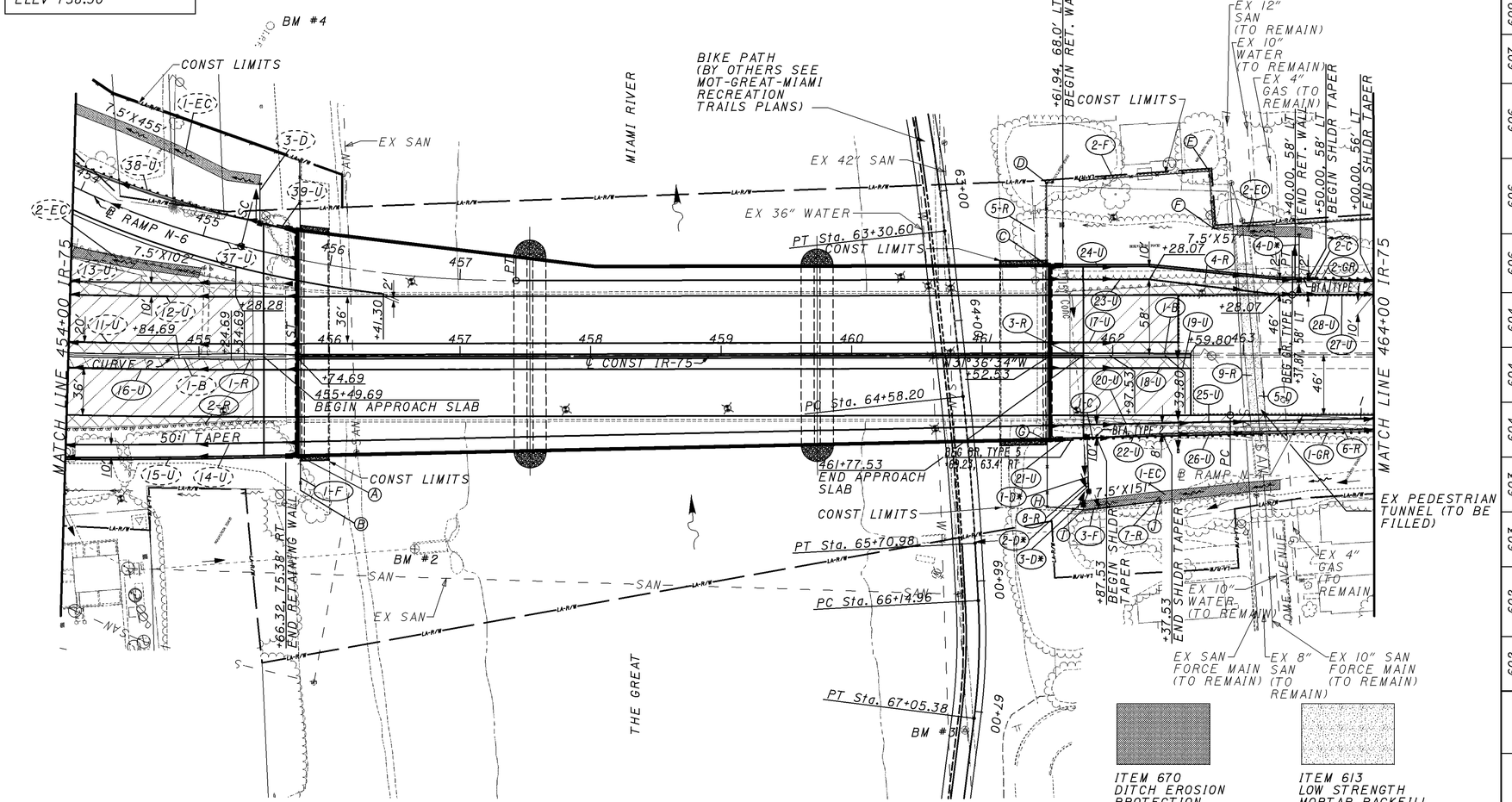
ITEM 301 - 2½" ASPHALT CONCRETE BASE - 21 CU YD

ITEM 448 - 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22 - 13 CU YD

QUANTITIES CARRIED TO GENERAL SUMMARY

* FOR STORM SEWER DETAILS SEE SHEETS 113 AND 115 .
FOR STRUCTURES SEE SHEETS 236 - 286
FOR RETAINING WALL PLANS SEE SHEETS 287 - 298
FOR UNDERDRAIN QUANTITIES SEE SHEET 91
FOR REMOVAL QUANTITIES SEE SHEET 95
FOR MEDIAN BARRIER TRANSITIONS SEE SHEET 172
FOR PEDESTRIAN TUNNEL DETAILS SEE SHEET 114
FOR BIKE PATH PLANS REFER TO MOT-GREAT-MIAMI RECREATION TRAIL PLANS.

SITE BM # 4
IRON PIN FOUND
STA 455+55.04, ℄ IR-75
253.59′ LT
ELEV 758.30



ITEM 670
DITCH EROSION PROTECTION

ITEM 613
LOW STRENGTH MORTAR BACKFILL

ITEM 202,
PAVEMENT REMOVED, ASPHALT

ITEM 202,
PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

SITE BM # 2
CROSS NOTCH ON TOP OF HEADWALL
STA 456+65.11, ℄ IR-75
147.31′ RT
ELEV 745.33

SITE BM # 3
MIAMI CONSERVANCY DISTRICT CONTROL
MONUMENT NO. 2
STA 460+86.35, ℄ IR-75
287.02′ RT
ELEV. 745.33

1-F
Ⓐ BEGIN FENCE STA 455+77.61, 76.7′ LT
Ⓑ END FENCE STA 455+77.61, 102.4′ LT

2-F
Ⓒ BEGIN FENCE STA 461+49.61, 69.5′ LT
Ⓓ ANGLE POINT STA 461+49.61, 132.2′ LT
Ⓔ ANGLE POINT STA 462+74.09, 140.9′ LT
Ⓕ ANGLE POINT STA 462+77.02, 97.3′ LT

3-F
Ⓖ BEGIN FENCE STA 461+49.61, 65.2′ RT
Ⓗ ANGLE POINT STA 461+49.61, 116.1′ RT
Ⓘ ANGLE POINT STA 461+77.19, 118.3′ RT
Ⓙ END FENCE STA 462+36.27, 111.60′ RT

REF NO.	STATION FROM	STATION TO	SIDE	602 CONCRETE MASONRY CY	602 CONCRETE MASONRY, AS PER PLAN CY	603 15" CONDUIT, TYPE C FT	603 15" CONDUIT, TYPE F FT	604 CATCH BASIN, NO. 3A EA	604 CATCH BASIN, NO. 2-2B EA	604 MANHOLE, NO. 3 EA	606 GUARDRAIL, TYPE 5 FT	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EA	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2 EA	607 FENCE, TYPE CLT FT	609 CURB, TYPE 4-C FT	613 LOW STRENGTH MORTAR BACKFILL CY	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B1 FT	622 BARRIER TRANSITION EA	670 DITCH EROSION PROTECTION SY
1-B	461+77.53	462+59.80	MEDIAN																
1-C	461+68.67	461+87.53	RT																
2-C	463+40.00	463+55.59	LT																
1-D	461+80.28	461+81.45	RT																
2-D	461+80.65	461+81.45	RT																
3-D	461+77.19	461+81.45	RT																
4-D	463+42.86	463+42.86	LT	0.3															
5-D	463+00.98	463+12.98	BOTH		8.9														
1-EC	461+77.00	463+28.00	RT																
2-EC	462+96.00	463+53.00	LT																
1-F	455+77.61	455+77.61	RT																
2-F	461+49.61	464+00.00	LT																
3-F	461+49.61	462+36.27	RT																
1-GR	461+69.23	468+25.23	RT																
2-GR	463+37.87	468+59.55	LT																
TOTALS CARRIED TO GENERAL SUMMARY				0.3	8.9	20	82	2	1	1	1187.50	1	1	579	40	340	62	1	174
											662.50		1		20				
											525.00	1			20				
										1									126
								1	1										48
							45									340			
						8								26					
						12			1					415					
							37	1						138					

CALCULATED MPD
CHECKED AM

0 25 50 100 HORIZONTAL SCALE IN FEET

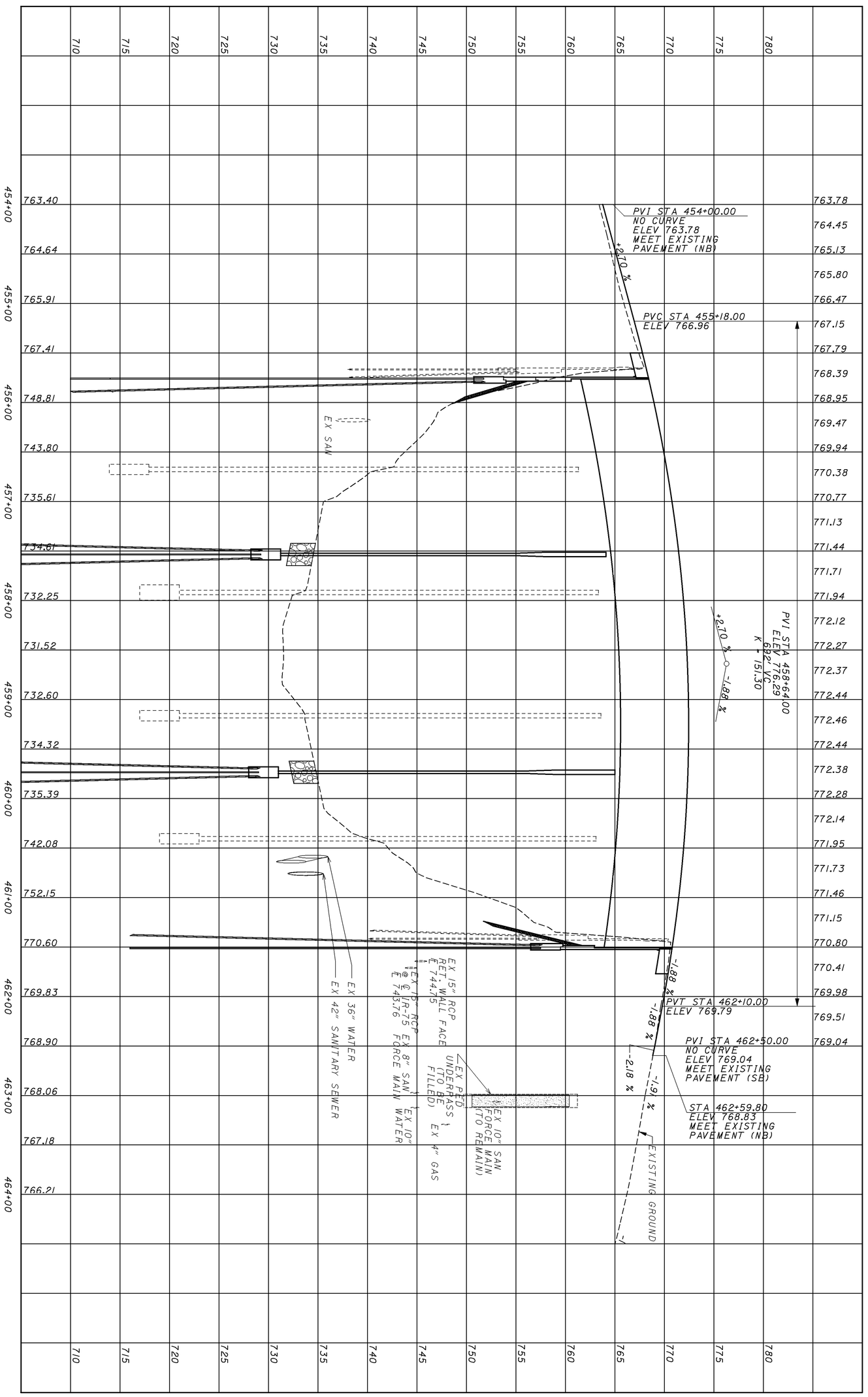
PLAN IR-75
STA. 454+00.00 TO STA. 464+00.00

MOT-75-14.60

100
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:19 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gp04_plan_STL.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:20 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gp04_profile_STL.dgn



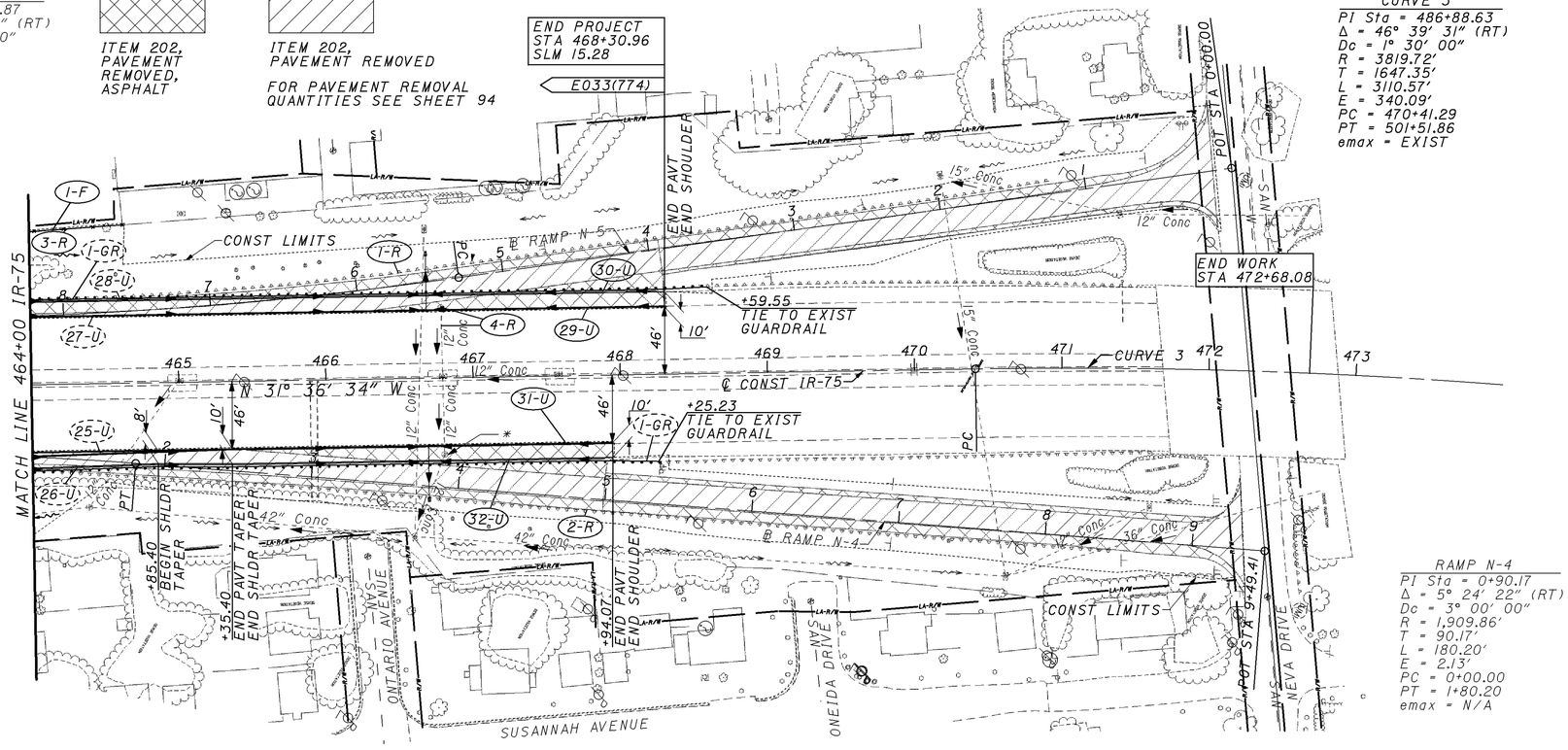
101/316	**MOT-75-14.60**	**PROFILE IR-75** **STA. 454+00.00 TO STA. 464+00.00**	CALCULATED MPD CHECKED AM

RAMP N-5
PI Sta = 7+07.87
Δ = 7° 05′ 38″ (RT)
Dc = 2° 00′ 00″
R = 2,864.79′
T = 177.57′
L = 354.69′
E = 5.50′
PC = 5+30.30
PT = 8+84.99
emax = N/A

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94



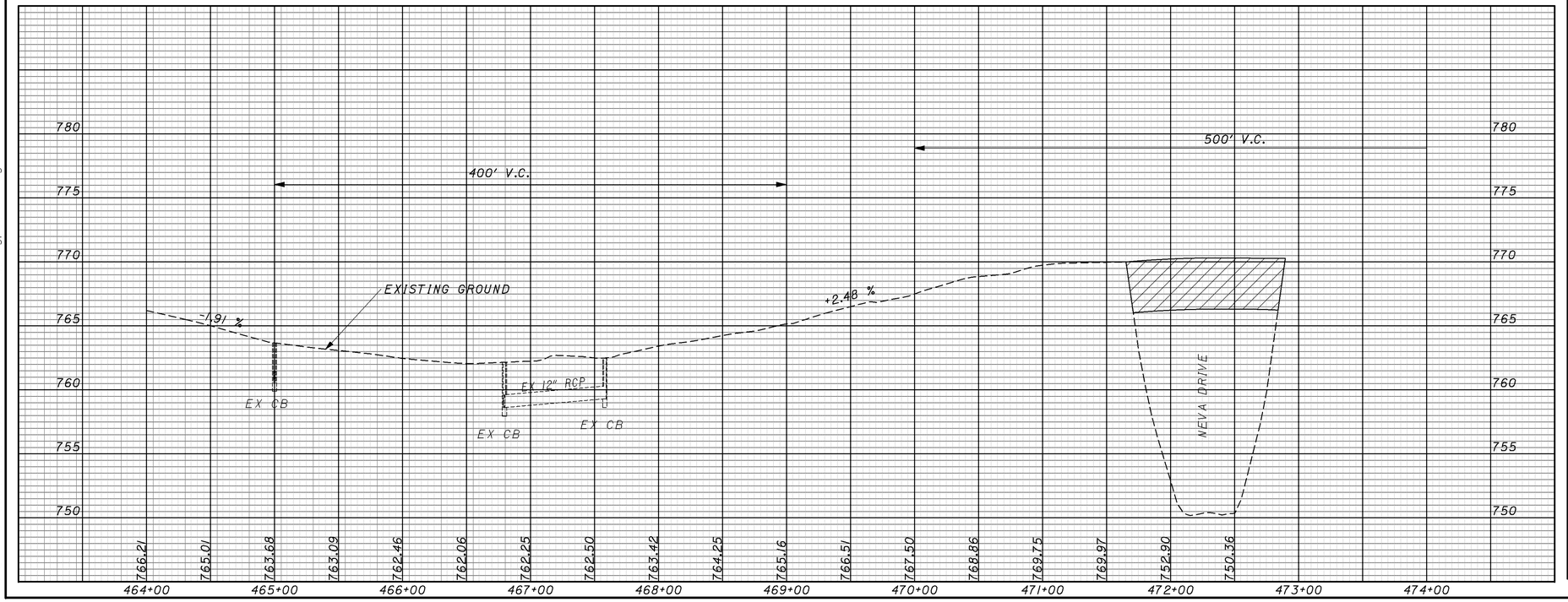
CURVE 3
PI Sta = 486+88.63
Δ = 46° 39′ 31″ (RT)
Dc = 1° 30′ 00″
R = 3819.72′
T = 1647.35′
L = 3110.57′
E = 340.09′
PC = 470+41.29
PT = 501+51.86
emax = EXIST

RAMP N-4
PI Sta = 0+90.17
Δ = 5° 24′ 22″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 90.17′
L = 180.20′
E = 2.13′
PC = 0+00.00
PT = 1+80.20
emax = N/A

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

* = MANHOLE ABANDONED DURING PREVIOUS PROJECT (DND)



REF NO.	STATION FROM	STATION TO	SIDE	
607				FENCE, TYPE CLT
1-F	464+00.00	464+63.47	LT	FT
				64
TOTALS CARRIED TO GENERAL SUMMARY				64

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MPD
CHECKED AM

PLAN AND PROFILE IR-75
STA. 464+00.00 TO STA. 474+00.00

MOT-75-14.60

102
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:21 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gp05_STL.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120	130	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2																												0	1		
	33																													0	3
10																												0	2		
	36																													0	3
3																												0	1		
	7																													0	1
4																												0	1		
	14																													0	1
4																												0	0		
	90	SHEET TOTAL																									SHEET TOTAL			0	8

760
750
R/W
12:1
2:1
HILLROSE AVENUE

428+50.00
763.37

428+00.00
764.43

427+50.00
765.13

427+32.19
765.30

427+00.00
765.56

- EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 427+00.00 TO STATION 428+50.00

MOT-75-14.60

103
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:24 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
3	14	431+00.00 756.12	0	1	0	2
2	14	430+50.00 757.64	0	1	0	2
3	14	430+00.00 759.14	0	1	0	2
2	11	429+50.00 760.63	0	1	0	2
2	11	429+00.00 762.01	0	1	0	2
	64	SHEET TOTAL			0	10

- EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 429+00.00 TO STATION 431+00.00

MOT-75-14.60

104
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17	91	4	19	3	40
19	63	0	29	0	30
2	19	0	1	1	2
6	40	1	1	1	1
8	31	0	0	0	1
	244 SHEET TOTAL			5	74

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

760 / 750 / 740

R/W

8:1 6:1

77.1' RT
E=746.2

433+45.54
748.99

EX. 18"

74.5' RT
E=747.0

433+00.00
750.23

EX CATCH BASIN
STA. 432+46.07, 85.37' LT
GRATE ELEVATION=744.53
E 12" (SE)= 742.83 (FIELD VERIFY)
E 18" (N)= 742.33 (FIELD VERIFY)

PROP R/W

12:1 2:1

HILLROSE AVENUE AND WINDHAM STREET

432+45.67
751.81

EX STRM (12")

EX CB

432+01.88
753.13

HILLROSE AVENUE

431+50.00
754.59

EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 431+50.00 TO STATION 433+45.54

MOT-75-14.60

105
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22	53	435+25.25	36	1	26	1
29	230	435+06.65	39	3	85	7
44	186	434+50.00	42	4	69	15
23	121	434+00.00	32	12	36	31
	590	SHEET TOTAL			216	54

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 434+00.00 TO STATION 435+25.25

MOT-75-14.60

106/316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

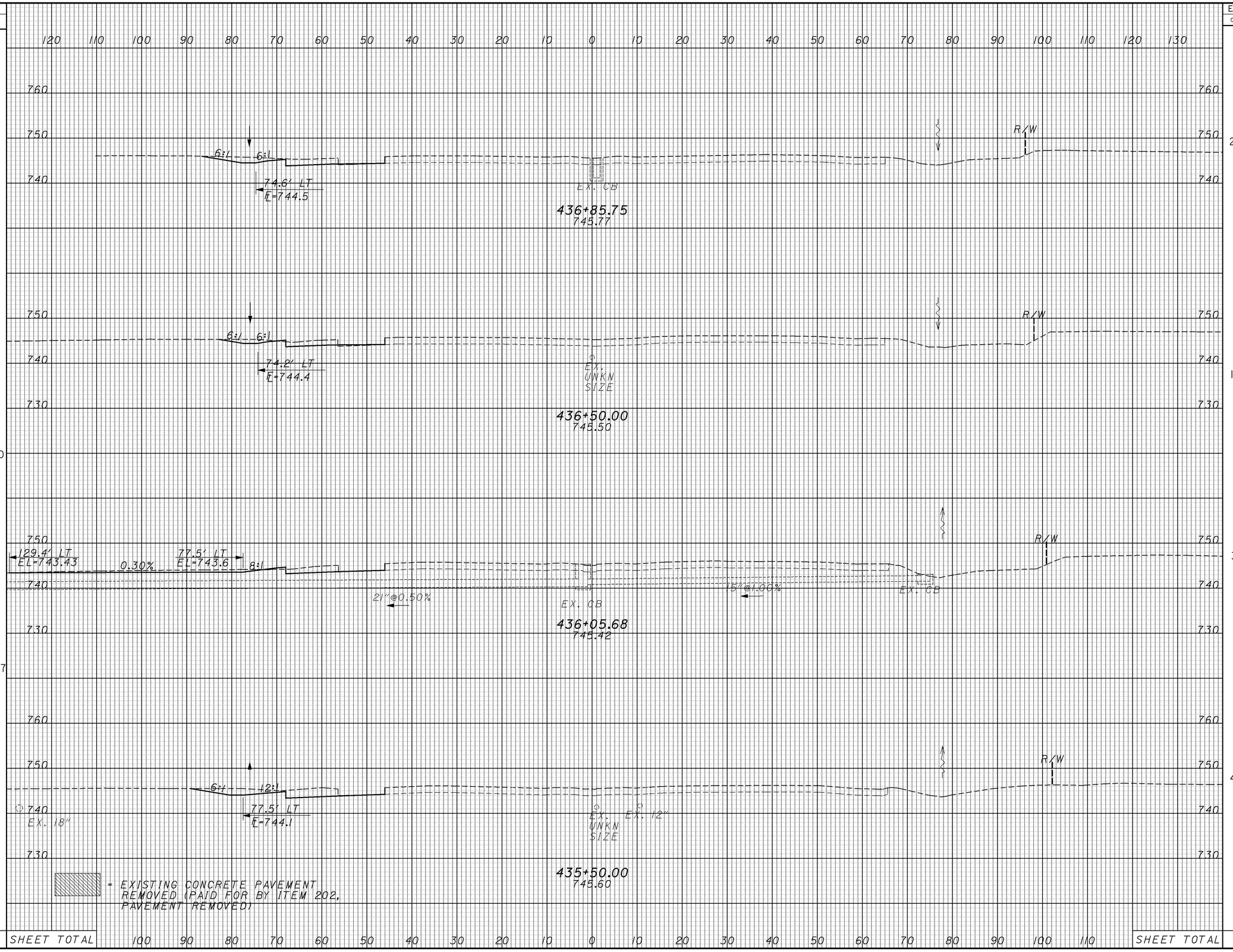
SEEDING	
END WIDTH	SQ. YDS.
28	85
15	190
62	257
21	59
	591

END AREA		VOLUME	
CUT	FILL	CUT	FILL
29	1		
		32	2
19	2		
		43	2
34	1		
		76	1
40	0		
		35	0
		186	5

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 435+50.00 TO STATION 436+85.75



MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
12	108	6	2	10	16
27	97	5	15	31	15
8	92	29	1	55	2
25	42	30	1	16	1
	339	SHEET TOTAL		112	34

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 437+00.00 TO STATION 438+50.00

MOT-75-14.60

108/316

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

760 750 740 730

R/W

12:1

EX. 30"

438+50.00
748.39

24:1

438+00.00
747.26

SEE RAMP N-9

6:1

437+50.00
746.45

6:1 6:1

73.8' LT
℄-744.7

437+00.00
745.89

▨ = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
61	195	83	178	87	176
61		81	153		
13	75	6	0	12	2
	270			99	178

CALCULATED EAK

CHECKED AM

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

℄ RAMP N-7

760 / 750 / 740

EX. CB

450+58.42
759.77

Elev 755.18
Off 98.94 RT

1:1 8'-0" 1:1 2:1

Elev 746.91
Off 115.21 RT

24:1 2:1 2:1

8'-0"

137.0' RT
℄=744.0

R/W

℄ RAMP N-7

760 / 750 / 740

450+29.63
759.99

Elev 753.61
Off 106.70 RT

1:1 8'-0" 1:1 2:1

Elev 745.88
Off 122.42 RT

24:1 2:1 2:1

8'-0"

140.2' RT
℄=744.4

R/W

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

760 / 750 / 740

R/W

6:1 6:1

75.2' LT
℄=748.1

= PROPOSED BENCHING

439+04.16
749.73

R/W

760 / 750 / 740

270 SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 SHEET TOTAL

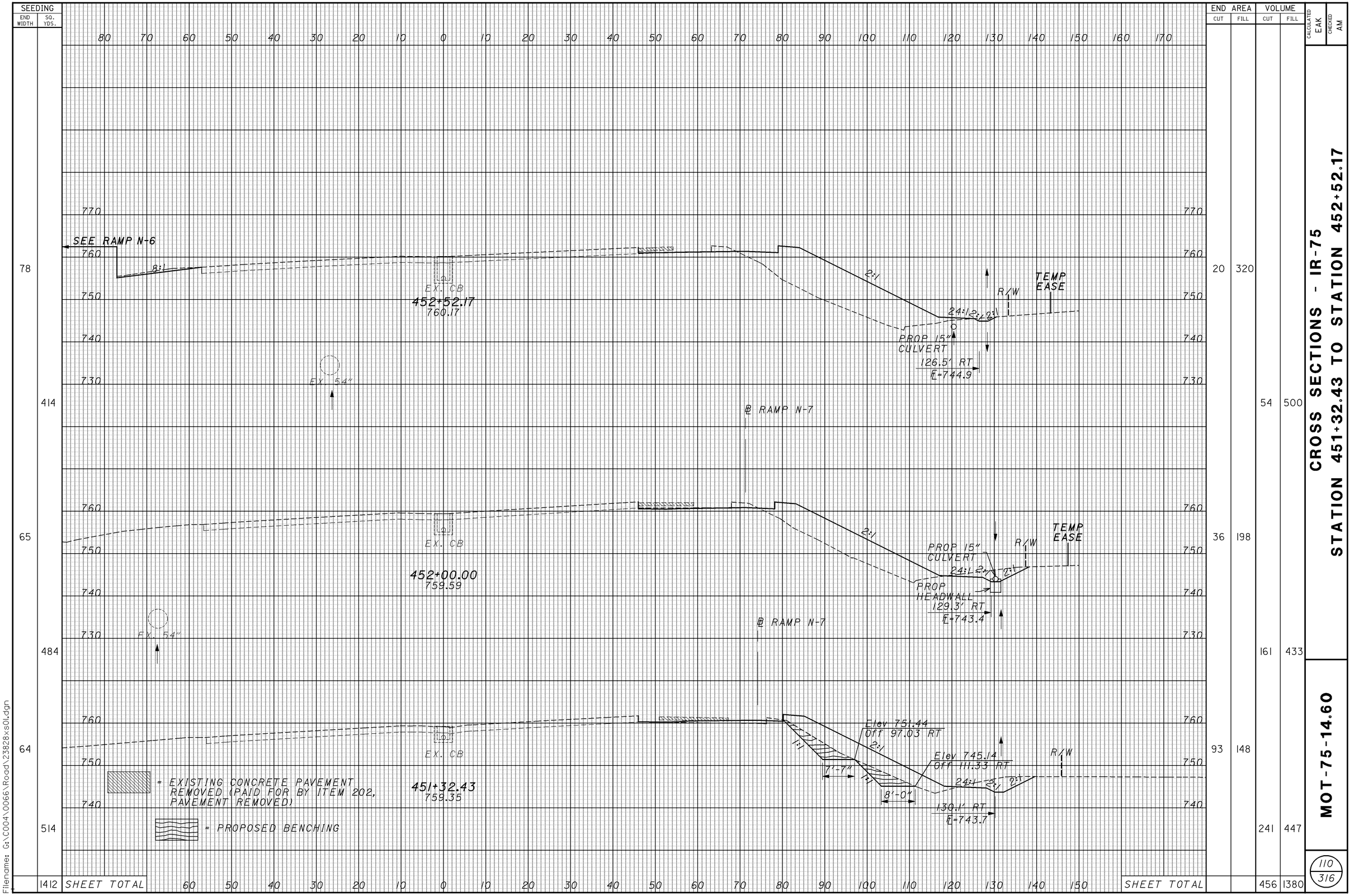
CROSS SECTIONS - IR-75
STATION 439+04.16 TO STATION 450+58.42

MOT-75-14.60

109 / 316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
78	414		20	320	54	500
65	484		36	198	161	433
64	514		93	148	241	447
	1412	SHEET TOTAL			456	1380



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75

STATION 451+32.43 TO STATION 452+52.17

MOT-75-14.60

110 / 316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

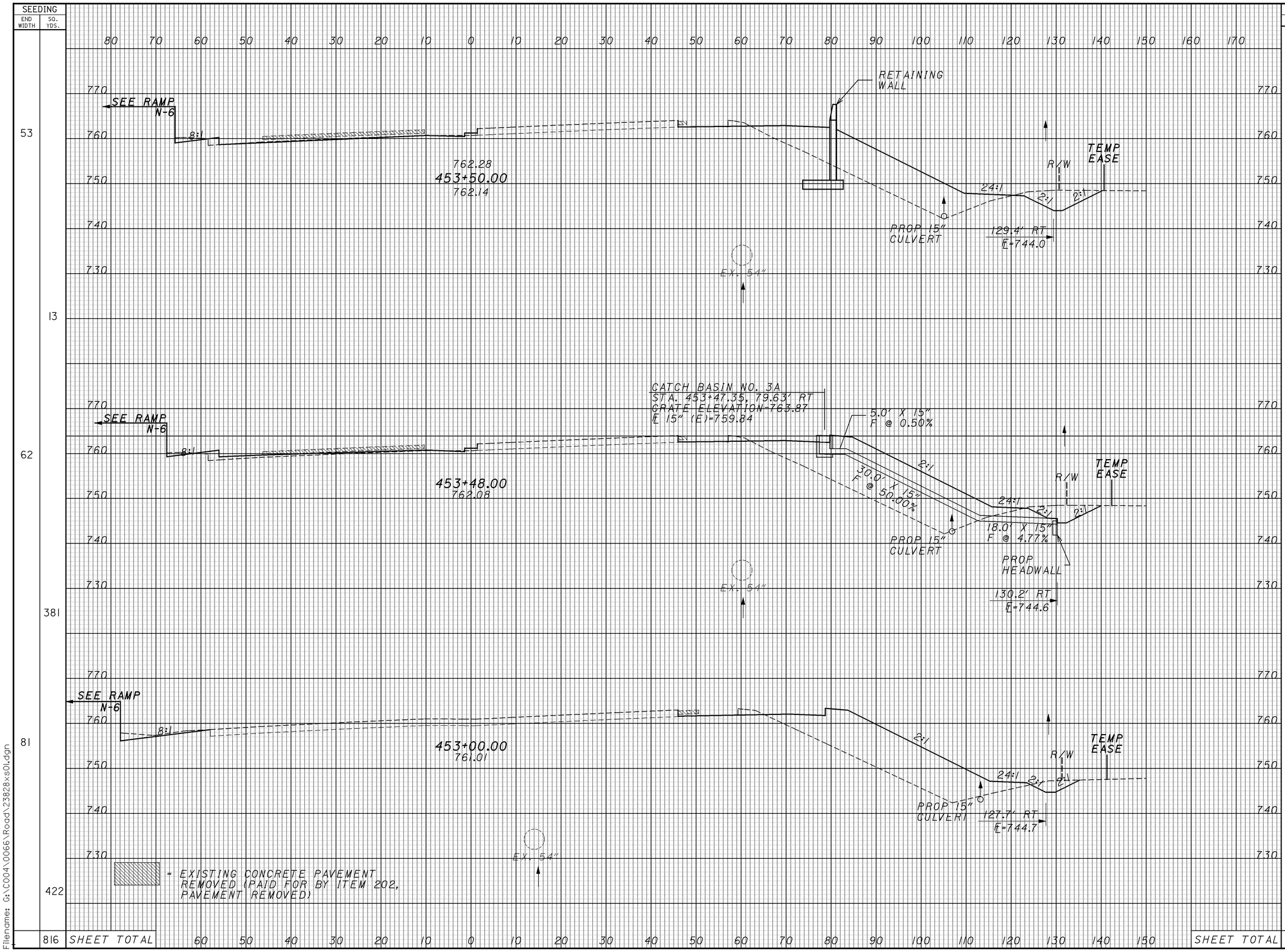
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
53	13	59	321	4	30
62	381	56	477	83	750
81	422	37	367	50	609
SHEET TOTAL	816			137	1389

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 453+00.00 TO STATION 453+50.00

MOT-75-14.60



Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
44	
	150
10	
	72
16	
	114
25	
	217 -46 171
	507

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
			565
47	356		
		54	403
11	79		
		17	162
7	96		
		14	206
8	127		
		62	415
		147	621

CALCULATED EAK

CHECKED AM

ITEM 203, EMBANKMENT, AS PER PLAN
SUBTOTAL 1 CARRIED TO SHEET 117

BEGIN BRIDGE STA 455+74.69

CATCH BASIN NO. 3A
STA. 455+46.97, 102.6' LT
GRATE ELEVATION=763.75
E 15" (W)=759.88

4.0' X 15"
F @ 0.50%

18.6' X 15"
F @ 3.00%

10.4' X 15"
F @ 50.00%

PROP HEADWALL
134.5' LT
E=754.1

767.79
455+50.00
767.71

SEE RAMP N-6
8:1
64.4' LT
E=764.1

766.47
455+00.00
765.91

R/W

BEGIN ITEM 203, EMBANKMENT, AS PER PLAN

SEE RAMP N-6
8:1
70.7' LT
E=761.7

765.13
454+50.00
764.64

SEE RAMP N-6
8:1
78.9' LT
E=759.2

763.78
454+00.00
763.40

RETAINING WALL

EX 54"@0.30%

▨ = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

SHEET TOTAL

SHEET TOTAL

CROSS SECTIONS - IR-75
STATION 453+50.00 TO STATION 455+00.00

MOT-75-14.60

112
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
58	336 -42 294	93	163	195	413
61		114	275		
	294 SHEET TOTAL			195	413 SHEET TOTAL

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 455+50.00 TO STATION 462+28.07

MOT-75-14.60

113
316

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

770 760 750 740 730

769.45
462+28.07
769.28

Elev 761.84
Off 72.22 RT
Elev 754.79
Off 87.28 RT
Elev 748.17
Off 101.90 RT
5'-11"
2:1
1:1
8'-0"
8'-0"
107.9' RT
E=747.4
R/W
166.6' RT
EX. 42"

790 780 770 760 750 740 730

RETAINING WALL

CATCH BASIN NO. 3A
STA. 461+80.28, 63.1' RT
GRATE ELEVATION=770.04
E 15" (E)=766.28

5.0' X 15"
F @ 1.00%
35.9' X 15"
F @ 50.00%
Elev 761.97
Off 72.58 RT
Elev 753.42
Off 89.13 RT

MANHOLE NO. 3
STA. 461+81.44, 104.19' RT
GRATE ELEVATION=752.62
E 18" (E)=742.03
E 15" (W)=742.23
E 15" (W)=747.98
E 15" (E)=742.23
Elev 746.43
Off 104.12 RT

770.37
461+77.19
770.21

5' 2"
2:1
1:1
1:1
8'-0"
PUMP HOUSE STRUCTURE

EX CB
EX 15" TYPE B
MASONRY COLLAR
8.0' X 15" C
MATCH EX SLOPE
EX CB (TBR)
11.5' X 15"
C @ 1.00%

CATCH BASIN NO. 2-2B
STA. 461+77.19, 114.50' RT
GRATE ELEVATION=745.93
E 15" (W)=742.35

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

= PROPOSED BENCHING

BEGIN ITEM 203, EMBANKMENT, AS PER PLAN
END BRIDGE STA 461+52.53

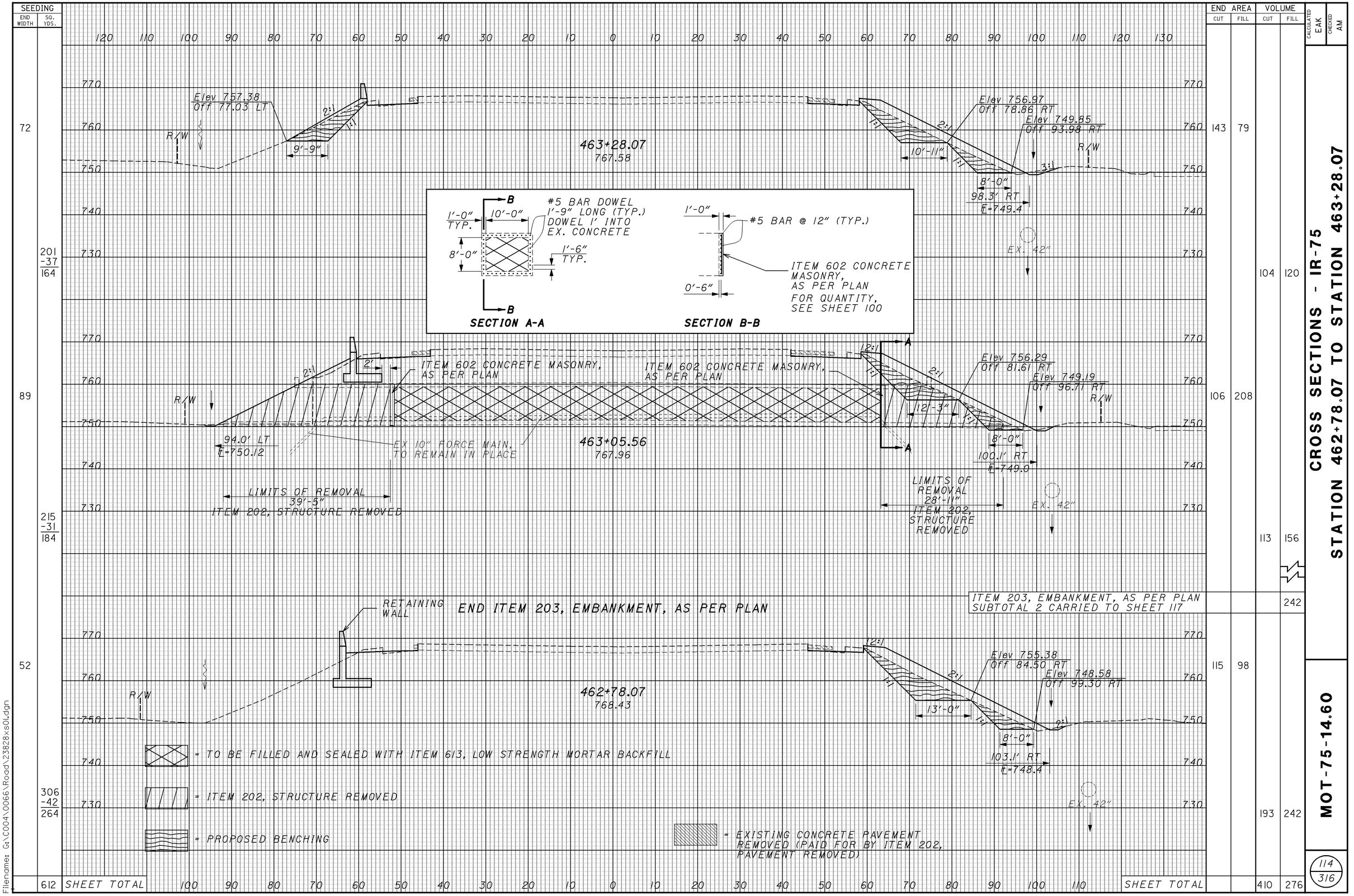
Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:23 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

CROSS SECTIONS - IR-75
STATION 462+78.07 TO STATION 463+28.07

CALCULATED EAK | CHECKED AM

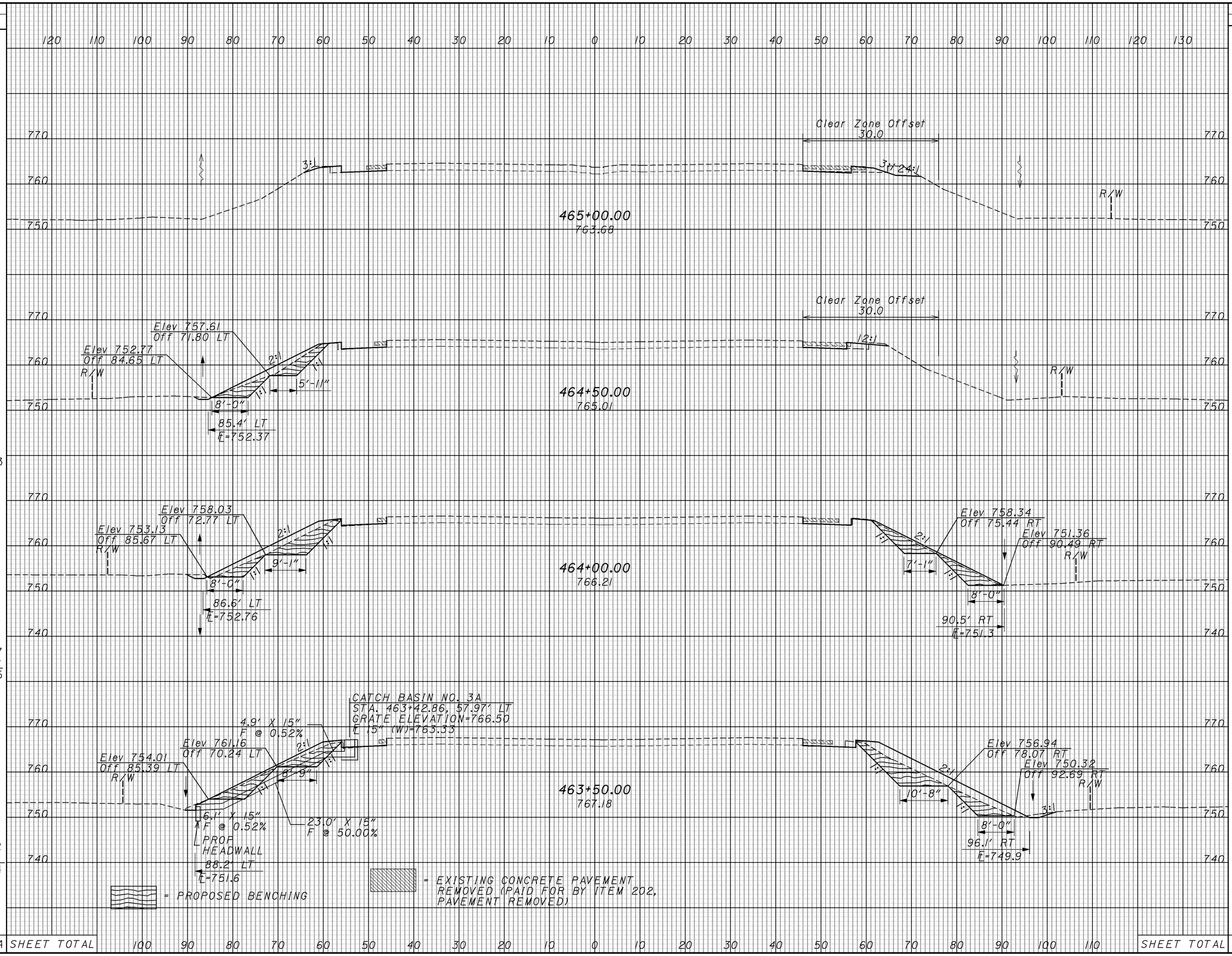
MOT-75-14.60

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
72	201 -37 164	143	79		
				104	120
89		106	208		
	215 -31 184			113	156
					242
52		115	98		
	306 -42 264			193	242
612	SHEET TOTAL			410	276



Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:24 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
24		14	11		
	192			56	38
45		47	30		
	333			147	71
75		112	47		
	447 - 2 = 445			236	120
86		143	83		
	192 - 18 = 174			116	66
	1144 SHEET TOTAL			555	295



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75

STATION 463+50.00 TO STATION 465+00.00

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:24 AM
Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
62		35	16		
	314			63	27
51		33	13		
	258			55	24
42		26	13		
	214			47	22
35		25	11		
	164			36	20
	950	SHEET TOTAL		201	93

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - IR-75
STATION 465+50.00 TO STATION 467+00.00

MOT-75-14.60

116/316

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

770 / 760 / 750

Clear Zone Offset 30.0

24:1 3:1 3:1 24:1

R/W

467+00.00
762.25

466+50.00
762.06

466+00.00
762.46

465+50.00
763.09

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:24 AM
Filename: G:\C004\0066\Road\23828x501.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	8731	IR-75 GRAND TOTAL CARRIED TO GENERAL SUMMARY			2846	4517
		ITEM 203, EMBANKMENT, AS PER PLAN SUBTOTAL 1				565
		ITEM 203, EMBANKMENT, AS PER PLAN SHEET 113				413
		ITEM 203, EMBANKMENT, AS PER PLAN SUBTOTAL 2				242
		ITEM 203, EMBANKMENT, AS PER PLAN GRAND TOTAL CARRIED TO GENERAL SUMMARY				1220

760 760

770 770

Clear Zone Offset 30.0

760 760

3:1 3:1

4:1 4:1

83 38 38

750 468+00.00 750

763.46

433 770 770

Clear Zone Offset 30.0 Clear Zone Offset 30.0

65 60

760 760

4:1 3:1 3:1 4:1

73 32 27

R/W

750 467+50.00 750

762.50

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

375 62 40

808 SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 SHEET TOTAL 127 100

CALCULATED EAK CHECKED AM

CROSS SECTIONS - IR-75

STATION 467+50.00 TO STATION 468+50.00

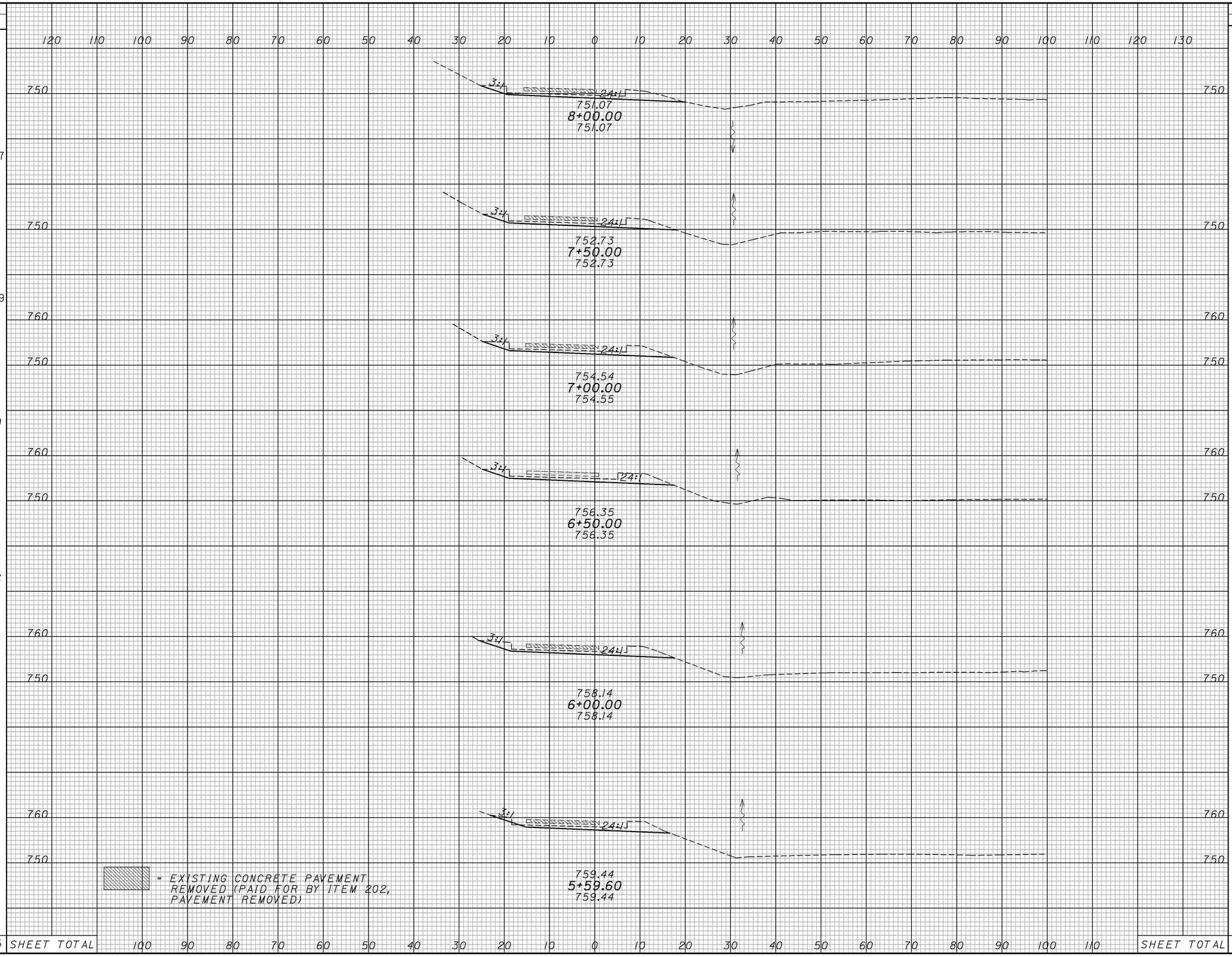
MOT-75-14.60

117 316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:24 AM

Filename: G:\C004\0066\Road\23828xs01.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
46	247	8+00.00	39	0	70	0
43	239	7+50.00	37	0	68	0
43	239	7+00.00	36	0	71	0
43	242	6+50.00	41	0	73	0
44	189	6+00.00	38	0	52	1
40		5+59.60	32	1		
	1156	SHEET TOTAL			334	1



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-4
STATION 5+59.60 TO STATION 8+00.00

MOT-75-14.60

118
316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:35 PM
Filename: G:\C004\0066\Road\23828xs0L_N4.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	1637	RAMP N-4 GRAND TOTAL CARRIED TO GENERAL SUMMARY ... RAMP N-4 GRAND TOTAL CARRIED TO GENERAL SUMMARY			389	61
37		750 / 740 — 24:1 — 749.82 9+00.00 749.82	1	26		
	228				10	42
45		750 / 740 — 3:1, 24:1	10	19		
	253	749.95 8+50.00 749.95			45	18
	481	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		55	60

▨ = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-4
STATION 8+50.00 TO STATION 9+00.00

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:35 PM
Filename: G:\C004\0066\Road\23828xs0L_N4.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
34	197	760 / 750 — 751.49 — 2+00.00 — 751.49	19	2	37	4
37	211	760 / 750 / 740 — 749.67 — 1+50.00 — 749.67	21	2	24	26
39	211	760 / 750 / 740 — 748.26 — 1+00.00 — 748.26	5	26	5	65
37		750 / 740 — 748.50 — 0+50.00 — 748.50	0	44		
	619	SHEET TOTAL			66	95

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-5
STATION 0+50.00 TO STATION 2+00.00

MOT-75-14.60

120 / 316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:35 PM
Filename: G:\C004\0066\Road\23828xs01_N5.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	1420	RAMP N-5 GRAND TOTAL CARRIED TO GENERAL SUMMARY			208	103
39	104	760 / 750 — 2:1 / 24:1 — 758.58 3+73.46 758.58	19	1	18	1
41	236	760 / 750 — 2:1 / 24:1 — 757.70 3+50.00 757.70	22	1	43	2
44	244	760 / 750 — 2:1 / 24:1 — 755.73 3+00.00 755.73	24	1	43	2
44	217	760 / 750 — 2:1 / 24:1 — 753.76 2+50.00 753.76	22	1	38	3
	801	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		142	8

▨ = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-5
STATION 2+50.00 TO STATION 3+73.46

MOT-75-14.60

121 / 316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:35 PM
Filename: G:\C004\0066\Road\23828xs01_N5.dgn

RAMP N-6

PI Sta = 448+65.51
Δ = 50° 22′ 03″ (RT)
Dc = 25° 55′ 32″
R = 221.00′
T = 103.92′
L = 194.28′
E = 23.21′
PC = 447+61.59
PT = 449+55.87
emax = 0.059

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI = 454+03.75
Δ = 60° 47′ 49″ (LT)
D1 = 11° 15′ 00″
R1 = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
p = 1.31′
Δ1 = 28° 25′ 57″
Δ2 = 14° 21′ 53″
T1 = 73.56′
T2 = 126.44
e1 = 0.06
e2 = 0 06 ′
CS = 453+30.19
SC = 455+30.19

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

6-R ITEM 202, REMOVAL MISC.: STEEL ENCASED CONC. BOLLARDS BEGIN STA. 450+49, LT END STA. 453+39, LT.

ITEM 670, DITCH EROSION PROTECTION

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, CONC MEDIAN REMOVED

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED MPD CHECKED AM

POC STA 9+53.88, STANLEY AVE = PT STA 445+49.74, RAMP N-6

POC STA 9+12.87, STANLEY AVE = PT STA 439+94.85, RAMP N-6A

℄ RAMP N-6 N 21° 10′ 48″ W

℄ RAMP N-6A N 29° 11′ 15″ E

BEGIN GR. TYPE S +18.31, 60′ LT

PT 155.87 N-6 END CONCRETE MEDIAN

BEGIN SHLDR TAPER +57.94, 6′ LT

END SHLDR TAPER +32.94, 21′ LT (N-6)

BEGIN GR. TYPE S +55.81, 21.0′ LT

AA, TYPE T

BTA, TYPE 2

℄ CONST STANLEY AVE

℄ CONST IR-75

CONST LIMITS

EDGE OF GRAVEL

TREE BUNCH (< 6")

12" DOUBLE TRUNK TREE

18" TREE

9" TREE

6" TREES

BM #4

BM #5

7.5′X433′

7.5′X102′

7.5′X118′

+27.33, IR-75 BEGIN SHLDR

SITE BM # 4
IRON PIN FOUND
STA 455+05.32, ℄ IR-75
176.48′ LT
ELEV 758.30

SITE BM # 5
BENCHMARK SET
STA 6+87.18, ℄ STANLEY AVE.
71.38′ RT
ELEV 745.41

EX 10″ GAS
EX 10″ WATER
EX 10″ SAN
EX 3″ TRAFFIC CONTROL INTERCONNECT
EX SAN
EX 24″ RCP
STA 445+80.76
ELEV 743.31
MEET EXISTING

54″ Conc
12″ Coped
SAN 900 201

Ⓐ BEGIN FENCE STA 450+42.36, 41.5′ LT
Ⓑ ANGLE POINT STA 451+21.74, 49.6′ LT
Ⓒ ANGLE POINT STA 453+89.72, 80.0′ LT
Ⓓ ANGLE POINT STA 455+60.38, 74.1′ LT
Ⓔ END FENCE STA 455+71.89, 22.8′ LT

FOR UNDERDRAIN QUANTITIES SEE SHEET 91
FOR REMOVAL QUANTITIES SEE SHEET 95
* FOR STORM SEWER DETAILS SEE SHEET 112 , 126

PVI STA 446+28.12
ELEV = 742.55
70′ VC

PVI STA 448+70.00
ELEV = 749.00
164′ VC

PVI STA 451+14.00
ELEV = 752.05
146′ VC

STA 445+93.12 ELEV 743.11
STA 446+63.12 ELEV 743.49
STA 447+88.00 ELEV 746.82
STA 449+52.00 ELEV 750.03
STA 450+41.00 ELEV 751.14
STA 451+87.00 ELEV 754.30
STA 455+74.71 ELEV 766.25
STA 457+43.00 ELEV 770.75

+2.67 % +1.25 % +3.08 % +1.60 % +3.08 %

PROPOSED PROFILE
EXISTING GROUND
PROP 15″
PROP 18″
EX 24″ RCP
EX SAN
GRADE GRAPHIC

445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00

PLAN AND PROFILE
RAMP N-6

MOT-75-14.60

122
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:26 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_N6.dgn

SHEET NO.	REF NO.	STATION FROM	STATION TO	SIDE	602 CONCRETE MASONRY CY	603 15" CONDUIT, TYPE B FT	603 15" CONDUIT, TYPE F FT	603 18" CONDUIT, TYPE B FT	604 CATCH BASIN, NO. 3A EA	604 CATCH BASIN, NO. 2-2B EA	606 GUARDRAIL, TYPE 5 FT	606 ANCHOR ASSEMBLY, TYPE T EA	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2 EA	607 FENCE, TYPE CLT FT	609 CURB, TYPE 4-C FT	609 CURB, TYPE 6 FT	609 CONCRETE MEDIAN SY	670 DITCH EROSION PROTECTION SY
122	1-C	446+23.80	447+06.79	LT												83		
	2-C	446+17.16	449+55.87	RT													107	
	3-C	455+32.94	455+53.33	LT											20			
	1-D	450+50.00	450+50.00	RT	0.3	63				1								
	2-D	452+00.99	452+53.19	RT				180		1								
	3-D	455+40.13	455+40.13	LT	0.3		34		1									
	1-EC	451+00.00	455+33.00	LT														361
	2-EC	454+00.00	455+02.00	RT														85
	1-F	450+42.36	455+71.89	LT										514				
	1-GR	449+05.81	455+55.81	LT							637.50	1	1					
TOTALS CARRIED TO GEN. SUM.					0.6	63	34	180	1	2	637.50	1	1	514	20	83	107	446

CALCULATED EAK
CHECKED AM

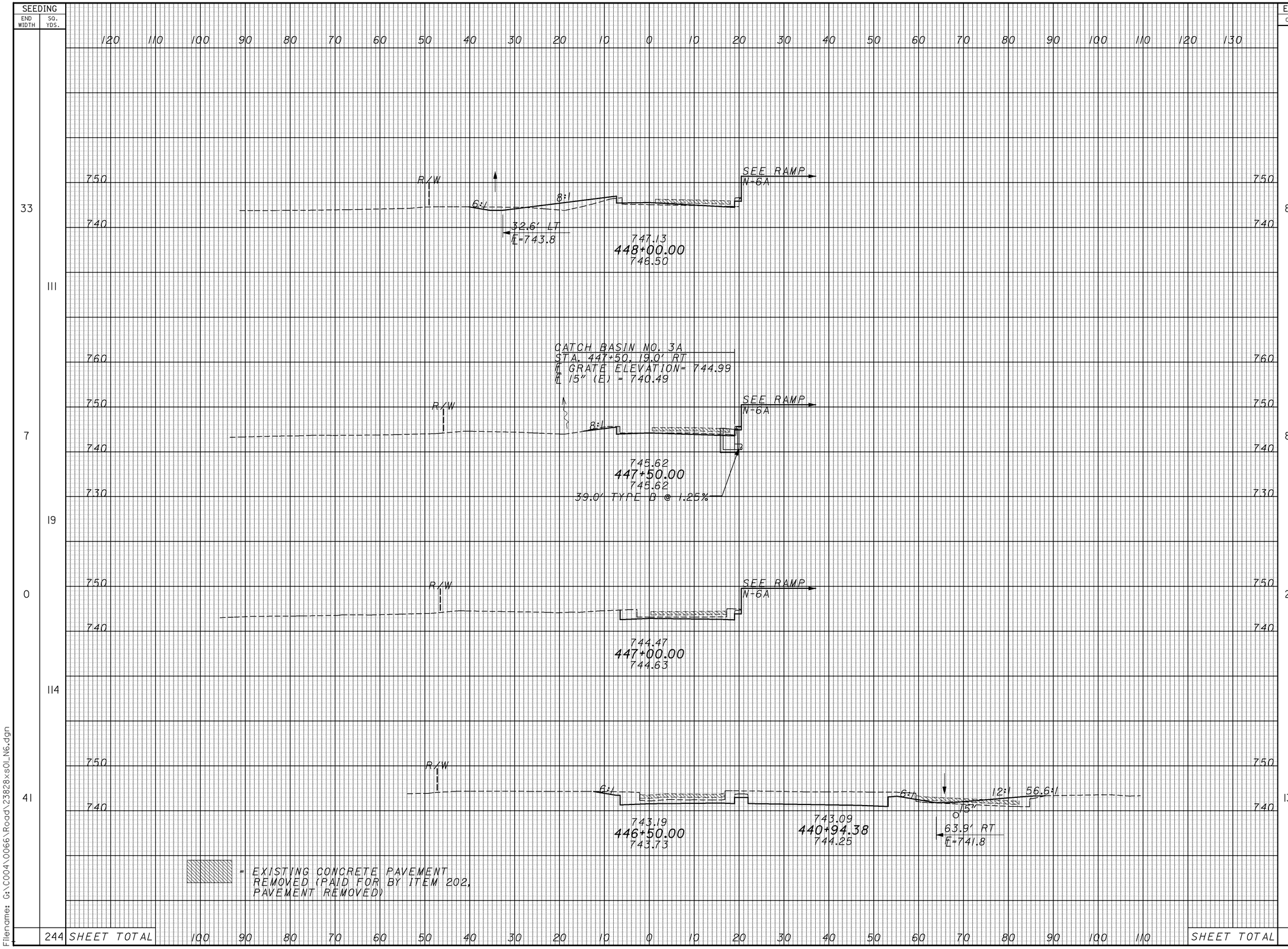
RAMP N-6 SUBSUMMARY

MOT-75-14.60

123
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:28 AM
Filename: G:\C004\0066\Road\General\23828gs0l_n6.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
33	111		8	27	15	26
7	19		8	1	28	1
0	114		22	0	148	25
41			138	27		
	244	SHEET TOTAL			191	52



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-6
STATION 446+50.00 TO STATION 448+00.00

MOT-75-14.60

124
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:29 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
33	197	760 / 750 / 740 / 730	48	34	86	44
38	214	750 / 740	45	13	79	36
39	206	750 / 740	40	26	64	50
35	189	750 / 740	29	28	34	51
	806	SHEET TOTAL			263	181

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

SEE RAMP N-6A

R/W

4:1

2:1

1:1

11'-7"

750.63
450+00.00
750.57

26.9' LT
E=742.0

SEE RAMP N-6A

Elev 745.37
Off 20.67 LT

R/W

6:1

3:1

1:1

8'-3"

8'-0"

750.00
449+50.00
749.68

31.5' LT
E=742.5

Elev 745.11
Off 21.66 LT

SEE RAMP N-6A

R/W

6:1

3:1

8:1

1:1

8'-0"

10'-10"

749.26
449+00.00
748.55

31.9' LT
E=742.9

Elev 745.15
Off 17.89 LT

SEE RAMP N-6A

R/W

6:1

3:1

8:1

1:1

8'-0"

8'-2"

747.50
448+50.00
747.50

27.6' LT
E=743.4

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

= PROPOSED BENCHING

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

SHEET TOTAL

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-6
STATION 448+50.00 TO STATION 450+00.00

MOT-75-14.60

125
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:29 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
136	692 -39 653		58	650	102	955
113	511		52	381	101	534
71	344		57	196	81	276
53	239		30	102	72	126
	1747	SHEET TOTAL			356	1891

CALCULATED EAK

CHECKED AM

CATCH BASIN NO. 2-2B
STA. 452+00, 40.90' LT
E GRATE ELEVATION=740.20
E 18" (SE)=737.95

Prop. R/W
R/W
2:1
44:1
FOR STORM DETAILS SEE SHEET 180
180.0' X 18" R.C.P. @ 0.50%
39.9' LT
E=740.2
754.70
452+00.00
742.28

SEE MAINLINE
43:1
Prop. R/W
R/W
34.6' LT
E=740.7
753.25
451+50.00
742.08

SEE RAMP N-6A
42:1
Prop. R/W
R/W
3:1
31.7' LT
E=741.1
752.10
451+00.00
745.11
48.5' RT
E=750.0

CATCH BASIN NO. 2-2B
STA. 450+50, 33.4' RT
E GRATE ELEVATION= 749.59
E 15" (W) = 746.92
SEE RAMP N-6A
8:1
Prop. R/W
R/W
HW=2.1 OR HW=2.2
62.3' TYPE B @ 8.72%
33.4' RT
E=749.9
28.9' LT
E=741.5
751.26
450+50.00
749.67

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

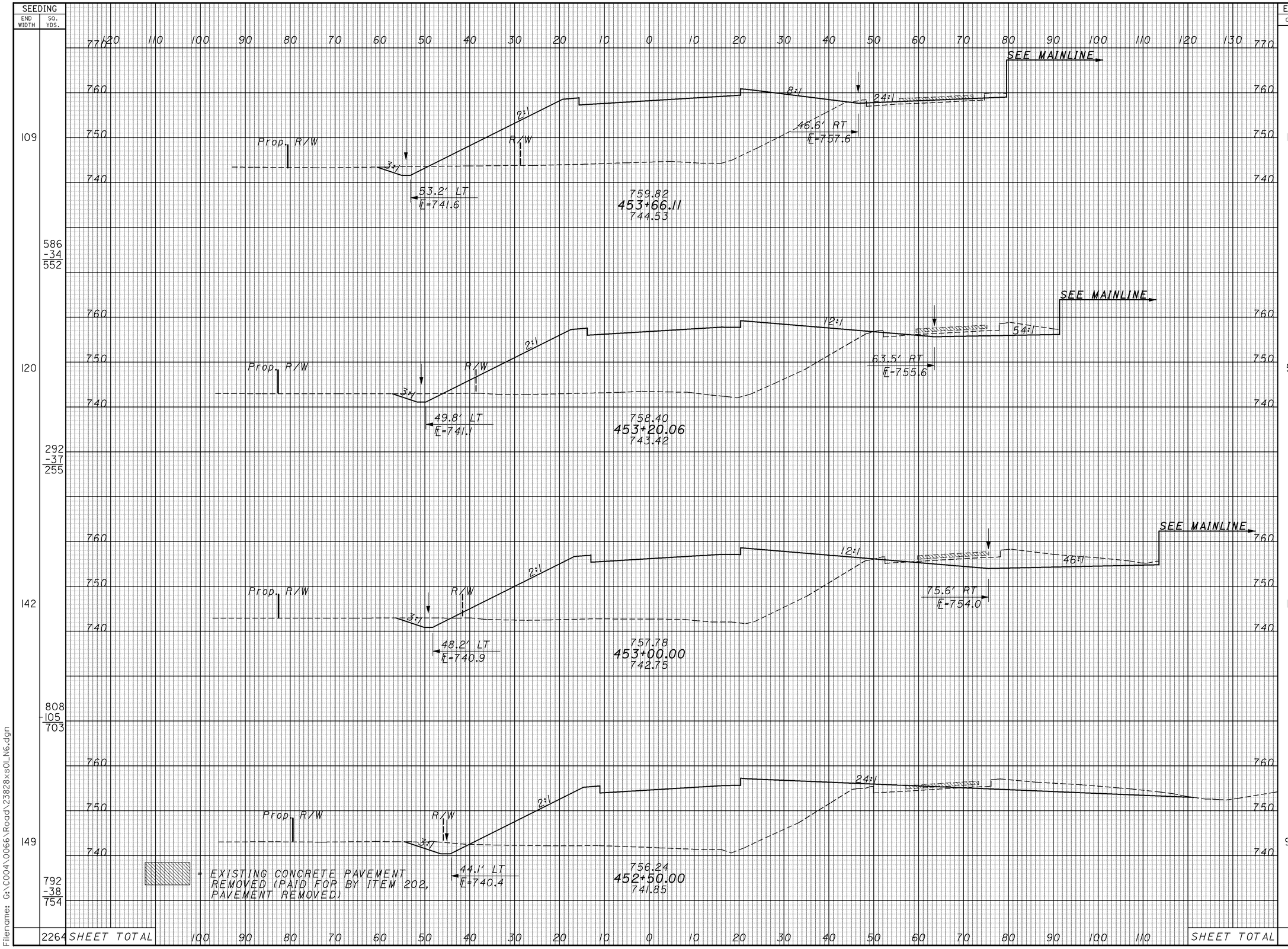
CROSS SECTIONS - RAMP N-6
STATION 450+50.00 TO STATION 452+00.00

MOT-75-14.60

126
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:29 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
109	586 -34 552	19	968	65	1679
120	292 -37 255	57	1001	68	736
142	808 -105 703	125	981	200	1724
149	792 -38 754	91	881	138	1418
	2264 SHEET TOTAL			471	5557



CALCULATED EAK
CHECKED AM

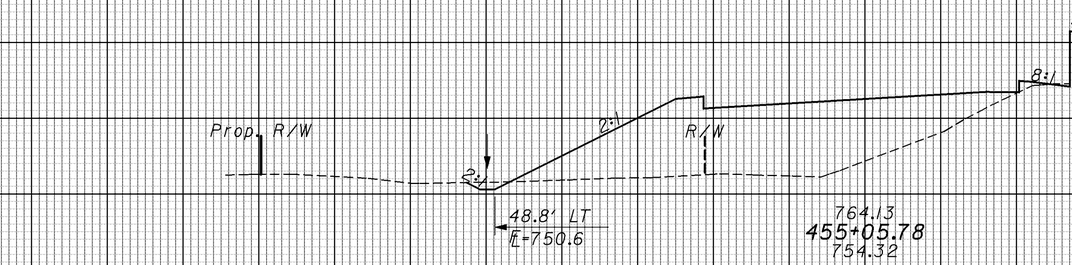
CROSS SECTIONS - RAMP N-6
STATION 452+50.00 TO STATION 453+66.11

MOT-75-14.60

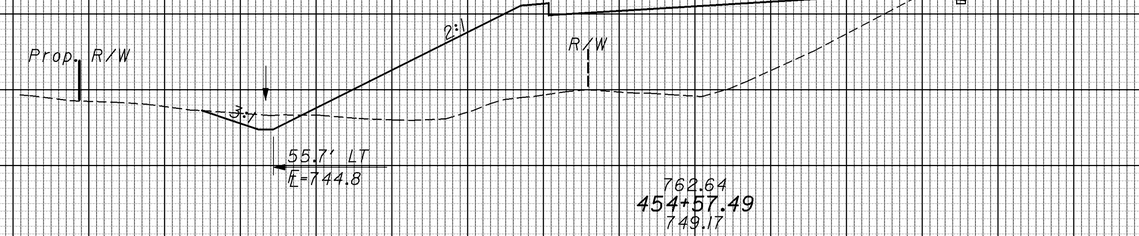
127
316

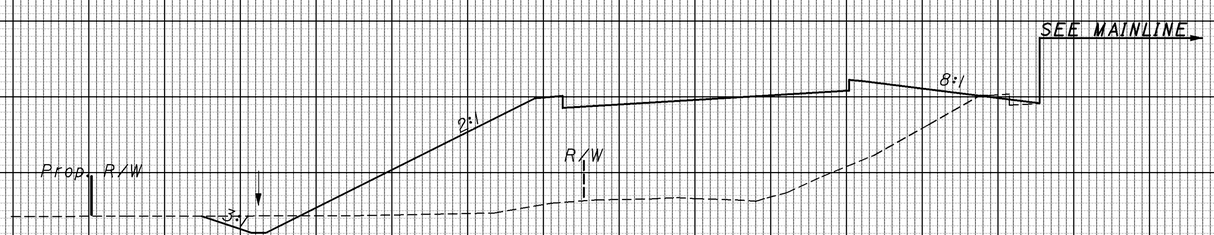
Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:29 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	6079	RAMP N-6 GRAND TOTAL CARRIED TO GENERAL SUMMARY			1359	10528
		ITEM 203, EMBANKMENT, AS PER PLAN GRAND TOTAL CARRIED TO GENERAL SUMMARY				994
41	287 -40 247	48.8' LT E-750.6	4	441	18	994
66	367 -35 332	55.7' LT E-744.8	16	670	29	1303
78	473 -34 439	56.6' LT E-742.1	18	864	31	1544
	1018	SHEET TOTAL			78	2847



BEGIN ITEM 203, EMBANKMENT, AS PER PLAN





+ EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

CALCULATED EAK

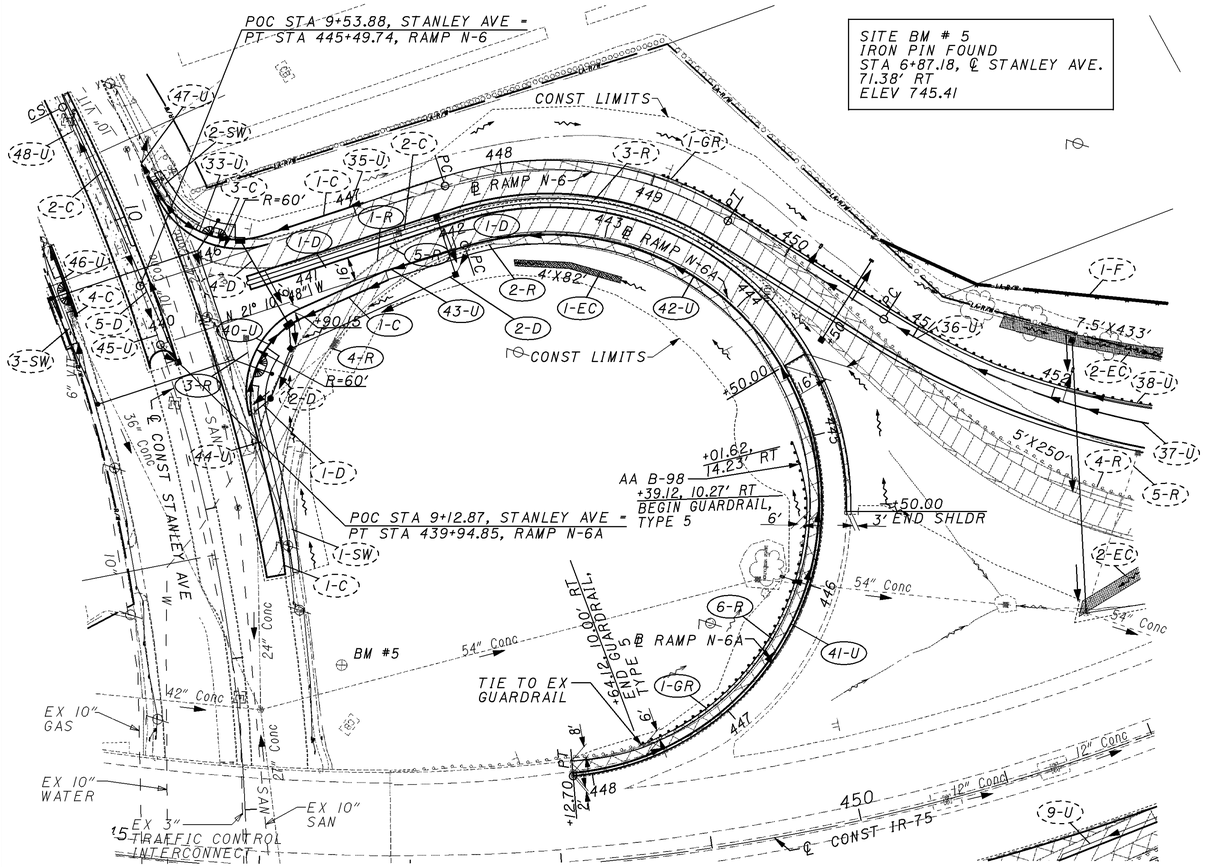
CHECKED AM

CROSS SECTIONS - RAMP N-6
STATION 454+11.63 TO STATION 455+05.78

MOT-75-14.60

128
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:29 AM
Filename: G:\C004\0066\Road\23828xs01_N6.dgn



RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07' 50" (RT)
Dc = 31° 49' 52"
R = 180.00'
T = 1,564.01'
L = 606.74'
E = 1,754.33'
PC = 442+05.97
PT = 448+12.70
emax = 0.06

FOR UNDERDRAIN QUANTITIES SEE SHEET 91
FOR REMOVAL QUANTITIES SEE SHEET 95
FOR STORM SEWER DETAIL SEE SHEET 124, 130

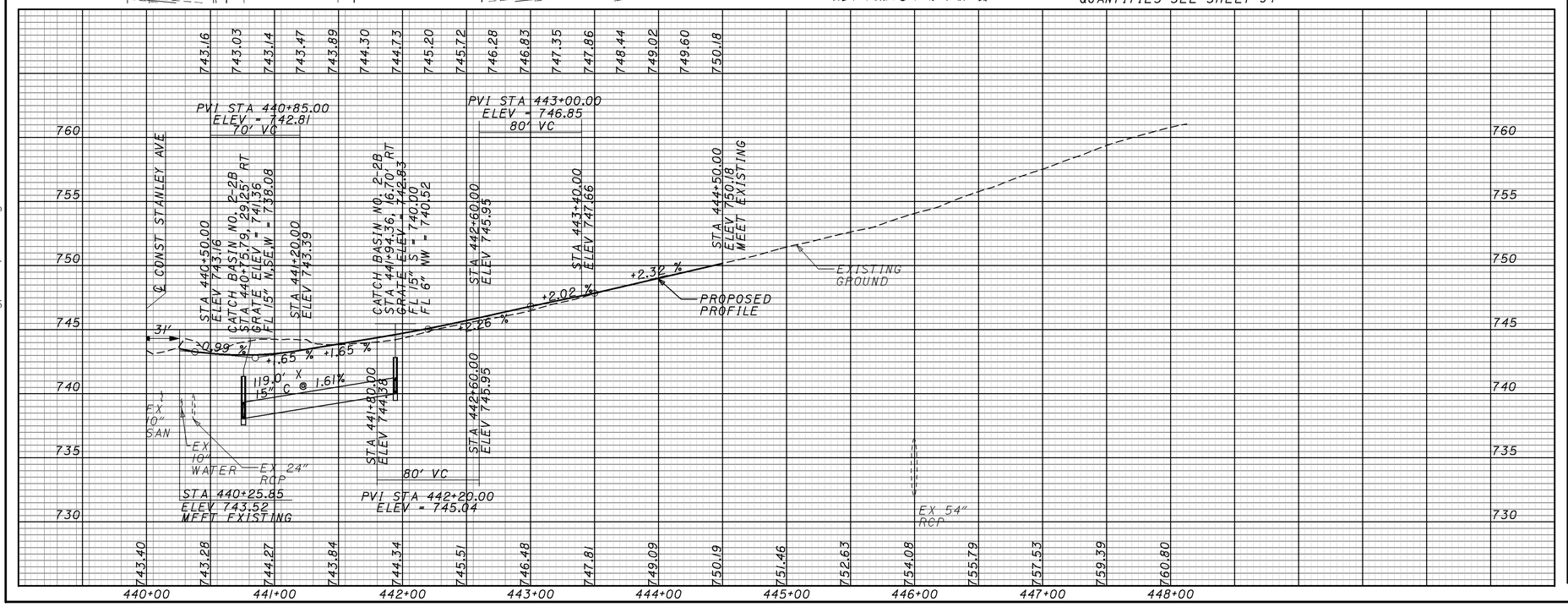
ITEM 202, CONC MEDIAN REMOVED

ITEM 670, DITCH EROSION PROTECTION

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94



REF NO.	STATION FROM	STATION TO	SIDE	603 15" CONDUIT, TYPE B	603 15" CONDUIT, TYPE C	604 CATCH BASIN, NO. 3A	604 CATCH BASIN, NO. 2-2B	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE B-98	609 CURB, TYPE 6	670 DITCH EROSION PROTECTION
				FT	FT	EA	EA	FT	EA	FT	SQ
I-C	440+82.26	441+51.12	RT							85	
I-D	441+94.38	441+94.38	LT	39		1					37
2-D	441+94.38	440+75.79	RT		119		1		1		
I-EC	442+37.00	443+19.00	RT					225.00			
I-GR	445+39.12	447+64.12	RT								
TOTALS CARRIED TO GENERAL SUMMARY				39	119	1	1	225.00	1	85	37

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MPD
CHECKED AM

PLAN AND PROFILE RAMP N-6A

MOT-75-14.60

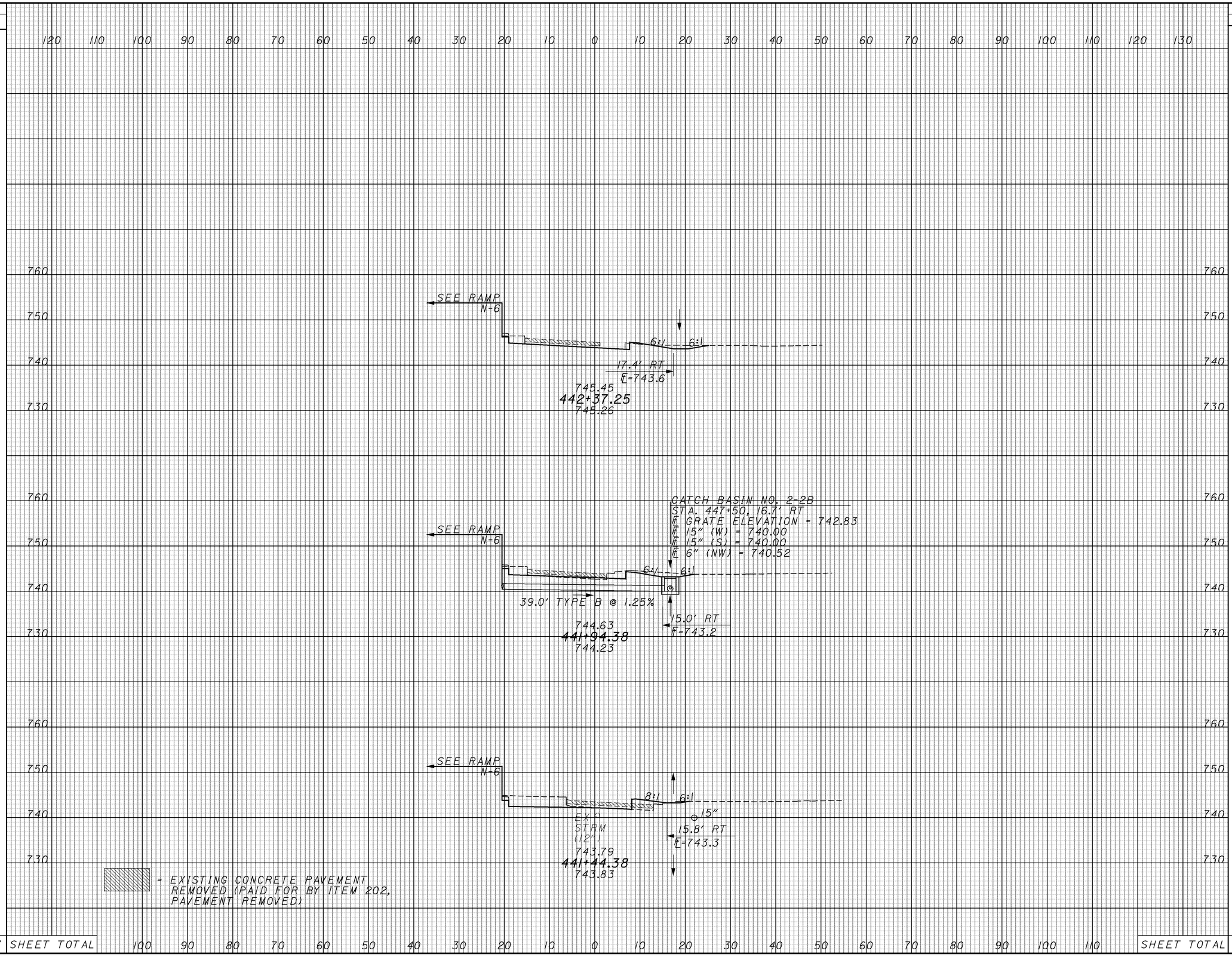
129
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:30 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_N6A.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
18	79	14	2	29	4
15	78	23	3	52	14
13		33	12		
	157	SHEET TOTAL		81	18

CALCULATED EAK

CHECKED AM



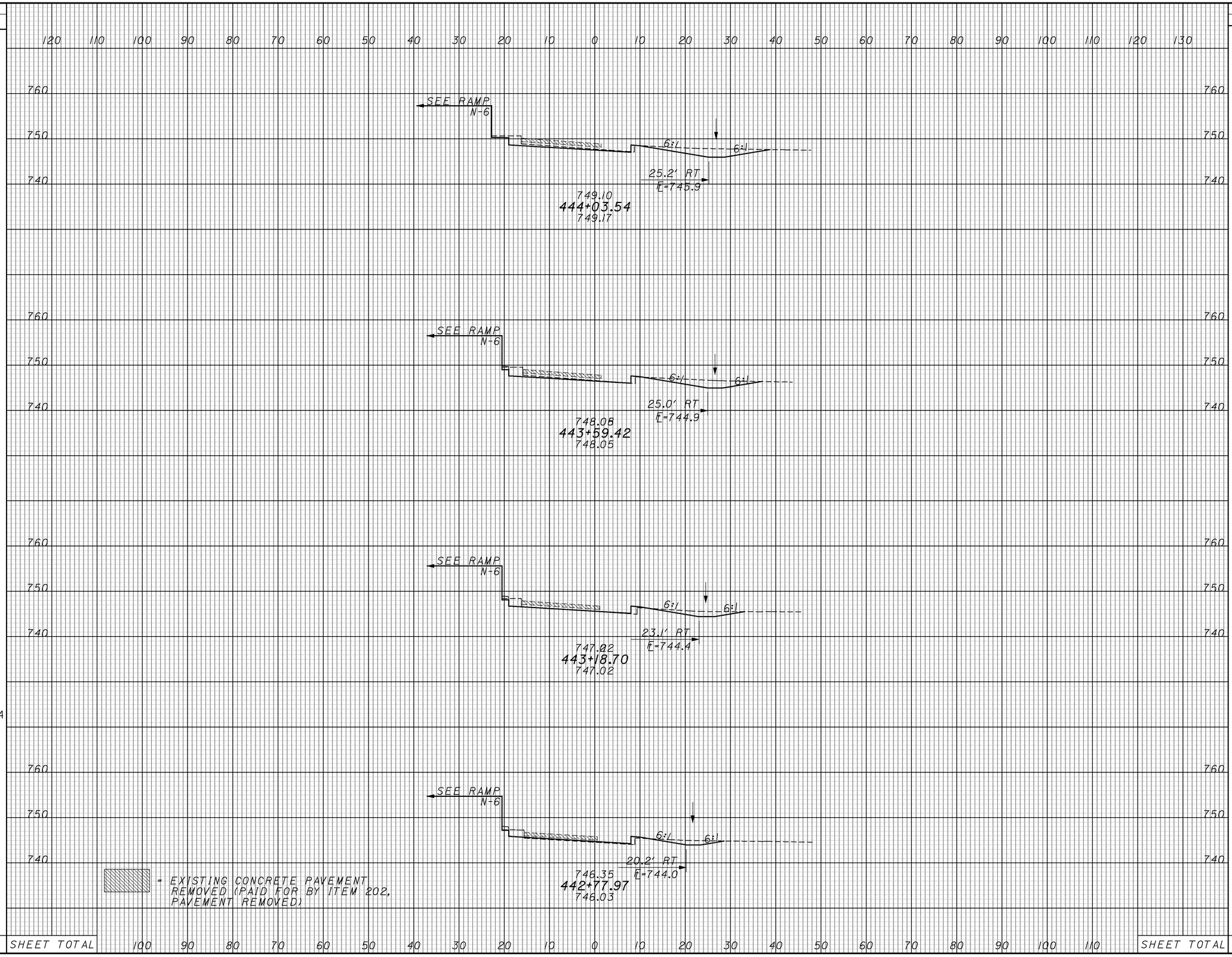
CROSS SECTIONS - RAMP N-6A
STATION 441+44.38 TO STATION 442+37.25

MOT-75-14.60

130
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:32 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
35	157	43	1	65	2
29	122	36	2	42	4
25	104	20	3	26	7
21	88	15	6	22	6
	471			155	19



CALCULATED EAK

CHECKED AM

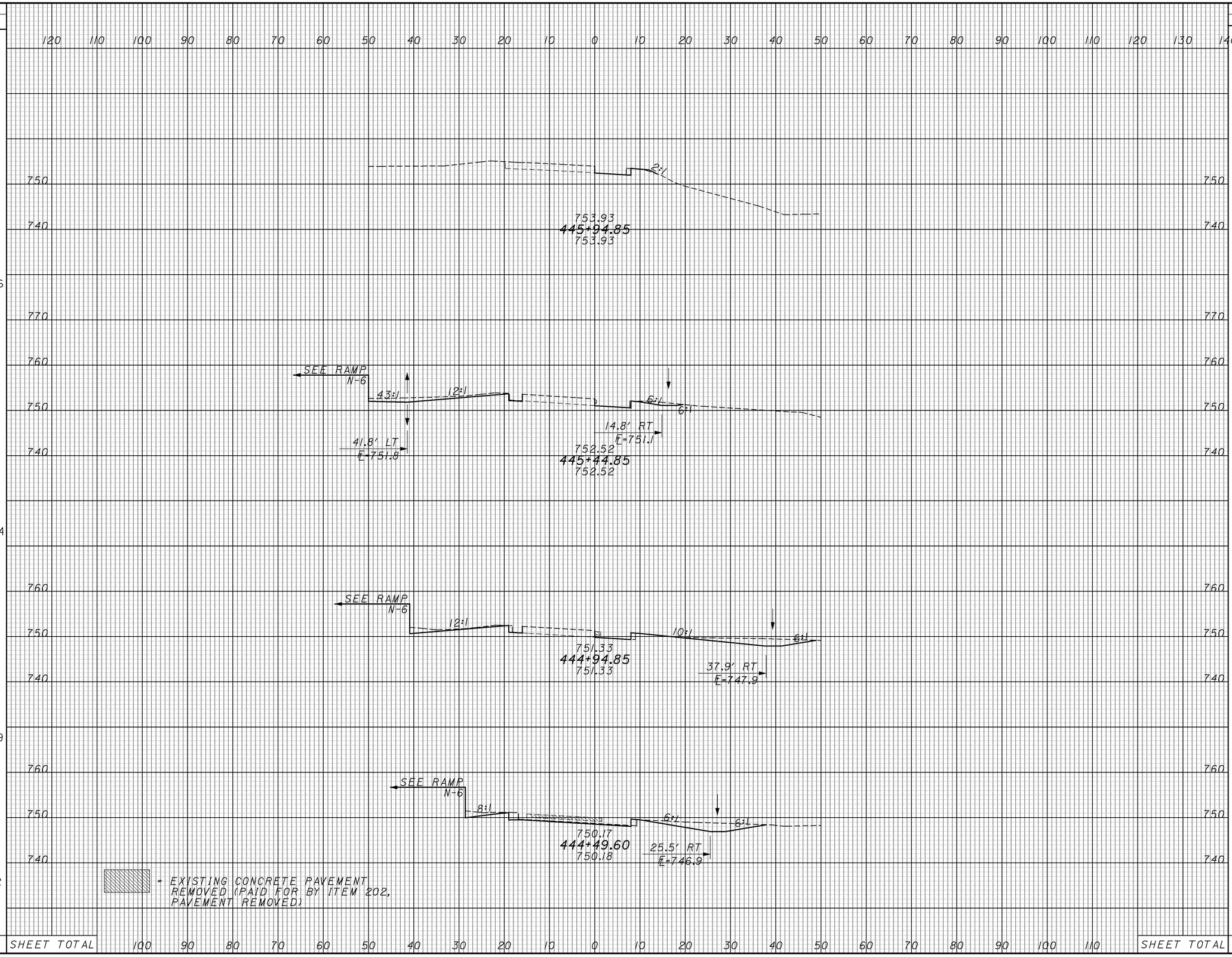
CROSS SECTIONS - RAMP N-6A
STATION 442+77.97 TO STATION 444+03.54

MOT-75-14.60

131
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:32 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	
6	136	
43		
63	294	
40	259	
	192	
	881	SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2	1		
		23	1
23	0		
		56	2
37	2		
		67	3
43	2		
		73	3
		219	9
SHEET TOTAL			

CALCULATED EAK
CHECKED AM

CROSS SECTIONS - RAMP N-6A
STATION 444+49.60 TO STATION 445+94.85

MOT-75-14.60

132
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:32 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	2034	RAMP N-6A GRAND TOTAL CARRIED TO GENERAL SUMMARY			521	63
5	25	760 / 750 — 12:1 — 760.68 / 447+94.85 / 760.68	0	2	1	2
4	25	760 / 750 — 12:1 — 759.20 / 447+44.85 / 759.20	1	0	3	1
5	236	760 / 750 — 4:1 — 757.37 / 446+94.85 / 757.37	2	1	31	7
80	239	750 / 740 — 2:1, 1:1 — Elev 746.84 Off 27.92 RT — 8'-7" — 755.61 / 446+44.85 / 755.61	31	7	31	7
	525	SHEET TOTAL			66	17

= EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)

= PROPOSED BENCHING

CALCULATED EAK

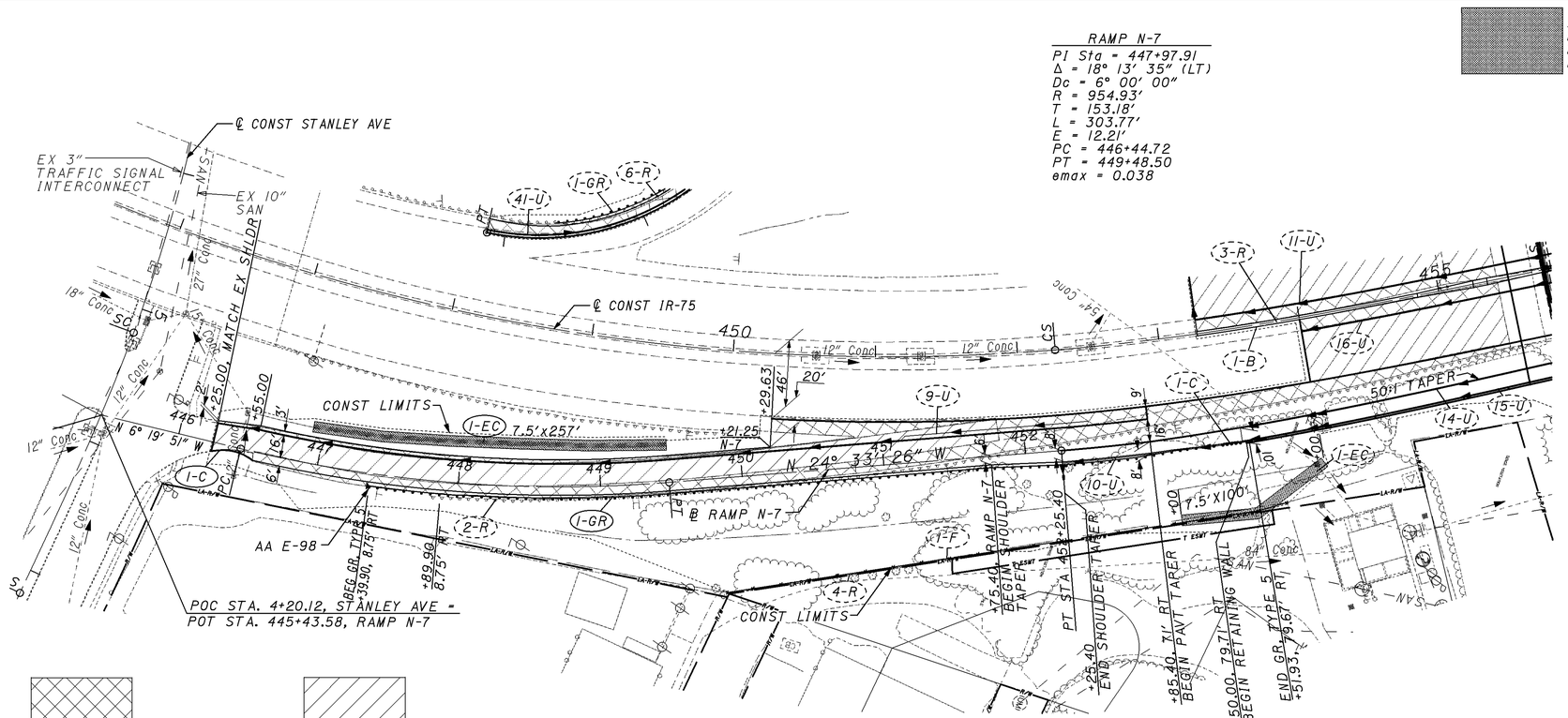
CHECKED AM

CROSS SECTIONS - RAMP N-6A
STATION 446+44.85 TO STATION 447+94.85

MOT-75-14.60

133 / 316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:32 AM
Filename: G:\C004\0066\Road\23828xs01_N6A.dgn



REF NO.	STATION FROM	STATION TO	SIDE	670 DITCH EROSION PROTECTION SY	609 CURB, TYPE 6 FT	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EA	606 ANCHOR ASSEMBLY, TYPE E-98 EA	606 GUARDRAIL, TYPE 5 FT
I-C	446+25.00	446+55.01	RT		31*			
I-EC	446+92.00	449+49.00	LT	215*				
I-GR	447+87.90,	453+51.93,	RT			1*	1*	562.50*
	RAMP N-7	IR-75						
TOTALS CARRIED TO GENERAL SUMMARY				215	31	1	1	562.50

*= HIGWAY SAFETY PROGRAM (HSP)

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED MPD CHECKED AM

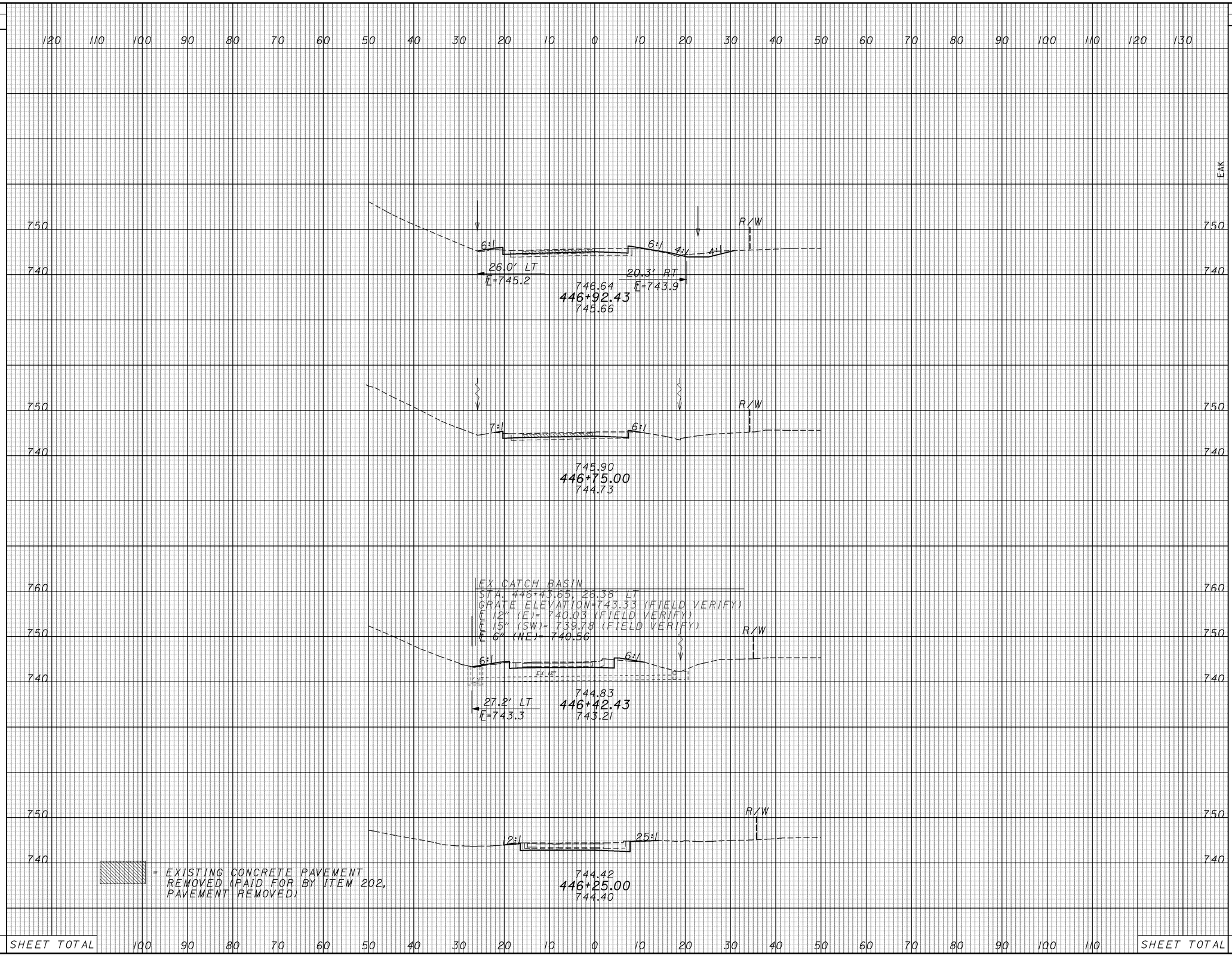
PLAN AND PROFILE
RAMP N-7

MOT-75-14.60

134
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:33 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_N7.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
30	34
5	36
15	24
10	94



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28	5	17	2
26	1	34	3
30	4	23	1
42	0		
		74	6

CALCULATED EAK
CHECKED AM

EAK AM

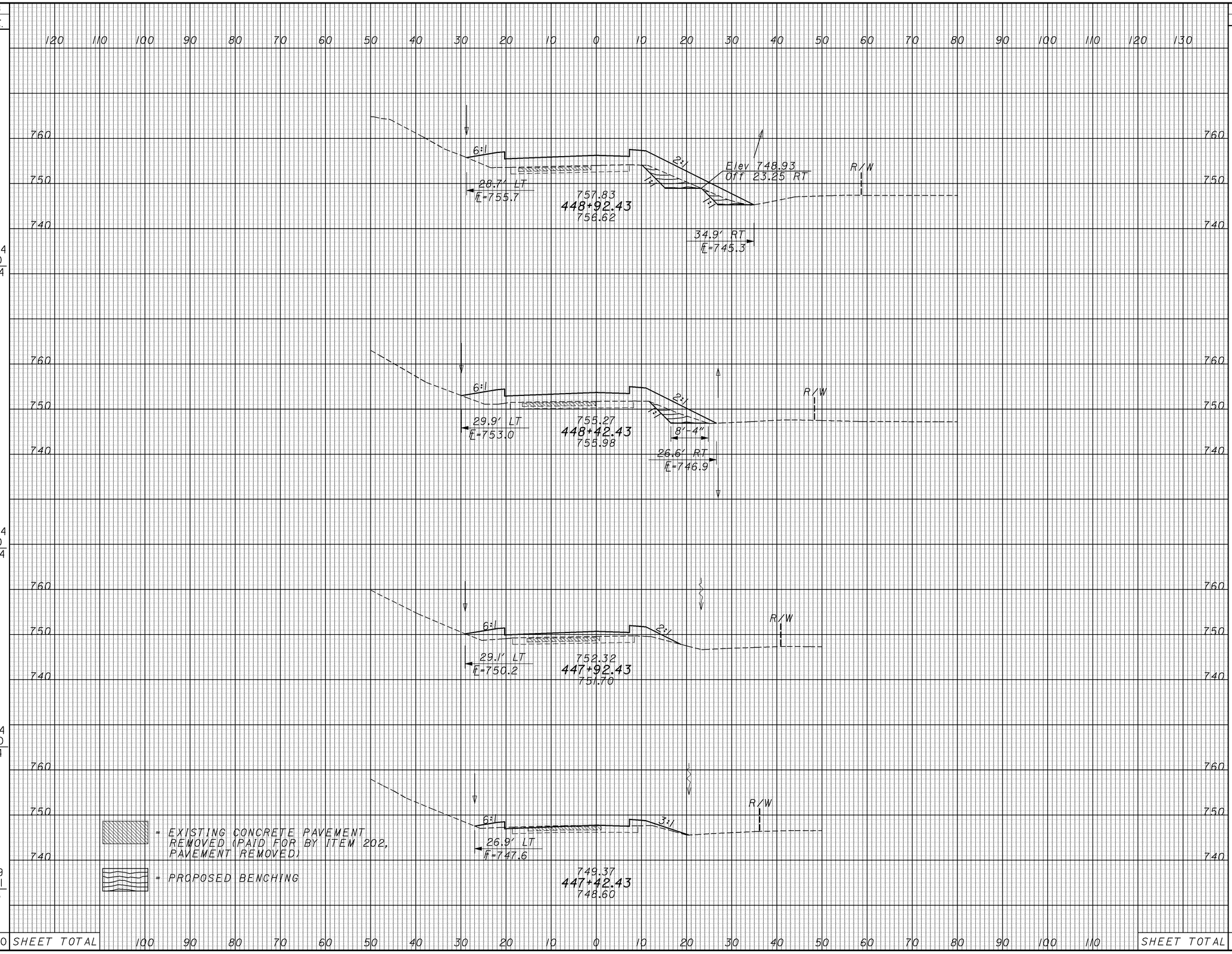
CROSS SECTIONS - RAMP N-7
STATION 446+25.00 TO STATION 446+92.43

MOT-75-14.60

135
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:34 AM
Filename: G:\C004\0066\Road\23828xs01_N7.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
39	194 -40 154		33	138	48	227
31			19	107		
	144 -40 104				18	151
21			0	56		
	114 -40 74				4	66
20	139 -41 98		4	15		
					30	19
	430	SHEET TOTAL			100	463



CALCULATED EAK

CHECKED AM

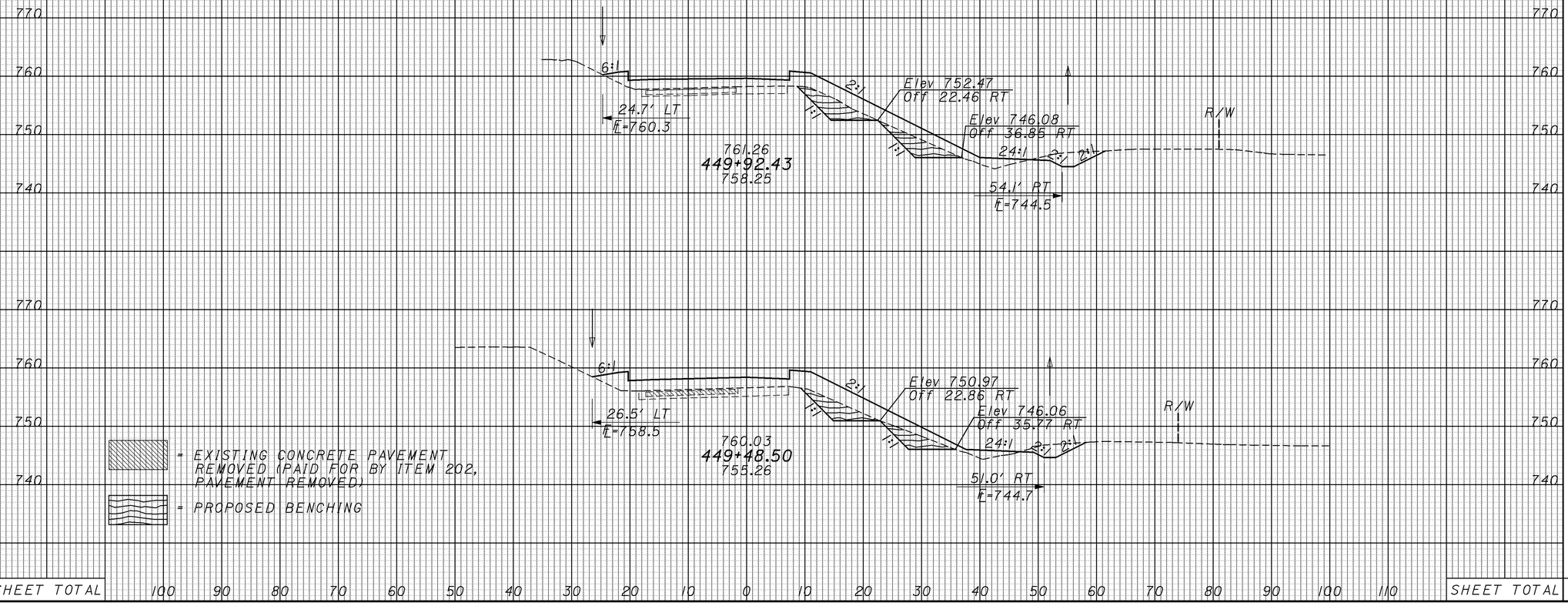
CROSS SECTIONS - RAMP N-7
STATION 447+42.43 TO STATION 448+92.43

MOT-75-14.60

136/316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:35 AM
Filename: G:\C004\0066\Road\23828xs01_N7.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	1093	RAMP N-7 GRAND TOTAL CARRIED TO GENERAL SUMMARY			412	967
		RAMP N-7 GRAND TOTAL CARRIED TO GENERAL SUMMARY				



63	303		86	126	129	213
61	311 -45 266		72	136	109	285
	569	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110			238	498

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-7

STATION 449+48.50 TO STATION 449+92.43

MOT-75-14.60

137 / 316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:35 AM

Filename: G:\C004\0066\Road\23828xs01_N7.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MPD
CHECKED AM

PLAN RAMPS N-9 & N-10

MOT-75-14.60

138
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:36 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_ramp_n98n10.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		SEE RAMP N-10				
59	306	3+00.00	28	1	40	8
51	169	2+50.00	15	8	12	18
40	201	2+16.53	5	21	11	30
48	88	1+75.45	10	18	5	12
46	219	1+58.59	7	21	18	32
49		SEE MAINLINE	16	20		
		20.9' LT @℄=745.3				
		1+17.03				
	983	SHEET TOTAL			86	100

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-9
STATION 1+17.03 TO STATION 3+00.00

MOT-75-14.60

139
316

Plotted By: mpdonnelly Date: 8/2/2007 Time: 6:20:47 PM
Filename: g:\co04\0066\road\23828xs0l_n9.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36		1	43		
	200			2	119
36		1	85		
	200			3	144
36		2	71		
	193			4	97
38		3	40		
	206			18	36
52		21	7		
	279			41	7
	1078 SHEET TOTAL			68	403

SEE RAMP N-10
24:1
24:1
744.33
5+33.41
744.33

SEE RAMP N-10
24:1
744.46
4+83.41
744.46

SEE RAMP N-10
24:1
24:1
744.67
4+33.41
744.67

SEE RAMP N-10
24:1
744.65
3+86.43
744.64

SEE RAMP N-10
24:1
24:1
744.85
3+45.26
744.85

CALCULATED EAK
CHECKED AM

CROSS SECTIONS - RAMP N-9
STATION 3+45.26 TO STATION 5+33.41

MOT-75-14.60

140
316

Plotted By: mpdonnelly Date: 8/2/2007 Time: 6:20:47 PM
Filename: g:\co04\0066\road\23928xs01_n9.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	2858	RAMP N-9 GRAND TOTAL CARRIED TO GENERAL SUMMARY — RAMP N-9 GRAND TOTAL CARRIED TO GENERAL SUMMARY			165	873
37		SEE RAMP N-10 — 750 — 740 — 24:1 — 743.99 — 7+33.41 — 743.99 — 750 — 740	2	31		
	203				4	98
36		SEE RAMP N-10 — 750 — 740 — 24:1 — 743.98 — 6+83.41 — 743.98 — 750 — 740	2	75		
	200				3	110
36		SEE RAMP N-10 — 750 — 740 — 24:1 — 744.06 — 6+33.41 — 744.06 — 750 — 740	1	44		
	197				2	81
35		SEE RAMP N-10 — 750 — 740 — 24:1 — 744.20 — 5+83.41 — 744.20 — 750 — 740	1	44		
	197				2	81
	797	SHEET TOTAL — 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 — SHEET TOTAL			11	370

CALCULATED EAK

CHECKED AM

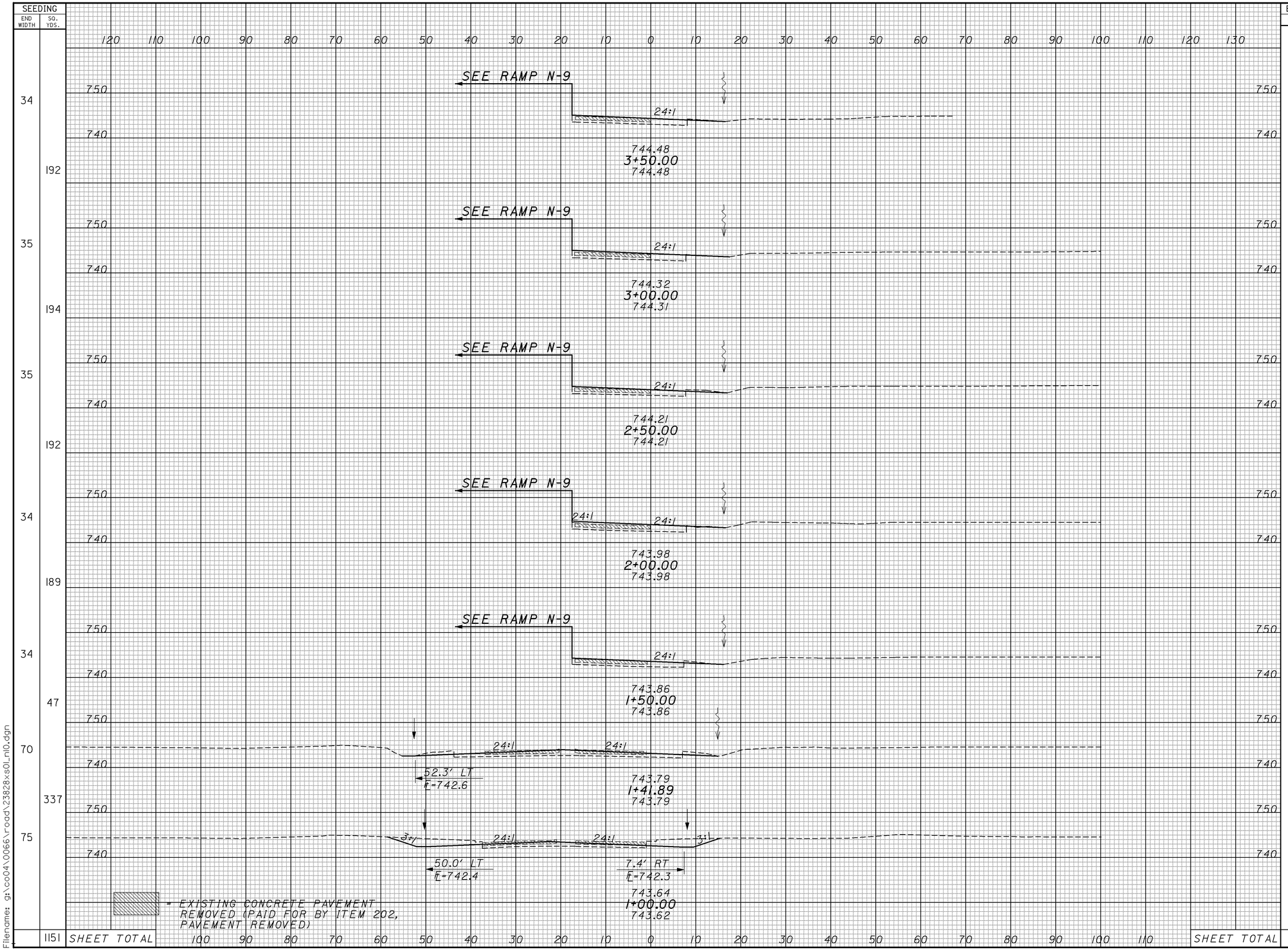
CROSS SECTIONS - RAMP N-9
STATION 5+83.41 TO STATION 7+33.41

MOT-75-14.60

141
316

Plotted By: mpdonnelly Date: 8/2/2007 Time: 6:20:48 PM
Filename: g:\co04\0066\road\23928xs01_n9.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34	192	1	35	2	67
35	194	1	37	3	66
35	192	2	34	3	69
34	189	1	40	3	66
34	47	2	31	2	12
70	337	9	49	43	61
75		47	29		
	1151	SHEET TOTAL		56	341



CALCULATED EAK

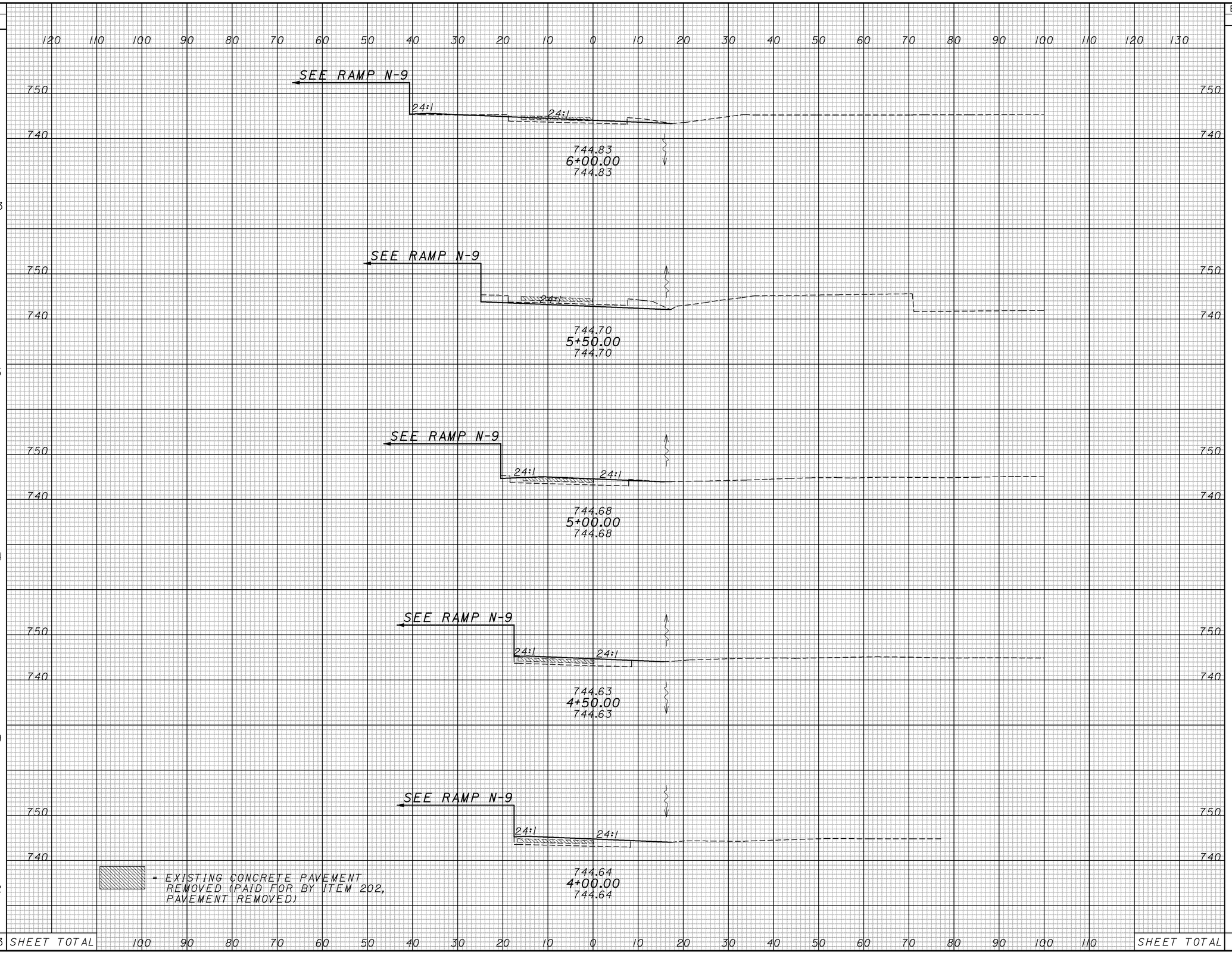
CHECKED AM

CROSS SECTIONS - RAMP N-10
STATION 1+00.00 TO STATION 3+50.00

MOT-75-14.60

Plotted By: mpdonnelly Date: 8/2/2007 Time: 6:21:30 PM
Filename: g:\co04\0066\road\23828xs0Ln10.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
58	233	6+00.00	8	22	38	20
26	175	5+50.00	33	0	32	32
37	194	5+00.00	2	35	3	70
33	189	4+50.00	1	41	1	78
35	192	4+00.00	0	43	1	72
	983	SHEET TOTAL			75	272



CALCULATED EAK
CHECKED AM

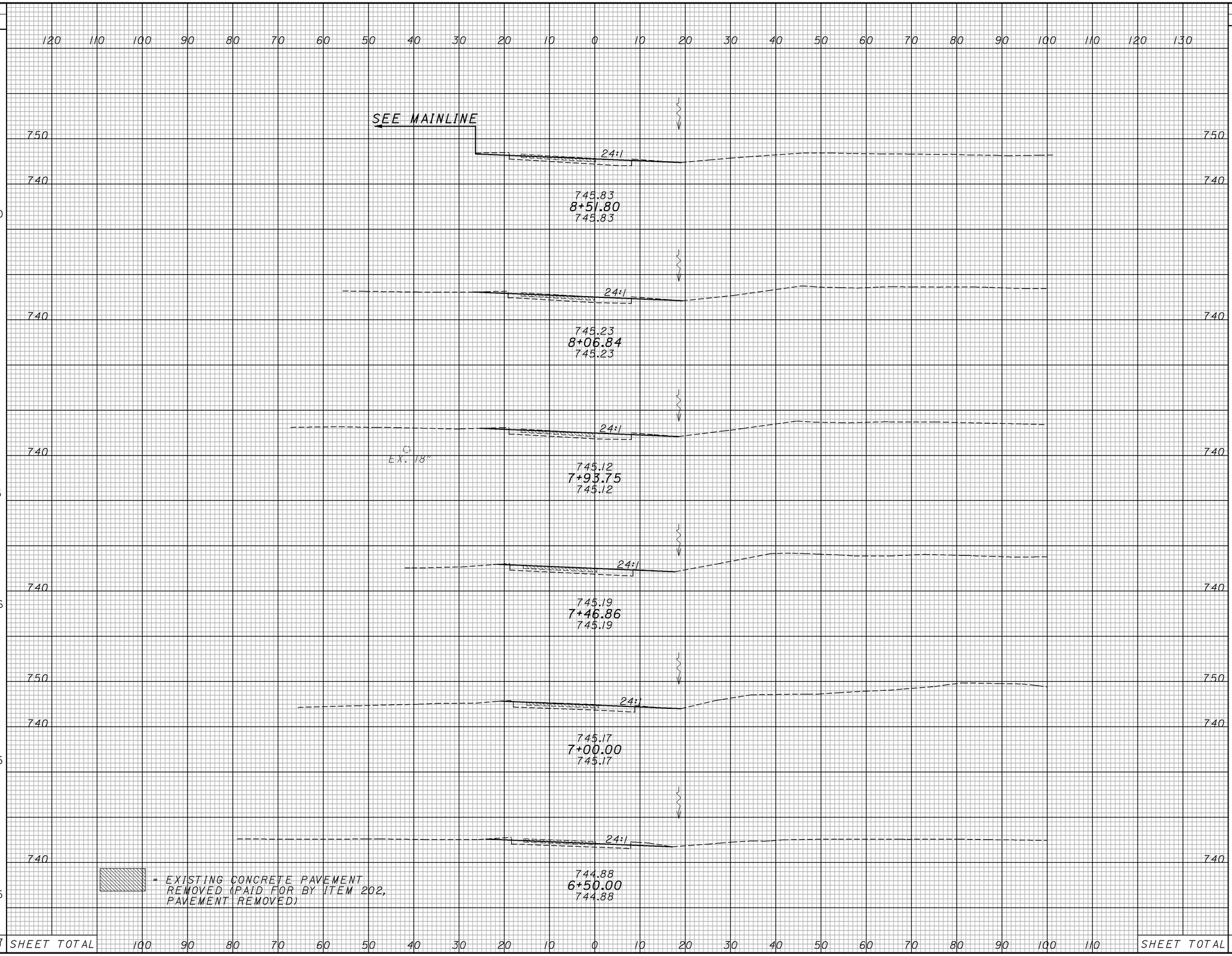
CROSS SECTIONS - RAMP N-10
STATION 4+00.00 TO STATION 6+00.00

MOT-75-14.60

143
316

Plotted By: mpdonnelly Date: 8/2/2007 Time: 6:2lt30 PM
Filename: g:\co04\0066\road\23828xs0l_nl0.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
46	230
46	65
44	216
39	206
40	225
41	275
	1217



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5	29		
4	30	7	49
3	31	2	15
1	34	3	56
1	31	2	56
6	21	6	48
		13	40
SHEET TOTAL		33	264

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-10
STATION 6+50.00 TO STATION 8+51.80

MOT-75-14.60

144
316

Plotted By: mpdonnelly Date: 8/2/2007 Time: 6:2l:30 PM
Filename: g:\co04\00066\road\23828xs0l_nl0.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	3754	RAMP N-10 GRAND TOTAL CARRIED TO GENERAL SUMMARY			191	955
		RAMP N-10 GRAND TOTAL CARRIED TO GENERAL SUMMARY				
0		750 740	0	0		
	137	748.64 9+59.40 748.62			11	25
45		SEE MAINLINE 750 740 12:1 6:1 24:1 18.9' LT ℄=746.8	11	25		
	266	747.09 9+04.47 747.09 = EXISTING CONCRETE PAVEMENT REMOVED (PAID FOR BY ITEM 202, PAVEMENT REMOVED)			16	53
	403	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		27	78

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - RAMP N-10
STATION 9+04.47 TO STATION 9+59.40

MOT-75-14.60

145
316

Plotted By: mpdonnelly Date: 8/2/2007 Time: 6:2h30 PM
Filename: g:\co04\0066\road\23828xs01_n10.dgn

BEGIN WORK STA 3+46.00

EX 10" GAS

℄ EX. ASPH. COMM. DRIVE

EX 10" WATER

EX 10" SAN

℄ CONST STANLEY AVE

STA 9+53.88, STANLEY AVE= STA 445+49.74, RAMP N-6

BEGIN WALK +32.09, 51.79' LT

SIGNAL POLE +66.81, 53.89' LT

STA 9+12.87, STANLEY AVE= STA 439+94.85, RAMP N-6A

SIGNAL POLE +87.22, 51.05' LT

DRIVEWAY CLOSED

END WALK +00.76, 50.87' LT

STA 7+69.41, STANLEY AVE= STA 0+00.00, EXISTING COMM. DRIVE

STA 9+75.04, STANLEY AVE= STA 0+00.00, EXISTING COMM. DRIVE

CONST LIMITS

FULL DEPTH PAVT

EX 3" TRAFFIC SIGNAL INTERCONNECT

CURB R-9.2'

PROP 3' MEDIAN

Sta 10+45.11, STANLEY AVE= STA 10+00.00, EXISTING COMM. DRIVE

MATCH LINE 11+50 STANLEY AVENUE SEE SHEET 147

BM #5

MANHOLE ABANDONED, CONNECT PIPE THROUGH

END WALK, +18.03, 36.36' RT

END CURB, +18.03, 31.64' RT

END RADIUS RETURN +04.09, 32.17' RT

BEGIN RADIUS RETURN +52.50, 43.00' RT

SIGNAL POLE +74.49, 63.83' RT

END WALK +83.15, 72.48' RT

SIGNAL POLE +73.81, 61.24' RT

BEGIN WALK +69.08, 73.14' RT

BEGIN RADIUS RETURN +50.94, 88.67' RT

℄ RAMP N-6

END RADIUS RETURN +07.28, 95.31' RT

℄ RAMP N-6A

CONST LIMITS

SEE SHEET 122 & 129 RAMP N-6 & N-6A

SITE BM # 5
BENCHMARK SET
STA 6+87.18, ℄ STANLEY AVE.
71.38' RT
ELEV 745.41

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

*FOR STORM SEWER DETAILS SEE SHEET 152 & 179

FOR CURB RAMP DETAILS SEE SHEET 167

FOR INTERSECTION DETAILS SEE SHEET 158

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

PIPE REMOVED

CB OR MH REMOVED

CURVE DATA

PI Sta = 8+00.03
Δ = 40° 00' 00" (LT)
Dc = 5° 00' 00"
R = 1,145.92'
Ls = 200.00'
Theta = 5° 00' 00"
LT = 133.39'
ST = 66.72'
x = 199.85'
y = 5.81'
k = 99.97'
p = 1.45'

Δc = 30° 00' 00" (LT)
Lc = 600.00'
Ts = 517.58'
Es = 75.09'
TS = 2+82.45
SC = 4+82.45
CS = 10+82.45
ST = 12+82.45
emax = EXIST

CATCH BASIN NO. 3A
STA 8+98.33, 7.14' RT
GRATE ELEV = 743.10
FL 12" W = 739.65
FL 6" W = 738.65

STA 9+50.00 ELEV 742.85

EXISTING GROUND

PROPOSED PROFILE

239.1' X 12" B @ 0.95%

CATCH BASIN NO. 3
STA 11+36.39, 7.16' RT
GRATE ELEV = 741.57
FL 12" E,S,W = 737.37
FL 6" SE = 737.86
FL 6" SW = 738.82

-0.71 %

+0.89 %

EX 12" RCP

58.5' X 12" B @ 0.90%

STA 10+70.90 ELEV 741.99

PVI STA 11+30.90
ELEV = 741.56
120' VC

EX 42" RCP

EX 36" RCP

EX 3" TRAFFIC SIGNAL INTERCONNECT

EX 10" WATER

750 745 740 735 730 725 720

742.85 742.67 742.49 742.32 742.14 741.96 741.84 741.80 741.84

744.45 744.42 744.08 743.72 743.55 743.20 742.96 742.69 742.25 742.17

7+00 8+00 9+00 10+00 11+00

PLAN AND PROFILE STANLEY AVENUE
STA. 5+83.72 TO STA. 11+50.00

MOT-75-14.60

CALCULATED MPD CHECKED AM

HORIZONTAL SCALE IN FEET 0 10 20 40

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:38 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_st_20_l.dgn

ITEM 202, PAVEMENT REMOVED

PIPE REMOVED

× CB OR MH REMOVED

FOR STORM SEWER DETAILS SEE SHEET 179

FOR DRIVE DETAILS SEE SHEET 167

FOR INTERSECTION DETAILS SEE SHEET 158

FOR UNDERDRAIN QUANTITIES SEE SHEET 91

FOR REMOVAL QUANTITIES SEE SHEET 95

ITEM 202, CONC MEDIAN REMOVED

EX. 10' x 10' WATER METER PIT TO REMAIN UNDISTURBED

ITEM 202, PAVEMENT REMOVED, ASPHALT

FOR PAVEMENT REMOVAL QUANTITIES SEE SHEET 94

SEE SHEET 138
MATCH LINE 1+50 RAMP N-10

SEE SHEET 146
MATCH LINE 11+50 STANLEY AVENUE

CURVE DATA
PI Sta = 15+97.39
Δ = 14° 23' 20" (RT)
Dc = 10° 00' 00"
R = 572.96'
T = 72.32'
L = 143.89'
E = 4.55'
PC = 15+25.07
PCC = 16+68.96
emax = EXIST

CURVE DATA
PI Sta = 17+14.46
Δ = 12° 59' 19"
Dc = 14° 20' 00"
R = 399.74'
T = 45.50'
L = 90.62'
E = 2.58'
PCC = 16+68.96
PT = 17+59.58
emax = EXIST

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MPD
CHECKED AM

PLAN AND PROFILE STANLEY AVENUE
STA. 11+50.00 TO STA. 17+42.78

MOT-75-14.60

147
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:39 AM
Filename: G:\C004\0066\Road\Sheets\23828gp_st_20_2.dgn

SHEET NO.	REF NO.	STATION FROM	STATION TO	SIDE	603 12" CONDUIT, TYPE B FT	603 12" CONDUIT, TYPE C FT	603 15" CONDUIT, TYPE B FT	603 15" CONDUIT, TYPE C FT	604 CATCH BASIN, NO. 3 EA	604 CATCH BASIN, NO. 3A EA	604 CATCH BASIN, NO. 2-2B EA	604 MANHOLE, NO. 3 EA	604 MANHOLE ABANDONED EA	608 4" CONCRETE WALK SF	608 8" CONCRETE WALK SF	608 CURB RAMP, AS PER PLAN EA		609 CURB, TYPE 6 FT	609 CONCRETE MEDIAN SY					
146	1-C	7+49.00	9+03.65	RT														394					
	2-C	9+00.22	9+00.25	MEDIAN														29					
	3-C	9+55.52	10+18.03	RT														83					
	4-C	9+49.40	10+00.69	LT														49					
	5-C	9+80.00	11+50.00	MEDIAN															52				
	1-D	8+53.85	8+59.19	RT				14				1											
	2-D	8+59.19	8+85.56	RT				36			1												
	3-D	8+85.56	8+99.65	RT				16	1														
	4-D	8+99.65	9+59.27	RT			65		1														
	5-D	8+98.33	11+36.39	MEDIAN	239					1													
	6-D	11+33.36	11+36.39	MEDIAN	8				1														
	7-D	11+36.39	00+94.00	MEDIAN	59					1													
	8-D	8+53.85	8+53.85	RT									1										
	1-SW	7+48.87	8+68.61	RT										784	67	1							
	2-SW	9+78.24	10+18.03	RT										370	75	1							
	3-SW	9+32.09	10+00.76	LT										363	73	1							
147	1-C	11+50.00	12+44.50	MEDIAN															32				
	2-C	12+83.00	15+29.65	LT														204					
	2-D	13+99.39	14+10.00	LT				11		1													
	3-D	14+02.77	14+10.00	LT				36			1												
	4-D	14+02.77	14+60.35	LT		55					1												
	5-D	14+10.00	14+85.00	LT	75					1													
	1-SW	12+83.00	15+40.10	LT										1170	120								
TOTALS CARRIED TO GEN. SUM.					381	55	65	113	3	4	3	1	1	2687	335	3		759	84				

CALCULATED EAK CHECKED AM

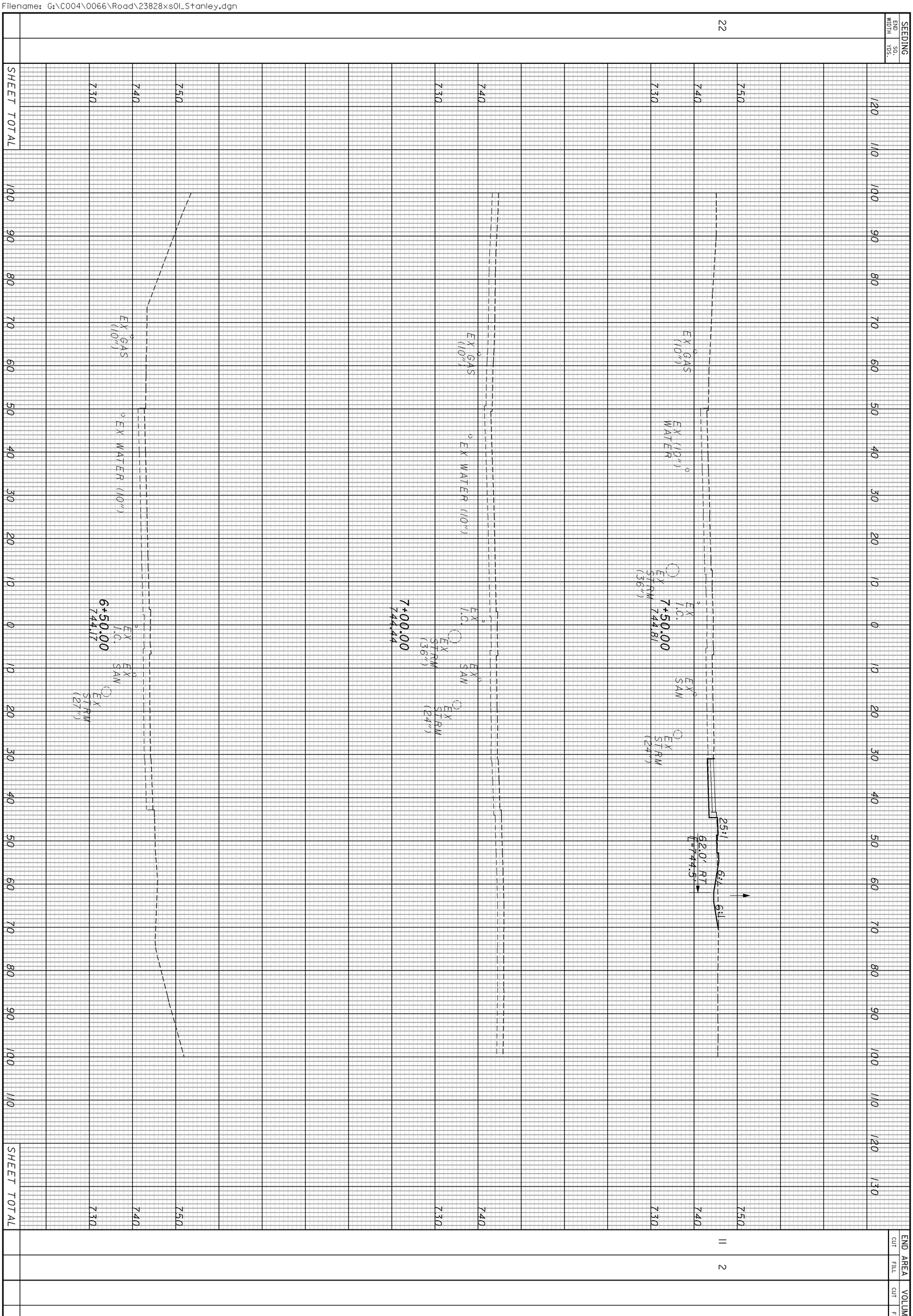
STANLEY AVENUE SUBSUMMARY

MOT-75-14.60

148
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:40 AM
Filename: G:\C004\0066\Road\General\23828gs01_st.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:41 AM
Filename: G:\C004\0066\Road\23828xs01_Stanley.dgn



149/316

MOT-75-14.60

CROSS SECTIONS - STANLEY AVENUE
STATION 6+50.00 TO STATION 7+50.00

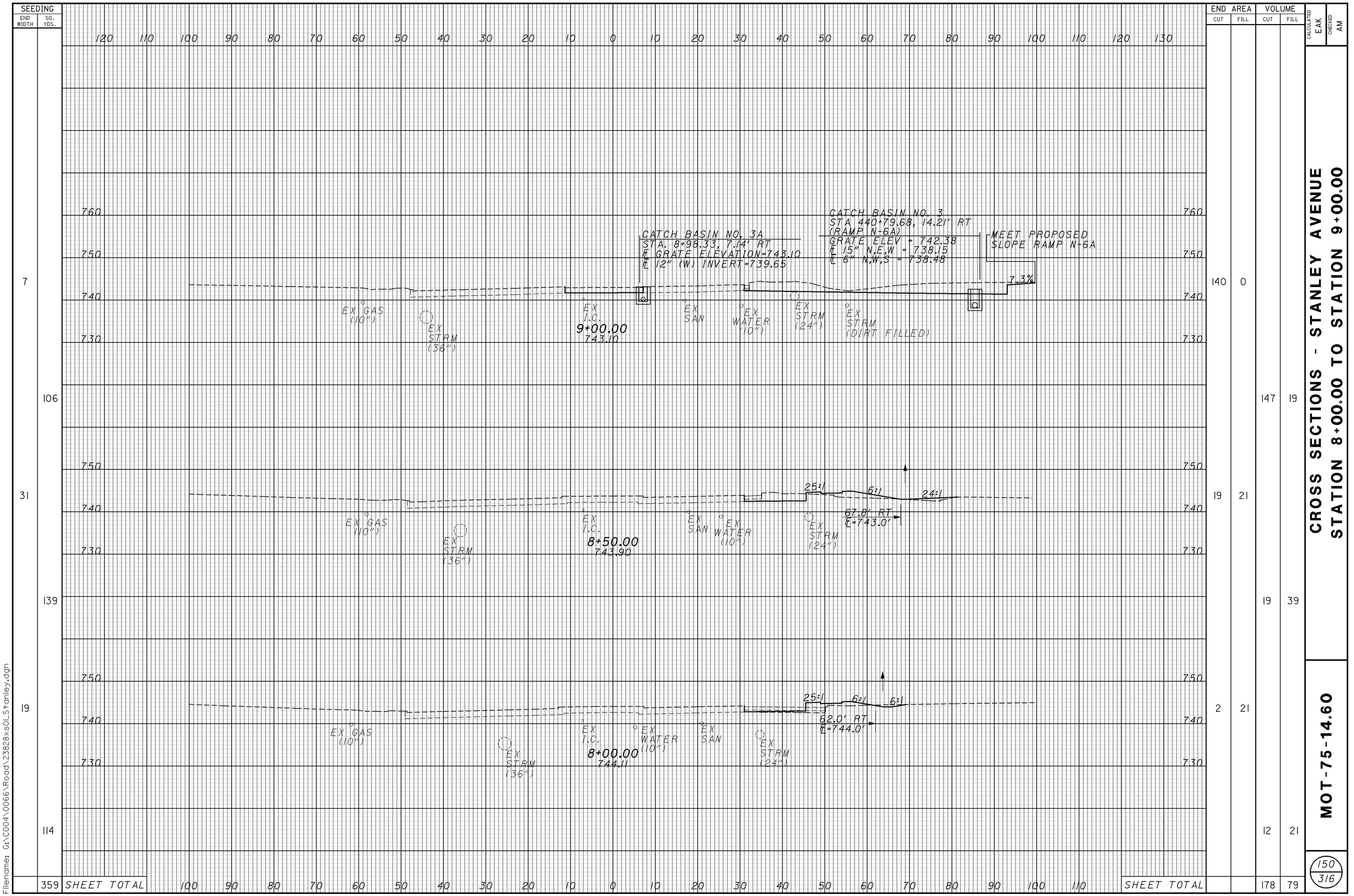
CALCULATED EAK
CHECKED AM

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
7	106	140	0	147	19
31	139	19	21	19	39
19	114	2	21	12	21
	359 SHEET TOTAL			178	79

CALCULATED EAK

CHECKED AM

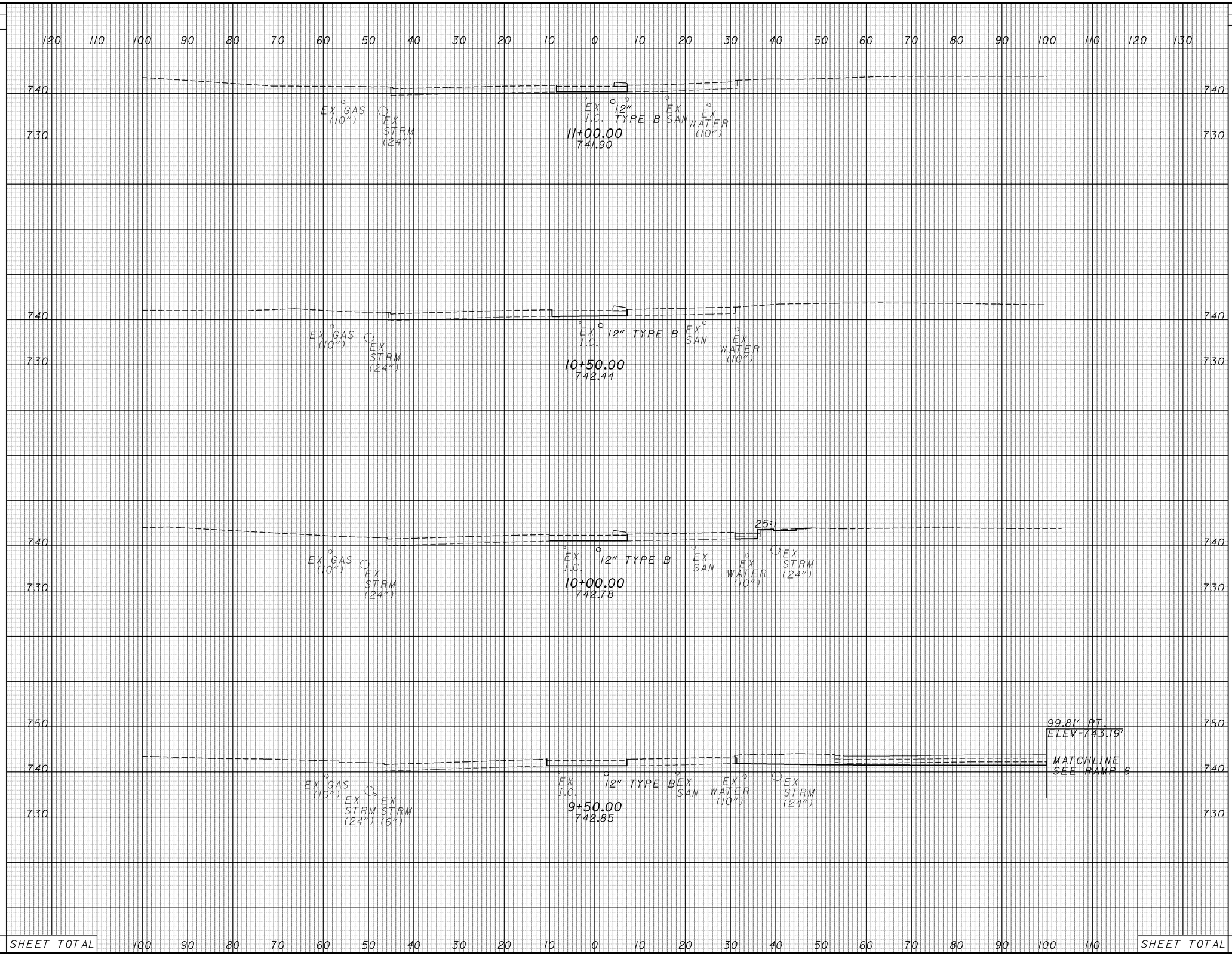
CROSS SECTIONS - STANLEY AVENUE
STATION 8+00.00 TO STATION 9+00.00



Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:41 AM
Filename: G:\C004\0066\Road\23828x50L_Stanley.dgn

