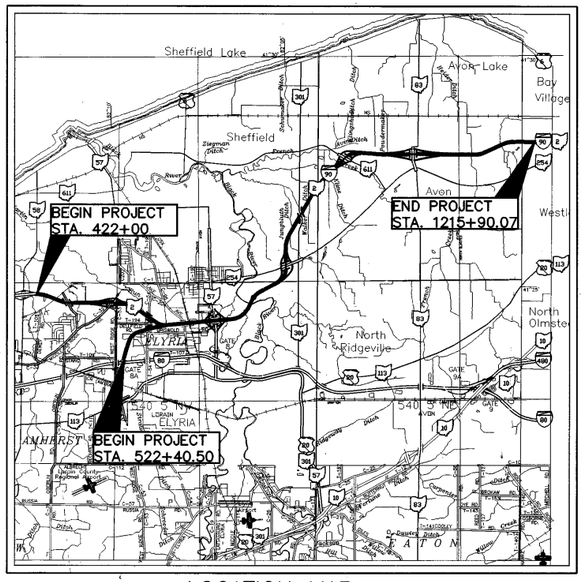


LOCATION MAP

SCALE IN MILES

0 2 4 6 8

PORTION TO BE IMPROVED

STATE & FEDERAL ROUTES

OTHER ROADS

PROJECT LOCATION

LATITUDE 41°27'50" LONGITUDE 82°00'00"

DESIGN EXCEPTIONS

NONE REQUIRED

DESIGN DESIGNATION

SEE SCHEMATIC PLAN

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

ENGINEERS SEAL:

STATE OF OHIO
DAVID J. MEGLICKI
E-46022
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 2-16-00

SE JOHNSON

PLAN PREPARED BY:

REW R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
THREE KING JAMES PARK · SUITE 300
24600 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

LOR - 90 - 10.76

CITY OF AMHERST
CITY OF AVON
CITY ELYRIA
VILLAGE OF SHEFFIELD
AMHERST TOWNSHIP
ELYRIA TOWNSHIP

INDEX OF SHEETS:

PROJECT DESCRIPTION

PART A

RESURFACING AND GUARDRAIL REPLACEMENT OF S.R. 2 AND I-90 INCLUDING INTERCHANGE RAMPS AT S.R. 2 AND MIDDLE RIDGE RD., I-90 AND S.R. 57, AND I-90 AND S.R. 254.

PART B

WIDENING AND RECONSTRUCTION OF FRENCH CREEK BRIDGE.

PART C

WIDENING AND RECONSTRUCTION OF I-90 FROM FRENCH CREEK TO STA. 1018+00, INCLUDING PAVEMENT RESURFACING OF ALL INTERCHANGE RAMPS, RECONSTRUCTING THE EXISTING PAVEMENT AND EXISTING SHOULDER IN THE ADJACENT WIDENING PROJECT TO THE EAST, AND THE REMOVAL AND REPLACEMENT OF ALL R/W FENCING FROM FRENCH CREEK TO THE CUYAHOGA COUNTY LINE.

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 REVISED CODE OF OHIO.

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.

MAINTENANCE OF TRAFFIC ENDORSEMENT

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.

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISIONS

WATERWAY PERMIT NWP #3 & #14 DATE: 2/14/00

STANDARD CONSTRUCTION DRAWINGS

BP-2.2	07-28-00	FLT-M	04-16-98	GR-4.3M	10-21-97	TC-12.30	01-19-01	MT-95.30M	04-25-94	SS 816	04-21-97
BP-2.3	07-28-00			GR-4.4M	11-30-94	TC-21.20	01-19-01	MT-95.40M	04-25-94	SS 842	01-06-99
BP-2.4	07-28-00	F-2.1	04-08-97	GR-5.1M	04-21-95	TC-31.21	04-20-01	MT-98.12M	06-24-93	SS 863	10-12-99
BP-3.1	07-28-00	F-3.1	04-21-95	GR-5.2M	11-30-94	TC-41.10	01-19-01	MT-98.13M	06-24-93	SS 865	02-22-00
BP-5.1	07-28-00	F-3.2	04-08-97	GR-5.3M	11-30-94	TC-42.20	04-20-01	MT-98.14M	06-24-93	SS 904	05-05-98
BP-9.1	07-28-00	F-3.3	04-21-95	GR-6.1M	01-03-96	TC-61.10	01-19-01	MT-98.15M	06-24-93	SS 904	05-05-98
		F-3.4	04-08-97	GR-6.2M	01-03-96			MT-98.16M	06-24-93	SS 910	07-28-98
CB-2.2M	07-12-95					TBR-91M	12-19-94	MT-98.17M	04-25-94	SS 911	07-10-97
CB-3.1M	07-12-95	GR-1.1M	10-21-97	HW-2.1M	07-12-95			MT-98.18M	04-25-94		
		GR-1.2M	01-03-96			SBR-1-99	01-12-99	MT-99.10M	01-30-95		
DM-1.1M	10-21-97	GR-1.3M	11-30-94	RM-1.1	04-29-99			MT-99.20M	01-30-95		
DM-4.1M	06-30-95	GR-2.1M	04-14-98					MT-102.10M	01-30-95		
DM-4.2M	06-30-95	GR-3.1M	10-21-97	SKT-4M	12-11-97			MT-105.10M	04-25-94		
DM-4.3	04-29-99	GR-3.2M	10-21-97					MT-105.11M	04-25-94		
DM-4.4	04-29-99	GR-3.3M	10-21-97	AS 8A-2	08-15-77						
		GR-4.2M	10-21-97								

SUPPLEMENTAL SPECIFICATIONS		SUPPLEMENTAL SPECIFICATIONS	
		SS 265M	06-20-97
		SS 425M	06-21-97
		SS 806	09-09-97
		SS 814	06-02-98
		SS 830	10-21-98
		SS 855	06-30-98
		SS 870	08-10-99
		SS 877	04-13-99
		SS 880	11-07-00
		SS 899	10-21-98
		SS 905	04-01-98
		SS 906	05-05-98
		SS 907	10-21-98
		SS 908	11-07-00
		SS 932	10-02-96

FEDERAL PROJECT NO. TE21G000(112)

PID NO. 17891

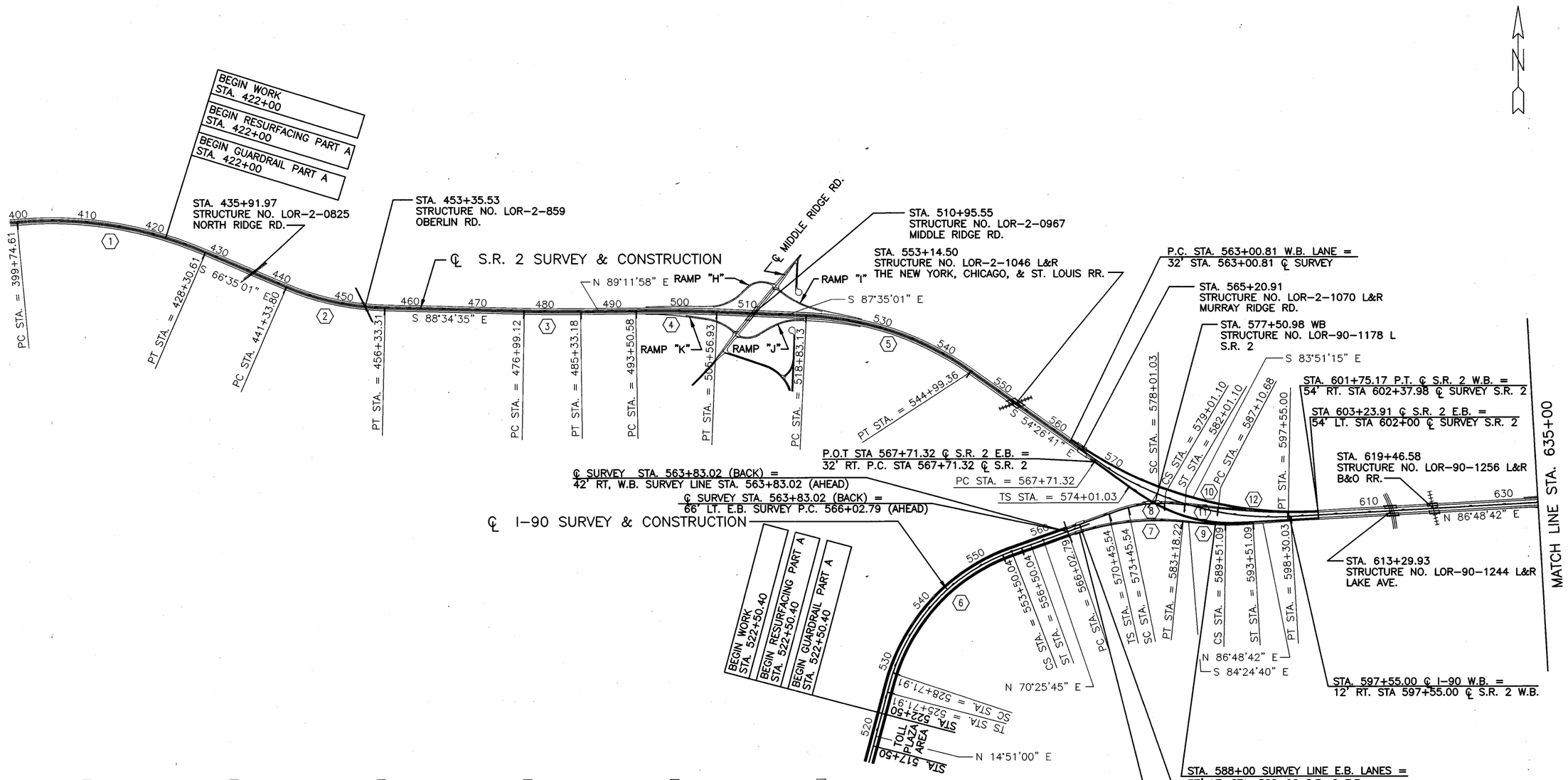
CONSTRUCTION PROJECT NO. 3015 - 00

RAILROAD INVOLVEMENT NONE

LOR - 190 - 10.76

1 / 274

[D:\93600\DWGS\93STITLE.DWG] DLS
02-22-2002 2:34PM



CURVE DATA ⟨1⟩
P.I. STA. 414+32.93
Δ = 28°33'36" RT.
D = 1°00'00"
R = 5729.58'
T = 1458.32'
L = 2856.00'
E = 182.68'
e_{max} = 0.036

CURVE DATA ⟨2⟩
P.I. STA. 448+92.90
Δ = 21°59'34" LT.
D = 1°28'00"
R = 3906.53'
T = 759.10'
L = 1499.51'
E = 73.07'
e_{max} = 0.051

CURVE DATA ⟨3⟩
P.I. STA. 481+16.20
Δ = 2°13'27" LT.
D = 0°16'00"
R = 21,485.92'
T = 417.08'
L = 834.06'
E = 4.04'
e_{max} = 0.001

CURVE DATA ⟨4⟩
P.I. STA. 499+53.92
Δ = 3°13'01" RT.
D = 0°16'00"
R = 21,485.92'
T = 603.34'
L = 1206.35'
E = 8.47'
e_{max} = 0.001

CURVE DATA ⟨5⟩
P.I. STA. 532+28.96
Δ = 33°08'20" RT.
D = 1°16'00"
R = 4523.35'
T = 1345.84'
L = 2616.23'
E = 195.97'
e_{max} = 0.045

CURVE DATA ⟨6⟩
CENTER LINE SURVEY
P.I. STA. 542+31.82
Δ = 55°33'45" RT.
Δc = 49°33'45"
Dc = 2°00'00"
R = 2864.79'
T = 1659.91'
L = 300.00'
Lc = 2478.13'
E = 374.72'
θ_S = 3°00'00"
e_{max} = 0.066

CURVE DATA ⟨7⟩
SURVEY LINE E.B. LANES
P.I. STA. 574+74.56
Δ = 25°09'35" RT.
Dc = 1°28'00"
R = 3906.53'
T = 871.77'
L = 1715.43'
E = 96.09'
e_{max} = 0.051

CURVE DATA ⟨8⟩
SURVEY LINE W.B. LANES
P.I. STA. 576+31.04
Δ = 25°40'00" RT.
Δc = 16°40'00"
Dc = 3°00'00"
R = 1909.86'
T_S = 585.495'
L_S = 300.00'
Lc = 555.56'
E_S = 50.94'
θ_S = 4°30'00"
e_{max} = 0.083

CURVE DATA ⟨9⟩
℄ E.B. LANES S.R. 2
P.I. STA. 584+08.14
Δ = 38°44'37" LT.
Dc = 2°30'00"
R = 2291.83'
T_S = 1006.79'
L_S = 400.00'
E_S = 140.59'
e_{max} = 0.077

CURVE DATA ⟨10⟩
℄ W.B. LANES S.R. 2
P.I. STA. 583+15.34
Δ = 38°44'37" LT.
Dc = 1°00'00"
R = 5729.58'
T = 2014.53'
Lc = 3874.36'
E = 343.84'
e_{max} = 0.036

CURVE DATA ⟨11⟩
℄ SURVEY EB LANES S.R. 2
P.I. STA. 583+61.74
Δ = 38°44'37" LT.
D = 1°16'00"
R = 4523.35'
T = 1590.42'
L = 3058.71'
E = 271.45'
e_{max} = 0.045

CURVE DATA ⟨12⟩
SURVEY LINE W.B. LANES
P.I. STA. 592+31.18
Δ = 5°12'05" LT.
Dc = 0°30'00"
R = 11,459.16'
T = 520.50'
L = 1040.28'
E = 11.82'
e_{max} = 0.019

HORIZONTAL SCALE IN FEET
0 800' 1600'

CALCULATED DLS
CHECKED LAB

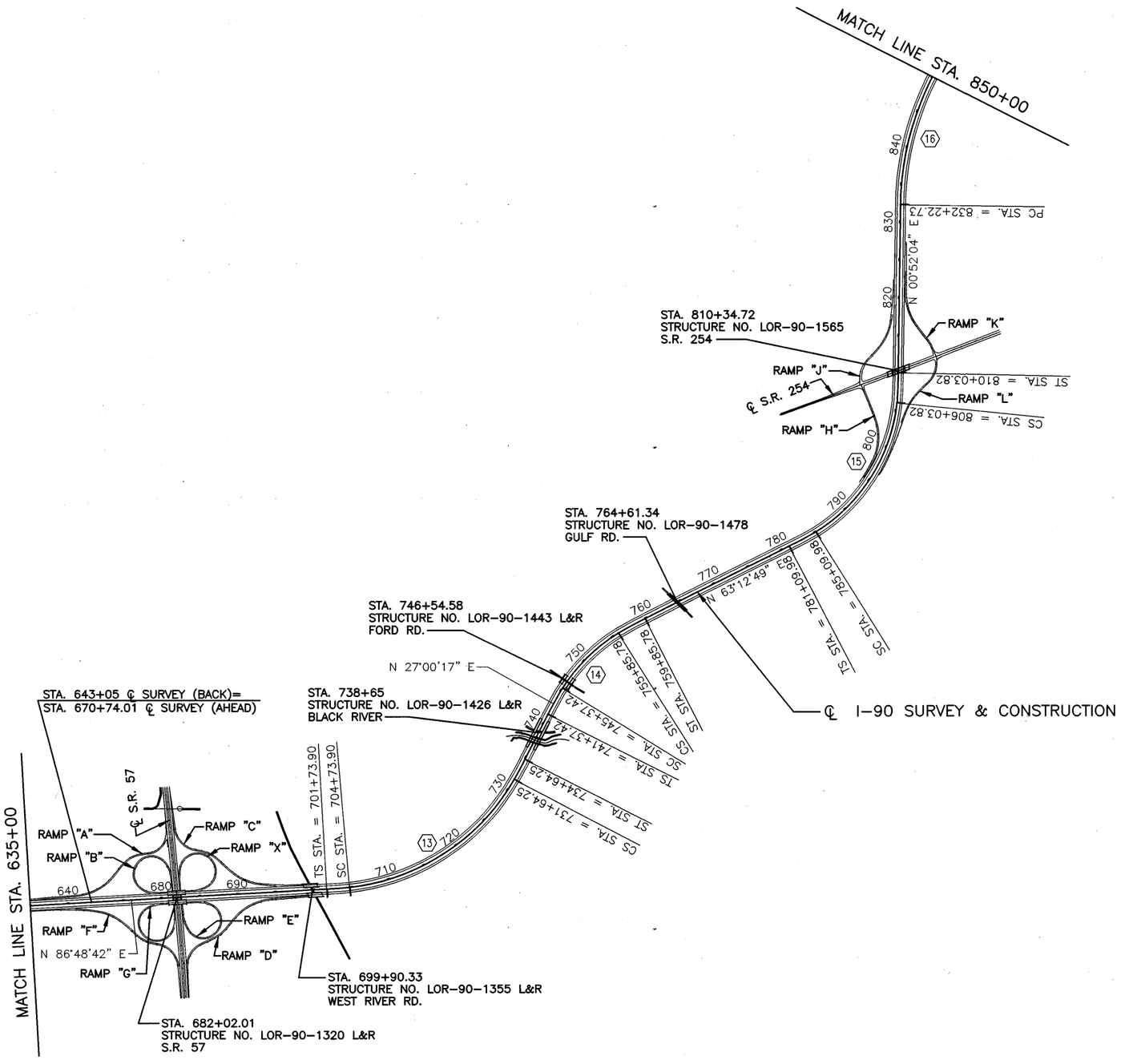
SCHEMATIC PLAN
I-90 STA. 522+50 TO STA. 635+00
LOR - I90 - 10.76

CURVE DATA (13)
P.I. STA. 719+72.20
Δ = 59°48'25"
D_C = 2°00'00"
R_C = 2864.79'
T_S = 1798.30'
L_C = 2690.35'
L_S = 300.00'
E_S = 441.47'
θ_S = 3°00'00"
L.T. = 200.03'
S.T. = 100.03'
e_{max}= 0.066

CURVE DATA (14)
P.I. STA. 750+87.60
Δ = 36°12'32"
D_C = 2°30'00"
R_C = 2291.83'
T_S = 950.18'
L_C = 1048.36'
L_S = 400.00'
E_S = 122.44'
θ_S = 5°00'00"
L.T. = 266.77'
S.T. = 133.43'
e_{max}= 0.077

CURVE DATA (15)
P.I. STA. 796+98.20
Δ = 62°20'45"
D_C = 2°30'00"
R_C = 2291.83'
T_S = 1588.21'
L_C = 2093.83'
L_S = 400.00'
E_S = 390.16'
θ_S = 5°00'00"
L.T. = 266.77'
S.T. = 133.43'
e_{max}= 0.077

CURVE DATA (16)
P.I. STA. 842+77.91
Δ = 30°13'50"
D = 1°28'00"
R = 3906.53'
T = 1055.18'
L = 2061.17'
E = 140.00'
e_{max}= 0.051



HORIZONTAL SCALE IN FEET
0 800' 1600'

CALCULATED DLS | CHECKED LAB

SCHEMATIC PLAN
STA. 635+00 TO STA. 850+00

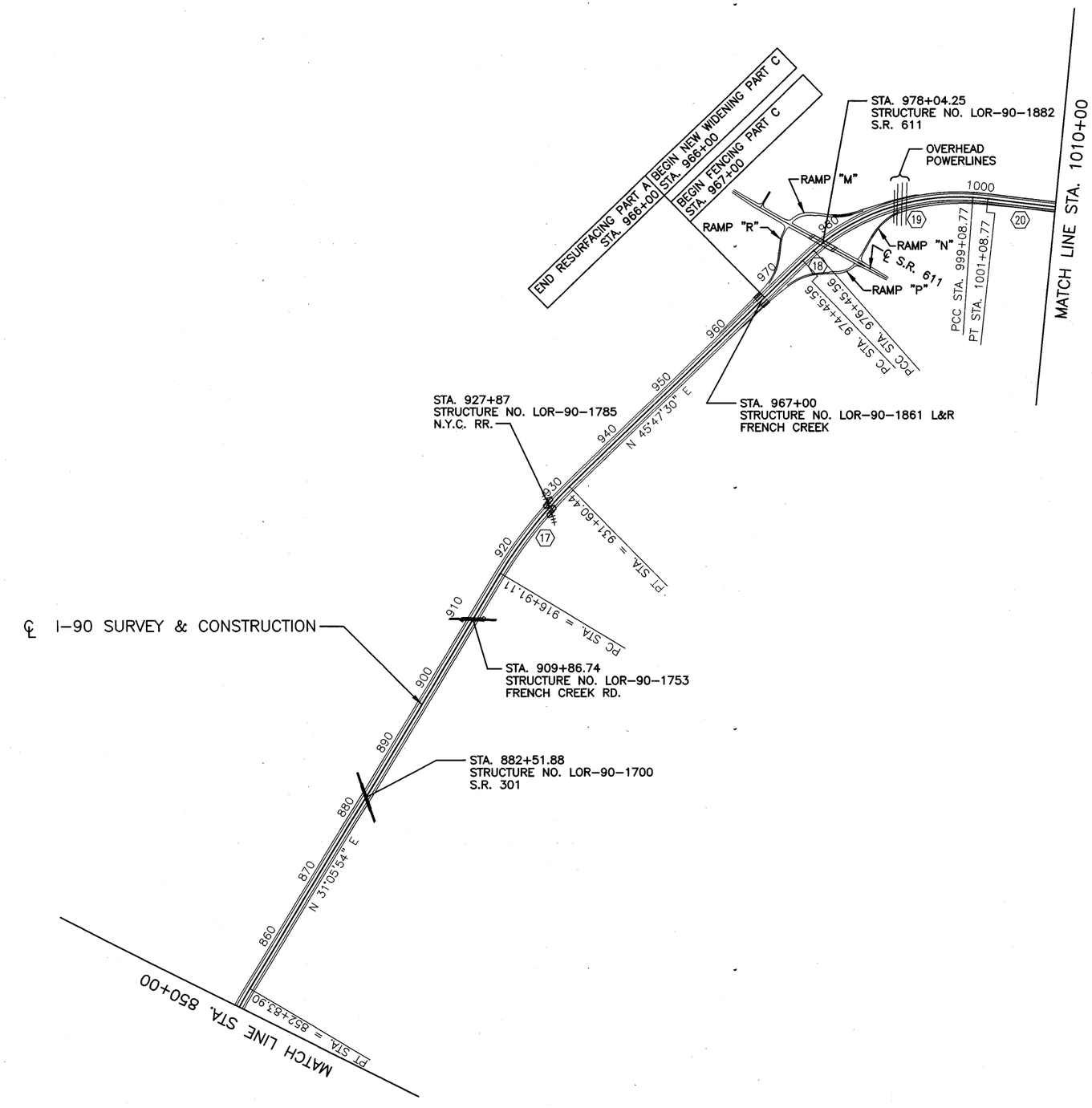
LOR - I90 - 10.76

CURVE DATA (17)
P.I. STA. 924+29.83
Δ = 14°41'36"
Dc = 1°00'00"
R = 5729.58'
T = 738.72'
L = 1469.33'
E = 47.43'
e_{max} = 0.036

CURVE DATA (18)
P.I. STA. 975+45.59
Δ = 3°00'00"
Dc = 1°30'00"
R = 3819.72'
T = 100.03'
L = 200.00'
E = 1.31'
e_{max} = 0.052

CURVE DATA (19)
P.I. STA. 988+39.94
Δ = 45°15'51"
Dc = 2°00'00"
R = 2864.79'
T = 1194.38'
L = 2263.21'
E = 239.01'
e_{max} = 0.066

CURVE DATA (20)
P.I. STA. 1000+08.80
Δ = 3°00'00"
Dc = 1°30'00"
R = 3819.72'
T = 100.023'
L = 200.00'
E = 1.31'
e_{max} = 0.052



DESIGN DESIGNATION

CURRENT ADT (2001)	50210
DESIGN YEAR ADT (2021)	72640
K	0.10
D	0.60
T24	0.175
TC	0.105
DESIGN SPEED	70 MPH

HORIZONTAL SCALE IN FEET
0 800' 1600'

CALCULATED DLS
CHECKED LAB

SCHEMATIC PLAN
STA. 850+00 TO STA. 1010+00

LOR - I90 - 10.76

4
274

C:\936600\DWGS\936609PNL\S-03.DWG] NJW
2-18-2002 7:40AM

CURVE DATA (21)
P.I. STA. 1022+54.08
Δ = 5°40'38"
D_C = 0°28'00"
R = 12,277.67'
T = 608.77'
L = 1216.55'
E = 15.08'
e_{max} = 0.016

END NEW WIDENING PART C STA. 1017+70.18 EB STA. 1018+00 WB

BEGIN RECONSTRUCTION OF PREVIOUSLY WIDENED SECTION PART C STA. 1017+70.18 EB STA. 1018+00 WB

MATCH LINE STA. 1010+00

END RECONSTRUCTION OF PREVIOUSLY WIDENED SECTION PART C STA. 1035+00

S 82°56'39" E

(21)

1020 1030 1040 1050 1060 1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210

S 88°37'17" E

S 87°45'40" E

N 67°03'42" E

S 88°12'43" E

PC STA. = 1016+45.31

PT STA. = 1028+61.85

℄ S.R. 83

STA. 1068+91.63
STRUCTURE NO. LOR-83-183 L&R
S.R. 83

PC STA. = 1086+23.77

PT STA. = 1092+68.98

℄ I-90 SURVEY & CONSTRUCTION

STA. 1129+40.29
STRUCTURE NO. LOR-90-2169
JAYCOX RD.

PC STA. = 1147+68.98

STA. 1159+52.62
STRUCTURE NO. LOR-90-2226
LEAR-NAGLE RD.

PT STA. = 1164+85.23

PC STA. = 1188+29.54

PT STA. = 1205+15.43

END PROJECT STA. 1215+90.07

END FENCING PART C STA. 1215+90.07

HORIZONTAL SCALE IN FEET
0 800' 1600'

CALCULATED DLS
CHECKED LAB

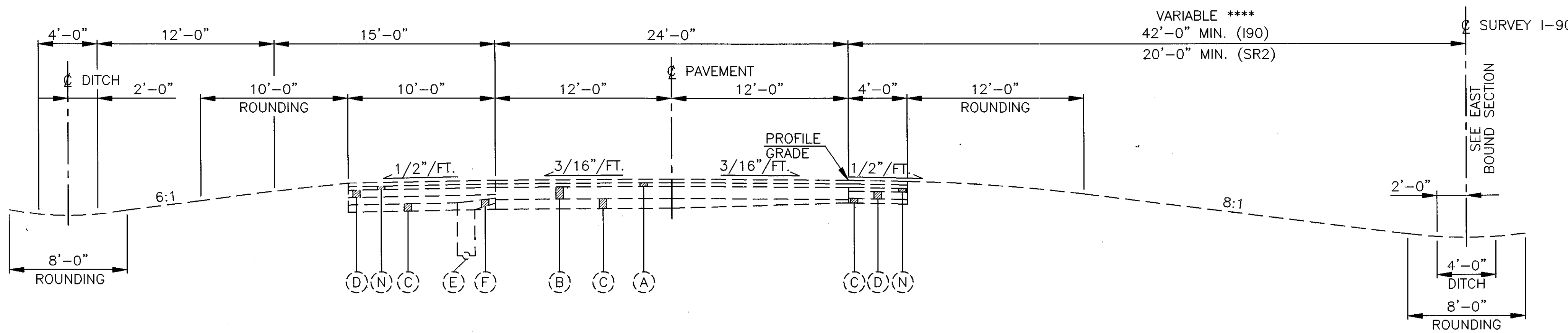
SCHEMATIC PLAN
STA. 1010+00 TO STA. 1215+90.07

LOR - I90 - 10.76

G:\93600\DWGS\93600FNL\S-04.DWG] NJW
2-18-2002 7:41AM

EXISTING NORMAL TYPICAL SECTIONS – I.R. 90 & S.R. 2 – E.B. & W.B.

(WITH EXISTING OVERLAY)



EXISTING NORMAL SECTION (WESTBOUND)

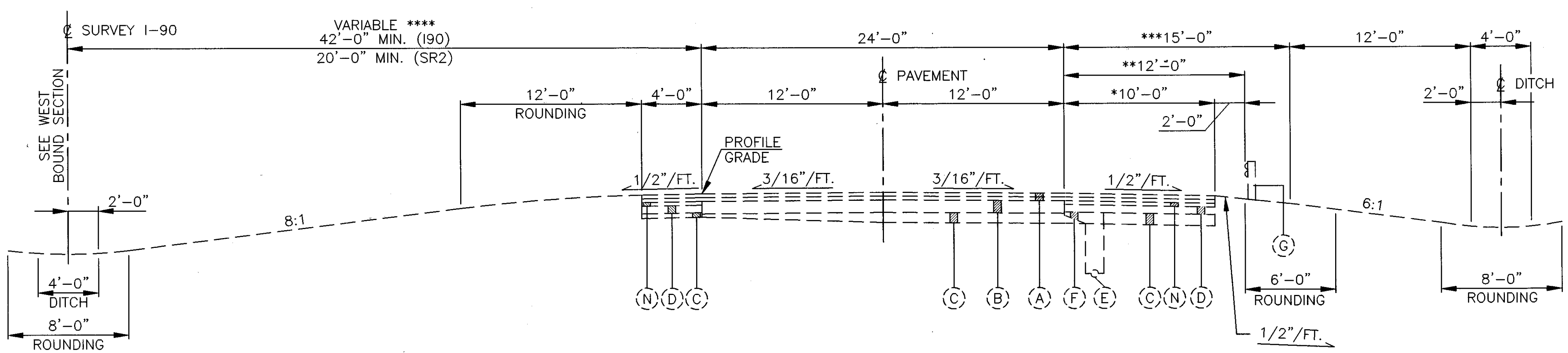
STA. 429+75 (SR2) TO STA. 439+50 (SR2) (20'-0" MEDIAN)
STA. 458+25 (SR2) TO STA. 517+25 (SR2) (20'-0" MEDIAN)
STA. 546+75 (SR2) TO STA. 561+50 (SR2) (20'-0" MEDIAN)
STA. 522+50.40 (I90) TO STA. 570+01.54 (I90)
STA. 582+45.10 (I90) TO STA. 585+58.69 (I90)
STA. 603+87.81 TO STA. 643+05 BACK (EQUATION) = STA. 670+74.01 AHEAD

LEGEND

- (A) 3 1/4" ASPHALT CONCRETE OVERLAY
- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (N) 3" ASPHALT CONCRETE BASE

NOTES:

* 8'-0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
8'-0" TO 10'-0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
** 10'-0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
10'-0" TO STA. 12'-0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
*** 12'-0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
12'-0" TO 15'-0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
**** 20'-0" STA. 422+00 (SR2) TO 579+00 (SR2)
42'-0" STA. 602+37.98 (SR2) TO STA. 960+00 (SR2)



EXISTING NORMAL SECTION (EASTBOUND)

STA. 429+75 (SR2) TO STA. 439+50 (SR2) (20'-0" MEDIAN)
STA. 458+25 (SR2) TO STA. 517+25 (SR2) (20'-0" MEDIAN)
STA. 546+75 (SR2) TO STA. 573+75 (SR2) (20'-0" MEDIAN)
STA. 593+75 (SR2) TO STA. 603+26.91 BACK (EQUATION) =
STA. 602+37.98 AHEAD ON ℄ SURVEY TO STA. 603+87.81 AHEAD ON ℄ SURVEY
STA. 603+87.81 TO STA. 643+05 BACK (EQUATION) = STA. 670+74.01 AHEAD
STA. 522+50.40 (I90) TO STA. 560+50 (I90)
STA. 584+30.22 (I90) TO STA. 586+08 (I90)
STA. 593+00 (I90) TO STA. 600+00 (I90)

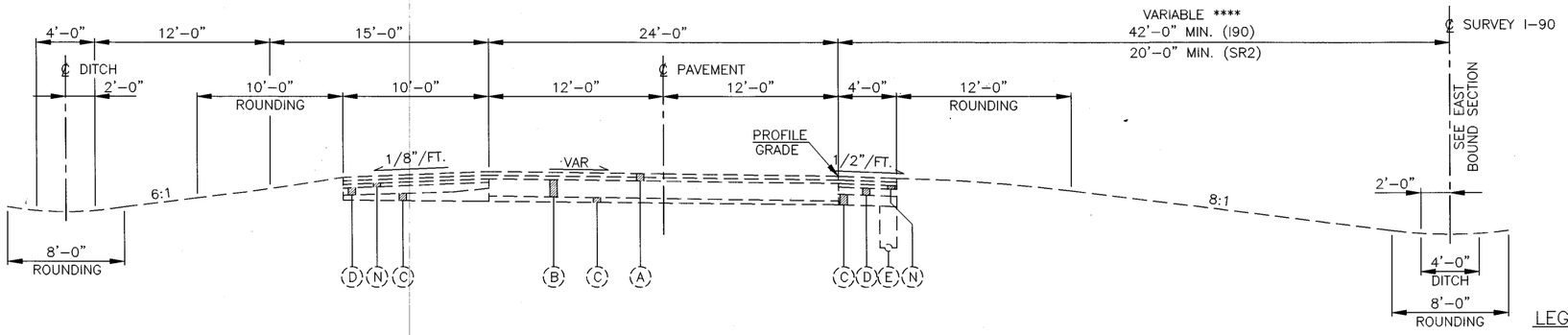
CALCULATED DLS CHECKED LAB

EXISTING, E.B & W.B., NORMAL TYPICAL SECTIONS - I.R. 90

LOR - I90 - 10.76

EXISTING SUPERELEVATED TYPICAL SECTIONS – I.R. 90 & S.R. 2 – E.B. & W.B.

(WITH EXISTING OVERLAY)



EXISTING SUPERELEVATED SECTION (WESTBOUND)

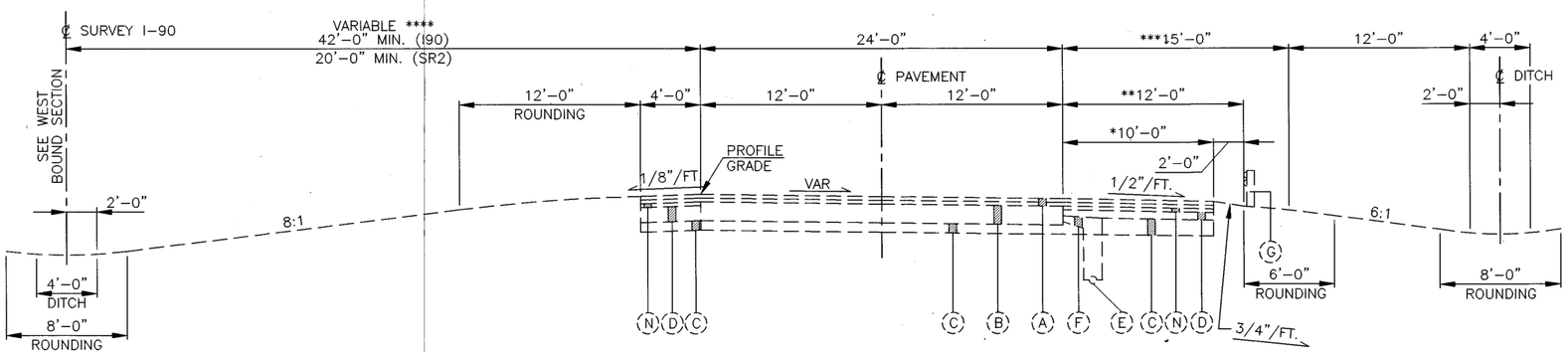
STA. 422+00 (SR2) TO STA. 429+75 (SR2) (20'–0" MEDIAN)
STA. 439+50 (SR2) TO STA. 458+25 (SR2) (20'–0" MEDIAN)
STA. 517+25 (SR2) TO STA. 546+75 (SR2) (20'–0" MEDIAN)
STA. 561+50 (SR2) TO STA. 601+75.17 BACK (EQUATION) =
STA. 602+37.98 AHEAD ON ℄ SURVEY TO STA. 603+87.81 ON ℄ SURVEY
STA. 570+01.54 (I90) TO STA. 582+45.10 (I90)
STA. 585+58.68 (I90) TO STA. 597+55 (I90)

LEGEND

- (A) 3 1/4" ASPHALT CONCRETE OVERLAY
- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (N) 3" ASPHALT CONCRETE BASE

NOTES:

* 8'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
8'–0" TO 10'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
** 10'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
10'–0" TO STA. 12'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
*** 12'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
12'–0" TO 15'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
**** 20'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
42'–0" STA. 602+37.98 (SR2) TO STA. 960+00 (SR2)



EXISTING SUPERELEVATED SECTION (EASTBOUND)

STA. 422+00 (SR2) TO STA. 429+75 (SR2) (20'–0" MEDIAN)
STA. 439+50 (SR2) TO STA. 458+25 (SR2) (20'–0" MEDIAN)
STA. 517+25 (SR2) TO STA. 546+75 (SR2) (20'–0" MEDIAN)
STA. 573+75 (SR2) TO STA. 593+75 (SR2)
STA. 560+50 (I90) TO STA. 584+30.22 (I90)
STA. 586+08 (I90) TO STA. 593+00 (I90)

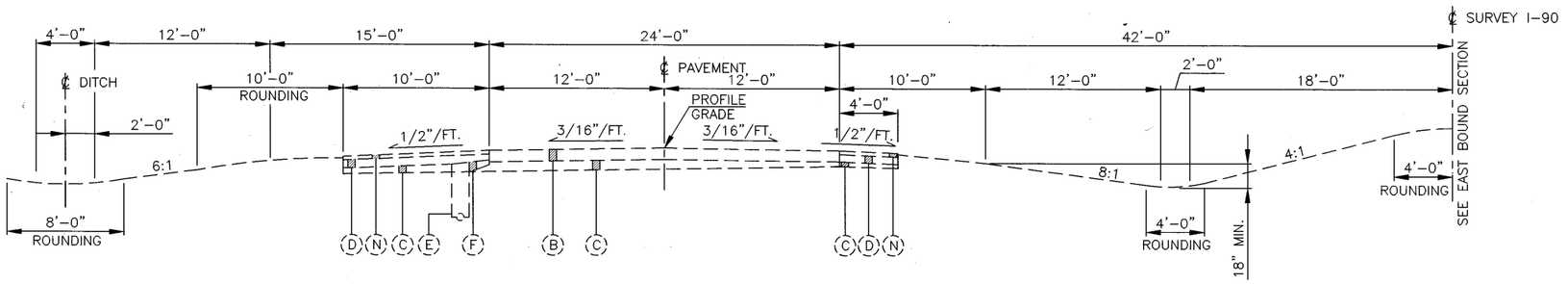
CALCULATED DLS | CHECKED LAB

EXISTING, E.B. & W.B., SUPERELEVATED TYPICAL SECTIONS - I.R. 90

LOR - I90 - 10.76

EXISTING NORMAL TYPICAL SECTIONS – I.R. 90 & – E.B. & W.B.

(WITHOUT EXISTING OVERLAY)

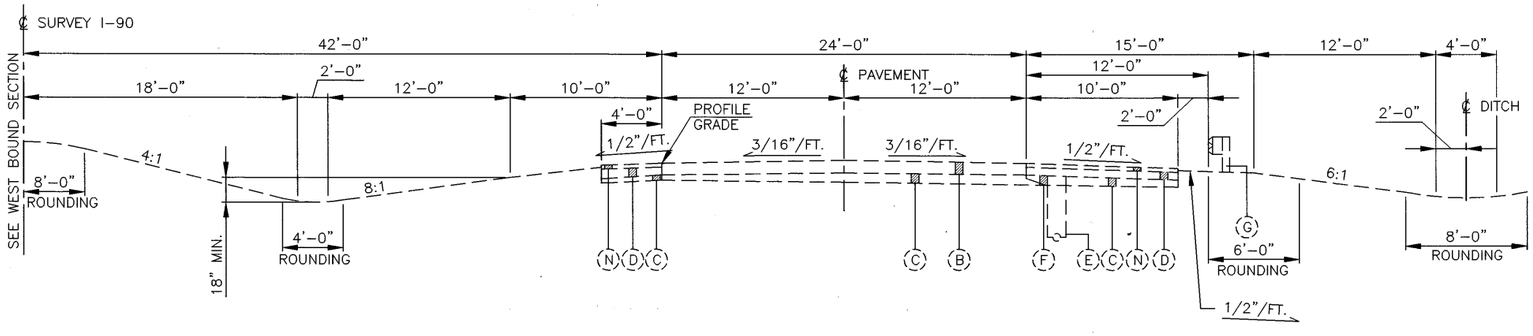


EXISTING NORMAL SECTION (WESTBOUND)

STA. 670+74.01 TO STA. 701+40.00
STA. 735+39.29 TO STA. 740+62.42
STA. 760+60.78 TO STA. 780+34.99
STA. 810+78.82 TO STA. 830+51.48
STA. 854+55.15 TO STA. 915+57.86
STA. 932+93.69 TO STA. 966+00.00 (MATCH RECONSTRUCTED SECTION)

EXISTING LEGEND

(B) 10" REINFORCED CONCRETE PAVEMENT
(C) VARIABLE THICKNESS SUBBASE
(D) 6" AGGREGATE BASE
(E) 6" PIPE UNDERDRAIN
(F) SPECIAL DRAINAGE CONNECTION
(G) GUARDRAIL, TYPE 5
(N) 3" ASPHALT BASE



EXISTING NORMAL SECTION (EASTBOUND)

STA. 670+74.01 TO STA. 701+40.00
STA. 735+39.29 TO STA. 740+62.42
STA. 760+60.78 TO STA. 780+34.99
STA. 810+78.82 TO STA. 830+51.48
STA. 854+55.15 TO STA. 915+57.86
STA. 932+93.69 TO STA. 966+00.00 (MATCH RECONSTRUCTED SECTION)

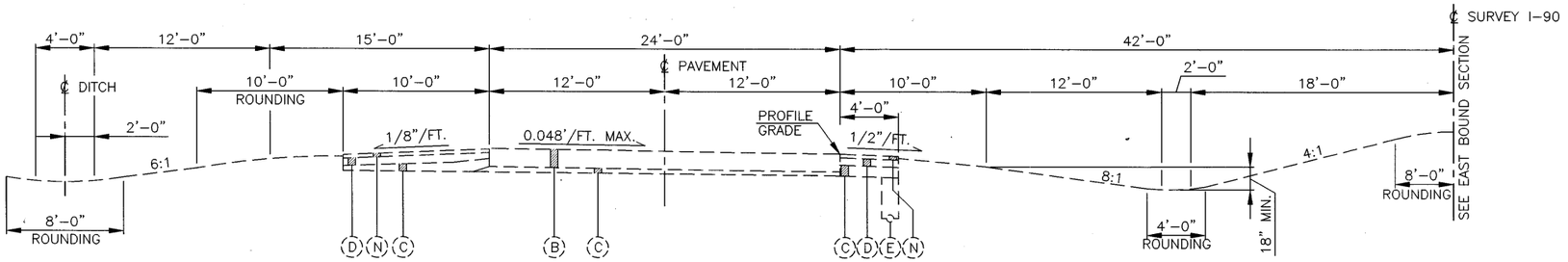
CALCULATED DLS | CHECKED LAB

EXISTING, E.B & W.B., NORMAL TYPICAL SECTIONS - I.R. 90

LOR - I90 - 10.76

EXISTING SUPERELEVATED TYPICAL SECTIONS – I.R. 90 – E.B. & W.B.

(WITHOUT EXISTING OVERLAY)



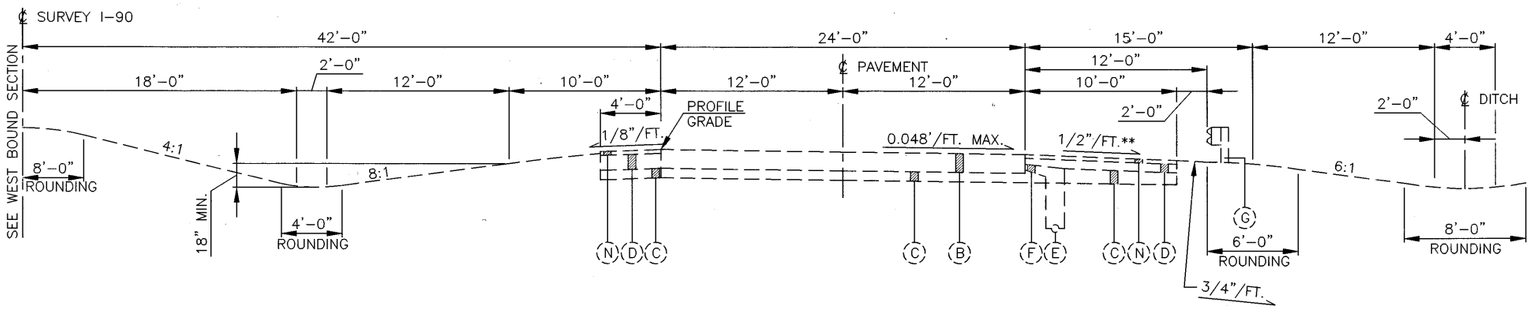
EXISTING SUPERELEVATED SECTION (WESTBOUND)

STA. 701+40.00 TO STA. 735+39.25
STA. 740+62.42 TO STA. 760+60.78
STA. 780+34.99 TO STA. 810+78.82
STA. 830+51.48 TO STA. 854+55.15
STA. 915+57.86 TO STA. 932+93.69

EXISTING LEGEND

- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (N) 3" ASPHALT BASE

** OR RATE OF SUPER IF GREATER



EXISTING SUPERELEVATED SECTION (EASTBOUND)

STA. 701+40.00 TO STA. 735+39.25
STA. 740+62.42 TO STA. 760+60.78
STA. 780+34.99 TO STA. 810+78.82
STA. 830+51.48 TO STA. 854+55.15
STA. 915+57.86 TO STA. 932+93.69

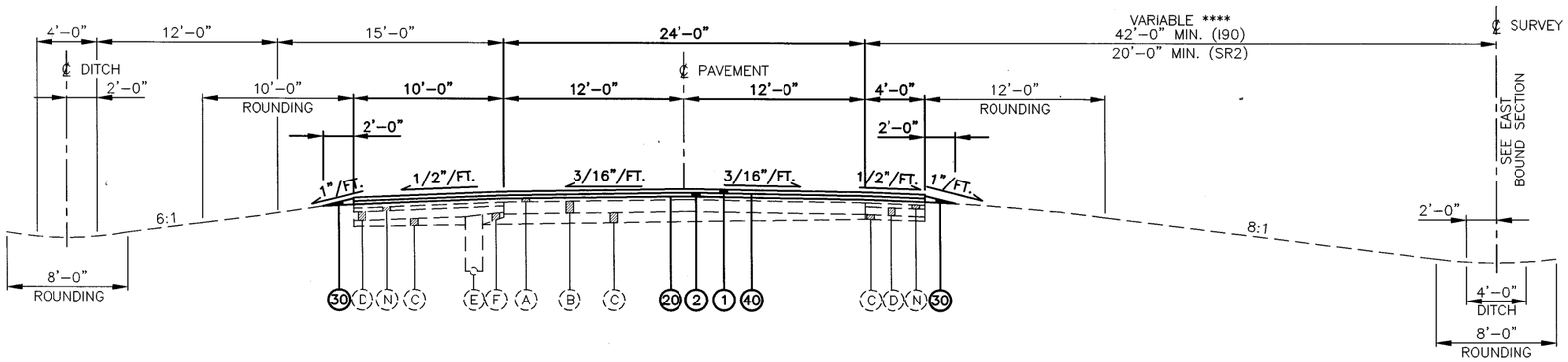
CALCULATED DLS | CHECKED LAB

EXISTING, E.B. & W.B., SUPERELEVATED TYPICAL SECTIONS - I.R. 90

LOR - I90 - 10.76

PROPOSED NORMAL TYPICAL SECTIONS – I.R. 90 & S.R. 2 – E.B. & W.B.

(WITH EXISTING OVERLAY)



NORMAL SECTION (WESTBOUND) – I.R. 90 & S.R. 2

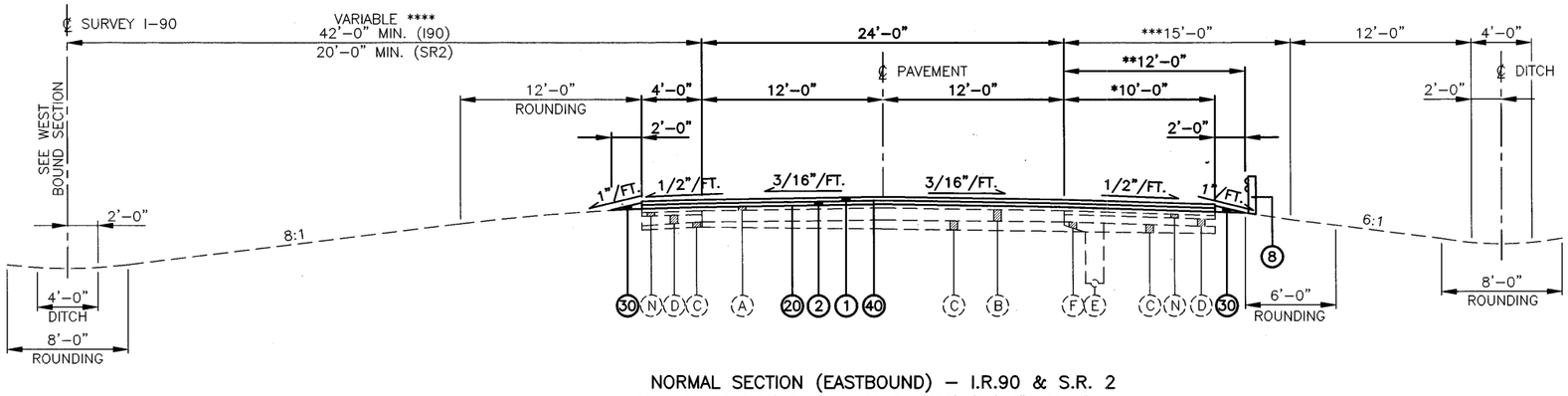
STA. 429+75 (SR2) TO STA. 439+50 (SR2) (20'–0" MEDIAN)
STA. 458+25 (SR2) TO STA. 517+25 (SR2) (20'–0" MEDIAN)
STA. 546+75 (SR2) TO STA. 561+50 (SR2) (20'–0" MEDIAN)
STA. 522+50.40 (I90) TO STA. 570+01.54 (I90)
STA. 582+45.10 (I90) TO STA. 585+58.69 (I90)
STA. 603+87.81 TO STA. 643+05 BACK (EQUATION) = STA. 670+74.01 AHEAD

LEGEND

- (1) ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE TYPE 1H, PG 70–22
- (2) ITEM 446 – 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG 64–28
- (8) ITEM 606 – GUARDRAIL TYPE 5
- (20) ITEM 407 – TACK COAT (SEE GENERAL NOTE)
- (30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
- (40) ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)
- (A) 3 1/4" ASPHALT CONCRETE OVERLAY
- (B) 10" REINFORCED CONCRETE PAVEMENT
- OR (J) 15" CONCRETE APPROACH SLAB
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (N) 3" ASHPHALT BASE

NOTES:

* 8'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
8'–0" TO 10'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
** 10'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
10'–0" TO STA. 12'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
*** 12'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
12'–0" TO 15'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)
**** 20'–0" STA. 422+00 (SR2) TO 579+00 (SR2)
42'–0" STA. 602+37.98 (SR2) TO STA. 960+00 (SR2)



NORMAL SECTION (EASTBOUND) – I.R.90 & S.R. 2

STA. 429+75 (SR2) TO STA. 439+50 (SR2) (20'–0" MEDIAN)
STA. 458+25 (SR2) TO STA. 517+25 (SR2) (20'–0" MEDIAN)
STA. 546+75 (SR2) TO STA. 573+75 (SR2) (20'–0" MEDIAN)
STA. 593+75 (SR2) TO STA. 603+26.91 BACK (EQUATION) =
STA. 602+37.98 AHEAD ON ℄ SURVEY TO STA. 603+87.81 AHEAD ON ℄ SURVEY
STA. 603+87.81 TO STA. 643+05 BACK (EQUATION) = STA. 670+74.01 AHEAD
STA. 522+50.40 (I90) TO STA. 560+50 (I90)
STA. 584+30.22 (I90) TO STA. 586+08 (I90)
STA. 593+00 (I90) TO STA. 600+00 (I90)

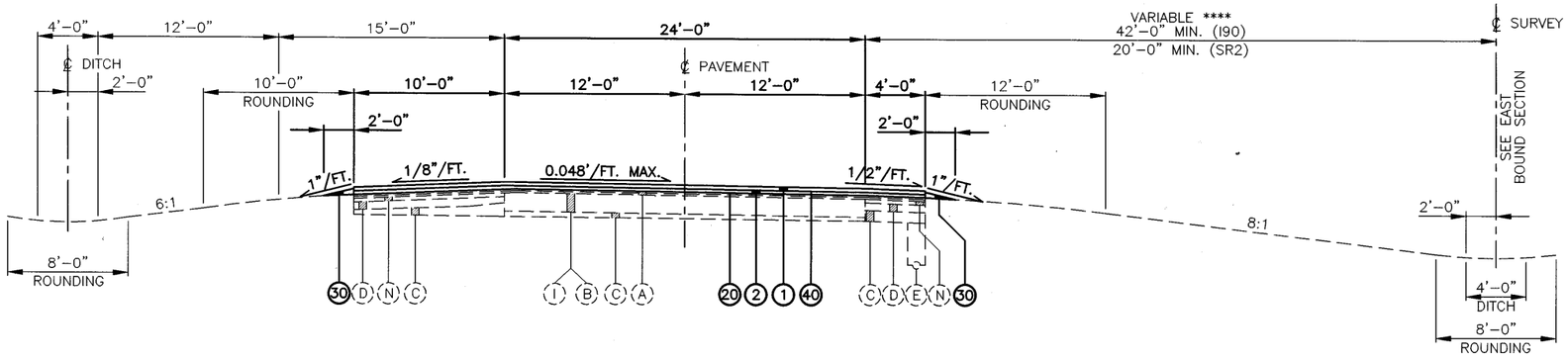
CALCULATED DLS | CHECKED LAB

PROPOSED, E.B. & W.B., NORMAL TYPICAL SECTIONS- I.R. 90 - OVERLAY

LOR - I90 - 10.76

PROPOSED SUPERELEVATED TYPICAL SECTIONS – I.R. 90 & S.R. 2 – E.B. & W.B.

(WITH EXISTING OVERLAY)



SUPERELEVATED SECTION (WESTBOUND) – I.R.90 & S.R. 2

STA. 422+00 (SR2) TO STA. 429+75 (SR2) (20'–0" MEDIAN)
STA. 439+50 (SR2) TO STA. 458+25 (SR2) (20'–0" MEDIAN)
STA. 517+25 (SR2) TO STA. 546+75 (SR2) (20'–0" MEDIAN)
STA. 561+50 (SR2) TO STA. 601+75.17 BACK (EQUATION) =
STA. 602+37.98 AHEAD ON ℄ SURVEY TO STA. 603+87.81 ON ℄ SURVEY
STA. 570+01.54 (I90) TO STA. 582+45.10 (I90)
STA. 585+58.68 (I90) TO STA. 597+55 (I90)

LEGEND

1. ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE TYPE 1H, PG 70–22
2. ITEM 446 – 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG 64–28
8. ITEM 606 – GUARDRAIL TYPE 5
20. ITEM 407 – TACK COAT (SEE GENERAL NOTE)
30. ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
40. ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)
- (A) 3 1/4" ASPHALT CONCRETE OVERLAY
- (B) 10" REINFORCED CONCRETE PAVEMENT
- OR (I) 15" CONCRETE APPROACH SLAB
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (N) 3" ASPHALT CONCRETE

NOTES:

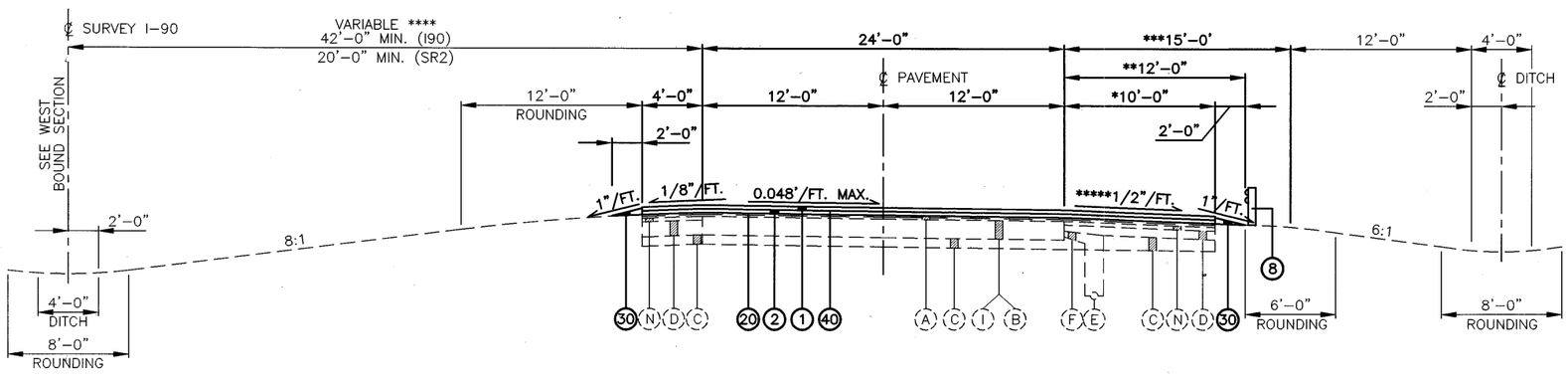
* 8'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
8'–0" TO 10'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)

** 10'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
10'–0" TO STA. 12'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)

*** 12'–0" STA. 422+00 (SR2) TO STA. 579+00 (SR2)
12'–0" TO 15'–0" STA. 579+00 (SR2) TO STA. 580+00 (SR2)

**** 20'–0" STA. 422+00 (SR2) TO 579+00 (SR2)
42'–0" STA. 602+37.98 (SR2) TO STA. 960+00 (SR2)

***** OR RATE OF SUPER IF GREATER



SUPERELEVATED SECTION (EASTBOUND) – I.R.90 & S.R. 2

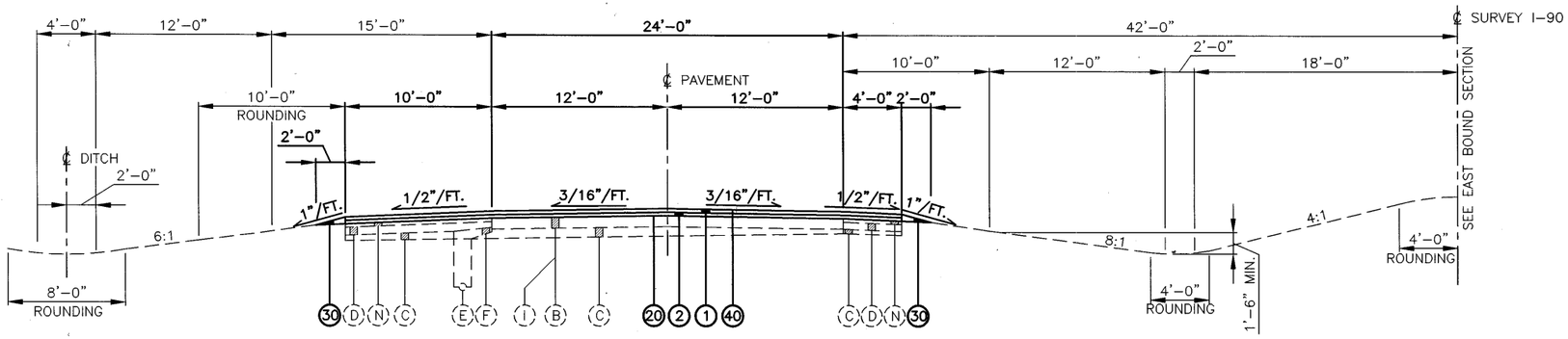
STA. 422+00 (SR2) TO STA. 429+75 (SR2) (20'–0" MEDIAN)
STA. 439+50 (SR2) TO STA. 458+25 (SR2) (20'–0" MEDIAN)
STA. 517+25 (SR2) TO STA. 546+75 (SR2) (20'–0" MEDIAN)
STA. 573+75 (SR2) TO STA. 593+75 (SR2)
STA. 560+50 (I90) TO STA. 584+30.22 (I90)
STA. 586+08 (I90) TO STA. 593+00 (I90)

CALCULATED DLS | CHECKED LAB

PROPOSED, E.B. & W.B., SUPERELEVATED TYPICAL SECTIONS - I.R. 90 - OVERLAY

LOR - I90 - 10.76

PROPOSED NORMAL TYPICAL SECTIONS – I.R. 90 – E.B. & W.B.
(WITHOUT EXISTING OVERLAY)

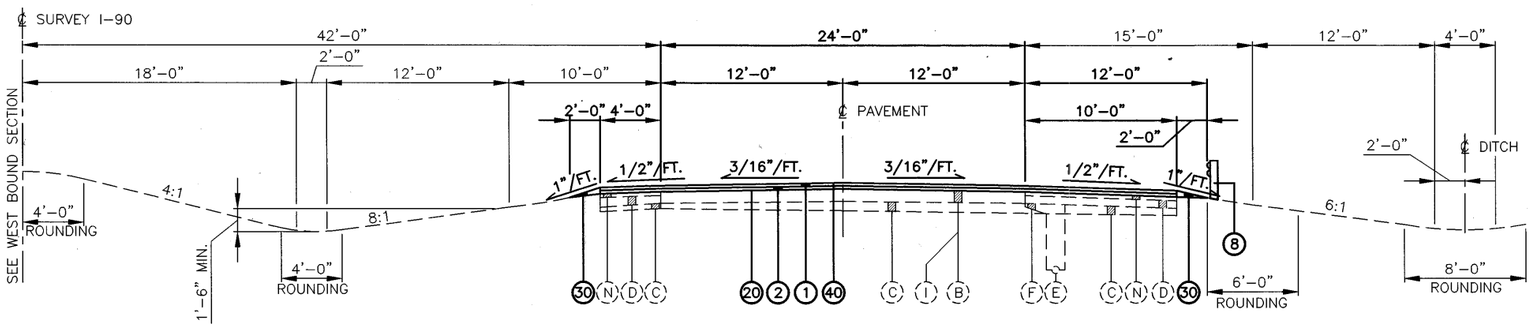


NORMAL SECTION (WESTBOUND) – I.R. 90 & S.R. 2

STA. 670+74.01 TO STA. 701+40.00
STA. 735+39.25 TO STA. 740+62.42
STA. 760+60.78 TO STA. 780+34.99
STA. 810+78.82 TO STA. 830+51.48
STA. 854+55.15 TO STA. 915+57.86
STA. 932+93.69 TO STA. 966+00.00 (MATCH RECONSTRUCTED SECTION)

LEGEND

(1) ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE TYPE 1H, PG 70–22
(2) ITEM 446 – 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64–28
(8) ITEM 606 – GUARDRAIL TYPE 5
(20) ITEM 407 – TACK COAT (SEE GENERAL NOTE)
(30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
(40) ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)
(B) 10" REINFORCED CONCRETE PAVEMENT
OR (I) 15" CONCRETE APPROACH SLAB
(C) VARIABLE THICKNESS SUBBASE
(D) 6" AGGREGATE BASE
(E) 6" PIPE UNDERDRAIN
(F) SPECIAL DRAINAGE CONNECTION
(G) GUARDRAIL, TYPE 5
(N) 3" ASPHALT CONCRETE BASE



NORMAL SECTION (EASTBOUND) – I.R.90 & S.R. 2

STA. 670+74.01 TO STA. 701+40.00
STA. 735+39.25 TO STA. 740+62.42
STA. 760+60.78 TO STA. 780+34.99
STA. 810+78.82 TO STA. 830+51.48
STA. 854+55.15 TO STA. 915+57.86
STA. 932+93.69 TO STA. 966+00.00 (MATCH RECONSTRUCTED SECTION)

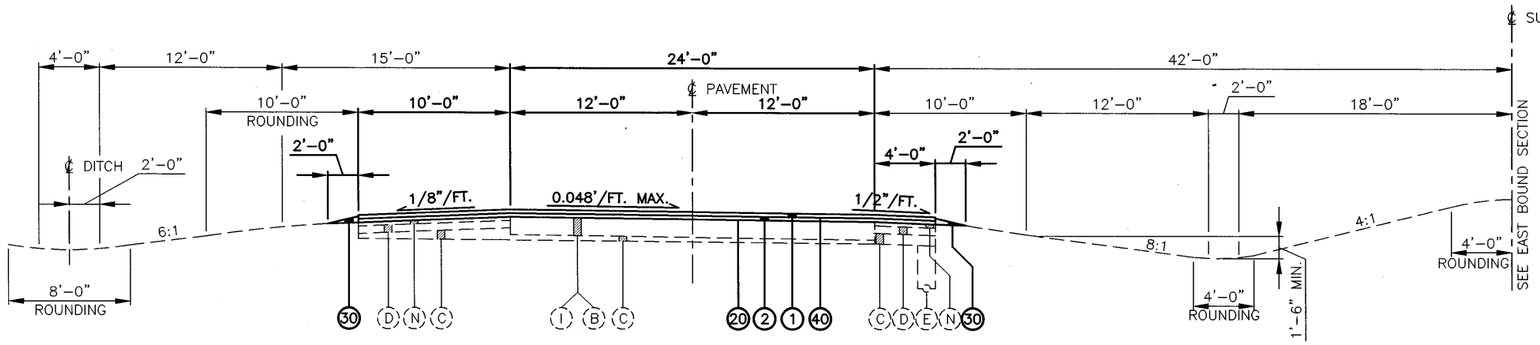
CALCULATED DLS | CHECKED LAB

PROPOSED, E.B. & W.B., NORMAL TYPICAL SECTIONS- I.R. 90 - OVERLAY

LOR - I90 - 10.76

PROPOSED SUPERELEVATED TYPICAL SECTIONS – I.R. 90 – E.B. & W.B.

(WITHOUT EXISTING OVERLAY)



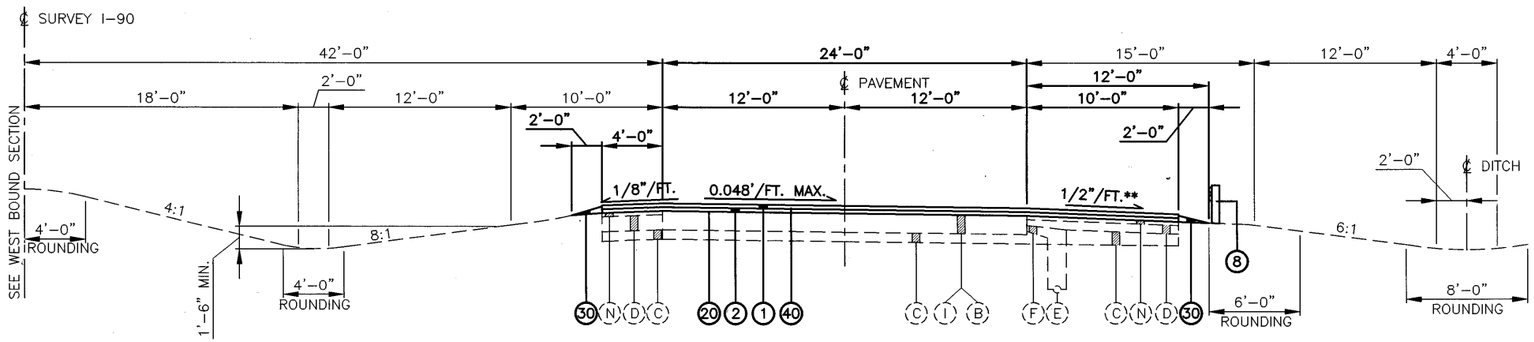
SUPERELEVATED SECTION (WESTBOUND) – I.R.90 & S.R. 2

STA. 701+40.00 TO STA. 735+39.25
STA. 740+62.42 TO STA. 760+60.78
STA. 780+34.99 TO STA. 810+78.82
STA. 830+51.48 TO STA. 854+55.15
STA. 915+57.86 TO STA. 932+93.69

LEGEND

- (1) ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE TYPE 1H, PG 70–22
- (2) ITEM 446 – 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG 64–28
- (8) ITEM 606 – GUARDRAIL TYPE 5
- (20) ITEM 407 – TACK COAT (SEE GENERAL NOTE)
- (30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
- (40) ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)
- (B) 10" REINFORCED CONCRETE PAVEMENT
- OR (I) 15" CONCRETE APPROACH SLAB
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (N) 3" ASHPHALT BASE

** OR RATE OF SUPER IF GREATER



SUPERELEVATED SECTION (EASTBOUND) – I.R.90 & S.R. 2

STA. 701+40.00 TO STA. 735+39.25
STA. 740+62.42 TO STA. 760+60.78
STA. 780+34.99 TO STA. 810+78.82
STA. 830+51.48 TO STA. 854+55.15
STA. 915+57.86 TO STA. 932+93.69

CALCULATED DLS | CHECKED LAB

PROPOSED, E.B. & W.B., SUPERELEVATED TYPICAL SECTIONS - I.R. 90 - OVERLAY

LOR - I90 - 10.76

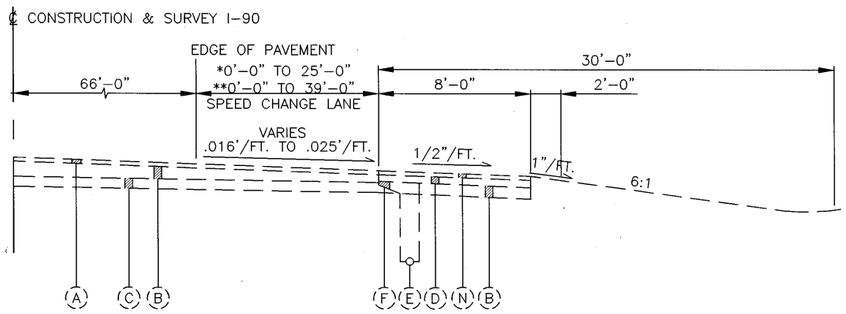
D:\93600\DWGS\93600PNLT-08.DWG] GZ
2-18-2002 3:42PM

TYPICAL SECTIONS SPEED CHANGE AND RAMP PACING LANES

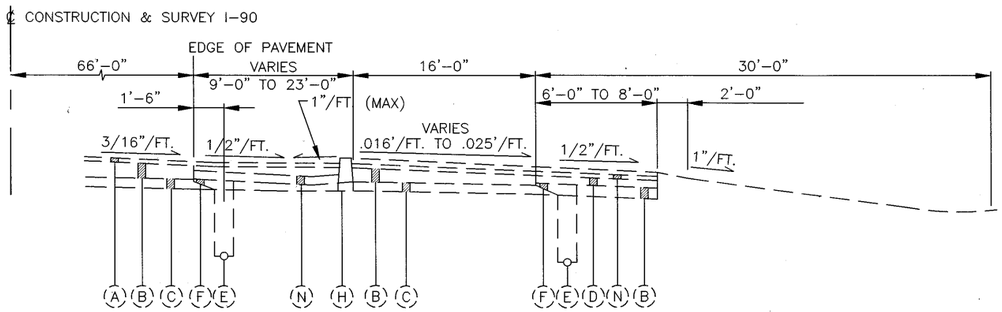
(WITH EXISTING OVERLAY)

MIDDLE RIDGE ROAD INTERCHANGE RAMPS H,I,J AND K
STATE ROUTE 57 INTERCHANGE RAMPS A AND F

EXISTING TYPICALS



SPEED CHANGE LANE

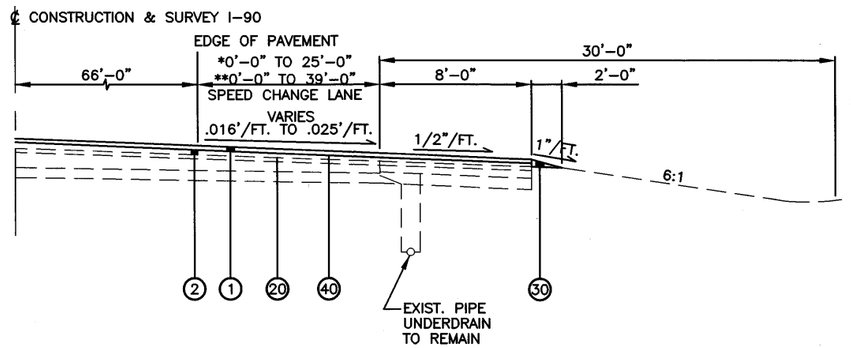


RAMP PACING LANE

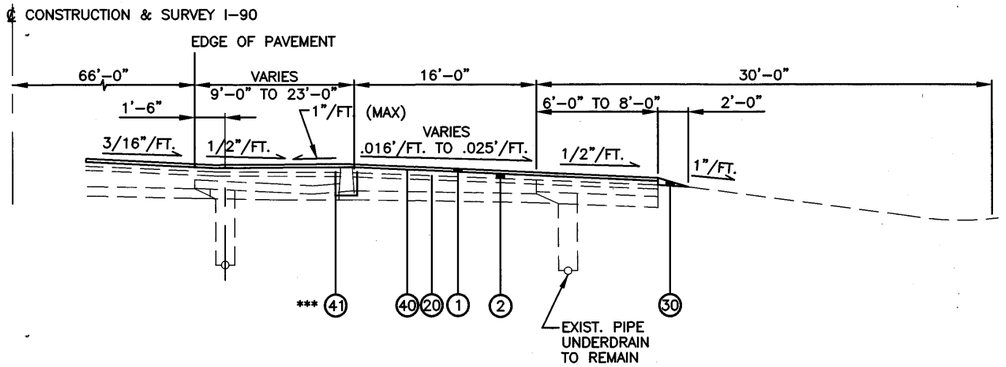
EXISTING LEGEND

- (A) 3 1/4" OVERLAY
- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION, USING NO.9 AGGREGATE
- (H) CONCRETE CURB, STANDARD TYPE 8
- (N) 3" BITUMINOUS AGGREGATE BASE

PROPOSED TYPICALS



SPEED CHANGE LANE



RAMP PACING LANE

PROPOSED LEGEND

- (1) ITEM 446 – 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 70-22
- (2) ITEM 446 – 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-28
- (20) ITEM 407 – TACK COAT (SEE GENERAL NOTE)
- (30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
- (40) ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)
- (41) ITEM 446 – ASPHALT CONCRETE TO FILL IN TRENCH

NOTES

- * FOR ENTRANCE TERMINAL
- ** FOR EXIT TERMINAL
- *** ACCELERATION RAMPS ONLY

CALCULATED DLS | CHECKED LAB

SPEED CHANGE AND RAMP PACING LANES (WITH EXISTING OVERLAY)

LOR - I90 - 10.76

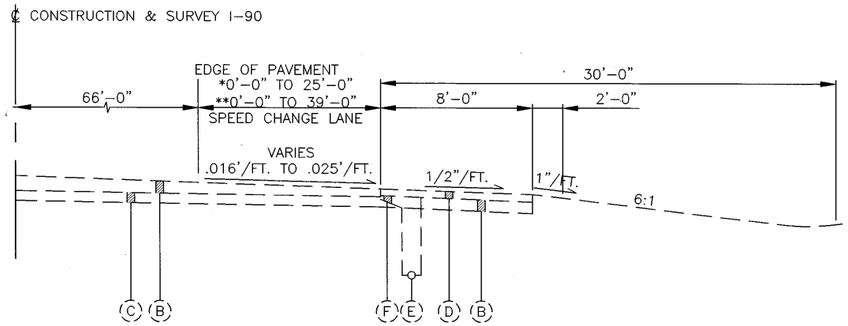
D:\93600\DWGS\93600FNLYT-09.DWG] 02-18-2002 3:41PM

TYPICAL SECTIONS SPEED CHANGE AND RAMP PACING LANES

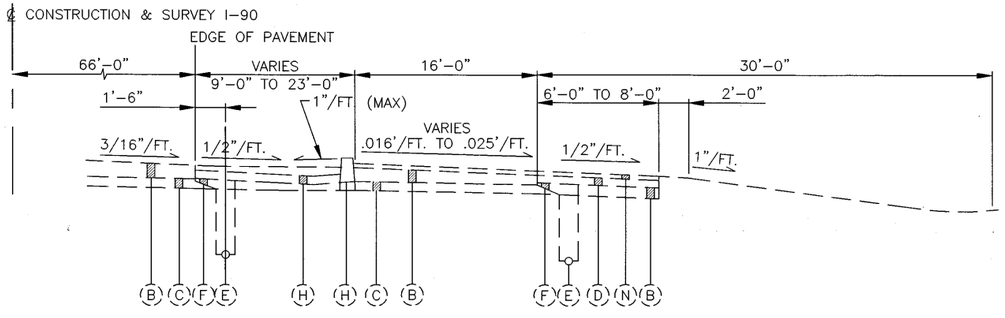
(WITHOUT EXISTING OVERLAY)

STATE ROUTE 57 INTERCHANGE RAMPS B,C,D, AND E
STATE ROUTE 254 INTERCHANGE RAMPS H,J,K AND L

EXISTING TYPICALS



SPEED CHANGE LANE

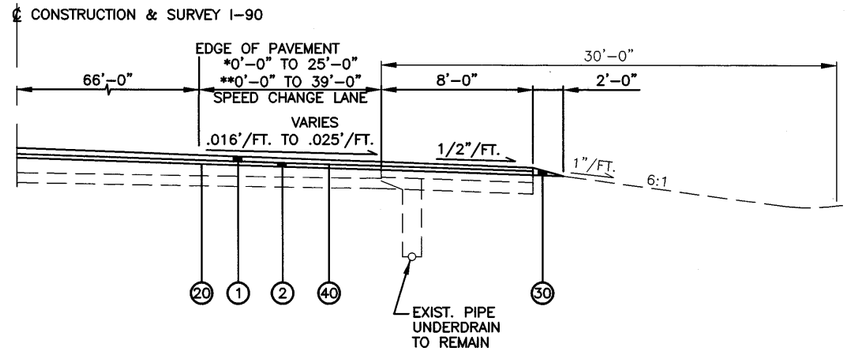


RAMP PACING LANE

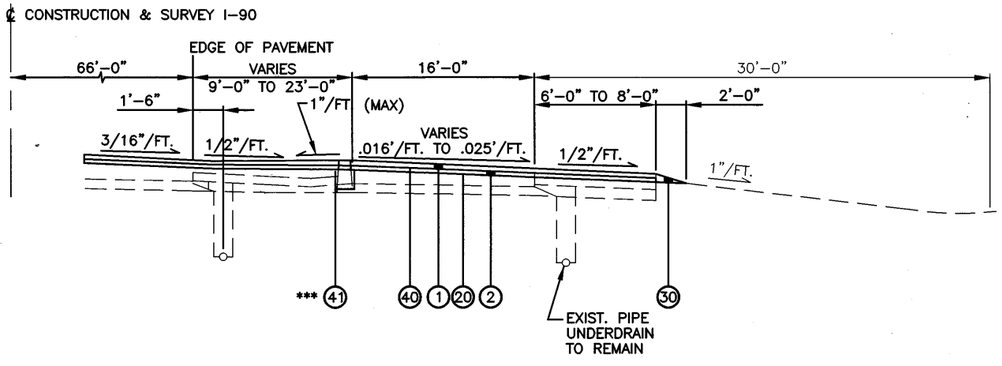
EXISTING LEGEND

- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION, USING NO.9 AGGREGATE
- (H) CONCRETE CURB, STANDARD TYPE 8
- (N) 3" BITUMINOUS AGGREGATE BASE

PROPOSED TYPICALS



SPEED CHANGE LANE



RAMP PACING LANE

PROPOSED LEGEND

- (1) ITEM 446 – 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 70-22
- (2) ITEM 446 – 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-28
- (20) ITEM 407 – TACK COAT (SEE GENERAL NOTE)
- (30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
- (40) ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)
- (41) ITEM 446 – ASPHALT CONCRETE TO FILL IN TRENCH

NOTES

- * FOR ENTRANCE TERMINAL
- ** FOR EXIT TERMINAL
- *** ACCELERATION RAMPS ONLY

CALCULATED DLS | CHECKED LAB

SPEED CHANGE & PACING LANES TYPICAL SECTIONS (WITHOUT EXISTING OVERLAY)

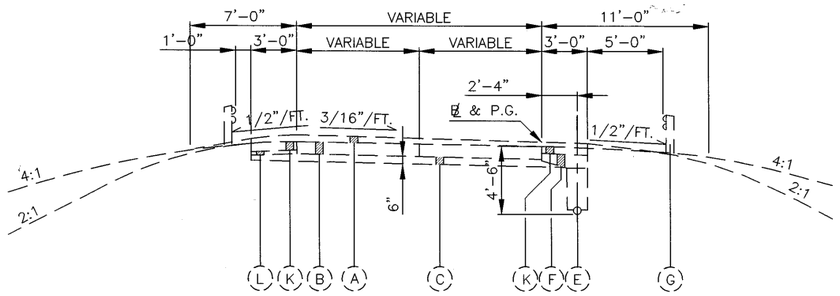
LOR - I90 - 10.76

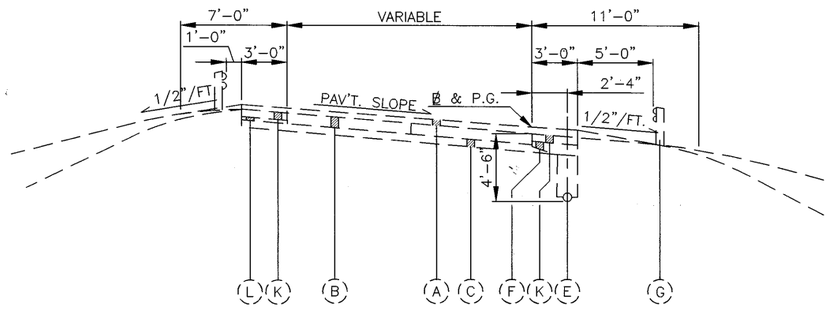
MIDDLE RIDGE ROAD & SR 57 INTERCHANGE RAMPS A AND F

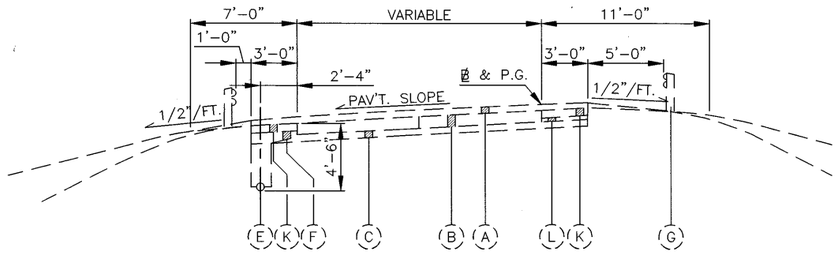
(WITH EXISTING OVERLAY)

EXISTING TYPICAL RAMP SECTIONS

FILL







PROPOSED TYPICAL RAMP SECTIONS

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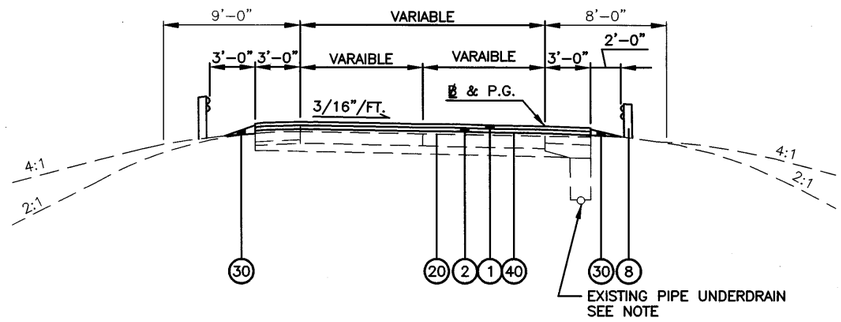
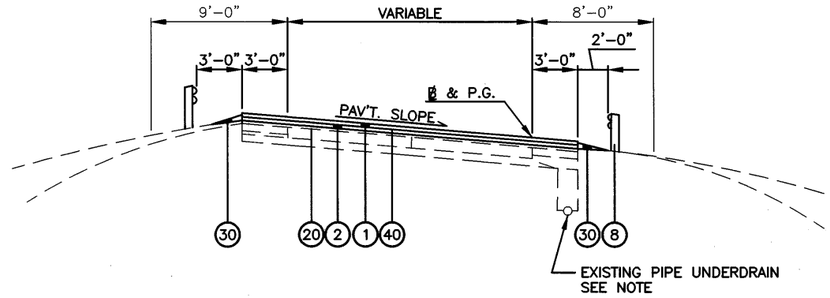
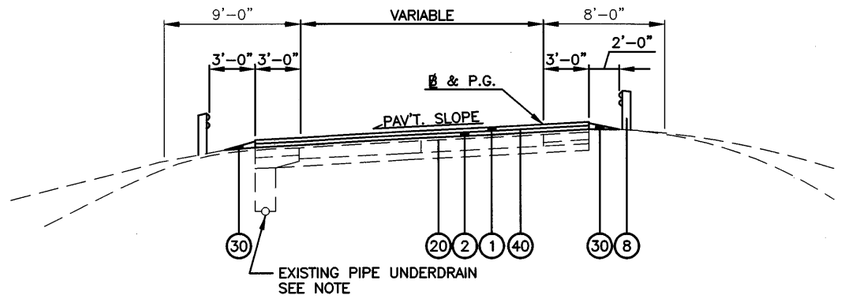






(A) 3 1/4" ASPHALT CONCRETE OVERLAY
(B) 10" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(C) VARIABLE THICKNESS SUBBASE
(E) 6" PIPE UNDERDRAIN
(F) SPECIAL DRAINAGE CONNECTION
(G) GUADRAIL TYPE 5
(K) 6" BITUMINOUS AGGREGATE BASE
(L) 3" AGGREGATE BASE

(1) ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H, PG 70–22
(2) ITEM 446 – 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64–28
(8) ITEM 606 – GUARDRAIL TYPE 5
(20) ITEM 407 – TACK COAT (SEE GENERAL NOTE)
(30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
(40) ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)

NOTE:
EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED

CALCULATED DLS | CHECKED LAB

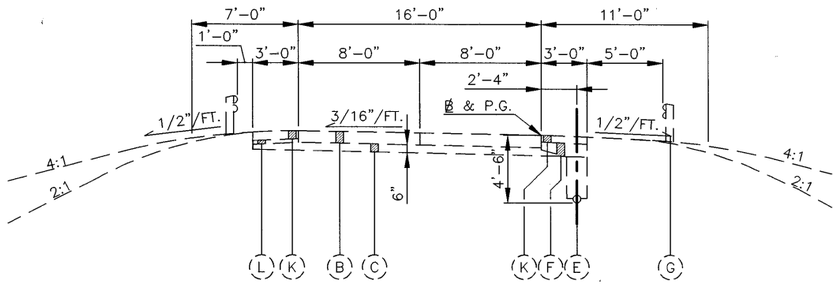
RAMP TYPICAL SECTIONS (WITH EXISTING OVERLAY)

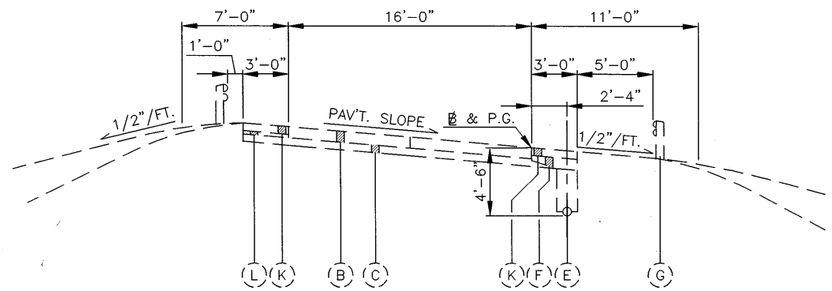
LOR - I90 - 10.76

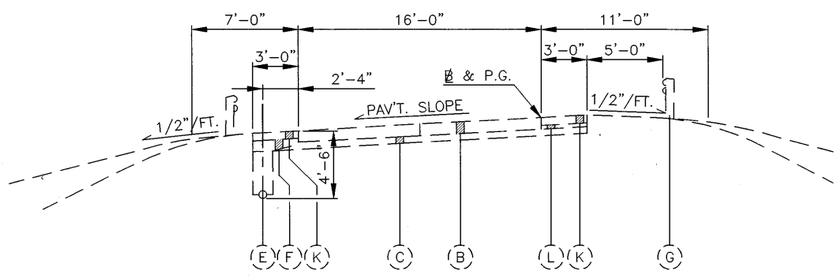
RAMP TYPICAL SECTIONS – SR 57 RAMPS B,C,D AND E

(WITHOUT EXISTING OVERLAY)

FILL







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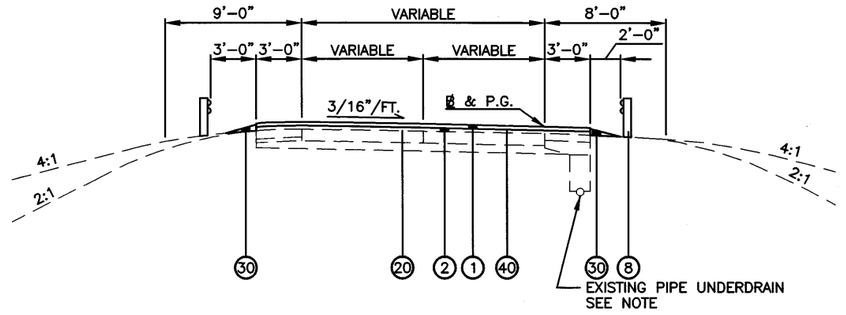

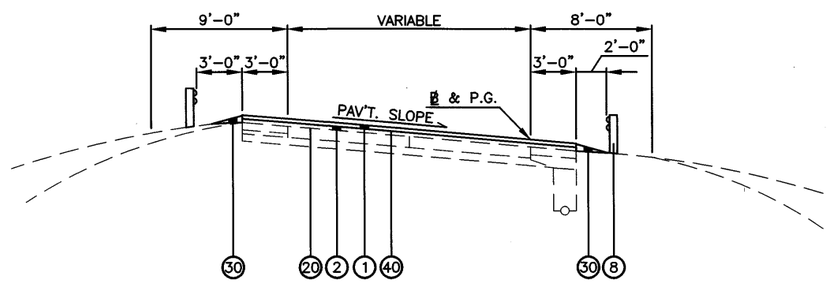

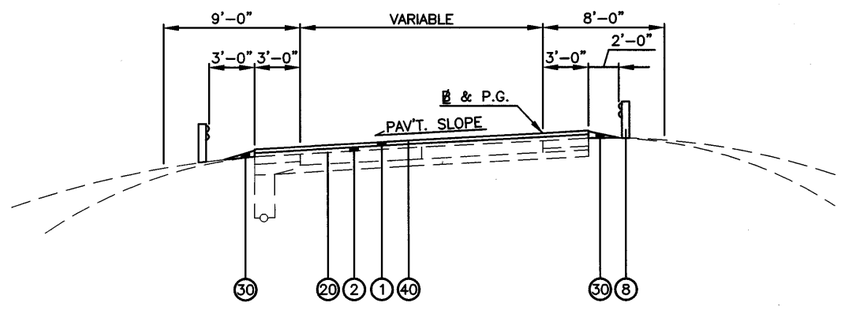

(B) 10" REINFORCED CONCRETE PAVEMENT
(C) VARIABLE THICKNESS SUBBASE
(E) 6" PIPE UNDERDRAIN
(F) SPECIAL DRAINAGE CONNECTION
(G) GARDRAIL TYPE 5
(K) 6" BITUMINOUS AGGREGATE BASE
(L) 3" AGGREGATE BASE

(1) ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE TYPE 1H, PG 70–22
(2) ITEM 446 – 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64–28
(8) ITEM 606 – GUARDRAIL TYPE 5
(20) ITEM 407 – TACK COAT (SEE GENERAL NOTE)
(30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE W/ ITEM 408 BITUMINOUS PRIME COAT OR ITEM 617 COMPACTED AGGREGATE, TYPE A
(40) ITEM 407 – TACK COAT (REDUCED RATE PER PLAN NOTE)

NOTE
EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED

CALCULATED DLS | CHECKED LAB

RAMP TYPICAL SECTIONS (WITHOUT EXISTING OVERLAY)

LOR - I90 - 10.76

CALCULATED DLS | CHECKED LAB

GENERAL NOTES

ROUNDING

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

UTILITIES

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

THE ILLUMINATING COMPANY 6896 MILLER ROAD BRECKSVILLE, OHIO 44141 (440) 546–8748	OHIO EDISON 6326 LAKE AVE. ELYRIA, OHIO, 44035 (440) 324–0231
THE CITY OF AVON 35030 DETROIT ROAD AVON, OHIO 44011 (440) 937–5740	O.D.O.T. (DISTRICT 3) 906 NORTH CLARK STREET ASHLAND, OHIO 44805 (800) 276–4188

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.

MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS AS SHOWN ON STANDARD CONSTRUCTION DRAWING RM–1.1.

CONTINGENCY QUANTITIES

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

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. 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.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ATSM 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.

ADDITIONAL SOIL INFORMATION

THE SOIL PROFILE AND/OR STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT. MORE INFORMATION, IF ANY, MAY BE OBTAINED IN DISTRICT 3, THE BUREAU OF BRIDGES AND STRUCTURAL DESIGN AT 25 SOUTH FRONT STREET IN COLUMBUS, OHIO.

STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATIONS SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEANOUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

ROADWAY

ITEM 202 – PAVEMENT REMOVED

PAYMENT FOR SAW CUTTING REQUIRED TO REMOVE EXISTING CONCRETE PAVEMENT AS NOTED IN THE PLANS SHALL BE INCLUDED IN ITEM 202 – PAVEMENT REMOVED.

ITEM 203 – EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

PAYMENT FOR SAW CUTTING REQUIRED TO REMOVE EXISTING ASPHALT PAVEMENT AS NOTED IN THE PLANS SHALL BE INCLUDED IN ITEM 203 – EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION.

ITEM 203 – PROOF ROLLING

THE AMOUNT OF PROOF ROLLING REQUIRED WILL BE DETERMINED BY THE CONTRACTOR.

FENCE LENGTHS

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

ITEM 407 – TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. AREAS OF TACK COAT STRIPPED BY CONSTRUCTION EQUIPMENT SHALL BE RECOATED PRIOR TO PLACING ASPHALT CONCRETE. PLAN AREAS INDICATE AN AVERAGE APPLICATION RATE OF 0.10 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY. SEE THE FOLLOWING PARAGRAPH FOR AN ADDITIONAL APPLICATION REQUIREMENT.

PRIOR TO PLACING THE SURFACE COURSE ON THE NEW INTERMEDIATE COURSE, AN ADDITIONAL APPLICATION OF TACK COAT IS REQUIRED AT AN AVERAGE RATE OF APPLICATION OF 0.05 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

GUARDRAIL

ITEM 606 – ANCHOR ASSEMBLY, TYPE B–98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER A SRT–350 GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330–545–4373) OR A FLEAT–350 GUARDRAIL END TERMINAL AS MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815–464–5917).

THE LENGTH OF EITHER TERMINAL IS CONSIDERED TO BE 37.5', INCLUSIVE OF THE THREE 12.5' LONG RAIL ELEMENTS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AT THE LOCATIONS SHOWN IN THE PLANS.

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

WHERE A TYPE B–98 TERMINAL IS INSTALLED THERE SHALL BE A MINIMUM OF 10:1 SLOPE GRADED TO THE GUARDRAIL.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT OR PUNCHED. THE CONNECTION SHALL BE CUT OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W–BEAM RAIL SPLICE" PER THE GUARDRAIL DETAILS SHOWN ON STANDARD CONSTRUCTION DRAWINGS GR–1.1M AND GR–1.2M PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 – ANCHOR ASSEMBLY, TYPE E–98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER A ET–2000 (1997) GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330–545–4373) OR A SKT–350 GUARDRAIL END TERMINAL AS MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815–464–5917).

THE LENGTH OF THE ET–2000 (1997) SYSTEM IS CONSIDERED TO BE 50', INCLUSIVE OF TWO 25' LONG RAIL ELEMENTS. THE LENGTH OF THE SKT–350 SYSTEM IS CONSIDERED TO BE 50' INCLUSIVE OF FOUR 12.5' LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AT THE LOCATIONS SHOWN IN THE PLANS.

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

PAVEMENT

PART–WIDTH CONSTRUCTION

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

ITEM 203 – DITCH CLEANOUT

THIS WORK SHALL CONSIST OF RE–ESTABLISHING THE CROSS–SECTION OF AN EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF AS PER 203.05. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF 203.07 EXCEPT THAT THE COMPACTION REQUIREMENTS ARE WAIVED.

MEASUREMENT OF THE DITCH CLEANOUT SHALL BE THE ACTUAL LINEAR FEET MEASURED ALONG THE CENTERLINE OF THE DITCH.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, DITCH CLEANOUT.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE GUARDRAIL, INSTALL EMBAKMENT, GRADE AND REINSTALL GUARDRAIL IN A CONTINOUS OPERATION. THE REMOVAL OF ALL 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 ON THIS PROJECT UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED OF SAID COMPLIANCE.

EROSION CONTROL

STORMWATER POLLUTION PREVENTION PLAN

THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT (SEE PROPOSAL) SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABALIZED.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMETER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING AND GRUBBING AND/OR GRADING OPERARTIONS.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF THE DISTURBED LAND.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHOULD BE IMMEDIATELY STABALIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES.

ADDITIONAL QUANTITIES OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL ITEMS ARE GIVEN IN THE GENERAL NOTES.

ITEM 870 – SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF PROPOSED GRADING BETWEEN THE LIMITED ACCESS. QUANTITY CALCULATIONS FOR ITEM 870 – SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

EROSION CONTROL

ITEMS 601 AND 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS AND TURF OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE 670. THE ENGINEER SHALL CHECK AND NON–PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THESE ITEMS SHALL MEET THE REQUIREMENT OF 108.04.

WATERING PERMANENT SEEDED AREAS

THE FOLLOWING ITEM IS TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR PERMANENT SEEDED AREAS PER SS 870.18:

670, WATER

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

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

877, TEMPORARY SEEDING AND MULCHING

877, TEMPORARY FILTER FABRIC FENCE

870, COMMERCIAL FERTILIZER

870, REPAIR SEEDING AND MULCHING

870, WATER

870, SOIL ANALYSIS TEST

870, AGRICULTURAL LIME

870, PLACING TOPSOIL

GENERAL NOTES

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DRAINAGE

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

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

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

ITEM605 – 4" & 6" PIPE UNDERDRAIN W/FABRIC WRAP, 707.31

THE 4" & 6" PIPE UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ITEM 605 EXCEPT AS FOLLOWS: THEY SHALL HAVE FABRIC FILTER WRAP.

PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 605 ITEM.

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 [300 MILLIMETERS].

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 [METERS] (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTERFACE TO OUTERFACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

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

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

ITEM 603 – CONDUIT BORED AND JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING AND JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 3 FEET TO THE EDGE OF PAVEMENT. TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SPECIFICATION REQUIREMENTS FOR CLASS B BEDDING SHALL BE DISREGARDED. IF A CASING PIPE IS USED IN THE BORING AND JACKING OPERATION, THE VOID BETWEEN IT AND THE INTERIOR CARRIER PIPE SHALL BE COMPLETELY FILLED WITH ITEM 613, SAND, GROUT OR OTHER MATERIAL APPROVED BY THE ENGINEER.

ITEM 870–PLACING TOPSOIL, AS PER PLAN

IN ADDITION TO ITEM 870 THIS ITEM SHALL CONSIST OF PLACING SUITABLE TOPSOIL, PER 870.13 AS OBTAINED FROM THE PROJECT CONSTRUCTION ACTIVITIES OR FROM OUTSIDE RESOURCES, IF NECESSARY MATERIAL INCLUDE, BUT NOT BE LIMITED TO THAT GATHERED FROM SCALPING OPERATIONS DUEING CLEARING AND GRUBBING, AND TOPSOIL ORGINATING FROM NORMAL EXCAVATION OPERATIONS.

CALCULATED DLS | CHECKED LAB

GENERAL NOTES

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RESURFACING SECTION

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 PAVEMENT.

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. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

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 614, MAINTAINING TRAFFIC, UNLESS SEPERATELY ITEMIZED IN THE PLAN.

WORK TO BE PERFORMED

THE FOLLOWING ITEMS ARE INCLUDED IN THIS SECTION OF THE PROJECT:

1.) RESURFACING THE MAINLINE AND RAMPS, WHICH SHALL BE PERFORMED AS A NIGHTIME OPERATION. SINGLE LANE CLOSURE SHALL BE UTILIZED ON THE MAINLINE, AND PARTIAL LANE CLOSURE ON THE RAMPS. LANE CLOSURE SHALL BE PERMITTED BETWEEN THE HOURS OF 8:00 PM AND 6:00 AM ONLY.

2.) GUARDRAIL UPGRADES TO BE PERFORMED DURING THE DAYTIME, AS NOTED UNDER NOTES FOR GUARDRAIL REPLACEMENT.

3.) PROFILE ADJUSTMENTS ARE TO BE MADE AS NOTED IN THE PLANS. THIS SHALL BE PERFORMED IN THE SAME MANNER AS RESURFACING.

4.) RECONSTRUCTION OF BRIDGE PARAPETS AS NOTED IN THE PLANS SHALL BE PERFORMED AT NIGHT, WHEN THE CONTRACTOR MAY CLOSE THE ADJACENT LANE. ANY GAP IN THE GUARDRAIL WHILE THE PARAPETS CURE SHALL BE PROTECTED WITH PORTABLE CONCRETE BARRIER. THE BARRIER SHALL TAPER BEHIND EXISTING GUARDRAIL IN A MANNER WHICH DOES NOT LEAVE ANY ENDS EXPOSED TO ONCOMING TRAFFIC.

5.) REMOVAL OF PACER CURB SHALL BE PERFORMED DURING NIGHTIME OPERATIONS IN ACCORDANCE WITH APPLICABLE STANDARD CONSTRUCTION DRAWINGS MT–98.13M THROUGH 98.18M.

TEMPORARY PAVEMENT MARKINGS

IT MAY BE NECESSARY FOR THE CONTRACTOR TO PLACE TEMPORARY LANE LINE MARKINGS ON THE INTERMEDIATE AND/OR FINAL COURSES IF HE/SHE IS UNABLE TO EXPEDITE THE PROJECT. THE PLACEMENT OF THE TEMPORARY PAVEMENT MARKINGS SHALL BE SHOWN ON THE FINAL TRAFFIC CONTROL SHEET XXX. THESE TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED TO EACH ASPHALT PAVEMENT COURSE OPEN TO TRAFFIC.

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 ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE 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.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME 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 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.

HOLIDAY WORK RESTRICTIONS

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

CHRISTMAS	NEW YEARS
MEMORIAL DAY	THE FORTH OF JULY
LABOR DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE "NO WORK" APPLIES 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
MONDAY	12 NOON FRIDAY THROUGH 12 NOON TUESDAY
TUESDAY	12 NOON MONDAY THROUGH 12 NOON WEDNESDAY
WEDNESDAY	12 NOON TUESDAY THROUGH 12 NOON THURSDAY
THURSDAY	12 NOON WEDNESDAY THROUGH 12 NOON FRIDAY
FRIDAY	12 NOON THURSDAY THROUGH 12 NOON MONDAY
SATURDAY	12 NOON FRIDAY THROUGH 12 NOON MONDAY
SUNDAY	12 NOON FRIDAY THROUGH 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 INDUSTRY WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH SECTION 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

WORK–SITE TRAFFIC SUPERVISOR

THE CONTRACTOR SHALL EMPLOY A WORKSITE TRAFFIC SUPERVISOR (WTS), OTHER THAN THE SUPERINTENDENT, FOR THE PURPOSE OF MONITORING THE MAINTENANCE OF TRAFFIC PLAN (MOTP). THE WTS SHALL HAVE EXPERIENCE OR TRAINING IN PROJECT SUPERVISION AND TRAFFIC CONTROL COMMENSURATE WITH THE RESPONSIBILITES OF MANAGING THE PROJECT MAINTENANCE OF TRAFFIC PLAN AND COORDINATING WITH ANY MOTORIST INFORMATION SYSTEM OUTSIDE THE PROJECT. THE GOALS OF THE WTS POSITION ARE TO MINIMIZE TRAFFIC CONGESTION AND MAXIMIZE PROJECT SAFETY AND EFFICIENCY. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A RESUME OF THE EXPERIENCE, TRAINING AND EDUCATION OF THE PERSON PROPOSED FOR WTS. PROJECT WORK SHALL NOT BEGIN WITHOUT AN APPROVED WTS. THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ECT. THE WTS SHALL REVIEW THE TRAFFIC CONTROL PATTERN UPON COMPLETION OF THE INSTALLATION BOTH DURING THE DAY AND THE NIGHT FOR ASSURANCE OF CONTRACT COMPLIANCE. THW WTS SHALL MAKE RECOMMENDATIONS TO MODIFY THE MOTP FOR BETTER/SAFER TRAFFIC FLOW. THESE RECOMMENDATIONS SHALL BE MADE IN WRITING TO THE ENGINEER. NO CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE MADE UNTIL APPROVAL IS OBTAINED FROM THE ENGINEER IN WRITING.

DAILY, THE WTS SHALL REVIEW THE PROJECT'S TRAFFIC CONTROL WITH A MINIMUM OF TWO REVIEWS EACH WEEK BEING PERFORMED AT NIGHT. THE WTS SHALL BE AT THE PROJECT SITE EVERY DAY OF THE YEAR WHILE TEMPORARY TRAFFIC CONTROL DEVICES ARE IN PLACE. THE FOLLOWING ITEMS SHALLS BE INCLUDED IN EACH REVIEW: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, AND VISIBILITY; TRAFFIC FLOW CONDITIONS, INCIDENTS, CONGESTIONPOINTS, DELAYS, AND ADEQUACY OF ADVANCED INFORMATIONAL SIGNS BEYOND THE PROJECT LIMITS; INTERACTION OF WORK VEHICLES AND TRAFFIC; EVIDENCE OF ACCIDENTS; PROPER STORAGE OF MATERIALS AND EQUIPMENT; CONFORMANCE WITH MOTP; CONFLICTING OR NON–PERFORMING PAVEMENT MARKINGS. THE WTS SHALL NOTE ANY TRAFFIC CONTROL DEFICIENCIES. DEFICIENT OR IMPROPERLY PLACED TRAFFIC CONTROL DEVICES SHALL BE CORRECTED. THE WTS SHALL HAVE NECESSARY AUTHORITY TO IMMEDIATELY PERFORM THIS CORRECTIVE WORK. DAILY, A RECORD OF REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER IN WRITING AND SHALL INCLUDE A RECORD OR DEFICIENCIES AND RESOLUTION OF THE DEFICIENCIES.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO SUSPEND ALL WORK UNTIL ALL CORRECTIONS ARE MADE.

THE WTS OR ANOTHER DESIGNATED SUPERVISOR SHALL BE ON CALL 24 HOURS A DAY, SEVEN DAYS A WEEK. FOR THE DURATION OF THE PROJECT TO PROVIDE NECESSARY MAINTENANCE OPERATIONS ON THE PROJECT. THIS MAY INVOLVE REPAIR OR REPLACEMENT OF SIGNS, DRUMS, PAVEMENT MARKINGS, CONCRETE BARRIERS, GUARDRAIL, PAVEMENT SURFACES, ECT. THIS INDIVIDUAL SHALL BE ABLE TO RESPOND AND BE ON THE PROJECT WITHIN FOUR (4) HOURS AFTER A CALL AND HAVE SUFFICIENT INVENTORY ON HAND TO REPAIR OR REPLACE DAMAGED OR MISSING TRAFFIC DEVICES. THE CONTRACTOR SHALL FURNISH THE PHONE NUMBER(S) OF THE SUPERVISOR ON CALL TO THE LOCAL-STATE POLICE AND STATE HIGHWAY PATROL OFFICES. PAYMENT FOR FURNISHING THE WTS AND ASSOCIATED WORK AND MATERIAL SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM 614 MAINTAINING TRAFFIC.

STANDARD CONSTRUCTION DRAWINGS

THE FOLLOWING MAINTENANCE OF TRAFFIC STANDARD CONSTRUCTION DRAWINGS HAVE BEEN SPECIFIED WITHIN THE MAINTENANCE OF TRAFFIC PLANS:

MT–95.30M	4/25/94	MT–98.13M	6/24/93
MT–98.14M	6/24/93	MT–98.15M	6/24/93
MT–98.16M	6/24/93	MT–98.17M	4/25/94
MT–98.18M	4/25/94	MT–99.10M	1/30/95
MT–99.20M	1/30/95	MT–105.10M	4/25/94
MT–105.11M	4/25/94		

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE CMS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROXIMATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY VALUES WHERE SUITABLE.

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC GENERAL NOTES

LOR - 190 - 10.76

M.O.T.

20 / 274

PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY)	353.2 AC.±Δ
AREA DISTURBED FOR DRAINAGE IMPROVEMENTS	30.7 AC.±
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.55±
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.55±
SOIL DATA	SEE SOIL PROFILE
EVENTUAL RECEIVING WATERS	VARIES

USGS QUADRANT NO. N4122.5-W8200/7.5
AVON, OHIO
LONGITUDE W 82°00'00"*
LATTITUDE N 41°27'50"*

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- ——FF—— FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

STORM WATER POLLUTION PREVENTION PLAN

DUE TO THE THE DESIGN/BUILD NATURE OF THIS PROJECT, THE LIMITS OF GRADING OPERATIONS HAVE YET TO BE FULLY DETERMINED. DUE TO THIS FACT THE SWPPP HAS BEEN LAID OUT FOR THE MOST CONSERVATIVE CASE OF THE WORK THAT IS REQUIRED. IT WILL BE UP TO THE JUDGEMENT OF THE CONTRACTOR'S FIELD PERSONNEL FOR TYPE AND EXTENT OF TREATMENT REQUIRED FOR ACTUAL FIELD CONDITIONS GIVEN THE AMOUNT OF AREA DISTURBED. SEDIMENT BASINS HAVE BEEN SIZED TO PROVIDE A STORAGE VOLUME OF 67 CUBIC YARDS PER ACRE OF CONTRIBUTING DISTURBED DRAINAGE AREA FOR DRAINAGE DRAINAGE AREAS BETWEEN 1 AND 5 ACRES. DITCH CHECKS ARE PROPOSED WHERE THE CONTRIBUTING DISTURBED DRAINAGE AREAS ARE LESS THAN 1 ACRE.

THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT (SEE THE PROPOSAL) SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECIEVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLUTTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIMES THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

THE CONTRACTOR MAY INSTALL OTHER MEANS OF EROSION AND SEDIMENT CONTROL AT THE LOCATIONS IDENTIFIED HEREIN AND AT OTHER LOCATIONS HE DETERMINES WITHIN THE PROJECT TO ACCOMPLISH THE INTENT OF THIS PLAN. OTHER MEANS OF EROSION CONTROL MAY INCLUDE PLACEMENT OF COARSE STONE OR RIP RAP, AND PLACEMENT OF STRAW OR HAY BALES, TO BE UTILIZED IN CONJUNCTION WITH FILTER FABRIC FENCE. THE CONTRACTOR SHALL PLACE, MAINTAIN AND SUBSEQUENTLY REMOVE SAID EROSION CONTROL FEATURES.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMITER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING GRUBBING AND/OR GRADING OPERATIONS.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND. WHERE POSSIBLE AND WHEN SUFFICIENT QUANITIES OF WORK ARE READY, PERMANENT EROSION CONTROL FEATURES SHALL BE UTILIZED SUCH AS RESTORING AND THEN SEEDING AND MULCHING DISTURBED AREAS.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHALL BE IMMEDIATE STABILIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES. THIS WILL OCCUR ON THE OUTSIDES OF THE DITCHES WHERE THE OUTLET CULVERTS AND UNDERDRAIN DISCHARGE, BUT NOT EXCLUSIVE. ANY AREAS WITHIN 50 FT. OF ANY WATER BODY, THEN IT SHALL BE VEGETATED WITHIN 2 DAYS FOLLOWING THE CLEANING AND GRUBBING OPERATIONS.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE AS DETAILED ON STANDARD DRAWING DM-4.3 AND DM-4.4 AND SS877.

PROJECT DESCRIPTION

THIS PART OF THE PROJECT CONSISTS OF THE OVERLAYING OF SR2 STA 422+00 TO I-90 AND I-90 FROM STA 522+50.40 TO STA 966+00 IN ADDITION ODOT HAS SELECTED AREAS FOR FULL JOINT REPAIR AND DRAINAGE IMPROVEMENTS. THERE WILL BE CATCH BASIN REPLACEMENTS, DITCH AND PIPER CLEAN OUTS, AND DUMP ROCK CHANNEL PROTECTION PLACED.

STORM WATER POLLUTION PREVENTION PLAN.

N

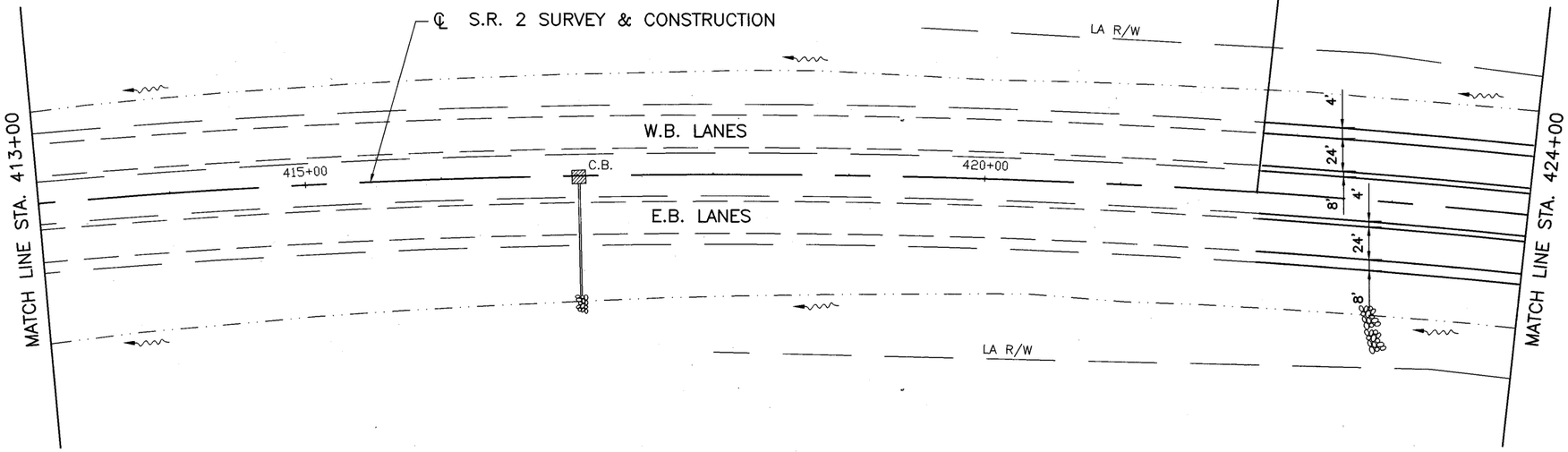
HORIZONTAL SCALE IN FEET
0 100' 200

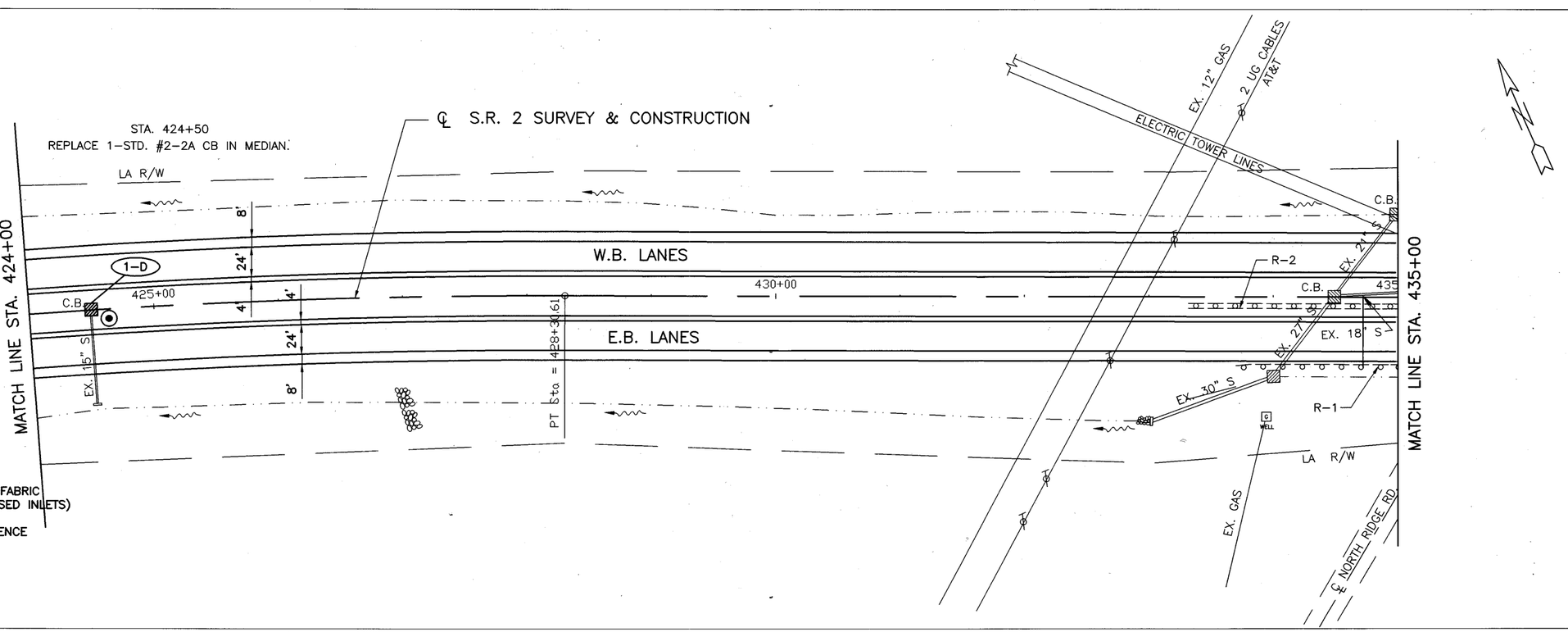
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN (I-90) DETAIL SHEET

LOR - I90 - 10.76

CURVE DATA (1)
P.I. STA. 414+32.93
Δ = 28°33'36" RT.
D = 1°00'00"
R = 5729.58'
T = 1458.32'
L = 2856.00'
E = 182.68'





LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

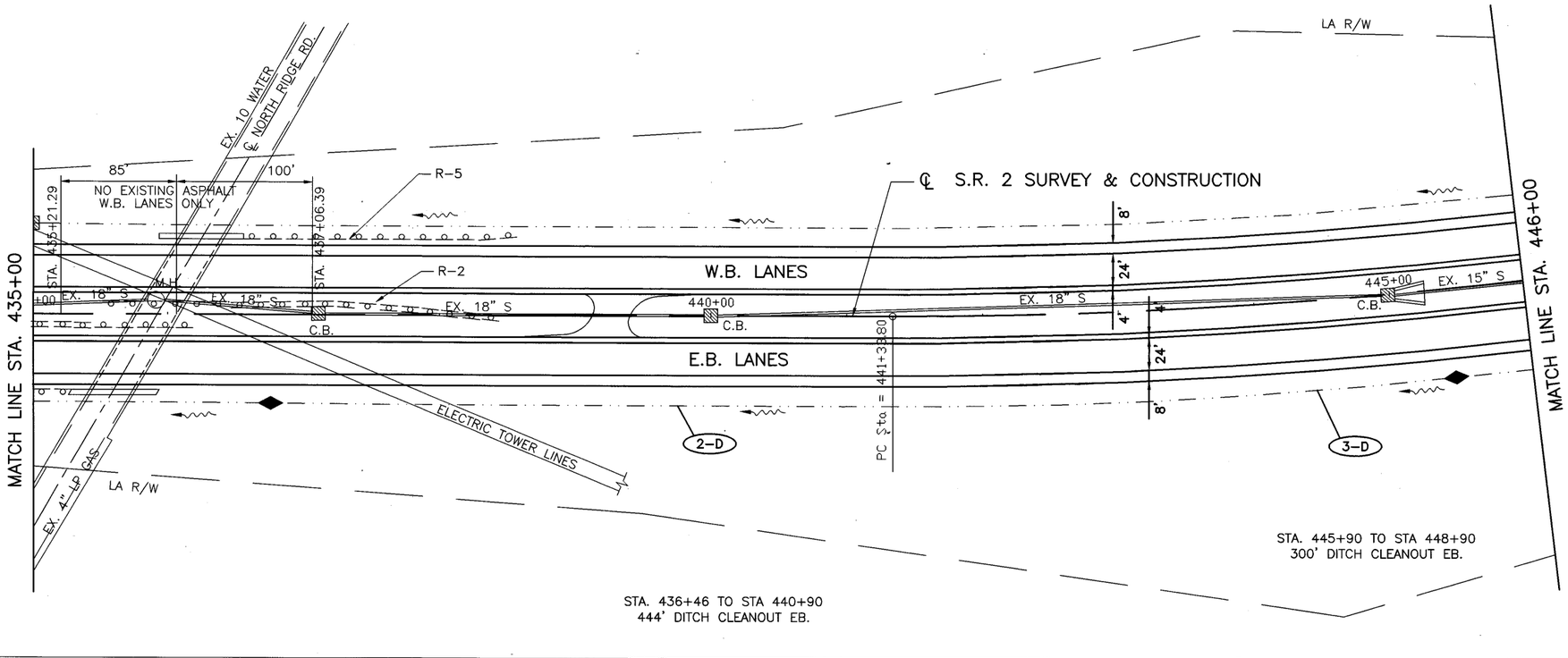
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 413+00 TO STA. 435+00

LOR - 190 - 10.76

22
274

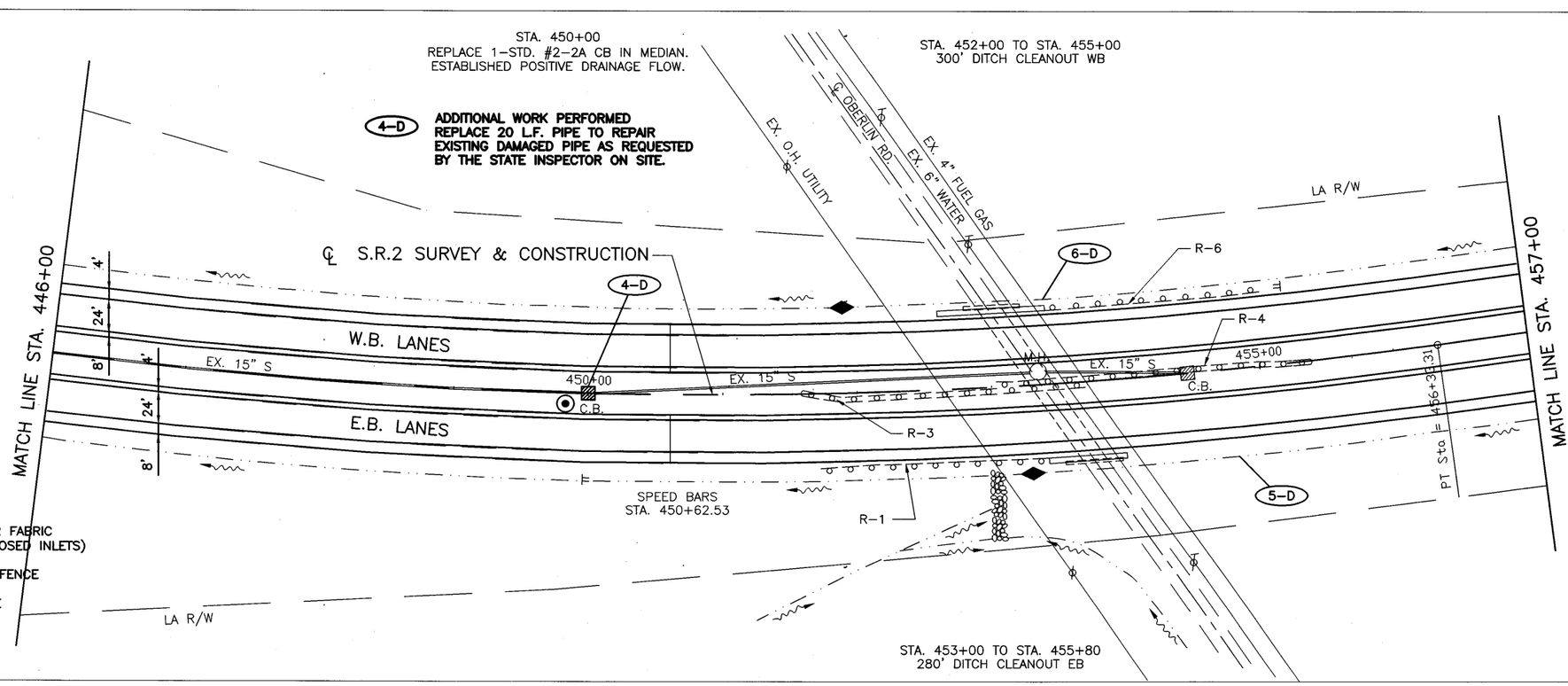


CURVE DATA (2)
P.I. STA. 448+92.90
△ = 21°59'34" LT.
D = 1°28'00"
R = 3906.53'
T = 759.10'
L = 1499.51'
E = 73.07'

STA. 450+00
REPLACE 1-STD. #2-2A CB IN MEDIAN.
ESTABLISHED POSITIVE DRAINAGE FLOW.

(4-D) **ADDITIONAL WORK PERFORMED REPLACE 20 L.F. PIPE TO REPAIR EXISTING DAMAGED PIPE AS REQUESTED BY THE STATE INSPECTOR ON SITE.**

STA. 452+00 TO STA. 455+00
300' DITCH CLEANOUT WB



LEGEND

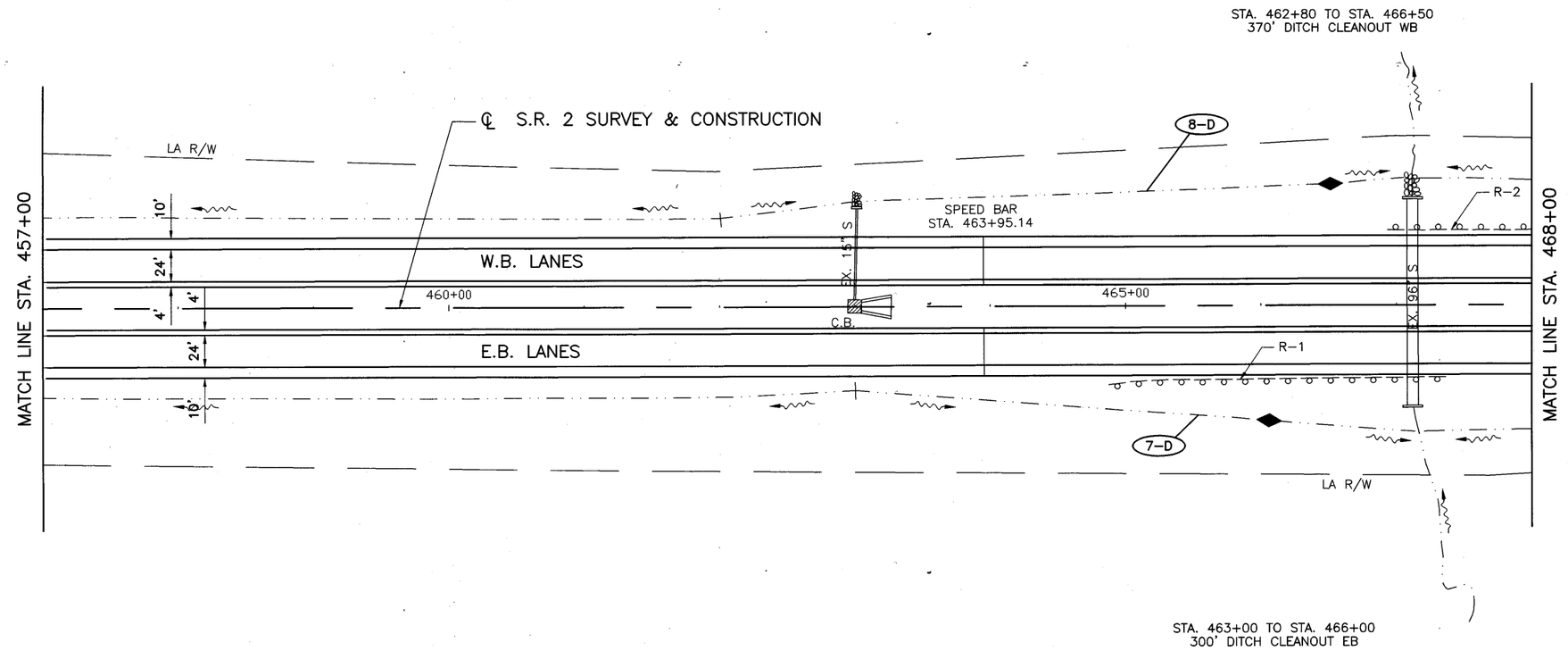
- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

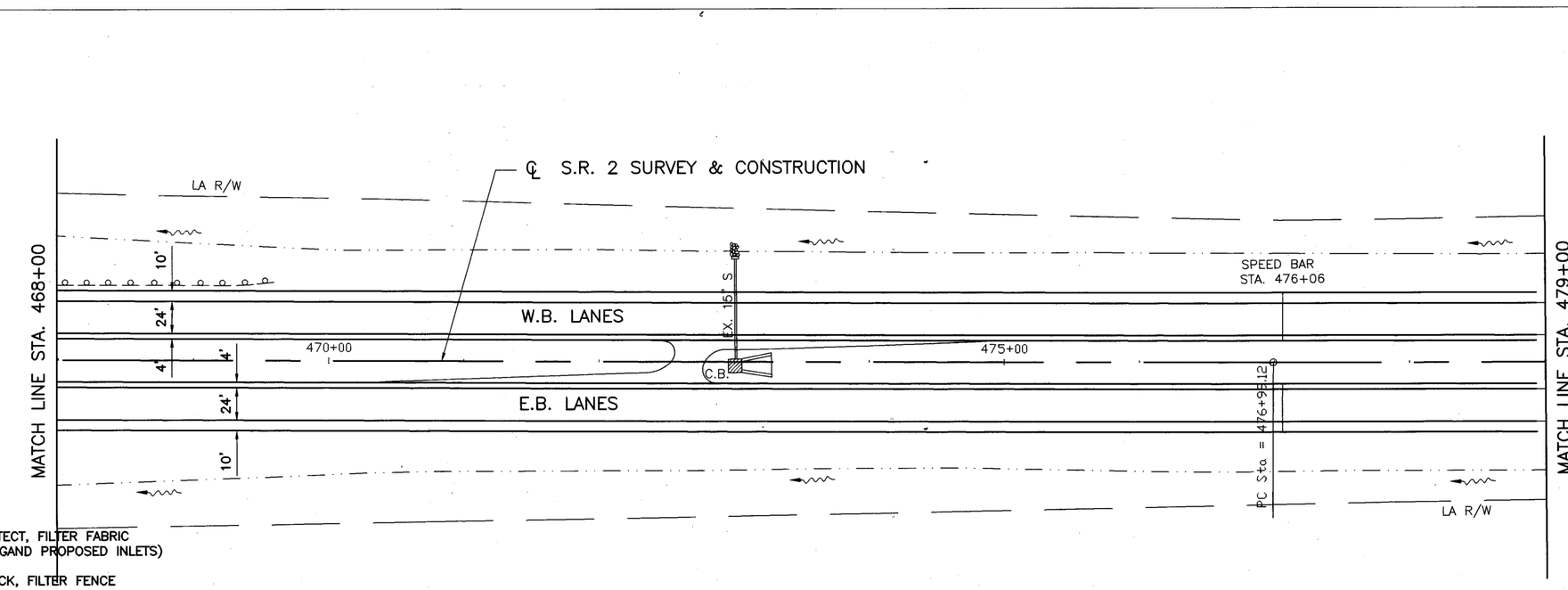
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 435+00 TO STA. 457+00

LOR - 190 - 10.76





LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

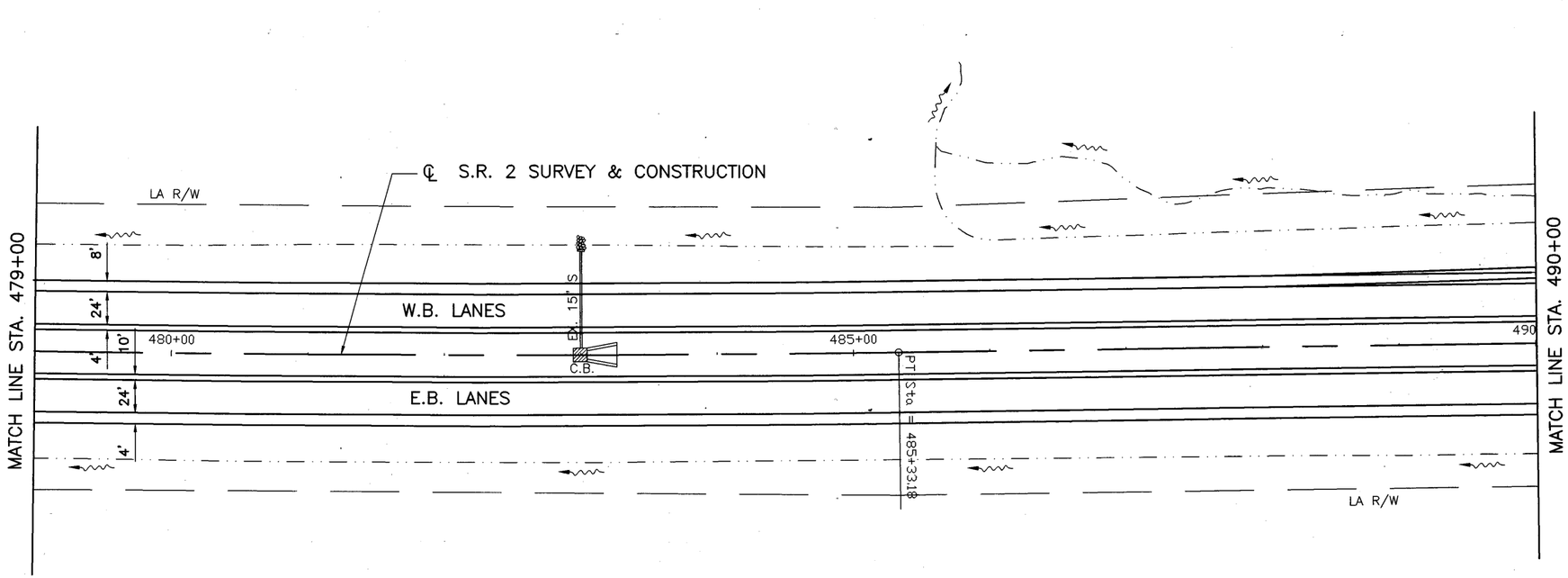
CALCULATED DLS | CHECKED LAB

HORIZONTAL SCALE IN FEET 0 50' 100

STORM WATER POLLUTION PREVENTION PLAN
STA. 457+00 TO STA. 479+00

LOR - 190 - 10.76

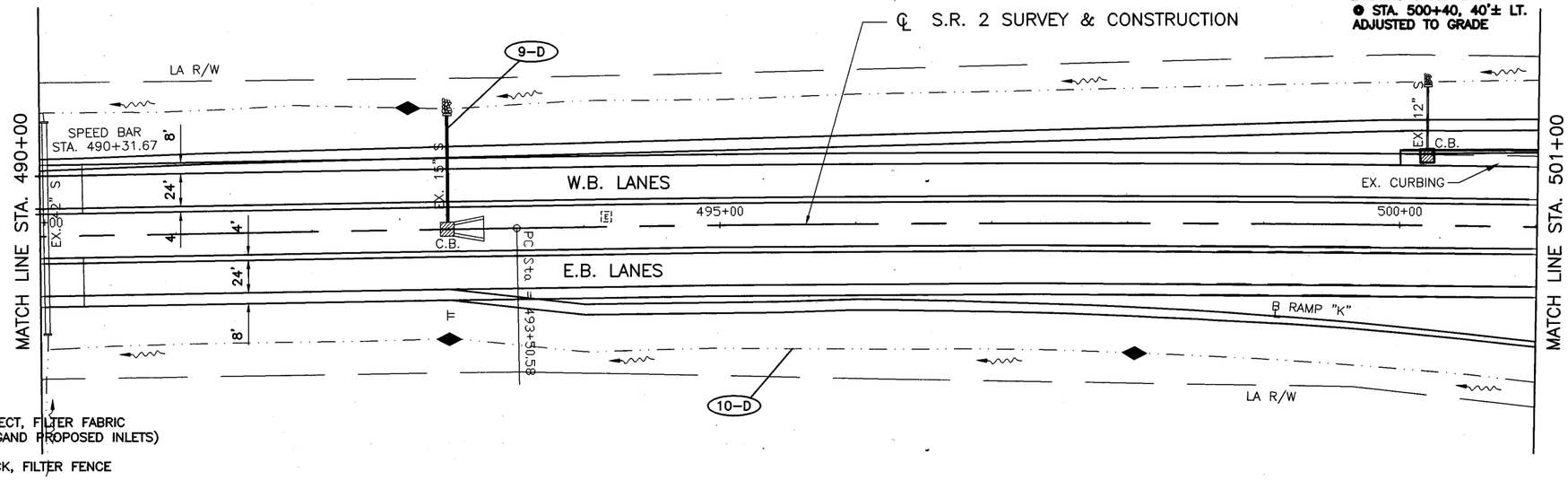
CURVE DATA (3)
P.I. STA. 481+16.20
△ = 2°13'27" LT.
D = 0°16'00"
R = 21,485.92'
T = 417.08'
L = 834.06'
E = 4.04'



CURVE DATA (4)
P.I. STA. 499+53.92
△ = 3°13'01" RT.
D = 0°16'00"
R = 21,485.92'
T = 603.34'
L = 1206.35'
E = 8.47'

STA. 493+00
REPLACE LAST 2' OF 85'-15" CLASS J-1.
PIPE BROKEN FROM RECENT DITCH WORK
FROM ODOT FORCES.

* EXISTING CATCH BASIN
● STA. 500+40, 40'± LT.
ADJUSTED TO GRADE



LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- —FF— FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

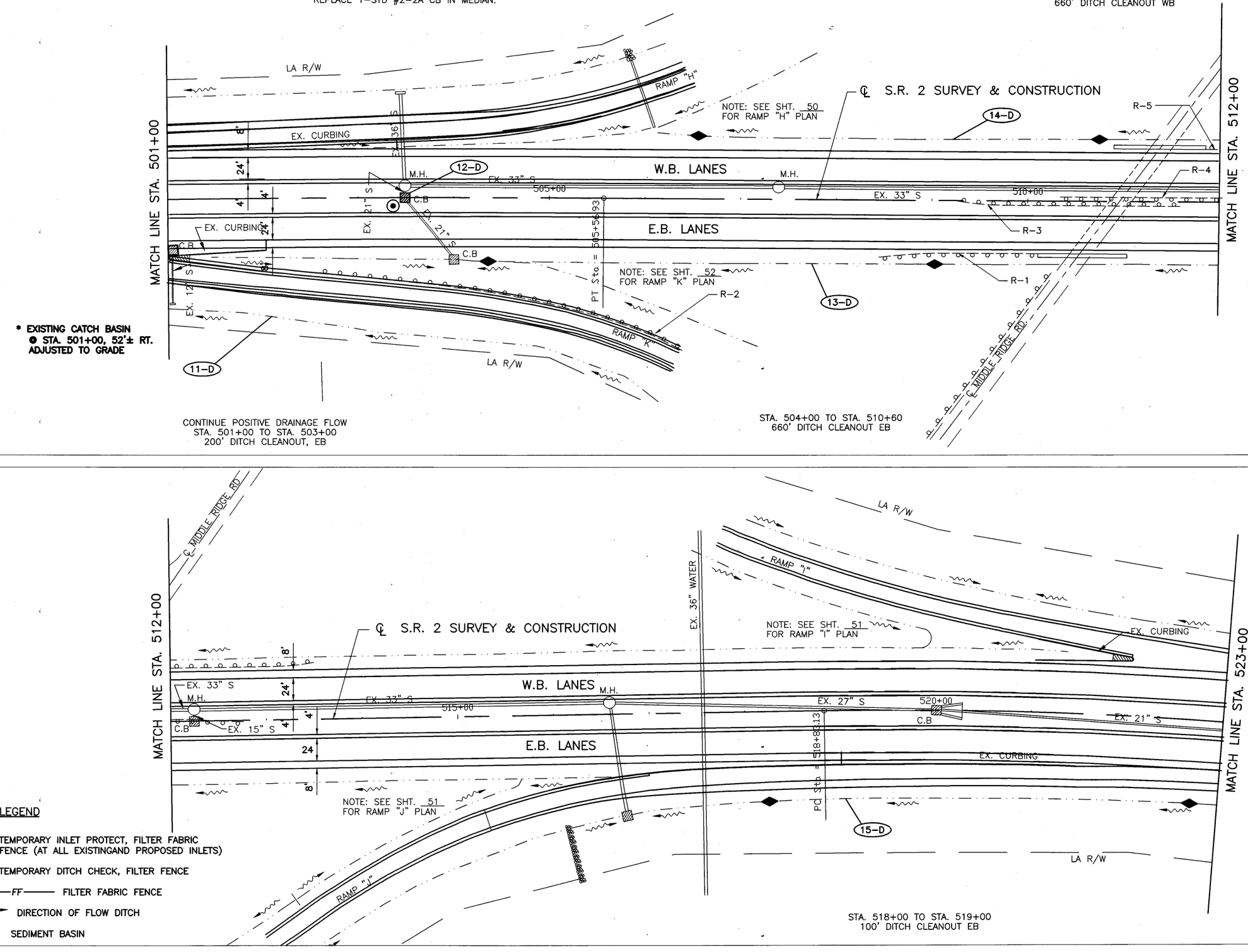
ESTABLISH POSITIVE DRAINAGE FLOW.
STA. 493+00 TO STA. 501+00 EB.
800' DITCH CLEANOUT EB

HORIZONTAL SCALE IN FEET
0 50' 100'

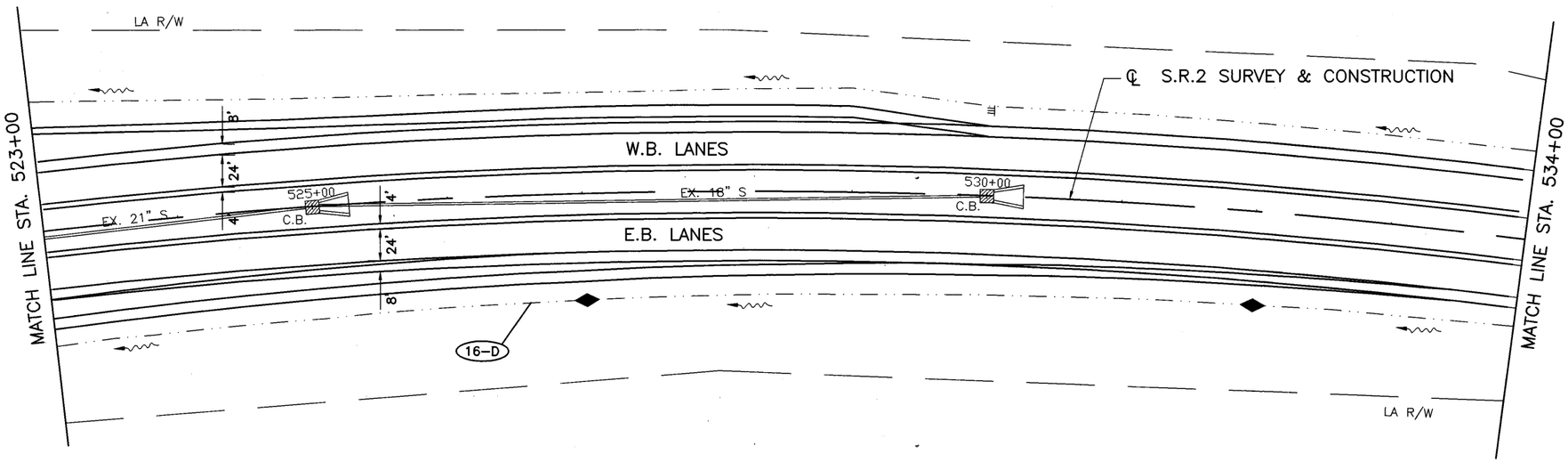
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 479+00 TO STA. 501+00

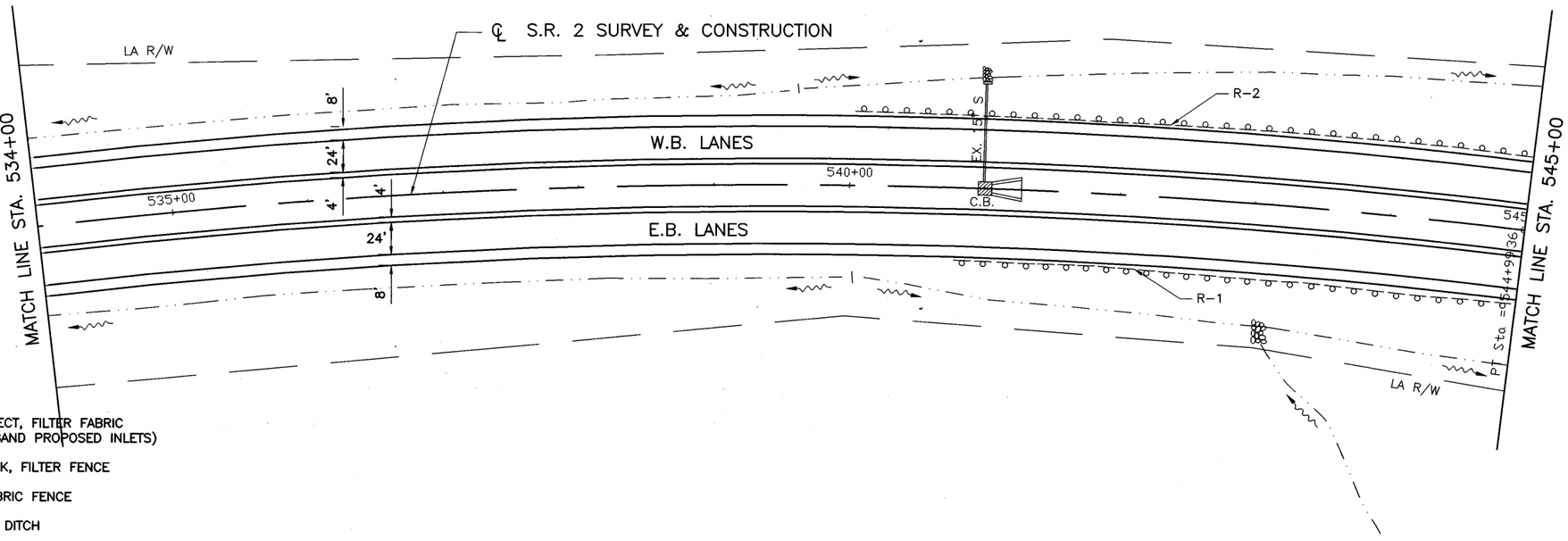
LOR - 190 - 10.76


STA. 503+50
REPLACE 1–STD #2–2A CB IN MEDIAN.
STA. 505+60 TO STA. 512+20
660' DITCH CLEANOUT WB
LA R/W
RAMP "H"
EX. CURBING
8'
24'
4'
4'
20'
8'
EX. 36" S
EX. 21" S
M.H.
12–D
EX. 33" S
505+00
C.B
W.B. LANES
M.H.
EX. 33" S
510+00
E.B. LANES
EX. CURBING
C.B
C.B
EX. 12" S
PT Sta = 505+56.93
NOTE: SEE SHT. 50
FOR RAMP "H" PLAN
℄ S.R. 2 SURVEY & CONSTRUCTION
14–D
R–5
R–4
R–3
R–1
R–2
NOTE: SEE SHT. 52
FOR RAMP "K" PLAN
13–D
RAMP "K"
LA R/W
11–D
MATCH LINE STA. 501+00
MATCH LINE STA. 512+00
* EXISTING CATCH BASIN
● STA. 501+00, 52'± RT.
ADJUSTED TO GRADE
CONTINUE POSITIVE DRAINAGE FLOW
STA. 501+00 TO STA. 503+00
200' DITCH CLEANOUT, EB
STA. 504+00 TO STA. 510+60
660' DITCH CLEANOUT EB
℄ MIDDLE RIDGE RD.
℄ MIDDLE RIDGE RD.
MATCH LINE STA. 512+00
℄ S.R. 2 SURVEY & CONSTRUCTION
EX. 36" WATER
LA R/W
RAMP "I"
NOTE: SEE SHT. 51
FOR RAMP "I" PLAN
EX. CURBING
8'
EX. 33" S
M.H.
24'
4'
4'
EX. 33" S
515+00
W.B. LANES
M.H.
EX. 27" S
520+00
EX. 21" S
C.B
EX. 15" S
C.B
24
E.B. LANES
EX. CURBING
8'
PC Sta = 518+88.13
NOTE: SEE SHT. 51
FOR RAMP "J" PLAN
15–D
LA R/W
RAMP "J"
MATCH LINE STA. 523+00
STA. 518+00 TO STA. 519+00
100' DITCH CLEANOUT EB
LEGEND
TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
TEMPORARY DITCH CHECK, FILTER FENCE
FF FILTER FABRIC FENCE
DIRECTION OF FLOW DITCH
SEDIMENT BASIN
HORIZONTAL SCALE IN FEET
0
50'
100'
CALCULATED DLS
CHECKED LAB
STORM WATER POLLUTION PREVENTION PLAN
STA. 501+00 TO STA. 523+00
LOR - I90 - 10.76
26
274
[G:\38600\DWGS\EROSION\SP-06.DWG] JSR
02-21-2002 9:12AM

CURVE DATA (5)
P.I. STA. 532+28.96
△ = 33°08'20" RT.
D = 1°16'00"
R = 4523.35'
T = 1345.84'
L = 2616.23'
E = 195.97'



STA. 522+80 TO STA. 534+50
1170' DITCH CLEANOUT EB.



LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 523+00 TO STA. 545+00

LOR - I90 - 10.76

27
274

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 545+00 TO STA. 567+00

LOR - I90 - 10.76

D:\93600\DWGS\EROSION\SP-08.DWG 1 JOR
Oct 18-2002 4:44PM

LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

HORIZONTAL SCALE IN FEET
0 50' 100

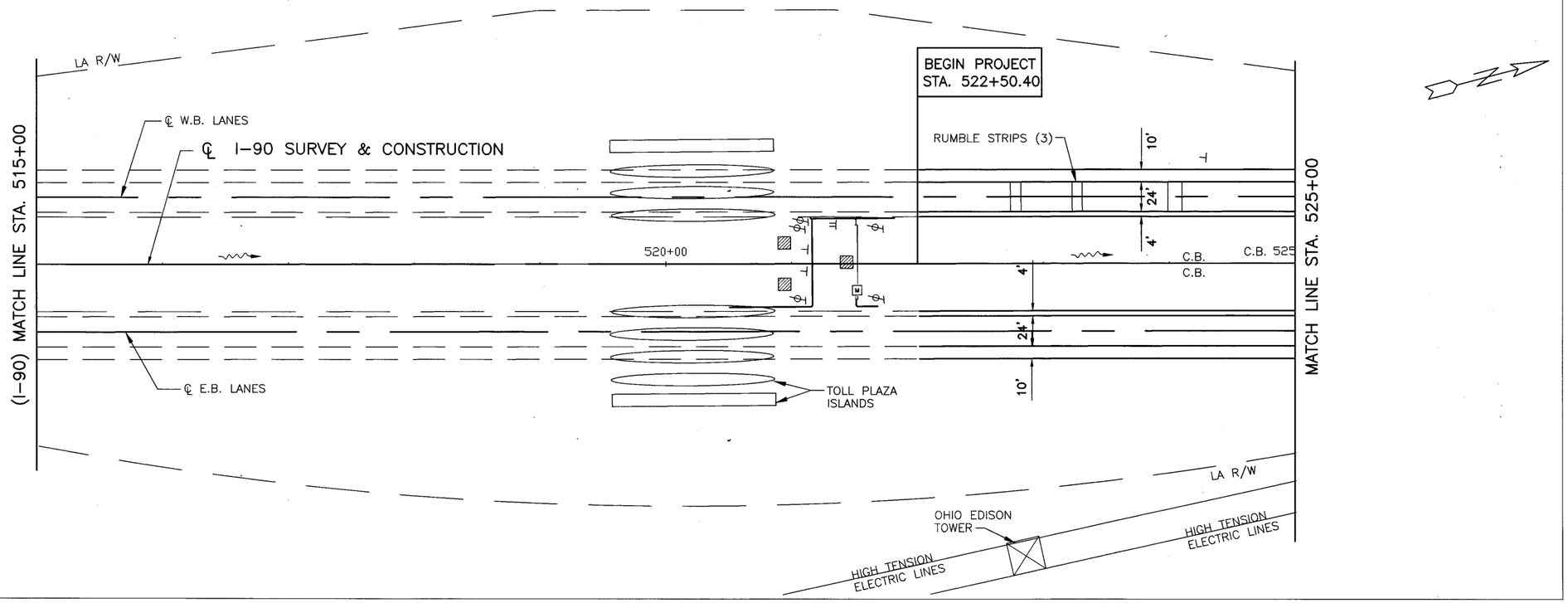
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 576+ 00 TO STA. 575+00

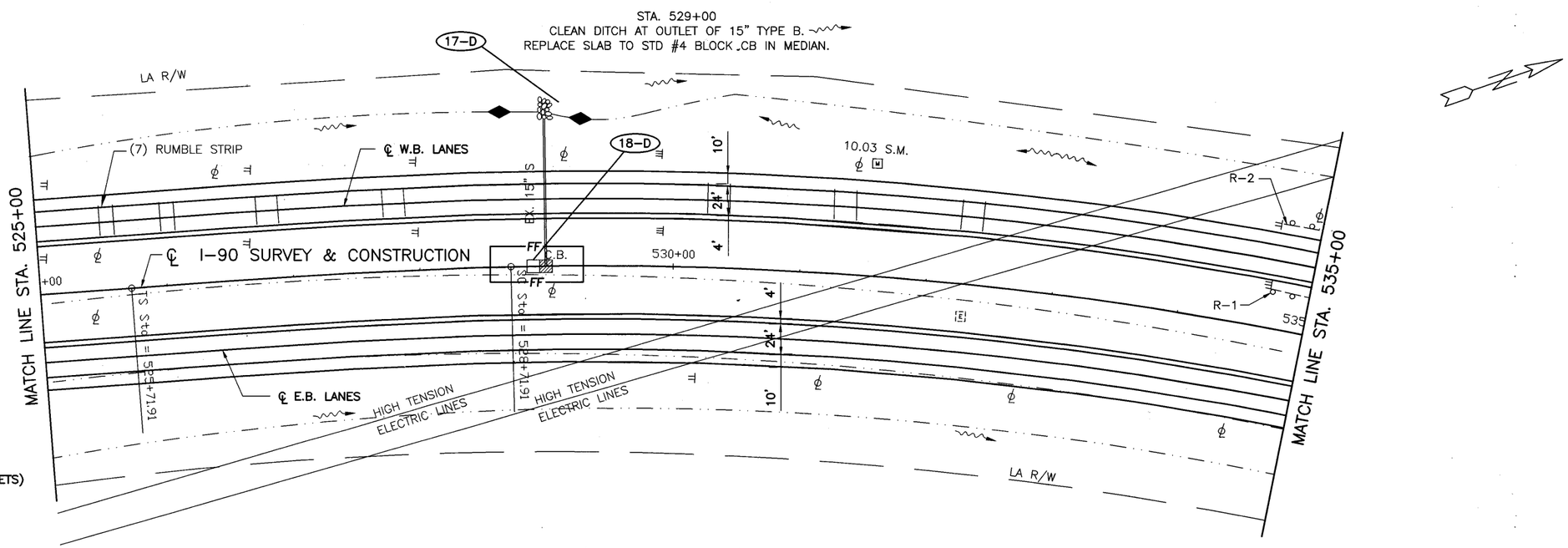
LOR - I90 - 10.76

29
274

D:\93600\DWGS\EROSION\SP-09.DWG] JGR
-18-2002 10:49AM



CURVE DATA (6)
CENTER LINE SURVEY
P.I. STA. 542+31.82
Δ = 55°33'45" RT.
Δ_C = 49°33'45"
D_C = 2°00'00"
R = 2864.79'
T = 1659.91'
L = 300.00'
L_C = 2478.13'
E = 374.72'
θ_S = 3°00'00"



LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

HORIZONTAL SCALE IN FEET
0 50' 100

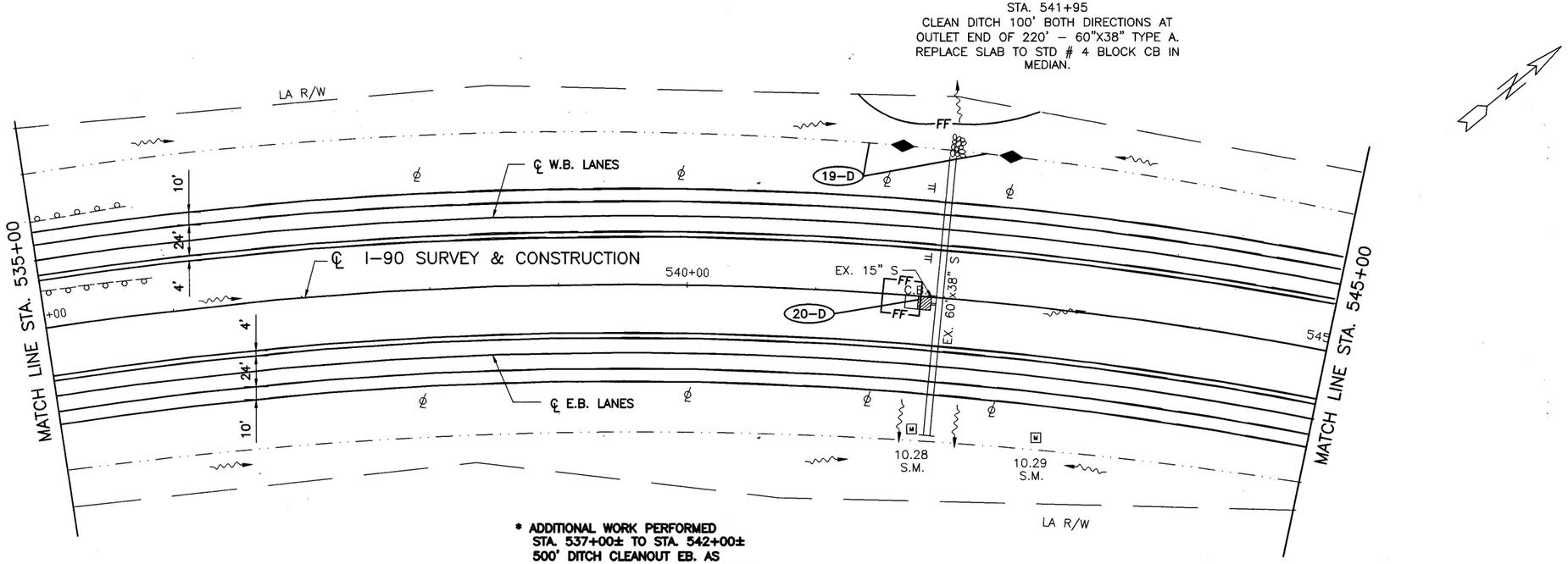
CALCULATED DLS
CHECKED LAB

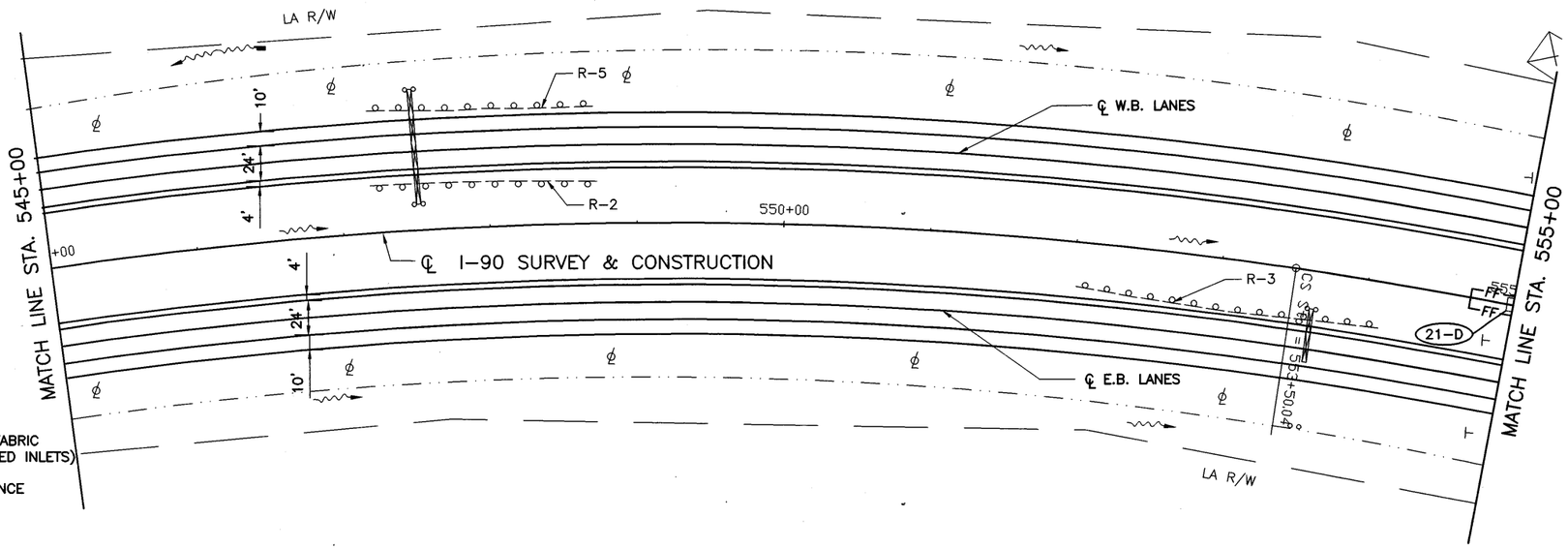
STORM WATER POLLUTION PREVENTION PLAN
STA. 515+00 TO STA. 535+00

LOR - I90 - 10.76

30
274

O:\93600\DWGS\EROSION\SP-10.DWG] JGR
2-18-2002 11:03AM



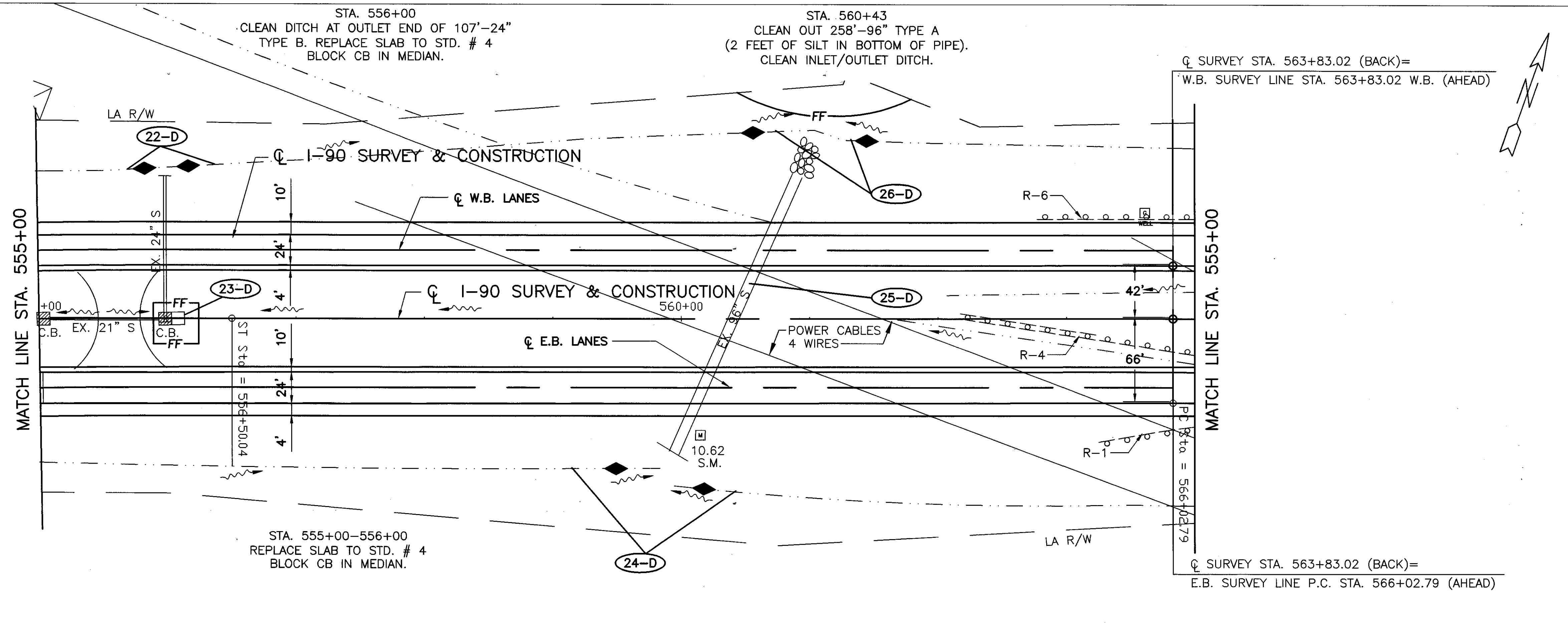


HORIZONTAL SCALE IN FEET
0 50' 100

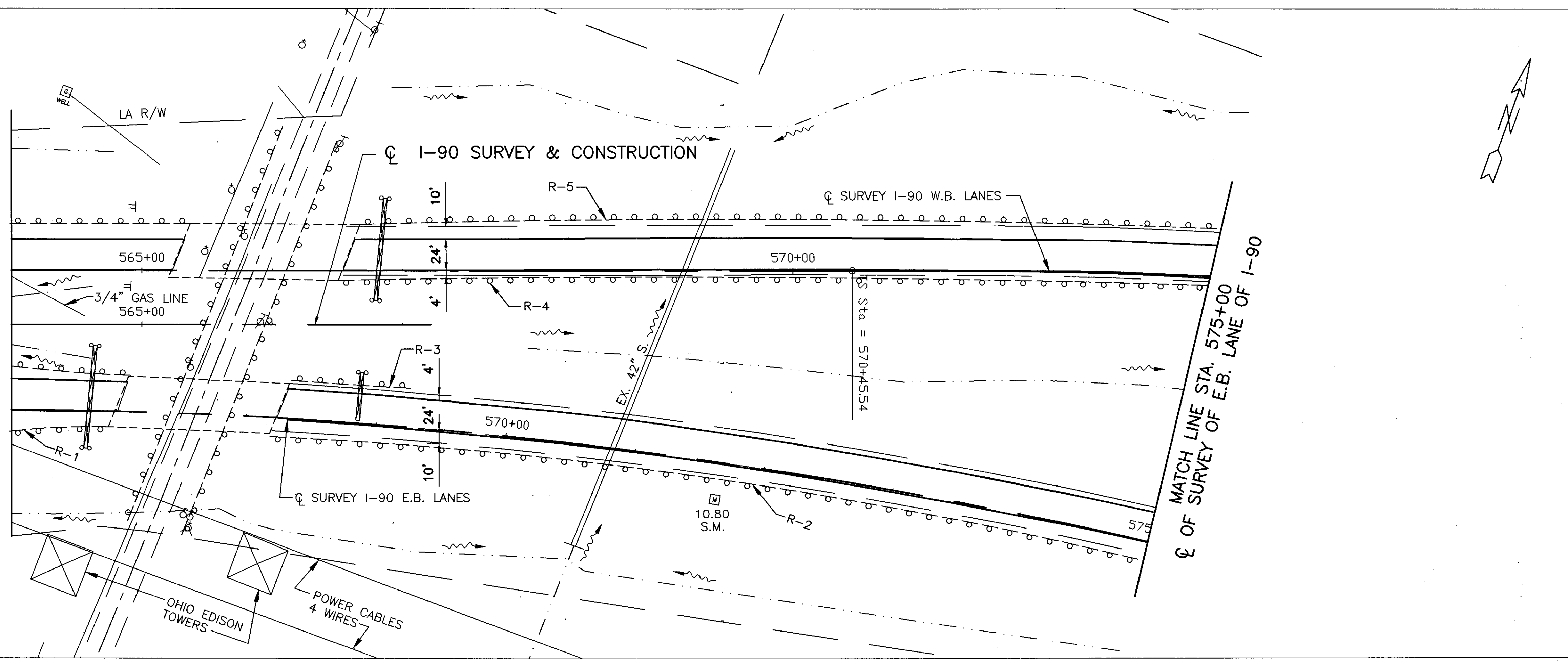
CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 535+00 TO STA. 555+00

LOR - I90 - 10.76


STA. 556+00
CLEAN DITCH AT OUTLET END OF 107'-24"
TYPE B. REPLACE SLAB TO STD. # 4
BLOCK CB IN MEDIAN.
STA. 560+43
CLEAN OUT 258'-96" TYPE A
(2 FEET OF SILT IN BOTTOM OF PIPE).
CLEAN INLET/OUTLET DITCH.
℄ SURVEY STA. 563+83.02 (BACK)=
W.B. SURVEY LINE STA. 563+83.02 W.B. (AHEAD)
LA R/W
22-D
℄ I-90 SURVEY & CONSTRUCTION
℄ W.B. LANES
26-D
R-6
MATCH LINE STA. 555+00
EX. 24" S
23-D
℄ I-90 SURVEY & CONSTRUCTION
560+00
25-D
C.B.
EX. 21" S
FF
ST Sta = 556+50.04
℄ E.B. LANES
EX. 36" S
POWER CABLES
4 WIRES
R-4
42'
66'
10'
24'
4'
10.62
S.M.
R-1
P.C. Sta = 566+02.79
STA. 555+00-556+00
REPLACE SLAB TO STD. # 4
BLOCK CB IN MEDIAN.
24-D
LA R/W
℄ SURVEY STA. 563+83.02 (BACK)=
E.B. SURVEY LINE P.C. STA. 566+02.79 (AHEAD)
MATCH LINE STA. 555+00

CURVE DATA ⟨7⟩
SURVEY LINE E.B. LANES
P.I. STA. 574+74.56
Δ = 25°09'35" RT.
Dc = 1°28'00"
R = 3906.53'
T = 871.77'
L = 1715.43'
E = 96.09'


LA R/W
WELL
℄ I-90 SURVEY & CONSTRUCTION
R-5
℄ SURVEY I-90 W.B. LANES
℄ I-90 SURVEY
MATCH LINE STA. 564+00
565+00
3/4" GAS LINE
565+00
570+00
R-4
ST Sta = 570+45.54
R-3
EX. 42" S
570+00
R-1
℄ SURVEY I-90 E.B. LANES
10.80
S.M.
R-2
OHIO EDISON
TOWERS
POWER CABLES
4 WIRES
MATCH LINE STA. 575+00
℄ OF SURVEY OF E.B. LANE OF I-90
575

LEGEND

⦿ TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)

◆ TEMPORARY DITCH CHECK, FILTER FENCE

——FF—— FILTER FABRIC FENCE

~~~→ DIRECTION OF FLOW DITCH

◣ SEDIMENT BASIN

LA R/W

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 555+00 TO STA. 575+00

LOR - I90 - 13.20
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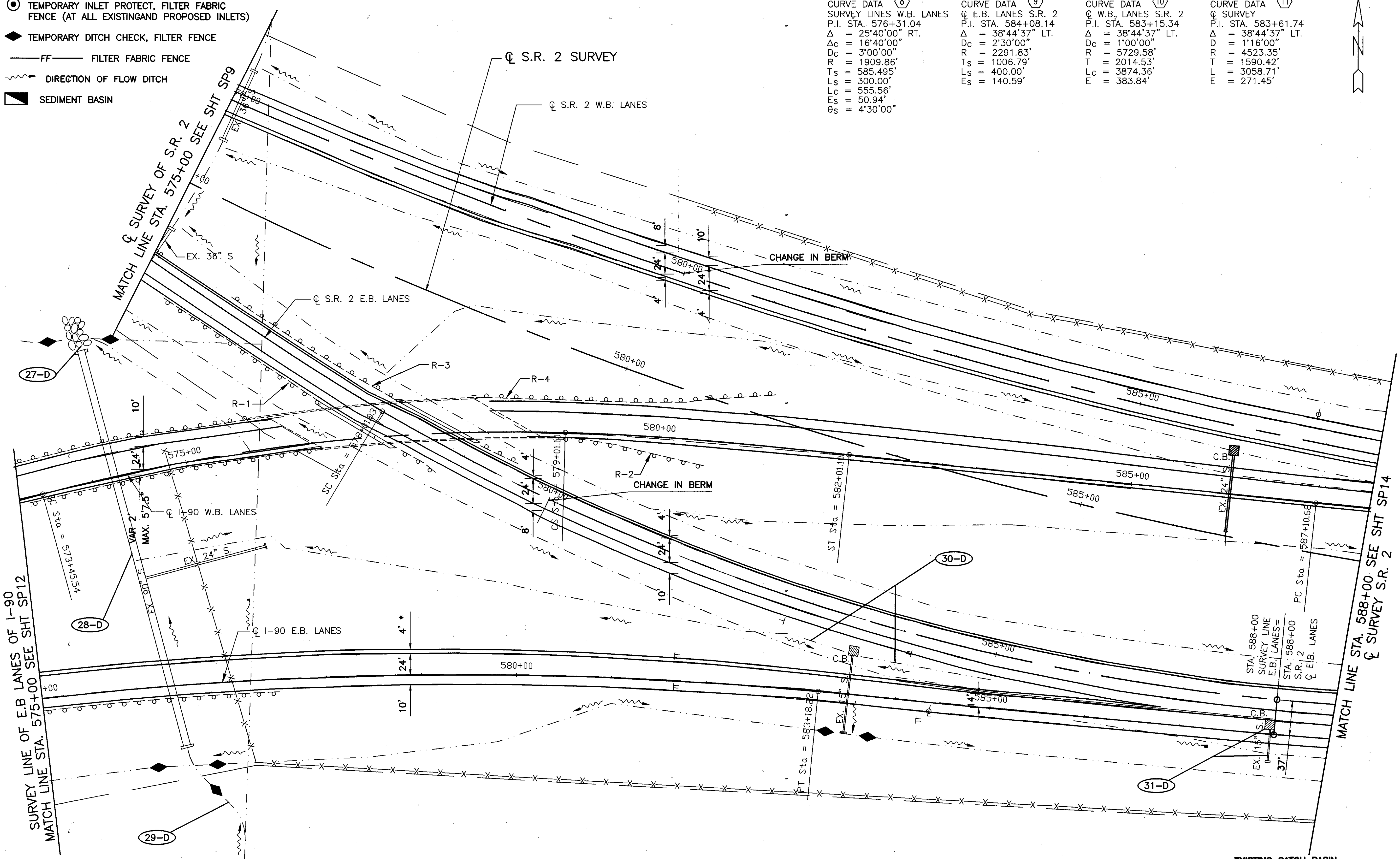
LEGEND

- ⦿ TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- ◆ TEMPORARY DITCH CHECK, FILTER FENCE
- ——FF—— FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

CURVE DATA ⟨8⟩	CURVE DATA ⟨9⟩	CURVE DATA ⟨10⟩	CURVE DATA ⟨11⟩
SURVEY LINES W.B. LANES	℄ E.B. LANES S.R. 2	℄ W.B. LANES S.R. 2	℄ SURVEY
P.I. STA. 576+31.04	P.I. STA. 584+08.14	P.I. STA. 583+15.34	P.I. STA. 583+61.74
Δ = 25°40'00" RT.	Δ = 38°44'37" LT.	Δ = 38°44'37" LT.	Δ = 38°44'37" LT.
Δc = 16°40'00"	Dc = 2°30'00"	Dc = 1°00'00"	D = 1°16'00"
Dc = 3°00'00"	R = 2291.83'	R = 5729.58'	R = 4523.35'
R = 1909.86'	Ts = 1006.79'	T = 2014.53'	T = 1590.42'
Ts = 585.495'	Ls = 400.00'	Lc = 3874.36'	L = 3058.71'
Ls = 300.00'	Es = 140.59'	E = 383.84'	E = 271.45'
Lc = 555.56'			
Es = 50.94'			
θs = 4°30'00"			



STA. 576+36.5
CLEAN OUT 430'-90" TYPE A
CLEAN INLET/OUTLET DITCH.
(2 FEET OF SILT IN BOTTOM OF PIPE).

STA. 583+50
CLEAN DITCH 100 FEET BOTH
DIRECTIONS AT 81°15" TYPE B.

[illegible]

(31-D) EXISTING CATCH BASIN ADJUSTED TO GRADE AND PIPE REMAIN IN PLACE

0 50' 100
HORIZONTAL SCALE IN FEET

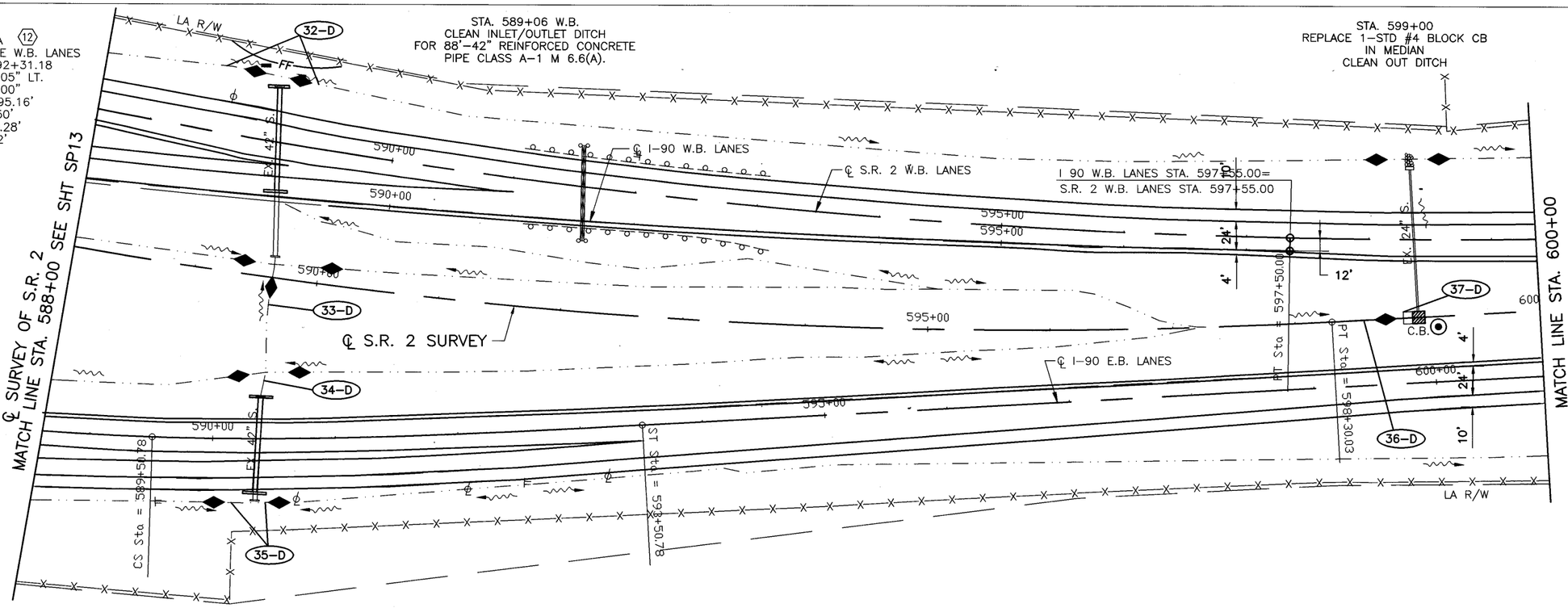
CALCULATED DLS
CHECKED LAB

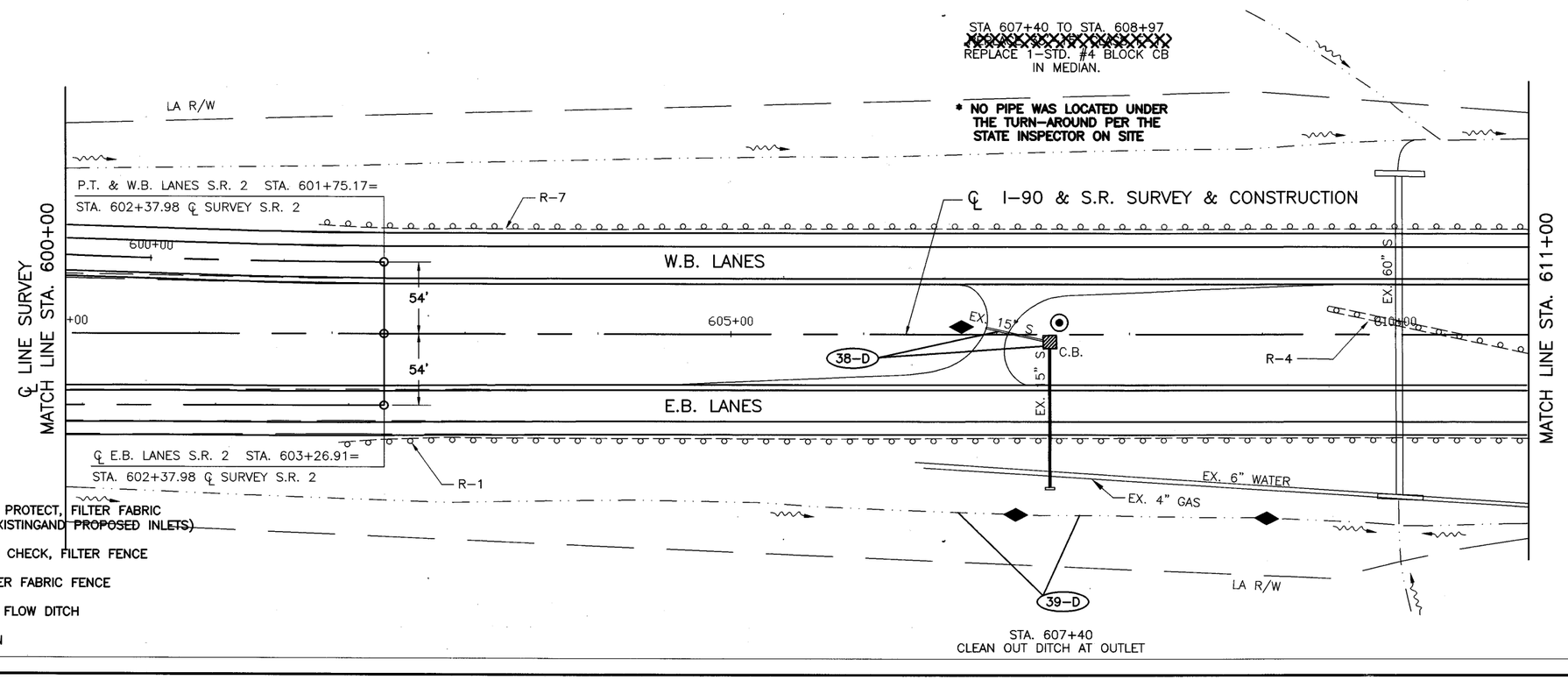
STORM WATER POLLUTION PREVENTION PLAN
STA. 575+00 TO STA. 588+00

LOR - 190 - 10.76

0:\93600\DWGS\EROSION\SP-13.DWG] JGR
2-21-2002 11:59AM

CURVE DATA (12)
SURVEY LINE W.B. LANES
P.I. STA. 592+31.18
Δ = 5°12'05" LT.
Dc = 0°30'00"
R = 11,495.16'
T = 520.50'
L = 1040.28'
E = 11.82'





LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 588+00 TO STA. 611+00

LOR - I90 - 10.76

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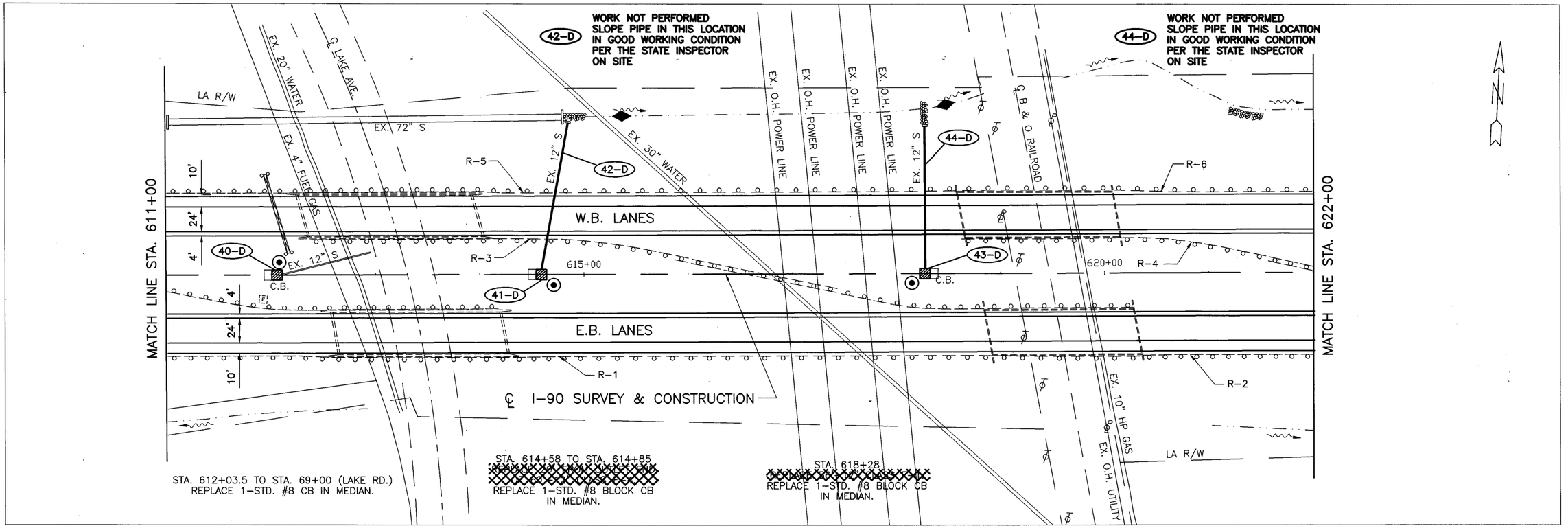
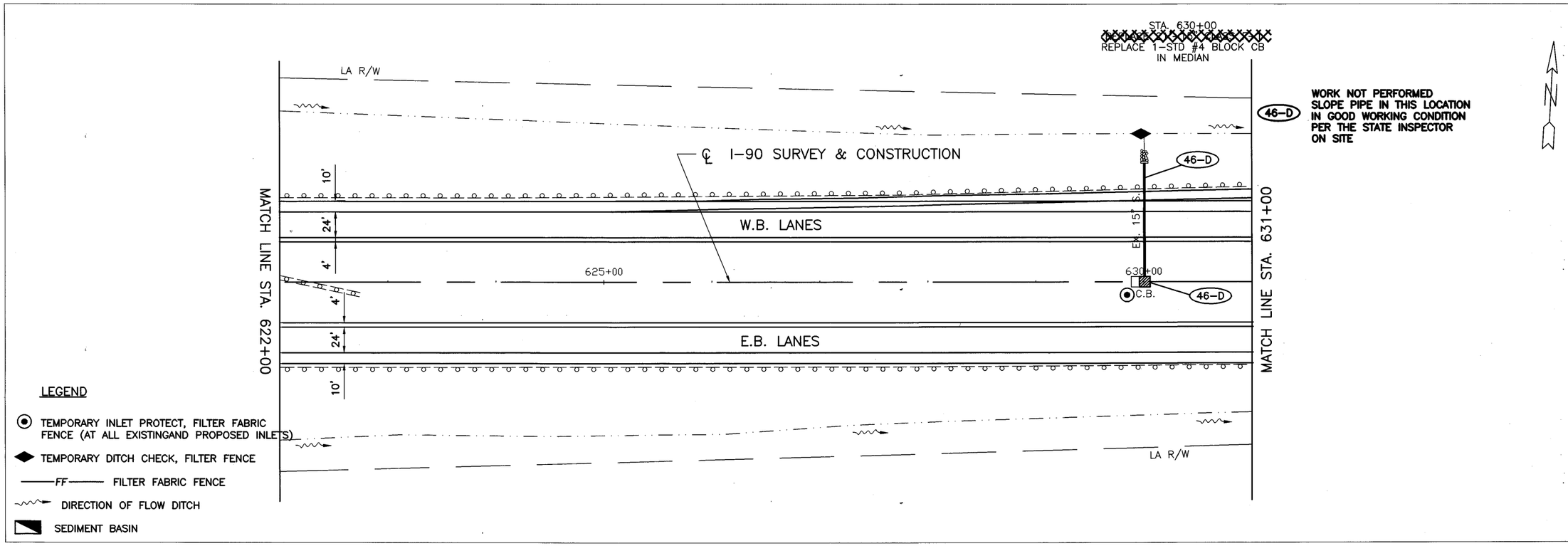
2-18-2002 2:59PM



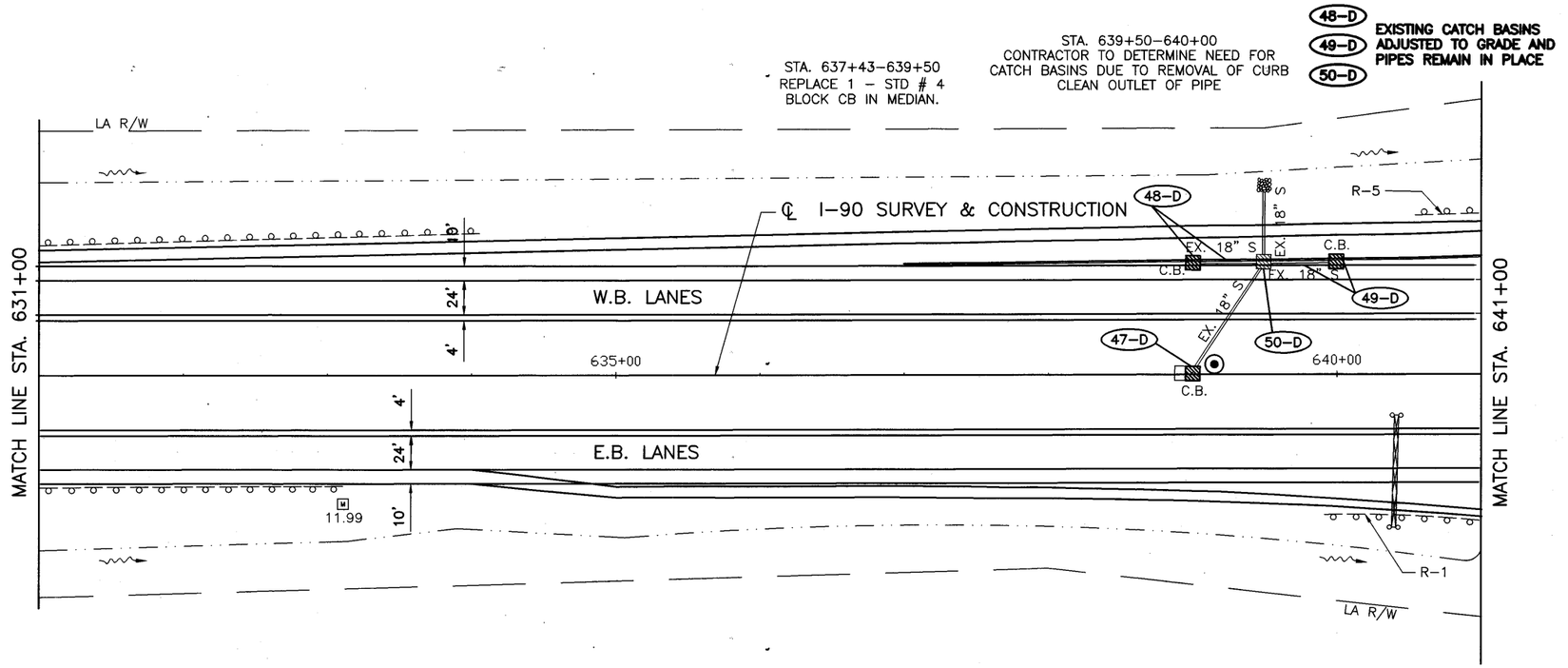


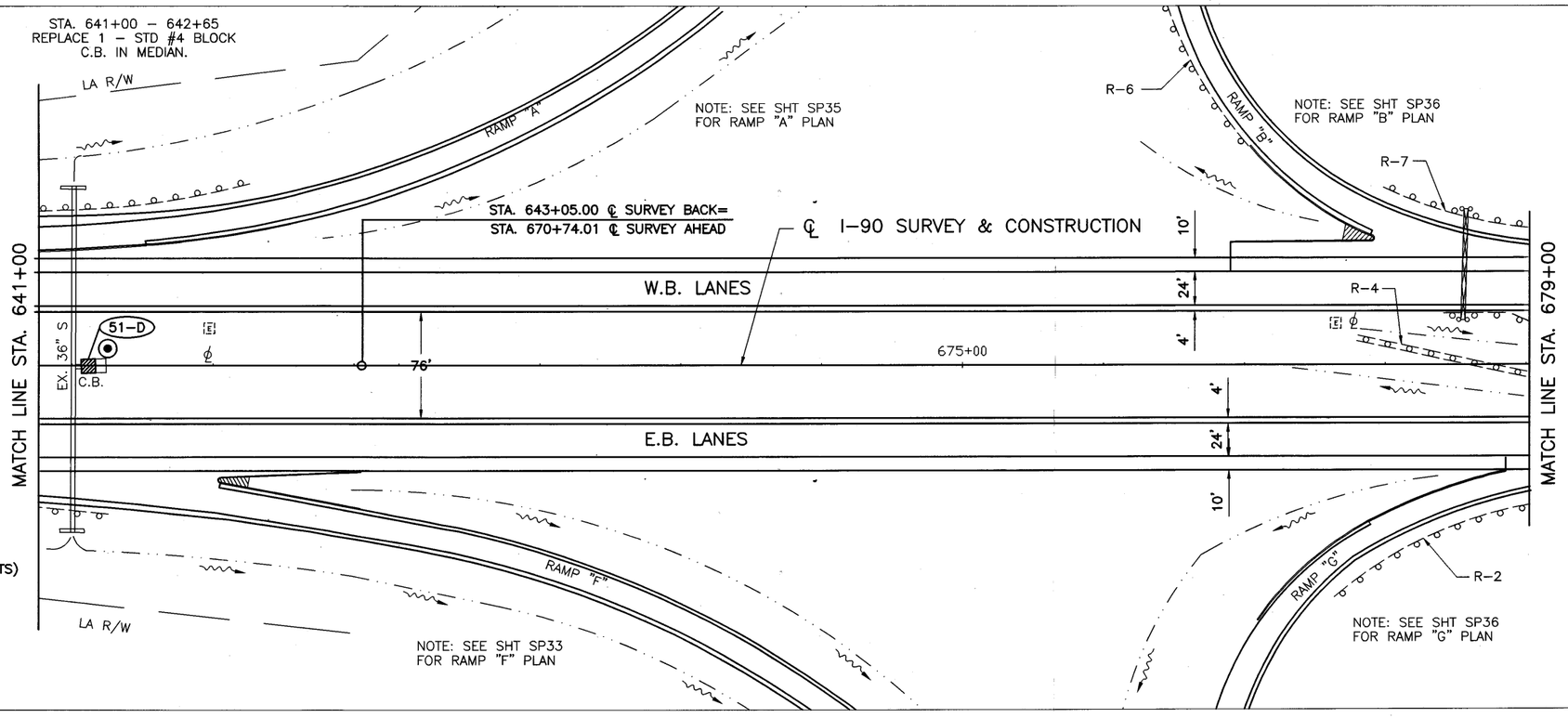
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 611+00 TO STA. 631+00

LOR - I90 - 10.76





HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN STA. 631+00 TO STA. 679+00

LOR - I90 - 10.76

STA. 680+35
REPLACE 10'-15" TYPE F
AT OUTLET
REPLACE 1 - STD #2-2B
BRICK C.B. IN MEDIAN.

STA. 683+68
REPLACE 10'-15" TYPE F
AT OUTLET
REPLACE 1 - STD #2-2B
BRICK C.B. IN MEDIAN.

NOTE: SEE SHT SP34
FOR RAMP "X" PLAN

RAMP "X"

EX. 21" S

52-D

53-D

R-8

℄ I-90 SURVEY & CONSTRUCTION

MATCH LINE STA. 679+00

MATCH LINE STA. 690+00

10'

24'

4'

EX. 15" S

W.B. LANES

680+00

C.B.

R-4

685+00

690

24'

4'

10'

E.B. LANES

R-1

R-2

EX. 84" S

RAMP "E"

NOTE: SEE SHT SP34
FOR RAMP "E" PLAN

℄ S.R. 57

EX. 21" S

RAMP "C"

R-9

NOTE: SEE SHT SP38
FOR RAMP "C" PLAN

EX. 84" S

EX. 84" S

STA. 696+00
REPLACE 1 - STD #4 BRICK
C.B. IN MEDIAN.

* ADDITIONAL WORK PERFORMED
STA. 698+51.60±, ℄
CLEAN OUT EX. CATCH BASIN
AS REQUESTED BY THE STATE
INSPECTOR ON SITE

LA R/W

R-10

10'

24'

4'

W.B. LANES

℄ I-90 SURVEY & CONSTRUCTION

MATCH LINE STA. 690+00

MATCH LINE STA. 701+00

695+00

R-5

R-6

EX. 108" S

700+00

R-7

54-D

EX. 15" S

EX. 15" S

4'

24'

10'

E.B. LANES

EX. 15" S

NOTE: SEE SHT SP37
FOR RAMP "D" PLAN

RAMP "D"

55-D

ADDITIONAL WORK PERFORMED
REPLACE 60 L.F. PIPE TO REPLACE
EXISTING DAMAGED PIPE AND ADDED
5.8 C.Y. DUMP ROCK W/ FILTER AS
REQUESTED BY THE STATE INSPECTOR
ON SITE.

STA. 697+00
OUTLET SILTED OVER.
CLEAN OUT 76'-15" TYPE F -
CONTRACTOR TO DETERMINE
NEED FOR C.B. DUE TO
REMOVAL OF CURB.

EX. 15" S

56-D

R-3

56-D

EXISTING CATCH BASINS
ADJUSTED TO GRADE AND
PIPE REMAIN IN PLACE

55-D

LA R/W

℄ WEST RIVER RD.

LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

50' 0 100'
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

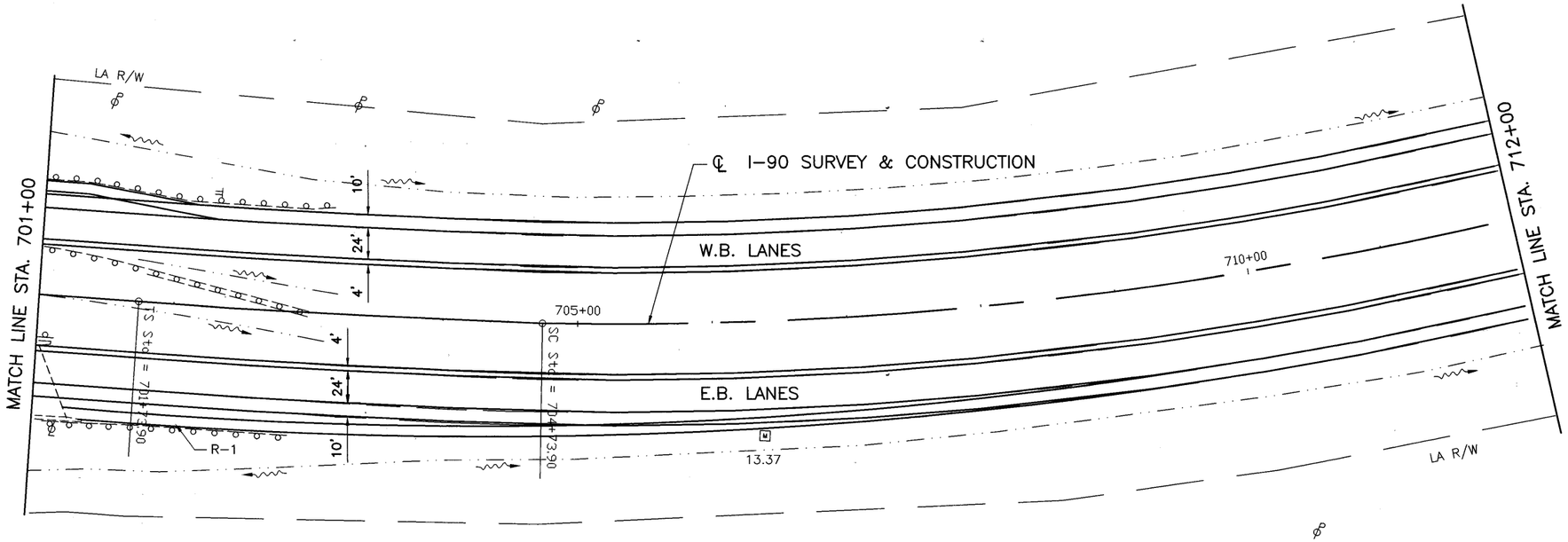
STORM WATER POLLUTION PREVENTION PLAN
STA. 679+00 TO STA. 701+00

LOR - I90 - 10.76

37
274

C:\V3500\DWGS\EROSION\SP-17.DWG] JGR
7-21-2002 3:30PM

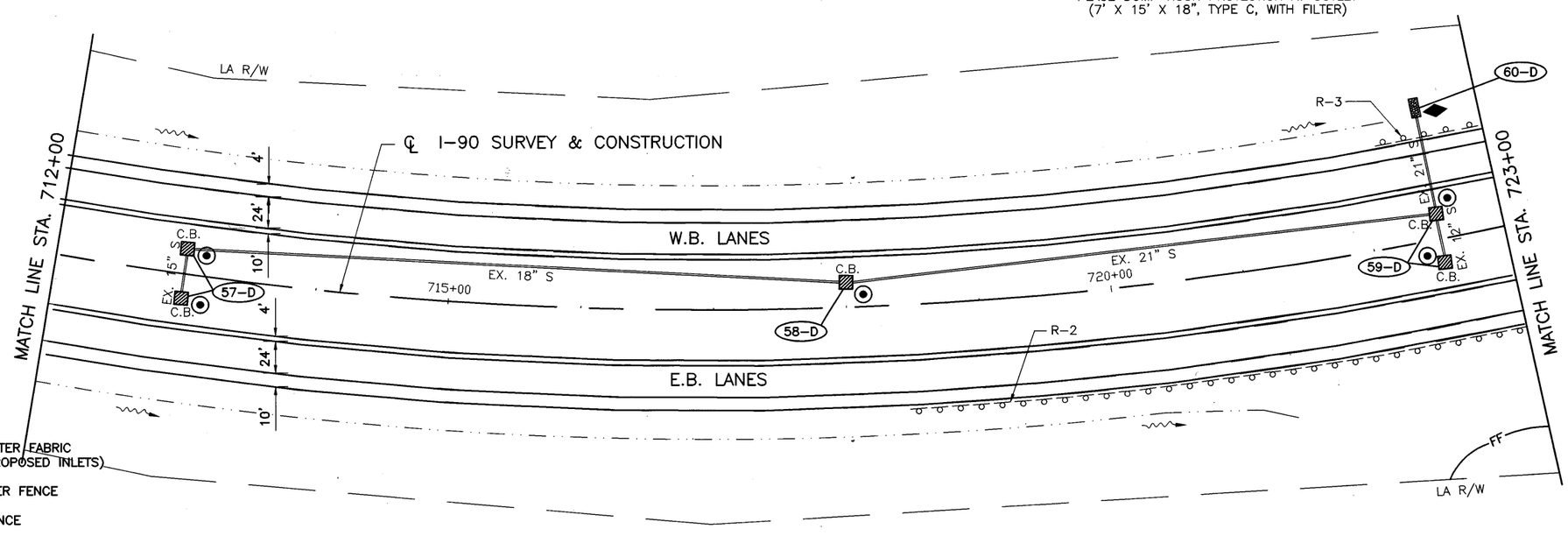
CURVE DATA (13)
P.I. STA. 719
Δ = 59°48'25"
Dc = 2°00'00"
Rc = 2864.79
Ts = 1798.30'
Lc = 2690.35'
Ls = 300.00'
Es = 441.47'
θs = 3°00'00"
L.T. = 200.03'
S.T. = 100.03'



STA. 713+00
REPLACE 2 – STD #8 BRICK
C.B. IN MEDIAN.

STA. 718+00
REPLACE 1 – STD #8 BRICK
C.B. IN MEDIAN.

STA. 722+50
REPLACE 2 – STD #8 BRICK
C.B. IN MEDIAN.
PLACE DUMP ROCK PROTECTION AT OUTLET
(7' X 15' X 18", TYPE C, WITH FILTER)



LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

HORIZONTAL SCALE IN FEET
0 50' 100

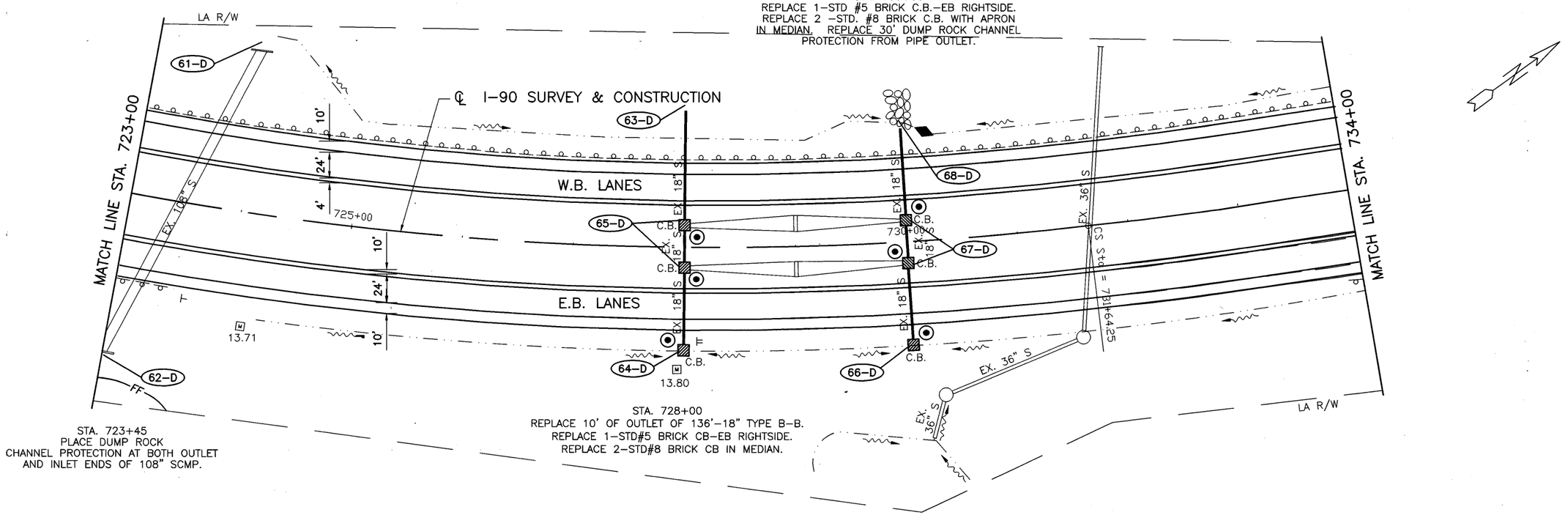
CALCULATED DLS
CHECKED LAB

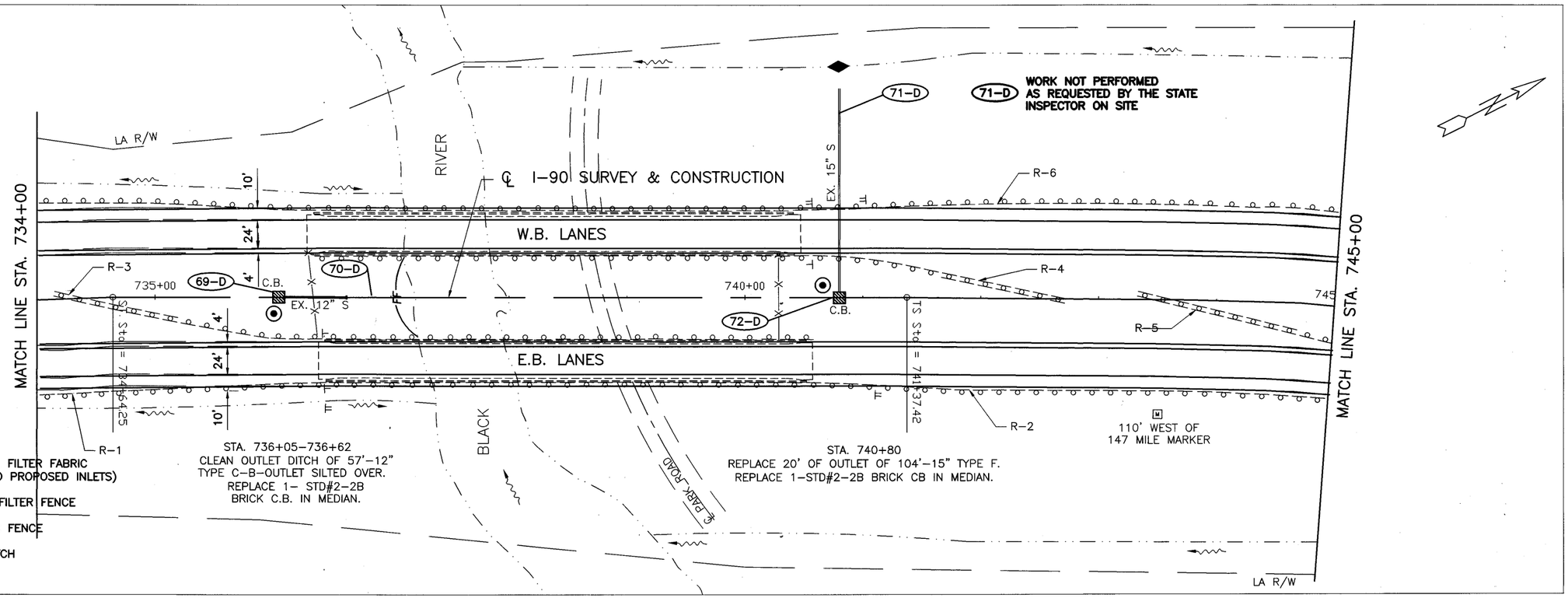
STORM WATER POLLUTION PREVENTION PLAN
STA. 701+00 TO STA. 723+00

LOR - I90 - 10.76

38
274

[O:\93600\DWGS\EROSION\SP-18.DWG] JGR
02-18-2002 3:40PM





HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 723+00 TO STA. 745+00

LOR - I90 - 10.76

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-16-2002 3:48PM

CURVE DATA (14)
P.I. STA. 750+87.60
Δ = 36°12'32"
Dc = 2°30'00"
Rc = 2291.83'
Ts = 950.18'
Lc = 1048.36'
Ls = 400.00'
Es = 122.44'
θs = 5°00'00"
L.T. = 266.77'
S.T. = 133.43'

STA. 745+28
CLEAN OUTLET DITCH OF 106'-15" TYPE F-OUTLET SILTED OVER. REPLACE 1 STD #2-2B BRICK CB IN MEDIAN.

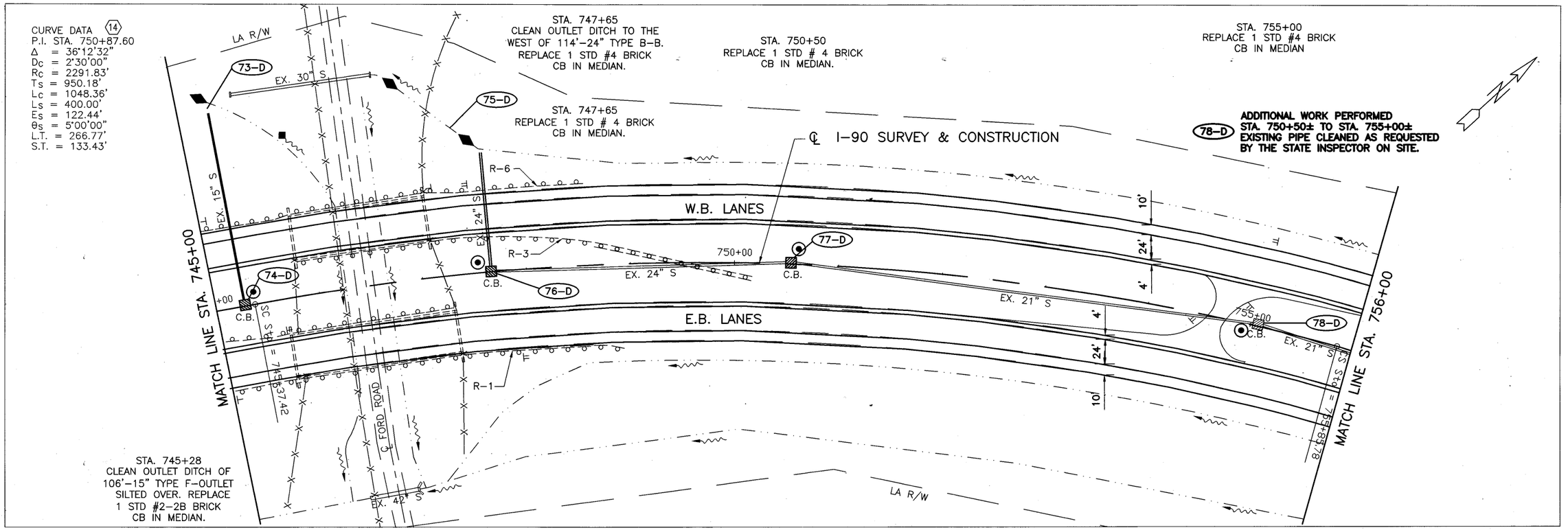
STA. 747+65
CLEAN OUTLET DITCH TO THE WEST OF 114'-24" TYPE B-B. REPLACE 1 STD #4 BRICK CB IN MEDIAN.

STA. 747+65
REPLACE 1 STD # 4 BRICK CB IN MEDIAN.

STA. 750+50
REPLACE 1 STD # 4 BRICK CB IN MEDIAN.

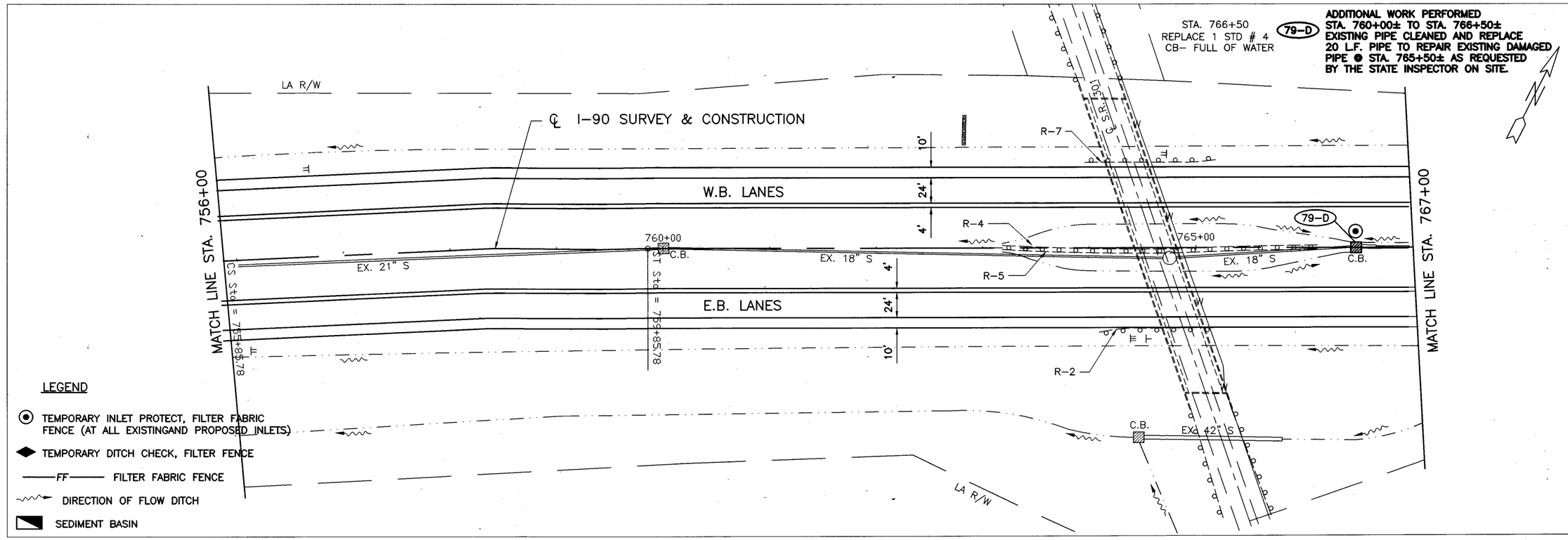
STA. 755+00
REPLACE 1 STD #4 BRICK CB IN MEDIAN

(78-D) ADDITIONAL WORK PERFORMED
STA. 750+50± TO STA. 755+00±
EXISTING PIPE CLEANED AS REQUESTED BY THE STATE INSPECTOR ON SITE.



STA. 766+50
REPLACE 1 STD # 4 CB– FULL OF WATER

(79-D) ADDITIONAL WORK PERFORMED
STA. 760+00± TO STA. 766+50±
EXISTING PIPE CLEANED AND REPLACE 20 L.F. PIPE TO REPAIR EXISTING DAMAGED PIPE @ STA. 765+50± AS REQUESTED BY THE STATE INSPECTOR ON SITE.



LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- ——FF—— FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

HORIZONTAL SCALE IN FEET
0 50' 100'

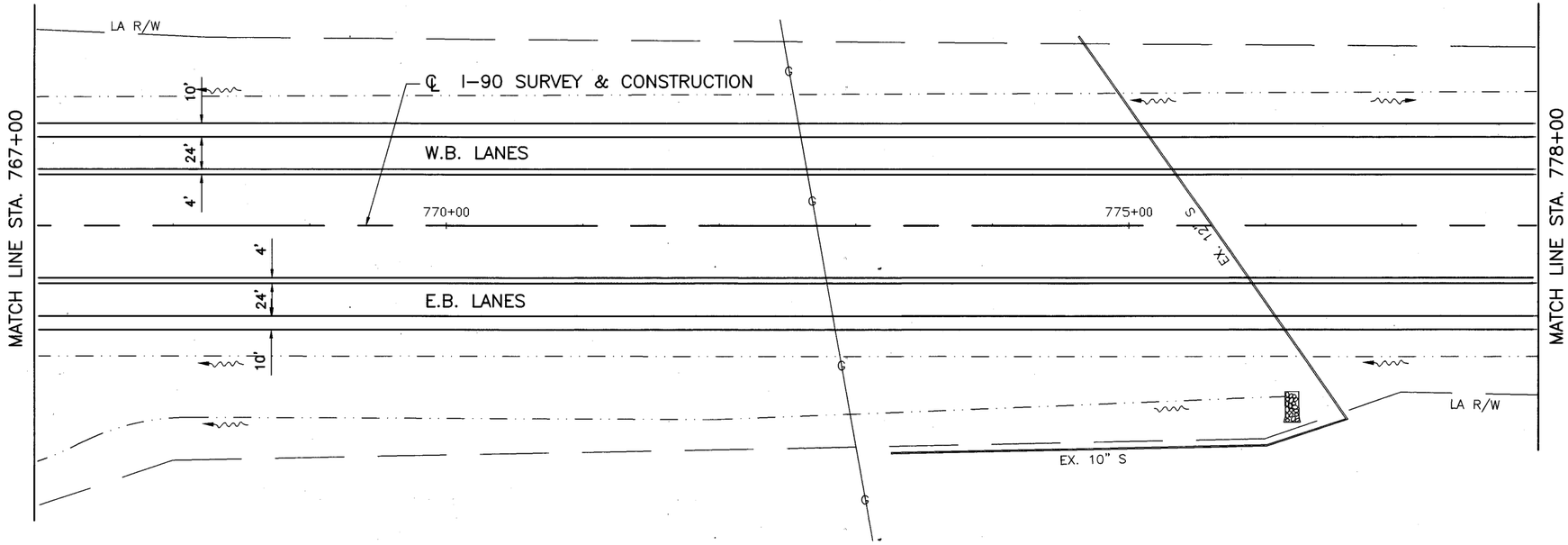
CALCULATED DLS | CHECKED LAB

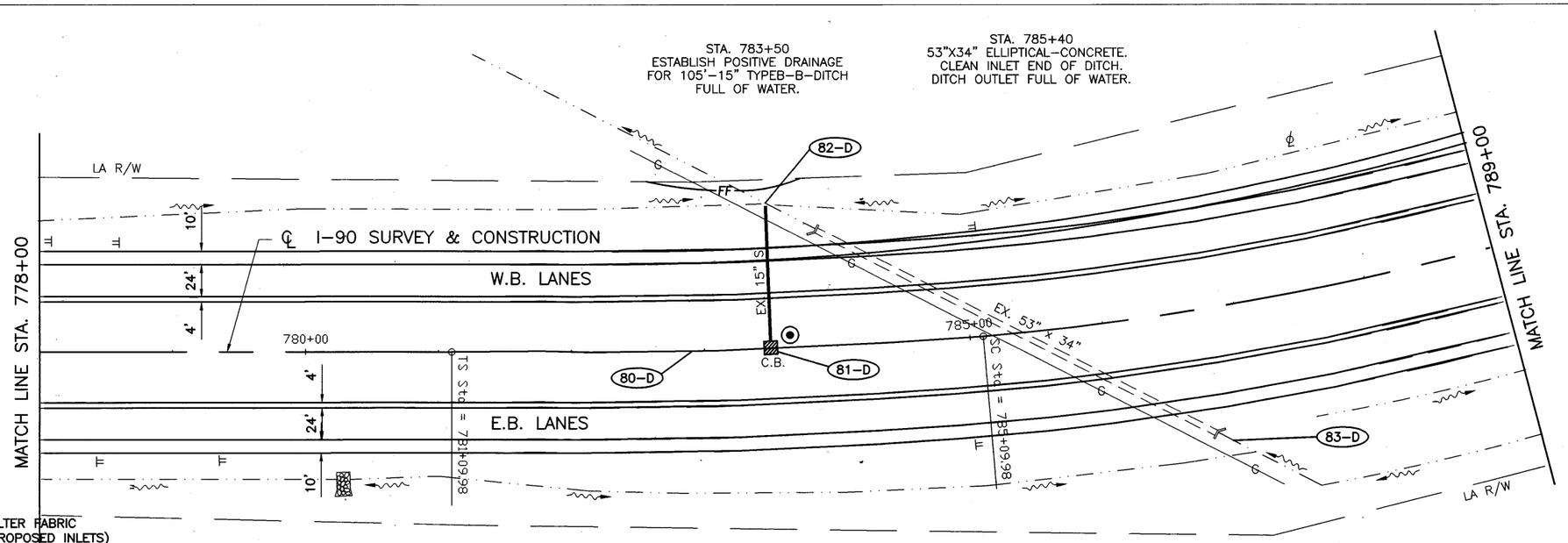
STORM WATER POLLUTION PREVENTION PLAN
STA. 745+00 TO STA. 767+00

LOR - I90 - 10.76

40
274

O:\9360\DWGS\EROSION\SP-20.DWG] JGR
7-19-2002 3:56PM





LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

STA. 783+50
REPLACE 1 STD #4 BRICK
CB IN MEDIAN

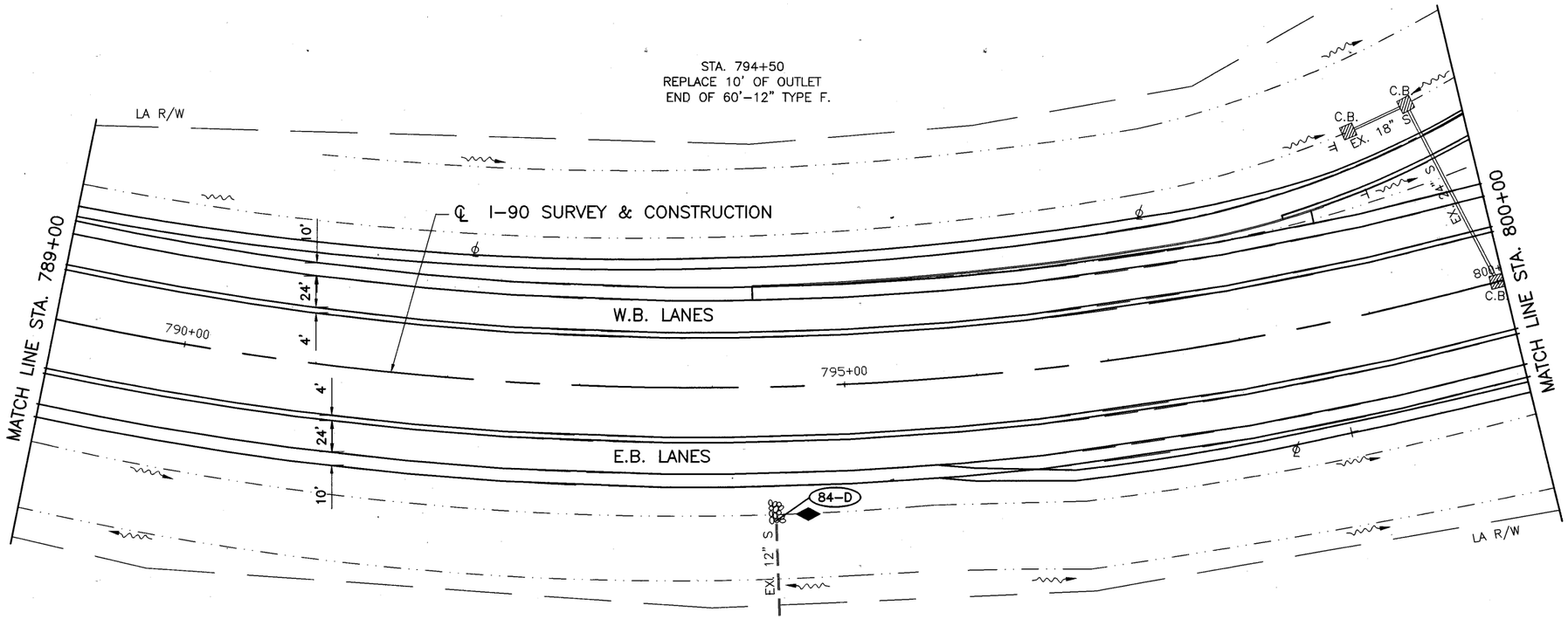
HORIZONTAL SCALE IN FEET
0 50' 100'

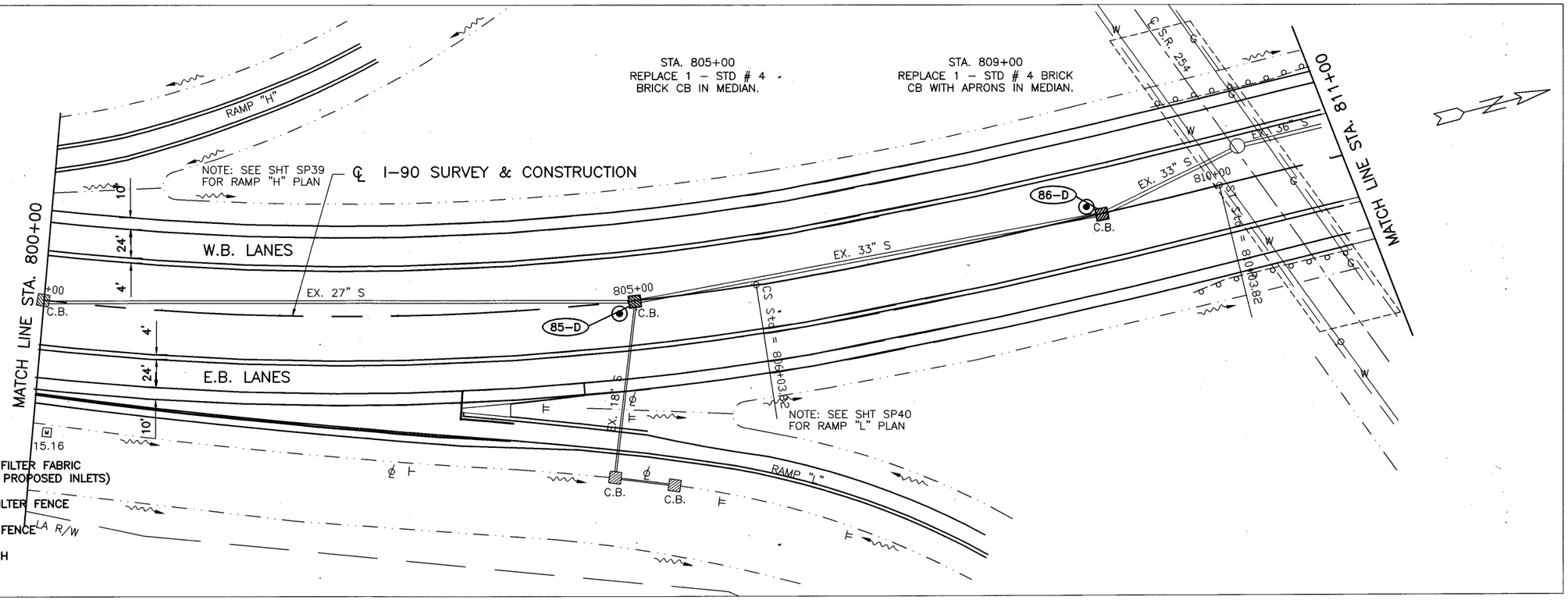
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 767+00 TO STA. 789+00

LOR - I90 - 10.76

CURVE DATA (15)
P.I. STA. 796+98.20
Δ = 62°20'45"
Dc = 2°30'00"
Rc = 2291.83'
Ts = 1588.21'
Lc = 2093.83'
Ls = 400.00'
Es = 390.16'
θs = 5°00'00"
L.T. = 266.77'
S.T. = 133.43'





LEGEND

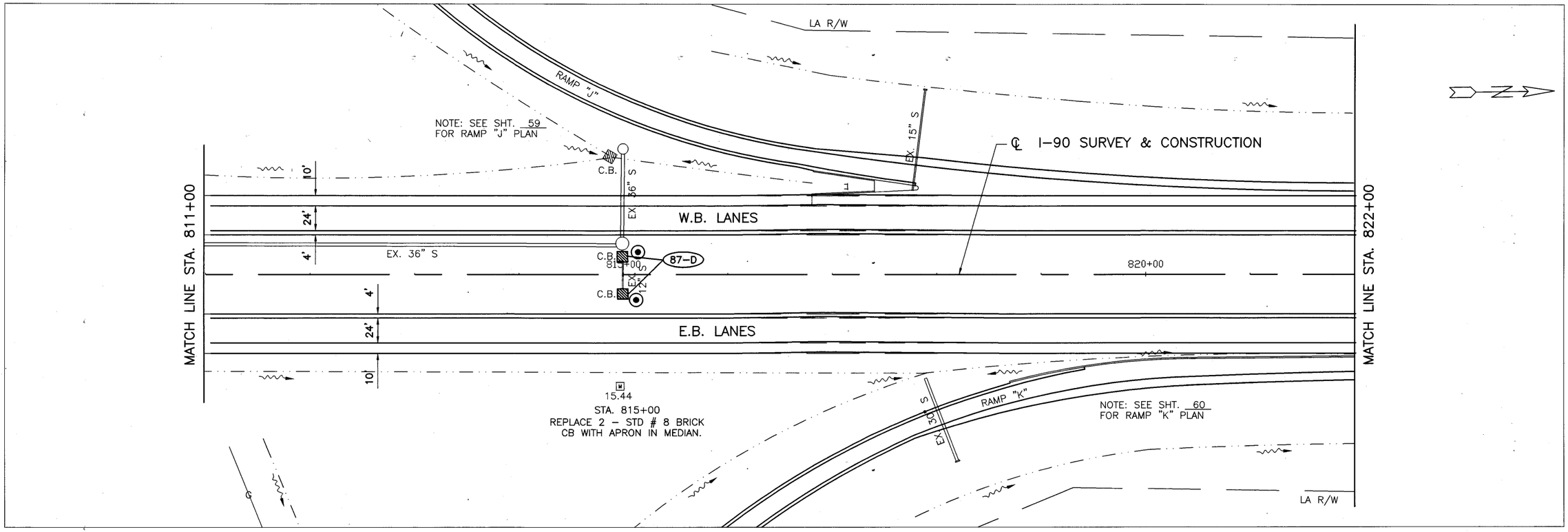
- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

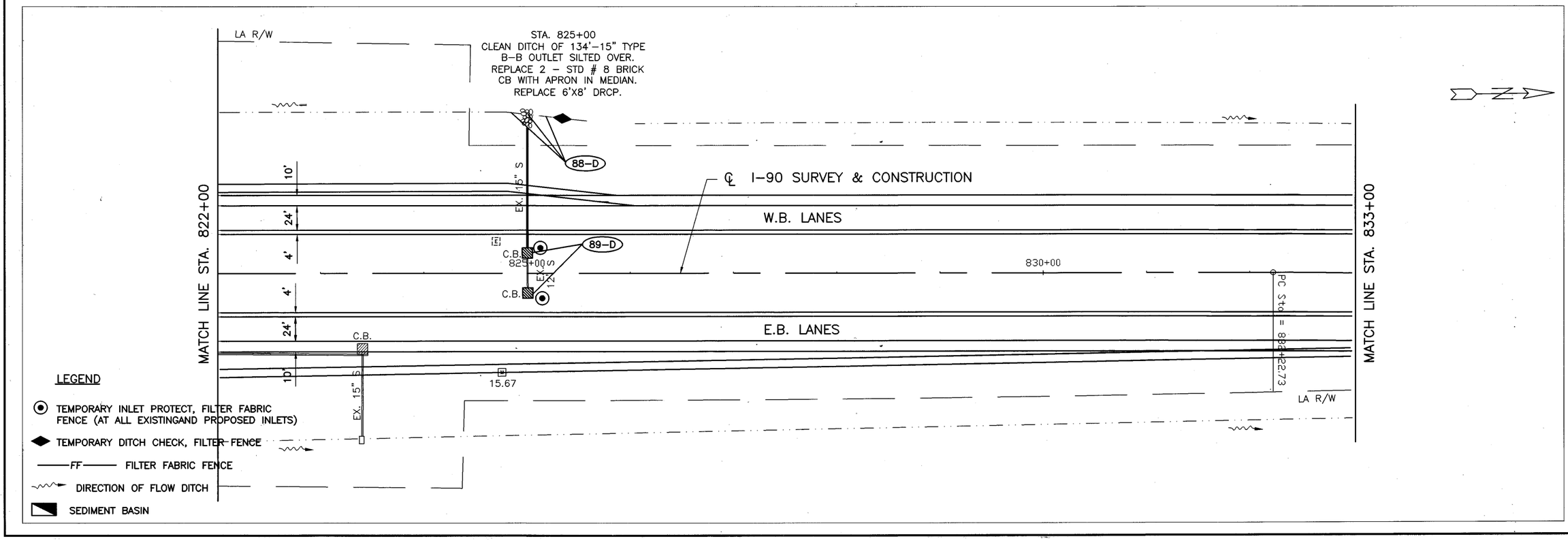
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 789+00 TO STA. 811+00

LOR - I90 - 10.76





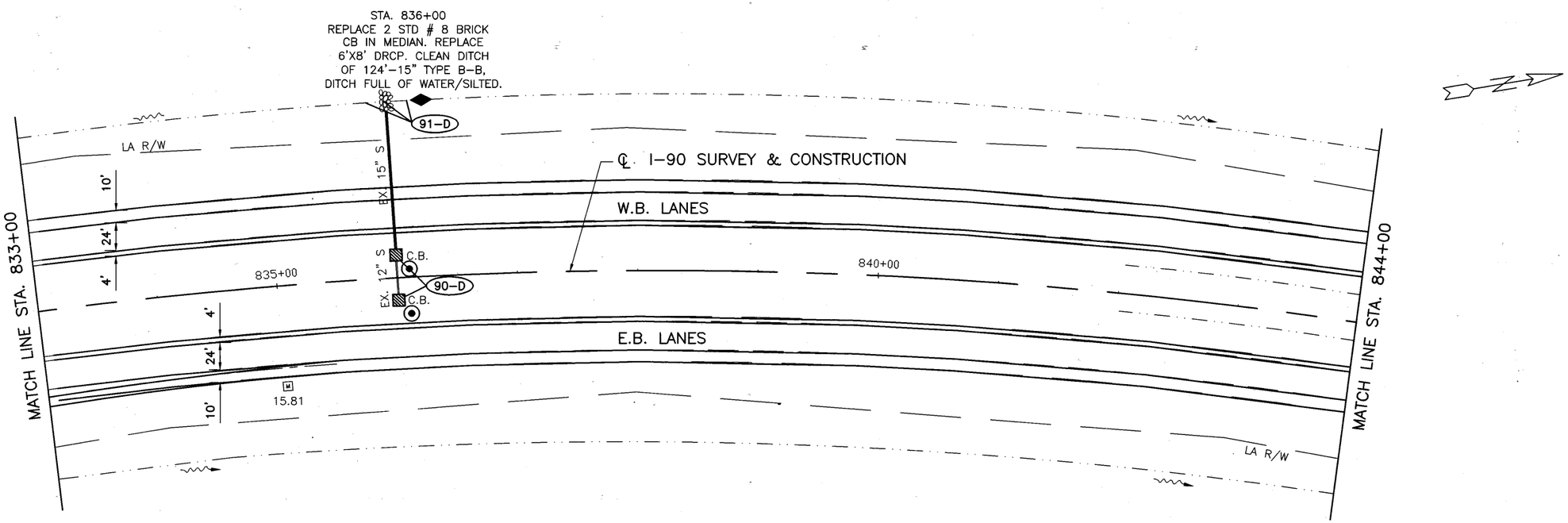
HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 811+00 TO STA. 833+00

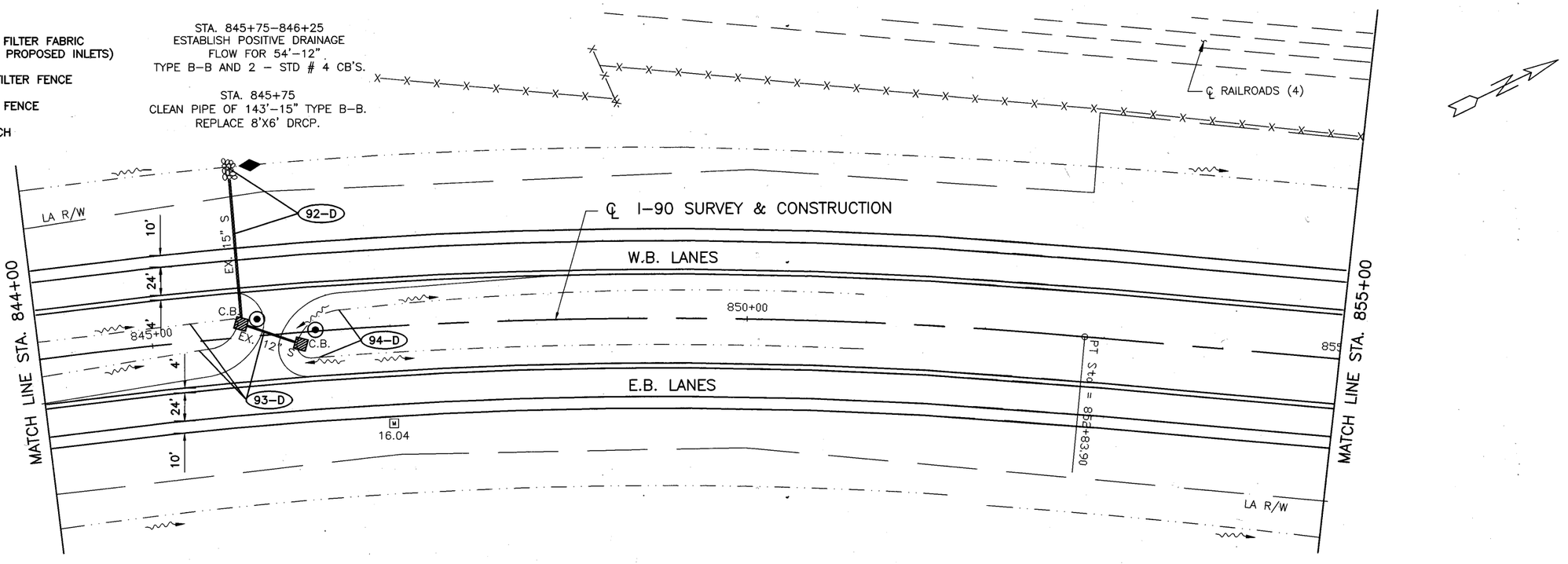
LOR - I90 - 10.76

CURVE DATA (16)
P.I. STA. 842+77.91
Δ = 30°15'50"
D = 1°28'00"
R = 3906.53'
T = 1055.18'
L = 2061.17'
E = 140.00'



LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

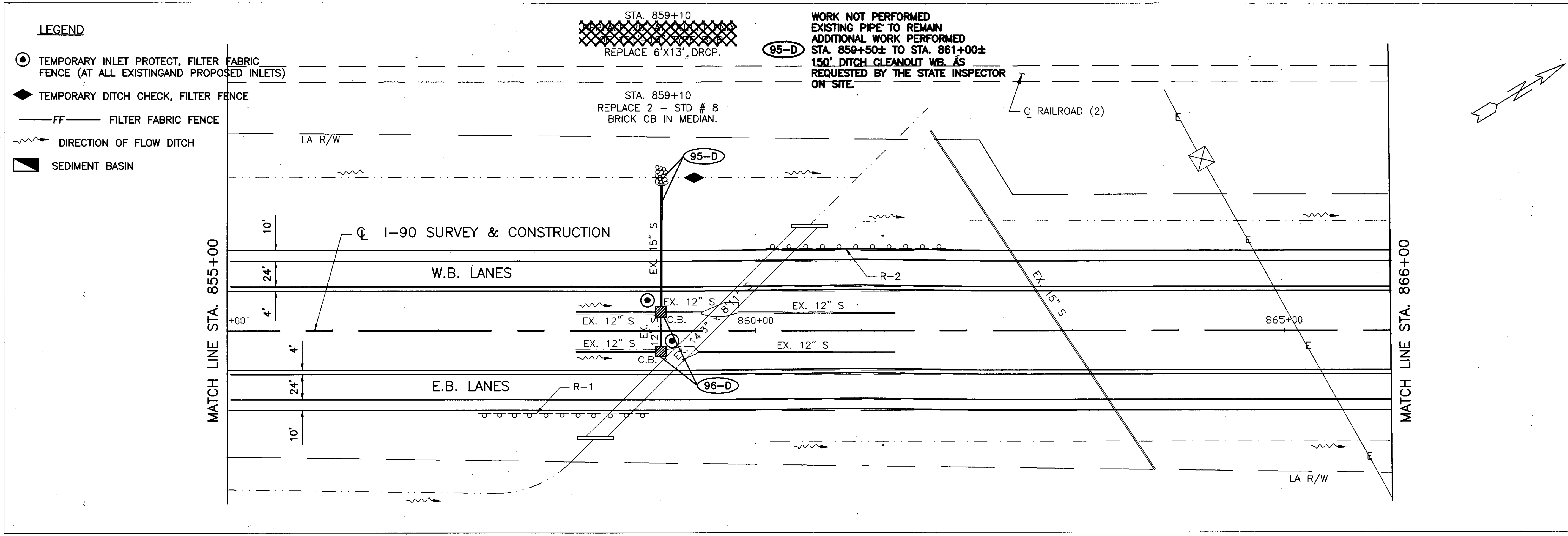


HORIZONTAL SCALE IN FEET
0 50' 100'

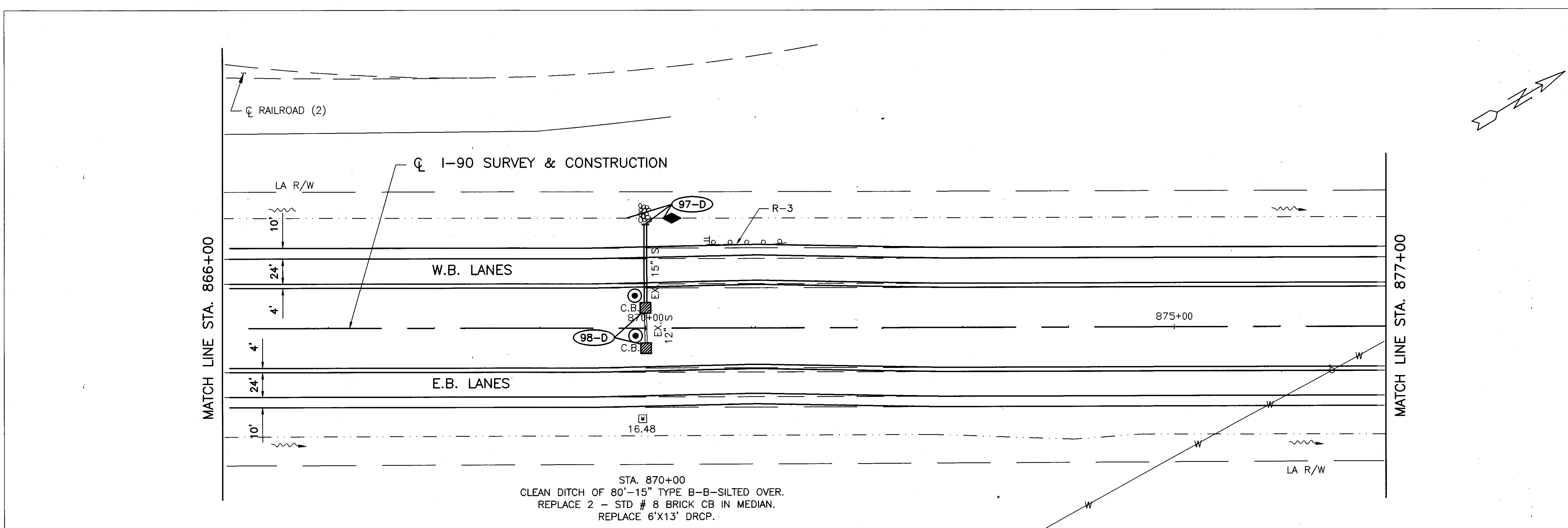
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 833+00 TO STA. 855+00

LOR - 190 - 10.76



LEGEND
TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
TEMPORARY DITCH CHECK, FILTER FENCE
FF FILTER FABRIC FENCE
DIRECTION OF FLOW DITCH
SEDIMENT BASIN
STA. 859+10
REPLACE 6'X13' DRCP.
95-D
WORK NOT PERFORMED
EXISTING PIPE TO REMAIN
ADDITIONAL WORK PERFORMED
STA. 859+50± TO STA. 861+00±
150' DITCH CLEANOUT WB. AS
REQUESTED BY THE STATE INSPECTOR
ON SITE.
STA. 859+10
REPLACE 2 - STD # 8
BRICK CB IN MEDIAN.
℄ RAILROAD (2)
LA R/W
95-D
℄ I-90 SURVEY & CONSTRUCTION
10'
24'
4'
W.B. LANES
EX. 15" S
R-2
EX. 12" S
C.B.
860+00
EX. 12" S
EX. 15" S
865+00
C.B.
96-D
E.B. LANES
R-1
MATCH LINE STA. 855+00
MATCH LINE STA. 866+00
LA R/W



℄ RAILROAD (2)
℄ I-90 SURVEY & CONSTRUCTION
LA R/W
97-D
R-3
10'
24'
4'
W.B. LANES
EX. 15" S
C.B.
870+00
EX. 12" S
98-D
C.B.
875+00
E.B. LANES
16.48
MATCH LINE STA. 866+00
MATCH LINE STA. 877+00
LA R/W
STA. 870+00
CLEAN DITCH OF 80'-15" TYPE B-B-SILTED OVER.
REPLACE 2 - STD # 8 BRICK CB IN MEDIAN.
REPLACE 6'X13' DRCP.

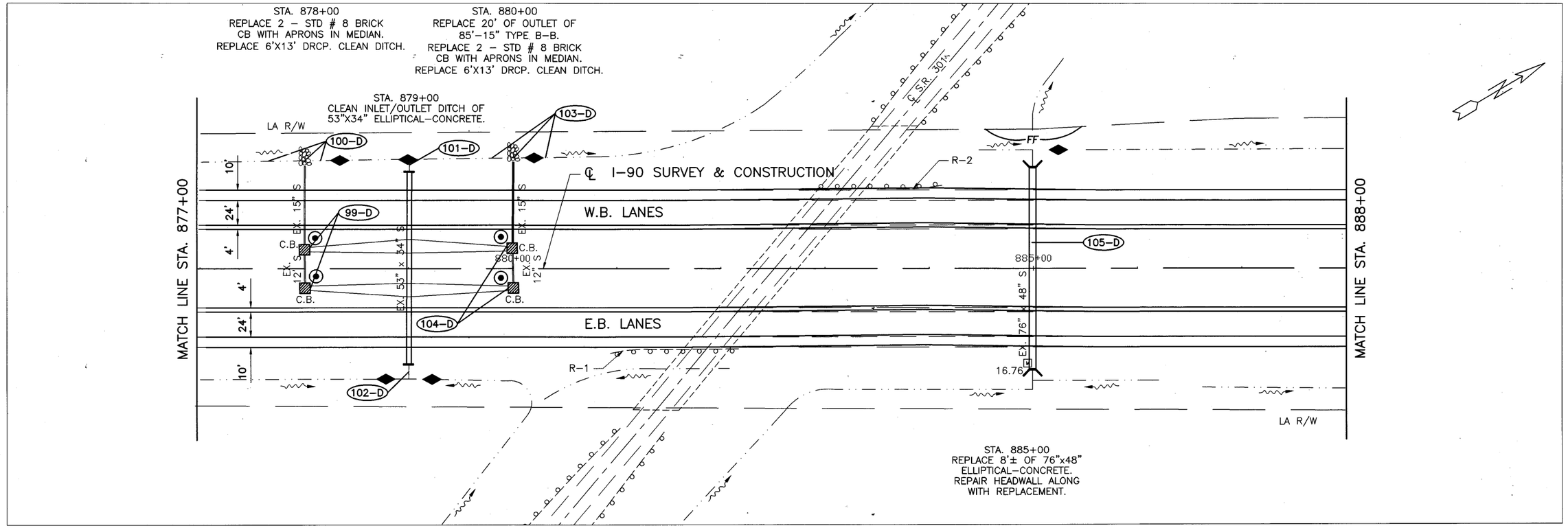
STORM WATER POLLUTION PREVENTION PLAN
STA. 855+00 TO STA. 877+00

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

LOR - I90 - 10.76

Q:\93600\DWGS\EROSION\SP-25.DWG] JGR
?-19-2002 4:43PM

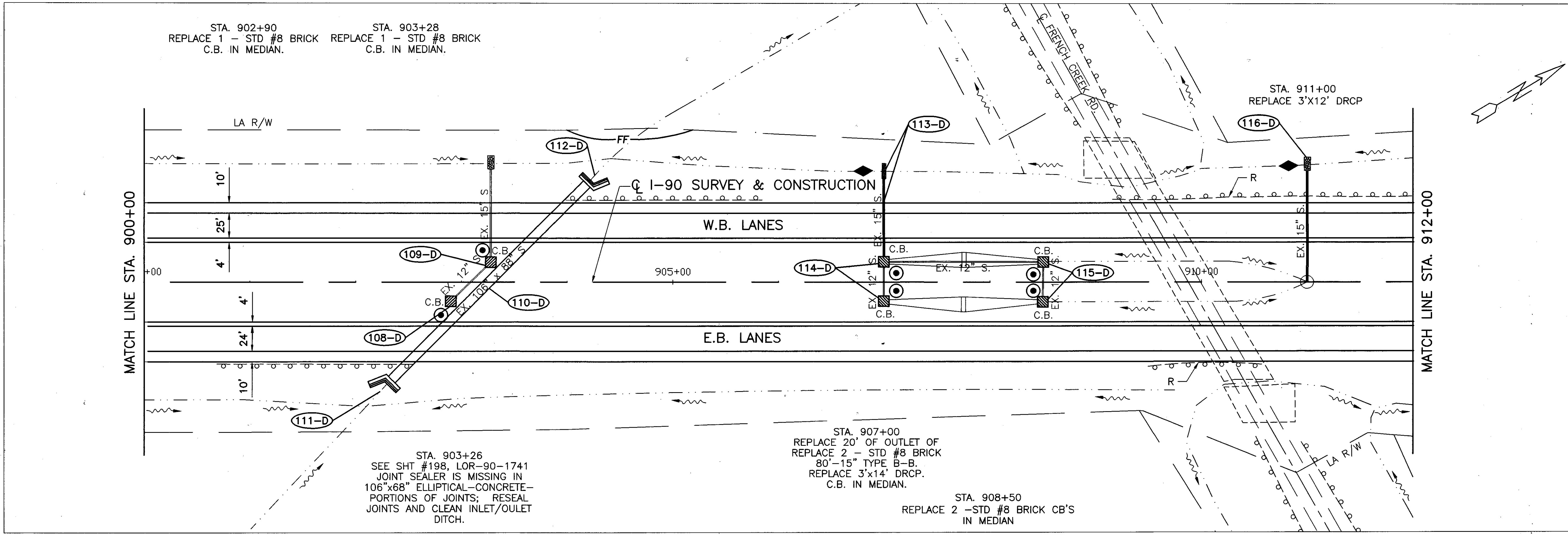


CALCULATED DLS
CHECKED LAB

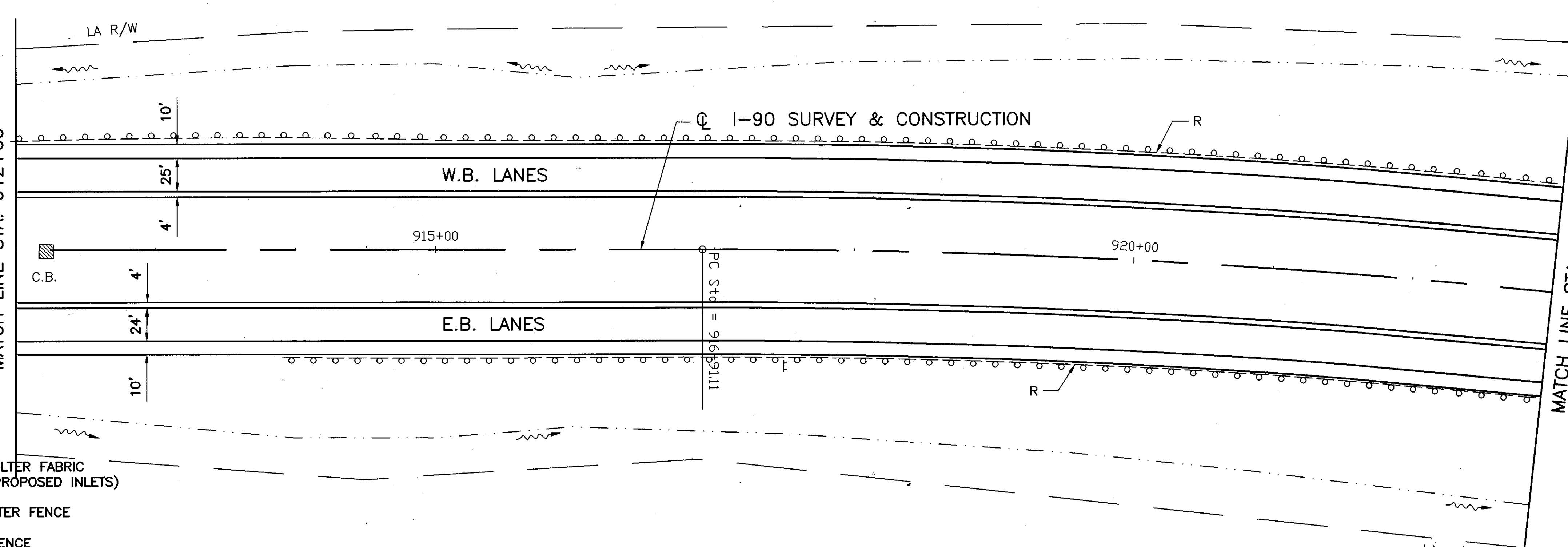
HORIZONTAL SCALE IN FEET
0 50' 100'

STORM WATER POLLUTION PREVENTION PLAN
STA. 877+00 TO STA. 899+00

LOR - 190 - 10.76



STA. 902+90
REPLACE 1 – STD #8 BRICK
C.B. IN MEDIAN.
STA. 903+28
REPLACE 1 – STD #8 BRICK
C.B. IN MEDIAN.
LA R/W
FF
112–D
113–D
116–D
STA. 911+00
REPLACE 3'X12' DRCP
FRENCH CREEK RD.
℄ I-90 SURVEY & CONSTRUCTION
W.B. LANES
E.B. LANES
EX. 15" S.
EX. 12" S.
EX. 106" x 68" S.
C.B.
109–D
110–D
108–D
111–D
114–D
115–D
905+00
910+00
R
10'
25'
4'
24'
MATCH LINE STA. 900+00
MATCH LINE STA. 912+00
STA. 903+26
SEE SHT #198, LOR-90-1741
JOINT SEALER IS MISSING IN
106"x68" ELLIPTICAL-CONCRETE-
PORTIONS OF JOINTS; RESEAL
JOINTS AND CLEAN INLET/OULET
DITCH.
STA. 907+00
REPLACE 20' OF OUTLET OF
REPLACE 2 – STD #8 BRICK
80'-15" TYPE B-B.
REPLACE 3'x14' DRCP.
C.B. IN MEDIAN.
STA. 908+50
REPLACE 2 –STD #8 BRICK CB'S
IN MEDIAN



LEGEND

- ⊙ TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- ◆ TEMPORARY DITCH CHECK, FILTER FENCE
- ——FF—— FILTER FABRIC FENCE
- ~~~► DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

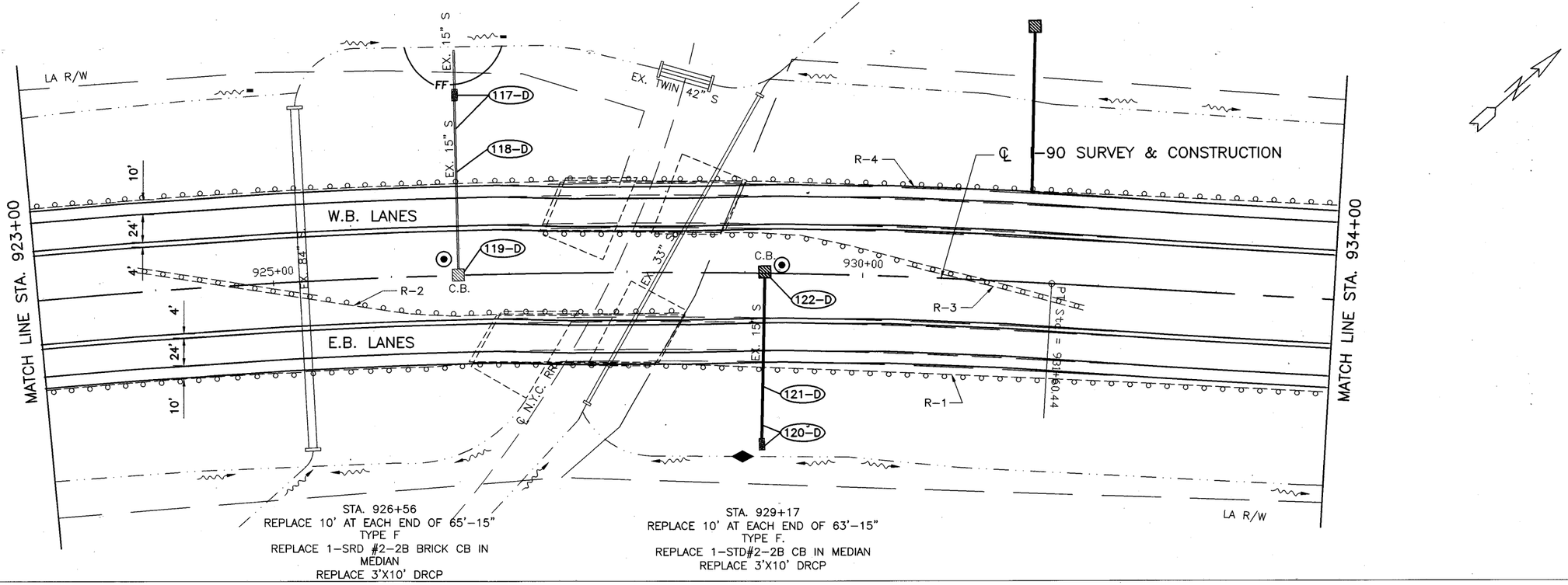
0 50' 100
HORIZONTAL SCALE IN FEET

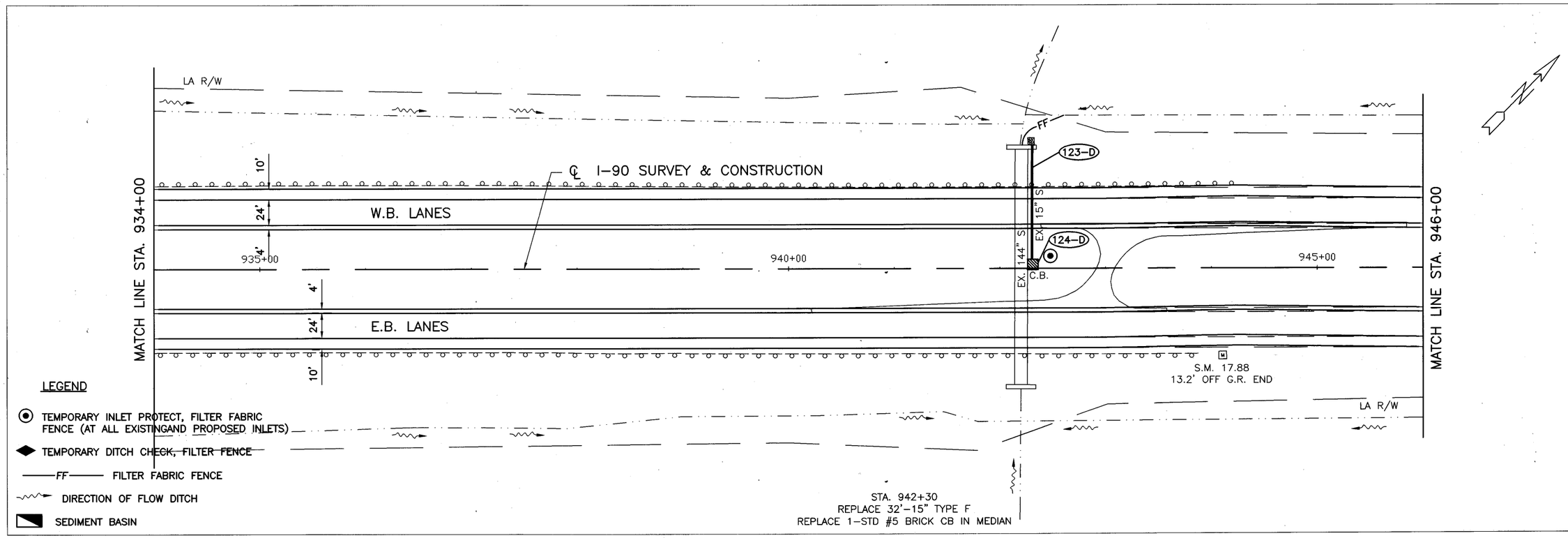
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 885+00 TO STA. 904+00

LOR - I90 - 10.76

C:\03600\DWGS\EROSION\SP-27.DWG] JGR
02-19-2002 4:59PM





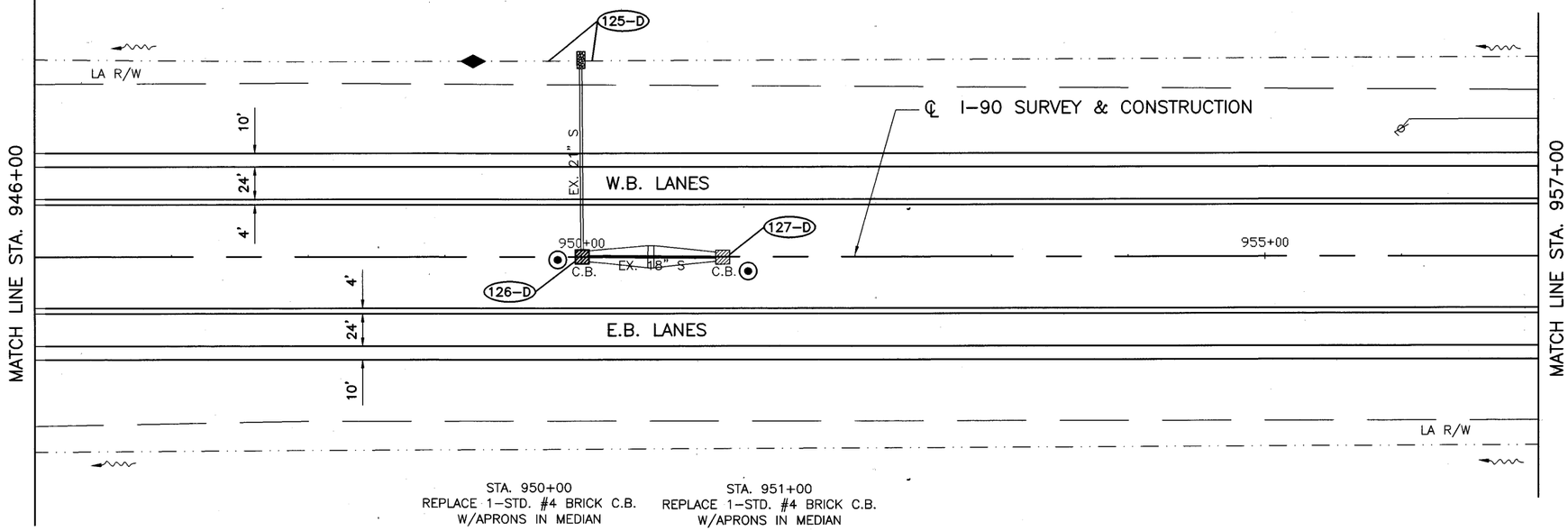
HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 904+00 TO STA. 926+00

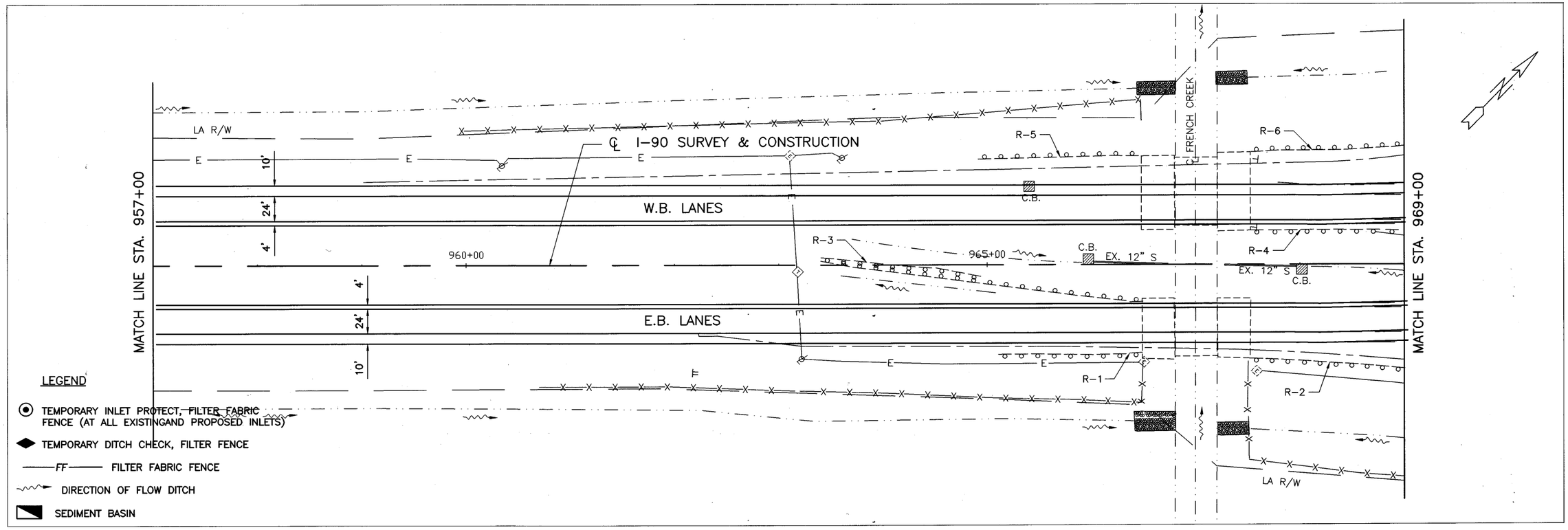
LOR - I90 - 10.76

STA. 950+00
CLEAN DITCH LINE AT OUTLET
OF 139' – 21" TYPE B–B
OUTLET SILTED IN AT DITCH LINE



STA. 950+00
REPLACE 1–STD. #4 BRICK C.B.
W/APRONS IN MEDIAN

STA. 951+00
REPLACE 1–STD. #4 BRICK C.B.
W/APRONS IN MEDIAN



LEGEND

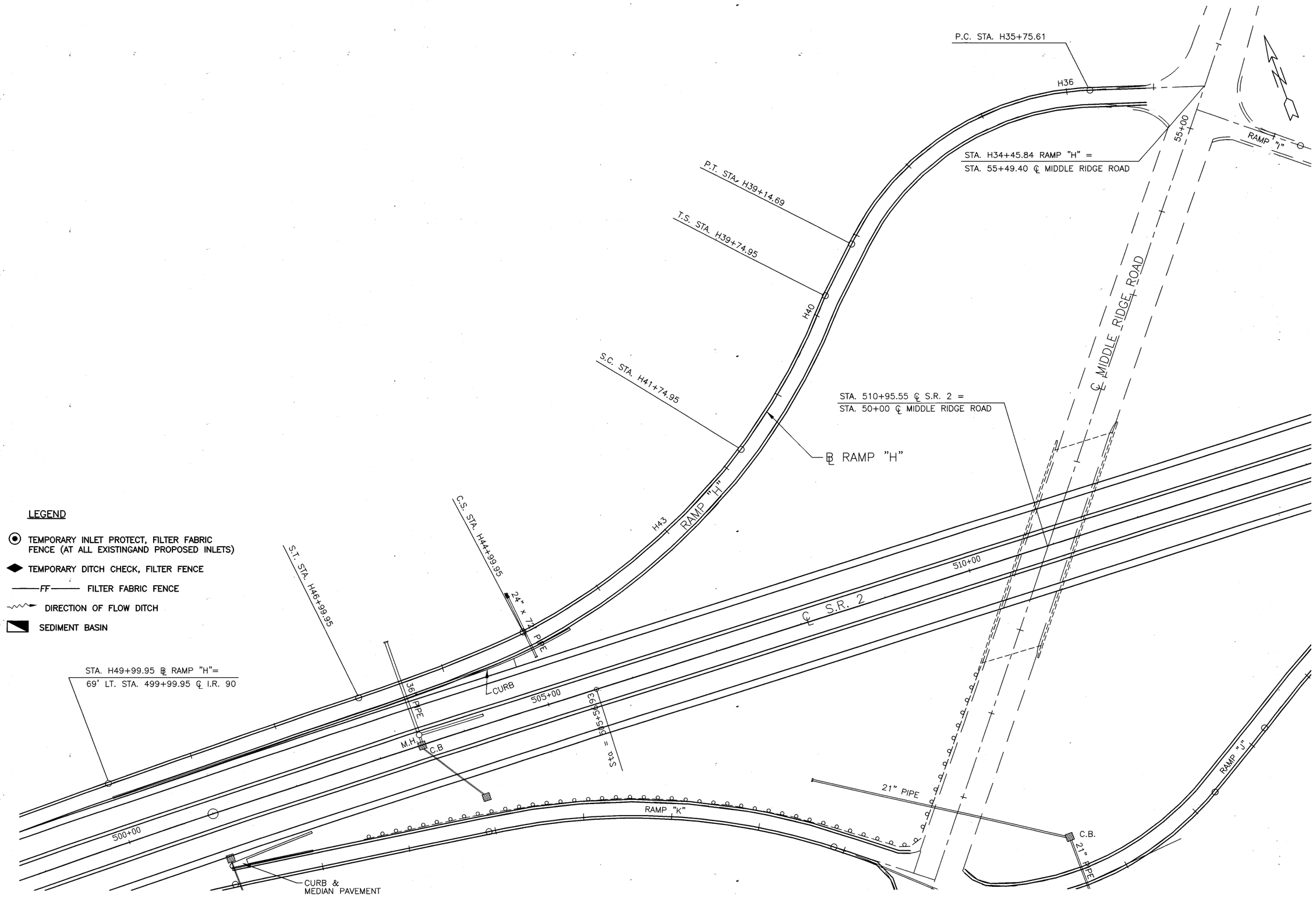
- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 946+00 TO STA. 969+00

LOR - I90 - 10.76



LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

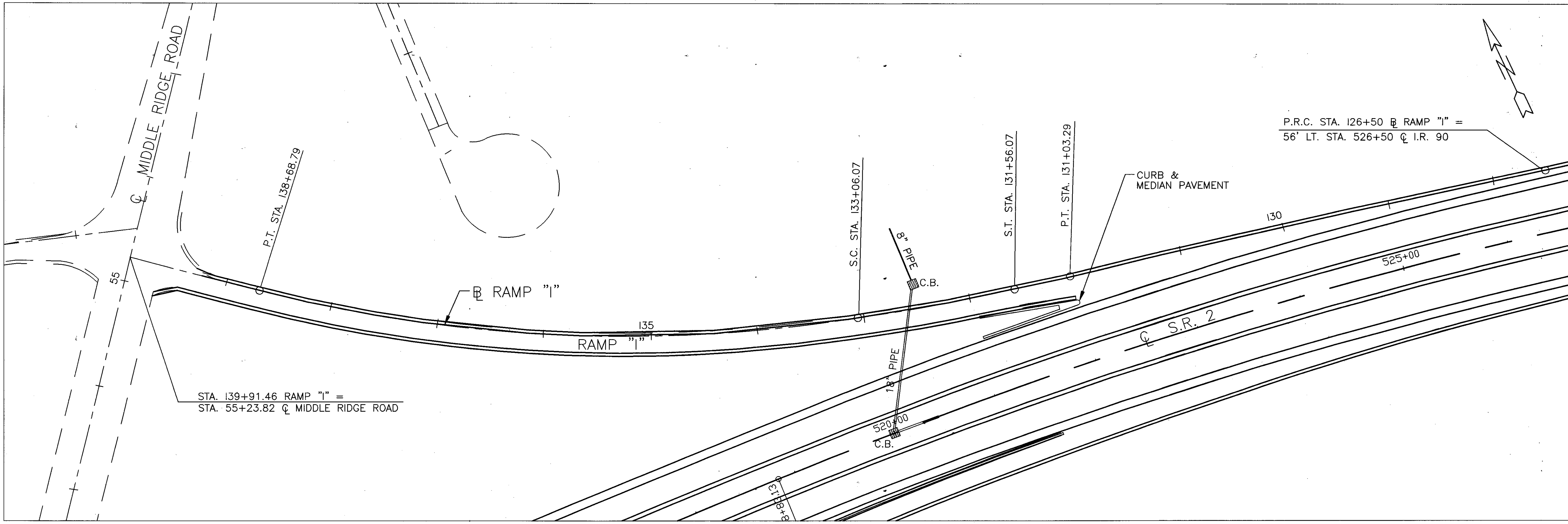
HORIZONTAL SCALE IN FEET
0 50' 100

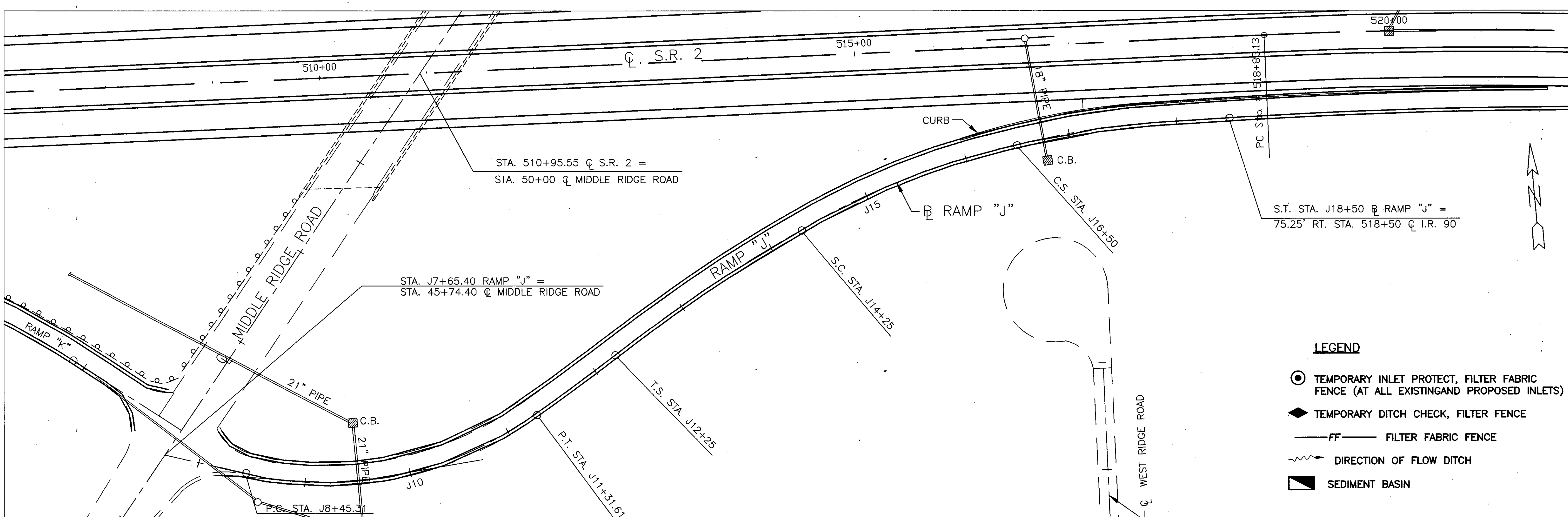
CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. H49+99.95 TO STA. H34+45.84

LOR-I90-10.76

3:15PM 02-19-2002 [O:\93600\DWGS\EROSION\SP-30.DWG] NJW





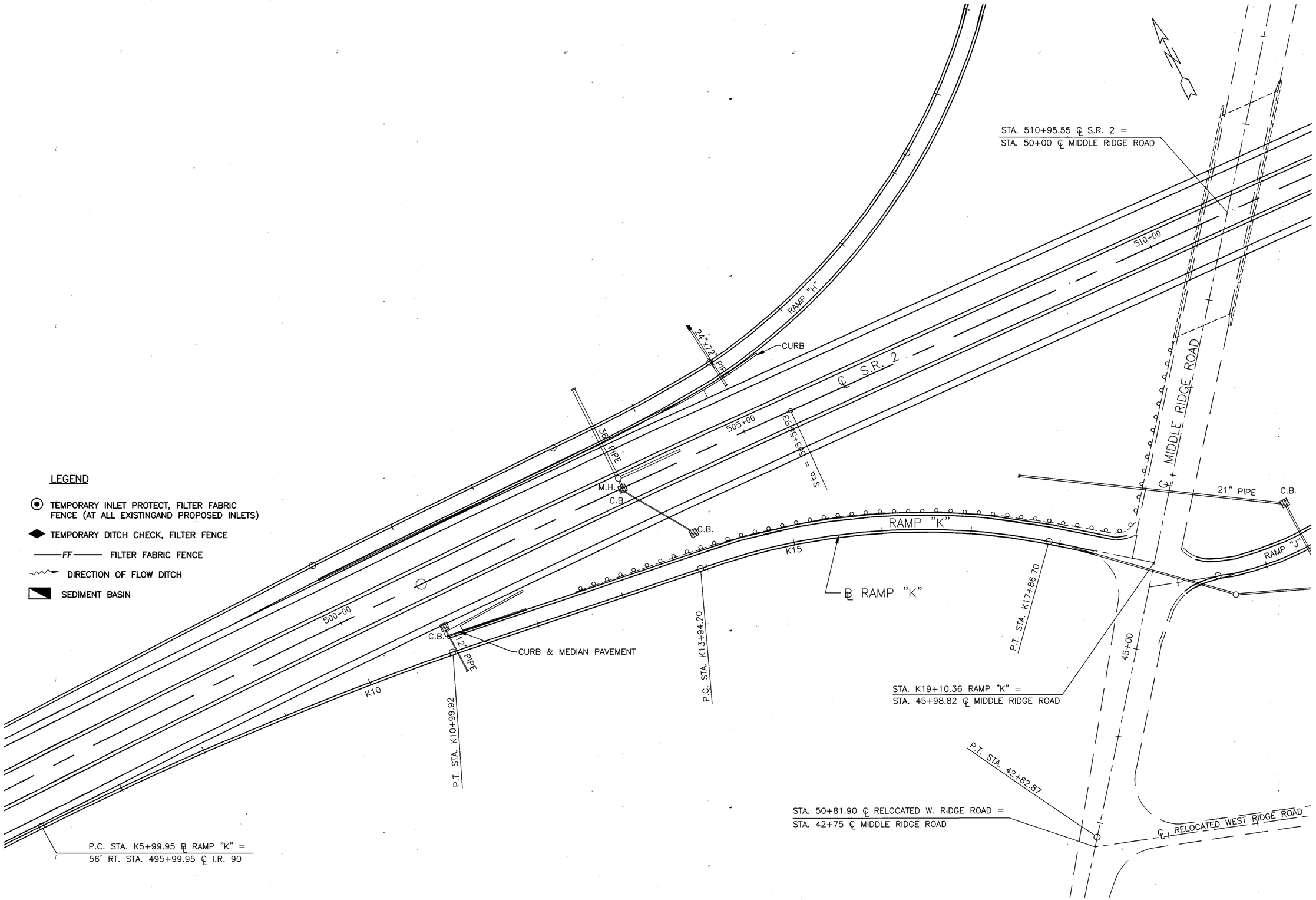
0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
STA. 126+50 TO STA. 139+91.46 & STA. J7+65.40 TO J18+50

LOR-I90-10.76

3:17PM 02-19-2002 [O:\93600\DWGS\EROSION\SP-31.DWG] NJW



CALCULATED DLS | CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100'

STORM WATER POLLUTION PREVENTION PLAN
STA. K5+99.95 TO STA. K19+10.36

LOR-I90-10.76

3:21PM
02-19-2002 [G:\93600\DWGS\EROSION\SP-32.DWG] NJW

LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

CURB

℄ I.R. 90

C.B. 12" S C.B. 12" S C.B. 18" S C.B.

640+00

36" S

CURB & MEDIAN PAVEMENT

RAMP "F"

F45

12" S

SIGN

F40

℄ RAMP "F"

* EXISTING CATCH BASIN STA. F42+03± ADJUSTED TO GRADE

C.S. STA. F42+03.07

S.C. STA. F44+53.07

MATCH LINE STA. F46+00

S.T. STA. F47+03.07

18" S

S.T. STA. F49+03.07

T.S. STA. F49+22.98

F50

RAMP "G"

P.C. STA. F37+50 RAMP "F" =
78' RT. STA. 637+50 ℄ I.R. 90

HORIZONTAL SCALE IN FEET
0 50' 100

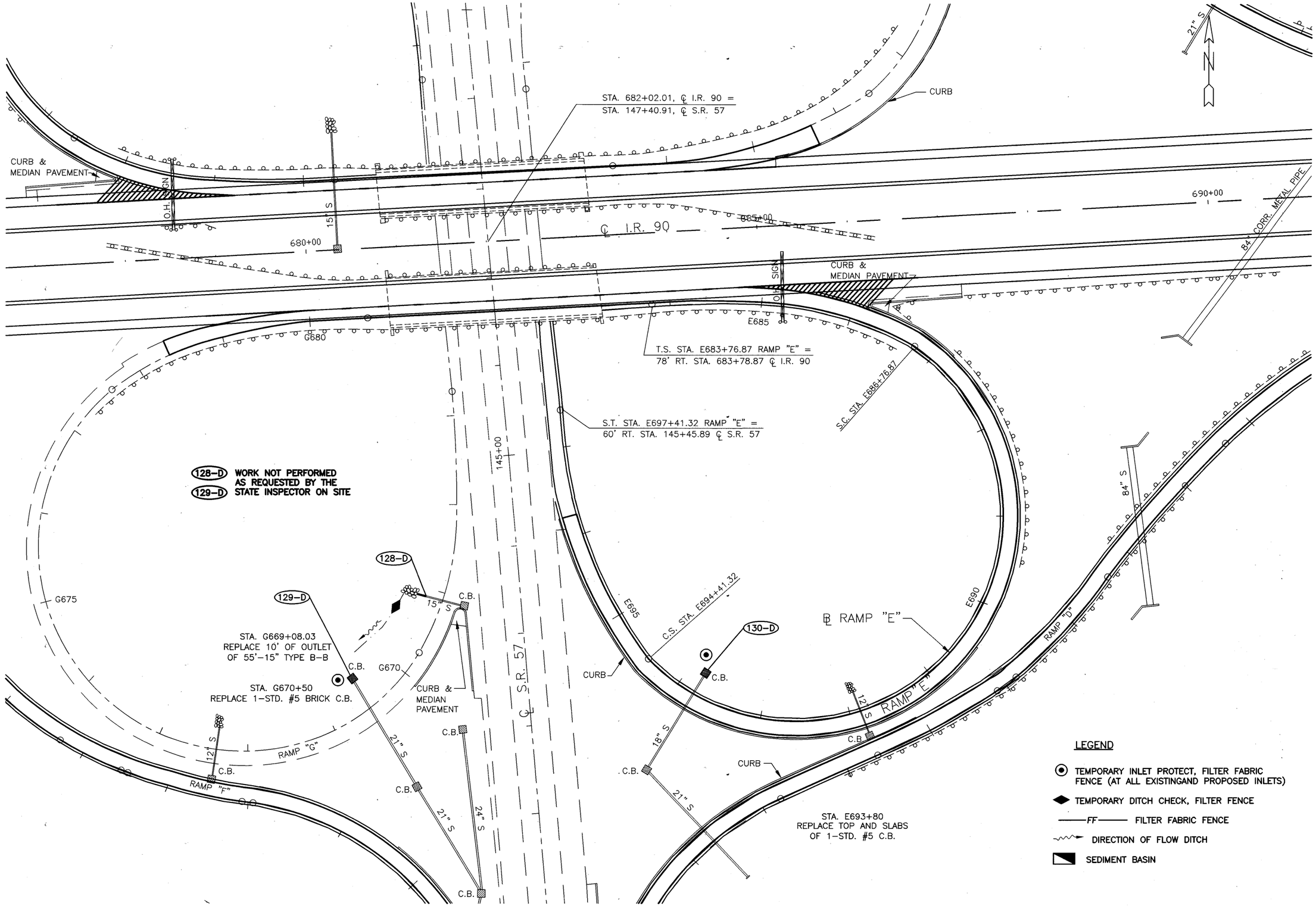
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
RAMP "F" - STA. 37+50 TO STA. 57+18.60

LOR-I90-10.76

53
274

[O:\9360001\DWGS\EROSION\SP-33.DWG] NJW
02-21-2002 3:25PM

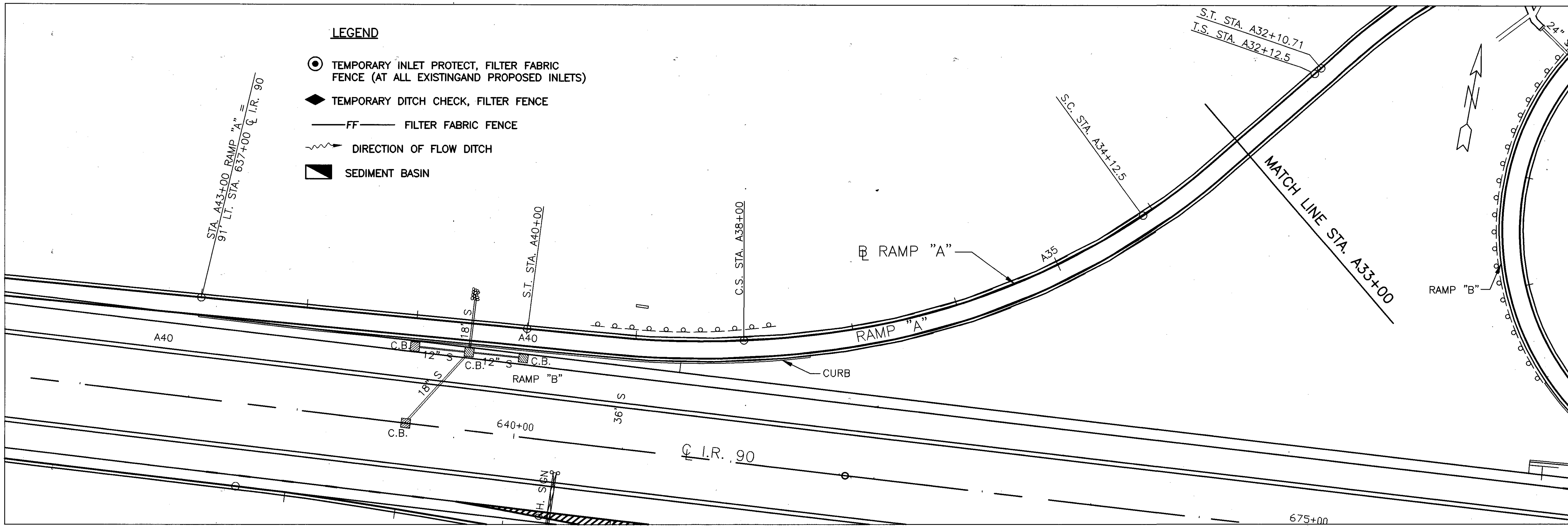


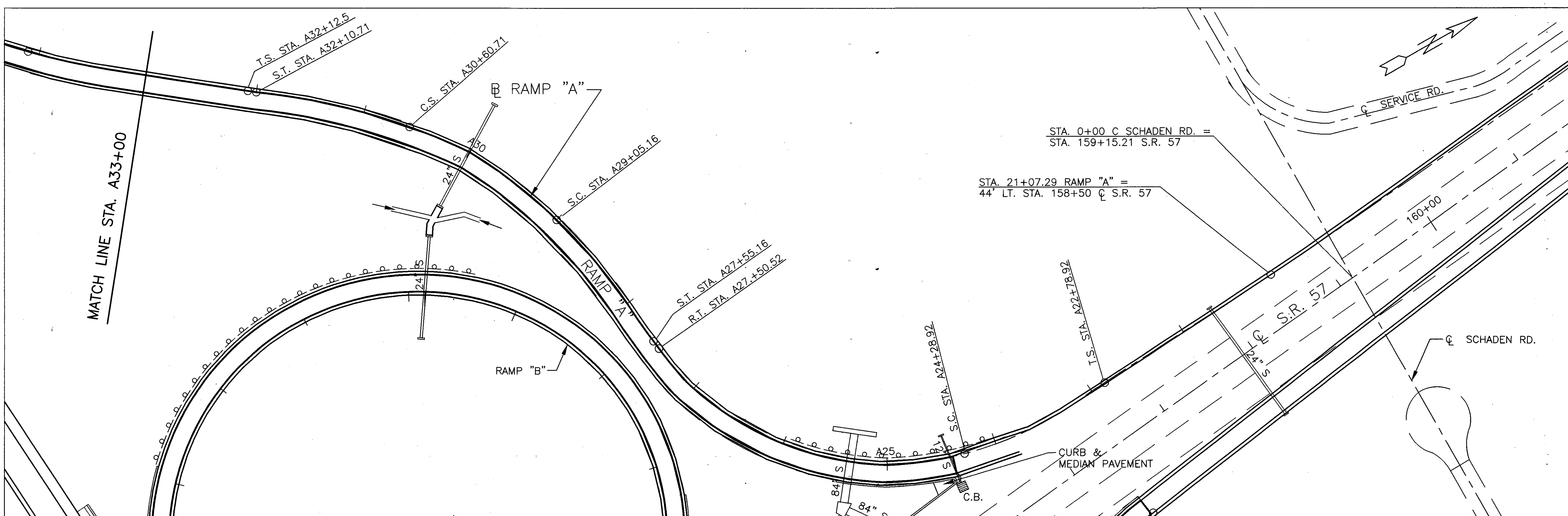
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
RAMP "E" & "G"-STA. 683+76.87 TO STA. 697+41.32

LOR-I90-10.76


LEGEND
TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
TEMPORARY DITCH CHECK, FILTER FENCE
FF FILTER FABRIC FENCE
DIRECTION OF FLOW DITCH
SEDIMENT BASIN
STA. A43+00 RAMP "A" = 91' LT. STA. 637+00 ℄ I.R. 90
S.T. STA. A40+00
C.S. STA. A38+00
S.C. STA. A34+12.5
S.T. STA. A32+10.71
T.S. STA. A32+12.5
MATCH LINE STA. A33+00
℄ RAMP "A"
RAMP "A"
RAMP "B"
A35
A40
C.B.
12" S
18" S
36" S
CURB
640+00
℄ I.R. 90
675+00
H. SIGN
24"


T.S. STA. A32+12.5
S.T. STA. A32+10.71
C.S. STA. A30+60.71
℄ RAMP "A"
S.C. STA. A29+05.16
MATCH LINE STA. A33+00
A30
24" S
RAMP "A"
RAMP "B"
S.T. STA. A27+55.16
R.T. STA. A27+50.52
S.C. STA. A24+28.92
T.S. STA. A22+78.92
A25
84" S
C.B.
CURB & MEDIAN PAVEMENT
STA. 0+00 C SCHADEN RD. = STA. 159+15.21 S.R. 57
STA. 21+07.29 RAMP "A" = 44' LT. STA. 158+50 ℄ S.R. 57
160+00
℄ S.R. 57
24" S
℄ SERVICE RD.
℄ SCHADEN RD.

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
RAMP "A" - STA. 21+07.29 TO STA. 43+00

LOR-I90-10.76

[O:\93600\DWGS\EROSION\SP-35.DWG] NJW
02-19-2002 3:42PM

LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

STA. B673+85
CLEAN OUTLET/INLET DITCH
OF 24" TYPE A & B

24" S

FF

24" S

131-D

RAMP "A"

RAMP "B"

℄ RAMP "B"

B670

S.C. STA. B669+64.46

B675

CURB

CURB & MEDIAN PAVEMENT

84" S

84" S

18" S

15" S

15" S

C.B.

12" S

C.B.

C.B.

℄ S.R. 57

150+00

21" S

15" S

RAMP "C"

CURB

C.B.

21" S

CURB

RAMP "X"

STA. X693+60
REPLACE TOP AND SLABS
OF 1-STD. #5 C.B.

132-D

X690

CURB & MEDIAN PAVEMENT

X695

T.S. STA. B666+64.46 RAMP "B" =
56' LT. STA. 149+29.0 ℄ S.R. 57

C.S. STA. B677+35.02

S.T. STA. B680+35.02 RAMP "B" =
78' LT. STA. 680+35.02 ℄ I.R. 90

X685

CURB

CURB & MEDIAN PAVEMENT

B680

O.H. SIGN

15" S

680+00

C.B.

685+00

675+00

℄ I.R. 90

SIGN

CURB & MEDIAN PAVEMENT

STA. 682+02.01, ℄ I.R. 90 =
STA. 147+40.91, ℄ S.R. 57

N

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
RAMPS "B" & "X" - STA. 666+64.46 TO STA. 680+35.02

LOR-I90-10.76

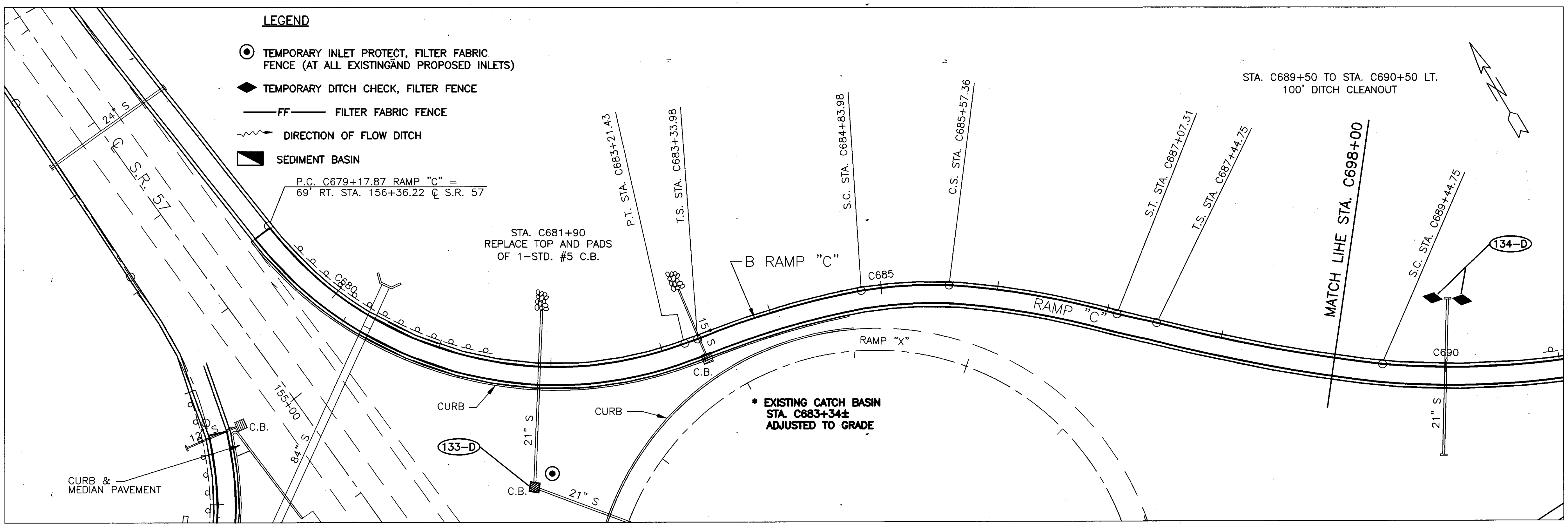
HORIZONTAL SCALE IN FEET
0 50' 100

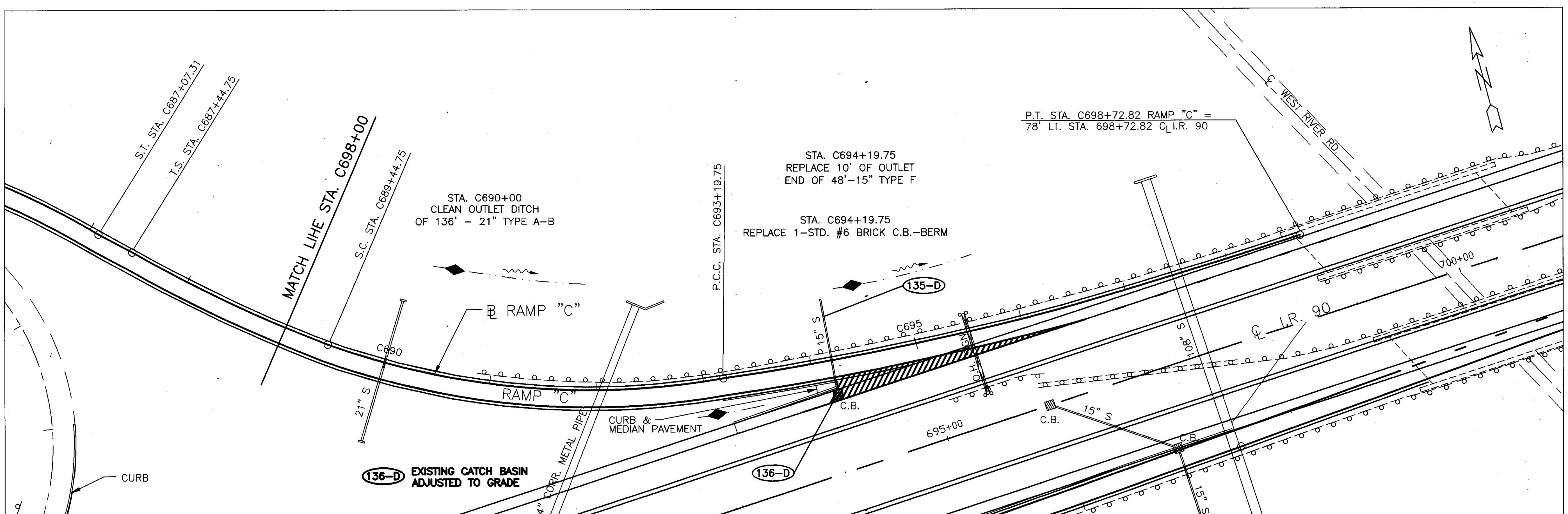
CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
RAMP "D" - STA. 678+63.19 TO STA. 698+53.27

LOR-I90-10.76

[G:\03600\DWGS\EROSION\SP-37.DWG] NJW
02-21-2002 3:53PM


LEGEND
TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
TEMPORARY DITCH CHECK, FILTER FENCE
FF FILTER FABRIC FENCE
DIRECTION OF FLOW DITCH
SEDIMENT BASIN
P.C. C679+17.87 RAMP "C" = 69' RT. STA. 156+36.22 ℄ S.R. 57
℄ S.R. 57
24' S
STA. C681+90
REPLACE TOP AND PADS
OF 1-STD. #5 C.B.
P.T. STA. C683+21.43
T.S. STA. C683+33.98
S.C. STA. C684+83.98
C.S. STA. C685+57.36
S.T. STA. C687+07.31
T.S. STA. C687+44.75
MATCH LIHE STA. C698+00
S.C. STA. C689+44.75
STA. C689+50 TO STA. C690+50 LT.
100' DITCH CLEANOUT
℄ RAMP "C"
RAMP "C"
RAMP "X"
C685
C690
134-D
133-D
CURB
C.B.
* EXISTING CATCH BASIN
STA. C683+34±
ADJUSTED TO GRADE
155+00
84" S
12" S
21" S
15" S
CURB &
MEDIAN PAVEMENT


S.T. STA. C687+07.31
T.S. STA. C687+44.75
MATCH LIHE STA. C698+00
S.C. STA. C689+44.75
STA. C690+00
CLEAN OUTLET DITCH
OF 136' - 21" TYPE A-B
P.C.C. STA. C693+19.75
STA. C694+19.75
REPLACE 10' OF OUTLET
END OF 48'-15" TYPE F
STA. C694+19.75
REPLACE 1-STD. #6 BRICK C.B.-BERM
P.T. STA. C698+72.82 RAMP "C" =
78' LT. STA. 698+72.82 ℄ I.R. 90
℄ WEST RIVER RD
℄ I.R. 90
℄ RAMP "C"
RAMP "C"
C690
C695
695+00
700+00
135-D
136-D
C.B.
21" S
15" S
108" S
84" CORR. METAL PIPE
CURB &
MEDIAN PAVEMENT
CURB
136-D EXISTING CATCH BASIN
ADJUSTED TO GRADE

0 50' 100'
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN
RAMP "C" - STA. 679+17.87 TO STA. 698+72.82

LOR-I90-10.76

[C:\93600\DWGS\EROSION\SP-38.DWG] NJW
02-21-2002 4:11PM

BEGIN RAMP "H"
P.C. STA. H794+31.16
STA. 794+31.16, I.R.90, 91 LT.

H795

795+00

℄ I.R. 90

P.C.C. STA. H797+31.16

137–D WORK NOT PERFORMED AS REQUESTED BY THE STATE INSPECTOR ON SITE

STA. H799+00
REPLACE 1–STD. #5
BRICK C.B.

STA. H799+50
REPLACE 1–STD. #5
BRICK C.B.

137–D

C.B.

18" S

C.B.

H800

CURB

24" S

800+00

C.B.

C.S. STA. H802+24.71

S.T. STA. H804+24.71

RAMP "H"

℄ RAMP "H"

H805

END RAMP "H"
STA. H807+97.33=
STA. 81+86.10, S.R. 254

℄ S.R. 254

85

LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

END RAMP "J"
P.T. STA. J822+34.56=
STA. 822+34.56, I.R.90, 78' LT

BEGIN RAMP "J"
STA. J807+20.19=
STA. 81+68.49, S.R.254

P.C. STA. J808+03.97

J810

P.T. STA. J810+72.13

T.S. STA. J811+72.13

S.C. STA. J813+72.13

P.C.C. STA. J816+81.49

STA. J817+80
REPLACE 1–STD. #5
BRICK C.B.–BERM

CURB & MEDIAN PAVEMENT

15' S

C.B.

J820

820+00

℄ I.R. 90

138–D

CURB

RAMP "K"

C.B.

30" S

J815

4.2" S

RAMP "J"

℄ RAMP "J"

30" S

C.B.

M.H.

36" S

M.H.

5+00

℄ S.R. 254

138–D EXISTING CATCH BASIN ADJUSTED TO GRADE

HORIZONTAL SCALE IN FEET
0 50' 100

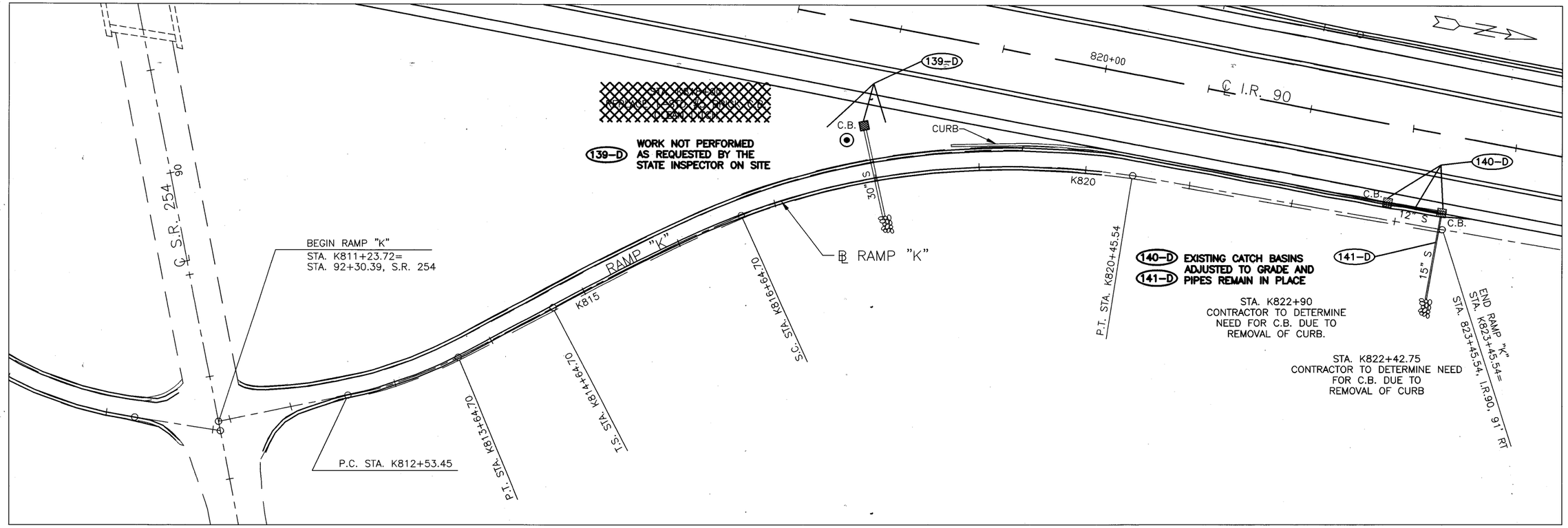
CALCULATED DLS
CHECKED LAB

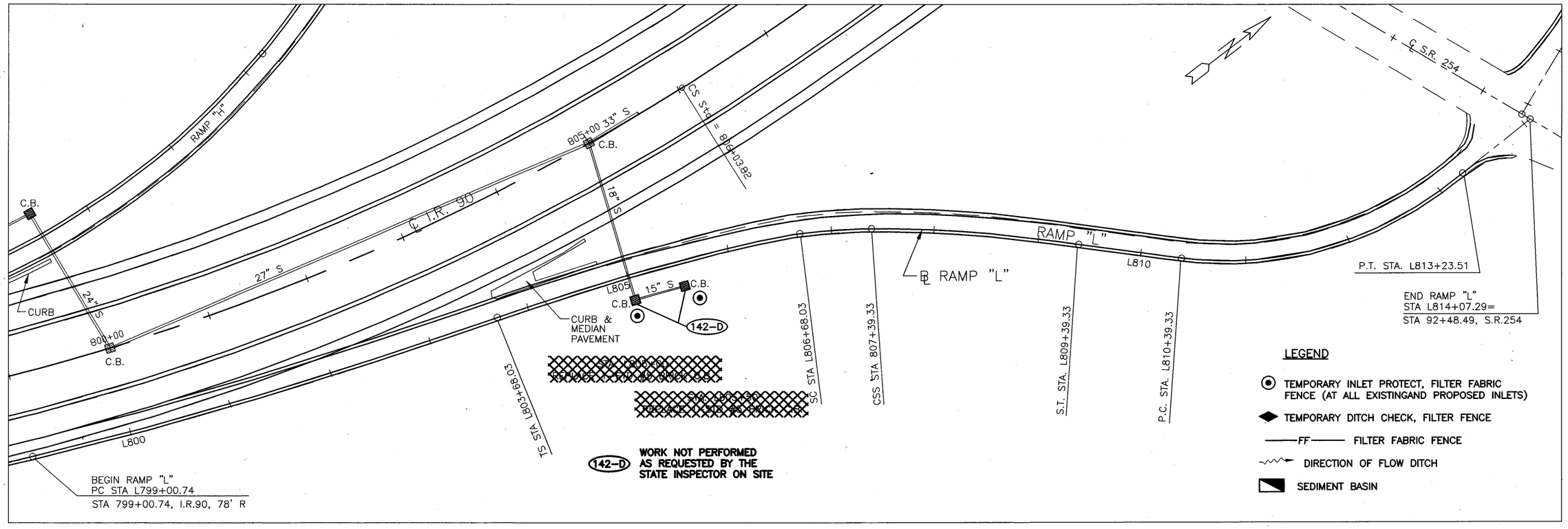
STORM WATER POLLUTION PREVENTION PLAN
STA. H794+31.16 TO STA. H807+97.33 & STA. J808+03.97 TO STA. J822+34.56

LOR-190-10.76

59
274

[O:\93600\DWGS\EROSION\SP-39.DWG] NW
02-21-2002 4:15PM





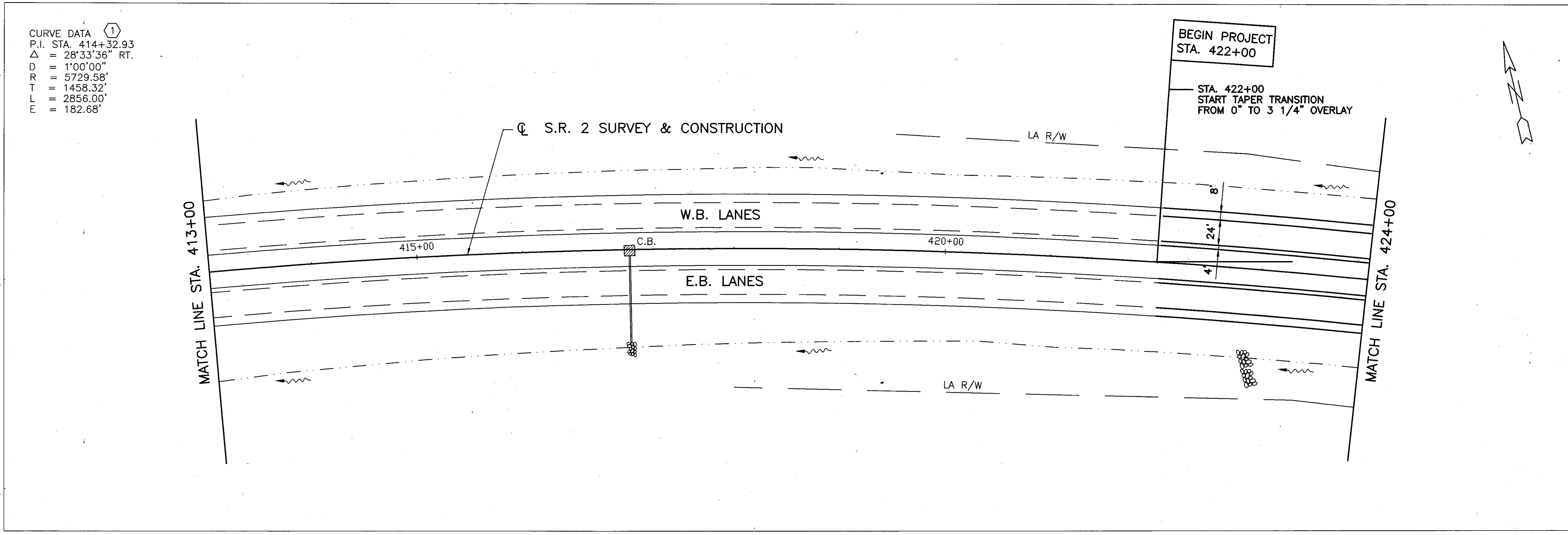
HORIZONTAL SCALE IN FEET
0 50' 100'

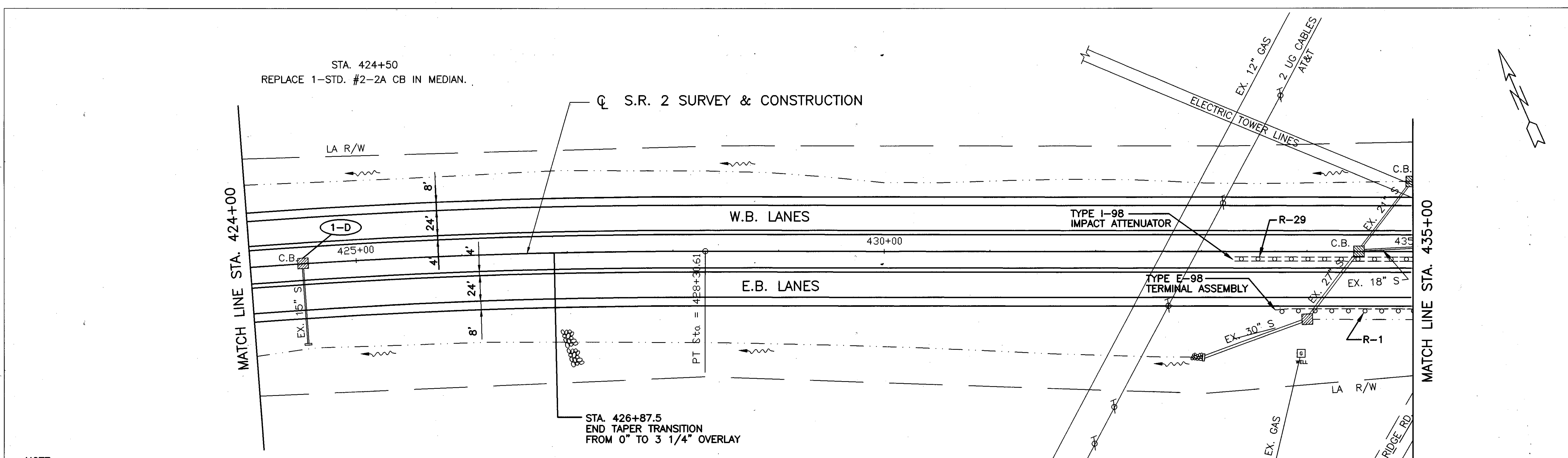
CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN

STA. K811+23.72 TO STA. K823+45.54 & STA. L799+00.74 TO STA. L814+07.29

LOR-I90-10.76





NOTE:
THE "R" GUARDRAIL REFERENCE NUMBERS ON ALL THE PLANS REFER TO BOTH THE CORRESPONDING "R" AND "GR" REFERENCE NUMBERS IN THE GUARDRAIL SUB-SUMMARY TABLES.

0 50' 100
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PLAN
STA. 413+00 TO STA. 435+00

LOR - I90 - 10.76

STA. 436+46 TO STA 440+90
444' DITCH CLEANOUT EB.

STA. 445+90 TO STA 448+90
300' DITCH CLEANOUT EB.

