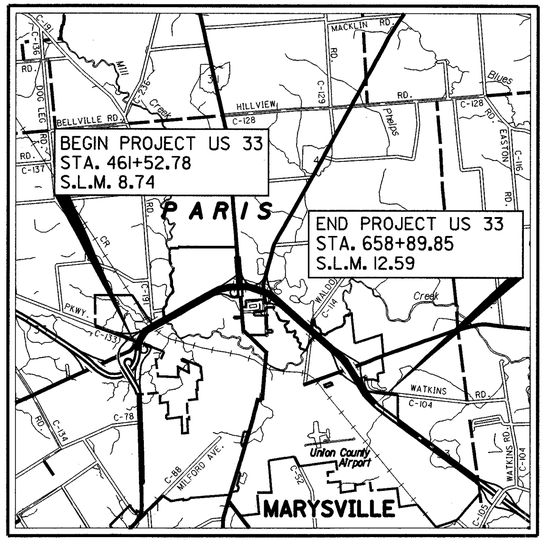
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
UNI-33-8.74
CITY OF MARYSVILLE
PARIS TWP.
UNION COUNTY



LOCATION MAP

LATITUDE: 40°15'10" LONGITUDE: 83°22'15"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE & DIVIDED HIGHWAY

UNDIVIDED STATE & FEDERAL ROUTES

OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2000)	26,933
DESIGN YEAR ADT (2010)	34,800
DESIGN HOURLY VOLUME (2010)	3,480
DIRECTIONAL DISTRIBUTION	60%
TRUCKS (24 HOUR B&C)	15%
DESIGN SPEED	70 MPH
LEGAL SPEED	65 MPH (105 km/h)

DESIGN FUNCTIONAL CLASSIFICATION -
URBAN OTHER FREEWAYS AND EXPRESSWAYS

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATES	SHEET NUMBERS
BRIDGE WIDTH	6/12/98	38,39,40,41,50,53
HORIZONTAL CLEARANCE	6/12/98	45,46,47,53

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:

O.D.O.T.
DISTRICT 6
IN-HOUSE DESIGN

ENGINEER'S SEAL:

STATE OF OHIO
DAVID P. POLING
56872
REGISTERED PROFESSIONAL ENGINEER

SIGNED: David P. Poling
DATE: 2-24-00

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** SHEET 55 HAS BEEN OMITTED

STANDARD CONSTRUCTION DRAWINGS

										SUPPLEMENTAL SPECIFICATIONS	
BP-2.1M	04/08/97	RM-3.1M	10/21/97	HL-30.32M	08/14/96	TC-41.50M	07/01/94	MT-98.16M	06/24/93	806	09/09/97
BP-2.2M	10/21/97	RM-4.2M	10/21/97	HL-30.33M	08/31/94	TC-42.10M	03/31/94	MT-98.17M	04/25/94	830	10/21/98
BP-2.3	04/29/99	RM-4.3M	10/21/97	HL-40.10M	03/31/95	TC-42.20M	03/31/94	MT-98.18M	04/25/94	842	01/06/99
BP-2.5M	04/08/97	RM-4.4M	10/21/97	HL-50.11M	03/31/95	TC-51.11M	09/30/94	MT-98.19M	03/01/96	843	05/05/98
BP-3.1M	10/28/94	RM-4.5M	10/21/97	HL-60.11M	05/01/95	TC-52.10M	07/29/94	MT-99.20M	01/30/95	844	01/06/99
BP-5.1M	10/28/94	CB-1.1M	07/12/95	HL-60.12M	03/31/95	TC-61.10M	03/31/94	MT-101.60M	04/25/94	846	09/09/97
GR-1.1M	10/21/97	CB-2.2M	07/12/95	HL-60.31M	03/31/95	TC-65.10M	11/01/95	MT-102.10M	01/30/95	848	06/30/98
GR-1.2M	01/03/96	CB-2.3M	07/12/95	TC-7.65M	02/01/94	TC-65.11M	11/01/95	MT-105.10M	04/25/94	863	10/12/99
GR-1.3M	11/30/94	CB-3.1M	07/12/95	TC-12.30M	02/01/94	TC-65.12M	11/01/95	MT-105.11M	04/25/94	870	08/10/99
GR-2.1M	04/14/98	CB-3.2M	07/12/95	TC-21.10M	12/10/96	TC-72.20M	09/01/93	DM-1.1M	10/21/97	877	04/13/99
GR-2.2M	10/21/97	I-2.1M	04/14/98	TC-21.20M	12/10/96	TC-82.10	01/19/99	DM-1.2M	10/21/97	887	08/10/99
GR-3.1M	10/21/97	MH-1.2M	09/06/95	TC-21.40M	02/01/94	TC-82.11	01/19/99	DM-4.3	04/29/99	899	10/21/98
GR-3.2M	10/21/97	HL-10.11M	05/01/95	TC-21.41M	02/01/94	MT-35.10M	01/30/95	DM-4.4	04/29/99	905	04/01/98
GR-4.2M	10/21/97	HL-10.12M	05/01/95	TC-22.10M	03/13/97	MT-35.11M	01/30/95	AS-1-81	10/25/94	906	05/05/98
GR-4.3M	10/21/97	HL-10.13M	05/01/95	TC-22.20M	02/01/94	MT-95.30M	04/25/94	BR-1	01/06/99	907	10/21/98
GR-5.1M	04/21/95	HL-20.11M	03/31/95	TC-31.21M	03/31/94	MT-95.40M	04/25/94	BR-2-82	11/01/82	908	01/06/99
GR-5.2M	11/30/94	HL-30.11M	03/31/95	TC-32.10M	03/31/94	MT-98.12M	06/24/93	EXJ-4-87	02/18/97	954	09/09/97
GR-5.3M	11/30/94	HL-30.21M	05/01/95	TC-32.11M	03/31/94	MT-98.13M	06/24/93	GSD-1-96	11/21/97		
GR-6.1M	01/03/96	HL-30.22M	03/31/95	TC-41.10M	03/31/94	MT-98.14M	06/24/93	PCB-91	07/06/99		
GR-6.2M	01/03/96	HL-30.31M	05/01/95	TC-41.20M	07/01/94	MT-98.15M	06/24/93				

PROJECT DESCRIPTION

REHABILITATION OF 3.85 MILES OF US 33 BY MEANS OF RESURFACING AND LIMITED FULL DEPTH JOINT REPAIR. REPAIR/REPLACE BRIDGE DECKS; REPLACE GUARDRAIL, SIGNS LIGHTING, AND CATCH BASINS. REMOVE CONCRETE ISLAND AND REPLACE WITH CONCRETE MEDIAN BARRIER BETWEEN THE SR 31/SR 4 INTERCHANGES.

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.

1997 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 AND THAT 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.

PLANS CERTIFIED BY:

NAME: Megan Blackford DATE: 2/24/00

DISTRICT 6
OHIO DEPT. OF TRANSPORTATION

APPROVED Jack R Marshall for
DATE 2/24/00 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.

PID NO. 17003

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT CSX

UNI-33-8.74

1/174

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RAMP S CURVE DATA

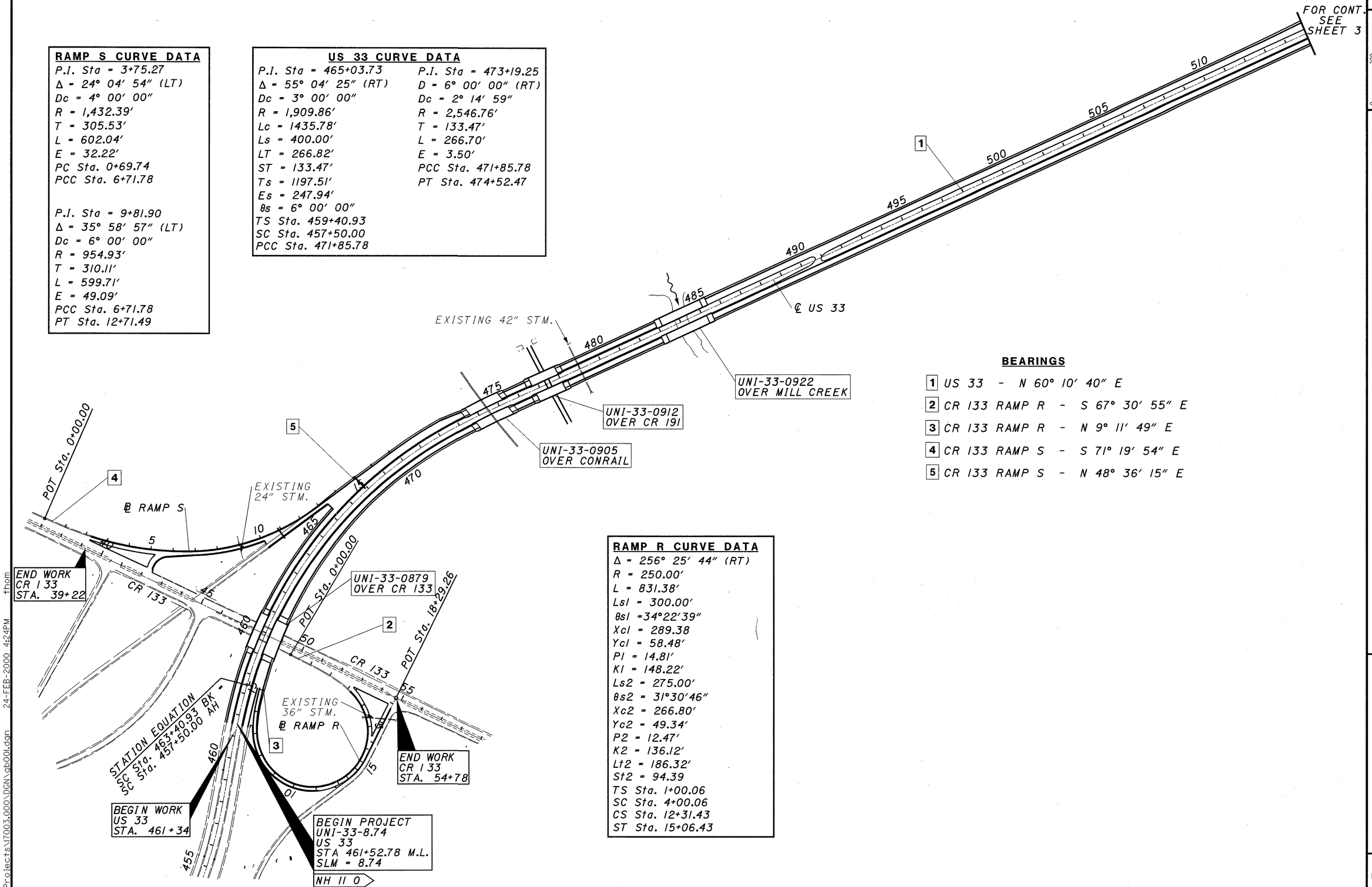
P.I. Sta = 3+75.27
Δ = 24° 04′ 54″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 305.53′
L = 602.04′
E = 32.22′
PC Sta. 0+69.74
PCC Sta. 6+71.78

P.I. Sta = 9+81.90
Δ = 35° 58′ 57″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 310.11′
L = 599.71′
E = 49.09′
PCC Sta. 6+71.78
PT Sta. 12+71.49

US 33 CURVE DATA

P.I. Sta = 465+03.73
Δ = 55° 04′ 25″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
Lc = 1435.78′
Ls = 400.00′
LT = 266.82′
ST = 133.47′
Ts = 1197.51′
Es = 247.94′
θs = 6° 00′ 00″
TS Sta. 459+40.93
SC Sta. 457+50.00
PCC Sta. 471+85.78

P.I. Sta = 473+19.25
D = 6° 00′ 00″ (RT)
Dc = 2° 14′ 59″
R = 2,546.76′
T = 133.47′
L = 266.70′
E = 3.50′
PCC Sta. 471+85.78
PT Sta. 474+52.47



BEARINGS

1 US 33 - N 60° 10′ 40″ E
2 CR 133 RAMP R - S 67° 30′ 55″ E
3 CR 133 RAMP R - N 9° 11′ 49″ E
4 CR 133 RAMP S - S 71° 19′ 54″ E
5 CR 133 RAMP S - N 48° 36′ 15″ E

RAMP R CURVE DATA

Δ = 256° 25′ 44″ (RT)
R = 250.00′
L = 831.38′
Ls1 = 300.00′
θs1 = 34°22′39″
Xc1 = 289.38
Yc1 = 58.48′
P1 = 14.81′
K1 = 148.22′
Ls2 = 275.00′
θs2 = 31°30′46″
Xc2 = 266.80′
Yc2 = 49.34′
P2 = 12.47′
K2 = 136.12′
Lt2 = 186.32′
St2 = 94.39
TS Sta. 1+00.06
SC Sta. 4+00.06
CS Sta. 12+31.43
ST Sta. 15+06.43

HORIZONTAL SCALE IN FEET
0 100 200 400

SCHEMATIC PLAN

UNI-33-8.74

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RAMP E CURVE DATA
P.I. Sta = 3+30.00
Δ = 14° 00′ 00″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 234.50′
L = 466.67′
E = 14.34′
PC Sta. 0+95.50
PT Sta. 5+62.17

P.I. Sta = 11+16.49
Δ = 57° 27′ 40″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 314.08′
L = 574.61′
E = 80.44′
PC Sta. 8+02.41
PT Sta. 13+77.02

RAMP F CURVE DATA
P.I. Sta = 2+61.03
Δ = 9° 25′ 23″ (RT)
Dc = 2° 00′ 00″
R = 2,864.80′
T = 236.11′
L = 471.16′
E = 9.71′
PC Sta. 0+24.92
PT Sta. 4+96.08

RAMP H CURVE DATA
Δ = 271° 45′ 40″ (RT) Ls2 = 275.00′
R = 230.00′ θs2 = 34°15′10″
Lc = 803.42′ Xc2 = 265.33′
Ls1 = 300.00′ Yc2 = 53.42′
θs1 = 37°22′01″ P2 = 13.52′
Xc1 = 287.49 K2 = 135.88′
Yc1 = 63.26′ Lt2 = 186.89′
P1 = 16.06′ St2 = 94.91
K1 = 147.90′
TS Sta. 0+00.00
SC Sta. 3+00.01
CS Sta. 11+03.43
ST Sta. 13+78.44

US 33 CURVE DATA
P.I. Sta = 549+86.70
Δ = 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP M CURVE DATA
P.I. Sta = 16+13.73
Δ = 10° 00′ 00″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 167.09′
L = 333.33′
E = 7.30′
PC Sta. 14+46.64
PT Sta. 17+79.97

P.I. Sta = 4+62.24
Δ = 77° 47′ 27″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 462.24′
L = 777.91′
E = 163.21′
PC Sta. 0+00.00
PT Sta. 7+77.91

RAMP L CURVE DATA
P.I. Sta = 2+20.04
Δ = 17° 28′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 220.04′
L = 436.67′
E = 16.80′
PC Sta. 0+00.00
PT Sta. 4+36.67

P.I. Sta = 10+83.21
Δ = 52° 40′ 00″ (LT)
Dc = 8° 00′ 00″
R = 716.20′
T = 354.49′
L = 658.34′
E = 82.93′
PC Sta. 7+28.72
PT Sta. 13+87.06

BEARINGS
6 US 33 - N 60° 10′ 40″ E
7 US 33 - S 48° 39′ 30″ E
8 SR 31 RAMP F - N 58° 41′ 35″ E
9 SR 31 RAMP F - N 68° 06′ 58″ E
10 SR 31 RAMP E - S 7° 10′ 34″ E
11 SR 31 RAMP E - S 21° 10′ 34″ E
12 SR 31 RAMP E - S 78° 38′ 14″ E
13 SR 31 RAMP G - S 53° 06′ 17″ E
14 SR 31 RAMP G - S 53° 06′ 17″ E
15 SR 31 RAMP G - N 85° 18′ 24″ E
16 SR 31 RAMP H - N 87° 04′ 04″ E
17 SR 4 RAMP M - N 25° 02′ 20″ E
18 SR 4 RAMP L - S 4° 20′ 13″ E
19 SR 4 RAMP K - N 85° 30′ 29″ E
20 SR 4 RAMP K - N 85° 30′ 29″ E
21 SR 4 RAMP K - S 50° 05′ 16″ E

HORIZONTAL SCALE IN FEET
0 100 200 400

END WORK SR 31 STA. 31+98
END WORK SR 4 STA. 34+17
END WORK SR 31 STA. 54+15
END WORK SR 4 STA. 62+51
℄ RAMP E
℄ RAMP F
℄ RAMP G
℄ RAMP H
℄ RAMP M
℄ RAMP L
℄ RAMP J
℄ RAMP K
℄ US 33
SR 31
SR 4
EXISTING 48″ STM.
EXISTING 54″ STM.
EXISTING 96″ STM.
EXISTING 42″ STM.
EXISTING 106″x68″ ELLIPTICAL PIPES
EXISTING 24″ PIPE
POT Sta. 20+86.14
POT Sta. 18+70.01
POT Sta. 13+69.82 Shift 18.5′ LT
POT Sta. 3+68.76 Shift 18.5′ Rt.
PT Sta. 20+66.46
UNI-33-1068 UNDER SR 4
UNI-33-1035 UNDER SR 31
FOR CONT. SEE SHEET 2
FOR CONT. SEE SHEET 4

RAMP K CURVE DATA
P.I. Sta = 11+47.15
Δ = 44° 24′ 15″ (RT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 584.61′
L = 1,110.10′
E = 114.71′
PC Sta. 5+62.54
PT Sta. 16+72.64

RAMP G CURVE DATA

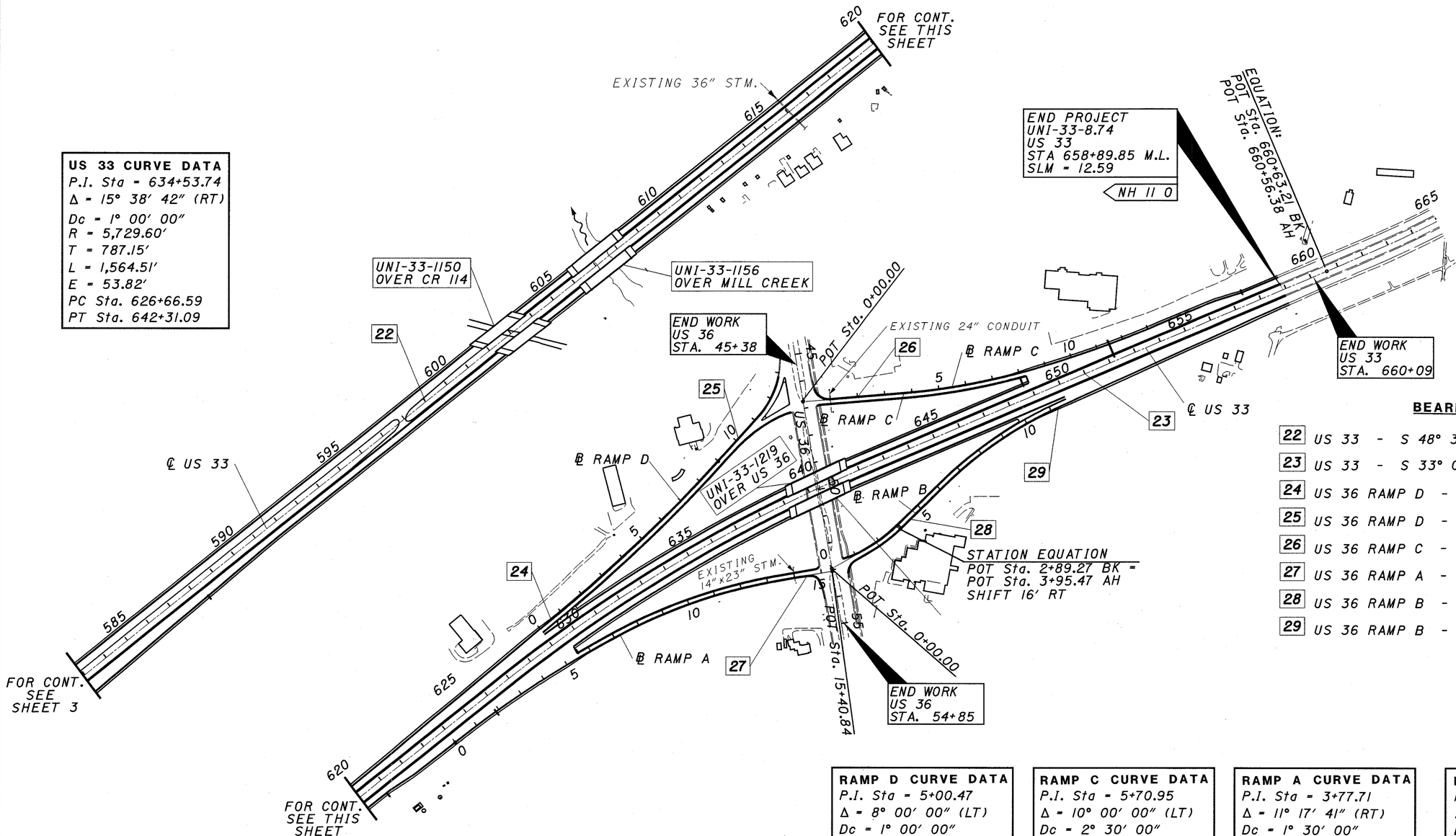
P.I. Sta = 2+85.43	P.I. Sta = 6+82.14	P.I. Sta = 9+93.65	P.I. Sta = 15+11.44
Δ = 17° 00′ 00″ (RT)	Δ = 11° 00′ 00″ (RT)	Δ = 35° 09′ 09″ (RT)	Δ = 41° 35′ 19″ (LT)
Dc = 3° 00′ 00″	Ls = 200.00′	Dc = 8° 00′ 00″	Dc = 23° 03′ 24″
R = 1,909.86′	T2 = 115.47′	R = 716.20′	R = 248.50′
T = 285.43′	T2 = 85.14′	T = 226.87′	T = 94.37′
L = 566.67′	θs = 5°00′00″	L = 439.41′	L = 180.38′
E = 21.21′	P = 1.45′	E = 35.07′	E = 17.31′
PC Sta. 0+00.00	CS Sta. 5+66.67	PC Sta. 7+66.67	PC Sta. 14+17.07
CS Sta. 5+66.67	SC Sta. 7+66.67	PT Sta. 12+06.08	PT Sta. 15+97.45

RAMP J CURVE DATA

P.I. Sta = 2+34.50	Δ = 211° 27′ 01″ (RT)	P.I. Sta = 18+39.07
Δ = 14° 00′ 00″ (RT)	R = 310.00′	Δ = 9° 06′ 53″ (RT)
Dc = 3° 00′ 00″	L = 1144.06′	Dc = 2° 00′ 00″
R = 1,909.85′	PCC Sta. 4+66.66	R = 2,864.79′
T = 234.50′	PCC Sta. 16+10.72	T = 228.35′
L = 466.66′		L = 455.74′
E = 14.34′		E = 9.09′
PC Sta. 0+00.00		PCC Sta. 16+10.72
PCC Sta. 4+66.66		PT Sta. 20+66.46

SCHEMATIC PLAN
UNI-33-8.74
3
174

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US 33 CURVE DATA
P.I. Sta = 634+53.74
Δ = 15° 38′ 42″ (RT)
Dc = 1° 00′ 00″
R = 5,729.60′
T = 787.15′
L = 1,564.51′
E = 53.82′
PC Sta. 626+66.59
PT Sta. 642+31.09

BEARINGS

22 US 33 - S 48° 39′ 30″ E
23 US 33 - S 33° 00′ 48″ E
24 US 36 RAMP D - S 49° 48′ 31″ E
25 US 36 RAMP D - S 57° 48′ 31″ E
26 US 36 RAMP C - S 14° 42′ 52″ E
27 US 36 RAMP A - S 19° 48′ 00″ E
28 US 36 RAMP B - S 54° 29′ 43″ E
29 US 36 RAMP B - S 34° 29′ 43″ E

RAMP D CURVE DATA
P.I. Sta = 5+00.47
Δ = 8° 00′ 00″ (LT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 400.65′
L = 800.00′
E = 13.99′
PC Sta. 0+99.82
PT Sta. 8+99.82

P.I. Sta = 12+63.43
Δ = 50° 04′ 56″ (LT)
Dc = 18° 28′ 57″
R = 310.00′
T = 144.83′
L = 270.97′
E = 32.16′
PC Sta. 11+18.60
PT Sta. 13+89.57

RAMP C CURVE DATA
P.I. Sta = 5+70.95
Δ = 10° 00′ 00″ (LT)
Dc = 2° 30′ 00″
R = 2,291.83′
T = 200.51′
L = 400.00′
E = 8.75′
PC Sta. 3+70.44
PCC Sta. 7+70.44

P.I. Sta = 10+47.46
Δ= 8° 17′ 46″ (LT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 277.02′
L = 553.07′
E = 10.03′
PCC Sta. 7+70.44
PT Sta. 13+23.52

RAMP A CURVE DATA
P.I. Sta = 3+77.71
Δ = 11° 17′ 41″ (RT)
Dc = 1° 30′ 00″
R = 3,819.71′
T = 377.71′
L = 752.98′
E = 18.63′
PC Sta. 0+00.00
PCC Sta. 7+52.98

P.I. Sta = 10+47.98
Δ = 17° 33′ 39″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 294.99′
L = 585.36′
E = 22.65′
PCC Sta. 7+52.98
PT Sta. 13+38.34

RAMP B CURVE DATA
P.I. Sta = 2+16.19
Δ = 53° 23′ 44″ (RT)
Dc = 10°
R = 572.96′
T = 73.88′
L = 146.95′
E = 4.74′
PC Sta. 1+42.31
PT Sta. 2+89.26

P.I. Sta = 8+72.75
Δ = 20° 00′ 00″ (RT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 252.57′
L = 500.00′
E = 22.10′
PC Sta. 6+20.18
PT Sta. 11+20.18

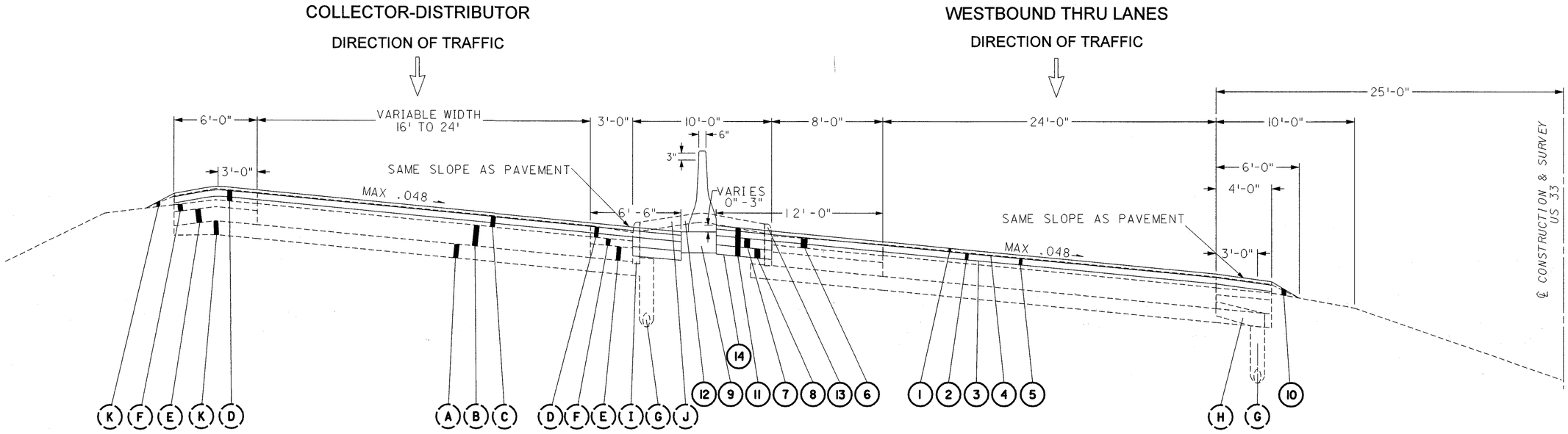
HORIZONTAL SCALE IN FEET
0 100 200 400

SCHEMATIC PLAN

UNI-33-8.74

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TYPICAL SECTIONS



SUPERELEVATION

STA. 524+47.51 TO 570+29.52 = 4582.01 LF

NOTE: PAVEMENT TREATMENT APPLIES TO ENTIRE PROJECT

*** - IN NO CASE SHALL THE CONCRETE BASE BE PLANED**

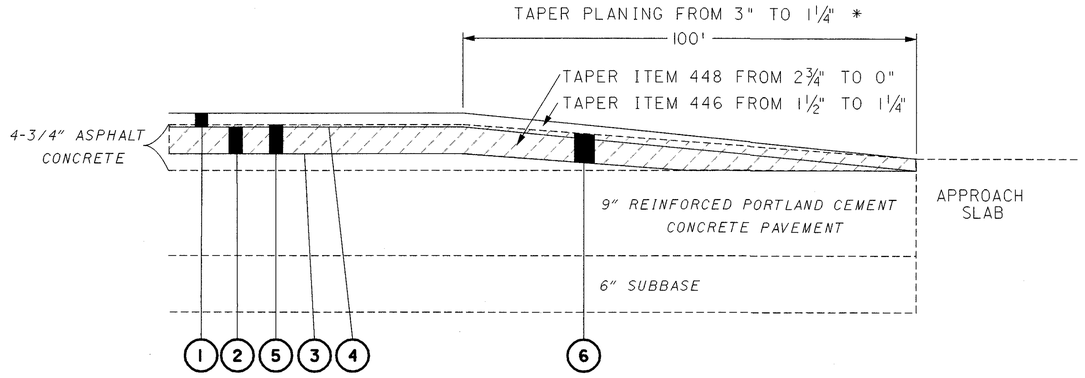
PROPOSED LEGEND

1	ITEM 446	1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
2	ITEM 448	2-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
3	ITEM 407	TACK COAT
4	ITEM 407	TACK COAT FOR INTERMEDIATE COURSE
5	ITEM 254	3" PAVEMENT PLANING, BITUMINOUS *
6	ITEM 254	PAVEMENT PLANING BITUMINOUS, DEPTH VARIES
7	ITEM 301	4" BITUMINOUS AGGREGATE BASE, PG64-22
8	ITEM 304	4" AGGREGATE BASE
9	ITEM 622	CONCRETE BARRIER, TYPE C
10	ITEM 617	3" COMPACTED AGGREGATE, TYPE A
11	ITEM 203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, DEPTH VARIES
12	ITEM 202	CONCRETE MEDIAN REMOVED
13	ITEM 202	CURB REMOVED
14	ITEM 203	SUBGRADE COMPACTION

EXISTING LEGEND

A	6" SUBBASE
B	9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
C	4-3/4" ASPHALT CONCRETE
D	ASPHALT CONCRETE, THICKNESS VARIES
E	6" AGGREGATE BASE
F	3" BITUMINOUS AGGREGATE BASE
G	6" PIPE
H	NO. 6 AGGREGATE, DRAINAGE CONNECTION
I	CONCRETE CURB, TYPE 6
J	PORTLAND CEMENT CONCRETE MEDIAN PAVEMENT
K	COMPACTED AGGREGATE, THICKNESS VARIES

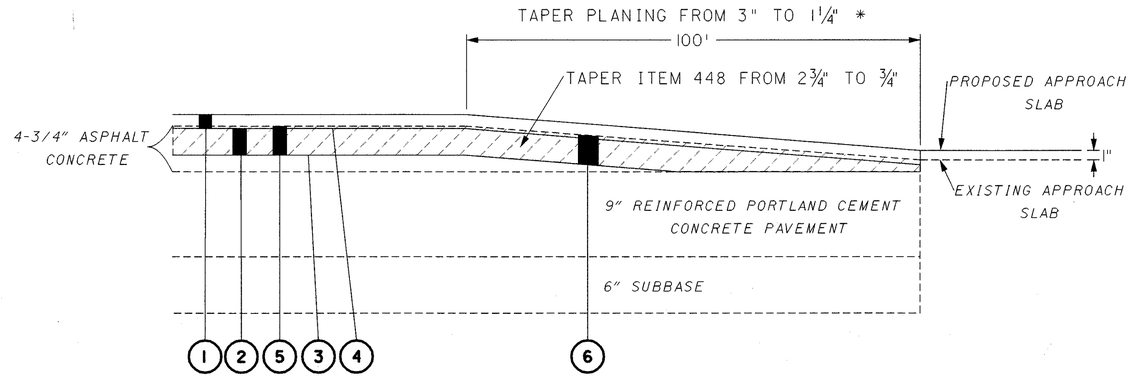
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* - IN NO CASE SHALL THE CONCRETE BASE BE PLANED

TYPICAL TRANSITION TO MEET EXISTING STRUCTURES

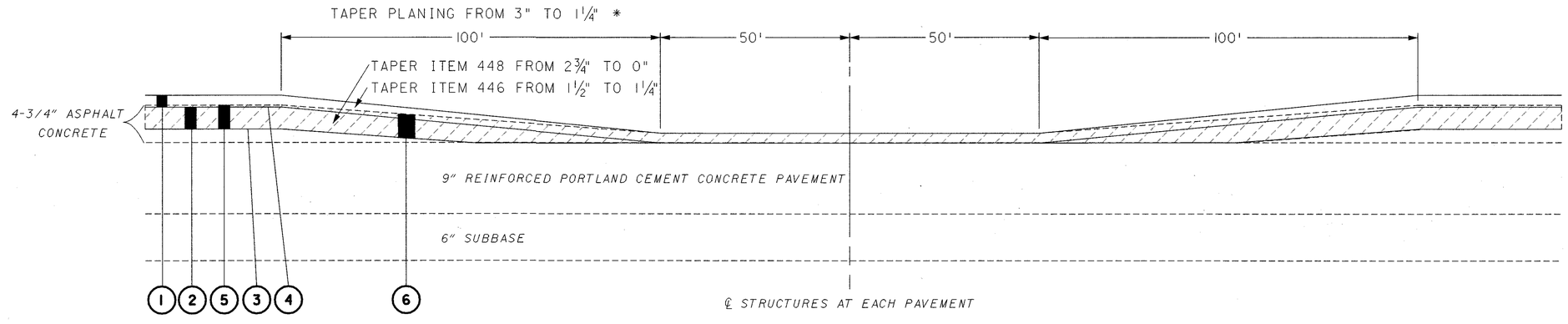
STRUCTURES: 0879 (OVER CR 133), 0905 (OVER CONRAIL), 0912 (OVER CR 191), 0922 (OVER MILL CREEK), 1150 (OVER CR 114), & 1219 (OVER US 36)



* - IN NO CASE SHALL THE CONCRETE BASE BE PLANED

TYPICAL TRANSITION TO MEET EXISTING STRUCTURES

STRUCTURES: 1156 (OVER MILL CREEK)



* - IN NO CASE SHALL THE CONCRETE BASE BE PLANED

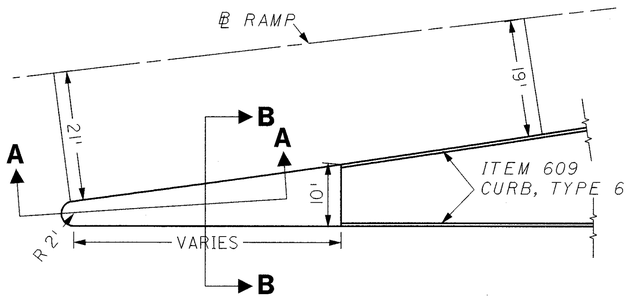
TYPICAL TRANSITION UNDER STRUCTURES

STRUCTURES: 1035 (UNDER SR 31) & 1068 (UNDER SR 4)

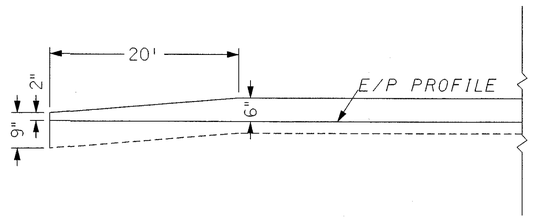
TYPICAL SECTIONS

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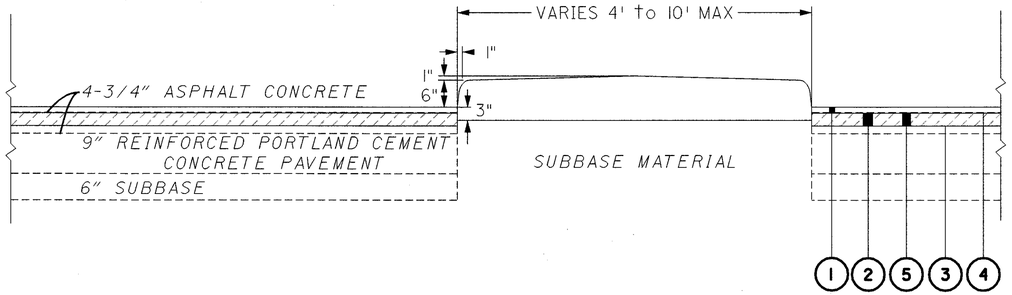
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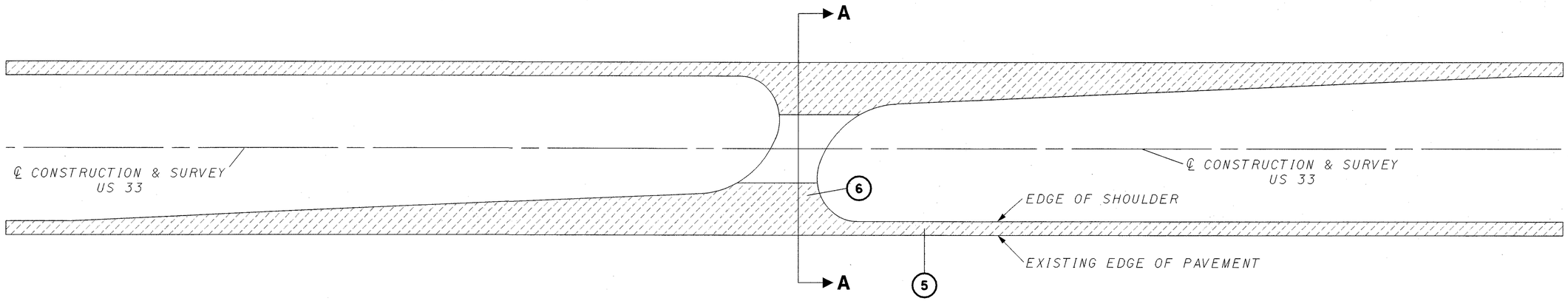
DETAIL OF CONCRETE MEDIAN



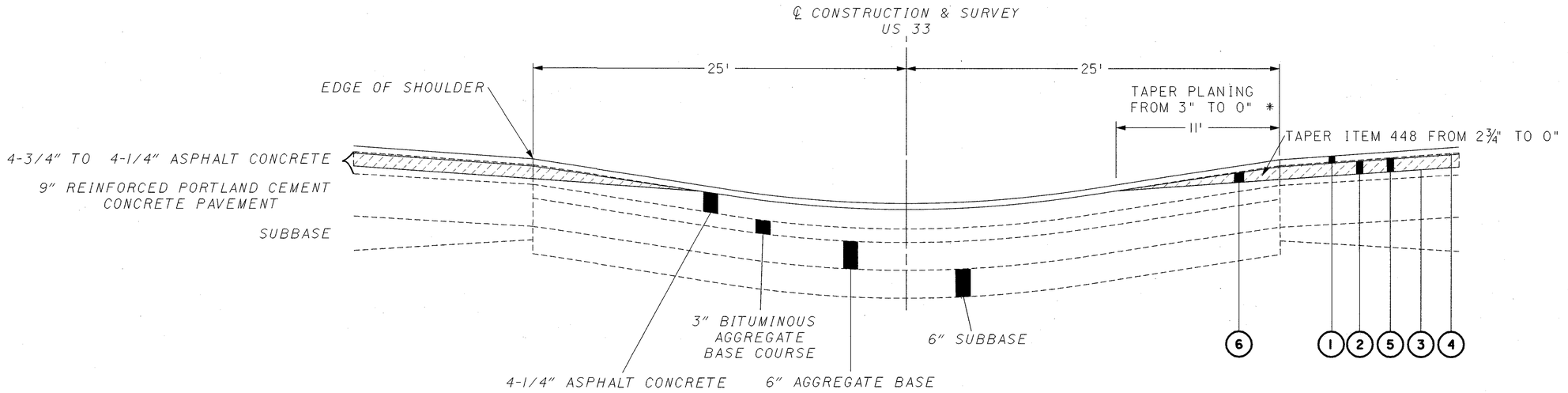
SECTION A-A



SECTION B-B



DETAIL OF MEDIAN CROSSOVER TREATMENT

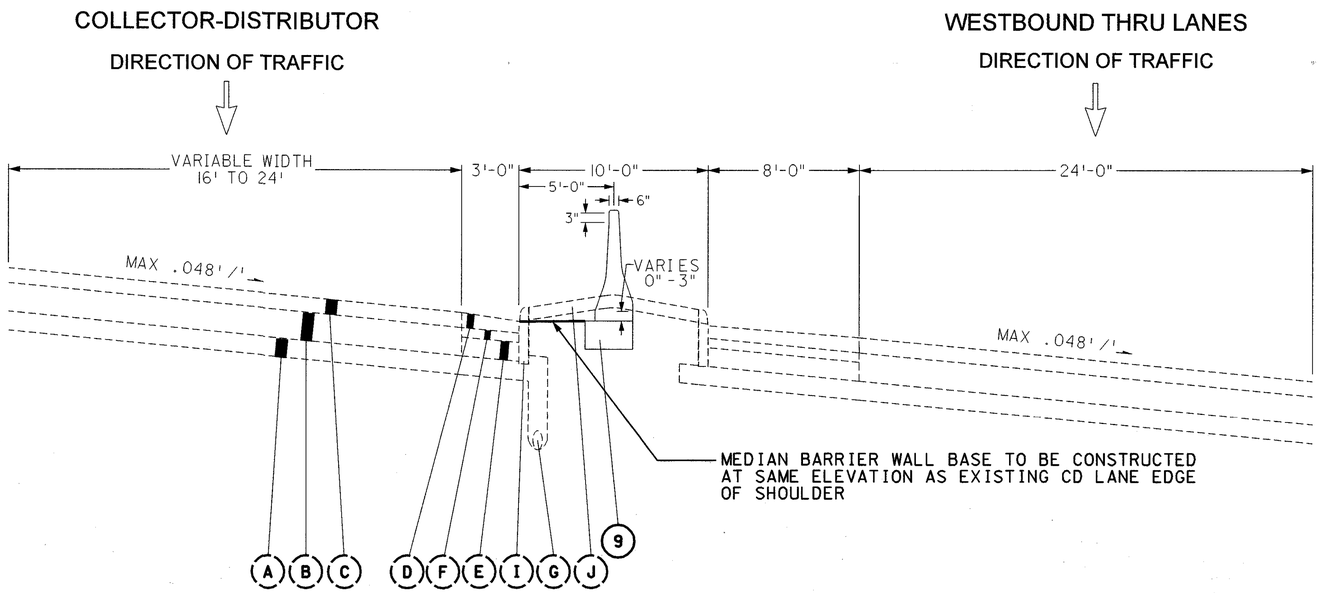


SECTION A-A

TYPICAL SECTIONS

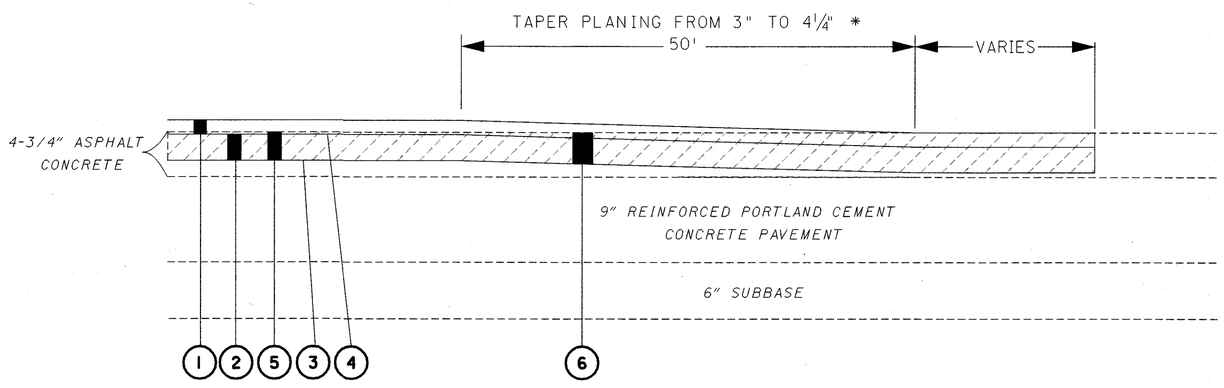
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CONSTRUCTION OF MEDIAN BARRIER WALL ELEVATION

STA. 524+47.51 TO 570+29.52 = 4582.01 LF



* - IN NO CASE SHALL THE CONCRETE BASE BE PLANED

TYPICAL TRANSITION TO MEET EXISTING PAVEMENT

(BEGINNING AND END OF PROJECT, END OF RAMPS)

TYPICAL SECTIONS

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CONSTRUCTION INITIATION:
THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS AT (740)363-1251, EXT. 469, OR BY FAX AT (740)369-7437 AND THE DISTRICT TRAFFIC MANAGEMENT ENGINEER (EXT. 323) FOURTEEN DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT TRAFFIC MANAGEMENT ENGINEER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION PROJECT. THE PROJECT ENGINEER WILL ASSIST WITH ANY QUESTIONS.

GENERAL:
THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE ENGINEER (SEE 101.18) AND RECEIVE APPROVAL IN WRITING BEFORE WORK COMMENCES ON THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALIGNMENT AND PROFILE:
THE WORK PROPOSED BY THIS PROJECT IS FOR THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT OF THE EXISTING PAVEMENT WILL NOT BE CHANGED, AND THE PROFILE OF THE PROPOSED SURFACE WILL BE RAISED AS SPECIFIED IN THE PLANS.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE:
THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. EQUIPMENT SHALL HAVE AT LEAST ONE AMBER FLASHING LIGHT. WHEN PARKED ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE LOCATED EITHER A MINIMUM OF THIRTY FEET FROM THE EDGE OF PAVEMENT OR SIX FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT AN APPROVED CONTRACTOR'S STORAGE AREA.

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 FACTOS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF THE ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTOS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

COOPERATION BETWEEN CONTRACTORS:
THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 105.07 OF THE CMS. DURING THE DURATION OF THIS PROJECT, PROJECT UNI-36-21.194 MAY BE UNDER CONSTRUCTION ON US 36.

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 1988 U.S.G.S. DATUM.

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

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

TELEPHONE: SPRINT
127 NORTH MAIN STREET
BELLEFONTAINE, OHIO 43311
TEL: (614) 789-5814

GAS: COLUMBIA GAS TRANSMISSION
PO BOX 79
1608 HOMER RD. NW
HOMER, OHIO 43027-0079
TEL: (740) 892-5200

COLUMBIA GAS OF OHIO
920 WEST GOODALE BLVD.
COLUMBUS, OHIO 43212
TEL: (937) 599-9378

ELECTRIC: THE DAYTON POWER AND LIGHT COMPANY
1201 WEST FIFTH STREET
MARYSVILLE, OHIO 43040
TEL: (937) 642-9060

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.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ANY UNDERGROUND UTILITIES MARKED.
OHIO UTILITY PROTECTION SERVICE (800)362-2764
NON-MEMBERS MUST BE CALLED DIRECTLY.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING:
THE CONTRACTOR SHALL CONSTRICT ALL OF HIS/HER ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT. SHOULD THE CONTRACTOR WISH TO USE ANY AREA OUTSIDE THESE LIMITS, A REQUEST IN WRITING MUST BE SUBMITTED TO THE PROJECT ENGINEER. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA THAT THE CONTRACTOR PLANS TO USE AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE ENGINEER SHALL APPROVE THE REQUEST IN WRITING BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA. 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 AT THE CONTRACTOR'S EXPENSE OR AS DIRECTED BY THE PROJECT ENGINEER.

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.

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

ITEM 254 - PAVEMENT PLANING, BITUMINOUS:
ALL PLANED PAVEMENT SHALL BE RESURFACED BEFORE BEING OPENED TO TRAFFIC. AT NO TIME DURING THE PLANING AND PAVING OPERATIONS SHALL THERE BE MORE THAN 2000 FEET OF PAVEMENT THAT IS PLANED BUT UNPAVED.

FULL DEPTH JOINT REPAIR:
IF, AFTER REMOVAL OF THE RIGID PAVEMENT, THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, HE SHALL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. THE BELOW ESTIMATED QUANTITIES ARE FOR USE AS DIRECTED BY THE ENGINEER AS DETERMINED DURING CONSTRUCTION. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT PRICE BID FOR:
ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT
CONSTRUCTION = 50 CY
ITEM 304 - AGGREGATE BASE = 50 CY

ITEM 407 - TACK COAT:
THE TACK COAT OPERATION SHALL BE AS DETERMINED AT A PRE-CONSTRUCTION CONFERENCE AS PER 407.05 AND APPLICATION RATES SHALL NOT EXCEED 0.075 GALLONS PER SQUARE YARD.

CALCULATED MB CHECKED

GENERAL NOTES

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ITEM 202 - GUARDRAIL REMOVED (FOR STORAGE):
GUARDRAIL PANELS THAT ARE STRAIGHT, UNDAMAGED, AND REASONABLY RUST FREE SHALL BE SALVAGED AND PLACED IN STACKS OF 50. ALL POSTS AND MISCELLANEOUS HARDWARE SHALL BE DISPOSED OF BY THE CONTRACTOR AS DIRECTED.

GUARDRAIL PANELS DESIGNATED BY THE ENGINEER FOR SALVAGE SHALL BE TRANSPORTED TO:
UNION COUNTY GARAGE
402 CHESTNUT STREET
MARYSVILLE, OHIO 43040
TEL: (937)642-1986

GUARDRAIL DESIGNATED BY THE ENGINEER AS UNSALVAGEABLE SHALL BE DISPOSED OF BY THE CONTRACTOR AS DIRECTED.

FOR THE PURPOSES OF BIDDING, 90% OF THE TOTAL GUARDRAIL TO BE REMOVED SHALL BE BID AS ITEM 202 - GUARDRAIL REMOVED FOR STORAGE. THE REMAINING 10% SHALL BE BID AS ITEM 202 - GUARDRAIL REMOVED.

ITEM 202 - REMOVAL MISC.: SAND BARREL ARRAY:
SAND BARREL ARRAYS LOCATED AT THE FOLLOWING LOCATIONS SHALL BECOME PROPERTY OF THE CONTRACTOR AND PROPERLY DISPOSED OF OFF SITE:

US 33 EB STA. 529+65 = 1 EACH
US 33 CD LANE STA. 546+71 = 1 EACH
US 33 CD LANE STA. 562+44 = 1 EACH
US 33 EB STA. 568+61 = 1 EACH
US 33 EB STA. 629+59 = 1 EACH
US 33 WB STA. 648+80 = 1 EACH

THE FOLLOWING QUANTITY HAS BEEN PROVIDED:
ITEM 202 - REMOVAL MISC.: SAND BARREL ARRAY = 6 EACH

ITEM 203 - EMBANKMENT:
THIS ITEM OF WORK SHALL CONSIST OF PLACING EMBANKMENT TO MEET THE GRADING REQUIREMENTS SHOWN IN THE STANDARD CONCTRUCTION DRAWINGS FOR THE INSTALLATION OF GUARDRAIL ANCHOR ASSEMBLIES AND IMPACT ATTENUATORS. THE QUANTITY PROVIDED BELOW IS ESTIMATED AND DOES NOT REFLECT THE ACTUAL REQUIRED QUANTITY OF EMBANKMENT AT EACH LOCATION. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

TYPE B-98 ANCHOR ASSEMBLIES = 13 X 10 CY = 130 CY
TYPE E-98 ANCHOR ASSEMBLIES = 24 X 5 CY = 120 CY
TYPE 1-98 IMPACT ATTENUATOR = 9 X 20 CY = 180 CY
ITEM 203 - EMBANKMENT = 430 CY

ITEM 203 - EMBANKMENT USING GRANULAR MATERIAL:
THIS ITEM OF WORK SHALL CONSIST OF PLACING EMBANKMENT IN SECTIONS WHERE THE EXISTING FORESLOPES REQUIRE REGRADING. PLACEMENT OF THIS ITEM SHALL BE AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY HAS BEEN PROVIDED:
ITEM 203 - EMBANKMENT USING GRANULAR MATERIAL = 30 CY

ITEM 603 - CONDUIT:
A QUANTITY OF CONDUIT HAS BEEN INCLUDED FOR EACH LOCATION WHERE A CATCH BASIN OR INLET IS BEING REPLACED. ANY CONDUIT DAMAGED DURING THE REMOVAL SHALL BE REPLACED.

LOCATION OF GUARDRAIL:
THE STATIONS SHOWN FOR THE PROPOSED GUARDRAIL ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

THE LOCATION FOR THE PROPOSED GUARDRAIL MAY DIFFER FROM THAT OF THE EXISTING GUARDRAIL. THE TYPICAL OFFSET FROM THE EDGE OF PAVEMENT FOR THE PROPOSED GUARDRAIL (WITH RESPECT TO THE DIRECTION OF TRAVEL) SHALL BE:
MAINLINE: 10' TO THE RIGHT, 6' TO THE LEFT
RAMPS: 8' TO THE RIGHT, 6' TO THE LEFT
OFFSETS MAY VARY FROM THESE TYPICAL VALUES AS NECESSARY AND AS DIRECTED BY THE ENGINEER.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL:
WHEN SPLICING 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" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

GUARDRAIL REPLACEMENT:
NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL NEW GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

GUARDRAIL POST HOLES:
ALL HOLES REMAINING AFTER REMOVAL OF GUARDRAIL POSTS AND ANCHOR ASSEMBLIES SHALL BE FILLED WITH GRANULAR MATERIAL, EXCESS MATERIAL RESULTING FROM RECONSTRUCTION, OR EXCESS MATERIAL FROM BERM RESHAPING. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED. ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER. MATERIAL PLACED IN HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE GUARDRAIL ITEM.

ITEM 606 - GUARDRAIL POST, 9 FT:
THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY HAS BEEN PROVIDED:
ITEM 606 - GUARDRAIL POST, 9 FT = 100 EACH

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 SYRO INC., 1170 N. STATE STREET, GIRARD OHIO 44420 TEL: (330)545-4373.

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6" [11.43 M], INCLUSIVE OF THREE 12'-6" [3.81 M] 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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. DATE
SS444 SS444M	SLOTTED RAIL TERMINAL POST LAYOUT AND ERECTION DETAILS SRT-350 (12.5, 8 POST)	7/12/99 REV. 1 7/12/99	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. 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 TEL: (815)464-5917.

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6" [11.43 M], INCLUSIVE OF THREE 12'-6" [3.81 M] 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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

GRADING SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING GR-4.3M.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 30"W X 12"H [915 MM W X 305 MM H] FOR THE SRT-350 AND 14"W X 20"H [350 MM W X 500 MM 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, ALL RELATED HARDWARE AND GRADING, NOT SEPARATELY 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 SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 TEL: (330)545-4373.

THE LENGTH OF THE ET-2000 SYSTEM IS CONSIDERED TO BE 50'-0" [15.24 M] INCLUSIVE OF TWO 25'-0" [7.62 M] 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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. DATE
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98

CALCULATED MB CHECKED

GENERAL NOTES

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2.) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 TEL: (814)464-5917.

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0" [15.24 M] INCLUSIVE OF FOUR 12'6" [3.81 M] 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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. 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" [450 MM X 450 MM] .

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, EACH, ANCHOR ASSEMBLY, TYPE E-98, E ACH, 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 AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL):
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE C-A-T MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 TEL: (330)545-4373.

THE LENGTH OF THE C-A-T SYSTEM IS CONSIDERED TO BE 31'-3" [9525 MM] LONG. 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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. DATE
SS245M	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS FOR USE AS A LONGITUDINAL MEDIAN BARRIER TERMINAL OR CRASH CUSHION ATTENUATOR	4/10/97 REV. 4	3/6/98
SS224M	C-A-T TRANSITION TO MEDIAN BARRIER GUARDRAIL PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98
SS226M	C-A-T TRANSTION TO VERTICAL WALL OR PIER PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98

2. THE BRAKEMASTER MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 TEL: (312)467-6750.

THE LENGTH OF THE BREAKMASTER SYSTEM IS CONSIDERED TO BE 32'-8" [9957 MM] LONG. 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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. DATE
92-00-01	BRAKEMASTER GENERAL ASSEMBLY (UNIDIRECTIONAL SYSTEM)	3/6/97 REV. K	3/6/98
92-00-81	BRAKEMASTER (UNIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
92-00-02	BRAKEMASTER GENERAL ASSEMBLY (BIDIRECTIONAL SYSTEM)	3/10/97 REV. K	3/6/98
92-00-82	BRAKEMASTER (BIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
9202024	ANCHOR ASSEMBLY, FOUNDATION TUBE, 6 1/2 FT., BRS	6/12/97 REV. D	3/6/98

THE FACE OF THE TYPE 1-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 36"W X 12H" [915 MM W X 305 MM H] .

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 - IMPACT ATTENUATOR, TYPE 1-98 BIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2-98 [MODEL #QS3009Y, #QS9009Y), UNIDIRECTIONAL]:
THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A QUADGUARD IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 TEL: (312)467-6750.

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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. DATE
QSTSCVR-U	QUADGUARD SYSTEM WITH TENSION STRUT BACKUP	7/10/96 Rev. A	3/6/98
QSCBCVR-U	QUADGUARD SYSTEM WITH CONCRETE BACKUP	4/28/97 Rev. E	3/6/98
QFTSCVR-U	QUADGUARD SYSTEM W/69" & 90" TENSION STRUT BACKUPS	9/5/97 Rev. C	3/6/98
QFCBCVR-U	QUADGUARD SYSTEM W/69" & 90" CONCRETE BACKUPS	9/4/97 Rev. D	3/6/98
35-40-20	DEFLECTOR ASSEMBLY, CONCRETE BACKUP RETROFIT, QG	11/14/97 Rev. B	7/31/98
35-40-03	QUADGUARD SYSTEM BACKUP ASSEMBLY, TS, QG	3/19/99 Rev. F	8/27/99
35-40-08 2 SHEETS	QUADGUARD SYSTEM CONCRETE BACKUP, QG ON GRADE	10/14/97 Rev. F 10/14/97 Rev. F	8/27/99 8/27/99
35-40-21 2 SHEETS	TRANSITION ASSEMBLY QUAD-BEAM TO W-BEAM	11/6/97 Rev. B 7/14/97 Rev. A	8/27/99 8/27/99
35-40-22 2 SHEETS	TRANSITION ASSEMBLY QUAD-BEAM TO THRIE-BEAM	7/15/97 Rev. A 7/11/97 Rev. A	8/27/99 8/27/99
35-40-15	QUADGUARD SYSTEM END SHOE ASSEMBLY, QG	9/11/98 Rev. F	8/27/99
3540211 2 SHEETS	QG TRANSITION ASSEMBLY QUAD-BEAM TO W-BEAM-WIDE	8/29/97 Rev. A 8/29/97 Rev. A	8/27/99 8/27/99
3540221 2 SHEETS	QG TRANSITION ASSEMBLY QUAD-BEAM TO THRIE-BEAM-WIDE	8/29/97 Rev. A 8/29/97 Rev. A	8/27/99 8/27/99
3540498	QG SYSTEM NOSE ASSEMBLY, QG, 24, 30, 36, W/BELTING	12/30/98	8/27/99
3540150	QUADGUARD TRANSITION TO VERTICAL CONCRETE BARRIER	9/96	8/27/99

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 - IMPACT ATTENUATOR, TYPE 2-98 BIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN:
THIS ITEM SHALL CONSIST OF STATIONING USING 3 FT LATH STAKES. THE STAKES SHALL BE SPACED AT 100 FT INTERVALS AND SHALL EXTEND THROUGHOUT THE LENGTH OF THE PROJECT AND THROUGHOUT THE LENGTH OF ALL RAMPS. PLACEMENT OF THE STAKES SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED OR MISSING STAKES.

CONSTRUCTION LAYOUT STAKES, AS PER PLAN WILL BE PAID FOR AT THE CONTRACT LUMP SUM BID, WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL SERVICES, MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS, INCLUDING THE REMOVAL, NECESSARY TO COMPLETE THIS ITEM.

ITEM 870 - SEEDING AND MULCHING, COMMERCIAL FERTILIZER, AND WATER:
AREAS DISTURBED BY GUARDRAIL ACTIVITIES AND AREAS WHERE EMBANKMENT HAS BEEN PLACED SHALL BE SEEDED AND MULCHED. THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED:

ITEM 870 - SEEDING AND MULCHING = 12,895 SY
ITEM 870 - COMMERCIAL FERTILIZER = 1.16 TON
ITEM 870 - WATER = 14 MGAL

ITEM SPECIAL - RESHAPING BERM:
THIS ITEM OF WORK SHALL CONSIST OF GRADING THE BERM AFTER THE REMOVAL OF EXISTING GUARDRAIL. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO GRADE THE BERM AND PROVIDE PROPER ROADWAY DRAINAGE.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL:
THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

ITEM 877 - TEMPORARY PERIMETER FILTER FABRIC FENCE = 39,700 LF
ITEM 877 - TEMPORARY INLET PROTECTION FILTER FABRIC FENCE = 700 LF

CALCULATED MB CHECKED

GENERAL NOTES

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ITEM 614 - MAINTAINING TRAFFIC:
A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING AND COMPLETED PAVEMENT. ALL PLANED PAVEMENT SHALL BE RESURFACED ALONG WITH PLACEMENT OF ALL TEMPORARY PAVEMENT MARKINGS PRIOR TO BEING OPENED TO TRAFFIC.

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

NEW YEARS
EASTER
MEMORIAL DAY
INDEPENDENCE DAY
HONDA HOMECOMING
THANKSGIVING DAY
CHRISTMAS DAY

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

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12 NOON FRIDAY THRU 12 NOON MONDAY
MONDAY	12 NOON FRIDAY THRU 12 NOON TUESDAY
TUESDAY	12 NOON MONDAY THRU 12 NOON WEDNESDAY
WEDNESDAY	12 NOON TUESDAY THRU 12 NOON THURSDAY
THURSDAY	12 NOON WEDNESDAY THRU 12 NOON MONDAY
FRIDAY	12 NOON THURSDAY THRU 12 NOON MONDAY
SATURDAY	12 NOON FRIDAY THRU 12 NOON 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.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. 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. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

WINTER TRAFFIC LIMITATIONS:
ALL EXISTING LANES AND RAMPS SHALL BE OPEN TO TRAFFIC BETWEEN DECEMBER 1ST AND MARCH 1ST WITH THE EXCEPTION OF SHORT TERM DAYLIGHT ONLY CLOSURES. THE CONTRACTOR IS CAUTIONED TO SCHEDULE HIS WORK, ESPECIALLY ASPHALT OVERLAYS, TO MEET THIS REQUIREMENT. NOVEMBER 22ND SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE. ALL LANES AND RAMPS SHALL BE AT THE SAME ELEVATION DURING THE PERIOD OF TIME WHEN ALL LANES ARE OPEN TO TRAFFIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING OR REPLACING ALL PAVEMENT MARKINGS NECESSARY TO MAINTAIN THE NORMAL EXISTING TRAFFIC PATTERNS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES FOR EACH CALENDAR DAY THAT ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC.

LIQUIDATED DAMAGES:
SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS SET FORTH IN THE PLANS, INCLUDING THE DATES SET FOR INTERIM COMPLETION OR THE DATE SET FOR FINAL COMPLETION THE CONTRACTOR SHALL BE SUBJECT TO LIQUIDATED DAMAGES IN THE AMOUNT OF $10,000.00 PER DAY.

IT IS ANTICIPATED BY THE DEPARTMENT THAT IN ORDER FOR THE CONTRACTOR TO MEET THE ABOVE INTERIM COMPLETION DATES AND/OR FINAL COMPLETION DATE, HE MAY USE ALL MEANS POSSIBLE, INCLUDING BUT NOT LIMITED TO, THE FOLLOWING:
- MULTIPLE SHIFTS WORKING TWENTY FOUR (24) HOURS A DAY AND SEVEN (7) DAYS A WEEK
- ADDITIONAL CREWS
- MULTIPLE MATERIAL SOURCES
- MULTIPLE SUBCONTRACTORS (NOT TO EXCEED PROVISIONS OF CMS 108.01)
- AND ANY OTHER PERMISSIBLE MEANS AVAILABLE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 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.

SEQUENCE OF CONSTRUCTION:
IT IS THE INTENT OF THE FOLLOWING SEQUENCE OF CONSTRUCTION TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN A MANNER WHICH IS SAFE FOR THE TRAVELING PUBLIC; THEREFORE, ALL PHASES SHALL HAVE STRICT ADHERENCE.

PHASE 1:
THE CONTRACTOR SHALL PERFORM THE FOLLOWING WORK IN THE OUTSIDE LANES:
- ALL WORK TO STRUCTURES
- GUARDRAIL WITHIN LANE CLOSURE LIMITS
- FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT TO JOINTS SPECIFIED ON SHEET 37
- CONCRETE ISLAND IN THE SR 31/SR 4 INTERCHANGE SHALL BE REMOVED. A CONCRETE MEDIAN BARRIER, TYPE C SHALL BE INSTALLED WITH INLETS AND AN IMPACT ATTENUATOR.
- REMOVAL OF CONFLICTING EXISTING PAVEMENT MARKINGS, PLACEMENT OF REQUIRED TEMPORARY PAVEMENT MARKINGS
- REMOVE AND REPLACE CONCRETE MEDIANS AND CURB ON RAMPS
- ALL OTHER WORK OUTLINED IN THIS PLAN WHICH DOES NOT REQUIRE LANE CLOSURES IN THE INSIDE LANES AND WHICH DOES NOT DELAY THE COMPLETION OF THIS PHASE.

CLOSURES IN THE OUTSIDE LANES MAY TAKE PLACE 24 HOURS A DAY. LANE CLOSURES SHALL BE EXTENDED AS DIRECTED BY THE ENGINEER FOR ADDITIONAL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT. RAMPS MAY BE CLOSED BETWEEN THE HOURS OF 10:00 PM AND 5:00 AM WHILE WORK IS BEING PERFORMED ON THEM. ONLY ONE RAMP AT EACH INTERCHANGE MAY BE CLOSED AT A TIME. IN ADDITION, THE ADJACENT INTERCHANGE RAMPS SHALL BE OPEN TO ALLOW FOR DETOUR MOVEMENTS FOR THE CLOSED RAMP.

PHASE 2:
THE CONTRACTOR SHALL PERFORM THE FOLLOWING WORK IN THE INSIDE LANES:
- ALL WORK TO STRUCTURES
- GUARDRAIL WITHIN LANE CLOSURE LIMITS
- FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT TO JOINTS SPECIFIED ON SHEET 37
- REMOVAL OF CONFLICTING EXISTING PAVEMENT MARKINGS, PLACEMENT OF REQUIRED TEMPORARY PAVEMENT MARKINGS
- ALL OTHER WORK OUTLINED IN THIS PLAN WHICH DOES NOT REQUIRE LANE CLOSURES IN THE OUTSIDE LANES AND WHICH DOES NOT DELAY THE COMPLETION OF THIS PHASE.

CLOSURES IN THE INSIDE LANES MAY TAKE PLACE 24 HOURS A DAY. ALL INTERCHANGE RAMPS SHALL REMAIN OPEN DURING THIS PHASE. ALL FULL DEPTH PAVEMENT REPAIR MUST BE COMPLETED DURING PHASES 1 AND 2. LANE CLOSURES SHALL BE EXTENDED AS DIRECTED BY THE ENGINEER FOR ADDITIONAL REPAIRS.

PHASE 3:
THE CONTRACTOR SHALL PERFORM THE FOLLOWING WORK TO EB AND WB MAINLINE AND ALL RAMPS:
- PAVEMENT PLANING, BITUMINOUS
- TACK COAT
- ASPHALT CONCRETE INTERMEDIATE COURSE
- ASPHALT CONCRETE SURFACE COURSE
- COMPACTED AGGREGATE, TYPE A
- SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
- PERMANENT STRIPING AND TRAFFIC CONTROL
- OTHER MISCELLANEOUS WORK AS REQUIRED

LANE RESTRICTIONS DURING PHASE 3 SHALL ONLY BE PERMITTED BETWEEN THE FOLLOWING HOURS:
- MONDAY-FRIDAY 9:00 AM TO 3:00 PM
- MONDAY-THURSDAY 8:00 PM TO 6:00 AM
- FRIDAY 10:00PM TO MONDAY 6:00 AM

TWO LANES OF TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AT ALL OTHER TIMES. LANE CLOSURES SHALL BE AS PER SCD MT-95.30. THE INTERMEDIATE COURSE MAY BE EXPOSED TO TRAFFIC; HOWEVER, TRAFFIC SHALL NOT BE ALLOWED ON PLANED PAVEMENT.

RAMPS MAY BE CLOSED BETWEEN THE HOURS OF 11:00 PM AND 5:00 AM WHILE WORK IS BEING PERFORMED ON THEM. ONLY ONE RAMP AT EACH INTERCHANGE MAY BE CLOSED AT A TIME. IN ADDITION THE ADJACENT INTERCHANGE RAMPS SHALL BE OPEN TO ALLOW FOR DETOUR MOVEMENTS FOR THE CLOSED RAMP.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN THE AMOUNT OF $100.00 PER MINUTE NOT TO EXCEED $10,000.00 PER DAY.

ALTERNATIVE METHODS:
IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN WILL BE PUT INTO EFFECT UNTIL THE APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

CALCULATED MB CHECKED

MAINTENANCE OF TRAFFIC GENERAL NOTES

UNI-33-8.74

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COOPERATION BETWEEN CONTRACTORS:
THE CONTRACTOR IS ADVISED OF THE POSSIBLE PRESENCE OF THE UNI-36-21.194 CONSTRUCTION CONTRACT AT THE US 33 AND US 36 INTERCHANGE. CLOSE COOPERATION BETWEEN THE CONTRACTORS IS REQUIRED TO ENSURE THAT TRAFFIC MAINTENANCE OPERATIONS FOR EACH PROJECT ARE AT ALL TIMES COMPATIBLE. ANY CONFLICTS SHALL BE RESOLVED BY THE ENGINEER.

MAINTENANCE OF TRAFFIC UNDER BRIDGES:
UNI-33-8.79 L/R & UNI-33-9.12 L/R
A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON CR 133/191 SHALL BE MAINTAINED AT ALL TIMES TO PROVIDE FOR PNEUMATICALLY PLACED MORTAR AND EPOXY SEALING UNDERNEATH DECK. TRAFFIC SHALL BE PROTECTED ACCORDING TO STANDARD DRAWING MT-95.30M.

UNI-33-9.22 L/R
PEDESTRIAN PATH TRAFFIC UNDER UNI-33-9.22 L/R SHALL BE MAINTAINED DURING REMOVAL AND CONSTRUCTION OF THE EDGES OF CONCRETE DECK AND 42" PARAPET FOR THE LEFT AND RIGHT BRIDGES. PEDESTRIANS SHALL BE PROTECTED FROM DEBRIS WHILE CROSSING UNDER UNI-33-9.22 L/R.

UNI-33-12.19 L/R
A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON US 36 SHALL BE MAINTAINED AT ALL TIMES TO PROVIDE FOR PARAPET SEALING. TRAFFIC SHALL BE PROTECTED ACCORDING TO STANDARD DRAWING MT-95.30M.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN ITEM 614-MAINTAINING TRAFFIC.

ITEM SPECIAL - REPLACEMENT SIGNS:
FLAT SHEET 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 TO 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 SQUARE FEET FOR ITEM SPECIAL - 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.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED IN THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY: 75 SQUARE FEET

ITEM SPECIAL - REPLACEMENT DRUM:
DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGE 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 SPECIAL - 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.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED IN THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY: 50 EACH

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 SIGNS AND SUPPORTS (R-10)(55 SPEED LIMIT) WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED 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 4 HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN 4 HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER.

A SIGN TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R-10 SIGNS (SPEED LIMIT) SHALL BE USED ON UNDIVIDED ROADWAY. R-10 (SPEED LIMIT) AND R-9A SIGNS (SPEED LIMIT) SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R-10 AND R-9A 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 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE 111-C SHEETING, FP-85. WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO (2) 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 MATERIAL, LABOR, INCIDENTAL AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN:
THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE WHEN NO LONGER NEEDED, CHANGEABLE MESSAGE SIGNS, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. ONLY CLASS I OR II SIGNS WILL BE PERMITTED.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TEMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLE SHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY.

PLACEMENT OF THE PCMS'S SHALL BE AS FOLLOWS:
1. EB US 33 1 MILE WEST OF THE PROJECT LIMITS
2. WB US 33 1 MILE EAST OF THE PROJECT LIMITS
3. AS DIRECTED BY THE ENGINEER AND FOR RAMP CLOSURES DURING PHASES 1 AND 3.

SIGN ACTIVATION SHALL BE 7 DAYS PRIOR TO CONSTRUCTION INITIATION OR AS DIRECTED BY THE ENGINEER. OPERATION AND MAINTENANCE 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 WILL BE OFF, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9 INCHES BY 15 INCHES MINIMUM, 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 TROUBLE SHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NEEDED.

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 SHOULD BE SUPPORTED, BUT NORMALLY, NOT MORE THAT TWO MESSAGE PHASES SHOULD BE EMPLOYED, ALTHOUGH THREE PHASES MAY BE USED IN UNUSUAL CONDITIONS. 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 THAT WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED, OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03. 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 A FAILURE. ANY FAILURE SHALL NOT RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON THE CONTRACT.

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

THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN, AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITIES AS OUTLINED IN 104.04.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT BID PRICE PER MONTH FOR EACH ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED:
3 SIGNS X 12 MONTHS = 36 SIGN MONTHS
ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN = 36 SIGN MONTHS

ITEM 614 - BARRIER REFLECTORS AND/OR OBJECT MARKERS:
BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO THE APPROPRIATE PROPOSAL NOTE AND ITEM 625 EXCEPT THAT THE SPACING SHALL BE 25 FEET.

ITEM 622 - PORTABLE CONCRETE BARRIER, 32":
THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 32 INCH PORTABLE CONCRETE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE STANDARD CONSTRUCTION DRAWING RM-4.2M.

IT IS ANTICIPATED THAT THE SAME BARRIER WILL BE USED IN VARIOUS PHASES OF CONSTRUCTION. MOVEMENT OF THE CONCRETE BARRIER BETWEEN PHASES SHALL BE ACCOMPLISHED IN ONE WORKING DAY. FLAGGERS SHAL BE UTILIZED FOR PROTECTION OF VEHICULAR TRAFFIC UNTIL MOVEMENT OF THE BARRIER IS COMPLETE. ALL COSTS INVOLVED IN REMOVING AND REINSTALLING THE CONCRETE BARRIER WILL BE INCLUDED IN THE CONTRACT PRICE FOR THIS ITEM.

ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC:
A QUANTITY OF THIS ITEM HAS BEEN PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER FOR THE FOLLOWING WORK:
- REPAIRS TO EXISTING ROADS INSIDE THE PROJECT LIMITS
- TO PROVIDE AN ASPHALT WEDGE FOR THE DIFFERENCE IN ELEVATION BETWEEN NEW PAVEMENT AND THE EXISTING PAVEMENT OR APPROACH SLABS.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AS A CONTINGENCY QUANTITY:

ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC = 100 CY

ITEM 614 - WORK ZONE MARKING SIGNS:
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 614 - WORK ZONE MARKING SIGNS = 18 EACH

A QUANTITY OF 18 SIGNS, OW-167-48, "NO EDGE LINES," HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - TEMPORARY IMPACT ATTENUATOR (UNIDIRECTIONAL):
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1.) THE QUADGUARD CZ, (24" [610 MM] WIDE 6-BAY) TEMPORARY IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SUSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 TEL: (312)467-6750.

THE LENGTH OF THE 6-BAY QUADGUARD CZ IS 20'-9" [6.33M] . 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. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. 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
354051Z	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
3540260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 Rev. C	8/27/99

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

THE TRACC IS 21'-0" [6.4M] LONG AND 2'-7" [.8 M] 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.

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPR. DATE
SS450 SS450M	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS	3/12/99 Rev. 1 3/12/99 Rev. 1	8/27/99 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

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE 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 1 TO 6 UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, 5 INSTALLED UNITS REQUIRE 1 SPARE PARTS PACKAGE AND 7 INSTALLED UNITS REQUIRE 2 SPARE PARTS PACKAGES.

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

ITEM 614 - TEMPORARY WORK ZONE MARKINGS AND SIGNS:
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR TEMPORARY WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS 614.04 AND 614.10.

DRUMS, SIGNS, AND PAVEMENT MARKINGS FURNISHED WILL BE IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL. SIGNS FURNISHED UNDER THIS ITEM SHALL INCLUDE SUPPORT AND MOUNTING HARDWARE. PAVEMENT MARKINGS FURNISHED UNDER THIS ITEM SHALL INCLUDE INSTALLATION AND REMOVAL OF BOTH TEMPORARY AND PERMANENT EXISTING PAVEMENT MARKINGS.

THE FOLLOWING QUANTITIES FOR THESE ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - FLASHING ARROW PANEL	=	5 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE B	=	620 EACH
ITEM 614 - OBJECT MARKER	=	610 EACH
ITEM 614 - TEMPORARY EDGE LINE, CLASS I	=	7.54 MI
ITEM 614 - TEMPORARY LANE LINE, CLASS II	=	16.32 MI
Item 614 - TEMPORARY CHANNELIZING LINE, CLASS I	=	2,000 LF
ITEM 622 - PORTABLE CONCRETE BARRIER, 32"	=	15,246 LF

PAYMENT FOR THESE ITEMS WILL BE AT THE CONTRACT UNIT PRICE INCLUDING ALL NECESSARY MATERIAL, PARTS, EQUIPMENT, AND LABOR.

FLOODLIGHTING:
FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING THE 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 MAINTAINING TRAFFIC.

CALCULATED MB CHECKED

MAINTENANCE OF TRAFFIC GENERAL NOTES

UNI-33-8.74

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SHEET NO.	PHASE	REF. NUMBER	STATION FROM	STATION TO	ROADWAY	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER	614 TEMPORARY EDGE LINE, CLASS I	614 TEMPORARY CHANNELIZING LINE, CLASS I	622 PORTABLE CONCRETE BARRIER, 32"
						EACH	EACH	MILE	LF	LF
20-21	1	ELW-1	463+66	485+53	EB			0.34		
21	1	ELY-1	469+61	487+53	EB			0.41		
21	1	PCB-1	471+50.5	485+53	EB	57	56			1394.5
23-24	1	ELW-14	572+22	587+15	EB			0.28		
24	1	ELY-12	583+00	587+15	EB			0.08		
24	1	ELW-2	590+15	621+00	EB			0.58		
24	1	ELY-2	596+83	610+54	EB			0.26		
24	1	PCB-2	598+13	608+54.5	EB	43	42			1043
24-25	1	CLW-1	623+22	625+87	EB				265	
24-25	1	CLW-2	623+22	625+87	EB				265	
25	1	ELW-3	625+87	641+58	EB			0.30		
25	1	ELY-3	631+17	643+58	EB			0.23		
25	1	PCB-3	634+89.5	641+58	EB	28	27			664
21	1	ELY-4	473+40	491+23	WB			0.34		
21	1	PCB-4	475+37	489+60	WB	58	57			1425
21	1	ELW-4	475+37	498+24	WB			0.43		
22-23	1	PCB-5	524+27.5	570+81.8	WB	187	186			4654
22-23	1	PCB-6	524+27.5	570+81.8	WB	187	186			4654
22-23	1	ELW-5	524+27.5	570+81.8	WB			0.88		
22-23	1	ELY-5	524+27.5	571+32	WB			0.89		
24	1	ELY-6	599+65.5	609+80	WB			0.19		
24	1	PCB-7	601+65.5	612+57.5	WB	45	44			1093
24	1	ELW-6	601+65.5	620+44	WB			0.36		
24-25	1	CLW-3	620+44	628+39	WB				795	
24-25	1	CLW-4	620+44	628+39	WB				795	
25	1	ELY-7	637+13	647+19	WB			0.19		
25	1	PCB-8	639+13	645+78	WB	28	27			664
25	1	ELW-7	628+39	651+34	WB			0.44		
26-27	2	ELY-8	464+19	485+53	EB			0.40		
27	2	ELW-8	470+93	487+53	EB			0.31		
27	2	PCB-9	472+26.5	485+53	EB	54	53			1326
30-31	2	ELY-9	589+91	641+56.5	EB			0.98		
30	2	ELW-9	596+81	610+54.5	EB			0.26		
30	2	PCB-10	598+94	608+54.5	EB	39	38			961
31	2	PCB-11	635+64	641+56.5	EB	25	24			592
31	2	ELW-10	630+75	643+56.5	EB			0.24		
27	2	ELW-11	473+39	490+80	WB			0.33		
27	2	PCB-12	475+37	488+85.5	WB	55	54			1351
27	2	ELY-10	475+37	497+10	WB			0.41		
30	2	ELW-12	599+65	614+65	WB			0.28		
30	2	PCB-13	601+61.5	611+81.5	WB	42	41			1020
30-31	2	ELY-11	601+61.5	654+19	WB			1.00		
31	2	ELW-13	637+14	647+18	WB			0.19		
31	2	PCB-14	639+14.5	645+03.5	WB	25	24			592
TOTALS CARRIED TO GENERAL SUMMARY:						873	859	10.60	2,120	21,434

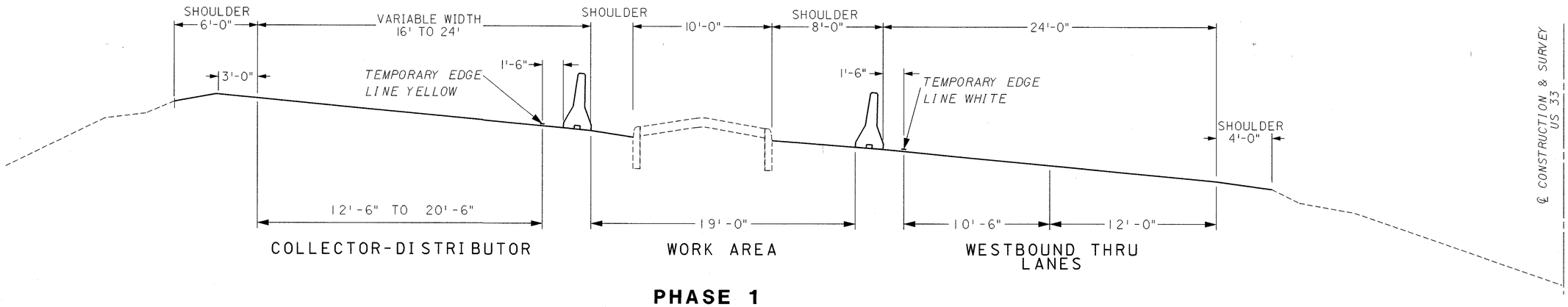
SHEET NO.	PHASE	STATION	ROADWAY	614 WORK ZONE SPEED LIMIT SIGN	614 RESUME LEGAL SPEED SIGN	614 TEMPORARY IMPACT ATTENUATOR, (UNIDIRECT.)
				EACH	EACH	EACH
20/26	1 & 2	451+50	WB		2	
20/26	1 & 2	456+50	EB	2		
20/26	1 & 2	462+50	EB	2		
21/27	1 & 2	476+20	WB	2		
21/27	1 & 2	515+30	EB	2		
22/28	1 & 2	529+00	WB	2		
22/28	1 & 2	543+50	WB	2		
22/28	1 & 2	544+00	EB	2		
23/29	1 & 2	570+70	WB/CD	2		
23	1	570+81.8	WB			2
24/30	1 & 2	588+00	EB	2		
24/30	1 & 2	623+50	WB	2		
25	1	664+24	WB	2		
31	2	666+97	WB	2		
25/31	1 & 2	668+90	EB		2	
TOTALS TO GENERAL SUMMARY:				24	4	2

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED MB
CHECKED

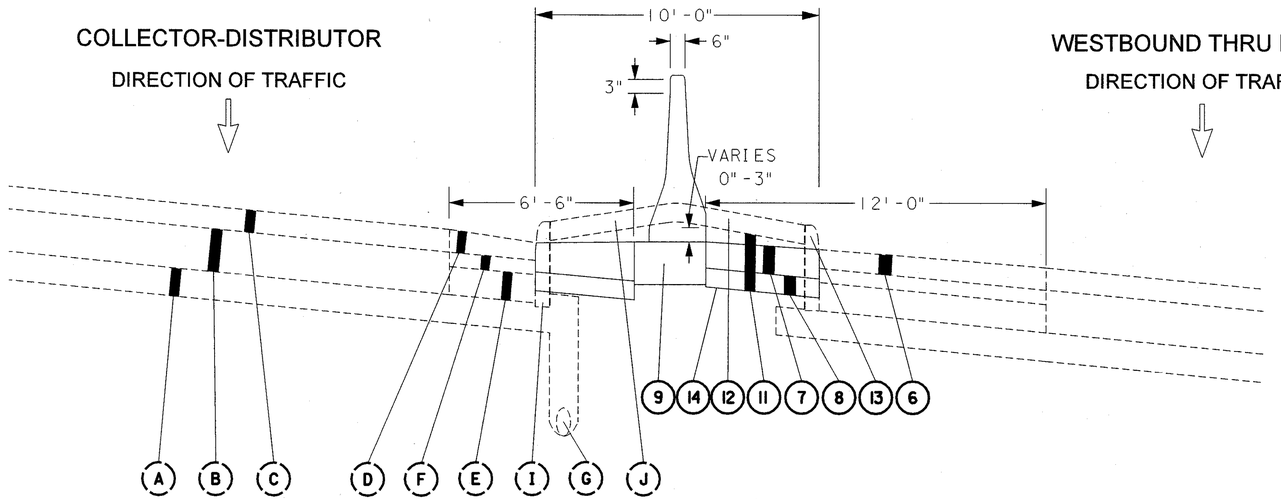
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PHASE 1
SUPERELEVATION

STA. 524+27.51 TO 570+81.78 = 4654.27 LF



PHASE 1 - CONCRETE BARRIER DETAIL
SUPERELEVATION

STA. 524+47.51 TO 570+29.52 = 4582.01 LF

PROPOSED LEGEND

6	ITEM 254	PAVEMENT PLANING, BITUMINOUS, DEPTH VARIES
7	ITEM 301	BITUMINOUS AGGREGATE BASE, PG64-22, THICKNESS VARIES
8	ITEM 304	4" AGGREGATE BASE
9	ITEM 622	CONCRETE BARRIER, TYPE C
11	ITEM 203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, DEPTH VARIES
12	ITEM 202	CONCRETE MEDIAN REMOVED
13	ITEM 202	CURB REMOVED
14	ITEM 203	SUBGRADE COMPACTION

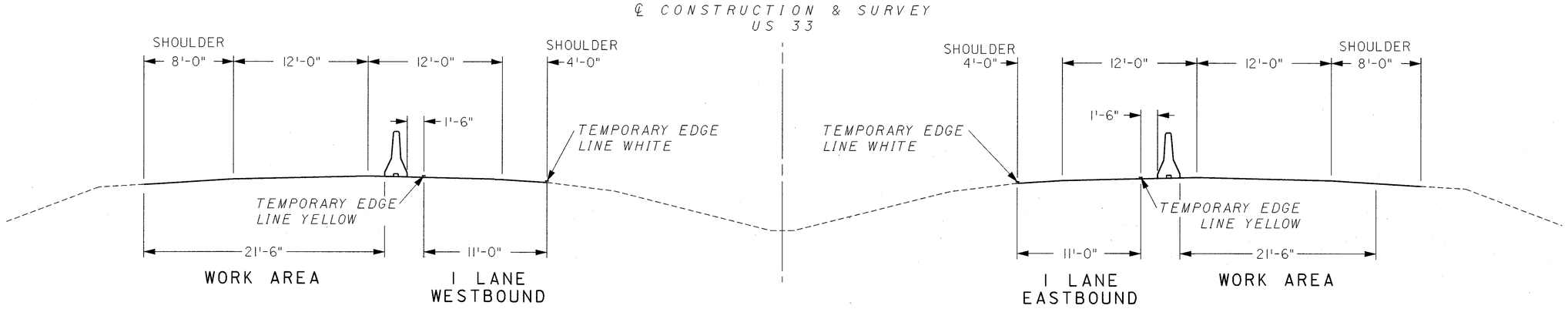
EXISTING LEGEND

A	6" SUBBASE
B	9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
C	4-3/4" ASPHALT CONCRETE
D	ASPHALT CONCRETE, THICKNESS VARIES
E	6" AGGREGATE BASE
F	3" BITUMINOUS AGGREGATE BASE
G	6" PIPE
I	CONCRETE CURB, TYPE 6
J	PORTLAND CEMENT CONCRETE MEDIAN PAVEMENT

MAINTENANCE OF TRAFFIC TYPICALS

UNI-33-8.74

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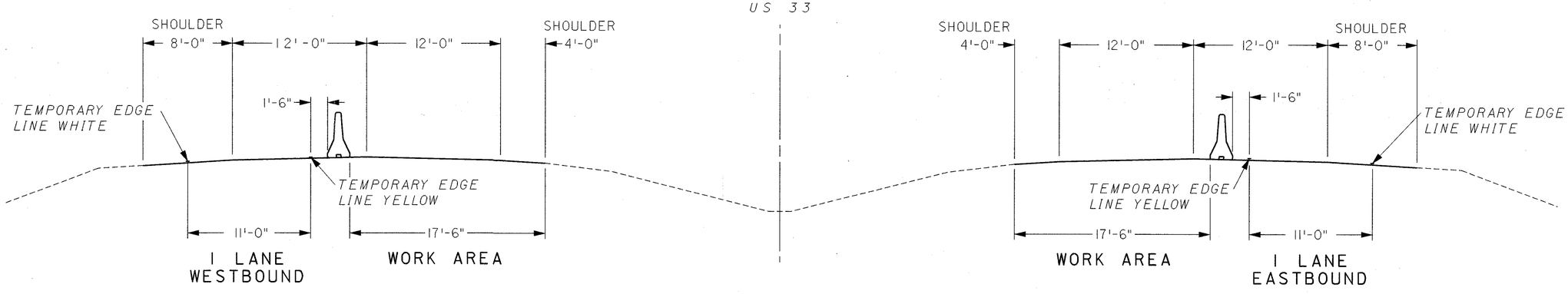


PHASE 1

STA. 475+37 TO 482+99
STA. 601+65.5 TO 606+01

PHASE 1

STA. 475+59 TO 485+53
STA. 602+21.5 TO 606+01



PHASE 2

STA. 475+37 TO 482+99
STA. 601+61.5 TO 606+01

PHASE 2

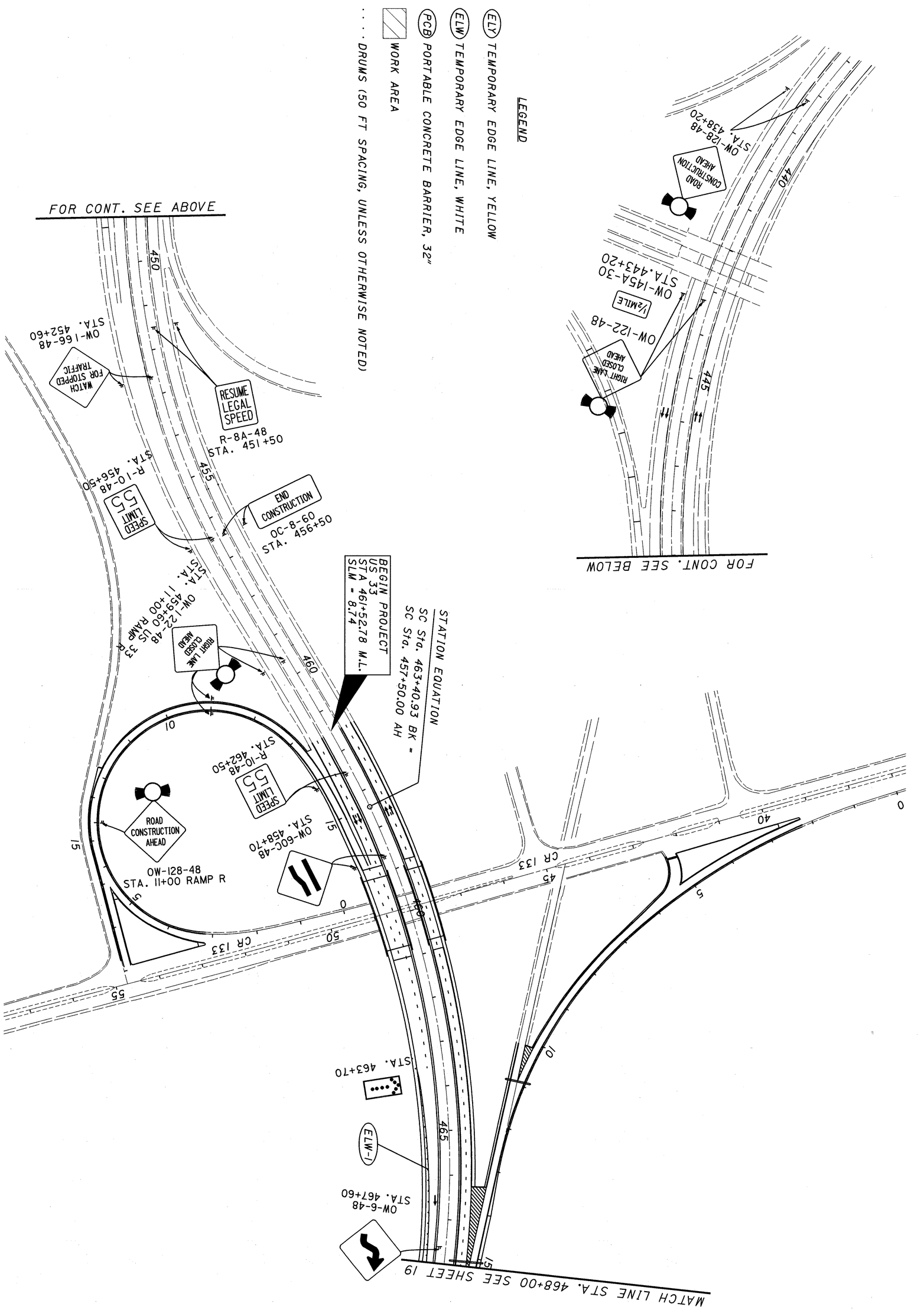
STA. 475+59 TO 485+53
STA. 602+26.5 TO 606+01

* FOR STRUCTURE MAINTENANCE OF TRAFFIC TYPICALS SEE SHEET 168

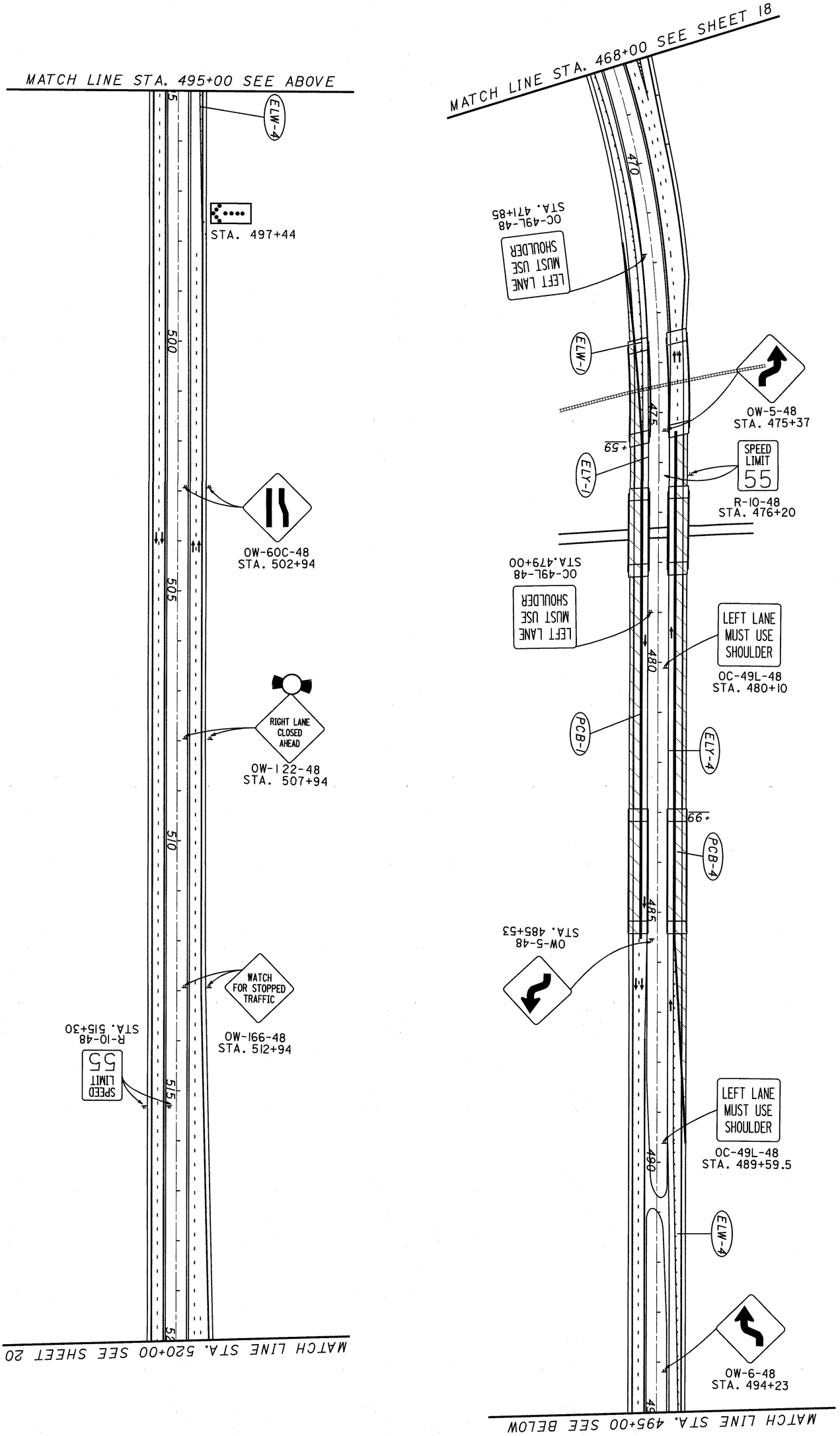
MAINTENANCE OF TRAFFIC TYPICALS

UNI-33-8.74

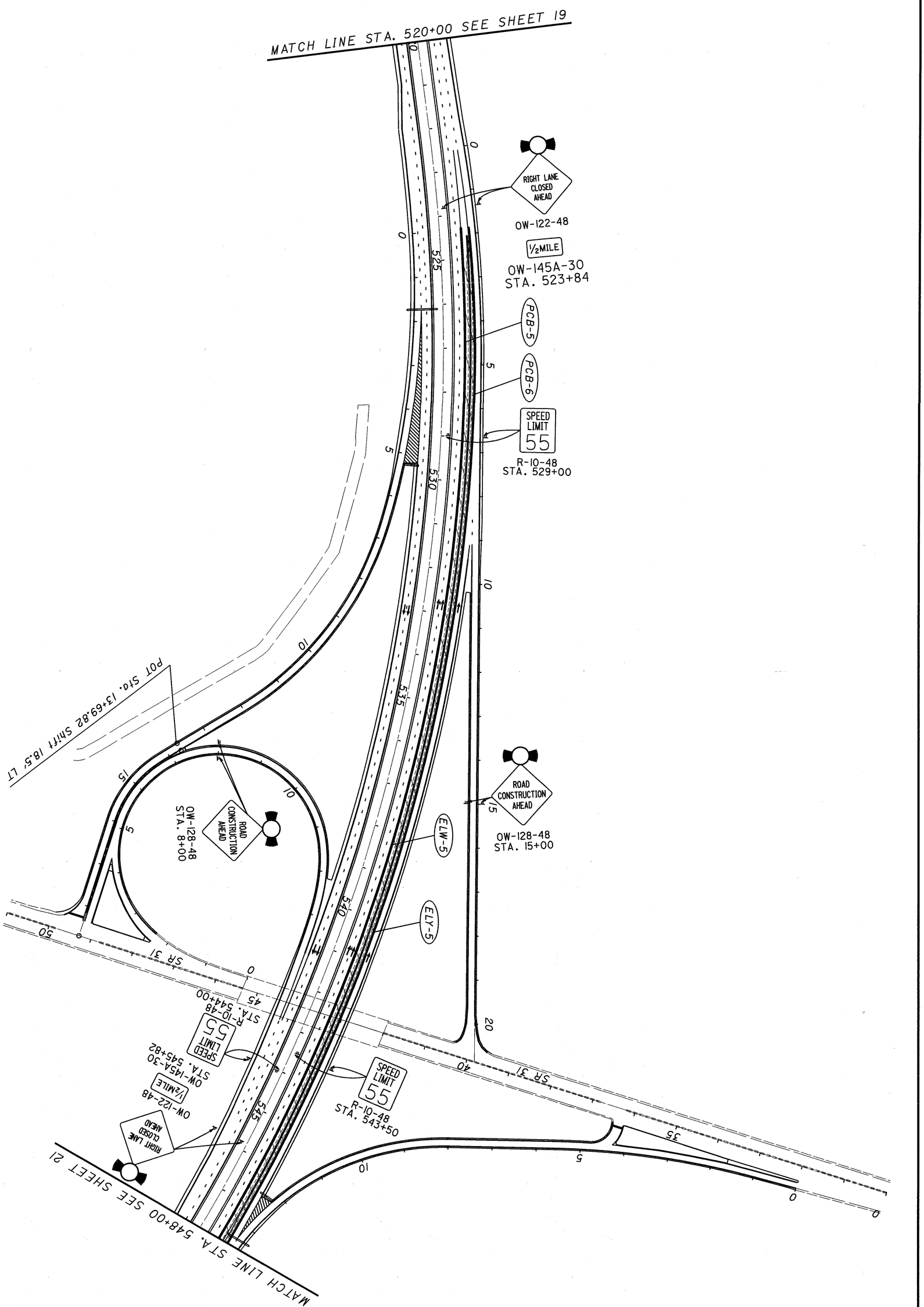
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I8 / I74	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE I STA. 438+00 TO STA. 468+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET



19 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE I STA. 468+00 TO 520+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET



20 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE I STA. 520+00 TO STA. 548+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET

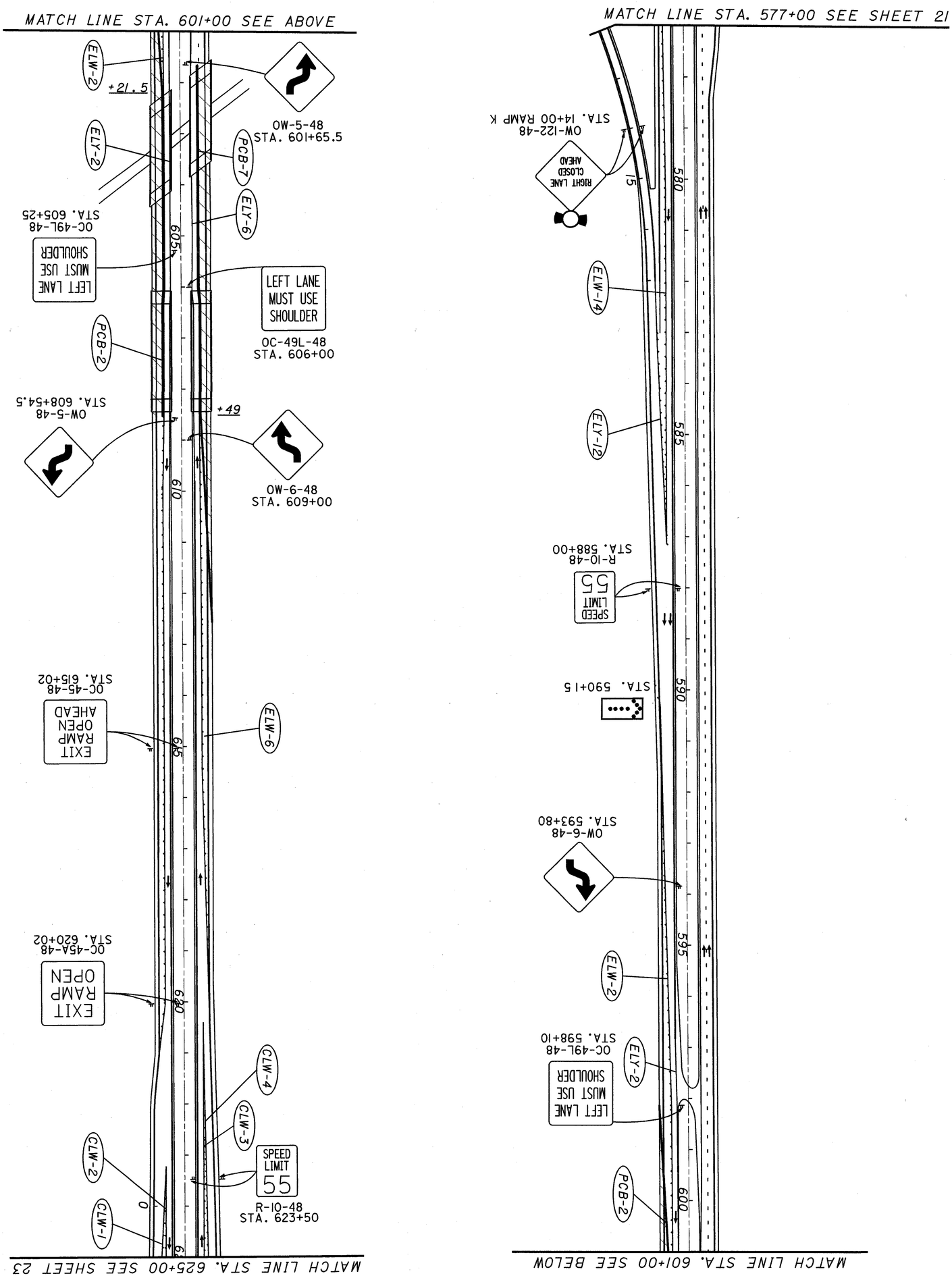
MAINTENANCE OF TRAFFIC - PHASE I
STA. 548+00 TO STA. 577+00

CALCULATED MB
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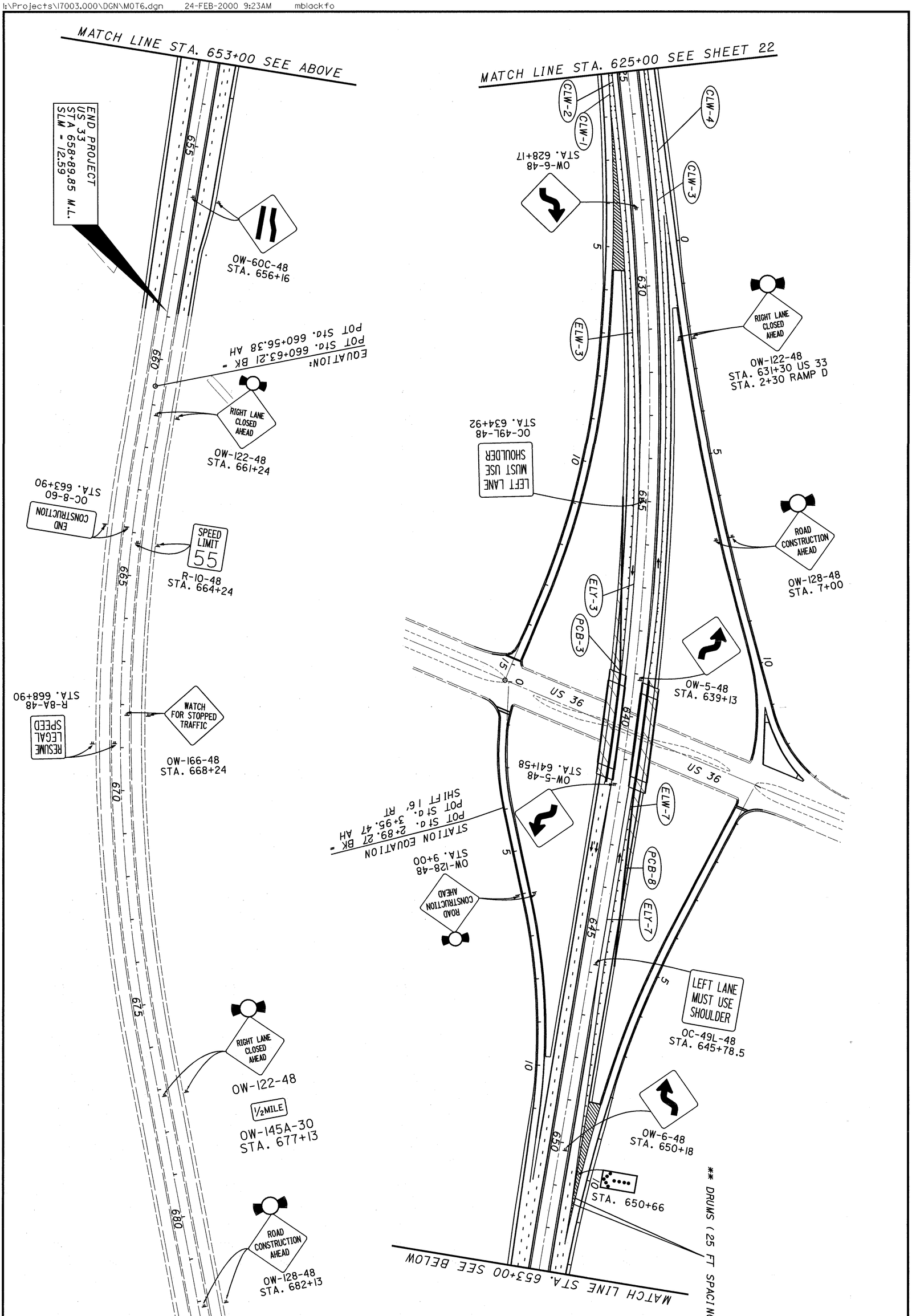
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HORIZONTAL SCALE IN FEET

UNI-33-8.74

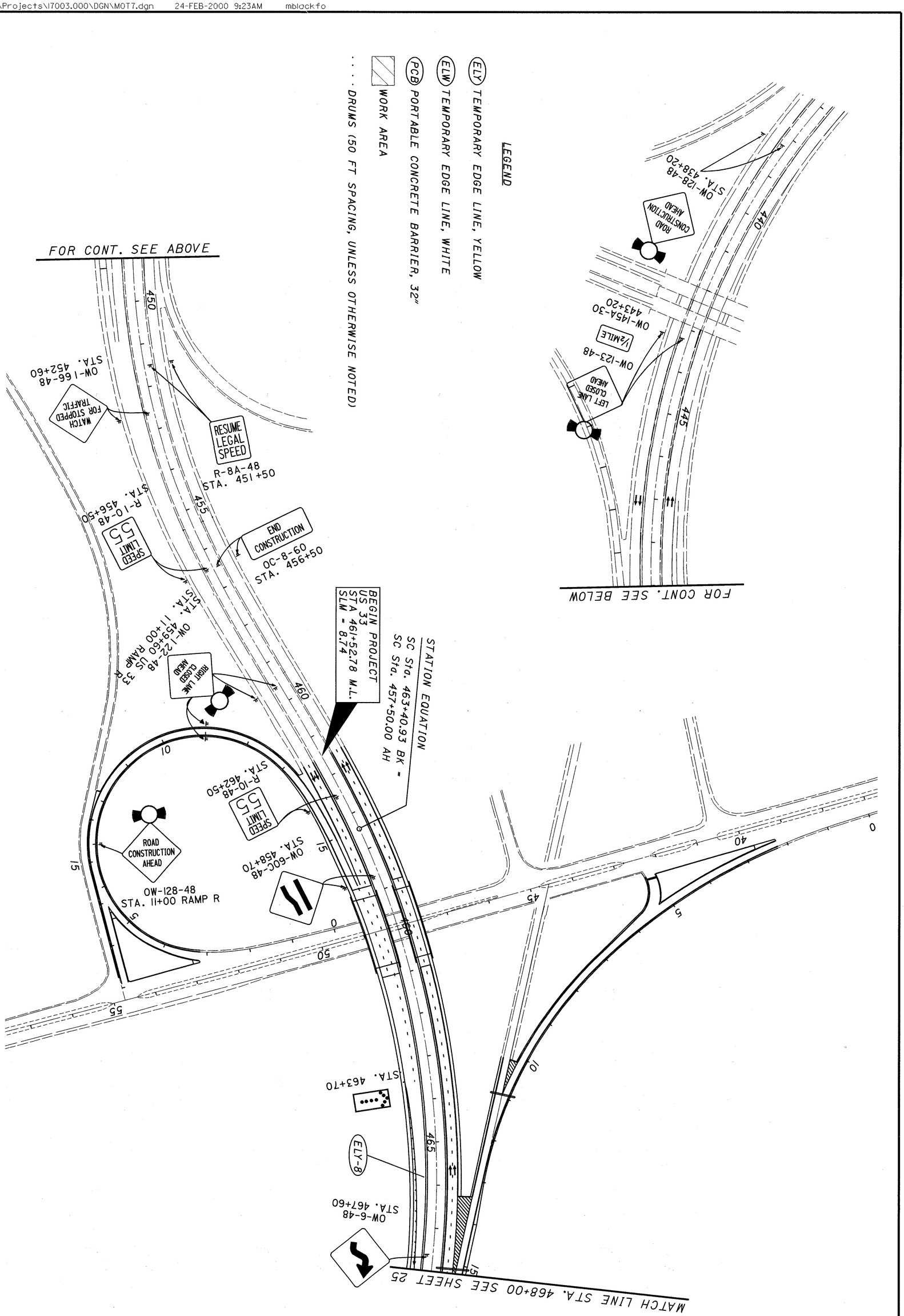
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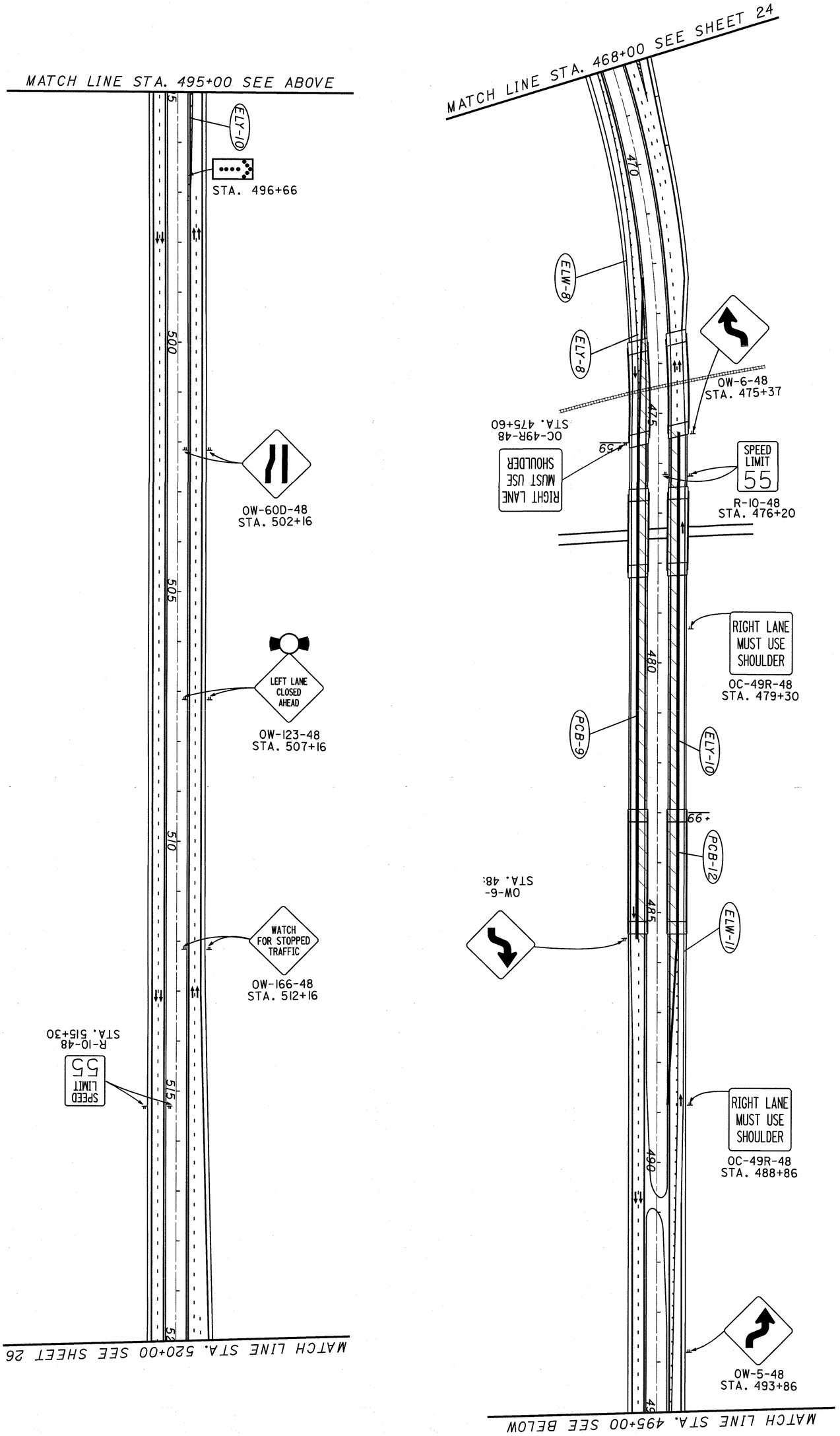
22 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE I STA. 577+00 TO STA. 625+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET



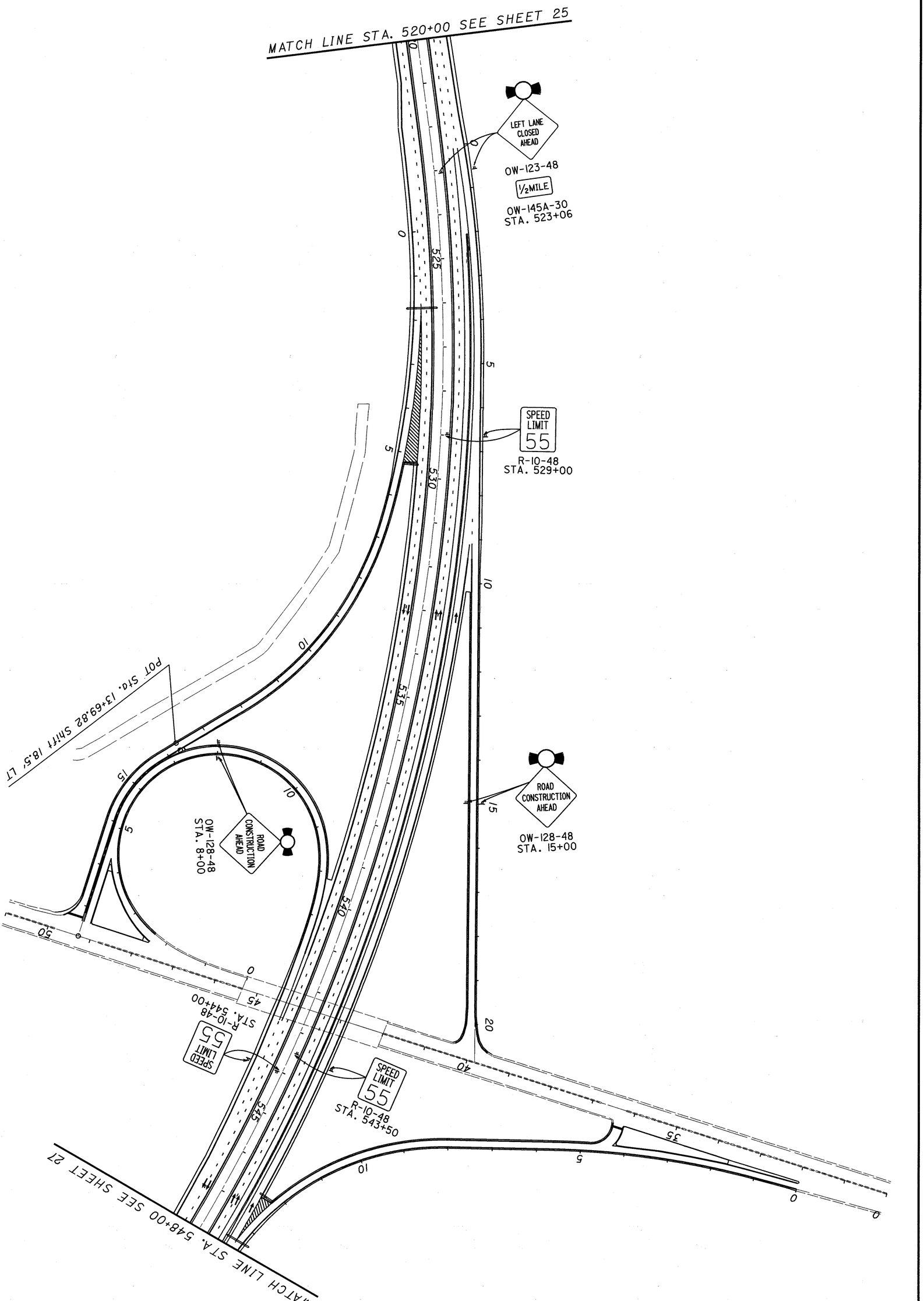
23 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE I STA. 625+00 TO STA. 682+20	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET

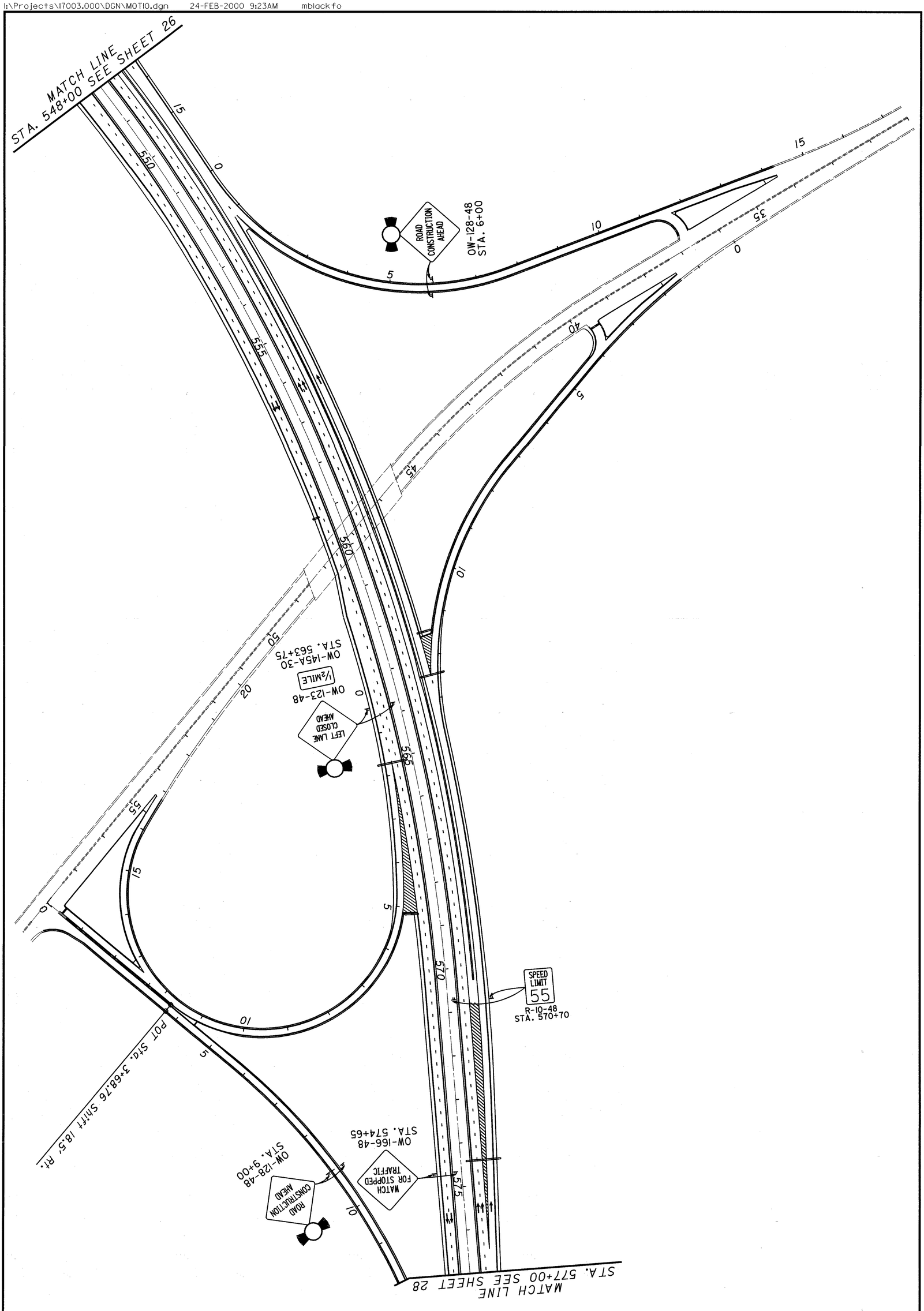


24 / 174	UNI-33-8.74	MAINTENANCE FO TRAFFIC - PHASE 2 STA. 438+00 TO STA. 468+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET

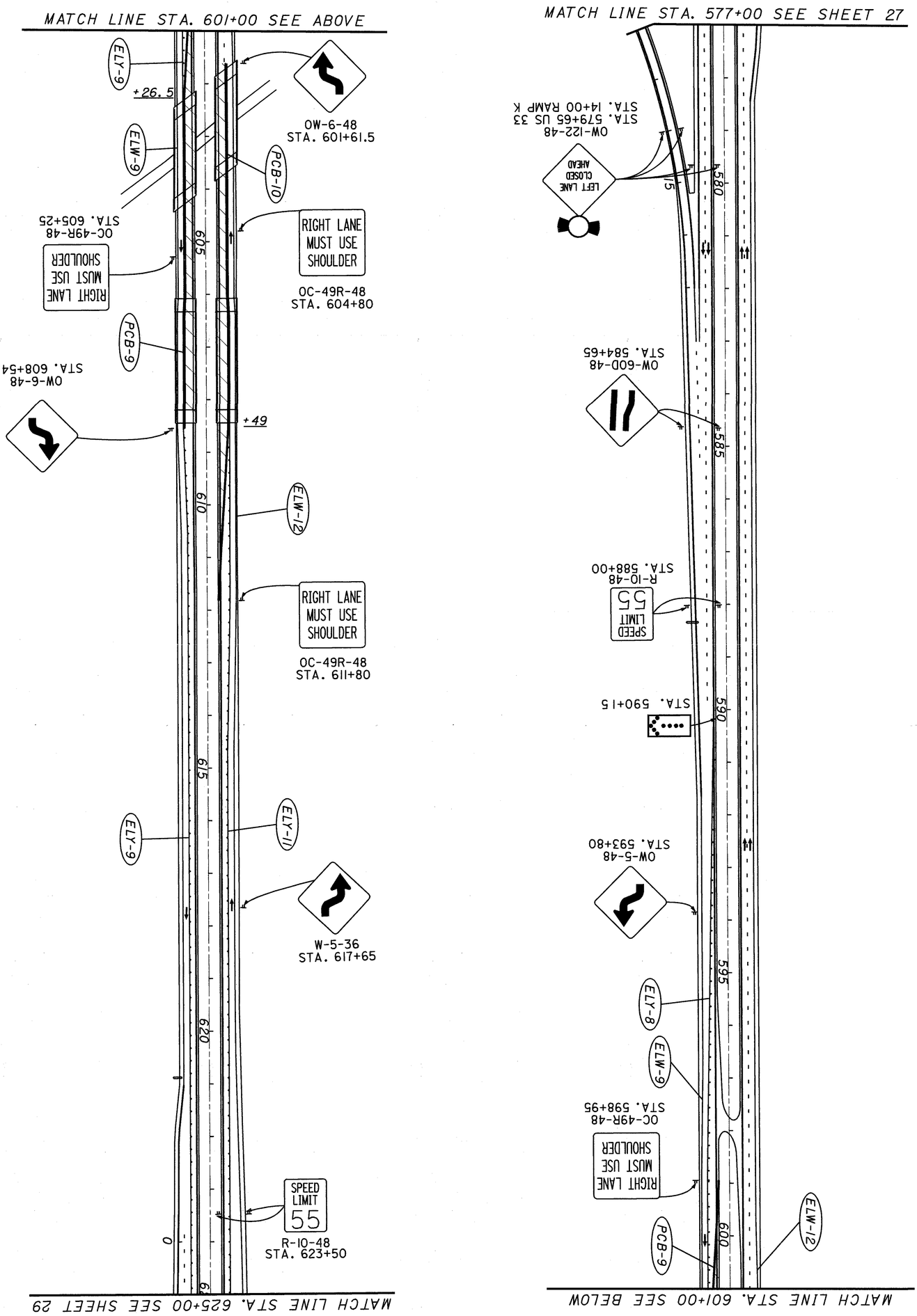


25 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE 2 STA. 468+00 TO 520+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET

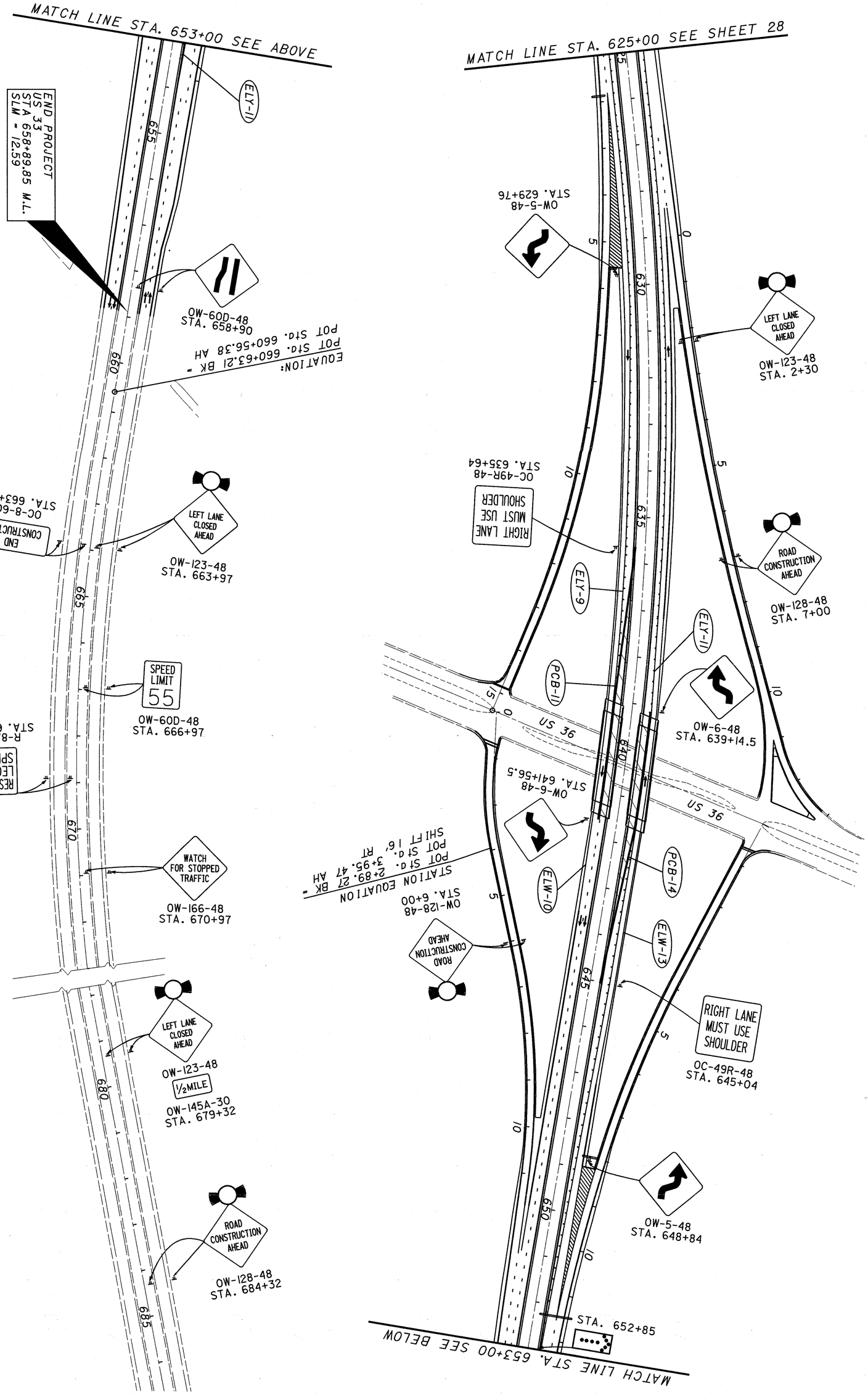

MATCH LINE STA. 520+00 SEE SHEET 25
LEFT LANE CLOSED AHEAD
OW-123-48
½MILE
OW-145A-30
STA. 523+06
SPEED LIMIT 55
R-10-48
STA. 529+00
ROAD CONSTRUCTION AHEAD
OW-128-48
STA. 15+00
POT Sta. 13+69.82 Shift 18.5' LT
ROAD CONSTRUCTION AHEAD
OW-128-48
STA. 8+00
SPEED LIMIT 55
R-10-48
STA. 544+00
SPEED LIMIT 55
R-10-48
STA. 543+50
MATCH LINE STA. 548+00 SEE SHEET 27



27 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE 2 STA. 548+00 TO STA. 577+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET



28 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE 2 STA. 577+00 TO STA. 625+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET



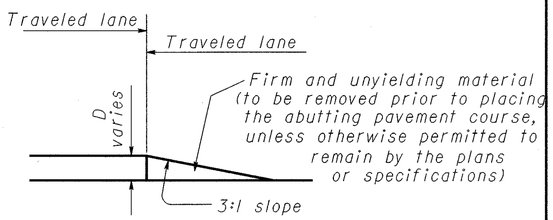
29 / 174	UNI-33-8.74	MAINTENANCE OF TRAFFIC - PHASE 2 STA. 625+00 TO STA. 686+00	CALCULATED MB CHECKED	0 100 50 200 HORIZONTAL SCALE IN FEET

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. 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-4.2M and Item 622.
6. When drums are specified for a dropoff 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 OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes) and OWP-171 signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the dropoff condition extends more than one-half mile, additional signs should be erected at intervals of one mile or less.
8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any 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', drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5" and approval is granted by the Project Engineer.
10. Pavement Repairs (or similar work):
    a. Lengths greater than 60 feet - utilize appropriate treatment from Condition I.
    b. Lengths of 60 feet or less - repairs shall be effected in accordance with 255.08. Drums may be used as a separator adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT
(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition I only.
2. OW-171 and OWP-171 signs required.

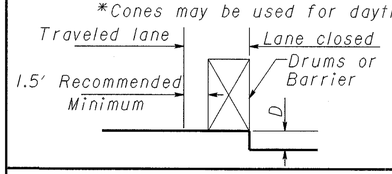


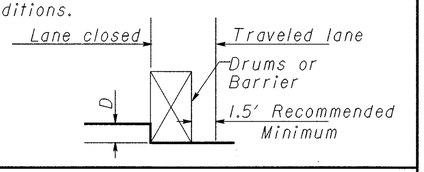
CONDITION I
DROPOFFS BETWEEN TRAVELED LANES

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

D (In.)	Treatment
≤1½	Erect OW-171 and OWP-171 signs.
>1½-3	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
>3-5	Lane closure utilizing drums as shown below.
>5	Lane closure utilizing portable concrete barrier as shown below.

*Cones may be used for daytime only conditions.



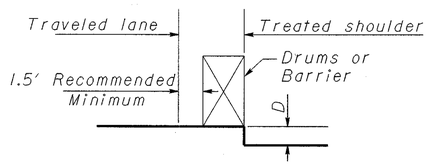


CONDITION II
DROPOFFS WITHIN GRADED SHOULDER AREA

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 purposes herein, its maximum width shall be considered to be twelve (12) feet.

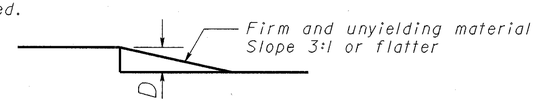
D (In.)	Treatment
≤1½	1) If edgelines are present, no treatment necessary OR 2) Erect OW-171 and OWP-171 signs.
>1½-5	1) If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
>5-12 Daylight only	If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below.
>5-24	1) If min. lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums.
>24	Lane closure utilizing portable concrete barrier as shown below.

*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment may not be used within a bituminous shoulder where a hot longitudnal joint per 401.15 is required.
2. OW-151 signs required.

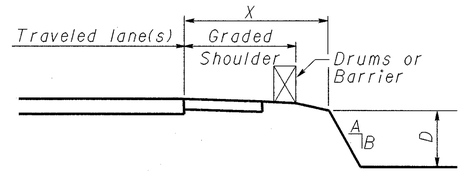


CONDITION III
DROPOFFS BEYOND GRADED SHOULDER OR BACK OF CURB

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

CHART A

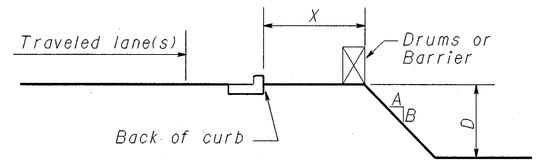
USE FOR:
1. Uncurbed Facilities.
2. Curbed Facilities, where:
   a. Curbs are less than 6" in height.
   b. Curbs are 6" or greater in height and the legal speed is greater than 40 mph.



X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-4	Any	Any	(a)	(a)
4-30	Any	3:1 or Flatter	None	None
4-12	≤3	Steeper than 3:1	None	None
4-12	>3-≤12	Steeper than 3:1	Drums	Drums
4-12	>12	Steeper than 3:1	Drums	Barrier
>12-20	≤12	Steeper than 3:1	None	None
>12-20	>12-≤24	Steeper than 3:1	Drums	Drums
>12-20	>24	Steeper than 3:1	Drums	Barrier
>20-30	≤24	Steeper than 3:1	None	Drums
>20-30	>24	Steeper than 3:1	Drums	Barrier
>30	Any	Any	None	None
(a) Use treatment specified under Condition II.				

CHART B

USE FOR: Curbed facilities, where the curb is 6" or greater in height and the legal speed is 40 mph or less.



X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-10	<12	Any	None	Drums
0-10	>12	Any	Drums	Drums
>10	Any	Any	None	None

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DROPOFFS IN WORK ZONES

UNI-33-8.74

SHEET NUMBER																			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
9-11	35	44	45	46	47	56	57	60	61	62	64	65	66	67	69	73	75	149					
																							ROADWAY
																		1072	202	22900	1,072	SY	APPROACH SLAB REMOVED
		1133	1389	1389	1150	198	30	170	26	126	25	33	50	146	26				202	30600	5,891	SY	CONCRETE MEDIAN REMOVED
		2105	2500	2500	2082	569.5	556.5	58	458	554	472	380	908	70	321				202	32000	13,534	LF	CURB REMOVED
																3230			202	38000	3,230	LF	GUARDRAIL REMOVED
																29070			202	38100	29,070	LF	GUARDRAIL REMOVED FOR STORAGE
																650			202	38300	650	LF	GUARDRAIL REMOVED, BARRIER DESIGN
																41			202	42000	41	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A
																39			202	42040	39	EACH	ANCHOR ASSEMBLY, REMOVED, TYPE T
																8			202	42210	8	EACH	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN
																47			202	47000	47	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
6																			202	98100	6	EACH	REMOVAL MISC.: SAND BARREL ARRAY
50	1624																	649	203	12000	2,323	CY	EXCAV. NOT INCLUDING EMBANK. CONSTRUCTION
430																			203	20000	430	CY	EMBANKMENT
30																			203	21000	30	CY	EMBANKMENT USING GRANULAR MATERIAL
	4511																	2248	203	50000	6,759	SY	SUBGRADE COMPACTION
																	35728.59		606	13000	35,728.59	LF	GUARDRAIL, TYPE 5
																	75		606	13050	75	LF	GUARDRAIL, TYPE 5A
																	600		606	15500	600	LF	GUARDRAIL, BARRIER DESIGN, TYPE 5
100																			606	18500	100	EACH	GUARDRAIL POST, 9 FT.
																	13		606	22000	13	EACH	ANCHOR ASSEMBLY, TYPE B-98
																	24		606	22010	24	EACH	ANCHOR ASSEMBLY, TYPE E-98
																	36		606	26500	36	EACH	ANCHOR ASSEMBLY, TYPE T
																	35		606	35000	35	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1
																	22		606	35100	22	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2
																34513			SPECIAL	60650000	34,513	LF	RESHAPING BERM (SEE SHEET 11)
																	9		606	60010	9	EACH	IMPACT ATTEN.,TYPE 1-98 (BIDIRECTIONAL)
																	2		606	60020	2	EACH	IMPACT ATTEN.,TYPE 2-98, (#QS3009Y, UNI)
																	4		606	60020	4	EACH	IMPACT ATTEN.,TYPE 2-98, (#QS9009Y, UNI)
		1032.5	1230	1210	1009.5														622	23500	4,482	LF	CONCRETE BARRIER, TYPE C
																	270		622	24000	270	LF	CONCRETE BARRIER, TYPE D
																	520		626	00100	520	EACH	BARRIER REFLECTOR, TYPE A
		24	28	28	24												65		626	00200	169	EACH	BARRIER REFLECTOR, TYPE B
																							EROSION CONTROL
12895																			870	10000	12,895	SY	SEEDING AND MULCHING
1.16																			870	20000	1.16	TON	COMMERCIAL FERTILIZER
39700																			877	30100	39,700	LF	TEMPORARY PERIMETER FILTER FABRIC FENCE
700																			877	30300	700	M	TEMPORARY INLET PROTECTION FILTER FABRIC FENCE
14																			870	35000	14	MGAL	WATER

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GENERAL SUMMARY

UNI-33-8.74

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SHEET NUMBER																								ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	56	57	61	62	65	66	69					
																												DRAINAGE
1	2	3	2	1	1	2	2	4	5	1	1	3	2	2	2	4	4	2	1	2	1	1	1	202	58100	50	EACH	CATCH BASIN REMOVED
		1																						202	58500	1	EACH	CATCH BASIN ABANDONED
		90																						SPECIAL	20270000	90	LF	FILL AND PLUG EXISTING CONDUIT
																												(SEE SHEET 40)
	89		35									116			96									603	01500	336	LF	6" CONDUIT, TYPE F
8	8	8				16	24	57	24		8	8			16	24	48	16		16			8	603	04400	289	LF	12" CONDUIT, TYPE B
		8					126.5					16												603	04600	150.5	LF	12" CONDUIT, TYPE C
		8	16		8		20	115.5	16	8			8	24		8	8		8		8	8		603	05900	263.5	LF	15" CONDUIT, TYPE B
	8	8							16				16			16								603	06100	64	LF	15" CONDUIT, TYPE C
			8	8		8		28																603	07400	52	LF	18" CONDUIT, TYPE B
																	3	1		1				604	00800	5	EACH	CATCH BASIN, NO. 3A
	1	1	2	1	1	1	1	2	3	1	1		2	1		3								604	01200	21	EACH	CATCH BASIN, NO. 4
1	1	2										3		1	2	1	1	1	1	1	1	1	1	604	04500	18	EACH	CATCH BASIN, NO. 2-2B
						1	1	2	2															604	14500	6	EACH	INLET, NO. 3A
							2	3																604	31500	5	EACH	MANHOLE, NO. 3
	2		2																					604	36600	4	EACH	PRECAST REINFORCED CONCRETE OUTLET
	67		52									118			108									605	11100	345	LF	6" SHALLOW PIPE UNDERDRAIN

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GENERAL SUMMARY

UNI-33-8.74

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SHEET NUMBER																				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
9-11	12-14	15	35	36	37	39	41	50	53	56	57	60	61	62	64	65	66	67	69	149					
																									PAVEMENT
			232008																		254	01000	232,008	SY	PAVEMENT PLANING, BITUMINOUS
																				371	254	01010	371	SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE
					960																255	10000	960	SY	FULL DEPTH PAVEMENT REMOV. AND RIGID REPLACE., CLASS C
					3475																255	20000	3,475	LF	FULL DEPTH PAVEMENT SAWING
			665																	74	301	46010	739	CY	BITUMINOUS AGGREGATE BASE, PG64-28
50			409																	208	304	20000	667	CY	AGGREGATE BASE
			17411																	70	407	10000	17,481	GAL	TACK COAT
			11435																		407	14000	11,435	GAL	TACK COAT FOR INTERMEDIATE COURSE
					1944																413	14000	1,944	LF	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
			9601																	42	446	50000	9,643	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE IH
			16795		127																448	46040	16,922	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
						63	48	108	108												SPECIAL	45130000	327	LF	PRESSURE RELIEF JOINT, TYPE A (SEE SCD BP-2.3)
																				1798	611	25001	1,798	SY	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
				1907																	617	10100	1,907	CY	COMPACTED AGGREGATE, TYPE A
										569.5	556.5	58	458	554	472	380	908	70	321		830	26000	4,347	LF	CURB, TYPE 6
										198	30	170	26	126	25	33	50	146	26		830	72000	830	SY	CONCRETE MEDIAN
																				907	848	50300	907	SY	WEARING COURSE REMOVED, ASPHALT
																									MAINTENANCE OF TRAFFIC
		2																			614	12340	2	EACH	TEMPORARY IMPACT ATTENUATOR, (UNDIRECTIONAL)
	18																				614	12460	18	EACH	WORK ZONE MARKING SIGN
		24																			614	12470	24	EACH	WORK ZONE SPEED LIMIT SIGN
		4																			614	12490	4	EACH	RESUME LEGAL SPEED SIGN
	75																				SPECIAL	61412500	75	SF	REPLACEMENT SIGN (SEE SHEET 13)
	50																				SPECIAL	61412600	50	EACH	REPLACEMENT DRUM (SEE SHEET 13)
	5																				SPECIAL	61412760	5	EACH	FLASHING ARROW PANEL (SEE SCD MT-35.10 & MT-35.11)
	100																				614	13000	100	CY	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC
	620	873																			614	13300	1,493	EACH	BARRIER REFLECTOR, TYPE B
	610	859																			614	13350	1,469	EACH	OBJECT MARKER
	36																				614	18601	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
	16.32																				614	20400	16.32	MILE	TEMPORARY LANE LINE, CLASS II
	7.54	10.60																			614	22000	18.14	MILE	TEMPORARY EDGE LINE, CLASS I
	2000	2120																			614	23000	4,120	LF	TEMPORARY CHANNELIZING LINE, CLASS I
	15246	21434																			622	40020	36,680	LF	PORTABLE CONCRETE BARRIER, 32"
																									TRAFFIC CONTROL
																									SEE SHEETS 80-81 FOR QUANTITIES
																									LIGHTING
																									SEE SHEET 130 FOR QUANTITIES
																									STRUCTURES
																									SEE SHEET 148 FOR QUANTITIES
	LUMP																				614	11000	LUMP		MAINTAINING TRAFFIC
LUMP																					623	10001	LUMP		CONSTRUCTION LAYOUT STAKES, AS PER PLAN
																					624	10000	LUMP		MOBILIZATION
																					806	16020	12	MNTH	FIELD OFFICE, TYPE C

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GENERAL SUMMARY

UNI-33-8.74

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MAINLINE - EB

STATION FROM	STATION TO	LENGTH ** CADD LF	AVG. WIDTH ** CADD LF	PAVEMENT AREA SY	254 PAVEMENT PLANING, BITUMINOUS 3" SY	254 PAVEMENT PLANING, BITUMINOUS TAPER SY	407 TACK COAT @ .075 GAL/SY GAL	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 2¾" CY	448 TAPER CY	407 TACK COAT FOR INTERM. @ .050 GAL/SY GAL	446 ASPHALT CONCRETE SURFACE COURSE, TYPE IH 1½" CY	446 TAPER CY
461+52.78	461+66.25	13.47	36.0	53.9		53.9	4.0	4.1		2.7	2.2	
461+66.25	463+40.93	174.68	66.0	1281		1281	96.1	97.9		64.1	53.4	
STATION EQUATION												
457+50	457+80	30.0	61.6	205.3	205.3		15.4	15.7		10.3	8.6	
457+80	458+80	100	59.8	663.9		663.9	49.8		25.4	33.2		25.4
460+98	461+98	100	52.1	578.9		578.9	43.4		22.1	28.9		22.1
461+98	467+57.04	559.04	43.5	2702	2702		202.7	206.4		135.1	112.6	
467+57.04	472+52	494.96	36	1979.8	1979.8		148.5	151.2		99.0	82.5	
472+52	473+52	100	36	400		400	30.0		15.3	20.0		15.3
475+64.5	476+51.6	87.1	36	348.4		348.4	26.1					13.3
478+28.5	479+28.5	100	36	400		400	30.0		15.3	20.0		15.3
479+28.5	481+93.5	265	36	1060	1060		79.5	81.0		53.0	44.2	
481+93.5	482+93.5	100	36	400		400	30.0		15.3	20.0		15.3
485+43	486+43	100	36	400		400	30.0		15.3	20.0		15.3
486+43	488+30.8	187.8	36	751.2	751.2		56.3	57.4		37.6	31.3	
488+30.8	491+10	279.2	**	1315.5	1116.8	165.5	98.7	85.3	8.8	64.1	54.8	
491+10	520+91.92	2981.9	36	11927.6	11927.6		894.6	911.1		596.4	497.0	
520+91.92	521+91.92	100	42	466.7	466.7		35.0	35.7		23.3	19.4	
521+91.92	524+35	243.08	48	1296.4	1296.4		97.2	99.0		64.8	54.0	
524+35	526+12.5	177.5	51.2	1009.8	1009.8		75.7	77.1		50.5	42.1	
526+12.5	529+66.98	354.48	64.8	2552.3	2552.3		191.4	195.0		127.6	106.3	
529+66.98	539+49.56	982.58	36	3930.3	3930.3		294.8	300.2		196.5	163.8	
539+49.56	540+99	149.44	65.4	1085.9	1085.9		81.4	83.0		54.3	45.2	
540+99	541+99	100	56.8	631.1		631.1	47.3		24.1	31.6		24.1
541+99	542+99	100	57.3	636.7		636.7	47.8					22.1
542+99	543+99	100	56.4	626.7		626.7	47.0		23.9	31.3		23.9
543+99	551+30.53	731.53	45.5	3698.3	3698.3		277.4	282.5		184.9	154.1	
551+30.53	558+57	100	36	400		400	30.0		15.3	20.0		15.3
558+57	559+57	100	36	400		400	30.0					13.9
559+57	560+57	100	36	400		400	30.0		15.3	20.0		15.3
560+57	561+55	98	42	457.3	457.3		34.3	34.9		22.9	19.1	
561+55	563+35	180	48	960	960		72.0	73.3		48.0	40.0	
563+35	565+12.8	177.8	50	987.8	987.8		74.1	75.5		49.4	41.2	
565+12.8	568+60.11	347.31	66.6	2570.1	2570.1		192.8	196.3		128.5	107.1	
568+60.11	580+18.65	1158.54	36	4634.2	4634.2		347.6	354.0		231.7	193.1	
580+18.65	592+00	1181.35	53	6956.8	6956.8		521.8	531.4		347.8	289.9	
592+00	595+40.9	340.9	36	1363.6	1363.6		102.3	104.2		68.2	56.8	
595+40.9	598+20.1	279.2	**	1315.5	1116.8	165.5	98.7	85.3	8.8	64.1	54.8	
598+20.1	601+29	308.9	36	1235.6	1235.6		92.7	94.4		61.8	51.5	
601+29	602+29	100	36	400		400	30.0		15.3	20.0		15.3
604+27.71	606+08	180.29	36	721.2		721.2	54.1		7.5	36.1		27.5
608+44.5	609+44.5	100	36	400		400	30.0		19.4	20.0	16.7	
609+44.5	620+93.17	1148.67	36	4594.7	4594.7		344.6	351.0		229.7	191.4	
620+93.17	621+93.17	100	42	466.7	466.7		35.0	35.7		23.3	19.4	
621+93.17	624+00	206.83	48	1103.1	1103.1		82.7	84.3		55.2	46.0	
624+00	625+86.81	186.81	50.8	1054.4	1054.4		79.1	80.5		52.7	43.9	
625+86.81	629+58.54	371.73	65.8	2717.8	2717.8		203.8	207.6		135.9	113.2	
629+58.54	638+01	842.46	36	3369.8	3369.8		252.7	257.4		168.5	140.4	
638+01	639+01	100	36	400		400	30.0		15.3	20.0		15.3
641+46.7	642+46.7	100	36	400		400	30.0		15.3	20.0		15.3
642+46.7	648+09.99	563.29	36	2253.2	2253.2		169.0	172.1		112.7	93.9	
648+09.99	658+89.85	1079.9	53.7	6443.4		6443.4	483.3	492.2		322.2	268.5	
TOTALS TO SECOND COLUMN:					69624.3	16716.2	6480.5	5912.7	277.7	4247.9	3258.4	310.0

MAINLINE - WB

STATION FROM	STATION TO	LENGTH ** CADD LF	AVG. WIDTH ** CADD LF	PAVEMENT AREA SY	254 PAVEMENT PLANING, BITUMINOUS 3" SY	254 PAVEMENT PLANING, BITUMINOUS TAPER SY	407 TACK COAT @ .075 GAL/SY GAL	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 2¾" CY	448 TAPER CY	407 TACK COAT FOR INTERM. @ .050 GAL/SY GAL	446 ASPHALT CONCRETE SURFACE COURSE, TYPE IH 1½" CY	446 TAPER CY
461+52.78	463+40.93	188.15	36	752.6		752.6	56.4	57.5		37.6	31.4	
STATION EQUATION												
457+50	457+88	38	36	152	152.0		11.4	11.6		7.6	6.3	
457+88	458+88	100	36	400		400	30.0		15.3	20.0		15.3
460+97.5	461+97.5	100	36	400		400	30.0		15.3	20.0		15.3
461+97.5	466+24.94	427.44	36	1709.8	1709.8		128.2	130.6		85.5	71.2	
466+24.94	470+00.01	375.07	65.9	2746.3	2746.3		206.0	209.8		137.3	114.4	
470+00.01	472+33.82	233.81	48	1247	1247.0		93.5	95.3		62.4	52.0	
472+33.82	473+37.5	103.68	42	483.8		483.8	36.3		18.5	24.2		18.5
475+46.8	476+47.9	101.1	36	404.4		404.4	30.3					15.4
478+24.8	479+24.8	100	36	400		400.0	30.0		15.3	20.0		15.3
479+24.8	481+94.1	269.3	36	1077.2	1077.2		80.8	82.3		53.9	44.9	
481+94.1	482+94.1	100	36	400		400.0	30.0		15.3	20.0		15.3
485+43.6	486+43.6	100	36	400		400.0	30.0		15.3	20.0		15.3
486+43.6	490+47.7	202.05	36	808.2	808.2		60.6	61.7		40.4	33.7	
490+47.7	493+26.9	279.2	**	1315.5	1116.8	165.5	98.7	85.3	8.8	64.1	54.8	
493+26.9	513+00	1973.1	36	7892.4	7892.4		591.9	602.9		394.6	328.9	
513+00	524+47.51	1147.51	59.5	7586.3	7586.3		569.0	579.5		379.3	316.1	
524+47.51	540+92	1644.49	40	7308.8	7308.8		548.2	558.3		365.4	304.5	
540+92	541+92	100	40	444.4		444.4	33.3		17.0	22.2		17.0
541+92	542+92	100	40	444.4		444.4	33.3					15.4
542+92	543+92	100	40	444.4		444.4	33.3		17.0	22.2		17.0
543+92	558+09.5	1417.5	40	6300	6300.0		472.5	481.3		315.0	262.5	
558+09.5	559+09.5	100	40	444.4		444.4	33.3		17.0	22.2		17.0
559+09.5	560+09.5	100	40	444.4		444.4	33.3					15.4
560+09.5	561+09.5	100	40	444.4		444.4	33.3		17.0	22.2		17.0
561+09.5	570+29.52	920.02	40	4089	4089.0		306.7	312.4		204.5	170.4	
570+29.52	577+44.19	714.67	60.4	4796.2	4796.2		359.7	366.4		239.8	199.8	
577+44.19	578+44.19	100	42	466.7	466.7		35.0	35.7		23.3	19.4	
578+44.19	597+57.3	1913.11	36	7652.4	7652.4		573.9	584.6		382.6	318.9	
597+57.3	600+36.5	279.2	**	1315.5	1116.8	165.5	98.7	85.3	8.8	64.1	54.8	
600+36.5	600+70.8	34.3	36	137.2	137.2		10.3	10.5		6.9	5.7	
600+70.8	601+70.8	100	36	400		400.0	30.0		15.3	20.0		15.3
603+69.5	606+07.7	238.2	36	952.8		952.8	71.5		9.9	47.6		36.4
608+44.2	609+44.2	100	36	400		400.0	30.0		15.3	20.0		15.3
609+44.2	619+00	955.8	36	3823.2	3823.2		286.7	292.1		191.2	159.3	
619+00	630+52.81	1152.81	52.5	6724.7	6724.7		504.4	513.7		336.2	280.2	
630+52.81	638+23.7	770.89	36	3083.6	3083.6		231.3	235.6		154.2	128.5	
638+23.7	639+23.7	100	36	400		400.0	30.0		15.3	20.0		15.3
641+65.7	642+65.7	100	36	400		400.0	30.0		15.3	20.0		15.3
642+65.7	648+97.78	632.08	36	2528.3	2528.3		189.6	193.1		126.4	105.3	
648+97.78	654+00	605.22	63.5	4270.2	4270.2		320.3	326.2		213.5	177.9	
654+00	656+45.27	245.27	48	1308.1	1308.1		98.1	99.9		65.4	54.5	
656+45.27	657+45.27	100	42	466.7	466.7		35.0	35.7		23.3	19.4	
657+45.27	658+89.85	144.58	36	578.3		578.3	43.4	44.2		28.9	24.1	
TOTALS THIS COLUMN:					78407.9	9769.3	6618.3	6091.5	251.7	4344.0	3338.9	306.8
TOTALS FROM FIRST COLUMN:					69624.3	16716.2	6480.5	5912.7	277.7	4247.9	3258.4	310.0
TOTALS CARRIED TO SHEET 35:					148032.2	26485.5	13098.9	12004.2	529.4	8591.9	6597.3	616.8

CALCULATED MB
CHECKED QF

PAVEMENT CALCULATIONS

UNI-33-8.74

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STATION		LENGTH	AVG. WIDTH	PAVEMENT AREA	254		407	448		407	446	
					PAVEMENT PLANING, BITUMINOUS		TACK COAT	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28		TACK COAT FOR INTERM.	ASPHALT CONCRETE SURFACE COURSE, TYPE IH	
COLLECTOR-DISTRIBUTOR					3"	TAPER	@ .075 GAL/SY	2¾"	TAPER	@ .050 GAL/SY	1½"	TAPER
FROM	TO	LF	LF	SY	SY	SY	GAL	CY	CY	GAL	CY	CY
524+47.51	532+44.26	796.75	42.3	3744.7	3744.7		280.9	286.1		187.2	156.0	
532+44.26	540+89	844.74	28.5	2675	2675.0		200.6	204.3		133.8	111.5	
540+89	541+89	100	28.5	316.7		316.7	23.8		12.1	15.8		12.1
541+89	542+89	100	28.5	316.7		316.7	23.8					11.0
542+89	543+89	100	28.5	316.7		316.7	23.8		12.1	15.8		12.1
543+89	546+71.24	282.24	28.5	893.8	893.8		67.0		34.1	44.7	37.2	
546+71.24	550+00	328.76	54.7	1998.1	1998.1		149.9	152.6		99.9	83.3	
550+00	551+00	100	36.5	405.6	405.6		30.4	31.0		20.3	16.9	
551+00	552+54.28	154.28	48	822.8	822.8		61.7	62.9		41.1	34.3	
552+54.28	558+90	635.72	28.5	2013.1	2013.1		151.0	153.8		100.7	83.9	
558+90	559+90	100	28.5	316.7		316.7	23.8		12.1	15.8		12.1
559+90	560+90	100	28.5	316.7		316.7	23.8					11.0
560+90	561+90	100	28.5	316.7		316.7	23.8		12.1	15.8		12.1
561+90	562+46.53	56.53	28.5	179	179.0		13.4	13.7		9.0	7.5	
562+46.53	564+75	228.47	51	1294.7	1294.7		97.1	98.9		64.7	53.9	
564+75	570+29.52	554.52	28.5	1756	1756.0		131.7	134.1		87.8	73.2	
TOTALS THIS COLUMN:					15782.8	1900.2	1326.2	1137.4	82.5	852.4	657.7	70.4

STATION		LENGTH	AVG. WIDTH	PAVEMENT AREA	254		407	448		407	446	
					PAVEMENT PLANING, BITUMINOUS		TACK COAT	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28		TACK COAT FOR INTERM.	ASPHALT CONCRETE SURFACE COURSE, TYPE IH	
INTERCHANGES					3"	TAPER	@ .075 GAL/SY	2¾"	TAPER	@ .050 GAL/SY	1½"	TAPER
FROM	TO	** CADD	** CADD	SY	SY	SY	GAL	CY	CY	GAL	CY	CY
CR 133 INTERCHANGE												
RAMP R												
3+14.92	4+16.86	101.94	21	237.9		237.9	17.8	18.2		11.9	9.9	
4+16.86	5+25.83	108.97	19	230		230.0	17.3	17.6		11.5	9.6	
4+31	5+25.83	167	17	315.4		315.4	23.7	24.1		15.8	13.1	
5+25.83	6+30.07	**	**	268.5		268.5	20.1	20.5		13.4	11.2	
6+30.07	8+88.58	258.51	20	574.5		574.5	43.1	43.9		28.7	23.9	
8+88.58	9+13	24.42	19.5	52.9		52.9	4.0	4.0		2.6	2.2	
9+13	13+34.49	421.49	19	889.8	889.8		66.7	68.0		44.5	37.1	
RAMP S												
2+22.71	3+24.67	101.96	18	203.9		203.9	15.3	15.6		10.2	8.5	
3+24.67	5+19.77	195.1	19	411.9		411.9	30.9	31.5		20.6	17.2	
4+94.27	7+34.76	**	**	845.5		845.5	63.4	64.6		42.3	35.2	
7+34.76	10+13.03	278.27	22	680.2		680.2	51.0	52.0		34.0	28.3	
10+13.03	13+38.49	325.46	42	1518.8		1518.8	113.9	116.0		75.9	63.3	
SR 31 INTERCHANGE												
RAMP F												
10+18.92	19+61.8	942.88	22	2304.8	2304.8		172.9	176.1		115.2	96.0	
RADIUS		**	**	355.8		355.8	26.7	27.2		17.8	14.8	
RAMP G												
5+21.08	12+76	754.92	22	1845.4	1845.4		138.4	141.0		92.3	76.9	
12+76	13+01	25	19.5	54.2		54.2	4.1	4.1		2.7	2.3	
13+01	17+81.6	480.6	20	1068		1068.0	80.1	81.6		53.4	44.5	
RADIUS		**	**	199.5		199.5	15.0	15.2		10.0	8.3	
RAMP H												
2+35.46	3+35.46	100	20.5	227.8		227.8	17.1	17.4		11.4	9.5	
3+35.46	4+20	84.54	19	178.5		178.5	13.4	13.6		8.9	7.4	
3+24.8	4+20	142.5	17	269.2		269.2	20.2	20.6		13.5	11.2	
4+20	5+11.28	**	**	276		276.0	20.7	21.1		13.8	11.5	
5+11.28	7+83	271.72	20	603.8		603.8	45.3	46.1		30.2	25.2	
7+83	8+08	25	21	58.3		58.3	4.4	4.5		2.9	2.4	
8+08	12+15.16	407.16	22	995.3	995.3		74.6	76.0		49.8	41.5	
RAMP E												
0+00	2+00	200	18.5	411.1		411.1	30.8	31.4		20.6	17.1	
2+00	4+20	220	19	464.4		464.4	34.8	35.5		23.2	19.4	
4+03	4+79.5	**	**	304.8		304.8	22.9	23.3		15.2	12.7	
4+79.5	12+24.69	745.19	22	1821.6	1821.6		136.6	139.2		91.1	75.9	
TOTALS THIS COLUMN:					7856.9	9810.9	1325.1	1349.9		883.4	736.1	
TOTALS FROM FIRST COLUMN:					15782.8	1900.2	1326.2	1137.4	82.5	852.4	657.7	70.4
TOTALS CARRIED TO SHEET 35:					23639.7	11711.1	2651.3	2487.3	82.5	1735.8	1393.8	70.4

CALCULATED MB
CHECKED QF

PAVEMENT CALCULATIONS

UNI-33-8.74

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STATION		LENGTH	AVG. WIDTH	PAVEMENT AREA	254		407	448		407	446	
					PAVEMENT PLANING, BITUMINOUS		TACK COAT	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28		TACK COAT FOR INTERM.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	
INTERCHANGES		** CADD	** CADD		3"	TAPER	@ .075 GAL/SY	2¾"	TAPER	@ .050 GAL/SY	1½"	TAPER
FROM	TO	LF	LF	SY	SY	SY	GAL	CY	CY	GAL	CY	CY
SR 4 INTERCHANGE												
RAMP M												
1+55.28	11+20.5	965.22	22	2359.4	2359.4		177.0	180.2		118.0	98.3	
11+20.5	11+98.1	**	**	315.4		315.4	23.7	24.1		15.8	13.1	
11+78.5	13+25.7	147.2	19	310.8		310.8	23.3	23.7		15.5	13.0	
13+25.7	14+27	101.3	21.5	242		242.0	18.2	18.5		12.1	10.1	
RAMP L												
1+50	2+51.51	101.51	18	203		203.0	15.2	15.5		10.2	8.5	
2+51.51	3+62.5	110.99	19	234.3		234.3	17.6	17.9		11.7	9.8	
3+46	4+21	**	**	325.5		325.5	24.4	24.9		16.3	13.6	
4+21	11+54.13	733.13	22	1792.1	1792.1		134.4	136.9		89.6	74.7	
RAMP J												
5+12.52	10+15	502.48	22	1228.3	1228.3		92.1	93.8		61.4	51.2	
10+15	10+40	25	21	58.3		58.3	4.4	4.5		2.9	2.4	
10+40	11+73.09	133.09	20	295.8		295.8	22.2	22.6		14.8	12.3	
11+73.09	12+79.5	**	**	319.5		319.5	24.0	24.4		16.0	13.3	
12+79.5	14+30.7	224	17	423.1		423.1	31.7	32.3		21.2	17.6	
12+79.5	15+81	301.5	19	636.5		636.5	47.7	48.6		31.8	26.5	
15+81	16+81	100	17	188.9		188.9	14.2	14.4		9.4	7.9	
RAMP K												
RADIUS		**	**	309		309.0	23.2	23.6		15.5	12.9	
1+24	5+10	386	20	857.8		857.8	64.3	65.5		42.9	35.7	
5+10	5+35	25	21	58.3		58.3	4.4	4.5		2.9	2.4	
5+35	15+22.56	987.56	22	2414	2414.0		181.1	184.4		120.7	100.6	
US 36 INTERCHANGE												
RAMP A												
5+53.78	14+37	883.22	22	2159	2159.0		161.9	164.9		108.0	90.0	
RADIUS		**	**	236		236.0	17.7	18.0		11.8	9.8	
RAMP D												
1+54.01	9+68	813.99	22	1989.8	1989.8		149.2	152.0		99.5	82.9	
9+68	11+18.5	**	**	488.5		488.5	36.6	37.3		24.4	20.4	
11+13	12+10	**	**	280		280.0	21.0	21.4		14.0	11.7	
11+18.5	12+86	167.5	21	390.8		390.8	29.3	29.9		19.5	16.3	
RAMP B												
RADIUS		**	**	224		224.0	16.8	17.1		11.2	9.3	
2+31	9+79.45	748.45	22	1829.5	1829.5		137.2	139.8		91.5	76.2	
RAMP C												
RADIUS		**	**	192		192.0	14.4	14.7		9.6	8.0	
0+95	8+22.35	727.35	22	1778	1778.0		133.4	135.8		88.9	74.1	
TOTALS THIS SHEET:					15550.1	6589.5	1660.5	1691.2		1107.1	922.6	
TOTALS FROM SHEET 33:					148032.2	26485.5	13098.9	12004.2	529.4	8591.9	6597.3	616.8
TOTALS FROM SHEET 34:					23639.7	11711.1	2651.3	2487.3	82.5	1735.8	1393.8	70.4
TOTALS TO GENERAL SUMMARY:					**232,008**		**17,411**	**16,795**		**11,435**	**9,601**	

STATION		LENGTH	AVG. WIDTH	EXCAVATION AREA	203		301	304
					EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	SUBGRADE COMPACTION	BITUMINOUS AGGREGATE BASE	AGGREGATE BASE
WESTBOUND/ COLLECTOR DISTRIBUTOR					13" AVG. DEPTH		6½" AVG. THICK	4" AVG. THICK
FROM	TO	LF	LF	SY	CY	SY	CY	CY
524+47.51	525+13.10	65.59	5	36.4	13.1	36.4	4.9	3.0
525+13.10	558+68.08	3354.98	9	3355	1207.8	3355	504.8	310.6
558+68.08	559+07.45	39.37	9	39.4	14.2	39.4	3.9	2.4
559+07.45	559+87.30	79.85	9	79.9	28.7	79.9	4.0	2.5
559+87.30	560+26.67	39.37	9	39.4	14.2	39.4	3.9	2.4
560+26.67	569+23.91	897.24	9	897.2	323.0	897.2	135.0	83.1
569+23.91	570+37.66	113.75	5	63.2	22.8	63.2	8.6	5.3
TOTALS TO GENERAL SUMMARY:					**1,624**	**4,511**	**665**	**409**

CALCULATED MB CHECKED OF

PAVEMENT CALCULATIONS

UNI-33-8.74

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STATION		SIDE	LENGTH	617 COMPACTED AGGREGATE, TYPE A 2' WIDE 3" AVG. DEPTH
FROM	TO		LF	CY
MAINLINE EB				
461+52.78	463+40.93	RT	188.15	3.5
STATION EQUATION				
457+50	458+91	RT	141	2.6
460+85	473+67	RT	1282	23.7
475+60	476+62	RT	102	1.9
478+20	482+97	RT	477	8.8
485+40	602+48	RT	11708	216.8
604+37	606+11	RT	174	3.2
608+41	638+99	RT	3058	56.6
641+38	658+89.85	RT	1751.85	32.4
461+52.78	463+40.93	LT	188.15	3.5
STATION EQUATION				
457+50	458+97	LT	147	2.7
460+85	473+59	LT	1274	23.6
475+49	476+60	LT	111	2.1
478+18	482+97	LT	479	8.9
485+40	488+31	LT	291	5.4
491+10	595+41	LT	10431	193.2
598+20	602+17	LT	397	7.4
604+08	606+11	LT	203	3.8
608+41	639+11	LT	3070	56.9
641+49	658+89.85	LT	1740.85	32.2
MAINLINE WB				
461+52.78	463+40.93	RT	188.15	3.5
STATION EQUATION		RT		
457+50	459+00	RT	150	2.8
460+84	473+52	RT	1268	23.5
475+41	476+58	RT	117	2.2
478+16	482+97	RT	481	8.9
485+40	490+48	RT	508	9.4
493+27	597+57	RT	10430	193.1
600+37	601+90	RT	153	2.8
603+82	606+11	RT	229	4.2
608+41	639+21	RT	3080	57
641+57	658+89.85	RT	1732.85	32.1
461+52.78	463+40.93	LT	188.15	3.5
STATION EQUATION		LT		
457+50	459+04	LT	154	2.9
460+84	473+43	LT	1259	23.3
475+31	476+56	LT	125	2.3
478+13	482+98	LT	485	9
485+41	524+47.51	LT	3906.51	72.3
570+29.52	601+59	LT	3129.48	58
603+50	606+11	LT	261	4.8
608+41	639+33	LT	3092	57.3
641+68	658+89.85	LT	1721.85	31.9
TOTALS TO COLUMN 3:				1294

STATION		SIDE	LENGTH	617 COMPACTED AGGREGATE, TYPE A 2' WIDE 3" AVG. DEPTH
FROM	TO		LF	CY
COLLECTOR-DISTRIBUTOR				
524+47.51	570+29.52	LT	4582.01	84.9
MEDIAN CROSSOVERS				
490+79		MED	555	10.3
597+89		MED	555	10.3
CR 133 INTERCHANGE				
RAMP R				
1+35	13+34.49	RT	1199.49	22.2
8+88	13+34.49	LT	446.49	8.3
RAMP S				
5+18	13+38.49	RT	872	16.1
0+00	13+38.49	LT	1338.49	24.8
SR 31 INTERCHANGE				
RAMP F				
10+18.92	20+40	RT	1063	19.7
10+18.92	20+66	LT	1035	19.2
RAMP G				
5+21.08	18+34	RT	1335	24.7
5+21.08	13+01	LT	779.92	14.4
RAMP H				
8+61	12+15.16	RT	354.16	6.6
7+83	12+15.16	LT	432.16	8
RAMP E				
4+34	12+24.69	RT	821	15.2
0+00	12+24.69	LT	1224.69	22.7
SR 4 INTERCHANGE				
RAMP M				
1+55.28	11+65	RT	1042	19.3
1+55.28	16+10	LT	1454.72	26.9
RAMP L				
3+82	11+54.13	RT	804	14.9
35+18 SR 4	11+54.13	LT	1226	22.7
RAMP J				
5+12.52	19+08	RT	1395.48	25.8
5+12.52	10+40	LT	527.48	9.8
RAMP K				
0+35	15+22.56	RT	1501	27.8
5+10	15+22.56	LT	1012.56	18.8
TOTALS TO COLUMN 3:				473.4

STATION		SIDE	LENGTH	617 COMPACTED AGGREGATE, TYPE A 2' WIDE 3" AVG. DEPTH
FROM	TO		LF	CY
US 36 INTERCHANGE				
RAMP A				
5+53.78	14+96	RT	1012	18.7
5+53.78	14+95	LT	944.5	17.5
RAMP D				
1+54.01	11+90	RT	1066	19.7
1+54.01	13+82	LT	1227.99	22.7
RAMP B				
0+40	9+79.45	RT	848	15.7
0+55	9+79.45	LT	824	15.3
RAMP C				
0+40	8+22.35	RT	775.5	14.4
0+49	8+22.35	LT	826	15.3

ESTIMATED NUMBER OF RIGID REPAIR LOCATIONS
* APPROXIMATELY 6' X 12' EACH

STATION		EASTBOUND		WESTBOUND	
FROM	TO	DRIVING	PASSING	DRIVING	PASSING
BETWEEN STRUCTURES #0905 & #0912					
475+55.03	476+48.72	2	2	3	3
BETWEEN STRUCTURES #0912 & #0922					
478+26.72	482+93.75	10	10	9	9
BETWEEN STRUCTURES #1150 & #1156					
603+99.43	606+07.75	6	6	6	4
	TOTALS:	**18**	**18**	**18**	**16**

* REPAIRS ARE TO BE PERFORMED AS DIRECTED BY THE ENGINEER. THE QUANTITIES ON THIS SHEET ARE FOR ESTIMATING PURPOSES ONLY.

ITEM 413 - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS

STATION		EASTBOUND		WESTBOUND	
FROM	TO	NUMBER OF JOINTS	LF	NUMBER OF JOINTS	LF
BETWEEN STRUCTURES #0905 & #0912					
475+55.03	476+48.72	12	144	16	192
BETWEEN STRUCTURES #0912 & #0922					
478+26.72	482+93.75	44	528	40	480
BETWEEN STRUCTURES #1150 & #1156					
603+99.43	606+07.75	26	312	24	288
	TOTALS:		**984**		**960**
TOTAL CARRIED TO GENERAL SUMMARY: 1,944 LF					

* ITEM 413 - SAWING AND SEALING BITUMINOUS CONCRETE PAVEMENT JOINTS SHALL BE APPLIED TO ALL TRANSVERSE JOINT LOCATIONS BETWEEN THE SPECIFIED STRUCTURES.

ITEM 255 - FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS C

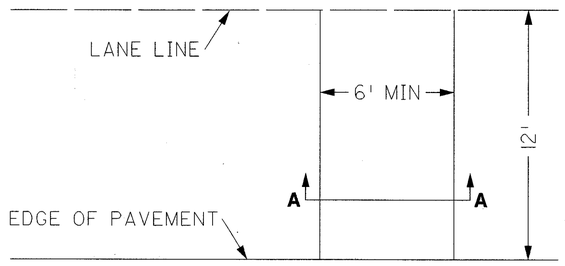
70 REPAIRS AT 8 SY EACH = 560 SY
30 REPAIRS AT 8 SY EACH TO BE USED AS DIRECTED BY THE ENGINEER = 240 SY
20% ADDED TO BE USED AS DIRECTED BY THE ENGINEER = 160 SY
TOTAL CARRIED TO GENERAL SUMMARY = 960 SY

ITEM 255 - FULL DEPTH PAVEMENT SAWING

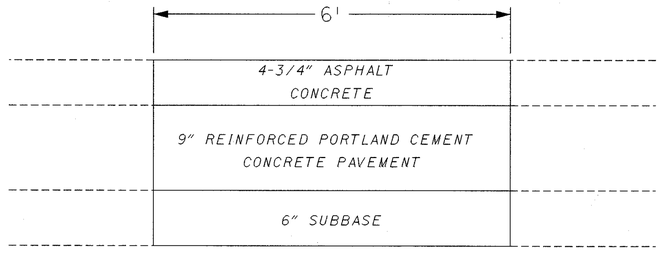
36 REPAIRS AT 30 LF EACH = 1080 LF
34 REPAIRS AT 24 LF EACH = 816 LF
30 REPAIRS AT 30 LF EACH TO BE USED AS DIRECTED BY THE ENGINEER = 900 LF
20% ADDED TO BE USED AS DIRECTED BY THE ENGINEER = 679 LF
TOTAL CARRIED TO GENERAL SUMMARY = 3,475 LF

ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28

960 SY ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT
X 4-3/4" ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28 = 127 CY
TOTAL CARRIED TO GENERAL SUMMARY = 127 CY



PLAN VIEW



SECTION A-A

CALCULATED MB CHECKED OF

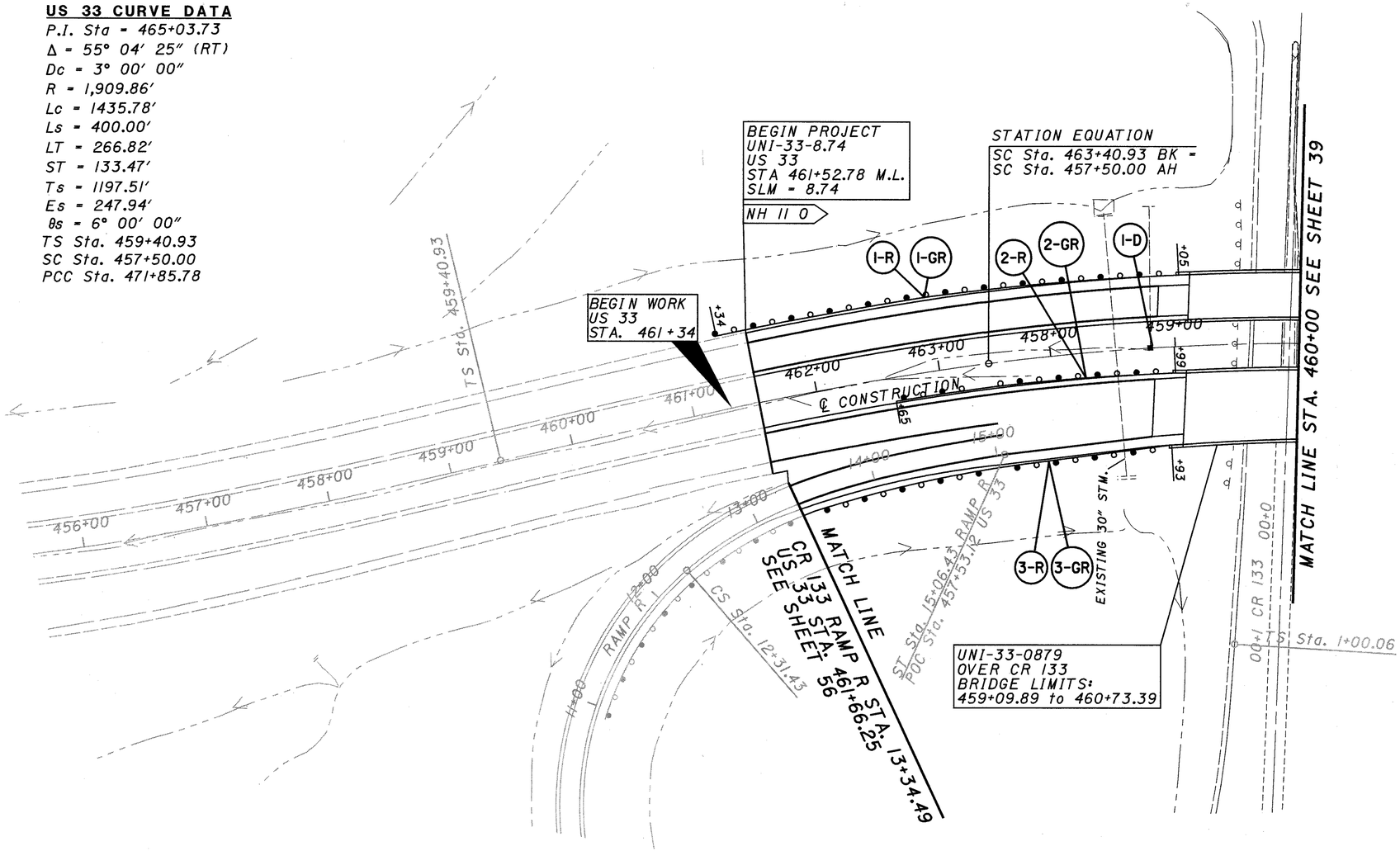
FULL DEPTH JOINT REPAIR CALCULATIONS

UNI-33-8.74

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US 33 CURVE DATA

P.I. Sta = 465+03.73
Δ = 55° 04′ 25″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
Lc = 1435.78′
Ls = 400.00′
LT = 266.82′
ST = 133.47′
Ts = 1197.51′
Es = 247.94′
θs = 6° 00′ 00″
TS Sta. 459+40.93
SC Sta. 457+50.00
PCC Sta. 471+85.78



* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

* DRAINAGE STRUCTURE REPLACEMENT DATA
(I-D) CATCH BASIN, NO. 2-2B
℄ 12″ CONDUIT = 1043.98
GRATE ELEVATION = 1045.81

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	603 12″ CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 2-2B EACH	REMARKS
I-D	458+80	458+80	MED	1	8	1	* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				1	8	1	

BENCH MARK #1
ELEV. 1043.80369
IRON PIN WITH CLOTH CROSS
ON EAST SIDE OF SR 245
US 33 STA. 457+72.57 724′ LT

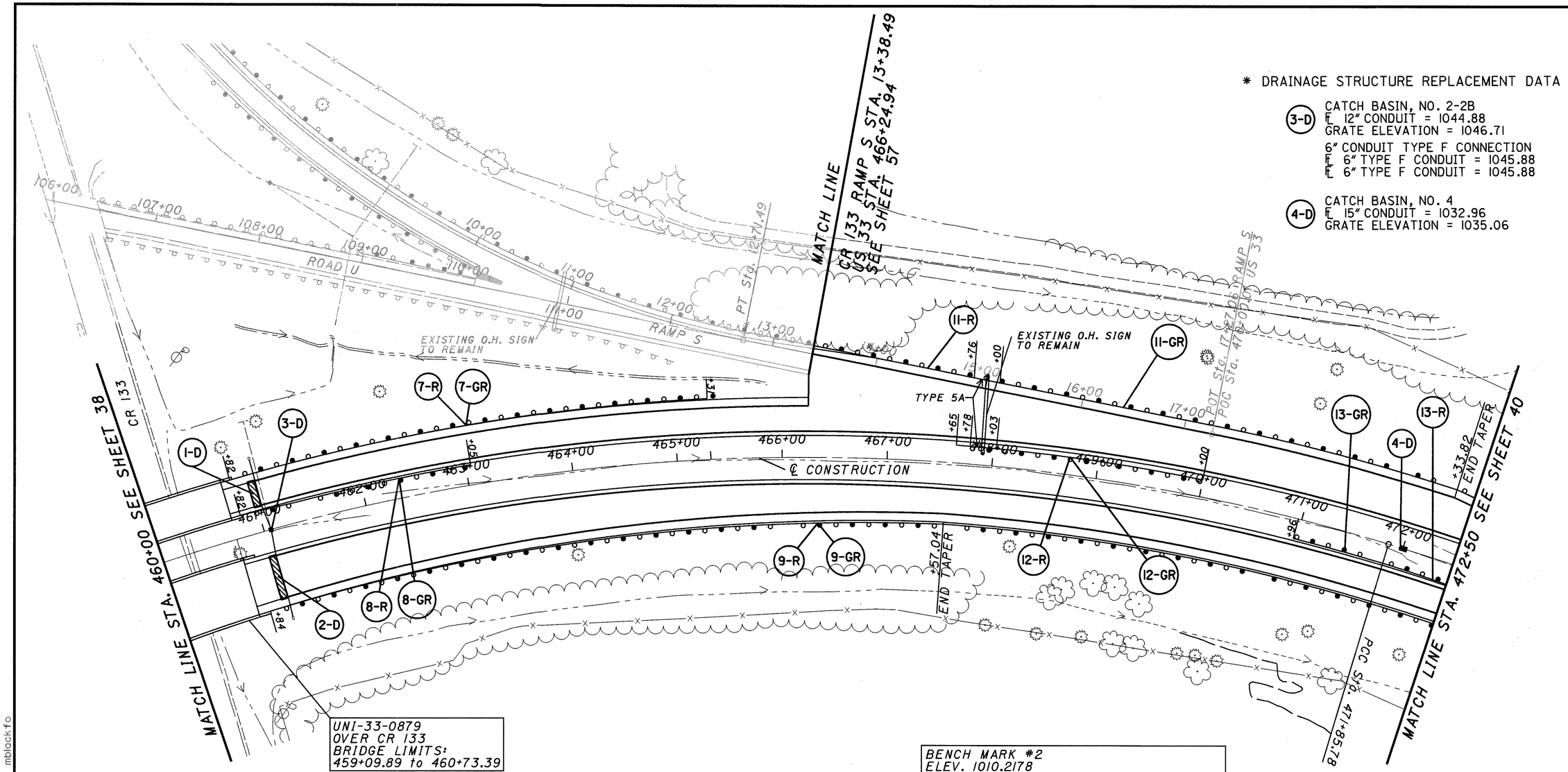
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HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 455+00 TO STA. 460+00

UNI-33-8.74

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174



BENCH MARK #2
ELEV. 1010.2178
PK NAIL AT THE CENTER OF A PAINTED CIRCLE ON THE SOUTH SIDE OF THE CEMETERY IN MARYSVILLE.
CR 133 STA. 60+26.35 34.5' LT

US 33 CURVE DATA

P.I. Sta = 465+03.73	P.I. Sta = 473+19.25
Δ = 55° 04' 25" (RT)	D = 6° 00' 00" (RT)
Dc = 3° 00' 00"	Dc = 2° 14' 59"
R = 1,909.86'	R = 2,546.76'
Lc = 1435.78'	T = 133.47'
Ls = 400.00'	L = 266.70'
LT = 266.82'	E = 3.50'
ST = 133.47'	PCC Sta. 471+85.78
Ts = 1197.51'	PT Sta. 474+52.47
Es = 247.94'	
θs = 6° 00' 00"	
TS Sta. 459+40.93	
SC Sta. 457+50.00	
PCC Sta. 471+85.78	

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	SPECIAL PRESSURE RELIEF JOINT TYPE A LF	603 6" CONDUIT, TYPE F LF	603 12" CONDUIT, TYPE B LF	603 15" CONDUIT, TYPE C LF	604 CATCH BASIN NO.4 EACH	604 CATCH BASIN NO. 2-2B EACH	604 PRECAST REINF. CONCRETE OUTLET EACH	605 6" SHALLOW PIPE UNDRDRN. LF	REMARKS
1-D	460+97	461+07	LT		24	42					1	26	
2-D	460+97	461+07	RT		39	47					1	41	
3-D	461+07	461+07	MED	1			8			1			* SEE ABOVE FOR ELEVATIONS
4-D	472+00	472+00	MED	1				8	1				* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				2	63	89	8	8	1	1	2	67	

HORIZONTAL SCALE IN FEET 0 25 50 100

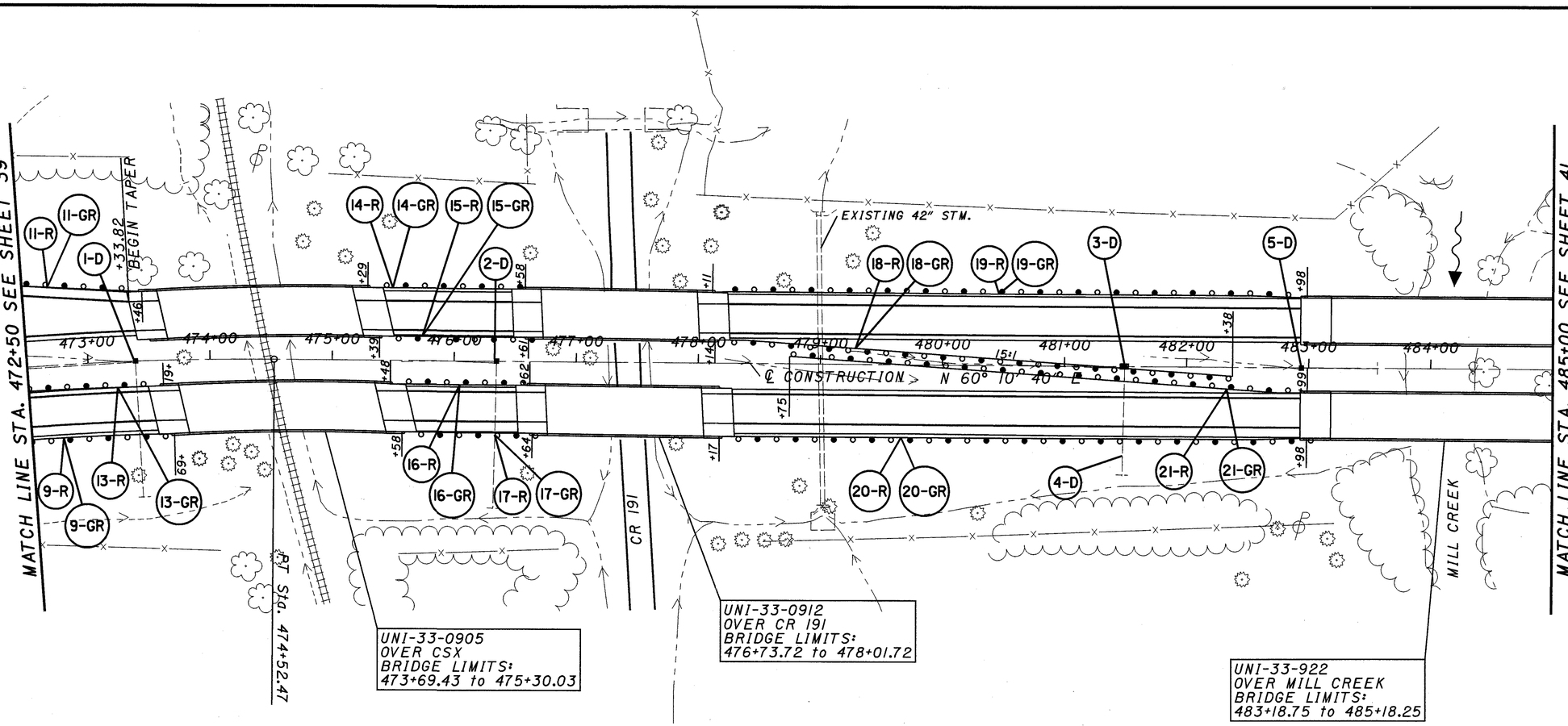
CALCULATED MB CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 460+00 TO STA. 472+50

UNI-33-8.74

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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 LEAN GROUT, ITEM 613, 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 LINEAR FEET (MEASURED ALONG THE CENTERLINE OF THE CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER LINEAR FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT. THE PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK.