MOT-75-14.60

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0			19	0		
	0				36	0
0			20	0		
	19				39	3
7			22	3		
	19				110	3
0			97	0		
	19				219	0
	57	SHEET TOTAL			404	6



CALCULATED EAK

CHECKED AM

CROSS SECTIONS - STANLEY AVENUE
STATION 9+50.00 TO STATION 11+00.00

MOT-75-14.60

151
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:41 AM
Filename: G:\C004\0066\Road\23828xSOL_Stanley.dgn

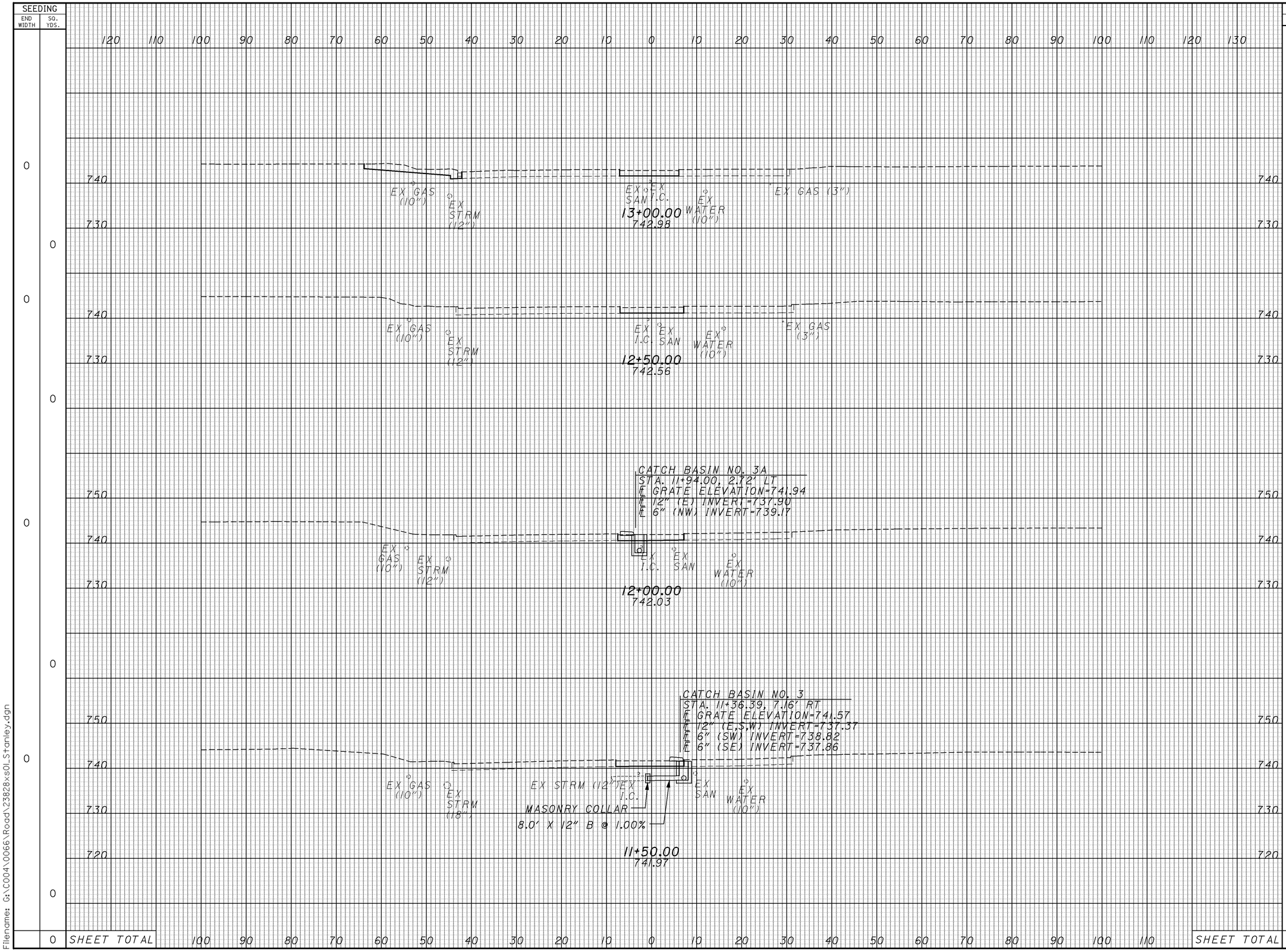
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
0	0	43	0	56	0
0	0	17	0	33	0
0	0	19	0	34	0
0	0	18	0	34	0
0	0	SHEET TOTAL		157	0

CALCULATED EAK

CHECKED AM

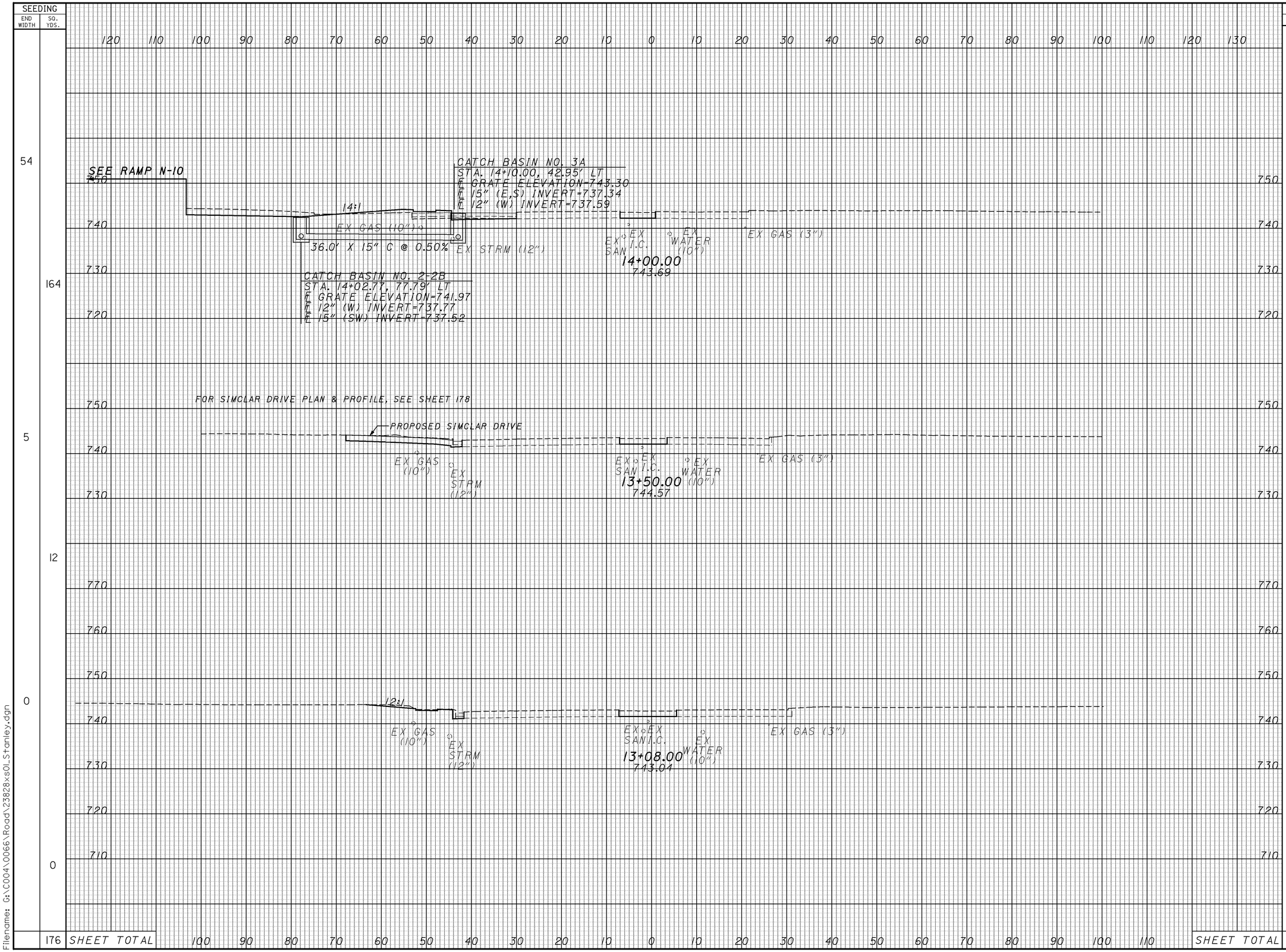
CROSS SECTIONS - STANLEY AVENUE STATION 11+50.00 TO STATION 13+00.00

MOT-75-14.60



Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:41 AM
Filename: G:\C004\0066\Road\23828x501_Stanley.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.
	54
	164
	5
	12
	0
	0
	176



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
49	22		
46	0		
21	0		
		88	20
		52	0
		9	0
		149	20

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - STANLEY AVENUE STATION 13+50.00 TO STATION 14+00.00

MOT-75-14.60

153/316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:41 AM
Filename: G:\C004\0066\Road\23828x01_Stanley.dgn

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130				
	1087	STANLEY AVENUE GRAND TOTAL CARRIED TO GENERAL SUMMARY	STANLEY AVENUE GRAND TOTAL CARRIED TO GENERAL SUMMARY		938	251
		740 EX SAN; EX STRM (15") — 16+50.00 742.94				
		740 EX GAS (6"); EX SAN; EX STRM (15") — 16+00.00 743.19				
		740 EX GAS (6"); EX SAN; EX STRM (15") — 15+50.00 743.32				
14		25:1; EX GAS (10"); EX WATER (8"); EX SAN; EX WATER (10"); EX STRM (15") — 15+00.00 743.40	3	2		
55	192	SEE RAMP N-10; VAR.; 19:1; EX GAS (10"); 12" TYPE "B"; EX SAN; EX WATER (10"); EX GAS TEL (3"); EX SAN — 14+50.00 743.37	1	67	4	64
	303	SHEET TOTAL 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110	SHEET TOTAL		46	82
	495				50	146

CALCULATED EAK

CHECKED AM

CROSS SECTIONS - STANLEY AVENUE STATION 14+50.00 TO STATION 16+50.00

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:41 AM
Filename: G:\C004\0066\Road\23828x501_Stanley.dgn

SUPERELEVATION TABLE

P.I. STA. 448+22.50 | Dc = 4° 00′ 00″

CALCULATED AM | CHECKED AML

LEFT SIDE (36′)					LEFT SIDE (24′)					LEFT SIDE (12′)					CENTERLINE CONTROL			RIGHT SIDE (12′)					RIGHT SIDE (24′)					RIGHT SIDE (36′)					REMARKS
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	
	222:1					222:1					222:1				759.79	452+25.40	760.21	12.00	0.0600	0.72		760.93	12.00	0.0600	0.72		761.65	12.00	0.0600	0.72		762.37	
															759.81	452+26.71	760.23	12.00	0.0600	0.72	222:1	760.95	12.00	0.0600	0.72	222:1	761.67	12.00	0.0600	0.72	222:1	762.39	CS
															760.13	452+50.00	760.53	12.00	0.0571	0.69		761.22	12.00	0.0571	0.69		761.90	12.00	0.0571	0.69		762.59	
															760.16	452+52.17	760.56	12.00	0.0568	0.68		761.24	12.00	0.0568	0.68		761.92	12.00	0.0568	0.68		762.61	
															760.46	452+72.75	760.81	12.00	0.0542	0.65		761.46	12.00	0.0542	0.65		762.11	12.00	0.0542	0.65		762.76	
															760.49	452+75.00	760.84	12.00	0.0540	0.65		761.49	12.00	0.0540	0.65		762.13	12.00	0.0540	0.65		762.78	
															760.70	452+85.40	761.07	12.00	0.0527	0.63		761.70	12.00	0.0527	0.63		762.33	12.00	0.0527	0.63		762.97	
															761.01	453+00.00	761.40	12.00	0.0508	0.61		762.01	12.00	0.0508	0.61		762.62	12.00	0.0508	0.61		763.23	
															761.55	453+25.00	761.95	12.00	0.0477	0.57		762.52	12.00	0.0477	0.57		763.09	12.00	0.0477	0.57		763.67	
759.89		-0.57	-0.0474	12.00	760.46		-0.57	-0.0474	12.00	761.03		-0.57	-0.0474	12.00	761.60	453+27.33	762.00	12.00	0.0474	0.57		762.57	12.00	0.0474	0.57		763.14	12.00	0.0474	0.57		763.71	Begin Work LT
760.17		-0.56	-0.0464	12.00	760.73		-0.56	-0.0464	12.00	761.28		-0.56	-0.0464	12.00	761.84	453+35.40	762.20	12.00	0.0464	0.56		762.76	12.00	0.0464	0.56		763.31	12.00	0.0464	0.56		763.87	
760.55		-0.54	-0.0450	12.00	761.09		-0.54	-0.0450	12.00	761.63		-0.54	-0.0450	12.00	762.17	453+46.45	762.47	12.00	0.0450	0.54		763.01	12.00	0.0450	0.54		763.55	12.00	0.0450	0.54		764.09	
760.68		-0.53	-0.0446	12.00	761.21		-0.53	-0.0446	12.00	761.75		-0.53	-0.0446	12.00	762.28	453+50.00	762.56	12.00	0.0446	0.53		763.09	12.00	0.0446	0.53		763.63	12.00	0.0446	0.53		764.16	
760.87		-0.53	-0.0439	12.00	761.40		-0.53	-0.0439	12.00	761.92		-0.53	-0.0439	12.00	762.45	453+55.66	762.70	12.00	0.0439	0.53		763.23	12.00	0.0439	0.53		763.75	12.00	0.0439	0.53		764.28	
761.54		-0.50	-0.0414	12.00	762.04		-0.50	-0.0414	12.00	762.53		-0.50	-0.0414	12.00	763.03	453+75.00	763.17	12.00	0.0414	0.50		763.67	12.00	0.0414	0.50		764.16	12.00	0.0414	0.50		764.66	
762.40		-0.46	-0.0383	12.00	762.86		-0.46	-0.0383	12.00	763.32		-0.46	-0.0383	12.00	763.78	454+00.00	763.78	12.00	0.0383	0.46		764.24	12.00	0.0383	0.46		764.70	12.00	0.0383	0.46		765.16	Begin Work RT
763.18		-0.42	-0.0352	12.00	763.61		-0.42	-0.0352	12.00	764.03		-0.42	-0.0352	12.00	764.45	454+25.00	764.45	12.00	0.0352	0.42		764.87	12.00	0.0352	0.42		765.29	12.00	0.0352	0.42		765.72	
763.32		-0.42	-0.0346	12.00	763.74		-0.42	-0.0346	12.00	764.15		-0.42	-0.0346	12.00	764.57	454+29.34	764.57	12.00	0.0346	0.42		764.99	12.00	0.0346	0.42		765.40	12.00	0.0346	0.42		765.82	
763.51		-0.41	-0.0339	12.00	763.92		-0.41	-0.0339	12.00	764.32		-0.41	-0.0339	12.00	764.73	454+35.25	764.73	12.00	0.0339	0.41		765.14	12.00	0.0339	0.41		765.54	12.00	0.0339	0.41		765.95	
763.98		-0.38	-0.0321	12.00	764.36		-0.38	-0.0321	12.00	764.75		-0.38	-0.0321	12.00	765.13	454+50.00	765.13	12.00	0.0321	0.38		765.51	12.00	0.0321	0.38		765.90	12.00	0.0321	0.38		766.28	
764.76		-0.35	-0.0289	12.00	765.11		-0.35	-0.0289	12.00	765.45		-0.35	-0.0289	12.00	765.80	454+75.00	765.80	12.00	0.0289	0.35		766.15	12.00	0.0289	0.35		766.49	12.00	0.0289	0.35		766.84	
764.99		-0.34	-0.0280	12.00	765.33		-0.34	-0.0280	12.00	765.66		-0.34	-0.0280	12.00	766.00	454+82.45	766.00	12.00	0.0280	0.34		766.34	12.00	0.0280	0.34		766.67	12.00	0.0280	0.34		767.01	
765.51		-0.34	-0.0280	12.00	765.85		-0.31	-0.0258	12.00	766.16		-0.31	-0.0258	12.00	766.47	455+00.00	766.47	12.00	0.0258	0.31		766.78	12.00	0.0258	0.31		767.09	12.00	0.0258	0.31		767.40	
765.61		-0.34	-0.0280	12.00	765.95		-0.31	-0.0254	12.00	766.25		-0.31	-0.0254	12.00	766.56	455+03.03	766.56	12.00	0.0254	0.31		766.87	12.00	0.0254	0.31		767.17	12.00	0.0254	0.31		767.48	
766.27		-0.34	-0.0280	12.00	766.61		-0.27	-0.0227	12.00	766.88		-0.27	-0.0227	12.00	767.15	455+25.00	767.15	12.00	0.0227	0.27		767.42	12.00	0.0227	0.27		767.69	12.00	0.0227	0.27		767.97	
766.98		-0.34	-0.0280	12.00	767.32		-0.23	-0.0195	12.00	767.56		-0.23	-0.0195	12.00	767.79	455+50.00	767.79	12.00	0.0195	0.23		768.02	12.00	0.0195	0.23		768.26	12.00	0.0195	0.23		768.49	
767.66		-0.34	-0.0280	12.00	768.00		-0.20	-0.0164	12.00	768.19		-0.20	-0.0164	12.00	768.39	455+75.00	768.39	12.00	0.0164	0.20		768.59	12.00	0.0164	0.20		768.78	12.00	0.0164	0.20		768.98	
767.71		-0.34	-0.0280	12.00	768.04		-0.19	-0.0162	12.00	768.24		-0.19	-0.0162	12.00	768.43	455+76.71	768.43	12.00	0.0162	0.19		768.62	12.00	0.0162	0.19		768.82	12.00	0.0162	0.19		769.01	ST
767.75		-0.34	-0.0280	12.00	768.09		-0.19	-0.0160	12.00	768.28		-0.19	-0.0160	12.00	768.47	455+78.36	768.47	12.00	0.0160	0.19		768.66	12.00	0.0160	0.19		768.85	12.00	0.0160	0.19		769.05	
768.29		-0.34	-0.0280	12.00	768.63		-0.16	-0.0133	12.00	768.79		-0.16	-0.0133	12.00	768.95	456+00.00	768.95	12.00	0.0160	0.19		769.14	12.00	0.0160	0.19		769.33	12.00	0.0133	0.16		769.49	
768.89		-0.34	-0.0280	12.00	769.23		-0.12	-0.0102	12.00	769.35		-0.12	-0.0102	12.00	769.47	456+25.00	769.47	12.00	0.0160	0.19		769.66	12.00	0.0160	0.19		769.85	12.00	0.0102	0.12		769.98	
769.44		-0.34	-0.0280	12.00	769.77		-0.08	-0.0070	12.00	769.86		-0.08	-0.0070	12.00	769.94	456+50.00	769.94	12.00	0.0160	0.19		770.13	12.00	0.0160	0.19		770.32	12.00	0.0070	0.08		770.41	
769.95		-0.34	-0.0280	12.00	770.29		-0.05	-0.0039	12.00	770.33		-0.05	-0.0039	12.00	770.38	456+75.00	770.38	12.00	0.0160	0.19		770.57	12.00	0.0160	0.19		770.76	12.00	0.0039	0.05		770.81	
770.01		-0.34	-0.0280	12.00	770.34		-0.04	-0.0035	12.00	770.38		-0.05	-0.0035	13.00	770.43	456+77.97	770.43	12.00	0.0160	0.19		770.62	12.00	0.0160	0.19		770.81	12.00	0.0035	0.04		770.86	
770.45	222:1	-0.30	-0.0252	12.00	770.75		-0.01	-0.0008	12.00	770.76		-0.01	-0.0008	14.00	770.77	457+00.00	770.77	12.00	0.0160	0.19		770.96	12.00	0.0160	0.19		771.15	12.00	0.0008	0.01		771.16	
770.57		-0.29	-0.0245	12.00	770.86		0.00	0.0000	12.00	770.86		0.00	0.0000	12.00	770.86	457+06.23	770.86	12.00	0.0160	0.19		771.05	12.00	0.0160	0.19		771.24	12.00	0.0000	0.00		771.24	FLAT
770.92		-0.27	-0.0221	12.00	771.19		0.03	0.0023	12.00	771.16		0.03	0.0023	12.00	771.13	457+25.00	771.13	12.00	0.0160	0.19		771.32	12.00	0.0160	0.19		771.51	12.00	-0.0023	-0.03		771.49	
771.34		-0.23	-0.0190	12.00	771.57		0.07	0.0055	12.00	771.51		0.07	0.0055	12.00	771.44	457+50.00	771.44	12.00	0.0160	0.19		771.63	12.00	0.0160	0.19		771.82	12.00	-0.0055	-0.07		771.76	
771.71		-0.19	-0.0160	12.00	771.90		0.10	0.0085	12.00	771.80		0.10	0.0085	12.00	771.70	457+73.88	771.70	12.00	0.0160	0.19		771.89	12.00	0.0160	0.19		772.08	12.00	-0.0085	-0.10		771.98	
771.72		-0.19	-0.0160	12.00	771.92		0.10	0.0086	12.00	771.81		0.10	0.0086	12.00	771.71	457+75.00	771.71	12.00	0.0160	0.19		771.90	12.00	0.0160	0.19		772.09	12.00	-0.0086	-0.10		771.99	
772.03		-0.19	-0.0160	12.00	772.22		0.14	0.0117	12.00	772.08		0.14	0.0117	12.00	771.94	458+00.00	771.94	12.00	0.0160	0.19		772.13	12.00	0.0160	0.19		772.32	12.00	-0.0117	-0.14		772.18	
772.28		-0.19	-0.0160	12.00	772.48		0.18	0.0149	12.00	772.30		0.18	0.0149	12.00	772.12	458+25.00	772.12	12.00	0.0160	0.19		772.31	12.00	0.0160	0.19		772.50	12.00	-0.0149	-0.18		772.33	
772.37		-0.19	-0.0160	12.00	772.56		0.19	0.0160	12.00	772.37		0.19	0.0160	12.00	772.18	458+34.10	772.18	12.00	0.0160	0.19		772.37	12.00	0.0160	0.19		772.56	12.00	-0.0160	-0.19		772.37	NC
772.46		-0.19	-0.0160	12.00	772.65		0.19	0.0160	12.00	772.46		0.19	0.0160	12.00	772.27	458+50.00	772.27	12.00	0.0160	0.19		772.46	12.00	0.0160	0.19		772.65	12.00	-0.0160	-0.19		772.46	

SEE SHEET 162 FOR GORE AREA AND ACCELERATION LANE DETAIL.

SUPERELEVATION TABLE - IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:42 AM
Filename: G:\C004\0066\Road\General\23828ge01.dgn

SUPERELEVATION TABLE - RAMP N-7

P.I. STA. 447+97.91 | Dc = 6° 00′ 00″

LEFT SIDE					BASELINE CONTROL		REMARKS
EDGE ELEVATION	TRANSITION RATE	*ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	
744.44		0.02	0.0015	13.72	446+25.00	744.42	Begin Work
744.90		-0.14	-0.0088	15.62	446+50.00	745.04	
745.59		-0.31	-0.0191	16.00	446+75.00	745.90	
746.53	152:1	-0.47	-0.0294	16.00	447+00.00	747.00	
747.50		-0.61	-0.0380	16.00	447+20.96	748.11	FS
747.73		-0.61	-0.0380	16.00	447+25.00	748.34	
749.21		-0.61	-0.0380	16.00	447+50.00	749.82	
750.68		-0.61	-0.0380	16.00	447+75.00	751.29	
752.16		-0.61	-0.0380	16.00	448+00.00	752.77	
753.64		-0.61	-0.0380	16.00	448+25.00	754.25	
755.08		-0.61	-0.0380	16.00	448+50.00	755.69	
756.39		-0.61	-0.0380	16.00	448+75.00	757.00	
757.56		-0.61	-0.0380	16.00	449+00.00	758.17	
758.29		-0.61	-0.0380	16.00	449+17.50	758.90	
758.64		-0.56	-0.0349	16.00	449+25.00	759.20	
759.62		-0.41	-0.0253	16.00	449+48.50	760.03	PT
759.68	152:1	-0.40	-0.0247	16.00	449+50.00	760.08	
760.59		-0.23	-0.0145	16.00	449+75.00	760.82	
760.95		-0.16	-0.0100	16.00	449+86.03	761.11	

*NEGATIVE CORRECTIONS MEANING BELOW PROFILE GRADE
POSITIVE CORRECTIONS MEANING ABOVE PROFILE GRADE.

SUPERELEVATION TABLE - RAMP N-6A

P.I. STA. 457+69.98 | Dc = 31° 49′ 52″

LEFT SIDE					BASELINE CONTROL		REMARKS
EDGE ELEVATION	TRANSITION RATE	*ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	
743.44		-0.08	-0.0051	16.00	440+25.85	743.52	
743.20		-0.08	-0.0051	16.00	440+37.85	743.28	
743.16		0.00	0.0000	16.00	440+50.00	743.16	
743.15		0.09	0.0055	16.00	440+63.04	743.06	
743.20		0.17	0.0109	16.00	440+75.00	743.03	
743.31	143:1	0.26	0.0160	16.00	440+86.36	743.05	NC
743.40		0.26	0.0160	16.00	441+00.00	743.14	
743.73		0.26	0.0160	16.00	441+25.00	743.47	
744.15		0.26	0.0160	16.00	441+50.00	743.89	
744.16		0.26	0.0160	16.00	441+50.77	743.90	
744.72		0.42	0.0265	16.00	441+75.00	744.30	
745.33		0.60	0.0374	16.00	442+00.00	744.73	
745.48		0.64	0.0400	16.00	442+05.97	744.84	PC
745.97		0.77	0.0483	16.00	442+25.00	745.20	
746.67		0.95	0.0591	16.00	442+50.00	745.72	
746.73		0.96	0.0600	16.00	442+51.97	745.77	FS
747.24		0.96	0.0600	16.00	442+75.00	746.28	
747.79		0.96	0.0600	16.00	443+00.00	746.83	
748.31		0.96	0.0600	16.00	443+25.00	747.35	
748.82		0.96	0.0600	16.00	443+50.00	747.86	
749.40		0.96	0.0600	16.00	443+75.00	748.44	
749.98		0.96	0.0600	16.00	444+00.00	749.02	
750.56		0.96	0.0600	16.00	444+25.00	749.60	
751.14		0.96	0.0600	16.00	444+50.00	750.18	

CALCULATED AM | CHECKED AML

SUPERELEVATION TABLE - RAMP N-7 AND RAMP N-6A

MOT-75-14.60

156
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:42 AM
Filename: G:\C004\0066\Road\General\23828ge02.dgn

SUPERELEVATION TABLE - RAMP N-6

P.I. STA. 448+65.51 | Dc = 25° 55′ 32″

BASELINE CONTROL		RIGHT SIDE					
PROFILE GRADE	STATION	WIDTH	CROSS SLOPE	*ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS
743.31	445+80.76	16.00	0.0051	0.08	143:1	743.39	
743.12	445+92.77	16.00	0.0051	0.08		743.20	
743.02	446+00.00	16.00	0.0083	0.13		743.15	
742.90	446+17.82	16.00	0.0160	0.26		743.16	NC
742.91	446+25.00	16.00	0.0160	0.26		743.17	
742.98	446+34.98	16.00	0.0160	0.26	143:1	743.24	
743.19	446+50.00	16.00	0.0094	0.15		743.34	
743.80	446+75.00	16.00	-0.0015	-0.02		743.78	
744.47	447+00.00	16.00	-0.0124	-0.20		744.27	
745.14	447+25.00	16.00	-0.0233	-0.37		744.77	
745.80	447+50.00	16.00	-0.0343	-0.55		745.25	
746.11	447+61.59	16.00	-0.0393	-0.63		745.48	PC
746.47	447+75.00	16.00	-0.0452	-0.72		745.75	
747.13	448+00.00	16.00	-0.0561	-0.90		746.23	
747.30	448+06.59	16.00	-0.0590	-0.94		746.36	FS
747.74	448+25.00	16.00	-0.0590	-0.94		746.80	
748.30	448+50.00	16.00	-0.0590	-0.94		747.36	
748.81	448+75.00	16.00	-0.0590	-0.94		747.87	
748.94	448+81.66	16.00	-0.0590	-0.94	143:1	748.00	
749.26	449+00.00	16.00	-0.0510	-0.82		748.44	
749.66	449+25.00	16.00	-0.0401	-0.64		749.02	
750.00	449+50.00	16.00	-0.0291	-0.47		749.53	
750.08	449+55.87	16.00	-0.0266	-0.43		749.65	PT
750.32	449+75.00	16.00	-0.0182	-0.29		750.03	
750.63	450+00.00	16.00	-0.0073	-0.12		750.51	
750.84	450+16.66	16.00	0.0000	0.00		750.84	FLAT

P.I. STA. 452+06.48 | Dc = 11° 15′ 00″

BASELINE CONTROL		RIGHT SIDE					
PROFILE GRADE	STATION	WIDTH	CROSS SLOPE	*ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS
750.84	450+16.66	16.00	0.0000	0.00	172:1	750.84	FLAT
750.94	450+25.00	16.00	0.0030	0.05		750.99	
751.26	450+50.00	16.00	0.0120	0.19		751.45	
751.64	450+75.00	16.00	0.0211	0.34		751.97	
751.68	450+77.46	16.00	0.0220	0.35		752.03	PC
752.10	451+00.00	16.00	0.0301	0.48		752.58	
752.63	451+25.00	16.00	0.0392	0.63		753.26	
753.25	451+50.00	16.00	0.0482	0.77		754.02	
753.94	451+75.00	16.00	0.0572	0.92		754.86	
754.17	451+82.67	16.00	0.0600	0.96		755.13	FS
754.70	452+00.00	16.00	0.0600	0.96		755.66	
755.47	452+25.00	16.00	0.0600	0.96		756.43	
756.24	452+50.00	16.00	0.0600	0.96		757.20	
757.01	452+75.00	16.00	0.0600	0.96		757.97	
757.78	453+00.00	16.00	0.0600	0.96		758.74	
758.55	453+25.00	16.00	0.0600	0.96		759.51	
758.71	453+30.19	16.00	0.0600	0.96		759.67	CS

P.I. STA. 456+37.16 | Dc = 6° 45′ 00″

BASELINE CONTROL		RIGHT SIDE					
PROFILE GRADE	STATION	WIDTH	CROSS SLOPE	*ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	REMARKS
759.33	453+50.00	16.00	0.0600	0.96		760.29	
760.10	453+75.00	16.00	0.0600	0.96		761.06	
760.87	454+00.00	16.00	0.0600	0.96		761.83	
761.64	454+25.00	16.00	0.0600	0.96		762.60	
762.41	454+50.00	16.00	0.0600	0.96		763.37	
763.18	454+75.00	16.00	0.0600	0.96		764.14	
763.95	455+00.00	16.00	0.0600	0.96		764.91	
764.72	455+25.00	16.00	0.0600	0.96		765.68	
764.88	455+30.19	16.00	0.0600	0.96		765.84	SC
765.49	455+50.00	16.00	0.0600	0.96		766.45	
766.26	455+75.00	16.00	0.0600	0.96		767.22	
766.96	456+00.00	16.00	0.0600	0.96		767.92	
767.66	456+25.00	16.00	0.0600	0.96		768.62	
768.37	456+50.00	16.00	0.0600	0.96		769.33	
769.04	456+75.00	16.00	0.0600	0.96		770.00	
769.15	456+79.00	16.00	0.0600	0.96	200:1	770.11	FS
769.75	457+00.00	16.00	0.0534	0.86		770.61	
770.36	457+25.00	16.00	0.0456	0.73		771.09	
770.75	457+43.00	16.00	0.0400	0.64		771.39	PT

*NEGATIVE CORRECTIONS MEANING BELOW PROFILE GRADE
POSITIVE CORRECTIONS MEANING ABOVE PROFILE GRADE.

CALCULATED AM | CHECKED AML

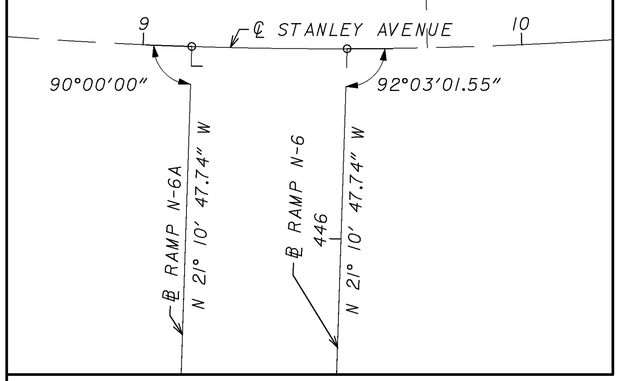
SUPERELEVATION TABLE - RAMP N-6

MOT-75-14.60

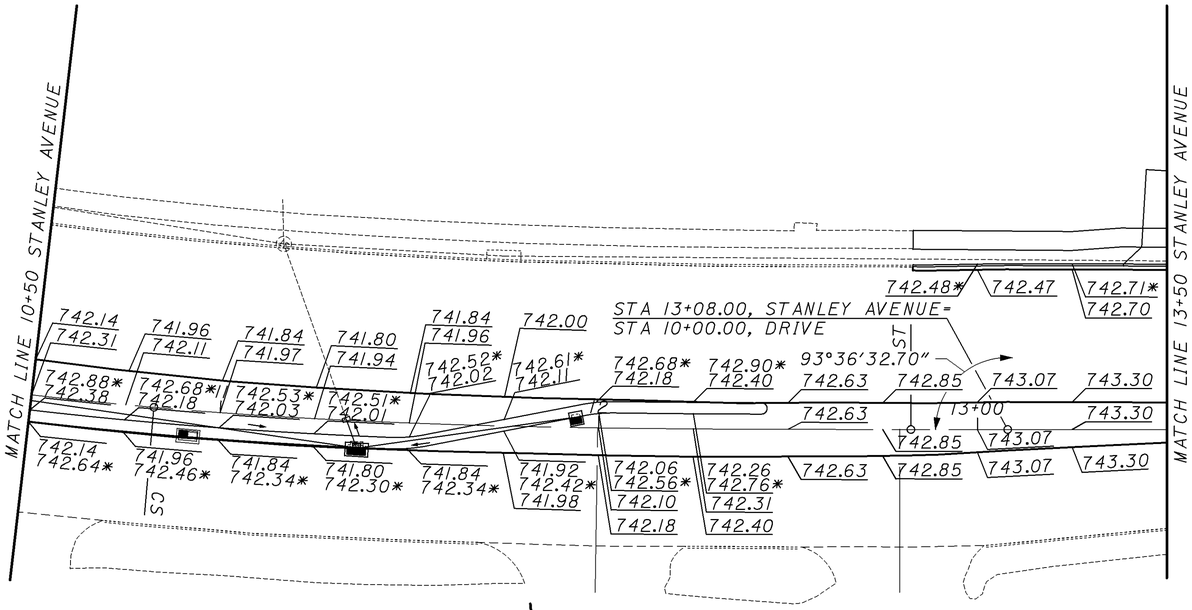
157
316

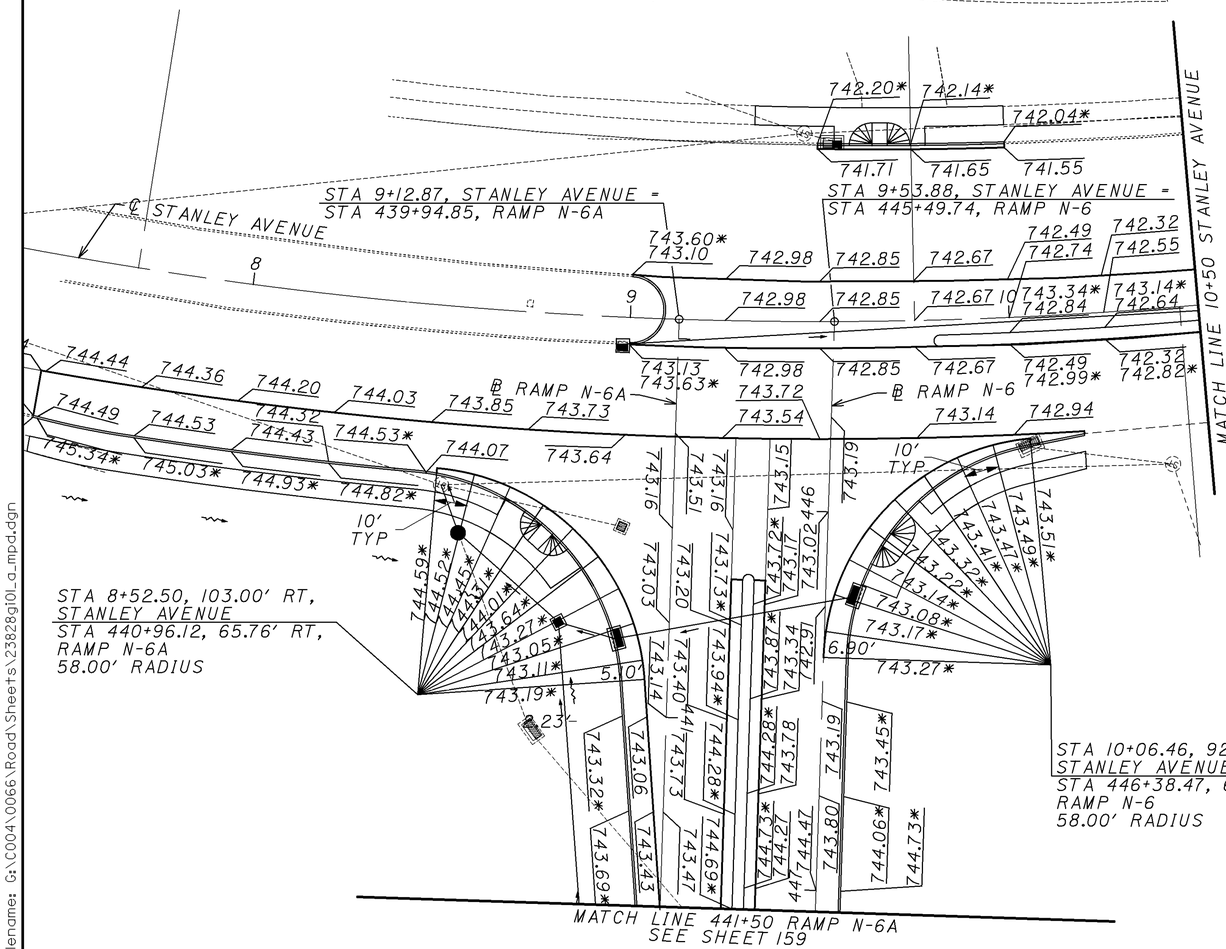
Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:42 AM
Filename: G:\C004\0066\Road\General\23828ge02.dgn

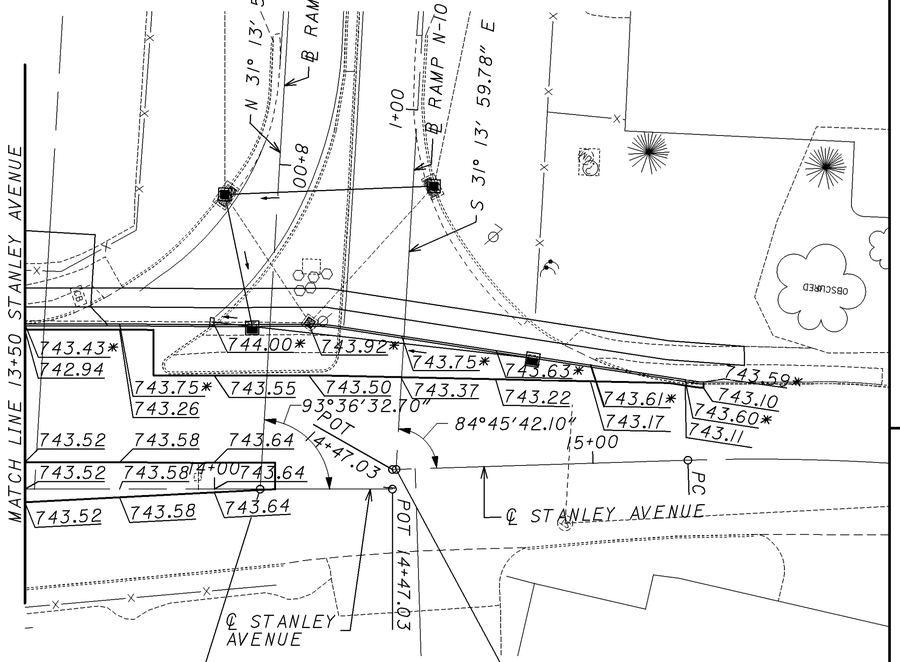
ANGLES MEASURED FROM RAMP BASELINE
TO A LINE TANGENT TO CURVE ON STANLEY AVENUE.



NOTES - 1. * INDICATES TOP OF CURB ELEVATION.
2. FOR PAVEMENT WIDTH DIMENSIONS SEE SHEET 146 & 147







STANLEY AVENUE

PI Sta = 8+00.03	PI Sta = 15+97.39
Δ = 40° 00' 00" (LT)	Δ = 14° 23' 20" (RT)
Dc = 5° 00' 00"	Dc = 10° 00' 00"
R = 1,145.92'	R = 572.96'
Ls = 200.00'	T = 72.32'
Theta = 5° 00' 00"	L = 143.89'
LT = 133.39'	E = 4.55'
ST = 66.72'	PC = 15+25.07
x = 199.85'	PCC = 16+68.96
y = 5.81'	emax = EXIST
k = 99.97'	
p = 1.45'	
Δc = 30° 00' 00" (LT)	
Lc = 600.00'	
Ts = 517.58'	
Es = 75.09'	
T.S. = 2+82.45	
S.C. = 4+82.45	
C.S. = 10+82.45	
S.T. = 12+82.45	
emax = EXIST	

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AML

INTERSECTION DETAILS STANLEY AVENUE

MOT-75-14.60

158
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:43 AM
Filename: G:\C004\0066\Road\Sheets\23828gi01_a_mpd.dgn

RAMP N-6	
PI Sta = 448+65.51	PI Sta = 452+06.48
Δ = 50° 22′ 03″ (RT)	Δ = 28° 25′ 57″ (LT)
Dc = 25° 55′ 32″	Dc = 11° 15′ 00″
R = 221.00′	R = 509.30′
T = 103.92′	T = 129.03′
L = 194.28′	L = 252.73′
E = 23.21′	E = 16.09′
PC = 447+61.59	PC = 450+77.46
PT = 449+55.87	CS = 453+30.19
emax = 0.059	emax = 0.06

RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 122 AND 129 .

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AML

INTERCHANGE DETAILS - RAMP N-6 AND RAMP N-6A

MOT-75-14.60

159
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:45 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gi02_STL.dgn

IR-75
PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
T.S. = 440+44.02
S.C. = 443+94.02
C.S. = 452+26.71
S.T. = 455+76.71
emax = 0.06

RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

RAMP N-7
PI Sta = 447+97.91
Δ = 18° 13′ 35″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 153.18′
L = 303.77′
E = 12.21′
PC = 446+44.72
PT = 449+48.50
emax = 0.038

MATCH SEE SHEET 159 LINE 446+00 RAMP N-6A

PT Sta. 448+12.70

760.68 760.02 759.27 758.34 757.41 756.56 755.67 754.74 753.96 754.08 754.86 755.79 756.68 757.53 758.46 759.39 760.14 760.80

℄ RAMP N-6

445 446 447 448 449 450

6 5 4 3

℄ CONSTRUCTION I.R. 7.5

STA 445+91.92, I.R.-75= STA 5+62.14, STANLEY AVE

SC Sta. 4+82.45

STA 4+19.84, STANLEY AVE= STA 8+66.76, RAMP N-8

PT Sta. 446+44.72

N 6° 19′ 51″ W

744.44 744.44 744.90 745.04 745.59 745.90 746.53 747.00 747.73 748.34 749.21 749.82 750.68 751.29 752.16 752.77 753.64 754.25 755.08 755.69 756.39 757.00 757.56 758.17 758.64 759.20 759.68 760.08 760.59 760.82 761.26 761.42 761.72 761.88

762.43 762.63

℄ STANLEY AVENUE

TS Sta. 2+82.45

STA 4+20.12 STANLEY AVE= STA 445+43.58, RAMP N-7

℄ RAMP N-7

PT Sta. 449+48.50

MATCH LINE 450+50 RAMP N-7 SEE SHEET 161

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEET 134.

HORIZONTAL SCALE IN FEET 0 20 40

CALCULATED MPD CHECKED AML

INTERCHANGE DETAILS - RAMP N-7 AND IR-75

MOT-75-14.60

160 316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:45 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gi03_STL.dgn

IR-75

PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
T.S. = 440+44.02
S.C. = 443+94.02
C.S. = 452+26.71
S.T. = 455+76.71
emax = 0.06

RAMP N-6

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI = 454+03.75
Δ = 60° 47′ 49″ (LT)
DI = 11° 15′ 00″
RI = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
Δ1 = 28° 25′ 57″ (LT)
Δ2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
e1 = 0.06
e2 = 0.06
CS = 453+30.19
SC = 455+30.19

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 99 AND 122.

SEE SHEET 159
MATCH LINE 452+50 RAMP N-6

756.24 757.20 757.01 757.97 757.78 758.74 758.55 759.51 759.33 760.29 760.10 761.06 760.87 761.83 761.64 762.60 762.41 763.37 763.18 764.14 763.95 764.91 764.72 765.68 765.49 766.45

453 454 455 456

CS Sta. 453+30.19
℄ RAMP N-6
SC Sta. 455+30.19

760.34 760.68 761.54 762.40 763.18 764.98 764.76 765.51
760.89 761.21 762.04 762.86 763.61 764.36 765.11 765.85 766.27 766.98
761.43 761.75 762.53 763.32 764.03 764.75 765.45 766.16 766.61 767.32
761.98 762.28 763.03 763.78 764.45 765.13 765.80 766.47 766.88 767.56
761.70 762.06 762.79 763.51 764.15 764.81 765.46 766.14 767.15 767.79
764.15 764.81 765.46 766.14 766.85 767.47
764.45 765.13 765.80 766.47 767.15 767.79
764.87 765.51 766.15 766.78 767.42 768.02
765.29 765.90 766.49 767.09 767.69 768.26
765.16 765.72 766.28 766.84 767.40 767.97 768.49
766.85 767.47 768.02 768.45
767.37 767.92 768.45
767.12 767.67 768.19

N 31° 36′ 34″ W
ST Sta. 455+76.71

℄ CONSTRUCTION IR 75
451 452 453 454 455 456
CS Sta. 452+26.71
℄40

762.20 762.05 761.92 761.96 761.98 762.19 762.37 762.59 762.78 763.23 763.67 764.16 764.66
762.04 762.21 762.16 762.13 762.17 762.22 762.31 762.37 762.70 762.95 763.39 763.80 764.26 764.73 765.20 765.74 766.28 766.83 767.37 767.92 768.45
762.20 762.37 762.32 762.29 762.33 762.47 762.53 762.93 763.25 763.69 764.04 764.47 764.89 765.32 765.59 766.02 766.57 767.12 767.67 768.19

451 N 24° 33′ 26″ W
℄ RAMP N-7
452
POT Sta. 452+25.40
PROP RETAINING WALL

MATCH LINE 450+50 RAMP N-7
SEE SHEET 160

N

HORIZONTAL SCALE IN FEET
0 20 40

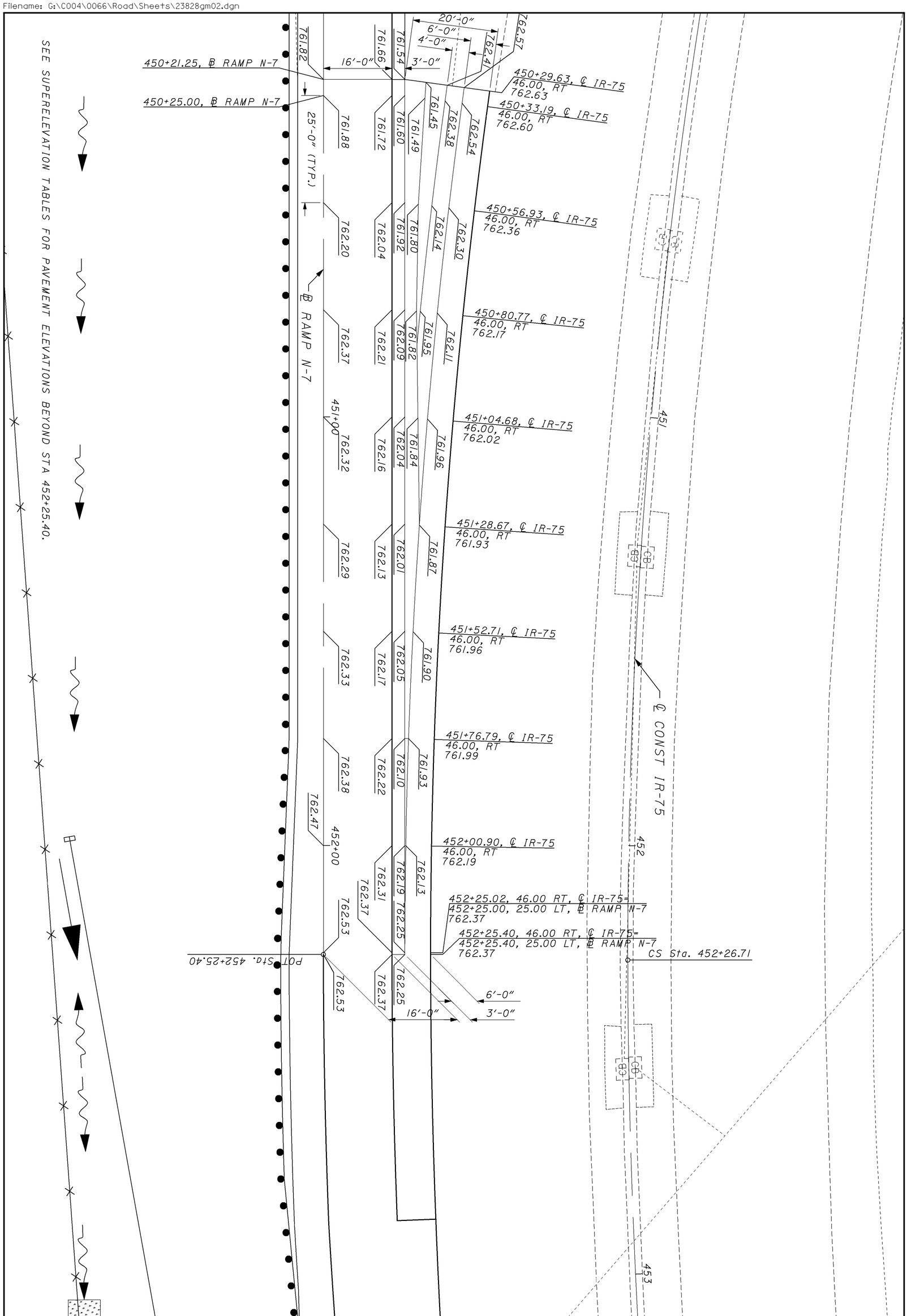
CALCULATED MPD
CHECKED AML

INTERCHANGE DETAILS - RAMP N-6, RAMP N-7, AND IR-75

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:47 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828gl04_STL.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:47 AM
Filename: G:\C004\0066\Road\Sheets\23828gm02.dgn



316 | 162

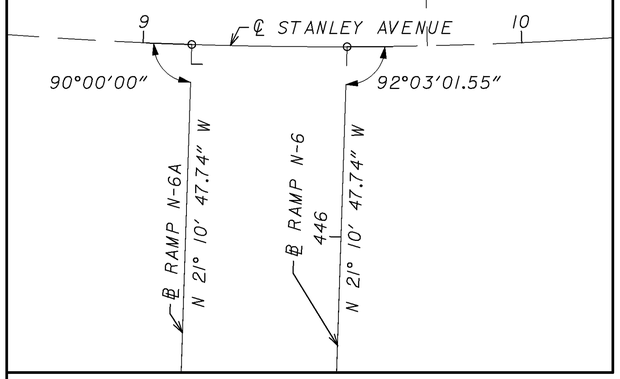
MOT-75-14.60

GORE DETAILS - RAMP N-7 AND IR-75

CALCULATED MPD
CHECKED AML

0 10 20
HORIZONTAL SCALE IN FEET

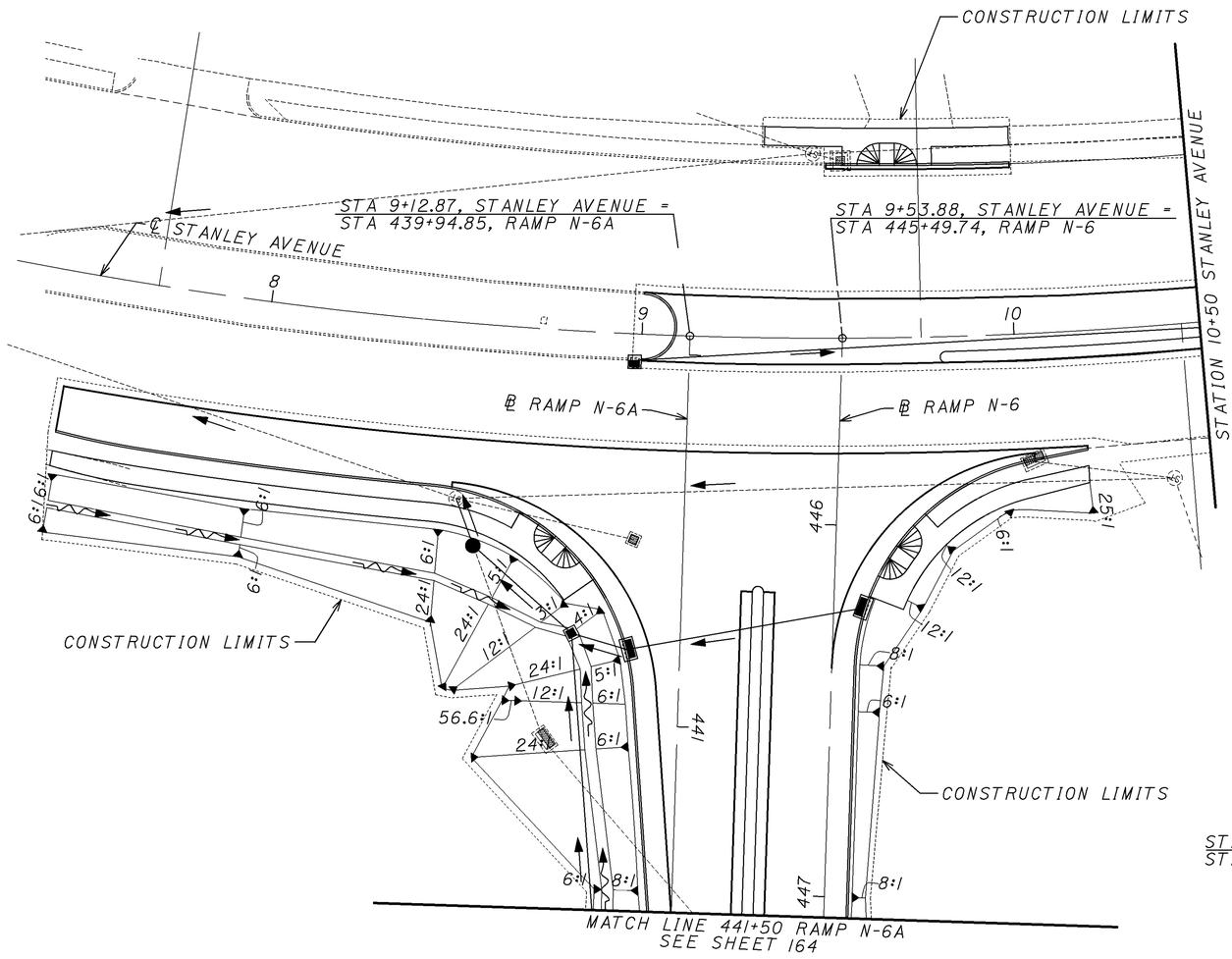
ANGLES MEASURED FROM RAMP BASELINE
TO A LINE TANGENT TO CURVE ON STANLEY AVENUE.

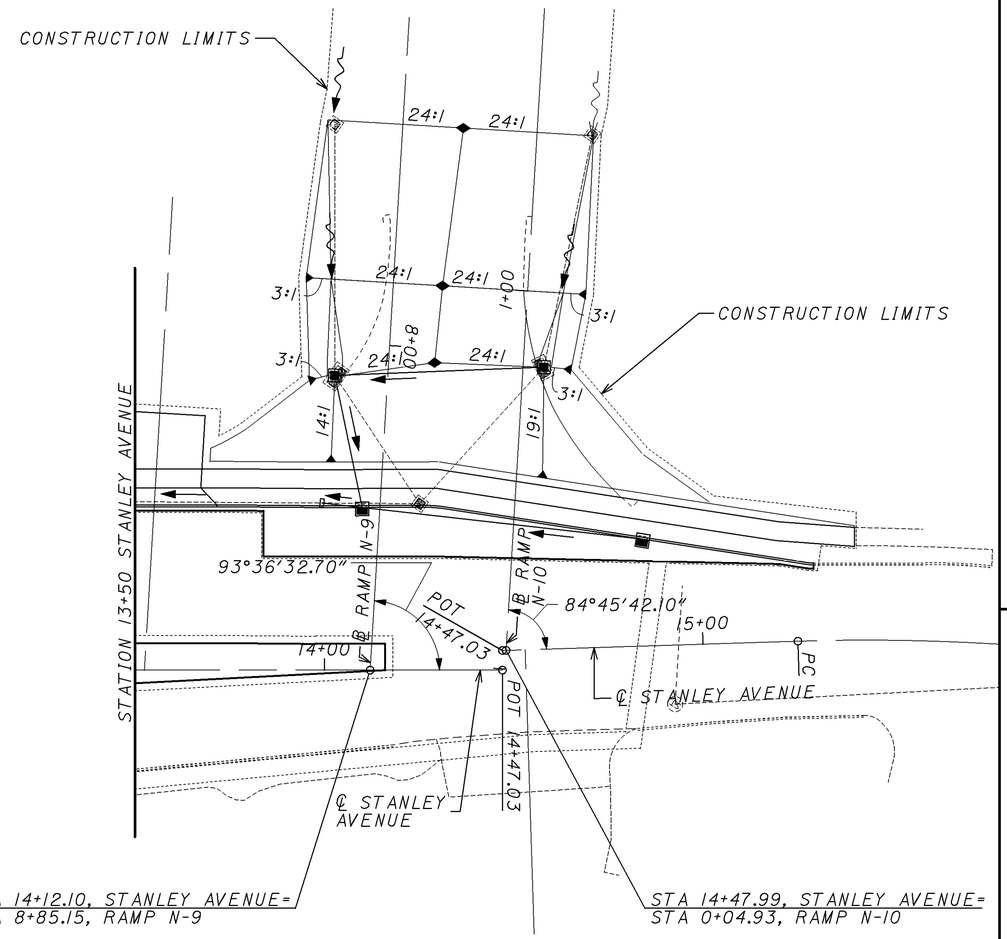


NOTE: FOR PAVEMENT WIDTH DIMENSIONS
SEE SHEETS 146 & 147

STANLEY AVENUE

PI Sta = 8+00.03	PI Sta = 15+97.39
Δ = 40° 00' 00" (LT)	Δ = 14° 23' 20" (RT)
Dc = 5° 00' 00"	Dc = 10° 00' 00"
R = 1,145.92'	R = 572.96'
Ls = 200.00'	T = 72.32'
Theta = 5° 00' 00"	L = 143.89'
LT = 133.39'	E = 4.55'
ST = 66.72'	PC = 15+25.07
x = 199.85'	PCC = 16+68.96
y = 5.81'	emax = EXIST
k = 99.97'	
p = 1.45'	
Δc = 30° 00' 00" (LT)	
Lc = 600.00'	
Ts = 517.58'	
Es = 75.09'	
T.S. = 2+82.45	
S.C. = 4+82.45	
C.S. = 10+82.45	
S.T. = 12+82.45	
emax = EXIST	





HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AM

GRADING PLAN STANLEY AVENUE

MOT-75-14.60

163
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:48 AM
Filename: G:\C004\0066\Road\Sheets\23828xg01.dgn

RAMP N-6	
PI Sta = 448+65.51	PI Sta = 452+06.48
Δ = 50° 22′ 03″ (RT)	Δ = 28° 25′ 57″ (LT)
Dc = 25° 55′ 32″	Dc = 11° 15′ 00″
R = 221.00′	R = 509.30′
T = 103.92′	T = 129.03′
L = 194.28′	L = 252.73′
E = 23.21′	E = 16.09′
PC = 447+61.59	PC = 450+77.46
PT = 449+55.87	CS = 453+30.19
emax = 0.059	emax = 0.06

RAMP N-6A
PI Sta = 453+47.75
Δ = 193° 07′ 50″ (RT)
Dc = 31° 49′ 52″
R = 180.00′
T = 1,564.01′
L = 606.74′
E = 1,754.33′
PC = 442+05.97
PT = 448+12.70
emax = 0.06

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 122 AND 129 .

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AM

GRADING PLAN - RAMP N-6 AND RAMP N-6A

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:49 AM
Filename: G:\C004\0066\Road\Sheets\23828xg02.dgn

IR-75	RAMP N-6A	RAMP N-7
PI Sta = 448+49.09	PI Sta = 453+47.75	PI Sta = 447+97.91
Δ = 47° 18′ 27″ (LT)	Δ = 193° 07′ 50″ (RT)	Δ = 18° 13′ 35″ (LT)
Dc = 4° 00′ 00″	Dc = 31° 49′ 52″	Dc = 6° 00′ 00″
R = 1,432.39′	R = 180.00′	R = 954.93′
Ls = 350.00′	T = 1,564.01′	T = 153.18′
Theta = 7° 00′ 00″	L = 606.74′	L = 303.77′
LT = 233.52′	E = 1,754.33′	E = 12.21′
ST = 116.83′	PC = 442+05.97	PC = 446+44.72
x = 349.48′	PT = 448+12.70	PT = 449+48.50
y = 14.24′	emax = 0.06	emax = 0.038
k = 174.91′		
p = 3.56′		
Δc = 33° 18′ 27″ (LT)		
Lc = 832.69′		
Ts = 803.87′		
Es = 135.27′		
T.S. = 440+44.02		
S.C. = 443+94.02		
C.S. = 452+26.71		
S.T. = 455+76.71		
emax = 0.06		

MATCH SEE SHEET 164
446+00 RAMP N-6A

PT Sta. 448+12.70

CONSTRUCTION LIMITS

℄ RAMP N-6

℄ CONSTRUCTION I.R. 75

STA 445+91.92, I.R.-75=
STA 5+62.14, STANLEY AVE

SC Sta. 4+82.43

STA 4+19.84, STANLEY AVE=
STA 8+66.76, RAMP N-8

℄ STANLEY AVENUE

TS Sta. 2+82.45

N 6° 19′ 51″ W

PC Sta. 446+44.72

CONSTRUCTION LIMITS

STA 4+20.12 STANLEY AVE=
STA 445+43.58, RAMP N-7

℄ RAMP N-7

PT Sta. 449+48.50

MATCH LINE 450+50 RAMP N-7
SEE SHEET 166

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 129 AND 134 .

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED MPD
CHECKED AM

GRADING PLAN - RAMP N-7 AND I.R.-75

MOT-75-14.60

165
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:50 AM
Filename: G:\C004\0066\Road\Sheets\23828xg03.dgn

IR-75

PI Sta = 448+49.09
Δ = 47° 18′ 27″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
Ls = 350.00′
Theta = 7° 00′ 00″
LT = 233.52′
ST = 116.83′
x = 349.48′
y = 14.24′
k = 174.91′
p = 3.56′
Δc = 33° 18′ 27″ (LT)
Lc = 832.69′
Ts = 803.87′
Es = 135.27′
T.S. = 440+44.02
S.C. = 443+94.02
C.S. = 452+26.71
S.T. = 455+76.71
emax = 0.06

RAMP N-6

PI Sta = 452+06.48
Δ = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′
E = 16.09′
PC = 450+77.46
CS = 453+30.19
emax = 0.06

PI Sta = 456+37.16
Δ = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′
E = 6.71′
SC = 455+30.19
PT = 457+43.00
emax = 0.06

PI = 454+03.75
Δ = 60° 47′ 49″ (LT)
D1 = 11° 15′ 00″
R1 = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
Δ1 = 28° 25′ 57″ (LT)
Δ2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
e1 = 0.06
e2 = 0.06
CS = 453+30.19
SC = 455+30.19

FOR PAVEMENT WIDTH DIMENSIONS SEE SHEETS 99 AND 122.

SEE SHEET 164
MATCH LINE 452+50 RAMP N-6

SEE SHEET 165
MATCH LINE 450+50 RAMP N-7

℄ CONSTRUCTION-IR 75

℄ RAMP N-6

℄ RAMP N-7

CS Sta. 453+30.19

SC Sta. 455+30.19

ST Sta. 455+76.71

POT Sta. 452+25.40

CS Sta. 452+26.71

451 N 24° 33′ 26″ W

N 31° 36′ 34″ W

CONSTRUCTION LIMITS

PROP RETAINING WALL

451 452 453 454 455 456

24:1 12:1 8:1 6:1 4:1 3:1 2:1

HORIZONTAL SCALE IN FEET
0 20 40

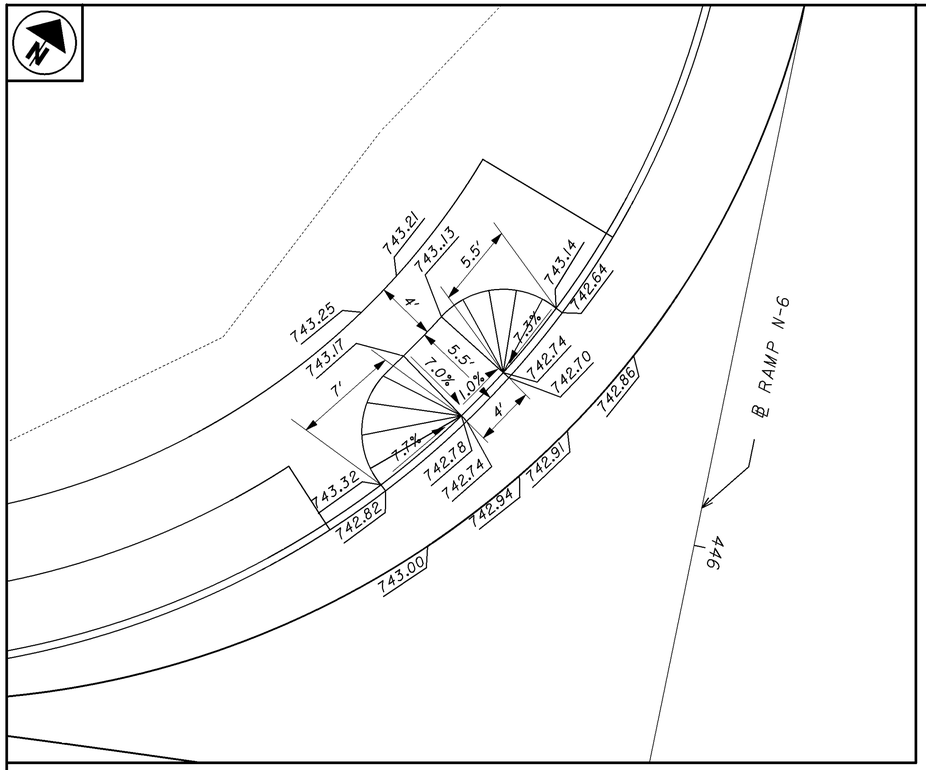
CALCULATED MPD
CHECKED AM

GRADING PLAN - RAMP N-6, RAMP N-7, AND IR-75

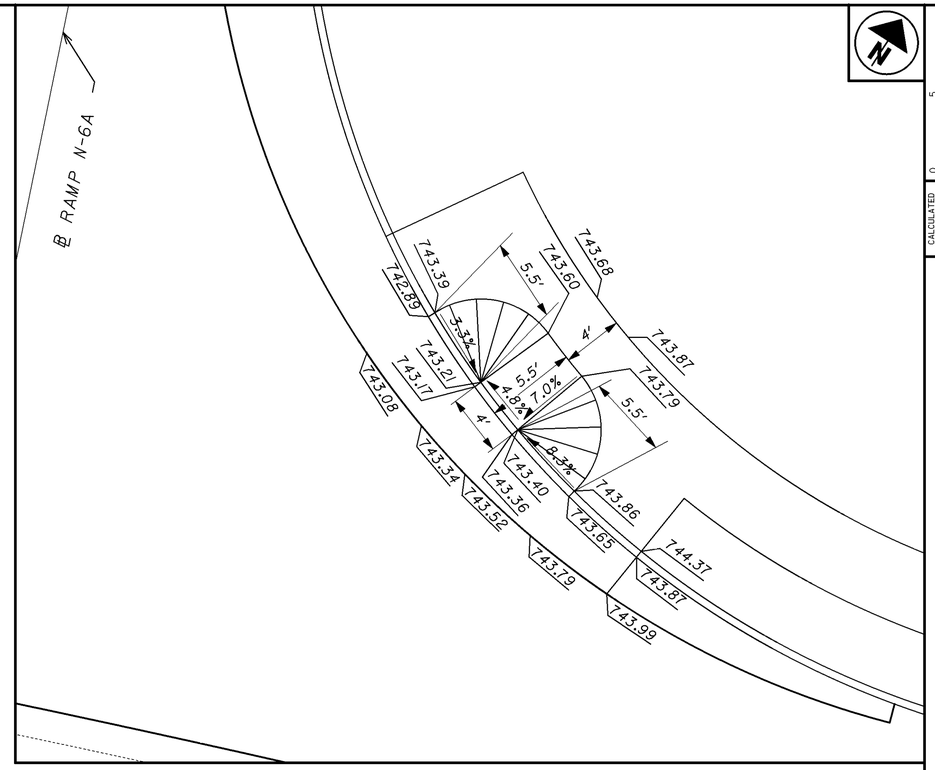
MOT-75-14.60

166
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:51 AM
Filename: G:\C004\0066\Road\STL_ATL\Sheets\23828xg04_STL.dgn

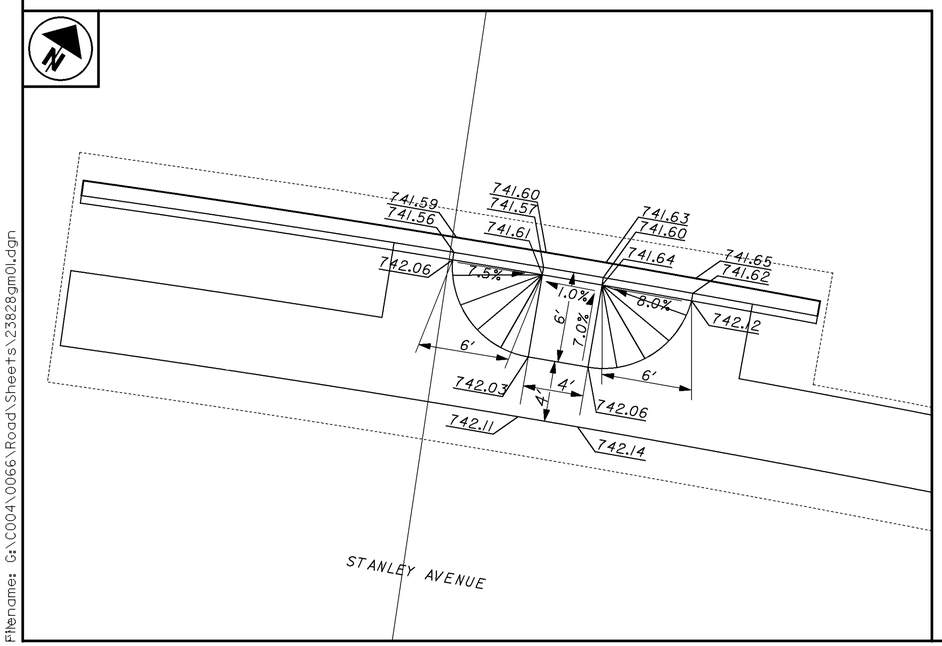


RAMP N-6 CURB RAMP DETAIL



RAMP N-6A CURB RAMP DETAIL

STANLEY CURB RAMP DETAIL



NOTE:

1) RAMP SHALL HAVE A COARSE BROOM FINISH BY THE BROOMING TRANSVERSE TO THE RAMP SLOPES EXCEPT DOMED AREA

2) FOR CURB RAMP DETAILS, AS PER PLAN, SEE SHEET 168

3) FOR CURB RAMP WITH TRUNCATED DOMES PLAN INSERT SHEETS, SEE SHEETS 168 - 171

HORIZONTAL SCALE IN FEET
0 5 10

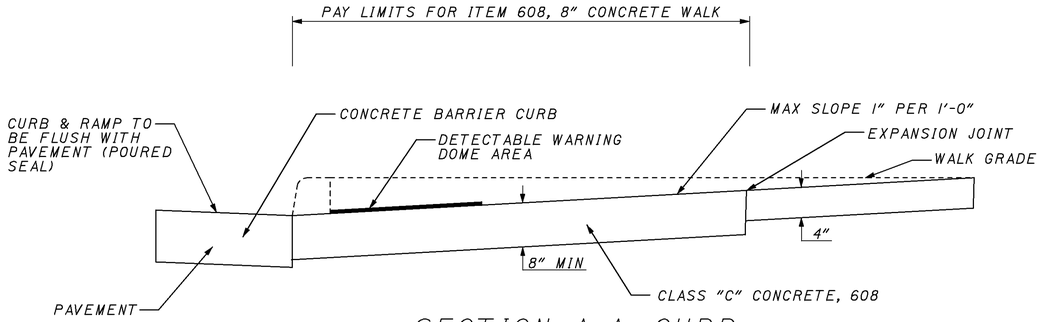
CALCULATED MPD
CHECKED AM

RAMP N-6, RAMP N-6A & STANLEY AVENUE CURB RAMP ELEVATION DETAILS

MOT-75-14.60

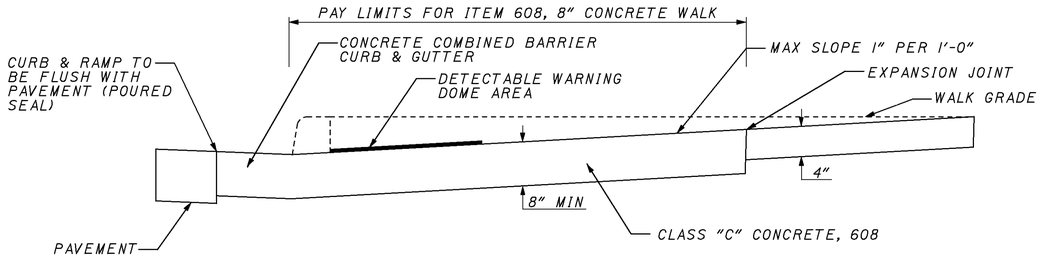
167
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:52 AM
Filename: G:\C004\0066\Road\Sheets\23828gm01.dgn



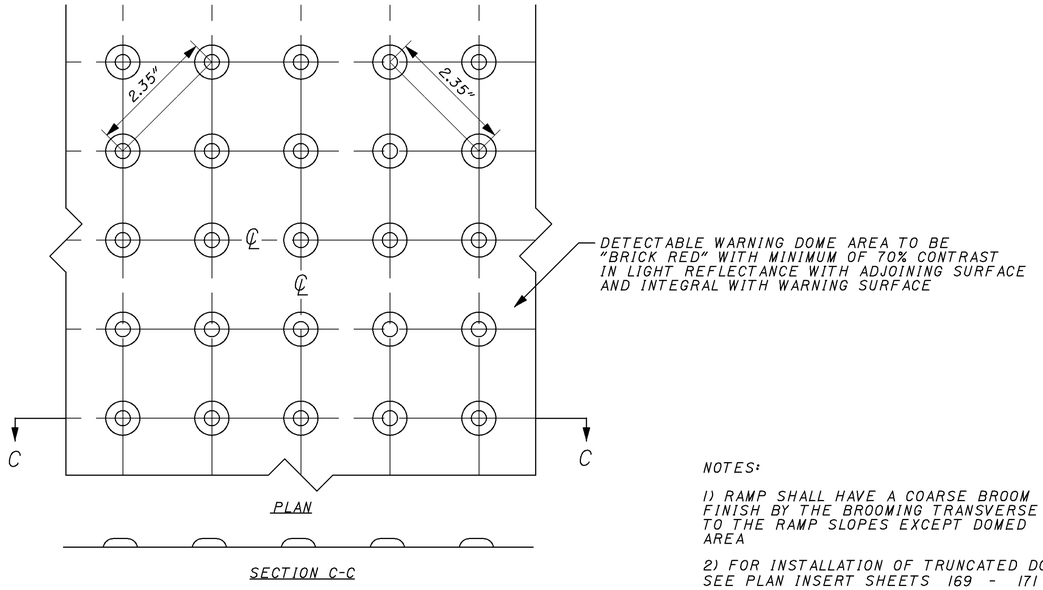
SECTION A-A, CURB

(RAMP CONSTRUCTED THROUGH CURB)
NOT TO SCALE



SECTION B-B, COMBINED CURB & GUTTER

(CURB CONSTRUCTED THRU RAMP)
NO SCALE



PLAN

SECTION C-C

DETECTABLE WARNING DOMES AREA

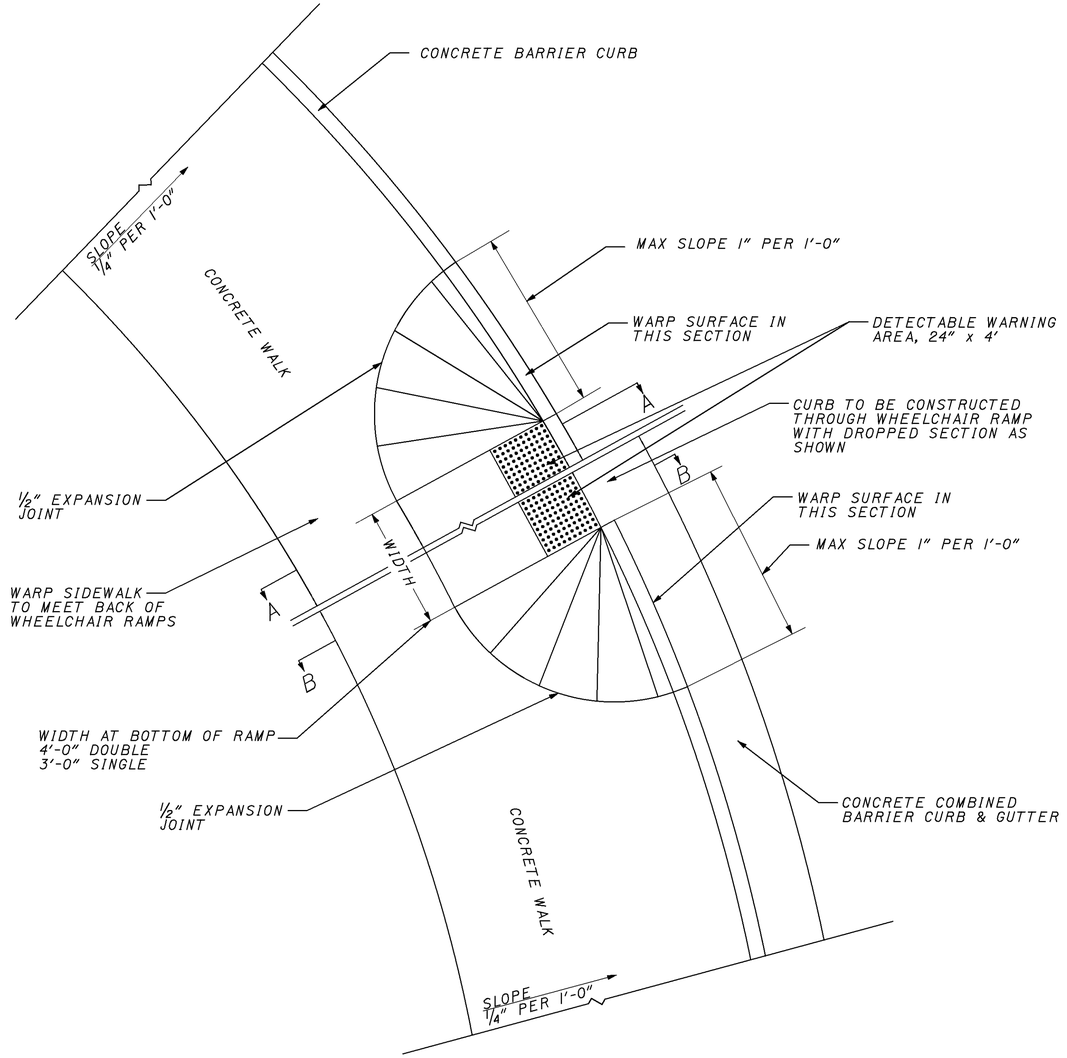
NO SCALE

NOTES:

1) RAMP SHALL HAVE A COARSE BROOM FINISH BY THE BROOMING TRANSVERSE TO THE RAMP SLOPES EXCEPT DOMED AREA

2) FOR INSTALLATION OF TRUNCATED DOMES, SEE PLAN INSERT SHEETS 169 - 171

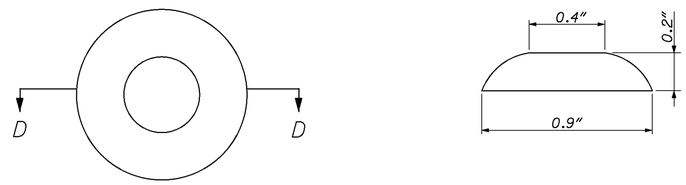
3) FOR CURB RAMP ELEVATION DETAILS SEE SHEET 167



PLAN

FLARED WHEELCHAIR RAMP

NO SCALE



TOP

SECTION D-D

DETECTABLE WARNING DOME

NO SCALE

ALL DETAILS INCORPORATED FROM CITY OF DAYTON, OHIO, STANDARDS FOR STREET IMPROVEMENTS, FLARED WHEELCHAIR RAMP (14A-11048)

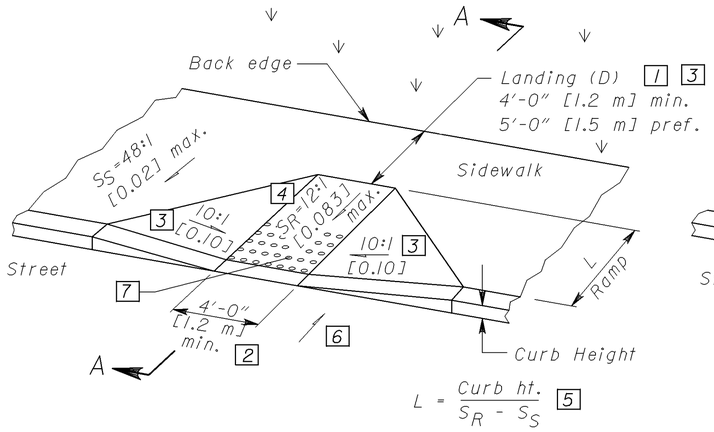
CALCULATED MPD
CHECKED AM

CURB RAMP, AS PER PLAN

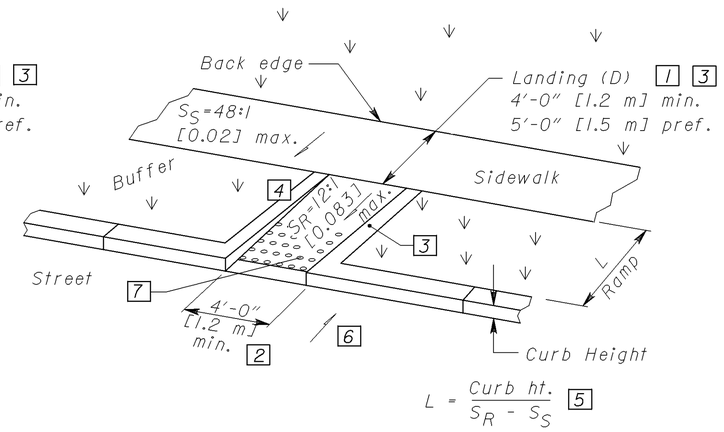
MOT-75-14.60

168
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:53 AM
Filename: G:\C004\0066\Road\Sheets\23828gm01_sod.dgn

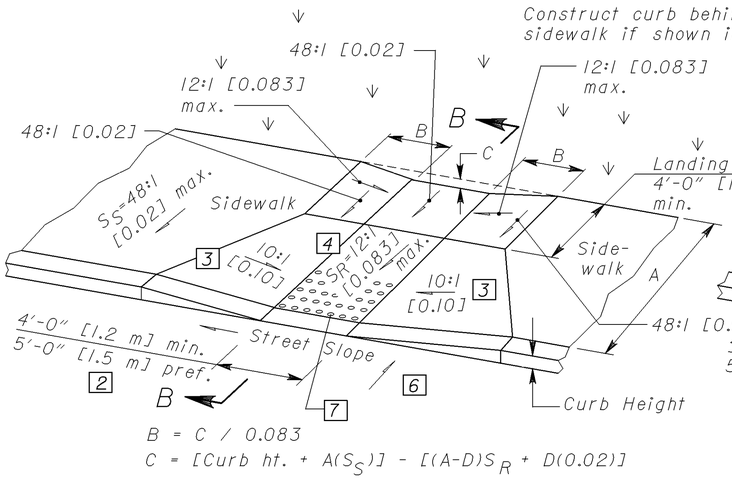


Type A1 (Perpendicular with flared sides)

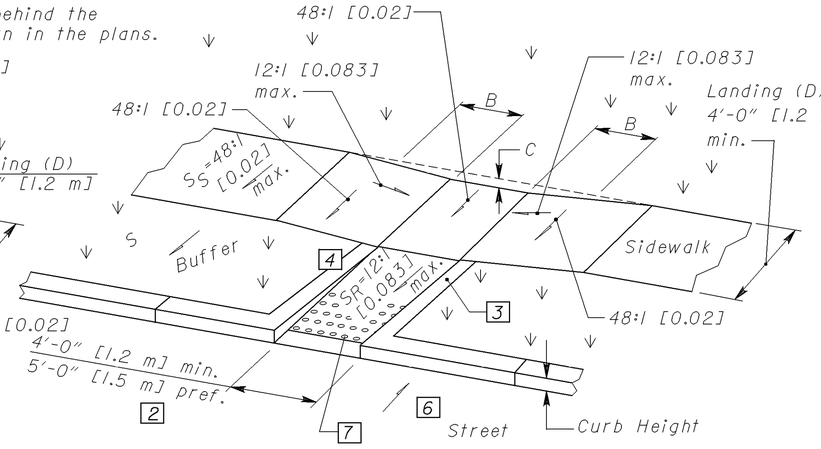


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

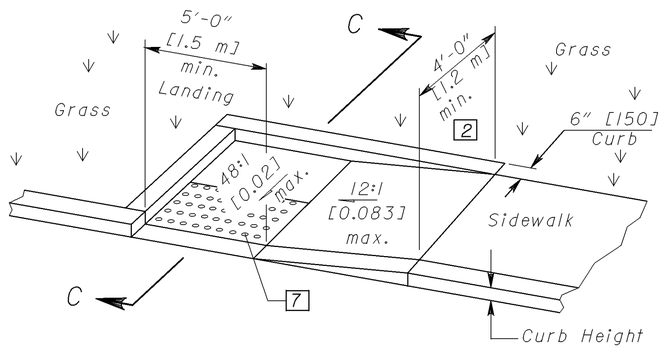


Type C1 (Combined with flared sides)



Type C2 (Combined with returned curb)

COMBINED CURB RAMP DETAILS



Type B1 (Single sided Parallel)

Street Slope	Ramp Length @ 1"/ft [0.083]	
	LLOW SIDE *	LHIGH SIDE *
0.01	5'-5" [1.6 m]	6'-10" [2.1 m]
0.02	4'-10" [1.5 m]	7'-11" [2.4 m]
0.03	4'-5" [1.3 m]	9'-5" [2.9 m]
0.04	4'-1" [1.2 m]	11'-8" [3.6 m]
0.05	3'-9" [1.1 m]	15'-2" [4.6 m]
* Measured along the back of a 6" [150] high curb.		

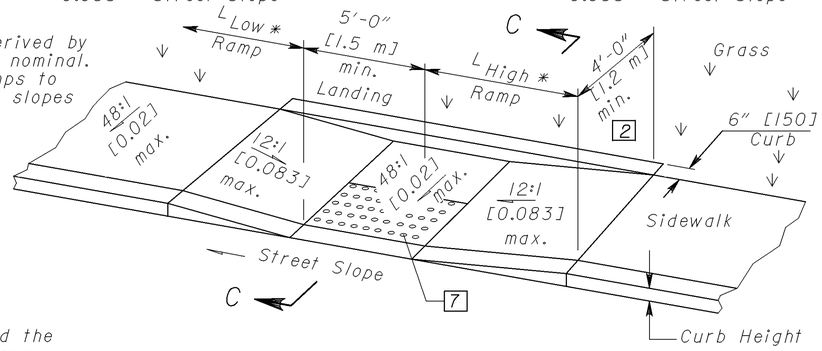
Dimensions derived by equations are nominal. Construct ramps to meet required slopes and existing conditions.

For Parallel Ramps construct curb behind the sidewalk if required elsewhere in the plans.

* See Equations and Table to the left.

$$L_{LOW} = \frac{\text{Curb height}}{0.083 + \text{Street Slope}}$$

$$L_{HIGH} = \frac{\text{Curb height}}{0.083 - \text{Street Slope}}$$



Type B2 (Double sided Parallel)

PARALLEL CURB RAMP DETAILS

LEGEND

1. Dimension may be reduced to 3'-0" [915] in existing sidewalks if the landing is unconstrained along the back edge.
2. May be reduced to 3'-4" [1.02 m] in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
3. Where landing width (D) has been reduced to 3'-0" [915] the flared sides shall have a maximum slope of 12:1 [0.083].

   Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheel chair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.
4. The slope of the ramp toward the curb is preferred to be 12:1 [0.083] or flatter related to the horizontal.

   In existing sidewalks, where the maximum ramp slope (S_R) is not feasible, it may be reduced as follows:

   A) 10:1 [0.10] for a max. rise of 6" [150],
   B) 8:1 [0.125] for a max. rise of 3" [75],
   C) 6:1 [0.167] over a max. run of 2'-0" [610] for historic areas where a flatter slope is not feasible.
5. The minimum length of a perpendicular ramp is 6' [2.0 m] from the back of a 6" [150] curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
6. Gutter counter slopes at the foot of perpendicular curb ramps should not exceed 20:1 [0.05] over a distance of 2'-0" [610] from the curb.
7. Detectable Warnings (truncated domes) are to be installed in the location shown. Dimensions of the domes are 24" [610] from the back of the curb by the width of the ramp. See DETECTABLE WARNINGS NOTES on Sheet 3.

See Sheet 3 for Sections.

THIS DRAWING REPLACES BP-7.1 DATED 7-28-00.

CURB RAMPS WITH TRUNCATED DOMES

01-19-07

MOT-75-14.60

Plotted By: jfanthony Date: 7/3/2007 Time: 7:44:53 AM
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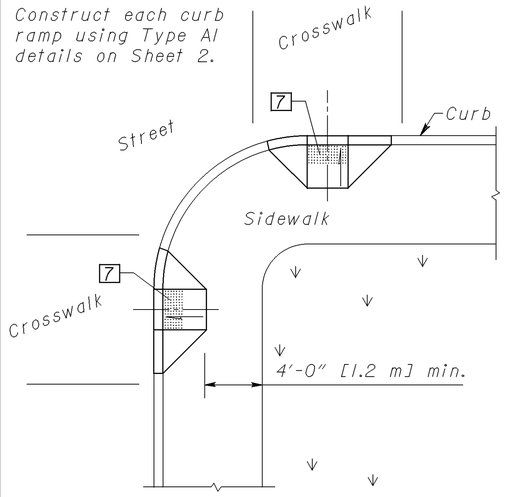
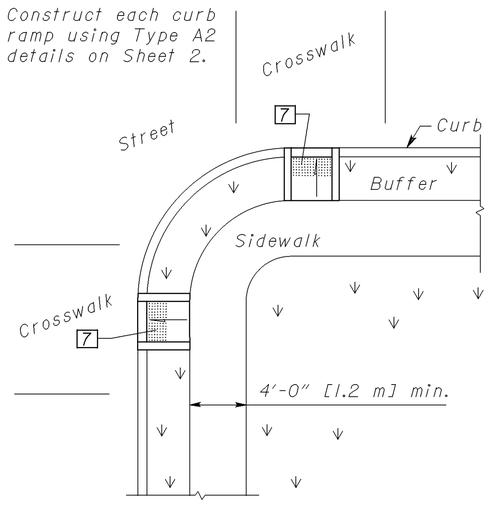
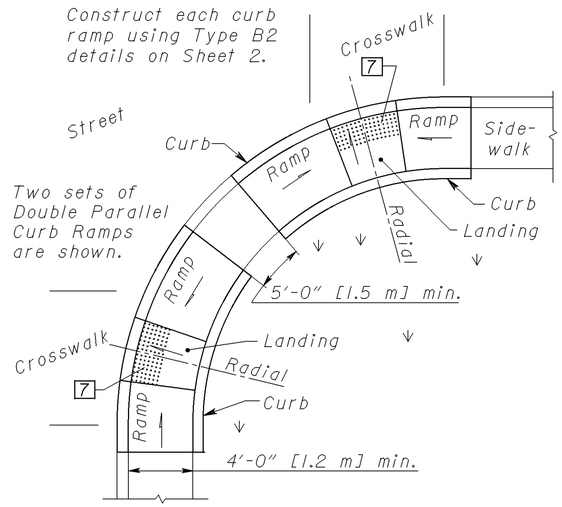


Use curb ramps with flared sides at locations with wide sidewalks.

PERPENDICULAR CURB RAMPS

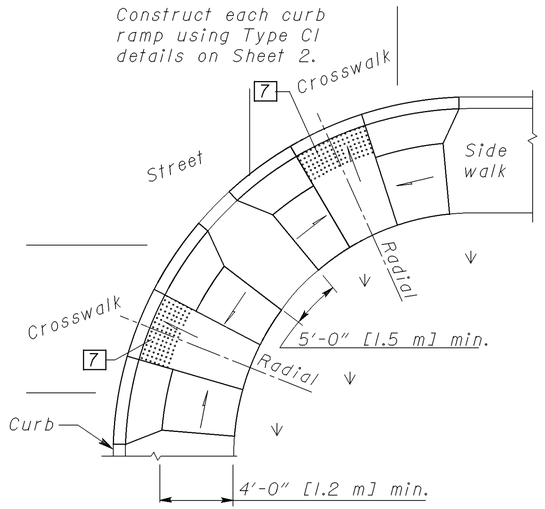


Use curb ramps with returned curbs where buffer is wide enough to accommodate ramp slope.



Place on streets having wide turning radius and where sidewalks are narrow.

PARALLEL CURB RAMPS



Curb ramp placement where streets have wide turning radius, and sufficient sidewalks width.

COMBINATION CURB RAMPS

PREFERRED CONSTRUCTION PLACEMENT

CURB RAMP NOTES

GENERAL: This drawing shows curb ramp types details and placement examples for new curb ramp construction, including the installation of truncated domes. To retrofit existing curb ramps with truncated domes, see **SCD BP-7.2.**

Curb ramp types are shown on Sheet 2 and include Perpendicular, Parallel, and Combined types as specified to be constructed in the locations shown on the project plans. The contractor may adjust the placement of curb ramps if existing field conditions warrant, according to CONSTRUCTION PLACEMENT details (this sheet), and with the approval of the Engineer.

DETECTABLE WARNINGS: Install Truncated Domes on each curb ramp with approved materials, as shown on Sheet 3. Install these proprietary products as per manufacturer's written instructions.

DRAINAGE: Contractor is to ensure the base of each constructed curb ramp allows for proper drainage, without exceeding allowable cross slope or ramp slopes. Vertical change in level exceeding 1/8" [3] between the 1) pavement and gutter, and 2) gutter and ramp, are not allowed.

SURFACE TEXTURE: Texture of concrete surfaces by coarse brooming transverse to the ramp slopes and is to be rougher than the adjacent walk.

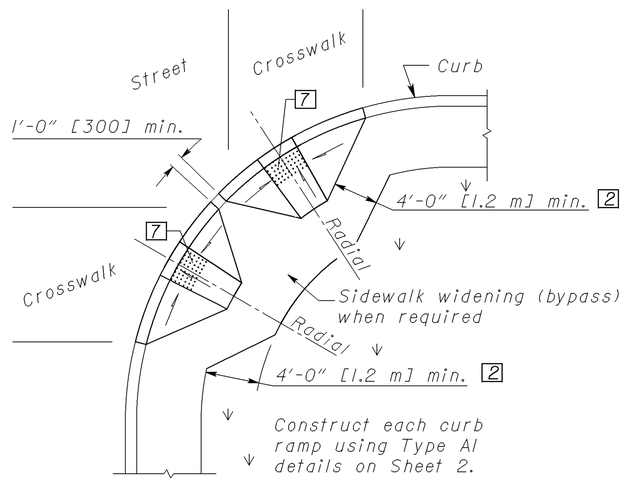
JOINTS: Provide expansion joints in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. Provide a 1/2" [13] Item 705.03 expansion joint filler around the edge of ramps built in existing concrete walks. Lines shown on this drawing indicate the ramp edges and slope changes, and do not necessarily indicate joint lines.

PAYMENT: Measure Walk and Curb, Items 608 and 609, through the curb ramp area paid for under their respective Items. Removal of existing curb, walk (or existing curb ramps) are paid under Item 202.

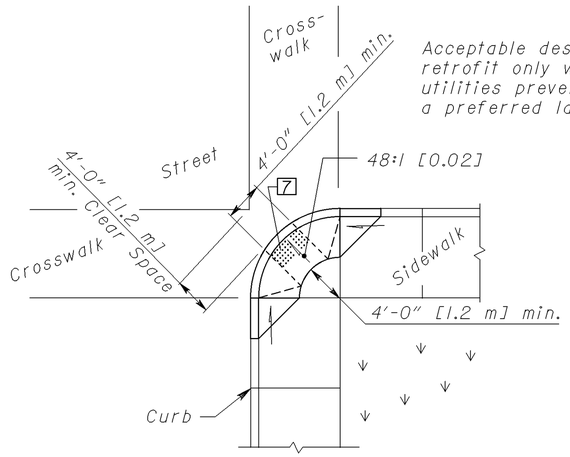
New curb ramps constructed in curb and walks are paid for under **Item 608 - Curb Ramp, Type ____ (A1, A2, B1, B2, C1, or C2), Each** and includes the cost of any additional materials and installation (including truncated domes), grading, forming and finishing. Curb ramps constructed in existing curb and walk are paid under **Item 608 - Curb Ramp, Type____ (A1, A2, B1, B2, C1, C2, or D) Square Foot [Meter],** includes the cost of furnishing and installing all materials, (including truncated domes), grading, forming, and finishing of the curb and walk of the curb ramp.

For LEGEND, See Sheet 2.

Acceptable design on corners with wide turning radius where user is able to manuever within crosswalk limits so as not to encroach into adjacent vehicle lanes.



PERPENDICULAR RAMPS



Use this design only for existing walks, and when site constraints prohibit other designs. The diagonal Type D ramp may be constructed as either a Perpendicular, Parallel or Combination curb ramp type. Avoid using where curb radii are less than 20'-0" [6.0 m]. Since these are unique designs, each occurance should be individually detailed on the project plans.

DIAGONAL RAMP (Type D)

ACCEPTABLE CONSTRUCTION PLACEMENT

THIS DRAWING REPLACES BP-7.1 DATED 7-28-00.

CURB RAMPS WITH TRUNCATED DOMES

01-19-07

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:53 AM
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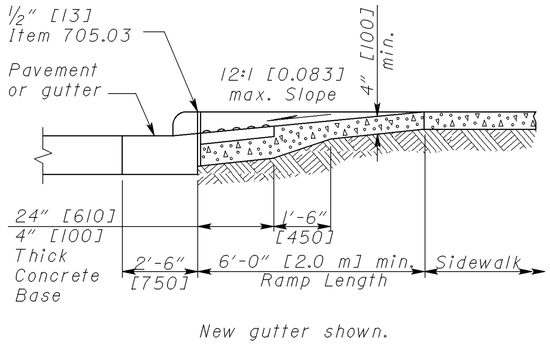
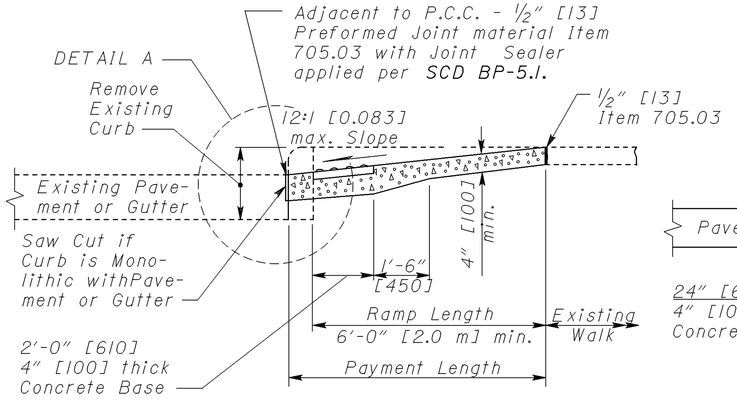
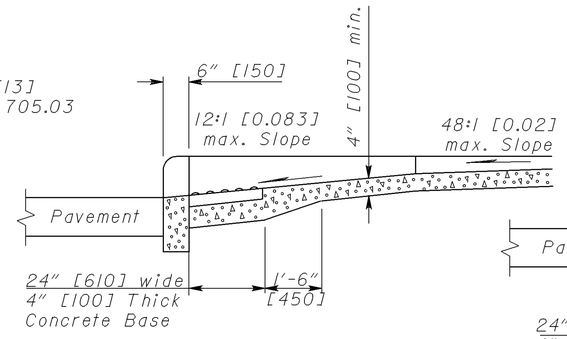


New gutter shown.

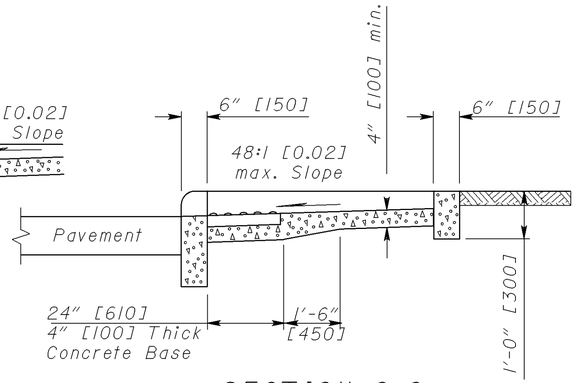
SECTION A-A
NORMAL DETAIL
See Sheet 2.



SECTION A-A
EXISTING WALK DETAIL
See Sheet 2.



SECTION B-B
See Sheet 2.



SECTION C-C
See Sheet 2.

DETECTABLE WARNINGS NOTES

PLACEMENT: Truncated domes are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or at blended curbs. A 24" [610] strip of domes is to be installed for the full width of the ramp. Typical street corner placement locations are shown on Sheet 1.

Ramp cross sections underneath truncated domes are a 4" [100] thick concrete base. Ramp cross sectional details shown here depict nominal 2" [50] thick pavers. Increase base thickness to maintain the 4" [50] thickness if using deeper pavers. Do not decrease thickness for thinner products. See DETAIL A.

ALIGNMENT: Truncated domes should be aligned with the primary direction of pedestrian travel as shown on the DOME ALIGNMENT Detail. Normally the domes should be flush with the back of the curb, but in skewed conditions can be up to 6" [150] to 8" [200] behind the curb, as shown on the DOME ALIGNMENT ON RADIUSED CURB Detail. For non-standard layouts, dome materials may have to be mitered and placed segmentally (see TREATMENT AT BLENDED CURBS Detail on SCD BP-7.2).

VISUAL CONTRAST: Color of the truncated domes should contrast with surrounding concrete walk and ramp. Use of a red blend is recommended for concrete curb ramps. Black is not an acceptable color.

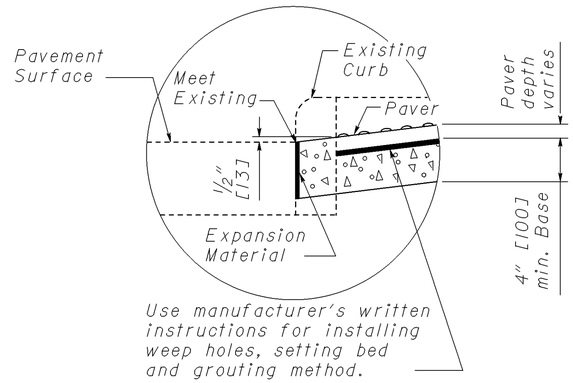
PRODUCTS: Approved products include clay and concrete pavers, cast iron, and cast-in-place engineered plastics and a listing of them may be found on the Office of Roadway Engineering Service's Truncated Domes Approved List (at www.dot.state.oh.us/roadwayengineering/index.asp). Install products as per manufacturer's printed instructions, with added instructions for pavers shown below.

If using pavers, setting bed and joints to be grouted in accordance with manufacturer's written instructions and provide written copies to the Engineer. If the installation method requires a grout bed, bonding group or other cementatious materials, provide documentation that the materials have freeze thaw resistance equal to the pavers.

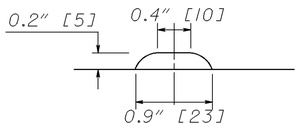
Mortared joints are to be flush with top surface and struck so as to give a smooth surface. Pavers shall be laid such that joints are level with adjoining joints to provide a smooth transition from brick to brick and brick to concrete surface.

The width of paver joints are to be between 5/32" [4] and 1/16" [1.5]. Pavers should not directly touch each other unless they have spacing bars.

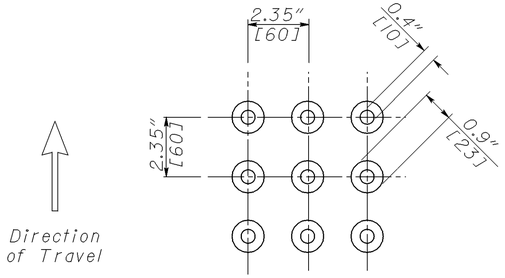
The surface of any two adjacent units should not differ by more than 1/8" [3] in height. Place pavers in a running bond pattern. Face of all pavers are to be clean of cement and protected to avoid chipping during installation.



DETAIL A

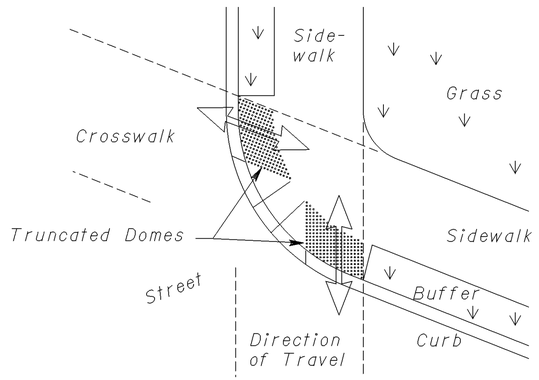


HEIGHT AND DIAMETER



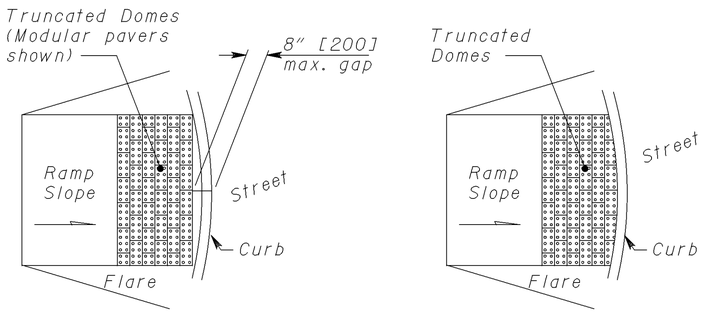
SQUARE PATTERN, PARALLEL ALIGNMENT

TRUNCATED DOMES DETAILS



Orient In-line domes alignment
with primary direction of travel.

DOME ALIGNMENT



PREFERRED METHOD ALTERNATE METHOD

Use Preferred Method for aligning truncated domes unless curb curvature would produce gap more than 8" [200] from front of curb to the domes. If gap will be greater than 8" [200] miter truncated dome product to match the back of the curb as shown in the Alternate Method. NOTE: Some approved Truncated Domes products are easier to miter than others.

DOME ALIGNMENT ON RADIUSED CURB

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:53 AM
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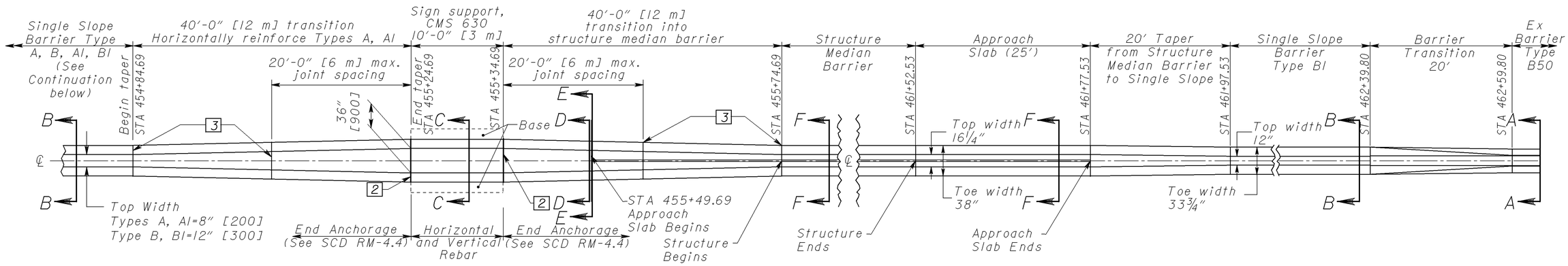
THIS DRAWING REPLACES BP-7.1 DATED 7-28-00.

01-19-07

CURB RAMPS WITH TRUNCATED DOMES

MOT-75-14.60



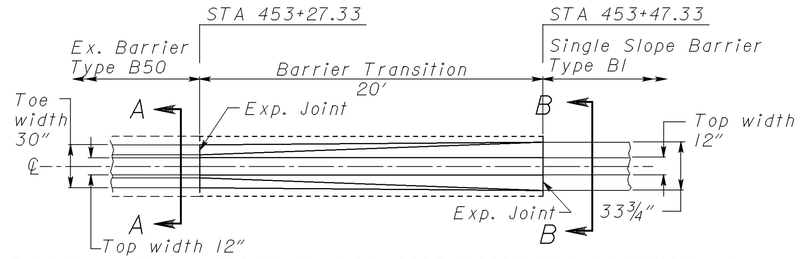
PLAN - SIGN SUPPORT TRANSITION, SOUTH OF STRUCTURE

PLAN - MEDIAN BARRIER TRANSITIONS NORTH OF STRUCTURE

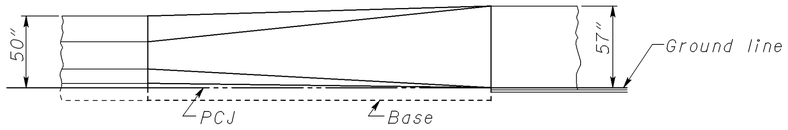
LEGEND

2 Expansion joint, ?" [19] min. Preformed Filler, CMS 705.03 (SCD RM-4.4).

3 Contraction joint (SCD RM-4.4).



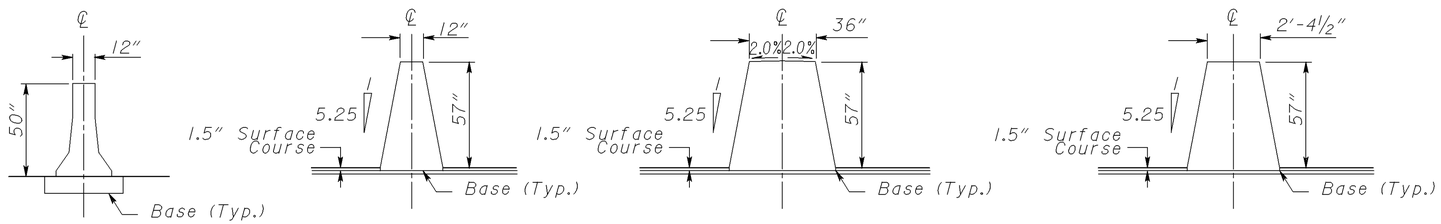
PLAN - MBT SOUTH OF STRUCTURE (CONTD...)

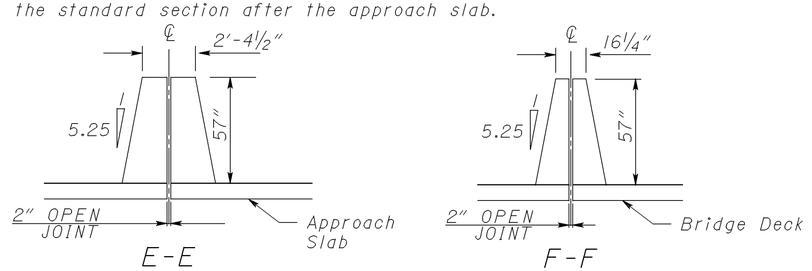


Existing NJ Shape Type BI to Single Slope Type BI Connection

ELEVATION

(MIRROR IMAGE ON NORTH SIDE OF BRIDGE)





BARRIER TRANSITION STATIONS:

SECTION AA TO SECTION BB
STA. 453+27.33 TO STA. 453+47.33

SECTION BB TO SECTION CC
STA. 454+84.69 TO STA. 455+24.69

SECTION CC TO SECTION DD
STA. 455+34.69 TO STA. 455+49.69

SECTION DD TO SECTION EE
STA. 455+49.69

SECTION EE TO SECTION FF
STA. 455+49.69 TO STA. 455+74.69

SECTION FF TO SECTION BB
STA. 461+77.53 TO STA. 461+97.53
(NORTH SIDE OF BRIDGE)

SECTION BB TO SECTION AA
STA. 462+39.80 TO STA. 462+59.80
(NORTH SIDE OF BRIDGE)

NOTES

ADJACENT CONCRETE BARRIER RUNS: Remove any tapered end sections, Impact attenuators, or other guardrail hardware from existing barrier end.

The barrier to barrier transition is not intended to be used at transition sections (those shown on **SCD RM-4.4**), Inlets, or on Type C or CI Barrier.

Terminate the adjacent single slope end with a reinforced End Anchor as detailed on the SCD's.

BARRIER FACE TRANSITION: To prevent vehicle snagging, a smooth transition from the safety shape face to the single slope face is made over a 20' [6 m] length. The actual shape of the Transition is dependent on both the adjacent NJ barrier and the single slope barrier Types, as detailed on the plans. The contractor and Engineer will agree on a construction method to ensure a smooth barrier face.

MATERIALS: Materials are same for those shown on **RM-4.3** and **RM-4.5**, except that cast-in-place is the only acceptable method. Edges may be chamfered or radiused as shown on those drawings.

CONCRETE BASE: Construct base as shown on the NJ shape insert sheets, including the methods detailing the footing joint, Permissible Construction Joint (PCJ), and Dowelling requirements. The width of the base matches the existing NJ barrier.

JOINTS: Construct joints as shown on respective barrier drawings.

PAYMENT: This Barrier to Barrier Transition shall include all material and labor needed to construct this 20' transition section, including any raceways, reinforcing steel, dowels and other necessary incidentals. Payment shall be made at the unit price for **Item 622 - Barrier Transition, Each.**

MEDIAN ON APPROACH SLABS: The shape of the median on approach slabs shall be the same as the shape of the median on the structure. The shape of the median on the approach slab shall be transitioned to the standard section after the approach slab.

CALCULATED MPD CHECKED AM

MEDIAN BARRIER TRANSITION DETAILS

MOT-75-14.60

172/316

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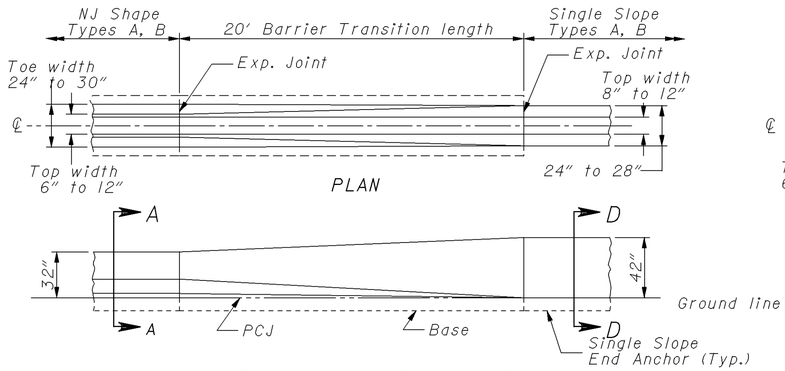
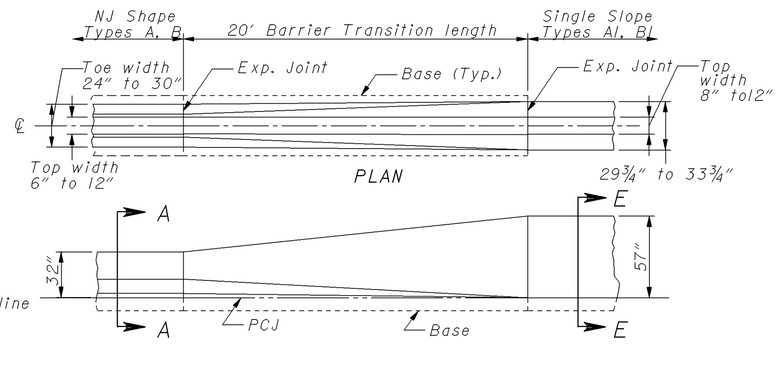


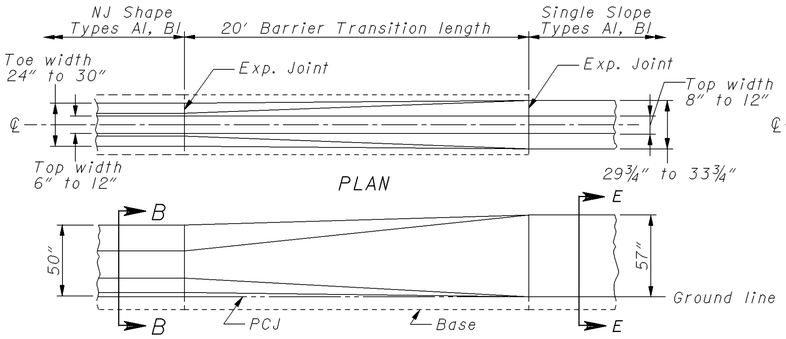
Standard low barrier connection

ELEVATION



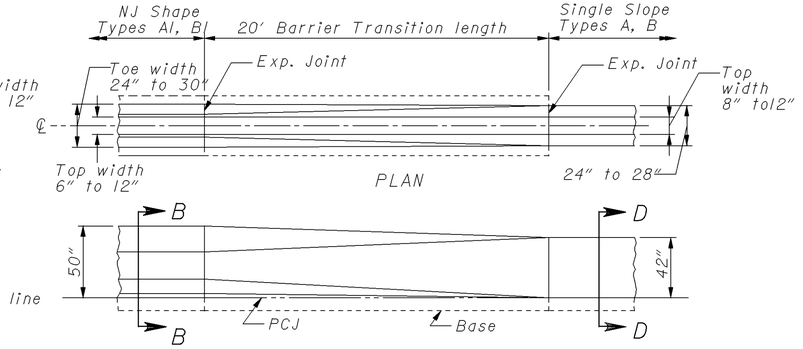
Atypical use

ELEVATION



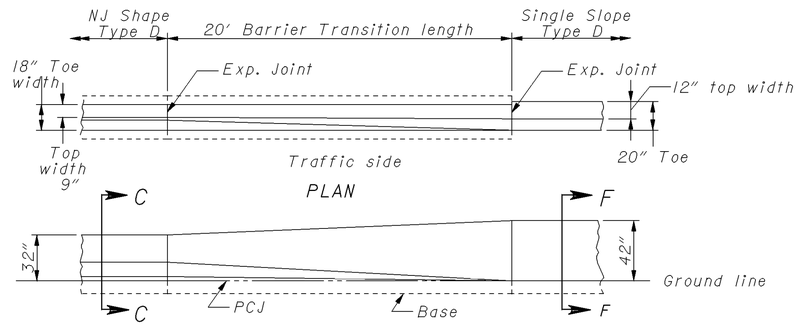
Standard tall barrier connection

ELEVATION



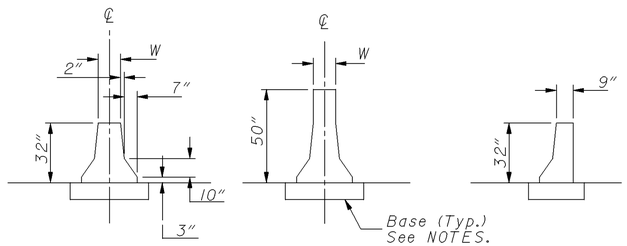
Atypical use

ELEVATION



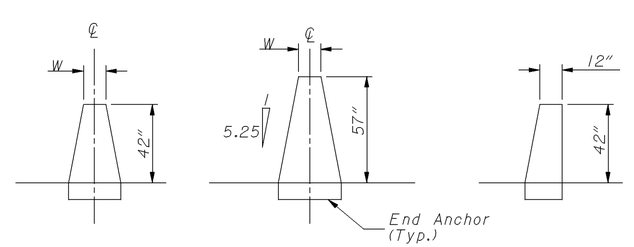
Standard Roadside barrier connection

ELEVATION



NJ SHAPE SECTIONS

See Plan Insert sheets for specific NJ Shape Concrete barrier details.



SINGLE SLOPE SECTIONS

See SCD RM-4.3 and RM-4.5 for specific Single Slope concrete barrier details.

NOTES

GENERAL: This insert details the Barrier Transition, to connect existing NJ Concrete Barrier (safety shape) to a new run of Single Slope Concrete Barrier at locations shown on the plans. For NJ barrier shape and other details see the respective plan insert sheets. For Single Slope barrier details, see SCD RM-4.3 (RM-4.5 for Type D).

ADJACENT CONCRETE BARRIER RUNS: Remove any tapered end sections, Impact attenuators, or other guardrail hardware from existing barrier end. The barrier to barrier transition is not intended to be used at transition sections (those shown on SCD RM-4.4), Inlets, or on Type C or C1 Barrier. If proposed adjacent single slope barrier is Type A or A1, the Barrier Transiton should contain horizontal reinforcing steel similiar to that required in the respective single slope barrier. Reinforcement is not shown and should be detailed separately. The adjacent single slope end should be terminated with a reinforced End Anchor as detailed on the SCDs.

BARRIER FACE TRANSITION: To prevent vehicle snagging, a smooth transition from the safety shape face to the single slope face is made over a 20' length. The actual shape of the Transition is dependent on both the adjacent NJ barrier and the single slope barrier Types, as detailed on the plans. The contractor and Engineer will agree on a construction method to ensure a smooth barrier face.

MATERIALS: Materials are same for those shown on RM-4.3 and RM-4.5, except that cast-in-place is the only acceptable method. Edges may be chamfered or radiused as shown on those drawings.

CONCRETE BASE: Construct base as shown on the NJ shape insert sheets, including the methods detailing the footing joint, Permissible Construction Joint (PCJ), and Dowelling requirements. The width of the base matches the existing NJ barrier.

JOINTS: Construct joints as shown on respective barrier drawings.

RACEWAYS: When specified, place raceway(s) to match raceway elevation in adjoining segments. Place to obtain maximum concrete cover.

METRIC UNITS: Refer to respective barrier drawings or inserts for metric dimensions.

PAYMENT: This Barrier Transiton shall include all material and labor needed to construct this 20' section, including any raceways, reinforcing steel, dowels and other necessary incidentals. Payment shall be made at the unit price for Item 622 - Barrier Transition, Each.

CALCULATED MPD CHECKED AM

NJ SHAPE TO SINGLE BARRIER TRANSITION

MOT-75-14.60

172A
316

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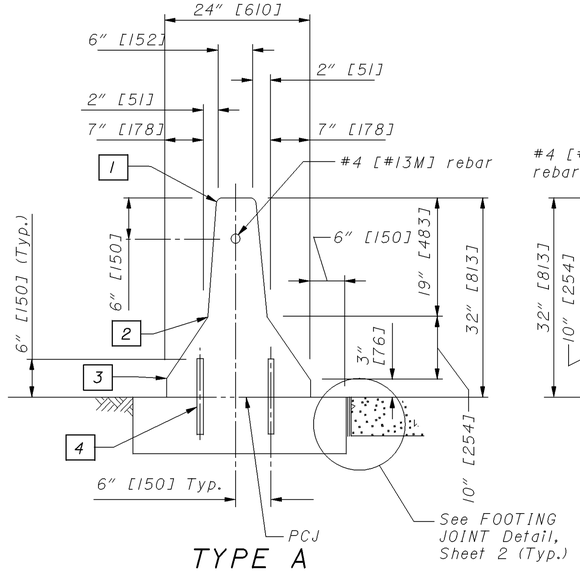
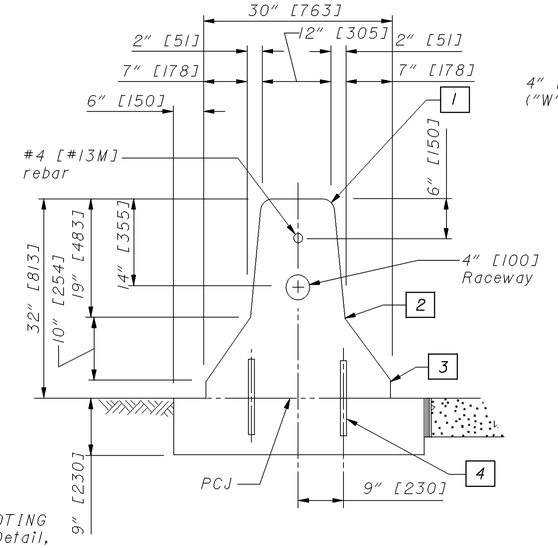
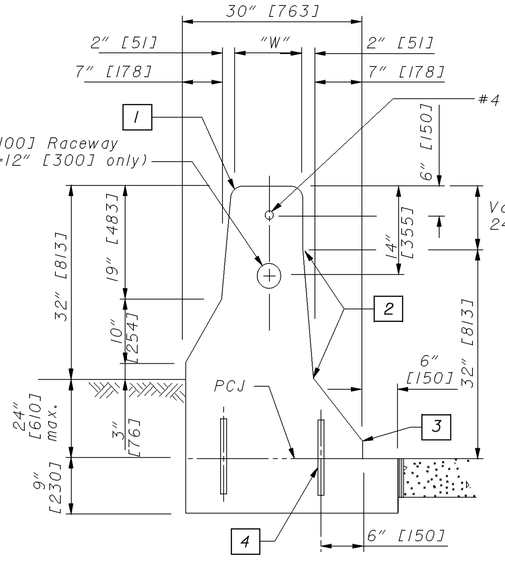


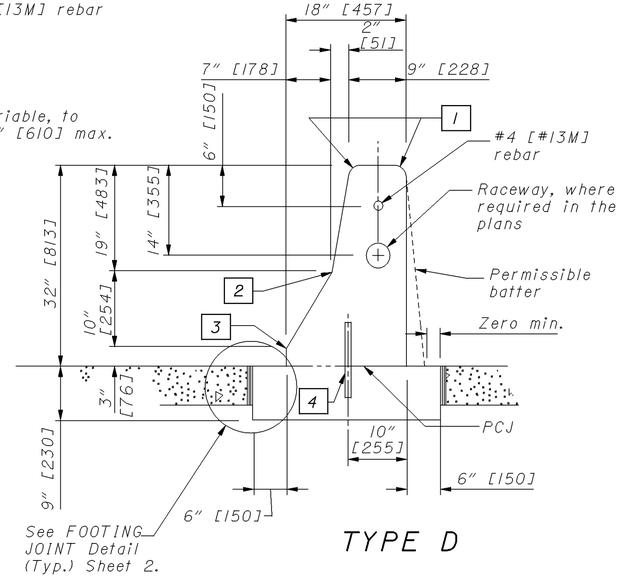
TYPE A



TYPE B



TYPE C

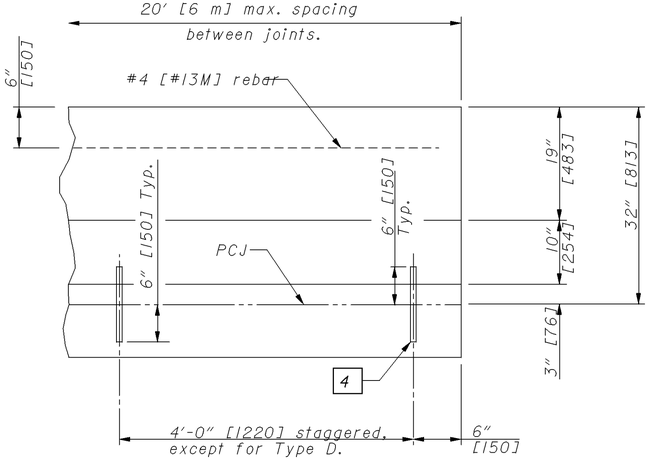


TYPE D

NORMAL 32 INCH SECTIONS

"W" = 6" [152] or 12" [305] barrier width, as specified in the plans.

All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.



32" [813-mm] BARRIER

BARRIER ELEVATION

NOTES

JOINTS: Unsealed contraction joints spaced at 20' [6 m] maximum shall be constructed throughout the run of Concrete Barrier except that expansion joints shall be used at the center line of and around each bridge pier column and on either side of overhead sign supports, inlets and light pole foundations. If the inlet top is slip formed, the expansion joints adjacent to it may be omitted.

Contraction joints may be constructed with metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled joints, and sawed joints shall have a 3" [75] minimum depth. All joints shall be constructed for the full height of the barrier including the footing. Sawing shall be done as soon as curing will allow, to prevent spalling.

FOOTING JOINTS: The vertical walls between the barrier footing and a concrete pavement or concrete base shall be provided with a sealed joint as shown on Sheet 2. Sealing material shall conform to CMS 705.04.

PCJ = Permissible Construction Joint

MEASUREMENT: Item 622, Concrete Barrier, including transitions and pier sections as detailed on the New Jersey Shape Barrier Transition drawing, is paid for in linear feet [meters] as one of the four types (A, B, C or D) or as Type A1 and B1, (for 50" [1270] high barrier), with appropriate deductions for other items such as:

Item 604 - I-3 Median Inlet	20 Lin Ft. [6 Meters].
Item 625 - Light Pole Foundation or Pullbox	2.5 Lin. Ft. [1 Meter].
Item 630 - Overhead Sign Support Foundation	10 Lin. Ft. [3 Meters].
Item 630 - Barrier Wall Assembly	10 Lin. Ft. [3 Meters].

TRANSITIONS: Linear transitions between the different types of barrier detailed on this Standard Drawing shall occur between contraction joints spaced no closer than 10' [3 m].

RACEWAY: The contractor shall ensure that the electrical raceway is clear of internal obstructions. Cost of the 4" [100] polyvinyl chloride raceway and No. 10 AWG copper-clad or aluminum-clad wire if needed for future installation of circuits shall be included in the unit cost per Linear Foot [Meter] for Item 622 - Concrete Barrier, Type ____ .

STATION MARKING: The Station marking shall be impressed in the "green" concrete on both sides at the top of the barrier if specified in the plans. The cost shall be incidental to the unit cost per Linear Foot [Meter] bid for Item 622 - Concrete Barrier, Type ____ .

REFLECTORIZATION: Barrier reflectorization shall be installed in accordance with CMS 626.

LEGEND

1. 1" [25] radius or ¾" [19] chamfer.
2. Permissible 10" [250] radius.
3. Permissible 1" [25] radius.
4. #8 [#25M] epoxy coated Deformed Steel Bars, 1'-0" [305] long, spaced 4'-0" [1220] between successive Bars on a staggered pattern except in Type D. Omit Dowels when the top is constructed integrally with the Base.

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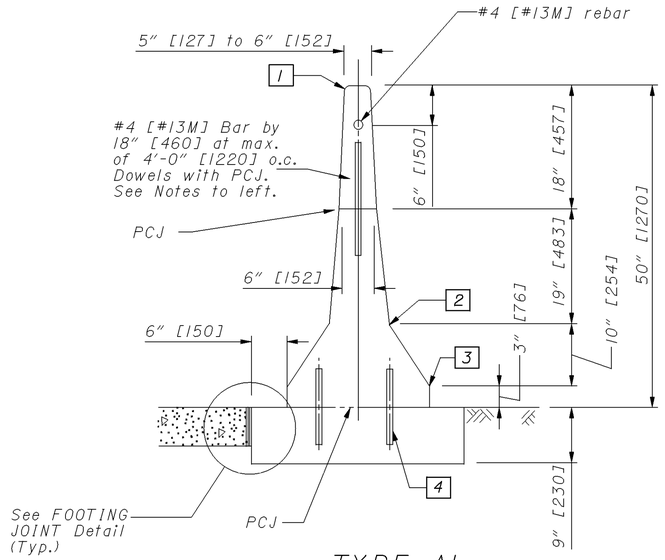
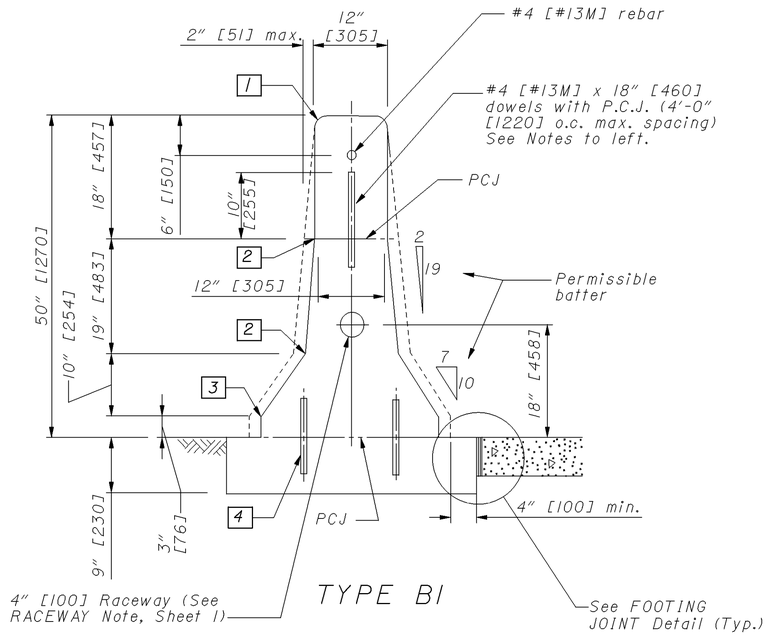


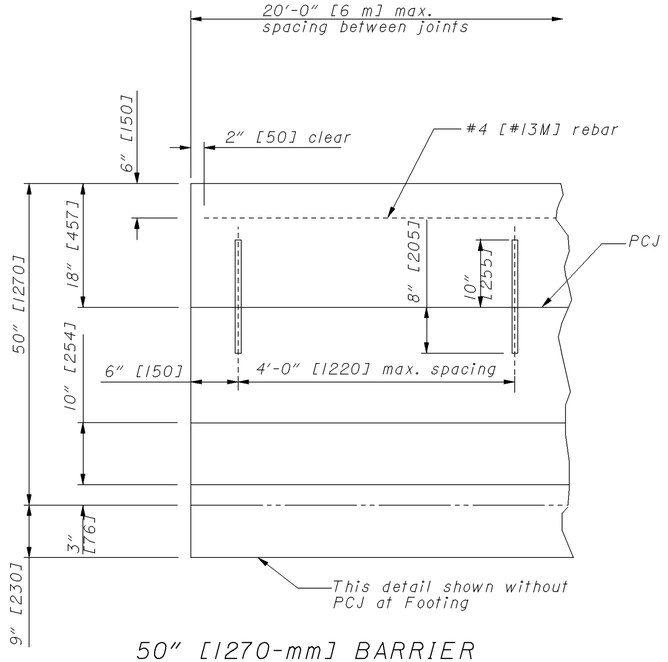
TYPE AI



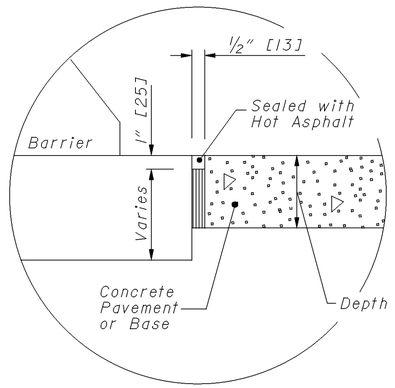
TYPE BI

50" [1270-mm] BARRIERS - TYPICAL SECTIONS

See Type A and Type B Normal Section Details (Sheet 1) for dimensions that are not shown.



50" [1270-mm] BARRIER
BARRIER ELEVATION



FOOTING JOINT DETAIL
See FOOTING NOTE on Sheet 1.

All metric dimensions (in brackets []) are in millimeters unless otherwise noted.

NOTES

50" [1270-mm] BARRIER: High barrier shall be built in locations specified in the plans. Construct the lower 32" [813] of the barrier base using the same dimensions as as shown in the corresponding Normal Section on Sheet 1. The upper 18" [457] may be constructed integrally with the bottom, or separately with #4 [#13M] rebar dowels at 4'-0" [1220] maximum spacing.

Start and end dowels 6" [150] from barrier contraction joints.

LEGEND

1 1" [25] radius or 3/4" [19] chamfer.
2 Permissible 10" [250] radius.
3 Permissible 1" [25] radius.
4 #8 [#25M] epoxy coated deformed Steel Bars, 1'-0" [305] long, spaced 4'-0" [1220] between successive Bars on a staggered pattern except in Type D. Omit Dowels when the top is constructed integrally with the Base.

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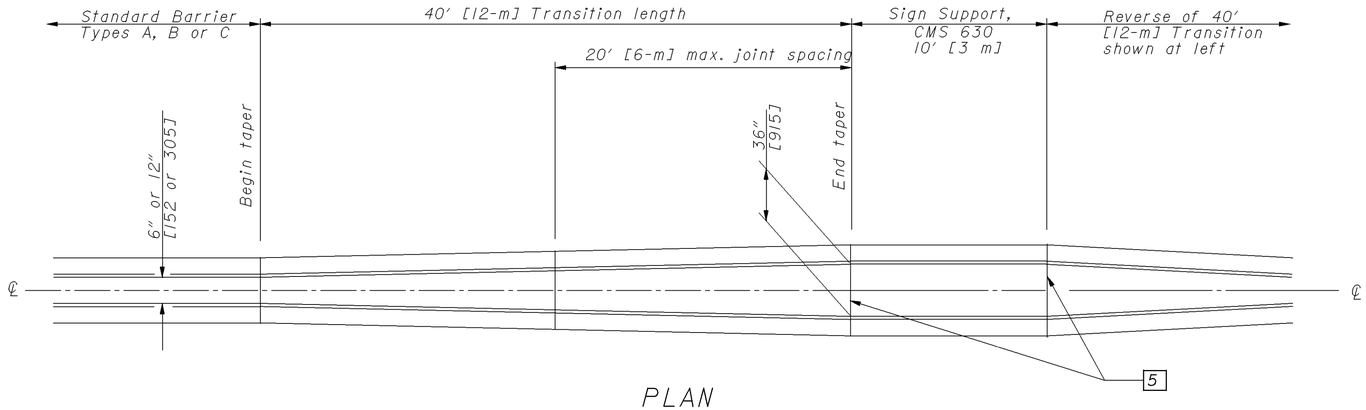
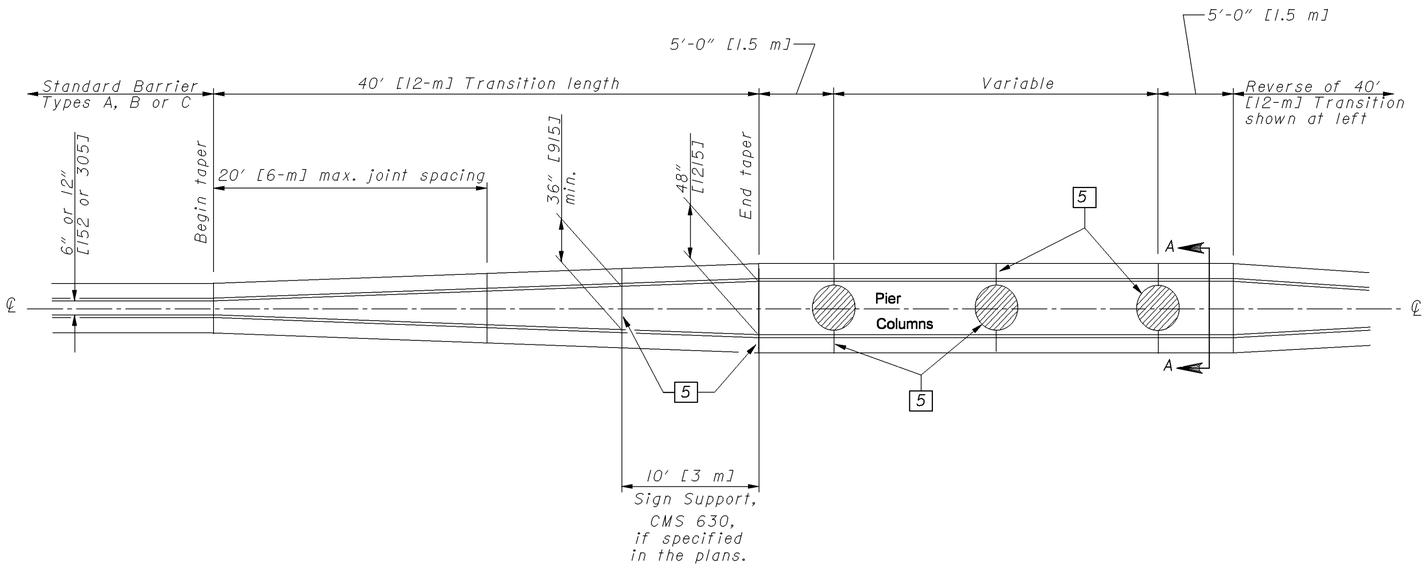


PLAN

SIGN SUPPORT TRANSITION

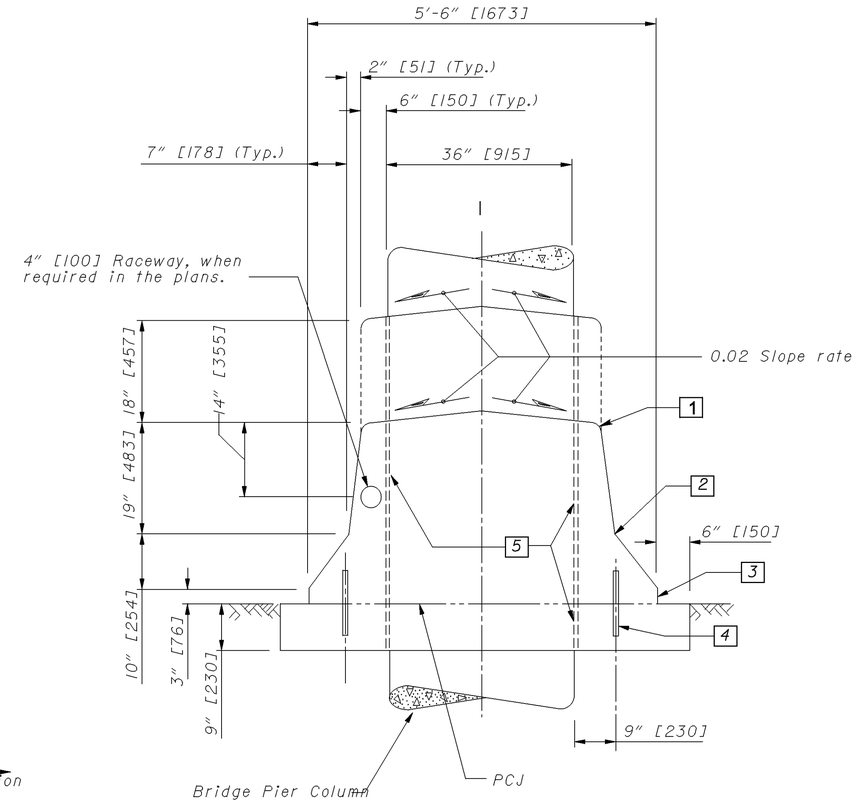
(For 50″ [1270] Barriers, the upper 18″ [457] varies from 6″ or 12″ [152 or 305] to 36″ [915] in width.)



PLAN

BRIDGE PIER TRANSITION

(With Sign Support)



SECTION A-A

All metric dimensions (in brackets []) are in millimeters unless otherwise noted.

NOTES

STANDARD BARRIERS: Types A, B, and C Concrete Barriers shall be constructed as shown on the New Jersey Shape Barrier insert or as detailed in the plans.

LEGEND

1. 1″ [25] radius or ¾″ [19] chamfer.
2. Permissible 10″ [250] radius.
3. Permissible 1″ [25] radius.
4. #8 [#25M] epoxy coated deformed Steel Bars, 12″ [300] long, spaced 2′ [600] between successive Bars on a staggered pattern. Dowel Bars shall begin 4′ [1220] from the leading edge of the End Terminal. Omit Dowels when the top is constructed integrally with the Base.
5. Expansion Joint, ¾″ [19] min. Preformed Filler, CMS 705.03.