EX. 10" WATER
℄ NORTH RIDGE RD.
85'
100'
NO EXISTING ASPHALT
W.B. LANES ONLY
STA. 435+21.29
STA. 439+06.39
TYPE 1 – BRIDGE TERMINAL ASSEMBLY
TYPE E-98 TERMINAL ASSEMBLY
TYPE I-98 IMPACT ATTENUATOR
R-65
R-30
R-29
R-1
TYPE T TERMINAL ASSEMBLY
TYPE T TERMINAL ASSEMBLY
TYPE 1 – BRIDGE TERMINAL ASSEMBLY
EX. 4" LP GAS
LA R/W
ELECTRIC TOWER LINES
℄ S.R. 2 SURVEY & CONSTRUCTION
W.B. LANES
E.B. LANES
EX. 16" S
EX. 18" S
EX. 18" S
EX. 18" S
EX. 15" S
C.B.
C.B.
C.B.
440+00
445+00
MH
8'
24'
4'
4'
24'
8'
PC Sta = 441+33.80
2-D
STA. 438+55.97 (EB) BEGIN WHITE SPEED ZONE MARKINGS (2ft. x 4ft. LONG). PLACED AT EDGE ON BOTH INSIDE AND OUTSIDE LANES, FOR (1) MILE AT 0.25 MILE INTERVALS ALSO PLACE AT STA. 451+75.97, STA. 464+95.97 AND STA. 478+15.97
MATCH LINE STA. 435+00
MATCH LINE STA. 446+00

CURVE DATA (2)
P.I. STA. 448+92.90
Δ = 21°59'34" LT.
D = 1°28'00"
R = 3906.53'
T = 759.10'
L = 1499.51'
E = 73.07'

STA. 450+00
REPLACE 1–STD. #2–2A CB IN MEDIAN. ESTABLISHED POSITIVE DRAINAGE FLOW. CLEAN OUT DITCH FROM STA. 453+00 TO 455+80 EB AND FROM STA 455+00 TO 452+00 WB

EX. O.H. UTILITY
℄ OBERLIN RD.
EX. 6" WATER
EX. 4" FUEL GAS
TYPE 1 – BRIDGE TERMINAL ASSEMBLY
LA R/W
TYPE E-98 TERMINAL ASSEMBLY
R-66
R-32
℄ S.R.2 SURVEY & CONSTRUCTION
TYPE I-98 IMPACT ATTENUATOR
4-D
TYPE T TERMINAL ASSEMBLY
6-D
W.B. LANES
E.B. LANES
EX. 15" S
EX. 15" S
EX. 15" S
450+00
455+00
C.B.
C.B.
MH
4'
24'
4'
4'
24'
8'
PT Sta = 456+33.80
R-31
R-2
3-D
5-D
SPEED BARS STA. 450+62.53
STA. 451+75.97 (EB) WHITE AIR SPEED ZONE MARKINGS
TYPE I-98 IMPACT ATTENUATOR
TYPE T TERMINAL ASSEMBLY
TYPE E-98 TERMINAL ASSEMBLY
TYPE 1 – BRIDGE TERMINAL ASSEMBLY
LA R/W
MATCH LINE STA. 446+00
MATCH LINE STA. 457+00

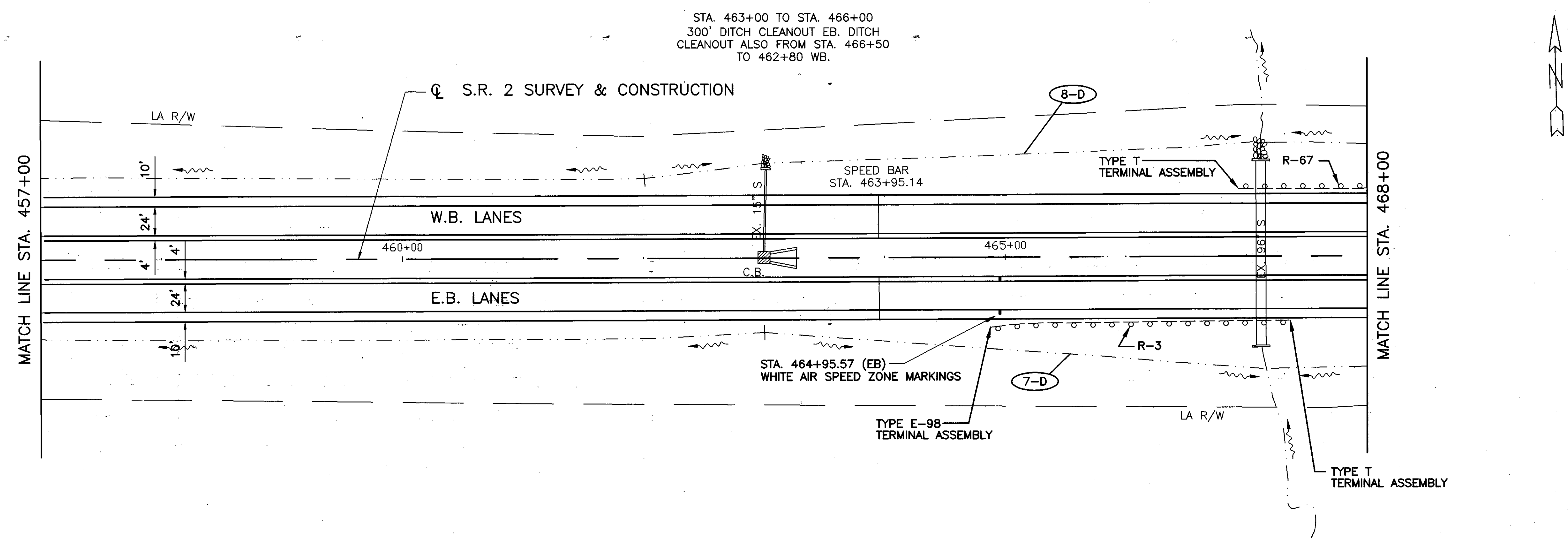
HORIZONTAL SCALE IN FEET
0 50' 100
CALCULATED DLS
CHECKED LAB

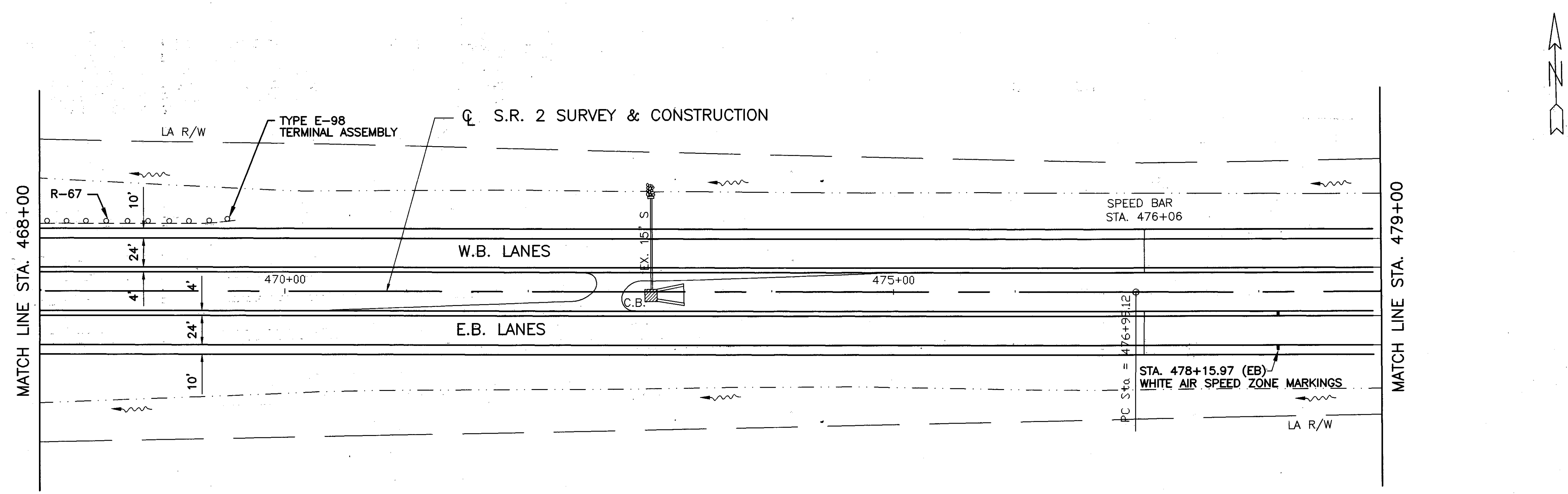
PLAN
STA. 435+00 TO STA. 457+00

LOR - I90 - 10.76

62
274

\9360\DWGS\9360PNL\P-02.DWG [Z2]
11-2002 7:47AM



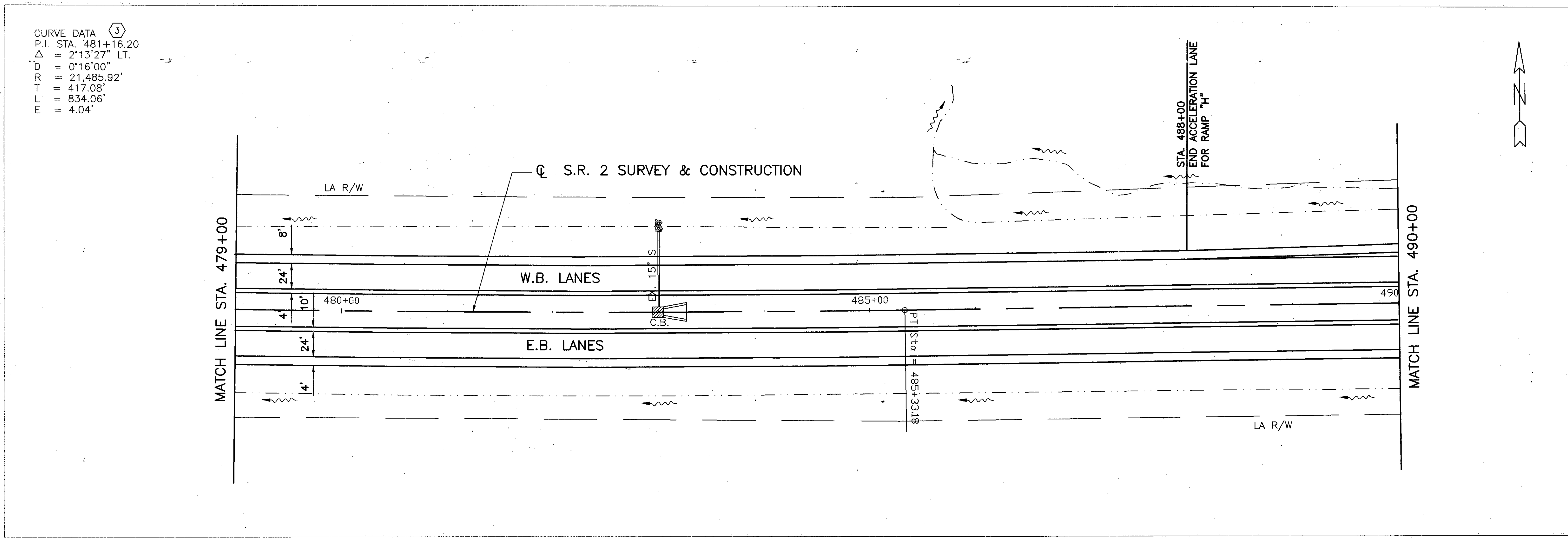


0 50' 100'
HORIZONTAL
SCALE IN FEET

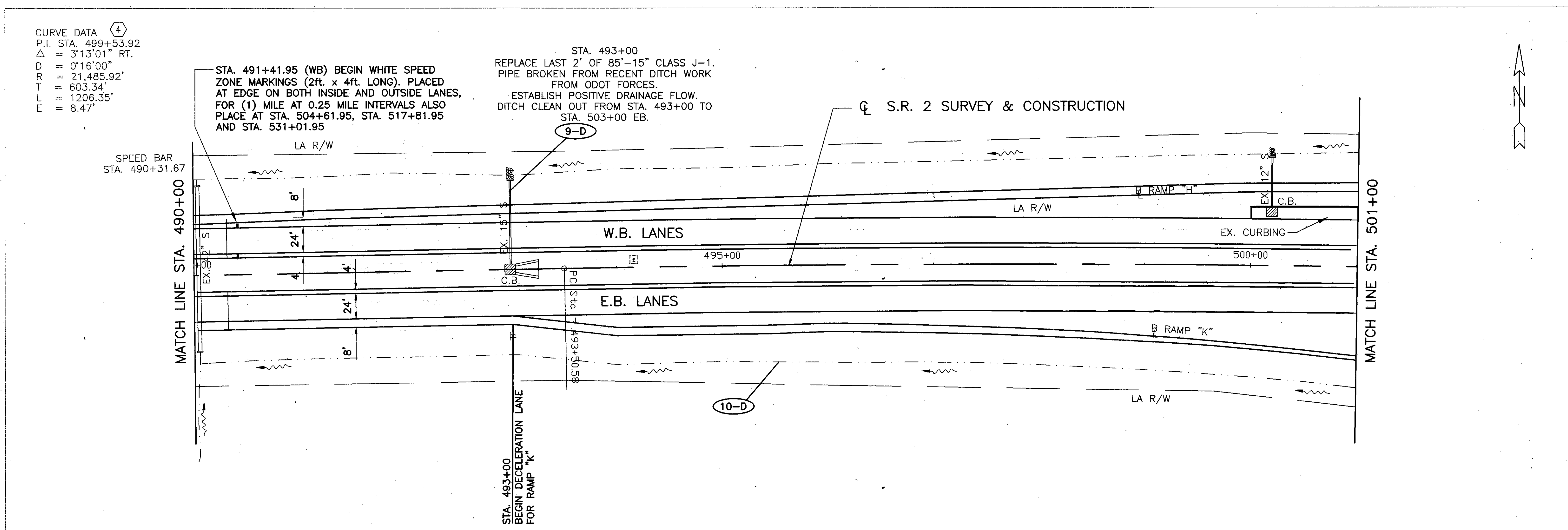
CALCULATED DLS
CHECKED LAB

PLAN
STA. 457+00 TO STA. 479+00

LOR - I90 - 10.76



CURVE DATA 3
P.I. STA. 481+16.20
Δ = 2°13'27" LT.
D = 0°16'00"
R = 21,485.92'
T = 417.08'
L = 834.06'
E = 4.04'
℄ S.R. 2 SURVEY & CONSTRUCTION
LA R/W
MATCH LINE STA. 479+00
MATCH LINE STA. 490+00
W.B. LANES
E.B. LANES
8'
24'
10'
4'
24'
4'
480+00
485+00
490
EX. 15" S
C.B.
PT Sta. = 485+33.18
STA. 488+00
END ACCELERATION LANE
FOR RAMP "H"
LA R/W



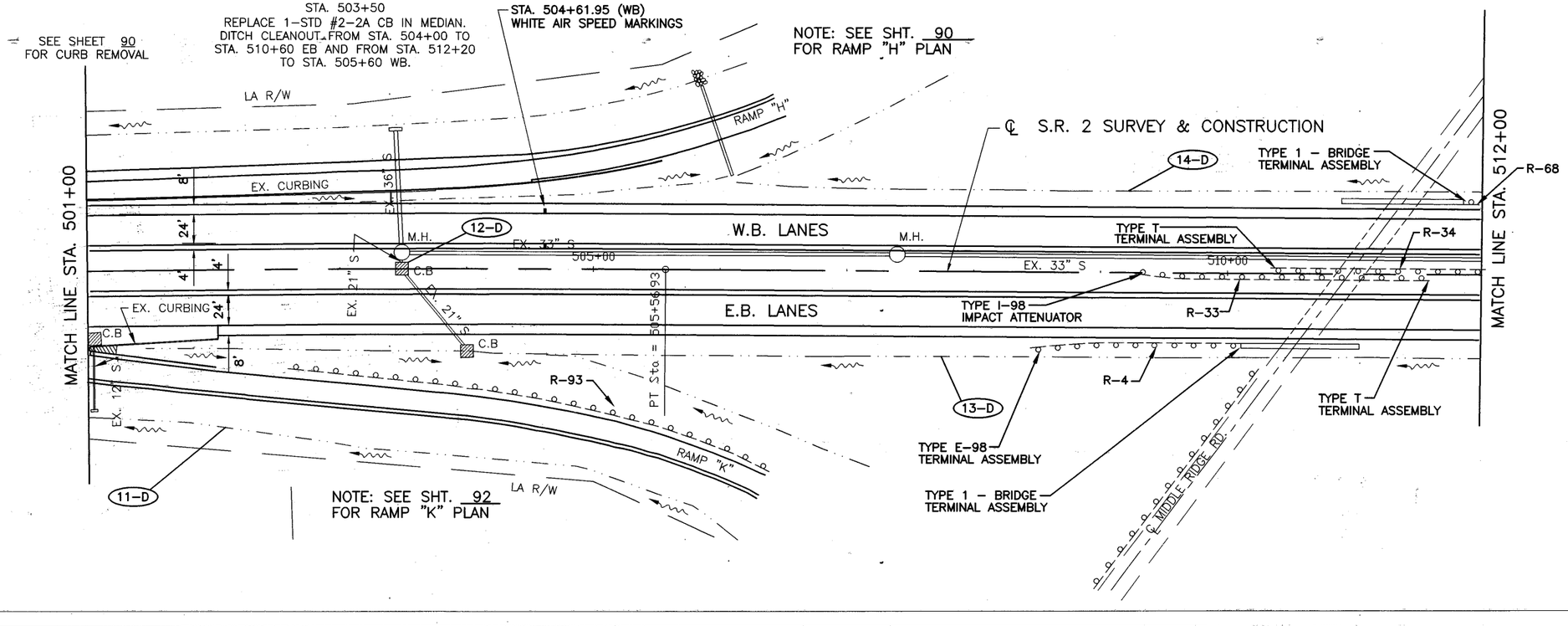
CURVE DATA 4
P.I. STA. 499+53.92
Δ = 3°13'01" RT.
D = 0°16'00"
R = 21,485.92'
T = 603.34'
L = 1206.35'
E = 8.47'
STA. 491+41.95 (WB) BEGIN WHITE SPEED ZONE MARKINGS (2ft. x 4ft. LONG). PLACED AT EDGE ON BOTH INSIDE AND OUTSIDE LANES, FOR (1) MILE AT 0.25 MILE INTERVALS ALSO PLACE AT STA. 504+61.95, STA. 517+81.95 AND STA. 531+01.95
STA. 493+00
REPLACE LAST 2' OF 85'-15" CLASS J-1.
PIPE BROKEN FROM RECENT DITCH WORK FROM ODOT FORCES.
ESTABLISH POSITIVE DRAINAGE FLOW.
DITCH CLEAN OUT FROM STA. 493+00 TO STA. 503+00 EB.
9-D
℄ S.R. 2 SURVEY & CONSTRUCTION
SPEED BAR
STA. 490+31.67
LA R/W
MATCH LINE STA. 490+00
MATCH LINE STA. 501+00
8'
24'
4'
4'
24'
8'
EX. 12" S
EX. 15" S
C.B.
W.B. LANES
E.B. LANES
495+00
500+00
℄ RAMP "H"
LA R/W
EX. 12" S
C.B.
EX. CURBING
PC Sta. = 493+50.58
℄ RAMP "K"
10-D
LA R/W
STA. 493+00
BEGIN DECELERATION LANE
FOR RAMP "K"

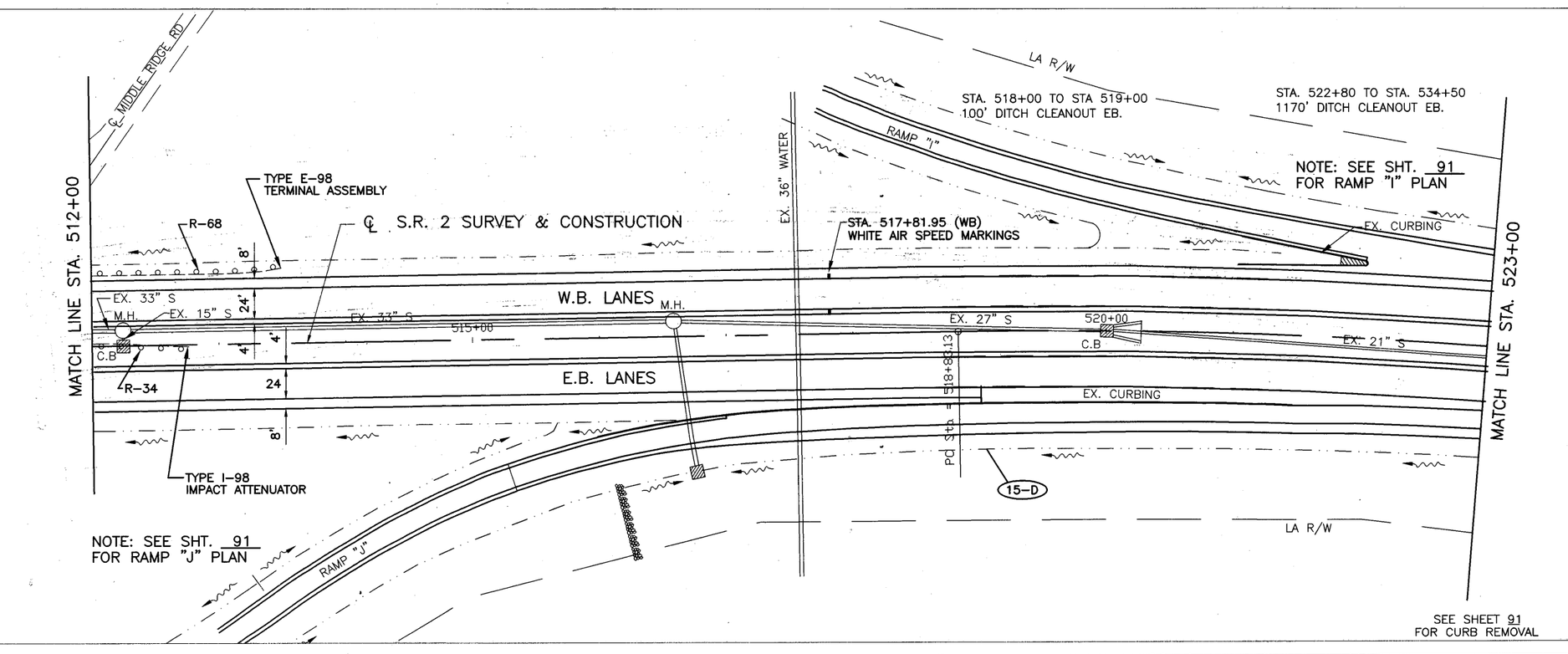
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN
STA. 479+00 TO STA. 501+00

LOR - I90 - 10.76



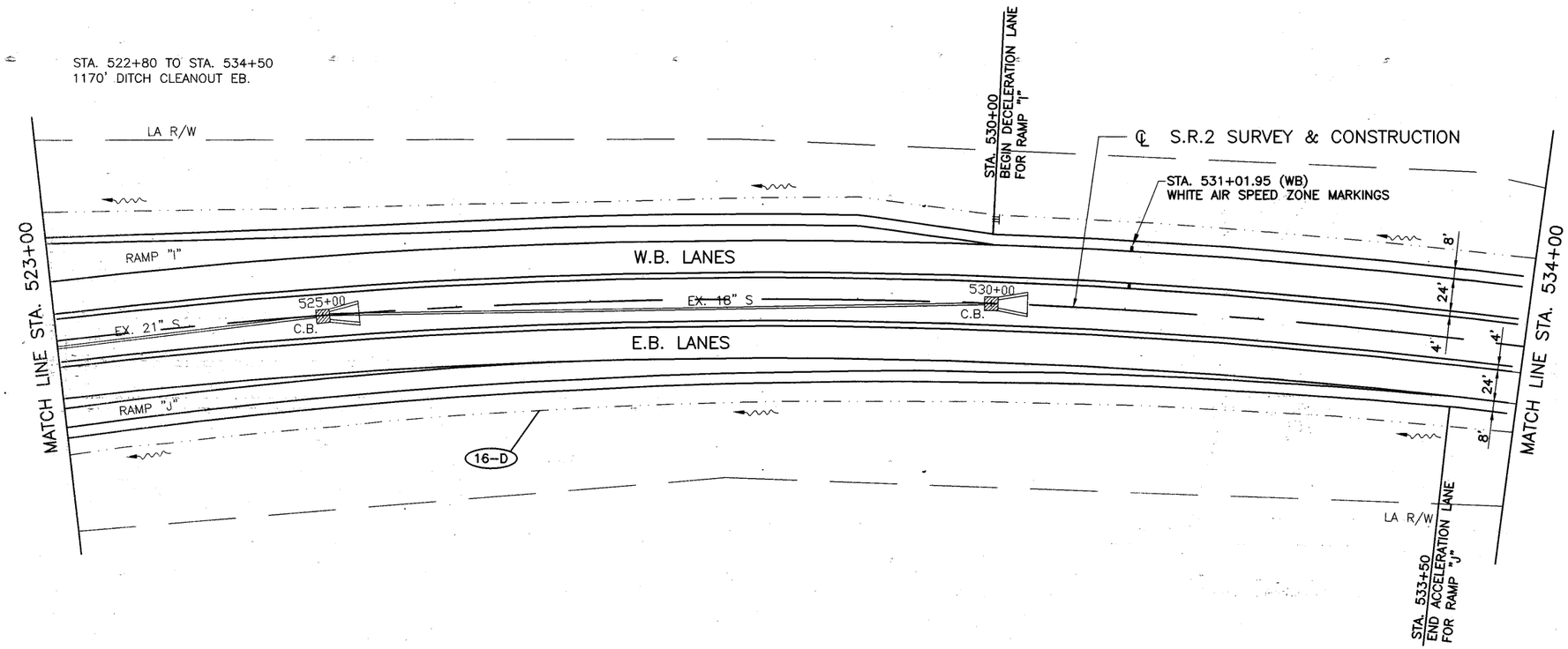


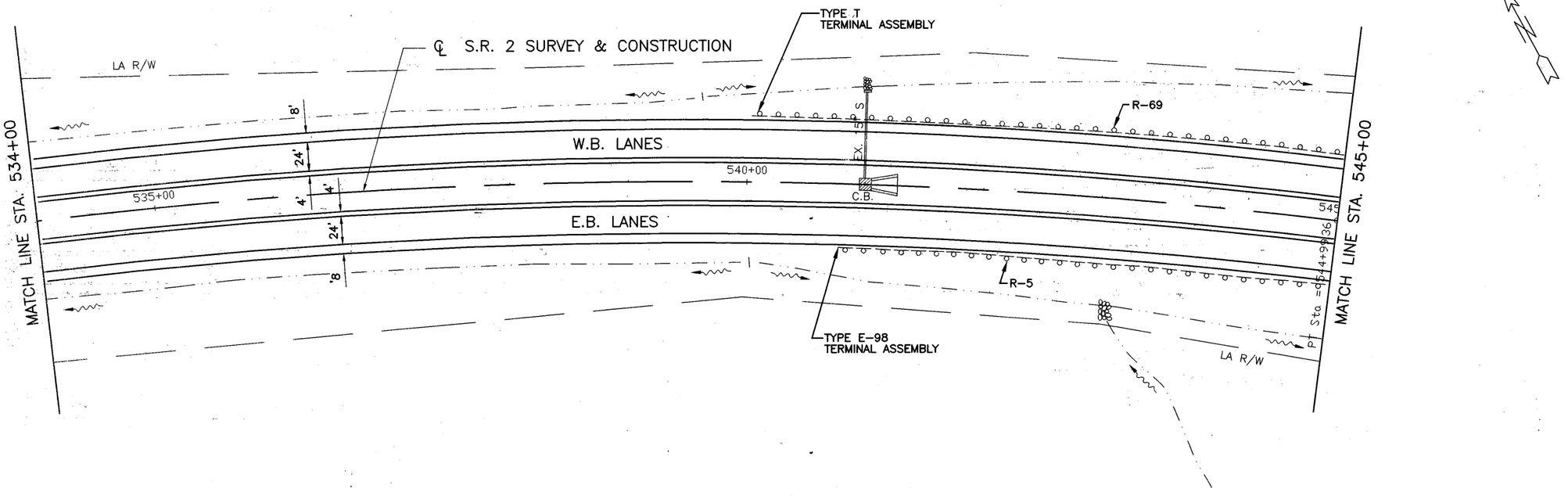
PLAN
STA. 501+00 TO STA. 523+00

LOR - I90 - 10.76

CURVE DATA (5)
P.I. STA. 532+28.96
Δ = 33°08'20" RT.
D = 1°16'00"
R = 4523.35'
T = 1345.84'
L = 2616.23'
E = 195.97'

STA. 522+80 TO STA. 534+50
1170' DITCH CLEANOUT EB.





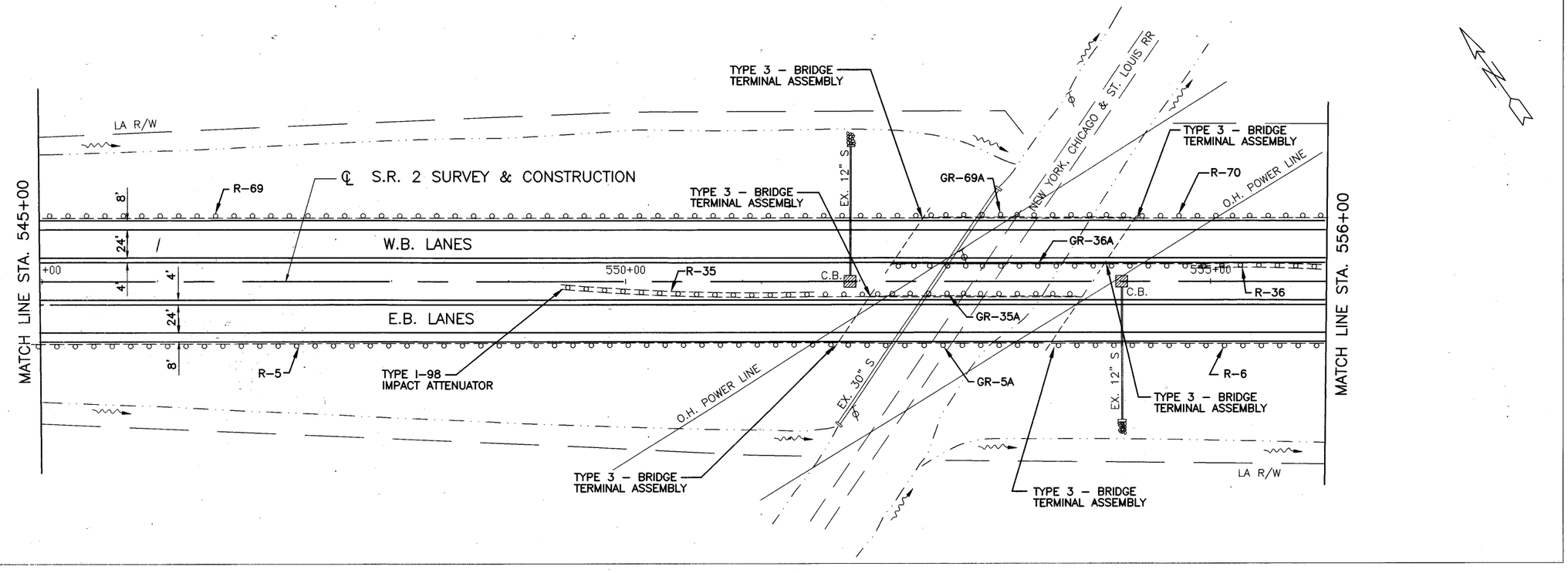
HORIZONTAL SCALE IN FEET
0 50' 100

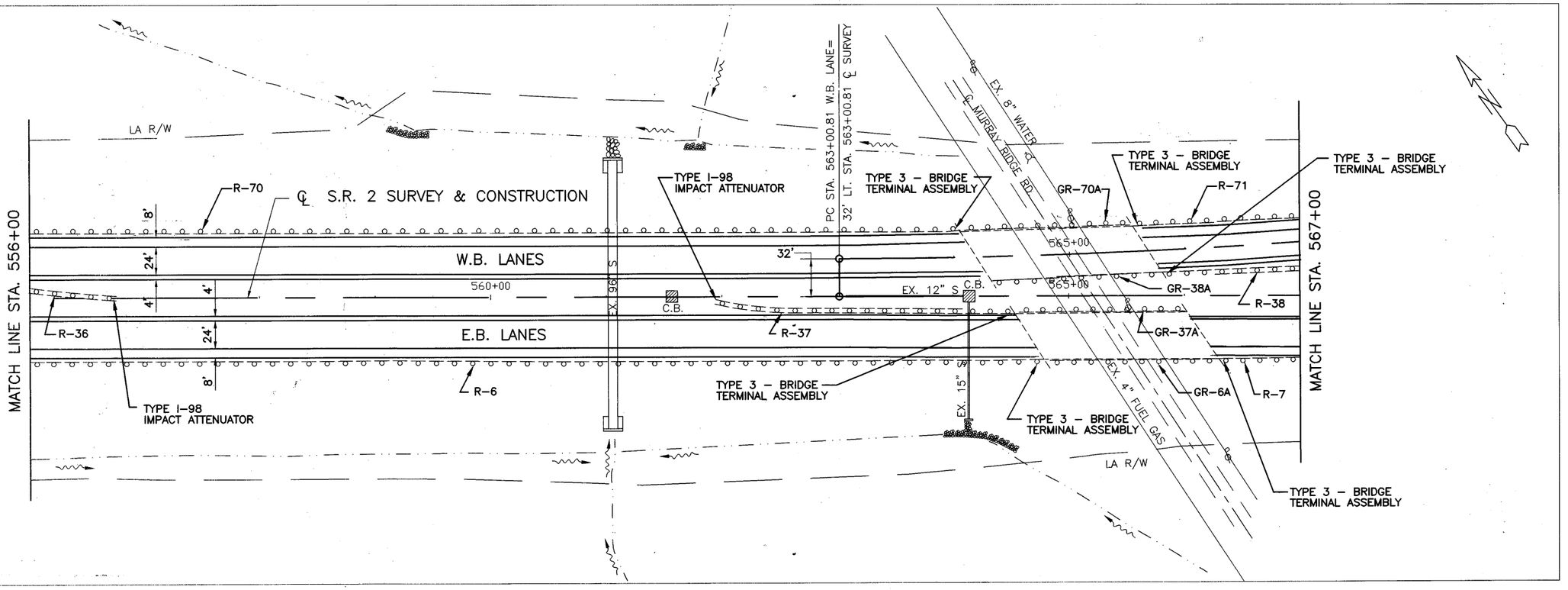
CALCULATED DLS
CHECKED LAB

PLAN
STA. 523+00 TO STA. 545+00

LOR - I90 - 10.76

66
274



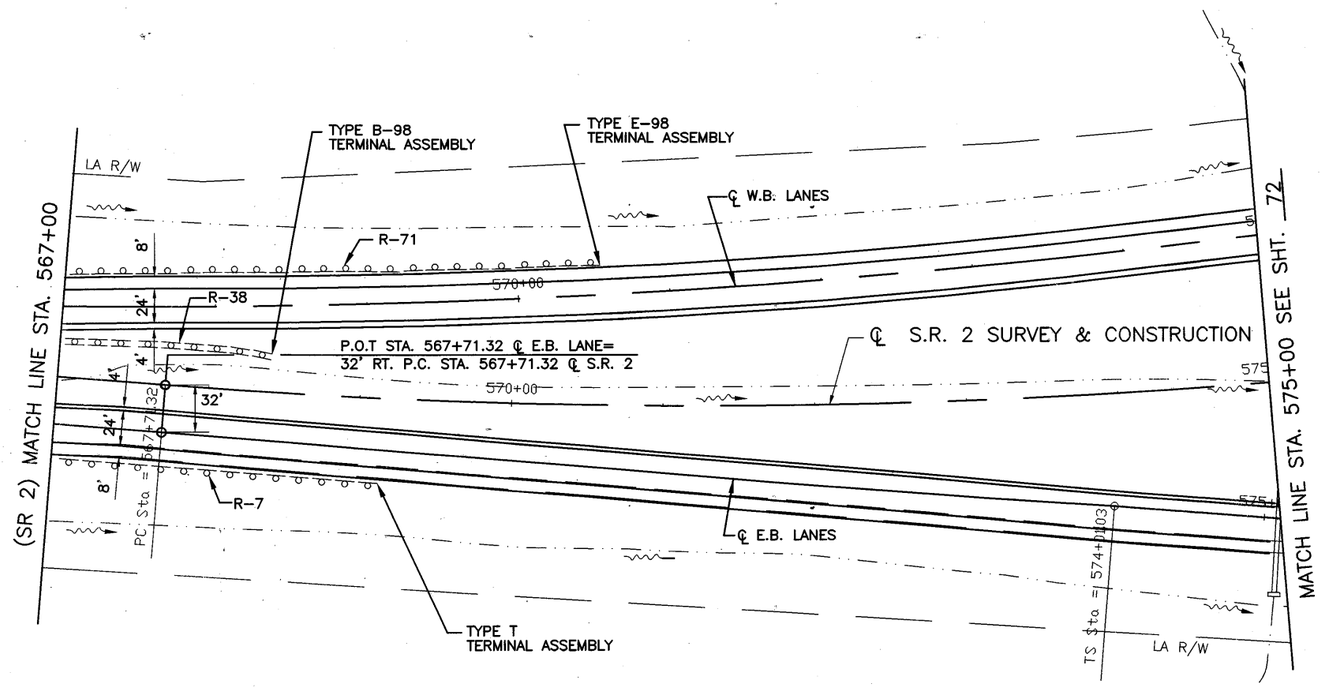


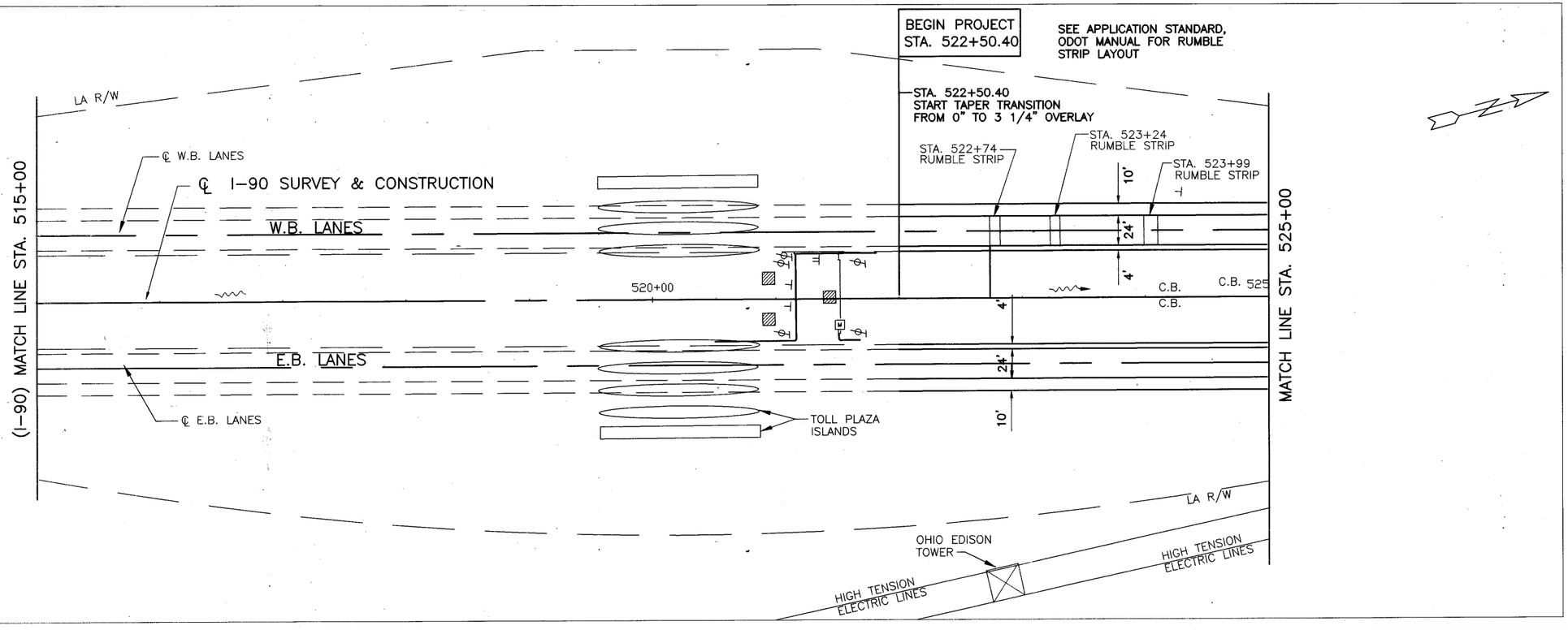
CALCULATED DLS
CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100

PLAN
STA. 545+00 TO STA. 567+00

LOR - I90 - 10.76





CALCULATED DLS | CHECKED LAB

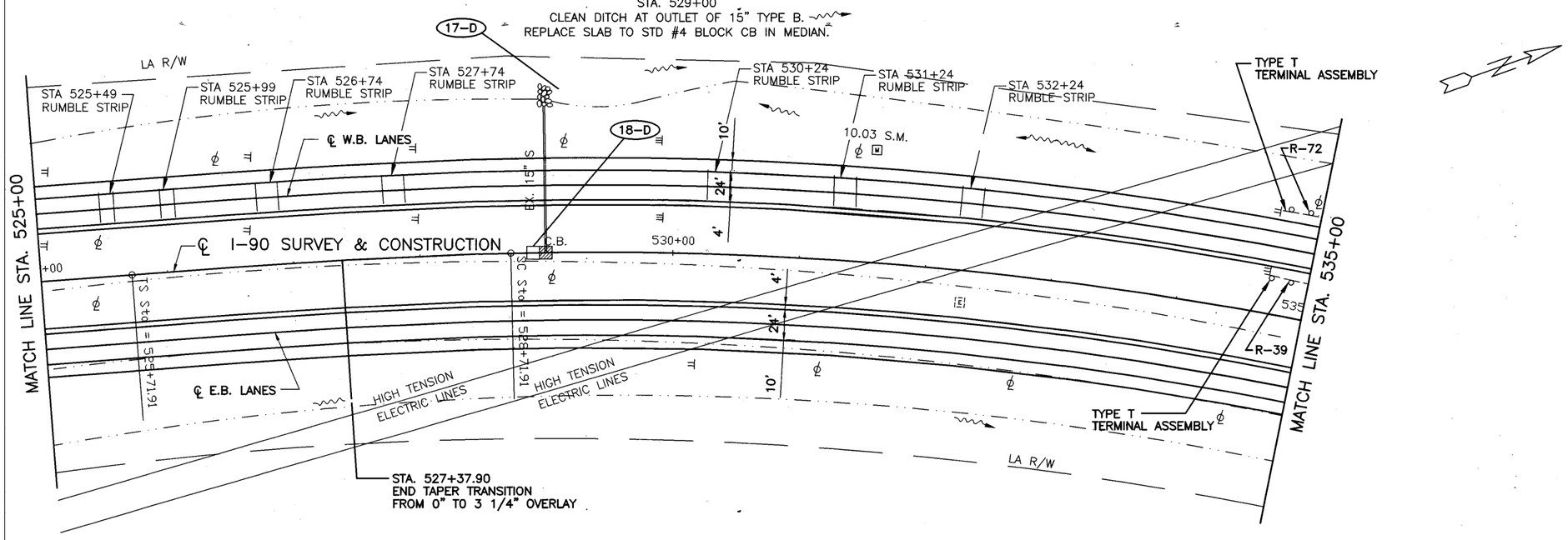
0 50' 100
HORIZONTAL
SCALE IN FEET

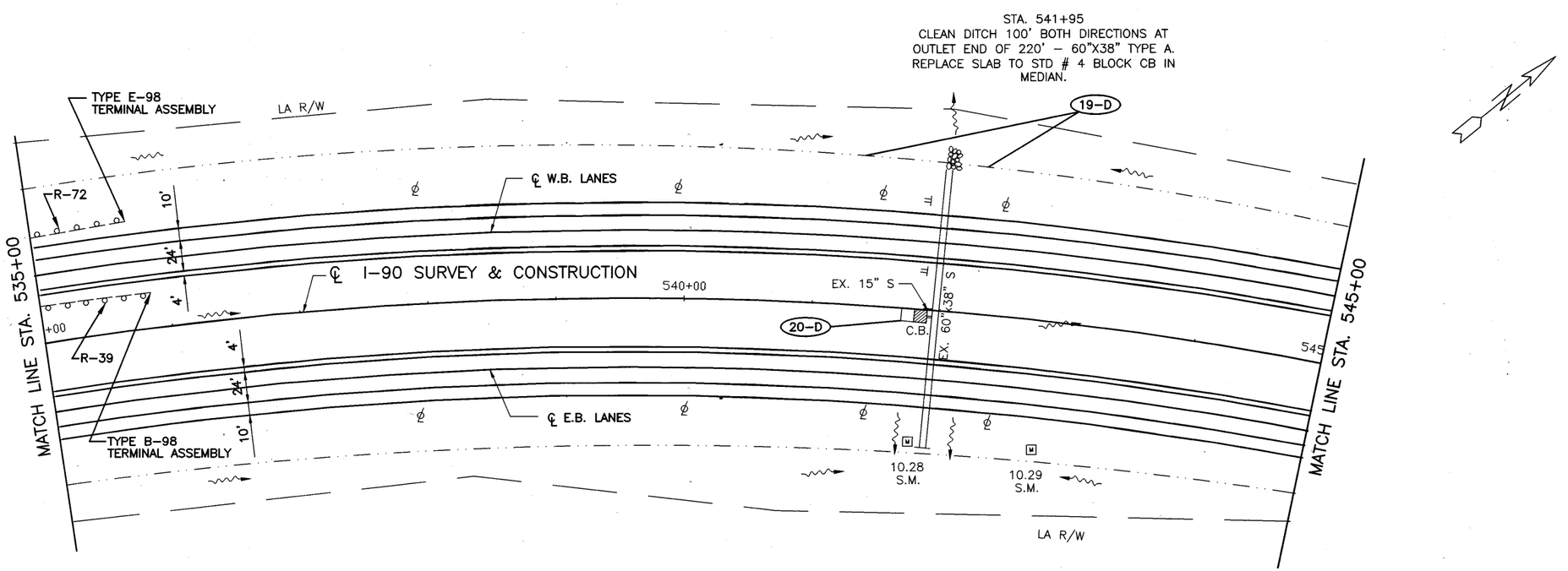
PLAN

S.R. 2 STA. 567+00 TO STA. 575+00 & I-90 STA. 515+00 TO STA. 525+00

LOR - I90 - 10.76

CURVE DATA (6)
CENTER LINE SURVEY
P.I. STA. 542+31.82
Δ = 55°33'45" RT.
Δc = 49°33'45"
Dc = 2°00'00"
R = 2864.79'
T = 1659.91'
L = 300.00'
Lc = 2478.13'
E = 374.72'
θs = 3°00'00"



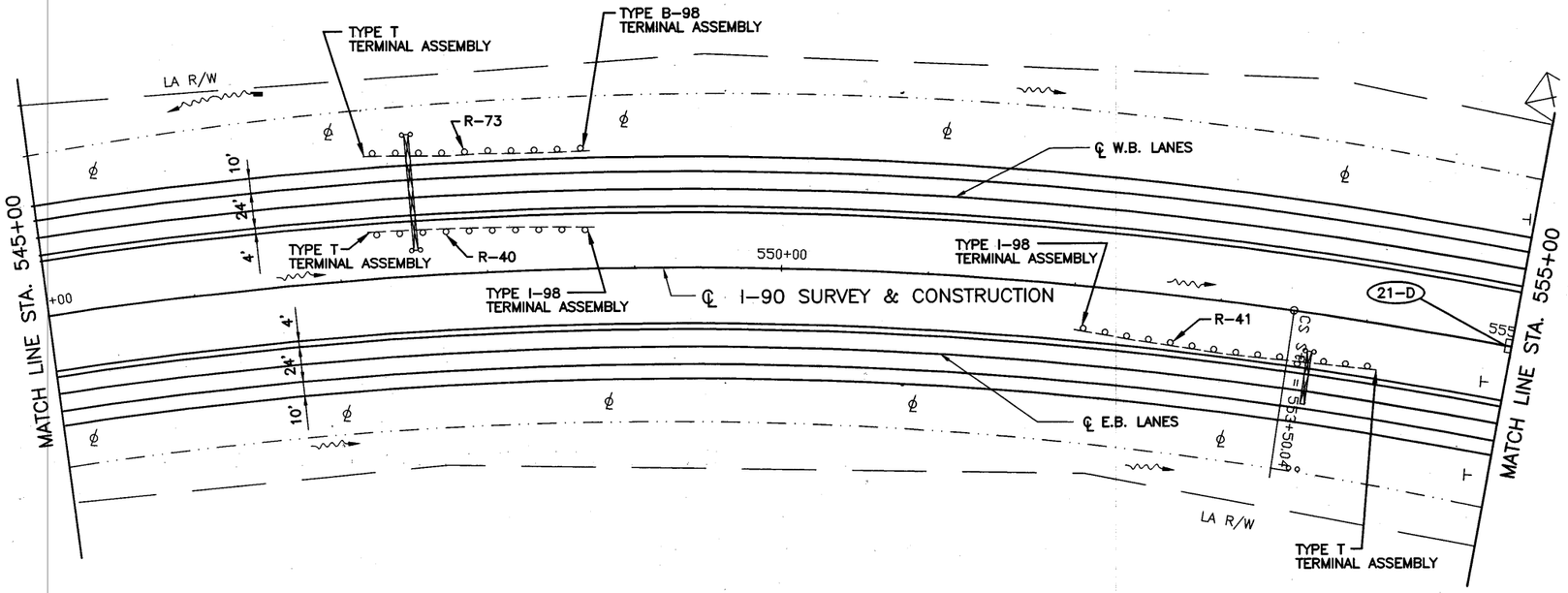


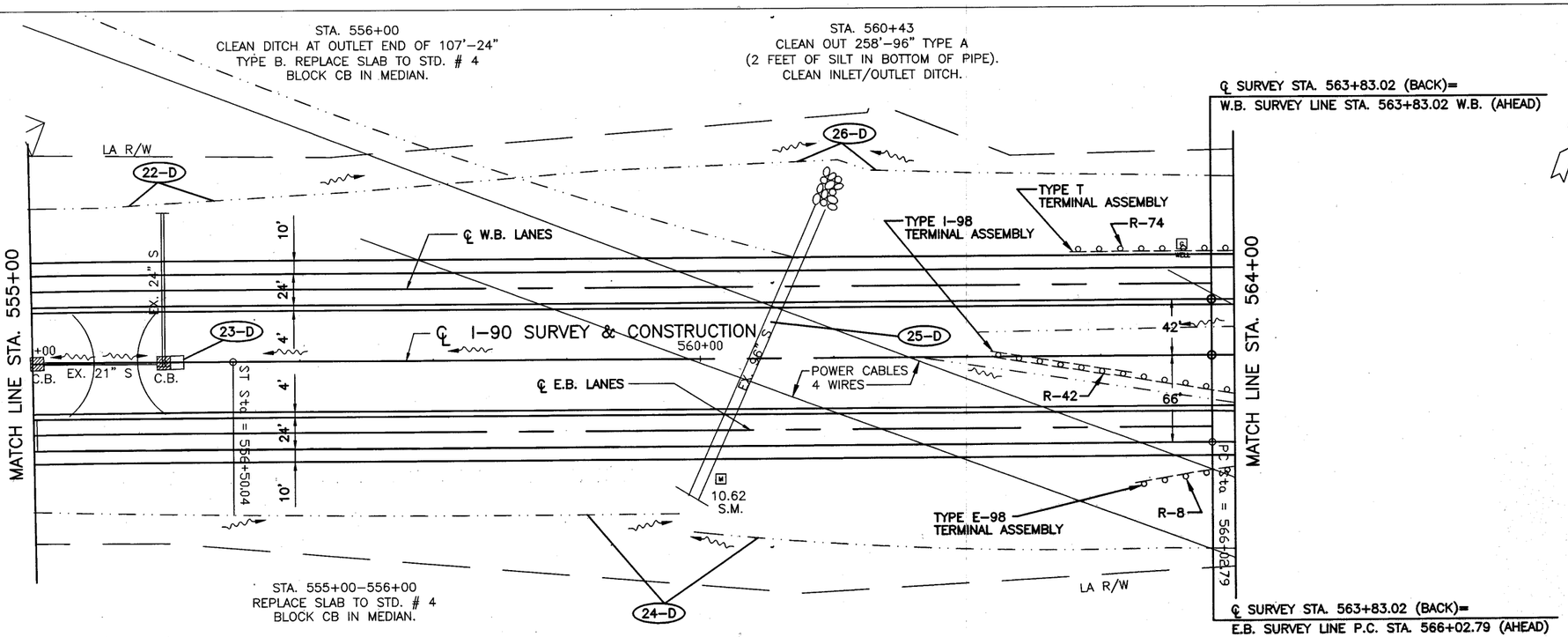
CALCULATED DLS | CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100

PLAN
STA. 525+00 TO STA. 545+00

LOR - I90 - 10.76





CALCULATED DLS
CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100

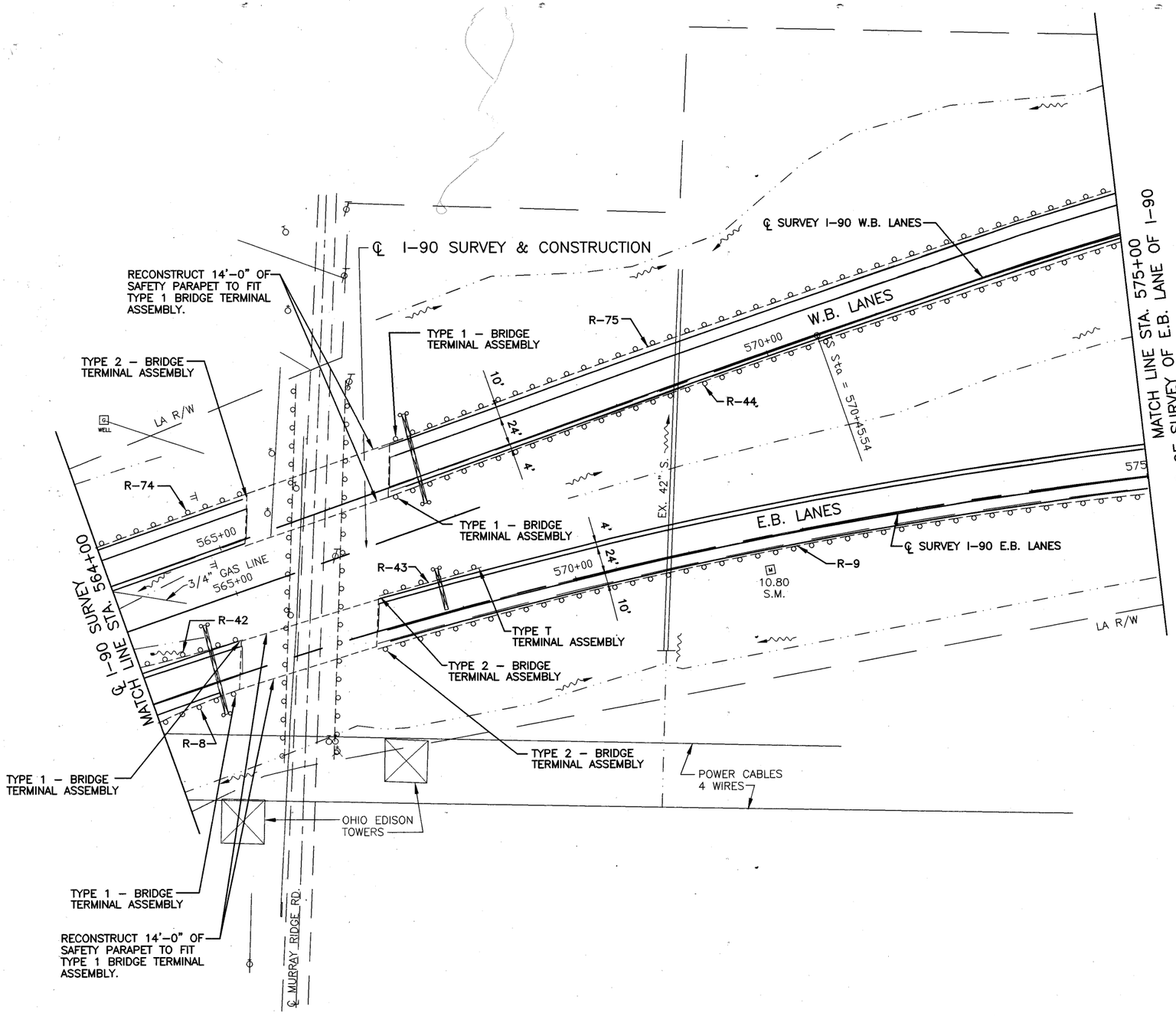
PLAN
STA. 545+00 TO STA. 564+00

LOR - I90 - 10.76

70
274

D:\93600\DWGS\93600FNL\P-10.DWG] DLS
-23-2002 2:45PM

CURVE DATA - (7)
SURVEY LINE E.B. LANES
P.I. STA. 574+74.56
Δ = 25°09'35" RT.
Dc = 1°28'00"
R = 3906.53'
T = 871.77'
L = 1715.43'
E = 96.09'



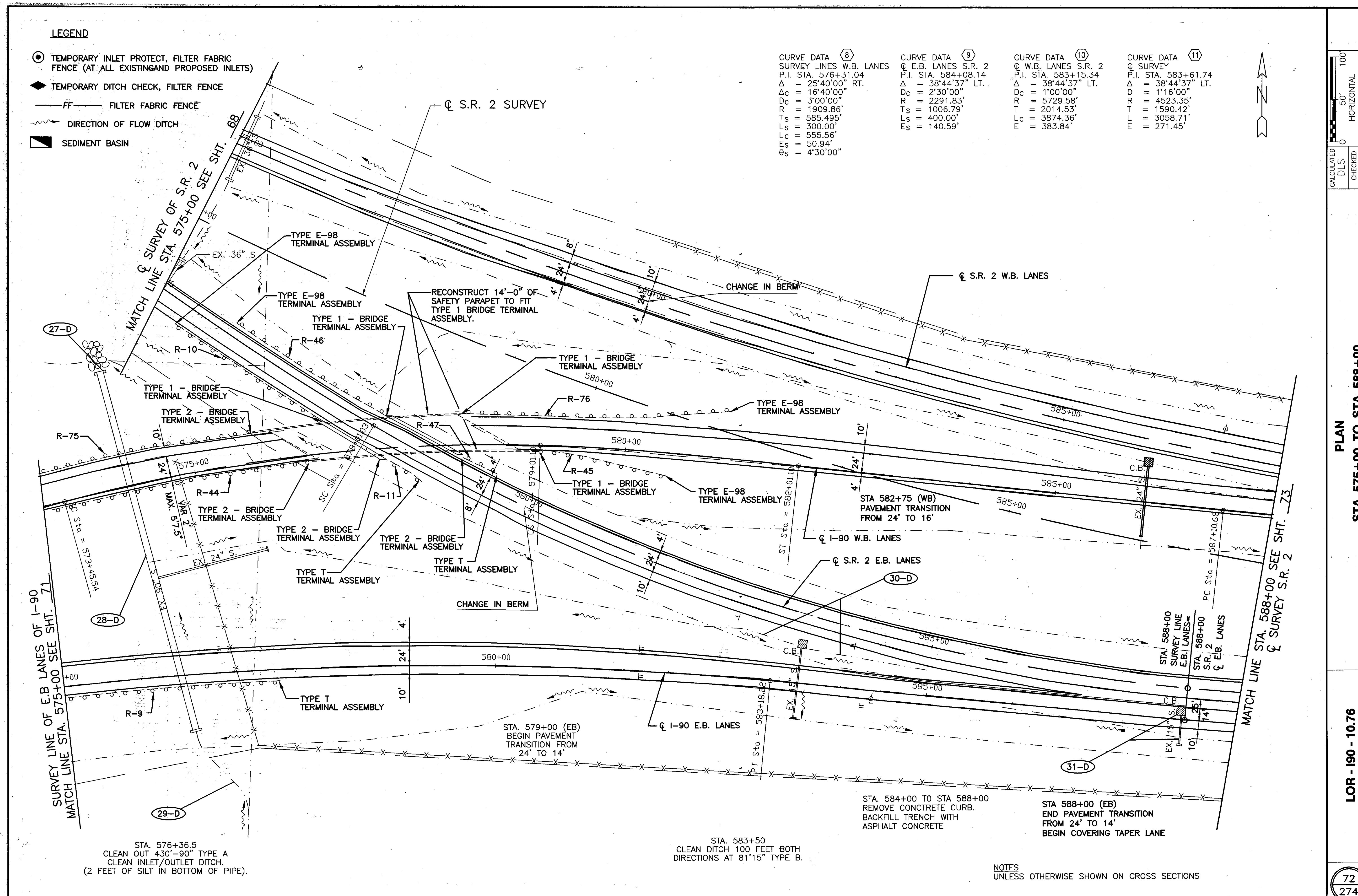
CALCULATED DLS
CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100

PLAN
STA. 562+00 TO STA. 575+00

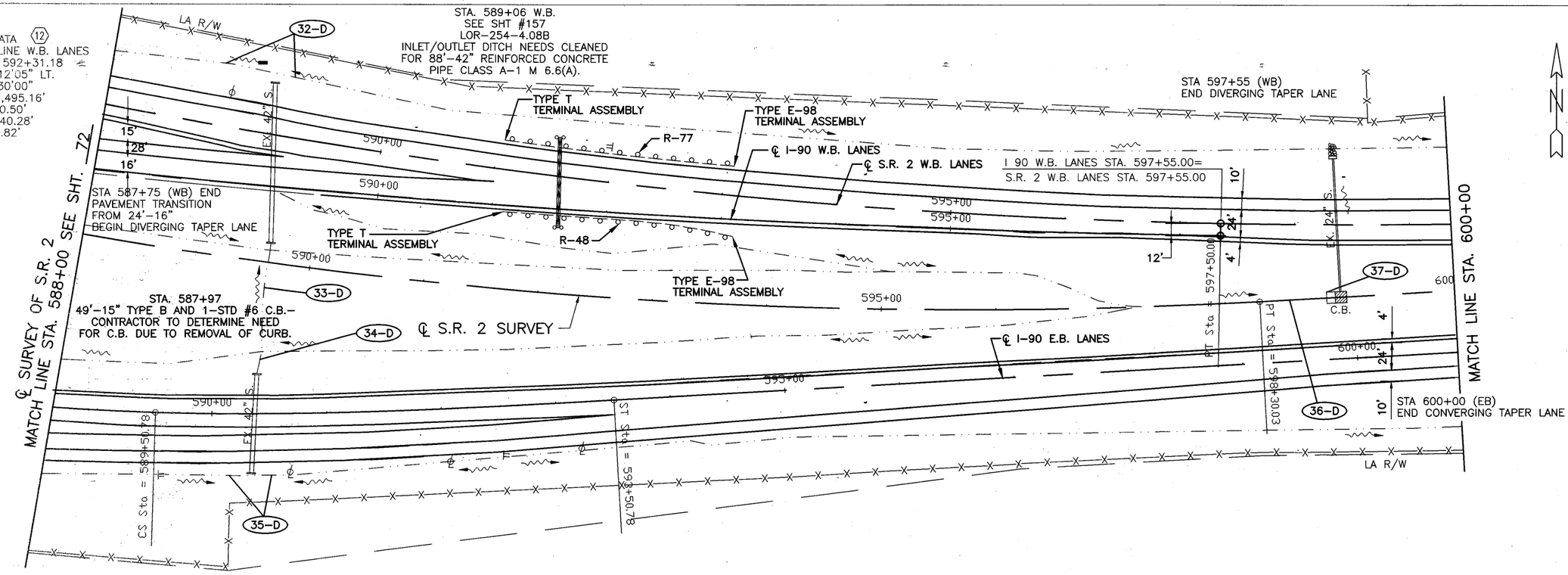
LOR - I90 - 10.76

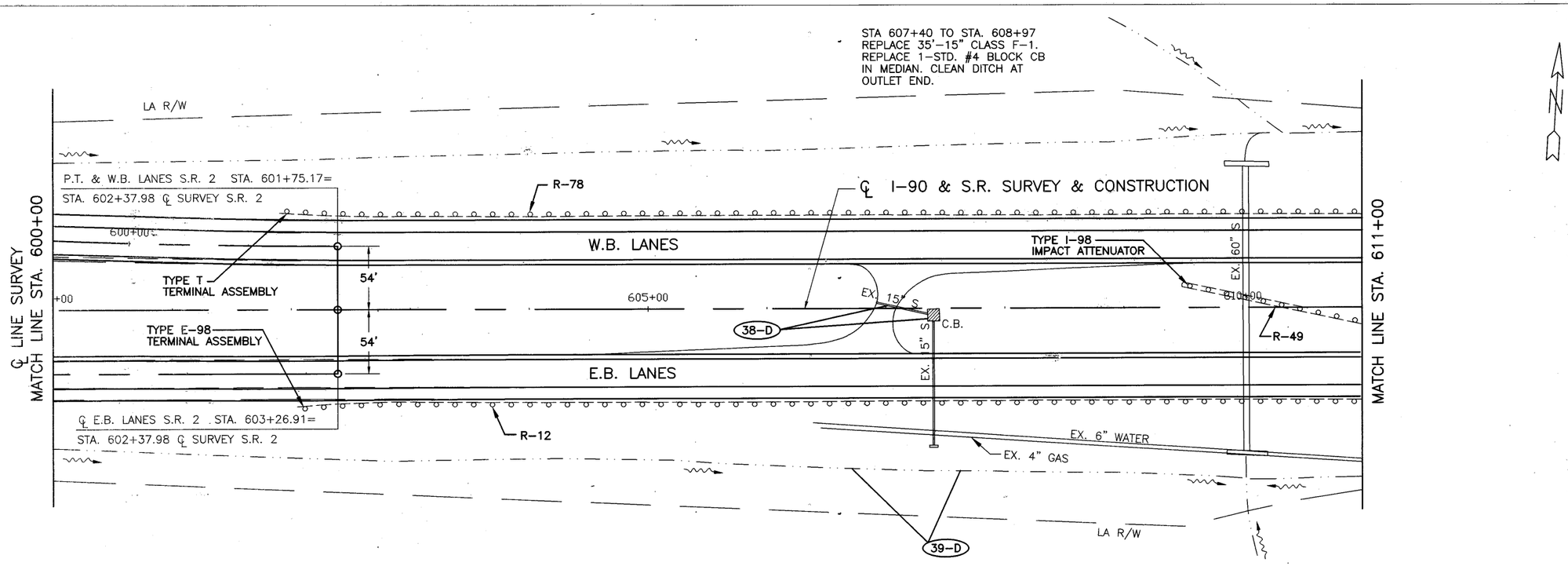
71
274



LEGEND
TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
TEMPORARY DITCH CHECK, FILTER FENCE
FF FILTER FABRIC FENCE
DIRECTION OF FLOW DITCH
SEDIMENT BASIN
CURVE DATA 8
SURVEY LINES W.B. LANES
P.I. STA. 576+31.04
Δ = 25°40'00" RT.
Δc = 16°40'00"
Dc = 3°00'00"
R = 1909.86'
Ts = 585.495'
Ls = 300.00'
Lc = 555.56'
Es = 50.94'
θs = 4°30'00"
CURVE DATA 9
℄ E.B. LANES S.R. 2
P.I. STA. 584+08.14
Δ = 38°44'37" LT.
Dc = 2°30'00"
R = 2291.83'
Ts = 1006.79'
Ls = 400.00'
Es = 140.59'
CURVE DATA 10
℄ W.B. LANES S.R. 2
P.I. STA. 583+15.34
Δ = 38°44'37" LT.
Dc = 1°00'00"
R = 5729.58'
T = 2014.53'
Lc = 3874.36'
E = 383.84'
CURVE DATA 11
℄ SURVEY
P.I. STA. 583+61.74
Δ = 38°44'37" LT.
D = 1°16'00"
R = 4523.35'
T = 1590.42'
L = 3058.71'
E = 271.45'
N
0 50' 100'
HORIZONTAL SCALE IN FEET
CALCULATED DLS
CHECKED LAB
℄ S.R. 2 SURVEY
℄ SURVEY OF S.R. 2
MATCH LINE STA. 575+00 SEE SHT. 68
EX. 36" S
TYPE E-98 TERMINAL ASSEMBLY
TYPE 1 - BRIDGE TERMINAL ASSEMBLY
TYPE 2 - BRIDGE TERMINAL ASSEMBLY
TYPE T TERMINAL ASSEMBLY
RECONSTRUCT 14'-0" OF SAFETY PARAPET TO FIT TYPE 1 BRIDGE TERMINAL ASSEMBLY.
CHANGE IN BERM
℄ S.R. 2 W.B. LANES
℄ S.R. 2 E.B. LANES
℄ I-90 W.B. LANES
℄ I-90 E.B. LANES
R-10
R-46
R-75
R-44
R-11
R-47
R-76
R-45
R-9
27-D
28-D
29-D
30-D
31-D
580+00
585+00
575+00
SC Sta = 578+03
CS Sta = 579+01.10
ST Sta = 582+01.10
SC Sta = 573+45.54
PT Sta = 583+18.22
PC Sta = 587+10.68
EX. 24" S.
EX. 90" S
EX. 15" S
C.B.
MAX. 57.5'
VAR 2'
STA 582+75 (WB) PAVEMENT TRANSITION FROM 24' TO 16'
STA. 579+00 (EB) BEGIN PAVEMENT TRANSITION FROM 24' TO 14'
STA. 588+00 SURVEY LINE E.B. LANES= STA. 588+00 S.R. 2 ℄ E.B. LANES
SURVEY LINE OF E.B LANES OF I-90
MATCH LINE STA. 575+00 SEE SHT. 71
MATCH LINE STA. 588+00 SEE SHT. 73
℄ SURVEY S.R. 2
STA. 584+00 TO STA 588+00 REMOVE CONCRETE CURB. BACKFILL TRENCH WITH ASPHALT CONCRETE
STA 588+00 (EB) END PAVEMENT TRANSITION FROM 24' TO 14' BEGIN COVERING TAPER LANE
STA. 576+36.5 CLEAN OUT 430'-90" TYPE A CLEAN INLET/OUTLET DITCH. (2 FEET OF SILT IN BOTTOM OF PIPE).
STA. 583+50 CLEAN DITCH 100 FEET BOTH DIRECTIONS AT 81°15" TYPE B.
NOTES
UNLESS OTHERWISE SHOWN ON CROSS SECTIONS
PLAN
STA. 575+00 TO STA. 588+00
LOR - I90 - 10.76

CURVE DATA (12)
SURVEY LINE W.B. LANES
P.I. STA. 592+31.18
Δ = 5°12'05" LT.
Dc = 0°30'00"
R = 11,495.16'
T = 520.50'
L = 1040.28'
E = 11.82'



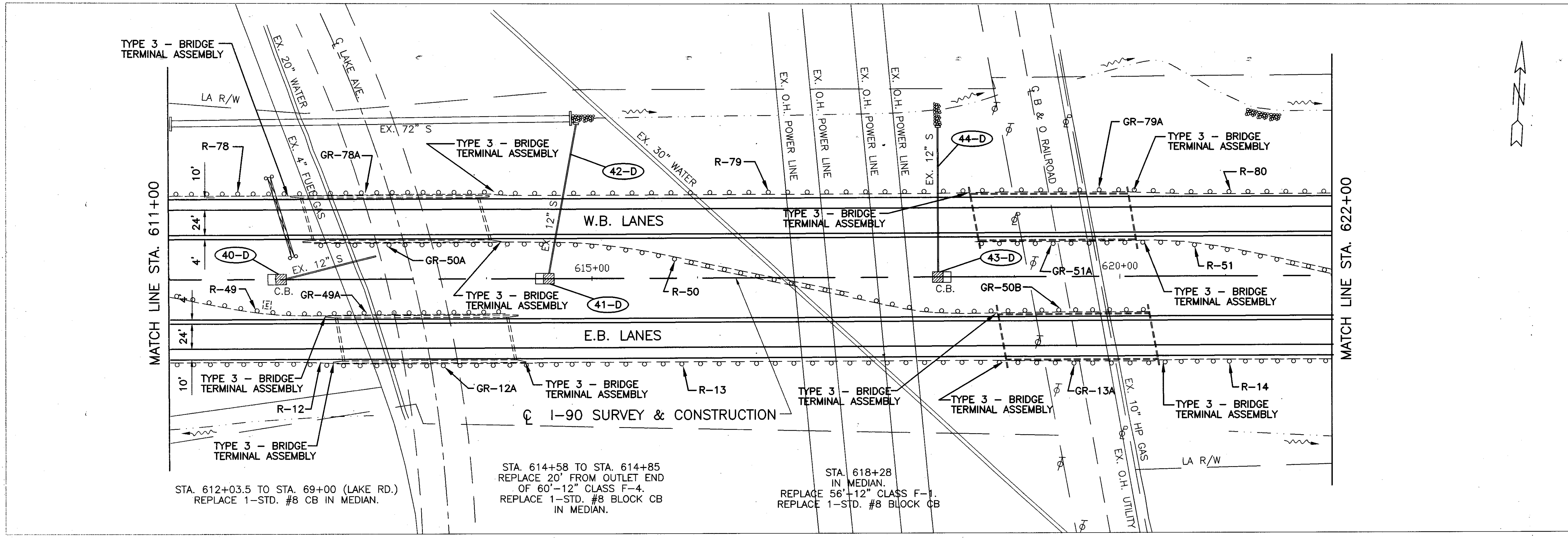


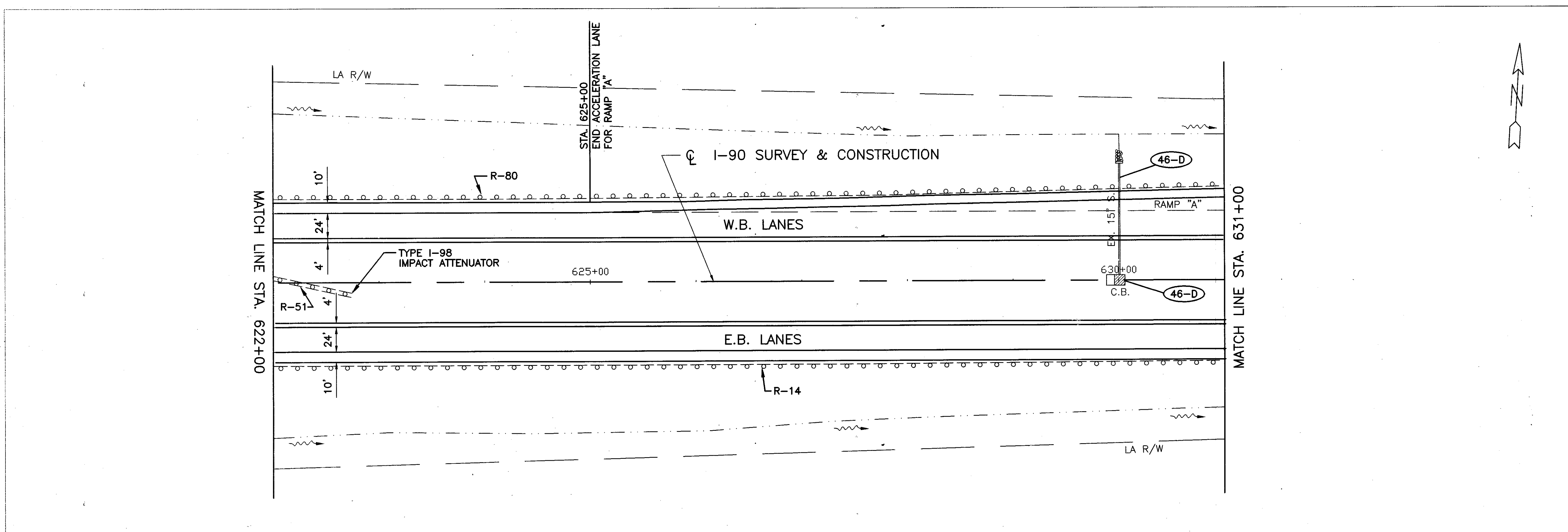
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN
STA. 588+00 TO STA. 611+00

LOR - I90 - 10.76



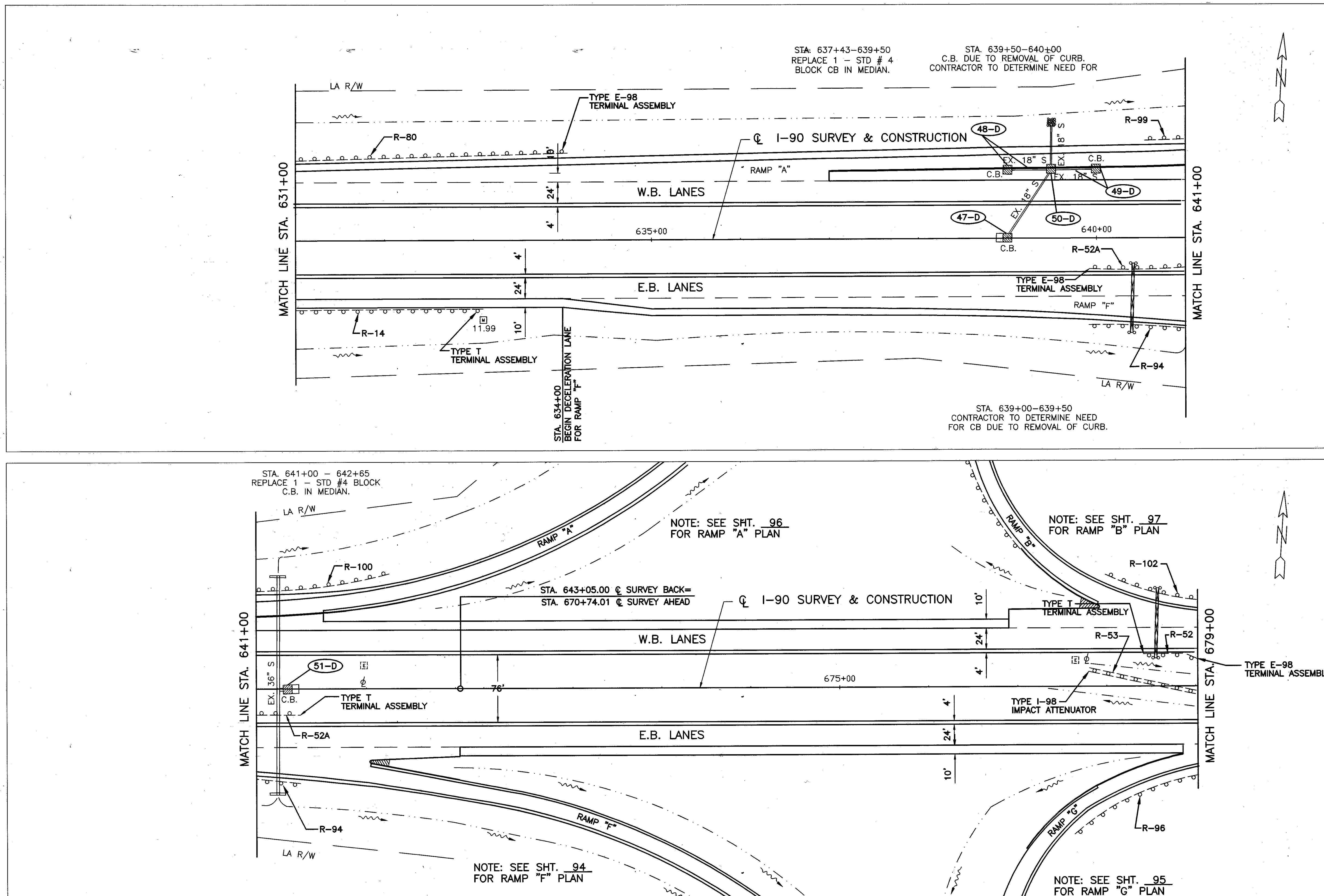


0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PLAN
STA. 611+00 TO STA. 631+00

LOR - I90 - 10.76


STA. 637+43–639+50
REPLACE 1 – STD # 4
BLOCK CB IN MEDIAN.
STA. 639+50–640+00
C.B. DUE TO REMOVAL OF CURB.
CONTRACTOR TO DETERMINE NEED FOR
LA R/W
TYPE E–98
TERMINAL ASSEMBLY
R–80
℄ I–90 SURVEY & CONSTRUCTION
48–D
EX. 18" S
C.B.
RAMP "A"
49–D
W.B. LANES
47–D
50–D
635+00
640+00
MATCH LINE STA. 631+00
MATCH LINE STA. 641+00
R–99
R–52A
E.B. LANES
RAMP "F"
R–14
11.99
TYPE T
TERMINAL ASSEMBLY
STA. 634+00
BEGIN DECELERATION LANE
FOR RAMP "F"
R–94
STA. 639+00–639+50
CONTRACTOR TO DETERMINE NEED
FOR CB DUE TO REMOVAL OF CURB.
STA. 641+00 – 642+65
REPLACE 1 – STD #4 BLOCK
C.B. IN MEDIAN.
NOTE: SEE SHT. 96
FOR RAMP "A" PLAN
NOTE: SEE SHT. 97
FOR RAMP "B" PLAN
RAMP "B"
R–100
R–102
STA. 643+05.00 ℄ SURVEY BACK=
STA. 670+74.01 ℄ SURVEY AHEAD
℄ I–90 SURVEY & CONSTRUCTION
TYPE T
TERMINAL ASSEMBLY
R–53
R–52
MATCH LINE STA. 641+00
MATCH LINE STA. 679+00
51–D
EX. 36" S
C.B.
675+00
76'
TYPE E–98
TERMINAL ASSEMBLY
TYPE I–98
IMPACT ATTENUATOR
R–52A
E.B. LANES
R–94
R–96
RAMP "F"
RAMP "G"
NOTE: SEE SHT. 94
FOR RAMP "F" PLAN
NOTE: SEE SHT. 95
FOR RAMP "G" PLAN
LA R/W

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PLAN
STA. 631+00 TO STA. 679+00

LOR - 190 - 10.76

:\93600\DWGS\93600FNL\P–15.DWG] DLS
-24-2002 3:29PM

STA. 680+35
35' – 15" TYPE F.
REPLACE 10' OF OUTLET OF
REPLACE 1 – STD #2-2B
BRICK C.B. IN MEDIAN.

STA. 683+68
40'-15" TYPE F.
REPLACE 10' OF OUTLET OF
REPLACE 1 – STD #2-2B
BRICK C.B. IN MEDIAN.

NOTE: SEE SHT. 97
FOR RAMP "X" PLAN

NOTE: SEE SHT. 95
FOR RAMP "E" PLAN

MATCH LINE STA. 679+00

MATCH LINE STA. 690+00

R-101

52-D

STA. 680+35.02
BEGIN DECELERATION LANE
FOR RAMP "B"

GR-80A

STA. 683+42.35
END ACCELERATION LANE
FOR RAMP "X"

53-D

R-103

RAMP "X"

EX. 21" S

℄ I-90 SURVEY & CONSTRUCTION

RAMP "B"

10'

24'

4'

EX. 15" S

W.B. LANES

680+00

C.B.

GR-54A

685+00

R-54

TYPE I-98
IMPACT ATTENUATOR

R-53

GR-53A

TYPE 3 – BRIDGE
TERMINAL ASSEMBLY

E.B. LANES

RAMP "G"

TYPE 3 – BRIDGE
TERMINAL ASSEMBLY

R-96

GR-14A

R-97

TYPE E-98
TERMINAL ASSEMBLY

R-15

EX. 84" S

RAMP "E"

R-98

STA. 680+61.68
END ACCELERATION LANE
FOR RAMP "G"

℄ S.R. 57

STA. 683+76.87
BEGIN DECELERATION LANE
FOR RAMP "E"

EX. 27" S

NOTE: SEE SHT. 99
FOR RAMP "C" PLAN

RAMP "C"

R-108

EX. 24" S

EX. 15" S

TYPE T
TERMINAL ASSEMBLY

TYPE E-98
TERMINAL ASSEMBLY

STA. 696+00 – 697+00
REPLACE 1 – STD #4 BRICK
C.B. IN MEDIAN.

LA R/W

TYPE 3 – BRIDGE
TERMINAL ASSEMBLY

GR-81A

R-81

EX. 108" S

W.B. LANES

℄ I-90 SURVEY & CONSTRUCTION

R-55

TYPE I-98
IMPACT ATTENUATOR

R-56

R-57

GR-57A

695+00

700+00

R-5

54-D

GR-56A

E.B. LANES

EX. 15" S

R-15

TYPE T
TERMINAL ASSEMBLY

RAMP "D"

NOTE: SEE SHT. 98
FOR RAMP "D" PLAN

STA. 697+00
OUTLET SILTED OVER.
CLEAN OUT 76'-15" TYPE F –
CONTRACTOR TO DETERMINE
NEED FOR C.B. DUE TO
REMOVAL OF CURB.

56-D

R-106

GR-16A

TYPE 3 – BRIDGE
TERMINAL ASSEMBLY

℄ WEST RIVER RD.

R-105

55-D

LA R/W

MATCH LINE STA. 690+00

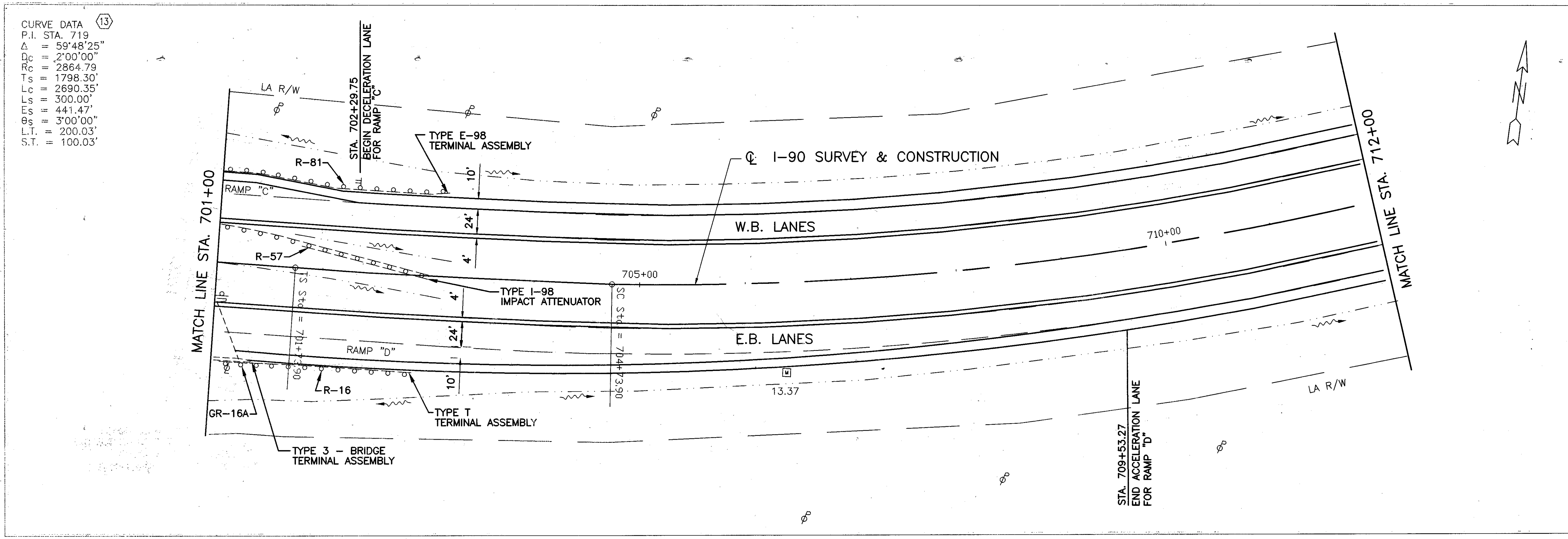
MATCH LINE STA. 701+00

HORIZONTAL
SCALE IN FEET
0 50' 100

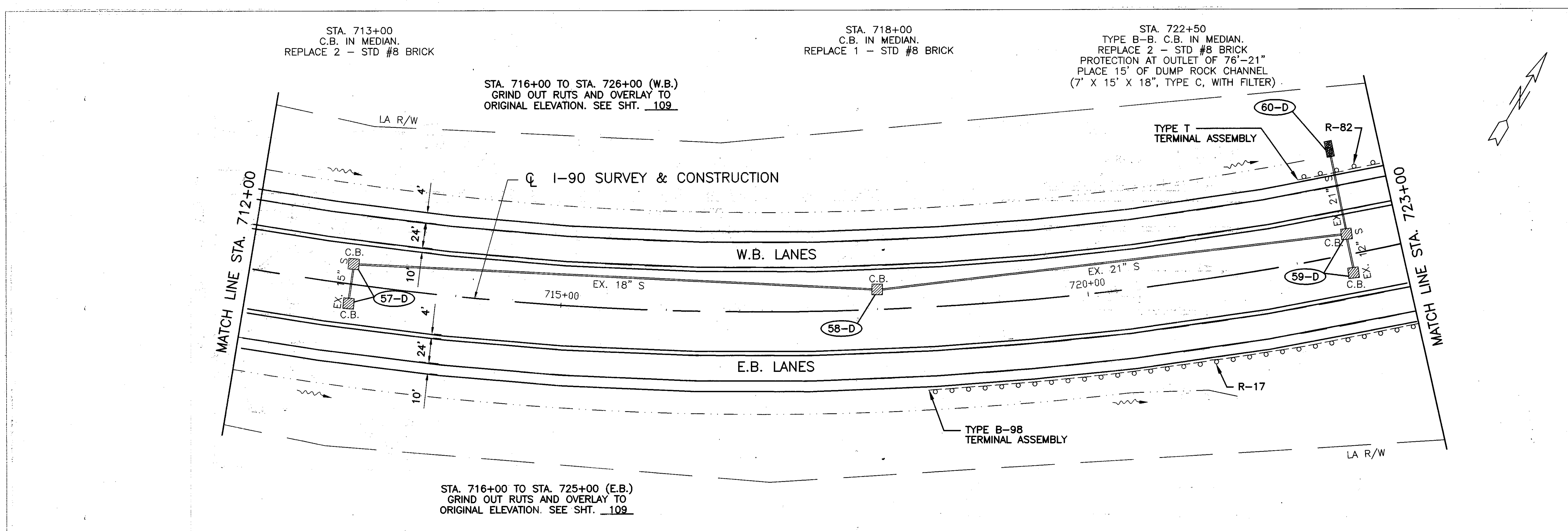
CALCULATED DLS
CHECKED LAB

PLAN
STA. 679+00 TO STA. 701+00

LOR - I90 - 10.76



CURVE DATA (13)
P.I. STA. 719
Δ = 59°48'25"
Dc = 2°00'00"
Rc = 2864.79
Ts = 1798.30'
Lc = 2690.35'
Ls = 300.00'
Es = 441.47'
θs = 3°00'00"
L.T. = 200.03'
S.T. = 100.03'
MATCH LINE STA. 701+00
MATCH LINE STA. 712+00
STA. 702+29.75 BEGIN DECELERATION LANE FOR RAMP "C"
TYPE E-98 TERMINAL ASSEMBLY
℄ I-90 SURVEY & CONSTRUCTION
LA R/W
R-81
RAMP "C"
W.B. LANES
R-57
TS Sta = 701+73.90
TYPE I-98 IMPACT ATTENUATOR
705+00
SC Sta = 704+73.90
710+00
E.B. LANES
RAMP "D"
R-16
GR-16A
TYPE T TERMINAL ASSEMBLY
TYPE 3 - BRIDGE TERMINAL ASSEMBLY
13.37
STA. 709+53.27 END ACCELERATION LANE FOR RAMP "D"
10'
24'
4'



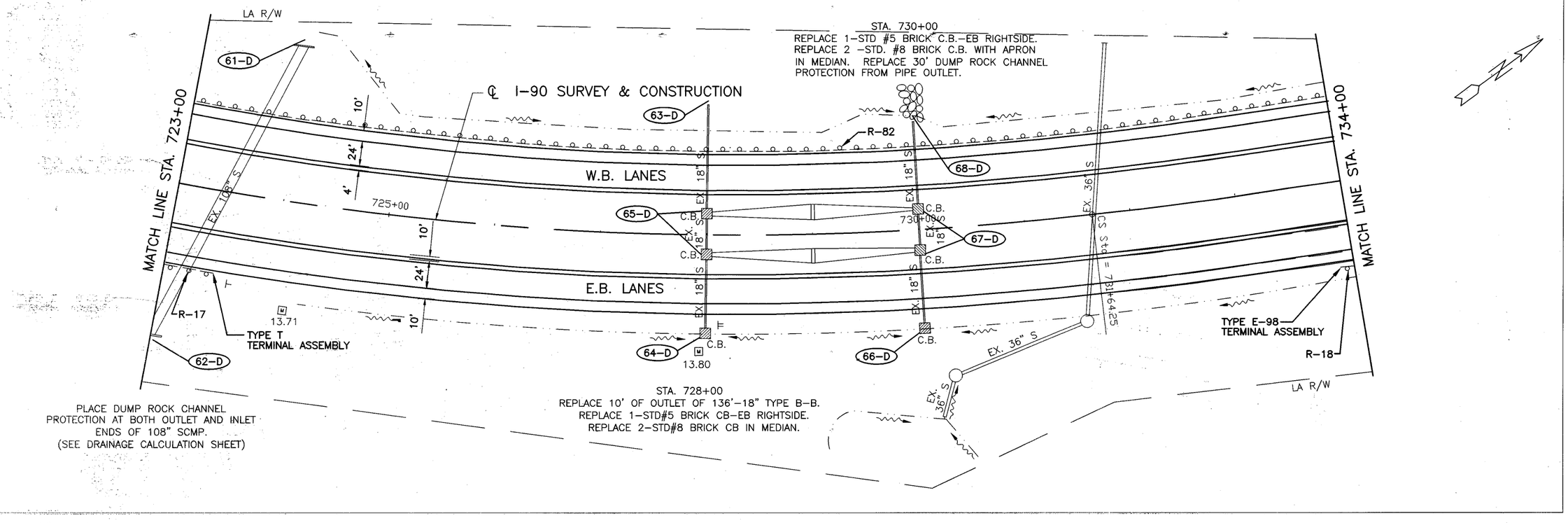
STA. 713+00
C.B. IN MEDIAN.
REPLACE 2 - STD #8 BRICK
STA. 718+00
C.B. IN MEDIAN.
REPLACE 1 - STD #8 BRICK
STA. 722+50
TYPE B-B. C.B. IN MEDIAN.
REPLACE 2 - STD #8 BRICK
PROTECTION AT OUTLET OF 76'-21"
PLACE 15' OF DUMP ROCK CHANNEL
(7' X 15' X 18", TYPE C, WITH FILTER)
STA. 716+00 TO STA. 726+00 (W.B.)
GRIND OUT RUTS AND OVERLAY TO
ORIGINAL ELEVATION. SEE SHT. 109
LA R/W
℄ I-90 SURVEY & CONSTRUCTION
MATCH LINE STA. 712+00
MATCH LINE STA. 723+00
60-D
R-82
TYPE T TERMINAL ASSEMBLY
W.B. LANES
C.B.
EX. 15" S
57-D
EX. 18" S
715+00
58-D
EX. 21" S
720+00
EX. 12" S
59-D
E.B. LANES
R-17
TYPE B-98 TERMINAL ASSEMBLY
STA. 716+00 TO STA. 725+00 (E.B.)
GRIND OUT RUTS AND OVERLAY TO
ORIGINAL ELEVATION. SEE SHT. 109
10'
24'
4'

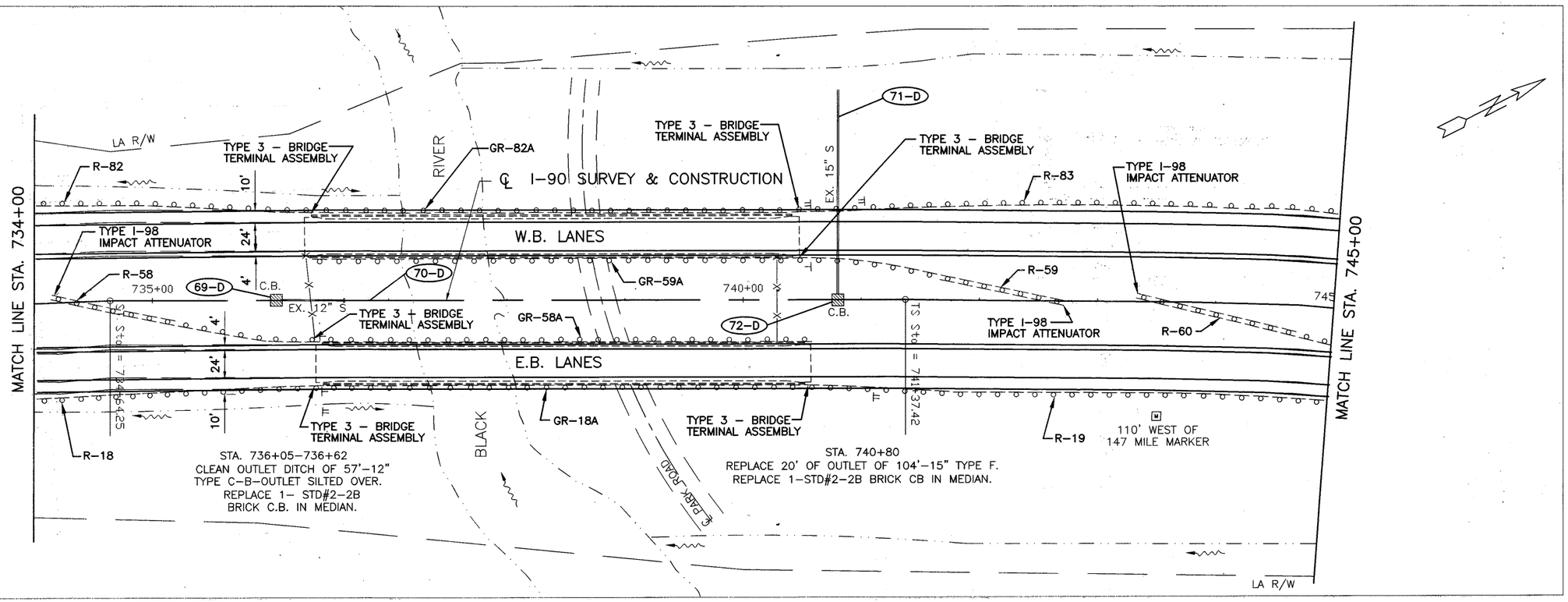
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN
STA. 701+00 TO STA. 723+00

LOR - I90 - 10.76





HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS | CHECKED LAB

PLAN
STA. 723+00 TO STA. 745+00

LOR - I90 - 10.76

CURVE DATA (14)
P.I. STA. 750+87.60
Δ = 36°12'32"
Dc = 2°30'00"
Rc = 2291.83'
Ts = 950.18'
Lc = 1048.36'
Ls = 400.00'
Es = 122.44'
θs = 5°00'00"
L.T. = 266.77'
S.T. = 133.43'

LA R/W

73-D

EX. 30" S

STA. 747+65
CLEAN OUTLET DITCH TO THE WEST OF 114'-24" TYPE B-B.
REPLACE 1STD#4 BRICK CB IN MEDIAN.

STA. 750+50-755+00
REPLACE 1 STD # 4 BRICK CB IN MEDIAN.

TYPE 3 - BRIDGE TERMINAL ASSEMBLY

75-D

STA. 747+65-750+50
REPLACE 1 STD # 4 BRICK CB IN MEDIAN.

TYPE E-98 TERMINAL ASSEMBLY

℄ I-90 SURVEY & CONSTRUCTION

R-84

GR-83A

TYPE 3 - BRIDGE TERMINAL ASSEMBLY

R-83

W.B. LANES

EX. 24" S

EX. 15" S

MATCH LINE STA. 745+00

74-D

C.B.

GR-61A

R-61

750+00

77-D

C.B.

76-D

EX. 24" S

GR-60A

TYPE 3 - BRIDGE TERMINAL ASSEMBLY

TYPE 3 - BRIDGE TERMINAL ASSEMBLY

E.B. LANES

EX. 21" S

755+00

78-D

C.B.

EX. 21" S

R-60

GR-19A

R-20

TYPE T TERMINAL ASSEMBLY

TYPE I-98 IMPACT ATTENUATOR

R-19

TYPE 3 - BRIDGE TERMINAL ASSEMBLY

TYPE 3 - BRIDGE TERMINAL ASSEMBLY

℄ FORD ROAD

EX. 42" S

LA R/W

MATCH LINE STA. 756+00

10'
24'
4'
4'
24'
10'

CS Sta = 745+37.42
TS Sta = 747+37.42
CS Sta = 753+93.78
TS Sta = 754+93.78

STA. 745+28
CLEAN OUTLET DITCH OF 106'-15" TYPE F-OUTLET SILTED OVER. REPLACE 1STD#2-2B BRICK CB IN MEDIAN.

STA 764+75-766+50
REPLACE 1 - STD # 4 CB- FULL OF WATER

LA R/W

℄ I-90 SURVEY & CONSTRUCTION

TYPE T TERMINAL ASSEMBLY

℄ S.R. 101

R-85

TYPE B-98 TERMINAL ASSEMBLY

MATCH LINE STA. 756+00

W.B. LANES

TYPE I-98 IMPACT ATTENUATOR

R-62

760+00

C.B.

EX. 21" S

EX. 18" S

765+00

79-D

EX. 18" S

C.B.

TYPE I-98 IMPACT ATTENUATOR

E.B. LANES

TYPE E-98 TERMINAL ASSEMBLY

R-21

TYPE T TERMINAL ASSEMBLY

C.B.

EX. 42" S

LA R/W

MATCH LINE STA. 767+00

10'
24'
4'
4'
24'
10'

CS Sta = 758+85.78
TS Sta = 759+85.78

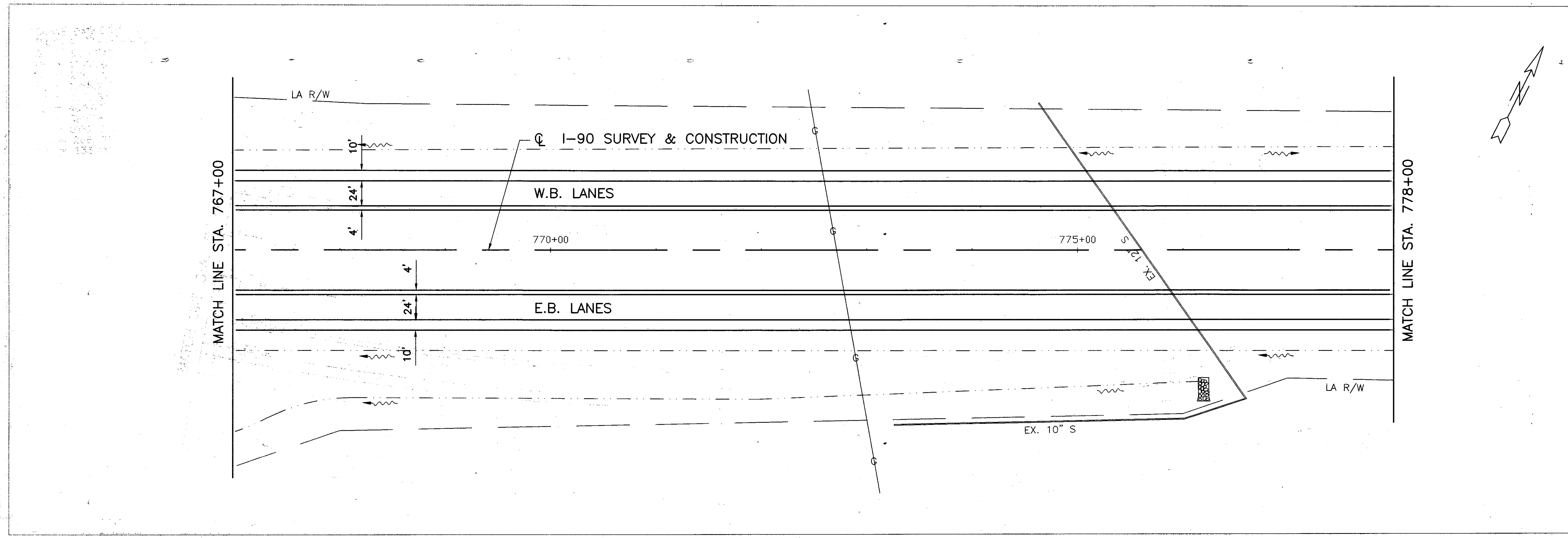
HORIZONTAL SCALE IN FEET
0 50' 100

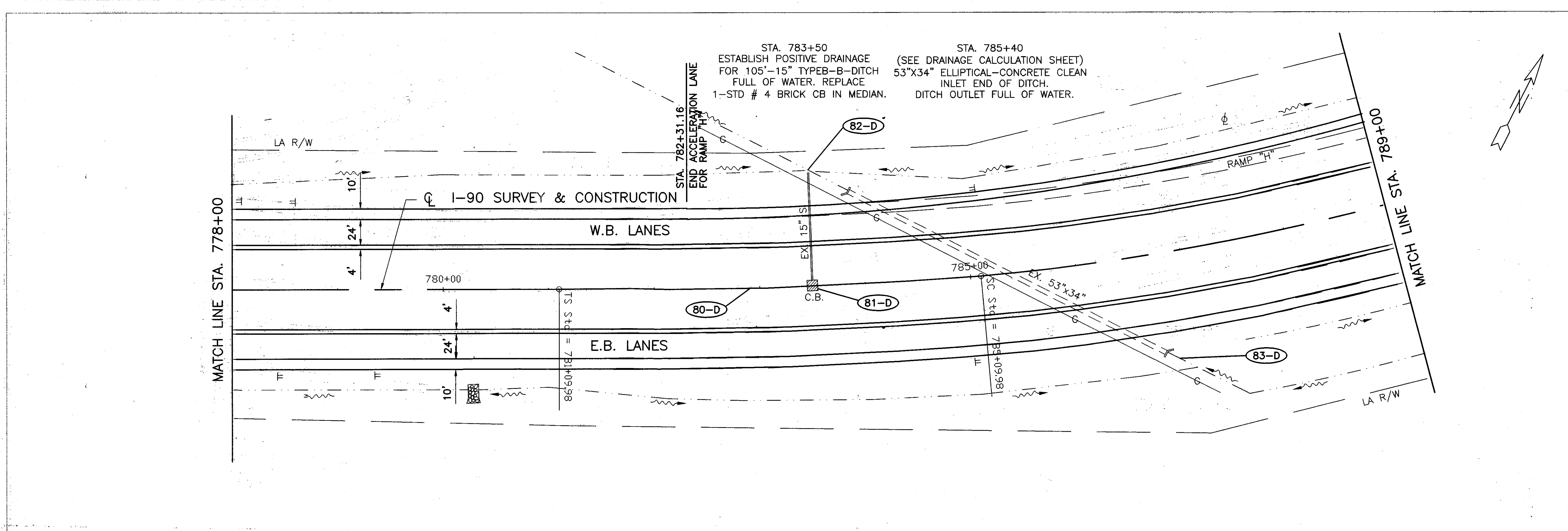
CALCULATED DLS
CHECKED LAB

PLAN
STA. 745+00 TO STA. 767+00

LOR - I90 - 10.76

79
274





0 50' 100
HORIZONTAL
SCALE IN FEET

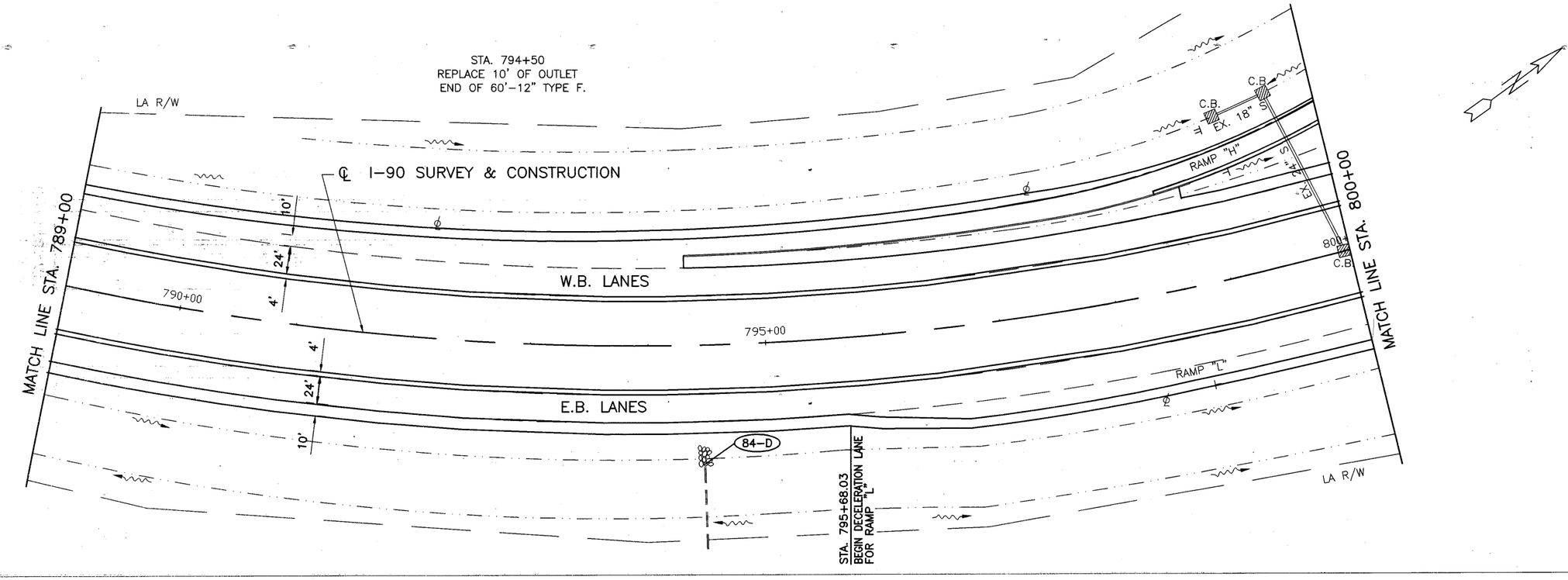
CALCULATED DLS
CHECKED LAB

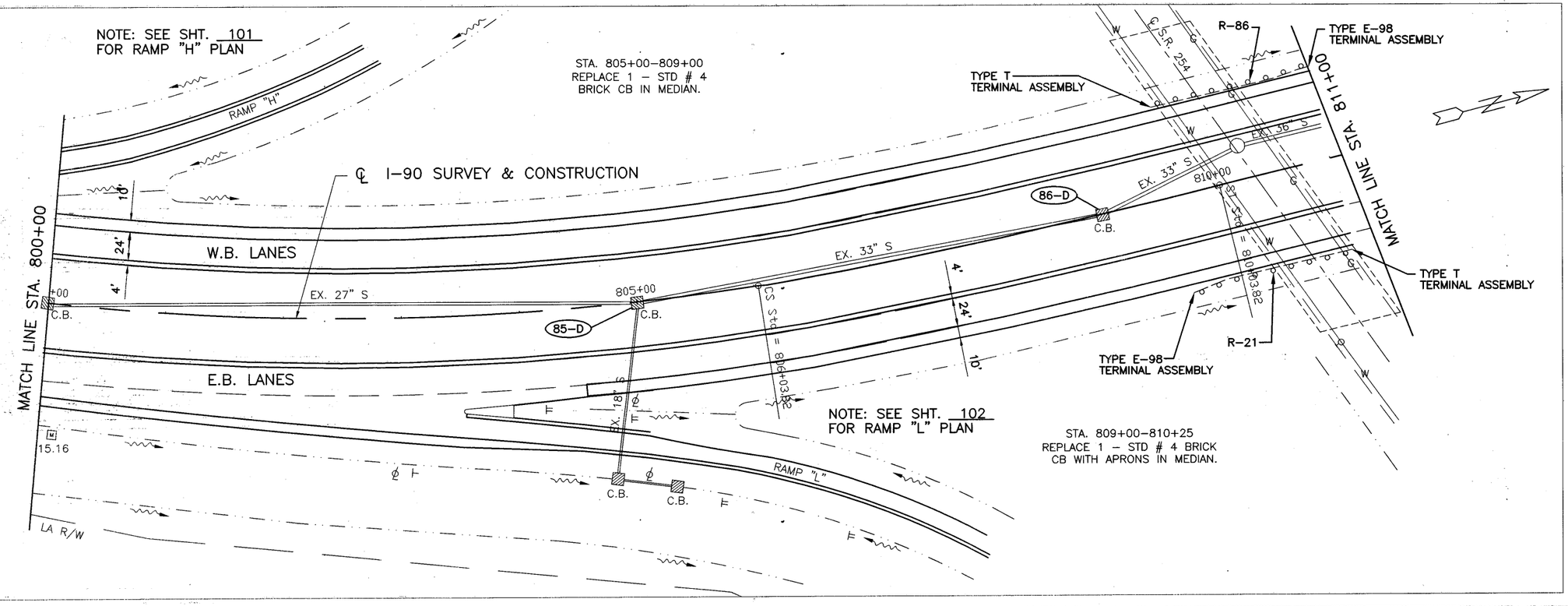
PLAN
STA. 767+00 TO STA. 789+00

LOR - I90 - 10.76

3-12-2002 8:23AM

CURVE DATA (15)
P.I. STA. 796+98.20
Δ = 62°20'45"
Dc = 2°30'00"
Rc = 2291.83'
Ts = 1588.21'
Lc = 2093.83'
Ls = 400.00'
Es = 390.16'
θs = 5°00'00"
L.T. = 266.77'
S.T. = 133.43'



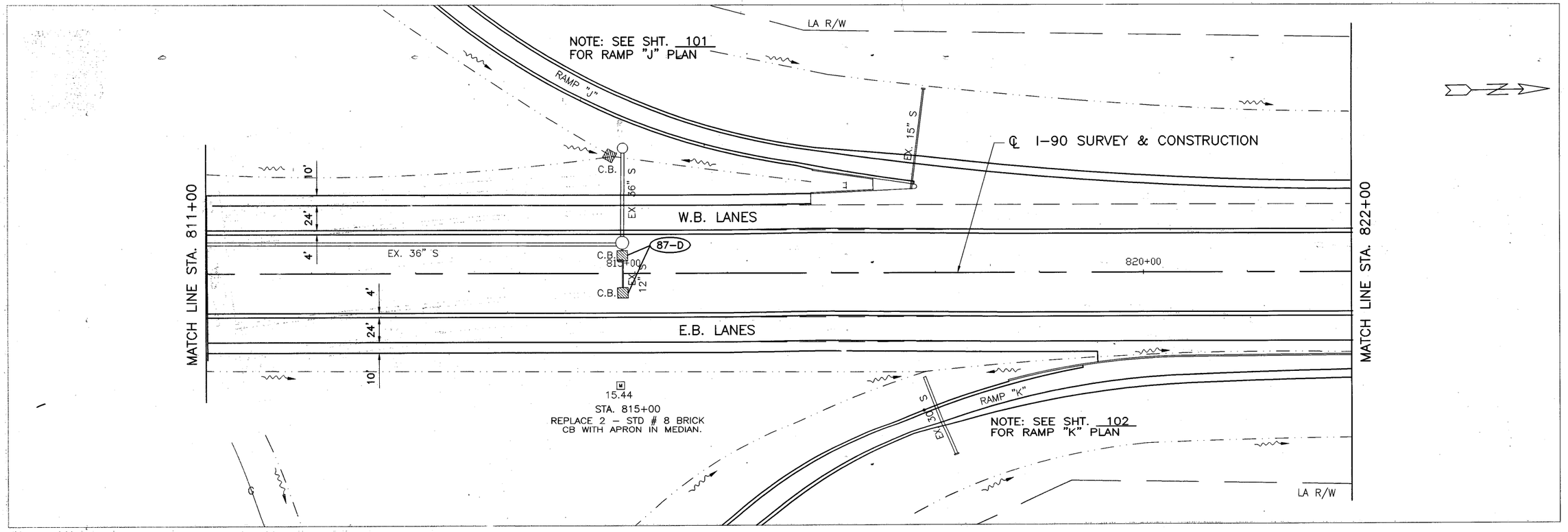


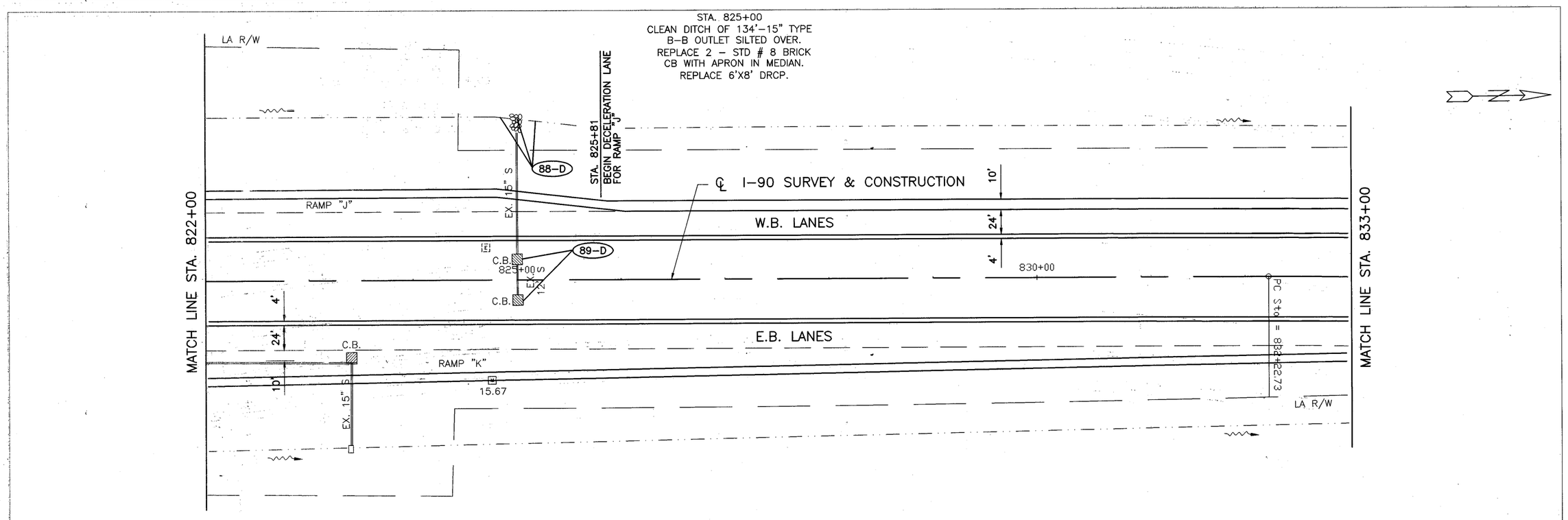
HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

PLAN
STA. 789+00 TO STA. 811+00

LOR - I90 - 10.76





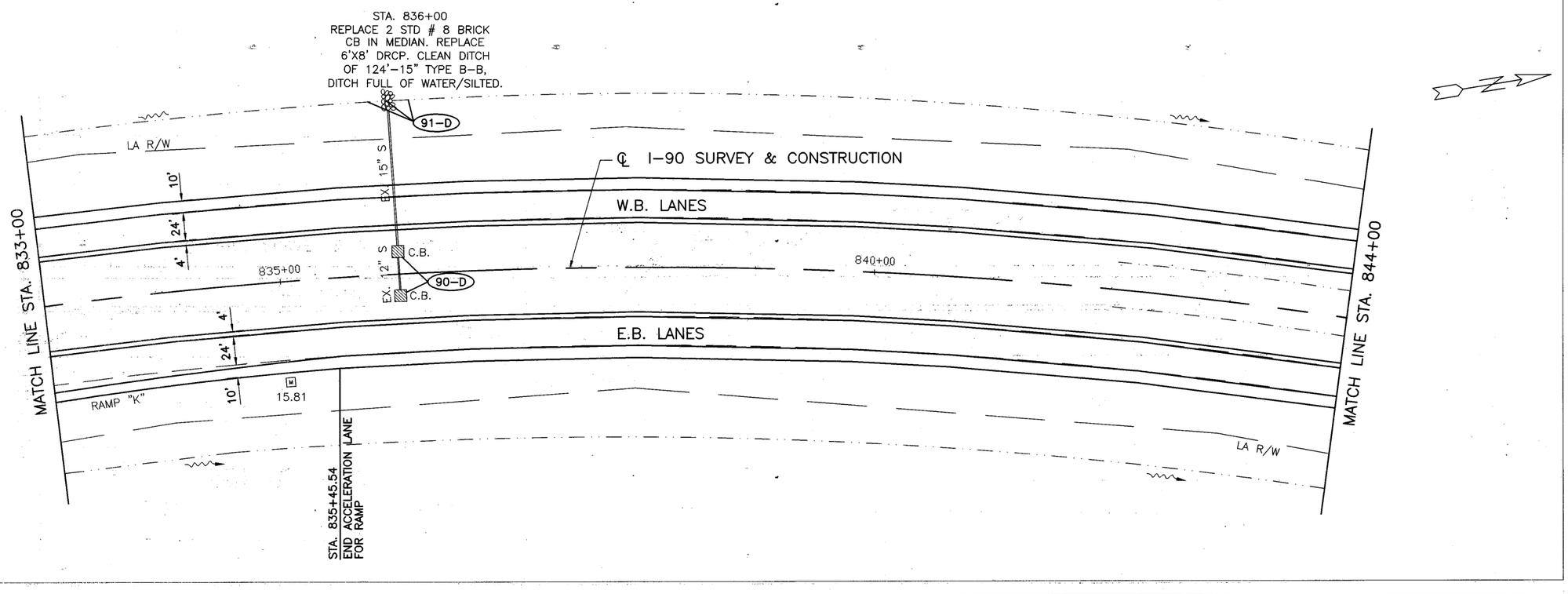
CALCULATED DLS
CHECKED LAB

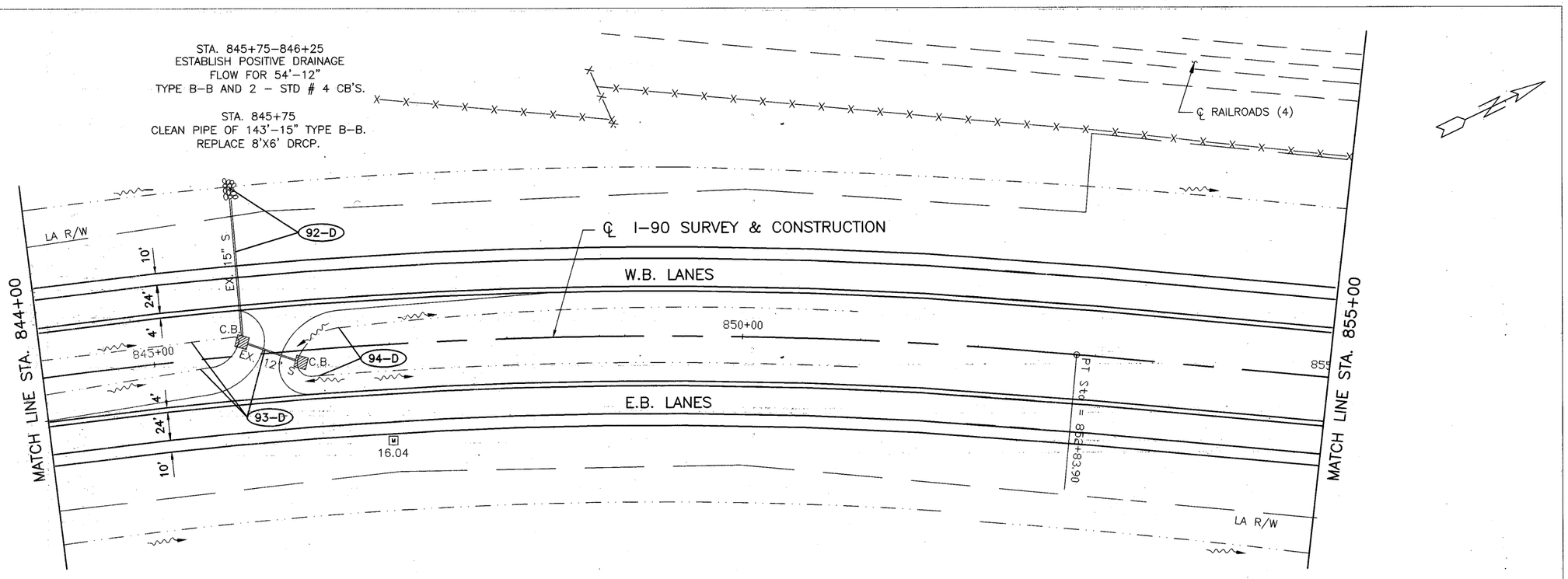
HORIZONTAL SCALE IN FEET
0 50' 100

PLAN
STA. 811+00 TO STA. 833+00

LOR - I90 - 10.76

CURVE DATA (16)
P.I. STA. 842+77.91
Δ = 30°15'50"
D = 1°28'00"
R = 3906.53'
T = 1055.18'
L = 2061.17'
E = 140.00'



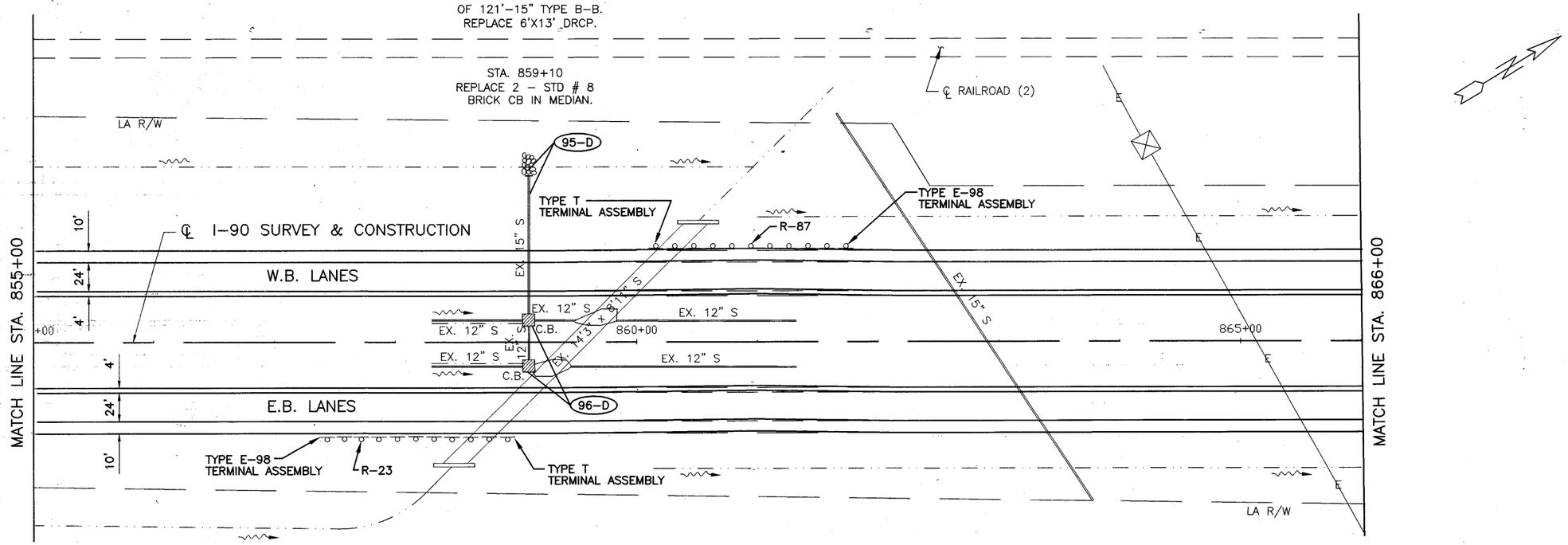


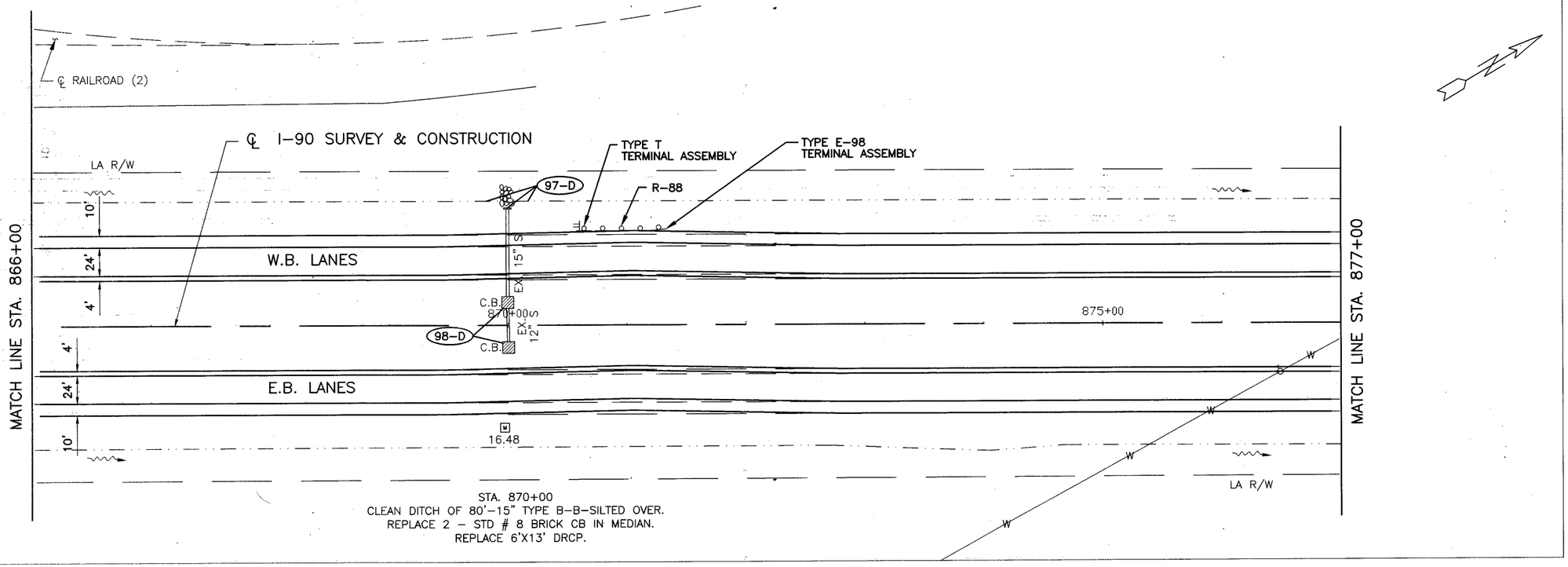
CALCULATED DLS
CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100

PLAN
STA. 833+00 TO STA. 855+00

LOR - I90 - 10.76



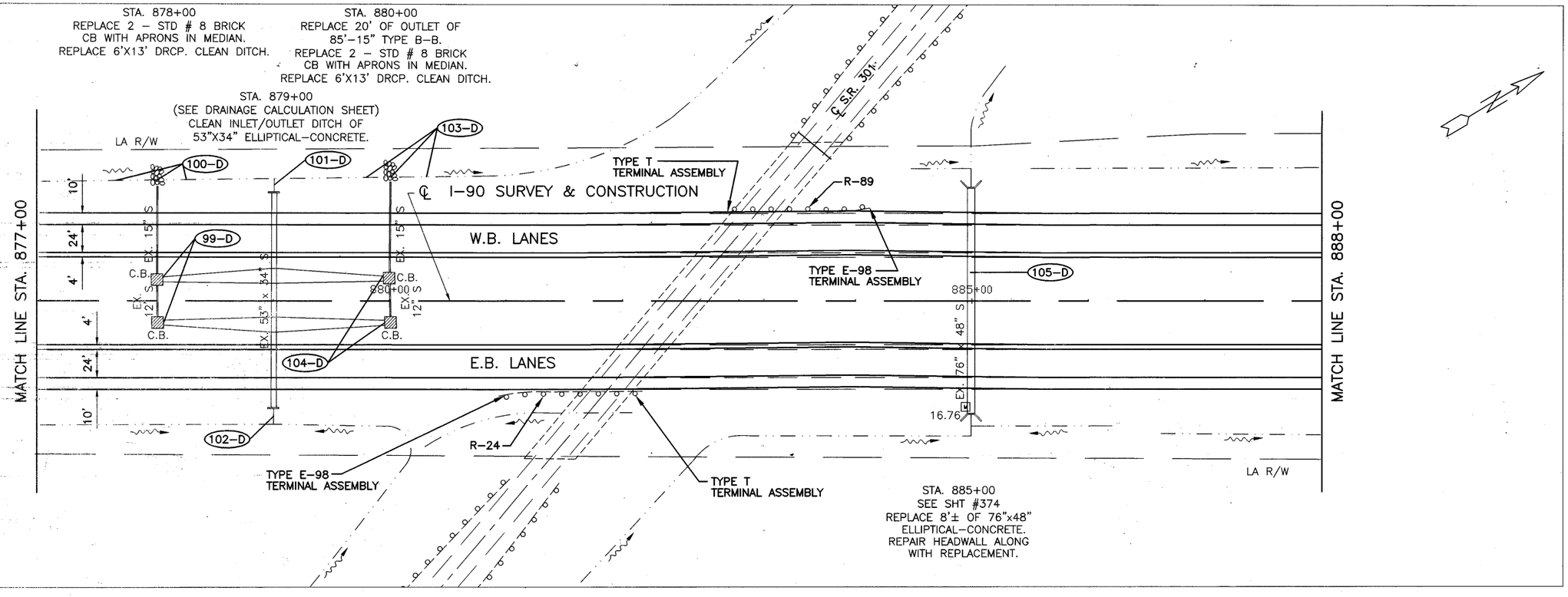


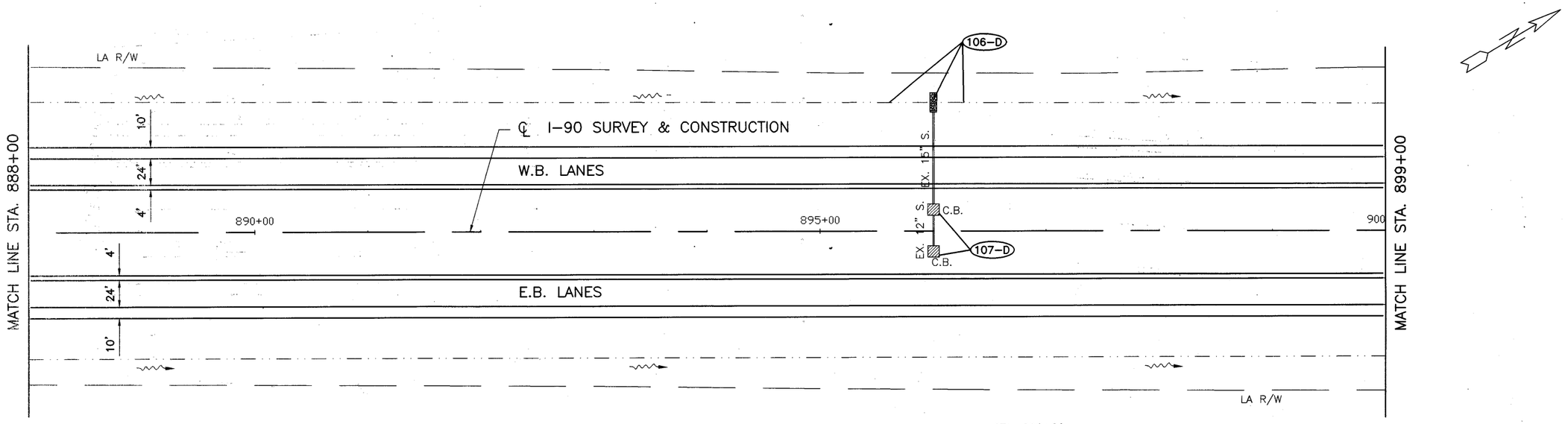
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN
STA. 855+00 TO STA. 877+00

LOR - I90 - 10.76





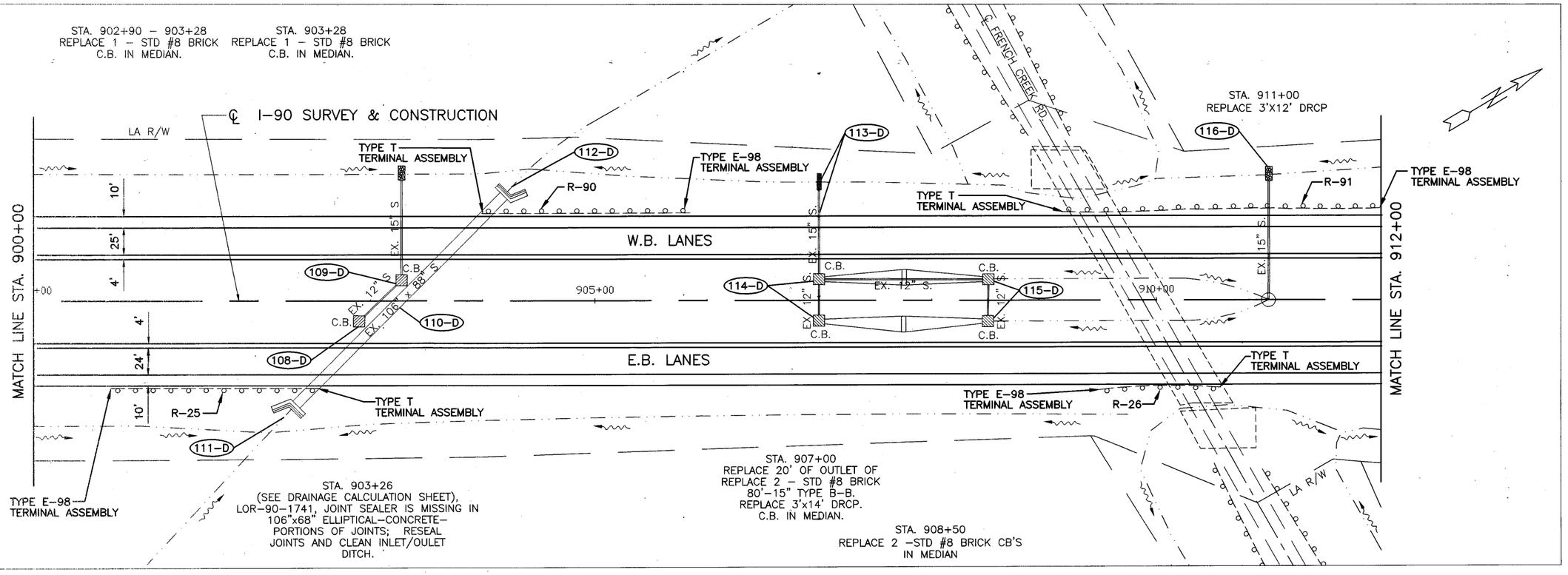
STA. 896+00
REPLACE 2 – STD #8 BRICK
C.B. WITH APRONS IN MEDIAN.
REPLACE 3'x15' DRCP CLEAN
DITCH.