BENCH MARK #3
ELEV. 1024.6520
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 475+85.78

US 33 CURVE DATA

P.I. Sta = 473+19.25
D = 6° 00' 00" (RT)
Dc = 2° 14' 59"
R = 2,546.76'
T = 133.47'
L = 266.70'
E = 3.50'
PCC Sta. 471+85.78
PT Sta. 474+52.47

* DRAINAGE STRUCTURE REPLACEMENT DATA

(1-D) CATCH BASIN, NO. 2-2B
℄ 15" CONDUIT INLET = 1029.58
℄ 15" CONDUIT OUTLET = 1029.41
GRATE ELEVATION = 1031.41

(2-D) CATCH BASIN, NO. 2-2B
℄ 12" CONDUIT = 1021.26
GRATE ELEVATION = 1023.09

(5-D) CATCH BASIN, NO. 4
℄ 12" CONDUIT = 1001.33
GRATE ELEVATION = 1003.16

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	202 CATCH BASIN ABANDON. EACH	SPECIAL FILL AND PLUG EXIST. CONDUIT LF	603 12" CONDUIT, TYPE B LF	603 12" CONDUIT, TYPE C LF	603 15" CONDUIT, TYPE B LF	603 15" CONDUIT, TYPE C LF	604 CATCH BASIN NO.4 EACH	604 CATCH BASIN NO. 2-2B EACH	REMARKS
1-D	473+39	473+39	MED	1					8	8		1	* SEE ABOVE FOR ELEVATIONS
2-D	476+35	476+35	MED	1			8					1	* SEE ABOVE FOR ELEVATIONS
3-D	481+50	481+50	MED		1								* SEE NOTE THIS SHEET
4-D	481+50	481+50	MED-RT			90							
5-D	482+94	482+94	MED	1				8			1		* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				3	1	90	8	8	8	8	1	2	

HORIZONTAL SCALE IN FEET
0 25 50 100

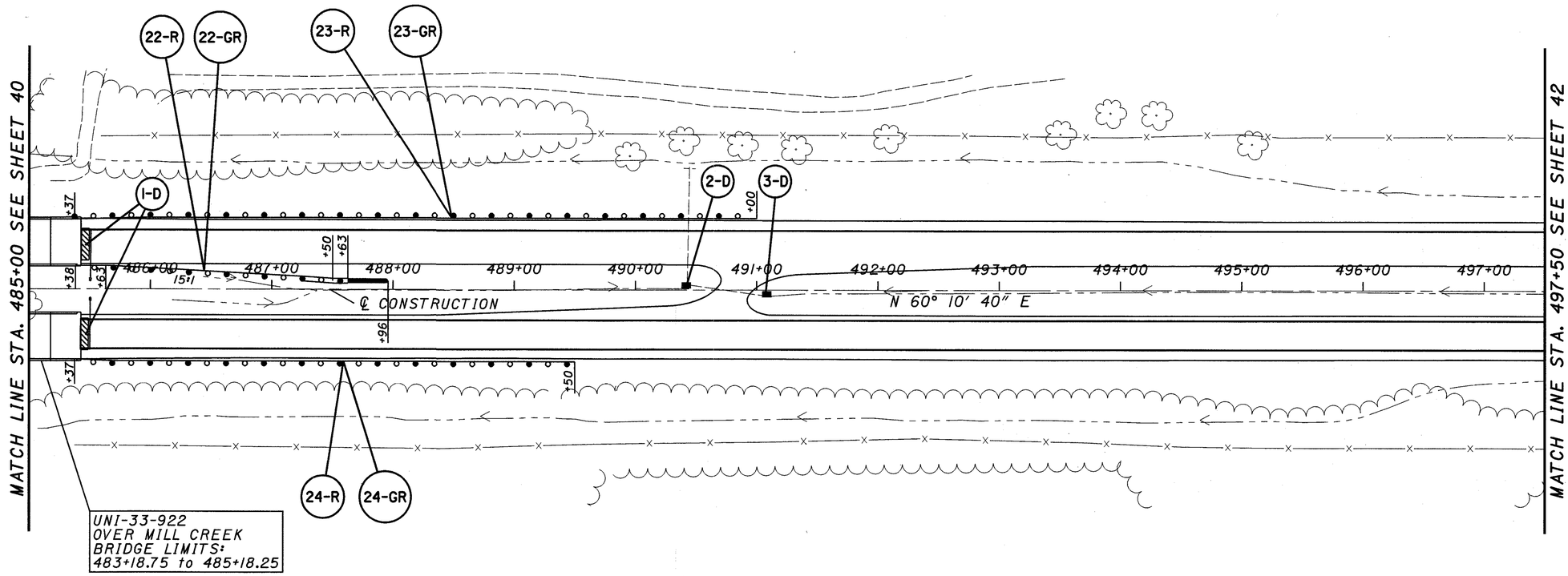
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 472+50 TO STA. 485+00

UNI-33-8.74

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BENCH MARK #4
ELEV. 997.05181
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 486+00

BENCH MARK #5
ELEV. 990.3350
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 490+00

BENCH MARK #6
ELEV. 991.6590
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 495+00

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED	SPECIAL PRESSURE RELIEF JOINT TYPE A	603 6" CONDUIT, TYPE F	603 15" CONDUIT, TYPE B	603 18" CONDUIT, TYPE B	604 CATCH BASIN NO.4	604 PRECAST REINF. CONCRETE OUTLET	605 6' SHALLOW PIPE UNDRDRN	REMARKS
				EACH	LF	LF	LF	LF	EACH	EACH	LF	
1-D	485+43	485+51	LT/RT		48	35				2	52	
2-D	490+42	490+42	MED	1			8	8	1			* SEE ABOVE FOR ELEVATIONS
3-D	491+07	491+07	MED	1			8		1			* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				2	48	35	16	8	2	2	52	

* DRAINAGE STRUCTURE REPLACEMENT DATA

(2-D) CATCH BASIN, NO. 4
℄ 15" CONDUIT INLET = 987.11
℄ 18" CONDUIT OUTLET = 986.61
GRATE ELEVATION = 989.71

(3-D) CATCH BASIN, NO. 4
℄ 15" CONDUIT = 987.61
GRATE ELEVATION = 989.71

HORIZONTAL SCALE IN FEET
0 25 50 100

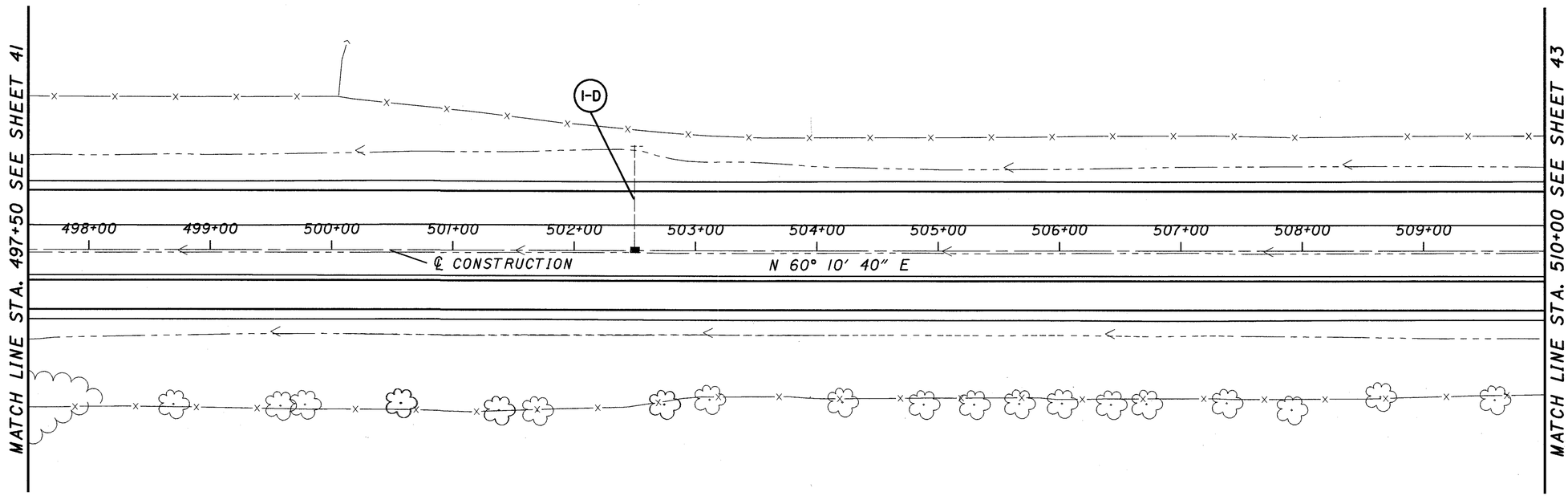
CALCULATED MB CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 485+00 TO STA. 497+50

UNI-33-8.74

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174

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BENCH MARK #7
ELEV. 994.7310
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 500+00

BENCH MARK #8
ELEV. 997.5520
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 505+00

BENCH MARK #9
ELEV. 1000.7780
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 510+00

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

* DRAINAGE STRUCTURE REPLACEMENT DATA

(I-D) CATCH BASIN, NO. 4
℄ 18" CONDUIT = 992.86
GRATE ELEVATION = 996.19

REF NO.	STATION		SIDE	202 CATCH BASIN REMOVED	603 18" CONDUIT, TYPE B	604 CATCH BASIN NO.4	REMARKS
	FROM	TO		EACH	LF	EACH	
I-D	502+50	502+50	MED	I	8	I	* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				I	8	I	

PLAN AND SUBSUMMARY
US 33 STA. 497+50 TO STA. 510+00

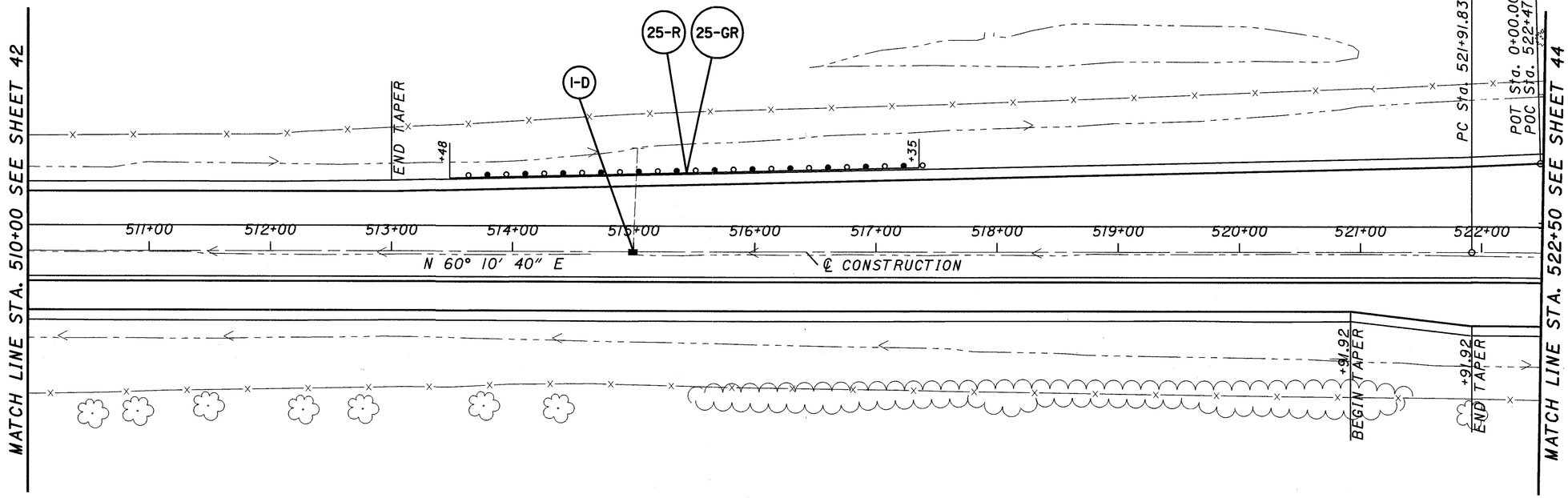
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42
174

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MB
CHECKED

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US 33 CURVE DATA
P.I. Sta = 549+86.70
Δ = 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

BENCH MARK #9
ELEV. 1000.7780
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 510+00

BENCH MARK #10
ELEV. 1003.1420
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 514+00

BENCH MARK #11
ELEV. 1004.9930
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 521+91.92

* DRAINAGE STRUCTURE REPLACEMENT DATA

(I-D) CATCH BASIN, NO. 4
℄ 15" CONDUIT = 1001.09
GRATE ELEVATION = 1003.19

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	603 15" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 4 EACH	REMARKS
I-D	515+00	515+00	MED	1	8	1	* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				1	8	1	

PLAN AND SUBSUMMARY
US 33 STA. 510+00 TO STA. 522+50

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MB
CHECKED

UNI-33-8.74

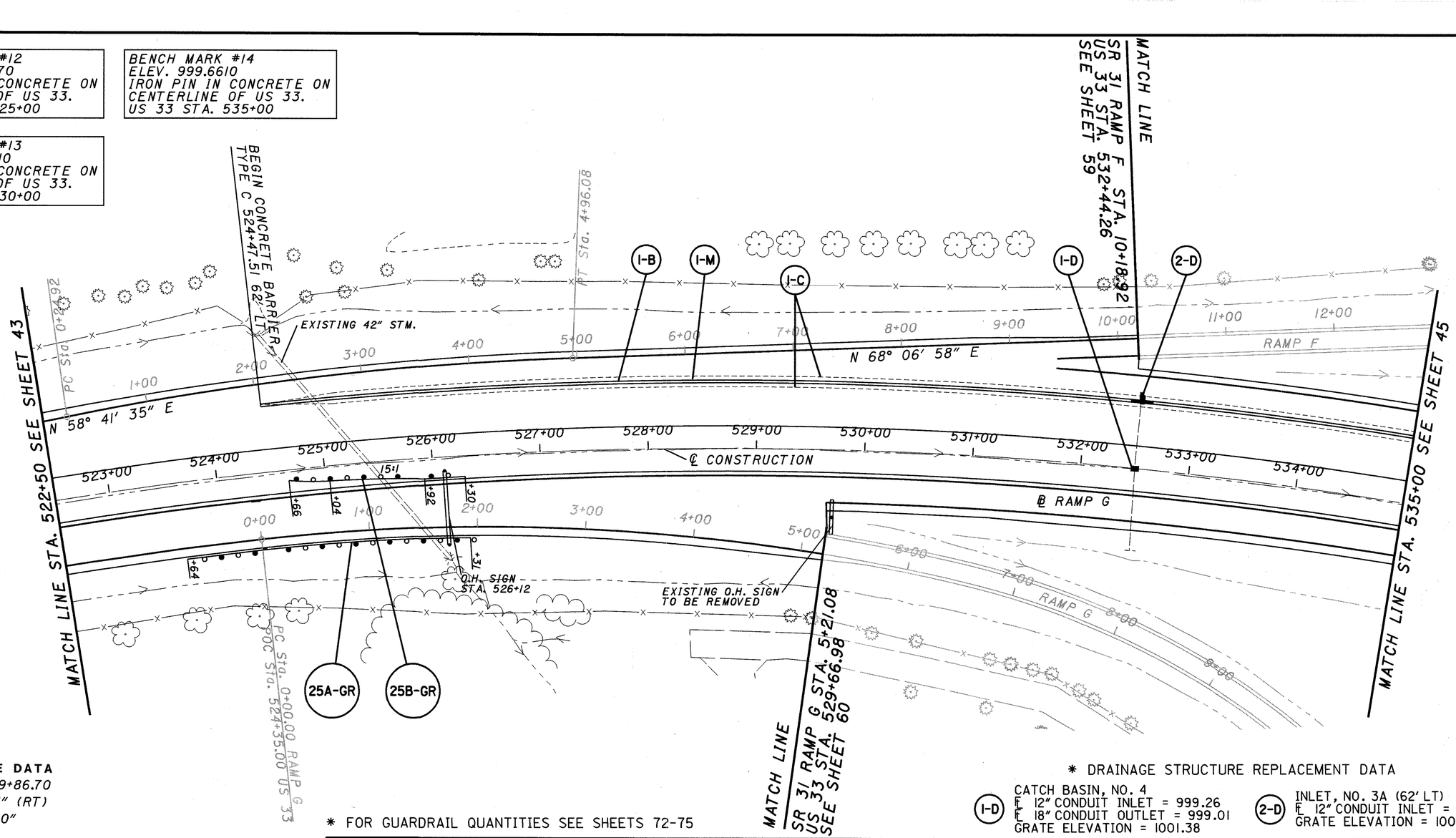
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174

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BENCH MARK #12
ELEV. 1004.0970
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 525+00

BENCH MARK #14
ELEV. 999.6610
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 535+00

BENCH MARK #13
ELEV. 1002.6510
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 530+00



US 33 CURVE DATA
P.I. Sta = 549+86.70
= 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP F CURVE DATA
P.I. Sta = 2+61.03
Δ = 9° 25′ 23″ (RT)
Dc = 2° 00′ 00″
R = 2,864.80′
T = 236.11′
L = 471.16′
E = 9.71′
PC Sta. 0+24.92
PT Sta. 4+96.08

RAMP G CURVE DATA
P.I. Sta = 2+85.43
Δ = 17° 00′ 00″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 285.43′
L = 566.67′
E = 21.21′
PC Sta. 0+00.00
CS Sta. 5+66.67

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

* DRAINAGE STRUCTURE REPLACEMENT DATA

(I-D) CATCH BASIN, NO. 4
℄ 12" CONDUIT INLET = 999.26
℄ 18" CONDUIT OUTLET = 999.01
GRATE ELEVATION = 1001.38

(2-D) INLET, NO. 3A (62' LT)
℄ 12" CONDUIT INLET = 1001.77
GRATE ELEVATION = 1005.99

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED SY	202 CURB REMOVED LF	202 CATCH BASIN REMOVED EACH	603 12" CONDUIT, TYPE B LF	603 18" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 4 EACH	604 INLET, NO. 3A EACH	622 CONCRETE BARRIER, TYPE C LF	626 BARRIER REFLECTOR, TYPE B EACH	REMARKS
I-D	532+50	532+50	MED			1	8	8	1				* SEE ABOVE FOR ELEVATIONS
2-D	532+50	532+50	LT			1	8			1			* SEE ABOVE FOR ELEVATIONS
I-B	524+47.51	535+00	LT								1032.5	24	INCLUDES DEDUCTION FOR INLET
I-M	524+47.51	535+00	LT	1133									
I-C	524+47.51	535+00	LT		2105								
TOTALS CARRIED TO GENERAL SUMMARY				1133	2105	2	16	8	1	1	1032.5	24	

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 522+50 TO STA. 535+00

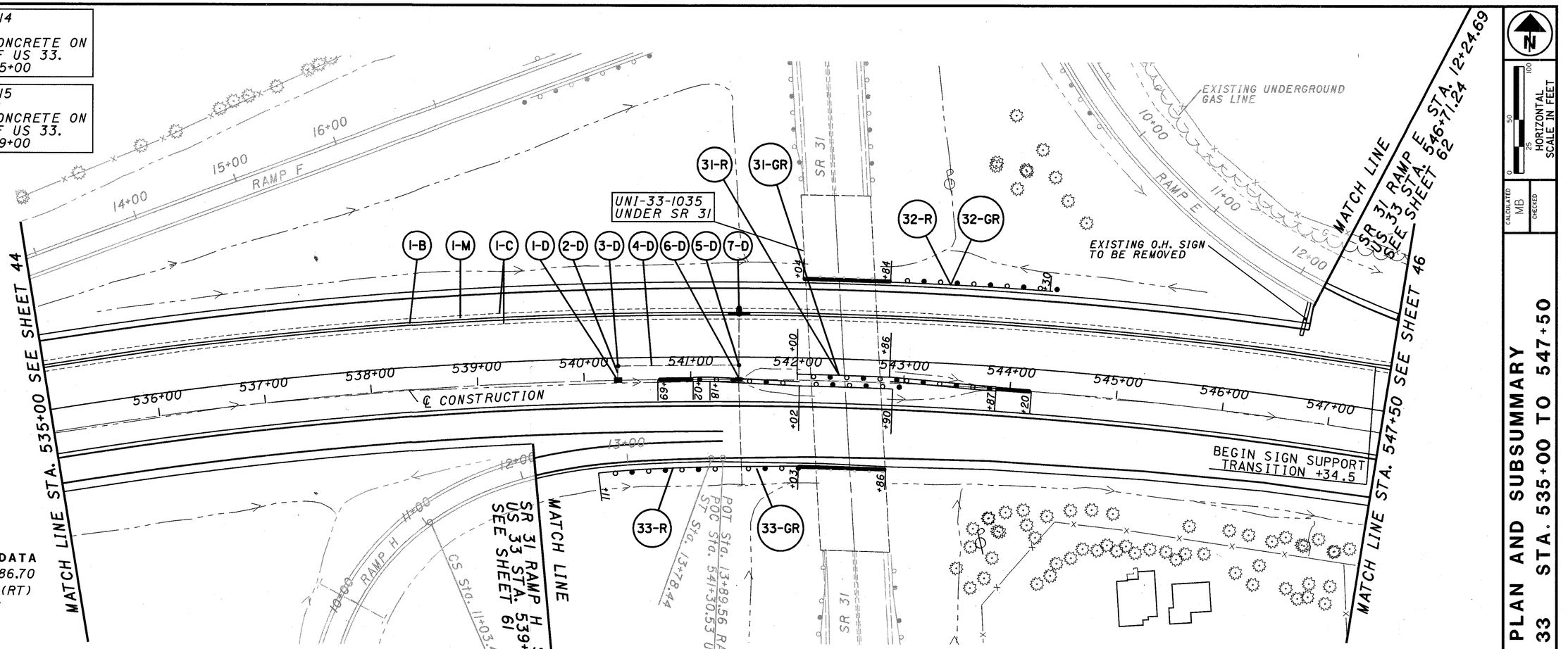
UNI-33-8.74

44
174

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BENCH MARK #14
ELEV. 999.6610
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 535+00

BENCH MARK #15
ELEV. 997.3350
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 539+00



US 33 CURVE DATA
P.I. Sta = 549+86.70
Δ = 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP H CURVE DATA
Δ = 271° 45′ 40″ (RT)
R = 230.00′
Lc = 803.42′
Ls1 = 300.00′
θs1 =37°22′01″
Xc1 = 287.49
Yc1 = 63.26′
P1 = 16.06′
K1 = 147.90′
TS Sta. 0+00.00
SC Sta. 3+00.01
CS Sta. 11+03.43
ST Sta. 13+78.44
Ls2 = 275.00′
θs2 = 34°15′10″
Xc2 = 265.33′
Yc2 = 53.42′
P2 = 13.52′
K2 = 135.88′
Lt2 = 186.89′
St2 = 94.91

* DRAINAGE STRUCTURE REPLACEMENT DATA

(1-D) CATCH BASIN, NO. 4
℄ 12″ CONDUIT OUTLET = 995.30
GRATE ELEVATION = 996.70

(5-D) MANHOLE NO. 3 (13.5′ LT)
℄ 12″ CONDUIT INLET = 994.03
℄ 12″ CONDUIT INLET = 994.03
℄ 12″ CONDUIT OUTLET = 994.03
COVER ELEVATION = 997.26

(3-D) MANHOLE NO. 3 (13.5′ LT)
℄ 12″ CONDUIT INLET = 995.16
℄ 12″ CONDUIT OUTLET = 995.16
COVER ELEVATION = 998.95

(7-D) INLET, NO. 3A (62′ LT)
℄ 12″ CONDUIT = 994.85
GRATE ELEVATION = 1000.26

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED SY	202 CURB REMOVED LF	202 CATCH BASIN REMOVED EACH	603 12" CONDUIT, TYPE B LF	603 12" CONDUIT, TYPE C LF	603 15" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 4 EACH	604 INLET, NO. 3A EACH	604 MANHOLE NO. 3 EACH	622 CONCRETE BARRIER, TYPE C LF	626 BARRIER REFLECTOR, TYPE B EACH	REMARKS
1-D	540+32	540+32	MED							1					* SEE ABOVE FOR ELEVATIONS
2-D	540+32	540+32	MED-LT					13.5							
3-D	540+32	540+32	LT									1			* SEE ABOVE FOR ELEVATIONS
4-D	540+32	541+45	LT					113							
5-D	541+45	541+45	LT				16					1			* SEE ABOVE FOR ELEVATIONS
6-D	541+45	541+45	MED			1			20						
7-D	541+45	541+45	LT			1	8				1				* SEE ABOVE FOR ELEVATIONS
1-B	535+00	547+50	LT										1230	28	INCLUDES DEDUCTION FOR INLET
1-M	535+00	547+50	LT	1389											
1-C	535+00	547+50	LT		2500										
TOTALS CARRIED TO GENERAL SUMMARY				1389	2500	2	24	126.5	20	1	1	2	1230	28	

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

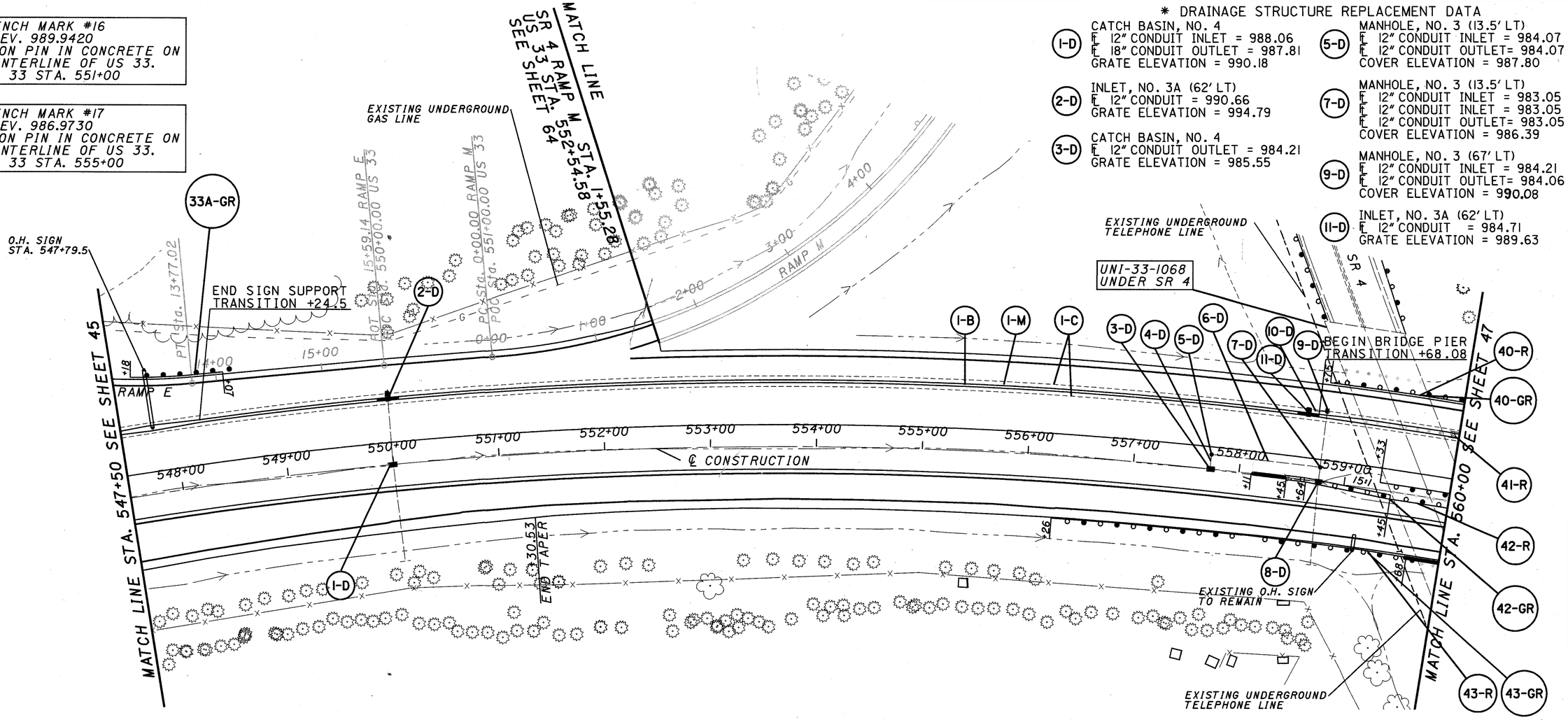
PLAN AND SUBSUMMARY
US 33
STA. 535+00 TO 547+50
UNI-33-8.74

45/174

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BENCH MARK #16
ELEV. 989.9420
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 551+00

BENCH MARK #17
ELEV. 986.9730
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 555+00



* DRAINAGE STRUCTURE REPLACEMENT DATA

1-D CATCH BASIN, NO. 4
FL 12" CONDUIT INLET = 988.06
FL 18" CONDUIT OUTLET = 987.81
GRATE ELEVATION = 990.18

2-D INLET, NO. 3A (62' LT)
FL 12" CONDUIT = 990.66
GRATE ELEVATION = 994.79

3-D CATCH BASIN, NO. 4
FL 12" CONDUIT OUTLET = 984.21
GRATE ELEVATION = 985.55

5-D MANHOLE, NO. 3 (13.5' LT)
FL 12" CONDUIT INLET = 984.07
FL 12" CONDUIT OUTLET= 984.07
COVER ELEVATION = 987.80

7-D MANHOLE, NO. 3 (13.5' LT)
FL 12" CONDUIT INLET = 983.05
FL 12" CONDUIT INLET = 983.05
FL 12" CONDUIT OUTLET= 983.05
COVER ELEVATION = 986.39

9-D MANHOLE, NO. 3 (67' LT)
FL 12" CONDUIT INLET = 984.21
FL 12" CONDUIT OUTLET= 984.06
COVER ELEVATION = 990.08

11-D INLET, NO. 3A (62' LT)
FL 12" CONDUIT = 984.71
GRATE ELEVATION = 989.63

US 33 CURVE DATA
P.I. Sta = 549+86.70
Δ = 71° 10' 01" (RT)
Dc = 1° 28' 00"
R = 3,906.22'
T = 2,794.87'
L = 4,851.91'
E = 896.89'
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP M CURVE DATA
P.I. Sta = 4+62.24
Δ = 77° 47' 27" (LT)
Dc = 10° 00' 00"
R = 572.96'
T = 462.24'
L = 777.91'
E = 163.21'
PC Sta. 0+00.00
PT Sta. 7+77.91

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED SY	202 CURB REMOVED LF	202 CATCH BASIN REMOVED EACH	603 12" CONDUIT, TYPE B LF	603 12" CONDUIT, TYPE C LF	603 18" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 4 EACH	604 INLET, NO. 3A EACH	604 MANHOLE, NO. 3 EACH	622 CONCRETE BARRIER, TYPE C LF	626 BARRIER REFLECTOR, TYPE B EACH	REMARKS
1-D	550+00	550+00	MED			1	8		8	1					* SEE ABOVE FOR ELEVATIONS
2-D	550+00	550+00	LT			1	8				1				* SEE ABOVE FOR ELEVATIONS
3-D	557+73	557+73	MED							1					* SEE ABOVE FOR ELEVATIONS
4-D	557+73	557+73	MED-LT					13.5							
5-D	557+73	557+73	LT									1			* SEE ABOVE FOR ELEVATIONS
6-D	557+73	558+75	LT					102							
7-D	558+75	558+75	LT				16					1			* SEE ABOVE FOR ELEVATIONS
8-D	558+75	558+75	MED			1			20						
9-D	558+75	558+75	LT			1	8					1			* SEE ABOVE FOR ELEVATIONS
10-D	558+58	558+75	LT				17								
11-D	558+58	558+58	LT								1				* SEE ABOVE FOR ELEVATIONS
1-B	547+50	560+00	LT										1210	28	INCLUDES DEDUCTIONS FOR INLETS
1-M	547+50	560+00	LT	1389											
1-C	547+50	560+00	LT		2500										
TOTALS CARRIED TO GENERAL SUMMARY				1389	2500	4	57	115.5	28	2	2	3	1210	28	

HORIZONTAL SCALE IN FEET 0 25 50 100
CALCULATED MB CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 547+50 TO STA. 560+00
UNI-33-8.74

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BENCH MARK #18
ELEV. 983.2210
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 566+00

BENCH MARK #19
ELEV. 981.9740
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 570+44.19

* DRAINAGE STRUCTURE REPLACEMENT DATA

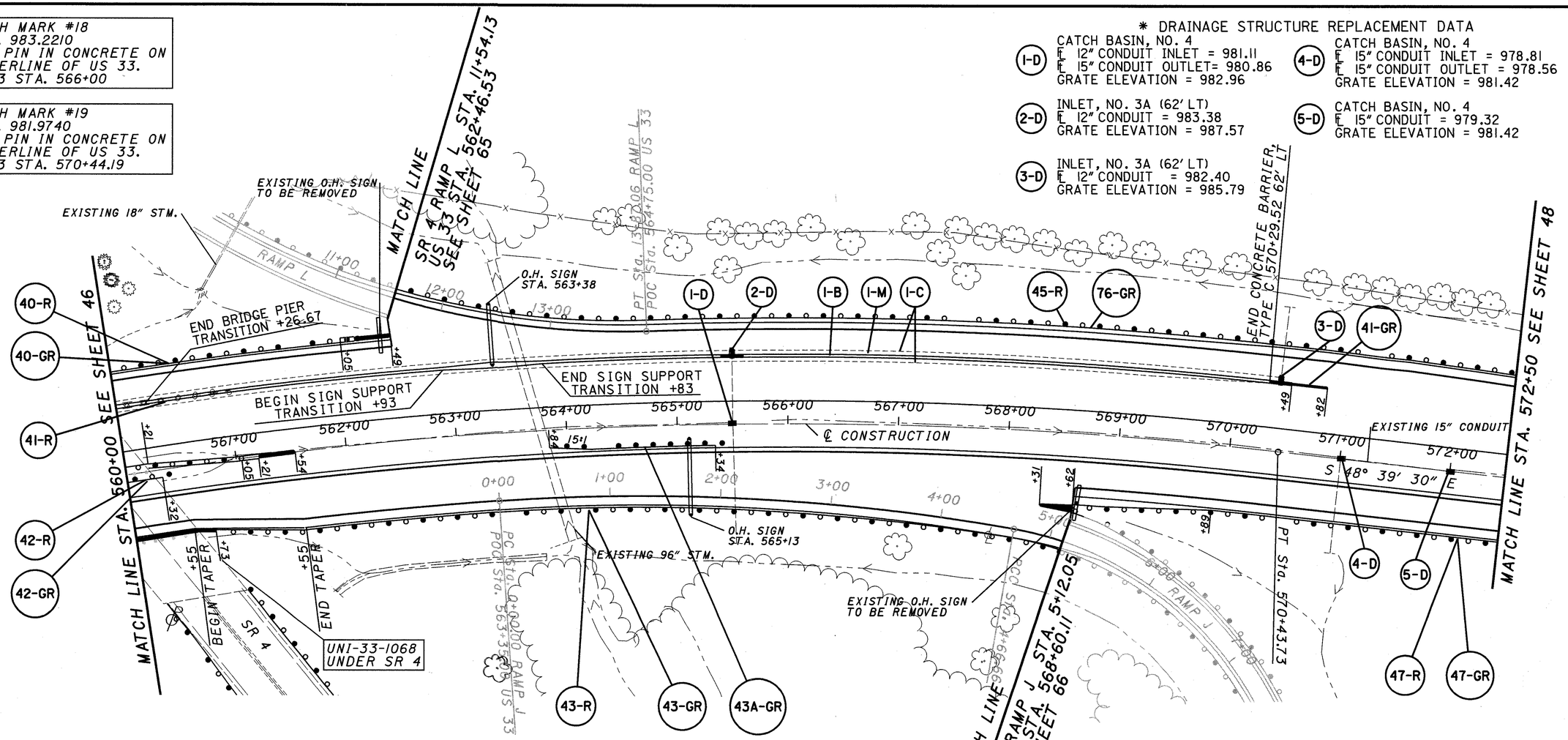
1-D CATCH BASIN, NO. 4
℄ 12" CONDUIT INLET = 981.11
℄ 15" CONDUIT OUTLET= 980.86
GRATE ELEVATION = 982.96

2-D INLET, NO. 3A (62' LT)
℄ 12" CONDUIT = 983.38
GRATE ELEVATION = 987.57

3-D INLET, NO. 3A (62' LT)
℄ 12" CONDUIT = 982.40
GRATE ELEVATION = 985.79

4-D CATCH BASIN, NO. 4
℄ 15" CONDUIT INLET = 978.81
℄ 15" CONDUIT OUTLET = 978.56
GRATE ELEVATION = 981.42

5-D CATCH BASIN, NO. 4
℄ 15" CONDUIT = 979.32
GRATE ELEVATION = 981.42



* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

RAMP J CURVE DATA

P.I. Sta = 2+34.50
Δ = 14° 00' 00" (RT)
Dc = 3° 00' 00"
R = 1,909.85'
T = 234.50'
L = 466.66'
E = 14.34'
Δ = 211° 27' 01" (RT)
R = 310.00'
L = 1144.06'
PC Sta. 0+00.00
PCC Sta. 4+66.66
PCC Sta. 4+66.66
PCC Sta. 16+10.72

US 33 CURVE DATA

P.I. Sta = 549+86.70
Δ = 71° 10' 01" (RT)
Dc = 1° 28' 00"
R = 3,906.22'
T = 2,794.87'
L = 4,851.91'
E = 896.89'
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP L CURVE DATA

P.I. Sta = 10+83.21
Δ = 52° 40' 00" (LT)
Dc = 8° 00' 00"
R = 716.20'
T = 354.49'
L = 658.34'
E = 82.93'
PC Sta. 7+28.72
PT Sta. 13+87.06

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED SY	202 CURB REMOVED LF	202 CATCH BASIN REMOVED EACH	603 12" CONDUIT, TYPE B LF	603 15" CONDUIT, TYPE B LF	603 15" CONDUIT, TYPE C LF	604 CATCH BASIN, NO. 4 EACH	604 INLET, NO. 3A EACH	622 CONCRETE BARRIER, TYPE C LF	626 BARRIER REFLECTOR, TYPE B EACH	REMARKS
1-D	565+50	565+50	MED			1	8	8		1				* SEE ABOVE FOR ELEVATIONS
2-D	565+50	565+50	LT			1	8				1			* SEE ABOVE FOR ELEVATIONS
3-D	570+40	570+40	LT			1	8				1			* SEE ABOVE FOR ELEVATIONS
4-D	571+00	571+00	MED			1		8	8	1				* SEE ABOVE FOR ELEVATIONS
5-D	572+00	572+00	MED			1			8	1				* SEE ABOVE FOR ELEVATIONS
1-B	560+00	570+29.52	LT									1009.5	24	INCLUDES DEDUCTION FOR INLET
1-M	560+00	570+41.18	LT	1150										
1-C	560+00	570+41.18	LT		2082									
TOTALS CARRIED TO GENERAL SUMMARY				1150	2082	5	24	16	16	3	2	1009.5	24	

HORIZONTAL SCALE IN FEET
0 25 50 100

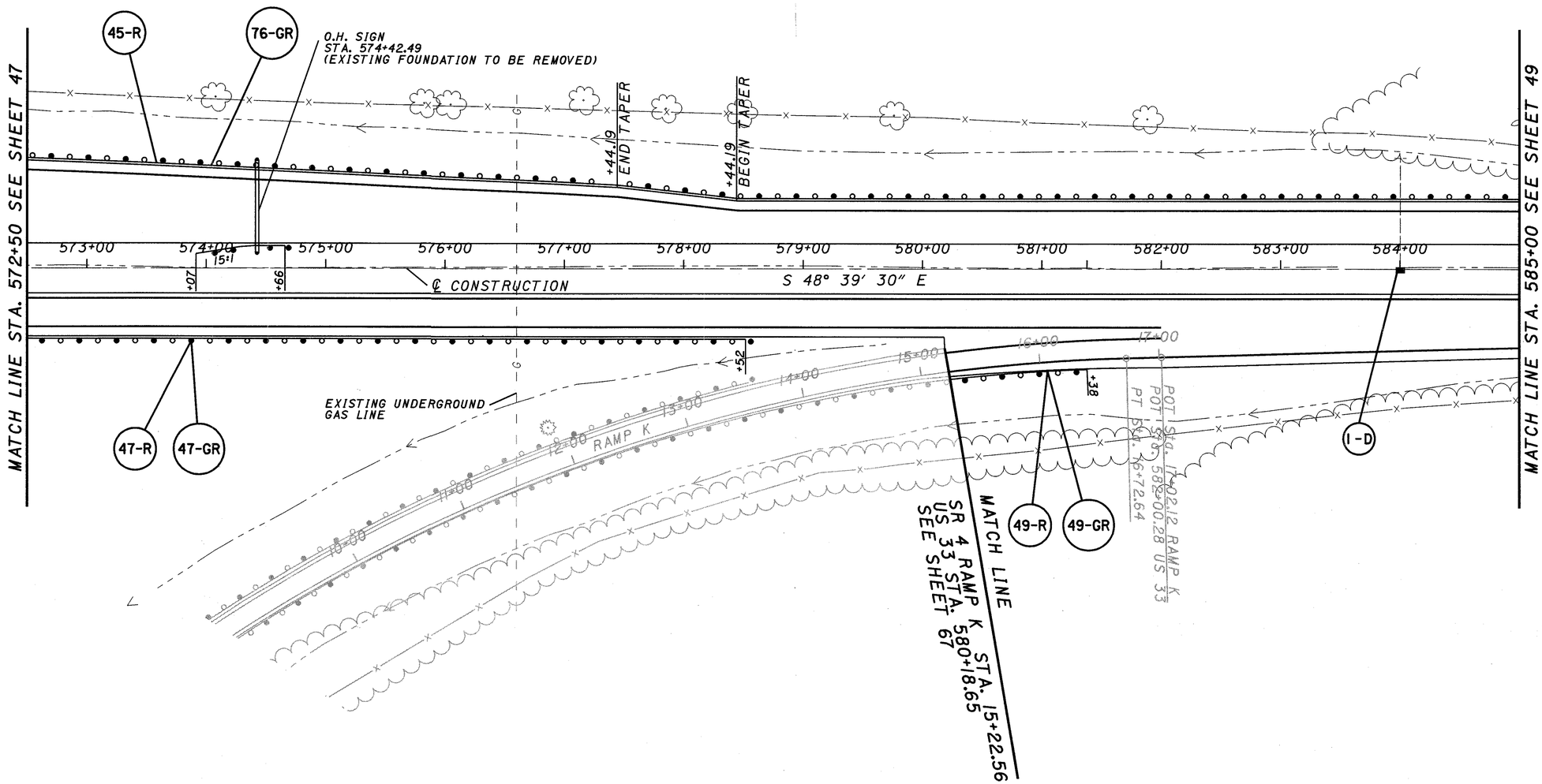
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 560+00 TO STA. 572+50

UNI-33-8.74

47
174

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RAMP K CURVE DATA

P.I. Sta = 11+47.15
Δ = 44° 24′ 15″ (RT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 584.61′
L = 1,110.10′
E = 114.71′
PC Sta. 5+62.54
PT Sta. 16+72.64

BENCH MARK #20
ELEV. 982.1610
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 575+00

BENCH MARK #21
ELEV. 983.2640
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 580+00

* DRAINAGE STRUCTURE REPLACEMENT DATA

(I-D) CATCH BASIN, NO. 4
℄ 15″ CONDUIT = 982.61
GRATE ELEVATION = 984.71

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	603 15" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 4 EACH	REMARKS
I-D	584+00	584+00	MED	1	8	1	* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				1	8	1	

HORIZONTAL SCALE IN FEET
0 25 50 100

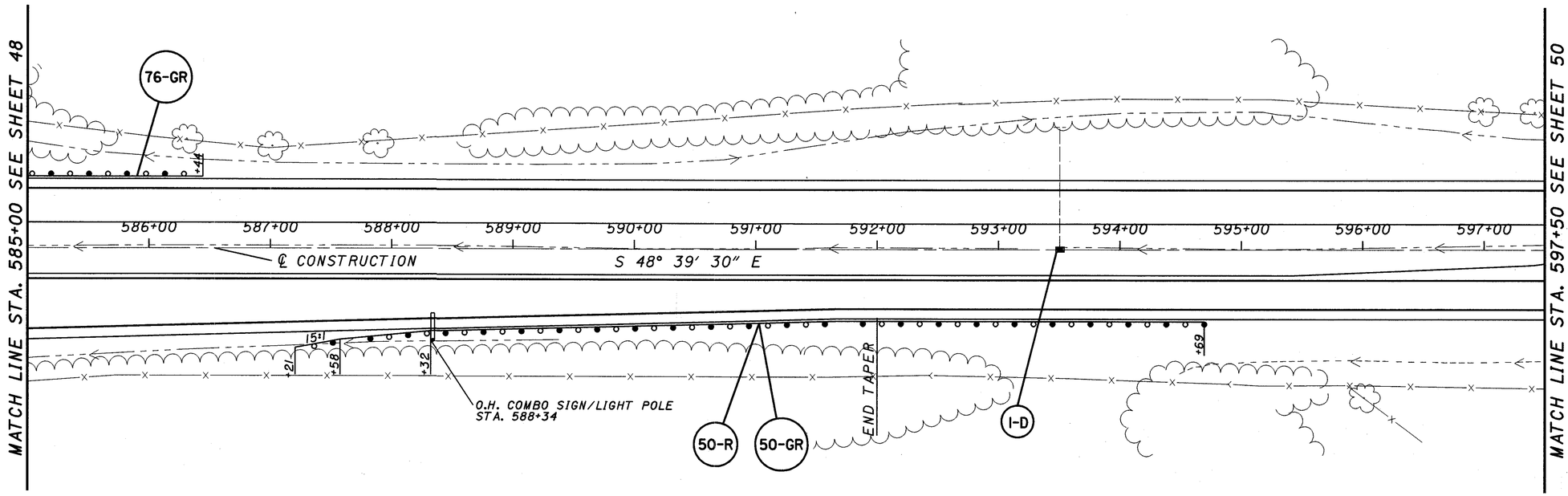
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 572+50 TO STA. 585+00

UNI-33-8.74

48
174

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BENCH MARK #22
ELEV. 985.2070
IRON PIN IN CONCRETE ON
CENTERLINE OF US 33.
US 33 STA. 586+00

BENCH MARK #23
ELEV. 986.7340
IRON PIN IN CONCRETE ON
CENTERLINE OF US 33.
US 33 STA. 590+00

BENCH MARK #24
ELEV. 988.1890
IRON PIN IN CONCRETE ON
CENTERLINE OF US 33.
US 33 STA. 596+00

* DRAINAGE STRUCTURE REPLACEMENT DATA

(I-D) CATCH BASIN, NO. 4
℄ 12" CONDUIT = 985.61
GRATE ELEVATION = 987.44

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	603 12" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 4 EACH	REMARKS
I-D	593+50	593+50	MED	I	8	I	* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				I	8	I	

CALCULATED MB
CHECKED

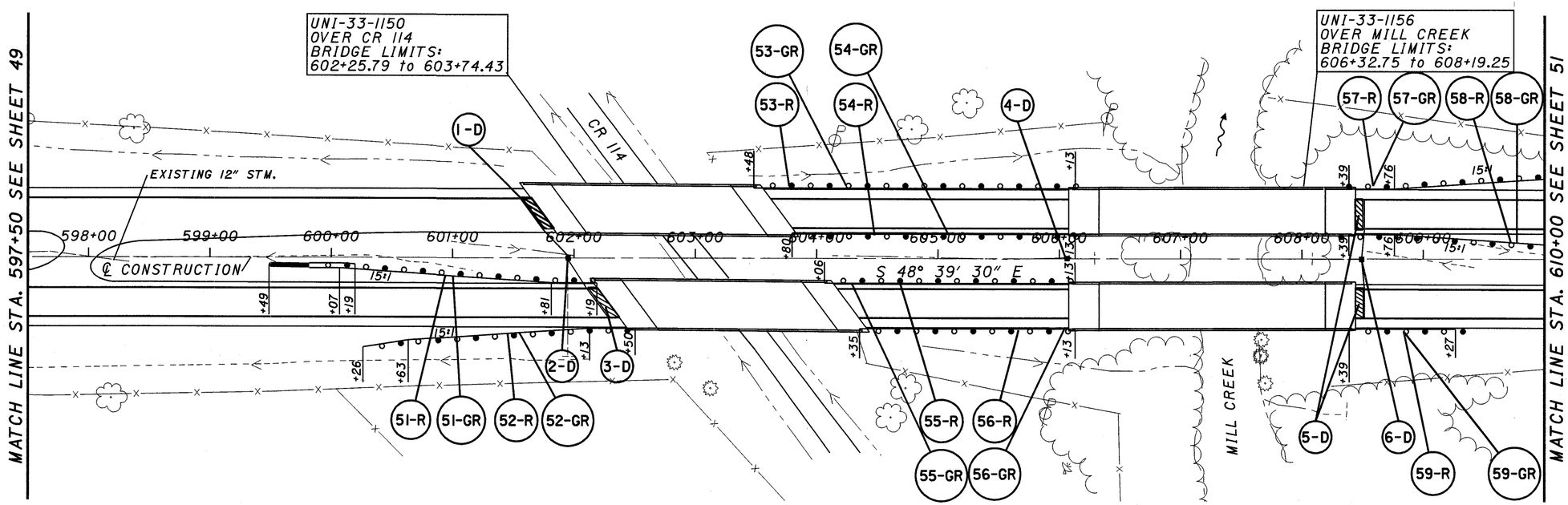
0 25 50 100
HORIZONTAL SCALE IN FEET

PLAN AND SUBSUMMARY
US 33 STA. 585+00 TO STA. 597+50

UNI-33-8.74

49
174

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BENCH MARK #25
ELEV. 989.0490
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 600+00

BENCH MARK #26
ELEV. 988.1260
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 605+00

BENCH MARK #27
ELEV. 986.824
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 610+00

* DRAINAGE STRUCTURE REPLACEMENT DATA

(2-D) CATCH BASIN, NO. 2-2B
℄ 12" CONDUIT = 986.32
GRATE ELEVATION = 988.15
6" CONDUIT TYPE F CONNECTION
℄ 6" TYPE F CONDUIT = 987.32
℄ 6" TYPE F CONDUIT = 987.32

(4-D) CATCH BASIN, NO. 2-2B
℄ 12" CONDUIT = 985.42
GRATE ELEVATION = 987.25

(6-D) CATCH BASIN, NO. 2-2B
℄ 12" CONDUIT = 984.03
GRATE ELEVATION = 985.86
6" CONDUIT TYPE F CONNECTION
℄ 6" TYPE F CONDUIT = 985.03
℄ 6" TYPE F CONDUIT = 985.03

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED	SPECIAL PRESSURE RELIEF JOINT TYPE A	603 6" CONDUIT, TYPE F	603 12" CONDUIT, TYPE B	603 12" CONDUIT, TYPE C	604 CATCH BASIN, NO. 2-2B	604 6" SHALLOW PIPE UNDRDRN.	REMARKS
				EACH	LF	LF	LF	EACH	EACH	LF	
1-D	601+55	601+95	LT		30	32				33	
2-D	601+95	601+95	MED	1			8		1		* SEE ABOVE FOR ELEVATIONS
3-D	601+95	602+25	RT		30	32				33	
4-D	606+06	606+06	MED	1				8	1		* SEE ABOVE FOR ELEVATIONS
5-D	608+43	608+50	LT/RT		48	52				52	
6-D	608+50	608+50	MED	1				8	1		
TOTALS CARRIED TO GENERAL SUMMARY				3	108	116	8	16	3	118	

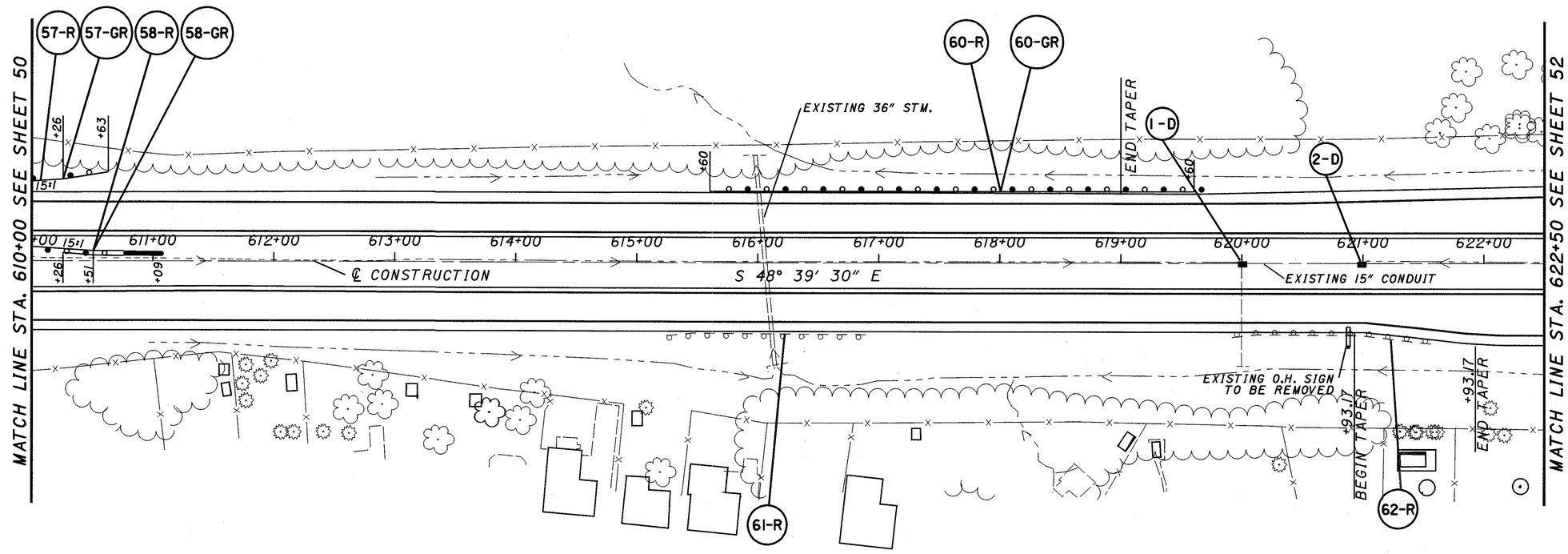
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 597+50 TO 610+00

UNI-33-8.74

50
174

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BENCH MARK #27
ELEV. 986.824
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 610+00

BENCH MARK #28
ELEV. 984.568
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 615+00

BENCH MARK #29
ELEV. 983.448
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 621+50

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

* DRAINAGE STRUCTURE REPLACEMENT DATA

(1-D) CATCH BASIN, NO. 4
℄ 15" CONDUIT INLET = 980.21
℄ 15" CONDUIT OUTLET = 979.81
GRATE ELEVATION = 982.80

(2-D) CATCH BASIN, NO. 4
℄ 15" CONDUIT = 981.00
GRATE ELEVATION = 983.10

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED	603 15" CONDUIT, TYPE B	603 15" CONDUIT, TYPE C	604 CATCH BASIN, NO. 4	REMARKS
				EACH	LF	EACH	EACH	
1-D	620+00	620+00	MED	1	8	8	1	* SEE ABOVE FOR ELEVATIONS
2-D	621+00	621+00	MED	1		8	1	* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				2	8	16	2	

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 610+00 TO STA. 622+50

UNI-33-8.74

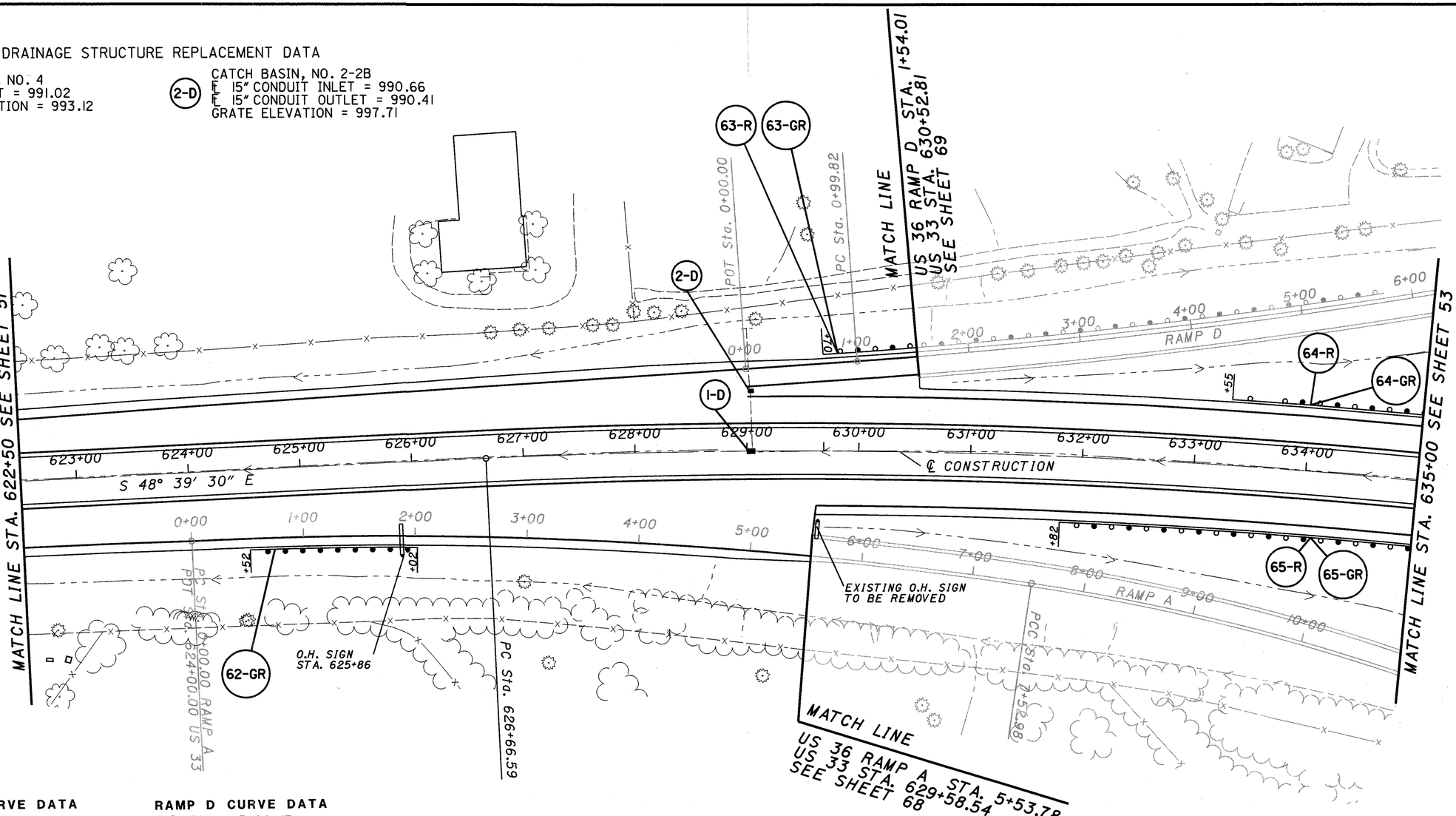
51
174

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* DRAINAGE STRUCTURE REPLACEMENT DATA

(1-D) CATCH BASIN, NO. 4
℄ 15" CONDUIT = 991.02
GRATE ELEVATION = 993.12

(2-D) CATCH BASIN, NO. 2-2B
℄ 15" CONDUIT INLET = 990.66
℄ 15" CONDUIT OUTLET = 990.41
GRATE ELEVATION = 997.71



RAMP A CURVE DATA
P.I. Sta = 3+77.71
Δ = 11° 17′ 41″ (RT)
Dc = 1° 30′ 00″
R = 3,819.71′
T = 377.71′
L = 752.98′
E = 18.63′
PC Sta. 0+00.00
PCC Sta. 7+52.98

P.I. Sta = 10+47.98
Δ = 17° 33′ 39″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 294.99′
L = 585.36′
E = 22.65′
PCC Sta. 7+52.98
PT Sta. 13+38.34

RAMP D CURVE DATA
P.I. Sta = 5+00.47
Δ = 8° 00′ 00″ (LT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 400.65′
L = 800.00′
E = 13.99′
PC Sta. 0+99.82
PT Sta. 8+99.82

US 33 CURVE DATA
P.I. Sta = 634+53.74
Δ = 15° 38′ 42″ (RT)
Dc = 1° 00′ 00″
R = 5,729.60′
T = 787.15′
L = 1,564.51′
E = 53.82′
PC Sta. 626+66.59
PT Sta. 642+31.09

BENCH MARK #30
ELEV. 988.545
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 626+65.90

BENCH MARK #31
ELEV. 996.404
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 631+00

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	603 15" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 4 EACH	604 CATCH BASIN, NO. 2-2B EACH	REMARKS
1-D	629+03	629+03	MED	1	8	1		* SEE ABOVE FOR ELEVATIONS
2-D	629+03	629+03	LT	1	16		1	* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				2	24	1	1	

HORIZONTAL SCALE IN FEET
0 25 50 100

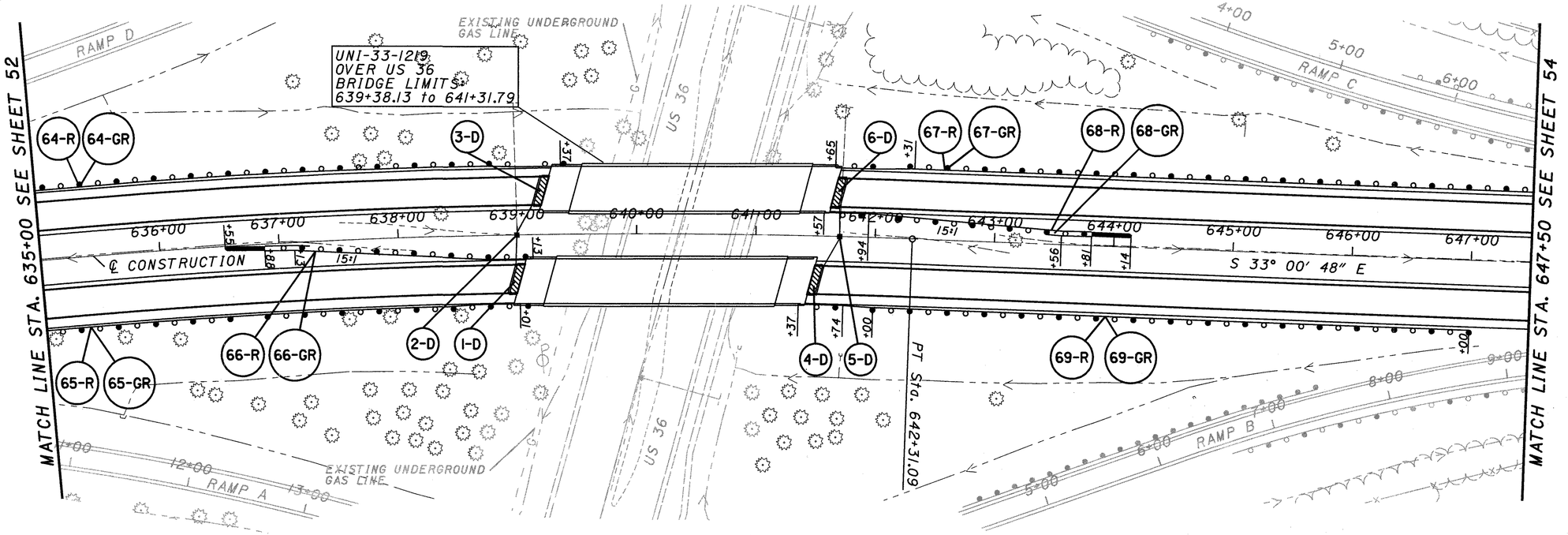
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 622+50 TO STA. 635+00

UNI-33-8.74

52
174

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BENCH MARK #32
ELEV. 1004.913
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 636+00

BENCH MARK #33
ELEV. 1007.199
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 642+31.09

BENCH MARK #34
ELEV. 1004.485
IRON PIN IN CONCRETE ON CENTERLINE OF US 33.
US 33 STA. 645+00

US 33 CURVE DATA
P.I. Sta = 634+53.74
Δ = 15° 38′ 42″ (RT)
Dc = 1° 00′ 00″
R = 5,729.60′
T = 787.15′
L = 1,564.51′
E = 53.82′
PC Sta. 626+66.59
PT Sta. 642+31.09

* DRAINAGE STRUCTURE REPLACEMENT DATA

(2-D) CATCH BASIN, NO. 2-2B
℄ 12″ CONDUIT = 1004.72
GRATE ELEVATION = 1006.55
6″ CONDUIT TYPE F CONNECTION
℄ 6″ TYPE F CONDUIT = 1005.72
℄ 6″ TYPE F CONDUIT = 1005.72

(5-D) CATCH BASIN, NO. 2-2B
℄ 12″ CONDUIT = 1004.73
GRATE ELEVATION = 1006.56
6″ CONDUIT TYPE F CONNECTION
℄ 6″ TYPE F CONDUIT = 1005.73
℄ 6″ TYPE F CONDUIT = 1005.73

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED	SPECIAL PRESSURE RELIEF JOINT TYPE A	603 6" CONDUIT, TYPE F	603 12" CONDUIT, TYPE B	604 CATCH BASIN, NO. 2-2B	605 6" SHALLOW PIPE UNDRDRN.	REMARKS
				EACH	LF	LF	LF	EACH	LF	
1-D	638+92	639+07	RT		27	26			27	
2-D	639+00	639+00	MED	1			8	1		* SEE ABOVE FOR ELEVATIONS
3-D	639+00	639+27	LT		27	22			27	
4-D	641+44	641+70	RT		27	26			27	
5-D	641+70	641+70	MED	1			8	1		* SEE ABOVE FOR ELEVATIONS
6-D	641+62	641+76	LT		27	22			27	
TOTALS CARRIED TO GENERAL SUMMARY				2	108	96	16	2	108	

CALCULATED MB
CHECKED

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN AND SUBSUMMARY
US 33 STA. 635+00 TO STA. 647+50

UNI-33-8.74

53
174

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RAMP C CURVE DATA
P.I. Sta = 10+47.46
Δ = 8° 17′ 46″ (LT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 277.02′
L = 553.07′
E = 10.03′
PCC Sta. 7+70.44
PT Sta. 13+23.52

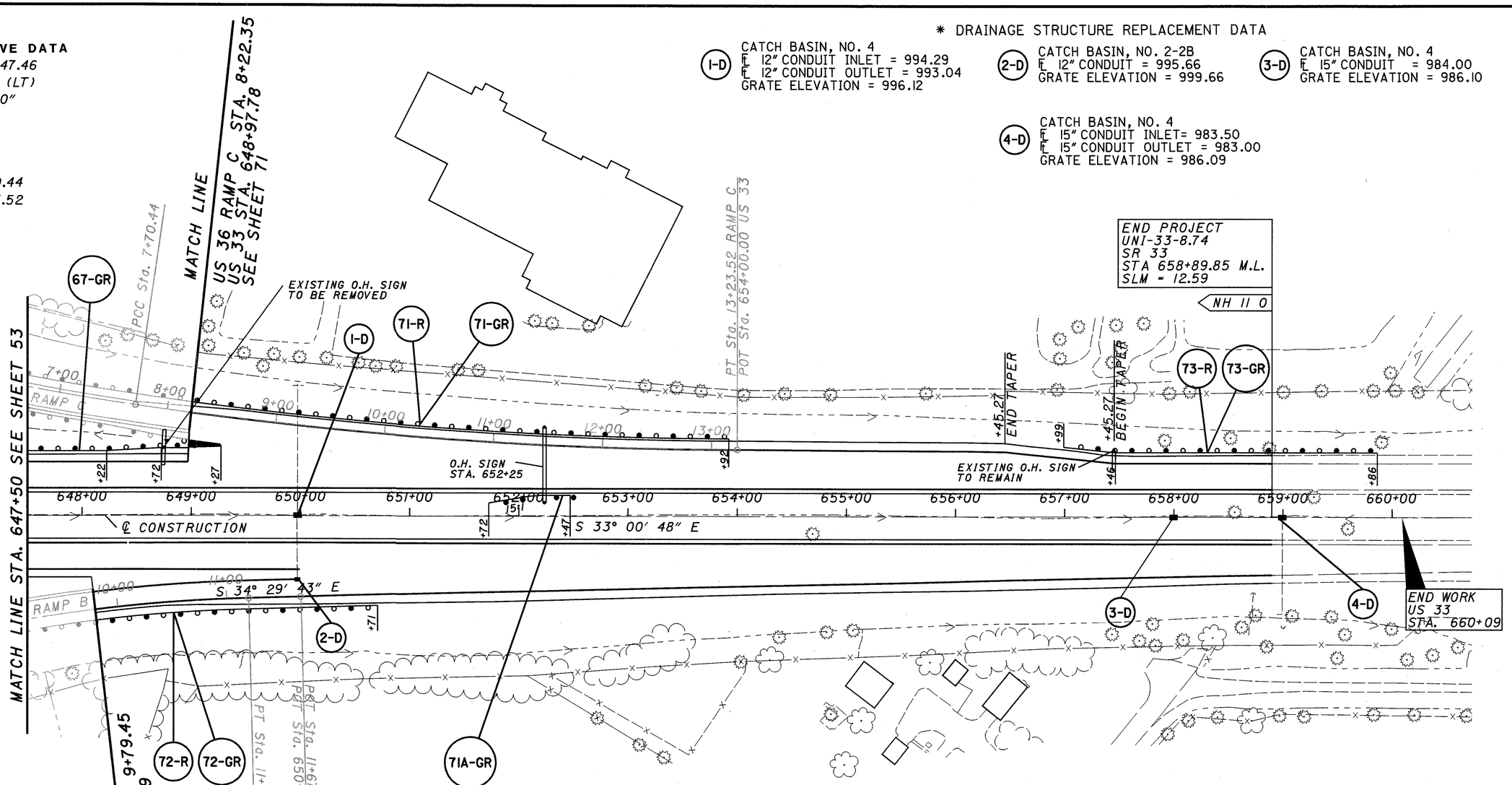
* DRAINAGE STRUCTURE REPLACEMENT DATA

(1-D) CATCH BASIN, NO. 4
℄ 12″ CONDUIT INLET = 994.29
℄ 12″ CONDUIT OUTLET = 993.04
GRATE ELEVATION = 996.12

(2-D) CATCH BASIN, NO. 2-2B
℄ 12″ CONDUIT = 995.66
GRATE ELEVATION = 999.66

(3-D) CATCH BASIN, NO. 4
℄ 15″ CONDUIT = 984.00
GRATE ELEVATION = 986.10

(4-D) CATCH BASIN, NO. 4
℄ 15″ CONDUIT INLET= 983.50
℄ 15″ CONDUIT OUTLET = 983.00
GRATE ELEVATION = 986.09



* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED EACH	603 12" CONDUIT, TYPE B LF	603 15" CONDUIT, TYPE B LF	603 15" CONDUIT, TYPE C LF	604 CATCH BASIN, NO. 4 EACH	604 CATCH BASIN, NO. 2-2B EACH	REMARKS
1-D	649+97	649+97	MED	1	16			1		* SEE ABOVE FOR ELEVATIONS
2-D	649+97	649+97	RT	1	8				1	* SEE ABOVE FOR ELEVATIONS
3-D	658+00	658+00	MED	1			8	1		* SEE ABOVE FOR ELEVATIONS
4-D	659+00	659+00	MED	1		8	8	1		* SEE ABOVE FOR ELEVATIONS
TOTALS CARRIED TO GENERAL SUMMARY				4	24	8	16	3	1	

BENCH MARK #35
ELEV. 994.379
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 651+00

BENCH MARK #36
ELEV. 988.289
IRON PIN IN CONCRETE ON CENTERLINE OF US 33. US 33 STA. 655+00

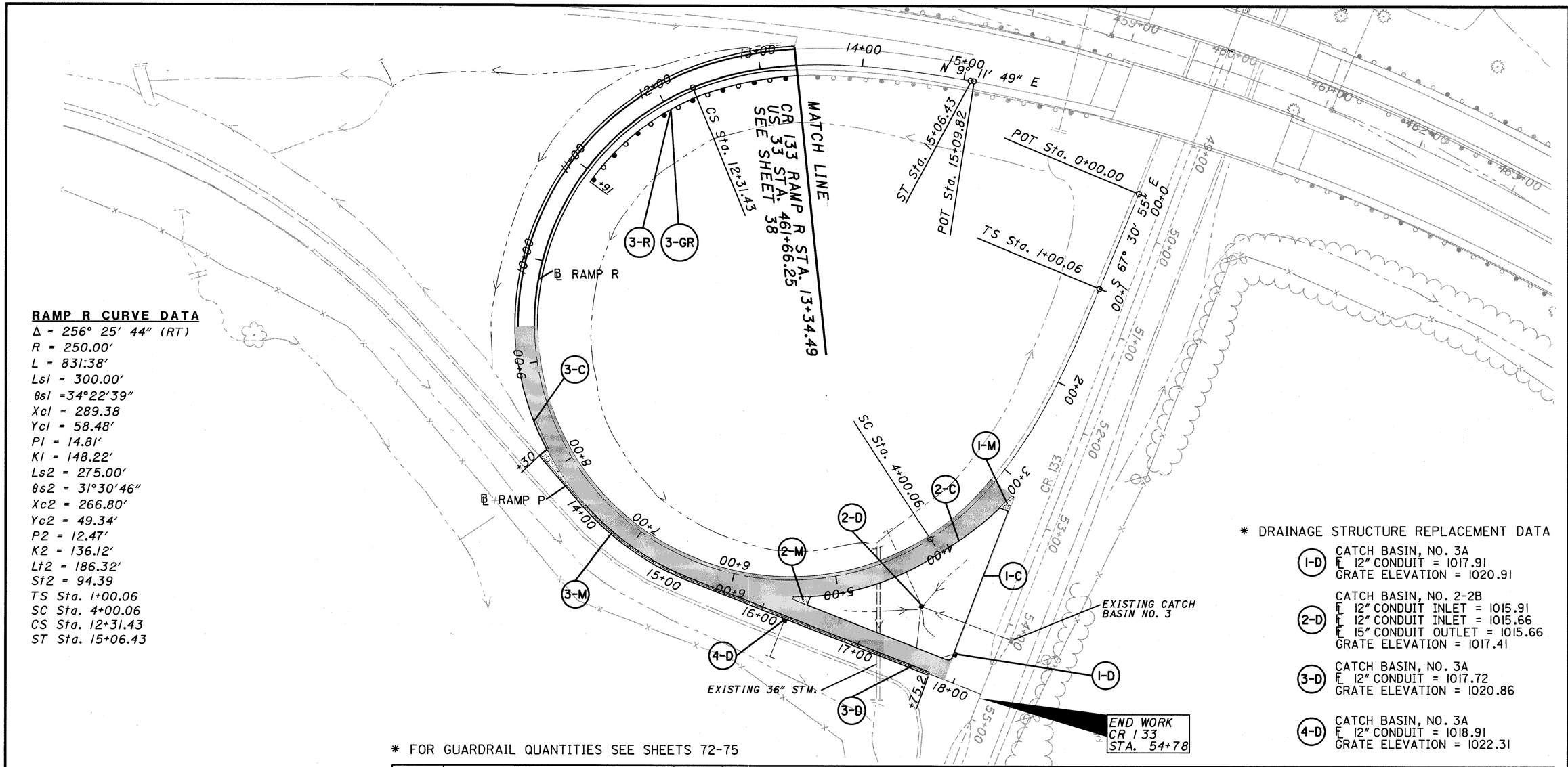
RAMP B CURVE DATA
P.I. Sta = 8+72.75
Δ = 20° 00′ 00″ (RT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 252.57′
L = 500.00′
E = 22.10′
PC Sta. 6+20.18
PT Sta. 11+20.18

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 33 STA. 647+50 TO STA. 660+00
UNI-33-8.74

54
174

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RAMP R CURVE DATA

Δ = 256° 25′ 44″ (RT)
R = 250.00′
L = 831:38′
Lsl = 300.00′
θsl =34°22′39″
Xcl = 289.38
Ycl = 58.48′
Pl = 14.81′
Kl = 148.22′
Ls2 = 275.00′
θs2 = 31°30′46″
Xc2 = 266.80′
Yc2 = 49.34′
P2 = 12.47′
K2 = 136.12′
Lt2 = 186.32′
St2 = 94.39
TS Sta. 1+00.06
SC Sta. 4+00.06
CS Sta. 12+31.43
ST Sta. 15+06.43

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* DRAINAGE STRUCTURE REPLACEMENT DATA

1-D — CATCH BASIN, NO. 3A
℄ 12" CONDUIT = 1017.91
GRATE ELEVATION = 1020.91

2-D — CATCH BASIN, NO. 2-2B
℄ 12" CONDUIT INLET = 1015.91
℄ 12" CONDUIT INLET = 1015.66
℄ 15" CONDUIT OUTLET = 1015.66
GRATE ELEVATION = 1017.41

3-D — CATCH BASIN, NO. 3A
℄ 12" CONDUIT = 1017.72
GRATE ELEVATION = 1020.86

4-D — CATCH BASIN, NO. 3A
℄ 12" CONDUIT = 1018.91
GRATE ELEVATION = 1022.31

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION		SIDE	202			603		604		830		REMARKS
	FROM	TO		CONCRETE MEDIAN REMOVED	CURB REMOVED	CATCH BASIN REMOVED	12" CONDUIT, TYPE B	15" CONDUIT, TYPE B	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 2-2B	CURB, TYPE 6	CONCRETE MEDIAN	
				SY	LF	EACH	LF	LF	EACH	EACH	LF	SY	
1-D	54+47	54+47	RT			1	8		1				* SEE ABOVE FOR ELEVATIONS
2-D	4+35	4+35	LT			1	16	8		1			* SEE ABOVE FOR ELEVATIONS
3-D	17+60	17+60	LT			1	16		1				* SEE ABOVE FOR ELEVATIONS
4-D	16+25	16+25	RT			1	8		1				* SEE ABOVE FOR ELEVATIONS
1-M	3+14.9	3+31.2	LT	11								11	
2-M	5+25.7	5+42	LT	12								12	
3-M	13+30	17+75.2	℄	175								175	
1-C	52+98	16+40	RT-LT		305						305		
2-C	3+31.2	5+25.7	RT		194.5						194.5		
3-C	8+18	8+88	LT		70						70		
TOTALS CARRIED TO GENERAL SUMMARY				198	569.5	4	48	8	3	1	569.5	198	

PLAN AND SUBSUMMARY
CR 133 RAMP R

UNI-33-8.74

56
174

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MB
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RAMP S CURVE DATA

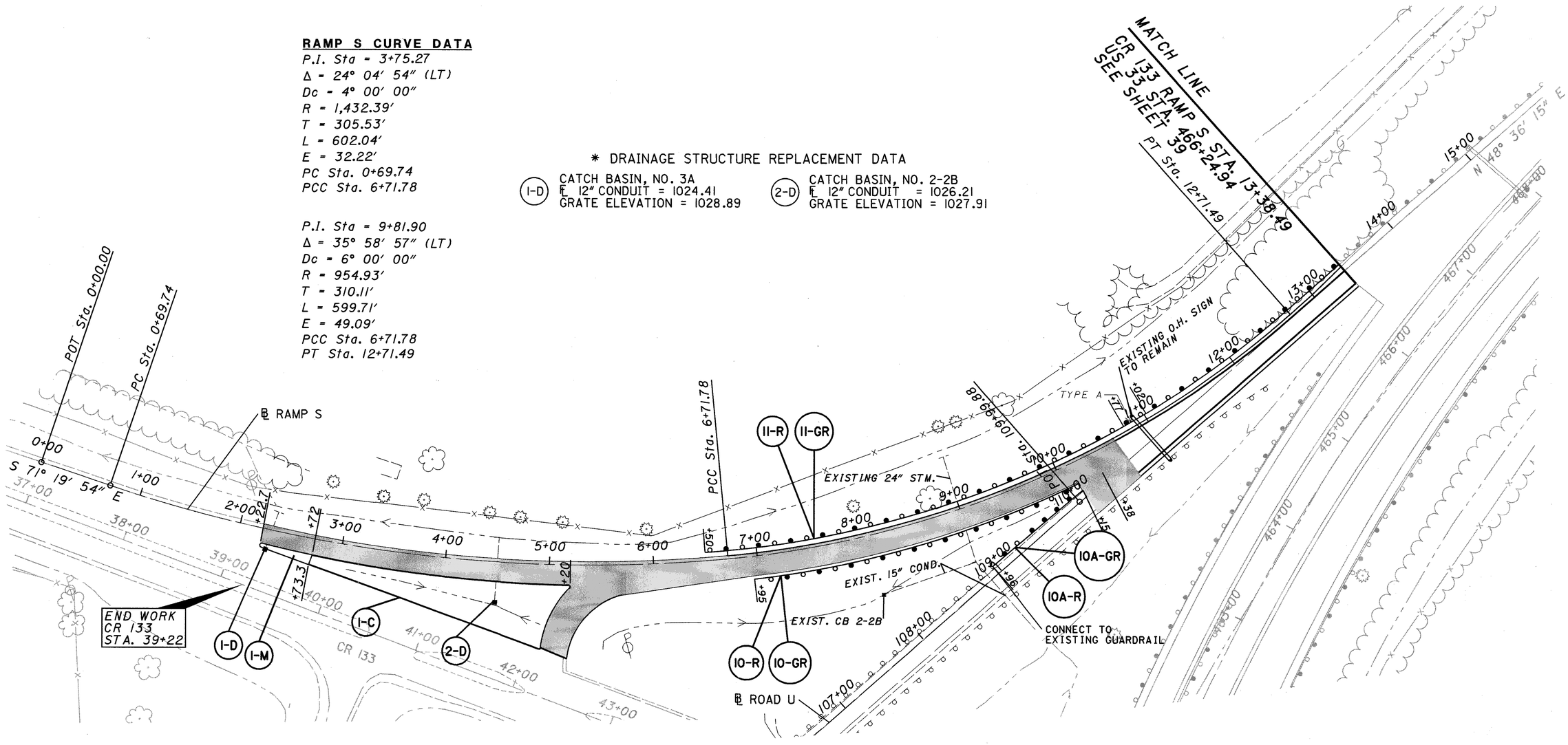
P.I. Sta = 3+75.27
Δ = 24° 04′ 54″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 305.53′
L = 602.04′
E = 32.22′
PC Sta. 0+69.74
PCC Sta. 6+71.78

P.I. Sta = 9+81.90
Δ = 35° 58′ 57″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 310.11′
L = 599.71′
E = 49.09′
PCC Sta. 6+71.78
PT Sta. 12+71.49

* DRAINAGE STRUCTURE REPLACEMENT DATA

(1-D) CATCH BASIN, NO. 3A
℄ 12" CONDUIT = 1024.41
GRATE ELEVATION = 1028.89

(2-D) CATCH BASIN, NO. 2-2B
℄ 12" CONDUIT = 1026.21
GRATE ELEVATION = 1027.91



* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED	202 CURB REMOVED	202 CATCH BASIN REMOVED	603 12" CONDUIT, TYPE B	604 CATCH BASIN, NO. 3A	604 CATCH BASIN, NO. 2-2B	830 CURB, TYPE 6	830 CONCRETE MEDIAN	REMARKS
				SY	LF	EACH	LF	EACH	EACH	LF	SY	
I-D	2+30	2+30	RT			1	8	1				* SEE ABOVE FOR ELEVATIONS
2-D	4+50	4+50	RT			1	8		1			* SEE ABOVE FOR ELEVATIONS
I-M	2+22.7	2+73.3	RT	30							30	
I-C	2+72	5+20	RT		556.5					556.5		
TOTALS CARRIED TO GENERAL SUMMARY				30	556.5	2	16	1	1	556.5	30	

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
CR 133 RAMP S & ROAD U

UNI-33-8.74

57
174

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EXISTING UNDERGROUND GAS LINE

℄ RAMP E

28-R

28-GR

35-R

35-GR

END WORK SR 31 STA. 54+15

℄ SR 31

END WORK SR 31 STA. 31+98

26-R

26-GR

EXISTING UNDERGROUND GAS LINE

27-R

27-GR

℄ RAMP F

℄ RAMP H

℄ RAMP G

75-R

℄ US 33

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

HORIZONTAL SCALE IN FEET

0 40 80 160

CALCULATED MB

CHECKED

PLAN AND SUBSUMMARY

SR 31

UNI-33-8.74

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* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

HORIZONTAL SCALE IN FEET
0 25 50 100

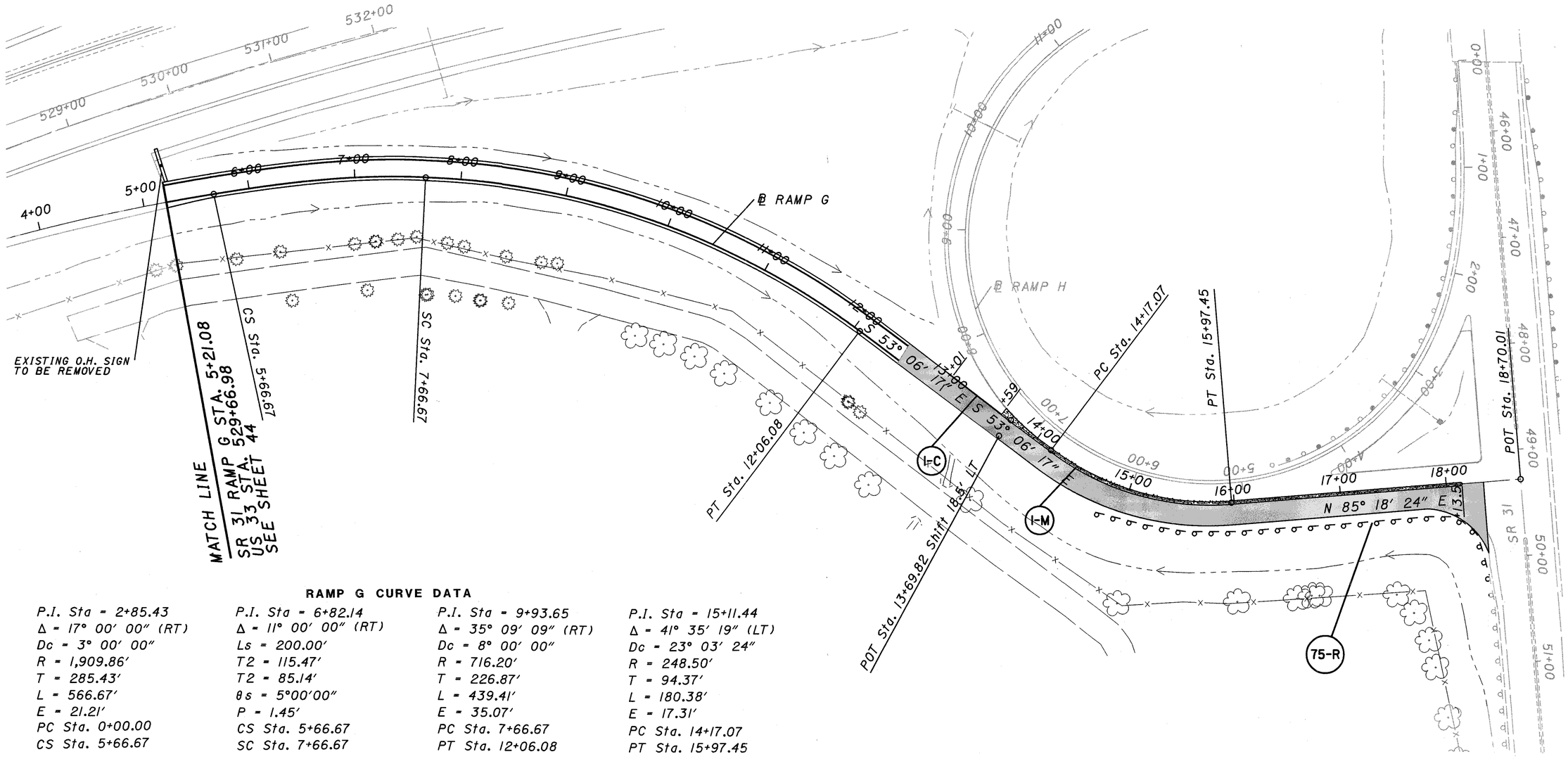
CALCULATED MB
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PLAN AND SUBSUMMARY
SR 31 RAMP F

UNI-33-8.74

59
174

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RAMP G CURVE DATA

P.I. Sta = 2+85.43	P.I. Sta = 6+82.14	P.I. Sta = 9+93.65	P.I. Sta = 15+11.44
Δ = 17° 00′ 00″ (RT)	Δ = 11° 00′ 00″ (RT)	Δ = 35° 09′ 09″ (RT)	Δ = 41° 35′ 19″ (LT)
Dc = 3° 00′ 00″	Ls = 200.00′	Dc = 8° 00′ 00″	Dc = 23° 03′ 24″
R = 1,909.86′	T2 = 115.47′	R = 716.20′	R = 248.50′
T = 285.43′	T2 = 85.14′	T = 226.87′	T = 94.37′
L = 566.67′	θs = 5°00′00″	L = 439.41′	L = 180.38′
E = 21.21′	P = 1.45′	E = 35.07′	E = 17.31′
PC Sta. 0+00.00	CS Sta. 5+66.67	PC Sta. 7+66.67	PC Sta. 14+17.07
CS Sta. 5+66.67	SC Sta. 7+66.67	PT Sta. 12+06.08	PT Sta. 15+97.45

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED	202 CURB REMOVED	830 CURB, TYPE 6	830 CONCRETE MEDIAN	REMARKS
				SY	LF	LF	SY	
I-M	13+59	18+13.5	℄	170			170	
I-C	13+01	13+59	LT		58	58		
TOTALS CARRIED TO GENERAL SUMMARY				170	58	58	170	

PLAN AND SUBSUMMARY
SR 31 RAMP G

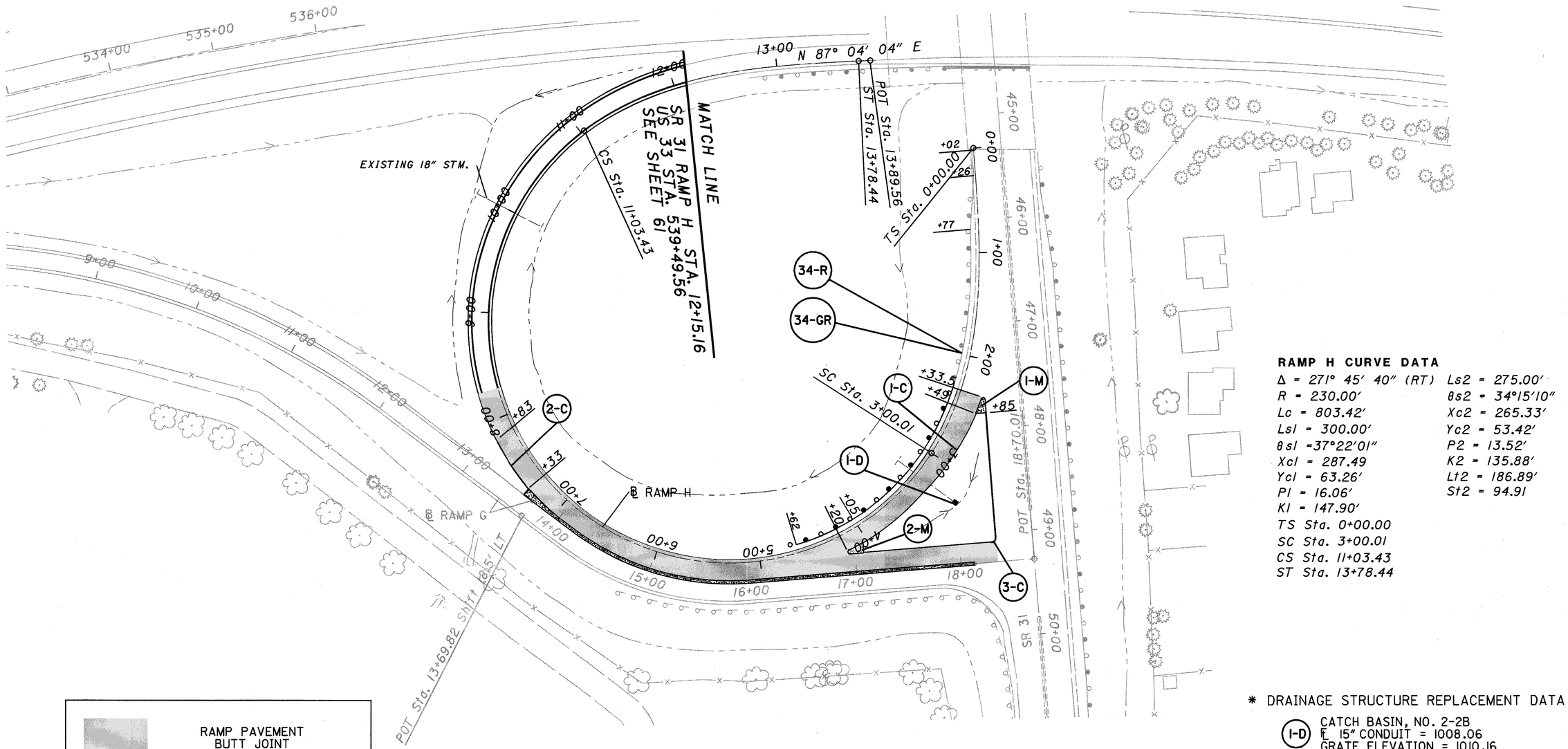
CALCULATED MB
CHECKED

HORIZONTAL SCALE IN FEET
0 25 50 100

UNI-33-8.74

60
174

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RAMP H CURVE DATA

Δ = 271° 45' 40" (RT)	Ls2 = 275.00'
R = 230.00'	θs2 = 34°15'10"
Lc = 803.42'	Xc2 = 265.33'
Ls1 = 300.00'	Yc2 = 53.42'
θs1 =37°22'01"	P2 = 13.52'
Xc1 = 287.49	K2 = 135.88'
Yc1 = 63.26'	Lt2 = 186.89'
P1 = 16.06'	St2 = 94.91
K1 = 147.90'	
TS Sta. 0+00.00	
SC Sta. 3+00.01	
CS Sta. 11+03.43	
ST Sta. 13+78.44	

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* DRAINAGE STRUCTURE REPLACEMENT DATA

(1-D) CATCH BASIN, NO. 2-2B
℄ 15" CONDUIT = 1008.06
GRATE ELEVATION = 1010.16

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED	202 CURB REMOVED	202 CATCH BASIN REMOVED	603 15" CONDUIT, TYPE B	604 CATCH BASIN, NO. 2-2B	830 CURB, TYPE 6	830 CONCRETE MEDIAN	REMARKS
				SY	LF	EACH	LF	EACH	LF	SY	
1-D	3+25	3+25	LT			1	8	1			* SEE ABOVE FOR ELEVATIONS
1-M	2+33.5	2+49	LT	13						13	
2-M	4+05	4+20	LT	13						13	
1-C	2+49	4+05	LT		156				156		
2-C	7+33	7+83	LT		50				50		
3-C	47+85	17+09	RT-LT		252				252		
TOTALS CARRIED TO GENERAL SUMMARY				26	458	1	8	1	458	26	

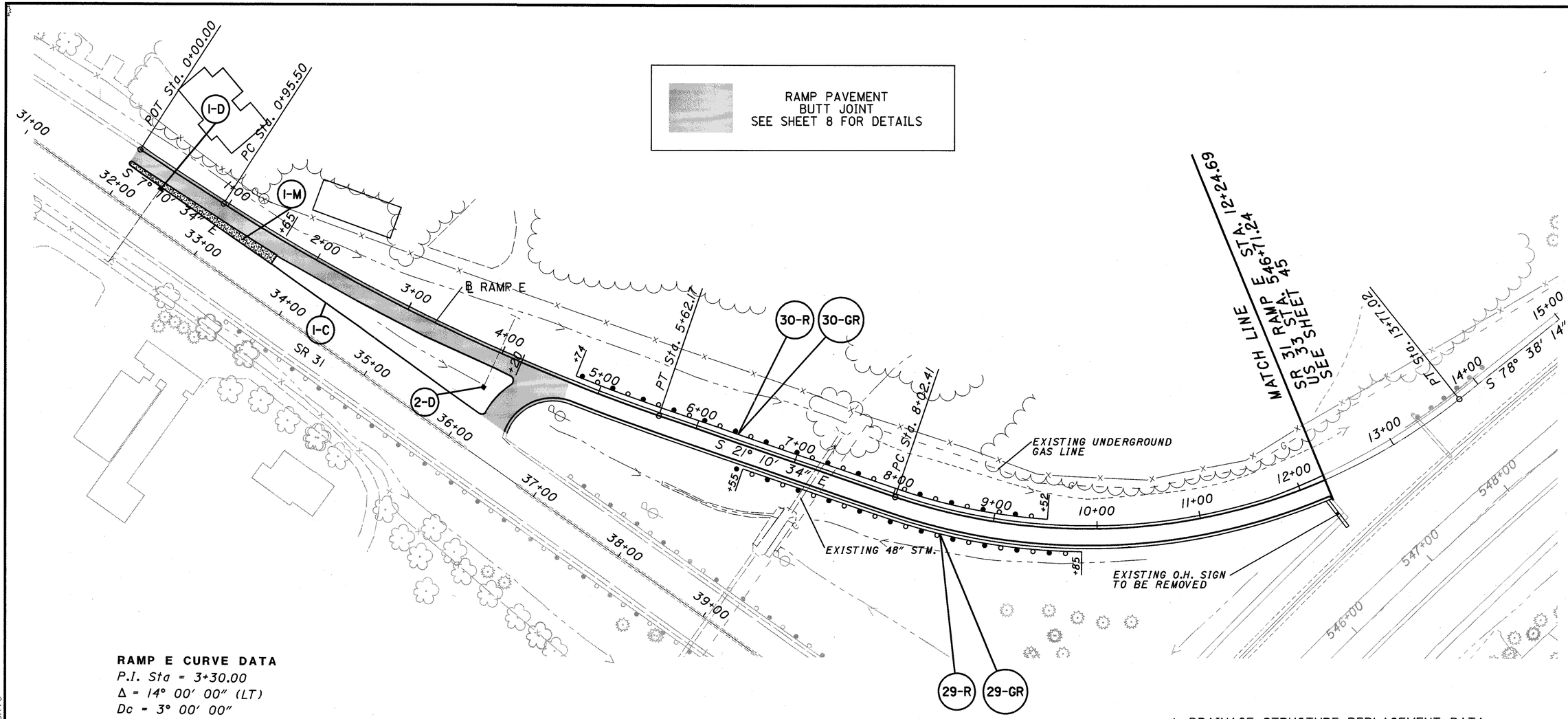
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
SR 31 RAMP H

UNI-33-8.74

61
174

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RAMP E CURVE DATA

P.I. Sta = 3+30.00
Δ = 14° 00′ 00″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 234.50′
L = 466.67′
E = 14.34′
PC Sta. 0+95.50
PT Sta. 5+62.17

P.I. Sta = 11+16.49
Δ = 57° 27′ 40″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 314.08′
L = 574.61′
E = 80.44′
PC Sta. 8+02.41
PT Sta. 13+77.02

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

* DRAINAGE STRUCTURE REPLACEMENT DATA

(I-D) CATCH BASIN, NO. 3A
FL 12" CONDUIT OUTLET = 998.41
GRATE ELEVATION = 1002.69

(2-D) CATCH BASIN, NO. 2-2B
FL 12" CONDUIT = 1001.16
GRATE ELEVATION = 1003.26

REF NO.	STATION		SIDE	202			603	604		830		REMARKS
				CONCRETE MEDIAN REMOVED	CURB REMOVED	CATCH BASIN REMOVED	12" CONDUIT, TYPE B	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 2-2B	CURB, TYPE 6	CONCRETE MEDIAN	
	FROM	TO		SY	LF	EACH	LF	EACH	EACH	LF	SY	
I-D	32+37	32+37	LT			1	8	1				* SEE ABOVE FOR ELEVATIONS
2-D	3+90	3+90	RT			1	8		1			* SEE ABOVE FOR ELEVATIONS
I-M	0+00	1+65	RT	126							126	
I-C	1+65	4+20	RT		554					554		
TOTALS CARRIED TO GENERAL SUMMARY				126	554	2	16	1	1	554	126	

HORIZONTAL SCALE IN FEET
0 25 50 100

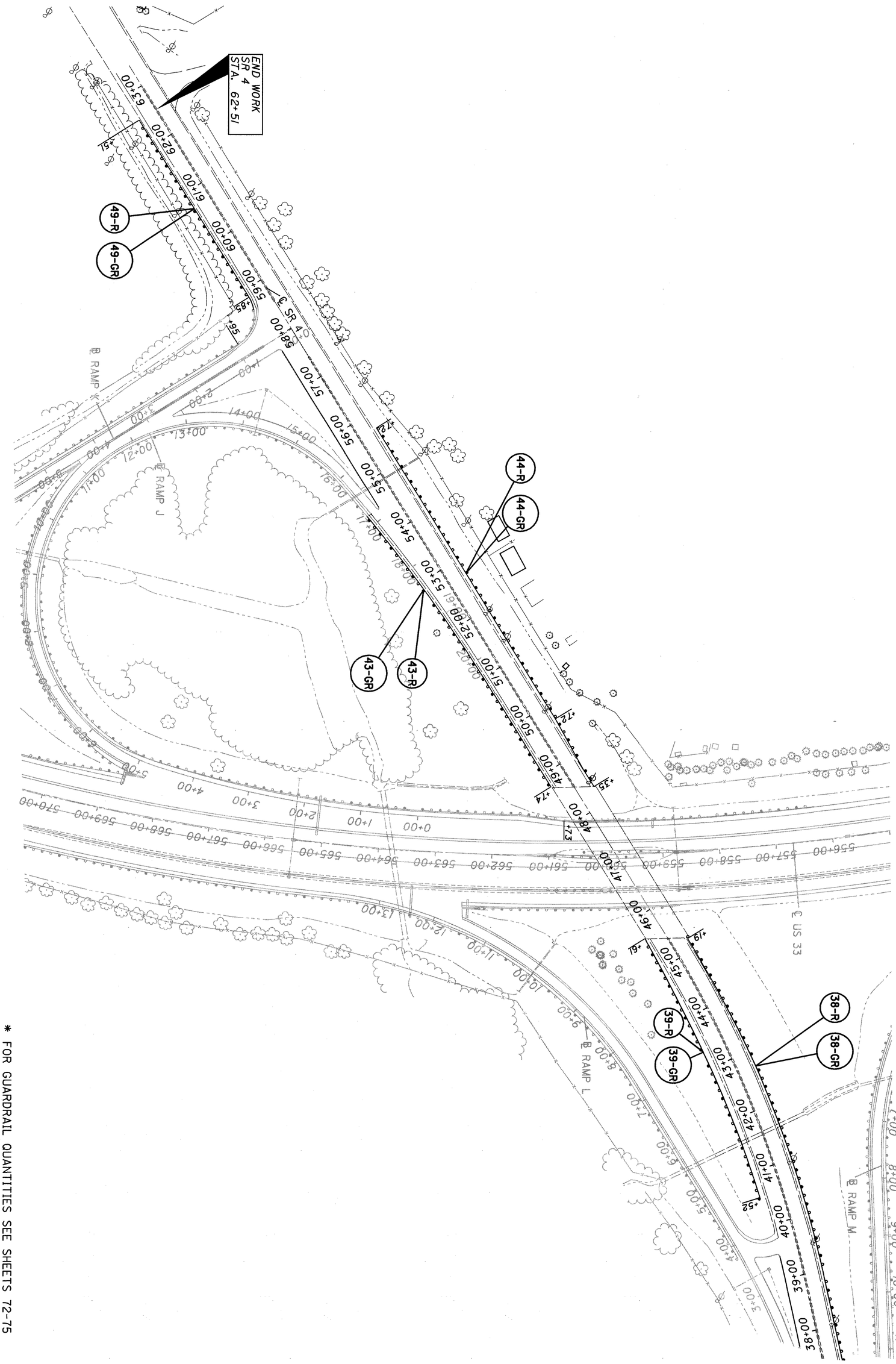
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
SR 31 RAMP E