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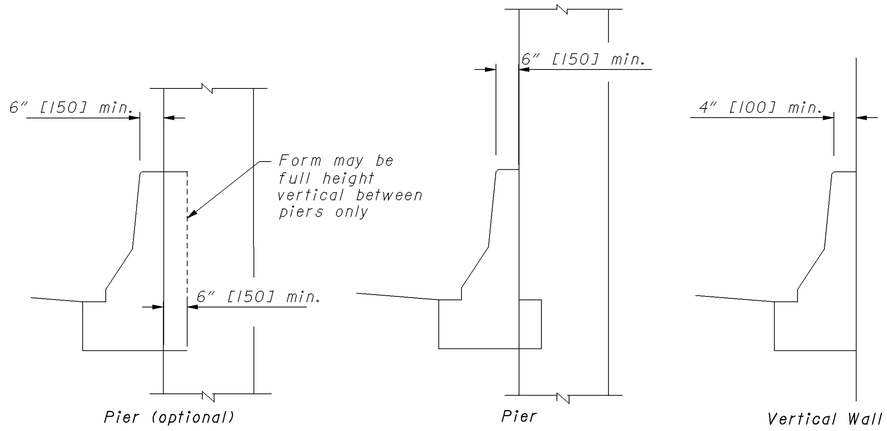
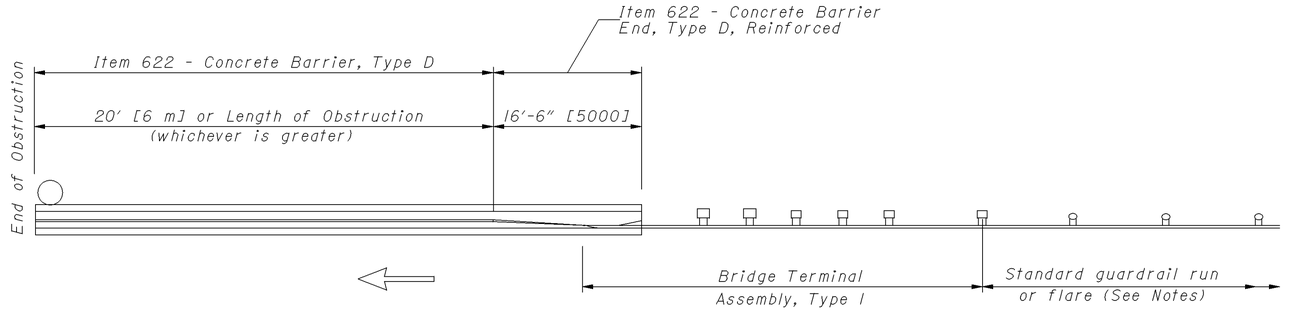
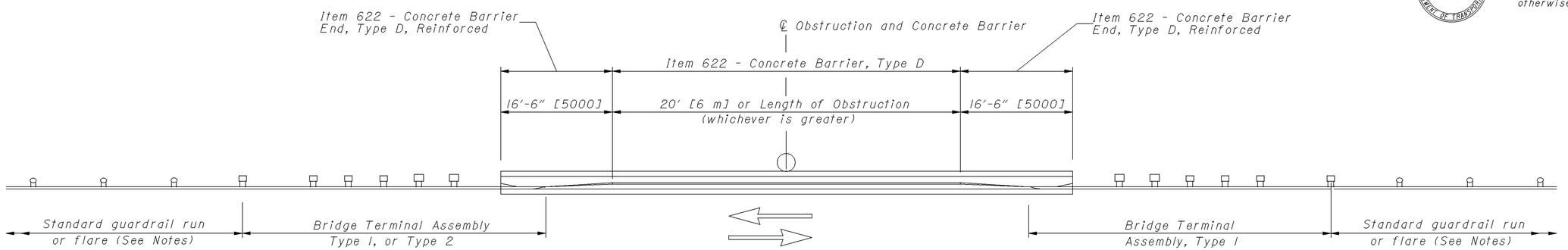


INCORPORATED INSTALLATIONS



DIRECTIONAL TRAVEL WHERE NO TRAILING GUARDRAIL IS USED.



BI-DIRECTIONAL TRAVEL OR UNI-DIRECTIONAL TRAVEL WHERE TRAILING GUARDRAIL IS USED.

TYPICAL INSTALLATIONS

NOTES

LOCATION: Concrete barrier at obstructions shall be constructed with the toe of the barrier slope at the normal guardrail offset from the roadway. Installations within continuous runs shall be constructed so that no approach or trailing guardrail tapers are required to connect to the barrier.

TYPE D BARRIER: See the New Jersey Shape Barrier insert for Type D Concrete Barrier details.

REINFORCING: All reinforcing bars shall be epoxy coated and shall meet the requirements of CMS 509.

INCORPORATED INSTALLATIONS: For barrier installations that cannot be constructed at the normal guardrail offset, the incorporated installations shown may be installed at vertical walls, piers or other similar obstructions. For pier-incorporated installations the contractor may use the optional treatment, forming the back face of the Type D Concrete Barrier to the location shown (between piers only), with any additional cost being included in the cost of Item 622.

GUARDRAIL: For Types 1 and 2 Bridge Terminal Assemblies and their connections to barrier, see SCD GR-3.1 and GR-3.2, respectively.

For uni-directional roadways where trailing guardrail is used and is located beyond the Clear Zone of opposite direction traffic, use Type 2 Bridge Terminal Assembly.

Barrier installations that cannot be constructed at the normal guardrail offset and are to be connected to approach or trailing guardrail runs shall have a 25:1 guardrail taper to meet the existing or normal guardrail offset. Installations that are not to be connected to approach or trailing guardrail runs shall include the standard guardrail flare as shown on SCD GR-5.1.

PAYMENT: Payment for Item 622, Concrete Barrier, Type D shall include all materials, labor and reinforcing steel required to construct the barrier as shown.

All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.

10-20-06

NJ SHAPE BARRIER AT OBSTRUCTIONS (Sht. 1/2)

MOT-75-14.60

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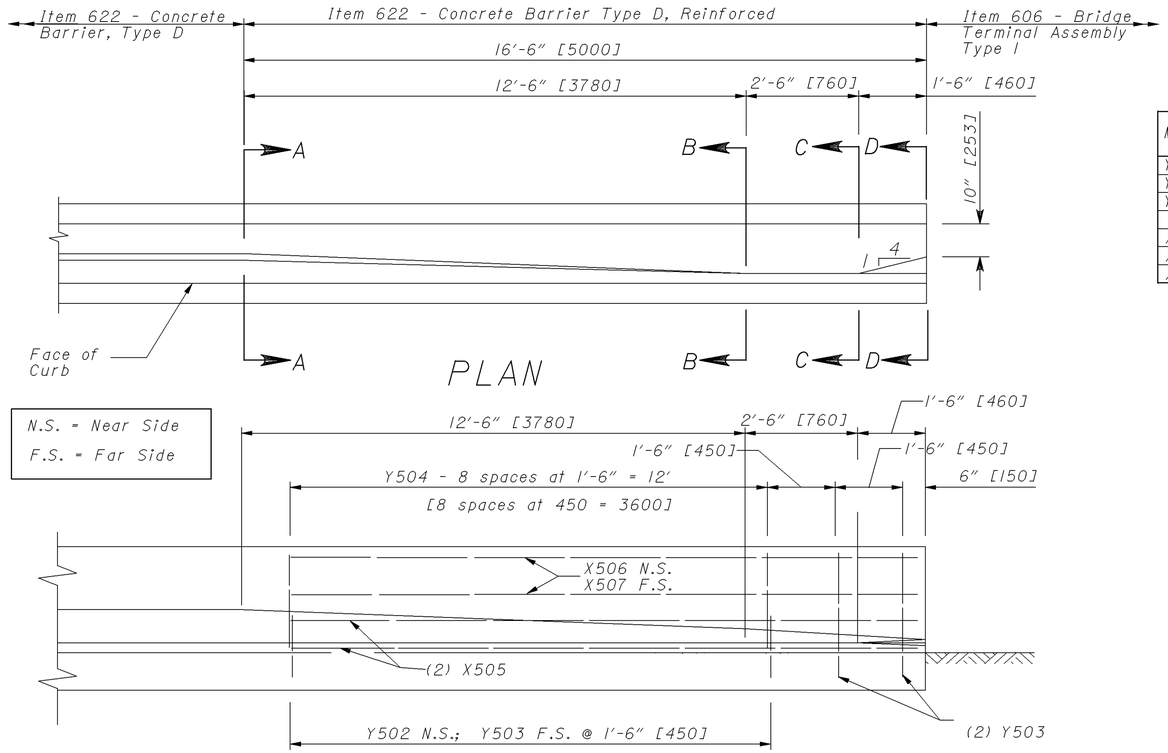
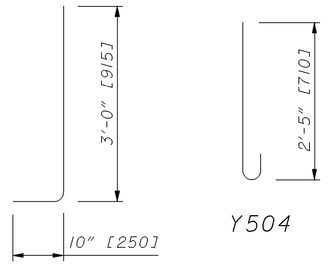


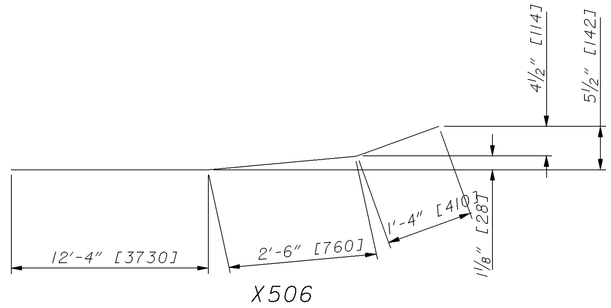
TYPE D REINFORCED BARRIER END SECTION

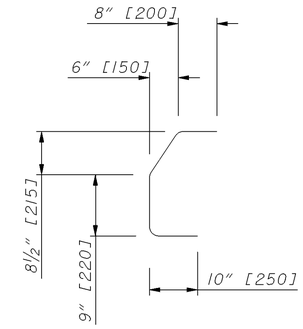
See Sheet 1 for Notes

REINFORCING BAR LIST

MARK	SIZE	LENGTH	SHAPE	NO.	WEIGHT [MASS] (lb)	(kg)
Y502	#5 [#16M]	2'-10" [850]	Bent	9	26.6	[12]
Y503	#5 [#16M]	3'-9" [1140]	Bent	13	50.8	[23]
Y504	#5 [#16M]	3'-0" [915]	Bent	9	28.2	[13]
X505	#5 [#16M]	16'-2" [4900]	Straight	4	67.5	[31]
X506	#5 [#16M]	16'-2" [4900]	Bent	2	33.7	[15]
X507	#5 [#16M]	16'-2" [4900]	Straight	2	33.7	[15]
		TOTAL (for info. only):			240	[109]

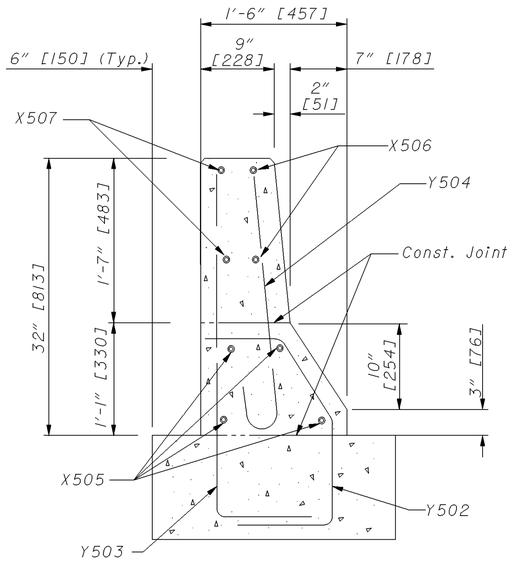




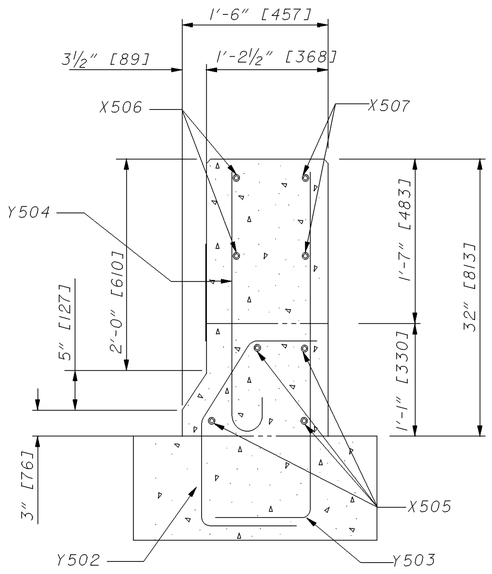


BENDING DIAGRAMS

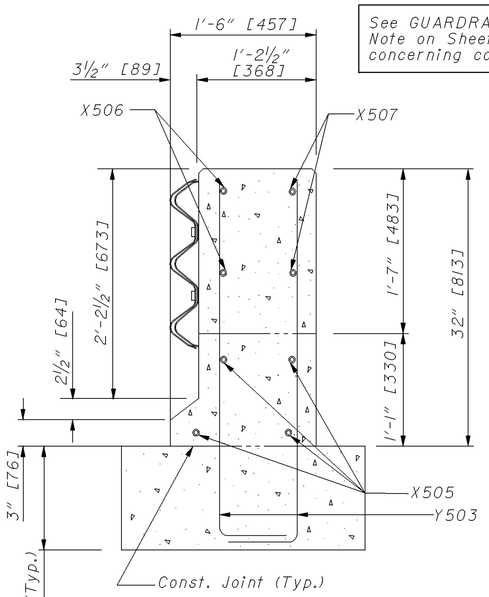
All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.



SECTION A-A

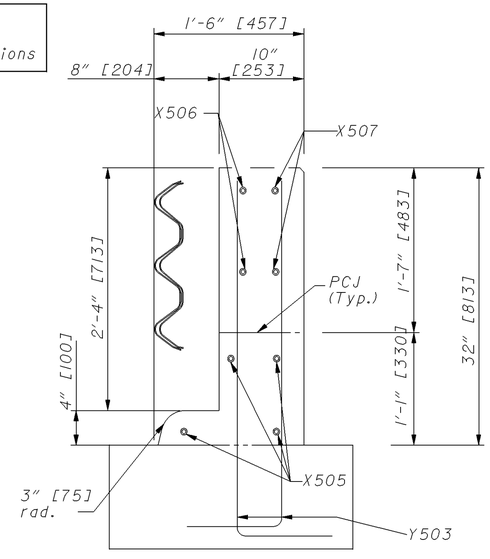


SECTION B-B



See GUARDRAIL Note on Sheet 1 concerning connections

SECTION C-C



SECTION D-D

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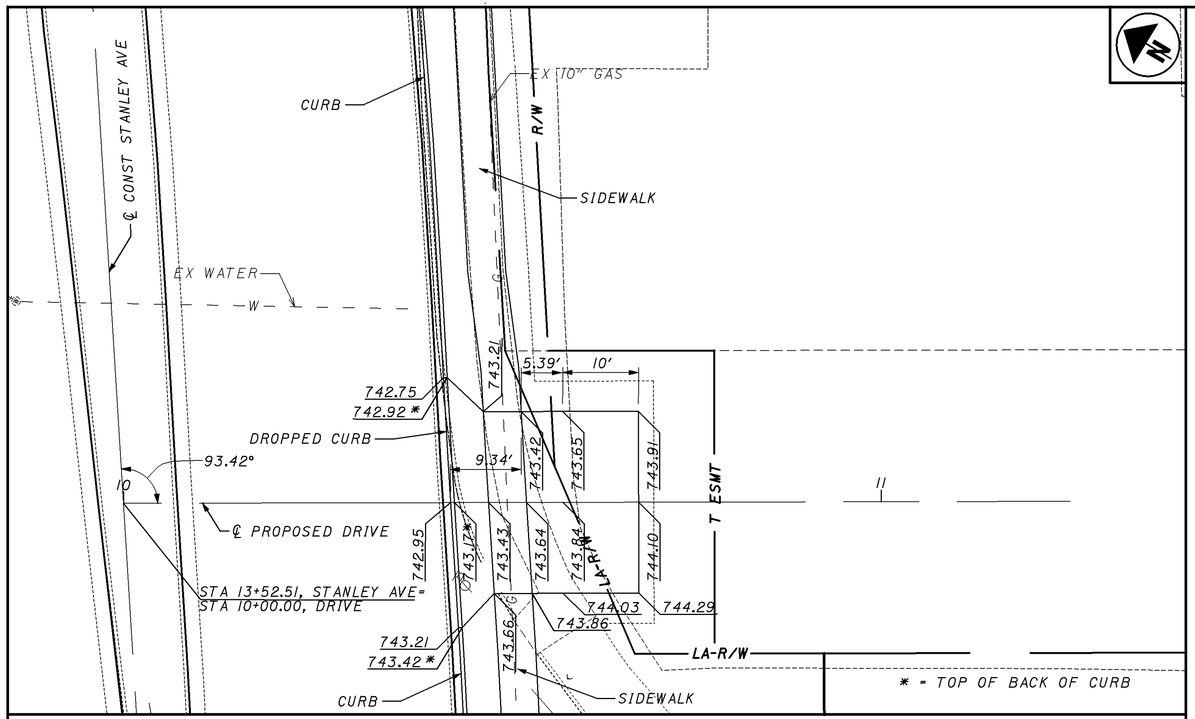
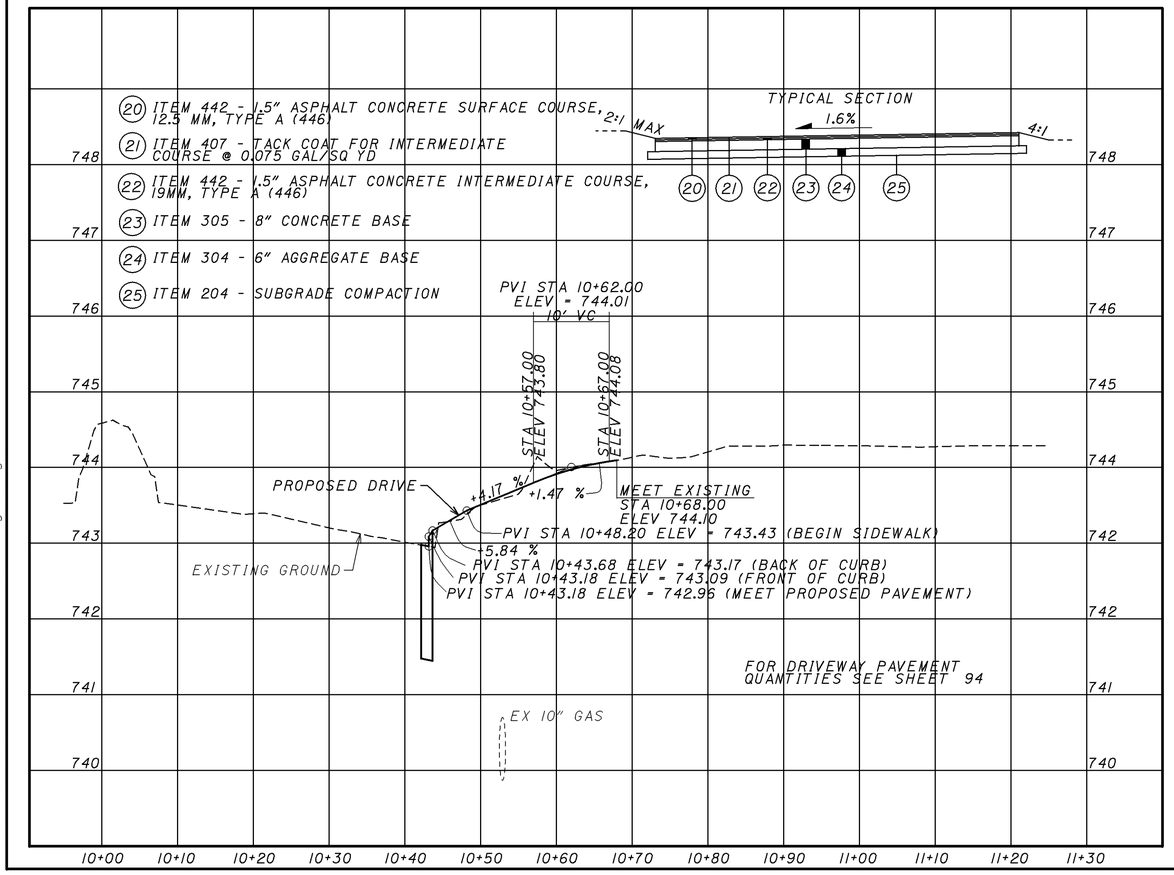
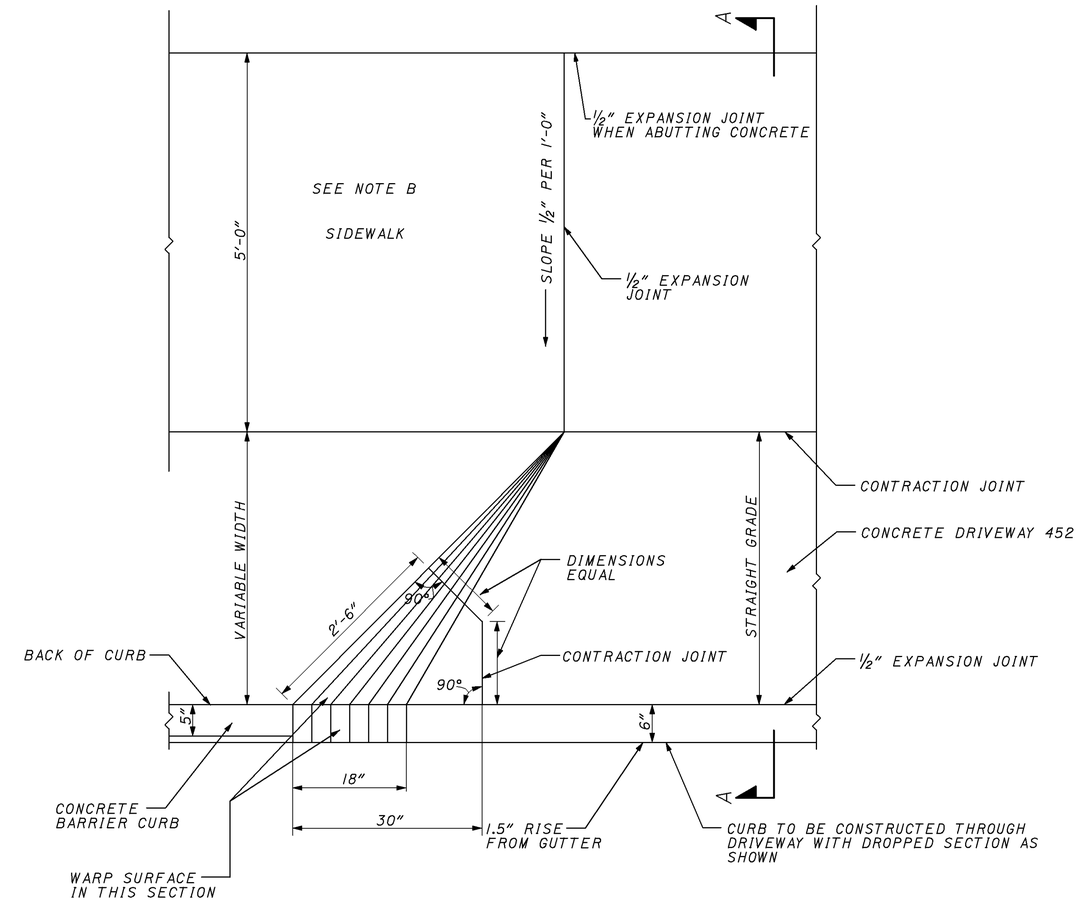
10-20-06

NJ SHAPE BARRIER AT OBSTRUCTIONS (Sht. 2/2)

MOT-75-14.60



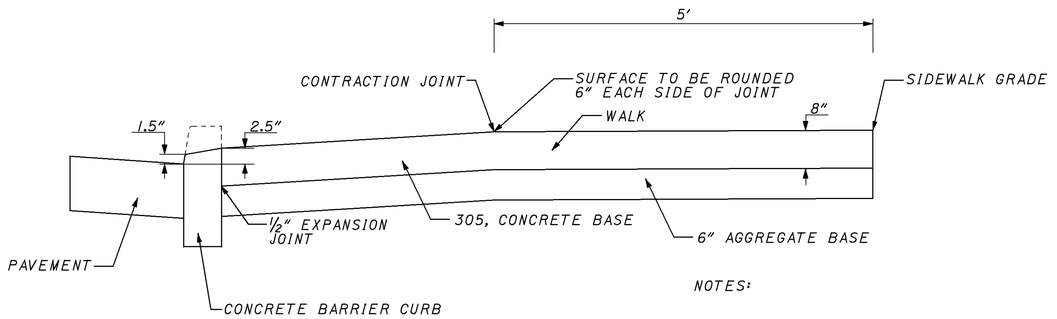




PLAN

CONSTRUCTION FOR DRIVEWAY WITH CURB

(NOT TO SCALE)



SECTION A-A

(NOT TO SCALE)

NOTES:

A) WARP SIDEWALK FROM ¼" PER 1' SLOPE TO ½" PER 1' SLOPE AT DRIVEWAY. THIS WARPING IS TO BE DONE WITHIN 5 TO 10 FEET OF THE DRIVEWAY EDGES.

B) DRIVEWAYS SHALL HAVE A CONTRACTION JOINT CONSTRUCTED IN THE CENTER FOR THE FULL LENGTH OF THE DRIVEWAY

HORIZONTAL SCALE IN FEET
0 5 10 20

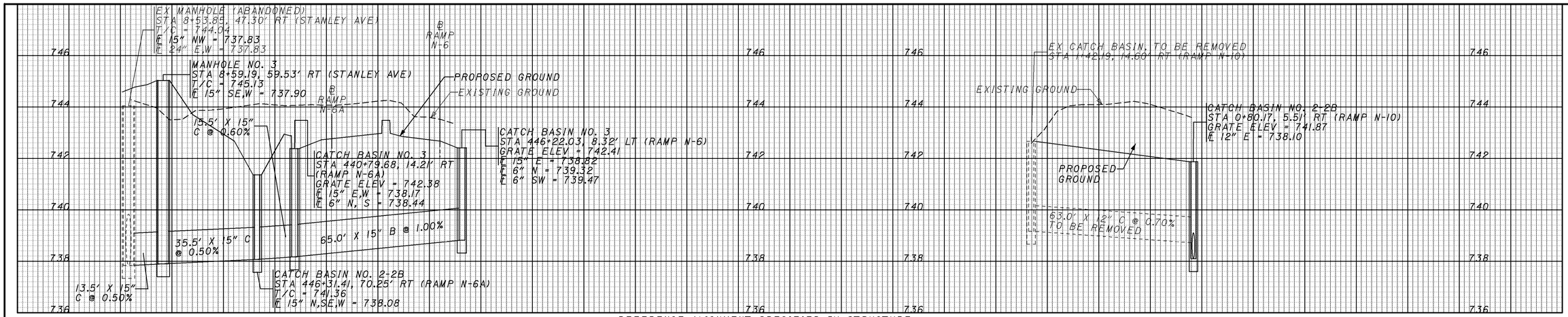
CALCULATED MPD
CHECKED AM

SIMCLAR DRIVE DETAIL

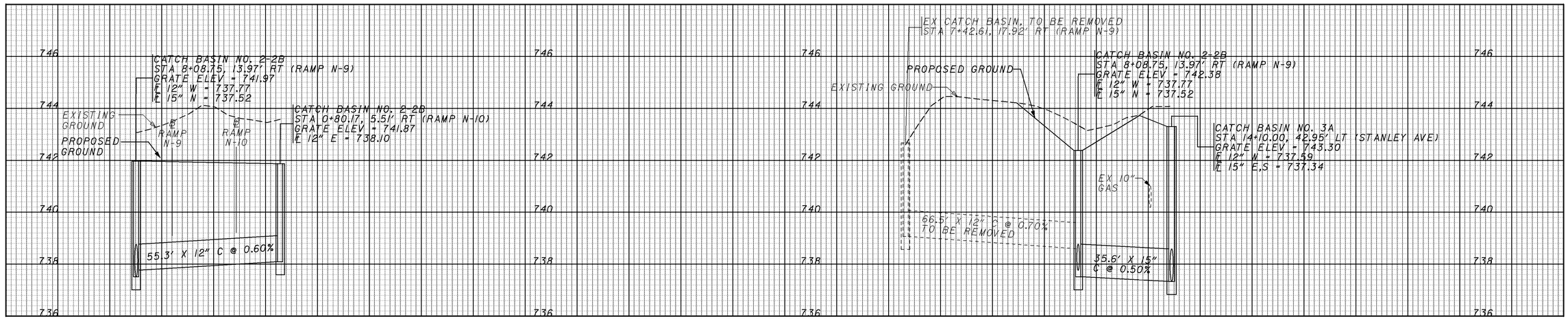
MOT-75-14.60

178
316

Plotted By: jfanthony Date: 7/31/2007 Time: 5:41:30 AM
Filename: G:\C004\0066\Road\Sheets\23828gm04.dgn



REFERENCE ALIGNMENT SPECIFIED BY STRUCTURE



REFERENCE ALIGNMENT SPECIFIED BY STRUCTURE

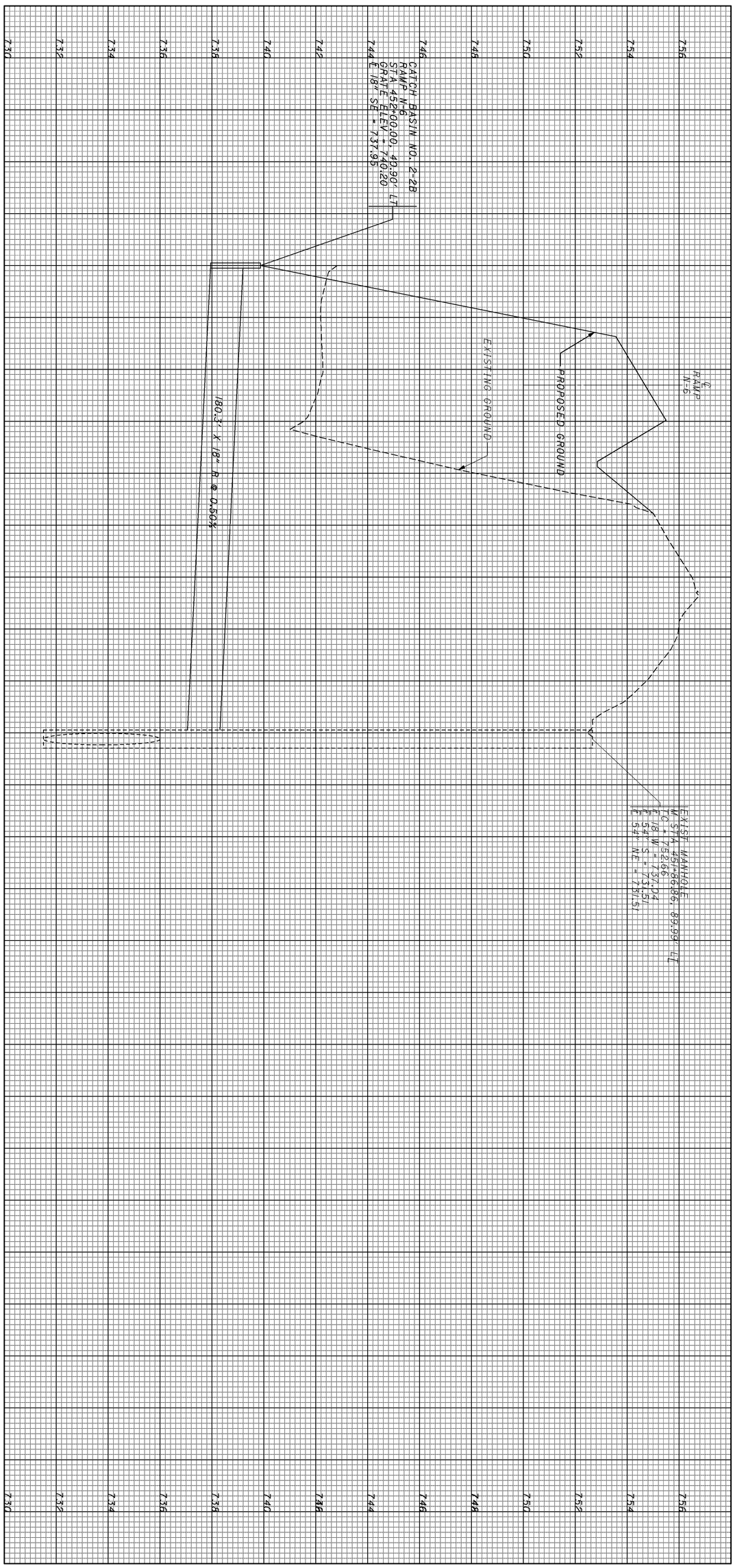
CALCULATED EAK
CHECKED AM

STORM SEWER PROFILES

MOT-75-14.60

Plotted By: Jfanthony Date: 7/31/2007 Time: 7:44:57 AM
Filename: G:\C004\0066\Road\Sheets\23828df01.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:57 AM
Filename: G:\C004\0066\Road\Sheets\23828df02.dgn



316 / 180	MOT-75-14.60	STORM SEWER PROFILES	CALCULATED EAK / CHECKED AM

SHEET NUMBER								FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
182	183		184	185		186		HSP	FED/ STATE	100% LOCAL						
															RAISED PAVEMENT MARKERS, DELINEATORS AND BARRIER REFLECTORS	
						200			200		202	54000	200	EACH	RAISED PAVEMENT MARKER REMOVED	
						56		10	46		620	10300	56	EACH	DELINEATOR, TYPE C, POST MOUNTED	
						26		6	20		620	15300	26	EACH	DELINEATOR, TYPE D, POST MOUNTED	
						249		19	230		621	00100	249	EACH	RPM	
						58			58		626	00100	58	EACH	BARRIER REFLECTOR, TYPE A	
						53			53		626	00200	53	EACH	BARRIER REFLECTOR, TYPE B	
															SIGNING	
			3						3		625	32000	3	EACH	GROUND ROD	
			55	27.5				14	68.5		630	02100	82.5	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
			28	114				56	86		630	03100	142	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
			70.5	35.5				35.5	70.5		630	04100	106	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
				87.2					87.2		630	06500	87.2	FT	GROUND MOUNTED SUPPORT, W6X9 BEAM	
			16.5						16.5		630	08100	16.5	FT	ONE WAY SUPPORT, NO. 4 POST	
				4					4		630	09000	4	EACH	BREAKAWAY BEAM CONNECTION	
			1						1		630	20800	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	**194**
			1						1		630	21000	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	**195**
			1						1		630	31300	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-9.10, DESIGN 3	**196**
			4						4		630	74500	4	EACH	OVERHEAD SIGN SUPPORT, MISC.: ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT	**195**
			82.3	44.1				25.3	101.1		630	80100	126.4	SQ FT	SIGN, FLAT SHEET	
				48					48		630	80200	48	SQ FT	SIGN, GROUND MOUNTED EXTRUSHEET	
			521						521		630	80224	521	SQ FT	SIGN, OVERHEAD EXTRUSHEET	
			121.5	9.5					131		630	80400	131	SQ FT	SIGN, PERMANENT OVERLAY	
			6						6		630	81000	6	EACH	MAINLINE REFERENCE MARKER	
			1	2				1	2		630	81010	3	EACH	RAMP REFERENCE MARKER	
			3						3		630	81020	3	EACH	CONCRETE MEDIAN BARRIER SIGN BRACKET	
				4					4		630	84500	4	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
			2						2		630	84510	2	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
			23	78				6	95		630	84900	101	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				2					2		630	85400	2	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
			20	67				7	80		630	86002	87	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			6	4					10		630	87400	10	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
			1	3					4		630	87500	4	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
			1	5					6		630	89702	6	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	
			4	7					11		631	94412	11	EACH	REMOVAL OF SIGN SERVICE AND DISPOSAL	
															PAVEMENT MARKINGS	
	1.03							0.2	0.83		644	00100	1.03	MILE	EDGE LINE, 4"	
3.17									3.17		644	00101	3.17	MILE	EDGE LINE, AS PER PLAN	**187**
	0.51								0.51		644	00200	0.51	MILE	LANE LINE, 4"	
3.36									3.36		644	00201	3.36	MILE	LANE LINE, AS PER PLAN	**187**
	0.10								0.10		644	00300	0.10	MILE	CENTER LINE	
357	1445							414	1388		644	00400	1802	FT	CHANNELIZING LINE	
	112								112		644	00500	112	FT	STOP LINE	
	340								340		644	00600	340	FT	CROSSWALK LINE	
	48								48		644	00700	48	FT	TRANSVERSE/DIAGONAL LINE	
	57								57		644	00900	57	SQ FT	ISLAND MARKING	
	5								5		644	01300	5	EACH	LANE ARROW	
1962									1962		644	01510	1962	FT	DOTTED LINE, 6"	
0.44									0.44		646	10001	0.44	MILE	EDGE LINE, AS PER PLAN	**187**
0.54									0.54		646	10101	0.54	MILE	LANE LINE, AS PER PLAN	**187**
674									674		646	20501	674	FT	DOTTED LINE, AS PER PLAN	**187**
															ALTERNATE ITEMS	
									0.44		646	10001	0.44	MILE	EDGE LINE, AS PER PLAN (ALTERNATE BID)	**187**
									0.54		646	10101	0.54	MILE	LANE LINE, AS PER PLAN (ALTERNATE BID)	**187**
									674		646	20501	674	FT	DOTTED LINE, AS PER PLAN (ALTERNATE BID)	**187**

CALCULATED SSS
CHECKED HJF

TRAFFIC CONTROL GENERAL SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:36 PM
Filename: G:\C004\0066\Road\STL_ATL\Traffic\Sheets\23828tg01_STL.dgn

SHEET NO.	LOCATION	STATION		SIDE	644					646												
					EDGE LINE, AS PER PLAN, WHITE	EDGE LINE, AS PER PLAN, YELLOW	LANE LINE, AS PER PLAN	CHANNELIZING LINE	DOTTED LINE, AS PER PLAN, WHITE	EDGE LINE, AS PER PLAN, WHITE	EDGE LINE, AS PER PLAN, YELLOW	LANE LINE, AS PER PLAN	DOTTED LINE, AS PER PLAN, WHITE									
		FROM	TO		MILE	MILE	MILE	FT	FT	MILE	MILE	MILE	FT									
	I.R. 75	422+00	455+50	RT			0.63															
	I.R. 75	422+00	455+50	RT			0.63															
	I.R. 75	422+00	440+44	RT	0.35																	
	I.R. 75	427+32	455+50	LT			0.53															
	I.R. 75	427+32	455+50	LT			0.53															
	I.R. 75	427+32	448+13	LT	0.39																	
188	I.R. 75	432+46	436+03	RT					357													
188	I.R. 75	433+04	443+70	LT					1066													
188	I.R. 75	436+03	438+68	RT			0.05															
188	I.R. 75	438+68	440+44	RT				178														
188	I.R. 75	443+70	448+57	LT			0.09															
188	I.R. 75	440+44	454+35	RT	0.26																	
	I.R. 75	422+00	455+50	RT		0.63																
	I.R. 75	427+32	455+50	LT		0.53																
189	I.R. 75	448+57	449+23	LT				66														
189	I.R. 75	449+23	455+28	LT	0.11																	
189	I.R. 75	452+25	455+50	RT	0.06																	
189	I.R. 75	454+35	457+31	RT			0.06															
189	I.R. 75	455+28	456+41	LT				113														
189	I.R. 75	455+50	461+77	LT								0.24										
189	I.R. 75	455+50	461+77	RT								0.24										
189	I.R. 75	455+50	461+77	RT						0.12												
189	I.R. 75	455+50	461+77	RT							0.12											
189	I.R. 75	455+50	461+77	LT							0.12											
189	I.R. 75	456+41	459+49	LT								0.06										
189	I.R. 75	457+43	461+77	LT						0.08												
189	I.R. 75	457+31	461+77	RT									446									
189	I.R. 75	459+49	461+77	LT									228									
190	I.R. 75	461+77	473+21	RT			0.21															
190	I.R. 75	461+77	473+21	RT			0.21															
190	I.R. 75	461+77	473+21	RT		0.21																
190	I.R. 75	461+77	473+21	LT			0.21															
190	I.R. 75	461+77	473+21	LT			0.21															
190	I.R. 75	461+77	473+21	LT		0.21																
190	I.R. 75	461+77	473+21	RT	0.21																	
190	I.R. 75	461+77	473+21	LT	0.21																	
190	I.R. 75	461+77	465+65	RT					388													
190	I.R. 75	461+77	463+28	LT					151													
* = HIGHWAY SAFETY PROGRAM																						
ALLOCATED HSP GRAND TOTAL																						
ALLOCATED FED / STATE GRAND TOTAL					1.59	1.58	3.36	357	1962	0.2	0.24	0.54	674									
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY					3.17		3.36	357	1962	0.44		0.54	674									

CALCULATED SSS
CHECKED HJF

PAVEMENT MARKING SUB-SUMMARY

MOT-75-14.60

182
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:58 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts02.dgn

SHEET NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 EDGE LINE, WHITE, 4" MILE	EDGE LINE, YELLOW, 4" MILE	LANE LINE, 4" MILE	CENTER LINE FT	CHANNELIZING LINE FT	ISLAND MARKING, YELLOW SQ FT	STOP LINE FT	CROSSWALK LINE FT	TRANSVERSE/ DIAGONAL LINE FT	LANE ARROW EACH
191	STANLEY AVENUE	4+50	7+11	RT			0.05							
191	STANLEY AVENUE	4+50	7+74	RT			0.06							
191	STANLEY AVENUE	6+50	7+50	LT			0.02							
191	STANLEY AVENUE	6+50	8+73	LT			0.04							
191	STANLEY AVENUE	6+50	8+73	LT			0.04							
192	STANLEY AVENUE	7+11	8+73	RT					162					
192	STANLEY AVENUE	7+74	8+73	RT					99					
192	STANLEY AVENUE	8+73		RT							41			
192	STANLEY AVENUE	8+76	9+62	RT								86		
192	STANLEY AVENUE	8+90	9+60	RT								70		
192	STANLEY AVENUE	9+62		LT & RT								94		
192	STANLEY AVENUE	9+72		LT & RT								90		
192	STANLEY AVENUE	9+81		LT							49			
192	STANLEY AVENUE	9+81	19+16	RT			0.18							
192	STANLEY AVENUE	9+81	12+49	LT & RT		0.05								
192	STANLEY AVENUE	9+81	12+49	LT & RT		0.05								
192	STANLEY AVENUE	9+81	10+81	LT					100					
192	STANLEY AVENUE	9+81	10+81	LT					100					
192	STANLEY AVENUE	9+81	11+31	LT					150					
192	STANLEY AVENUE	10+81	14+29	LT			0.07							
192	STANLEY AVENUE	10+81	19+16	LT			0.16							
192	STANLEY AVENUE	12+20	12+86	RT					66					
192	STANLEY AVENUE	12+49	12+86	LT				0.01						
192	STANLEY AVENUE	13+20	14+40	LT & RT		0.04				57			48	
192	STANLEY AVENUE	14+40	19+16	CL				0.09						
192	STANLEY AVENUE	7+76		RT										1
192	STANLEY AVENUE	8+44		RT										1
192	STANLEY AVENUE	10+11		LT										1
192	STANLEY AVENUE	10+79		LT										1
192	STANLEY AVENUE	12+56		RT										1
189	RAMP N-6	445+77	457+43	LT	0.22									
189	RAMP N-6	446+12		LT							22			
189	RAMP N-6	446+13	455+28	RT		0.17								
189	RAMP N-6	455+28	456+41	RT					113					
189	RAMP N-6A	440+57	447+10	LT		0.12								
189	RAMP N-6A	440+42	448+13	RT	0.15									
189	RAMP N-6A	447+10	447+73	LT					63					
189	RAMP N-7	446+11	452+25	LT	0.12 *									
189	RAMP N-7	446+11	450+21	RT		0.08 *								
189	RAMP N-7	450+21	454+35	LT					414 *					
188	RAMP N-8	1+01	2+78	LT					178					
188	RAMP N-8	1+01	2+78	LT	0.03									
* = HIGHWAY SAFETY PROGRAM														
ALLOCATED HSP GRAND TOTAL					0.12	0.08			414					
ALLOCATED FED / STATE GRAND TOTAL					0.4	0.43	0.51	0.10	1031	57	112	340	48	5
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY					1.03		0.51	0.10	1445	57	112	340	48	5

CALCULATED SSS CHECKED HJF

PAVEMENT MARKING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:58 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts02.dgn

SHEET	REFERENCE NUMBER	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	625	630																				631
							GROUND ROD	SIGN, FLAT SHEET	SIGN, OVERHEAD EXTRUSHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	ONE WAY SUPPORT, NO. 4 POST	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	OVERHEAD SIGN SUPPORT, TYPE TC-9.10, DESIGN 3	OVERHEAD SIGN SUPPORT, MISC., ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	RAMP REFERENCE MARKER	MAINLINE REFERENCE MARKER	CONCRETE MEDIAN BARRIER SIGN BRACKET	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REVMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	SIGN, PERMANENT OVERLAY	REMOVAL OF SIGN SERVICE AND DISPOSAL
							EACH	SQ FT	SQ FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	EACH
187	S1	IR-75	424+25	RT	E7																						36	
187	S2-S3	IR-75	430+00	LT	R2-1	48x60		20				16.5/17.5													1	2		
188	S4	IR-75	435+04	LT	W4-1R																				1	2		
188	S5a	IR-75	438+25	LT	E1-H3																1							
188	S5	IR-75	438+54	RT	E1-H3																1							
188	S6-S7	IR-75	440+00	CL	D10-H5	14x48													2	1								
189	S8	IR-75	447+16	RT	E7																						36	
189	S9-S10	IR-75	450+00	CL	D10-H5	14x48													2	1								
189	S11-S11a	IR-75	453+04	RT	I-H15	36x24		6		14.5/15.5															1	2		
189	S12	IR-75	455+09	LT	E1-2																1							1
	S13				E1-H3																1			1				
	S14				E1-H3																1							
189	S15	IR-75	455+30	CL	E1-2	180x132	1		165					1				1											
	S17				E1-5	108x24			18																				
189	S16	IR-75	457+53.61	LT	E1-H3	168x72	1		84						1		4												
	S18				E1-5	96x24			16																				
190	S19-S20	IR-75	460+00	CL	D10-H5	14x48													2	1					2	1		
190	S21	IR-75	461+65	LT	I-H2a	40x20																			1	2		
191	S22-S22a	STANLEY AVENUE	6+32	BRIDGE MTD.	E1-H3	96x84			56																			1
190	S23-S24	IR-75	461+77	RT	R2-1	48x60		20				17.5/19													1	2		
190	S25	IR-75	465+87	RT	E1-2																						2	
	S26				E1-H3																1							
190	S27	IR-75	471+41	LT	E7																						43	
191	S28-S29	STANLEY AVENUE	4+50	RT	E1-H3	96x84			56														1					1
192	S30-S31	STANLEY AVENUE	9+82	CL	D3 (2)																				2	1		
	S32				R6-2																				1			
192	S33-S33a	STANLEY AVENUE	8+85	RT	E1-H3	108x84	1		126							1		1										1
192	S34	STANLEY AVENUE	13+83	CL	SPECIAL																				1	1		
	S35				R3-2																				1			
	S36				R4-7B																				1			
192	S37	STANLEY AVENUE	15+95	LT	E1-H3																						4.5	
192	S38	STANLEY AVENUE	18+09	LT	M5-1L	21x15		2.2																				
	S39				M5-1R																				1			
189	S40	RAMP N-6	445+96	RT	R5-1																				1	1		
	S41				R6-1R																				1			
189	S42	RAMP N-6	446+04	RT	D1-H6																				1	2		
189	S43	RAMP N-6	446+18	LT	R5-H10e																				1			
	S44				R5-1																				1	1		
	S45				R6-1R																				1			
189	S46a	RAMP N-6	446+31	LT	R1-2																				1	1		
189	S46	RAMP N-6	446+50	LT	R-15B	30x18		3.8																				
	S47			LT	R5-1	30x30		6.3					16.5																
	S48			LT	R6-1R	36x12		6																				
189	S49	RAMP N-6	451+50	LT	D1-H5	108x24		18		12.5/12.5																		
189	S50	RAMP N-6	449+09	LT	D10-H5a																				1	1		
189	S51	RAMP N-6	449+25	LT	D10-H5a	30x30					14/14									1								
189	S52	RAMP N-6	451+42	RT	R5-1a																				1	1		
* = HIGHWAY SAFETY PROGRAM																												
ALLOCATED HSP GRAND TOTAL																												
ALLOCATED FED / STATE GRAND TOTAL							3	82.3	521.0	55.0	28.0	70.5	16.5	1	1	1	4	2	1	6	3	6	1	1	22	19	121.5	4
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY							3	82.3	521.0	55.0	28.0	70.5	16.5	1	1	1	4	2	1	6	3	6	1	1	23	20	121.5	4

CALCULATED SSS
CHECKED HJF

SIGNING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:37 PM
Filename: G:\C004\0066\Road\STL_ATL\Traffic\Sheets\23828ts03_STL.dgn

SHEET	REFERENCE NUMBER	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630																631						
							SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED SUPPORT, W6X9 BEAM	BREAKAWAY BEAM CONNECTION	RAMP REFERENCE MARKER	GROUND MOUNTED BEAM SUPPORT FOUNDATION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REVMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	SIGN, PERMANENT OVERLAY	REMOVAL OF SIGN SERVICE AND DISPOSAL						
							SQ FT	SQ FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	EACH						
189	S53-S53a	RAMP N-6	451+50	LT & RT	R5-1a	36x24	12			14.5/14.5																			
189	S54-S55	RAMP N-6	454+12	RT	D10-H7														2	1									
189	S56-S57	RAMP N-6	454+25	LT	D10-H7	2 (18x12)	3		13.5																				
189	S58	RAMP N-6	454+52	LT	E5-1a	72x60		30				18.6/18.2	2		2														
189	S59	RAMP N-6A	440+62	RT	R-15B														1	1									
189	S60	RAMP N-6A	440+90	RT	R-15B	30x18	3.8		13.5/13.5																				
189	S61-S62	RAMP N-6A	444+17	RT	D10-H5a	30x30				14.5/14.5				1					1	1									
189	S63-S64	RAMP N-7	446+53	RT	R5-H10e	30x30	6.3 *			14/14 *									1 *	1 *									
189	S65-S66	RAMP N-7	447+44	RT	D10-H5a	30x30				14/14 *				1 *					1 *	1 *									
189	S67-S70	RAMP N-7	449+24	RT	D10-H7	2 (18x12)	3 *		14 *										2 *	1 *									
189	S71-S72	RAMP N-7	449+64	LT	W4-1R	48x48	16 *				17/18.5 *								1 *	2 *									
189	S73	RAMP N-7	451+44	RT	R1-2														1 *	2 *									
190	S74-S82	RAMP N-4	0+00 to 9+49	LT & RT															9	13									
190	S83-S87	RAMP N-5	0+00 to 8+85	LT & RT															3	9	2								
188	S88-S98	RAMP N-9	0+00 to 8+85	LT & RT															11	10									
188	S99-S103	RAMP N-10	0+00 to 13+77	RT													1		4	4			1						
188	S104-S108	RAMP N-11	0+00 to 2+59	LT & RT															5	4									
187	S109-S114	HILLROSE AVENUE	427+00 to 432+0	LT & RT															6	5									
193	S115	KEOWEE STREET														1		1					1						
193	S116	KEOWEE STREET														1		1					1						
193	S117-S118	KEOWEE STREET															2	1					2						
193	S119	KEOWEE STREET																	1										
193	S120	KEOWEE STREET														1		1					1						
193	S121-S127	KEOWEE STREET																	7	1									
193	S128	KEOWEE STREET														1		1					1						
193	S129	HILLROSE AVENUE																	1	1									
193	S130	HILLROSE AVENUE																	1	2									
193	S131-S133	LEO STREET																	3	1									
193	S134	LEO STREET																	1	1									
193	S135	LEO STREET																	1	1									
193	S136-S137	LEO STREET																	2	1									
193	S138	LEO STREET																	1										
193	S139	LEO STREET																	1										
193	S140	LEO STREET																	1										
193	S141-S142	NEVA DRIVE																	2	1									
193	S143-S145	NEVA DRIVE																	3	1									
193	S146	IR-75	481+50	RT																		1.6							
193	S147	IR-75	483+50	RT																		1.6							
193	S148	IR-75	514+18	LT																		4.7							
193	S149	IR-75	514+18	LT																		1.6							
193	S150-S151	KEOWEE STREET																	2	1									
193	S152-S153	LEO STREET																	2	1									
193	S154	RAMP N-8	7+00	LT															1										
190	S155	IR-75	461+65	LT	E8-H2	72x36		18				26.0/24.4	2		2														
* = HIGHWAY SAFETY PROGRAM																													
ALLOCATED HSP GRAND TOTAL							25.3		14	56	35.5			1					6	7									
ALLOCATED FED / STATE GRAND TOTAL							18.8	48	13.5	58		87.2	4	1	4	4	3	5	72	60	2	9.5	7						
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY							44.1	48	27.5	114	35.5	87.2	4	2	4	4	3	5	78	67	2	9.5	7						

CALCULATED SSS
CHECKED HJF

SIGNING SUB-SUMMARY

MOT-75-14.60

185
316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:37 PM
Filename: G:\C004\0066\Road\STL_ATL\Traffic\Sheets\23828ts03_STL.dgn

SHEET NO.	LOCATION	STATION FROM	STATION TO	SIDE	INTERVAL	202 RPM REMOVED	620 DELINEATOR, TYPE C, POST MOUNTED	620 DELINEATOR, TYPE D, POST MOUNTED	621 RPM, WHITE	621 RPM, WHITE/RED	621 RPM, YELLOW/RED	626 BARRIER REFLECTOR, TYPE A	626 BARRIER REFLECTOR, TYPE B
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
	I.R. 75	422+00	473+21	RT	120	44			44				
	I.R. 75	422+00	473+21	RT	120	44			44				
	I.R. 75	427+32	473+21	LT	120	40			40				
	I.R. 75	427+32	473+21	LT	120	40			40				
	I.R. 75	443+70	448+57	LT	120	6							
189	I.R. 75	454+35	457+31	RT	120	4							
188	I.R. 75	436+03	438+68	RT	120	4							
189	RAMP N-6	446+12	450+52	LT	40	12			11				
189	RAMP N-6	450+52	454+52	LT	80	6			5				
188	I.R. 75	438+68	440+44	RT	40					6			
188	I.R. 75	438+68	440+44	RT	40					6			
189	RAMP N-6A	440+63	447+10	LT	80						10		
189	I.R. 75	448+57	449+23	LT	40					3			
189	RAMP N-6	446+19	455+30	LT	80						13		
189	I.R. 75	455+28	456+41	LT	40					4			
189	I.R. 75	455+28	456+41	LT	40					4			
189	RAMP N-7	446+11	450+21	RT	80						7 *		
189	RAMP N-7	450+30	454+35	RT	40					12 *			
189	RAMP N-6	445+50	449+56	LT	50		10						
189	RAMP N-6	449+56	455+30	LT	75		10						
189	RAMP N-6	449+56	455+30	RT	75			10					
189	RAMP N-6	455+30	457+43	LT	90		4						
189	RAMP N-6	457+43	463+28	LT	200		4						
189	RAMP N-6A	439+95	448+13	RT	50		18						
189	RAMP N-6A	444+00	448+13	LT	50			10					
189	RAMP N-7	446+11	450+21	LT	90			6 *					
189	RAMP N-7	446+11	450+21	RT	90		6 *						
189	RAMP N-7	450+21	454+35	RT	200		4 *						
189	I.R. 75	453+27	455+76	CL	50								12
189	I.R. 75	453+50	455+76	RT	100								4
189	I.R. 75	455+60	461+51	LT	100								7
189	I.R. 75	455+76	461+70	RT	100								7
189	I.R. 75	455+76	461+51	CL	100								14
190	I.R. 75	461+51	462+60	CL	100								6
187	I.R. 75	426+78	432+42	RT	100							7	
188	I.R. 75	438+07	444+59	LT	100							8	
189	RAMP N-6A	445+00	447+64	RT	50							7	
189	I.R. 75	447+72	453+50	RT	100							7	
189	RAMP N-6	449+05	455+54	LT	50							14	
190	I.R. 75	461+70	468+25	RT	100							8	
190	I.R. 75	461+51	463+40	LT	100								3
190	I.R. 75	463+40	468+60	LT	100							7	
* = HIGHWAY SAFETY PROGRAM													
ALLOCATED HSP GRAND TOTAL							10 *	6 *		12 *	7 *		
ALLOCATED FED / STATE GRAND TOTAL						200	46	20	184	23	23	58	53
GRAND TOTAL CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						200	56	26	249			58	53

CALCULATED SSS
CHECKED HJF

RPM, DELINEATOR, AND REFLECTOR SUB-SUMMARY

MOT-75-14.60

186
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:44:59 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ts01.dgn

PAVEMENT MARKING LEGEND

- (WE) EDGE LINE (WHITE)
- (YE) EDGE LINE (YELLOW)
- (LL) LANE LINE
- (YD) DOTTED LINE (YELLOW)
- (WD) DOTTED LINE (WHITE)
- (DY) CENTER LINE (SOLID, DOUBLE)
- (SB) CENTER LINE (BROKEN, SINGLE)
- (CH) CHANNELIZING LINE
- (SL) STOP LINE
- (XW) CROSSWALK LINE
- (YT) TRANSVERSE LINE (YELLOW)
- (IY) ISLAND MARKING (YELLOW)
- (A) LANE ARROW
- (W) WORD ON PAVEMENT

SIGNING LEGEND

EXISTING SIGN

PROPOSED/REPLACED SIGN

EXISTING SIGN TO BE REMOVED

TRAFFIC CONTROL GENERAL NOTES

ITEM 644, THERMOPLASTIC PAVEMENT MARKING, AS PER PLAN

THE MARKINGS FURNISHED SHALL BE 6" LINES.

PAYMENT SHALL BE AT THE NORMAL CONTRACT UNIT PRICE AS SPECIFIED IN ITEM 644.

ITEM 646, EPOXY PAVEMENT MARKING, AS PER PLAN

THE EPOXY PAVEMENT MARKING MATERIAL FURNISHED UNDER THESE ITEMS SHALL BE EPOPLEX LS-60 AS FURNISHED BY EPOPLEX, MAPLE SHADE, NEW JERSEY.

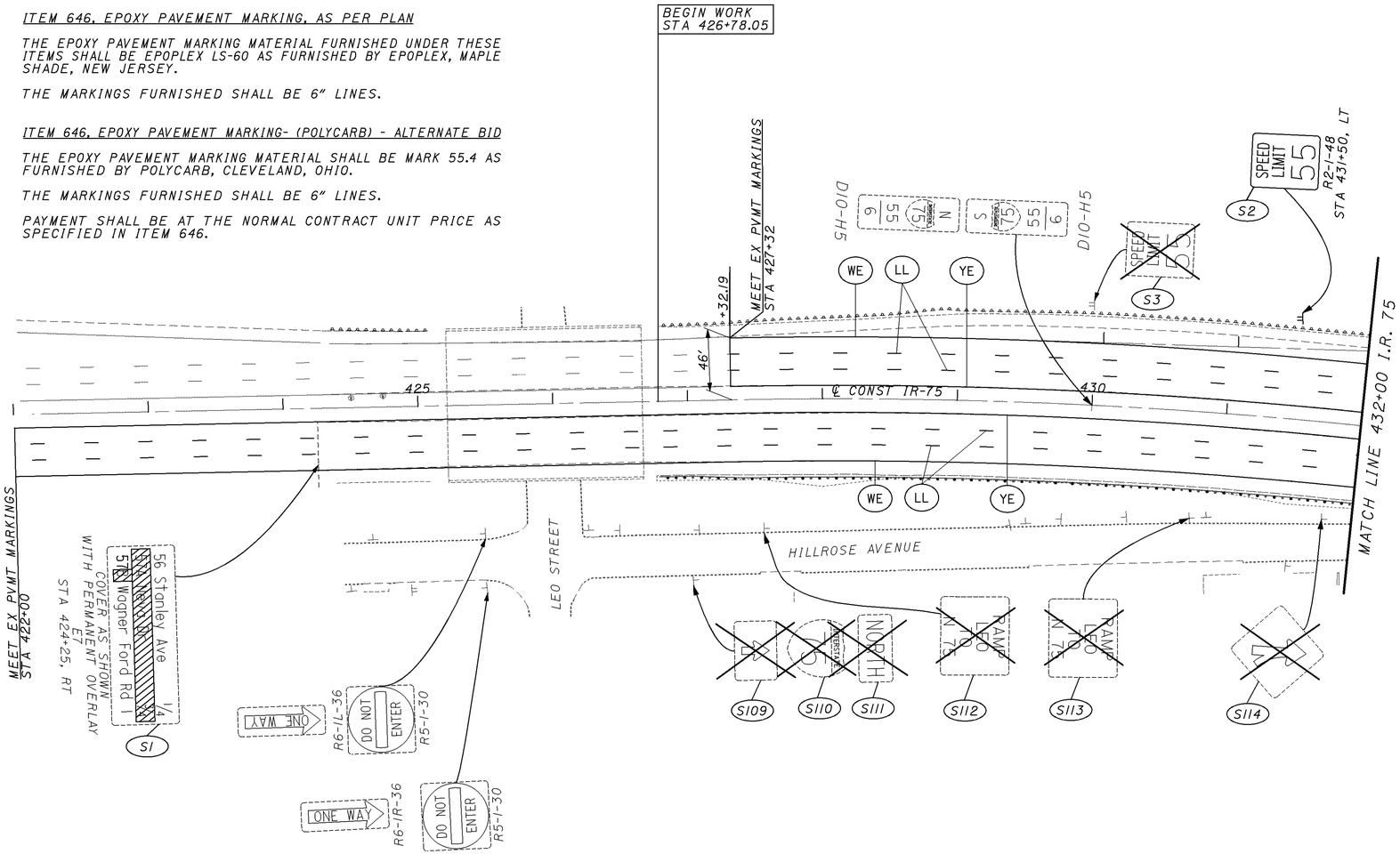
THE MARKINGS FURNISHED SHALL BE 6" LINES.

ITEM 646, EPOXY PAVEMENT MARKING- (POLYCARB) - ALTERNATE BID

THE EPOXY PAVEMENT MARKING MATERIAL SHALL BE MARK 55.4 AS FURNISHED BY POLYCARB, CLEVELAND, OHIO.

THE MARKINGS FURNISHED SHALL BE 6" LINES.

PAYMENT SHALL BE AT THE NORMAL CONTRACT UNIT PRICE AS SPECIFIED IN ITEM 646.



NOTE:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

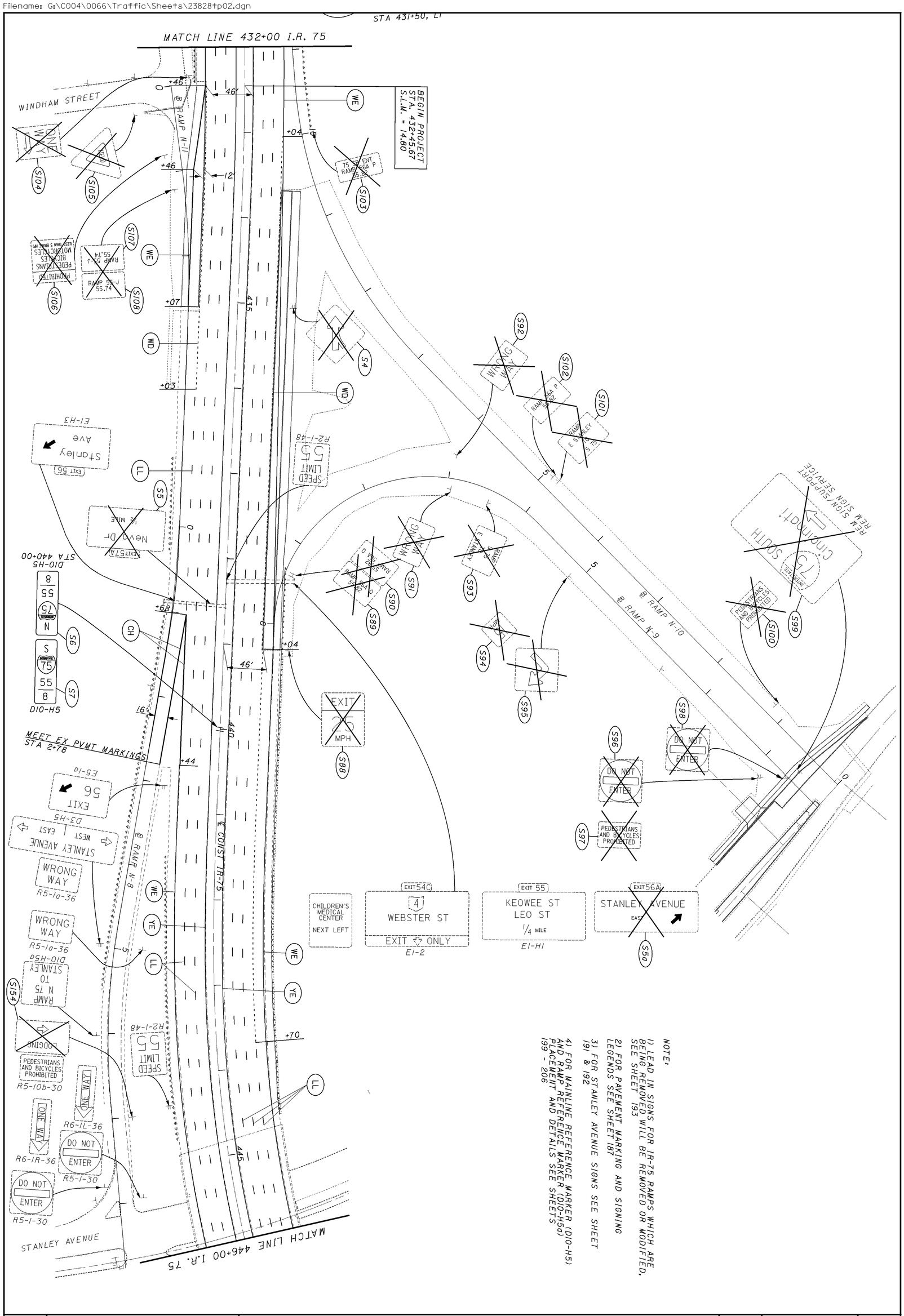
SIGNING AND PAVEMENT MARKINGS
IR-75 STA 422+00 TO 432+00

MOT-75-14.60

187
316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:39 PM
Filename: G:\C004\0066\Traffic\Sheets\23828tp01.dgn

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:03 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp02.dgn



NOTE:

1) LEAD-IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

2) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

3) FOR STANLEY AVENUE SIGNS SEE SHEET 191 & 192

4) FOR MAINLINE REFERENCE MARKER (D10-H5) AND RAMP REFERENCE MARKER (D10-H5a) PLACEMENT AND DETAILS SEE SHEETS 199 - 206

316 / 188	MOT-75-14.60	SIGNING AND PAVEMENT MARKINGS IR-75 STA 432+00 TO 446+00	CALCULATED SSS / CHECKED HJF	0 50 25 100 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:43 PM
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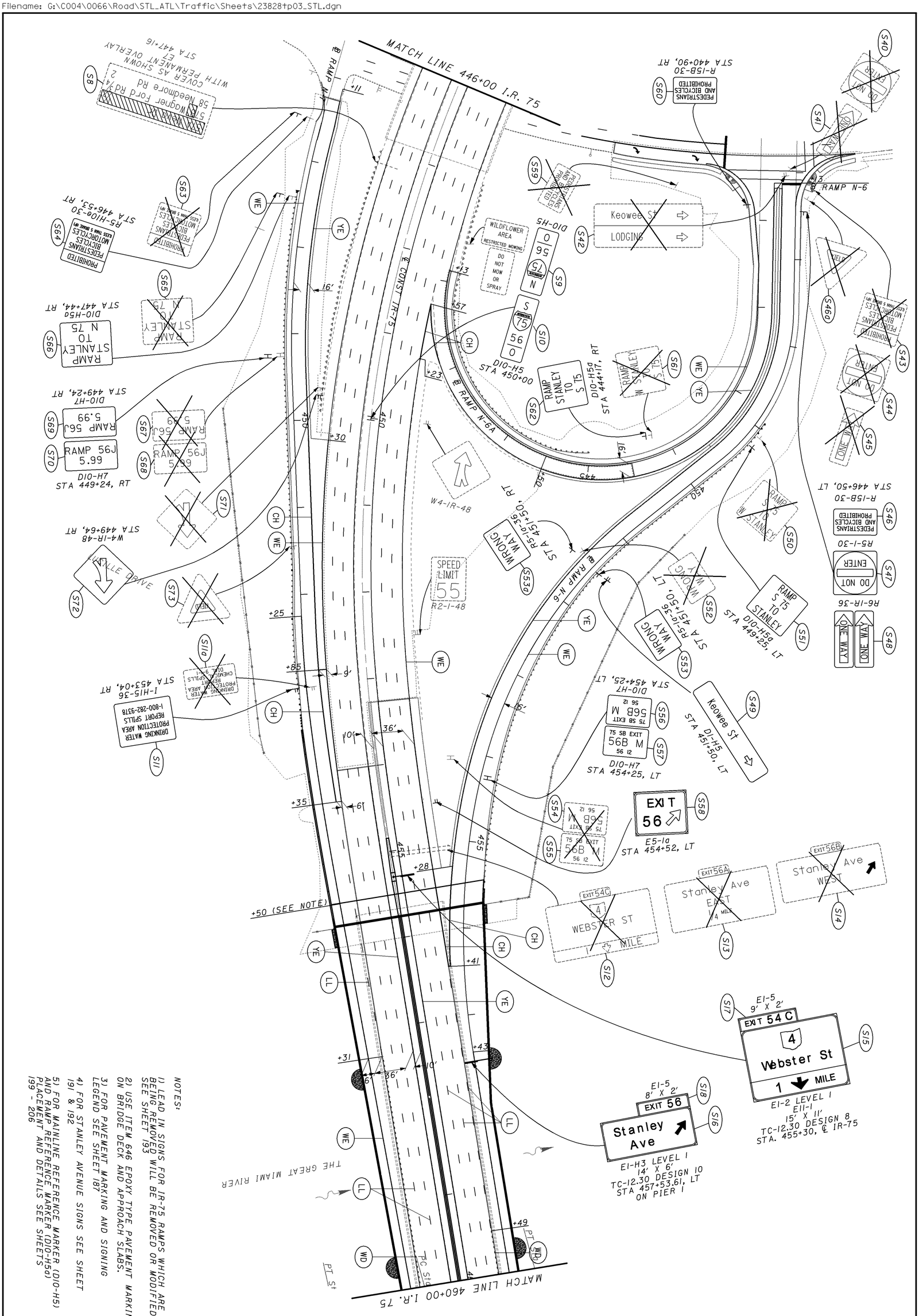

NOTES:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

2) USE ITEM 646 EPOXY TYPE PAVEMENT MARKINGS ON BRIDGE DECK AND APPROACH SLABS.

3) FOR PAVEMENT MARKING AND SIGNING LEGEND SEE SHEET 187.

4) FOR STANLEY AVENUE SIGNS SEE SHEET 191 & 192

5) FOR MAINLINE REFERENCE MARKER (D10-H5) AND RAMP REFERENCE MARKER (D10-H5a) PLACEMENT AND DETAILS SEE SHEETS 199 - 206

316 / 189	MOT-75-14.60	SIGNING AND PAVEMENT MARKINGS IR-75 STA 446+00 TO 460+00	CALCULATED SSS / CHECKED HJF	0 50 25 100 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:45 PM
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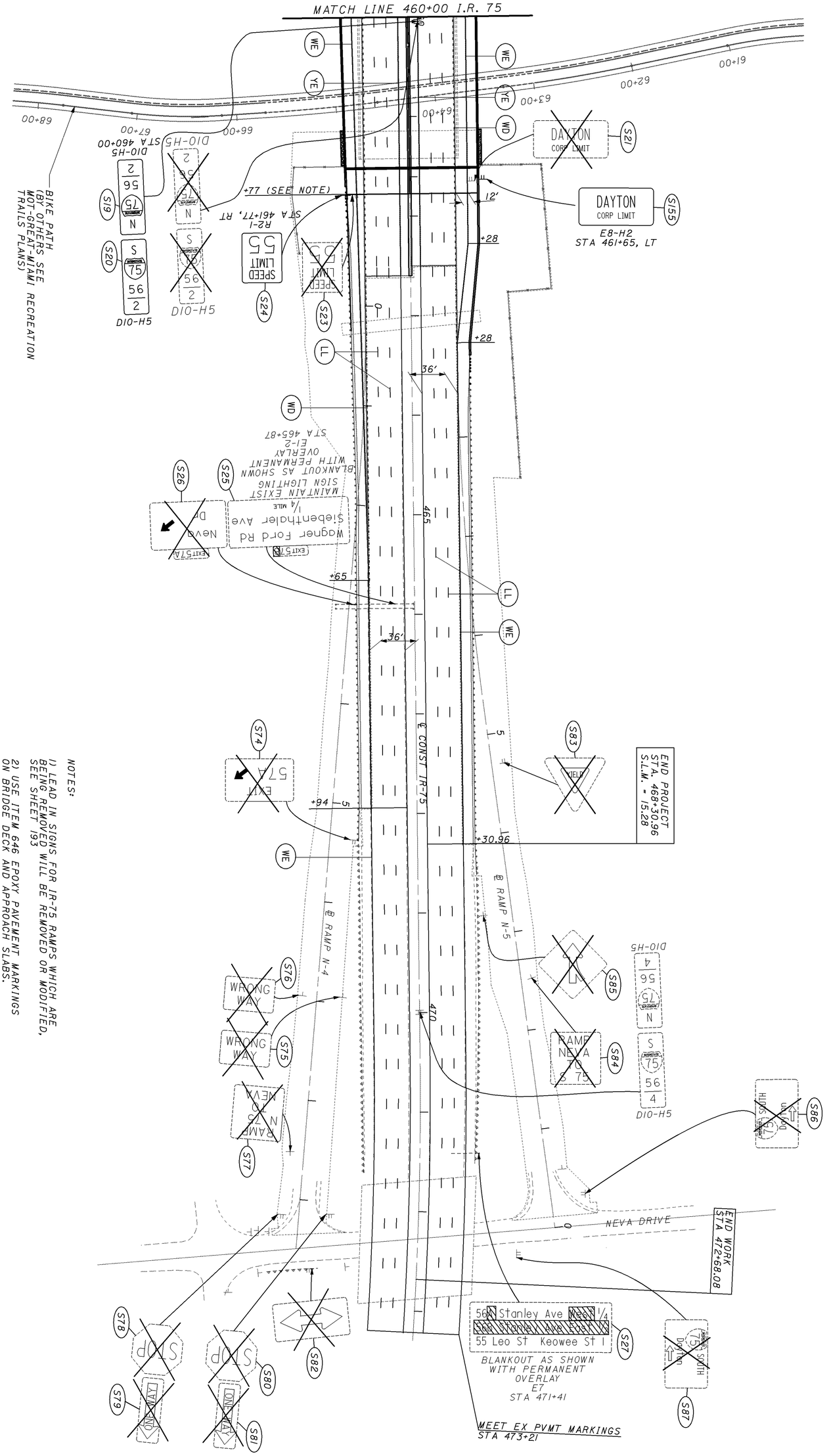


NOTES:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

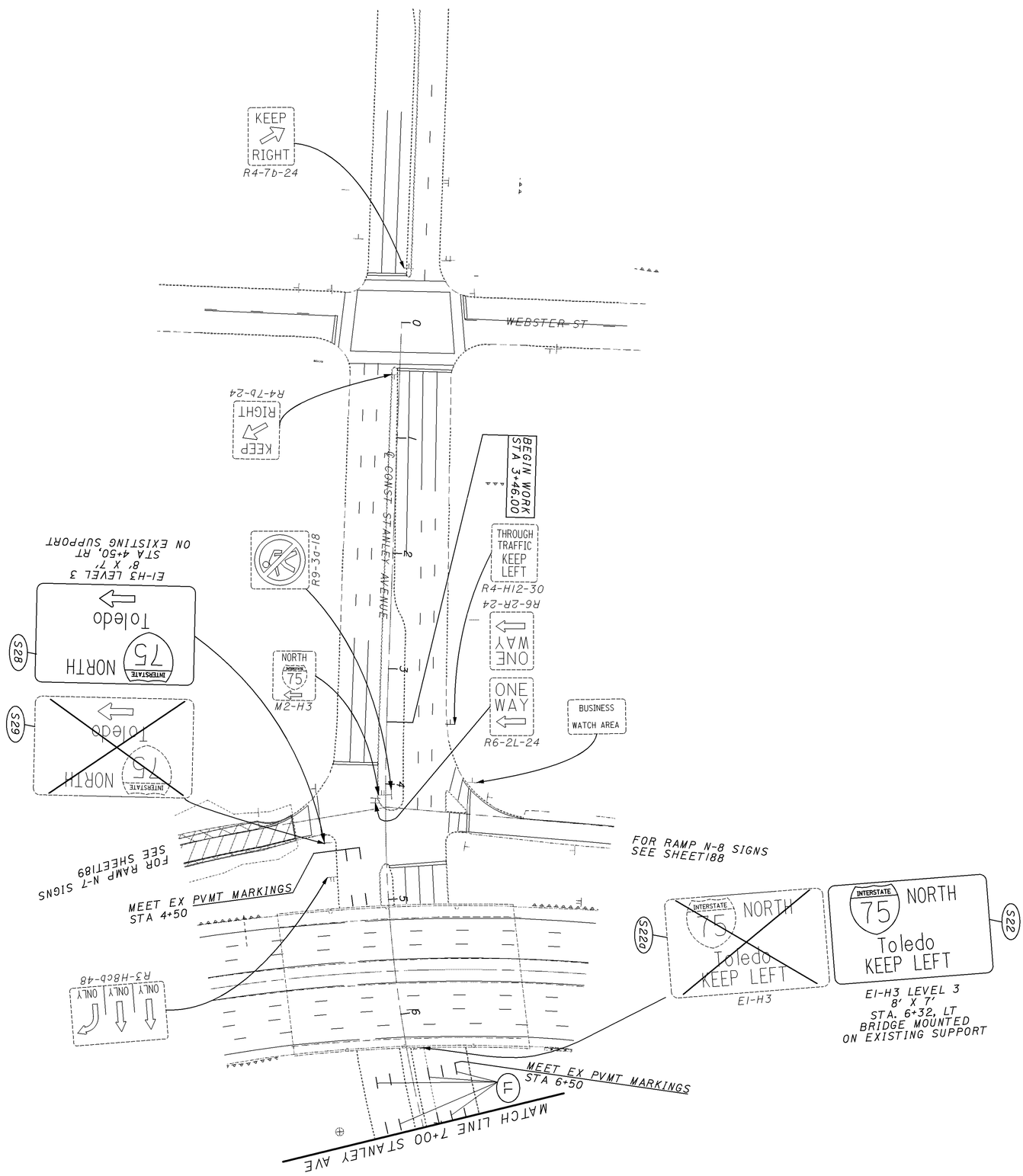
2) USE ITEM 646 EPOXY PAVEMENT MARKINGS ON BRIDGE DECK AND APPROACH SLABS.

3) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

4) FOR MAINLINE REFERENCE MARKER (DIO-H5) AND RAMP REFERENCE MARKER (DIO-H5a) PLACEMENT AND DETAILS SEE SHEETS 199 - 206

316 / 190	MOT-75-14.60	SIGNING AND PAVEMENT MARKINGS IR-75 STA 460+00 TO 475+00	CALCULATED SSS / CHECKED HJF	0 50 25 100 HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:11 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp_stanley01.dgn



NOTES:

1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED, SEE SHEET 193

2) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

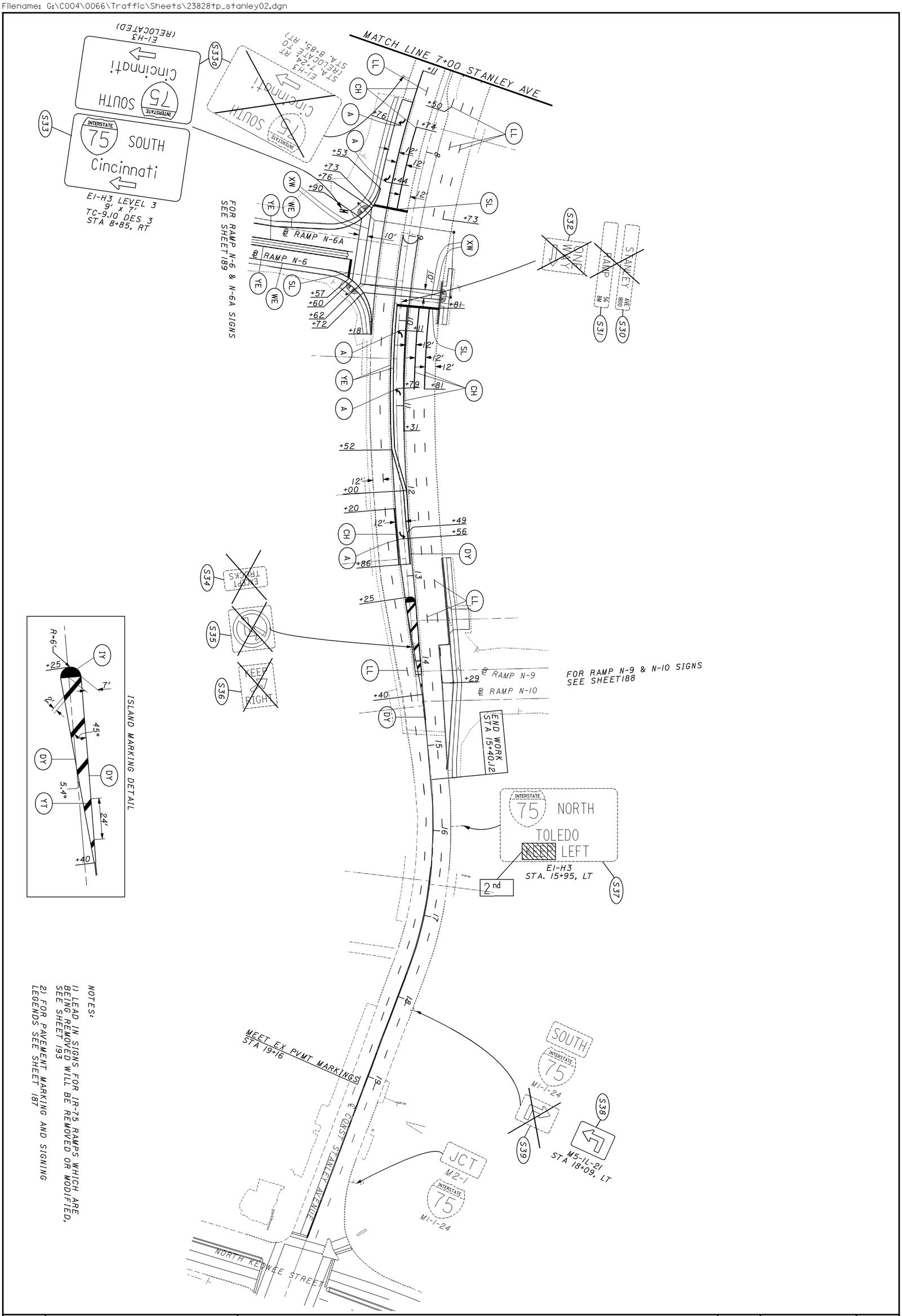
MOT-75-14.60

SIGNING & PAVEMENT MARKINGS
STANLEY AVENUE STA 0+00 TO STA 7+00

CALCULATED SSS
CHECKED HJF

0 50
25 100
HORIZONTAL SCALE IN FEET

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:11 AM
Filename: G:\C004\0066\Traffic\Sheets\23828tp_stanley02.dgn



NOTES:
1) LEAD IN SIGNS FOR IR-75 RAMPS WHICH ARE BEING REMOVED WILL BE REMOVED OR MODIFIED. SEE SHEET 193
2) FOR PAVEMENT MARKING AND SIGNING LEGENDS SEE SHEET 187

316 / 192	MOT-75-14.60	SIGNING & PAVEMENT MARKINGS STANLEY AVENUE STA 7+00 TO STA 19+16	CALCULATED SSS / CHECKED HJF	0 50 25 100 HORIZONTAL SCALE IN FEET

BEGIN PROJECT
STA 432+45.67
SLM 14.60
E033(774)

END PROJECT
STA. 468+30.96
SLM 15.28
E033(774)

KEOWEE STREET
STANLEY AVENUE
MCCOOK AVENUE
E HELENA STREET
HALL AVENUE
HILLROSE AVENUE
WEBSTER STREET
LEO STREET
WINDHAM STREET
THE GREAT MIAMI RIVER
RAMP N-6
RAMP N-6A
RAMP N-7
RAMP N-8
RAMP N-11
℄ CONST IR 75
NEVA DRIVE
WAGNER FORD ROAD
KEENAN AVENUE

BIKE PATH
(BY OTHERS SEE
MOT-GREAT-MIAMI
RECREATION
TRAILS PLANS)

S128 REM OVHD SIGN SUPPORT Cincinnati 2 MILE REM SIGN SERVICE
S127 S126 S125 S124 S123 S122 S121
REM OVHD SIGN SUPPORT Cincinnati 1 MILE REM SIGN SERVICE
S120
S119
S140
S137
S136
S138
S139
S129
S135
S130
S134
S133
S132
S131
S152
S153
S150
S151
REM OVHD SIGN/SUPPORT REM SIGN SERVICE
S116
REM OVHD SIGN/SUPPORT KEEP RIGHT TO GO REM SIGN SERVICE
S115
REM OVHD SIGN/SUPPORT TO GO REM SIGN SERVICE
S117
REM OVHD SIGN SUPPORT TO GO REM SIGN SERVICE
S118

S149 (EXIT 57) Neff Rd Wagner Ford Rd Siebenthaler Ave
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±

S148 (EXIT 56) Stanley Ave 1 MILE
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 514+18±

S145 S144 S143 S142 S141
S147 EXIT 57
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 483+50±, RT
S146 (EXIT 57) Wagner Ford Rd Siebethaler Ave
BLANKOUT AS SHOWN WITH PERMANENT OVERLAY STA 481+50±, RT

SIGN LEGEND

EXISTING SIGN

PROPOSED/REPLACED SIGN

EXISTING SIGN TO BE REMOVED

NOTES:

1) SIGNS SHOWN ARE LEAD-IN SIGNS THAT WILL BE MODIFIED OR REMOVED AND OTHER SIGNING MODIFICATIONS BEYOND THE PROJECT LIMITS

N

0 200 400 800
HORIZONTAL SCALE IN FEET

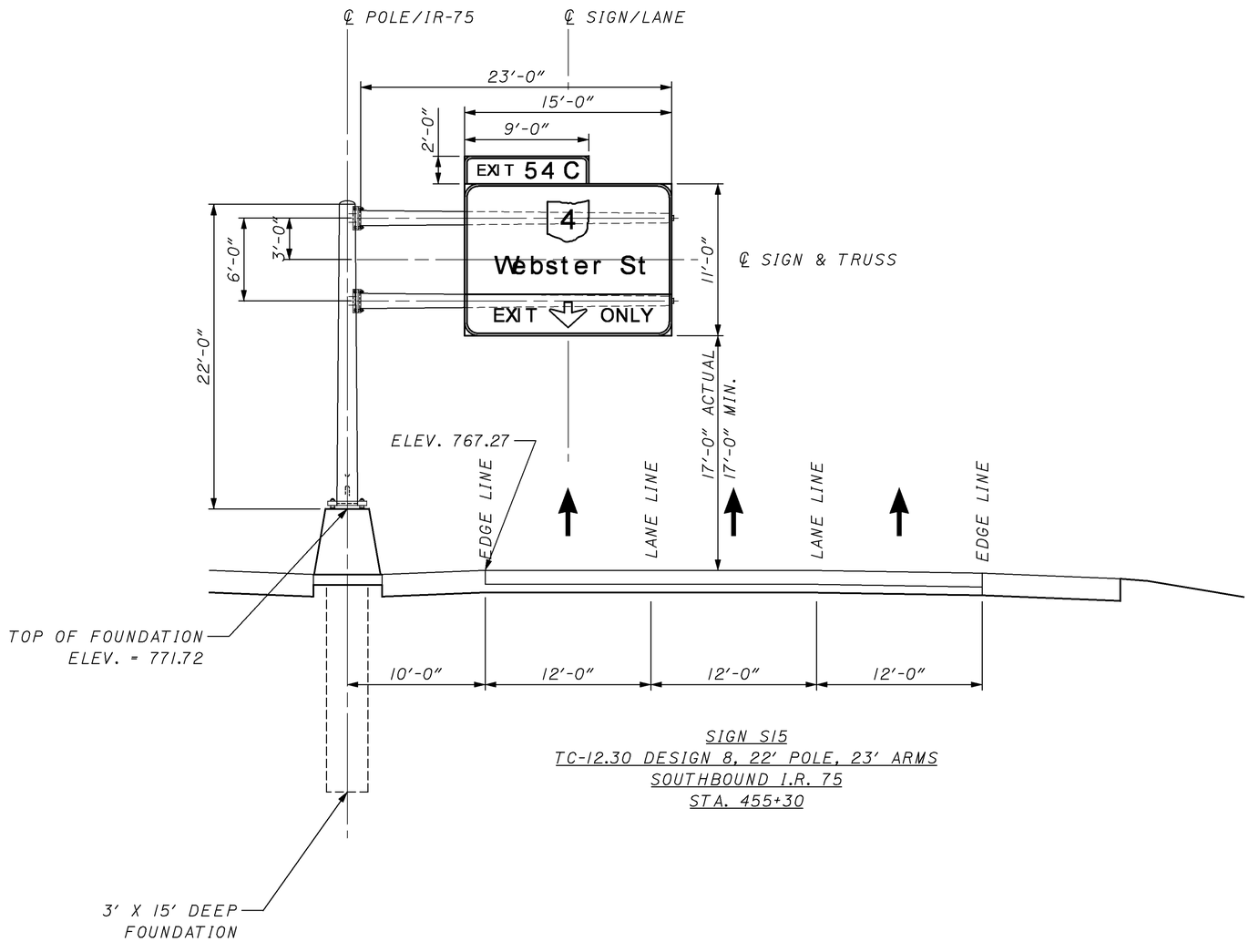
CALCULATED SSS
CHECKED HJF

LEAD-IN SIGNS & SIGNS BEYOND PROJECT LIMITS

MOT-75-14.60

193
316

Plotted By: jfanthony Date: 8/1/2007 Time: 4:58:46 PM
Filename: G:\C004\0066\Road\STL_ATL\Traffic\Sheets\23828tp_ir75_leadin_STL.dgn



SIGN S15
TC-12.30 DESIGN 8, 22' POLE, 23' ARMS
SOUTHBOUND I.R. 75
STA. 455+30

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:13 AM
Filename: G:\C004\0066\Traffic\Sheets\23828te01.dgn

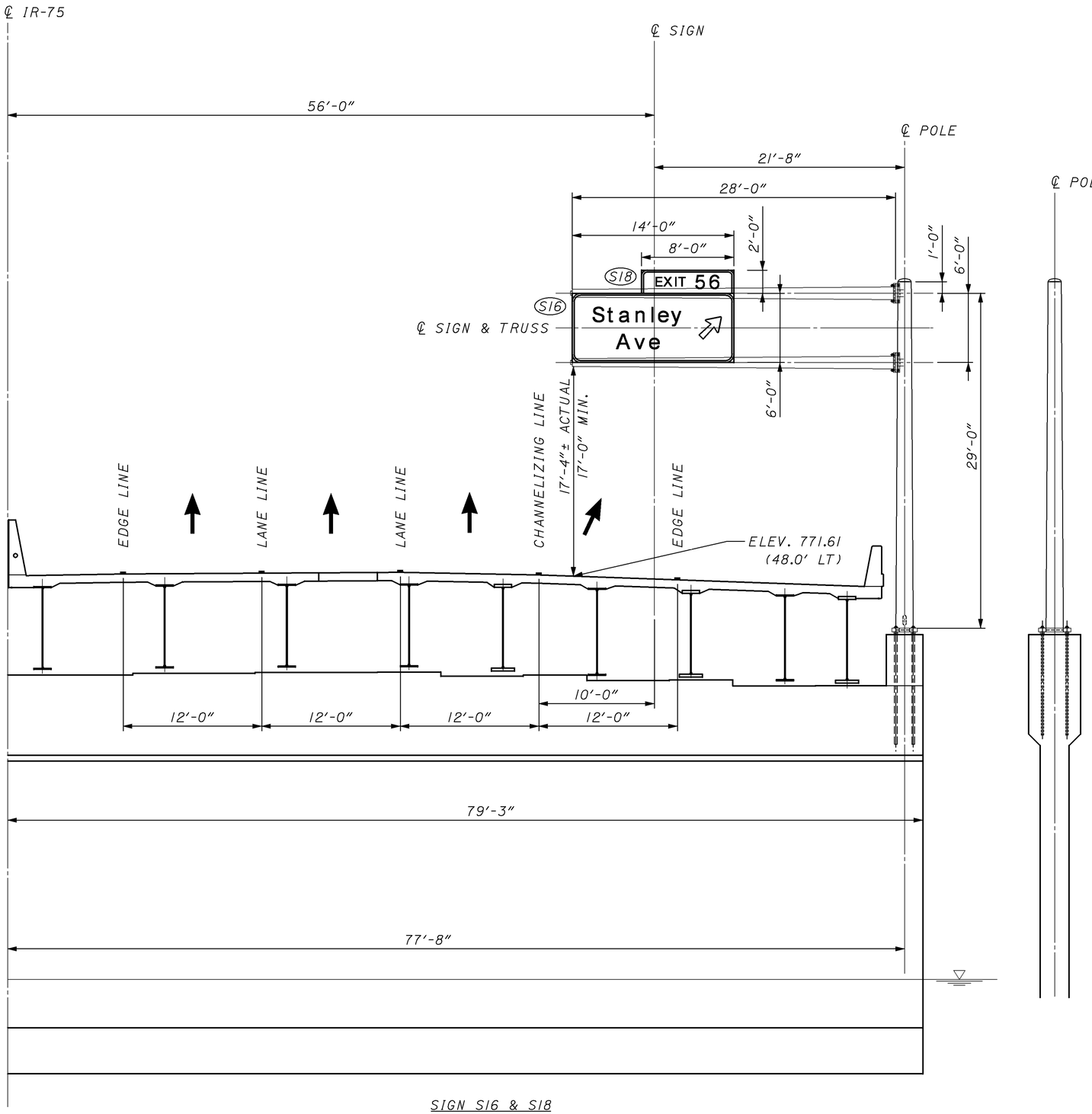
HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED SSS
CHECKED HJF

SIGN ELEVATIONS
S15 & S17

MOT-75-14.60

194
316



SIGN S16 & S18
TC-12.30 DESIGN 10, 30′ POLE, 28′ ARMS
SOUTHBOUND IR-75
STA. 457+53.61, LT

NOTES:

ANCHOR BOLTS SUPPLIED WITH SIGN SUPPORT SHALL BE PLACED IN PIER CAP. SEE BRIDGE PLANS FOR PIER AND ADDITIONAL DETAILS.

630, OVERHEAD SIGN SUPPORT, MISC.: ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT

WHEN A SIGN SUPPORT IS MOUNTED ON A BRIDGE PIER, THE ANCHOR BOLTS SUPPLIED WITH THE SUPPORTS SHALL BE USED.

IN ADDITION, THERE IS NO FOUNDATION CONSTRUCTION ITEM IN WHICH TO INCLUDE THE SETTING OF THE ANCHOR BOLTS. THUS, THE SETTING OF THE ANCHOR BOLTS INTO THE PIER IS ALSO PART OF THIS WORK. THE SETTING OF THE BOLTS SHALL BE DONE WHEN THE STRUCTURE IS CONSTRUCTED.

PAYMENT WILL BE MADE AT EACH SUCH SUPPORT LOCATION AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "OVERHEAD SIGN SUPPORT, MISC.: ANCHOR BOLTS SET FOR PIER MOUNTED SUPPORT" AND SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING THE SET OF ANCHOR BOLTS REQUIRED.

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED SSS
CHECKED HJF

SIGN ELEVATIONS S16 & S18

MOT-75-14.60

195
316

Plotted By: jfanthony Date: 8/1/2007 Time: 5:01:38 PM
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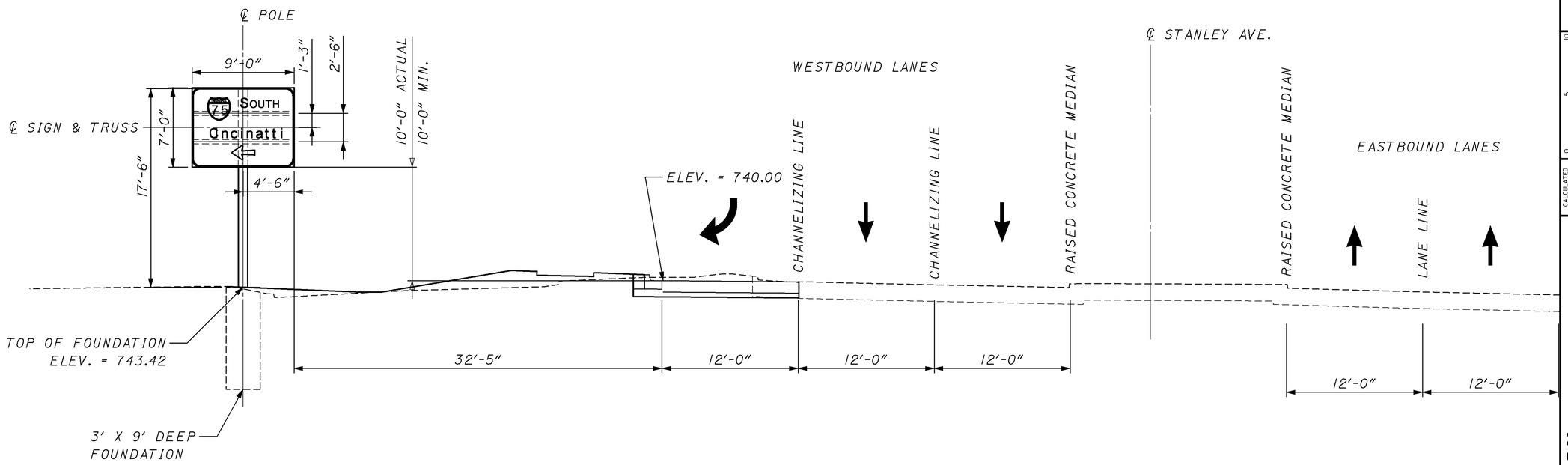
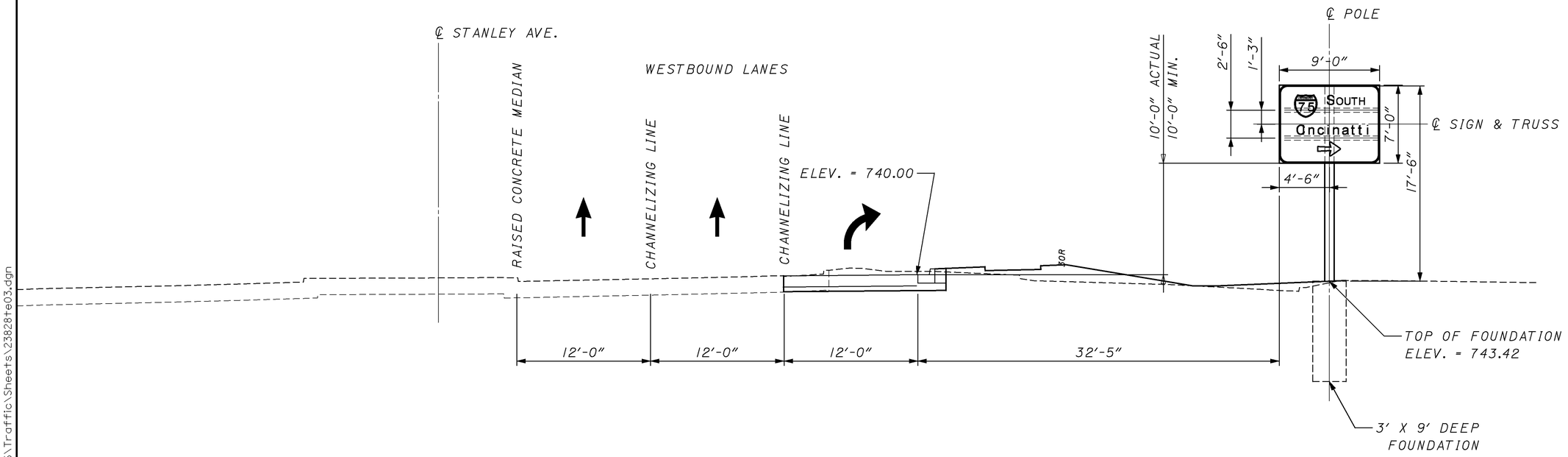


SIGN S33
TC-9.10 DESIGN 3, 17.5′ POLE, 9′ ARMS
EASTBOUND STANLEY AVE.
STA. 8+85, RT



SIGN S33a
(MOUNTED BACK TO BACK ON SAME POLE)
TC-9.10 DESIGN 3, 17.5′ POLE, 9′ ARMS
WESTBOUND STANLEY AVE.
STA. 8+85, RT

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED SSS
CHECKED HJF

SIGN ELEVATION AND S33 & S33a

MOT-75-14.60

196
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:14 AM
Filename: G:\C004\0066\Traffic\Sheets\23828te03.dgn

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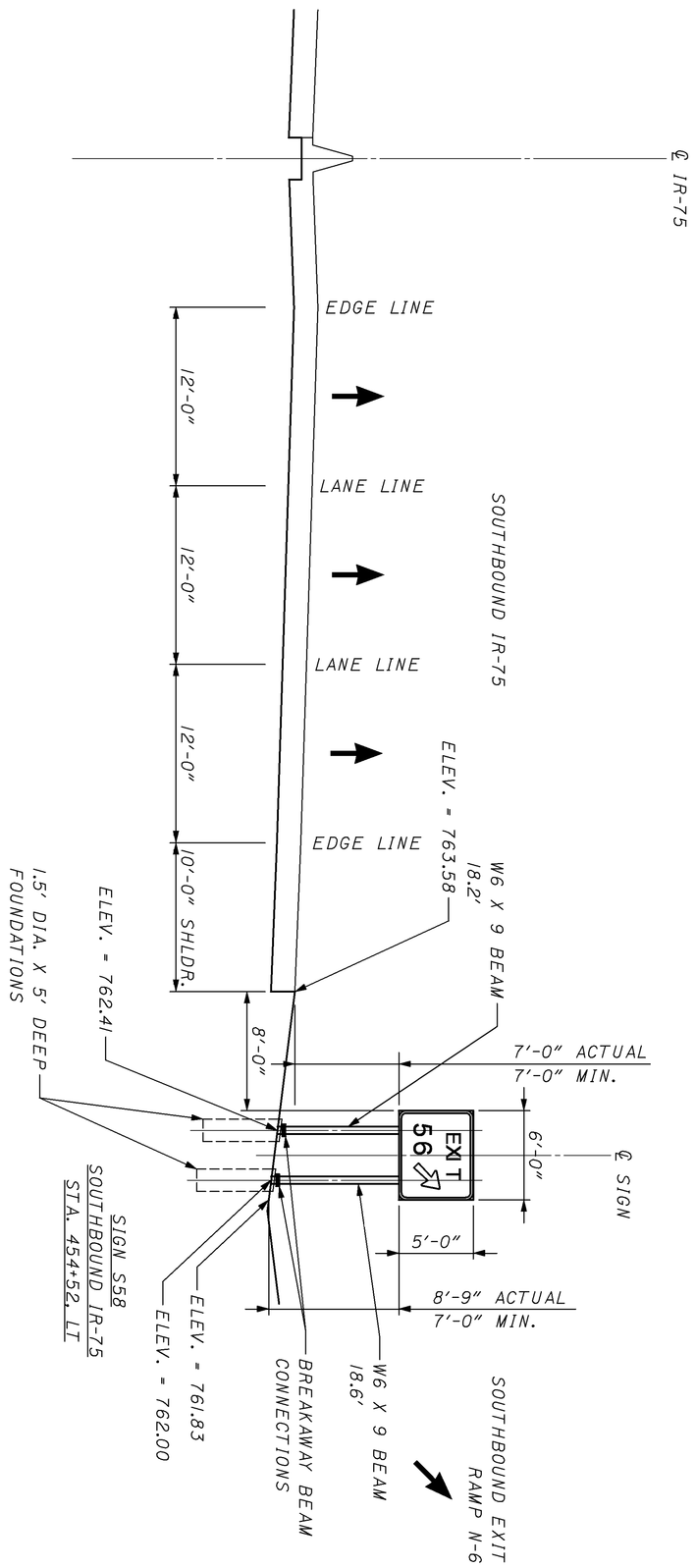
Filename: G:\C004\0066\Traffic\Sheets\23828te04.dgn



316 / 197	MOT-75-14.60	SIGN ELEVATION S58	CALCULATED SSS CHECKED HJF	0 5 10 HORIZONTAL SCALE IN FEET

SIGN S155
SOUTHBOUND IR-75
STA. 461+65, LT

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED SSS
CHECKED HJF

SIGN ELEVATION

S155

MOT-75-14.60

198
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:4 AM
Filename: G:\C004\0066\Traffic\Sheets\23828te05.dgn

ITEM 630 MAINLINE REFERENCE MARKERS

REFERENCE MARKERS SHALL BE LOCATED AND INSTALLED AS INDICATED ON THESE PLANS. THE DEFAULT INSTALLATION SHALL BE AT 2/10THS OF A MILE INCREMENTS (0, 2, 4, 6, 8).

THE CONTRACTOR SHALL LAYOUT ALL REFERENCE MARKER LOCATIONS TO ASSURE PROPER PLACEMENT. THE LAYOUT SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATIONS ARE STARTED.

THE WHOLE DIGIT REFERENCE MARKERS, E.G. 16.0, SHALL BE PLACED AT THE SAME STATION AS THE MILE MARKER.

MAINLINE REFERENCE MARKERS SHALL BE INSTALLED IN THE MEDIAN AS INDICATED ON SHEET 2. ON RAMPS, THE REFERENCE MARKERS SHALL BE INSTALLED ON THE RIGHT SIDE. FOR DIRECTIONAL MAINLINE SEGMENTS, THE MARKER SHALL BE PLACED ON THE LEFT SIDE.

THE HEIGHT OF THE REFERENCE MARKERS SHALL BE SUCH THAT A UNIFORM APPEARANCE IS PRESENTED TO THE MOTORIST.

WHEN A REFERENCE MARKER IS OBSTRUCTED BY A SIGN TRUSS, BRIDGE, PIER OR THE LIKE, THE REFERENCE MARKER SHALL BE RELOCATED ± 50 FEET FROM THE LAYOUT LOCATION OR NOT INSTALLED WITH THE APPROVAL OF THE ENGINEER.

IF ANY MILE MARKERS ARE MISSING, A PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 30 DAYS IN ADVANCE OF THE PLANNED REFERENCE MARKER INSTALLATION. THE ENGINEER WILL CONTACT THE OFFICE OF TECHNICAL SERVICES WHICH WILL LOCATE THE LONGITUDINAL POSITION OF MISSING MILE MARKERS BY MEANS OF A POINT MARK ON THE PAVEMENT EDGE.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER EACH FOR 630 MAINLINE REFERENCE MARKER AND SHALL INCLUDE ALL LABOR AND MATERIAL FOR INSTALLATION. THE SUMMARY TOTAL IS FOR ESTIMATING ONLY. PAYMENT WILL BE FOR THE ACTUAL NUMBER INSTALLED.

ITEM 630 RAMP REFERENCE MARKERS

ANY RAMP LESS THAN 1056 FEET IN LENGTH SHALL HAVE ONLY ONE RAMP REFERENCE MARKER PLACED AT THE MIDPOINT OF THE LENGTH OF THE RAMP. ANY RAMP OVER 1056 FEET IN LENGTH SHALL HAVE A MINIMUM OF TWO RAMP MARKERS. AT THE DISCRETION OF THE ENGINEER, ADDITIONAL RAMP MARKERS MAYBE USED BASED UPON RAMP GEOMETRICS, SIGHT DISTANCE, AND LENGTH. ALL RAMP MARKINGS SHALL BE EVENLY SPACED BETWEEN THE GORE AREAS OF THE RAMP.

FOR SYSTEM-TO-SYSTEM INTERCHANGES WHEN RAMPS MAY SPLIT BEYOND THE MAINLINE, OR COLLECT BEFORE THE MAINLINE, A RAMP MARKER SHALL BE PLACED AT THE MIDPOINT OF THE DISTANCE BETWEEN THE MAINLINE AND THE RAMP SPLIT. ALL RAMP MARKERS SHALL BE PLACED ON THE RIGHT.

ADJUSTMENTS MAY BE MADE FOR BRIDGES AND OTHER OBSTRUCTIONS. AT THE DISCRETION OF THE ENGINEER, ADDITIONAL RAMP MARKERS MAY BE PLACED DUE TO RAMP LENGTH AND SIGHT DISTANCE CONDITIONS.

FINAL ADJUSTMENTS AND DETERMINATION OF NEED SHALL BE AT THE DISCRETION OF THE ENGINEER.

FOR INTERSTATE ROUTE REFERENCES ON RAMP MARKERS THE NUMERICAL DESIGNATION ONLY SHALL BE USED IN THE DESCRIPTION. FOR US AND STATE ROUTES, THE PREFIXES OF "US" AND "SR", AS APPROPRIATE, SHALL BE USED WITH THE NUMERICAL ROUTE DESIGNATION. THE DIRECTIONAL ORDINATE (N, S, E, W) SHALL PRECEDE THE ROUTE DESIGNATION.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER EACH FOR 630 RAMP REFERENCE MARKER AND SHALL INCLUDE ALL LABOR AND MATERIAL FOR INSTALLATION. THE SUMMARY TOTAL IS FOR ESTIMATING ONLY. PAYMENT WILL BE FOR THE ACTUAL NUMBER INSTALLED.

LIGHT POLE MOUNTING

WHERE LIGHT POLES EXIST IN THE MEDIAN, THE REFERENCE MARKERS SHALL BE INSTALLED ON THE LIGHT POLE IF THE LAYOUT LOCATION IS WITHIN ± 50 FEET OF THE LIGHT POLE. NO REFERENCE MARKERS SHALL BE ATTACHED TO LIGHT POLES EQUIPPED WITH LOWERING DEVICES.

ITEM 630 CONCRETE MEDIAN BARRIER SIGN BRACKET

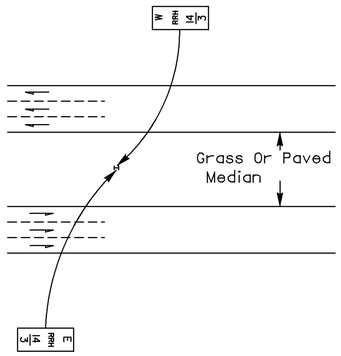
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING THE CONCRETE MEDIAN BARRIER SIGN BRACKET DETAILED ON SHEET 3.

PAYMENT SHALL BE AT THE UNIT PRICE BID PER EACH FOR 630 CONCRETE MEDIAN BARRIER SIGN BRACKET. THIS PRICE WILL BE FULL COMPENSATION FOR ALL NECESSARY MATERIALS (INCLUDING THE POST), LABOR, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH BRACKET FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

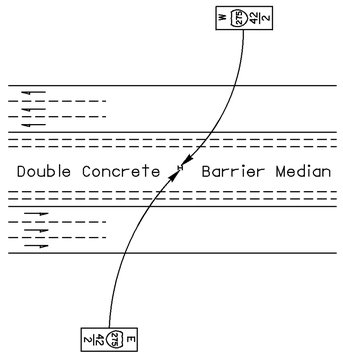
Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:15 AM
Filename: G:\C004\0066\Traffic\Sheets\23828t101.dgn

Typical Reference Marker Placement

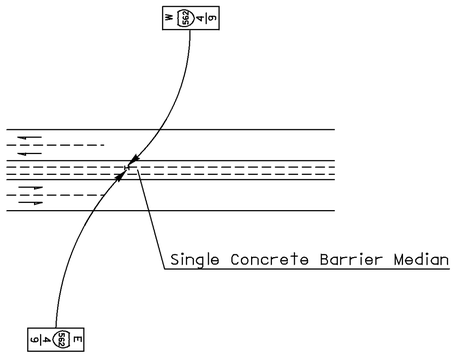
Median



Double Concrete Barrier Median

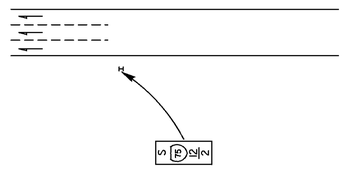


Single Concrete Barrier Median

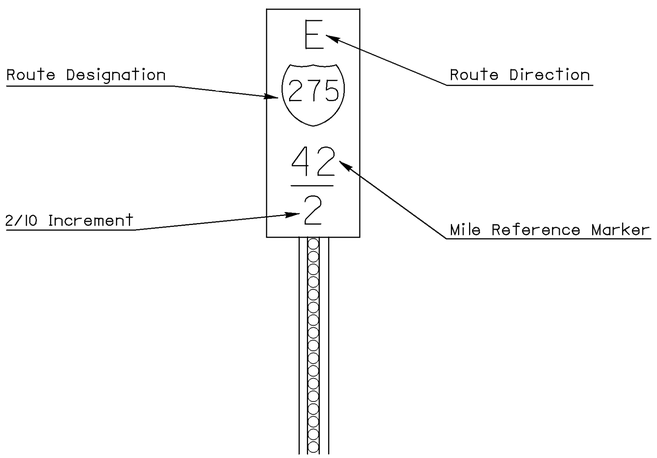


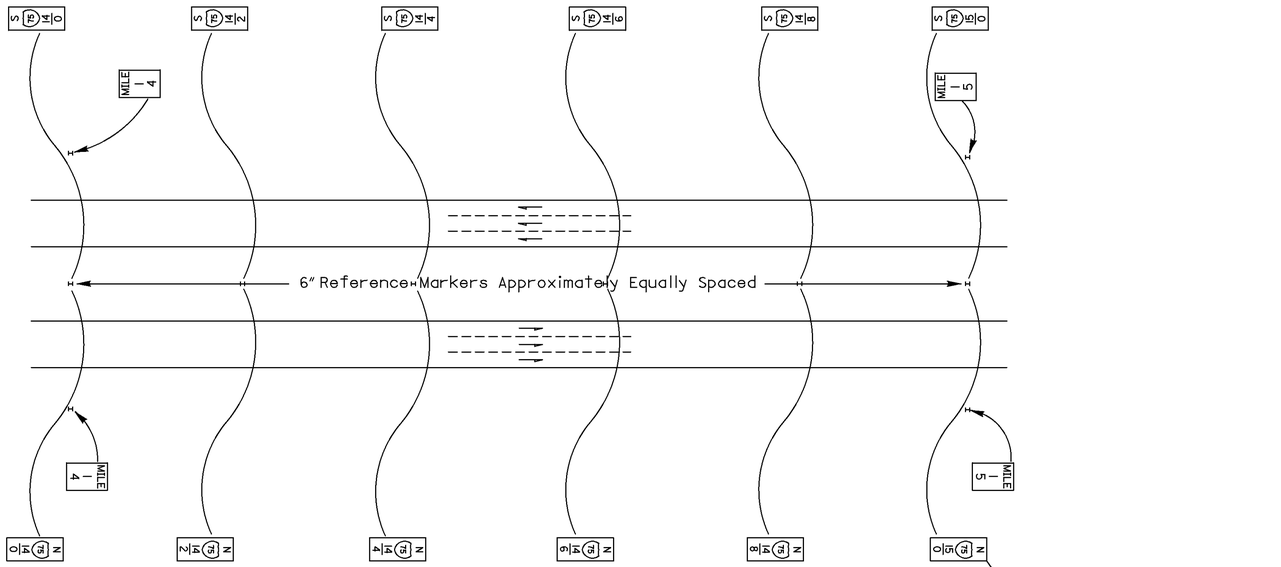
No Median Single Direction Traffic

Note: See Separate Sheet For Ramp Marker Installation.



NOTE: Placement other than those depicted here may apply.





12-23-03

CALCULATED SSS
CHECKED HJF

TYPICAL REFERENCE MARKER PLACEMENT

OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

SIGNING PLAN INSERT SHEET

MOT-75-14.60

2 / 8

200
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:15 AM
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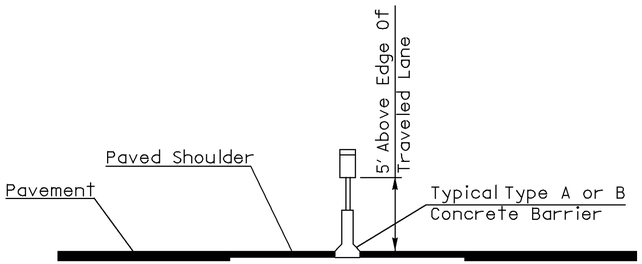
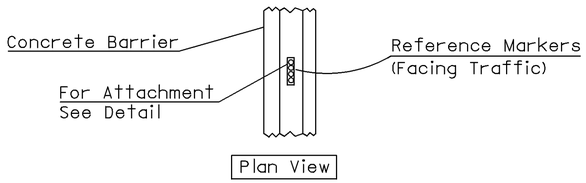
Typical Mainline Reference Marker Installation Plans

Single Median Barrier

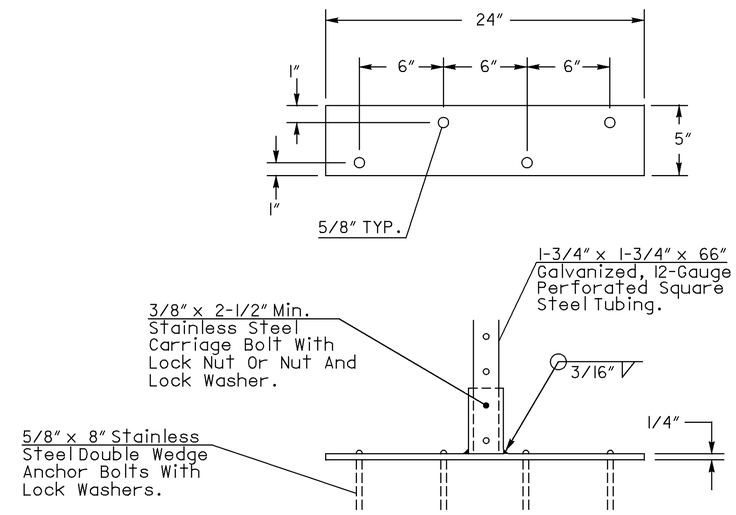




Note:

1. Typical installed height is 2' from top of barrier wall to bottom of sign.

Barrier Mounting Bracket

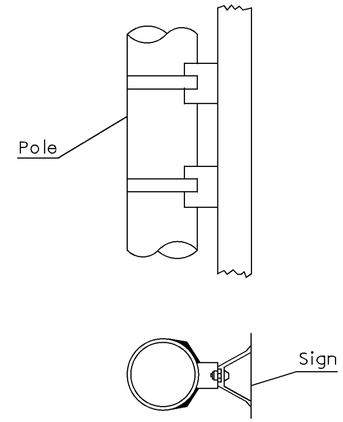


Note:

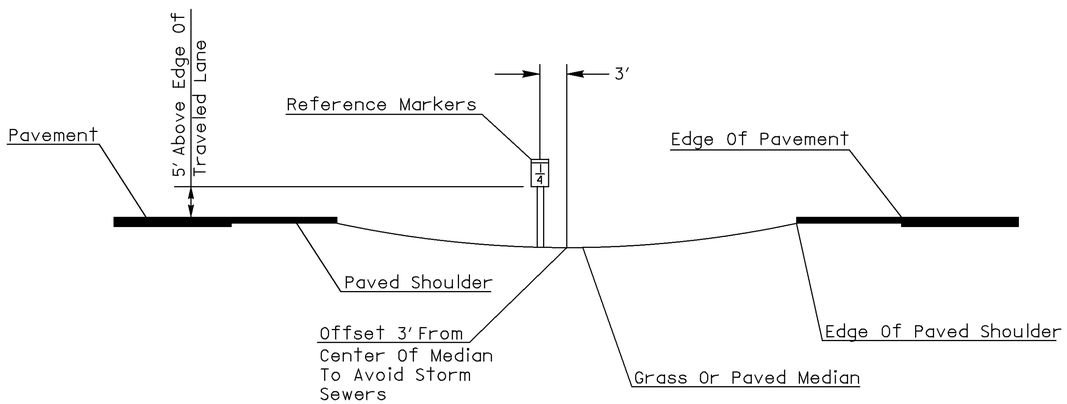
1. All Hardware Shall Be Galvanized Steel Or Stainless Steel As Specified.
2. All Work And Materials Shall Be In Accordance With Standard Specification.
3. 5/8" x 7" Stainless Anchor Bolts May Be Used If 8" Lengths Are Not Available.

Light Poles

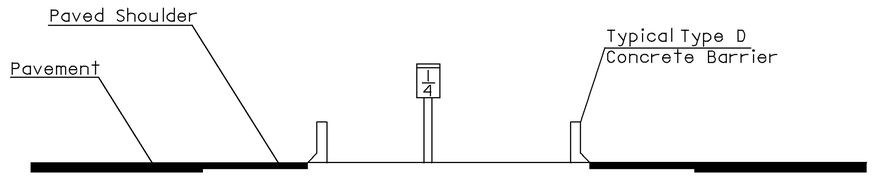
See TC-41.40 For Attachment



Median



Double Median Barrier



Note:

1. Typical installed height on a raised median is 4' from top of median to bottom of sign.

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12-23-03

CALCULATED SSS CHECKED HJF

REFERENCE MARKER INSTALLATION PLANS

SIGNING PLAN INSERT SHEET

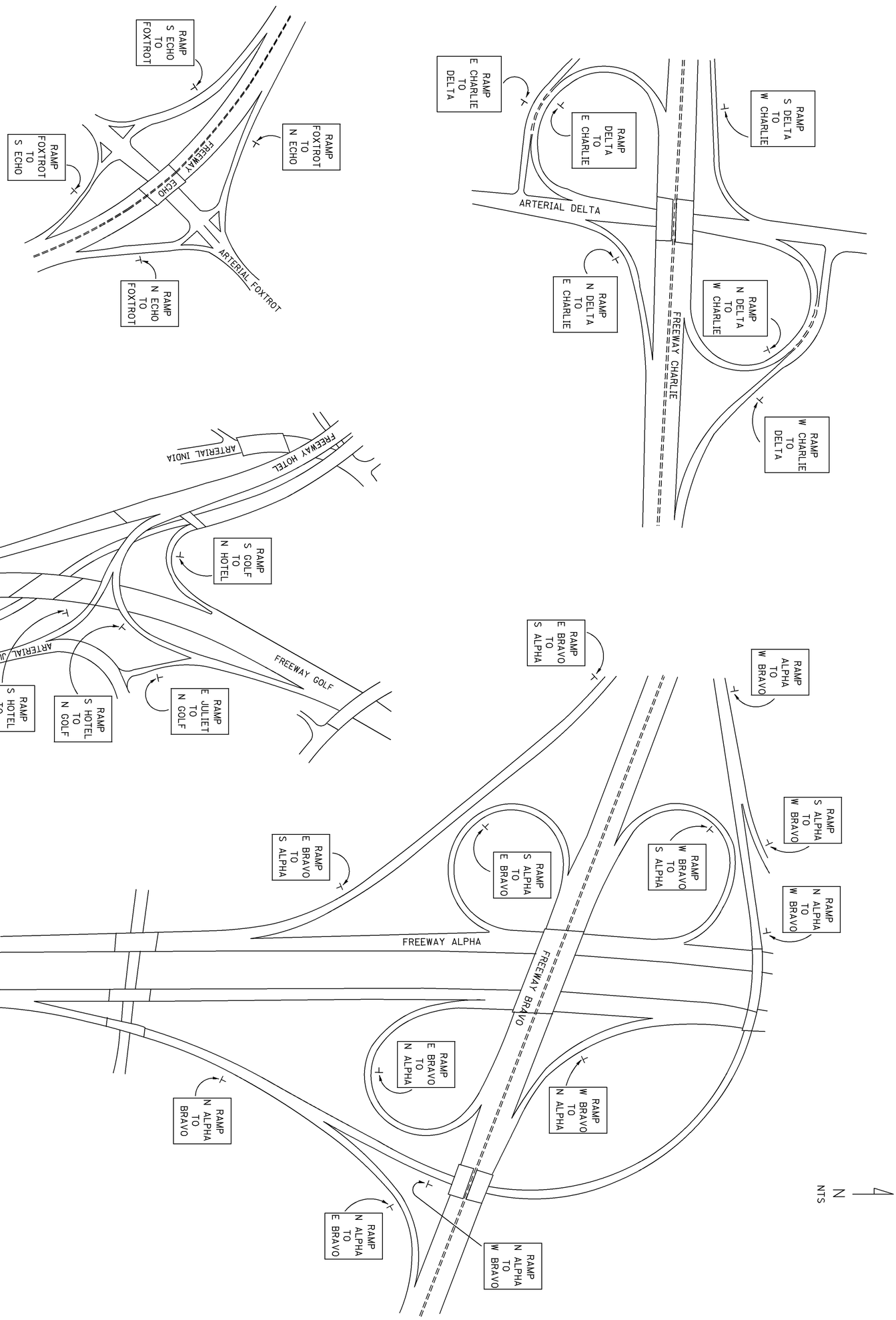
OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

MOT-75-14.60

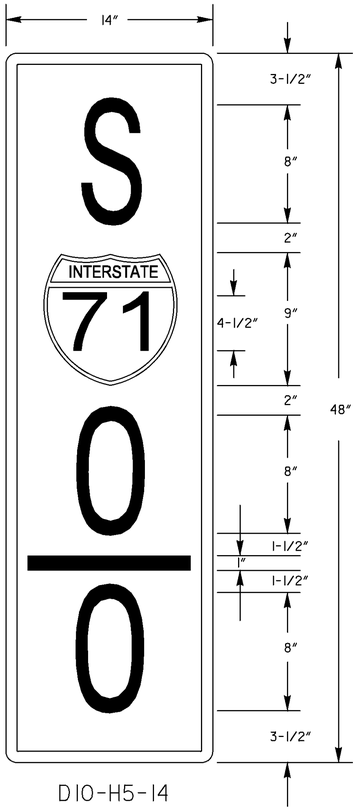
Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:16 AM
Filename: G:\C004\0066\Traffic\Sheets\23828ti04.dgn

Typical Ramp Marker Installation



Typical Reference Markers

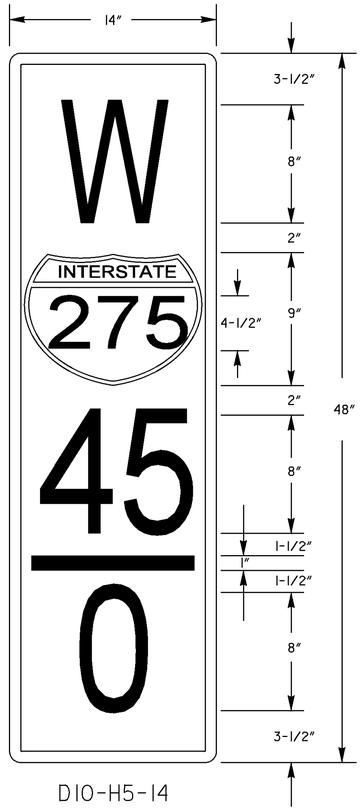
Mainline



D10-H5-14

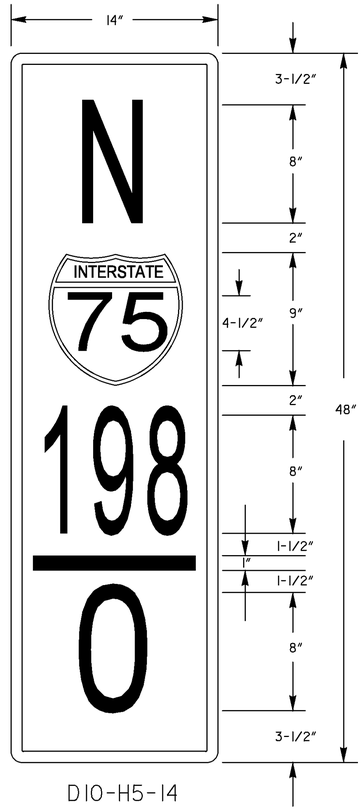
Note:
- Blue Background
- Red Background on "Interstate" Portion of Shield
- White Letters
- White Border
- White Divider Line
- White Shield Outline

Note:
- Divider Line Width = 1″
- Divider Line Thickness = 1″
- Border Width = 3/4″



D10-H5-14

Note:
- Shield Width = 9″ for all 1-Digit and 2-Digit Routes
- Shield Width = 11″ for all 3-Digit Routes



D10-H5-14

Note:
- All Letters Series 'C'
- All Numbers Series 'C', Unless Noted
- 3-Digit Mile Designation Shall Be Series 'B'

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:17 AM
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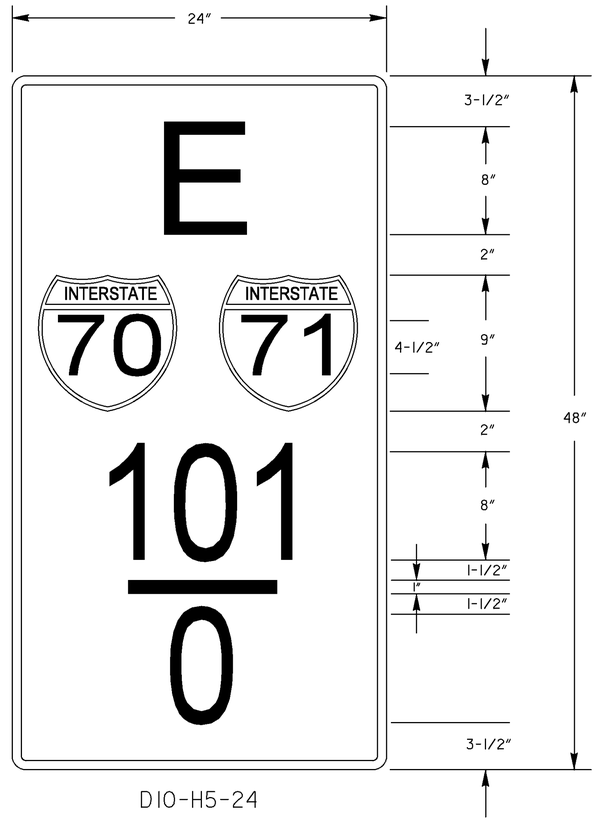
Typical Reference Markers
Mainline - Dual/Overlap Routes



D10-H5-24

Note:
- Blue Background
- Red Background on Interstate Portion of Shield
- White Letters
- White Border
- White Divider Line
- White Shield Outline

Note:
- Divider Line Width = 11″
- Divider Line Thickness = 1″
- Border Width = 3/4″

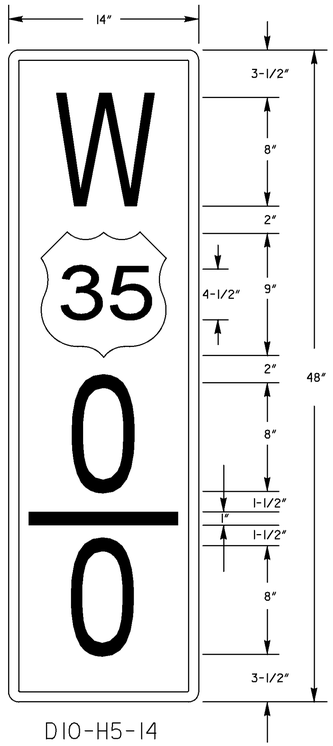
Note:
- Shield Width = 9″ for all 1-Digit and 2-Digit Routes
- Shield Width = 11″ for all 3-Digit Routes

Note:
- All Letters Series 'C'
- All Numbers Series 'C'

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:17 AM
Filename: G:\C004\0066\Traffic\Sheets\23828t106.dgn

Typical Reference Markers

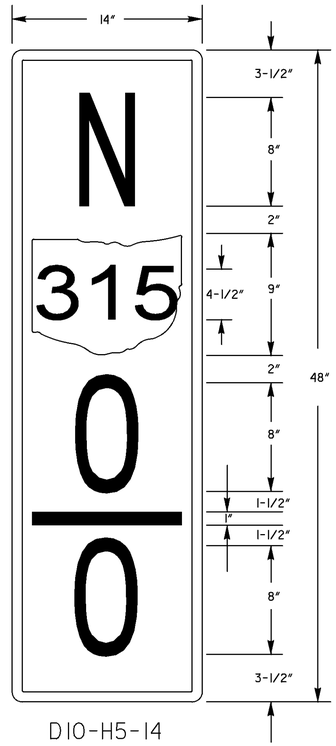
Mainline



D10-H5-14

Note:
- Blue Background
- White Letters, Unless Noted
- Black Numbers for US and State Routes
- White Border
- White Divider Line
- White Shield Background

Note:
- Divider Line Width = 11″
- Divider Line Thickness = 1″
- Border Width = 3/4″



D10-H5-14

Note:
- Shield Width = 9″ for all 1-Digit and 2-Digit Routes
- Shield Width = 11″ for all 3-Digit Routes

Note:
- All Letters Series 'C'
- All Numbers Series 'C', Unless Noted
- 3-Digit Mile Designation Shall Be Series 'B'

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:17 AM
Filename: G:\C004\0066\Traffic\Sheets\23828t107.dgn

TYPICAL REFERENCE MARKERS

OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

2-02-04

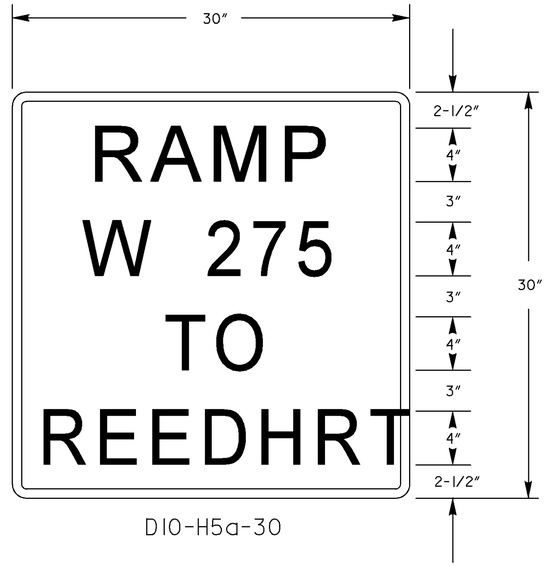
CALCULATED SSS CHECKED HJF

SIGNING PLAN INSERT SHEET

MOT-75-14.60

Typical Reference Markers

Ramp



D10-H5a-30

Note:
- Blue Background
- White Letters
- White Border
- Border Width = 3/4″
- All Letters Series 'C'
- No Marker Installation on Bridges
- See Ramp Marker Installation Detail Sheets for Placement
- See Quantities for Specific Ramp Marker Lettering

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:18 AM
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2-02-04

TYPICAL REFERENCE MARKERS

OFFICE OF TRAFFIC ENGINEERING

URBAN FREEWAY REFERENCE MARKERS

CALCULATED SSS
CHECKED HJF

SIGNING PLAN INSERT SHEET

MOT-75-14.60

UTILITIES

A LISTING OF ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS IS LOCATED IN THE PROJECT GENERAL NOTES.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

625 JUNCTION BOX, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS ITEM 632 AND CMS 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. JUNCTION BOXES SHALL BE CONSTRUCTED OF PVC.

2. JUNCTION BOXES SHALL BE SIZED AS INDICATED IN THE PLANS (3 EACH 8"x8"x7" AND 1 EACH 12"x12"x6").

3. JUNCTION BOXES SHALL HAVE TERMINAL CONNECTIONS FOR THE AMOUNT AND SIZE OF CONDUCTOR CABLE AS SHOWN IN THE PLANS.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH FOR ITEM 625, JUNCTION BOX, AS PER PLAN AND SHALL INCLUDE ALL MATERIAL, LABOR, CONDUIT FITTINGS AND ELBOW TO INSIDE OF POLE, MOUNTING HARDWARE.AND OTHER INCIDENTALS NECESSARY FOR EACH JUNCTION BOX FURNISHED, IN PLACE AND ACCEPTED.

625 PULL BOX, MISC.: PULL BOX, 725.07, (BY SIZE), AS PER PLAN

17"x30" PULL BOXES SHALL HAVE A NOMINAL DEPTH OF 30". 24"x36" PULL BOXES SHALL HAVE A NOMINAL DEPTH OF 42".

THE PULL BOX COVER SHALL BE RATED AT A MINIMUM OF 22,500 POUNDS OVER A 10" SQUARE. THE WORDS "TRAFFIC SIGNAL" SHALL BE INTEGRALLY CAST AS PART OF THE COVER. A CONCRETE COLLAR SHALL BE PLACED AROUND THE PULL BOX WHERE RECOMMENDED IN THE MANUFACTURER'S INSTALLATION PROCEDURE.

REMOVAL OF EXISTING SIDEWALK OR PULL BOXES AND REPLACEMENT OF SIDEWALK REQUIRED FOR PULL BOX INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 625, PULL BOX, MISC.: PULL BOX, 725.07, (BY SIZE), AS PER PLAN.

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM DAYTON POWER & LIGHTING COMPANY AND SHALL BE AT A LOCATION DETERMINED BY THE POWER COMPANY. POWER SUPPLIED SHALL BE 120/240 VOLTS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER X SHALL THE CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINAL 120 VOLTS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY THE MAINTAINING AGENCY.

632 VEHICULAR SIGNAL HEAD, (LED), 3- AND 5-SECTION, 12" LENS, 1-WAY, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS ITEM 632 AND CMS 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC WITH A BLACK BODY, YELLOW DOOR, AND A BLACK TUNNEL VISOR THAT IS OPEN AT THE BOTTOM AND MEET ITE SPECIFICATIONS.

2. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

3. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

4. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING UP TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL FOR SIGNAL DISPLAYS OF TWO OR MORE SECTIONS.

5. SIGNAL HEADS SUSPENDED FROM SPAN WIRES SHALL BE PROVIDED WITH A PIVOT AND LOCK BALANCE ADJUSTER.

6. ALL BALANCE ADJUSTERS SHALL HAVE A MINIMUM THREE-QUARTER INCH EYE BOLT AND THREE- QUARTER INCH WIDE SLOT. EYE BOLTS ARE CAST FROM 316 STAINLESS STEEL AND PROVIDED WITH A SATIN FINISH. THREE-QUARTER INCH BODY HALVES ARE CAST FROM A MINIMUM 65-45-12 DUCTILE IRON AND PROVIDED WITH A BRIGHT ZINC FINISH (ZNI). BALANCE ADJUSTERS SHALL ONLY BE USED WHERE NECESSARY. BALANCE ADJUSTERS SHALL BE USED ON ONE-WAY HEADS.

7. THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.

8. LAMPS: LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE THE 12 INCH SIZE. LED SIGNAL LAMP UNITS SHALL BE PROVIDED FOR ALL SIGNAL LENS TYPES.

632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

1. LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE TYPE D2.

2. THE LED LAMP UNIT SHALL DISPLAY THE SOLID SYMBOL FOR THE UPRAISED HAND AND A SYMBOL FOR THE WALKING PERSON.

3. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF A BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.

4. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

5. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

6. OVERLAY CONFIGURATION OF THE SYMBOLS FOR THE UPRAISED HAND OR THE WALKING PERSON SHALL BE USED.

7. THE BOTTOM OF THE SIGNAL HEADS SHALL BE NINE FEET ABOVE THE GROUND LINE.

8. 1-1/2 " CONDUIT BRACKET ARM HUB PLATES SHALL BE BOLTED TO POLES AND SHALL BE FIELD LOCATED BY CITY OF DAYTON.

632 PEDESTRIAN PUSHBUTTON, AS PER PLAN

THE PUSHBUTTON SHALL BE THE 2 INCH MUSHROOM PLUNGER TYPE.

PUSHBUTTONS SHALL BE WIRED WITH ONE CONTINUOUS RUN OF 3-CONDUCTOR SIGNAL CABLE FROM THE PUSHBUTTON TO THE CONTROLLER CABINET WITHOUT SPLICING.

632 MESSENGER WIRE, 7 STRAND,5/16" DIAMETER WITH ACCESSORIES, AS PER PLAN

MESSENGER WIRE SHALL BE5/16INCH DIAMETER, 7 STRAND, COPPER CLAD, EXTRA HIGH STRENGTH, AND 40% CONDUCTIVITY. ALL LASHING RODS SHALL BE COPPER. STRAIN INSULATORS SHALL BE PROVIDED WHERE TROLLEY WIRES EXIST. LASHING ROD AND STRAIN INSULATORS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 632 MESSENGER WIRE, AS PER PLAN.

FIBER OPTIC INTERCONNECT SPECIFICATIONS

APPLICABLE STANDARDS:

MATERIALS AND EQUIPMENT SUPPLIED AS PART OF THE FIBER OPTIC SYSTEM SHALL COMPLY WITH THE LATEST ISSUE OF THE FOLLOWING DOCUMENTS:

RUS RURAL UTILITY SERVICE MATERIAL ACCEPTANCE LIST

REA SPECIFICATIONS FOR FILLED OPTIC CABLES

EIA-STD-RS-455 STANDARD TEST PROCEDURES FOR FIBER OPTIC FIBERS, CABLES, TRANSDUCERS, CONNECTING AND TERMINATING DEVICES

MIL-STD-202 TEST METHODS FOR ELECTRONIC AND ELECTRICAL COMPONENT PARTS

MIL-STD-454 STANDARD GENERAL REQUIREMENTS FOR ELECTRONIC EQUIPMENT

MIL-STD-810 ENVIRONMENTAL TEST METHODS AND ENGINEERING GUIDELINES

EIA/TIA-598 TUBE AND FIBER COLOR CODE

NFPA-70-1993 NATIONAL ELECTRICAL CODE ARTICLE 770, OPTICAL FIBER CABLE

QUALIFICATIONS TO INSTALL TRAFFIC SIGNAL FIBER OPTIC SYSTEM

IN ADDITION TO THE PRE-QUALIFICATION REQUIREMENTS OF THE OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS, SECTION 102.01, THE CONTRACTOR SHALL MEET THE FOLLOWING QUALIFICATIONS.

THE CONTRACTOR PERFORMING ANY TASK REQUIRING THE OPENING OF THE FIBER OPTIC CABLE JACKET, INSTALLATION OF FIBER OPTIC CONNECTORS, SPLICING FIBERS, OR THE TESTING OF FIBER OPTIC CABLE SHALL UTILIZE AT LEAST ONE SUPERVISING FIBER OPTIC TECHNICIAN. SUPERVISING FIBER OPTIC TECHNICIANS AND FIBER OPTIC TECHNICIANS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS.

1) SUPERVISING FIBER OPTIC TECHNICIANS AND FIBER OPTIC TECHNICIANS SHALL HAVE ATTENDED AND SUCCESSFULLY COMPLETED AT LEAST ONE COMPREHENSIVE "INSTALLATION OF FIBER OPTIC PRODUCTS SCHOOL". A MAJOR MANUFACTURER OF FIBER OPTIC PRODUCTS OR AN APPROVED INDEPENDENT SCHOOL WILL CONDUCT THIS SCHOOL THAT ENCOMPASSES ALL ASPECTS OF FIBER OPTIC TECHNICIAN CERTIFICATION.

2) THE SUPERVISING FIBER OPTIC TECHNICIAN SHALL DEMONSTRATE A MINIMUM OF ONE CONTINUOUS YEAR OF WORK EXPERIENCE WHERE THE SPLICING, TERMINATION, AND TESTING OF FIBER OPTIC CABLE WITH AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) WAS A PRIMARY RESPONSIBILITY.

CALCULATED SSS CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

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THE BIDDER SHALL HAVE AVAILABLE ALL OF THE CONSTRUCTION EQUIPMENT AND BUCKET/LINE TRUCKS TO PERFORM THE FIBER OPTIC WORK REQUIRED BY THIS CONTRACT.

THE BIDDER SHALL BE EXPERIENCED AND ACTIVELY ENGAGED IN TRAFFIC SIGNAL FIBER OPTIC INSTALLATION WORK.

FAILURE TO MEET ALL OF THE ABOVE QUALIFICATIONS MAY BE GROUNDS FOR THE LOW BIDDER BEING DISQUALIFIED AT THE DISCRETION OF THE DEPARTMENT.

GENERAL FIBER OPTIC CABLE REQUIREMENTS:

THIS SPECIFICATION RECOGNIZES THE FOLLOWING ACCEPTED DESIGNS FOR THIS PROJECT.

OUTSIDE PLANT CABLE (OSP): DUCT, ARMORED, LOOSE TUBE, DOUBLE MDPE JACKETED IN AN UNDERGROUND CONDUIT CONFIGURATION.

OUTSIDE PLANT CABLE (OSP): AERIAL, ARMORED, LOOSE TUBE, DOUBLE MDPE JACKETED IN A FIGURE 8 OR LASHED CONFIGURATION.

1. OPTICAL FIBER CHARACTERISTICS

THE FOLLOWING OPTICAL FIBER CHARACTERISTICS SHALL APPLY: SINGLE-MODE (DISPERSION UN-SHIFTED)

THE SINGLE-MODE FIBER SHALL MEET EIA/TIA-492CAAA, "DETAIL SPECIFICATION FOR CLASS IVA DISPERSION-UNSHIFTED SINGLE-MODE OPTICAL FIBERS," AND ITU RECOMMENDATION G.652, "CHARACTERISTICS OF A SINGLE-MODE OPTICAL FIBRE CABLE."

EACH OPTICAL FIBER SHALL CONSIST OF A GERMANIA-DOPED SILICA CORE SURROUNDED BY A CONCENTRIC GLASS CLADDING. THE FIBER SHALL BE MATCH-CLAD DESIGN. ALL FIBERS IN THE CABLE SHALL BE USABLE FIBERS AND SHALL BE SUFFICIENTLY FREE OF SURFACE IMPERFECTIONS AND ILLUSIONS TO MEET THE OPTICAL, MECHANICAL, AND ENVIRONMENTAL REQUIREMENTS OF THESE SPECIFICATIONS.

EACH OPTICAL FIBER SHALL BE PROOF TESTED BY THE FIBER MANUFACTURER AT A MINIMUM OF 100 kpsi (0.7 Gn/m2).

THE FIBER SHALL BE COATED WITH A DUAL LAYER ACRYLATE PROTECTIVE COATING. THE COATING SHALL BE IN PHYSICAL CONTACT WITH THE CLADDING SURFACE AND SHALL BE MECHANICALLY OR CHEMICALLY STRIPPABLE WITHOUT DAMAGING THE FIBER.

THE REQUIRED FIBER GRADE SHALL REFLECT THE MAXIMUM INDIVIDUAL ATTENUATION TO GUARANTEE THE REQUIRED PERFORMANCE OF EVERY FIBER IN THE CABLE.

THE FIBER SHALL COMPLY WITH ALL OPTICAL AND MECHANICAL REQUIREMENTS OVER AN OPERATING TEMPERATURE RANGE OF -40*C TO +70*C.

THE OPTICAL FIBER SHALL BE PRODUCED BY COMMSCOPE, CORNING OR U.S. MANUFACTURERED EQUAL. IF A CABLE MANUFACTURER CHOOSES TO UTILIZE OPTICAL FIBER OTHER THAN COMMSCOPE OR CORNING, SAID MANUFACTURER OF CABLE SHALL SUBMIT ITS OPTICAL FIBER FOR PRE-APPROVAL. THIS APPROVAL WILL CONSIST OF SPLICE COMPATIBILITY BETWEEN SAID MANUFACTURER AND COMMSCOPE OR CORNING. THESE TESTS AND THEIR DATA SHALL BE PERFORMED AND COMPILED BY AN ENGINEER-APPROVED INDEPENDENT LABORATORY, SUCH AS BELLCORE, THAT CAN DEMONSTRATE A THREE YEAR HISTORY OF THE PERFORMANCE OF SUCH TESTS. TESTING WILL BE AT THE EXPENSE OF THE CONTRACTOR.