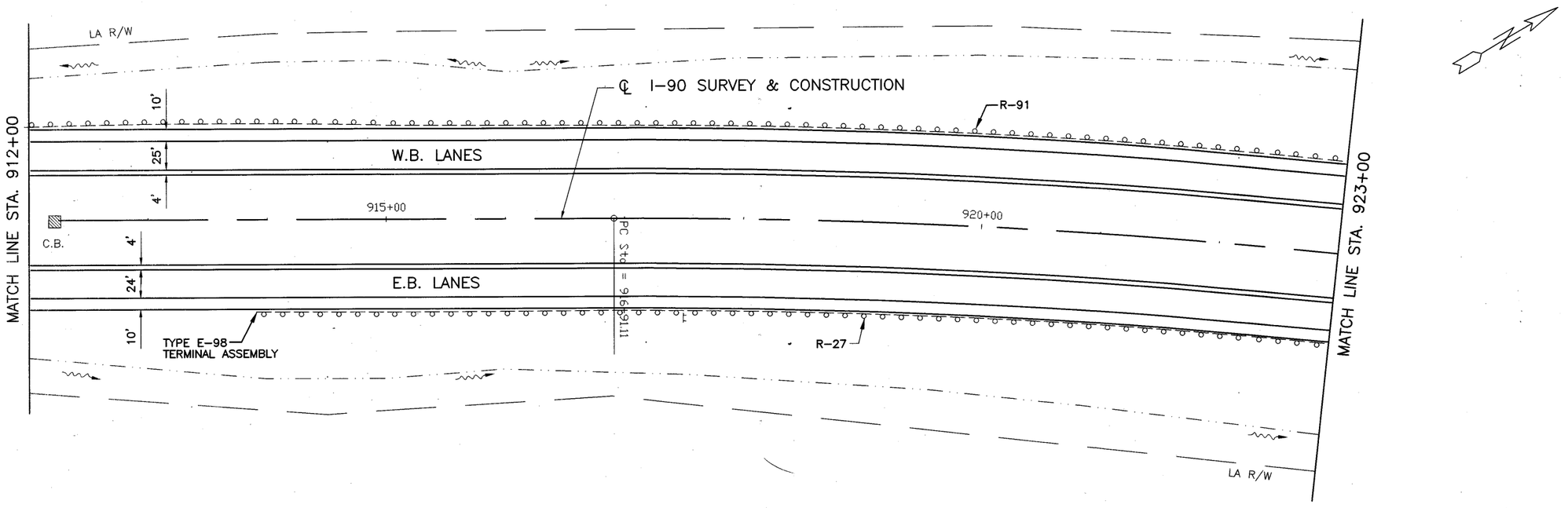
HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

PLAN
STA. 877+00 TO STA. 899+00

LOR - I90 - 10.76



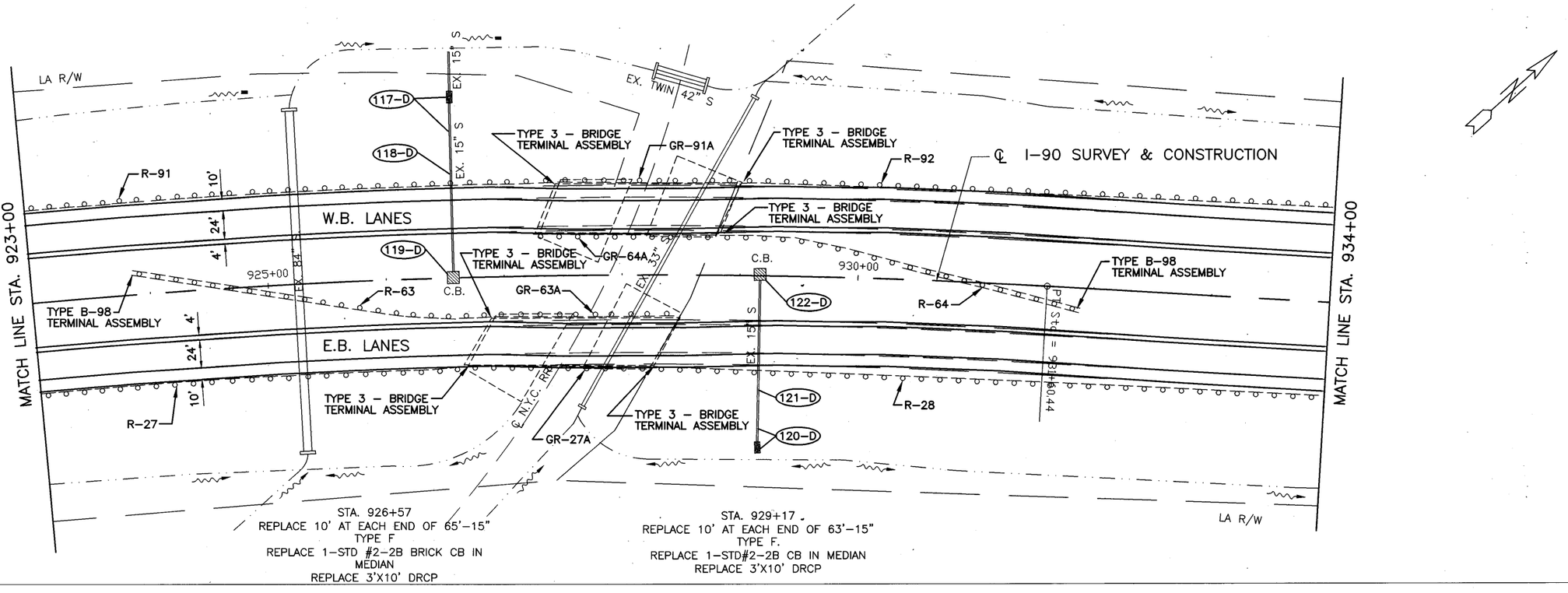


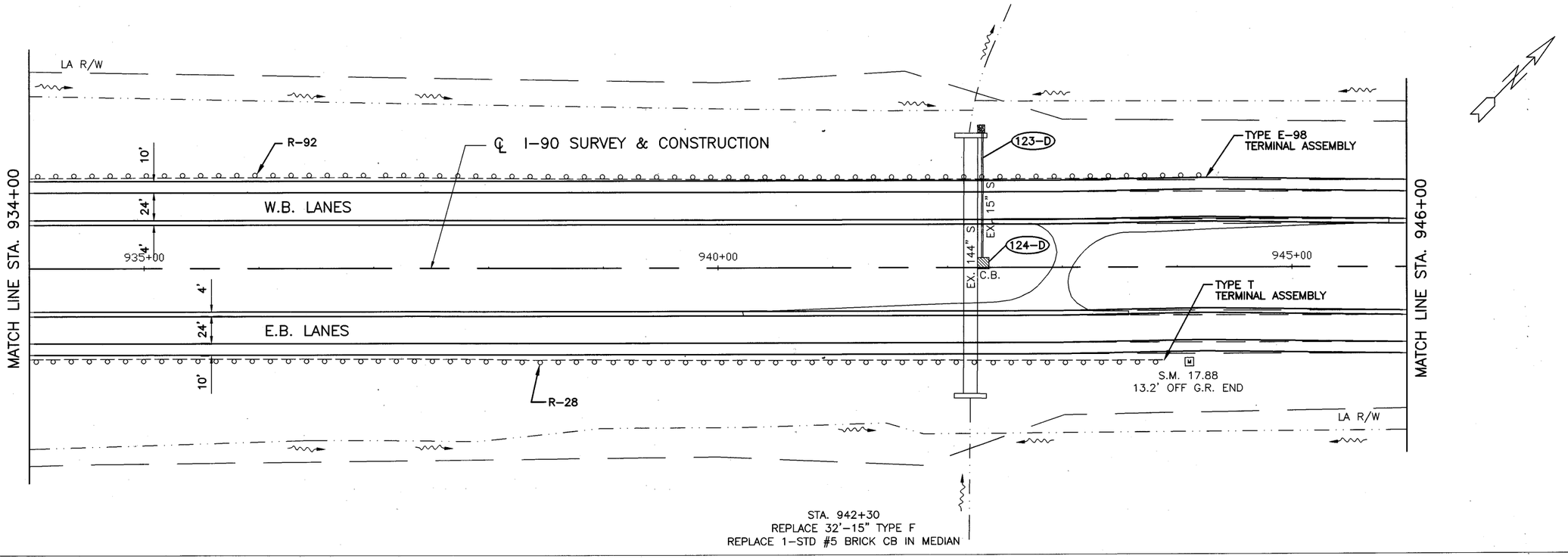
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN
STA. 885+00 TO STA. 904+00

LOR - I90 - 10.76



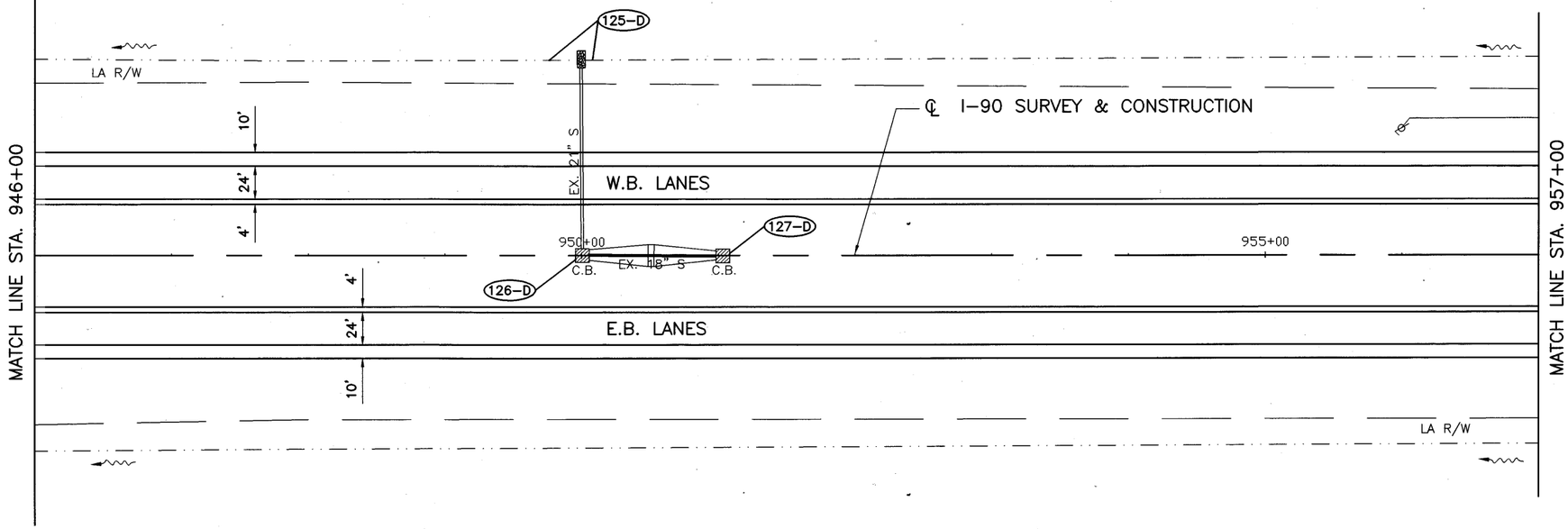


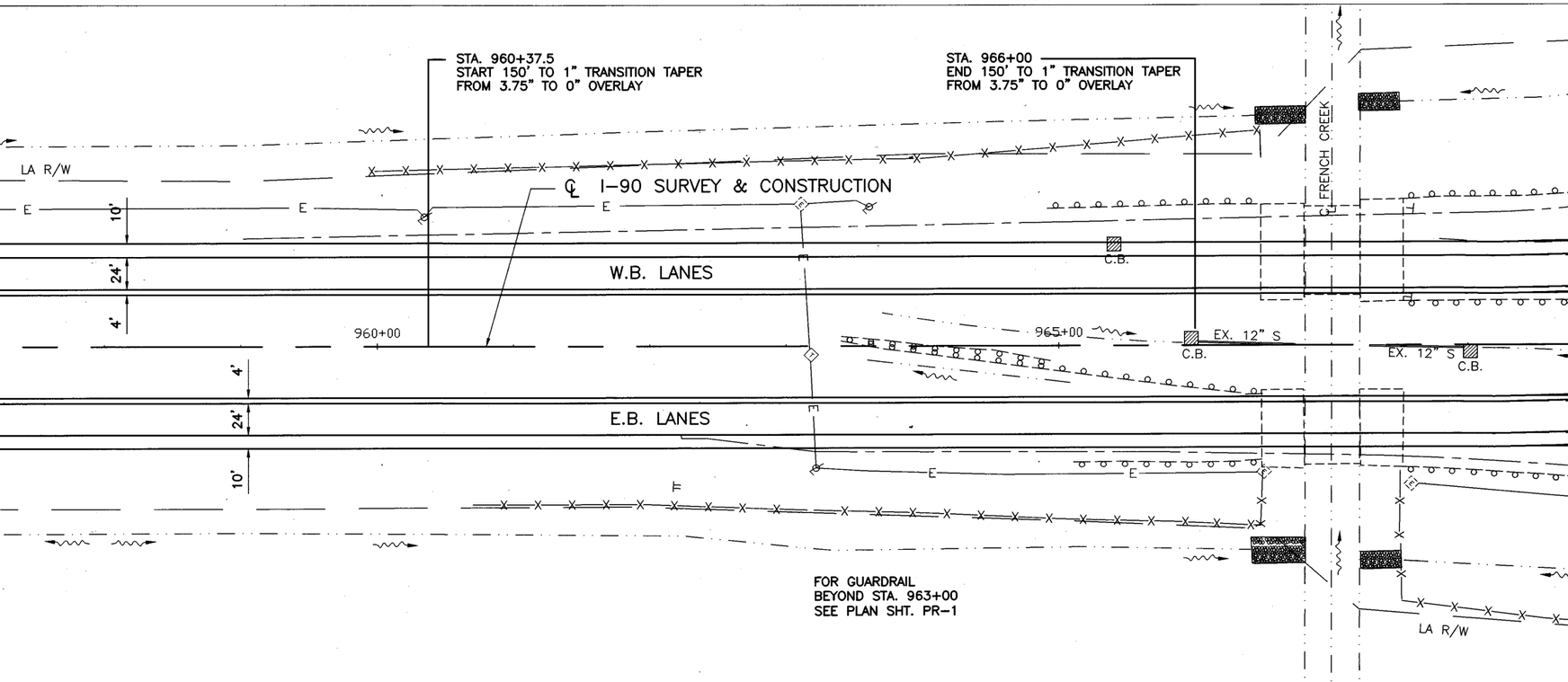
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS | CHECKED LAB

PLAN
STA. 904+00 TO STA. 926+00

LOR - I90 - 10.76





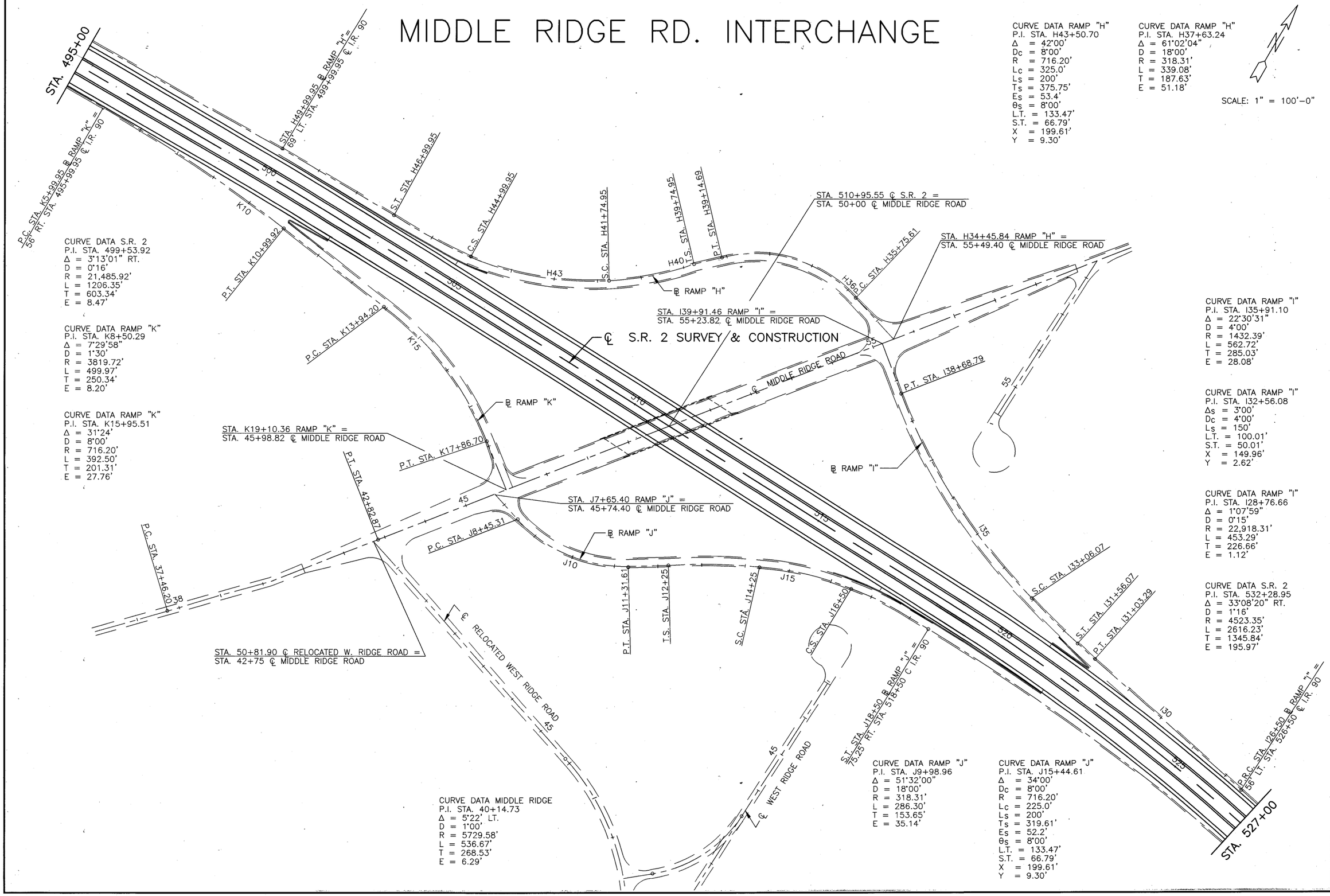
HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

PLAN
STA. 946+00 TO STA. 969+00

LOR - I90 - 10.76

MIDDLE RIDGE RD. INTERCHANGE



CURVE DATA S.R. 2
P.I. STA. 499+53.92
Δ = 3°13'01" RT.
D = 0°16'
R = 21,485.92'
L = 1206.35'
T = 603.34'
E = 8.47'

CURVE DATA RAMP "K"
P.I. STA. K8+50.29
Δ = 7°29'58"
D = 1°30'
R = 3819.72'
L = 499.97'
T = 250.34'
E = 8.20'

CURVE DATA RAMP "K"
P.I. STA. K15+95.51
Δ = 31°24'
D = 8°00'
R = 716.20'
L = 392.50'
T = 201.31'
E = 27.76'

CURVE DATA MIDDLE RIDGE
P.I. STA. 40+14.73
Δ = 5°22' LT.
D = 1°00'
R = 5729.58'
L = 536.67'
T = 268.53'
E = 6.29'

CURVE DATA RAMP "J"
P.I. STA. J9+98.96
Δ = 51°32'00"
D = 18°00'
R = 318.31'
L = 286.30'
T = 153.65'
E = 35.14'

CURVE DATA RAMP "J"
P.I. STA. J15+44.61
Δ = 34°00'
Dc = 8°00'
R = 716.20'
Lc = 225.0'
Ls = 200'
Ts = 319.61'
Es = 52.2'
θs = 8°00'
L.T. = 133.47'
S.T. = 66.79'
X = 199.61'
Y = 9.30'

CURVE DATA RAMP "H"
P.I. STA. H43+50.70
Δ = 42°00'
Dc = 8°00'
R = 716.20'
Lc = 325.0'
Ls = 200'
Ts = 375.75'
Es = 53.4'
θs = 8°00'
L.T. = 133.47'
S.T. = 66.79'
X = 199.61'
Y = 9.30'

CURVE DATA RAMP "H"
P.I. STA. H37+63.24
Δ = 61°02'04"
D = 18°00'
R = 318.31'
L = 339.08'
T = 187.63'
E = 51.18'

SCALE: 1" = 100'-0"

CURVE DATA RAMP "I"
P.I. STA. I35+91.10
Δ = 22°30'31"
D = 4°00'
R = 1432.39'
L = 562.72'
T = 285.03'
E = 28.08'

CURVE DATA RAMP "I"
P.I. STA. I32+56.08
Δs = 3°00'
Dc = 4°00'
Ls = 150'
L.T. = 100.01'
S.T. = 50.01'
X = 149.96'
Y = 2.62'

CURVE DATA RAMP "I"
P.I. STA. I28+76.66
Δ = 1°07'59"
D = 0°15'
R = 22,918.31'
L = 453.29'
T = 226.66'
E = 1.12'

CURVE DATA S.R. 2
P.I. STA. 532+28.95
Δ = 33°08'20" RT.
D = 1°16'
R = 4523.35'
L = 2616.23'
T = 1345.84'
E = 195.97'

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS | CHECKED LAB

GEOMETRIC LAYOUT S.R. 2 & MIDDLE RIDGE RD. INTERCHANGE RAMP SCHEMATIC

ODOT PROJECT 3015-00

89
274

8:57AM
02-12-2002
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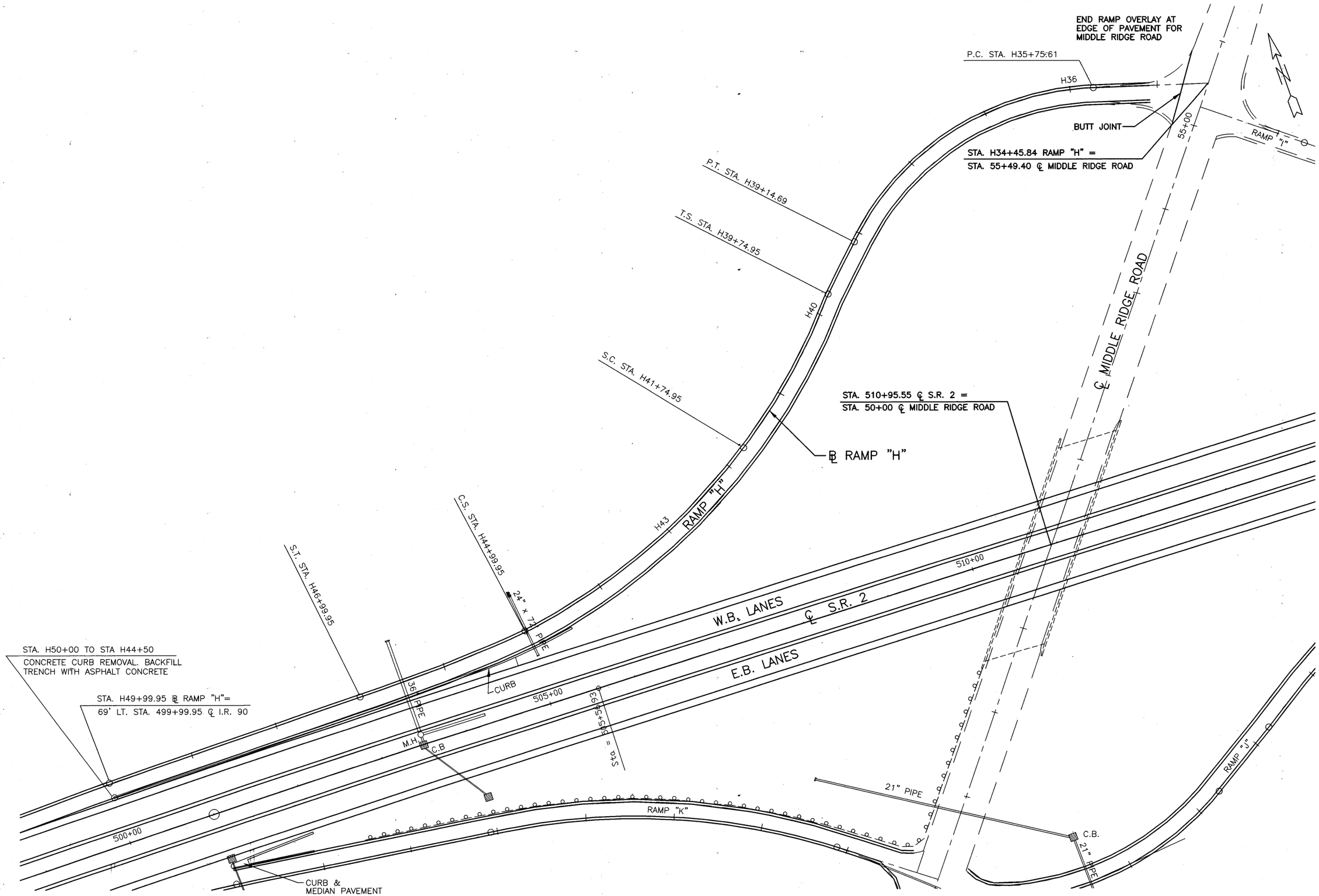
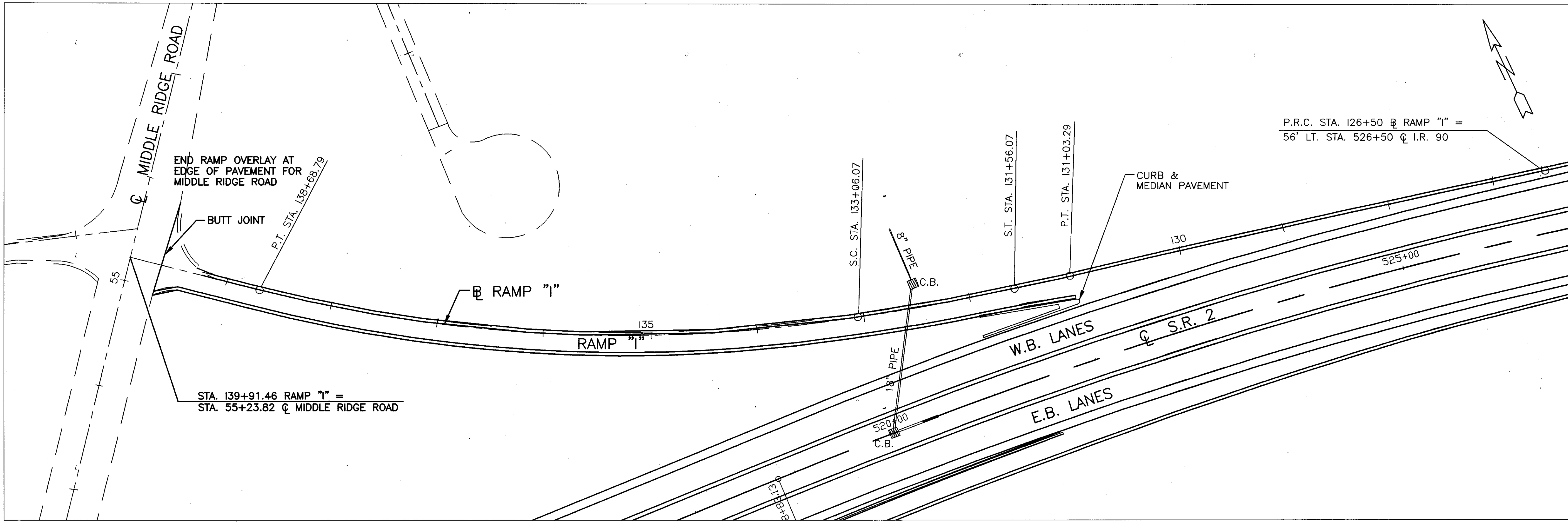


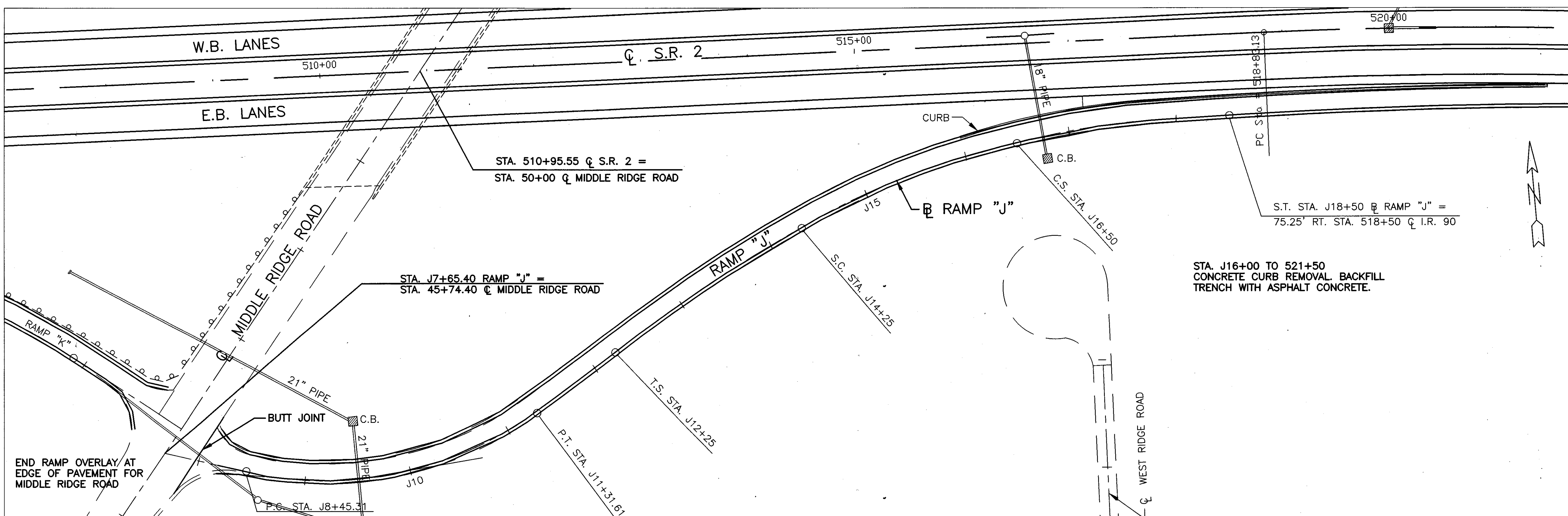
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS | CHECKED LAB

RAMP "H" - S.R. 2 & MIDDLE RIDGE ROAD
STA. H49+99.95 TO STA. H34+45.84

LOR-I90-10.76





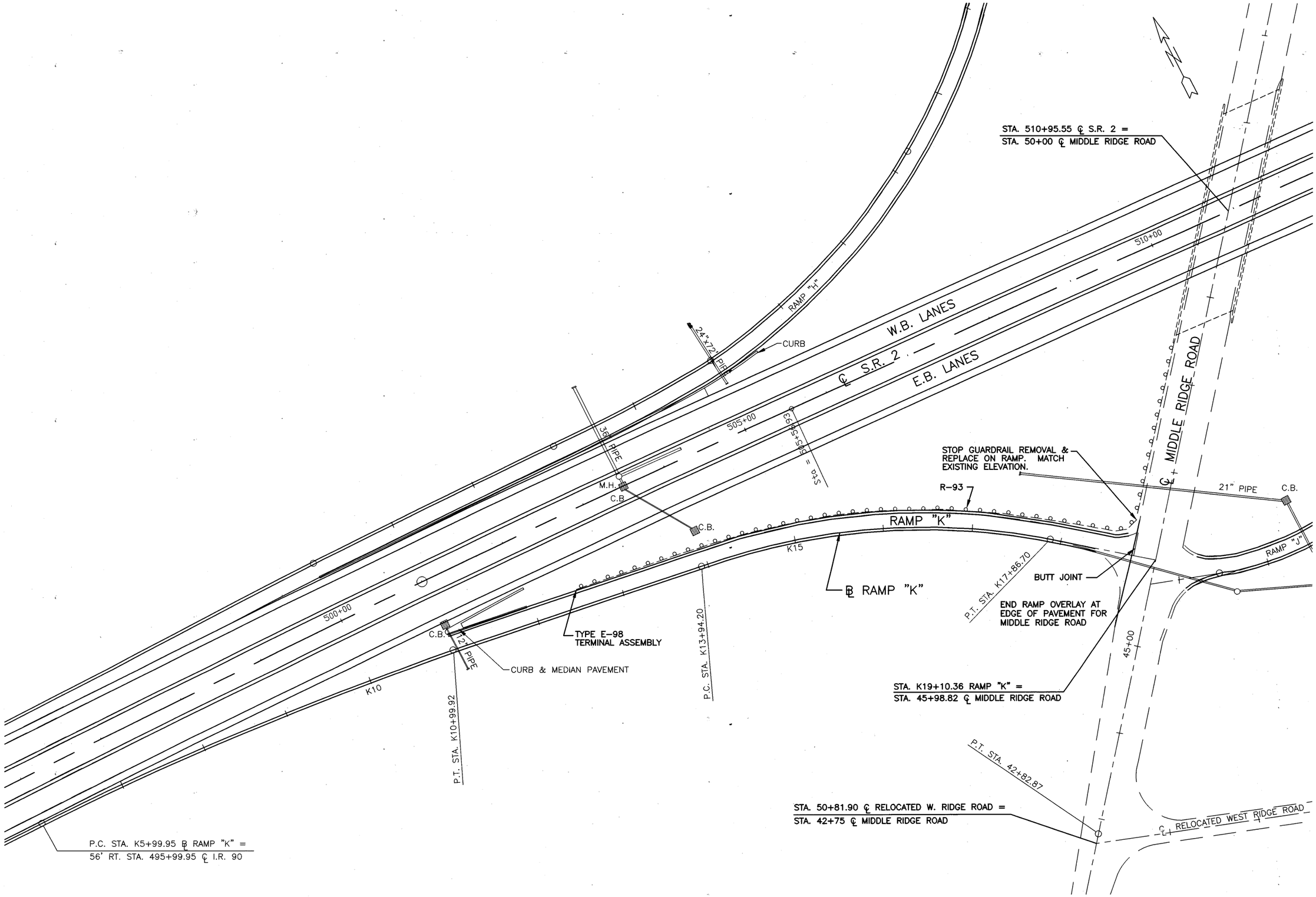
0 50' 100'
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

RAMP "I" & "J"- S.R. 2 & MIDDLE RIDGE ROAD
STA. I26+50 TO STA. I39+91.46 & STA. J7+65.40 TO J18+50

LOR-I90-10.76

9:02AM 02-12-2002 [o:\93600\DWGS\93600FNL\P-31.DWG] GZ



HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

RAMP "K" - S.R. 2 & MIDDLE RIDGE ROAD
STA. K5+99.95 TO STA. K19+10.36

LOR-190-10.76

S.R. 57 INTERCHANGE

CURVE DATA RAMP "A"
P.I. STA. A23+79.36
θ_C = 16°30'
L_S = 150'
X_C = 148.76'
Y_C = 14.31'
P = 3.59'
K = 74.79'
L.T. = 100.44'
S.T. = 50.40'

CURVE DATA RAMP "A"
P.I. STA. A26+13.84
Δ = 70°45'07"
D = 22°00'
R = 260.44'
L_S = 321.60'
T_C = 184.92'
E = 58.94'

CURVE DATA RAMP "A"
P.I. STA. 29+92.57
Δ = 45°49'57"
D_C = 15°00'
R = 381.97'
L_S = 150'
L_C = 155.55'
T_S = 237.41'
L.T. = 100.20'
S.T. = 50.18'
X_C = 149.42'
Y_C = 9.79'
θ_S = 11.25'
P = 2.45'

CURVE DATA RAMP "A"
P.I. STA. 36+24.86
Δ = 47°00'
D_C = 8°00'
R = 716.20'
L_S = 200'
T_S = 412.36'
E_S = 67.3'
θ_S = 8°00'
P = 2.33'
K = 99.93'

CURVE DATA RAMP "B"
Δ_C = 197°38'20"
D_C = 25°
R_C = 229.18'
L_C = 770.56'
L_S = 300'
θ_S = 37°30'
L.T. = 204.68'
S.T. = 104.27'

CURVE DATA RAMP "X"
Δ_C = 197°21'40"
D_C = 25°
R_C = 229.18'
L_C = 789.44'
L_S = 300'
θ_S = 37°30'
L.T. = 204.68'
S.T. = 104.27'

CURVE DATA RAMP "C"
P.I. STA. C681+51.86
Δ = 72°38'25"
D = 18°
R = 318.31'
L = 403.56'
T = 233.99'
E = 76.75'

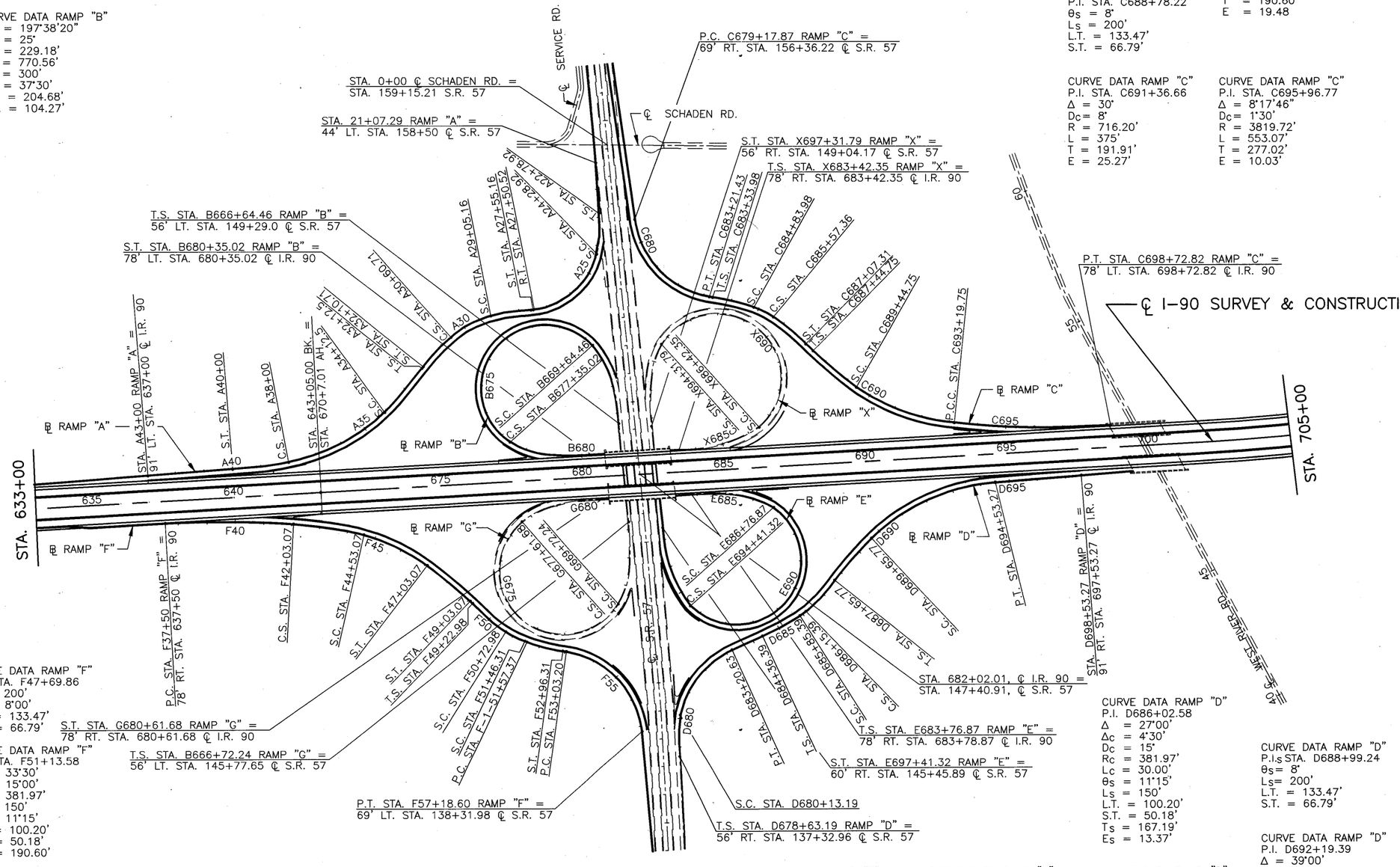
CURVE DATA RAMP "C"
P.I. STA. C688+78.22
θ_S = 8°
L_S = 200'
L.T. = 133.47'
S.T. = 66.79'

CURVE DATA RAMP "C"
P.I. STA. C685+24.58
Δ = 33°30'
Δ_C = 11°
D_C = 15°
R_C = 381.97'
L_C = 73.33'
L_S = 150'
θ_S = 11°15'
L.T. = 100.20'
S.T. = 50.18'
T = 190.60'
E = 19.48

CURVE DATA RAMP "C"
P.I. STA. C691+36.66
Δ = 30°
D_C = 8°
R = 716.20'
L = 375'
T = 191.91'
E = 25.27'

CURVE DATA RAMP "C"
P.I. STA. C695+96.77
Δ = 8°17'46"
D_C = 1°30'
R = 3819.72'
L = 553.07'
T = 277.02'
E = 10.03'

SCALE: 1" = 200'–0"



CURVE DATA RAMP "F"
P.I. STA. F39+76.80
Δ = 6°47'46" RT.
D = 1°30'
R = 3819.72'
T = 226.80'
L = 453.07'
E = 6.73'

CURVE DATA RAMP "F"
P.I. STA. F43+57.08
Δ = 1°53'
Δ_2 = 10°00'
$\Delta_1+\Delta_2$ = 11°53'
D_1 = 1°30'
D_2 = 8°00'
R_1 = 3819.52'
R_2 = 716.20'
R_A = 881.47'
L_S = 250'
T_1 = 154.01'
T_2 = 96.89'
θ_A = 8°08'
P_A = 2.95'

CURVE DATA RAMP "F"
P.I. STA. F47+69.86
L_S = 200'
θ = 8°00'
L.T. = 133.47'
S.T. = 66.79'

CURVE DATA RAMP "F"
P.I. STA. F51+13.58
Δ = 33°30'
D = 15°00'
R = 381.97'
L_S = 150'
θ_S = 11°15'
L.T. = 100.20'
S.T. = 50.18'
T.S. = 190.60'

CURVE DATA RAMP "F"
P.I. STA. F45+79.36
Δ = 20°00' RT.
D = 8°00'
R = 716.20'
L = 250'
T = 126.29'
E = 11.05'

CURVE DATA RAMP "F"
P.I. STA. F55+46.44
Δ = 74°46'18"
D = 18°00'
R = 318.31'
L = 415.40'
T = 243.24'
E = 82.30'

CURVE DATA RAMP "G"
Δ = 197°21'40"
D_C = 25°
R_C = 229.18'
L_C = 789.44'
L_S = 300'
θ_S = 37°30'
S.T. = 104.27'
L.T. = 204.68'

CURVE DATA S.R. 57
P.I. STA. 131+88.74
Δ = 8°18' LT.
D_C = 0°20'
R = 17188.74'
L = 2490.00'
T = 1247.18'
E = 45.19'

CURVE DATA RAMP "E"
Δ = 191°06'41"
D_C = 25°
R = 229.18'
L_C = 764.45'
L_S = 300'
θ_S = 37°30'
L.T. = 204.68'
S.T. = 104.27'

CURVE DATA RAMP "D"
P.I. STA. D679+63.48
L_S = 150'
θ_S = 13°30'
L.T. = 100.29'
S.T. = 50.27'

CURVE DATA RAMP "D"
P.I. D686+02.58
Δ = 27°00'
Δ_C = 4°30'
D_C = 15°
R_C = 381.97'
L_C = 30.00'
θ_S = 11°15'
L_S = 150'
L.T. = 100.20'
S.T. = 50.18'
T_S = 167.19'
E_S = 13.37'

CURVE DATA RAMP "D"
P.I. D681+80.09
Δ = 55°20'20"
D_C = 18°
R = 318.31'
L = 307.44'
T = 166.90'
E = 41.10'

CURVE DATA RAMP "D"
P.I. STA. D688+99.24
θ_S = 8°
L_S = 200'
L.T. = 133.47'
S.T. = 66.79'

CURVE DATA RAMP "D"
P.I. D692+19.39
Δ = 39°00'
D_C = 8°
R = 716.20'
L_C = 487.50'
T = 253.62'
E = 43.58'

GEOMETRIC LAYOUT I.R.90 & S.R.57 INTERCHANGE RAMP SCHEMATIC

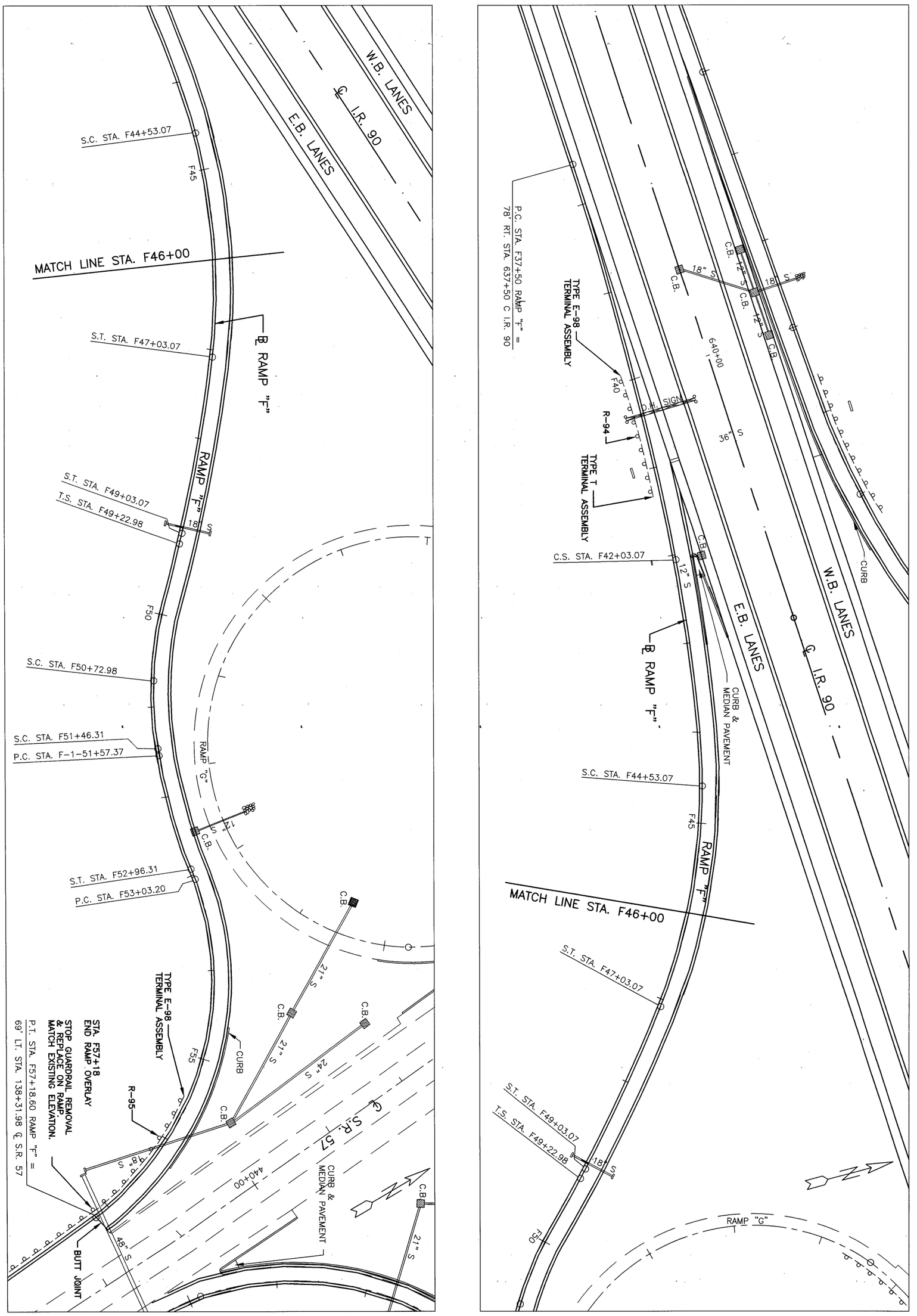
ODOT PROJECT 3015-00

CALCULATED DLS | CHECKED LAB

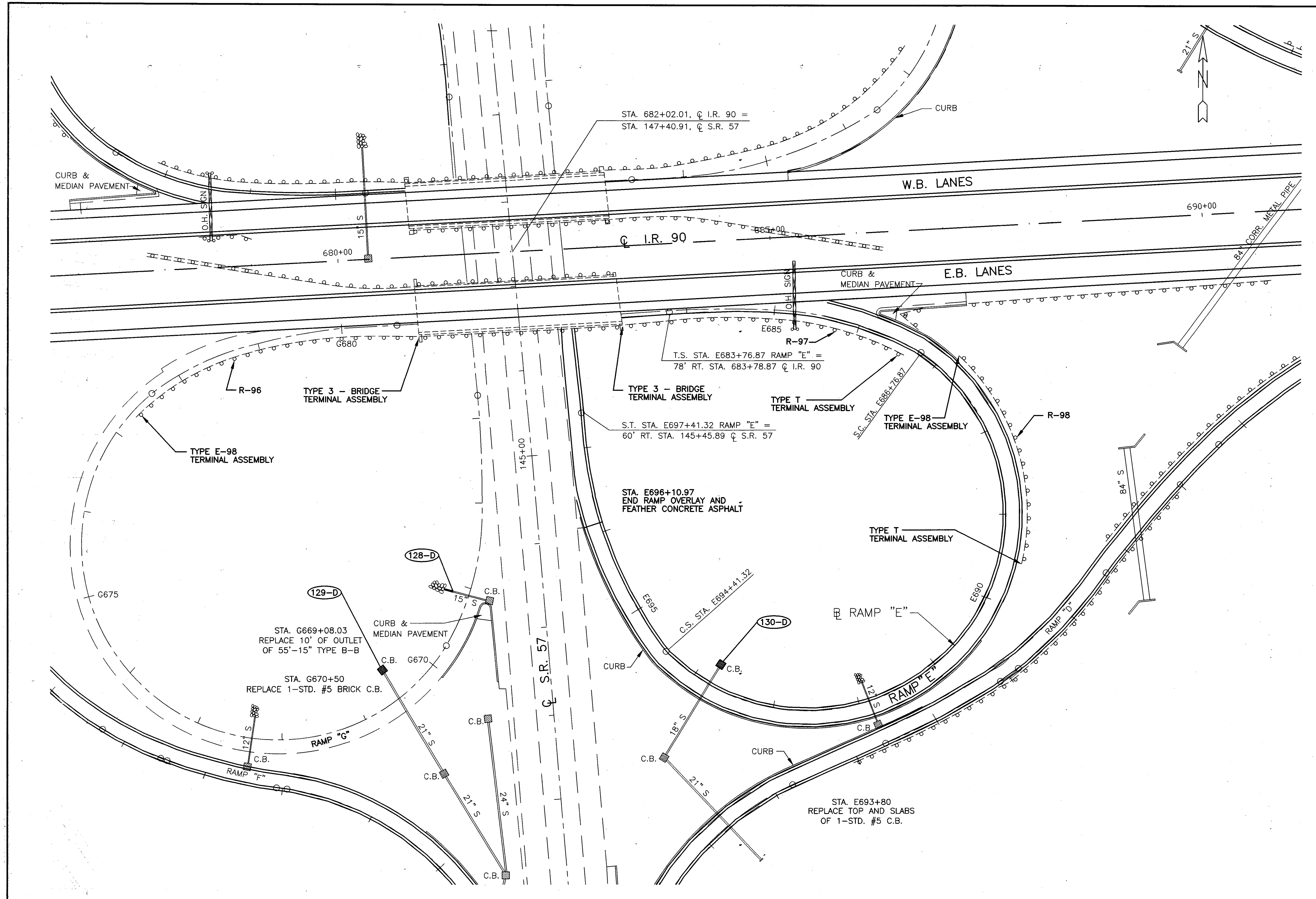
HORIZONTAL SCALE IN FEET 0 50' 100

93
274

9:05AM 02-12-2002 [O:\93600\DWGS\93600PNL\P-33.DWG] 02



94 / 274	LOR-I90-10.76	**RAMP "F" - S.R. 57 & I.R.90** **STA. 37+50 TO STA. 57+18.60**	CALCULATED DLS CHECKED LAB 0 50' 100 HORIZONTAL SCALE IN FEET



0 50' 100'
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

RAMP "E" - S.R. 57 & I.R.90
STA. 683+76.87 TO STA. 697+41.32

LOR-I90-10.76

C:\93600\DWGS\93600PNL\P-35.DWG] GZ
02-13-2002 10:23AM

STA. A43+00 TO STA. A37+40
CONCRETE CURB REMOVAL. BACKFILL
TRENCH WITH ASPHALT CONCRETE.

STA. A43+00 RAMP "A" =
91' LT. STA. 637+00 ℄ I.R. 90

TYPE T
TERMINAL ASSEMBLY

TYPE E-98
TERMINAL ASSEMBLY

R-100

S.T. STA. A40+00

C.S. STA. A38+00

S.C. STA. A34+12.5

S.T. STA. A32+10.71

T.S. STA. A32+12.5

℄ RAMP "A"

MATCH LINE STA. A33+00

RAMP "B"

RAMP "A"

CURB

A40

A35

W.B. LANES

E.B. LANES

C.B.

18" S

12" S

36" S

24" S

640+00

675+00

℄ I.R. 90

O.H. SIGN

MATCH LINE STA. A33+00

T.S. STA. A32+12.5

S.T. STA. A32+10.71

C.S. STA. A30+60.71

℄ RAMP "A"

A30

24" S

S.C. STA. A29+05.16

S.T. STA. A27+55.16

R.T. STA. A27+50.52

RAMP "B"

TYPE T
TERMINAL ASSEMBLY

TYPE E-98
TERMINAL ASSEMBLY

T.S. STA. A22+78.92

S.C. STA. A24+28.92

STA. A24+45
END RAMP
OVERLAY

R-99

BUTT JOINT

CURB &
MEDIAN PAVEMENT

A25

84" S

C.B.

℄ SERVICE RD.

STA. 0+00 C SCHADEN RD. =
STA. 159+15.21 S.R. 57

STA. 21+07.29 RAMP "A" =
44' LT. STA. 158+50 ℄ S.R. 57

160+00

℄ S.R. 57

℄ SCHADEN RD.

HORIZONTAL
SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

RAMP "A" - S.R. 57 & I.R.90
STA. 21+07.29 TO STA. 43+00

LOR-I90-10.76

CURB & MEDIAN PAVEMENT

84" S

84" S

18" S

STA. B673+85
CLEAN OUTLET/INLET DITCH
OF 24" TYPE A & B

24" S

RAMP "A"

24" S

131-D

℄ RAMP "B"

TYPE T
TERMINAL ASSEMBLY

RAMP "B"

CURB

B670

S.C. STA. B669+64.46

B675

R-101

STA. B668+00
END RAMP OVERLAY AND
FEATHER ASPHALT CONCRETE

℄ S.R. 57

150+00

15" S

15" S

C.B.

C.B.

12" S

C.B.

C.B.

C.B.

21" S

15" S

RAMP "C"

CURB

C.B.

21" S

CURB

RAMP "X"

STA. X693+60
REPLACE TOP AND SLABS
OF 1-STD. #5 C.B.

132-D

X690

X695

CURB &
MEDIAN PAVEMENT

TYPE E-98
TERMINAL ASSEMBLY

R-103

T.S. STA. B666+64.46 RAMP "B" =
56' LT. STA. 149+29.0 ℄ S.R. 57

S.T. STA. B680+35.02 RAMP "B" =
78' LT. STA. 680+35.02 ℄ I.R. 90

C.S. STA. B677+35.02

TYPE E-98
TERMINAL ASSEMBLY

TYPE T
TERMINAL ASSEMBLY

TYPE 3 - BRIDGE
TERMINAL ASSEMBLY

R-102

TYPE 3 - BRIDGE
TERMINAL ASSEMBLY

X685

CURB

CURB &
MEDIAN PAVEMENT

B680

O.H. SIGN

15" S

W.B. LANES

685+00

680+00

C.B.

675+00

℄ I.R. 90

E.B. LANES

O.H. SIGN

CURB &
MEDIAN PAVEMENT

STA. 682+02.01, ℄ I.R. 90 =
STA. 147+40.91, ℄ S.R. 57

N

HORIZONTAL SCALE IN FEET
0 50' 100'

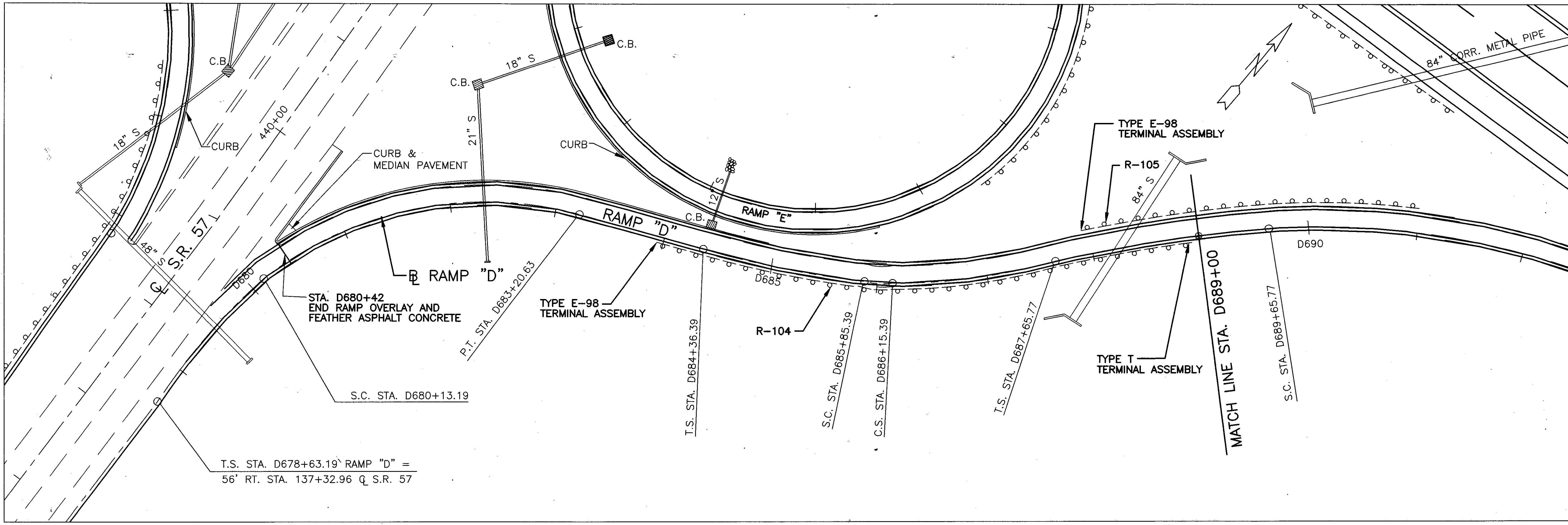
CALCULATED DLS
CHECKED LAB

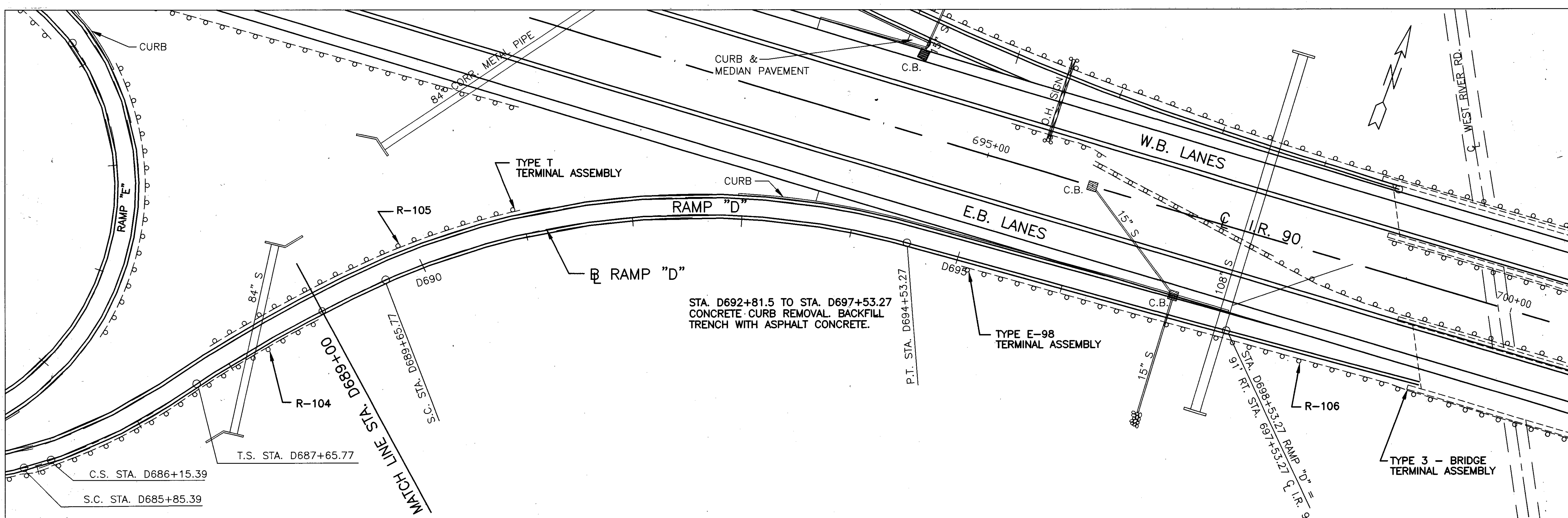
RAMP "B" - S.R. 57 & I.R. 90
STA. 666+64.46 TO STA. 680+35.02

LOR-I90-10.76

97
274

[G:\93600\DWGS\93600NLVP-37.DWG] 02-13-2002 8:11 AM





0 50 100
HORIZONTAL
SCALE IN FEET

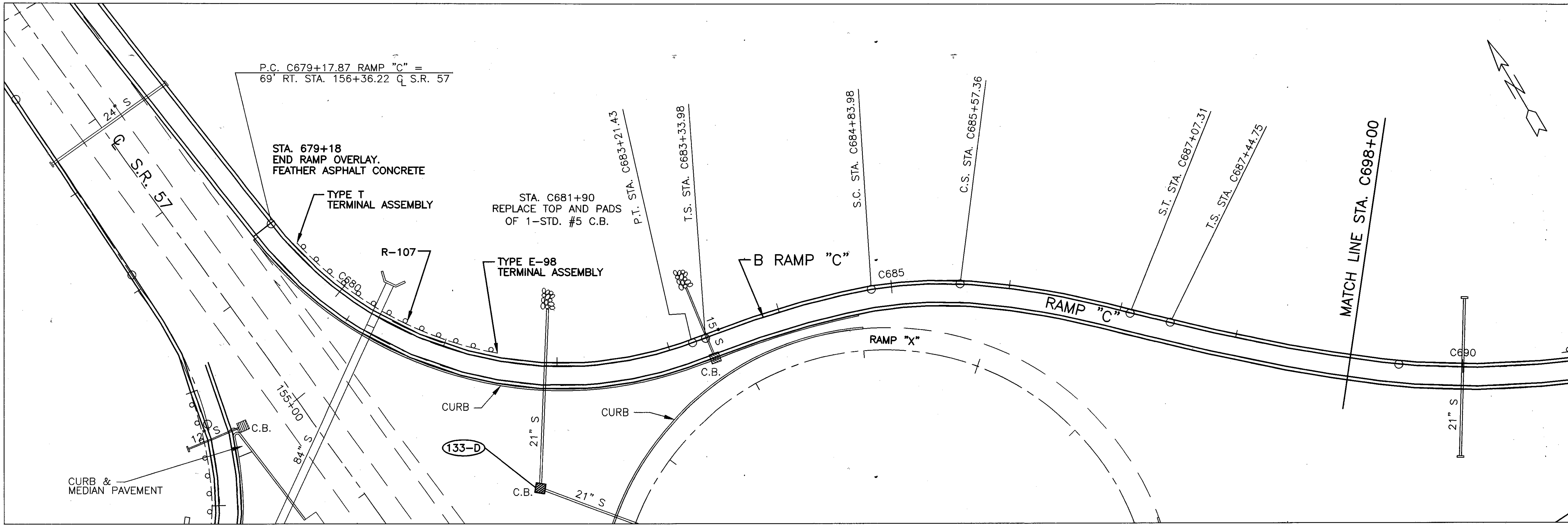
CALCULATED DLS
CHECKED LAB

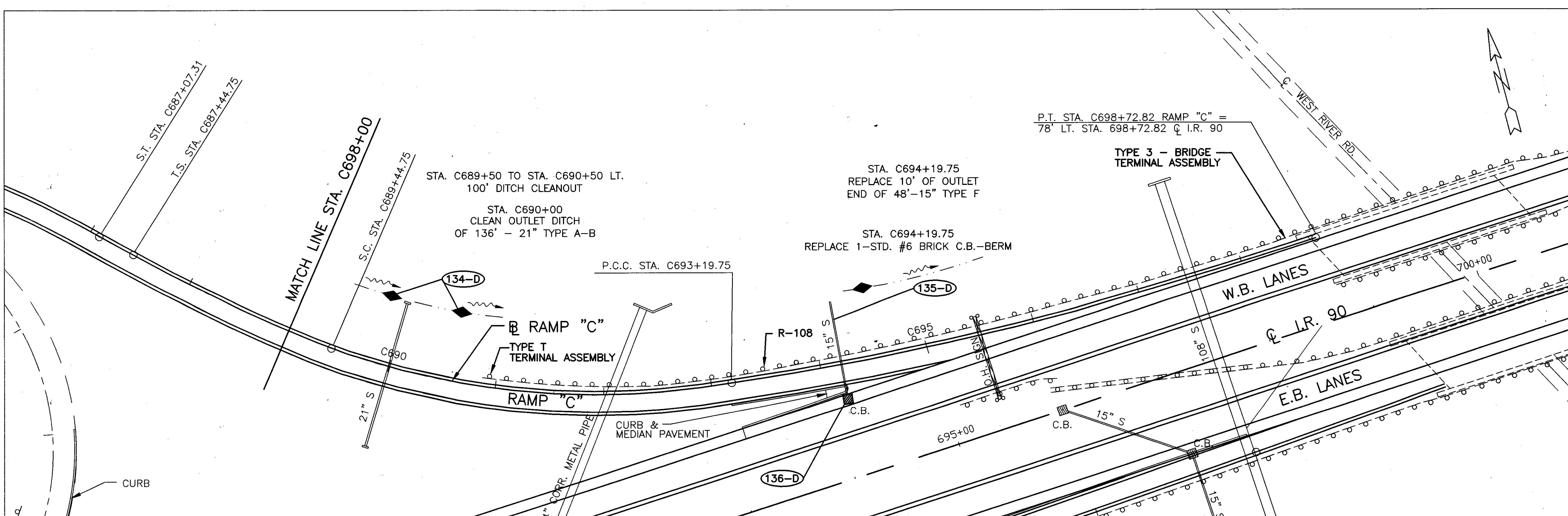
RAMP "D" - S.R. 57 & I.R.90
STA. 678+63.19 TO STA. 698+53.27

LOR-I90-10.76

98
274

[G:\93600\DWGS\93600FNL\P-38.DWG] GZ
02-13-2002 10:39AM





0 50 100
HORIZONTAL SCALE IN FEET

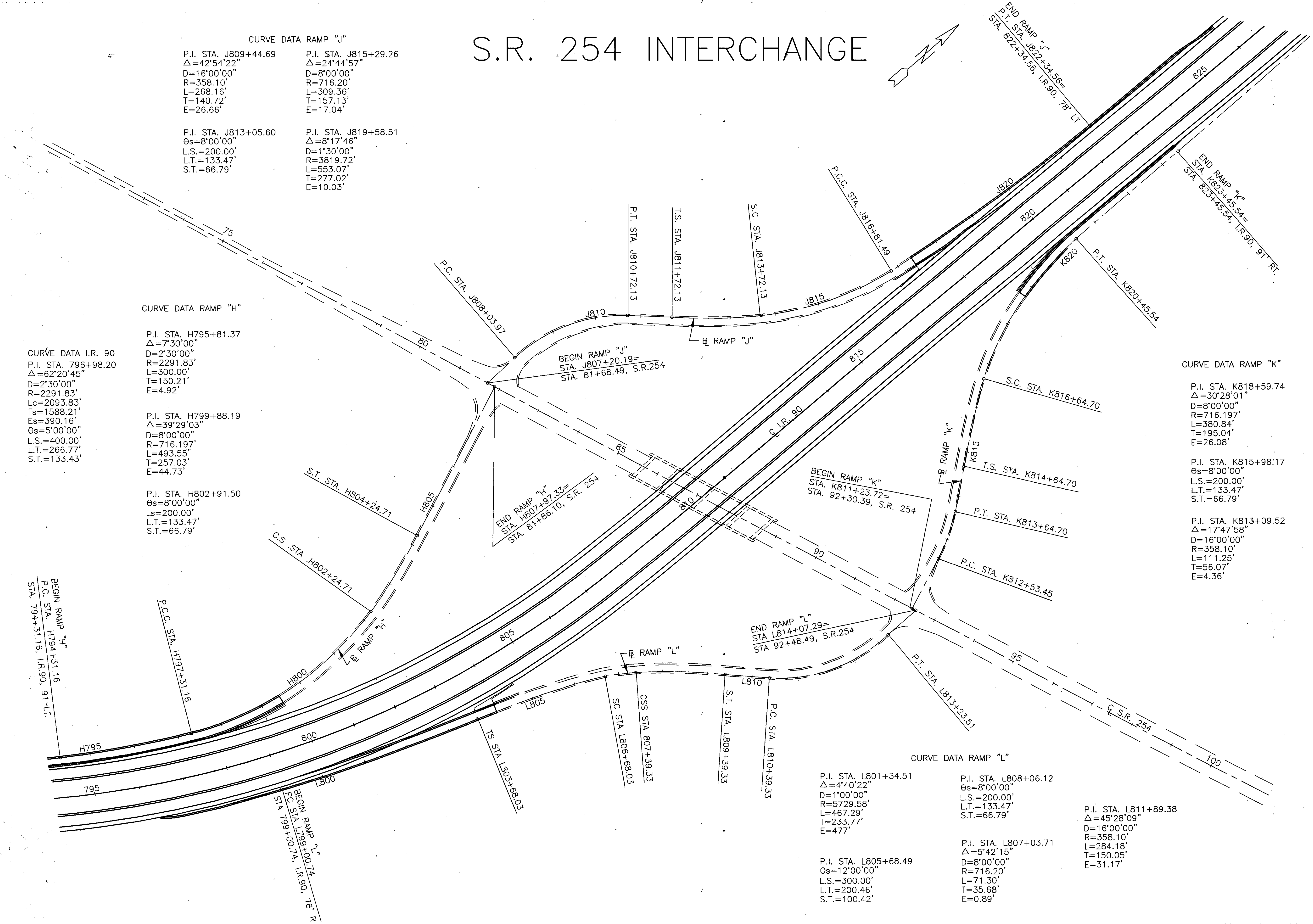
CALCULATED DLS
CHECKED LAB

RAMP "C" - S.R. 57 & I.R.90
STA. 679+17.87 TO STA. 698+72.82

LOR-I90-10.76

[C:\93600\DWGS\93600PNL\P-39.DWG] G2
02-13-2002 9:14AM

S.R. 254 INTERCHANGE



CURVE DATA RAMP "J"

P.I. STA. J809+44.69
Δ=42°54'22"
D=16°00'00"
R=358.10'
L=268.16'
T=140.72'
E=26.66'

P.I. STA. J815+29.26
Δ=24°44'57"
D=8°00'00"
R=716.20'
L=309.36'
T=157.13'
E=17.04'

P.I. STA. J813+05.60
θs=8°00'00"
L.S.=200.00'
L.T.=133.47'
S.T.=66.79'

P.I. STA. J819+58.51
Δ=8°17'46"
D=1°30'00"
R=3819.72'
L=553.07'
T=277.02'
E=10.03'

CURVE DATA I.R. 90

P.I. STA. 796+98.20
Δ=62°20'45"
D=2°30'00"
R=2291.83'
Lc=2093.83'
Ts=1588.21'
Es=390.16'
θs=5°00'00"
L.S.=400.00'
L.T.=266.77'
S.T.=133.43'

CURVE DATA RAMP "H"

P.I. STA. H795+81.37
Δ=7°30'00"
D=2°30'00"
R=2291.83'
L=300.00'
T=150.21'
E=4.92'

P.I. STA. H799+88.19
Δ=39°29'03"
D=8°00'00"
R=716.197'
L=493.55'
T=257.03'
E=44.73'

P.I. STA. H802+91.50
θs=8°00'00"
Ls=200.00'
L.T.=133.47'
S.T.=66.79'

CURVE DATA RAMP "K"

P.I. STA. K818+59.74
Δ=30°28'01"
D=8°00'00"
R=716.197'
L=380.84'
T=195.04'
E=26.08'

P.I. STA. K815+98.17
θs=8°00'00"
L.S.=200.00'
L.T.=133.47'
S.T.=66.79'

P.I. STA. K813+09.52
Δ=17°47'58"
D=16°00'00"
R=358.10'
L=111.25'
T=56.07'
E=4.36'

CURVE DATA RAMP "L"

P.I. STA. L801+34.51
Δ=4°40'22"
D=1°00'00"
R=5729.58'
L=467.29'
T=233.77'
E=477'

P.I. STA. L808+06.12
θs=8°00'00"
L.S.=200.00'
L.T.=133.47'
S.T.=66.79'

P.I. STA. L811+89.38
Δ=45°28'09"
D=16°00'00"
R=358.10'
L=284.18'
T=150.05'
E=31.17'

P.I. STA. L805+68.49
θs=12°00'00"
L.S.=300.00'
L.T.=200.46'
S.T.=100.42'

P.I. STA. L807+03.71
Δ=5°42'15"
D=8°00'00"
R=716.20'
L=71.30'
T=35.68'
E=0.89'

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

GEOMETRIC LAYOUT I.R.90 & S.R.254 INTERCHANGE RAMP SCHEMATIC

ODOT PROJECT 3015-00

[G:\3560\DWGS\3560FNL\P-40.DWG] 02-13-2002 8:15AM

BEGIN RAMP "H"
P.C. STA. H794+31.16
STA. 794+31.16, I.R.90, 91 LT.

H795

795+00

P.C.C. STA. H797+31.16

STA. H794+31 TO STA. H799+47
CONCRETE CURB REMOVAL. BACKFILL
TRENCH WITH ASPHALT CONCRETE.

STA. H799+47
END RAMP OVERLAY
FEATHER ASPHALT

STA. H799+00
REPLACE 1–STD. #5
BRICK C.B.

STA. H799+50
REPLACE 1–STD. #5
BRICK C.B.

137–D

C.B.

18" S

C.B.

H800

℄ I.R. 90

CURB

24" S

800+00

C.B.

C.S. STA. H802+24.71

S.T. STA. H804+24.71

RAMP "H"

℄ RAMP "H"

H805

END RAMP "H"
STA. H807+97.33=
STA. 81+86.10, S.R. 254

℄ S.R. 254

85

BEGIN RAMP "J"
STA. J807+20.19=
STA. 81+68.49, S.R.254

P.C. STA. J808+03.97

J810

P.T. STA. J810+72.13

T.S. STA. J811+72.13

S.C. STA. J813+72.13

RAMP "J"

℄ RAMP "J"

℄ S.R. 254

P.C.C. STA. J816+81.49

STA. J817+35
BEGIN RAMP OVERLAY
FEATHER ASPHALT

STA. J817+80
REPLACE 1–STD. #5
BRICK C.B.–BERM

15' S

CURB &
MEDIAN
PAVEMENT

C.B.

J820

820+00

℄ I.R. 90

138–D

CURB

RAMP "K"

42" S

J815

30" S

M.H.

C.B.

36" S

M.H.

30" S

C.B.

END RAMP "J"
P.T. STA. J822+34.56=
STA. 822+34.56, I.R.90, 78' LT

0 50' 100
HORIZONTAL
SCALE IN FEET

CALCULATED DLS | CHECKED LAB

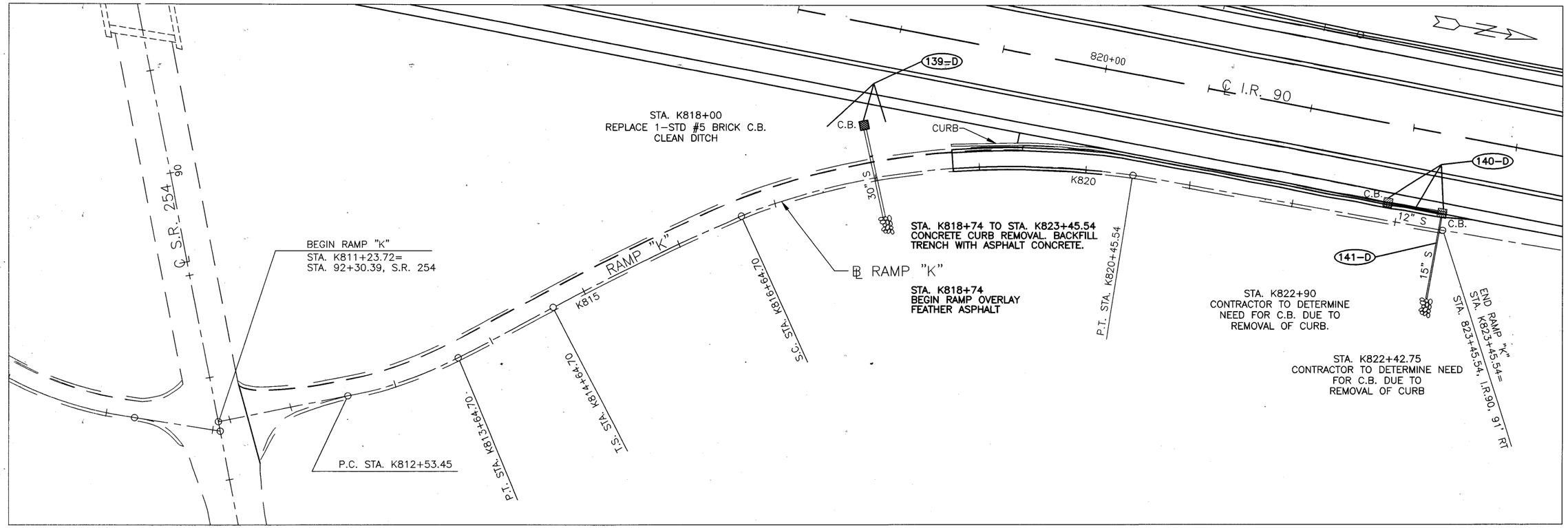
RAMP "H" & RAMP "J" - S.R.254 & I.R. 90

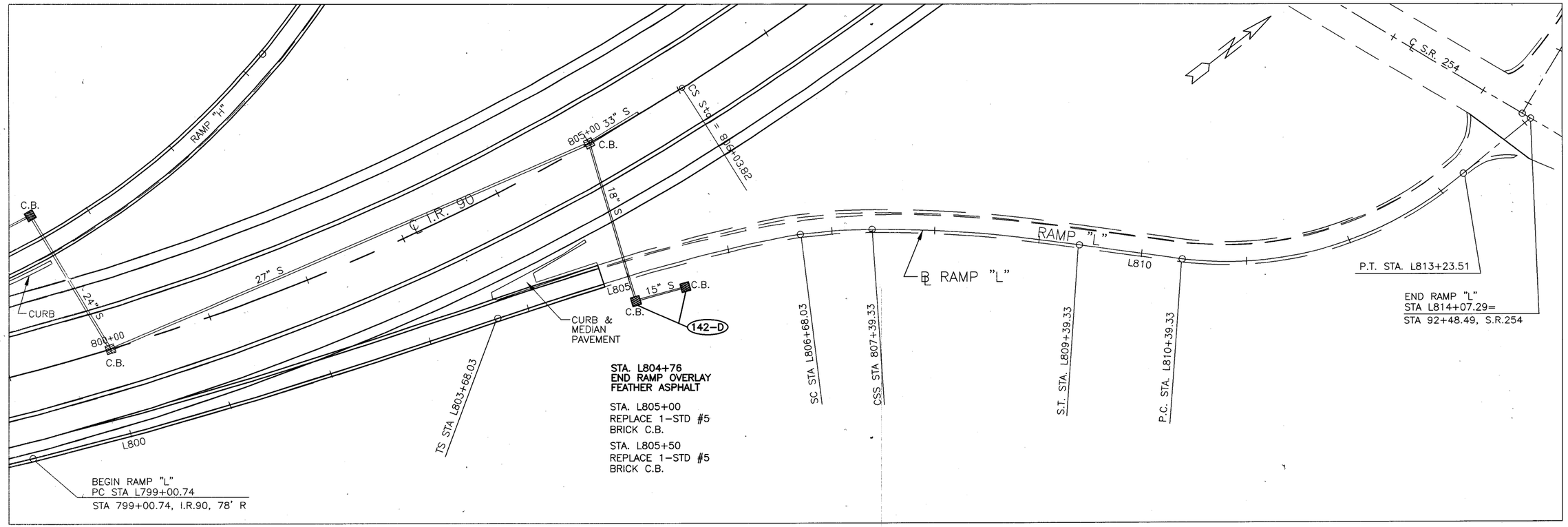
STA. H794+31.16 TO STA. H807+97.33 & STA. J808+03.97 TO STA. J822+34.56

LOR-I90-10.76

101
274

[O:\93600\DWGS\93600FNLVP-41.DWG] 02-13-2002 10:17AM





CALCULATED DLS | CHECKED LAB

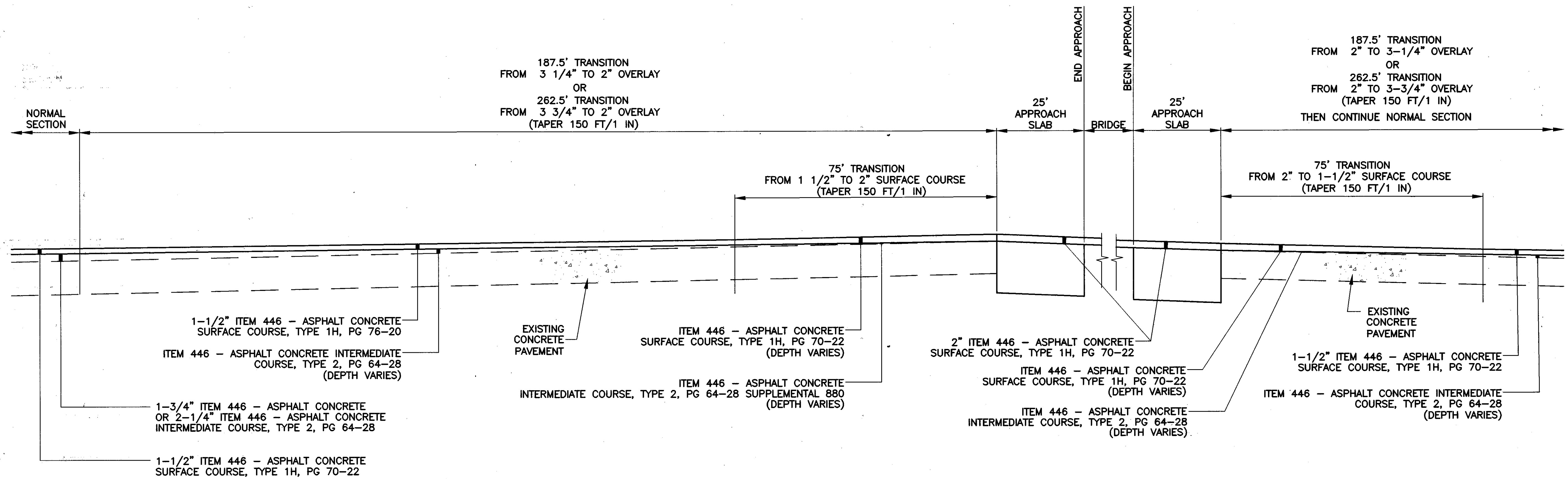
HORIZONTAL SCALE IN FEET
0 50' 100'

RAMP "K" & RAMP "L" - S.R. 254 & I.R. 90

STA. K811+23.72 TO STA. K823+45.54 & STA. L799+00.74 TO STA. L814+07.29

LOR-I90-10.76

PROFILE DETAIL ALONG EXISTING PAVEMENT OVERLAY AT EXPOSED CONCRETE BRIDGE DECKS WITH NO CONCRETE OVERLAY



STRUCTURE NO.	END APPROACH SLAB STATIONING	BEGIN APPROACH SLAB STATIONING	TOTAL TRANSITION LENGTH
LOR-2-1046 L&R	STA. 552+18.58 L STA. 552+18.58 R	STA. 554+00.02 L STA. 554+00.02 R	187.5' 187.5'
LOR-90-1355 R	STA. 698+98.85 R	STA. 700+81.81 R	262.5'
LOR-90-1785 L&R	STA. 927+35.89 L STA. 927+77.86 R	STA. 928+89.30 L STA. 928+40.59 R	262.5' 262.5'

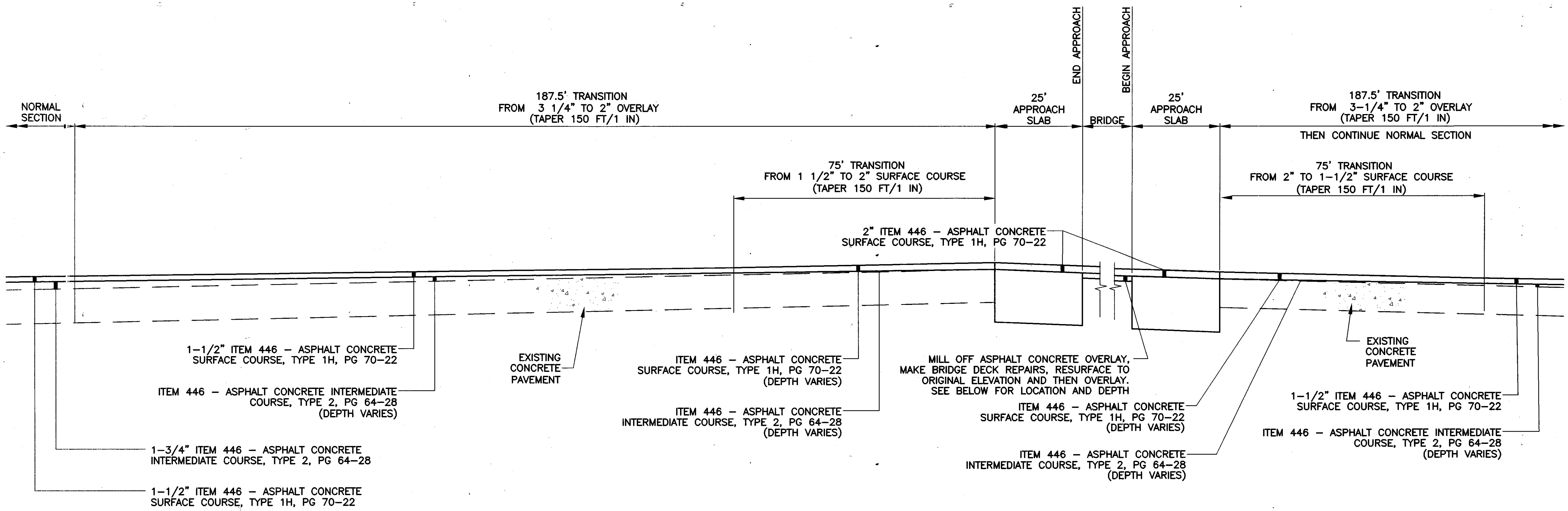
CALCULATED DLS CHECKED LAB

MISCELLANEOUS DETAILS

LOR - I90 - 10.76

[C:\93600\DWGS\93600PNL\93600D01.DWG] 02-13-2002 2:50PM

PROFILE DETAIL ALONG EXISTING PAVEMENT OVERLAY AT BRIDGE DECKS WITH ASPHALT CONCRETE OVERLAY



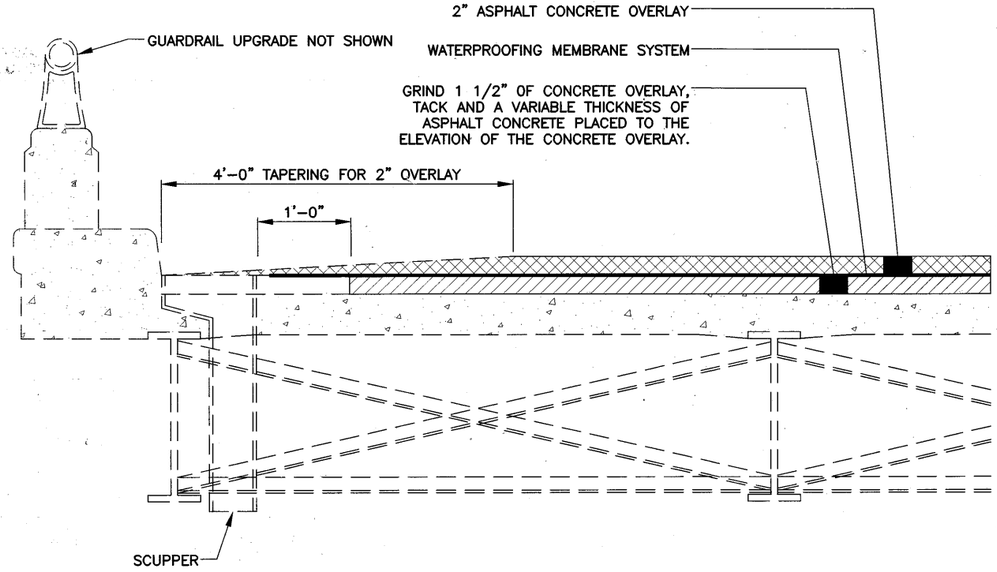
STRUCTURE NO.	END APPROACH SLAB STATIONING	BEGIN APPROACH SLAB STATIONING	TOTAL TRANSITION LENGTH	DEPTH OF EXISTING OVERLAY
LOR-90-1157 L	STA. 565+24.98 L	STA. 566+53.82 L	187.5'	2.5"
LOR-90-1157 R	STA. 567+00.81 R	STA. 568+22.94 R	187.5'	2.5"
LOR-90-1178 L	STA. 576+36.12 L	STA. 578+63.12 L	187.5'	1.5"

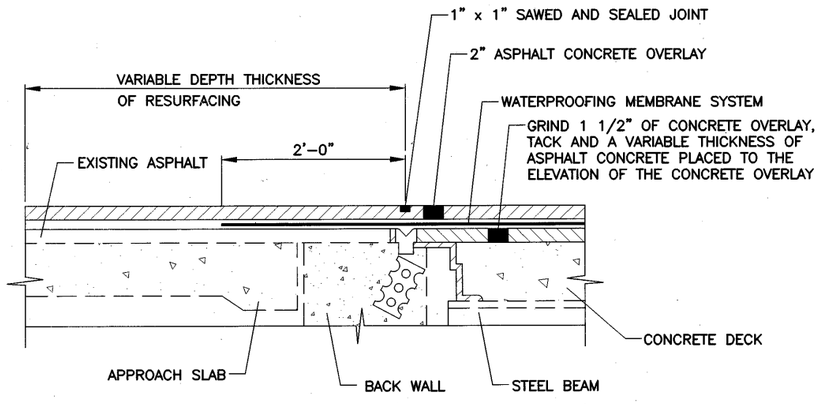
CALCULATED DLS CHECKED LAB

MISCELLANEOUS DETAILS

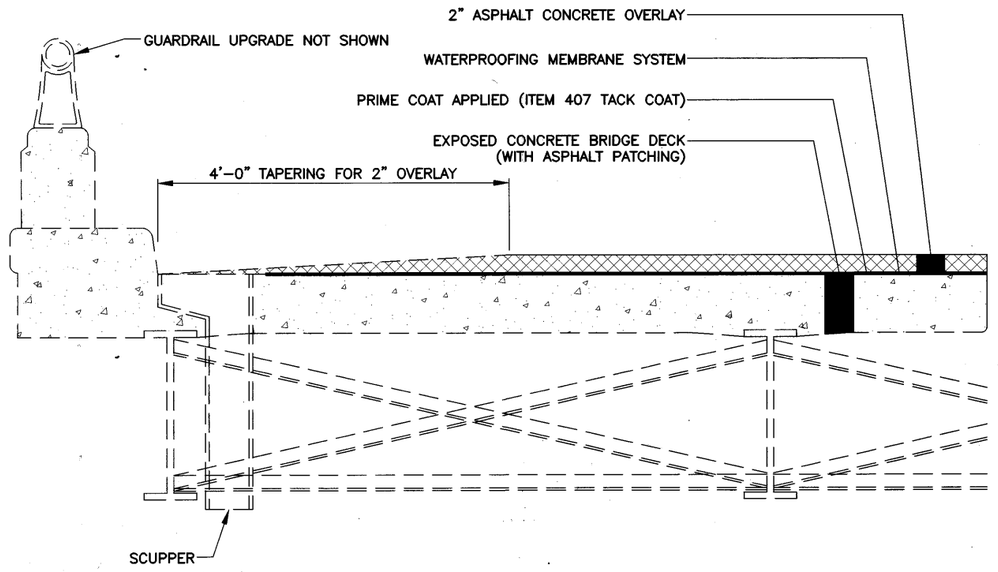
LOR - I90 - 10.76

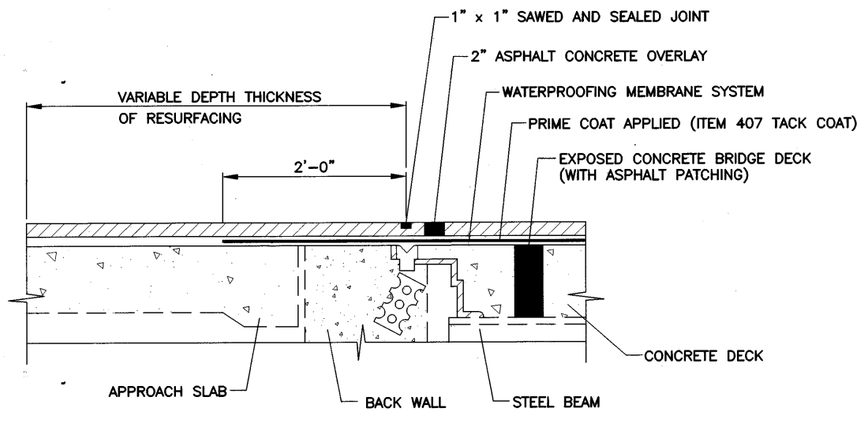
[O:\9560\DWGS\9560FINL\9560002.DWG] CZ 02-13-2002 3:06PM





WITH CONCRETE OVERLAY



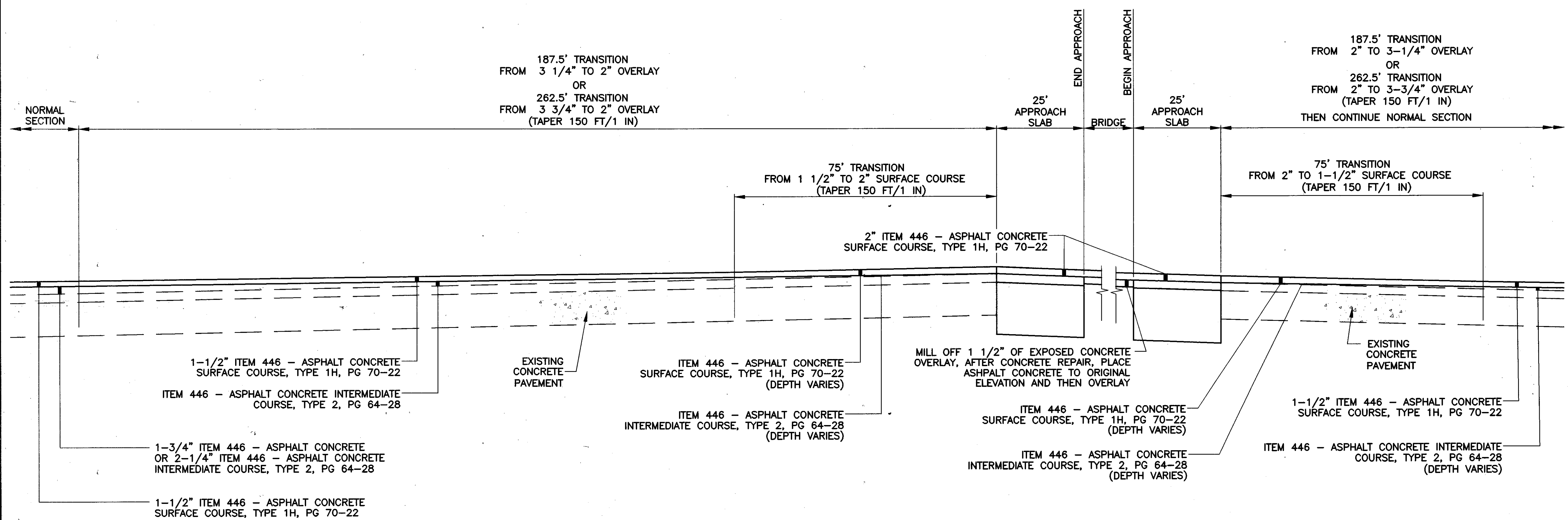


NO EXISTING OVERLAYS

MISCELLANEOUS DETAILS

LOR - I90 - 10.75

PROFILE DETAIL ALONG EXISTING PAVEMENT OVERLAY AT BRIDGE DECKS WITH EXPOSED CONCRETE OVERLAYS



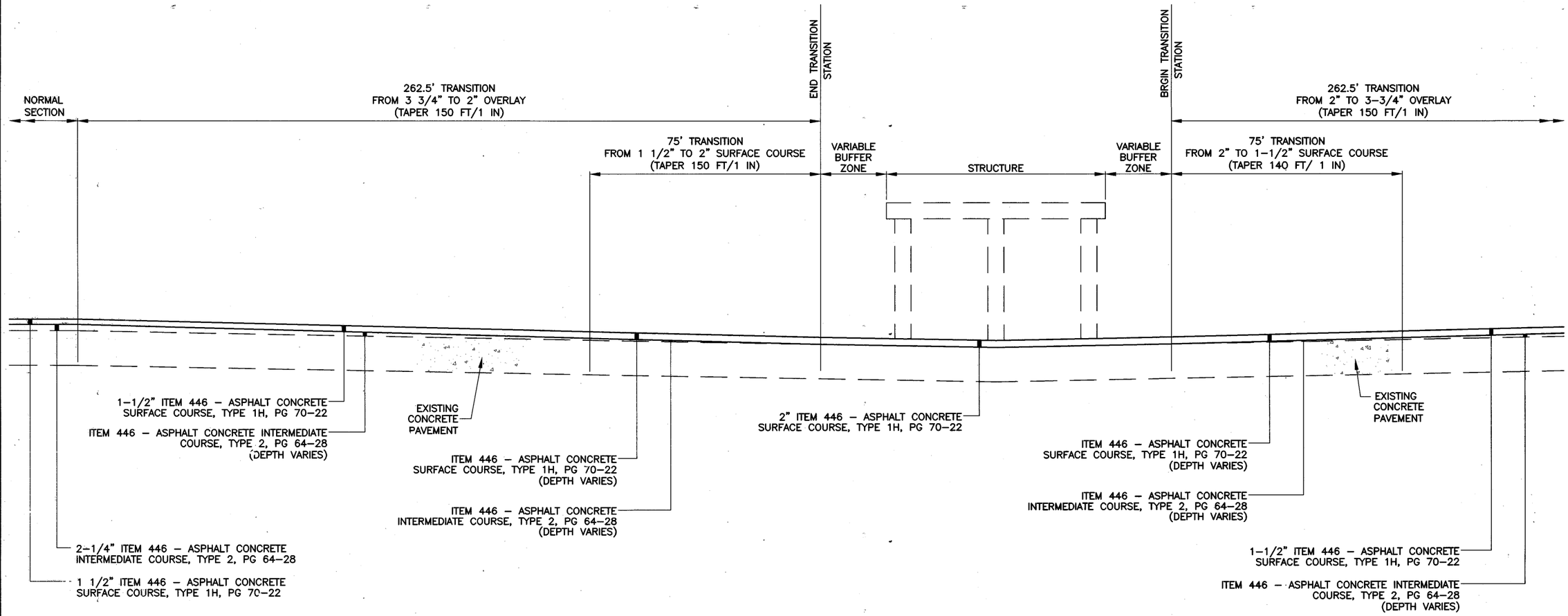
STRUCTURE NO.	END APPROACH SLAB STATIONING	BEGIN APPROACH SLAB STATIONING	TOTAL TRANSITION LENGTH
LOR-2-1070 L&R	STA. 564+20.65 L STA. 564+44.27 R	STA. 565+69.91 L STA. 565+93.66 R	187.5' 187.5'
LOR-90-1244 L&R	STA. 612+31.40 L STA. 612+58.41 R	STA. 614+00.60 L STA. 614+23.99 R	187.5' 187.5'
LOR-90-1256 L&R	STA. 618+72.71 L STA. 618+72.71 R	STA. 620+20.28 L STA. 620+20.28 L	187.5' 187.5'
LOR-90-1320 L&R	STA. 680+81.01 L STA. 680+81.01 R	STA. 683+24.01 L STA. 683+24.01 R	262.5' 262.5'
LOR-90-1355 L	STA. 698+98.85 L	STA. 700+81.81 L	262.5'
LOR-90-1426 L&R	STA. 736+53.75 L STA. 736+63.75 R	STA. 740+22.25 L STA. 740+32.25 R	262.5' 262.5'
LOR-90-1443 L&R	STA. 745+83.18 L STA. 745+65.31 R	STA. 747+09.40 L STA. 747+27.64 R	262.5' 262.5'

CALCULATED DLS
CHECKED LAB

MISCELLANEOUS DETAILS

LOR - I90 - 10.76

PROFILE DETAIL AT OVERHEAD STRUCTURES ALONG EXISTING PAVEMENT WITH NO OVERLAY



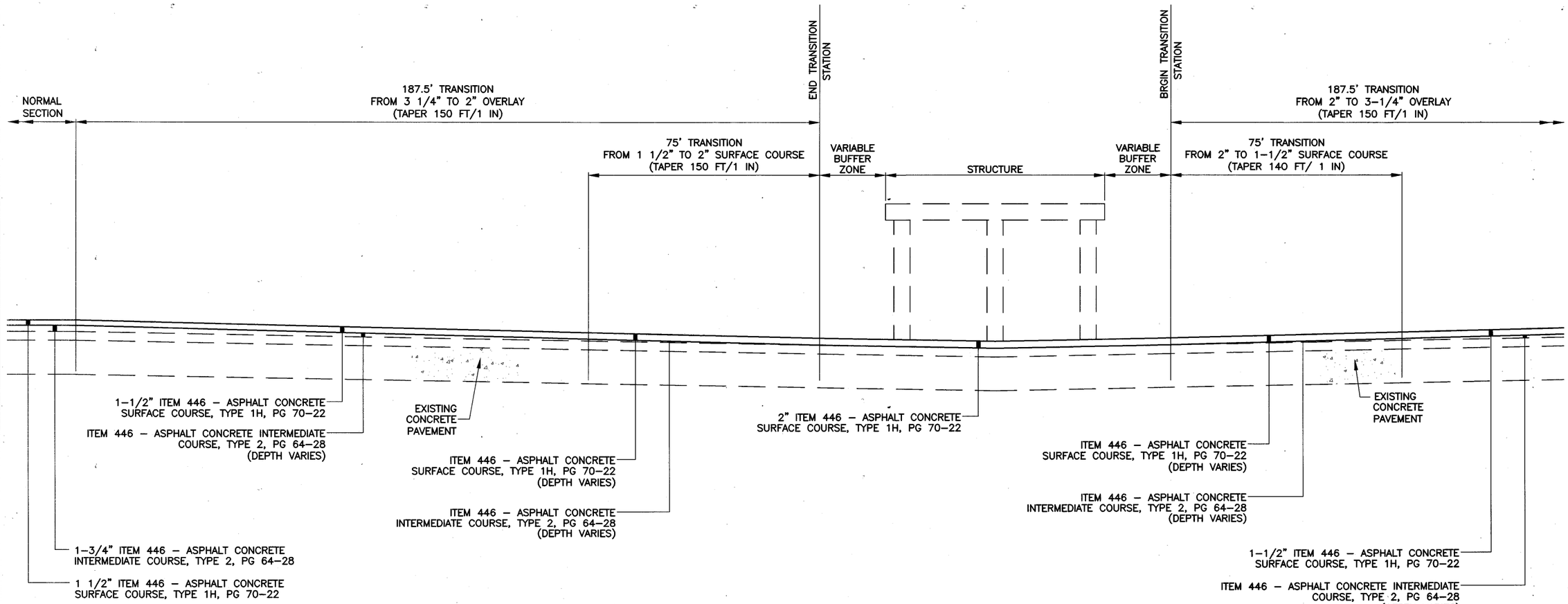
STRUCTURE NO.	END TRANSITION STATIONING	BEGIN TRANSITION STATIONING	TOTAL TRANSITION LENGTH
LOR-90-1478	STA. 762+76.59 L STA. 763+12.38 R	STA. 766+22.92 L STA. 766+57.61 R	262.5' 262.5'
LOR-90-1565	STA. 808+24.07 L STA. 808+65.18 R	STA. 812+03.10 L STA. 812+46.40 R	262.5' 262.5'
LOR-90-1700	STA. 880+78.38 L STA. 880+23.00 R	STA. 884+80.76 L STA. 883+90.14 R	262.5' 262.5'
LOR-90-1753	STA. 907+78.84 L STA. 908+39.77 R	STA. 911+33.71 L STA. 911+94.64 R	262.5' 262.5'

CALCULATED DLS | CHECKED LAB

MISCELLANEOUS DETAILS

LOR - I90 - 10.76

PROFILE DETAIL AT OVERHEAD STRUCTURES ALONG EXISTING PAVEMENT WITH OVERLAY



STRUCTURE NO.	END TRANSITION STATIONING	BEGIN TRANSITION STATIONING	TOTAL TRANSITION LENGTH
LOR-2-0825	STA. 434+29.27 L STA. 433+92.32 R	STA. 437+91.63 L STA. 437+54.67 R	187.5' 187.5'
* LOR-2-0859	STA. 451+33.83 L STA. 451+74.23 R	STA. 454+96.62 L STA. 455+35.40 R	187.5' 187.5'
LOR-2-0967	STA. 509+74.37 L STA. 508+76.81 R	STA. 513+22.29 L STA. 512+75.18 R	187.5' 187.5'
LOR-90-1178	STA. 576+15.29 (℄ S.R. 2 - E.B. LANES)	STA. 580+34.93 (℄ S.R. 2 - E.B. LANES)	187.5'

* MUST MILL 1" OFF OF EXISTING OVERLAY FROM END TRANSITION STATION TO BEGIN TRANSITION STATION ON LEFT & RIGHT PRIOR TO APPLYING NEW OVERLAY AS INDICATED IN DETAIL ABOVE.

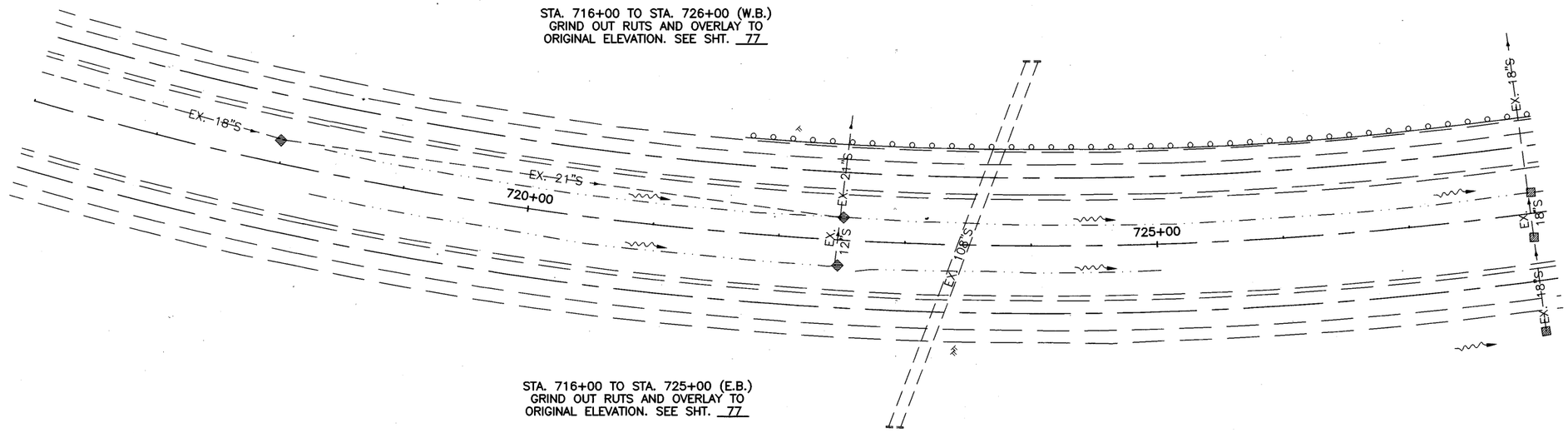
CALCULATED DLS | CHECKED LAB

MISCELLANEOUS DETAILS

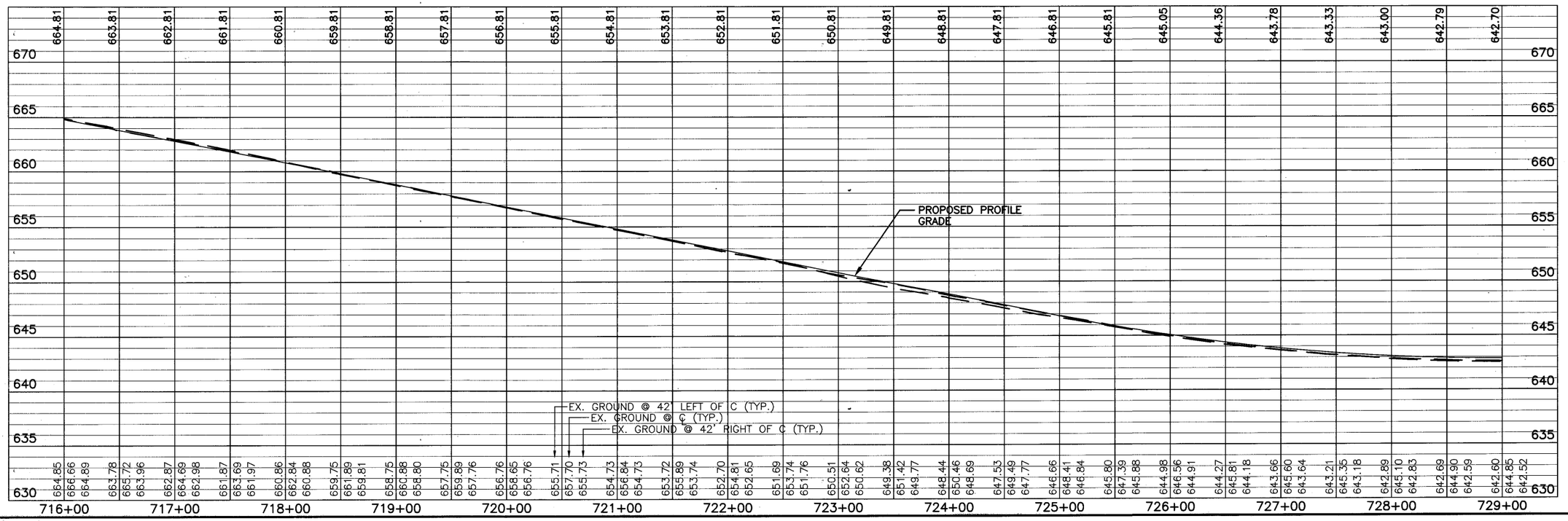
LOR - I90 - 10.76

NOTE: THE PAVEMENT CROSS SLOPES ARE SLOPED 0.064ft/ft TO THE LEFT. THE PROPOSED PROFILE GRADE ELEVATION IS ALONG THE INSIDE EDGE OF PAVEMENT.

STA. 716+00 TO STA. 726+00 (W.B.)
GRIND OUT RUTS AND OVERLAY TO ORIGINAL ELEVATION. SEE SHT. 77



STA. 716+00 TO STA. 725+00 (E.B.)
GRIND OUT RUTS AND OVERLAY TO ORIGINAL ELEVATION. SEE SHT. 77

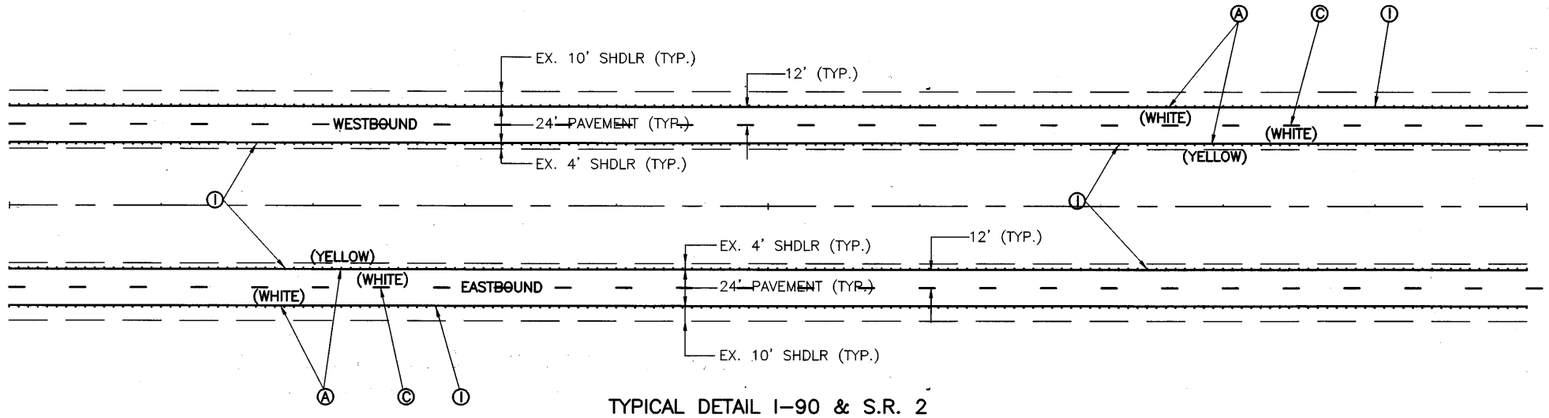


HORIZONTAL SCALE IN FEET
0 50' 100'

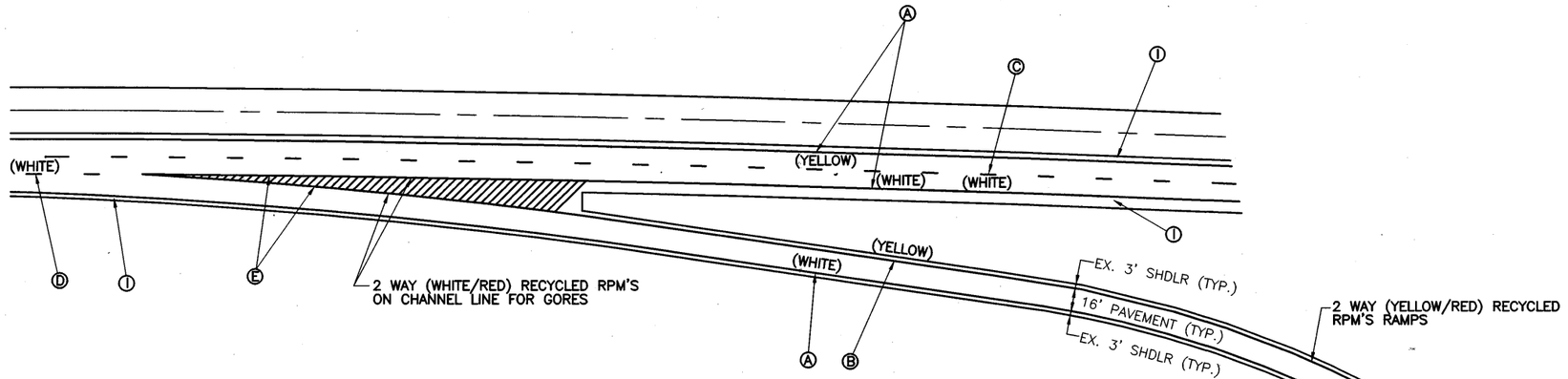
CALCULATED DLS
CHECKED LAB

MISCELLANEOUS DETAIL
PROPOSED PROFILE FOR WEST OF BLACK RIVER

LOR - I90 - 10.76



TYPICAL DETAIL I-90 & S.R. 2



TYPICAL DETAIL FOR RAMPS

NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT ACCELERATION AND DECELERATION LANES.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT ACCELERATION AND DECELERATION LANES.

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

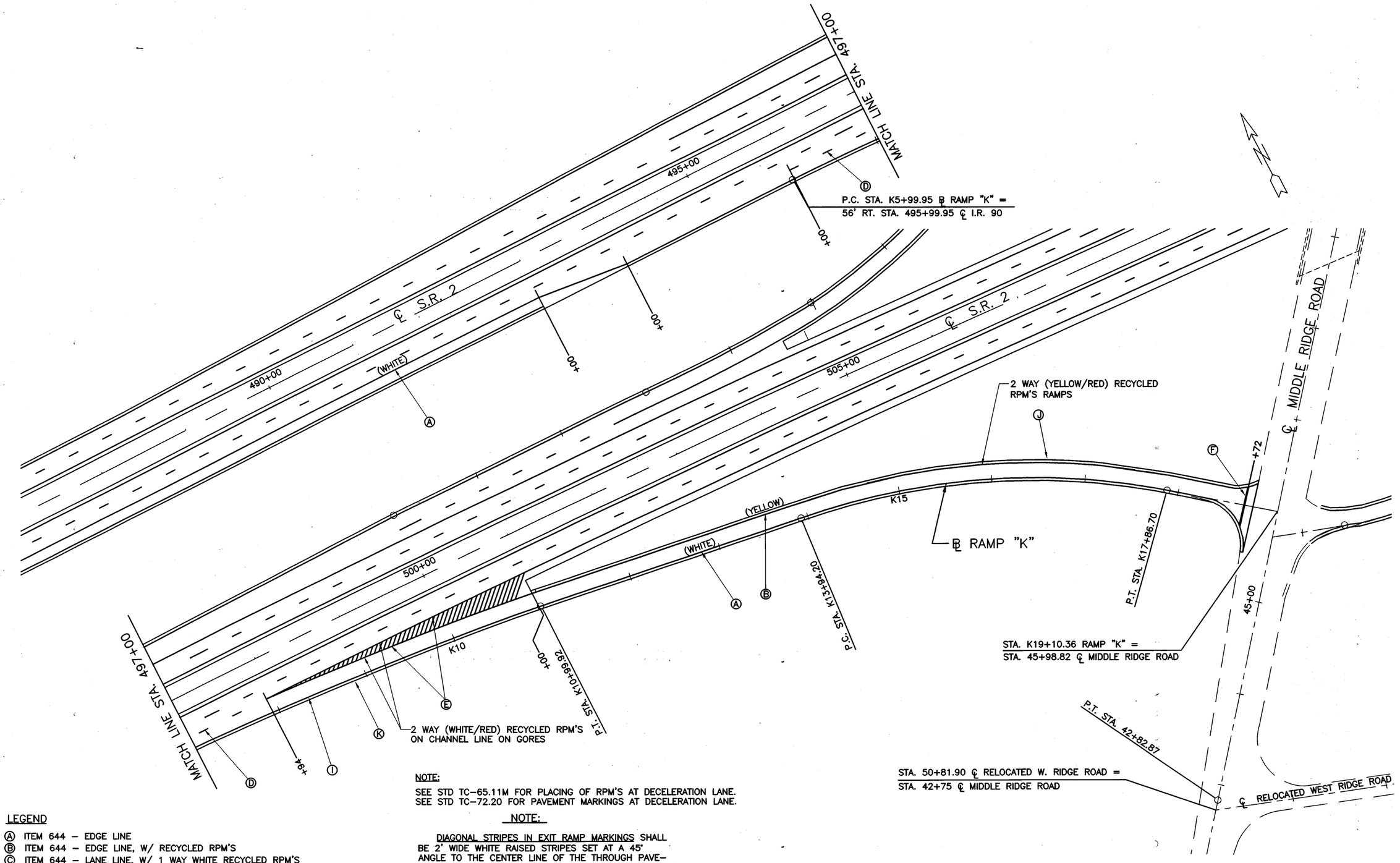
WHITE AIR SPEED ZONE MARKINGS SHALL START AT STA. 438+55.97 (EB) AND START AT STA. 491+41.85 (WB). THEY SHALL BE 2FT. WIDE AND 4 FT. LONG PLACED AT THE EDGE LINE ON THE INSIDE AND OUTSIDE SHOULDERS OF THE PAVEMENT AT 0.25 MILE INTERVALS OVER A 1 MILE LENGTH OF ROADWAY. THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE MARKINGS LAID OUT BY A REGISTERED SURVEYOR. SEE PLAN SHEETS FOR DETAILED LAYOUT.

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS | CHECKED LAB

PAVEMMENT MARKING
TYPICAL I-90, S.R.2 & RAMP DETAIL

LOR - I90 - 10.76



LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT DECELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT DECELERATION LANE.

NOTE:

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE RAISED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 12' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. WHITE RAISED PAVEMENT STRIPES PAVEMENT MARKING SHALL BE APPLIED AS PER SPECIFICATIONS ITEM 644. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELING LINES AT EXIT RAMPS AS SHOWN, TO COMFORM TO ITEM 641.

CALCULATED DLS | CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100'

PLAN RAMP "K" - S.R.2 & MIDDLE RIDGE RD.
STA. K5+99.95 TO STA. K19+10.36

LOR-I90-10.76

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274

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07-18-2002
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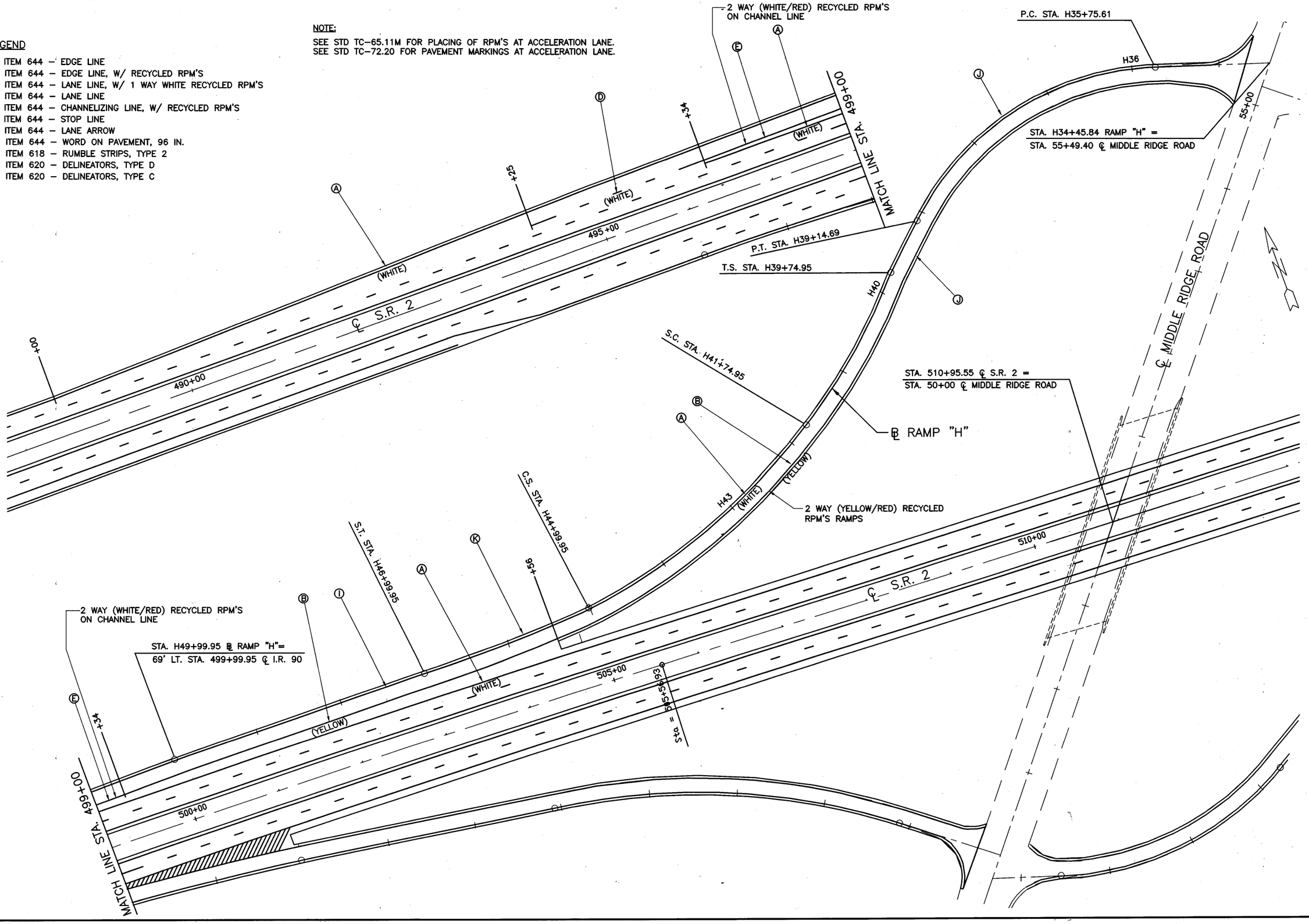
LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT ACCELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT ACCELERATION LANE.



HORIZONTAL SCALE IN FEET: 0, 50', 100'

CALCULATED DLS
CHECKED LAB

PLAN RAMP "H" - S.R.2 & MIDDLE RIDGE RD.
STA. H49+99.95 TO STA. H34+45.84

LOR-I90-10.76

112
274

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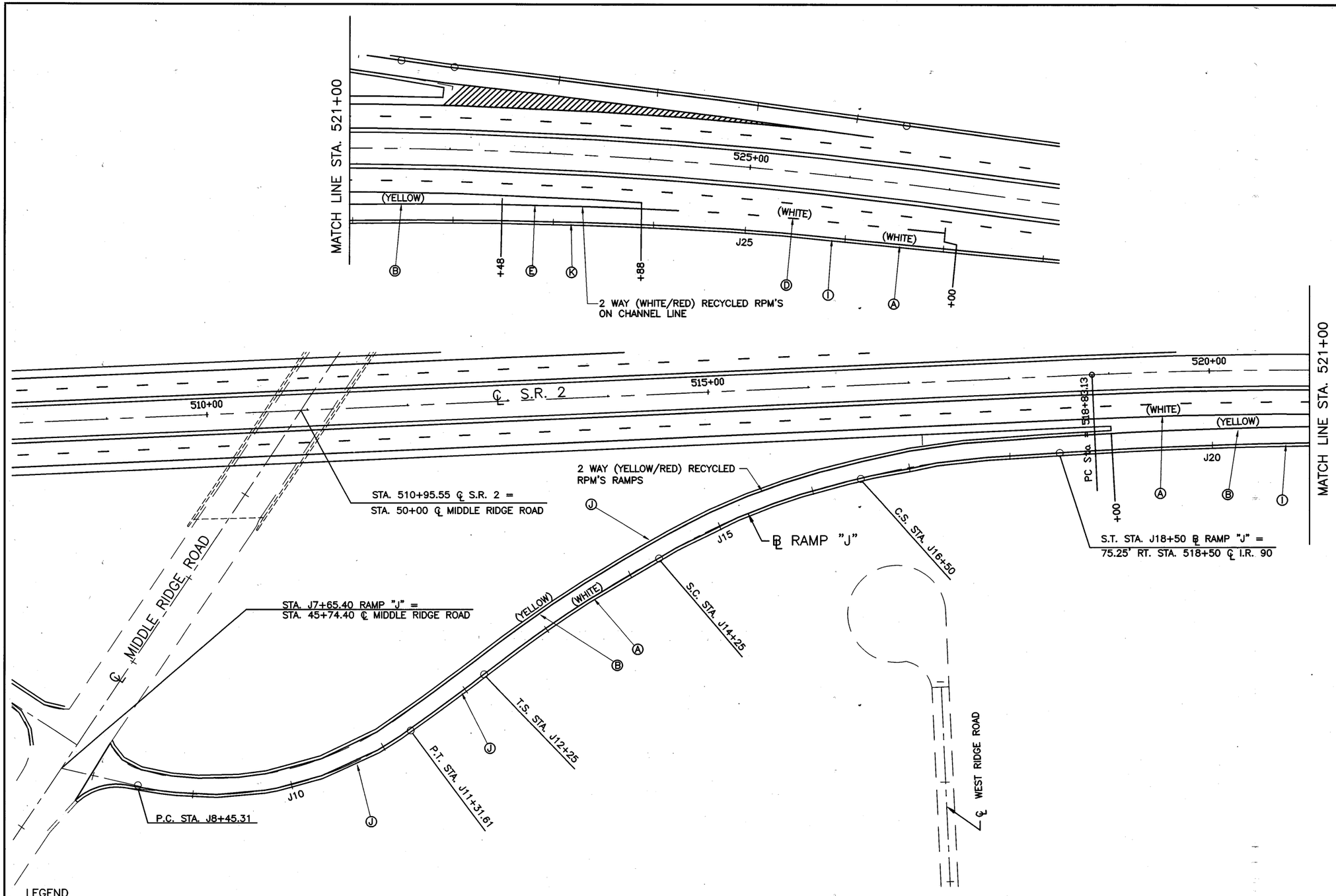
07-18-2002 [G:\93600\DWGS\93600PNL\93600PM3.DWG] DLS



LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

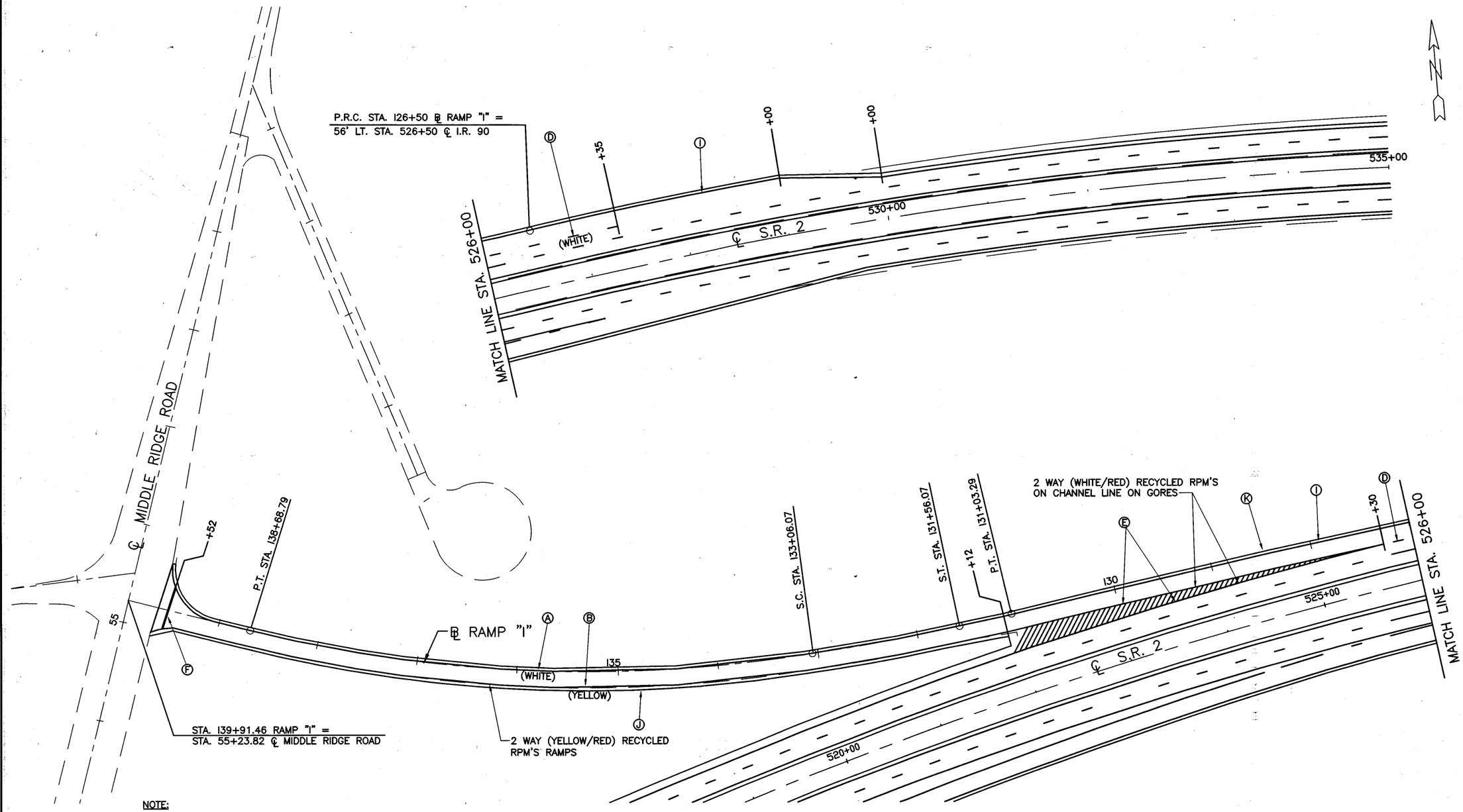
SEE STD TC-65.11M FOR PLACING OF RPM'S AT ACCELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT ACCELERATION LANE.

0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PLAN RAMP "J" - S.R.2 & MIDDLE RIDGE RD. STA. J7+65.40 TO J18+50

LOR-I90-10.76



NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT DECELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT DECELERATION LANE.

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

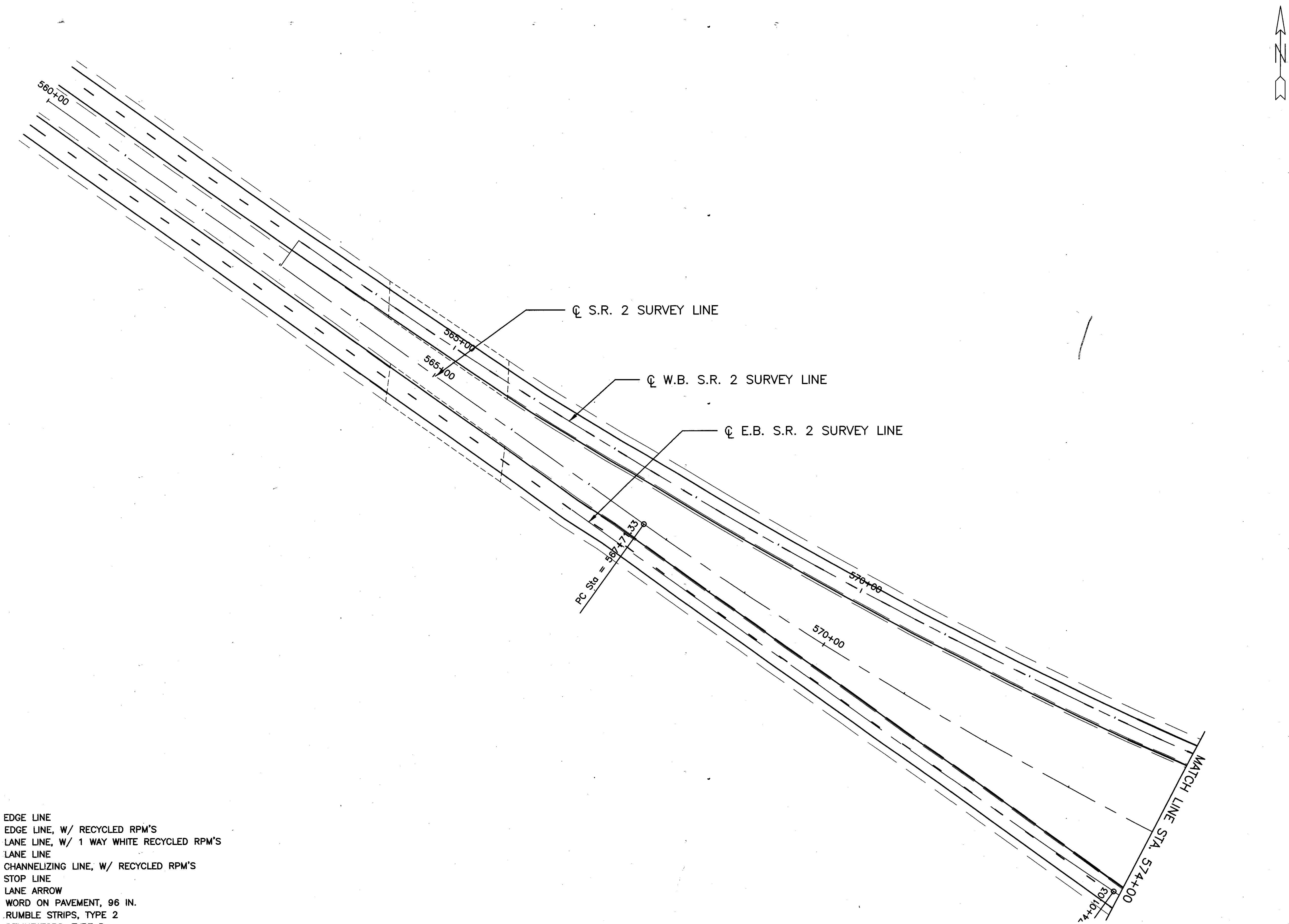
DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE RAISED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 12' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. WHITE RAISED PAVEMENT STRIPES PAVEMENT MARKING SHALL BE APPLIED AS PER SPECIFICATIONS ITEM 644. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELING LINES AT EXIT RAMPS AS SHOWN, TO COMFORM TO ITEM 641.

HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

PLAN RAMP "I" - S.R.2 & MIDDLE RIDGE RD.
STA. 126+50 TO STA. 139+91.46

LOR-I90-10.76



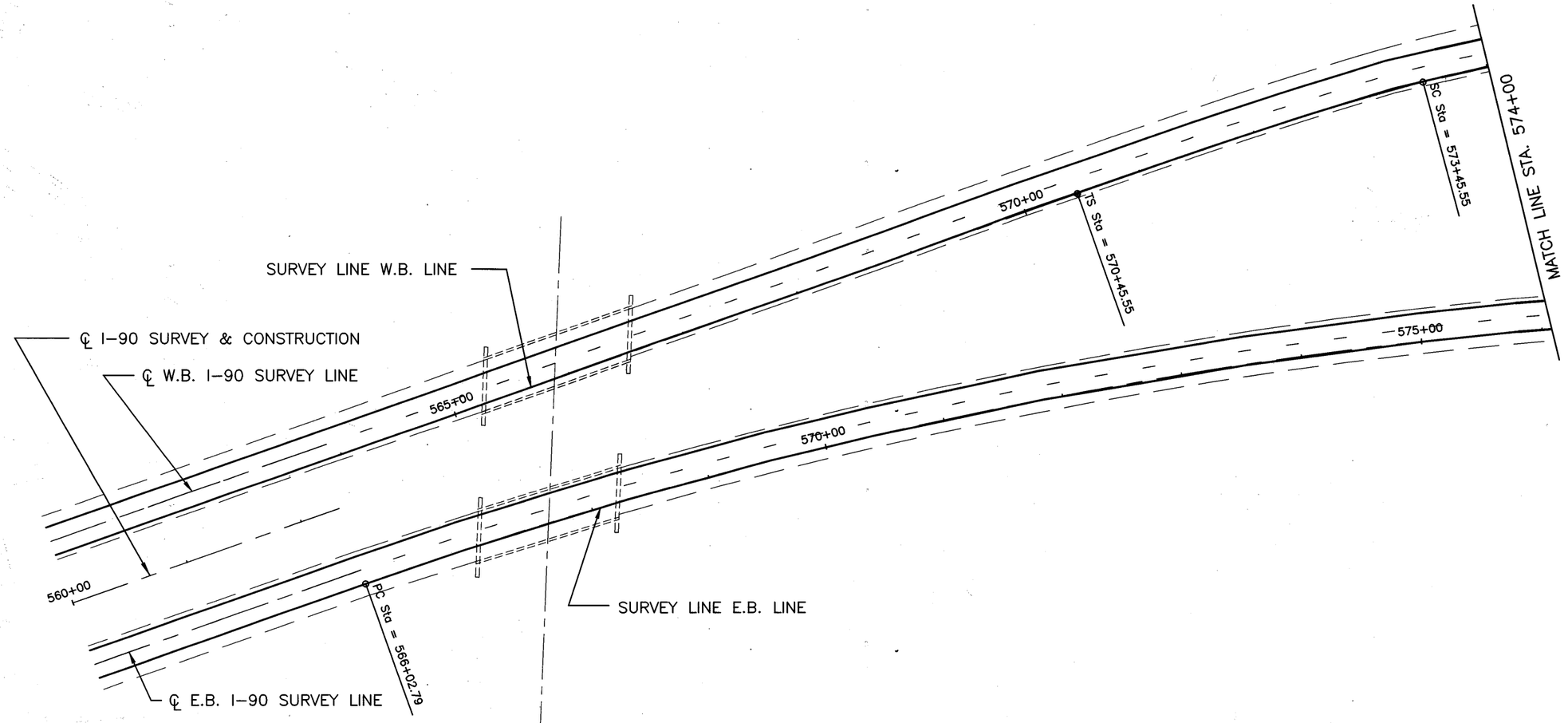
LEGEND
- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PAVEMENT MARKING
STA. 560+00 TO STA. 574+00

LOR - I90 - 10.76



LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
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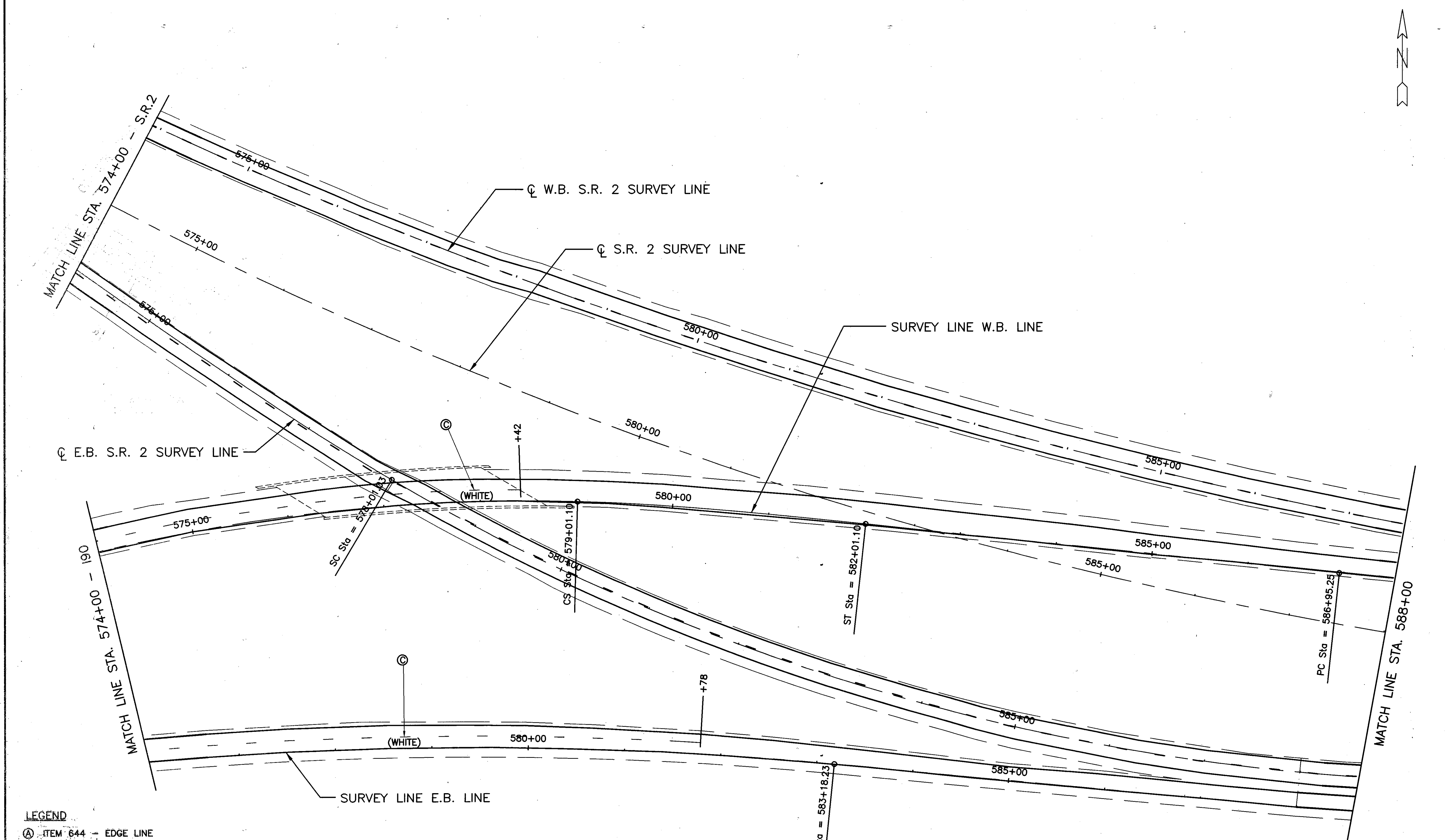
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PAVEMENT MARKING
STA. 560+00 TO STA. 574+00

LOR - I90 - 10.76



LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

0 50' 100
HORIZONTAL SCALE IN FEET

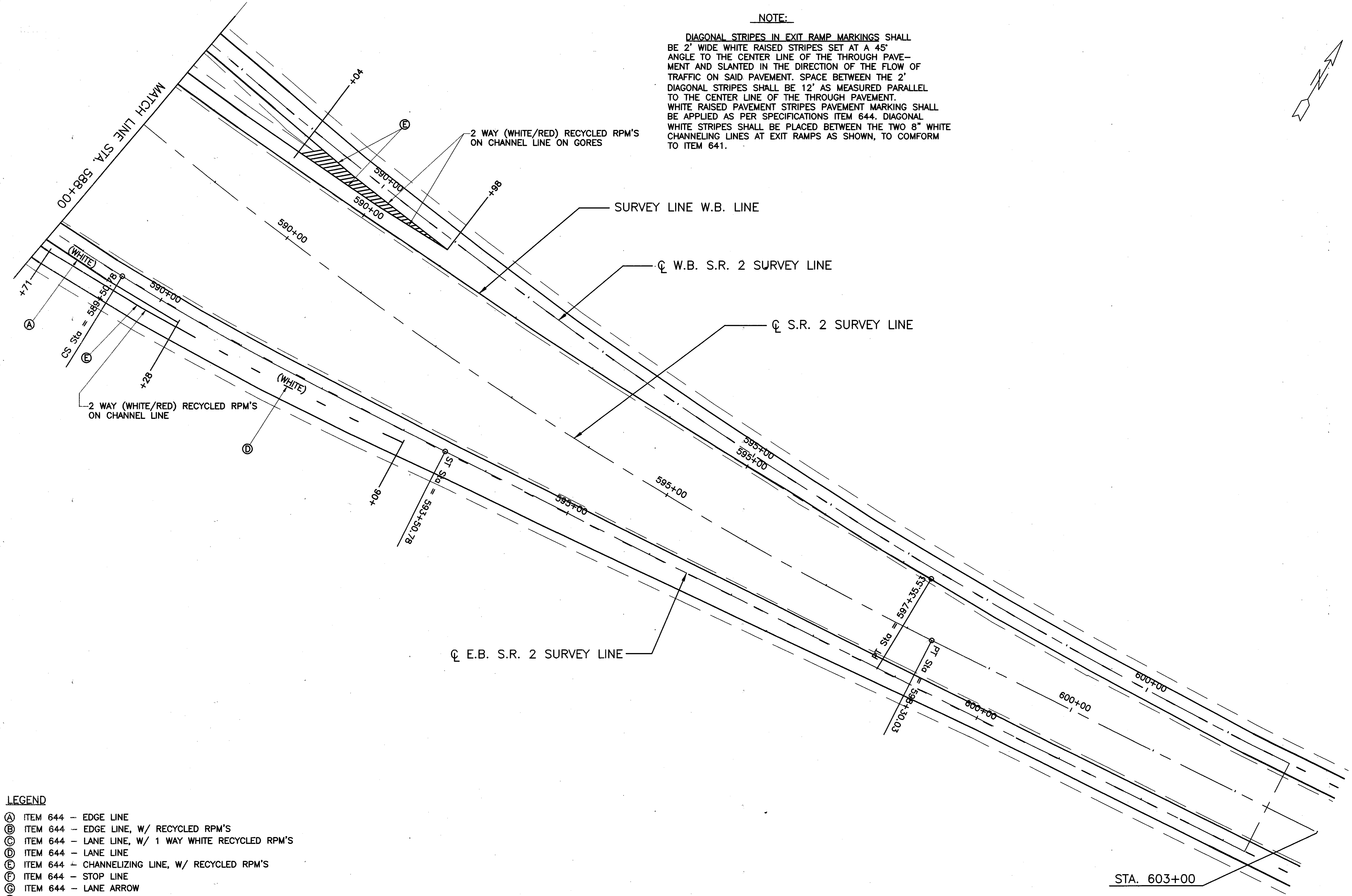
CALCULATED DLS
CHECKED LAB

PAVEMENT MARKING
STA. 574+00 TO STA. 588+00

LOR - I90 - 10.76

NOTE:

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE RAISED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 12' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. WHITE RAISED PAVEMENT STRIPES PAVEMENT MARKING SHALL BE APPLIED AS PER SPECIFICATIONS ITEM 644. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELING LINES AT EXIT RAMPS AS SHOWN, TO CONFORM TO ITEM 641.



LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PAVEMENT MARKING
STA. 588+00 TO STA. 603+00

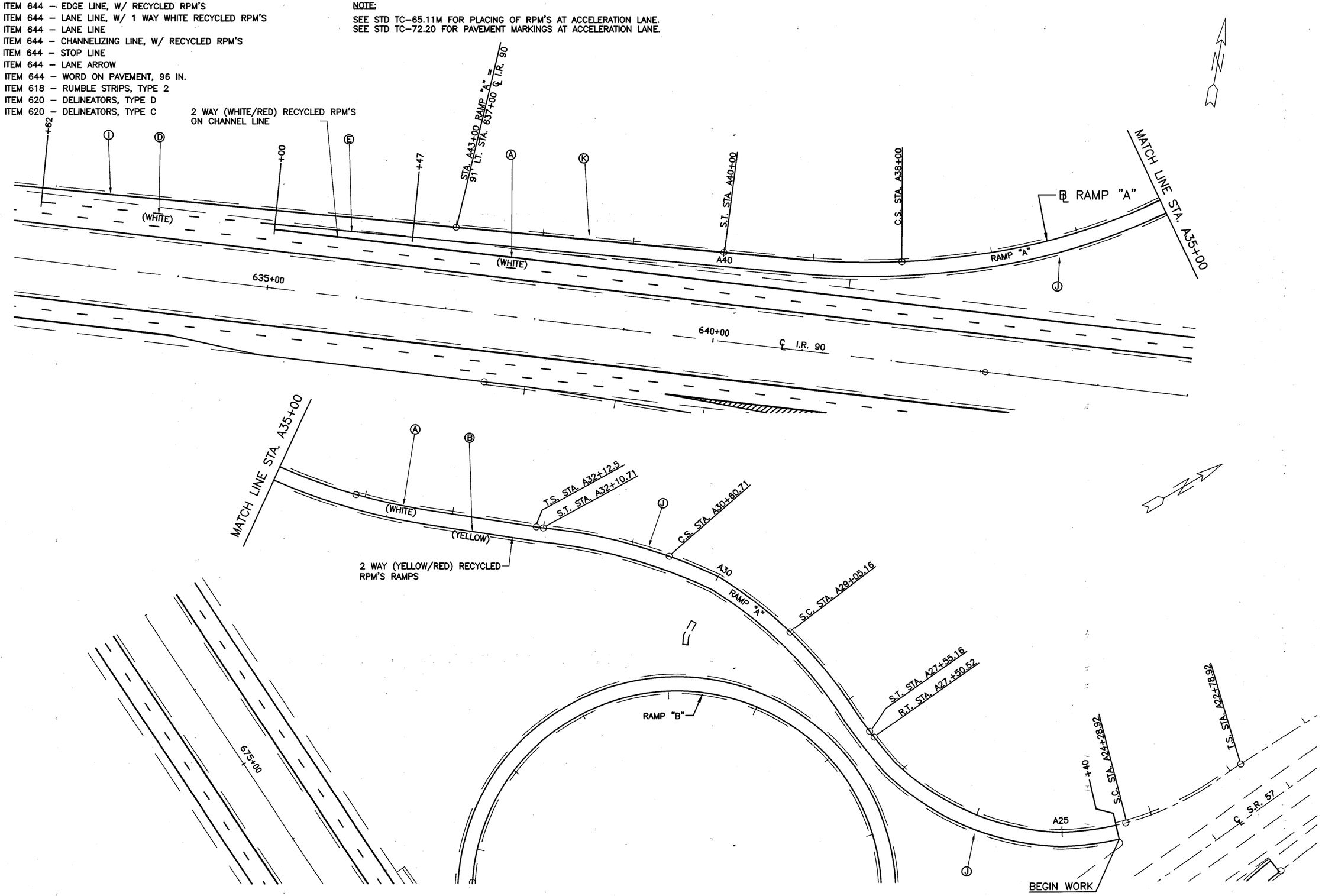
LOR - I90 - 10.76

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT ACCELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT ACCELERATION LANE.



HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

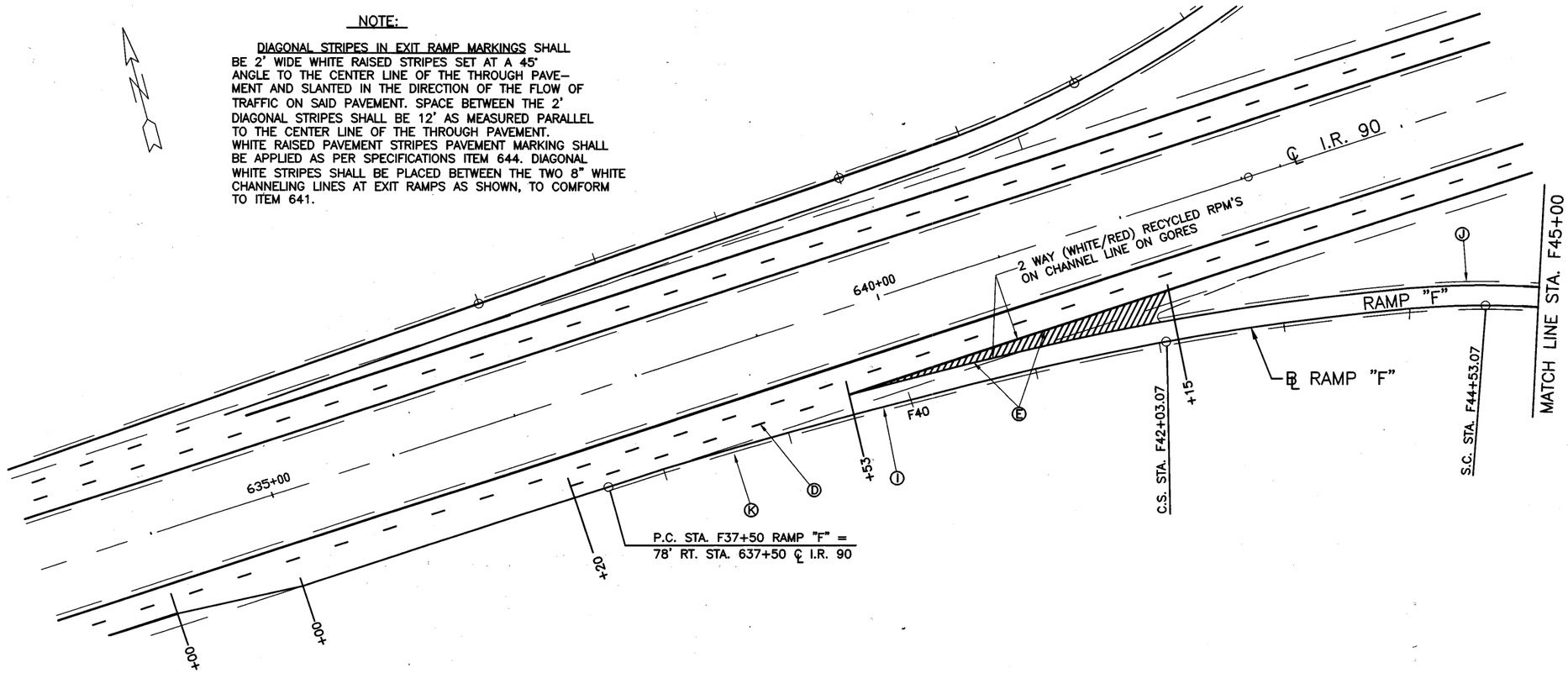
RAMP "A" - S.R. 57 & I.R.90
STA. 21+07.29 TO STA. 43+00

LOR - I90 - 10.76

119
274

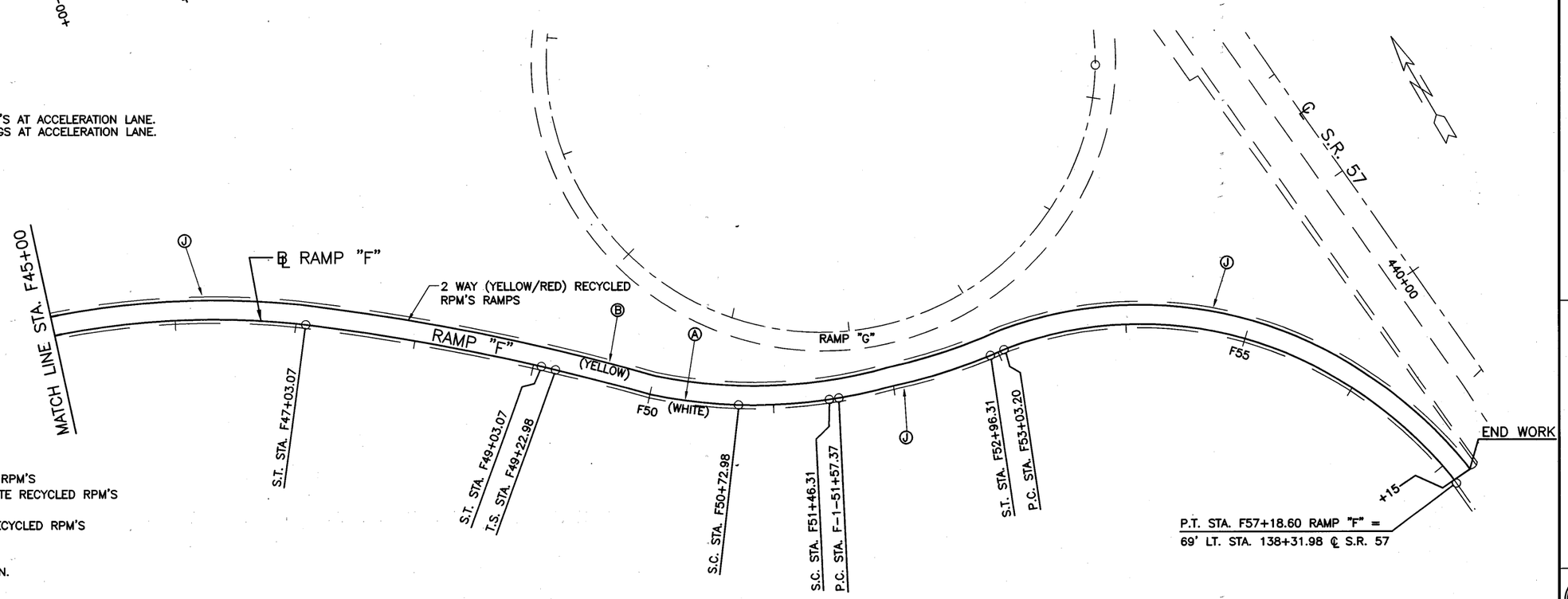
NOTE:

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE RAISED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 12' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. WHITE RAISED PAVEMENT STRIPES PAVEMENT MARKING SHALL BE APPLIED AS PER SPECIFICATIONS ITEM 644. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELING LINES AT EXIT RAMPS AS SHOWN, TO COMFORM TO ITEM 641.



NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT ACCELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT ACCELERATION LANE.



LEGEND

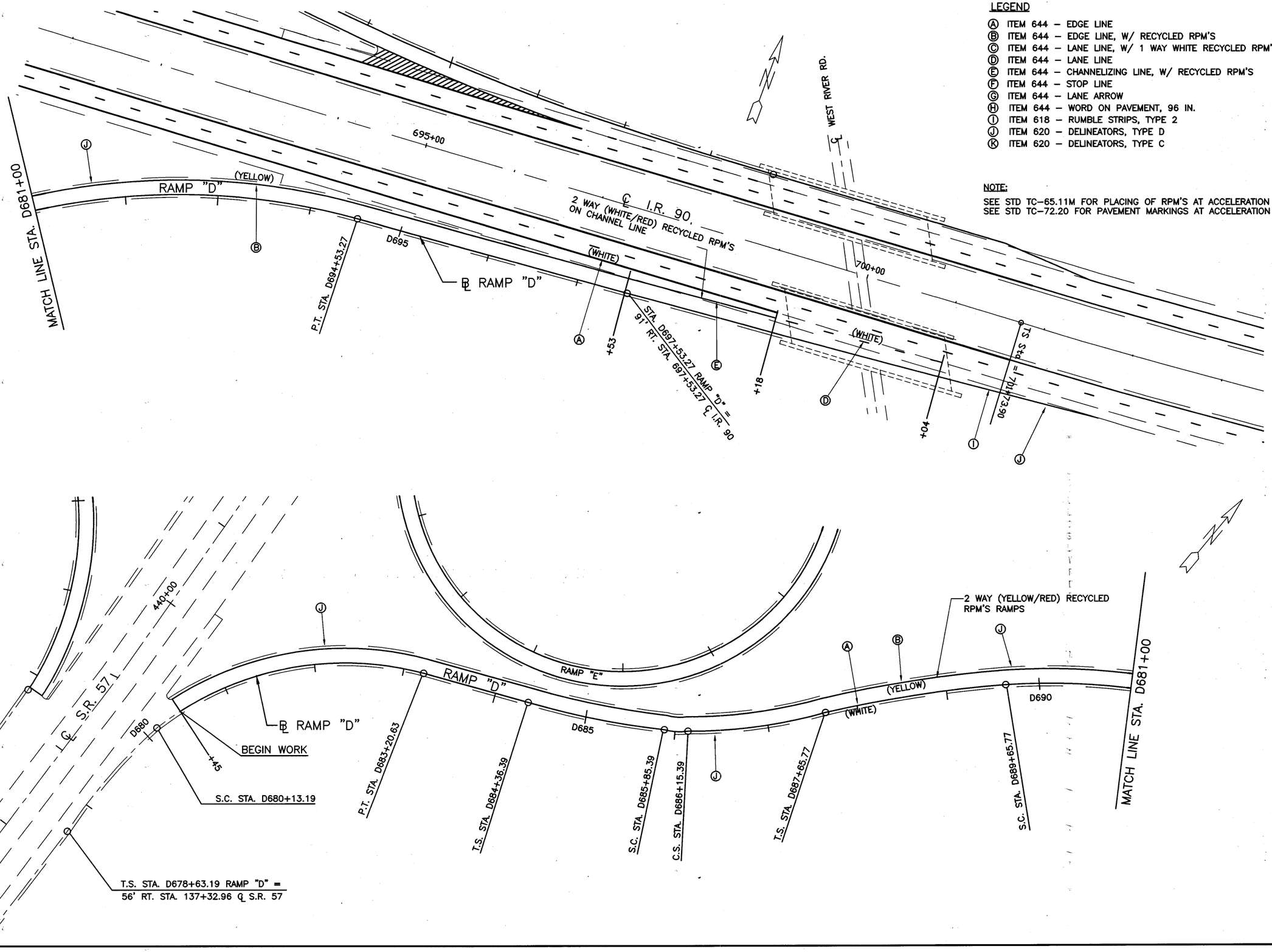
- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS | CHECKED LAB

RAMP "F" - S.R. 57 & I.R.90
STA. 637+50 TO STA. 57+18.60

LOR-I90-10.76

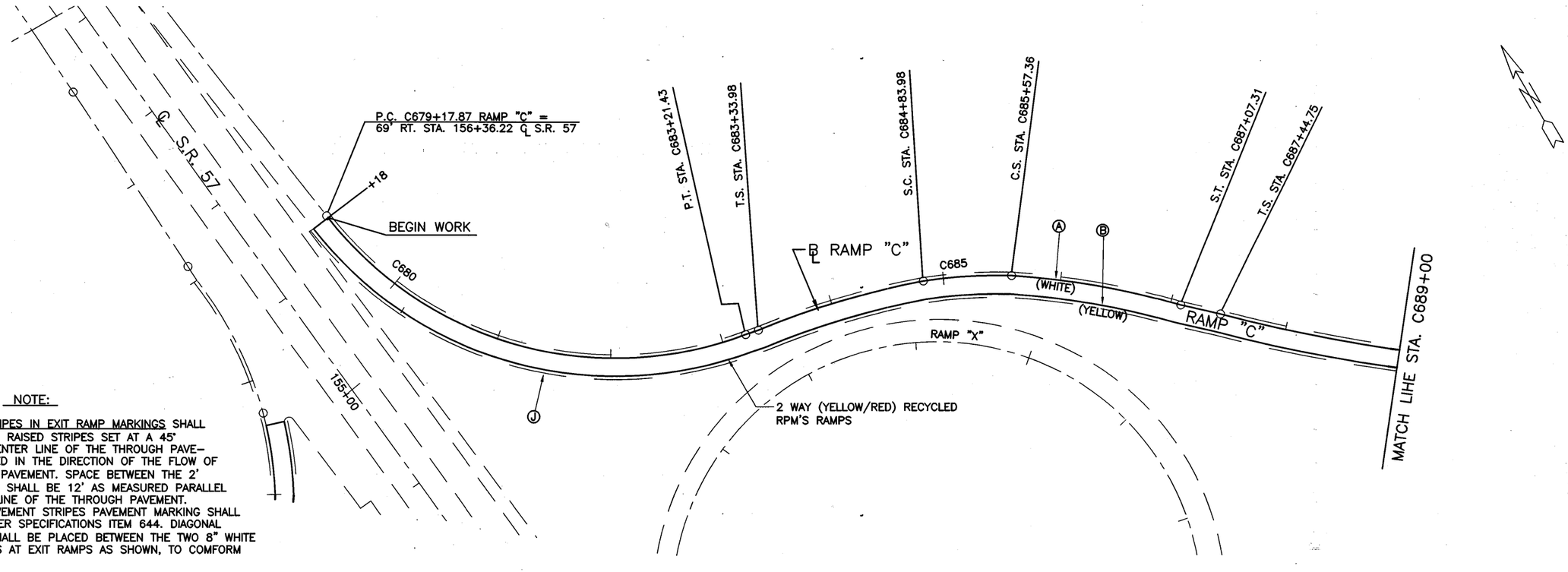


HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED DLS
CHECKED LAB

RAMP "D" - S.R. 57 & I.R.90
STA. 678+63.19 TO STA. 698+53.27

LOR-I90-10.76



NOTE:

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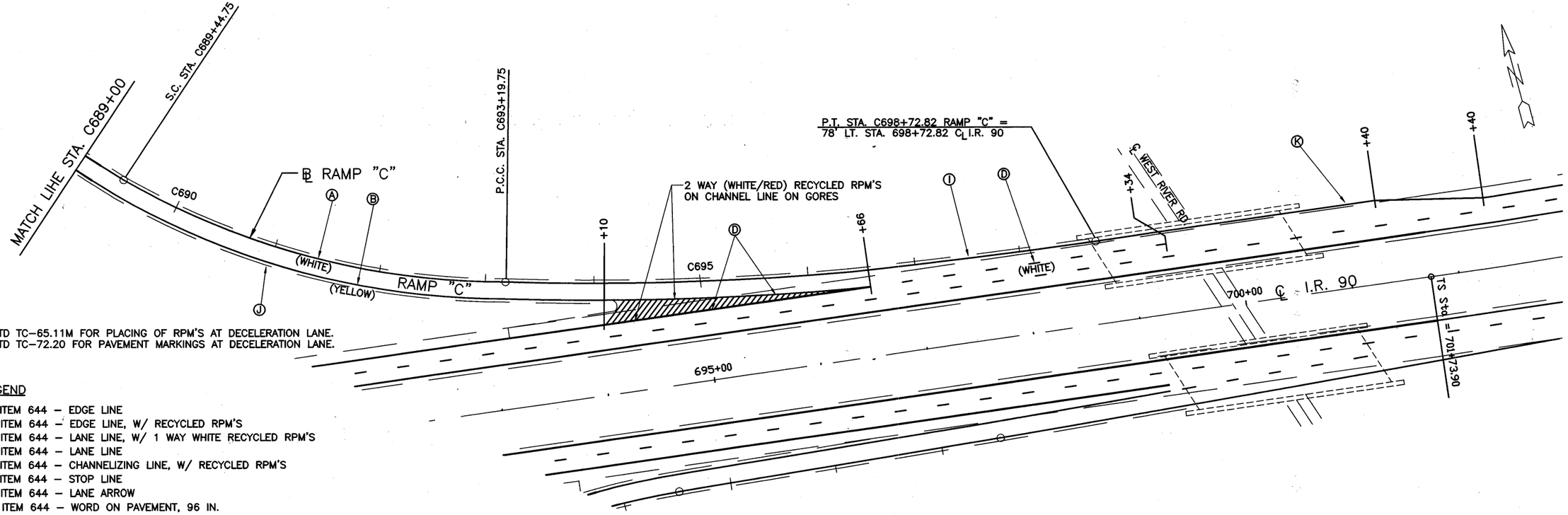


NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT DECELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT DECELERATION LANE.

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

HORIZONTAL SCALE IN FEET
0 50' 100'

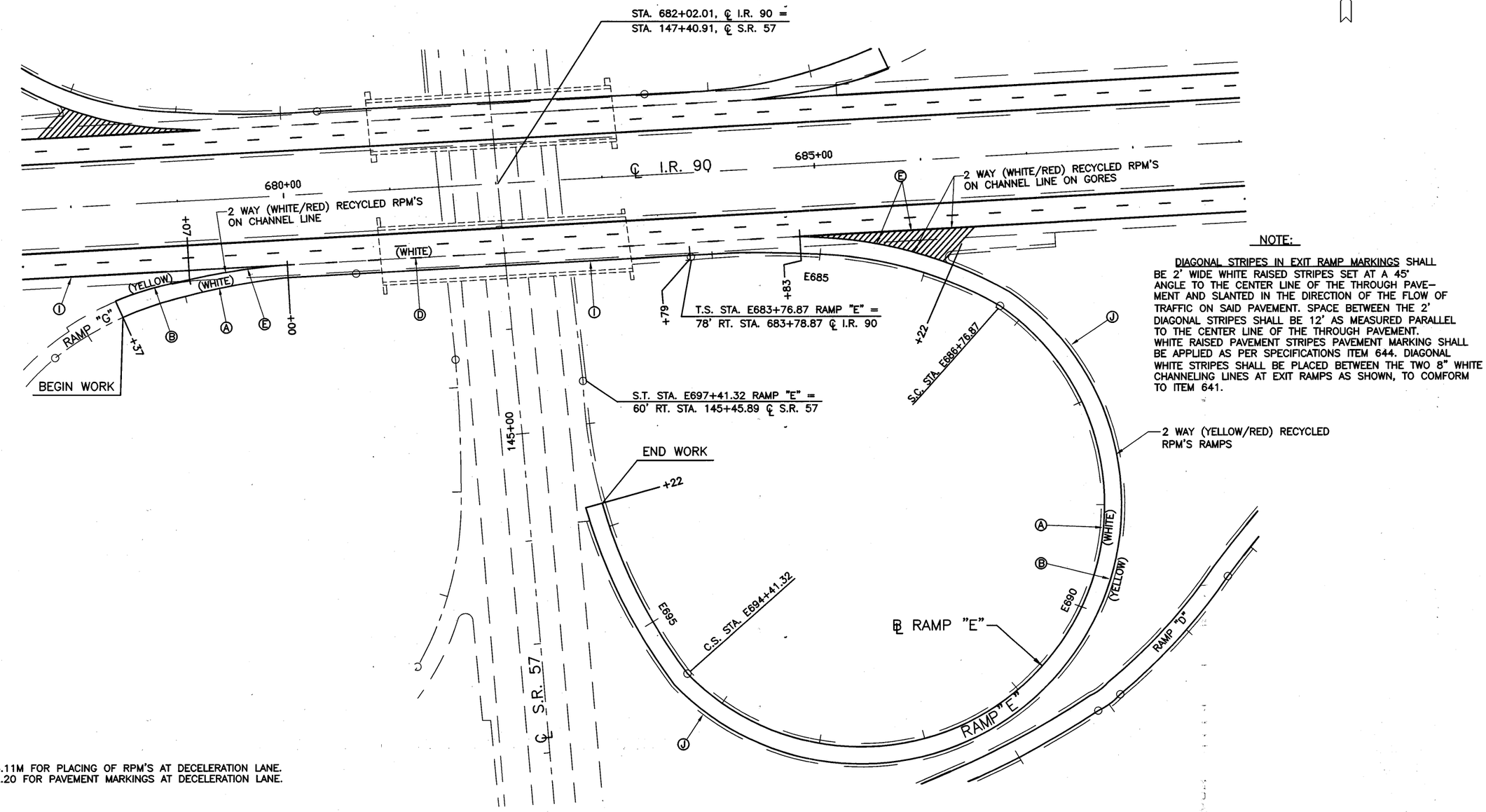
CALCULATED DLS
CHECKED LAB

RAMP "C" - S.R. 57 & I.R.90
STA. 679+17.87 TO STA. 698+72.82

LOR-I90-10.76

122
274

[G:\93600\DWGS\93600PM13.DWG] DLS
07-18-2002 1:44PM



NOTE:

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE RAISED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 12' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. WHITE RAISED PAVEMENT STRIPES PAVEMENT MARKING SHALL BE APPLIED AS PER SPECIFICATIONS ITEM 644. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELING LINES AT EXIT RAMPS AS SHOWN, TO COMFORM TO ITEM 641.

NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT DECELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT DECELERATION LANE.

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

RAMP "E" - S.R. 57 & I.R.90
STA. 683+76.87 TO STA. 697+41.32

LOR-I90-10.76

123
274

[D:\93600\DWGS\93600PN14.DWG] DLS
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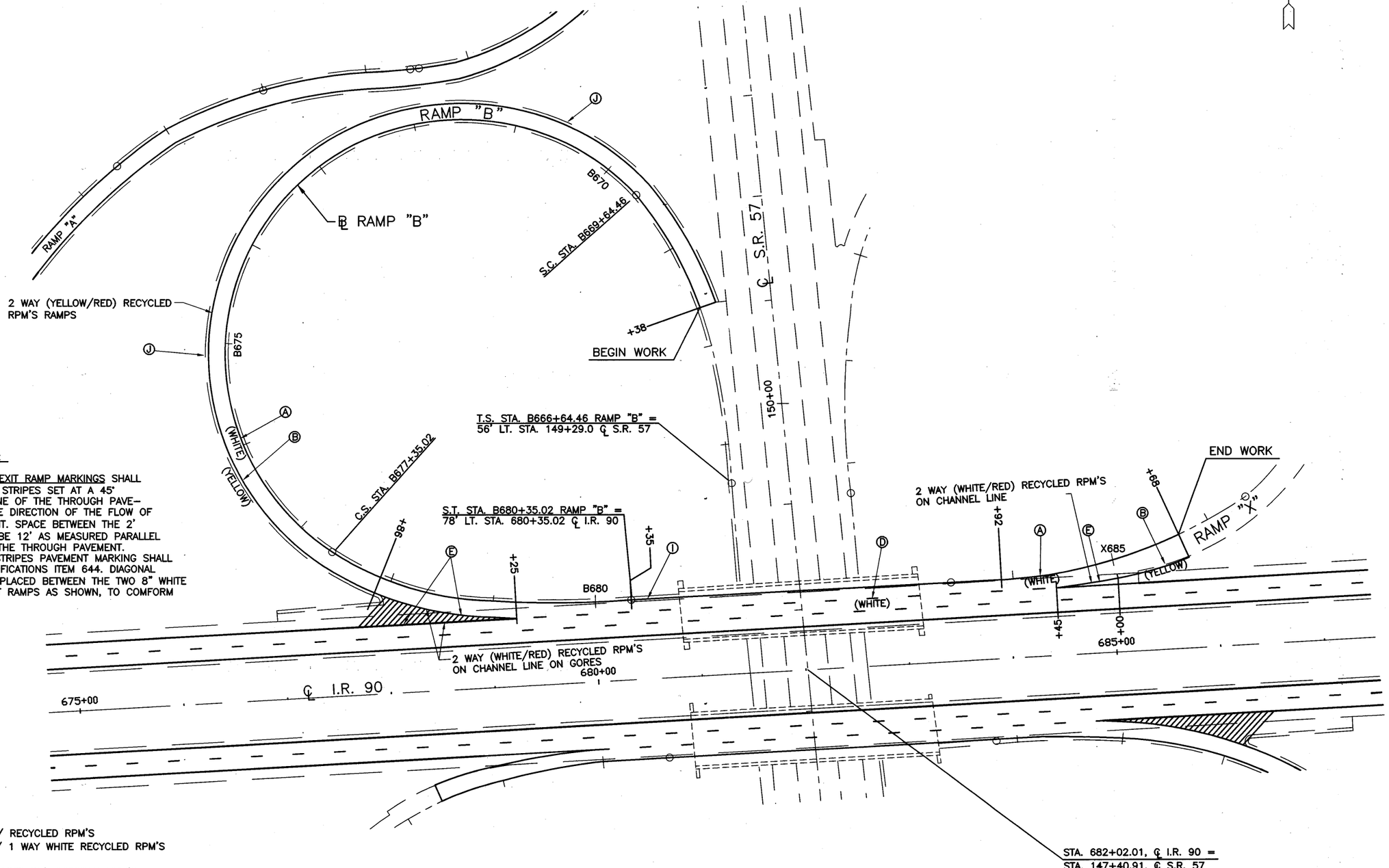

NOTE:

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LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT ACCELERATION LANE.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT ACCELERATION LANE.

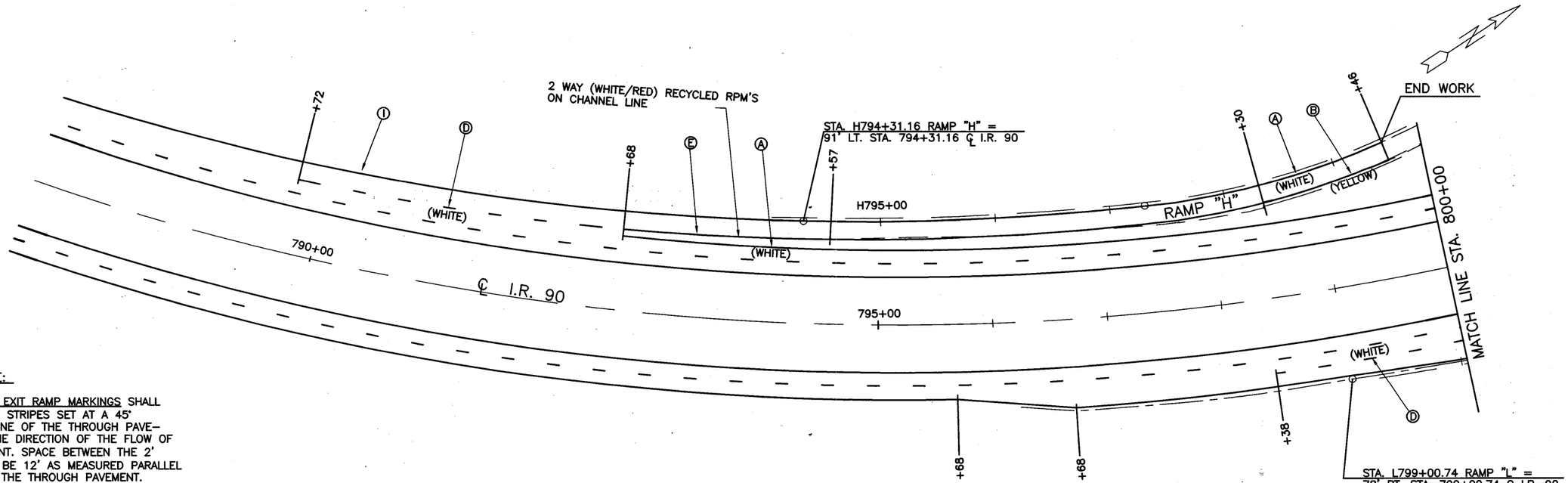
N

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

RAMP "B" - S.R. 57 & I.R. 90
STA. 666+64.46 TO STA. 680+35.02

LOR-I90-10.76



NOTE:

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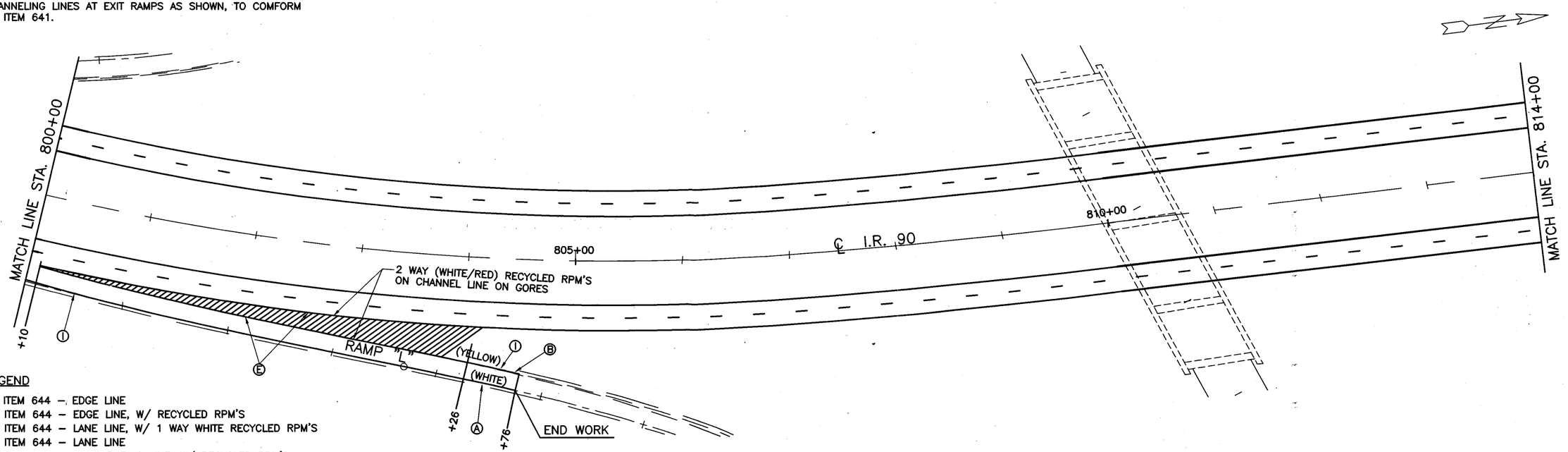

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
- Ⓖ ITEM 644 – LANE ARROW
- Ⓗ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓙ ITEM 620 – DELINEATORS, TYPE D
- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

SEE STD TC-65.11M FOR PLACING OF RPM'S AT ACCELERATION AND DECELERATION LANES.
SEE STD TC-72.20 FOR PAVEMENT MARKINGS AT ACCELERATION AND DECELERATION LANES.