UNI-33-8.74

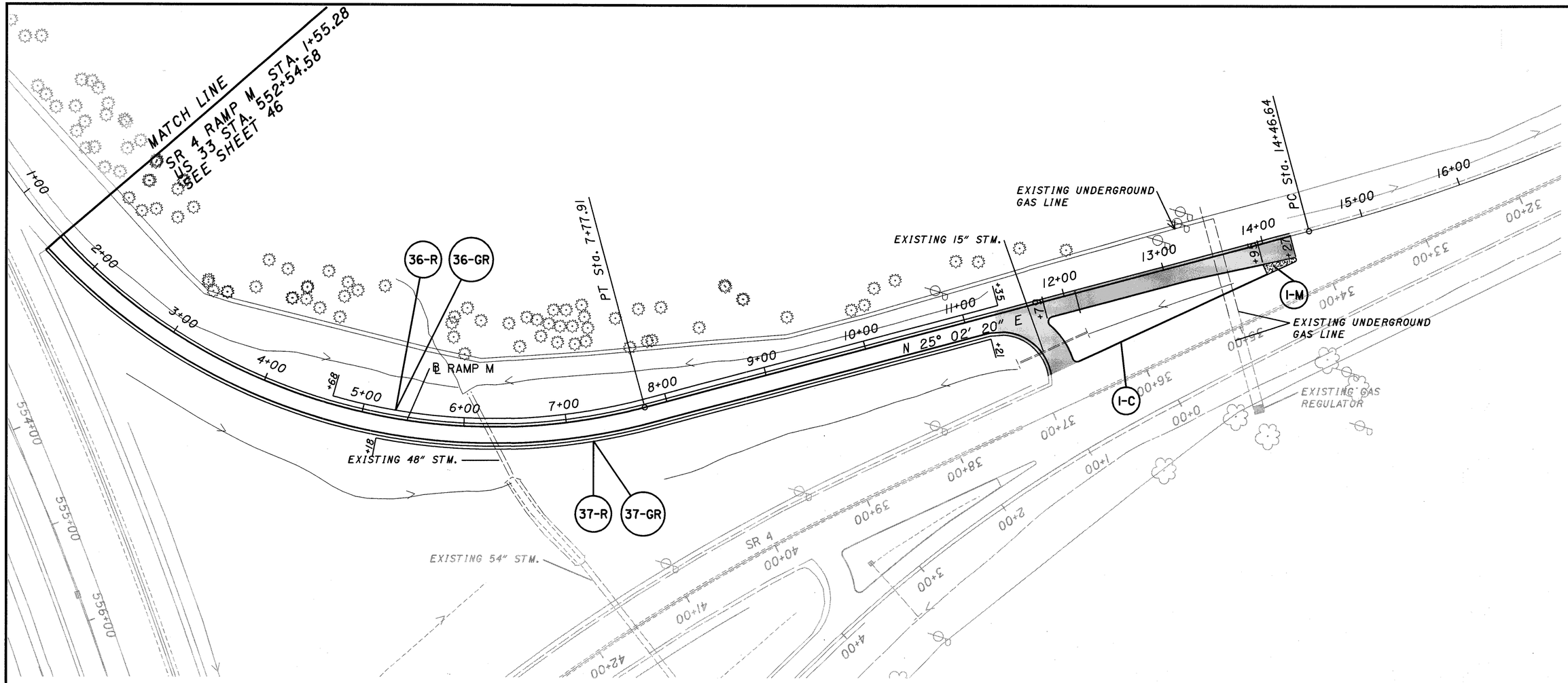
62
174

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* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

63/174	UNI-33-8.74	PLAN AND SUBSUMMARY SR 4	CALCULATED MB CHECKED	0 80 40 160 HORIZONTAL SCALE IN FEET	N



RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

RAMP M CURVE DATA

P.I. Sta = 16+13.73
Δ = 10° 00′ 00″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 167.09′
L = 333.33′
E = 7.30′
PC Sta. 14+46.64
PT Sta. 17+79.97

P.I. Sta = 4+62.24
Δ = 77° 47′ 27″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 462.24′
L = 777.91′
E = 163.21′
PC Sta. 0+00.00

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED	202 CURB REMOVED	830 CURB, TYPE 6	830 CONCRETE MEDIAN	REMARKS
				SY	LF	LF	SY	
I-M	13+95	14+27	RT	25			25	
I-C	11+79	13+95	RT		472	472		
TOTALS CARRIED TO GENERAL SUMMARY				25	472	472	25	

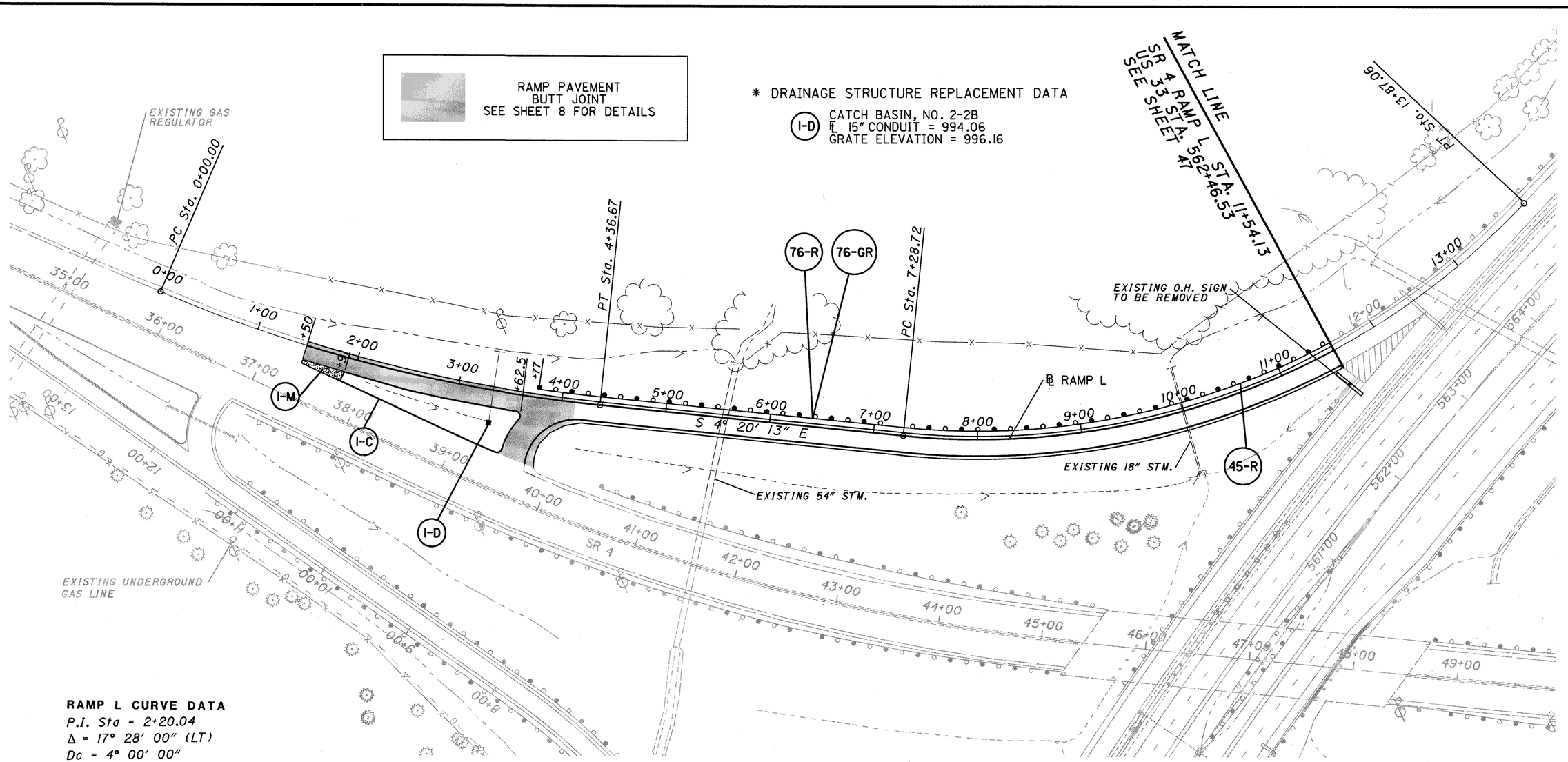
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
SR 4 RAMP M

UNI-33-8.74

64
174

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RAMP L CURVE DATA

P.I. Sta = 2+20.04
Δ = 17° 28′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 220.04′
L = 436.67′
E = 16.80′
PC Sta. 0+00.00
PT Sta. 4+36.67

P.I. Sta = 10+83.21
Δ = 52° 40′ 00″ (LT)
Dc = 8° 00′ 00″
R = 716.20′
T = 354.49′
L = 658.34′
E = 82.93′
PC Sta. 7+28.72
PT Sta. 13+87.06

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION		SIDE	202			603	604	830		REMARKS
	FROM	TO		CONCRETE MEDIAN REMOVED	CURB REMOVED	CATCH BASIN REMOVED	15" CONDUIT, TYPE B	CATCH BASIN, NO. 2-2B	CURB, TYPE 6	CONCRETE MEDIAN	
				SY	LF	EACH	LF	EACH	LF	SY	
I-D	3+34	3+34	RT			1	8	1			* SEE ABOVE FOR ELEVATIONS
I-M	1+50	1+91	RT	33						33	
I-C	1+91	3+62.5	RT		380				380		
TOTALS CARRIED TO GENERAL SUMMARY				33	380	1	8	1	380	33	

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
SR 4 RAMP L

UNI-33-8.74

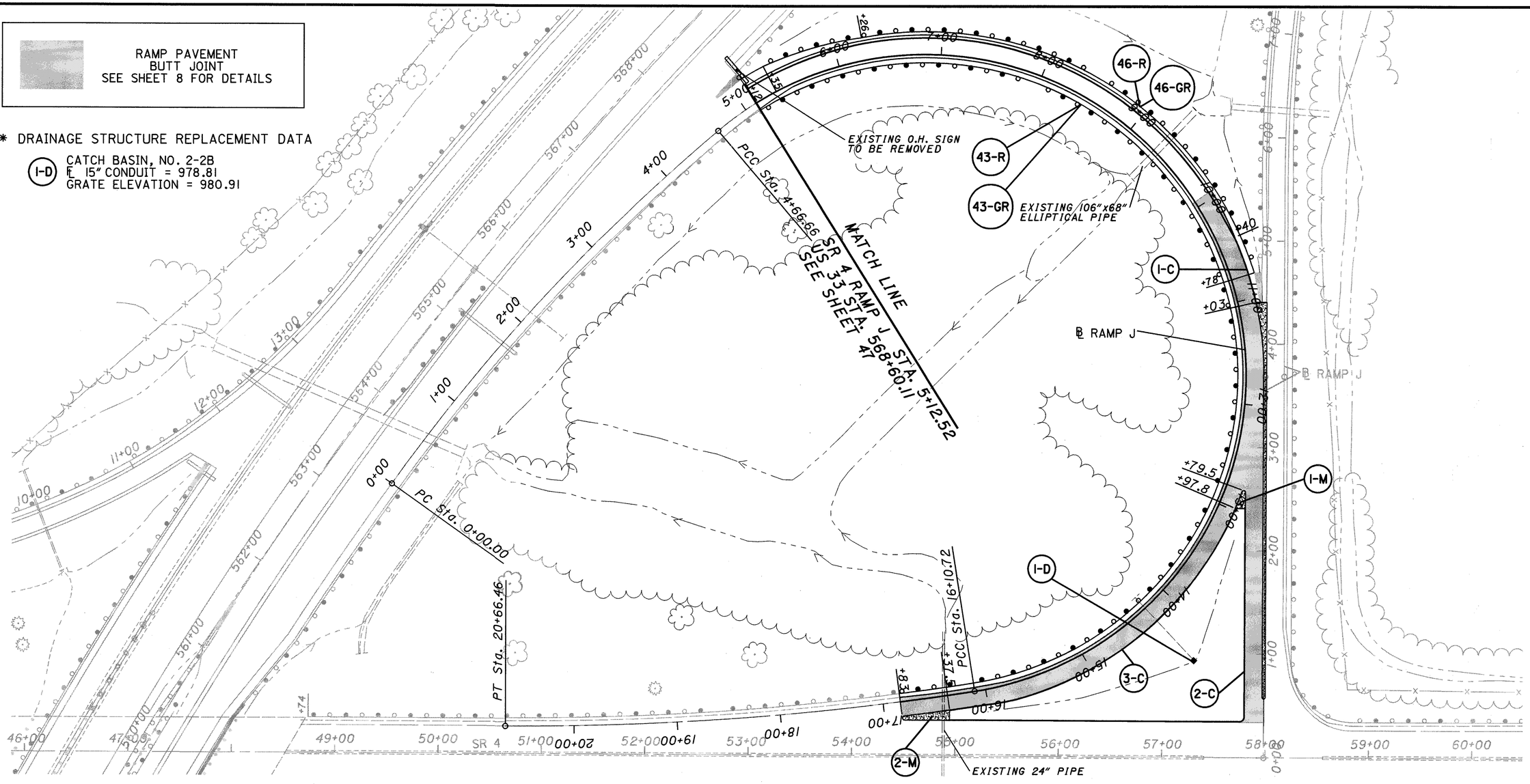
65
174

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RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* DRAINAGE STRUCTURE REPLACEMENT DATA

(I-D) CATCH BASIN, NO. 2-2B
℄ 15" CONDUIT = 978.81
GRATE ELEVATION = 980.91



RAMP J CURVE DATA

P.I. Sta = 2+34.50
Δ = 14° 00′ 00″ (RT)
Dc = 3° 00′ 00″
R = 1,909.85′
T = 234.50′
L = 466.66′
E = 14.34′
PC Sta. 0+00.00
PCC Sta. 4+66.66
Δ = 211° 27′ 01″ (RT)
R = 310.00′
L = 1144.06′
PCC Sta. 4+66.66
PCC Sta. 16+10.72

P.I. Sta = 18+39.07
Δ = 9° 06′ 53″ (RT)
Dc = 2° 00′ 00″
R = 2,864.79′
T = 228.35′
L = 455.74′
E = 9.09′
PCC Sta. 16+10.72
PT Sta. 20+66.46

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED SY	202 CURB REMOVED LF	202 CATCH BASIN REMOVED EACH	603 15" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 2-2B EACH	830 CURB, TYPE 6 LF	830 CONCRETE MEDIAN SY	REMARKS
I-D	14+25	14+25	LT			1	8	1			* SEE ABOVE FOR ELEVATIONS
I-M	12+79.5	12+97.8	LT	13						13	
2-M	16+37.5	16+83	LT	37						37	
I-C	10+40	11+03	LT		64				64		
2-C	12+94.5	16+38.8	LT		489				489		
3-C	12+97.8	16+37.5	LT		355				355		
TOTALS CARRIED TO GENERAL SUMMARY				50	908	1	8	1	908	50	

HORIZONTAL SCALE IN FEET
0 25 50 100

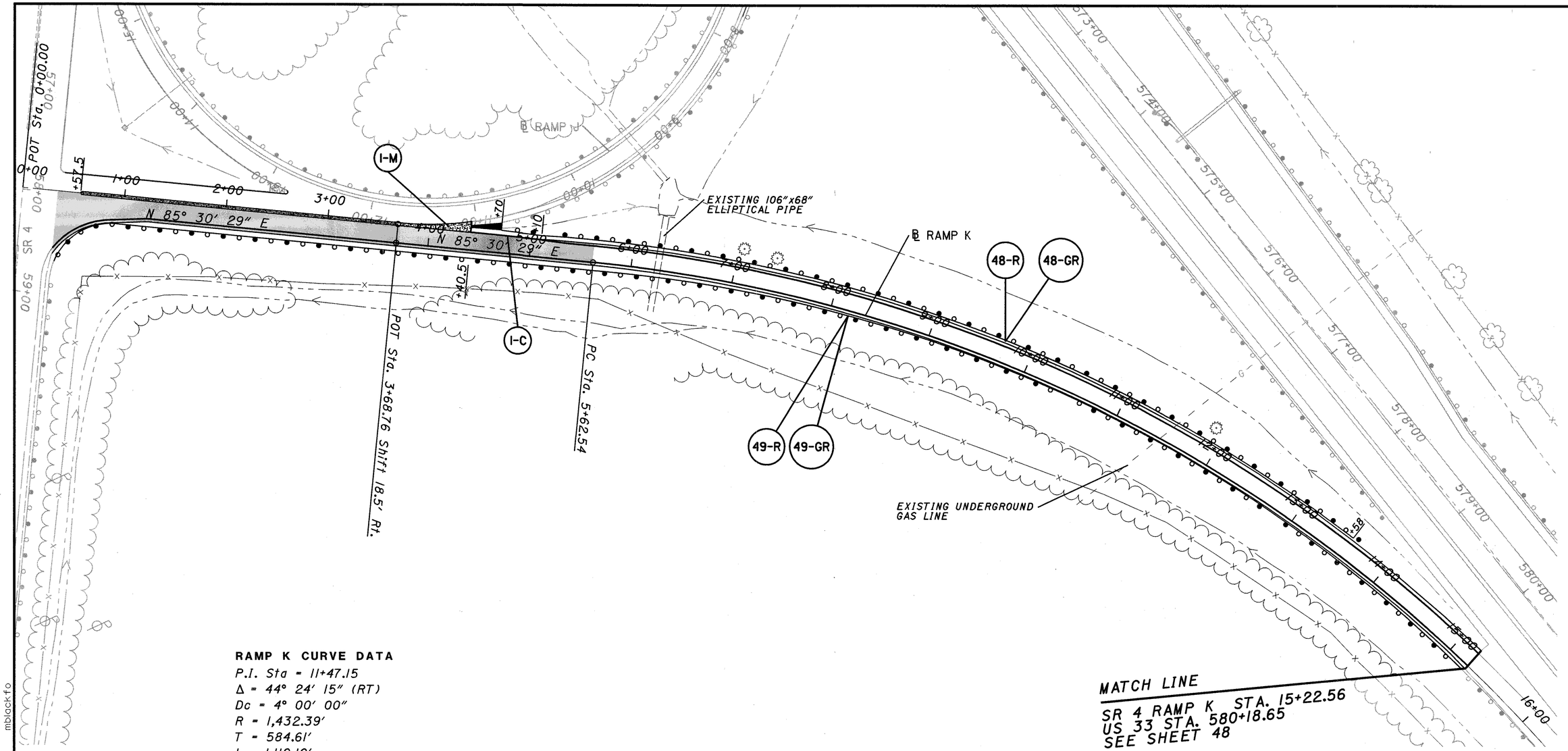
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
SR 4 RAMP J

UNI-33-8.74

66
174

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RAMP K CURVE DATA

P.I. Sta = 11+47.15
Δ = 44° 24' 15" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 584.61'
L = 1,110.10'
E = 114.71'
PC Sta. 5+62.54
PT Sta. 16+72.64

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION		SIDE	202		830		REMARKS
	FROM	TO		CONCRETE MEDIAN REMOVED	CURB REMOVED	CURB, TYPE 6	CONCRETE MEDIAN	
				SY	LF	LF	SY	
I-M	0+57.5	4+40.5	℄	146			146	
I-C	4+40.5	5+10	LT		70	70		
TOTALS CARRIED TO GENERAL SUMMARY				146	70	70	146	

HORIZONTAL SCALE IN FEET
0 25 50 100

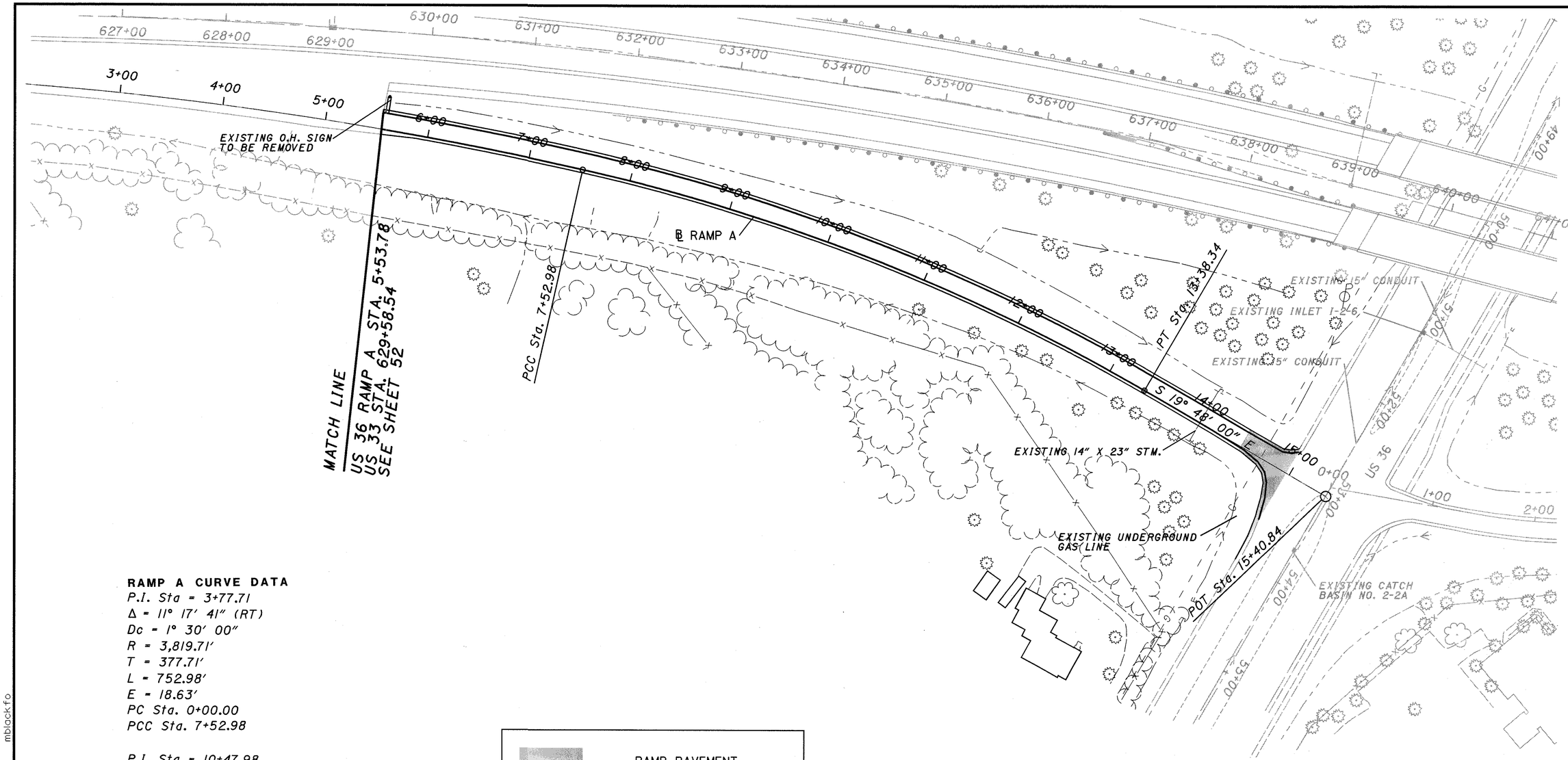
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
SR 4 RAMP K

UNI-33-8.74

67
174

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RAMP A CURVE DATA

P.I. Sta = 3+77.71
Δ = 11° 17′ 41″ (RT)
Dc = 1° 30′ 00″
R = 3,819.71′
T = 377.71′
L = 752.98′
E = 18.63′
PC Sta. 0+00.00
PCC Sta. 7+52.98

P.I. Sta = 10+47.98
Δ = 17° 33′ 39″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 294.99′
L = 585.36′
E = 22.65′
PCC Sta. 7+52.98
PT Sta. 13+38.34

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

HORIZONTAL SCALE IN FEET
0 25 50 100

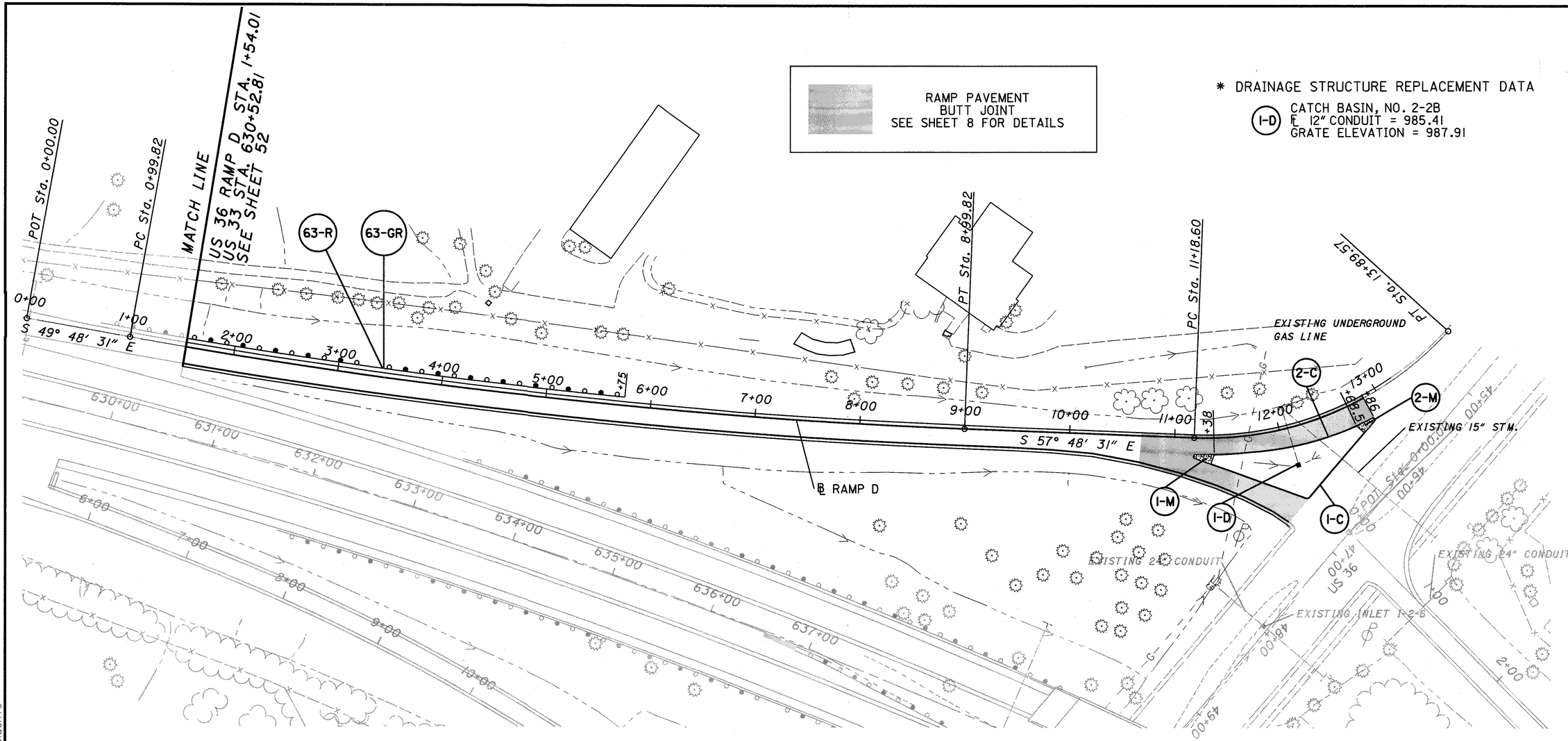
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 36 RAMP A

UNI-33-8.74

68
174

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RAMP D CURVE DATA

P.I. Sta = 5+00.47
Δ = 8° 00′ 00″ (LT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 400.65′
L = 800.00′
E = 13.99′
PC Sta. 0+99.82
PT Sta. 8+99.82

P.I. Sta = 12+63.43
Δ = 50° 04′ 56″ (LT)
Dc = 18° 28′ 57″
R = 310.00′
T = 144.83′
L = 270.97′
E = 32.16′
PC Sta. 11+18.60
PT Sta. 13+89.57

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

REF NO.	STATION FROM	STATION TO	SIDE	202 CONCRETE MEDIAN REMOVED SY	202 CURB REMOVED LF	202 CATCH BASIN REMOVED EACH	603 12" CONDUIT, TYPE B LF	604 CATCH BASIN, NO. 2-2B EACH	830 CURB, TYPE 6 LF	830 CONCRETE MEDIAN SY	REMARKS
I-D	12+08	12+08	RT			1	8	1			* SEE ABOVE FOR ELEVATIONS
I-M	11+18.5	11+38	RT	13						13	
2-M	12+68.5	12+86	RT	13						13	
I-C	11+34	12+72.5	RT		181				181		
2-C	11+38	12+68.5	RT		140				140		
TOTALS CARRIED TO GENERAL SUMMARY				26	321	1	8	1	321	26	

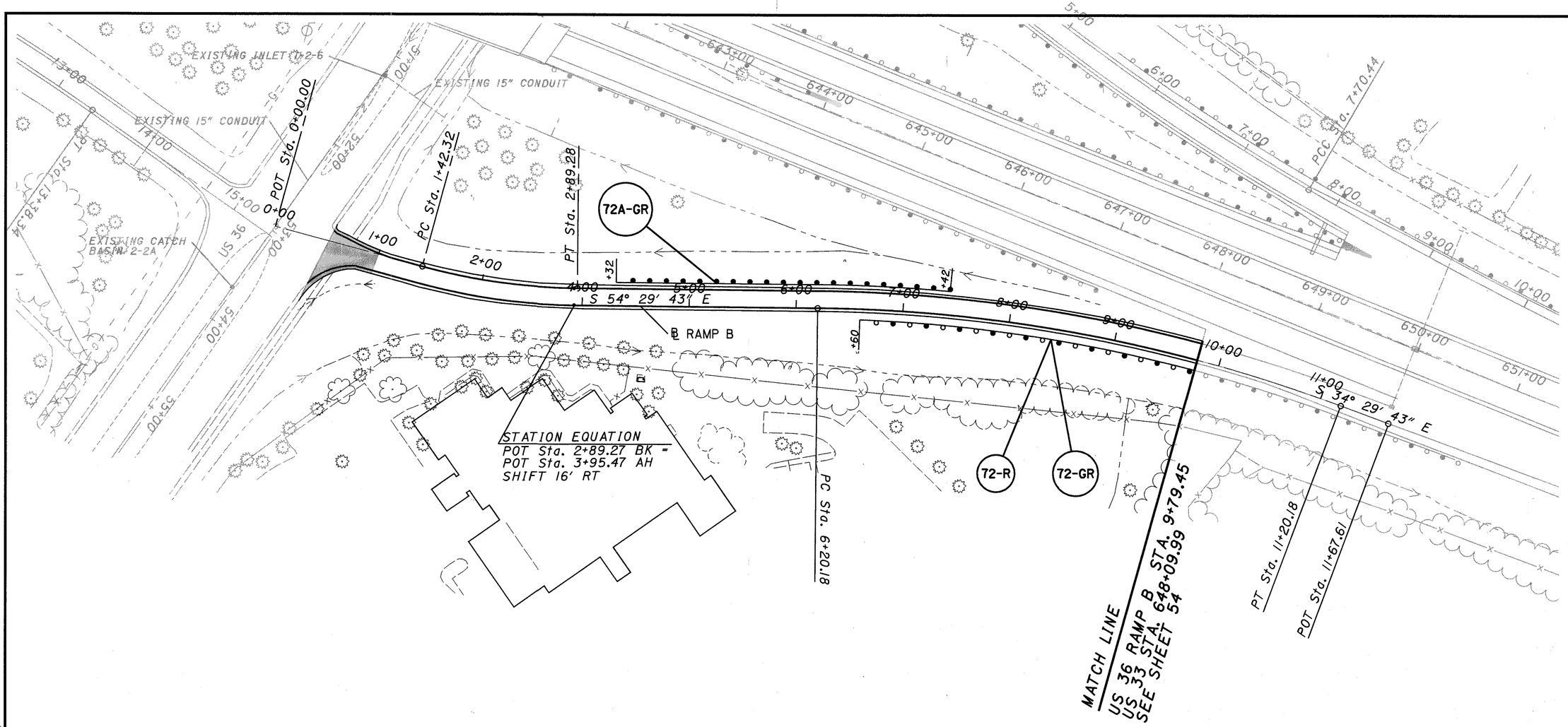
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 36 RAMP D

UNI-33-8.74

69
174

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RAMP B CURVE DATA

P.I. Sta = 2+16.19
Δ = 53° 23' 44" (RT)
Dc = 10°
R = 572.96'
T = 73.88'
L = 146.95'
E = 4.74'
PC Sta. 1+42.31
PT Sta. 2+89.26

P.I. Sta = 8+72.75
Δ = 20° 00' 00" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 252.57'
L = 500.00'
E = 22.10'
PC Sta. 6+20.18
PT Sta. 11+20.18

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

HORIZONTAL SCALE IN FEET
0 25 50 100

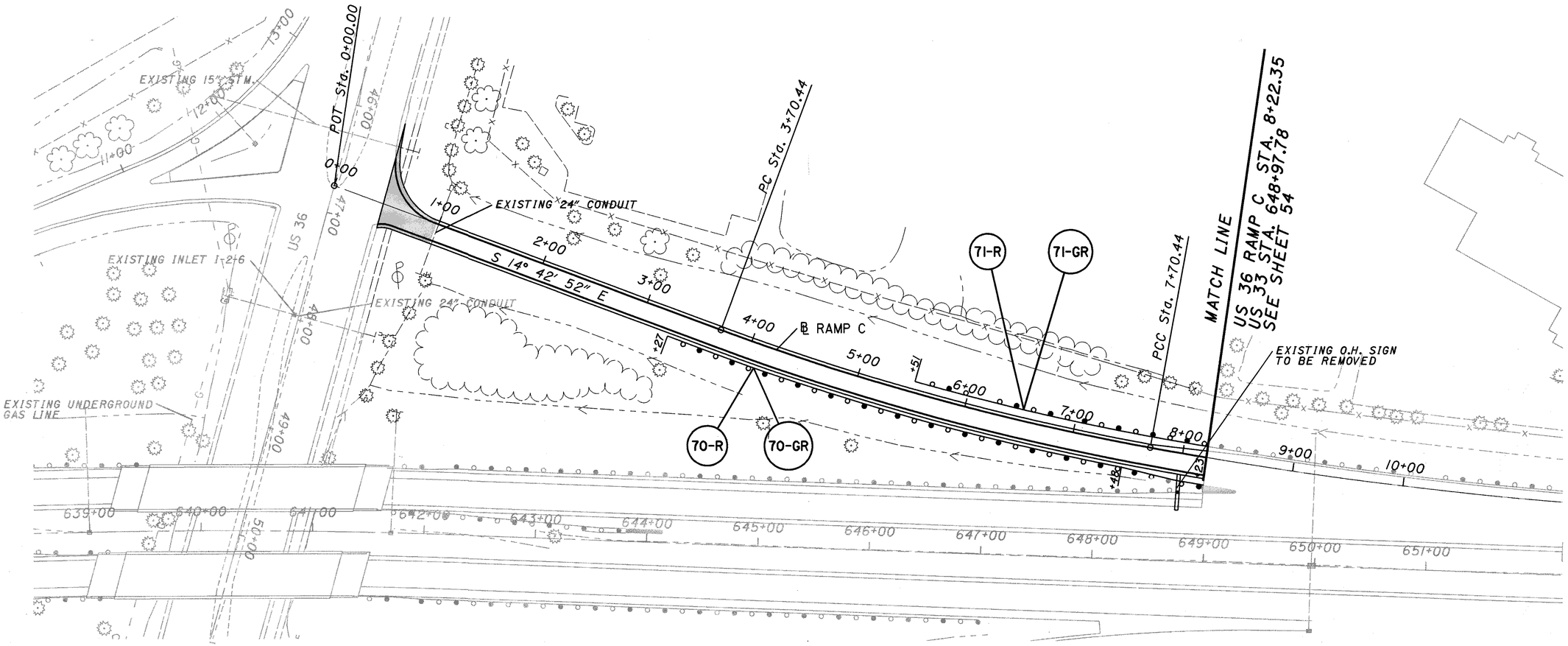
CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 36 RAMP B

UNI-33-8.74

70
174

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RAMP C CURVE DATA

P.I. Sta = 5+70.95
Δ = 10° 00′ 00″ (LT)
Dc = 2° 30′ 00″
R = 2,291.83′
T = 200.51′
L = 400.00′
E = 8.75′
PC Sta. 3+70.44
PCC Sta. 7+70.44

P.I. Sta = 10+47.46
Δ= 8° 17′ 46″ (LT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 277.02′
L = 553.07′
E = 10.03′
PCC Sta. 7+70.44
PT Sta. 13+23.52

RAMP PAVEMENT
BUTT JOINT
SEE SHEET 8 FOR DETAILS

* FOR GUARDRAIL QUANTITIES SEE SHEETS 72-75

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MB
CHECKED

PLAN AND SUBSUMMARY
US 36 RAMP C

UNI-33-8.74

71
174

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REFERENCE	SHEET NUMBERS	LOCATION					ITEM 202						SPECIAL
		BEGIN		END		SIDE	GUARDRAIL REMOVED	GUARDRAIL REMOVED BARRIER DESIGN	ANCHOR ASSEMBLY REMOVED TYPE A	ANCHOR ASSEMBLY REMOVED TYPE T	ANCHOR ASSEMBLY REMOVED BARRIER DESIGN	BRIDGE TERMINAL ASSEMBLY REMOVED	RESHAPING BERM
		ROADWAY	STATION	ROADWAY	STATION		LF	LF	EACH	EACH	EACH	EACH	LF
1-R	38	US 33	461+31.25	US 33	459+04.51	LT	356.25		1			1	381.25
2-R	38	US 33	458+97.39	US 33	463+14.57	MED	87.50	62.5			1	1	175
3-R	38,56	RAMP R	11+55.79	US 33	458+91.67	RT	450.00		1			1	475
7-R	39	US 33	460+84.54	US 33	464+61.08	LT	362.50		1			1	387.5
8-R	39	US 33	460+83.99	US 33	462+54.78	MED	87.50	62.5			1		175
9-R	39,40	US 33	460+85.02	US 33	473+81.34	RT	1275.00					2	1275
10-R	57	RAMP S	6+99.78	RAMP S	9+34.33	RT	337.50		1	1			375
10A-R	39,57	ROAD U	108+99	ROAD U	109+43.88	LT	25.00		1				50
11-R	39,40,57	RAMP S	6+92.35	US 33	473+61.29	LT	1387.50			1		1	1400
12-R	39	US 33	467+58.39	US 33	469+19.50	MED	125.00		1	1			162.5
13-R	39,40	US 33	417+99.69	US 33	473+73.95	MED	87.50	62.5	1			1	175
14-R	40	US 33	475+30.54	US 33	476+55.92	LT	156.25					2	156.25
15-R	40	US 33	475+40.75	US 33	476+58.08	MED	150.00					2	150
16-R	40	US 33	475+49.24	US 33	476+59.95	MED	143.75					2	143.75
17-R	40	US 33	475+59.55	US 33	476+62.16	RT	137.50						137.5
18-R	40	US 33	478+06.04	US 33	479+71.95	MED	87.50	62.5	1			1	175
19-R	40	US 33	478+13.38	US 33	482+97.54	LT	518.75					1	518.75
20-R	40	US 33	482+96.47	US 33	478+19.65	RT	506.25					1	506.25
21-R	40	US 33	481+49.89	US 33	482+93.60	MED	87.50	62.5			1	1	175
22-R	41	US 33	485+43.43	US 33	486+87.61	MED	87.50	62.5			1	1	175
23-R	41	US 33	485+43.81	US 33	489+41.34	LT	387.50		1			1	412.5
24-R	41	US 33	485+42.72	US 33	489+59.58	RT	425.00			1		1	437.5
25-R	43	US 33	513+46.45	US 33	515+36.66	LT	150.00		1	1			187.5
26-R	58,59	RAMP F	17+63.53	SR 31	34+81.08	LT/RT	750.00		1	1			787.5
27-R	58,59	RAMP F	17+70.34	SR 31	41+95.76	RT	412.50			1		1	425
28-R	58	SR 31	37+88.66	SR 31	42+01.82	LT	400.00			1		1	412.5
29-R	62	RAMP E	5+82.50	RAMP E	10+13.69	RT	412.50		1	1			450
30-R	62	RAMP E	4+15.36	RAMP E	9+56.40	LT	525.00		1	1			562.5
31-R	45	US 33	541+60.58	US 33	543+42.86	MED	375.00						375
32-R	45	US 33	541+77.49	US 33	543+98.87	LT	187.50		1	1			225
33-R	45	RAMP H	13+24.42	US 33	543+11.50	RT	200.00		1	1			237.5
34-R	61	RAMP H	0+01.00	RAMP H	5+38.03	RT	512.50		1			1	537.5
35-R	58	SR 31	45+39.30	SR 31	51+26.30	LT	562.50			1		1	575
36-R	64	RAMP M	3+83.32	RAMP M	9+28.44	LT	500.00		1	1			537.5
37-R	64	RAMP M	3+88.12	RAMP M	10+63.07	RT	675.00		1	1			712.5
38-R	63	SR 4	38+80.76	SR 4	45+21.20	RT	625.00		1			1	650
39-R	63	SR 4	40+75.58	SR 4	45+60.02	LT	462.50			1		1	475
40-R	46,47	US 33	558+86.54	US 33	561+03.05	LT	200.00		1	1			237.5
41-R	46,47	US 33	559+84.27	US 33	561+00.34	LT	400.00	25.0		2	1		475
42-R	46,47	US 33	559+00.79	US 33	560+82.26	MED	375.00						375
43-R	46,47,63,66	US 33	557+25.51	SR 4	48+73.32	RT/LT	2800.00		1			1	2825
44-R	63	SR 4	48+34.20	SR 4	56+22.20	RT	787.50			1		1	800
45-R	47,48,65	RAMP L	9+45.07	US 33	584+30.39	LT	2375.00		1	1			2412.5
46-R	66	RAMP J	5+69.06	RAMP J	10+01.71	LT	425.00		1	1			462.5
47-R	47,48	US 33	569+75.87	US 33	578+17.86	RT	800.00		1	1			837.5
48-R	67	RAMP K	5+40.83	RAMP K	13+39.21	LT	775.00		1	1			812.5
49-R	48,63,67	SR 4	62+18.89	RAMP K	16+27.34	LT/RT	1912.50		1	1			1950
50-R	49	US 33	590+89.51	US 33	595+08.31	RT	375.00		1	1			412.5
					TOTALS THIS SHEET:		25,243.75	400.0	27	26	5	29	26,768.75

CALCULATED TC
CHECKED DS

GUARDRAIL REMOVAL SUBSUMMARY

UNI-33-8.74

i:\Projects\7003.000\DGN\GS001.dgn 24-FEB-2000 8:20AM mblackfo

REFERENCE	SHEET NUMBERS	LOCATION					ITEM 202							SPECIAL
		BEGIN		END		SIDE	GUARDRAIL REMOVED	GUARDRAIL REMOVED FOR STORAGE	GUARDRAIL REMOVED BARRIER DESIGN	ANCHOR ASSEMBLY REMOVED TYPE A	ANCHOR ASSEMBLY REMOVED TYPE T	ANCHOR ASSEMBLY REMOVED BARRIER DESIGN	BRIDGE TERMINAL ASSEMBLY REMOVED	RESHAPING BERM
		ROADWAY	STATION	ROADWAY	STATION		LF	LF	LF	EACH	EACH	EACH	EACH	LF
51-R	50	US 33	600+69.62	US 33	602+22.11	MED	87.50		62.5			1	1	175
52-R	50	US 33	600+96.73	US 33	602+46.67	RT	150			1			1	175
53-R	50	US 33	603+52.35	US 33	606+31.77	LT	300						2	300
54-R	50	US 33	603+60.60	US 33	606+25.19	MED	275						2	275
55-R	50	US 33	603+90.36	US 33	606+27.38	MED	237.5						2	237.5
56-R	50	US 33	604+21.29	US 33	606+30.20	RT	206.25						2	206.25
57-R	50,51	US 33	608+22.13	US 33	610+04.75	LT	150			1			1	175
58-R	50,51	US 33	608+22.43	US 33	610+04.28	MED	100		62.5			1	1	187.5
59-R	50	US 33	608+20.77	US 33	609+36.72	RT	100				1		1	112.5
60-R	51	US 33	615+28.33	US 33	616+94.45	LT	125			1	1			162.5
61-R	51	US 33	615+22.26	US 33	616+88.45	RT	125			1	1			162.5
62-R	51	US 33	619+89.55	US 33	621+54.24	RT	125			1	1			162.5
63-R	52,69	US 33	628+85.38	RAMP D	4+27.36	LT	400			1	1			437.5
64-R	52,53	US 33	633+85.59	US 33	639+41.59	LT	550				1		1	562.5
65-R	52,53	US 33	633+65.69	US 33	638+95.84	RT	500			1			1	525
66-R	53	US 33	637+47.93	US 33	639+07.26	MED	87.5		62.5			1	1	175
67-R	53	US 33	641+57.66	US 33	647+33.86	LT	550			1			1	575
68-R	53	US 33	641+61.09	US 33	643+23.35	MED	87.5		62.5			1	1	175
69-R	53	US 33	641+31.25	US 33	647+19.22	RT	575				1		1	587.5
70-R	71	RAMP C	2+80.30	RAMP C	6+18.38	RT	300			1	1			337.5
71-R	54,71	RAMP C	4+76.71	US 33	651+21.74	LT	525			1	1			562.5
72-R	54,70	RAMP B	7+29.47	US 33	651+30.42	RT	525			1	1			562.5
73-R	54	US 33	657+16.02	US 33	658+81.94	LT	125			1	1			162.5
75-R	58,60	RAMP G	14+75.78	SR 31	51+94.40	RT	550			1	1			587.5
76-R	65	RAMP L	3+38.64	RAMP L	6+76.51	LT	300			1	1			337.5
					TOTALS THIS SHEET:		7,056.25		250	14	13	3	18	7,743.75
					TOTALS FROM SHEET 72:		25,243.75		400.0	27	26	5	29	26,768.75
** SEE GENERAL NOTES					TOTALS TO GENERAL SUMMARY:		**3,230	**29,070	650	41	39	8	47	34,513

CALCULATED TC
CHECKED DS

GUARDRAIL REMOVAL SUBSUMMARY

UNI-33-8.74

I:\Projects\17003.000\DGN\GS002.dgn 24-FEB-2000 8:20AM mblackfo

REFERENCE	SHEET NUMBERS	LOCATION					ITEM 606												622	626	
		BEGIN		END		SIDE	GUARDRAIL					ANCHOR ASSEMBLY			BRIDGE TERMINAL ASSEMBLY		IMPACT ATTENUATOR			CONCRETE BARRIER, TYPE D	BARRIER REFLECTOR	
		ROADWAY	STATION	ROADWAY	STATION		TYPE			CURVED RAIL		TYPE			TYPE		TYPE 1-98 BIDIRECTIONAL	TYPE 2-98 UNIDIRECTIONAL			TYPE	
							5	5A	BARRIER DESIGN, 5	LENGTH	RADIUS	B-98	E-98	T	1	2		MODEL# QS3009Y	MODEL# QS9009Y		A	B
							LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	EACH	EACH
1-GR	38	US 33	461+34	US 33	459+05	LT	362.50							1		1					4	3
2-GR	38	US 33	462+65	US 33	458+99	MED	212.50					1			1						3	2
3-GR	38,56	RAMP R	10+91	US 33	458+93	RT	487.50						1		1						7	2
7-GR	39	US 33	460+82	US 33	465+31	LT	412.50						1		1						5	
8-GR	39	US 33	460+82	US 33	463+05	MED	212.50					1			1						3	2
9-GR	39,40	US 33	460+84	US 33	473+69	RT	1275.00								1	1					13	2
10-GR	57	RAMP S	6+95	RAMP S	10+38	RT	312.50							1					1		4	
10A-GR	57	ROAD U	108+96	RAMP S	10+15	RT	112.50														2	
11-GR	39,40,57	RAMP S	6+50	US 33	473+46	LT	1362.50	50.00						1		1					15	2
12-GR	39	US 33	467+65	US 33	470+00	MED	150.00	25.00					1	1							4	
13-GR	39,40	US 33	470+96	US 33	473+61	MED	250.00					1			1						4	2
14-GR	40	US 33	475+29	US 33	476+58	LT	130.50								1	1					1	2
15-GR	40	US 33	475+39	US 33	476+61	MED	121.50								1	1					2	2
16-GR	40	US 33	475+48	US 33	476+62	MED	114.50								1	1					1	2
17-GR	40	US 33	475+58	US 33	476+64	RT	106.50								1	1					1	2
18-GR	40	US 33	478+14	US 33	482+38	MED	412.50							1	1						4	2
19-GR	40	US 33	478+11	US 33	482+98	LT	487.50								1	1					5	2
20-GR	40	US 33	478+17	US 33	482+98	RT	481.25								1	1					5	2
21-GR	40	US 33	478+75	US 33	482+99	MED	412.50							1	1						5	2
22-GR	41	US 33	485+38	US 33	487+96	MED	187.50		37.50						1		1				4	2
23-GR	41	US 33	485+37	US 33	491+00	LT	512.50						1		1						6	
24-GR	41	US 33	485+37	US 33	489+50	RT	400.00							1		1					4	
25-GR	43	US 33	513+48	US 33	517+35	LT	325.00						1	1							5	
25A-GR	44	US 33	523+64	US 33	526+31	RT	200.00						1	1							5	
25B-GR	44	US 33	524+66	US 33	526+30	RT	137.50					1		1							2	
26-GR	58,59	RAMP F	17+89	SR 31	33+60	LT	812.50			62.50	49.2		1	1							13	
27-GR	58,59	RAMP F	17+86	SR 31	41+98	RT	387.50			62.50	35.0			1	1						7	
28-GR	58	SR 31	37+15	SR 31	42+03	LT	475.00							1		1					6	
29-GR	62	RAMP E	6+55	RAMP E	9+85	RT	312.50					1		1							6	
30-GR	62	RAMP E	4+74	RAMP E	9+52	LT	412.50						1	1							8	
31-GR	45	US 33	540+69	US 33	544+20	MED	175.00		200.00					2			2				6	
32-GR	45	US 33	542+04	US 33	544+30	LT	137.50					1			1					82	3	
33-GR	45	US 33	540+11	US 33	542+86	LT	137.50						1		1					82	3	1
33A-GR	46	RAMP E	13+18	RAMP E	14+07	RT	25.00						1	1								
34-GR	61	RAMP H	0+02	RAMP H	4+62	RT	437.50							1		1					10	1
35-GR	58	SR 31	45+40	SR 31	54+15	LT	825.00						1		1						10	
36-GR	64	RAMP M	11+35	RAMP M	4+68	LT	637.50					1		1							15	
37-GR	64	RAMP M	11+21	RAMP M	5+18	RT	550.00						1	1							14	
38-GR	63	SR 4	37+08	SR 4	45+19	RT	775.00						1		1						10	
39-GR	63	SR 4	40+52	SR 4	45+61	LT	487.50							1		1					6	
40-GR	46,47	US 33	558+75	US 33	562+49	LT	325.00		12.50					1				1			5	
41-GR	47	US 33	570+49	US 33	570+82	LT												1				
42-GR	46,47	US 33	558+11	US 33	561+54	MED	150.00		200.00					2			2				6	
43-GR	46,47,63,66	US 33	556+26	SR 4	48+74	RT	2775.00						1		2	1				106	40	2
43A-GR	47	US 33	563+84	US 33	565+34	MED	125.00					1		1								
44-GR	63	SR 4	48+35	SR 4	55+72	RT	725.00							1		1					9	
46-GR	66	RAMP J	5+12	RAMP J	10+78	LT	487.50														11	
47-GR	47,48	US 33	568+31	US 33	578+52	RT	975.00							1					1		11	
47A-GR	48	US 33	573+91	US 33	574+66	MED	50.00					1		1								
48-GR	67	RAMP K	4+70	RAMP K	13+58	LT	887.50							1					1		10	
49-GR	48,63,67	SR 4	62+51	US 33	581+38	RT	1841.50			96.00	61.05		1	1							23	
50-GR	49	US 33	587+21		594+69	RT	725.00					1		1							9	
					TOTALS THIS SHEET:		24833.25	75	450			10	15	32	23	15	5	2	3	270	355	37

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GUARDRAIL SUBSUMMARY

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REFERENCE	SHEET NUMBERS	LOCATION					ITEM 606												622	626	
		BEGIN		END		SIDE	GUARDRAIL			ANCHOR ASSEMBLY			BRIDGE TERMINAL ASSEMBLY		IMPACT ATTENUATOR			CONCRETE BARRIER, TYPE D	BARRIER REFLECTOR	
		ROADWAY	STATION	ROADWAY	STATION		TYPE			TYPE			TYPE		TYPE 1-98 BIDIRECTIONAL	TYPE 2-98 UNIDIRECTIONAL			TYPE	
							5	5A	BARRIER DESIGN, 5	B-98	E-98	T	1	2		MODEL# QS3009Y	MODEL# QS9009Y		A	B
							LF	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	EACH	EACH
51-GR	50	US 33	599+49	US 33	602+19	MED	187.50		37.50				1		1				3	2
52-GR	50	US 33	600+26	US 33	602+50	RT	212.50			1			1						3	2
53-GR	50	US 33	603+48	US 33	606+13	LT	264.98						1	1					3	3
54-GR	50	US 33	603+80	US 33	606+13	MED	233.39						1	1					3	2
55-GR	50	US 33	604+06	US 33	606+13	MED	206.73						1	1					2	3
56-GR	50	US 33	604+35	US 33	606+13	RT	177.74						1	1					2	2
57-GR	50,51	US 33	608+39	US 33	610+63	LT	212.50			1			1						2	2
58-GR	50,51	US 33	608+39	US 33	611+09	MED	187.50		37.50				1		1				3	2
59-GR	50	US 33	608+39	US 33	609+27	RT	75.00					1		1					1	
60-GR	51	US 33	615+60	US 33	619+60	LT	337.50				1	1							5	
62-GR	52	US 33	624+52	US 33	626+02	LT	87.50				1	1							3	
63-GR	52,69	US 33	629+70	RAMP D	5+75	LT	437.50				1	1							6	
64-GR	52,53	US 33	633+55	US 33	639+37	LT	600.00					1		1					7	2
65-GR	52,53	US 33	631+82	US 33	639+01	RT	662.50				1		1						8	2
66-GR	53	US 33	636+55	US 33	639+13	MED	187.50		37.50				1		1				3	3
67-GR	53,54	US 33	641+65	US 33	649+27	LT	737.50						1				1		8	
68-GR	53	US 33	641+57	US 33	644+14	MED	187.50		37.50				1		1				3	3
69-GR	53	US 33	641+37	US 33	647+00	RT	550.00					1		1					6	
70-GR	71	RAMP C	3+27	RAMP C	8+23	RT	487.50					1							6	
71-GR	54,71	RAMP C	5+51	US 33	653+92	LT	700.00				1	1							9	
71A-GR	54	US 33	651+73	US 33	652+47	MED	50.00			1		1								
72-GR	54,70	RAMP B	6+60	US 33	650+71	RT	512.50				1	1							7	
72A-GR	70	RAMP B	4+32	RAMP B	7+42	LT	250.00				1	1							4	
73-GR	54	US 33	656+99	US 33	659+86	LT	225.00				1	1							4	
76-GR	47,48,49,65	RAMP L	3+77	US-33	586+44	LT	3125.00				1	1							64	
TOTALS THIS SHEET:							10895.34	0	150	3	9	13	12	7	4	0	1	0	165	28
TOTALS FROM SHEET 74:							24833.25	75	450	10	15	32	23	15	5	2	3	270	355	37
TOTALS TO GENERAL SUMMARY:							**35,728.59**	**75**	**600**	**13**	**24**	**36**	**35**	**22**	**9**	**2**	**4**	**270**	**520**	**65**

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GUARDRAIL SUBSUMMARY

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ITEM 202 - RAISED PAVEMENT MARKER, REMOVED FOR STORAGE:
THIS ITEM OF WORK SHALL REMOVE ALL EXISTING RAISED PAVEMENT MARKERS FOR STORAGE. THE FOLLOWING QUANTITY HAS BEEN PROVIDED:

ITEM 202 - RAISED PAVEMENT MARKER REMOVED FOR STORAGE = 995 EACH

ITEM 620 - DELINEATOR REMOVED FOR DISPOSAL:
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED:

ITEM 620 - DELINEATOR REMOVED FOR DISPOSAL = 102 EACH

ITEM 621 - RAISED PAVEMENT MARKER, INSTALL ONLY:
MATERIALS SUPPLIED BY THE DEPARTMENT:
ALL MATERIALS ARE TO BE CONTRACTOR FURNISHED, EXCEPT THAT THE DEPARTMENT SHALL SUPPLY RPM MATERIALS IN THE QUANTITIES SHOWN HEREIN TO THE CONTRACTOR. PAY ITEMS FOR THE DEPARTMENT SUPPLIED MATERIALS SHALL BE INDICATED AS "INSTALLATION ONLY". THE QUANTITY AND TYPE OF DEPARTMENT SUPPLIED MATERIALS ARE SHOWN ON THE PAVEMENT MARKING SUB-SUMMARY SHEETS OF THIS PLAN.

THE CONTRACTOR SHALL PICK UP THE DEPARTMENT SUPPLIED RPM MATERIALS AT THE OPI WAREHOUSE, 315 PHILLIPI ROAD, COLUMBUS, OHIO 43228. QUANTITIES OVER 20 RPMS WILL BE PICKED UP AT THE RECYCLER'S WAREHOUSE OR AS ARRANGED WITH THE DISTRICT. THE CONTRACTOR SHALL PICK UP DEPARTMENT SUPPLIED RPM MATERIALS AT THE SPECIFIED LOCATION(S) FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTOR'S STORAGE FACILITY. THE RECYCLED RAISED PAVEMENT MARKER (RPM) AUTHORIZATION FORM IS TO BE SIGNED BY THE DISTRICT CONSTRUCTION ENGINEER PRIOR TO PICK UP OF THE RPMS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND/OR THE PARTIES LISTED ON THE AUTHORIZATION FORM IN WRITING AT LEAST FIVE (5) CALENDAR DAYS PRIOR TO PICK UP OF THE DEPARTMENT SUPPLIED MATERIALS. THE CONTRACTOR SHALL STORE THE RPMS WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER. A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED AND WERE NOT RETURNED TO THE DEPARTMENT.

RETURN OF NON-PERFORMED RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT:
RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT, THAT ARE NON-PERFORMED SHALL BE CAREFULLY REPACKED OR PACKED IN THE BOXES IN THE SAME STYLE AND QUANTITY AS ORIGINALLY RECEIVED FROM THE DEPARTMENT. CASTING STYLES SHALL NOT BE MIXED WITHIN ANY ONE CONTAINER. THE CONTRACTOR SHALL CLEARLY MARK ON THE OUTSIDE OF EACH CONTAINER, THE COLOR OF THE PRISMATIC RETRO-REFLECTOR, THE STYLE OF CASTING. BOXES SHALL BE PLACED ON SKIDS OR PALLETS IN THE SAME STYLE (LOW PROFILE OR CONVENTIONAL, REFLECTORIZED OR NON REFLECTORIZED) AND NO MORE THAN 420 RPMS (OR 21 BOXES) ON ONE SKID.

ONLY USE THE BOXES SUPPLIED BY THE RAISED PAVEMENT MARKER RECYCLER. BOXES MUST BE MARKED WITH THE RECYCLER'S PART OR CATALOG NUMBER AND THE PROJECT NUMBER. THE RECYCLER'S CATALOG OR PART NUMBERS MAY BE OBTAINED FROM THE OFFICE OF TRAFFIC ENGINEERING IN COLUMBUS, OHIO OR FROM THE RECYCLER. BOXES NOT MARKED WITH THE PROPER RECYCLER'S CATALOG OR PART NUMBERS, AND THE DEPARTMENT'S PROJECT NUMBER WILL NOT BE ACCEPTED AT THE RECYCLER'S WAREHOUSE.

NON-PERFORMED MATERIALS WILL BE RETURNED TO THE LOCATION AS SPECIFIED BY THE DISTRICT CONSTRUCTION ENGINEER WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT.

THE ABOVE WORK INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL NEEDED TO PERFORM THE WORK, SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM.

IF THE DEPARTMENT HAS TO REPACKAGE THE RPMS CORRECTLY, THE CONTRACTOR WILL BE ASSESSED THE ACTUAL COST FOR REPACKAGING THE MATERIALS BY THE DEPARTMENT'S FORCES.

LOADING OF MATERIALS SUPPLIED BY THE DEPARTMENT AT THE RECYCLER'S WAREHOUSE:
TRUCKS SHALL HAVE A LOADING HEIGHT OF 48 INCHES AND BE ABLE TO BACK UP FLUSH TO THE LOADING DOCK.

TRUCKS SHALL NOT HAVE ANY OBSTRUCTIONS OR PROTRUSIONS THAT PREVENT THE LOADING BY A STANDARD FORKLIFT OR LIFT TRUCK.

SEMI TRUCKS OR 20 FOOT COMMERCIAL TRUCKS ARE THE MOST APPROPRIATE TRUCKS FOR LOADS IN EXCESS OF 4 PALLETS (ONE PALLET = 21 BOXES = 2100 LBS).

STAKE BODY TRUCKS ARE APPROPRIATE TO LOAD LESS THAN 4 PALLETS, PROVIDED THE TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT BY CHAINING OR STRAPPING DOWN AS NEEDED.

PICKUP TRUCKS ARE APPROPRIATE FOR LOADS OF APPROXIMATELY ONE PALLET, PROVIDED THE PICKUP TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT.

DUMP TRUCKS, TILT BED TRUCKS, AND NON-COMMERCIAL MOVING VANS WILL NOT BE LOADED BY THE RECYCLER'S WAREHOUSE.

THE WAREHOUSE SUPERVISOR WILL REFUSE TO LOAD ANY TRUCK THAT IS UNSAFE TO LOAD OR UNSUITABLE FOR THE LOAD BEING PLACED ON THE TRUCK.

SCOPE OF SIGN WORK:
THIS CONTRACT INCLUDES DIFFERENT TYPES OF SIGNING WORK: THE REMOVAL OF EXISTING SIGNS AND/OR SUPPORTS, THE REMOVAL OF EXISTING SIGNS AND SUPPORTS AND REPLACING THEM WITH NEW SIGNS AND SUPPORTS AND THE INSTALLATION OF NEW SIGNS AND SUPPORTS AT VARIOUS LOCATIONS WITHIN THE PROJECT LIMITS. THE SIGN LIGHTING ON THE EXISTING OVERHEAD SIGN STRUCTURES TO REMAIN IN PLACE SHALL BE REMOVED AND REPLACED WITH NEW SIGN LIGHTING.

THE EXISTING TRUSS AND CANTILEVER SUPPORTS THAT ARE TO REMAIN IN PLACE SHALL BE REFURBISHED IN ACCORDANCE TO THE FOUR-STEP PROCEDURE DETAILED BELOW.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER ALL SIGNING WORK SHALL BE IN ACCORDANCE WITH: THIS PLAN, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL, THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS, AND THE STANDARD CONSTRUCTION DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS LISTED ON THE TITLE SHEET AND VOLUMES I AND II OF THE STANDARD SIGN DESIGN MANUAL.

IN NO CASE SHALL THE CONTRACTOR REMOVE AN EXISTING SIGN UNTIL THE APPLICABLE NEW SIGN HAS BEEN ERECTED OR CAN IMMEDIATELY THEREAFTER BE ERECTED.

SIGNS SHALL NORMALLY BE VISIBLE TO TRAFFIC 400 FEET TO 500 FEET IN ADVANCE OF THE SIGN. CARE SHALL BE TAKEN TO ASSURE SIGNS ARE NOT OBSTRUCTED BY TREES, WEEDS OR OTHER OBSTACLES. BRUSH, WEEDS OR GRASS WITHIN THE RIGHT OF WAY SHALL BE TRIMMED AS NECESSARY AT THE CONTRACTOR'S EXPENSE.

ITEM 630 - SIGN FLAT SHEET, AS PER PLAN:
THE CONTRACTOR SHALL NOT ORDER ANY N-44B SIGNS PRIOR TO FIELD LOCATING ALL PROPOSED N-44B SIGNS AND ADJUSTING THEIR LEGENDS ACCORDINGLY, AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THIS ITEM WILL BE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ITEM 630 OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN BY SIZE:
ITEM 630 OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN BY SIZE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS PRIOR TO ORDERING THE NEW SUPPORTS.

THE COST OF VERIFYING THESE DIMENSIONS SHALL BE INCLUDED IN THE UNIT COST BID FOR THESE ITEMS.

ITEM 630 - COMBINATION OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 5, AS PER PLAN:
THIS ITEM SHALL INCLUDE FULL COMPENSATION FOR POLE EXTENSION AND BRACKET ARM, INCLUDING ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK.

ITEM 630 - SIGNS, (FLATSHEET AND EXTRUSHEET):
FOR SIGN POSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER THE FOLLOWING CONDITIONS SHALL APPLY. WHERE PHYSICAL CONDITIONS PERMIT, SIGNS SHALL HAVE THE CORRECT LATERAL AND VERTICAL CLEARANCE WITH RESPECT TO THE EDGE OF PAVEMENT IN ACCORDANCE WITH THE MINIMUM DISTANCE SHOWN ON THE STANDARD DRAWING. WHERE PHYSICAL CONDITIONS PERMIT SIGNS ERECTED ON NEW POST SUPPORT SHALL BE LOCATED LONGITUDINALLY TO THE ROADWAY IN THE SAME POSITION AS THE EXISTING SIGNS. HOWEVER NO NEW POST SUPPORT SHALL BE INSTALLED IN SOIL DISTURBED BY THE REMOVAL OF EXISTING SUPPORTS. THE STATIONS ARE APPROXIMATE TO SHOW THE ORDER OF SIGNS IN RELATIONSHIP TO EACH OTHER AND ARE NOT TO BE CONSIDERED EXACT LOCATIONS. SIGNS INDICATED AS NEW INSTALLATIONS SHALL BE LOCATED AS APPROVED BY THE ENGINEER. EXISTING SIGNS NOT SHOWN ON THE SCHEMATIC SHEETS OR LISTED ON THE SUBSUMMARY AS WORK LOCATIONS SHALL NOT BE DISTURBED.

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ITEM 630 - GROUND-MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN:
THE POST SUPPORT SHALL BE THE TYPE S (SQUARE POST) WITH DIE-CUT KNOCKOUTS WITH THE SQUARE POST ANCHOR BASE INSTALLATION, AS PER SCD TC-41.20M.

PAYMENT FOR THIS ITEM WILL BE AT THE CONTRACT UNIT PRICE PER FOOT

ITEM 630 - GROUND-MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN:
THE POST SUPPORT SHALL BE THE TYPE S (SQUARE POST) WITH DIE-CUT KNOCKOUTS

PAYMENT FOR THIS ITEM WILL BE AT THE CONTRACT UNIT PRICE PER FOOT

ITEM 630 - SIGNING MISC.: OUTER ANCHOR SLEEVE:
THIS ITEM SHALL CONSIST OF THE FURNISHING AND INSTALLING OF A SQUARE POST OUTER ANCHOR SLEEVE, WITH A LENGTH OF 18 INCHES, ONE SIZE LARGER THAN THE ANCHOR. THE OUTER ANCHOR SLEEVE SHALL BE INSTALLED WITH THE ANCHOR BASE IN ACCORDANCE WITH THE DIAGRAM ON SHEET 124.

PAYMENT FOR THIS ITEM WILL BE AT THE CONTRACT UNIT PRICE PER EACH.

ITEM 630 - REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, AS PER PLAN:
TO ARRANGE FOR THE PICK UP OF SIGNS CONTACT SIGN SHOP SUPERINTENDENT MACE MORMAN 614.351.2855.

ITEM 630 - REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE, AS PER PLAN:
TO ARRANGE FOR THE PICK UP OF SIGNS CONTACT SIGN SHOP SUPERINTENDENT MACE MORMAN 614.351.2855.

ITEM 630- SIGNING MISC.: SLIP BASE IN ANCHOR BASE FOUNDATION:
THE TRIANGULAR SLIP BASE INSTALLATION SHALL CONFORM TO THE DETAILS ON SHEET 124 OF THIS PLAN. UNIT BID PRICE FOR THIS ITEM SHALL INCLUDE EXCAVATING, CONCRETE, LABOR AND ALL INCIDENTAL HARDWARE NECESSARY TO COMPLETE THIS WORK. PAYMENT SHALL BE AT THE UNIT BID PRICE PER EACH.

ITEM 630- REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, AS PER PLAN:
THE OVERHEAD SIGN SUPPORT STRUCTURES DESIGNATED FOR REMOVAL AND STORAGE SHALL BE CAREFULLY REMOVED AND STORED IN A SECURED AREA. THE CONTRACTOR SHALL NOTIFY THE DISTRICT SIX HIGHWAY MANAGEMENT TRAFFIC DEPARTMENT AT (740)363-1251 EXTENSION 424 TO MAKE ARRANGEMENTS TO HAVE TO MATERIAL PICKED UP.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT BID PRICE PER EACH.

ITEM 630- REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, AS PER PLAN:
GROUND MOUNTED BEAM SUPPORTS DESIGNATED FOR REMOVAL AND STORAGE SHALL BE CAREFULLY REMOVED AND STORED IN A SECURED AREA. WITHIN ONE (1) WEEK OF THE REMOVAL OF THE LAST BEAM THE CONTRACTOR SHALL NOTIFY THE DISTRICT SIX HIGHWAY MANAGEMENT TRAFFIC DEPARTMENT AT (740) 363-1251 EXT. 424 TO MAKE ARRANGEMENTS TO HAVE THE MATERIAL PICKED UP.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT BID PRICE.
ITEM 630- SIGNING, MISC.: RAKE AND TIGHTEN ANCHOR BOLTS: THIS ITEM SHALL CONSIST OF TIGHTENING THE ANCHOR BOLTS AND PLUMBING THE EXISTING STRUCTURES AFTER THE ERECTION OF NEW SIGNS IN ACCORDANCE WITH 630.06(2).

PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS:
GENERAL
OVERHEAD SIGN SUPPORTS CAN BE SEPARATED INTO MAJOR SECTIONS SUCH AS END FRAMES FOR TRUSS STRUCTURES AND VERTICAL POLES AND CANTILEVER ARMS FOR CANTILEVER STRUCTURES. DURING THE IMPLEMENTATION OF THIS WORK ITEM IT WILL BE BENEFICIAL TO REFER TO THE MAJOR SECTIONS OF THE OVERHEAD SIGN SUPPORTS RATHER THAN THE WHOLE SUPPORT. MORE SPECIFIC INSTRUCTIONS AND FLEXIBILITY CAN BE GIVEN BASED UPON THE UNIT OF MEASURE AND PAYMENT PER MAJOR SUPPORT SECTION.

THE PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS SHALL BE A FOUR-PART PROCESS TO INCLUDE SURFACE PREPARATION FOLLOWED BY A THREE-STEP COATING SYSTEM. THIS THREE-STEP COATING SYSTEM SHALL CONSIST OF AN EPOXY PRIME COAT, AN EPOXY INTERMEDIATE COAT, AND A URETHANE TOPCOAT, WITH EACH COAT A DIFFERENT COLOR. FOR AN EXPLANATION OF THE MATERIALS TO BE USED SEE NOTE ENTITLED "COATING SYSTEM". THE PURPOSE OF THESE COATINGS IS TO PROVIDE PROTECTION FOR OLDER (WEATHERED) GALVANIZED STEEL SUPPORT SECTIONS FROM CORROSIVE ELEMENTS IN THE ATMOSPHERE

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO COMPLY WITH POLLUTION LAWS, AND RULES OR REGULATIONS OF FEDERAL, STATE, OR LOCAL AGENCIES. THE COATING MATERIALS SPECIFIED FOR THE WORK CAN BE HAZARDOUS TO THE HEALTH OF THE APPLICATOR IF NOT APPLIED AS PER THE MANUFACTURER'S INSTRUCTIONS. THE CONTRACTOR SHALL FOLLOW THE DATA SHEET AND THE LABEL ON THE PAINT CONTAINERS. THESE PRECAUTIONS SHALL INCLUDE THE USE OF RESPIRATORS AND EYE AND SKIN PROTECTION AS SPECIFIED. THE CONTRACTOR SHALL ALSO INSURE THAT HIS PAINTING OPERATIONS AND LOCATION WILL NOT ENDANGER OR ADVERSELY AFFECT THE PUBLIC IN GENERAL.

THE PROPOSED CLEANING AND COATING OPERATIONS SHALL BE PERFORMED ONLY WHEN THE AMBIENT TEMPERATURE IS 50 DEGREES F OR ABOVE FOR A PERIOD OF 24 CONTINUOUS HOURS. PAINT SHALL NOT BE APPLIED DURING RAIN, FOG, OR MIST, OR WHEN THE STEEL SURFACE TEMPERATURE IS LESS THAN 40 DEGREES F ABOVE THE DEW POINT. PAINT SHALL NOT BE APPLIED TO WET OR DAMP SURFACES OR ON FROSTED OR ICE COATED SURFACES. PAINT SHALL NOT BE APPLIED WHEN THE RELATIVE HUMIDITY IS GREATER THAN 85%. ALL STEEL SURFACES OF TRUSS AND END FRAMES INCLUDING THE WELDED AREAS, BALLAST ENCLOSURE MOUNTING BRACKET AND THE BASE PLATES ARE TO BE CLEANED AND COATED. BEFORE EACH COATING IS APPLIED, IT SHALL BE MIXED WITH AN APPROVED POWER MECHANICAL MIXER TO A UNIFORM CONSISTENCY WHICH SHALL BE MAINTAINED DURING ITS APPLICATION. EACH COAT SHALL BE APPLIED IN A WORKMANLIKE MANNER AS A CONTINUOUS FILM OF UNIFORM THICKNESS WHICH IS FREE OF HOLES, PORES, RUNS, OR SAGS. ALL COATS SHALL BE APPLIED BY BRUSH. THINNING OF PAINT IS STRICTLY PROHIBITED. PAINT NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COATING SHALL PENETRATE ALL JOINTS AND CONNECTIONS. THE ENGINEER SHALL BE NOTIFIED 24 HOURS PRIOR TO ANY CLEANING OR COATING OPERATIONS SO THAT INSPECTION SERVICES CAN BE PROVIDED.
TO PROVIDE ASSURANCES THAT NO THINNING OF THE PROTECTIVE COATING MATERIAL IS BEING DONE, PERIODIC CHECKS BY A STATE INSPECTOR WILL BE MADE OF THE MATERIAL. THESE CHECKS WILL BE MADE UTILIZING A VISCOSITY TEST CUP PROCEDURE AS PROVIDED BY THE MANUFACTURER OF THE MATERIAL. THE FREQUENCY OF THESE CHECKS WILL BE DETERMINED BY THE ENGINEER BASED UPON FIELD EVALUATION AND JOB PERFORMANCE.

IF THE VISCOSITY CHECK REVEALS THAT THE MATERIAL HAS BEEN THINNED, IMMEDIATE REJECTION OF THE MATERIAL SHALL BE MADE. THIS REJECTION SHALL REQUIRE THE CONTRACTOR TO IMMEDIATELY STOP USING THE MATERIAL AND PROVIDE NEW MATERIAL OF THE PROPER SPECIFICATION PER PLAN. IN ADDITION, THE COATING OF THE SIGN SUPPORT WITH THE NON-APPROVED MATERIAL SHALL BE CONSIDERED UNACCEPTABLE. THEREFORE THE SUPPORT SHALL BE STRIPPED AND RECOATED WITH APPROVED MATERIAL (UNTHINNED MATERIAL).

THREE (3) TO FOUR (4) VISCOSITY CHECKS INDICATING A PERPETUAL QUALITY CONTROL PROBLEM (THINNED MATERIAL) SHALL BE CONSIDERED SUFFICIENT JUSTIFICATION TO TERMINATE THE CONTRACT.

THE COST FOR THE VISCOSITY TEST KIT SHALL BE BORN BY THE CONTRACTOR AND CONSIDERED INCIDENTAL TO THE ITEM SPECIALS PER COAT. THE TEST KIT SHALL CONTAIN ITEMS SUCH AS INSTRUCTIONS, VISCOSITY CUP, STANDARD COMPARISON RATES, CARRYING CASE, CLEANING EQUIPMENT, STOPWATCH, ETC. THE KIT SHALL BE GIVEN TO THE STATE INSPECTOR FOR USE DURING THE PERFORMANCE OF THE WORK. AFTER THE PROJECT IS COMPLETE, THE TEST KIT SHALL REVERT TO THE STATE AS STATE PROPERTY.

COATING SYSTEM
THE COATING SYSTEM SHALL CONSIST OF A POLYAMIDE-CURED EPOXY PRIME COAT, A POLYAMIDE-CURED EPOXY INTERMEDIATE COAT AND AN ALIPHATIC POLYURETHANE TOPCOAT. THE COATING MATERIALS USED SHALL BE THOSE AS LISTED FROM ONE OF THE FOLLOWING MANUFACTURERS OR AN APPROVED EQUAL:

1. AMERON
   210 NORTH BERRY STREET
   BREA, CALIFORNIA 92621
   LOCAL TELEPHONE CONTACT: (216)896-3602
   PRIME COAT: AMERCOAT 385
   INTERMEDIATE COAT: AMERLOCK 400
   TOP COAT: AMERCOAT 450 HS

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2. THE GLIDDEN COMPANY
16651 SPRAGUE ROAD
STRONGSVILLE, OHIO 44136
LOCAL TELEPHONE CONTACT: (216)826-5528
PRIME COAT: GLID-GUARD CORROSION RESISTANT HS EPOXY NO. 5465
INTERMEDIATE COAT: GLID-GUARD CORRECTION RESISTANT EPOXY NO. 5466
TOP COAT: GLID-THANE II POLYURETHANE NO. 6200 SERIES

3. PORTER PAINT CO.
400 SOUTH 13TH STREET
LOUISVILLE, KY 40201
LOCAL TELEPHONE CONTACT: (216)562-6709
PRIME COAT: PORTER PAINTS MCR 4300
INTERMEDIATE COAT: PORTER PAINTS MCR 4300
TOP COAT: PORTER PAINTS HYTHANE

4. POLYCARB
33095 BAINBRIDGE ROAD
P.O. BOX 39278
SOLON, OHIO 44139
LOCAL TELEPHONE CONTACT: (216)248-1223
PRIME COAT: MARK-60 (ULTRAPOX)
INTERMEDIATE COAT: MARK-60 (ULTRAPOX)
TOP COAT: MARK-73 (ULTRA-KOTE)

5. SHERWIN-WILLIAMS COMPANY
671 BETA DRIVE
MAYFIELD VILLAGE, OHIO 44143
LOCAL TELEPHONE CONTACT: (216)461-8287
PRIME COAT: TILE-CLAD II HI-BILD PRIMER
INTERMEDIATE COAT: HI-SOLIDS CATALYZED EPOXY
TOP COAT: HI-BILD ALIPHATIC POLYURETHANE ENAMEL

ALL THREE COATS OF THE SYSTEM SHALL BE MANUFACTURED BY THE SAME COMPANY TO INSURE COMPATIBILITY AMONG COATS.

ITEM 630 - SURFACE PREPARATION, EXISTING SUPPORT SECTIONS:
EXISTING, WEATHERED GALVANIZED SUPPORT SECTIONS SHALL HAVE THEIR SURFACE PREPARATION, AS WELL AS THEIR PROTECTIVE COATING, UNDER CONDITIONS OF TEMPERATURE AND HUMIDITY WITHIN THE SAME RANGE AS SPECIFIED BY THE MANUFACTURER OF THE EPOXY - PRIME COAT MATERIAL TO BE USED IMMEDIATELY AFTER THIS CLEANING OPERATION. THE SUPPORT SECTIONS SHALL BE PREPARED FOR COATING BY SSPC - SP1 FOLLOWED BY SSPC - SP6 (SOLVENT CLEANING FOLLOWED BY A COMMERCIAL BLAST CLEANING). BEFORE THE PREPARED SURFACE DEGRADES FROM THE PRESCRIBED STANDARDS, THE PRIME COAT SHALL BE APPLIED. IN EVERY CASE, THE SURFACE SHALL BE COATED WITH THE EPOXY PRIME COAT ON THE SAME DAY AS THE SURFACE PREPARATION. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING, TRANSPORTATION COSTS AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK PER MAJOR SUPPORT SECTION.

BASIS OF PAYMENT WILL BE AS FOLLOWS:
ITEM 630-SURFACE PREPARATION, EXISTING SUPPORT SECTIONS AT THE CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

ITEM 630 - COATING, EPOXY PRIME COAT, SUPPORT SECTION:
THIS ITEM SHALL CONSIST OF ONE (1) COAT OF AN EPOXY PRIMER TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL BE BETWEEN 1.5 AND 2.0 MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COAT SHALL BE BORNE BY THE CONTRACTOR.
THIS COAT SHALL IN ALL CASES BE APPLIED BY BRUSH OVER SURFACES THAT WERE PREPARED EARLIER THAT SAME DAY. THE THINNING OF THE EPOXY MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED.

WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED 1.5 BUT IS AT LEAST 1.25 MILS, THE CONTRACT BID PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 16-2/3%. IF THE DEFICIENCY OF COATING IS MORE THAN 16-2/3% (I.E. THE AVERAGE DRY FILM THICKNESS IS LESS THAN 1.25 MILS) THE WORK FOR THIS ITEM SHALL BE CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL.

THE EPOXY PRIME COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING TWO-COMPONENT COMPOSITIONS CONFORMING TO ITS LISTED PROPERTIES:

AMERCOAT 385
% SOLIDS BY VOLUME : 47% +/- 3 %
POT LIFE: 8 HRS. @ 77 DEGREES F
DRYING TIME: 4 HRS. @ 77 DEGREES F

GLID-GUARD CORROSION RESISTANT HS EPOXY NO. 5465
% SOLIDS BY VOLUME: 54% +/- 1%
% SOLIDS BY WEIGHT: 71 % +/- 1%
POT LIFE: 4 HRS. @ 70 DEGREES F
DRYING TIME: TOUCH 1-2 HRS. , RECOAT-7 HRS.
VISCOSITY: 95-100 KU

MCR-4301 EPOXY PRIMER
% SOLIDS BY VOLUME: 48.0% +/- 2%
POT LIFE: 30 HRS. @ 50-60 DEGREES F
16 HRS. @ 80-100 DEGREES F
DRYING TIME: 4-6 HRS. @ 50-60 DEGREES F

MARK-60 ULTRAPOX
% SOLIDS BY WEIGHT: 70-75% +/- 2%
POT LIFE: 6 HRS. @ 75 DEGREES F
DRYING TIME: 2-3 HRS. INITIAL SET @ 75 DEGREES F
VISCOSITY: 300-500 CPS @ 75 DEGREES F
TILE-CLAD II HI-BILD PRIMER
% SOLIDS BY VOLUME: 48% +/- 2%
% SOLIDS BY WEIGHT: 63% +/- 2%
POT LIFE: 8 HRS. @ 77 DEGREES F
@ 77 DEGREES F
DRYING TIME: 1 HR. TO TOUCH , 6 HRS. TO RECOAT

THE PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COSTS, AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS PRIME COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE INTERMEDIATE AND TOP COATS. A PROPERLY CALIBRATED DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:
ITEM 630-COATING, EPOXY PRIME COAT, SUPPORT SECTIONS, AT THE CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

ITEM 630 - COATING EPOXY INTERMEDIATE COAT, SUPPORT SECTIONS:
THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF EPOXY TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL NOT BE LESS THAN SIX (6.0) MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COAT SHALL BE BORNE BY THE CONTRACTOR. THIS COAT SHALL BE APPLIED BY BRUSH. THINNING OF THE EPOXY MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED.
WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED SIX (6.0) MILS, BUT IS AT LEAST FIVE (5.0) MILS, THE CONTRACT PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 16-2/3%. IF THE DEFICIENCY OF COATING IS MORE THAN 16-2/3 %, (I.E. THE AVERAGE FILM THICKNESS IS LESS THAN 5.0 MILS), THE WORK FOR THIS ITEM SHALL BE CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT, AND MATERIAL. THE EPOXY INTERMEDIATE COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING TWO-COMPONENT COMPOSITIONS CONFORMING TO ITS LISTED PROPERTIES:

AMERLOCK 400
% SOLIDS BY VOLUME: 83% +/- 2%
POT LIFE: 2-1/2 HRS. @ 70 DEGREES F
DRYING TIME: 20 HRS. @ 70 DEGREES F

GLID-GUARD CORROSION RESISTANT HS EPOXY NO. 5466
% SOLIDS BY VOLUME: 54% +/- 1%
% SOLIDS BY WEIGHT: 71% +/- 1%
POT LIFE: 4 HRS. @ 70 DEGREES F
70 DEGREES F, 50% R.H.)
VISCOSITY: 95-100 KU
DRYING TIME: TOUCH 1-2 HRS. , RECOAT 7 HRS.

MCR-4301 EPOXY PRIMER
% SOLIDS BY VOLUME: 48.0% +/- 2%
POT LIFE: 30 HRS. @ 50-0 DEGREES F, 16 HRS. @ 80 DEGREES F
DRYING TIME: 1-2 HRS. @ 60-80 DEGREES F

MARK-60 ULTRAPOX
% SOLIDS BY WEIGHT: 70-75% +/- 2%
POT LIFE: 6 HRS. @ 75 DEGREES F
DRYING TIME: 2-3 HRS. INITIAL SET @ 75 DEGREES F
HI-SOLIDS CATALYZED EPOXY
% SOLIDS BY VOLUME: 61% +/- 2% (SLATE GRAY)
% SOLIDS BY WEIGHT: 77% +/- 2%
POT LIFE: 5 HRS. @ 77 DEGREES F
DRYING TIME: 1 HR. TO TOUCH , 4 HRS. TACK FREE
6 HRS. TO RECOAT @ 77 DEGREES F, 50% R.H.

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AT LEAST 24 HOURS BUT NO MORE THAN THREE (3) DAYS SHALL ELAPSE AFTER THE APPLICATION OF THE EPOXY PRIME COAT AND BEFORE THE APPLICATION OF THE EPOXY INTERMEDIATE COAT. SURFACES SHALL IN ALL CASES BE CLEAN BEFORE THE INTERMEDIATE COAT IS APPLIED.

THE PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COSTS AND MATERIAL NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS INTERMEDIATE COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE PRIME AND TOP COATS. A PROPERLY CALIBRATED DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:
ITEM 630-COATING, EPOXY, INTERMEDIATE COAT, SUPPORT SECTIONS AT THE CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

ITEM 630 - COATING , URETHANE TOP COAT, SUPPORT SECTIONS:
THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF URETHANE TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL NOT BE LESS THAN ONE AND ONE-HALF (1.5) MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COAT SHALL BE BORNE BY THE CONTRACTOR. THIS COAT SHALL BE APPLIED BY BRUSH. THINNING OF THE URETHANE MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED.

WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED ONE AND ONE-HALF (1.5) MILS BUT IS AT LEAST ONE (1.0) MIL, THE CONTRACT PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 33 1/3%. IF THE DEFICIENCY OF THE COATING IS MORE THAN 33 1/3% , (I.E. THE AVERAGE DRY FILM THICKNESS IS LESS THAN 1.0 MIL), THE WORK FOR THIS ITEM SHALL BE CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL.

THE URETHANE TOP COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING MATERIALS CONFORMING TO ITS LISTED PROPERTIES:

AMERCOAT 450 HS
% SOLIDS BY VOLUME: 45% +/- 2%
POT LIFE: 20 HRS. @ 77 DEGREES F
DRYING TIME: 8 HRS. @ 77 DEGREES F DRY THROUGH

GLID-THANE II POLYURETHANE NO. 6200
% SOLIDS BY VOLUME: 48 +/- 1%
% SOLIDS BY WEIGHT: 59 +/- 1%
POT LIFE: 6 HRS. @ 70 DEGREES F
DRYING TIME: 4 HRS. @ 70 DEGREES F RECOAT

HYTHANE
% SOLIDS BY VOLUME: 42 +/- 2%
POT LIFE: 16 HRS. @ 50 DEGREES F
12 HRS. @ 75 DEGREES F

MARK-73 (ULTRA-KOTE)
% SOLIDS BY VOLUME: 52.5% +/- 2%
% SOLIDS BY WEIGHT: 55% +/- 2%
POT LIFE: 8 HRS. @ 75 DEGREE F
DRYING TIME: 4-5 HRS. @ 75 DEGREES F TACK FREE
VISCOSITY: 70-75 KU @ 75 DEGREES F

HI-BILD ALIPHATIC POLYURETHANE ENAMEL
% SOLIDS BY VOLUME: 40% +/- 2% (CATALYZED)
% SOLIDS BY WEIGHT: 48 % +/- 2%
POT LIFE: 6 HRS. @ 77 DEGREES F
DRYING TIME: 30 MIN. TO TOUCH, 4 HRS. TAK FREE
18 HRS. MIN. 72 HRS. MAX TO RECOAT

AT LEAST 24 HOURS BUT NO MORE THAN THREE (3) DAYS SHALL ELAPSE AFTER THE APPLICATION OF THE EPOXY INTERMEDIATE COAT AND BEFORE THE APPLICATION OF THE URETHANE TOP COAT. SURFACES SHALL IN ALL CASES BE CLEAN BEFORE THE TOP COAT IS APPLIED.

THE PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COST AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS TOP COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE PRIME AND INTERMEDIATE COATS. A PROPERLY CALIBRATED DRY FILM INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:
ITEM 630-COATING, URETHANE TOP COAT, SUPPORT SECTIONS AT THE CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

ITEM 632 - LOOP DETECTOR AND LOOP DETECTOR TIE IN:
PLANING OPERATIONS ON RAMPS A AND C OF THE US 36 INTERCHANGE MAY DESTROY FOUR EXISTING SIGNAL LOOPS AT THE RAMP TERMINI. THE FOLLOWING QUANTITY IS PROVIDED AS A CONTINGENCY. SEVEN DAYS PRIOR TO PLANING OVER THE LOOP DETECTORS NOTIFY:

TOM JACOBY
O.D.O.T. DISTRICT SIX - ROADWAY SERVICES DEPARTMENT
(800)372-7714 OR (740)363-1251 EXT.426

THE LOCATION OF THE LOOPS SHALL BE AS DIRECTED BY THE O.D.O.T. DISTRICT SIX - ROADWAY SERVICES DEPARTMENT OR THE PROJECT ENGINEER.

ITEM 632 - LOOP DETECTOR = 4 EACH
ITEM 632 - LOOP DETECTOR TIE IN = 4 EACH

ITEM 887 - PAVEMENT MARKINGS:
DURING THE PLACEMENT OF PAVEMENT MARKINGS, THE LANE SHALL BE CLOSED AS PER APPLICABLE STANDARD DRAWINGS. THE COST OF THESE CLOSURES SHALL BE INCLUDED IN THE COST OF ITEM 614 - MAINTAINING TRAFFIC.