2. OPTICAL FIBER SPECIFICATION TABLE SINGLE-MODE (DISPERSION UN-SHIFTED)

GEOMETRY:

CLADDING DIAMETER (um)	125.0 * 0.7
CORE-TO-CLADDING CONCENTRICITY (um)	<= 0.5
CLADDING NON-CIRCULARITY	<= 1.0 %

MODE	FIELD DIAMETER (um)
1310 nm	9.2 * 0.4
1550 nm	10.4 * 0.8

COATING DIAMETER (um)	245 * 5
COLORED FIBER NOMINAL DIAMETER (um)	253 - 259
FIBER CURL RADIUS OF CURVATURE (m)	> 4.0 m

OPTICAL:

CABLED FIBER ATTENUATION (dB/km)	
1310 nm	<= 0.4
1550 nm	<= 0.3
POINT DISCONTINUIT (dB)	
1310 nm	<= 0.1
1550 nm	<= 0.1

MACROBEND ATTENUATION (dB)

TURNS	MANDREL OD	
1	32 * 2 mm	< 0.50 AT 1550 nm
100	50 * 2 mm	< 0.05 AT 1310 nm
100	50 * 2 mm	< 0.10 AT 1550 nm
100	60 * 2 mm	< 0.05 AT 1550 nm

CABLE CUTOFF WAVELENGTH (nm)	< 1260
ZERO DISPERSION WAVELENGTH (nm)	1302 <= X <= 1322
ZERO DISPERSION SLOPE (SO) (ps/(nm**km))	<= 0.092
TOTAL DISPERSION (ps/(nm?km))	
1285-1330 nm	<= 3.5
1550 nm	<= 18
CABLED POLARIZATION MODE DISPERSION (ps/(km)1/2)	<= 0.5
IEEE 802.3 GBE - 1300 nm LASER DISTANCE (m)	UP TO 5000
WATER PEAK ATTENUATION: 1383 * 3 nm (dB/km)	<= 2.1

SINGLE-MODE (DISPERSION UN-SHIFTED) WITH LOW WATER PEAK:

THE SINGLE-MODE LOW WATER PEAK FIBER UTILIZED IN THE OPTICAL FIBER CABLE SHALL MEET EIA/TIA-492CAAB, "DETAIL SPECIFICATION FOR CLASS IVA DISPERSION-UNSHIFTED SINGLE-MODE OPTICAL FIBERS WITH LOW WATER PEAK," AND ITU RECOMMENDATION G.652.C, "CHARACTERISTIC OF A SINGLE-MODE OPTICAL FIBRE CABLE." THESE FIBERS SHALL HAVE THE SAME SPECIFIED PERFORMANCE AND GEOMETRY VALUES AS STANDARD DISPERSION UN-SHIFTED FIBER (SECTION 2) EXCEPT AS NOTED BELOW.

MODE FIELD DIAMETER (um)	
1550 nm	10.4 * 0.5
POINT DISCONTINUITY (dB)	
1310 nm	<= 0.05
1550 nm	<= 0.05

MACROBEND ATTENUATION (dB)

TURNS	MANDREL OD	
100	60 * 2 mm	< 0.05 AT 1625 nm

TOTAL DISPERSION (PS/(Nm*km))	
1625 nm	<= 22
CABLED FIBER ATTENUATION: 1383 * 3 nm (dB/km)	<= 0.4

3. COLOR CODING

BUFFER TUBES AND INDIVIDUAL OPTICAL FIBERS WITHIN THOSE BUFFER TUBES SHALL ADHERE TO EIA-TIA-598-B, "OPTICAL FIBER CABLE COLOR CODING"

1=BLUE
2=ORANGE
3=GREEN
4=BROWN
5=SLATE
6=WHITE
7=RED
8=BLACK
9=YELLOW
10=VIOLET
11=ROSE
12=AQUA

THE COLORING MATERIAL SHALL BE STABLE OVER THE TEMPERATURE RANGE OF THE CABLE, SHALL NOT BE SUSCEPTIBLE TO MIGRATION, AND SHALL NOT AFFECT THE TRANSMISSION CHARACTERISTICS OF THE OPTICAL FIBERS. COLOR CODED BUFFERED FIBERS SHALL NOT ADHERE TO ONE ANOTHER

4. PACKING AND SHIPPING

THE COMPLETED CABLE SHALL BE PACKAGED FOR SHIPMENT ON NON-RETURNABLE WOODEN REELS. REQUIRED CABLE LENGTHS SHALL BE STATED IN THE PURCHASE ORDER.

THE DIAMETER OF THE DRUM SHALL BE AT LEAST 20 TIMES THE DIAMETER OF THE CABLE.

TOP AND BOTTOM ENDS OF THE CABLE SHALL BE AVAILABLE FOR TESTING.

BOTH ENDS OF THE CABLE SHALL BE SEALED TO PREVENT THE INGRESS OF MOISTURE.

THE CABLE SHALL BE COVERED WITH A THERMAL WRAP. THE OUTER END OF THE CABLE SHALL BE SECURELY FASTENED TO THE REEL HEAD SO AS TO PREVENT THE CABLE FROM BECOMING LOOSE IN TRANSIT. THE INNER END OF THE CABLE SHALL PROJECT A MINIMUM OF 6.5 FEET (2 METERS) INTO A SLOT IN THE SIDE OF THE REEL OR THE INNER SLOT OF THE DRUM, IN SUCH A MANNER TO MAKE IT AVAILABLE FOR TESTING. AN ARBOR HOLE OF 1-1/2 INCH (40 mm) MINIMUM IS REQUIRED.

EACH REEL SHALL HAVE A WEATHER RESISTANT REEL TAG ATTACHED IDENTIFYING THE REEL AND CABLE.

THE REEL TAG SHALL INCLUDE THE FOLLOWING INFORMATION:

CABLE NUMBER GROSS WEIGHT
SHIPPED CABLE LENGTH IN METERS
JOB ORDER NUMBER
PRODUCT NUMBER
CUSTOMER ORDER NUMBER
DATE CABLE WAS TESTED
ORDER NUMBER
CABLE LENGTH MARKINGS
ITEM NUMBER A: TOP (INSIDE END OF CABLE) B: BOTTOM (OUTSIDE END OF CABLE)

THE REEL (ONE FLANGE) MARKING SHALL INCLUDE:

"MANUFACTURER'S NAME"
COUNTRY OF ORIGIN (E.G., USA)
AN ARROW INDICATING PROPER DIRECTION OF ROLL WHEN HANDLING
FORK LIFT-HANDLING ILLUSTRATION
"DO NOT SHIP REEL ON SIDE" OR
"DO NOT LAY REEL ON ITS SIDE"

CALCULATED SSS
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TRAFFIC SIGNAL GENERAL NOTES
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EACH CABLE SHALL BE ACCOMPANIED BY A CABLE DATA SHEET. THE CABLE DATA SHEET SHALL INCLUDE THE FOLLOWING INFORMATION:

MANUFACTURER'S CABLE NUMBER
MANUFACTURER'S PRODUCT NUMBER
MANUFACTURER'S FACTORY ORDER NUMBER
CUSTOMER NAME
ALTERNATE CUSTOMER
CUSTOMER CABLE NUMBER
CUSTOMER PURCHASE ORDER NUMBER
ALTERNATE CODE MARK FOR INFORMATION
ORDERED LENGTH
MAXIMUM BILLABLE LENGTH
ACTUAL SHIPPED LENGTH
MEASURED ATTENUATION OF EACH FIBER
BANDWIDTH SPECIFICATION (FOR LENGTHS > 1000 m) (WHERE APPLICABLE)

THE FOLLOWING STANDARDS ARE MINIMUM REQUIRED FOR OUTSIDE PLANT FIBER OPTIC CABLE IN ADDITION TO THE GENERAL REQUIREMENTS DEFINED ABOVE.

ALL CABLE SHALL BE OUTSIDE PLANT DOUBLE MDPE JACKETED, ARMORED, DRY CORE (WATER BLOCK TAPE) LOOSE TUBE. ARMORED CABLE SHALL BE REQUIRED FOR ALL OUTSIDE PLANT CABLE TYPES ON THIS PROJECT.

THE CABLE SHALL MEET ALL REQUIREMENTS STATED IN THIS SPECIFICATION. THE CABLE SHALL BE AN ACCEPTED PRODUCT OF THE UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE (RUS) 7 CFR 1755.900 AND MEET THE REQUIREMENTS OF ANSI/ICEA STANDARD FOR FIBER OPTIC OUTSIDE PLANT COMMUNICATIONS CABLE, ANSI/ICEA S-87-640-1999. FIBER OPTIC CABLE MANUFACTURER MUST BE 100% VERTICALLY INTEGRATED WITH THE FIBER MANUFACTURER. THE CABLE MANUFACTURER MUST BE ABLE TO PROVIDE A 25 YEAR WARRANTY ON ALL FIBER OPTIC COMPONENTS. CABLE MANUFACTURER MUST BE ABLE TO PROVIDE ALL FIBER TYPES REQUIRED FROM THE SAME FIBER MANUFACTURER. THE CABLE MANUFACTURER MUST BE ABLE TO PROVIDE CABLE, CONNECTORS, HARDWARE, SPLICE EQUIPMENT AND TEST EQUIPMENT UNDER THE SAME MANUFACTURER'S NAME.

ALL FIBER OPTIC CABLE ON THIS PROJECT SHALL BE FROM A MANUFACTURER WHO IS REGULARLY ENGAGED IN THE PRODUCTION OF THIS MATERIAL. ALL OUTSIDE PLANT LOOSE TUBE FIBER OPTIC CABLE AND ALL OUTSIDE PLANT LOOSE TUBE DROP CABLES USED ON THIS PROJECT SHALL BE FROM THE SAME MANUFACTURER.

1. CABLE MARKING CHARACTERISTICS

CABLE JACKETS SHALL BE MARKED WITH THE MANUFACTURER'S NAME, MONTH AND YEAR OF MANUFACTURE, SEQUENTIAL FOOT MARKINGS, A TELECOMMUNICATION HANDSET SYMBOL AS REQUIRED BY SECTION 350G OF THE NATIONAL ELECTRICAL SAFETY CODE® (NESC®), FIBER COUNT, AND FIBER TYPE. THE ACTUAL LENGTH OF THE CABLE SHALL BE WITHIN -/+1% OF THE LENGTH MARKINGS. THE PRINT COLOR SHALL BE WHITE, WITH THE EXCEPTION THAT CABLE JACKETS CONTAINING ONE OR MORE COEXTRUDED WHITE STRIPES, WHICH SHALL BE PRINTED IN LIGHT BLUE. THE HEIGHT OF THE MARKING SHALL BE APPROXIMATELY 0.098 INCH (2.5 mm).

2. GENERAL CABLE PERFORMANCE SPECIFICATIONS

THE MAXIMUM PULLING TENSION SHALL BE 2700 N (608 lbf) DURING INSTALLATION (SHORT TERM) AND 890 N (200 lbf) LONG TERM INSTALLED.

THE SHIPPING, STORAGE, AND OPERATING TEMPERATURE RANGE OF THE CABLE SHALL BE -40°C TO +70°C. THE INSTALLATION TEMPERATURE RANGE OF THE CABLE SHALL BE -30°C TO +70°C.

WHEN TESTED IN ACCORDANCE WITH FOTP-3, "PROCEDURE TO MEASURE TEMPERATURE CYCLING EFFECTS ON OPTICAL FIBERS, OPTICAL CABLE, AND OTHER PASSIVE FIBER OPTIC COMPONENTS," THE CHANGE IN ATTENUATION AT EXTREME OPERATIONAL TEMPERATURES (-40°C AND +70°C) SHALL NOT

EXCEED 0.15 dB/km AT 1550 nm FOR SINGLE-MODE FIBER AND 0.3 dB/km AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-81, "COMPOUND FLOW (DRIP) TEST FOR FILLED FIBER OPTIC CABLE," THE CABLE SHALL EXHIBIT NO FLOW (DRIP OR LEAK) OF FILLING AND/OR FLOODING MATERIAL AT 70°C.

WHEN TESTED IN ACCORDANCE WITH FOTP-82, "FLUID PENETRATION TEST FOR FLUID-BLOCKED FIBER OPTIC CABLE," A 3 FOOT (ONE METER) LENGTH OF UNAGED CABLE SHALL WITHSTAND A 3 FOOT (ONE METER) STATIC HEAD OR EQUIVALENT CONTINUOUS PRESSURE OF WATER FOR ONE HOUR WITHOUT LEAKAGE THROUGH THE OPEN CABLE END.

WHEN TESTED IN ACCORDANCE WITH FOTP-41, "COMPRESSIVE LOADING RESISTANCE OF FIBER OPTIC CABLES," THE CABLE SHALL WITHSTAND A MINIMUM COMPRESSIVE LOAD OF 220 N/cm (125 lbf/in) APPLIED UNIFORMLY OVER THE LENGTH OF THE SAMPLE. THE 220 N/cm (125 lbf/in) LOAD SHALL BE APPLIED AT A RATE OF 2.5 mm (0.1 in) PER MINUTE. THE LOAD SHALL BE MAINTAINED FOR A PERIOD OF 1 MINUTE. THE LOAD SHALL THEN BE DECREASED TO 110 N/cm (63 lbf/in). ALTERNATIVELY, IT IS ACCEPTABLE TO REMOVE THE 220 N/cm (125 lbf/in) LOAD ENTIRELY AND APPLY THE 110 N/cm (63 lbf/in) LOAD WITHIN FIVE MINUTES AT A RATE OF 2.5 mm (0.1 in) PER MINUTE. THE 110 N/cm (63 lbf/in) LOAD SHALL BE MAINTAINED FOR A PERIOD OF 10 MINUTES. ATTENUATION MEASUREMENTS SHALL BE PERFORMED BEFORE RELEASE OF THE 110 N/cm (63 lbf/in) LOAD. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBERS AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-104, "FIBER OPTIC CABLE CYCLIC FLEXING TEST," THE CABLE SHALL WITHSTAND 25 MECHANICAL FLEXING CYCLES AROUND A SHEAVE DIAMETER NOT GREATER THAN 20 TIMES THE CABLE DIAMETER. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.1 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-25, "REPEATED IMPACT TESTING OF FIBER OPTIC CABLES AND CABLE ASSEMBLIES," EXCEPT THAT THE NUMBER OF CYCLES SHALL BE TWO AT THREE LOCATIONS ALONG A THREE FOOT (ONE METER) CABLE LENGTH AND THE IMPACT ENERGY SHALL BE AT LEAST 4.4 nm (IN ACCORDANCE WITH ICEA S-87-640)", THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-33, "FIBER OPTIC CABLE TENSILE LOADING AND BENDING TEST," USING A MAXIMUM MANDREL AND SHEAVE DIAMETER OF 560 mm, THE CABLE SHALL WITHSTAND A RATED TENSILE LOAD OF 2670N (601 lbf) AND RESIDUAL LOAD OF 30% OF THE RATED INSTALLATION LOAD. THE AXIAL FIBER STRAIN SHALL BE 60% OF THE FIBER PROOF LEVEL AFTER COMPLETION OF 60 MINUTE CONDITIONING AND WHILE THE CABLE IS UNDER THE RATED INSTALLATION LOAD. THE AXIAL FIBER STRAIN SHALL BE 20% OF THE FIBER PROOF LEVEL AFTER COMPLETION OF 10 MINUTE CONDITIONING AND WHILE THE CABLE IS UNDER THE RESIDUAL LOAD. THE CHANGE IN ATTENUATION AT RESIDUAL LOAD AND AFTER LOAD REMOVAL SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-85, "FIBER OPTIC CABLE TWIST TEST," A LENGTH OF CABLE NO GREATER THAN 6.5 FEET (2 METERS) SHALL WITHSTAND 10 CYCLES OF MECHANICAL TWISTING. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.15 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.30 dB AT 1300 nm FOR MULTI-MODE FIBER.

WHEN TESTED IN ACCORDANCE WITH FOTP-37, "LOW OR HIGH TEMPERATURE BEND TEST FOR FIBER OPTIC CABLE," THE CABLE SHALL WITHSTAND FOUR FULL TURNS AROUND A MANDREL EQUAL TO 20 TIMES THE CABLE DIAMETER AFTER CONDITIONING FOR FOUR HOURS AT TEST TEMPERATURES OF -30°C AND +60°C. NEITHER THE INNER NOR OUTER SURFACES OF THE JACKET SHALL EXHIBIT VISIBLE CRACKS, SPLITS, TEARS, OR OTHER OPENINGS. THE CHANGE IN ATTENUATION SHALL NOT EXCEED 0.30 dB AT 1550 nm FOR SINGLE-MODE FIBER AND 0.50 dB AT 1300 nm FOR MULTI-MODE FIBER.

3. QUALITY ASSURANCE PROVISIONS

ALL CABLED OPTICAL FIBERS > 3280 FEET (1000 METERS) IN LENGTH SHALL BE 100% ATTENUATION TESTED. THE ATTENUATION OF EACH FIBER SHALL BE PROVIDED WITH EACH CABLE REEL.

THE CABLE MANUFACTURER SHALL BE TL 9000 REGISTERED.

AT THE REQUEST OF THE ENGINEER, THE CONTRACTOR SHALL HAVE THE CABLE MANUFACTURER PROVIDE INSTALLATION PROCEDURES AND TECHNICAL SUPPORT CONCERNING THE ITEMS CONTAINED IN THESE SPECIFICATIONS.

THE COST OF MEETING ALL REQUIREMENTS OF THIS SECTION SHALL BE INCIDENTAL TO THE PROJECT.

FIBER OPTIC CABLE INSTALLATION REQUIREMENTS

THESE REQUIREMENTS SHALL APPLY TO ALL FIBER OPTIC CABLE BEING INSTALLED ON THIS PROJECT. THE FIBER OPTIC TRUNK CABLE AND DROP CABLE SHALL BE INSTALLED TO FOLLOW THE PATH AS SHOWN ON THE CONSTRUCTION PLAN SET. THE CONTRACTOR SHALL NOTIFY THE CITY OF DAYTON 48 HOURS PRIOR TO ALL FIBER OPTIC CABLE INSTALLATION. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO UTILIZE EXISTING MESSENGER CLAMPS AND CONDUIT TO INSTALL THE FIBER OPTIC TRUNK CABLE.

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A DETAILED CONSTRUCTION AND INSTALLATION PROCEDURE (SOP) COVERING ALL ASPECTS OF THE CONSTRUCTION AND INSTALLATION PROCESS FOR EACH SPECIFIC CABLE TYPE TO BE USED ON THIS PROJECT. THE SOP WILL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK ON THE PROJECT.

UNDERGROUND INSTALLATION

A DETECTABLE TAPE SYSTEM IS NOT REQUIRED WHEN INSTALLING FIBER OPTIC CABLE IN EXISTING CONDUIT; HOWEVER, A TONE WIRE SHALL BE INSTALLED IN ALL CITY OWNED CONDUIT TO PROVIDE A METHOD OF LOCATING FIBER/CONDUIT BETWEEN PULL BOXES. THE TONE WIRE SHALL HAVE SUFFICIENT LENGTH STORED WITHIN THE PULL BOXES TO PROVIDE FOR THE ATTACHMENT OF ELECTRONIC EQUIPMENT.

FIBER OPTIC CABLE INSTALLED IN CONDUIT SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

A. NO MORE THAN TWO 90 DEGREE CHANGES IN DIRECTION PER CABLE PULL.

B. CIRCUITOUS PULLS AND PULLS EXCEEDING 1000 FEET SHALL BE MADE BY BACK FEEDING OR CENTER FEEDING OF CABLE.

C. AFTER INSTALLATION THERE SHALL BE NO TENSION EXCEPT DUE TO CABLE WEIGHT.

D. TENSION OF CABLE SHALL BE MONITORED WITH A TENSIOMETER DURING INSTALLATION.

E. THE APPLIED TENSION SHALL NOT EXCEED CABLE MANUFACTURER RECOMMENDATIONS. IN NO CASE SHALL TENSION EXCEED 400 POUNDS (182 kg).

F. THE CENTRAL STRENGTH MEMBER AND THE ARAMID YARD SHALL BE DIRECTLY ATTACHED TO THE PULLING EYE. "BASKET GRIP" OR "CHINESE FINGER" TYPE ATTACHMENTS SHALL NOT BE PERMITTED. A BREAKAWAY SWIVEL SHALL BE USED ON ALL PULLS.

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

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WHENEVER UNREELED CABLE IS PLACED ON THE PAVEMENT OR SURFACE ABOVE A MANHOLE, PROVIDE BARRICADES OR OTHER MEANS OF PREVENTING VEHICULAR OR PEDESTRIAN TRAFFIC THROUGH THE AREA.

A "FIGURE-EIGHT" CONFIGURATION SHOULD BE USED TO PREVENT KINKING OR TWISTING WHEN THE CABLE MUST BE UNREELED OR BACK FED. FIBER OPTIC CABLE SHOULD NOT BE COILED IN A CONTINUOUS DIRECTION EXCEPT FOR LENGTHS OF 100 FEET OR LESS. THE PREFERRED SIZE FOR THE FIGURE-EIGHT" IS ABOUT 15 FEET IN LENGTH; WITH EACH LOOP 5 FEET TO 8 FEET IN DIAMETER. TRAFFIC CONES SPACED 10 FEET APART ARE USEFUL GUIDES DURING "FIGURE-EIGHTING". WHEN "FIGURE-EIGHTING" LONG LENGTHS OF CABLE, CARE SHOULD BE TAKEN TO RELIEVE PRESSURE ON THE CABLE AT THE CROSSOVER OF THE EIGHT. THIS CAN BE DONE BY PLACING CARDBOARD SHIMS AT THE CROSSOVER OR BY FORMING A SECOND "FIGURE-EIGHT". THE "FIGURE-EIGHT" MAY NEED TO BE FLIPPED OVER TO OBTAIN THE PULLING EYE, THIS CAN BE EASILY ACCOMPLISHED BY THREE PEOPLE, ONE AT EACH END AND ONE IN THE CENTER. THE CABLE CAN THEN BE PULLED OFF THE "FIGURE-EIGHT" THE REMAINING DISTANCE.

AERIAL INSTALLATION

THE CONTRACTOR SHALL REMOVE EXISTING COPPER CABLE PRIOR TO INSTALLING FIBER OPTIC CABLE, UNLESS SPECIFIED OTHERWISE. WHERE EXISTING MESSENGER CLAMPS ARE NOT REUSABLE OR WHERE THEY DO NOT EXIST, THE CONTRACTOR SHALL INSTALL NEW MESSENGER CLAMPS OF SIMILAR TYPE TO GRIP THE MESSENGER CABLE. THIS SHALL INCLUDE CLAMPS FOR SUSPENDING THE CABLE FROM BRIDGES. THE COST OF ALL CLAMPS AND HARDWARE SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC CABLE. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO INSTALLING FIBER OPTIC CABLE ON EXISTING WOOD POLES.

ANY SECTIONS OF CABLE SHOWN IN THE PLANS TO BE CONTAINED IN CONTROLLERS, CABINETS, POLES, CONDUITS, OR SUPPORTED ON MESSENGER WIRE INSTALLED FOR OTHER PURPOSES SHALL HAVE THE SUPPORTING MESSENGER AND JACKET WEB NEATLY REMOVED BY THE USE OF A TOOL SPECIFICALLY DESIGNED AND SIZED FOR THIS PURPOSE. DEVIATIONS FROM THE CABLE ROUTING SHOWN IN THE PLAN, FOR THE SOLE PURPOSE OF REDUCING THE AMOUNT OF MESSENGER TO BE REMOVED, WILL NOT BE PERMITTED.

UTILIZATION OF EXISTING MESSENGER WIRE, NOT PROVIDED BY THE PROJECT OR DESIGNATED THEREIN AS AVAILABLE FOR USE, IS PROHIBITED. SPAN WIRE MESSENGER WHICH SUPPORTS SIGNAL HEADS AND/OR OVERHEAD SIGNS SHALL NOT BE USED TO SUPPORT FIBER OPTIC CABLE. DEVIATION FROM THE CABLE ROUTING SHOWN IN THE PLANS, FOR THE PURPOSE OF REDUCING THE NEED FOR SEPARATE MESSENGER WIRE, WILL NOT BE PERMITTED.

FIBER OPTIC CABLE INSTALLED AERIALLY SHALL BE PROVIDED WITH A SAG OF 3% TO 5% UNLESS EXISTING CABLES WILL BE SHARING THE POLE IN WHICH CASE A SAG MATCHING THE EXISTING CABLES SHALL BE PROVIDED.

THE MINIMUM BEND RADIUS FOR BOTH AERIAL AND CONDUIT INSTALLATIONS SHALL BE 10 TIMES THE CABLE DIAMETER UNDER NO LOAD AND 20 TIMES THE CABLE DIAMETER UNDER APPLIED LOAD.

CABLE SPLICING SHALL BE HELD TO A MINIMUM AND THE SPLICE LOCATIONS WILL BE PRE-APPROVED BY THE ENGINEER. ALL SPLICES SHALL BE FUSION SPLICES PROTECTED BY INDIVIDUAL HEAT SHRINK SLEEVES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE OF ONE MILE BETWEEN ENTIRE CABLE SPLICE LOCATIONS. CABLE SPLICES OF ONLY THE REQUIRED BUFFER TUBES WILL BE ALLOWED ONLY AT FIBER OPTIC DROP LOCATIONS. FIBERS THAT HAVE A DEFINED USE OR ARE DESIGNATED AS BEING SPLICED IN THE SPLICE CHART SHALL BE CONNECTED AND SPLICED. NO SPLICES BETWEEN INTERSECTIONS WILL BE ALLOWED EXCEPT WHERE DESIGNATED IN THE PLANS. IN THE CASE OF FIBER OPTIC CABLES FURNISHED AND INSTALLED BY THE CONTRACTOR, THE COST FOR THE QUANTITY OF EXCESS CABLE LEFT ON INDIVIDUAL REELS AND THE COST FOR ADDITIONAL SPLICES NOT SHOWN IN THE PLANS SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC CABLE.

<u>632 INTERCONNECT CABLE MISC.: FIBER OPTIC CABLE, 12 FIBER SINGLE-MODE, AS PER PLAN</u>

FIBER OPTIC CABLE ON THIS PROJECT IS OUTSIDE PLANT CABLE AND INCLUDES CABLES THAT ARE SPLICED TO CONNECT TO EACH OTHER AND SPLICED TO INCORPORATE DROP CABLES INTO THE SYSTEM.

THIS SPECIFICATION PROVIDES THE DESIGN AND CONSTRUCTION REQUIREMENTS FOR ARMORED, DOUBLE JACKETED, AERIAL AND UNDERGROUND OPTICAL FIBER CABLES. SPECIFICATIONS SET FORTH IN THE GENERAL FIBER OPTIC CABLE REQUIREMENTS FOR OUTSIDE PLANT CABLES APPLIES TO THE FIBER OPTIC CABLE.

1. CENTRAL MEMBER

THE CENTRAL MEMBER SHALL CONSIST OF A DIELECTRIC; GLASS REINFORCED PLASTIC (GRP) ROD. THE PURPOSE OF THE CENTRAL MEMBER IS TO PROVIDE TENSILE STRENGTH AND PREVENT BUCKLING. THE CENTRAL MEMBER SHALL BE OVERCOATED WITH A THERMOPLASTIC WHEN REQUIRED TO ACHIEVE DIMENSIONAL SIZING TO ACCOMMODATE BUFFER TUBES/FILLERS.

2. LOOSE TUBE CONSTRUCTION

THE LOOSE BUFFER TUBES SHALL BE GEL FILLED OR WRAPPED WITH A WATER BLOCKING TAPE AND CONTAIN INDIVIDUAL FIBERS FROM TWO TO TWELVE PER TUBE. FOR HYBRID CABLES, ALL SINGLE-MODE SHALL BE CONTAINED IN FIRST LOOSE TUBES (I.E. 1/BLUE, 2/ORANGE, ETC.) AS SHOWN IN TYPICAL DRAWINGS. BALANCE OF LOOSE TUBES SHALL CONTAIN MULTI-MODE, IF SPECIFIED.

THE BUFFER TUBES SHALL PERMIT AND BE DEMONSTRATED TO ALLOW FOR A SAFE INTENTIONAL "SCORING" AND BREAKOUT ENTRY WITHOUT JEOPARDIZING THE INTERNAL FIBERS. THIS IS REFERRED TO AS AN ACCEPTABLE "SCORE AND SNAP" PROPERTY. THE ENGINEER'S DETERMINATION OF "SCORE AND SNAP" AND "SAFE ENTRY" WILL BE FINAL AND WILL BE DETERMINED VIA GENERAL OBSERVATION OF THE PRODUCTION SAMPLE AS SUBMITTED FOR APPROVAL.

3. FILLERS

FILLERS MAY BE INCLUDED IN THE CABLE CORE TO LEND SYMMETRY TO THE CABLE CROSS-SECTION WHERE NEEDED. FILLERS SHALL BE PLACED SO THAT THEY DO NOT INTERRUPT THE CONSECUTIVE POSITIONING OF THE BUFFER TUBES. IN DUAL LAYER CABLES, ANY FILLER SHALL BE PLACED IN THE INNER LAYER. FILLERS SHALL BE NOMINALLY 0.098 INCH OR 0.118 INCH (2.5 mm OR 3.0 mm) IN OUTER DIAMETER.

4. RIPCORD

NON-ARMORED CABLES SHALL CONTAIN ONE RIPCORD UNDER THE SHEATH FOR EASY SHEATH REMOVAL. ARMORED CABLES SHALL CONTAIN TWO RIPCORDS UNDER THE STEEL ARMOR FOR EASY ARMOR REMOVAL. ADDITIONALLY, ARMORED CABLES THAT HAVE AN INNER SHEATH WILL ALSO CONTAIN ONE RIPCORD UNDER THE INNER SHEATH.

5. CORE CONSTRUCTION

BUFFER TUBES SHALL BE STRANDED AROUND THE DIELECTRIC CENTRAL MEMBER USING THE REVERSE OSCILLATION, OR "S-Z", STRANDING PROCESS. WATER SWELLABLE YARN(S) SHALL BE APPLIED LONGITUDINALLY ALONG THE CENTRAL MEMBER DURING STRANDING.

TWO POLYESTER YARN BINDERS SHALL BE APPLIED CONTRAHELICALLY WITH SUFFICIENT TENSION TO SECURE EACH BUFFER TUBE LAYER TO THE DIELECTRIC CENTRAL MEMBER WITHOUT CRUSHING THE BUFFER TUBES. THE BINDERS SHALL BE NON-HYGROSCOPIC, NON-WICKING, AND DIELECTRIC WITH LOW SHRINKAGE.

FOR SINGLE LAYER CABLES, A WATER SWELLABLE TAPE SHALL BE APPLIED LONGITUDINALLY AROUND THE OUTSIDE OF THE STRANDED TUBES/FILLERS. THE WATER SWELLABLE TAPE SHALL BE NON-NUTRITIVE TO FUNGUS, ELECTRICALLY NON-CONDUCTIVE, AND HOMOGENOUS. IT SHALL ALSO BE FREE FROM DIRT AND FOREIGN MATTER.

6. ARMOR

THE ARMOR SHALL BE COMPOSED OF A CORRUGATED STEEL TAPE, PLASTIC-COATED ON BOTH SIDES FOR CORROSION RESISTANCE, AND SHALL BE APPLIED WITH AN OVERLAPPING SEAM WITH THE CORRUGATIONS IN REGISTER. ALL ARMOR SPLICES SHALL BE GROUNDED AND RE-COATED WITH PLASTIC TO MAINTAIN THE ARMOR'S CORROSION RESISTANCE. THE OUTER JACKET SHALL BE APPLIED OVER THE CORRUGATED STEEL TAPE ARMOR.

7. OUTER JACKET

THE OUTER SHEATH JACKET SHALL BE COMPOSED OF MDPE. THE OUTER JACKET MATERIAL USED IN CONSTRUCTION OF THIS CABLE SHALL BE FUNGUS INERT AS DESCRIBED IN REQUIREMENT 4 OF MIL-STD-454. THE OUTER JACKET MATERIAL SHALL BE SUITABLE FOR LONG-TERM EXPOSURE TO SUNLIGHT AND WEATHER, WITH A LIFE EXPECTANCY IN ACCESS OF 20 YEARS. SUITABILITY SHALL BE DETERMINED IN ACCORDANCE WITH MIL-STD-810, METHOD 505. THE OUTER JACKET SHALL BE SMOOTH AND BE FREE FROM HOLES, SPLITS, BLISTERS, AND OTHER SURFACE FLAWS.

THE MDPE JACKET MATERIAL SHALL BE AS DEFINED BY ASTM D1248, TYPE II, CLASS C, CATEGORY 4 AND GRADES J4, E7 AND E8.

8. SUPPORT MESSENGER

THE CONTRACTOR WILL BE PERMITTED TO USE EITHER OF TWO TYPES OF INTERCONNECT CABLE CONSTRUCTION AND INSTALLATION FOR AERIAL CABLE RUNS (IF ANY) AS SHOWN ON THE PLANS:

INTEGRAL MESSENGER TYPE OPTICAL INTERCONNECT CABLE WITH 1/4 INCH (6 mm) MESSENGER MEETING THE REQUIREMENTS OF 732.18. UNDER THIS METHOD ANY SECTIONS OF CABLE SHOWN IN THE PLANS TO BE CONTAINED IN CONTROLLERS, CABINETS, POLES, CONDUITS, OR SUPPORTED ON MESSENGER WIRE INSTALLED FOR OTHER PURPOSES SHALL HAVE THE SUPPORTING MESSENGER AND JACKET WEB NEATLY REMOVED BY THE USE OF A TOOL SPECIFICALLY DESIGNED AND SIZED FOR THIS PURPOSE. DEVIATIONS FROM THE CABLE ROUTING SHOWN IN THE PLAN, FOR THE SOLE PURPOSE OF REDUCING THE NEED FOR SEPARATE MESSENGER WIRE, WILL NOT BE PERMITTED.

IN EITHER CASE, THE NUMBER OF SPLICE LOCATIONS SHALL BE KEPT TO A MINIMUM AND MESSENGER AND CABLE ARMOR SHALL BE GROUNDED AT SPLICE LOCATIONS SUCH THAT MAXIMUM SAFETY IS CONSIDERED.

9. CABLE CONSTRUCTION

BEGINNING FROM THE CENTRAL MEMBER TO THE OUTER SHEATH, BUFFER TUBES ARE STRANDED OVER A CENTRAL ANTI-BUCKLING MEMBER IN A PROCESS KNOWN AS REVERSE OSCILLATED STRANDING OR "SZ" STRANDING. A LAYER OF U.S. MANUFACTURED ARAMID YARNS, ALONG WITH AT LEAST ONE RIPCORD, SHALL BE APPLIED OVER THE BUFFER TUBE BUNDLE. CABLE CORE INTERSTICES SHALL BE SURROUNDED BY A WATER (BLOCK) SWELLABLE TAPE AND A LAYER OF HIGH STRENGTH GLASS YARNS SHALL SURROUND THE TAPE. AN MDPE INNER JACKET SHALL SURROUND THE ARAMID YARNS THEN ARMOR ADDED AND THE CABLE WILL BE JACKETED WITH MEDIUM DENSITY POLYETHYLENE (MDPE).

WHERE A FIGURE 8 TYPE CABLE IS SELECTED, THE INTEGRAL MESSENGER SHALL BE INCLUDED WITHIN THE OUTER JACKET.

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

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THIS ITEM SHALL ALSO INCLUDE CABLE MOUNTING ACCESSORIES SUCH AS POLE CLAMPS TO INSTALL AERIAL CABLE ON EXISTING POLES. CONTRACTOR SHALL FOLLOW CABLE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND THE RECOMMENDATIONS IN THE FIBER OPTIC CABLE INSTALLATION REQUIREMENTS.

632 INTERCONNECT, MISC.: SLACK INSTALLATION, AS PER PLAN

PROPER STORAGE OF SLACK CABLE, BOTH LONG TERM AND SHORT TERM WILL BE REQUIRED. THE CONTRACTOR SHALL NOT LEAVE SLACK CABLE LYING FREE ON THE GROUND, BOTTOM OF A PULL BOX, OR FLOOR OF A BUILDING EXCEPT DURING THE ACTUAL PULLING PROCESS. AT ALL OTHER TIMES, THE CABLE SHALL BE NEATLY MOUNTED, ADHERING TO THE BEND RADIUS REQUIREMENTS, ON RACKS OR BAYS. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, SHOP DRAWINGS OF MATERIALS AND INSTALLATION REQUIREMENTS FOR THE ANCHORED MOUNTING CHANNELS TO BE INSTALLED IN PULL BOXES AND MANHOLES, AS WELL AS, AERIAL HARDWARE.

SLACK STORAGE REQUIREMENTS ARE LISTED BELOW. THE FOLLOWING LENGTHS OF SLACK CABLE ARE MINIMUM:

DP&L MANHOLE	80 FEET
24"X36"X42" PULL BOX	70 FEET
TRAFFIC SIGNAL CONTROLLER CABINET	20 FEET
AERIAL STORAGE	150 FEET
EXISTING PULL BOX	0 FEET

ALL COSTS FOR MATERIALS, EQUIPMENT, AND LABOR TO PROVIDE A SLACK INSTALLATION SHALL BE INCLUDED IN THE PRICE BID PER EACH INSTALLATION FOR ITEM 632 INTERCONNECT, MISC.: SLACK INSTALLATION, AS PER PLAN. THIS SHALL INCLUDE THE COST OF THE FIBER OPTIC CABLE AND MOUNTING HARDWARE USED IN THE SLACK INSTALLATION. THE LINEAR QUANTITY OF FIBER OPTIC CABLE NECESSARY FOR THE SLACK INSTALLATION IS NOT SEPARATELY ITEMIZED IN ITEM 632 INTERCONNECT CABLE MISC.: FIBER OPTIC CABLE, (BY SIZE), AS PER PLAN.

632 INTERCONNECT, MISC.: PATCH CORD, AS PER PLAN

ALL FACTORY ASSEMBLIES PRE-FITTED WITH CONNECTORS SHALL ADHERE TO THE APPLICABLE CABLE, CORDAGE, AND FIBER SPECIFICATIONS STATED IN THIS SPECIFICATION. ALL PATCH CORDS SHALL MEET NEC JACKETING REQUIREMENTS FOR THIS PROJECT'S APPLICATION AND SHALL HAVE OUTER JACKET COLORATION OF ORANGE FOR MULTI-MODE PATCH CORDS AND YELLOW FOR SINGLE-MODE PATCH CORDS. ALL DUPLEX PATCH CORDS, ZIP CORD OR ROUND, SHALL HAVE CONNECTOR BOOTS OF TWO (2) COLORS; WHITE OR OFF WHITE FOR ONE LEG OF THE DUPLEX CORD (NON-PRINTED ZIP LEG) AND RED FOR THE OPPOSITE LEG (PRINTED ZIP LEG) OF THE DUPLEX CORD.

ONLY ONE MANUFACTURER'S CONNECTOR SHALL BE USED ON ANY ONE ASSEMBLY OR GROUP OF ASSEMBLIES USED WITHIN THE PROJECT. NO SPLICES OF ANY TYPE ARE ALLOWED WITHIN AN ASSEMBLY. EACH ASSEMBLY SHALL BE FULLY TESTED AND THOSE TEST RESULTS PLACED ON A TEST TAG FOR EACH MATED PAIR OF CONNECTORS, WHICH SHALL THEN BE ATTACHED TO ONE END OF EACH PAIR WITHIN THE ASSEMBLY. EACH ASSEMBLY SHALL BE INDIVIDUALLY PACKAGED WITHIN A PLASTIC BAG AND THAT BAG SHALL HAVE THE SUBMITTED MANUFACTURER'S PART NUMBER MARKED CLEARLY ON THE OUTSIDE OF SAID BAG.

COST FOR THE PATCH CORD SHALL BE AT THE BID ITEM PRICE FOR EACH ITEM 632 INTERCONNECT, MISC.: PATCH CORD, AS PER PLAN.

632 INTERCONNECT, MISC.: FAN-OUT KIT, 12 FIBER, AS PER PLAN

FAN-OUT KITS SHALL BE PROVIDED FOR LOOSE TUBE FIBER OPTIC CABLE TERMINAL ENDS THAT NEED TO BE FITTED WITH CONNECTORS. THE FAN-OUT KIT SHALL BE AN INDIVIDUAL BUFFER TUBE TYPE KIT. ALL FAN-OUT KITS SHALL HAVE A MINIMUM OF 24 INCHES (610 mm) OF TUBING COVERING EACH FIBER WHEN INSTALLATION IS COMPLETE. ANY EXTRA FIBERS AT THE CONTROLLER CABINET END THAT ARE NOT CONNECTORIZED SHALL BE INSERTED INTO THE FAN-OUT KIT AND SPOOLED IN THE INTERCONNECT CENTER FOR FUTURE USE. FAILURE TO MEET THESE REQUIREMENTS WILL RESULT IN THE CONTRACTOR REPLACING THE INSTALLATION AT THE CONTRACTOR'S EXPENSE.

PRIOR TO ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL; CATALOG CUT SHEETS, GENERAL SPECIFICATIONS, AND STANDARD OPERATING PROCEDURES FOR THE KIT THAT IS TO BE UTILIZED ON THE PROJECT. ONLY ONE MANUFACTURER'S FAN-OUT KIT MAY BE USED THROUGHOUT THE PROJECT. FAN-OUT KITS SHALL BE RATED FOR OUTDOOR USE.

COST FOR THE CONNECTORS USED WITH THE FAN-OUT KIT WILL BE ITEMIZED SEPARATELY. COST FOR LOOSE TUBE FAN-OUT KITS SHALL BE PAID AT THE BID ITEM PRICE FOR EACH ITEM 632 INTERCONNECT, MISC.: FAN-OUT KIT, 6 FIBER, AS PER PLAN AND SHALL INCLUDE ALL COSTS FOR MATERIAL, EQUIPMENT, TOOLS, AND LABOR TO PROVIDE AND INSTALL THE FAN-OUT KIT.

632 INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN

FIBER OPTIC CONNECTORS SHALL BE FIELD INSTALLABLE ST COMPATIBLE, CERAMIC FERRULE, WITH THE FIBER PERMANENTLY SECURED WITHIN THE FERRULE WITH EPOXY, (HEAT SET OR AIR DRIED), CHEMICALLY CURED, OR A HOT MELT ADHESIVE AS SPECIFIED BY THE CONNECTOR AND/OR THE EPOXY MANUFACTURER. WHEN CONNECTORS ARE INSTALLED OUTSIDE OF A CONTROLLED ENVIRONMENTAL LOCATION, THE CONNECTOR OPERATING TEMPERATURE SHALL BE BETWEEN -40°C AND +70°C. FOR THOSE APPLICATIONS WITHIN A CONTROLLED ENVIRONMENTAL LOCATION, THE OPERATING TEMPERATURE SHALL BE MINIMUM -20°C TO +60°C.

THE PROCEDURE FOR THE TERMINATION OF CONNECTORS USED SHALL MEET THE PROCESS SET OUT IN THE CONNECTOR MANUFACTURER'S STANDARD OPERATING PROCEDURE (SOP) FOR FIELD INSTALLATION. THIS SOP SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. UNLESS RECOMMENDED OTHERWISE BY THE MANUFACTURER, EACH FIBER SHALL BE CLEAVED, CLEANED, AND RECEIVE MULTIPLE POLISHINGS WITH INCREASINGLY FINE GRIT POLISHING PADS. THE APPROVED SOP WILL BE THE BASIS FOR INSPECTION.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH OF ITEM 632 INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN.

632 INTERCONNECT, MISC.: FUSION SPLICE, AS PER PLAN

SPLICING OF FIBER OPTIC CABLE WILL NOT BE PERMITTED EXCEPT IN EMERGENCY CONDITIONS OR AS SPECIFIED ON THE PLANS. FIBER OPTIC CABLE RUNS AND REQUIRED LOOPING OF THE CABLE SHALL BE PROVIDED IN ONE CONTINUOUS LENGTH. SPLICING SHALL BE BY TRAINED, AUTHORIZED PERSONS ONLY. ALL FIBER SPLICES ARE HOUSED IN SPLICE TRAYS INSIDE AN ENCLOSURE. A REINFORCED HEAT SHRINK SLEEVE SHALL PROVIDE STRAIN RELIEF FOR EACH FUSION SPLICE.

ALL FUSION SPLICING EQUIPMENT SHALL BE IN GOOD WORKING ORDER, PROPERLY CALIBRATED, AND MEETING INDUSTRY STANDARDS AND SAFETY REGULATIONS. CABLE PREPARATION, ENCLOSURE INSTALLATION, AND SPLICING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE ACCEPTED AND APPROVED INDUSTRY STANDARDS.

THE FUSION SPLICER USED ON THIS JOB MUST AUTOMATICALLY ALIGN FIBERS, DETERMINE CLEAVE QUALITY, FUSE THE FIBERS, AND PROVIDE THE OPERATOR WITH REFERENCE ESTIMATED SPLICE LOSS MEASUREMENTS. THE AVERAGE SPLICE LOSS SHALL BE 0.1 dB OR LESS PER FIBER SPLICE FOR MULTI-MODE AND SINGLE-MODE FIBERS. THE AVERAGE SPLICE LOSS IS DEFINED AS THE SUMMATION OF THE LOSS AS MEASURED IN BOTH DIRECTIONS USING AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) THROUGH THE FUSION SPLICE, DIVIDED BY TWO. NO INDIVIDUAL SPLICE LOSS MEASURED IN A SINGLE DIRECTION SHALL EXCEED 0.15 dB FOR MULTI-MODE OR SINGLE-MODE FIBER. A QUANTITY OF ONE FUSION SPLICE CONSISTS OF A PAIR OF FIBER ENDS THAT REQUIRE SPLICING.

632 INTERCONNECT, MISC.: FIBER OPTIC CABLE TESTING, AS PER PLAN

1. PRE-INSTALLATION TESTING

PRIOR TO ANY WORK, THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT ANY AND ALL FIBER OPTIC CABLE THAT SHALL BE USED ON THIS PROJECT HAS BEEN DELIVERED TO THE WORK SITE AND/OR THE CONTRACTOR'S STORAGE FACILITY WITHIN THIS SECTION'S SPECIFICATIONS. COMPLIANCE WITH THIS REQUIREMENT MAY BE ACCOMPLISHED IN ONE OF TWO WAYS.

(a) THE CONTRACTOR IS REQUIRED TO TEST A REPRESENTATIVE SAMPLE (MINIMUM 1 FIBER PER EACH RIBBON OR LOOSE TUBE) ON EACH REEL OF CABLE PRIOR TO INSTALLATION ACCORDING TO THE TESTING PROCEDURE OUTLINED BELOW UNDER "CONTINUITY TESTING".

UPON COMPLETION OF THESE TEST PROCEDURES, THE CONTRACTOR SHALL ISSUE TO THE ENGINEER ALL TEST DATA AS SPECIFIED AND A "LETTER OF QUALITY ASSURANCE" FROM THE CONTRACTOR STATING THAT THE FIBER OPTIC CABLE HAS BEEN DELIVERED TO THE CONSTRUCTION SITE AND/OR THE CONTRACTOR'S STORAGE FACILITY WITH THE SPECIFICATIONS REQUIRED BY THESE SPECIFICATIONS. UPON RECEIPT OF THE LETTER OF QUALITY ASSURANCE AND THE ENGINEER'S ACKNOWLEDGEMENT OF SAID RECEIPT, THE CONTRACTOR MAY COMMENCE INSTALLATION OF SAID CABLE AT THE CONTRACTOR'S RISK.

(b) THE CONTRACTOR MAY CERTIFY TO THE ENGINEER THAT THE FIBER OPTIC CABLE HAS BEEN DELIVERED TO THE SITE AND/OR HIS STORAGE FACILITY WITHIN THIS SECTION'S SPECIFICATION, IF THE CONTRACTOR SUPPLIES TO THE ENGINEER THE COMPLETE FACTORY TEST RESULTS, ACCOMPANIED BY A "LETTER OF QUALITY ASSURANCE" FROM THE CONTRACTOR. UPON RECEIPT OF THE LETTER OF QUALITY ASSURANCE, AND THE ENGINEER'S ACKNOWLEDGEMENT OF SAID RECEIPT, THE CONTRACTOR MAY COMMENCE INSTALLATION OF SAID CABLE AT THE CONTRACTOR'S RISK.

2. TESTING AFTER TERMINATION AND/OR SPLICING

UPON COMPLETION OF THE PULLS, ALL SPLICES, AND ALL TERMINATION OF CABLE ENDS, EACH AND ALL FIBERS WITHIN EACH SECTION OF THE CABLE PULL SHALL BE TESTED FOR CONTINUITY, EVENTS ABOVE 0.30 dB, AND TOTAL ATTENUATION OF THE CABLE. THE TEST SHALL BE CONDUCTED ACCORDING TO THE TESTING PROCEDURE AS OUTLINED BELOW.

THIS TEST PROCEDURE SHALL BE WITNESSED BY THE ENGINEER. NO EVENT SHALL EXCEED 0.30 dB. IF ANY EVENT IS DETECTED ABOVE THE MAXIMUM LEVEL, THE CONTRACTOR SHALL REPLACE OR REPAIR THAT EVENT POINT, TO THE SATISFACTION OF THE ENGINEER. THE TOTAL dB LOSS OF THIS TRACE, LESS EVENTS, SHALL NOT EXCEED THE MANUFACTURER'S PRODUCTION SPECIFICATIONS AS FOLLOWS:

CALCULATED SSS CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

211
316

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FIBER	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)
MULTI-MODE	850	3.5
	1300	1.0
SINGLE-MODE	1310	0.5
	1550	0.4

IF THE TOTAL LOSS EXCEEDS THESE SPECIFICATIONS, THE CONTRACTOR SHALL REPLACE OR REPAIR THAT CABLE RUN AT THE CONTRACTOR'S EXPENSE, BOTH LABOR AND MATERIALS. ELEVATED ATTENUATION DUE TO EXCEEDING THE PULLING TENSION DURING INSTALLATION WILL REQUIRE THE REPLACEMENT OF THE CABLE RUN AT THE CONTRACTOR'S EXPENSE, BOTH LABOR AND MATERIALS.

UPON COMPLETION, THE CONTRACTOR SHALL ISSUE TO THE ENGINEER ALL TRACES AND LOSS/LENGTH PRINT OUTS AND COMPUTER FILES (ASCII FORMAT) FOR APPROVAL.

NOTE: AT THE CONTRACTOR'S OPTION, THE ENGINEER WILL ALLOW THE "DIRECTIONAL/ AVERAGING" PROCESS OF THE OTDR TESTING, PARTICULARLY WHEN SPLICE LOSSES ARE BEING UNFAVORABLY IMPACTED BY "MODE FIELD DIAMETER MISALIGNMENT", "CORE OFFSET", OR "CORE MISALIGNMENT".

3. CONTINUITY TESTING

THIS TEST IS FOR CONTINUITY AND ATTENUATION PER KILOMETER (3280 FEET), ALONG WITH A GRAPHIC REPRESENTATION OF THE OPTICAL FIBER, "TRACE". THE TEST SHALL BE CONDUCTED ON THE 850 nm MULTI-MODE, 1300 nm MULTI-MODE, 1550 nm SINGLE-MODE WAVELENGTHS WITH AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) BY A QUALIFIED TECHNICIAN.

THE METHOD OF CONNECTIVITY BETWEEN THE OTDR AND THE CABLE SHALL BE A FACTORY PATCH CORD OF A LENGTH EQUAL TO THE "DEAD ZONE" OF THE OTDR WITH THE SPLICE TO THE PREPARED END OF THE FACTORY FIBER VIA "LAB SPLICE" OR THE CONTRACTOR CAN USE A FACTORY "FIBER BOX" OF 328 FEET MINIMUM WITH NO SPLICES WITHIN THE BOX. IF A PATCH CORD IS UTILIZED, THE LENGTH OF THE PATCH CORD SHALL BE STORED ON A FIBER STORAGE BOBBIN WITH A MINIMUM DIAMETER OF 2 FEET.

THE FIBER "TRACES" CREATED BY THE OTDR SHALL DEMONSTRATE THAT THE CABLE HAS PERFORMANCE CAPABILITIES WITHIN -3% TO +3% OF THE FACTORY TEST DOCUMENTATION THAT CAME WITH THE REEL OF FIBER OR 1% OF THE CABLE'S PUBLISHED PRODUCTION dB LOSS PER KILOMETER (3280 FEET) PLUS THE MAXIMUM OTDR ERROR LEVEL AS NOTED BY THE MANUFACTURER OF THE OTDR (TYPICALLY +2%).

EACH TRACE SHALL BE PRINTED (HARD COPY) AND SAVED ON DISK FOR FUTURE REFERENCE.

4. EQUIPMENT

AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) SHALL BE CAPABLE OF TESTING SINGLE-MODE AND MULTI-MODE FIBERS AS PART OF THIS SECTION. THE OTDR SHALL PROVIDE IMMEDIATE REPORT DISPLAYS AND THE ABILITY TO GRAPH, PRINT, AND MAGNETICALLY STORE TEST DATA. THIS ITEM INCLUDES ALL EQUIPMENT NECESSARY TO OPERATE THE OTDR IN LABORATORY AND FIELD CONDITIONS.

633 CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN

THE CONTROLLER SHALL BE AN EAGLE EPAC300 (3708M42) - NEMA TS-2 TYPE TWO. THE REMAINDER OF THE CONTROLLER ASSEMBLY EQUIPMENT WILL BE NEMA TS2 TYPE ONE.

THE MALFUNCTION MANAGEMENT UNIT (MMU) WILL BE AN EDI MMU 16E OR EQUAL. THE MMU SETTINGS FOR MINIMUM YELLOW TIMING ON ALL CHANNELS SHALL BE SET AT THREE AND ONE HALF SECONDS.

THE CABINET SHALL BE AN EAGLE M-36 CABINET. THE CONTROLLER CABINET SHALL BE TESTED AT THE CITY OF DAYTON TRAFFIC SIGNAL SHOP LOCATED AT 520 KISER STREET (333-2202)

THE CABINET SHALL BE ORIENTED TO FACE THE SIDEWALK.

AN EAGLE TF5012 LOAD BAY SHALL BE PROVIDED IN THE CABINET.

CORNING WCH-02P CONNECTOR HOUSING WITH TWO (2) 12 FIBER ST COMPATIBLE SINGLEMODE CONNECTOR PANELS SHALL BE INCLUDED.

A LIGHTENING PROTECTION DEVICE SUCH AS AN EPCO ARRESTOR #SHA-1250 AND A BASE #SHA-1250-BASE-A (OR APPROVED EQUAL) SHALL BE PROVIDED.

TEN DAY TEST REQUIREMENTS

CITY OF DAYTON REQUIRES A TEN DAY TEST TO START AFTER THE SIGNAL INSTALLATION IS 100% COMPLETE. NO PARTIAL TESTS WILL BE CONDUCTED. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE ENGINEER AND DAYTON STATING THAT THE SIGNAL INSTALLATION IS 100% COMPLETE AND A START DATE FOR THE TEN DAY TEST IS REQUESTED. IF LESS THAN 100% COMPLETION IS DETECTED UPON INSPECTION BY THE CITY OR ANY MALFUNCTION IS DETECTED, THAN THE TEN DAY TEST SHALL BE COMPLETELY RESTARTED.

THE CONTRACTOR SHALL CONTACT JOHN ZELINSKI, (937) 333-4087, 7 DAYS PRIOR TO THE TEN DAY PERFORMANCE TEST. RAMP SHALL NOT BE OPEN UNTIL THE COMPLETION OF THE INSPECTION.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS, INTERCONNECTION ITEMS AND MASTER CONTROL EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL NOTES
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

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SHEET NUMBER								FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				214	215	216		HSP	FED/ STATE	100% LOCAL						
															TRAFFIC SIGNAL & INTERCONNECT	
				10				10			625	25400	10	FT	CONDUIT, 2", 725.04	
				70				70			625	25402	70	FT	CONDUIT, 2", 725.05	
				42				42			625	25502	42	FT	CONDUIT, 3", 725.05	
						529		529			625	25802	529	FT	CONDUIT, CONCRETE ENCASED , 3"	
						434		434			625	25900	434	FT	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT , 3"	
				101		529		630			625	29000	630	FT	TRENCH	
				4				4			625	29901	4	EACH	JUNCTION BOX, AS PER PLAN	207
						4		4			625	31510	4	EACH	PULL BOX REMOVED	
				1		1		2			625	31600	2	EACH	PULL BOX, MISC.: PULL BOX, 725.07, 17" X 30", AS PER PLAN	207
				1		4		5			625	31600	5	EACH	PULL BOX, MISC.: PULL BOX, 725.07, 24" X 36", AS PER PLAN	207
				5				5			625	32000	5	EACH	GROUND ROD	
				2				2			630	79500	2	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
				4.5				4.5			630	80100	4.5	SQ FT	SIGN, FLAT SHEET	
				5				5			632	05001	5	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, AS PER PLAN	207
				2				2			632	05081	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, AS PER PLAN	207
				4				4			632	20721	4	EACH	PEDESTRIAN SIGNAL HEAD (LED) , TYPE D2, AS PER PLAN PER PLAN	207
				7				7			632	25000	7	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
				4				4			632	25010	4	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
				2				2			632	26001	2	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN	207
				3				3			632	26500	3	EACH	DETECTOR LOOP	
				399				399			632	30101	399	FT	MESSENGER WIRE, 7 STRAND, 5/16" DIAMETER WITH ACCESSORIES, AS PER PLAN	207
				378				378			632	40300	378	FT	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG	
				175				175			632	40500	175	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
				309				309			632	40700	309	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
				128				128			632	41200	128	FT	SIGNAL CABLE, 12 CONDUCTOR, NO. 14 AWG	
				142				142			632	43300	142	FT	SIGNAL CABLE, MISC.: SIGNAL CABLE, 21 CONDUCTOR, NO. 14 AWG	
						623		623			632	62810	623	FT	INTERCONNECT CABLE, MISC.: FIBER OPTIC CABLE, 12 FIBER SINGLE-MODE, AS PER PLAN	210
						2		2			632	62820	2	EACH	INTERCONNECT, MISC.: SLACK INSTALLATION, AS PER PLAN	211
						2		2			632	62820	2	EACH	INTERCONNECT, MISC.: PATCH CORD, AS PER PLAN	211
						1		1			632	62820	1	EACH	INTERCONNECT, MISC.: FAN-OUT KIT, 12 FIBER, AS PER PLAN	211
						8		8			632	62820	8	EACH	INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN	211
						56		56			632	62820	56	EACH	INTERCONNECT, MISC.: FUSION SPLICE, AS PER PLAN	211
								LUMP			632	62830	LUMP	LS	INTERCONNECT, MISC.: FIBER OPTIC CABLE TESTING, AS PER PLAN	211
					4			4			632	64000	4	EACH	STRAIN POLE FOUNDATION	
					350			350			632	65200	350	FT	LOOP DETECTOR LEAD-IN CABLE	
					375			375			632	68300	375	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
					375			375			632	69800	375	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
					1			1			632	70000	1	EACH	POWER SERVICE	
					4			4			632	84600	4	EACH	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 6	
					1			1			633	67100	1	EACH	CABINET FOUNDATION	
					1			1			633	01581	1	EACH	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN	212
					1			1			633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL GENERAL SUMMARY

MOT-75-14.60

213
316

Plotted By: acscheiderer Date: 10/2/2007 Time: 10:23:28 AM
Filename: g:\C004\0066\Traffic\Sheets\23828cg01_REVbrzozowski.dgn

TRAFFIC SIGNAL SUB-SUMMARY

CALCULATED SSS
CHECKED HJF

SHEET NO.	LOCATION	SIDE	625								630		632											
			CONDUIT, 2", 725.04	CONDUIT, 2", 725.05	CONDUIT, 3", 725.05	TRENCH	JUNCTION BOX. AS PER PLAN	PULL BOX. MISC.;PULL BOX, 725.07, 17" X 30", AS PER PLAN	PULL BOX. MISC.;PULL BOX. 725.07, 24" X 36", AS PER PLAN	GROUND ROD	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN. FLAT SHEET	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS. 1-WAY. AS PER PLAN	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS. 1-WAY. AS PER PLAN	PEDESTRIAN SIGNAL HEAD (LED) . TYPE D2. AS PER PLAN	COVERING OF VEHICULAR SIGNAL HEAD	COVERING OF PEDESTRIAN SIGNAL HEAD	PEDESTRIAN PUSHBUTTON, AS PER PLAN	DETECTOR LOOP	MESSENGER WIRE, 7 STRAND. 5/16" DIAMETER WITH ACCESSORIES, AS PER PLAN	SIGNAL CABLE. 3 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. 5 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. 7 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. 12 CONDUCTOR. NO.14 AWG	SIGNAL CABLE. MISC.;SIGNAL CABLE. 21 CONDUCTOR. NO. 14 AWG
			FT	FT	FT	FT	EACH	EACH	EACH	EACH	SQ. FT.	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT
217	9+65 (L2) (L3)	RT							1															
217	10+40 (L1)	LT						1																
217	9+71 (CONTROLLER)	RT								1														
217	9+75 (POLE A)	RT					1			1					2		2	1						
217	8+74 (POLE B)	RT					1			1	1	2.25			1		1							
217	8+87 (POLE C)	LT					1			1	1	2.25												
217	9+67 (POLE D)	LT					1			1					1		1	1						
217	PB-1 TO CNTR'L (L2) (L3)																		2					
217	PB-2 TO CNTR'L (L1)																		1					
217	PB2 TO POLE D			70		70																		
217	PB-1 TO CNTR'L				12	6																		
217	PB-1 TO POLE A				30	15																		
217	POLE A TO CNTR'L		10			10																		142
217	POLE A TO POLE B	RT																					128	
220	POLE A -> S-1																					56		
220	POLE A -> S-2																						47	
220	POLE A -> S-3																						262	
220	POLE A -> PED HEAD A	RT																			26			
220	POLE A -> PED HEAD C	RT																			26			
220	POLE A PUSHBUTTON -> CNTR'L	RT																			50			
220	POLE B -> PED HEAD B	RT																			26			
220	POLE C-> S-4																					38		
220	POLE C-> S-5																					25		
220	POLE D -> S-6																					34		
220	POLE D -> S-7																					22		
220	POLE D -> PED HEAD D	LT																			26			
220	POLE D PUSHBUTTON -> CNTR'L	LT																			224			
217	POLE A, B, C, D																			399				
217	9+63 (S-1)												1			1								
217	9+63 (S-2)													1		1								
217	8+88 (S-3)													1		1								
217	8+88 (S-4)												1			1								
217	8+88 (S-5)												1			1								
217	9+41 (S-6)												1			1								
217	9+54 (S-7)												1			1								
	* = HIGHWAY SAFETY PROGRAM																							
	ALLOCATED HSP GRAND TOTAL		10 *	70 *	42 *	101 *	4 *	1 *	1 *	5 *	2 *	4.5 *	5 *	2 *	4 *	7 *	4 *	2 *	3 *	399 *	378 *	175 *	309 *	128 *	142 *
	TOTAL THIS SHEET		10	70	42	101	4	1	1	5	2	4.5	5	2	4	7	4	2	3	399	378	175	309	128	142
	GRAND TOTAL CARRIED TO TRAFFIC SIGNAL GENERAL SUMMARY		10	70	42	101	4	1	1	5	2	4.5	5	2	4	7	4	2	3	399	378	175	309	128	142

MOT-75-14.60

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Filename: G:\C004\0066\Traffic\Sheets\23828cs01.dgn

SHEET NO.	LOCATION	SIDE	632						633																	
			STRAIN POLE FOUNDATION	LOOP DETECTOR LEAD-IN CABLE	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	POWER SERVICE	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 6	CABINET FOUNDATION	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN																
			EACH	FT	FT	FT	EACH	EACH	EACH	EACH																
217	9+71 (CONTROLLER)	RT							1	1																
217	9+75 (POLE A)	RT	1				1	1																		
217	8+74 (POLE B)	RT	1					1																		
217	8+87 (POLE C)	LT	1					1																		
217	9+67 (POLE D)	LT	1					1																		
217	PB-1 TO CNTR'L (L2) (L3)			46																						
217	PB-2 TO CNTR'L (L1)			304																						
217	POLE A TO POWER SOURCE				375																					
217	POLE A TO POWER SOURCE					375																				
	✱ = HIGHWAY SAFETY PROGRAM																									
	ALLOCATED HSP GRAND TOTAL		4 ✱	350 ✱	375 ✱	375 ✱	1 ✱	4 ✱	1 ✱	1 ✱																
	TOTAL THIS SHEET		4	350	375	375	1	4	1	1																
	GRAND TOTAL CARRIED TO TRAFFIC SIGNAL GENERAL SUMMARY		4	350	375	375	1	4	1	1																

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL SUB-SUMMARY

MOT-75-14.60

215
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:20 AM
Filename: G:\C004\0066\Traffic\Sheets\23828es02.dgn

SHEET NO.	LOCATION	SIDE	625						632																			
			CONDUIT, CONCRETE ENCASED, 3"	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3"	TRENCH	PULL BOX REMOVED	PULL BOX, MISC.:PULL BOX, 725.07, 17" X 30", AS PER PLAN	PULL BOX, MISC.:PULL BOX, 725.07, 24" X 36", AS PER PLAN	INTERCONNECT CABLE, MISC.:FIBER OPTIC CABLE, 12-FIBER SINGLE-MODE, AS PER PLAN	INTERCONNECT, MISC.:SLACK INSTALLATION, AS PER PLAN	INTERCONNECT, MISC.:PATCH CORD, AS PER PLAN	INTERCONNECT, MISC.:FAN-OUT KIT, 12-FIBER, AS PER PLAN	INTERCONNECT, MISC.:FIBER OPTIC CONNECTOR, SINGLE-MODE, AS PER PLAN	INTERCONNECT, MISC.:FUSION SPLICE, AS PER PLAN													
			FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH													
218	4+07 TO 4+76	CL							69																		
218	4+76 TO 5+31	CL							55	1				8													
218	5+31 TO 6+74	CL							143																		
218	6+74 TO 8+73	CL				1		1	199																		
218	8+73 TO 8+88	LT & RT		150				1	75																		
218	8+88 TO 9+66	RT		164					82																		
218	9+66 TO 10+17	RT	60		60			1		1																	
218	10+17 TO 12+51	RT	239		239	1	1																				
218	12+51 TO 14+82	RT	230		230	2		1																			
218	14+82 RT TO 14+90 LT LIGHTING PULL BOX	RT & LT		56																							
218	14+82 RT TO 15+06 LT EX. PULL BOX	RT & LT		64																							
218	EX. PB TO EX. UTIL POLE TO EX. AERIAL FO	LT												48													
218	9+71 (CONTROLLER)	RT									2	1	8														
* = HIGHWAY SAFETY PROGRAM																											
ALLOCATED HSP GRAND TOTAL			529 *	434 *	529 *	4 *	1 *	4 *	623 *	2 *	2 *	1 *	8 *	56 *													
TOTAL THIS SHEET			529	434	529	4	1	4	623	2	2	1	8	56													
GRAND TOTAL CARRIED TO TRAFFIC SIGNAL GENERAL SUMMARY			529	434	529	4	1	4	623	2	2	1	8	56													

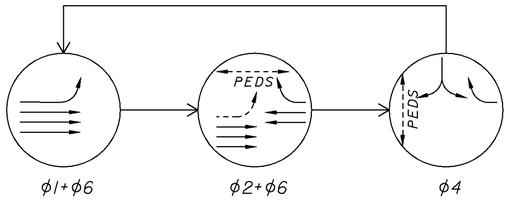
CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL INTERCONNECT SUB-SUMMARY

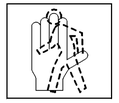
MOT-75-14.60

Plotted By: acscheiderer Date: 10/2/2007 Time: 10:25:47 AM
Filename: g:\C004\0066\Traffic\Sheets\23828cs03_ic_REVbrzozowski.dgn

PHASING DIAGRAM

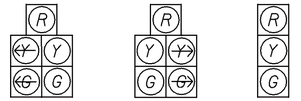


PEDESTRIAN SIGNAL HEADS
(L.E.D, SYMBOLIC)



(TYPE D-2)
A,B,C,D

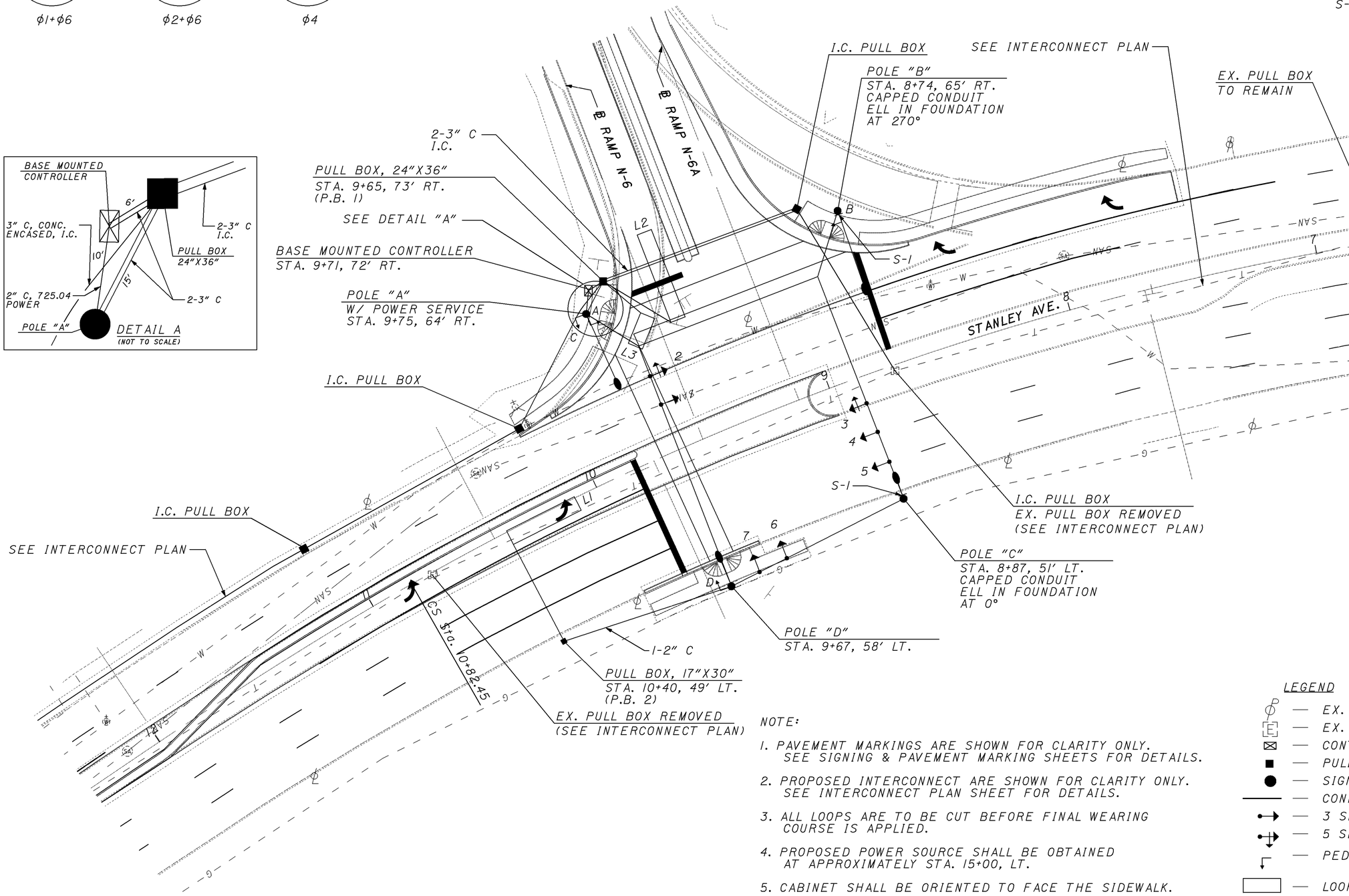
VEHICULAR SIGNAL HEADS
(L.E.D)



3 | 2 | 1,4,5,6,7
ALL 12" LENS

SIGNS

R9-3a-18
(ON POLES B & C)
2 ea.
S-1



NOTE:

1. PAVEMENT MARKINGS ARE SHOWN FOR CLARITY ONLY. SEE SIGNING & PAVEMENT MARKING SHEETS FOR DETAILS.
2. PROPOSED INTERCONNECT ARE SHOWN FOR CLARITY ONLY. SEE INTERCONNECT PLAN SHEET FOR DETAILS.
3. ALL LOOPS ARE TO BE CUT BEFORE FINAL WEARING COURSE IS APPLIED.
4. PROPOSED POWER SOURCE SHALL BE OBTAINED AT APPROXIMATELY STA. 15+00, LT.
5. CABINET SHALL BE ORIENTED TO FACE THE SIDEWALK.

LEGEND

- EX. POWER POLE
- EX. ELEC. BOX
- CONTROLLER
- PULL BOX
- SIGNAL STRAIN POLE
- CONDUIT
- 3 SECTION SIGNAL HEADS
- 5 SECTION SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- LOOP DETECTOR

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL PLAN
STANLEY AVENUE AT RAMPS N-6 AND N-6A

MOT-75-14.60

217
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:22 AM
Filename: G:\C004\0066\Traffic\Sheets\23828cp01.dgn

NOTE:

1. PAVEMENT MARKINGS ARE SHOWN FOR CLARITY ONLY. SEE SIGNING & PAVEMENT MARKING SHEETS FOR DETAILS.
2. PROPOSED SIGNAL IS SHOWN FOR CLARITY ONLY. SEE TRAFFIC SIGNAL PLAN SHEETS FOR DETAILS.

EX. SIGNAL CONTROLLER

EX. PULL BOX

RAMP N-8

EX. 48-FIBER SM
IN CONDUIT (BY OTHERS)
PROP. 12-FIBER SM

I.R. 75

RAMP N-7

EX. PULL BOX
BY OTHERS

EX. 24"X36" PULL BOX
BY OTHERS

EX. PULL BOX
PROP. 8 FUSION SPLICES
SLACK INSTALLATION

PROP. 24"X36" PULL BOX
STA. 8+73, 2' LT.
(EX. PULL BOX
TO BE REMOVED)

EX. PULL BOX
BY OTHERS

EX. CONDUIT,
EX. 48-FIBER SM,
PROP. 12-FIBER SM

2-3" C, JACKED OR DRILLED
UNDER PAVEMENT,
REROUTED 48-FIBER SM
PROP. 12-FIBER SM

PROP. 24"X36" PULL BOX
STA. 8+88, 71' RT

2-3" C, JACKED OR DRILLED
UNDER PAVEMENT
REROUTED 48-FIBER SM
PROP. 12-FIBER SM

STANLEY AVE.

RAMP N-6A

RAMP N-6

SIGNAL PULL BOX
24"X36"

EX. PULL BOX
TO BE REMOVED

3" C, CONC.
ENCASED,
REROUTED
48-FIBER SM

PROP. 24"X36" PULL BOX
STA. 10+17, 34' RT

3" C, CONC.
ENCASED,
REROUTED
48-FIBER SM

SIGNAL CONTROLLER CABINET
2 ST-FC DUPLEX PATCH CORDS, 3' LONG
12 FIBER FAN OUT KIT
8 ST CONNECTORS
SLACK INSTALLATION

TIE REROUTED 48-FIBER SM
I.C. INTO EXISTING AERIAL
F.O. SPLICE ENCLOSURE

PROP. 48 FUSION SPLICES

(ENCLOSURE AND SPLICE TRAY
INSTALLED BY OTHERS PER
MOT-CABLE UPGRADE, PID 75312)

2-3" C, JACKED OR DRILLED
UNDER PAVEMENT,
(1) TO STA. 15+06, 34' LT, EX. PB
W/REROUTED 48-FIBER SM
(1) TO STA. 14+90, 30' LT
LIGHTING PULL BOX

RAMP N-9

RAMP N-10

EX. PULL BOX
TO BE REMOVED

3" C, CONC.
ENCASED,
REROUTED
48-FIBER SM

PROP. 24"X36" PULL BOX
STA. 14+82, 25' RT.

PROP. 17"X30" PULL BOX
STA. 12+51, 34.5' RT
REMOVE A SUFFICIENT AMOUNT OF THE
EXISTING POLE FOUNDATION TO PROVIDE
FOR THE INSTALLATION OF A PULL BOX AND
TO ROUTE A LIGHTING CONDUIT BYPASS
BENEATH THE PULL BOX.

MATCH LINE 15+00, STANLEY AVE.

STA. 15+06, 34' LT
EX. PULL BOX
TO BE RETAINED

MATCH LINE 15+00, STANLEY AVE.

EX. AERIAL I.C.
(BY OTHERS)

STANLEY AVE.

N. KEOWEE ST.

EX. SIGNAL CONTROLLER

SEQUENCE OF INTERCONNECT WORK TO BE PERFORMED:

THE 48-FIBER SM CABLE SHALL REMAIN IN PLACE UNTIL THE NEW CONDUIT PATH IS INSTALLED. THE 48-FIBER SM CABLE MAY ONLY BE TAKEN OUT OF SERVICE FOR A MAXIMUM OF 24 HOURS.

1. CONSTRUCT PROPOSED INTERCONNECT PATH INCLUDING THE REMOVAL OF THE EXISTING PULL BOX AT STA. 8+73± AND INSTALLING NEW PULL BOX. EXISTING INTERCONNECT CABLE SHALL REMAIN INTACT WHILE CHANGING PULL BOX AT STA. 8+73±.
2. DISCONNECT INTERCONNECT CABLE AT THE EXISTING AERIAL SPLICE ENCLOSURE LOCATED AT APPROXIMATELY STA. 15+00±. PULL EXISTING CABLE FROM THE WEST AND REROUTE VIA NEW CONDUIT RUN BACK TO AERIAL SPLICE ENCLOSURE BYPASSING LOCAL CONTROLLER CABINET. (USE EX. SLACK AS NEEDED)
3. INSTALL NEW 12-FIBER SM INTERCONNECT CABLE FROM EXISTING SPLICE ENCLOSURE IN PULL BOX AT STA. 5+30± TO NEW CONTROLLER CABINET LOCATION AT STA. 9+71±.

LEGEND

- EX. POWER POLE
- EX. ELEC. BOX
- CONTROLLER
- PULL BOX
- SIGNAL STRAIN POLE
- CONDUIT
- 3 SECTION SIGNAL HEADS
- 5 SECTION SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- LOOP DETECTOR

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SSS
CHECKED HJF

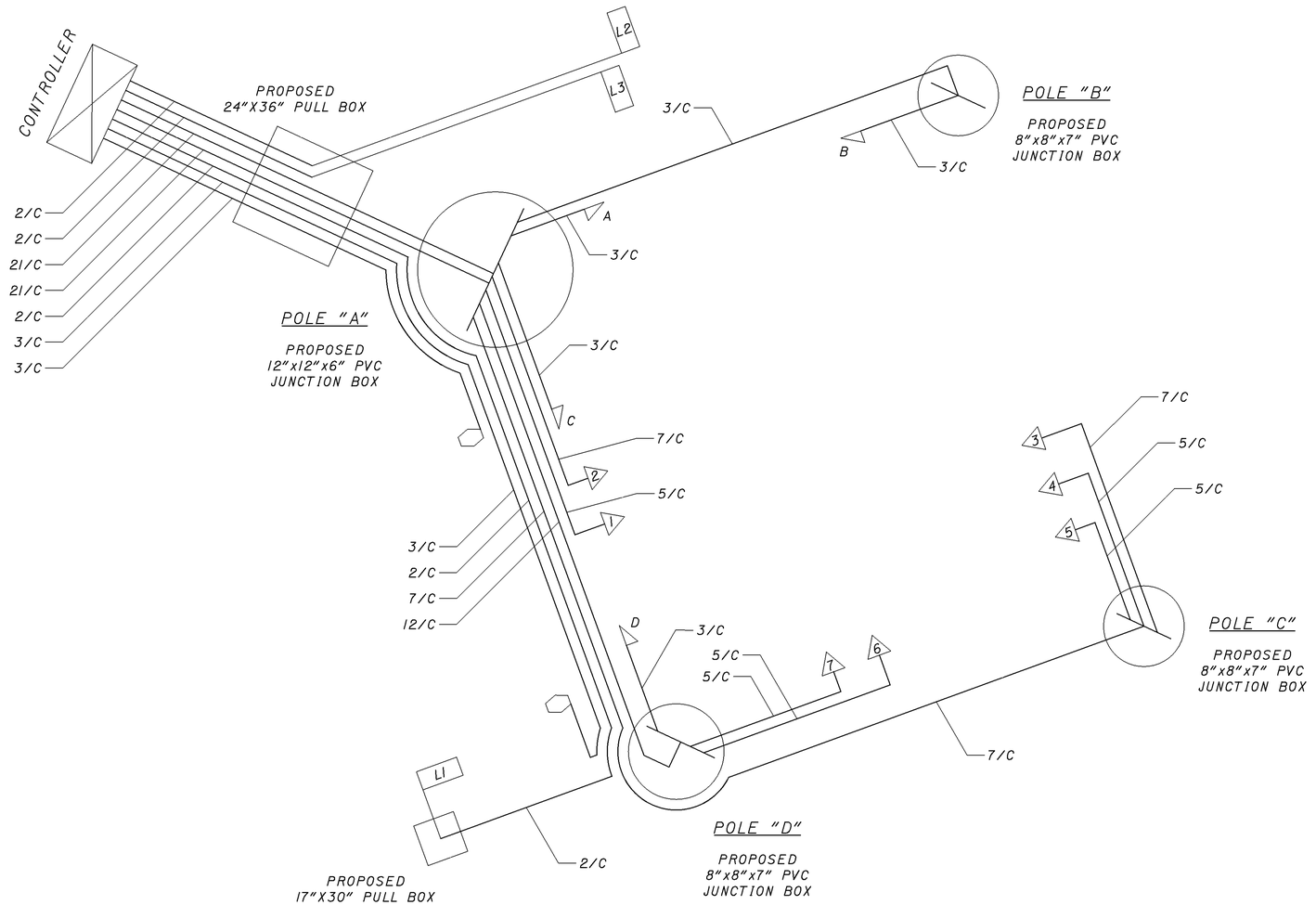
TRAFFIC SIGNAL INTERCONNECT PLAN
I.R. 75 NB RAMPS TO N. KEOWEE STREET

MOT-75-14.60

218
316

Plotted By: acscheiderer Date: 10/2/2007 Time: 10:32:38 AM
Filename: g:\C004\0066\Traffic\Sheets\23828cp02_REVbrzozowski.dgn

SIGNAL WIRING DIAGRAM
STANLEY AVENUE, RAMP N-6, RAMP N-6A



21-CONDUCTOR CABLE

1	RED	R	
2	ORANGE	~~Y~~	EASTBOUND
3	GREEN	~~G~~	LEFT
4	RED/BLACK	R	
5	ORANGE/BLACK	Y	EASTBOUND
6	GREEN/BLACK	G	
7	RED/WHITE	R	
8	ORANGE/WHITE	Y	SOUTHBOUND
9	GREEN/WHITE	G	
10	RED/GREEN	R	
11	ORANGE/GREEN	Y	WESTBOUND
12	WHITE/RED	G	
13	WHITE/BLACK	DW	NORTH
14	WHITE	W	CROSSWALK
15	BLUE/BLACK	DW	SOUTH
16	BLUE	W	CROSSWALK
17	BLUE/RED	DW	WEST
18	BLUE/WHITE	W	CROSSWALK
19	BLACK/RED	DW	EAST
20	BLACK/WHITE	W	CROSSWALK
21	BLACK	GROUND	

3/C PEDESTRIAN PUSHBUTTONS

RED
WHITE
BLACK - SPARE

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL
- PEDESTRIAN SIGNAL
- PULLBOX
- CONTROLLER
- PUSHBUTTON
- PVC JUNCTION BOX
- LI — INDUCTIVE LOOP

WIRING NOTES:

1. THE 6-FIBER SM INTERCONNECT CABLE ACCESSES CONTROLLER CABINET VIA ADJACENT 24"X36" PULL BOX. THE 48-FIBER INTERCONNECT TRUNK LINE PASSES THROUGH THIS PULL BOX AND BYPASSES THE LOCAL CONTROLLER CABINET. SEE INTERCONNECT PLANS FOR ADDITIONAL INFORMATION AND DETAILS.

2. LIGHTING UNITS ON COMBINATION-TYPE STRAIN POLES ARE TO BE CONNECTED TO LIGHTING CIRCUITS ON RESPECTIVE SIDE OF STANLEY AVENUE. DISTRIBUTION CABLE ENTERS STRAIN POLE FOUNDATION VIA SEPARATE CONDUIT, POLE AND BRACKET CABLE IS THEN USED FOR SERVICING LUMINAIRES.

CALCULATED SSS
CHECKED HJF

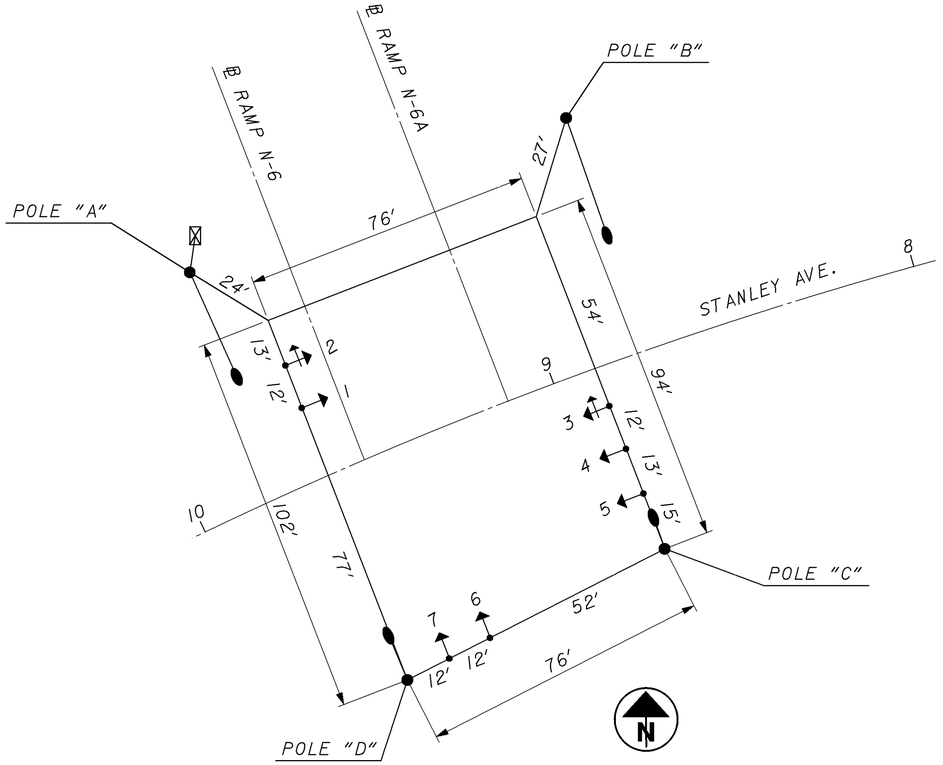
TRAFFIC SIGNAL WIRING DIAGRAM
STANLEY AVENUE, RAMP N-6 AND N-6A

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:23 AM
Filename: G:\C004\0066\Traffic\Sheets\23828cd01.dgn

TRAFFIC SIGNAL DETECTOR CHART

LOOP DESIGNATION	SIZE (FT.)	NUMBER OF TURNS	PULSE OR PRESENCE	DELAY (SEC.)	EXTENSION SEC.)	OVERRIDE PHASE	CONNECT TO DETECTOR UNIT (UNIT # / CHANNEL)	ASSOCIATED CONTROLLER PHASE
L1	6 X 30	3	PRESENCE	3		1	1 / 1	1
L2	6 X 35	3	PRESENCE	3		4	2 / 1	4
L3	6 X 13	4	PRESENCE	12		4	3 / 1	4

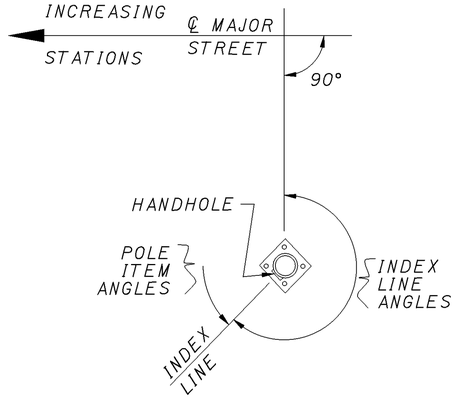


SPAN DIAGRAM

PLAN DETAILS FOR STRAIN POLES

FROM SHEET NO.	REFERENCE STREET ℄ STANLEY AVE. STATION & OFFSET	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	SPAN WIRE ATTACH. HT. (FT.)	INDEX ANGLE (DEG.)	ANGLES (DEG.) FROM INDEX LINE							
							PEDESTRIAN SIGNALS	PEDESTRIAN PUSH BUTTONS		POWER SERVICE	CABLE ENTRANCE 12" FROM TOP	LUMINAIRE BRACKET	JUNCTION BOX	2" EMPTY CAPPED
217	9+75, 64' RT.	A	6	40	28	145	225/315	225		0	180	215	0	
217	8+74, 65' RT.	B	6	40	28	215	135	180			180	145	0	270
217	8+87, 51' LT.	C	6	40	28	140					180	220	0	0
217	9+67, 58' LT.	D	6	40	28	220	45	140			180	140	0	

NOTES:
1. ALL ANGLES ARE MEASURED CLOCKWISE.
2. THE INDEX LINE GOES THROUGH THE CENTER OF THE HANDHOLE.
3. ALL POLES ARE COMBINATION STRAIN POLES.
4. NOMINAL LUMINAIRE MOUNTING HEIGHT SHALL BE 40'.



TRAFFIC SIGNAL CONTROLLER TIMING CHART - ACTUATED

INTERSECTION: STANLEY AVE. @ IR-75 SB RAMPS
MAINTAINING AGENCY: CITY OF DAYTON

Start Up

Start In: ○ y/r flash or ● all red
Time for Flash or All Red: 10 sec.
First Phases: ϕ2 & ϕ6
Color Displayed: ● Green ○ Yellow

Dual Entry ○
Rest In Red: ○ Ring 1 ○ Ring 2

Overlap Phases	A	B	C	D

Phase			1	2	3	4	5	6	7	8
Movement			EBL	WBT		SB		EBT		
Minimum Green (Initial)		(Sec.)	7	30		7		30		
Added Initial		*(Sec./Actuation)								
Passage (Preset Gap)		(Sec.)	2.0	3.8		2.0		3.8		
Time Before Reduction		*(Sec.)								
Minimum Gap		*(Sec.)								
Time To Reduce		*(Sec.)								
Max. Green I		(Sec.)	20	60		35		60		
Max. Green II		(Sec.)	20	60		35		60		
Yellow Change		(Sec.)	3.0	4.0		3.0		4.0		
All Red Clearance		(Sec.)	2.0	2.0		2.0		2.0		
Walk		(Sec.)		7		7				
Pedestrian Clearance		(Sec.)		25		29				
Recall	Maximum	(On/Off)								
	Minimum	(On/Off)								
	Pedestrian	(On/Off)		ON						
Memory		(On/Off)								
Call To Non Actuated	No. 1			ON				ON		
	No. 2									

* Volume Density Controls

CALCULATED SSS
CHECKED HJF

TRAFFIC SIGNAL PLAN DETAILS
STANLEY AVENUE AND RAMPS N-6 AND N-6A

MOT-75-14.60

220
316

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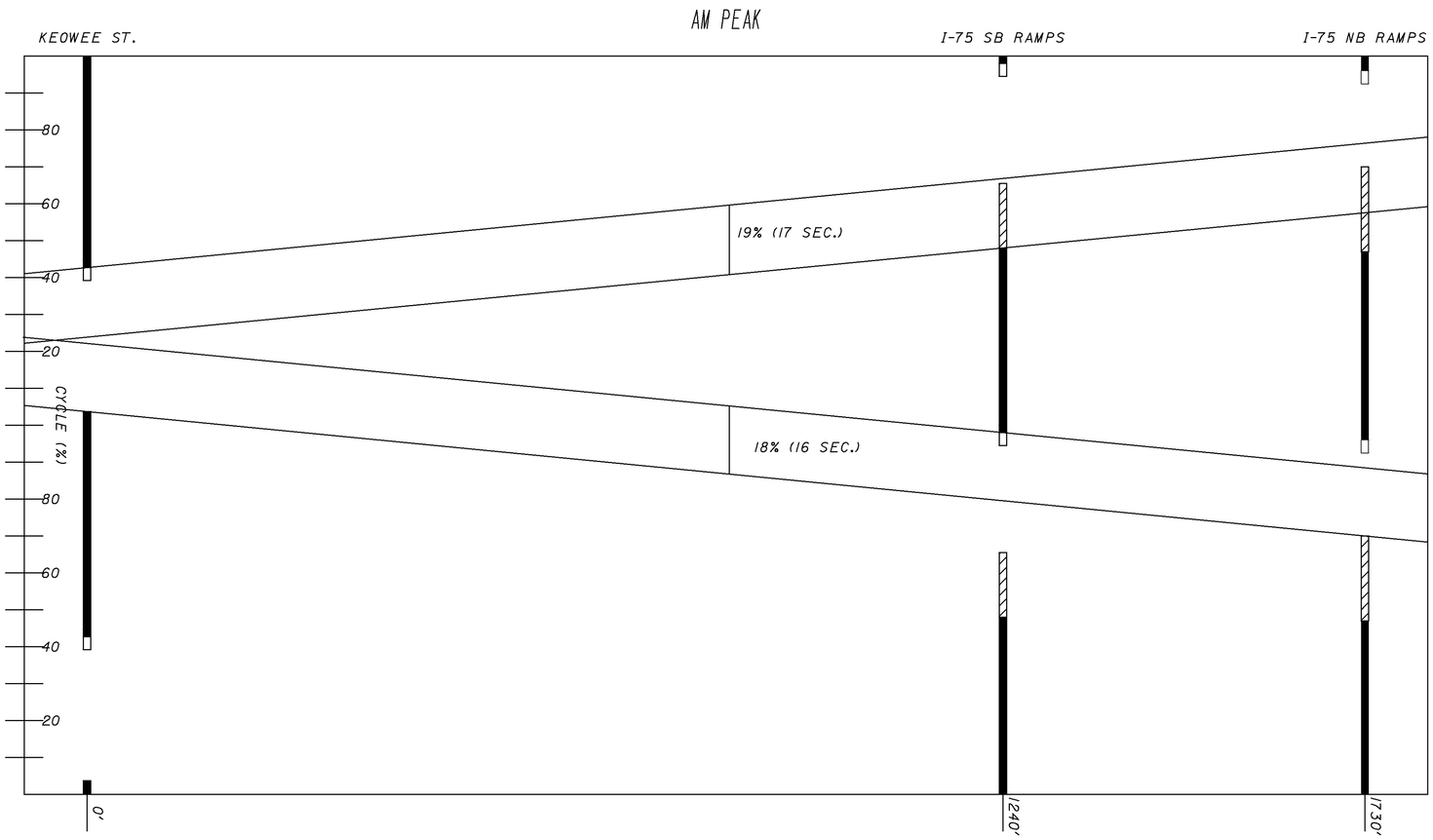

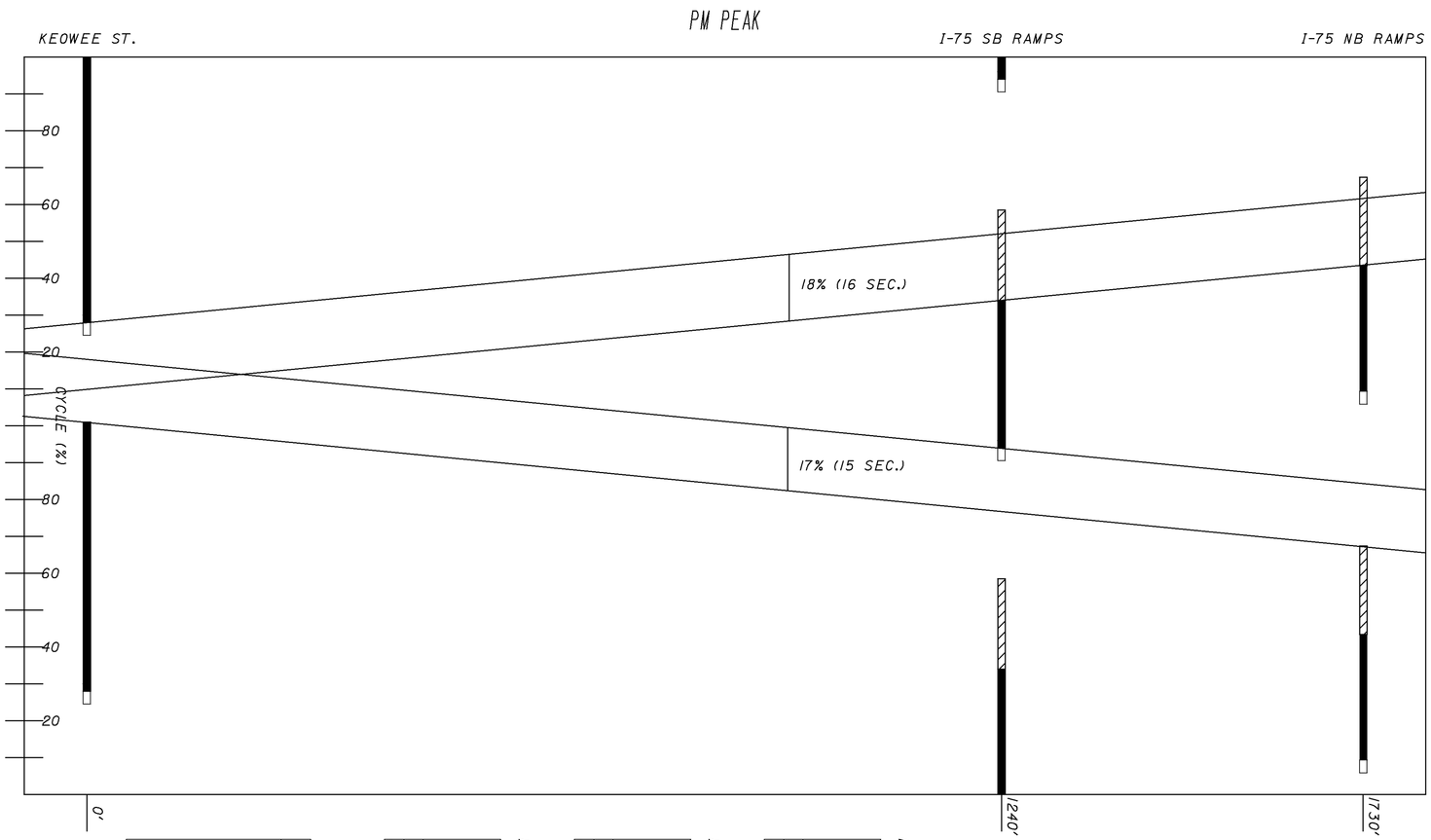

LEGEND

- ■ RED INDICATION ON STANLEY AVENUE
- □ AMBER INDICATION ON STANLEY AVENUE
- ☑ EASTBOUND DIRECTIONAL PHASE ON STANLEY AVENUE

I-75 NB RAMPS

TIMING PLAN	CYCLE LENGTH (SECONDS)	FULL DEMAND PHASE SPLITS (%)				
		NB	EBT	EBL	WB	OFFSET (%)
AM PEAK	90	49	51	23	28	96
PM PEAK	90	32	68	24	44	10

I-75 SB RAMPS

TIMING PLAN	CYCLE LENGTH (SECONDS)	FULL DEMAND PHASE SPLITS (%)				
		EBT	SB	EBL	WB	OFFSET (%)
AM PEAK	90	52	48	21	31	98
PM PEAK	90	62	38	28	34	94

KEOWEE ST.

TIMING PLAN	CYCLE LENGTH (SECONDS)	FULL DEMAND PHASE SPLITS (%)								
		SBL	NBT	EB	NBL	SBT	WB			
AM PEAK	90	33	26	41	16	43	41	43		
PM PEAK	90	31	40	29	29	16	56	29	28	OFFSET (%)

221
316

MOT-75-14.60

TRAFFIC SIGNAL TIME SPACE DIAGRAM
STANLEY AVENUE

CALCULATED APM
CHECKED HJF

UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

202, LUMINAIRE REMOVED FOR REUSE

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LUMINAIRE AND PROPERLY STORING IT ON THE PROJECT SITE FOR RE-ERECTION.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LUMINAIRE REMOVED FOR REUSE" FOR EACH LUMINAIRE REMOVED AND STORED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, LIGHT POLE REMOVED FOR STORAGE

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE INCLUDING THE BRACKET ARM(S), TRANSFORMER BASE (IF ANY) AND PROPERLY STORING THIS ASSEMBLY ON THE PROJECT SITE UNTIL RE-ERECTED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT POLE REMOVED FOR STORAGE," FOR EACH POLE REMOVED AND STORED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, LIGHT TOWER REMOVED FOR STORAGE

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT TOWER, INCLUDING LOWERING DEVICE AND PROPERLY STORING IT ON THE PROJECT SITE FOR RE-ERECTION.

THE TOWER SHALL BE PROPERLY SUPPORTED TO PREVENT BENDING OF THE POLE OR DAMAGE TO THE LOWERING DEVICE DURING STORAGE ON THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT TOWER REMOVED FOR STORAGE" FOR EACH TOWER REMOVED AND STORED AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE FOUNDATION TO A MINIMUM OF 1 FOOT BELOW FINISHED GRADE, OR REMOVING THE FOUNDATION COMPLETELY, BACKFILLING THE RESULTANT DEPRESSION WITH COMPACTED SOIL AND RESTORING THE DISTURBED AREA.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN" FOR EACH FOUNDATION REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, PULL BOX REMOVED

THIS ITEM OF WORK WILL CONSIST OF REMOVING AND PROPERLY DISPOSING OF AN EXISTING PULL BOX. THE RESULTANT OPENING SHALL THEN BE BACKFILLED TO GRADE WITH SUITABLE COMPACTED SOIL AND RESTORED TO MATCH THE SURROUNDING AREA.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202, "PULL BOX REMOVED" FOR EACH PULL BOX REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

202, DISCONNECT EXISTING CIRCUIT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR TRANSFORMER BASE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED FROM THE PULL BOX SO THAT NO CABLE IS LEFT IN THE BOX.

DISCONNECTION AT A TRANSFORMER BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ALL DUCT-CABLE NOT TO BE REUSED SHALL BE REMOVED FROM THE TRANSFORMER BASE AND THE EXISTING CONDUIT IN THE FOUNDATION SHALL BE CLEANED OF ALL CABLE AND DEBRIS SO THAT THE NEW DUCT-CABLE CAN BE INSTALLED. ALL EXISTING CABLE TO REMAIN ACTIVE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT CABLE LEFT FOR RE-CONNECTION.

THOSE WIRES THAT ARE TO REMAIN ON ACTIVE CIRCUITS SHALL HAVE A WATER-RESISTANT SEAL AT THE CUT END. THE WATER-RESISTANT SEAL SHALL BE ACCOMPLISHED BY PLUGGING THE DEACTIVATED PORT OF AN EXISTING CONNECTOR KIT OR BY INSTALLING A CABLE SPLICE KIT ON THE CUT END OF THE CABLE.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 202, "DISCONNECT EXISTING CIRCUIT, AS PER PLAN" AT EACH LOCATION WHERE DISCONNECTION IS REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, LUMINAIRE, CONVENTIONAL, 200 WATT HPS, 120 VOLT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS WITH AN IES II-M-SC DISTRIBUTION AND 200 WATT HIGH PRESSURE SODIUM LAMPS SHALL BE AMERICAN ELECTRIC "SERIES 126" WITH PHOTOMETRIC DISTRIBUTION AE38491, COOPER "OVD" WITH PHOTOMETRIC DISTRIBUTION OVD2S2F, GENERAL ELECTRIC "M-400" WITH PHOTOMETRIC DISTRIBUTION 1014, OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "LUMINAIRE, CONVENTIONAL, 200 WATT HPS, 120 VOLT, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, LUMINAIRE, UNDERPASS, 100 WATT HPS, 120 VOLT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR UNDERPASS LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR UNDERPASS LIGHTING UNITS SHALL BE AMERICAN ELECTRIC "SIDELIGHT SERIES 582" WITH PHOTOMETRIC DISTRIBUTION AE208II, COOPER "WALL LIGHT" WITH PHOTOMETRIC DISTRIBUTION WPKI5SXX, GENERAL ELECTRIC "VERSAFLOOD II WALLIGHTER" WITH PHOTOMETRIC DISTRIBUTION 8578, HOLOPHANE "WALLPACK II" TEST WITH PHOTOMETRIC DISTRIBUTION 33263, OR EQUAL AS APPROVED BY THE ENGINEER.

LUMINAIRES FOR UNDERPASS LIGHTING UNIT WHICH ARE WALL MOUNTED SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10-AMPERE FUSES.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "LUMINAIRE, UNDERPASS, 100 WATT HPS, 120 VOLT, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX," OSRAM SYLVANIA "LUMALUX," PHILIPS "CERAMALUX," OR EQUAL APPROVED BY THE ENGINEER.

625, RE-ERECT EXISTING LIGHT POLE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF RE-ERECTING AN EXISTING LIGHT POLE REMOVED FROM A PREVIOUS LOCATION ON THE PROJECT SITE. THE LIGHT POLE WILL BE INSTALLED ON A NEW FOUNDATION AS INDICATED IN THE PLAN.

WHERE THE POLE WILL BE INSTALLED ON A NEW FOUNDATION, NEW ANCHOR BOLTS SHALL BE FURNISHED. MEDIAN BARRIER FOUNDATIONS REQUIRE SPECIAL ANCHOR BOLTS. REFERENCE STANDARD DRAWING HL-20.13 AND SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEET FOR CONSTRUCTION DETAILS.

IN ADDITION, THE EXISTING LIGHT POLE IDENTIFICATION DECAL SHALL BE REMOVED, AND A NEW DECAL FOR THE NEW IDENTIFICATION NUMBER FURNISHED AND INSTALLED.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "RE-ERECT EXISTING LIGHT POLE, AS PER PLAN" FOR EACH POLE RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, RE-ERECT EXISTING LIGHT TOWER, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF RE-ERECTING AN EXISTING LIGHT TOWER PREVIOUSLY REMOVED AND STORED BY THIS PROJECT.

WHEN REQUIRED, ADDITIONAL LUMINAIRE BRACKET ARMS SHALL BE ADDED TO THE EXISTING LUMINAIRE BRACKETS RELOCATED ALONG WITH THE NECESSARY ADJUSTMENTS AND ADDITIONS TO THE LUMINAIRE WIRING TO ENABLE THE LUMINAIRES TO BE MOUNTED SYMMETRICALLY AROUND THE LUMINAIRE MOUNTING RING.

WHERE THE TOWER WILL BE INSTALLED ON A NEW FOUNDATION, NEW ANCHOR BOLTS SHALL BE FURNISHED.

THE TOWER AND LOWERING MECHANISM SHALL BE CLEANED AND LUBRICATED.

CALCULATED SSS CHECKED HJF

LIGHTING GENERAL NOTES

MOT-75-14.60

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ANY REPAIRS AND ADJUSTMENTS NECESSARY TO RETURN THE TOWER AND MECHANISM TO GOOD OPERATING CONDITION SHALL BE MADE.

THE EXISTING LIGHT TOWER IDENTIFICATION DECAL SHALL BE REMOVED, AND A NEW DECAL FOR THE NEW IDENTIFICATION NUMBER FURNISHED AND INSTALLED.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "RE-ERECT EXISTING LIGHT TOWER, AS PER PLAN" FOR EACH TOWER RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, MEDIAN LIGHT POLE FOUNDATION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A MEDIAN LIGHT POLE FOUNDATION. IN ADDITION TO THE STANDARD DRAWING HL-20.13, REFERENCE SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEETS FOR CONSTRUCTION DETAILS.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "MEDIAN LIGHT POLE FOUNDATION, AS PER PLAN" FOR EACH FOUNDATION INSTALLED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN

IN LIEU OF THE SETTINGS SHOWN IN THE STANDARD DRAWINGS, SET THE TOPS OF LIGHT TOWER FOUNDATIONS, WITH OR WITHOUT MAINTENANCE PLATFORMS, TO PROJECT 6 TO 12 INCHES (152.4 TO 304.8 MILLIMETERS) ABOVE FINISHED GRADE OR PLATFORM FLOOR ON THE UP-SLOPE SIDE OF FOUNDATION. THIS PROJECTION SHALL BE INCLUDED IN THE TOTAL DEPTH OF THE FOUNDATION.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET (6.1 METERS). AN ANIMAL GUARD SHALL BE INCLUDED AT THE OUTLET END OF THE DRAIN. PER CMS 625.20, PULL BOXES SHALL INCLUDE UNDERDRAINS AND NO SEPARATE PAY ITEM SHALL BE PROVIDED.

CONDUIT EXPANSION AND DEFLECTION

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, APPLETON TYPE AX, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4" OR 8" TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, APPLETON TYPE DF, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

625, LIGHTING MISC.: POWER SERVICE REFURBISHED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF THOSE PORTIONS OF AN EXISTING POWER SERVICE NOT BEING REUSED AND THE INSTALLATION OF NEW POWER SERVICE COMPONENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

ALL EXISTING LIGHTING CIRCUIT CABLES AND SPLICES SHALL BE REMOVED FROM THE ADJACENT EXISTING PULL BOX AND FROM CONDUIT BETWEEN THE PULL BOX AND THE POWER SERVICE ENCLOSURE. WHERE EXISTING CONDUIT IS TO BE REUSED, THE CONDUIT SHALL BE CLEANED OF MUD AND DEBRIS. THE ENCLOSURE AND OTHER RELATED COMPONENTS OF THE POWER SERVICE SHALL BE CLEANED OF ALL MUD, DEBRIS AND EXISTING FUSES SHALL BE REMOVED AND DISCARDED.

THE EXISTING CONTROL TRANSFORMER, PHOTOCELL AND CONTACTOR COIL SHALL BE REMOVED AND SHALL BE REPLACED WITH A NEW LINE VOLTAGE CONTACTOR COIL AND A NEW PHOTO CELL. THE POWER SERVICE SHALL BE WIRED AS SHOWN IN STANDARD DRAWINGS AND AS DETAILED IN THE PLANS.

THE GROUND AREA IN THE VICINITY OF THE POWER SERVICE SHALL BE FREE OF ALL DEBRIS, AND SHALL HAVE GRASS TRIMMED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "LIGHTING MISC.: POWER SERVICE REFURBISHED, AS PER PLAN" AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY WORKMANLIKE MANNER.

625, POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

1900 DRYDEN ROAD, DAYTON, OH 45439
DAYTON POWER & LIGHT
(937) 331-4088
ATTN: KYLE KING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHARGES MADE BY THE POWER COMPANY FOR WORK BY THE COMPANY IN CONJUNCTION WITH THE ESTABLISHMENT OF THE REQUIRED SERVICE.

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING, THE POWER SERVICE ELECTRICAL ENERGY ACCOUNT SHALL BE TRANSFERRED TO THE MAINTAINING AGENCY NOTED IN THE PLANS.

THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

SPECIAL, MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT.

CALCULATED SSS
CHECKED HJF

LIGHTING GENERAL NOTES

MOT-75-14.60

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625, REERECT EXISTING LUMINAIRE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF RE-ERECTING AN EXISTING LUMINAIRE REMOVED FROM A PREVIOUS LOCATION ON THE PROJECT SITE. THE LUMINAIRE WILL BE INSTALLED ON A RELOCATED POLE AS INDICATED IN THE PLAN.

THE LUMINAIRE SHALL BE THOROUGHLY CLEANED AND A NEW LAMP SHALL BE FURNISHED AND INSTALLED.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "REERECT EXISTING LUMINIARE, AS PER PLAN" FOR EACH POLE RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, CONDUIT CLEANED AND CABLES REMOVED

THIS ITEM SHALL CONSIST OF CLEANING AN EXISTING CONDUIT BY REMOVING EXISTING CABLES, MUD AND DEBRIS SO THAT NEW CABLE CAN BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF EXISTING CONDUIT AS REQUIRED. MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF OF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED" PER FOOT OF CONDUIT CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

631, REMOVAL OF LUMINAIRE AND DISPOSAL, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING SIGN LIGHTING LUMINAIRE. THE LUMINAIRE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

REPLACEMENT LUMINAIRE SHALL BE PROVIDED UNDER SEPARATE PAY ITEM AND SHALL INCLUDE NEW MOUNTING HARDWARE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 631, "REMOVAL OF LUMINAIRE, AS PER PLAN" FOR EACH LUMINAIRE REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

TRAFFIC SURVEILLANCE GENERAL NOTES

625, CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROAD SIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G" AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNALS CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER.

THIS VARIETY OF 4" MULTI-CELL CONDUIT IS SPECIFICALLY FOR INSTALLATION UNDER PAVEMENT IN A NEW EXCAVATION OR WHEN THE CONDUIT IS TO BE INSTALLED USING A TRENCHLESS TECHNOLOGY.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTERDUCT THE INNERDUCTS SHALL BE NOMINAL 1.25 INCH INSIDE DIAMETER, TYPE DB PVC PER NEMA TC-8 WITH A BELL INSERTION DEPTH OF1.75 INCHES MINIMUM. THE OUTER DUCT SHALL BE NOMINAL 4 INCH (INSIDE DIAMETER), TYPE SCHEDULE 80 PVC PER NEMA.

THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY, TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY ONE *" NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS. THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

BRIDGE ATTACHMENT HARDWARE, SUPPORT SPACING AND EXPANSION FITTINGS USED SHALL CONFOLIN TO THE CONDUIT MANUFACTURER'S RECOMMENDATIONS.

ALL JOINTS WILL BE JOINED AND SECURED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL HANGERS AND HANGER HARDWARE SHALL BE GALVANIZED.

HOLES FOR EXPANSION ANCHORS SHALL BE DRILLED AS PER CMS 510.03. EXPANSION ANCHORS SHALL BE SET WITH EPOXY ADHESIVE.

THREAD ADHESIVE SHALL BE USED ON BOTH THE ANCHOR BOLT MACHINE SCREW AND THE CONDUIT CLAMP SCREW AND NUT.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE NUMBER OF FEET OF CONDUIT FURNISHED AND INSTALLED. MEASURED FROM CENTER TO CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTING AND APPURTENANCES, JOINTS, BENDS, GROUNDS, AND CONCRETE ENCASEMENT WHERE SPECIFIED.

THE TRENCH WILL BE MEASURED BY THE NUMBER OF FEET OF TRENCH COMPLETED AS PER ODOT CMS SECTION 625.20.

BASIS OF PAYMENT

THE PAYMENT FOR THESE ITEMS WILL BE MADE FOR THE ACCEPTED LINEAR FOOT QUANTITIES AT THE CONTRACT PRICES.

625, PULL BOX, MISC.: PULL BOX, 725.08, 32"

PULL BOX SHALL BE CONCRETE, AND CONSTRUCTED IN ACCORDANCE WITH CMS 625.

ALL PULL BOX LIDS SHALL BE M,ARKED "TRAFFIC".

DRAINS SHALL BE INSTALLED PER HL-30.11 AND SHALL BE INCLUDED IN PULL BOX PAY ITEM PER CMS 625.20.

NEENAH R-1792-HL OR JORDAN 1475A FRAMES AND LIDS SHALL BE USED. FRAMES AND LIDS SHALL BE OF THE SAME MANUFACTURER.

PULL BOXES MAY BE POURED IN PLACE OR PRE-CAST. IF THEY ARE POURED IN PLACE, ALL STEEL SHALL BE INSPECTED BEFORE THE POUR IS MADE. CLASS "C" CONCRETE SHALL BE USED FROM AN ODOT APPROVED PLANT. CERTIFICATION FOR ALL STEEL AND ALL CONCRETE TICKETS SHALL BE FURNISHED.

IF THE PULL BOXES ARE PRE-CAST, CERTIFICATION FROM THE MANUFACTURER SHALL BE FURNISHED.

NO PAYMENT WILL BE MADE FOR UNINSPECTED OR UNDOCUMENTED PULL BOXES.

625, MEDIAN PULL BOX, AS PER PLAN

MEDIAN PULL BOXES SHALL BE INSTALLED BY REMOVING A SECTION OF EXISTING MEDIAN BARRIER, INSTALLING THE NEW PULL BOX AND REPLACING THE MEDIAN BARRIER. CARE SHALL BE TAKEN NOT TO DAMAGE THE THE EXISTING MEDIAN RACE-WAYS WHEN REMOVING THE SECTION OF MEDIAN BARRIER.

CONDUIT AND DOWEL CONNECTIONS SHALL BE AS PER PLAN OR AS DIRECTED BY THE ENGINEER.

REPLACEMENT BARRIER SHALL MATCH EXISTING IN SIZE AND TYPE AND SHALL BE INCLUDED UNDER THIS PAY ITEM.

625, CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 40

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROAD SIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNAL CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT. THE INNERDUCTS SHALL BE NOMINAL 1.25 INCH INSIDE DIAMETER, TYPE DB PVC PER NEMA TC-8 WITH A BELL INSERTION DEPTH OF 1.75 INCHES MINIMUM. THE OUTER DUCT SHALL BE NOMINAL 4 INCH (INSIDE DIAMETER), TYPE SCHEDULE 40 PVC, CARLON TYPE SCHEDULE 40 AND 80 OR APPROVED EQUIVALENT.

THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, ONE *" NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS. THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY, IN ADDITION THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM,

INSTALLED IN TRENCH

INSTALLATION WILL BE IN 24" DEEP TRENCH, EXCEPT AS NOTED ON THE PLANS.

ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED. MEASURED FROM CENTER TO CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTING AND APPURTENANCES, JOINTS, BENDS, GROUNDS, AND CONCRETE ENCASEMENT WHERE SPECIFIED.

THE TRENCH WILL BE MEASURED BY THE NUMBER OF FEET OF TRENCH COMPLETED AS PER CMS SECTION 625.20.

BASIS OF PAYMENT

THE PAYMENT FOR THIS ITEM IS INCLUDED IN THE QUANTITIES FOR CONCRETE BARRIER, TYPE BI, BARRIER TRANSITIONS, STRUCTURE MEDIAN BARRIER AND RIGID OVERHEAD SIGN SUPPORT FOUNDATION IN MEDIAN BARRIER.

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:28 AM
Filename: G:\C004\0066\Road\Sheets\23828n01-withITS.dgn

SHEET NUMBER								FUNDING			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			226	227	229	230		HSP	FED/ STATE	100% LOCAL						
															LIGHTING	
				2					2		202	75300	2	EACH	PULL BOX REMOVED	222
				2					2		202	75360	2	EACH	LIGHT TOWER REMOVED FOR STORAGE	222
				11					11		202	75402	11	EACH	LIGHT POLE REMOVED FOR STORAGE	222
				9					9		202	75500	9	EACH	LIGHT POLE FOUNDATION REMOVED	222
				14					14		202	75506	14	EACH	LUMINAIRE REMOVED	222
				8					8		202	75508	8	EACH	LUMINAIRE REMOVED FOR REUSE	222
				2					2		202	75541	2	EACH	LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN	
				13					13		202	75801	13	EACH	DISCONNECT EXISTING CIRCUIT, AS PER PLAN	222
			15						15		625	00500	15	EACH	CONNECTOR KIT, TYPE II	
			13						13		625	00600	13	EACH	CONNECTOR KIT, TYPE III	
			8						8		625	01004	8	EACH	CONNECTOR KIT, TYPE VII B	
			32						32		625	01500	32	EACH	CABLE SPLICING KIT	
			4						4		625	14100	4	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
			2						2		625	15201	2	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN	223
			1						1		625	17960	1	EACH	BRACKET ARM, 8'	
			1						1		625	18200	1	EACH	BRACKET ARM, 15'	
			2						2		625	18510	2	EACH	BRACKET ARM, 30'	
									1		625	20000	1	EACH	PORTABLE WINCH DRIVE POWER UNIT	
			2077						2077		625	23200	2077	FT	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
			250						250		625	23300	250	FT	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	
			1216						1216		625	23400	1216	FT	NO. 10 AWG POLE AND BRACKET CABLE	
			2322						2322		625	24100	2322	FT	1-1/2" DUCT CABLE WITH TWO NO. 4 AWG 5000 VOLT CABLES	
			205						205		625	25500	205	FT	CONDUIT, 3", 725.04	
			37						37		625	25900	37	FT	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT , 3-INCH	
			35						35		625	25910	35	FT	CONDUIT CLEANED AND CABLES REMOVED	224
			19						19		625	26251	19	EACH	LUMINAIRE, CONVENTIONAL, AS PER PLAN	222
			8						8		625	27501	8	EACH	LUMINAIRE, UNDERPASS, AS PER PLAN	222
			2206						2206		625	29000	2206	FT	TRENCH	
			2						2		625	29910	2	EACH	TRANSITION JUNCTION BOX	
			2						2		625	29940	2	EACH	BARRIER JUNCTION BOX	
			12						12		625	30700	12	EACH	PULL BOX, 725.08, 18"	
				8					8		625	32000	8	EACH	GROUND ROD	
				1					1		625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM	
				1					1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	223
				1					1		625	34011	1	EACH	POWER SERVICE REFURBISHED, AS PER PLAN	223
				6					6		625	35001	6	EACH	REERECT EXISTING LIGHT POLE, AS PER PLAN	222
				2					2		625	35021	2	EACH	RE-ERECT EXISTING LIGHT TOWER, AS PER PLAN	223
				8					8		625	35100	8	EACH	REERECT EXISTING LUMINAIRE	224
				2206					2206		SPECIAL	62536000	2206	FT	PLASTIC CAUTION TAPE	
									LUMP		SPECIAL	62540000	LUMP		MAINTAIN EXISTING LIGHTING	223
			2						2		625	98000	2	EACH	LIGHTING, MISC.: MEDIAN LIGHT POLE FOUNDATION	223
				1					1		631	87150	1	EACH	BALLAST, TYPE CMRI-175-120	
				1					1		631	89200	1	EACH	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP	
				1					1		631	94201	1	EACH	REMOVAL OF LUMINAIRE AND DISPOSAL, AS PER PLAN	224
				1					1		632	70300	1	EACH	CONDUIT RISER, 1-1/2" DIAMETER	
															TRAFFIC SURVEILLANCE	
					105	358		463			625	25920	463	FT	CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED	224
					1	2		3			625	31501	3	EACH	MEDIAN PULL BOX, AS PER PLAN	224
					1	3		4			625	31600	4	EACH	PULL BOX, MISC.: PULL BOX, 725.08, 32"	224

CALCULATED SSS CHECKED HJF

TRAFFIC SURVEILLANCE GENERAL SUMMARY

LIGHTING & TRAFFIC SURVEILLANCE

MOT-75-14.60

Plotted By: acscheiderer Date: 8/22/2007 Time: 4:24:16 PM
Filename: g:\C004\0066\Road\Sheets\238281g01-withITS.dgn

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625 CONNECTOR KIT, TYPE II EACH	625 CONNECTOR KIT, TYPE III EACH	625 CONNECTOR KIT, TYPE VII B EACH	625 CABLE SPLICING KIT EACH	625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EACH	625 MEDIAN LIGHT POLE FOUNDATION, AS PER PLAN EACH	625 LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN EACH	625 BRACKET ARM, 8' EACH	625 BRACKET ARM, 15' EACH	625 BRACKET ARM, 30' EACH	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE FT	625 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE FT	625 NO. 10 POLE AND BRACKET CABLE FT	625 1-1/2" DUCT CABLE WITH TWO NO. 4 AWG 5000 VOLT CABLES FT	625 CONDUIT, 3", 725.04 FT	625 CONDUIT, JACKED OR DRILLED UNDER PAVEMENT 3-INCH FT	625 CONDUIT CLEANED AND CABLES REMOVED FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, UNDERPASS, AS PER PLAN EACH	625 TRENCH FT	625 TRANSITION JUNCTION BOX EACH	625 BARRIER JUNCTION BOX EACH	625 PULL BOX, 725.08, 18" EACH
1	228	LT	IR-75	427+20 CCB																								
2	229	RT	RAMP N-10	5+08 XB2-3 TO 5+08 XPB1																								
3		LT	IR-75	438+40 B2-2																								
4		LT	RAMP N-8	6+06 B5-2 TO 8+07 SI-7																								
5	230	LT	IR-75	446+31 XPB2 TO 447+20 XPB3																								
6		℄	IR-75	453+30 BJB1			2																				1	
7		RT	IR-75	453+30 BJB1 TO 454+45 B5-4												250												
8		RT	IR-75	454+00 XB5-4																								
9		RT	IR-75	454+45 B5-4 TO 454+45 BJB2			2				1				220				100						100		1	
10		℄	IR-75	455+65 TJB1																						1		
11		℄	IR-75	457+56 XA1-9																								
12		℄	IR-75	457+86 A1-9	1	1				1							65											
13		℄	IR-75	457+86 A1-9 TO 460+00 ML											448													
14		RT	RAMP N-6A	442+34 B25/PB1 TO 445+00 PB11				4							40			193			10			183			1	
15		LT/RT	RAMP N-6A	445+00 PB11 TO 445+00 PB12				4							94					37				174			2	
16		RT	RAMP N-6	452+48 B2-3 TO 450+94														184										
17		RT	RAMP N-6	452+48 B2-3							1																	
18	231	℄	IR-75	460+00 ML TO 460+28 A2-8											76													
19		℄	IR-75	460+28 A2-8	1	1				1							65											
20		℄	IR-75	460+28 A2-8 TO 462+58 TJB2											480													
21		℄	IR-75	462+58 TJB2			4																			1		
22		℄	IR-75	462+58 TJB2 TO 462+76 A1-8											56													
23		℄	IR-75	462+58 TJB2 TO 465+45 A2-7											593													
24		℄	IR-75	462+76 A1-8																								
25		℄	IR-75	465+45 A2-7																								
26		LT	IR-75	465+98 XPB4																								
27		RT	IR-75	465+98 XPB5																								
28		RT	RAMP N-4	3+10 XPB5 TO 9+21 NI-5																								
29		RT	RAMP N-5	0+48 NI-3 TO 6+23 XPB4																								
30			NEVA DR.	XLP1 TO NI-5	2			10										363			10	3	2	363			4	
31	232	LT/RT	STANLEY	3+46 SI-16 TO 3+47 SI-8																		2						
32		RT	STANLEY	4+50 SI-15																		1						
33		LT	STANLEY	4+55 SI-7 TO 4+64 XPB5																		1						
34		LT/RT	STANLEY	5+16 SI-UP17 TO 6+15 SI-UP22																			6					
35		LT	STANLEY	6+32 SI-SIGN1																								
36																												
37		LT	STANLEY	6+65 SI-6																		1						
38	233	LT	STANLEY	7+24 SI-SIGN2 TO 7+24 PB8				2																			1	
39		LT	STANLEY	7+66 SI-14 TO 7+74 PB7	1	1									36						8	1						
40		LT	STANLEY	7+74 PB7 TO 8+74 SI-13				2										116						106			1	
41		LT	STANLEY	8+42 B58/PB5 TO 8+87 SI-5				2										54						44			1	
42		RT	STANLEY	8+74 SI-13 TO 9+74 SI-12	1	1								1			140	115	105			1		105				
43		LT	STANLEY	8+87 SI-5 TO 9+67 SI-4	1	1						1					96	86				1		76				
44		LT	STANLEY	9+67 SI-4 TO 11+57 SI-3	1	1							1				110	193				1		183				
45		RT	STANLEY	9+74 SI-12 TO 10+75 PB6	1	1								1			140	123				1		113				
46		LT	STANLEY	10+06 B5-9																								
47		RT	STANLEY	10+75 PB6 TO 10+82 SI-11				2							34						7						1	
48		RT	STANLEY	10+82 SI-11 TO 12+31 SI-10	1	1											100	160				1		150				
49		LT	STANLEY	11+57 SI-3 TO 12+85 SI-2	1	1											100	137				1		127				
50		RT	STANLEY	12+31 SI-10 TO 13+81 SI-9	1	1			1								100	161				1		151				
51		LT	STANLEY	12+85 SI-2 TO 14+56 SI-1	1	1			1								100	180				1		170				
52		RT	STANLEY	13+81 SI-9 TO 14+90 ICPB4	1	1		2	1								100	177				1		101				
53		LT	STANLEY	14+56 SI-1 TO 14+90 PB9	1	1		4	1								100	45				1		35			1	
54		LT/RT	STANLEY	14+80 ICPB4 TO 14+90 CCS														35						25				
ALLOCATED FED/STATE GRAND TOTAL					15	13	8	32	4	2	2	1	1	2	2077	250	1216	2322	205	37	35	19	8	2206	2	2	12	
GRAND TOTAL CARRIED TO LIGHTING GENERAL SUMMARY					15	13	8	32	4	2	2	1	1	2	2077	250	1216	2322	205	37	35	19	8	2206	2	2	12	

CALCULATED SSS CHECKED HJF

LIGHTING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:29 AM
Filename: G:\C004\0066\Road\Sheets\23828ls01.dgn

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625 GROUND ROD EACH	625 STRUCTURE GROUNDING SYSTEM EACH	625 POWER SERVICE, AS PER PLAN EACH	625 POWER SERVICE REFURBISHED, AS PER PLAN EACH	625 RE-ERECT EXISTING LIGHT POLE EACH	625 RE-ERECT EXISTING LIGHT TOWER EACH	625 REERECT EXISTING LUMINAIRE EACH	625 SPECIAL - PLASTIC CAUTION TAPE FT	631 BALLAST, TYPE CMRI-175-120 EACH	631 MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP EACH	631 REMOVAL OF LUMINAIRE AND DISPOSAL, AS PER PLAN EACH	632 CONDUIT RISER, 1-1/2" DIAMETER EACH	202 PULL BOX REMOVED EACH	202 LIGHT TOWER REMOVED FOR STORAGE EACH	202 LIGHT POLE REMOVED FOR STORAGE EACH	202 LIGHT POLE FOUNDATION REMOVED EACH	202 LUMINAIRE REMOVED EACH	202 LUMINAIRE REMOVED FOR REUSE EACH	202 LIGHT TOWER FOUNDATION REMOVED, AS PER PLAN EACH	202 DISCONNECT EXISTING CIRCUIT, AS PER PLAN EACH
1	228	LT	IR-75	427+20 CCB				1																
2	229	RT	RAMP N-10	5+08 XB2-3 TO 5+08 XPB1													1	1				2	1	
3		LT	IR-75	438+40 B2-2																				1
4		LT	RAMP N-8	6+06 B5-2 TO 8+07 SI-7																				1
5	230	LT	IR-75	446+31 XPB2 TO 447+20 XPB3																				2
6		℄	IR-75	453+30 BJB1																				
7		RT	IR-75	453+30 BJB1 TO 454+45 B5-4																				
8		RT	IR-75	454+00 XB5-4														1				2	1	
9		RT	IR-75	454+45 B5-4 TO 454+45 BJB2	2					1	2	100												
10		℄	IR-75	455+65 TJB1																				
11		℄	IR-75	457+56 XA1-9															1			2		
12		℄	IR-75	457+86 A1-9		1			1		2													
13		℄	IR-75	457+86 A1-9 TO 460+00 ML																				
14		RT	RAMP N-6A	442+34 B25/PB1 TO 445+00 PB11								183												
15		LT/RT	RAMP N-6A	445+00 PB11 TO 445+00 PB12																				
16		RT	RAMP N-6	452+48 B2-3 TO 450+94								174												
17		RT	RAMP N-6	452+48 B2-3	2					1	2													
18	231	℄	IR-75	460+00 ML TO 460+28 A2-8																				
19		℄	IR-75	460+28 A2-8					1		2								1			2		
20		℄	IR-75	460+28 A2-8 TO 462+58 TJB2																				
21		℄	IR-75	462+58 TJB2																				
22		℄	IR-75	462+58 TJB2 TO 462+76 A1-8																				1
23		℄	IR-75	462+58 TJB2 TO 465+45 A2-7																				
24		℄	IR-75	462+76 A1-8																				1
25		℄	IR-75	465+45 A2-7																				1
26		LT	IR-75	465+98 XPB4													1							
27		RT	IR-75	465+98 XPB5																				1
28		RT	RAMP N-4	3+10 XPB5 TO 9+21 NI-5															3	3	3			1
29		RT	RAMP N-5	0+48 NI-3 TO 6+23 XPB4															2	2	2			1
30			NEVA DR.	XLP1 TO NI-5								363					1				5			1
31	232	LT/RT	STANLEY	3+46 SI-16 TO 3+47 SI-8																				
32		RT	STANLEY	4+50 SI-15																				
33		LT	STANLEY	4+55 SI-7 TO 4+64 XPB5																				1
34		LT/RT	STANLEY	5+16 SI-UP17 TO 6+15 SI-UP22																				
35		LT	STANLEY	6+32 SI-SIGN1									1	1	1									1
36																								
37		LT	STANLEY	6+65 SI-6																				
38	233	LT	STANLEY	7+24 SI-SIGN2 TO 7+24 PB8																				
39		LT	STANLEY	7+66 SI-14 TO 7+74 PB7																				
40		LT	STANLEY	7+74 PB7 TO 8+74 SI-13								106												
41		LT	STANLEY	8+42 B58/PB5 TO 8+87 SI-5								44							1	1	1			
42		RT	STANLEY	8+74 SI-13 TO 9+74 SI-12								105							1	1	1			
43		LT	STANLEY	8+87 SI-5 TO 9+67 SI-4								76												
44		LT	STANLEY	9+67 SI-4 TO 11+57 SI-3								183												
45		RT	STANLEY	9+74 SI-12 TO 10+75 PB6								113												
46		LT	STANLEY	10+06 B5-9															1	1	1			
47		RT	STANLEY	10+75 PB6 TO 10+82 SI-11																				
48		RT	STANLEY	10+82 SI-11 TO 12+31 SI-10								150												
49		LT	STANLEY	11+57 SI-3 TO 12+85 SI-2								127												
50		RT	STANLEY	12+31 SI-10 TO 13+81 SI-9	1				1			151												
51		LT	STANLEY	12+85 SI-2 TO 14+56 SI-1	1				1			170												
52		RT	STANLEY	13+81 SI-9 TO 14+90 ICPB4	1				1			101												
53		LT	STANLEY	14+56 SI-1 TO 14+90 PB9	1				1			35							1	1	1			
54		LT/RT	STANLEY	14+80 ICPB4 TO 14+90 CCS			1					25												
ALLOCATED FED/STATE GRAND TOTAL					8	1	1	1	6	2	8	2206	1	1	1		1		2	2	11	9	14	8	2	13	
GRAND TOTAL CARRIED TO LIGHTING GENERAL SUMMARY					8	1	1	1	6	2	8	2206	1	1	1		1		2	2	11	9	14	8	2	13	

CALCULATED SSS CHECKED HJF

LIGHTING SUB-SUMMARY

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:29 AM
Filename: G:\C004\0066\Road\Sheets\23828ls01.dgn

LIGHTING PLAN SHEET NOTES:

1. EXISTING MEDIAN BARRIER HAS EXISTING 2" RACEWAY FOR LIGHTING.

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:30 AM
Filename: G:\C004\0066\Road\Sheets\23828lp01.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

IR-75 LIGHTING PLAN

MOT-75-14.60

TRAFFIC SURVEILLANCE SUBSUMMARY (THIS SHEET)

625	625	625			
MEDIAN PULL BOX, AS PER PLAN	PULL BOX, MISC.: PULL BOX, 725.08, 32"	CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED			
EACH	EACH	FT			
1	1	105			
TOTALS CARRIED TO GENERAL SUMMARY					
1	1	105			

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

SEE SHEETS 232 AND 233 FOR STANLEY AVE LIGHTING

XB2-3
REMOVE EXISTING TOWER
2-1000W, HPS, ASYM
RELOCATE ALONG PROPOSED RAMP N-6

ABANDON CONDUIT AND CABLES

REMOVE EX PB, XPB

ABANDON CONDUIT AND CABLES

B2 SIGN
ONE SIGN W/SIGN LIGHTING REMOVED
MAINTAIN SIGN WIRING TO REMAINING SIGNS

B2-2
EX TOWER
2-1000W HPS, ASYM
DISCONNECT EXISTING CIRCUIT
ABANDON DUCTCABLE ALONG RAMP N-9 TO B2-3
MAINTAIN SERVICE TO SIGN

BEGIN PROJECT
STA 432+45.67
SLM = 14.60

E033(774)

MATCH LINE 432+00 I.R. 75

EX MEDIAN PB

EX MEDIAN PB

EX MEDIAN PB

EX TRANSITION PB

EX MEDIAN PB

MATCH LINE 446+00 I.R. 75

℄ RAMP N-10

℄ RAMP N-9

℄ RAMP N-7

℄ RAMP N-8

B5 SIGN

EX PB

B5-1
EX TOWER
2-1000W HPS, ASYM

B5-2
EX TOWER
2-1000W HPS, ASYM
DISCONNECT EXISTING CIRCUIT

EX PB
DISCONNECT EXISTING CIRCUIT

ABANDON CONDUIT AND CABLES

CONSTRUCT, STA 441+00, 0'-105' RT:
MEDIAN PULL BOX, 36", 0' RT
PULL BOX, 725.08, 32" ROUND, 105' RT
1-4" MULTICELL CONDUIT, SCH 80, JACKED OR DRILLED, 105'

WINDHAM STREET

STANLEY AVENUE

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

IR-75
LIGHTING & TRAFFIC SURVEILLANCE PLAN

MOT-75-14.60

229
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:30 AM
Filename: G:\C004\0066\Road\Sheets\23828lp02-withITS.dgn

STANLEY AVE

DUCT CABLE, 1-1/2", 2-#4 AWG
191'

STA 445+00, RAMP N-6A
2-#4 AWG DISTRIBUTION CABLE IN
3", 725.04, JACKED OR DRILLED CONDUIT
37'

24' LT, INSTALL PBII

13' RT, INSTALL PBI2

B2-5
EX TOWER
2-1000W, HPS, ASYM

INSTALL PB 10 OVER
EX CONDUIT, ACCESS
CIRCUIT TO B2-5
(4 CABLE SPLICES)
STA 442+34,
RAMP N-6A, 87' RT±

B2-4
EX TOWER
2-1000W, HPS, ASYM

EX PB, XPB2

DISCONNECT EXISTING
CIRCUIT EACH END
ABANDON DUCT CABLE

EX TRANSITION PB

EX PB, XPB3

EX MEDIAN PB

MATCH LINE 446+00 I.R. 75

RAMP N-6A

450

DUCT CABLE, 1-1/2", 2-#4 AWG
174'

B2-3, BB100
RELOCATED FROM RAMP N-10
2-1000W, HPS, ASYM
TERMINUS OF CIRCUIT B2
STA 452+48, RAMP N-6, 56' RT

RAMP N-6

455

CONSTRUCT, STA 454+75, 0'-125' LT':
MEDIAN PULL BOX, 36", 0'
PULL BOX, 725.08, 32" ROUND, 125' LT
1-4" MULTICELL CONDUIT, SCH 80, JACKED OR DRILLED, 125'

1-4" LIGHTING RACEWAY IN MEDIAN BARRIER,
1-2" LIGHTING RACEWAY IN STRUCTURE BARRIER,
NO CIRCUIT CABLE
2-4" MULTICELL, SCH 40, TRAFFIC SURVEILLANCE
RACEWAY IN MEDIAN AND STRUCTURE BARRIER,
NO CABLE

2-#2 AWG IN 2" RACEWAY

PT Sta.

MATCH LINE 460+00 I.R. 75

BJBI, STA. 453+30
BARRIER JUNCTION BOX
(2 TYPE VII CONNECTOR KITS)

IR-75

455

450

PC Sta.

EX PB

450

THE GREAT MIAMI RIVER

PT St

TJBI, STA. 455+65
TRANSITION JUNCTION BOX
(NO CABLE)

B5 SIGN

RAMP N-7

BJB2, STA. 454+45
BARRIER JUNCTION BOX
(2 TYPE VII CONNECTOR KITS)

2-#2 AWG IN 4" LIGHTING RACEWAY
2-4" MULTICELL, SCH 40, TRAFFIC
SURVEILLANCE RACEWAY, NO CABLE

XA1-9, A1-9
REMOVE AND RELOCATE EX
TWIN-ARM LIGHTING POLE
2-310W, HPS, A8BB37.5
TERMINUS OF CIRCUIT A1
STA 457+86, BARRIER MOUNTED

CONSTRUCT, STA 449+50, 123' LT'-110' RT:
MEDIAN PULL BOX, 36", 0'
PULL BOX, 725.08, 32" ROUND, 123' LT
PULL BOX, 725.08, 32" ROUND, 110' RT
1-4" MULTICELL CONDUIT, SCH 80,
JACKED OR DRILLED, 233'

ABANDON CONDUIT

XB5-4, B5-4
RELOCATE EXISTING TOWER
2-1000W, HPS, ASYM
TERMINUS OF CIRCUIT B5
STA 454+45, 90' RT

3" C, 725.04 W/2-#4 AWG
CONDUIT SHALL BE CONSTRUCTED
BENEATH RETAINING WALL FOOTING
90'

B5-3
EX TOWER
2-1000W, HPS, ASYM

ITEM 202,
PAVEMENT
REMOVED,
ASPHALT

ITEM 202,
PAVEMENT REMOVED

ITEM 202,
CONC MEDIAN REMOVED

TRAFFIC SURVEILLANCE SUBSUMMARY (THIS SHEET)

625	625	625			
MEDIAN PULL BOX, AS PER PLAN	PULL BOX, MISC.: PULL BOX, 725.08, 32"	CONDUIT, MISC.: 4" MULTICELL, 725.05, SCHEDULE 80, JACKED OR DRILLED			
EACH	EACH	FT			
2	3	358			
TOTALS CARRIED TO GENERAL SUMMARY					
2	3	358			

SEE SHEETS 232 AND 233 FOR STANLEY AVE LIGHTING

SEE SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEETS FOR MEDIAN BARRIER FOUNDATION DETAILS.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

IR-75, RAMP 6A & RAMP N-6A
LIGHTING & TRAFFIC SURVEILLANCE PLAN

MOT-75-14.60

Plotted By: mpdonnelly Date: 8/2/2007 Time: 5:26:00 PM
Filename: gr\co04\0066\road\stl_gt1\sheets\23828p03-withits_st1.dgn

XA2-8, A2-8
REMOVE AND REERECT EX LIGHTING
TERMINUS OF CIRCUIT A2
STA 460+28, BARRIER MOUNTED

1-4" LIGHTING RACEWAY IN MEDIAN BARRIER,
1-2" LIGHTING RACEWAY IN STRUCTURE BARRIER,
4-#4 AWG LIGHTING CIRCUIT CABLE
2-4" MULTICELL, SCH 40, TRAFFIC SURVEILLANCE
RACEWAY IN MEDIAN AND STRUCTURE BARRIER,
NO CABLE

BIKE PATH
(BY OTHERS SEE
MOT-GREAT-MIAMI
RECREATION
TRAILS PLANS)

OME AVENUE

63+00

64+40

MATCH LINE 460+00 I.R. 75

EX. 2" RACEWAY, 4-#4 AWG

REMOVE CABLES AND
ABANDON CONDUIT
70'

REMOVE EX PB, XPB4

STA. 465+98,
EX. TYPE IX J-BOX
DISCONNECT EXISTING
CIRCUIT AI TO RAMP N-5

END PROJECT
STA 468+30.96
SLM = 15.28

E033(774)

ABANDON CONDUIT
AND CABLES

EXISTING LIGHT POLE, XLP1
INSTALL 1-1/2" CONDUIT RISER, EXTEND EXISTING
CIRCUIT TO INCLUDE LIGHTING ALONG NEVA DRIVE

1-1/2" DUCT CABLE, 2-#4 AWG
142'

INSTALL PULL BOX PB2 OVER EXISTING
CONDUIT, ACCESS CIRCUIT AND
SPLICE TO NI-4 AND NI-3
(4 SPLICE KITS)

NI-3
EXISTING LIGHT POLE TO REMAIN
NEW 200W HPS LUMINAIRE

MAINTAIN EXISTING CIRCUIT
CABLE AND CONNECTIVITY

AI-19
REMOVE EXISTING POLE
AND LUMINAIRE

INSTALL PULL BOX PB3 OVER
EXISTING CONDUIT. ACCESS
LIGHTING CIRCUIT AND
SPLICE CIRCUIT TO A2-22
(4 SPLICE KITS)

AI-18
REMOVE EXISTING POLE
AND LUMINAIRE

INSTALL PULL BOX, PB1
(2 SPLICE KITS)

NI-4
EXISTING LIGHT POLE
TO REMAIN
NEW 200W HPS LUMINAIRE

NEVA DRIVE

END WORK
STA 472+68.08

NI-UP2
NEW 100W MV
UNDERPASS LIGHTING

NI-UP1
NEW 100W MV
UNDERPASS LIGHTING

EX. PB

EX. TYPE IX J-BOX

℄ RAMP N-5

AI-7

465

470

EX. TYPE IX
J-BOX

A2-6

AI-6

EX PB

℄ RAMP N-4

STA. 465+44.55, A2-7
DISCONNECT EXISTING
LIGHTING CIRCUIT A2 TO
THE SOUTH DURING
BRIDGE RECONSTRUCTION

MAINTAIN SIGN LIGHTING CIRCUIT
CONDUIT FROM MEDIAN TO EX PB
FOR SIGNS TO REMAIN
(SEE SIGNING PLANS)

STA. 462+58, TJB2
TRANSITION JUNCTION BOX

STA. 465+98, RT, XPB5
DISCONNECT EXISTING
CIRCUIT A2 TO RAMP N-4

STA. 462+75.76, AI-8
DISCONNECT EXISTING
LIGHTING CIRCUIT AI TO
THE SOUTH DURING
BRIDGE RECONSTRUCTION

A2-25
REMOVE EXISTING POLE
AND LUMINAIRE

OME AVENUE

ONTARIO AVENUE

A2-24
REMOVE EXISTING POLE
AND LUMINAIRE

ONEIDA DRIVE

ABANDON CONDUIT
AND CABLES

A2-23
REMOVE EXISTING POLE
AND LUMINAIRE

1-1/2" DUCT CABLE, 2-#4 AWG
221'

INSTALL PULL BOX PB4 OVER EXISTING
CONDUIT, ACCESS CIRCUIT TO POLE NI-5
REMOVE CABLES AND CLEAN CONDUIT
(NO SPLICES)

NI-5
DISCONNECT EXISTING CIRCUIT
EXISTING LIGHT POLE TO REMAIN
NEW 200W HPS LUMINAIRE

EXISTING CONTROL CENTER A, CCA
CIRCUITS AI & A2
- LIGHTING FOR RAMPS N-4 AND N-5
BEING REMOVED.

ITEM 202,
PAVEMENT
REMOVED,
ASPHALT

ITEM 202,
PAVEMENT REMOVED

SEE SHEET 44 OF 51 OF THE STRUCTURE PLAN SHEETS FOR MEDIAN BARRIER FOUNDATION DETAILS.