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN RAMPS "L" & "H" - I90 & S.R.254
STA. 788+00 TO STA. 814+00

LOR-I90-10.76

125
274

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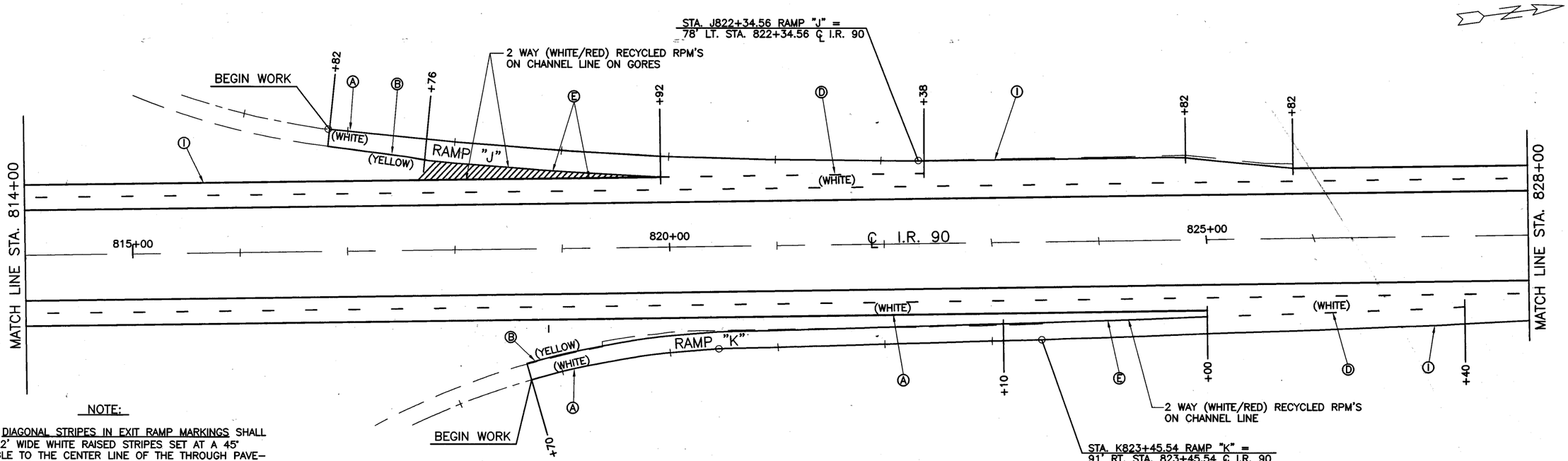
07-18-2002 7:51AM



NOTE:

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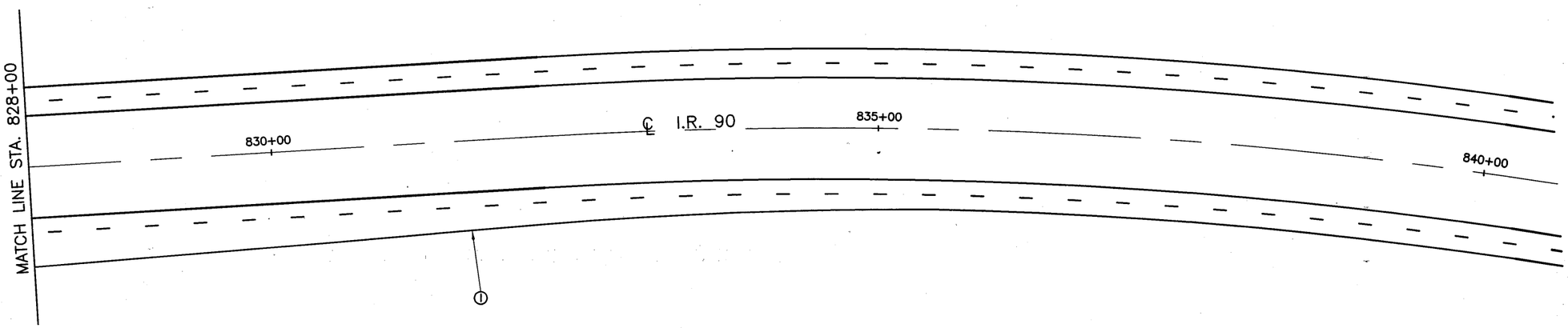

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RECYCLED RPM'S
- Ⓒ ITEM 644 – LANE LINE, W/ 1 WAY WHITE RECYCLED RPM'S
- Ⓓ ITEM 644 – LANE LINE
- Ⓔ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓕ ITEM 644 – STOP LINE
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- Ⓘ ITEM 618 – RUMBLE STRIPS, TYPE 2
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- Ⓚ ITEM 620 – DELINEATORS, TYPE C

NOTE:

SEE STD TC–65.11M FOR PLACING OF RPM'S AT ACCELERATION AND DECELERATION LANES.
SEE STD TC–72.20 FOR PAVEMENT MARKINGS AT ACCELERATION AND DECELERATION LANES.

HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN RAMPS "J" & "K" - I90 & S.R.254
STA. 814+00 TO STA. 840+00

LOR-I90-10.76

126
274

[O:\93600\DWGS\93600PM16.DWG] LAB
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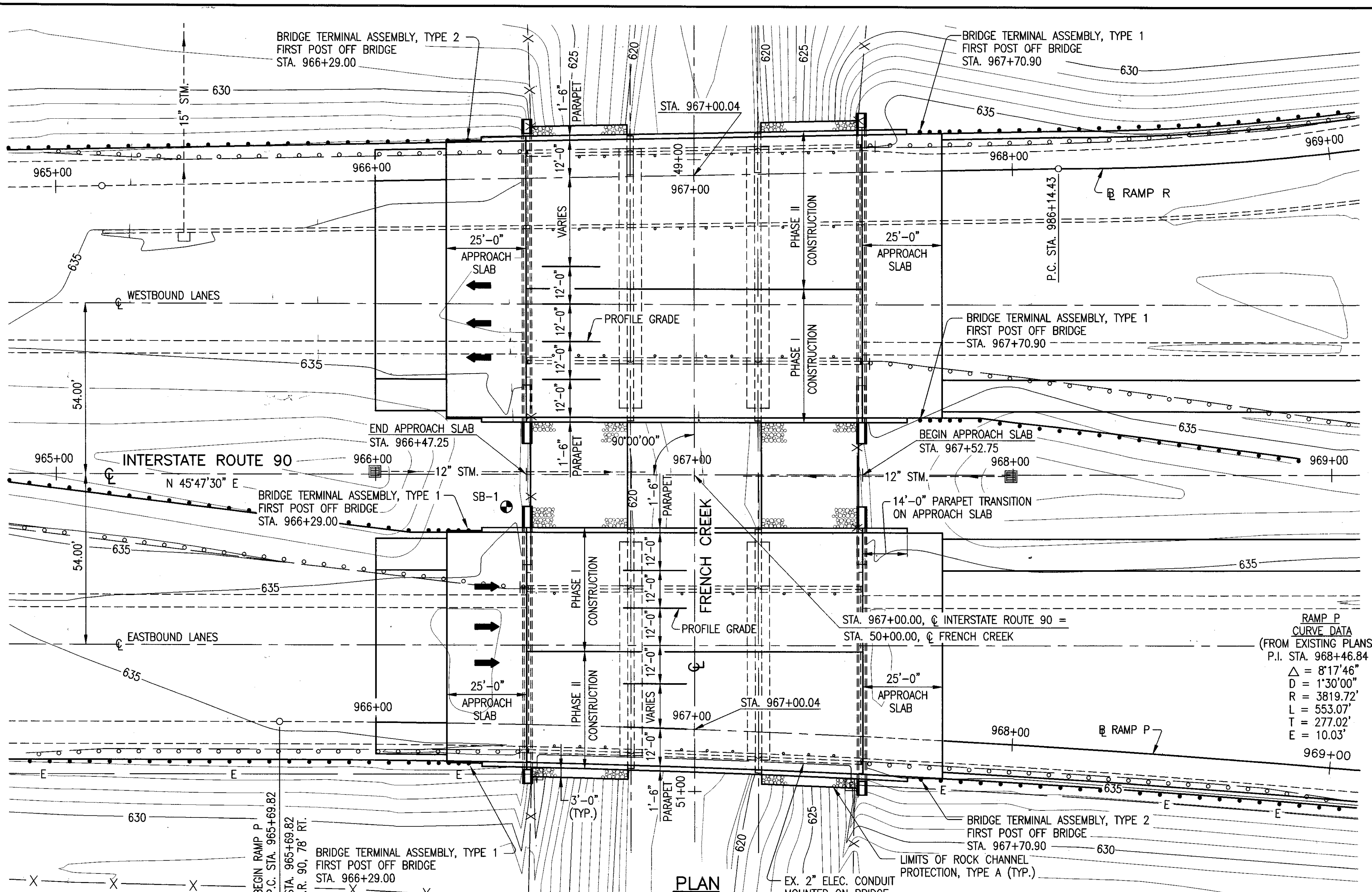

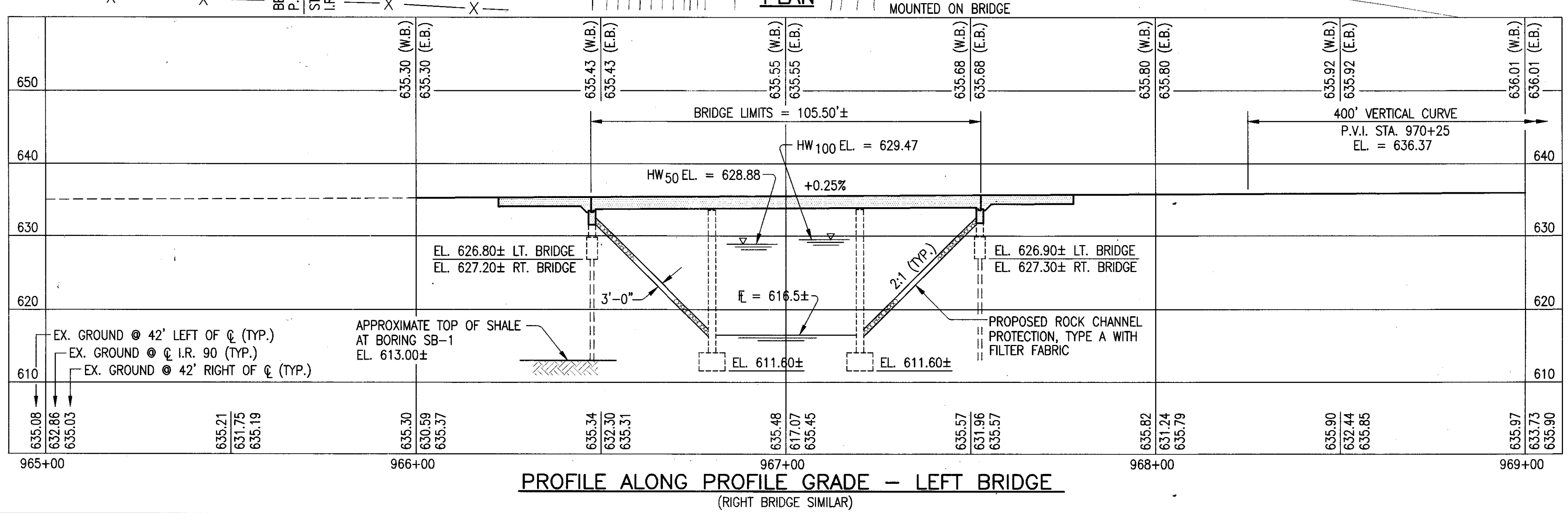

PROFILE ALONG PROFILE GRADE – LEFT BRIDGE
(RIGHT BRIDGE SIMILAR)

BENCHMARK No. 1
LORI90 18.44 1997 – DISC IN CONCRETE MONUMENT STA. 974+00, LEFT ELEV. = 635.103

BENCHMARK No. 2
LORI90 18.68 1996 – STA. 974+70, 150' RIGHT – HEADWALL ELEV. = 625.005

TRAFFIC DATA
INTERSTATE ROUTE 90
CURRENT YEAR A.D.T. (2001) = 50,210
DESIGN YEAR A.D.T. (2021) = 72,640
CURRENT YEAR A.D.T.T. (2001) = 8,787
DESIGN YEAR A.D.T.T. (2021) = 12,712

HYDRAULIC DATA	
EXISTING WATERWAY OPENING: 1142 SQ. FT.	
PROPOSED WATERWAY OPENING: 1142 SQ. FT.	
Q_{50} = 5187 CFS	Q_{100} = 5642 CFS
V_{50} = 10.48 FPS	V_{100} = 10.75 FPS
HW_{50} = 628.88	HW_{100} = 629.47

EXISTING STRUCTURE
TYPE: 3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB ON REINFORCED CONCRETE SUBSTRUCTURE
SPANS: 32'-0"±, 40'-0"±, 32'-0"± c/c SLAB BEARINGS
ROADWAY: VARIES LEFT BRIDGE – 65.80'± TO 68.00'± FACE TO FACE PARAPETS, RIGHT BRIDGE – 50.80'± TO 54.40'± FACE TO FACE PARAPETS
LOADING: CF2000 (57)
SKEW: NONE
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-54 (25'-0" LONG)
ALIGNMENT: TANGENT
YEAR BUILT: 1970
STRUCTURE FILE NO. 4704959(L), 4704983 (R)

PROPOSED STRUCTURE
PROPOSED WORK: REPLACE AND WIDEN NEW DECK ON WIDENED MODIFIED SUBSTRUCTURE
TYPE: 3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB ON REINFORCED CONCRETE SUBSTRUCTURE
SPANS: 32'-0"±, 40'-0"±, 32'-0"± c/c SLAB BEARINGS
ROADWAY: VARIES LEFT BRIDGE – 87.65' TO 89.90' FACE TO FACE PARAPETS, RIGHT BRIDGE – 72.58' TO 76.21' FACE TO FACE PARAPETS
LOADING: HS25 OR THE ALTERNATE MILITARY LOADING
SKEW: NONE
WEARING SURFACE: 1" MONOLITHIC CONCRETE
ALIGNMENT: TANGENT
CROWN: 3/16"/FT.
LONGITUDE: 82° 03.44'
LATITUDE: 41° 27.68'

FOUNDATION DATA:

PILE DESIGN LOADS (ULTIMATE BEARING VALUE): THE ULTIMATE BEARING VALUE IS 57 TONS PER PILE FOR THE ABUTMENT PILES.

ABUTMENT PILES:

8 PILES 16 FEET LONG, REAR ABUTMENT, ESTIMATED LENGTH
8 PILES 16 FEET LONG, FORWARD ABUTMENT, ESTIMATED LENGTH
16 PILES OF ORDER LENGTH 16 FEET LONG
0 SPLICES

FOUNDATION BEARING PRESSURE: PIER FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 2.0 TONS PER SQUARE FOOT.

NOTES:

1.) THE PROPOSED PROFILE GRADE IS ONLY WITHIN BRIDGE LIMITS. SEE ROADWAY PLANS FOR PAVEMENT ELEVATIONS BEYOND BRIDGE LIMITS.
2.) EARTHWORK LIMITS ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

DESIGN AGENCY: R.E. WARNER & ASSOCIATES, INC. CONSULTING ENGINEERS — JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RAK		4704959(L) 4704983 (R)	

LORAIN COUNTY
STA. 966+47.25
STA. 967+52.75

SITE PLAN
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

O:\93600\BRIDGE\DWGS\LO090SP1.DWG

GENERAL NOTES – STRUCTURES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:
AS-1-91 DATED 4/20/01
CPA-5-94 DATED 4/20/01
CPP-2-94 DATED 4/20/01
CS-1-93 DATED 6/30/95
IRJ-8-95 DATED 7/6/95
PCB-91 DATED 7/6/99
SBR-1-99 DATED 1/12/99

AND TO SUPPLEMENTAL SPECIFICATIONS:
SS-842 DATED 1/6/99
SS-843 DATED 5/5/98
SS-844 DATED 1/6/99
SS-864 DATED 7/11/00
SS-899 DATED 10/21/98

DESIGN SPECIFICATIONS:

THE EXISTING PORTIONS OF THIS STRUCTURE CONFORM TO THE REQUIREMENTS OF "DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES" OF THE OHIO DEPARTMENT OF HIGHWAYS, DATED 9/1/57.

THE NEW WIDENED PORTIONS OF THE STRUCTURE CONFORM TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS" (AASHTO), 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATION AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

EXISTING SUBSTRUCTURE: CF2000 (57)
PROPOSED SUBSTRUCTURE AND SUPERSTRUCTURE: HS25 OR THE ALTERNATE MILITARY LOADING

DESIGN DATA:

CONCRETE CLASS S – COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS C – COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
REINFORCING STEEL – ASTM A615, A616 OR A617, GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL, 2 ½" CONCRETE COVER AND SEALING OF CONCRETE SURFACES.

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PORTIONS OF STRUCTURES REMOVED, AS PER PLAN:

THIS WORK SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLAN AND GENERAL NOTES AND ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. HYDRAULIC HOE-RAM TYPE HAMMERS MAY BE USED FOR REMOVAL OF THE DECK SLAB, PROVIDED THAT SUBSTRUCTURE ELEMENTS ARE SAW CUT FULL WIDTH PRIOR TO DECK REMOVAL, AND THE HAMMERS ARE NOT PLACED IN DIRECT CONTACT WITH ANY SUBSTRUCTURE ELEMENTS THAT ARE TO BE RETAINED IN THE PROPOSED STRUCTURE.

CUT LINE CONSTRUCTION JOINT PREPARATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVAL 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 AND FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACES SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

SUBSTRUCTURE CONCRETE REMOVAL:

ANY TYPE OF CONCRETE REMOVAL AFFECTING THE SUBSTRUCTURE ELEMENTS SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, 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.

PILE DRIVING CONSTRAINTS:

PRIOR TO DRIVING PILES, THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 MATERIAL PLACED IN 6 INCH LIFTS.

PILES TO BEDROCK:

PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL INCHES WITH A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS. THE CONTRACTOR IS RESPONSIBLE FOR SELECTING THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE ULTIMATE BEARING VALUE IS 57 TONS PER PILE FOR THE ABUTMENT PILES.

ABUTMENT PILES:

8 PILES 16 FEET LONG, REAR ABUTMENT, ESTIMATED LENGTH
8 PILES 16 FEET LONG, FORWARD ABUTMENT, ESTIMATED LENGTH
16 PILES OF ORDER LENGTH 16 FEET LONG
0 SPLICES

ITEM 507, STEEL POINTS, AS PER PLAN:

STEEL PILE POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED STEEL "H" PILING. THE STEEL POINTS SHALL BE FURNISHED BY ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BLVD., CLIFTON, NEW JERSEY 07014; INTERNATIONAL CONSTRUCTION EQUIPMENT, INC., 301 WAREHOUSE DRIVE, MATTHEWS, NORTH CAROLINA 28015; DOUGHERTY FOUNDATION PRODUCTS, INC., P.O. BOX 688, FRANKLIN LAKES, NEW JERSEY 07417; VERSA STEEL INC., 3601 NW YEON AVE., P.O. BOX 10559, PORTLAND, OREGON 97210; PILING ACCESSORIES, INC., 3467 GRIBBLE ROAD, MATHEWS, NORTH CAROLINA 28105; OR BY A MANUFACTURER THAT CAN FURNISH A STEEL POINT THAT IS ACCEPTABLE TO DIRECTOR. THE MATERIAL USED FOR THE MANUFACTURING OF PILE POINTS SHALL CONFORM TO ASTM A27/A27M 65/35 [450/240] – CLASS 2 – HEAT TREATED OR AASHTO M103/M103M 65/35 [450/240] – HEAT TREATED. WELDING OF THE PILE POINTS TO THE PILE SHALL BE IN ACCORDANCE WITH AWS D1.5 OR THE MANUFACTURER'S WRITTEN WELDING PROCEDURE SUPPLIED THE ENGINEER BEFORE THE WELDING IS PERFORMED. A NOTARIZED COPY OF THE MILL TEST REPORT SHALL BE SUBMITTED TO THE ENGINEER.

FOUNDATION BEARING PRESSURE:

PIER FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 2 TONS PER SQUARE FOOT.

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.

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 WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

SEALING OF CONCRETE SURFACES:

ALL EXPOSED CONCRETE SURFACES ON THE SUPERSTRUCTURE, ABUTMENTS AND WINGWALLS SHALL BE SEALED WITH AN EPOXY-URETHANE SEALER MEETING SPECIFICATION 864 TO THE LIMITS SHOWN ON THE PLANS.

ITEM SPECIAL, DOWEL HOLES:

THIS ITEM SHALL INCLUDE THE DRILLING OR FORMING OF HOLES INTO CONCRETE OR MASONRY AND THE FURNISHING AND PLACING OF GROUT INTO HOLES. NON-SHRINK EPOXY GROUT SHALL BE USED IN ACCORDANCE WITH CMS 510 AND CMS 705.20. DEPTH OF HOLES SHALL BE AS SHOWN IN PLANS.

ITEM 518, POROUS BACKFILL WITH FILTER FABRIC:
THE MATERIAL SHALL BE NO. 57 GRAVEL.

CONCRETE PARAPETS:

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 1 1/4" DEEP CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK. THE SAWCUTS SHALL BE PLACED AT A MINIMUM OF 6 FEET AND A MAXIMUM OF 10 FEET CENTERS. THE USE OF AN EDGE GUIDE, FENCE, OR JIG IS REQUIRED TO INSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E TO A MINIMUM DEPTH OF 1 INCH. THE BOTTOM ½ INCH OF THE INSIDE AND OUTSIDE FACE SHOULD BE LEFT UNSEALED TO ALLOW WATER TO ESCAPE.

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300
7965 KING JAMES ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
KK	KK	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RAK		4704959(L) 4704983(R)	

GENERAL NOTES
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

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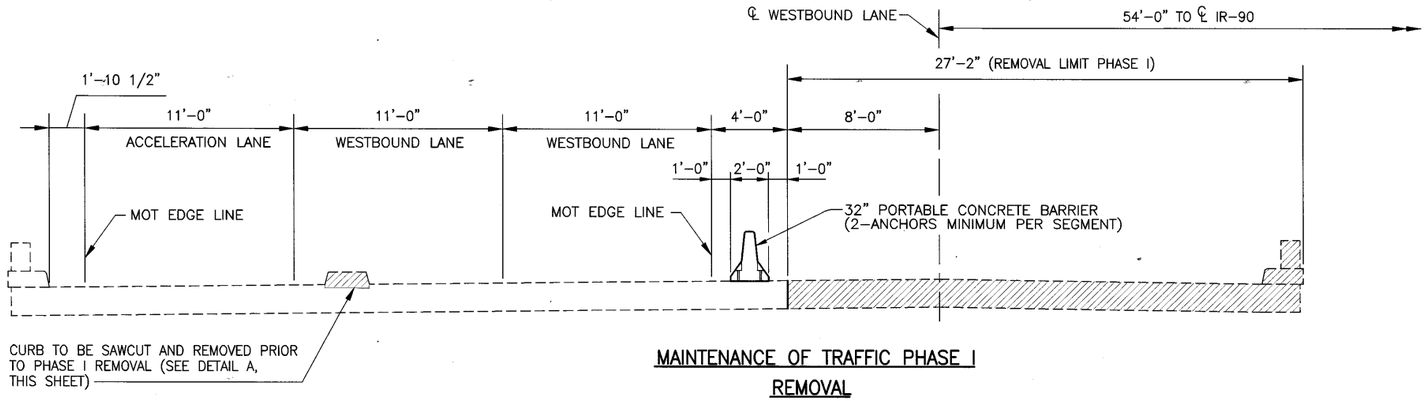
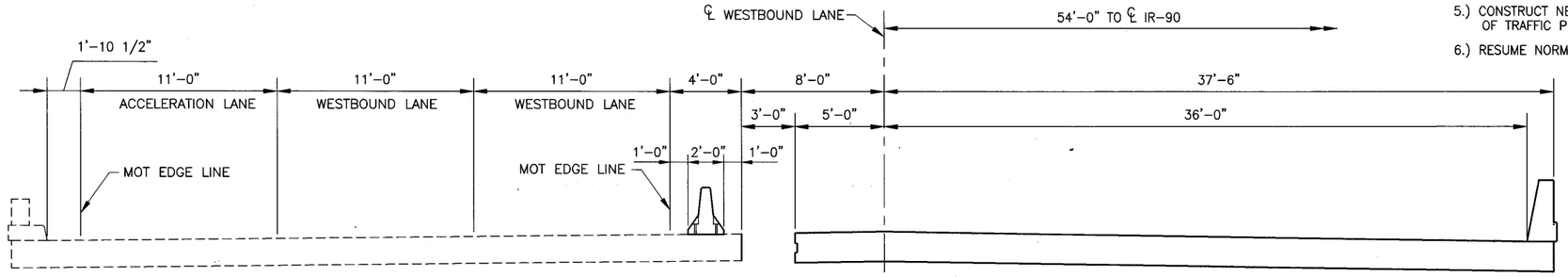


MAINTENANCE OF TRAFFIC PHASE I
REMOVAL



MAINTENANCE OF TRAFFIC PHASE I
CONSTRUCTION

SUGGESTED CONSTRUCTION SEQUENCE

PHASE I

1.) INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON PLANS.

2.) DIRECT WESTBOUND TRAFFIC TOWARD NORTHERLY PORTION OF THE BRIDGE

3.) REMOVE EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE I – REMOVAL.

4.) CONSTRUCT NEW PORTION OF ABUTMENT AND PIERS.

5.) CONSTRUCT NEW DECK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE I – CONSTRUCTION.

PHASE II

1.) INSTALL PORTABLE CONCRETE BARRIER ON THE NEWLY CONSTRUCTED WORK.

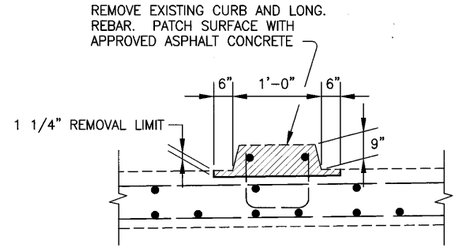
2.) DIRECT TRAFFIC TO THE SOUTHERLY PORTION OF THE BRIDGE.

3.) REMOVE EXISTING PORTABLE CONCRETE BARRIER AND REMAINING DECK TO THE LIMITS SHOWN IN MAINTENANCE OF TRAFFIC PHASE II – REMOVAL.

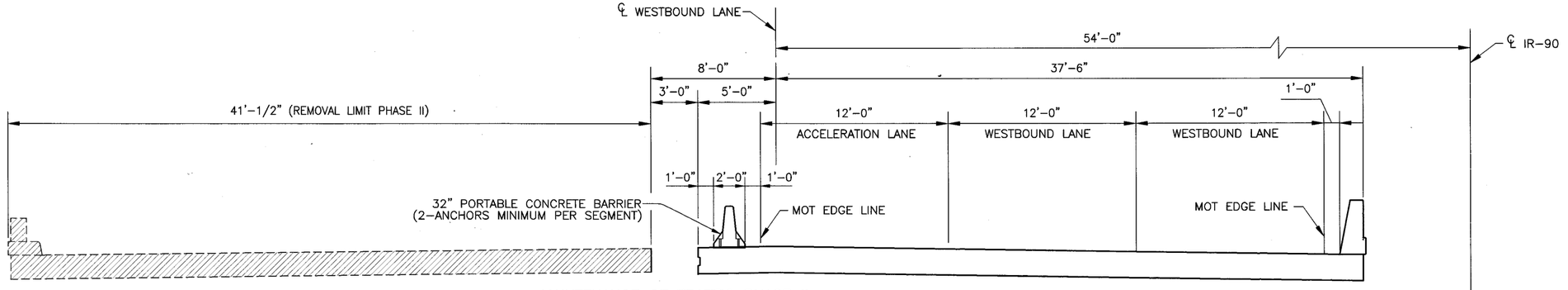
4.) CONSTRUCT NEW PORTION OF ABUTMENT AND PIERS.

5.) CONSTRUCT NEW DECK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE II – CONSTRUCTION.

6.) RESUME NORMAL TRAFFIC.



DETAIL A



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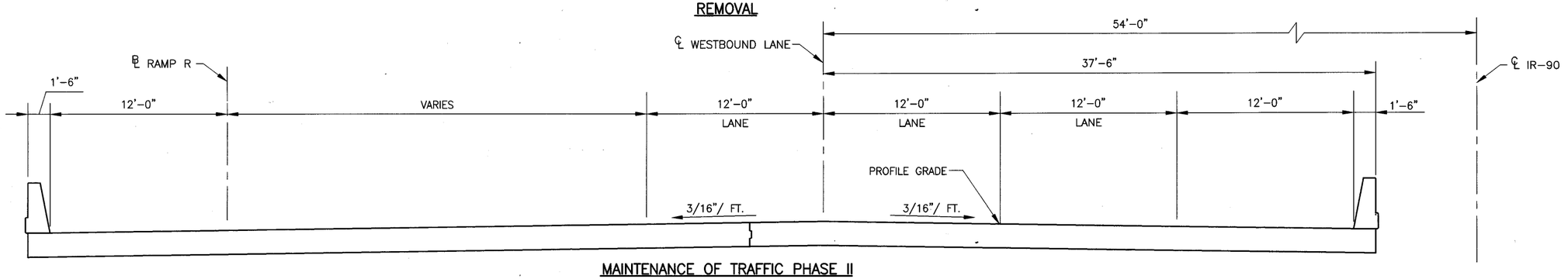
REMOVAL



MAINTENANCE OF TRAFFIC PHASE II
CONSTRUCTION

O:\93600\BRIDGE\DWGS\L0090PC1.DWG

DESIGN AGENCY
RDR MARVIN & ASSOCIATES, INC.
CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300
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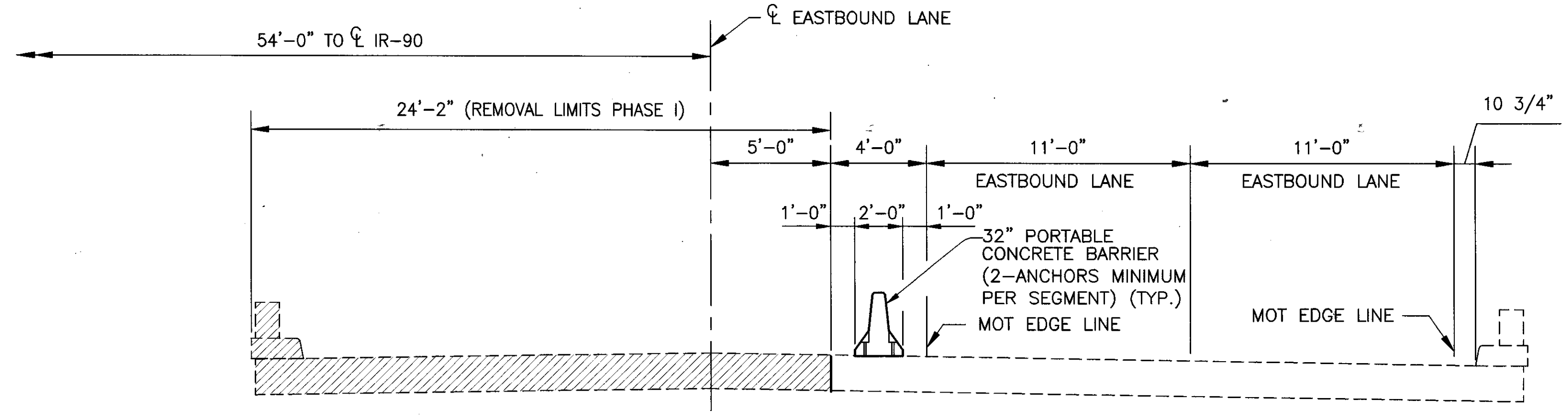
TELEPHONE (440) 835-9400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	NFF	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		4704959(L) 4704983(R)	

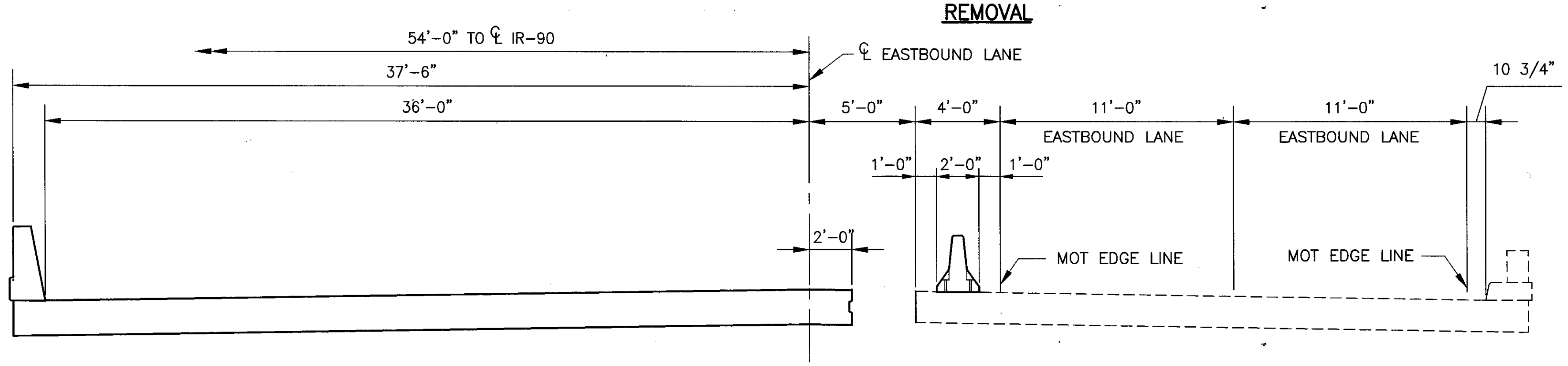
PHASE CONSTRUCTION DETAILS – LEFT BRIDGE

BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76



MAINTENANCE OF TRAFFIC PHASE I
REMOVAL



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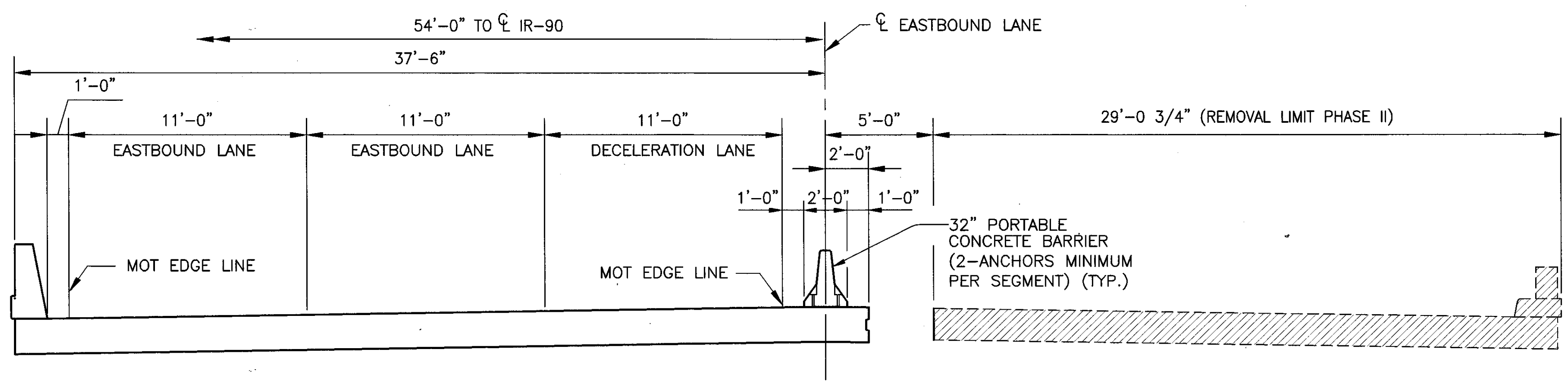

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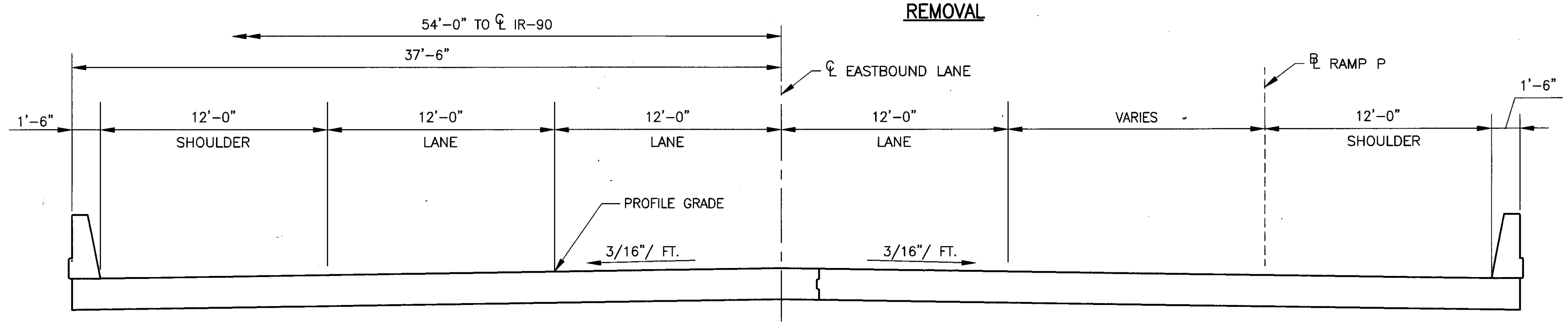
REMOVAL



MAINTENANCE OF TRAFFIC PHASE II
CONSTRUCTION

SUGGESTED CONSTRUCTION SEQUENCE

PHASE I

1.) INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON PLANS.
2.) DIRECT EASTBOUND TRAFFIC TOWARD SOUTHERLY PORTION OF THE BRIDGE
3.) REMOVE EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE I – REMOVAL.
4.) CONSTRUCT NEW PORTION OF ABUTMENT AND PIERS.
5.) CONSTRUCT NEW DECK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE I – CONSTRUCTION.

PHASE II

1.) INSTALL PORTABLE CONCRETE BARRIER ON THE NEWLY CONSTRUCTED WORK.
2.) DIRECT TRAFFIC TO THE NORTHERLY PORTION OF THE BRIDGE.
3.) REMOVE EXISTING PORTABLE CONCRETE BARRIER AND REMAINING DECK TO THE LIMITS SHOWN IN MAINTENANCE OF TRAFFIC PHASE II – REMOVAL.
4.) CONSTRUCT NEW PORTION OF ABUTMENT AND PIERS.
5.) CONSTRUCT NEW DECK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE II – CONSTRUCTION.
6.) RESUME NORMAL TRAFFIC.

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
JOB NUMBER 93600

DESIGNED NFF	DRAWN NFF	REVIEWED RAK	DATE 4/30/01
CHECKED KK	REVISED	STRUCTURE FILE NUMBER 4704959(L) 4704983(R)	

PHASE CONSTRUCTION DETAILS-RIGHT BRIDGE

BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

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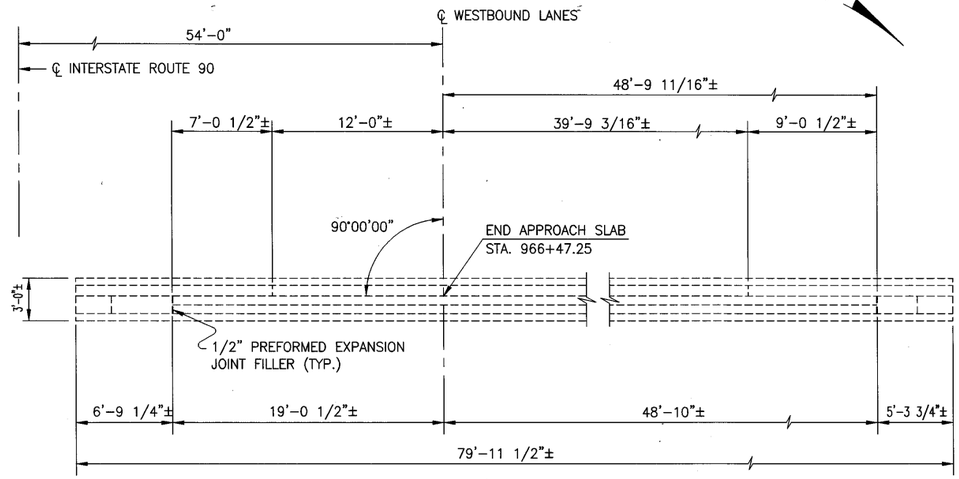
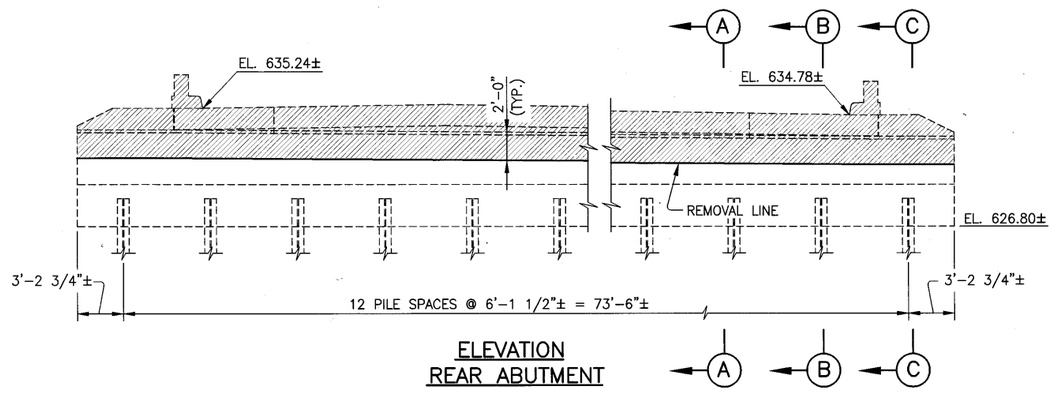
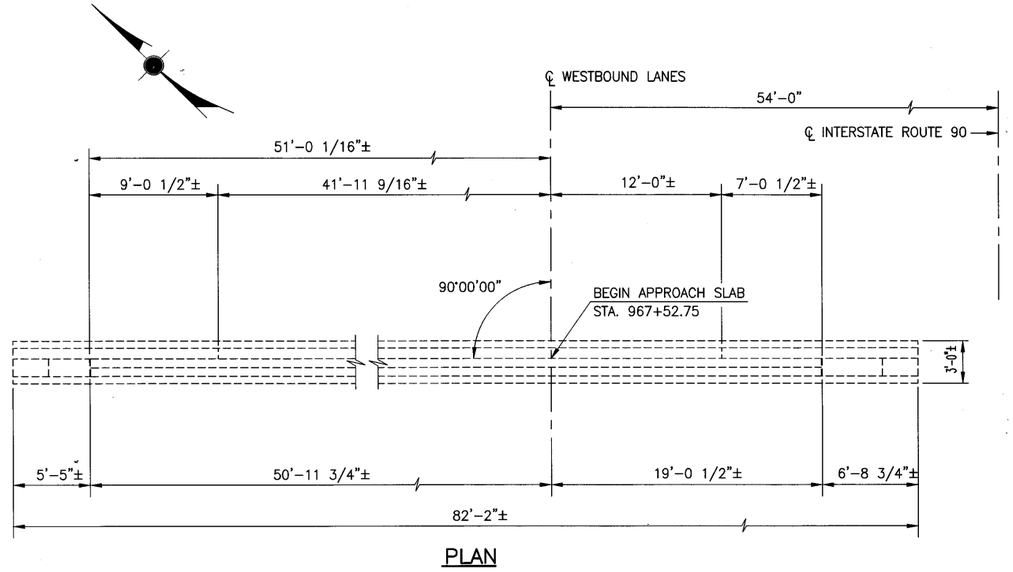


PLAN



ELEVATION
REAR ABUTMENT



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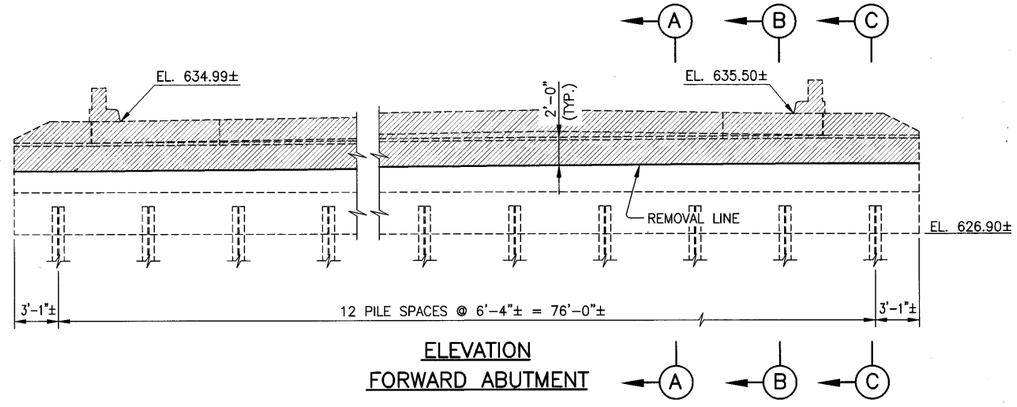

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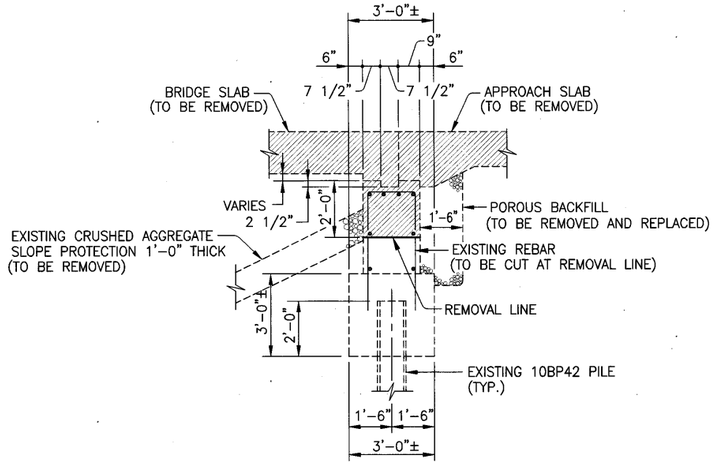
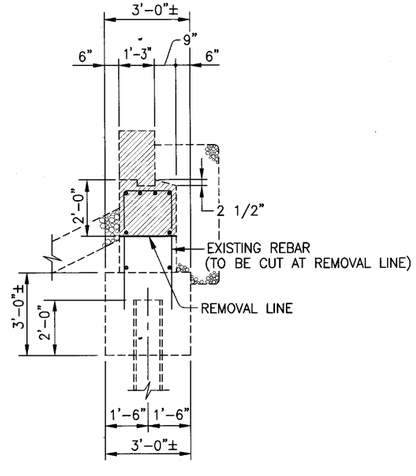


SECTION A–A



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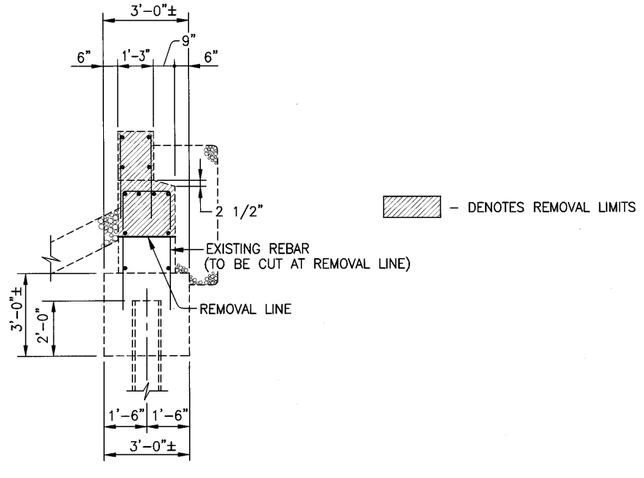

SECTION C–C

DESIGN AGENCY
R.P. MARINUCCI & ASSOCIATES, INC.
24800 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-8400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAC	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		4704956(L) 4704963(R)	

ABUTMENT REMOVAL DETAILS – LEFT BRIDGE

BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR–90–10.76

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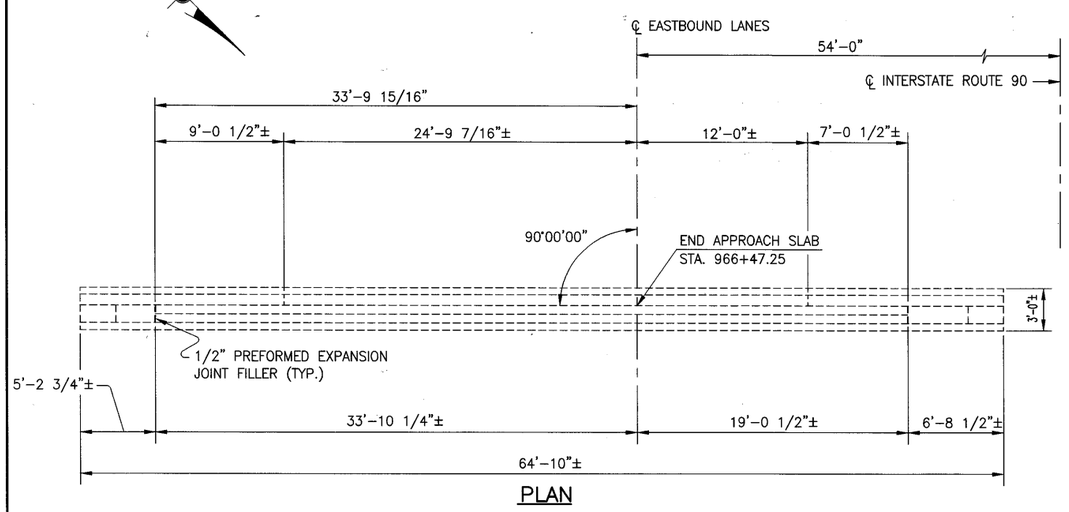

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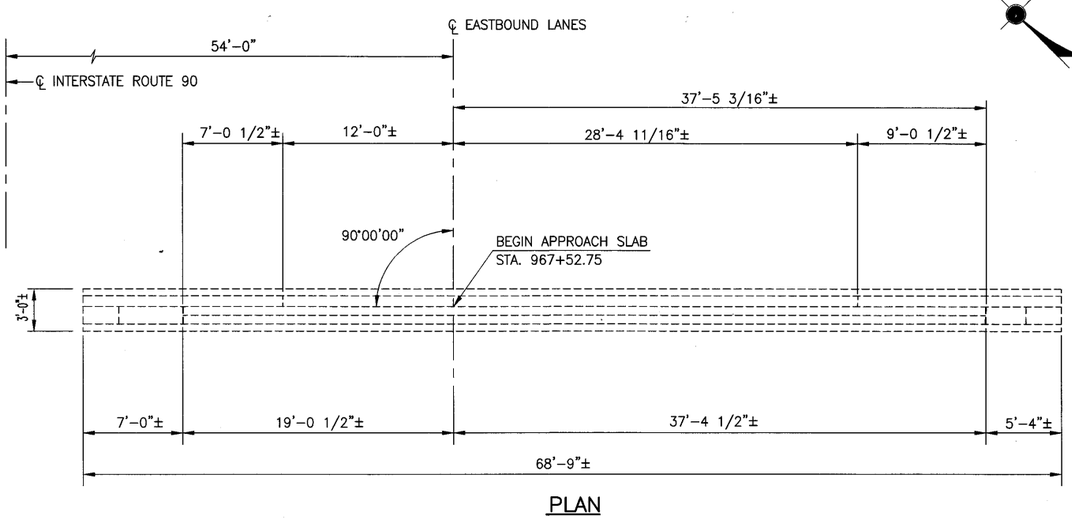

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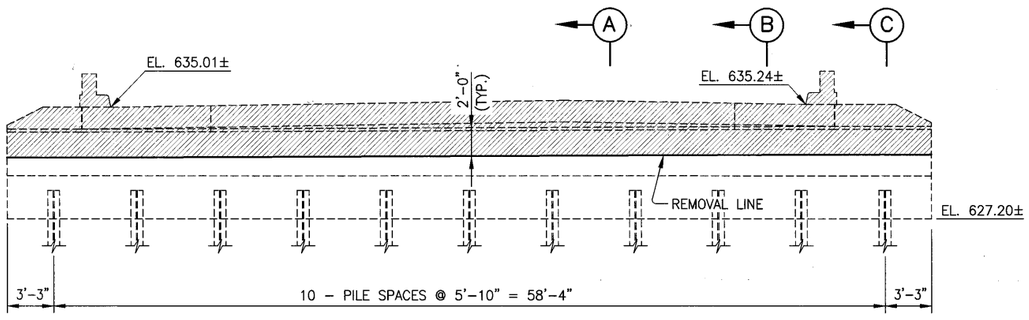
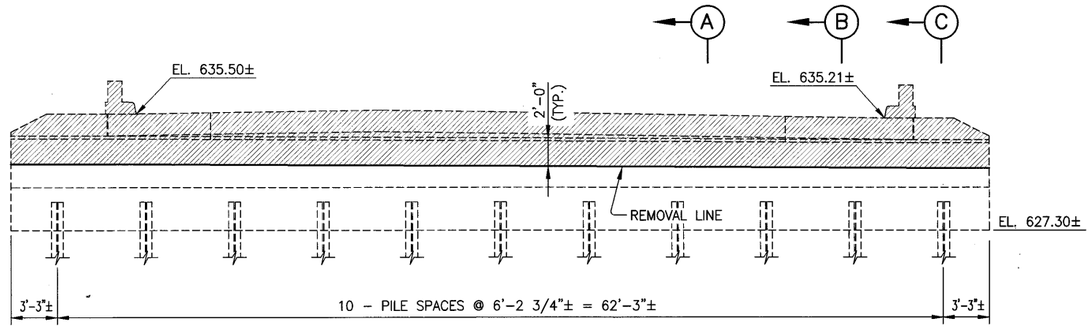
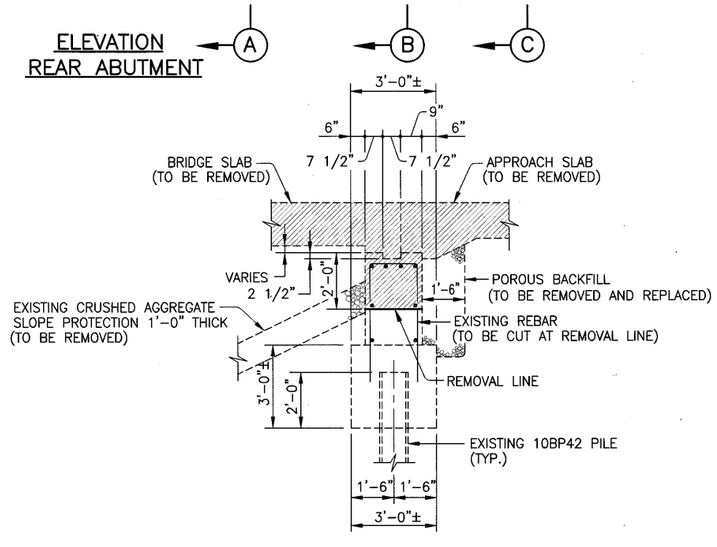
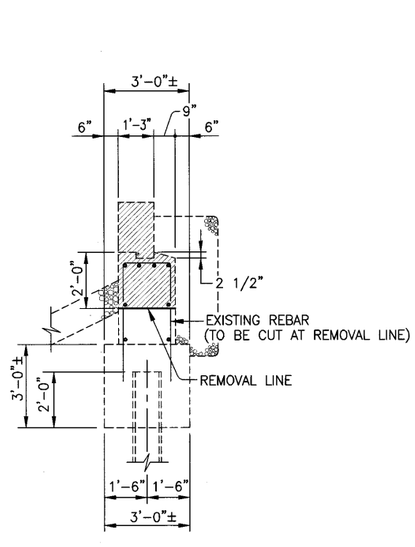




ELEVATION
REAR ABUTMENT

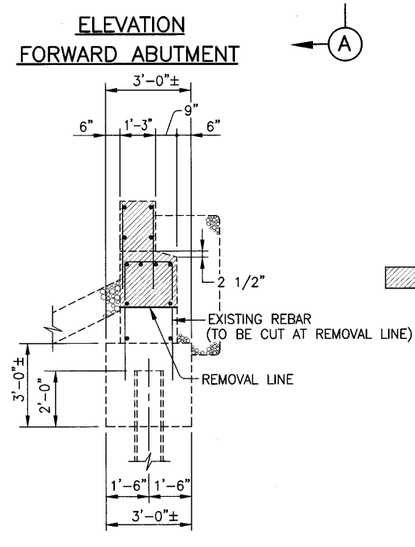


SECTION A–A



SECTION B–B

ELEVATION
FORWARD ABUTMENT



SECTION C–C

– DENOTES REMOVAL LIMITS

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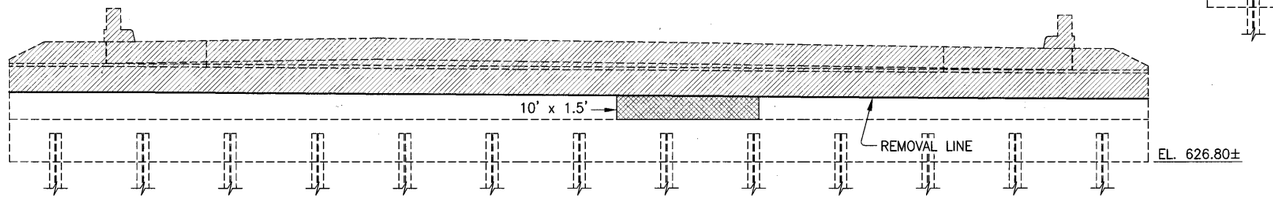
DESIGN AGENCY
THREE KING JAMES PARK, SUITE 300
2400 CORPORATE DRIVE
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		4704959(L) 4704983(R)	

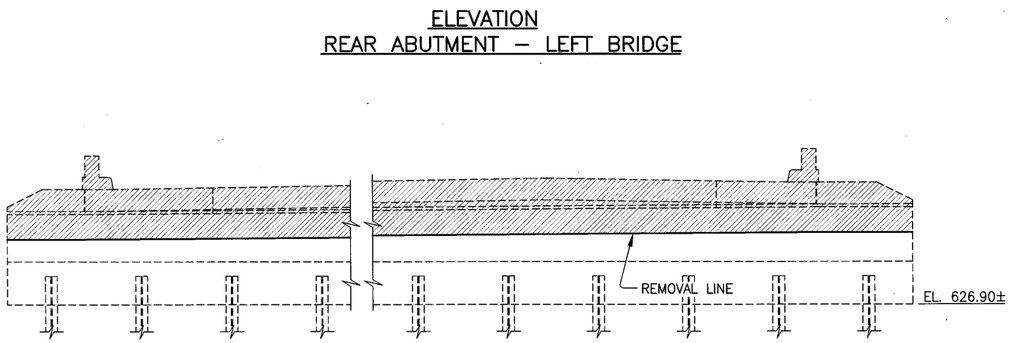
ABUTMENT REMOVAL DETAILS – RIGHT BRIDGE

BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

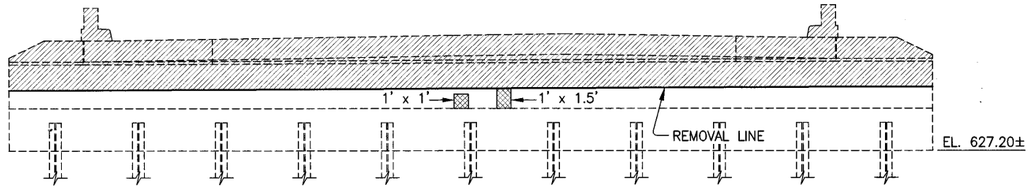
LOR–90–10.76



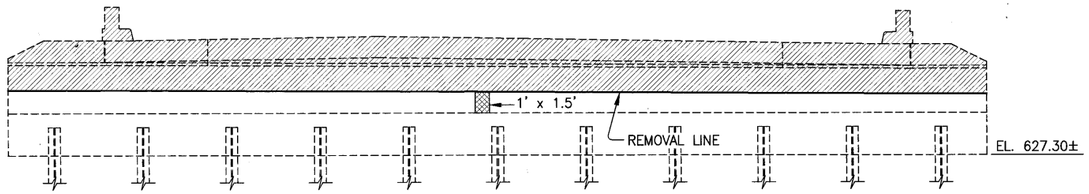
ELEVATION
REAR ABUTMENT – LEFT BRIDGE



ELEVATION
FORWARD ABUTMENT – LEFT BRIDGE



ELEVATION
REAR ABUTMENT – RIGHT BRIDGE



ELEVATION
FORWARD ABUTMENT – RIGHT BRIDGE

– DENOTES REMOVAL LIMITS

– ITEM 843 – PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR

0:\93600\BRIDGE\DWGS\L0090MD3.DWG

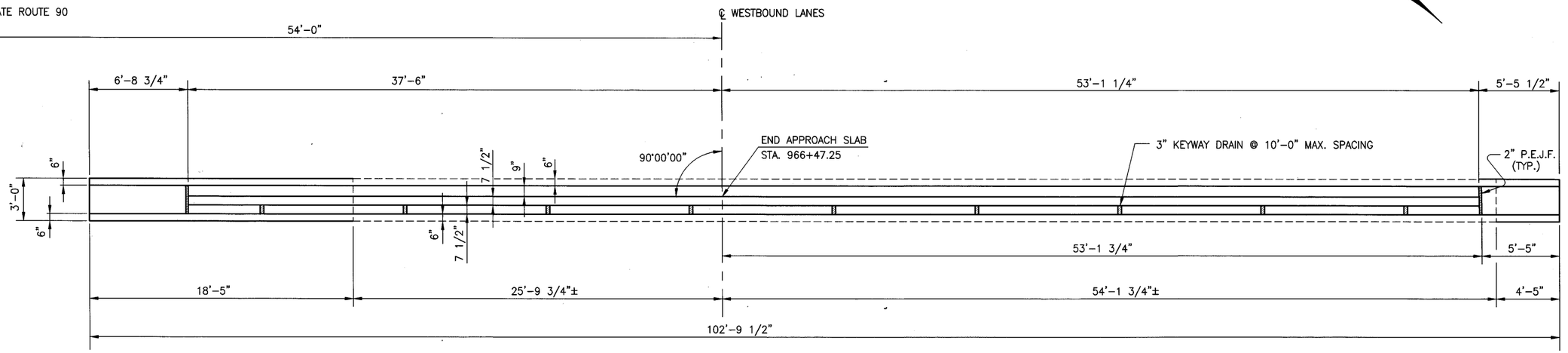
DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		470493(L) 470493(R)	

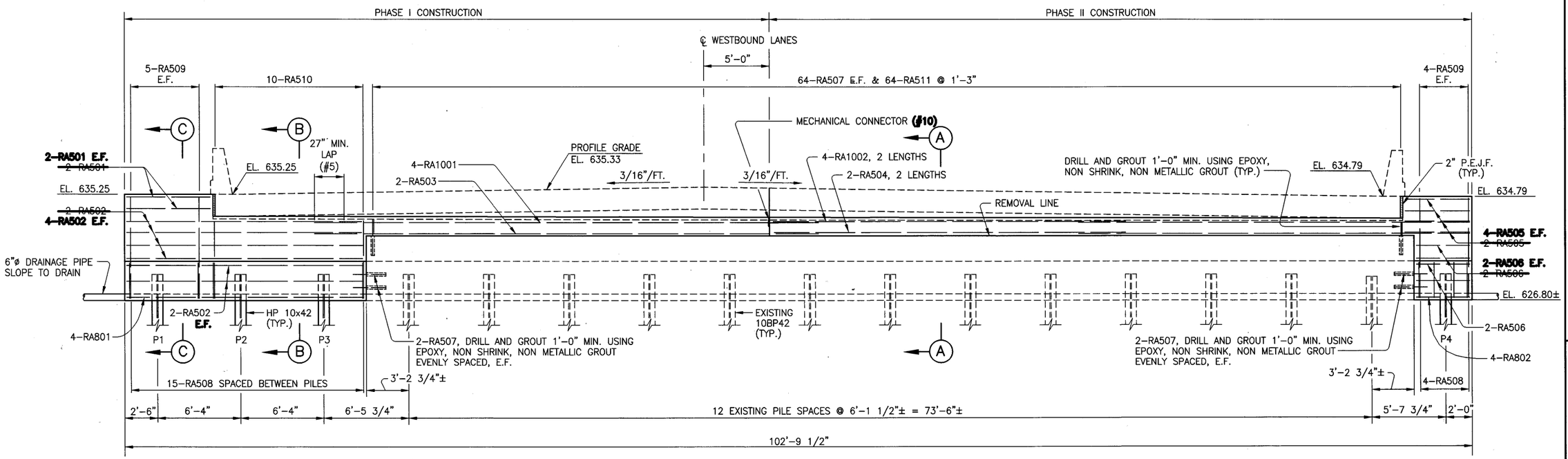
ABUTMENT PATCHING DETAILS

BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76



PLAN



ELEVATION

NOTES:

1.) FOR SECTIONS A–A, B–B AND C–C, SEE SHEET 12/24

DESIGN AGENCY
THREE KING JAMES PARK - SUITE 300
25825 SCIENCE PARK DRIVE
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-8400
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RWK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK	KK	4704959(L) 4704983(R)	

REAR ABUTMENT – LEFT BRIDGE

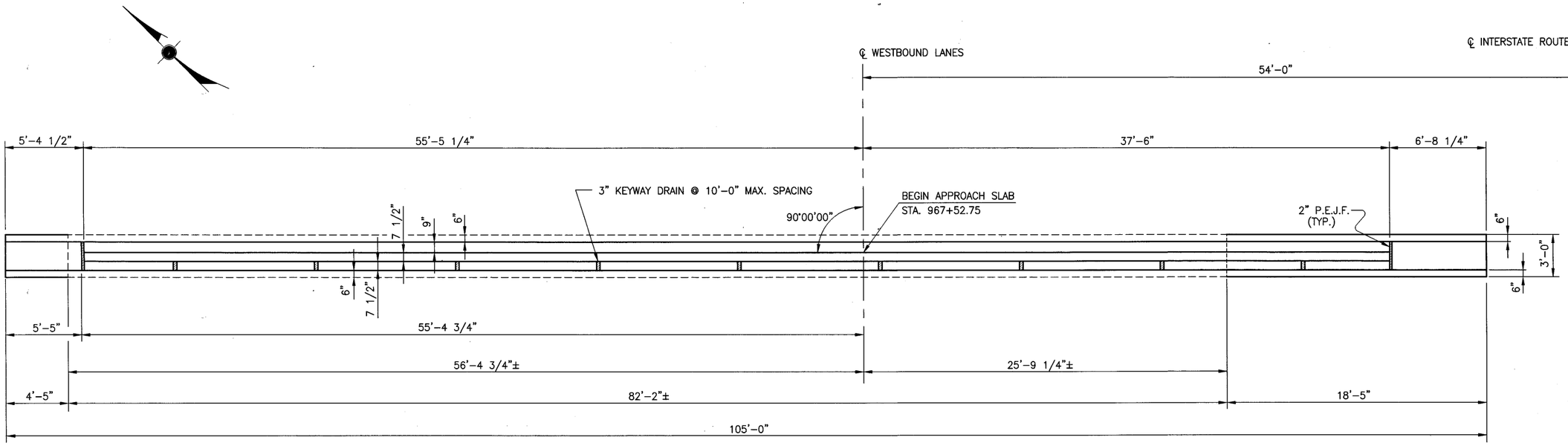
BRIDGE No. LOR–90–1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR–90–10.76

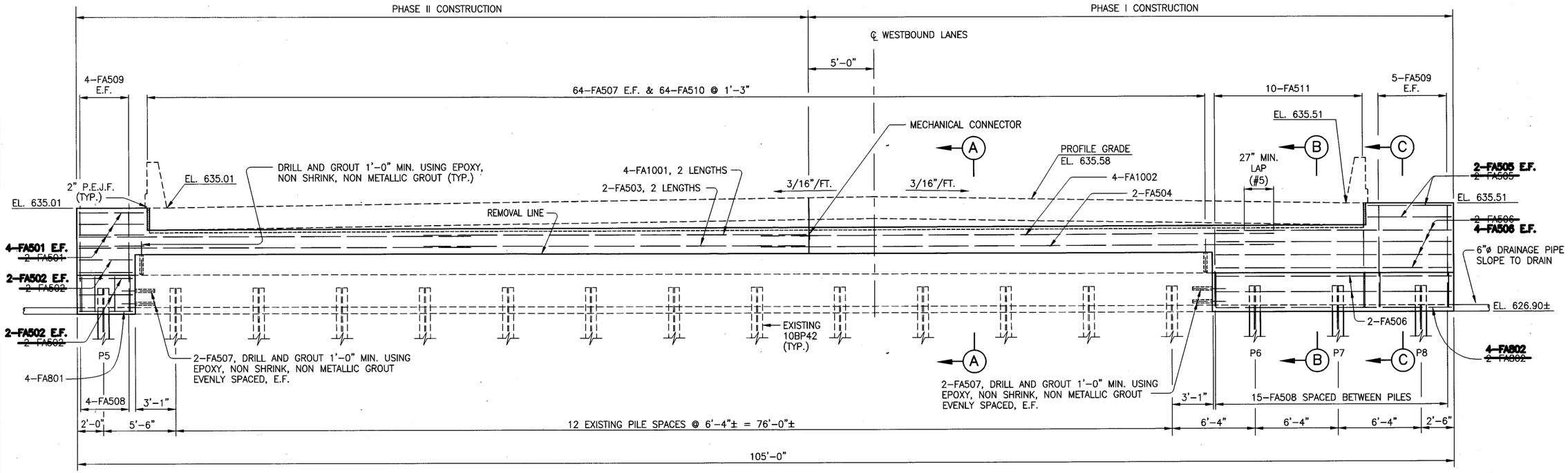
8/24

134
274

O:\93600\BRIDGE\DWGS\L0090RA1.DWG



PLAN



ELEVATION

NOTES:

1.) FOR SECTIONS A–A, B–B AND C–C, SEE SHEET 12/24

O:\93600\BRIDGE\DWGS\L0090FA1.DWG

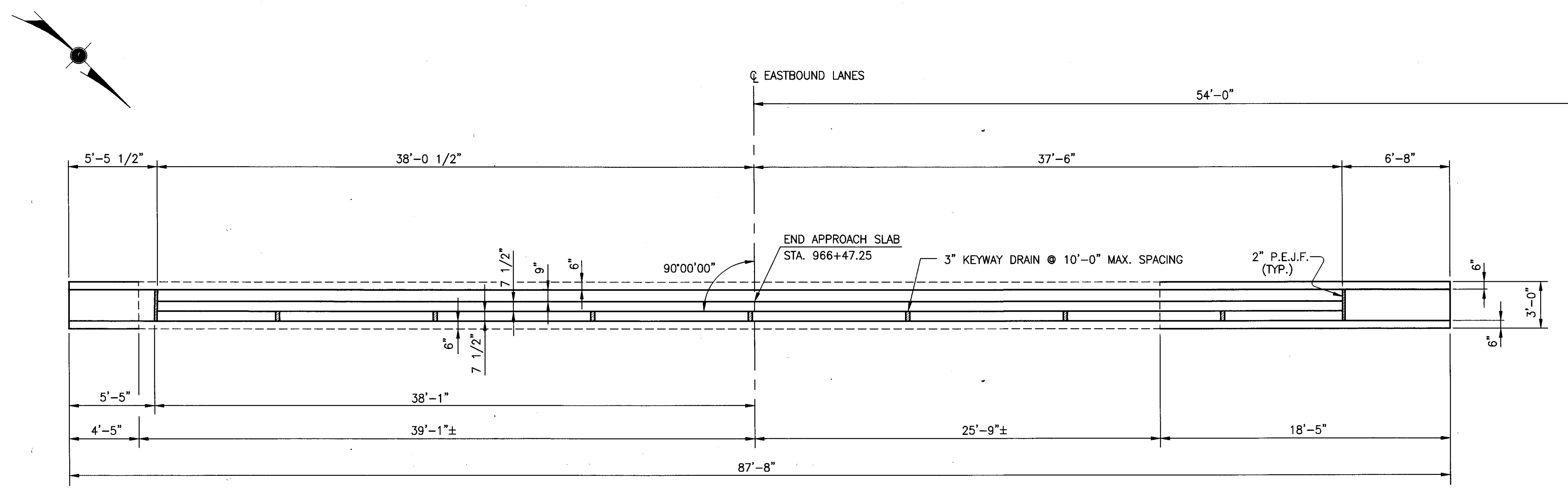
DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK	KK	4704959(L) 4704983(R)	

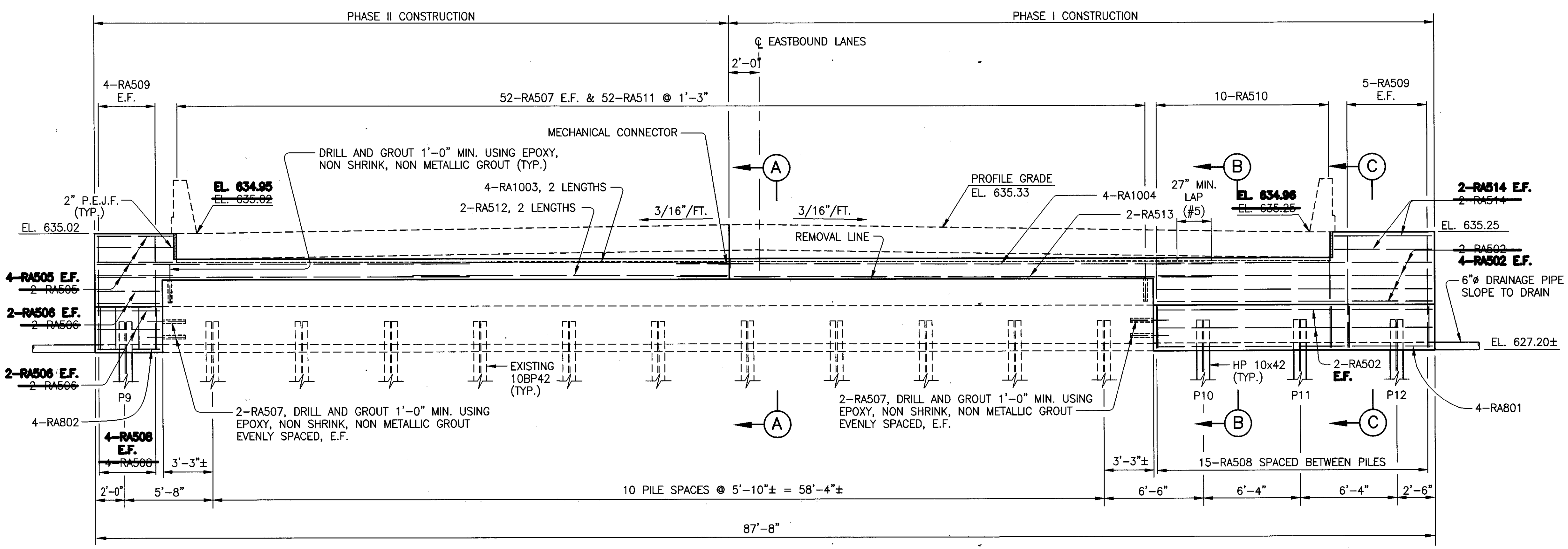
FORWARD ABUTMENT – LEFT BRIDGE

BRIDGE No. LOR–90–1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR–90–10.76



PLAN



ELEVATION

NOTES:
1.) FOR SECTIONS A-A, B-B AND C-C, SEE SHEET 10/24

O:\93600\BRIDGE\DWGS\LO090RA2.DWG

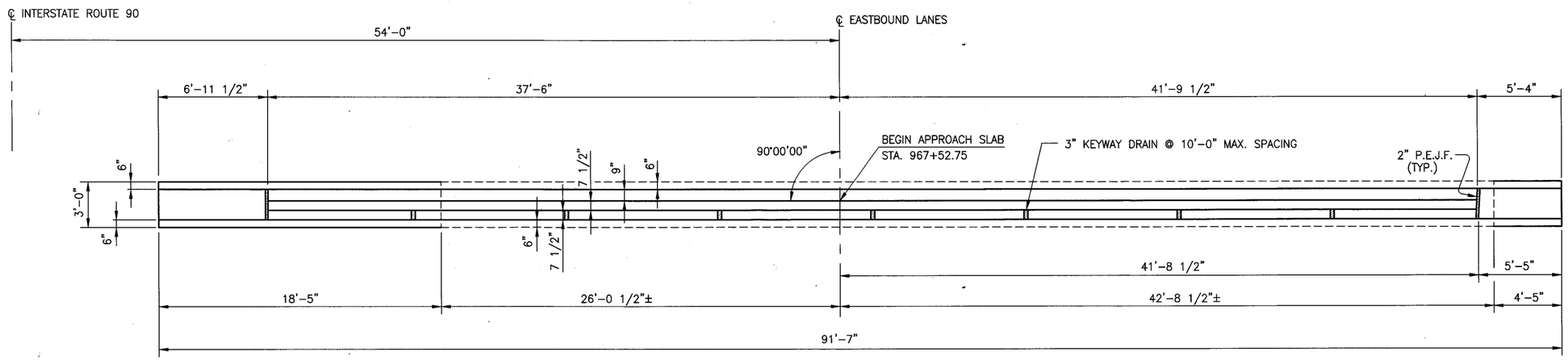
DESIGNED NFT	DRAWN CAG	REVIEWED RAK	DATE 4/30/01
CHECKED KK	REVISED KK	STRUCTURE FILE NUMBER 4704959(L) 4704983(R)	

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
JOB NUMBER 93600

REAR ABUTMENT – RIGHT BRIDGE

BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76



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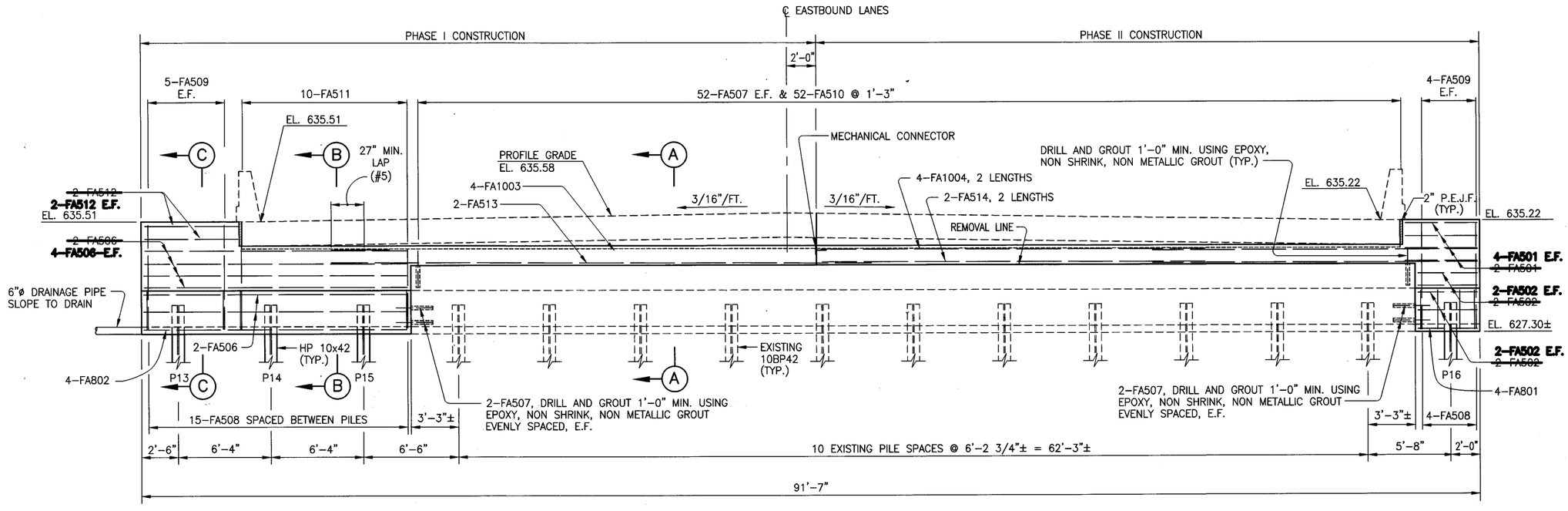


ELEVATION

NOTES:

1.) FOR SECTIONS A–A, B–B AND C–C, SEE SHEET 12/24

DESIGN AGENCY
R.W. MARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300
24800 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RWK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK	KK	4704959(L) 4704983(R)	

FORWARD ABUTMENT – RIGHT BRIDGE

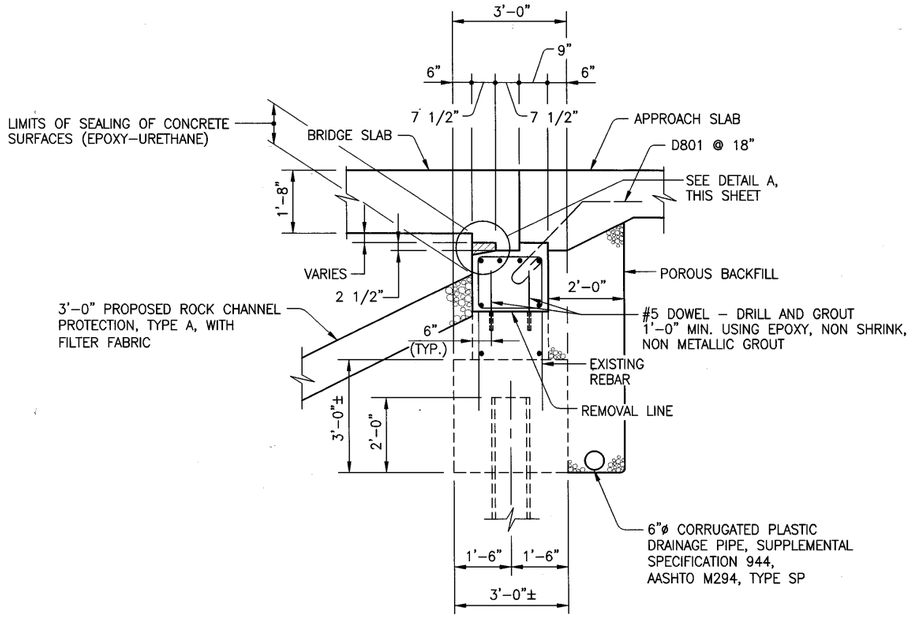
BRIDGE No. LOR–90–1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR–90–10.76

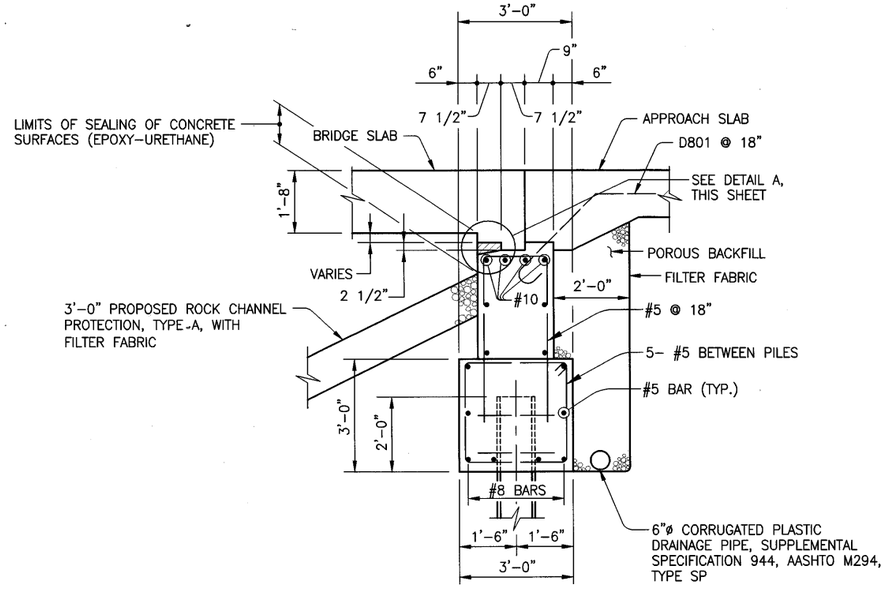
11/24

137/274

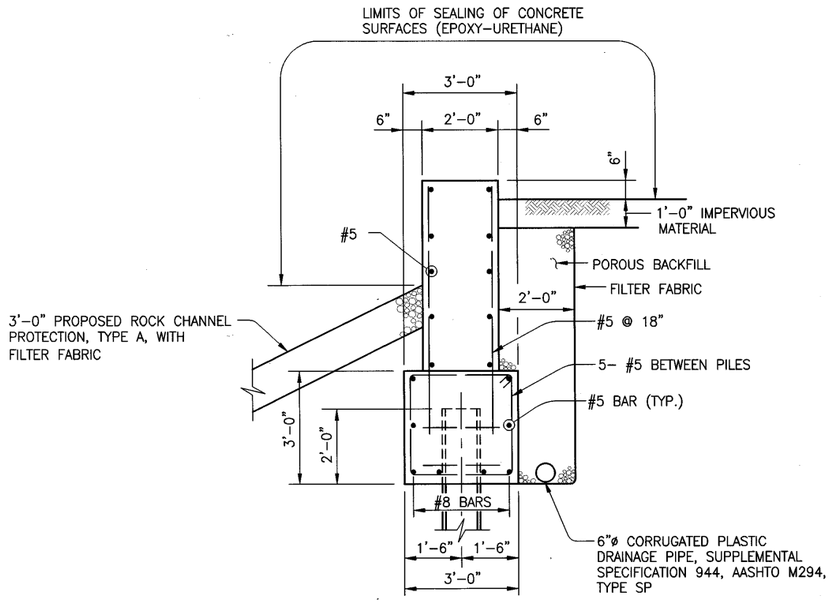
O:\93600\BRIDGE\DWGS\L0090FA2.DWG



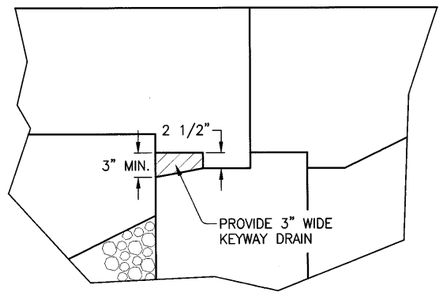
SECTION A-A



SECTION B-B



SECTION C-C



DETAIL A

NOTES:

1.) SEE GENERAL NOTES, SHEET 2 / 24 FOR ADDITIONAL INFORMATION.

DESIGN AGENCY
R.F. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
24800 CENTER RIDGE ROAD, SUITE 300
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		470495x(L) 470983(R)	

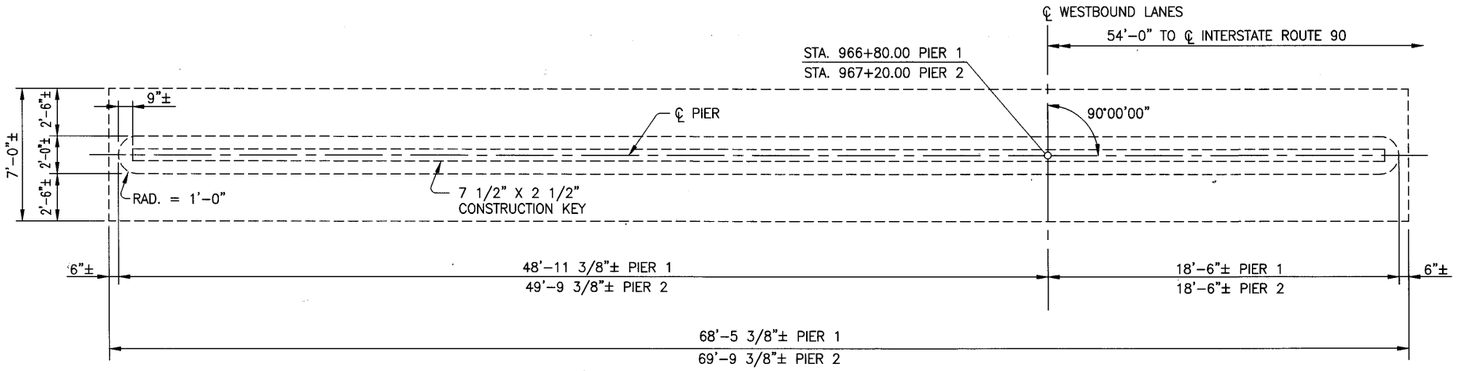
ABUTMENT DETAILS
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

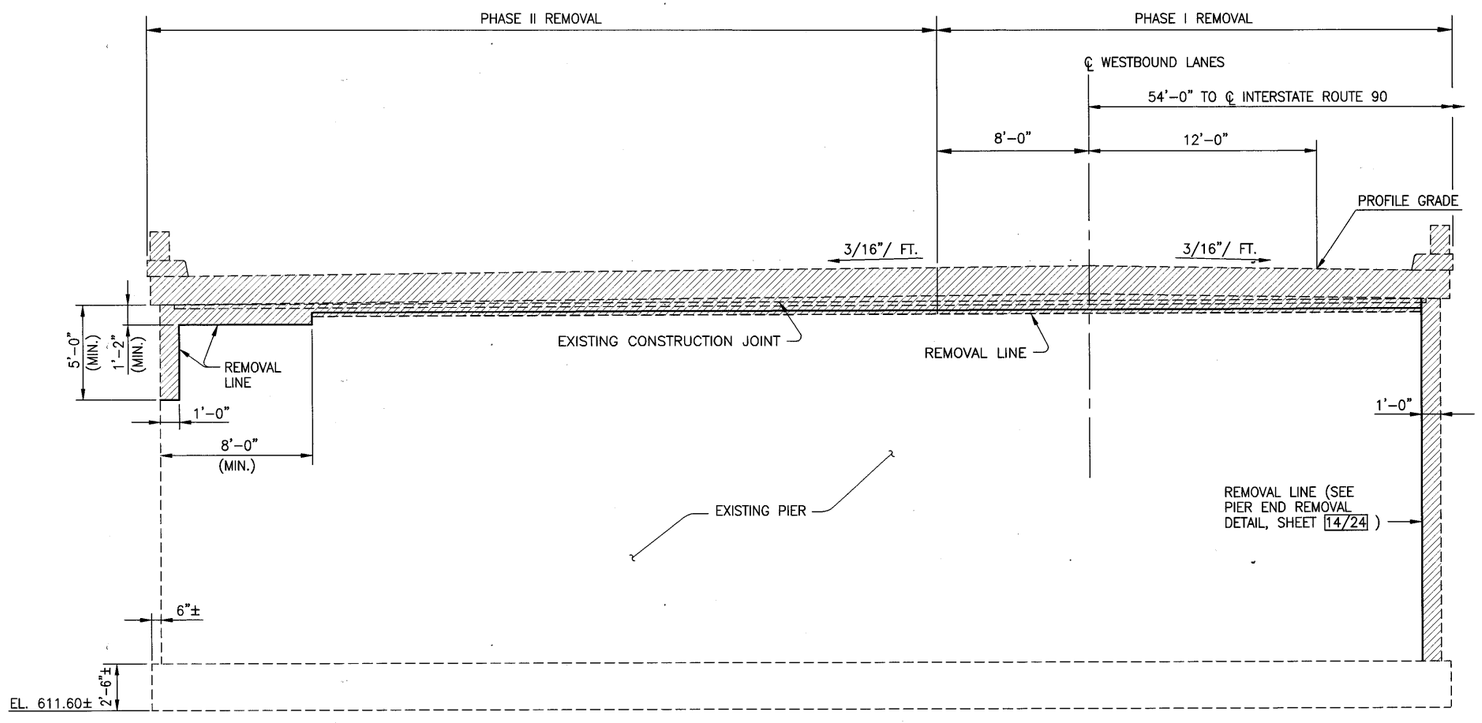
12 / 24

138
274

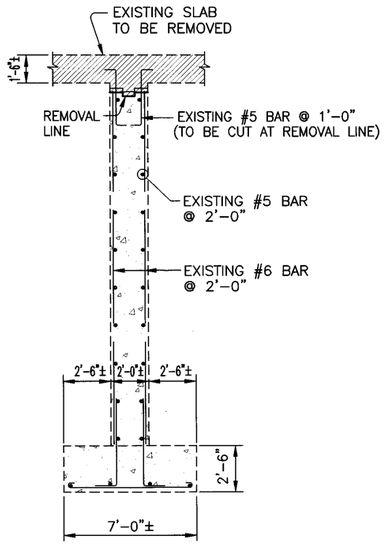
O:\93600\BRIDGE\L0090MD4.DWG



PLAN



ELEVATION



TYPICAL PIER SECTION

▨ – INDICATES REMOVAL

NOTES:
1.) SEE SHEET 14/24 FOR PIER END REMOVAL DETAIL.

DESIGN AGENCY
R.F. WARNER & ASSOCIATES, INC. CONSULTING ENGINEERS
24400 CENTER RIDGE ROAD, SUITE 300
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-8400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		4704959(L) 4704983(R)	

PIER REMOVAL DETAILS – LEFT BRIDGE

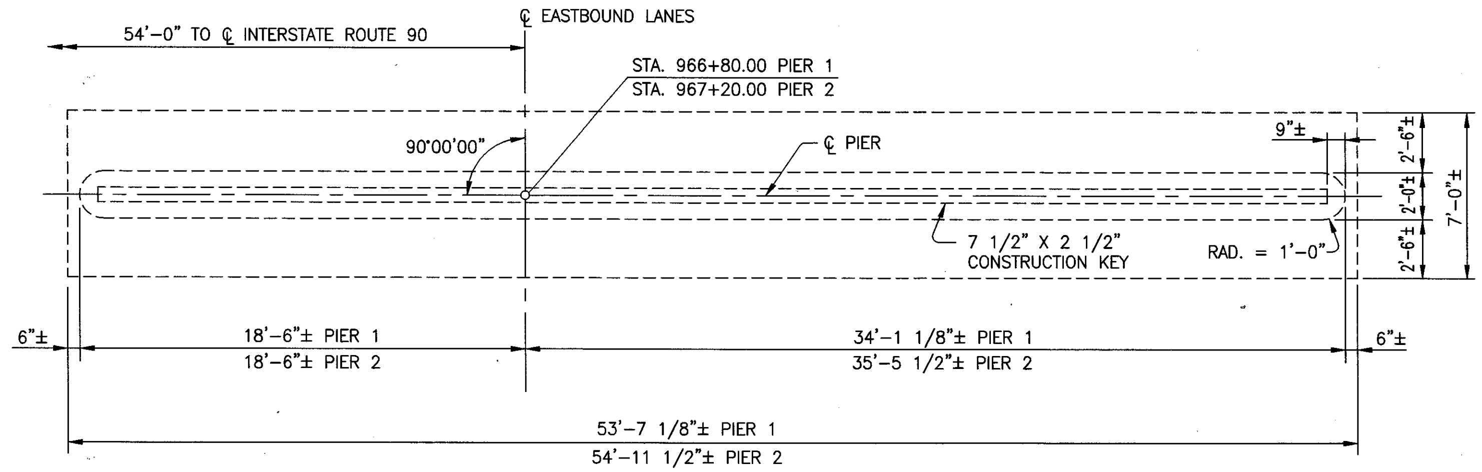
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

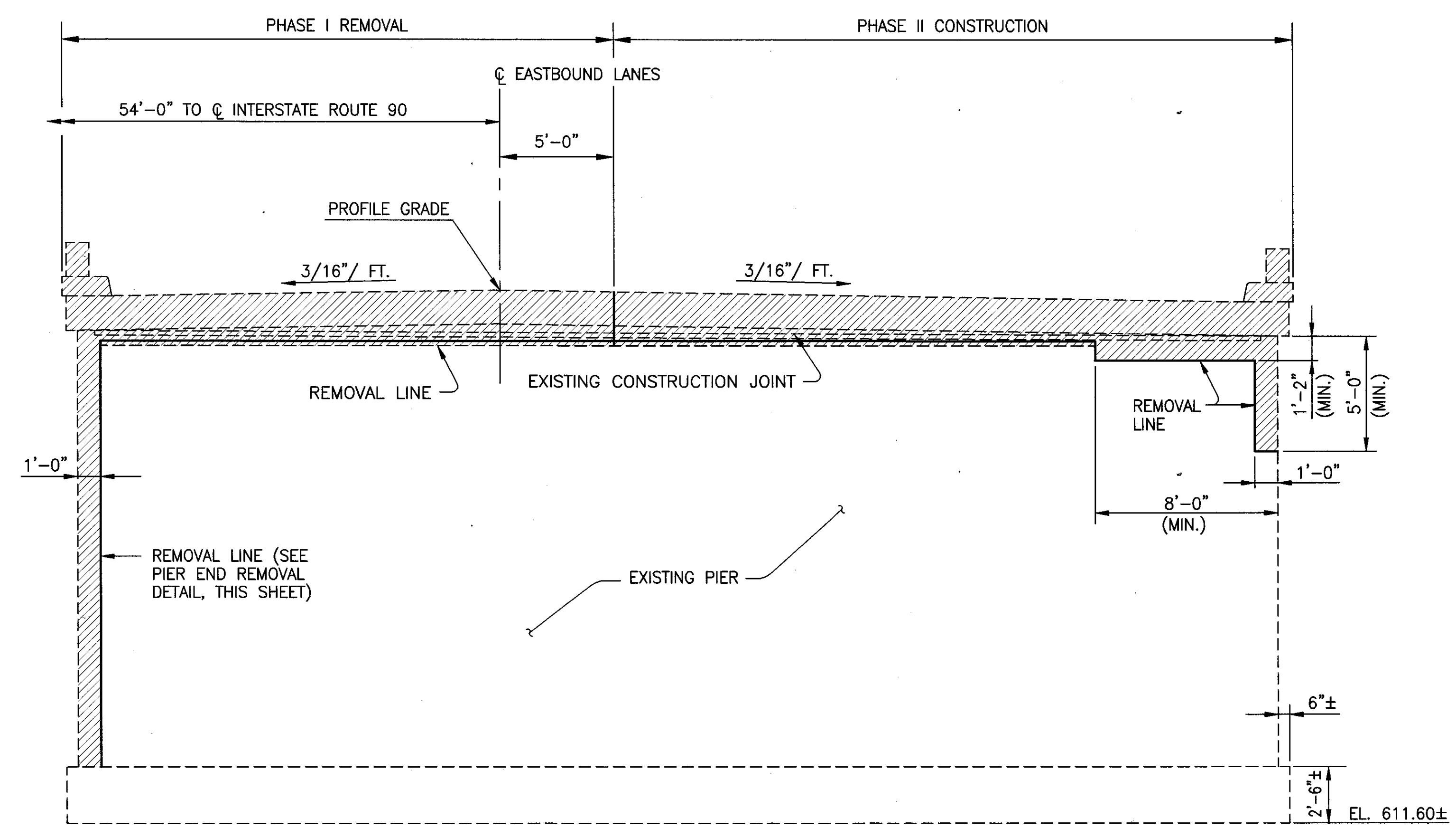
13/24

139/274

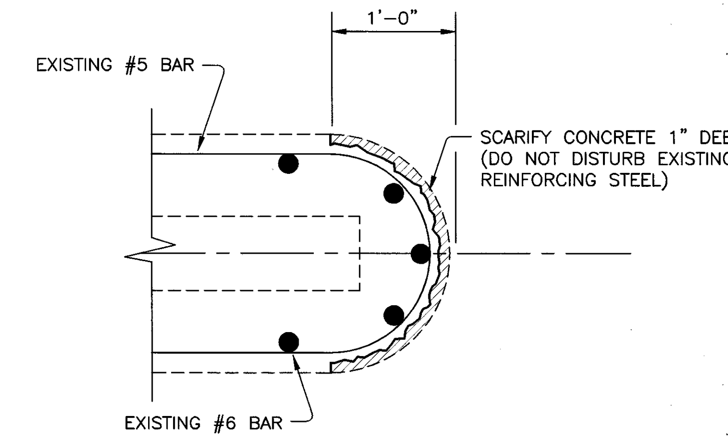
O:\93600\BRIDGE\DWGS\L0090PI1.DWG



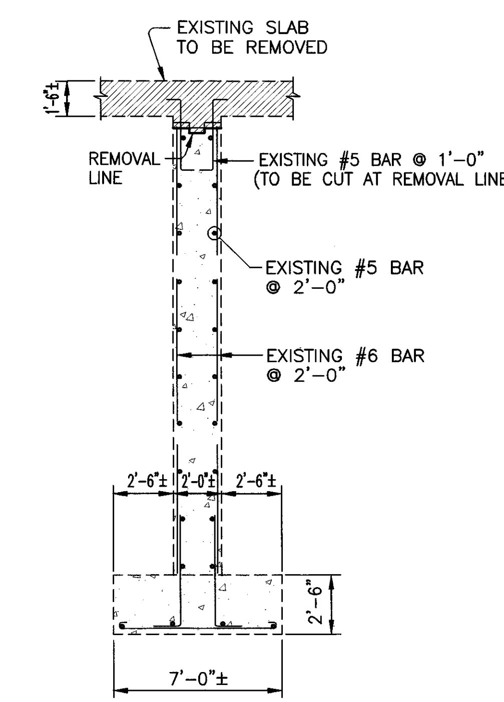
PLAN



ELEVATION



PIER END REMOVAL DETAIL



TYPICAL PIER SECTION

– INDICATES REMOVAL

O:\93600\BRIDGE\DWGS\LO090PI2.DWG

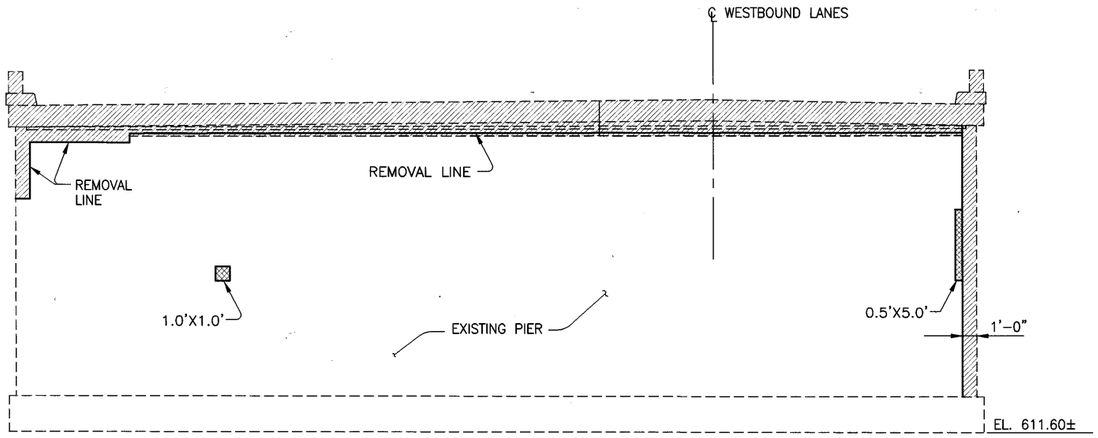
DESIGN AGENCY
REW R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
THREE KING JAMES PARK • SUITE 300
24600 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
JOB NUMBER 93600

DESIGNED NFF	DRAWN CAG	REVIEWED RAK	DATE 4/30/01
CHECKED KK	REVISED	STRUCTURE FILE NUMBER 4704959(L) 4704983(R)	

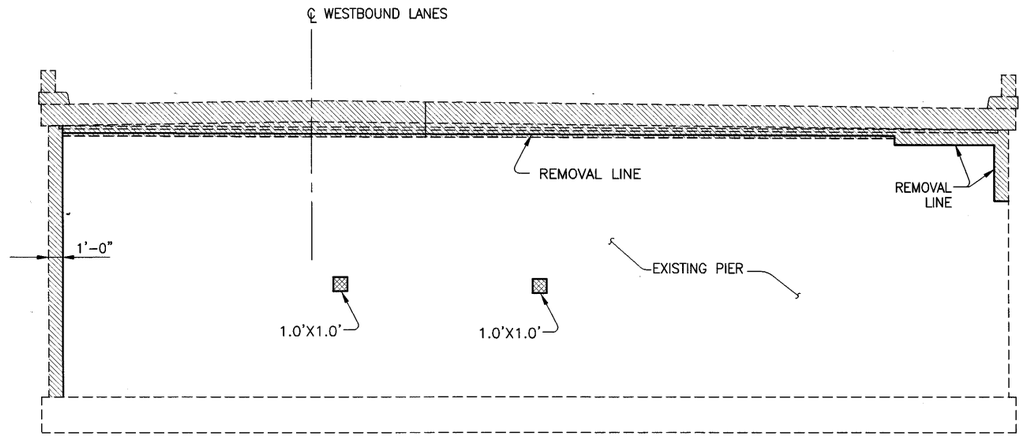
PIER REMOVAL DETAILS – RIGHT BRIDGE

BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

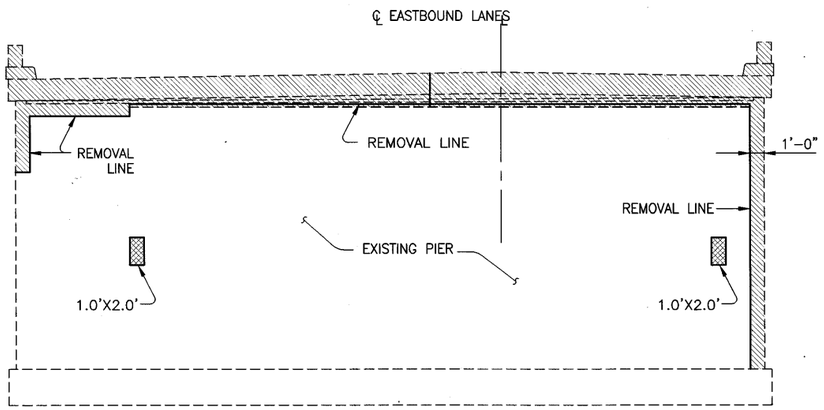


PIER 2–LEFT BRIDGE
(REAR FACE)

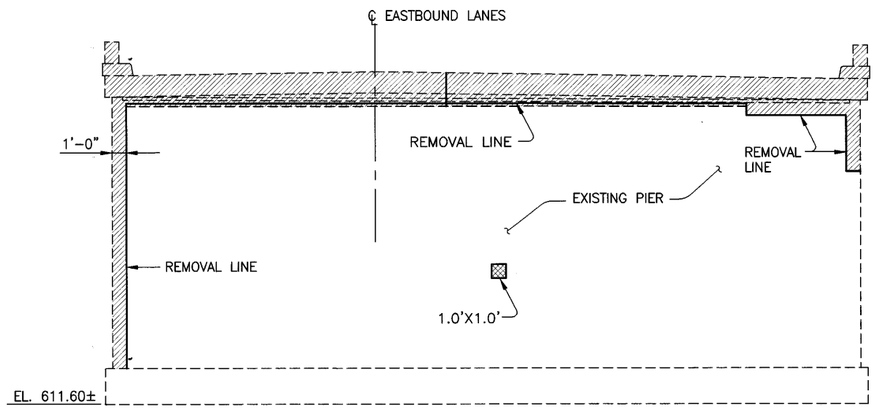


PIER 2–LEFT BRIDGE
(FORWARD FACE)

SUMMARY OF PIERS REPAIR QUANTITIES – (SQUARE FEET)			
LEFT BRIDGE		RIGHT BRIDGE	
PIER 1	PIER 2	PIER 1	PIER 2
0.0	5.5	5.0	0.0



PIER 1–RIGHT BRIDGE
(REAR FACE)



PIER 1–RIGHT BRIDGE
(FORWARD FACE)

– INDICATES REMOVAL

ITEM 843– PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR

O:\93600\BRIDGE\DWGS\LO090PI3.DWG

DESIGN AGENCY
RFW R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
24855 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-8400
JOB NUMBER 93600

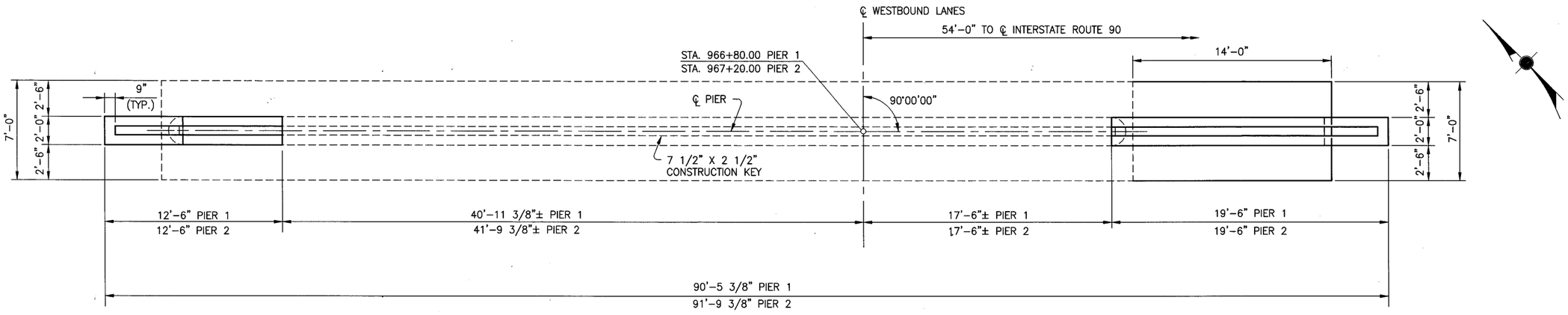
DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RWK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		4704959(L) 4704963(R)	

PIER PATCHING DETAILS
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

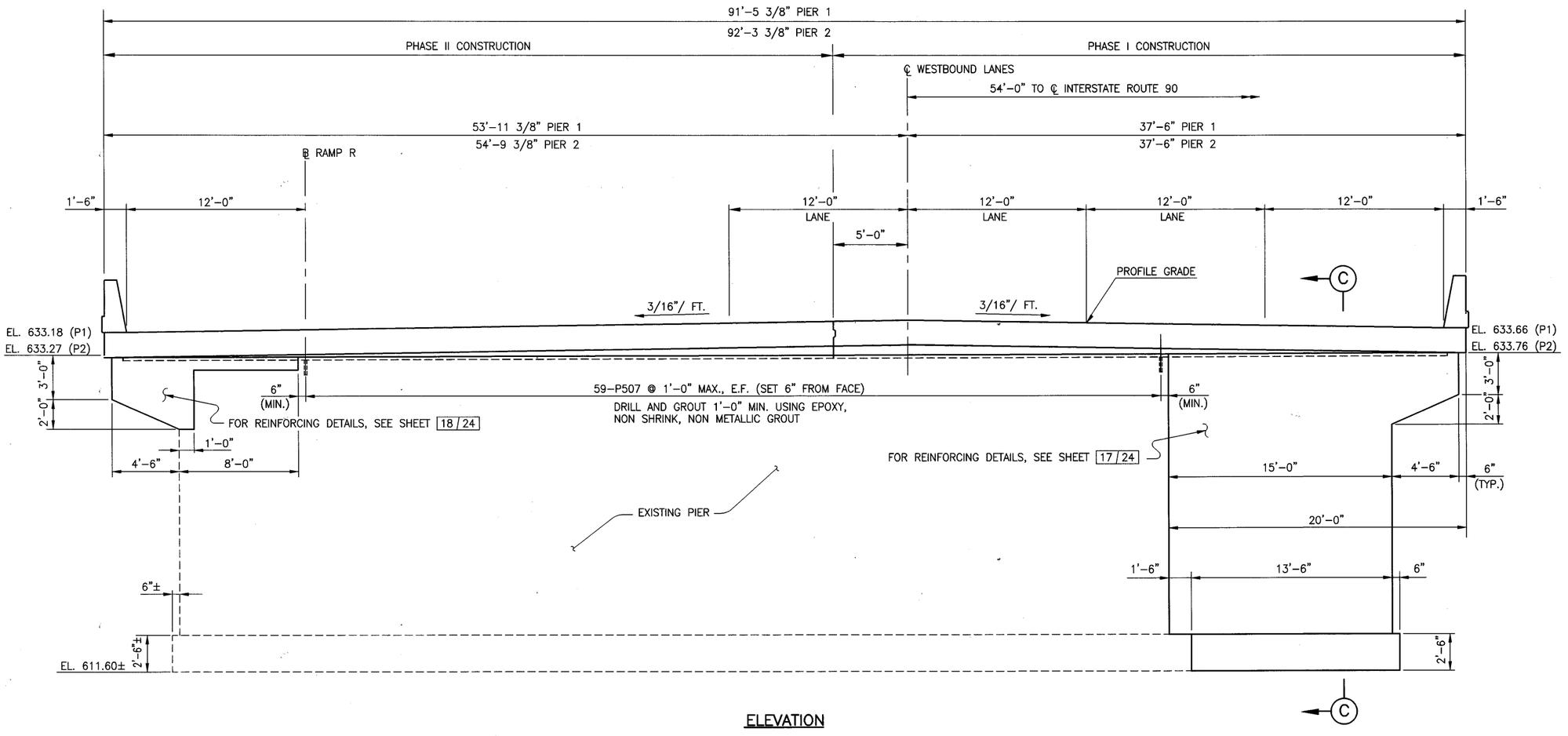
LOR-90-10.76

15/24

141/274



PLAN



ELEVATION

NOTES:
1.) FOR SECTION C-C, SEE SHEET 18/24

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300
24600 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145-5634
TELEPHONE (440) 835-9400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK		4704959(L) 4704983 (R)	

PIER DETAILS - LEFT BRIDGE
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

16/24

142/274

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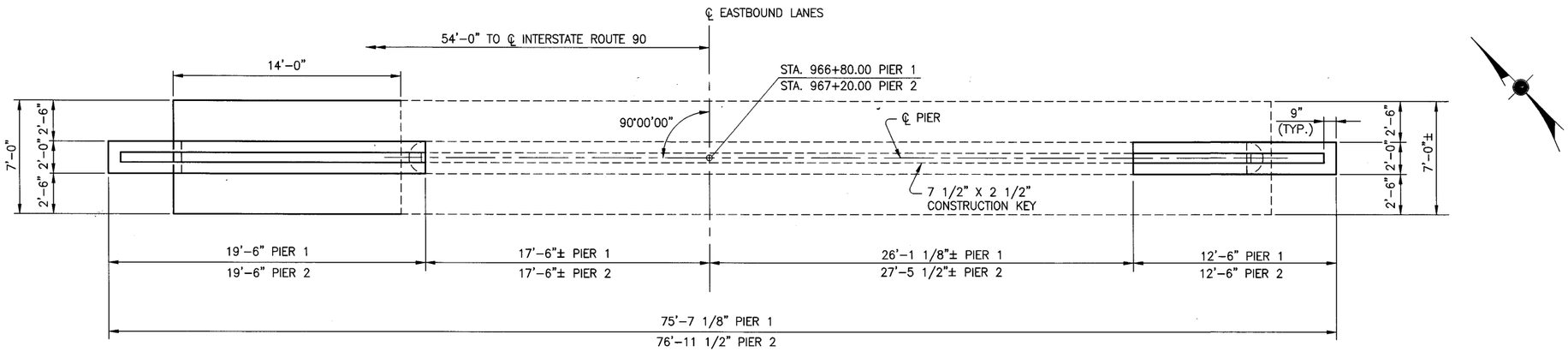
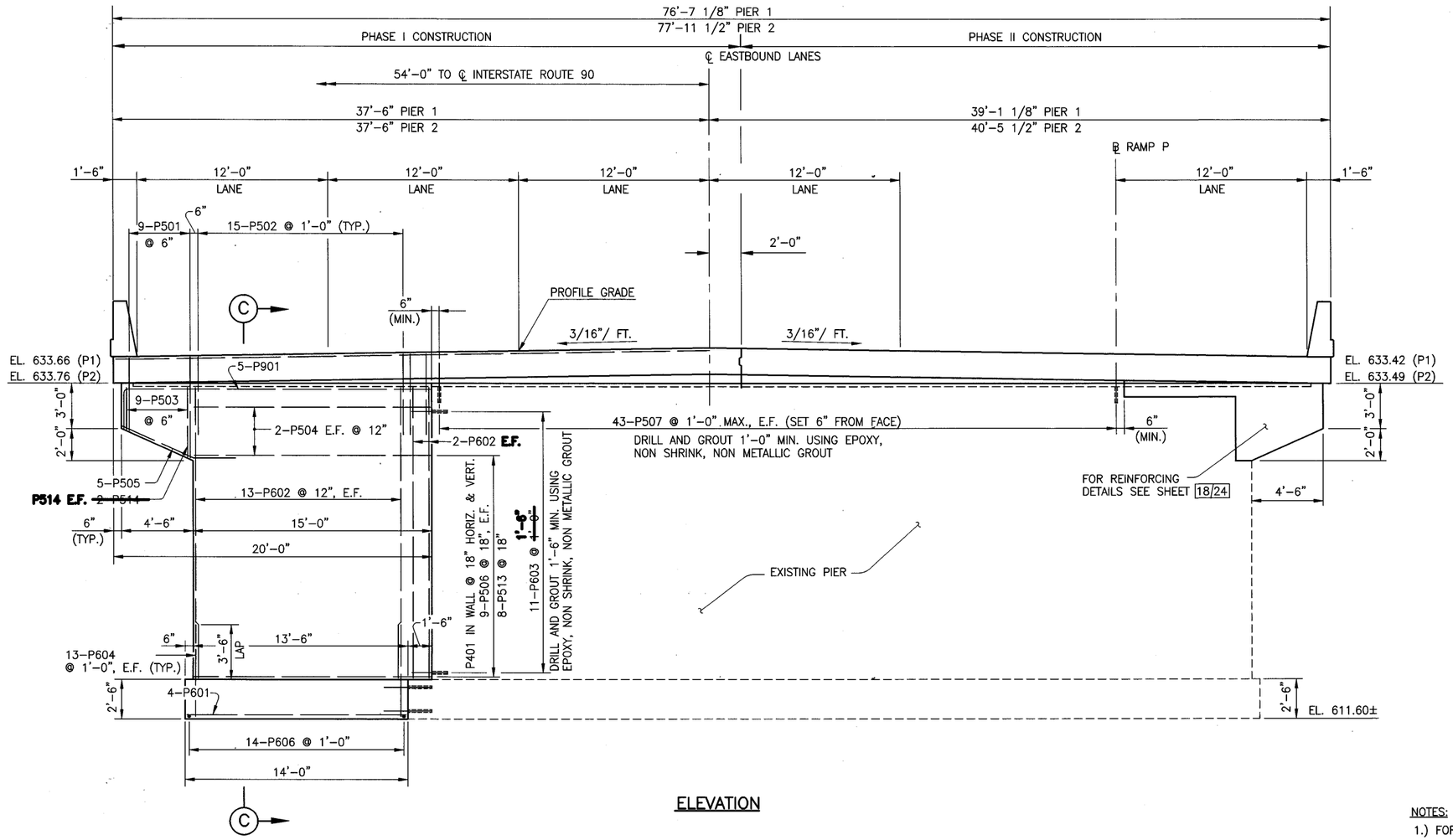


PLAN



ELEVATION

NOTES:
1.) FOR SECTION C–C, SEE SHEET 18/24

O:\93600\BRIDGE\DWGS\LO090PI5.DWG

DESIGN AGENCY
THREE KING JAMES PARK, SUITE 300
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
R.K. MARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KK	KK	4704959(L) 4704983(R)	

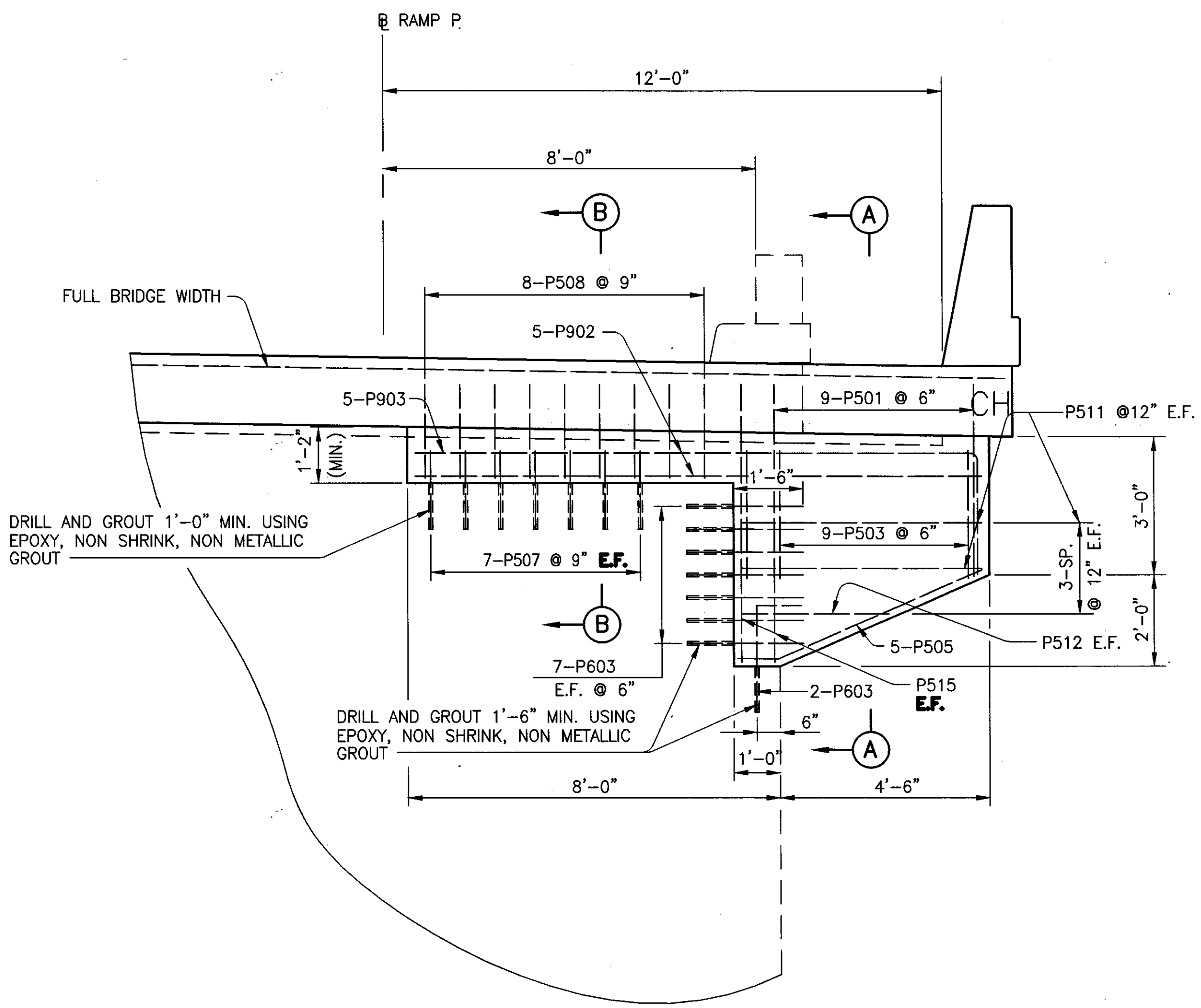
PIER DETAILS – RIGHT BRIDGE

BRIDGE No. LOR–90–1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR–90–10.76

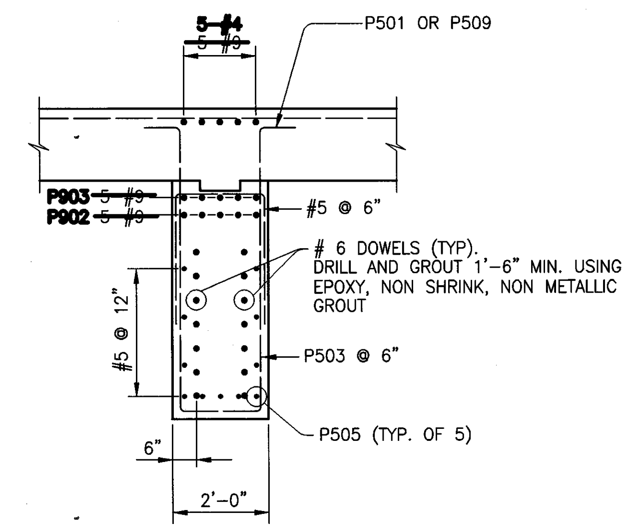
17/24

143
274



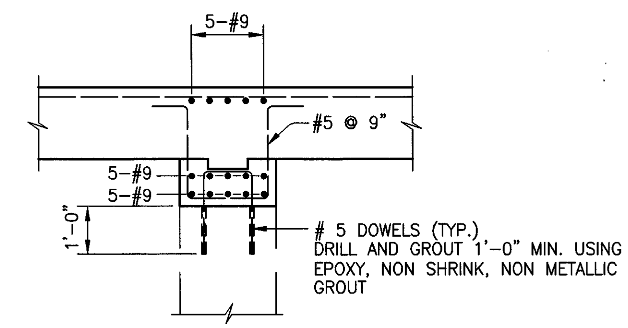
PART ELEVATION

(RIGHT BRIDGE SHOWN, LEFT BRIDGE OPPOSITE HAND)



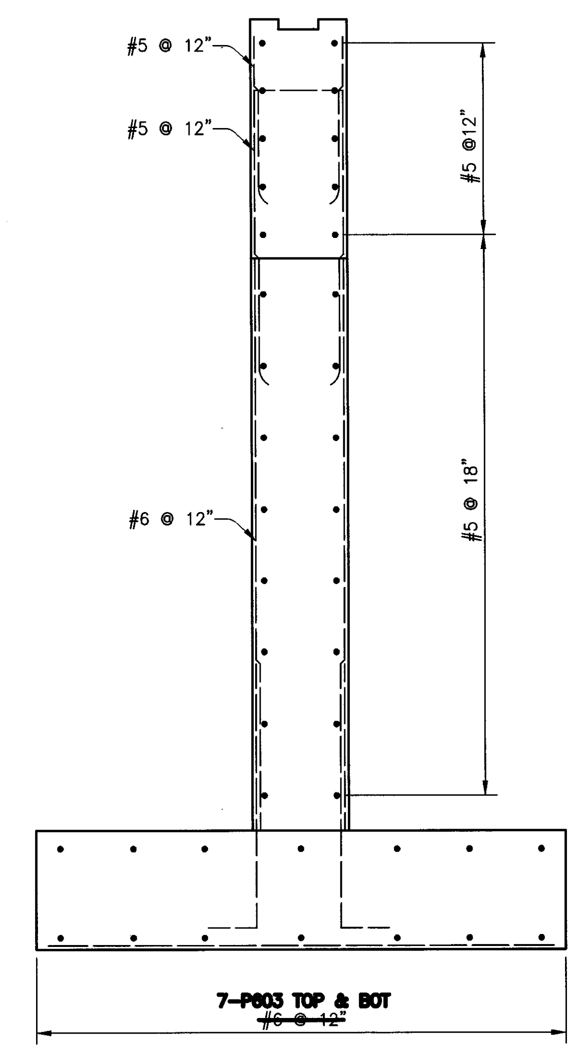
SECTION A-A

(SLAB REINFORCING NOT SHOWN)



SECTION B-B

(SLAB REINFORCING NOT SHOWN)



SECTION C-C

(SLAB REINFORCING NOT SHOWN)

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC. CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300
24600 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
JOB NUMBER 93600

DESIGNED NFF	DRAWN CAG	REVIEWED RAK	DATE 4/30/01
CHECKED KK	REVISED KK	STRUCTURE FILE NUMBER 4704959(L) 4704983(R)	

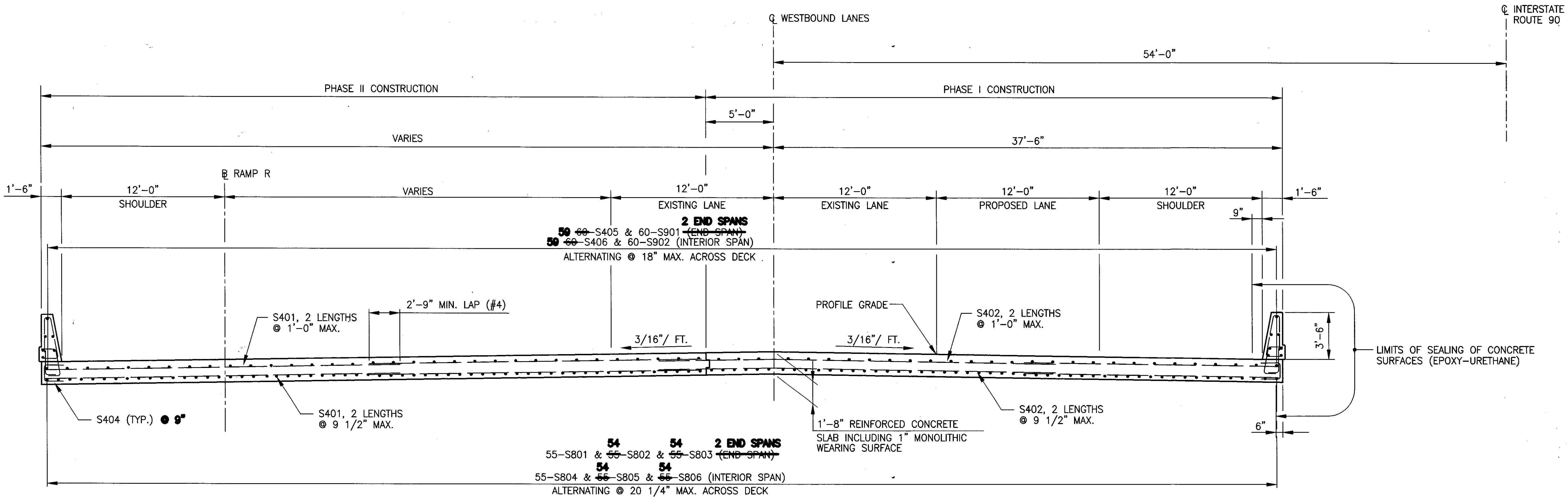
LORAIN COUNTY
STA. 966+47.25
STA. 967+52.75

PIER EXTENSION DETAILS

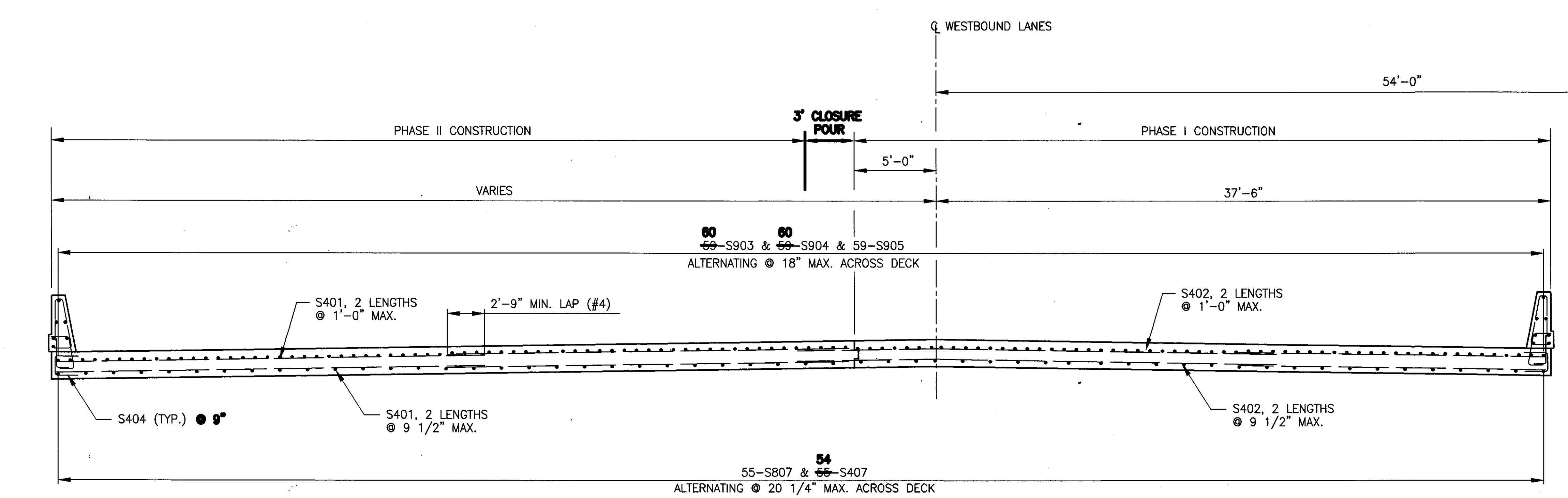
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

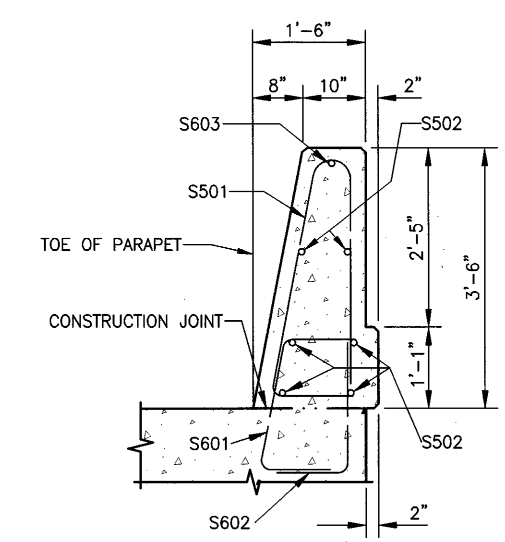
O:\93600\BRIDGE\DWGS\LO090PI6.DWG



PROPOSED TRANSVERSE SECTION
(END AND INTERIOR SPANS)
(SECTION B-B)



PROPOSED TRANSVERSE SECTION
(AT PIERS)
(SECTION C-C)



PARAPET REINFORCING DETAIL

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC. CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300, 24600 CENTER RIDGE ROAD, WESTLAKE, OHIO 44145, TELEPHONE (440) 835-9400
JOB NUMBER 93600

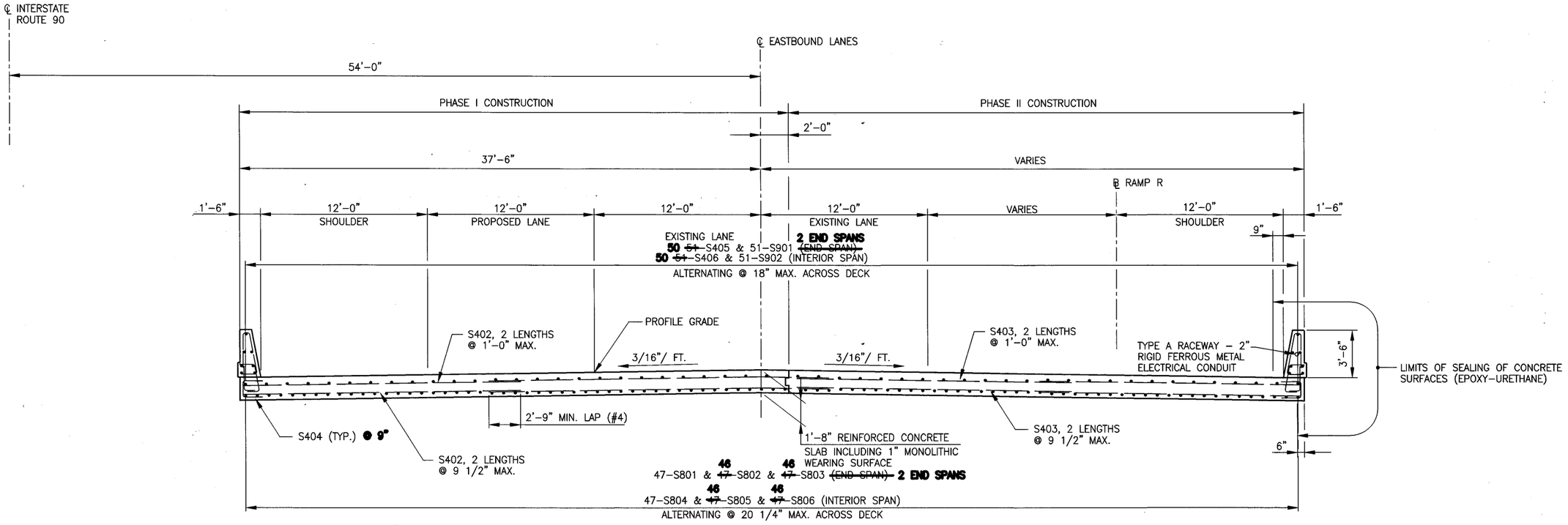
DESIGNED	DRAWN	REVIEWED	DATE
KK	KK	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RAK	KK	4704959(L) 4704983(R)	

TRANSVERSE SECTION - LEFT BRIDGE

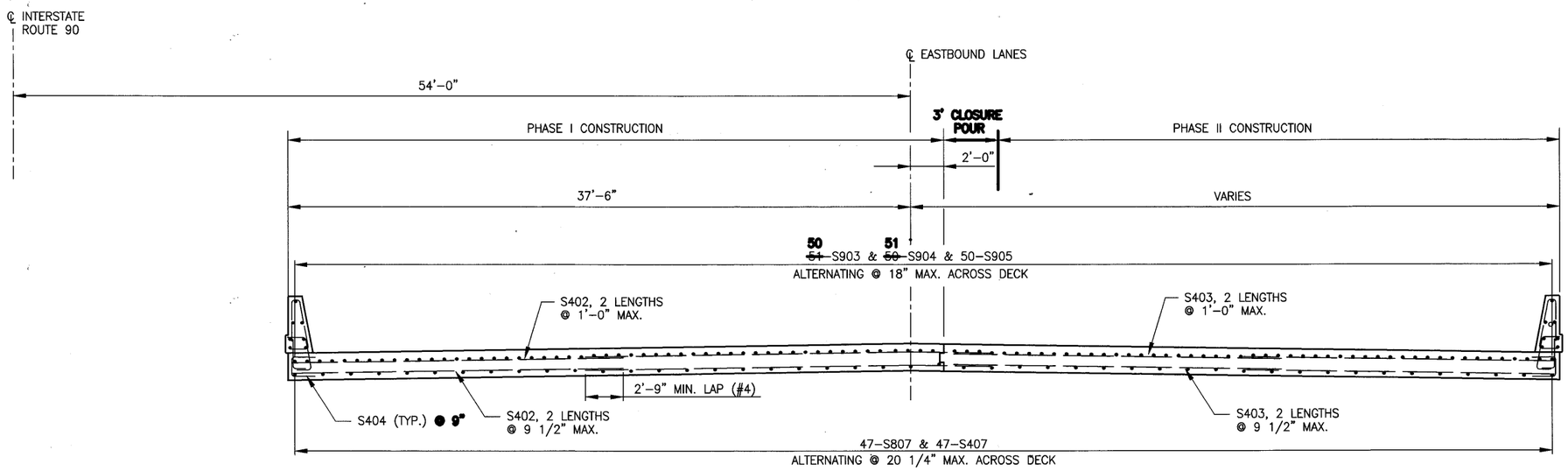
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

O:\93600\BRIDGE\DWGS\LO090TS1.DWG



PROPOSED TRANSVERSE SECTION
(END AND INTERIOR SPANS)
(SECTION B–B)



PROPOSED TRANSVERSE SECTION
(AT PIERS)
(SECTION C–C)

NOTES:

1.) SEE SHEET 19/24 FOR PARAPET REINFORCING DETAIL

O:\93600\BRIDGE\DWGS\LO090TS2.DWG

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC.
CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400
JOB NUMBER 93600

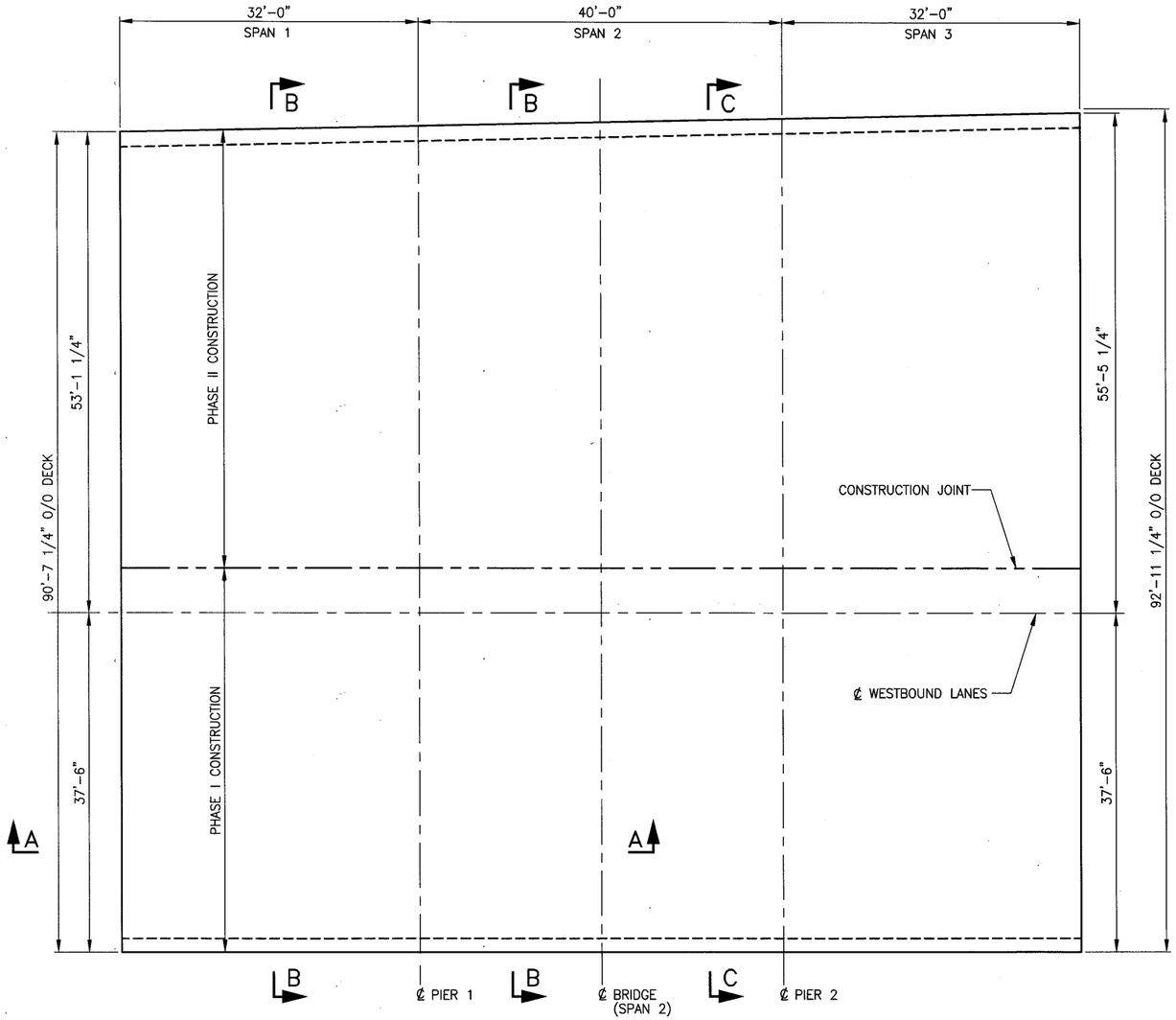
DESIGNED	DRAWN	REVIEWED	DATE
KK	KK	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RAK	KK	4704959(L) 4704983(R)	

TRANSVERSE SECTION – RIGHT
BRIDGE No. LOR–90–1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

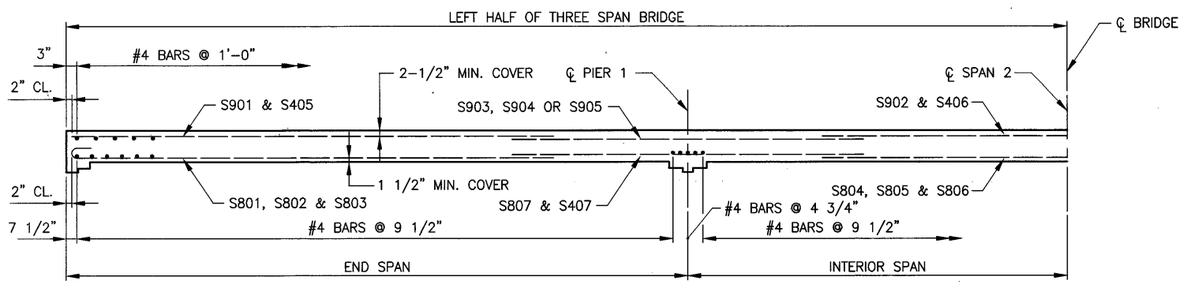
LOR–90–10.76

20/24

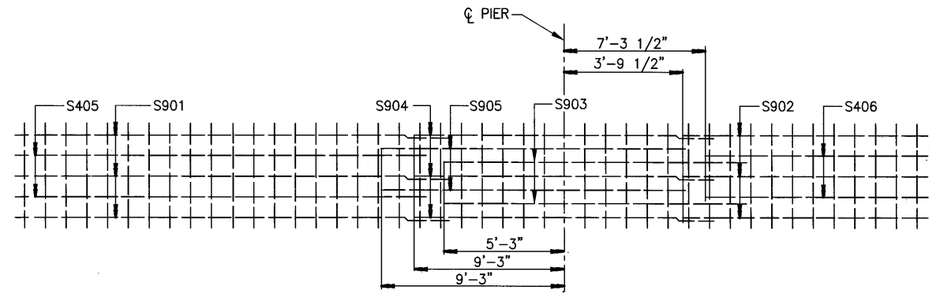
146/274



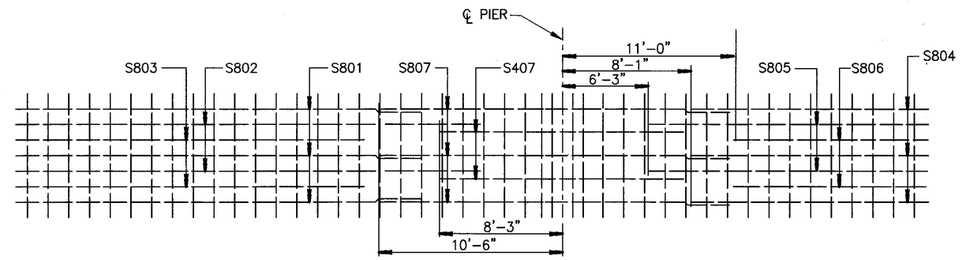
PLAN VIEW



HALF LONGITUDINAL SECTION
(SECTION A–A)



STEEL IN TOP OF SLAB DETAIL



STEEL IN BOTTOM OF SLAB DETAIL

NOTE: LONGITUDINAL SLAB REINFORCING IS SYMMETRICAL ABOUT ℄ BRIDGE

CONSTRUCTION JOINTS:
PLACEMENT OF THE CONCRETE DECK SLAB SHALL BE CONTINUOUS. CONSTRUCTION JOINTS SHALL BE PROVIDED ONLY IF A DECK POUR CANNOT BE COMPLETED DUE TO INCLEMATE CONDITIONS. THE CONSTRUCTION JOINT SHALL CONFORM TO THE REQUIREMENTS OF 511 IN THE CMS.

CAMBER:
CAMBER AS SHOWN IN THE SCREED ELEVATION TABLES SHALL BE PROVIDED TO COMPENSATE DEAD LOAD DEFLECTIONS, IN ADDITION TO ANY CAMBER REQUIRED FOR CONFORMANCE WITH THE PROFILE OF THE HIGHWAY.
ALLOWANCE SHALL BE MADE FOR THE DEFLECTION OF ANY FALSE-WORK MEMBERS SUPPORTING THE ACTUAL CONCRETE PLACEMENT.

NOTES:

(1) FOR SECTIONS B–B AND C–C, SEE SHEET 19/24

DESIGN AGENCY
R.D. MANNER & ASSOCIATES, INC.
24855 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-8400
JOB NUMBER 93600

DESIGNED	DRAWN	REVIEWED	DATE
KK	KK	RAK	4/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RAK		4704959(L) 4704963(R)	

DECK SLAB PLAN – LEFT BRIDGE

BRIDGE No. LOR-90-1861
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76

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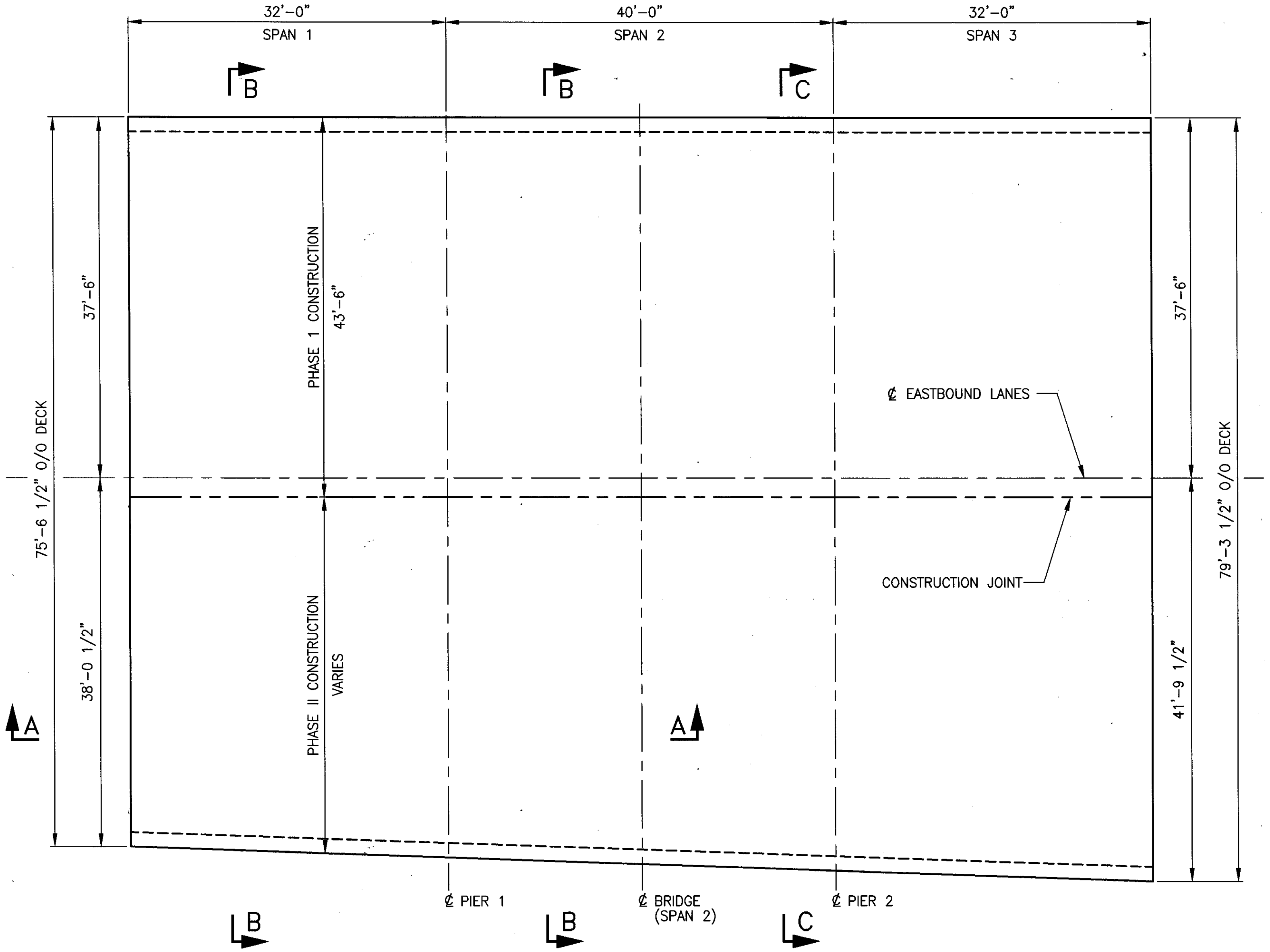
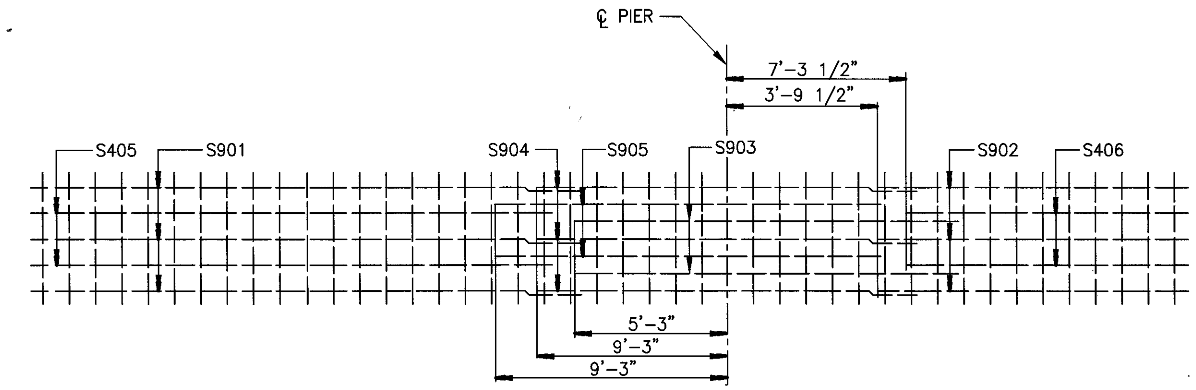
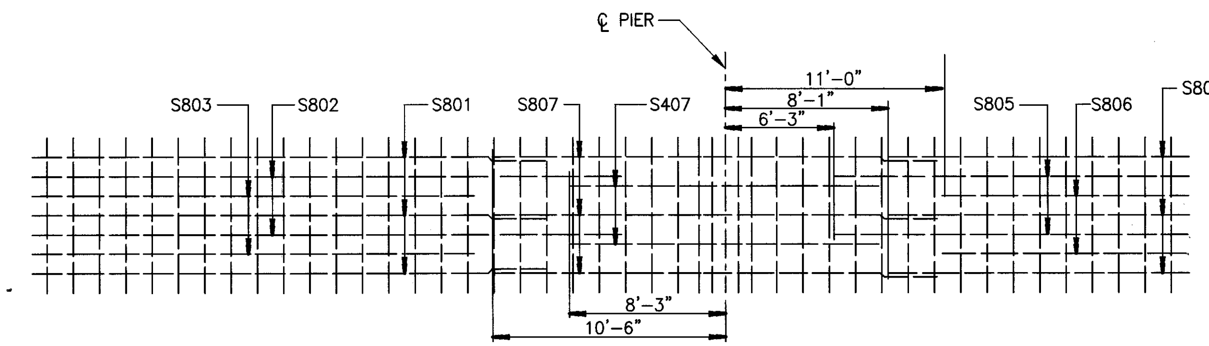


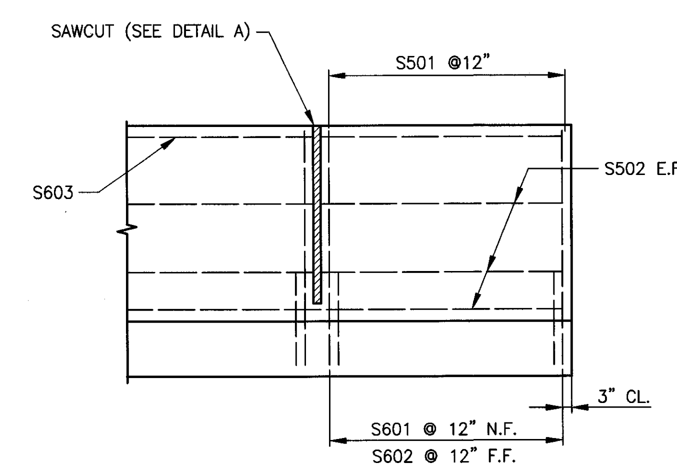
PLAN VIEW



STEEL IN TOP OF SLAB DETAIL

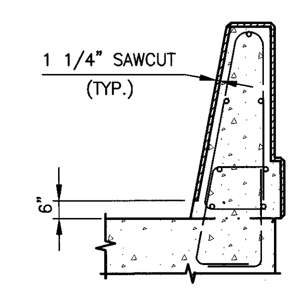


NOTE: LONGITUDINAL SLAB REINFORCING IS SYMMETRICAL ABOUT ℄ BRIDGE

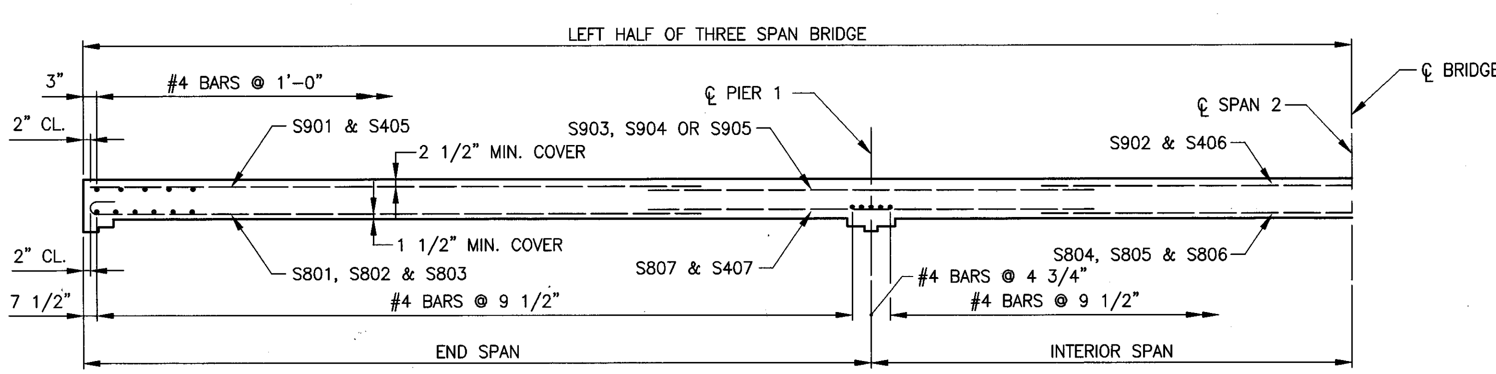


PARAPET PARTIAL ELEVATION

NOTE: FOR GENERAL NOTES SEE SHEET 2/24 FOR ADDITIONAL INFORMATION.