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SHEET NUMBER																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
76-79	82	83	84	85	86	87	88	89	90	91	92	93	94	99	101					
995																202	54000	995	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE
															193	620	10300	193	EACH	DELINEATOR, TYPE C, POST MOUNTED
															1	620	11000	1	EACH	DELINEATOR, TYPE C, BRACKET MOUNTED
															110	620	15300	110	EACH	DELINEATOR, TYPE D, POST MOUNTED
102																620	31200	102	EACH	DELINEATOR REMOVED FOR DISPOSAL
														809		621	00200	809	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY
										8			4			625	32000	12	EACH	GROUND ROD
	36		38	36	36	46										630	08004	192	LF	ONE WAY SUPPORT, NO. 3 POST
	310	274	196	276	232	206	357									630	3101	1851	LF	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN (SEE SHEET 76)
	24	24	24		24	64	48									630	4101	208	LF	GROUND MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN (SEE SHEET 77)
								6			2					630	9100	8	EACH	SURFACE PREPARATION, EXISTING SUPPORT SECTION
								6			2					630	9104	8	EACH	COATING, EPOXY PRIME COAT, SUPPORT SECTION
								6			2					630	9106	8	EACH	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION
								6			2					630	9108	8	EACH	COATING, URETHANE TOP COAT, SUPPORT SECTION
											1					630	20800	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8
											1					630	25501	1	EACH	COMBINATION OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 5, AS PER PLAN (SEE SHEET 76)
								1								630	35500	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6
								4			1					630	45500	5	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8
								16			3					630	75000	19	EACH	SIGN ATTACHMENT ASSEMBLY
								11			2					630	75106	13	EACH	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21
		1														630	79610	1	EACH	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED
	208.8	118.05	141.7	168.8	152.3	115.5	208.9									630	80102	1114.05	SF	SIGN, FLAT SHEET, TYPE G
	1.5	10.5	1.5	1.5	4.5	3	4.5		10.5			6				630	80101	44	SF	SIGN, FLAT SHEET, AS PER PLAN (SEE SHEET 76)
	127.5	508	172.5	109.5	339	354	214		1823			541				630	80204	4188.5	SF	SIGN, EXTRUSHEET, TYPE G
									10			4				630	84510	14	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION
	32	18	38	19	29	16	26									630	84900	178	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
	1	2				2										630	85100	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
	4	6	3	4	7	9	2									630	85501	35	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, AS PER PLAN (SEE SHEET 77)
	26	13	13	18	22	19	25									630	86002	136	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
		4				6	2									630	86205	12	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, AS PER PLAN (SEE SHEET 77)
									14			5				630	87001	19	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE, AS PER PLAN (SEE SHEET 77)
												2				630	88801	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND STRORAGE, AS PER PLAN (SEE SHEET 77)
									5			1				630	89804	6	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115
	20	15	11	19	19	17	22									630	97700	123	EACH	SIGNING, MISC.: OUTER ANCHOR SLEEVE
	2	2	2		2	2	4									630	97700	14	EACH	SIGNING, MISC.: SLIP BASE IN CONCRETE ANCHOR
									4			1				630	97700	5	EACH	SIGNING, MISC.: RAKE AND TIGHTEN ANCHOR BOLTS

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SHEET NUMBER															ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
76-79	82	83	84	85	86	87	88	89	90	91	92	93	94	99	101				
									8			4				631	84000	12	EACH SIGN SERVICE
									12			4				631	84300	16	EACH SIGN WIRED
									8			4				631	85100	12	EACH DISCONNECT SWITCH WITH ENCLOSURE, TYPE X
									27			8				631	87202	35	EACH BALLAST, TYPE CMRI-175-480, INTEGRAL
									2							631	87302	2	EACH BALLAST, TYPE CMRI-250-480, INTEGRAL
									27			8				631	89200	35	EACH MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP
									2							631	89300	2	EACH MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP
										8			2			631	94200	10	EACH REMOVAL OF LUMINAIRE AND DISPOSAL
										3			1			631	94304	4	EACH REMOVAL OF DISCONNECT SWITCH AND DISPOSAL
										7			1			631	94404	8	EACH REMOVAL OF BALLAST AND DISPOSAL
										5			1			631	94408	6	EACH REMOVAL OF SIGN WIRING AND DISPOSAL
										3			1			631	94412	4	EACH REMOVAL OF SIGN SERVICE AND DISPOSAL
4																632	26500	4	EACH DETECTOR LOOP
4																632	27200	4	EACH LOOP DETECTOR TIE IN
														175.5		644	00500	175.5	LF STOP LINE
														119		644	00600	119	LF CROSSWALK LINE
														5373		644	00700	5373	LF TRANSVERSE LINE
														23.89		887	20000	23.89	MILE EDGE LINE (5 YEAR WARRANTY)
														8.16		887	22000	8.16	MILE LANE LINE (5 YEAR WARRANTY)
														5632		887	26000	5632	LF CHANNELIZING LINE (5 YEAR WARRANTY)

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GROUND MOUNTED SIGN SUBSUMMARY

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SHEET NO.	REFERENCE NO.	STATION	SLM	ROADWAY	CODE	SIZE (FEET)	ITEM 630													LEGEND/ REMARKS
							GROUND MOUNTED SIGN SUPPORT, NO. 3 POST, APP	GROUND MOUNTED SIGN SUPPORT, NO. 4 POST, APP	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G, APP	SIGN, EXTRU SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, APP	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, APP	SIGNING MISC.: OUTER ANCHOR SLEEVE	SIGNING MISC.: SLIP BASE IN CONCRETE ANCHOR	ONE WAY SIGN SUPPORT	
							LF	LF	SF	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	
102	G1	12+32		RAMP R								1			2					REMOVE
102	G2	12+33		RAMP R	R-2-60	5X5	30		10.9			1			2		2			
102	G3	4+10		RAMP R	W-98-48	4X5	28		20			1			2		2			
102	G4	53+12		CR 133	M-39-24	2X1			2			1								
					M-1-24-2	2.5X2.5			6.3			1								33
					M-27-21	1.75X1.25			2.2			1								
					M-39-24	2X1			2			1								
					M-1-24-2	2.5X2.5			6.3			1								36
					M-27-21	1.75X1.25			2.2			1								
					M-37-24	2X1			2			1								
					M-2-24-2	2.5X2.5			6.3			1								4
					M-27-21	1.75X1.25			2.2			1								
102	G5	469+55		EB	N-45-12	1X1	15		1			1			1		1			9
102	G6	469+54		WB	N-45-12	1X1	15		1			1			1		1			9
102	G7	12+90		RAMP S										2	2					REMOVE
102	G8	7+42		RAMP S								1			1					REMOVE
102	G9	6+13		RAMP S	R-41A-36	3X2	20		6			1			1		1			
102	G10	5+77		RAMP S	D-1G-96	8X1.5	32		12			1		1	2		2			SEE SHEET 102
					D-1G-96	8X1.5			12			1			2					SEE SHEET 102
					R-41A-36	3X2			6			1			1					
					M-2-24-3	2.5X2.5			6.3			1								245
					M-24L-21	1.75X1.25			2.2			1								
102	G11	3+04		RAMP S	R-2-36	3x3	15		3.9			1			1		1			
102	G12	42+02		CR133	R-1-48	4X4	36		12			2			2		2			
					R-41B-36	3X3			9			2								
102	G12A	42+52		CR133	R-41B-36	3X3			9								2			
					R-43R-36	3x1			3										28	
					R-43L-36	3x1			3											
102	G13	10+02		RAMP S	GF	6x5		24			30							2		
103	G14	481+40		EB	R-9B-48	4X8	43		32			2			2		2			
103	G15	491+51	9.42	WB	GB	13X7.5					97.5			1						SEE SHEET 103
					N-44B	1.5X1				1.5			1							WB 33 9.42
103	G16	491+02		EB	R-123-36	3X3	38		9			1			2		2			
					R-19-24	2X2.5			5			1								
103	G17	490+59		WB	R-123-36	3X3	38		9			1			2		2			
					R-19-24	2X2.5			5			1								
		TOTALS CARRIED TO GENERAL SUMMARY:					310	24	208.8	1.5	127.5	32	1	4	26		20	2	28	

UNI-33-8.74

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GROUND MOUNTED SIGN SUBSUMMARY

CALCULATED HG | CHECKED MB

SHEET NO.	REFERENCE NO.	STATION	SLM	ROADWAY	CODE	SIZE (FEET)	ITEM 630													LEGEND/ REMARKS
							GROUND MOUNTED SIGN SUPPORT, NO. 3 POST, APP	GROUND MOUNTED SIGN SUPPORT, NO. 4 POST, APP	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G, APP	SIGN, EXTRU SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND SIGN MOUNTED AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, APP	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, APP	SIGNING MISC.: OUTER ANCHOR SLEEVE	SIGNING MISC.: SLIP BASE IN CONCRETE ANCHOR	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED	
							LF	LF	SF	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	
103	G29	471+99		EB	M-1-36-2	3X3	28		3								1			33
					M-1-36-2	3X3	28		3								1			36
					M-2-36-2	3X3	28		3								1			4
					M-39-36	3X1.25			3.75											SEE SHEET 103
					M-39-36	3X1.25			3.75											SEE SHEET 103
					M-37-36	3X1.25			3.75											SEE SHEET 103
103	G18	489+36	9.38	EB	GB	13X8					104			1						SEE SHEET 103
					N-44B	1.5X1				1.5										EB 33 9.38
103	G19	493+59	9.46	EB	GA-1	12X5					60			1						SEE SHEET 103
					N-44B	1.5X1				1.5										EB 33 9.46
104	G20	507+31		WB	R-9B-48	4X8	42		32			2			2		2			
104	G21	507+11		EB										1		2				REMOVE
104	G22	502+82		WB										1		2				REMOVE
104	G23	514+03	9.85	WB	GB	11X7.5					97.5			1						SEE SHEET 104
					N-44B	1.5X1				1.5										WB 33 9.85
104	G24	512+66	9.82	EB	GSN	8X3					24									SEE SHEET 104
					N-44B	1.5X1				1.5										EB 33 9.82
104	G25	515+91	9.88	EB	GCR	12X5.5					66									SEE SHEET 104
					N-44B	1.5X1				1.5										EB 33 9.88
104	G34	520+98	9.98	EB	GB	13X8					104			1						SEE SHEET 104
					N-44B	1.5X1				1.5										EB 33 9.98
105	G26	522+92		WB	R-2-60	5X5	30		10.9			1			2		2			
105	G27	525+17		CD	W-49R-48	4X4	36		16			1							1	
105	G28	528+00		CD	N-45-12	1X1			1			1			1		1			10
105	G30A	12+87		RAMP F								1			2					
	G30B	9+20		RAMP F	R-2-60	5X5	30		10.9								2			
105	G32	527+99		EB	N-45-12	1X1			1			1			1		1			10
105	G32A	529+86	10.15	EB	GF	6X5		24		1.5	30							2		EB 33 10.15
					N-44B	1.5X1														
105	G33	522+72		EB								3			1					REMOVE
106	G35	36+32.		SR 31	D-4A-96	8X1.5	28		12			1	2		2		2			SEE SHEET 106
106	G36	50+65		SR 31	D-1G	6X1	24		6			1			2		2			SEE SHEET 106
106	G37	49+40		SR 31	M-52A-108	9X2.5					22.5	6								SEE SHEET 106
					GSS-5	2X2			4											
					IM-24L-24	2X2			4											
		TOTALS CARRIED TO GENERAL SUMMARY:					274	24	118.05	10.5	508	18	2	6	13	4	15	2	1	

UNI-33-8.74

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GROUND MOUNTED SIGN SUBSUMMARY

CALCULATED HC
CHECKED MB

SHEET NO.	REFERENCE NO.	STATION	SLM	ROADWAY	CODE	SIZE (FEET)	ITEM 630												LEGENDS/ REMARKS
							GROUND MOUNTED SIGN SUPPORT, NO. 3 POST, APP	GROUND MOUNTED SIGN SUPPORT, NO. 4 POST, APP	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G, APP	SIGN, EXTRU SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, APP	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, APP	SIGNING MISC.: OUTER ANCHOR SLEEVE	SIGNING MISC.: SLIP BASE IN CONCRETE ANCHOR	ONE WAY SIGN SUPPORT	
							LF	LF	SF	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	
106	G38	2+65		RAMP H	M-39-24	2X1	38		2			1			2		2			
					M-39-24	2X1			2			1								
					M-37-24	2X1			2			1								
					M-1-24-2	2X2			4			1								33
					M-1-24-2	2X2			4			1								36
					M-2-24-2	2X2			4			1								4
					M-27-21	1.75X1.25			2.2			1								
					M-27-21	1.75X1.25			2.2			1								
					M-27-21	1.75X1.25			2.2			1								
106	G39	1+62		RAMP E								1			2					
106	G40	535+10		CD	W-49R-48	4X4	36		16			1								
106	G41	40+52		SR 31	M-52A-108	9X2.5					22.5			1						SEE SHEET 106
					M-52A-108	9X2.5					22.5			1						SEE SHEET 106
					M-52A-108	9X2.5					22.5			1						SEE SHEET 106
106	G42	39+63		SR 31	M-40-24	2X1			2			1								
					M-40-24	2X1			2			1								
					M-38-24	2X1			2			1								
					M-1-24-2	2X2			4			1								33
					M-1-24-2	2X2			4			1								36
					M-2-24-2	2X2			4			1								4
					M-24L-21	1.75X1.25			2.2			1								
					M-24L-21	1.75X1.25			2.2			1								
					M-24L-21	1.75X1.25			2.2			1								
106	G43	40+73		SR 31	M-8-24	2X1	30		2			1			2		2			
					M-2-24-2	2X2			4			1								38
					M-26-21	1.75X1.25			2.2			1								
106	G44	546+51	10.46	CD	GF	6X5		24			30	5			2			2		
					N-44B	1.5X1				1.5										WB 33 10.46
106	G45	24+68		SR 31	SPECIAL	12X6					75									SEE SHEET 106
106	G46	36+10		SR 31	R-43L-36	3X1			3			1			2		2		38	
					R-43R-36	3X1			3			1								
					R-1-30	2.5X2.5			6.3			1								
					R-41B-36	3X3			9			1								
106	G47	0+26		RAMP E	R-2-36	3X3	14		3.9			1			1		1			
106	G48	548+00		EB	R-2-60	5X5	30		10.9								2			
106	G49	5+67		RAMP E	R-41A-36	3X2	48		6			1			2		2			
					M-8-24	2X1			2			1								
					M-2-24-2	2X2			4			1								38
					M-24L-21	1.75X1.25			2.2			1								
					D-4A-96	8x1.5			12			1								SEE SHEET 106
					R-41A-36	3X2			6											
TOTALS CARRIED TO GENERAL SUMMARY:							196	24	141.7	1.5	172.5	38		3	13		11	2	38	

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SHEET NO.	REFERENCE NO.	STATION	SLM	ROADWAY	CODE	SIZE (FEET)	ITEM 630													LEGEND / REMARKS
							GROUND MOUNTED SIGN SUPPORT, NO. 3 POST, APP	GROUND MOUNTED SIGN SUPPORT, NO. 4 POST, APP	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G, APP	SIGN, EXTRU SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND SIGN MOUNTED AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, APP	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, APP	SIGNING MISC.: OUTER ANCHOR SLEEVE	SIGNING MISC.: SLIP BASE IN CONCRETE ANCHOR	ONE WAY SIGN SUPPORT	
							LF	LF	SF	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	
106	G50	4+67		RAMP E	R-41A-36	3X2	14		9			1			1		1			
106	G52	49+52		SR 31	M-52A-108	9X2.5					22.5			1						SEE SHEET 106
					M-52A-108	9X2.5					22.5			1						SEE SHEET 106
					M-52A-108	9X2.5					22.5			1						SEE SHEET 106
106	G53	18+11		RAMP G	R-1-36	3X3			9			1			2		2		36	
					R-41B-36	3X3			9			1								
					R-43L-36	3X1			3			1								
					R-43R-36	3X1			3			1								
106	G54	16+91		RAMP G	R-41A-36	3X2	14		6			1			1		1			
106	G55	16+10		RAMP G	D-4A-36	3X1.5	38		4.5			1			2		2			
					D-4B	6X2			12											SEE SHEET 106
					D-1G	6X1			6											RELOCATED
					M-8-24	2X1			2											
					M-2-24-2	2X2			4											38
					M-24R-24	2X2			4											
106	G56	13+04		RAMP G	R-41A-36	3X2	14		9			1			1		1			
					R-41A-36	3X2	14		9			1								
106	G57	7+32		RAMP H	R-15A-36	3X3	20		9			1			2		2			
106	G58	2+00		RAMP H	W-98-48	4X5	30				20	1					2			RELOCATED
106	G59	3+95		RAMP H	R-2-36	3X3	20		3.9			1			2		2			
106	G60	18+05.29		RAMP G	R-37R-24	2X2.5	14		5			1			1		1			
106	G61	538+25		EB	W-49R-48	4X4	32		16								2			RELOCATED
106	G61A	535+85		EB								1			1					REMOVE
107	G62	551+58		EB											1					REMOVE
107	G63	553+20	10.59	EB	D-4A	11X2					22			1						
					N-44B	1.5X1				1.5										EB 33 10.59
107	G64	554+14		CD	W-49R-48	4X4	36		16			1			2		2			
107	G65	2+56		RAMP M	R-2-60	5x5	30		10.9			1			2		1			
107	G66	13+90		RAMP M	M-38-36	3X1.5			4.5			1								
					M-2-36-2	3X3			9			1								4
					M-27-30	2.5X2			5			1								
					M-52A-108	9X2.5					22.5			1						SEE SHEET 107
					M-52A-108	9X2.5					22.5			1						SEE SHEET 107
		TOTALS CARRIED TO GENERAL SUMMARY:					276		168.8	1.5	109.5	19		4	18		19		36	

CALCULATED HG
CHECKED MB

GROUND MOUNTED SIGN SUBSUMMARY

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GROUND MOUNTED SIGN SUBSUMMARY

CALCULATED HG CHECKED MB

SHEET NO.	REFERENCE NO.	STATION	SLM	ROADWAY	CODE	SIZE (FEET)	ITEM 630													LEGEND/ REMARKS
							GROUND MOUNTED SIGN SUPPORT, NO. 3 POST, APP	GROUND MOUNTED SIGN SUPPORT, NO. 4 POST, APP	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	SIGN, EXTRU SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, APP	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, APP	SIGNING MISC.: OUTER ANCHOR SLEEVE	SIGNING MISC.: SLIP BASE IN CONCRETE ANCHOR	ONE WAY SIGN SUPPORT	
							LF	LF	SF	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	
107	G67	00+25		RAMP L	M-40-36	3X1.5	40		4.5			1			3		3			
					M-40-36	3X1.5			4.5			1								
					M-38-36	3X1.5			4.5			1								
					M-1-36-2	3X3			9			1								33
					M-1-36-2	3X3			9			1								36
					M-2-36-2	3X3			9			1								4
					M-24L-30	2X1.5			3			1								
					M-24L-30	2X1.5			3			1								
					M-24L-30	2X1.5			3			1								
					D-4A	14X2					28			1						SEE SHEET 107
					D-4B	14X4					56			1						SEE SHEET 107
107	G68A	31+00		SR 4	W-60C-36	3X3	26		9								2			
107	G68B	1+85		RAMP L										1	2					
107	G69	1+07		RAMP L	R-2-36	3X3	14		3.9					1	1		1			
107	G70	39+45		SR 4	R-1-48	4X4			16			1			2		2		36	
					R-43L-48	4X1.5			6			1								
					R-43R-48	4X1.5			6			1								
					R-41B-36	3X3			9			1								
107	G71	4+36		RAMP L	R-41A-36	3X2	14		6			1			1		1			
					D-4B	11X4					44									
					R-41A-36	3X2			6											
107	G72	560+30		CD								3			1					REMOVE
107	G73	562+23	10.76	CD	GF	5X6		24			30							2		
					N-44B	1.5X1				1.5										WB 33 10.76
107	G74	39+65		SR 4	D-1G-96	8X1.5	26		12			1			2		2			
108	G74A	568+36	10.88	CD								3								REMOVE
					D-4A	11X2					22			1						SEE SHEET 108
					D-4A	11X2					22			1						SEE SHEET 108
					N-44B	1.5X1				1.5										WB 33 10.88
108	G75	575+01		WB	N-45-12	1X1	15		1			1			1		1			11
108	G76	578+88	11.07	WB								4			2					REMOVE
108	G77	583+41	11.16	WB	GCR	15X7					105									SEE SHEET 108
					N-44B	1.5X1				1.5										WB 33 11.16
108	G78	574+95		EB	N-45-12	1X1	15		1			1			1		1			11
108	G79A	584+66		EB	R-2-60	5X5	30		10.9			1			2		2			
108	G79	574+00		EB	W-49R-48	4X4	32		16			1			2		2			
108	G80	5+92		RAMP J	W-32-96	8X4	20				32			1	2		2			
TOTALS CARRIED TO GENERAL SUMMARY:							232	24	152.3	4.5	339	29		7	22		19	2	36	

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GROUND MOUNTED SIGN SUBSUMMARY

CALCULATED HG
CHECKED MB

SHEET NO.	REFERENCE NO.	STATION	SLM	ROADWAY	CODE	SIZE (FEET)	ITEM 630													LEGEND/ REMARKS
							GROUND MOUNTED SIGN SUPPORT, NO. 3 POST, APP	GROUND MOUNTED SIGN SUPPORT, NO. 4 POST, APP	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G, APP	SIGN, EXTRU SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND SIGN MOUNTED AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, APP	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, APP	SIGNING MISC.: OUTER ANCHOR SLEEVE	SIGNING MISC.: SLIP BASE IN CONCRETE ANCHOR	ONE WAY SIGN SUPPORT	
							LF	LF	SF	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	
108	G81	568+72	10.88	EB	GF	5X6		24			30							2		
					N-44B	1.5X1				1.5										EB 33 10.88
108	G82	567+53		EB	W-98-48	4X5					20	1								25
108	G83	16+78		RAMP J	R-2-48	4X4	30		8			1			2		2			
108	G84A	8+00		RAMP J	M-37-24	2X1.5	30		3								2			RELOCATED
					M-2-24-2	2X2			4											4
					M-27-21	1.75X1.25			2.2											
					D-4B-96	8X3					24									
					R-41A-36	2.5X2.5			6.3											
108	G84B	13+00		RAMP J								5			2					REMOVE
108	G85	11+43		RAMP J	R-37R-24	2X2.5	14		5			1			1		1			
108	G86A	8+00		RAMP J	R-41A-36	3X2	14		6								1			RELOCATED
108	G86B	10+00		RAMP J								1			1					
108	G87	0+63		RAMP K	R-37R-24	2X2.5	14		5			1			1		1			
108	G88	0+42		RAMP K	R-1-36	3X3			9			1			2		2		46	
					D-4B-72	6X2			12			1								
					R-43L-36	3X1			3											
					R-43R-36	3X1			3											
108	G89	3+93		RAMP K	R-15A-36	3X3	28		9			1			2		2			
108	G90	0+51		RAMP K	M-52A-108	9X2.5		22			22.5									SEE SHEET 108
					M-52A-108	9X2.5					22.5									SEE SHEET 108
108	G91	58+00		SR 4	D-1G-72	6X2		18	12			1	2		2		2			
109	G92	590+01	11.28	WB	GB	13X10					130			1						SEE SHEET 109
					N-44B	1.5X1				1.5										WB 33 11.28
109	G93	598+23		EB	R-123-36	3X3	38		9					2	2		2			
					R-19-24	2X2.5			5											
109	G94	597+72		WB	R-123-36	3X3	38		9					2	2		2			
					R-19-24	2X2.5			5											
109	G95	602+97		WB										1		2				REMOVE
109	G96	598+54	11.45	EB	GCR	15X7					105			1						SEE SHEET 109
					N-44B	1.5X1				1.5										EB 33 11.45
109	G97	601+54		EB								2			2					REMOVE
109	G98	602+45		RT										1		2				REMOVE
109	G98	602+45		RT										1		2				REMOVE
109	G99A	607+23		EB	EXISTING									1		2				REMOVE
TOTALS CARRIED TO GENERAL SUMMARY:							206	64	115.5	3	354	16	2	9	19	6	17	2	46	

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SHEET NO.	REFERENCE NO.	STATION	SLM	ROADWAY	CODE	SIZE (FEET)	ITEM 630													LEGEND / REMARKS
							GROUND MOUNTED SIGN SUPPORT, NO. 3 POST, APP	GROUND MOUNTED SIGN SUPPORT, NO. 4 POST, APP	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	SIGN, EXTRU SHEET, TYPE G	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND SIGN MOUNTED AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE, APP	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND STORAGE, APP	SIGNING MISC.: OUTER ANCHOR SLEEVE	SIGNING MISC.: SLIP BASE IN CONCRETE ANCHOR	ONE WAY SIGN SUPPORT	
							LF	LF	SF	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	
109	G100A	604+00		WB	R-9B-48	4X8	44		32								2			SEE SHEET 109
110	G99B	612+00		EB	GSS-A	8X4	38				24				2		2			
					GSS-5	2X2			4											
110	G100B	615+61		WB								2			2					REMOVE
110	G101A	618+62		WB								3			1					REMOVE
110	G101	614+00		WB	M-40-36	3X1.5			4.5											
					M-1-36-2	3X3			9											33
					M-1-36-2	3X3			9											36
					M-40-36	3X1.5			4.5											RELOCATE
110	G102	626+66	11.98	WB	GB	13X10					130			1						SEE SHEET 110
					N-44B	1.5X1				1.5										WB 33 11.98
110	G102A	628+93		WB	R-2-60	5X5	30		10.9			1			2		2			
110	G103	630+74		WB	N-45-12	1X1	14		1			1			1		1			12
110	G104	632+10		WB	W-49R-48	4X4	36		16			1			2		2			
110	G105	620+68		EB										1		2				REMOVE
110	G106	630+68		EB	N-45-12	1X1	15		1			1			1		1			12
110	G107	629+71	12.04	EB	GF	5X6		24			30							2		
					N-44B	1.5X1				1.5										EB 33 12.04
110	G108	10+75		RAMP A	D-4B-96	8X4	40		12			1			2		2			SEE SHEET 110
					M-39-36	3X1.5			4.5			1								
					M-1-36-2	3X3			9			1								36
					M-24-30	2.5X2			5			1								
111	G109	13+00		RAMP A	R-41A-36	3X2	14		6			1			1		1			
					R-41A-36	3X2	14		6			1			1		1			
111	G110	14+77		RAMP A	R-41B-36	3X3	15		9			1			1		1			
					R-41B-36	3X3	15		9			1			1		1			
111	G111	646+88		EB	W-49R-48	4X4	36		16			1			2		2			
111	G112	0+83		RAMP C	R-41B-36	3X3	15		9			1			1		1			
					R-41B-36	3X3	15		9			1			1		1			
111	G113	2+46		RAMP C	R-41A-36	3X2	14		6			1			1		1			
					R-41A-36	3X2	14		6			1			1		1			
111	G114	2+70		RAMP C	D-4B-96	8X4	40		24			1			2		2			SEE SHEET 111
					M-39-36	3X1.5			4.5			1								
					M-1-36-2	3X3			9			1								36
					M-24R-30	2.5X2			5			1								
111	G115	648+50	12.39	WB	GF	5X6		24			30							2		
					N-44B	1.5X1				1.5										WB 33 12.39
111	G111A	654+55.9		EB	R-2-60	5X5	30		10.9						2		2			
TOTALS CARRIED TO GENERAL SUMMARY:							357	48	208.9	4.5	214	26		2	25	2	22	4		

CALCULATED HG
CHECKED MB

GROUND MOUNTED SIGN SUBSUMMARY

UNI-33-8.74

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SHEET NO.	REFERENCE NO.	SLM	STATION	ROADWAY	CODE	SIZE (FEET)	ITEM 630												
							SURFACE PREPARATION, EXISTING SUPPORT SECTION	COATING, EPOXY PRIME COAT, SUPPORT SECTION	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION	COATING, URETHANE TOP COAT, SUPPORT SECTION	COMBINATION OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 5,APP	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6				SIGN ATTACHMENT ASSEMBLY	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21	SIGN SUPPORT ASSEMBLY, POLE MOUNTED
							EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH				EACH	EACH	EACH
113	OH1		110+92	ROAD U	GE (a)	12X13	2	2	2	2								3	2	
					GE(b)	20X8												4	3	
113	OH2	8.97	467+90.25	WB	GG(a)	16X9	2	2	2	2								3	2	
					GE(b)	18X10.5												3	2	
					N-44B	1.5X1														
116	OH3	10.08	526+12	EB	GE	13X7								1						
					GB	13X9														
					N-44B	1.5X1														
116	OH4		529+70.49	EB	GB	EXISTING														
					GE	EXISTING														
117	OH5	10.49	547+79.5	CD	GE	13X7							1							
					GG	16X8.5														
					N-44B	1.5X1														
117	OH6		546+66.00	CD	GC	EXISTING														
					GE	EXISTING														
118	OH7	10.70	559+16.37	EB	GB	13X9	2	2	2	2								3	2	
					N-44B	1.5X1														
118	OH8	10.78	563+38	CD	GE	13X7							1							
					GG	10X9														
					N-44B	1.5X1														
118	OH9		562+39.5	CD	GG	EXISTING														
					GE	EXISTING														
119	OH10	10.81	565+13	EB	GB	11X9							1							
					GE	13X7														
					N-44B	1.5X1														
119	OH11		568 +66.24	EB	GC	EXISTING														
					GE	EXISTING														
119	OH12	10.99	574+42.49	WB	GG(a)	16X8.5							1							
					GE(b)	16X9														
					N-44B	1.5X1														
TOTALS CARRIED TO GENERAL SUMMARY:							6	6	6	6	0	0	4	1				16	11	

CALCULATED HG
CHECKED MB

OVERHEAD SIGN SUBSUMMARY

UNI-33-8.74

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OVERHEAD SIGN SUBSUMMARY

CALCULATED HC
CHECKED MB

SHEET NO.	REFERENCE NO.	SLM	STATION	ROADWAY	CODE	SIZE (FEET)	ITEM 631													
							SIGN, FLAT SHEET, TYPE G, APP	SIGN, EXTRU SHEET, TYPE G	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE, APP	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, APP	SIGNING MISC.:RAKE AND TIGHGTEN ANCHOR BOLTS	SIGN SERVICE	SIGN WIRED	DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	BALLAST TYPE CMRI-175-480, INTERGAL	BALLAST TYPE CMRI-250-480, INTERGAL	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP
							SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
113	OH1		110+92	ROAD U	GE (a)	12X13		156		1			2	1	1	1		2		2
					GE(b)	20X8		160		1					1		3		3	
113	OH2	8.97	467+90.25	WB	GG(a)	16X9		144		1			2	1	1	1	2		2	
					GE(b)	18X10.5		189		1					1		2		2	
					N-44B	1.5X1	1.5													
116	OH3	10.08	526+12	EB	GE	13X7		91	2					1	1	1	2		2	
					GB	13X9		117							1		2		2	
					N-44B	1.5X1	1.5													
116	OH4		529+70.49	EB		EXISTING				1	1									
						EXISTING				1										
117	OH5	10.49	547+79.5	CD	GE	13X7		91	2	1				1	1	1	2		2	
					GG	16X8.5		120							1		2		2	
					N-44B	1.5X1	1.5													
117	OH6		546+66.00	CD	GC	EXISTING				1	1									
					GE	EXISTING				1										
118	OH7	10.70	559+16.37	EB	GB	13X9		117		1				1	1	1	2		2	
					N-44B	1.5X1	1.5													
118	OH8	10.78	563+38	CD	GE	13X7		78	2					1	1	1	2		2	
					GG	10X9		90									1		1	
					N-44B	1.5X1	1.5													
118	OH9		562+39.5	CD	GG	EXISTING				1	1									
					GE	EXISTING				1										
119	OH10	10.81	565+13	EB	GB	11X9		99	2					1	1	1	1		1	
	.				GE	13X7		91									2		2	
					N-44B	1.5X1	1.5													
119	OH11		568 +66.24	EB	GC	EXISTING				1	1									
					GE	EXISTING				1										
119	OH12	10.99	574+42.49	RT	16X8.5	13X8.5		136	2		1			1	1	1	2		2	
					16X9	15X9		144									2		2	
					N-44B	1.5X1	1.5													
TOTALS CARRIED TO GENERAL SUMMARY:							10.5	1823	10	14	5		4	8	12	8	27	2	27	2

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OVERHEAD SIGN SUBSUMMARY

CALCULATED HG | CHECKED MB

SHEET NO.	REFERENCE NO.	SLM	STATION	ROADWAY	CODE	SIZE (FEET)	ITEM 631					ITEM 625					LEGEND	STRUCTURE REMARKS
							REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	REMOVAL OF SIGN WIRING AND DISPOSAL	REMOVAL OF SIGN SERVICE AND DISPOSAL	GROUND ROD						
							EACH	EACH	EACH	EACH	EACH	EACH						
113	OH1		110+92	ROAD U	GE (a)	12X13	2	1	2	1	1	1					SEE SHEET 113	EXISTING
					GE(b)	20X8	1		1	1							SEE SHEET 113	
113	OH2	8.97	467+90.25	WB	GG(a)	16X9	2	1	1	1	1	1					SEE SHEET 113	EXISTING
					GE(b)	18X10.5	2		2	1							SEE SHEET 113	
					N-44B	1.5X1											WB 33 8.97	
116	OH3	10.08	526+12	EB	GE	13X7						1					SEE SHEET 116	PROPOSED
					GB	13X9											EB 33 10.08	
					N-44B	1.5X1												
116	OH4		529+70.49	EB		EXISTING												REMOVE
						EXISTING												
117	OH5	10.49	547+79.5	CD	GE	13X7						1					SEE SHEET 117	PROPOSED
					GG	16X8.5											WB 33 10.49	
					N-44B	1.5X1												
117	OH6		546+66.00	CD	GC	EXISTING												REMOVE
					GE	EXISTING												
118	OH7	10.70	559+16.37	EB	GB	13X9	1	1	1	1	1	1					SEE SHEET 118	EXISTING
					N-44B	1.5X1											EB 33 1070	
118	OH8	10.78	563+38	CD	GE	13X7						1					SEE SHEET 118	PROPOSED
					GG	10X9											SEE SHEET 118	
					N-44B	1.5X1											WB 33 10.78	
118	OH9		562+39.5	CD	GG	EXISTING												REMOVE
					GE	EXISTING												
119	OH10	10.81	565+13	EB	GB	11X9						1					SEE SHEET 119	PROPOSED
					GE	13X7											SEE SHEET 119	
					N-44B	1.5X1											EB 33 10.81	
119	OH11		568 +66.24	EB	GC	EXISTING												REMOVE
					GE	EXISTING												
119	OH12	10.99	574+42.49	RT	16X8.5	13X8.5						1					SEE SHEET 119	PROPOSED
					16X9	15X9											SEE SHEET 119	
					N-44B	1.5X1											WB 33 10.99	
TOTALS CARRIED TO GENERAL SUMMARY:							8	3	7	5	3	8						

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OVERHEAD SIGN SUBSUMMARY

CALCULATED HG
CHECKED MB

SHEET NO.	REFERENCE NO.	SLM	STATION	ROADWAY	CODE	SIZE (FEET)	ITEM 630 SURFACE PREPARATION, EXISTING SUPPORT SECTION EACH	COATING, EPOXY PRIME COAT, SUPPORT SECTION EACH	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION EACH	COATING, URETHANE TOP COAT, SUPPORT SECTION EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8 EACH	COMBINATION OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 5, APP EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8 EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6 EACH				SIGN ATTACHMENT ASSEMBLY EACH	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21 EACH	
120	OH13	11.25	588+34	EB	GB	13X8						1								
					N-44B	1.5X1														
121	OH14		620+88.03	EB	GE	EXISTING														
121	OH15	11.96	625+86	EB	GB	13X7					1									
					N-44B	1.5X1														
121	OH16		629+63.45	EB	GB	EXISTING														
122	OH17		648+75.09	WB	GC	EXISTING														
					GE	EXISTING														
122	OH18	12.46	652+25	WB	GG	14X10.5							1							
					GE	13X7														
					N-44B	1.5X1														
123	OH19	12.56	657+45.27	WB	GB	12X9	2	2	2	2								3	2	
					N-44B	1.5X1														
TOTALS CARRIED TO GENERAL SUMMARY:							2	2	2	2	1	1	1					3	2	

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SHEET NO.	REFERENCE NO.	SLM	STATION	ROADWAY	CODE	SIZE (FEET)	ITEM 630							ITEM 631						
							SIGN, FLAT SHEET, TYPE G, APP	SIGN, EXTRU SHEET, TYPE G	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE, APP	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, APP	SIGNING MISC.:RAKE AND TIGHGTEN ANCHOR BOLTS	SIGN SERVICE	SIGN WIRED	DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	BALLAST TYPE CMRI-175-480, INTERGAL	BALLAST TYPE CMRI-250-480, INTERGAL	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP
							SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
120	OH13	11.25	588+34	EB	GB	13X8		104	1					1	1	1				
					N-44B	1.5X1	1.5													
121	OH14		620+88.03	EB	GE	EXISTING				1		1								
121	OH15	11.96	625+86	EB	GB	13X7		91	1					1	1	1	2		2	
					N-44B	1.5X1	1.5													
121	OH16		629+63.45	EB	GB	EXISTING				1		1								
122	OH17		648+75.09	WB	GC	EXISTING				1	1									
					GE	EXISTING				1										
122	OH18	12.46	652+25	WB	GG	14X10.5		147	2					1	1	1	2		2	
					GE	13X7		91									2		2	
					N-44B	1.5X1	1.5													
123	OH19	12.56	657+45.27	WB	GB	12X9		108		1			1	1	1	1	2		2	
					N-44B	1.5X1	1.5													
TOTALS CARRIED TO GENERAL SUMMARY:							6	541	4	5	1	2	1	4	4	4	8		8	

CALCULATED HG
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OVERHEAD SIGN SUBSUMMARY

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SHEET NO.	REFERENCE NO.	SLM	STATION	ROADWAY	CODE	SIZE (FEET)	ITEM 631					ITEM 625					LEGEND	STRUCTURE REMARKS
							REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	REMOVAL OF SIGN WIRING AND DISPOSAL	REMOVAL OF SIGN SERVICE AND DISPOSAL	GROUND ROD						
							EACH	EACH	EACH	EACH	EACH	EACH						
120	OH13	11.25	588+34	EB	GB	13X8						1					SEE SHEET 120	PROPOSED
					N-44B	1.5X1											EB 33 11.25	
121	OH14		620+88.03	EB	GE	EXISTING												REMOVE
121	OH15	11.96	625+86	EB	GB	13X7						1					SEE SHEET 121	PROPOSED
					N-44B	1.5X1											EB 33 11.96	
121	OH16		629+63.45	EB	GB	EXISTING												REMOVE
122	OH17		648+75.09	WB	GC	EXISTING												REMOVE
					GE	EXISTING												
122	OH18	12.46	652+25	WB	GG	14X10.5						1					SEE SHEET 122	PROPOSED
					GE	13X7											SEE SHEET 122	
					N-44B	1.5X1											WB 33 12.46	
123	OH19	12.56	657+45.27	WB	GB	12X9	2	1	1	1	1	1					SEE SHEET 123	EXISTING
					N-44B	1.5X1											WB 33 12.56	
TOTALS CARRIED TO GENERAL SUMMARY:							2	1	1	1	1	4						

CALCULATED HG
CHECKED MB

OVERHEAD SIGN SUBSUMMARY

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SHEET NO.	ROADWAY	LOCATION AND STATION FROM	LOCATION AND STATION TO	SIDE	ITEM 887 4" LANE LINE	ITEM 887 4" EDGE LINE WHITE	ITEM 887 4" EDGE LINE YELLOW	ITEM 887 8" CHANNELIZING LINE	ITEM 644 24" TRANSVERSE LINE	ITEM 644 24" STOP LINE	ITEM 644 12" CROSSWALK LINE	ITEM 621 RAISED PAVEMENT MARKER, INSTALLATION ONLY SPACING	ITEM 621 ONE WAY WHITE	ITEM 621 TWO WAY WHITE/ RED	ITEM 621 TWO WAY YELLOW/ RED
					LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH
	EB	US 33 MAINLINE													
113		461+50	463+40.93	RT	191							120	2		
		STATION EQUATION													
113		457+50	458+72	RT	122							120	1		
113		458+72	460+98	RT	452							120	4		
113		460+98	470+00	RT	902							120	8		
113		461+50	461+66	RT		16									
113		461+66	463+40.93	RT		350									
		STATION EQUATION		RT											
113		457+50	458+72	RT		244									
113		458+72	470+00	RT		1128									
113		461+50	461+66	RT			16								
113		461+66	463+40.93	RT			350					80			2
		STATION EQUATION													
113		457+50	470+00	RT			1250								
113		457+50	458+72	RT				122				40		4	
114		470+00	483+00	RT	1300	1300	1300					120	11		
114		483+00	496+00	RT	1300	1300	1300					120	11		
115		496+00	509+00	RT	1300	1300	1300					120	11		
115		509+00	522+00	RT	1300	1300	1300					120	11		
116		522+00	524+02	RT	202							120	2		
116		524+02	526+12	RT	420							120	4		
116		526+12	535+00	RT	888							120	7		
116		522+00	535+00	RT		1300	1300								
116		526+12	529+67	RT				699	507			40		18	
117		535+00	542+96	RT	796							120			
117		542+96	545+33	RT	474							120	4		
117		545+33	550+00	RT	467							120	4		
117		535+00	539+49.5	RT		449.5									
117		539+49.5	542+96	RT		693									
117		542+96	550+00	RT		704									
117		535+00	539+49.5	RT			449.5								
117		539+49.5	541+30	RT			361					80			3
117		541+30	550+00	RT			870								
118		550+00	563+36	RT	1336							120	11		
118		563+36	565+00	RT	328							120	3		
118		550+00	565+00	RT		1500	1500								
119		565+00	565+13	RT	26							120	1		
119		565+13	583+01	RT	1788							120	15		
119		583+01	585+00	RT	398							120	3		
119		565+00	580+18.5	RT		1518.5									
119		580+18.5	583+01	RT		565									
119		583+01	585+00	RT		199									
119		565+00	580+18.5	RT			1518.5								
119		580+18.5	582+00	RT			363					80			3
119		582+00	585+00	RT			300								
119		565+13	568+60	RT				690	867			40		18	
119		582+00	583+01	RT				101				40		4	
120		585+00	585+22	RT	44							120	1		
120		585+22	598+00	RT	1278							120	11		
120		585+00	598+00	RT		1300	1300								
120		598+00	611+00	RT	1300	1300	1300					120	11		
TOTALS THIS SHEET:					16612	16467.0	16078.0	1612	1374	0	0		136	44	8

CALCULATED HG
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PAVEMENT MARKING SUBSUMMARY

UNI-33-8.74

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SHEET NO.	ROADWAY	LOCATION AND STATION FROM	TO	SIDE	ITEM 887 4" LANE LINE	ITEM 887 4" EDGE LINE WHITE	ITEM 887 4" EDGE LINE YELLOW	ITEM 887 8" CHANNELIZING LINE	ITEM 644 24" TRANSVERSE LINE	ITEM 644 24" STOP LINE	ITEM 644 12" CROSSWALK LINE	ITEM 621 RAISED PAVEMENT MARKER, INSTALLATION ONLY SPACING	ONE WAY WHITE	TWO WAY WHITE/ RED	TWO WAY YELLOW/ RED
					LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH
	EB	US 33 MAINLINE													
121		611+00	623+85	RT	1285							120	11		
121		623+85	624+00	RT	30							120	1		
121		611+00	624+00	RT		1600	1600								
121		624+00	625+86	RT	372							120	3		
121		625+86	637+00	RT	1114							120	9		
121		624+00	637+00	RT		1300	1300								
121		625+86	629+59	RT				742	870			40		20	
122		637+00	650+96.5	RT	1396.5							120	12		
122		650+96.5	653+57	RT	521							120	4		
122		653+57	655+00	RT	143							120	1		
122		637+00	648+10	RT		1110									
122		648+10	650+96.5	RT		573									
122		650+96.5	655+00	RT		403.5									
122		637+00	648+10	RT			1110								
122		648+10	649+99.5	RT			379					80			3
122		649+99.5	655+00	RT			500.5								
122		649+99.5	650+96.5	RT				97				40		3	
123		655+00	658+89.85	RT	390	390	390					120	3		
	WB	US-33 MAINLINE													
113		461+50	463+40.96	LT	191							120	2		
113		STATION EQUATION													
113		457+50	468+76	LT	1126							120	9		
113		468+76	470+00	LT	248							120	2		
113		461+50	463+40.96	LT		191									
		STATION EQUATION													
113		457+50	470+00	LT		1250									
113		461+50	463+40.93	LT			191								
		STATION EQUATION													
113		457+50	470+00	LT			1250								
113		466+25	468+76	LT				518	642			40		14	
114		470+00	470+54	LT	108							120	1		
114		470+54	483+00	LT	1246							120	10		
114		470+00	483+00	LT		1300	1300								
114		483+00	496+00	LT	1300	1300	1300					120	11		
115		496+00	509+00	LT	1300	1300	1300					120	11		
115		509+00	522+00	LT		1300	1300								
115		509+00	519+34	LT	1034							120	9		
115		519+34	522+00	LT	532							120	4		
116		522+00	522+54.5	LT	109							120	1		
116		522+54.5	535+00	LT	1245.5							120	10		
116		522+00	522+54.5	LT		54.5									
116		522+54.5	524+47.5	LT		386									
116		524+47.5	535+00	LT		1052.5									
116		522+00	535+00	LT			1300								
116		522+54.5	524+47.5	LT				193				40		6	
117		535+00	550+00	LT	1500	1500	1500					120	13		
118		550+00	565+00	LT	1500	1500	1500					120	13		
119		565+00	576+47	LT	1147							120	10		
119		576+47	585+00	LT	853							120	7		
119		565+00	585+00	LT		2000	2000								
		TOTALS THIS SHEET:			18691	18510.5	18220.5	1550	1512	0	0		157	43	3

CALCULATED HG
CHECKED MB

PAVEMENT MARKING SUBSUMMARY

UNI-33-8.74

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SHEET NO.	ROADWAY	LOCATION AND STATION FROM	TO	SIDE	ITEM 887 4" LANE LINE	ITEM 887 4" EDGE LINE WHITE	ITEM 887 4" EDGE LINE YELLOW	ITEM 887 8" CHANNELIZING LINE	ITEM 644 24" TRANSVERSE LINE	ITEM 644 24" STOP LINE	ITEM 644 12" CROSSWALK LINE	ITEM 621 RAISED PAVEMENT MARKER, INSTALLATION ONLY SPACING	ONE WAY WHITE	TWO WAY WHITE/ RED	TWO WAY YELLOW/ RED
					LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH
	WB	US 33 MAINLINE													
119		570+82	576+47	LT				1131	1220			40		29	
120		585+00	598+00	LT	1300	1300	1300					120	11		
120		598+00	611+00	LT	1300	1300	1300					120	11		
121		611+00	624+00	LT	1300	1300	1300					120	11		
121		624+00	626+91	LT	291							120	2		
121		626+91	628+41.5	LT	150.5							120	1		
121		628+41.5	637+00	LT	858.5							120	7		
121		624+00	628+41.5	LT		441.5									
121		628+41.5	630+51	LT		419									
121		630+51	637+00	LT		649									
121		624+00	629+01	LT			501								
121		629+01	630+52	LT			302					80			2
121		630+52	637+00	LT			648								
121		628+41.5	629+01	LT				60				40		3	
122		637+00	652+25	LT	1525							120	13		
122		652+25	654+26.5	LT	403							120	3		
122		654+26.5	655+00	LT	73.5							120	1		
122		637+00	655+00	LT		1800	1800								
122		648+98	652+25	LT				656	704			40		17	
123		655+00	658+89.85	LT	390	390	390					120	3		
	WB	COLLECTOR-DISTRIBUTOR													
116		524+47.50	531+40	LT		693									
116		531+40	532+44	LT		208									
116		532+44	535+00	LT		256									
116		524+47.50	531+71	LT			724								
116		531+71	532+44	LT			146					80			1
116		532+44	535+00	LT			256								
116		530+82.50	531+40	LT	58							120	1		
116		531+40	531+71	LT				31				15.5		3	
117		535+00	550+00	LT		1500	1500								
117		547+79.5	548+31.5	LT	52							120	1		
117		546+71	547+79.5	LT				226	227			40		7	
118		550+00	552+15	LT		215									
118		552+15	552+54	LT		78									
118		552+54	565+00	LT		1246									
118		550+00	552+27.5	LT			228								
118		552+27.5	552+54	LT			53					80			1
118		552+54	565+00	LT			1246								
118		551+88	552+27.5	LT	40							120	1		
118		563+38	563+58.5	LT	21							120	1		
118		552+15	552+27.5	LT				13							
118		562+48	563+38	LT				187	210			40		6	
119		565+00	570+82	LT		582	582								
TOTALS THIS SHEET:					7762.5	12377.5	12276.0	2304	2361	0	0		67	65	4

CALCULATED HC
CHECKED MB

PAVEMENT MARKING SUBSUMMARY

UNI-33-8.74

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SHEET NO.	ROADWAY	LOCATION AND STATION FROM	TO	SIDE	ITEM 887 4" LANE LINE	ITEM 887 4" EDGE LINE WHITE	ITEM 887 4" EDGE LINE YELLOW	ITEM 887 8" CHANNELIZING LINE	ITEM 644 24" TRANSVERSE LINE	ITEM 644 24" STOP LINE	ITEM 644 12" CROSSWALK LINE	ITEM 621 RAISED PAVEMENT MARKER, INSTALLATION ONLY SPACING	ONE WAY WHITE	TWO WAY WHITE/ RED	TWO WAY YELLOW/ RED
					LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH
		CR 133 INTERCHANGE													
	RAMP R														
113		3+15	13+34.5	RT		1020									
113		4+34	5+56	RT		181									
113		3+15	5+56	RT			241					80			3
113		4+41	13+34.5	RT			1006					80			13
	RAMP S														
113		2+23	13+38.5	LT		1115.5									
113		4+96	5+26.87	LT		71.5						36		3	
113		2+23	5+27	LT			304					80			4
113		5+15	13+38.5	LT			872					80			11
113		4+96	5+16	LT						22.5					
113		10+13	10+95	LT				166.5	126			40		5	
		SR 31 INTERCHANGE													
	RAMP F														
116		10+19	13+00	LT		281	281					80			4
117		13+00	20+64	LT		773									
117		13+00	20+42	LT			750					80			9
	RAMP G														
116		5+21	10+00	RT		479	479					80			6
117		10+00	18+35	RT		846						11@40 & 5@80		16	
117		10+00	18+35	RT			835					80			10
117		18+27	18+27	RT						32.5					
	RAMP H														
117		2+34	12+15	RT		981									
117		3+27	4+33	RT		156									
117		3+35	12+15	RT			953					80			12
117		2+34	4+33	RT			199					80			2
	RAMP E														
117		0+00	7+00	LT		700						11@40 & 4@80		15	
117		0+00	4+28	LT			428					80			5
117		4+06	4+28	LT		53									
117		4+32	7+00	LT			300					80			4
117		4+10	4+32	LT						23					
117		7+00	12+24.5	LT		524.5	524.5					80		1	7
		SR 4 INTERCHANGE													
	RAMP M														
118		1+55	14+27	LT		1272									
118		11+71	11+91.5	LT		57									
118		1+55	11+68	LT			1046					80			13
118		11+71	14+27	LT			256					80			3
	RAMP L														
118		1+50	11+54	LT		1004									
118		3+49	3+70	LT		50.5						25		3	
118		1+50	3+70	LT			220					80			3
118		3+73	11+54	LT			811.5					80			10
118		3+52	3+73.5	LT						23					
TOTALS THIS SHEET:					0	9565.0	9506.0	166.5	126	101	0		0	43	119

CALCULATED HG
CHECKED MB

PAVEMENT MARKING SUBSUMMARY

UNI-33-8.74

98
174

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SHEET NO.	ROADWAY	LOCATION AND STATION FROM	LOCATION AND STATION TO	SIDE	ITEM 887 4" LANE LINE	ITEM 887 4" EDGE LINE WHITE	ITEM 887 4" EDGE LINE YELLOW	ITEM 887 8" CHANNELIZING LINE	ITEM 644 24" TRANSVERSE LINE	ITEM 644 24" STOP LINE	ITEM 644 12" CROSSWALK LINE	ITEM 621 RAISED PAVEMENT MARKER, INSTALLATION ONLY SPACING	ONE WAY WHITE	TWO WAY WHITE/ RED	TWO WAY YELLOW/ RED
					LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH
		SR 4 INTERCHANGE													
	RAMP J														
119		5+60	16+83	RT		1123									
119		12+64.5	14+29	RT		242						40		7	
119		5+60	14+20.5	RT			947					80			12
119		12+64.5	16+83	RT			418.5					80			5
119		14+16.5	14+24	RT						15					
	RAMP K														
119		0+34.5	15+22.5	RT		1498	1488					80			19
		US 36 INTERCHANGE													
	RAMP A														
121		5+54	13+00	RT		746						6@40 & 5@80		11	0
121		5+54	13+00	RT			746					80			9
122		13+00	14+96	RT		225						5@40		5	
122		13+00	14+96	RT			198					80			2
122		14+86	14+86	RT						38					
	RAMP D														
121		1+54	8+00	LT		646	646					80			8
122		8+00	12+86	LT		486									
122		11+01.5	12+09.5	LT		133.5									
122		8+00	11+92	LT			422					80			5
122		11+01.5	12+86	LT			193.5					80			2
	RAMP B														
122		0+58.5	0+76.5	RT							64				
122		0+42.5	2+89.27	RT		139									
122		0+53	2+89.27	RT			120.5					80			2
		STATION EQUATION													
122		3+95.47	9+79.5	RT		584	584					80			7
	RAMP C														
122		0+42.5	8+22.5	LT		796						11@40 & 5@80		16	
122		0+48.5	8+22.5	LT			776					80			10
122		0+60.5	0+67	LT							55				
122		0+72	0+74	LT						21.5					
TOTALS THIS SHEET:					0	6618.5	6539.5	0.0	0	74.5	119		0	39	81
TOTALS FROM SHEET 95:					16612	16467.0	16078.0	1612	1374	0	0		136	44	8
TOTALS FROM SHEET 96:					18691	18510.5	18220.5	1550	1512	0	0		157	43	3
TOTALS FROM SHEET 97:					7762.5	12377.5	12276.0	2304	2361	0	0		67	65	4
TOTALS FROM SHEET 98:					0	9565.0	9506.0	166.5	126	101	0		0	43	119
TOTALS:					43065.5	63538.5	62620.0	5632	5373	175.5	119		360	234	215
TOTALS TO GENERAL SUMMARY:					**8.16 MILE**	**23.89 MILE**		**5632**	**5373**	**175.5**	**119**		**809**		

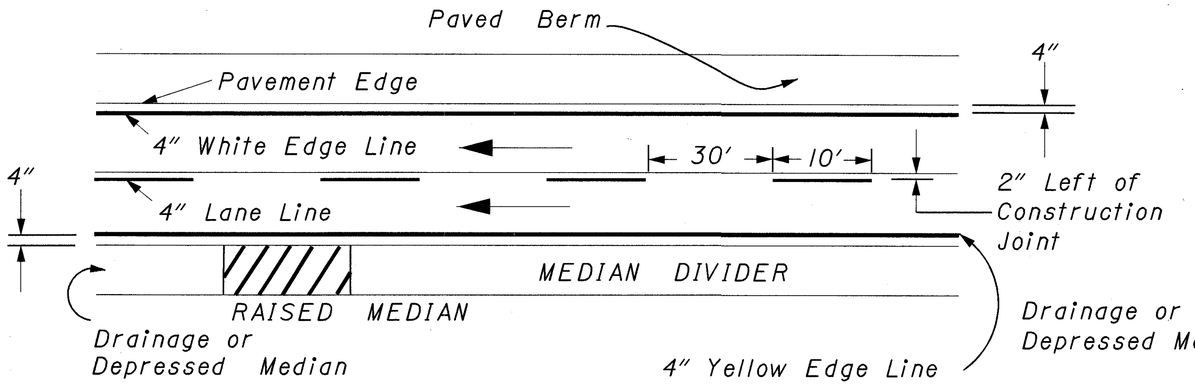
CALCULATED HG CHECKED MB

PAVEMENT MARKING SUBSUMMARY

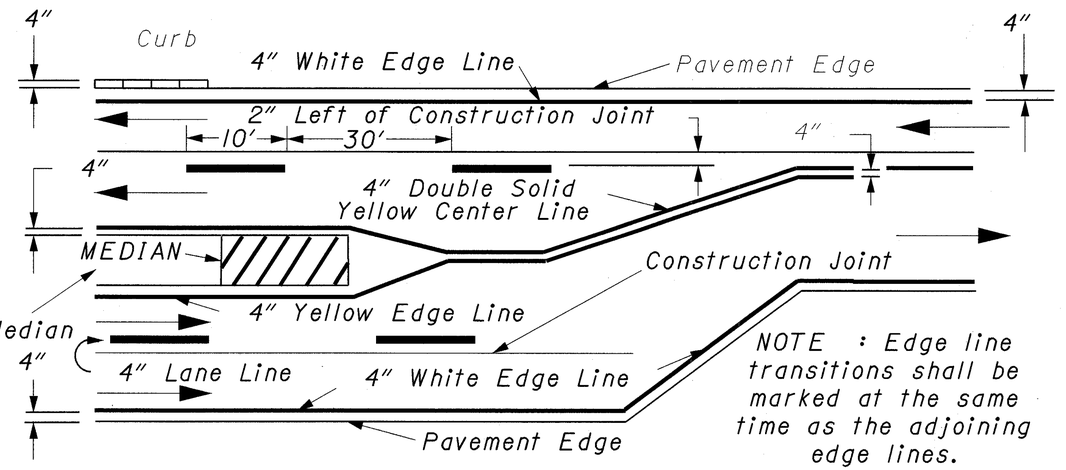
UNI-33-8.74

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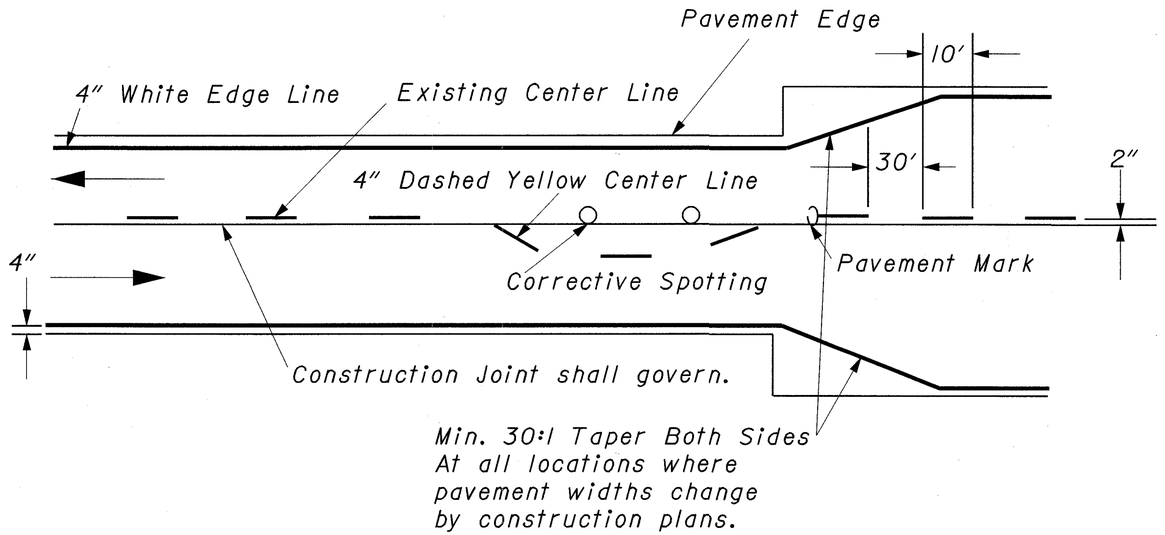
FREEWAY & EXPRESSWAY MAINLINE MARKINGS



MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



TWO LANE MARKINGS



NOTES :

1. The distance from the pavement edge to the nearside edge of the edgeline may be increased with the approval of the engineer in order to maintain uniform lane width.

2. See TC-72.20M for entrance and exit ramp markings.

3. The cycle length for dashed lines shall be 10 feet plus or minus 6". The minimum length of dash shall be sufficiently long to maintain a 3:1 ratio between length of gap and length of dash.

CALCULATED | CHECKED

PLAN NO.

PAVEMENT MARKING TYPICAL DETAILS

UNI-33-8.74

STATION FROM	STATION TO	LOCATION	SIDE	SPACING	ITEM 620 DELINEATOR TYPE C POST MOUNTED EACH	ITEM 620 DELINEATOR TYPE C BRACKET MOUNTED EACH	ITEM 620 DELINEATOR TYPE D POST MOUNTED EACH
CR 133 INTERCHANGE							
RAMP R							
1+50	8+50	RAMP R	RT	50	15		
3+50	5+00	RAMP R	LT	50			4
8+50	13+00	RAMP R	LT	50			10
13+50	457+50	RAMP R-US 33	RT	50	5		
458+50		US 33	RT		1		
460+50		US 33	RT			1	
462+50	468+50	US 33	RT	200	4		
RAMP S							
473+00	14+40	US 33-RAMP S	LT	200	3		
13+50	9+90	RAMP S	LT	90	6		
9+90	5+40	RAMP S	RT	90			6
7+00	1+00	RAMP S	LT	200	4		
SR 31 INTERCHANGE							
RAMP F							
20+50	513+00	RAMP F-US 33	LT	200	16		
RAMP G							
520+50	6+00	US 33-RAMP G	RT	200	6		
6+00	7+60	RAMP G	LT	160			2
8+40	13+20	RAMP G	LT	80			6
13+20	14+00	RAMP G	RT	80	2		
14+50	18+00	RAMP G	RT	50	8		
RAMP H							
1+50	7+50	RAMP H	RT	50	13		
2+50	4+00	RAMP H	LT	50			4
7+50	12+00	RAMP H	LT	50			10
12+00	13+50	RAMP H	RT	50	4		
541+90		US 33	RT		1		
543+90	551+90	US 33	RT	200	5		
RAMP E							
14+70		RAMP E	LT		1		
14+00	11+90	RAMP E	LT	70	4		
12+20	8+00	RAMP E	RT	70			7
6+60		RAMP E	RT				1
6+60	0+60	RAMP E	LT	200	4		
2+90	1+90	RAMP E	RT	200			2
SR 4 INTERCHANGE							
RAMP M							
16+00	10+00	RAMP M	LT	200	4		
13+80	11+80	RAMP M	RT	200			2
8+60		RAMP M	LT		1		
8+60	1+60	RAMP M	RT	70			11
1+60	550+50	RAMP M-US 33	LT	70	4		
TOTALS TO SECOND COLUMN:					111	1	65

STATION FROM	STATION TO	LOCATION	SIDE	SPACING	ITEM 620 DELINEATOR TYPE C POST MOUNTED EACH	ITEM 620 DELINEATOR TYPE C BRACKET MOUNTED EACH	ITEM 620 DELINEATOR TYPE D POST MOUNTED EACH
SR 4 INTERCHANGE							
RAMP L							
578+50	566+50	US 33	LT	200	7		
564+90		US 33	LT		1		
13+20	10+80	RAMP L	LT	80	4		
11+50	7+50	RAMP L	RT	80			6
5+90		RAMP L	RT				1
6+00	0+00	RAMP L	LT	200	4		
3+50	2+00	RAMP L	RT	150			2
RAMP J							
560+50	3+15	US 33-RAMP J	RT	200	4		
4+35		US 33	RT		1		
4+95	5+55	RAMP J	RT	60	2		
5+55	10+95	RAMP J	LT	60			10
10+95	16+35	RAMP J	RT	60	10		
13+35	15+75	RAMP J	LT	60			5
17+55		RAMP J	RT		1		
19+55		RAMP J	RT		1		
RAMP K							
0+50	4+50	RAMP K	RT	200	3		
4+50	14+50	RAMP K	LT	200			6
14+50	591+50	RAMP K-US 33	RT	200	7		
US 36 INTERCHANGE							
RAMP A							
620+00	6+00	US 33-RAMP A	RT	200	6		
6+00	14+00	RAMP A	LT	200			5
RAMP B							
0+45	4+30	RAMP B	RT	70	5		
5+70		RAMP B	LT		1		
5+70	9+70	RAMP B	LT	200			3
9+70	660+00	RAMP B-US 33	RT	200	7		
RAMP D							
13+85	10+85	RAMP D	LT	60	6		
12+60	11+40	RAMP D	RT	60			3
11+75	1+55	RAMP D	RT	200	6		
RAMP C							
658+00	7+25	US 33-RAMP C	RT	200	6		
7+25	1+25	RAMP C	LT	200			4
TOTALS THIS COLUMN:					82	0	45
TOTALS FROM FIRST COLUMN:					111	1	65
TOTALS TO GENERAL SUMMARY:					**193**	1	**110**

DELINEATOR TABLE

CALCULATED HG
CHECKED MB

UNI-33-8.74

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MATCH LINE US 33 STA. 470+00 SEE SHEET 103

RAMP S

ROAD U

CR 133

℄ CONSTRUCTION

EXIT

STATION EQUATION
SC Sta. 463+40.93 BK =
SC Sta. 457+50.00 AH

BEGIN PROJECT
UNI-33-8.74
US 33
STA 461+52.78 M.L.
SLM = 8.74

℄ RAMP R C

R-2-60

R-41A-36

R-41B-36

R-43L-36

R-43R-36

R-1-48

M-2-24-3

M-24L-21

D-1G-96

W-98-48

M-27-21

M-1-24-2

M-2-24-2

M-39-24

M-31-24

N-45-12

SEE NOTE 1

HORIZONTAL SCALE IN FEET
0 40 80 160

CALCULATED HG
CHECKED MB

GROUND MOUNTED SIGNING PLAN
US 33 STA. 455+00 TO STA. 470+00

UNI-33-8.74

102
174

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GROUND MOUNTED SIGNING PLAN
US 33 STA. 470+00 TO STA. 496+00

UNI-33-8.74

103
174

CALCULATED HC
CHECKED MB

HORIZONTAL SCALE IN FEET
0 25 50 100

MATCH LINE US 33
STA. 470+00 SEE SHEET 102

471 472 473 474 475 476 477 478 479 480 481 482

℄ CONSTRUCTION

MATCH LINE US 33
STA. 483+00 SEE BELOW

G29

EAST
M-39-36

EAST
M-37-36

NORTH
M-2-36-2

33
M-1-36-2

36

4

G14

R-9B-48

SPEED LIMIT 65
VEHICLES TOWING A TRAILER OR CARRYING HAZARDOUS MATERIALS MAY NOT EXCEED 55

SPEED LIMIT 65

SPEED LIMIT 55

UNI 33 69.93

WEST SOUTH TO
245
4
36
EXIT 1/2 MILE

GB LEVEL II
13' x 7.5'

G15

R-19-24

EMERGENCY AND AUTHORIZED VEHICLES ONLY

R-123-24

G16

MATCH LINE US 33
STA. 483+00 SEE ABOVE

484 485 486 487 488 489 490 491 492 493 494 495

℄ CONSTRUCTION

G17

R-19-24

EMERGENCY AND AUTHORIZED VEHICLES ONLY

R-123-24

G18

31
NORTH
Kenton
EXIT 3/4 MILE

GB LEVEL II
13' X 8'

MATCH LINE US 33
STA. 496+00 SEE SHEET 104

G19

Marysville
NEXT 3 EXITS

12' X 5'

• SEE SHEET 114 FOR OVERHEADS

I:\Projects\17003.000\DGN\tp02.dgn 23-FEB-2000 3:39PM mblack-fo

· SEE SHEET 115 FOR OVERHEADS

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED HG
CHECKED MB

GROUND MOUNTED SIGNING PLAN
US 33 STA. 496+00 TO STA. 522+00

UNI-33-8.74

104
174

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· SEE SHEET 116 FOR OVERHEADS

CALCULATED HG
CHECKED MB

HORIZONTAL SCALE IN FEET
0 25 50 100

GROUND MOUNTED SIGNING PLAN
US 33 STA. 522+00 TO STA. 535+00

UNI-33-8.74

105
174

I:\Projects\17003.000\DGN\tp04.dgn 23-FEB-2000 3:39PM mblack.fo

GROUND MOUNTED SIGNING PLAN
US 33 STA. 535+00 TO STA. 550+00

UNI-33-8.74

CALCULATED HG
CHECKED MB

HORIZONTAL SCALE IN FEET
0 40 80 160

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MATCH LINE SR 31 RAMP F STA. 13+00 SEE SHEET 105

MATCH LINE US 33 STA. 535+00 SEE SHEET 105

MATCH LINE SR 31 RAMP G STA. 10+00 SEE SHEET 105

MATCH LINE SR 31 STA. 39+00 SEE BELOW

MATCH LINE SR 31 RAMP E STA. 7+00 SEE BELOW

MATCH LINE US 33 STA. 550+00 SEE SHEET 107

MATCH LINE SR 31 STA. 39+00 SEE ABOVE

MATCH LINE SR 31 RAMP E STA. 7+00 SEE ABOVE

RAMP F

RAMP H

RAMP G

RAMP E

SR 31

℄ CONSTRUCTION

G36 Columbus 36 D-1G

G37 NORTH 31 SOUTH M-52A-108

G38 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G39

G40 W-49R-48

G41 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G42 M-40-24 WEST 33 M-40-24 WEST 36 M-38-24 SOUTH 4
M-1-24-2 M-1-24-2 M-2-24-2
M-24L-21

G43 M-26-21
M-2-24-2 38
M-8-24 TO

G44 EXIT GF 6' X 5'

G45 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G46 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G47 YIELD R-2-36

G48 YIELD R-2-60

G49 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G50 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G52 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G53 DO NOT ENTER R-41B-36
ONE WAY R-43R-36
ONE WAY R-43L-36
STOP R-1-36

G54 WRONG WAY R-41A-36
KEEP RIGHT R-37R-24

G55 Fairgrounds D-4A-36
Business District I D-1G
Kenton ↑ Mt Victory 21 32 D-4B
M-24R-24
M-2-24-2 38 M-8-24 TO

G56 WRONG WAY R-41A-36
WRONG WAY R-41A-36
PROHIBITED PEDESTRIANS FARM MACHINERY MOTOR DRIVEN CYCLES R-15A-36

G57 RAMP 25 MPH

G58 W-98-48 RAMP 25 MPH

G59 YIELD R-2-36

G60 KEEP RIGHT R-37R-24

G61 W-49R-48

G61A

G62 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G63 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G64 M-27-21
M-27-21
M-27-21

G65 W-49R-48

G66 W-49R-48

G67 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G68 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G69 M-26-21
M-2-24-2 38
M-8-24 TO

G70 EXIT GF 6' X 5'

G71 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G72 YIELD R-2-36

G73 YIELD R-2-60

G74 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G75 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G76 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G77 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G78 NORTH 31 SOUTH M-52A-108

G79 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G80 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G81 M-27-21
M-27-21
M-27-21

G82 W-49R-48

G83 W-49R-48

G84 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G85 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G86 M-26-21
M-2-24-2 38
M-8-24 TO

G87 EXIT GF 6' X 5'

G88 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G89 YIELD R-2-36

G90 YIELD R-2-60

G91 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G92 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G93 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G94 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G95 NORTH 31 SOUTH M-52A-108

G96 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G97 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G98 M-27-21
M-27-21
M-27-21

G99 W-49R-48

G100 W-49R-48

G101 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G102 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G103 M-26-21
M-2-24-2 38
M-8-24 TO

G104 EXIT GF 6' X 5'

G105 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G106 YIELD R-2-36

G107 YIELD R-2-60

G108 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G109 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G110 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G111 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G112 NORTH 31 SOUTH M-52A-108

G113 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G114 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G115 M-27-21
M-27-21
M-27-21

G116 W-49R-48

G117 W-49R-48

G118 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G119 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G120 M-26-21
M-2-24-2 38
M-8-24 TO

G121 EXIT GF 6' X 5'

G122 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G123 YIELD R-2-36

G124 YIELD R-2-60

G125 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G126 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G127 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G128 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G129 NORTH 31 SOUTH M-52A-108

G130 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G131 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G132 M-27-21
M-27-21
M-27-21

G133 W-49R-48

G134 W-49R-48

G135 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G136 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G137 M-26-21
M-2-24-2 38
M-8-24 TO

G138 EXIT GF 6' X 5'

G139 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G140 YIELD R-2-36

G141 YIELD R-2-60

G142 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G143 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G144 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G145 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G146 NORTH 31 SOUTH M-52A-108

G147 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G148 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G149 M-27-21
M-27-21
M-27-21

G150 W-49R-48

G151 W-49R-48

G152 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G153 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G154 M-26-21
M-2-24-2 38
M-8-24 TO

G155 EXIT GF 6' X 5'

G156 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G157 YIELD R-2-36

G158 YIELD R-2-60

G159 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G160 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G161 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G162 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G163 NORTH 31 SOUTH M-52A-108

G164 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G165 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G166 M-27-21
M-27-21
M-27-21

G167 W-49R-48

G168 W-49R-48

G169 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G170 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G171 M-26-21
M-2-24-2 38
M-8-24 TO

G172 EXIT GF 6' X 5'

G173 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G174 YIELD R-2-36

G175 YIELD R-2-60

G176 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G177 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G178 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G179 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G180 NORTH 31 SOUTH M-52A-108

G181 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G182 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G183 M-27-21
M-27-21
M-27-21

G184 W-49R-48

G185 W-49R-48

G186 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G187 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G188 M-26-21
M-2-24-2 38
M-8-24 TO

G189 EXIT GF 6' X 5'

G190 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G191 YIELD R-2-36

G192 YIELD R-2-60

G193 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G194 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G195 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G196 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G197 NORTH 31 SOUTH M-52A-108

G198 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G199 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G200 M-27-21
M-27-21
M-27-21

G201 W-49R-48

G202 W-49R-48

G203 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G204 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G205 M-26-21
M-2-24-2 38
M-8-24 TO

G206 EXIT GF 6' X 5'

G207 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G208 YIELD R-2-36

G209 YIELD R-2-60

G210 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G211 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G212 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G213 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G214 NORTH 31 SOUTH M-52A-108

G215 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G216 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G217 M-27-21
M-27-21
M-27-21

G218 W-49R-48

G219 W-49R-48

G220 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G221 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G222 M-26-21
M-2-24-2 38
M-8-24 TO

G223 EXIT GF 6' X 5'

G224 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G225 YIELD R-2-36

G226 YIELD R-2-60

G227 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G228 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G229 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G230 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G231 NORTH 31 SOUTH M-52A-108

G232 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G233 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G234 M-27-21
M-27-21
M-27-21

G235 W-49R-48

G236 W-49R-48

G237 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G238 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G239 M-26-21
M-2-24-2 38
M-8-24 TO

G240 EXIT GF 6' X 5'

G241 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G242 YIELD R-2-36

G243 YIELD R-2-60

G244 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G245 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G246 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G247 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G248 NORTH 31 SOUTH M-52A-108

G249 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G250 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G251 M-27-21
M-27-21
M-27-21

G252 W-49R-48

G253 W-49R-48

G254 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G255 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G256 M-26-21
M-2-24-2 38
M-8-24 TO

G257 EXIT GF 6' X 5'

G258 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G259 YIELD R-2-36

G260 YIELD R-2-60

G261 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G262 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G263 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G264 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G265 NORTH 31 SOUTH M-52A-108

G266 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G267 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G268 M-27-21
M-27-21
M-27-21

G269 W-49R-48

G270 W-49R-48

G271 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G272 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G273 M-26-21
M-2-24-2 38
M-8-24 TO

G274 EXIT GF 6' X 5'

G275 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G276 YIELD R-2-36

G277 YIELD R-2-60

G278 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G279 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G280 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G281 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G282 NORTH 31 SOUTH M-52A-108

G283 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G284 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G285 M-27-21
M-27-21
M-27-21

G286 W-49R-48

G287 W-49R-48

G288 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G289 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G290 M-26-21
M-2-24-2 38
M-8-24 TO

G291 EXIT GF 6' X 5'

G292 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G293 YIELD R-2-36

G294 YIELD R-2-60

G295 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G296 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G297 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G298 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G299 NORTH 31 SOUTH M-52A-108

G300 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G301 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G302 M-27-21
M-27-21
M-27-21

G303 W-49R-48

G304 W-49R-48

G305 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G306 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G307 M-26-21
M-2-24-2 38
M-8-24 TO

G308 EXIT GF 6' X 5'

G309 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G310 YIELD R-2-36

G311 YIELD R-2-60

G312 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G313 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G314 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G315 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G316 NORTH 31 SOUTH M-52A-108

G317 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G318 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G319 M-27-21
M-27-21
M-27-21

G320 W-49R-48

G321 W-49R-48

G322 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G323 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G324 M-26-21
M-2-24-2 38
M-8-24 TO

G325 EXIT GF 6' X 5'

G326 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G327 YIELD R-2-36

G328 YIELD R-2-60

G329 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G330 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G331 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G332 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G333 NORTH 31 SOUTH M-52A-108

G334 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G335 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G336 M-27-21
M-27-21
M-27-21

G337 W-49R-48

G338 W-49R-48

G339 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G340 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G341 M-26-21
M-2-24-2 38
M-8-24 TO

G342 EXIT GF 6' X 5'

G343 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G344 YIELD R-2-36

G345 YIELD R-2-60

G346 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G347 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G348 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G349 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G350 NORTH 31 SOUTH M-52A-108

G351 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G352 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G353 M-27-21
M-27-21
M-27-21

G354 W-49R-48

G355 W-49R-48

G356 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G357 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G358 M-26-21
M-2-24-2 38
M-8-24 TO

G359 EXIT GF 6' X 5'

G360 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G361 YIELD R-2-36

G362 YIELD R-2-60

G363 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G364 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G365 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G366 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G367 NORTH 31 SOUTH M-52A-108

G368 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G369 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G370 M-27-21
M-27-21
M-27-21

G371 W-49R-48

G372 W-49R-48

G373 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G374 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G375 M-26-21
M-2-24-2 38
M-8-24 TO

G376 EXIT GF 6' X 5'

G377 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G378 YIELD R-2-36

G379 YIELD R-2-60

G380 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G381 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G382 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G383 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G384 NORTH 31 SOUTH M-52A-108

G385 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G386 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G387 M-27-21
M-27-21
M-27-21

G388 W-49R-48

G389 W-49R-48

G390 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G391 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G392 M-26-21
M-2-24-2 38
M-8-24 TO

G393 EXIT GF 6' X 5'

G394 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G395 YIELD R-2-36

G396 YIELD R-2-60

G397 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G398 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G399 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G400 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G401 NORTH 31 SOUTH M-52A-108

G402 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G403 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G404 M-27-21
M-27-21
M-27-21

G405 W-49R-48

G406 W-49R-48

G407 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G408 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G409 M-26-21
M-2-24-2 38
M-8-24 TO

G410 EXIT GF 6' X 5'

G411 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G412 YIELD R-2-36

G413 YIELD R-2-60

G414 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G415 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G416 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G417 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G418 NORTH 31 SOUTH M-52A-108

G419 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G420 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G421 M-27-21
M-27-21
M-27-21

G422 W-49R-48

G423 W-49R-48

G424 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G425 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G426 M-26-21
M-2-24-2 38
M-8-24 TO

G427 EXIT GF 6' X 5'

G428 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G429 YIELD R-2-36

G430 YIELD R-2-60

G431 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G432 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G433 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G434 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G435 NORTH 31 SOUTH M-52A-108

G436 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G437 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G438 M-27-21
M-27-21
M-27-21

G439 W-49R-48

G440 W-49R-48

G441 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G442 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G443 M-26-21
M-2-24-2 38
M-8-24 TO

G444 EXIT GF 6' X 5'

G445 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G446 YIELD R-2-36

G447 YIELD R-2-60

G448 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G449 WRONG WAY R-41A-36
TO M-8-24
38 M-2-24-2
M-24L-21
Business District I D-4A-96

G450 STOP R-1-30
DO NOT ENTER R-41B-36
ONE WAY R-43L-36
ONE WAY R-43R-36

G451 Business District I D-4A-96
Kenton ↑ Mt Victory 21 32 D-4B
M-24L-24
GSS-5-30
1M-24L-24

G452 NORTH 31 SOUTH M-52A-108

G453 EAST 33 WEST M-52A-108
EAST 36 WEST M-52A-108
NORTH 4 SOUTH M-52A-108

G454 M-39-24 EAST 33
M-39-24 EAST 36
M-37-24 NORTH 4
M-2-24-2
M-1-24-2
M-27-21

G455 M-27-21
M-27-21
M-27-21

G456 W-49R-48

G457 W-49R-48

G458 M-52A-108 NORTH 4 SOUTH
M-52A-108 EAST 36 WEST
M-52A-108 EAST 33 WEST

G459 M-40-24 WEST 33
M-40-24 WEST 36
M-38-24 SOUTH 4
M-1-24-2
M-1-24-2
M-2-24-2
M-24L-21

G460 M-26-21
M-2-24-2 38
M-8-24 TO

G461 EXIT GF 6' X 5'

G462 JCT 1/2 MILE 33 36 4
SPECIAL 12'X6' LEVEL II

G463 YIELD R-2-36

G464 YIELD R-2-60

G465 WRONG WAY R-41A-36
WRONG WAY R-41A-36

G466 WRON

MATCH LINE US 33
STA. 550+00 SEE SHEET 106

G62

G63

Business District
D-4A
11' X 2'
LEVEL IV

G64

W-49R-48

G65

YIELD
R-2-60

RAMP M

SOUTH
M-38-36

4
M-2-36-2

M-27-30

EAST 33 WEST
M-52A-108

EAST 36 WEST
M-52A-108

G66

Business District
D-1-96

G74

Hospital

SR 4

WRONG WAY
R-41A-36

G67

G68B

G69

R-2-36

G70

R-41B-36

DO NOT ENTER

ONE WAY
R-43L-48

DO NOT ENTER
R-43R-48

G71

Business District
Fairgrounds
D-4B
11' X 4'

WRONG WAY
R-41A-36

STOP
R-1-48

Bellefontaine
Springfield
Marion
25
26
36
D-4B
14' X 4'

M-24L-30
M-1-36-2
WEST
33
M-40-36

M-24L-30
M-1-36-2
WEST
36
M-40-36

M-24L-30
M-2-36-2
4
SOUTH
M-38-36

D4A
11' X 2'

W-60C-36

G68A

RAMP L

G72

G73

EXIT

GF
6' X 5'

MATCH LINE SR 4
STA. 50+00 SEE SHEET 108

MATCH LINE US 33
STA. 565+00 SEE SHEET 108

* SEE SHEET 118 FOR OVERHEADS

HORIZONTAL SCALE IN FEET
0 40 80 160

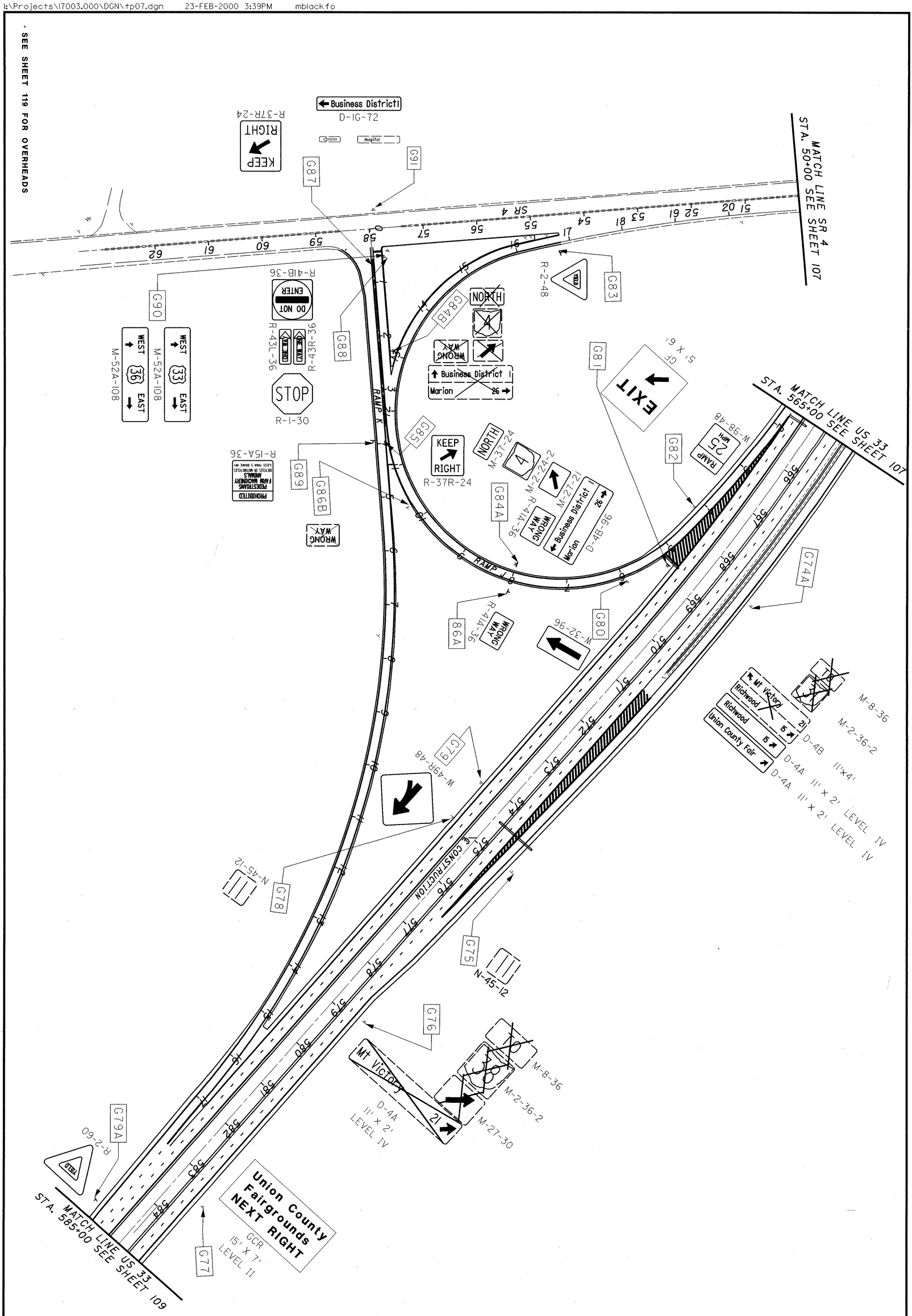
CALCULATED HG
CHECKED MB

GROUND MOUNTED SIGNING PLAN
US 33 STA. 550+00 TO STA. 565+00

UNI-33-8.74

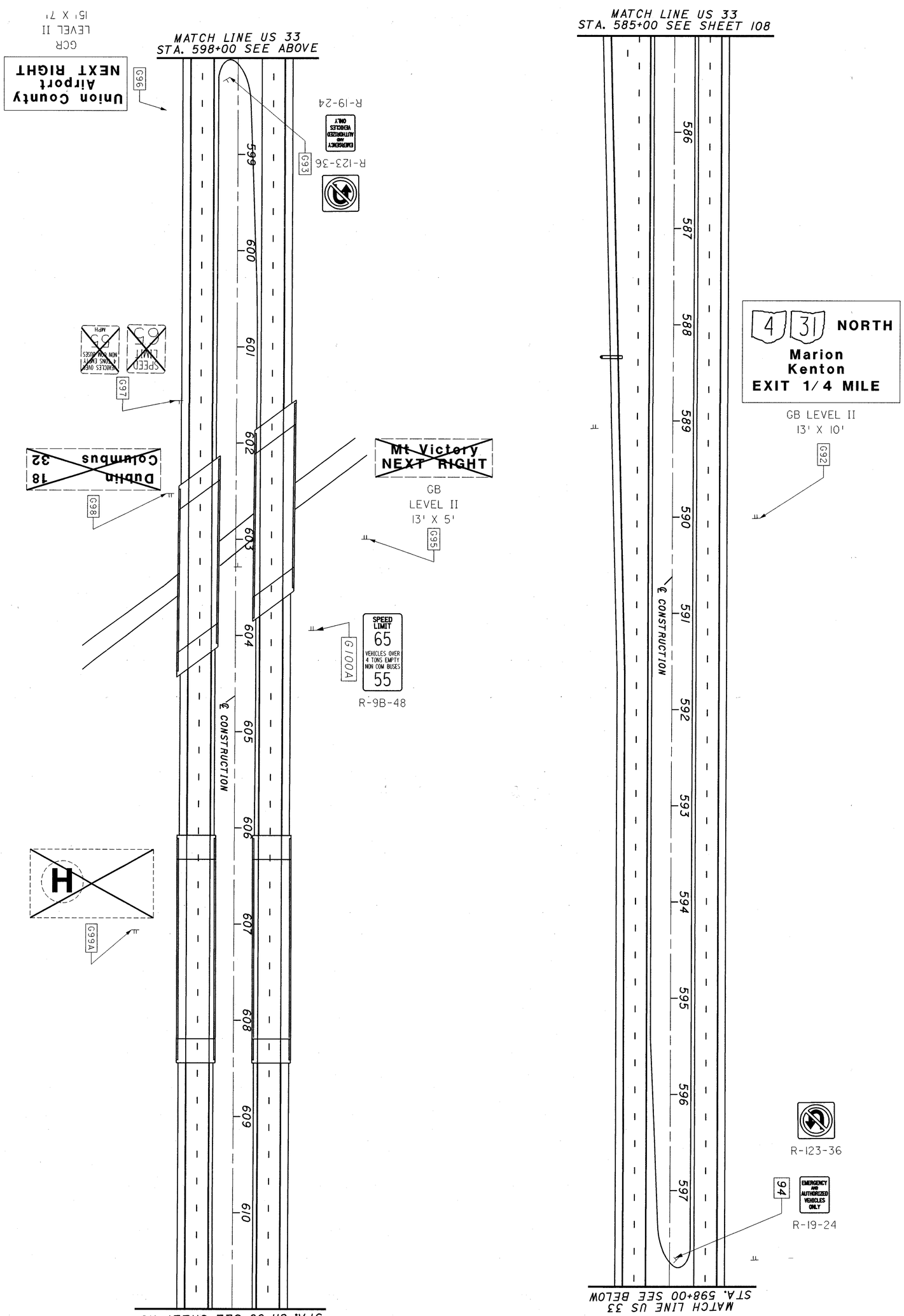
107
174

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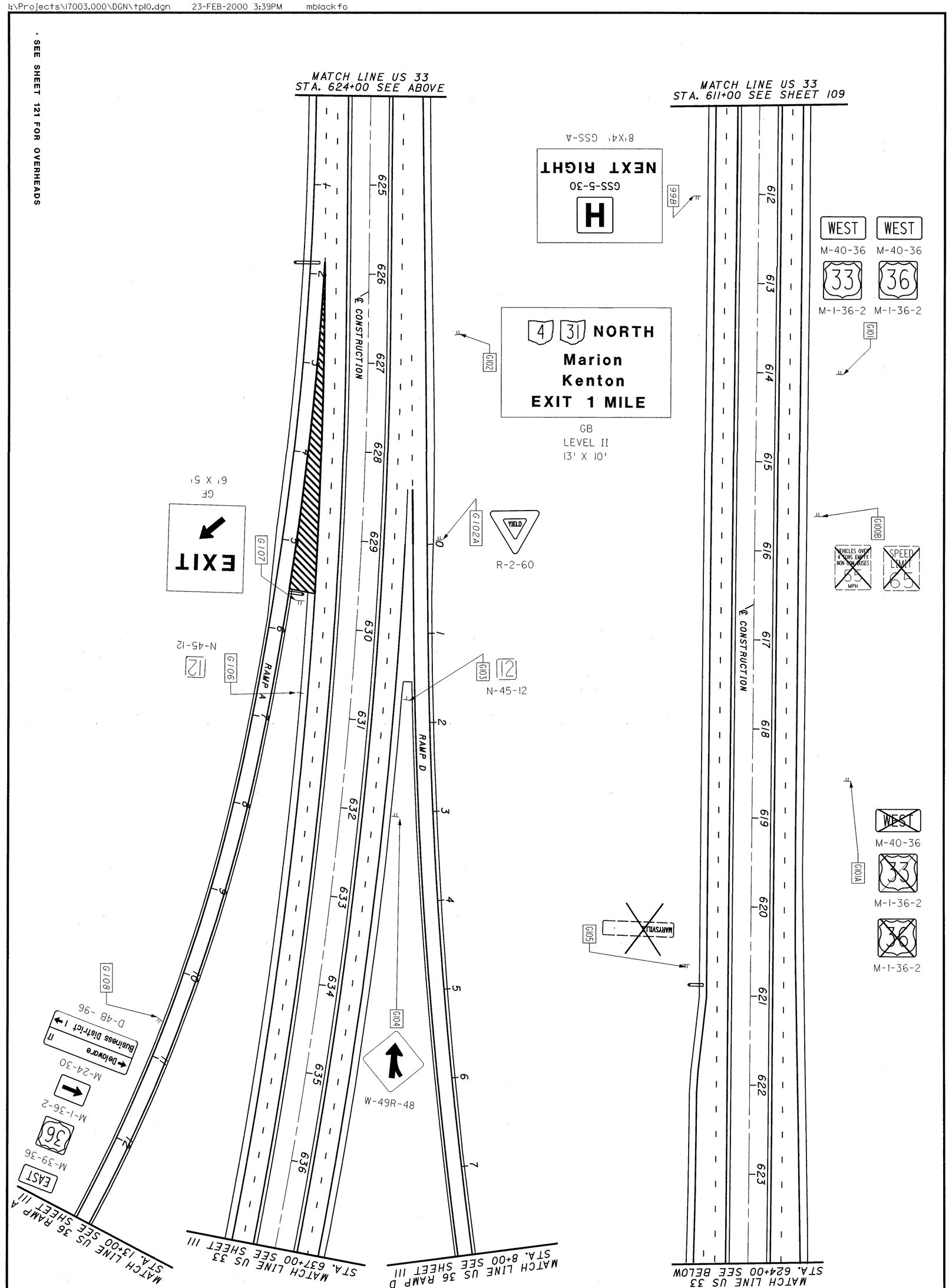


108 / 174	UNI-33-8.74	GROUND MOUNTED SIGNING PLAN US 33 STA. 565+00 TO STA 585+00	CALCULATED HG CHECKED MB	0 80 40 160 HORIZONTAL SCALE IN FEET

* SEE SHEET 120 FOR OVERHEADS

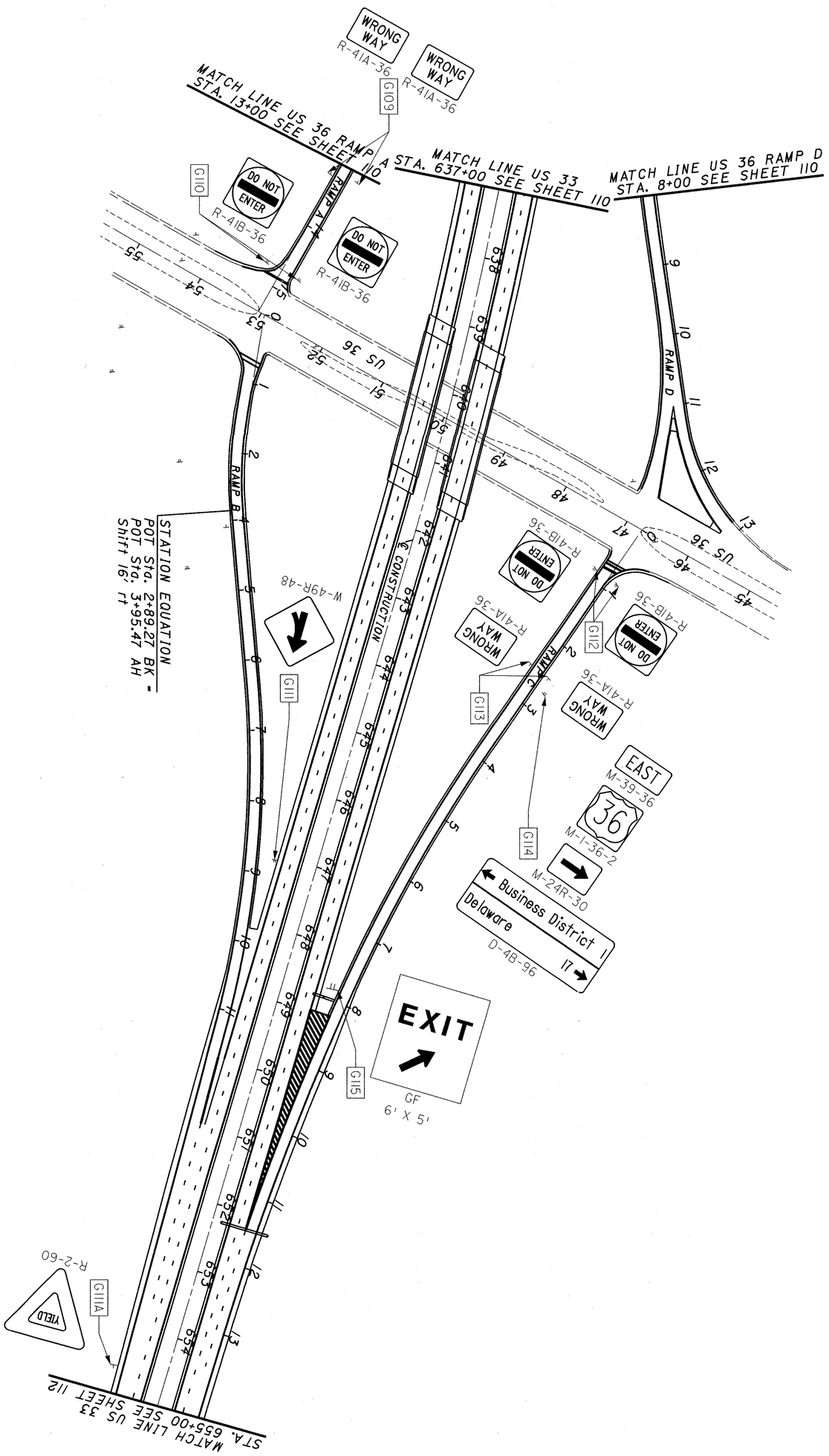


109 / 174	UNI-33-8.74	GROUND MOUNTED SIGNING PLAN US 33 STA. 585+00 TO STA. 611+00	CALCULATED HG CHECKED MB	0 50 25 100 HORIZONTAL SCALE IN FEET



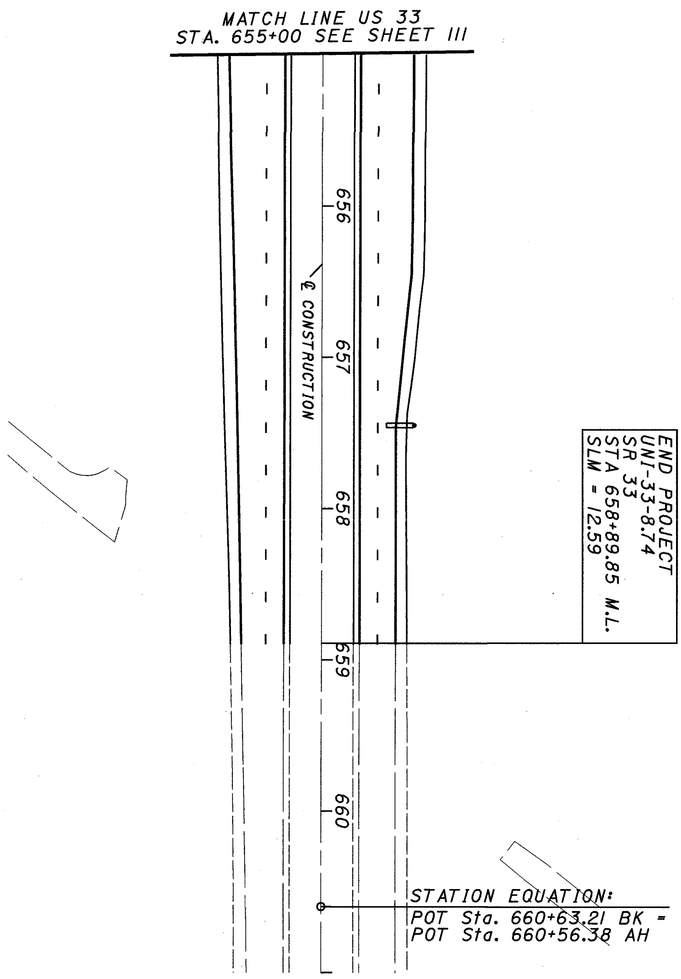
110 / 174	UNI-33-8.74	GROUND MOUNTED SIGNING PLAN US 33 STA. 611+00 TO STA. 637+00	CALCULATED HG CHECKED MB	0 50 25 100 HORIZONTAL SCALE IN FEET

* SEE SHEET 122 FOR OVERHEADS



174 / 111	UNI-33-8.74	GROUND MOUNTED SIGNING PLAN US 33 STA. 637+00 TO STA. 655+00	CALCULATED HG CHECKED MB	0 40 80 160 HORIZONTAL SCALE IN FEET

* SEE SHEET 123 FOR OVERHEADS



UNI-33-8.74

GROUND MOUNTED SIGNING PLAN
US 33 STA. 655+00 TO STA. 665+00

CALCULATED HG
CHECKED MB

0 25 50 100
HORIZONTAL SCALE IN FEET

OVERHEAD SIGNING/PAVEMENT MARKING PLAN
US 33 STA. 455+00 TO STA. 470+00

CALCULATED HG
CHECKED MB

HORIZONTAL SCALE IN FEET
0 40 80 160

UNI-33-8.74

113
174

MATCH LINE US 33 STA. 470+00 SEE SHEET 114

WEST SOUTH TO Urbana 4 Springfield 36

Northwest pkwy 42

LEVEL II GE (5)

WEST Urbana 4 Springfield 36

WEST SOUTH Urbana 4 Springfield 36

LEVEL II GE (5)

+25 US 33 RAMP S +38.5

RAMP S

ROAD U

CR 133

OH1

OH2

+57.04 END TAPER

+79

+72

+50

+15

+56

+66 US 33 +34.5 RAMP R

℄ RAMP R ℄

℄ CONSTRUCTION

STATION EQUATION
SC Sta. 463+40.93 BK =
SC Sta. 457+50.00 AH

BEGIN PROJECT
UNI-33-8.74
US 33
STA 461+52.78 M.L.
SLM - 8.74

LEVEL II GE (5) 18' X 9.5'

WEST Urbana 4 Springfield 36

LEVEL II GE (5) 16' X 8'

WEST Bellefontaine 33

LEVEL II GE (5) 51' X 9.5'

WEST Urbana 4 Springfield 36

PAVEMENT MARKING LEGEND

- (WLL) 4" WHITE LANE LINE
- (WEL) 4" WHITE EDGE LINE
- (YEL) 4" YELLOW EDGE LINE
- (WCL) 8" WHITE CHANNELIZING LINE
- (WTL) 24" WHITE TRANSVERSE LINE
- (WSL) 24" WHITE STOP LINE
- (CWL) 12" CROSSWALK LINE

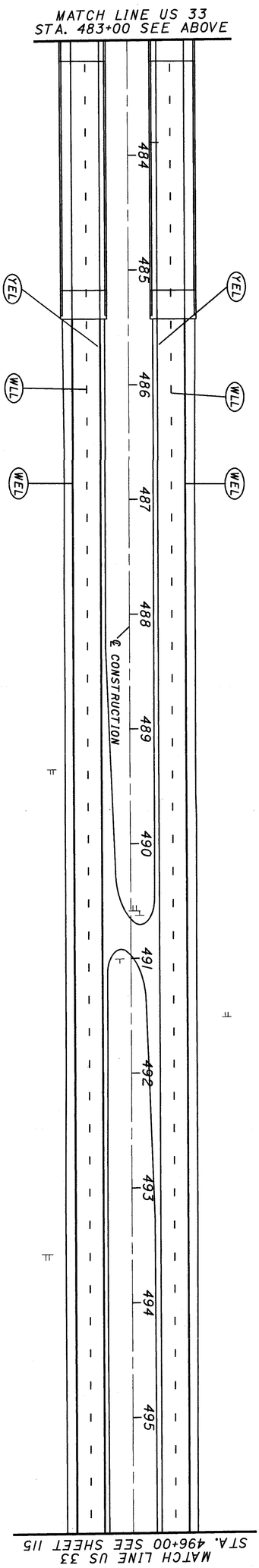
NOTE:
PROPOSED SIGN LIGHTING FOR OH1 & OH2 TO BE RECONNECTED TO EXISTING CIRCUIT AT PULL BOXES.