HORIZONTAL
SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

IR-75
LIGHTING & TRAFFIC SURVEILLANCE PLAN

MOT-75-14.60

231
316

Plotted By: mpdonnelly Date: 8/2/2007 Time: 5:26:02 PM
Filename: g:\co04\0066\road\stl_at1\sheets\23828lp04-withits_stl.dgn

PLAN SHEET NOTES:

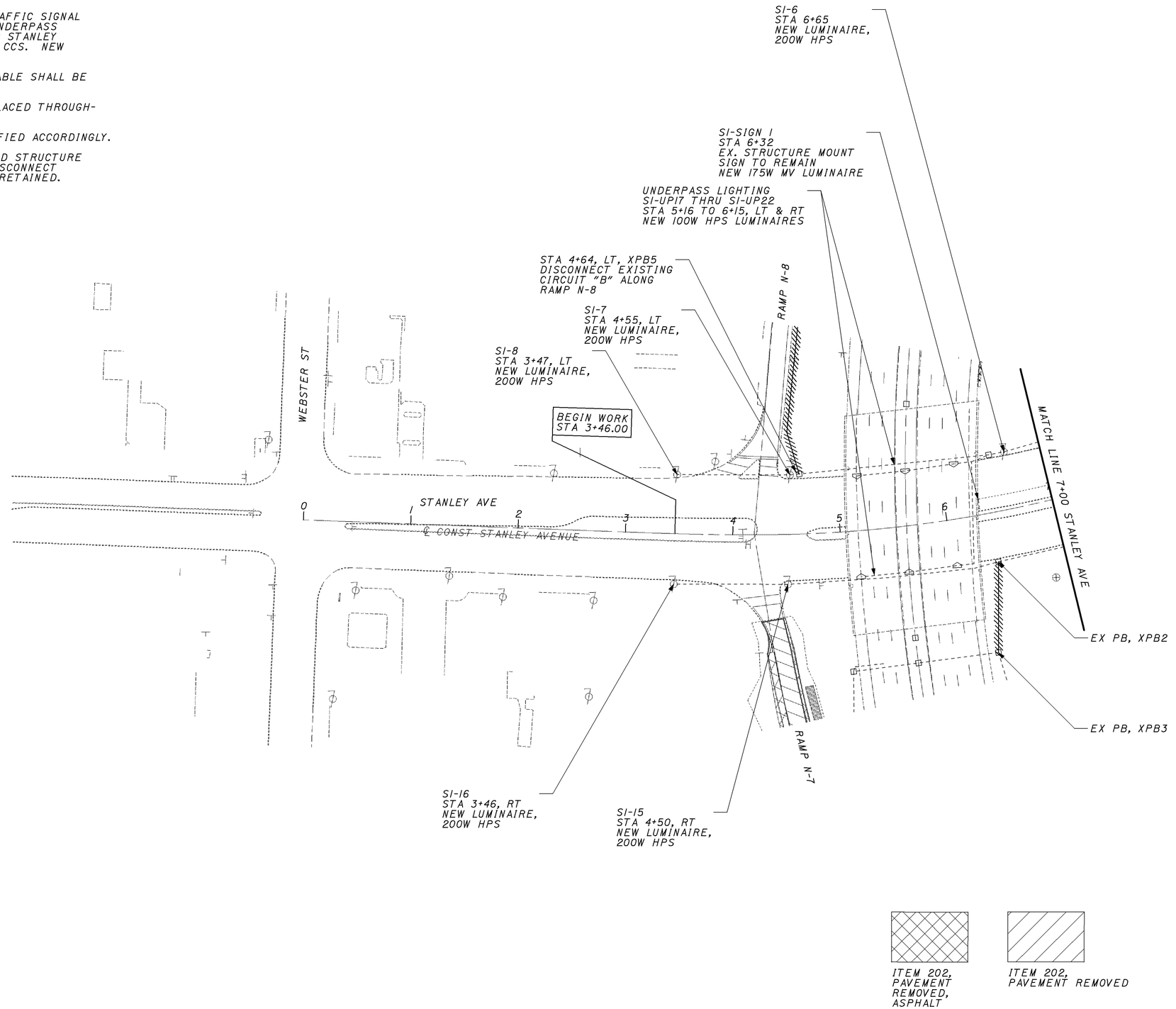
1. LIGHTING UNITS ON COMBINATION TYPE TRAFFIC SIGNAL STRAIN POLES AND EXISTING LIGHT POLES, UNDERPASS LIGHTING LIGHTING, AND SIGN LIGHTING ALONG STANLEY AVENUE SHALL BE ON NEW LIGHTING CIRCUIT, CCS. NEW SERVICE SHALL BE 120/240 VOLTS.

2. EXISTING CONDUITS AND DISTRIBUTION CABLE SHALL BE REUSED.

3. EXISTING LIGHTING UNITS SHALL BE REPLACED THROUGH-OUT THIS NEW LIGHTING CIRCUIT.

4. EXISTING CIRCUITS B2 AND B5 ARE MODIFIED ACCORDINGLY.

5. STANLEY AVENUE UNDERPASS LIGHTING AND STRUCTURE MOUNTED OVERHEAD SIGN HAVE SEPERATE DISCONNECT SWITCHES AND ARE EXISTING AND SHALL BE RETAINED.



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

STANLEY AVENUE LIGHTING PLAN

MOT-75-14.60

232
316

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:33 AM
Filename: G:\C004\0066\Road\Sheets\23828lp_stanley01.dgn

SI-SIGN 2, STA 7+24, 47' RT
EX. OVHD SIGN TO BE REMOVED

REMOVE A SUFFICIENT AMOUNT OF THE EXISTING POLE FOUNDATION TO ACCESS THE EXISTING CONDUIT AND TO PROVIDE FOR THE INSTALLATION OF A PULL BOX, PB8, TO REESTABLISH THE CIRCUIT ROUTING.
(2 SPLICE KITS)

B5-8
REMOVE AND RELOCATE
TO SI-2, STA 12+85, LT

REMOVE A SUFFICIENT AMOUNT OF THE EXISTING POLE FOUNDATION TO ACCESS THE EXISTING CONDUIT AND TO PROVIDE FOR THE INSTALLATION OF A PULL BOX, PB5, TO REESTABLISH THE CIRCUIT ROUTING.
(2 SPLICE KITS)

SI-5
STA 8+87, 51' LT
8' BRACKET ARM WITH LUMINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

SI-4
STA 9+67, 58' LT
15' BRACKET ARM WITH LUNINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

B5-9
REMOVE AND RELOCATE
TO SI-9, STA 13+81, 26' RT

REMOVE EXISTING POLE FOUNDATION SUFFICIENT ENOUGH TO PLACE NEW CONDUITS

REMOVE CABLES AND ABANDON CONDUIT

SI-2
STA 12+85, 45.5' RT
RELOCATED POLE ON NEW FOUNDATION.
NEW LUMINAIRE, 200W HPS

1-1/2" DUCT CABLE

RAMP N-9

RAMP N-10

SI-1
REMOVE AND RELOCATE
TO STA 14+56, 36.5' LT
NEW 200W HPS LUMINIARE

END WORK
STA 15+40.12

STA 14+80, 52' LT
PROP. CONTROL CENTER CCS/POWER SERVICE

1-1/2" DUCT CABLE

1-1/2" DUCT CABLE

STA 14+90, 30.5' LT
INSTALL PB9
(4 SPLICE KITS)

1-1/2" DUCT CABLE

SI-3, 11+57, 47' LT
NEW LUMINAIRE,
200W HPS

1-1/2" DUCT CABLE

MATCH LINE 7+00 STANLEY AVE

I.C. PULL BOX

STANLEY AVE

SI-14
STA 7+66, 48' RT
NEW LUMINAIRE,
200W HPS

STA 7+74, 48' RT
INSTALL PB7 OVER EX. CONDUIT,
REMOVE CABLES AND CLEAN CONDUIT
(2 SPLICE KITS)

1-1/2" DUCT CABLE

SI-9
STA 13+81, 26' RT
RELOCATED POLE ON NEW FOUNDATION.
NEW 200W HPS LUMINAIRE

STA 14+85
1-1/2" DUCT CABLE IN 3" C, 725.04, JACKED OR DRILLED UNDER PAVEMENT
(INTERCONNECT PLAN)

ICPB4, I.C./LIGHTING PULL BOX
(2 SPLICE KITS)

1-1/2" DUCT CABLE IN I.C. TRENCH
(SEE DETAIL A)

1-1/2" DUCT CABLE IN I.C. TRENCH
(SEE DETAIL A)

ICPB3, I.C. PULL BOX

1-1/2" DUCT CABLE IN I.C. TRENCH
(SEE DETAIL A)

SI-11, STA 10+82, 35' RT
NEW LUMINAIRE,
200W HPS

STA 10+75, 35' RT
INSTALL PB6 OVER EX CONDUIT,
REMOVE CABLES AND CLEAN CONDUIT
(2 SPLICE KITS)

SI-10
STA 12+31, 35' RT
RELOCATED POLE ON NEW FOUNDATION.
NEW 200W HPS LUMINAIRE

STA. 12+51, 34.5' RT
REMOVE A SUFFICIENT AMOUNT OF THE EXISTING POLE FOUNDATION TO PROVIDE FOR THE INSTALLATION OF I.C. PULL BOX AND TO ROUTE A LIGHTING CONDUIT BYPASS BENEATH THE PULL BOX.

RAMP N-6A

RAMP N-6

ICPB1, I.C. PULL BOX

1-1/2" DUCT CABLE

SI-12
STA 9+74, 64' RT
30' BRACKET ARM WITH LUMINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

SIGPB, SIGNAL PULL BOX

1-1/2" DUCT CABLE
IN 3" C, 725.04, UNDER PAVEMENT

1-1/2" DUCT CABLE

SI-13
STA 8+74, 65' RT
30' BRACKET ARM WITH LUMINAIRE; 200W HPS
INSTALLED ON COMBINATION TYPE STRAIN POLE.

B2-9
REMOVE AND RELOCATE
TO SI-10, STA 12+31, 35' RT
NEW 200W HPS LUMINIARE

PLAN SHEET NOTES:

1. UPON THE REMOVAL OF EXISTING LIGHTING, THE EXISTING POLE FOUNDATION SHALL BE REMOVED TO A SUFFICIENT DEPTH SO THAT THE EXISTING LIGHTING CONDUIT CAN BE ACCESSED AND A PULL BOX INSTALLED AT THE APPROXIMATE LOCATION OF THE EXISTING FOUNDATION BEING REMOVED. FOUNDATION REMOVED IN AREAS WHERE FINAL GRADE IS NEW PAVEMENT, THE EXISTING FOUNDATION SHALL BE REMOVED AT A DEPTH BELOW THE PROPOSED SUBBASE.

2. BRACKET ARMS WITH LUMINAIRE INSTALLED ON COMBINATION TYPE SIGNAL STRAIN POLES SHALL HAVE A NOMINAL MOUNTING HEIGHT OF 41.7'. NEW ARMS SHALL MATCH EXISTING STANLEY AVE LIGHTING AS NEAR AS POSSIBLE.

3. INSTALL POLE FOUNDATION TO ACCESS EXISITING LIGHTING CIRCUIT. INSTALL RELOCATED POLE FROM STA ON NEW FOUNDATION. REMOVE ADJACENT EXISTING POLE FOUNDATION SUFFICIENT ENOUGH TO PROVIDE ACCESS TO EXISTING LIGHTING CONDUIT AND INSTALL A PULL BOX.

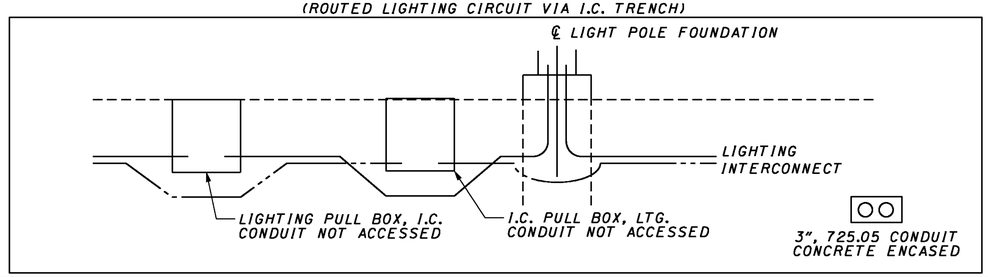
4. LIGHTING CIRCUIT DISTRIBUTION CABLE CONSISTS OF 2-#4 AWG IN DUCT CABLE OR CONDUIT AS NOTED.

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

DETAIL A
(ROUTED LIGHTING CIRCUIT VIA I.C. TRENCH)



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SSS
CHECKED HJF

STANLEY AVENUE
LIGHTING PLAN

MOT-75-14.60

233
316

Plotted By: acschelderer Date: 10/2/2007 Time: 11:12:45 AM
Filename: g:\C004\0066\Road\Sheets\23828lp_stanley02_REVbrzozowski.dgn

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SSS

CHECKED HJF

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

770 760 750 740 730

SEE RAMP N-6

6:1

764.99
454+45.00
764.53

℄
IR 75

RAMP N-7

℄ LIGHT TOWER

2.7:1

B5-4, BB110
RELOCATED
STA 454+45.0, 90.0' RT
TOWER FOUNDATION, 36"x25'

PROP R/W

R/W

3:1

9:1

24:1

756.49
452+48.00
741.84

℄
RAMP N-6

℄ LIGHT TOWER

B2-3, BB100
RELOCATED FROM RAMP N-10
STA 452+48.0, 56.0' RT
TOWER FOUNDATION, 36"x25'

SHEET TOTAL

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

SHEET TOTAL

LIGHT TOWER FOUNDATION DETAIL

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:34 AM
Filename: G:\C004\0066\Road\Sheets\23828le01.dgn

CONTROL CENTER	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NUMBER	EX. CIRCUIT LOAD (AMPS)	PROP. CIRCUIT LOAD (AMPS)	EX. FUSE SIZE (AMPS)	PROP. FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
CCA AT NEVA DR	480	23.85 (EX) 20.03 (PR)	#2 EXISTING	SC-100 (SINGLE)	A1	23.76	18.33	30		#2,#4	ODOT
					A2	25.92	23.40	30		#2,#4	
					A3	SPARE		30			
CCB AT LEO ST	480	46.31 (EX) 40.74 (PR)	#2 EXISTING	SC-100 (DOUBLE)	B1	19.41		30		#2,#4	ODOT
					B2	28.80	24.22	60		#2,#4	
					B3	SPARE		30			
					B4	19.31		30		#2,#4	
					B5	28.42	21.93	60		#2,#4	
					B6	SPARE		60			

NOTE: FOR ADDITIONAL CONTROL CENTER DETAILS, SEE STANDARD DRAWINGS

CONTROL CENTER	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NUMBER	EX. CIRCUIT LOAD (AMPS)	PROP. CIRCUIT LOAD (AMPS)	EX. FUSE SIZE (AMPS)	PROP. FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
CCS FOR STANLEY AVE	120/240	4.65	#4	SC-100 (SINGLE)							DAYTON
					S1		10.34		30	#4	

NOTE: FOR ADDITIONAL CONTROL CENTER DETAILS, SEE STANDARD DRAWINGS

CIRCUIT LEGEND

- EX CIRCUIT A1
- EX CIRCUIT A2
- EX CIRCUIT B1
- EX CIRCUIT B2
- EX CIRCUIT B4
- EX CIRCUIT B5
- EX CONDUIT ABANDONED
- EX LIGHT POLE/TOWER
- EX UNDERPASS LIGHTING
- EX OVHD LIT SIGNING
- EX CONTROL CENTER
- PROP CONTROL CENTER
- PROP CIRCUIT A1
- PROP CIRCUIT A2
- PROP CIRCUIT B2
- PROP CIRCUIT S1
- PROP CIRCUIT N1
- PROP/RELOCATED LIGHT POLE
- RELOCATED TOWER
- ~~500W~~ 250W — TOTAL SIGN WATTAGE MODIFIED (OW INDICATES SIGN LIGHTING REMOVED)

LIGHTING CONSTRUCTION NOTES:

1. RAMPS N-9 AND N-10 ARE BEING PERMANENTLY CLOSED. REMOVE EXISTING TOWER B2-3 AND RELOCATE ADJACENT TO PROPOSED REALIGNMENT OF RAMP N-6 AS SHOWN IN THE PLANS.

2. REMOVE AND RELOCATE EXISTING TOWER B5-4 ADJACENT TO RAMP N-7.

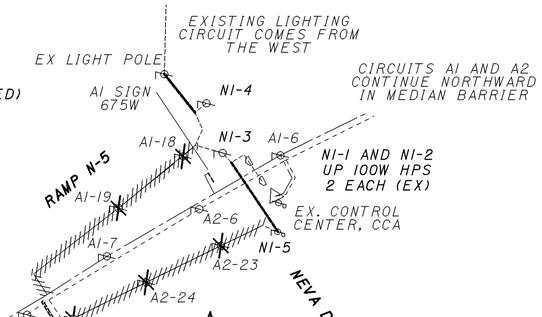
3. RAMPS N-4 AND N-5 ARE BEING PERMANENTLY CLOSED. REMOVE EXISTING RAMP LIGHTING, A2-23 THRU A2-25 AND A1-18 THRU A1-19 AND SALVAGE.

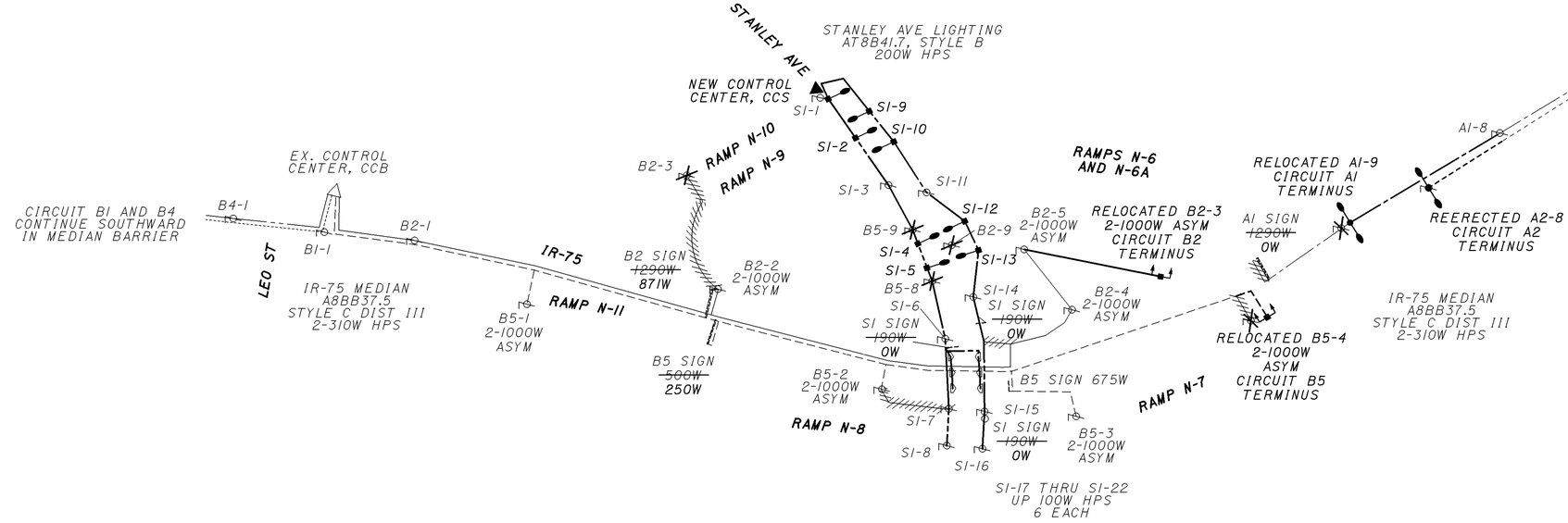
4. REMOVE AND RELOCATE LIGHT POLE S1-8 TO STA 12+46, RT ON STANLEY AVE AS SHOWN IN THE PLANS.

5. MAINLINE OVERHEAD SIGNING IS MODIFIED AS SHOWN IN THE SIGNING PLANS. ASSOCIATED SIGN LIGHTING CIRCUIT LOAD HAS BEEN ADJUSTED ACCORDINGLY.

6. LIGHTING UNITS ON COMBINATION TYPE TRAFFIC SIGNAL STRAIN POLES AND EXISTING LIGHT POLES, UNDERPASS LIGHTING LIGHTING, AND SIGN LIGHTING ALONG STANLEY AVENUE SHALL BE ON NEW LIGHTING CIRCUIT, CCS. NEW SERVICE SHALL BE 120/240 VOLTS. EXISTING CONDUITS AND DISTRIBUTION CABLE SHALL BE REUSED. EXISTING LUMINAIRES SHALL BE REPLACED THROUGHOUT THIS NEW LIGHTING CIRCUIT. EXISTING CIRCUITS B2 AND B5 ARE MODIFIED ACCORDINGLY.

7. EXISTING LIGHT POLES, UNDERPASS LIGHTING ALONG NEVA DRIVE SHALL ACCESS AND EXTEND AN EXISTING LIGHTING CIRCUIT TO THE WEST. EXISTING CIRCUITS A1 AND A2 ARE MODIFIED ACCORDINGLY.





TABULATION OF CIRCUIT LOADS

CIRCUIT B2

EX	PROP	DESC.	LOAD
8		1000W HPS	20.00 A
2		310W HPS	1.60 A
5	0	200W HPS	
1290W	871W	1 EA (SIGN)	1.82 A
290W		1 EA (SIGN)	0.80 A
			24.22 A
			11.63 kVA

CIRCUIT B5

EX	PROP	DESC.	LOAD
8		1000W HPS	20.00 A
7	0	200W HPS	
6	0	100W HPS	
500W	250W	1 EA (SIGN)	0.52 A
190W	0W	1 EA (SIGN)	
675W		1 EA (SIGN)	1.41 A
			21.93 A
			10.53 kVA

CIRCUIT S1 (NEW)

PROP	DESC.	LOAD
16	200W HPS	8.48 A
6	100W HPS	1.86 A
		10.34 A
		1.24 kVA

CIRCUIT A1

EX	PROP	DESC.	LOAD
18		310W HPS	14.40 A
8	4	200W HPS	2.12 A
2	0	100W HPS	
190W		1 EA (SIGN)	0.40 A
675W		1 EA (SIGN)	1.41 A
1290W	0W	1 EA (SIGN)	
			18.33 A
			8.80 kVA

CIRCUIT A2

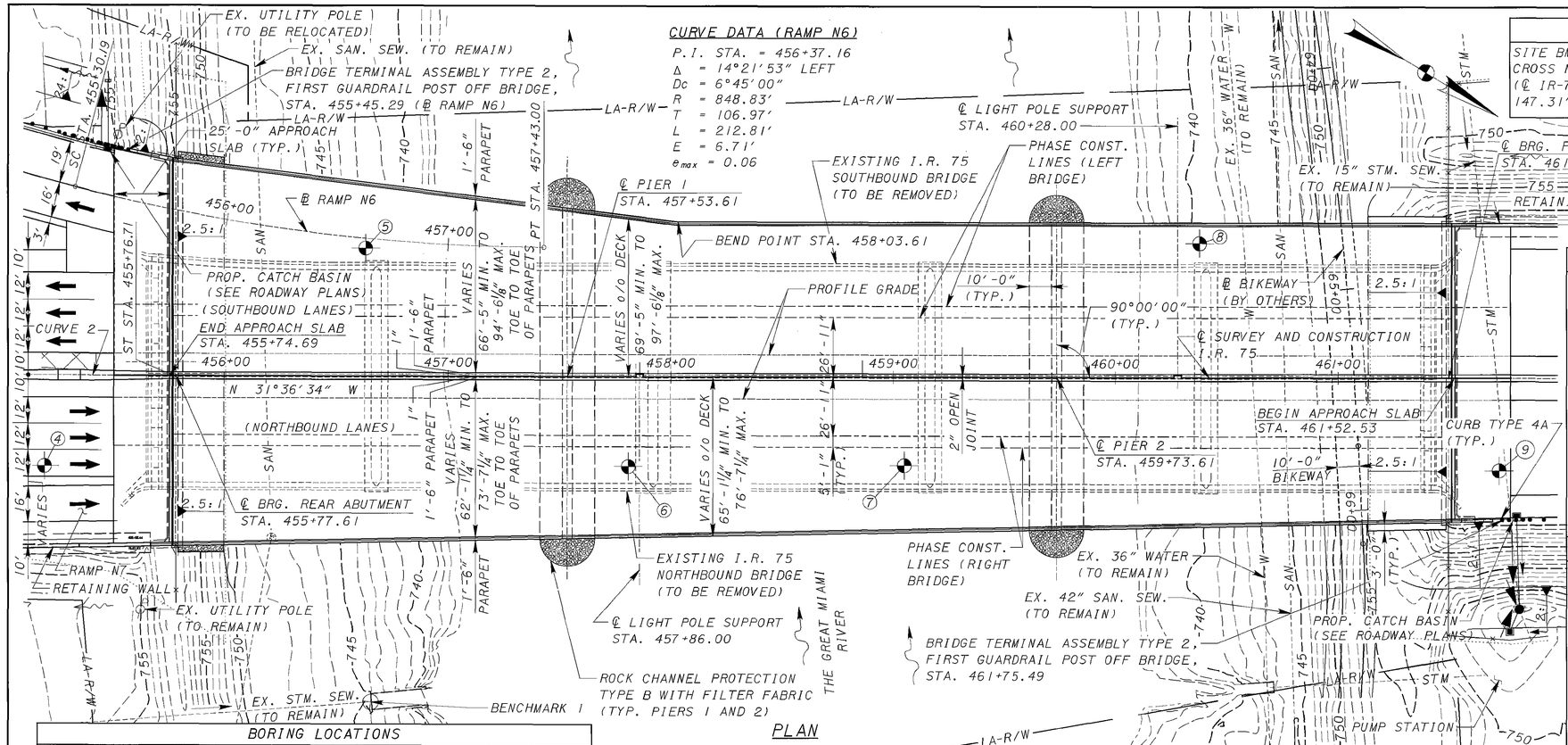
EX	PROP	DESC.	LOAD
16		310W HPS	12.80 A
11	7	200W HPS	3.71 A
6		100W HPS	1.86 A
190W		3 EA (SIGN)	1.20 A
425W		1 EA (SIGN)	0.89 A
675W		1 EA (SIGN)	1.41 A
925W	735W	1 EA (SIGN)	1.53 A
			23.40 A
			11.23 kVA

HORIZONTAL SCALE IN FEET
0 100 200 400

CIRCUIT DIAGRAM

MOT-75-14.60

Plotted By: jfanthony Date: 7/31/2007 Time: 7:45:35 AM
Filename: G:\C004\0066\Road\Sheets\23828tc01.dgn



BENCHMARK 1	BENCHMARK 2
SITE BM # 2 CROSS NOTCH ON TOP OF HEADWALL (℄ IR-75) STA. 456+65.11 147.31' RT, EL. 745.33	SITE BM # 3 MCD CONTROL, MONUMENT NO. 2 (℄ IR-75) STA. 460+86.44 287.01' RT, EL. 745.36

TRAFFIC DATA

I.R. 75
CURRENT YEAR (2006) = 105,700 ADT
DESIGN YEAR (2026) = 124,400 ADT
CURRENT YEAR (2006) = 27,482 ADTT
DESIGN YEAR (2026) = 32,344 ADTT

EXISTING STRUCTURE

TYPE: DUAL STRUCTURES - 5 SPAN CONTINUOUS STEEL RIVETED PLATE GIRDER WITH REINFORCED CONCRETE DECK SUPPORTED BY STUB ABUTMENTS ON PILES AND WALL TYPE PIERS
SPANS: 99'-6", 124'-4", 124'-4", 124'-4", 99'-6" c/c BEARINGS
ROADWAY: (2) - 40'-0" TOE TO TOE OF CURB
LOADING: CF2000
SKEW: NONE
ALIGNMENT: TANGENT
WEARING SURFACE: ASPHALT OVERLAY ON 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-72 (20'-0" LONG)
DATE BUILT: 1959
STRUCTURE FILE No.: 5708702

PROPOSED STRUCTURE

TYPE: 3 SPAN CONTINUOUS COMPOSITE HYBRID STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK SUPPORTED BY REINFORCED CONCRETE PIERS AND STUB ABUTMENTS.
SPANS: 176'-0", 220'-0", 176'-0" c/c BEARINGS
ROADWAY: NORTHBOUND = VARIES, 62'-1¼" MIN. TO 73'-7¼" MAX. F/F OF PARAPET
SOUTHBOUND = VARIES, 66'-5" MIN. TO 94'-6⅛" MAX. F/F OF PARAPET
LOADING: HS-25 AND ALTERNATE MILITARY LOADING, FWS = 60 LBS/FT²
SKEW: NONE
CROWN: VARIES (NORTHBOUND), VARIES (SOUTHBOUND)
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-81 (25'-0" LONG)
LATITUDE: 39°47'29" N
LONGITUDE: 8°11'8" W

BORING LOCATIONS

BORING	STATION	OFFSET	BORING	STATION	OFFSET
#4	455+18.71	41.22' RT.	#8	460+37.90	60.28' LT.
#5	456+62.95	57.34' LT.	#9	461+72.30	42.06' RT.
#6	457+80.95	40.79' RT.			
#7	459+04.90	40.08' RT.			

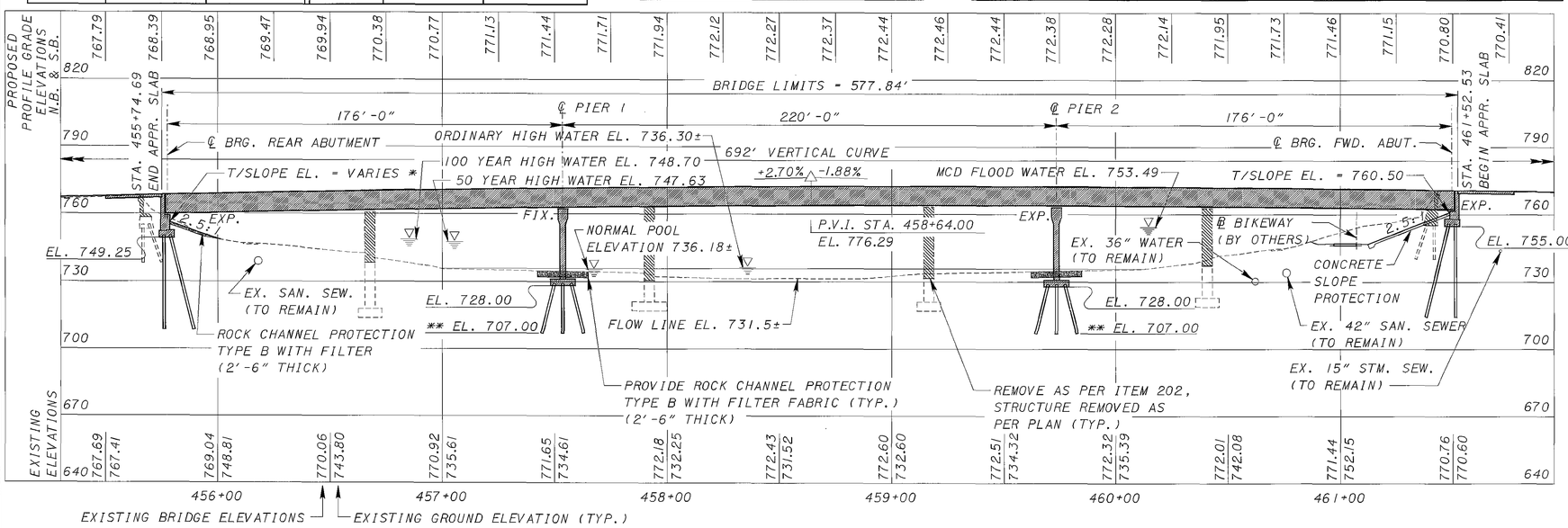
PLAN

EXISTING HYDRAULIC DATA

V_{50} = 6.65 f/s EL.$_{50}$ = 747.61
V_{100} = 7.05 f/s EL.$_{100}$ = 748.67

HYDRAULIC DATA

DRAINAGE AREA = 1175 sq miles
Q_{50} = 35000 cfs V_{50} = 6.64 f/s EL.$_{50}$ = 747.63
Q_{100} = 40000 cfs V_{100} = 7.04 f/s EL.$_{100}$ = 748.70
MIN. CLEARANCE = 8.77' FOR 100 YEAR STORM
MIN. BOTTOM OF GIRDER = EL. 757.47 AT STA 455+95.87



** MIN. TIP ELEVATION DUE TO SCOUR

PROFILE ALONG PROFILE GRADE OF NORTHBOUND AND SOUTHBOUND I.R. 75

* SEE REAR ABUTMENT PLAN AND ELEVATION FOR ELEVATIONS

NOTES:

1. ALL SHEETS WITH PLAN DIMENSIONS ARE SHOWN HORIZONTAL.
2. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
3. THE PROPOSED PROFILE GRADE IS WITHIN BRIDGE LIMITS. SEE ROADWAY PLANS FOR PAVEMENT ELEVATIONS BEYOND BRIDGE LIMITS.
4. ABBREVIATIONS:
   TYP. - TYPICAL STA. - STATION EXIST. - EXISTING
   BRG. - BEARING FIX. - FIXED FWD. - FORWARD
   ABUT. - ABUTMENT PT. - POINT EXP. - EXPANSION
   EL. - ELEVATION APPR. - APPROACH
   MCD - MIAMI CONSERVANCY DISTRICT
   N.B. - NORTHBOUND S.B. - SOUTHBOUND

FOUNDATION DATA:

ALL PILES SHALL BE HP 14x73 STEEL FRICTION PILES.
THE ESTIMATED PAY LENGTHS ARE:
REAR ABUTMENT = 45 FEET
PIER 1 = 25 FEET
PIER 2 = 25 FEET
FORWARD ABUTMENT = 45 FEET

LEGEND:

⊕ - DENOTES SOIL BORING LOCATION

LJB Inc. 3100 Research Blvd. P.O. Box 20246 Dayton, OH 45420-0246 (937) 258-8300 tel (937) 258-8310 fax ljbinc.com

DESIGNED JJS | DRAWN JAL | REVIEWED MPH | DATE 3-07
CHECKED DWW | REVISED | STRUCTURE FILE NUMBER 5708710

MONTGOMERY COUNTY STA. 455+74.69 STA. 461+52.53

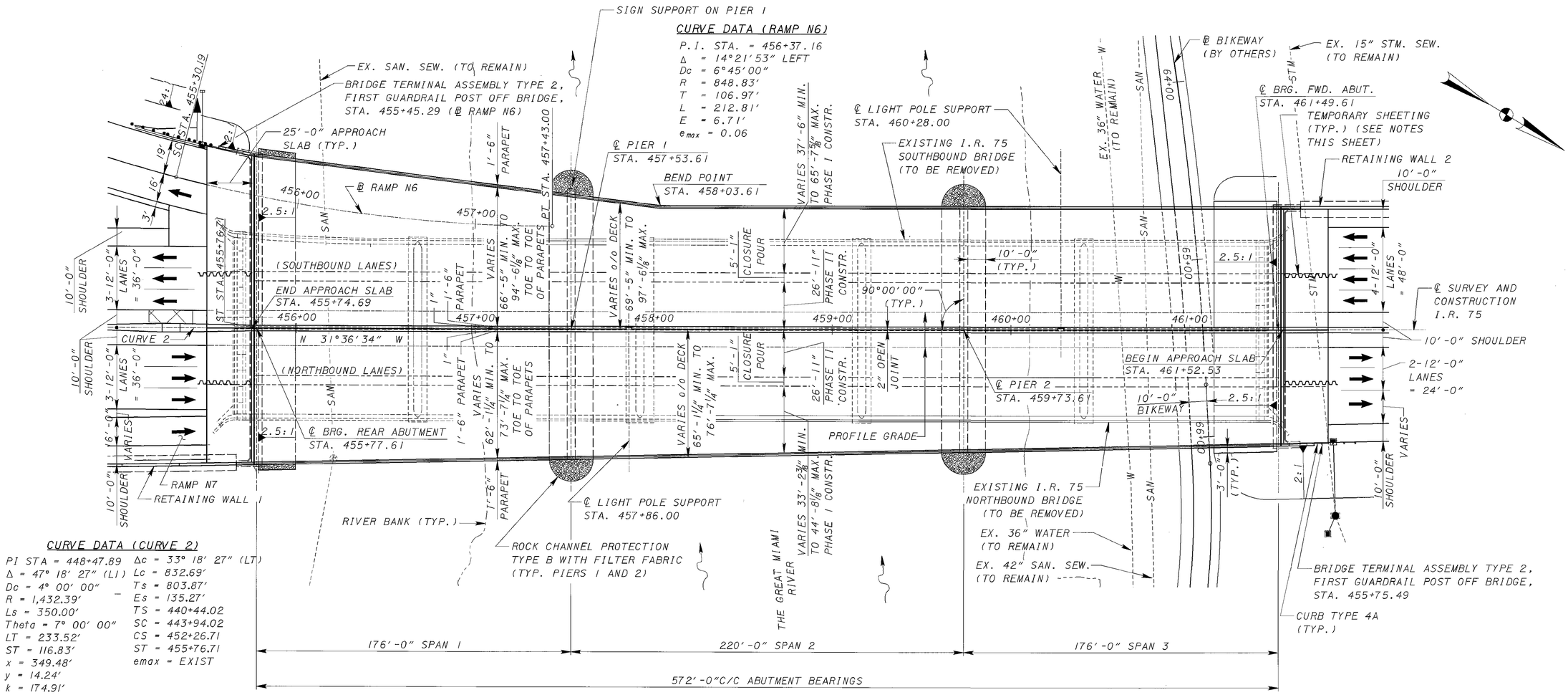
SITE PLAN (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523 IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

1/57

236/316

Plotted By: eomcak Time: 3:20:03 PM
DATE: 7/27/2007 FILE: gs\oc04\0066\sr\bridge\steel_alt\oodd\steel23828sp01.dgn



GENERAL PLAN

CURVE DATA (CURVE 2)

PI STA = 448+47.89
Δ = 47° 18' 27" (LT)
Dc = 4° 00' 00"
R = 1,432.39'
Ls = 350.00'
Theta = 7° 00' 00"
LT = 233.52'
ST = 116.83'
x = 349.48'
y = 14.24'
k = 174.91'
p = 3.56'

Δc = 33° 18' 27" (LT)
Lc = 832.69'
Ts = 803.87'
Es = 135.27'
TS = 440+44.02
SC = 443+94.02
CS = 452+26.71
ST = 455+76.71
emax = EXIST

TEMPORARY SHEETING NOTES

1. THE STEEL SHEET PILING SHALL CONFORM TO ASTM A328 AND SHALL HAVE THE FOLLOWING PROPERTIES:

TEMPORARY SHEETING DATA				
LOCATION	SECTION MODULUS REQUIRED (in^3/Ft)	MINIMUM YIELD STRESS, Fy (KSI)	TOP OF SHEETING ELEVATION	BOTTOM OF SHEETING ELEVATION
REAR ABUTMENT	47.0	38.5	769.0±	725.0±
FORWARD ABUTMENT*	32.2	38.5	771.0±	735.0±

* - THE CONTRACTOR IS TO FIELD LOCATE THE EXISTING 15" DIAMETER STORM SEWER UNDER THE PROPOSED APPROACH SLAB. THE SECTION OF TEMPORARY SHEETING ABOVE THE 15" STORM SEWER WILL NEED TO BE DRIVEN TO AN ELEVATION ABOVE THE BOTTOM OF WALL ELEVATION SHOWN IN THE TABLE IN ORDER NOT TO DAMAGE THE EXISTING STORM SEWER.

2. THE TEMPORARY SHEET PILING, INCLUDING INSTALLATION, SHALL BE PAID FOR UNDER ITEM 503 - COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN.

3. ALTERNATE SHEET PILING MEETING THE FOLLOWING PROPERTIES ARE PERMITTED:

ALTERNATE SHEETING SECTION MODULUS (in^3/Ft)		
MINIMUM YIELD STRESS, Fy (KSI)	50	60
SECTION MODULUS REQUIRED (in^3/Ft) AT REAR ABUTMENT	36.2	30.2
SECTION MODULUS REQUIRED (in^3/Ft) AT FORWARD ABUTMENT	24.8	20.7

4. THE CONTRACTOR, AT HIS OWN EXPENSE, MAY PROVIDE AN ALTERNATE DESIGN FOR THE TEMPORARY SHEETING, PER CMS 501.05 (B).

5. THE CONTRACTOR SHALL PRESERVE AND PROTECT THE POROUS BACKFILL BEHIND THE ABUTMENT AND THE AGGREGATE BASE UNDER THE APPROACH SLAB AGAINST DISPLACEMENT DURING PHASED CONSTRUCTION OPERATIONS.

6. TEMPORARY SHEETING TO BE REMOVED IN THE VICINITY OF THE PROPOSED FORWARD ABUTMENT FOOTING TO FACILITATE PHASE II CONSTRUCTION OPERATIONS.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2000, CLEVELAND, OHIO 44113-1901

DESIGNED JDH | DRAWN JSB | REVIEWED RER | DATE 06/01/07

CHECKED RRC | REVISED | STRUCTURE FILE NUMBER 5708710

GENERAL PLAN
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

2/57

237/316

Plotted By: eamack Time: 3:20:04 PM
DATE: 1/27/2007 FILE: g:\cad\0066\bridge\steel.dir\cadd\steel23828gp01.dgn

STRUCTURE GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

A-1-69	REVISED	07-19-02
AS-1-81	REVISED	07-19-02
EXJ-4-87	REVISED	07-19-02
GSD-1-96	REVISED	07-19-02
PCB-91	REVISED	07-19-02
SBR-1-99	REVISED	07-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

832	DATED	04-25-06
885	DATED	11-04-05
898	DATED	07-21-06

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17th EDITION, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

HS25 CASE I AND THE ALTERNATE MILITARY LOADING
FUTURE WEARING SURFACE (FWS) OF 60 LBS/SQ FT

DESIGN DATA:

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS QSC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60
MINIMUM YIELD STRENGTH 60,000 PSI

DIAPHRAGM CONCRETE - COMPRESSIVE STRENGTH 4500 PSI

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50,000 PSI
- ASTM A709 GRADE HPS70W TMCP - YIELD STRENGTH 70,000 PSI

HP PILES - ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

FRICTION TYPE PILES:

THE PILES ORDER LENGTHS, ULTIMATE BEARING VALUES, AND DYNAMIC LOAD TESTING ITEMS ARE AS LISTED BELOW. THE PIER PILES INCLUDE AN ADDITIONAL 8 TONS PER PILE OF ULTIMATE BEARING VALUE DUE TO THE POSSIBILITY OF LOSING FRICTIONAL RESISTANCE DUE TO SCOUR.

REAR ABUTMENT PILES:
49 HP14x73 PILES 50 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 156 TONS PER PILE
1 DYNAMIC LOAD TESTING ITEMS

PIER 1 PILES:
108 HP14x73 PILES 30 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 196 TONS PER PILE
1 DYNAMIC LOAD TESTING ITEMS

PIER 2 PILES:
90 HP14x73 PILES 30 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 196 TONS PER PILE

FORWARD ABUTMENT PILES:
40 HP14x73 PILES 50 FEET LONG ORDER LENGTH
ULTIMATE BEARING VALUE = 135 TONS PER PILE
1 DYNAMIC LOAD TESTING ITEMS

PILE SPLICES:

IN LIEU OF USING FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER: ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BLVD., CLIFTON, NEW JERSEY 07014. INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

BATTERED PILES:

THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1-UG}{\sqrt{(1+G^2)}}$$

U = COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G = RATE OF BATTER (1/3, 1/4, ETC.)

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

REMOVE ABUTMENTS AND PIERS TO THE ELEVATIONS SHOWN ON THE REMOVAL DETAILS SHEET.

ITEM 203, EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 454+74.00 TO 462+53.00. SEE ROADWAY PLANS FOR QUANTITIES.

SEE SHEETS 20/57 AND 23/57 FOR BACKFILL PLACEMENT DETAILS.

MAINTENANCE OF TRAFFIC:

I.R. 75 TRAFFIC WILL BE MAINTAINED AT ALL TIMES. FOR MAINTENANCE OF TRAFFIC NOTES, PERMITTED LANE CLOSURE AND DETAILS, REFER TO ROADWAY PLANS AND STRUCTURE PHASE CONSTRUCTION DETAILS. NIGHTIME TEMPORARY CLOSURES MAY BE REQUIRED FOR GIRDER ERECTION.

UTILITY LINES:

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO MINIMUM.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM THE FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 509, EPOXY-COATED REINFORCING STEEL, AS PER PLAN:

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

MECHANICAL CONNECTORS

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S PROCEDURES. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125% OF THE YIELD STRENGTH OF THE BARS CONNECTED. ALL MECHANICAL CONNECTORS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY, AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL WHICH MEETS THE SPECIFICATIONS. CONNECTORS SHALL CONFORM WITH ITEM 509 AND SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE FOR ITEM 509-EPOXY COATED REINFORCING STEEL, AS PER PLAN.

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

THE CONCRETE SEALING MATERIAL SHALL BE THE "LIGHT NEUTRAL" COLOR MEETING THE FEDERAL COLOR STANDARD NO. 17778 AS PER THE DETAILS ON THE PLANS.

ITEM 513, STRUCTURAL STEEL MEMBERS, SPECIALIZED MULTI ROTATIONAL BEARING (SMR), LEVEL UF, AS PER PLAN:

1.0 DESCRIPTION

1.1 THIS ITEM CONSISTS OF DESIGNING, FABRICATING, TESTING, FURNISHING AND INSTALLING SPECIALIZED MULTI-ROTATIONAL (SMR) BEARINGS IN ACCORDANCE WITH CMS 513 AND THIS SPECIFICATION. SELECT FABRICATORS THAT ARE LISTED BY THE DEPARTMENT BEFORE THE CONTRACT LETTING DATE AS EVALUATED BY THE OFFICE OF MATERIALS MANAGEMENT AND PRE-QUALIFIED AS A UF LEVEL FABRICATOR. THE CONTRACTOR MAY SUPPLY EITHER POT OR DISC TYPE BEARINGS ACCORDING TO THIS SPECIFICATION.

1.2 SUPPLY POT OR DISC BEARINGS CONSISTING OF THE FOLLOWING COMMON PARTS:

A. SOLE PLATE - TOP SIDE BEVELED TO THE SLOPE OF THE GIRDER AND FIELD WELDED TO THE GIRDER FLANGE. BOTTOM SIDE, FOR EXPANSION BEARINGS: LEVEL AND FACED WITH STAINLESS STEEL. BOTTOM SIDE, FOR FIXED POT BEARINGS: LEVEL AND ATTACHED TO OR INTEGRAL WITH THE PISTON. BOTTOM SIDE, FOR FIXED DISC BEARINGS: LEVEL AND RECESSED FOR SHEAR RESTRICTION ELEMENT.

B. GUIDE BAR/BARS (FOR GUIDED EXPANSION BEARINGS) - ATTACHED TO OR INTEGRAL WITH THE SOLE PLATE FOR PURPOSE OF GUIDING EXPANSION BEARINGS AND TRANSMITTING HORIZONTAL FORCES TO THE POT OR UPPER BEARING PLATE. EDGES WITH SLIDING SURFACES FACED WITH STAINLESS STEEL. ALL GUIDE BEARINGS SHALL BE EDGE GUIDED. THE DEPARTMENT WILL NOT ACCEPT CENTER GUIDED BEARINGS.

C. SLIDING SURFACES (FOR EXPANSION BEARINGS) - ACCOMMODATE HORIZONTAL BRIDGE MOVEMENT BY MATED SLIDING SURFACES CONSISTING OF STAINLESS STEEL AND POLYTETRAFLUOROETHYLENE (PTFE).

D. UPPER BEARING PLATE (FOR EXPANSION BEARINGS) - TOP LEVEL AND FACED WITH PTFE. FOR DISC BEARINGS, BOTTOM SIDE LEVEL AND RECESSED FOR SHEAR RESTRICTION ELEMENT. FOR POT BEARINGS, BOTTOM SIDE LEVEL AND ATTACHED TO, OR INTEGRAL WITH, THE PISTON. FOR GUIDED BEARINGS, EDGES WITH SLIDING SURFACES FACED WITH PTFE.

E. MASONRY PLATE - DISTRIBUTE VERTICAL AND HORIZONTAL FORCES FROM THE POT OR DISC TO THE CONCRETE BRIDGE SEAT. MASONRY PLATE SITS ON A PREFORMED BEARING PAD AND IS CONNECTED TO THE BEARING SEAT WITH ANCHOR BOLTS.

F. PREFORMED BEARING PADS - PLACED BETWEEN A CONCRETE BEARING SEAT AND THE MASONRY PLATE, USED TO ACCOMMODATE MINOR SURFACE ROUGHNESS IN THE BEARING SEAT.

G. ANCHOR BOLTS - DISTRIBUTE HORIZONTAL OR UPLIFT FORCES FROM THE BEARING TO THE BEARING SEAT.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2300, CLEVELAND, OHIO 44113-1901
DESIGNED JDH | DRAWN RRC | CHECKED CTY | REVISED
REVIEWED RER | DATE 06/01/07 | STRUCTURE FILE NUMBER 5708710
GENERAL NOTES (STEEL GIRDER ORDER OPTION)
BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER
MOT-75-14.60 PID 23828

Plotted By: ecmcek Time: 3:59:41 PM
DATE: 7/27/2007 FILE: g:\co04\0066\bridge\steel.dgn\ccadd\steel23828gn0ud.dgn

STRUCTURE GENERAL NOTES

1.3 SUPPLY POT BEARINGS WITH COMMON PARTS DEFINED IN 1.2 AND THE PARTS LISTED BELOW:

A. CIRCULAR PISTON - TRANSMITS ROTATION, HORIZONTAL AND VERTICAL FORCES FROM THE SOLE OR UPPER PLATES TO THE POT. ATTACHED TO, OR INTEGRAL WITH, THE UPPER BEARING PLATE FOR EXPANSION BEARINGS. ATTACHED TO, OR INTEGRAL WITH, THE SOLE PLATE FOR FIXED BEARINGS.

B. POT - CONFINES THE ELASTOMERIC DISC AND TRANSMITS VERTICAL AND HORIZONTAL FORCES FROM THE PISTON TO THE MASONRY PLATES. SHOP WELDED TO MASONRY PLATES.

C. ELASTOMERIC DISC - SUPPORTS THE PISTON INSIDE THE CONFINING POT FOR THE PURPOSE OF PROVIDING ROTATION. THE TOP AND BOTTOM SURFACES OF THE ELASTOMERIC DISC ARE LUBRICATED WITH SILICONE GREASE. THE DISC IS PREVENTED FROM EXTRUDING BETWEEN THE PISTON EDGES AND POT WALLS WITH SEALING RINGS.

D. SEALING RINGS - THE SEAL BETWEEN THE POT AND THE PISTON WHICH CONFINES THE ELASTOMERIC DISC.

1.4 SUPPLY DISC BEARINGS WITH COMMON PARTS DEFINED IN 1.2 AND THE PARTS LISTED BELOW:

A. ELASTOMERIC DISC - DISTRIBUTES ROTATION, HORIZONTAL AND VERTICAL FORCES FROM THE SOLE OR UPPER PLATES TO THE MASONRY PLATE. THE DISC IS AN UNCONFINED CIRCULAR ELASTOMER, WITH A CENTERED ROUND HOLE FOR THE SHEAR RESTRICTING ELEMENT.

B. SHEAR RESTRICTING ELEMENT - TRANSMITS HORIZONTAL FORCES AND RESTRAINS VERTICAL UPLIFT IF SPECIFIED FROM THE SOLE OR UPPER BEARING PLATES TO THE MASONRY PLATE WHILE PROVIDING FOR FREE ROTATION.

1.5 BEARING HEIGHT

ADJUST BEAM SEAT ELEVATIONS TO ACCOUNT FOR DIFFERENCES BETWEEN THE BEARING HEIGHT DETAILED IN THE PLANS AND THE BEARING HEIGHT SUPPLIED BY THE FABRICATOR.

AS AN ALTERNATIVE, THE CONTRACTOR MAY INCREASE THE SOLE PLATE THICKNESS, POT BASE THICKNESS, MASONRY PLATE THICKNESS, PISTON THICKNESS OR A COMBINATION THEREOF TO MATCH THE TOTAL BEARING HEIGHT SHOWN IN THE PLANS.

2.0 DESIGN REQUIREMENTS

2.1 APPLICABLE DESIGN STANDARDS

DESIGN BEARINGS ACCORDING TO ALL APPLICABLE SECTIONS OF AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH EDITION: DIVISION I, SECTION 14; DIVISION II, SECTION 18 AND THIS SPECIFICATION. DESIGN BEARINGS TO ACCOMMODATE THE LOADS, FORCES AND MOVEMENT SPECIFIED IN THE PLANS AND THESE PROVISIONS.

2.2 APPROVAL PROCESS

SUBMIT A DESIGN PLAN AND DESIGN CALCULATIONS WITH THE CMS 501.04 A, SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04 A, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS THAT APPLY TO THE DESIGN PLAN: HAVE AN OHIO REGISTERED ENGINEER CHECK, SIGN, SEAL AND DATE EACH PLAN. THE PREPARER AND CHECKER SHALL BE TWO DIFFERENT ENGINEERS. INCLUDE THE FOLLOWING STATEMENT ON THE PLANS: "THIS PLAN WAS PREPARED IN COMPLIANCE WITH CONTRACT DOCUMENTS."

2.3 DESIGN REQUIREMENTS

DESIGN SMR BEARINGS IN ACCORDANCE WITH TABLE 1: SMR DESIGN REQUIREMENTS.

TABLE 1. SMR DESIGN REQUIREMENTS

COMPONENT	AASHTO STANDARD SPECIFICATION DIVISION I, ARTICLE	MODIFICATION COMMENTS
SOLE, MASONRY AND UPPER BEARING PLATES	14.7	A,B
POT BEARING PISTON	14.7	C
PTFE	14.6.2	D
STAINLESS STEEL	14.6.2.3.2	E
POT BEARING ELASTOMERIC DISC	14.6.4.3 & 14.6.4.4	F,G
POT BEARING SEALING RINGS	14.6.4.5	
GUIDE BARS	14.6.9	H,I
POT BEARING POT	14.6.4.6	J
DISC BEARING ELASTOMERIC DISC	14.6.8.4	
DISC BEARING SHEAR RESTRICTING MECHANISM	14.6.8.5	
ANCHORAGE	14.7.3	K,L
PREFORMED BEARING PAD		
METALLIZING WIRE		
SEALER		

MODIFICATION COMMENTS:

A. RECTANGULAR OR SQUARE IN PLAN. WITH BEVELED, LEVEL OR RECESSED SURFACES IN ACCORDANCE TO SECTION 1.0

B. MINIMUM THICKNESS SHALL BE 0.75 INCHES [19 MM].

C. THE PISTON SHALL BE MACHINED FROM A SINGLE PIECE OF STRUCTURAL STEEL

D. THE MATING SURFACE TO PTFE, SHALL BE LARGE ENOUGH TO COVER THE PTFE DURING ALL CONDITIONS OF EXPANSION OR CONTRACTION THAT THE BRIDGE WILL UNDERGO PLUS AN ADDITIONAL TWO (2) INCHES [50 MM]

E. STAINLESS STEEL SURFACE USED AS A MATING SURFACE TO PTFE, SHALL BE LARGE ENOUGH TO COVER THE PTFE DURING ALL CONDITIONS OF EXPANSION OR CONTRACTION THAT THE BRIDGE WILL UNDERGO PLUS AN ADDITIONAL TWO (2) INCHES [50 MM].

F. THE DISC SHALL CONSIST OF ONE SOLID PIECE OF ELASTOMER

G. THE UPPER EDGE OF THE ELASTOMERIC DISC SHALL BE RECESSED TO RECEIVE THE SEALING RINGS SO THAT THEY SIT FLUSH WITH THE UPPER SURFACE OF THE DISC.

H. THE SLIDE SURFACES OF THE GUIDE BARS SHALL BE FACED WITH STAINLESS STEEL

I. ON GUIDED BEARINGS, THE GUIDE BARS SHALL PROVIDE SUFFICIENT CLEARANCES BETWEEN ROTATING AND NON-ROTATING PARTS TO PREVENT BINDING OF THE BEARING.

J. THE POT SHALL CONSIST OF A SOLID PLATE INTO WHICH A CIRCULAR RECESS HAS BEEN MACHINED.

K. DESIGN CONNECTIONS TO THE SUBSTRUCTURE USING SWEDGED ANCHOR BOLTS

L. DESIGN CONNECTIONS TO THE SUPERSTRUCTURE USING FILLET WELDS, 5/16" LEG SIZE IS PREFERRED

2.4 MATERIALS

SUPPLY MATERIALS IN ACCORDANCE WITH TABLE 2: SMR MATERIAL REQUIREMENTS

TABLE 2. SMR MATERIAL REQUIREMENTS

COMPONENT	AASHTO STANDARD SPECIFICATION DIVISION II, ARTICLE, ASTM OR CMS	MODIFICATION COMMENTS
SOLE, MASONRY AND UPPER BEARING PLATES	CMS 711.01	
POT BEARING PISTON	CMS 711.01	
PTFE	AASHTO 18.4.3	
STAINLESS STEEL	ASTM A167/A264, TYPE 304 WITH #8 MIRROR FINISH	
POT BEARING ELASTOMERIC DISC	AASHTO 18.4.4.1, GRADE 3 REQUIREMENTS	A
POT BEARING SEALING RINGS	AASHTO 18.4.4.3	
GUIDE BARS	CMS 711.01	B
POT BEARING POT	CMS 711.01	C
DISC BEARING ELASTOMERIC DISC	AASHTO 18.4.7	
DISC BEARING SHEAR RESTRICTING MECHANISM	ASTM A240 OR A276 UNS S21800	
ANCHORAGE BOLTS	CMS 711.10 OR 711.09	D
PREFORMED BEARING PAD	CMS 711.21	
METALLIZING WIRE	ASTM B833	E
SEALER	CMS 708.02 D	F

MODIFICATION COMMENTS:

A. LUBRICATE THE TOP AND BOTTOM SURFACES WITH SILICONE GREASE, SUPPLY GREASE MEETING THE REQUIREMENTS OF MIL-S-8660C.

B. GUIDE BARS MAY BE INTEGRAL BY MACHINING FROM A SOLID SOLE PLATE OR THEY MAY BE ATTACHED TO THE SOLE PLATE BY WELDING. THE SLIDE SURFACES OF THE GUIDE BARS SHALL BE FACED WITH STAINLESS STEEL

C. MACHINE THE POT FROM A SOLID PLATE INTO WHICH A CIRCULAR RECESS HAS BEEN MACHINED. DO NOT APPLY METALLIZING TO THE INSIDE SURFACES OF POT WALLS AND BASE.

D. SWEDGED ANCHOR BOLTS MEETING THE MATERIAL REQUIREMENTS OF CMS 711.10 OR THE CHEMICAL COMPOSITION AND PHYSICAL STRENGTH REQUIREMENTS OF CMS 711.09. GALVANIZED ANCHOR BOLT ASSEMBLES PER CMS 711.02

E. ASTM B833 HAVING THE 99.99% ZINC - UNS (Z13005) COMPOSITION. SUPPLY CERTIFIED TEST DATA TO THE ENGINEER. ACCOMPANY ALL CERTIFIED TEST DATA WITH COPIES OF MILL SHIPPING NOTICES OR INVOICES SHOWING THE DIAMETER AND QUANTITY OF WIRE BEING ACCEPTED.

F. SUPPLY A SEALER CONFORMING TO THE CMS 708.02 D, URETHANE FINISH COAT. THIN THE SEALER TO THE MAXIMUM EXTENT PER THE MANUFACTURER'S RECOMMENDATION. THE SEALER COLOR SHALL CLOSELY APPROACH: FEDERAL STANDARD NUMBER FS-595B-16314 MEDIUM GRAY (THE COLOR OF METALLIZING); FS-595B-20045 OR 20059 (THE COLOR OF WEATHERING STEEL) FOR USE WITH WEATHERING STEEL BRIDGES; OR TO MATCH THE SPECIFIED 514 PAINT COLOR.

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DATE: 8/23/2007 FILE: """

DESIGN AGENCY
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DESIGNED JDH | DRAWN RRC | REVIEWED RER | DATE 06/01/07
CHECKED CTY | REVISED | STRUCTURE FILE NUMBER 5708710

GENERAL NOTES
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

STRUCTURE GENERAL NOTES

3.0 FABRICATION

3.1 ATTACH SHEET OR FABRIC PTFE TO SUBSTRATE AS FOLLOWS:

A. CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH EDITION, DIVISION II, ARTICLE 18.5.3

B. CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS FOR: ADHESIVE MATERIAL; MECHANICAL INTERLOCKING; BONDING PROCEDURES; AND SURFACE PREPARATION. SATISFY THE ADHESION STRENGTH REQUIREMENTS OF SECTION 4.5 OF THIS SPECIFICATION.

C. THE DEPARTMENT WILL NOT PERMIT MIGRATION OF EPOXY THROUGH THE PTFE FABRIC.

D. FURNISH PTFE FABRIC FROM A SINGLE PIECE. OVER-SEW OR RECESS EDGES SO THAT NO CUT FABRIC EDGES ARE EXPOSED.

3.2 ATTACHMENT OF SHEET STAINLESS STEEL

ATTACH STAINLESS STEEL TO ITS STEEL SUBSTRATE USING A CONTINUOUS SEAL WELD AROUND ITS ENTIRE PERIMETER. CONFORM TO THE AWS REQUIREMENTS FOR STAINLESS STEEL. PERFORM WELDING USING WELDERS PRE-QUALIFIED BY TEST WELDS PREPARED, WELDED AND TESTED IN ACCORDANCE WITH ANSI/AWS D1.3, STRUCTURAL WELDING CODE - SHEET STEEL ARTICLE 6.7. PROVIDE STAINLESS STEEL SHEET THAT IS FLAT, FREE FROM WRINKLES AND IN CONTINUOUS CONTACT WITH ITS BACKING PLATE AFTER WELDING. CONFORM TO THE REQUIREMENTS OF SECTION 4.3 OF THIS SPECIFICATION AFTER WELDING. THE DEPARTMENT WILL NOT ACCEPT ANY SURFACE ROUGHNESS FROM WELD PROTRUDING ABOVE THE SURFACE OF THE STAINLESS STEEL.

WELD GUIDE BARS TO THE SOLE PLATE BEFORE WELDING THE STAINLESS STEEL TO THE SOLE PLATE OR GUIDE BARS.

3.3 CORROSION PROTECTION

SHOP METALLIZE AND SEAL ALL STEEL SURFACES, EXCEPT PTFE-STAINLESS STEEL SLIDING SURFACES AND THE INSIDE OF THE POT. REFER TO THE SSPC COATING SYSTEM GUIDE CS 23.00 (MARCH 17, 2003) "GUIDE FOR THERMAL SPRAY METALLIC COATING SYSTEMS" AND TABLE 3, SHOP METALLIZING REQUIREMENTS.

TABLE 3. SHOP METALLIZING REQUIREMENTS

REQUIREMENT	SPECIFICATION
SURFACE PREPARATION	SSPC- SP5
BLAST MEDIUM	STEEL GRIT
SHARP ANGULAR BLAST ANCHOR PROFILE	ASTM D4417, METHOD C., 2.5 MILS(63 MM) MINIMUM
METALLIZING THICKNESS	SSPC PA-2, 12 MILS (305 MM)
COATING ADHESION	ASTM D-4541, 500 PSI [3.4MPA]
SEALER	DEVELOP A UNIFORM APPEARANCE, COLOR AND FILL ALL SURFACE ROUGHNESS ASSOCIATED WITH THE METALIZING.

3.4 WELDING

PERFORM WELDING ACCORDING TO CMS 513. IF THE CONTRACTOR PROVIDES ACCEPTABLE WELDING PROCEDURES TO RESTRICT THE MAXIMUM TEMPERATURE IN THE PTFE BONDED AREA OR TO SURFACES TOUCHING THE ELASTOMERIC DISC TO LESS THAN 300E F [150E C], THE DEPARTMENT WILL PERMIT WELDING TO A STEEL PLATE WHICH HAS A BONDED PTFE SURFACE OR TOUCHES A ELASTOMERIC DISC. REPAIR CORROSION PROTECTIVE COATINGS DAMAGED BY FIELD WELDS ACCORDING TO 6.9.

3.5 TOLERANCES

CHECK ALL BEARINGS FOR TOLERANCES ACCORDING TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH EDITION, DIVISION II TABLE 18.5.1.5-1.

TO MEASURE FLATNESS, PLACE A STRAIGHTEDGE, LONGER THAN THE NOMINAL DIMENSION TO BE MEASURED, IN CONTACT WITH THE SURFACE TO BE MEASURED OR AS PARALLEL TO IT AS POSSIBLE. SELECT A FEELER GAUGE HAVING A TOLERANCE OF * 0.001 INCH [25 MM] AND ATTEMPT TO INSERT IT UNDER THE STRAIGHTEDGE (THE SMALLEST NUMBER OF BLADES SHALL BE USED). FLATNESS IS ACCEPTABLE IF THE FEELER DOES PASS UNDER THE STRAIGHTEDGE. THE STRAIGHTEDGE MAY BE LOCATED AT ANY POSITION ON THE SURFACE AND NOT NECESSARILY AT 90 DEGREES TO THE EDGES.

4.0 TESTING

4.1 GENERAL

TEST THE BEARINGS AT A TESTING FACILITY, POSSESSING THE PROPER TESTING EQUIPMENT AND TRAINED PERSONNEL, CAPABLE OF PERFORMING ALL TESTS SPECIFIED IN SECTION 4.3. SUBMIT THE TEST FACILITIES QUALIFICATION WITH THE CMS 501.04 A, SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04 A. THE TEST FACILITIES QUALIFICATIONS SHALL INCLUDE: CAPACITY AND CAPABILITIES OF EACH TESTING APPARATUS AND QUALIFICATIONS OF ALL PERSONNEL THAT WILL BE PERFORMING TESTS FOR THIS CONTRACT.

SUBMIT A REPORT CONTAINING THE RESULTS OF TESTS SPECIFIED IN 4.3 WITH THE CMS 501.06 A, TEST REPORTS ACCORDING TO THE PROCESS DEFINED IN CMS 501.06 A. PRESENT THE RESULTS OF ALL TESTING IN A REPORT INCLUDING RAW TEST DATA, REDUCED TEST DATA, SAMPLE CALCULATIONS, MEASURED TOLERANCES AND FINAL RESULTS ALONG WITH PHOTOGRAPHS AND CONCLUSIONS.

4.2 SAMPLING

RANDOMLY SELECT ONE GUIDED EXPANSION BEARING AND ONE FIXED BEARING FROM EACH APPLICABLE LOT OF COMPLETED BEARINGS. A LOT IS DEFINED BY AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH EDITION, DIVISION II ARTICLE 18.7.1.2

4.3 PERFORM TESTS ON COMPLETELY FABRICATED AND RANDOMLY SAMPLED BEARINGS ACCORDING TO TABLE 4: SMR TEST REQUIREMENTS

TABLE 4. SMR TEST REQUIREMENTS

COMPONENT	AASHTO STANDARD SPECIFICATION DIVISION II, ARTICLE, ASTM OR CMS	MODIFICATION COMMENTS
MATERIAL CERTIFICATION	CMS 501.06	A, C
POT BEARING ELASTOMERIC DISC	CMS 711.23	
MATERIAL FRICTION TEST	AASHTO 18.7.2.2	B
DIMENSION CHECK	AASHTO 18.7.2.3	C
CLEARANCE CHECK	AASHTO 18.7.2.4	C
SHORT TERM COMPRESSION	AASHTO 18.7.2.5	
LONG TERM COMPRESSION	AASHTO 18.7.2.6	
FRICTION TEST	AASHTO 18.7.2.7	B
LONG TERM DETERIORATION TEST	AASHTO 18.7.2.8	
HORIZONTAL FORCE CAPACITY	AASHTO 18.7.2.9	D

MODIFICATION COMMENTS:

A. PROCESS FOR CERTIFICATION OF ALL MATERIALS USED IN THE BEARING.

B. THE CONTRACTOR MAY PERFORM A FRICTION TEST PER AASHTO 18.7.2.7 WITH 100 CYCLES OF SLIDING INSTEAD OF AASHTO 18.7.2.2

C. TEST ALL BEARINGS.

D. GUIDED OR FIXED BEARINGS ONLY

4.4 VISUALLY EXAMINE THE BEARING DURING ALL TESTS. DISASSEMBLE THE BEARING AFTER COMPLETING THE SPECIFIED TESTS. REJECT THE ENTIRE LOT OF BEARINGS IF A SAMPLED BEARING EXHIBITS VISUAL DEFECTS, SUCH AS: EXTRUDED OR DEFORMED ELASTOMER; POLYETHER URETHANE OR PTFE; DAMAGED SEALS; CRACKED STEEL; AND INTERFERENCE BETWEEN ROTATING AND STATIONARY PARTS.

THE BEARING PLATES AND THE STEEL PISTON SHALL MAINTAIN CONTINUOUS AND UNIFORM CONTACT FOR THE DURATION OF THE SPECIFIED TEST. ANY OBSERVED LIFT-OFF WILL BE CAUSE FOR REJECTION OF THE LOT. THE CONTRACTOR MAY INCORPORATE BEARINGS NOT DAMAGED DURING TEST I INTO THE FINISHED STRUCTURE.

THE MANUFACTURER MAY TEST ALL BEARING IN A REJECTED LOT AT HIS EXPENSE TO ESTABLISH ACCEPTANCE OF INDIVIDUAL BEARINGS IN A REJECTED LOT.

5.0 SHIPPING AND PACKING

5.1 SECURELY BAND BEARINGS TOGETHER AS UNITS SO THAT THEY MAY BE SHIPPED TO THE JOB SITE AND STORED WITHOUT RELATIVE MOVEMENT OF THE BEARING PARTS OR DISASSEMBLY AT ANY TIME. WRAP BEARINGS IN MOISTURE PROOF AND DUST PROOF MATERIAL TO PROTECT AGAINST SHIPPING AND JOB SITE CONDITIONS.

5.2 STORE BEARINGS AT THE JOB SITE IN A DRY, SHELTERED AREA FREE FROM DIRT OR DUST UNTIL INSTALLATION.

5.3 MARK THE CENTERLINES ON APPROPRIATE BEARING PARTS FOR CHECKING ALIGNMENT IN THE FIELD. SHOW LOCATIONS OF ALIGNMENT MARKS ON SHOP DRAWINGS.

5.4 PERMANENTLY MARK ALL COMPONENTS OF EACH BEARING WITH A NUMBER UNIQUE TO THAT BEARING. IDENTIFY THE MARK NUMBER AND PLACEMENT LOCATION ON THE SHOP DRAWINGS.

6.0 INSTALLATION

6.1 HAVE A REPRESENTATIVE FROM THE BEARING MANUFACTURER ON SITE TO ENSURE PROPER INSTALLATION OF THE BEARINGS.

6.2 LEAVE WRAPPING, BEARING STRAPS OR RETAINING CLAMPS IN PLACE AS LONG AS POSSIBLE TO ENSURE PARTS OF BEARINGS ARE NOT INADVERTENTLY DISPLACED RELATIVE TO EACH OTHER.

6.3 EVENLY SUPPORT EACH BEARING OVER THEIR UPPER AND LOWER SURFACES UNDER ALL ERECTION AND SERVICE CONDITIONS. DO NOT DIS-ASSEMBLE BEARINGS FOR ERECTION PURPOSES.

6.4 THE ENGINEER MAY REQUIRE THE BEARINGS BE SHIPPED BACK TO THE MANUFACTURER, IF THE BEARING HAS BEEN UNWRAPPED OR DIS-ASSEMBLED PRIOR TO ERECTION.

6.5 PREPARE CONCRETE SEAT PER CMS 516.07 EXCEPT THAT SEATS SHALL BE LEVEL WITHIN 1:200.

6.6 INSTALL ANCHOR BOLTS PER CMS 516.07.

6.7 ALIGN THE CENTERLINES OF THE BEARING ASSEMBLY WITH THOSE OF THE SUBSTRUCTURE AND SUPERSTRUCTURE. ON EXPANSION BEARINGS ALIGN THE BEARINGS, TAKING INTO CONSIDERATION THE AMBIENT TEMPERATURE (TO ALLOW FOR THE DESIGN EXPANSION OR CONTRACTION OF THE STRUCTURE). OFFSET UPPER AND LOWER BEARING PARTS TO COMPENSATE FOR AMBIENT TEMPERATURE AND ADDITIONAL DEAD LOAD ROTATION.

6.8 FIELD WELD BEARING SOLE PLATE TO BEAM/GIRDER FLANGE ACCORDING TO SECTION 3.4 OF THIS SPECIFICATION. PERFORM PERMANENT FIELD WELDING AFTER ALL DEAD LOAD ROTATIONS ARE COMPLETE. TEMPORARY: TACK WELDS (5/16" BY 2" LONG MINIMUM); CLAMPING OR BLOCKING MAY BE REQUIRED TO ASSURE STRUCTURAL STABILITY DURING THE APPLICATION OF THE REMAINING DEAD LOAD. TEMPORARY CONNECTIONS MUST BE DEFINED IN THE CONTRACTOR'S CONSTRUCTION PLAN. TEMPORARY CONNECTIONS DO NOT ELIMINATE THE CONTRACT REQUIREMENT TO CHECK AND RE-ALIGN BEARINGS AS NECESSARY TO ACHIEVE THE TEMPERATURE ADJUSTED NEUTRAL POSITION AFTER THE APPLICATION OF ALL DEAD LOAD.

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DESIGNED JDH | DRAWN RAC | REVIEWED RER | DATE 06/01/07
CHECKED CTY | REVISED | STRUCTURE FILE NUMBER 5708710

GENERAL NOTES (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

STRUCTURE GENERAL NOTES

6.9 REPAIR DAMAGED OR FIELD WELDED METALLIZED COATINGS BY METALLIZING AND SEALING IN ACCORDANCE TO THIS SPECIFICATION. FIELD WELDS THAT CONNECT PAINTED AND METALLIZED SURFACES CAN BE REPAIRED ACCORDING TO THE SPECIFIED PAINTING SYSTEM. PROTECT AND MASK NON DAMAGED OR NON FIELD WELDED METALLIZED SURFACES, ELASTOMERIC PARTS, PTFE AND STAINLESS SLIDING SURFACES DURING ALL REPAIRS TO PREVENT DAMAGE OR CONTAMINATION.

6.10 PROTECT BEARINGS FROM CONSTRUCTION SILAGE, PAINTING AND SEALERS BY WRAPPING WITH CLEAR PLASTIC SHEETING 6 MILS THICK SECURED BY STRAPS OR TAPE. PROVIDE THE PROTECTION UNTIL COMPLETION OF ALL CONSTRUCTION ACTIVITIES. DO NOT RESTRICT THE THERMAL OR ROTATIONAL MOVEMENTS OF THE BEARING WITH THE STRAPS OR TAPE.

7.0 METHOD OF MEASUREMENT

THE DEPARTMENT WILL MEASURE SMR BEARINGS BY THE NUMBER OF EACH BEARING DETERMINED BY THE MAXIMUM VERTICAL REACTION LISTED IN THE CONTRACT NO DISTINCTION WILL BE MADE BETWEEN FIXED OR EXPANSION BEARINGS.

8.0 BASIS OF PAYMENT

THE DEPARTMENT WILL NOT PAY SEPARATELY FOR THE WORK LISTED UNDER TESTING AND ACCEPTANCE OF THIS SPECIFICATION. INCLUDE THIS WORK IN THE UNIT PRICE BID.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICES FOR:

ITEM	UNIT	DESCRIPTION
513E15001	EACH	STRUCTURAL STEEL MEMBERS, SPECIALIZED MULTI ROTATIONAL BEARINGS (SMR), LEVEL UF, AS PER PLAN

ITEM 513, STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN:

1. DESCRIPTION:

1.01 THIS WORK CONSISTS OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT STRUCTURAL STEEL MEMBERS, DESIGNED AS A HYBRID/ MIX OF STEEL MATERIALS CONSISTING OF: ASTM A709, HIGH PERFORMANCE GRADE HPS70W IN COMBINATION WITH GRADE 50W STEEL.

1.02 THIS WORK SHALL BE PERFORMED PER ITEM 513 STRUCTURAL STEEL MEMBER, LEVEL SIX (6) EXCEPT AS MODIFIED BY THE SEPTEMBER, 2000 EDITION OF THE "GUIDE FOR HIGHWAY BRIDGE FABRICATION WITH HPS70W STEEL, A SUPPLEMENT TO ANSI/AASHTO AWS D1.5-95" AND AS MODIFIED BY THESE PLAN NOTES.

2. MATERIALS:

2.01 STEEL FOR GIRDER WEBS AND FLANGES SHALL BE A COMBINATION OF ASTM A709-00 GRADE HPS70W MANUFACTURED BY THE THERMO-MECHANICAL CONTROLLED PROCESSING (TMCP) OR QUENCHED AND TEMPERED HEAT TREATMENT PROCESSING ALONG WITH ASTM A588/709 GRADE 50W. ALL OTHER STEEL SHALL BE ASTM A709-00 GRADE 50W.

2.02 STEEL DESIGNATED CVN SHALL BE IMPACT TESTED TO EXCEED THE TEST VALUES OF ASTM A709-00 TABLE S1.2 "NON-FRACTURE CRITICAL IMPACT TEST REQUIREMENTS" FOR ZONE 2, TEMPERATURE RANGE. FURNISH MATERIAL THAT MEETS OR EXCEEDS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN ITEM 711.01.

3. ADDITIONAL FABRICATION RESTRICTIONS / WARNINGS:

3.01 APPLICATION OF HEAT FOR CURVING AND STRAIGHTENING APPLICATIONS, CAMBER AND SWEEP ADJUSTMENT, OR OTHER REASON HEATING IS LIMITED TO 1100°F/590°C MAXIMUM, AND MUST BE DONE BY PROCEDURES APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE.

3.02 THE MATCHING SUBMERGED ARC WELDING CONSUMABLES ESAB ENI4 ELECTRODE IN COMBINATION WITH LINCOLN MIL800H, RECOMMENDED IN APPENDIX A OF THE AASHTO GUIDE FOR HIGHWAY BRIDGE FABRICATION WITH HPS70W STEEL, HAS PRODUCED WELDMENT CONTAINING UNACCEPTABLE DISCONTINUITIES IN A SUBSTANTIAL NUMBER OF COMPLETE PENETRATION GROOVE WELDS IN ONE STRUCTURE, BASED ON THE PARAMETERS USED AND EXPERIENCE OF ONE FABRICATOR. EXTREME CAUTION SHOULD BE EXERCISED WHEN USING THIS ELECTRODE/FLUX COMBINATION.

3.03 CONSIDERATION WILL BE GIVEN TO OTHER WELDING PROCESSES IF A WRITTEN REQUEST IS SUBMITTED TO THE OFFICE OF MATERIALS MANAGEMENT IN ACCORDANCE WITH CMS 108.05. OTHER WELDING PROCESSES MUST BE QUALIFIED AND TESTED AS REQUIRED BY THE REFERENCED SPECIFICATIONS AND THESE NOTES.

3.04 IN ADDITION TO THE REQUIREMENTS OF ANSI/AASHTO/AWS D1.5 SECTION 5.17, ALL PROCEDURE QUALIFICATION TESTS MUST BE ULTRASONICALLY TESTED IN CONFORMANCE WITH THE REQUIREMENTS OF AWS D1.5-95, SECTION 6, PART C. EVALUATION MUST BE IN ACCORDANCE WITH AWS D1.5-95, TABLE 9.1, ULTRASONIC ACCEPTANCE - REJECTION CRITERIA - TENSILE STRESS. INDICATIONS FOUND AT THE INTERFACE OF THE BACKING BAR MAY BE DISREGARDED, REGARDLESS OF THE DEFECT RATING.

3.05 WHENEVER MAGNETIC PARTICLE TESTING IS DONE, ONLY THE YOKE TECHNIQUE WILL BE ALLOWED, AS DESCRIBED IN SECTION 6.7.6.2 OF THE ANSI/AASHTO/ AWS D1.5 BRIDGE WELDING CODE, MODIFIED TO TEST USING ALTERNATING CURRENT ONLY. THE PROD TECHNIQUE WILL NOT BE ALLOWED.

4. BASIS OF PAYMENT:

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNIT	DESCRIPTION
513E10401	POUND	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN

ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), 15", AS PER PLAN:

FURNISH APPROACH SLABS CONFORMING TO CMS 526 EXCEPT CONCRETE SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 898, QC/QA CONCRETE, CLASS QSC2. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, PARAPET AND MEDIAN BARRIER CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, AND WATERPROOFING ON THE APPROACH SLABS AND ON THE BACKWALLS OF THE ABUTMENTS. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS. THE DEPARTMENT WILL INITIALLY PAY THE FULL BID PRICE TO THE CONTRACTOR UPON COMPLETING THE WORK. THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN:

THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND PARAPET IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN:

THE DEPARTMENT WILL CALCULATE THE FINAL ADJUSTED PAYMENT ACCORDING TO 898.17 AND INCLUDE APPROACH SLAB CONCRETE AND DECK CONCRETE IN THE SAME LOT TO DETERMINE FINAL PAY FACTORS.

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REMOVAL DETAILS 10/57
BRIDGE PHASE CONSTRUCTION PLANS AND NOTES 11/57
TEMPORARY ACCESS AND STAGE CONSTRUCTION DETAILS 12/57 THRU 15/57
PILE LAYOUT PLAN 16/57 AND 17/57
REAR ABUTMENT DETAILS 18/57 THRU 21/57
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REINFORCING STEEL LIST 54/57 THRU 57/57

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 2000
CLEVELAND, OHIO 44113-1800

DESIGNED	DRAWN	REVIEWED	DATE
JDH	RRC	RER	06/01/07

CHECKED	REVISED	STRUCTURE FILE NUMBER
CTY		5708710

GENERAL NOTES
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: eancock Time: 3:19:43 PM
DATE: 7/27/2007 FILE: q:\cad\A1066\bridge\steel.dir\cadd\steel23828gen01.dgn

MADE BY RRC DATE 05/31/07
CHECKED BY GHD DATE 06/01/07

ESTIMATED QUANTITIES

STRUCTURE FILE NUMBER: 5708710

ITEM	EXTENSION	TOTAL*	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	AS PER PLAN REFERENCE SHEET NUMBER
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LUMP	3/57
202	22900	442	SQ YD	APPROACH SLAB REMOVED					442	
503	11101	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN					LUMP	2/57, 12/57-15/57
503	21300	LUMP		UNCLASSIFIED EXCAVATION					LUMP	
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION					LUMP	
507	00300	10,390	FT	STEEL PILES HP 14x73, FURNISHED	2450	2000	5940			
507	00350	8955	FT	STEEL PILES HP 14x73, DRIVEN	2205	1800	4950			
509	10001	1,174,974	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	33,643	25,238	181,804	934,289		3/57
512	10100	5161	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	340	249	2031	2541		
512	10300	905	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN				905		
512	33000	27	SQ YD	TYPE 2 WATERPROOFING	15	12				
513	10401	3,588,000	POUND	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN				3,588,000		6/57
513	15001	66	EACH	STRUCTURAL STEEL MEMBERS, SPECIALIZED MULTI ROTATIONAL BEARING (SMR), LEVEL UF, AS PER PLAN	18	15	33			3/57-6/57
513	20000	18,732	EACH	WELDED STUD SHEAR CONNECTORS				18,732		
516	11210	308	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	174	134				
516	13600	81	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	48	33				
516	13900	331	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	8	8			315	
518	21200	375	CU YD	POROUS BACKFILL WITH FILTER FABRIC	226	149				
518	40000	330	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	183	147				
518	40010	134	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	83	51				
523	20000	3	EACH	DYNAMIC LOAD TESTING	1	1	1			
601	20000	6	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION	3	3				
601	21000	606	SQ YD	CONCRETE SLOPE PROTECTION		606				
601	32100	260	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	260					
601	32104	599	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER			599			
885	00060	19,000	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, WITH WARRANTY				19,000		
885	00066	19,000	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, WITH WARRANTY				19,000		
898	10201	2649	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN				2649		6/57
898	10705	851	SQ YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), T=15", AS PER PLAN					851	6/57
898	11001	394	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET), AS PER PLAN				394		6/57
898	20100	961	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (PIER ABOVE FOOTING)			961			
898	20150	498	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (ABUTMENT)	313	185				
898	20300	693	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (FOOTING)	148	117	428			

* - ALL STRUCTURAL ITEMS PAID FOR WITH FEDERAL AND STATE FUNDS

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1800, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
RRC	RRC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RCK		5708710	

ESTIMATED QUANTITIES
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

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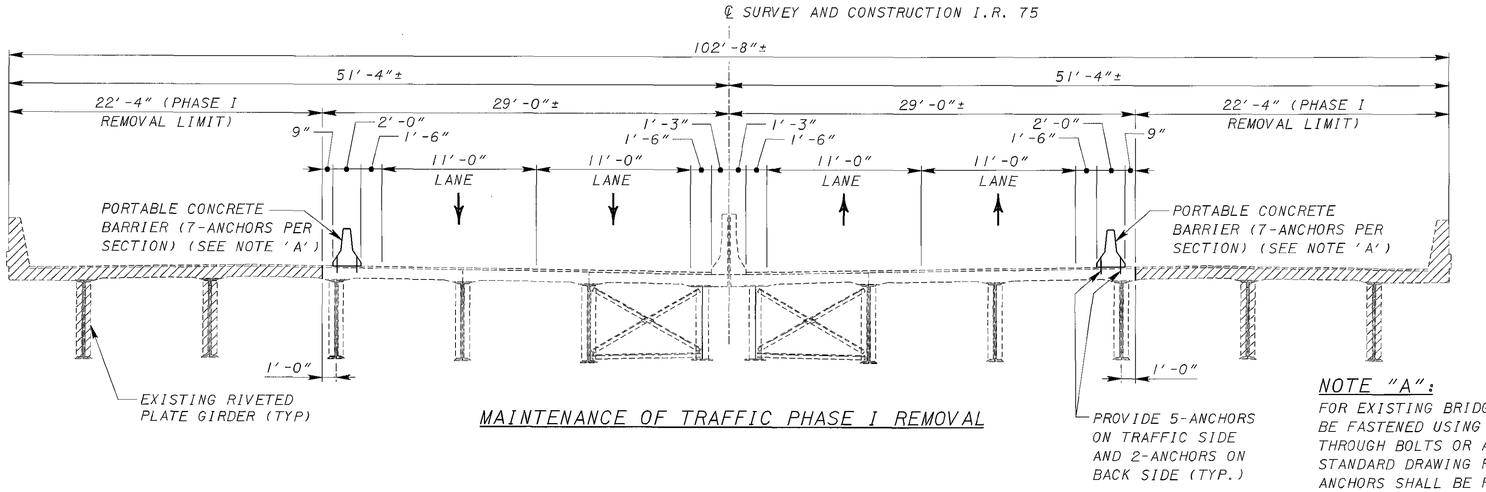
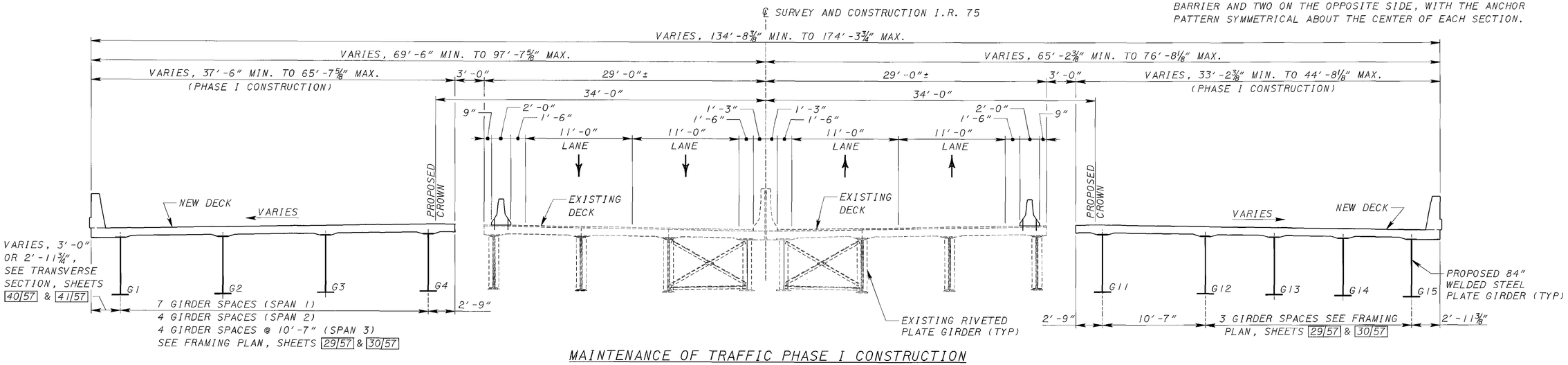


MAINTENANCE OF TRAFFIC PHASE I REMOVAL

NOTE "A":

FOR EXISTING BRIDGE DECK, ALL BARRIER SEGMENTS SHALL BE FASTENED USING ONE INCH DIAMETER HIGH STRENGTH THROUGH BOLTS OR APPROVED RESIN ANCHORS .SEE ODOT STANDARD DRAWING PCB-91 FOR ANCHORAGE DETAILS. FIVE ANCHORS SHALL BE PLACED ON THE TRAFFIC SIDE OF THE BARRIER AND TWO ON THE OPPOSITE SIDE, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SECTION.



MAINTENANCE OF TRAFFIC PHASE I CONSTRUCTION

SUGGESTED CONSTRUCTION SEQUENCE:

PHASE I

1. DIRECT I.R. 75 TRAFFIC TO OCCUPY THE TEMPORARY LANES SHOWN IN MAINTENANCE OF TRAFFIC PHASE I.
2. INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON THE PLANS.
3. REMOVE EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE I REMOVAL.
4. INSTALL TEMPORARY SHEETING AT ABUTMENTS.
5. REMOVE PART OF EXISTING SUBSTRUCTURE UNITS AS NECESSARY.
6. CONSTRUCT PART OF NEW SUBSTRUCTURE UNITS.
7. ERECT NEW GIRDERS.
8. CONSTRUCT NEW DECK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE I CONSTRUCTION.

PHASE II

1. INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON THE PLANS.
2. DIRECT I.R. 75 TRAFFIC TOWARD NEWLY CONSTRUCTED DECK.
3. REMOVE REMAINING EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE II REMOVAL.
4. REMOVE REMAINING PARTS OF EXISTING SUBSTRUCTURE UNITS AS NECESSARY.
5. CONSTRUCT REMAINING PARTS OF NEW SUBSTRUCTURE UNITS.
6. REMOVE TEMPORARY SHEETING AS NECESSARY.
7. ERECT REMAINING NEW GIRDERS.
8. CONSTRUCT NEW DECK AND MEDIAN BARRIER AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE II CONSTRUCTION.
9. PLACE CLOSURE DECK SECTION.
10. RESUME NORMAL TRAFFIC.

NOTES:

▨ - INDICATES REMOVAL

LJB Inc. 3100 Research Blvd., P.O. Box 22246
Dayton, OH 45430-0246
(937) 259-3000 tel (937) 259-3100 fax ljbinc.com

DESIGNED	DRAWN	REVIEWED	DATE
JJS	JAL	MPH	6-07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DWW		5709710	

PHASE CONSTRUCTION DETAILS - PHASE I
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: esmack Time: 3:20:05 PM
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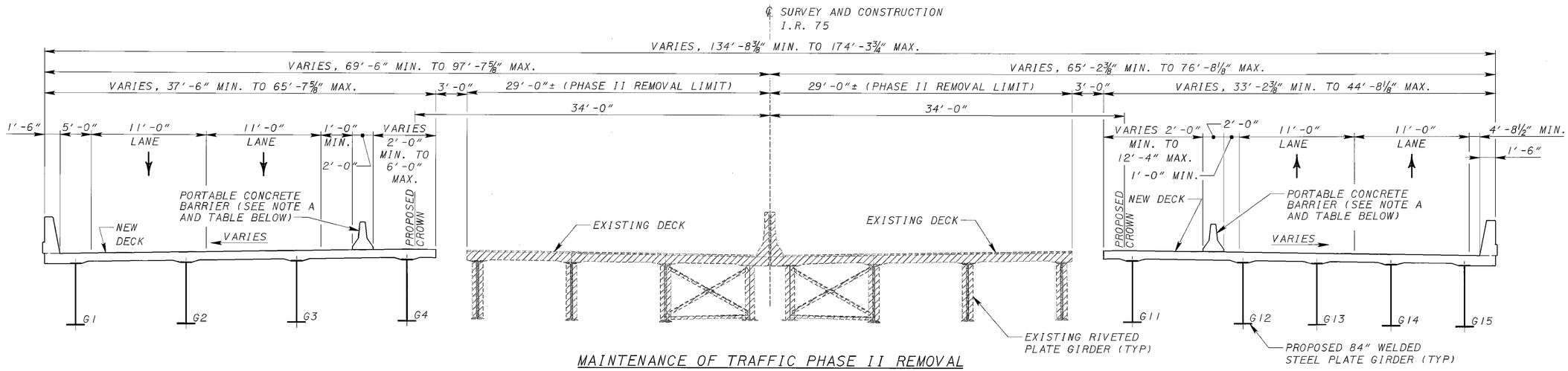
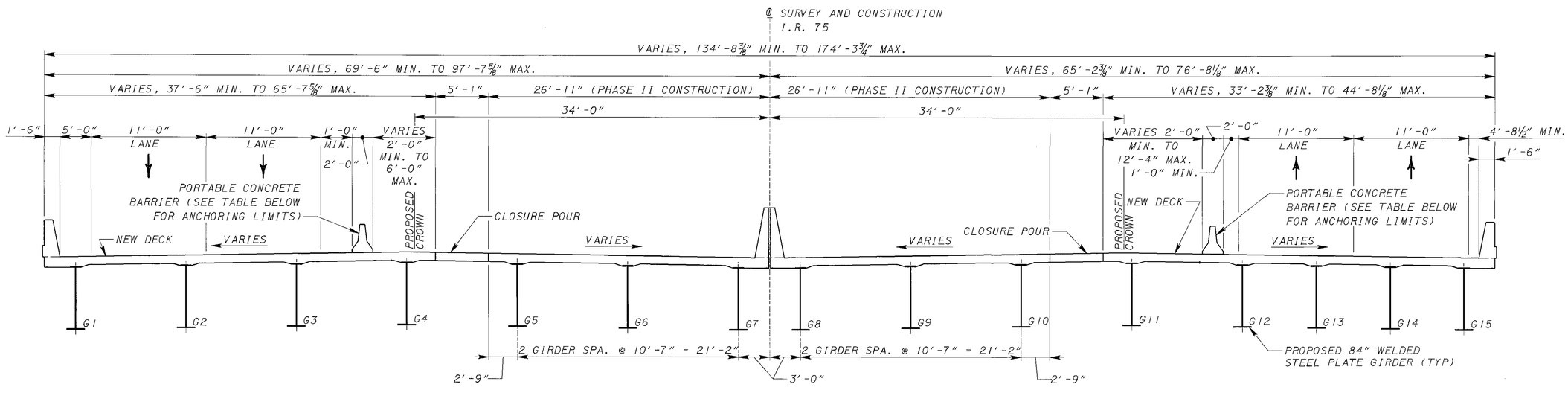


MAINTENANCE OF TRAFFIC PHASE II REMOVAL



MAINTENANCE OF TRAFFIC PHASE II CONSTRUCTION

PORTABLE CONCRETE BARRIER - ANCHORING REQUIREMENTS			
SOUTHBOUND		NORTHBOUND	
DISTANCE	NO. OF ANCHORS REQUIRED PER SEGMENT	DISTANCE	NO. OF ANCHORS REQUIRED PER SEGMENT
REAR ABUTMENT TO STA. 459+70.28	NONE REQUIRED	REAR ABUTMENT TO STA. 459+50.42	NONE REQUIRED
STA. 459+70.28 TO FORWARD ABUTMENT	2*	STA. 459+50.42 TO FORWARD ABUTMENT	2*

* CONTRACTOR TO AVOID DRILLING THROUGH SLAB REINFORCEMENTS

NOTE "A":
FOR PROPOSED BRIDGE DECK, BARRIER SEGMENTS SHALL BE FASTENED TO THE BRIDGE DECK USING APPROVED RESIN ANCHORS ONLY. SEE ODOT STANDARD DRAWING PCB-91 FOR ANCHORAGE DETAILS AND TABLE THIS SHEET FOR NUMBER OF ANCHORS PER SEGMENT.

NOTES:

▨ - INDICATES REMOVAL

1. FOR SUGGESTED CONSTRUCTION SEQUENCE, SEE SHEET 8/57.

LJB Inc. 3100 Research Blvd. P.O. Box 20246
Dayton, OH 45420-0246
(937) 259-0000 tel (937) 259-0100 fax ljbinc.com

DESIGNED JJS | DRAWN JAL | REVIEWED MPH | DATE 6-07
CHECKED DWW | REVISED | STRUCTURE FILE NUMBER 5708710

PHASE CONSTRUCTION DETAILS-PHASE II
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

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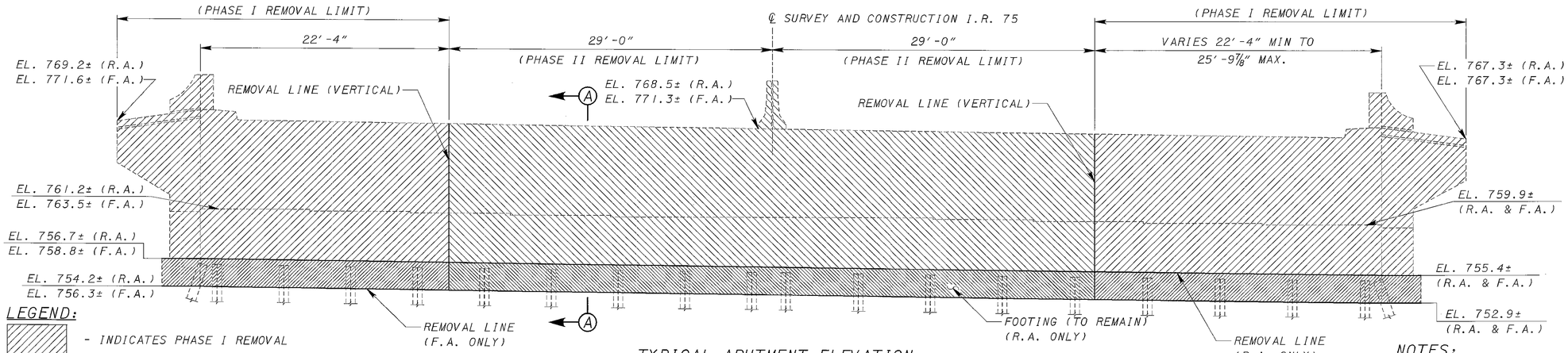
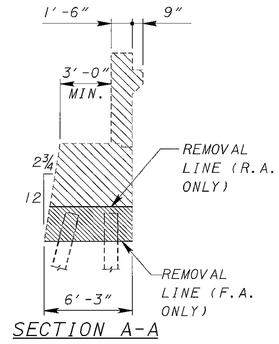


TYPICAL ABUTMENT ELEVATION

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND)



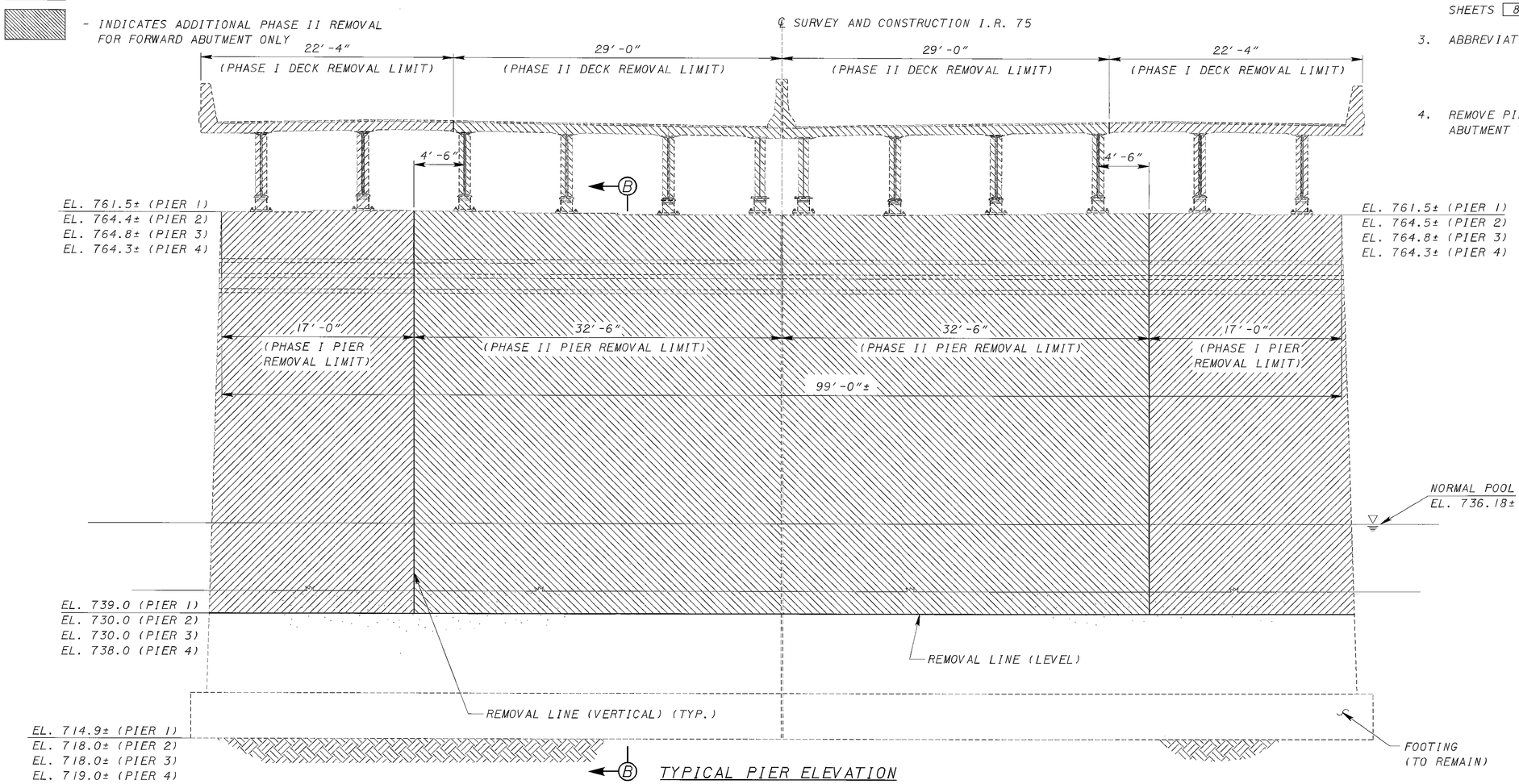
SECTION A-A

LEGEND:

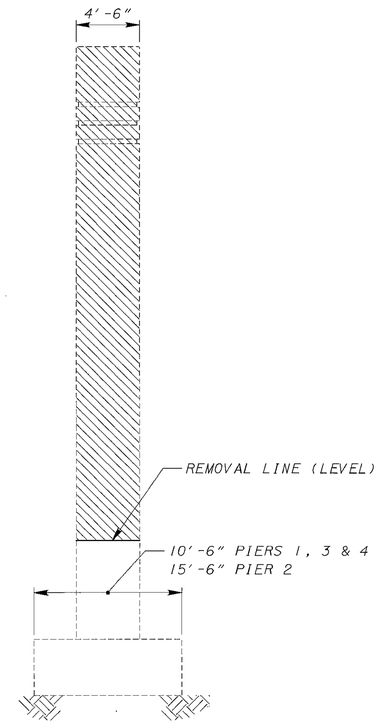
- INDICATES PHASE I REMOVAL
- INDICATES ADDITIONAL PHASE I REMOVAL FOR FORWARD ABUTMENT ONLY
- INDICATES PHASE II REMOVAL
- INDICATES ADDITIONAL PHASE II REMOVAL FOR FORWARD ABUTMENT ONLY

NOTES:

1. AREAS TO BE REMOVED SHALL BE PAID FOR UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.
2. FOR PHASE CONSTRUCTION DETAILS, SEE SHEETS 8/57 AND 9/57 .
3. ABBREVIATIONS: EL. - ELEVATION
   R.A. - REAR ABUTMENT
   F.A. - FORWARD ABUTMENT
   TYP. - TYPICAL
4. REMOVE PILES TO LIMIT SHOWN AT THE FORWARD ABUTMENT TO CONCTRUCT CONCRETE SLOPE PROTECITON.



TYPICAL PIER ELEVATION



SECTION B-B

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	06/01/07

CHECKED	REVISED	STRUCTURE FILE NUMBER
JDH		5708710

REMOVAL DETAILS

BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

10/57

245/316

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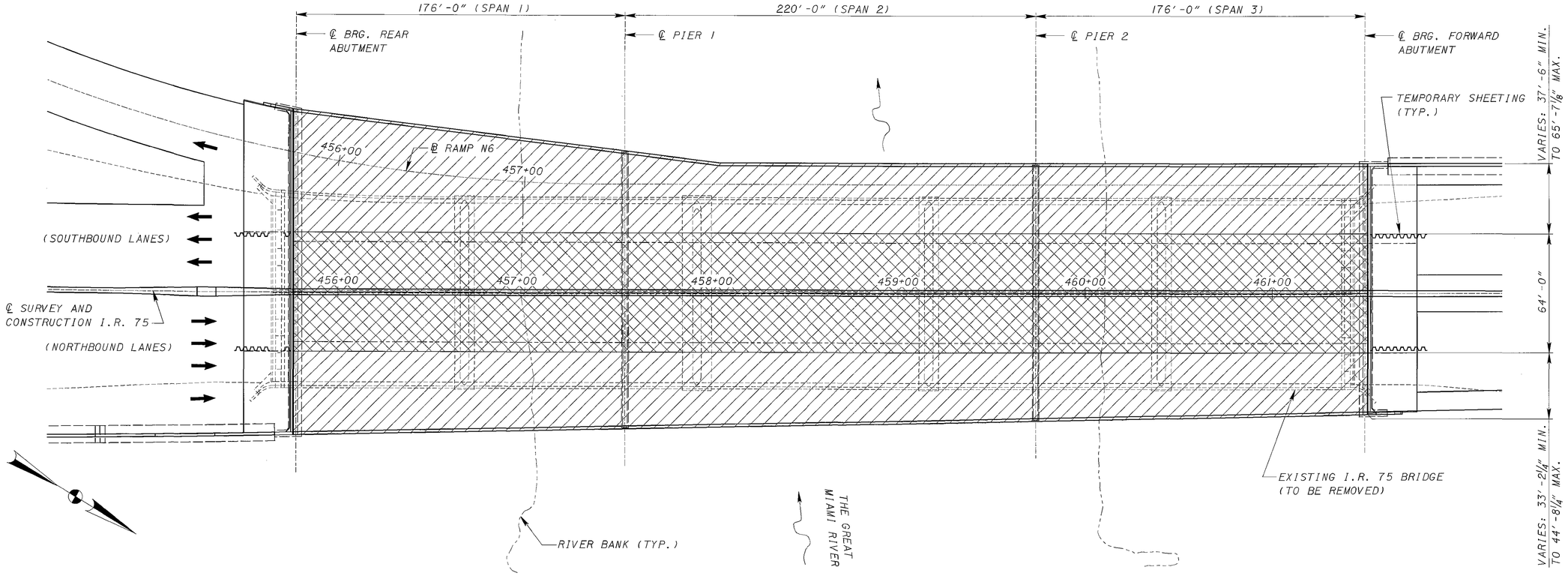

BRIDGE PHASE CONSTRUCTION PLAN

CONSTRUCTION SEQUENCE

THE PROPOSED WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING I.R. 75 BRIDGE OVER THE GREAT MIAMI RIVER AND THE CONSTRUCTION OF THE REPLACEMENT BRIDGE IN PHASES. REMOVAL AND CONSTRUCTION OPERATIONS ARE TO BE PERFORMED WHILE MAINTAINING TRAFFIC AND WATER FLOW. THE PERFORMANCE OF ALL PHASES OF WORK MUST BE COORDINATED TO SATISFY THE PROJECT MAINTENANCE OF TRAFFIC AND SAFETY REQUIREMENTS. SEE THE PROJECT MAINTENANCE OF TRAFFIC PLANS FOR ADDITIONAL MAINTENANCE OF TRAFFIC REQUIREMENTS.

PHASE I CONSTRUCTION:

1. BUILD STAGE 1 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 12/57 TO DEMOLISH THE EXTERIOR PORTIONS OF THE I.R. 75 BRIDGE IN SPANS 3 THROUGH 5 AND CONSTRUCT THE EXTERIOR PORTIONS OF THE I.R. 75 BRIDGE IN SPANS 2 AND 3.
2. CONSTRUCT THE EXTERIOR PORTIONS OF THE SUBSTRUCTURE FOR PIER 2 AND THE FORWARD ABUTMENT.
3. SET THE SUPERSTRUCTURE GIRDERS FOR THE EXTERIOR PORTIONS OF THE BRIDGE FOR SPAN 3 AND PART OF SPAN 2.
4. REMOVE STAGE 1 AND BUILD STAGE 2 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 13/57 TO DEMOLISH AND CONSTRUCT THE EXTERIOR PORTIONS OF THE I.R. 75 BRIDGE IN SPANS 1 AND 2.
5. CONSTRUCT THE EXTERIOR PORTIONS OF THE SUBSTRUCTURE FOR PIER 1 AND THE REAR ABUTMENT.
6. SET THE SUPERSTRUCTURE GIRDERS FOR THE EXTERIOR PORTIONS OF THE BRIDGE FOR SPAN 1 AND THE REMAINDER OF SPAN 2.
7. CONSTRUCT THE BRIDGE DECK FOR THE EXTERIOR PORTIONS OF THE BRIDGE.
8. MOVE TRAFFIC FROM THE EXISTING I.R. 75 BRIDGE TO THE NEWLY FINISHED PORTIONS OF THE BRIDGE.

PHASE II CONSTRUCTION:

1. REMOVE STAGE 2 AND BUILD STAGE 3 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 14/57 TO DEMOLISH AND CONSTRUCT THE INTERIOR PORTION OF THE I.R. 75 BRIDGE IN SPANS 1 AND 2.
2. CONSTRUCT THE INTERIOR PORTION OF THE SUBSTRUCTURE FOR PIER 1 AND THE REAR ABUTMENT.
3. SET THE SUPERSTRUCTURE GIRDERS FOR THE INTERIOR PORTION OF THE BRIDGE FOR SPANS 1 AND PART OF SPAN 2.
4. REMOVE STAGE 3 AND BUILD STAGE 4 OF THE TEMPORARY CONSTRUCTION ACCESS AS SHOWN ON SHEET 15/57 TO DEMOLISH THE INTERIOR PORTION OF THE I.R. 75 BRIDGE IN SPANS 3 THROUGH 5 AND CONSTRUCT THE INTERIOR PORTION OF THE I.R. 75 BRIDGE IN SPANS 2 AND 3.
5. CONSTRUCT THE INTERIOR PORTION OF THE SUBSTRUCTURE FOR PIER 2 AND THE FORWARD ABUTMENT.
6. SET THE SUPERSTRUCTURE GIRDERS FOR THE INTERIOR PORTION OF THE BRIDGE FOR SPAN 3 AND THE REMAINDER OF SPAN 2.
7. CONSTRUCT THE BRIDGE DECK AND CLOSURE POURS FOR THE INTERIOR PORTION OF THE BRIDGE.
8. REMOVE STAGE 4 TEMPORARY CONSTRUCTION ACCESS.
9. OPEN NEW STRUCTURE TO TRAFFIC.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC, SEE PHASE CONSTRUCTION DETAILS, SHEETS 8/57 AND 9/57.
2. FOR TEMPORARY CONSTRUCTION ACCESS STAGE CONSTRUCTION DETAILS AND NOTES, SEE SHEET 12/57 THROUGH 15/57.

LEGEND:

- PHASE I CONSTRUCTION
- PHASE II CONSTRUCTION

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE: SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JLV		5708710	

BRIDGE PHASE CONSTRUCTION AND NOTES
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

11/57

246/316

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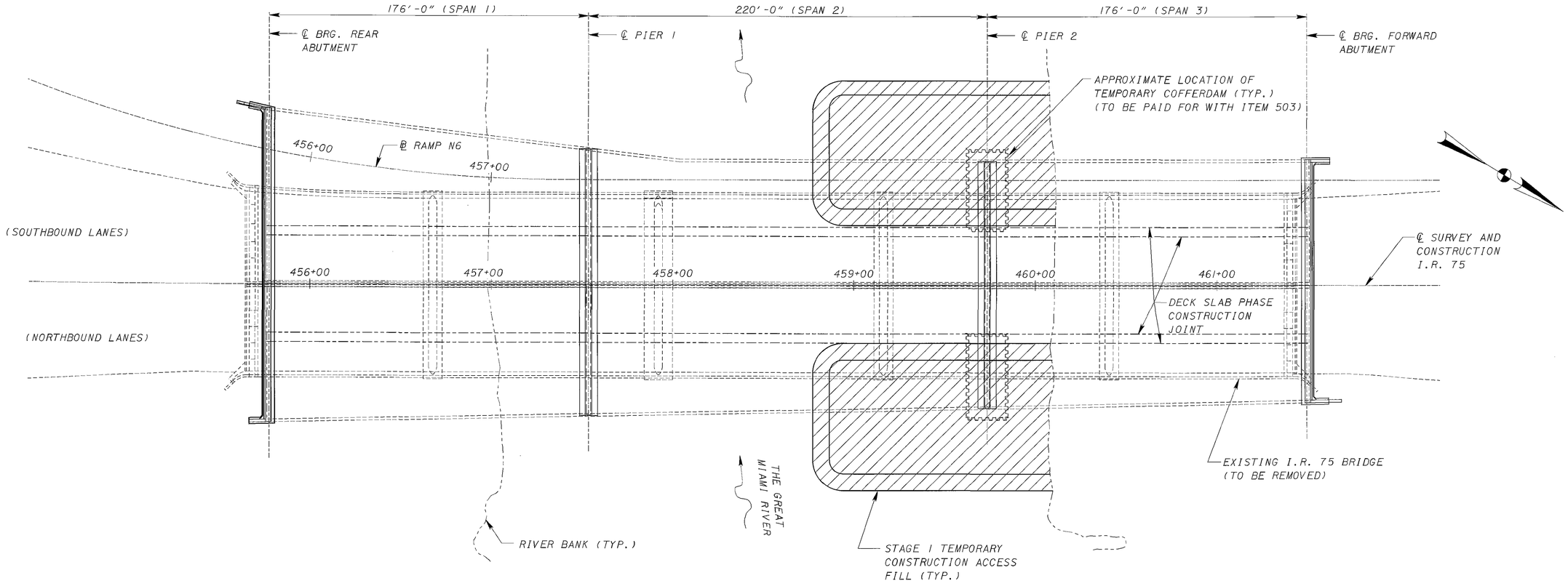
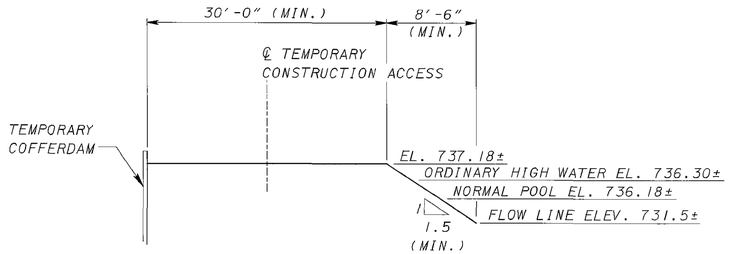


TEMPORARY CONSTRUCTION ACCESS - STAGE 1 PLAN

STAGE 1 TEMPORARY CONSTRUCTION ACCESS FILL
0.48 ACRES
4,155 CU.YD.



TYPICAL STAGE 1 CONSTRUCTION ACCESS SECTION ADJACENT TO COFFERDAM

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

NOTES:

1. FOR ADDITIONAL MAINTENANCE OF TRAFFIC STAGING DETAILS, SEE MAINTENANCE OF TRAFFIC SHEETS.
2. TEMPORARY CONSTRUCTION ACCESS SHOWN FOR REMOVAL OF EXISTING STRUCTURE AND CONSTRUCTION OF PROPOSED STRUCTURE. ANY MODIFICATIONS TO CONSTRUCTION ACCESS SHALL BE DIRECTED TO ODOT OFFICE OF ENVIRONMENTAL SERVICES FOR REVIEW. NO DELAYS WILL BE GRANTED FOR ANY REASON WITH RESPECT TO CONTRACTOR MODIFICATIONS TO CONSTRUCTION ACCESS.
3. THE PLACEMENT OF THE TEMPORARY CONSTRUCTION ACCESS MATERIALS SHALL BE PERFORMED BETWEEN JUNE 30 AND APRIL 15 OF THE FOLLOWING YEAR. CONSTRUCTION ACCESSES WHICH HAVE BEEN CONSTRUCTED TO THE ELEVATION SHOWN ON THE PLANS PRIOR TO APRIL 15 CAN BE ACCESSED AT ALL TIMES AND SHALL NOT BE CONSIDERED WORK WITHIN THE WATERWAY.
4. WORK WITHIN ANY CLOSED CELL COFFERDAMS SHALL NOT BE CONSIDERED WORK WITHIN THE RIVER DURING THE RESTRICTED DATES OF APRIL 15 THROUGH JUNE 30 AND SHALL BE SUBJECT TO THE DEWATERING SPECIFICATIONS OF CMS 107 AT ALL TIMES.
5. THE CONSTRUCTION ACCESSES SHALL BE CONSTRUCTED TO ODOT SUPPLEMENTAL SPECIFICATION 832 UNLESS OTHERWISE SPECIFIED ON THE PLANS AND STANDARD DRAWINGS.
6. AT NO TIME SHALL THE TEMPORARY CONSTRUCTION ACCESS AND COFFERDAMS BE BUILT TO IMPEDE NORMAL WATER FLOW.
7. TEMPORARY CULVERTS SHALL NOT BE REQUIRED. HOWEVER, NORMAL RIVER FLOW SHALL BE MAINTAINED AT ALL TIMES.
8. ALL TEMPORARY CONSTRUCTION ACCESS FILL MATERIAL SHALL BE REMOVED FROM THE RIVER AT THE COMPLETION OF THE PROJECT, AND THE RIVER BOTTOM RESTORED TO ITS ORIGINAL ELEVATIONS.
9. SEE PROJECT SPECIAL PROVISIONS FOR 404/401 PERMITS.
10. FOR PHASE CONSTRUCTION SEQUENCE NOTES, SEE SHEET 11/57.
11. ALL COSTS ASSOCIATED WITH CONSTRUCTING THE TEMPORARY CONSTRUCTION ACCESS FILLS SHALL BE PAID FOR BY THE CONTRACTOR IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 832.10.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JLV		5708710	

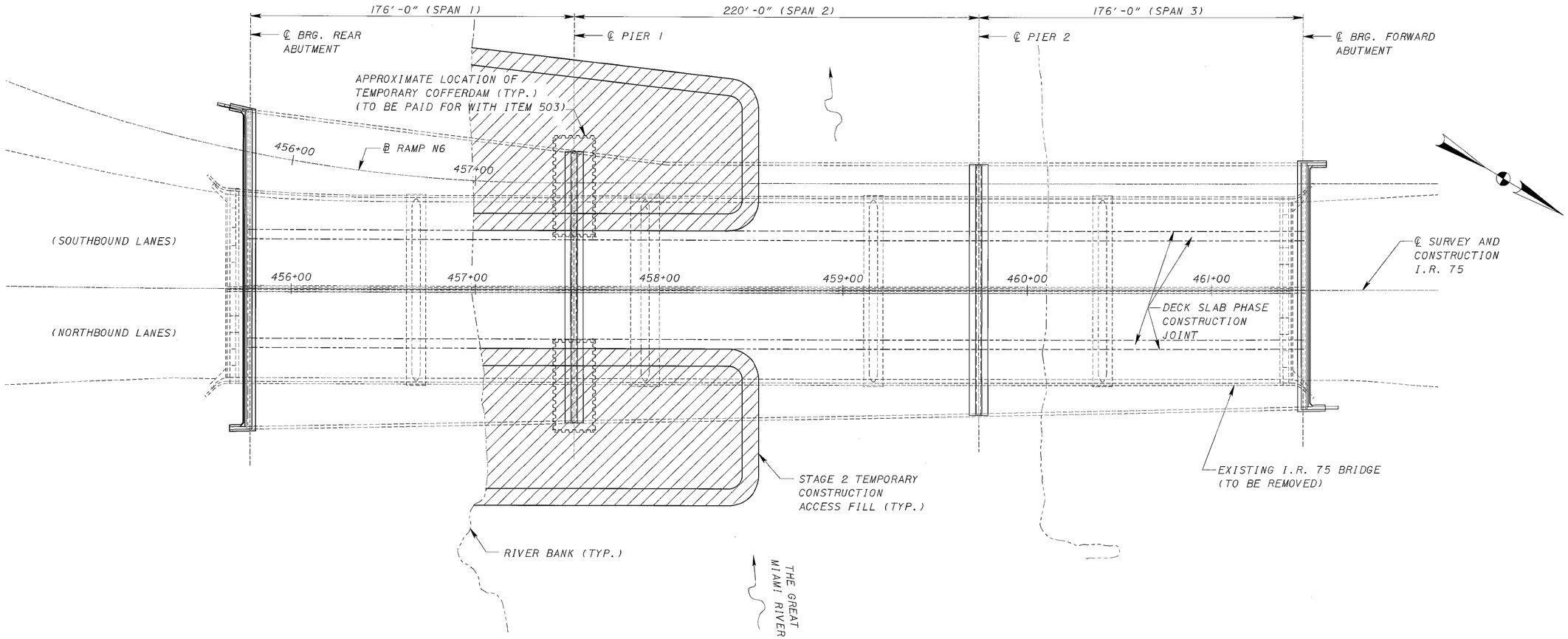
TEMPORARY CONSTRUCTION ACCESS - STAGE 1
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

12/57

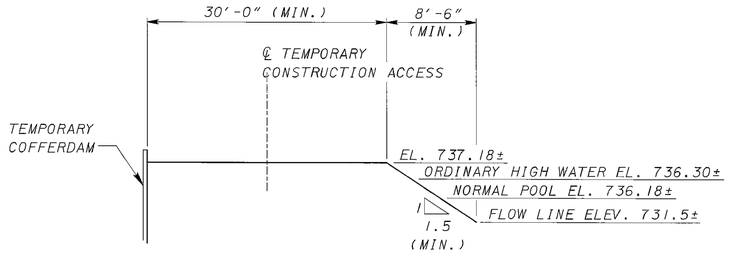
247/316

Plotted By: ecmack Time: 3:9:44 PM
DATE: 7/27/2007 FILE: g:\cad\A0066\sr\dgn\steel.dgn\cadd\steel2328md04.dgn



TEMPORARY CONSTRUCTION ACCESS - STAGE 2 PLAN

STAGE 2 TEMPORARY CONSTRUCTION ACCESS FILL
0.61 ACRES
5,328 CU.YD.



TYPICAL STAGE 2 CONSTRUCTION ACCESS SECTION ADJACENT TO COFFERDAM

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

NOTE:

1. FOR NOTES, SEE TEMPORARY CONSTRUCTION ACCESS - STAGE 1, SHEET 12/57 .

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE: SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JLV		5708710	

TEMPORARY CONSTRUCTION ACCESS - STAGE 2
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

13/57

248/316

Plotted By: ecorcoran Time: 3:09:44 PM
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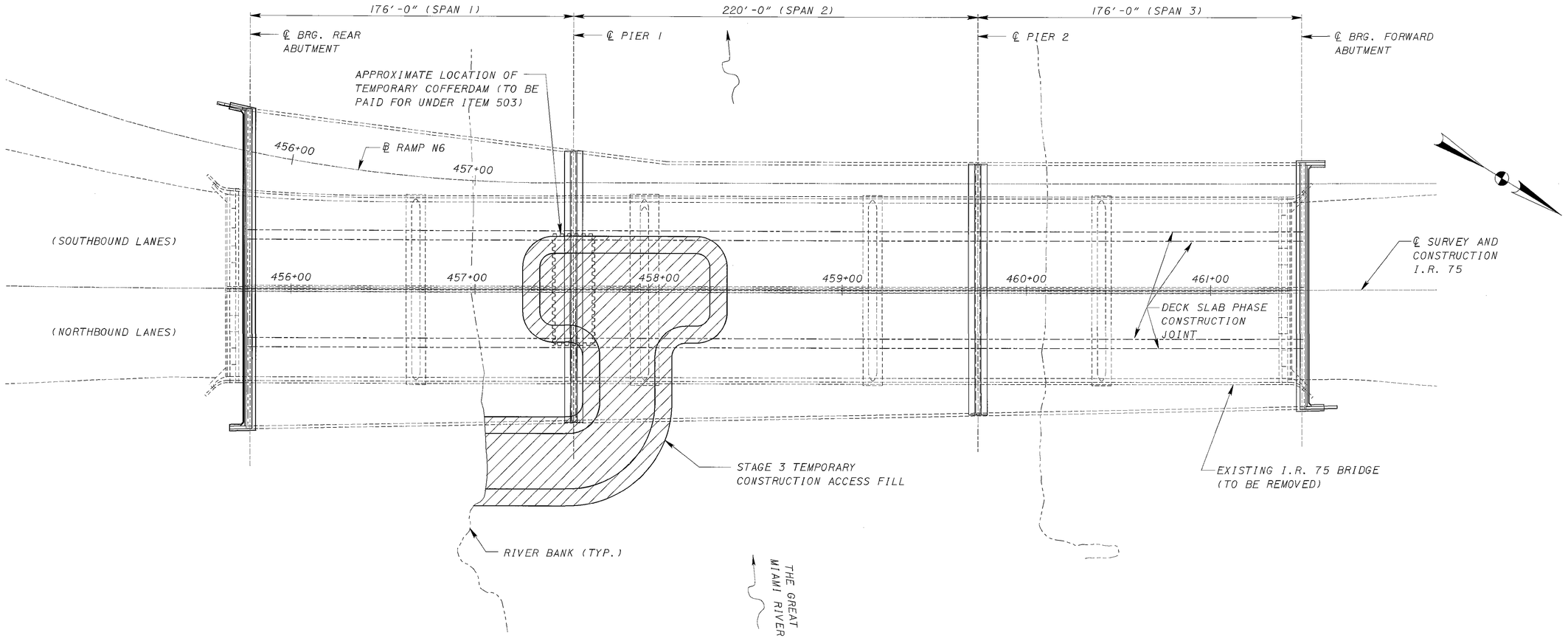
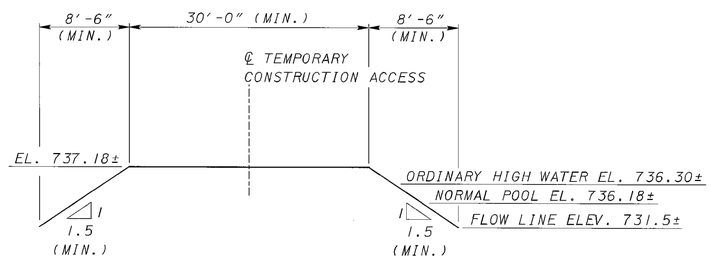


TEMPORARY CONSTRUCTION ACCESS - STAGE 3 PLAN

STAGE 3 TEMPORARY CONSTRUCTION
ACCESS FILL
0.29 ACRES
2,315 CU. YD.



TYPICAL STAGE 3 CONSTRUCTION ACCESS SECTION

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

NOTE:

1. FOR NOTES, SEE TEMPORARY CONSTRUCTION ACCESS - STAGE 1, SHEET 12/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JLV		5709710	

TEMPORARY CONSTRUCTION ACCESS - STAGE 3
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: eomack Time: 3:19:45 PM
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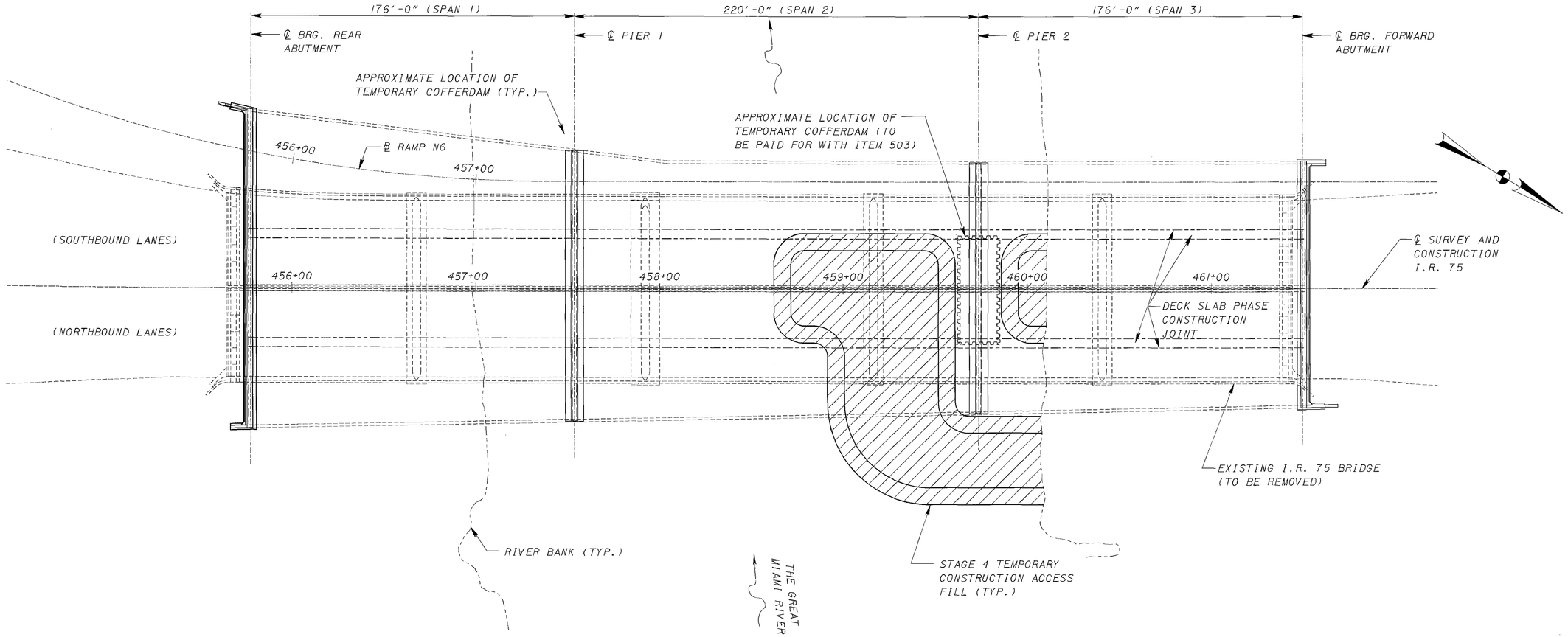
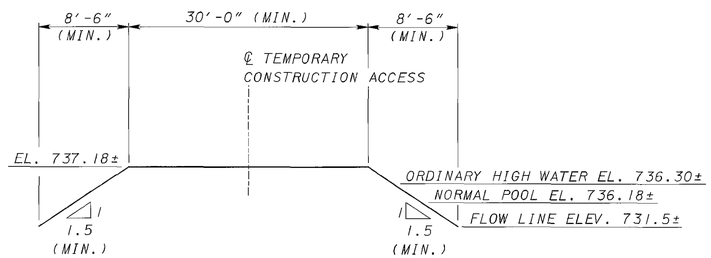


TEMPORARY CONSTRUCTION ACCESS - STAGE 4 PLAN

STAGE 4 TEMPORARY CONSTRUCTION ACCESS FILL
0.34 ACRES
2,794 CU.YD.



TYPICAL STAGE 4 CONSTRUCTION ACCESS SECTION

LEGEND:

TEMPORARY CONSTRUCTION ACCESS FILL

NOTE:

1. FOR NOTES, SEE TEMPORARY CONSTRUCTION ACCESS - STAGE 1, SHEET 12/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1909

REVIEWED	DATE
RER	06/01/07

STRUCTURE FILE NUMBER 570871O

DESIGNED	DRAWN	REVISED
JDH	JLV	

CHECKED JLV

TEMPORARY CONSTRUCTION ACCESS - STAGE 4
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

15/57

250/316

Plotted By: ecmack Time: 3:34:46 PM
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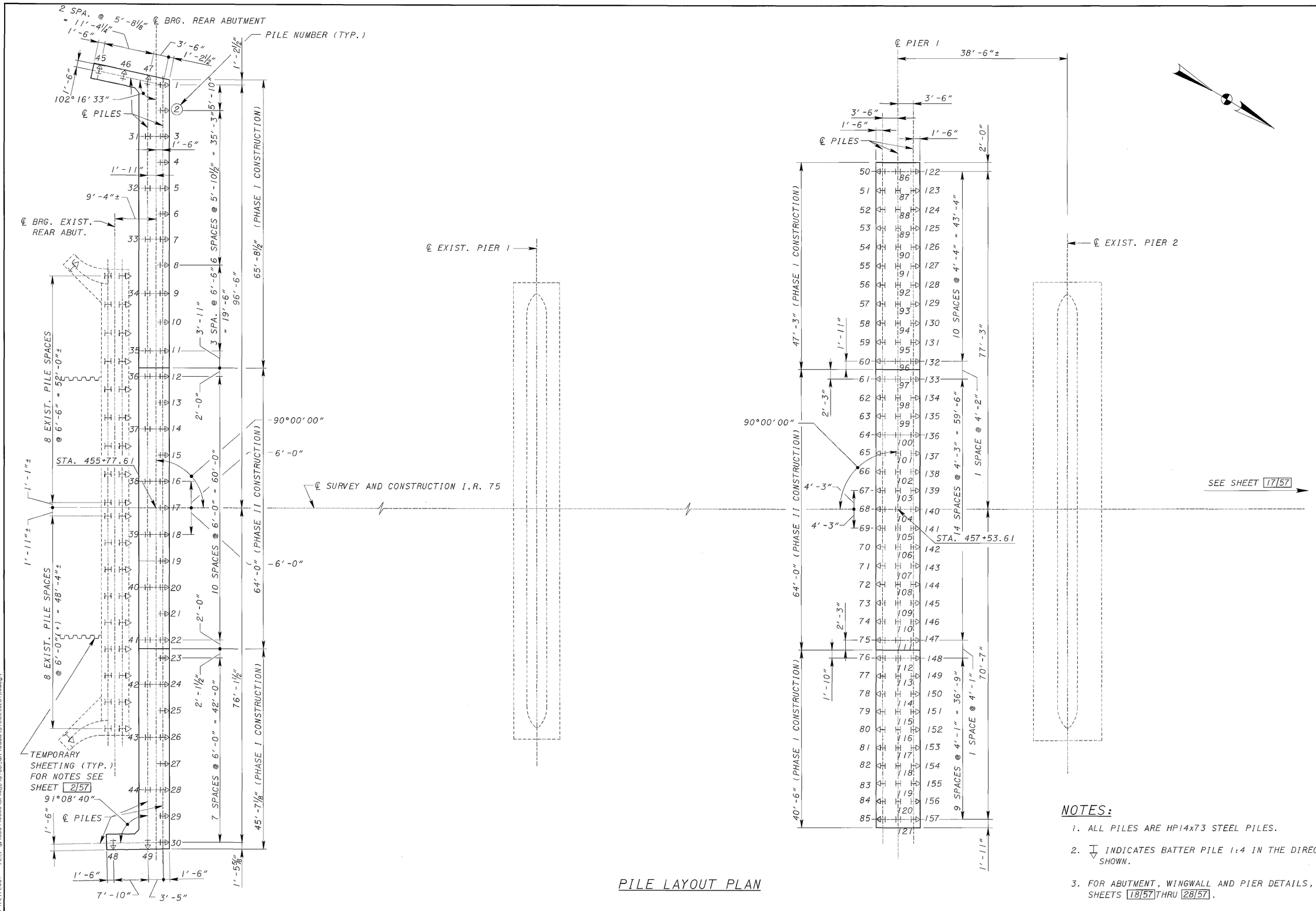

PILE LAYOUT PLAN

NOTES:

1. ALL PILES ARE HP14x73 STEEL PILES.
2. ▽ INDICATES BATTER PILE 1:4 IN THE DIRECTION SHOWN.
3. FOR ABUTMENT, WINGWALL AND PIER DETAILS, SEE SHEETS 18/57 THRU 28/57.
4. FOR PILING DATA, SEE SHEET 17/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE- SUITE 2800, CLEVELAND, OHIO 44113-2800

DESIGNED	DRAWN	REVIEWED	DATE
ARC	ARC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		570810	

PILE LAYOUT PLAN
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

16/57

251/316

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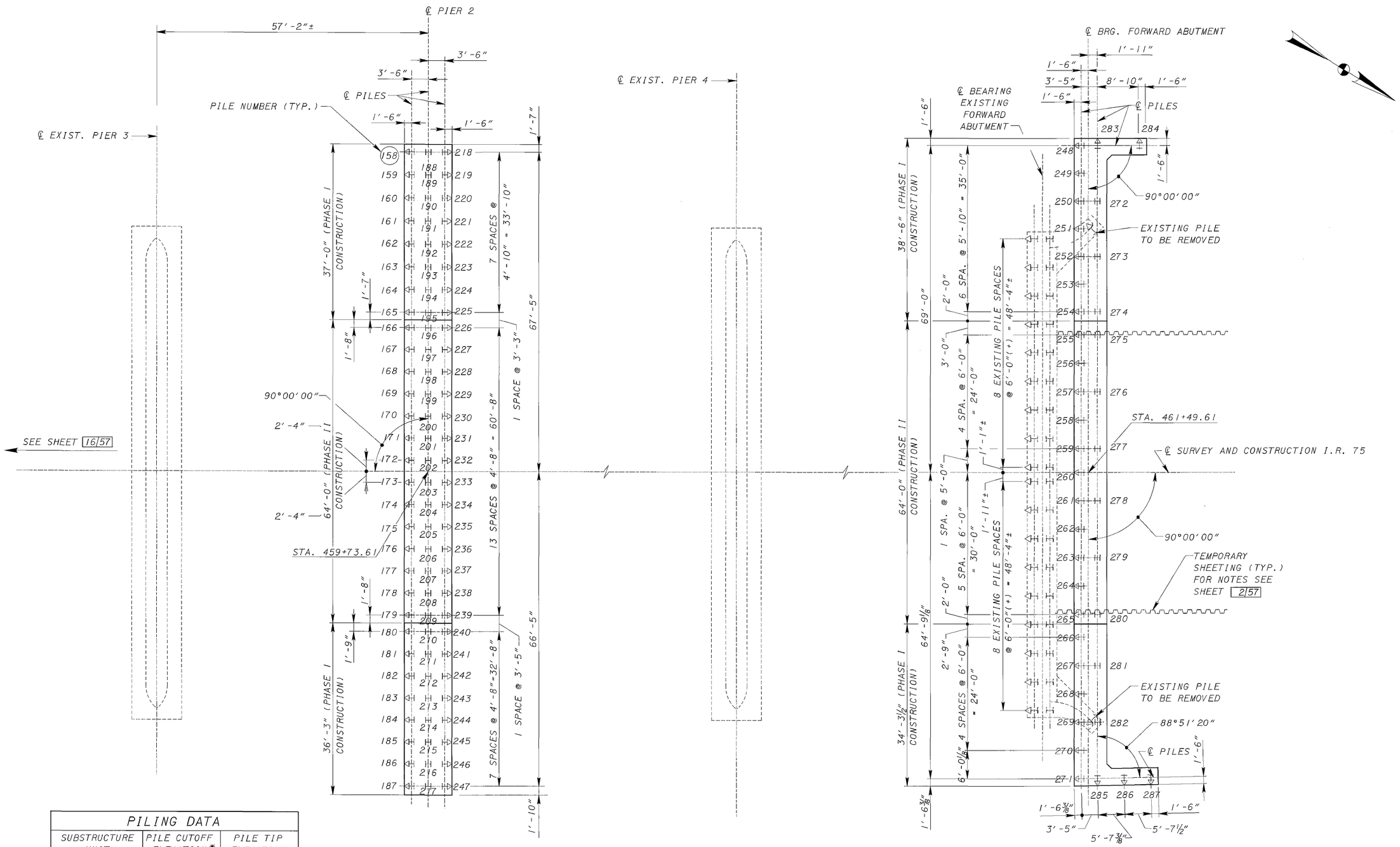

PILING DATA		
SUBSTRUCTURE UNIT	PILE CUTOFF ELEVATION *	PILE TIP ELEVATION
REAR ABUT.	750.25	—
PIER 1	729.50	707.00 **
PIER 2	729.50	707.00 **
FORWARD ABUT.	756.00	—

* - PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 1'-0" FOR ABUTMENTS, AND BOTTOM OF FOOTING ELEVATION + 1'-6" FOR PIERS.