DETAIL A
(SECTION THROUGH SAWCUT)
SAWCUT PERIMETER = 7'-6"



HALF LONGITUDINAL SECTION
(SECTION A–A)

NOTES:

(1) FOR SECTIONS B–B AND C–C, SEE SHEET 20/24

O:\93600\BRIDGE\DWGS\LO90SD2.DWG

DESIGN AGENCY: R.E. WARNER & ASSOCIATES, INC. CONSULTING ENGINEERS, JOB NUMBER 93600

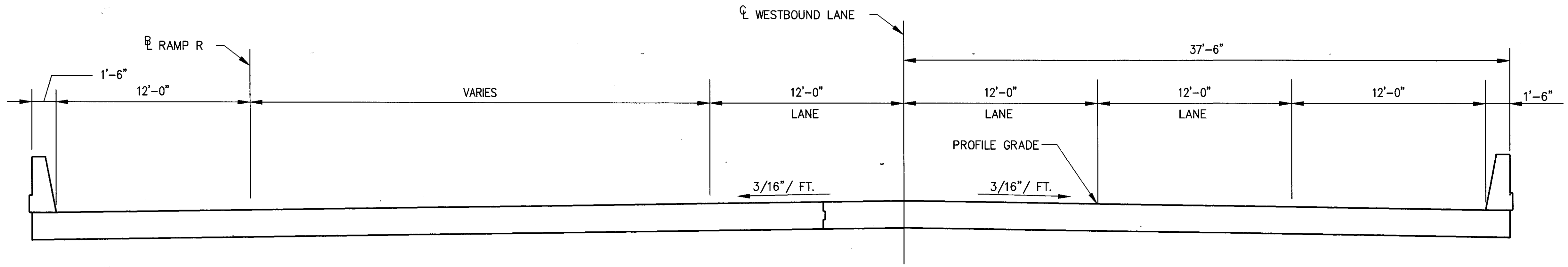
DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE
KK	RAK	KK		RAK	4/30/01

STRUCTURE FILE NUMBER 4704959(L) 4704983(R)

DECK SLAB PLAN – RIGHT BRIDGE

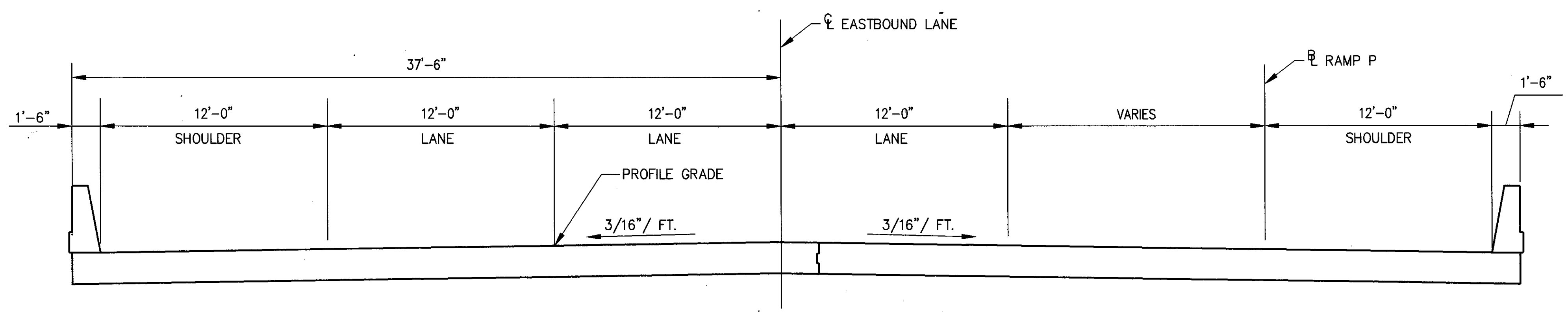
BRIDGE No. LOR-90-1861
INTERSTATE ROUTE 90 OVER FRENCH CREEK

LOR-90-10.76



LEFT BRIDGE

		℄ BEARING REAR ABUT.	MIDPOINT SPAN 1	℄ BEARING PIER 1	MIDPOINT SPAN 2	℄ BEARING PIER 2	MIDPOINT SPAN 3	℄ BEARING FORWARD ABUT.
LEFT TOE OF PARAPET	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	634.71	634.75	634.78	634.82	634.86	634.89	634.93
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	634.71	634.79	634.78	634.86	634.86	634.93	634.93
PHASED CONSTRUCTION JOINT	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	635.44	635.48	635.52	635.57	635.61	635.65	635.69
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	635.44	635.52	635.52	635.61	635.61	635.69	635.69
CROWN	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	635.52	635.56	635.60	635.65	635.69	635.73	635.77
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	635.52	635.60	635.60	635.69	635.69	635.77	635.77
RIGHT TOE OF PARAPET	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	634.96	635.00	635.04	635.09	635.13	635.17	635.21
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	634.96	635.04	635.04	635.13	635.13	635.21	635.21



RIGHT BRIDGE

		℄ BEARING REAR ABUT.	MIDPOINT SPAN 1	℄ BEARING PIER 1	MIDPOINT SPAN 2	℄ BEARING PIER 2	MIDPOINT SPAN 3	℄ BEARING FORWARD ABUT.
LEFT TOE OF PARAPET	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	634.96	635.00	635.04	635.09	635.13	635.17	635.21
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	634.96	635.04	635.04	635.13	635.13	635.21	635.21
CROWN	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	635.52	635.56	635.60	635.65	635.69	635.73	635.77
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	635.52	635.60	635.60	635.69	635.69	635.77	635.77
PHASED CONSTRUCTION JOINT	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	635.49	635.53	635.57	635.62	635.66	635.70	635.74
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	635.49	635.57	635.57	635.66	635.66	635.74	635.74
RIGHT TOE OF PARAPET	STATION	966+48.00	966+64.00	966+80.00	967+00.00	967+20.00	967+36.00	967+52.00
	PROFILE GRADE ELEVATION	635.33	635.37	635.41	635.46	635.50	635.54	635.58
	FINAL DECK ELEVATION	634.95	634.98	635.01	635.05	635.08	635.11	635.14
	DEAD LOAD DEFLECTION	0.00	0.04	0.00	0.04	0.00	0.04	0.00
	SCREED ELEVATION	634.95	635.02	635.01	635.09	635.08	635.15	635.14

SCREED ELEVATION TABLES
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

DESIGN AGENCY: R.E. WARNER & ASSOCIATES, INC. CONSULTING ENGINEERS, JOB NUMBER 93197
DESIGNED KK | CHECKED RAK | DRAWN KK | REVISED | REVIEWED RAK | DATE 4/30/01
STRUCTURE FILE NUMBER 4704959(L) 4704983(R)

LOR-90-10.76

O:\93600\BRIDGE\DWGS\LO090SD3.DWG

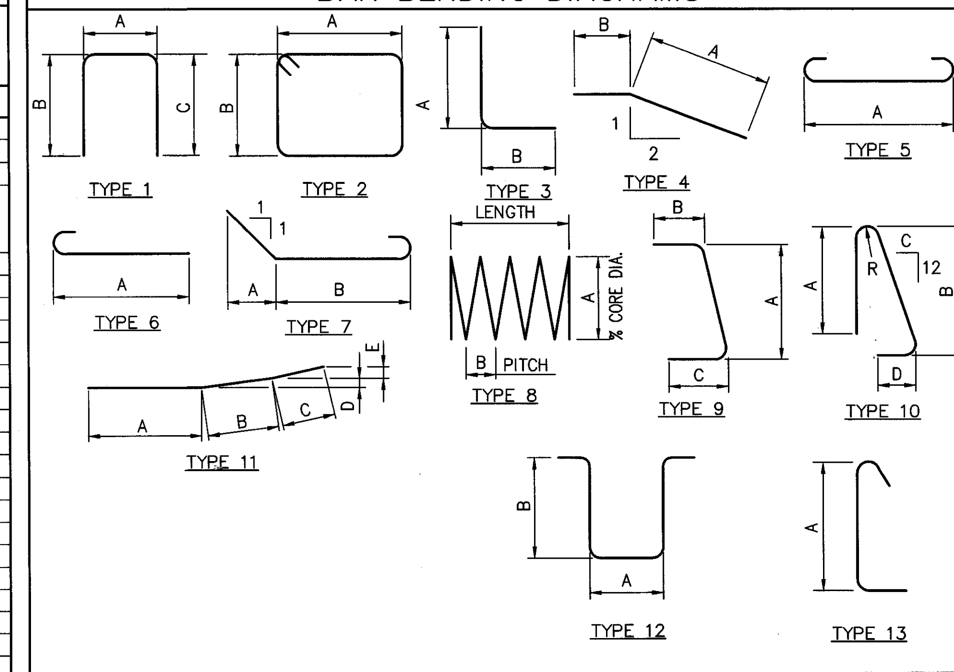
BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INC	WEIGHT (POUNDS)
REAR ABUTMENTS									
RA501	4	6'-4"	STR						26
RA502	24	18'-1"	STR						452
RA503	2	35'-8"	STR						74
RA504	4	25'-2"	STR						105
RA505	16	5'-1"	STR						84
RA506	16	4'-1"	STR						68
RA507	248	2'-2"	STR						560
RA508	38	10'-9"	2	2'-6"	2'-7"				426
RA509	36	6'-6"	STR						244
RA510	20	11'-9"	1	1'-8"	4'-8"	4'-8"			246
RA511	116	8'-10"	2	2'-8"	1'-5 1/2"				1070
RA512	4	19'-2"	STR						80
RA513	2	30'-0"	STR						63
RA514	4	6'-4"	STR						26
RA801	8	18'-1"	STR						384
RA802	8	4'-1"	STR						88
RA1001	4	44'-9"	STR						770
RA1002	8	30'-1"	STR						1036
RA1003	8	23'-1"	STR						795
RA1004	4	44'-1"	STR						759
TOTAL WEIGHT REAR ABUTMENTS (FOR INFORMATION ONLY)									7356
FORWARD ABUTMENTS									
FA501	16	5'-1"	STR						84
FA502	16	4'-1"	STR						68
FA503	4	27'-6"	STR						115
FA504	2	35'-8"	STR						74
FA505	4	6'-4"	STR						26
FA506	24	18'-0"	STR						450
FA507	248	2'-2"	STR						560
FA508	38	10'-9"	2	2'-6"	2'-7"				426
FA509	36	7'-2"	STR						270
FA510	116	11'-9"	2	2'-8"	1'-5 1/2"				1421
FA511	20	14'-3"	1	1'-8"	6'-5"	6'-5"			298
FA512	4	6'-7"	STR						27
FA513	2	32'-11"	STR						69
FA514	4	22'-2"	STR						46
FA801	8	4'-1"	STR						88
FA802	8	18'-0"	STR						384
FA1001	8	31'-7"	STR						1087
FA1002	4	49'-1"	STR						845
FA1003	4	46'-1"	STR						793
FA1004	8	44'-11"	STR						1546
TOTAL WEIGHT FORWARD ABUTMENTS (FOR INFORMATION ONLY)									8677

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INC	WEIGHT (POUNDS)
PIERS									
P401	352	2'-8"	13	1'-8"					627
P501	8 SERIES OF 9	11'-4" TO 14'-10"	12	1'-8" / 1'-8"	4'-2" TO 5'-1"			2 5/8" / 2 5/8"	3936
P502	60	9'-8"	12	1'-8"	3'-4"				605
P503	72	4'-9"	1	1'-8"	1'-8"	1'-8"			356
P504	32	19'-2"	STR						640
P505	40	5'-8"	4	4'-9"	11"				236
P506	72	14'-8"	STR						1100
P507	464	2'-0"	STR						968
P508	32	7'-10"	12	1'-8"	2'-5"				260
P511	16	5'-2"	STR						88
P512	8	3'-2"	STR						28
P513	32	4'-9"	1	1'-8"	1'-8"	1'-8"			160
P514	8	3'-6"	STR						29
P515	8	15'-6"	12	1'-8"	2'-6"				129
P601	16	13'-8"	STR						328
P602	120	18'-2"	STR						3276
P603	164	2'-8"	STR						658
P604	104	3'-10"	3	5'-0"	10"				912
P606	56	6'-8"	STR						560
P901	20	21'-5"	3	19'-2"	2'-6"				1456
P902	40	14'-5"	3	12'-2"	2'-6"				1960
P903	20	12'-2"	STR						828
TOTAL WEIGHT PIERS (FOR INFORMATION ONLY)									16188
SUPERSTRUCTURE									
S401	482	26'-5"	STR						8505
S402	964	24'-0"	STR						15454
S403	482	21'-3"	STR						6842
S404	556	3'-8"	1	1'-2"	1'-3"	1'-3"			1362
S405	218	25'-1"	STR						3653
S406	109	25'-5"	STR						1851
S407	200	16'-3"	STR						2126
S501	424	7'-5"	10	3'-0"	3'-2"	2.3	1'-1"		3280
S502	120	30'-0"	STR						3754
S601	424	4'-7"	9	2'-7"	1'-1"	1'-1"			3044
S602	424	3'-6"	3	2'-7"	1'-1"				2228
S603	20	30'-0"	STR						902
S801	204	24'-11"	STR						13572
S802	200	26'-0"	STR						13884
S803	200	23'-2"	6	22'-0"					12371
S804	102	23'-10"	STR						6491
S805	100	22'-9"	STR						6074
S806	100	22'-9"	STR						6074
S807	204	21'-6"	STR						11711
S901	222	28'-7"	STR						21575
S902	111	32'-5"	STR						12234
S903	218	20'-3"	STR						15009
S904	222	18'-6"	STR						13964
S905	218	20'-3"	STR						15009
TOTAL WEIGHT SUPERSTRUCTURE (FOR INFORMATION ONLY)									200969

BAR BENDING DIAGRAMS



BAR DIMENSIONS SHOWN ARE OUT-TO-OUT UNLESS NOTED. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR"

SPACERS:
CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 10 FEET) TO ENSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE COLUMN. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 3 INCH CLEARANCE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN.

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST LETTER(S) IDENTIFIES THE BAR LOCATION, THE NEXT DIGIT(S) INDICATES THE BAR DESIGNATION. THE REMAINING DIGITS INDICATE THE SEQUENCE NUMBER.

EXAMPLE: A501
A = LOCATION OF THE BAR IN THE STRUCTURE (ABUTMENT)
5 = BAR SIZE DESIGNATION (#5, 5/8"ø)
01 = SEQUENCE NUMBER

DESIGN AGENCY
R.E. WARNER & ASSOCIATES, INC. CONSULTING ENGINEERS
THREE KING JAMES PARK - SUITE 300, 24600 CENTER RIDGE ROAD, WESTLAKE, OHIO 44145, TELEPHONE (440) 835-9400
JOB NUMBER 93197

DESIGNED KK | CHECKED RAK | DRAWN KK | REVISED | REVIEWED RAK | DATE 4/30/01 | STRUCTURE FILE NUMBER 4704959(L) 4704983(R)

REINFORCING SCHEDULE
BRIDGE No. LOR-90-1861 L AND R
INTERSTATE ROUTE 90 OVER FRENCH CREEK

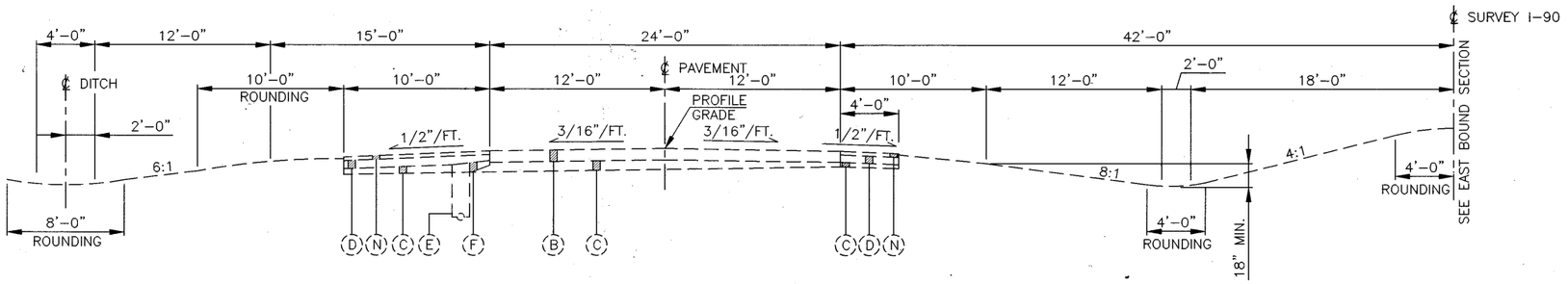
LOR-90-10.76

24/24

O:\93600\BRIDGE\DWGS\L0090RL1.DWG

EXISTING NORMAL TYPICAL SECTIONS – I.R. 90 – E.B. & W.B.

(WITHOUT EXISTING OVERLAY)



EXISTING NORMAL SECTION (WESTBOUND)

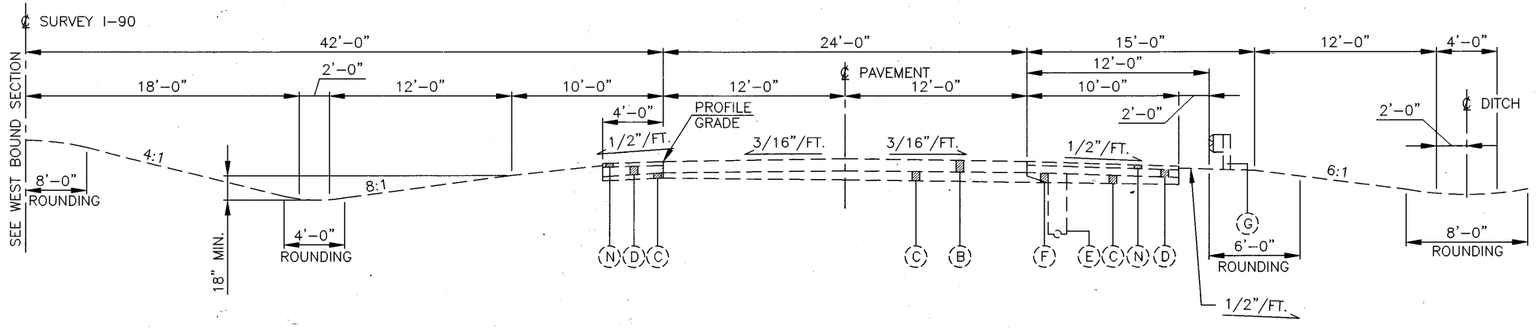
STA. 966+00 TO STA. 971+87.64

STA. 1003+66.69 TO STA. 1018+00

EXISTING LEGEND

- (D) 10" REINFORCED CONCRETE PAVEMENT
- VARIABLE THICKNESS SUBBASE
- 6" AGGREGATE BASE
- (N) 6" PIPE UNDERDRAIN
- (C) SPECIAL DRAINAGE CONNECTION
- (E) GUARDRAIL, TYPE 5
- (F) 3" ASPHALT BASE

FOR LIMITING STATIONS SEE PROPOSED TYPICAL SECTIONS



EXISTING NORMAL SECTION (WESTBOUND)

STA. 966+00 TO STA. 971+40.84

STA. 1004+13.49 TO STA. 1017.18

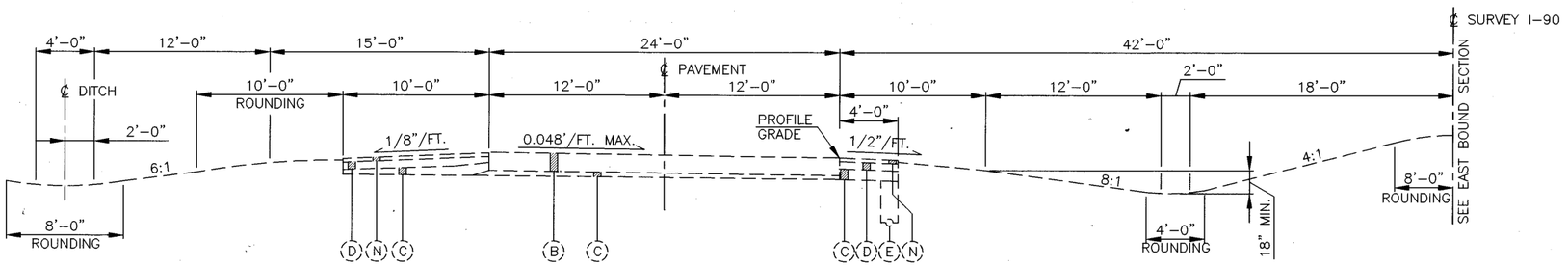
CALCULATED DLS | CHECKED LAB

EXISTING, E.B & W.B., NORMAL TYPICAL SECTIONS - I.R. 90

LOR - I90 - 10.76

EXISTING SUPERELEVATED TYPICAL SECTIONS – I.R. 90 – E.B. & W.B.

(WITHOUT EXISTING OVERLAY)



EXISTING SUPERELEVATED SECTION (WESTBOUND)

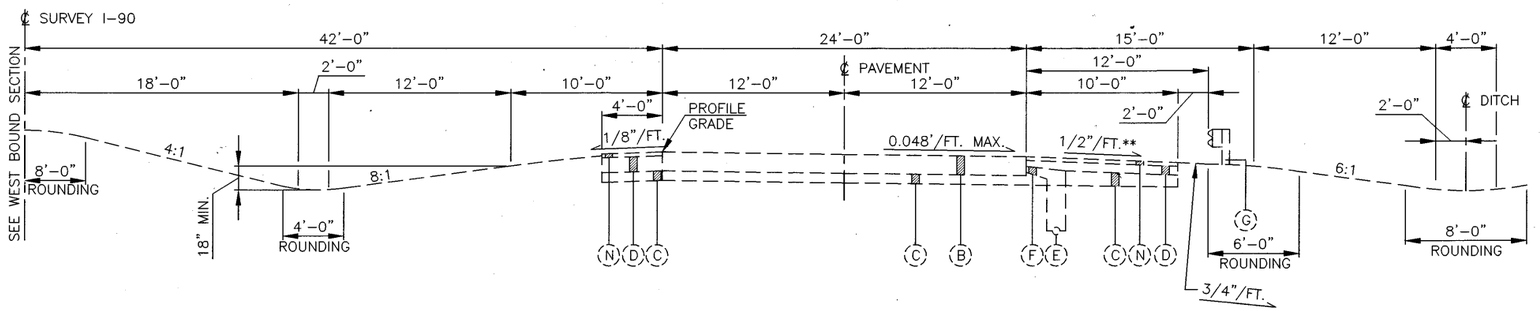
SUPERELEVATION TRANS.	STA. 971+87.64 TO STA. 977+81.64
FULL SUPERELEVATION	STA. 977+81.64 TO STA. 997+72.69
SUPERELEVATION TRANS.	STA. 997+72.69 TO STA. 1003+66.69

EXISTING LEGEND

- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (N) 3" ASPHALT BASE

FOR LIMITING STATIONS SEE PROPOSED TYPICAL SECTIONS.

** OR RATE OF SUPER IF GREATER



EXISTING SUPERELEVATED SECTION (WESTBOUND)

SUPERELEVATION TRANS.	STA. 971+40.84 TO STA. 977+81.64
FULL SUPERELEVATION	STA. 977+81.64 TO STA. 997+72.69
SUPERELEVATION TRANS.	STA. 997+72.69 TO STA. 1004+13.49

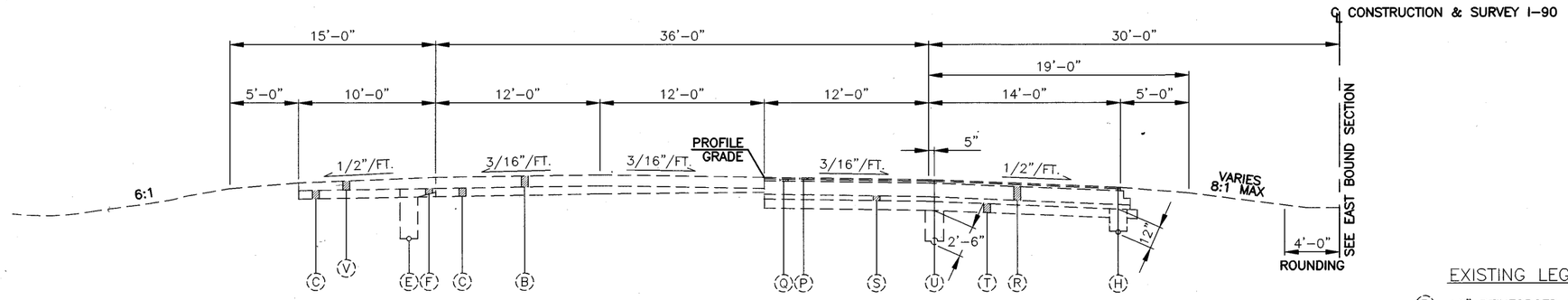
CALCULATED DLS | CHECKED LAB

EXISTING, E.B. & W.B., SUPERELEVATED TYPICAL SECTIONS - I.R. 90

LOR - 190 - 10.76

[D:\93600\DWGS\93600FNL\T-X10.DWG] DLS
02-21-2022 2:13PM

EXISTING TYPICAL SECTIONS – I.R. 90
(RECONSTUCTION OF EXISTING PAVEMENT & PREVIOUSLY WIDENED SECTION)

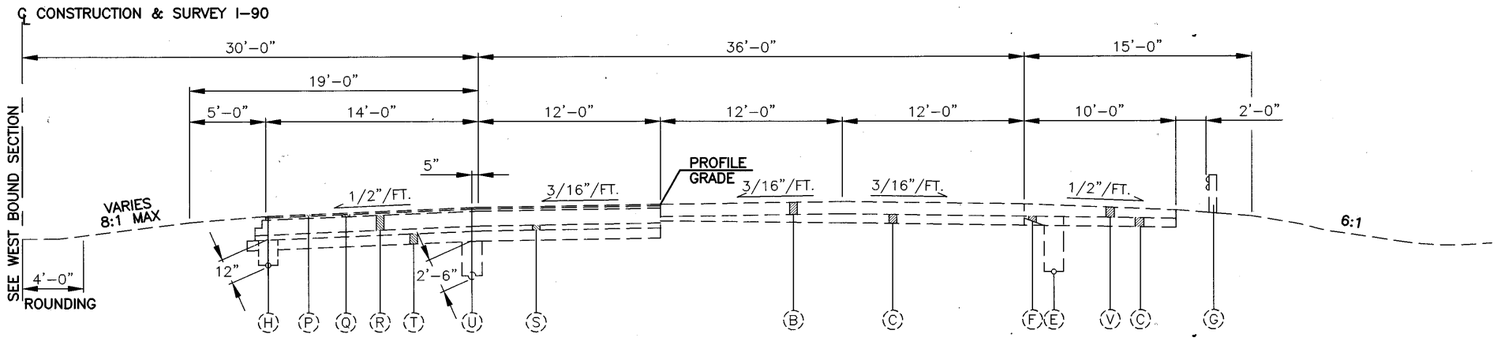


NORMAL SECTION (WESTBOUND)

STA 1018+00 TO STA 1035+00

EXISTING LEGEND

- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (E) 6" SHALLOW PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GUARDRAIL, TYPE 5
- (H) 4" SHALLOW PIPE UNDERDRAIN W/FABRIC WRAP, 707.15
- (P) 1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, AC–20
- (Q) 1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, AC–20
- (R) 12" BITUMINOUS AGGREGATE BASE, AC–20
- (S) 4" ASPHALT TREATED FREE DRAINING BASE
- (T) 8" AGGREGATE BASE
- (U) 6" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.15
- (V) 10" TEMPORARY ASPHALT SHOULDER



NORMAL SECTION (EASTBOUND)

STA 1017+70.18 TO STA 1035+00

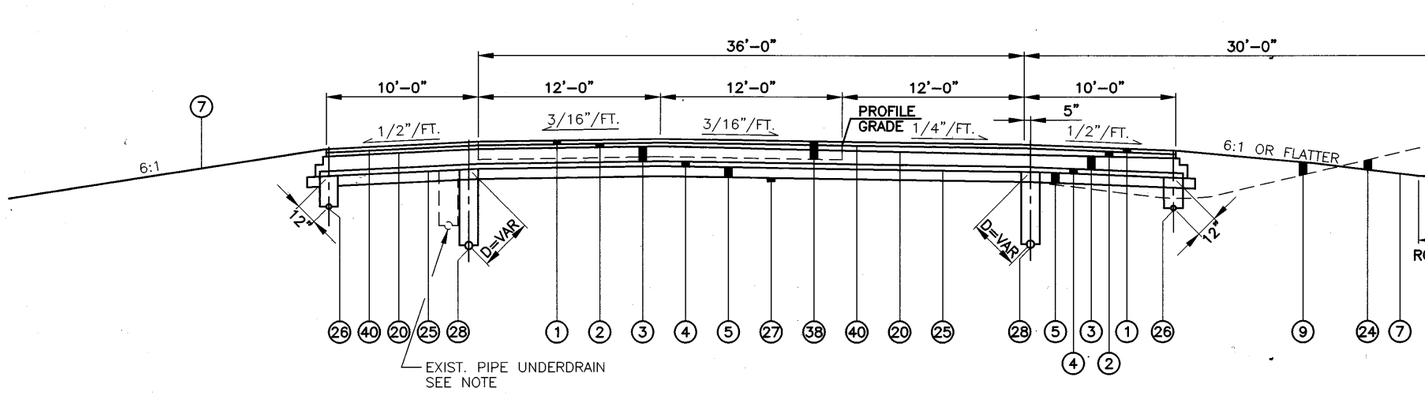
CALCULATED DLS | CHECKED LAB

EXISTING TYPICAL SECTIONS - I.R. 90 - (RECONSTUCTION)

LOR - I90 - 10.76

153
274

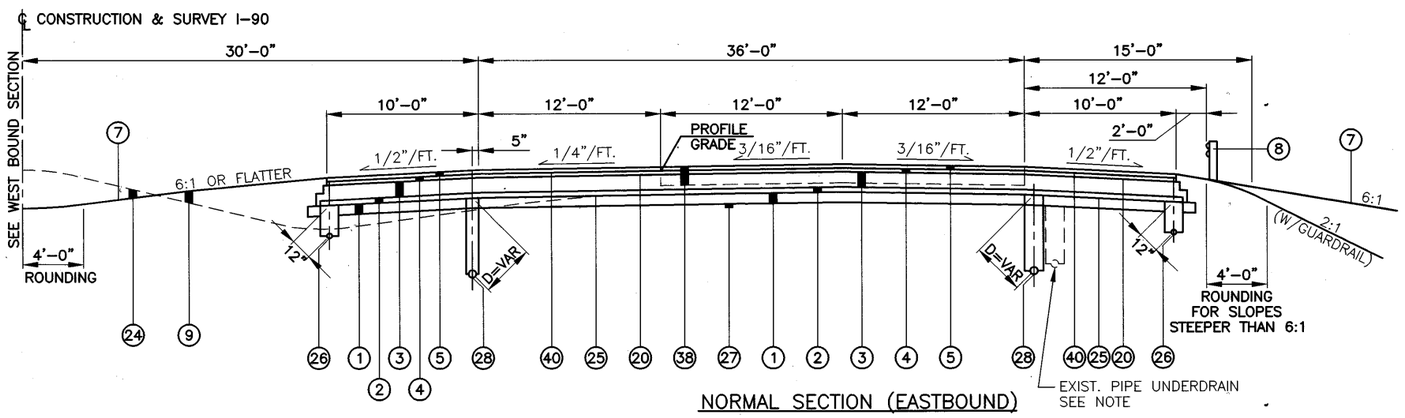
PROPOSED TYPICAL SECTIONS – I.R. 90 (WIDENING)



NORMAL SECTION (WESTBOUND)

STA. 966+00 TO STA. 971+87.64

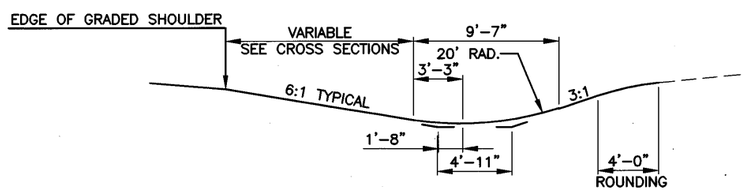
STA. 1003+66.69 TO STA. 1018+00



NORMAL SECTION (EASTBOUND)

STA. 966+00 TO STA. 971+40.84

STA. 1004+13.49 TO STA. 1017+70.18



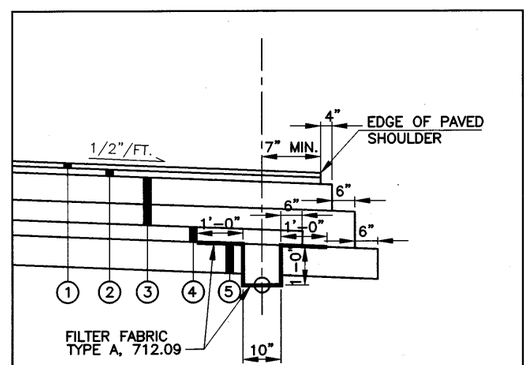
TYPICAL CUT SECTION DITCH FOR OUTSIDE SHOULDER GRADING

PROPOSED LEGEND

1. ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE TYPE 1, PG 76-22 MODIFIED
2. ITEM 446 – 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, PG 70-22 SUPPLEMENTAL 880
3. ITEM 301 – 11 3/4" BITUMINOUS AGGREGATE BASE, PG 64-22 SUPPLEMENTAL 880
4. ITEM 855 – 4" ASPHALT TREATED FREE DRAINING BASE
5. ITEM 304 – 8" AGGREGATE BASE
7. ITEM 870 – SEEDING AND MULCHING (SEE GENERAL NOTE)
8. ITEM 606 – GUARDRAIL, TYPE 5
9. ITEM 203 – EMBANKMENT
20. ITEM 407 – TACK COAT @ 0.10 GALS/SQ. YD.
24. ITEM 203 – EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
25. ITEM 408 – BITUMINOUS PRIME COAT @ 0.40 GALS/SQ. YD.
26. ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN W/FABRIC WRAP, 707.31, AS PER PLAN
27. ITEM 203 – SUBGRADE COMPACTION
28. ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31
38. ITEM 202 – PAVEMENT REMOVED, 10" CONCRETE
40. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GALS/SQ. YD.

NOTE

1. THIS IS A WARRANTY PAVEMENT AND SHALL BE CONSTRUCTED AS PER SUPPLEMENTAL SPECIFICATIONS 880 ASPHALT CONCRETE WITH WARRANTY.
2. THE UNDERDRAIN DEPTHS ARE 18", 30", OR VARIABLE (UNCLASSIFIED). SEE UNDERDRAIN TABLE FOR LOCATIONS.
3. TYPICALS DO NOT SHOW ACCELERATION AND DECELERATIONS LANES. SEE SHEET T7.
4. EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED.



NOTE: PRIME COAT SHALL NOT BE PLACED ON TOP OF OR UNDER FILTER FABRIC.

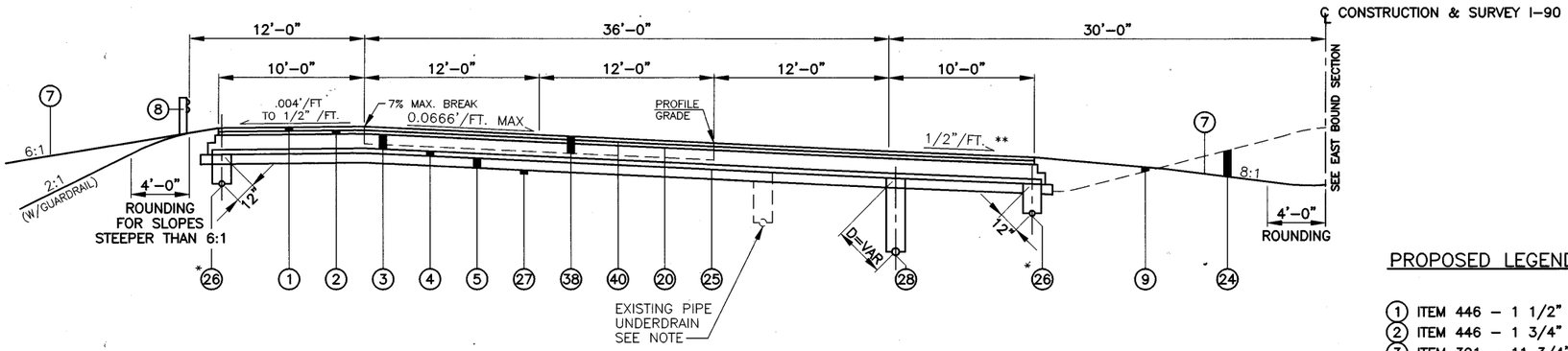
SHOULDER EDGE COURSE AND UNDERDRAIN WITH FABRIC WRAP, 707.31, AS PER PLAN

CALCULATED DLS | CHECKED LAB

PROPOSED TYPICAL SECTIONS 3 - LANE WIDENING

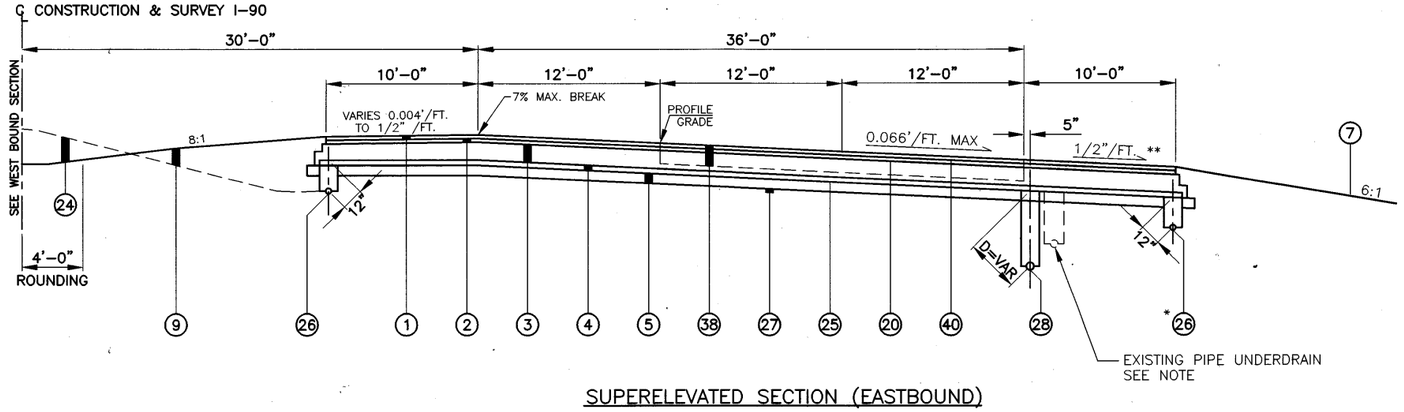
LOR - 190 - 10.76

PROPOSED SUPERELEVATED TYPICAL SECTIONS – I.R. 90 (WIDENING)



SUPERELEVATED SECTION (WESTBOUND)

SUPERELEVATION TRANS.	STA. 971+87.64 TO STA. 977+81.64
FULL SUPERELEVATION	STA. 977+81.64 TO STA. 997+72.69
SUPERELEVATION TRANS.	STA. 997+72.69 TO STA. 1003+66.69



SUPERELEVATED SECTION (EASTBOUND)

SUPERELEVATION TRANS.	STA. 971+40.84 TO STA. 977+81.64
FULL SUPERELEVATION	STA. 977+81.64 TO STA. 997+72.69
SUPERELEVATION TRANS.	STA. 997+72.69 TO STA. 1004+13.49

PROPOSED LEGEND

(1) ITEM 446 – 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 76–22 MODIFIED
(2) ITEM 446 – 1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 70–22 SUPPLEMENTAL 880
(3) ITEM 301 – 11 3/4" BITUMINOUS AGGREGATE BASE, PG 64–22 SUPPLEMENTAL 880
(4) ITEM 855 – 4" ASPHALT TREATED FREE DRAINING BASE
(5) ITEM 304 – 8" AGGREGATE BASE
(7) ITEM 870 – SEEDING AND MULCHING (SEE GENERAL NOTE)
(8) ITEM 606 – GUARDRAIL, TYPE 5
(9) ITEM 203 – EMBANKMENT
(20) ITEM 407 – TACK COAT @ 0.10 GALS/SQ. YD.
(24) ITEM 203 – EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(25) ITEM 408 – BITUMINOUS PRIME COAT @ 0.40 GALS/SQ.YD.
(26) ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN W/FABRIC WRAP, 707.31, AS PER PLAN
(27) ITEM 203 – SUBGRADE COMPACTION
(28) ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31
(38) ITEM 202 – PAVEMENT REMOVED, 10" CONCRETE
(40) ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GALS/SQ. YD.

NOTES:

* FOR UNDERDRAIN AND EDGE COURSE DETAILS SEE SHEET NO. T4
** OR RATE OF SUPER IF GREATER

NOTES:

1. THIS IS A WARRANTY PAVEMENT AND SHALL BE CONSTRUCTED AS PER SUPPLEMENTAL SPECIFICATIONS 880 ASPHALT CONCRETE WITH WARRANTY.
2. THE UNDERDRAIN DEPTHS ARE 18", 30", OR VARIABLE (UNCLASSIFIED). SEE UNDERDRAIN TABLE FOR LOCATIONS.
3. TYPICALS DO NOT SHOW ACCELERATION AND DECELERATIONS LANES. SEE SHEET T7.
4. EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED

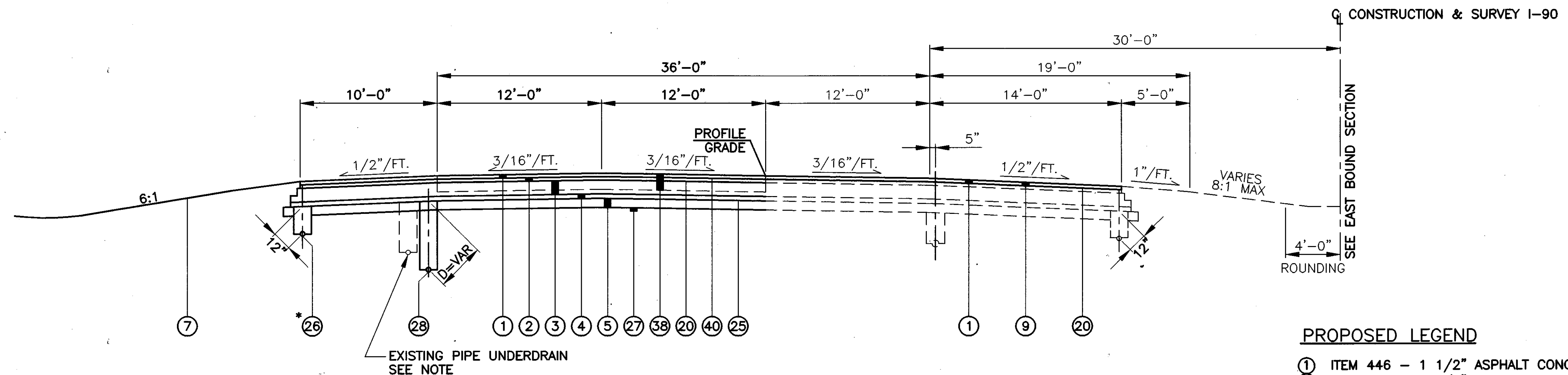
CALCULATED DLS | CHECKED LAB

PROPOSED SUPERELEVATED TYPICAL SECTION 3 - LANE WIDENING

LOR - I90 - 10.76

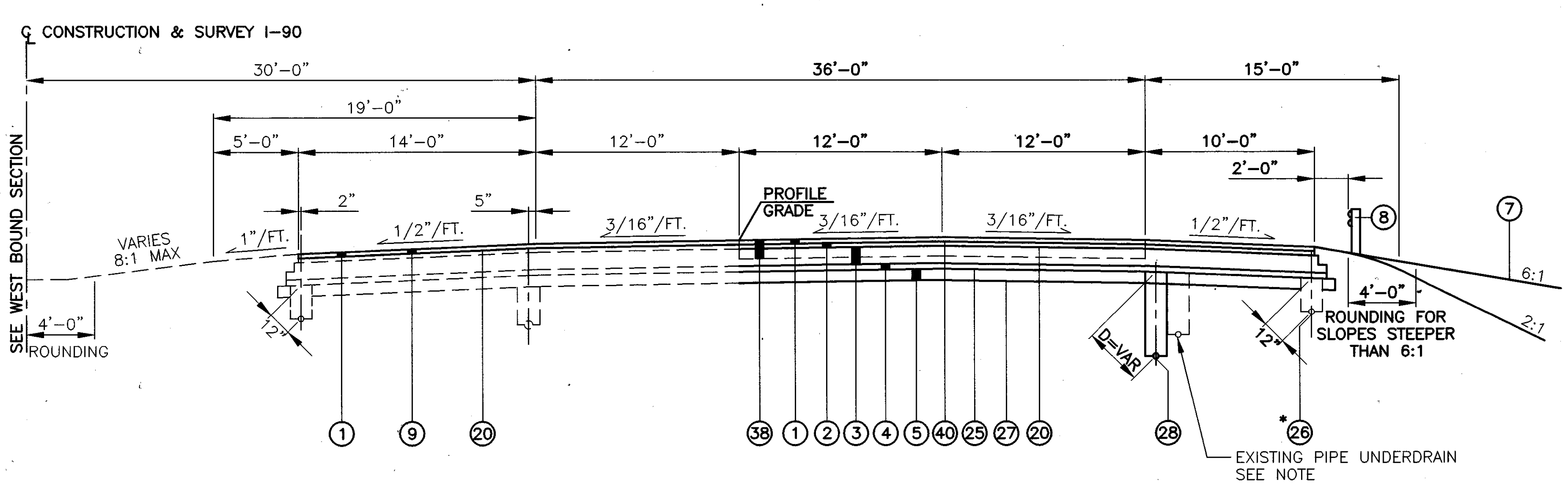
PROPOSED TYPICAL SECTIONS – I.R. 90

(RECONSTUCTION OF EXISTING PAVEMENT & PREVIOUSLY WIDENED SECTION)



NORMAL SECTION (WESTBOUND)

STA 1018+00 TO STA 1035+00



NORMAL SECTION (EASTBOUND)

STA 1017+70.18 TO STA 1035+00

PROPOSED LEGEND

1. ITEM 446 – 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 76–22 MODIFIED
2. ITEM 446 – 1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 70–22 SUPPLEMENTAL 880
3. ITEM 301 – 11 3/4" BITUMINOUS AGGREGATE BASE, PG 64–22 SUPPLEMENTAL 880
4. ITEM 855 – 4" ASPHALT TREATED FREE DRAINING BASE
5. ITEM 304 – 8" AGGREGATE BASE
7. ITEM 870 – SEEDING AND MULCHING (SEE GENERAL NOTE)
8. ITEM 606 – GUARDRAIL, TYPE 5
9. ITEM 254 – PAVEMENT PLANNING, BITUMINOUS
20. ITEM 407 – TACK COAT @ 0.10 GALS/SQ. YD.
25. ITEM 408 – BITUMINOUS PRIME COAT @ 0.40 GALS/SQ. YD.
26. ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN W/FABRIC WRAP, 707.31, AS PER PLAN
27. ITEM 203 – SUBGRADE COMPACTION
28. ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31
38. ITEM 202 – PAVEMENT REMOVED, 10" CONCRETE
40. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GALS/SQ. YD.

NOTES:

1. THIS IS A WARRANTY PAVEMENT AND SHALL BE CONSTRUCTED AS PER SUPPLEMENTAL SPECIFICATIONS 880 ASPHALT CONCRETE WITH WARRANTY.
2. THE UNDERDRAIN DEPTHS ARE 18", 30", OR VARIABLE (UNCLASSIFIED). SEE UNDERDRAIN TABLE FOR LOCATIONS.
3. EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED

* FOR UNDERDRAIN AND EDGE COURSE DETAILS, SEE SHEET T4.

CALCULATED DLS
CHECKED LAB

PROPOSED TYPICAL SECTIONS - I.R. 90 - (RECONSTRUCTION)

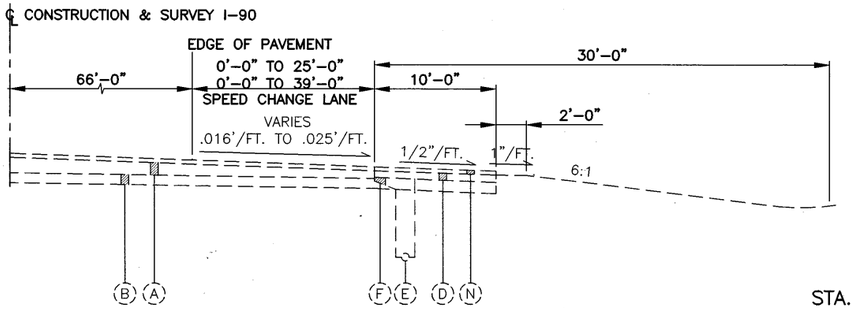
LOR - I90 - 10.76

J:\93600\DWGS\93600FNL\T-X4.DWG] LAB
-19-2002 12:38PM

TYPICAL SECTIONS SPEED CHANGE AND RAMP PACING LANES

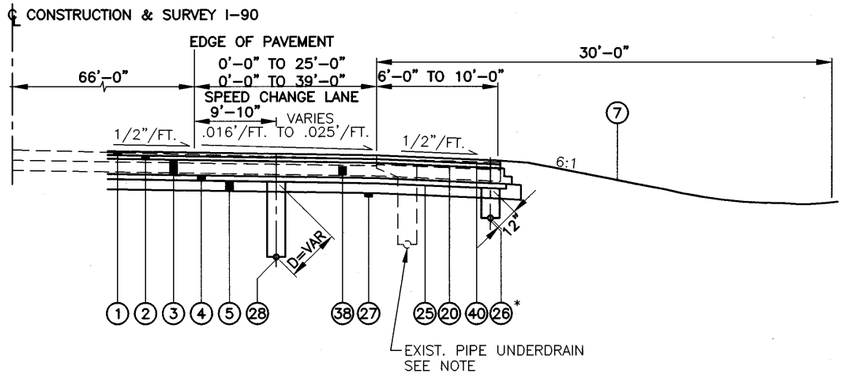
S.R. 611 INTERCHANGE

EXISTING TYPICALS

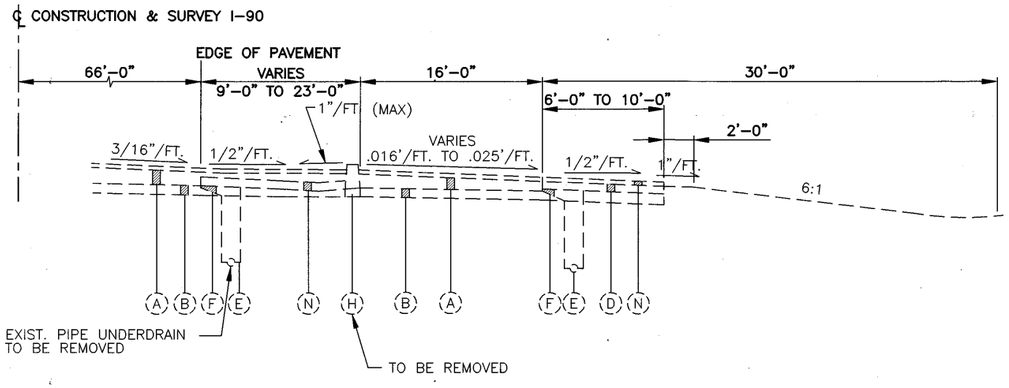


RAMP "M"
STA. 990+13.04 TO STA. 992+50.88
~~RAMP "P"~~
~~STA. 961+22.89 TO STA. 965+69.82~~
WORK NOT PERFORMED

PROPOSED TYPICALS



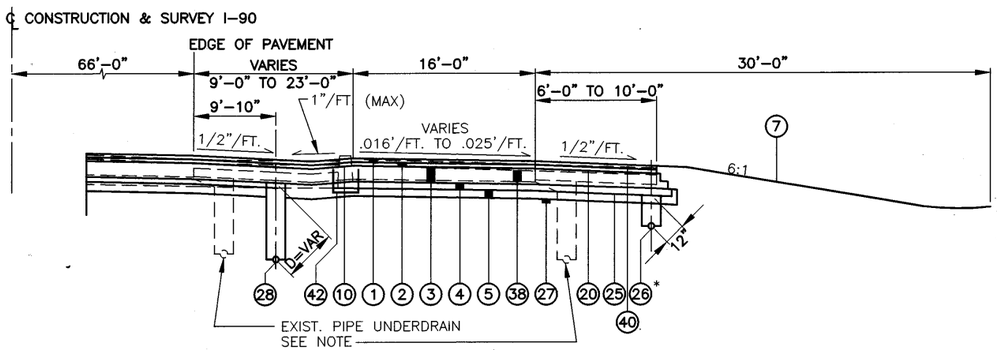
SPEED CHANGE LANE
LIMITING STATIONING



RAMP PACING LANE
LIMITING STATIONING

RAMP "N"
STA. 993+21.89 TO STA. 1005+21.89
~~RAMP "R"~~
~~STA. 953+14.43 TO STA. 965+14.43~~
WORK NOT PERFORMED

SPEED CHANGE LANE
LIMITING STATIONING



RAMP PACING LANE
LIMITING STATIONING

EXISTING LEGEND

- (A) 10" REINFORCED CONCRETE PAVEMENT
- (B) VARIABLE THICKNESS SUBBASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION, USING NO.9 AGGREGATE
- (G) GUARDRAIL, TYPE 5
- (H) CONCRETE CURB, STANDARD TYPE 8
- (N) 3" BITUMINOUS AGGREGATE BASE
- (H) CURB, TYPE 8

NOTE

1. THIS IS A WARRANTY PAVEMENT AND SHALL BE CONSTRUCTED AS PER SUPPLEMENTAL SPECIFICATIONS 880 ASPHALT CONCRETE WITH WARRANTY.
2. THE UNDERDRAIN DEPTHS ARE 18", 30", OR VARIABLE (UNCLASSIFIED). SEE UNDERDRAIN TABLE FOR LOCATIONS.
3. EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED
4. SEE SHEETS M6 – M9 FOR ACCELERATION AND DECELERATION LAYOUTS

* FOR UNDERDRAIN AND EDGE COURSE DETAILS, SEE SHEET T4.

PROPOSED LEGEND

- (1) ITEM 446 – 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 76-22 MODIFIED
- (2) ITEM 446 – 1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, 70-22 SUPPLEMENTAL 880
- (3) ITEM 301 – 11 3/4" BITUMINOUS AGGREGATE BASE, PG 64-22 SUPPLEMENTAL 880
- (4) ITEM 855 – 4" ASPHALT TREATED FREE DRAINING BASE
- (5) ITEM 304 – 8" AGGREGATE BASE
- (7) ITEM 870 – SEEDING AND MULCHING (SEE GENERAL NOTE)
- (10) ITEM 202 – CURB REMOVED
- (20) ITEM 407 – TACK COAT @ 0.10 GALS./SQ. YD.
- (25) ITEM 408 – BITUMINOUS PRIME COAT @ 0.40 GALS./SQ. YD.
- (26) ITEM 605 – 4" SHALLOW PIPE U.D. W/FABRIC WRAP, 707.31, AS PER PLAN
- (27) ITEM 203 – SUBGRADE COMPACTION
- (28) ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31
- (38) ITEM 202 – PAVEMENT REMOVED, 10" CONCRETE
- (40) ITEM 407 – TACK COAT, @ 0.05 GALS./SQ. YD. (FOR INTERMEDIATE COURSE)
- (42) ITEM 446 – ASPHALT CONCRETE TO FILL IN TRENCH

CALCULATED DLS | CHECKED LAB

SPEED CHANGE AND PACING LANES TYPICAL SECTIONS S.R. 611

LOR - 190 - 10.76

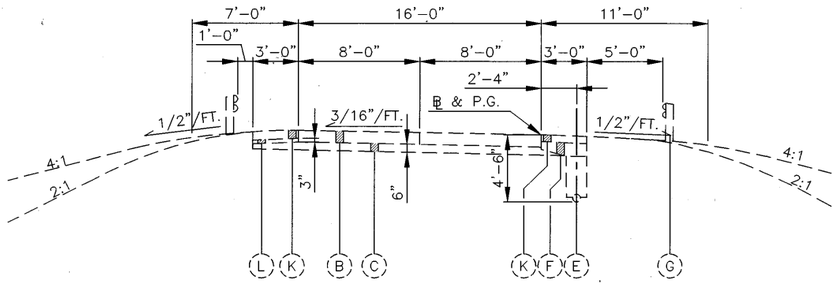
157
274

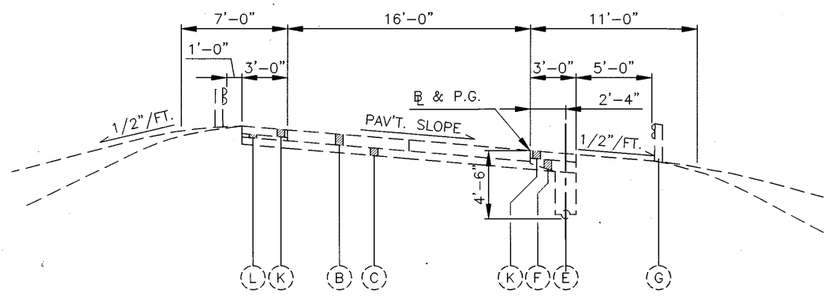
\\93600\DWGS\93600PNL\T-X5.DWG | LAB
-21-2002 12:38PM

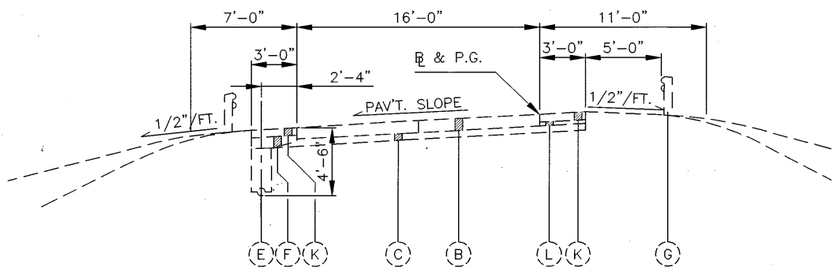
RAMP TYPICAL SECTIONS – SR 611 INTERCHANGE

(WITHOUT EXISTING OVERLAY)

FILL







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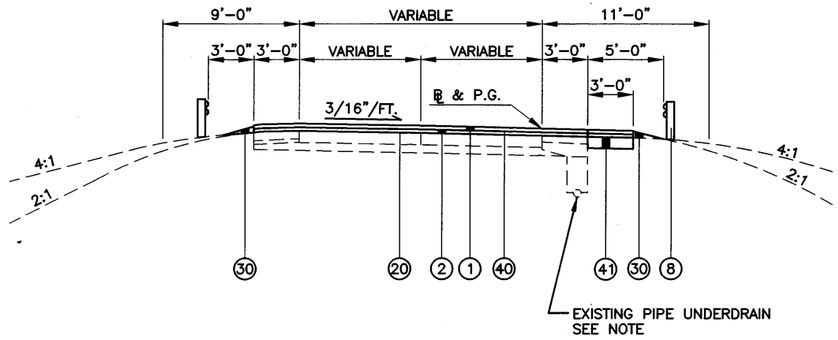
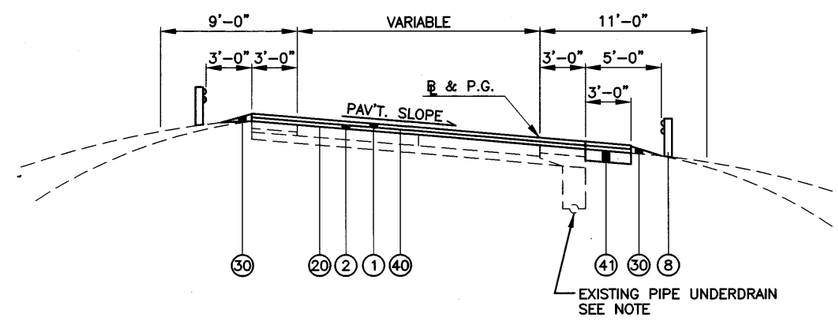
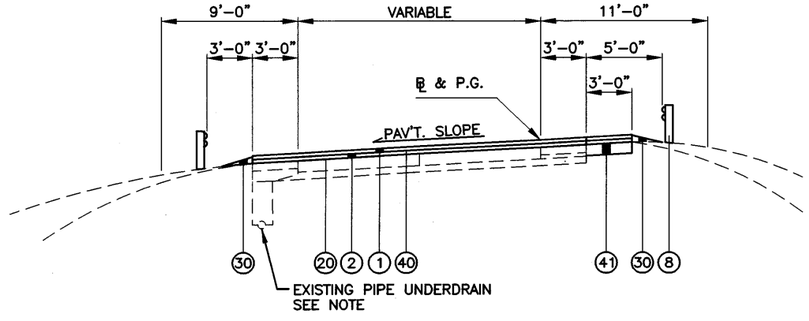






EXISTING LEGEND

- (A) 3 1/4" ASPHALT CONCRETE OVERLAY
- (B) 10" REINFORCED CONCRETE PAVEMENT
- (C) VARIABLE THICKNESS SUBBASE
- (E) 6" PIPE UNDERDRAIN
- (F) SPECIAL DRAINAGE CONNECTION
- (G) GARDRAIL, TYPE 5
- (K) 6" BITUMINOUS AGGREGATE BASE
- (L) AGGREGATE BASE

NOTE:

EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED

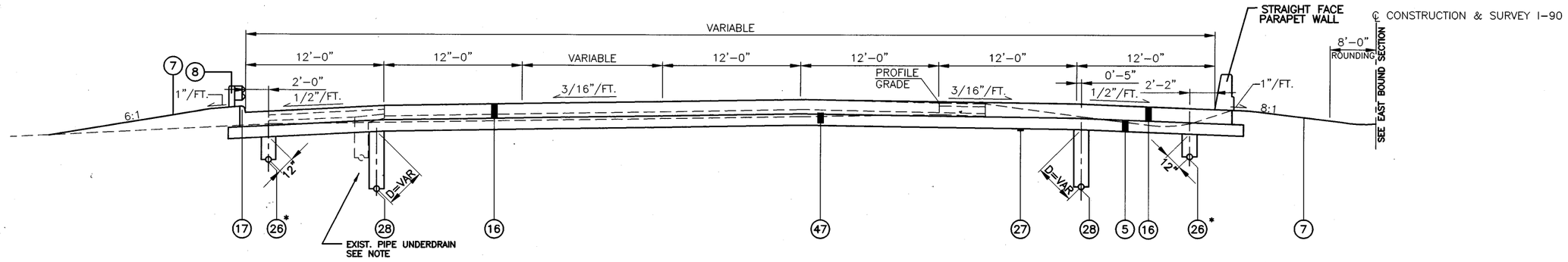
PROPOSED LEGEND

- (1) ITEM 446 – 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1H
- (2) ITEM 446 – 2 1/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64–28
- (8) ITEM 606 – GUARDRAIL, TYPE 5
- (20) ITEM 407 – TACK COAT @ 0.10 GALS/SQ. YD.
- (30) ITEM 617 – SHOULDER RECONDITIONING, MISC., COMPACTED AGGREGATE
- (40) ITEM 407 – TACK COAT FOR INTERMEDIATE @ 0.05 GALS/SQ. YD.
- (41) ITEM 301 – 6" BITUMINOUS AGGREGATE BASE, PG 64–22

CALCULATED DLS | CHECKED LAB

RAMP TYPICAL SECTIONS (WITHOUT EXISTING OVERLAY)

LOR - I90 - 10.76



NORMAL APPROACH SLAB SECTION (WESTBOUND)

STA. 966+22.25 TO STA. 966+33.25 (TYPE 2A CURB WILL BE USED ON BOTH SIDES)
STA. 966+33.25 TO STA. 966+47.25 (STRAIGHT FACE PARAPET WALL WILL BE USED ON BOTH SIDES)

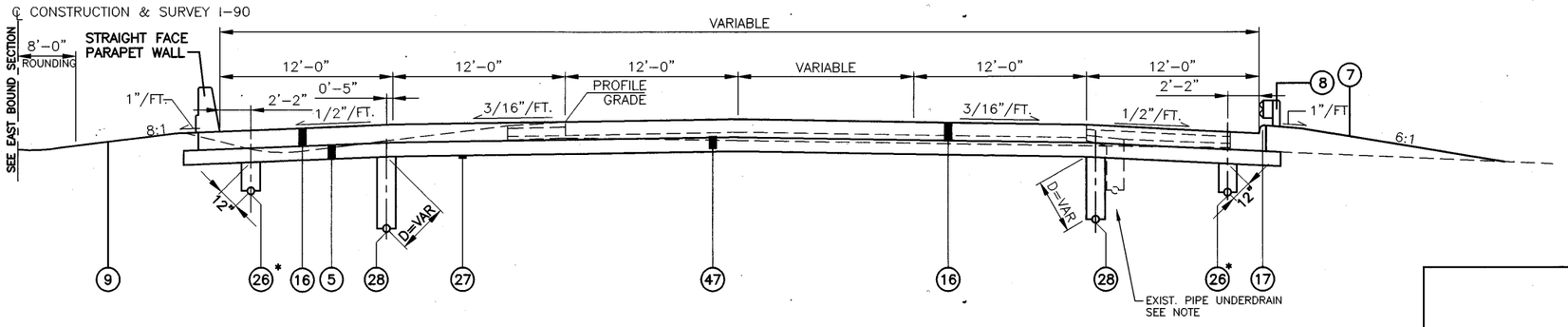
PROPOSED LEGEND

(5) ITEM 304 – 8" AGGREGATE BASE
(7) ITEM 870 – SEEDING AND MULCHING (SEE GENERAL NOTE)
(8) ITEM 606 – GUARDRAIL, TYPE 5
(16) ITEM 611 – REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(17) ITEM 830 – CURB, TYPE 2A – COST INCLUDED IN ITEM 611
(26) ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31, AS PER PLAN
(28) ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31
(27) ITEM 203 – SUBGRADE COMPACTION
(47) ITEM 202 – APPROACH SLAB REMOVED

NOTES

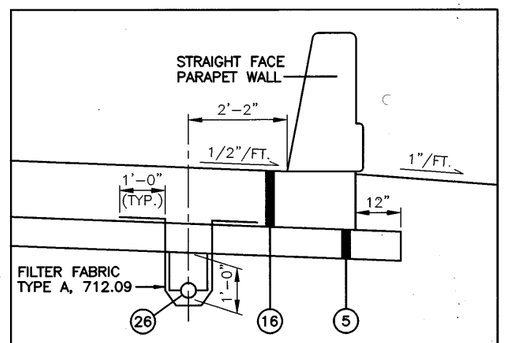
1. THE UNDERDRAIN DEPTHS ARE 18", 30", OR VARIABLE (UNCLASSIFIED). SEE UNDERDRAIN TABLE FOR LOCATIONS.
2. EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED

* FOR UNDERDRAIN DETAILS SEE DETAIL ON THIS SHEET.



NORMAL APPROACH SLAB SECTION (EASTBOUND)

STA. 966+22.25 TO STA. 966+33.15 (TYPE 2A CURB WILL BE USED ON BOTH SIDES)
STA. 966+33.15 TO STA. 966+47.25 (STRAIGHT FACE PARAPET WALL WILL BE USED ON BOTH SIDES)

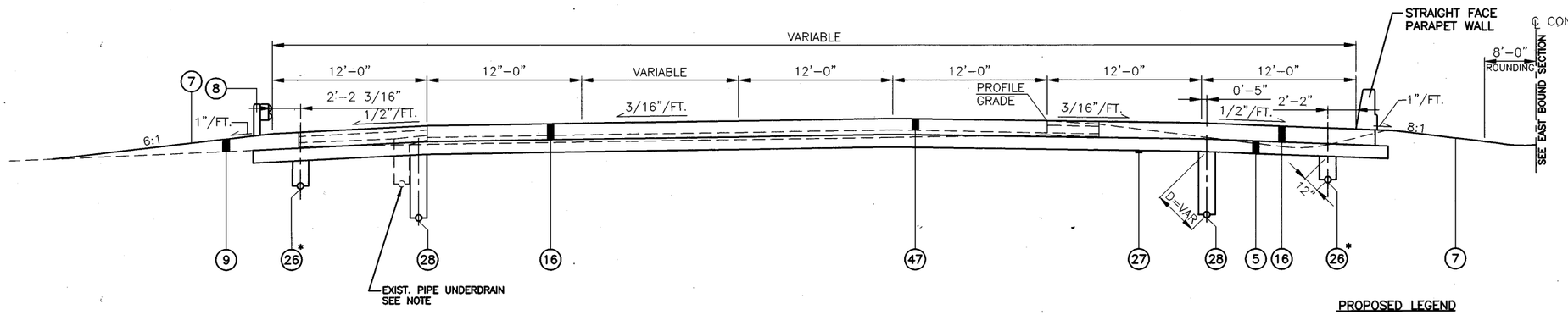


EDGE COURSE DETAIL AND SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31, AS PER PLAN

CALCULATED DLS | CHECKED LAB

NORMAL APPROACH SLAB SECTION (WESTBOUND) & (EASTBOUND)

LOR - I90 - 10.76



NORMAL APPROACH SLAB SECTION (WESTBOUND)

STA. 967+52.75 TO STA. 967+66.75 (STRAIGHT FACE PARAPET WALL WILL BE USED ON BOTH SIDES)
STA. 967+66.75 TO STA. 967+77.75

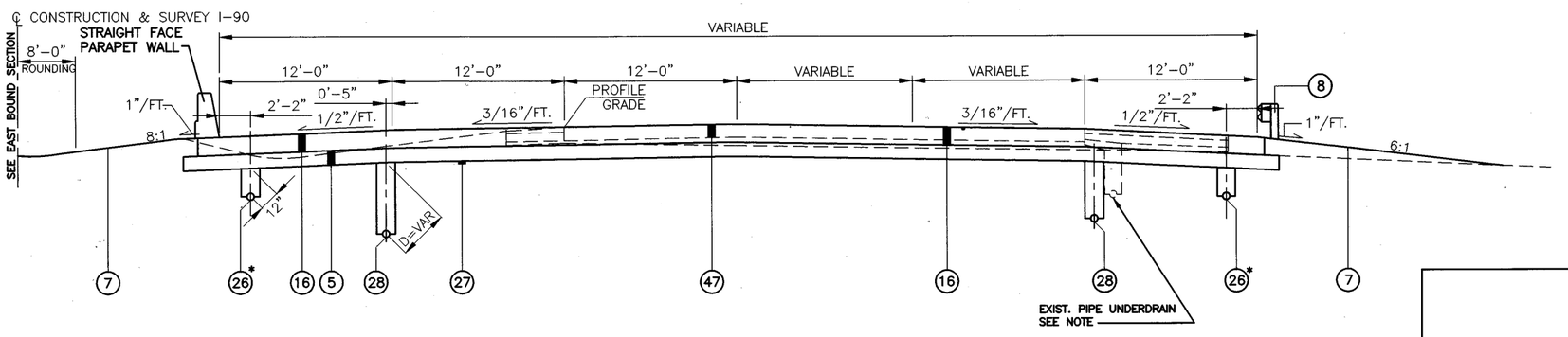
PROPOSED LEGEND

- (5) ITEM 304 – 8" AGGREGATE BASE
- (7) ITEM 870 – SEEDING AND MULCHING (SEE GENERAL NOTE)
- (8) ITEM 606 – GUARDRAIL, TYPE 5
- (16) ITEM 611 – REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
- (26) ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31, AS PER PLAN
- (28) ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN W/ FABRIC WRAP, 707.31
- (27) ITEM 203 – SUBGRADE COMPACTION
- (47) ITEM 202 – APPROACH SLAB REMOVED

NOTES

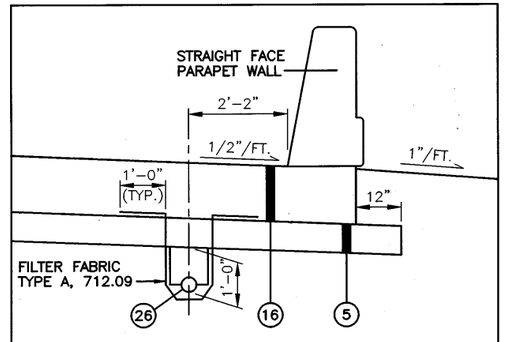
1. THE UNDERDRAIN DEPTHS ARE 18", 30", OR VARIABLE (UNCLASSIFIED). SEE UNDERDRAIN TABLE FOR LOCATIONS.
2. EXISTING UNDERDRAIN TO REMAIN AS LONG AS POSITIVE OUTLET FLOW IS MAINTAINED.

* FOR UNDERDRAIN DETAILS SEE DETAIL ON THIS SHEET.



NORMAL APPROACH SLAB SECTION (EASTBOUND)

STA. 967+52.75 TO STA. 967+66.65 (STRAIGHT FACE PARAPET WALL WILL BE USED ON BOTH SIDES)
STA. 967+66.65 TO STA. 967+77.75



EDGE COURSE DETAIL AND SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 AS PER PLAN

CALCULATED DLS | CHECKED LAB

NORMAL APPROACH SLAB SECTION (WESTBOUND) & (EASTBOUND)

ODOT PROJECT 3015-00

RECONSTRUCTION SECTION

ITEM 614 – MAINTAINING TRAFFIC
TWO LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, WITH THE EXCEPTIONS NOTED IN THE SEQUENCE OF CONSTRUCTION, BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND TEMPORARY SURFACES USING 304, 614 AND 615.

SPECIFIC DIRECTIONS REGARDING LANES CLOSURES FOR EACH SEGMENT OF CONSTRUCTION ARE NOTED IN THE SEQUENCE OF CONSTRUCTION.

THE FOLLOWING ESTIMATED QUANTITIES ARE FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614 – BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC — 300 CU. YD.

GENERAL

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS, 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 614, MAINTAINING TRAFFIC, UNLESS SEPERATELY ITEMIZED IN THE PLAN.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

TRENCH FOR WIDENING

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

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1 1/2 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

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 ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE 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.

DUST CONTROL

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

ITEM 616 – WATER — 200 M. GAL.
ITEM 616 – CALCIUM CHLORIDE — 20 TONS

ITEM 614 – BARRIER REFLECTOR AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO THE APPROPRIATE PROPOSAL NOTE AND ITEM 626 EXCEPT THAT THE SPACING SHALL BE 25 FEET.

TEMPORARY WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES ARE FOR USE AS DIRECTED BY THE ENGINEER FOR TEMPORARY WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS 614.04 AND 614.10.

ITEM 622 – PORTABLE CONCRETE BARRIER

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 SHALL BE UTILIZED FOR PROTECTION OF VEHICULAR TRAFFIC UNTIL MOVEMENT OF THE BARRIER IS COMPLETE.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME 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 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.

TEMPORARY PAVEMENT MARKINGS

IT MAY BE NECESSARY FOR THE CONTRACTOR TO PLACE TEMPORARY LANE LINE MARKINGS ON THE INTERMEDIATE AND/OR FINAL COURSES IF HE/SHE IS UNABLE TO EXPEDITE THE PROJECT. THE PLACEMENT OF THE TEMPORARY PAVEMENT MARKINGS SHALL BE SHOWN ON THE FINAL TRAFFIC CONTROL SHEET XXX. THESE TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED TO EACH ASPHALT PAVEMENT COURSE OPEN TO TRAFFIC.

ITEM 202 – CURB REMOVED, AS PER PLAN

ITEM 202 – CURB REMOVED AS PER PLAN SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS MANUAL. ADDITIONALLY, THIS ITEM SHALL INCLUDE PATCHING ANY GAP LEFT DUE TO THE REMOVAL. IN ANY AREA WHERE MAINTAINING TRAFFIC IS ANTICIPATED, THE PATCH SHALL MADE USING ASPHALT IN A MANNER TO CREATE A SURFACE SAFE FOR DRIVING AND ABLE TO WITHSTAND ANTICIPATED USE.

HOLIDAY WORK RESTRICTIONS

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

CHRISTMAS — NEW YEARS

MEMORIAL DAY — THE FORTH OF JULY

LABOR DAY — THANKSGIVING

THE PERIOD OF TIME THAT THE "NO WORK" APPLIES 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
MONDAY	12 NOON FRIDAY THROUGH 12 NOON TUESDAY
TUESDAY	12 NOON MONDAY THROUGH 12 NOON WEDNESDAY
WEDNESDAY	12 NOON TUESDAY THROUGH 12 NOON THURSDAY
THURSDAY	12 NOON WEDNESDAY THROUGH 12 NOON FRIDAY
FRIDAY	12 NOON THURSDAY THROUGH 12 NOON MONDAY
SATURDAY	12 NOON FRIDAY THROUGH 12 NOON MONDAY
SUNDAY	12 NOON FRIDAY THROUGH 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 INDUSTRY WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH SECTION 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

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 WITHIN THE WORK ZONE SPEED LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS,

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPPED 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 OR 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.

THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF DIVIDED HIGHWAYS, 500 FEET IN ADVANCE OF THE LANE REDUCTION TAPER. THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, 250 FEET IN ADVANCE OF THE LANE REDUCTION TAPER ON UNDIVIDED HIGHWAYS. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1 MILE FOR 55 MPH ZONES AND EVERY 1/2 MILE FOR 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.

SIGNS TO INDICATE THE RESUMPTION OF THE STATURORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R–10 SIGNS SHALL BE USED ON UNDIVIDED ROADWAYS. R–10 AND R–9A SIGNS SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R–10 AND R–9A SIGNS SHALL BE MOUNTED SIDE–BY–SIDE ON SEPERATE SUPPORTS.

THE CONTRACTOR MAY USE SIGN SUPPORTS IN USED BUT GOOD CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEET COMPLYING WITH THE REQUIREMENTS OF 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III–C SHEETING, FP–85. WORK ZONE SPPED 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 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 IN FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS.

614, WORK ZONE SPEED LIMITS SIGN — 16 EACH

THE SIGNS WILL BE PLACED AT THE FOLLOWING LOCATIONS:

WORK–SITE TRAFFIC SUPERVISOR

THE CONTRACTOR SHALL EMPLOY A WORKSITE TRAFFIC SUPERVISOR (WTS), OTHER THAN THE SUPERINTENDENT, FOR THE PURPOSE OF MONITORING THE MAINTENANCE OF TRAFFIC PLAN (MOTP). THE WTS SHALL HAVE EXPERIENCE OR TRAINING IN PROJECT SUPERVISION AND TRAFFIC CONTROL COMMENSURATE WITH THE RESPONSIBILITES OF MANAGING THE PROJECT MAINTENANCE OF TRAFFIC PLAN AND COORDINATING WITH ANY MOTORIST INFORMATION SYSTEM OUTSIDE THE PROJECT. THE GOALS OF THE WTS POSITION ARE TO MINIMIZE TRAFFIC CONGESTION AND MAXIMIZE PROJECT SAFETY AND EFFICIENCY. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A RESUME OF THE EXPERIENCE, TRAINING AND EDUCATION OF THE PERSON PROPOSED FOR WTS. PROJECT WORK SHALL NOT BEGIN WITHOUT AN APPROVED WTS. THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ECT. THE WTS SHALL REVIEW THE TRAFFIC CONTROL PATTERN UPON COMPLETION OF THE INSTALLATION BOTH DURING THE DAY AND THE NIGHT FOR ASSURANCE OF CONTRACT COMPLIANCE. THW WTS SHALL MAKE RECOMMENDATIONS TO MODIFY THE MOTP FOR BETTER/SAFER TRAFFIC FLOW. THESE RECOMMENDATIONS SHALL BE MADE IN WRITING TO THE ENGINEER. NO CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE MADE UNTIL APPROVAL IS OBTAINED FROM THE ENGINEER IN WRITING.

WORK–SITE TRAFFIC SUPERVISOR

THE CONTRACTOR SHALL EMPLOY A WORKSITE TRAFFIC SUPERVISOR (WTS), OTHER THAN THE SUPERINTENDENT, FOR THE PURPOSE OF MONITORING THE MAINTENANCE OF TRAFFIC PLAN (MOTP). THE WTS SHALL HAVE EXPERIENCE OR TRAINING IN PROJECT SUPERVISION AND TRAFFIC CONTROL COMMENSURATE WITH THE RESPONSIBILITES OF MANAGING THE PROJECT MAINTENANCE OF TRAFFIC PLAN AND COORDINATING WITH ANY MOTORIST INFORMATION SYSTEM OUTSIDE THE PROJECT. THE GOALS OF THE WTS POSITION ARE TO MINIMIZE TRAFFIC CONGESTION AND MAXIMIZE PROJECT SAFETY AND EFFICIENCY. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A RESUME OF THE EXPERIENCE, TRAINING AND EDUCATION OF THE PERSON PROPOSED FOR WTS. PROJECT WORK SHALL NOT BEGIN WITHOUT AN APPROVED WTS. THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ECT. THE WTS SHALL REVIEW THE TRAFFIC CONTROL PATTERN UPON COMPLETION OF THE INSTALLATION BOTH DURING THE DAY AND THE NIGHT FOR ASSURANCE OF CONTRACT COMPLIANCE. THW WTS SHALL MAKE RECOMMENDATIONS TO MODIFY THE MOTP FOR BETTER/SAFER TRAFFIC FLOW. THESE RECOMMENDATIONS SHALL BE MADE IN WRITING TO THE ENGINEER. NO CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE MADE UNTIL APPROVAL IS OBTAINED FROM THE ENGINEER IN WRITING.

DAILY, THE WTS SHALL REVIEW THE PROJECT'S TRAFFIC CONTROL WITH A MINIMUM OF TWO REVIEWS EACH WEEK BEING PERFORMED AT NIGHT. THE WTS SHALL BE AT THE PROJECT SITE EVERY DAY OF THE YEAR WHILE TEMPORARY TRAFFIC CONTROL DEVICES ARE IN PLACE. THE FOLLOWING ITEMS SHALLS BE INCLUDED IN EACH REVIEW: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, AND VISIBILITY; TRAFFIC FLOW CONDITIONS, INCIDENTS, CONGESTIONPOINTS, DELAYS, AND ADEQUACY OF ADVANCED INFORMATIONAL SIGNS BEYOND THE PROJECT LIMITS; INTERACTION OF WORK VEHICLES AND TRAFFIC; EVIDENCE OF ACCIDENTS; PROPER STORAGE OF MATERIALS AND EQUIPMENT; CONFORMANCE WITH MOTP; CONFLICTING OR NON–PERFORMING PAVEMENT MARKINGS. THE WTS SHALL NOTE ANY TRAFFIC CONTROL DEFICIENCIES. DEFICIENT OR IMPROPERLY PLACED TRAFFIC CONTROL DEVICES SHALL BE CORRECTED. THE WTS SHALL HAVE NECESSARY AUTHORITY TO IMMEDIATELY PERFORM THIS CORRECTIVE WORK. DAILY, A RECORD OF REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER IN WRITING AND SHALL INCLUDE A RECORD OR DEFICIENCIES AND RESOLUTION OF THE DEFICIENCIES.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO SUSPEND ALL WORK UNTIL ALL CORRECTIONS ARE MADE.

THE WTS OR ANOTHER DESIGNATED SUPERVISOR SHALL BE ON CALL 24 HOURS A DAY, SEVEN DAYS A WEEK. FOR THE DURATION OF THE PROJECT TO PROVIDE NECESSARY MAINTENANCE OPERATIONS ON THE PROJECT. THIS MAY INVOLVE REPAIR OR REPLACEMENT OF SIGNS, DRUMS, PAVEMENT MARKINGS, CONCRETE BARRIERS, GUARDRAIL, PAVEMENT SURFACES, ECT. THIS INDIVIDUAL SHALL BE ABLE TO RESPOND AND BE ON THE PROJECT WITHIN FOUR (4) HOURS AFTER A CALL AND HAVE SUFFICIENT INVENTORY ON HAND TO REPAIR OR REPLACE DAMAGED OR MISSING TRAFFIC DEVICES. THE CONTRACTUR SHALL FURNISH THE PHONE NUMBER(S) OF THE SUPERVISOR ON CALL TO THE LOCAL STATE POLICE AND STATE HIGHWAY PATROL OFFICES. PAYMENT FOR FURNISHING THE WTS AND ASSOCIATED WORK AND MATERIAL SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM 614 MAINTAINING TRAFFIC.

STANDARD CONSTRUCTION DRAWINGS

THE FOLLOWING MAINTENANCE OF TRAFFIC STANDARD CONSTRUCTION DRAWINGS HAVE BEEN SPECIFIED WITHIN THE MAINTENANCE OF TRAFFIC PLANS:

MT–95.30M	4/25/94	MT–98.17M	4/25/94
MT–95.40M	4/25/94	MT–98.18M	4/25/94
MT–98.12M	6/24/93	MT–99.10M	1/30/95
MT–98.13M	6/24/93	MT–99.20M	1/30/95
MT–98.14M	6/24/93	MT–102.10M	1/30/95
MT–98.15M	6/24/93	MT–105.10M	4/25/94
MT–98.16M	6/24/93	MT–105.11M	4/25/94

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE CMS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROXIMATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY VALUES WHERE SUITABLE.

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC
GENERAL NOTES

LOR - 190 - 10.76

M.O.T.

161
274

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12-11-2002 10:26AM

RECONSTRUCTION SECTION

PORTABLE CHANGEABLE MESSAGE SIGN, CLASS II, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE, WHEN NO LONGER NEEDED, PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) ON SITE, FOR THE DURATION OF CONSTRUCTION OF THE FRENCH CREEK BRIDGE AND THE WIDENED AND REPLACEMENT SECTION. THE SIGN SHALL BE OF TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. CLASS II UNITS HAVE A MINIMUM LEGIBILITY DISTANCE OF 850 FEET.

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

THE LOCATION, PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9 INCH BY 15 INCH MINIMUM SIZE FACING TRAFFIC.

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

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PREPROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES ON THE BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED, BUT NORMALLY, NOT MORE THAN 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 UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03(C). THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACOR IN HIS CONTRACT.

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

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

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC
GENERAL NOTES

LOR - I90 - 10.76

M.O.T.

RECONSTRUCTION SECTION

PRE–PHASE I

TRAFFIC MAINTENANCE

I–90

1. CLOSE OUTSIDE LANE USING DRUMS PER MAINTENANCE OF TRAFFIC STANDARD DRAWING 95.30M (4/25/94)

2. LANE CLOSURE SHALL ONLY BE IN EFFECT BETWEEN THE HOURS OF 8:00 P.M. AND 6:00 A.M. (MONDAY THROUGH THURSDAY) NORMAL TWO LANE OPERATION SHALL BE MAINTAINED AT ALL OTHER TIMES

RAMPS

1. MAINTAIN ONE 12'–0" LANE USING DRUMS, DURING DAYLIGHT HOURS.

2. MAINTENANCE OF TRAFFIC STANDARD CONSTRUCTION DRAWINGS MT–98.14 THROUGH MT–98.18 SHALL BE USED DURING ANY CONSTRUCTION OCCURING ALONG THE RAMPS.

FRENCH CREEK BRIDGE

1. MAINTAIN TRAFFIC AS NEEDED ALONG THE ADJACENT ROADWAY OR RAMPS "P" AND "R".

WORK PROPOSED

I–90

1. RECONSTRUCT RIGHT SHOULDER.

2. RECONSTRUCTION SHALL BE ONLY DURING OUTSIDE LANE CLOSURE. ALL EXCAVATED AREAS MUST BE FILLED TO ORIGINAL OR PROPOSED GRADE WHEN THE OUTSIDE HAS REOPOENED TO TRAFFIC.

RAMPS

1. RECONSTRUCT SHOULDERS, WITH WORK ON ONLY ONE SIDE AT A TIME.

2. PLACE TEMPORARY PAVEMENT AS NEEDED FOR FUTURE CONSTRUCTION PHASES (AS NOTED IN THE M.O.T. PLANS).

3. ALL AREAS OF CONSTRUCTION CONDUCTED EACH DAY SHALL BE RETURNED TO ORIGINAL OR PROPOSED GRADE BY THE END OF THE DAYS OPERATION, WHICH SHALL BE PERFORMED DURING DAYLIGHT HOURS ONLY.

4. REMOVE CURBING FROM ENTRANCE & EXIT RAMPS, INCLUDING ANY ASSOCIATED CATCH BASIN REMOVAL. RESTORE ANY PAVEMENT DAMAGED AND FILL ANY GAP CAUSED BY THE REMOVAL OF THE CURBING. ENSURE TEMPORARY PAVEMENT & GRADING MAINTAINS POSITIVE PAVEMENT DRAINAGE. CURB REMOVAL SHALL BE PERFORMED USING ITEM 202 – CURB REMOVED AS PER PLAN.

FRENCH CREEK BRIDGE

1. REMOVE ALL CURBING ALONG THE GORE AREA AND ACCELERATION/DECELERATION LANES.

2. RESTORE ANY PAVEMENT DAMAGED AND FILL ANY GAP CAUSED BY THE REMOVAL OF THE CURBING USING ITEM 202 – CURB REMOVED, AS PER PLAN.

PHASE I

TRAFFIC MAINTENANCE

I–90

1. MAINTAIN TWO 12'–0" LANES OF TRAFFIC (EACH DIRECTION) ON OUTSIDE EXISTING PAVEMENT AND RECONSTRUCTED SHOULDER USING PORTABLE CONCRETE BARRIERS PER MAINTENANCE OF TRAFFIC STANDARD CONSTRUCTION DRAWING MT102.10M (1/30/95).

RAMPS

1. MAINTAIN ACCESS TO RAMPS USING THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS AS NOTED ON THE MAINTENANCE OF TRAFFIC PHASE I PLANS.

FRENCH CREEK BRIDGE

1. MAINTAIN TWO 11'–0" LANES OF TRAFFIC USING TEMPORARY PAVEMENT MARKINGS AND PORTABLE CONCRETE BARRIER.

2. THE WESTBOUND STRUCTURE SHALL MAINTAIN A THIRD 11'–0" ACCELERATION LANE ALONG THE TWO MAINLINE LANES FOR RAMP "R".

WORK PROPOSED

I–90

1. CONSTRUCT INSIDE PORTIONS OF PAVEMENT PER ADJACENT TYPICAL SECTION. CONSTRUCTION SHALL NOT INCLUDE THE FINAL ASPHALT SURFACE COURSE AT THIS TIME.

RAMPS

1. NO WORK IS ANTICIPATED TO BE PERFORMED ALONG THE RAMPS DURING PHASE I.

FRENCH CREEK BRIDGE

1. RECONSTRUCT THE PORTIONS OF THE FRENCH CREEK STRUCTURE AS NOTED ON THE BRIDGE PLANS.

1. RECONSTRUCT THE PORTIONS OF THE FRENCH CREEK STRUCTURE AS NOTED ON THE BRIDGE PLANS.

PHASE IIA

TRAFFIC MAINTENANCE

I–90

1. MAINTAIN TWO LANES OF TRAFFIC (EACH DIRECTION) ON NEW INSIDE PAVEMENT AND SHOULDER CONSTRUCTED DURING PHASE I USING PORTABLE CONCRETE BARRIERS PER MAINTENANCE OF TRAFFIC STANDARD CONSTRUCTION DRAWING MT102.10M (1/30/95).

RAMPS

1. RAMP "M" – MAINTAIN A MINIMUM 10'–0" LANE ON EXISTING PAVEMENT AND RECONSTRUCTED SHOULDER USING PORTABLE CONCRETE BARRIER ALONG THE LOCATIONS NOTED IN THE PLANS.

2. RAMP "N" – MAINTAIN A MINIMUM 10'–0" LANE ON EXISTING PAVEMENT AND RECONSTRUCTED SHOULDER USING PORTABLE CONCRETE BARRIER ALONG THE LOCATIONS NOTED IN THE PLANS.

3. RAMP "P" – MAINTAIN A MINIMUM 10'–0" LANE ON EXISTING AND TEMPORARY PAVEMENT ALONG THE TEMPORARY BASELINE DETAILED IN THE PLANS. A COMBINATION OF BARRIER AND DRUMS ARE TO BE USED AS SHOWN IN THE PLANS.

4. RAMP "R" – MAINTAIN A MINIMUM 12'–0" LANE ON EXISTING AND TEMPORARY PAVEMENT ALONG THE TEMPORARY BASELINE DETAILED IN THE PLANS. A COMBINATION OF BARRIER AND DRUMS ARE TO BE USED AS SHOWN IN THE PLANS.

FRENCH CREEK BRIDGE

1. MAINTAIN THREE 11'–0" LANES OF TRAFFIC ON THE STRUCTURES USING TEMPORARY PAVEMENT MARKINGS AND PORTABLE CONCRETE BARRIER.

WORK PROPOSED

I–90

1. RECONSTRUCT OUTSIDE PORTIONS OF PAVEMENT PER TYPICAL SECTION. CONSTRUCTION SHALL NOT INCLUDE THE FINAL ASPHALT SURFACE COURSE AT THIS TIME.

RAMPS

1. RECONSTRUCT EXISTING RAMP PAVEMENT AS NOTED IN THE PHASE IIA PLANS.

FRENCH CREEK BRIDGE

1. RECONSTRUCT THE PORTIONS OF THE FRENCH CREEK STRUCTURE AS NOTED ON THE BRIDGE PLANS.

PHASE IIB

TRAFFIC MAINTENANCE

I–90

1. MAINTAIN TWO LANES OF TRAFFIC (EACH DIRECTION) ON NEW INSIDE PAVEMENT AND SHOULDER CONSTRUCTED DURING PHASE I USING PORTABLE CONCRETE BARRIERS PER MAINTENANCE OF TRAFFIC STANDARD CONSTRUCTION DRAWING MT102.10M (1/30/95).

RAMPS

1. RAMP "M" – MAINTAIN A MINIMUM 10'–0" LANE ON THE RECONSTRUCTED SHOULDER AND PAVEMENT USING PORTABLE CONCRETE BARRIER ALONG THE LOCATIONS NOTED IN THE PLANS.

2. RAMP "N" – MAINTAIN A MINIMUM 10'–0" LANE ON THE RECONSTRUCTED SHOULDER AND PAVEMENT USING PORTABLE CONCRETE BARRIER ALONG THE LOCATIONS NOTED IN THE PLANS.

3. RAMP "P" – MAINTAIN A MINIMUM 10'–0" LANE ON RECONSTRUCTED SHOULDER AND PAVEMENT. A COMBINATION OF BARRIER AND DRUMS ARE TO BE USED AS SHOWN IN THE PLANS.

4. RAMP "R" – MAINTAIN A MINIMUM 12'–0" LANE ON RECONSTRUCTED SHOULDER AND PAVEMENT. A COMBINATION OF BARRIER AND DRUMS ARE TO BE USED AS SHOWN IN THE PLANS.

FRENCH CREEK BRIDGE

1. BRIDGE CONSTRUCTION HAS BEEN COMPLETED AT THIS POINT. TRAFFIC MAINTENANCE ON THE STRUCTURE CONSISTS ON THE TRANSITIONING REQUIRED TO MAINTAIN TRAFFIC ON THE MAINLINE AND ALONGS RAMPS "P" AND "R" IN A MANNER TO ALLOW FOR CONSTRUCTION OF PHASE II PAVEMENT IMMEDIATELY EAST OF THE APPROACH SLABS. SEE PHASE IIB MAINTENANCE OF TRAFFIC PLANS FOR DETAILS.

WORK PROPOSED

I–90

1. RECONSTRUCT OUTSIDE PORTIONS OF PAVEMENT PER ADJACENT TYPICAL SECTION. CONSTRUCTION SHALL NOT INCLUDE THE FINAL ASPHALT SURFACE COURSE AT THIS TIME.

RAMPS

1. RECONSTRUCT EXISTING RAMP PAVEMENT AS NOTED IN THE PHASE IIB PLANS.

FRENCH CREEK BRIDGE

1. BRIDGE RECONSTRUCTION IS COMPLETE AT THIS TIME.

PHASE III

TRAFFIC MAINTENANCE

1. MAINTAIN TRAFFIC THROUGH THE USE OF FLAGGERS AND TEMPORARY NIGHTIME LANE CLOSURE. A MINIMUM OF ONE 12'–0" LANE SHALL BE OPEN AT ALL TIMES.

WORK PROPOSED

1. PLACE FINAL SURFACE COURSE OF ASPHALT.

2. PLACE FINAL STRIPING, SIGNAGE, REFLECTIVE PAVEMENT MARKINGS, AND RUMBLE STRIPS.

3. ANY WORK WHICH REQUIRES LANE CLOSURE SHALL BE PERFORMED AT NIGHT.

CALCULATED DLS | CHECKED LAB

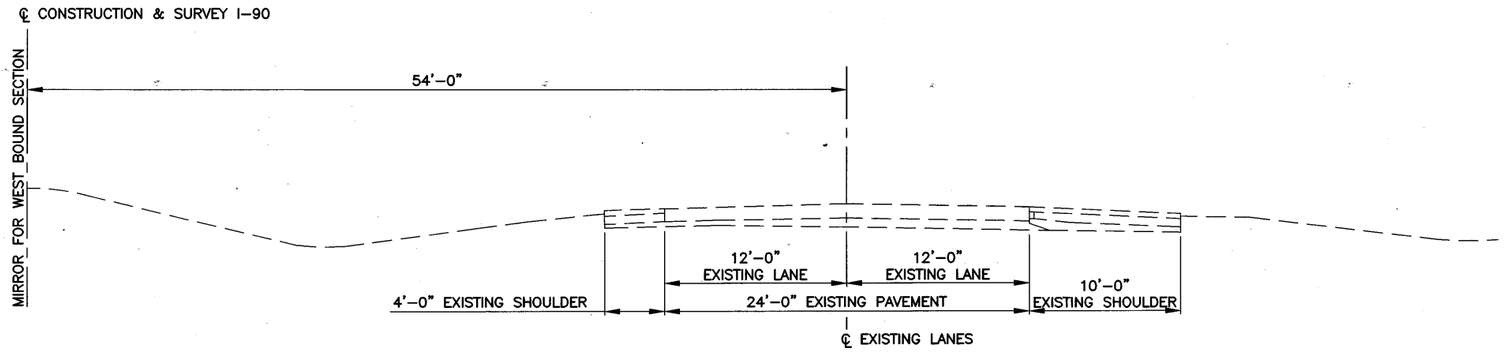
MAINTENANCE OF TRAFFIC
SEQUENCE OF CONSTRUCTION

LOR - I90 - 10.76

M.O.T.

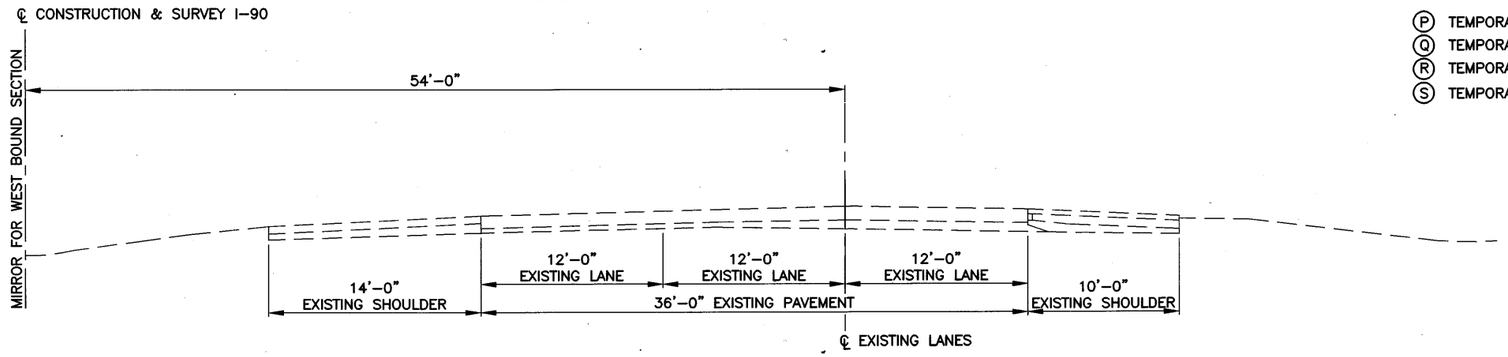
163
274

[O:\19360\DWGS\MOT\19360M-SEQ.DWG] JGR
02-11-2002 10:25AM



SECTION A-A

EXISTING CONDITIONS – I-90 FROM FRENCH CREEK STRUCTURE TO STA. 1018+00

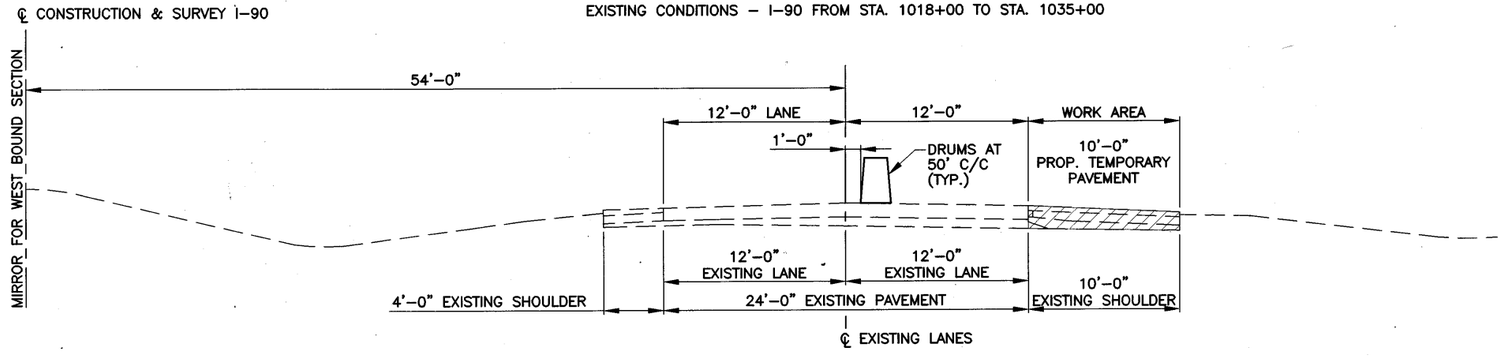


SECTION B-B

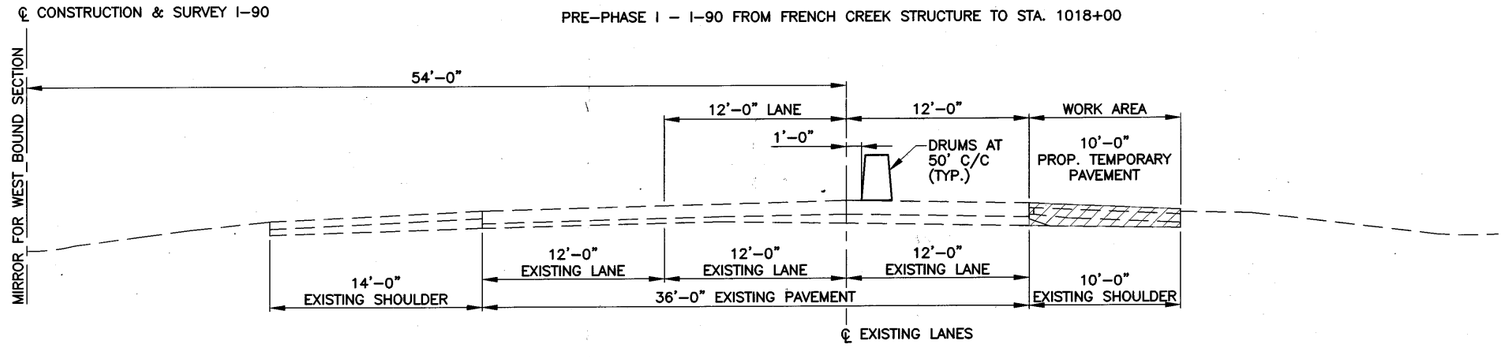
EXISTING CONDITIONS – I-90 FROM STA. 1018+00 TO STA. 1035+00

TEMPORARY PAVEMENT MARKING KEY

- (P) TEMPORARY SOLID LANE LINE, WHITE
- (Q) TEMPORARY EDGE LINE, WHITE
- (R) TEMPORARY EDGE LINE, YELLOW
- (S) TEMPORARY LANE LINE, WHITE



PRE-PHASE I – I-90 FROM FRENCH CREEK STRUCTURE TO STA. 1018+00



PRE-PHASE I – I-90 FROM STA. 1018+00 TO STA. 1035+00

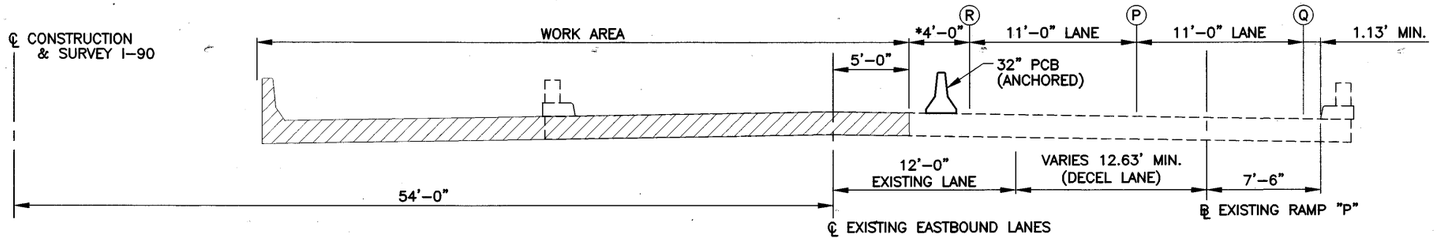
NOTE: ALL SECTIONS ARE SHOWN FACING IN THE DIRECTION OF TRAVEL

CALCULATED DLS | CHECKED LAB

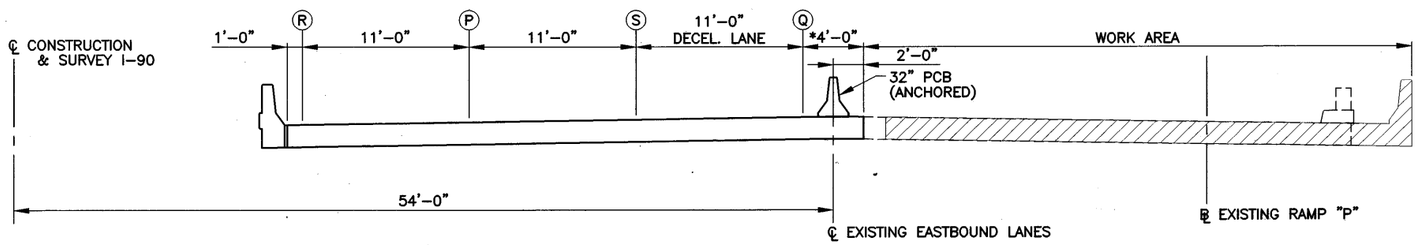
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

LOR - 190 - 10.76

M.O.T.



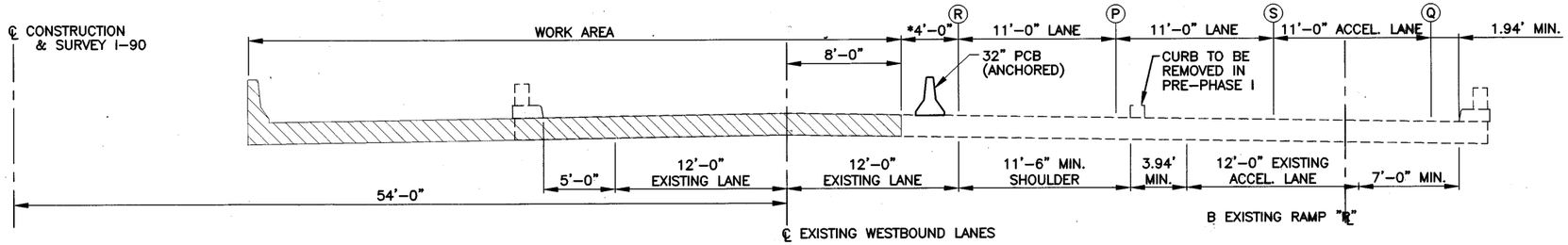
SECTION E-E
PHASE I – FRENCH CREEK BRIDGE EASTBOUND



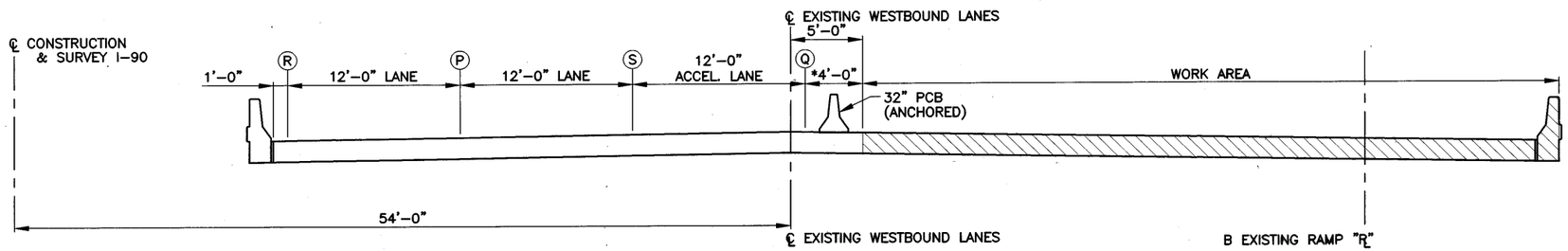
SECTION F-F
PHASE II – FRENCH CREEK BRIDGE EASTBOUND

TEMPORARY PAVEMENT MARKING KEY

- (P) TEMPORARY SOLID LANE LINE, WHITE
- (Q) TEMPORARY EDGE LINE, WHITE
- (R) TEMPORARY EDGE LINE, YELLOW
- (S) TEMPORARY LANE LINE, WHITE



SECTION G-G
PHASE I – FRENCH CREEK BRIDGE WESTBOUND



SECTION H-H
PHASE II – FRENCH CREEK BRIDGE WESTBOUND

* 4'-0" INCLUDES
1'-0" SHOULDER
2'-0" PORTABLE CONCETE BARRIER
1'-0" WORK BUFFER

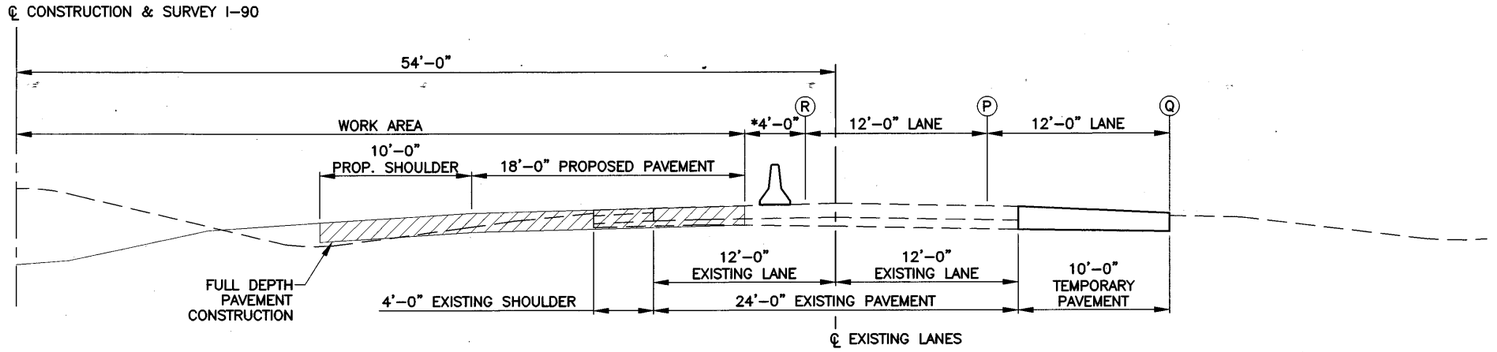
NOTE: ALL SECTIONS ARE SHOWN FACING IN THE DIRECTION OF TRAVEL

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

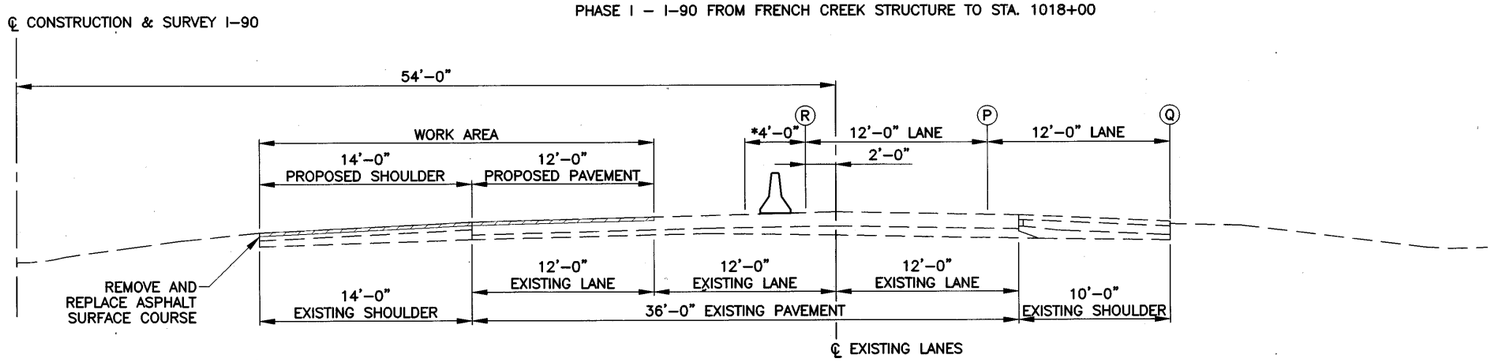
LOR - I90 - 10.76

M.O.T.



SECTION I-I

PHASE I – I-90 FROM FRENCH CREEK STRUCTURE TO STA. 1018+00

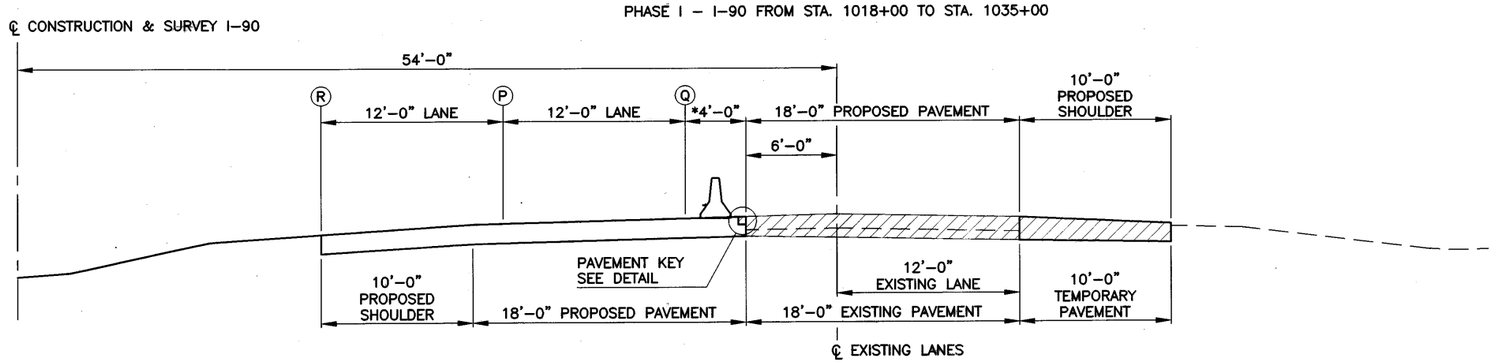


SECTION J-J

PHASE I – I-90 FROM STA. 1018+00 TO STA. 1035+00

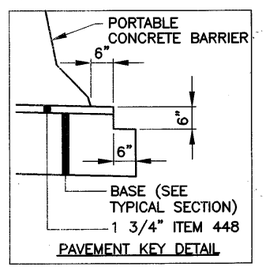
TEMPORARY PAVEMENT MARKING KEY

- (P) TEMPORARY SOLID LANE LINE, WHITE
- (Q) TEMPORARY EDGE LINE, WHITE
- (R) TEMPORARY EDGE LINE, YELLOW
- (S) TEMPORARY LANE LINE, WHITE

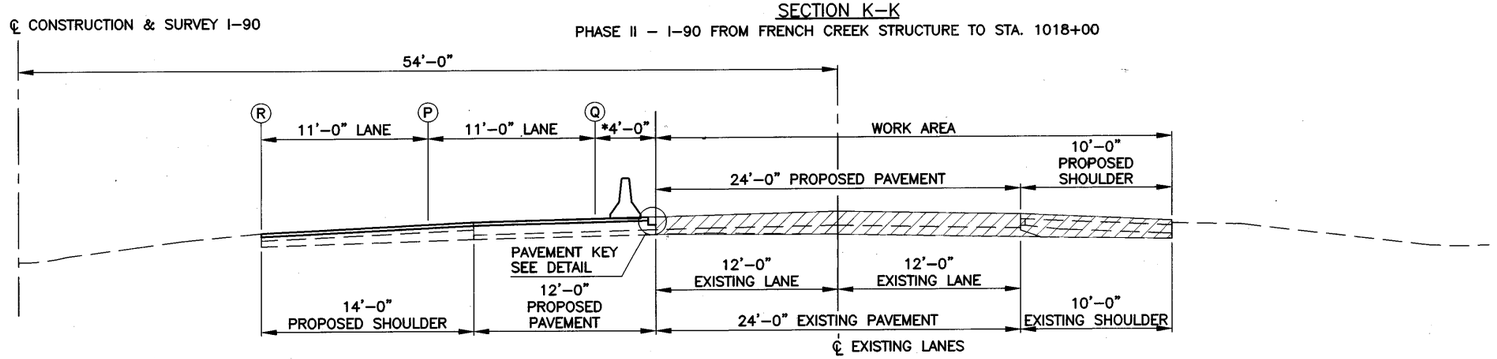


SECTION K-K

PHASE II – I-90 FROM FRENCH CREEK STRUCTURE TO STA. 1018+00



PAVEMENT KEY DETAIL



SECTION L-L

PHASE II – I-90 FROM STA. 1018+00 TO STA. 1035+00

* 4'-0" INCLUDES
1'-0" SHOULDER
2'-0" PORTABLE CONCETE BARRIER
1'-0" WORK BUFFER

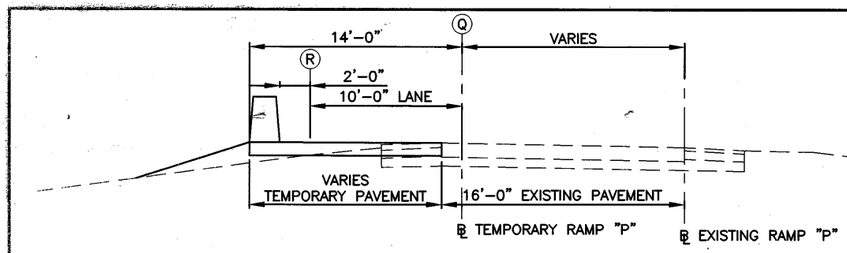
NOTE: ALL SECTIONS ARE SHOWN FACING IN THE DIRECTION OF TRAVEL

CALCULATED DLS | CHECKED LAB

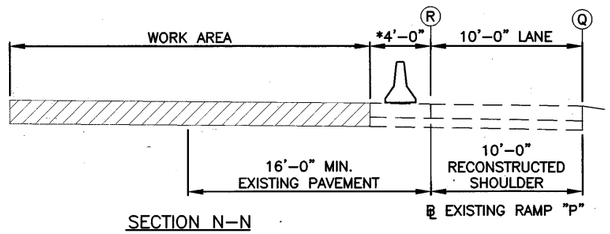
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

LOR - I90 - 10.76

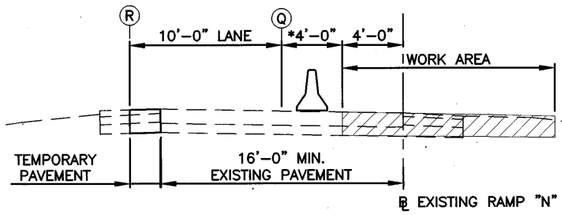
M.O.T.



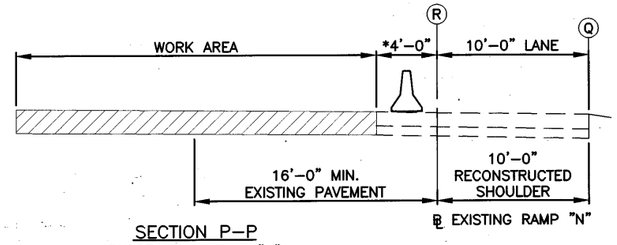
SECTION M–M
PHASE IIA – RAMP "P"



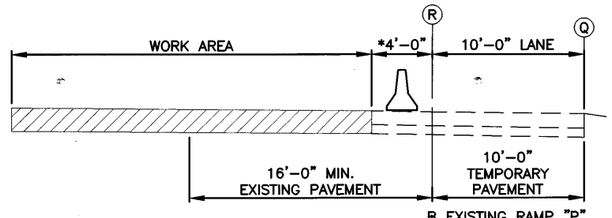
SECTION N–N
PHASE IIB – RAMP "P"



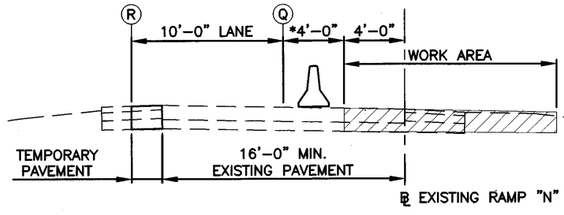
SECTION O–O
PHASE IIA – RAMP "N"



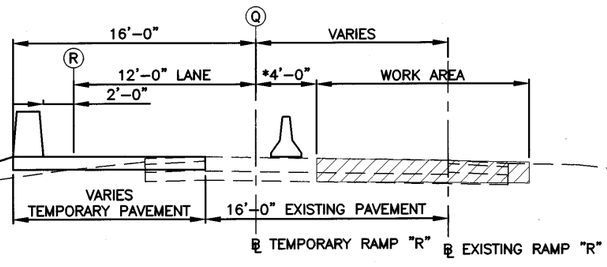
SECTION P–P
PHASE IIB – RAMP "N"



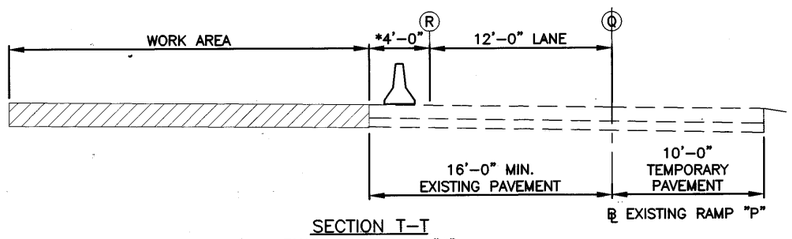
SECTION Q–Q
PHASE IIA – RAMP "M"



SECTION R–R
PHASE IIB – RAMP "M"



SECTION S–S
PHASE IIA – RAMP "R"



SECTION T–T
PHASE IIB – RAMP "R"

TEMPORARY PAVEMENT MARKING KEY

- (P) TEMPORARY SOLID LANE LINE, WHITE
- (Q) TEMPORARY EDGE LINE, WHITE
- (R) TEMPORARY EDGE LINE, YELLOW
- (S) TEMPORARY LANE LINE, WHITE

* 4'–0" INCLUDES
1'–0" SHOULDER
2'–0" PORTABLE CONCETE BARRIER
1'–0" WORK BUFFER

NOTE: ALL SECTIONS ARE SHOWN FACING IN THE DIRECTION OF TRAVEL

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

LOR - I90 - 10.76

M.O.T.

LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- PORTABLE CONCRETE BARIER
- TRAFFIC MAINTENANCE DRUMS
- WESTBOUND TRAFFIC LANE
- EASTBOUND TRAFFIC LANE

SEE MAINTENANCE OF TRAFFIC DRAWING MT-102.10M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY TO TRANSITION W.B. TRAFFIC TO NORMAL OPERATION

STA. 950+60 BEGIN DRUMS

STA. 952+10 BEGIN LANE TAPER BEGIN TEMPORARY SHOULDER

945+00

950+00

MATCHLINE (STA. 954+00)

DRUMS (@ 60' C/C)

TAPERED END SECTION

200'

650' LANE SHIFT (10' @ 65:1)

200'

440' PCB TAPER (22' @ 20:1)

STA. 928+15 BEGIN DRUMS

STA. 930+15 BEGIN LANE TAPER BEGIN TEMPORARY SHOULDER

STA. 936+65 END LANE TAPER END DRUM TAPER

STA. 938+65 BEGIN PCB TAPER

STA. 943+05 END PCB TAPER BEGIN CONSTRUCTION

SEE MAINTENANCE OF TRAFFIC DRAWING MT-102.10M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY TO TRANSITION E.B. TRAFFIC FROM NORMAL OPERATION

672' LANE TAPER (24' @ 28:1)

200'

528' RAMP "R" MERGE (11 @ 48:1)

STA. 958+82 END LANE TAPER END DRUM TAPER

STA. 959+66 BEGIN CONSTRUCTION

STA. 960+82 BEGIN RAMP MERGER

SEE MAINTENANCE OF TRAFFIC DRAWING MT-98.16M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR RAMP "R" MERGER.

STA. 965+14 BEGIN TEMPORARY SHOULDER (I-90)

STA. 966+10 END RAMP MERGER END DRUMS BEGIN PCB

STA. 966+22 END TEMPORARY SHOULDER (I-90 & RAMP "R")

STA. 967+77 BEGIN TEMPORARY SHOULDER (I-90 & RAMP "R")

STA. 967+85 BEGIN I-90 LANE TAPER BEGIN PCB TAPER

MATCHLINE (STA. 954+00)

955+00

960+00

965+00

MATCHLINE (STA. 968+00)

308' PCB TAPER (11' @ 28:1)

OW-138-48 963+07

STA. 963+07 BEGIN LANE TAPER BEGIN PCB TAPER

STA. 966+15 END LANE TAPER END PCB TAPER

STA. 966+80 BEGIN RAMP "P" OPENING

OW-138-48 967+65

STA. 967+85 BEGIN LANE TAPER BEGIN PCB TAPER

OW-45-48 STA. 957+85 EXIT RAMP OPEN AHEAD

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC PHASE I PLAN

LOR - I90 - 10.76

M.O.T.

168
274

CALCULATED DLS
CHECKED LAB

MAINTENANCE OF TRAFFIC
PHASE I PLAN

LOR - I90 - 10.76

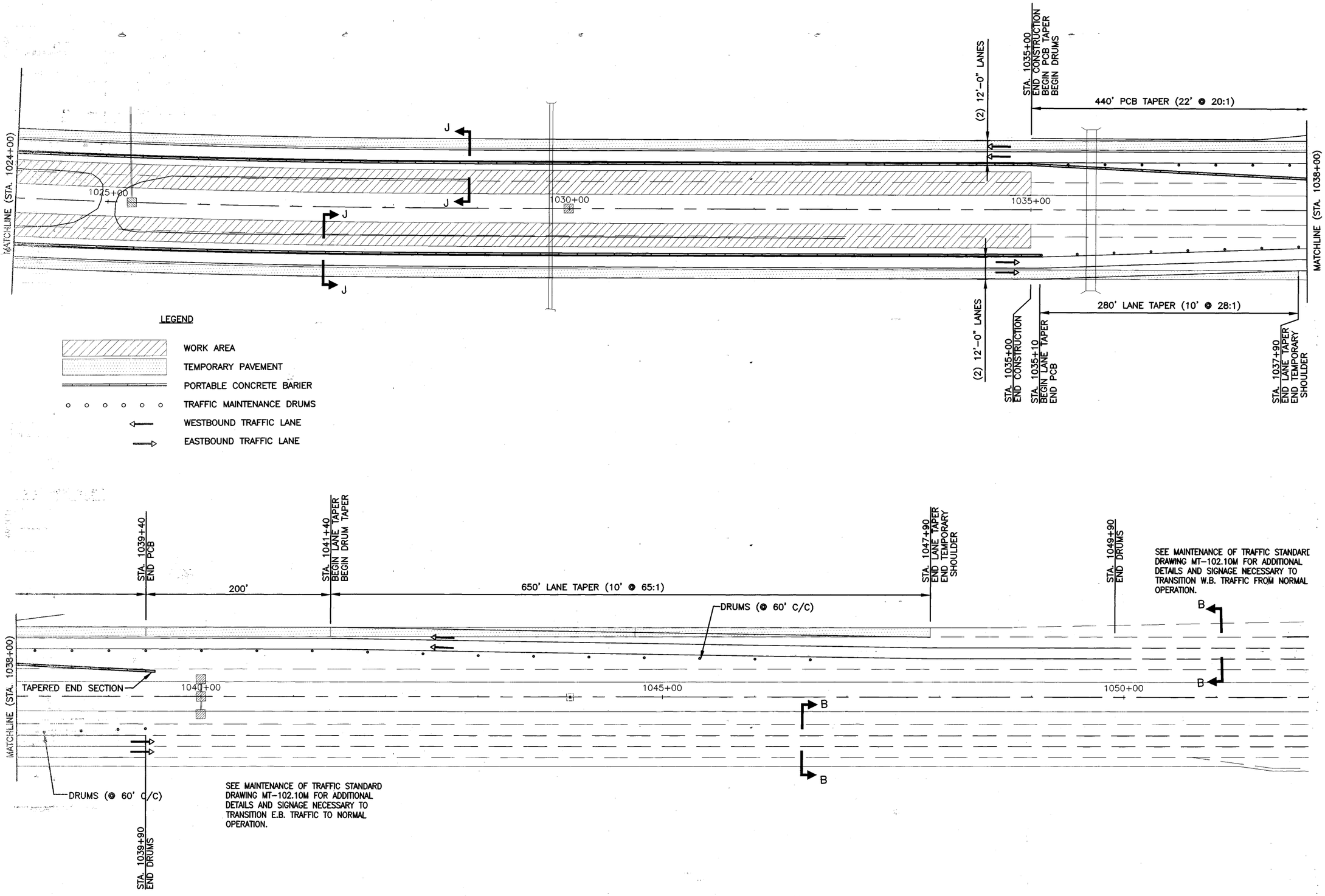
M.O.T.

CALCULATED DLS
CHECKED LAB

MAINTENANCE OF TRAFFIC PHASE I PLAN

LOR - I90 - 10.76

M.O.T.



CALCULATED DLS
CHECKED LAB

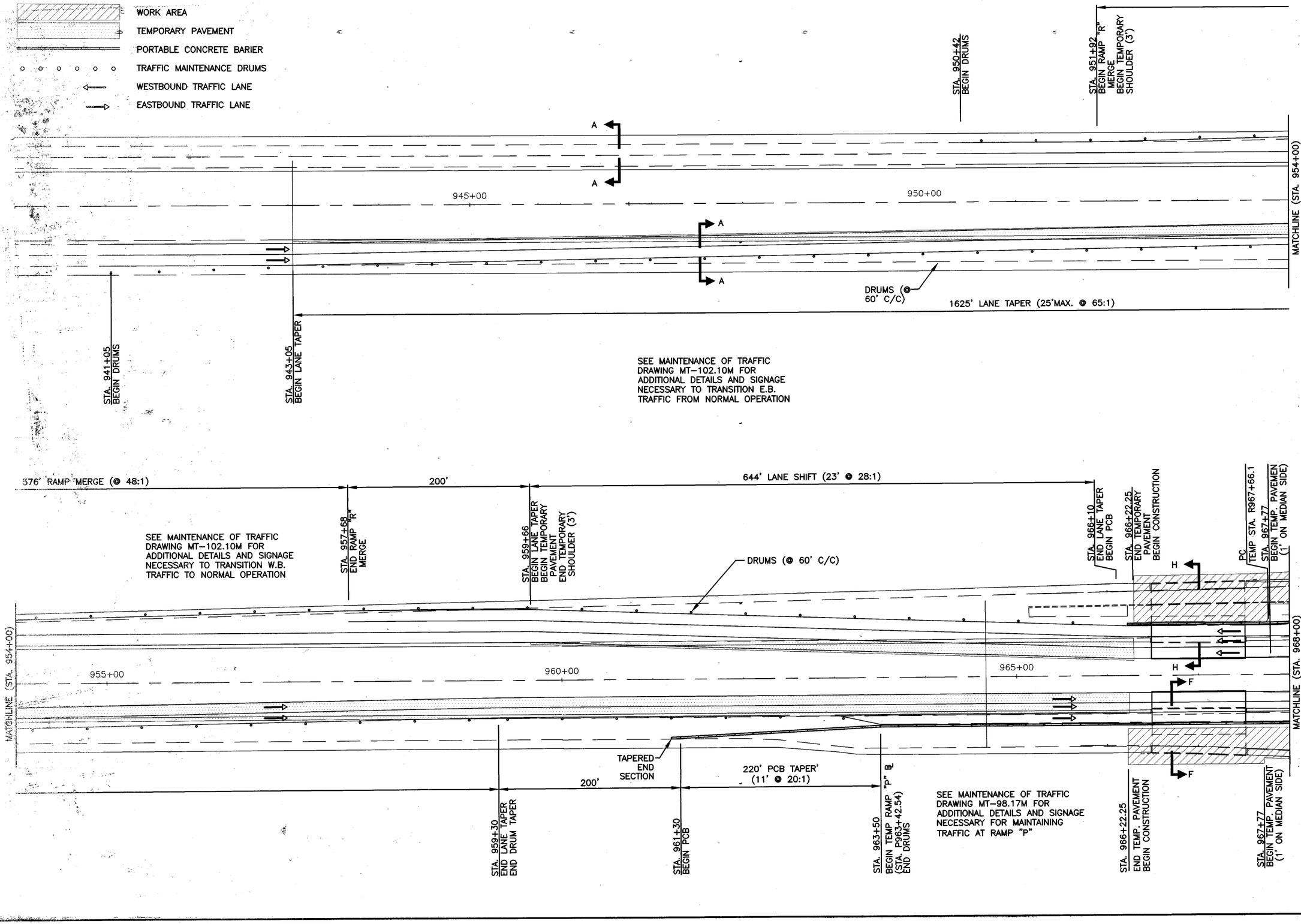
MAINTENANCE OF TRAFFIC PHASE I PLAN

LOR - I90 - 10.76

M.O.T.

LEGEND

WORK AREA
TEMPORARY PAVEMENT
PORTABLE CONCRETE BARIER
TRAFFIC MAINTENANCE DRUMS
WESTBOUND TRAFFIC LANE
EASTBOUND TRAFFIC LANE



CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC PHASE IIA PLAN

LOR - I90 - 10.76

M.O.T.

MAINTENANCE OF TRAFFIC
PHASE IIA PLAN

CALCULATED DLS | CHECKED LAB

LOR - I90 - 10.76

M.O.T.

LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- PORTABLE CONCRETE BARIER
- TRAFFIC MAINTENANCE DRUMS
- WESTBOUND TRAFFIC LANE
- EASTBOUND TRAFFIC LANE

RAMP "R"
TEMPORARY BASELINE
CURVE DATA
DESIGN SPEED = 25 MPH
R = 382'
L = 160.33'
D(c) = 14° 59' 56"
△ = 24° 02' 51"

RAMP "P"
TEMPORARY BASELINE
CURVE DATA
DESIGN SPEED = 35 MPH
R = 1000'
L = 364.16'
D(c) = 5° 43' 38"
△ = 20° 51' 22"

SEE MAINTENANCE OF TRAFFIC DRAWING MT-98.16M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR MAINTAINING TRAFFIC AT RAMP "R"

SEE SHEET MOT 19 FOR RAMP "R" TEMPORARY PAVEMENT GRADING DETAILS

SEE SHEET MOT 18 FOR RAMP "P" TEMPORARY PAVEMENT GRADING DETAILS

SEE MAINTENANCE OF TRAFFIC STANDARD DRAWING MT-98.14M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR RAMP "M".

SEE MAINTENANCE OF TRAFFIC STANDARD DRAWING MT-98.16M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR RAMP "N" MERGER.

TAPERED END SECTION
96' PCB TAPER (12' @ 8:1)
STA. 970+23 END PCB TAPER
TEMP STA. R969+26.44 BEGIN PCB TAPER BEGIN DRUMS
PT
TEMPORARY ℄ RAMP "R"
STA. 969+35 BEGIN DRUMS
S
R970+00
RAMP "R"
DRUMS (@ 60' C/C)
DRUMS (@ 20' C/C) LANE SHIFT (1' @ 28:1)
STA. 971+72 BEGIN LANE SHIFT BEGIN PCB SHIFT
STA. 972+00 END LANE SHIFT END PCB SHIFT END TEMP. PAVEMENT (MEDIAN) BEGIN CONSTRUCTION
STA. R971+00 BEGIN TAPER
STA. R971+60 BEGIN TAPER
RAMP LANE SHIFT BEGIN TAPER
STA. R972+60 END TAPER
END DRUMS
OW-143-24 R972+60
OW-138-48 R972+60
OW-138-48 972+00
25 MPH
MATCHLINE (STA. 968+00)
970+00
975+00
980+00
M980+00
MATCHLINE (STA. 982+00)
(2) 12'-0" LANES
K
418' PCB TAPER (22' @ 19:1)
TEMPORARY ℄ RAMP "P"
DRUMS (@ 20' C/C)
RAMP "P"
M
P970+00
STA. 976+40 END PCB TAPER END DRUMS BEGIN CONSTRUCTION
STA. 963+00 BEGIN DRUMS
PC TEMP. RAMP "P" STA. P968+04.42
OW-138-64 970+32
84' LANE TAPER (3' MAX. @ 28:1)
STA. 970+00 BEGIN LANE TAPER
STA. P970+31 END PCB
STA. 970+84 END TEMP. PAVEMENT (1' ON MEDIAN SIDE) END LANE TAPER
PT TEMP. RAMP "P" STA. P971+68.58
STA. 972+00 BEGIN PCB
STA. P972+80 MATCH EXISTING RAMP P ℄
P975+00
MATCHLINE (STA. 968+00)

140' LANE SHIFT (10' @ 14:1)
STA. M983+08 BEGIN LANE TAPER BEGIN TEMPORARY SHOULDER
STA. M984+48 BEGIN PCB END LANE TAPER
RAMP "M"
M985+00
Q
(2) 12'-0" LANES
STA. 990+20 BEGIN PCB TAPER BEGIN DRUMS
STA. 990+90 BEGIN PCB TAPER BEGIN DRUMS
STA. 991+52 END PCB TAPER
STA. 991+60 BEGIN RAMP TAPER
STA. 991+95 END PCB
STA. 992+50 BEGIN DRUMS
STA. 994+10 BEGIN RAMP "M" OPENING
DRUMS (@ 20' C/C)
12'-0"
132' PCB TAPER (12 @ 11:1)
TAPERED END SECTION
TEMPORARY IMPACT ATTENUATOR
DRUMS (@ 60' C/C)
985+00
990+00
95' PCB TAPER (5' @ 19:1)
995+00
MATCHLINE (STA. 992+00)
MATCHLINE (STA. 996+00)
(2) 12'-0" LANES
STA. 983+00 END CONSTRUCTION END PCB END DRUMS BEGIN DRUMS
DRUMS (@ 60' C/C)
OW-138-56 N986+64
STA. N986+54 BEGIN LANE TAPER BEGIN TEMPORARY SHOULDER (3') BEGIN DRUMS
DRUMS (@ 20' C/C)
RAMP "N"
TAPERED END SECTION
STA. N988+14 END LANE TAPER END DRUM TAPER BEGIN PCB TAPER BEGIN 132' PCB TAPER (12' @ 8:1 TAPER)
STA. N988+80 END TEMPORARY SHOULDER
STA. N989+10 END PCB TAPER BEGIN CONSTRUCTION
STA. 989+94 END DRUMS
N990+00
STA. 993+94 BEGIN RAMP "N" OPENING

CALCULATED DLS
CHECKED LAB

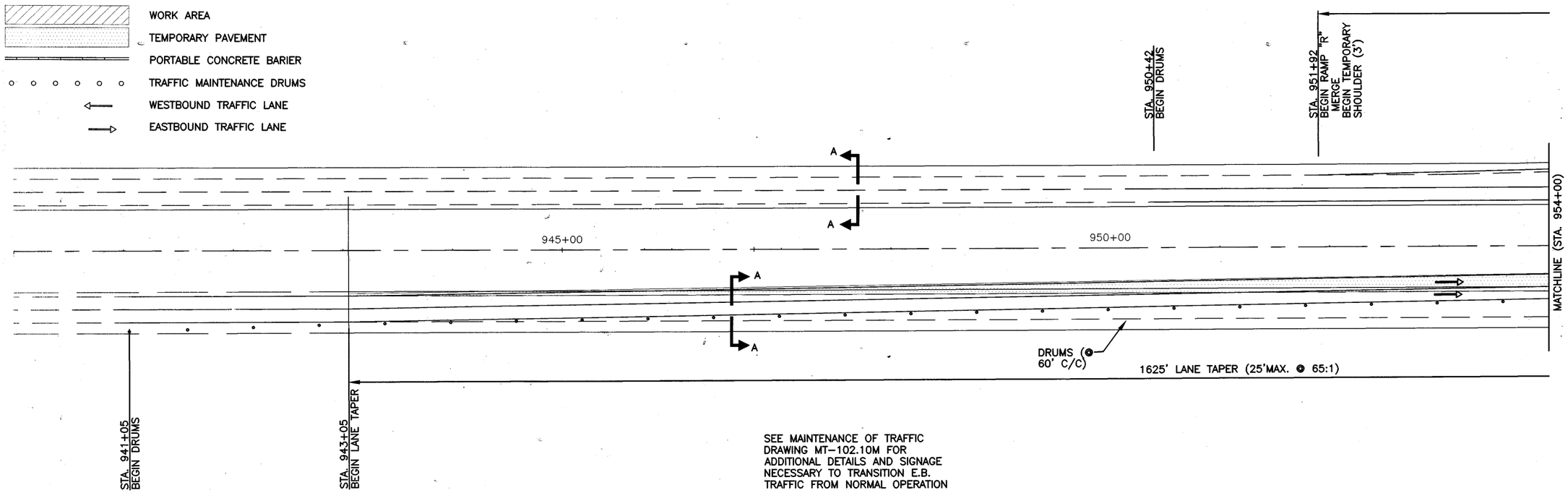
MAINTENANCE OF TRAFFIC
PHASE IIA PLAN

LOR - 190 - 10.76

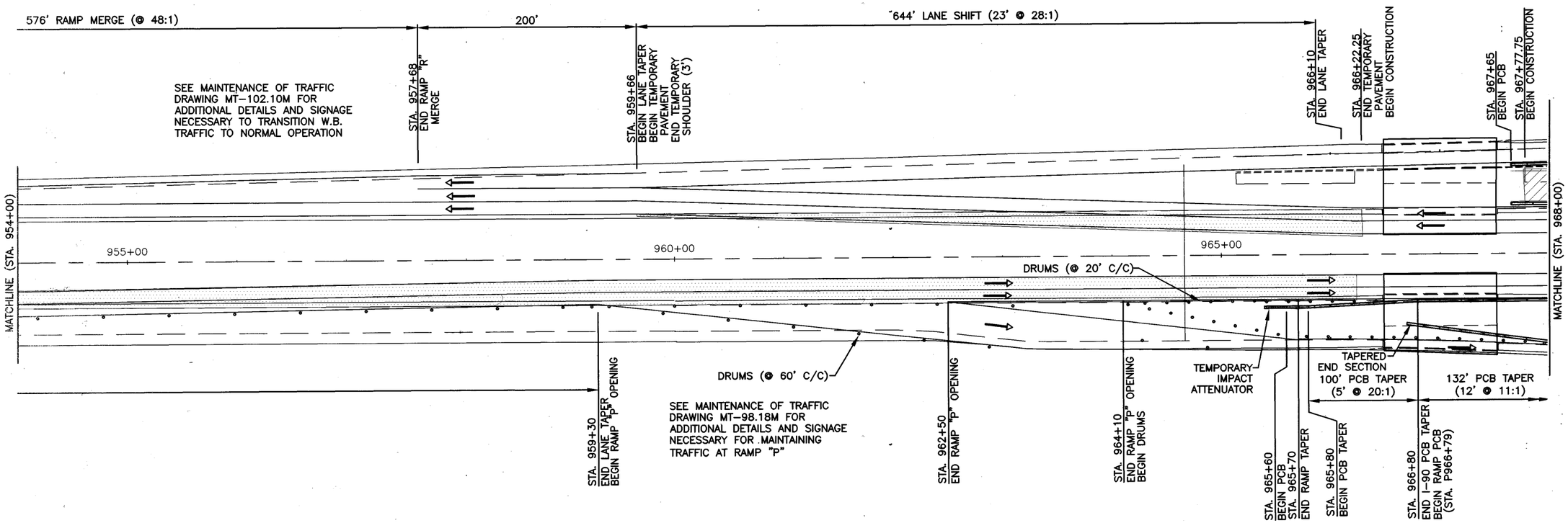
M.O.T.

LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- PORTABLE CONCRETE BARIER
- TRAFFIC MAINTENANCE DRUMS
- WESTBOUND TRAFFIC LANE
- EASTBOUND TRAFFIC LANE



SEE MAINTENANCE OF TRAFFIC DRAWING MT-102.10M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY TO TRANSITION E.B. TRAFFIC FROM NORMAL OPERATION



SEE MAINTENANCE OF TRAFFIC DRAWING MT-102.10M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY TO TRANSITION W.B. TRAFFIC TO NORMAL OPERATION

SEE MAINTENANCE OF TRAFFIC DRAWING MT-98.18M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR MAINTAINING TRAFFIC AT RAMP "P"

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC PHASE IIB PLAN

LOR - I90 - 10.76

M.O.T.

MAINTENANCE OF TRAFFIC PHASE IIB PLAN

CALCULATED DLS | CHECKED LAB

SEE MAINTENANCE OF TRAFFIC DRAWING MT-98.15M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR MAINTAINING TRAFFIC AT RAMP "R"

PCB TAPER (12' @ 8:1)

STA. R970+50 BEGIN PCB TAPER
STA. R970+50 BEGIN DRUMS
STA. R971+94 BEGIN LANE TAPER
STA. R971+94 BEGIN DRUMS
STA. R973+08 END LANE TAPER
STA. R973+08 END DRUMS
DRUMS (@ 20' C/C)
TAPERED END SECTION
LANE SHIFT (1' @ 28:1)
OW-138-48 R972+60
OW-138-48 972+00
STA. 971+72 BEGIN LANE SHIFT BEGIN PCB SHIFT
STA. 972+00 END LANE SHIFT END PCB SHIFT END TEMP. PAVEMENT (MEDIAN)
RAMP "R"
R970+00
T
J
N
P
R
M980+00
975+00
980+00
970+00
(2) 12'-0" LANES
MATCHLINE (STA. 968+00)
MATCHLINE (STA. 982+00)
DRUMS (@ 20' C/C)
P970+00
RAMP "P"
P975+00
OW-138-48 970+32
STA. 968+12 BEGIN CONSTRUCTION END PCB TAPER
STA. P970+20 END BARRIER BEGIN LANE TAPER BEGIN DRUMS BEGIN TEMPORARY PAVEMENT
140' LANE TAPER (10' @ 14:1)
STA. P971+60 END LANE TAPER END DRUMS END TEMPORARY PAVEMENT

LEGEND

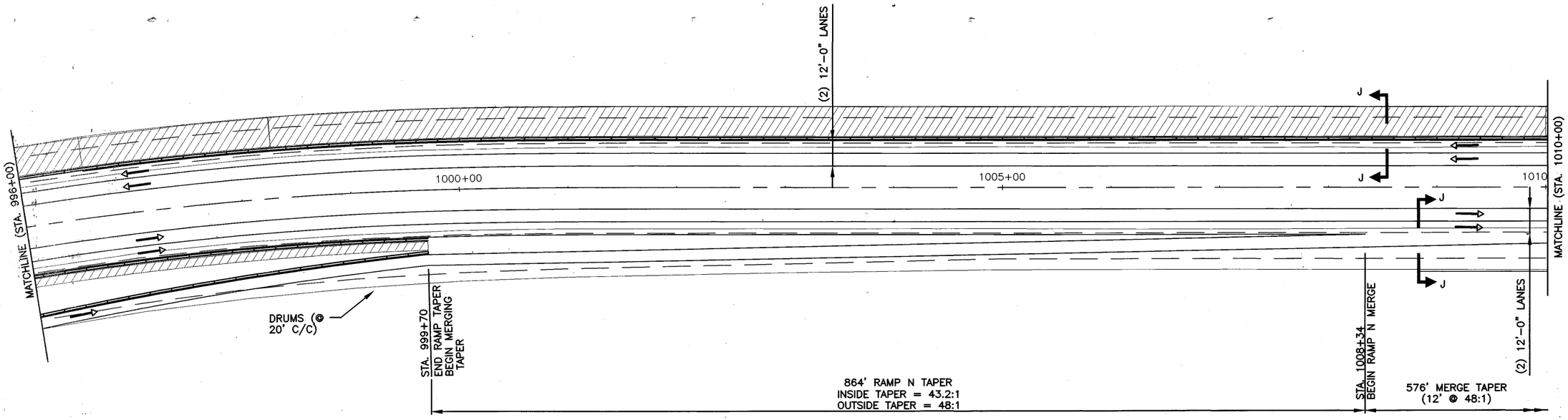
- WORK AREA
- TEMPORARY PAVEMENT
- PORTABLE CONCRETE BARIER
- TRAFFIC MAINTENANCE DRUMS
- WESTBOUND TRAFFIC LANE
- EASTBOUND TRAFFIC LANE

100' PCB TAPER (5' @ 20:1)
STA. 983+00 BEGIN PCB TAPER END CONSTRUCTION
STA. 984+00 END PCB TAPER BEGIN DRUMS
STA. 984+20 END PCB
STA. M983+90 BEGIN LANE TAPER
STA. M984+50 BEGIN PCB END LANE TAPER BEGIN DRUMS
STA. 986+10 END DRUMS
STA. 987+70 BEGIN RAMP "M" OPENING
STA. 990+90 END PCB TAPER END RAMP "M" OPENING
SEE MAINTENANCE OF TRAFFIC STANDARD DRAWING MT-98.13M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR RAMP "M".
RAMP "M"
M985+00
985+00
990+00
995+00
DRUMS (@ 20' C/C)
TEMPORARY IMPACT ATTENUATOR
TAPERED END SECTION
RAMP "N"
N990+00
STA. N985+54 BEGIN LANE TAPER BEGIN TEMPORARY SHOULDER BEGIN DRUMS
OW-138-48 N986+00
STA. N987+78 END LANE TAPER END DRUM TAPER BEGIN PCB TAPER (12' @ 8:1)
224' LANE SHIFT (16' @ 14:1)
132' PCB TAPER (12' @ 11:1)
STA. N989+10 END PCB TAPER END DRUMS END TEMPORARY SHOULDER
SEE MAINTENANCE OF TRAFFIC STANDARD DRAWING MT-98.15M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY FOR RAMP "N" MERGER.
MATCHLINE (STA. 996+00)

LOR - I90 - 10.76

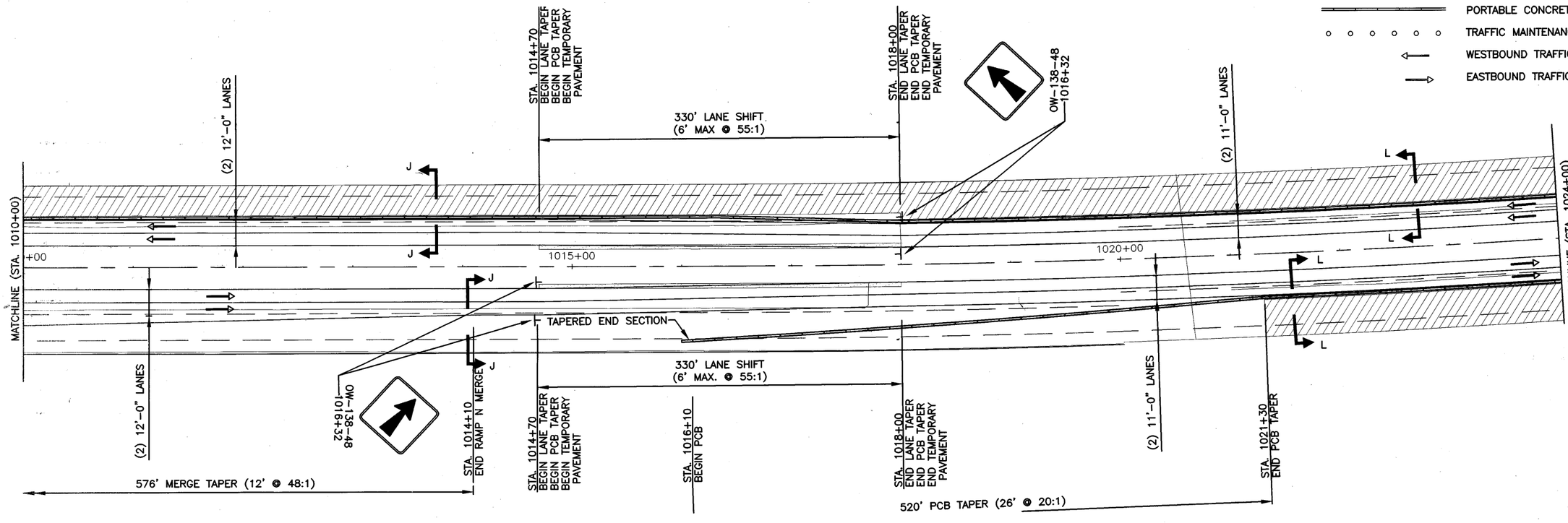
M.O.T.

176
274



LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- PORTABLE CONCRETE BARIER
- TRAFFIC MAINTENANCE DRUMS
- WESTBOUND TRAFFIC LANE
- EASTBOUND TRAFFIC LANE

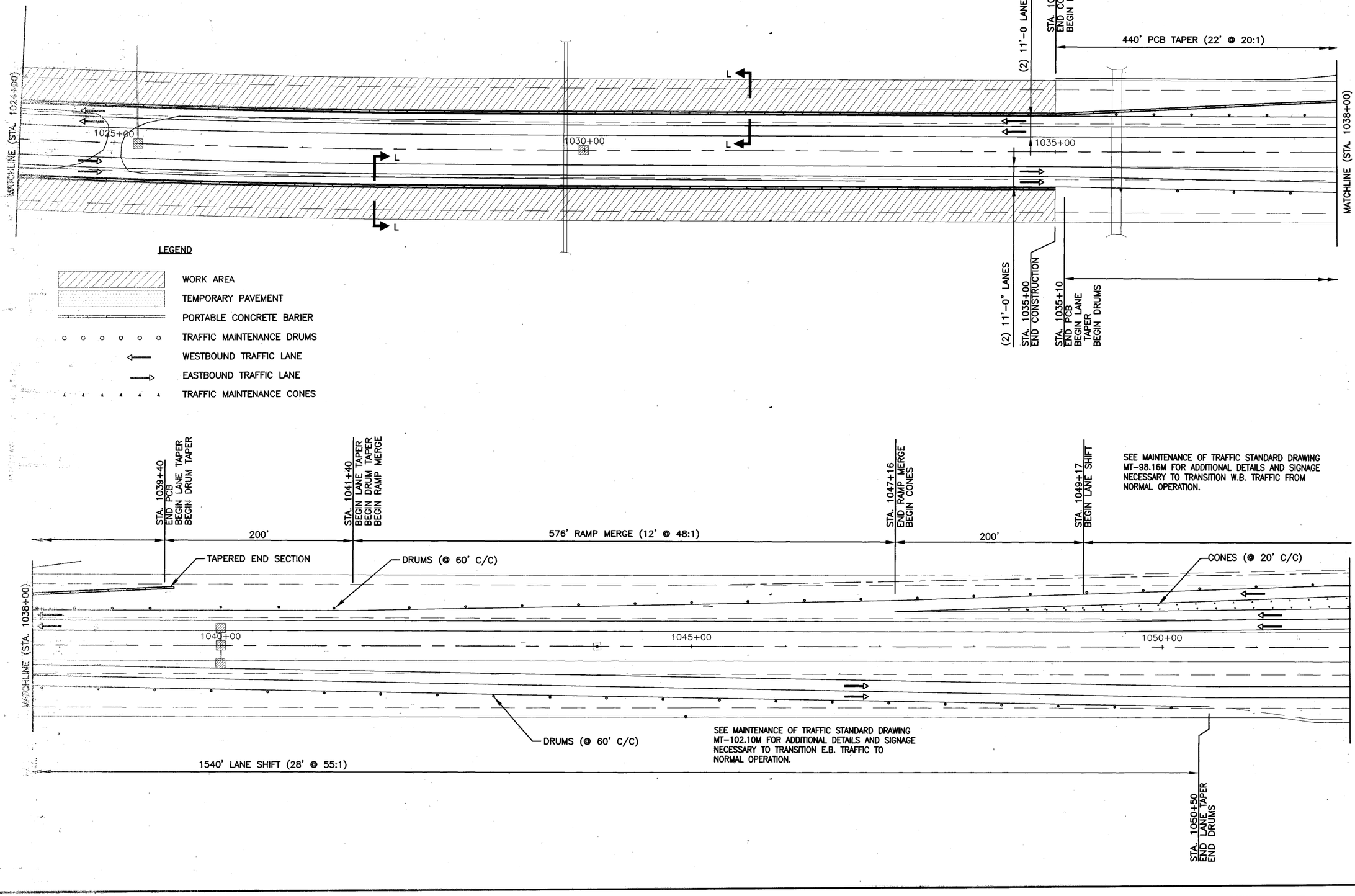


CALCULATED DLS
CHECKED LAB

MAINTENANCE OF TRAFFIC
PHASE IIB PLAN

LOR - I90 - 10.76

M.O.T.



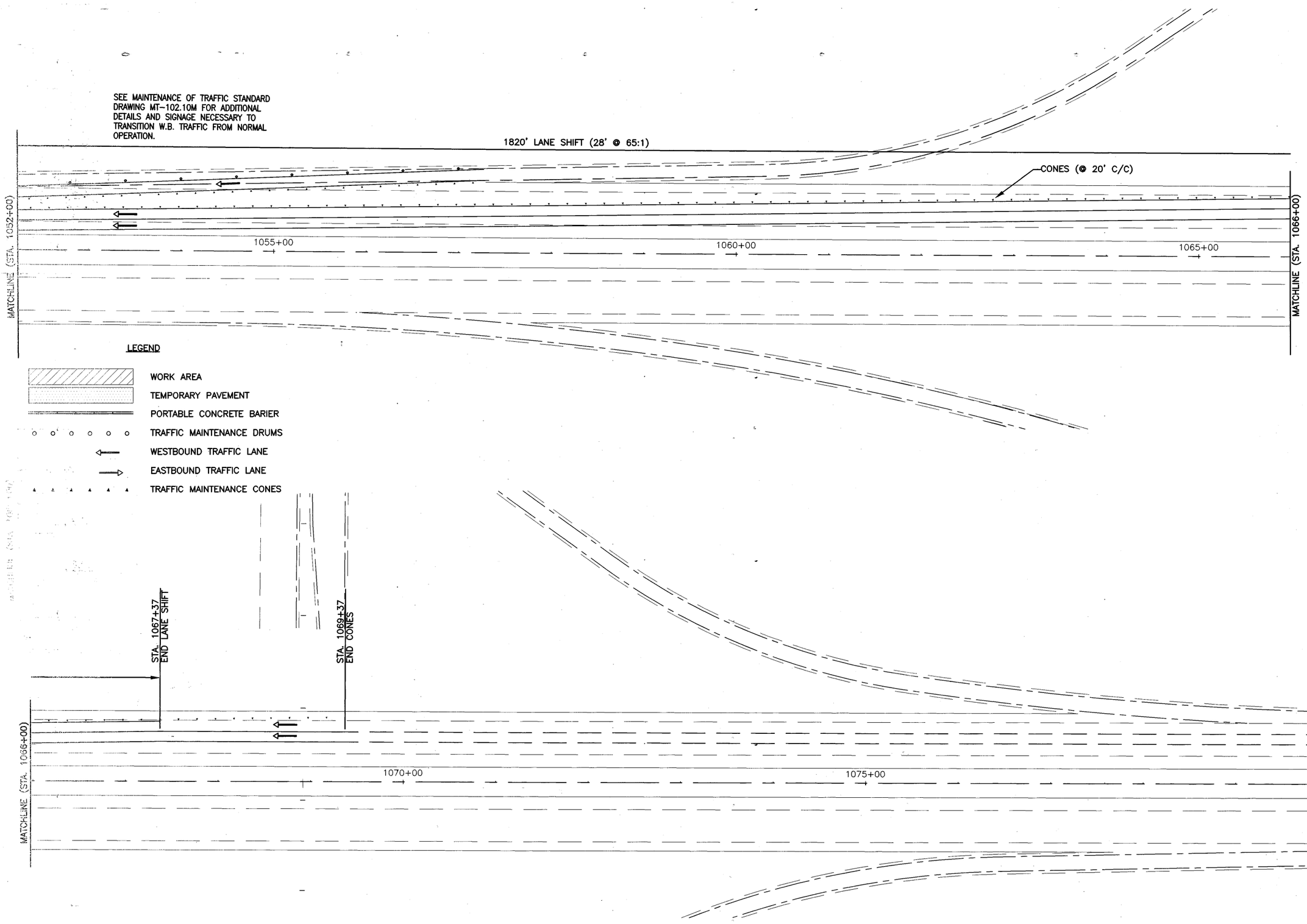
CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC PHASE IIA & IIB PLAN

LOR - I90 - 10.76

M.O.T.