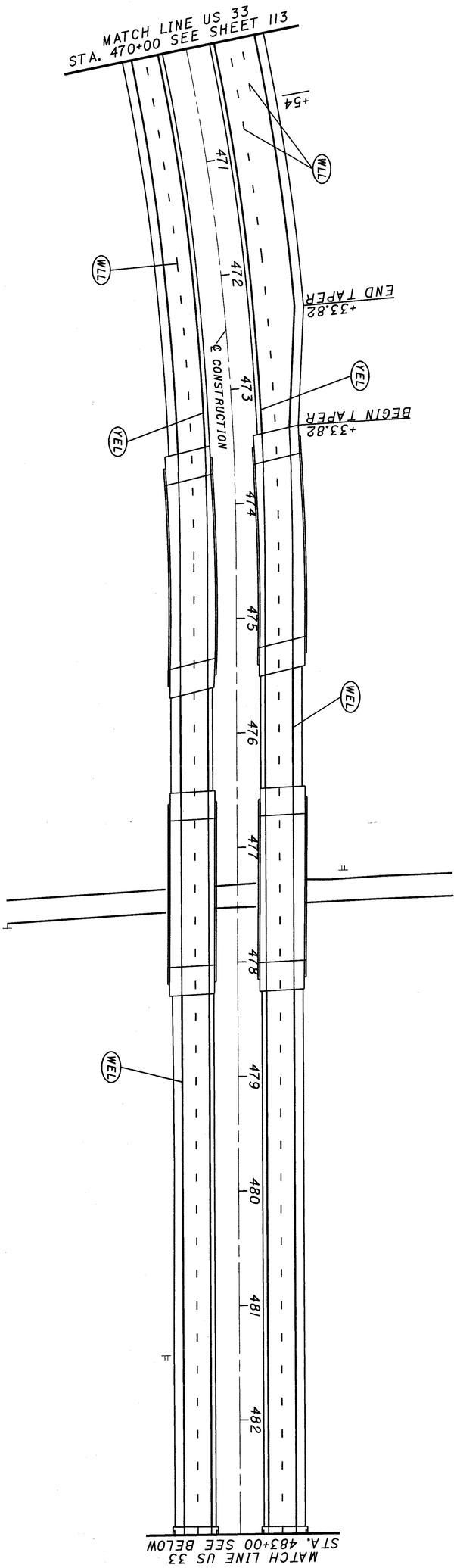
NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

· SEE SHEET 102 FOR GROUND MOUNTS

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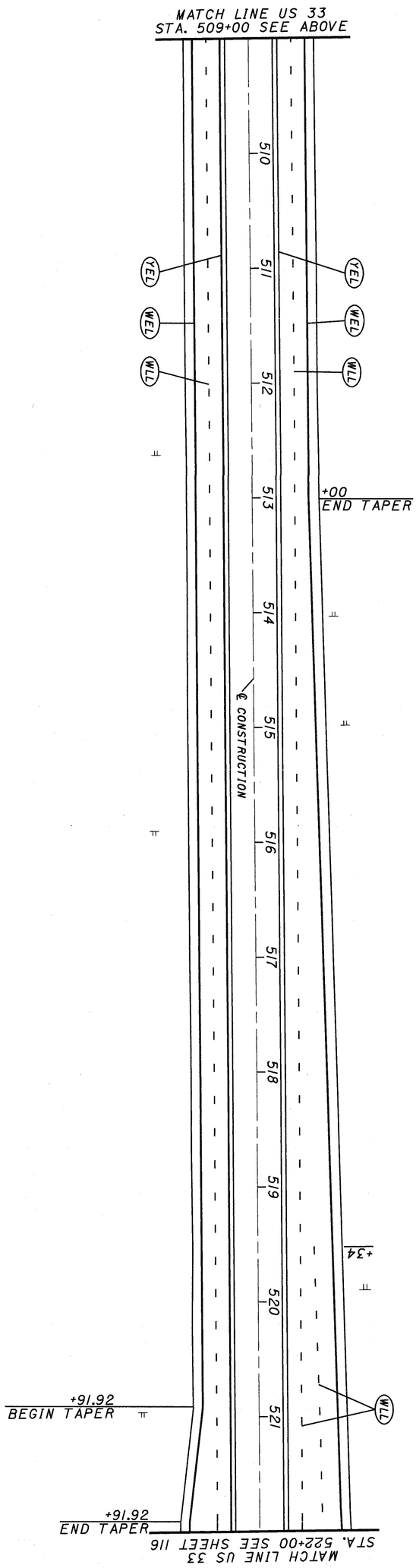
* SEE SHEET 103 FOR GROUND MOUNTS

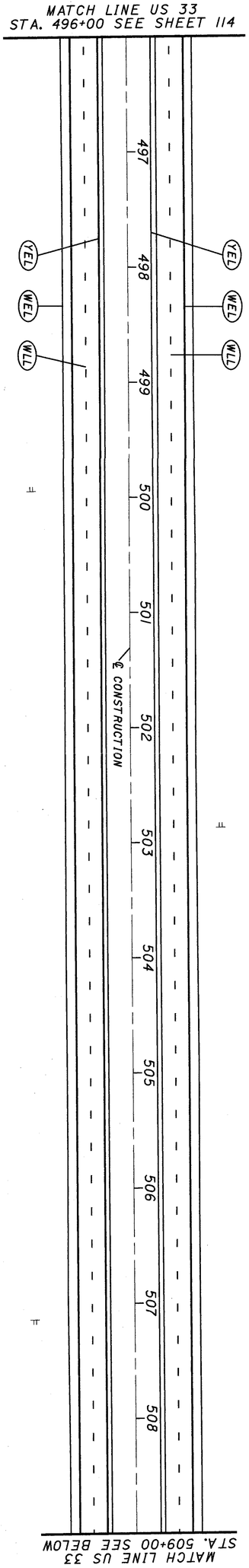




114 / 174	UNI-33-8.74	OVERHEAD SIGNING/PAVEMENT MARKING PLAN US 33 STA. 470+00 TO STA. 496+00	CALCULATED HG CHECKED MB	0 50 25 100 HORIZONTAL SCALE IN FEET	N

* SEE SHEET 104 FOR GROUND MOUNTS





115 / 174	UNI-33-8.74	OVERHEAD SIGNING/PAVEMENT MARKING PLAN US 33 STA. 496+00 TO STA. 522+00	CALCULATED HG CHECKED MB	0 50 25 100 HORIZONTAL SCALE IN FEET

4
Marion
EXIT 3/4 MILE

GB
LEVEL II
13' X 8'

31
NORTH
Kenton

GE
LEVEL II
13' X 6'

OH3

MATCH LINE SR 31 RAMP F STA. 13+00 SEE SHEET 117

MATCH LINE US 33 STA. 535+00 SEE SHEET 117

+19 RAMP F
+44 US 33

RAMP F

WEL

YEL

WCL

+71

+40

WLL

+82.50

WEL

YEL

WEL

YEL

WEL

WCL

+47.50

WLL

+54.50

MATCH LINE US 33 SHEET 115 STA. 522+00

WLL

WEL

WLL

+02

WCL

+12

℄ CONSTRUCTION

OH4

RAMP G

+21
+67 RAMP G
US 33

WTL

MATCH LINE SR 31 RAMP G STA. 10+00 SEE SHEET 117

* SEE SHEET 105 FOR GROUND MOUNTS

N

HORIZONTAL SCALE IN FEET
0 25 50 100

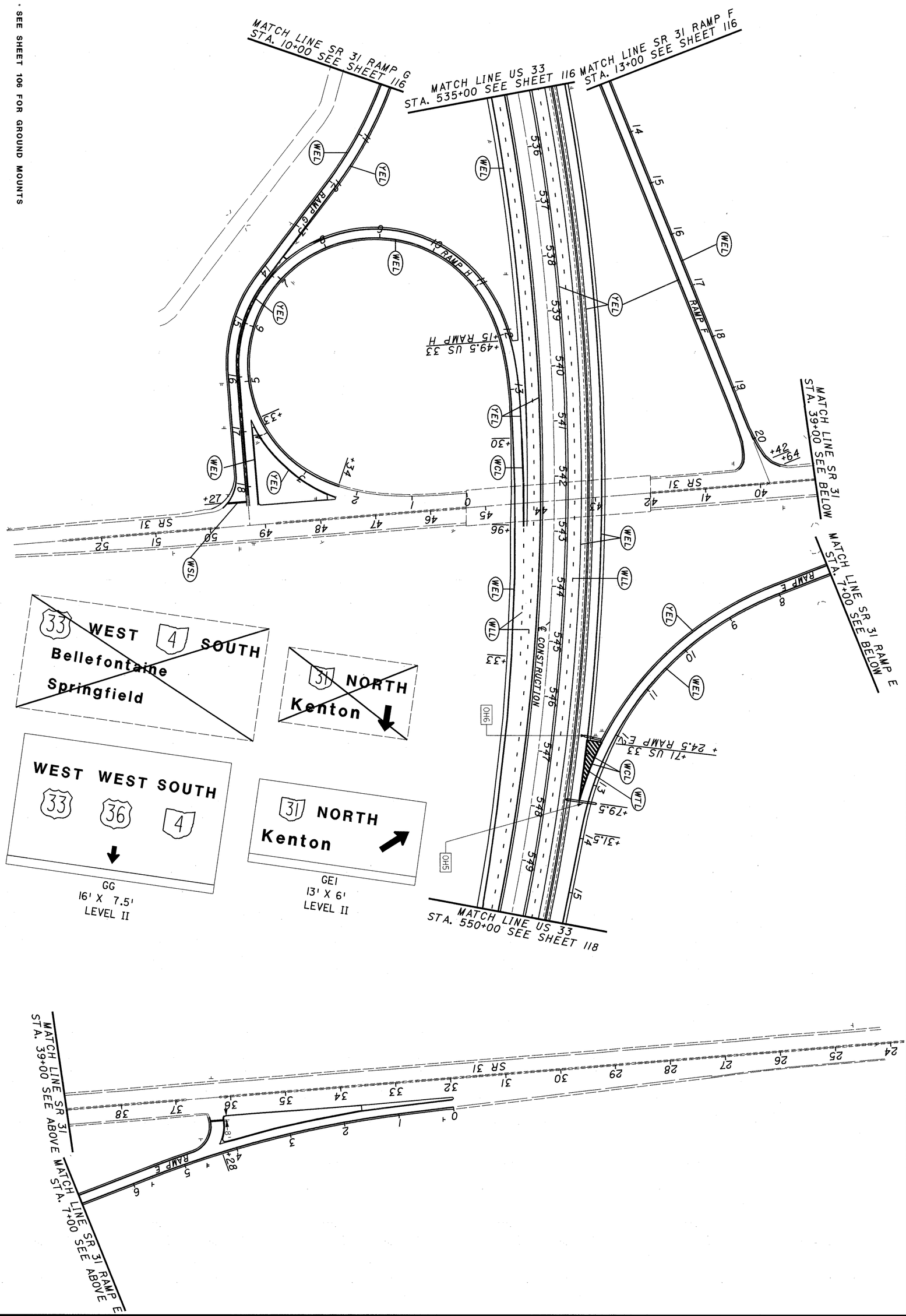
CALCULATED HG
CHECKED MB

OVERHEAD SIGNING/PAVEMENT MARKING PLAN
US 33 STA. 522+00 TO STA. 535+00

UNI-33-8.74

116
174

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117 / 174	UNI-33-8.74	OVERHEAD SIGNING/PAVEMENT MARKING PLAN US 33 STA. 535+00 TO STA. 550+00	CALCULATED HG / CHECKED MB	0 80 40 160 HORIZONTAL SCALE IN FEET

MATCH LINE US 33
STA. 550+00 SEE SHEET 117

+30.53
END TAPER

+88
+15
+27.5
+54.5 US 33
+55 RAMP M

RAMP M

+91.5
+127

+50

+70+173

RAMP L

+54 RAMP L
+46.5 US 33

+38
+58.5

0+36

+55.49
BEGIN TAPER
+55.61
END TAPER

℄ CONSTRUCTION

SR 4

WEL
WLL
WCL
YEL
WSL
WTL

OH7
OH8
OH9

EXIT 1/4 MILE
Marion
4

31 NORTH
Kenton

GG
10' X 8'
LEVEL II

4 NORTH
Marion

GE
13' X 6'
LEVEL II

GB
13' X 8'
LEVEL II

MATCH LINE SR 4
STA. 50+00 SEE SHEET 119

MATCH LINE US 33
STA. 565+00 SEE SHEET 119

• SEE SHEET 107 FOR GROUND MOUNTS

HORIZONTAL SCALE IN FEET
0 40 80 160

CALCULATED HG
CHECKED MB

OVERHEAD SIGNING/PAVEMENT MARKING PLAN
US 33 STA. 550+00 TO STA. 565+00

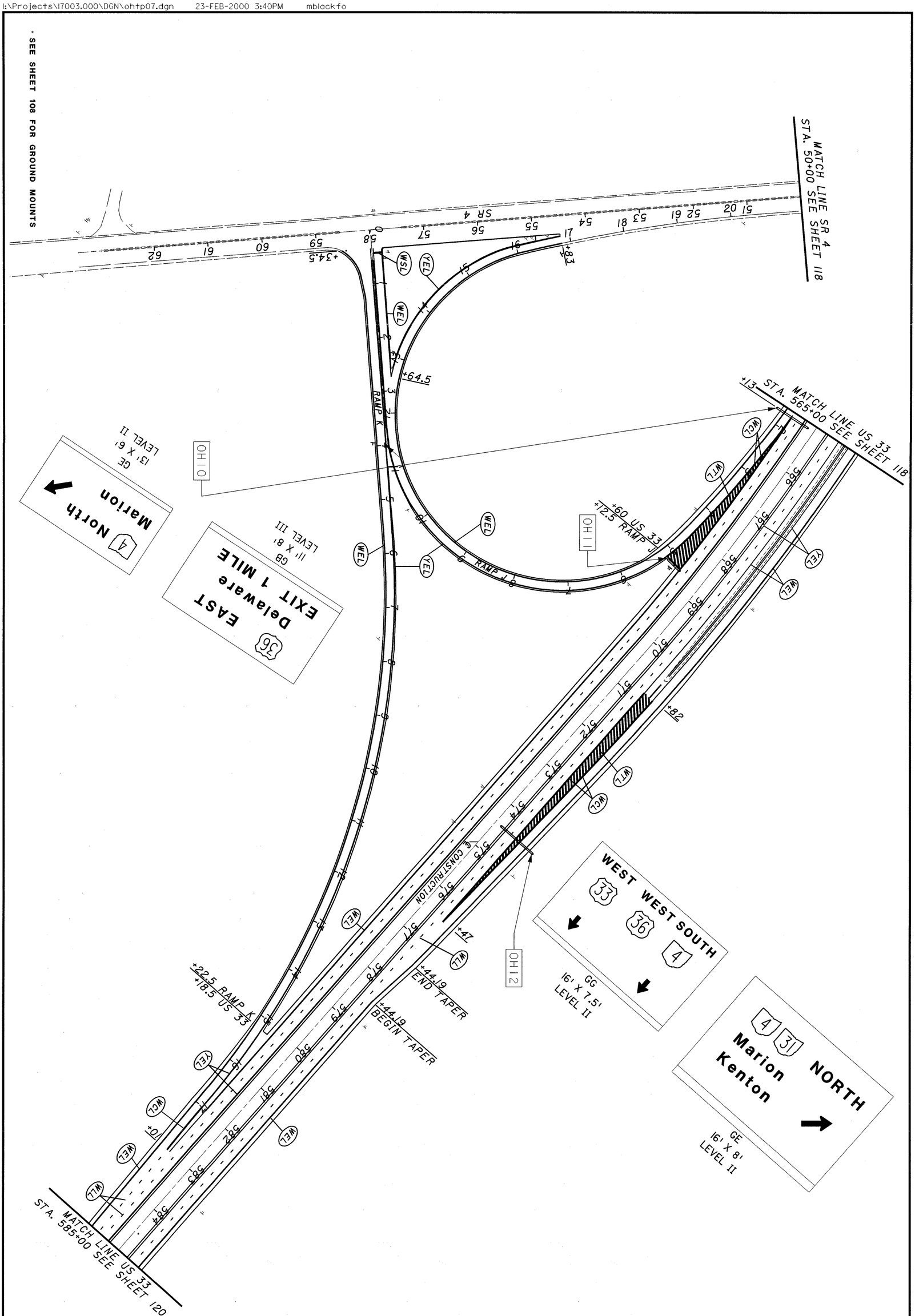
UNI-33-8.74

118
174

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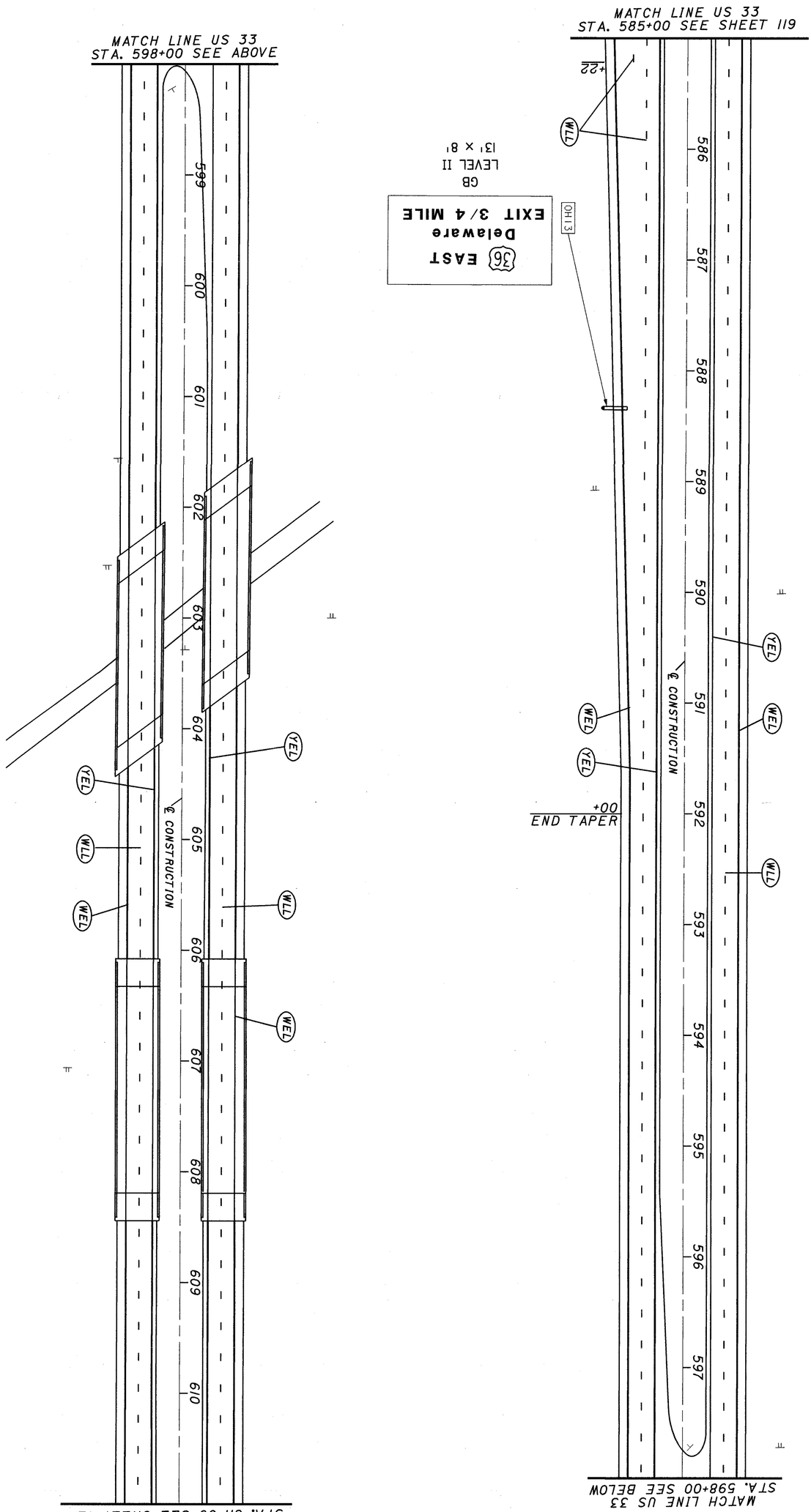
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* SEE SHEET 108 FOR GROUND MOUNTS



119 / 174	UNI-33-8.74	OVERHEAD SIGNING/PAVEMENT MARKING PLAN US 33 STA. 565+00 TO STA. 585+00	CALCULATED HG CHECKED MB	0 80 40 160 HORIZONTAL SCALE IN FEET

* SEE SHEET 109 FOR GROUND MOUNTS



120/174	UNI-33-8.74	OVERHEAD SIGNING/PAVEMENT MARKING PLAN US 33 STA. 585+00 TO STA. 611+00	CALCULATED HG CHECKED MB	0 50 25 100 HORIZONTAL SCALE IN FEET

* SEE SHEET 110 FOR GROUND MOUNTS

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CALCULATED HC
CHECKED MB

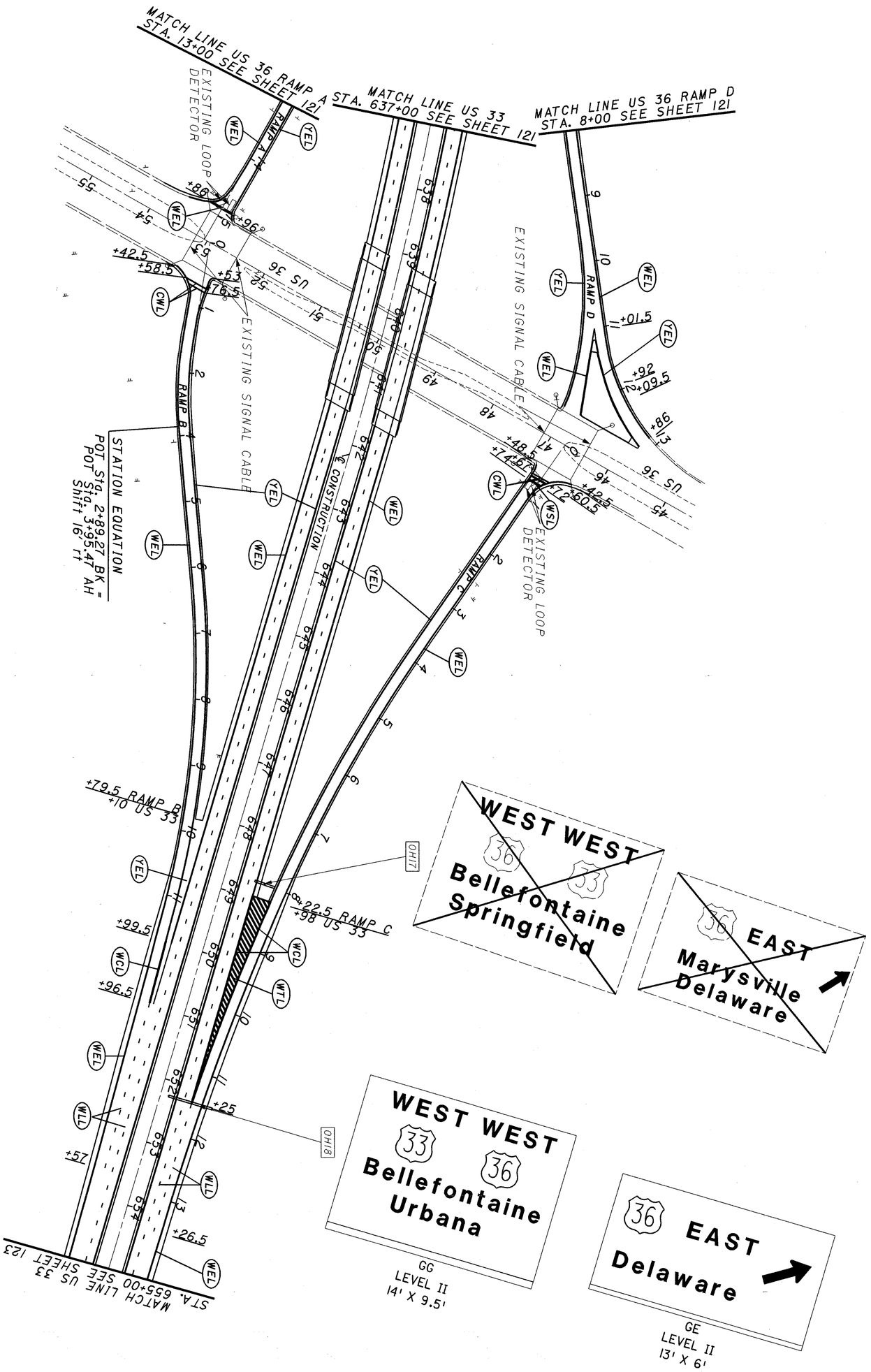
0 25 50 100
HORIZONTAL SCALE IN FEET

OVERHEAD SIGNING/PAVEMENT MARKING PLAN
US 33 STA. 611+00 TO STA. 637+00

UNI-33-8.74

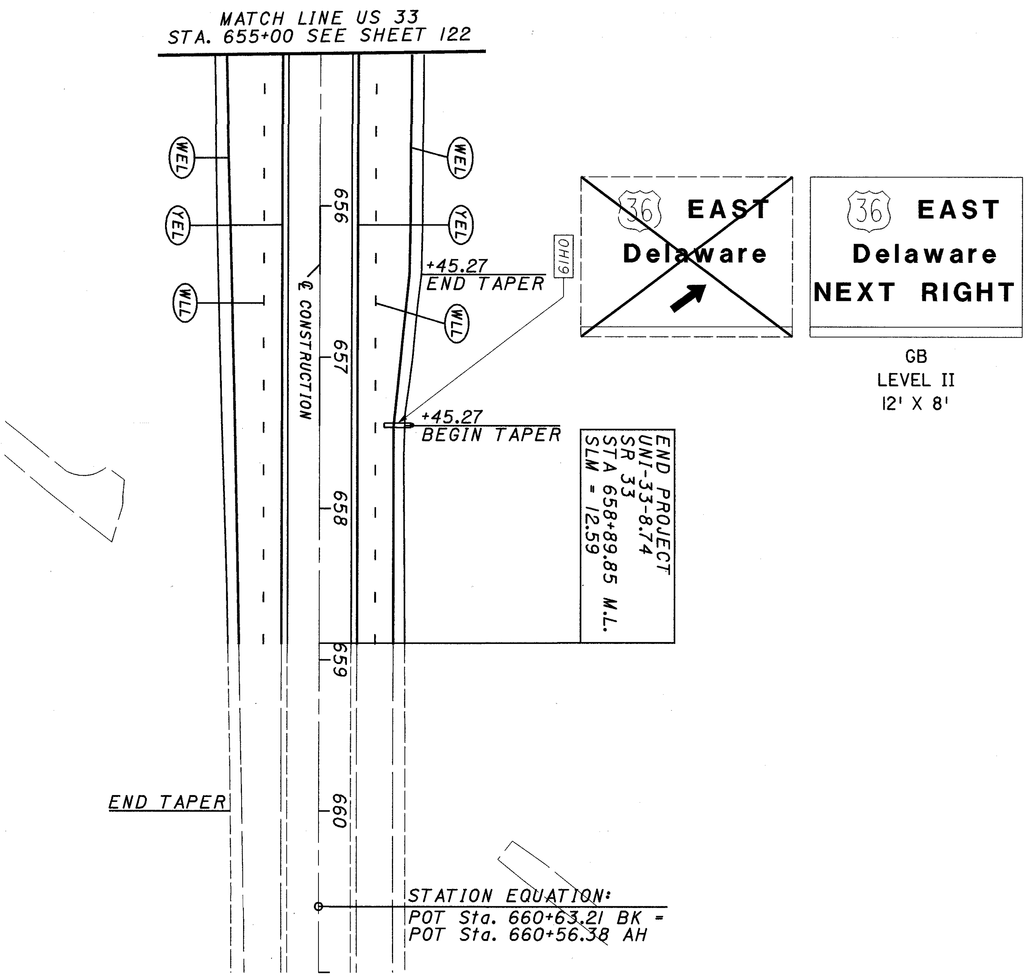
121
174

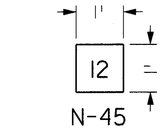
* SEE SHEET 111 FOR GROUND MOUNTS



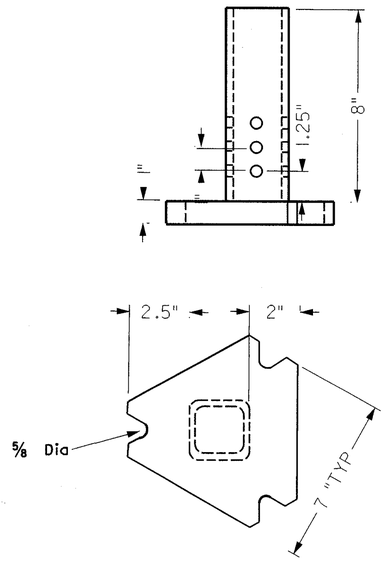
122 / 174	UNI-33-8.74	OVERHEAD SIGNING/PAVEMENT MARKING PLAN US 33 STA. 637+00 TO STA. 655+00	CALCULATED HG CHECKED MB	0 80 40 160 HORIZONTAL SCALE IN FEET

* SEE SHEET 112 FOR GROUND MOUNTS



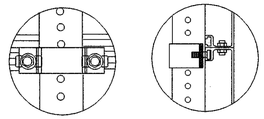


BLACK ON WHITE
(TYPICAL)

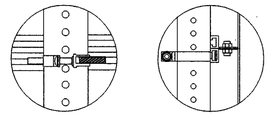


TYPICAL TRIANGULAR SLIP BASE

NTS



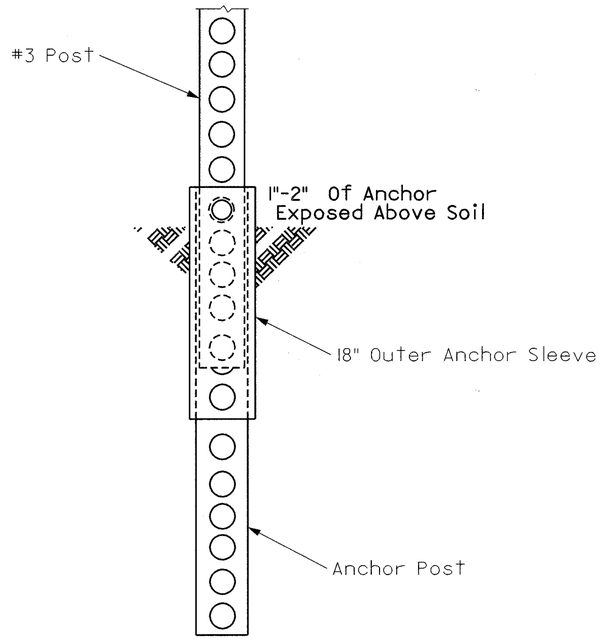
BACK VIEW SIDE VIEW
UNIVERSAL POST CLAMP



BACK VIEW SIDE VIEW
EXTRUDED PANEL POST CLAMP

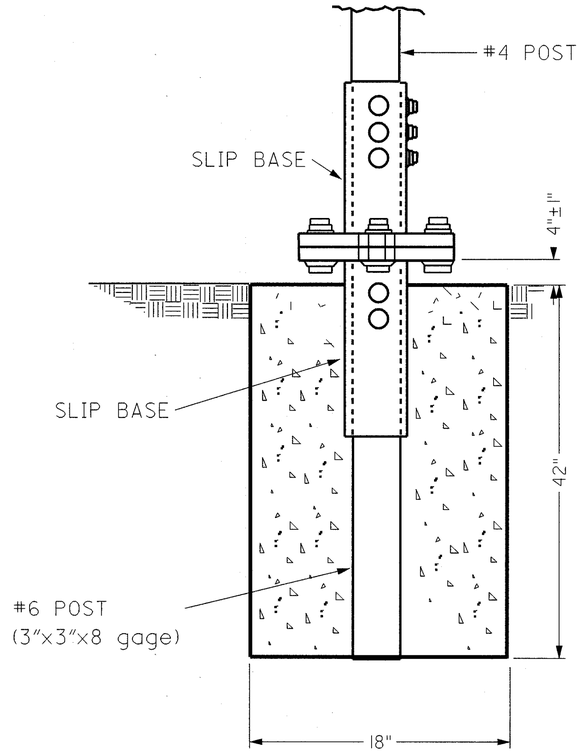
TYPICAL EXTRU PANEL CLAMPS

NTS



TYPICAL TWO PIECE BREAKAWAY ANCHOR

NTS



TYPICAL SLIP BASE IN CONCRETE ANCHOR

NTS

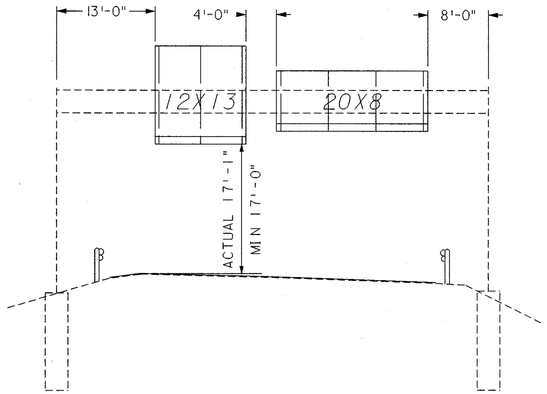
CALCULATED HG
CHECKED MB

YEILDING POST DETAILS

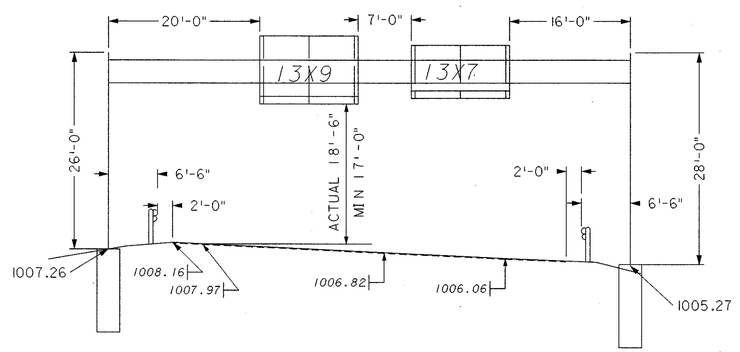
UNI-33-8.74

124
174

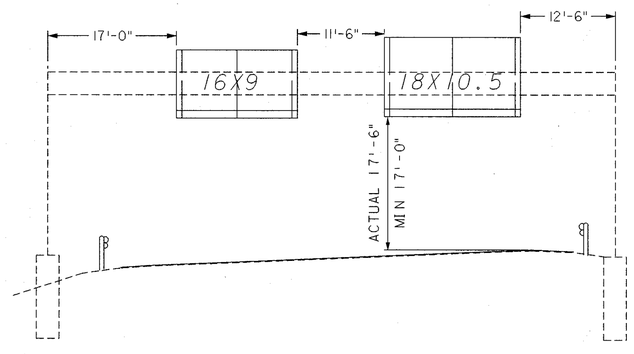
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Sta. 110+92 ROAD U
Ref. # OH1
EXISTING OVERHEAD STRUCTURE
TOTAL SIGN AREA = 316 SF



Sta. 526+12 EB US 33
Ref. # OH3
Structure # EB 33 10.08
OVERHEAD SIGN SUPPORT
TYPE TC-7.65,
DESIGN 6, 69' SPAN
TOTAL SIGN AREA = 208 SF



Sta. 467+90.25 WB US 33
Ref. # OH2
EXISTING OVERHEAD STRUCTURE
TOTAL SIGN AREA = 333 SF

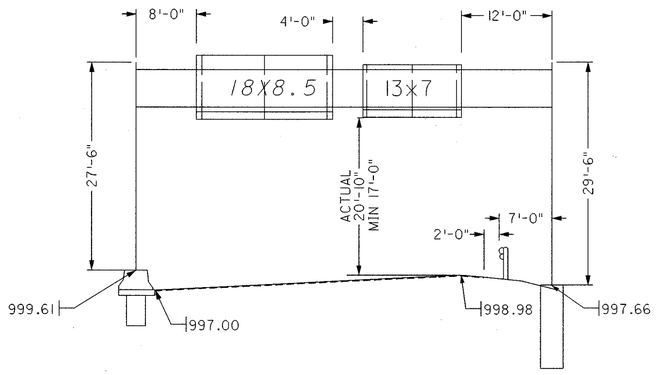
OVERHEAD STRUCTURE DETAILS

UNI-33-8.74

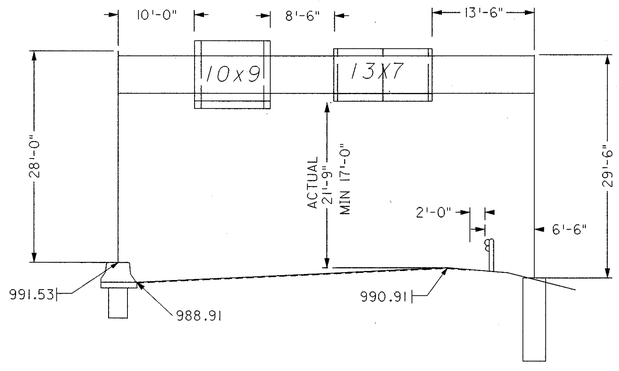
125
174

CALCULATED
CHECKED

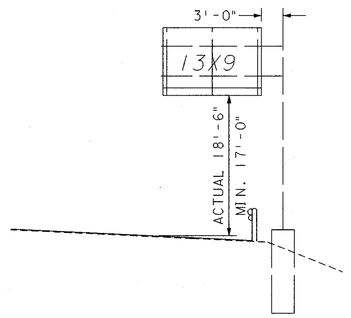
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Sta. 547+79.5 CD ROAD
Ref. # OH5
Structure # WB 33 10.49
OVERHEAD SIGN SUPPORT
TYPE TC-7.65,
DESIGN 8, 55' SPAN
TOTAL SIGN AREA=244 SF



Sta. 563+38 CD ROAD
Ref. # OH 8
Structure # WB 33 10.78
OVERHEAD SIGN SUPPORT
TYPE TC-7.65,
DESIGN 8, 55' SPAN
TOTAL SIGN AREA= 181 SF



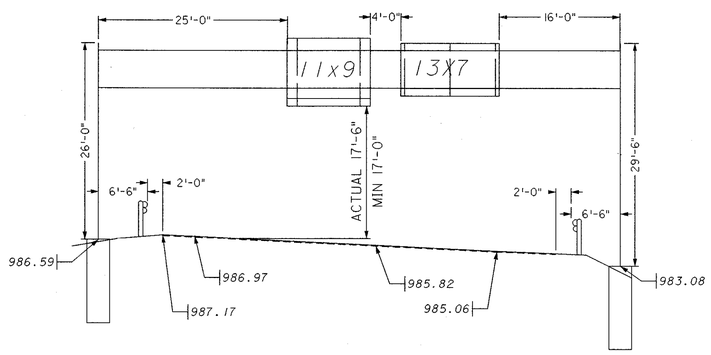
Sta. 559+16.37 EB US 33
Ref. # OH7
Structure # EB 33 10.70
EXISTING OVERHEAD STRUCTURE
TOTAL SIGN AREA= 117 SF

OVERHEAD STRUCTURE DETAILS

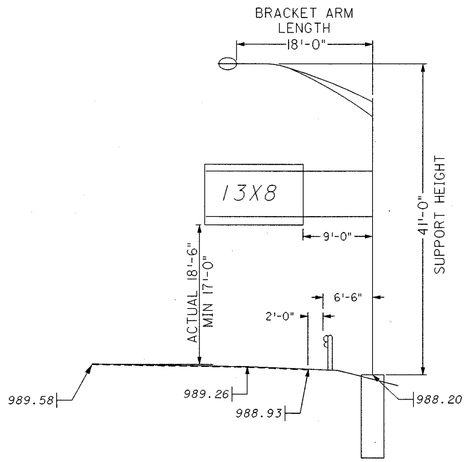
CALCULATED | CHECKED

UNI-33-8.74

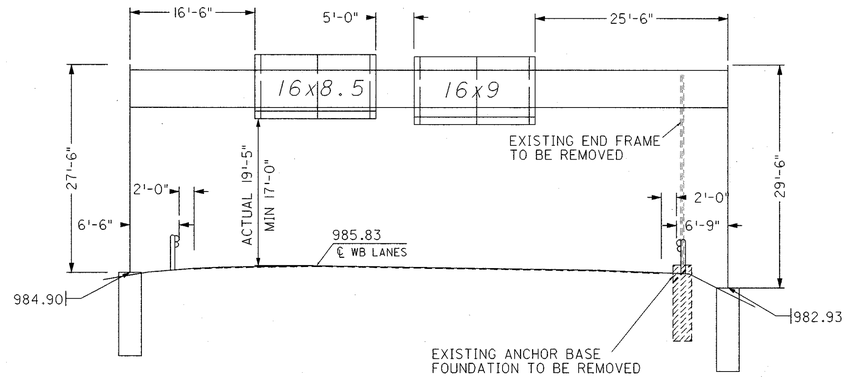
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Sta. 565+13 EB US 33
Ref. # OH10
Structure # EB 33 10.81
OVERHEAD SIGN SUPPORT
TYPE-TC-7.65,
DESIGN 8, 69' SPAN
Total Sign Area= 190 SF



Sta. 588+34 EB US 33
Ref.# OH13
Structure # EB 33 11.25
COMBINATION OVERHEAD SIGN SUPPORT
Type TC-12.30,
DESIGN 5
Total Sign Area= 104 SF



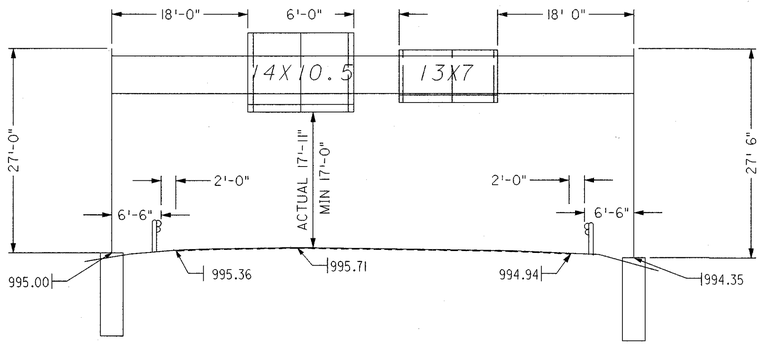
Sta. 574+42.49 WB US 33
Ref. # OH12
Structure # WB 33 10.99
OVERHEAD SIGN SUPPORT
TYPE TC-7.65,
DESIGN 8, 79' SPAN
Total Sign Area= 280 SF

OVERHEAD STRUCTURE DETAILS

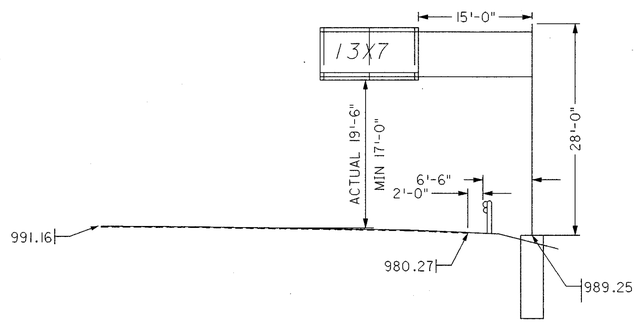
CALCULATED
CHECKED

UNI-33-8.74

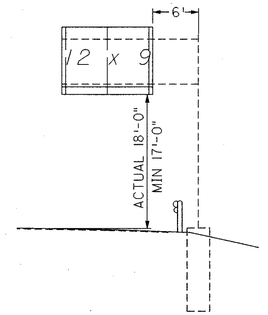
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Sta. 652+25 WB US 33
Ref.# OH18
Structure # WB 33 12.46
OVERHEAD SIGN SUPPORT
TYPE TC-7.65
DESIGN 8, 69' SPAN
Total Sign Area= 238 SF



Sta. 625+86 EB US 33
Ref. # OH15
Structure # EB 33 11.96
OVERHEAD SIGN SUPPORT
Type TC-12.30
DESIGN 8
Total Sign Area= 91 SF



Sta. 657+42.27 WB US 33
Ref. # OH19
Structure # WB 33 12.56
EXISTING OVERHEAD STRUCTURE
Total Sign Area= 108 SF

CALCULATED
CHECKED

OVERHEAD STRUCTURE DETAILS

UNI-33-8.74

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ELECTRICAL SERVICE FOR ILLUMINATING SIGNS:
THE PAY ITEMS IN THE LIGHTING GENERAL SUMMARY INCLUDE THE PULL BOX ADJACENT TO EACH LIGHTED OVERHEAD SIGN AND THE ELECTRICAL SERVICE CONNECTIONS LEADING INTO THE BOX, INCLUDING SPLICES IN THE PULL BOX. QUANTITIES FOR ELECTRICAL SERVICE FROM THE CONNECTION IN THE PULL BOX OR JUNCTION BOX TO THE SIGN ARE INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY.

ITEM 202 - PULL BOX REMOVED, AS PER PLAN
THIS ITEM SHALL INCLUDE REMOVING THE ENTIRE PULL BOX. THE PULL BOX SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE PROPERLY DISPOSED OF OFF THE PROJECT SITE. THE RESULTANT OPENING SHALL THEN BE BACKFILLED TO GRADE WITH SUITABLE COMPACTED SUB-GRADE MATERIAL, TOPPED WITH SOIL, AND RESTORED TO MATCH SURROUNDING AREA.

PAYMENT WILL BE MADE FOR EACH ITEM 202 - PULL BOX REMOVED, AS PER PLAN, AND SHALL BE FULL COMPENSATION, INCLUDING ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY MANNER.

ITEM 202 - LIGHT POLE REMOVED, AS PER PLAN:
THIS ITEM OF WORK SHALL INCLUDE REMOVING AN EXISTING LIGHT POLE. THE LIGHT POLE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE.

PAYMENT WILL BE MADE FOR EACH ITEM - 202 LIGHT POLE REMOVED, AS PER PLAN.

ITEM 202 - LIGHT POLE FOUNDATION REMOVED, AS PER PLAN:
THIS ITEM SHALL INCLUDE REMOVING THE LIGHT POLE CONCRETE FOUNDATION TO A MINIMUM DEPTH OF ONE FOOT BELOW GROUND LEVEL OR REMOVING THE FOUNDATION COMPLETELY. THE RESULTING DEPRESSION SHALL THEN BE BACKFILLED WITH SUITABLE COMPACTED SUB-GRADE MATERIAL, TOPPED WITH SOIL, AND RESTORED TO MATCH THE SURROUNDING AREA.

PAYMENT WILL BE MADE FOR EACH ITEM 202 - LIGHT POLE FOUNDATION REMOVED, AS PER PLAN, AND SHALL BE FULL COMPENSATION, INCLUDING ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY MANNER.

ITEM 202 - LUMINAIRE REMOVED, AS PER PLAN:
THIS ITEM OF WORK SHALL INCLUDE REMOVING AN EXISTING LUMINAIRE. THE LUMINAIRE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE.

PAYMENT WILL BE MADE FOR EACH ITEM - 202 LUMINAIRE REMOVED, AS PER PLAN.

ITEM 202 - POWER SERVICE REMOVED, AS PER PLAN:
THIS ITEM OF WORK SHALL INCLUDE REMOVING AN EXISTING POWER SERVICE. THE POWER SERVICE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE. THE METER AND METER TRIM SHALL BE RETURNED TO THE POWER COMPANY BY THE CONTRACTOR.

PAYMENT WILL BE MADE FOR EACH ITEM - 202 POWER SERVICE REMOVED, AS PER PLAN.

ITEM 603 - 4" CONDUIT, TYPE E:
REFERENCE IS MADE TO THE STANDARD CONSTRUCTION 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.

ITEM 625 - CONVENTIONAL LUMINAIRE:
IN ADDITION TO THE REQUIREMENTS OF THE DEPARTMENT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES SHALL BE AS FOLLOWS:
- ODOT STYLE B HIGH PRESSURE SODIUM LAMPS
  AMERICAN ELECTRIC SERIES 125/126 WITH DISTRIBUTION, AE3849I,
  COOPER LIGHTING OVD WITH DISTRIBUTION, OVD2S2F,
  GENERAL ELECTRIC M400 WITH DISTRIBUTION 1014,
  OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH ITEM 625 - LUMINAIRE, CONVENTIONAL, AS PER PLAN.

ITEM 625 - POWER SERVICE, AS PER PLAN:
THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:
THE DAYTON POWER AND LIGHT COMPANY
1201 WEST FIFTH STREET
MARYSVILLE, OHIO 43040
TEL: (937) 642-9060

SERVICE SHALL BE AS INDICATED IN THE POWER SERVICE DATA TABLES ON SHEET 144.

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY.

POWER SERVICE, AS PER PLAN SHALL INCLUDE CHARGES BY THE POWER COMPANY IN ADDITION TO THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

CALCULATED MB CHECKED FT

LIGHTING GENERAL NOTES

UNI-33-8.74

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SHEET NUMBER											ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		131	132	133	134	135	136	137								
		32									202	75301	32	EACH	PULL BOX REMOVED, AS PER PLAN	129
		22									202	75401	22	EACH	LIGHT POLE REMOVED, AS PER PLAN	129
		22									202	75501	22	EACH	LIGHT POLE FOUNDATION REMOVED, AS PER PLAN	129
		22									202	75507	22	EACH	LUMINAIRE REMOVED, AS PER PLAN	129
		3									202	75511	3	EACH	POWER SERVICE REMOVED, AS PER PLAN	129
			140	120	80	240	140	100			603	00400	820	LF	4" CONDUIT, TYPE E	
			30	22	20	26	28	16			625	00500	142	EACH	CONNECTOR KIT, TYPE II	
			6			9	9	6			625	01004	30	EACH	CONNECTOR KIT, TYPE VII B	
			15	21	15	27	18	12			625	01500	108	EACH	CABLE SPLICING KIT	
			2	7	10	3	7	1			625	10500	30	EACH	LIGHT POLE, MISC.: DESIGN AT12B40	
			4	4		2					625	10500	10	EACH	LIGHT POLE, MISC.: DESIGN AT15B40	
			9			8	7	7			625	10500	31	EACH	LIGHT POLE, MISC.: DESIGN AT18B40	
			15	11	10	13	14	8			625	14100	71	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
			930	1290	675	390	1065	150			625	23200	4,500	LF	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
			1835	1285	1150	1715	1680	990			625	23400	8,655	LF	NO. 10 AWG POLE AND BRACKET CABLE	
			7055	2925	3470	6645	4740	3810			625	24320	28,645	LF	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	
				335	315						625	25400	650	LF	CONDUIT, 2", 713.04	
			465	335	395	545	595	390			625	25900	2,725	LF	CONDUIT, JACKED OR DRILLED, 3"	
			15	11	10	14	14	8			625	26251	72	EACH	LUMINAIRE, CONVENTIONAL, AS PER PLAN	129
			6275	2395	2835	5840	4100	3430			625	29002	24,875	LF	TRENCH, 24" DEEP	
			7	6	5	12	7	5			625	30700	42	EACH	PULL BOX, 713.08, 18"	
			16	11	11	13	15	8			625	32000	74	EACH	GROUND ROD	
			1		1		1				625	34001	3	EACH	POWER SERVICE, AS PER PLAN	129
											625	38000	LUMP		HIGH VOLTAGE TEST	

CALCULATED MB
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LIGHTING GENERAL SUMMARY

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SHEET NO.	REFERENCE NO.	SIDE	ROADWAY	STATION	202 PULL BOX REMOVED, AS PER PLAN	202 LIGHT POLE REMOVED, AS PER PLAN	202 LIGHT POLE FOUNDATION REMOVED, AS PER PLAN	202 LUMINAIRE REMOVED, AS PER PLAN	202 POWER SERVICE REMOVED, AS PER PLAN
					EACH	EACH	EACH	EACH	EACH
EXISTING CIRCUIT "A"									
138	1	LT	SR 31	50+44	1				1
138	2	RT	SR 31	49+96	1				
138	3	LT	SR 31	49+30		1	1	1	
138	4	RT	SR 31	47+72.62	1				
138	5	RT	SR 31	47+60		1	1	1	
138	6	LT	SR 31	41+90	1				
138	7	LT	SR 31	40+00		1	1	1	
138	8	LT	SR 31	36+11.32	1				
138	9	RT	RAMP G	5+52	1				
138	10	LT	RAMP E	4+15.84	1				
138	11	LT	RAMP E	4+32		1	1	1	
138	12	RT/LT	RAMP E	11+66.88	2				
138	13	LT	US 33	547+39		1	1	1	
TOTALS SHEET 138:					**9**	**5**	**5**	**5**	**1**
EXISTING CIRCUIT "B"									
139	14	LT	SR 4	60+10					1
139	15	LT	SR 4	58+96	1				
139	16	RT	SR 4	58+00		1	1	1	
139	17	LT	SR 4	49+00	1				
139	18	LT	SR 4	45+50	1				
139	19	LT	SR 4	39+42	1				
139	20	RT	SR 4	37+65	1				
139	21	RT	SR 4	37+53.5		1	1	1	
139	22	RT	SR 4	36+55.78	1				
139	23	LT/RT	RAMP K	1+23.92	2				
139	24	RT	RAMP J	12+50		1	1	1	
139	25	RT	RAMP J	16+81.28	1				
139	26	RT	RAMP J	13+00	1				
139	27	RT	RAMP J	5+63	1				
139	28	LT	RAMP M	11+71.5		1	1	1	
139	29	LT	RAMP M	11+83.42	1				
139	30	LT	RAMP L	3+57.94	1				
139	31	LT	RAMP L	3+73		1	1	1	
139	32	LT	US 33	562+63	1				
139	33	LT	US 33	563+00		1	1	1	
139	34	RT	US 33	567+84.5		1	1	1	
139	35	LT	US 33	570+57		1	1	1	
TOTALS SHEET 139:					**14**	**8**	**8**	**8**	**1**

SHEET NO.	REFERENCE NO.	SIDE	ROADWAY	STATION	202 PULL BOX REMOVED, AS PER PLAN	202 LIGHT POLE REMOVED, AS PER PLAN	202 LIGHT POLE FOUNDATION REMOVED, AS PER PLAN	202 LUMINAIRE REMOVED, AS PER PLAN	202 POWER SERVICE REMOVED, AS PER PLAN
					EACH	EACH	EACH	EACH	EACH
EXISTING CIRCUIT "C"									
140	36	RT	US 36	54+85					1
140	37	RT	US 36	45+66		1	1	1	
140	38	RT	US 36	45+78.5	1				
140	39	LT	US 36	45+87		1	1	1	
140	40	RT	US 36	47+10	1				
140	41	RT	US 36	47+78		1	1	1	
140	42	RT/LT	US 36	47+96	2				
140	43	LT	US 36	51+86		1	1	1	
140	44	LT	US 36	52+56	2				
140	45	RT	US 36	53+85.66	1				
140	46	LT	US 36	53+83		1	1	1	
140	47	RT	US 36	54+02		1	1	1	
140	48	RT	RAMP A	6+05	1				
140	49	LT	RAMP C	1+00	1				
140	50	LT	RAMP C	7+50	1				
140	51	RT	US 33	628+81		1	1	1	
140	52	RT	US 33	630+01		1	1	1	
140	53	LT	US 33	649+58		1	1	1	
TOTALS SHEET 140:					**10**	**9**	**9**	**9**	**1**
TOTALS CARRIED TO GEN. SUM.:					**33**	**22**	**22**	**22**	**3**

CALCULATED MB
CHECKED FT

LIGHTING REMOVAL SUBSUMMARY

UNI-33-8.74

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SHEET NO.	REFERENCE NO.	ROADWAY	SIDE	STATION FROM OR AT	STATION TO	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LIGHT POLE, MISC.: DESIGN AT12B40 EACH	625 LIGHT POLE, MISC.: DESIGN AT15B40 EACH	625 LIGHT POLE, MISC.: DESIGN AT18B40 EACH	625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EACH	625 CONNECTOR KIT, TYPE II EACH	625 CONNECTOR KIT, TYPE VII B EACH	625 GROUND ROD EACH	625 NO. 10 AWG POLE AND BRACKET CABLE LF	625 PULL BOX, 713.08, 18" EACH	625 CABLE SPLICING KIT EACH	625 TRENCH, 24" DEEP LF	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES LF	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE LF	625 CONDUIT, JACKED OR DRILLED, 3" LF	625 POWER SERVICE, AS PER PLAN EACH	603 4" CONDUIT, TYPE E LF	
138	PB1	SR 31	LT	50+44									1		1	3					1	20	
			CIRCUIT "AA"																				
138	PB1-PB10	SR 31	LT	50+44	50+35												40	60					
138	PB10-PB2	SR 31-SR 31	LT-RT	50+35	50+35														270	80			
139	PB2	SR 31	RT	50+35											1	3						20	
138	PB2-AA1	SR31-RP G	RT-RT	50+35	7+21												1180	1190					
138	AA1	RP G	RT	7+21		1	1			1	2	3	1	115									
138	AA1-AA2	RP G-US 33	RT-RT	7+21	529+17												245	255					
138	AA2	US 33	RT	529+17		1			1	1	2		1	125									
138	AA2-PB3	US 33	RT	529+17	526+12												300	310					
138	PB3	US 33	RT	526+12											1	3						20	
138	PB3-AA3	US 33	RT	526+12	521+91.92												415	425					
138	AA3	US 33	RT	521+91.92		1			1	1	2		1	125									
138	AA1-PB4	RP G	RT-LT	7+21	7+21														150	40			
138	PB4	RP G	LT	7+21											1	3						20	
138	PB4-AA4	RP G-US 33	LT-RT	7+21	531+17.5												70	80					
138	AA4	US 33	RT	531+17.5		1			1	1	2		1	125									
138	AA4-PB5	US 33	RT-MED	531+17.5	531+13												20	75		45			
138	PB5	US 33	MED	531+13											1							20	
138	PB5-AA5	US 33-CD	MED-LT	531+13	531+05												20	110		80			
138	AA5	CD	LT	531+05		1		1		1	2		1	120									
138	AA5-AA6	CD	LT	531+05	527+84												330	340					
138	AA-6	CD	LT	527+84		1		1		1	2		1	120									
138	AA6-AA7	CD-US 33	LT	527+84	524+28												365	375					
138	AA-7	US 33	LT	524+28		1		1		1	2		1	120									
138	AA7-AA8	US 33	LT	524+28	520+49												395	405					
138	AA-8	US 33	LT	520+49		1			1	1	2		1	125									
138	AA8-AA9	US 33	LT	520+49	513+00												750	760					
138	AA-9	US 33	LT	513+00		1			1	1	2		1	125									
			CIRCUIT "AB"																				
138	PB1-PB10	SR 31	LT	50+44	50+35													60					
138	PB10-AC1	SR 31	LT-RT	50+35	50+35														270				
138	AC1-PB6	SR 31-RP G	RT-RT	50+35	16+53.5													245					
138	PB6	RP G	RT	16+53.5											1	3						20	
138	PB6-AB1	RP G-RP H	RT-RT	16+53.5	4+52														240	70			
138	AB1	RP H	RT	4+52		1	1			1	2		1	115									
138	AB1-AB2	RP H-US 33	RT	4+52	541+71												940	950					
138	AB2	US 33	RT	541+71		1			1	1	2		1	125									
138	AB2-AB3	US 33	RT	541+71	544+97												320	330					
138	AB3	US 33	RT	544+97		1			1	1	2	3	1	125									
138-139	AB3-AB4	US 33	RT	544+97	548+51												350	360					
139	AB4	US 33	RT	548+51		1			1	1	2		1	125									
139	AB4-AB5	US 33	RT	548+51	552+36												380	390					
139	AB5	US 33	RT	552+36		1			1	1	2		1	125									
138	AB3-PB7	US 33	RT-MED	544+97	545+09												20	95		65			
138	PB7	US 33	MED	545+09											1							20	
138	PB7-AB6	US 33-CD	MED-LT	545+09	545+23.5												20	115		85			
138	AB6	CD	LT	545+23.5		1		1		1	2		1	120									
138	AB6-PB8	CD-RP E	LT-RT	545+23.5	10+25												115	125					
	TOTALS CARRIED TO GENERAL SUMMARY:					15	2	4	9	15	30	6	16	1835	7	15	6275	7055	930	465	1	140	

CALCULATED MB CHECKED FT

LIGHTING SUBSUMMARY

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SHEET NO.	REFERENCE NO.	ROADWAY	SIDE	STATION FROM OR AT	STATION TO	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN	625 LIGHT POLE, MISC.: DESIGN AT12B40	625 LIGHT POLE, MISC.: DESIGN AT15B40	625	625 LIGHT POLE FOUNDATION, 24" X 8' DEEP	625 CONNECTOR KIT, TYPE II	625	625 GROUND ROD	625 NO. 10 AWG POLE AND BRACKET CABLE	625 PULL BOX, 713.08, 18"	625 CABLE SPLICING KIT	625 TRENCH, 24" DEEP	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	625 CONDUIT, 2", 713.04	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	625 CONDUIT, JACKED OR DRILLED, 3"	603 4" CONDUIT, TYPE E	
						EACH	EACH	EACH		EACH	EACH		EACH	LF	EACH	EACH	LF	LF	LF	LF	LF	LF	
CIRCUIT "AB" (CONTINUED)																							
138	PB8	RP E	RT	10+25											1	3						20	
138	PB8-AB7	RP E	RT-LT	10+25	10+25															150	40		
138	AB7	RP E	LT	10+25		1	1			1	2		1	115									
138	AB7-AB8	RP E-CD	LT-LT	10+25	547+21												240	250					
138	AB8	CD	LT	547+21		1		1		1	2		1	120									
138	AB8-PB9	CD	LT	547+21	547+79.5												65	75					
138	PB9	CD	LT	547+79.5											1	3						20	
138-139	PB9-AB9	CD	LT	547+79.5	548+98												120	130					
139	AB9	CD	LT	548+98		1		1		1	2		1	120									
139	AB9-AB10	CD	LT	548+98	550+72												185	195					
139	AB10	CD	LT	550+72		1		1		1	2		1	120									
139	AB10-AB11	CD	LT	550+72	552+54												190	200					
139	AB11	CD	LT	552+54		1		1		1	2		1	120									
CIRCUIT "AC"																							
138	PB1-PB10	SR 31	LT	50+44	50+35													60					
138	PB10	SR 31	LT	50+35											1	6						20	
138	PB10-AC1	SR 31	LT-RT	50+35	50+35															270			
138	AC1	SR 31	RT	50+35		1	1			1	2		1	115									
138	PB10-PB11	SR 31	LT	50+35	47+30												305	315					
138	PB11	SR 31	LT	47+30											1	3						20	
138	PB11-AC2	SR 31	LT-RT	47+30	47+30															330	100		
138	AC2	SR 31	RT	47+30		1	1			1	2		1	115									
138	PB11-PB12	SR 31	LT	47+30	40+84												315	660	335				
138	PB12	SR 31	LT	40+84											1	3						20	
138	PB12-AC3	SR 31	LT-RT	40+84	40+84															270	80		
138	AC-3	SR 31	RT	40+84		1	1			1	2		1	115									
138	PB12-PB13	SR 31	LT	40+84	36+86												400	410					
138	PB13	SR 31	LT	36+86											1	3						20	
138	PB13-AC4	SR 31	LT-RT	36+86	36+86															270	80		
138	AC4	SR 31	RT	36+86		1	1			1	2		1	115									
138	PB13-AC5	SR 31-RP E	LT-LT	36+86	5+17												60	105			35		
138	AC5	RP E	LT	5+17		1	1			1	2		1	115									
138	AC5-AC6	RP E	LT	5+17	0+00												515	525					
138	AC6	RP E	LT	0+00		1	1			1	2		1	115									
TOTALS CARRIED TO GENERAL SUMMARY:						11	7	4		11	22		11	1285	6	21	2395	2925	335	1290	335	120	

CALCULATED MB CHECKED FT

LIGHTING SUBSUMMARY

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SHEET NO.	REFERENCE NO.	ROADWAY	SIDE	STATION FROM OR AT	STATION TO	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN	625 LIGHT POLE, MISC.: DESIGN AT12B40			625 LIGHT POLE FOUNDATION, 24" X 8' DEEP	625 CONNECTOR KIT, TYPE II	625 GROUND ROD	625 NO. 10 AWG POLE AND BRACKET CABLE	625 PULL BOX, 713.08, 18"	625 CABLE SPLICING KIT	625 TRENCH, 24" DEEP	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	625 CONDUIT, 2", 713.04	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	625 CONDUIT, JACKED OR DRILLED, 3"	625 POWER SERVICE, AS PER PLAN	603 4" CONDUIT, TYPE E	
						EACH	EACH			EACH	EACH	EACH	LF	EACH	EACH	LF	LF	LF	LF	LF	EACH	LF	
139	PB14	SR4	LT	60+10								1		1	3						1	20	
		CIRCUIT "BA"																					
139	PB14-PB15	SR 4	LT	60+10	59+00											120	140						
139	PB15	SR 4	LT	59+00										1	3							20	
139	PB15-BA1	SR 4	LT-RT	59+00															270	80			
139	BA1	SR 4	RT	59+00		1	1			1	2	1	115										
139	PB15-BA2	SR 4	LT	59+00	57+39											80	170			80			
139	BA2	SR 4	LT	57+39		1	1			1	2	1	115										
139	BA2-PB16	SR 4-RP J	LT	57+39	15+96											205	215						
139	PB16	RP J	LT	15+96										1	3							20	
139	PB16-PB17	RP J	LT-RT	15+96	15+96														135	35			
139	PB17	RP J	RT	15+96										1	3								
139	PB17-BA3	RP J	RT	15+96	17+20											125	135						
139	BA3	RP J	RT	17+20		1	1			1	2	1	115										
139	BA3-PB18	RP J-SR 4	RT-LT	17+20	40+22											1065	1390	315					
139	PB18	SR 4	LT	40+22										1	3							20	
139	PB18-BA4	SR 4-RP L	LT-LT	40+22	4+62											60	105			35			
139	BA4	RP L	LT	4+62		1	1			1	2	1	115										
139	BA4-BA5	RP L	LT	4+62	1+50											315	325						
139	BA5	RP L	LT	1+50		1	1			1	2	1	115										
139	BA5-BA6	RP L-SR 4	LT	1+50	34+17											315	325						
139	BA6	SR 4	LT	34+17		1	1			1	2	1	115										
139	PB18-BA7	SR 4	LT-RT	40+22															270	80			
139	BA7	SR 4	RT	40+22		1	1			1	2	1	115										
139	BA7-BA8	SR 4	RT	40+22	37+29											295	305						
139	BA8	SR 4	RT	37+29		1	1			1	2	1	115										
139	BA8-BA9	SR 4-RP M	RT-LT	37+29	12+18											45	140			85			
139	BA9	RP M	LT	12+18		1	1			1	2	1	115										
139	BA9-BA10	RP M	LT	12+18	14+26											210	220						
139	BA10	RP M	LT	14+26		1	1			1	2	1	115										
	TOTALS CARRIED TO GENERAL SUMMARY:					10	10			10	20	11	1150	5	15	2835	3470	315	675	395	1	80	

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LIGHTING SUBSUMMARY

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LIGHTING SUBSUMMARY

CALCULATED MB CHECKED FT

SHEET NO.	REFERENCE NO.	ROADWAY	SIDE	STATION FROM OR AT	STATION TO	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LIGHT POLE, MISC.: DESIGN AT12B40 EACH	625 LIGHT POLE, MISC.: DESIGN AT15B40 EACH	625 LIGHT POLE, MISC.: DESIGN AT18B40 EACH	625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EACH	625 CONNECTOR KIT, TYPE II EACH	625 CONNECTOR KIT, TYPE VII B EACH	625 GROUND ROD EACH	625 NO. 10 AWG POLE AND BRACKET CABLE LF	625 PULL BOX, 713.08, 18" EACH	625 CABLE SPLICING KIT EACH	625 TRENCH, 24" DEEP LF	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES LF	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE LF	625 CONDUIT, JACKED OR DRILLED, 3" LF	603 4" CONDUIT, TYPE E LF		
		CIRCUIT "BB"																					
139	PB14-PB15	SR 4	LT	60+10	59+00													140					
139	PB15-PB19	SR 4-RP K	LT-RT	59+00	2+98												305	315					
139	PB19	RP K	RT	2+97											1	3					20		
139	PB19-BB1	RP K-RP J	RT-RT	2+97	12+50														240	70			
139	BB1	RP J	RT	12+50		1	1			1	2		1	115									
139	BB1-BB2	RP J	RT	12+50	7+12												520	530					
139	BB2	RP J	RT	7+12		1	1			1	2	3	1	115									
139	BB2-BB3	RP J-US 33	RT-RT	7+12	568+10												235	245					
139	BB3	US 33	RT	568+10		1			1	1	2		1	125									
139	BB3-PB20	US 33	RT	568+10	565+13												295	305					
139	PB20	US 33	RT	565+13											1	3					20		
139	PB20-BB4	US 33	RT	565+13	561+55												350	360					
139	BB4	US 33	RT	561+55		1			1	1	2	3	1	125									
139	BB4-PB21	US 33	RT	561+55	559+16.37												280	290					
139	PB21	US 33	RT	559+16.37											1	3					20		
139	BB4-PB22	US 33	RT-MED	559+16.37	561+28.5												20	95		65			
139	PB22	US 33	MED	561+28.5											1						20		
139	PB22-BB5	US 33-CD	MED-LT	561+28.5	561+02												20	115		85			
139	BB5	CD	LT	561+02		1		1		1	2		1	120									
139	BB5-PB23	CD-RP L	LT-LT	561+02	10+37												85	120		25			
139	PB23	RP L	LT	10+37											1	3					20		
139	PB23-BB6	RP L	LT	10+37	9+54												85	95					
139	BB6	RP L	LT	9+54		1	1			1	2		1	115									
139	PB23-BB7	RP L-CD	LT-LT	10+37	562+96.5												155	165					
139	BB7	CD	LT	562+96.5		1		1		1	2		1	120									
139	BB7-PB24	CD	LT	562+96.5	563+38												55	65					
139	PB24	CD	LT	563+38											1	3					20		
139	BB2-PB25	RP J	RT-LT	7+12	7+12														150	40			
139	PB25	RP J	LT	7+12											1	3					20		
139	PB25-BB8	RP J-US 33	LT-RT	7+12	570+14.5												160	170					
139	BB8	US 33	RT	570+14.5		1			1	1	2		1	125									
139	BB8-PB26	US 33	RT-MED	570+14.5	570+42												20	80		50			
139	PB26	US 33	MED	570+42											1						20		
139	PB26-BB9	US 33	MED-LT	570+42	570+82												20	120		90			
139	BB9	US 33	LT	570+82		1			1	1	2		1	125									
139	BB9-PB27	US 33	LT	570+82	574+42.49												365	375					
139	PB27	US 33	LT	574+42.49											1	3					20		
139	PB19-BB10	RP K-US 33	RT-RT	2+97	581+54												1350	1360					
139	BB10	US 33	RT	581+54		1			1	1	2	3	1	125									
139	BB10-BB11	US 33	RT	581+54	584+79												325	335					
139	BB11	US 33	RT	584+79		1			1	1	2		1	125									
139	BB11-PB28	US 33	RT	584+79	588+34												355	365					
139	BB12/PB28	US 33	RT	588+34		1								130	1	3					20		
139	PB28-BB13	US 33	RT	588+34	582+18												390	400					
139	BB13	US 33	RT	592+18		1			1	1	2		1	125									
139	BB10-PB29	US 33	RT-MED	581+54	581+54												20	105		75			
139	PB29	US 33	MED	581+54											1						20		
139	PB29-PB30	US 33	MED-LT	581+54	581+54												20	75		45			
139	PB30	US 33	LT	581+54											1	3					20		
139	PB30-BB14	US 33	LT	581+54	577+44.2												410	420					
139	BB14	US 33	LT	577+44.2		1			1	1	2		1	125									
	TOTALS CARRIED TO GENERAL SUMMARY:					14	3	2	8	13	26	9	13	1715	12	27	5840	6645	390	545	240		

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SHEET NO.	REFERENCE NO.	ROADWAY	SIDE	STATION FROM OR AT	STATION TO	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN	625 LIGHT POLE, MISC.: DESIGN AT12B40		625 LIGHT POLE, MISC.: DESIGN AT18B40	625 LIGHT POLE FOUNDATION, 24" X 8' DEEP	625 CONNECTOR KIT, TYPE II	625 CONNECTOR KIT, TYPE VII B	625 GROUND ROD	625 NO. 10 AWG POLE AND BRACKET CABLE	625 PULL BOX, 713.08, 18"	625 CABLE SPLICING KIT	625 TRENCH, 24" DEEP	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	625 CONDUIT, JACKED OR DRILLED, 3"	625 POWER SERVICE, AS PER PLAN	603 4" CONDUIT, TYPE E	
						EACH	EACH		EACH	EACH	EACH	EACH	EACH	LF	EACH	EACH	LF	LF	LF	LF	EACH	LF	
140	PB31	US 36	RT	54+85									1		1	3					1	20	
		CIRCUIT "CA"																					
140	PB31-CA1	US 36-RP A	RT-RT	54+85	7+54												890	1000					
140	CA1	RP A	RT	7+54		1	1			1	2	3	1	115									
140	CA1-CA2	RP A-US 33	RT-RT	7+54	629+08												245	255					
140	CA2	US 33	RT	629+08		1			1	1	2	3	1	125									
140	CA2-PB32	US 33	RT	629+08	625+86												320	330					
140	PB32	US 33	RT	625+86											1	3						20	
140	PB32-CA3	US 33	RT	625+86	621+93												395	405					
140	CA3	US 33	RT	621+93		1			1	1	2		1	125									
140	CA1-PB33	RP A	RT-LT	7+54	7+54														150	40			
140	PB33	RP A	LT	7+54											1	3						20	
140	PB33-CA4	RP A-US 33	LT-RT	7+54	631+08												60	70					
140	CA4	US 33	RT	631+08		1			1	1	2		1	125									
140	CA2-PB34	US 33	RT-MED	629+08	629+12												20	115		85			
140	PB34	US 33	MED	629+12											1							20	
140	PB34-CA5	US 33	MED-LT	629+12	629+15												20	100		70			
140	CA5	US 33	LT	629+15		1			1	1	2		1	125									
140	CA5-CA6	US 33	LT	629+15	625+92												330	340					
140	CA6	US 33	LT	625+92		1			1	1	2		1	125									
140	CA6-CA7	US 33	LT	625+92	622+37												355	365					
140	CA7	US 33	LT	622+37		1			1	1	2		1	125									
140	CA7-CA8	US 33	LT	622+37	618+51												385	395					
140	CA8	US 33	LT	618+51		1			1	1	2		1	125									
		CIRCUIT "CB"																					
140	PB31-CB1	US 36	RT	54+85	53+95													110					
140	CB1	US 36	RT	53+95		1	1			1	2		1	115									
140	CB1-PB35	US 36	RT	53+95	52+23												110	185		65			
140	PB35	US 36	RT	52+23											1	3						20	
140	PB35-CB2	US 36	RT-LT	52+23	52+23														360	110			
140	CB2	US 36	LT	52+23		1	1			1	2		1	115									
140	PB35-CB3	US 36	RT	52+23	47+47												475	485					
140	CB3	US 36	RT	47+47		1	1			1	2	3	1	115									
140	CB3-PB36	US 36-RP D	RT-RT	47+47	10+77												170	180					
140	PB36	RP D	RT	10+77											1	3						20	
140	PB36-CB4	RP D	RT-LT	10+77	10+77														195	55			
140	CB4	RP D	LT	10+77		1	1			1	2		1	115									
140	CB4-CB5	RP D	LT	10+77	13+18												235	245					
140	CB5	RP D	LT	13+18		1	1			1	2		1	115									
140	CB3-PB37	US 36	RT-LT	47+47	47+47														360	110			
140	PB37	US 36	LT	47+47											1	3						20	
140	PB37-CB6	US 36	LT	47+47	45+98												90	160		60			
140	CB6	US 36	LT	45+98		1	1			1	2		1	115									
TOTALS CARRIED TO GENERAL SUMMARY:						14	7		7	14	28	9	15	1680	7	18	4100	4740	1065	595	1	140	

CALCULATED MB CHECKED FT

LIGHTING SUBSUMMARY

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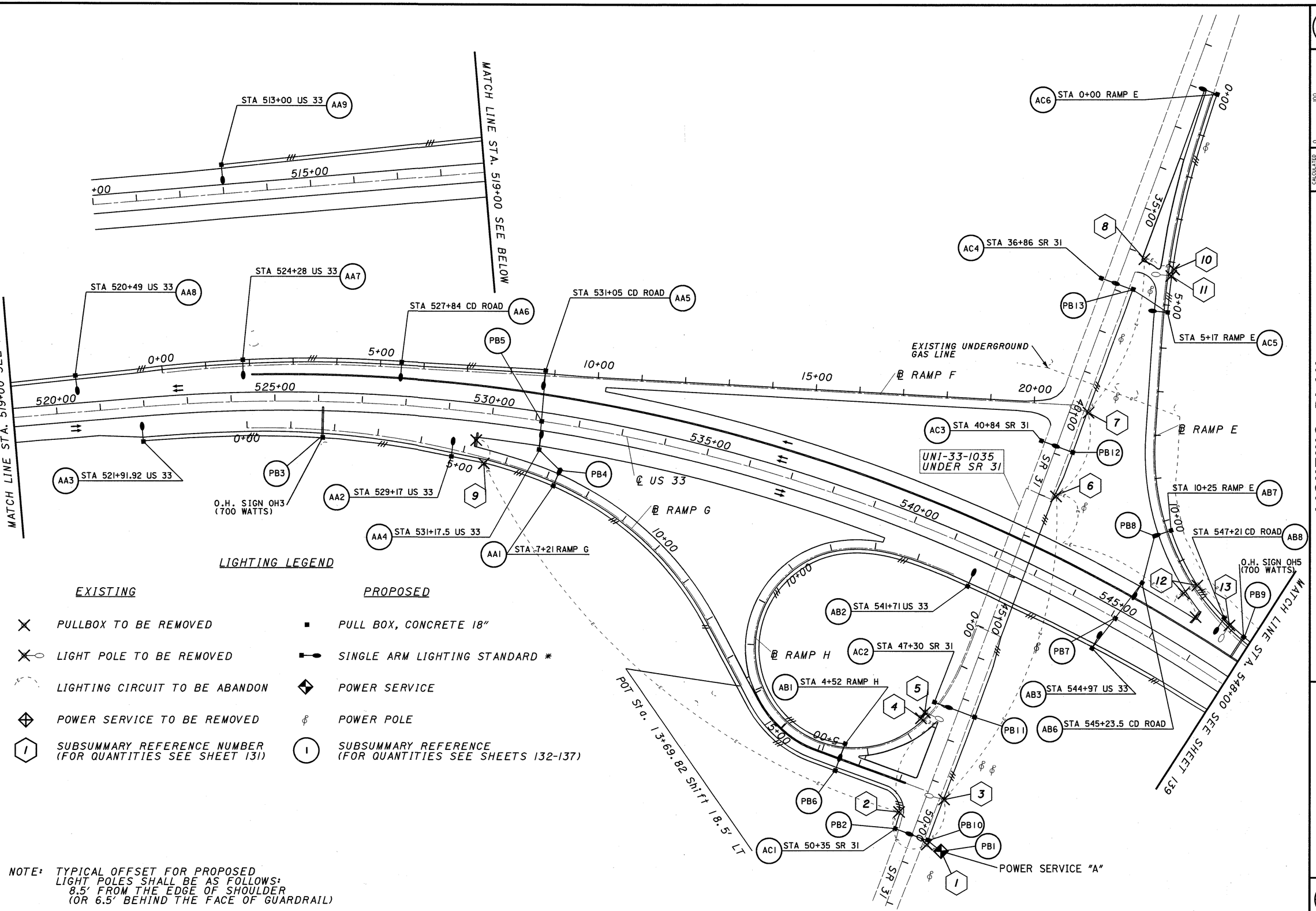
SHEET NO.	REFERENCE NO.	ROADWAY	SIDE	STATION FROM OR AT	STATION TO	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN	625 LIGHT POLE, MISC.: DESIGN AT12B40	625	625 LIGHT POLE, MISC.: DESIGN AT18B40	625 LIGHT POLE FOUNDATION, 24" X 8' DEEP	625 CONNECTOR KIT, TYPE II	625 CONNECTOR KIT, TYPE VII B	625 GROUND ROD	625 NO. 10 AWG POLE AND BRACKET CABLE	625 PULL BOX, 713.08, 18"	625 CABLE SPLICING KIT	625 TRENCH, 24" DEEP	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	625 NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	625 CONDUIT, JACKED OR DRILLED, 3"	603 4" CONDUIT, TYPE E		
						EACH	EACH		EACH	EACH	EACH	EACH	EACH	LF	EACH	EACH	LF	LF	LF	LF	LF		
		CIRCUIT "CC"																					
140	PB31-PB38	US 36	RT-LT	54+85	54+85												55	170		95			
140	PB38	US 36	LT	54+85											1	3					20		
140	PB38-CC1	US 36-US 33	LT-RT	54+85	649+48												1140	1150					
140	CC1	US 33	RT	649+48		1			1	1	2	3	1	125									
140	CC1-CC2	US 33	RT	649+48	652+70												325	335					
140	CC2	US 33	RT	652+70		1			1	1	2		1	125									
140	CC2-CC3	US 33	RT	652+70	656+24												355	365					
140	CC3	US 33	RT	656+24		1			1	1	2		1	125									
140	CC3-CC4	US 33	RT	656+24	660+09												385	395					
140	CC4	US 33	RT	660+09		1			1	1	2		1	125									
140	CC1-PB39	US 33	RT-MED	649+48	649+48												20	100		70			
140	PB39	US 33	MED	649+48											1						20		
140	PB39-CC5	US 33	MED-LT	649+48	649+48												20	115		185			
140	CC5	US 33	LT	649+48		1			1	1	2	3	1	125									
140	CC5-CC6	US 33-RP C	LT-LT	649+48	6+22												250	260					
140	CC6	RP C	LT	6+22		1	1			1	2		1	115									
140	CC6-PB40	RP C	LT-RT	6+22	6+22														150	40			
140	PB40	RP C	RT	6+22											1	3					20		
140	PB40-CC7	RP C-US 33	RT-LT	6+22	647+46.5												60	70					
140	CC7	US 33	LT	647+46.5		1			1	1	2		1	125									
140	CC5-PB41	US 33	LT	649+48	652+25												290	300					
140	PB41	US 33	LT	652+25											1	3					20		
140	PB41-CC8	US 33	LT	652+25	656+45												425	435					
140	CC8	US 33	LT	656+45		1			1	1	2		1	125									
140	CC8-PB42	US 33	LT	656+45	657+45.27												105	115					
140	PB42	US 33	LT	657+45.27											1	3					20		
	TOTALS CARRIED TO GENERAL SUMMARY:					8	1		7	8	16	6	8	990	5	12	3430	3810	150	390	100		

CALCULATED MB
CHECKED FT

LIGHTING SUBSUMMARY

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LIGHTING LEGEND

EXISTING		PROPOSED	
✕	PULLBOX TO BE REMOVED	■	PULL BOX, CONCRETE 18"
✕—○	LIGHT POLE TO BE REMOVED	■—●	SINGLE ARM LIGHTING STANDARD *
⌒	LIGHTING CIRCUIT TO BE ABANDON	◆	POWER SERVICE
◆	POWER SERVICE TO BE REMOVED	ϕ	POWER POLE
⬡ 1	SUBSUMMARY REFERENCE NUMBER (FOR QUANTITIES SEE SHEET 131)	① 1	SUBSUMMARY REFERENCE (FOR QUANTITIES SEE SHEETS 132-137)

NOTE: TYPICAL OFFSET FOR PROPOSED LIGHT POLES SHALL BE AS FOLLOWS:
8.5' FROM THE EDGE OF SHOULDER
(OR 6.5' BEHIND THE FACE OF GUARDRAIL)

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED MB
CHECKED FT

LIGHTING PLAN
STA. 510+00 TO STA. 548+00

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STA 34+17 SR 4 BA6
BA10 STA 14+26 RAMP M
SR 4 15+00
35+00
0+00
EXISTING GAS REGULATOR
STA 1+50 RAMP L BA5
22
BA9 STA 12+18 RAMP M
29
28
BA8 STA 37+29 SR 4
21
20
19
10+00
30
31
STA 4+62 RAMP L BA4
40+00
5+00
℄ RAMP L
PB18
BA7 STA 40+22 SR 4
℄ RAMP M
EXISTING UNDERGROUND GAS LINE
5+00
AB11
AB9
AB10
STA 548+88 CD ROAD
STA 550+72 CD ROAD
STA 552+54 CD ROAD
0+00
550+00
555+00
℄ US 33
STA 552+36 US 33 AB5
STA 548+51 US 33 AB4
MATCH LINE STA. 548+00 SEE SHEET 138
PB21
17
UNI-33-1068 UNDER SR 4
O.H. SIGN OH7 (350 WATTS)
18
45+00
BB5 STA 561+02 CD ROAD
PB22
STA 561+55 US 33 BB4
560+00
PB23
STA 9+54 RAMP L BB6
10+00
32
33
STA 562+96.5 CD ROAD BB7
O.H. SIGN OH8 (525 WATTS)
PB24
MATCH LINE US 33 STA. 578+00 SEE BELOW
SR 4 RAMP K STA. 13+00 SEE BELOW
℄ RAMP K
PB30
PB29
℄ US 33
595
590+00
585+00
580+00
15+00
STA 581+54 US 33 BB10
STA 584+79 US 33 BB11
PB28
STA 588+34 US 33 COMBINATION OH13 BB12
STA 592+18 US 33 BB13
MATCH LINE US 33 STA. 578+00 SEE ABOVE
BB14 STA 577+44.2 US 33
O.H. SIGN OH12 (700 WATTS)
PB27
575+00
BB9 STA 570+82 US 33
35
570+00
565+00
PB26
O.H. SIGN OH10 (525 WATTS)
0+00
5+00
34
27
PB20
BB3 STA 568+10 US 33
STA 570+14.5 US 33 BB8
PB25
BB2 STA 7+12 RAMP J
℄ RAMP J
STA 17+20 RAMP J BA3
BB1 STA 12+50 RAMP J
25
PB17
24
26
10+00
5+00
℄ RAMP K
EXISTING UNDERGROUND GAS LINE
POT Sta. 3+68.76 Shift 18.5
PB19
55+00
15+00
PB16
SR 4
23
PB15
PB14
14
0+00
16
BA2 STA 57+39 SR 4
POWER SERVICE "B"
60+00
15
BA1 STA 59+00 SR 4
MATCH LINE SR 4 RAMP K STA. 13+00 SEE ABOVE

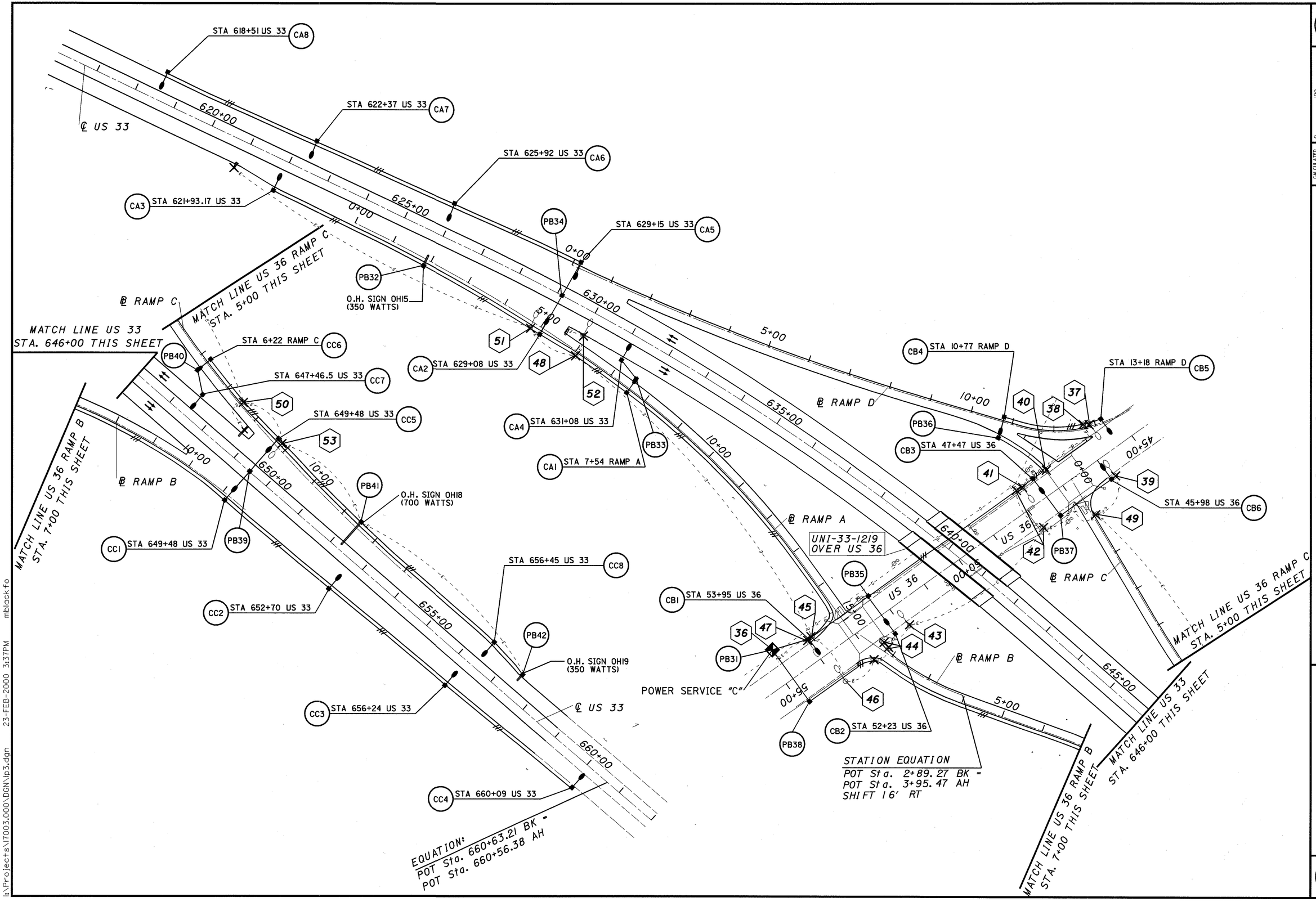
HORIZONTAL SCALE IN FEET
0 50 100 200
CALCULATED MB
CHECKED FT

LIGHTING PLAN
STA. 548+00 TO STA. 594+00

UNI-33-8.74

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HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED MB
CHECKED FT

LIGHTING PLAN
STA. 616+00 TO STA. 646+00

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AA9
+00
515+00
MATCH LINE STA. 519+00 SEE BELOW
MATCH LINE STA. 519+00 SEE ABOVE
AA8
AA7
AA6
AA5
0+00
5+00
10+00
15+00
20+00
520+00
525+00
530+00
535+00
540+00
AA3
AA2
AA1
AA4
0+00
5+00
10+00
O.H. SIGN OH3
(700 WATTS)
℄ US 33
℄ RAMP G
℄ RAMP F
AC6
AC4
AC5
AC3
0+00
35+00
40+00
5+00
SR 37
℄ RAMP E
AB7
AB6
AB8
10+00
O.H. SIGN OH5
(700 WATTS)
AB2
AB1
AC2
AB3
℄ RAMP H
0+00
45+00
10+00
545+00
15+00
5+00
POT Sta. 13+69.82 Shift 18.5' LT
AC1
50+00
SR 37
POWER SERVICE "A"
MATCH LINE STA. 548+00 SEE SHEET 142

N

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED MB
CHECKED FT

CIRCUIT SCHEMATIC PLAN
STA. 510+00 TO STA. 548+00

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BA6
BA10
BA5
BA9
BA4
BA8
BA7
BB6
BB7
BB5
BB4
BB3
BB2
BB1
BB8
BB9
BB10
BB11
BB12
BB13
BB14
AB11
AB10
AB9
AB5
AB4
BA3
BA2
BA1

SR 4
15+00
35+00
0+00
5+00
40+00
10+00
45+00
5+00
0+00
560+00
565+00
570+00
575+00
580+00
585+00
590+00
595
555+00
550+00
0+00
50+00
20+00
55+00
15+00
5+00
10+00
0+00
60+00

℄ RAMP L
℄ RAMP M
℄ US 33
℄ RAMP K
℄ RAMP J
℄ RAMP K

MATCH LINE
US 33 STA. 578+00 SEE BELOW

MATCH LINE
SR 4 RAMP K STA. 13+00 SEE BELOW

MATCH LINE
US 33 STA. 578+00 SEE ABOVE

MATCH LINE
SR 4 RAMP K STA. 13+00 SEE ABOVE

MATCH LINE STA. 548+00 SEE SHEET 141

O.H. SIGN OH8
(525 WATTS)

O.H. SIGN OH12
(700 WATTS)

O.H. SIGN OH10
(525 WATTS)

O.H. SIGN OH7
(350 WATTS)

POT Sta. 3+68.76 Shift 18.5

POWER SERVICE "B"

CIRCUIT SCHEMATIC PLAN
STA. 548+00 TO STA. 594+00

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED MB
CHECKED FT

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CA8
CA7
CA6
CA5
CA3
CA2
CA4
CA1
℄ US 33
620+00
625+00
630+00
635+00
0+00
5+00
10+00
MATCH LINE US 36 RAMP C
STA. 5+00 THIS SHEET
MATCH LINE US 33
STA. 646+00 THIS SHEET
O.H. SIGN OH15
(350 WATTS)
CC6
CC7
CC5
CC1
CC2
CC3
CC8
CC4
℄ RAMP C
℄ RAMP B
℄ RAMP D
℄ RAMP A
10+00
650+00
655+00
660+00
O.H. SIGN OH18
(700 WATTS)
O.H. SIGN OH19
(350 WATTS)
EQUATION:
POT Sta. 660+63.21 BK =
POT Sta. 660+56.38 AH
CB4
CB5
CB3
CB6
CB1
CB2
45+00
0+00
640+00
US 36
50+00
15+00
55+00
645+00
5+00
POWER SERVICE "C"
STATION EQUATION
POT Sta. 2+89.27 BK =
POT Sta. 3+95.47 AH
SHIFT 16' RT
MATCH LINE US 36 RAMP B
STA. 7+00 THIS SHEET
MATCH LINE US 33
STA. 646+00 THIS SHEET
MATCH LINE US 36 RAMP C
STA. 5+00 THIS SHEET

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED MB
CHECKED FT

CIRCUIT SCHEMATIC PLAN
STA. 616+00 TO STA. 646+00

UNI-33-8.74

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174

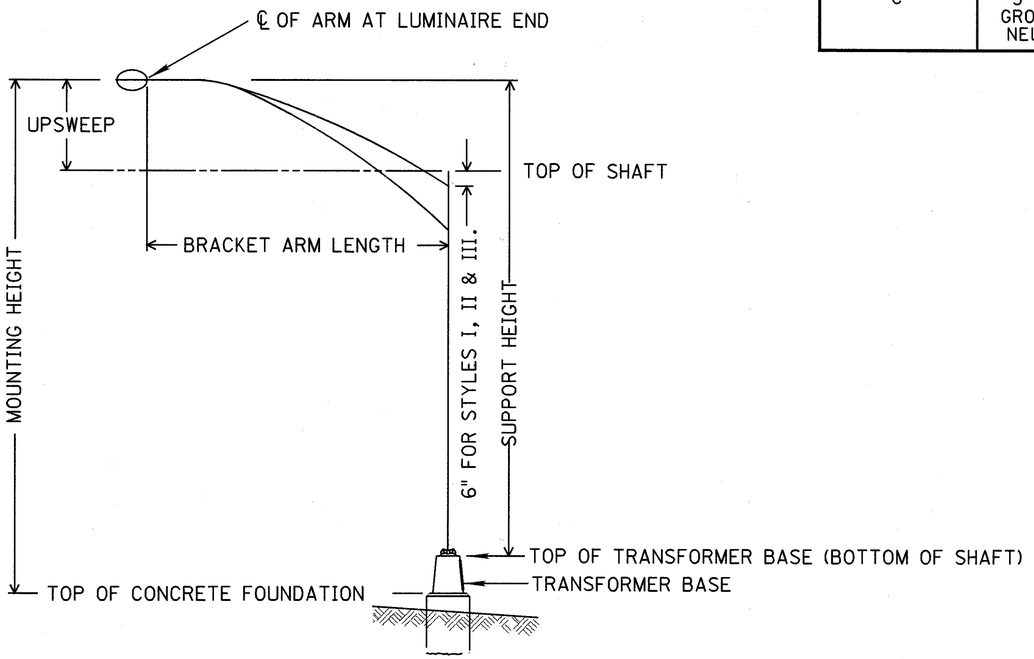
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POWER SERVICE DATA

POWER SERVICE DESIGNATION	TYPE OF SERVICE	CONNECTED LOAD-KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE TYPE	CIRCUIT NUMBER	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	MAINTAINING AGENCY
A	240/480V, 1 PHASE, 3 WIRE GROUNDED NEUTRAL	16	NO. 2	60	A	11.8	30	CITY OF MARYSVILLE
					B	14.0	30	
					C	6.6	30	

POWER SERVICE DESIGNATION	TYPE OF SERVICE	CONNECTED LOAD-KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE TYPE	CIRCUIT NUMBER	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	MAINTAINING AGENCY
B	240/480 V, 1 PHASE, 3 WIRE GROUNDED NEUTRAL	16	NO. 2	60	A	11.0	30	CITY OF MARYSVILLE
					B	21.1	30	

POWER SERVICE DESIGNATION	TYPE OF SERVICE	CONNECTED LOAD-KVA	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE TYPE	CIRCUIT NUMBER	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	MAINTAINING AGENCY
C	240/480 V, 1 PHASE, 3 WIRE GROUNDED NEUTRAL	14	NO. 2	60	A	9.8	30	CITY OF MARYSVILLE
					B	6.6	30	
					C	11.7	30	



POLE COMPONENTS

CALCULATED MB
CHECKED FT

LIGHTING DETAILS

UNI-33-8.74

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DESIGN SPECIFICATIONS:
THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES" ADOPTED BY THE ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1992, INCLUDING THE OHIO "SUPPLEMENTAL" TO THESE SPECIFICATIONS AND THE O.D.O.T. BRIDGE DESIGN MANUAL.

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 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 513.02. CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

CONVERSION OF METRIC STANDARD BRIDGE DRAWINGS:
SEVERAL STANDARD DRAWINGS REFERENCED IN THIS PLAN ARE METRIC. ANY CONVERSION OF DIMENSIONS REQUIRED TO CONSTRUCT THE ITEMS SHOWN ON THE STANDARDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONVERSIONS SHALL BE MADE USING THE S.I. (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

MONOLITHIC WEARING DECK SURFACE:
MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, LUMP:
THIS WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING PARAPET TRANSITIONS FOR UNI-33-12.19 L/R OVER S.R. 36.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:
DESCRIPTION:
THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALK, PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, CROSS FRAMES, ETC.) CARE SHALL BE TAKEN DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED.

PROTECTION OF TRAFFIC:
PRIOR TO DEMOLITION OF ANY PORTION OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION.

PROTECTION OF STEEL SUPPORT SYSTEMS:
BEFORE DECK SLAB CUTTING IS PERMITTED, THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK SHALL BE DRAWN ON THE SURFACE OF THE DECK. SMALL DIAMETER PILOT HOLES SHALL BE DRILLED 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. DURING CUTTING OF THE DECK SLAB, CARE SHALL BE TAKEN NOT TO DAMAGE STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE.

REMOVAL METHODS:
CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED, PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS ABOVE STEEL MEMBERS, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS, MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

DECK REMOVALS:
DUE TO THE POSSIBLE PRESENCE OF WELDED ATTACHMENTS TO EXISTING STRUCTURAL STEEL (FINISHING MACHINE, SCUPPER, AND FORM SUPPORTS), CARE SHALL BE TAKEN DURING DECK REMOVAL TO AVOID DAMAGING STRINGERS WHICH ARE TO REMAIN. STRINGERS DAMAGED BY THE CONTACTOR'S REMOVAL OPERATIONS SHALL, AT NO COST TO THE PROJECT IS REPLACED OR REPAIRED. PROPOSED REPAIRS, DEVELOPED BY A REGISTERED PROFESSIONAL ENGINEER, SHALL BE SUBMITTED IN WRITING FOR REVIEW AND APPROVAL BY THE DIRECTOR.

EXTRANEOUS MEMBERS:
EXISTING EXTRANEOUS MEMBERS (FINISHING MACHINE, FORM SUPPORTS, SUPPORT FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) ATTACHED BY WELDED CONNECTIONS TO PORTIONS OF THE TOP FLANGES DESIGNATED "TENSION" SHALL BE REMOVED AND THE FLANGE SURFACES GROUND SMOOTH. GRINDING SHALL BE CAREFULLY DONE AND PARALLEL TO THE FLANGES.

LOADING LIMITATIONS:
NO PART OF THE STRUCTURE SHALL BE SUBJECTED TO UNIT STRESSES THAT EXCEED 136.5% OF THE ALLOWABLE UNIT STRESSES GIVEN IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DUE EITHER TO DEMOLITION, ERECTION OR CONSTRUCTION METHODS, OR TO THE USE OR MOVEMENT OF DEMOLITION OR ERECTION EQUIPMENT ON OR ACROSS THE STRUCTURE. STRUCTURAL ANALYSIS COMPUTATIONS, BY A REGISTERED PROFESSIONAL ENGINEER, SHOWING THE ALLOWABLE STRESSES AND THE MAXIMUM STRESSES PRODUCED BY THE CONTRACTOR'S METHODS OR EQUIPMENT SHALL BE SUBMITTED TO THE DIRECTOR FOR REVIEW AND APPROVAL AT LEAST TWO WEEKS PRIOR TO THE START OF THE WORK.