** - ALL PIER PILES MUST BE DRIVEN TO THE PILE TIP ELEVATION SHOWN DUE TO SCOUR DEPTH.

PILE LAYOUT PLAN

NOTES:

1. FOR NOTES, SEE SHEET 16/57.
2. THE REMOVAL OF TWO (2) EXISTING PILES AT THE FORWARD ABUTMENT SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURES REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1800, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
RAC	RAC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

PILE LAYOUT PLAN (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

17/57

252/316

Plotted By: csmcak Time: 3:04:41 PM
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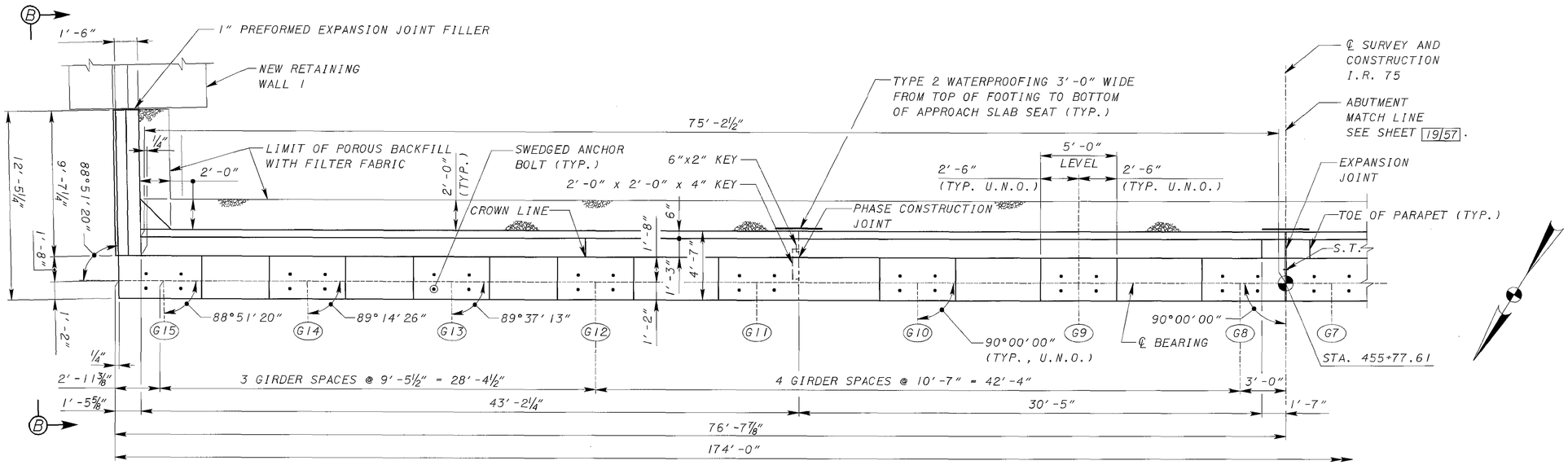
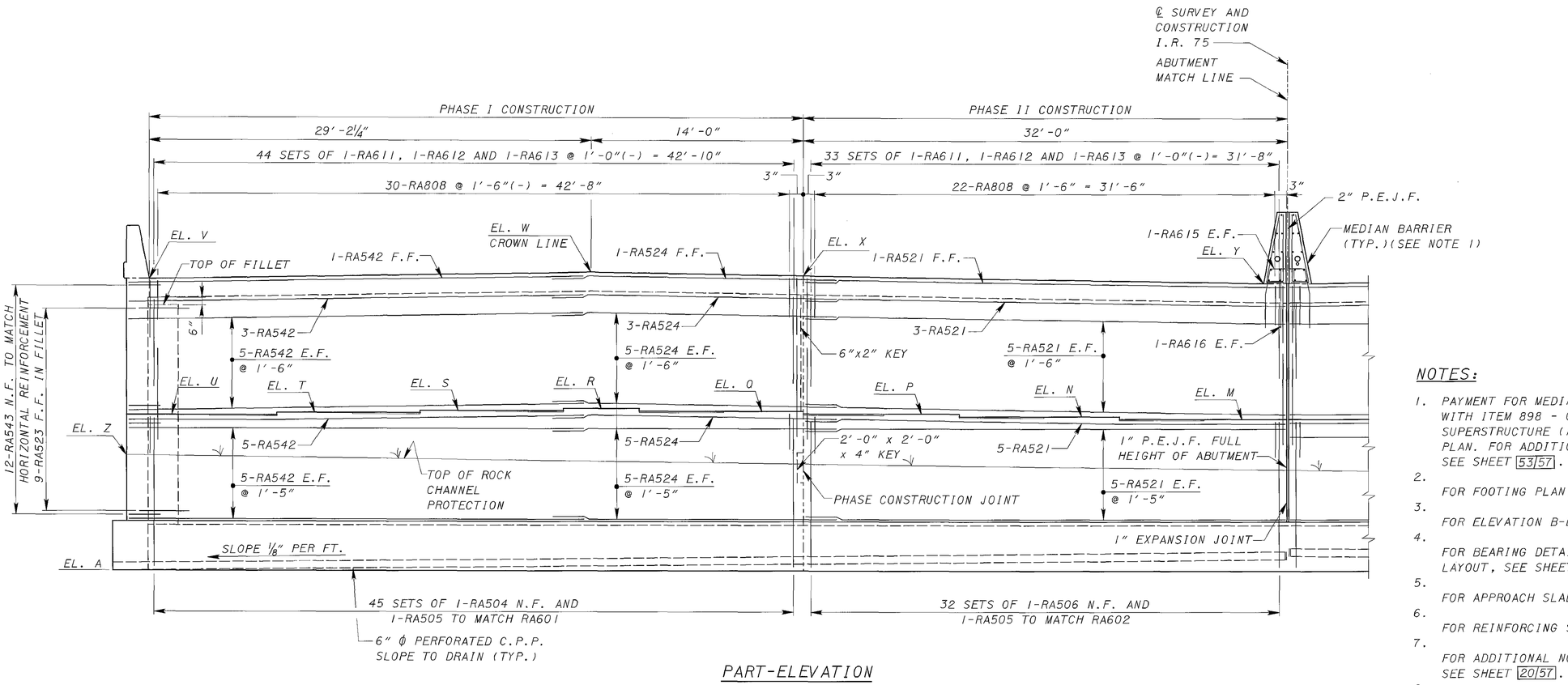


PART-PLAN

TABLE OF ELEVATIONS	
LOCATION	ELEVATION
A	749.25
M	759.28
N	759.46
P	759.63
Q	759.80
R	759.97
S	759.84
T	759.69
U	759.53
V	768.53
W	769.00
X	768.77
Y	768.27
Z	756.75



PART-ELEVATION

(PILES NOT SHOWN)

NOTES:

1. PAYMENT FOR MEDIAN BARRIER SHALL BE INCLUDED WITH ITEM 898 - OC/OA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), 15", AS PER PLAN. FOR ADDITIONAL MEDIAN BARRIER DETAILS, SEE SHEET 53/57.
2. FOR FOOTING PLAN, SEE SHEET 20/57.
3. FOR ELEVATION B-B, SEE SHEET 21/57.
4. FOR BEARING DETAILS AND ANCHOR BOLT LAYOUT, SEE SHEET 51/57.
5. FOR APPROACH SLAB DETAILS, SEE SHEET 53/57.
6. FOR REINFORCING STEEL LIST, SEE SHEET 54/57.
7. FOR ADDITIONAL NOTES AND LAP LENGTH TABLE, SEE SHEET 20/57.
8. FOR EXPANSION JOINT DETAILS, SEE SHEET 52/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

REVIEWED	DATE
RER	06/01/07

STRUCTURE FILE NUMBER 570871.0

DRAWN	REVISED
JLV	

DESIGNED	CHECKED
JDH	GHD

REAR ABUTMENT PLAN AND ELEVATION (STEEL GIRDER OPTION)

BRIDGE NO. MOT-75-1523 OVER THE GREAT MIAMI RIVER

I.R. 75

MOT-75-14.60
PID 23828

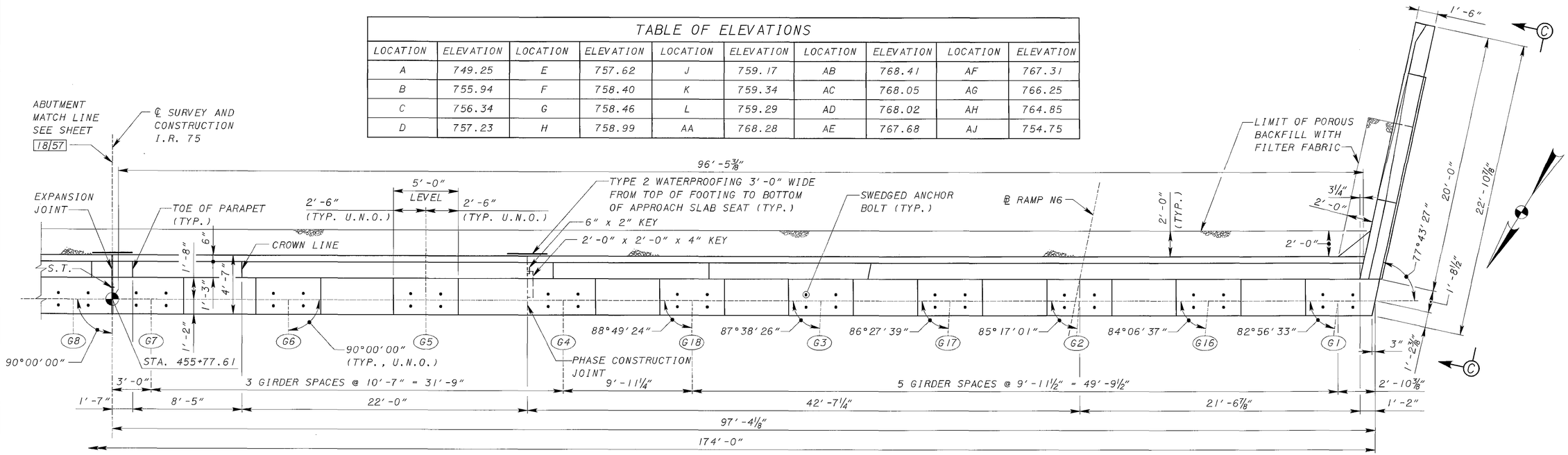
18/57

253/316

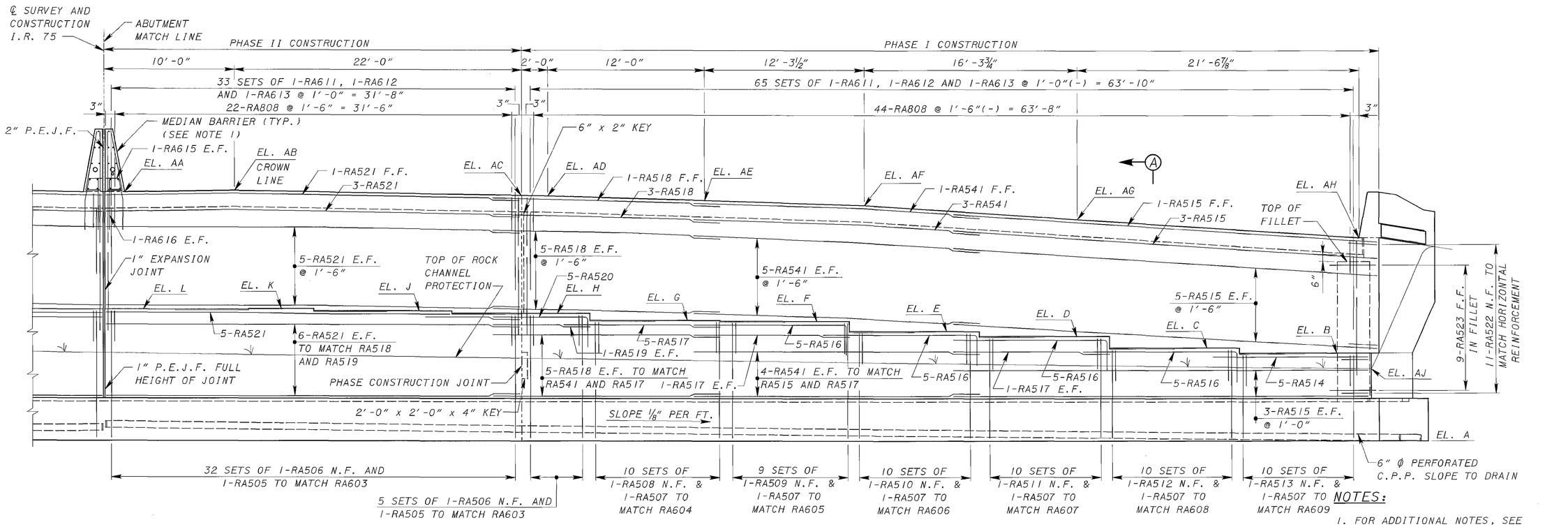
Plotted By: ecmack Time: 3:49:35 PM
DATE: 1/27/2007 FILE: q:\cad\a\0066\bridge\steel.dir\ccdd\steel23828or02.dgn

TABLE OF ELEVATIONS

LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION	LOCATION	ELEVATION
A	749.25	E	757.62	J	759.17	AB	768.41	AF	767.31
B	755.94	F	758.40	K	759.34	AC	768.05	AG	766.25
C	756.34	G	758.46	L	759.29	AD	768.02	AH	764.85
D	757.23	H	758.99	AA	768.28	AE	767.68	AJ	754.75



PART-PLAN



PART-ELEVATION
(PILES NOT SHOWN)

NOTES:

1. FOR ADDITIONAL NOTES, SEE SHEET 18/57 AND 20/57.
2. FOR SECTION A-A, SEE SHEET 20/57.
3. FOR ELEVATION C-C SEE SHEET 21/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE: SUITE 2000 CLEVELAND, OHIO 44113-2001

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708710	

REAR ABUTMENT PLAN AND ELEVATION (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

19/57

254/316

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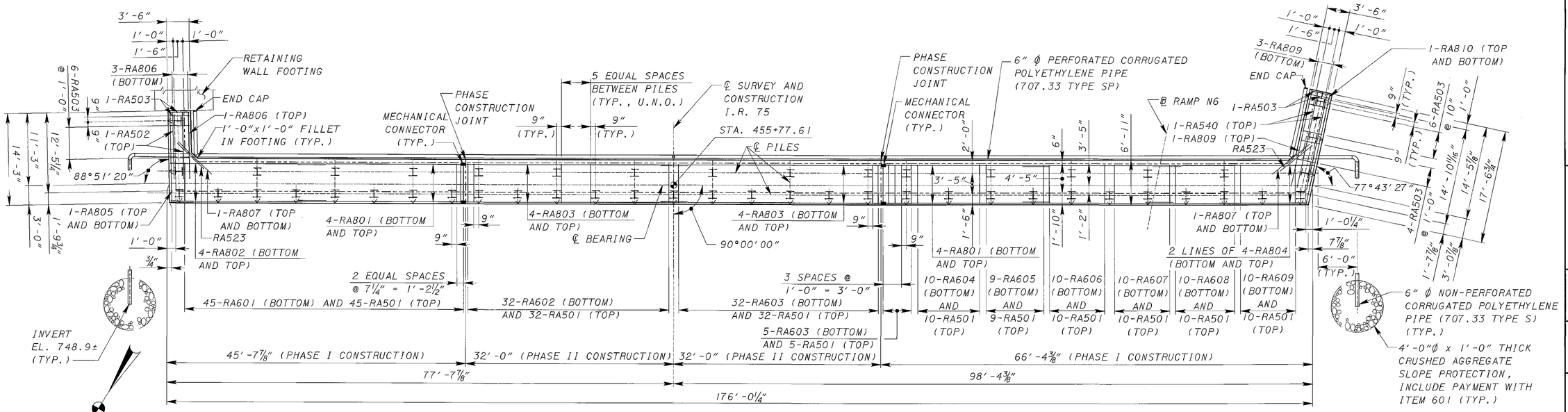
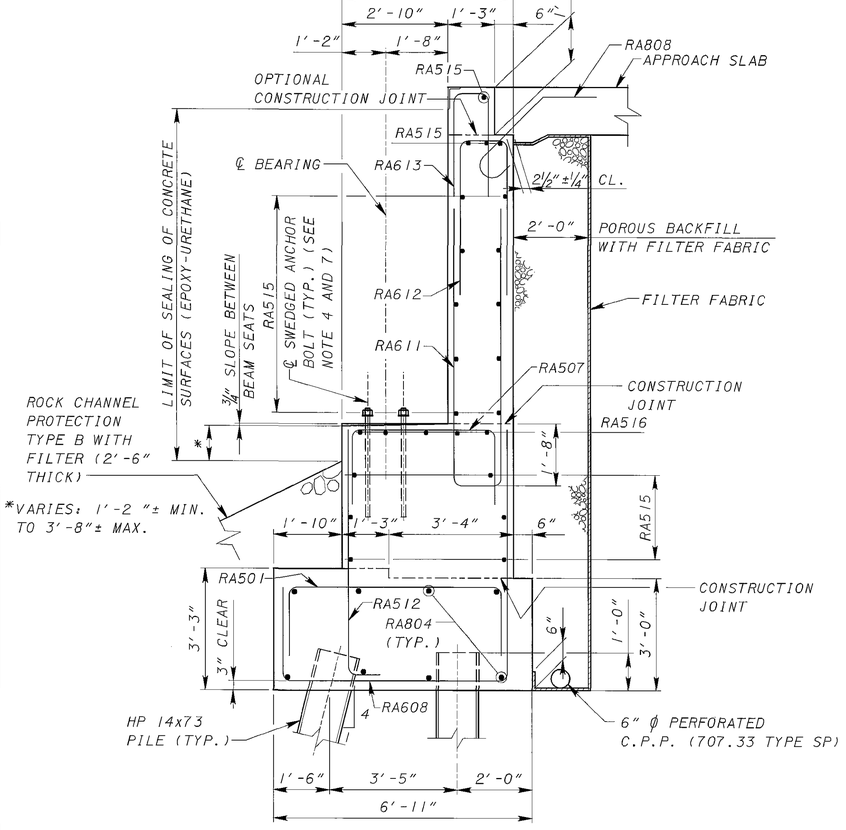


FOOTING PLAN



SECTION A-A

LEGEND:

(GXX) = GIRDER NUMBER
E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P. - CORRUGATED POLYETHYLENE PIPE
U.N.O. - UNLESS NOTED OTHERWISE

CAUTION:

DO NOT PLACE BACKFILL ABOVE BEAM SEAT LEVEL UNTIL THE GIRDERS ARE ERECTED AND THE DECK IS PLACED.

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	2'-6"
#8	4'-0"

NOTES:

1. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
2. BACKWALL CONCRETE: IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
3. SEALING OF GIRDER SEATS: IF THE GIRDER SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
4. REINFORCING STEEL SHALL BE PLACED TO PROVIDE ADEQUATE CLEARANCE FOR INSTALLATION OF SWEDGED ANCHOR BOLTS.
5. FOR ABUTMENT PLAN AND ELEVATION, SEE SHEET 18/57 AND 19/57.
6. FOR PILE LOCATIONS, SEE SHEET 16/57.
7. FOR LOCATION OF SWEDGED ANCHOR BOLTS, SEE BEARING DETAILS SHEET 51/57.
8. FOR REINFORCING STEEL LIST, SEE SHEET 54/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE: SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708110	

REAR ABUTMENT FOOTING PLAN AND DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

20/57

255/316

Plotted By: ecmack Time: 3:43:34 PM
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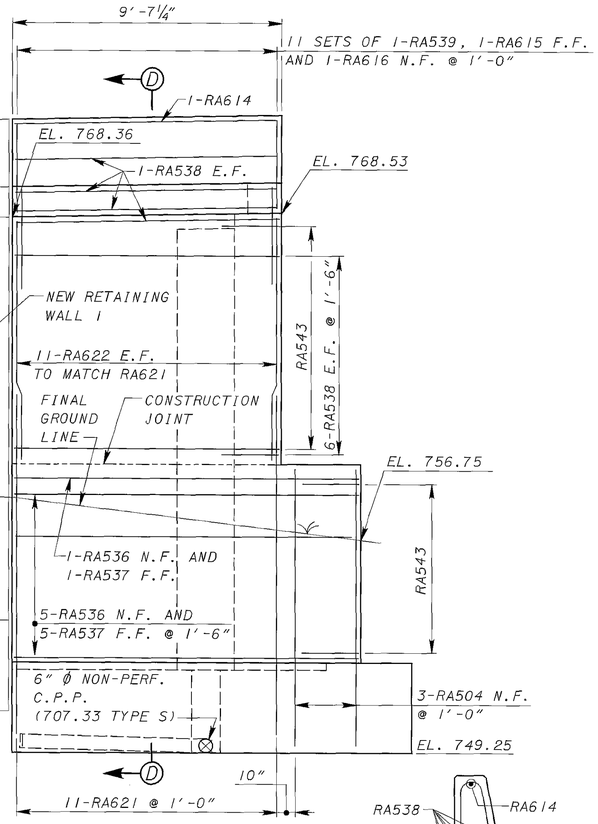
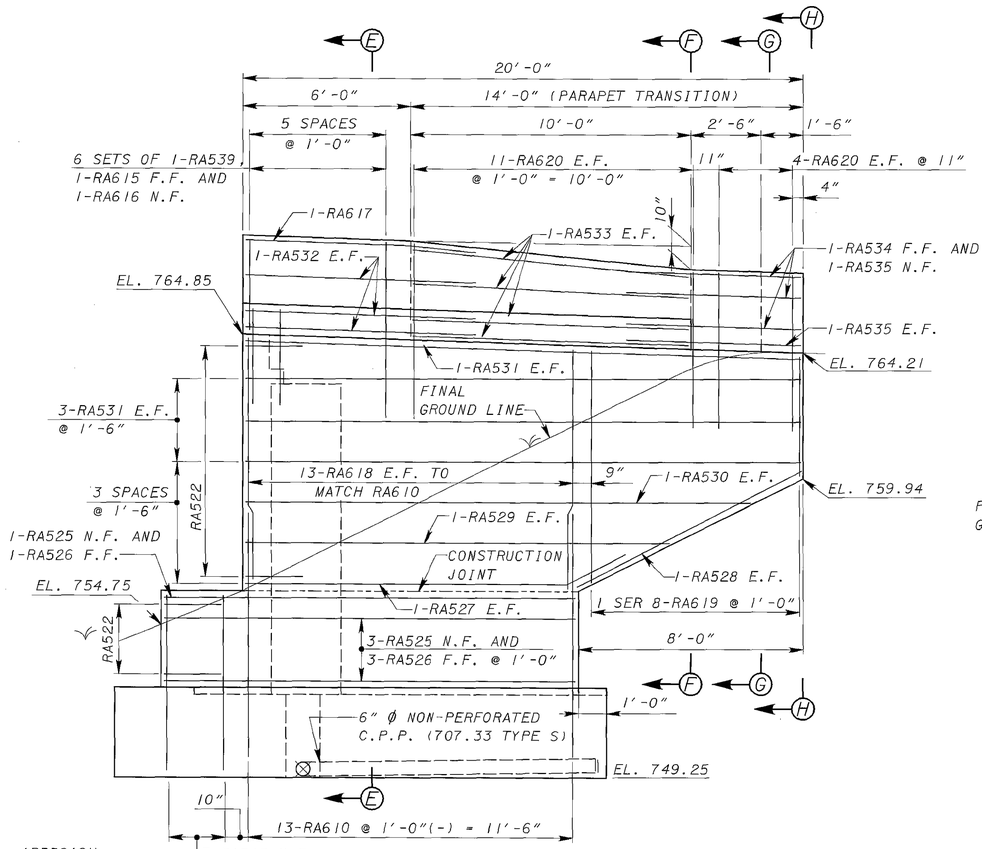
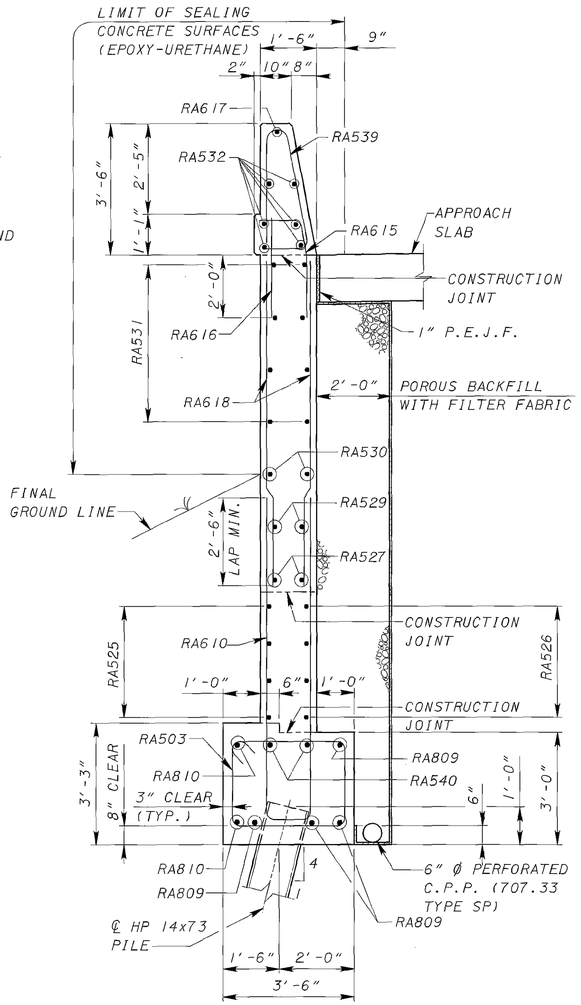


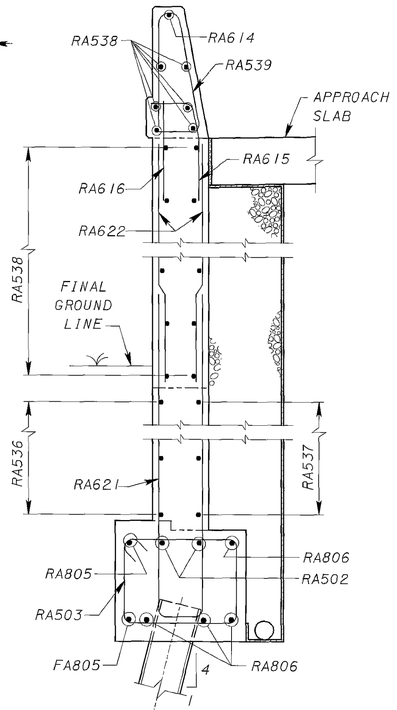
ELEVATION B-B
(PILES NOT SHOWN)



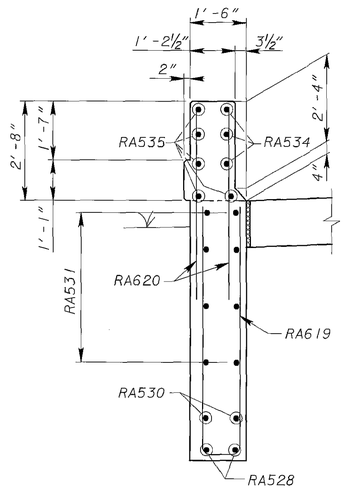
ELEVATION C-C
(PILES NOT SHOWN)



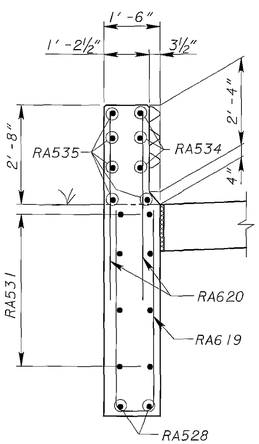
SECTION E-E



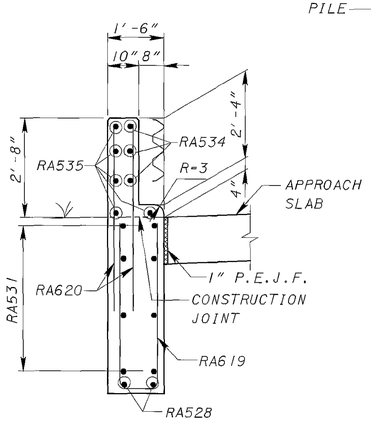
SECTION D-D
(FOR DETAILS NOT SHOWN, SEE SECTION E-E)



SECTION F-F
(FOR DETAILS NOT SHOWN, SEE SECTION H-H)



SECTION G-G
(FOR DETAILS NOT SHOWN, SEE SECTION H-H)



SECTION H-H

NOTES:

1. FOR ABUTMENT DETAILS, SEE SHEETS 18/57 THRU 20/57.
2. FOR ADDITIONAL NOTES, SEE SHEET 20/57.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1800
CLEVELAND, OHIO 44113

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708710	

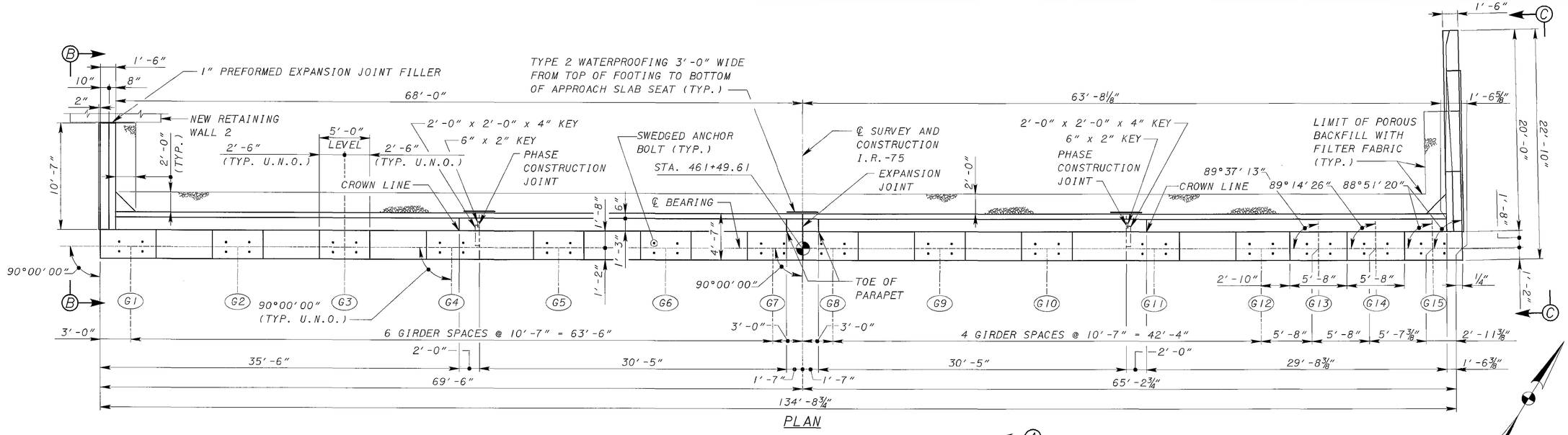
REAR ABUTMENT WINGWALL DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

21/57

256/316

Plotted By: ecmack Time: 3:19:37 PM
DATE: 7/27/2007 FILE: a:\cad\0066\bridge\steel_dit\caddsteel23828sr04.dgn



ELEVATION
(PILES NOT SHOWN)

TABLE OF ELEVATIONS			
LOCATION	ELEVATION	LOCATION	ELEVATION
A	755.00	N	761.87
B	761.63	P	761.78
C	761.80	Q	761.69
D	761.96	R	770.62
E	762.13	S	771.16
F	761.99	T	771.13
G	761.82	U	770.65
H	761.65	V	770.65
J	761.82	W	771.13
K	761.99	X	771.16
L	762.13	Y	770.69
M	761.96	Z	760.50

NOTES:

1. PAYMENT FOR MEDIAN BARRIER SHALL BE INCLUDED WITH ITEM 898 - QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), 15", AS PER PLAN. FOR ADDITIONAL MEDIAN BARRIER DETAILS, SEE SHEET 53/57.
2. FOR ADDITIONAL NOTES AND LEGEND, SEE SHEET 20/57.
3. FOR FOOTING PLAN AND SECTION A-A, SEE SHEET 23/57.
4. FOR ELEVATIONS B-B AND C-C, SEE SHEET 24/57 .
5. FOR BEARING DETAILS, SEE SHEET 51/57.
6. FOR APPROACH SLAB DETAILS, SEE SHEET 53/57.
7. FOR REINFORCING STEEL LIST, SEE SHEET 55/57.
8. FOR LAP LENGTH TABLE, SEE SHEET 23/57.
9. FOR EXPANSION JOINT DETAILS, SEE SHEET 52/57.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708110	

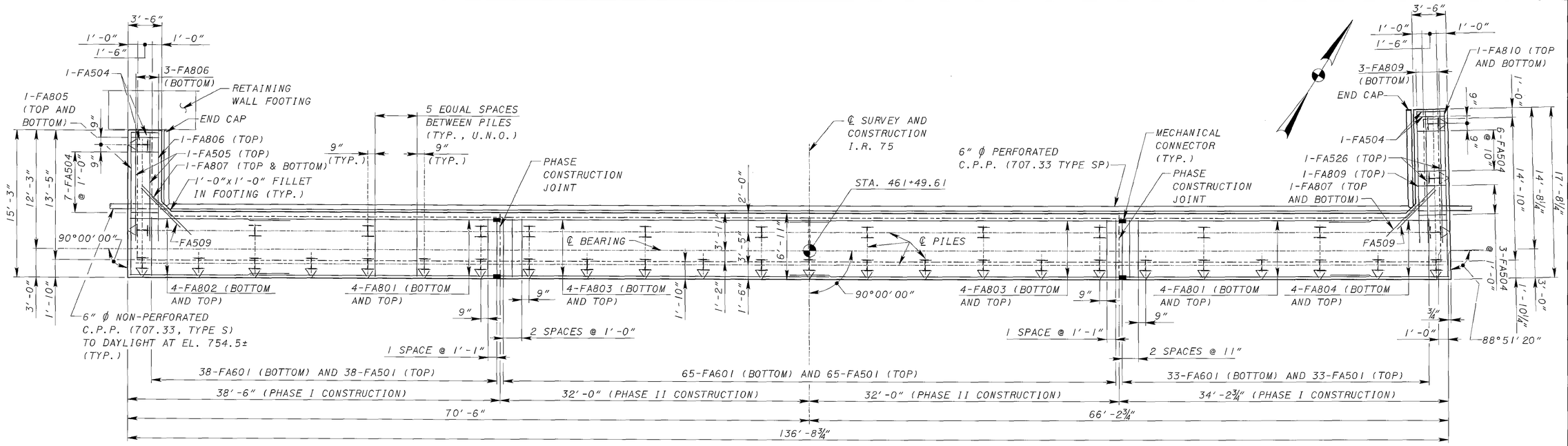
FORWARD ABUTMENT PLAN AND ELEVATION
GIRDER OPTION)
BRIDGE NO. MOT-75-1523 (STEEL GIRDE
I.R. 75 OVER THE GREAT MIAMI RIV

MOT-75-14.60
PID 23828

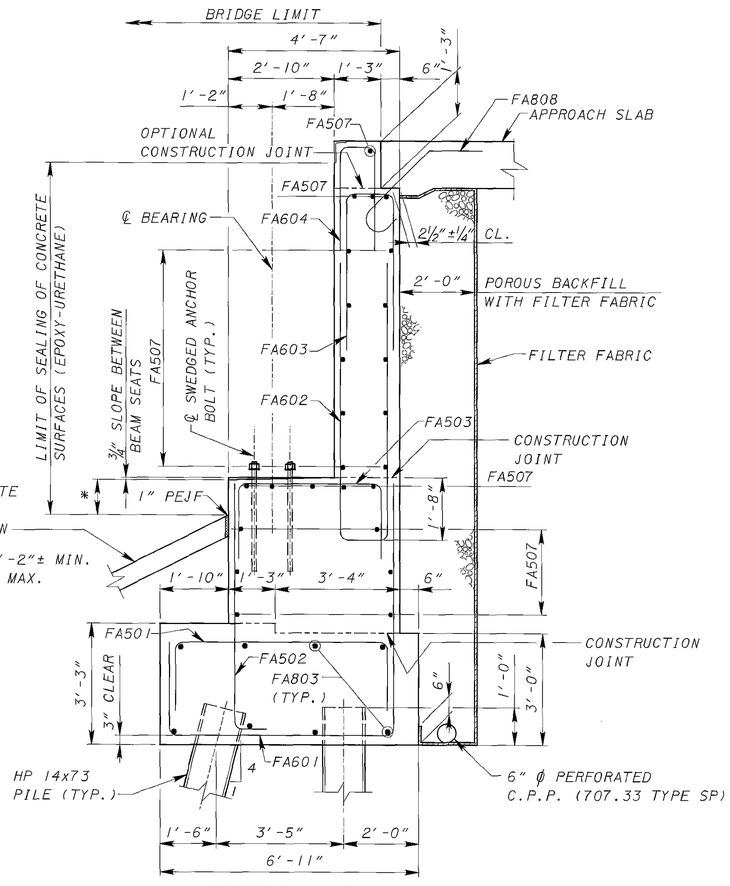
22/57

257/316

Plotted By: eomack Time: 3:09:33 PM
DATE: 7/27/2007 FILE: c:\vc0a\c0066\bridge\sfeal.dft\ccd\sfeal23828sf02.dgn



FOOTING PLAN



SECTION A-A

CAUTION:

DO NOT PLACE BACKFILL ABOVE BEAM SEAT LEVEL UNTIL THE GIRDERS ARE ERECTED AND THE DECK IS PLACED.

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	2'-6"
#8	4'-0"

NOTES:

1. FOR ABUTMENT PLAN AND ELEVATION, SEE SHEET 22/57.
2. FOR ADDITIONAL NOTES AND LEGEND, SEE SHEET 20/57.
3. FOR PILE LOCATIONS, SEE SHEET 17/57 .
4. FOR NON-PERFORATED PIPE TERMINATION IN SIDE SLOPE DETAIL, SEE STANDARD DRAWING A-1-69, SHEET 1/5.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1800, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVISED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		57087/10	

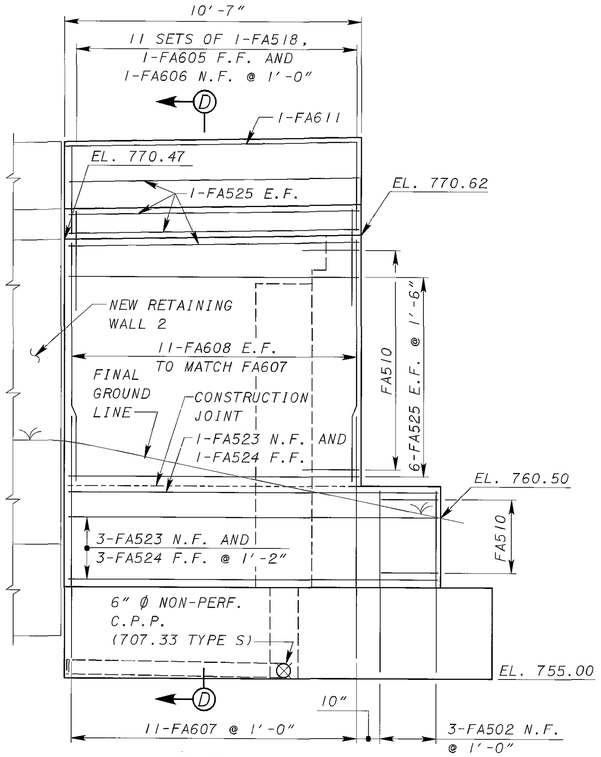
FORWARD ABUTMENT FOOTING PLAN (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

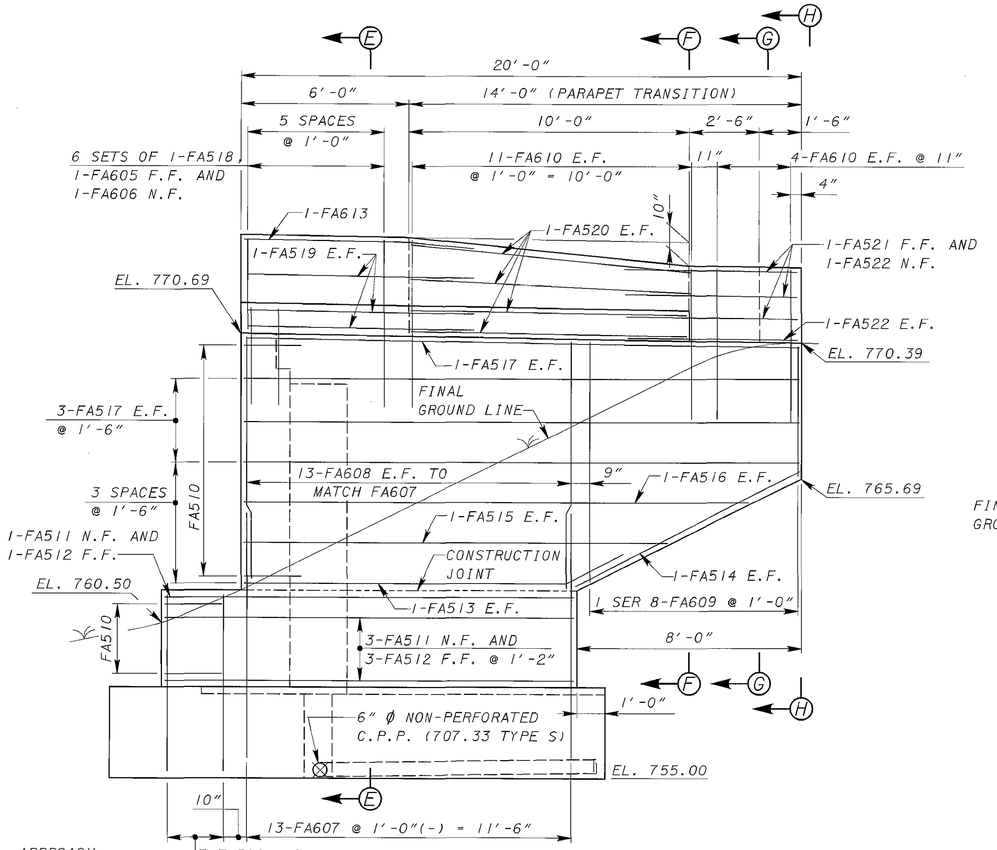
23/57

258/316

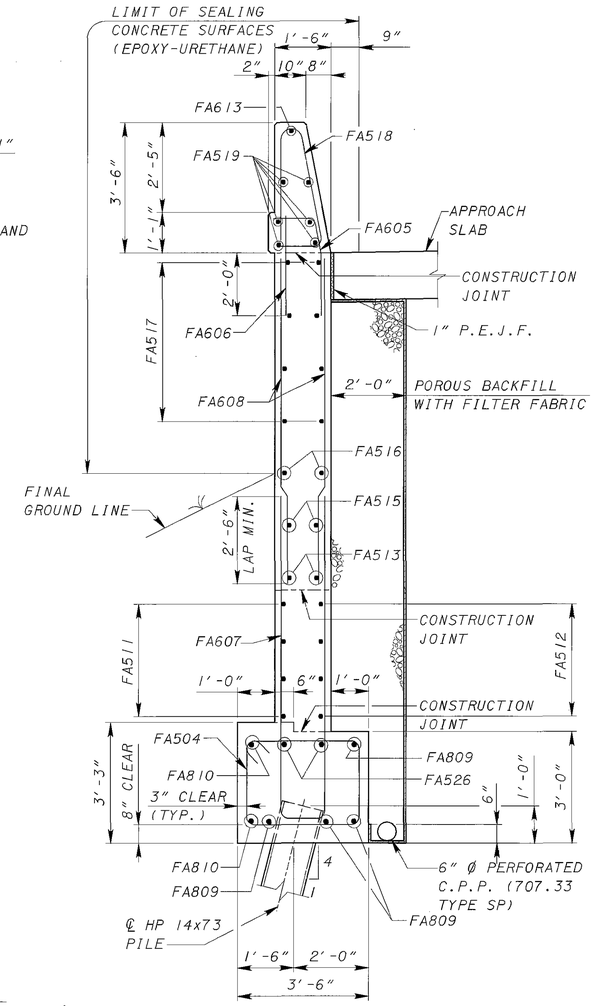
Plotted By: esmack Time: 3:49:32 PM
DATE: 1/27/2007 FILE: q:\co04\0066\bridge\steel.dir\cadd\steel23828ct10l.dgn



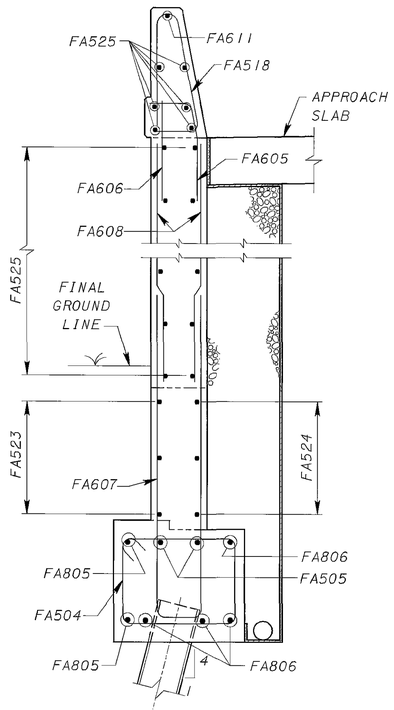
ELEVATION B-B
(PILES NOT SHOWN)



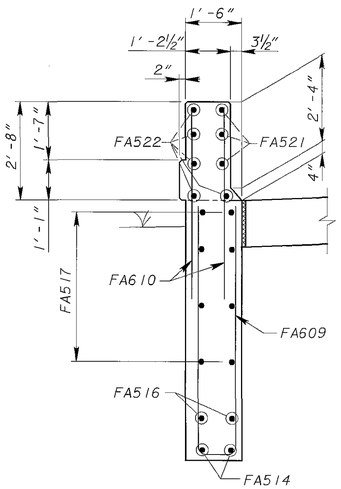
ELEVATION C-C
(PILES NOT SHOWN)



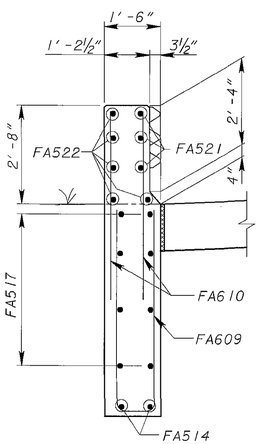
SECTION E-E



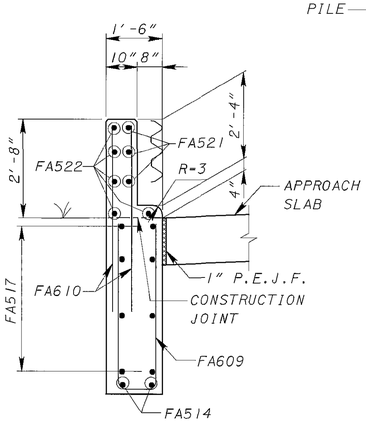
SECTION D-D
(FOR DETAILS NOT SHOWN, SEE SECTION E-E)



SECTION F-F
(FOR DETAILS NOT SHOWN, SEE SECTION H-H)



SECTION G-G
(FOR DETAILS NOT SHOWN, SEE SECTION H-H)



SECTION H-H

NOTES:

1. FOR ABUTMENT DETAILS, SEE SHEETS 22/57 AND 23/57.
2. FOR ADDITIONAL NOTES AND LEGEND, SEE SHEET 20/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE - SUITE 2000, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JDH	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708710	

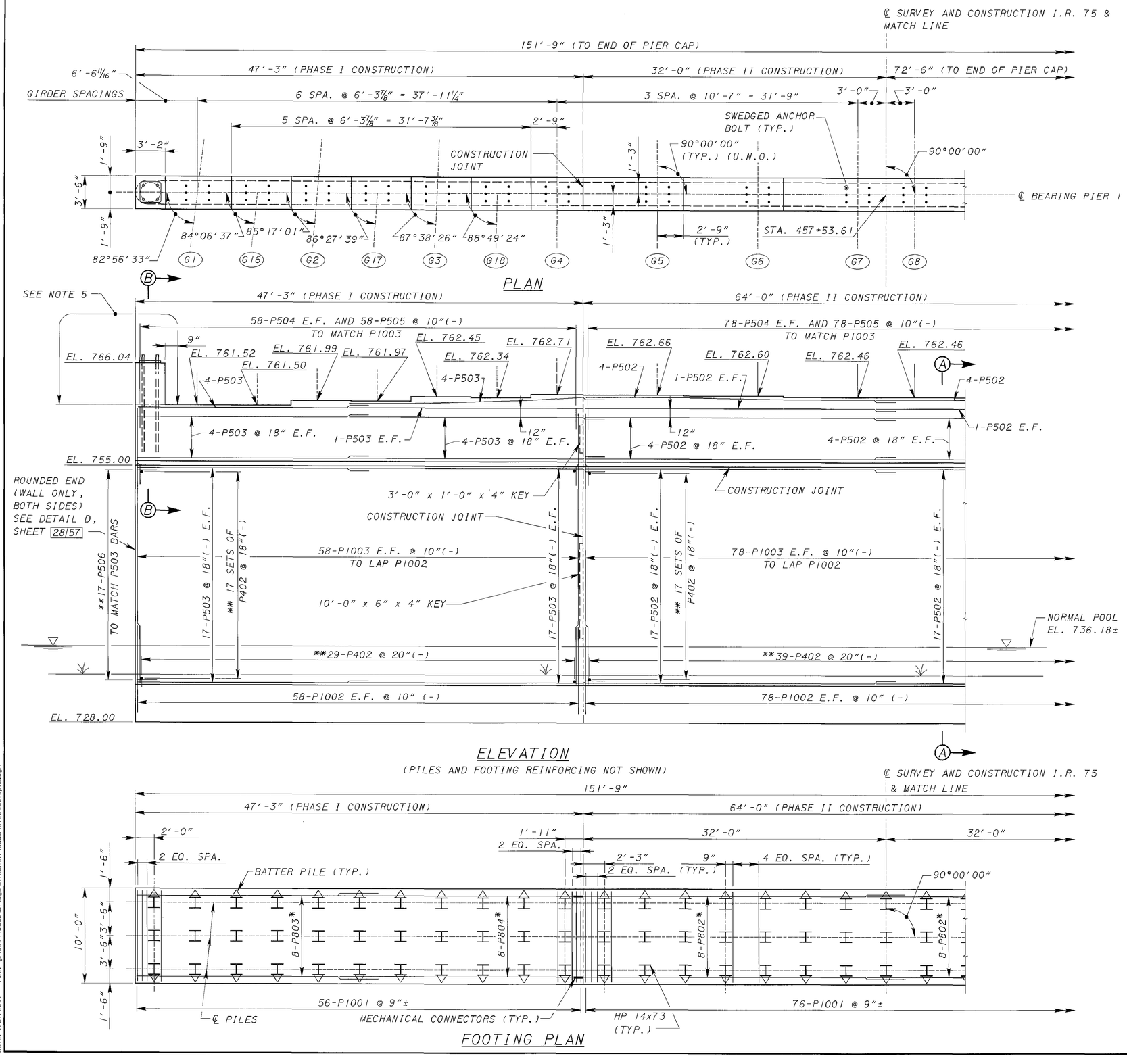
FORWARD ABUTMENT WINGWALL DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

24/57

259/316

Plotted By: eomcck Time: 3:9:34 PM
DATE: 1/27/2007 FILE: g:\co04\0065\bridge\steel.dir\coads\steel23828st03.dgn



BAR	REQUIRED LAP LENGTH
#5	2'-0"
#8	4'-0"
#10	6'-3"

LEGEND:

* - SPACED AS SHOWN IN SECTION A-A
** - SEE DETAIL D, SEE SHEET 28/57
E.F. - EACH FACE
(GXX) - GIRDER NUMBER

NOTES:

1. FOR SECTION A-A & B-B, SEE SHEET 28/57.
2. FOR REINFORCING STEEL LIST SEE SHEET 56/57.
3. FOR PILE SPACING, SEE SHEET 16/57 & 17/57.
4. FOR SIGN POLE ANCHOR DETAILS, SEE SHEET 28/57.
5. LIMITS OF SEALING CONCRETE SURFACES, (EPOXY-URETHANE) AROUND SIGN POST FOUNDATION. SEE GENERAL NOTES SHEET 3/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE SUITE 1800 CLEVELAND OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
ECM	ECM	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTY		5708710	

PIER 1 DETAILS (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523 OVER THE GREAT MIAMI RIVER
IR-75

MOT-75-14.60
PID 23828

25/57

260/316

Plotted By: esmcak Time: 3:19:47 PM
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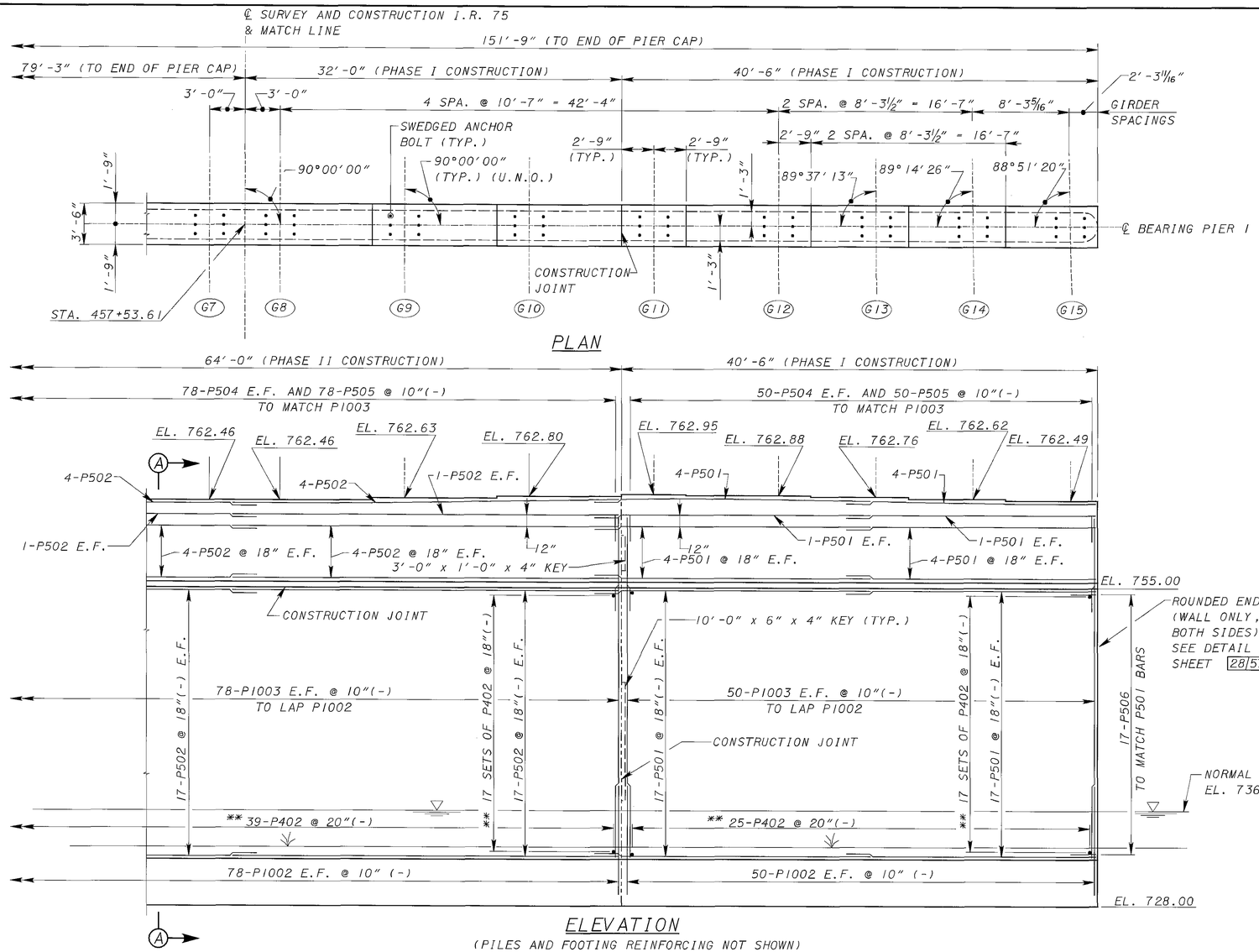
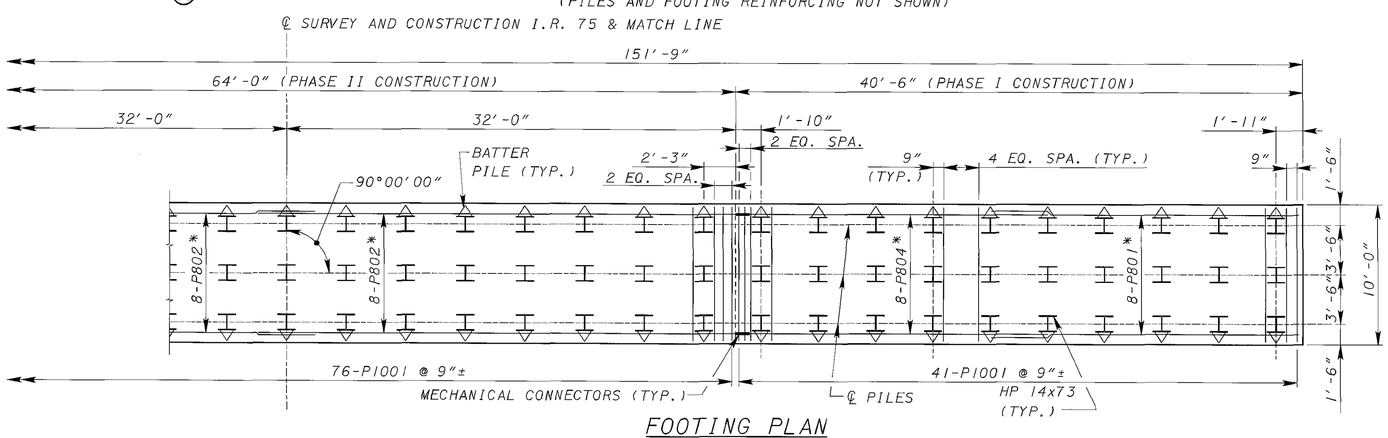


PLAN

ELEVATION

(PILES AND FOOTING REINFORCING NOT SHOWN)



FOOTING PLAN

BAR	REQUIRED LAP LENGTH
#5	2'-0"
#8	4'-0"
#10	6'-3"

LEGEND:

* - SPACED AS SHOWN IN SECTION A-A
** - SEE DETAIL D, SHEET 28/57
E.F. - EACH FACE
(GXX) - GIRDER NUMBER

NOTES:

1. FOR SECTION A-A, SEE SHEET 28/57.
2. FOR ADDITIONAL NOTES, SEE SHEET 25/57.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1907

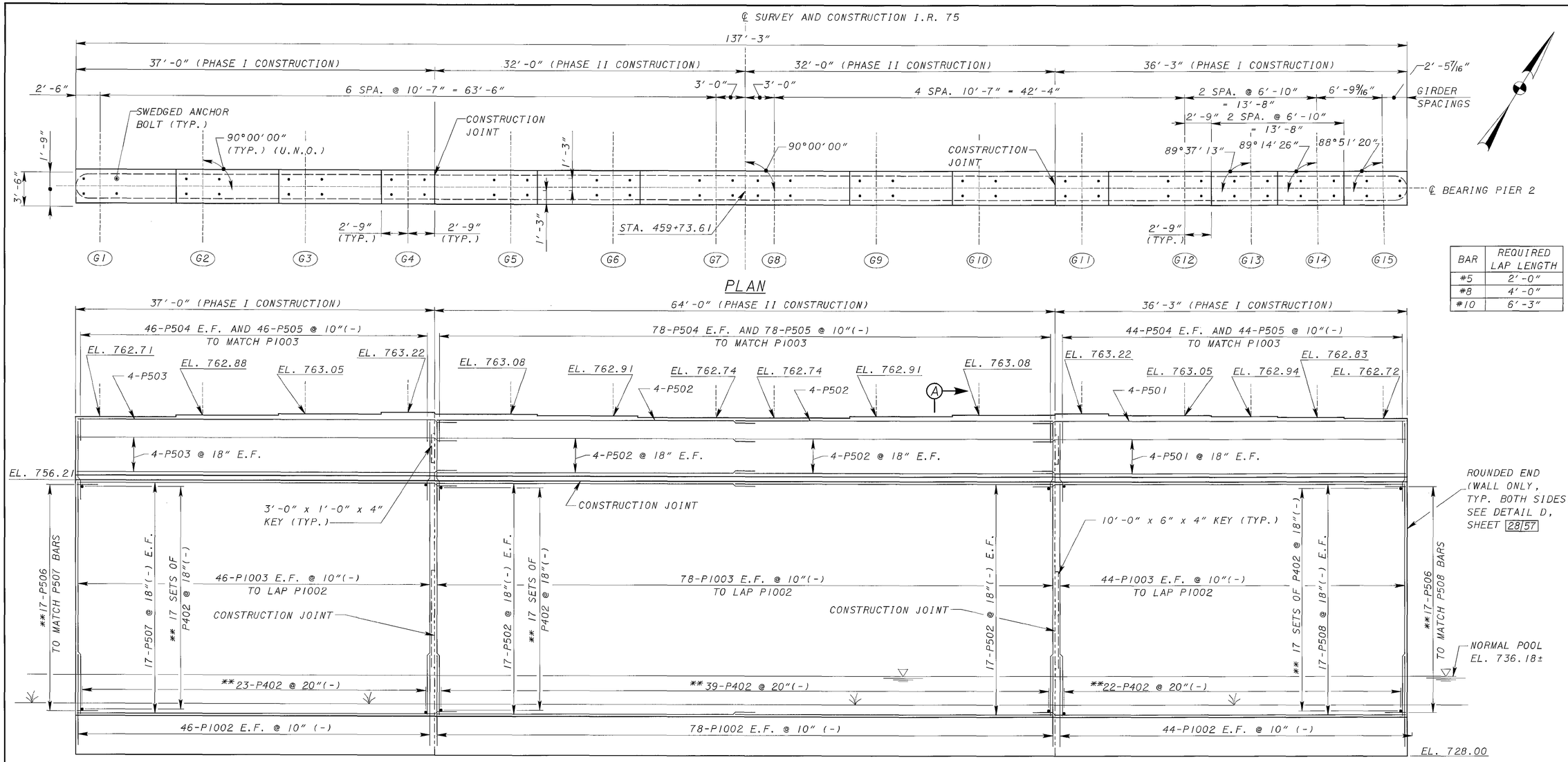
DESIGNED	DRAWN	REVIEWED	DATE
ECM	ECM	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTY			

PIER I DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

26/57
261/316

Plotted By: Terence Smith 2:47 PM
DATE: 1/27/2007 FILE: c:\co04\0066\bridge\steel.dft>odot\steel2328n102.dgn

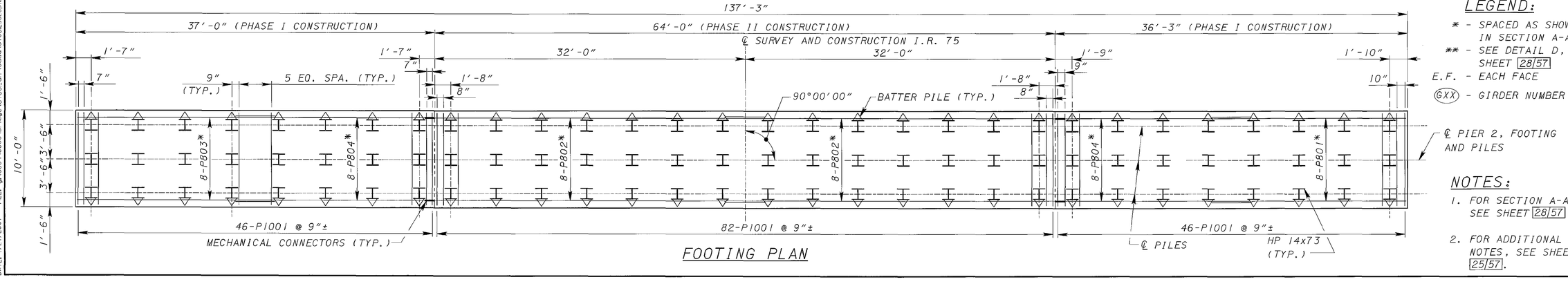


BAR	REQUIRED LAP LENGTH
#5	2′-0″
#8	4′-0″
#10	6′-3″

PLAN

ELEVATION

(PILES AND FOOTING REINFORCING NOT SHOWN)



FOOTING PLAN

LEGEND:

- * - SPACED AS SHOWN IN SECTION A-A
- ** - SEE DETAIL D, SHEET 28/57
- E.F. - EACH FACE
- (GXX) - GIRDER NUMBER

NOTES:

1. FOR SECTION A-A, SEE SHEET 28/57.
2. FOR ADDITIONAL NOTES, SEE SHEET 25/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2000, CLEVELAND, OHIO 44113-2001

DESIGNED ECM | DRAWN ECM | REVIEWED RER | DATE 06/01/07 | CHECKED JDH | REVISED | STRUCTURE FILE NUMBER

PIER 2 DETAILS (STEEL GIRDER OPTION)

BRIDGE NO. MOT-75-1523 IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60 PID 23828

27/57

262/316

Plotted By: ecmack Time: 3:19:48 PM
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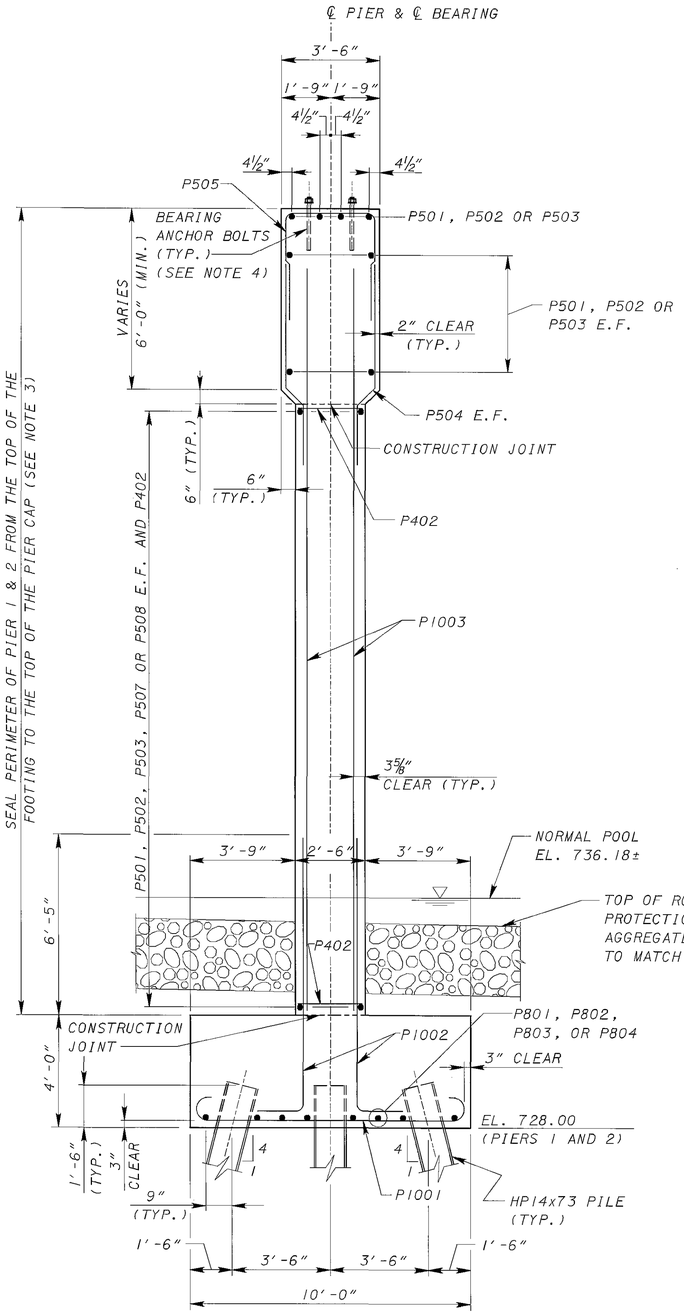
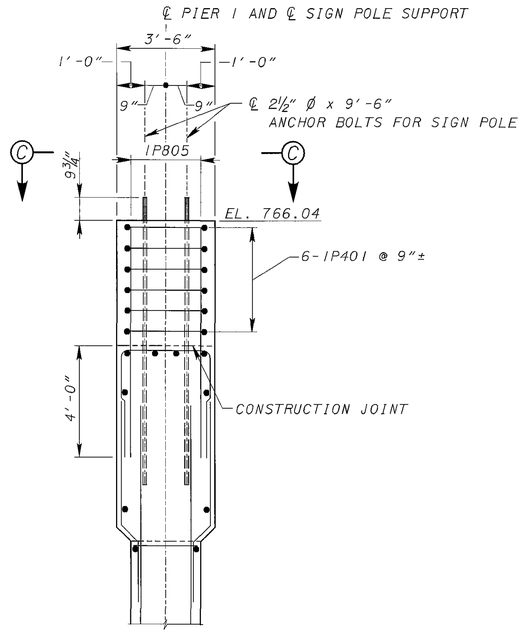
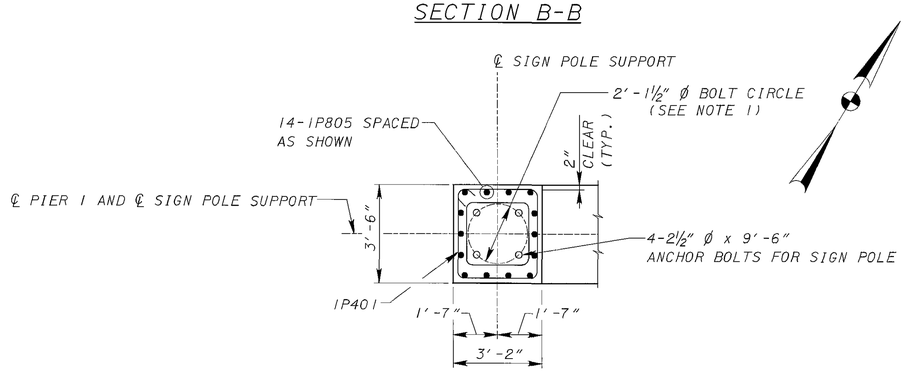


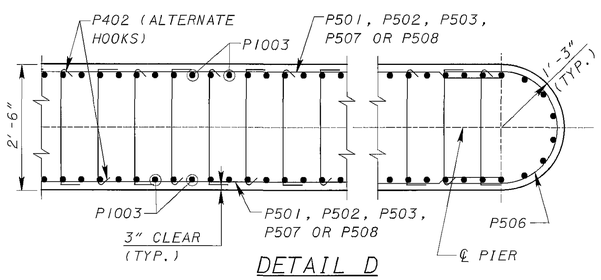
SECTION A-A



SECTION B-B



VIEW C-C



DETAIL D

NOTES:

1. REFER TO TRAFFIC DRAWING "SIGN ELEVATIONS S16 AND S18" FOR SIGN POLE DETAILS.
2. UNLESS OTHERWISE NOTED, BAR MARKS SHALL BE PREFIXED WITH "1" FOR PIER 1 AND "2" FOR PIER 2.
3. SEE GENERAL NOTES, ITEM 512 FOR SEALING OF CONCRETE SURFACES (EPOXY URETHANE) REQUIREMENTS.
4. REINFORCING STEEL SHALL BE PLACED TO PROVIDE ADEQUATE CLEARANCE FOR INSTALLATION OF SWEDGED ANCHOR BOLTS. FOR BEARING ANCHOR BOLT PATTERN AND ADDITIONAL NOTES, SEE BEARING DETAILS SHEET 51/57.
5. FOR PILE LAYOUT, SEE PILE LAYOUT PLAN, SHEETS 16/57 & 17/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE: SUITE 1900 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
ECM	ECM	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		570810	

PIER SECTIONS AND DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

28/57

263/316

DATE: 1/27/2007 FILE: g:\cod\100665\br\dge\steel.dif\codd\steel23828p104.dgn

CROSSFRAME SPA. MEASURED ALONG GIRDER G18: 19'-2 3/8" | 4 SPA. @ 20'-11 15/16" ± = 83'-11 13/16" | 22'-11 15/16" | 11'-0" | 2 SPA. @ 12'-11 15/16" ± = 25'-11 15/16" | 12'-10 7/16"

CROSSFRAME SPA. MEASURED ALONG GIRDER G17: 20'-0 1/4" | 4 SPA. @ 20'-11 15/16" ± = 83'-11 13/16" | 22'-11 7/8" | 11'-0" | 2 SPA. @ 12'-11 15/16" ± = 25'-11 15/16" | 12'-4 3/16"

CROSSFRAME SPA. MEASURED ALONG GIRDER G16: 21'-7 7/8" | 4 SPA. @ 20'-11 15/16" ± = 83'-11 13/16" | 22'-11 13/16" | 11'-0 1/8" | 2 SPA. @ 12'-11 15/16" ± = 25'-11 15/16" | 11'-3 11/16"

15'-0 1/2" | 14'-0" | 14'-0" | 7'-1 9/16" | CROSSFRAME SPA. MEASURED ALONG GIRDER G2

END CROSSFRAME F1 (TYP END CROSSFRAME U.N.O)

℄ FIELD SPLICE 1 | ℄ FIELD SPLICE 2 | ℄ FIELD SPLICE 3

INTERMEDIATE CROSSFRAME F3 (TYP INTERMEDIATE CROSSFRAME U.N.O)

82°56'33" | 84°06'37" | 85°17'01" | 86°27'39" | 87°38'26" | 88°49'24" | 90°00'00" (TYP) (U.N.O.)

7°03'27" | 4°42'59" | 2°21'34"

168'-2 1/4" | 94'-5 3/4" | 73'-8 1/2"

5 SPA. @ 9'-11 1/2" = 49'-9 1/2" | 9'-11 1/4"

3 SPA. @ 10'-7" = 31'-9" | 3'-0"

4 SPA. @ 10'-7" = 42'-4" | 3'-0"

3 SPA. @ 9'-5 1/2" = 28'-4 1/2"

12'-7 3/4" | 12'-7 3/4" | 6'-3 1/8"

A (TYP)(U.N.O) | 90°00'00" (TYP) (U.N.O.) | 89°37'13" | 89°14'26" | 88°51'20"

G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18

F4 | F5

℄ BEARING REAR ABUTMENT STA. 455+77.61 | ℄ PIER 1 STA. 457+53.61 | ℄ PIER 2 STA. 459+73.61

90°00'00" (TYP) (ALL SUBSTRUCTURE UNITS) | ℄ CONSTRUCTION I.R. 75

INTERMEDIATE STIFFENER (TYP)

FOR CONTINUATION, SEE SHEET 30/57.

TYPICAL ANGLE BETWEEN GIRDER AND CROSSFRAME	
ANGLE DESIGNATION	MEASURED ANGLE
A	90°00'00"
B	91°10'03"
C	91°10'24"
D	91°10'38"
E	91°10'47"
F	91°10'59"
G	91°10'36"
H	90°22'47"
J	90°23'06"
K	92°20'27"
L	92°21'25"

CROSSFRAME SPA. MEASURED ALONG GIRDERS G4-G12: 19'-0" | 4 SPA. @ 21'-0" = 84'-0" | 23'-0" | 11'-0" | 3 SPA. @ 13'-0" = 39'-0" | 4 SPA. @ 14'-0" = 56'-0" | 2 SPA. @ 21'-0" = 42'-0" | 24'-0" | 2 SPA. @ 21'-0" = 42'-0" | 4 SPA. @ 14'-0" = 56'-0" | 4 SPA. @ 13'-0" = 52'-0"

CROSSFRAME SPA. MEASURED ALONG GIRDER G14: 19'-1 7/16" | 4 SPA. @ 21'-0" ± = 84'-0 1/16" | 23'-0" | 11'-0" | 3 SPA. @ 13'-0" = 39'-0" | 4 SPA. @ 14'-0" = 56'-0" | 2 SPA. @ 20'-11 3/4" ± = 41'-10 13/16" | 24'-1 3/16" | 2 SPA. @ 21'-0" = 42'-0" | 4 SPA. @ 14'-0" = 56'-0" | 4 SPA. @ 13'-0" = 52'-0"

176'-0" | 220'-0" | 176'-0"

572'-0"

PARTIAL FRAMING PLAN

LEGEND

U.N.O = UNLESS NOTED OTHERWISE

NOTE:

1. FOR NOTES, SEE SHEET 30/57.

LJB Inc. 3100 Research Blvd., P.O. Box 292548, Dayton, OH 45420-2548, (937) 259-5000 tel, (937) 259-5100 fax, ljbinc.com

DESIGNED JJS | DRAWN JAL | REVIEWED MPH | DATE 6-07

CHECKED DWS | REVISED | STRUCTURE FILE NUMBER 570871O

FRAMING PLAN (1 OF 2) (STEEL GIRDER OPTION)

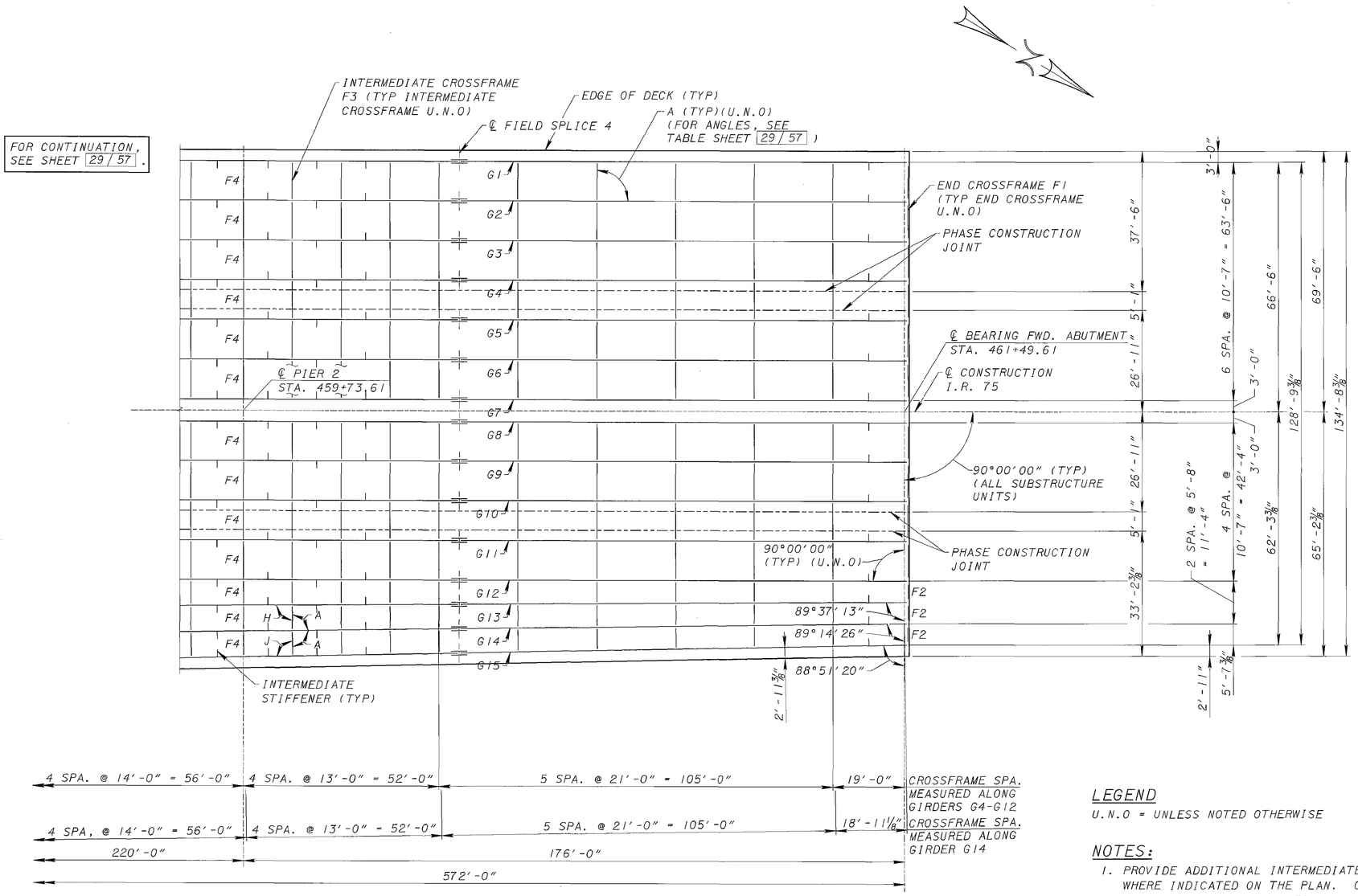
BRIDGE NO. MOT-75-1523

I.R. 75 OVER THE GREAT MIAMI RIVER

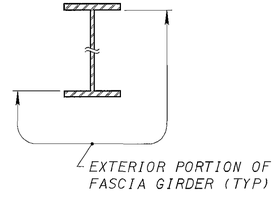
MOT-75-14.60

PID 23828

DATE: 7/27/2007 FILE: gr\cad\0066\bridge\steel.dir\cadd\steel23828ed50.dgn



PARTIAL FRAMING PLAN



FASCIA GIRDER PAINTING LIMITS

LEGEND

U.N.O = UNLESS NOTED OTHERWISE

NOTES:

1. PROVIDE ADDITIONAL INTERMEDIATE STIFFENERS WHERE INDICATED ON THE PLAN. CENTER BETWEEN THE ADJACENT CROSSFRAMES. FOR STIFFENER DETAILS AND ADDITIONAL NOTES, SEE SHEET 34/57 .
2. CROSSFRAMES SHALL BE FULLY CONNECTED (FIELD WELDED) PRIOR TO THE DECK POUR.
3. INTERMEDIATE CROSSFRAMES BETWEEN GIRDERS G4 AND G5 AND BETWEEN GIRDERS G10 AND G11 (UNDER THE CLOSURE POUR) SHALL NOT BE INSTALLED UNTIL AFTER THE ADJACENT SLABS HAVE BEEN POURED AND PRIOR TO THE CLOSURE POUR.
4. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. GSD-1-96.
5. PARTIAL PAINTING OF A588/A709 GR 50W STEEL: PAINT THE LAST 10 FT OF EACH GIRDER END ADJACENT TO THE ABUTMENTS INCLUDING ALL CROSSFRAMES AND OTHER STEEL WITHIN THESE LIMITS. ADDITIONALLY, THE EXTERIORS OF FASCIA GIRDERS SHALL BE PAINTED ACCORDING TO THE LIMITS SHOWN. THE PRIME COAT SHALL BE 708.01. THE TOP COAT COLOR SHALL CLOSELY APPROACH FEDERAL STANDARD NO. 595B-20045 OR 20059 (THE COLOR OF WEATHERING STEEL).
6. FOR GENERAL NOTES, SEE SHEETS 3/57 THRU 6/57 .
7. FOR GIRDER ELEVATION, SEE SHEET 31/57 .
8. FOR END CROSSFRAMES F1 AND F2 AND FOR INTERMEDIATE CROSSFRAMES F3 THRU F5, SEE SHEET 32/57 .
9. FOR FIELD SPLICE DETAILS, SEE SHEETS 33/57 AND 34/57 .
10. FOR DEFLECTION AND CAMBER DIAGRAM, SEE SHEET 35/57 .
11. FOR BEARING DETAILS, SEE SHEET 51/57 .

LJB Inc. 3100 Research Blvd., P.O. Box 20245
Dayton, OH 45420-0245
(937) 256-3000 tel (937) 256-1100 fax ljbinc.com

DESIGNED	DRAWN	REVIEWED	DATE
JJS	JAL	MPH	6-07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CWS		570810	

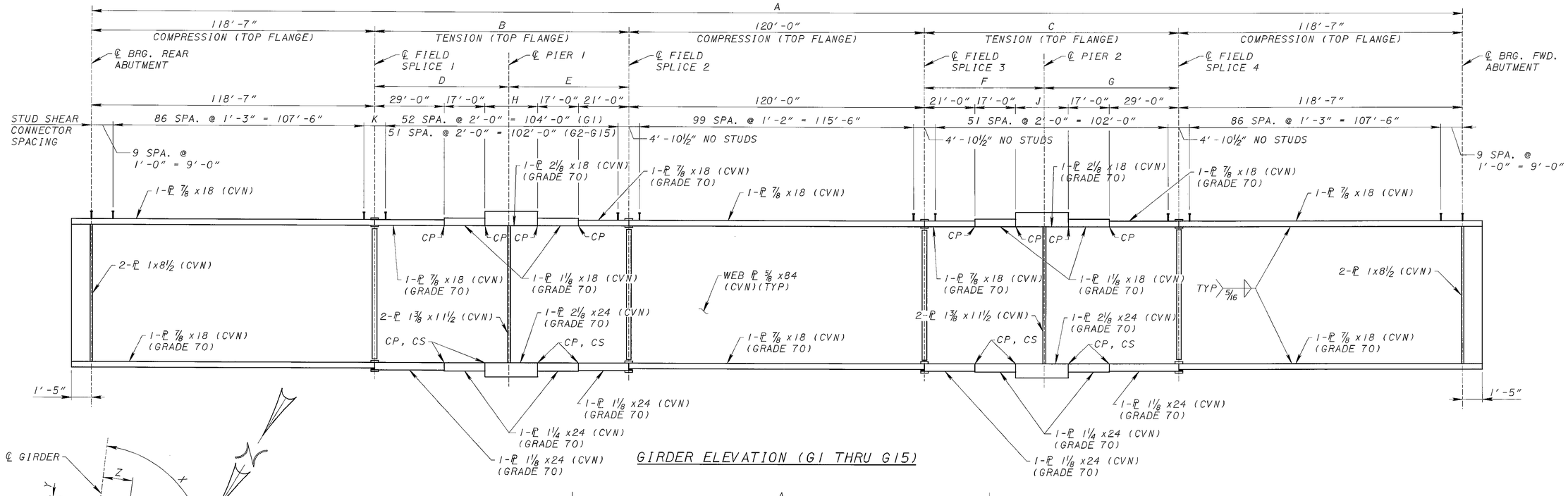
FRAMING PLAN (2 OF 2)
(STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

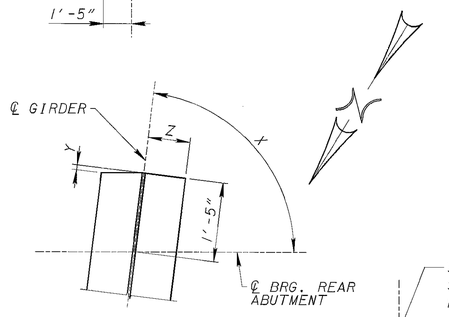
30/57

265/316

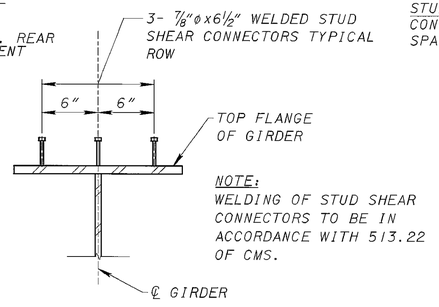
Plotted By: ecmack Time: 3:05:58 PM
DATE: 7/27/2007 FILE: g:\c004\0066\bridge\steel.dir\cadd\steel23828ecSL.dgn



GIRDER ELEVATION (G1 THRU G15)

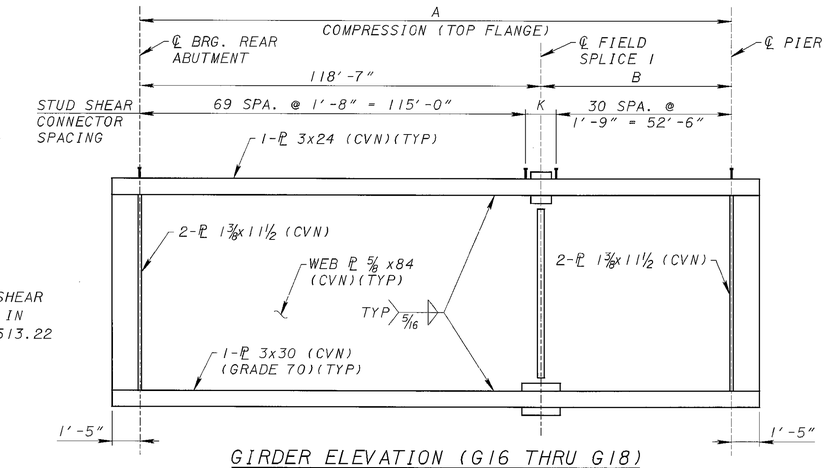


CLIPPED FLANGE DETAIL



NOTE:
WELDING OF STUD SHEAR CONNECTORS TO BE IN ACCORDANCE WITH 513.22 OF CMS.

STUD SHEAR CONNECTOR LAYOUT



GIRDER ELEVATION (G16 THRU G18)

NOTES:

1. WHERE A PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES ON SHEET 6/57.
2. BEARING STIFFENERS SHALL BE PLACED SO THAT THEY ARE IN A VERTICAL POSITION AFTER ERECTION AND SHALL BE MILLED TO BEAR ON BOTTOM FLANGE, WITH A TIGHT FIT AT THE TOP FLANGE AT ABUTMENTS AND PIERS UNLESS SHOWN OTHERWISE FOR CROSSFRAME ATTACHMENT.
3. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA GIRDER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST ¼" FOR THICKNESSES UP TO ¾" OR 5/16" FOR GREATER THAN ¾" THICK.
4. WHERE A WELDED BUTT JOINT IS DESIGNATED CP, THE WELD SHALL BE COMPLETE PENETRATION.
5. CS INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY.
6. WELD REINFORCEMENT AT COMPLETE PENETRATION WELDS SHALL BE REMOVED BY GRINDING IN THE DIRECTION OF THE PRIMARY STRESS.
7. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. GSD-1-96.
8. ALL PLATES ARE GRADE 50W STEEL UNLESS OTHERWISE NOTED.

GIRDERS G1 THRU G18 DIMENSION AND SHEAR CONNECTOR ROW SPACING

GIRDER	A	B	C	D	E	F	G	H	J	K
G1	573'-8 11/16"	109'-1 11/16"	107'-5"	58'-9 1/8"	50'-4 9/16"	50'-0"	57'-5"	25'-1 11/16"	23'-5"	4'-7 3/16" NO STUDS
G2	572'-9 3/16"	108'-2 3/16"	107'-5"	58'-0 1/8"	50'-2 1/16"	50'-0"	57'-5"	24'-2 3/16"	23'-5"	5'-7 11/16" NO STUDS
G3	572'-2 5/16"	107'-7 5/16"	107'-5"	57'-6 13/16"	50'-0 1/2"	50'-0"	57'-5"	23'-7 5/16"	23'-5"	5'-0 13/16" NO STUDS
G4-G12	572'-0"	107'-5"	107'-5"	57'-5"	50'-0"	50'-0"	57'-5"	23'-5"	23'-5"	4'-10½" NO STUDS
G13	572'-0 1/8"	107'-5 1/16"	107'-5 1/16"	57'-5 1/16"	50'-0"	50'-0"	57'-5 1/16"	23'-5 1/16"	23'-5 1/16"	4'-10 5/8" NO STUDS
G14	572'-0 5/8"	107'-5 5/16"	107'-5 5/16"	57'-5 3/16"	50'-0 1/8"	50'-0 1/8"	57'-5 3/16"	23'-5 5/16"	23'-5 5/16"	4'-11 1/8" NO STUDS
G15	572'-1 3/8"	107'-5 1/16"	107'-5 1/16"	57'-5 1/16"	50'-0 1/4"	50'-0 1/4"	57'-5 7/16"	23'-5 1/16"	23'-5 1/16"	4'-11 7/8" NO STUDS
G16	176'-11 3/16"	58'-4 3/16"								9'-5 3/16" NO STUDS
G17	176'-4 1/16"	57'-9 1/16"								8'-10 1/16" NO STUDS
G18	176'-0 7/16"	57'-5 7/16"								8'-6 7/16" NO STUDS

CLIPPED FLANGE TABLE

		TOP FLANGE		BOTTOM FLANGE	
GIRDER	X	Z	Y	Z	Y
G1	82°56'33"	9"	1 1/16"	9"	1 1/16"
G2	85°17'01"	9"	0 11/16"	9"	0 11/16"
G3	87°38'26"	9"	0 3/8"	9"	0 3/8"
G4-G12	90°00'00"	9"	NO CLIP	9"	NO CLIP
*G13	90°22'47"	9"	0 1/16"	9"	0 1/16"
*G14	90°45'34"	9"	0 1/8"	9"	0 1/8"
*G15	91°08'40"	9"	0 3/16"	9"	0 3/16"
G16	84°06'37"	12"	1 3/16"	15"	1½"
G17	86°27'39"	12"	0 3/4"	15"	0 15/16"
G18	88°49'24"	12"	0 1/4"	15"	0 5/16"

*CLIP FLANGE OPPOSITE THAT SHOWN IN DETAIL

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GIRDER ELEVATIONS (STEEL GIRDER OPTION)

BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

31/57

266/316

Plotted By: ecmack Time: 3:19:58 PM
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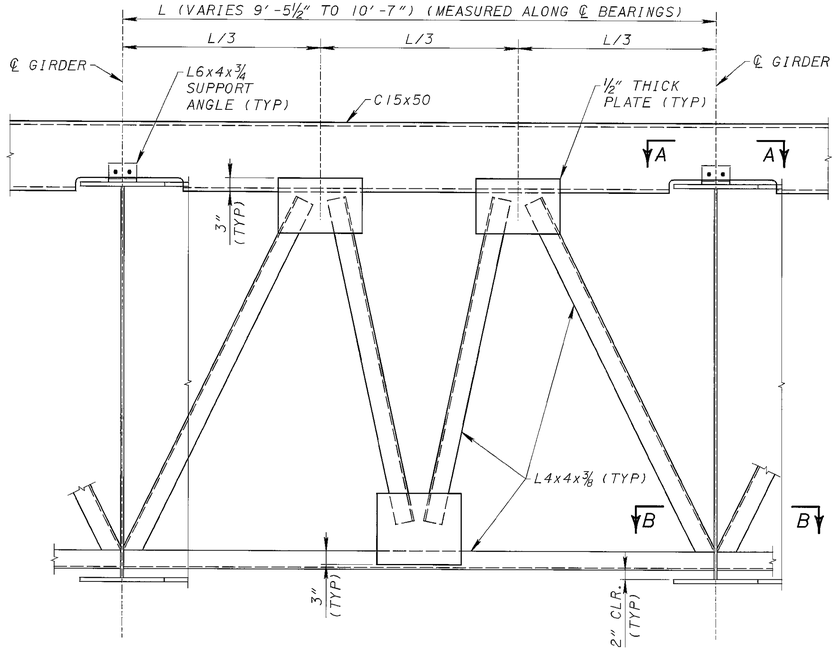
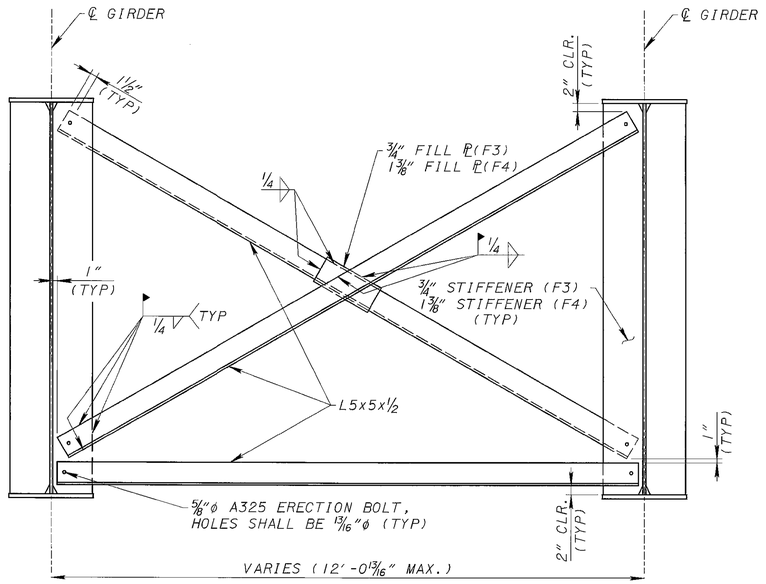
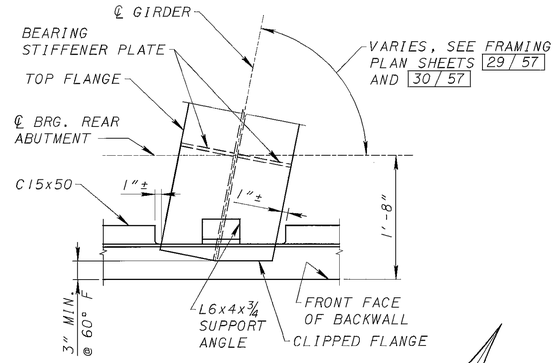


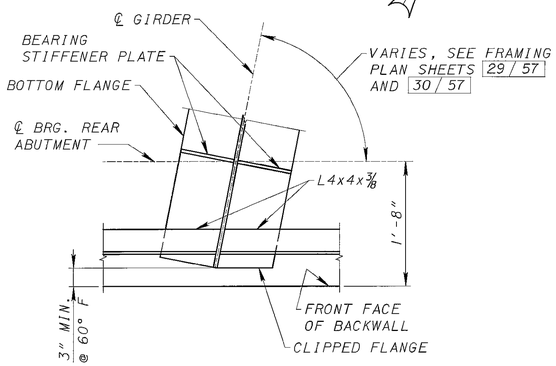
END CROSSFRAME F1



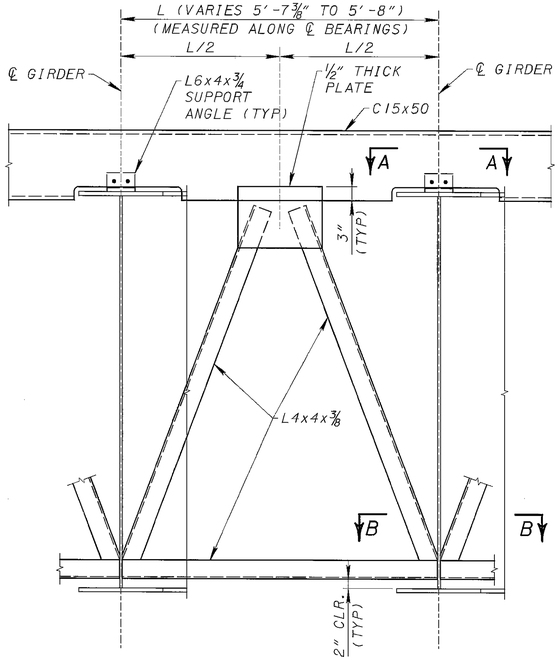
INTERMEDIATE CROSSFRAME F3 AND F4



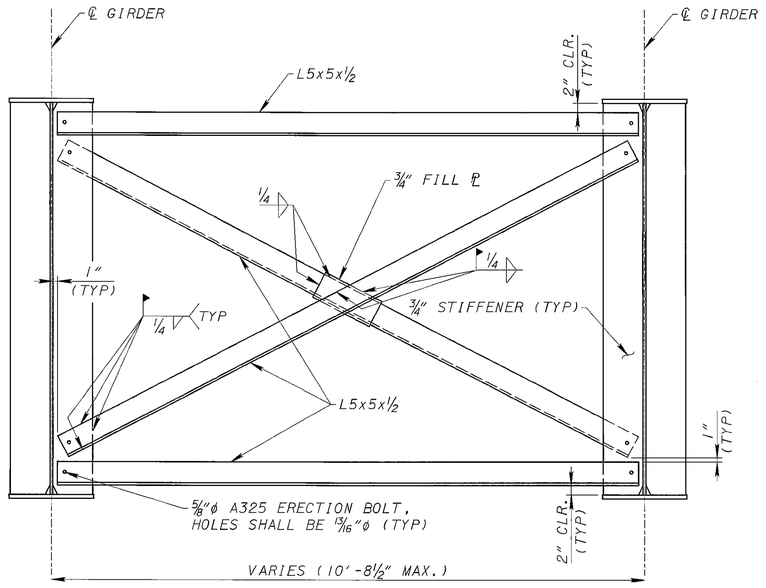
SECTION A-A



SECTION B-B



END CROSSFRAME F2



INTERMEDIATE CROSSFRAME F5

NOTES:

1. FOR END CROSSFRAME WELDS AND ADDITIONAL DETAILS, SEE STD. DWG. GSD-1-96.
2. FOR FRAMING PLAN AND ADDITIONAL NOTES, SEE SHEETS 29/57 AND 30/57.

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CROSSFRAME DETAILS (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

32/57

267/316

Plotted By: eamcak Time: 3:49:58 PM
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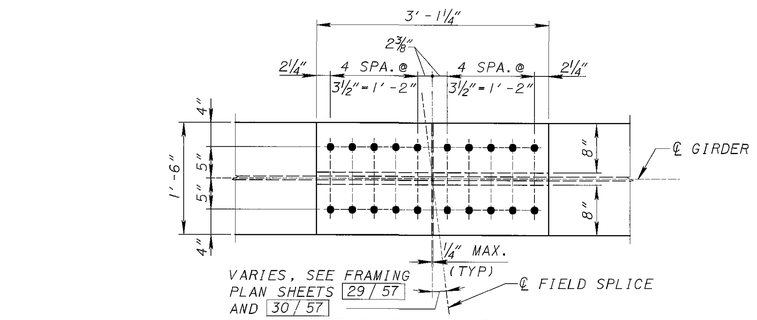
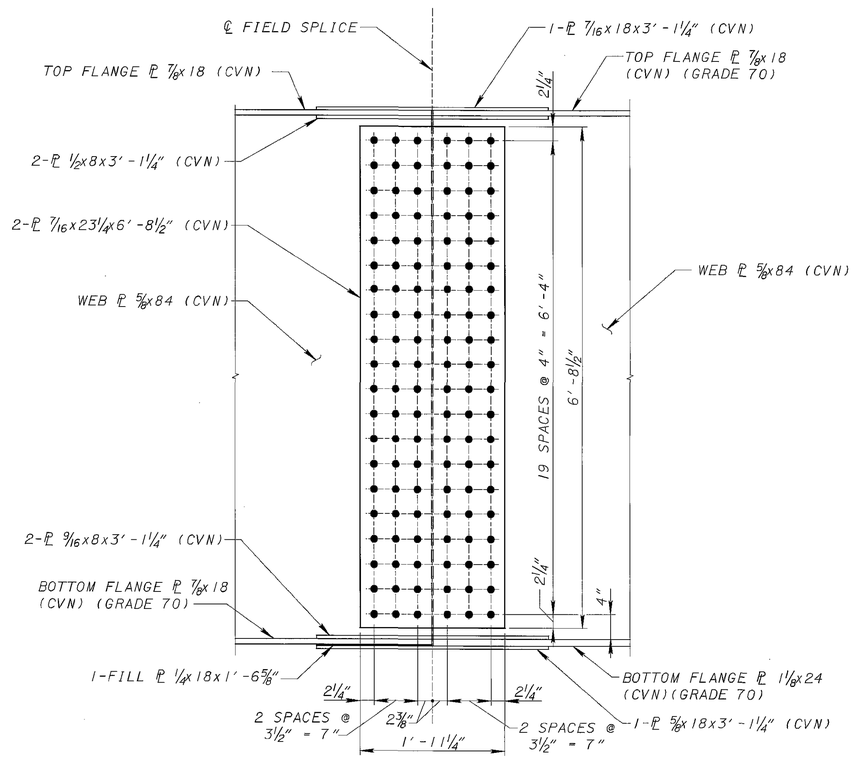
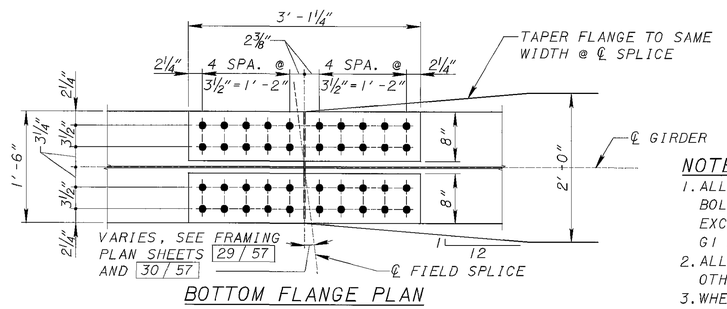


TOP FLANGE PLAN



ELEVATION



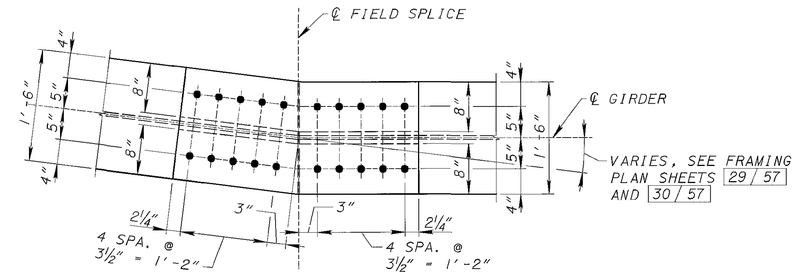
BOTTOM FLANGE PLAN

FIELD SPLICE DETAILS FOR GIRDERS G1 THRU G15

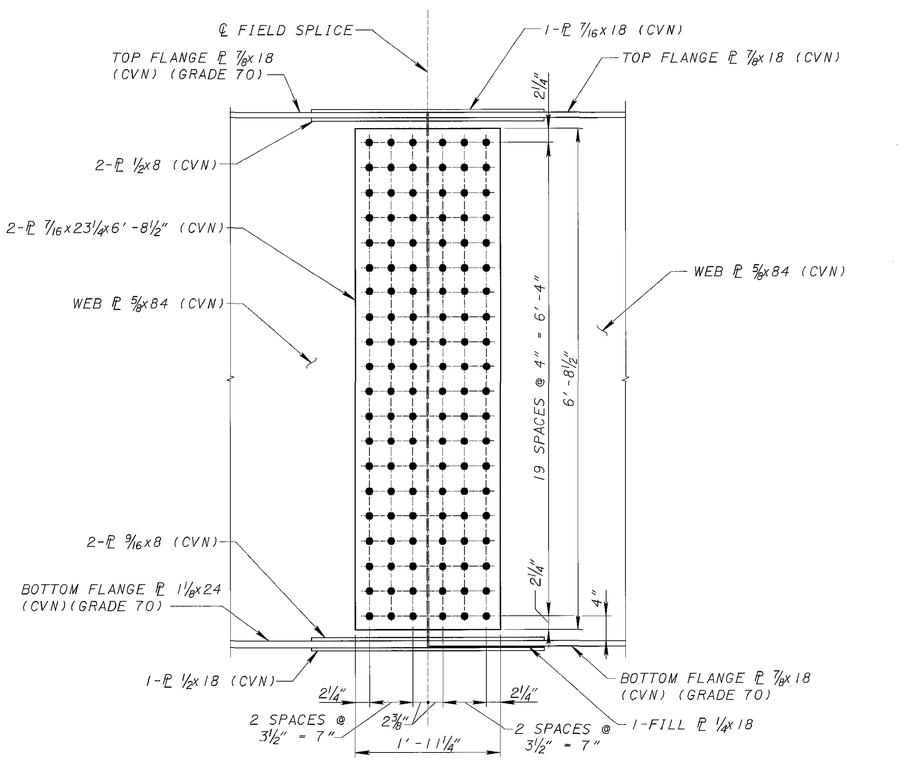
(FIELD SPLICE 1 AND 3)

NOTES:

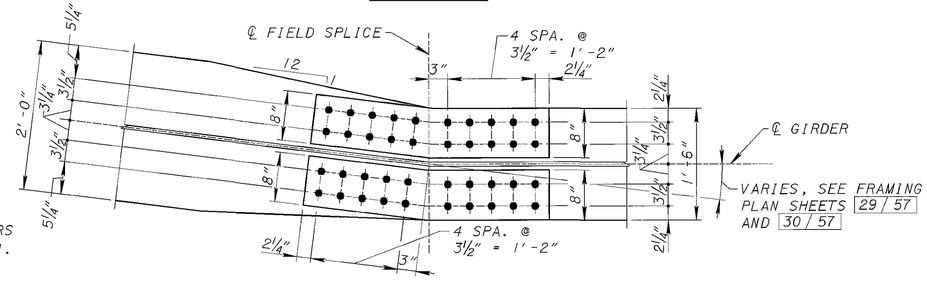
1. ALL BOLTS SHALL BE 1⅛"ø HIGH STRENGTH BOLTS CONFORMING TO ASTM A325, TYPE 1, EXCEPT BOLTS USED FOR SPLICES ON GIRDERS G1 AND G15 SHALL BE ASTM A325, TYPE III.
2. ALL PLATES ARE GRADE 50W STEEL UNLESS OTHERWISE NOTED.
3. WHERE A PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES ON SHEET 6 / 57 .



TOP FLANGE PLAN



ELEVATION



BOTTOM FLANGE PLAN

FIELD SPLICE DETAILS FOR GIRDERS G1 THRU G15

(FIELD SPLICE 2 AND 4)

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CHECKED	REVISED	STRUCTURE FILE NUMBER	
AMT		570710	

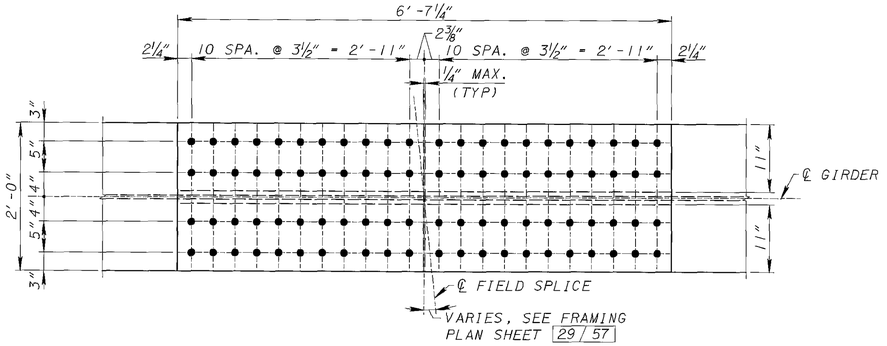
FIELD SPLICE DETAILS (1 OF 2)
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

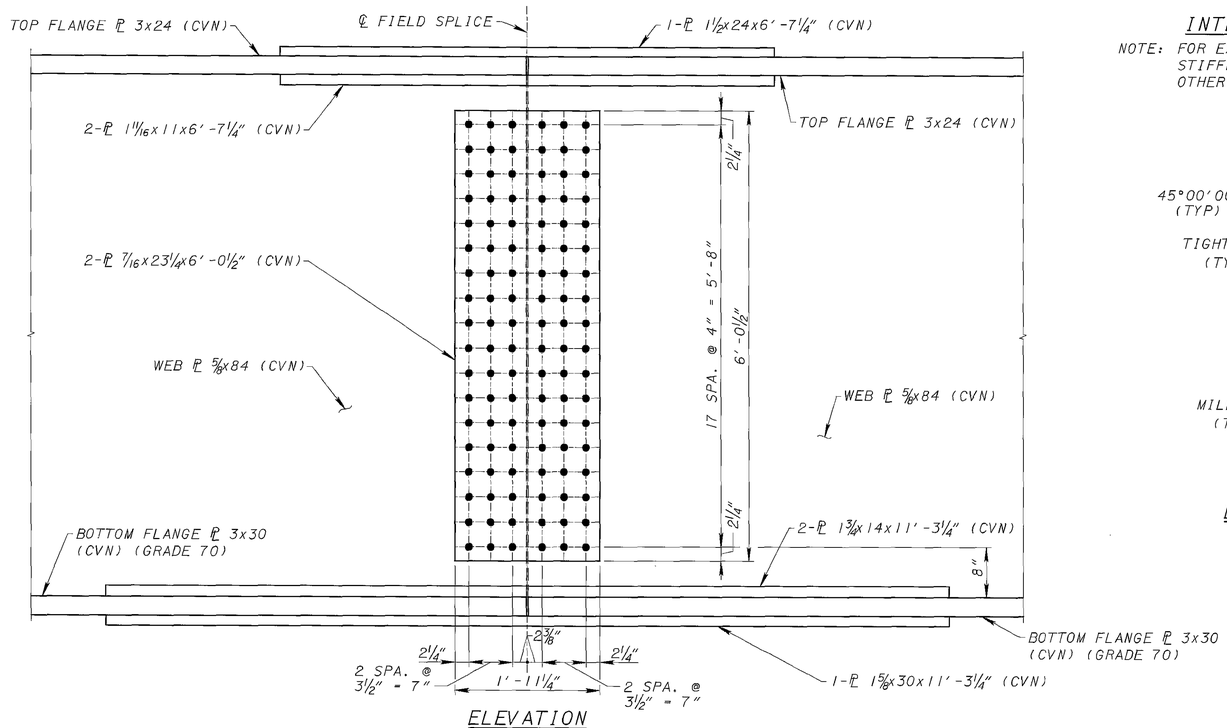
33 / 57

268 / 316

Plotted By: ecmack Time: 3:49:59 PM
DATE: 7/27/2007 FILE: gk:\cad\100166\sr\sige\structeel.dir\ccdd\structeel23828sd54.dgn



TOP FLANGE PLAN



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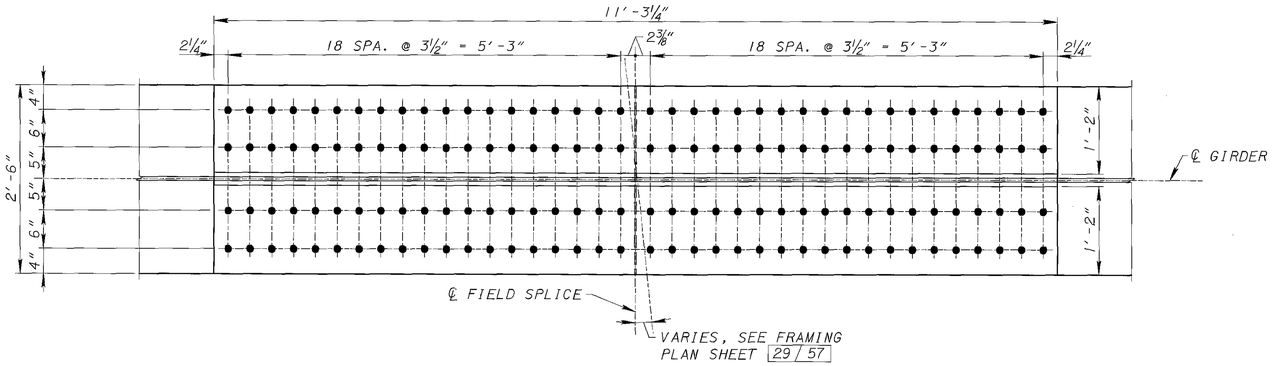
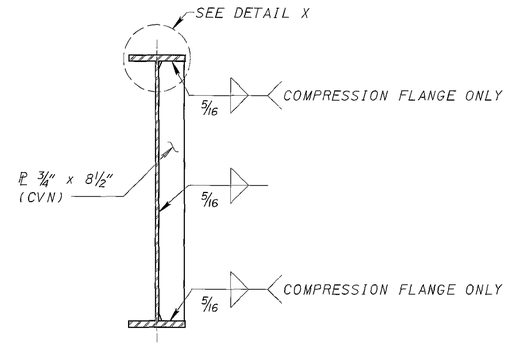


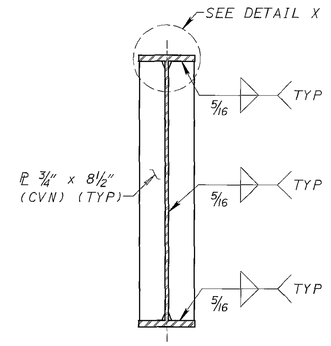
BOTTOM FLANGE PLAN

FIELD SPLICE DETAILS FOR GIRDERS G16 THRU G18



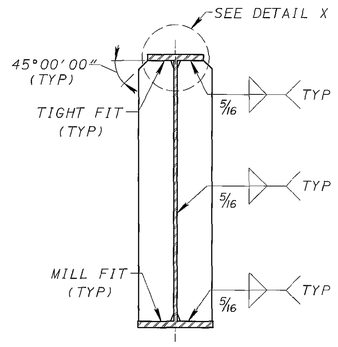
INTERMEDIATE STIFFENERS

NOTE: FOR EXTERIOR GIRDERS PLACE INTERMEDIATE STIFFENERS AT INTERIOR SIDE ONLY. ON OTHER GIRDERS, ALTERNATE SIDES OF WEB.

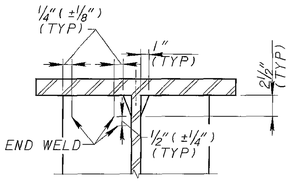


INTERMEDIATE CROSSFRAME STIFFENERS

NOTE: INTERMEDIATE STIFFENERS ARE NOT REQUIRED ON EXTERIOR SIDE OF EXTERIOR GIRDERS



BEARING STIFFENERS



DETAIL X

NOTES:

1. ALL BOLTS SHALL BE 1 1/8"ø HIGH STRENGTH BOLTS CONFORMING TO ASTM A325, TYPE 1, EXCEPT BOLTS USED FOR SPLICES ON GIRDERS G1 AND G15 SHALL BE ASTM A325, TYPE III.
2. ALL PLATES ARE GRADE 50W STEEL UNLESS OTHERWISE NOTED.
3. WHERE A PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES ON SHEET 6/57.
4. INTERMEDIATE STIFFENERS NOT USED FOR THE ATTACHMENT OF CROSSFRAMES SHALL BE WELDED TO THE WEB AND THE COMPRESSION FLANGE. THE TENSION FLANGE SHALL BE A TIGHT FIT.
5. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. GSD-1-96.

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FIELD SPLICE AND STIFFENER DETAILS (2 OF 2)

(STEEL GIRDER OPTION)

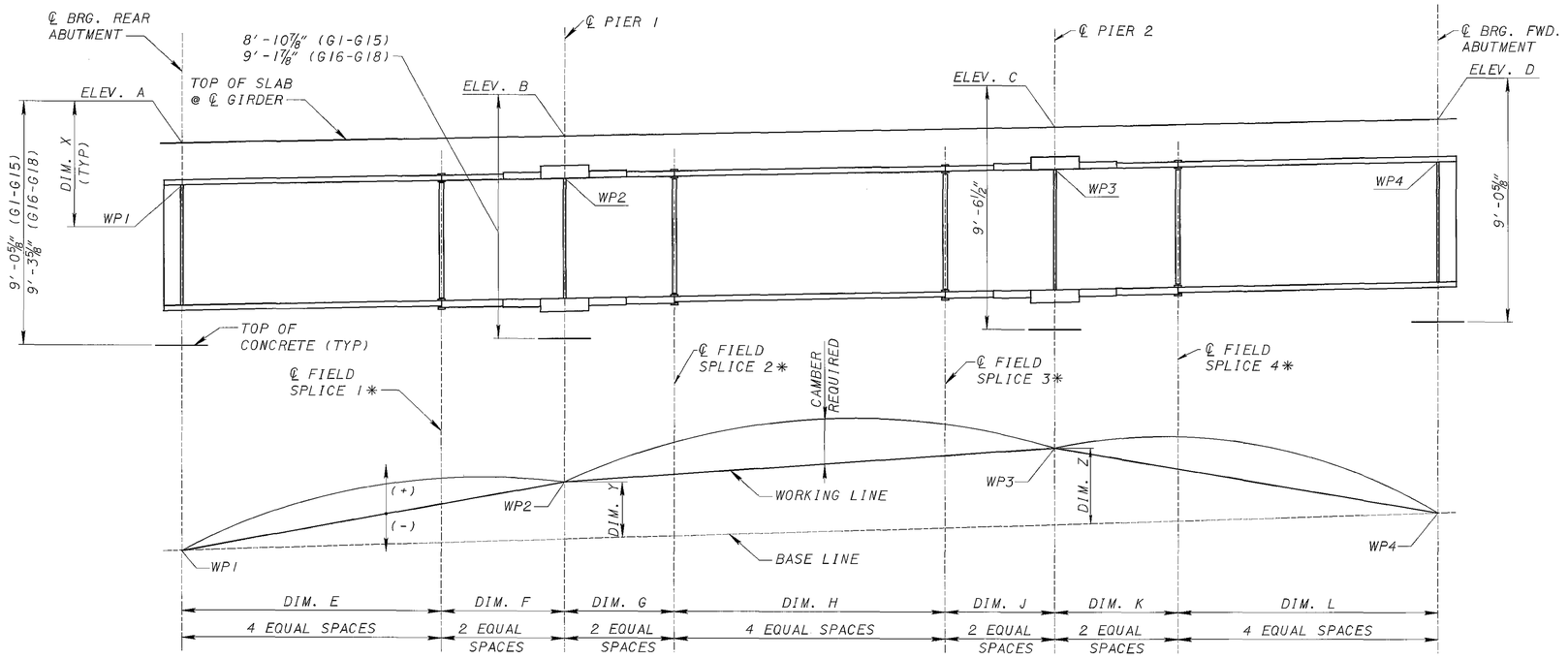
BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

34/57

269/316

Plotted By: eomack Time: 3:49:59 PM
DATE: 7/27/2007 FILE: g:\co04\0066\bridge\steel_dtl\coddc\steel23828ed05.dgn



* THIS LOCATION IS NOT THE EXACT ℄ FIELD SPLICE FOR GIRDERS G1, G2, G3, G13, G14, G15, G16, G17 AND G18. FOR THESE GIRDERS, IT IS A POINT NEAR THE ℄ FIELD SPLICE AND IN ALIGNMENT WITH THE ℄ FIELD SPLICE FOR THE NON-SKEWED GIRDERS.

GIRDER	ELEV. A	ELEV. B	ELEV. C	ELEV. D	DIM. E	DIM. F	DIM. G	DIM. H	DIM. J	DIM. K	DIM. L	DIM. X	DIM. Y	DIM. Z
G1	764.98	770.43	772.25	770.67	119'-5⅞"	57'-10¼"	50'-4⅜"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	3'-8⅜"	3'-4"
G2	766.28	770.89	772.42	770.84	118'-11¾"	57'-7⅝"	50'-2⅛"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	3'-2½"	2'-11¾"
G3	767.45	771.36	772.59	771.01	118'-8¾"	57'-5⅝"	50'-0½"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-9¾"	2'-8⅛"
G4	768.04	771.62	772.76	771.18	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-7⅜"	2'-6⅜"
G5	768.22	771.57	772.61	771.04	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-5¹³⁄₁₆"	2'-5¼"
G6	768.39	771.50	772.44	770.87	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-4¾"	2'-4"
G7	768.34	771.37	772.27	770.70	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-3⅝"	2'-3⁹⁄₁₆"
G8	768.34	771.37	772.27	770.70	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-3⅝"	2'-3⁹⁄₁₆"
G9	768.51	771.54	772.44	770.87	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-3⅝"	2'-3⁹⁄₁₆"
G10	768.68	771.71	772.61	771.04	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-3⅝"	2'-3⁹⁄₁₆"
G11	768.85	771.86	772.76	771.18	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-3½"	2'-3⁹⁄₁₆"
G12	769.02	771.79	772.59	771.01	118'-7"	57'-5"	50'-0"	120'-0"	50'-0"	57'-5"	118'-7"	1'-1⅝"	2'-1⅞"	2'-2⅝"
G13	768.89	771.67	772.48	770.92	118'-7⅛"	57'-5"	50'-0"	120'-0⅛"	50'-0"	57'-5"	118'-7⅛"	1'-1⅝"	2'-1⅞"	2'-2⅜"
G14	768.74	771.53	772.37	770.83	118'-7⅛"	57'-5⅛"	50'-0⅛"	120'-0⅛"	50'-0⅛"	57'-5⅛"	118'-7⅛"	1'-1⅝"	2'-1¾"	2'-2⅜"
G15	768.59	771.40	772.26	770.74	118'-7⅝"	57'-5⅛"	50'-0⅛"	120'-0⅝"	50'-0⅛"	57'-5⅛"	118'-7⅝"	1'-1⅝"	2'-1³⁄₁₆"	2'-2⅜"
G16	765.63	770.66			119'-2⅜"	57'-8⅛"						1'-2½"		
G17	766.93	771.12			118'-9¾"	57'-6⅝"						1'-2½"		
G18	767.76	771.50			118'-7⅝"	57'-5⅛"						1'-2½"		

NOTES:

1. WORKING POINTS (WP) ARE AT BOTTOM OF TOP FLANGE AT ℄ BEARING.
2. THE WORKING LINE IS A STRAIGHT LINE BETWEEN INDICATED WORKING POINTS.
3. THE BASE LINE IS A STRAIGHT LINE BETWEEN WP1 AND WP4.
4. THE TABULATED DEFLECTION AND CAMBER DATA IS MEASURED FROM THE WORKING LINE.
5. FOR BEARING DETAILS, SEE SHEET 51/57.

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DESIGNED JJS | DRAWN MSD | REVIEWED MPH | DATE 6-07
CHECKED AMT | REVISED | STRUCTURE FILE NUMBER 570871O

DEFLECTION AND CAMBER
(STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

35/57

270/316

Plotted By: dsmock Time: 3:20:00 PM
DATE: 7/27/2007 FILE: q:\ooDA\0065\bridge\steel.dir\ooda\steel23828a056.dgn

DEFLECTION & CAMBER (GIRDER G1)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/8"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 7/8"	-2 7/8"	-2 3/4"	-1 5/8"	-7/16"	0	-5/8"	-1 13/16"	-3 1/4"	-3 13/16"	-3 1/8"	-1 11/16"	-1/2"	0	-5/8"	-2"	-3 1/4"	-3 3/8"	-2 3/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/16"	-1/8"	-1/8"	-1/16"	0	0	-1/8"	-1/4"	-7/16"	-7/16"	-3/8"	-3/16"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 5/8"	-3 15/16"	-3 13/16"	-2 5/16"	-5/8"	0	-7/8"	-2 1/2"	-4 1/2"	-5 1/4"	-4 5/16"	-2 5/16"	-1 1/16"	0	-7/8"	-2 13/16"	-4 1/2"	-4 5/8"	-3"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 5/8"	3 15/16"	3 13/16"	2 5/16"	5/8"	0	7/8"	2 1/2"	4 1/2"	5 1/4"	4 5/16"	2 5/16"	1 1/16"	0	7/8"	2 13/16"	4 1/2"	4 5/8"	3"	0
CORRECTION FOR CURVATURE	0	-1 1/4"	-1 9/16"	-2 7/16"	-1 7/16"	-1/16"	0	5 1/2"	9 1/2"	11 7/16"	10 1/4"	8 7/16"	5 7/8"	3 3/16"	0	1 1/16"	2 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	1 3/8"	2 3/8"	1 3/8"	7/8"	9/16"	0	6 3/4"	12"	15 15/16"	15 1/2"	12 3/4"	8 3/16"	3 7/8"	0	2 9/16"	5 1/2"	7 9/16"	7 3/4"	4 3/4"	0

DEFLECTION & CAMBER (GIRDER G2)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/8"	-15/16"	-15/16"	-9/16"	-3/16"	0	-1/8"	-7/16"	-3/4"	-15/16"	-3/4"	-7/16"	-1/8"	0	-3/16"	-9/16"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 11/16"	-2 1/2"	-2 1/4"	-1 3/16"	-1/8"	0	-15/16"	-2 1/2"	-4 1/4"	-4 7/8"	-4"	-2 1/8"	-1 1/16"	0	-5/8"	-2 1/4"	-3 1/16"	-3 13/16"	-2 1/2"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-1/8"	-1/8"	-1/16"	0	0	-1/8"	-1/4"	-3/8"	-7/16"	-3/8"	-3/16"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 7/16"	-3 9/16"	-3 5/16"	-1 13/16"	-5/16"	0	-1 3/16"	-3 3/16"	-5 3/8"	-6 1/4"	-5 1/8"	-2 3/4"	-7/8"	0	-7/8"	-3"	-4 15/16"	-5 1/16"	-3 5/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 7/16"	3 9/16"	3 5/16"	1 13/16"	5/16"	0	1 3/16"	3 3/16"	5 3/8"	6 1/4"	5 1/8"	2 3/4"	7/8"	0	7/8"	3"	4 15/16"	5 1/16"	3 5/16"	0
CORRECTION FOR CURVATURE	0	-1 3/16"	-1 1/8"	-1 3/16"	-7/16"	3/8"	0	4 3/8"	7 1/2"	9 3/16"	8 1/2"	7 1/8"	5 1/16"	2 3/4"	0	1 1/16"	2 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	1 1/4"	2 7/16"	2 1/8"	1 3/8"	11/16"	0	5 9/16"	10 11/16"	14 3/16"	14 3/4"	12 1/4"	7 13/16"	3 5/8"	0	2 9/16"	5 1/16"	8"	7 13/16"	5 1/16"	0

DEFLECTION & CAMBER (GIRDER G3)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/8"	-15/16"	-15/16"	-9/16"	-3/16"	0	-1/8"	-7/16"	-3/4"	-15/16"	-3/4"	-7/16"	-1/8"	0	-3/16"	-9/16"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 11/16"	-2 1/2"	-2 1/4"	-1 3/16"	-1/8"	0	-15/16"	-2 1/2"	-4 1/4"	-4 7/8"	-4"	-2 1/8"	-1 1/16"	0	-5/8"	-2 1/4"	-3 1/16"	-3 13/16"	-2 1/2"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-1/8"	-1/8"	-1/16"	0	0	-1/8"	-1/4"	-3/8"	-7/16"	-3/8"	-3/16"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 7/16"	-3 9/16"	-3 5/16"	-1 13/16"	-5/16"	0	-1 3/16"	-3 3/16"	-5 3/8"	-6 1/4"	-5 1/8"	-2 3/4"	-7/8"	0	-7/8"	-3"	-4 15/16"	-5 1/16"	-3 5/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 7/16"	3 9/16"	3 5/16"	1 13/16"	5/16"	0	1 3/16"	3 3/16"	5 3/8"	6 1/4"	5 1/8"	2 3/4"	7/8"	0	7/8"	3"	4 15/16"	5 1/16"	3 5/16"	0
CORRECTION FOR CURVATURE	0	1/16"	5/16"	11/16"	1 1/16"	15/16"	0	3 3/16"	5 5/16"	6 7/8"	6 3/4"	5 13/16"	4 1/4"	2 3/8"	0	1 1/16"	2 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	2 1/2"	3 7/8"	4"	2 7/8"	1 1/4"	0	4 3/8"	8 1/2"	12 1/4"	13"	10 5/16"	7"	3 1/4"	0	2 9/16"	5 1/16"	8"	7 13/16"	5 1/16"	0

DEFLECTION & CAMBER (GIRDER G4)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/8"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 1/2"	-2 5/16"	-2 3/16"	-1 1/4"	-1/4"	0	-5/8"	-1 3/4"	-3"	-3 1/2"	-2 7/8"	-1 9/16"	-7/16"	0	-1/2"	-1 3/4"	-2 13/16"	-2 15/16"	-1 7/8"	0
DEFLECTION DUE TO COMPOSITE DL	0	-7/16"	-5/8"	-5/8"	-3/8"	-1/16"	0	-3/16"	-1/2"	-7/8"	-1"	-13/16"	-7/16"	-1/8"	0	-1/8"	-1/2"	-13/16"	-13/16"	-1/2"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 9/16"	-3 7/8"	-3 3/4"	-2 1/4"	-1/2"	0	-15/16"	-2 11/16"	-4 11/16"	-5 1/2"	-4 1/2"	-2 7/16"	-1 1/16"	0	-13/16"	-2 7/8"	-4 9/16"	-4 11/16"	-3"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 9/16"	3 7/8"	3 3/4"	2 1/4"	1/2"	0	15/16"	2 11/16"	4 11/16"	5 1/2"	4 1/2"	2 7/16"	1 1/16"	0	13/16"	2 7/8"	4 9/16"	4 11/16"	3"	0
CORRECTION FOR CURVATURE	0	1 3/4"	2 3/4"	2 15/16"	2 9/16"	1 9/16"	0	2 5/16"	4 1/4"	6 3/16"	6 3/16"	5 7/16"	4"	2 1/4"	0	1 1/16"	2 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	4 5/16"	6 5/8"	6 11/16"	4 13/16"	2 1/16"	0	3 1/4"	6 15/16"	10 7/8"	11 11/16"	9 15/16"	6 7/16"	2 15/16"	0	2 1/2"	5 9/16"	7 5/8"	7 7/16"	4 3/4"	0

DEFLECTION & CAMBER (GIRDER G5)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/8"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 15/16"	-3 1/16"	-2 15/16"	-1 7/8"	-5/8"	0	-3/8"	-1 3/8"	-2 9/16"	-3 1/16"	-2 9/16"	-1 3/8"	-3/8"	0	-5/8"	-1 7/8"	-2 15/16"	-3 1/16"	-1 15/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-7/16"	-5/8"	-5/8"	-3/8"	-1/16"	0	-3/16"	-1/2"	-7/8"	-1"	-13/16"	-7/16"	-1/8"	0	-1/8"	-1/2"	-13/16"	-13/16"	-1/2"	0
TOTAL DEAD LOAD DEFLECTION	0	-3"	-4 5/8"	-4 1/2"	-2 7/8"	-7/8"	0	-1 1/16"	-2 5/16"	-4 1/4"	-5 1/16"	-4 3/16"	-2 1/4"	-5/8"	0	-15/16"	-3"	-4 11/16"	-4 13/16"	-3 1/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3"	4 5/8"	4 1/2"	2 7/8"	7/8"	0	1 1/16"	2 5/16"	4 1/4"	5 1/16"	4 3/16"	2 1/4"	5/8"	0	15/16"	3"	4 11/16"	4 13/16"	3 1/16"	0
CORRECTION FOR CURVATURE	0	1 3/4"	2 3/4"	3"	2 5/8"	1 5/8"	0	2 1/4"	4"	5 1/2"	5 5/8"	5 1/16"	3 3/4"	2 1/8"	0	1 1/16"	2 1/16"	3 1/16"	2 1/16"	1 1/16"	0
TOTAL CAMBER REQUIRED	0	4 3/4"	7 3/8"	7 1/2"	5 1/2"	2 1/2"	0	2 15/16"	6 5/16"	9 3/4"	10 11/16"	9 1/4"	6"	2 3/4"	0	2 5/8"	5 1/16"	7 3/4"	7 1/2"	4 3/4"	0

NOTE:

1. FOR DEFLECTION AND CAMBER DIAGRAM, SEE SHEET 35 / 57 .

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DESIGNED JJS | DRAWN MHD | REVIEWED MPH | DATE 6-07
CHECKED AMT | REVISED | STRUCTURE FILE NUMBER 570871 0

DEFLECTION AND CAMBER TABLES (SHEET 1 OF 3)
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmdck Time: 3:20:05 PM
DATE: 7/27/2007 FILE: g:\co04\0066\bridge\steel dft\caddt\steel123828ed57.dgn

DEFLECTION & CAMBER (GIRDER G6)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-2 1/2"	-3 15/16"	-3 13/16"	-2 7/16"	-3/4"	0	-1/2"	-1 3/4"	-3 5/16"	-4"	-3 5/16"	-1 3/4"	-1/2"	0	-3/4"	-2 7/16"	-3 13/16"	-3 15/16"	-2 1/2"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-1/8"	-1/8"	-1/16"	0	0	-1/8"	-1/4"	-3/8"	-7/16"	-3/8"	-3/16"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-3 1/4"	-5"	-4 7/8"	-3 1/8"	-15/16"	0	-3/4"	-2 7/16"	-4 1/2"	-5 7/16"	-4 1/2"	-2 3/8"	-1 1/16"	0	-1"	-3 1/4"	-5 1/16"	-5 3/16"	-3 5/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3 1/4"	5"	4 7/8"	3 1/8"	15/16"	0	3/4"	2 7/16"	4 1/2"	5 7/16"	4 1/2"	2 3/8"	1 1/16"	0	1"	3 1/4"	5 1/16"	5 3/16"	3 5/16"	0
CORRECTION FOR VERTICAL CURVE	0	1 3/4"	2 3/4"	3 1/16"	2 1/16"	1 1/16"	0	2 1/16"	3 9/16"	4 3/4"	5 1/16"	4 5/8"	3 1/2"	2"	0	1 1/16"	2 1/16"	3 1/16"	2 3/4"	1 1/16"	0
TOTAL CAMBER REQUIRED	0	5"	7 3/4"	7 15/16"	5 13/16"	2 5/8"	0	2 13/16"	6"	9 1/4"	10 1/2"	9 1/8"	5 7/8"	2 1/16"	0	2 1/16"	5 15/16"	8 1/8"	7 15/16"	5"	0

DEFLECTION & CAMBER (GIRDER G7 & 8)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-2 3/16"	-3 7/16"	-3 5/16"	-2 1/8"	-1 1/16"	0	-7/16"	-1 1/2"	-2 7/8"	-3 7/16"	-2 7/8"	-1 1/2"	-7/16"	0	-1 1/16"	-2 1/8"	-3 5/16"	-3 7/16"	-2 3/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-1/8"	-1/8"	-1/16"	0	0	-1/8"	-1/4"	-7/16"	-7/16"	-3/8"	-3/16"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 15/16"	-4 1/2"	-4 3/8"	-2 13/16"	-7/8"	0	-1 11/16"	-2 3/16"	-4 1/8"	-4 7/8"	-4 1/16"	-2 1/2"	-5/8"	0	-5/16"	-2 15/16"	-4 9/16"	-4 11/16"	-3"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 15/16"	4 1/2"	4 3/8"	2 13/16"	7/8"	0	1 11/16"	2 3/16"	4 1/8"	4 7/8"	4 1/16"	2 1/8"	5/8"	0	5/16"	2 15/16"	4 9/16"	4 11/16"	3"	0
CORRECTION FOR CURVATURE	0	1 11/16"	2 11/16"	3 1/16"	2 11/16"	1 5/8"	0	1 7/8"	3 3/8"	4 7/16"	4 13/16"	4 7/16"	3 3/8"	2"	0	1 11/16"	2 3/4"	3 1/16"	2 3/4"	1 11/16"	0
TOTAL CAMBER REQUIRED	0	4 5/8"	7 3/16"	7 7/16"	5 1/2"	2 1/2"	0	2 9/16"	5 9/16"	8 9/16"	9 11/16"	8 1/2"	5 1/2"	2 5/8"	0	2 5/8"	5 11/16"	7 5/8"	7 7/16"	4 11/16"	0

DEFLECTION & CAMBER (GIRDER G9)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-2 1/2"	-3 15/16"	-3 13/16"	-2 7/16"	-3/4"	0	-1/2"	-1 3/4"	-3 5/16"	-4"	-3 5/16"	-1 3/4"	-1/2"	0	-3/4"	-2 7/16"	-3 13/16"	-3 15/16"	-2 1/2"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-1/8"	-1/8"	-1/16"	0	0	-1/8"	-1/4"	-3/8"	-7/16"	-3/8"	-3/16"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-3 1/4"	-5"	-4 7/8"	-3 1/8"	-15/16"	0	-3/4"	-2 7/16"	-4 1/2"	-5 7/16"	-4 1/2"	-2 3/8"	-1 1/16"	0	-1"	-3 1/4"	-5 1/16"	-5 3/16"	-3 5/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3 1/4"	5	4 7/8"	3 1/8"	15/16"	0	3/4"	2 7/16"	4 1/2"	5 7/16"	4 1/2"	2 3/8"	1 1/16"	0	1"	3 1/4"	5 1/16"	5 3/16"	3 5/16"	0
CORRECTION FOR CURVATURE	0	1 11/16"	2 11/16"	3 1/16"	2 11/16"	1 5/8"	0	1 7/8"	3 3/8"	4 7/16"	4 13/16"	4 7/16"	3 3/8"	1 15/16"	0	1 11/16"	2 11/16"	3 1/16"	2 3/4"	1 11/16"	0
TOTAL CAMBER REQUIRED	0	4 15/16"	7 1/16"	7 15/16"	5 13/16"	2 9/16"	0	2 5/8"	5 13/16"	8 15/16"	10 1/4"	8 15/16"	5 3/4"	2 5/8"	0	2 1/16"	5 15/16"	8 1/8"	7 15/16"	5"	0

DEFLECTION & CAMBER (GIRDER G10)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 15/16"	-3 1/16"	-2 15/16"	-1 7/8"	-5/8"	0	-3/8"	-1 3/8"	-2 9/16"	-3 1/16"	-2 9/16"	-1 3/8"	-3/8"	0	-5/8"	-1 7/8"	-2 15/16"	-3 1/16"	-1 15/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-7/16"	-5/8"	-5/8"	-3/8"	-1/16"	0	-3/16"	-1/2"	-7/8"	-1"	-13/16"	-7/16"	-1/8"	0	-1/8"	-1/2"	-13/16"	-13/16"	-1/2"	0
TOTAL DEAD LOAD DEFLECTION	0	-3"	-4 5/8"	-4 1/2"	-2 7/8"	-7/8"	0	-1 1/16"	-2 5/16"	-4 1/4"	-5 1/16"	-4 3/16"	-2 1/4"	-5/8"	0	-15/16"	-3"	-4 1/16"	-4 13/16"	-3 1/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3"	4 5/8"	4 1/2"	2 7/8"	7/8"	0	1 1/16"	2 5/16"	4 1/4"	5 1/16"	4 3/16"	2 1/4"	5/8"	0	15/16"	3"	4 1/16"	4 13/16"	3 1/16"	0
CORRECTION FOR CURVATURE	0	1 11/16"	2 11/16"	3"	2 5/8"	1 5/8"	0	1 7/8"	3 5/16"	4 7/16"	4 13/16"	4 7/16"	3 3/8"	1 15/16"	0	1 11/16"	2 11/16"	3 1/16"	2 11/16"	1 11/16"	0
TOTAL CAMBER REQUIRED	0	4 11/16"	7 5/16"	7 1/2"	5 1/2"	2 1/2"	0	2 9/16"	5 5/8"	8 11/16"	9 7/8"	8 5/8"	5 5/8"	2 9/16"	0	2 5/8"	5 11/16"	7 3/4"	7 1/2"	4 3/4"	0

DEFLECTION & CAMBER (GIRDER G11)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 15/16"	-3 1/16"	-2 15/16"	-1 7/8"	-5/8"	0	-3/8"	-1 3/8"	-2 9/16"	-3 1/16"	-2 9/16"	-1 3/8"	-3/8"	0	-5/8"	-1 7/8"	-2 15/16"	-3 1/16"	-1 15/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-7/16"	-5/8"	-5/8"	-3/8"	-1/16"	0	-3/16"	-1/2"	-7/8"	-1"	-13/16"	-7/16"	-1/8"	0	-1/8"	-1/2"	-13/16"	-13/16"	-1/2"	0
TOTAL DEAD LOAD DEFLECTION	0	-3"	-4 5/8"	-4 1/2"	-2 7/8"	-7/8"	0	-1 1/16"	-2 5/16"	-4 1/4"	-5 1/16"	-4 3/16"	-2 1/4"	-5/8"	0	-15/16"	-3"	-4 1/16"	-4 13/16"	-3 1/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3"	4 5/8"	4 1/2"	2 7/8"	7/8"	0	1 1/16"	2 5/16"	4 1/4"	5 1/16"	4 3/16"	2 1/4"	5/8"	0	15/16"	3"	4 1/16"	4 13/16"	3 1/16"	0
CORRECTION FOR CURVATURE	0	1 11/16"	2 11/16"	3 1/16"	2 11/16"	1 5/8"	0	1 7/8"	3 5/16"	4 3/8"	4 3/4"	4 3/8"	3 5/16"	1 7/8"	0	1 11/16"	2 11/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	4 11/16"	7 5/16"	7 9/16"	5 9/16"	2 1/2"	0	2 9/16"	5 5/8"	8 5/8"	9 13/16"	8 9/16"	5 5/16"	2 1/2"	0	2 5/8"	5 11/16"	7 3/4"	7 9/16"	4 13/16"	0

NOTE:

1. FOR DEFLECTION AND CAMBER DIAGRAM, SEE SHEET 35 / 57 .

DEFLECTION AND CAMBER TABLES (SHEET 2 OF 3)

BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)

I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

37 / 57

272 / 316

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DEFLECTION & CAMBER (GIRDER G12)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-2 3/8"	-3 3/4"	-3 11/16"	-2 3/8"	-13/16"	0	-3/8"	-1 7/16"	-2 13/16"	-3 7/16"	-2 15/16"	-1 5/8"	-1/2"	0	-1/2"	-1 13/16"	-2 15/16"	-3 1/16"	-1 15/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-3/16"	-5/16"	-5/16"	-3/16"	-1/16"	0	-1/16"	-1/8"	-1/4"	-5/16"	-1/4"	-1/8"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-3 3/16"	-5"	-4 15/16"	-3 3/16"	-1 1/16"	0	-9/16"	-2"	-3 7/8"	-4 3/4"	-4"	-2 3/16"	-1 1/16"	0	-3/4"	-2 5/8"	-4 3/16"	-4 5/16"	-2 3/4"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3 3/16"	5"	4 15/16"	3 3/16"	1 1/16"	0	9/16"	2"	3 7/8"	4 3/4"	4"	2 3/16"	1 1/16"	0	3/4"	2 5/8"	4 3/16"	4 5/16"	2 3/4"	0
CORRECTION FOR VERTICAL CURVE	0	1 1 1/16"	2 3/4"	3 1/8"	2 3/4"	1 1 1/16"	0	1 1 1/16"	2 7/8"	3 5/8"	4 1/8"	3 15/16"	3 1/16"	1 3/4"	0	1 1 1/16"	2 1 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	4 1/8"	7 3/4"	8 1/16"	5 5/16"	2 3/4"	0	2 1/4"	4 7/8"	7 1/2"	8 7/8"	7 15/16"	5 1/4"	2 7/16"	0	2 7/16"	5 5/16"	7 1/4"	7 1/16"	4 1/2"	0

DEFLECTION & CAMBER (GIRDER G13)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-2 1/4"	-3 9/16"	-3 1/2"	-2 5/16"	-13/16"	0	-1/4"	-1 1/8"	-2 5/16"	-2 15/16"	-2 5/8"	-1 1/2"	-1/2"	0	-1/4"	-1 3/16"	-2 1/16"	-2 3/16"	-1 7/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-3/16"	-5/16"	-5/16"	-3/16"	-1/16"	0	-1/16"	-1/8"	-1/4"	-5/16"	-1/4"	-1/8"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-3 1/16"	-4 13/16"	-4 3/4"	-3 1/8"	-1 1/16"	0	-7/16"	-1 11/16"	-3 3/8"	-4 1/4"	-3 11/16"	-2 1/16"	-1 1/16"	0	-1/2"	-2"	-3 5/16"	-3 7/16"	-2 1/4"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3 1/16"	4 13/16"	4 3/4"	3 1/8"	1 1/16"	0	7/16"	1 11/16"	3 3/8"	4 1/4"	3 11/16"	2 1/16"	1 1/16"	0	1/2"	2"	3 5/16"	3 7/16"	2 1/4"	0
CORRECTION FOR CURVATURE	0	1 1 1/16"	2 1 1/16"	3 1/16"	2 1 1/16"	1 5/8"	0	1 5/8"	2 3/4"	3 1/2"	4 1/16"	3 15/16"	3 1/16"	1 3/4"	0	1 1 1/16"	2 1 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	4 3/4"	7 1/2"	7 13/16"	5 13/16"	2 1 1/16"	0	2 1/16"	4 7/16"	6 7/8"	8 5/16"	7 5/8"	5 1/8"	2 7/16"	0	2 3/16"	4 1 1/16"	6 3/8"	6 3/16"	4"	0

DEFLECTION & CAMBER (GIRDER G14)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-2 1/4"	-3 9/16"	-3 1/2"	-2 5/16"	-13/16"	0	-1/4"	-1 1/8"	-2 5/16"	-2 5/16"	-2 5/8"	-1 1/2"	-1/2"	0	-1/4"	-1 3/16"	-2 1/16"	-2 3/16"	-1 7/16"	0
DEFLECTION DUE TO COMPOSITE DL	0	-3/16"	-5/16"	-5/16"	-3/16"	-1/16"	0	-1/16"	-1/8"	-1/4"	-5/16"	-1/4"	-1/8"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-3 1/16"	-4 13/16"	-4 3/4"	-3 1/8"	-1 1/16"	0	-7/16"	-1 11/16"	-3 3/8"	-4 1/4"	-3 11/16"	-2 1/16"	-1 1/16"	0	-1/2"	-2"	-3 5/16"	-3 7/16"	-2 1/4"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	3 1/16"	4 13/16"	4 3/4"	3 1/8"	1 1/16"	0	7/16"	1 11/16"	3 3/8"	4 1/4"	3 11/16"	2 1/16"	1 1/16"	0	1/2"	2"	3 5/16"	3 7/16"	2 1/4"	0
CORRECTION FOR CURVATURE	0	1 1 1/16"	2 1 1/16"	3 1/8"	2 3/4"	1 1 1/16"	0	1 1 1/16"	2 7/8"	3 9/16"	4 1/16"	3 15/16"	3 1/16"	1 3/4"	0	1 1 1/16"	2 1 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	4 3/4"	7 1/2"	7 7/8"	5 7/8"	2 3/4"	0	2 1/8"	4 9/16"	6 15/16"	8 3/8"	7 5/8"	5 1/8"	2 7/16"	0	2 3/16"	4 1 1/16"	6 3/8"	6 3/16"	4"	0

DEFLECTION & CAMBER (GIRDER G15)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1	1/2	FS2	1/4	1/2	3/4	FS3	1/2	PIER 2	1/2	FS4	1/4	1/2	3/4	FWD. ABUT.
DEFLECTION DUE TO STEEL DEAD LOAD	0	-5/16"	-15/16"	-15/16"	-5/8"	-3/16"	0	-1/8"	-7/16"	-13/16"	-1"	-13/16"	-7/16"	-1/8"	0	-3/16"	-5/8"	-15/16"	-15/16"	-5/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-2 1/16"	-3 1/4"	-3 3/16"	-2 1/16"	-1 1/16"	0	-5/16"	-1 3/16"	-2 3/8"	-2 15/16"	-2 9/16"	-1 3/8"	-7/16"	0	-7/16"	-1 1/2"	-2 7/16"	-2 9/16"	-1 5/8"	0
DEFLECTION DUE TO COMPOSITE DL	0	-3/16"	-5/16"	-5/16"	-3/16"	-1/16"	0	-1/16"	-1/8"	-1/4"	-5/16"	-1/4"	-1/8"	-1/16"	0	-1/16"	-3/16"	-5/16"	-5/16"	-3/16"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 7/8"	-4 1/2"	-4 7/16"	-2 7/8"	-15/16"	0	-1/2"	-1 3/4"	-3 7/16"	-4 1/4"	-3 5/8"	-1 15/16"	-5/8"	0	-1 1/16"	-2 5/16"	-3 11/16"	-3 13/16"	-2 7/16"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 7/8"	4 1/2"	4 7/16"	2 7/8"	15/16"	0	1/2"	1 3/4"	3 7/16"	4 1/4"	3 5/8"	1 15/16"	5/8"	0	1 1/16"	2 5/16"	3 11/16"	3 13/16"	2 7/16"	0
CORRECTION FOR CURVATURE	0	1 1 1/16"	2 1 1/16"	3 1/16"	2 3/4"	1 1 1/16"	0	1 1 1/16"	2 13/16"	3 9/16"	4 1/8"	3 15/16"	3 1/16"	1 13/16"	0	1 1 1/16"	2 1 1/16"	3 1/16"	2 3/4"	1 3/4"	0
TOTAL CAMBER REQUIRED	0	4 9/16"	7 3/16"	7 1/2"	5 5/8"	2 5/8"	0	2 3/16"	4 9/16"	7"	8 3/8"	7 9/16"	5"	2 7/16"	0	2 3/4"	5"	6 3/4"	6 9/16"	4 3/16"	0

DEFLECTION & CAMBER (GIRDER G16)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1
DEFLECTION DUE TO STEEL DEAD LOAD	0	-15/16"	-1 9/16"	-1 13/16"	-1 1/2"	-7/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 3/16"	-2"	-2 5/16"	-2"	-1 1/8"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-3/16"	-1/4"	-3/16"	-1/8"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 1/4"	-3 3/4"	-4 3/8"	-3 11/16"	-2 1/8"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 1/4"	3 3/4"	4 3/8"	3 11/16"	2 1/8"	0
CORRECTION FOR CURVATURE	0	-1 1/4"	-1 3/8"	-1 13/16"	-15/16"	1/8"	0
TOTAL CAMBER REQUIRED	0	1"	2 3/8"	2 9/16"	2 3/4"	2 1/4"	0

DEFLECTION & CAMBER (GIRDER G17)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1
DEFLECTION DUE TO STEEL DEAD LOAD	0	-15/16"	-1 9/16"	-1 13/16"	-1 1/2"	-7/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 3/16"	-2"	-2 5/16"	-2"	-1 1/8"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-3/16"	-1/4"	-3/16"	-1/8"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 1/4"	-3 3/4"	-4 3/8"	-3 11/16"	-2 1/8"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 1/4"	3 3/4"	4 3/8"	3 11/16"	2 1/8"	0
CORRECTION FOR CURVATURE	0	-1 3/16"	-15/16"	-5/8"	1/8"	9/16"	0
TOTAL CAMBER REQUIRED	0	1 1/16"	2 1 3/16"	3 3/4"	3 1 3/16"	2 1 1/16"	0

DEFLECTION & CAMBER (GIRDER G18)

	REAR ABUT.	1/4	1/2	3/4	FS1	1/2	PIER 1
DEFLECTION DUE TO STEEL DEAD LOAD	0	-15/16"	-1 9/16"	-1 13/16"	-1 1/2"	-7/8"	0
DEFLECTION DUE TO REMAINING NON-COMPOSITE DEAD LOAD	0	-1 3/16"	-2"	-2 5/16"	-2"	-1 1/8"	0
DEFLECTION DUE TO COMPOSITE DL	0	-1/8"	-3/16"	-1/4"	-3/16"	-1/8"	0
TOTAL DEAD LOAD DEFLECTION	0	-2 1/4"	-3 3/4"	-4 3/8"	-3 11/16"	-2 1/8"	0
CAMBER REQUIRED FOR DEAD LOAD DEFLECTION	0	2 1/4"	3 3/4"	4 3/8"	3 11/16"	2 1/8"	0
CORRECTION FOR CURVATURE	0	1 5/8"	2 1/2"	2 5/8"	2 5/16"	1 1/2"	0
TOTAL CAMBER REQUIRED	0	3 7/8"	6 1/4"	7"	6"	3 5/8"	0

NOTE:

1. FOR DEFLECTION AND CAMBER DIAGRAM, SEE SHEET 35 / 57 .

LJB Inc. 3100 Research Blvd. P.O. Box 20246
Dayton, OH 45420-0246
(937) 259-0300 tel (937) 259-0100 fax ljbinc.com

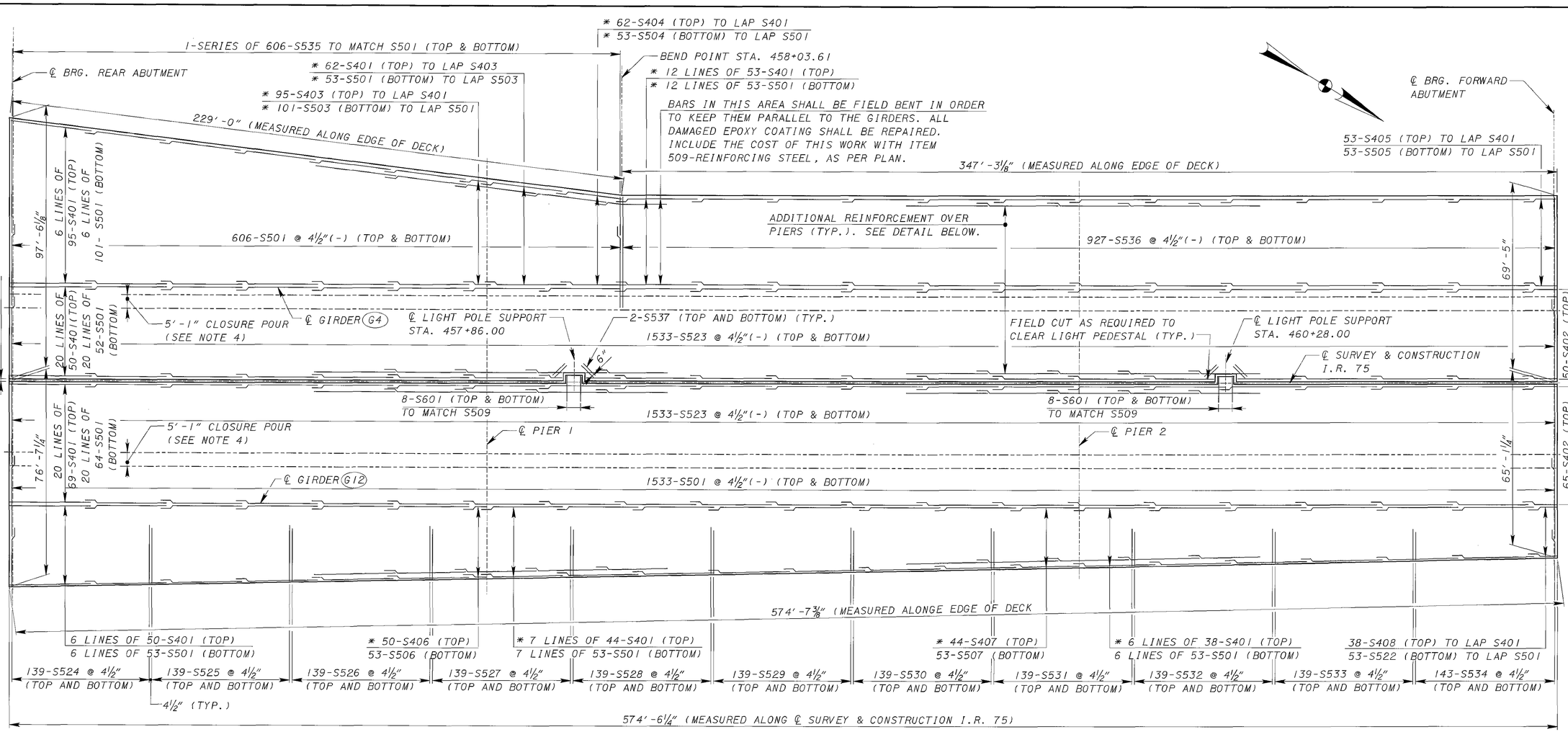
DESIGNED JJS | DRAWN MHD | REVIEWED MPH | DATE 6-07
CHECKED AMT | REVISED | STRUCTURE FILE NUMBER 57087 10

DEFLECTION AND CAMBER TABLES (SHEET 3 OF 3)

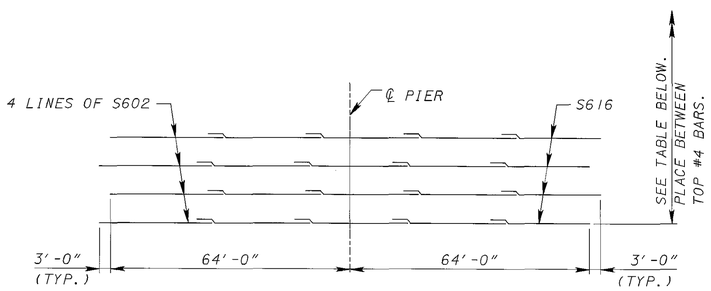
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Time: 3:20:05 PM
DATE: 1/27/2007 FILE: q:\oo04\0056\bridge\steel.dir\oodd\steel23828d59.dgn



SLAB PLAN



ADDITIONAL REINFORCEMENT OVER PIERS

NO. OF LINES OF ADDITIONAL REINFORCEMENT		
PIER	BRIDGE	TOP LAYER
1	LEFT	144
	RIGHT	118
2	LEFT	102
	RIGHT	112

BAR	REQUIRED LAP LENGTH
#4	1'-11"
#5 LONGITUDINAL	2'-0"
#5 TRANSVERSE	3'-2"
#6	3'-10"

NOTES:

1. FOR PARAPET DETAILS, SEE SHEETS 49/57 AND 50/57.
2. FOR LIGHT STANDARD SUPORT DETAILS, SEE SHEET 50/57.
3. FOR REINFORCING STEEL LIST, SEE SHEETS 56/57 AND 57/57.
4. PLACE LONGITUDINAL REINFORCING STEEL ON EITHER SIDE OF CLOSURE POUR TO PROVIDE 2" CLEARANCE TO REINFORCEMENT DURING ALL CONSTRUCTION PHASES.