SEE MAINTENANCE OF TRAFFIC STANDARD DRAWING MT–102.10M FOR ADDITIONAL DETAILS AND SIGNAGE NECESSARY TO TRANSITION W.B. TRAFFIC FROM NORMAL OPERATION.

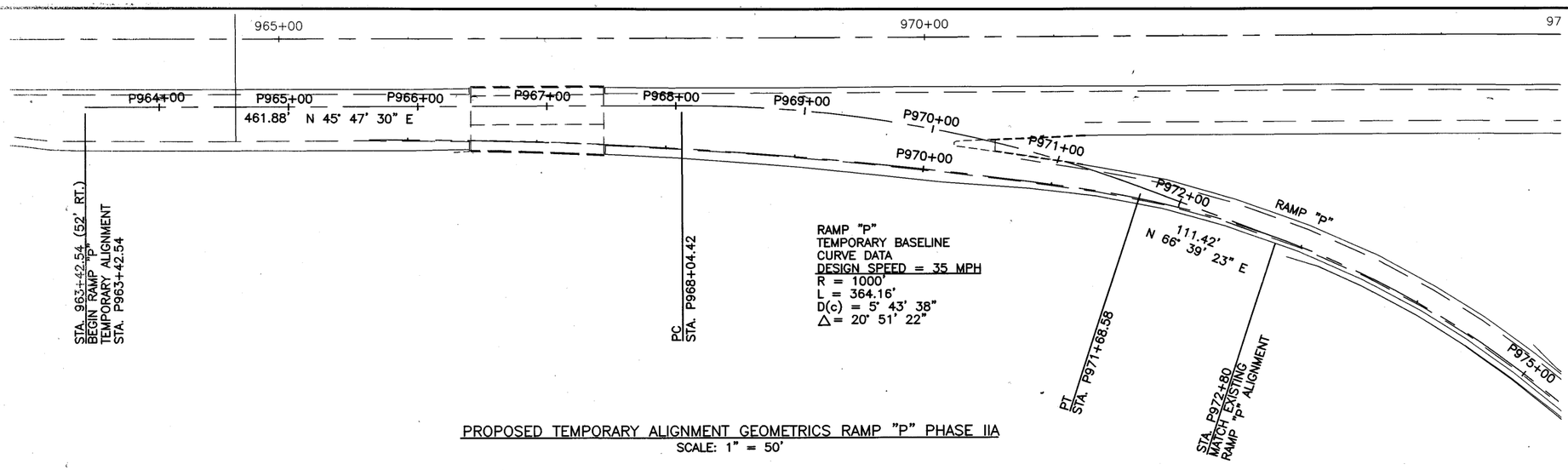


CALCULATED DLS | CHECKED LAB

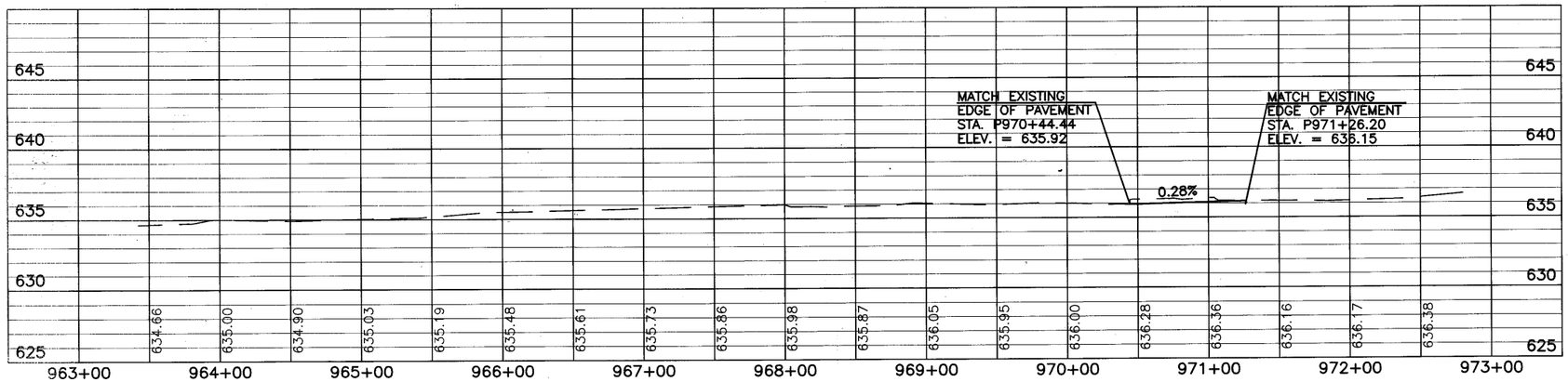
MAINTENANCE OF TRAFFIC PHASE IIA & IIB PLAN

LOR - I90 - 10.76

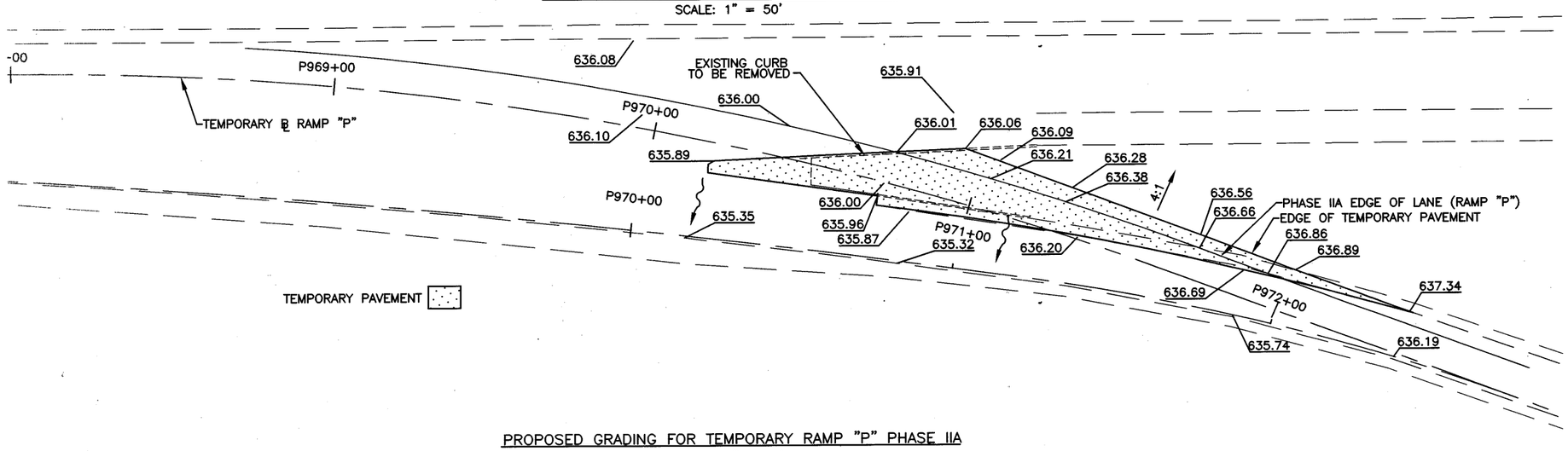
M.O.T.



PROPOSED TEMPORARY ALIGNMENT GEOMETRICS RAMP "P" PHASE IIA
SCALE: 1" = 50'



PROPOSED PROFILE FOR TEMPORARY RAMP "P"
SCALE: 1" = 50'



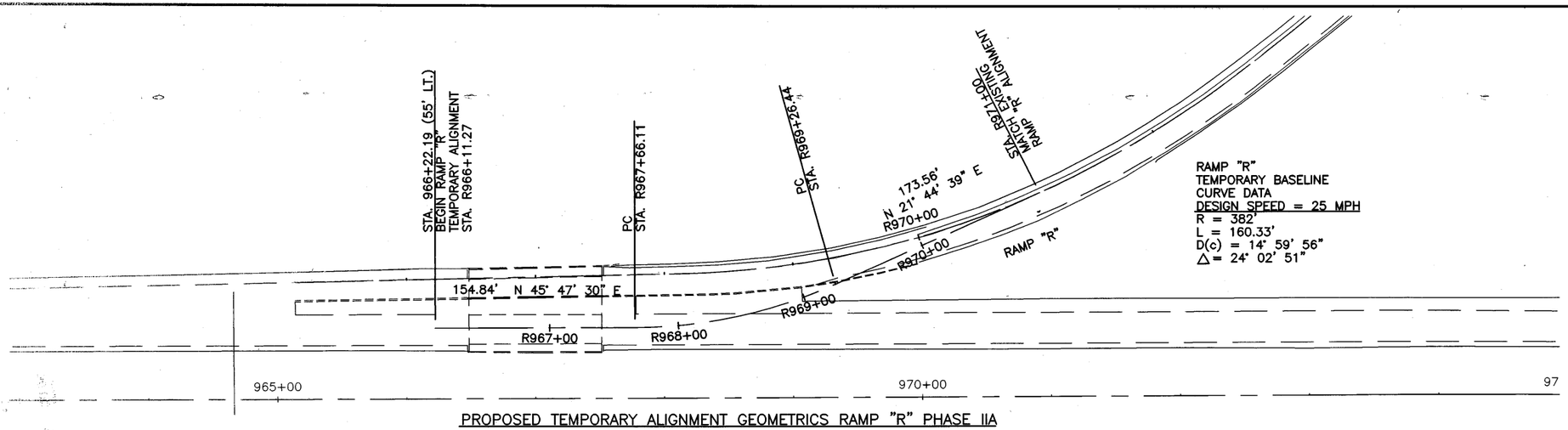
PROPOSED GRADING FOR TEMPORARY RAMP "P" PHASE IIA
SCALE: 1" = 20'

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC DETAILS

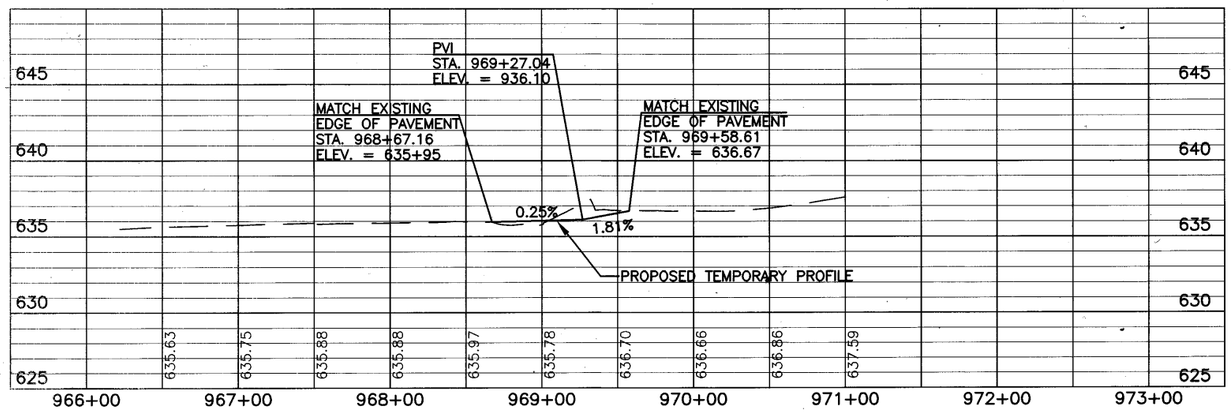
LOR - 190 - 10.76

M.O.T.



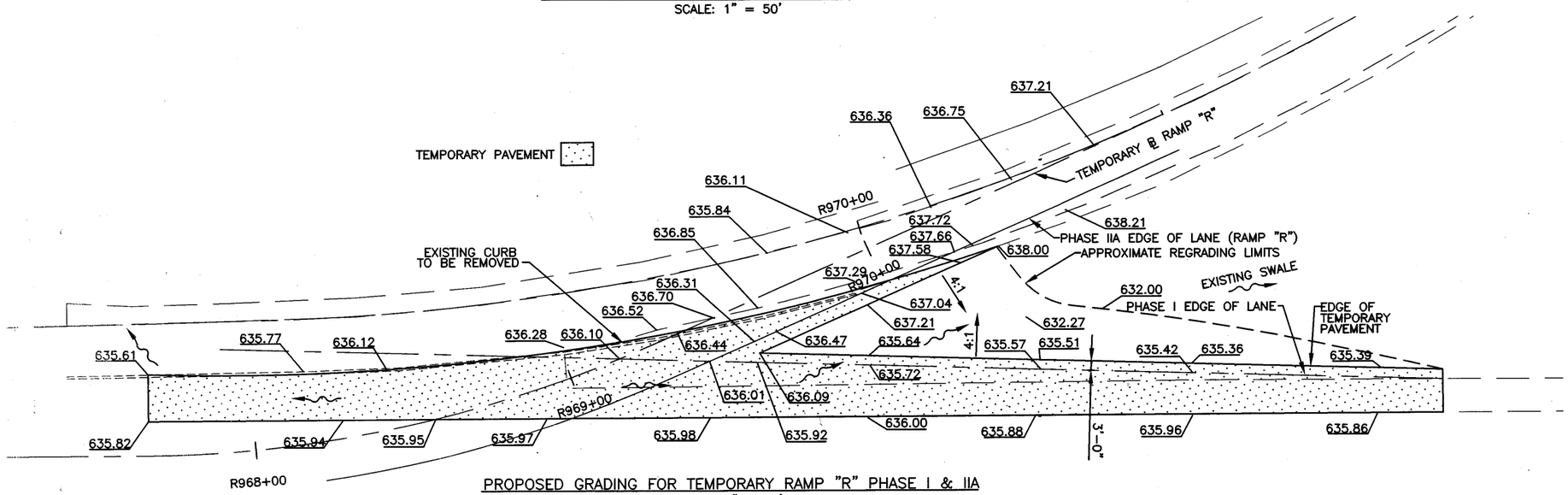
PROPOSED TEMPORARY ALIGNMENT GEOMETRICS RAMP "R" PHASE IIA

SCALE: 1" = 50'



PROPOSED PROFILE FOR TEMPORARY RAMP "R"

SCALE: 1" = 50'



PROPOSED GRADING FOR TEMPORARY RAMP "R" PHASE I & IIA

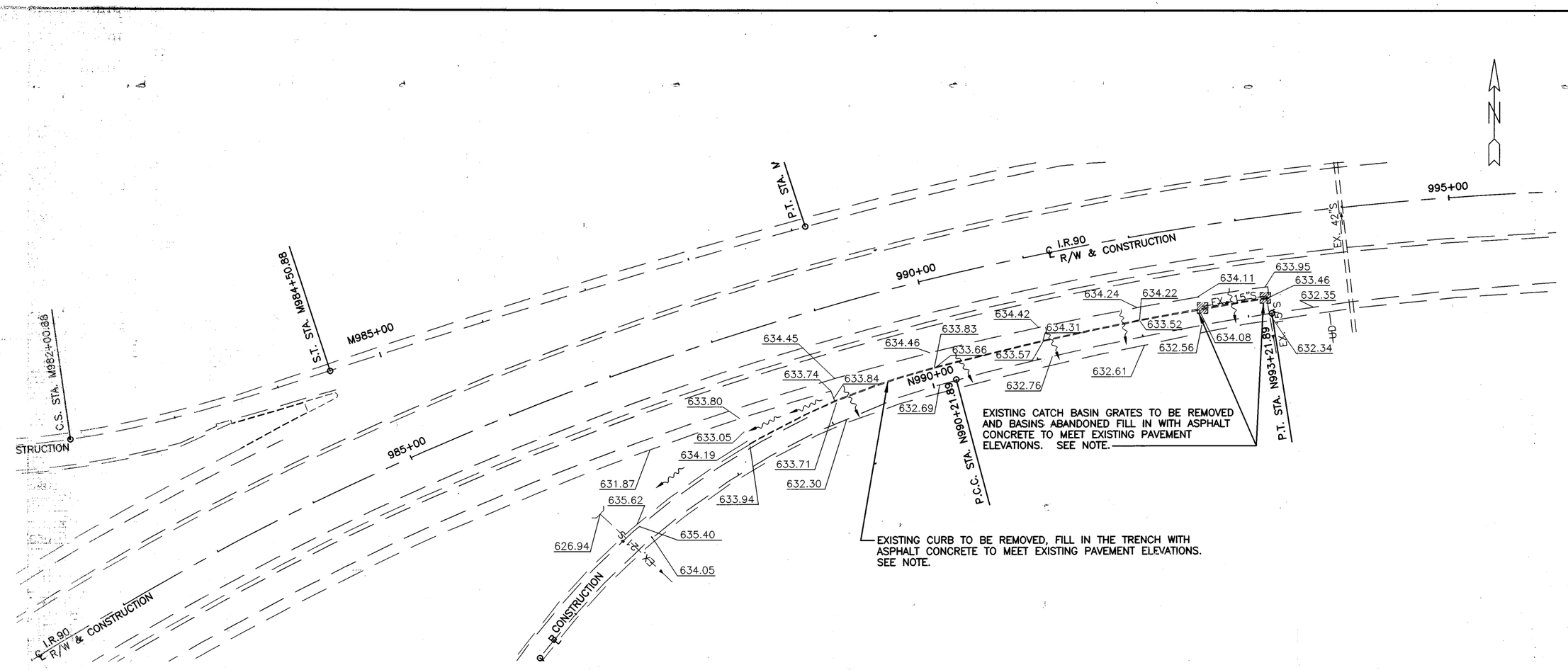
SCALE: 1" = 20'

CALCULATED DLS | CHECKED LAB

MAINTENANCE OF TRAFFIC DETAILS

LOR - I90 - 10.76

M.O.T.



NOTES:

1. THE PAVEMENT SHOULD SLOPE TO OUTSIDE OF SHOULDER
2. THE ELEVATIONS ARE EXISTING

50' HORIZONTAL SCALE IN FEET (0 – 100)

CALCULATED DLS | CHECKED LAB

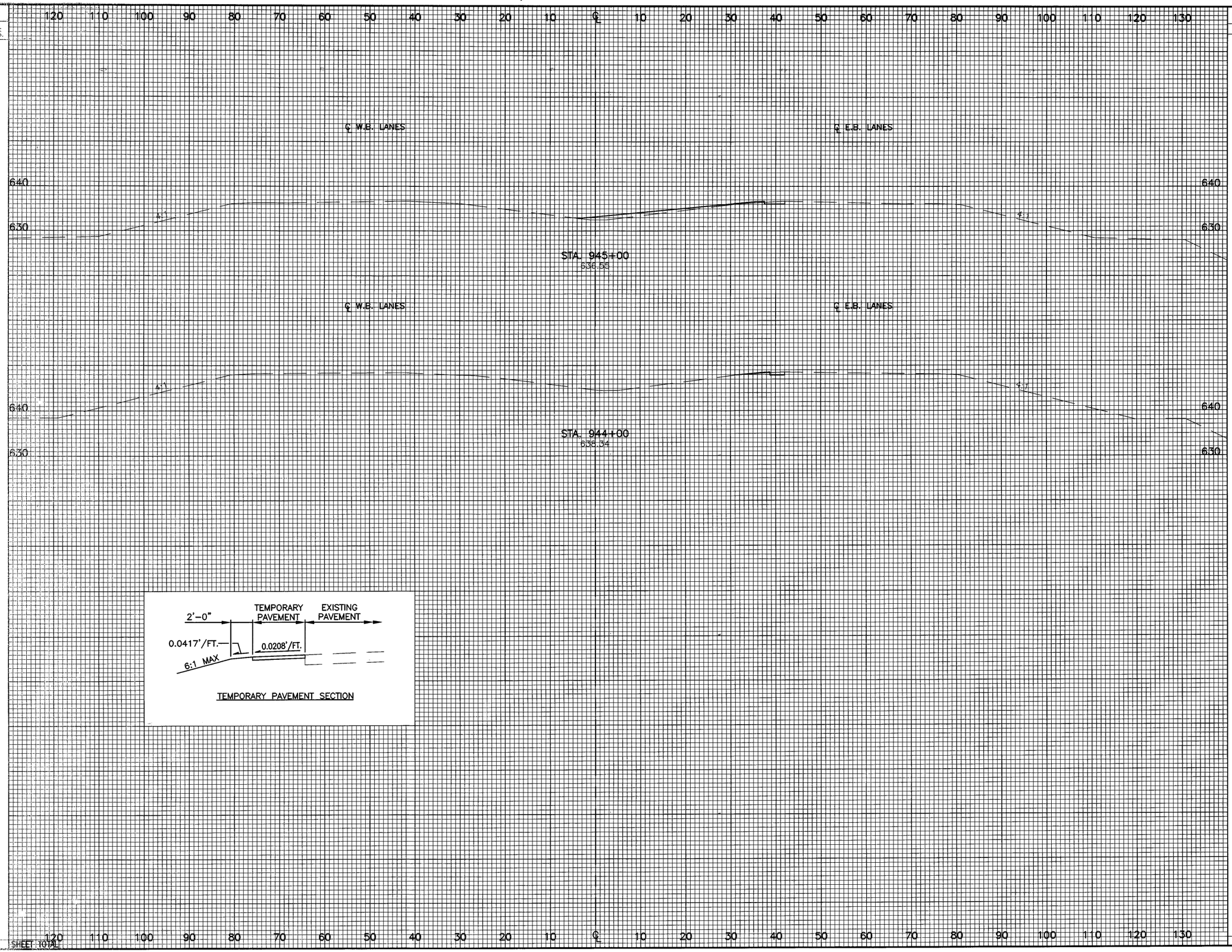
MAINTENANCE OF TRAFFIC DETAILS

LOR - I90 - 10.76

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
SHEET TOTAL		0	0

CALCULATED DLS | CHECKED LAB



TEMPORARY PAVEMENT SECTION

CROSS SECTIONS
STA. 944+00 TO STA. 945+00

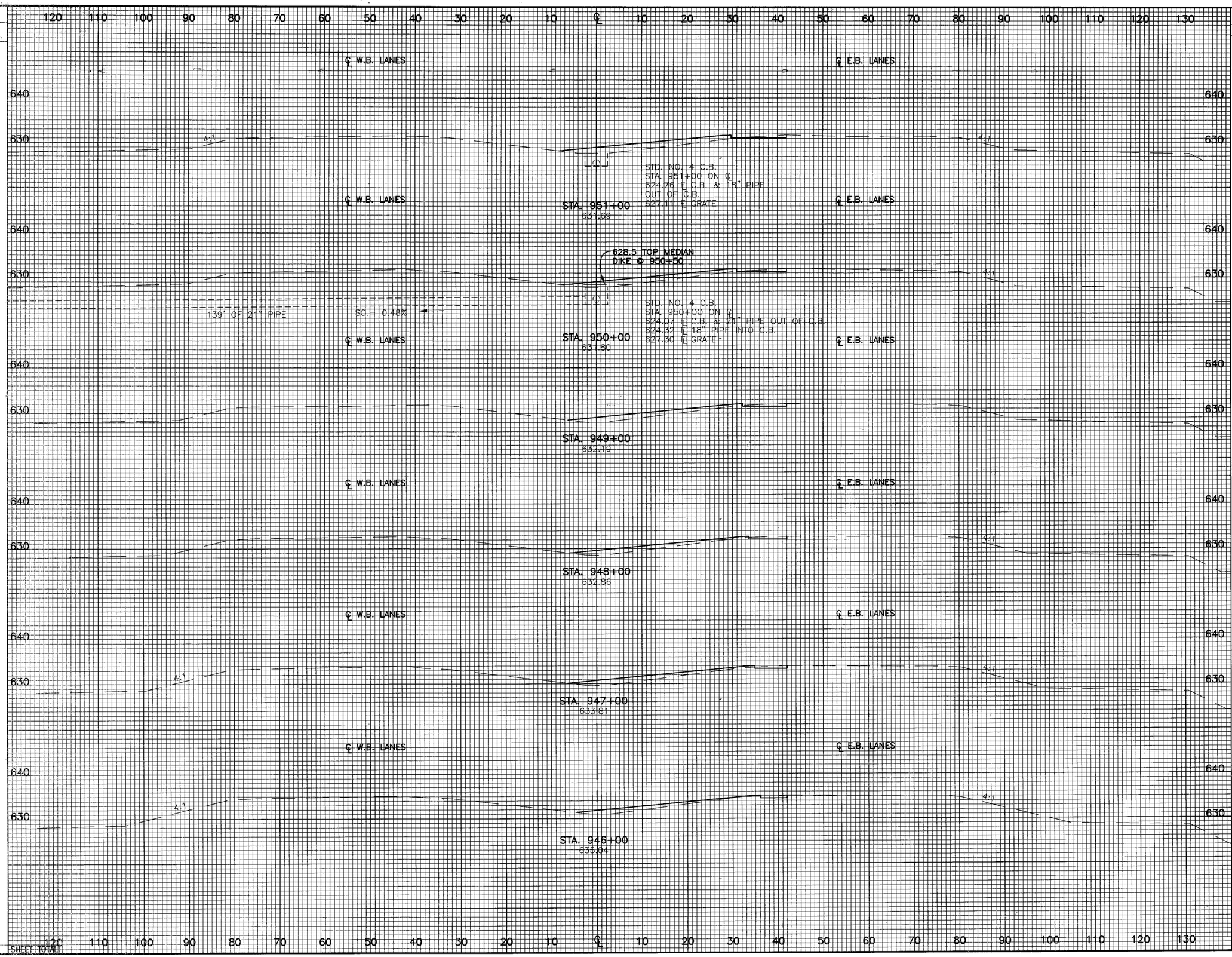
LOR - I90 - 17.21

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	0

CALCULATED DLS

CHECKED LAB

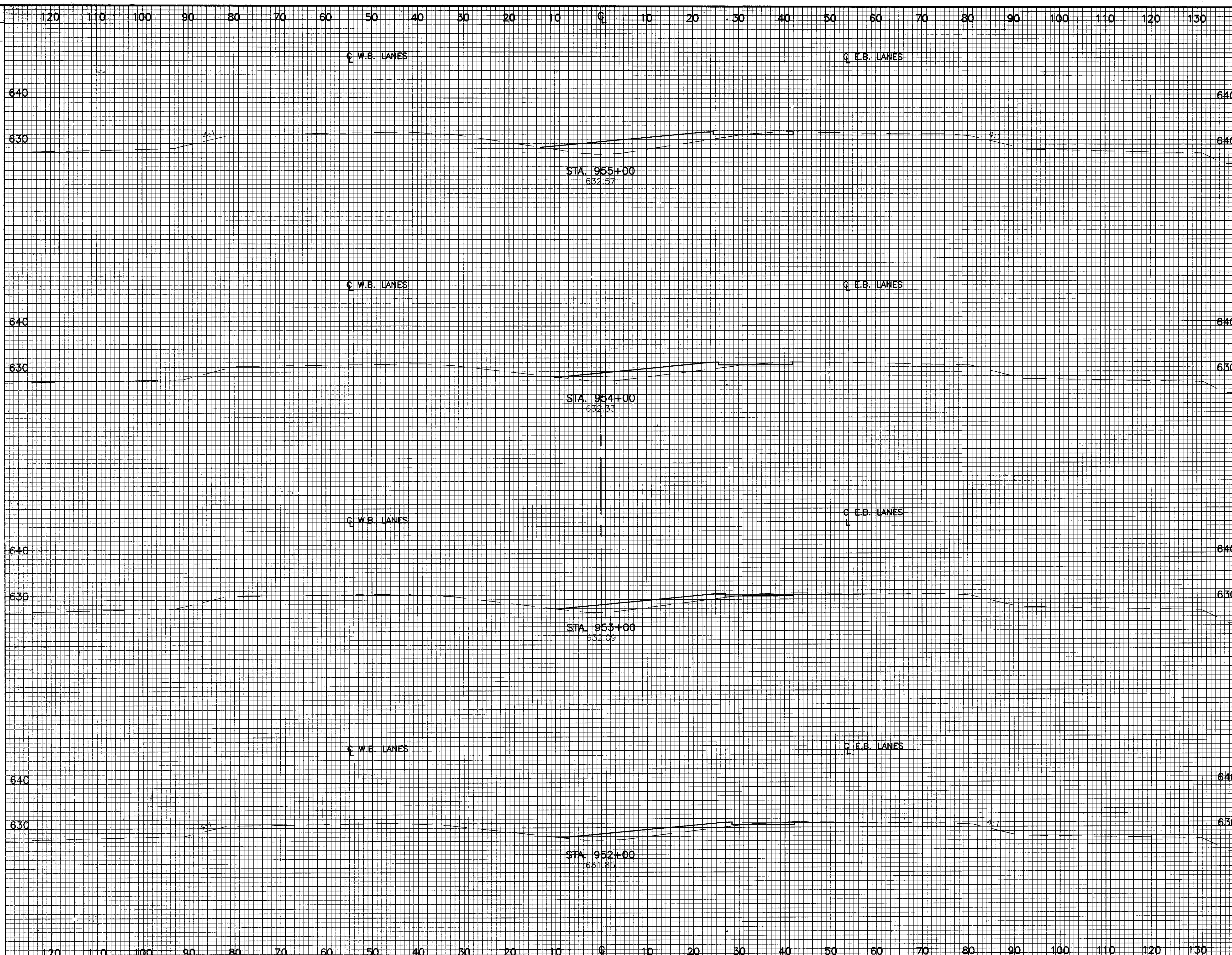


CROSS SECTIONS
STA. 946+00 TO STA. 951+00

LOR - 190 - 17.21

SHEET TOTAL

SEEDING	
END WIDTH	SQ. YDS.
SHEET TOTAL	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	0

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 952+00 TO STA. 955+00

LOR - 190 - 17.21

SEEDING	
END WIDTH	SQ. YDS.

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

℄ W.B. LANES ℄ E.B. LANES

640
630

STA. 961+00
634.01

℄ W.B. LANES ℄ E.B. LANES

640
630

STA. 960+00
633.77

℄ W.B. LANES ℄ E.B. LANES

640
630

STA. 959+00
633.53

℄ W.B. LANES ℄ E.B. LANES

640
630

STA. 958+00
633.29

℄ W.B. LANES ℄ E.B. LANES

640
630

STA. 957+00
633.05

℄ W.B. LANES ℄ E.B. LANES

640
630

STA. 956+00
631.81

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

SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	0

CALCULATED DLS	CHECKED LAB

CROSS SECTIONS
STA. 956+00 TO STA. 961+00

LOR - I90 - 17.21

186
274

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	0

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 962+36 TO STA. 966+00

LOR - I90 - 17.21

SHEET TOTAL

STA. 966+00
639.21

STA. 965+00
634.97

STA. 964+00
634.73

STA. 963+00
634.49

STA. 962+00
634.29

$\mathbb{C}_L$ W.B. LANES

$\mathbb{C}_L$ E.B. LANES

M.L. RAMP "R"

M.L. RAMP "P"

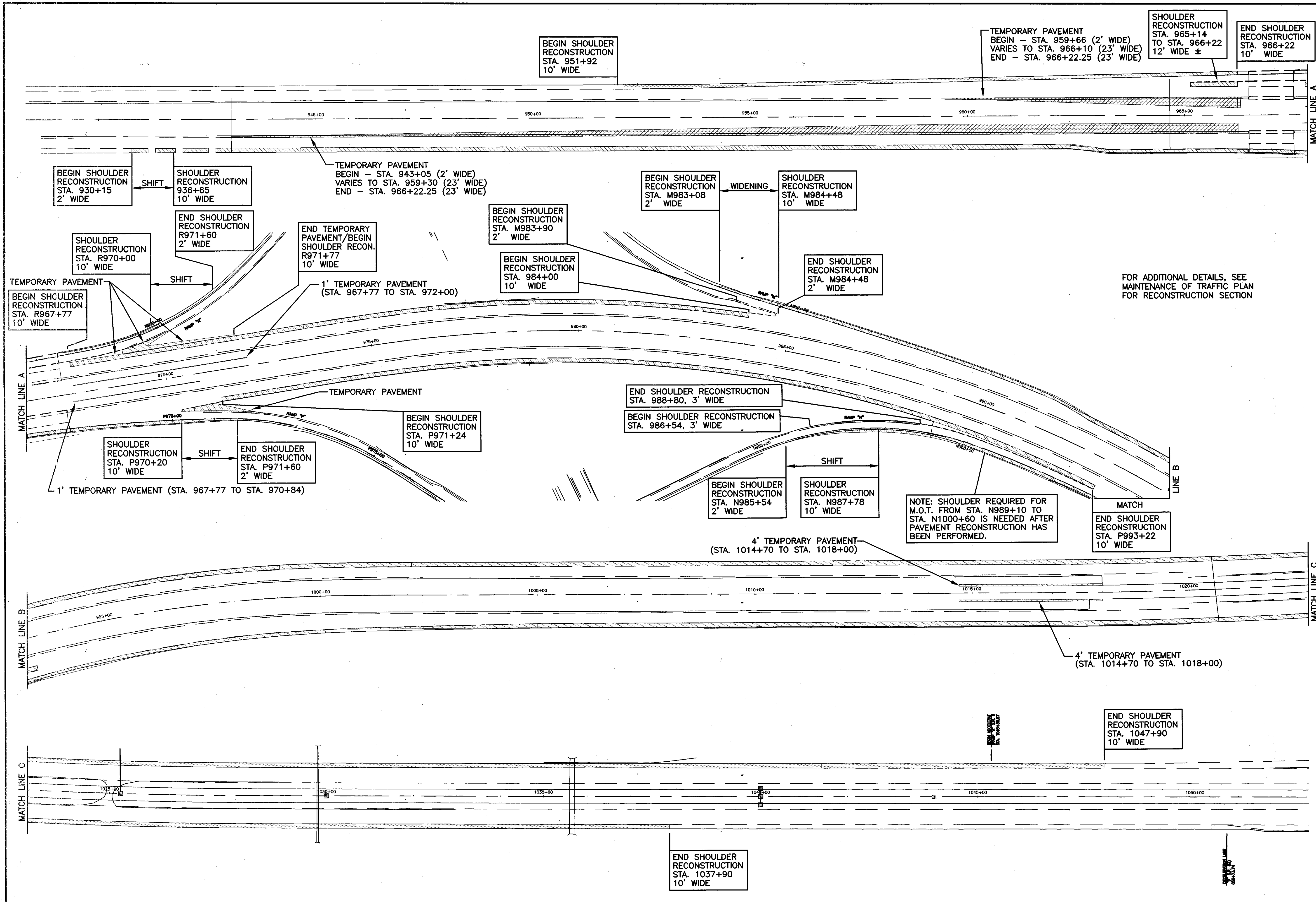
STA. 966+00, 1" LT.
STD. NO. 2-2B C.B.
628.60 E. C.B. & 12" PIPE OUT OF C.B.
630.75 E. GRATE
(TO BE ADJUSTED)

4:1

120 110 100 90 80 70 60 50 40 30 20 10 $\mathbb{C}_L$ 10 20 30 40 50 60 70 80 90 100 110 120 130

640

630



CALCULATED DLS
CHECKED LAB

MAINTENANCE OF TRAFFIC TEMPORARY SHOULDER PLAN

LOR - I90 - 10.76

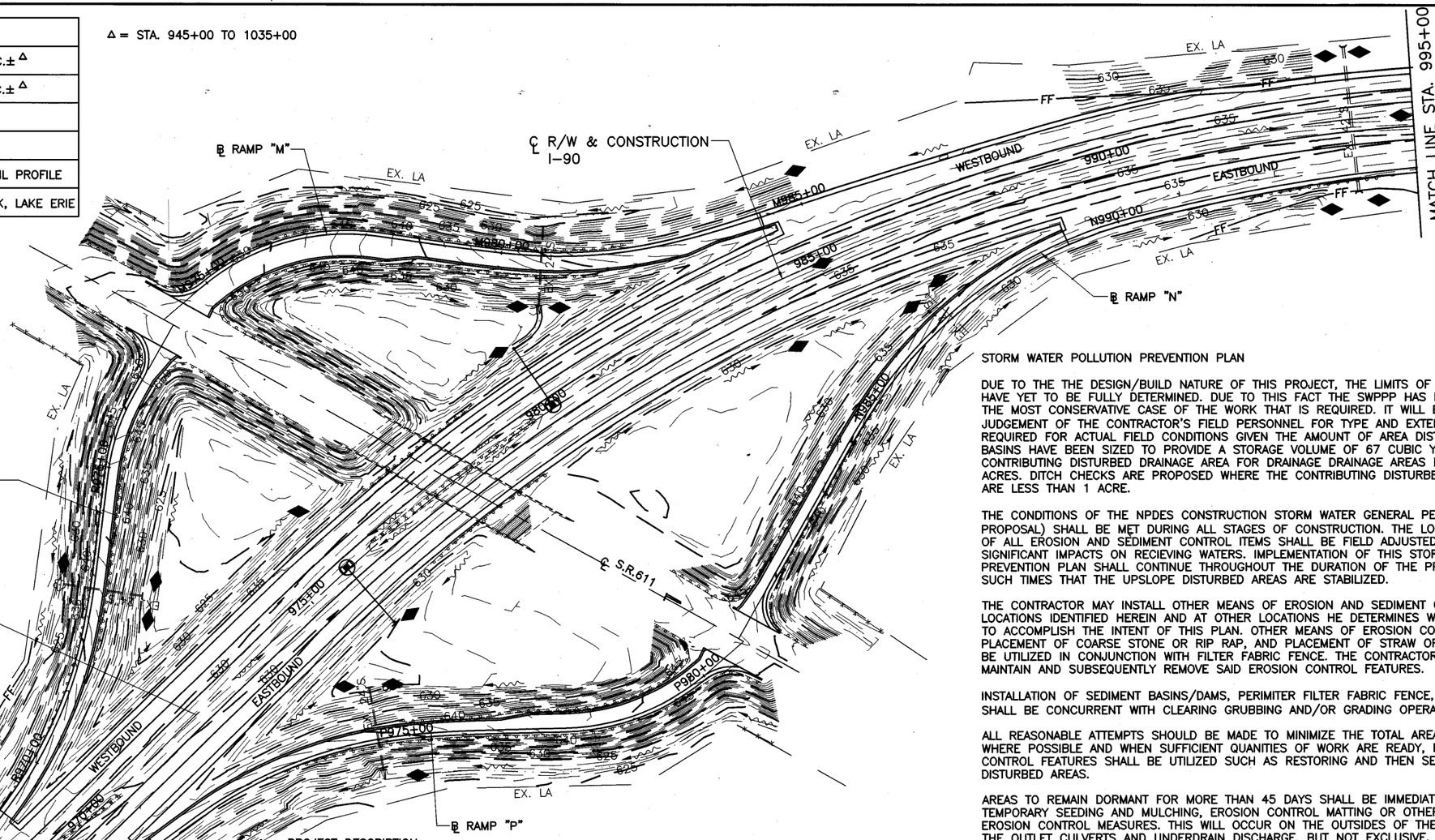
02-11-2002

PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY)	78.5 AC.± Δ
AREA TO UNDERGO EXCAVATION, FILLING OR GRADING	23.3 AC.± Δ
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.62±
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.64±
SOIL DATA	SEE SOIL PROFILE
EVENTUAL RECEIVING WATERS	FRENCH CREEK, LAKE ERIE

Δ = STA. 945+00 TO 1035+00

USGS QUADRANT NO. N4122.5-W8200/7.5
AVON, OHIO
LONGITUDE W 82°03'16"*
LATTITUDE N 41°27'48"*

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF INTERCHANGE



PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE WIDENING OF I-90 FROM TWO TO THREE LANES IN EACH DIRECTION OF TRAVEL FROM STA. 966+00 TO STA. 1017+75. IN ADDITION, TO THE WEST OF THE PROJECT, THE PAVEMENT WILL BE TAPERED TO MATCH INTO THE NEW THIRD LANES; TO THE EAST OF THE PROJECT (WHICH HAS ALREADY BEEN WIDENED) THE OUTSIDE TWO LANES AND THE OUTSIDE SHOULDER IN EACH DIRECTION OF TRAVEL WILL BE REPLACED UP TO STATION 1035+00. THE BRIDGE AT LOR-90-1861 L&R WILL HAVE NEW SUPERSTRUCTURE, APPROACH SLABS, DEFLECTOR PARAPET AND RECONSTRUCTED TOP OF ABUTMENT WALLS.
STORM WATER POLLUTION PREVENTION PLAN
SEE THE NEXT SHEET
ADDITIONAL STORM WATER POLLUTION PREVENTION MEASURES WERE INCLUDED TO COVER THE LIMITS OF MAINTENANCE OF TRAFFIC FROM STA. 930+15 TO STA. 966+00 AND FROM STA. 1017+75 TO STA. 1047+90 DUE TO TEMPORARY PAVEMENT.

LEGEND

- TEMPORARY INLET PROTECT, FILTER FABRIC FENCE (AT ALL EXISTINGAND PROPOSED INLETS)
- TEMPORARY DITCH CHECK, FILTER FENCE
- FF FILTER FABRIC FENCE
- DIRECTION OF FLOW DITCH
- SEDIMENT BASIN

STORM WATER POLLUTION PREVENTION PLAN

DUE TO THE THE DESIGN/BUILD NATURE OF THIS PROJECT, THE LIMITS OF GRADING OPERATIONS HAVE YET TO BE FULLY DETERMINED. DUE TO THIS FACT THE SWPPP HAS BEEN LAID OUT FOR THE MOST CONSERVATIVE CASE OF THE WORK THAT IS REQUIRED. IT WILL BE UP TO THE JUDGEMENT OF THE CONTRACTOR'S FIELD PERSONNEL FOR TYPE AND EXTENT OF TREATMENT REQUIRED FOR ACTUAL FIELD CONDITIONS GIVEN THE AMOUNT OF AREA DISTURBED. SEDIMENT BASINS HAVE BEEN SIZED TO PROVIDE A STORAGE VOLUME OF 67 CUBIC YARDS PER ACRE OF CONTRIBUTING DISTURBED DRAINAGE AREA FOR DRAINAGE DRAINAGE AREAS BETWEEN 1 AND 5 ACRES. DITCH CHECKS ARE PROPOSED WHERE THE CONTRIBUTING DISTURBED DRAINAGE AREAS ARE LESS THAN 1 ACRE.

THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT (SEE THE PROPOSAL) SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECIEVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLUTTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIMES THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

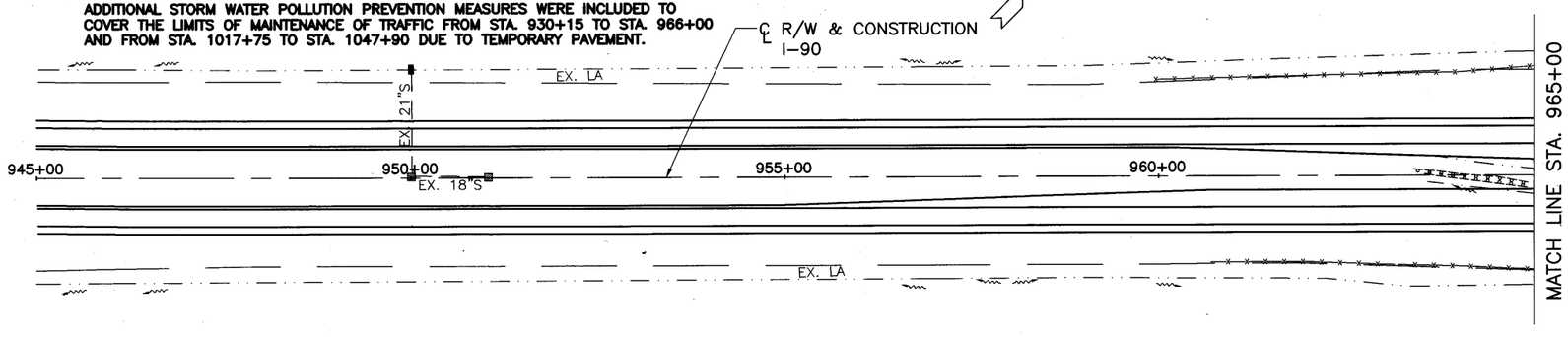
THE CONTRACTOR MAY INSTALL OTHER MEANS OF EROSION AND SEDIMENT CONTROL AT THE LOCATIONS IDENTIFIED HEREIN AND AT OTHER LOCATIONS HE DETERMINES WITHIN THE PROJECT TO ACCOMPLISH THE INTENT OF THIS PLAN. OTHER MEANS OF EROSION CONTROL MAY INCLUDE PLACEMENT OF COARSE STONE OR RIP RAP, AND PLACEMENT OF STRAW OR HAY BALES, TO BE UTILIZED IN CONJUNCTION WITH FILTER FABRIC FENCE. THE CONTRACTOR SHALL PLACE, MAINTAIN AND SUBSEQUENTLY REMOVE SAID EROSION CONTROL FEATURES.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMITER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING GRUBBING AND/OR GRADING OPERATIONS.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND. WHERE POSSIBLE AND WHEN SUFFICIENT QUANITIES OF WORK ARE READY, PERMANENT EROSION CONTROL FEATURES SHALL BE UTILIZED SUCH AS RESTORING AND THEN SEEDING AND MULCHING DISTURBED AREAS.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHALL BE IMMEDIATE STABILIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES. THIS WILL OCCUR ON THE OUTSIDES OF THE DITCHES WHERE THE OUTLET CULVERTS AND UNDERDRAIN DISCHARGE, BUT NOT EXCLUSIVE. ANY AREAS WITHIN 50 FT. OF ANY WATER BODY, THEN IT SHALL BE VEGETATED WITHIN 2 DAYS FOLLOWING THE CLEANING AND GRUBBING OPERATIONS.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE AS DETAILED ON STANDARD DRAWING DM-4.3 AND DM-4.4 AND SS877.



HORIZONTAL SCALE IN FEET: 0, 100', 200

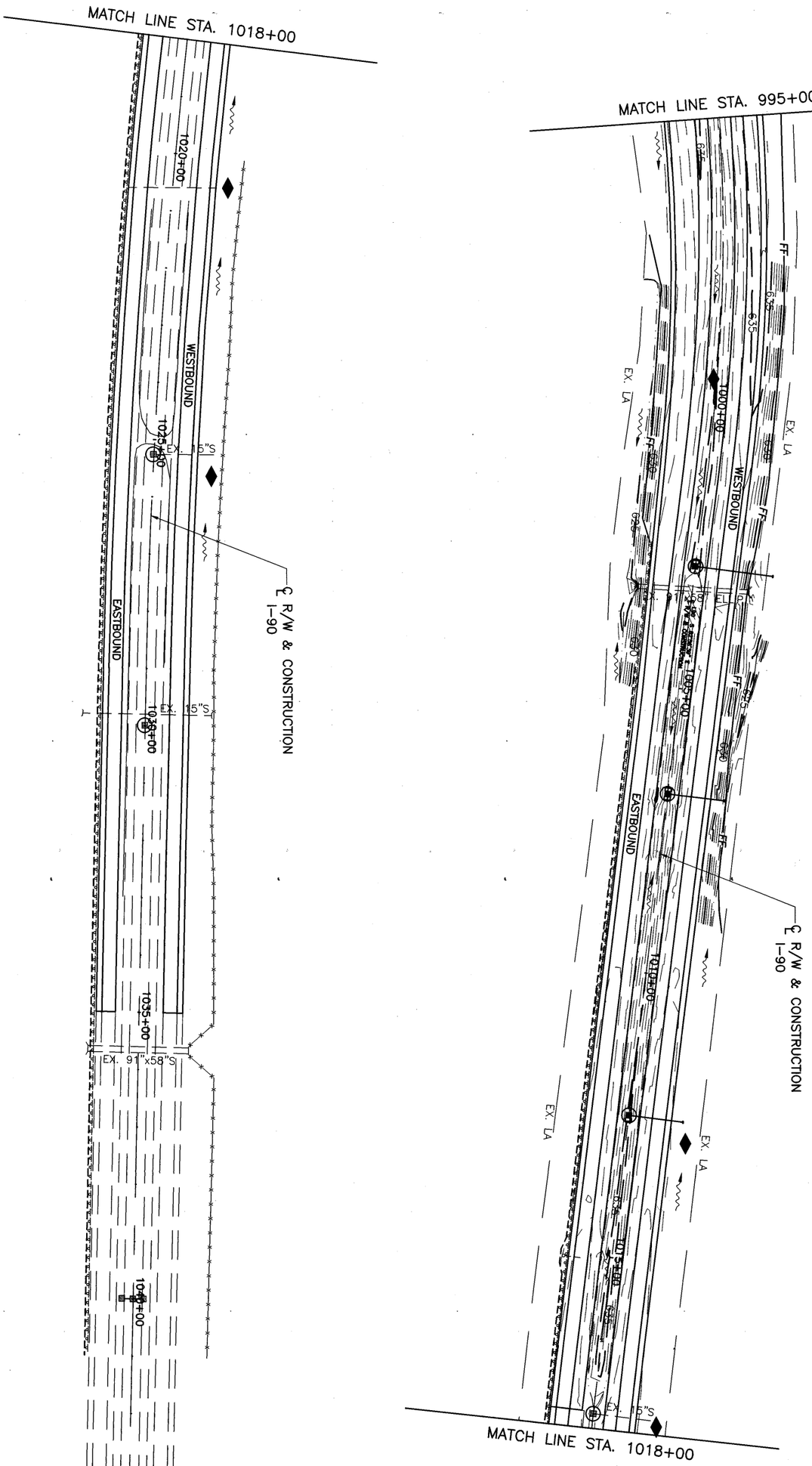
CALCULATED DLS | CHECKED LAB

STORM WATER POLLUTION PREVENTION PLAN (I-90)
STA. 945+00 TO 1018+00

LOR - I90 - 10.76

189
274

7:53AM 02-20-2002 [Q:\93600\DWGS\PS93L\V36005.DWG] DLS

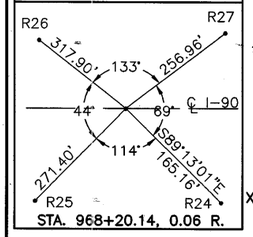


LOR - I90 - 10.76

STORM WATER POLLUTION PREVENTION PLAN (I-90)
STA. 1018+00 TO 1035+00

CALCULATED DLS
CHECKED LAB

0 100' 200
HORIZONTAL SCALE IN FEET



REFERENCE POINT #2

ALL REFERENCE POINTS ARE 5/8" DIA. REBAR WITH A 1 3/4" ORANGE CAP MARKED "DO NOT DISTURB R.E. WARNER CONTROL STATION" SET

BENCHMARK-LOR I90 18.44
STA. 973+67.53, 81.53' LT.

N-10440.2259
E-10335.7014
ODOT ELEV.=635.154
R.E.W. ELEV.=635.103 (USED)

0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED	CHECKED
DLS	LAB

PLAN AND PROFILE
STA. 960+00 TO STA. 972+00

LOR - I90 - 10.76

[O:\93600\DWGS\IR903L\RCP01001.DWG] DLS
07-23-2002 2:58PM

BENCHMARK–LOR I90 18.44
STA. 973+67.53, 81.53' LT.

N–10440.2259
E–10335.7014
ODOT ELEV.=635.154
R.E.W. ELEV.=635.103 (USED)

BENCHMARK–LOR I90 18.68
STA. 974+67.07, 161.69' RT.

N–10334.6104
E–10576.0242
ODOT ELEV.=625.065
R.E.W. ELEV.=625.005 (USED)

FOR RAMP "M"
CONTINUATION, SEE SHT. 200

FOR RAMP "P"
CONTINUATION, SEE SHT. 199

CURVE DATA I.R.90
P.I. 975+45.59
Δ =03°00'00"
Dc=01°30'00"
R=3819.72'
L=200.00'
T=100.03'
E=1.31'
TYPE T, TERMINAL ASSEMBLY

CURVE DATA I.R.90
P.I. 988+39.94
Δ =45°15'51"
Dc=2°00'00"
R=2864.79'
L=2263.21'
T=1194.38'
E=239.01'

SEEDING & JUTE MATING, 7.5' x 150'
STA. 974+23 TO STA. 975+73

MATCH LINE STA. 972+00

MATCH LINE STA. 984+00

WESTBOUND

EASTBOUND

TYPE T, TERMINAL ASSEMBLY

TYPE E–98, TERMINAL ASSEMBLY

N 45°47'30" E

975+00

10' SHLDR.

12' PAVEMENT

24' PAVEMENT

P.C. STA. 974+45.56

P.C.C. STA. 976+45.56

TYPE B–98, TERMINAL ASSEMBLY

SEEDING & JUTE MATING, 7.5' x 150'
STA. 975+87 TO STA. 977+37

SEEDING & JUTE MATING, 7.5' x 150'
STA. 978+50 TO STA. 980+00

SEEDING & JUTE MATING, 8.5' x 150'
STA. 980+14 TO STA. 981+64

ALL REFERENCE POINTS ARE 5/8" DIA. REBAR WITH A 1 3/4" ORANGE CAP. MARKED "DO NOT DISTURB R.E. WARNER CONTROL STATION" SET

℄ I–90 R/W & CONSTRUCTION

℄ SR 611

DITCH CLEANOUT

STA. 980+49.97, 00.17 LT. EX. NO. 4 CB TO BE REMOVED

21"S

15"S

11"S

24"S

EX. 15"S

EX. 24"S

D–5 ADDITIONAL WORK PERFORMED 76 L.F. W/FITTINGS USED TO CONNECT TO EXISTING UNDERDRAIN AS REQUESTED BY THE STATE INSPECTOR ON SITE.

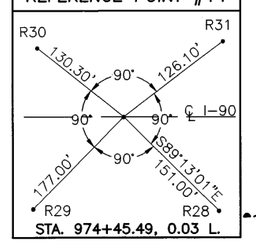
STA. 975+80, 4.0' LT. PROP. NO. 4 CATCH BASIN WITH SAG

STA. 975+90.85, 0.32 RT. EX. NO. 4 CB TO BE REMOVED

STA. 976+74.86, 22.11 RT. EX. NO. 3 MANHOLE TO BE REMOVED

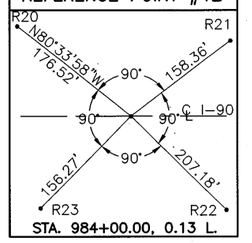
STA. 980+07, 5.0' LT. PROP. NO. 4 CATCH BASIN WITH SAG

REFERENCE POINT #14

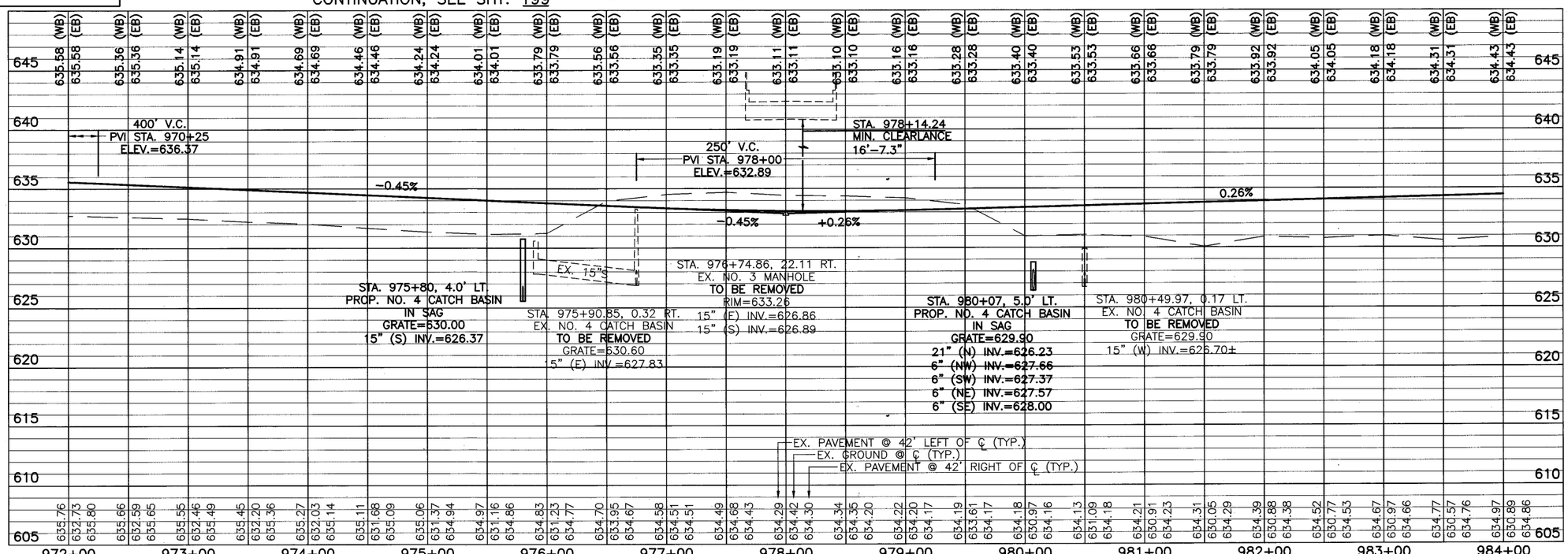


STA. 974+45.49, 0.03 L.

REFERENCE POINT #12



STA. 984+00.00, 0.13 L.



HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN AND PROFILE
STA. 972+00 TO STA. 984+00

LOR - I90 - 10.76

192
274

[O:\93600\ENGS\ROAD\LVKCP02001.DWG] DLS
02-27-2002 1:43PM

CURVE DATA I.R.90
P.I. 988+39.94
Δ =45°15'51"
Dc=02°00'00"
R=2864.79'
L=2263.21'
T=1194.38'
E=239.01'

BENCHMARK-LOR I90 18.61
STA. 982+46.49, 83.23' RT.

N-10844.9176
E-11126.1783
ODOT ELEV.=631.580
R.E.W. ELEV.=631.571 (USED)

BENCHMARK-LOR I90 18.88
STA. 997+00.51, 106.84' RT.

N-11174.5388
E-12477.4858
ODOT ELEV.=628.740
R.E.W. ELEV.=628.742 (USED)

STA. 992+57.38, 76.88 RT. EX. NO. 6 CB TO BE REMOVED

STA. 993+18.11, 76.12 RT. EX. NO. 6 CB TO BE REMOVED

ALL REFERENCE POINTS ARE 5/8" DIA. REBAR WITH A 1 3/4" ORANGE CAP MARKED "DO NOT DISTURB R.E. WARNER CONTROL STATION" SET

REFERENCE POINT #13

STA. 991+49.98, 0.16 R.

STA. 992+57.38, 76.88 RT.
EX. NO. 6 CATCH BASIN
TO BE REMOVED
GRATE=633.26
15" (N) INV.=629.60±

STA. 993+18.11, 76.12 RT.
EX. NO. 6 CATCH BASIN
TO BE REMOVED
GRATE=633.04
15" (S&E) INV.=628.25±

	(WB)	(EB)
984+00	634.43	634.43
	634.56	634.56
985+00	634.69	634.69
	634.82	634.82
986+00	634.95	634.95
	635.08	635.08
987+00	635.21	635.21
	635.34	635.34
988+00	635.47	635.47
	635.58	635.58
989+00	635.66	635.66
	635.71	635.71
990+00	635.73	635.73
	635.72	635.72
991+00	635.68	635.68
	635.60	635.60
992+00	635.50	635.50
	635.38	635.38
993+00	635.26	635.26
	635.14	635.14
994+00	635.02	635.02
	634.90	634.90
995+00	634.78	634.78
	634.66	634.66
996+00	634.54	634.54

	EX. PAVEMENT @ 42' LEFT OF ℄ (TYP.)	EX. GROUND @ ℄ (TYP.)	EX. PAVEMENT @ 42' RIGHT OF ℄ (TYP.)
984+00	634.97	630.89	634.86
	635.15	630.99	635.03
985+00	635.28	630.88	635.20
	635.41	631.18	635.31
986+00	635.50	631.17	635.41
	635.67	631.44	635.55
987+00	635.76	631.57	635.62
	635.88	631.70	635.80
988+00	636.00	631.94	635.91
	636.05	632.27	635.85
989+00	636.18	632.22	636.03
	636.17	632.41	636.10
990+00	636.13	632.26	636.05
	636.07	632.35	636.08
991+00	636.06	632.24	636.08
	636.00	632.15	635.94
992+00	635.91	632.03	635.82
	635.79	631.93	635.70
993+00	635.64	631.69	635.59
	635.40	631.53	635.39
994+00	635.33	631.37	635.25
	635.24	631.20	635.18
995+00	635.14	630.93	635.05
	634.99	630.81	634.91
996+00	634.88	630.59	634.81

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PLAN AND PROFILE STA. 984+00 TO STA. 996+00

LOR - I90 - 10.76

[c:\93600\DWGS\RP03L\RCP03001.DWG] JGR
02-21-2002 9:26AM

CURVE DATA I.R.90
P.I. 988+39.94
Δ =45°15'51"
Dc=02°00'00"
R=2864.79'
L=2263.21'
T=1194.38'
E=239.01'

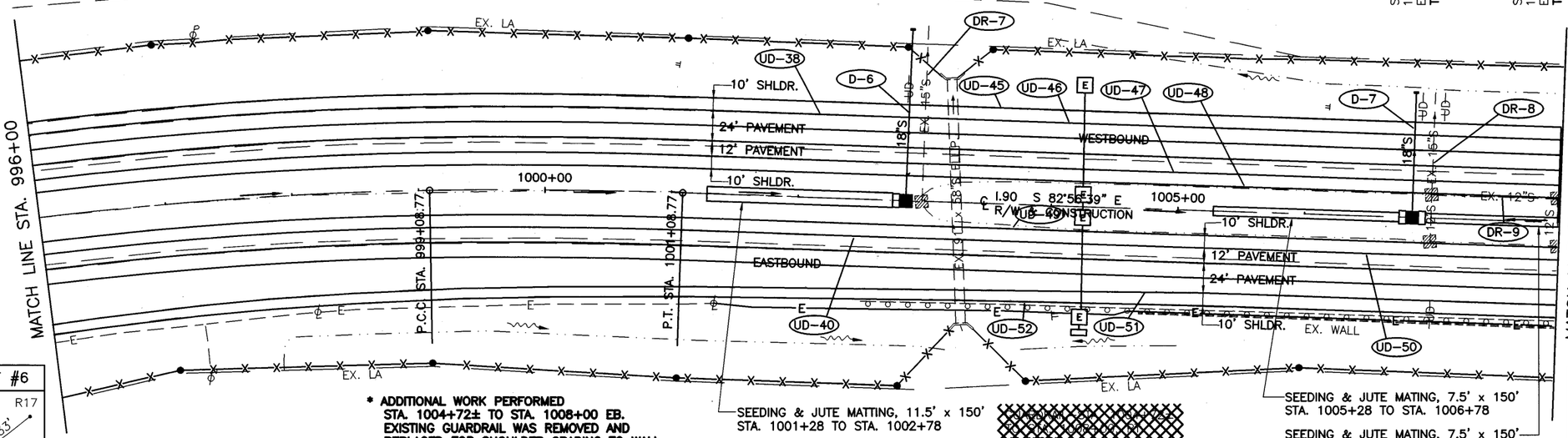
CURVE DATA I.R.90
P.I. 1000+08.80
Δ =03°00'00"
Dc=01°30'00"
R=3819.72'
L=200.00'
T=100.023
E=1.31'

NOTE: PROPOSED UNDERDRAIN OUTLETS AT STA. 1003+25± INTO EXISTING CROSS CULVERT INSTEAD OF PROPOSED DESIGN OUTLET AS REQUESTED BY THE INSPECTOR ON SITE.

STA. 1002+97.55, 0.32 RT. EX. NO. 4 CB TO BE REMOVED

STA. 1006+99.72, 19.11 LT. EX. NO. 8 CB TO BE REMOVED

STA. 1007+98.97, 19.67 LT. EX. NO. 8 CB TO BE REMOVED



* ADDITIONAL WORK PERFORMED STA. 1004+72± TO STA. 1008+00 EB. EXISTING GUARDRAIL WAS REMOVED AND REPLACED FOR SHOULDER GRADING TO WALL.

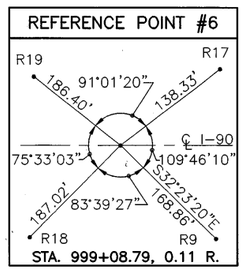
SEEDING & JUTE MATTING, 11.5' x 150' STA. 1001+28 TO STA. 1002+78

NO WORK

SEEDING & JUTE MATING, 7.5' x 150' STA. 1005+28 TO STA. 1006+78

SEEDING & JUTE MATING, 7.5' x 150' STA. 1006+92 TO STA. 1008+42

REFERENCE POINT #6



STA. 999+08.79, 0.11 R.

ALL REFERENCE POINTS ARE 5/8" DIA. REBAR WITH A 1 3/4" ORANGE CAP MARKED "DO NOT DISTURB R.E. WARNER CONTROL STATION" SET

BENCHMARK–LOR I90 18.88
STA. 997+00.51, 106.84' RT.

N–11174.5388
E–12477.4858
ODOT ELEV.=628.740
R.E.W. ELEV.=628.742 (USED)

STA. 1002+85, ℄ NO. 4 CATCH BASIN

BENCHMARK–LOR I90 19.00
STA. 1003+35.90, 96.67' RT.

N–11131.0061
E–13097.9487
ODOT ELEV.=629.439
R.E.W. ELEV.=629.439 (USED)

STA. 1004+25.89 8' WIDE SHOULDER BEGIN TAPER

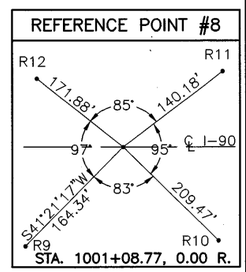
STA. 1005+21.89 10' WIDE SHOULDER END TAPER

STA. 1006+85, ℄ NO. 4 CATCH BASIN IN SAG

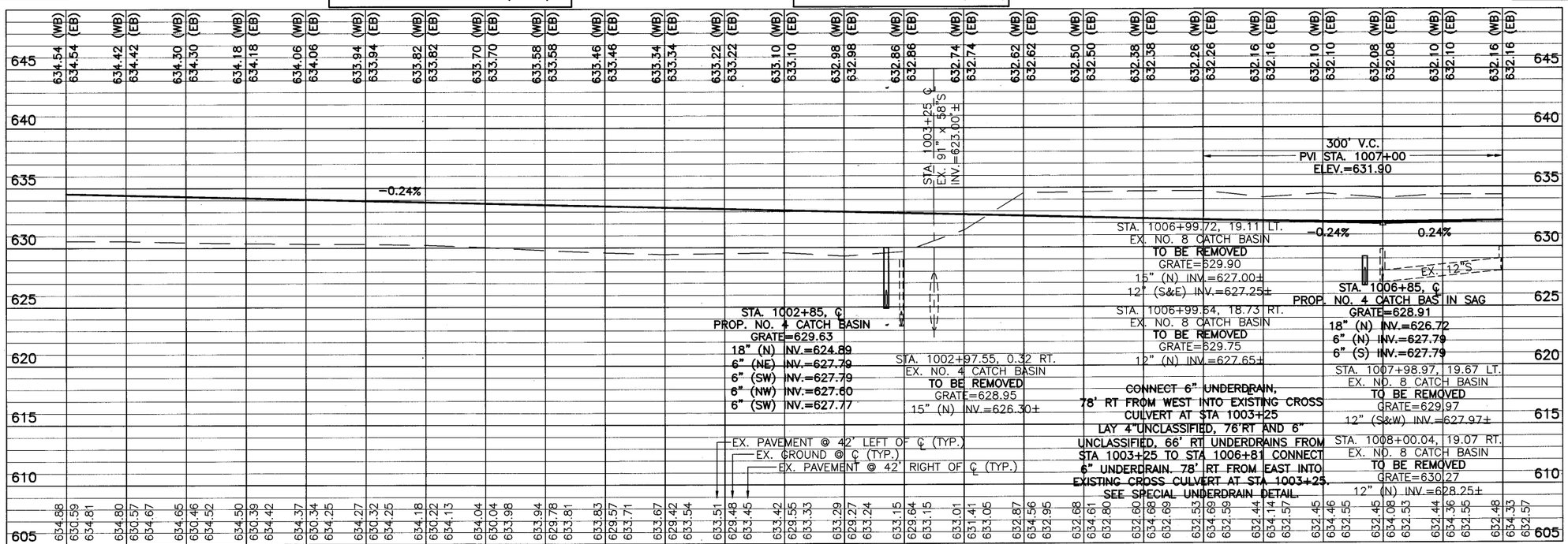
STA. 1006+99.64, 18.73 RT. EX. NO. 8 CB TO BE REMOVED

STA. 1008+00.04 19.07 RT. EX. NO. 8 CB TO BE REMOVED

REFERENCE POINT #8



STA. 1001+08.77, 0.00 R.



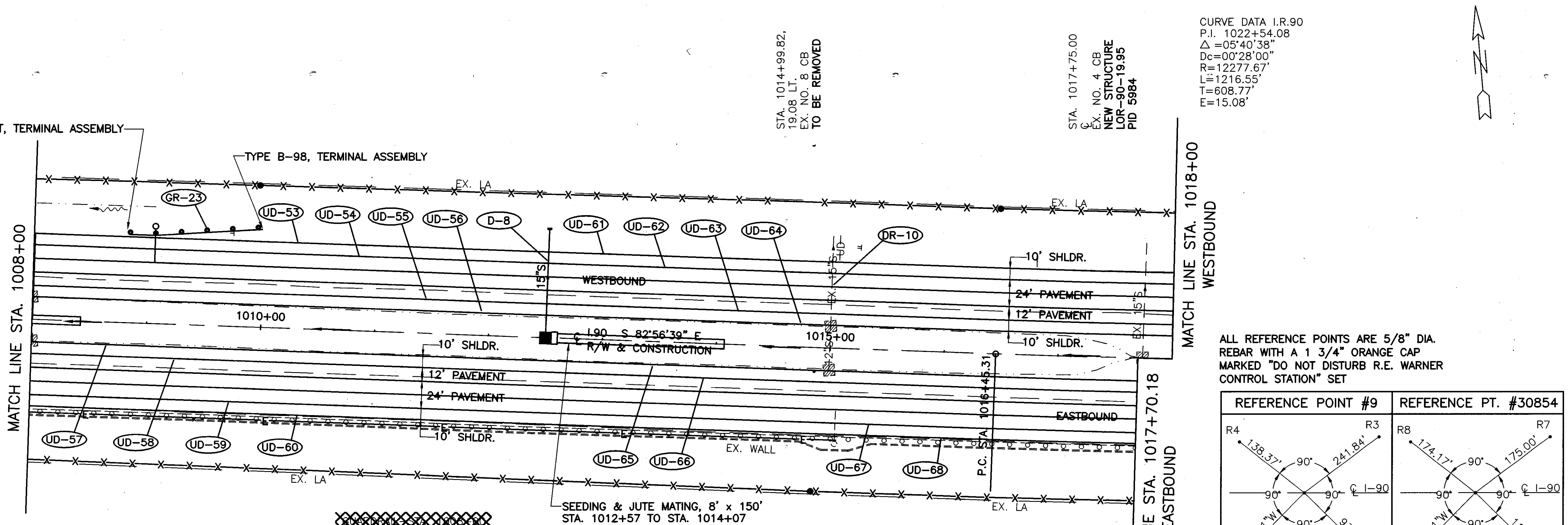
HORIZONTAL SCALE IN FEET 0 50' 100

CALCULATED DLS CHECKED LAB

PLAN AND PROFILE STA. 996+00 TO STA. 1008+00

LOR - I90 - 10.76

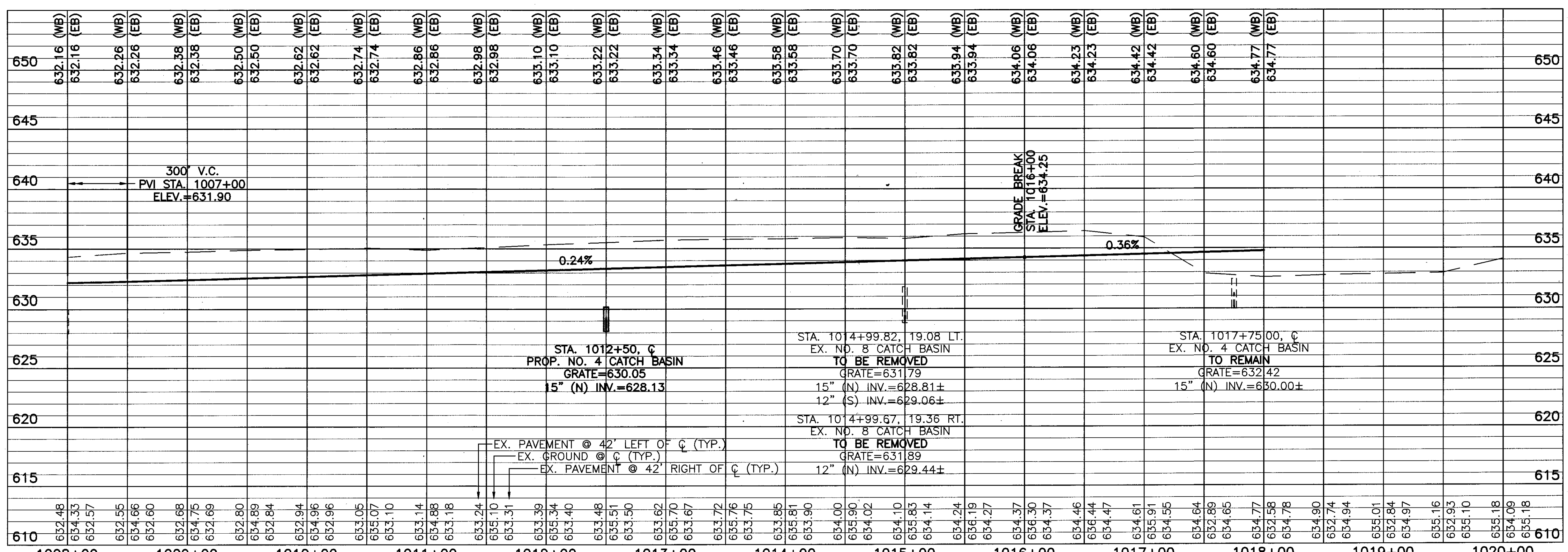
[c:\93600\DWGS\R90QL\RGP04001.DWG] AGR
02-22-2002 7:45AM


TYPE T, TERMINAL ASSEMBLY
TYPE B-98, TERMINAL ASSEMBLY
STA. 1014+99.82, 19.08 LT. EX. NO. 8 CB TO BE REMOVED
STA. 1017+75.00 ₵ EX. NO. 4 CB NEW STRUCTURE LOR-90-19.95 PID 5984
CURVE DATA I.R.90
P.I. 1022+54.08
Δ =05°40'38"
Dc=00°28'00"
R=12277.67'
L=1216.55'
T=608.77'
E=15.08'
MATCH LINE STA. 1008+00
MATCH LINE STA. 1018+00 WESTBOUND
MATCH LINE STA. 1017+70.18 EASTBOUND
EX. LA
WESTBOUND
EASTBOUND
1010+00
1015+00
₵ I90 S 82°56'39" E R/W & CONSTRUCTION
10' SHLDR.
12' PAVEMENT
24' PAVEMENT
EX. WALL
P.C. STA. 1016+45.31
SEEDING & JUTE MATING, 8' x 150' STA. 1012+57 TO STA. 1014+07
STA. 1012+50, ₵ NO. 4 CATCH BASIN
STA. 1014+99.67, 19.36 RT. EX. NO. 8 CB TO BE REMOVED
ALL REFERENCE POINTS ARE 5/8" DIA. REBAR WITH A 1 3/4" ORANGE CAP MARKED "DO NOT DISTURB R.E. WARNER CONTROL STATION" SET
REFERENCE POINT #9
R1 STA. 1008+75.07, 0.01 L.
REFERENCE PT. #30854
R5 STA. 1016+45.15, 0.17 L.

BENCHMARK—LOR I90 19.19
STA. 1012+98.88, 83.47' RT.

N-11025.8182
E-14055.2571
ODOT ELEV.=632.774
R.E.W. ELEV.=632.767 (USED)

* ADDITIONAL WORK PERFORMED
STA. 1008+00 TO STA. 1017.18 EB.
EXISTING GUARDRAIL WAS REMOVED AND
REPLACED FOR SHOULDER GRADING TO WALL.


300' V.C.
PVI STA. 1007+00
ELEV.=631.90
0.24%
0.36%
GRADE BREAK STA. 1016+00 ELEV.=634.25
STA. 1012+50, ₵
PROP. NO. 4 CATCH BASIN
GRATE=630.05
15" (N) INV.=628.13
STA. 1014+99.82, 19.08 LT.
EX. NO. 8 CATCH BASIN
TO BE REMOVED
GRATE=631.79
15" (N) INV.=628.81±
12" (S) INV.=629.06±
STA. 1014+99.67, 19.36 RT.
EX. NO. 8 CATCH BASIN
TO BE REMOVED
GRATE=631.89
12" (N) INV.=629.44±
STA. 1017+75.00, ₵
EX. NO. 4 CATCH BASIN
TO REMAIN
GRATE=632.42
15" (N) INV.=630.00±
EX. PAVEMENT @ 42' LEFT OF ₵ (TYP.)
EX. GROUND @ ₵ (TYP.)
EX. PAVEMENT @ 42' RIGHT OF ₵ (TYP.)
1008+00
1009+00
1010+00
1011+00
1012+00
1013+00
1014+00
1015+00
1016+00
1017+00
1018+00
1019+00
1020+00

HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PLAN AND PROFILE
STA. 1008+00 TO STA. 1020+00

LOR - I90 - 10.76

[O:\93600\DWGS\IR90\RCP05001.DWG] DLS
02-22-2002 1:11PM

PLAN
STA. 1017+70.18 TO STA. 1041+00

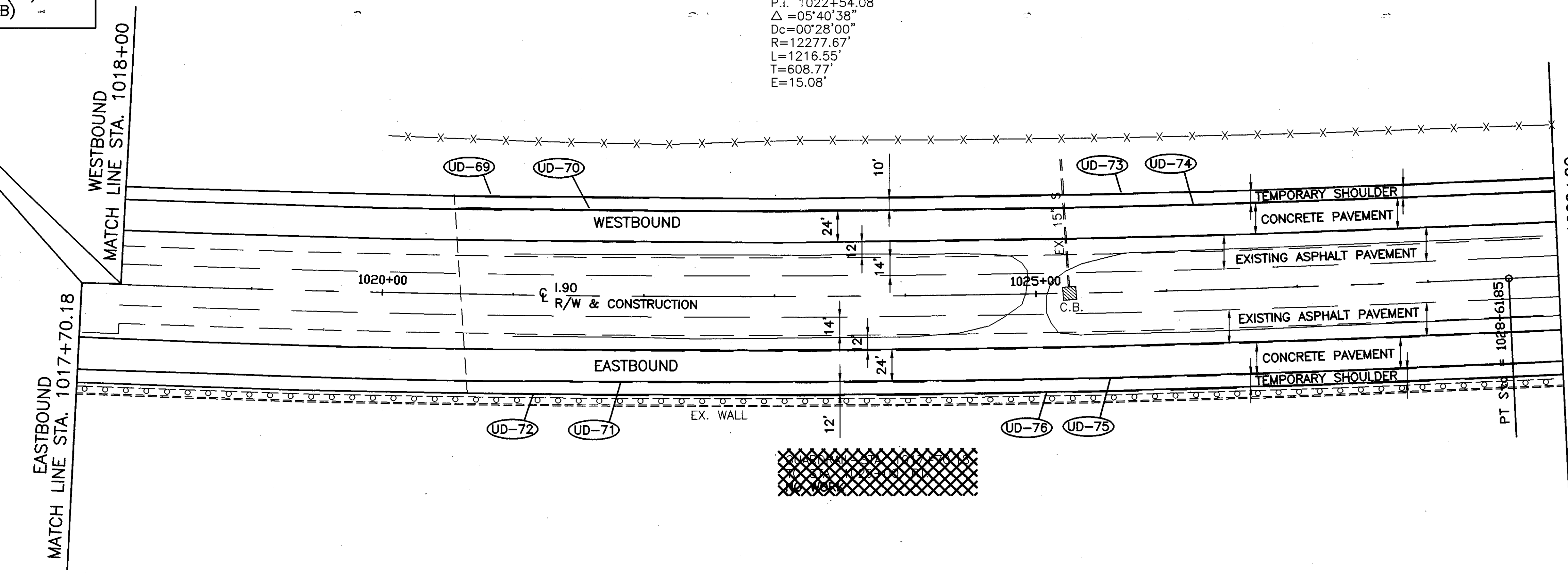
LOR - 190 - 10.76

CALCULATED DLS | CHECKED LAB

HORIZONTAL SCALE IN FEET: 0, 50', 100'

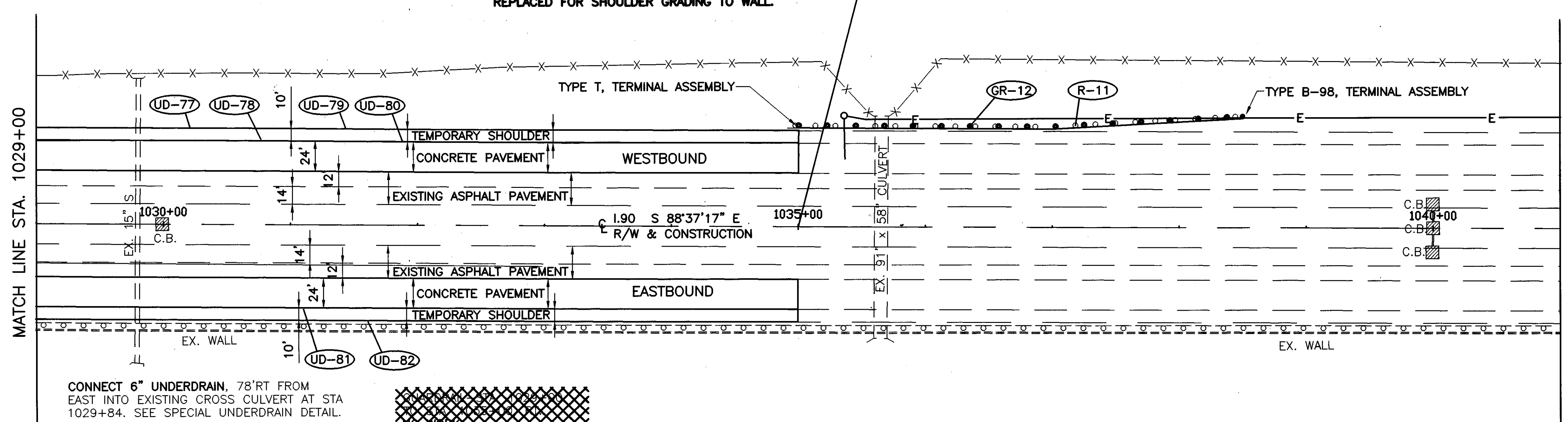
BEGIN RECONSTRUCTION PART
STA. 1017+70.18 (EB)
STA. 1018+00 (WB)

CURVE DATA I.R.90
P.I. 1022+54.08
Δ =05°40'38"
Dc=00°28'00"
R=12277.67'
L=1216.55'
T=608.77'
E=15.08'



END RECONSTRUCTION PART
STA. 1035+00

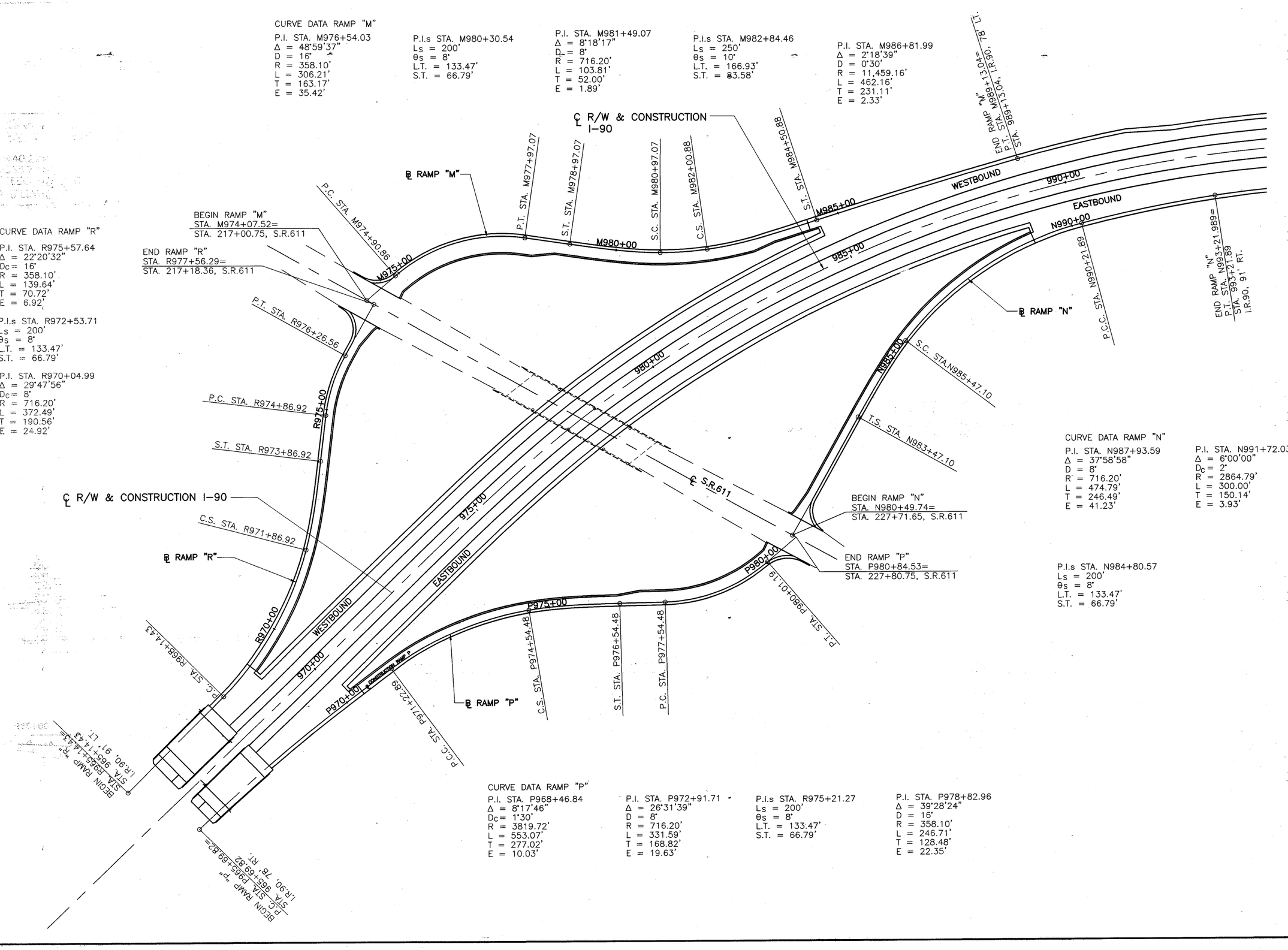
* ADDITIONAL WORK PERFORMED
STA. 1017.18 TO STA. 1035+00 EB.
EXISTING GUARDRAIL WAS REMOVED AND
REPLACED FOR SHOULDER GRADING TO WALL.



CONNECT 6" UNDERDRAIN, 78'RT FROM EAST INTO EXISTING CROSS CULVERT AT STA 1029+84. SEE SPECIAL UNDERDRAIN DETAIL.

NOTE: PROPOSED UNDERDRAIN OUTLETS AT STA. 1029+84± INTO EXISTING CROSS CULVERT INSTEAD OF PROPOSED DESIGN OUTLET AS REQUESTED BY THE INSPECTOR ON SITE.

2:42PM 02-22-2002 [O:\93600\DWGS\IR90\RCP06001.DWG] DLS

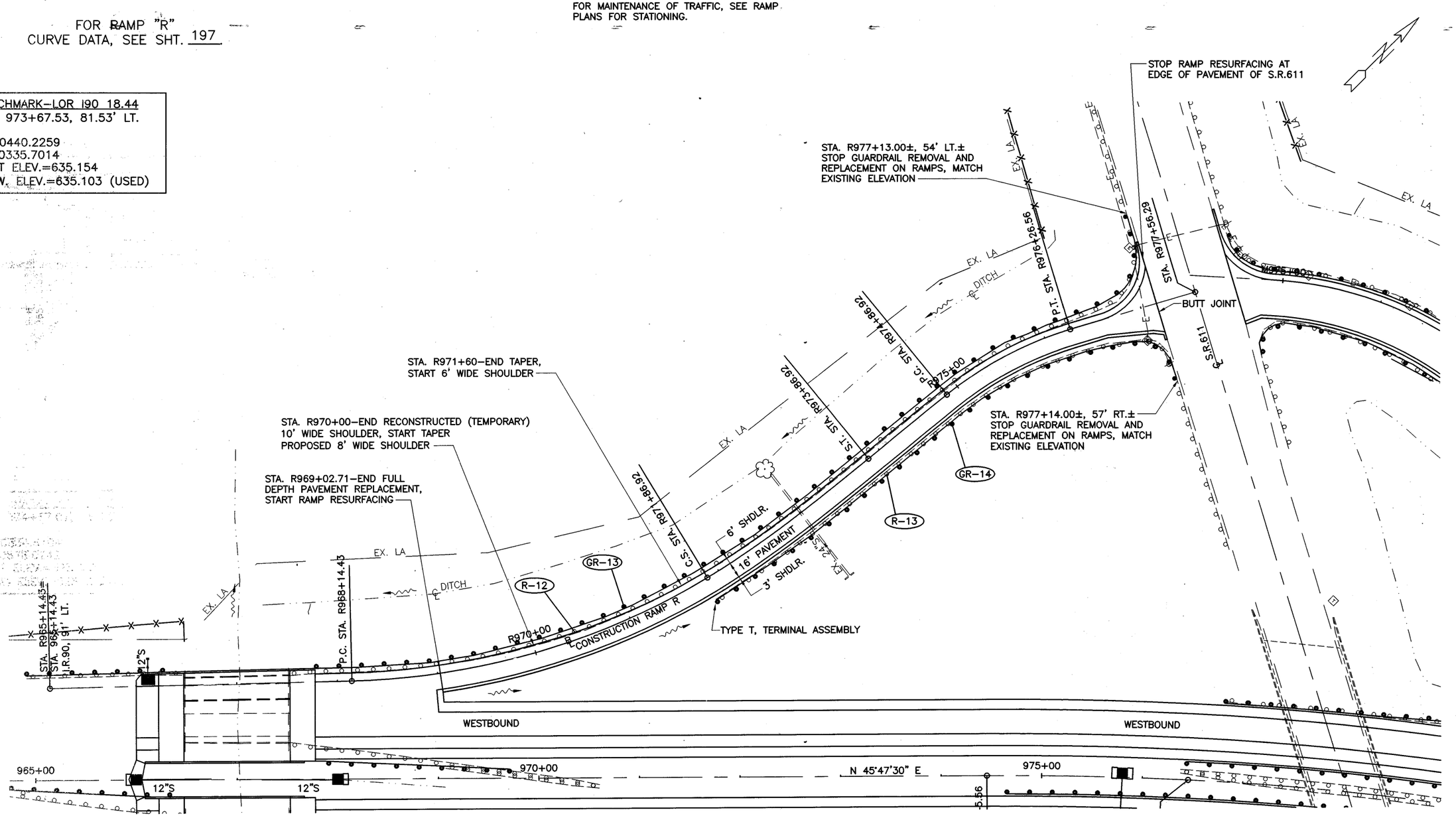


FOR RAMP "R"
CURVE DATA, SEE SHT. 197

NOTE: ON RAMPS, RESURFACE SHOULDER TO THE EDGE OF TEMPORARY SHOULDER LIMITS NEEDED FOR MAINTENANCE OF TRAFFIC, SEE RAMP PLANS FOR STATIONING.

BENCHMARK–LOR I90 18.44
STA. 973+67.53, 81.53' LT.

N–10440.2259
E–10335.7014
ODOT ELEV.=635.154
R.E.W. ELEV.=635.103 (USED)



HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED DLS
CHECKED LAB

PLAN RAMP "R"
STA. R965+14.43 TO STA. R977+56.29

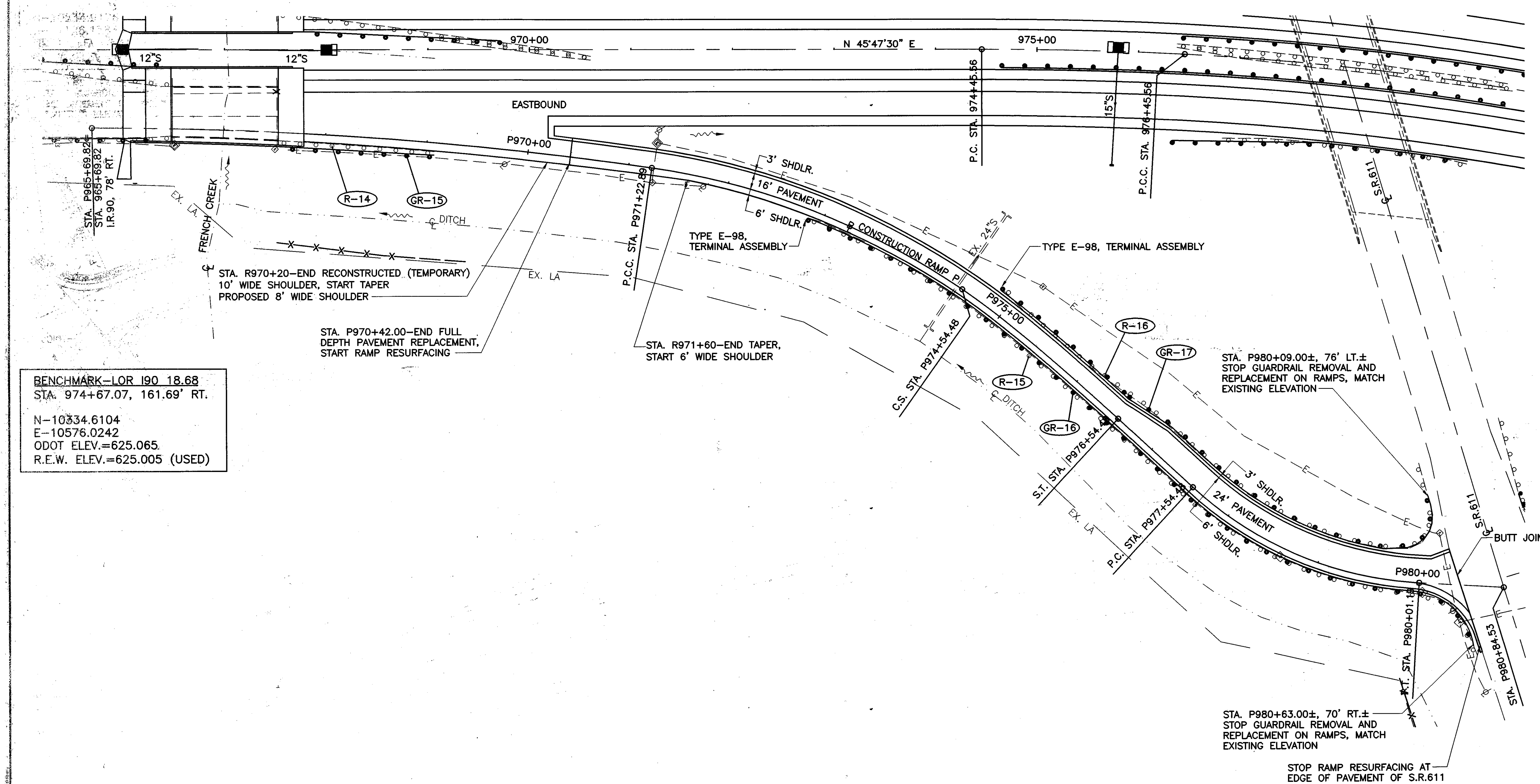
LOR - I90 - 10.76

198
274

02-11-2002 11:30AM

FOR RAMP "P"
CURVE DATA, SEE SHT 197

NOTE: ON RAMPS, RESURFACE SHOULDER TO THE EDGE OF TEMPORARY SHOULDER LIMITS NEEDED FOR MAINTENANCE OF TRAFFIC, SEE RAMP PLANS FOR STATIONING.



BENCHMARK-LOR I90 18.68
STA. 974+67.07, 161.69' RT.

N-10334.6104
E-10576.0242
ODOT ELEV.=625.065
R.E.W. ELEV.=625.005 (USED)

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

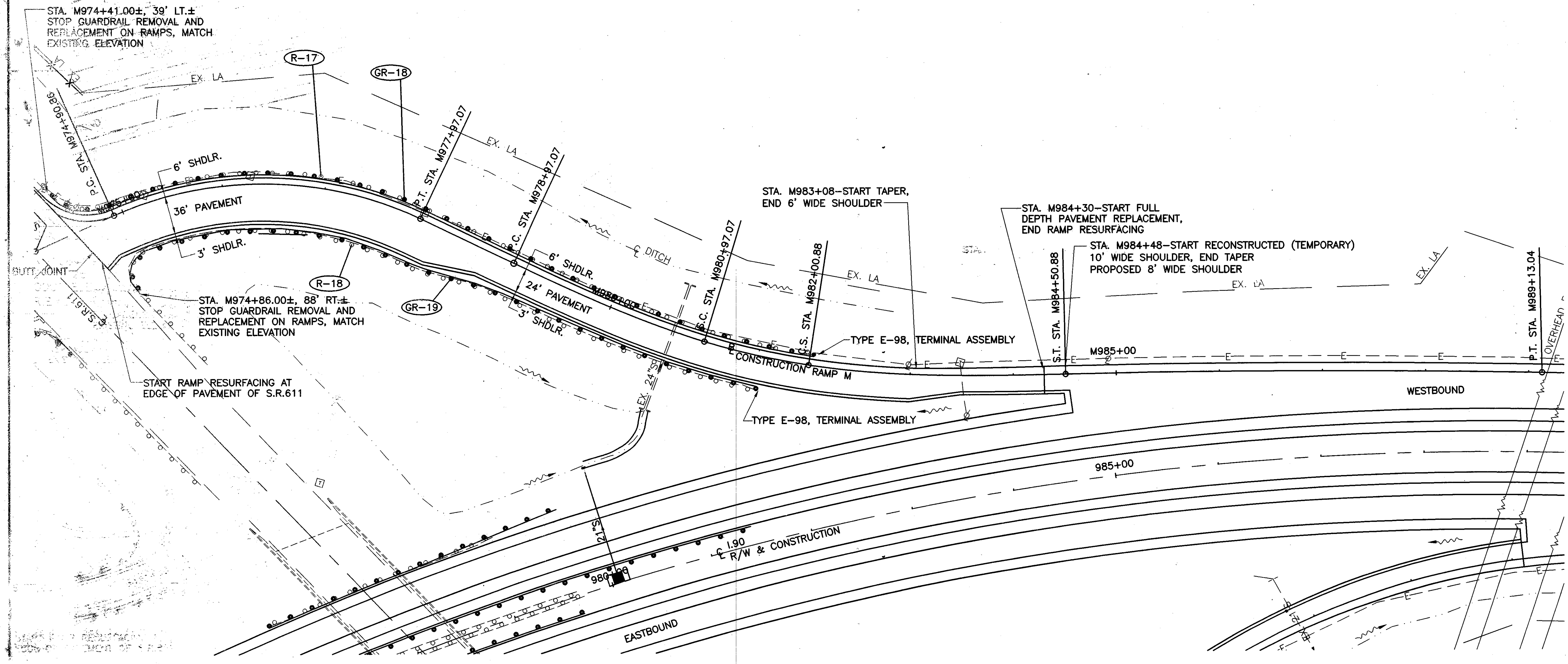
PLAN RAMP "P"
STA. P965+69.82 TO STA. P980+84.53

LOR - I90 - 10.76

NOTE: ON RAMPS, RESURFACE SHOULDER TO THE EDGE OF TEMPORARY SHOULDER LIMITS NEEDED FOR MAINTENANCE OF TRAFFIC, SEE RAMP PLANS FOR STATIONING.

FOR RAMP "M"
CURVE DATA, SEE SHT. 197.

BENCHMARK–LOR I90 18.61
STA. 982+46.49, 83.23' RT.
N–10844.9176
E–11126.1783
ODOT ELEV.=631.580
R.E.W. ELEV.=631.571 (USED)



STA. M974+41.00±, 39' LT.± STOP GUARDRAIL REMOVAL AND REPLACEMENT ON RAMPS, MATCH EXISTING ELEVATION
R–17
GR–18
EX. LA
P.C. STA. M974+90.36
P.T. STA. M977+97.07
C. STA. M978+97.07
6' SHDLR.
36' PAVEMENT
3' SHDLR.
BUTT JOINT
S.R.611
R–18
GR–19
STA. M974+86.00±, 88' RT.± STOP GUARDRAIL REMOVAL AND REPLACEMENT ON RAMPS, MATCH EXISTING ELEVATION
24' PAVEMENT
START RAMP RESURFACING AT EDGE OF PAVEMENT OF S.R.611
℄ DITCH
S.C. STA. M980+97.07
C.S. STA. M982+00.88
STA. M983+08–START TAPER, END 6' WIDE SHOULDER
TYPE E–98, TERMINAL ASSEMBLY
℄ CONSTRUCTION RAMP M
STA. M984+30–START FULL DEPTH PAVEMENT REPLACEMENT, END RAMP RESURFACING
STA. M984+48–START RECONSTRUCTED (TEMPORARY) 10' WIDE SHOULDER, END TAPER PROPOSED 8' WIDE SHOULDER
S.T. STA. M984+50.88
M985+00
P.T. STA. M989+13.04
OVERHEAD
WESTBOUND
EX. 24"S
21"S
985+00
980+00
℄ I.90 ℄ R/W & CONSTRUCTION
EASTBOUND

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PLAN RAMP "M"
STA. M974+07.52 TO STA. M989+13.04

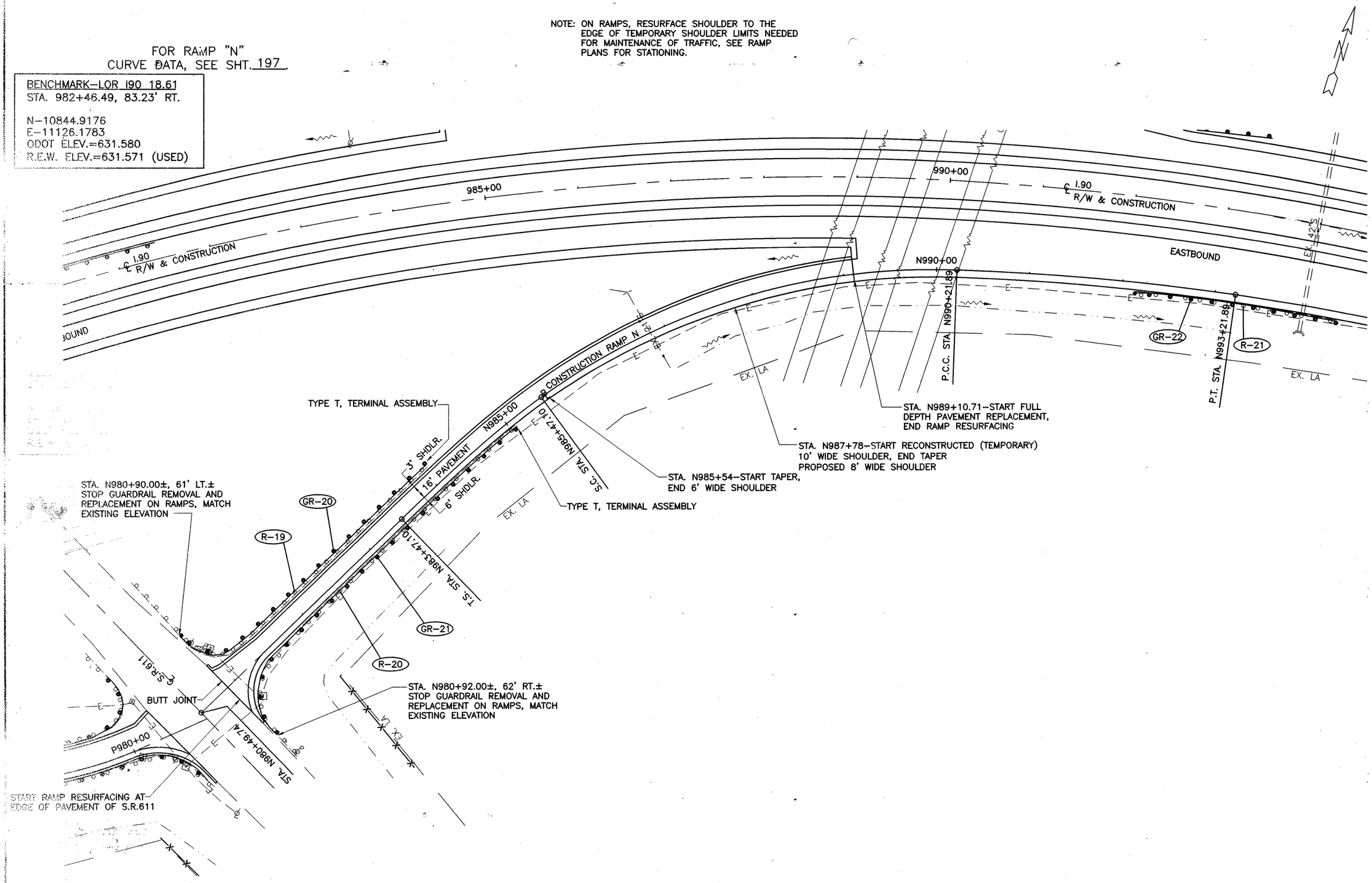
LOR - I90 - 10.76

NOTE: ON RAMPS, RESURFACE SHOULDER TO THE EDGE OF TEMPORARY SHOULDER LIMITS NEEDED FOR MAINTENANCE OF TRAFFIC, SEE RAMP PLANS FOR STATIONING.

FOR RAMP "N"
CURVE DATA, SEE SHT. 197

BENCHMARK–LOR I90 18.61
STA. 982+46.49, 83.23' RT.

N–10844.9176
E–11126.1783
ODOT ELEV.=631.580
R.E.W. ELEV.=631.571 (USED)



50' HORIZONTAL SCALE IN FEET (0, 100)

CALCULATED DLS | CHECKED LAB

PLAN RAMP "N"
STA. N980+49.74 TO STA. N993+21.89

LOR - I90 - 10.76

SEEDING	
END WIDTH	SQ. YDS.
	222
40	
	99
40	
0	
0	
49	
	110
40	

120 110 100 90 80 70 60 50 40 30 20 10 $\mathcal{L}$ 10 20 30 40 50 60 70 80 90 100 110 120 130

635.80 PROFILE GRADE, 42' LT.

STA. 968+00, ℄
PROP. NO. 4 CATCH BASIN
AS PER PLAN
GRATE=633.15
12" (W) INV.=629.00
6" (N) INV.=630.56
6" (S) INV.=630.56

STA. 976+99.38, 0.41' RT.
EX. 1-2B CATCH BASIN
TO BE REMOVED
GRATE=631.16
12" (S) INV.=629.00

635.80 PROFILE GRADE, 42' RT.

635
630
625

10:1 10:1

633.15
STA. 968+00
631.24

635.74 PROFILE GRADE, 42' LT.

635.74 PROFILE GRADE, 42' RT.

635
630
625

632.78
STA. 967+77.75
633.46

BRIDGE NO. 90-1861
END APPROACH SLAB
STA. 967+77.75
SEE BRIDGE PLANS

STA. 967+77.75 AHEAD
STA. 967+77.75 BACK

STA. 967+77.75 AHEAD
STA. 967+77.75 BACK

BRIDGE NO. 90-1861
BEGIN APPROACH SLAB
STA. 966+22.25
SEE BRIDGE PLANS

635.36 PROFILE GRADE, 42' LT.

635.36 PROFILE GRADE, 42' RT.

STA. 966+22.25 AHEAD
STA. 966+22.25 BACK

STA. 966+22.25 AHEAD
STA. 966+22.25 BACK

635
630
625

632.69
STA. 966+22.25
634.09

ROCK CHANNEL PROTECTION
TYPE C, 18" DEEP, 5' x 5'

STA. 966+20.50, 104.70' LT.
PROP. NO. 3A CATCH BASIN
GRATE=634.23
12" (N) INV.=629.39
6" (N) INV.=630.06
6" (S) INV.=630.06

635.30 PROFILE GRADE, 42' LT.

STA. 965+39.81, 0.87' LT.
EX. 2-2B CATCH BASIN
TO BE REMOVED
GRATE=630.48
12" (N) INV.=628.60

STA. 965+00, ℄
PROP. NO. 4 CATCH BASIN AS PER PLAN
GRATE=632.63
12" (E) INV.=629.00
6" (N) INV.=629.81
6" (S) INV.=629.81

635.30 PROFILE GRADE, 42' RT.

635
630
625

10:1 10:1

632.63
STA. 966+00
630.59

20 L.F. 12" CONDUIT, TYPE C, @ 0.70%

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

120 110 100 90 80 70 60 50 40 30 20 10 $\mathcal{L}$ 10 20 30 40 50 60 70 80 90 100 110 120 130

431 SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		576	66
305	45		
		263	19
334	1		
0	0		
0	0		
344	0		
		260	21
286	52		
SHEET TOTAL		1099	106

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 966+00 TO STA. 968+00

LOR - I90 - 10.76

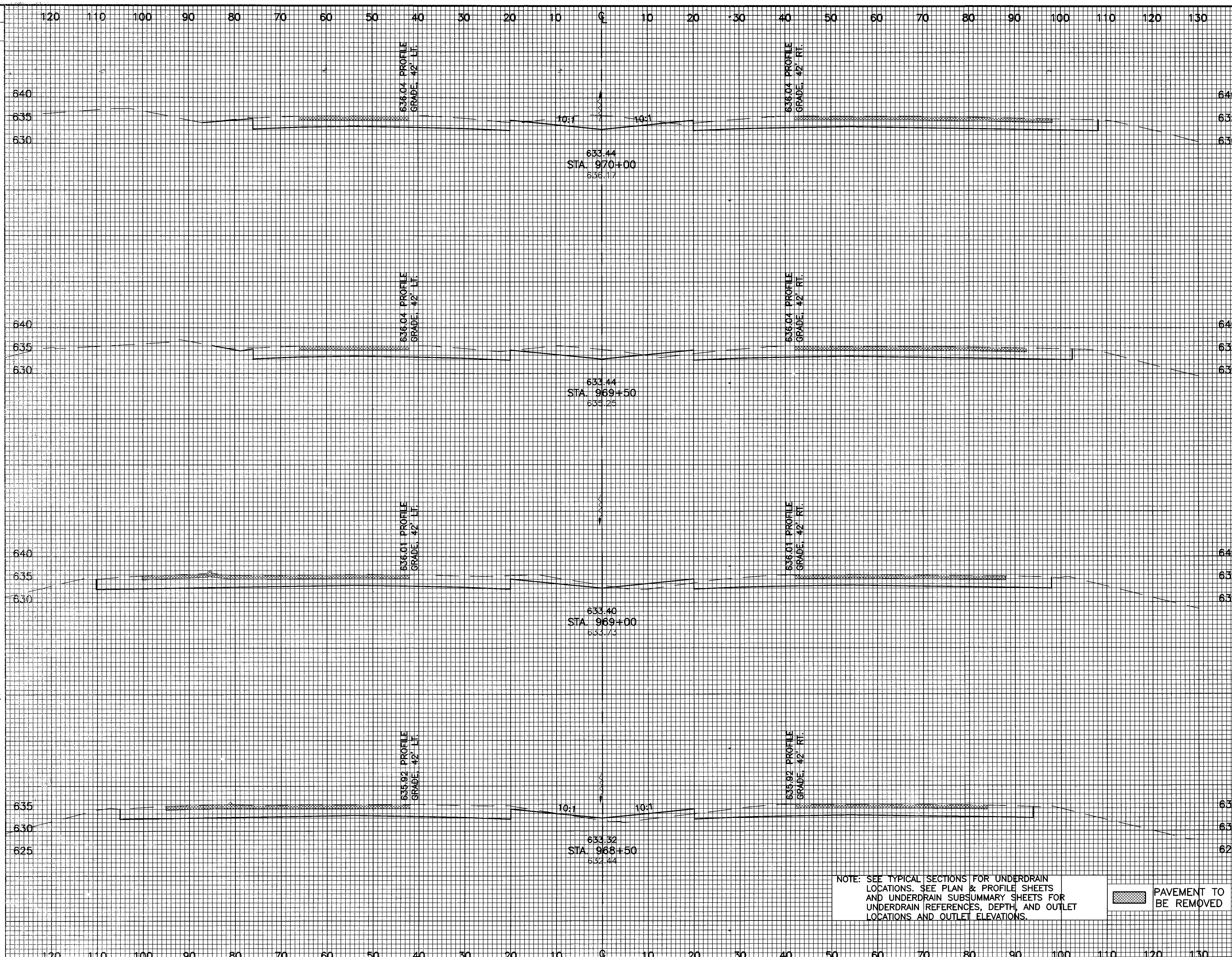
202
274

9:39AM 02-08-2002 [O:\93600\DWGS\IR90SL\R0001001.DWG] DLS

CROSS SECTIONS
STA. 968+50 TO STA. 970+00

LOR - I90 - 10.76

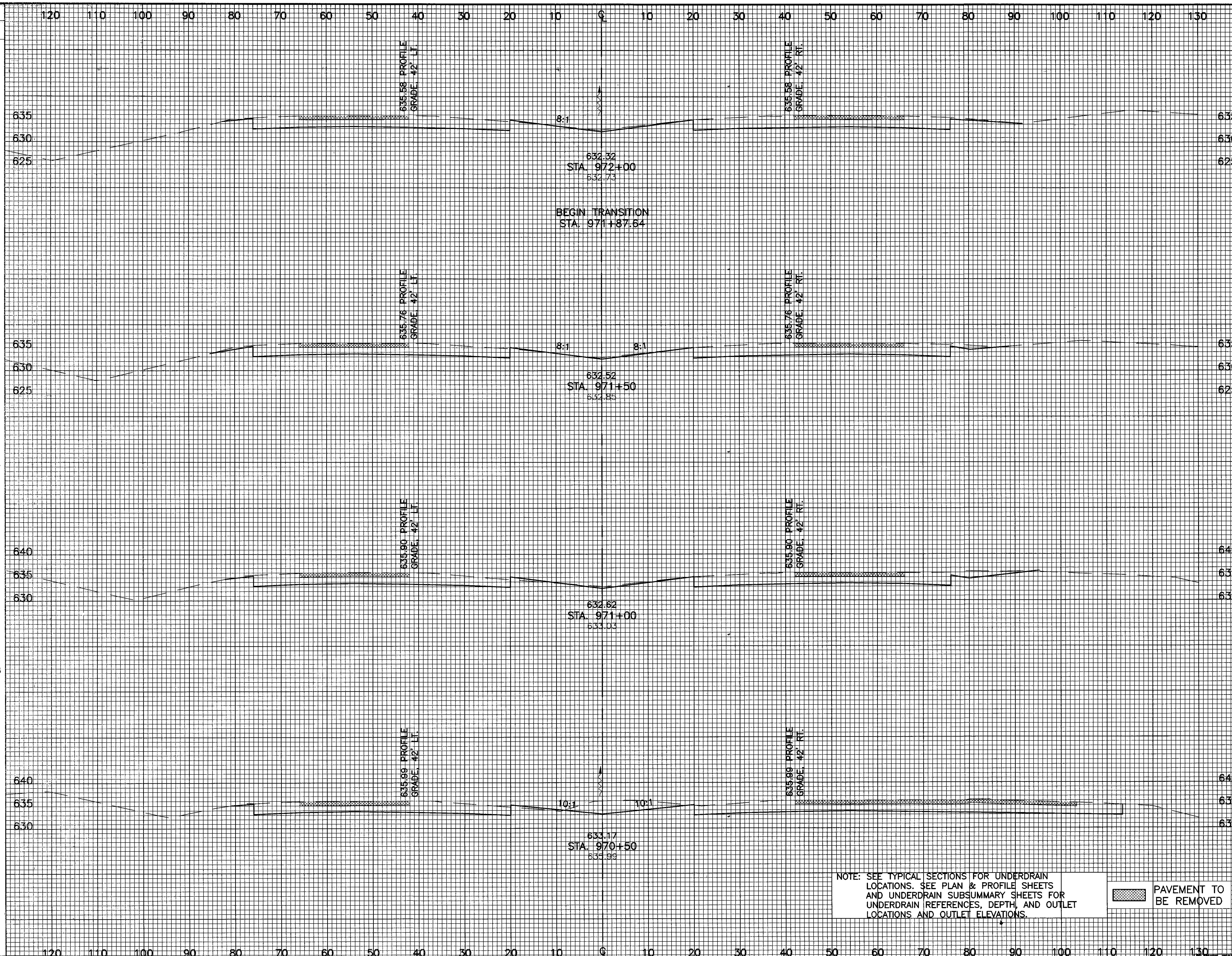
CALCULATED DLS
CHECKED LAB



Station	SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		269			609	4
STA. 970+00	52		332	3		
		281			582	10
STA. 969+50	49		296	8		
		247			600	23
STA. 969+00	40		352	17		
		222			619	40
STA. 968+50	40		317	26		
SHEET TOTAL		1019			2410	77

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

▒ PAVEMENT TO BE REMOVED



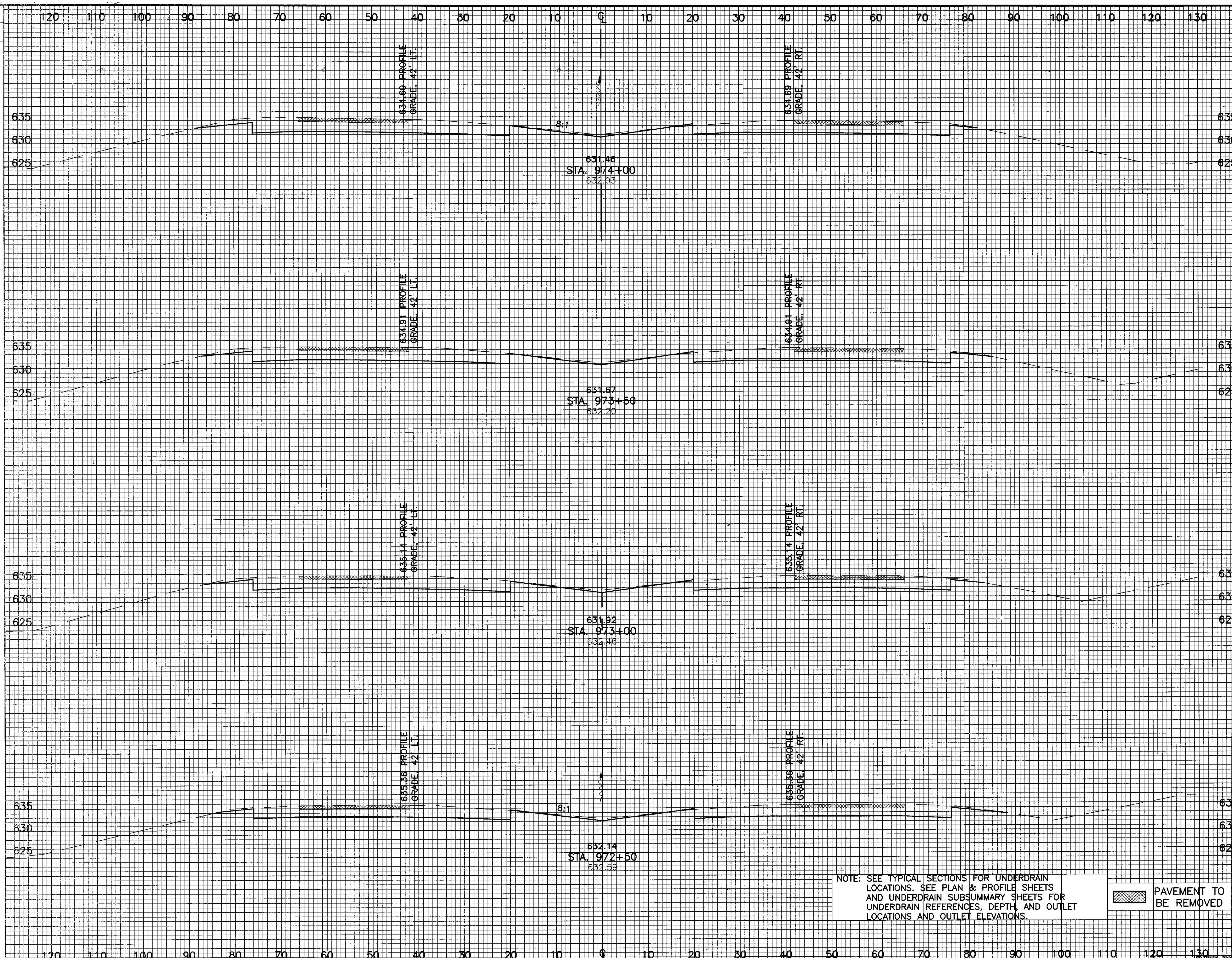
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	339			440	1
62		237	1		
	344			435	2
62		233	1		
	356			435	3
66		237	2		
	308			521	3
45		326	1		
SHEET TOTAL	1347			1831	9

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS STA. 970+50 TO STA. 972+00

LOR - I90 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	331				518	10
58		STA. 974+00	280	2		
	328				504	2
60		STA. 973+50	264	0		
	328				480	0
58		STA. 973+00	254	0		
	328				456	0
60		STA. 972+50	238	0		
SHEET TOTAL	1315	SHEET TOTAL			1958	12



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

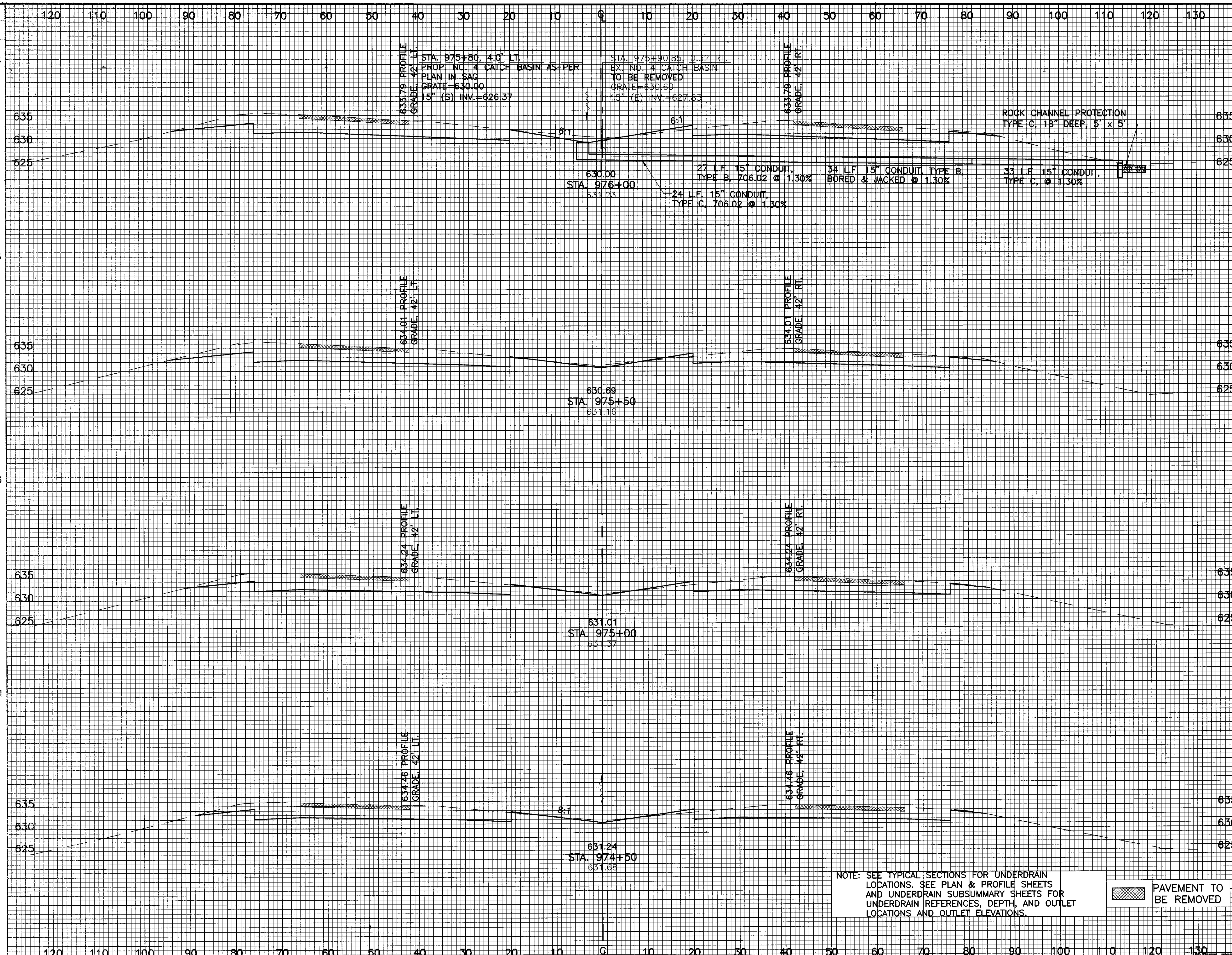
PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 972+50 TO STA. 974+00

LOR - I90 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.
	383
69	
	383
69	
	383
69	
	361
61	
SHEET TOTAL	1510



120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130
633.79 PROFILE GRADE, 42' LT.
STA. 975+80, 4.0' LT.
PROP. NO. 4 CATCH BASIN AS PER PLAN IN SAG
GRATE=630.00
15" (S) INV.=626.37
STA. 975+90.85, 0.32' RT.
EX. NO. 4 CATCH BASIN TO BE REMOVED
GRATE=630.60
15" (E) INV.=627.83
633.79 PROFILE GRADE, 42' RT.
ROCK CHANNEL PROTECTION TYPE C, 18" DEEP, 5' x 5'
6:1
6:1
635
630
625
630.00
STA. 976+00
631.23
27 L.F. 15" CONDUIT, TYPE B, 706.02 @ 1.30%
34 L.F. 15" CONDUIT, TYPE B, BORED & JACKED @ 1.30%
33 L.F. 15" CONDUIT, TYPE C, @ 1.30%
24 L.F. 15" CONDUIT, TYPE C, 706.02 @ 1.30%
634.01 PROFILE GRADE, 42' LT.
634.01 PROFILE GRADE, 42' RT.
630.69
STA. 975+50
631.16
634.24 PROFILE GRADE, 42' LT.
634.24 PROFILE GRADE, 42' RT.
631.01
STA. 975+00
631.37
634.46 PROFILE GRADE, 42' LT.
634.46 PROFILE GRADE, 42' RT.
8:1
631.24
STA. 974+50
631.68
NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.
PAVEMENT TO BE REMOVED

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		680	14
345	7		
		612	10
316	4		
		566	8
295	5		
		532	8
279	4		
	SHEET TOTAL	2390	40

CALCULATED DLS
CHECKED LAB

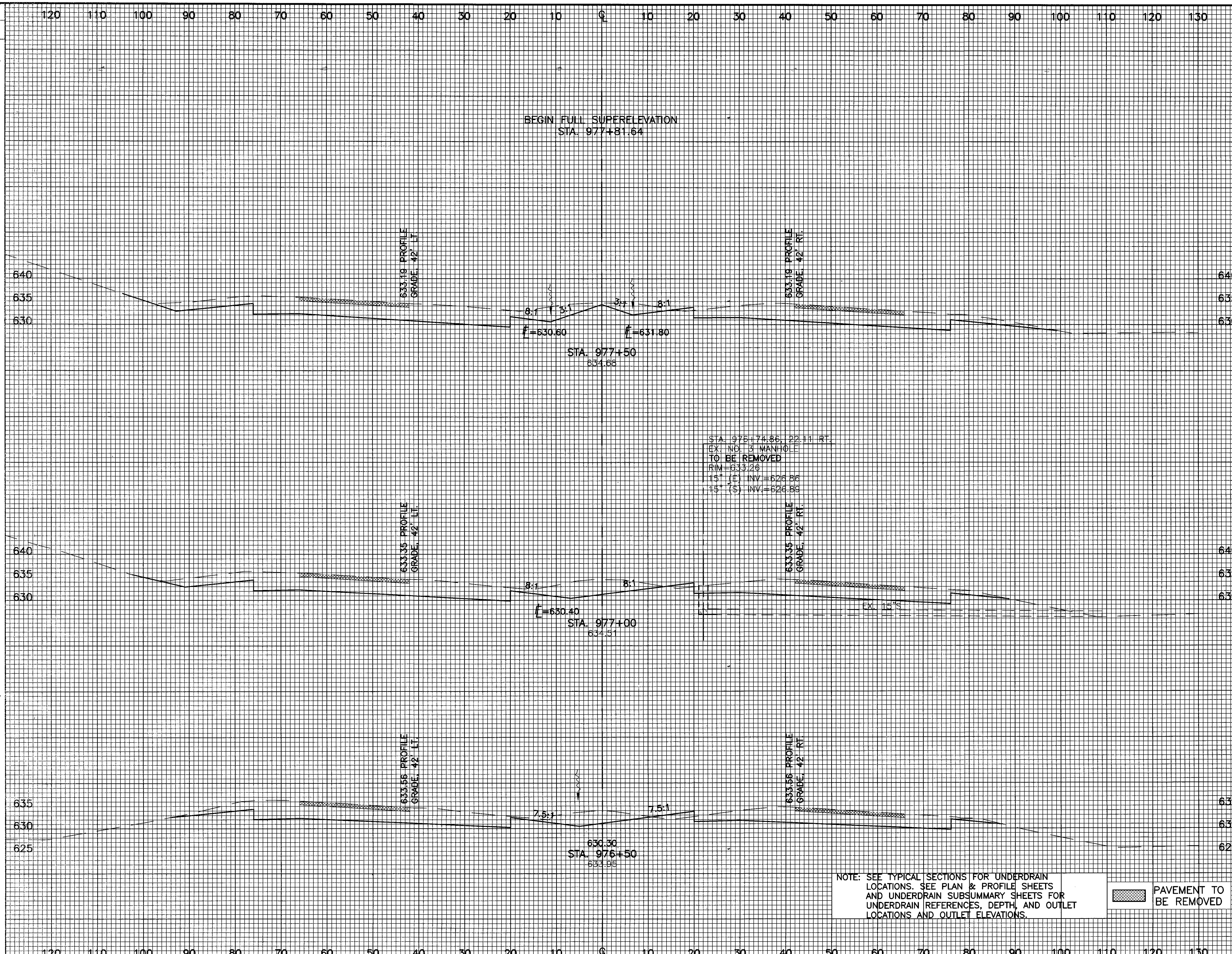
CROSS SECTIONS
STA. 974+50 TO STA. 976+00

LOR - I90 - 10.76

CROSS SECTIONS
STA. 976+50 TO STA. 977+50

LOR - I90 - 10.76

CALCULATED DLS — CHECKED LAB



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

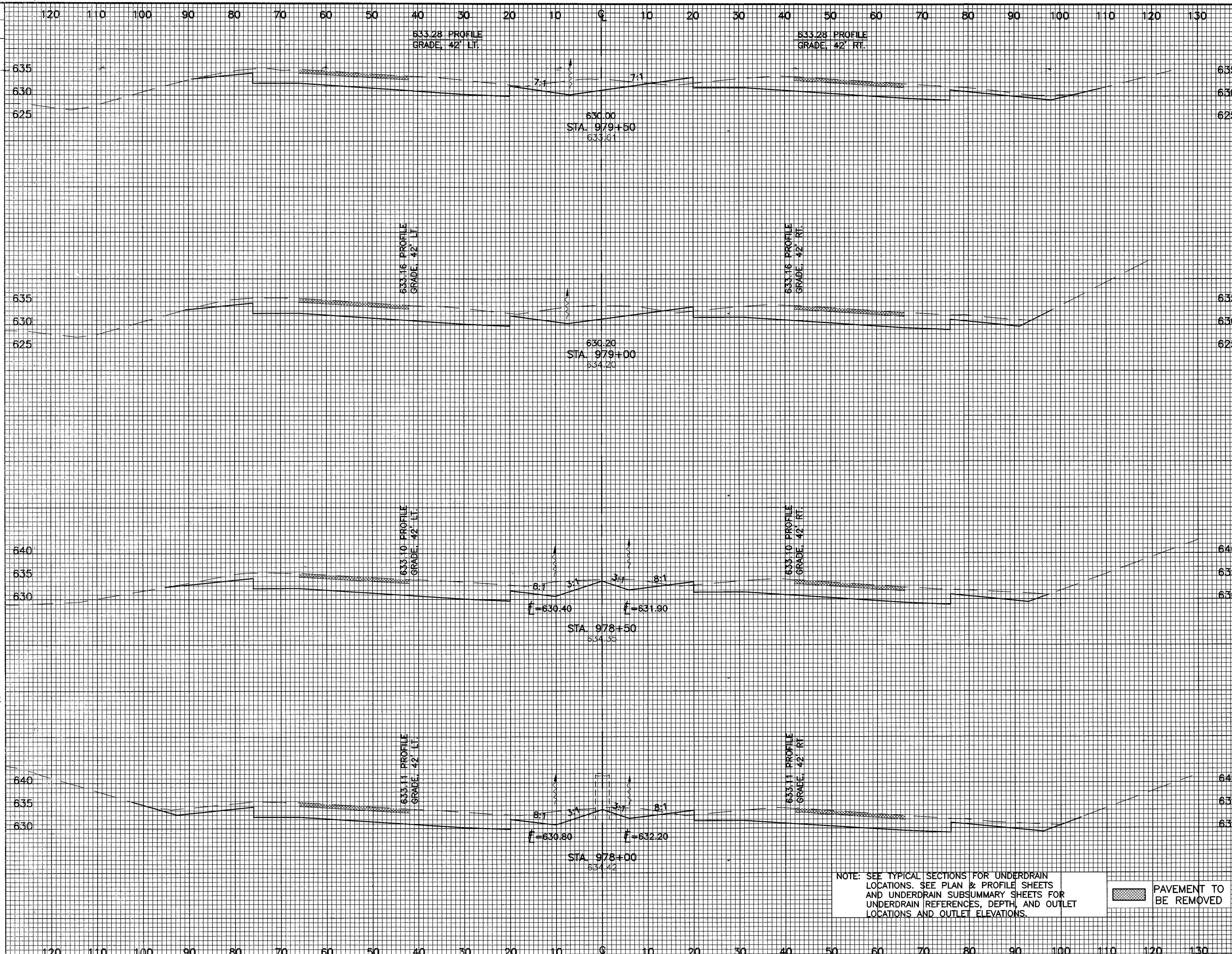
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	525			812	5
93		464	2		
	481			834	6
80		437	4		
	414			765	11
69		389	8		
SHEET TOTAL	1420		SHEET TOTAL	2411	22

CROSS SECTIONS
STA. 978+00 TO STA. 979+50

LOR - I90 - 10.76

CALCULATED DLS
CHECKED LAB

SEEDING	
END WIDTH	SQ. YDS.
	411
87	
	458
78	
	442
81	
	492
96	
	1803 SHEET TOTAL

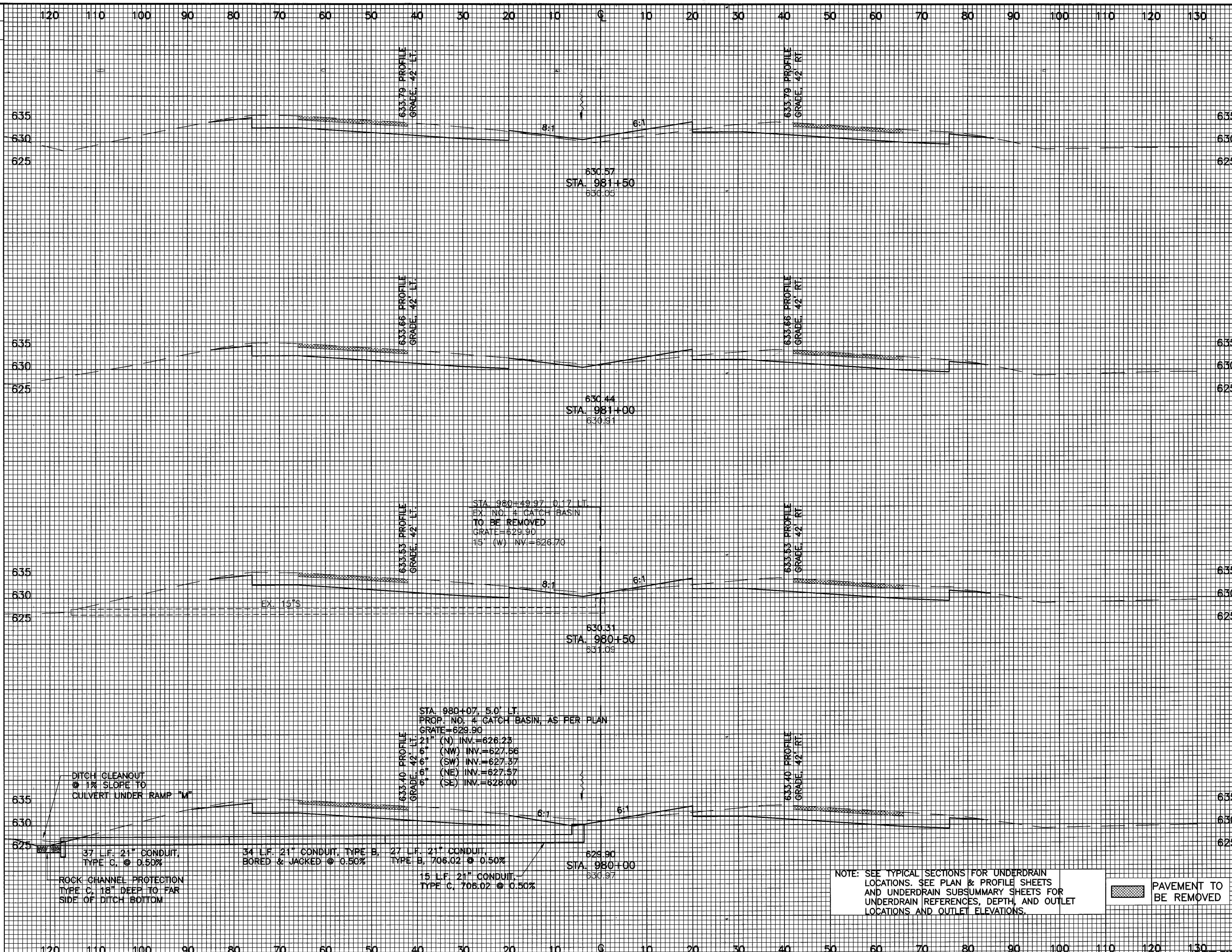


NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		610	19
363	8		
		719	11
414	4		
		778	7
426	3		
		777	6
413	3		
SHEET TOTAL		2884	43

SEEDING

END WIDTH	SQ. YDS.
	311
59	
	322
57	
	319
58	
	331
61	
	1283 SHEET TOTAL



120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130
633.79 PROFILE GRADE, 42' LT.
633.79 PROFILE GRADE, 42' RT.
635 630 625
8:1
6:1
630.57
STA. 981+50
630.05
633.66 PROFILE GRADE, 42' LT.
633.66 PROFILE GRADE, 42' RT.
630.44
STA. 981+00
630.91
STA. 980+49.97, 0.17' LT.
EX. NO. 4 CATCH BASIN
TO BE REMOVED
GRATE=629.90
15" (W) INV.=626.70
633.53 PROFILE GRADE, 42' LT.
633.53 PROFILE GRADE, 42' RT.
EX. 15"S
630.31
STA. 980+50
631.09
STA. 980+07, 5.0' LT.
PROP. NO. 4 CATCH BASIN, AS PER PLAN
GRATE=629.90
21" (N) INV.=626.23
6" (NW) INV.=627.66
6" (SW) INV.=627.37
6" (NE) INV.=627.57
6" (SE) INV.=628.00
633.40 PROFILE GRADE, 42' LT.
633.40 PROFILE GRADE, 42' RT.
DITCH CLEANOUT
@ 1% SLOPE TO
CULVERT UNDER RAMP "M"
37 L.F. 21" CONDUIT, TYPE C, @ 0.50%
34 L.F. 21" CONDUIT, TYPE B, BORED & JACKED @ 0.50%
27 L.F. 21" CONDUIT, TYPE B, 706.02 @ 0.50%
15 L.F. 21" CONDUIT, TYPE C, 706.02 @ 0.50%
ROCK CHANNEL PROTECTION
TYPE C, 18" DEEP TO FAR
SIDE OF DITCH BOTTOM
629.90
STA. 980+00
630.97
NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.
PAVEMENT TO BE REMOVED
SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		453	53
246	39		
		469	52
260	17		
		494	28
274	13		
		528	24
296	13		
SHEET TOTAL		1944	157

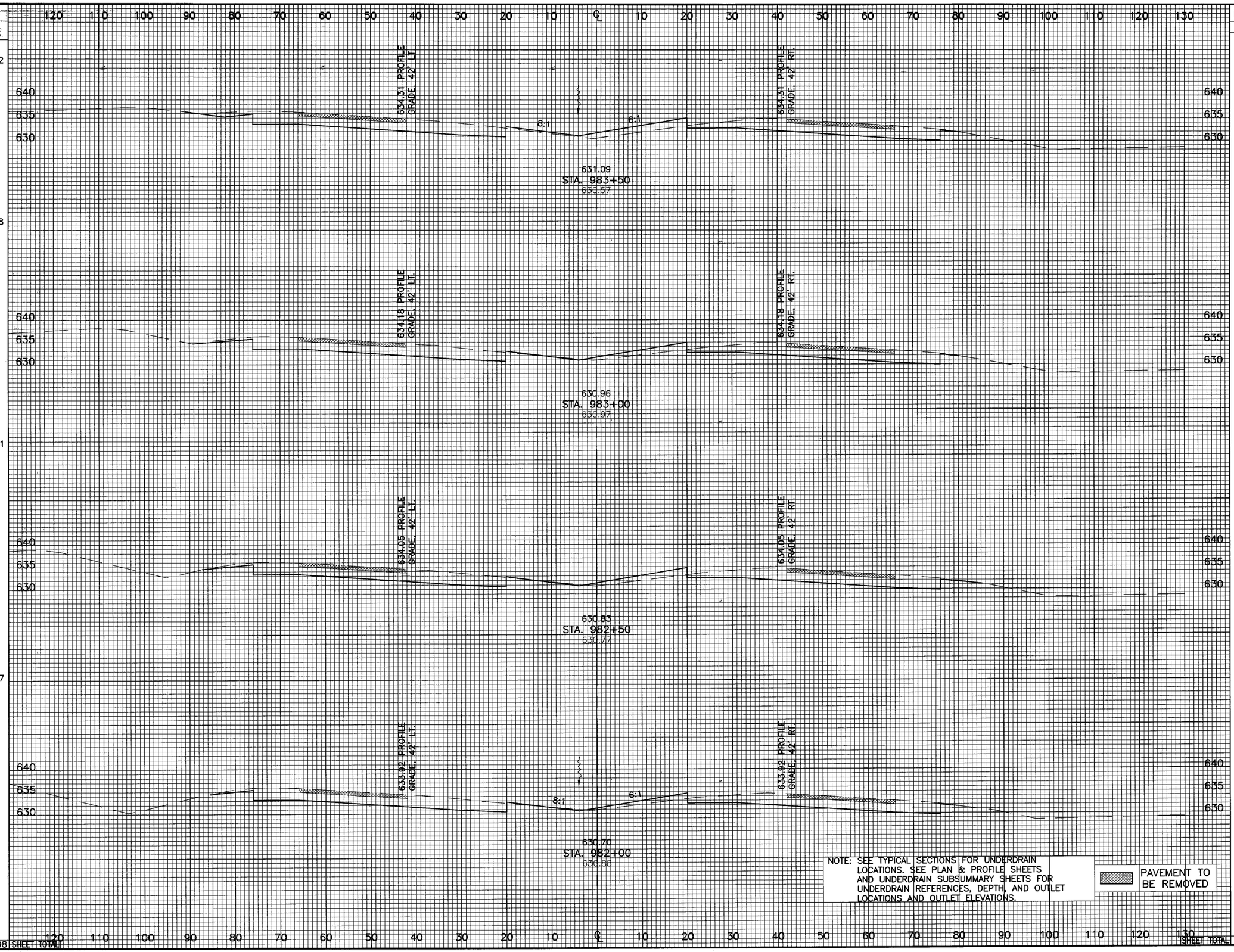
CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 980+00 TO STA. 981+50

LOR - I90 - 10.76

47AM 2-08-2002 [O:\93600\DWGS\R903L\RC008001.DWG] DLS

SEEDING END WIDTH	SEEDING SQ. YDS.
60	322
58	328
61	331
53	317
1298	SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		457	61
245	37		
		451	57
242	24		
		449	44
243	24		
		450	39
243	18		
1807	201		

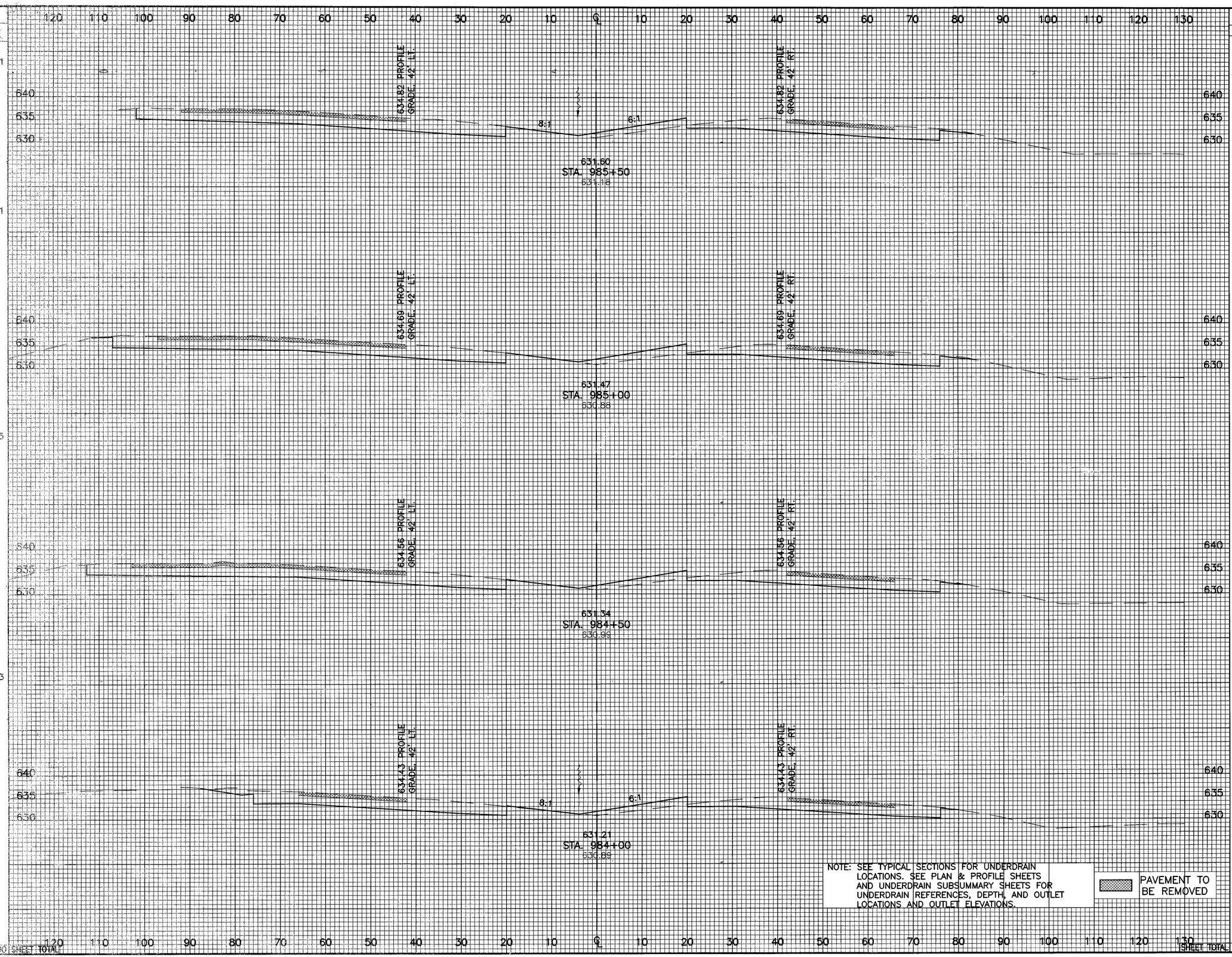
SHEET TOTAL

CALCULATED DLS | CHECKED LAB

CROSS SECTIONS
STA. 982+00 TO STA. 983+50

LOR - 190 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.
48	261
53	281
46	275
56	283
1100 SHEET TOTAL	



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		531	57
295	29		
		556	64
305	35		
		574	59
315	29		
		522	54
249	29		
SHEET TOTAL		2183	234

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 984+00 TO STA. 985+50

LOR - I90 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	289			516	40
47		259	25		
	256			486	47
45		266	26		
	253			493	53
46		266	31		
	258			504	58
47		278	32		
1056 SHEET TOTAL		SHEET TOTAL		1999	198

635.34 PROFILE GRADE, 42' LT.
635.34 PROFILE GRADE, 42' RT.
8:1
6:1
632.12
STA. 987+50
631.70

635.21 PROFILE GRADE, 42' LT.
635.21 PROFILE GRADE, 42' RT.
631.99
STA. 987+00
631.57

635.08 PROFILE GRADE, 42' LT.
635.08 PROFILE GRADE, 42' RT.
631.86
STA. 986+50
631.44

634.95 PROFILE GRADE, 42' LT.
634.95 PROFILE GRADE, 42' RT.
8:1
6:1
631.73
STA. 986+00
631.17

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

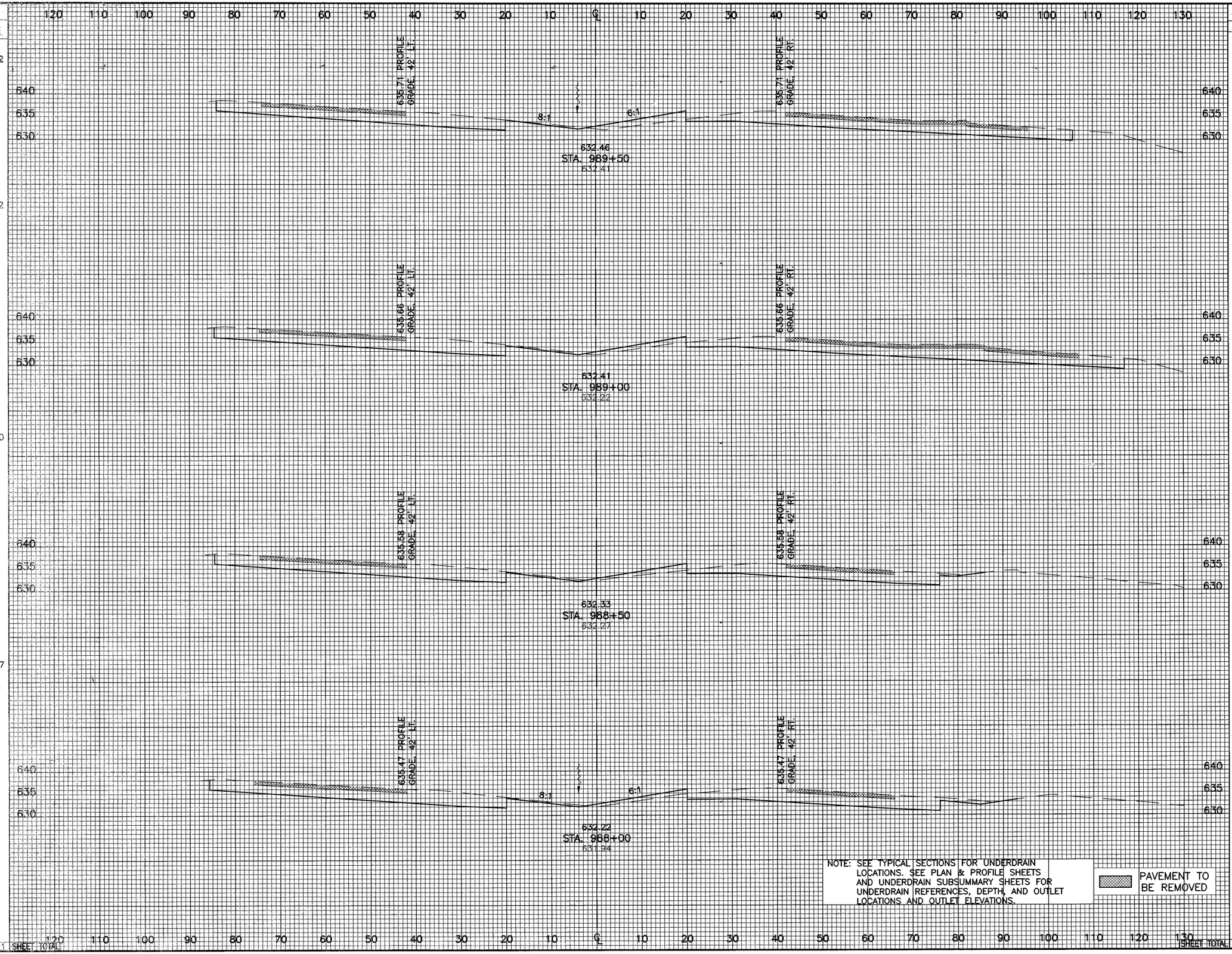
CALCULATED DLS | CHECKED LAB

CROSS SECTIONS
STA. 986+00 TO STA. 987+50

LOR - I90 - 10.76

212
274

SEEDING	
END WIDTH	SQ. YDS.
40	222
	222
40	
	250
50	
	297
57	
991	SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		548	53
301	30		
		605	46
352	20		
		579	37
273	20		
		529	35
298	18		
	SHEET TOTAL	2261	171

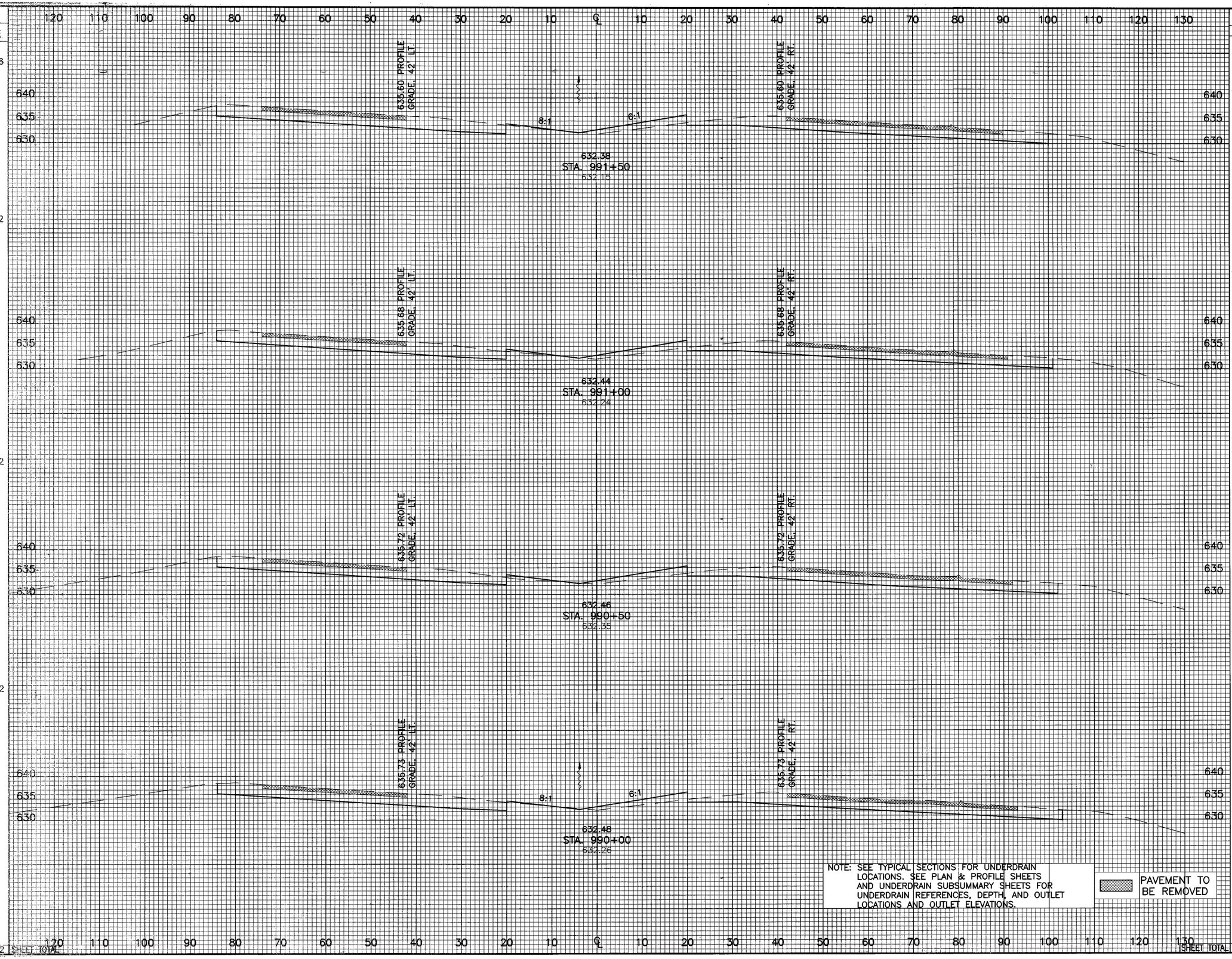
CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 988+00 TO STA. 989+50

LOR - I90 - 10.76

213
274

SEEDING	
END WIDTH	SQ. YDS.
40	236
40	222
40	222
40	222
902	SHEET TOTAL



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		510	52
280	28		
		512	50
273	26		
		512	54
280	32		
		529	55
291	27		
	SHEET TOTAL	2063	211