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1" DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. WHERE PRACTICABLE, THE EXISTING REINFORCING STEEL WHERE REQUIRED IN THE PLANS SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACE AND EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACED SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

PAYMENT:
THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF 202, AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 407 - TACK COAT:
THE RATE OF APPLICATION OF 407 - TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.08 GALLONS PER SQ. YD. OF TACK COAT FOR ESTIMATING PURPOSES ONLY FOR THE NECESSARY SHOULDER WORK AROUND THE APPROACH SLABS.

REPLACEMENT OF EXISTING REINFORCING STEEL:
ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT THE CONTRACTORS COST. ANY EXISTING REINFORCING BARS THAT ARE TO BE REUSED WILL BE INSPECTED BY THE PROJECT ENGINEER AND REPLACED IF THEY ARE NOT ACCEPTABLE DUE TO CORROSION OR LOSS OF CROSS-SECTIONAL AREA FOR ANY REASON. PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN THE APPROPRIATE CONCRETE PAY ITEM.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DESIGNED: T.G.M. | DRAWN: T.G.M. | REVIEWED: D.P.P. | DATE: 1-24-00
CHECKED: D.P.P. | REVISED | STRUCTURE FILE NUMBER

STRUCTURE NOTES

UNI-33-8.74

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ITEM SPECIAL - STRUCTURE, MISC.: MECHANIZED VIBRATION OF BRIDGE FLOORS (REVISED 4/15/99):

FINISHING: AFTER THE CONCRETE IS PLACED, THE CONSOLIDATION OF THE CONCRETE WILL BE ACCOMPLISHED BY MEANS OF AN AUTOMATED MECHANICAL DEVICE ON WHICH INTERNAL CONCRETE VIBRATORS OF THE SAME TYPE AND SIZE ARE MOUNTED. THE VIBRATORS WILL BE MOUNTED SO AS TO PROVIDE A MAXIMUM INSERTION SPACING OF 12 INCH CENTERS. THIS SPACING WILL NOT BE CHANGED WITHOUT THE PERMISSION OF THE ENGINEER.

COMMERCIALLY AVAILABLE DEVICES ARE MANUFACTURED BY THE BIDWELL DIVISION OF THE CMI CORPORATION AND THE ALLEN ENGINEERING CORPORATION. OTHER DEVICES MUST BE APPROVED BY THE ENGINEER BEFORE USE. THE VIBRATORS SHALL MEET THE FOLLOWING REQUIREMENTS:

DIAMETER OF HEAD (INCHES)	1.75 TO 2.5
FREQ. OF VIBRATION (VIB./MIN) (UNDER LOAD)	8,000 TO 14,000
AVERAGE AMPLITUDE (INCHES)	0.025 TO 0.05
RADIUS OF ACTION (INCHES)	7

THE VIBRATORS WILL BE MOUNTED ON THE MECHANICAL DEVICE IN SUCH A MANNER THAT THEY WILL ENTER THE CONCRETE IN A VERTICAL POSITION UNDER THE INFLUENCE OF THEIR OWN WEIGHT. THE PENETRATION OF THE VIBRATORS WILL BE TO A DEPTH OF 0.075+/-0.25 INCH ABOVE THE BOTTOM OF THE FORMWORK. THE TIME OF INSERTION WILL BE FROM 7 TO 10 SECONDS. THE REMOVAL WILL BE ACCOMPLISHED IN NOT LESS THAN 3 SECONDS AND WILL RAISE THE VIBRATORS ABOVE THE SURFACE OF THE CONCRETE. THE LOCATION OF INSERTIONS WILL BE SPACED TO MISS REINFORCEMENT WHERE POSSIBLE.

THE MECHANICAL DEVISE WILL BE MOUNTED ON THE FINISHING MACHINE FRAMEWORK OR UPON AN INDEPENDENT SELF-PROPELLED FRAMEWORK OPERATED ON THE FINISHING RAILS. THE CONTRACTOR WILL PROVIDE ADEQUATE INCREASED SUPPORT FOR THE FINISHING RAILS. THE DEVICE WILL COME TO A COMPLETE STOP WHILE THE VIBRATORS CONSOLIDATE THE WIDTH OF THE POUR. THE LONGITUDINAL VIBRATION SPACING AS THE DEVICE PROGRESSES FORWARD WILL BE 12 INCH INCREMENTS.

AFTER THE CONCRETE IS PLACED AND CONSOLIDATED, THE CONCRETE FLOOR WILL BE STRUCK OFF AND SCREEDED WITH A POWER DRIVEN FINISHING MACHINE.

METHOD OF MEASUREMENT:

MECHANIZED VIBRATION WILL BE MEASURED FOR PAYMENT IN SQUARE YARDS OF BRIDGE FLOOR AREA. IN COMPUTING THE AREA FOR PAYMENT, DEDUCTIONS WILL BE MADE FOR OMISSIONS IN SKEWS AND OTHER AREAS LEFT UNVIBRATED BY THE MECHANICAL VIBRATION PROCESS.

NOTE:

SECTION 511.08 (PLACING CONCRETE) OF THE CONSTRUCTION AND MATERIAL SPECICFICATIONS WILL BE FOLLOWED FOR ALL AREAS LEFT UNVIBRATED BY THE MECHANIZED VIBRATION.

METHOD FOR PAYMENT:

PAYMENT FOR MECHANIZED VIBRATION OF BRIDGE FLOORS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARDS UNDER ITEM SPECIAL, STURCTURE MISC: MECHANIZED VIBRATION OF BRIDGE FLOORS.

ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN

THIS ITEM SHALL INCLUDE; JACKING AND TEMPORARY SUPPORT OF THE SUPERSTRUCTURES, BEARING DISASSEMBLY, CLEANING (GRINDING IF NECESSARY), SANDBLASTING AND PAINTING OF THE STEEL BEARING COMPONENTS USING SYSTEM OZEU PAINT. REPLACEMENT OF ANY DAMAGED SHEET LEAD (711.19) OR PREFORMED BEARING PADS, INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT. REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES F. LUBRICATE SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. THE CONTRACTOR SHALL BE SURE THAT ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT THE OPTION OF THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE STATE, NEW BEARINGS OF THE SAME TYPE AS THE EXISTING MAY BE INSTALLED IN PLACE OF REFURBISHING BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN.

ITEM 517 - RAILING (DEFLECTOR PARAPET TYPE), AS PER PLAN:

A 2'-6" WIDE BY 9" DEEP FOOTER UNDERNEATH THE PARAPET TRANSITIONS (UNI-33-9.05 L/R & UNI-33-9.12 L/R) SHALL BE INCLUDED UNDER BID ITEM 517 - RAILING (DEFLECTOR PARAPET TYPE), AS PER PLAN.

ITEM 517 - RAILING FACED AS PER PLAN:

DESCRIPTION:

THIS ITEM OF WORK SHALL CONSIST OF FACING CURB STYLE PARAPETS, USING CAST IN PLACE CONCRETE, TO OBTAIN THE DEFLECTOR SHAPE AS SHOWN IN THE PLANS.

REMOVAL:

THE CONTRACTOR SHALL CAREFULLY REMOVE THE EXISTING ALUMINUM RAILING, POSTS, AND PORTION OF THE BULB ANGLE WHERE NECESSARY. ALL LOOSE OR UNSOUND CONCRETE SHALL BE REMOVED. ALSO TO BE REMOVED ANY SOUND CONCRETE NECESSARY TO OBTAIN A MINIMUM 4" THICKNESS OF NEW CONCRETE.

DOWEL HOLES AND REINFORCING STEEL:

DOWEL HOLES SHALL BE DRILLED WHERE SHOWN IN THE PLANS. REINFORCING STEEL SHALL BE INSTALLED USING EPOXY GROUT PER 510 AND (CMS 705.20). ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE DOWEL HOLE SHALL BE LOCATED WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER) PRIOR TO DRILLING THE HOLES. IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, THE DOWEL HOLE SHALL BE MOVED TO EITHER SIDE OF THE EXISTING BAR. ALL REINFORCING STEEL, DOWEL HOLES AND GROUTING SHALL BE INCLUDED WITH ITEM 517 FOR PAYMENT.

SURFACE PREPARATION:

THE PARAPET SURFACE NEXT TO THE REFACING SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING FOLLOWED BY AN AIR BLAST. USE OF HAND TOOLS MAY BE NECESSARY TO REMOVE SCALE FROM ANY EXPOSED REINFORCING STEEL. THE SURFACE SHALL BE MADE FREE FROM SPALLS, LAITANCE, AND ALL TRACES OF FOREIGN MATERIAL. DETERGENT CLEANING SHALL PRECEDE BLAST CLEANING AS NECESSARY TO ENSURE REMOVAL OF CONTAMINANTS THAT ARE DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.

MATERIALS:

REINFORCING STEEL 509, GRADE 60, EPOXY COATED; CONCRETE: 511 CLASS S

SHRINKAGE CRACK CONTROL JOINTS:

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 1 INCH DEEP CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE PERIMETER OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE DECK. THE CONTROL JOINT SAY CUTS SHALL BE PLACE IN THE NEW CONCRETE AT THE SAME LOCATION AS THE EXISTING DEFLECTION JOINTS AND SHALL BE MADE AT RIGHT ANGLE TO THE DECK BY SAWING TO MATCH ALIGNMENT OF EXISTING DEFLECTION JOINTS. THE USE OF AN EDGE GUIDE, FENCE OR JIG IS REQUIRED TO ENSURE THAT THE CUT IS STRAIGHT, TRUE AND ALIGNED IN ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF ¼ INCH. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1 INCH WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E TO A MINIMUM DEPTH OF 1 INCH.

METHOD OF MEASUREMENT:

THE QUANTITY SHALL BE THE ACTUAL LENGTH OF RAILING FACED AS MEASURED FROM END OF WING WALL. THIS ITEM SHALL INCLUDE THE FURNISHING OF ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO COMPLETE THIS WORK. ALL COSTS OF REMOVAL, DOWEL HOLES, REINFORCING STEEL, CONCRETE AND SHRINKAGE CONTROL JOINTS COMPLETE AND IN PLACE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
517	LIN.FT.	RAILING FACED AS PER PLAN

ITEM 611 - REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN:

THE RECONSTRUCTED APPROACH SLABS WILL REQUIRE PART-WIDTH CONSTRUCTION, NON-PROTRUDING MECHANICAL CONNECTORS SHALL BE PROVIDED AT THE CONSTRUCTION JOINT FOR THE REINFORCING BARS. ALL MATERIALS, LABOR AND INSTALLATION REQUIRED FOR THE MECHANICAL CONNECTORS SHALL BE INCLUDED UNDER ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN, FOR THE UNIT PRICE BID.

DESIGN AGENCY: DISTRICT SIX PRODUCTION

DESIGNED T.G.M. | DRAWN T.G.M. | CHECKED D.P.P. | REVIEWED D.P.P. | DATE 1-24-00 | REVISED | STRUCTURE FILE NUMBER

STRUCTURE NOTES

UNI-33-8.74

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ITEM 844 - HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK):

THE RECONSTRUCTED BRIDGE DECK FOR UNI-33-11.56 L/R WILL REQUIRE PART WIDTH CONSTRUCTION. MECHANICAL CONNECTORS SHALL BE USED TO ATTACH THE ENDS OF TRANSVERSE REINFORCING BARS IN THE DECK. THE CONTRACTOR IS RECOMMENDED TO USING A MECHANICAL CONNECTOR THAT REQUIRES NO OVERLAP OF RE-STEEL DUE TO DESIGNERS PROVIDED RE-STEEL LENGTH. ALL MATERIALS, LABOR AND INSTALLATION REQUIRED FOR THE MECHANICAL CONNECTORS SHALL BE INCLUDED UNDER HIGH PERFORMANCE CONCRETE (DECK) ITEM - 844 FOR THE UNIT PRICE BID.

ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS: (FOR UNI-33-8.79 L/R ONLY)

DESCRIPTION:

THIS WORK SHALL CONSIST OF CUTTING AND SEALING TRANSVERSE JOINTS IN THE NEW BITUMINOUS CONCRETE OVERLAY ON THE APPROACH SLAB. BITUMINOUS CONCRETE JOINTS SHALL BE CONSTRUCTED IN LINE WITH, THE EXISTING TRANSVERSE JOINT. HOWEVER, THE SAW CUT SHALL NOT DISTURB THE BRIDGE DECK.

MATERIALS:

THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ITEM 705.04, JOINT SEALANTS, HOT-POURED, FOR CONCRETE AND ASPHALT PAVEMENTS. ACCEPTABLE ALTERNATE MATERIALS ARE: A SILICONE SEALANT MEETING FEDERAL SPECIFICATIONS TT-S-001543A CLASS A (ONE-PART SILICONE SEALANTS) AND TT-S-00230C CLASS A (ONE-COMPONENT SEALANTS), SUCH AS THOSE MANUFACTURED BY GENERAL ELECTRIC, SILICONE PRODUCTS DIVISION, 4015 EXECUTIVE PARK DRIVE, CINCINNATI, OHIO 45242 (513-243-1953) OR DOW CORNING (DISTRIBUTOR) 1086 RIDGE ST. COLUMBUS, OHIO 43215 (614-486-6449): OR SOFTSEAL, A COLD-APPLIED, LOW-MODULUS, TWO COMPONENT POLYMERIC COMPOUND HORIZONTAL SEALANT AS MANUFACTURED BY W.R. MEADOWS, INC. P.O. BOX 338, HAMPSHIRE, ILLINOIS 60140-0338 (800-342-5976).

CONSTRUCTION DETAILS:

GENERAL: THE CONTRACTOR SHALL CONDUCT HIS OPERATION SO THAT CUTTING, CLEANING AND SEALING OF THE TRANSVERSE JOINTS IS A CONTINUOUS OPERATION THAT WILL BE PERFORMED AS SOON AS PRACTICAL AFTER THE PAVING, BUT NO LATER THAN FOUR (4) DAYS AFTER PLACEMENT OF THE ASPHALT CONCRETE SURFACE COURSE. TRAFFIC SHALL NOT BE ALLOWED TO KNEAD TOGETHER OR DAMAGE JOINT CUT PRIOR TO SEALING.

CUTTING OF TRANSVERSE JOINTS:

THE CONTRACTOR SHALL SAW OR ROUT TRANSVERSE JOINTS TO THE DIMENSIONS SHOWN IN FIGURE 1 ON THIS SHEET. THE CUT JOINTS SHALL LIE TO THE SIDE OF EACH TRANSVERSE JOINT. THE BLADE OF BLADES SHALL BE OF SUCH SIZE THAT THE FULL WIDTH AND DEPTH OF THE CUT CAN BE MADE WITH ONE PASS. DRY OR WET CUTTING WILL BE ALLOWED. JOINTS SHALL EXTEND THE FULL WIDTH OF THE BRIDGE.

CLEANING JOINTS:

DRY SAWED JOINTS SHALL BE THOROUGHLY CLEANED WITH A SUFFICIENT AMOUNT OF COMPRESSED AIR TO REMOVE ANY DIRT, DUST, OR DELETERIOUS MATTER. WET SAWED JOINTS SHALL BE WASHED CLEAN OF ALL CUTTINGS BY FLUSHING WITH A JET OF WATER AND WITH OTHER TOOLS AS NECESSARY. AFTER FLUSHING, THE JOINT SHALL BE BLOWN OUT WITH COMPRESSED AIR. WHEN THE SURFACES ARE THOROUGHLY CLEAN AND DRY, AND JUST PRIOR TO PLACING THE JOINT SEALER, COMPRESSED AIR HAVING A PRESSURE OF AT LEAST 90 P.S.I. SHALL BE USED TO BLOW OUT THE JOINT AND REMOVE ALL TRACES OF DUST. IN THE EVENT FRESHLY CUT JOINTS BECOME CONTAMINATED BEFORE THEY ARE SEALED, THEY SHALL BE RE-CLEANED OF ALL FOREIGN MATERIAL BY HIGH PRESSURE WATER JET.

SEALING JOINTS:

THE JOINT SHALL BE THOROUGHLY DRY WHEN THE SEALANT IS PLACED. AFTER CLEANING AND DRYING, A BOND-BREAKER MATERIAL SHALL BE APPLIED TO THE BOTTOM OF THE GROOVE. HOT POURED SEALANT SHALL BE APPLIED IMMEDIATELY THROUGH A NOZZLE, WHICH MUST PROJECT INTO THE SAWED JOINT, FILLING FROM THE JOINT IN SUCH A MANNER THAT, AFTER COOLING, THE LEVEL OF THE SEALANT WILL NOT BE HIGHER THAN 1/8" BELOW THE PAVEMENT SURFACE. ANY DEPRESSION IN THE COOLED SEAL GREATER THAN 1/4" SHALL BE BROUGHT UP TO THE SPECIFIED LIMIT BY FURTHER ADDITION OF HOT-POURED SEALANT. CARE SHALL BE TAKEN IN THE SEALING OF THE JOINTS SO THAT THE FINAL APPEARANCE WILL PRESENT A NEAT FINE LINE. THE COLD APPLIED SEALANT MATERIALS (POLYURETHANE, SILICONE, AND POLYMERIC COMPOUNDS) SHALL BE INSTALLED AS PER MANUFACTURES' RECOMMENDATIONS, EXCEPT AS MODIFIED BY THIS DRAWING. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES F OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR ONE HOUR AFTER APPLICATION OF THE SEALANT.

METHOD OF MEASUREMENT:

THE QUANTITY TO BE PAID FOR UNDER THIS ITEM WILL BE THE NUMBER OF LINEAR FEET OF JOINTS SAWED AND SEALED AS PER THE ABOVE REQUIREMENTS.

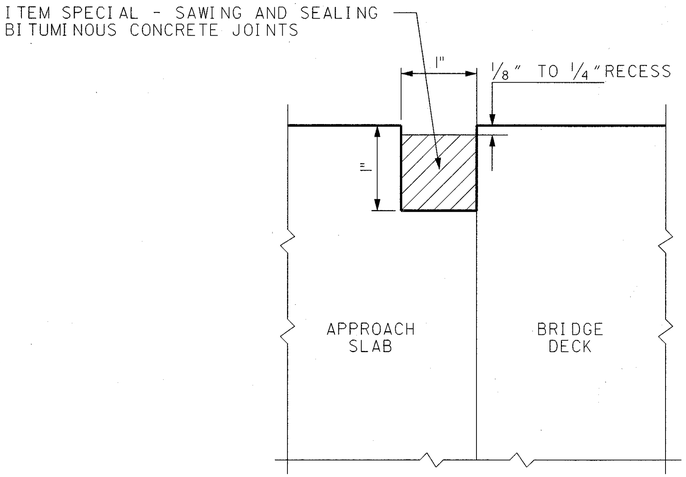
BASIS OF PAYMENT:

THE UNIT PRICE PER LINEAR FOOT FOR ITEM SPECIAL - "SAWING AND SEALING BITUMINOUS CONCRETE JOINTS" SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK, INCLUDING THE FURNISHING AND PLACING OF THE JOINT SEALER MATERIAL.

ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS: (SEE SHT. 6/30.)

TOTAL = 37.7 + 37.7 + 53.1 + 57.5 = 186.0 L.F.

FIGURE 1:



TYPICAL SECTION AT BRIDGE JOINT

DESIGN AGENCY: DISTRICT SIX PRODUCTION

DESIGNED T.G.M. | DRAWN T.G.M. | REVIEWED D.P.P. | DATE 1-24-00

CHECKED D.P.P. | REVISED | STRUCTURE FILE NUMBER

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ESTIMATED BRIDGE QUANTITES

ITEM	EXT.	TOTAL	UNIT	DESCRIPTION	SFN's =>	8000786 L 8000816 R		8000840 L 8000875 R		8000905 L 8000964 R		8000999 L 8001022 R		8001057 L 8001081 R		8001111 L 8001146 R		8001170 L 8001200 R		SEE SHEET NUMBER
					BRIDGE NO.=>	0879 L/R		0905 L/R		0912 L/R		0922 L/R		1150 L/R		1156 L/R		1219 L/R		
202	11200	LUMP		PORTIONS OF STRUCTURE REMOVED														LUMP	LUMP	1
202	11201	LUMP		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN												LUMP	LUMP			1
202	11300	164	CY	PORTIONS OF STRUCTURE REMOVED								46	46	19	19	9	9	16	16	
202	38500	826	LF	BRIDGE RAILING REMOVED								413	413							
SPECIAL	51267502	6043	SY	SEALING OF CONCRETE SURFACES (EPOXY)		444	444	460	460	320	320	536	536	386	386	631	631	489	489	PROP.
SPECIAL	51273500	1692	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN		686	1006													PROP.
516	11210	620	LF	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL								80.00	80.00	106.00	106.00	80.00	80.00	88.00	88.00	
SPECIAL	51631200	186	LF	SAWING AND SEALING BITUMINOUS CONCRETE JOINTS		75.40	110.60													3
516	45305	10	EACH	REFURBISH BEARING DEVICE, AS PER PLAN								5	5							2
517	73200		LF	RAILING (DEFLECTOR PARAPET TYPE)								486	486	92	92	460	460	92	92	
517	73201	256	LF	RAILING (DEFLECTOR PARAPET TYPE), AS PER PLAN				64	64	64	64									2
517	76201	1176	LF	RAILING FACED, AS PER PLAN				321	321	36	36			40	40			382	382	2
519	11100	235	SF	PATCHING CONCRETE STRUCTURE								20	20			90	90	15	15	
520	11100	2555	SF	PNEUMATICALLY PLACED MORTAR		145	2410													
SPECIAL	53000800	1512	SY	STRUCTURE, MISC.: MECHANIZED VIBRATION OF BRIDGE FLOORS												756	756			2
842	34400	75	CY	CLASS S CONCRETE, SUPERSTRUCTURE								26	26	8	8			7	7	
842	45700	65	CY	CLASS C CONCRETE, ABUTMENT								8	8	11	11	9	9	9	9	
844	48000	418	CY	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK)												209	209			3
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX												LUMP	LUMP			
846	73000	679	SY	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN		74	74	47	47	39	39	55	55	44	44	53	53	55	55	
848	10000	6601	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1 3/4")				806	806	669	669	810	810	610	610			811	811	
848	20000	6601	SY	SURFACE PREPARATION USING HYDRODEMOLITION				806	806	669	669	810	810	610	610			811	811	
848	30000	128	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY				15	15	13	13	16	16	12	12			16	16	
848	50000	201	SY	HAND CHIPPING				24	24	20	20	25	25	19	19			25	25	
848	50200	18	CY	FULL-DEPTH REPAIR				2	2	2	2	2	2	2	2			2	2	
848	50320	6069	SY	EXISTING CONCRETE OVERLAY REMOVED				673	673	536	536	810	810	610	610			811	811	
848	50340	297	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS				36	36	30	30	37	37	27	27			37	37	
863	20000	3780	EACH	WELDED STUD SHEAR CONNECTORS												1890	1890			
863	21000	32	EACH	TRIMMING OF BEAM END								5	5			5	5	12	12	

DESIGN AGENCY
DISTRICT SIX
PRODUCTION

DATE
REVIEWED D.P.P. 1-24-00
STRUCTURE FILE NUMBER

DRAWN T.G.M.
REVISED

DESIGNED T.G.M.
CHECKED D.P.P.

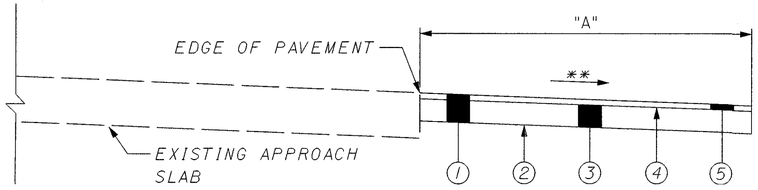
ESTIMATED BRIDGE QUANTITIES

UNI-33-8.74

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TYPICAL SECTIONS

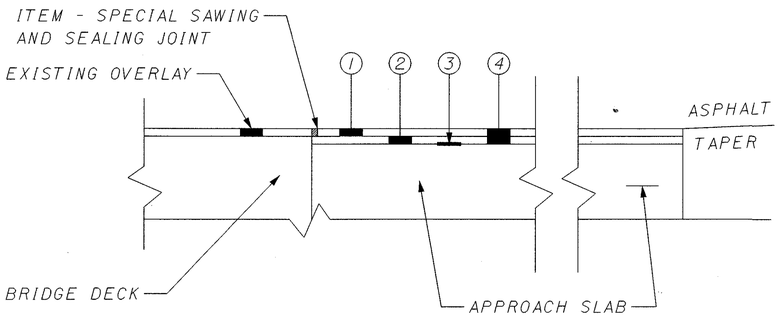
PAVED SHOULDER TYPICAL SECTION B-B
(8.79 L/R, 9.05 L/R, 9.12 L/R)



(1) ITEM 203 - (7¾" DEEP) EXCAVATION NOT INCLUDING EXMBANKMENT CONSTRUCTION
(2) ITEM 203 - SUBGRADE COMPACTION
(3) ITEM 301 - 6" BITUMINOUS AGGREGATE BASE
(4) ITEM 407 - TACK COAT
(5) ITEM 446 - 1¾" ASPHALT CONCRETE SURFACE COURSE, TYPE IH

NOTES: ** = MATCH TO EXISTING SLOPE OF APPROACH SLAB.
REBUILD SHOULDERS ADJACENT TO APPROACH SLABS ONLY.

APRROACH SLAB/DECK TYP. SECTION
(UNI-33-8.79 L/R)



(1) ITEM 202 - 1" WEARING COURSE REMOVED
(2) ITEM 254 - 1" PAVEMENT PLANING, PORTLAND CEMENT CONCRETE
(3) ITEM 407 - TACK COAT
(4) ITEM 446 - 2" ASPHALT CONCRETE SURFACE COURSE, TYPE IH

TOTAL QUANTITIES CARRIED TO SHEET 6/30.

PAVEMENT QUANTITY SUBSUMMARY

ITEM:		203	203		254	301	407	446	611	848
EXTENSION:		22900	12000	50000	01010	46010	10000	50000	25001	50300
BRIDGE NO.	Dimension "A"	Approach Slab Removed	Excavation Not Including Embankment Construction	Subgrade Compaction	Pavement Planing	Bituminous Aggregate Base, PG64-28	Tack Coat	Asphalt Concrete Surface Course, Type IH	Reinforced Concrete Approach Slab	Wearing Course Removed, Asphalt
UNITS	FT.	SY	CU YD	SQ YD	SY	CU YD	GAL	CU YD	CU YD	CU YD
8.79 L:										
LT FWD.	8.83		5.3	24.5	33.5	4.1	1.9	1.2		33.5
RT FWD	4.83		2.9	13.4	54.5	2.2	1.0	0.7		54.5
LT REAR	8.83		5.3	24.5	33.5	4.1	1.9	1.2		33.5
RT REAR	4.83		2.9	13.4	64.0	2.2	1.0	0.7		64.0
8.79 R:										
LT FWD.	5.00		3.0	13.9	33.5	2.3	1.1	0.7		33.5
RT FWD	8.33		5.0	23.1	54.5	3.9	1.8	1.1		54.5
LT REAR	5.00		3.0	13.9	33.5	2.3	1.1	0.7		33.5
RT REAR	7.00		4.2	19.4	64.0	3.2	1.5	0.9		64.0
SUB TOTAL:			31	146	371	24	11	7		371
9.05 L:										
LT FWD.	8.83		6.5	24.5		4.1	1.9	1.2		33.5
RT FWD	4.83		4.1	13.4		2.2	1.0	0.7		33.5
LT REAR	8.83		6.5	24.5		4.1	1.9	1.2		33.5
RT REAR	4.83		4.1	13.4		2.2	1.0	0.7		33.5
9.05 R:										
LT FWD.	8.83		6.5	24.5		4.1	1.9	1.2		33.5
RT FWD	4.83		4.1	13.4		2.2	1.0	0.7		33.5
LT REAR	8.83		6.5	24.5		4.1	1.9	1.2		33.5
RT REAR	4.83		4.1	13.4		2.2	1.0	0.7		33.5
SUB TOTAL:			43	152		25	12	7		268
9.12 L										
LT FWD.	8.83		5.3	24.5		4.1	1.9	1.2		33.5
RT FWD	4.83		2.9	13.4		2.2	1.0	0.7		33.5
LT REAR	8.83		5.3	24.5		4.1	1.9	1.2		33.5
RT REAR	4.83		2.9	13.4		2.2	1.0	0.7		33.5
9.12 R										
LT FWD.	8.83		5.3	24.5		4.1	1.9	1.2		33.5
RT FWD	4.83		2.9	13.4		2.2	1.0	0.7		33.5
LT REAR	8.83		5.3	24.5		4.1	1.9	1.2		33.5
RT REAR	4.83		2.9	13.4		2.2	1.0	0.7		33.5
SUB TOTAL:			33	152		25	12	7		268
9.22 L		134							223	
9.22 R		134							223	
11.50 L		134							226	
11.50 R		134							226	
11.56 L		134							223	
11.56 R		134							223	
12.19 L		134							227	
12.19 R		134							227	
TOTALS:		1072	107	450	371	75	35	22	1798	907

TOTALS CARRIED TO THE GENERAL SUMMARY SHEET 31-32A/174.

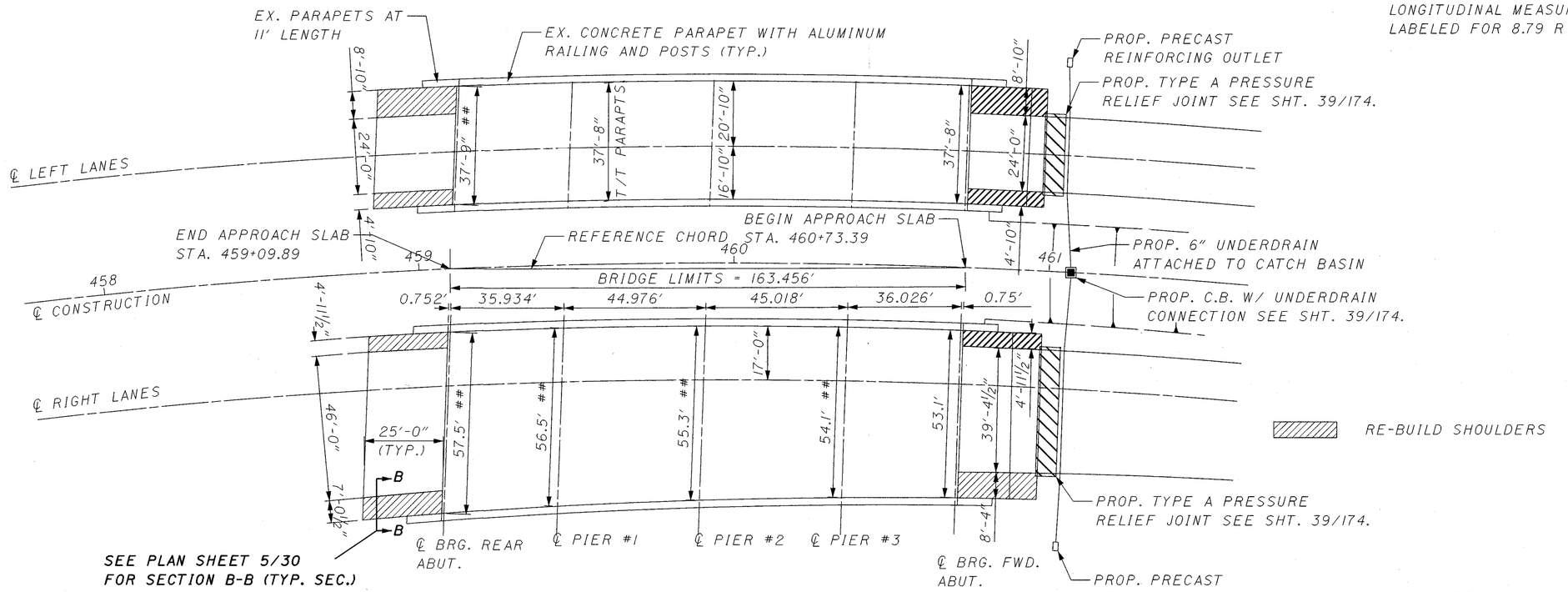
DESIGN AGENCY: DISTRICT SIX PRODUCTION
DATE: REVIEWED D.P.P. 1-24-00
STRUCTURE FILE NUMBER
DRAWN: T.G.M. REVISED
DESIGNED: T.G.M. CHECKED: D.P.P.
SHOULDER SECTION B-B AT APPROACH SLABS
UNI-33-8.74
5/30
149/174

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GENERAL PLAN VIEW - UNI-33-8.79 L&R (OVER C.R. 133)

NOTES:

LONGITUDINAL MEASUREMENTS LABELED FOR 8.79 R APPLY FOR 8.79 L.



NOTE:
DIMENSIONED ALONG SKEW.

INDEX OF STRUCTURAL WORK ITEMS

1. SEAL JOINT BETWEEN APPROACH SLAB AND BRIDGE DECK USING ITEM SPECIAL 516 SAW AND SEALING.
2. SANDBLAST EXPOSED REINFORCING STEEL UNDER DECK, PATCH WITH PNEUMATICALLY PLACED MORTAR. (SEE M.O.T. NOTES DUE TO UNDERNEATH DECK PATCHING OVER C.R. 133.)
3. SEAL ABUTMENT BREASTWALLS AND PARAPETS WITH EPOXY URETHANE SEALER.
4. SEAL CRACKS IN CONCRETE OVERLAY AND LONGITUDINAL JOINT WITH HMWM RESIN.
5. SEAL ENTIRE BRIDGE DECK WITH GRAVITY FED RESIN.
6. APPROACH SLAB PROCEDURES: GRIND OFF EX. ASPHALT, GRIND 1" BELOW TOP OF APPROACH SLAB. PUT BACK ASPHALT SURFACE COURSE TO MEET PAVEMENT TAPER.
7. INSERT TYPE A PRESSURE RELIEF JOINT PAST THE FORWARD APPROACH SLAB(S).
8. RE-BUILD SHOULDERS OUT TO EDGE OF PARAPET TRANSITION(S).

ITEM	DESCRIPTION	LEFT		RIGHT		TOTAL	UNIT
		FWD.	REAR	FWD.	REAR		
254	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE	67	67	109	128	371	SY
407	TACK COAT	7	7	11	11	35	GAL
446	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	4	4	6	7	21	CY
SPECIAL	SEALING OF CONCRETE SURFACES (EPOXY)	222	222	222	222	888	SY
SPECIAL	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	343	343	503	503	1692	SY
SPECIAL	SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	37.70	37.70	53.10	57.50	186.00	LF
520	PNEUMATICALLY PLACED MORTAR	145		1205	1205	2555	SF
846	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	37	37	37	37	148	SY
848	WEARING COURSE REMOVED, ASPHALT	67	67	109	128	371	SY
TOTALS CARRIED TO THE ESTIMATED QUANTITY SHEET 4/30.							

EXISTING STRUCTURE

TYPE: CONTINUOUS CONCRETE SLAB BRIDGE WITH CONCRETE SUBSTRUCTURE.
SPANS: 36'-0", 45'-0", 45"-0", 36'-0"
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8"-(LT.), VARIES-(RT)
SKEW: 02°-13'-26.5" LT. FWD
WEARING SURFACE: 1" LATEX MODIFIED CONCRETE
APPROACH SLABS: AS-1-54 (25'-LONG)
TYPE OF JOINTS: SLAB JOINT
ALIGNMENT: 3°-00' CURVE
SUPERELEVATION: 1' PER FOOT

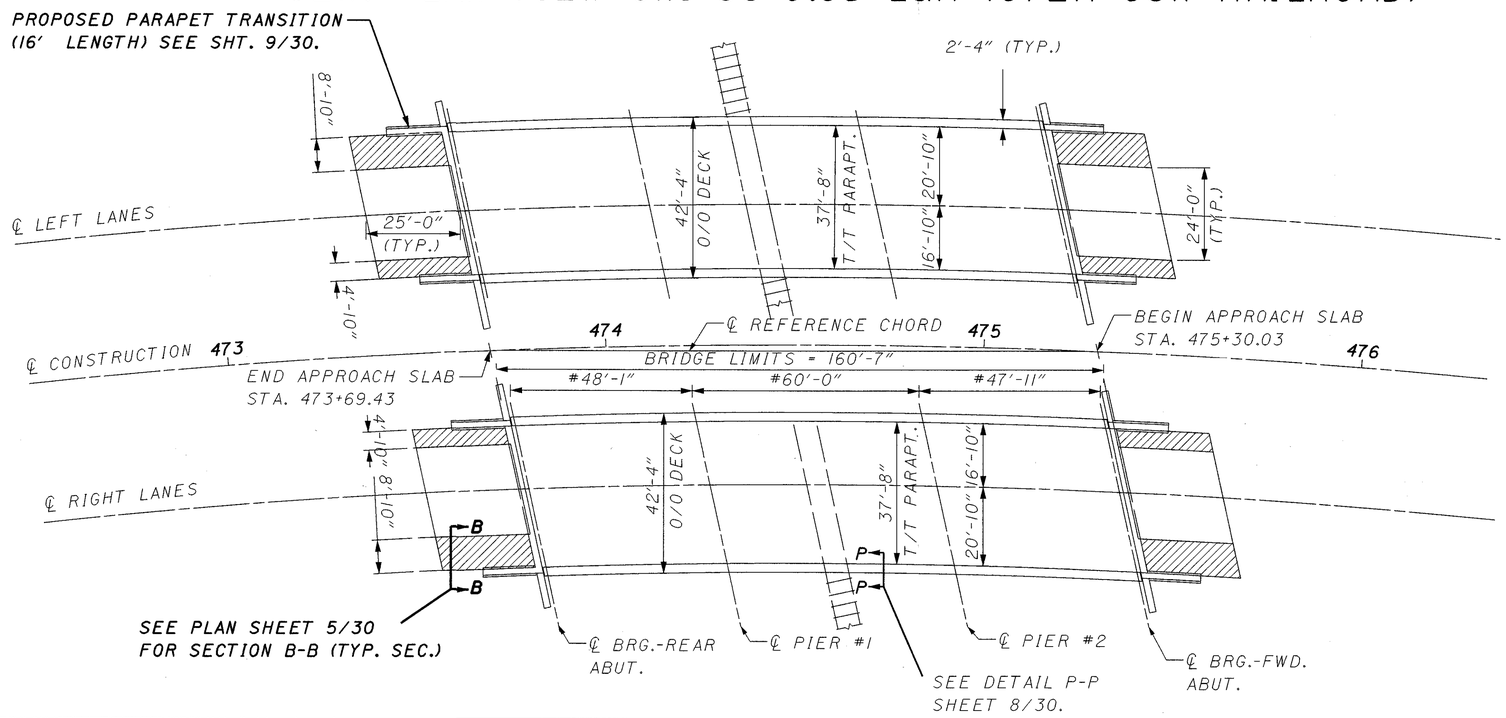
PROPOSED STRUCTURE

TYPE: NO CHANGE FROM THE EXISTING
SPAN: NO CHANGE FROM THE EXISTING
LOAD FREQUNCY RATING: NO CHANGE FROM THE EX.
ROADWAY: NO CHANGE FROM THE EX.
SKEW: NO CHANGE FROM THE EXISTING
WEARING SURFACE: NO CHANGE FROM THE EXISTING
APPROACH SLABS: NO CHANGE FROM EXISTING
TYPE OF JOINTS: SAW AND SEAL JOINT
ALIGNMENT: NO CHANGE FROM THE EX.
SUPERELEVATION: NO CHANGE FROM THE EX.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
STRUCTURE FILE NUMBER: L-8000786 R-8000816
DESIGNED: T.G.M. DRAWN: T.G.M. CHECKED: D.P.P. REVISED:
GENERAL PLAN VIEW
BRIDGE NO. UNI-33-0879 L&R (OVER C.R. 133)
UNI-33-8.74
6/30
150/174

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GEN. PLAN VIEW UNI-33-9.05 L&R (OVER CSX RAILROAD)



INDEX OF STRUCTURAL WORK ITEMS

1. RE-FACE EXISTING PARAPETS ON THE STRUCTURE TO 42" HEIGHT.
2. BUILD NEW PARAPET END TRANSITIONS. (SEE SHEET 9/30 FOR DETAIL)
3. REMOVE EXISTING OVERLAY FROM DECK USING HYDRODEMOLITION AND REPLACE WITH MICRO-SILICA MODIFIED CONCRETE OVERLAY. DECK OVERLAY PROCEDURE: GRIND 1¼" OFF, HYDRO VARIABLE DEPTH TO ½" DEEP, OVERLAY WITH MICRO-SILICA CONCRETE 1¾" BACK TO EXISTING ELEVATION.
4. GRIND OFF EXISTING ASPHALT OVERLAY 1¼" OFF FROM APPROACH SLAB HYDRO VARIABLE DEPTH TO ½" DEEP, OVERLAY WITH MICRO-SILICA CONCRETE 1¾" BACK TO EXISTING ELEVATION.
5. FULL DEPTH REPAIR- 10% OF BRIDGE DECK.
6. RE-BUILD SHOULDERS OUT TO EDGE OF PARAPET TRANSITION(S).
7. SEAL PARAPETS WITH EPOXY URETHANE SEALER.
8. TREAT OVERLAY CONSTRUCTION JOINT WITH HMWM RESIN.

ITEM	DESCRIPTION	LEFT	RIGHT	TOTAL	UNIT
SPECIAL	SEALING OF CONCRETE SURFACES (EPOXY)	460	460	920	SY
517	RAILING (DEFLECTOR PARAPET TYPE), AS PER PLAN	64	64	128	LF
517	RAILING FACED, AS PER PLAN	321	321	642	LF
846	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	47	47	94	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1 3/4")	806	806	1612	SY
848	SURFACE PREPARATION USING HYDRODEMOLITION	806	806	1612	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	15	15	30	CY
848	HAND CHIPPING	24	24	48	SY
848	FULL-DEPTH REPAIR	2	2	4	CY
848	WEARING COURSE REMOVED, ASPHALT	134	134	268	SY
848	EXISTING CONCRETE OVERLAY REMOVED	673	673	1346	SY
848	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	36	36	73	SY
TOTALS CARRIED TO THE ESTIMATED QUANTITY SHEET 4/30.					

ITEM 202-REBUILD SHOULDERS

NOTE:
(ALONG REFERENCE CHORD)

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE
SPAN: 48'-0", 60'-0", 48'-0" (ALONG ℄ CONSTRUCTION)
LOAD FREQUENCY : C.F. 2000 (57)
ROADWAY: 37"-8" TOE/TOE PARAPETS
SKEW: 12°-18'-54" R.F.
WEARING SURFACE: 1" LATEX MODIFIED CONCRETE OVERLAY
APPROACH SLAB: AS-1-54 (25' LONG)
TYPE OF JOINTS: EXJ-4-87 - STRIP SEAL EXPANSION JOINT SYSTEM
ALIGNMENT: SPIRAL CURVE RIGHT
SUPERELEVATION: VARIES
RAILING: CONCRETE PARAPET WITH ALUMINUM RAIL.

PROPOSED STRUCTURE

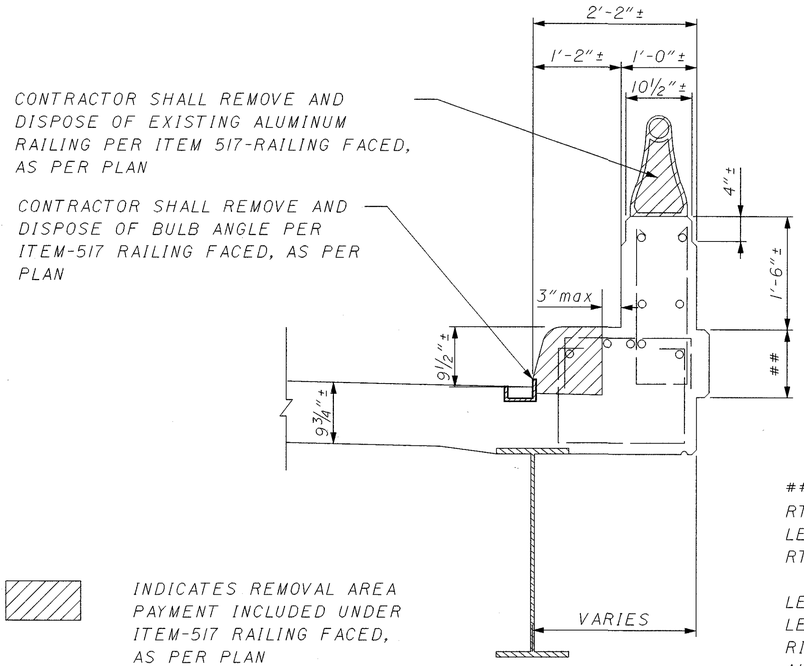
TYPE: NO CHANGE FROM EXISTING
SPAN: NO CHANGE FROM EXISTING
LOAD FREQUENCY RATING: NO CHANGE FROM EXISTING
ROADWAY: 37'-8" TOE/TOE PARAPETS
SKEW: NO CHANGE FROM THE EXISTING
WEARING SURFACE: 1¾" MICRO SILICA MODIFIED CONCRETE OVERLAY
APPROACH SLABS: NO CHANGE FROM EXISTING
TYPE OF JOINTS: NO CHANGE FROM THE EXISTING
ALIGNMENT: NO CHANGE FROM EXISTING
SUPERELEVATION: NO CHANGE FROM EXISTING
RAILING: 42" CONCRETE PARAPET

DESIGN AGENCY: DISTRICT SIX PRODUCTION
STRUCTURE FILE NUMBER: L-8000840 R-8000875
DESIGNED T.G.M. DRAWN T.G.M. CHECKED D.P.P. REVISED
GENERAL PLAN VIEW BRIDGE NO. UNI-33-0905 L&R (OVER CSX R.R.)
UNI-33-8.74
7/30
151/174

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ITEM 517-RAILING FACED DETAIL P-P

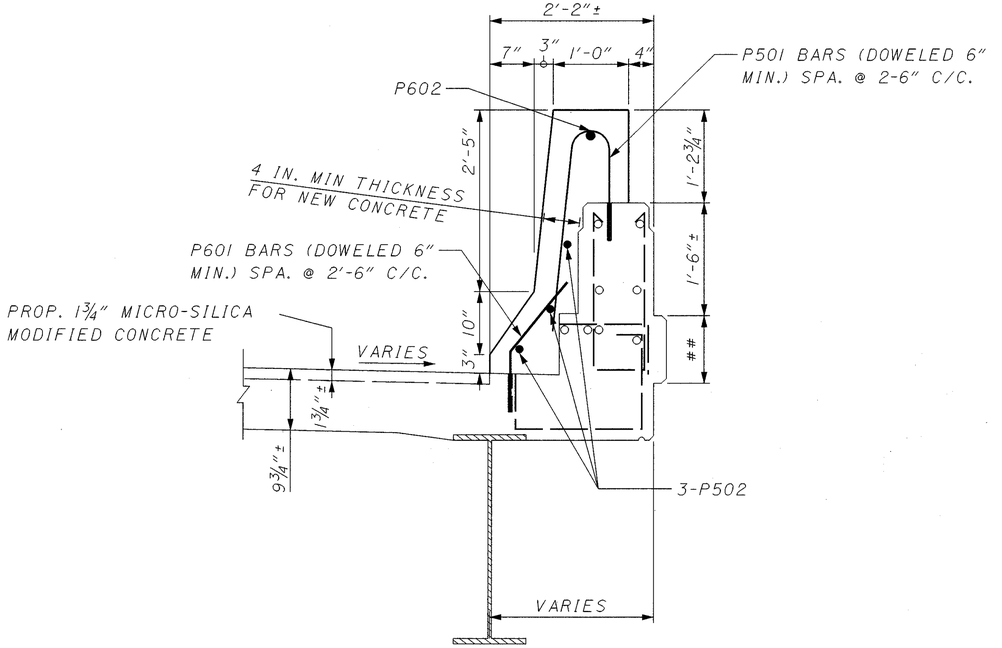
(UNI-33-9.05 L/R)



INDICATES REMOVAL AREA PAYMENT INCLUDED UNDER ITEM-517 RAILING FACED, AS PER PLAN

##=
RT. BRDG. LOOKING FWD.:
LEFT PARAPET = 8⅞" to 9¾"
RT. PARAPET = 10¾" to 11⅜"

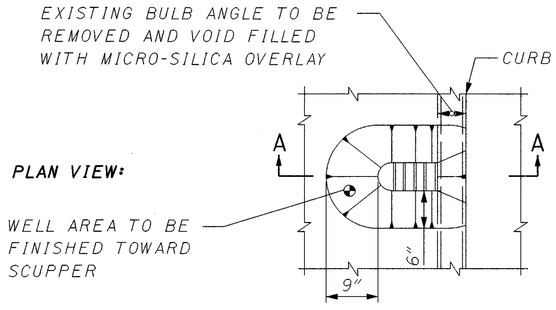
LEFT BRDG. LOOKING FWD.:
LEFT PARAPET = 11⅜'
RIGHT PARAPET = 10¾" to 11⅝"
ALL DIMENSIONS ARE ±.

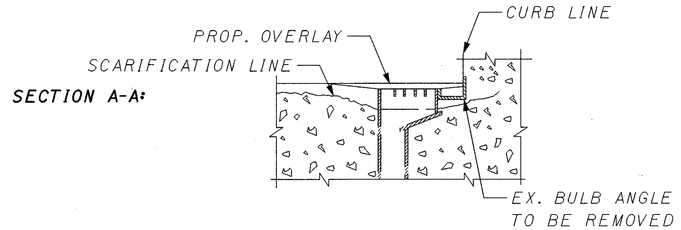


REMOVAL CROSS SECTION

517 RAILING FACED, AS PER PLAN

TYPICAL OVERLAY DETAIL AT SCUPPERS





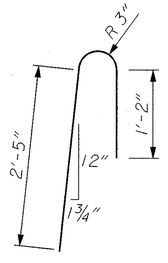
NOTES:

DEFLECTION JOINTS SHALL BE SAW CUT IN PROPOSED RAILING TO MATCH EXISTING JOINTS. PROPOSED JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER AS PER STD. DWG. (BR-1)

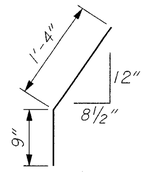
P501 & P601 BARS SHALL BE SPACED AS SHOWN, EXCEPT THEY SHALL ALSO BE INSTALLED 6" FROM BOTH SIDES OF EXISTING DEFLECTION JOINTS.

MARK	NUMBER	LENGTH	SHAPE
P501	252	4'-4"	BENT
P502	72	28'-2"	STR.
P601	252	2'-1"	BENT
P602	24	28'-7"	STR.
SEE SHT. 29/30 BAR SUMMARY			

LAP LENGTH:
#5 BAR = 2'-2"
#6 BAR = 2'-7"



P501



P601

DESIGN AGENCY
DISTRICT SIX PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
T.G.M.	T.G.M.	D.P.P.	1-24-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
D.P.P.			

RAILING FACED DETAILS (ON STRUCTURE)
BRIDGE NO. UNI-33-0905 L/R
OVER CSX RAILROAD

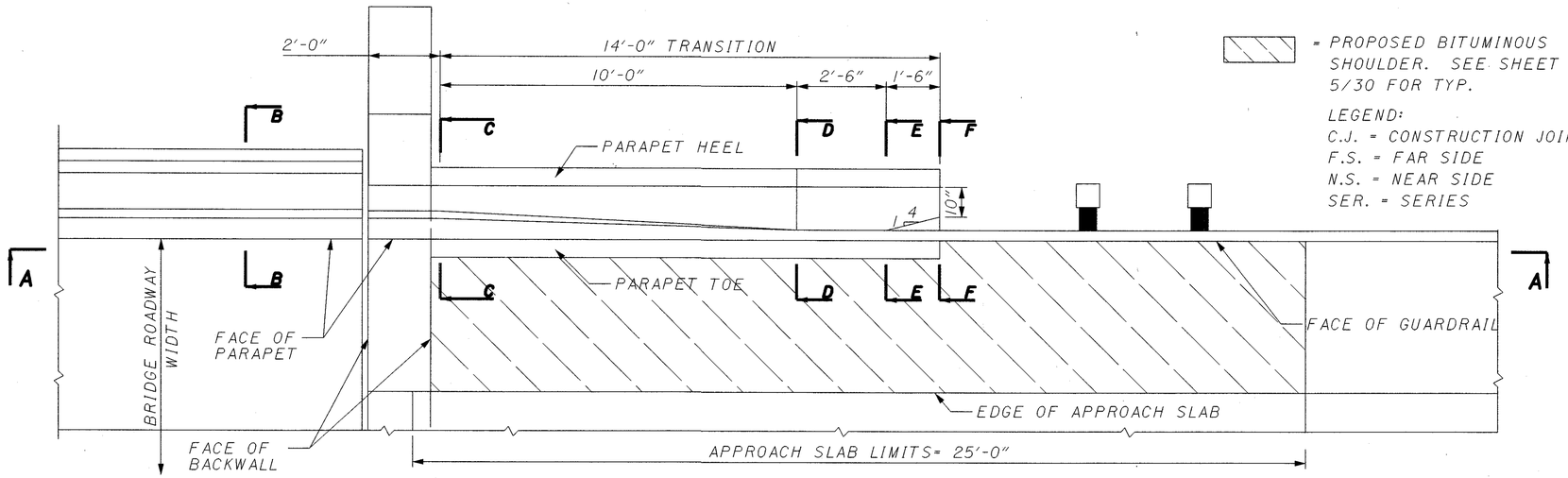
UNI-33-8.74

8/30

152/174

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PARAPET TRANSITION DETAILS UNI-33-9.05 L&R



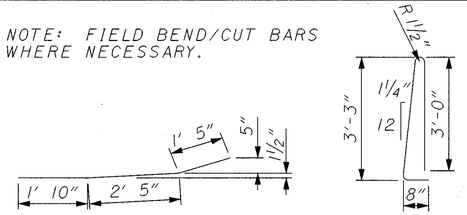
▨ = PROPOSED BITUMINOUS SHOULDER. SEE SHEET 5/30 FOR TYP.

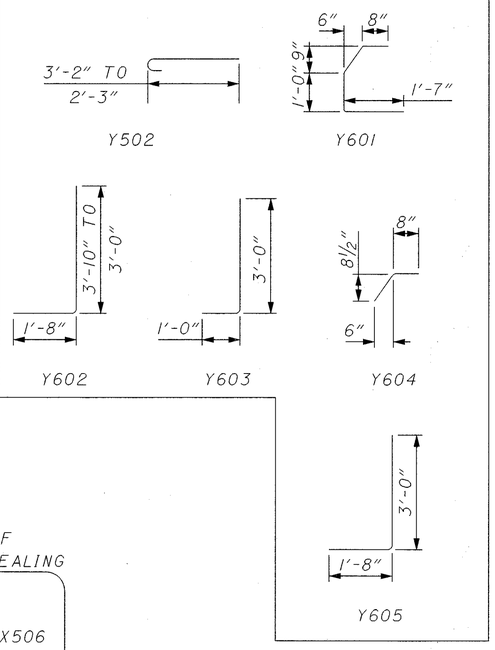
LEGEND:
C.J. = CONSTRUCTION JOINT
F.S. = FAR SIDE
N.S. = NEAR SIDE
SER. = SERIES

REINFORCING BAR LIST					
MARK	LENGTH	SHAPE	MARK	LENGTH	SHAPE
X501	5'-8"	BT.	Y601	3'-10"	BT.
X502	10'-0"	ST.	Y602	SER.	BT.
X503	15'-7"	ST.	Y603	3'-10"	BT.
X504	4'-5"	ST.	Y604	1'-6"	BT.
X505	13'-8"	ST.	Y605	4'-6"	BT.
X506	5'-9"	ST.			
X601	4'-5"	ST.			
Y501	7'-1"	BT			
Y502	SER.	BT.			

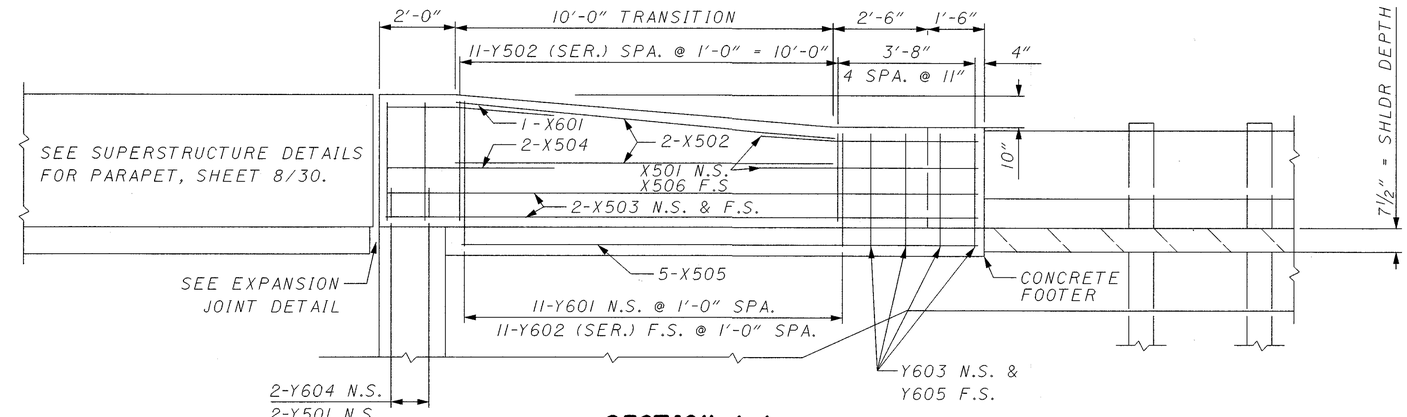
SEE SHEET 29/30 FOR BAR LIST SUMMARY

NOTE: FIELD BEND/CUT BARS WHERE NECESSARY.

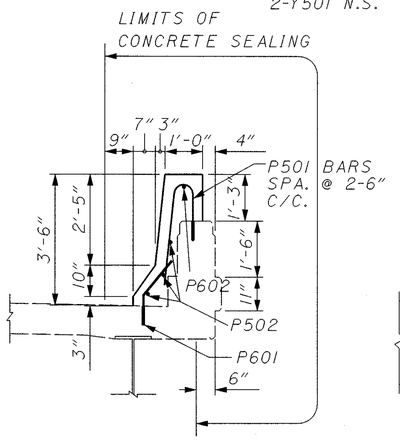




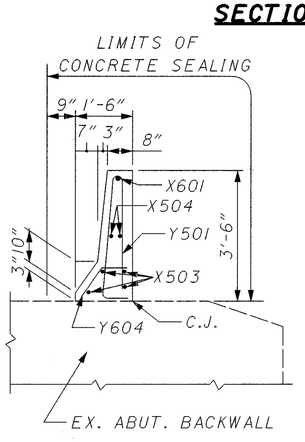
PART PLAN AT ABUTMENT



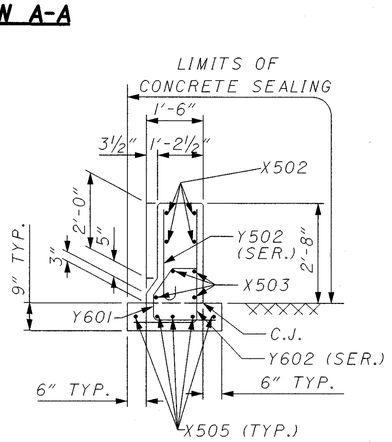
SECTION A-A



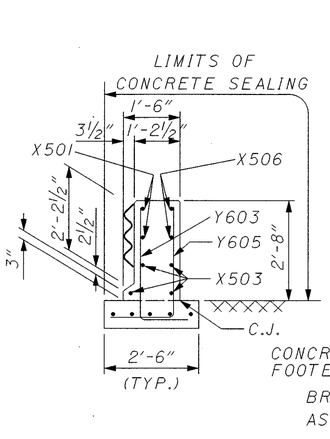
SECTION B-B



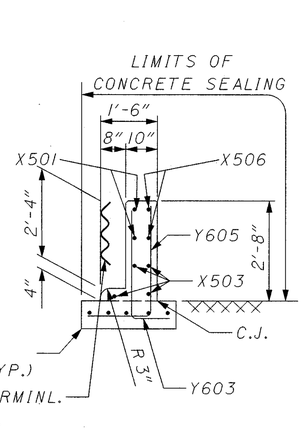
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

NOTES:
MINIMUM COVER IN BOTTOM STEEL OF FOOTINGS=3 IN.
ALL OTHER SIDES OF PARAPET=2 IN.

REFER TO BRIDGE STD. DRAWING BR-1 FOR ADDITIONAL DETAILS.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DATE: 1-24-00
REVIEWED: D.P.P.
STRUCTURE FILE NUMBER:
DRAWN: T.G.M.
REVISED:
DESIGNED: T.G.M.
CHECKED: D.P.P.

42" PARAPET TRANSITION DETAIL
UNI-33-0905 L&R

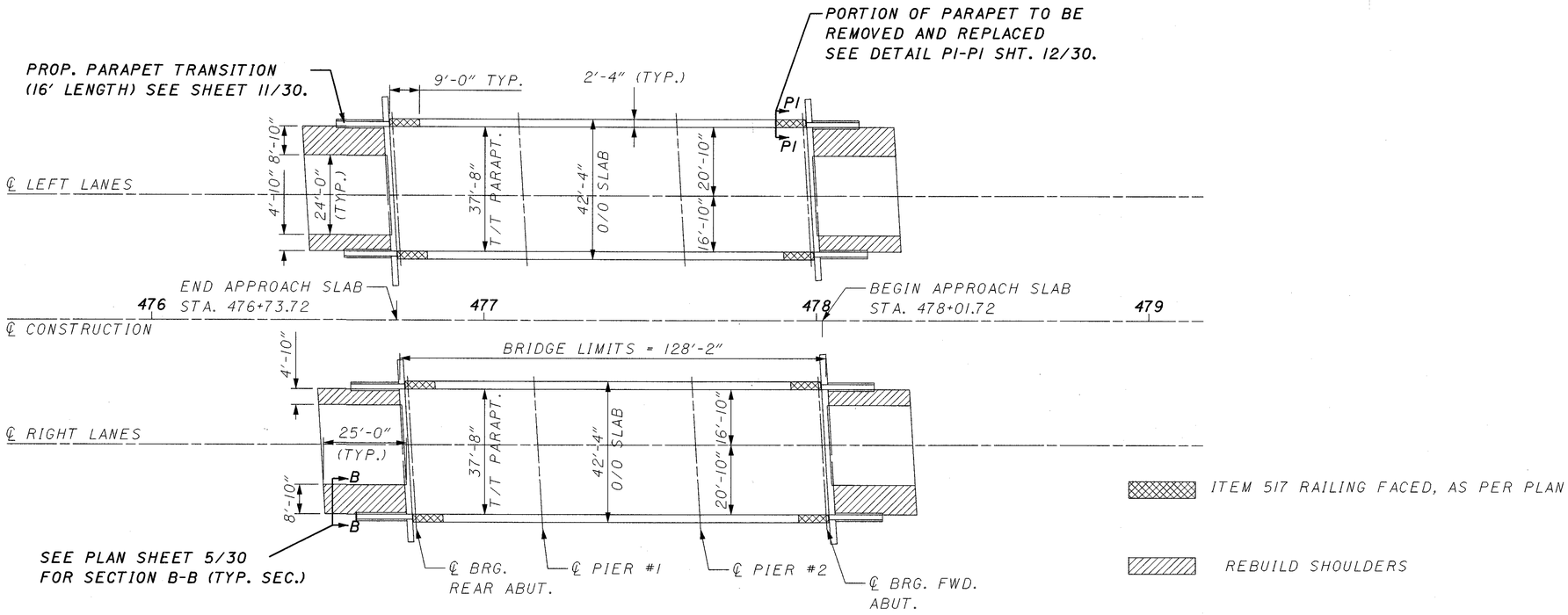
UNI-33-8.74

9/30

153/174

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GENERAL PLAN VIEW - UNI-33-9.12 L&R (OVER C.R. 191)



INDEX OF STRUCTURAL WORK ITEMS

1. REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY FROM DECK AND APPROACH SLABS. (GRIND 1¼", HYDRO ½" VARIABLE DEPTH. MICRO-SILICA OVERLAY 1¾" BACK TO EXISTING ELEVATION.)
2. FULL AND VARIABLE DEPTH PATCHING FOR EACH BRIDGE DECK.
3. REMOVE EXISTING TRANSITIONS ON BRIDGE DECK AND REFACE PARAPETS TO BRIDGE JOINT.
4. BUILD TRANSITION ENDS OFF THE BRIDGE AT ALL 4 CORNERS.
5. SEAL PARAPETS WITH EPOXY URETHANE SEALER.
6. RE-BUILD SHOULDERS OUT TO EDGE OF PARAPET TRANSITION.
7. TREAT OVERLAY CONSTRUCTION JOINT WITH HMWM RESIN.

ITEM	DESCRIPTION	LEFT	RIGHT	TOTAL	UNIT
SPECIAL	SEALING OF CONCRETE SURFACES (EPOXY)	320	320	640	SY
517	RAILING (DEFLECTOR PARAPET TYPE), AS PER PLAN	64	64	128	LF
517	RAILING FACED, AS PER PLAN	36	36	72	LF
846	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	39	39	78	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1 3/4")	669	669	1338	SY
848	SURFACE PREPARATION USING HYDRODEMOLITION	669	669	1338	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	13	13	26	CY
848	HAND CHIPPING	20	20	40	SY
848	FULL-DEPTH REPAIR	2	2	4	CY
848	WEARING COURSE REMOVED, ASPHALT	134	134	268	SY
848	EXISTING CONCRETE OVERLAY REMOVED	536	536	1072	SY
848	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	30	30	60	SY
	TOTALS CARRIED TO THE ESTIMATED QUANTITY SHEET 4/30.				

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 38'-0", 47'-6", 38'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8" TOE/TOE OF PARAPET.
SKEW: 3°27'12" R.F.
WEARING SURFACE: LATEX MODIFIED CONCRETE
APPROACH SLABS: AS-1-54 (25'-LONG)
TYPE OF JOINTS: SLIDING PLATE
ALIGNMENT: TANGENT
RAILING: 36" CONCRETE PARAPET

PROPOSED STRUCTURE

TYPE: NO CHANGE FROM THE EXISTING
SPAN: NO CHANGE FROM THE EXISTING
LOAD FREQUENCY RATING: NO CHANGE FROM THE EX.
ROADWAY: 37'-8" TOE/TOE OF PARAPET
SKEW: NO CHANGE FROM THE EX.
WEARING SURFACE: 1¾" MICRO SILICA CON. OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT. (EXJ-4-87).
ALIGNMENT: NO CHANGE FROM THE EX.
RAILING: NO CHANGE FROM THE EX.

DESIGN AGENCY
DISTRICT SIX
PRODUCTION

STRUCTURE FILE NUMBER
L-8000905
R-8000964

DRAWN T.G.M. REVISED
DESIGNED T.G.M. CHECKED D.P.P.

GENERAL PLAN VIEW
BRIDGE NO. UNI-33-09/2 L&R (OVER C.R. 191)

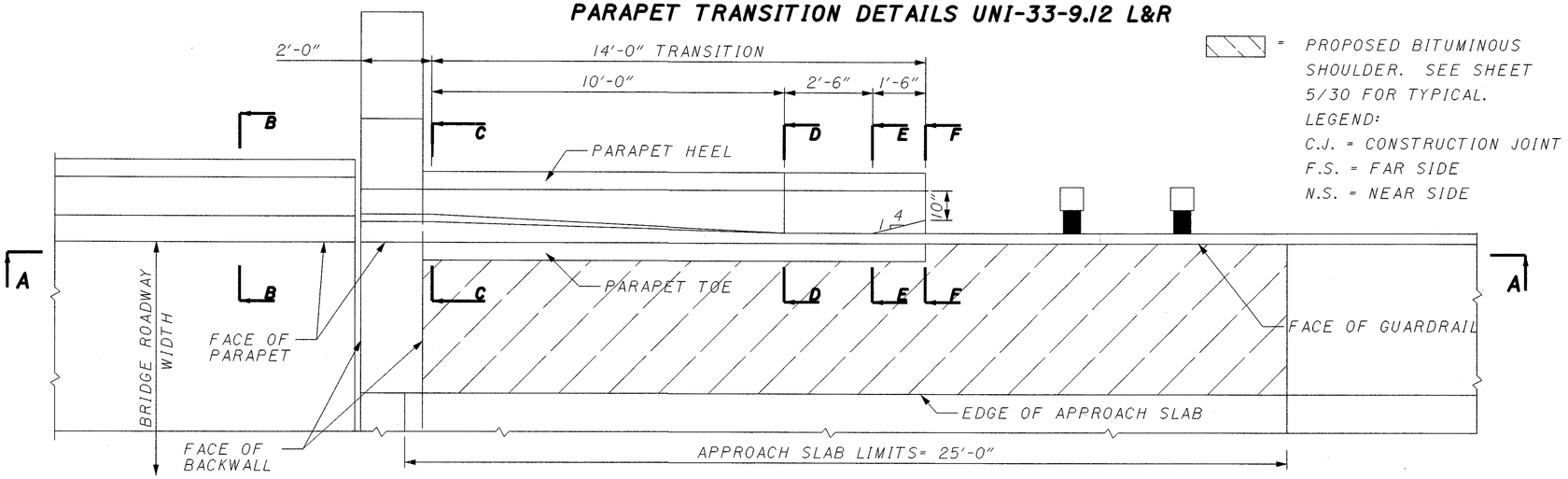
UNI-33-8.74

10/30

154/174

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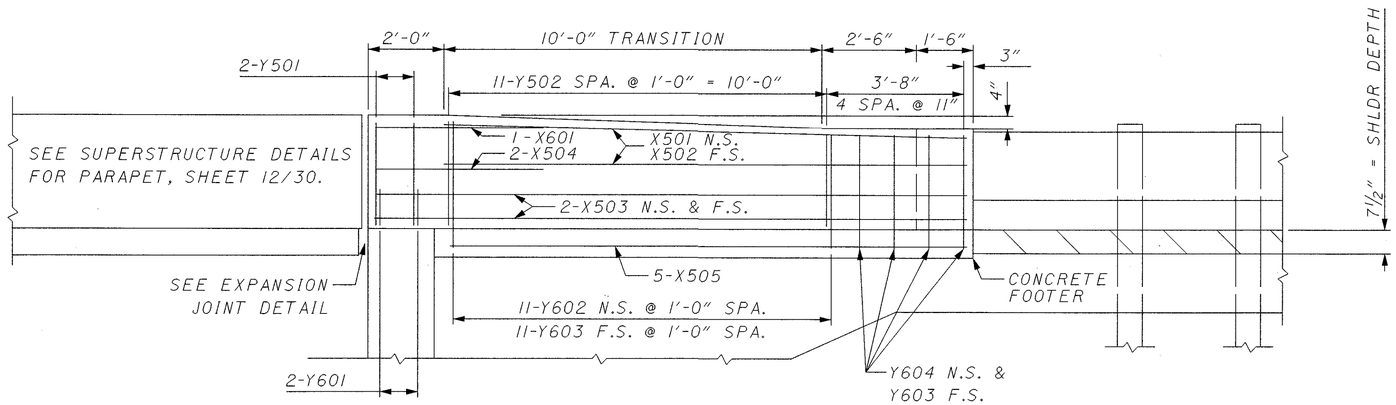
PARAPET TRANSITION DETAILS UNI-33-9.12 L&R



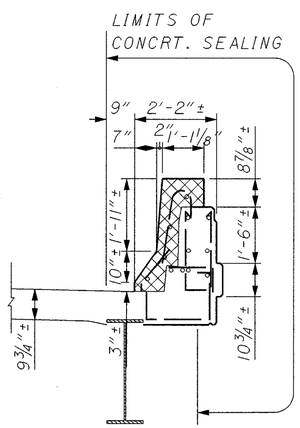
= PROPOSED BITUMINOUS SHOULDER. SEE SHEET 5/30 FOR TYPICAL.

LEGEND:
C.J. = CONSTRUCTION JOINT
F.S. = FAR SIDE
N.S. = NEAR SIDE

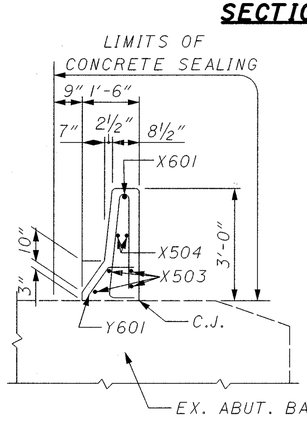
PART PLAN AT ABUTMENT



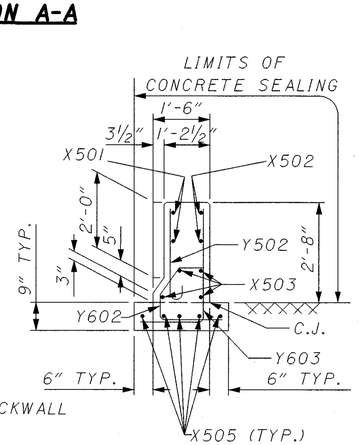
SECTION A-A



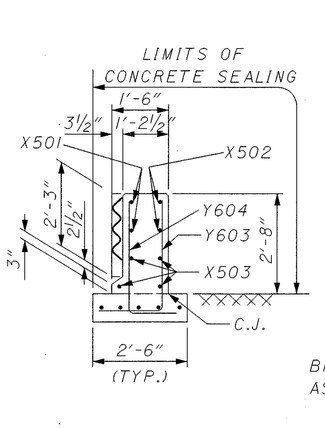
SECTION B-B



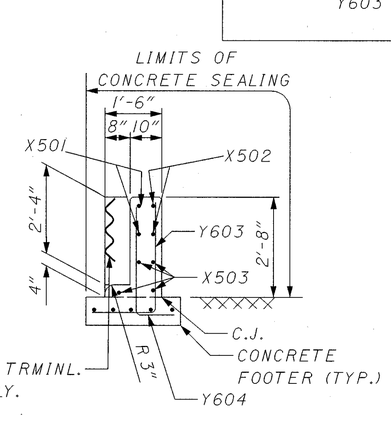
SECTION C-C



SECTION D-D



SECTION E-E

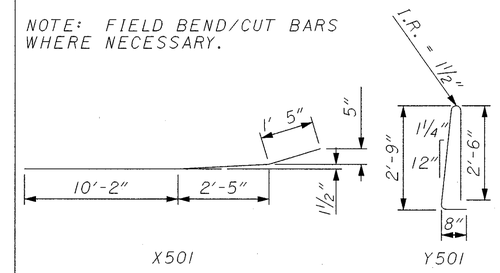


SECTION F-F

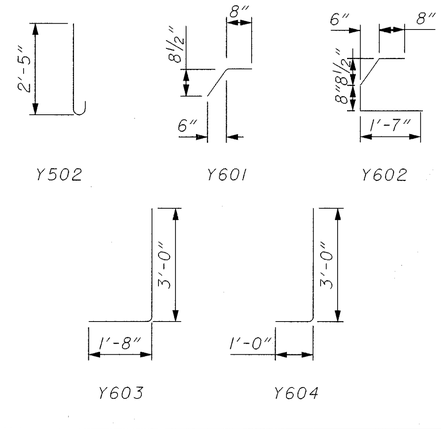
REINFORCING BAR LIST					
MARK	LENGTH	SHAPE	MARK	LENGTH	SHAPE
X501	14'-0"	BT.	Y601	1'-6"	BT.
X502	14'-0"	ST.	Y602	3'-6"	BT.
X503	15'-8"	ST.	Y603	4'-6"	BT.
X504	4'-5"	ST.	Y604	3'-10"	BT.
X505	13'-8"	ST.			
X601	4'-5"	ST.			
Y501	6'-0"	BT			
Y502	3'-0"	BT.			

SEE SHEET 29/30 FOR BAR LIST SUMMARY

NOTE: FIELD BEND/CUT BARS WHERE NECESSARY.



X501 Y501



Y502 Y601 Y602 Y603 Y604

NOTES:
MINIMUM COVER IN BOTTOM STEEL OF FOOTINGS = 3 IN.
ALL OTHER SIDES OF PARAPET, CONCRETE COVER = 2 IN.

REFER TO BRIDGE STD. DRAWING BR-1 FOR ADDITIONAL DETAILS.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DATE REVIEWED: D.P.P. 1-24-00
STRUCTURE FILE NUMBER:
DRAWN: T.G.M.
REVISED:
DESIGNED: T.G.M.
CHECKED: D.P.P.

36" PARAPET TRANSTION DETAIL
UNI-33-09\2 L&R

UNI-33-8.74

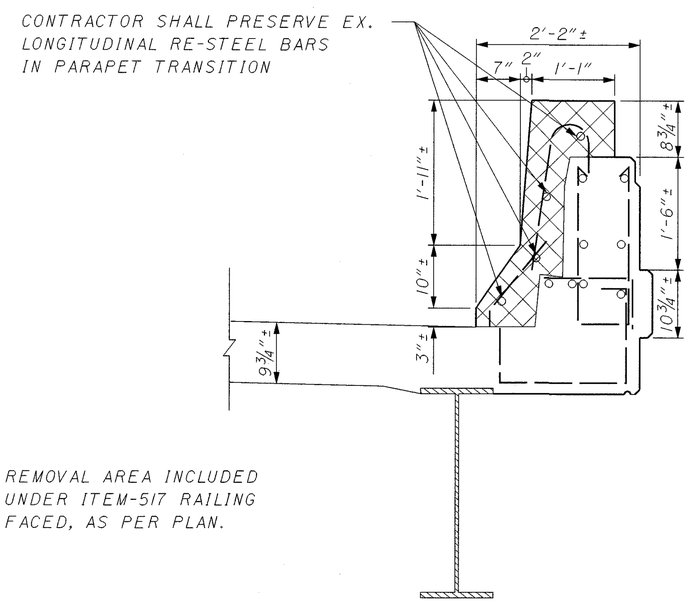
11/30

155/174

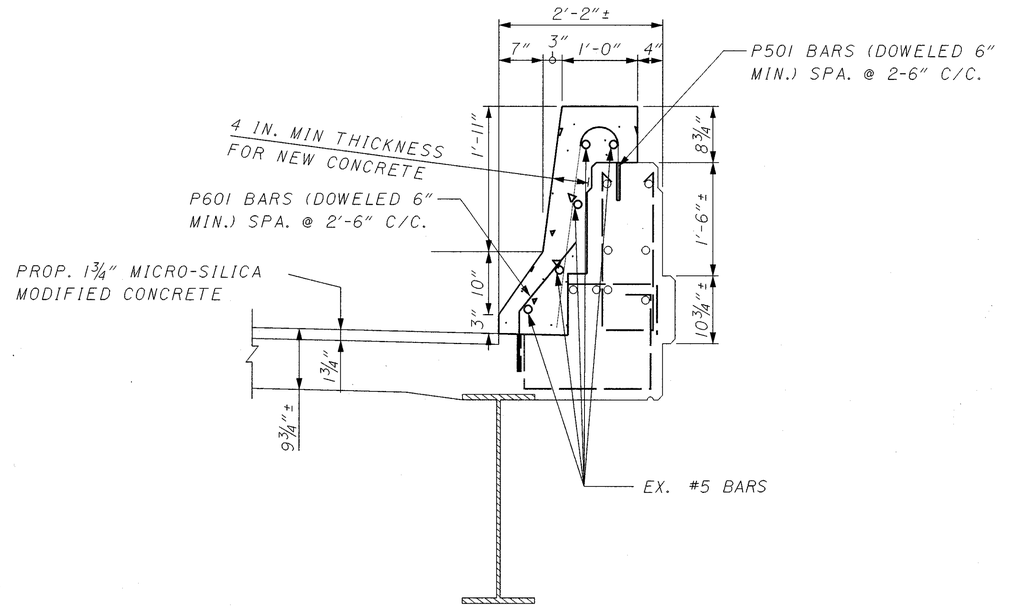
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DETAIL P1-P1:

(UNI-33-9.12 L/R & 11.50 L/R)



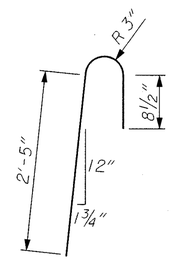
REMOVAL CROSS SECTION
(PARAPET TRANSITIONS ON DECK)



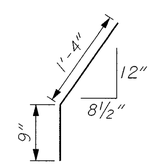
ITEM 517-RAILING FACED, AS PER PLAN

REINFORCING BAR CHART			
UNI-33-9.12 L/R & 11.50 L/R, 12.19 L/R			
MARK	NUMBER	LENGTH	SHAPE
P501	80	3'-8"	BENT
P601	80	2'-2"	BENT
SEE SHT. 29/30 FOR BAR SUMMARY			

LAP LENGTH:
#5 BAR = 2'-2"
#6 BAR = 2'-7"



P501



P601

DESIGN AGENCY
DISTRICT SIX
PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
T.G.M.	T.G.M.	D.P.P.	1-24-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
D.P.P.			

REFACING DETAIL P1-P1
UNI-33-0912 L/R, 1150 L/R

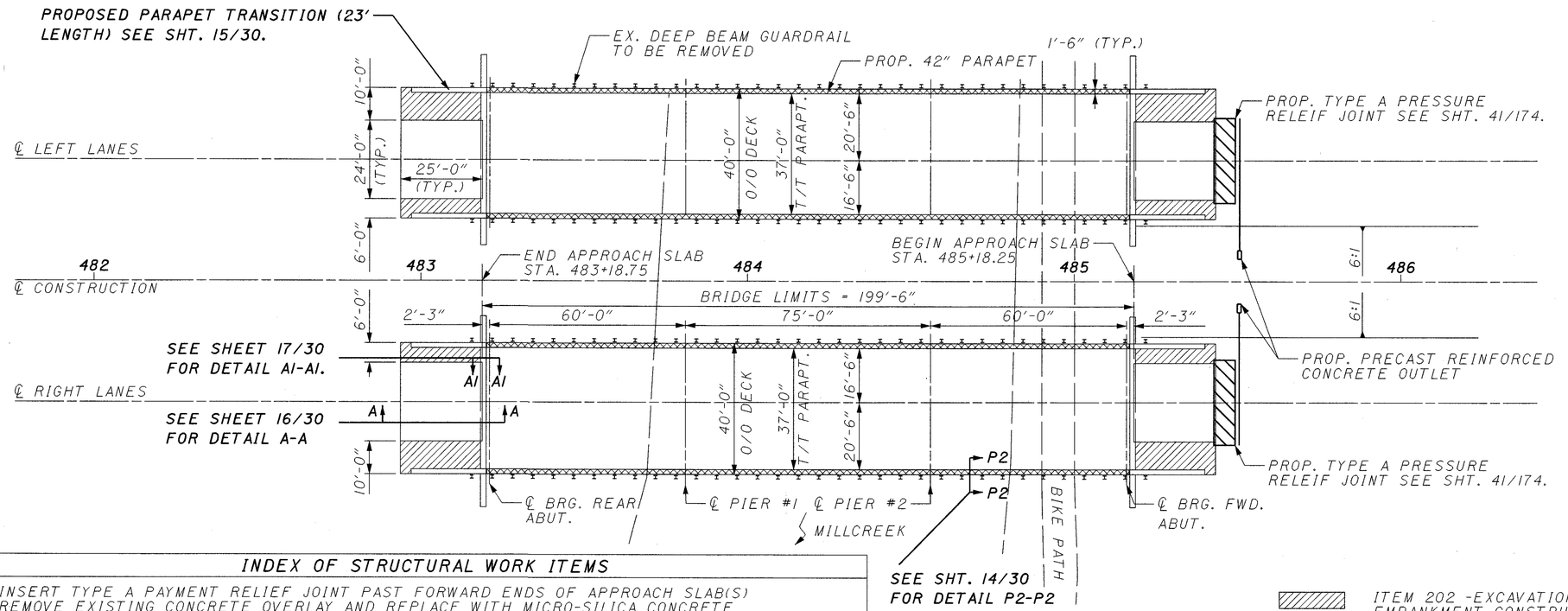
UNI-33-8.74

12/30

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GENERAL PLAN VIEW - UNI-33-9.22 L&R



INDEX OF STRUCTURAL WORK ITEMS

1. INSERT TYPE A PAYMENT RELIEF JOINT PAST FORWARD ENDS OF APPROACH SLAB(S)
2. REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY FROM DECK. GRIND 1¼" OFF, HYDRO ½". OVERLAY 1¾" BACK TO EXISTING ELEVATION.
3. REMOVE EXISTING STEEL SLIDING PLATE JOINTS AND REPLACE WTH STRIP SEAL. (EXJ-4-87)
4. REMOVE AND REPLACE ALL APPROACH SLABS TO THE FULL WIDTH OF THE DECK SLAB.
5. BUILD PARAPET TRANSITIONS ON TOP OF NEW APPROACH SLABS.
6. REMOVE DEEP BEAM GUARDRAIL AND 1'-6" PORTION OF DECK, REPLACE WITH 42" HIGH CONCRETE PARAPET.
7. PATCH ABUTMENT BACKWALLS.
8. SEAL PARAPETS WITH EPOXY URETHANE SEALER.
9. REFURBISH AND RESET LOAD BEARING PLATES, AT FORWARD END ONLY.
10. TREAT OVERLAY LONGITUDINAL CONSTRUCTION JOINT WITH HMWM RESIN.
11. TRIM BEAMS AT FORWARD ENDS ONLY.

ITEM	DESCRIPTION	LEFT	RIGHT	TOTAL	UNIT
202	PORTIONS OF STRUCTURE REMOVED	46	46	92	CY
202	APPROACH SLAB REMOVED	134	134	268	SY
202	BRIDGE RAILING REMOVED	413	413	826	LF
203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	67	67	134	CY
203	SUBGRADE COMPACTION	223	223	446	SY
304	AGGREGATE BASE	26	26	52	CY
SPECIAL	SEALING OF CONCRETE SURFACES (EPOXY)	536	536	1072	SY
516	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	80.00	80.00	160.00	LF
516	REFURBISH BEARING DEVICE, AS PER PLAN	5	5	10	EACH
517	RAILING (DEFLECTOR PARAPET TYPE)	486	486	972	LF
519	PATCHING CONCRETE STRUCTURE	20	20	40	SF
611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN	223	223	446	SY
842	CLASS S CONCRETE, SUPERSTRUCTURE	26	26	52	CY
842	CLASS C CONCRETE, ABUTMENT	8	8	16	CY
846	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	55	55	110	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1 3/4")	810	810	1620	SY
848	SURFACE PREPARATION USING HYDRODEMOLITION	810	810	1620	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	16	16	32	CY
848	HAND CHIPPING	25	25	50	SY
848	FULL-DEPTH REPAIR	2	2	4	CY
848	EXISTING CONCRETE OVERLAY REMOVED	810	810	1620	SY
848	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	37	37	74	SY
863	TRIMMING OF BEAM END	5	5	10	EACH
	(TOTALS CARRIED TO ESTIMATED QUANTITY SHEET 4/30.				

ITEM 202 -EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (NOTE: EXCAVATION INCLUDES UNDER PARAPET TRANSITION SLAB.)

ITEM 202 -PORTION OF STRUCTURE REMOVED
ITEM 842 -CLASS S CONCRETE, SUPERSTRUCTURE

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE. (WITH DBR)
SPANS : 60'-0", 75"-0", 60'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 40'-0" F/F OF GUARD RAIL
SKEW: NONE
WEARING SURFACE: LATEX MODIFIED CONCRETE
APPROACH SLABS: AS-1-54 (25'-LONG)
TYPE OF JOINTS: SLIDING PLATE
ALIGNMENT: TANGENT
RAILING: DEEP BEAM GUARDRAIL

PROPOSED STRUCTURE

TYPE: NO CHANGE FROM THE EXISTING
SPAN: NO CHANGE FROM THE EXISTING
LOAD FREQUENCY RATING: NO CHANGE FROM THE EX.
ROADWAY: 37'-0" TOE/TOE OF PARAPET
SKEW: NO CHANGE FROM THE EX.
WEARING SURFACE: 1¾" MICRO-SILICA CONCRETE
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT. (EXJ-4-87).
ALIGNMENT: NO CHANGE FROM THE EX.
RAILING: 42" CONCRETE PARAPET (BR-1)

DESIGN AGENCY
DISTRICT SIX
PRODUCTION

STRUCTURE FILE NUMBER
L-8000999
R-8001022

DRAWN T.G.M.
REVISED
DESIGNED T.G.M.
CHECKED D.P.P.

GENERAL PLAN VIEW
BRIDGE NO. UNI-33-0922 L&R (OVER MILLCREEK)

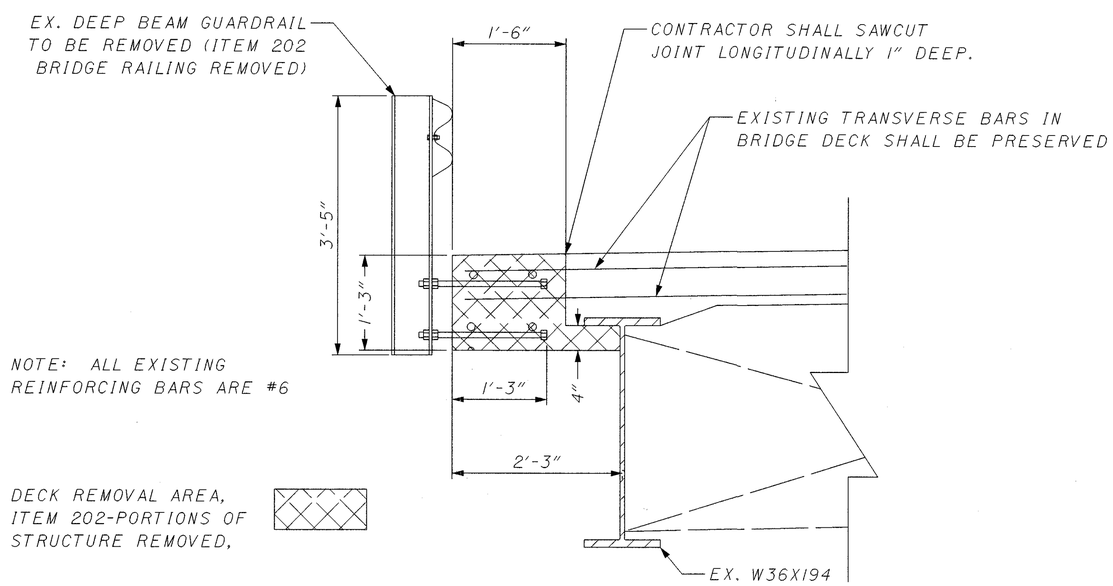
UNI-33-8.74

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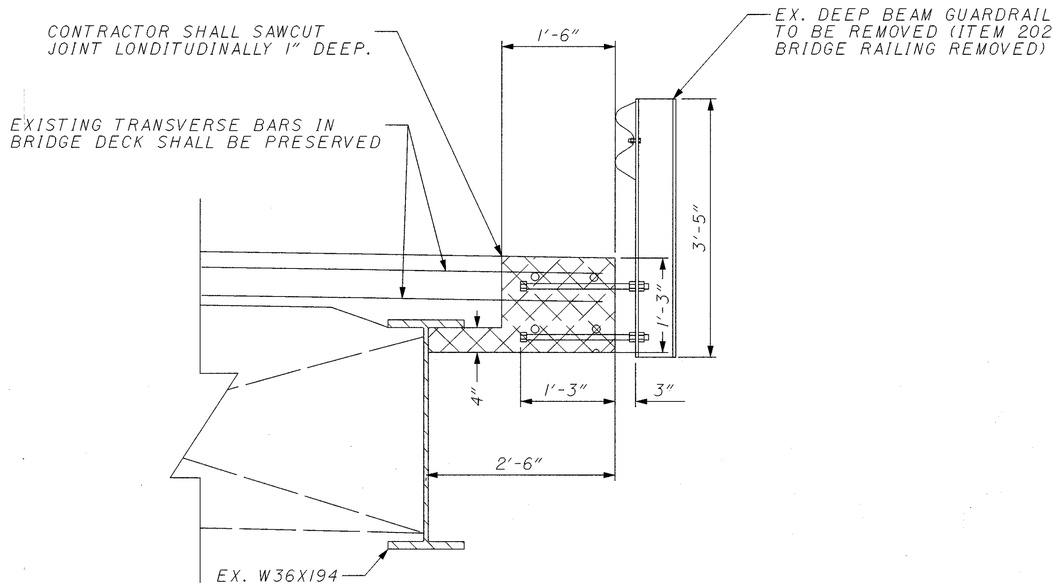
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DETAIL P2-P2: (UNI-33-9.22 L/R)



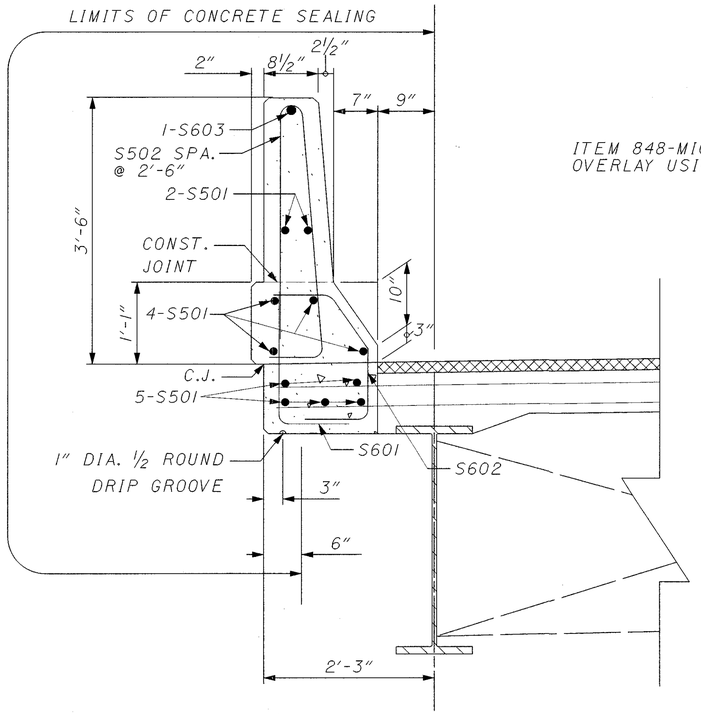
NOTE: ALL EXISTING REINFORCING BARS ARE #6

DECK REMOVAL AREA, ITEM 202-PORTIONS OF STRUCTURE REMOVED,



REMOVAL

RIGHT BRIDGE - LOOKING FORWARD
LEFT BRIDGE - LOOKING REARWARD

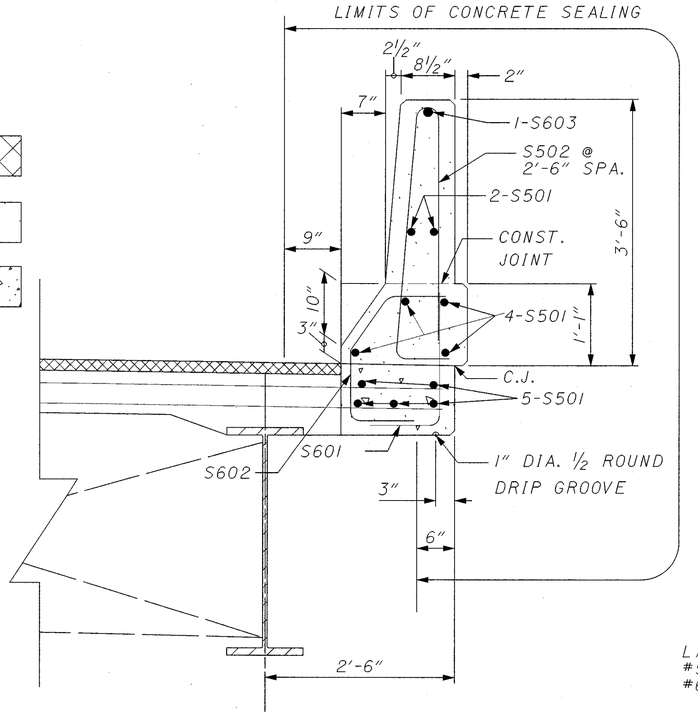


ITEM 848-MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLTION:

ITEM 517-RAILING (DEFLECTOR PARAPET TYPE):

ITEM 842-CLASS S CONCRETE SUPERSTRUCTURE:

NOTE:
LAP LENGTH =
#5 BAR - 2'-2"
#6 BAR - 2'-7"



LAP LENGTH:
#5 BAR = 2'-2"
#6 BAR = 2'-7"

REPLACEMENT

RIGHT BRIDGE - LOOKING FORWARD
LEFT BRIDGE - LOOKING REARWARD

SEE SHEET 30/30 FOR BAR CHART SUMMARY.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DESIGNED T.G.M. | DRAWN T.G.M. | REVIEWED D.P.P. | DATE 1-24-00
CHECKED D.P.P. | REVISED | STRUCTURE FILE NUMBER

DECK/PARAPET DETAIL P2-P2
UNI-33-0922 L/R

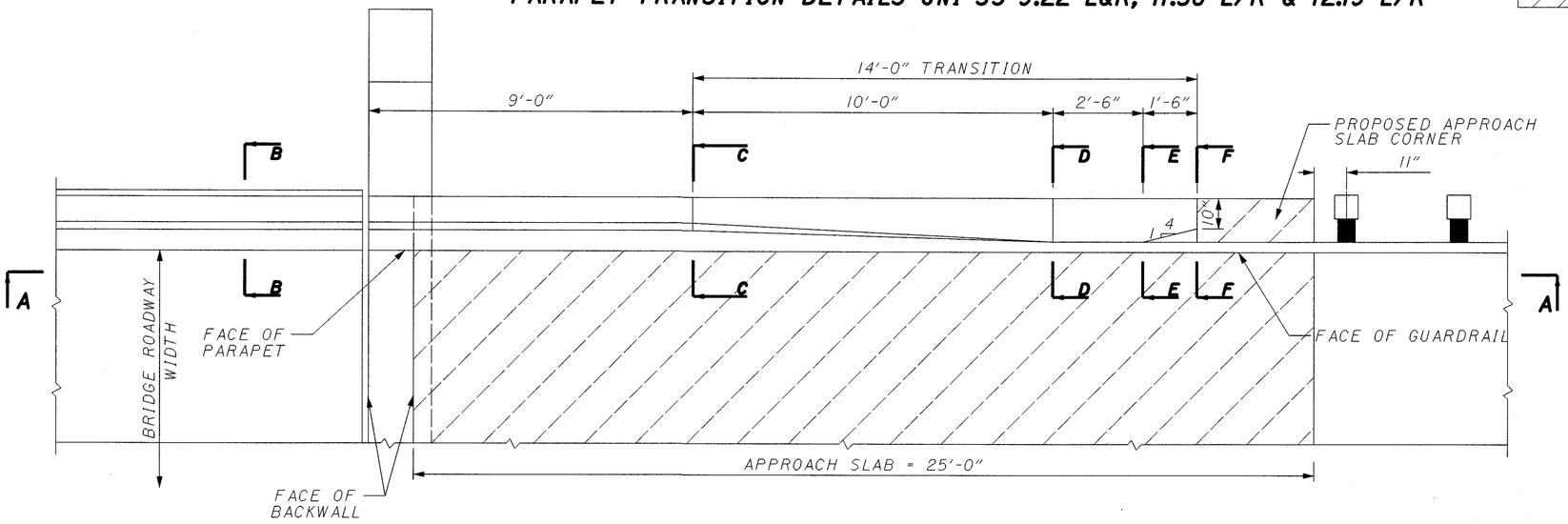
UNI-33-8.74

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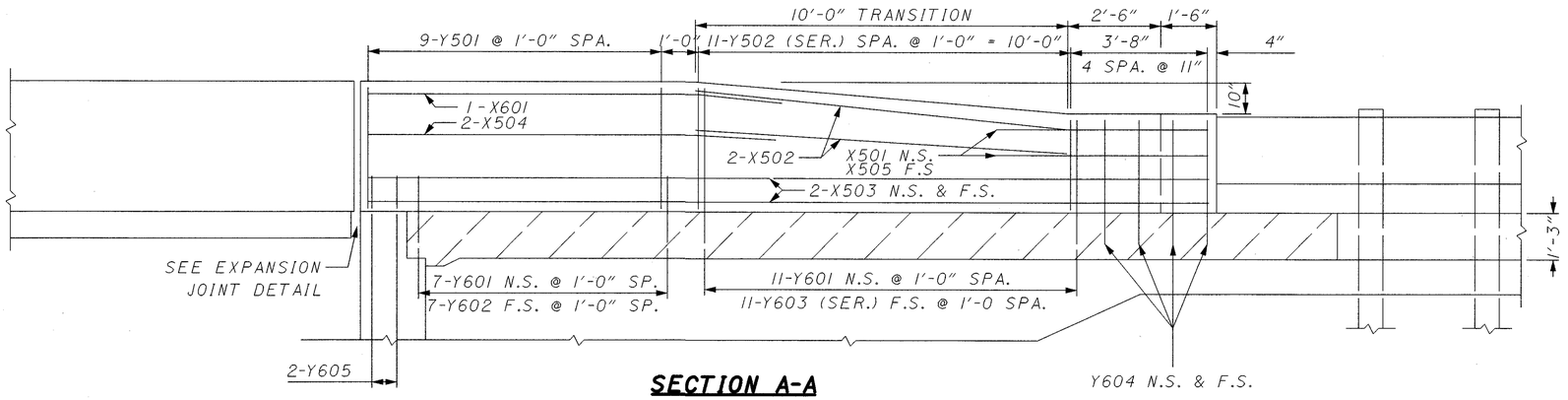
PARAPET TRANSITION DETAILS UNI-33-9.22 L&R, 11.56 L/R & 12.19 L/R

= PROPOSED CONCRETE APROACH SLAB

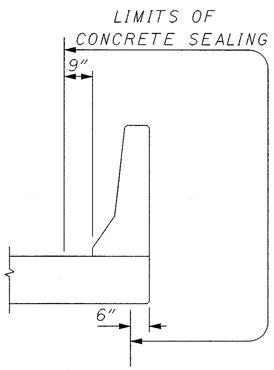
LEGEND:
C.J. = CONSTRUCTION JOINT
F.S. = FAR SIDE
N.S. = NEAR SIDE
SER. = SERIES



PART PLAN AT ABUTMENT

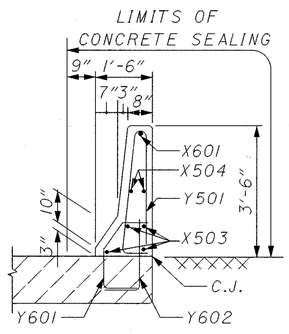


SECTION A-A

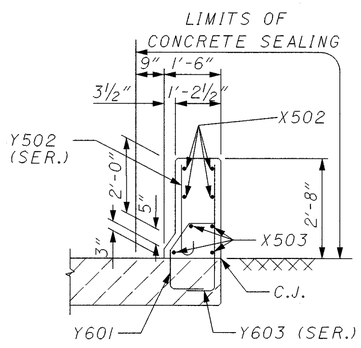


SECTION B-B

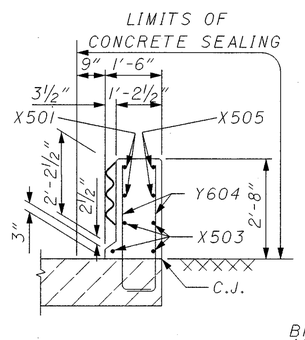
SEE SHTS. 14/30, 22/30 & 28/30 FOR DETAILS.