*5. LAP A LIMITED NUMBER OF LONGITUDINAL REINFORCING BARS. THE NUMBER OF LAPS SHALL MATCH THE NUMBER OF BARS IN ADJACENT SPAN.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1800
CLEVELAND, OHIO 44113-1909

DESIGNED	DRAWN	REVIEWED	DATE
ARC	RCK	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTY		570810	

SLAB PLAN (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523 OVER THE GREAT MIAMI RIVER
I.R. 75

MOT-75-14.60
PID 23828

39/57
274/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:54 PM
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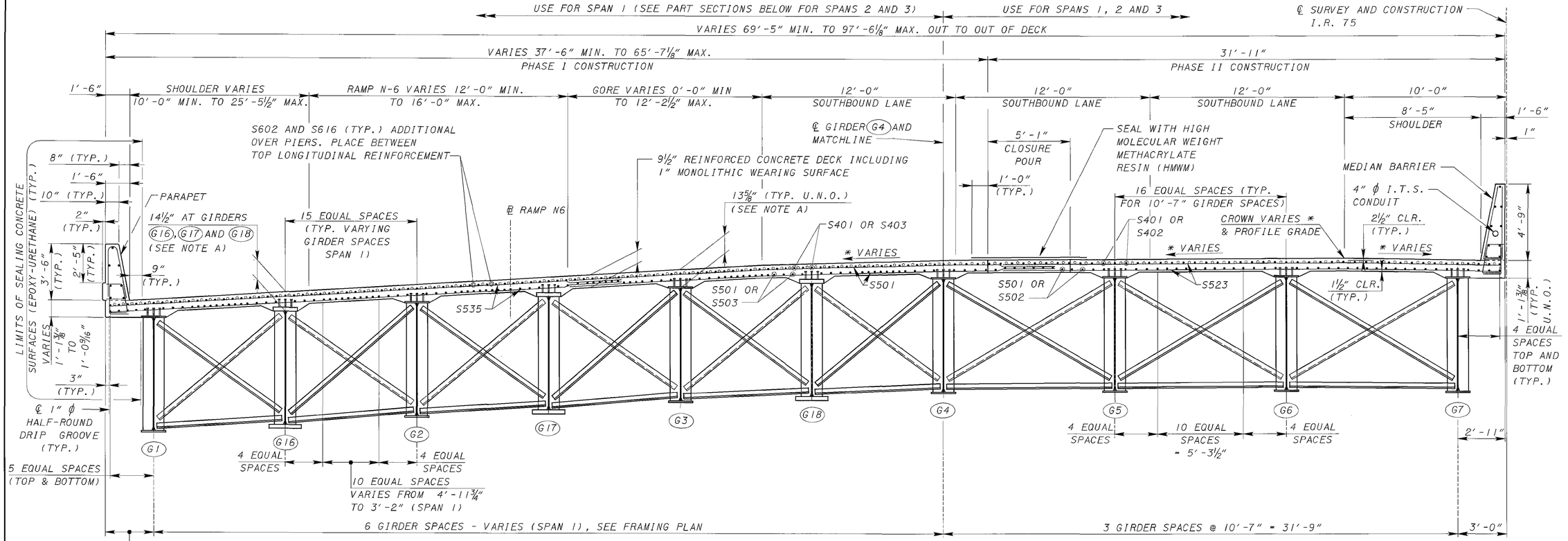
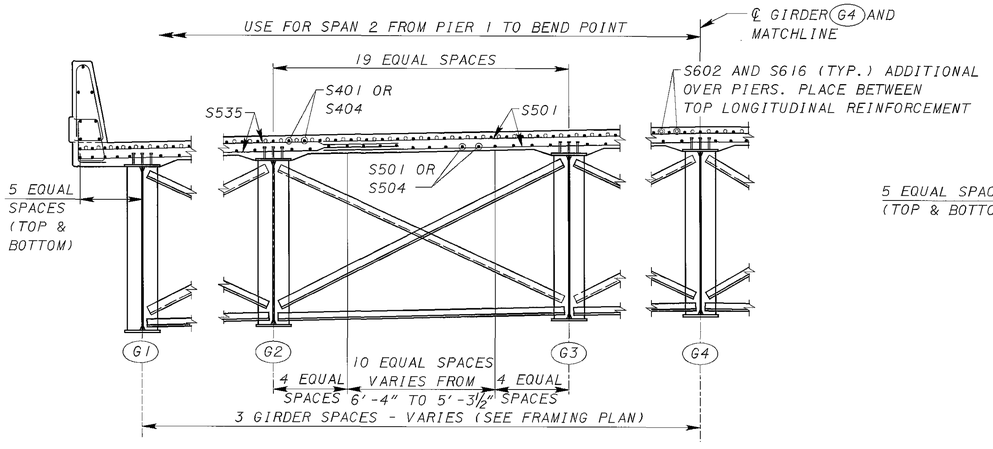
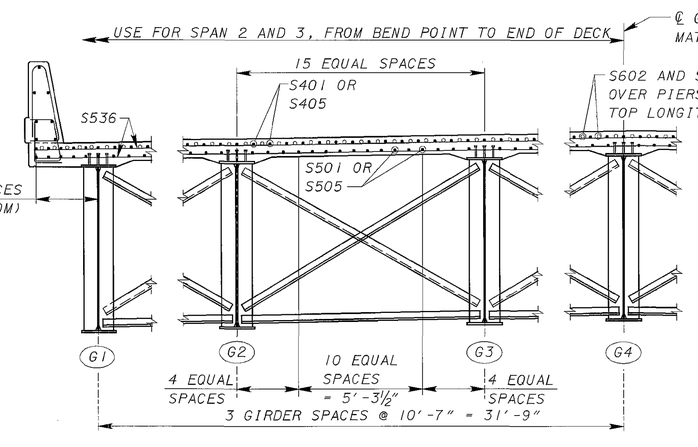


LEFT BRIDGE TRANSVERSE SECTION



LEFT BRIDGE-PART TRANSVERSE SECTION (SPAN 2) (FROM ℄ PIER 1 TO BEND POINT)



LEFT BRIDGE-PART TRANSVERSE SECTION (SPAN 2 AND 3) (FROM BEND POINT TO END OF DECK)

NOTE A:

DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 5 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER FLANGE IS ±3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.

NOTES:

1. FOR GENERAL NOTES, SEE SHEETS 3/57 THRU 6/57.
2. FOR SLAB PLAN, SEE SHEET 39/57.
3. FOR PARAPET AND MEDIAN BARRIER SECTIONS AND DETAILS, SEE SHEET 50/57.
4. FOR FRAMING PLAN, SEE SHEETS 29/57 AND 30/57.
5. * FOR CROSS SLOPES, SEE SHEET 42/57.
6. COST OF THE 4" ϕ I.T.S. CONDUITS SHALL BE INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSQC, SUPERSTRUCTURE (PARAPET)
7. FOR REINFORCING STEEL LIST, SEE SHEETS 56/57 AND 57/57.
8. FOR TYPICAL CONCRETE DECK HAUNCH DETAIL, SEE SHEET 41/57.
9. AFTER THE GIRDERS ARE ERECTED, THE PROJECTED HAUNCH SHALL BE CALCULATED. IF THE HAUNCH EXCEEDS 5", THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER TO DETERMINE IF ADDITIONAL REINFORCING IS REQUIRED.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
ECM	RRC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTY		57087 10	

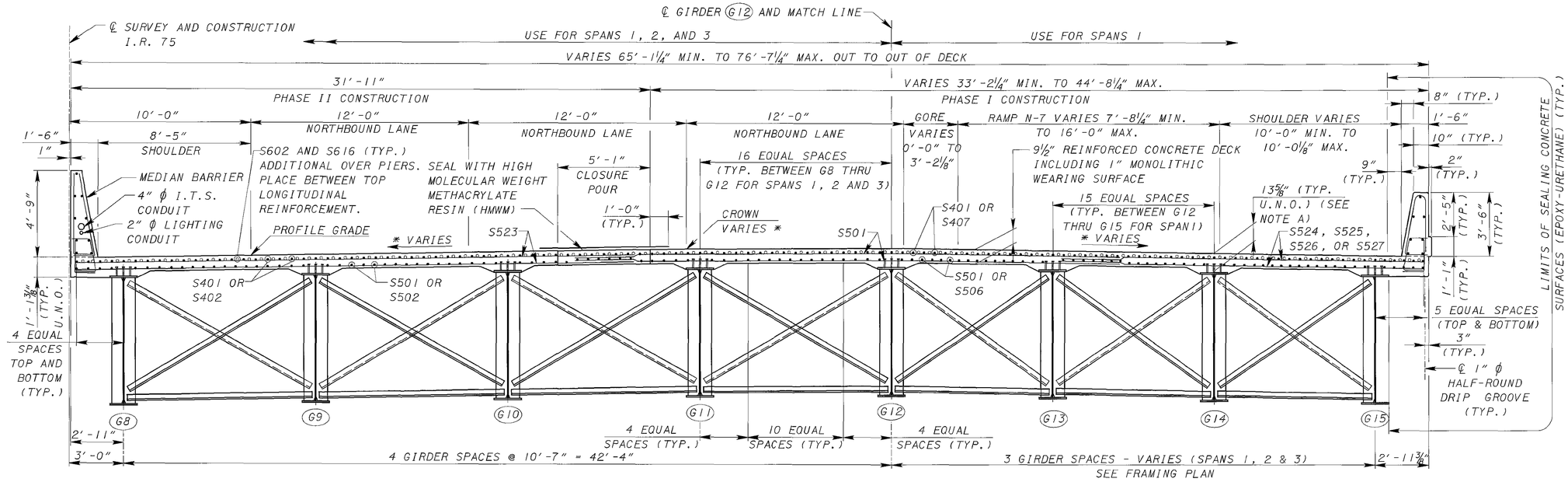
TRANSVERSE SECTION-LEFT BRIDGE (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523 (STEEL)
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

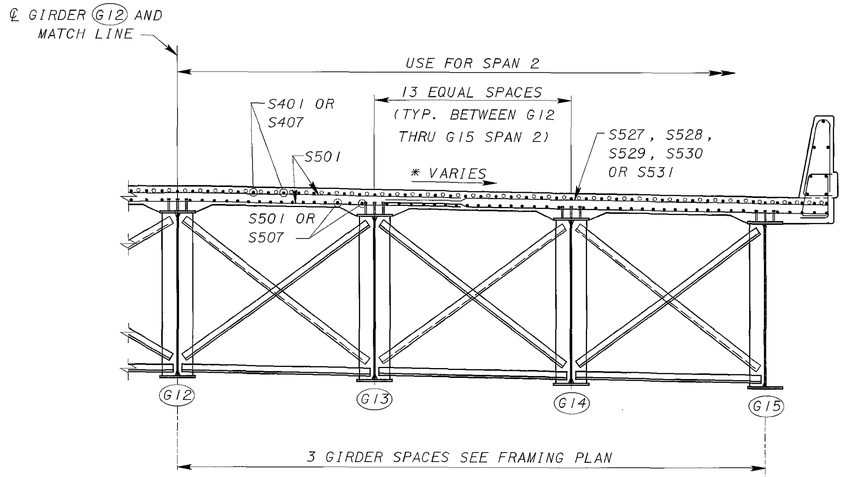
40/57

275/316

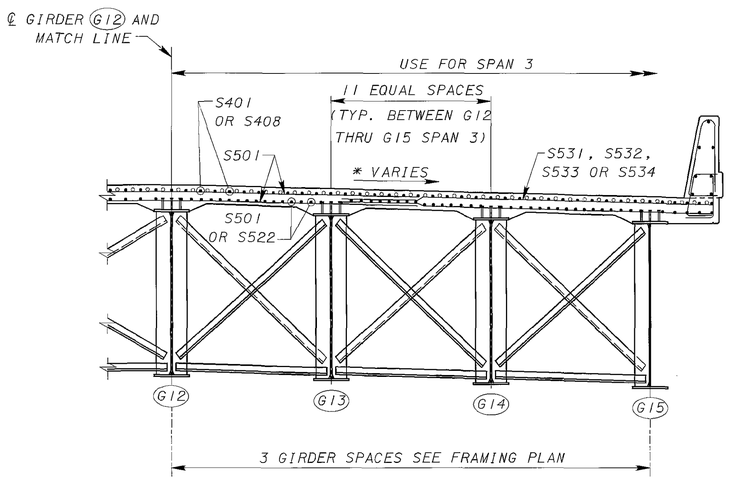
DATE: 1/27/2007 FILE: gr\cad\40056\structure\steel_dtl\cad\sheet23828tsdt.dgn



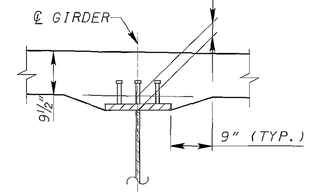
RIGHT BRIDGE TRANSVERSE SECTION



RIGHT BRIDGE-PART TRANSVERSE SECTION (SPAN 2)



RIGHT BRIDGE-PART TRANSVERSE SECTION (SPAN 3)



TYPICAL CONCRETE DECK HAUNCH DETAIL

NOTE A:

DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4⅛ INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH GIRDER FLANGE IS ±3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.

NOTES:

1. FOR GENERAL NOTES, SEE SHEETS 3/57 THRU 6/57.
2. FOR SLAB PLAN, SEE SHEET 39/57.
3. FOR PARAPET AND MEDIAN BARRIER SECTIONS AND DETAILS, SEE SHEET 50/57.
4. FOR FRAMING PLAN, SEE SHEETS 29/57 AND 30/57.
5. * FOR CROSS SLOPES, SEE SHEET 42/57.
6. COST OF THE 4" ϕ I.T.S. CONDUITS AND 2" ϕ CONDUIT SHALL BE INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSQC, SUPERSTRUCTURE (PARAPET)
7. FOR REINFORCING STEEL LIST, SEE SHEETS 56/57 AND 57/57.
8. AFTER THE GIRDERS ARE ERECTED, THE PROJECTED HAUNCH SHALL BE CALCULATED. IF THE HAUNCH EXCEEDS 5", THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER TO DETERMINE IF ADDITIONAL REINFORCING IS REQUIRED.

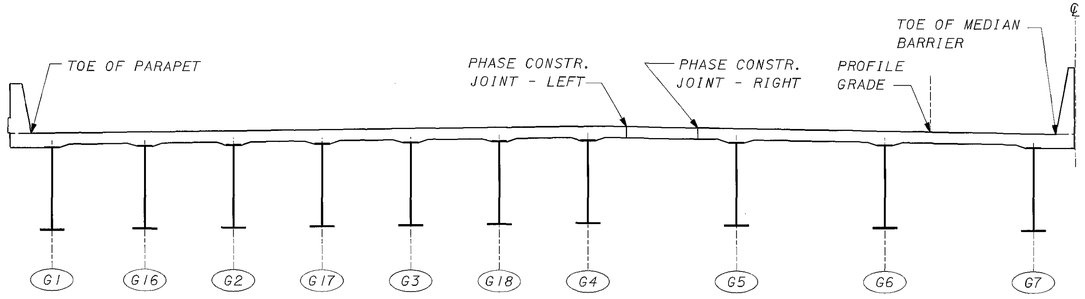
DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
ECM	RRC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTY		5708710	

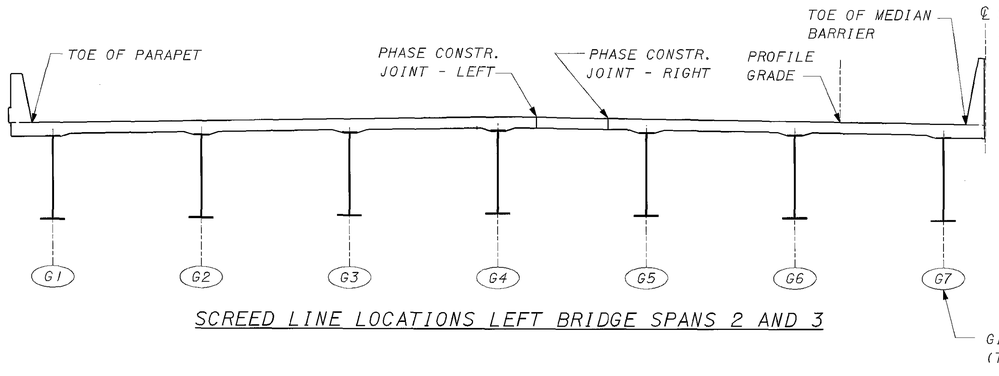
TRANSVERSE SECTION-RIGHT BRIDGE (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
IR-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

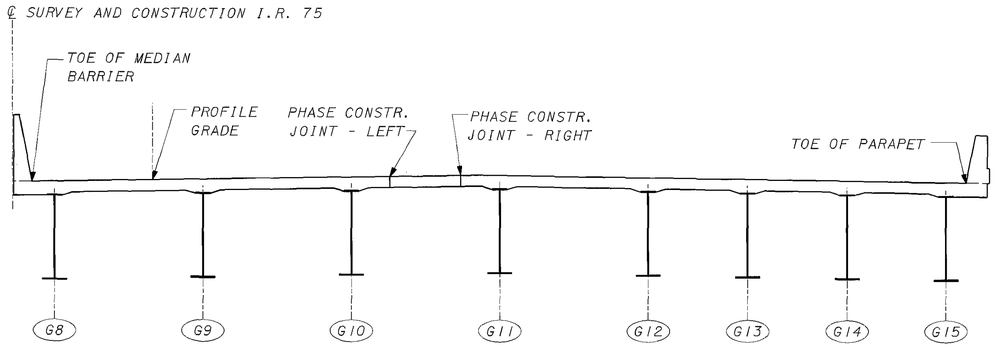
DATE: 7/27/2007 FILE: q:\cdd\006\bridge\steel.dir\cadd\steel23828ts02.dgn



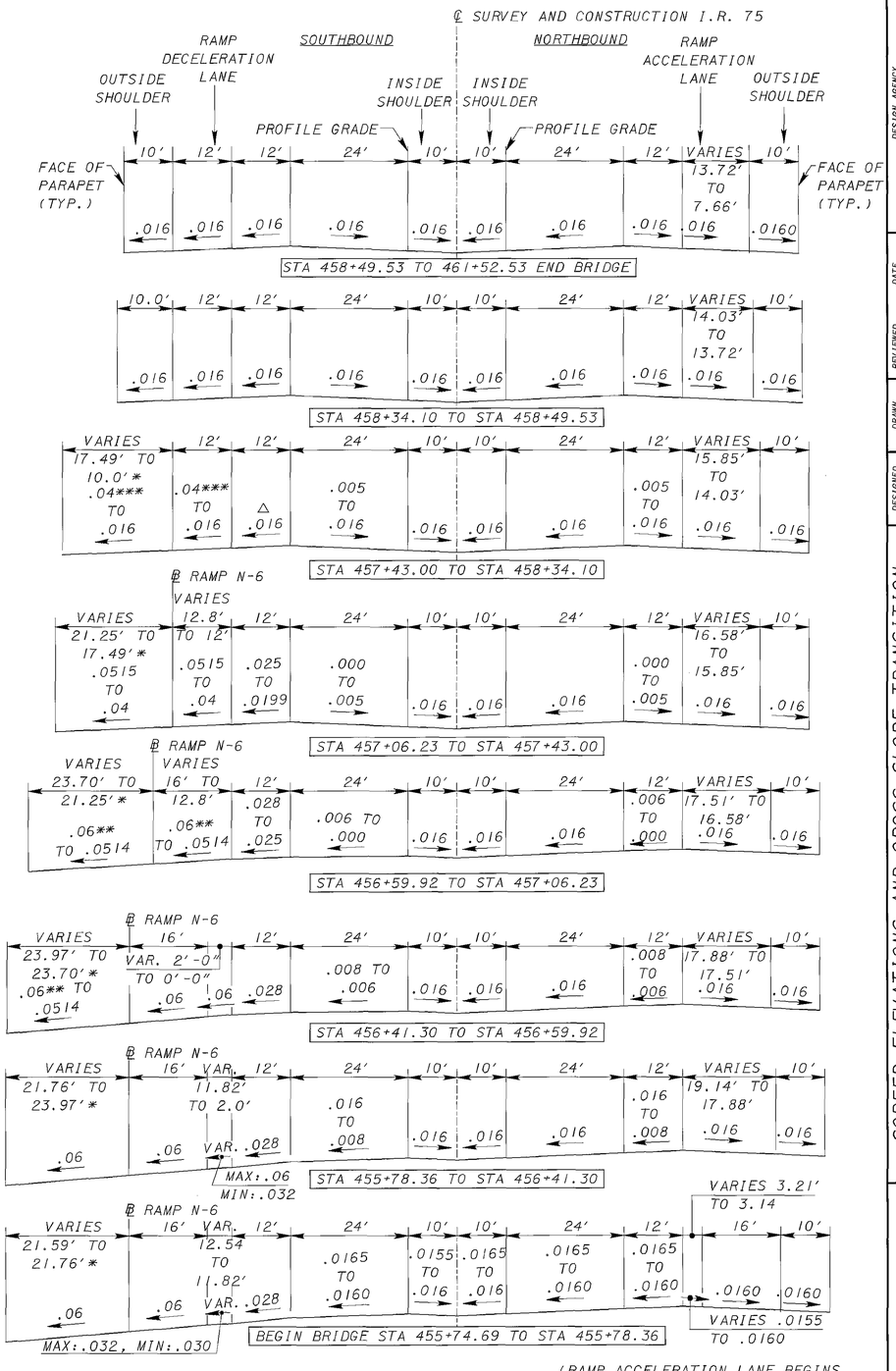
SCREED LINE LOCATIONS LEFT BRIDGE SPAN 1



SCREED LINE LOCATIONS LEFT BRIDGE SPANS 2 AND 3



SCREED LINE LOCATIONS RIGHT BRIDGE



(RAMP ACCELERATION LANE BEGINS TAPER AT STA 452+85.40 FROM 25′ TO 0′ AT A RATE OF 50:1)

CROSS SLOPE TRANSITION DIAGRAM

NOTES:

1. FOR SCREED ELEVATIONS FOR LEFT BRIDGE, SEE SHEETS 43/57 THRU 45/57.

   FOR SCREED ELEVATIONS FOR RIGHT BRIDGE, SEE SHEETS 46/57 THRU 48/57.

LEGEND:

* FACE OF BARRIER TAPERS FROM 96.4′ LEFT OF ℄ AT STA 455+74.69 TO 68′ LEFT OF ℄ AT STA 458+03.61

** SUPERELEVATION TRANSITION BEGINS AT STA. 456+79.00, RAMP N-6

*** TRANSITION ENDS AT STA. 458+19.80, I.R. 75

△ VARIES .0199 TO .016, STA. 457+43.00 TO 457+73.88

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

REVIEWED	DATE
RER	06/01/07
DRAWN	STRUCTURE FILE NUMBER
RRC	570710
DESIGNED	REVISED
RRC	
CHECKED	
GHD	

SCREED ELEVATIONS AND CROSS SLOPE TRANSITION
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

42/57

277/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:54 PM
Filename: g:\co04\0066\bridge\steel.dir\cadd\steel23828sd07.dgn

SCREED ELEVATIONS - LEFT BRIDGE SPAN 1

LOCATION		℄ BEARING REAR ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	F.S. 1	0.7	0.8	0.9	℄ BEARING PIER 1
	STATION	455+77.61	455+95.21	456+12.81	456+30.41	456+48.01	456+65.61	456+83.21	456+97.61	457+00.81	457+18.41	457+36.01	457+53.61
TOE OF PARAPET (LEFT)	FINAL DECK ELEVATION	764.88	765.39	765.88	766.40	766.92	767.42	767.96	768.45	768.62	769.25	769.83	770.37
	SCREED ELEVATION	764.88	765.49	766.07	766.64	767.18	767.66	768.15	768.59	768.74	769.30	769.84	770.37
G1	FINAL DECK ELEVATION	764.98	765.48	765.97	766.49	767.01	767.51	768.05	768.53	768.70	769.32	769.90	770.43
	SCREED ELEVATION	764.98	765.58	766.16	766.73	767.27	767.75	768.24	768.67	768.82	769.37	769.90	770.43
G16	FINAL DECK ELEVATION	765.63	766.08	766.54	767.03	767.52	768.00	768.50	768.94	769.09	769.65	770.18	770.66
	SCREED ELEVATION	765.63	766.15	766.66	767.20	767.72	768.21	768.70	769.12	769.27	769.78	770.25	770.66
G2	FINAL DECK ELEVATION	766.28	766.68	767.11	767.56	768.03	768.48	768.96	769.35	769.49	769.99	770.46	770.89
	SCREED ELEVATION	766.28	766.78	767.28	767.78	768.26	768.68	769.11	769.45	769.57	770.01	770.45	770.89
G17	FINAL DECK ELEVATION	766.93	767.29	767.68	768.10	768.54	768.97	769.41	769.76	769.88	770.33	770.74	771.12
	SCREED ELEVATION	766.93	767.35	767.80	768.27	768.74	769.18	769.62	769.94	770.05	770.45	770.81	771.12
G3	FINAL DECK ELEVATION	767.45	767.86	768.25	768.64	769.05	769.46	769.87	770.17	770.27	770.66	771.03	771.36
	SCREED ELEVATION	767.45	767.96	768.42	768.85	769.28	769.66	770.02	770.27	770.36	770.69	771.02	771.36
G18	FINAL DECK ELEVATION	767.76	768.22	768.66	769.08	769.47	769.85	770.22	770.47	770.56	770.89	771.21	771.50
	SCREED ELEVATION	767.76	768.29	768.79	769.25	769.68	770.06	770.42	770.65	770.73	771.02	771.28	771.50
G4	FINAL DECK ELEVATION	768.04	768.49	768.92	769.33	769.71	770.07	770.42	770.67	770.75	771.06	771.35	771.62
	SCREED ELEVATION	768.04	768.59	769.11	769.57	769.97	770.31	770.61	770.80	770.87	771.11	771.35	771.62
PHASE CONSTR. JOINT - LEFT	FINAL DECK ELEVATION	768.10	768.54	768.96	769.37	769.75	770.10	770.45	770.69	770.77	771.07	771.36	771.62
	SCREED ELEVATION	768.10	768.64	769.15	769.61	770.00	770.34	770.63	770.82	770.89	771.12	771.36	771.62
PHASE CONSTR. JOINT - RIGHT	FINAL DECK ELEVATION	768.18	768.61	769.02	769.41	769.78	770.13	770.46	770.69	770.77	771.06	771.34	771.59
	SCREED ELEVATION	768.18	768.73	769.25	769.71	770.10	770.43	770.71	770.88	770.94	771.15	771.36	771.59
G5	FINAL DECK ELEVATION	768.22	768.65	769.05	769.44	769.80	770.15	770.47	770.70	770.78	771.06	771.33	771.57
	SCREED ELEVATION	768.22	768.77	769.28	769.74	770.12	770.45	770.71	770.88	770.94	771.14	771.35	771.57
G6	FINAL DECK ELEVATION	768.39	768.80	769.18	769.54	769.88	770.20	770.50	770.71	770.78	771.04	771.28	771.50
	SCREED ELEVATION	768.39	768.93	769.43	769.87	770.23	770.53	770.77	770.92	770.96	771.13	771.31	771.50
PROFILE GRADE	FINAL DECK ELEVATION	768.45	768.85	769.22	769.57	769.91	770.22	770.51	770.72	770.79	771.04	771.27	771.48
	SCREED ELEVATION	768.45	768.98	769.47	769.90	770.26	770.55	770.78	770.92	770.97	771.13	771.29	771.48
G7	FINAL DECK ELEVATION	768.34	768.73	769.11	769.46	769.80	770.11	770.40	770.60	770.67	770.92	771.16	771.37
	SCREED ELEVATION	768.34	768.85	769.33	769.75	770.10	770.40	770.64	770.78	770.83	771.00	771.18	771.37
TOE OF MEDIAN BARRIER (RIGHT)	FINAL DECK ELEVATION	768.32	768.71	769.08	769.44	769.77	770.09	770.38	770.58	770.65	770.90	771.13	771.34
	SCREED ELEVATION	768.32	768.83	769.30	769.72	770.08	770.37	770.61	770.76	770.81	770.98	771.15	771.34

NOTES:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
2. TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 42/57.
3. FOR SCREED ELEVATIONS FOR LEFT BRIDGE SPANS 2 AND 3, SEE SHEETS 44/57 AND 45/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
RRC	RRC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		570871.0	

SCREED ELEVATIONS - LEFT BRIDGE SPAN 1
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:51 PM
Filename: g:\co04\0066\bridge\steel_alt\cadd\steel23828sc01.dgn

SCREED ELEVATIONS - LEFT BRIDGE SPAN 2

LOCATION		℄ BEARING PIER 1	0.1	0.2	F.S. 2	0.3	0.4	0.5	0.6	0.7	F.S. 3	0.8	0.9	℄ BEARING PIER 2
	STATION	457+53.61	457+75.61	457+97.61	458+03.61	458+19.61	458+41.61	458+63.61	458+85.61	459+07.61	459+23.61	459+29.61	459+51.61	459+73.61
TOE OF PARAPET (LEFT)	FINAL DECK ELEVATION	770.37	770.98	771.48	771.61	771.88	772.07	772.17	772.25	772.29	772.30	772.30	772.28	772.23
	SCREED ELEVATION	770.37	771.08	771.67	771.81	772.13	772.40	772.53	772.57	772.53	772.46	772.43	772.32	772.23
G1	FINAL DECK ELEVATION	770.43	771.02	771.52	771.64	771.91	772.09	772.20	772.27	772.31	772.32	772.32	772.30	772.25
	SCREED ELEVATION	770.43	771.12	771.70	771.84	772.16	772.42	772.55	772.59	772.55	772.48	772.45	772.34	772.25
G16	FINAL DECK ELEVATION	770.66	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	770.66	-	-	-	-	-	-	-	-	-	-	-	-
G2	FINAL DECK ELEVATION	770.89	771.37	771.76	771.86	772.08	772.26	772.37	772.44	772.48	772.49	772.49	772.47	772.42
	SCREED ELEVATION	770.89	771.44	771.96	772.09	772.40	772.68	772.81	772.84	772.78	772.69	772.65	772.52	772.42
G17	FINAL DECK ELEVATION	771.12	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	771.12	-	-	-	-	-	-	-	-	-	-	-	-
G3	FINAL DECK ELEVATION	771.36	771.72	772.01	772.08	772.25	772.43	772.53	772.61	772.65	772.66	772.66	772.64	772.59
	SCREED ELEVATION	771.36	771.79	772.21	772.31	772.57	772.84	772.98	773.01	772.94	772.86	772.82	772.69	772.59
G18	FINAL DECK ELEVATION	771.50	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	771.50	-	-	-	-	-	-	-	-	-	-	-	-
G4	FINAL DECK ELEVATION	771.62	771.91	772.12	772.23	772.37	772.60	772.70	772.78	772.82	772.83	772.83	772.81	772.76
	SCREED ELEVATION	771.62	771.96	772.27	772.42	772.64	772.94	773.08	773.12	773.07	773.00	772.97	772.85	772.76
PHASE CONSTR. JOINT - LEFT	FINAL DECK ELEVATION	771.62	771.91	772.17	772.24	772.40	772.58	772.68	772.76	772.80	772.81	772.81	772.79	772.74
	SCREED ELEVATION	771.62	771.96	772.32	772.42	772.67	772.92	773.06	773.10	773.05	772.98	772.95	772.83	772.74
PHASE CONSTR. JOINT - RIGHT	FINAL DECK ELEVATION	771.59	771.86	772.11	772.17	772.33	772.50	772.60	772.68	772.72	772.73	772.73	772.71	772.66
	SCREED ELEVATION	771.59	771.90	772.24	772.33	772.56	772.81	772.94	772.99	772.95	772.88	772.85	772.74	772.66
G5	FINAL DECK ELEVATION	771.57	771.84	772.08	772.14	772.29	772.45	772.56	772.63	772.68	772.69	772.69	772.67	772.61
	SCREED ELEVATION	771.57	771.88	772.21	772.29	772.52	772.76	772.90	772.94	772.90	772.84	772.81	772.70	772.61
G6	FINAL DECK ELEVATION	771.50	771.75	771.96	772.01	772.14	772.28	772.39	772.46	772.51	772.52	772.52	772.50	772.44
	SCREED ELEVATION	771.50	771.78	772.09	772.18	772.39	772.62	772.76	772.80	772.75	772.68	772.65	772.53	772.44
PROFILE GRADE	FINAL DECK ELEVATION	771.48	771.71	771.92	771.97	772.09	772.23	772.33	772.41	772.45	772.46	772.46	772.44	772.39
	SCREED ELEVATION	771.48	771.75	772.05	772.13	772.34	772.56	772.70	772.74	772.70	772.62	772.59	772.47	772.39
G7	FINAL DECK ELEVATION	771.37	771.60	771.80	771.85	771.97	772.11	772.22	772.30	772.34	772.35	772.35	772.33	772.27
	SCREED ELEVATION	771.37	771.63	771.92	772.00	772.20	772.41	772.55	772.59	772.56	772.49	772.46	772.36	772.27
TOE OF MEDIAN BARRIER (RIGHT)	FINAL DECK ELEVATION	771.34	771.58	771.78	771.83	771.95	772.09	772.20	772.27	772.32	772.33	772.33	772.30	772.25
	SCREED ELEVATION	771.34	771.61	771.90	771.98	772.17	772.39	772.52	772.57	772.53	772.47	772.44	772.34	772.25

NOTES:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
2. TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 42/57.
3. FOR SCREED ELEVATIONS FOR LEFT BRIDGE SPANS 1 AND 3, SEE SHEETS 43/57 AND 45/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED RRC | DRAWN RRC | REVIEWED RER | DATE 06/01/07
CHECKED GHD | REVISED | STRUCTURE FILE NUMBER 570810

SCREED ELEVATIONS - LEFT BRIDGE SPAN 2
(STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

44/57

279/316

Plotted By: eamack Date: 7/27/2007 Time: 3:19:52 PM
Filename: g:\co04\0066\bridge\steel.alt\cadd\steel23828sd02.dgn

SCREED ELEVATIONS - LEFT BRIDGE SPAN 3

LOCATION		℄ BEARING PIER 2	0.1	0.2	0.3	F.S. 4	0.4	0.5	0.6	0.7	0.8	0.9	℄ BEARING FWD. ABUT.
	STATION	459+73.61	459+91.21	460+08.81	460+26.41	460+29.61	460+44.01	460+61.61	460+79.21	460+96.81	461+14.41	461+32.01	461+49.61
TOE OF PARAPET (LEFT)	FINAL DECK ELEVATION	772.23	772.16	772.07	771.97	771.94	771.84	771.69	771.53	771.34	771.13	770.90	770.65
	SCREED ELEVATION	772.23	772.21	772.22	772.22	772.18	772.08	771.99	771.84	771.63	771.35	771.02	770.65
G1	FINAL DECK ELEVATION	772.25	772.18	772.10	771.99	771.96	771.86	771.72	771.55	771.36	771.15	770.92	770.67
	SCREED ELEVATION	772.25	772.23	772.24	772.24	772.21	772.11	772.02	771.87	771.65	771.38	771.05	770.67
G16	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-
G2	FINAL DECK ELEVATION	772.42	772.35	772.27	772.16	772.13	772.03	771.89	771.72	771.53	771.32	771.09	770.84
	SCREED ELEVATION	772.42	772.37	772.35	772.34	772.33	772.30	772.22	772.08	771.86	771.58	771.23	770.84
G17	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-
G3	FINAL DECK ELEVATION	772.59	772.52	772.44	772.33	772.30	772.20	772.06	771.89	771.70	771.49	771.26	771.01
	SCREED ELEVATION	772.59	772.54	772.52	772.51	772.50	772.47	772.39	772.24	772.03	771.75	771.40	771.01
G18	FINAL DECK ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-
	SCREED ELEVATION	-	-	-	-	-	-	-	-	-	-	-	-
G4	FINAL DECK ELEVATION	772.76	772.69	772.61	772.50	772.47	772.37	772.23	772.06	771.87	771.66	771.43	771.18
	SCREED ELEVATION	772.76	772.71	772.69	772.67	772.65	772.62	772.53	772.38	772.17	771.89	771.56	771.18
PHASE CONSTR. JOINT - LEFT	FINAL DECK ELEVATION	772.74	772.67	772.59	772.48	772.45	772.35	772.21	772.04	771.85	771.64	771.41	771.16
	SCREED ELEVATION	772.74	772.69	772.67	772.65	772.63	772.60	772.51	772.36	772.15	771.87	771.54	771.16
PHASE CONSTR. JOINT - RIGHT	FINAL DECK ELEVATION	772.66	772.59	772.50	772.40	772.37	772.27	772.12	771.96	771.77	771.56	771.33	771.08
	SCREED ELEVATION	772.66	772.61	772.59	772.57	772.56	772.53	772.44	772.29	772.07	771.79	771.46	771.08
G5	FINAL DECK ELEVATION	772.61	772.55	772.46	772.35	772.32	772.23	772.08	771.91	771.72	771.51	771.29	771.04
	SCREED ELEVATION	772.61	772.57	772.55	772.53	772.52	772.48	772.39	772.24	772.03	771.75	771.41	771.04
G6	FINAL DECK ELEVATION	772.44	772.38	772.29	772.19	772.15	772.06	771.91	771.74	771.55	771.35	771.12	770.87
	SCREED ELEVATION	772.44	772.40	772.39	772.38	772.37	772.34	772.26	772.11	771.89	771.61	771.26	770.87
PROFILE GRADE	FINAL DECK ELEVATION	772.39	772.32	772.23	772.13	772.10	772.00	771.85	771.69	771.50	771.29	771.06	770.81
	SCREED ELEVATION	772.39	772.35	772.33	772.32	772.31	772.28	772.20	772.05	771.83	771.55	771.20	770.81
G7	FINAL DECK ELEVATION	772.27	772.21	772.12	772.02	771.98	771.89	771.74	771.57	771.38	771.18	770.95	770.70
	SCREED ELEVATION	772.27	772.23	772.21	772.18	772.17	772.14	772.04	771.90	771.68	771.40	771.07	770.70
TOE OF MEDIAN BARRIER (RIGHT)	FINAL DECK ELEVATION	772.25	772.19	772.10	771.99	771.96	771.87	771.72	771.55	771.36	771.15	770.92	770.67
	SCREED ELEVATION	772.25	772.21	772.19	772.16	772.15	772.11	772.02	771.87	771.66	771.38	771.05	770.67

NOTES:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
2. TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 42/57.
3. FOR SCREED ELEVATIONS FOR LEFT BRIDGE SPANS 1 AND 2, SEE SHEETS 43/57 AND 44/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE - SUITE 1800, CLEVELAND, OHIO 44113-1901

DESIGNED ARC | DRAWN RRC | REVIEWED RER | DATE 06/01/07

CHECKED GHD | REVISED | STRUCTURE FILE NUMBER 570871.0

SCREED ELEVATIONS - LEFT BRIDGE SPAN 3
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

45/57

280/316

Plotted By: emack Date: 7/27/2007 Time: 3:19:52 PM
Filename: g:\co04\0066\bridge\steel_alt\cadd\steel23828sd03.dgn

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 1

LOCATION		℄ BEARING REAR ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	F.S. 1	0.7	0.8	0.9	℄ BEARING PIER 1
	STATION	455+77.61	455+95.21	456+12.81	456+30.41	456+48.01	456+65.61	456+83.21	456+97.61	457+00.81	457+18.41	457+36.01	457+53.61
TOE OF MEDIAN BARRIER (LEFT)	FINAL DECK ELEVATION	768.31	768.71	769.08	769.44	769.77	770.09	770.38	770.58	770.65	770.90	771.13	771.34
	SCREED ELEVATION	768.31	768.83	769.30	769.72	770.08	770.37	770.61	770.76	770.81	770.98	771.15	771.34
G8	FINAL DECK ELEVATION	768.34	768.73	769.11	769.46	769.80	770.11	770.40	770.60	770.67	770.92	771.16	771.37
	SCREED ELEVATION	768.34	768.85	769.33	769.75	770.10	770.40	770.64	770.78	770.83	771.00	771.18	771.37
PROFILE GRADE	FINAL DECK ELEVATION	768.45	768.85	769.22	769.57	769.91	770.22	770.51	770.72	770.79	771.04	771.27	771.48
	SCREED ELEVATION	768.45	768.98	769.47	769.90	770.26	770.55	770.78	770.92	770.97	771.13	771.29	771.48
G9	FINAL DECK ELEVATION	768.51	768.90	769.28	769.63	769.96	770.28	770.57	770.77	770.84	771.09	771.33	771.54
	SCREED ELEVATION	768.51	769.04	769.53	769.96	770.32	770.61	770.84	770.98	771.02	771.19	771.35	771.54
G10	FINAL DECK ELEVATION	768.68	769.07	769.45	769.80	770.13	770.45	770.74	770.94	771.01	771.26	771.49	771.71
	SCREED ELEVATION	768.68	769.20	769.67	770.09	770.45	770.75	770.98	771.13	771.18	771.35	771.52	771.71
PHASE CONSTR. JOINT - LEFT	FINAL DECK ELEVATION	768.72	769.12	769.49	769.84	770.18	770.49	770.78	770.99	771.06	771.31	771.54	771.75
	SCREED ELEVATION	768.72	769.24	769.72	770.14	770.50	770.79	771.03	771.17	771.22	771.39	771.56	771.75
PHASE CONSTR. JOINT - RIGHT	FINAL DECK ELEVATION	768.80	769.20	769.57	769.93	770.26	770.57	770.87	771.07	771.14	771.39	771.62	771.83
	SCREED ELEVATION	768.80	769.32	769.80	770.22	770.58	770.87	771.11	771.25	771.30	771.47	771.64	771.83
G11	FINAL DECK ELEVATION	768.85	769.24	769.61	769.96	770.30	770.61	770.90	771.10	771.17	771.42	771.65	771.86
	SCREED ELEVATION	768.85	769.36	769.84	770.26	770.62	770.91	771.14	771.29	771.33	771.50	771.67	771.86
G12	FINAL DECK ELEVATION	769.02	769.39	769.74	770.06	770.37	770.66	770.93	771.11	771.18	771.40	771.61	771.79
	SCREED ELEVATION	769.02	769.52	769.98	770.39	770.73	771.00	771.21	771.33	771.37	771.50	771.64	771.79
G13	FINAL DECK ELEVATION	768.89	769.26	769.61	769.94	770.25	770.54	770.80	770.99	771.05	771.28	771.48	771.67
	SCREED ELEVATION	768.89	769.38	769.84	770.24	770.58	770.85	771.07	771.19	771.24	771.38	771.51	771.67
G14	FINAL DECK ELEVATION	768.74	769.11	769.46	769.79	770.10	770.39	770.66	770.85	770.91	771.14	771.35	771.53
	SCREED ELEVATION	768.74	769.23	769.69	770.09	770.44	770.71	770.93	771.06	771.10	771.24	771.38	771.53
G15	FINAL DECK ELEVATION	768.59	768.96	769.31	769.64	769.96	770.25	770.52	770.71	770.77	771.00	771.21	771.40
	SCREED ELEVATION	768.59	769.08	769.53	769.93	770.27	770.55	770.77	770.90	770.94	771.09	771.24	771.40
TOE OF PARAPET (RIGHT)	FINAL DECK ELEVATION	768.56	768.93	769.29	769.62	769.93	770.23	770.50	770.69	770.75	770.98	771.19	771.38
	SCREED ELEVATION	768.56	769.05	769.51	769.91	770.24	770.52	770.74	770.88	770.92	771.07	771.21	771.38

NOTES:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
2. TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 42/57.
3. FOR SCREED ELEVATIONS FOR RIGHT BRIDGE SPANS 2 AND 3, SEE SHEETS 47/57 AND 48/57 .

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE - SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
RRC	RRC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708710	

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 1
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:53 PM
Filename: g:\co04\0066\bridge\steel.dir\cadd\steel23828sd04.dgn

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 2

LOCATION		℄ BEARING PIER 1	0.1	0.2	F.S. 2	0.3	0.4	0.5	0.6	0.7	F.S. 3	0.8	0.9	℄ BEARING PIER 2
	STATION	457+53.61	457+75.61	457+97.61	458+03.61	458+19.61	458+41.61	458+63.61	458+85.61	459+07.61	459+23.61	459+29.61	459+51.61	459+73.61
TOE OF MEDIAN BARRIER (LEFT)	FINAL DECK ELEVATION	771.34	771.58	771.78	771.83	771.95	772.09	772.20	772.27	772.32	772.33	772.33	772.30	772.25
	SCREED ELEVATION	771.34	771.61	771.90	771.98	772.17	772.39	772.52	772.57	772.53	772.47	772.44	772.34	772.25
G8	FINAL DECK ELEVATION	771.37	771.60	771.80	771.85	771.97	772.11	772.22	772.30	772.34	772.35	772.35	772.33	772.27
	SCREED ELEVATION	771.37	771.63	771.92	772.00	772.20	772.41	772.55	772.59	772.56	772.49	772.46	772.36	772.27
PROFILE GRADE	FINAL DECK ELEVATION	771.48	771.71	771.92	771.97	772.09	772.23	772.33	772.41	772.45	772.46	772.46	772.44	772.39
	SCREED ELEVATION	771.48	771.75	772.05	772.13	772.34	772.56	772.70	772.74	772.70	772.62	772.59	772.47	772.39
G9	FINAL DECK ELEVATION	771.54	771.77	771.97	772.02	772.14	772.28	772.39	772.46	772.51	772.52	772.52	772.50	772.44
	SCREED ELEVATION	771.54	771.81	772.11	772.19	772.39	772.62	772.76	772.80	772.75	772.68	772.65	772.53	772.44
G10	FINAL DECK ELEVATION	771.71	771.94	772.14	772.19	772.31	772.45	772.56	772.63	772.68	772.69	772.69	772.67	772.61
	SCREED ELEVATION	771.71	771.98	772.27	772.35	772.54	772.76	772.90	772.94	772.90	772.84	772.81	772.70	772.61
PHASE CONSTR. JOINT - LEFT	FINAL DECK ELEVATION	771.75	771.98	772.19	772.24	772.36	772.50	772.60	772.68	772.72	772.73	772.73	772.71	772.66
	SCREED ELEVATION	771.75	772.02	772.31	772.39	772.59	772.81	772.94	772.99	772.95	772.88	772.85	772.74	772.66
PHASE CONSTR. JOINT - RIGHT	FINAL DECK ELEVATION	771.83	772.07	772.27	772.32	772.44	772.58	772.68	772.76	772.80	772.81	772.81	772.79	772.74
	SCREED ELEVATION	771.83	772.10	772.39	772.47	772.67	772.89	773.02	773.07	773.03	772.96	772.93	772.82	772.74
G11	FINAL DECK ELEVATION	771.86	772.09	772.29	772.34	772.46	772.60	772.70	772.78	772.82	772.83	772.83	772.81	772.76
	SCREED ELEVATION	771.86	772.13	772.42	772.49	772.69	772.91	773.04	773.09	773.05	772.98	772.95	772.84	772.76
G12	FINAL DECK ELEVATION	771.79	772.00	772.17	772.21	772.31	772.43	772.53	772.61	772.65	772.66	772.66	772.64	772.59
	SCREED ELEVATION	771.79	772.02	772.27	772.34	772.51	772.71	772.85	772.90	772.87	772.81	772.78	772.68	772.59
G13	FINAL DECK ELEVATION	771.67	771.87	772.04	772.09	772.18	772.30	772.41	772.49	772.54	772.55	772.55	772.53	772.48
	SCREED ELEVATION	771.67	771.88	772.12	772.19	772.35	772.54	772.69	772.75	772.73	772.69	772.66	772.57	772.48
G14	FINAL DECK ELEVATION	771.53	771.74	771.92	771.96	772.06	772.18	772.29	772.37	772.42	772.43	772.44	772.42	772.37
	SCREED ELEVATION	771.53	771.75	772.00	772.06	772.23	772.42	772.57	772.63	772.62	772.57	772.55	772.46	772.37
G15	FINAL DECK ELEVATION	771.40	771.61	771.79	771.83	771.93	772.06	772.17	772.25	772.30	772.32	772.32	772.31	772.26
	SCREED ELEVATION	771.40	771.63	771.88	771.94	772.11	772.30	772.45	772.51	772.49	772.45	772.43	772.34	772.26
TOE OF PARAPET (RIGHT)	FINAL DECK ELEVATION	771.38	771.59	771.76	771.81	771.91	772.04	772.15	772.23	772.28	772.30	772.30	772.28	772.24
	SCREED ELEVATION	771.38	771.61	771.85	771.92	772.09	772.28	772.42	772.48	772.47	772.43	772.40	772.32	772.24

NOTES:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
2. TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 42/57.
3. FOR SCREED ELEVATIONS FOR RIGHT BRIDGE SPANS 1 AND 3, SEE SHEETS 46/57 AND 48/57 .

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1800, CLEVELAND, OHIO 44113-2291

DESIGNED	DRAWN	REVIEWED	DATE
RRC	RRC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		5708710	

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 2
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

47/57

282/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:53 PM
Filename: g:\co04\0066\bridge\steel.dir\cadd\steel23828sd05.dgn

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 3

LOCATION		℄ BEARING PIER 2	0.1	0.2	0.3	F.S. 4	0.4	0.5	0.6	0.7	0.8	0.9	℄ BEARING FWD. ABUT.
	STATION	459+73.61	459+91.21	460+08.81	460+26.41	460+29.61	460+44.01	460+61.61	460+79.21	460+96.81	461+14.41	461+32.01	461+49.61
TOE OF MEDIAN BARRIER (LEFT)	FINAL DECK ELEVATION	772.25	772.19	772.10	771.99	771.96	771.87	771.72	771.55	771.36	771.15	770.92	770.67
	SCREED ELEVATION	772.25	772.21	772.19	772.16	772.15	772.11	772.02	771.87	771.66	771.38	771.05	770.67
G8	FINAL DECK ELEVATION	772.27	772.21	772.12	772.02	771.98	771.89	771.74	771.57	771.38	771.18	770.95	770.70
	SCREED ELEVATION	772.27	772.23	772.21	772.18	772.17	772.14	772.04	771.90	771.68	771.40	771.07	770.70
PROFILE GRADE	FINAL DECK ELEVATION	772.39	772.32	772.23	772.13	772.10	772.00	771.85	771.69	771.50	771.29	771.06	770.81
	SCREED ELEVATION	772.39	772.35	772.33	772.32	772.31	772.28	772.20	772.05	771.83	771.55	771.20	770.81
G9	FINAL DECK ELEVATION	772.44	772.38	772.29	772.19	772.15	772.06	771.91	771.74	771.55	771.35	771.12	770.87
	SCREED ELEVATION	772.44	772.40	772.39	772.38	772.37	772.34	772.26	772.11	771.89	771.61	771.26	770.87
G10	FINAL DECK ELEVATION	772.61	772.55	772.46	772.35	772.32	772.23	772.08	771.91	771.72	771.51	771.29	771.04
	SCREED ELEVATION	772.61	772.57	772.55	772.53	772.52	772.48	772.39	772.24	772.03	771.75	771.41	771.04
PHASE CONSTR. JOINT - LEFT	FINAL DECK ELEVATION	772.66	772.59	772.50	772.40	772.37	772.27	772.12	771.96	771.77	771.56	771.33	771.08
	SCREED ELEVATION	772.66	772.61	772.59	772.57	772.56	772.53	772.44	772.29	772.07	771.79	771.46	771.08
PHASE CONSTR. JOINT - RIGHT	FINAL DECK ELEVATION	772.74	772.67	772.59	772.48	772.45	772.35	772.21	772.04	771.85	771.64	771.41	771.16
	SCREED ELEVATION	772.74	772.70	772.68	772.65	772.64	772.61	772.52	772.37	772.16	771.88	771.54	771.16
G11	FINAL DECK ELEVATION	772.76	772.69	772.61	772.50	772.47	772.37	772.23	772.06	771.87	771.66	771.43	771.18
	SCREED ELEVATION	772.76	772.72	772.70	772.67	772.66	772.63	772.54	772.39	772.18	771.90	771.56	771.18
G12	FINAL DECK ELEVATION	772.59	772.52	772.44	772.33	772.30	772.20	772.06	771.89	771.70	771.49	771.26	771.01
	SCREED ELEVATION	772.59	772.54	772.51	772.48	772.46	772.42	772.33	772.18	771.97	771.70	771.37	771.01
G13	FINAL DECK ELEVATION	772.48	772.42	772.33	772.23	772.20	772.10	771.96	771.79	771.60	771.40	771.17	770.92
	SCREED ELEVATION	772.48	772.42	772.38	772.33	772.31	772.26	772.15	772.00	771.80	771.55	771.25	770.92
G14	FINAL DECK ELEVATION	772.37	772.31	772.23	772.12	772.09	772.00	771.86	771.69	771.51	771.30	771.08	770.83
	SCREED ELEVATION	772.37	772.31	772.27	772.22	772.21	772.15	772.05	771.90	771.70	771.45	771.16	770.83
G15	FINAL DECK ELEVATION	772.26	772.20	772.12	772.02	771.99	771.90	771.76	771.59	771.41	771.21	770.98	770.74
	SCREED ELEVATION	772.26	772.22	772.18	772.14	772.13	772.09	771.99	771.84	771.64	771.39	771.08	770.74
TOE OF PARAPET (RIGHT)	FINAL DECK ELEVATION	772.24	772.18	772.10	772.00	771.97	771.88	771.73	771.57	771.39	771.19	770.96	770.72
	SCREED ELEVATION	772.24	772.19	772.16	772.12	772.11	772.06	771.97	771.82	771.62	771.36	771.06	770.72

NOTES:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
2. TYPICAL CROSS SECTION AND SCREED DETAILS, SEE SHEET 42/57.
3. FOR SCREED ELEVATIONS FOR RIGHT BRIDGE SPANS 1 AND 2, SEE SHEETS 46/57 AND 47/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-2080

DESIGNED RAC | DRAWN RAC | REVIEWED RER | DATE 06/01/07

CHECKED GHD | REVISED | STRUCTURE FILE NUMBER 57087.10

SCREED ELEVATIONS - RIGHT BRIDGE SPAN 3
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:53 PM
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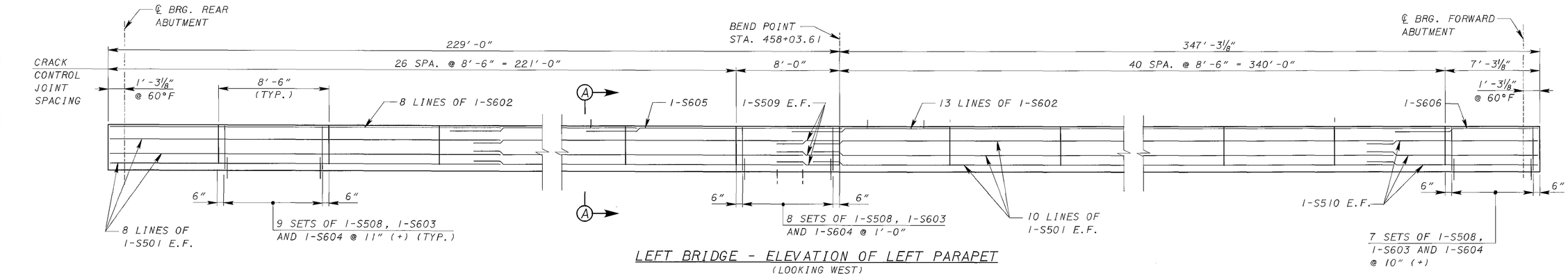
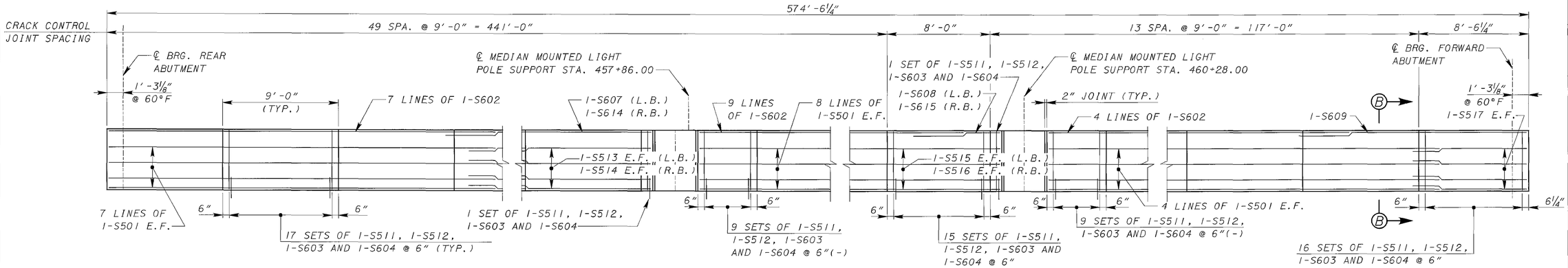
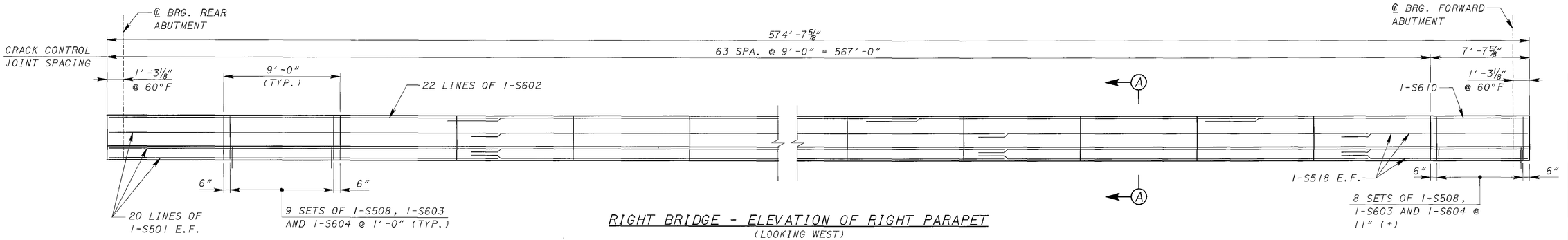


LEFT BRIDGE - ELEVATION OF LEFT PARAPET
(LOOKING WEST)



RIGHT BRIDGE - ELEVATION OF MEDIAN BARRIER
(LOOKING WEST)
(MEDIAN BARRIER ON LEFT BRIDGE SIMILAR, EXCEPT AS NOTED)



RIGHT BRIDGE - ELEVATION OF RIGHT PARAPET
(LOOKING WEST)

BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	3'-10"

LEGEND:
R.B. = RIGHT BRIDGE
L.B. = LEFT BRIDGE

NOTES:
1. FOR SLAB PLAN, SEE SHEET 39/57.
2. FOR PARAPET SECTIONS AND LIGHT POLE SUPPORT DETAILS, SEE SHEET 50/57.
3. FOR REINFORCING STEEL LIST, SEE SHEETS 56/57 AND 57/57.
4. FOR ADDITIONAL PARAPET DETAILS AND NOTES, SEE ODOT DRAWING SBR-1-99.
5. FOR CONTROL JOINTS FOR MEDIAN BARRIER, REFER TO DETAIL AND NOTES ON ODOT DRAWING SBR-1-99.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE SUITE 1900 CLEVELAND, OHIO 44113-1901
DESIGNED ECM | DRAWN RICK | REVIEWED RER | DATE 06/01/07
CHECKED CTY | REVISED | STRUCTURE FILE NUMBER 5708110

PARAPET DETAILS (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

49/57
284/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:55 PM
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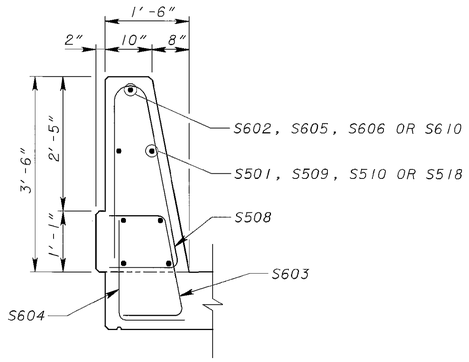
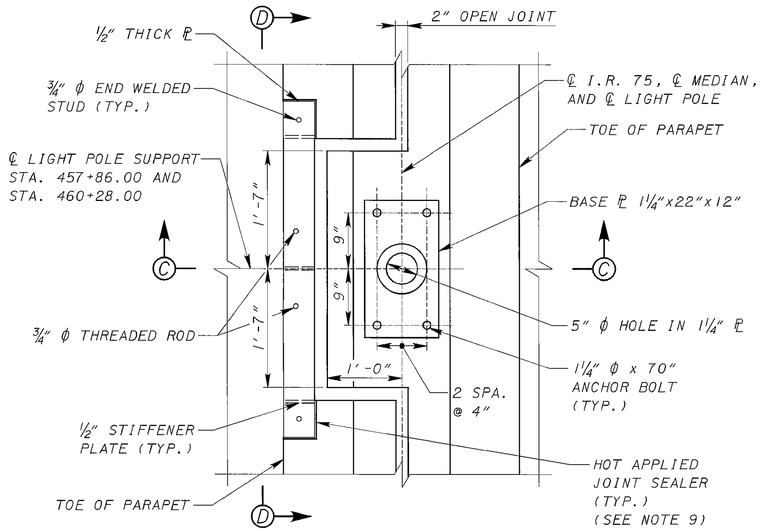
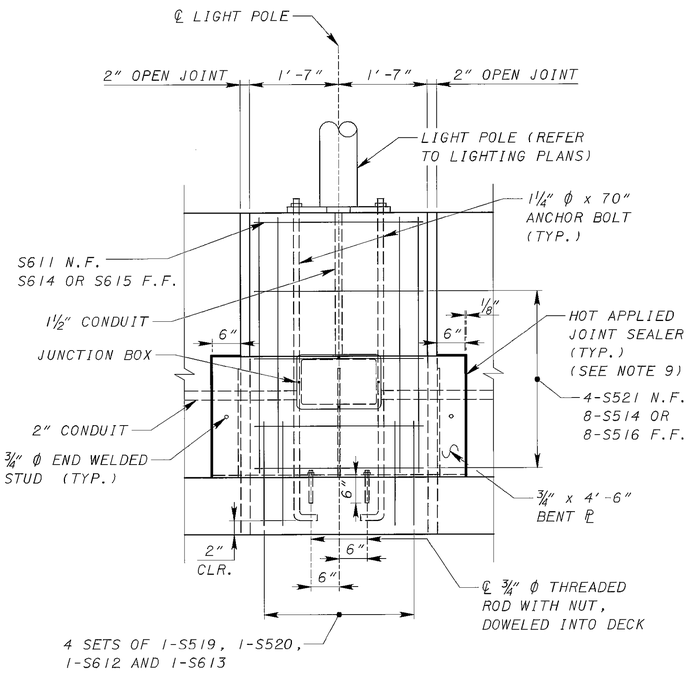


SECTION A-A

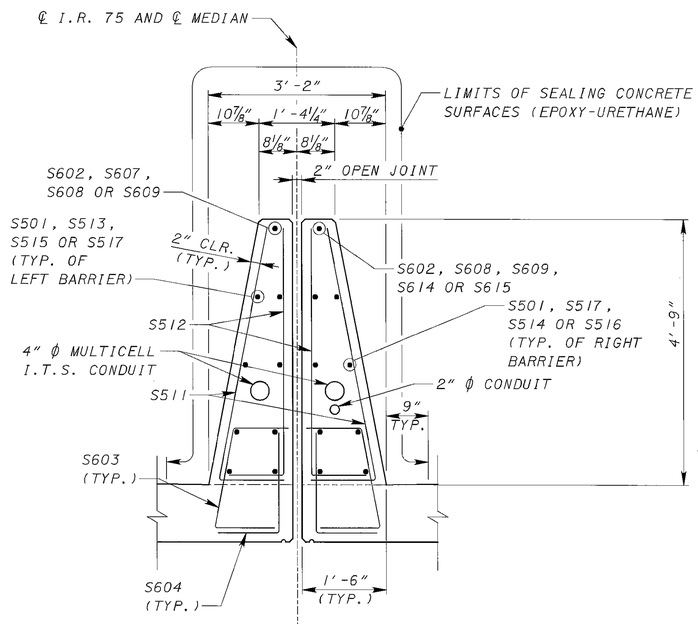


MEDIAN BARRIER DETAIL AT LIGHT POLE SUPPORT PLAN



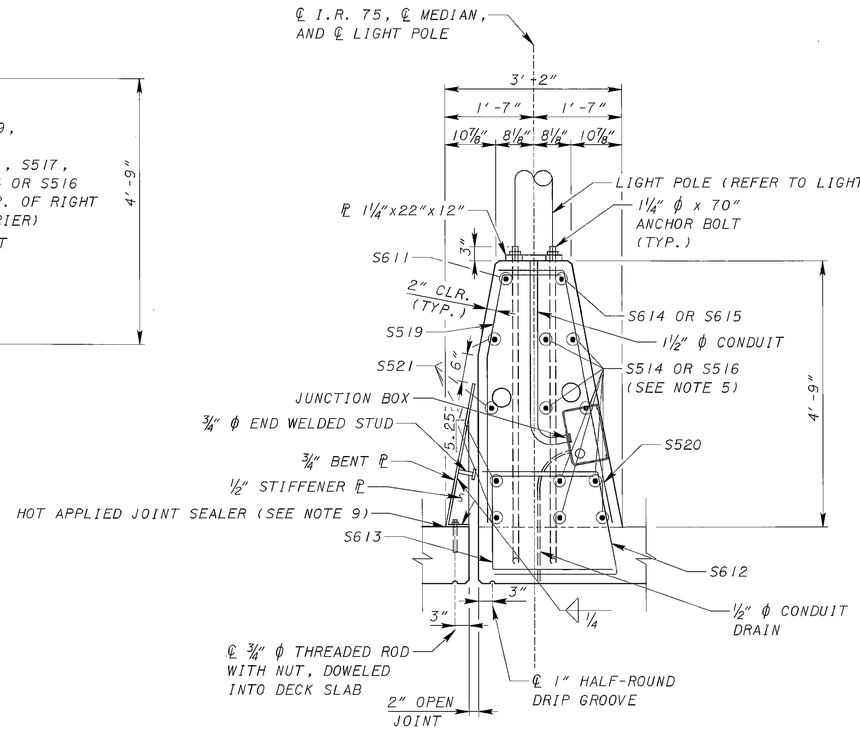
VIEW D-D

(DECK REINFORCEMENT NOT SHOWN)



SECTION B-B

(DECK REINFORCEMENT NOT SHOWN)



SECTION C-C

(DECK REINFORCEMENT NOT SHOWN)

NOTES:

1. FOR PARAPET ELEVATIONS, SEE SHEET 49/57.
2. FOR SLAB PLAN, SEE SHEET 39/57.
3. FOR REINFORCING STEEL LIST, SEE SHEETS 56/57 AND 57/57.
4. FOR ADDITIONAL PARAPET DETAILS AND NOTES, SEE ODOT STANDARD DRAWING SBR-1-99.
5. FIELD CUTTING OF LONGITUDINAL REINFORCING BAR AT THE JUNCTION BOX SHALL BE INCLUDED WITH ITEM 509-REINFORCING STEEL, AS PER PLAN, FOR PAYMENT.
6. THE 1¼" ϕ x 70" ANCHOR BOLTS, NUTS, BASE PLATE AND JUNCTION BOX SHALL BE INCLUDED WITH ITEM 625 FOR PAYMENT. (SEE LIGHTING PLAN)
7. ALL STRUCTURAL STEEL SHALL BE GALVANIZED ACCORDING TO 711.02. GALVANIZING OF STEEL, BASE PLATE, 1¼" ϕ ANCHOR BOLTS AND JUNCTION BOX SHALL BE INCLUDED WITH ITEM 625 FOR PAYMENT (SEE LIGHTING PLAN).
8. DECK SLAB CONCRETE REQUIRED AT THE LIGHT POLE SUPPORT SHALL BE INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN, FOR PAYMENT.
9. HOT APPLIED JOINT SEALER SHALL CONFORM TO 705.04 AND SHALL BE INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK), AS PER PLAN, FOR PAYMENT.
10. FOR ADDITIONAL NOTES AND DETAILS, SEE ODOT STANDARD DRAWINGS HL-10.13 AND HL-20.14.
11. FOR CONDUIT TRANSITION FROM BRIDGE MEDIAN BARRIER TO ROADWAY BARRIER, REFER TO ODOT STANDARD DRAWING HL-30.33

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE - SUITE 1900
CLEVELAND, OHIO 44113-2001

DESIGNED	DRAWN	REVIEWED	DATE
ECM	RCK	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTY		5708710	

PARAPET SECTIONS AND DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

50/57

285/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:56 PM
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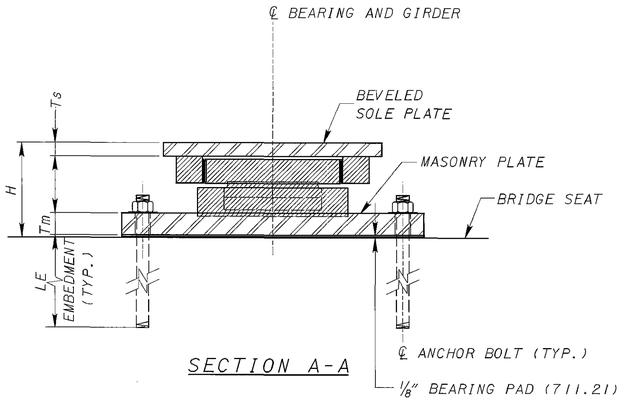
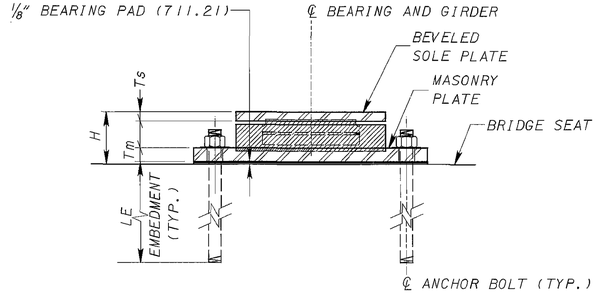
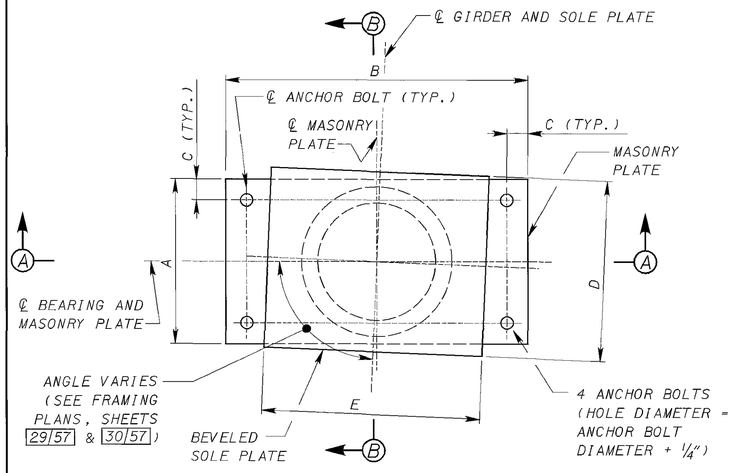


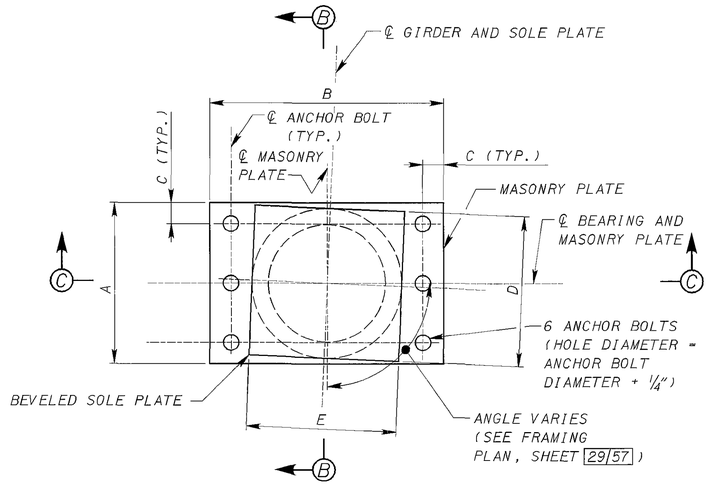
SECTION A-A



SECTION C-C



GUIDED EXPANSION BEARING
(ABUTMENTS AND PIER 2)



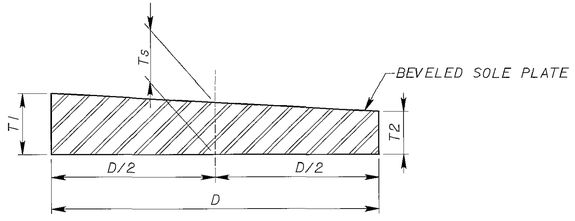
FIXED BEARING
(PIER 1)

NOTES:

1. THE BEARING DEVICES SUPPLIED SHALL MEET THE REQUIREMENTS OF ITEM 513, STRUCTURAL STEEL MEMBERS, SPECIALIZED MULTI ROTATIONAL BEARING (SMR), LEVEL UF, AS PER PLAN. SEE GENERAL NOTES SHEETS 3/57 THRU 6/57.
2. THE SOLE AND MASONRY PLATE DIMENSIONS SHOWN HAVE BEEN DESIGNED TO SUIT TYPICAL BEARINGS FOR THE DESIGN LOADS AND MOVEMENTS SHOWN. THE CONTRACTOR MAY PROVIDE FOR ALTERNATE DESIGNS.
3. THE THICKNESS OF BEARING SHOWN REPRESENTS THE ASSUMED TOTAL BEARING HEIGHT AT THE CENTERLINE OF BEARING FROM THE BOTTOM OF GIRDER TO THE TOP OF BRIDGE SEAT. THE CONTRACTOR MAY PROVIDE FOR AN ALTERNATE THICKNESS OF BEARING.
4. PAYMENT FOR BEARINGS SHALL BE PAID FOR UNDER ITEM 513, STRUCTURAL STEEL MEMBERS, SPECIALIZED MULTI ROTATIONAL BEARING (SMR), LEVEL UF, AS PER PLAN.
5. FOR LOCATION OF BEARINGS, SEE SHEETS 18/57, 19/57, 22/57, 25/57, 26/57 & 27/57.
6. THE PIER AND ABUTMENT BEAM SEAT ELEVATIONS ARE BASED ON BEARING HEIGHTS PROVIDED ON THIS SHEET. IF THE CONTRACTOR'S SELECTED BEARING MANUFACTURER HAS A DESIGN THAT DOES NOT CONFORM TO THE HEIGHTS PROVIDED, ADJUST THE BEARING SEAT ELEVATIONS AT NO ADDITIONAL COST TO THE STATE. ADJUST THE LOCATION OF REINFORCING STEEL HORIZONTALLY AS NECESSARY TO AVOID INTERFERENCE WITH THE BEARING ANCHOR BOLTS. MAINTAIN THE MINIMUM CONCRETE COVER AND MINIMUM SPACING REQUIRED BY THE PROJECT PLANS. IF THE REINFORCING STEEL CANNOT BE MOVED TO PROVIDE THE REQUIRED POSITION FOR THE ANCHOR BOLTS, THE CONTRACTOR'S BEARING MANUFACTURER SHALL RE-DESIGN THE BEARINGS TO ACCOMMODATE AN ACCEPTABLE ANCHOR BOLT CONFIGURATION.
7. LONGITUDINAL LOADS FOR GUIDED EXPANSION BEARINGS ARE BASED ON FRICTION COEFFICIENTS FROM AASHTO TABLE 14.6.2.5-1, AND ASSUME THE TYPE OF PTFE TO BE WOVEN.
8. FINAL ROTATION INCLUDES 0.01 RADIANS TO ACCOUNT FOR FABRICATION AND CONSTRUCTION TOLERANCES AND OTHER UNCERTAINTIES.
9. MULTI ROTATIONAL BEARINGS SHALL INCLUDE LIVE LOAD IMPACT.

LEGEND:

INDICATES AREAS FOR REPRESENTATIVE PURPOSES ONLY. THE ACTUAL CONFIGURATION OF THE COMPONENTS WILL BE DEPENDENT UPON THE SPECIFIC BEARING SUPPLIED.



SECTION B-B

SPECIALIZED MULTI-ROTATIONAL BEARING PLAN REQUIREMENTS

BEARING LOCATION	GIRDER NUMBER	TYPE ***	QUAN-TITY	SERVICE LOADS (KIPS) & ROTATIONS (RADIANS)								MOVEMENT (IN.)		MASONRY PLATE				BEVELED SOLE PLATE **					BEARING HEIGHT, H	ANCHOR BOLTS	
				AT ERECTION (PRIOR TO DECK PLACEMENT)		FINAL*																			
						VERTICAL LOAD			HORIZONTAL LOAD																
				VERTICAL LOAD	ROTATION	DL+FWS	LL+I	TOTAL LOAD	LONG.	TRANS.	ROTATION	LONG.	TRANS.	A	B	C	Tm	D	E	T1	T2	Ts		DIA.	LE (IN.)
REAR ABUTMENT	G1-G15	G.E.	15	21	0.0024	152	108	260	10	30	0.0303	2.1	-	16¾"	32⅞"	2⅝"	2⅜"	22⅜"	23⅜"	1⅜"	1⅞"	1⅝"	10 1/16"	1½"	30
	G16-G18	G.E.	3	71	0.0034	221	109	330	14	44	0.0218	2.1	-										10 1/16"	1½"	30
PIER 1	G1-G15	FIXED	15	83	0.0001	510	298	808	224	102	0.0149	-	-	24½"	34⅞"	3"	1 15/16"	22⅞"	22⅞"	13/16"	1 1/16"	15/16"	8⅜"	1¾"	35
	G16-G18	FIXED	3	71	0.0034	221	109	330	74	44	0.0218	-	-										8⅜"	1¾"	35
PIER 2	G1-G15	G.E.	15	83	0.0001	562	298	860	31	112	0.0149	2.6	-	25¼"	47⅝"	3⅜"	3½"	28½"	34⅛"	2⅜"	2¼"	2 5/16"	14 11/16"	2"	40
FWD. ABUTMENT	G1-G15	G.E.	15	21	0.0024	154	109	263	11	31	0.0303	4.6	-	16¾"	32⅞"	2⅝"	2⅜"	22⅜"	23⅜"	1¾"	1⅜"	1 9/16"	10⅛"	1½"	30

*** G.E. - GUIDED EXPANSION

* SEE NOTES 7, 8 AND 9

** T1 IS DOWNSTATION OF T2

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2600, CLEVELAND, OHIO 44113-2001

DESIGNED	DRAWN	REVIEWED	DATE
JDH	RAC	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ECM		5708710	

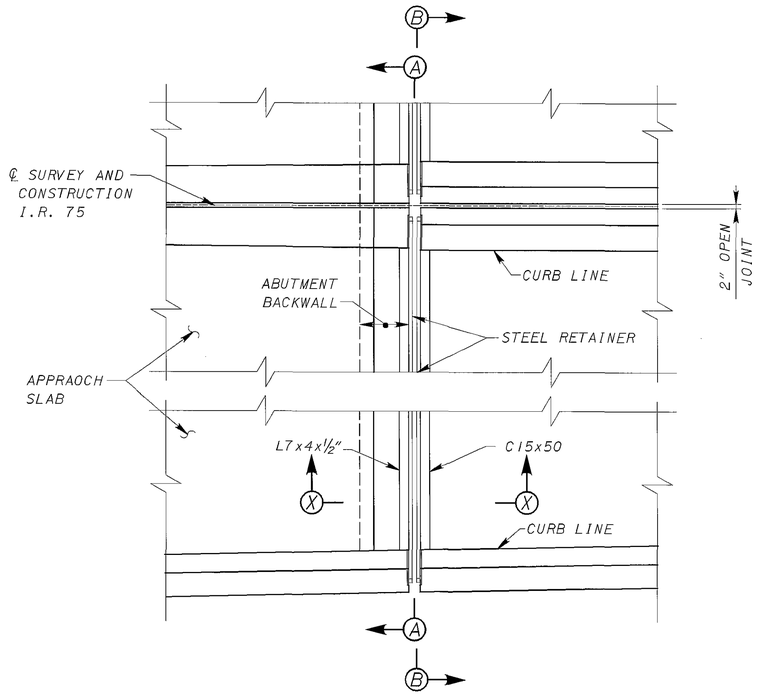
BEARING DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT -75-14.60
PID 23828

51/57

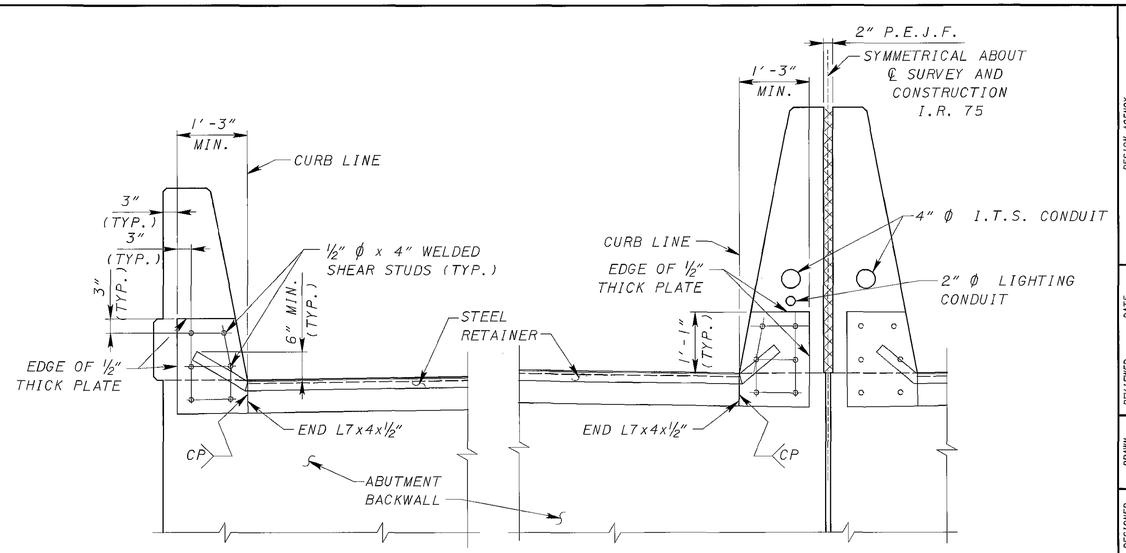
286/316

DATE: 7/27/2007 FILE: g:\co0\a\0066\bridges\steel.dlt\oddd\steel23828br01.dgn

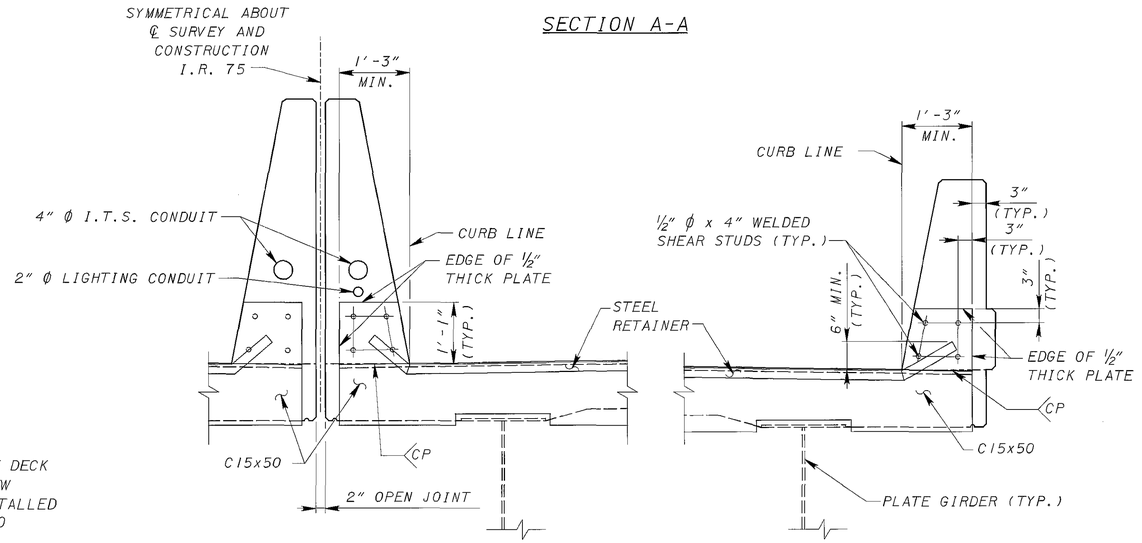


PART PLAN AT ABUTMENT

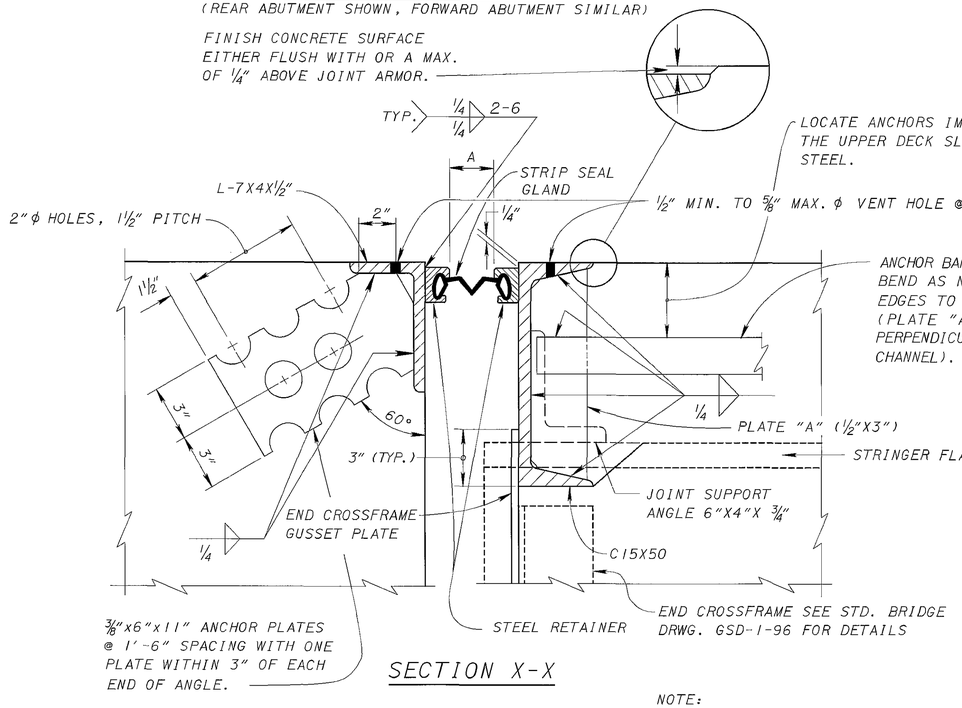
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR)



SECTION A-A



SECTION B-B



SECTION X-X

REAR ABUTMENT 3" STRIP SEAL JOINT WIDTH	
AMBIENT TEMP.	DIMENSION A
90° F	1 1/16"
80° F	1 1/4"
70° F	1 3/8"
60° F	1 1/2"
50° F	1 5/8"
40° F	1 3/4"
30° F	1 15/16"

FORWARD ABUTMENT 5" STRIP SEAL JOINT WIDTH	
AMBIENT TEMP.	DIMENSION A
90° F	1 1/16"
80° F	1 3/8"
70° F	1 11/16"
60° F	2"
50° F	2 5/16"
40° F	2 5/8"
30° F	2 15/16"

NOTE:
MINIMUM JOINT OPENING (DIMENSION "A") AT TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 1½". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE MINIMUM 1½" OPENING.

NOTES:

1. FOR ADDITIONAL DETAILS NOT SHOWN, REFER TO ODOT STANDARD BRIDGE DRAWING EXJ-4-87.
2. THE INSTALLATION SEQUENCE OF THE EXPANSION JOINT SHALL FOLLOW THE CONSTRUCTION PROCEDURE ON ODOT STANDARD DRAWING EXJ-4-87, SHEET 5 of 5.
3. NO JOINTS IN STRIP SEALS ARE ALLOWED UNLESS APPROVED BY THE DIRECTOR.
4. FOR JOINT TREATMENTS IN RETAINERS AND IN ARMOR STEEL TO ALLOW FOR TRAFFIC MAINTENANCE REFER TO ODOT STANDARD BRIDGE DRAWING EXJ-4-87, SHEET 5 of 5.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
ECM	ECM	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

STRIP SEAL EXPANSION JOINT DETAILS
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

52/57

287/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:39 PM
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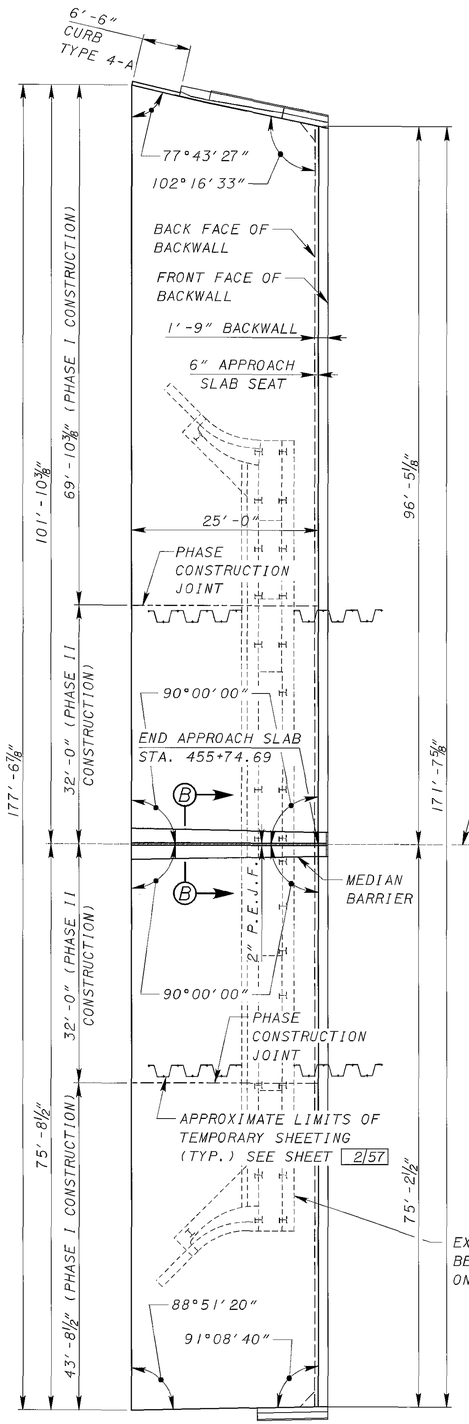
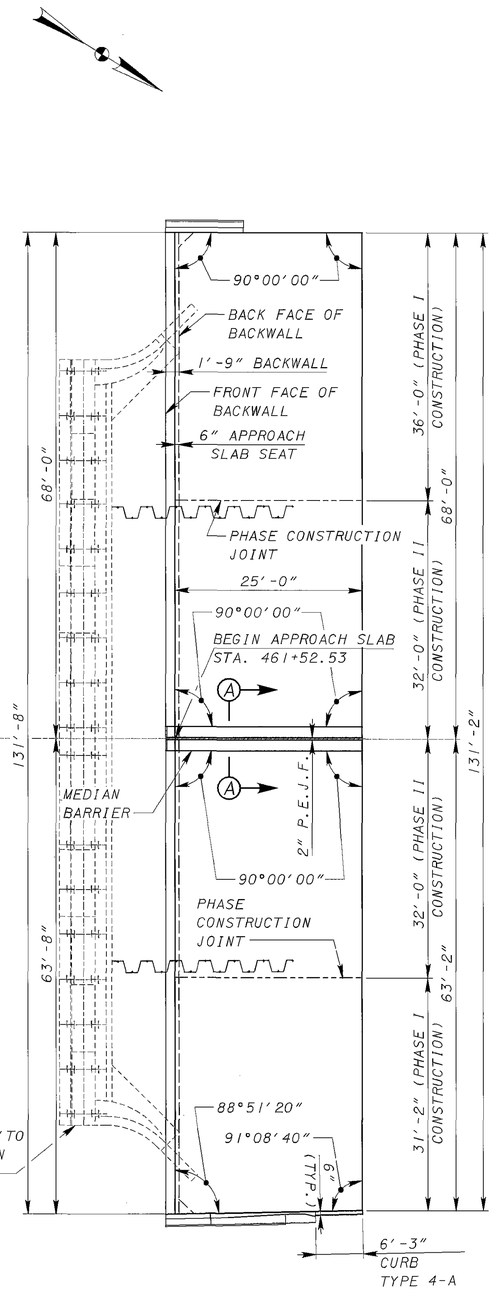
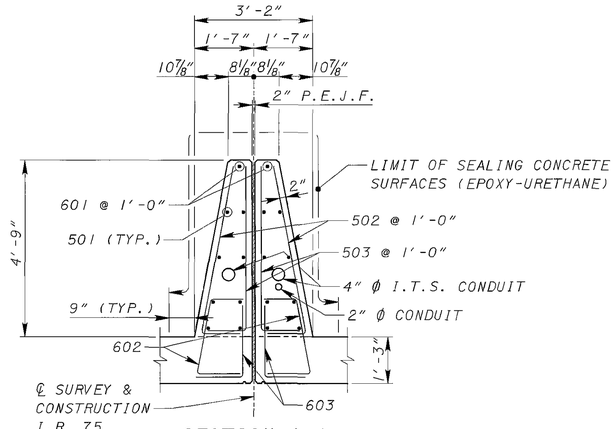


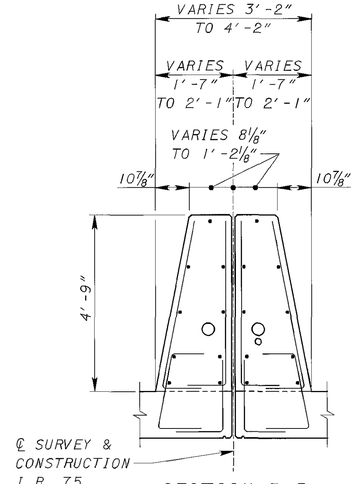
PLAN
REAR APPROACH SLAB



PLAN
FORWARD APPROACH SLAB



SECTION A-A



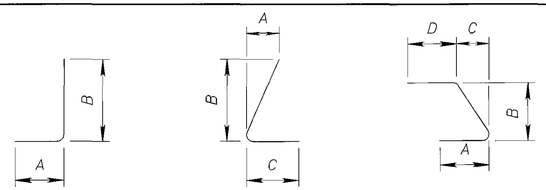
SECTION B-B

FOR REINFORCING STEEL AND CALLOUTS NOT SHOWN, SEE SECTION A-A

BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
MEDIAN BARRIER											
501	32	25'-11"	866	STR							
502	108	5'-6"	620	11	10¼"	4'-5"	1'-1"				
503	108	5'-5"	610	1	1'-1"	4'-5"					
601	4	25'-11"	156	STR							
602	108	4'-3"	689	29	1'-4"	2'-1"	4½"	1'-1"			
603	108	3'-3"	528	1	1'-4"	2'-1"					
TOTAL WEIGHT OF REINFORCING = 3469 LBS											

BAR BENDING DIAGRAM



NOTES:

1. FOR ADDITIONAL NOTES, DETAILS, SECTIONS, AND REINFORCING BARS NOT SHOWN HERE, SEE ODOT STANDARD DRAWING AS-1-81.
2. FOR CURB TYPE 4-A, REFER TO ODOT STANDARD DRAWING BP-5.1.
3. SEALING OF CONCRETE SURFACES ON MEDIAN PARAPETS IS INCLUDED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).
4. FOR TEMPORARY SHEETING NOTES, SEE GENERAL PLAN SHEET 2/57.
5. SEE ROADWAY SHEETS FOR ADDITIONAL MEDIAN BARRIER TRANSITION DETAILS.
6. FOR ITEMS INCLUDED WITH ITEM 898, QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (APPROACH SLAB), 15", AS PER PLAN, SEE GENERAL NOTES SHEET 6/57.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
MLR	MLR	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JDH		5708710	

APPROACH SLAB PLAN
(STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

53/57

288/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:19:38 PM
Filename: g:\Co04\0066\bridge\steel_dt\cadd\steel23828as01.dgn

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
REAR ABUTMENT													
RA501	109	64	9'-10"	1118	656	2	2'-0"	6'-1"	2'-0"				
RA502	2		9'-10"	21		STR.							
RA503	20		10'-11"	228		3	3'-0"	2'-2"					
RA504	48		10'-6"	526		1	10"	9'-9"					
RA505	50	64	10'-0"	522	668	2	3'-0"	4'-3"	3'-0"				
RA506	5	64	10'-0"	52	668	1	10"	9'-3"					
RA507	59		8'-6"	523		2	2'-3"	4'-3"	2'-3"				
RA508	10		9'-6"	99		1	10"	8'-9"					
RA509	9		9'-5"	88		1	10"	8'-8"					
RA510	10		8'-8"	90		1	10"	7'-11"					
RA511	10		8'-3"	86		1	10"	7'-6"					
RA512	10		7'-4"	76		1	10"	6'-7"					
RA513	13		7'-0"	95		1	10"	6'-3"					
RA514	5		13'-3"	69		STR.							
RA515	20		32'-3"	673		STR.							
RA516	20		14'-11"	311		1	3'-0"	12'-0"					
RA517	9		12'-0"	113		STR.							
RA518	24		17'-6"	438		STR.							
RA519	2		7'-6"	16		STR.							
RA520	5		10'-5"	54		1	3'-0"	7'-6"					
RA521		60	31'-8"		1982	STR.							
RA522	11		4'-0"	46		19	2'-0"	5 1/8"	1'-11 1/2"				
RA523	18		6'-5"	120		STR.							
RA524	29		17'-6"	529		STR.							
RA525	4		14'-7"	61		STR.							
RA526	4		10'-9"	45		STR.							
RA527	2		14'-0"	29		19	11'-9"	2'-0"	1'-0"				
RA528	2		8'-8"	18		STR.							
RA529	2		15'-0"	31		STR.							
RA530	2		18'-0"	38		STR.							
RA531	8		19'-8"	164		STR.							
RA532	6		8'-0"	50		STR.							
RA533	8		10'-0"	83		STR.							
RA534	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1 1/2"	5"		
RA535	5		5'-6"	29		STR.							
RA536	6		12'-1"	76		STR.							
RA537	6		8'-0"	50		STR.							
RA538	20		9'-3"	193		STR.							
RA539	17		7'-5"	132		23	1'-1"	3'-2"	3'-0"			2 3/4"	
RA540	2		15'-3"	32		STR.							
RA541	22		22'-0"	505		STR.							
RA542	29		30'-0"	907		STR.							
RA543	12		3'-11"	49		1	2'-0"	2'-0"					
RA601	45		18'-2"	1228		2	2'-7"	6'-1"	9'-10"				
RA602		32	17'-11"		861	2	2'-7"	6'-1"	9'-7"				
RA603	5	32	17'-8"	133	849	2	2'-7"	6'-1"	9'-4"				
RA604	10		17'-2"	258		2	2'-7"	6'-1"	8'-10"				
RA605	9		17'-1"	231		2	2'-7"	6'-1"	8'-9"				
RA606	10		16'-3"	244		2	2'-7"	6'-1"	7'-11"				
RA607	10		15'-11"	239		2	2'-7"	6'-1"	7'-7"				
RA608	10		15'-0"	225		2	2'-7"	6'-1"	6'-8"				
RA609	10		14'-7"	219		2	2'-7"	6'-1"	6'-3"				
RA610	13		18'-10"	368		2	9'-0"	1'-2"	9'-0"				
RA611	109	66	13'-1"	2142	1297	2	6'-0"	1'-5"	6'-0"				

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
REAR ABUTMENT													
RA612	109	66	13'-5"	2197	1330	2	6'-2"	1'-5"	6'-2"				
RA613	109	66	6'-1"	996	603	2	2'-9"	11"	2'-9"				
RA614	1		9'-3"	14		STR.							
RA615	17	4	3'-10"	98	23	13	2'-0"	11"	2"	1'-1"			
RA616	17	4	2'-11"	74	18	STR.							
RA617	1		8'-6"	13		STR.							
RA618	26		8'-2"	319		STR.							
	1 SERIES		16'-4"				7'-9"		7'-9"				
RA619	OF			150		2		1'-2"					6 1/8"
	8		8'-8"				3'-11"		3'-11"				
RA620	30		5'-4"	240		STR.							
RA621	11		25'-6"	421		2	12'-4"	1'-2"	12'-4"				
RA622	22		8'-6"	281		STR.							
*RA801	16		26'-0"	1111		32	26'-0"						
RA802	8		23'-9"	507		STR.							
*RA803		16	34'-0"		1452	33	34'-0"						
RA804	16		24'-9"	1057		STR.							
RA805	2		13'-11"	74		STR.							
RA806	4		10'-5"	111		STR.							
RA807	4		7'-6"	80		STR.							
RA808	74	44	4'-11	971	578	18	2'-7"	1'-0"	1'-0"				
RA809	4		15'-3"	163		STR.							
RA810	2		17'-3"	92		STR.							

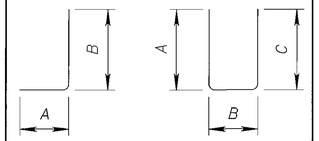
BAR SCHEDULE

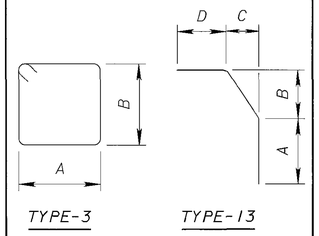
MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
FORWARD ABUTMENT													
FA501	71	65	9'-10"	728	667	2	2'-0"	6'-1"	2'-0"				
FA502	77	65	6'-10"	549	463	1	10"	6'-2"					
FA503	71	65	9'-0"	666	610	2	2'-6"	4'-3"	2'-6"				
FA504	20		10'-11"	228		3	3'-0"	2'-2"					
FA505	2		10'-10"	23		STR.							
FA506	25		39'-6"	1030		STR.							
FA507		50	31'-8"		1651	STR.							
FA508	25		35'-3"	919		STR.							
FA509	16		5'-9"	96		STR.							
FA510	22		3'-10"	88		1	2'-0"	2'-0"					
FA511	4		14'-6"	60		STR.							
FA512	4		10'-1"	42		STR.							
FA513	2		13'-9"	29		19	11'-9"	1'-9"	11"				
FA514	2		8'-8"	18		STR.							
FA515	2		15'-0"	31		STR.							
FA516	2		18'-0"	38		STR.							
FA517	8		19'-8"	164		STR.							
FA518	17		7'-5"	132		23	1'-1"	3'-2"	3'-0"			2¾"	
FA519	6		8'-0"	50		STR.							
FA520	8		10'-0"	83		STR.							
FA521	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1½"	5"		
FA522	5		5'-6"	29		STR.							
FA523	4		13'-1"	55		STR.							
FA524	4		8'-8"	36		STR.							
FA525	18		10'-3"	192		STR.							
FA526	2		12'-10"	27		STR.							
FA601	71	65	14'-7"	1555	1424	2	2'-7"	6'-1"	6'-3"				
FA602	70	66	13'-1"	1376	1297	2	6'-0"	1'-5"	6'-0"				
FA603	70	66	13'-7"	1428	1347	2	6'-3"	1'-5"	6'-3"				
FA604	70	66	6'-1"	640	603	2	2'-9"	11"	2'-9"				
FA605	17	4	3'-10"	98	23	13	2'-0"	11"	2"	1'-1"			
FA606	17	4	2'-11"	74	18	STR.							
FA607	24		18'-10"	679		2	9'-0"	1'-2"	9'-0"				
FA608	48		8'-6"	613		STR.							
	1 SER		16'-10"				8'-0"		8'-0"				
FA609	0F			160		2		1'-2"					1'-0"
	8 BARS		9'-10"				4'-6"		4'-6"				
FA610	30		5'-4"	240		STR.							
FA611	1		10'-3"	15		STR.							
FA612	1		8'-6"	13		STR.							
FA613	1		8'-0"	12		STR.							
*FA801	16		26'-0"	1111		32	26'-0"						
FA802	8		16'-6"	352		STR.							
*FA803		16	34'-0"		1452	33	34'-0"						
FA804	8		12'-3"	262		STR.							
FA805	2		14'-11"	80		STR.							
FA806	4		11'-3"	120		STR.							
FA807	4		7'-2"	77		STR.							
FA808	47	44	4'-11"	617	578	18	2'-7"	1'-0"	1'-0"				
FA809	4		15'-0"	160		STR.							
FA810	2		17'-4"	93		STR.							
TOTAL WEIGHT FOR FORWARD ABUTMENT= 25,238 LBS (PHASE I = 15,105 LBS, PHASE II = 10,133 LBS)													

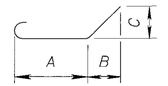
BAR SCHEDULE

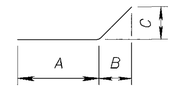
MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.

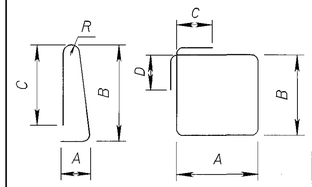
BAR BENDING DIAGRAMS

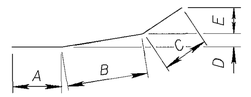


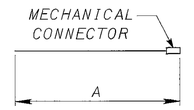


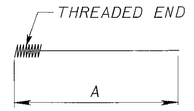












NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:
   - RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
   - 6: BAR SIZE DESIGNATION NO. 6
   - 01: SEQUENCE NUMBER

   BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

*2. REINFORCING BAR UTILIZING A MECHANICAL CONNECTOR. BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR USED.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE- SUITE 2000, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
JLV	JLV	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GHD		570871 0	

REINFORCING STEEL LIST (STEEL GIRDER OPTION)
BRIDGE NO. MOT-75-1523 I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

Plotted By: comack Time: 3:49:51 PM
DATE: 7/27/2007 FILE: g:\cad\1066\bridge\steel.dir\cadd\steel2382#r02.dgn

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
PIER 1													
1P401	6		12'-5"	48		3	2'-10"	3'-2"					
1P402	918	663	3'-0"	1840	1329	33	2'-0"	0'-8"					
1P501	96		22'-3"	2228		STR.							
1P502		96	34'-0"		3404	STR.							
1P503	94		25'-8"	2516		STR.							
1P504	216	156	7'-4"	1652	1193	40	4'-2"	0'-8"	0'-8"	2'-3"			
1P505	108	78	13'-11"	1568	1132	2	5'-6"	3'-2"	5'-6"				
1P506	34		7'-1"	251		24	2'-0"	2'-0"				12"	
1P801	8		14'-9"	315		STR.							
*1P802		16	34'-0"		1452	34							
1P803	8		21'-6"	459		STR.							
*1P804	16		30'-0"	1282		35							
1P805	14		8'-3"	308		STR.							
1P1001	97	76	12'-4"	5148	4033	17	9'-6"						
1P1002	216	156	11'-8"	10844	7831	1	1'-10"	10'-2"					
1P1003	216	156	28'-8"	26644	19243	STR.							

TOTAL WEIGHT PIER 1 = 94,720 LBS (PHASE I = 55,103 LBS, PHASE II = 39,617 LBS)

BAR SCHEDULE

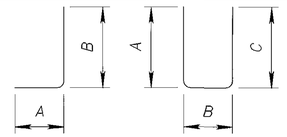
MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
PIER 2													
2P402	765	663	3'-0"	1533	1329	33	2'-0"	0'-8"					
2P501	12		38'-3"	479		STR.							
2P502		92	34'-0"		3263	STR.							
2P503	12		39'-0"	488		STR.							
2P504	180	156	7'-4"	1377	1193	40	4'-2"	0'-8"	0'-8"	2'-3"			
2P505	90	78	11'-11"	1119	969	2	4'-6"	3'-2"	4'-6"				
2P506	34		7'-1"	251		24	2'-0"	2'-0"				12"	
2P507	34		37'-9"	1339		STR.							
2P508	34		37'-0"	1312		STR.							
2P801	8		10'-6"	224		STR.							
*2P802		16	34'-0"		1452	34							
2P803	8		11'-3"	240		STR.							
*2P804	16		30'-0"	1282		35							
2P1001	92	82	12'-4"	4882	4352	17	9'-6"						
2P1002	180	156	11'-8"	9036	7831	1	1'-10"	10'-2"					
2P1003	180	156	29'-10"	23107	20026	STR.							

TOTAL WEIGHT PIER 2 = 87,084 LBS (PHASE I = 46,669 LBS, PHASE II = 40,415 LBS)

BAR SCHEDULE

MARK	LEFT BRIDGE NUMBER PHASE I	LEFT BRIDGE NUMBER PHASE II	RIGHT BRIDGE NUMBER PHASE I	RIGHT BRIDGE NUMBER PHASE II	LENGTH	LEFT BRIDGE WEIGHT PHASE I	LEFT BRIDGE WEIGHT PHASE II	RIGHT BRIDGE WEIGHT PHASE I	RIGHT BRIDGE WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
SUPERSTRUCTURE																	
S401	1348	920	1256	960	30'-0"	27014	18437	25170	19238	STR.							
S402	4	46	21	48	12'-6"	33	384	175	401	STR.							
S403	95				10'-2"	645				STR.							
S404	62				24'-2"	1001				STR.							
S405	53				12'-2"	431				STR.							
S406			50		8'-9"			292		STR.							
S407			44		23'-5"			688		STR.							
S408			38		10'-8"			271		STR.							
S501	2695	1048	4593	968	30'-0"	84327	32792	143715	30289	STR.							
S502	4	48	20	44	14'-2"	59	709	296	650	STR.							
S503	101				10'-8"	1124				STR.							
S504	53				24'-3"	1341				STR.							
S505	53				13'-2"	728				STR.							

BAR BENDING DIAGRAMS



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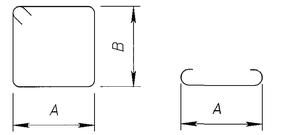

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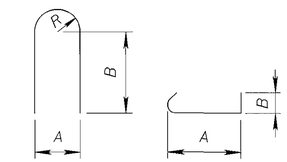

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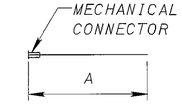

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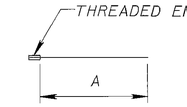

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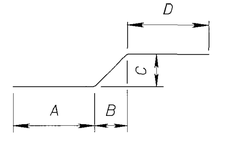


TYPE-40

NOTES:

1. FOR NOTES, SEE SHEET 55/57.

*2. REINFORCING BAR UTILIZING A MECHANICAL CONNECTOR. BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR USED.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 1900, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
ECM	ECM	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTY		570810	

REINFORCING STEEL LIST (STEEL GIRDER ORDER OPTION)
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

56/57

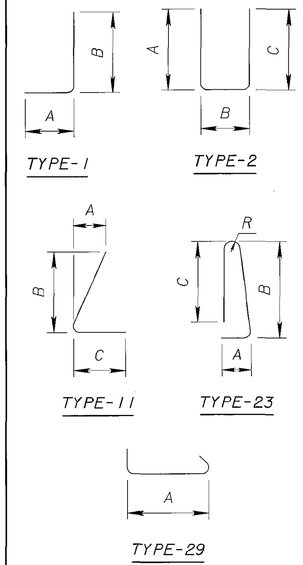
291/316

Plotted By: ecmcak Time: 3:49:51 PM
DATE: 7/27/2007 FILE: g:\cad\0066\str\dgn\steel.dit\cadd\steel2382Br103.dgn

BAR SCHEDULE

MARK	LEFT BRIDGE NUMBER PHASE I	LEFT BRIDGE NUMBER PHASE II	RIGHT BRIDGE NUMBER PHASE I	RIGHT BRIDGE NUMBER PHASE II	LENGTH	LEFT BRIDGE WEIGHT PHASE I	LEFT BRIDGE WEIGHT PHASE II	RIGHT BRIDGE WEIGHT PHASE I	RIGHT BRIDGE WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
SUPERSTRUCTURE (CONTINUED)																	
S506			53		9′-2″			507		STR.							
S507			53		24′-0″			1327		STR.							
S508	609		575		7′-5″	4711		4448		23	1′-1″	3′-2″	3′-0″			2¾″	
S509	6				5′-0″	31				STR.							
S510	6				13′-3″	83				STR.							
S511		1104		1104	5′-6″		6333		6333	11	10¼″	4′-5″	1′-1″				
S512		1104		1104	5′-5″		6237		6237	1	1′-1″	4′-5″					
S513		8			11′-7″		97			STR.							
S514				8	17′-5″				145	STR.							
S515				8	14′-2″				118	STR.							
S516				8	20′-0″				167	STR.							
S517		8		8	8′-10″		74		74	STR.							
S518				6	14′-4″				90	STR.							
S519		8			5′-6″		46			STR.							
S520		8			6′-3″		52			STR.							
S521		8			2′-10″		24			STR.							
S522			53		11′-1″			613		STR.							
S523		3066		3066	30′-10″		98600		98600	STR.							
S524			278		21′-9″			6306		STR.							
S525			278		20′-8″			5992		STR.							
S526			278		19′-6″			5654		STR.							
S527			278		18′-4″			5316		STR.							
S528			278		17′-2″			4978		STR.							
S529			278		16′-0″			4639		STR.							
S530			278		14′-11″			4325		STR.							
S531			278		13′-9″			3987		STR.							
S532			278		12′-7″			3649		STR.							
S533			278		11′-5″			3310		STR.							
S534			278		10′-3″			2972		STR.							
	2 SERIES				14′-7″												
S535	OF				TO	36185				STR.							9/16″
	606				42′-8″												
S536	1854				41′-5″	80088				STR.							
S537		16			4′-0″		67			STR.							
S601				32	4′-3″				204	STR.							
S602	645	380	558	404	30′-0″	29064	17123	25143	18204	STR.							
S603	609	1104	575	1104	3′-9″	3430	6218	3239	6218	29	1′-1″	1′-9″	4″	1′-1″			
S604	609	1104	575	1104	2′-8″	2439	4422	2303	4422	1	1′-1″	1′-9″					
S605	1				19′-8″	30				STR.							
S606	1				10′-11″	16				STR.							
S607		1			29′-8″		45			STR.							
S608		1			7′-2″		11			STR.							
S609		1		1	18′-2″		27		27	STR.							
S610			1		9′-8″			15		STR.							
S611		2			2′-10″		9			STR.							
S612		8			6′-3″		75			29	2′-7″	1′-9″	4″	2′-1″			
S613		8			6′-1″		73			2	2′-1″	1′-9″	2′-7″				
S614				1	37′-10″				57	STR.							
S615				1	15′-4″				23	STR.							
S616	156	90	134	96	26′-4″	6170	3560	5300	3797	STR.							
TOTAL WEIGHT FOR PHASES						278950	195415	264630	195294								
TOTAL WEIGHT SUPERSTRUCTURE = 934289 LBS (474365 LEFT BRIDGE, 459924 RIGHT BRIDGE)																	

BAR BENDING DIAGRAMS



NOTES:

1. FOR NOTES, SEE SHEET 55/57.

*2. REINFORCING BAR UTILIZING A MECHANICAL CONNECTOR. BAR LENGTH ADJUSTMENT AND/OR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF CONNECTOR USED.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE SUITE 2000
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
RCK	CTY	RER	06/01/07
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RCK		5708710	

REINFORCING STEEL LIST
BRIDGE NO. MOT-75-1523 (STEEL GIRDER OPTION)
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

57 / 57

292 / 316

Plotted By: ecmack Time: 3:20:04 PM
DATE: 7/27/2007 FILE: g:\co04\c066\bridge\steel\dft\caddt\steel23828r104.dgn

RETAINING WALL GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

SBR-1-99 REVISED 07-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

898 DATED 07-16-04

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2003 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS QSC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60
GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 99 TONS PER PILE FOR THE PILES AT RETAINING WALL 1 AND 94 TONS PER PILE FOR THE PILES AT RETAINING WALL 2. THE ADDITION OF 5.0 TONS OF ULTIMATE BEARING VALUE PER PILE AT RETAINING WALL 1 IS DUE TO THE POSSIBILITY OF DOWN DRAG FORCES INDUCED BY EMBANKMENT SETTLEMENT.

RETAINING WALL 1:
36-HP 10 X 42 PILES 65 FEET LONG AND 30-HP 10 X 42 PILES 70 FEET LONG, ORDER LENGTH DYNAMIC LOAD TESTING ITEMS - 1

RETAINING WALL 2:
38-HP 10 X 42 PILES 50 FEET LONG AND 18-HP 10 X 42 PILES 55 FEET LONG, ORDER LENGTH DYNAMIC LOAD TESTING ITEMS - 1

BATTERED PILES:

THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = \frac{1-UG}{\sqrt{(1+G^2)}}$$

U = COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE-ACTING AIR OPERATED OR DIESEL HAMMERS; 0.1 FOR SINGLE-ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.

G = RATE OF BATTER (1/3, 1/4, ETC.)

UTILITY LINES:

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM. FOR LIST OF UTILITY OWNER CONTACTS REFER TO ROADWAY GENERAL NOTES SHEETS.

ITEM 203 EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

INDEX OF SHEETS:

RETAINING WALL - GENERAL NOTES AND ESTIMATED QUANTITIES 1|12
RETAINING WALL 1 - GENERAL PLAN AND ELEVATION 2|12
RETAINING WALL 1 - FOUNDATION PLAN 3|12
RETAINING WALL 1 - PLAN AND ELEVATION 4|12 AND 5|12
RETAINING WALL 1 - SECTIONS 6|12
RETAINING WALL 2 - GENERAL PLAN AND ELEVATION 7|12
RETAINING WALL 2 - FOUNDATION PLAN 8|12
RETAINING WALL 2 - PLAN AND ELEVATION 9|12 AND 10|12
RETAINING WALL 2 - SECTIONS 11|12
RETAINING WALL - REINFORCING STEEL LIST 12|12

MADE BY RCK DATE 06/22/05
CHECK'D BY MLR DATE 06/23/05

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	RETAINING WALL # 1	RETAINING WALL # 2	AS PER PLAN SHEET NUMBER
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING	LUMP	LUMP	
503	21300	LUMP		UNCLASSIFIED EXCAVATION	LUMP	LUMP	
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION	LUMP	LUMP	
507	00100	7330	FT	STEEL PILES HP10X42, FURNISHED	4440	2890	
507	00150	6720	FT	STEEL PILES HP10X42, DRIVEN	4110	2610	
509	10000	61129	POUND	EPOXY COATED REINFORCING STEEL	34010	27119	
512	10100	713	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	456	257	
512	33000	47	SQ YD	TYPE 2 WATERPROOFING	31	16	
516	13600	95	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	56	39	
518	21200	310	CU YD	POROUS BACKFILL WITH FILTER FABRIC	210	100	
518	40000	406	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	224	182	
518	40010	39	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	14	25	
523	20000	2	EACH	DYNAMIC LOAD TESTING	1	1	
898	11000	63	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE(PARAPET)	35	28	
898	20000	357	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE	169	188	
898	20300	314	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE (FOOTING)	231	83	

*- ALL RETAINING WALL ITEMS ARE PAID FOR WITH FEDERAL AND STATE FUNDS.

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2000, CLEVELAND, OHIO 44113-2001

DESIGNED NFF | DRAWN HD | REVIEWED RER | DATE 06/18/05
CHECKED BTA | REVISED | STRUCTURE FILE NUMBER 5708710

RETAINING WALL-GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. MOT-75-1523
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

1 | 12

293
316

Plotted By: aschelderer Date: 8/28/2007 Time: 2:53:25 PM
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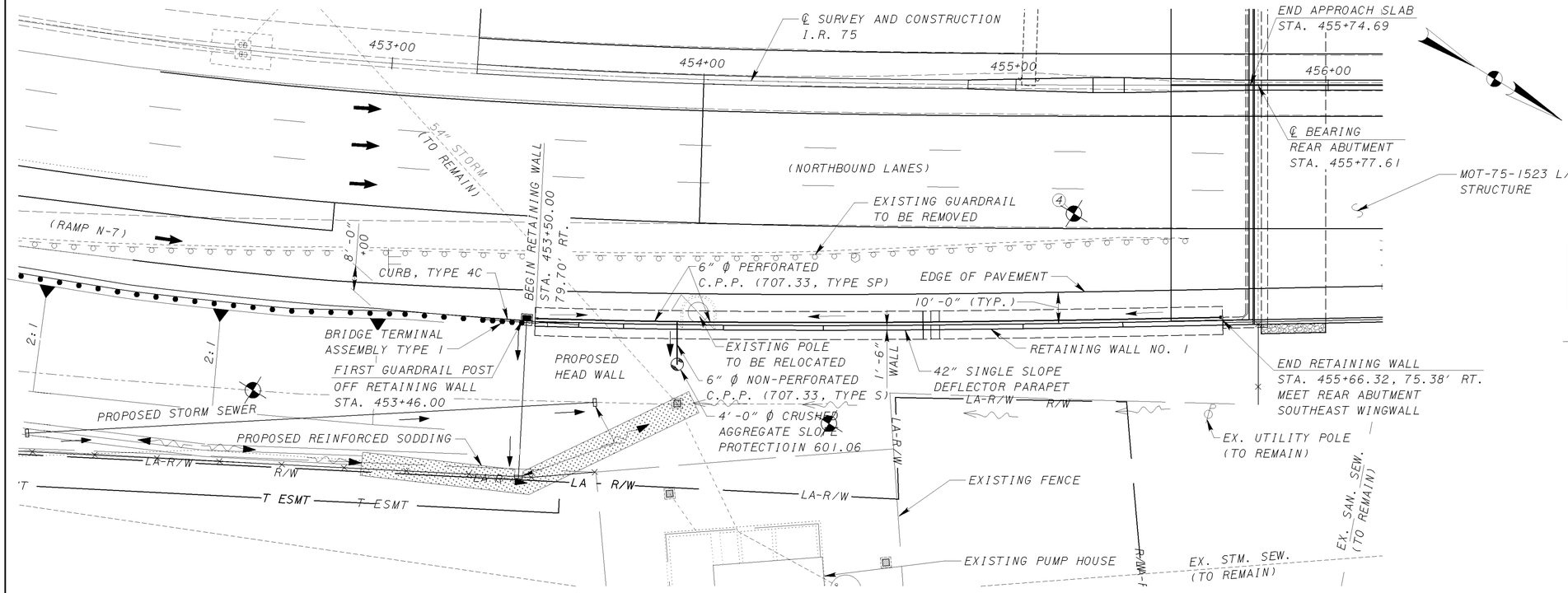
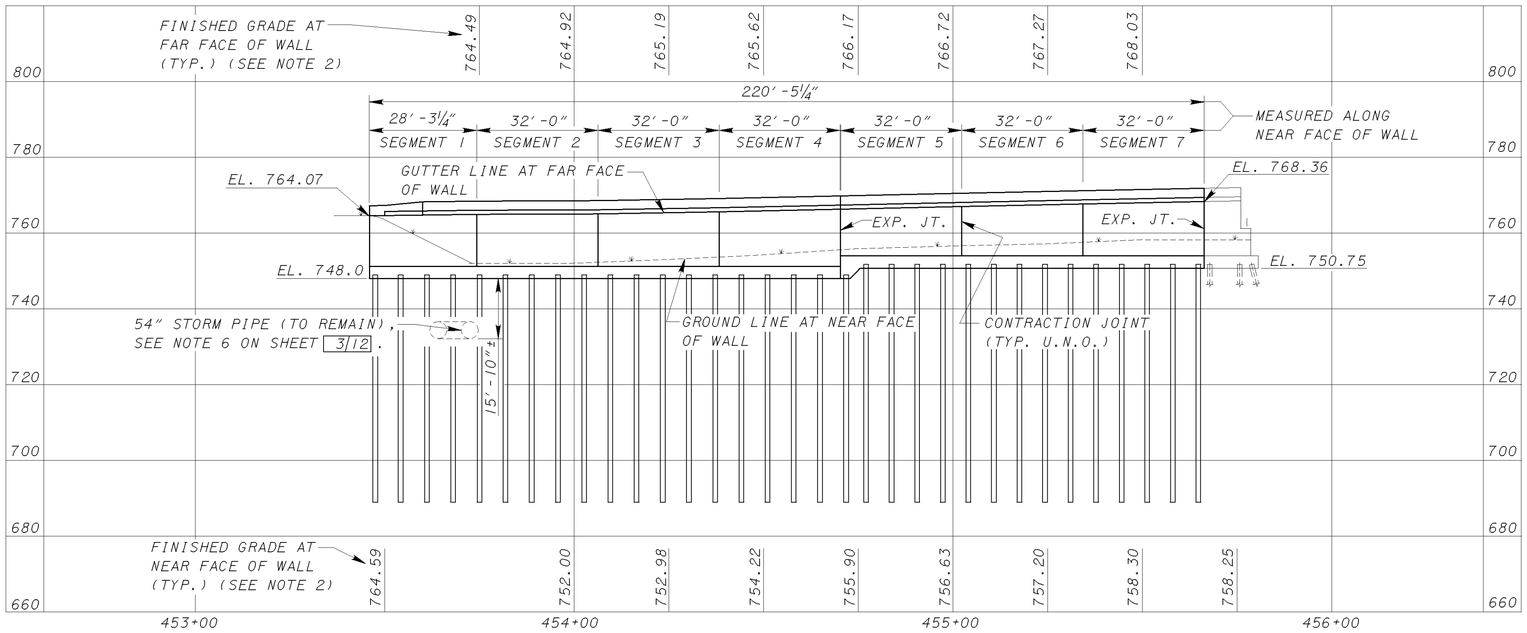


PLAN

BORING LOCATIONS		
BORING	STATION	OFFSET
#4	455+18.71	41.22' RT.

- DENOTES SOIL BORING LOCATION



RETAINING WALL ELEVATION

NOTES:

1. ABBREVIATIONS:
   TYP. - TYPICAL
   EL. - ELEVATION
   STA. - STATION
   U.N.O. - UNLESS NOTED OTHERWISE
   EXP. JT. - EXPANSION JOINT

2. FOR DETAILING PURPOSES, THE TERM "NEAR FACE" DEFINES THE FRONT, VISIBLE FACE OF THE WALL. THE TERM "FAR FACE" DEFINES THE BACK, EARTH RETAINING FACE OF THE WALL.

3. FOR ADDITIONAL NOTES, SEE SHEET 3/12.

FOUNDATION DATA:

ALL PILES SHALL BE HP 10x42 STEEL PILES

PILE ESTIMATED LENGTH:
RETAINING WALL I = 30 PILES @ 65 FT.
36 PILES @ 60 FT.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED BTA | DRAWN RCK | CHECKED NFF | REVIEWED RER | DATE 06/18/05 | REVISED | STRUCTURE FILE NUMBER 5708710

RETAINING WALL I GENERAL PLAN AND ELEVATION
BRIDGE NO. MOT-75-1523 L/R
STA. 453+50.00 TO STA. 455+61.30

MOT-75-14.60
PID 23828

2/12

294/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:07 PM
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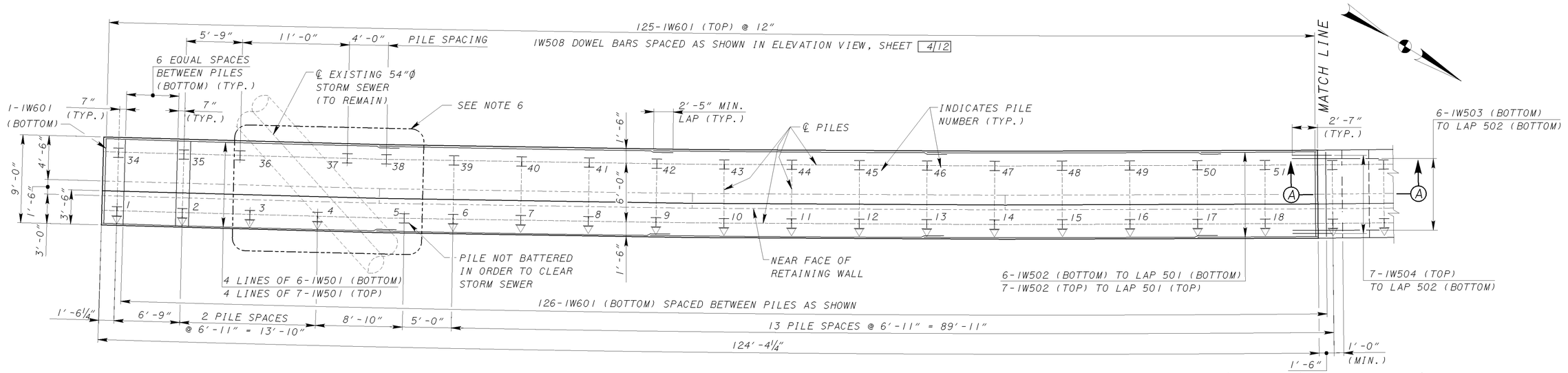
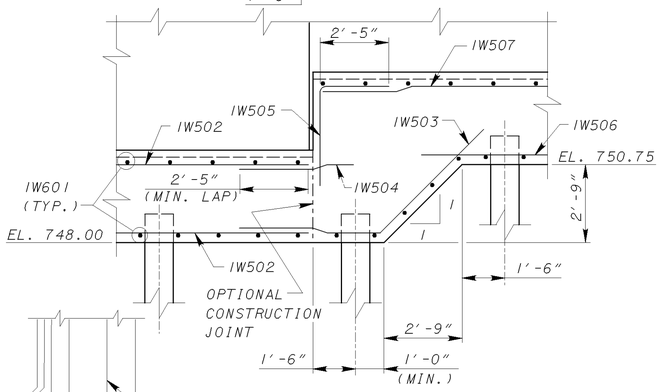
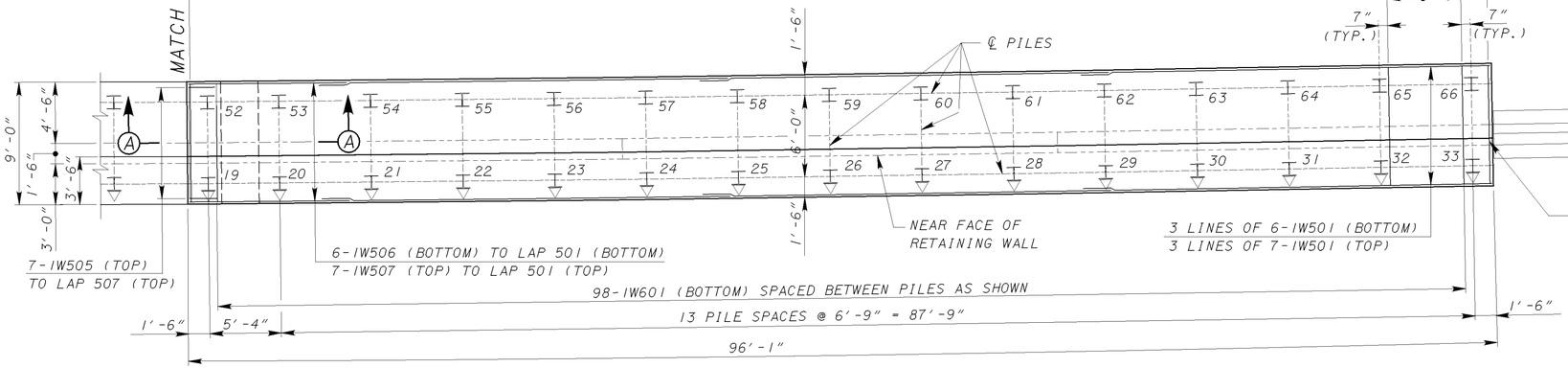


PARTIAL FOOTING PLAN



SECTION A-A



PARTIAL FOOTING PLAN

LEGEND:

I - INDICATES VERTICAL PILE

I - INDICATES PILE BATTER IN DIRECTION SHOWN

NOTES:

1. ALL PILES ARE HP 10x42
2. PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING PLUS 1'-0"
3. PILE LAYOUT DIMENSIONS ARE MEASURED AT BOTTOM OF FOOTING AND ALONG NEAR FACE OF RETAINING WALL.
4. PILES SHALL BE PLACED PERPENDICULAR TO NEAR FACE OF RETAINING WALL
5. ALL BATTERED PILES SHALL BE INCLINED 4 IN 12 IN THE DIRECTION SHOWN.
6. CONTRACTOR SHALL FIELD LOCATE EXISTING 54" Ø STORM SEWER AND ADJUST PILE SPACING TO CLEAR.
7. ALL REINFORCING BAR SPACINGS ARE MEASURED ALONG THE NEAR FACE OF THE RETAINING WALL.
8. FOR RETAINING WALL PLAN AND ELEVATION, SEE SHEETS 4|12 AND 5|12.
9. FOR REINFORCING STEEL LIST, SEE SHEET 12|12.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708110	

RETAINING WALL 1 - FOUNDATION PLAN
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

3 | 12

295 | 316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:08 PM
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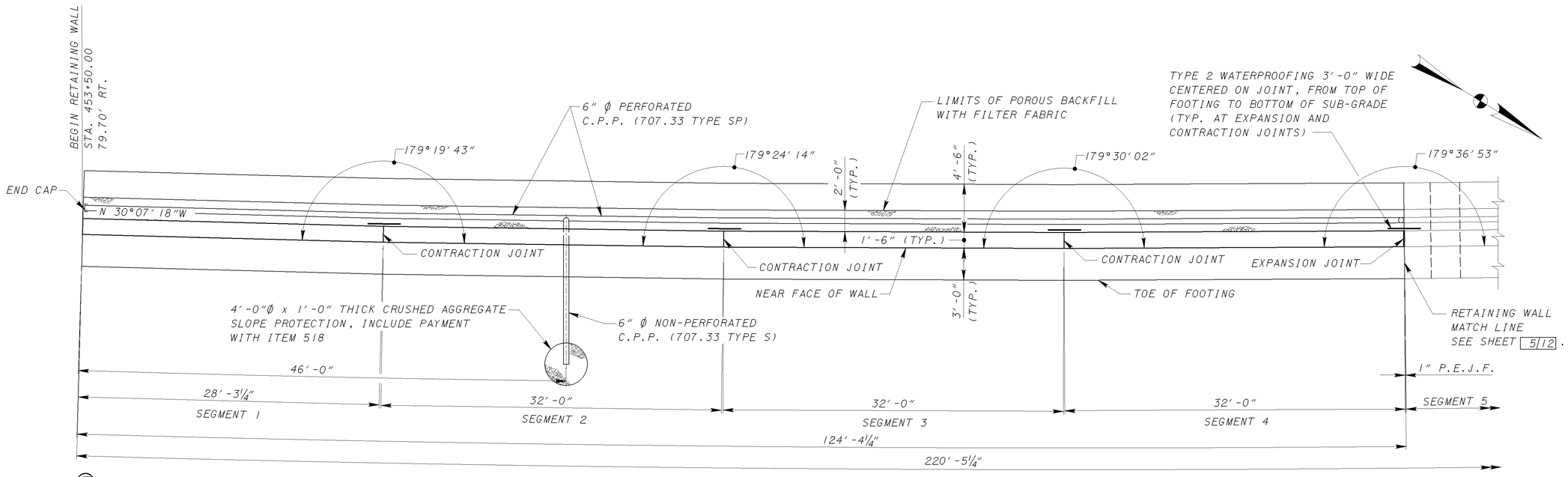
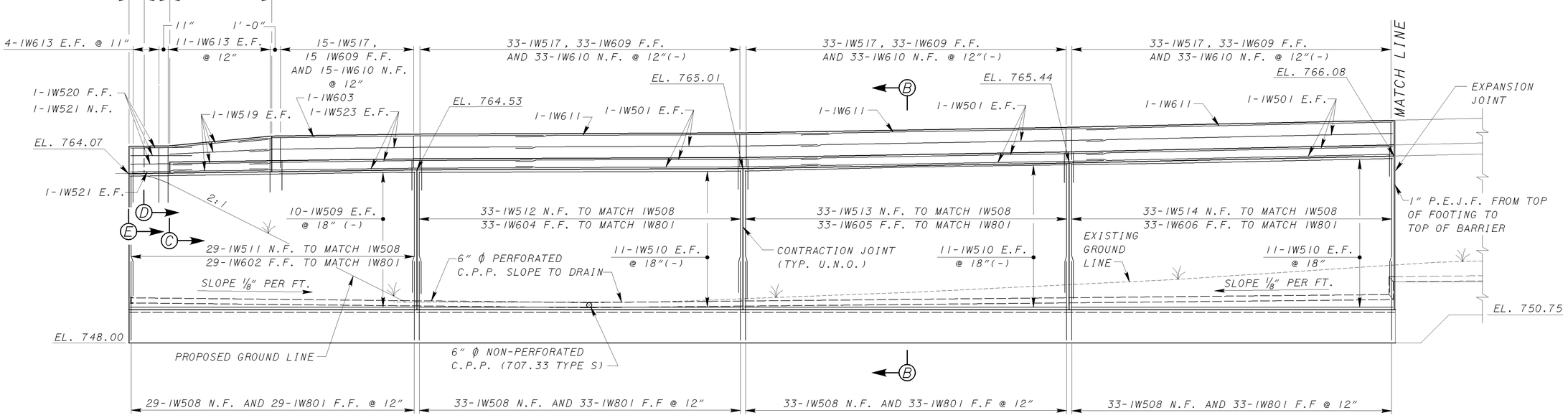


PLAN SEGMENTS 1 THRU 4

(PILES AND PARAPET NOT SHOWN FOR CLARITY)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0" (U.N.O.)
#6	3'-1"



ELEVATION SEGMENTS 1 THRU 4

(PILES AND PARAPET NOT SHOWN FOR CLARITY)

LEGEND:

E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P - CORRUGATED POLYETHYLENE PIPE
U.N.O. - UNLESS NOTED OTHERWISE
TYP. - TYPICAL

NOTES:

1. ALL REINFORCING BAR SPACINGS ARE MEASURED ALONG THE NEAR FACE OF THE WALL.
2. FOR FOOTING LAYOUT PLAN, SEE SHEET 3/12.
3. FOR SECTIONS B-B, C-C, D-D AND E-E, SEE SHEET 6/12.
4. FOR REINFORCING STEEL LIST, SEE SHEET 12/12.
5. FOR CONTRACTION AND EXPANSION JOINT DETAILS, SEE SHEET 11/12.
6. FOR ADDITIONAL NOTES, SEE SHEET 5/12.
7. SEE O.D.O.T. STANDARD DRAWING SBR-1-99 FOR ADDITIONAL 14'-0" PARAPET TRANSITION DETAILS.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		570810	

RETAINING WALL 1 - PLAN AND ELEVATION
BRIDG NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

4/12

296/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:08 PM
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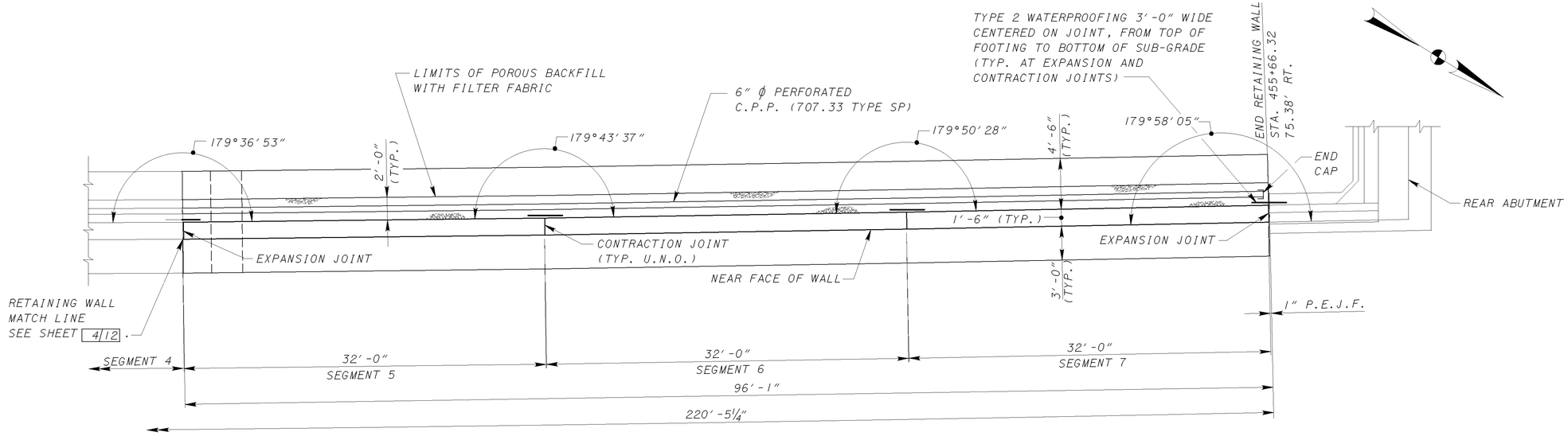
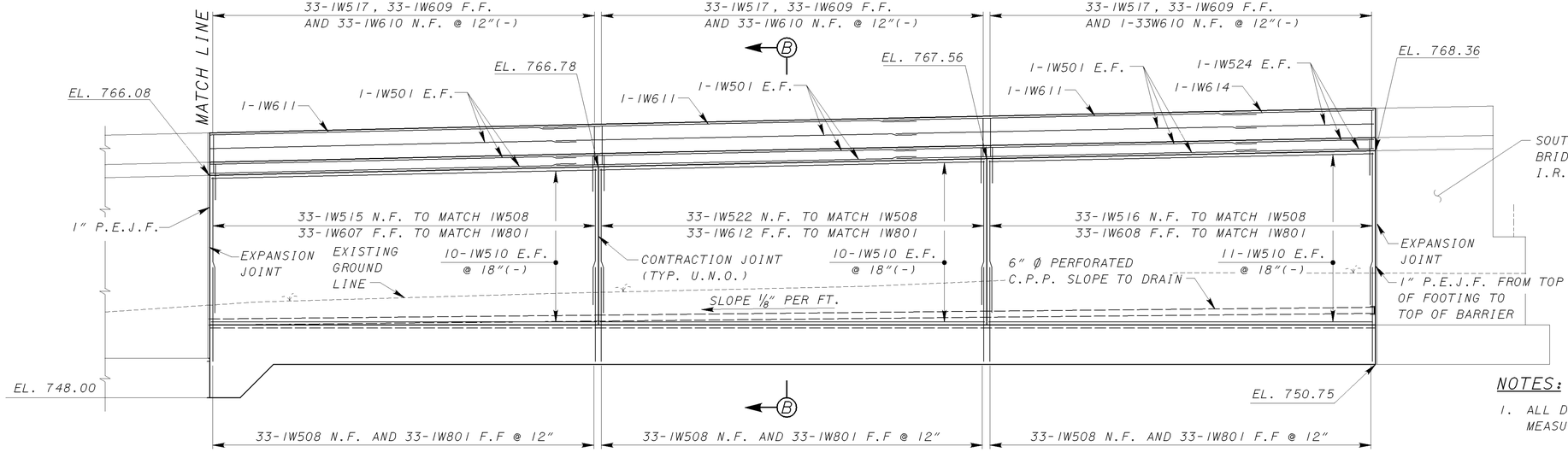


PLAN SEGMENTS 5 THRU 7

(PILES AND PARAPET NOT SHOWN FOR CLARITY)



ELEVATION SEGMENTS 5 THRU 7

(PILES AND FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
#5	2'-0" (U.N.O.)
#6	3'-1"

LEGEND:

E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P - CORRUGATED POLYETHYLENE PIPE
U.N.O. - UNLESS OTHERWISE NOTED
TYP. - TYPICAL

NOTES:

1. ALL DIMENSIONS AND REINFORCING BAR SPACINGS ARE MEASURED ALONG THE NEAR FACE OF THE WALL.
2. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE RETAINING WALLS.
3. FOR FOOTING LAYOUT PLAN, SEE SHEET 3/12.
4. FOR SECTION B-B, SEE SHEET 6/12.
5. FOR REINFORCING STEEL LIST, SEE SHEET 12/12.
6. FOR CONTRACTION AND EXPANSION JOINT DETAILS, SEE SHEET 11/12.
7. FOR ADDITIONAL NOTES, SEE SHEET 4/12.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		570810	

RETAINING WALL 1 - PLAN AND ELEVATION
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

5/12

297/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:09 PM
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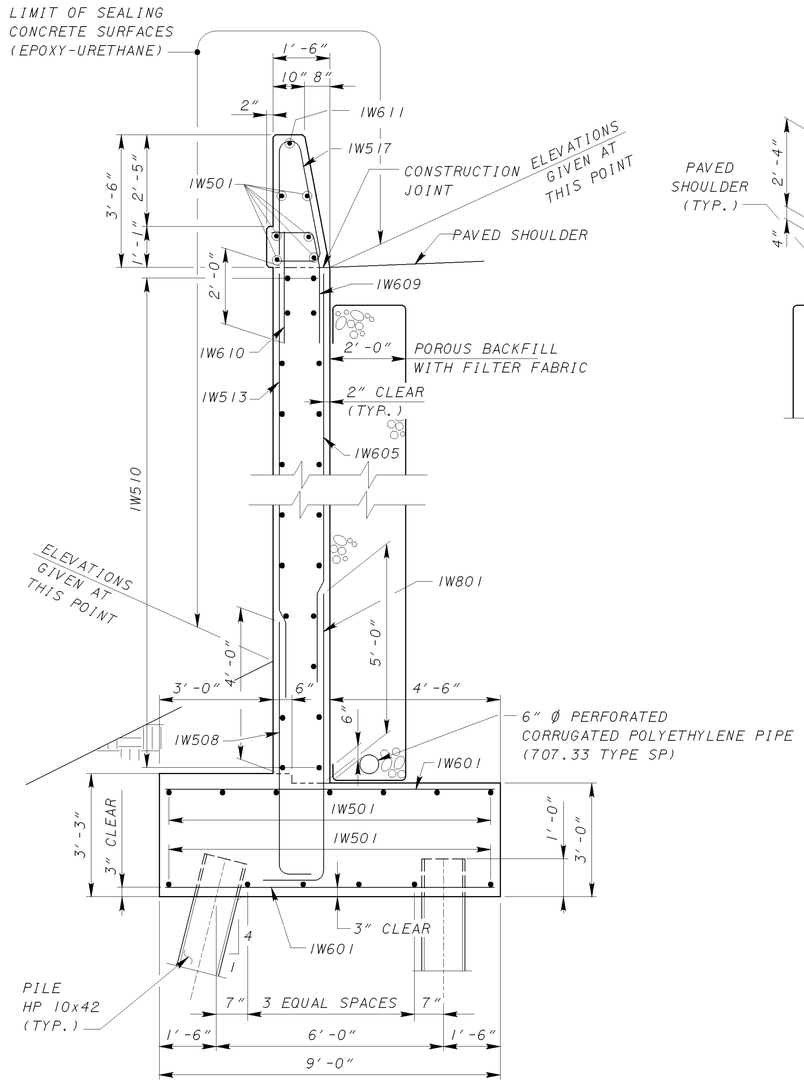
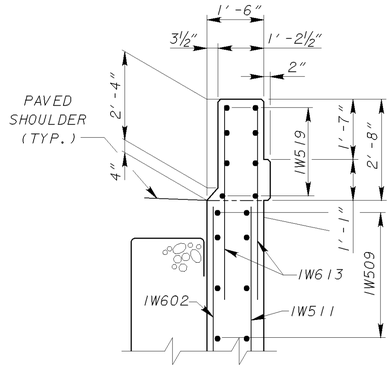
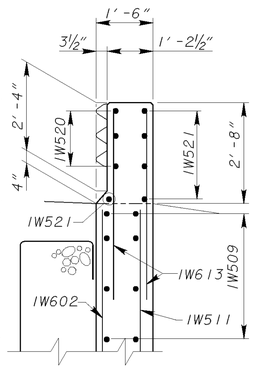


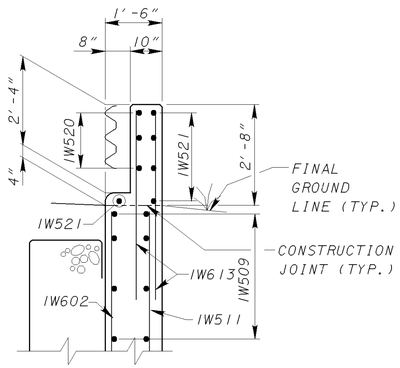
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE SUITE 1090 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		570810	

RETAINING WALL 1 - SECTIONS
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

6/12

298/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:09 PM
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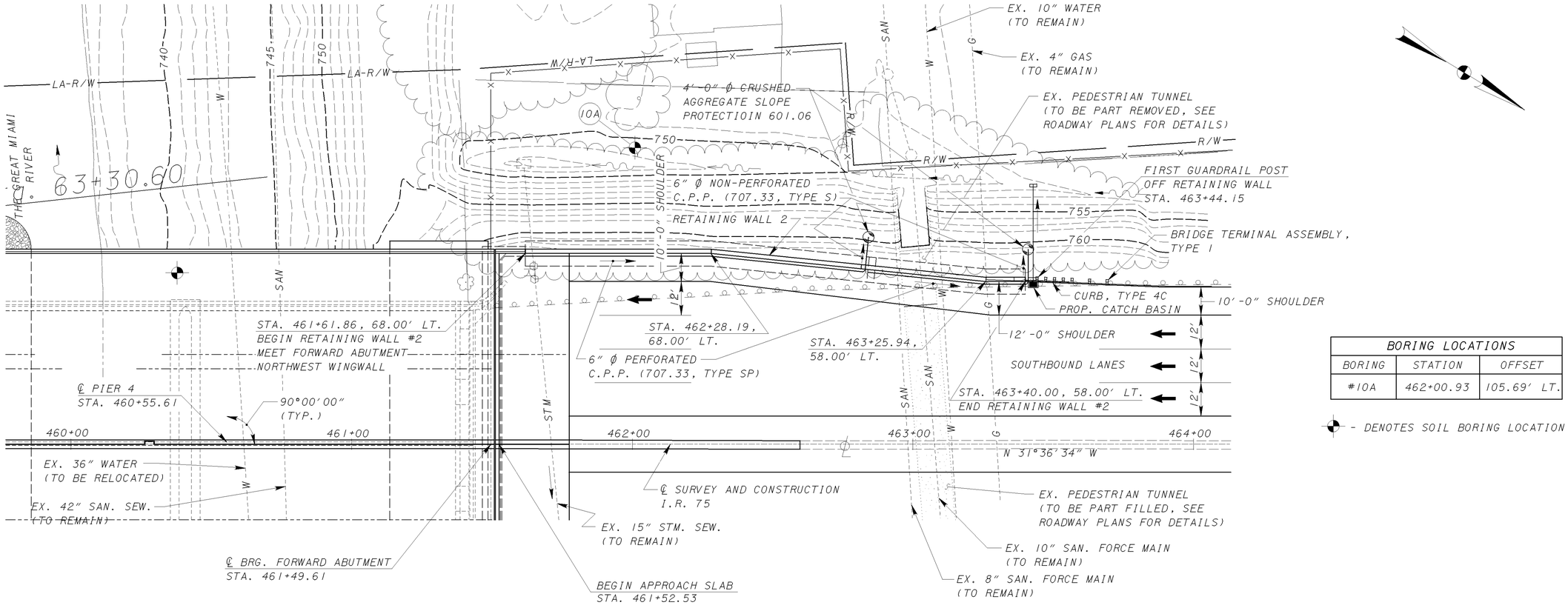
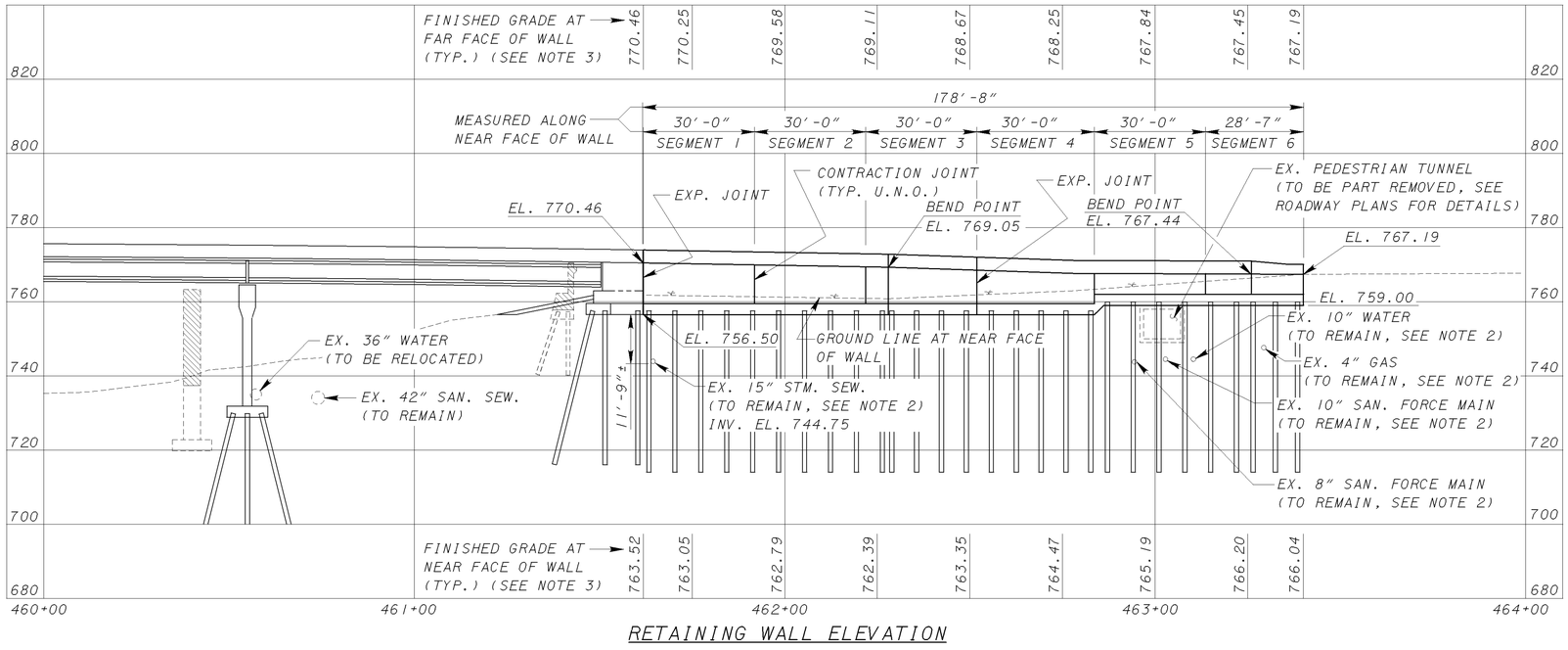


PLAN

BORING LOCATIONS		
BORING	STATION	OFFSET
#10A	462+00.93	105.69' LT.