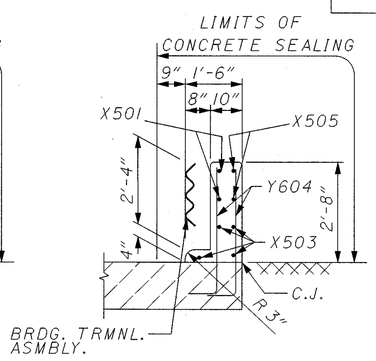
SECTION C-C



SECTION D-D



SECTION E-E

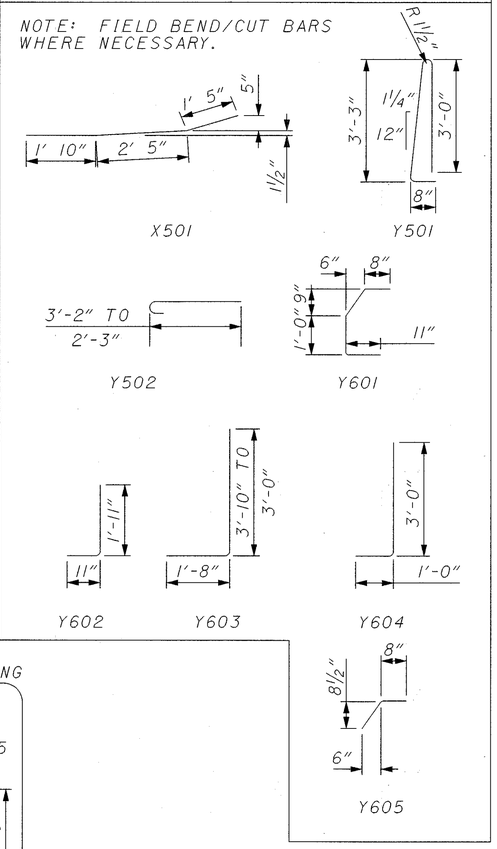


SECTION F-F

REINFORCING BAR LIST					
MARK	LENGTH	SHAPE	MARK	LENGTH	SHAPE
X501	5'-8"	BT.	Y601	3'-2"	BT.
X502	10'-0"	ST.	Y602	2'-8"	BT.
X503	22'-8"	ST.	Y603	SER.	BT.
X504	11'-5"	ST.	Y604	4'-3"	BT.
X505	5'-8"	ST.	Y605	1'-6"	BT.
X601	11'-5"	ST.			
Y501	7'-1"	BT.			
Y502	SER.	BT.			

SEE SHEET 29/30 FOR BAR LIST SUMMARY

NOTE: FIELD BEND/CUT BARS WHERE NECESSARY.



NOTE:
MINIMUM COVER IN BOTTOM STEEL OF FOOTINGS = 3 IN.
ALL OTHER SIDES OF PARAPET = 2 IN.

REFER TO BRIDGE STD. DRAWING BR-1 FOR ADDITIONAL NOTES.

DESIGN AGENCY DISTRICT SIX PRODUCTION

DESIGNED T.G.M. CHECKED D.P.P. DRAWN T.G.M. REVISED REVIEWED D.P.P. DATE 1-24-00 STRUCTURE FILE NUMBER

42" PARAPET TRANSITION DETAIL
UNI-33-0922 L/R, 1156 L/R & 1219 L/R

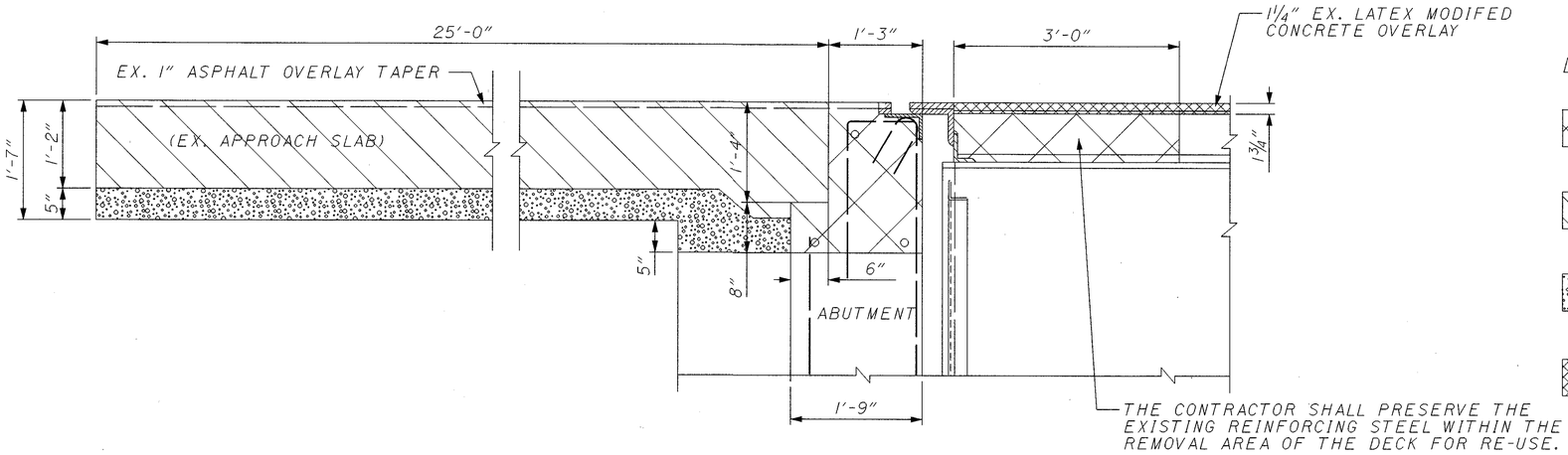
UNI-33-8.74

15/30

159/174

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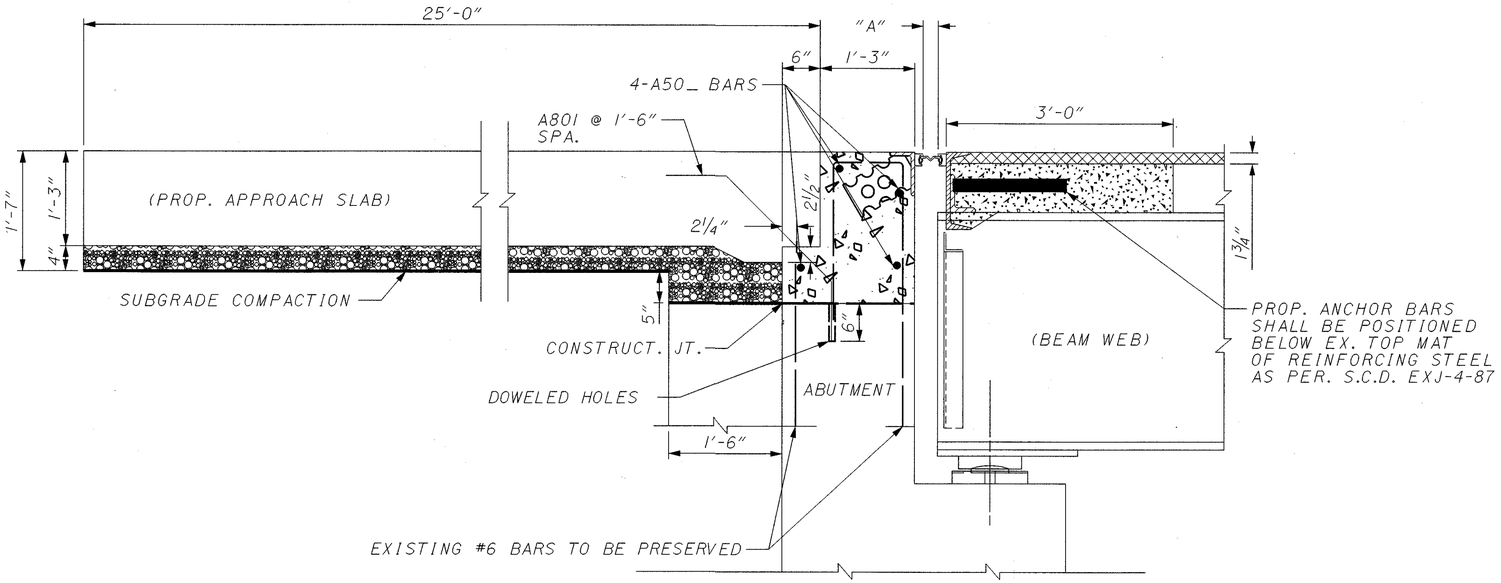
REAR/FORWARD ABUTMENT SECTION A-A



LEGEND:

- ITEM 202 - PORTIONS OF STRUCTURE REMOVED
- ITEM 202 - APPROACH SLAB REMOVAL
- ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
- ITEMS 848 - EXISTING CONCRETE OVERLAY REMOVED 1¾" (NOTE: REQUIRES MULTIPLE ITEM 848 PAY ITEMS FOR REMOVAL.)

EXISTING SECTION



LEGEND:

- ITEM 304 - AGGREGATE BASE
- ITEM 842 - CLASS C CONCRETE, ABUTMENT
- ITEM 842 - CLASS S CONCRETE SUPERSTRUCTURE
- ITEM 848 - MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1¾" THICK)

LEGEND:
EX. = EXISTING
PROP. = PROPOSED
C.J. = CONSTRUCTION JOINT

PROPOSED SECTION

TABLE 1 - TO DETERMINE THE DIMENSION OF "A"

3 INCH STRIP SEAL	(Temperature °F)						
	30°F	40°F	50°F	60°F	70°F	80°F	90°F
	Required Joint Opening (Dim. "A") - (in inches).						
	1.9	1.8	1.7	1.6	1.5	1.4	1.3

NOTES:
A801 BARS @ 1'-6" C/C MEASURED PERPENDICULAR TO ℄ ROADWAY.
DOWEL HOLES AS PER ITEM 510 TO BE INCLUDED IN ITEM 842-CLASS C CONCRETE.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DESIGNED: T.G.M. | DRAWN: T.G.M. | CHECKED: D.P.P. | REVISED:
REVIEWED: D.P.P. | DATE: 1-24-00 | STRUCTURE FILE NUMBER:

EXPANSION JOINT REPLACEMENT DETAILS
BRIDGE NO. UNI-33-0922 L/R, 1150 L/R & 1219 L/R

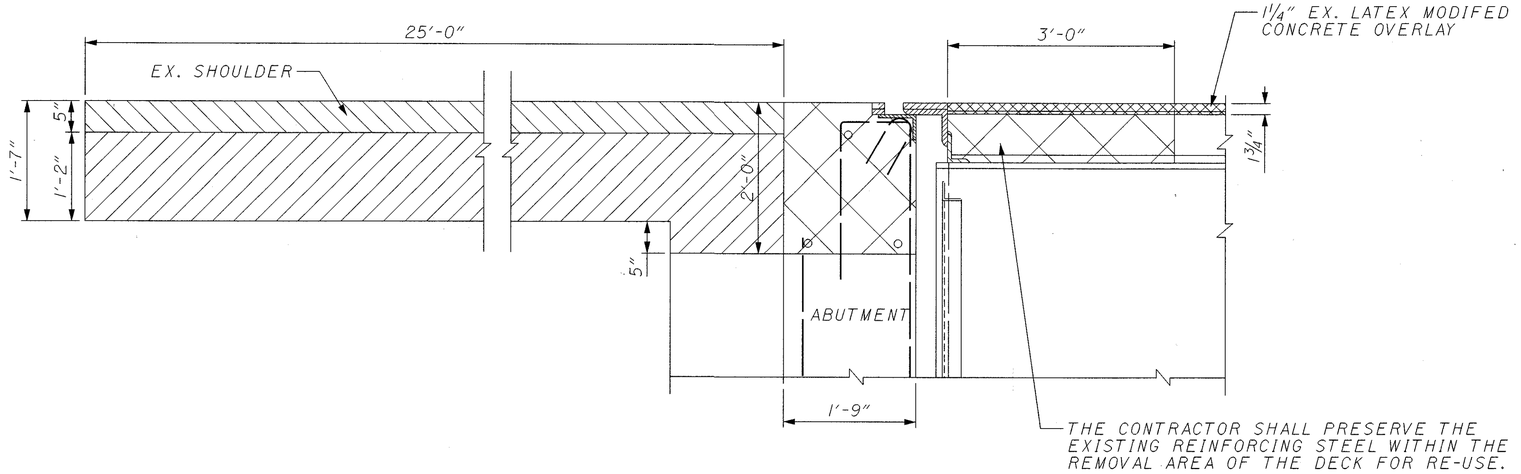
UNI-33-8.74

16/30

160/174

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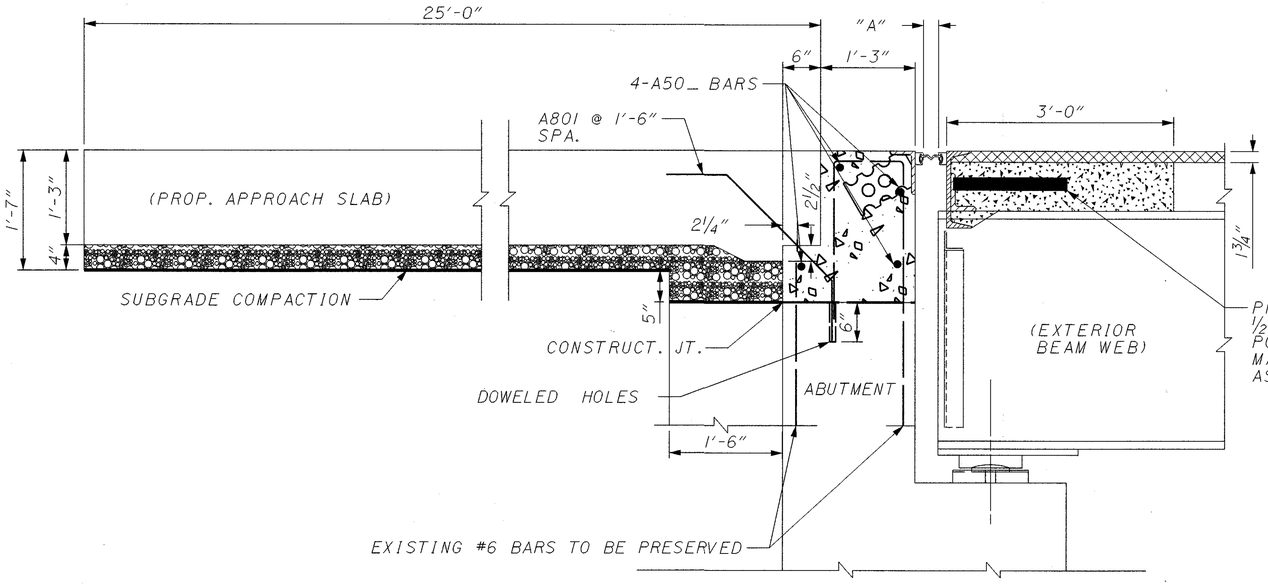
REAR/FORWARD ABUTMENT SECTION A1-A1



LEGEND:

- ITEM 202 - PORTIONS OF STRUCTURE REMOVED
- ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
- ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
- ITEMS 848 - EXISTING CONCRETE OVERLAY REMOVED 1¾" (NOTE: REQUIRES MULTIPLE ITEM 848 PAY ITEMS FOR REMOVAL.)

EXISTING SECTION



LEGEND:

- ITEM 304 - AGGREGATE BASE
- ITEM 842 - CLASS C CONCRETE, ABUTMENT
- ITEM 842 - CLASS S CONCRETE SUPERSTRUCTURE (NOT FOR 11.56 L/R)
- ITEM 848 - MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1¾" THICK)

TABLE 1 - TO DETERMINE THE DIMENSION OF "A"							
	(Temperature °F)						
3 INCH STRIP SEAL	30°F	40°F	50°F	60°F	70°F	80°F	90°F
	Required Joint Opening (Dim. "A") - (in inches).						
	1.9	1.8	1.7	1.6	1.5	1.4	1.3

NOTES:
A801 BARS @ 1'-6" C/C MEASURED PERPENDICULAR TO ℄ ROADWAY.
DOWEL HOLES AS PER ITEM 510 TO BE INCLUDED IN ITEM 842. CLASS C CONCRETE ABUTMENT.

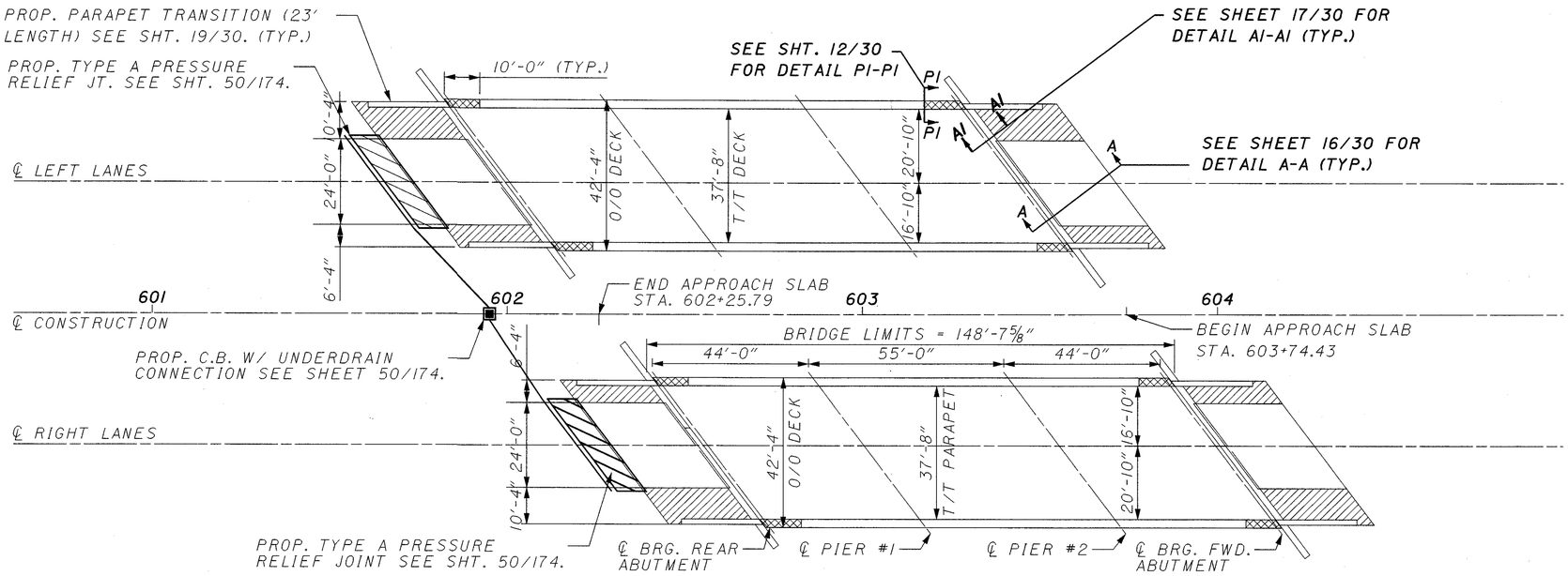
LEGEND:
EX. = EXISTING
PROP. = PROPOSED
C.J. = CONSTRUCTION JOINT

PROPOSED SECTION

DESIGN AGENCY: DISTRICT SIX PRODUCTION
REVIEWED: D.P.P. DATE: 1-24-00 STRUCTURE FILE NUMBER
DRAWN: T.G.M. REVISED
DESIGNED: T.G.M. CHECKED: D.P.P.
DETAILS
EXPANSION JOINT REPLACEMENT DET.
BRIDGE NO. UNI-33-0922 L/R, 1150 L/R, 1156 L/R, 1219 L/R
UNI-33-8.74
17/30
161/174

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GENERAL PLAN VIEW - UNI-33-11.50 L&R



INDEX OF STRUCTURAL WORK ITEMS

1. BUILD PARAPET TRANSITIONS OFF DECK.
2. SEAL PARAPETS WITH EPOXY URETHANE SEALER.
3. REMOVE EXISTING CONCRETE OVERLAY FROM DECK AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY.
4. REPLACE APPROACH SLABS TO THE FULL WIDTH OF THE DECK SLAB.
5. INSERT TYPE A PRESSURE RELIEF JOINT PAST THE REAR APPROACH SLAB(S)
6. REPLACE SLIDING PLATE JOINTS WITH STRIP SEAL EXPANSION JOINT. (EXJ-4-87)
7. TREAT OVERLAY CONSTRUCTION JOINT WITH HMWM RESIN.
8. REMOVE AND REFACE 10' PARAPET TRANSITIONS ON DECK.

ITEM	DESCRIPTION	LEFT	RIGHT	TOTAL	UNIT
202	PORTIONS OF STRUCTURE REMOVED	19	19	38	CY
202	APPROACH SLAB REMOVED	134	134	268	SY
203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	69	69	138	CY
203	SUBGRADE COMPACTION	226	226	452	SY
304	AGGREGATE BASE	26	26	52	CY
SPECIAL	SEALING OF CONCRETE SURFACES (EPOXY)	386	386	772	SY
516	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	106.00	106.00	212.00	LF
517	RAILING (DEFLECTOR PARAPET TYPE)	92	92	184	LF
517	RAILING FACED, AS PER PLAN	40	40	80	LF
611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN	226	226	452	SY
842	CLASS S CONCRETE, SUPERSTRUCTURE	8	8	16	CY
842	CLASS C CONCRETE, ABUTMENT	11	11	22	CY
846	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	44	44	88	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1 3/4")	610	610	1220	SY
848	SURFACE PREPARATION USING HYDRODEMOLITION	610	610	1220	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	12	12	24	CY
848	HAND CHIPPING	19	19	38	SY
848	FULL-DEPTH REPAIR	2	2	4	CY
848	EXISTING CONCRETE OVERLAY REMOVED	610	610	1220	SY
848	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	27	27	55	SY
	TOTALS CARRIED TO THE ESTIMATED QUANTITY SHEETS 4/30.				

ITEM 517 RAILING REFACED, AS PER PLAN

ITEM 202 -EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(NOTE: EXCAVATION INCLUDES UNDER PARAPET TRANSITION SLAB.)

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 44'-0", 55'-0", 44'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8" F/F of PARAPET.
SKEW: 37°-00'-55"
WEARING SURFACE: LATEX MODIFIED CONCRETE
APPROACH SLABS: AS-1-54 (25'-LONG)
TYPE OF JOINTS: SLIDING PLATE
ALIGNMENT: TANGENT
RAILING: 36" CONCRETE PARAPET

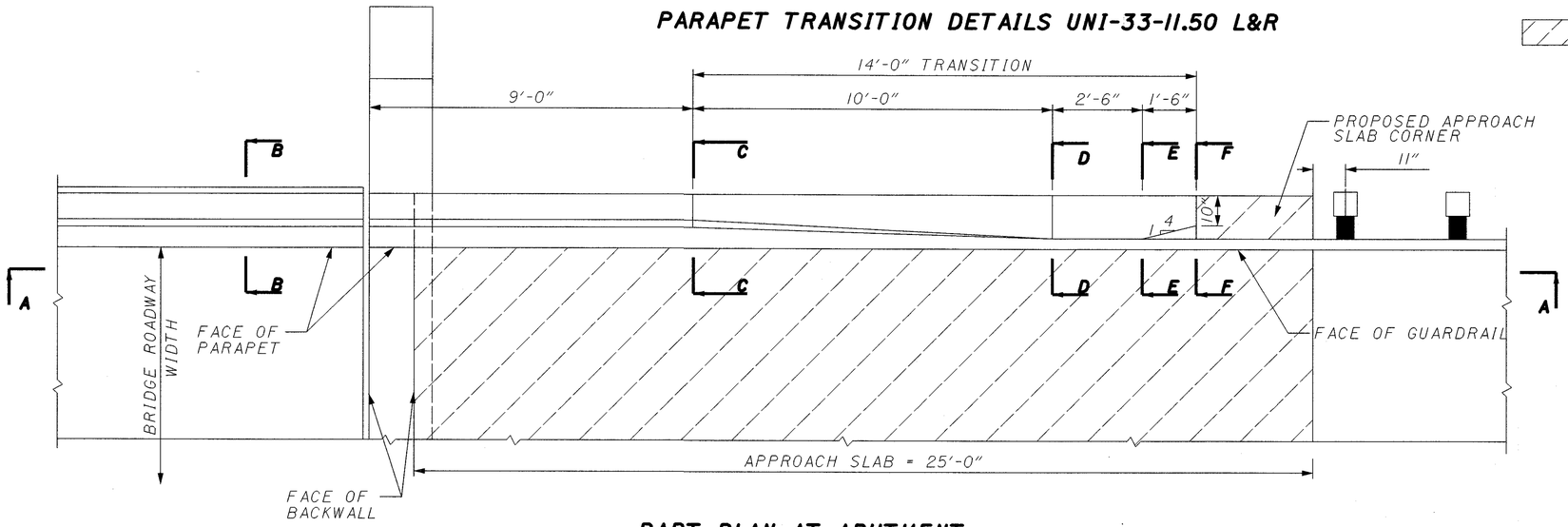
PROPOSED STRUCTURE

TYPE: NO CHANGE FROM THE EXISTING
SPAN: NO CHANGE FROM THE EXISTING
LOAD FREQUENCY RATING: NO CHANGE FROM THE EX.
ROADWAY: 37'-8" F/F PARAPETS
SKEW: NO CHANGE FROM THE EX.
WEARING SURFACE: MICRO-SILICA CONCRETE OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT (EXJ-4-87).
ALIGNMENT: NO CHANGE FROM THE EX.
RAILING: 36" CONCRETE PARAPET TRANS. REFACED

DESIGN AGENCY: DISTRICT SIX PRODUCTION
STRUCTURE FILE NUMBER: L-800/057 R-800/081
DESIGNED T.G.M. DRAWN T.G.M. CHECKED D.P.P. REVISED
GENERAL PLAN VIEW (OVER C.R. 114)
BRIDGE NO. UNI-33-11.50 L&R
UNI-33-8.74
18/30
162/174

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PARAPET TRANSITION DETAILS UNI-33-11.50 L&R



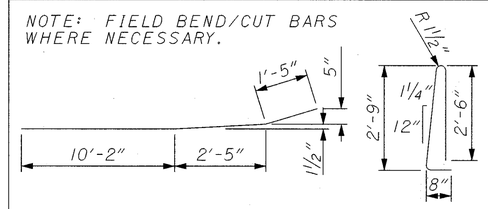
= PROPOSED CONCRETE APROACH SLAB

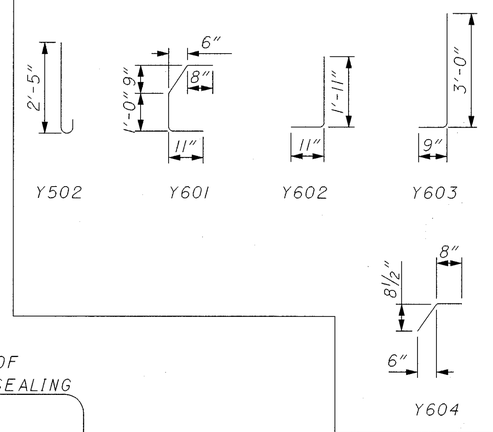
LEGEND:
C.J. = CONSTRUCTION JOINT
F.S. = FAR SIDE
N.S. = NEAR SIDE

REINFORCING BAR LIST					
MARK	LENGTH	SHAPE	MARK	LENGTH	SHAPE
X501	14'-0"	BT.	Y601	3'-2"	BT.
X502	14'-0"	ST.	Y602	2'-8"	BT.
X503	22'-8"	ST.	Y603	3'-7"	BT.
X504	11'-5"	ST.	Y604	1'-6"	BT.
X601	11'-5"	ST.			
Y501	6'-0"	BT			
Y502	3'-0"	BT.			

SEE SHEET 29/30 FOR BAR LIST SUMMARY

NOTE: FIELD BEND/CUT BARS WHERE NECESSARY.

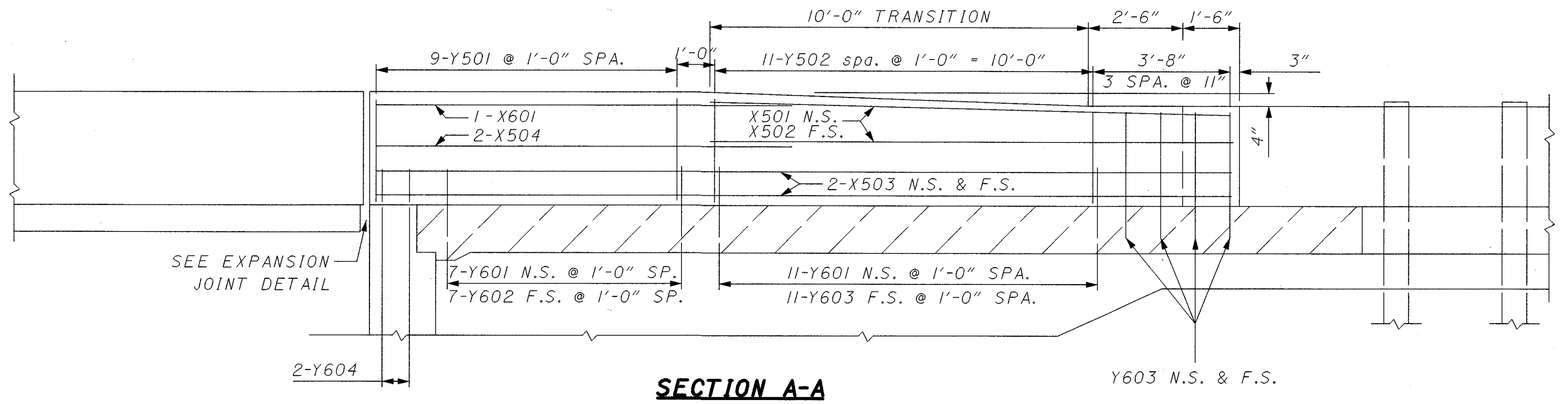




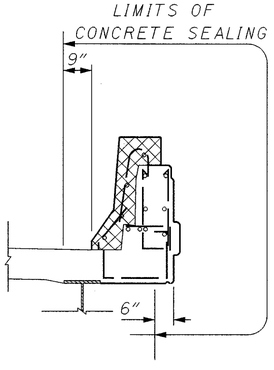
NOTES:
MINIMUM COVER IN BOTTOM STEEL OF FOOTINGS = 3 IN.
ALL OTHER SIDES OF PARAPET = 2 IN.

REFER TO BRIDGE STD. DRAWING BR-1 FOR ADDITIONAL DETAILS.

PART PLAN AT ABUTMENT

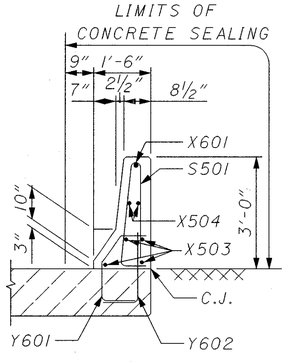


SECTION A-A

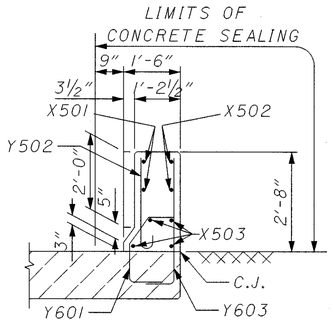


SECTION B-B

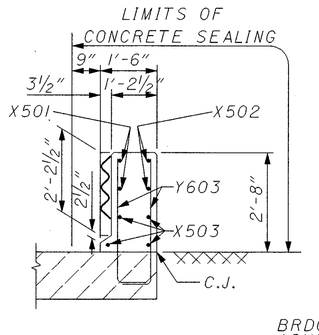
SEE SHT. 12/30 FOR DETAIL.



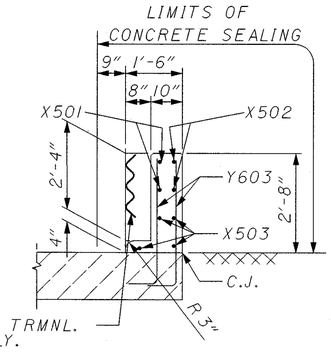
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

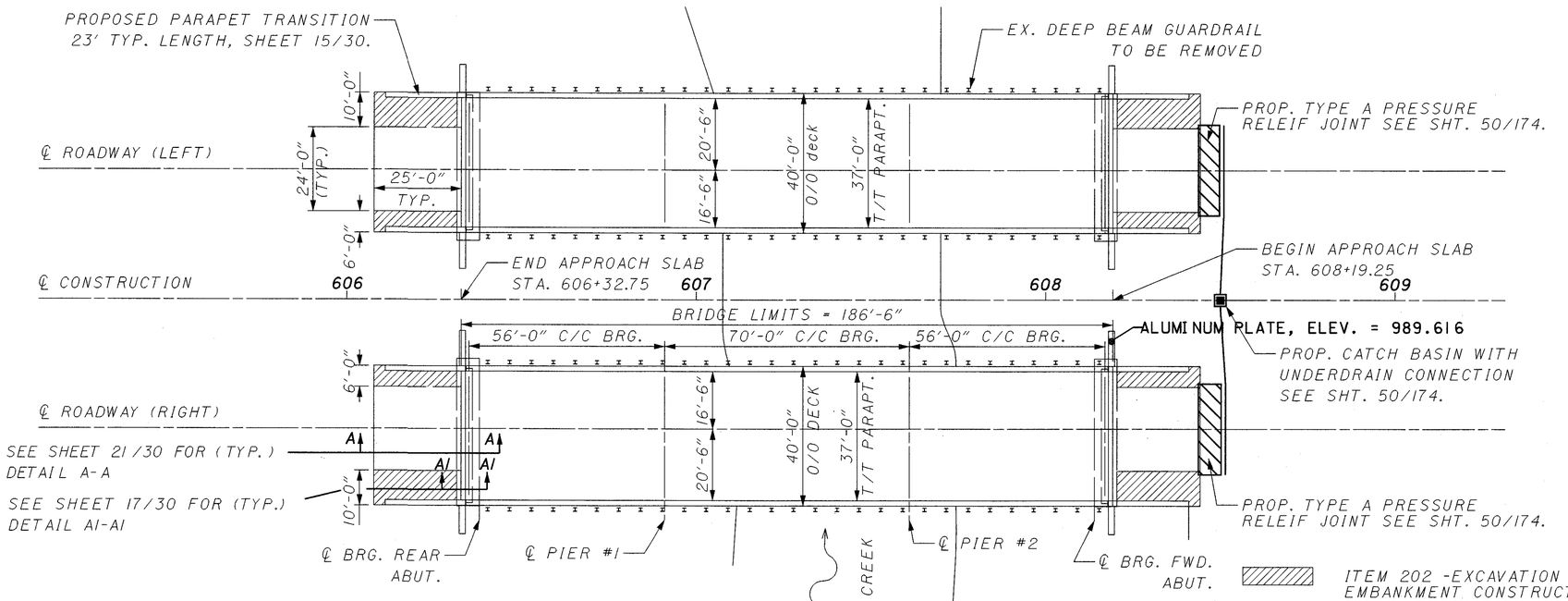
DESIGN AGENCY: DISTRICT SIX PRODUCTION
DATE: 1-24-00
REVIEWED: D.P.P.
STRUCTURE FILE NUMBER
DRAWN: T.G.M.
REVISED
DESIGNED: T.G.M.
CHECKED: D.P.P.

36" PARAPET TRANSTION RESTEEL DETAILS
UNI-33-1/50 L&R

UNI-33-8.74

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GENERAL PLAN VIEW - UNI-33-11.56 L&R



INDEX OF STRUCTURAL WORK ITEMS

1. REPLACE EXISTING DECK WITH REINFORCED COMPOSITE DECK USING HIGH PERFORMANCE CONCRETE AND SHEAR STUDS.
2. REPLACE SLIDING PLATE JOINT WITH STRIP SEAL EXPANSION JOINT (THIS INCLUDES 2' REMOVAL OF BACKWALL).
3. REMOVE AND REPLACE APPROACH SLABS (AS-1-81) TO THE FULL WIDTH OF DECK.
4. BUILD ALL PARAPET TRANSITIONS OFF BRIDGE DECK.
5. SEAL ABUTMENT BACKWALLS, BREASTWALLS AND PARAPETS USING AN EPOXY URETHANE SEALER.
6. TRIM FORWARD ENDS OF BEAMS TO ALLOW 2 IN. CLEARANCE BETWEEN BEAM ENDS AND BACKWALL.
7. INSERT TYPE A PRESSURE RELIEF JOINT PAST THE FORWARD APPROACH SLAB.
8. INCLUDE ITEM 519 PATCHING UNSOUND AND DETERIORATED AREAS OF ABUTMENTS.
9. ELIMINATE DEEP BEAM GUARDRAIL AND REPLACE WITH 42" HIGH CONCRETE PARAPETS.

ITEM	DESCRIPTION	LEFT	RIGHT	TOTAL	UNIT
202	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP	
202	PORTIONS OF STRUCTURE REMOVED	9	9	18	CY
202	APPROACH SLAB REMOVED	134	134	268	SY
203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	67	67	134	CY
203	SUBGRADE COMPACTION	223	223	446	SY
304	AGGREGATE BASE	26	26	52	CY
SPECIAL	STRUCTURE, MISC.: MECHANIZED VIBRATION OF BRIDGE FLOORS	756	756	1513	SY
SPECIAL	SEALING OF CONCRETE SURFACES (EPOXY)	631	631	1262	SY
516	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	80.00	80.00	160.00	LF
517	RAILING (DEFLECTOR PARAPET TYPE)	460	460	920	LF
519	PATCHING CONCRETE STRUCTURE	90	90	180	SF
611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN	223	223	446	SY
842	CLASS C CONCRETE, ABUTMENT	9	9	18	CY
844	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK)	209	209	418	CY
844	HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP	
846	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	53	53	106	SY
863	WELDED STUD SHEAR CONNECTORS	1890	1890	3780	EACH
863	TRIMMING OF BEAM END	5	5	10	EACH
	TOTALS CARRIED TO THE ESTIMATED QUANTITY SHEET 4/30.				

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 56'-70'-56' C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 40'-0" F/F of PARAPET.
SKEW: NONE
WEARING SURFACE: LATEX MODIFIED CONCRETE
APPROACH SLABS: AS-1-54 (25'-LONG)
TYPE OF JOINTS: SLIDING PLATE
ALIGNMENT: TANGENT
RAILING: DEEP BEAM GUARD RAIL

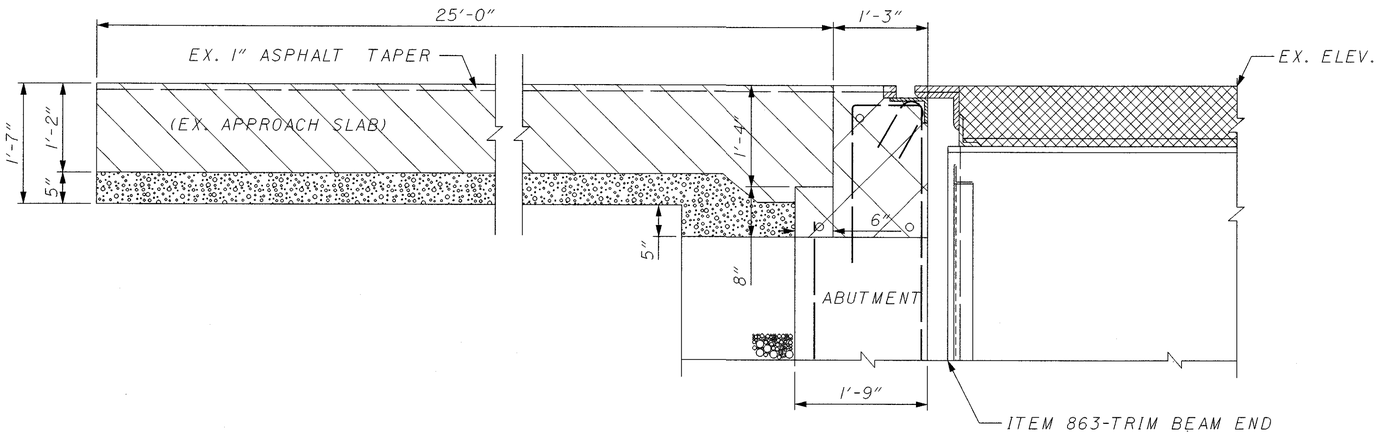
PROPOSED STRUCTURE

TYPE: NO CHANGE FROM THE EXISTING
SPAN: NO CHANGE FROM THE EXISTING
LOAD FREQUENCY RATING: NO CHANGE FROM THE EX.
ROADWAY: 37'-0" TOE/TOE PARAPET
SKEW: NO CHANGE FROM THE EX.
WEARING SURFACE: 1¾" MICRO-SILICA CON. OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT (EXJ-4-87)
ALIGNMENT: NO CHANGE FROM THE EX.
RAILING: 42" CONCRETE PARAPET (BR-1)

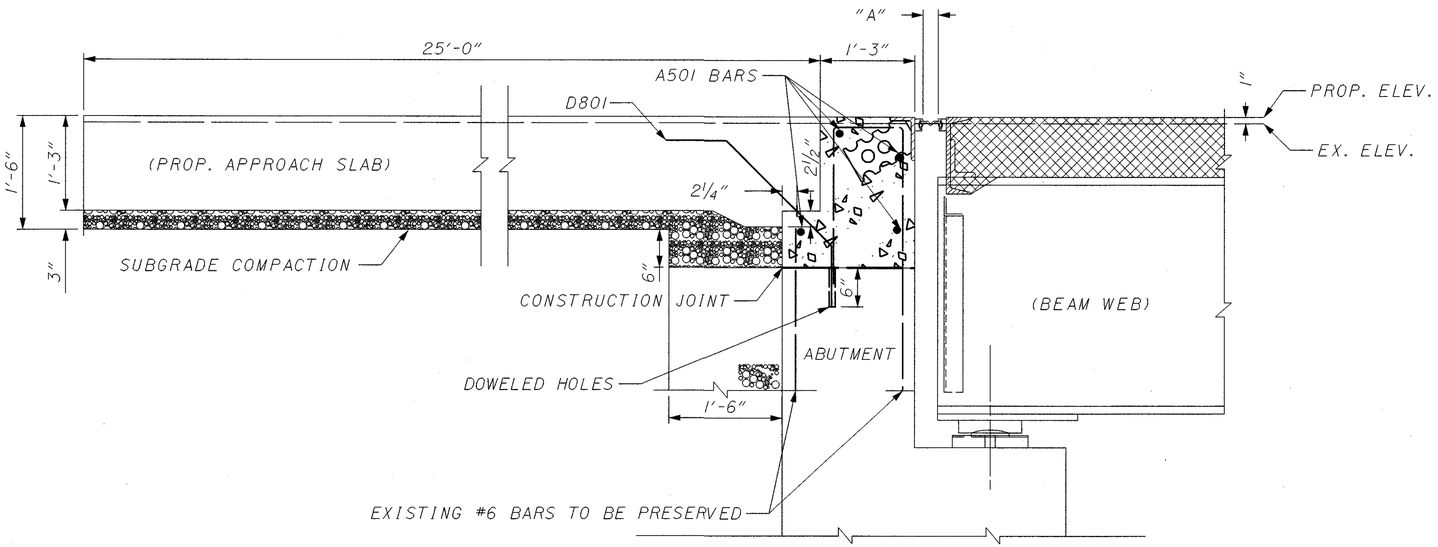
DESIGN AGENCY: DISTRICT SIX PRODUCTION
STRUCTURE FILE NUMBER: L-8001111 R-8001146
DESIGNED T.G.M. DRAWN T.G.M. CHECKED D.P.P. REVISED
GENERAL PLAN VIEW
BRIDGE NO. UNI-33-11.56 L&R (OVER MILL CREEK)
UNI-33-8.74
20/30
164/174

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REAR/FORWARD ABUTMENT SECTION A-A



EXISTING SECTION



PROPOSED SECTION

LEGEND:

- ITEM 202 - PORTIONS OF STRUCTURE REMOVED
- ITEM 202 - APPROACH SLAB REMOVAL
- ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
- ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
- ITEM 304 - AGGREGATE BASE
- ITEM 842 - CLASS C CONCRETE, ABUTMENT
- ITEM 842 - CLASS S CONCRETE SUPERSTRUCTURE
- ITEM 844 - HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK)

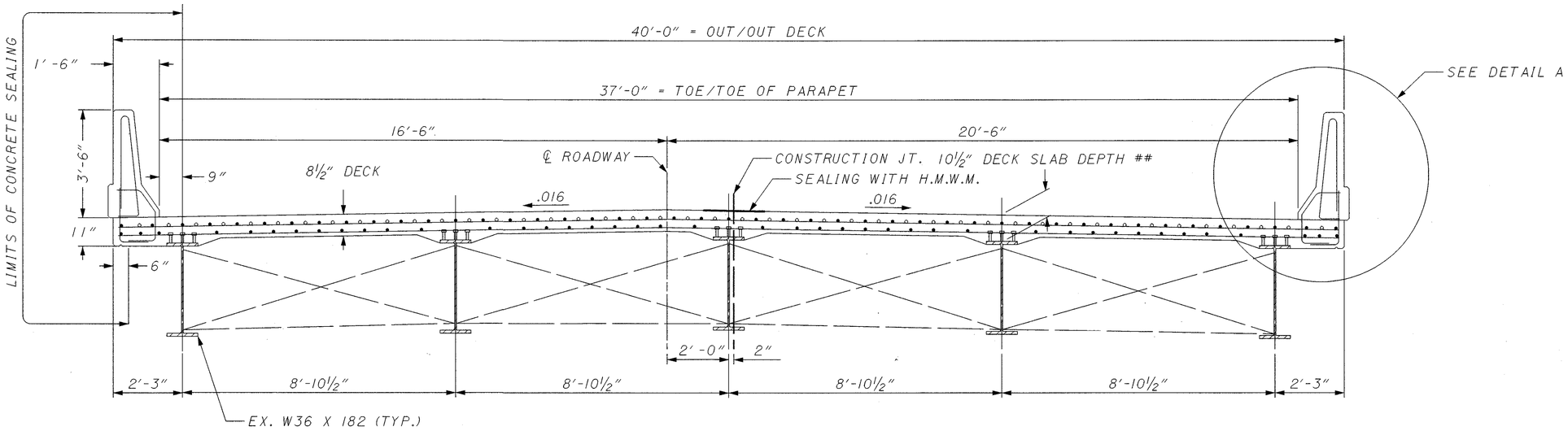
TABLE 1 - TO DETERMINE THE DIMENSION OF "A"

3 INCH STRIP SEAL	(Temperature °F)						
	30°F	40°F	50°F	60°F	70°F	80°F	90°F
	Required Joint Opening (Dim. "A") - (in inches).						
	1.9	1.8	1.7	1.6	1.5	1.4	1.3

NOTES:
THICKNESS OF PROPOSED APPROACH SLAB AT ABUTMENT END EQUAL TO 1.25'
D802 BARS @ 1'-6" C/C MEASURED PERPENDICULAR TO ℄ ROADWAY.
DOWEL HOLES AS PER 510 TO BE INCLUDED IN ITEM 842 CLASS C CONCRETE, ABUTMENT.

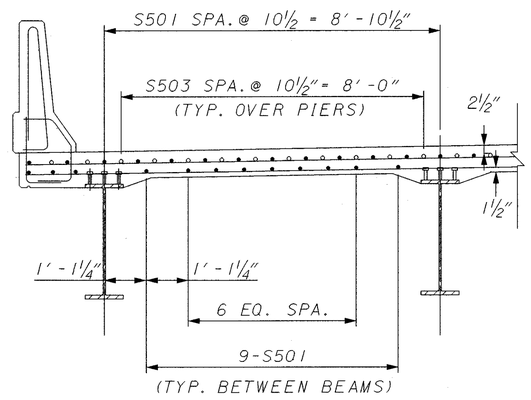
DESIGN AGENCY: DISTRICT SIX PRODUCTION
DESIGNED T.G.M. | DRAWN T.G.M. | CHECKED D.P.P. | REVIEWED D.P.P. | DATE 1-24-00 | REVISED | STRUCTURE FILE NUMBER
FORWARD/REAR ABUTMENT SECTION
UNI-333-1/56 L/R
UNI-33-8.74
21/30
165/174

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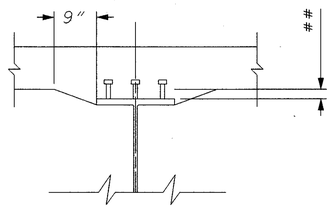


TRANSVERSE SECTION

LEFT BRIDGE - LOOKING REARWARD
RIGHT BRIDGE - LOOKING FORWARD



RE-STEEL DETAIL

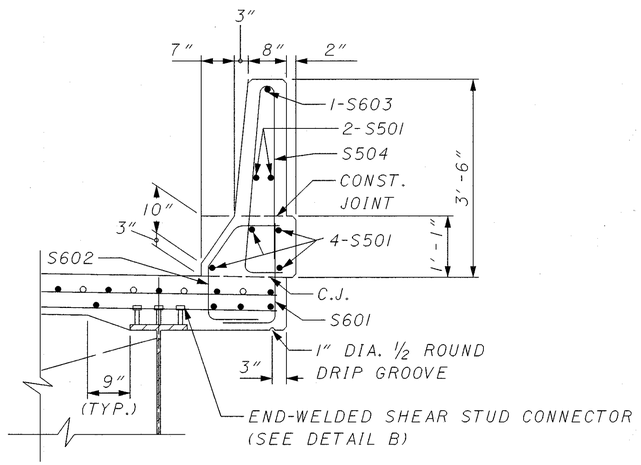


DETAIL B

NOTES:

A HAUNCH WIDTH OF 9 INCHES SHALL BE USED FOR CALCULATING THE QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6 AND 12 INCHES.

= DECK SLAB DEPTH IS CONSTANT. BEAM HAUNCH IS CALCULATED AT 2" BUT MAY VARY. THE DISTANCE SHOWN FROM THE TOP OF THE DECK SLAB TO THE TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION.



DETAIL A

DESIGN AGENCY
DISTRICT SIX PRODUCTION

DESIGNED T.G.M. | DRAWN T.G.M. | REVIEWED D.P.P. | DATE 1-24-00
CHECKED D.P.P. | REVISED | STRUCTURE FILE NUMBER

SUPERSTRUCTURE DETAILS
BRIDGE NO. UNI-33-1156 L/R

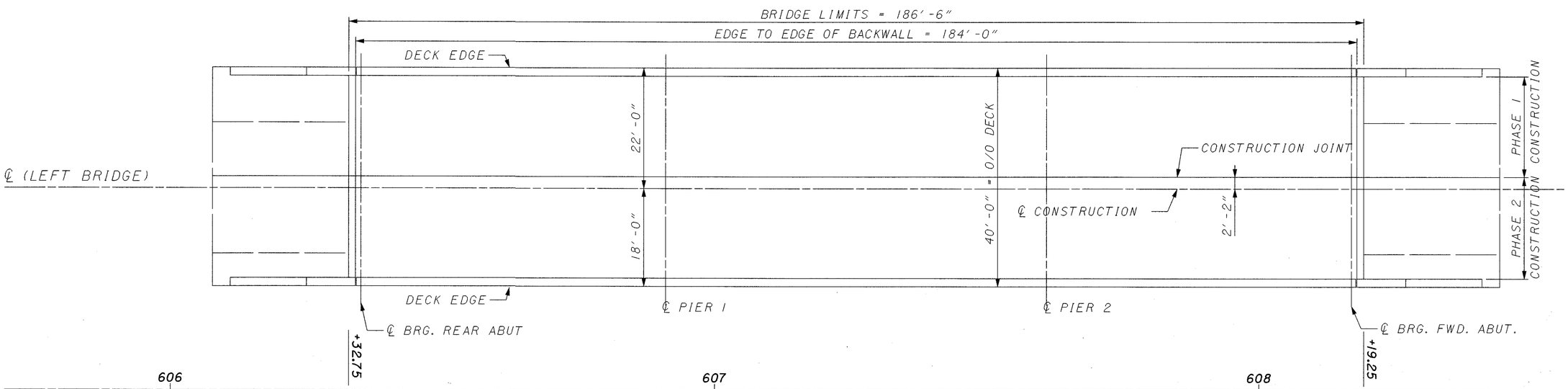
UNI-33-8.74

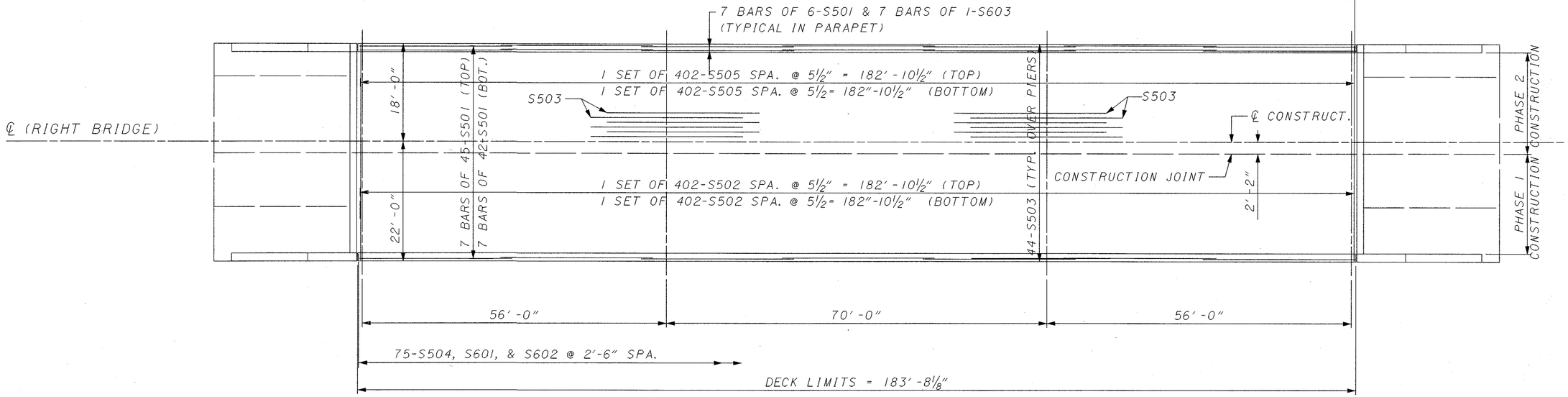
22/30

166/174

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DECK SLAB PLAN

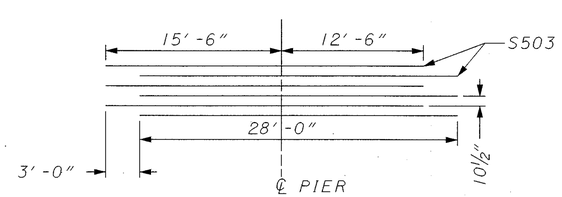




BAR	LAP LENGTH
#5	2'-2"
#6	2'-7"

NOTES:
THE TRANSVERSE REINFORCING BARS ARE PERPENDICULAR TO CENTERLINE OF CONSTRUCTION.
LEFT AND RIGHT BRIDGE DIMENSIONS ARE IDENTICAL.
RE-STEEL DETAILS SHOWN FOR RIGHT BRIDGE ARE TYPICAL FOR LEFT BRIDGE.

REINFORCEMENT DETAIL OVER PIERS :



DESIGN AGENCY: DISTRICT SIX PRODUCTION
STRUCTURE FILE NUMBER: L-8000999 R-8001022
DRAWN: T.G.M. REVISED:
DESIGNED: T.G.M. CHECKED: D.P.P.

DECK SLAB PLAN
BRIDGE NO. UNI-33-1156 L/R

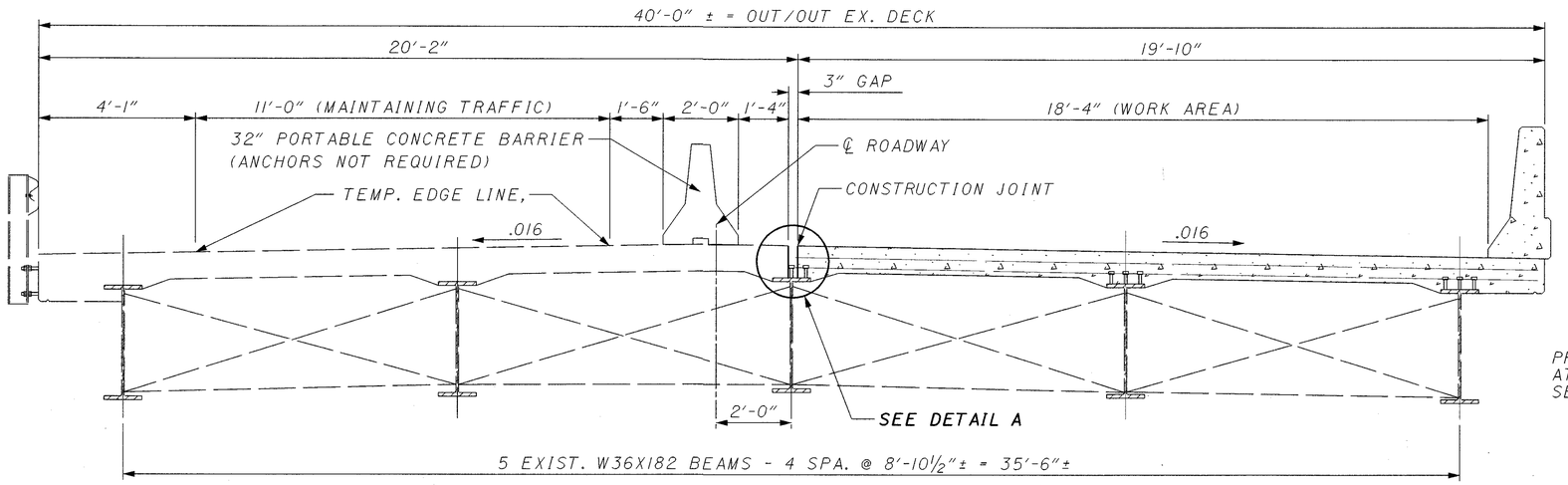
UNI-33-8.74

23/30

167/174

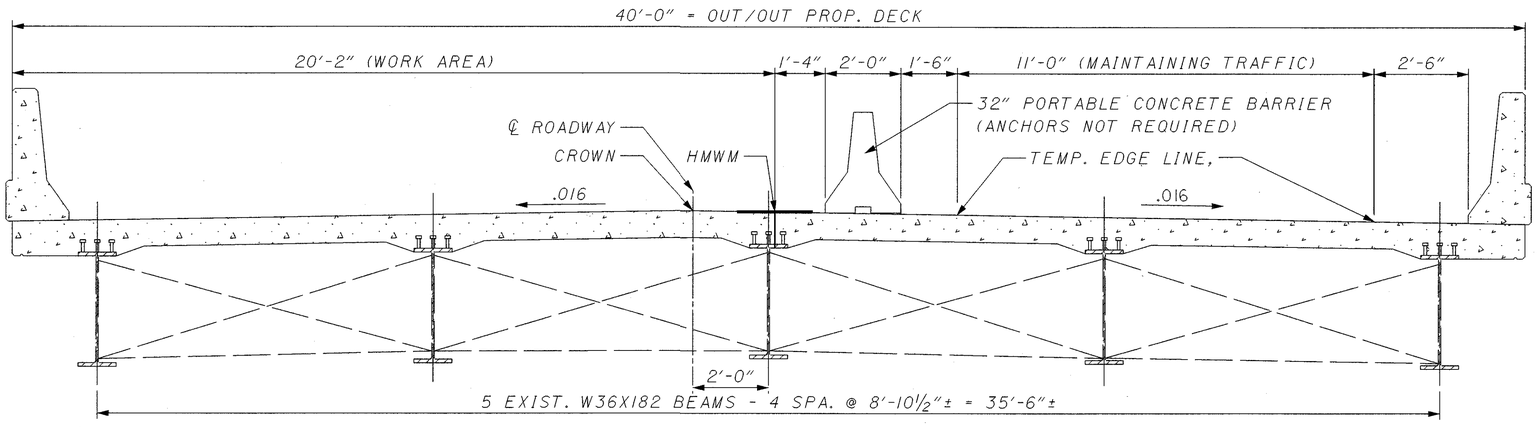
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UNI-33-11.56 L/R M.O.T. SECTION



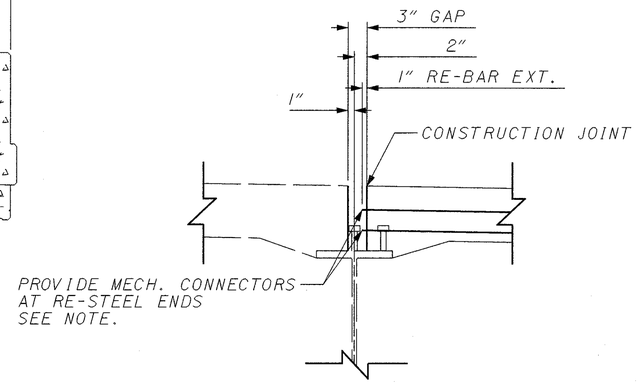
PHASE 1

LEFT BRIDGE - LOOKING REARWARD
RIGHT BRIDGE - LOOKING FORWARD



PHASE 2

LEFT BRIDGE - LOOKING REARWARD
RIGHT BRIDGE - LOOKING FORWARD



DETAIL A

SEQUENCE OF CONSTRUCTION:

PHASE 1:

1. DIRECT TRAFFIC TO INSIDE LANES OF WESTBOUND AND EASTBOUND BRIDGES AND INSTALL PORTABLE CONCRETE BARRIER AS PER MAINTENANCE OF TRAFFIC PLANS.
2. SAWCUT AND REMOVE INSIDE PORTIONS OF APPROACH SLABS AND BRIDGE DECKS, INCLUDING DEEP BEAM GUARDRAIL.
3. REMOVE PORTION OF ABUTMENT BACKWALL AND SLIDING PLATE JOINT.
4. CONSTRUCT OUTSIDE PORTION OF BRIDGE DECKS, APPROACH SLABS, PARAPETS, AND JOINTS (EXJ-4-87).

PHASE 2:

1. DIRECT TRAFFIC TO OUTSIDE LANES OF WESTBOUND AND EASTBOUND BRIDGES AND INSTALL PORTABLE CONCRETE BARRIER AS PER MAINTENACE OF TRAFFIC PLANS.
2. SAWCUT AND REMOVE INSIDE PORTIONS OF APPROACH SLABS AND BRIDGE DECKS, INCLUDING DEEP BEAM GUARDRAIL.
3. REMOVE PORTION OF ABUTMENT BACKWALL AND SLIDING PLATE JOINT.
4. CONSTRUCT OUTSIDE PORTION OF BRIDGE DECKS, APPROACH SLABS, PARAPETS, AND JOINTS (EXJ-4-87).

NOTE:

PROVIDE MECHANICAL CONNECTORS FOR TRANSVERSE RESTEEL AT DECK CONSTRUCTION JOINT. MECHANICAL CONNECTORS ARE TO BE PAID FOR UNDER ITEM 844 HIGH PERFORMANCE CONCRETE & ITEM 611 FOR REINFORCED CONCRETE APPROACH SLAB.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DESIGNED: T.G.M. | DRAWN: T.G.M. | CHECKED: D.P.P. | REVISED:
REVIEWED: D.P.P. | DATE: 1-24-00 | STRUCTURE FILE NUMBER

PHASED CONSTRUCTION DETAILS
UNI-33-1156 L/R

UNI-33-8.74

24/30

168/174

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SCREED ELEVATIONS UNI-33-11.56 L/R

TABLE OF SCREED ELEVATIONS UNI-33-11.56 L

	CL Rr. BRG.				Pier #1 CL					Pier #2 CL				CL Fwd. Abut.
(Sta.) Location	606+35.00	606+40	606+60	606+80	606+91.00	607+00	607+20	607+40	607+50	607+61	607+70	607+90	608+10	608+17.00
East Edge	990.23	990.23	990.11	990.03	989.97	989.93	989.87	989.79	989.78	989.77	989.77	989.77	989.75	989.75
Beam A	990.27	990.27	990.14	990.06	990.00	989.97	989.90	989.83	989.82	989.82	989.82	989.81	989.79	989.78
Beam B	990.40	990.41	990.28	990.20	990.14	990.11	990.05	989.97	989.96	989.96	989.96	989.95	989.93	989.92
Beam C	990.54	990.54	990.42	990.34	990.28	990.25	990.19	990.11	990.09	990.08	990.08	990.08	990.07	989.98
C/L Survey	990.57	990.57	990.45	990.37	990.31	990.28	990.22	990.14	990.12	990.11	990.11	990.10	990.10	990.09
Beam D	990.47	990.47	990.34	990.26	990.20	990.17	990.11	990.03	990.01	990.00	990.00	990.00	989.99	989.98
Beam E	990.33	990.33	990.20	990.12	990.07	990.03	989.97	989.89	989.87	989.87	989.87	989.87	989.85	989.84
West Edge	990.29	990.29	990.17	990.09	990.03	990.00	989.93	989.86	989.84	989.83	989.83	989.82	989.82	989.81

TABLE OF SCREED ELEVATIONS UNI-33-11.56 R

	CL Rr. BRG.				Pier #1 CL					Pier #2 CL				CL Fwd. Abut.
(Sta.) Location	606+35.00	606+40	606+60	606+80	606+91.00	607+00	607+20	607+40	607+50	607+61	607+70	607+90	608+10	608+17.00
East Edge	990.27	990.27	990.21	990.11	990.08	990.03	989.97	989.95	989.92	989.89	989.88	989.84	989.80	989.79
Beam A	990.31	990.30	990.24	990.14	990.12	990.06	990.01	989.98	989.95	989.93	989.91	989.88	989.83	989.83
Beam B	990.44	990.44	990.38	990.28	990.25	990.20	990.15	990.12	990.09	990.06	990.05	990.01	989.97	989.96
Beam C	990.55	990.55	990.49	990.39	990.36	990.31	990.26	990.23	990.20	990.17	990.16	990.12	990.08	990.07
C/L Survey	990.52	990.52	990.46	990.36	990.33	990.28	990.23	990.20	990.17	990.14	990.13	990.09	990.05	990.04
Beam D	990.38	990.38	990.32	990.22	990.19	990.14	990.09	990.06	990.03	990.00	989.99	989.95	989.91	989.90
Beam E	990.24	990.24	990.18	990.08	990.05	990.00	989.94	989.92	989.89	989.86	989.85	989.81	989.77	989.76
West Edge	990.21	990.21	990.15	990.05	990.02	989.96	989.91	989.88	989.86	989.83	989.81	989.78	989.73	989.73

APPROACH SLAB ELEVATIONS:	
UNI-33-11.56 LEFT	
LEFT REAR EDGE	990.65
CENTER REAR EDGE	990.93
RIGHT REAR EDGE	990.58
LEFT FWD. EDGE	989.81
CENTER FWD. EDGE	990.12
RIGHT FWD. EDGE	989.84
UNI-33-11.56 RIGHT	
LEFT REAR EDGE	990.50
CENTER REAR EDGE	990.85
RIGHT REAR EDGE	990.57
LEFT FWD. EDGE	989.86
CENTER FWD. EDGE	990.14
RIGHT FWD. EDGE	989.80

NOTE: SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE BEFORE PLACING DECK CONCRETE.
ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
ELEVATIONS ARE TAKEN PERPENDICULAR TO ℄ OF CONSTRUCTION.

PROPOSED FINAL DECK ELEVATIONS ARE 1 IN. HIGHER THAN EXISTING DECK ELEVATIONS
TO ALLOW FOR A 2 INCH MINIMUM HAUNCH.

BENCH MARK #1= ALUMINUM PLATE IN WING WALL IN SOUTH EAST CORNER
OF SOUTH BOUND LANE, ELEV.= 989.616, STA.= 608+18.87, OFFSET= 11.8 RT.

DESIGN AGENCY
DISTRICT SIX
PRODUCTION

DESIGNED T.G.M. | DRAWN T.G.M. | REVISED D.P.P. 1-24-00 | DATE
CHECKED D.P.P. | REVISED | STRUCTURE FILE NUMBER

SCREED ELEVATIONS
BRIDGE NO. UNI-33-11.56 L/R

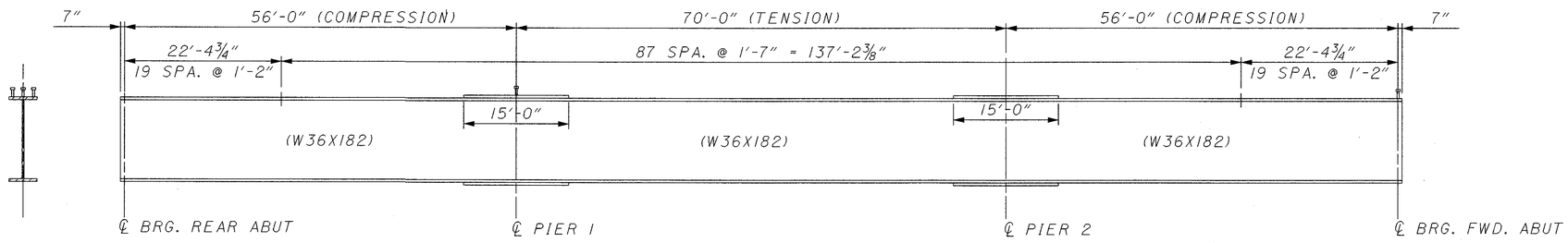
UNI-33-8.74

25/30

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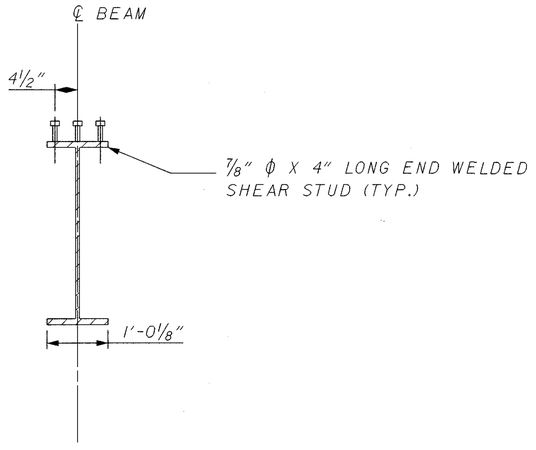
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SUPERSTRUCTURE DETAILS



BEAM ELEVATION

SHEAR STUD QUANTITES
SHEAR STUDS/ BEAM = 378
TOTAL SHEAR STUDS (LEFT) = 1890
TOTAL SHEAR STUDS (RIGHT)= 1890



SHEAR STUD DETAIL

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DESIGN AGENCY
DISTRICT SIX
PRODUCTION

REVIEWED D.P.P. DATE 1-24-00
STRUCTURE FILE NUMBER

DRAWN T.G.M.
REVISED

DESIGNED T.G.M.
CHECKED D.P.P.

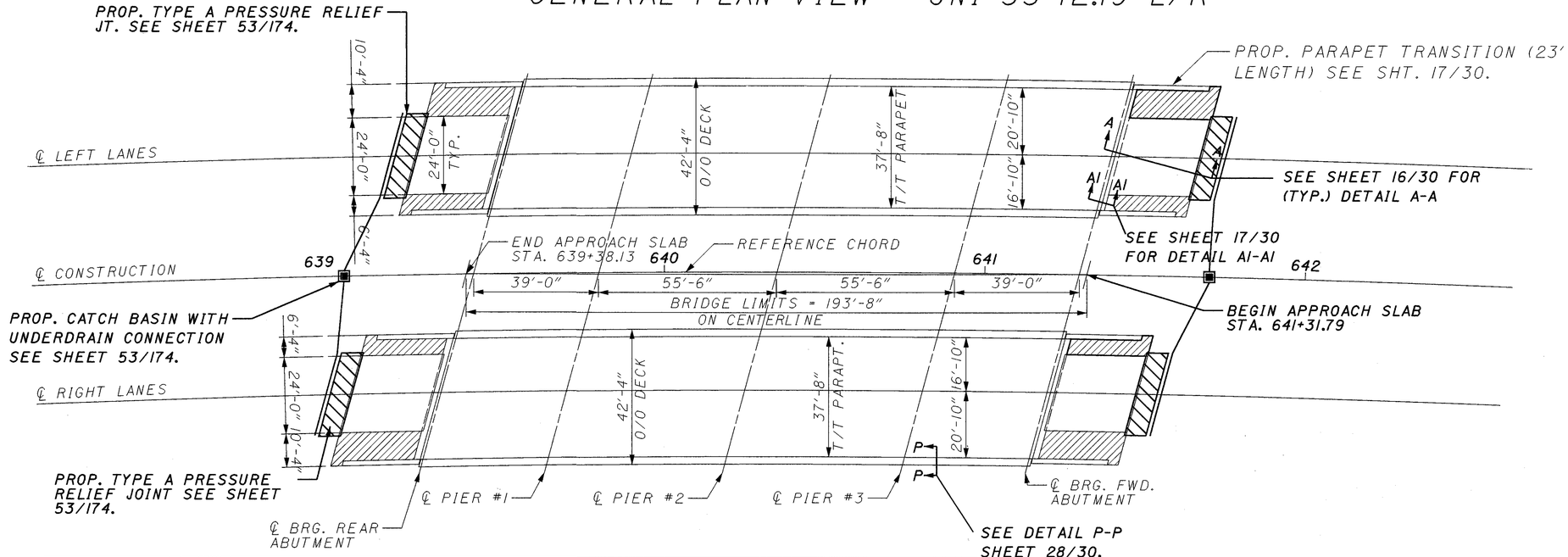
SUPERSTRUCTURE DETAILS/ RESTEEL
BRIDGE NO. UNI-33-1156 L/R

UNI-33-8.74

26/30

170
174

GENERAL PLAN VIEW - UNI-33-12.19 L/R



INDEX OF STRUCTURAL WORK ITEMS

1. REFACE EXISTING BRIDGE RAILING AND PARAPET TRANSITION TO 42" HEIGHT.
2. REMOVE EXISTING PARAPET TRANSITIONS AND BUILD NEW 23' LENGTH TRANSITIONS.
3. REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY.
4. REPLACE ALL FOUR APPROACH SLABS TO THE FULL WIDTH OF THE ROADWAY.
5. REMOVE STEEL SLIDING PLATE JOINTS AND REPLACE WITH STRIP SEAL EXPANSION JOINT (EXJ-4-87).
6. TRIM ENDS OF BEAMS TO ALLOW CLEARANCE BETWEEN BEAM ENDS AND BACKWALL.
7. INSERT TYPE A PRESSURE RELIEF JOINT ADJACENT TO THE FORWARD AND REAR APPROACH SLAB(S)
8. PATCH ABUTMENTS = 15 SQ. FT EACH SIDE.
9. SEAL PARAPETS WITH EPOXY URETHANE SEALER.

ITEM	DESCRIPTION	LEFT	RIGHT	TOTAL	UNIT
202	PORTIONS OF STRUCTURE REMOVED			LUMP	
202	PORTIONS OF STRUCTURE REMOVED	16	16	32	CY
202	APPROACH SLAB REMOVED	134	134	268	SY
203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	69	69	138	CY
203	SUBGRADE COMPACTION	227	227	454	SY
304	AGGREGATE BASE	26	26	52	CY
SPECIAL	SEALING OF CONCRETE SURFACES (EPOXY)	489	489	978	SY
516	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	88.00	88.00	176.00	LF
517	RAILING (DEFLECTOR PARAPET TYPE)	92	92	184	LF
517	RAILING FACED, AS PER PLAN	382	382	764	LF
519	PATCHING CONCRETE STRUCTURE	15	15	30	SF
611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN	227	227	454	SY
842	CLASS S CONCRETE, SUPERSTRUCTURE	7	7	14	CY
842	CLASS C CONCRETE, ABUTMENT	9	9	18	CY
846	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	55	55	110	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (1 3/4")	811	811	1622	SY
848	SURFACE PREPARATION USING HYDRODEMOLITION	811	811	1622	SY
848	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	16	16	32	CY
848	HAND CHIPPING	25	25	50	SY
848	FULL-DEPTH REPAIR	2	2	4	CY
848	EXISTING CONCRETE OVERLAY REMOVED	811	811	1622	SY
848	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	37	37	74	SY
863	TRIMMING OF BEAM END	12	12	24	EACH
	TOTALS CARRIED TO THE ESTIMATED QUANTITY SHEET 4/30.				

ITEM 202 -EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (NOTE: EXCAVATION INCLUDES UNDER PARAPET TRANSITION SLAB.)

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 39'-0", 55'-6", 55'-6", 39'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8" TOE/TOE PARAPETS.
SKEW: 15°-10'-19" L.F.
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-54 (25'-LONG)
TYPE OF JOINTS: SLIDING PLATE
ALIGNMENT: TANGENT
RAILING: CONCRETE PARAPET WITH ALUM. RAIL

PROPOSED STRUCTURE

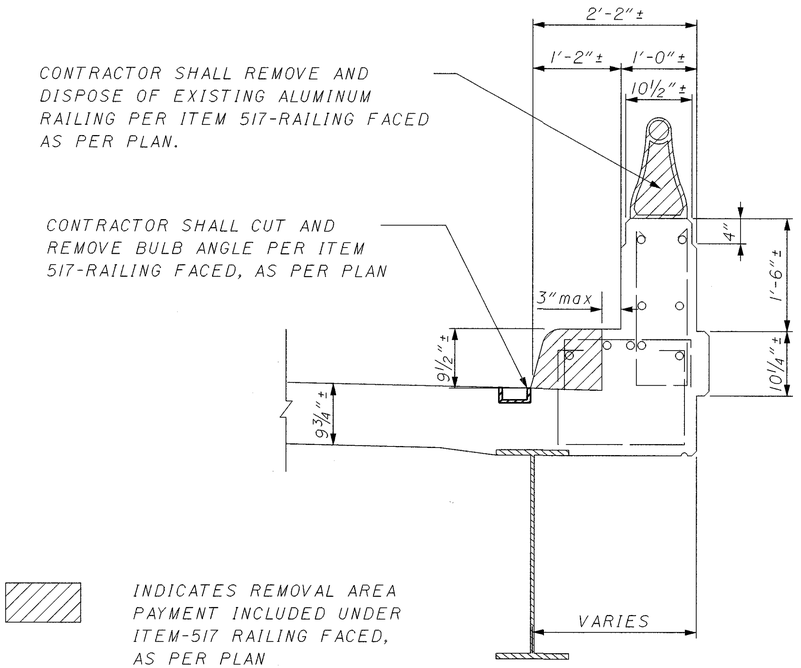
TYPE: NO CHANGE FROM THE EXISTING
SPAN: NO CHANGE FROM THE EXISTING
LOAD FREQUENCY RATING: NO CHANGE FROM THE EX.
ROADWAY: 37'-8" TOE/TOE PARAPETS
SKEW: NO CHANGE FROM THE EX.
WEARING SURFACE: MICRO-SILICA CONCRETE OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT. (EXJ-4-87).
ALIGNMENT: NO CHANGE FROM THE EX.
RAILING: 42" CONCRETE PARAPET (BR-1)

DESIGN AGENCY: DISTRICT SIX PRODUCTION
STRUCTURE FILE NUMBER: L-8001170 R-8001200
DESIGNED T.G.M. DRAWN T.G.M. CHECKED D.P.P. REVISED
GENERAL PLAN VIEW BRIDGE NO. UNI-33-12.19 L/R (OVER U.S. 36)
UNI-33-8.74
27/30
171/174

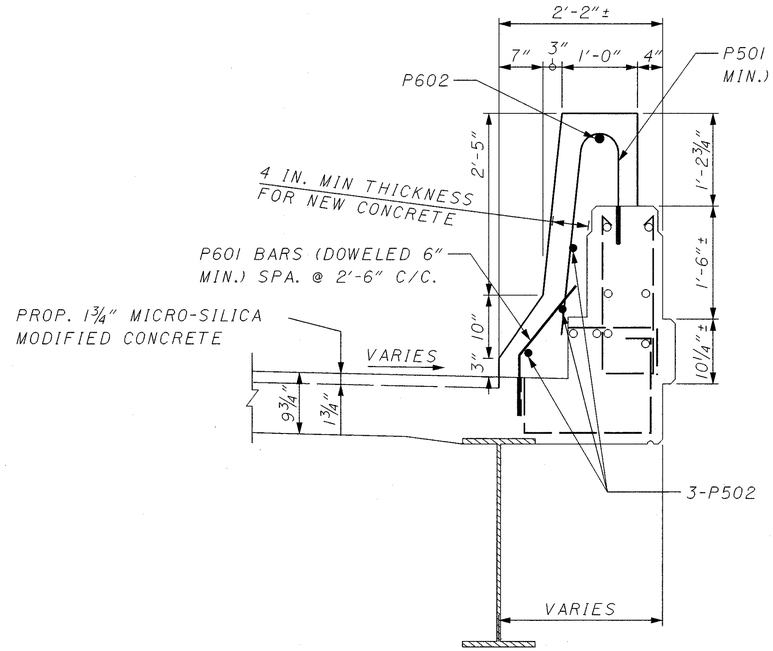
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ITEM 517-RAILING FACED DETAILS P-P

(UNI-33-12.19 L/R)

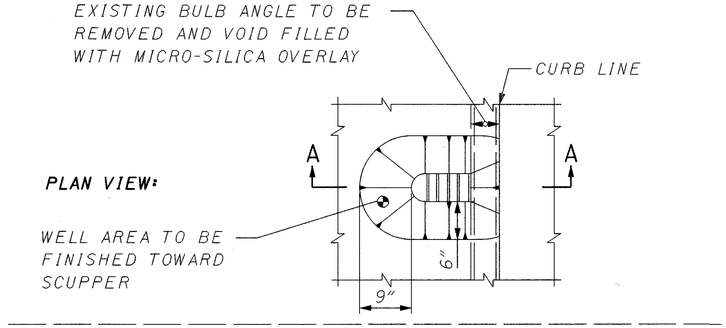


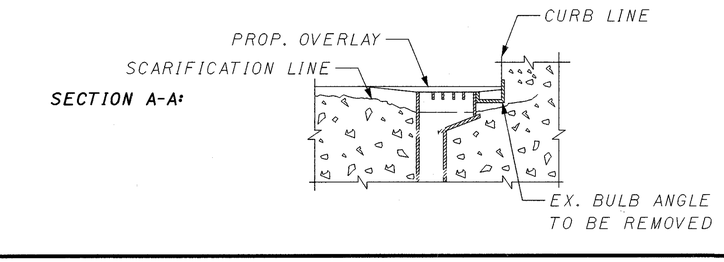
REMOVAL CROSS SECTION



517 RAILING FACED, AS PER PLAN

TYPICAL OVERLAY DETAIL AT SCUPPERS





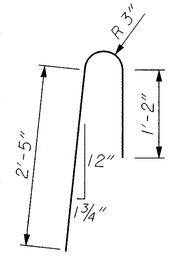
NOTES:

DEFLECTION JOINTS SHALL BE SAW CUT IN PROPOSED RAILING TO MATCH EXISTING JOINTS. PROPOSED JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER AS PER STD. DWG. (BR-1)

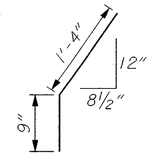
P501 & P601 BARS SHALL BE SPACED AS SHOWN, EXCEPT THEY SHALL ALSO BE INSTALLED 6" FROM BOTH SIDES OF EXISTING DEFLECTION JOINTS.

MARK	NUMBER	LENGTH	SHAPE
P501	312	4'-4"	BENT
P502	96	25'-10"	STR.
P601	312	2'-2"	BENT
P602	32	26'-2"	STR.
SEE SHT. 29/30 BAR SUMMARY			

LAP LENGTH:
#5 BAR = 2'-2"
#6 BAR = 2'-7"



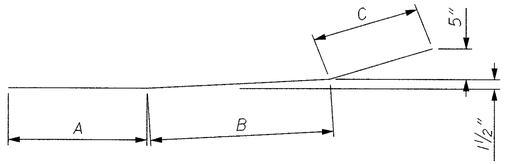
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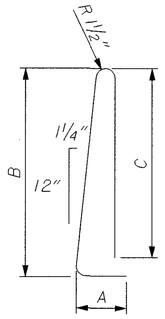
P601

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DATE: REVIEWED D.P.P. 1-24-00
STRUCTURE FILE NUMBER:
DESIGNED T.G.M. | DRAWN T.G.M. | CHECKED D.P.P. | REVISED
RAILING FACED DETAILS (ON STRUCTURE)
BRIDGE NO. UNI-33-12.19 L/R
UNI-33-8.74
28/30
172/174

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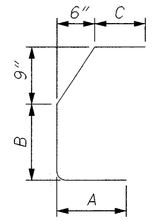
TYPE 1



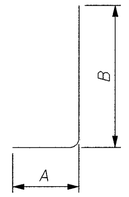
TYPE 2



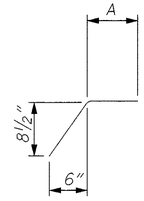
TYPE 3



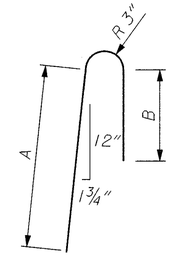
TYPE 4



TYPE 5



TYPE 6



TYPE 7

RAILING UNI-33-9.05 L/R

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS			
	REAR	FWD.	TOTAL				A	B	C	INC.
P501	126	126	252	4'-4"	1051	7	2'-5"	1'-2"		
P502	36	36	72	28'-2"	2115	ST.				
P601	126	126	252	2'-1"	821	8	0-9"	1'-4"		
P602	12	12	24	28'-7"	1031	ST.				
X501	8	8	16	5'-8"	95	1	1'-10"	2'-5"	1'-5"	
X502	16	16	32	10'-0"	334	ST.				
X503	16	16	32	15'-7"	520	ST.				
X504	8	8	16	4'-5"	74	ST.				
X505	20	20	40	13'-8"	570	ST.				
X506	8	8	16	5'-9"	96	ST.				
X601	4	4	8	4'-5"	53	ST.				
Y501	8	8	16	7'-1	118	2	0'-8"	3'-3"	3'-0"	
Y502	4 SETS OF 11	4 SETS OF 11	8 SETS OF 11	3'-0" TO 3'-10"	314	3	2'-3" TO 3'-2"			0'-1"
Y601	44	44	88	3'-10"	506	4	1'-7"	1'-0"	0'-8"	
Y602	4 SETS OF 11	4 SETS OF 11	8 SETS OF 11	4'-6" TO 5'-4"	685	5	3'-0" TO 3'-10"	1'-8"		0'-1"
Y603	16	16	32	3'-10"	184	5	1'-0"	3'-0"		
Y604	8	8	16	1'-6"	36	6	8"			
Y605	16	16	32	4'-6"	216	5	1'-8"	3'-0"		

RAILING UNI-33-9.12 L/R

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS			
	REAR	FWD.	TOTAL				A	B	C	INC.
P501	20	20	40	3'-8"	153	7	2'-5"	0'-8 1/2"		
P601	20	20	40	2'-2"	130	8	0'-9"	1'-4"		
X501	8	8	16	14'-0"	234	1	10'-2"	2'-5"	1'-5"	
X502	16	16	32	14'-0"	467	ST.				
X503	16	16	32	15'-8"	523	ST.				
X504	8	8	16	4'-5"	74	ST.				
X505	20	20	40	13'-8"	570	ST.				
X601	4	4	8	4'-5"	53	ST.				
Y501	8	8	16	6'-0"	100	2	0"-8"	2'-9"	2'-6"	
Y502	44	44	88	3'-0"	275	3	2'-5"			
Y601	8	8	16	1'-6"	36	6	0'-8"			
Y602	44	44	88	3'-6"	463	4	1'-7"	0'-8"	0'-8"	
Y603	44	44	88	4'-6"	595	5	1'-8"	3'-0"		
Y604	32	32	64	3'-10"	368	5	1'-0"	3'-0"		

RAILING UNI-33-9.22 L/R, 11.56 L/R & 12.19 L/R

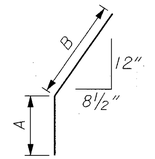
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS			
	REAR	FWD.	TOTAL				A	B	C	INC.
X501	24	24	48	5'-8"	284	1	1'-10"	2'-5"	1'-5"	
X502	48	48	96	10'-0"	1001	ST.				
X503	48	48	96	22'-8"	2270	ST.				
X504	24	24	48	11'-5"	572	ST.				
X505	24	24	48	5'-8"	284	ST.				
X601	12	12	24	11'-5"	412	ST.				
Y501	108	108	216	7'-1"	1595	2	0'-8"	3'-3"	3'-0"	
Y502	12 SETS OF 11	12 SETS OF 11	24 SETS OF 11	3'-0" TO 3'-10"	941	3	2'-3" TO 3'-2"			0'-1"
Y601	132	132	264	3'-2"	1256	4	0'-11"	1'-0"	0'-8"	
Y602	84	84	168	2'-8"	674	5	0'-11"	1'-11"		
Y603	12 SETS OF11	12 SETS OF 11	24 SETS OF 11	4'-9" TO 5'-7"	2055	5	1'-8"	3'-0" TO 3'-10"		0'-1"
Y604	32	32	64	3'-10"	368	5	1'-0"	3'-0"		
Y605	24	24	48	1'-6"	108	6	0'-8"			

RAILING UNI-33-11.50 L/R

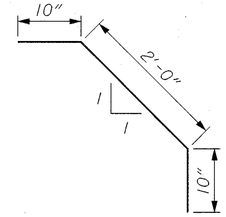
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS			
	REAR	FWD.	TOTAL				A	B	C	INC.
P501	20	20	40	3'-8"	153	7	2'-5"	0'-8 1/2"		
P601	20	20	40	2'-2"	130	8	0'-9"	1'-4"		
X501	8	8	16	14'-0"	234	1	10'-2"	2'-5"	1'-5"	
X502	8	8	16	14'-0"	234	ST.				
X503	16	16	32	22'-8"	757	ST.				
X504	8	8	16	11'-5"	190	ST.				
X601	4	4	8	11'-5"	137	ST.				
Y501	28	28	56	6'-0"	350	2	0'-8"	2'-9"	2'-6"	
Y502	44	44	88	3'-0"	275	3	2'-5"			
Y601	72	72	144	3'-3"	703	4	0'-11"	1'-0"	0'-8"	
Y602	28	28	56	2'-8"	225	5	0'-11"	1'-11"		
Y603	44	44	88	3'-7"	529	5	0'-9"	3'-0"		
Y604	8	8	16	1'-6"	36	6	0'-8"			

RAILING UNI-33- 12.19 L/R

P501	156	156	312	4'-4"	1858	7	2'-5"	1'-2"		
P502	48	48	96	25'-10"	2587	ST.				
P601	156	156	312	2'-2"	1015	8	0-10"	1'-4"		
P602	16	16	32	26'-2"	1258	ST.				



TYPE 8



TYPE 9

NOTES:

ALL BARS TO BE EPOXY COATED REINFORCING BARS AS PER CMS 509.

THIS LIST IS FOR THE CONTRACTOR'S INFORMATION ONLY. ALL REINFORCING IS INCLUDED IN THE APPROPRIATE CONCRETE ITEM FOR PAYMENT.

DESIGN AGENCY: DISTRICT SIX PRODUCTION

DATE REVIEWED: D.P.P. 1-24-00 — STRUCTURE FILE NUMBER

DRAWN: T.G.M. — REVISED

DESIGNED: T.G.M. — CHECKED: D.P.P.

RAILING REINFORCING STEEL LIST SUMMARY

UNI-33-0905 L/R, 0912 L/R, 0922 L/R, 1150 L/R, 1156 L/R & 1219 L/R

UNI-33-8.74

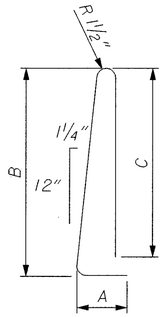
29/30

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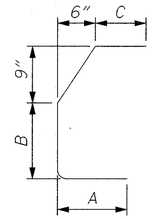
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REINFORCING STEEL LIST SUMMARY CONT'D

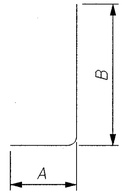
ABUTMENTS							
UNI-33-BRIDGES	MARK	NUMBER REAR	NUMBER FWD.	NUMBER TOTAL	LENGTH	WEIGHT	TYPE
UNI-33-9.22 L/R:	A501	16	16	32	22'-1	737	ST.
	A801	53	53	107	3'-6"	997	9
UNI-33-11.50 L/R:	A502	16	16	32	28'-8"	957	ST.
	A801	71	71	141	3'-6"	1321	9
UNI-33-11.56 L/R:	A503	16	16	32	22'-2"	740	ST.
	A801	53	53	106	3'-6"	991	9
UNI-33-12.19 L/R:	A504	16	16	32	24'-2"	807	ST.
	A801	59	59	117	3'-6"	1096	9
A801 (SUMMARY):	A801	236	236	471		4405	



TYPE 2

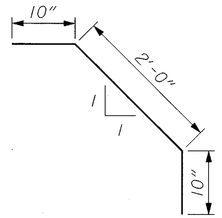


TYPE 4



TYPE 5

SUPERSTRUCTURE REINFORCING LIST UNI-33-9.22 L/R								
MARK	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS INC.
S501	308	30'-0"	9637	ST.				
S502	323	7'-1"	2386	2	0'-8"	3'-3"	3'-0"	
S601	323	2'-6"	1295	5	0'-11"	1'-9"		
S602	323	3'-2"	1538	4	0'-11"	0'-11	0'-9"	
S603	24	35'-0"	1262	ST.				



TYPE 9

SUPERSTRUCTURE REINFORCING LIST UNI-33-11.56 L/R										
MARK	NUMBER BOT.	NUMBER TOP	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS INC.
S501	588	854	1442	28'-1"	42238	ST.				
S502	804	804	1608	19'-9"	33124	ST.				
S503		176	176	28'-0"	5140	ST.				
S504		300	300	7'-1"	2190	2	0'-8"	3'-3"	3'-0"	
S505	804	804	1608	19'-11"	33403					
S601		300	300	2'-7"	808	5	0'-11"	1'-9"		
S602		300	300	3'-2"	992	4	0'-11"	0'-11	0'-9"	
S603		28	28	28'-5"	830	ST.				

NOTES:

ALL BARS ARE TO BE EPOXY COATED REINFORCING BARS AS PER CMS 509.

THIS LIST IS FOR THE CONTRACTOR'S INFORMATION ONLY. ALL REINFORCING IS INCLUDED IN THE APPROPRIATE CONCRETE ITEM FOR PAYMENT.

DESIGN AGENCY: DISTRICT SIX PRODUCTION
DATE: REVIEWED D.P.P. 1-24-00
DRAWN: T.G.M. REVISED
DESIGNED: T.G.M. CHECKED: D.P.P.
STRUCTURE FILE NUMBER

PARAPET REINFORCING STEEL LIST SUMMARY CONT'D
UNI-33- 0922 L/R, 1150 L/R, 1156 L/R & 1219 L/R

UNI-33-8.74

30/30

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