- DENOTES SOIL BORING LOCATION



RETAINING WALL ELEVATION

NOTES:

1. ABBREVIATIONS:
   TYP. - TYPICAL
   EL. - ELEVATION
   STA. - STATION
   U.N.O. - UNLESS NOTED OTHERWISE
   EXP. - EXPANSION
2. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITES AND ADJUST PILE SPACING TO CLEAR, UTILITY LOCATIONS BY 1'-0". MAXIMUM PILE SPACING SHOULD BE LIMITED TO 9'-0" AT UTILITY LOCATIONS
3. FOR DETAILING PURPOSES, THE TERM "NEAR FACE" DEFINES THE FRONT, VISIBLE FACE OF THE WALL. THE TERM "FAR FACE" DEFINES THE BACK, EARTH RETAINING FACE OF THE WALL.
4. FOR ADDITIONAL NOTES, SEE SHEET 9/12.

FOUNDATION DATA:

ALL PILES SHALL BE HP 10x42 STEEL PILES

PILE ESTIMATED LENGTH:
RETAINING WALL 2 = 38 PILES @ 45 FT.
18 PILES @ 50 FT.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	RER	6/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708110	

RETAINING WALL 2 - GENERAL PLAN & ELEVATION
BRIDGE NO. MOT-75-1523 L/R
STA. 461+61.94 TO STA. 463+40.00

MOT-75-14.60

7 / 12

299 / 316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:10 PM
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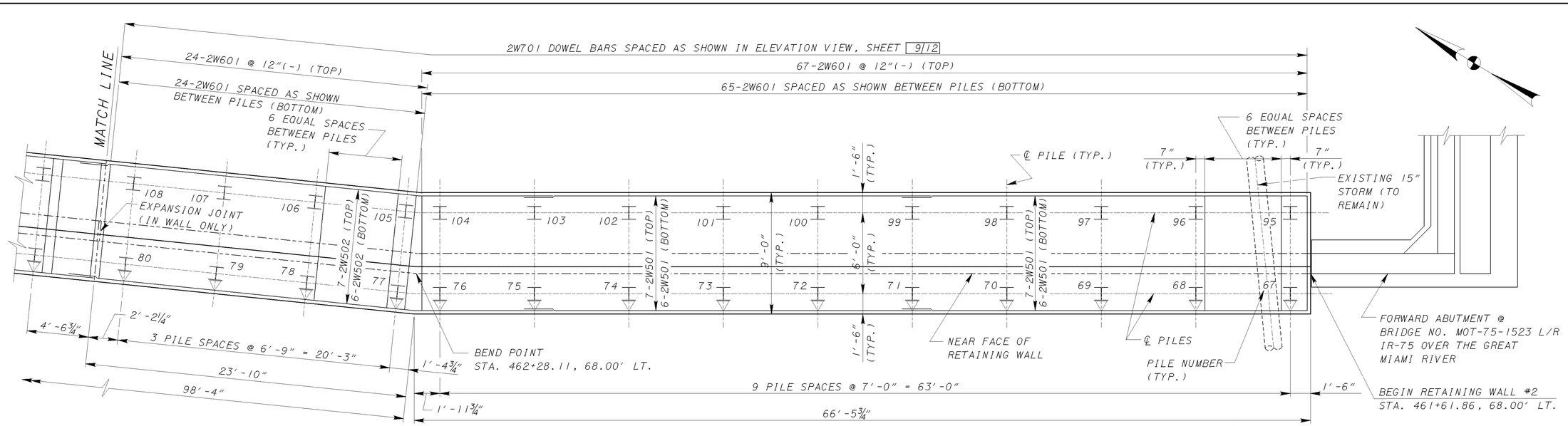
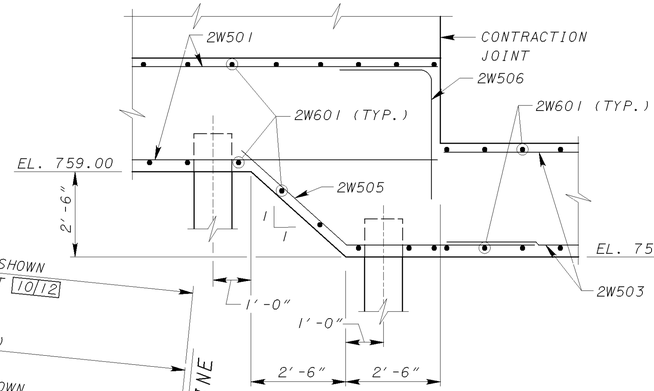
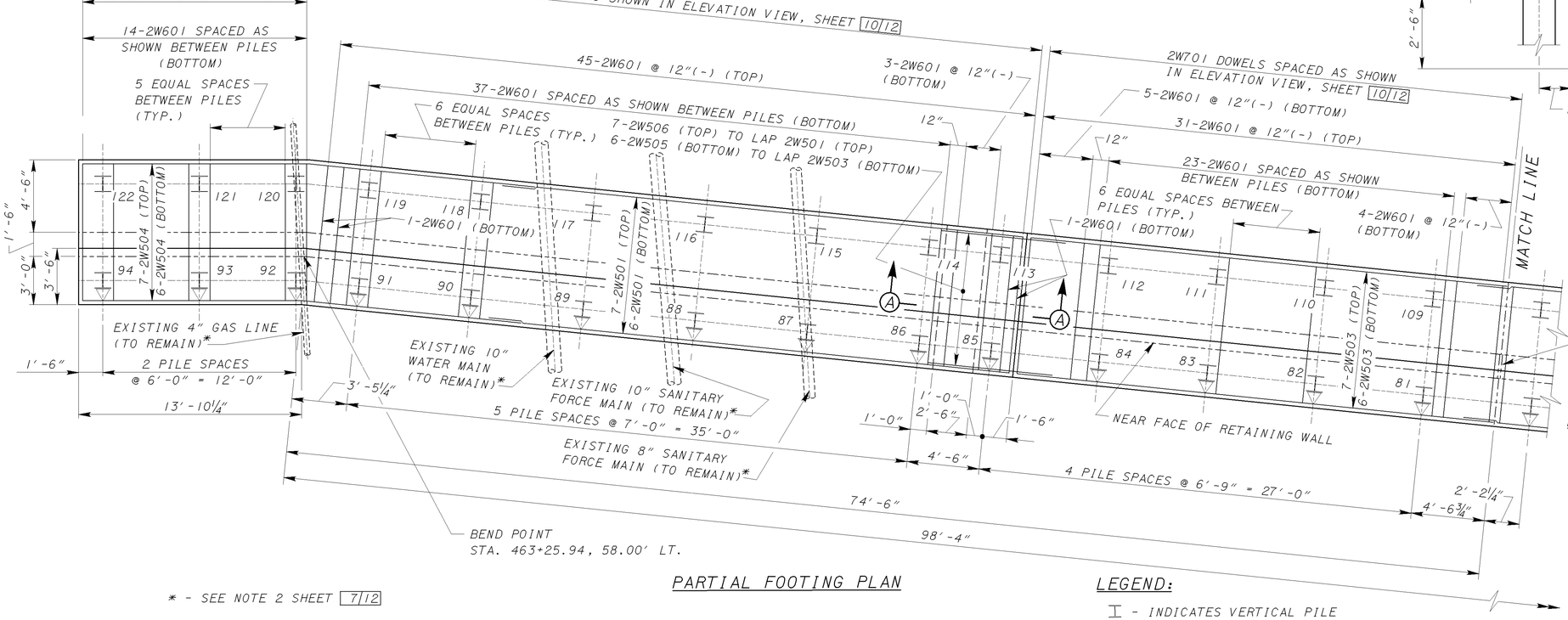


PARTIAL FOOTING PLAN

BAR	REQUIRED LAP LENGTH
#5	2'-5"



SECTION A-A



PARTIAL FOOTING PLAN

* - SEE NOTE 2 SHEET 7|12

LEGEND:

I - INDICATES VERTICAL PILE

I - INDICATES PILE BATTER IN DIRECTION SHOWN

NOTES:

1. ALL PILES ARE HP10x42.
2. PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING PLUS 1'-0".
3. ALL BATTERED PILES SHALL BE INCLINED 4 IN 12 IN DIRECTION SHOWN.
4. FOR RETAINING WALL PLAN AND ELEVATION, SEE SHEETS 9|12 AND 10|12.
5. FOR REINFORCING STEEL LIST, SEE SHEET 12|12.
6. PILES SHALL BE PLACED PERPENDICULAR TO NEAR FACE OF RETAINING WALL.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE SUITE 1090 CLEVELAND, OHIO 44113-1901

REVIEWED	DATE
RER	6/18/05
DRAWN	STRUCTURE FILE NUMBER
CAG	570810
DESIGNED	REVISED
BTA	
CHECKED	
NFF	

RETAINING WALL 2 - FOUNDATION PLAN
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

8 / 12

300 / 316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:11PM
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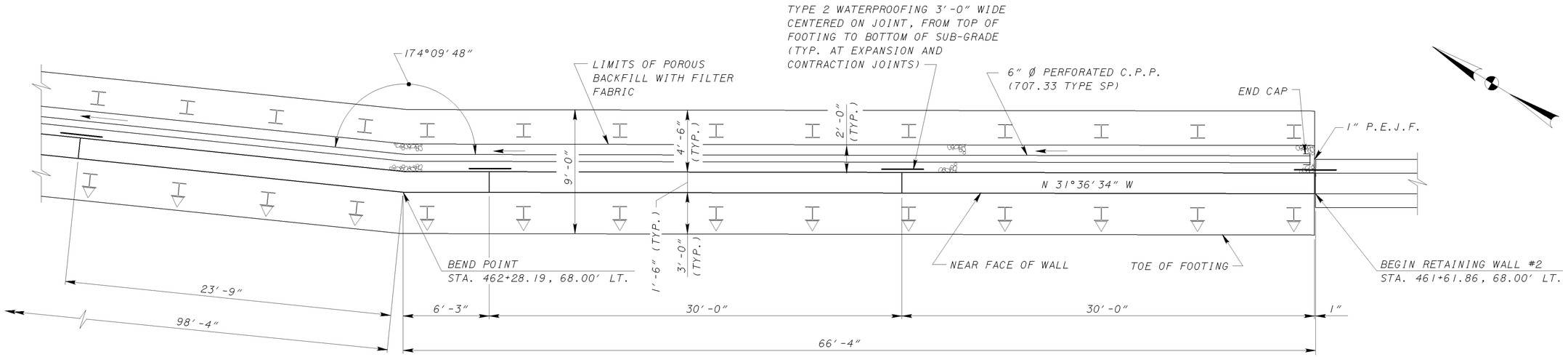
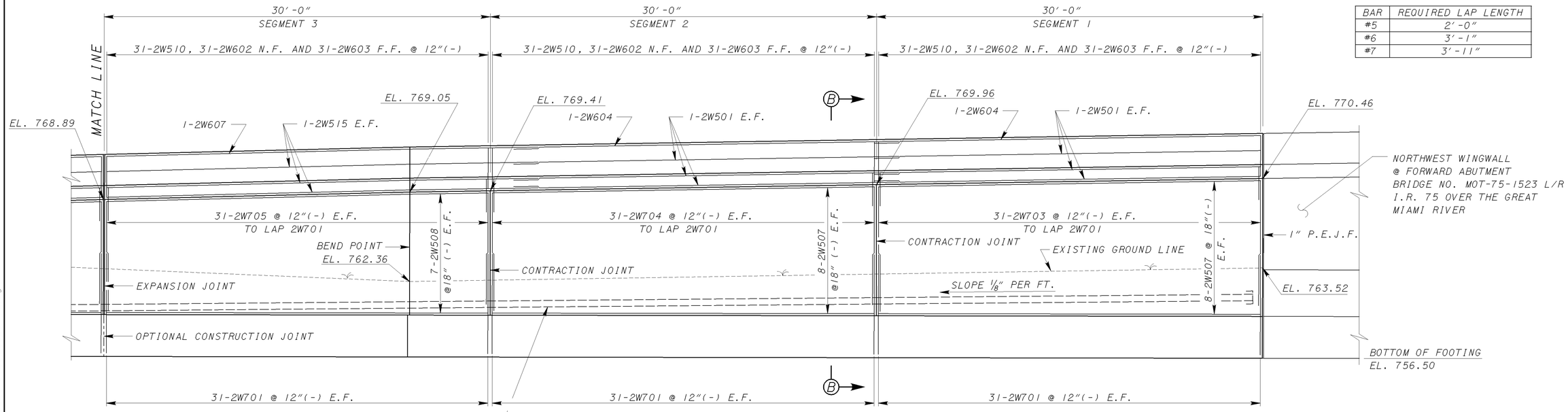


PLAN SEGMENTS 1 THRU 3

(PARAPET AND PILES NOT SHOWN FOR CLARITY)



ELEVATION SEGMENTS 1 THRU 3

(PILES AND FOOTING REINFORCING NOT SHOWN FOR CLARITY)

BAR	REQUIRED LAP LENGTH
#5	2′-0″
#6	3′-1″
#7	3′-11″

LEGEND:

E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
C.P.P. - CORRUGATED POLYETHYLENE PIPE

NOTES:

1. ALL DIMENSIONS AND REINFORCING BAR SPACING ARE MEASURED ALONG THE NEAR FACE OF THE WALL.
2. FOR SECTION B-B, SEE SHEET 11/12.
3. FOR FOOTING PLAN AND REINFORCING, SEE SHEET 8/12.
4. FOR REINFORCING STEEL LIST, SEE SHEET 12/12.
5. FOR CONTRACTION AND EXPANSION JOINT DETAILS, SEE SHEET 11/12.
6. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE EDGE OF THE RETAINING WALL.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	RER	6/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		570810	

RETAINING WALL 2 - PLAN & ELEVATION
BRIDGE NO. MOT-75-1523 L/R
I.R.-75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

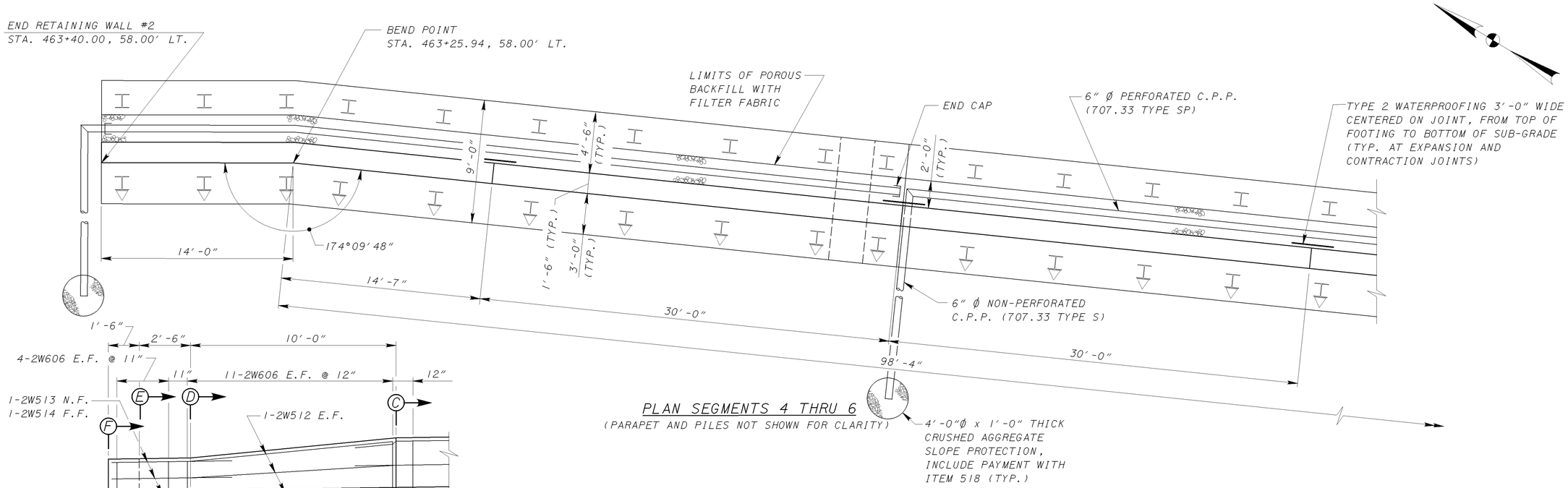
9 / 12

301 / 316

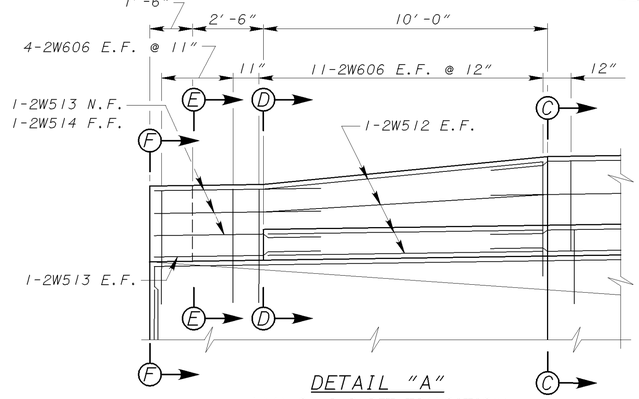
Plotted By: ecmack Date: 7/27/2007 Time: 3:20:11 PM
Filename: G:\co04\0066\bridge\steel_dif\cadd\steel23828rwl2.dgn

END RETAINING WALL #2
STA. 463+40.00, 58.00' LT.

BEND POINT
STA. 463+25.94, 58.00' LT.



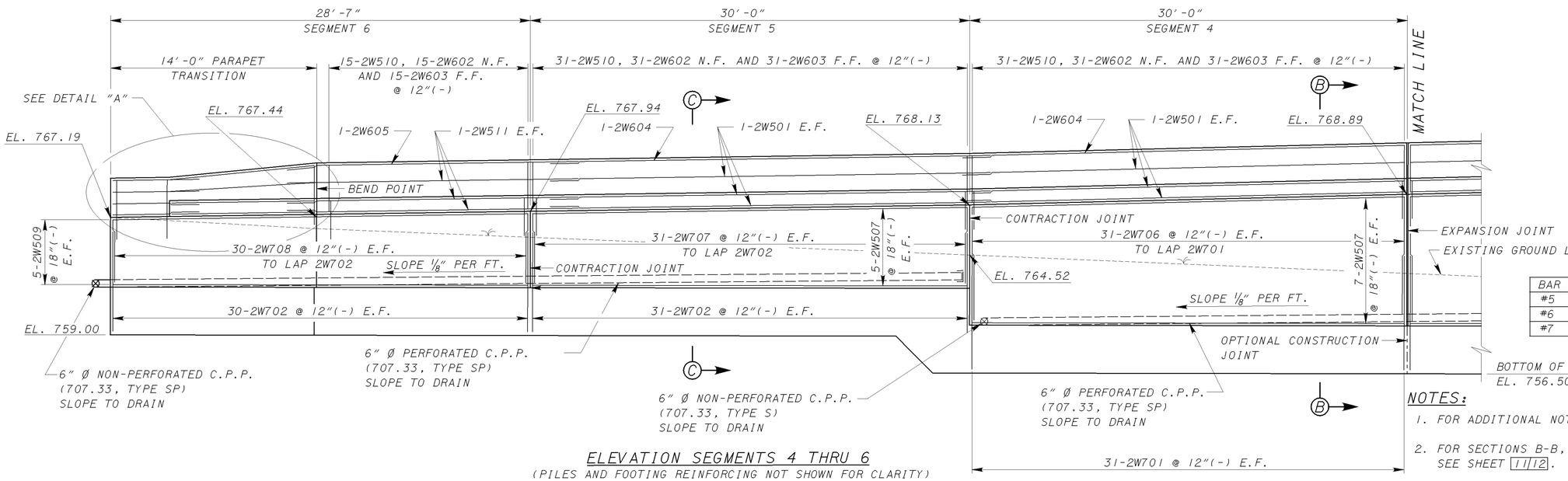
PLAN SEGMENTS 4 THRU 6
(PARAPET AND PILES NOT SHOWN FOR CLARITY)



DETAIL "A"
(14'-0" PARAPET TRANSITION)

LEGEND:

C.P.P. - CORRUGATED POLYETHYLENE PIPE
E.F. - EACH FACE
F.F. - FAR FACE
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
TYP. - TYPICAL



BAR	REQUIRED LAP LENGTH
#5	2'-0"
#6	3'-1"
#7	3'-11"

ELEVATION SEGMENTS 4 THRU 6
(PILES AND FOOTING REINFORCING NOT SHOWN FOR CLARITY)

NOTES:

1. FOR ADDITIONAL NOTES, SEE SHEET 9/12.
2. FOR SECTIONS B-B, C-C, D-D, E-E AND F-F, SEE SHEET 11/12.
3. SEE O.D.O.T. STANDARD DRAWING SBR-1-99 FOR ADDITIONAL 14'-0" PARAPET TRANSITION DETAILS.

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

REVIEWED	DATE
RER	6/18/05

STRUCTURE FILE NUMBER 5708110

DRAWN	REVISED
CAG	

DESIGNED	CHECKED
BTA	NFF

RETAINING WALL 2 - PLAN & ELEVATION
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

10/12

302/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:11 PM
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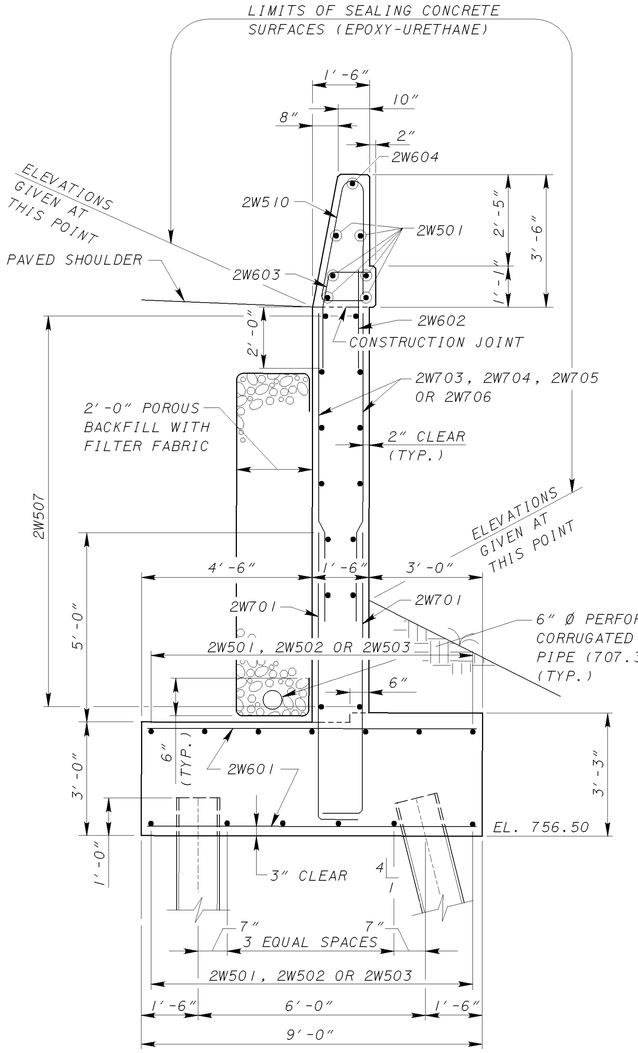
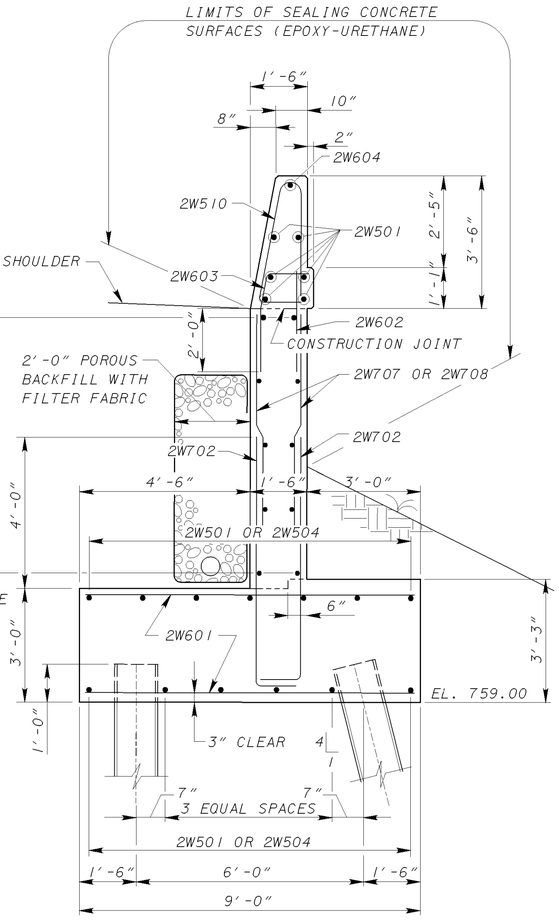


SECTION B-B



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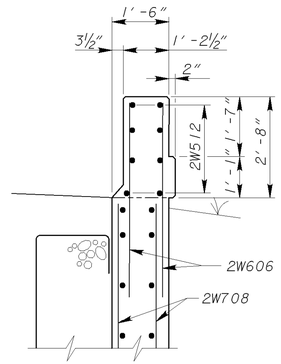
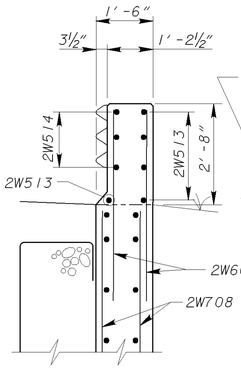
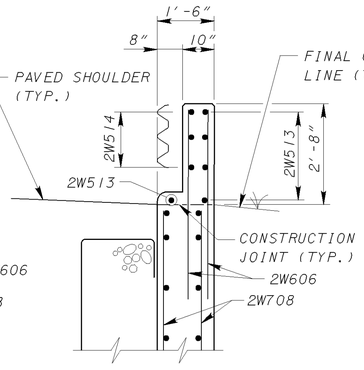


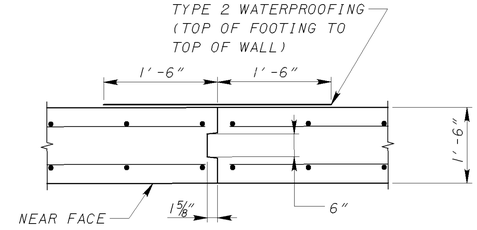
SECTION D-D



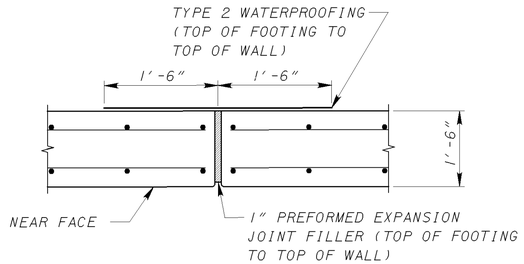
SECTION E-E



SECTION F-F



CONTRACTION JOINT



EXPANSION JOINT

DESIGN AGENCY
TranSystems
55 PUBLIC SQUARE, SUITE 1090
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	CAG	RER	6/18/05
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5708I0	

RETAINING WALL 2 - SECTIONS
BRIDGE NO. MOT-75-1523 L/R
I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

11/12

303/316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:12 PM
Filename: g:\co04\0066\bridge\steel_gl+\cadd\steel23828rw14.dgn

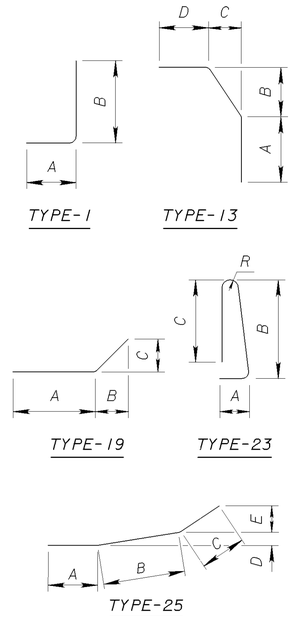
BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
RETAINING WALL 1													
1W501	127		30'-0"	3974		STR.							
1W502	13		13'-7"	184		STR.							
1W503	6		10'-0"	63		19	5'-0"	3'-7"	3'-7"				
1W504	7		4'-0"	29		STR.							
1W505	7		6'-0"	44		1	2'-5"	3'-8"					
1W506	6		9'-3"	58		STR.							
1W507	7		12'-11"	94		STR.							
1W508	227		7'-8"	1815		1	10"	6'-11"					
1W509	20		27'-11"	582		STR.							
1W510	128		31'-8"	4228		STR.							
1W511	29		11'-2"	338		STR.							
1W512	33		11'-7"	399		STR.							
1W513	33		12'-1"	416		STR.							
1W514	33		12'-8"	436		STR.							
1W515	33		10'-8"	367		STR.							
1W516	33		12'-2"	419		STR.							
1W517	213		7'-5"	1648		23	1'-1"	3'-2"	3'-0"			2¾"	
1W518	6		16'-1"	101		STR.							
1W519	8		10'-0"	83		STR.							
1W520	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1½"	5"		
1W521	5		5'-6"	29		STR.							
1W522	33		11'-5"	393		STR.							
1W523	6		28'-0"	175		STR.							
1W524	6		11'-8"	73		STR.							
1W601	448		8'-8"	5832		STR.							
1W602	29		11'-6"	501		STR.							
1W603	1		28'-8"	43		STR.							
1W604	33		12'-0"	595		STR.							
1W605	33		12'-4"	611		STR.							
1W606	33		13'-0'	644		STR.							
1W607	33		11'-0"	545		STR.							
1W608	33		12'-6"	620		STR.							
1W609	213		3'-11"	1253		13	2'-0"	11"	2"	1'-1"			
1W610	213		2'-11"	933		STR.							
1W611	6		30'-0"	270		STR.							
1W612	33		11'-9"	582		STR.							
1W613	30		5'-4"	240		STR.							
1W614	1		14'-11"	22		STR.							
1W801	227		8'-10"	5354		1	1'-4"	7'-8"					
TOTAL WEIGHT RETAINING WALL 1 = 34010 POUNDS													

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
RETAINING WALL 2													
2W501	63		30'-0"	1971		STR.							
2W502	13		37'-3"	505		19	26'-3"	11'-0"	1'-2"				
2W503	13		29'-10"	405		STR.							
2W504	13		30'-10"	418		19	17'-0"	13'-9"	1'-5"				
2W505	6		9'-8"	60		19	5'-0"	3'-4"	3'-4"				
2W506	7		5'-9"	42		1	2'-5"	3'-5"					
2W507	56		29'-8"	1733		STR.							
2W508	20		29'-10"	622		19	23'-9"	6'-1"	8"				
2W509	10		28'-3"	295		19	14'-5"	13'-9"	1'-5"				
2W510	170		7'-5"	1315		23	1'-1"	3'-2"	3'-0"			2¾"	
2W511	6		20'-6"	128		19	18'-6"	2'-0"	3"				
2W512	8		10'-0"	83		STR.							
2W513	5		5'-6"	29		STR.							
2W514	3		5'-6"	17		25	1'-8"	2'-5"	1'-5"	1½"	5"		
2W515	6		33'-8"	211		19	23'-7"	10'-1"	1'-0"				
2W601	360		8'-8"	4686		STR.							
2W602	170		2'-11"	745		STR.							
2W603	170		3'-11"	1000		13	2'-0"	11"	2"	1'-1"			
2W604	4		30'-0"	180		STR.							
2W605	1		23'-11"	36		19	20'-7"	3'-1"	1'-4"				
2W606	30		5'-4"	240		STR.							
2W607	1		35'-10"	54		19	23'-7"	12'-2"	1'-3"				
2W701	248		8'-9"	4435		1	1'-2"	7'-9"					
2W702	122		7'-9"	1933		1	1'-2"	6'-9"					
2W703	62		9'-9"	1236		STR.							
2W704	62		9'-2"	1162		STR.							
2W705	62		8'-8"	1099		STR.							
2W706	62		8'-2"	1035		STR.							
2W707	62		5'-11"	750		STR.							
2W708	60		5'-8"	695		STR.							
TOTAL WEIGHT RETAINING WALL 2 = 27119 POUNDS													

BAR BENDING DIAGRAMS



NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, 1W601:
   - 1W: LOCATION OF THE BAR IN THE STRUCTURE (RETAINING WALL 1)
   - 6: BAR SIZE DESIGNATION NO. 6
   - 01: SEQUENCE NUMBER

2. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

DESIGN AGENCY: TranSystems, 55 PUBLIC SQUARE, SUITE 2090, CLEVELAND, OHIO 44113-1901

DESIGNED RCK | DRAWN RCK | CHECKED MLR | REVISED | REVIEWED RER | DATE 6/21/05 | STRUCTURE FILE NUMBER 570810

RETAINING WALLS - REINFORCING STEEL LIST

BRIDGE NO. MOT-75-1523 L/R

I.R. 75 OVER THE GREAT MIAMI RIVER

MOT-75-14.60
PID 23828

12 / 12

304
316

Plotted By: ecmack Date: 7/27/2007 Time: 3:20:13 PM
Filename: g:\cc04\0066\bridge\steel.alt\cadd\steel23828rwr10l.dgn

CENTERLINE PLAT

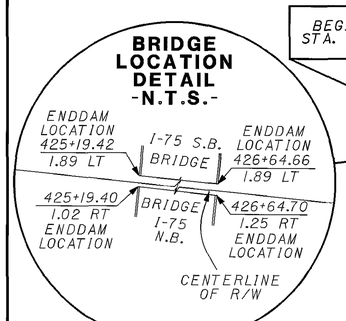
MOT-75-14.60

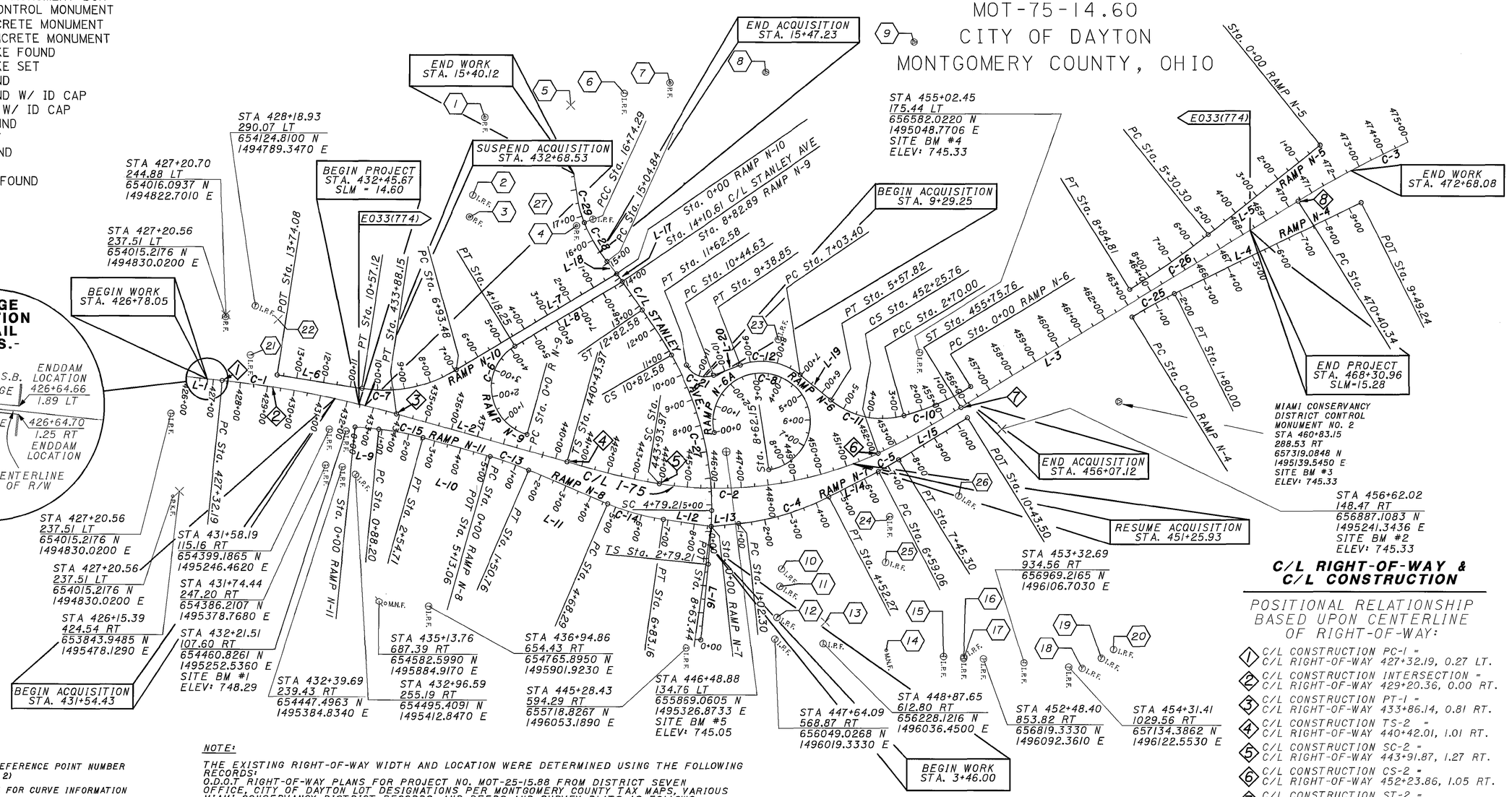
CITY OF DAYTON

MONTGOMERY COUNTY, OHIO

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- LOCAL GOV. CONTROL MONUMENT
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET
- CROSS NOTCH FOUND
- SITE BM





C/L RIGHT-OF-WAY & C/L CONSTRUCTION

POSITIONAL RELATIONSHIP BASED UPON CENTERLINE OF RIGHT-OF-WAY:

1. C/L CONSTRUCTION PC-1 = C/L RIGHT-OF-WAY 427+32.19, 0.27 LT.
2. C/L CONSTRUCTION INTERSECTION = C/L RIGHT-OF-WAY 429+20.36, 0.00 RT.
3. C/L CONSTRUCTION PT-1 = C/L RIGHT-OF-WAY 433+86.14, 0.81 RT.
4. C/L CONSTRUCTION TS-2 = C/L RIGHT-OF-WAY 440+42.01, 1.01 RT.
5. C/L CONSTRUCTION SC-2 = C/L RIGHT-OF-WAY 443+91.87, 1.27 RT.
6. C/L CONSTRUCTION CS-2 = C/L RIGHT-OF-WAY 452+23.86, 1.05 RT.
7. C/L CONSTRUCTION ST-2 = C/L RIGHT-OF-WAY 455+76.73, 1.09 RT.
8. C/L CONSTRUCTION PC-3 = C/L RIGHT-OF-WAY 470+38.31, 2.30 RT.

NOTES:

(1) - INDICATES REFERENCE POINT NUMBER (SEE SHEET 2)

SEE SHEET 2 OF 11 FOR CURVE INFORMATION

ALL COORDINATE AND DISTANCE VALUES ARE GROUND BASED UNLESS OTHERWISE SPECIFIED

ALL STATION AND OFFSET VALUES ARE REFERENCES TO THE CENTERLINE OF RIGHT-OF-WAY UNLESS OTHERWISE SPECIFIED

NOTE:

THE EXISTING RIGHT-OF-WAY WIDTH AND LOCATION WERE DETERMINED USING THE FOLLOWING RECORDS:
O.D.O.T RIGHT-OF-WAY PLANS FOR PROJECT NO. MOT-25-15.88 FROM DISTRICT SEVEN OFFICE, CITY OF DAYTON LOT DESIGNATIONS PER MONTGOMERY COUNTY TAX MAPS, VARIOUS MIAMI CONSERVANCY DISTRICT RECORDS, AND DEEDS AND SURVEY PLATS AS FOLLOWS:

DeeD References:	DeeD References:	Tax Maps-	
Microfiche 73-430-E01	DB 1856 PG. 321	Book 57 Page 14	Book 156 Page 1
Microfiche 75-080-D02	DB 1860 PG 561	Book 57 Page 13	Book 4 Page 173
Microfiche 76-072-B10	DB 2180 PG 359	Book 57 Page 4	Book 6 Page 173
Microfiche 79-879-E11	DB 2111 PG 474	Book 167 Page 2	Book 5 Page 173
Microfiche 81-482-E02			
Microfiche 81-530-E01			
Microfiche 81-781-D09		Miami Conservancy District	
Microfiche 82-114-E06	Survey Plats	Property Map Page 8	
Microfiche 83-345-D06	Volume 2002 Page 216		
Microfiche 84-395-A11	Volume 89 Page 30	City of Dayton Ordinance No. 19732	
Microfiche 85-1097-D11	Plat Book "X" Page 100	(Street Name Change)	

BASIS FOR BEARINGS:

THE BEARINGS RECITED HEREIN ARE RELATIVE TO GRID SOUTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (1995 ADJUSTMENT) DATUM FROM GPS OBSERVATIONS BY PREFERRED SURVEYING COMPANY, INC., JULY, 2004.

PROJECT ADJUSTMENT FACTOR:

THE STATE PLANE COORDINATE TO GROUND COORDINATE PROJECT ADJUSTMENT FACTOR IS 1.000070565

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

Preferred Surveying Company, Inc.
10172 International Boulevard • Cincinnati, Ohio 45246
Latitude 39°18' 03.1" North • Longitude 084°26' 31.5" West
Tel: 513.942.9420 • Fax 513.860.8220

RECEIVED _____, 20___

RECORDED _____, 20___

BOOK _____ PAGE _____

COUNTY RECORDER

STATE OF OHIO SCOTT R. LINDGREN S-7853 REGISTERED PROFESSIONAL SURVEYOR

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2004 BY PREFERRED SURVEYING COMPANY, INC. THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

11-02-05

BY: SCOTT R. LINDGREN SURVEYOR NO. 7853 DATE

N

HORIZONTAL SCALE IN FEET 0 100 200 400

PID NO. 23828

R/W DESIGNER R. B. ROSS

R/W REVIEWER S. LINDGREN

CENTERLINE PLAT

MOT-75-14.60

1 / 11

305 / 316

MOT-75-14.60							
EXISTING MONUMENTS			STATE PLANE COORDINATES NAD 83 (1995 ADJ.) OHIO SOUTH ZONE			PROJECT COORDINATES P.A.F. = 1.000070565	
POINT	STATION	OFFSET	NORTHING	EASTING		NORTHING	EASTING
1	434+06.56	1151.19LT	654974.2601	1494085.3420	PIPE FOUND	655020.4784	1494190.7721
2	434+41.17	861.89LT	654929.7210	1494373.2760	PIN FOUND	654975.9361	1494478.7265
3	434+50.93	780.21LT	654917.1351	1494454.5740	PIPE FOUND	654963.3493	1494560.0302
4	438+40.31	855.98LT	655312.5343	1494486.3970	PIPE FOUND	655358.7764	1494591.8554
5	437+00.07	1279.94LT	655291.5903	1494040.3410	CROSS NOTCH FOUND	655337.8310	1494145.7680
6	438+78.41	1375.41LT	655489.0418	1493996.4040	PIN FOUND	655535.2964	1494101.8279
7	440+29.84	1459.95LT	655657.6413	1493955.7430	PIPE FOUND	655703.9078	1494061.1640
8	456+14.89	1438.61LT	656014.0501	1493915.1400	CITY OF DAYTON CONTROL MONUMENT NO. 1091	656060.3417	1494020.5581
9	461+40.93	1247.25LT	656562.2567	1493801.9480	CITY OF DAYTON CONTROL MONUMENT NO. 1092	656608.5870	1493907.3581
10	448+06.64	315.12RT	656073.1840	1495760.7010	PIN FOUND	656119.4798	1495866.2494
11	447+94.87	378.44RT	656067.1304	1495825.4040	PIN FOUND	656113.4258	1495930.9569
12	447+75.88	490.59RT	656056.3245	1495939.7340	PIN FOUND	656102.6191	1496045.2950
13	449+04.18	536.29RT	656235.6125	1495956.8640	CROSS NOTCH FOUND	656281.9198	1496062.4262
14	450+37.91	693.32RT	656459.8101	1496061.0200	MAG NAIL FOUND	656506.1332	1496166.5895
15	451+64.94	786.12RT	656672.3488	1496083.4400	PIN FOUND	656718.6869	1496189.0111
16	452+08.50	817.46RT	656747.1362	1496085.6190	PIN FOUND	656793.4796	1496191.1903
17	452+06.96	821.78RT	656746.6821	1496090.5490	PIN FOUND	656793.0254	1496196.1206
18	454+63.26	1059.00RT	657184.1331	1496127.2440	PIN FOUND	657230.5073	1496232.8182
19	455+31.98	1063.90RT	657255.1190	1496089.8500	PIN FOUND	657301.4982	1496195.4216
20	455+84.93	1059.77RT	657299.7688	1496057.5090	PIN FOUND	657346.1512	1496163.0783
21	428+23.90	106.40LT	654107.2552	1494972.2460	PIN FOUND	654153.4123	1495077.7387
22	429+03.46	250.57LT	654209.2094	1494840.6230	CROSS NOTCH FOUND	654255.3737	1494946.1064
23	449+72.31	523.72LT	656061.0490	1494909.3900	PIN FOUND	656107.3439	1495014.8783
24	451+74.10	233.19RT	656473.0656	1495567.5240	PIN FOUND	656519.3896	1495673.0587
25	451+11.29	385.25RT	656457.2446	1495736.9140	PIN FOUND	656503.5675	1495842.4607
26	454+04.66	277.63RT	656728.0106	1495489.0760	PIN FOUND	656774.3526	1495594.6052
27	438+91.66	896.25LT	655372.8316	1494461.4460	PIN FOUND	655419.0780	1494566.9027

PROJECT ADJUSTMENT FACTOR:

THE STATE PLANE COORDINATE TO GROUND
COORDINATE PROJECT ADJUSTMENT FACTOR IS 1.000070565

CURVE INFORMATION:

CURVE	PI STA.	DELTA	DEGREE	RADIUS	TANGENT	ARC	CHD BEARING	LONG CHORD	PC STA	PT/PCC STA
C-1	-	9° 50′ 22″	1° 30′ 00″	3819.71	328.79	655.96			427+32.19	433+88.15
C-3	2+79.27	46° 39′ 31″	1° 30′ 00″	3819.72	-	3110.57			470+40.34	501+51.10
C-4, N-7	-	20° 59′ 54″	6° 00′ 00″	954.93	176.97	349.97			1+02.30	4+52.27
C-5,N-7	-	4° 18′ 42″	5° 00′ 00″	1145.92	43.14	86.23			6+59.06	7+45.30
C-6, N-9	4+15.30	133° 08′ 04″	-	180.00	415.3	418.25			0+00	4+18.25
C-7, N-10	-	40° 00′ 00″	11° 00′ 00″	520.87	198.58	363.64			6+93.48	10+57.12
C-8, N-6A	-	274° 25′ 49″	31° 49′ 52″	180.00	166.59	862.15			0+00	8+62.15
C-10, N-6	1+35.91	16° 12′ 00″	6° 00′ 00″	954.93	135.91	270.00			0+00	2+70.00
C-11, N-6	-	54° 58′ 00″	19° 05′ 55″	300.00	156.06	287.80			2+70.00	5+57.82
C-12, N-6	-	60° 45′ 38″	25° 48′ 32″	222.00	130.14	235.42			7+03.40	9+38.85
C-21, N-6	-	84° 28′ 34″	71° 37′ 11″	80.00	-	117.95			10+44.62	11+62.57
C-13, N-8	0+75.49	7° 32′ 17″	5° 00′ 00″	1145.92	75.49	150.76			0+00	1+50.76
C-14, N-8	5+76.35	15° 02′ 28″	7° 00′ 00″	818.51	108.06	214.87			4+68.29	6+83.16
C-15, N-11	1+71.67	9° 59′ 27″	6° 00′ 00″	954.93	83.47	166.51			0+88.20	2+54.74
C-25, N-4	-	5° 24′ 22″	3° 00′ 00″	1909.86	90.17	180.20			0+00	1+80.00
C-26, N-5	-	7° 05′ 38″	2° 00′ 00″	2864.79	177.57	354.69			5+30.30	8+84.81
C-28	15+90.19	16° 55′ 25″	9° 59′ 14″	573.69	85.35	169.45			14+04.84	16+74.29
C-29	17+17.98	12° 28′ 02″	14° 19′ 26″	400.00	43.69	87.04			16+74.29	17+61.33

LINE INFORMATION:

LINE NO.	BEARING & DISTANCE
L-1	N 05°46′33″ E 76.32′
L-2	N 15°36′54″ E 655.82′
L-3	N 31°39′24″ W 1464.58′
L-4	N 26°14′56″ W 769.24
L-5	N 38°44′46″ W 530.30′
L-6	N 08°44′59″ E 316.96′
L-7	S 31°15′02″ E 693.48′
L-8	S 31°15′02″ E 464.64′
L-9	N 05°37′27″ W 88.20′
L-10	N 15°36′54″ E 258.35′
L-11	N 23°09′16″ E 317.53
L-12	N 08°06′47″ E 180.27′
L-13	N 06°20′49″ W 102.30′
L-14	N 27°20′43″ W 206.79′
L-15	N 31°39′25″ W 298.20′
L-16	N 84°31′52″ W 279.21′
L-17	S 55°18′01″ W 36.20′
L-18	S 51°28′44″ W 58.03′
L-19	S 39°30′42″ W 145.58′
L-20	S 21°15′28″ E 105.78′

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	θs	Xc	Yc	K	P	TS	SC	CS	ST
C-2	448+47.51	350.00	233.52	-	116.83	7° 00′ 00″	349.48	14.24	-	-	440+44.10	443+93.97	452+25.76	455+75.76
C-27	7+88.07	200.00	133.39	-	66.72	-	199.85	5.81	99.97	1.45	2+79.21	4+79.21	10+82.58	12+82.58

☐ Preferred
☐☐ Surveying
☐☐☐ Company, Inc.
10172 International Boulevard · Cincinnati, Ohio 45246
Latitude 39°18′ 03.1″ North · Longitude 084°26′ 31.5″ West
Tel: 513.942.9420 · Fax 513.860.8220

RECEIVED _____, 20____
RECORDED _____, 20____
BOOK _____ PAGE _____
COUNTY RECORDER

STATE OF OHIO · SCOTT R. LINDGREN · 7853 · REGISTERED PROFESSIONAL SURVEYOR

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2004 BY PREFERRED SURVEYING COMPANY, INC. THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY: SCOTT R. LINDGREN SURVEYOR NO. 7853 — DATE 11-02-05

REV. BY	DATE	DESCRIPTION

PID NO. 23828
R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

CENTERLINE PLAT

MOT-75-14.60

REV. BY	DATE	DESCRIPTION
BCF/SRL	03/15/06	PARCEL 5 CHANGE TO WD TAKES
BCF/SRL	10/25/05	CHANGE TO PROJECT LIMITS
DATE COMPLETED		10/25/05

PROPERTY OWNERS:

1. - City of Dayton - Parcel R72-05714-0016 - 1.065 Ac.
2. - B & L Packaging, Inc., An Ohio Corporation - Parcel R72-05714-008 - 3.947 Ac.
3. - Simclar, Inc., a Florida Corporation - Parcel R72-05714-0011 - Parcel R72-05714-0013 - Parcel R72-05714-0023 - 5.5624 Total Ac.
4. - The City of Dayton, Ohio - Parcel R72-05714-0016 - 1.065 Ac.
5. - Stanley Terminals, Incorporated, An Ohio Corporation - Parcel R72-05714-0010 - 1.69 Ac.
5-1. - Stanley Terminals, Incorporated, An Ohio Corporation - Parcel - R72-05714-0027 - 1.443 Ac.
6. - The City of Dayton, Ohio, a Municipal Corporation - Parcel R72-05714-0026 - 2.287 Ac.
7. - Board of County Commissioners, Montgomery County, Ohio & Miami Conservancy District - See Note on R/W Sheet - Parcel R72-05714-0001 - Unknown Ac.
8. - Miami Conservancy District, Montgomery County, Ohio - Parcel R72-05714-0001 - 0.80 Ac.

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

UTILITY CONTACT INFORMATION :

ELECTRIC:

DAYTON POWER & LIGHT
1900 DRYDEN RD
DAYTON, OHIO 45439
(937)-331-4088
ATTN: KYLE KING

DAYTON STREET LIGHTS
1736 E. MONUMENT AVE
BUILDING #23
DAYTON, OHIO 454402
(937) 333-3850
ATTN: DUANE EARLY

TELECOMMUNICATIONS:

TIME WARNER CABLE
275 LEO ST
DAYTON, OH 45404
(937) 425-8858
ATTN: DENNIS RAPP

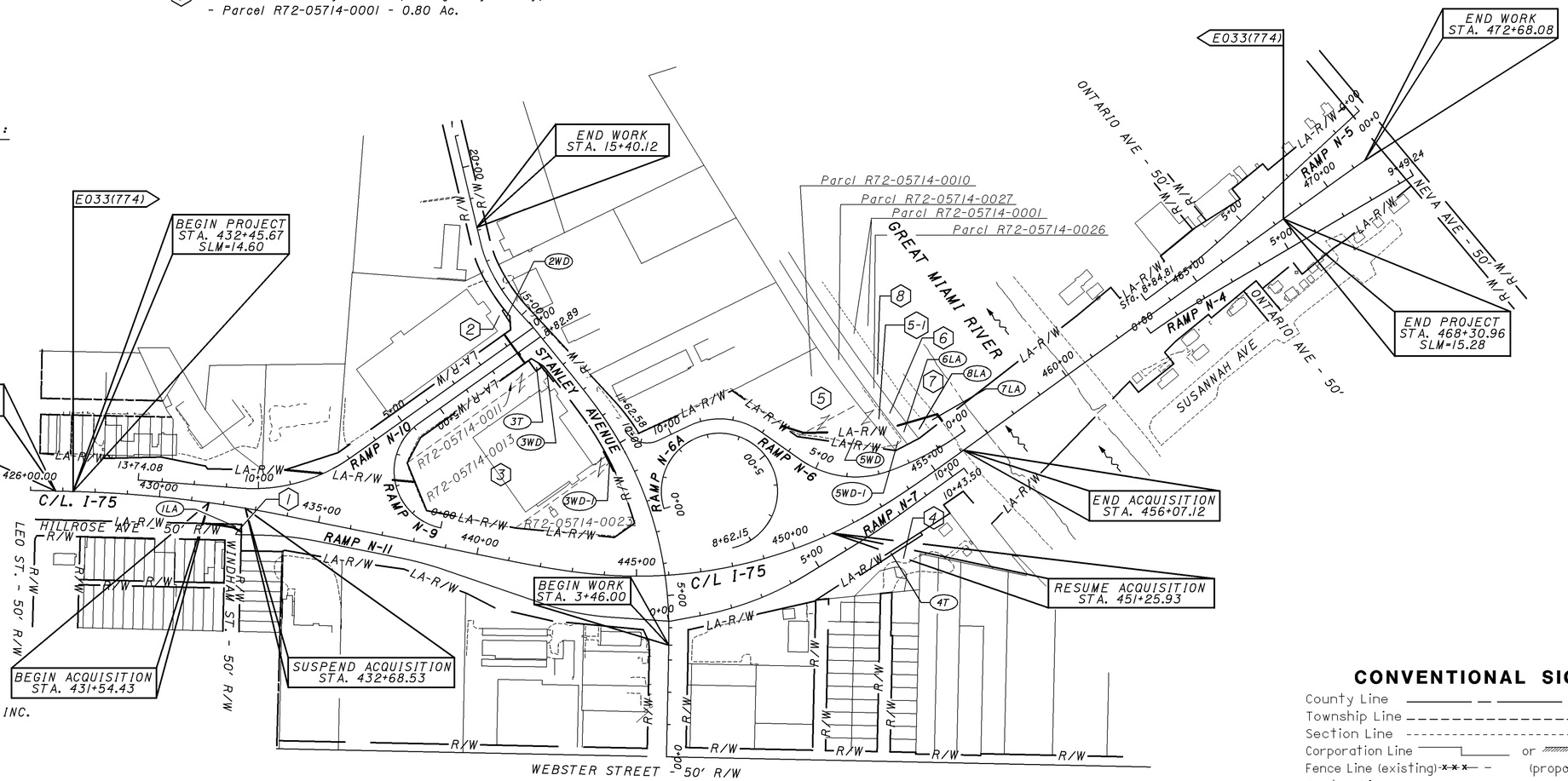
SANITARY/STORM/WATER:

DAYTON CITY WATER & SEWER
320 WEST MONUMENT AVE
DAYTON, OHIO 45402
(937) 333-3737
ATTN: SCOTT HOLMES

MONTGOMERY COUNTY
1850 SPAULDING ROAD
DAYTON, OHIO 45432
(937) 781-2500
ATTN: CHARLIE SCHAFFER

GAS:

VECTREN ENERGY DELIVERY OF OHIO, INC.
4285 N. JAMES H. MCGEE BLVD
DAYTON, OHIO 45427
(937) 440-1973
ATTN: CHUCK KANOY



NOTES: *THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.*

REFERENCE POINT INFORMATION IS CONTAINED IN THE CONSTRUCTION PLAN.

NOTE:
ALL PROPERTY AND STRUCTURES AFFECTED BY THE PROJECT ARE COMMERCIAL.

(1) *- INDICATES SEE PROPERTY OWNER LISTING THIS SHEET*

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits Construction Limits

SCALE IN FEET 0 100 200 400

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

PROPERTY MAP

MOT-75-14.60

3 / 11

308 / 316

TOTAL NUMBER OF :

6 OWNERSHIPS 0 OWNERSHIPS WITH STRUCTURES INVOLVED

11 PARCELS 0 OWNERSHIPS WITH "P" ITEMS

0 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD REFERENCE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1LA	CITY OF DAYTON	5	BOOK 1860, PG. 595	R72 05714 0016	1.065	0.0184	0.0184	0.0184	0.0	NONE	--	1.0466	STATE	TAKE IS FROM EXIST. R/W OF CITY STREET	--	--
2WD	B & L PACKAGING, INC.	6	DEED 87 0174 E 05	R72 05714 0008	3.947	0	0.0073	0	0.0073	NONE	3.9397	--	STATE		--	--
3WD	SIMCLAR, INC.	6	DEED 04-120132D	R72 05714 0011	5.5624	0	0.0010	0	0.0010	NONE	5.5388	--	STATE		--	--
		6		R72 05714 0013		0	0.0074	0	0.0074	NONE		--	STATE		--	
3WD-1		7		R72 05714 0013		0	0.0034	0	0.0034	NONE		--	STATE			
		7		R72 05714 0023		0	0.0034	0	0.0034	NONE		--	STATE			
	GRAND TOTAL						0.0152		0.0152						--	
3T		6	DEED 04-120132D	R72 05714 0013	4.1	0	0.0165	0	0.0165	NONE		--	STATE	DRIVEWAY CONSTRUCTION	--	--
4T	CITY OF DAYTON	8	VOL. 1827 PAGE 631	R72 05714 0016	1.065	0	0.0525	0	0.0525	NONE	--		STATE	MINOR GRADING PURPOSE	--	--
5WD	STANLEY TERMINALS INC	9	BOOK 2029, PG. 307	R72 05714 0010	1.69	0	0.2308	0	0.2308	NONE	1.4592	--	STATE		--	--
5WD-1		9	BOOK 2141, PG. 74	R72 05714 0027	1.443	0	0.0707	0	0.0707	NONE	1.3723	--	STATE		--	--
	GRAND TOTAL				3.133		0.3015		0.3015		2.8315					
6LA	CITY OF DAYTON	9	VOL. 1266 PAGE 156	R72 05714 0026	2.287	0	0.0575	0	0.0575	NONE	2.2295	--	STATE		--	--
7LA	BOARD OF COUNTY COMMISSIONERS &	9	SEE NOTE ON R.O.W.	R72 05714 0001	UNKNOWN	0	0.0372	0	0.0372	NONE	UNKNOWN	--	STATE		--	--
	MIAMI CONSERVANCY DISTRICT		PLAN SHEET 9 OF 11													
8LA	MIAMI CONSERVANCY DISTRICT	9	BOOK 402, PG 22	SEE REMARKS	0.800	0	0.0538	0	0.0538	NONE	0.7462	--	STATE	PARCEL NOT SHOWN ON AUDITOR'S TAX MAP. NO AUDITOR PARCEL NUMBER ASSIGNED	--	--

REV. BY	DATE	DESCRIPTION
BCF/SRL	03/15/06	PARCEL 5 NOW WD TAKES
BCF/SRL	10/25/05	CHANGES TO PARCEL 3

DATE COMPLETED 10/25/05

FEDERAL PROJECT NO.

PID NO. 23828

R/W DESIGNER R. B. ROSS

R/W REVIEWER S. LINDGREN

SUMMARY OF ADDITIONAL R/W

MOT-75-14.60

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

REV. BY	DATE	DESCRIPTION
BCF/SRL	11/21/05	CHANGE CONSTRUCTION LIMITS
BCF/SRL	10/25/05	CHANGE PROJECT LIMITS
DATE COMPLETED		11/21/05

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line ____ or ____
Fence Line (existing) -x-x-x- (proposed) -x-x-x-
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits Construction Limits

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

BEGIN PROJECT STA. 432+45.67

Sta 431+29.42
110.86 LT
654417.8521 N
1495019.3885 E

S 59°22'23" W - 10.64'

N 4°56'43" E

169.65'

PT Sta. 10+57.12

DENSE VEGETATION

EX FENCE

Sta 431+36.40
103.00 LT
654423.2736 N
1495028.5458 E

EX GUARDRAIL (TBR)

TYPE 5 GUARDRAIL

PT Sta. 10+59.16
CONST. BASELINE

EX CB (TBR)

12+00 11+00 10+00

C-7

℄ RAMP N-10

Sta 432+99.46
126.96 LT
654592.2921 N
1495043.1704 E

239.54'

Sta 433+66.00
138.90 LT
654661.9195 N
1495049.1950 E

CONSTRUCTION LIMITS

N 7°24'31"E 397.45'

N 9° 33' 26" E LA-R/W 404.93'

N 13°46'17" W - 173.76'

EX FENCE

C/L R/W CURVE
520.87' RAD
40° 02' 21" DELTA
11° 00' 00" DEG
363.99' ARC
S 11° 12' 49" E
363.99' CHD

Sta 435+16.60
224.10 LT
654830.6883 N
1495007.8299 E

FUTURE VACATION AREA TO CITY OF DAYTON

LINE OF FUTURE VACATION LA-R/W TO CITY OF DAYTON

SEE DETAIL SHEET II OF II - MATCH LINE STA 7+00

CONSTRUCTION LIMITS

18" Conc

RAMP N-10

9+00 8+00

C/L BASELINE CURVE
P.I. Sta = 8+84.95
I = 40° 02' 21" (RT)
Dc = 11° 00' 00"
R = 520.87'
T = 189.78'
L = 363.99'

CONSTRUCTION LIMITS

SEE DETAIL SHEET II OF II - MATCH LINE STA 436+00

C/L R/W CURVE
3819.71' RAD
9° 50' 22" DELTA
1° 30' 00" DEG
655.96' ARC
N 10° 41' 43" E
655.96' CHD

Sta 10+58.36
0.36 LT
654518.3224 N
1495095.4078 E

Sta 10+57.12
0.00 LT
654519.6096 N
1495095.2450 E

SUSPEND ACQUISITION STA. 432+68.53

12" Conc

431+00 C-1 C/L I-75 431+00

℄ R/W IR-75

℄ CONSTRUCTION IR-75

432+00 433+00

Sta 433+88.15
0.00 LT
654646.6587 N
1495189.0840 E

S.B. I-75

Existing Barrier Wall

N 15°36'54" E 655.82' (℄ R/W)

N 15° 37' 56" E (℄ CONST.)

434+00 435+00 436+00

BEGIN ACQUISITION STA. 431+54.43

BEGIN WORK STA. 426+78.05

CONSTRUCTION LIMITS

Sta 432+65.19
51.21 RT
654515.5320 N
1495207.6322 E

EX MEDIAN JUNCTION BOX

Sta 433+86.14
0.81 RT
654644.5060 N
1495189.3266 E

ILA

Sta 432+68.53
74.06 RT
654513.2787 N
1495230.6073 E

PT Sta. 433+88.15
CONST. BASELINE

PT Sta. 433+88.15

S 13°27'14" W 42.71'

TYPE 5 GUARDRAIL

N 5°36'05" E - 109.96'

Sta 0+86.06
0.43 RT
654579.5477 N
1495246.4154 E

R = 954.97
CHD = N 10° 37' 09" E
DIST = 166.31
ARC = 166.52

12" Conc (DND)

N.B. I-75

C/L BASELINE CURVE
P.I. Sta = 430+60.98
I = 9° 52' 38" (RT)
Dc = 1° 30' 21"
R = 3,805.10'
T = 328.79'
L = 655.96'

Sta 431+54.43
65.25 RT
654406.0954 N
1495196.8992 E

EX FENCE

S 11°10'26" W 42.70'

LA-R/W

P.R.S.

P.I.R.S.

28.57'

33°07'26"

S 84°23'55" E 23.09'

S 5°37'38" W - 88.31'

Sta 2+52.69
0.85 RT
654742.9931 N
1495277.1123 E

C/L R/W RAMP N-8

C/L B/L RAMP N-8

2+00

N 15°37'00" E 258.35

N15°37'56"E (B/L)

Sta 431+97.86
64.31 RT
654447.9886 N
1495205.1744 E

HILLROSE AVE.
50' R/W

Sta 432+41.31
64.59 RT
654489.5313 N
1495215.1125 E

PROPOSED FENCE

0+00

POT Sta. 0+00.00
CONST. BASELINE

POT Sta. 0+00.00

℄ RAMP N-11

N 5° 38' 29" E

PROPOSED FENCE

Sta 0+88.20
0.00 RT
654581.7168 N
1495246.1920 E

PC Sta. 0+92.93
CONST. C/L

Sta 2+54.71
0.00 RT
654745.1714 N
1495276.8400 E

PT Sta. 2+59.45
CONST. C/L

RAMP N-11

Sta 431+58.19
115.16 RT
654399.1865 N
1495246.4620 E (Ex. Pin)

Sta 432+21.57
107.56 RT
654460.8905 N
1495252.5132 E

Sta 432+77.45
132.38 RT
654507.7061 N
1495289.3117 E

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

EX CB (DND)

EX FENCE

126.83'

N 5°17'58" E

N 14°10'47" E - 180.36'

Sta 434+13.80
105.50 RT
654642.9627 N
1495297.5937 E

CONSTRUCTION LIMITS

Sta 434+05.90
111.20 RT
654633.8199 N
1495300.9569 E

C/L BASELINE RAMP
P.I. Sta = 1+76.40
I = 9° 59' 27" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 83.47'
L = 166.51'

Sta 435+94.11
100.98 RT
654817.8296 N
1495341.7747 E

EX SIGN

[CB]

Sta 432+21.51
107.60 RT
654460.8261 N
1495252.5360 E
(Ex. Pin)
SITE BM #1
ELEV: 748.29

Sta 432+51.02
85.38 RT
654493.9414 N
1495237.5483 E

POT Sta. 0+92.93
CONST. BASELINE

POT Sta. 0+88.20

50' R/W WINDHAM STREET

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

(1)
CITY OF DAYTON, OHIO
R72-05714-0016
1.065 Ac.

NOTE
SEE CENTERLINE PLAT SHEET 2 OF 2 FOR C/L CURVE INFORMATION
ALL COORDINATE VALUES ARE GROUND COORDINATES

HORIZONTAL SCALE IN FEET
0 20 40 80

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
STA 431+00 TO STA 436+00

MOT-75-14.60

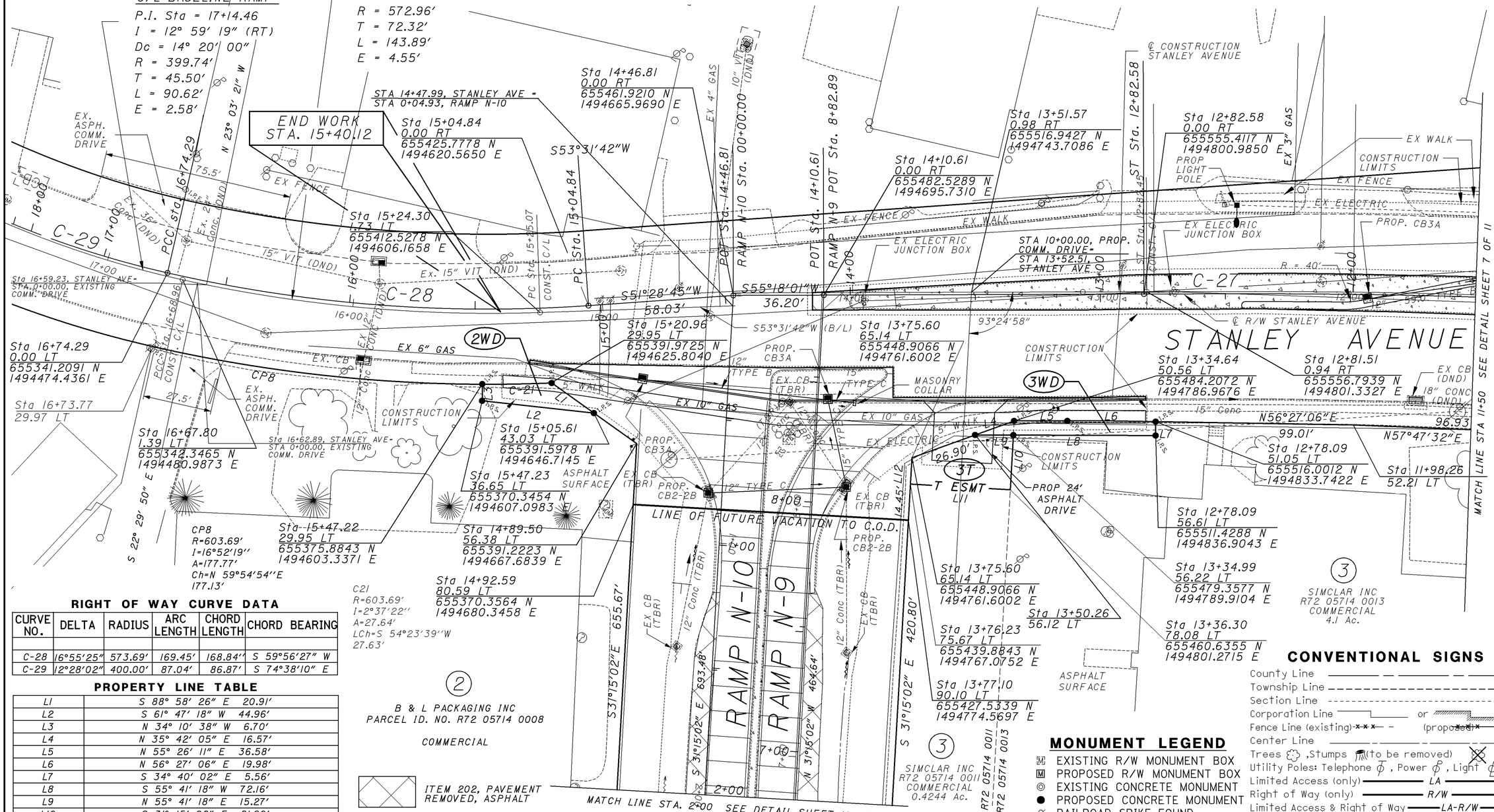
5 / 11

310 / 316

REV. BY	DATE	DESCRIPTION
BCF/SRL	10/25/05	ADD EX. DRIVE LABELS
DATE COMPLETED		10/25/05

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES



RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C-28	16°55'25"	573.69'	169.45'	168.84''	S 59°56'27" W
C-29	12°28'02"	400.00'	87.04'	86.87'	S 74°38'10" E

PROPERTY LINE TABLE

L1	S 88° 58' 26" E 20.91'
L2	S 61° 47' 18" W 44.96'
L3	N 34° 10' 38" W 6.70'
L4	N 35° 42' 05" E 16.57'
L5	N 55° 26' 11" E 36.58'
L6	N 56° 27' 06" E 19.98'
L7	S 34° 40' 02" E 5.56'
L8	S 55° 41' 18" W 72.16'
L9	N 55° 41' 18" E 15.27'
L10	S 31° 15' 02" E 21.90'
L11	S 58° 44' 58" W 40.00'
L12	N 31° 15' 02" W 10.55'
L13	N 55° 26' 11" E 36.58'
L14	N 56° 27' 06" E 19.98'

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	Os	Xc	Yc	K	P	TS	SC	CS	ST
C-27	7+88.07	200.00	133.39	-	66.72	-	199.85	5.81	99.97	1.45	2+79.21	4+79.21	10+82.58	12+82.58

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line or
- Fence Line (existing) (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Limited Access (only) LA
- Right of Way (only) R/W
- Limited Access & Right of Way LA-R/W
- Exist. Right of Way R/W
- Temp. Right of Way T ESMT
- Slope Easement SL ESMT
- Utility Easement U ESMT
- Property Line (in existing fence)
- Railroad
- Guardrail (existing) (proposed)
- Construction Limits

SCALE IN FEET
0 10 20 40

PID NO. 23828
R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

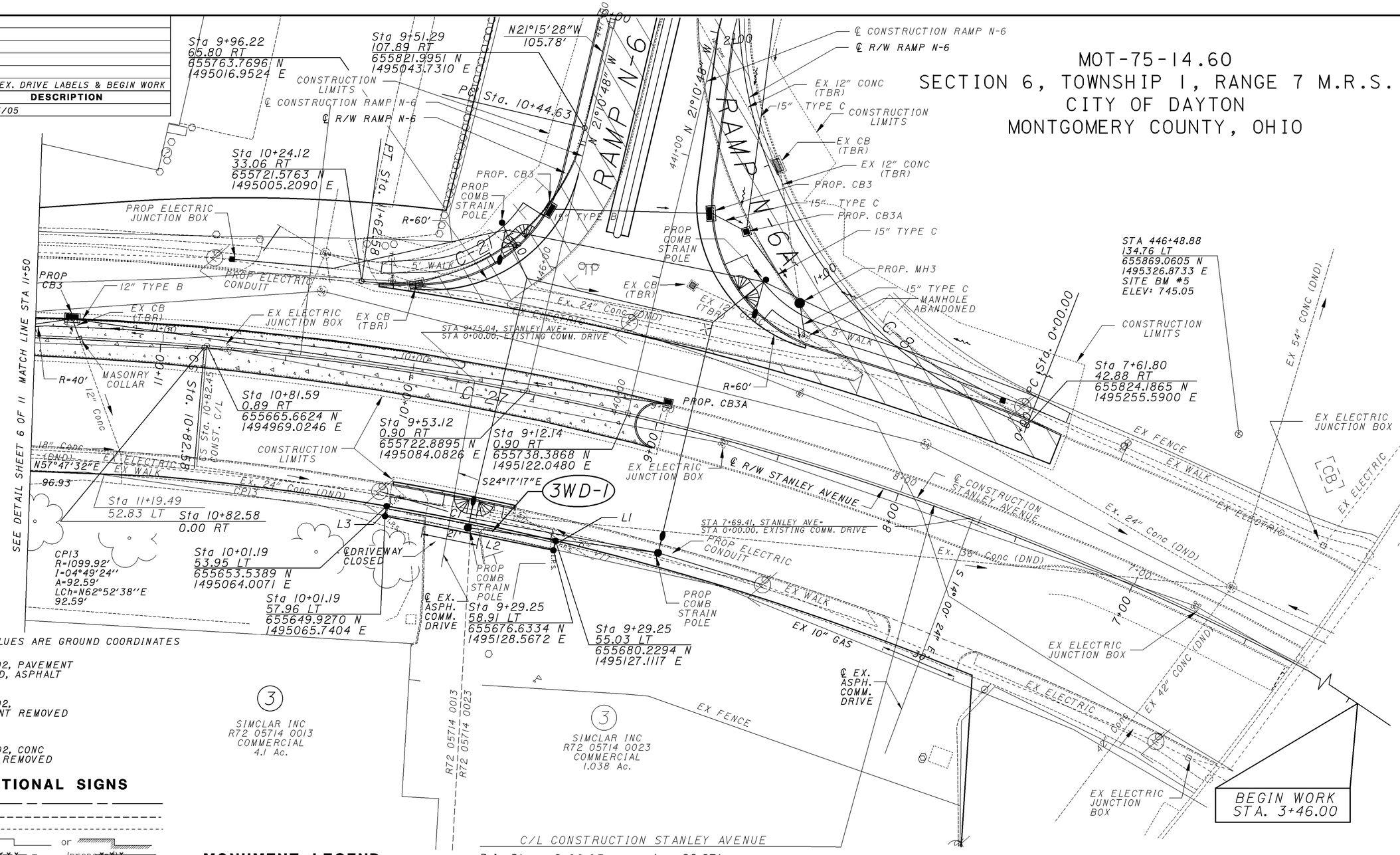
RIGHT OF WAY PLAN
STA 11+50 TO STA 17+00

MOT-75-14.60

6 / 11
311 / 316

BCF/SRL	10/25/05	ADD EX. DRIVE LABELS & BEGIN WORK
REV. BY	DATE	DESCRIPTION
DATE COMPLETED	10/25/05	

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO



NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits Construction Limits

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

P.I. Sta = 8+00.03
I = 40° 00' 00" (LT)
Dc = 5° 00' 00"
R = 1,145.92'
Ls = 200.00'
Theta = 5° 00' 00"
LT = 133.39'
ST = 66.72'
x = 199.85'
y = 5.81'

k = 99.97'
p = 1.45'
Dc = 30° 00' 00" (LT)
Lc = 600.00'
Ts = 517.58'
Es = 75.09'
TS = 2+82.45
SC = 4+82.45
CS = 10+82.45
ST = 12+82.45

PROPERTY LINE TABLE

L1	S 22° 02' 11" E 3.88'
L2	S 66° 58' 14" W 68.27'
L3	N 25° 38' 11" W 4.01'

RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	3°34'11"	1099.92'	68.53'	68.53'	N 67°04'26" E
C8	274°25'49"	180.00'	862.15'	244.53'	N 34°02'06" E
C21	84°28'34"	80.00'	117.95'	107.55'	S 20°59'15" W

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	Os	Xc	Yc	K	P	TS	SC	CS	ST
C-27	7+88.07	200.00	133.39	-	66.72	-	199.85	5.81	99.97	1.45	2+79.21	4+79.21	10+82.58	12+82.58

SCALE IN FEET: 0, 10, 20, 40

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
STA 6 TO STA 11+50

MOT-75-14.60

7 / 11

312 / 316

MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

REV. BY	DATE	DESCRIPTION
BCF/SRL	11/21/05	CHANGE CONSTRUCTION LIMITS
DATE COMPLETED	11/21/05	

SCALE IN FEET: 0, 10, 20, 40

PID NO. 23828

R/W DESIGNER: R. B. ROSS
R/W REVIEWER: S. LINDGREN

RIGHT OF WAY PLAN
STA 450+00 TO STA 455+00

MOT-75-14.60

8 / 11

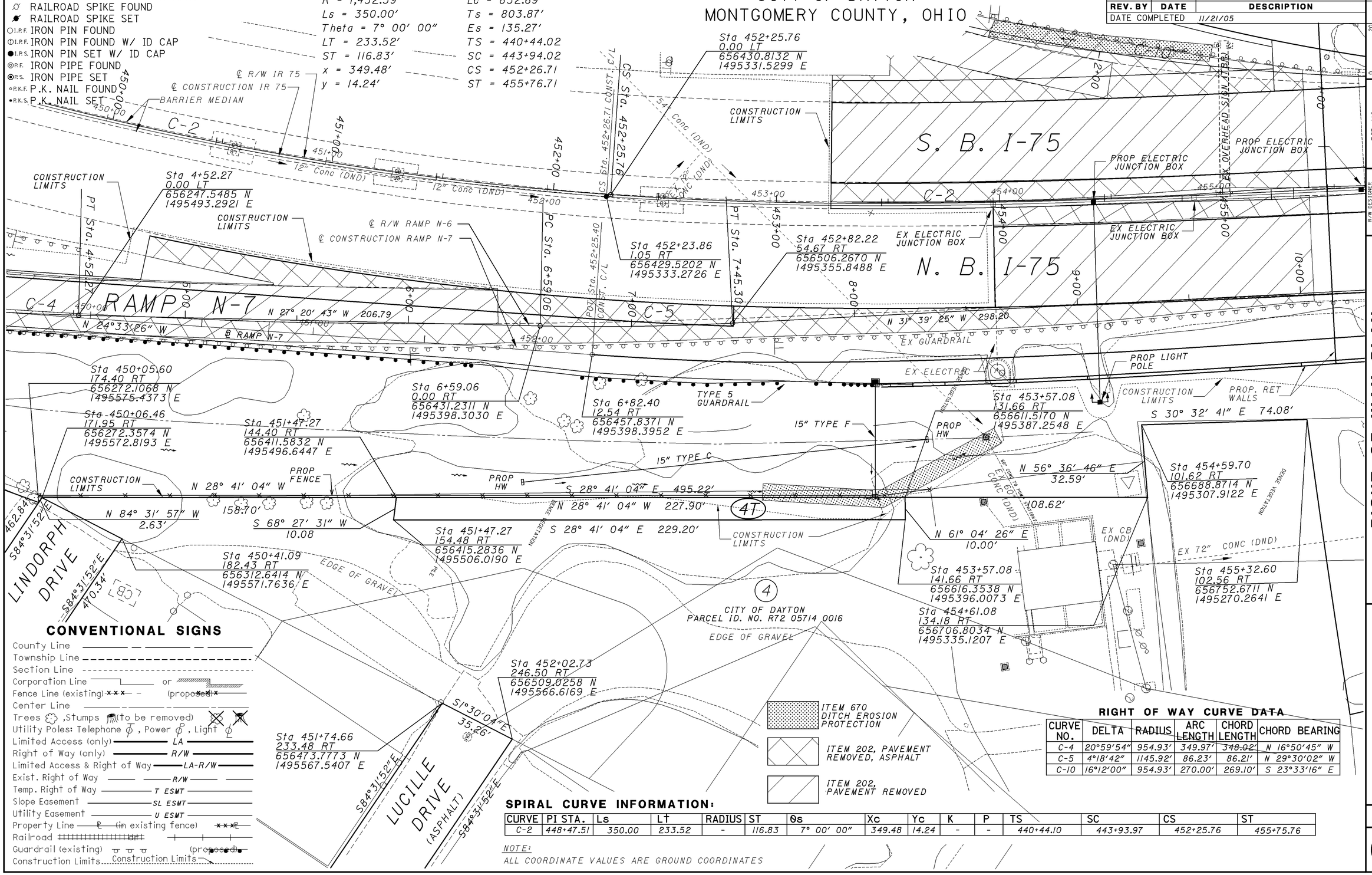
313 / 316

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.R.F. IRON PIPE FOUND
- P.R.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

C/L CONSTRUCTION BASELINE I-75

P.I. Sta = 448+47.89	k = 174.91′
I = 47° 18′ 27″ (LT)	p = 3.56′
Dc = 4° 00′ 00″	Dc = 33° 18′ 27″ (LT)
R = 1,432.39′	Lc = 832.69′
Ls = 350.00′	Ts = 803.87′
Theta = 7° 00′ 00″	Es = 135.27′
LT = 233.52′	TS = 440+44.02
ST = 116.83′	SC = 443+94.02
x = 349.48′	CS = 452+26.71
y = 14.24′	ST = 455+76.71



CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line
- Fence Line (existing) / (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Limited Access (only) — LA
- Right of Way (only) — R/W
- Limited Access & Right of Way — LA-R/W
- Exist. Right of Way — R/W
- Temp. Right of Way — T ESMT
- Slope Easement — SL ESMT
- Utility Easement — U ESMT
- Property Line (in existing fence)
- Railroad
- Guardrail (existing) / (proposed)
- Construction Limits — Construction Limits

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	Θs	Xc	Yc	K	P	TS	SC	CS	ST
C-2	448+47.51	350.00	233.52	-	116.83	7° 00′ 00″	349.48	14.24	-	-	440+44.10	443+93.97	452+25.76	455+75.76

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C-4	20°59′54″	954.93′	349.97′	348.02′	N 16°50′45″ W
C-5	4°18′42″	1145.92′	86.23′	86.21′	N 29°30′02″ W
C-10	16°12′00″	954.93′	270.00′	269.10′	S 23°33′16″ E

MOT-75-14.6
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

SPIRAL CURVE INFORMATION:

CURVE	PI STA.	Ls	Lt	RADIUS	ST	θs	Xc	Yc	K	P	TS	SC	CS	ST
C-2	448+47.51	350.00	233.52	-	116.83	7° 00′ 00″	349.48	14.24	-	-	440+44.10	443+93.97	452+25.76	455+75.76

RIGHT OF WAY CURVE DATA

CURVE NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C-10	16°12′00″	954.93′	270.00′	269.10′	S 23°33′16″ E
C-11	54°58′00″	300.00′	287.80′	287.82′	S 12°01′36″ W

REV. BY	DATE	DESCRIPTION
BCF/SRL	10/15/06	PARCEL 5 NOW WD TAKE
BCF/SRL	11/21/05	CHANGE CONSTRUCTION LIMITS
BCF/SRL	10/25/05	CHANGE IN PROJECT LIMITS
DATE COMPLETED		11/21/05

Sta 451+25.93
365.58 LT
656209.7012 N
1495027.9218 E

S 39° 28′ 27″ W
55.63′

METAL POST ENCASED W/ CONC. TO BE REMOVED (TYP)

N 21° 41′ 48″ E
69.53′

PROP HW

Sta 451+61.50
317.00 LT
656252.6393 N
1495063.2849 E

S 24° 01′ 49″ E
23.72′

Sta 451+07.78
315.20 LT
656214.1998 N
1495079.9701 E

Sta 451+91.96
317.55 LT
656274.3033 N
1495053.6257 E

S 24° 01′ 50″ E 212.47′

CONSTRUCTION LIMITS

PROP. CB2-2B

PROP FENCE

N 2° 39′ 05″ E 233.73′

CONSTRUCTION LIMITS

Sta 454+27.59
200.16 LT
656507.7853 N
1495064.4377 E

Sta 451+31.66
250.82 LT
656254.6185 N
1495133.6262 E

S 12° 20′ 01″ W 307.98′

PROPOSED CONDUIT ELECTRIC

C/L BASELINE RAMP
P.I. Sta = 452+06.48
I = 28° 25′ 57″ (LT)
Dc = 11° 15′ 00″
R = 509.30′
T = 129.03′
L = 252.73′

TO STANLEY AVENUE C111 00+00

PROP LIGHT POLE

EX CB (TBR)

METAL POST ENCASED W/ CONC. TO BE REMOVED (TYP)

CONSTRUCTION LIMITS

EX CB (DND)

EX 54" CONC (DND)

EX 12" CONC (TBR)

℄ R/W RAMP N-6

Sta 453+77.19
81.38 LT
656525.4474 N
1495191.3250 E

Sta 453+36.75
155.93 LT
656455.8565 N
1495144.5922 E

RAMP N-6

EX GUARDRAIL

12" TWIN MAPLE

18" MAPLE

6" MAPLE

PT Sta. 5+57.62

5+00

5+50

6+00

6+50

452+00

453+00

454+00

455+00

456+00

CS Sta. 452+26.11

CS Sta. 452+25.76

PT Sta. 457+76.76

ST Sta. 455+76.76

CC Sta. 454+27.00

CC Sta. 455+30.19

SC Sta. 455+30.19

CP1
R=5769.65′
I=0°41′23″
A=69.45′
LCh=N56°18′13″E
69.45′

CP2
R=5729.65′
I=0°36′43″
A=61.19′
LCh=S56°05′40″W
61.19′

EX FENCE

EDGE OF GRAVEL

12" MAPLE

9" MAPLE

6" MAPLES

PROP HW 2.67′

PROP BRIDGE STRUCTURE

Sta 455+16.05
110.53 LT
656627.2280 N
1495097.2170 E

Sta 455+18.73
110.16 LT
656629.6772 N
1495096.1588 E

Sta 455+29.33
83.45 LT
656652.5816 N
1495113.4476 E

Sta 454+34.57
121.27 LT
656553.5126 N
1495129.0703 E

Sta 454+76.87
115.89 LT
656591.5622 N
1495112.6286 E

Sta 455+75.76
0.00 LT
656735.7640 N
1495160.2331 E

Sta 452+25.76
0.00 LT
656430.8132 N
1495331.5299 E

Sta 456+46.84
45.99 LT
656772.1275 N
1495083.7860 E

Sta 455+61.27
111.71 LT

Sta 456+07.14
138.34 LT
656689.8722 N
1495026.0089 E

Sta 455+13.38
171.66 LT

Sta 455+58.46
155.79 ℄ LT
656639.3172 N
1495036.6790 E

Sta 456+07.12
113.32 LT
656702.9839 N
1495047.3137 E

STA 455+02.45
175.44 LT
656582.0220 N
1495048.7706 E
SITE BM #4
ELEV: 745.33

N 31° 39′ 24″ W 1464.58

N11°55′02″W 46.05′

N11°55′02″W 41.13′

N54°43′15″E 79.17′

S23°22′11″E 41.25′

S54°43′25″W 44.17′

N33°40′33″W 618.09′

47.24′

42.24′

45.85′

51.67′

39.05′

LA-R/W

PROP FENCE

CONSTRUCTION LIMITS

END WORK STA. 472+68.08

END ACQUISITION STA. 456+07.12

END PROJECT STA. 468+30.96

RESUME ACQUISITION STA. 451+25.93

S.B. I-75

℄ R/W I - 75

℄ I - 75

EX ELECTRIC JUNCTION BOX

PROP ELECTRIC JUNCTION BOX

EX OVERHEAD SIGN (TBR)

C-2

5WD

5WD-1

6LA

7LA*

8LA**

5

5-1

6

7

8

STANLEY TERMINALS INC
PARCEL ID. NO.
COMMERCIAL
R72 05714 0010

STANLEY TERMINALS INC
PARCEL ID. NO.
R72 05714 0027

CITY OF DAYTON
PARCEL ID. NO.
R72035714 0026
VOL.1266 PG 156

SUBJECT TO INGRESS/EGRESS
EASEMENT TO M.C.D
D.B. 2272 Pg. 252

MIAMI CONSERVANCY DISTRICT
PARCEL ID. NO.
R72057140001

** THE BOARD OF COUNTY COMMISSIONERS & THE MIAMI CONSERVANCY DISTRICT PARCEL ID. NO. - R72 05714 0001

C/L BASELINE RAMP
P.I. Sta = 454+22.66
I = 18° 00′ 00″ (LT)
Dl = 11° 15′ 00″
Rl = 509.30′
D2 = 6° 45′ 00″
R2 = 848.83′
Ls = 200.00′
fs = 18° 00′ 00″
LT = 109.17′
ST = 92.47′
x = 197.11′
y = 28.58′
k = 99.67′
p = 1.31′
D1 = 28° 25′ 57″ (LT)
D2 = 14° 21′ 53″ (LT)
T1 = 73.56′
T2 = 126.44′
CS = 453+30.19
SC = 455+30.19

C/L BASELINE RAMP
P.I. Sta = 456+37.16
I = 14° 21′ 53″ (LT)
Dc = 6° 45′ 00″
R = 848.83′
T = 106.97′
L = 212.81′

N58°23′26″E 25.02′

* NOTE
No documents were found where The Board of County Commissioners was given title to the property. The Montgomery County Auditor's Office shows The Board of County Commissioners as owner, but the tax map of the property shows The Miami Conservancy District as owner. It is believed that The Board of County Commissioners are in fact the owner of the property, either by Deed, which was never recorded, and/or by a Judgment, which is in archive records not found. Also shown as Parcel No. R72 05714 0001

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 670 DITCH EROSION PROTECTION

CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line
- Fence Line (existing) (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Limited Access (only) LA
- Right of Way (only) R/W
- Limited Access & Right of Way LA-R/W
- Exist. Right of Way R/W
- Temp. Right of Way T ESMT
- Slope Easement SL ESMT
- Utility Easement U ESMT
- Property Line (in existing fence)
- Railroad
- Guardrail (existing) (proposed)
- Construction Limits

SCALE IN FEET 0 10 20 40

PID NO. 23828

R/W DESIGNER R. B. ROSS

R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
STA 452+00 TO STA 457+00

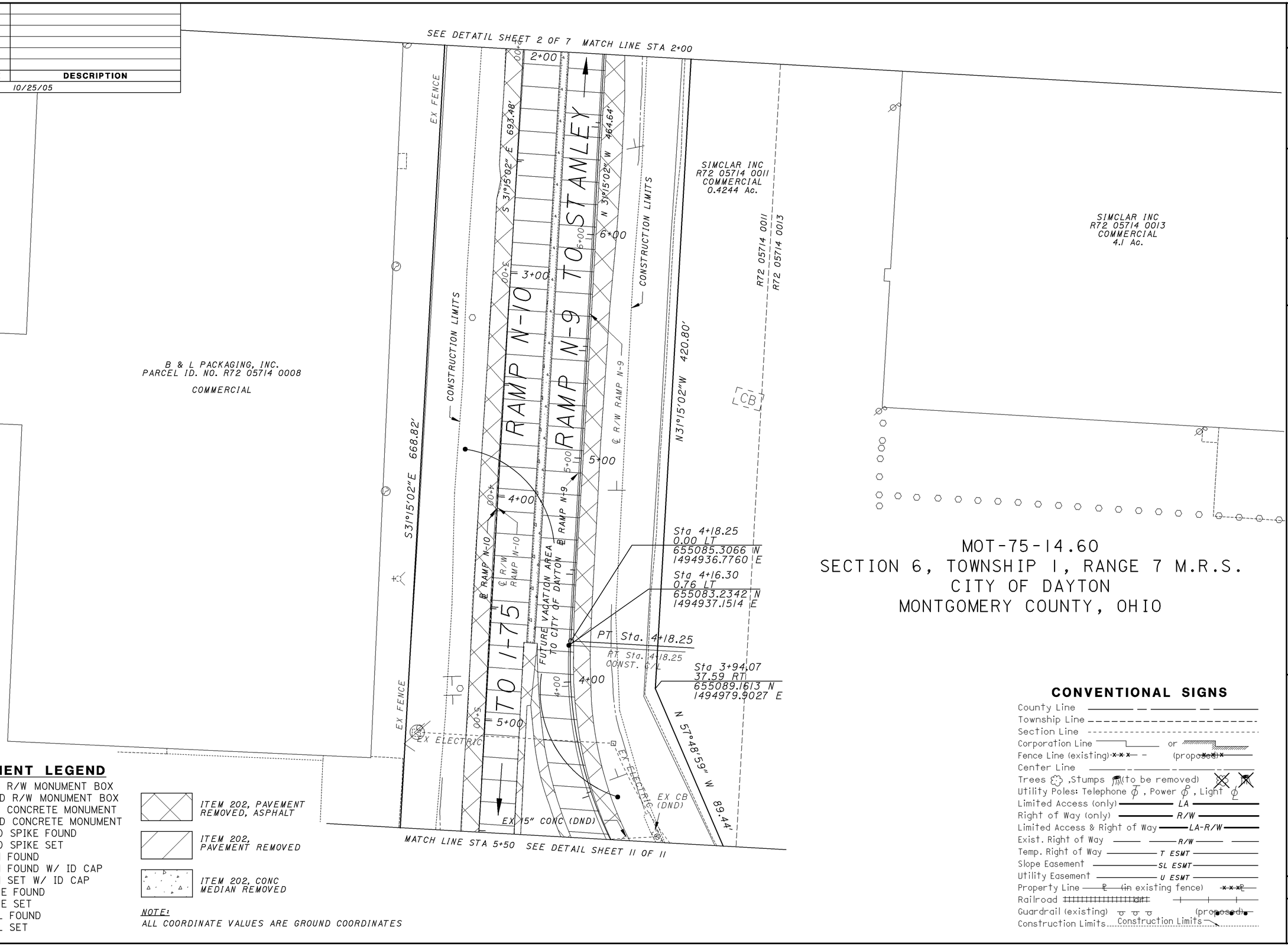
MOT-75-14.60

9 / 11

314 / 316

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 10/25/05



MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

ITEM 202, CONC MEDIAN REMOVED

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line or
- Fence Line (existing) (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Limited Access (only) LA
- Right of Way (only) R/W
- Limited Access & Right of Way LA-R/W
- Exist. Right of Way R/W
- Temp. Right of Way T ESMT
- Slope Easement SL ESMT
- Utility Easement U ESMT
- Property Line (in existing fence)
- Railroad
- Guardrail (existing) (proposed)
- Construction Limits Construction Limits

SCALE IN FEET 0 10 20 40

PID NO. 23828

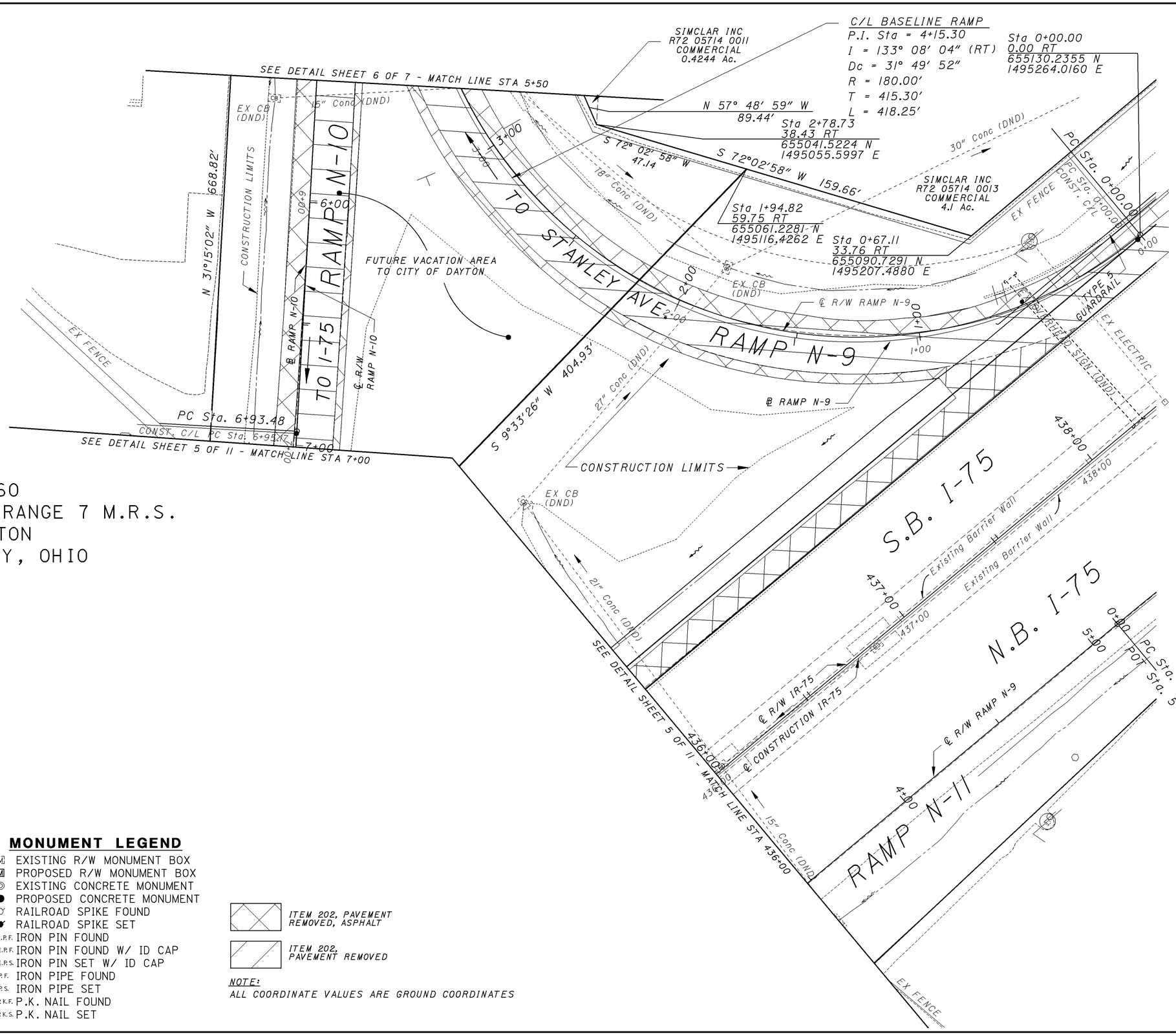
R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
RAMP N-10 STA 2+00 TO STA 5+50

MOT-75-14.60

10 / 11

315 / 316



MOT-75-14.60
SECTION 6, TOWNSHIP 1, RANGE 7 M.R.S.
CITY OF DAYTON
MONTGOMERY COUNTY, OHIO

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees ,Stumps (to be removed)
Utility Poles: Telephone , Power , Light
Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Exist. Right of Way R/W
Temp. Right of Way T ESMT
Slope Easement SL ESMT
Utility Easement U ESMT
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)
Construction Limits Construction Limits

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
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- P.K.S. P.K. NAIL SET

ITEM 202, PAVEMENT REMOVED, ASPHALT

ITEM 202, PAVEMENT REMOVED

NOTE:
ALL COORDINATE VALUES ARE GROUND COORDINATES

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 10/25/05

SCALE IN FEET 0 10 20 40

PID NO. 23828

R/W DESIGNER R. B. ROSS
R/W REVIEWER S. LINDGREN

RIGHT OF WAY PLAN
RAMP N-10 STA. 5+50 TO STA. 7+00
MOT-75-14.60

11 / 11

316
316

GEOLOGY OF THE SITE

Geologically, the site is in a glacial outwash deposit. The outwash deposit consists of water-laid, well-sorted gravel and sand horizontally layered deposited by affrading streams of melt water poured from a glacier. The bridge abutments consist of the embankment fill that was placed during the construction of the existing I-75.

EXPLORATION

Six exploration borings were made for the bridge foundation investigation using a truck-mounted boring rig. Standard penetration methods (ASTM D-1586) were used at maximum depth intervals of five feet. The field exploration work was performed on June 28, June 29, July 8, July 9, and July 12, 2004.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

The subgrade soil consists of embankment fill, undocumented and uncontrolled fill for the flood dike, brown or gray silt and clay (A-6a), brown gravel with sand (A-1-b), brown coarse and fine sand, greenish-gray silty clay (A-6b), gray gravel (A-1-a), greenish-gray silt and clay, greenish-gray sandy silt (A-4a), and brown or gray gravel with sand and silt (A-2-4). The asphalt pavement at the bridge abutments is about six inches thick. The concrete base beneath the asphalt pavement at the bridge abutments is between 6 and 12 inches thick.

Groundwater was observed in Borings 4, 5, 8, and 9 at elevations of 717.0 to 749.6 feet during the boring operations. Borings 6 and 7 were performed in the middle of the Great Miami River; the river water was above the bottom of the riverbed. Bedrock was not encountered to an elevation of 690 feet.

SYMBOLS OF ROCK TYPES

- COAL
- FIRE CLAY OR UNDERCLAY
- WEATHERED MUDSTONE
- MUDSTONE
- WEATHERED SHALE
- SHALE
- WEATHERED CLAY–SHALE
- CLAY–SHALE
- BOULDERS OR COBBLES
- WEATHERED SILTSTONE
- SILTSTONE
- WEATHERED SANDSTONE
- SANDSTONE
- LEACHED DOLOMITE
- DOLOMITE
- LEACHED LIMESTONE
- LIMESTONE

PARTICLE SIZE DEFINITIONS

11.8"	3"	0.1"		0.02"	0.003"	0.0002"
Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
		No. 10 SIEVE		No. 40 SIEVE	No. 200 SIEVE	

LEGEND

- AUGER BORING LOCATION
- TR — TOP OF ROCK
- W — INDICATES FREE WATER ELEVATION
- INDICATES STATIC WATER ELEVATION
- HORIZONTAL BAR ON BORING INDICATES THE DEPTH THE SAMPLE WAS TAKEN - PROFILE VIEW
- X/Y/Z — FIGURES BESIDE THE BORING IN PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST
  - X = NUMBER OF BLOWS FOR FIRST 6"
  - Y = NUMBER OF BLOWS FOR SECOND 6"
  - Z = NUMBER OF BLOWS FOR THIRD 6"

GENERAL INFORMATION

DRIVE SAMPLES

Drive sample borings are made by means of a mechanically-powered, rotary-type drill rig employing a 2" O.D., 1-1/2" I.D., split-spoon sampler, at continuous, 2-1/2 to 5-foot depth intervals driven by means of a 140-pound hammer with a free fall of 30 inches. The number of blows required to drive the sampler three 6-inch increments is considered the standard penetration test.

SAMPLING AND TESTING

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, type of sample, number of blows for the standard penetration test in three 6-inch increments, and a sample description based on laboratory test results, utilizing the ODOT classification system.

DAYTON, OHIO
TOLEDO, OHIO
LEXINGTON, KY
BOWSER MORNER®

DRAWN HGW | REVIEWED RJYT | DATE rev. 12-04 | PROJECT NO. 131651

CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

DRAWN	REVIEWED	DATE	PROJECT NO.
HGW	RJYT	rev. 12-04	131651

CLIENT
TRANSYSTEMS CORPORATION

HORIZONTAL SCALE IN FEET
0 30 60

Date Started 7/8/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 749.6
Date Completed 7/8/04 Casing: Length Dia.

Boring No. 4 Station & Offset Sta. 455+18.71; 41.22' Rt. Surface Elev. (ft) 767.6

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
767.6	0														
767.1					(FILL) ASPHALT pavement (6")										
766.6		22/33/39			(FILL)CONCRETE pavement (6") (FILL) Brown coarse and fine SAND, some gravel	1A								3.5	Visual
	2														
	4	20/20/14			(FILL) Brown coarse and fine SAND, some gravel	2A								4.5	Visual
	6	12/20/20			(FILL) Brown coarse and fine SAND, some gravel	3A								4.8	Visual
	8														
	10	18/18/20			(FILL) Brown coarse and fine SAND, some gravel	4A								3.1	Visual
	12	12/39/50(0.3')			(FILL) Brown coarse and fine SAND, some gravel	5A								5.3	Visual
	14	50(0.1')			(FILL) Brown coarse and fine SAND, some gravel	6A									Visual
751.6	16														
		10/19/20			(FILL) Dark brown coarse SAND, some gravel, some silt, trace glass	7A								11.0	Visual
	▼ 18														
		6/5/5			(FILL) Dark brown coarse SAND, some gravel, some silt, trace glass	8A								35.5	Visual
	20														
	22														
744.6															
	24	6/13/14			(ORIGINAL) Brown SILT and CLAY, trace gravel	9A								19.9	Visual
	26														
	28														
	30	50(0.1')			Brown SILT and CLAY, trace gravel	10A								-	Visual
	32														
734.6															
	34	13/20/30			Brown GRAVEL with sand, trace cobbles	11A								Sat.	Visual
	36														
	38														
	40	28/32/33			Brown GRAVEL with sand, trace cobbles	12A	28.7	21.5	37.3	8.9	3.6	NonPlastic		Sat.	A-1-b(0)
	42														
	44	26/30/34			Brown GRAVEL with sand, trace cobbles	13A								Sat.	Visual
	46														
	48														
717.6	50	18/20/34			Brown GRAVEL with sand, trace cobbles	14A								Sat.	Visual

Bottom of Boring at 50.0'

Date Started 6/29/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 723.4
Date Completed 6/29/04 Casing: Length Dia.

Boring No. 5 Station & Offset Sta. 456+62.95; 57.34' Lt. Surface Elev. (ft) 741.9

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
741.9	0														
741.3					(FILL) TOPSOIL (7")										
	2	6/8/9			(FILL) Brown SANDY SILT, some gravel	1A								8.9	Visual
738.4															
	4	3/4/5			(FILL) Brown GRAVEL with sand, silt and clay	2A								6.1	Visual
	6	4/4/5			(FILL) Brown GRAVEL with sand, silt and clay	3A								12.1	Visual
	8														
	10	3/4/7			(FILL) Brown GRAVEL with sand, silt and clay	4A								18.4	Visual
732.4															
	12	3/4/5			(FILL) Gray SANDY SILT, little gravel	5A								14.6	Visual
	14	1/2/3			(FILL) Gray SANDY SILT, little gravel	6A	25.8	14.4	19.2	23.7	16.9	20	8	9.8	A-4a(1)
	16	3/3/4			(FILL) Gray SANDY SILT, little gravel	7A								11.0	Visual
723.4	▼ 18														
	20	4/5/5			(ORIGINAL) Brown coarse and fine SAND, little gravel	8A								Sat.	Visual
	22														
718.9															
	24	9/16/17			Greenish gray SILTY CLAY, some gravel	9A								11.2	Visual
	26														
	28														
	30	51/100(0.4')			Greenish gray SILTY CLAY, some gravel	10A	23.6	7.1	4.5	27.6	37.2	36	17	9.9	A-6b(9)
	32														
	34	100(0.3')			Greenish gray SILTY CLAY, some gravel	11A								8.5	Visual
	36														
	38														
	40	100(0.3')			Greenish gray SILTY CLAY, some gravel	12A								8.7	Visual
	42														
	44	100(0.3')			Greenish gray SILTY CLAY, some gravel	13A								7.1	Visual
	46														
	48														
691.9	50	100(0.3')			Greenish gray SILTY CLAY, some gravel	14A								6.0	Visual

Bottom of Boring at 50.0'

BOWSER MORNER® DAYTON, OHIO TOLEDO, OHIO LEXINGTON, KY

PROJECT NO. 131651
DATE rev. 12-04
REVIEWED RJYT
DRAWN HGW
CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

Date Started 7/9/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) River Surface
Date Completed 7/9/04 Casing: Length Dia.

Boring No. 6 Station & Offset Sta. 457+80.95; 40.79' Rt. Surface Elev. (ft) 729.2'

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
729.2	0														
	2	3/17/15			Brown coarse SAND, little gravel	1A								Sat.	Visual
725.7	4	6/5/6			Gray GRAVEL, some sand	2A	57.6	31.4	6.1	2.7	2.2	NonPlastic		Sat.	A-1-a(0)
	6	5/5/4			Gray GRAVEL, some sand	3A								Sat.	Visual
	8	3/5/7			Gray GRAVEL, some sand	4A								Sat.	Visual
	10	14/30/32			Gray GRAVEL, some sand	5A								Sat.	Visual
	12	24/49/50(0.1')			Gray GRAVEL, some sand	6A								Sat.	Visual
	14	20/34/50(0.3')			Gray GRAVEL, some sand	7A								Sat.	Visual
711.7	16	13/32/40			Brown SILT and CLAY, little gravel	8A	11.5	8.7	12.5	38.9	28.4	28	11	16.2	A-6a(7)
	18														
	20														
	22														
705.2	24	50(0.4')			Greenish gray SILT and CLAY, trace gravel	9A								-	Visual
	26														
	28														
700.3		50(0.3')			Greenish gray SILT and CLAY, trace gravel (Auger refusal at 28.9')	10A								10.7	Visual

Bottom of Boring at 28.9'

Date Started 7/14/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) River Surface
Date Completed 7/14/04 Casing: Length Dia.

Boring No. 7 Station & Offset Sta. 459+04.90; 40.08' Rt. Surface Elev. (ft) 729.9'

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
729.9	0														
	2	8/5/4			Brown and gray SAND, some clay	1A								Sat.	Visual
725.9	4	2/3/4			Gray SANDY SILT, trace gravel	2A								11.8	Visual
724.9	6	3/3/4			Gray SILT and CLAY, trace gravel	3A	13.5	11.1	11.3	25.1	39.0	28	11	18.8	A-6a(6)
	8	7/7/14			Gray SILT and CLAY, trace gravel	4A								17.2	Visual
	10	14/20/30			Gray SILT and CLAY, trace gravel	5A								16.5	Visual
	12	35/50(0.3')			Gray SILT and CLAY, trace gravel	6A								19.0	Visual
714.9	14	50(0.4')			Greenish gray SANDY SILT, trace gravel	7A								11.5	Visual
	16	200(0.3')			Greenish gray SANDY SILT, trace gravel	8A	33.2	6.1	9.9	29.7	21.1	26	10	7.4	A-4a(3)
	18														
	20														
708.7		100(0.1')			Greenish gray SANDY SILT, trace gravel (Auger refusal at 21.2')	9A								8.9	Visual

Bottom of Boring at 21.2'

Date Started 6/28/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 717.0
Date Completed 6/28/04 Casing: Length Dia.

Boring No. 8 Station & Offset Sta. 460+37.90; 60.28' Lt. Surface Elev. (ft) 740.5

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	ODOT Class
740.5	0														
740.0	2	7/10/15			(FILL) TOPSOIL (6") (FILL) Brown SANDY SILT, little gravel	1A								7.9	Visual
	4	3/3/4			(FILL) Brown SANDY SILT, little gravel	2A	32.3	14.6	16.8	19.7	16.6	23	10	9.5	A-4a(0)
	6	4/4/5			(FILL) Brown SANDY SILT, little gravel	3A								10.7	Visual
	8	2/3/3			(FILL) Brown SANDY SILT, little gravel	4A								15.6	Visual
731.0	10	3/4/5			(ORIGINAL) Greenish gray and brown SILT and CLAY, trace gravel	5A	8.2	7.5	10.0	32.1	42.2	30	13	16.7	A-6a(9)
	12	2/1/2			Greenish gray and brown SILT and CLAY, trace gravel	6A								15.3	Visual
	14	2/3/4			Greenish gray and brown SILT and CLAY, trace gravel	7A								15.2	Visual
	16	1/2/5			Greenish gray and brown SILT and CLAY, trace gravel	8A								12.9	Visual
	18														
	20														
	22														
717.0	24	100(0.3')			Gray GRAVEL with sand and silt	9A								Sat.	Visual
	26														
	28														
712.0	30	100(0.4')			Greenish gray SANDY SILT, little gravel	10A	14.6	5.1	3.8	33.4	43.1	23	8	11.4	A-4a(8)
	32														
	34	100(0.4')			Greenish gray SANDY SILT, little gravel	11A								10.4	Visual
	36														
	38														
	40	100(0.4')			Greenish gray SANDY SILT, little gravel	12A								5.7	Visual
	42														
	44	100(0.3')			Greenish gray SANDY SILT, little gravel	13A								9.7	Visual
	46														
	48														
690.5	50	100(.3')			Greenish gray SANDY SILT, little gravel	14A								6.0	Visual

Bottom of Boring at 50.0'

DAYTON, OHIO
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LEXINGTON, KY

BOWSER MORNER

DRAWN HGW | REVIEWED RJYT | DATE rev. 12-04 | PROJECT NO. 131651

CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

Date Started 7/12/04 Sampler: Type Split Spoon Dia. 1-3/8" Water Elev. (ft) 737.6

Date Completed 7/12/04 Casing: Length _____ Dia. _____

Boring No. 9 Station & Offset Sta. 461+72.30; 42.06' Rt, Surface Elev. (ft) 770.6

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics								ODOT Class
							% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	
770.6	0														
770.1					(FILL) ASPHALT pavement (6")										
769.1					(FILL) CONCRETE pavement (12")										
	2	12/24/24			(FILL) Brown GRAVEL with sand and silt	1A	50.8	24.2	9.4	8.6	7.0	23	8	5.4	A-2-4(0)
	4	24/40/50(0.3')			(FILL) Brown GRAVEL with sand and silt	2A								4.3	Visual
	6	12/24/19			(FILL) Brown GRAVEL with sand and silt	3A								6.9	Visual
	8	12/24/21			(FILL) Brown GRAVEL with sand and silt	4A								6.5	Visual
	10	18/30/24			(FILL) Brown GRAVEL with sand and silt	5A								7.2	Visual
	12	17/24/29			(FILL) Brown GRAVEL with sand and silt	6A								7.0	Visual
	14	21/28/13			(FILL) Brown GRAVEL with sand and silt	7A								6.5	Visual
	16	12/13/20			(FILL) Brown GRAVEL with sand and silt	8A								7.6	Visual
	18														
	20														
	22														
	24	12/24/20			(FILL) Brown GRAVEL with sand and silt	9A								12.7	Visual
	26														
	28														
	30	30/50(0.3')			(FILL) Brown GRAVEL with sand and silt	10A								-	Visual
	32														
737.6															
	34	21/12/24			(ORIGINAL) Brown GRAVEL with sand and silt	11A	62.4	14.8	7.5	9.6	5.7	26	10	Sat.	A-2-4(0)
	36														
	38														
		12/28/34			Brown GRAVEL with sand and silt	12A								Sat.	
730.6	40														

Bottom of Boring at 40.0'

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BOWSER MORNER®

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CLIENT TRANSYSTEMS CORPORATION

STRUCTURE FOUNDATION INVESTIGATION
I-75 BRIDGE OVER GREAT MIAMI RIVER

MOT I-75-14.60

5 / 5

GENERAL INFORMATION

INTRODUCTION

This study includes the roadway improvement of a section of I-75 between Stations 433+00 and 463+00, the entrance and exit ramps, and a section of Stanley Avenue between Stations 0+00 and 14+00.

GEOLOGY OF THE SITE

Geologically, the site is in a glacial outwash deposit. The outwash deposit consists of water-laid, well-sorted gravel, and sand horizontally layered deposited by aggrading streams of melt water poured from a glacier. The existing roadways and the ramps are on the embankment fill that was placed during the construction of the I-75 and Stanley Avenue ramps.

EXPLORATION

Eight exploration borings were made using a truck-mounted boring rig. Standard penetration methods (ASTM D-1586) were used at maximum depth intervals of five feet. The field exploration work was performed on June 29, July 8, July 12, and July 13, 2004.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

The I-75 roadway in this area is over more than 10 feet of embankment fill. The embankment fill consists of 6 inches of asphalt pavement, 6 to 18 inches of concrete base, black or gray coarse and fine sand (A-3a), black fine sand, brown gravel with sand (A-1-b), brown gravel (A-1-a), and brown gravel with sand and silt (A-2-4). The subgrade soil along the ramp to Stanley Avenue consists of embankment fill; topsoil; dark brown sandy silt; brown silt and clay (A-6a); and brown gravel with sand, silt and clay (A-2-6). The subgrade soil along Stanley Avenue consists of undocumented fill, dark brown and gray silt and clay (A-6a), brown silty clay (A-6b), and brown sand.

Groundwater was observed only in Borings 11, 12, and 14 at elevations of 733.8 to 736.4 feet during the boring operations. Groundwater was not encountered in the remaining borings. Bedrock was not encountered in these borings.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS

DESCRIPTION	AASHTO CLASS	OHIO CLASS	% AGG.	% C,S	% F.S.	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-a(0)	A-1-a(0)	56.9	21.6	9.7	8.8	3.0	5	0.3	3.7	3
GRAVEL WITH SAND	A-1-b(0)	A-1-b(0)	50.6	20.1	14.3	15.0		10	1	9.7	3
FINE SAND	A-3(0)	A-3(0)	38.4	22.0	26.0	13.6		NON-PLASTIC		10.1	3
COARSE AND FINE SAND		A-3a(0)	20.4	12.6	46.4	13.8	6.8	NON-PLASTIC		10.5	2
GRAVEL WITH SAND AND SILT	A-2-4(0)	A-2-4(0)	41.0	26.6	12.3	12.7	7.4	25	8	16.0	2
GRAVEL WITH SAND, SILT AND CLAY	A-2-6(0)	A-2-6(0)	63.6	12.4	6.7	13.0	4.3	31	14	4.9	1
SANDY SILT	VISUAL CLASSIFICATION										
SILT AND CLAY	A-6(5)	A-6a(5)	11.0	14.6	28.0	28.4	18.0	32	13	17.4	3
SILTY CLAY	A-6(10)	A-6b(10)	0.4	2.5	23.6	41.1	32.4	39	16	25.7	1
SOD and/or TOPSOIL	VISUAL CLASSIFICATION										
ASPHALT	VISUAL CLASSIFICATION										
CONCRETE	VISUAL CLASSIFICATION										

INDICATES BORING LOCATION

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY

WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT

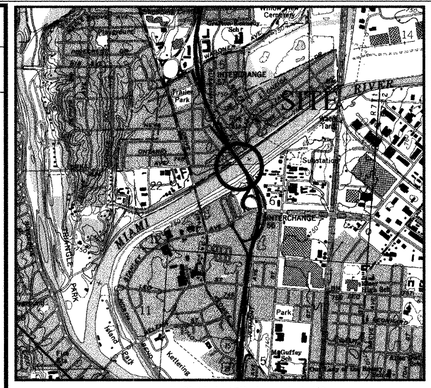
INDICATES A NON PLASTIC MATERIAL WITH A HIGH WATER CONTENT

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. e.g. 15

w FREE WATER

STATIC WATER LEVEL

NUMBER OF BLOWS FOR "STANDARD PENETRATION" TEST
X=NUMBER OF BLOWS FOR FIRST 150 mm
Y=NUMBER OF BLOWS FOR SECOND 150 mm
Z=NUMBER OF BLOWS FOR THIRD 150 mm



VICINITY MAP

PROJECT INDEX

STATIONS FROM	TO	SOIL PROFILE SHEET
433+00 (INTERSTATE 75)	463+00	2 & 3
0+00 (STANLEY AVENUE)	14+00	4
448+00 (RAMP N-6)	454+00	4
440+00 (RAMP N-6A)	449+00	4
446+00 (RAMP N-7)	453+00	4

SUMMARY OF SOIL TEST DATA

Boring Number	Station & Offset	Depth From	Depth To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class
1	433+57.92; 43.76' Rt.	1.0	2.5	22.7	16.9	37.9	14.3	8.2	NonPlastic		9.2	A-3a(0)
		3.5	5.0	18.1	8.3	54.9	13.2	5.5	NonPlastic		11.7	A-3a(0)
		5.5	7.0	(FILL) Dense black fine sand, little gravel							6.0	Visual
		8.5	10.0	(FILL) Gray coarse and fine sand, little gravel, trace clay							11.0	Visual
2	438+45.11; 61.22' Lt.	2.0	3.5	45.9	17.9	14.9	15.0	6.3	31	4	11.6	A-1-b(0)
		4.5	6.0	(FILL) Brown gravel with sand							30.1	Visual
		6.5	8.0	(FILL) Brown gravel with sand							29.8	Visual
		8.5	10.0	(FILL) Brown gravel with sand							28.3	Visual
3	451+20.07; 43.34' Rt.	1.0	2.5	57.2	22.4	9.9	7.4	3.1	NonPlastic		3.0	A-1-a(0)
		3.5	5.0	58.2	20.3	9.1	9.2	3.2	NonPlastic		3.2	A-1-a(0)
		6.0	7.5	(FILL) Brown gravel, some sand							3.1	Visual
		8.5	10.0	(FILL) Brown gravel, some sand							5.9	Visual
3A	447+39.18; 15.43' Rt.	1.0	3.0	37.7	25.6	20.9	12.1	3.7	NonPlastic		9.0	A-1-b(0)
		3.0	5.0	25.5	22.8	43.6	7.5	0.6	NonPlastic		12.7	A-3(0)
4	455+18.71; 41.22' Rt.	1.0	2.5	(FILL) Brown coarse and fine sand, some gravel							3.5	Visual
		3.5	5.0	(FILL) Brown coarse and fine sand, some gravel							4.5	Visual
		6.0	7.5	(FILL) Brown coarse and fine sand, some gravel							4.8	Visual
		8.5	10.0	(FILL) Brown coarse and fine sand, some gravel							3.1	Visual
4A	454+42.05; 109.26' Rt.	1.0	2.5	(FILL) Brown silt and clay, little gravel							13.9	Visual
		3.5	5.0	(FILL) Brown sandy silt, little gravel, trace glass							17.2	Visual
		6.0	7.5	45.0	18.6	16.3	20.1		NonPlastic		13.7	A-3(0)
		8.5	10.0	44.7	24.7	18.1	12.5		NonPlastic		3.8	A-3(0)
		11.0	12.5	Brown coarse and fine sand, some gravel							4.3	Visual
		13.5	15.0	Brown gravel with sand							8.3	Visual
		16.0	17.5	Brown gravel with sand							7.5	Visual
		18.5	20.0	Brown gravel with sand							8.6	Visual
		23.5	25.0	Brown gravel with sand							7.1	Visual
4B	452+65.66; 108.20' Rt.	1.0	2.5	(FILL) Brown coarse sand, little gravel, trace silt, trace ash, trace glass							12.4	Visual
		3.5	5.0	(FILL) Dark brown silty and clay, trace gravel, trace wood							14.5	Visual
		6.0	7.5	(FILL) Dark brown silty and clay, trace gravel, trace wood							10.3	Visual
		8.5	10.0	Brown gravel with sand, trace silt and clay							8.4	Visual
		11.0	12.5	Brown gravel with sand, trace silt and clay							9.6	Visual
		13.5	15.0	68.2	16.8	7.0	8.0		NonPlastic		8.5	A-1-b(0)
		16.0	17.5	Brown fine sand, little gravel, trace silt							14.4	Visual
		18.5	20.0	48.5	20.7	17.0	13.8		NonPlastic		11.0	A-1-b(0)
		23.5	25.0	Brown gravel with sand							8.3	Visual
		28.5	30.0	Brown gravel with sand							7.3	Visual

Boring Number	Station & Offset	Depth From	Depth To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	ODOT Class
10	462+68.65; 47.70' Rt.	1.0	2.5	32.3	33.9	13.4	11.3	9.1	21	7	4.7	A-2-4(0)
		3.5	5.0	(FILL) Brown gravel with sand and silt							3.4	Visual
		5.5	7.0	(FILL) Brown gravel with sand and silt							3.2	Visual
		8.5	10.0	(FILL) Brown gravel with sand and silt							4.7	Visual
10A	462+00.93; 105.69' Rt.	1.0	2.5	Brown silty clay, trace gravel							19.8	Visual
		3.5	5.0	64.1	16.4	6.5	13.0		Non Plastic		5.1	A-1-a(0)
		6.0	7.5	Brown gravel with sand, trace silt							5.1	Visual
		8.5	10.0	Brown gravel with sand, trace silt							5.9	Visual
		11.0	12.5	61.0	16.8	11.6	10.6		Non Plastic		4.9	A-1-a(0)
		13.5	15.0	Brown gravel with sand, trace silt							6.6	Visual
		16.0	17.5	Brown gravel with sand, trace silt							6.0	Visual
		18.5	20.0	Brown gravel with sand, trace silt							8.8	Visual
		23.5	25.0	Greenish-gray sandy silt, trace gravel							12.3	Visual
11	13+04.86; 37.0' Lt.	1.5	3.0	(FILL) Dark brown and gray silt and clay, little gravel, with organic odor							13.6	Visual
		3.5	5.0	(FILL)3.2	18.6	31.4	29.5	17.3	33	13	16.0	A-6a(4)
		5.5	7.0	Brown silty clay, trace gravel							27.1	Visual
		8.5	10.0	Brown sand, some silt, little gravel							Sat.	Visual
12	8+54.68; 36.05' Rt.	0.5	2.0	(FILL) Brown sand, some silt, trace gravel							5.2	Visual
		2.5	4.0	(FILL) Brown silt and clay							21.2	Visual
		5.5	7.0	0.4	2.5	23.6	41.1	32.4	39	16	25.7	A-6b(10)
		8.5	10.0	Brown sand, little silt, little gravel							Sat.	Visual
13	448+72.61; 8.19' Lt.	0.5	2.0	(FILL) Brown sand, some gravel, little silt							4.3	Visual
		2.5	4.0	29.1	14.4	20.0	21.7	14.8	30	11	14.9	A-6a(1)
		5.5	7.0	Dark brown sandy silt, trace gravel							13.9	Visual
		8.5	10.0	0.6	10.7	32.6	33.9	22.2	34	15	21.2	A-6a(6)
13A	444+34.14; 3.80 Rt.	1.0	3.0	55.3	22.1	10.1	9.8	2.7	16	1	4.9	A-1-a(0)
		3.0	5.0	49.7	19.3	11.3	14.0	5.7	28	8	11.3	A-2-4(0)
14	452+35.33; 0.66' Rt.	0.5	2.0	Brown gravel with sand, silt and clay							10.0	Visual
		2.5	4.0	63.6	12.4	6.7	13.0	4.3	31	14	4.9	A-2-6(0)
		4.5	6.0	Brown gravel with sand, silt and clay							4.9	Visual
		8.5	10.0	Brown gravel with sand, silt and clay							Sat.	Visual

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LEXINGTON, KY

PROJECT NO. 131651
DATE 05+05 rev
REVIEWED RJYT
DRAWN HGW
CLIENT TRANSYSTEMS CORPORATION

SOIL PROFILE
I-75 BRIDGE OVER GREAT MIAMI RIVER
MOT I-75-14.60

1 / 4

MATCHLINE STATION 433+00

MATCHLINE STATION 463+00

RAMP N-10

RAMP N-9

STANLEY AVE

RAMP 6-A

RAMP N-=6

INTERSTATE 75

INTERSTATE 75

RAMP N-8

RAMP N-7

#1 #2 #3 #3A #4 #4A #4B #5 #6 #7 #10 #10A #11 #12 #13 #13A #14

#1
43.76' Rt.
6" Asphalt pavement

#2
61.22' Lt.
6" Asphalt pavement

#3
43.34' Rt.
6" Asphalt pavement

#4
41.22' Rt.
6" Asphalt pavement

#10
47.70' Rt.
6" Asphalt pavement

780 770 760 750 740 730 720 710

433+00 434+00 435+00 436+00 437+00 438+00 439+00 440+00 441+00 442+00 443+00 444+00 445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00 458+00 459+00 460+00 461+00 462+00 463+00

INTERSTATE 75

0 100 200
HORIZONTAL SCALE IN FEET

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SOIL PROFILE – INTERSTATE 75
STA. 433+00 TO STA. 463+00

MOT I-75-14.60

INTERSTATE 75

N

HORIZONTAL SCALE IN FEET
0 100 200

SOIL PROFILE – INTERSTATE 75
STA. 433+00 TO STA. 463+00

MOT I-75-14.60

DRAWN	REVIEWED	DATE	PROJECT NO.
HGW	RJYT	REV. 05-05	131651

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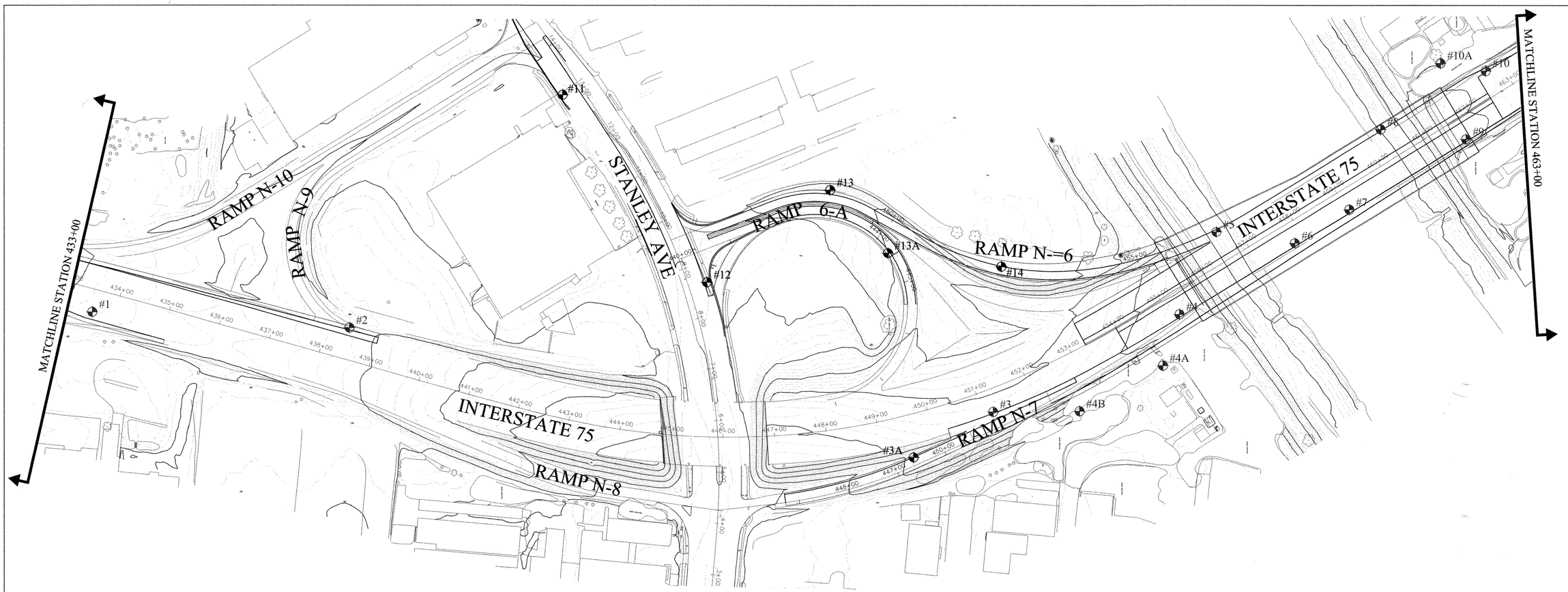
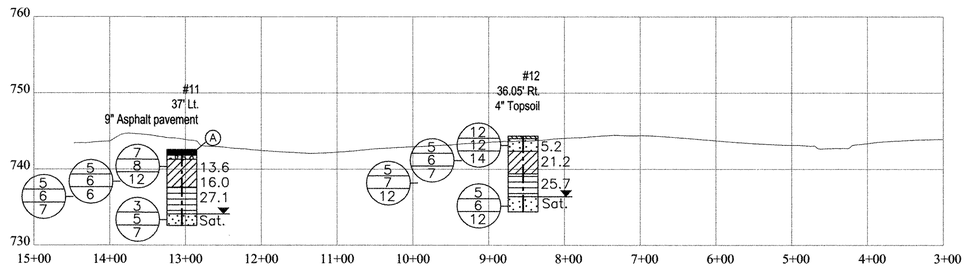
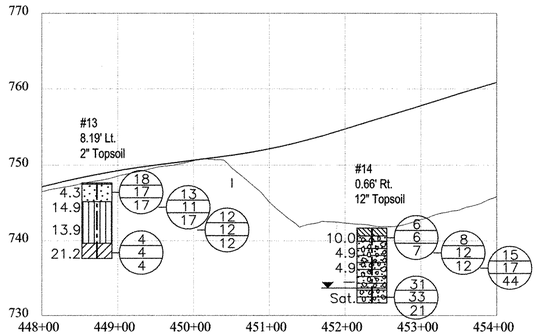
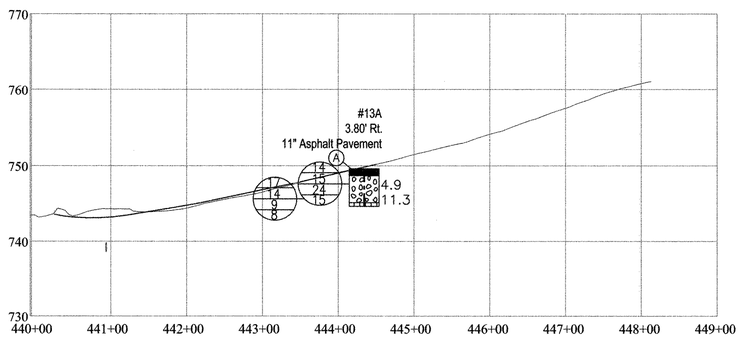




STANLEY AVENUE



RAMP N-6



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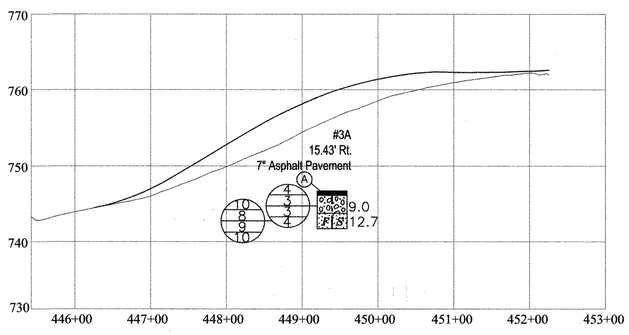

RAMP N-7

SOIL PROFILE - STANLEY AVENUE
RAMPS N-6, N-6A, AND N-7

MOT I-75-14.60

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DRAWN	REVIEWED	DATE	PROJECT NO.
HGW	RJYT	rev. 05-05	131651

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