CALCULATED DLS

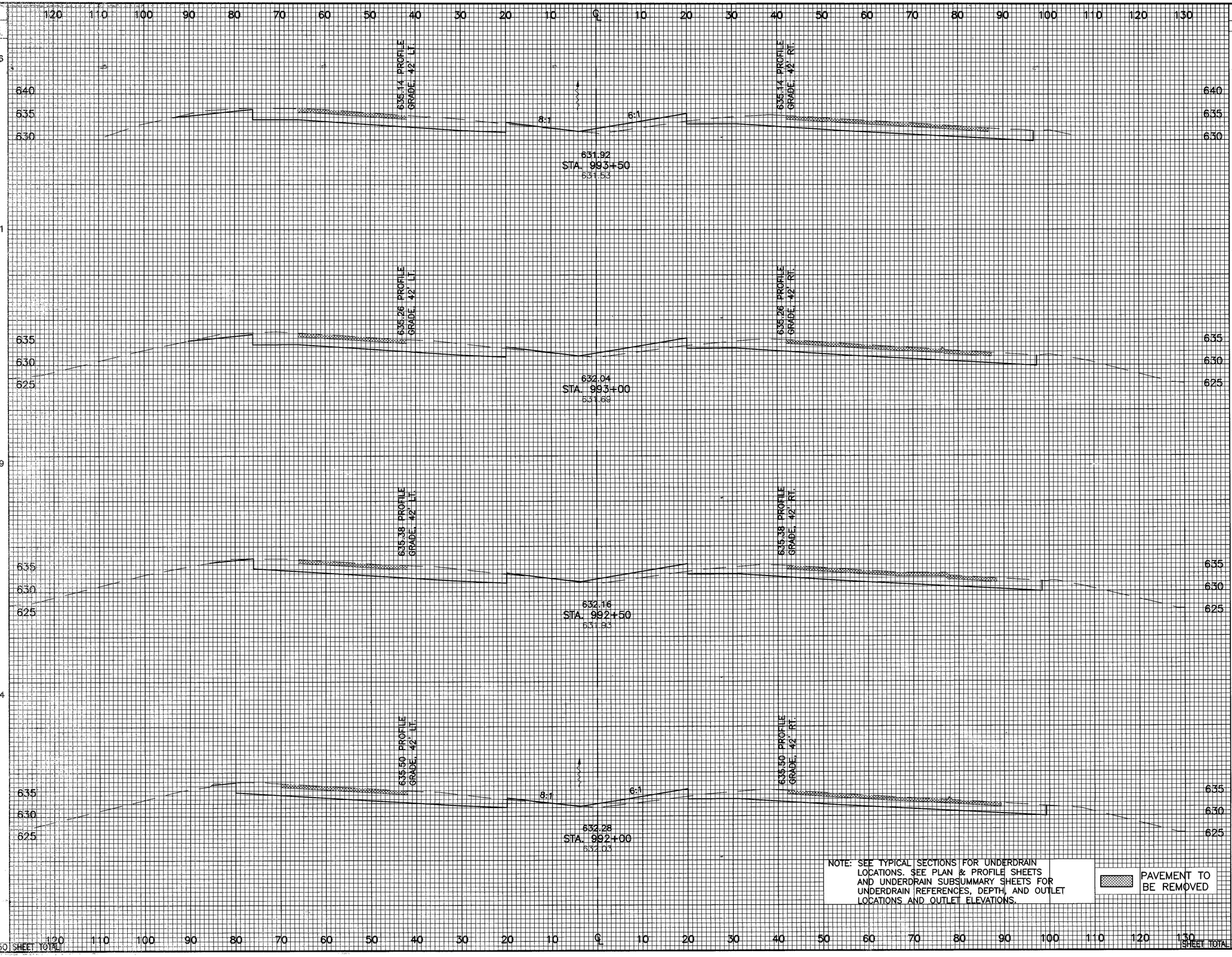
CHECKED LAB

CROSS SECTIONS
STA. 990+00 TO STA. 991+50

LOR - I90 - 10.76

214
274

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	286			469	62
58		259	31		
	311			483	56
54		262	29		
	289			489	54
50		265	29		
	264			496	53
45		271	28		
	1150 SHEET TOTAL			1937	225



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

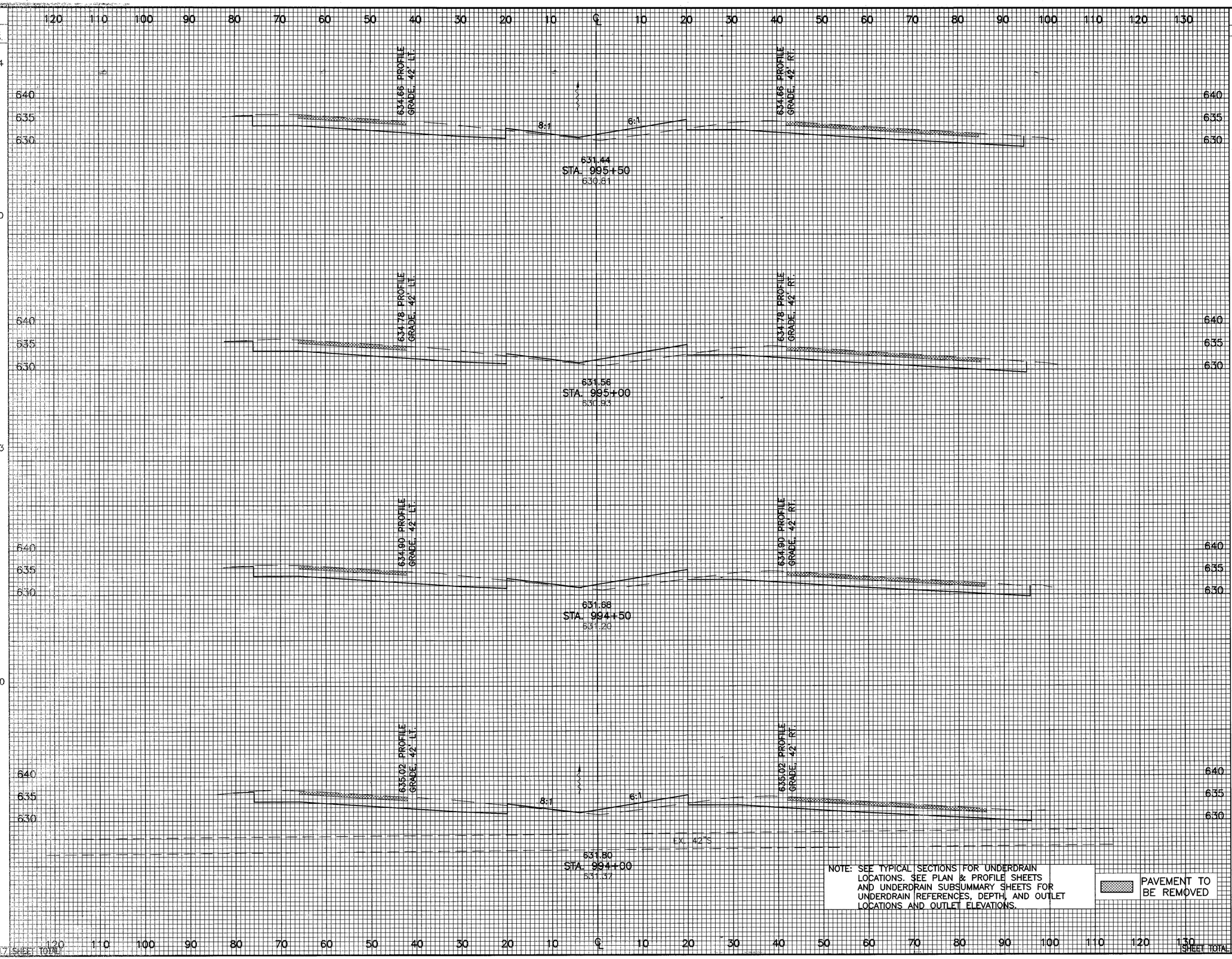
PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 992+00 TO STA. 993+50

LOR - I90 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
				455	81
44	264	243	43		
				454	82
46	250	247	45		
				457	81
45	253	246	42		
				457	72
45	250	247	36		
	1017 SHEET TOTAL	SHEET TOTAL		1823	316

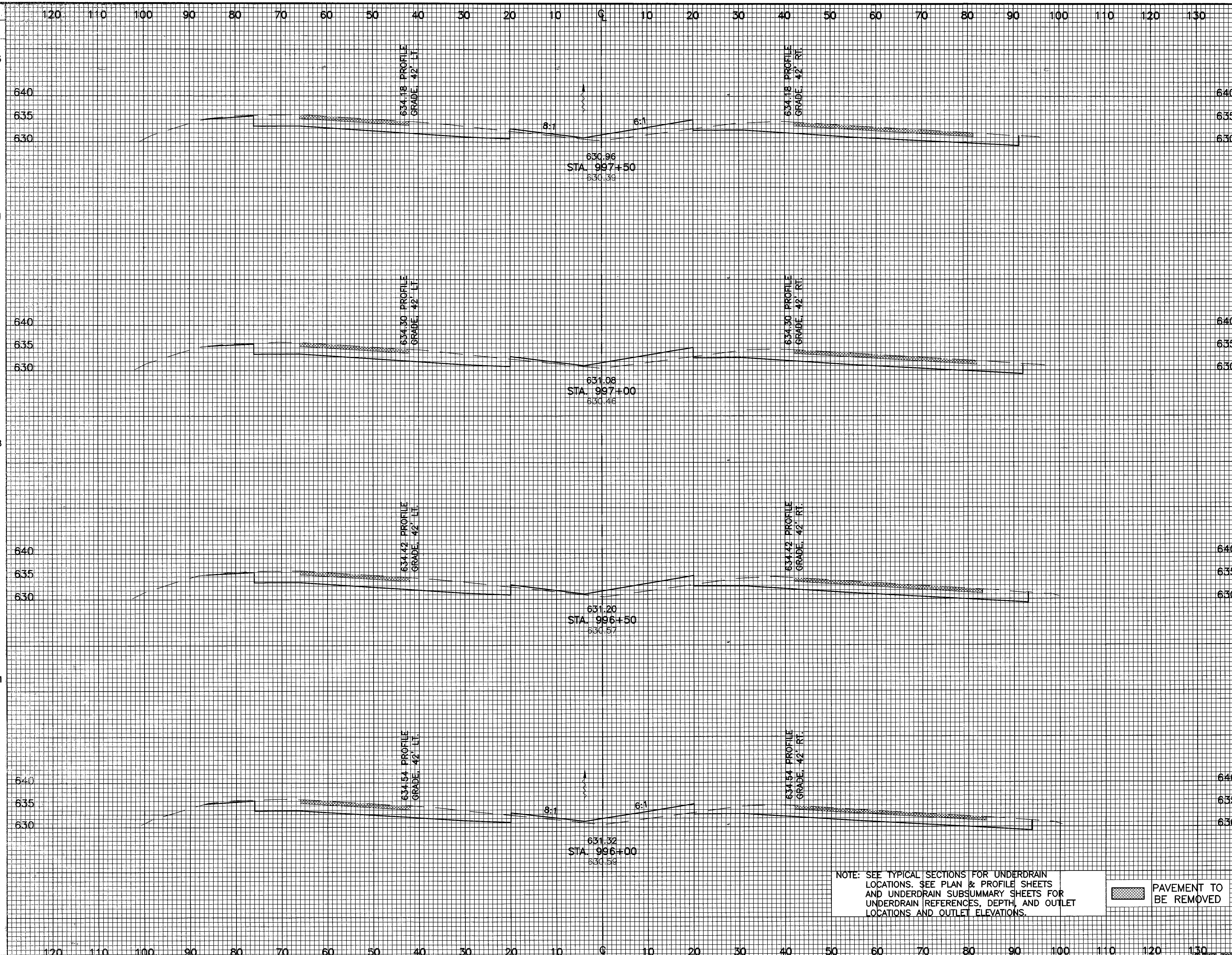


CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 994+00 TO STA. 995+50

LOR - I90 - 10.76

216
274



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	283			448	70
51		236	43		
	281			441	79
50		240	42		
	278			449	78
50		245	42		
	281			457	80
51		248	44		
SHEET TOTAL	1123			1795	307

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 996+00 TO STA. 997+50

LOR - I90 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.	STA.	633.70 PROFILE GRADE, 42' LT.	633.70 PROFILE GRADE, 42' RT.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	306						473	61
56		999+50	630.40	630.04	259	32		
	306						481	60
			633.82 PROFILE GRADE, 42' LT.	633.82 PROFILE GRADE, 42' RT.				
54		999+00	630.48	630.22	260	33		
	297						481	59
			633.94 PROFILE GRADE, 42' LT.	633.94 PROFILE GRADE, 42' RT.				
53		998+50	630.58	630.32	259	31		
	289						469	59
			634.06 PROFILE GRADE, 42' LT.	634.06 PROFILE GRADE, 42' RT.				
51		998+00	630.87	630.34	248	33		
1198 SHEET TOTAL					SHEET TOTAL		1904	239

8:1 6:1

END FULL SUPERELEVATION
STA. 997+72.69

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 998+00 TO STA. 999+50

LOR - 190 - 10.76

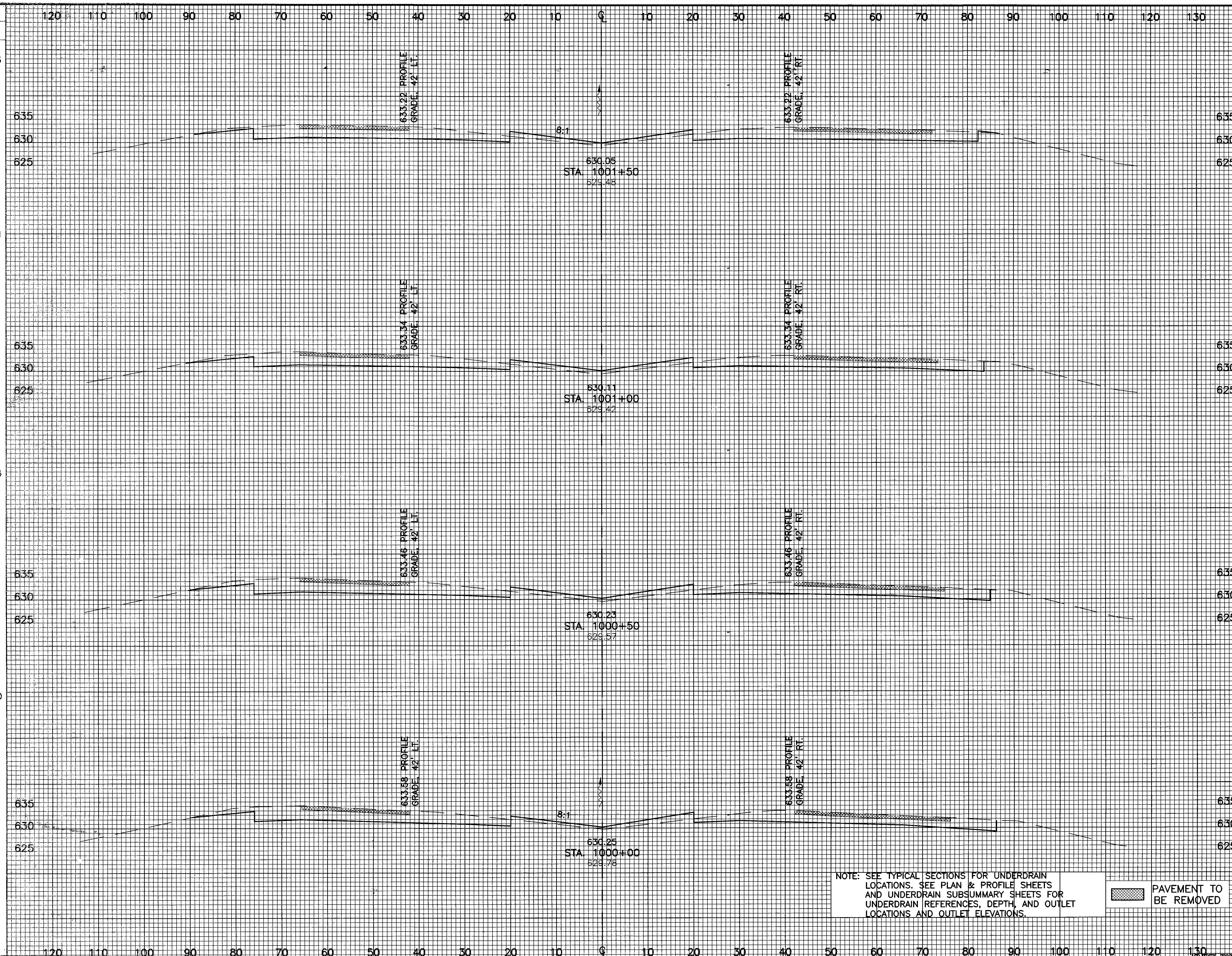
218
274

CROSS SECTIONS
STA. 1000+00 TO STA. 1001+50

LOR - I90 - 10.76

CALCULATED DLS | CHECKED LAB

SEEDING END WIDTH	SEEDING SQ. YDS.
	303
57	
	311
55	
	303
54	
	300
54	
	1217 SHEET TOTAL

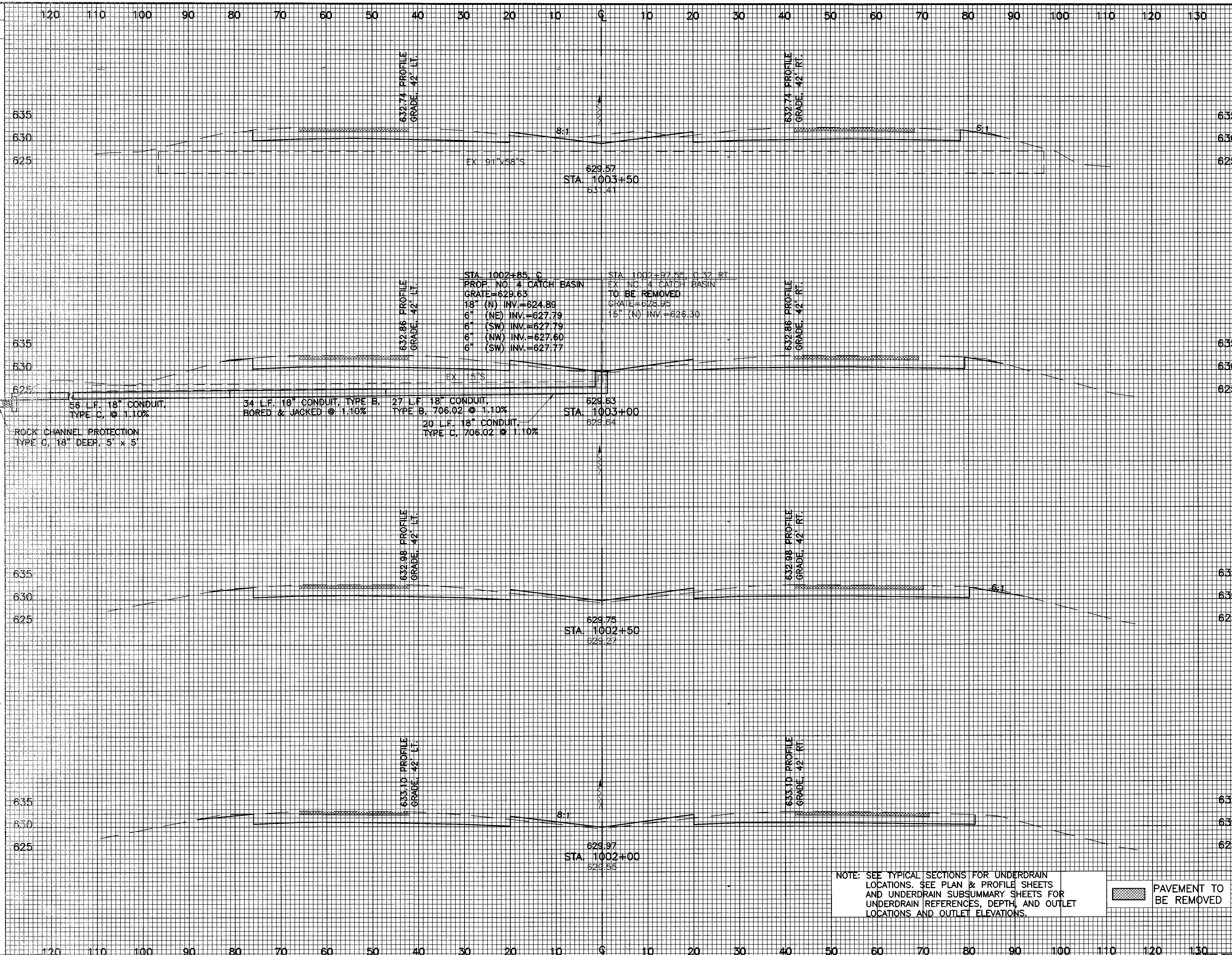


NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		432	53
233	32		
		438	63
240	36		
		452	67
248	36		
		463	65
252	34		
SHEET TOTAL		1785	248

Station	Seeding End Width	Seeding Sq. Yds.	End Area Cut	End Area Fill	Volume Cut	Volume Fill
		244			536	10
STA. 1003+50	41		258	7		
		244			446	30
STA. 1003+00	47		224	25		
		269			417	48
STA. 1002+50	50		226	27		
		283			425	48
STA. 1002+00	52		233	25		
SHEET TOTAL		1040			1824	136



632.74 PROFILE GRADE, 42' LT.
632.74 PROFILE GRADE, 42' RT.
8:1
6:1
EX. 91"x58"S
629.57
STA. 1003+50
631.41
STA. 1002+85, ℄
PROP. NO. 4 CATCH BASIN
GRATE=629.63
18" (N) INV.=624.89
6" (NE) INV.=627.79
6" (SW) INV.=627.79
6" (NW) INV.=627.60
6" (SW) INV.=627.77
STA. 1002+97.55, 0.32' RT.
EX. NO. 4 CATCH BASIN
TO BE REMOVED
GRATE=628.95
15" (N) INV.=626.30
632.86 PROFILE GRADE, 42' LT.
632.86 PROFILE GRADE, 42' RT.
EX. 15"S
56 L.F. 18" CONDUIT, TYPE C, @ 1.10%
34 L.F. 18" CONDUIT, TYPE B, BORED & JACKED @ 1.10%
27 L.F. 18" CONDUIT, TYPE B, 706.02 @ 1.10%
20 L.F. 18" CONDUIT, TYPE C, 706.02 @ 1.10%
ROCK CHANNEL PROTECTION TYPE C, 18" DEEP, 5' x 5'
629.63
STA. 1003+00
629.64
632.98 PROFILE GRADE, 42' LT.
632.98 PROFILE GRADE, 42' RT.
629.75
STA. 1002+50
629.27
633.10 PROFILE GRADE, 42' LT.
633.10 PROFILE GRADE, 42' RT.
629.97
STA. 1002+00
629.55

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

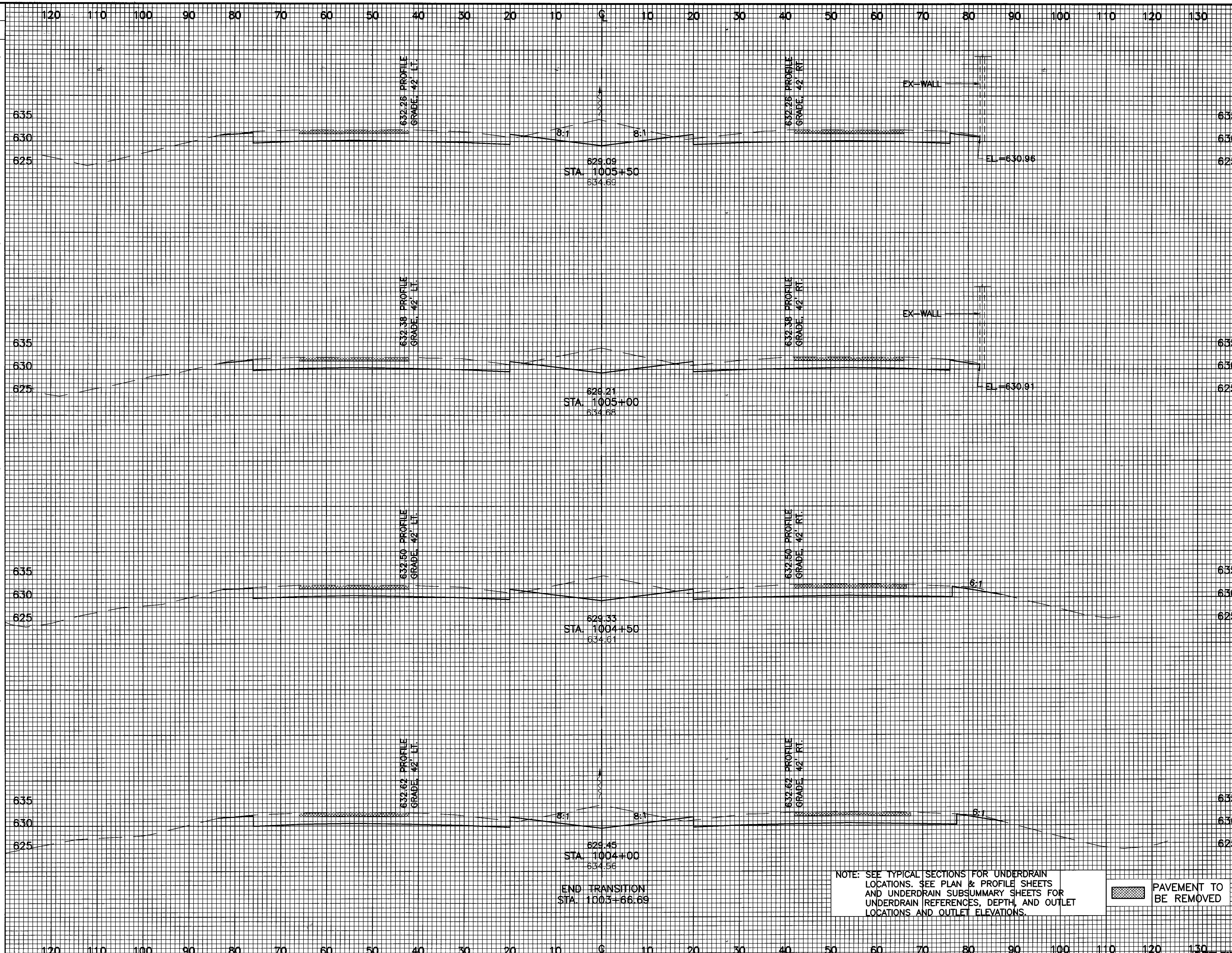
PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1002+00 TO STA. 1003+50

LOR - I90 - 10.76

Station	SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		297			604	7
STA. 1005+50	55		331	4		
		300			607	7
STA. 1005+00	53		325	3		
		278			600	6
STA. 1004+50	47		323	3		
		264			596	7
STA. 1004+00	48		321	4		
SHEET TOTAL		1139			2407	27



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1004+00 TO STA. 1005+50

LOR - 190 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.
52	284
53	292
52	292
54	294
52	292
1172	SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		619	13
350	1		
		618	8
317	8		
		600	12
331	5		
		610	8
328	4		
		2447	41
		SHEET TOTAL	

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1006+00 TO STA. 1007+50

LOR - I90 - 10.76

222
274

STA. 1007+50
634.36
628.93
632.10 PROFILE GRADE, 42' LT.
632.10 PROFILE GRADE, 42' RT.
EX-WALL
EL.=631.16
8:1
8:1

STA. 1006+99.72, 19.11 LT.
EX. NO. 8 CATCH BASIN
TO BE REMOVED
GRATE=629.90
15" (N) INV.=627.00
12" (S&E) INV.=627.25

STA. 1006+85, ℄
PROP. NO. 4 CATCH BASIN, AS PER PLAN
IN SAG
GRATE=629.18
18" (N) INV.=626.72
6" (N) INV.=627.79
6" (S) INV.=627.79

STA. 1006+99.64, 18.73 RT.
EX. NO. 8 CATCH BASIN
TO BE REMOVED
GRATE=629.75
12" (N) INV.=627.65

632.08 PROFILE GRADE, 42' LT.
632.08 PROFILE GRADE, 42' RT.
EX-WALL
EL.=631.11
EX. 15"S
EX. 12"S

ROCK CHANNEL PROTECTION
TYPE C, 1.5' DEEP, 4' x 5'

19 L.F. 18" CONDUIT,
TYPE C, @ 0.82%

34 L.F. 18" CONDUIT, TYPE B,
BORED & JACKED @ 0.82%

27 L.F. 18" CONDUIT,
TYPE B, 706.02 @ 0.82%

20 L.F. 18" CONDUIT,
TYPE C, 706.02 @ 0.82%

STA. 1007+00
634.08

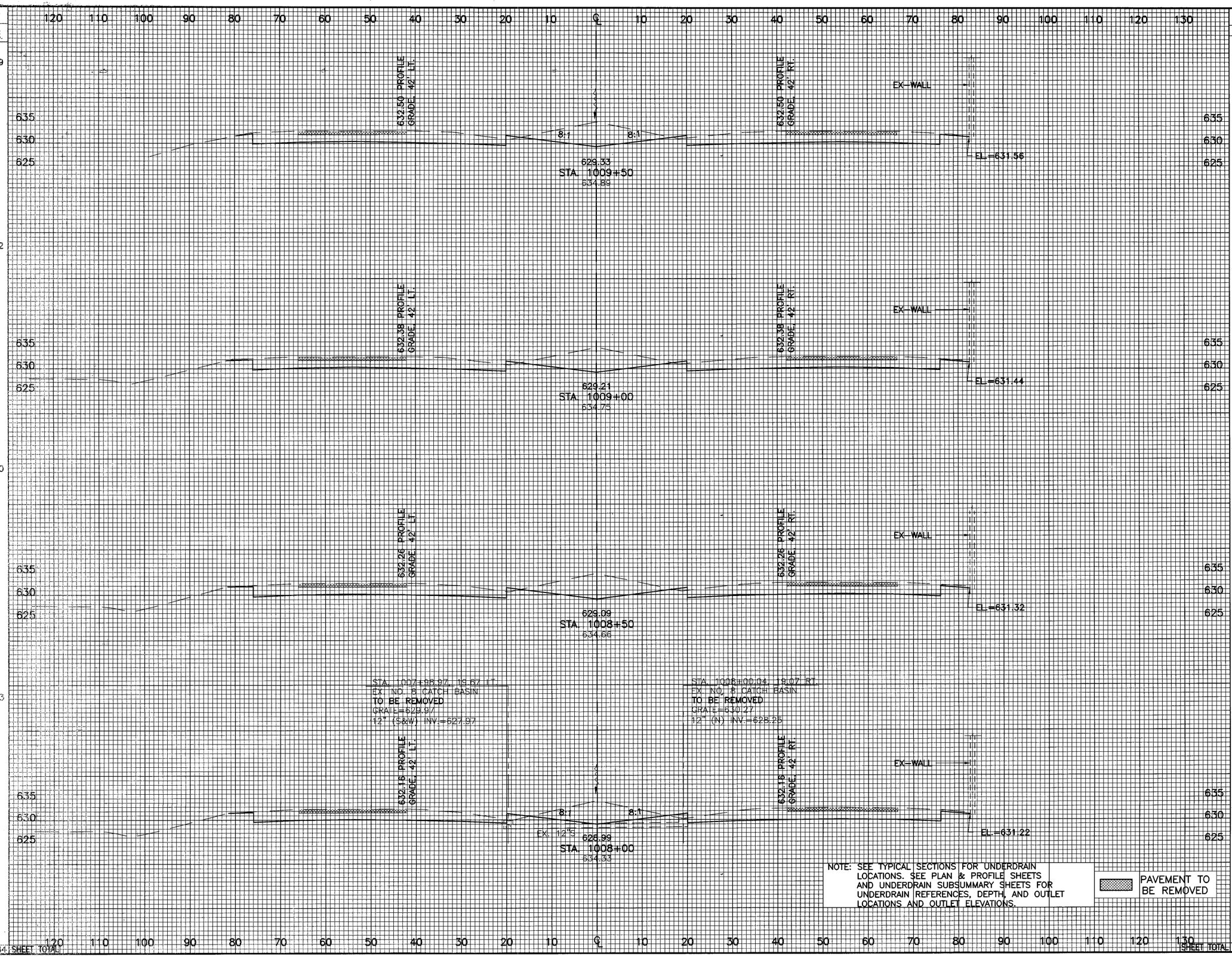
STA. 1006+50
634.46
626.93
632.10 PROFILE GRADE, 42' LT.
632.10 PROFILE GRADE, 42' RT.
EX-WALL
EL.=631.06

STA. 1006+00
634.14
626.99
632.16 PROFILE GRADE, 42' LT.
632.16 PROFILE GRADE, 42' RT.
EX-WALL
EL.=631.01
8:1
8:1

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

SEEDING	
END WIDTH	SQ. YDS.
52	289
53	292
55	300
54	303
SHEET TOTAL	1184



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

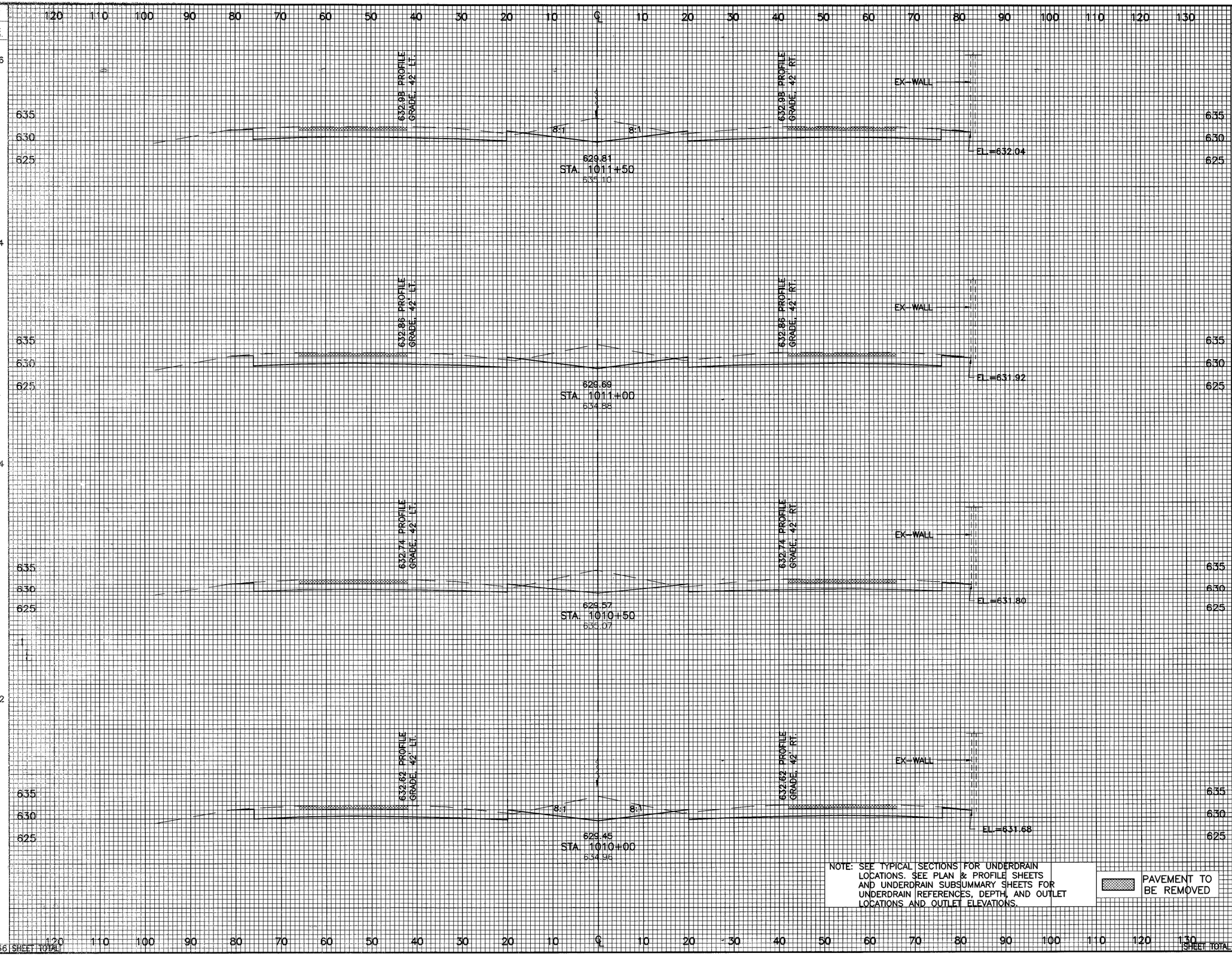
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		620	9
335	3		
		620	5
335	2		
		621	5
336	3		
		606	9
318	7		
SHEET TOTAL		2467	28

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1008+00 TO STA. 1009+50

LOR - I90 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	286				608	4
53		STA. 1011+50	327	2		
	294				603	5
53		STA. 1011+00	324	3		
	294				606	6
53		STA. 1010+50	330	3		
	292				616	6
52		STA. 1010+00	335	3		
	1166 SHEET TOTAL				2433	21



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

▨ PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1010+00 TO STA. 1011+50

LOR - I90 - 10.76

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	281			606	4
51		327	3		
	284			607	5
51		329	2		
	286			610	4
52		330	2		
	283			611	4
50		330	2		
1134 SHEET TOTAL				2434	17

120 110 100 90 80 70 60 50 40 30 20 10 $\mathbb{C}_L$ 10 20 30 40 50 60 70 80 90 100 110 120 130

633.46 PROFILE GRADE, 42' LT.
633.46 PROFILE GRADE, 42' RT.
EX-WALL
8:1
8:1
EL.=632.52
630.29
STA. 1013+50
635.76

633.34 PROFILE GRADE, 42' LT.
633.34 PROFILE GRADE, 42' RT.
EX-WALL
EL.=632.40
630.17
STA. 1013+00
635.70

ROCK CHANNEL PROTECTION TYPE C, 18" DEEP, 5' x 5'
633.22 PROFILE GRADE, 42' LT.
STA. 1012+50, ℄
PROP. NO. 4 CATCH BASIN
GRATE=630.05
15" (N) INV.=628.13
633.22 PROFILE GRADE, 42' RT.
EX-WALL
EL.=632.28
16 L.F. 15" CONDUIT, TYPE C, @ 0.65%
34 L.F. 15" CONDUIT, TYPE B, BORED & JACKED @ 0.65%
27 L.F. 15" CONDUIT, TYPE B, 706.02 @ 0.65%
20 L.F. 15" CONDUIT, TYPE C, 706.02 @ 0.65%
630.05
STA. 1012+50
635.51

633.10 PROFILE GRADE, 42' LT.
633.10 PROFILE GRADE, 42' RT.
EX-WALL
8:1
8:1
EL.=632.16
630.00
STA. 1012+00
635.34

NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

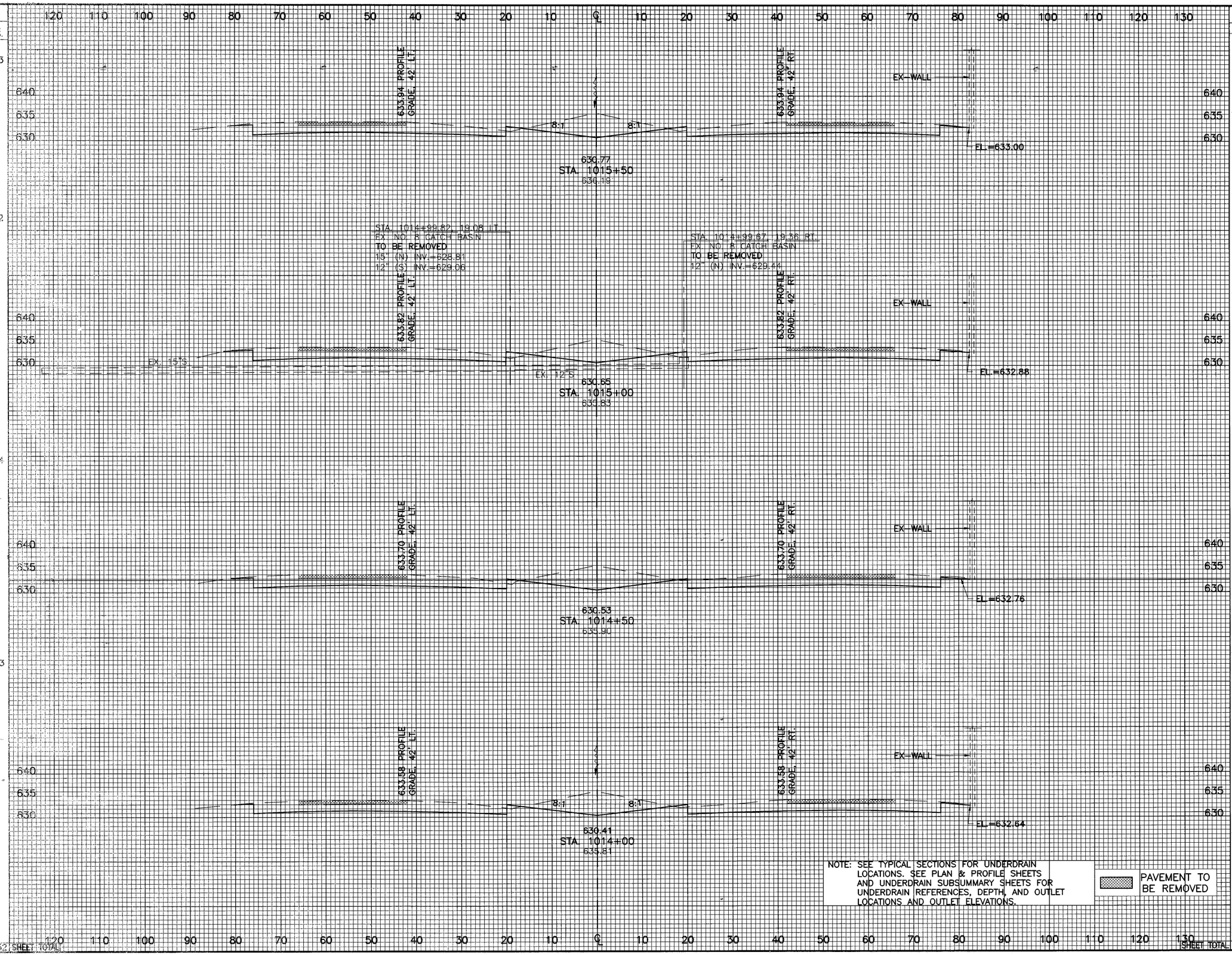
PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1012+00 TO STA. 1013+50

LOR - 190 - 10.76

SEEDING	
END WIDTH	SQ. YDS.
51	283
54	292
52	294
50	283
	1152 SHEET TOTAL

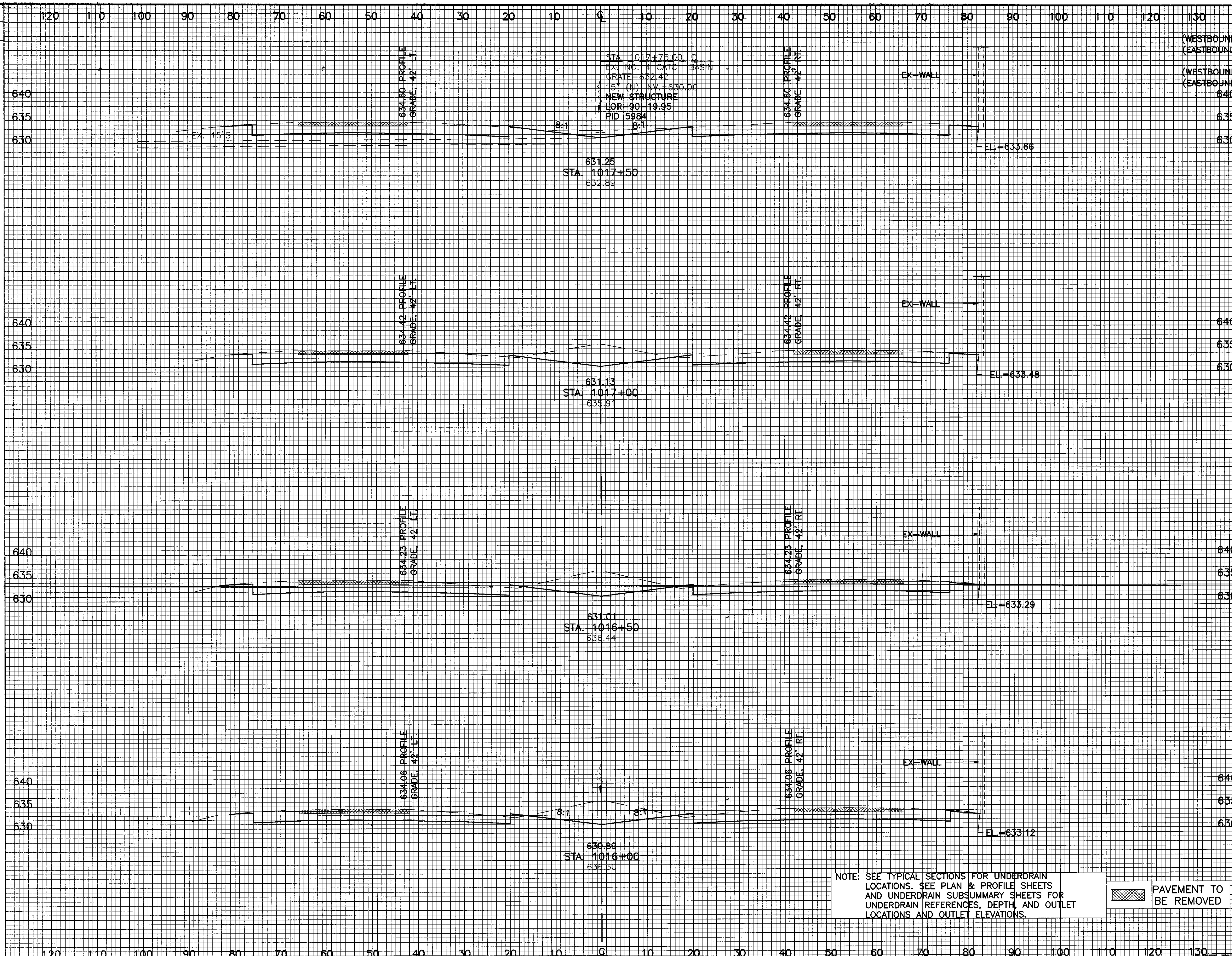


END AREA		VOLUME	
CUT	FILL	CUT	FILL
		595	8
318	5		
		580	11
308	7		
		592	9
331	3		
		610	6
328	3		
		2377	34
	SHEET TOTAL		

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1014+00 TO STA. 1015+50

LOR - I90 - 10.76



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

SEEDING	
END WIDTH	SQ. YDS.
	289
52	
	289
50	
	289
54	
	292
51	
SHEET TOTAL	1159

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
(WESTBOUND)			276	0
(EASTBOUND)			110	0
(WESTBOUND)	143	0		
(EASTBOUND)	142	0		
			535	2
	318	2		
			592	5
	322	3		
			599	7
	325	4		
SHEET TOTAL			2022	14

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1016+00 TO STA. 1017+50

LOR - I90 - 10.76

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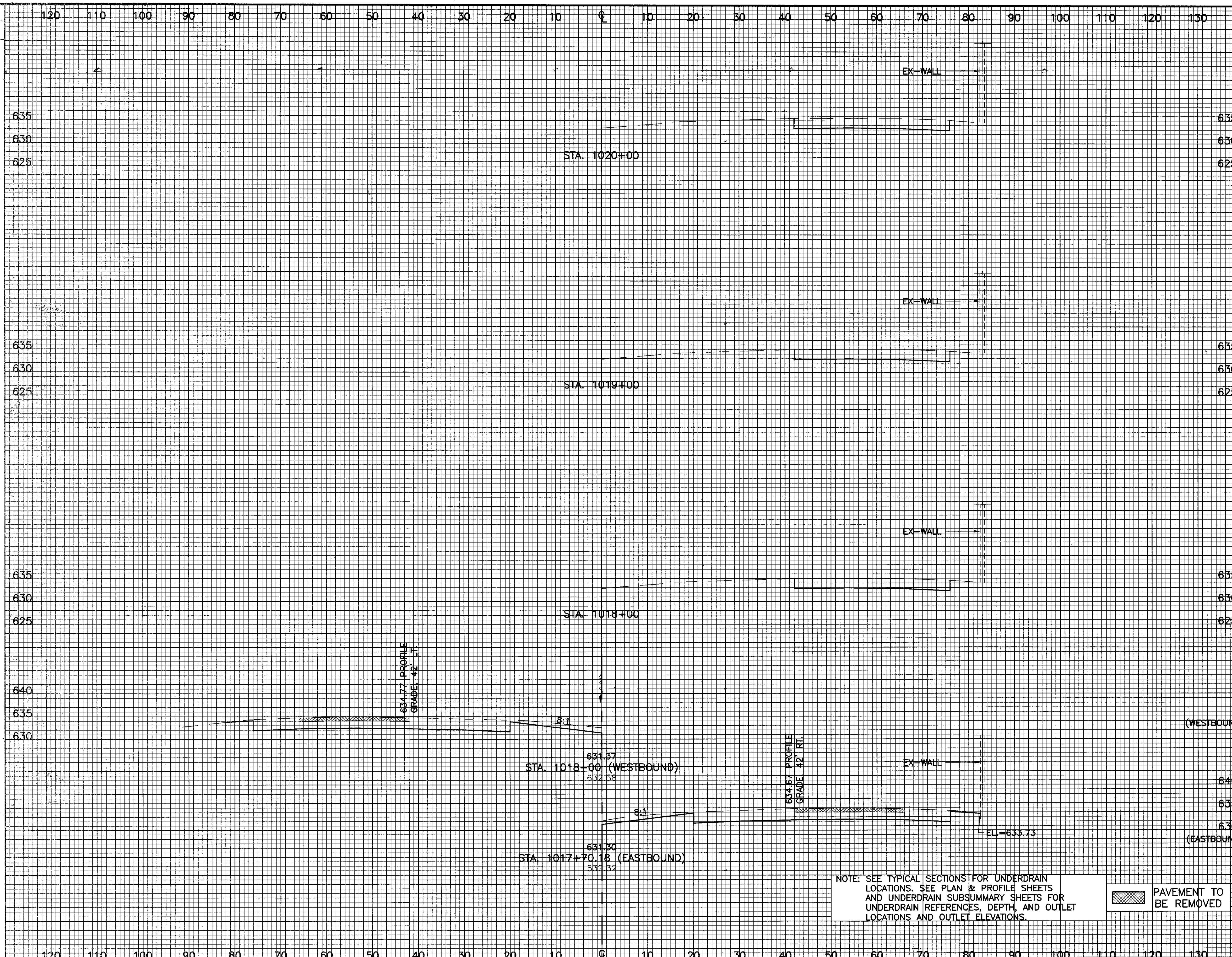
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
52		155	0		
		151	0		
SHEET TOTAL		SHEET TOTAL			



NOTE: SEE TYPICAL SECTIONS FOR UNDERDRAIN LOCATIONS. SEE PLAN & PROFILE SHEETS AND UNDERDRAIN SUBSUMMARY SHEETS FOR UNDERDRAIN REFERENCES, DEPTH, AND OUTLET LOCATIONS AND OUTLET ELEVATIONS.

PAVEMENT TO BE REMOVED

CALCULATED DLS
CHECKED LAB

CROSS SECTIONS
STA. 1018+00 TO STA. 1020+00

LOR - I90 - 10.76

I–90 EASTBOUND SUPERELEVATION TABLE

Station	Inside Shoulder		Inside Lane		Middle Lane			Outside Lane		Outside Shoulder		Notes
	20' Rt	Slope	30' Rt.	Slope	Profile Grade 42' Rt.	Slope	54' Rt.	Slope	66' Rt.	Slope	76' Rt.	
971+25.00	625.16	0.0417	625.58	0.0208	625.83	0.0156	626.02	−0.0156	625.83	−0.0417	625.41	
971+40.84	635.12	0.0417	635.54	0.0208	635.79	0.0156	635.98	−0.0156	635.79	−0.0417	635.37	Begin Transition
971+50.00	635.11	0.0417	635.52	0.0198	635.76	0.0156	635.95	−0.0156	635.76	−0.0417	635.34	
971+75.00	635.05	0.0417	635.47	0.0170	635.67	0.0156	635.86	−0.0156	635.67	−0.0417	635.25	
971+87.64	635.03	0.0417	635.44	0.0156	635.63	0.0156	635.82	−0.0156	635.63	−0.0417	635.21	2 Lanes at 0.0156
972+00.00	634.99	0.0417	635.41	0.0142	635.58	0.0142	635.75	−0.0156	635.56	−0.0417	635.15	
972+25.00	634.92	0.0417	635.33	0.0114	635.47	0.0114	635.61	−0.0156	635.42	−0.0417	635.00	
972+50.00	634.84	0.0417	635.26	0.0087	635.36	0.0087	635.46	−0.0156	635.28	−0.0417	634.86	
972+75.00	634.77	0.0417	635.19	0.0059	635.26	0.0059	635.33	−0.0156	635.14	−0.0417	634.73	
973+00.00	634.69	0.0417	635.10	0.0031	635.14	0.0031	635.18	−0.0156	634.99	−0.0417	634.57	
973+25.00	634.61	0.0417	635.03	0.0003	635.03	0.0003	635.03	−0.0156	634.85	−0.0417	634.43	
973+28.04	634.60	0.0417	635.02	0.0000	635.02	0.0000	635.02	−0.0156	634.83	−0.0417	634.42	2 Lanes Flat
973+50.00	634.52	0.0417	634.94	−0.0024	634.91	−0.0024	634.88	−0.0156	634.69	−0.0417	634.28	
973+75.00	634.45	0.0417	634.86	−0.0052	634.80	−0.0052	634.74	−0.0156	634.55	−0.0417	634.13	
974+00.00	634.37	0.0417	634.79	−0.0080	634.69	−0.0080	634.59	−0.0156	634.41	−0.0417	633.99	
974+25.00	634.29	0.0417	634.71	−0.0108	634.58	−0.0108	634.45	−0.0156	634.26	−0.0417	633.85	
974+50.00	634.21	0.0417	634.62	−0.0136	634.46	−0.0136	634.30	−0.0156	634.11	−0.0417	633.69	
974+68.44	634.15	0.0417	634.57	−0.0156	634.38	−0.0156	634.19	−0.0156	634.01	−0.0417	633.59	All Lanes at −0.0156
974+75.00	634.13	0.0417	634.55	−0.0167	634.35	−0.0167	634.15	−0.0167	633.95	−0.0417	633.53	
975+00.00	634.07	0.0417	634.49	−0.0207	634.24	−0.0207	633.99	−0.0207	633.74	−0.0417	633.33	
975+25.00	634.01	0.0417	634.43	−0.0247	634.13	−0.0247	633.83	−0.0247	633.54	−0.0417	633.12	
975+50.00	633.94	0.0413	634.35	−0.0287	634.01	−0.0287	633.67	−0.0287	633.32	−0.0417	632.90	
975+75.00	633.92	0.0373	634.29	−0.0327	633.90	−0.0327	633.51	−0.0327	633.11	−0.0417	632.70	
976+00.00	633.90	0.0333	634.23	−0.0367	633.79	−0.0367	633.35	−0.0367	632.91	−0.0417	632.49	
976+25.00	633.88	0.0293	634.17	−0.0407	633.68	−0.0407	633.19	−0.0407	632.70	−0.0417	632.29	
976+45.56	633.85	0.0260	634.11	−0.0440	633.58	−0.0440	633.05	−0.0440	632.52	−0.0440	632.08	P.C.C.
976+50.00	633.84	0.0252	634.10	−0.0448	633.56	−0.0448	633.02	−0.0448	632.49	−0.0448	632.04	
976+75.00	633.82	0.0212	634.04	−0.0488	633.45	−0.0488	632.86	−0.0488	632.28	−0.0488	631.79	
977+00.00	633.81	0.0172	633.98	−0.0528	633.35	−0.0528	632.72	−0.0528	632.08	−0.0528	631.56	
977+25.00	633.81	0.0132	633.94	−0.0568	633.26	−0.0568	632.58	−0.0568	631.90	−0.0568	631.33	
977+50.00	633.83	0.0092	633.92	−0.0608	633.19	−0.0608	632.46	−0.0608	631.73	−0.0608	631.12	
977+75.00	633.88	0.0052	633.93	−0.0648	633.15	−0.0648	632.37	−0.0648	631.59	−0.0648	630.95	
977+81.64	633.88	0.0040	633.92	−0.0660	633.13	−0.0660	632.34	−0.0660	631.55	−0.0660	630.89	Full Superelevation
978+00.00	633.86	0.0040	633.90	−0.0660	633.11	−0.0660	632.32	−0.0660	631.53	−0.0660	630.87	
978+25.00	633.85	0.0040	633.89	−0.0660	633.10	−0.0660	632.31	−0.0660	631.52	−0.0660	630.86	
978+50.00	633.85	0.0040	633.89	−0.0660	633.10	−0.0660	632.31	−0.0660	631.52	−0.0660	630.86	
978+75.00	633.87	0.0040	633.91	−0.0660	633.12	−0.0660	632.33	−0.0660	631.54	−0.0660	630.88	
979+00.00	633.91	0.0040	633.95	−0.0660	633.16	−0.0660	632.37	−0.0660	631.58	−0.0660	630.92	
979+25.00	633.97	0.0040	634.01	−0.0660	633.22	−0.0660	632.43	−0.0660	631.64	−0.0660	630.98	
979+50.00	634.03	0.0040	634.07	−0.0660	633.28	−0.0660	632.49	−0.0660	631.70	−0.0660	631.04	
979+75.00	634.13	0.0040	634.17	−0.0660	633.38	−0.0660	632.59	−0.0660	631.80	−0.0660	631.14	
980+00.00	634.15	0.0040	634.19	−0.0660	633.40	−0.0660	632.61	−0.0660	631.82	−0.0660	631.16	
980+25.00	634.22	0.0040	634.26	−0.0660	633.47	−0.0660	632.68	−0.0660	631.89	−0.0660	631.23	
980+50.00	634.28	0.0040	634.32	−0.0660	633.53	−0.0660	632.74	−0.0660	631.95	−0.0660	631.29	
980+75.00	634.34	0.0040	634.38	−0.0660	633.59	−0.0660	632.80	−0.0660	632.01	−0.0660	631.35	
981+00.00	634.41	0.0040	634.45	−0.0660	633.66	−0.0660	632.87	−0.0660	632.08	−0.0660	631.42	
981+25.00	634.48	0.0040	634.52	−0.0660	633.73	−0.0660	632.94	−0.0660	632.15	−0.0660	631.49	
981+50.00	634.54	0.0040	634.58	−0.0660	633.79	−0.0660	633.00	−0.0660	632.21	−0.0660	631.55	
981+75.00	634.61	0.0040	634.65	−0.0660	633.86	−0.0660	633.07	−0.0660	632.28	−0.0660	631.62	
982+00.00	634.67	0.0040	634.71	−0.0660	633.92	−0.0660	633.13	−0.0660	632.34	−0.0660	631.68	
982+25.00	634.73	0.0040	634.77	−0.0660	633.98	−0.0660	633.19	−0.0660	632.40	−0.0660	631.74	
982+50.00	634.80	0.0040	634.84	−0.0660	634.05	−0.0660	633.26	−0.0660	632.47	−0.0660	631.81	
982+75.00	634.86	0.0040	634.90	−0.0660	634.11	−0.0660	633.32	−0.0660	632.53	−0.0660	631.87	
983+00.00	634.93	0.0040	634.97	−0.0660	634.18	−0.0660	633.39	−0.0660	632.60	−0.0660	631.94	
983+25.00	634.99	0.0040	635.03	−0.0660	634.24	−0.0660	633.45	−0.0660	632.66	−0.0660	632.00	
983+50.00	635.06	0.0040	635.10	−0.0660	634.31	−0.0660	633.52	−0.0660	632.73	−0.0660	632.07	
983+75.00	635.12	0.0040	635.16	−0.0660	634.37	−0.0660	633.58	−0.0660	632.79	−0.0660	632.13	
984+00.00	635.09	0.0040	635.13	−0.0660	634.34	−0.0660	633.55	−0.0660	632.76	−0.0660	632.10	
984+25.00	635.25	0.0040	635.29	−0.0660	634.50	−0.0660	633.71	−0.0660	632.92	−0.0660	632.26	
984+50.00	635.31	0.0040	635.35	−0.0660	634.56	−0.0660	633.77	−0.0660	632.98	−0.0660	632.32	
984+75.00	635.38	0.0040	635.42	−0.0660	634.63	−0.0660	633.84	−0.0660	633.05	−0.0660	632.39	
985+00.00	635.44	0.0040	635.48	−0.0660	634.69	−0.0660	633.90	−0.0660	633.11	−0.0660	632.45	
985+25.00	635.51	0.0040	635.55	−0.0660	634.76	−0.0660	633.97	−0.0660	633.18	−0.0660	632.52	
985+50.00	635.57	0.0040	635.61	−0.0660	634.82	−0.0660	634.03	−0.0660	633.24	−0.0660	632.58	
985+75.00	635.64	0.0040	635.68	−0.0660	634.89	−0.0660	634.10	−0.0660	633.31	−0.0660	632.65	
986+00.00	635.70	0.0040	635.74	−0.0660	634.95	−0.0660	634.16	−0.0660	633.37	−0.0660	632.71	
986+25.00	635.76	0.0040	635.80	−0.0660	635.01	−0.0660	634.22	−0.0660	633.43	−0.0660	632.77	
986+50.00	635.83	0.0040	635.87	−0.0660	635.08	−0.0660	634.29	−0.0660	633.50	−0.0660	632.84	
986+75.00	635.89	0.0040	635.93	−0.0660	635.14	−0.0660	634.35	−0.0660	633.56	−0.0660	632.90	
987+00.00	635.96	0.0040	636.00	−0.0660	635.21	−0.0660	634.42	−0.0660	633.63	−0.0660	632.97	
987+25.00	636.02	0.0040	636.06	−0.0660	635.27	−0.0660	634.48	−0.0660	633.69	−0.0660	633.03	
987+50.00	636.09	0.0040	636.13	−0.0660	635.34	−0.0660	634.55	−0.0660	633.76	−0.0660	633.10	
987+75.00	636.15	0.0040	636.19	−0.0660	635.40	−0.0660	634.61	−0.0660	633.82	−0.0660	633.16	

Station	Inside Shoulder		Inside Lane		Middle Lane			Outside Lane		Outside Shoulder		Notes
	20' Rt	Slope	30' Rt.	Slope	Profile Grade 42' Rt.	Slope	54' Rt.	Slope	66' Rt.	Slope	76' Rt.	
987+75.00	636.15	0.0040	636.19	−0.0660	635.40	−0.0660	634.61	−0.0660	633.82	−0.0660	633.16	
988+00.00	636.22	0.0040	636.26	−0.0660	635.47	−0.0660	634.68	−0.0660	633.89	−0.0660	633.23	
988+25.00	636.27	0.0040	636.31	−0.0660	635.52	−0.0660	634.73	−0.0660	633.94	−0.0660	633.28	
988+50.00	636.32	0.0040	636.36	−0.0660	635.57	−0.0660	634.78	−0.0660	633.99	−0.0660	633.33	
988+75.00	636.37	0.0040	636.41	−0.0660	635.62	−0.0660	634.83	−0.0660	634.04	−0.0660	633.38	
989+00.00	636.41	0.0040	636.45	−0.0660	635.66	−0.0660	634.87	−0.0660	634.08	−0.0660	633.42	
989+25.00	636.44	0.0040	636.48	−0.0660	635.69	−0.0660	634.90	−0.0660	634.11			
989+50.00	636.46	0.0040	636.50	−0.0660	635.71	−0.0660	634.92	−0.0660	634.13			
989+75.00	636.47	0.0040	636.51	−0.0660	635.72	−0.0660	634.93	−0.0660	634.14			
990+00.00	636.48	0.0040	636.52	−0.0660	635.73	−0.0660	634.94	−0.0660	634.15			
990+25.00	636.48	0.0040	636.52	−0.0660	635.73	−0.0660	634.94	−0.0660	634.15			
990+50.00	636.47	0.0040	636.51	−0.0660	635.72	−0.0660	634.93	−0.0660	634.14			
990+75.00	636.45	0.0040	636.49	−0.0660	635.70	−0.0660	634.91	−0.0660	634.12			
991+00.00	636.43	0.0040	636.47	−0.0660	635.68	−0.0660	634.89	−0.0660	634.10			
991+25.00	636.40	0.0040	636.44	−0.0660	635.65	−0.0660	634.86	−0.0660	634.07			
991+50.00	636.35	0.0040	636.39	−0.0660	635.60	−0.0660	634.81	−0.0660	634.02			
991+75.00	636.31	0.0040	636.35	−0.0660	635.56	−0.0660	634.77	−0.0660	633.98			
992+00.00	636.25	0.0040	636.29	−0.0660	635.50	−0.0660	634.71	−0.0660	633.92			
992+25.00	636.19	0.0040	636.23	−0.0660	635.44	−0.0660	634.65	−0.0660	633.86			
992+50.00	636.13	0.0040	636.17	−0.0660	635.38	−0.0660	634.59	−0.0660	633.80			
992+75.00	636.07	0.0040	636.11	−0.0660	635.32	−0.0660	634.53	−0.0660	633.74			
993+00.00	636.01	0.0040	636.05	−0.0660	635.26	−0.0660	634.47	−0.0660	633.68			
993+25.00	635.95	0.0040	635.99	−0.0660	635.20	−0.0660	634.41	−0.0660	633.62			
993+50.00	635.89	0.0040	635.93	−0.0660	635.14	−0.0660	634.35	−0.0660	633.56			
993+75.00	635.83	0.0040	635.87	−0.0660	635.08	−0.0660	634.29	−0.0660	633.50			
994+00.00	635.77	0.0040	635.81	−0.0660	635.02	−0.0660	634.23	−0.0660	633.44			
994+25.00	635.71	0.0040	635.75	−0.0660	634.96	−0.0660	634.17	−0.0660	633.38			
994+50.00	635.65	0.0040	635.69	−0.0660	634.90	−0.0660	634.11	−0.0660	633.32			
994+75.00	635.59	0.0040	635.63	−0.0660	634.84	−0.0660	634.05	−0.0660	633.26			
995+00.00	635.53	0.0040	635.57	−0.0660	634.78	−0.0660	633.99	−0.0660	633.20			
995+25.00	635.47	0.0040	635.51	−0.0660	634.72	−0.0660	633.93	−0.0660	633.14			
995+50.00	635.41	0.0040	635.45	−0.0660	634.66	−0.0660	633.87	−0.0660	633.08			
995+75.00	635.35	0.0040	635.39	−0.0660	634.60	−0.0660	633.81	−0.0660	633.02			
996+00.00	635.29	0.0040	635.33	−0.0660	634.54	−0.0660	633.75	−0.0660	632.96			
996+25.00	635.23	0.0040	635.27	−0.0660	634.48	−0.0660	633.69	−0.0660	632.90			
996+50.00	635.17	0.0040	635.21	−0.0660	634.42	−0.0660	633.63	−0.0660	632.84			
996+75.00	635.11	0.0040	635.15	−0.0660	634.36	−0.0660	633.57	−0.0660	632.78			
997+00.00	635.05	0.0040	635.09	−0.0660	634.30	−0.0660	633.51	−0.0660	632.72			
997+25.00	634.99	0.0040	635.03	−0.0660	634.24	−0.0660	633.45	−0.0660	632.66			
997+50.00	634.93	0.0040	634.97	−0.0660	634.18	−0.0660	633.39	−0.0660	632.60			
997+72.69	634.88	0.0040	634.92	−0.0660	634.13	−0.0660	633.34	−0.0660	632.55			Begin Transition
997+75.00	634.86	0.0044	634.91	−0.0656	634.12	−0.0656	633.33	−0.0656	632.54			
998+00.00	634.72	0.0084	634.80	−0.0616	634.06	−0.0616	633.32	−0.0616	632.58			
998+25.00	634.57	0.0124	634.69	−0.0576	634.00	−0.0576	633.31	−0.0576	632.62			
998+50.00	634.42	0.0164	634.58	−0.0536	633.94	−0.0536	633.30	−0.0536	632.65			
998+75.00	634.27	0.0204	634.47	−0.0496	633.88	−0.0496	633.29	−0.0496	632.69			
999+00.00	634.12	0.0244	634.37	−0.0456	633.82	−0.0456	633.27	−0.0456	632.73			
999+08.77	634.07	0.0258	634.33	−0.0442	633.80	−0.0442	633.27	−0.0442	632.74			P.C.C.
999+25.00	633.97	0.0285	634.26	−0.0415	633.76	−0.0415	633.26	−0.0415	632.76			
999+50.00	633.83	0.0325	634.15	−0.0375	633.70	−0.0375	633.25	−0.0375	632.80			
999+75.00	633.68	0.0365	634.04	−0.0335	633.64	−0.0335	633.24	−0.0335	632.84			
1000+00.00	633.53	0.0405	633.93	−0.0295	633.58	−0.0295	633.23	−0.0295	632.87			
1000+25.00	633.41	0.0417	633.83	−0.0255	633.52	−0.0255	633.21	−0.0255	632.91			
1000+50.00	633.30	0.0417	633.72	−0.0215	633.46	−0.0215	633.20	−0.0215	632.94			
1000+75.00	633.19	0.0417	633.61	−0.0175	633.40	−0.0175	633.19	−0.0175	632.98			
1000+85.89	633.14	0.0417	633.56	−0.0156	633.37	−0.0156	633.18	−0.0156	633.00			All Lanes at −0.0156
1001+00.00	633.09	0.0417	633.51	−0.0140	633.34	−0.0140	633.17	−0.0156	632.98			
1001+25.00	633.00	0.0417	633.42	−0.0113	633.28	−0.0113	633.14	−0.0156	632.96			
1001+50.00	632.91	0.0417	633.32	−0.0085	633.22	−0.0085	633.12	−0.0156	632.93			
1001+75.00	632.81	0.0417	633.23	−0.0057	633.16	−0.0057	633.09	−0.0156	632.90			
1002+00.00	632.72	0.0417	633.14	−0.0029	633.10	−0.0029	633.06	−0.0156	632.88			
1002+25.00	632.62	0.0417	633.04	−0.0001	633.04	−0.0001	633.04	−0.0156	632.85			
1002+26.29	632.62	0.0417	633.04	−0.0000	633.04	−0.0000	633.04	−0.0156	632.85			2 Lanes Flat
1002+50.00	632.53	0.0417	632.95	0.0026	632.98	0.0026	633.01	−0.0156	632.82			
1002+75.00	632.44	0.0417	632.86	0.0054	632.92	0.0054	632.98	−0.0156	632.80			
1003+00.00	632.34	0.0417	632.76	0.0082	632.86	0.0082	632.96	−0.0156	632.77			
1003+25.00	632.25	0.0417	632.67	0.0110	632.80	0.0110	632.93	−0.0156	632.74			
1003+50.00	632.16	0.0417	632.58	0.0137	632.74	0.0137	632.90	−0.0156	632.72			
1003+66.69	632.10	0.0417	632.51	0.0156	632.70	0.0156	632.89	−0.0156	632.70			2 Lanes at 0.0156
1003+75.00	632.06	0.0417	632.48	0.0165	632.68	0.0156	632.87	−0.0156	632.68			
1004+00.00	631.97	0.0417	632.39	0.0193	632.62	0.0156	632.81	−0.0156	632.62			
1004+13.49	631.92	0.0417	632.34	0.0208	632.59	0.0156	632.78	−0.0156	632.59			Normal Section
1004+25.00	631.89	0.0417	632.31	0.0208	632.56	0.0156	632.75	−0.0156	632.56			

0 50' 100
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

SUPERELEVATION TABLE
EASTBOUND LANES

LOR - I90 - 10.76

I-90 WESTBOUND SUPERELEVATION TABLE

Station	Inside Shoulder 20' Lt.	Inside Shoulder Slope	Inside Lane 30' Lt.	Inside Lane Slope	Middle Lane Profile Grade 42' Lt.	Middle Lane Slope	Middle Lane 54' Lt.	Outside Lane Slope	Outside Lane 66' Lt.	Outside Shoulder Slope	Outside Shoulder 76' Lt.	Notes
971+75.00	634.95	0.0417	635.37	0.0208	635.62	0.0156	635.81	−0.0156	635.62	−0.0417	635.20	
971+87.64	634.96	0.0417	635.38	0.0208	635.63	0.0156	635.82	−0.0156	635.63	−0.0417	635.21	Begin Transition
972+00.00	634.89	0.0417	635.31	0.0208	635.56	0.0156	635.75	−0.0142	635.58	−0.0417	635.16	
972+25.00	634.80	0.0417	635.22	0.0208	635.47	0.0156	635.66	−0.0114	635.52	−0.0417	635.10	
972+50.00	634.69	0.0417	635.11	0.0208	635.36	0.0156	635.55	−0.0087	635.44	−0.0417	635.03	
972+75.00	634.59	0.0417	635.01	0.0208	635.26	0.0156	635.45	−0.0059	635.38	−0.0417	634.96	
973+00.00	634.47	0.0417	634.89	0.0208	635.14	0.0156	635.33	−0.0031	635.29	−0.0417	634.87	
973+25.00	634.36	0.0417	634.78	0.0208	635.03	0.0156	635.22	−0.0003	635.21	−0.0417	634.80	
973+28.04	634.35	0.0417	634.77	0.0208	635.02	0.0156	635.21	−0.0000	635.21	−0.0417	634.79	Outside Lane Flat
973+50.00	634.24	0.0417	634.66	0.0208	634.91	0.0156	635.10	0.0024	635.13	−0.0417	634.71	
973+75.00	634.13	0.0417	634.55	0.0208	634.80	0.0156	634.99	0.0052	635.05	−0.0417	634.63	
974+00.00	634.02	0.0417	634.44	0.0208	634.69	0.0156	634.88	0.0080	634.97	−0.0417	634.56	
974+25.00	633.91	0.0417	634.33	0.0208	634.58	0.0156	634.77	0.0108	634.90	−0.0417	634.48	
974+50.00	633.79	0.0417	634.21	0.0208	634.46	0.0156	634.65	0.0136	634.81	−0.0417	634.39	
974+68.44	633.71	0.0417	634.13	0.0208	634.38	0.0156	634.57	0.0156	634.75	−0.0417	634.34	2 Lanes at 0.0156
974+75.00	633.68	0.0417	634.10	0.0208	634.35	0.0167	634.55	0.0167	634.75	−0.0417	634.33	
975+00.00	633.57	0.0417	633.99	0.0208	634.24	0.0207	634.49	0.0207	634.74	−0.0417	634.32	
975+00.75	633.57	0.0417	633.99	0.0208	634.24	0.0208	634.49	0.0208	634.74	−0.0417	634.32	All Lanes at 0.0208
975+25.00	633.42	0.0417	633.83	0.0247	634.13	0.0247	634.43	0.0247	634.72	−0.0417	634.31	
975+50.00	633.25	0.0417	633.67	0.0287	634.01	0.0287	634.35	0.0287	634.70	−0.0413	634.29	
975+75.00	633.09	0.0417	633.51	0.0327	633.90	0.0327	634.29	0.0327	634.69	−0.0373	634.31	
976+00.00	632.93	0.0417	633.35	0.0367	633.79	0.0367	634.23	0.0367	634.67	−0.0333	634.34	
976+25.00	932.77	0.0417	933.19	0.0408	933.68	0.0407	934.17	0.0407	934.66	−0.0293	934.37	
976+45.56	932.61	0.0441	933.05	0.0441	933.58	0.0440	934.11	0.0440	934.64	−0.0260	934.38	P.C.C.
976+50.00	632.58	0.0448	633.02	0.0448	633.56	0.0448	634.10	0.0448	634.63	−0.0252	634.38	
976+75.00	632.38	0.0488	632.86	0.0488	633.45	0.0488	634.04	0.0488	634.62	−0.0212	634.41	
977+00.00	632.19	0.0528	632.72	0.0528	633.35	0.0528	633.98	0.0528	634.62	−0.0172	634.44	
977+25.00	632.01	0.0568	632.58	0.0568	633.26	0.0568	633.94	0.0568	634.62	−0.0132	634.49	
977+50.00	631.85	0.0608	632.46	0.0608	633.19	0.0608	633.92	0.0608	634.65	−0.0092	634.56	
977+75.00	631.72	0.0648	632.37	0.0648	633.15	0.0648	633.93	0.0648	634.71	−0.0052	634.65	
977+81.64	631.68	0.0660	632.34	0.0660	633.13	0.0660	633.92	0.0660	634.71	−0.0040	634.67	Full Superelevation
978+00.00	631.66	0.0660	632.32	0.0660	633.11	0.0660	633.90	0.0660	634.69	−0.0040	634.65	
978+25.00	631.65	0.0660	632.31	0.0660	633.10	0.0660	633.89	0.0660	634.68	−0.0040	634.64	
978+50.00	631.65	0.0660	632.31	0.0660	633.10	0.0660	633.89	0.0660	634.68	−0.0040	634.64	
978+75.00	631.67	0.0660	632.33	0.0660	633.12	0.0660	633.91	0.0660	634.70	−0.0040	634.66	
979+00.00	631.71	0.0660	632.37	0.0660	633.16	0.0660	633.95	0.0660	634.74	−0.0040	634.70	
979+25.00	631.77	0.0660	632.43	0.0660	633.22	0.0660	634.01	0.0660	634.80	−0.0040	634.76	
979+50.00	631.83	0.0660	632.49	0.0660	633.28	0.0660	634.07	0.0660	634.86	−0.0040	634.82	
979+75.00	631.93	0.0660	632.59	0.0660	633.38	0.0660	634.17	0.0660	634.96	−0.0040	634.92	
980+00.00	631.95	0.0660	632.61	0.0660	633.40	0.0660	634.19	0.0660	634.98	−0.0040	634.94	
980+25.00	632.02	0.0660	632.68	0.0660	633.47	0.0660	634.26	0.0660	635.05	−0.0040	635.01	
980+50.00	632.08	0.0660	632.74	0.0660	633.53	0.0660	634.32	0.0660	635.11	−0.0040	635.07	
980+75.00	632.14	0.0660	632.80	0.0660	633.59	0.0660	634.38	0.0660	635.17	−0.0040	635.13	
981+00.00	632.21	0.0660	632.87	0.0660	633.66	0.0660	634.45	0.0660	635.24	−0.0040	635.20	
981+25.00	632.28	0.0660	632.94	0.0660	633.73	0.0660	634.52	0.0660	635.31	−0.0040	635.27	
981+50.00	632.34	0.0660	633.00	0.0660	633.79	0.0660	634.58	0.0660	635.37	−0.0040	635.33	
981+75.00	632.41	0.0660	633.07	0.0660	633.86	0.0660	634.65	0.0660	635.44	−0.0040	635.40	
982+00.00	632.47	0.0660	633.13	0.0660	633.92	0.0660	634.71	0.0660	635.50	−0.0040	635.46	
982+25.00	632.53	0.0660	633.19	0.0660	633.98	0.0660	634.77	0.0660	635.56	−0.0040	635.52	
982+50.00	632.60	0.0660	633.26	0.0660	634.05	0.0660	634.84	0.0660	635.63	−0.0040	635.59	
982+75.00	632.66	0.0660	633.32	0.0660	634.11	0.0660	634.90	0.0660	635.69	−0.0040	635.65	
983+00.00	632.73	0.0660	633.39	0.0660	634.18	0.0660	634.97	0.0660	635.76	−0.0040	635.72	
983+25.00	632.79	0.0660	633.45	0.0660	634.24	0.0660	635.03	0.0660	635.82	−0.0040	635.78	
983+50.00	632.86	0.0660	633.52	0.0660	634.31	0.0660	635.10	0.0660	635.89	−0.0040	635.85	
983+75.00	632.92	0.0660	633.58	0.0660	634.37	0.0660	635.16	0.0660	635.95	−0.0040	635.91	
984+00.00	632.98	0.0660	633.64	0.0660	634.43	0.0660	635.22	0.0660	636.01	−0.0040	635.97	
984+25.00	633.05	0.0660	633.71	0.0660	634.50	0.0660	635.29	0.0660	636.08	−0.0040	636.04	
984+50.00	633.11	0.0660	633.77	0.0660	634.56	0.0660	635.35	0.0660	636.14			
984+75.00	633.18	0.0660	633.84	0.0660	634.63	0.0660	635.42	0.0660	636.21			
985+00.00	633.24	0.0660	633.90	0.0660	634.69	0.0660	635.48	0.0660	636.27			
985+25.00	633.31	0.0660	633.97	0.0660	634.76	0.0660	635.55	0.0660	636.34			
985+50.00	633.37	0.0660	634.03	0.0660	634.82	0.0660	635.61	0.0660	636.40			
985+75.00	633.44	0.0660	634.10	0.0660	634.89	0.0660	635.68	0.0660	636.47			
986+00.00	633.50	0.0660	634.16	0.0660	634.95	0.0660	635.74	0.0660	636.53			
986+25.00	633.56	0.0660	634.22	0.0660	635.01	0.0660	635.80	0.0660	636.59			
986+50.00	633.63	0.0660	634.29	0.0660	635.08	0.0660	635.87	0.0660	636.66			
986+75.00	633.69	0.0660	634.35	0.0660	635.14	0.0660	635.93	0.0660	636.72			
987+00.00	633.76	0.0660	634.42	0.0660	635.21	0.0660	636.00	0.0660	636.79			
987+25.00	633.82	0.0660	634.48	0.0660	635.27	0.0660	636.06	0.0660	636.85			
987+50.00	633.89	0.0660	634.55	0.0660	635.34	0.0660	636.13	0.0660	636.92			
987+75.00	632.95	0.0660	633.61	0.0660	634.40	0.0660	635.19	0.0660	636.98			
988+00.00	634.02	0.0660	634.68	0.0660	635.47	0.0660	636.26	0.0660	637.05			

Station	Inside Shoulder 20' Lt.	Inside Shoulder Slope	Inside Lane 30' Lt.	Inside Lane Slope	Middle Lane Profile Grade 42' Lt.	Middle Lane Slope	Middle Lane 54' Lt.	Outside Lane Slope	Outside Lane 66' Lt.	Outside Shoulder Slope	Outside Shoulder 76' Lt.	Notes
988+25.00	634.07	0.0660	634.73	0.0660	635.52	0.0660	636.31	0.0660	637.10			
988+50.00	634.13	0.0660	634.79	0.0660	635.58	0.0660	636.37	0.0660	637.16			
988+75.00	634.17	0.0660	634.83	0.0660	635.62	0.0660	636.41	0.0660	637.20			
989+00.00	634.21	0.0660	634.87	0.0660	635.66	0.0660	636.45	0.0660	637.24			
989+25.00	634.24	0.0660	634.90	0.0660	635.69	0.0660	636.48	0.0660	637.27			
989+50.00	634.26	0.0660	634.92	0.0660	635.71	0.0660	636.50	0.0660	637.29			
989+75.00	634.27	0.0660	634.93	0.0660	635.72	0.0660	636.51	0.0660	637.30			
990+00.00	634.28	0.0660	634.94	0.0660	635.73	0.0660	636.52	0.0660	637.31			
990+25.00	634.28	0.0660	634.94	0.0660	635.73	0.0660	636.52	0.0660	637.31			
990+50.00	634.27	0.0660	634.93	0.0660	635.72	0.0660	636.51	0.0660	637.30			
990+75.00	634.25	0.0660	634.91	0.0660	635.70	0.0660	636.49	0.0660	637.28			
991+00.00	634.23	0.0660	634.89	0.0660	635.68	0.0660	636.47	0.0660	637.26			
991+25.00	634.20	0.0660	634.86	0.0660	635.65	0.0660	636.44	0.0660	637.23			
991+50.00	634.15	0.0660	634.81	0.0660	635.60	0.0660	636.39	0.0660	637.18			
991+75.00	634.11	0.0660	634.77	0.0660	635.56	0.0660	636.35	0.0660	637.14			
992+00.00	634.05	0.0660	634.71	0.0660	635.50	0.0660	636.29	0.0660	637.08			
992+25.00	633.99	0.0660	634.65	0.0660	635.44	0.0660	636.23	0.0660	637.02			
992+50.00	633.93	0.0660	634.59	0.0660	635.38	0.0660	636.17	0.0660	636.96			
992+75.00	633.87	0.0660	634.53	0.0660	635.32	0.0660	636.11	0.0660	636.90	−0.0040	636.86	
993+00.00	633.81	0.0660	634.47	0.0660	635.26	0.0660	636.05	0.0660	636.84	−0.0040	636.80	
993+25.00	633.75	0.0660	634.41	0.0660	635.20	0.0660	635.99	0.0660	636.78	−0.0040	636.74	
993+50.00	633.69	0.0660	634.35	0.0660	635.14	0.0660	635.93	0.0660	636.72	−0.0040	636.68	
993+75.00	633.63	0.0660	634.29	0.0660	635.08	0.0660	635.87	0.0660	636.66	−0.0040	636.62	
994+00.00	633.57	0.0660	634.23	0.0660	635.02	0.0660	635.81	0.0660	636.60	−0.0040	636.56	
994+25.00	633.51	0.0660	634.17	0.0660	634.96	0.0660	635.75	0.0660	636.54	−0.0040	636.50	
994+50.00	633.45	0.0660	634.11	0.0660	634.90	0.0660	635.69	0.0660	636.48	−0.0040	636.44	
994+75.00	633.39	0.0660	634.05	0.0660	634.84	0.0660	635.63	0.0660	636.42	−0.0040	636.38	
995+00.00	633.33	0.0660	633.99	0.0660	634.78	0.0660	635.57	0.0660	636.36	−0.0040	636.32	
995+25.00	633.27	0.0660	633.93	0.0660	634.72	0.0660	635.51	0.0660	636.30	−0.0040	636.26	
995+50.00	633.21	0.0660	633.87	0.0660	634.66	0.0660	635.45	0.0660	636.24	−0.0040	636.20	
995+75.00	633.15	0.0660	633.81	0.0660	634.60	0.0660	635.39	0.0660	636.18	−0.0040	636.14	
996+00.00	633.09	0.0660	633.75	0.0660	634.54	0.0660	635.33	0.0660	636.12	−0.0040	636.08	
996+25.00	633.03	0.0660	633.69	0.0660	634.48	0.0660	635.27	0.0660	636.06	−0.0040	636.02	
996+50.00	632.97	0.0660	633.63	0.0660	634.42	0.0660	635.21	0.0660	636.00	−0.0040	635.96	
996+75.00	632.91	0.0660	633.57	0.0660	634.36	0.0660	635.15	0.0660	635.94	−0.0040	635.90	
997+00.00	632.85	0.0660	633.51	0.0660	634.30	0.0660	635.09	0.0660	635.88	−0.0040	635.84	
997+25.00	632.79	0.0660	633.45	0.0660	634.24	0.0660	635.03	0.0660	635.82	−0.0040	635.78	
997+50.00	632.73	0.0660	633.39	0.0660	634.18	0.0660	634.97	0.0660	635.76	−0.0040	635.72	
997+72.69	632.68	0.0660	633.34	0.0660	634.13	0.0660	634.92	0.0660	635.71	−0.0040	635.67	End Full Superelevation
997+75.00	632.68	0.0656	633.33	0.0656	634.12	0.0656	634.91	0.0656	635.70	−0.0044	635.65	
998+00.00	632.70	0.0616	633.32	0.0616	634.06	0.0616	634.80	0.0616	635.54	−0.0084	635.45	
998+25.00	632.73	0.0576	633.31	0.0576	634.00	0.0576	634.69	0.0576	635.38	−0.0124	635.26	
998+50.00	632.76	0.0536	633.30	0.0536	633.94	0.0536	634.58	0.0536	635.23	−0.0164	635.06	
998+75.00	632.79	0.0496	633.29	0.0496	633.88	0.0496	634.47	0.0496	635.07	−0.0204	634.87	
999+00.00	632.82	0.0456	633.27	0.0456	633.82	0.0456	634.37	0.0456	634.91	−0.0244	634.67	
999+08.77	632.83	0.0442	633.27	0.0442	633.80	0.0442	634.33	0.0442	634.86	−0.0258	634.60	P.C.C.
999+25.00	632.84	0.0417	633.26	0.0415	633.76	0.0415	634.26	0.0415	634.76	−0.0285	634.47	
999+50.00	632.83	0.0417	633.25	0.0375	633.70	0.0375	634.15	0.0375	634.60	−0.0325	634.28	
999+75.00	632.82	0.0417	633.24	0.0335	633.64	0.0335	634.04	0.0335	634.44	−0.0365	634.08	
1000+00.00	632.81	0.0417	633.23	0.0295	633.58	0.0295	633.93	0.0295	634.29	−0.0405	633.88	
1000+25.00	632.80	0.0417	633.21	0.0255	633.52	0.0255	633.83	0.0255	634.13	−0.0417	633.71	
1000+50.00	632.79	0.0417	633.20	0.0215	633.46	0.0215	633.72	0.0215	633.98	−0.0417	633.56	
1000+53.58	632.78	0.0417	633.20	0.0208	633.45	0.0208	633.70	0.0208	633.95	−0.0417	633.53	All Lanes at 0.0208
1000+75.00	632.73	0.0417	633.15	0.0208	633.40	0.0174	633.61	0.0174	633.82	−0.0417	633.40	
1000+85.89	632.70	0.0417	633.12	0.0208	633.37	0.0156	633.56	0.0156	633.74	−0.0417	633.33	2 Lanes at 0.0156
1001+00.00	632.67	0.0417	633.09	0.0208	633.34	0.0156	633.53	0.0140	633.70	−0.0417	633.28	
1001+25.00	632.61	0.0417	633.03	0.0208	633.28	0.0156	633.47	0.0113	633.60	−0.0417	633.19	
1001+50.00	632.55	0.0417	632.97	0.0208	633.22	0.0156	633.41	0.0085	633.51	−0.0417	633.09	
1001+75.00	632.49	0.0417	632.91	0.0208	633.16	0.0156	633.35	0.0057	633.42	−0.0417	633.00	
1002+00.00	632.43	0.0417	632.85	0.0208	633.10	0.0156	633.29	0.0029	633.32	−0.0417	632.91	
1002+25.00	632.37	0.0417	632.79	0.0208	633.04	0.0156	633.23	0.0001	633.23	−0.0417	632.81	
1002+26.29	632.37	0.0417	632.79	0.0208	633.04	0.0156	633.23	0.0000	633.23	−0.0417	632.81	Outside Lane Flat
1002+50.00	632.31	0.0417	632.73	0.0208	632.98	0.0156	633.17	−0.0026	633.14	−0.0417	632.72	
1002+75.00	632.25	0.0417	632.67	0.0208	632.92	0.0156	633.11	−0.0054	633.04	−0.0417	632.63	
1003+00.00	632.19	0.0417	632.61	0.0208	632.86	0.0156	633.05	−0.0082	632.95	−0.0417	632.53	
1003+25.00	632.13	0.0417	632.55	0.0208	632.80	0.0156	632.99	−0.0110	632.86	−0.0417	632.44	
1003+50.00	632.07	0.0417	632.49	0.0208	632.74	0.0156	632.93	−0.0137	632.76	−0.0417	632.35	
1003+66.69	632.03	0.0417	632.45	0.0208	632.70	0.0156	632.89	−0.0156	632.70	−0.0417	632.28	Begin Normal Section
1003+75.00	632.01	0.0417	632.43	0.0208	632.68	0.0156	632.87	−0.0156	632.68	−0.0417	632.26	
1004+00.00	631.95	0.0417	632.37	0.0208	632.62	0.0156	632.81	−0.0156	632.62	−0.0417	632.20	
1004+00.00	631.95	0.0417	632.37	0.0208	632.62	0.0156	632.81	−0.0156	632.62	−0.0417	632.20	
1004+25.00	631.89	0.0417	632.31	0.0208	632.56	0.0156	632.75	−0.0156	632.56	−0.0417	632.14	

0 50' 100
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

SUPERELEVATION TABLE
WESTBOUND LANES

LOR - I90 - 10.76

RECONSTRUCTED 3RD LANE WIDEN PROFILE GRADE ELEVATIONS
(EXISTING PROFILE GRADE ELEVATION = PROPOSED PROFILE GRADE ELEVATION)

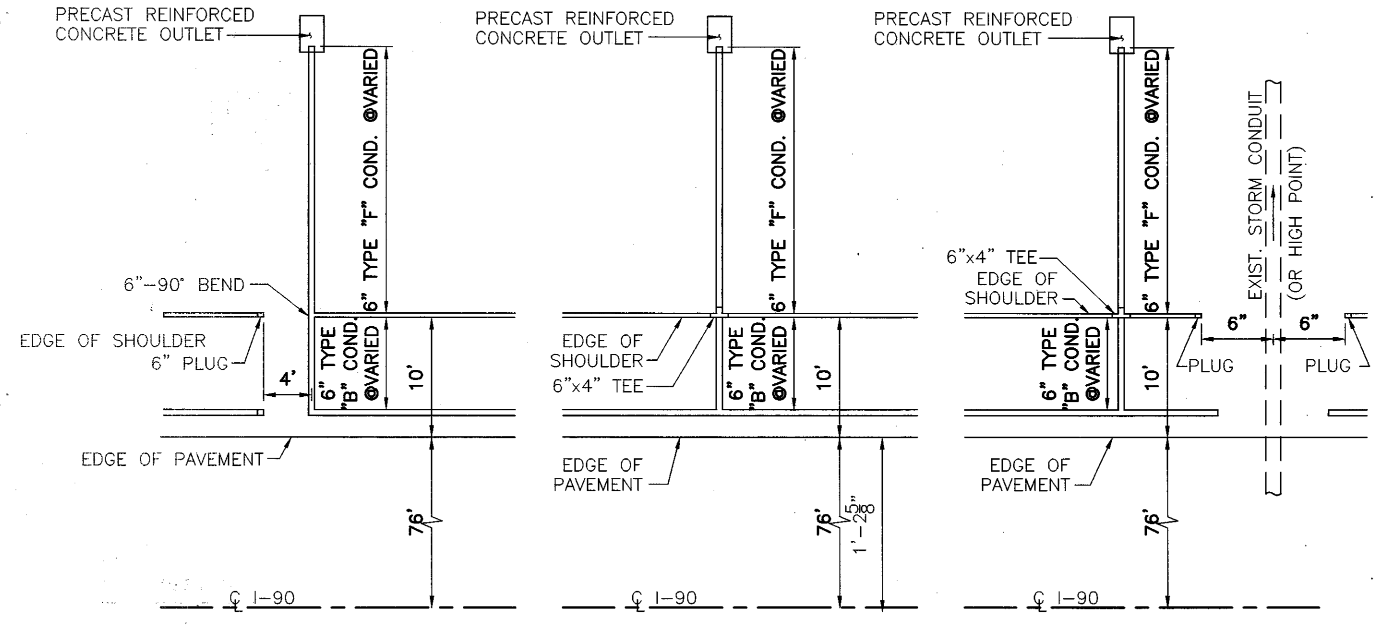
STATION	WEST BOUND				EAST BOUND			
	ELEVATION PROFILE GRADE ELEVATION	CROWN POINT ELEVATION	OUTSIDE EDGE OF PAVEMENT ELEVATION	OUTSIDE EDGE OF SHOULDER ELEVATION	ELEVATION PROFILE GRADE ELEVATION	CROWN POINT ELEVATION	OUTSIDE EDGE OF PAVEMENT ELEVATION	OUTSIDE EDGE OF SHOULDER ELEVATION
1018+00	634.96	635.15	634.96	634.54	635.00	635.19	635.00	634.58
1019+00	635.00	635.19	635.00	634.58	635.00	635.19	635.00	634.58
1020+00	635.50	635.69	635.50	635.08	635.50	635.69	635.50	635.08
1021+00	635.17	635.36	635.17	634.75	634.99	635.18	634.99	634.57
1022+00	635.61	635.80	635.61	635.19	635.43	635.62	635.43	635.01
1023+00	635.79	635.98	635.79	635.37	635.51	635.70	635.51	635.09
1024+00	635.90	636.09	635.90	635.48	635.71	635.90	635.71	635.29
1025+00	636.03	636.22	636.03	635.61	636.03	636.22	636.03	635.61
1026+00	636.23	636.42	636.23	635.81	636.23	636.42	636.23	635.81
1027+00	636.69	636.88	636.69	636.27	636.51	636.70	636.51	636.09
1028+00	636.94	637.13	636.94	636.52	636.79	636.98	636.79	636.37
1029+00	637.58	637.77	637.58	637.16	637.03	637.22	637.03	636.09
1030+00	637.53	637.72	637.53	637.11	637.26	637.45	637.26	636.61
1031+00	637.73	637.92	637.73	637.31	637.54	637.73	637.54	637.12
1032+00	637.90	638.09	637.90	637.48	637.68	637.87	637.68	637.26
1033+00	638.61	638.80	638.61	638.19	638.63	638.82	638.63	638.21
1034+00	638.89	639.08	638.89	638.47	638.85	639.04	638.85	638.43
1035+00	639.08	639.27	639.08	638.66	639.14	639.33	639.14	638.72

0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

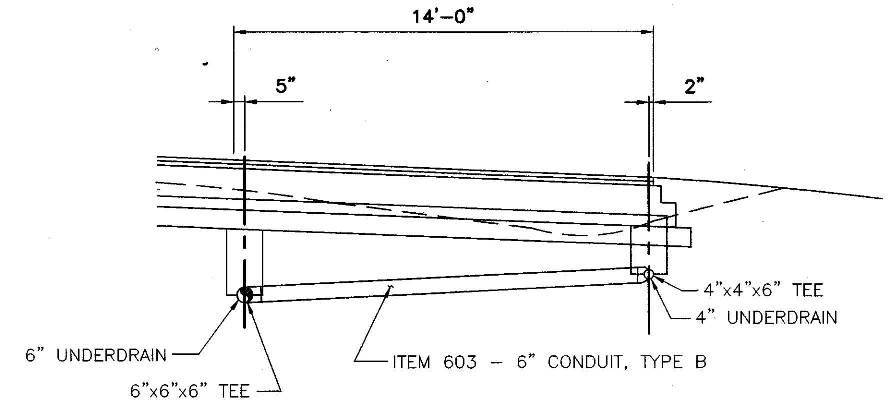
PROFILE GRADE ELEVATIONS (RECONSTRUCTED)

LOR - 190 - 10.76



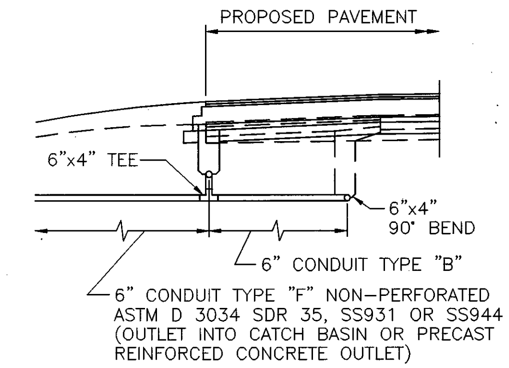
OUTSIDE EDGE UNDERDRAIN OUTLET DETAILS

N.T.S.



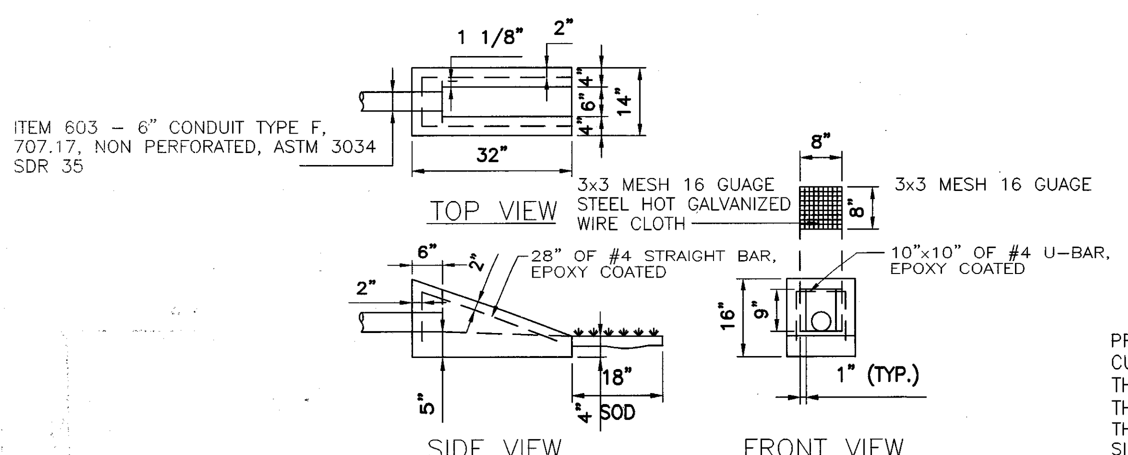
EDGE OF SHOULDER UNDERDRAIN TIE–INS TO EDGE OF PAVEMENT UNDERDRAINS

N.T.S.



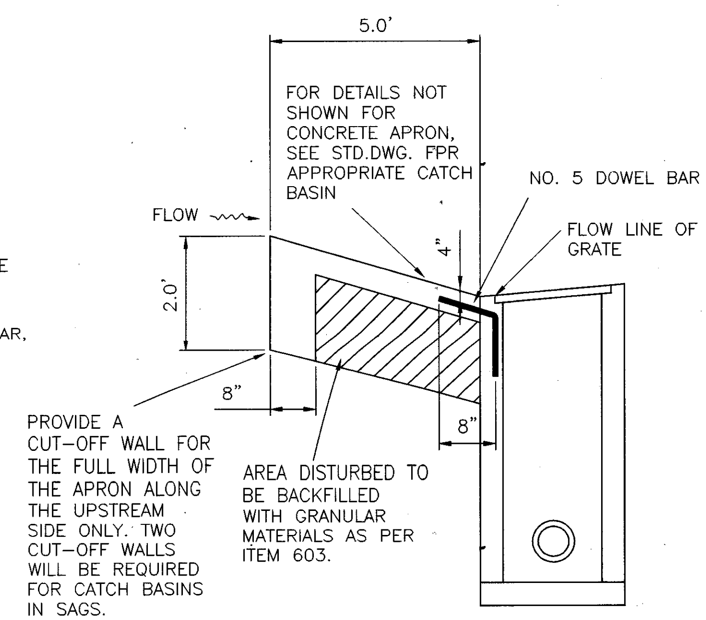
CONNECTION TO EXISTING UNDERDRAIN DETAILS

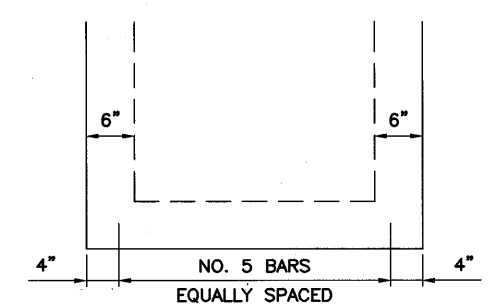
N.T.S.



ITEM SPECIAL – PRECAST REINFORCED CONCRETE OUTLET

N.T.S.





BAR LOCATION DETAIL

N.T.S.

NOTES:

1. THE METHOD OF CONSTRUCTION OF THESE CATCH BASINS CAN BE EITHER CAST–IN–PLACE OR PRECAST.
2. FOR DETAILS NOT SHOWN SEE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS OR ORIGINAL CONSTRUCTION PLANS.
3. WHERE APPLICABLE THE REQUIREMENTS OF ITEM 604 SHALL GOVERN THE REPLACEMENT OF THE EXISTING CATCH BASIN. THE CONCRETE APRON SHALL BE REPLACED AND BACKFILL AS SHOWN HERE AND IN THE STANDARD DRAWING FOR THE PERTINENT CATCH BASIN.
4. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN ITEM SPECIAL – MISC. DRAINAGE AND SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, TOOLS, AND EQUIPMENT INCIDENTAL TO COMPLETE THIS ITEM OF WORK.
5. THE FURNISHING AND PLACING OF STEEL FOR THE 5/8" x 1/2" DOWEL BARS SHALL BE PER 509 REINFORCING STEEL. THE DOWEL BARS SHALL BE EPOXY COATED PER 509.10. THE DOWEL BARS SHALL BE INSTALLED PER 510 OR CAST INTO THE BASIN. BOLT IN INSERTS MAY BE USED. THE 6" CONCRETE APRON SHALL BE REINFORCED PER 601.04(3).

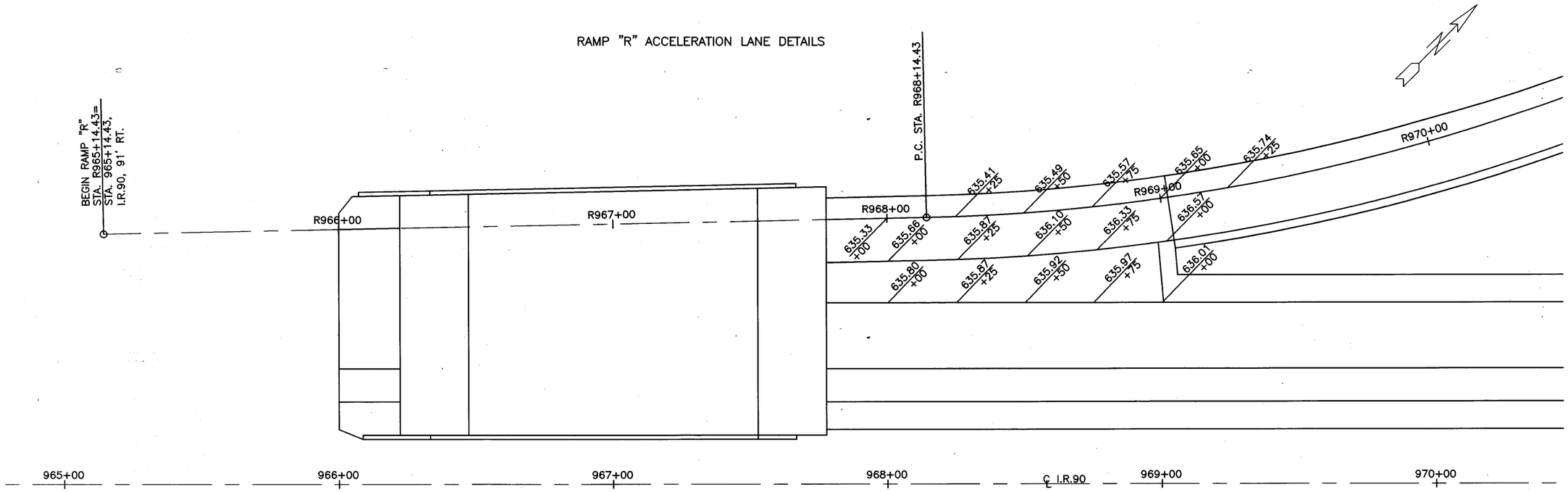
0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

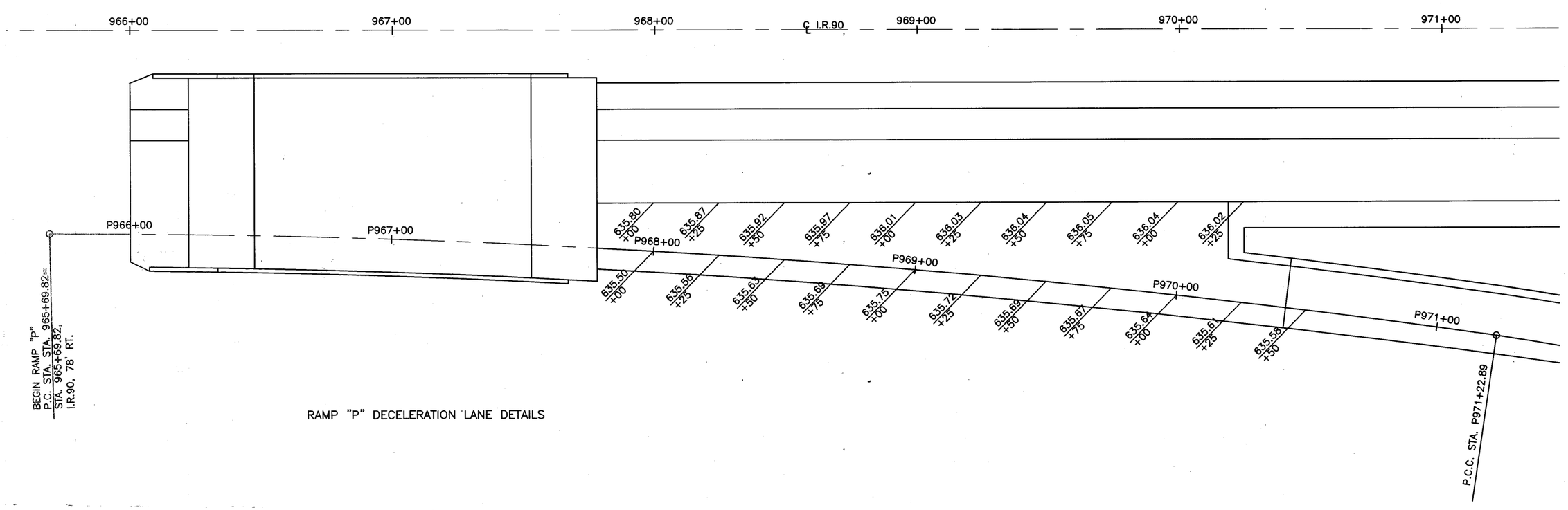
DRAINAGE DETAIL

LOR - I90 - 10.76

RAMP "R" ACCELERATION LANE DETAILS



RAMP "P" DECELERATION LANE DETAILS



HORIZONTAL SCALE IN FEET
0 20' 40'

CALCULATED DLS
CHECKED LAB

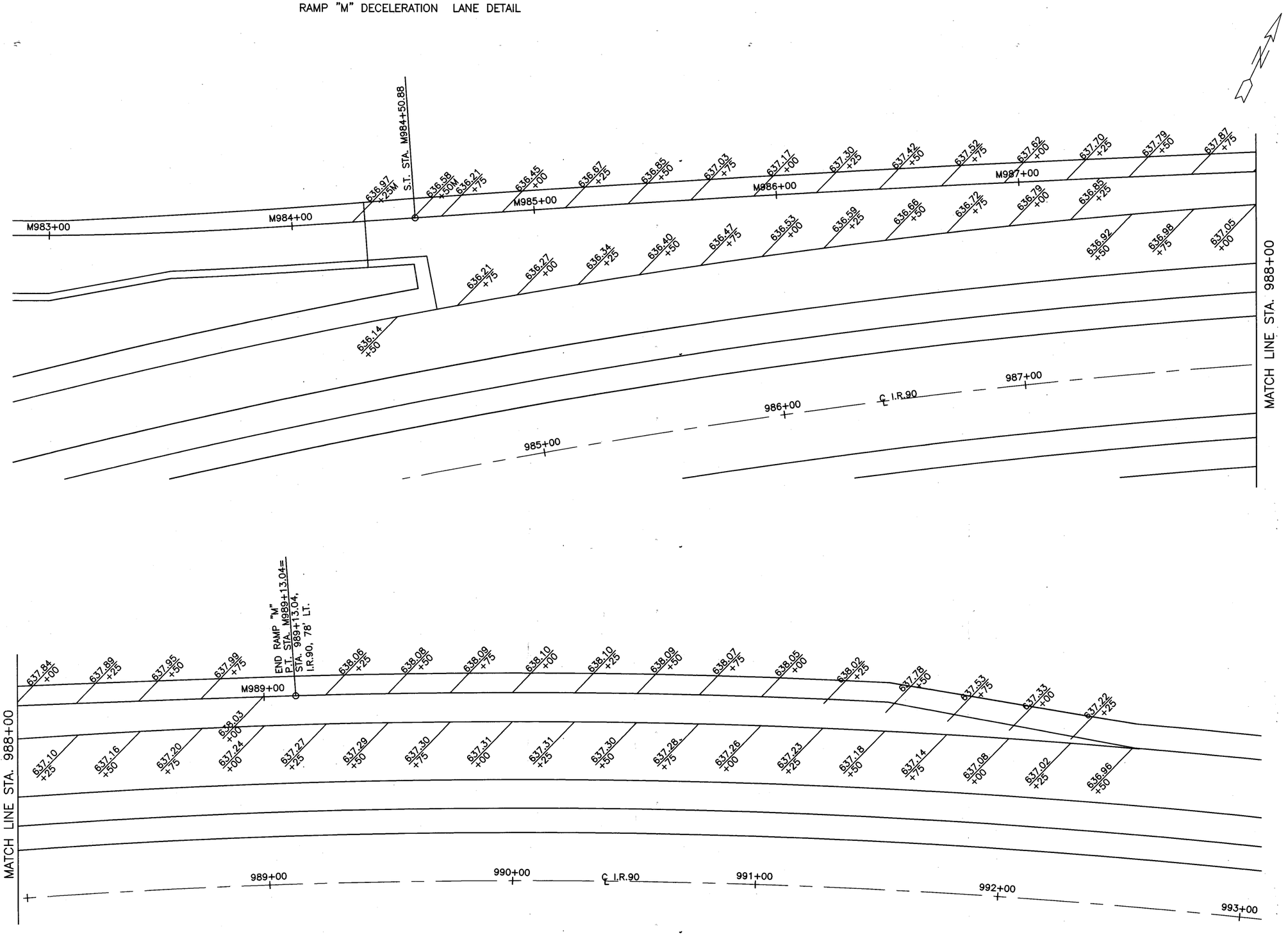
ACCELERATION AND DECELERATION LANE ELEVATION DETAILS

LOR - I90 - 10.76

233
274

08-2022 4:13PM

RAMP "M" DECELERATION LANE DETAIL



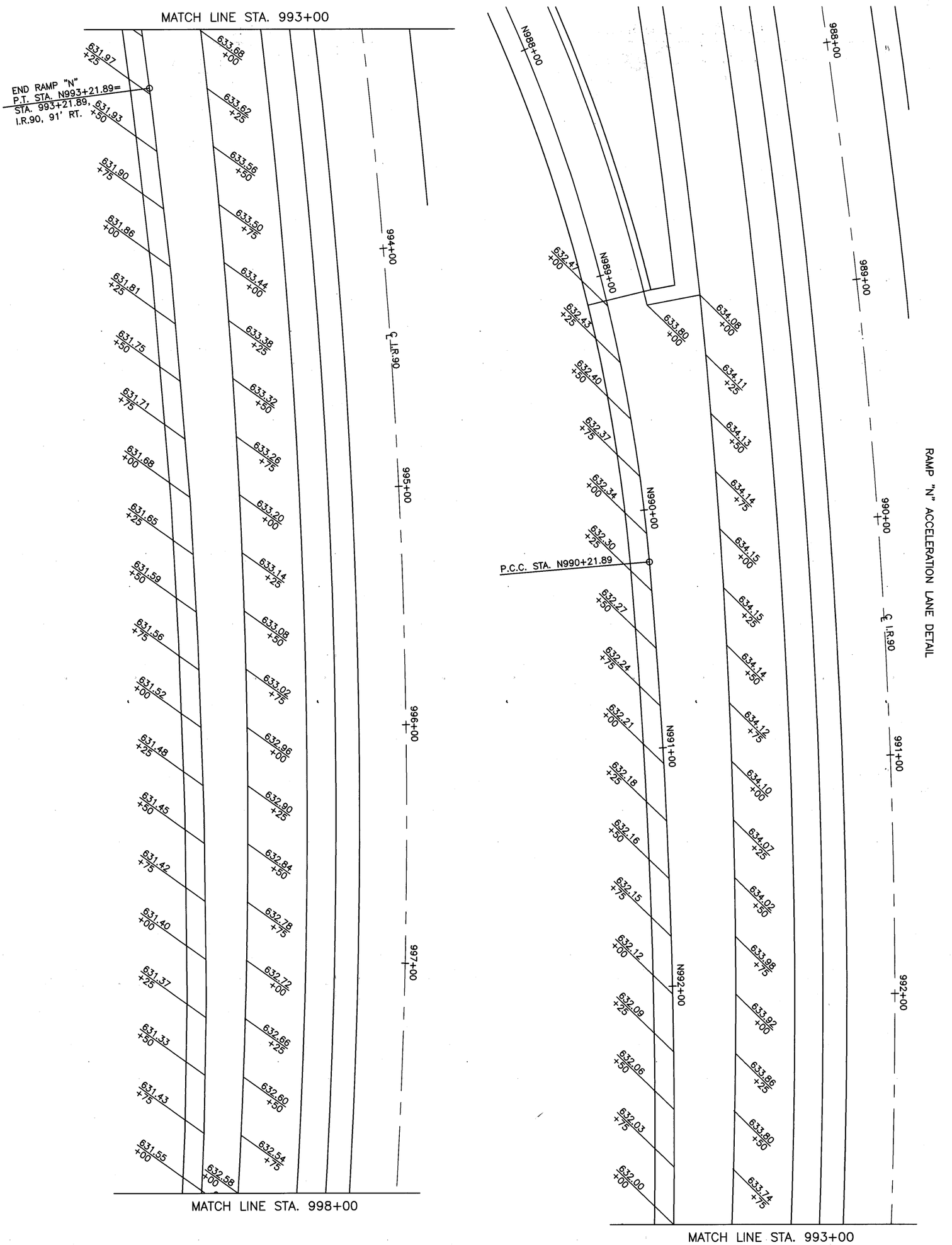
CALCULATED DLS | CHECKED LAB

HORIZONTAL SCALE IN FEET
0 20' 40'

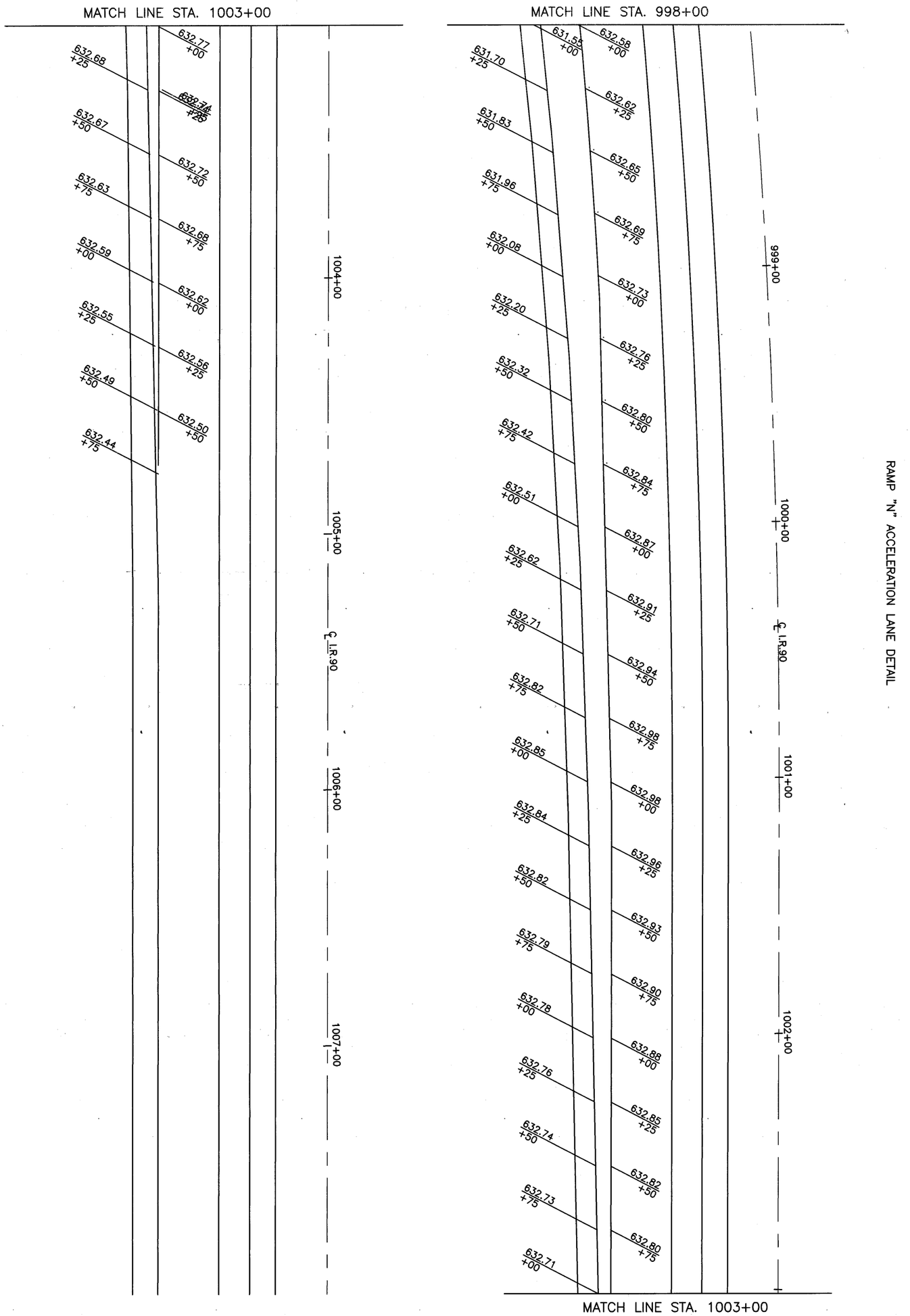
ACCELERATION AND DECELERATION LANE ELEVATION DETAILS

LOR - I90 - 10.76

234
274



235 / 274	LOR - I90 - 10.76	ACCELERATION AND DECELERATION LANE ELEVATION DETAILS	CALCULATED DLS / CHECKED LAB	0 20' 40' HORIZONTAL SCALE IN FEET



RAMP "N" ACCELERATION LANE DETAIL

236
274

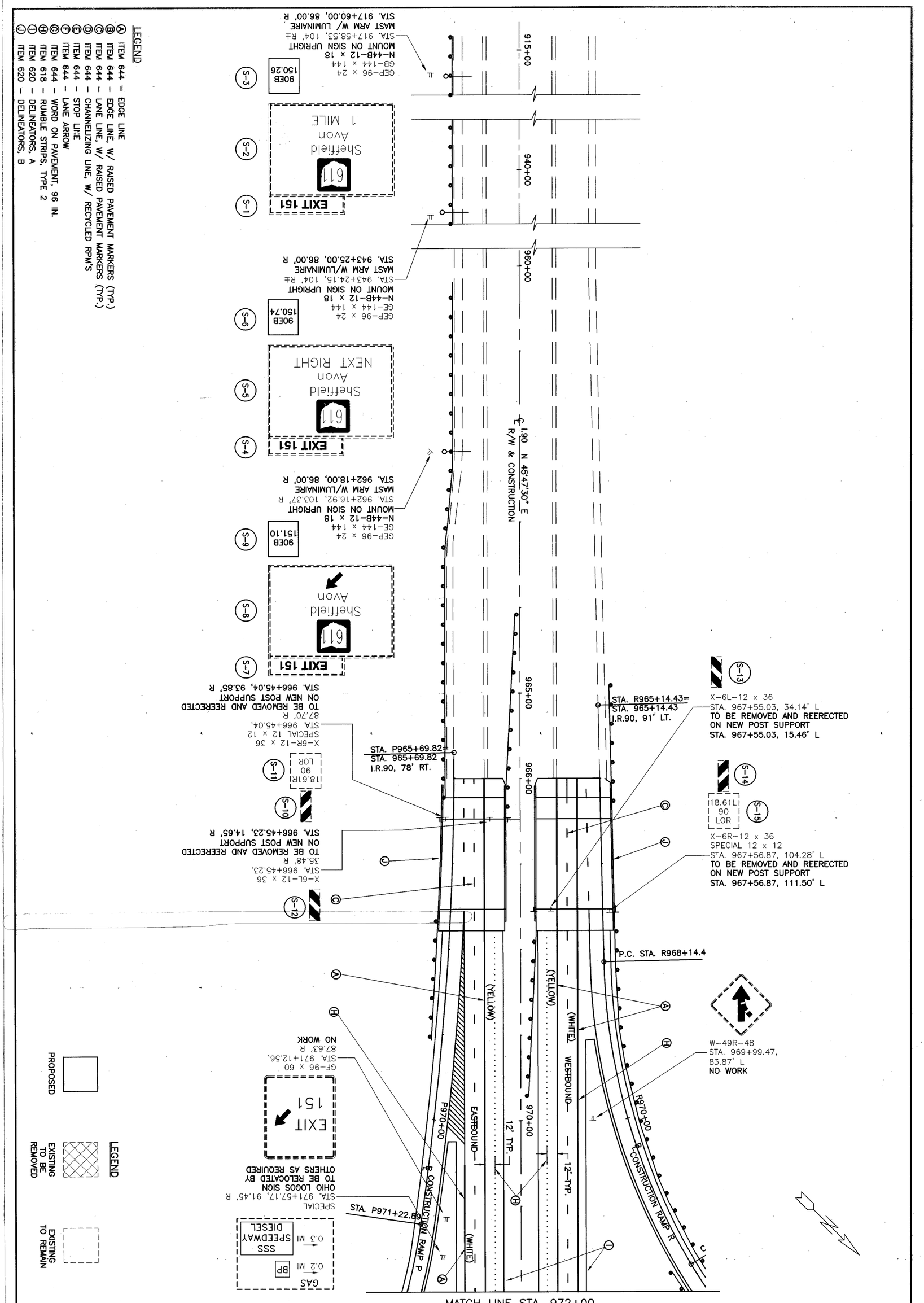
LOR - I90 - 10.76

ACCELERATION AND DECELERATION LANE ELEVATION DETAILS

CALCULATED DLS
CHECKED LAB

0 20' 40'
HORIZONTAL SCALE IN FEET

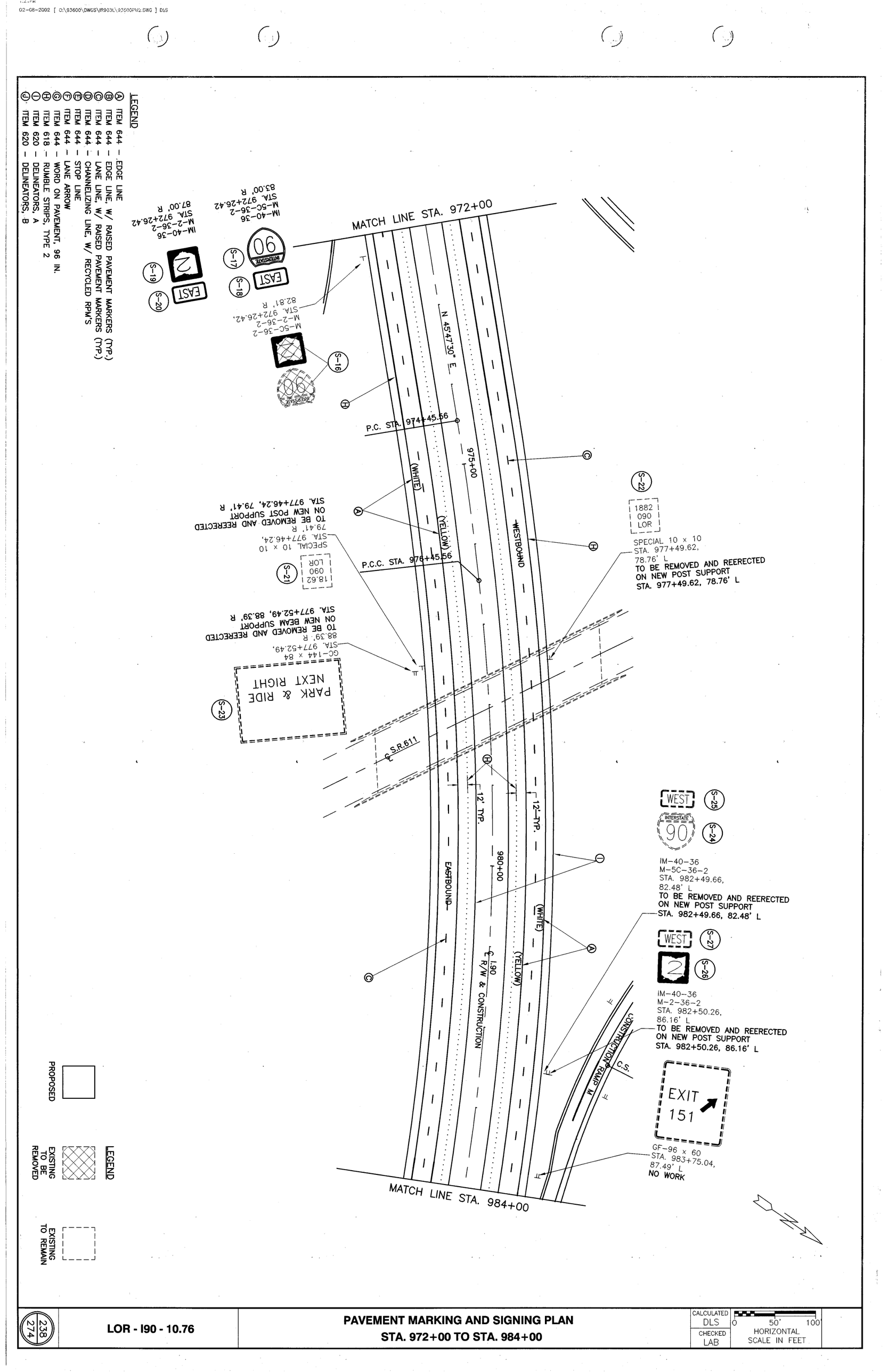
02-08-2002 1:03PM



PAVEMENT MARKING AND SIGNING PLAN
STA. 960+00 TO STA. 972+00

CALCULATED DLS
CHECKED LAB
0 50' 100
HORIZONTAL SCALE IN FEET

237
274



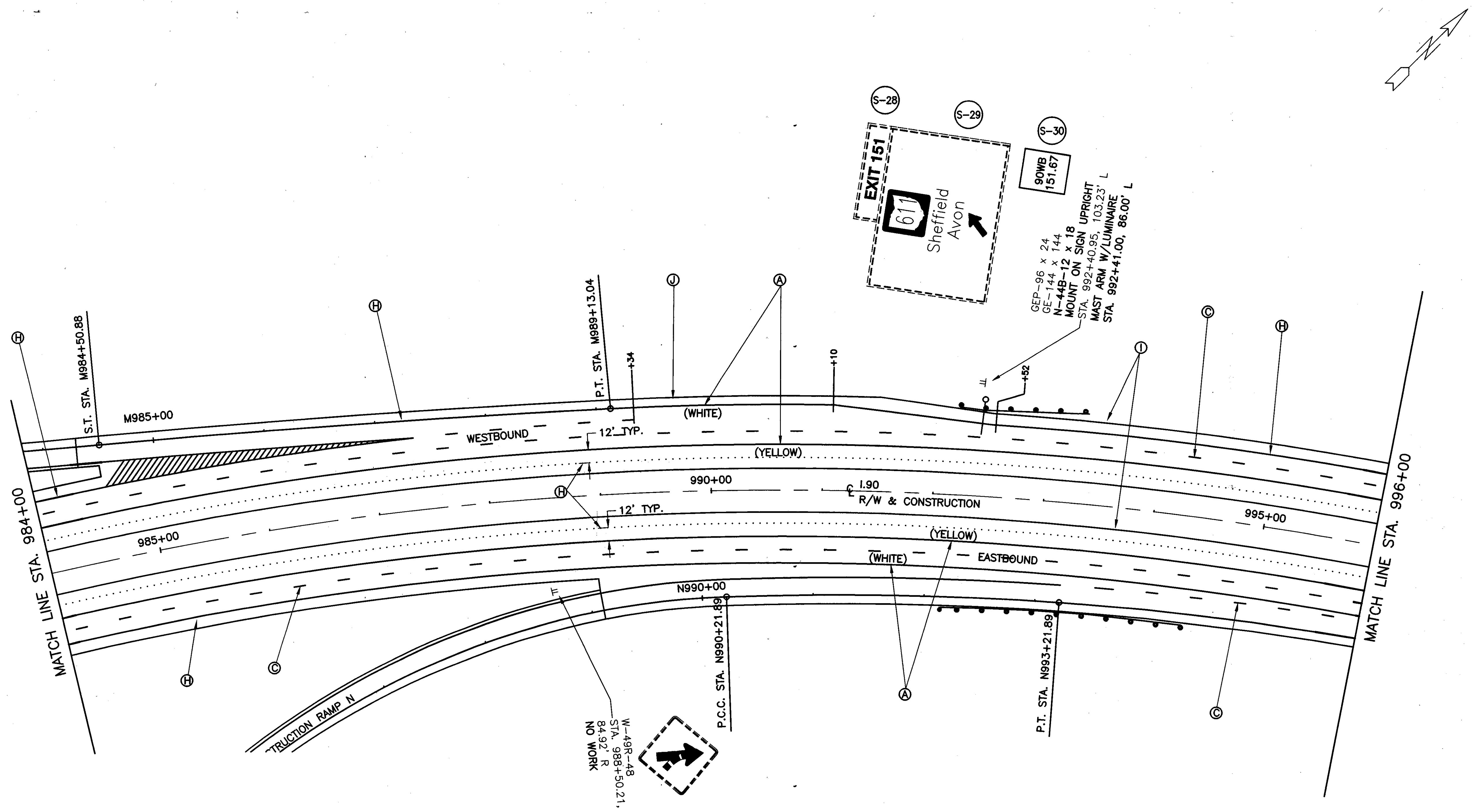
238
274

LOR - I90 - 10.76

PAVEMENT MARKING AND SIGNING PLAN
STA. 972+00 TO STA. 984+00

CALCULATED DLS
CHECKED LAB

0 50' 100
HORIZONTAL SCALE IN FEET



LEGEND

Ⓐ ITEM 644 – EDGE LINE
Ⓑ ITEM 644 – EDGE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
Ⓒ ITEM 644 – LANE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
Ⓓ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
Ⓔ ITEM 644 – STOP LINE
Ⓕ ITEM 644 – LANE ARROW
Ⓖ ITEM 644 – WORD ON PAVEMENT, 96 IN.
Ⓗ ITEM 618 – RUMBLE STRIPS, TYPE 2
Ⓘ ITEM 620 – DELINEATORS, A
Ⓙ ITEM 620 – DELINEATORS, B

LEGEND

PROPOSED	EXISTING TO BE REMOVED	EXISTING TO REMAIN

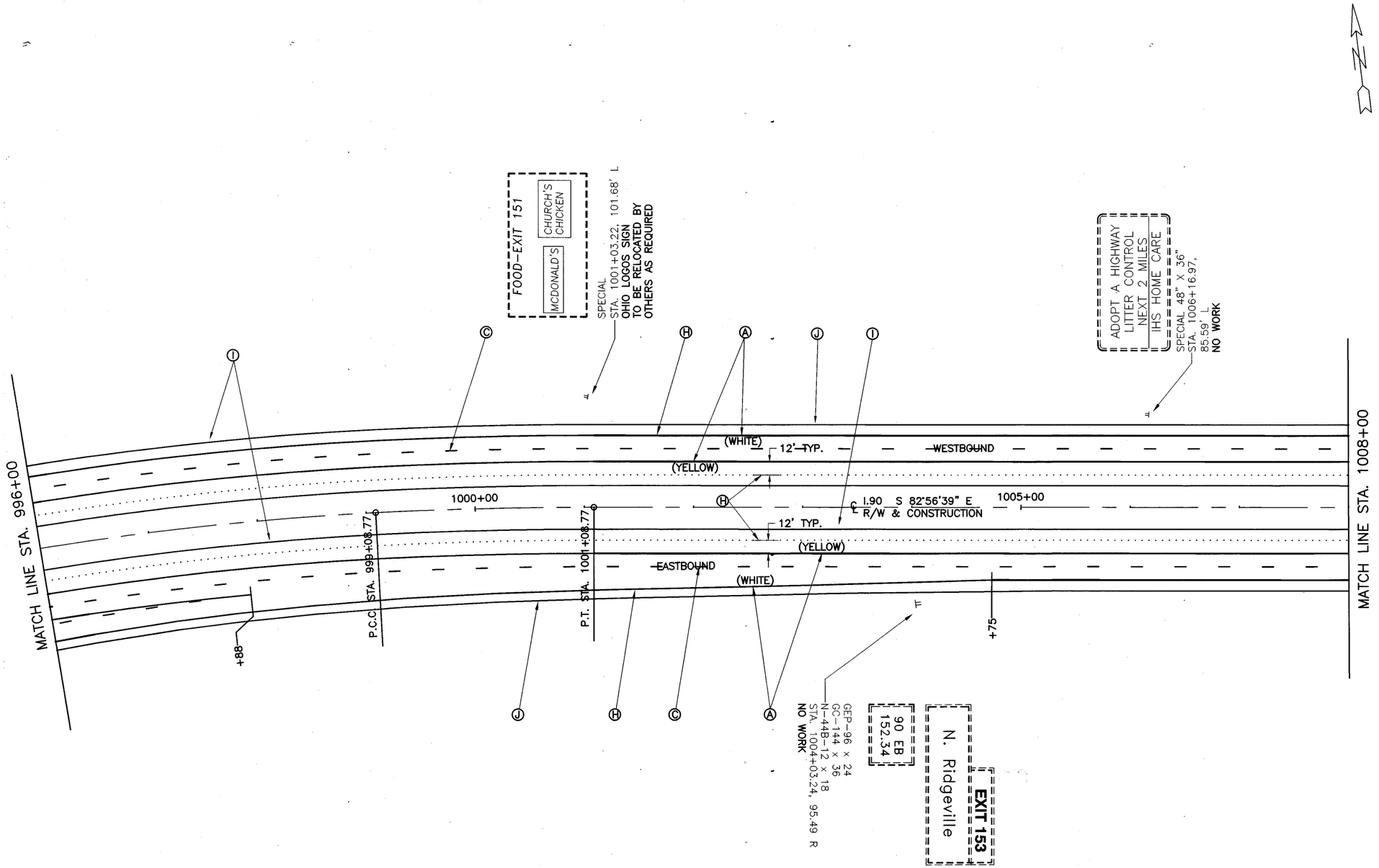
0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

PAVEMENT MARKING AND SIGNING PLAN
STA. 984+00 TO STA. 996+00

LOR - I90 - 10.76

07-19-2002 [O:\93600\DWGS\IR903L\93600PM3.DWG] DLS



LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- Ⓒ ITEM 644 – LANE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- Ⓓ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓔ ITEM 644 – STOP LINE
- Ⓕ ITEM 644 – LANE ARROW
- Ⓖ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓗ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓘ ITEM 620 – DELINEATORS, A
- Ⓙ ITEM 620 – DELINEATORS, B

LEGEND

PROPOSED

EXISTING TO BE REMOVED

EXISTING TO REMAIN

CALCULATED DLS
CHECKED LAB

0 50' 100
HORIZONTAL SCALE IN FEET

PAVEMENT MARKING AND SIGNING PLAN
STA. 996+00 TO STA. 1008+00

LOR - I90 - 10.76

LEGEND

- (A) ITEM 644 – EDGE LINE
- (B) ITEM 644 – EDGE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- (C) ITEM 644 – LANE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- (D) ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- (E) ITEM 644 – STOP LINE
- (F) ITEM 644 – LANE ARROW
- (G) ITEM 644 – WORD ON PAVEMENT, 96 IN.
- (H) ITEM 618 – RUMBLE STRIPS, TYPE 2
- (I) ITEM 620 – DELINEATORS, A
- (J) ITEM 620 – DELINEATORS, B

MATCH LINE STA. 1008+00

EXIT 151
611
Sheffield
Avon
1/2 MILE
(S-31) (S-32)

GEP-96 x 24
GE-156 x 144
N-44B-12 x 18
MOUNT ON SIGN UPRIGHT
MAST ARM W/LUMINAIRE
STA. 1009+05.00, 86.00' L
90WB 151.99 (S-33)

N-41-48
STA. 1009+71.34,
81.09' R
NO WORK

MILE 151

1010+00

N-41-48
STA. 1009+73.83,
82.39' L
NO WORK

(YELLOW)

(WHITE)

12' TYP.

12' TYP.

WESTBOUND

℄ I-90 S 82°56'39" E
R/W & CONSTRUCTION

(WHITE)

(YELLOW)

1015+00

Lorain
NEXT 5 EXITS
(S-34)

GA-1-144 x 60
STA. 1015+24.29,
89.82' L
TO BE REMOVED

LUMINAIRE TO BE ADDED,
MAST ARM
STA. 1015+06.58, 84.89' R
N-44B-12 x 18
GE-192 x 192
GEP-96 x 24

90EB 152.10

EXIT 153
83
Avon Lake
Avon
1 MILE
(S-38)

P.C. STA. 1016+45.31

EASTBOUND

EXIT 151
611
Sheffield
Avon
1 MILE
(S-35) (S-36)

90WB 152.49 (S-37)

GEP-96 x 24
GB-144 x 144
N-44B-12 x 18
MOUNT ON SIGN UPRIGHT
STA. 1035+45.00, 96' L
MAST ARM W/LUMINAIRE
STA. 1035+45.00, 86.00' L

1035+00

LEGEND

- PROPOSED
- EXISTING TO BE REMOVED
- EXISTING TO REMAIN

NOTE:

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE RAISED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 12' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. WHITE RAISED PAVEMENT STRIPES PAVEMENT MARKING SHALL BE AAPPLIED AS PER SPECIFICATIONS ITEM 644. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELING LINES AT EXIT RAMPS AS SHOWN, TO COMFORM TO ITEM 621.

LEGEND

- (A) ITEM 644 – EDGE LINE
- (B) ITEM 644 – EDGE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- (C) ITEM 644 – LANE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- (D) ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- (E) ITEM 644 – STOP LINE
- (F) ITEM 644 – LANE ARROW
- (G) ITEM 644 – WORD ON PAVEMENT, 96 IN.
- (H) ITEM 618 – RUMBLE STRIPS, TYPE 2
- (I) ITEM 620 – DELINEATORS, A
- (J) ITEM 620 – DELINEATORS, B

LEGEND

PROPOSED | EXISTING TO BE REMOVED | EXISTING TO REMAIN

CALCULATED DLS | CHECKED LAB

0 50' 100 HORIZONTAL SCALE IN FEET

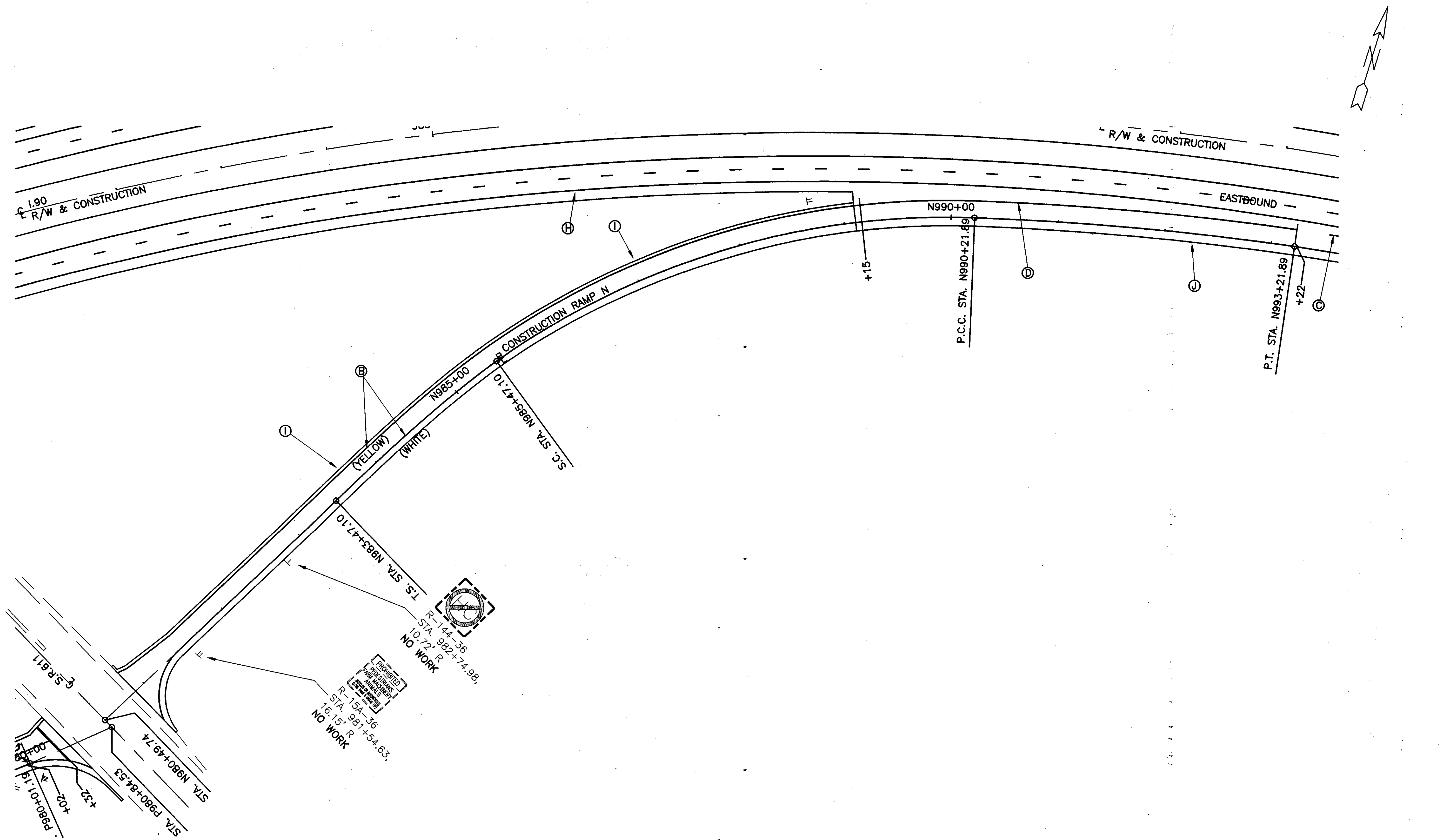
PLAN RAMP "M"

STA. M974+07.52 TO STA. M989+13.04

LOR - 190 - 10.76

242 / 274

07-19-2002 11:30AM



LEGEND

Ⓐ ITEM 644 – EDGE LINE
Ⓑ ITEM 644 – EDGE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
Ⓒ ITEM 644 – LANE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
Ⓓ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
Ⓔ ITEM 644 – STOP LINE
Ⓕ ITEM 644 – LANE ARROW
Ⓖ ITEM 644 – WORD ON PAVEMENT, 96 IN.
Ⓗ ITEM 618 – RUMBLE STRIPS, TYPE 2
Ⓘ ITEM 620 – DELINEATORS, A
Ⓙ ITEM 620 – DELINEATORS, B

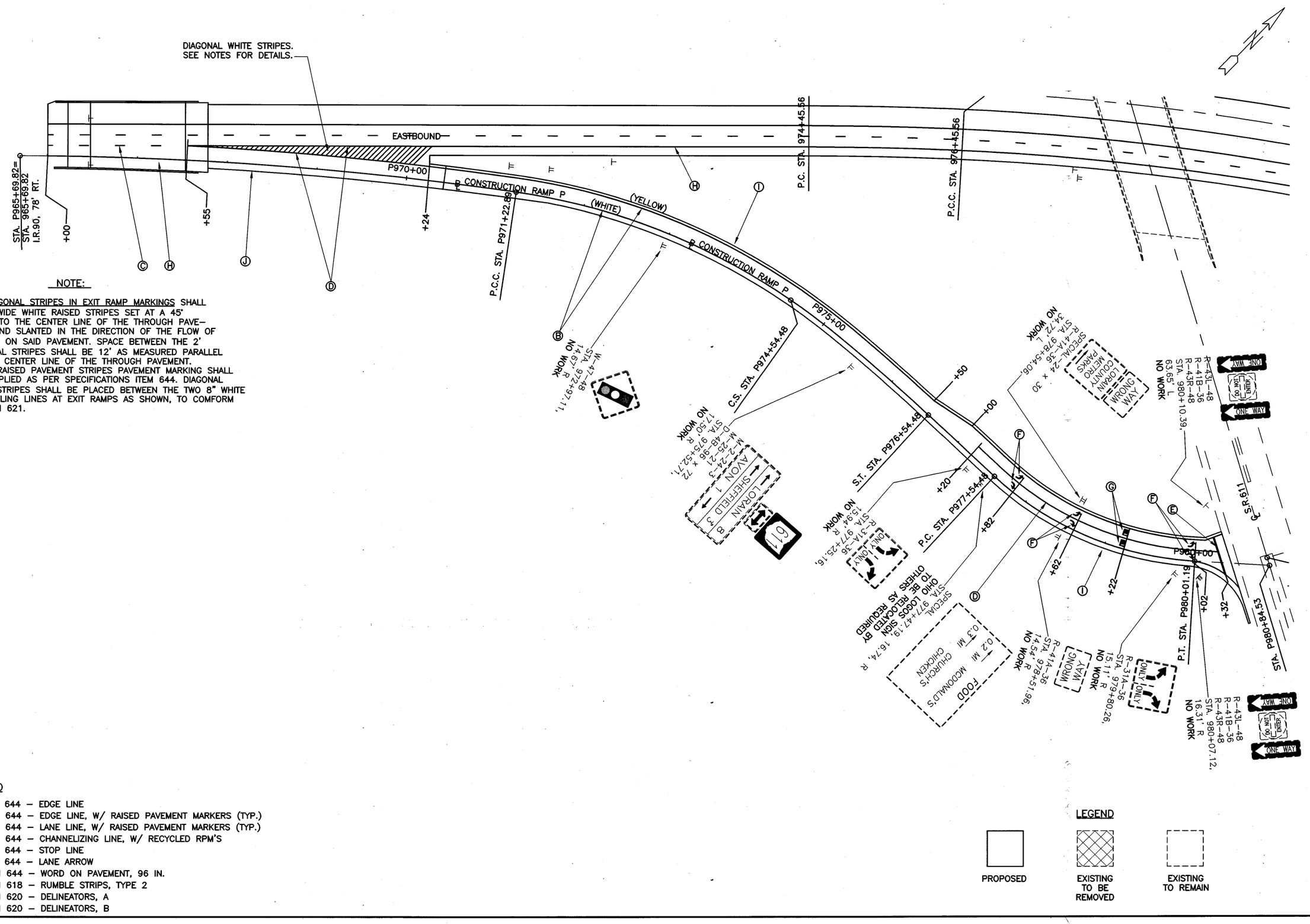
LEGEND

PROPOSED | EXISTING TO BE REMOVED | EXISTING TO REMAIN

CALCULATED DLS
CHECKED LAB

PLAN RAMP "N"
STA. N980+49.74 TO STA. N993+21.89

LOR - I90 - 10.76



NOTE:

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE RAISED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 12' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. WHITE RAISED PAVEMENT STRIPES PAVEMENT MARKING SHALL BE AAPPLIED AS PER SPECIFICATIONS ITEM 644. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELING LINES AT EXIT RAMPS AS SHOWN, TO COMFORM TO ITEM 621.

LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- Ⓒ ITEM 644 – LANE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- Ⓓ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓔ ITEM 644 – STOP LINE
- Ⓕ ITEM 644 – LANE ARROW
- Ⓖ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓗ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓘ ITEM 620 – DELINEATORS, A
- Ⓙ ITEM 620 – DELINEATORS, B

LEGEND

PROPOSED

EXISTING TO BE REMOVED

EXISTING TO REMAIN

CALCULATED DLS
CHECKED LAB

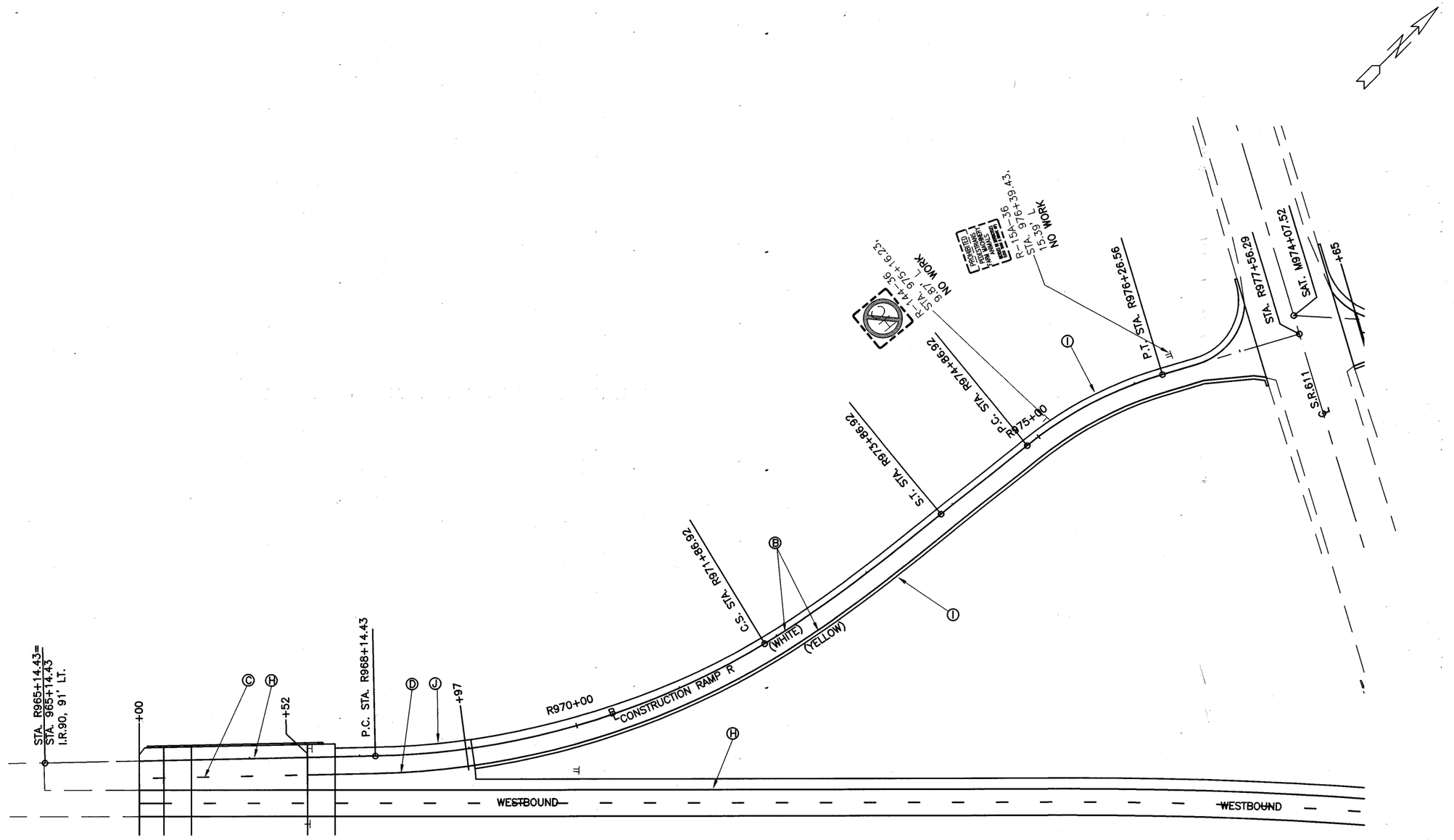
0 50' 100
HORIZONTAL SCALE IN FEET

PLAN RAMP "P"
STA. P965+69.82 TO STA. P980+84.53

LOR - I90 - 10.76

244
274

07-19-2022 11:30AM



LEGEND

- Ⓐ ITEM 644 – EDGE LINE
- Ⓑ ITEM 644 – EDGE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- Ⓒ ITEM 644 – LANE LINE, W/ RAISED PAVEMENT MARKERS (TYP.)
- Ⓓ ITEM 644 – CHANNELIZING LINE, W/ RECYCLED RPM'S
- Ⓔ ITEM 644 – STOP LINE
- Ⓕ ITEM 644 – LANE ARROW
- Ⓖ ITEM 644 – WORD ON PAVEMENT, 96 IN.
- Ⓗ ITEM 618 – RUMBLE STRIPS, TYPE 2
- Ⓘ ITEM 620 – DELINEATORS, A
- Ⓙ ITEM 620 – DELINEATORS, B

LEGEND

PROPOSED

EXISTING TO BE REMOVED

EXISTING TO REMAIN

CALCULATED DLS

CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100

PLAN RAMP "R"
STA. R965+14.43 TO STA. R977+56.29

LOR - I90 - 10.76

245
274

07-19-2002 11:30AM

NOTES

1. THE ALUMINUM CABINET SHALL BE A PEDESTAL MOUNTED SIZE 3 AS SHOWN IN TABLE 7.3-1 OF THE NEMA STANDARD PUBLICATION NO. TS 2-1992. THE NOMINAL DIMENSIONS ARE: 24 INCHES WIDE BY 40 INCHES HIGH BY 15 INCHES DEEP. IT SHALL BE SHEET ALUMINUM AS DETAILED IN SECTION 7.2.2.1 OR CAST ALUMINUM DETAILED IN SECTION 7.2.2.2. IT SHALL ALSO CONFORM TO SECTIONS: 7.4, 7.5 EXCEPT FOR 7.5.7, 7.6 WITH ONE SHELF, 7.7.3, 7.8.3 SIZE 5, 7.8.4. THE CABINET SHALL BE INSTALLED WITH INTERNAL COMPONENTS FOR THE WEIGH-IN-MOTION EQUIPMENT AS NECESSARY TO PROVIDE COMPLETE OPERATION OF THE WIM SYSTEM.

   A. IT SHALL BE EQUIPPED WITH TWO ADJUSTABLE "C" CHANNELS MOUNTED ON EACH OF THE THREE INTERIOR SIDES FOR THE PURPOSE OF MOUNTING TERMINAL STRIP PANELS AND SHELVING. FURNISH THE CABINETS WITH ONE ADJUSTABLE SHELF WHICH WILL NOT SAG WHEN LOADED WITH THE WIM ELECTRONICS. DESIGH THE SHELVING TO ALLOW FOR THE PASSAGE OF AIR. PLACE NO EQUIPMENT ON THE BOTTOM OF THE CABINET.

   B. MOUNT A GROUNDING STRIP TO THE TERMINAL STRIP PANEL ON THE CABINET WALL FOR CONNECTION OF ALL COMMON CONDUCTORS WITH THE STRIP GROUNDING TO THE GROUND ROD.

   C. INSTALL THE HOUSING CABINET AS TO ALLOW ALL EQUIPMENT TO STAND IN AN UPRIGHT POSITION WITH ALL EQUIPMENT AND DEVICES CAPABLE OF BEING REMOVED BY PULLING STRAIGHT OUT AND NOT TURNING SIDEWAYS AND WITHOUT RELOCATING OR DISCONNECTING ONE DEVICE TO REMOVE ANOTHER DEVICE.

   D. PROVIDE THAT ALL CONNECTIONS ARE MADE ON TERMINAL BLOCKS USING SOLDERED SPADE TYPE CONNECTORS. PROVIDE THAT ALL HOUSING CABINET WIRING AND TERMINALS ARE CLEARLY MARKED AND LABELED AS SHOWN ON THE CABINET WIRING DIAGRAM DETAILS. PROVIDE THAT WIRING IS LACED OR BOUND TOGETHER WITH SELF-LOCKING NYLON TIE-WRAPS. MAKE A LOOP NUMBERING DIAGRAM WITH CORRESPONDING TERMINAL NUMBERS FOR EACH SITE AND STORE IN A PLASTIC WEATHER PROOF ENVELOPE IN THE ENCLOSURE. PROVIDE A DUPLICATE DIAGRAM TO THE ODOT PROJECT INSPECTOR.

   E. INSTALL ALL HOUSING CABINETS SO AS TO WITHSTAND ALL WEATHER CONDITIONS AND PREVENT THE INTRUSION OF REPTILES, RODENTS AND INSECTS.

   F. THE CABINET SHALL INCLUDE A VENT, BUT NO FAN.

   G. MOUNTING FACILITIES SHALL INCLUDE ONE BACK PANEL WITH 5 HOLES (ALUMINUM).

   H. TERMINAL STRIPS MOUNTED HORIZONTALLY ON BACK PANEL 2" FROM TOP AND SIDES EQUIDISTANTLY SPACED FOR 2 LANE APPLICATIONS. SOLAR PANEL AND GROUND BAR TO BE MOUNTED 2" FROM BOTTOM AND LEFT OF BACK PANEL FOR ALL APPLICATIONS. 4-6 LANE APPLICATIONS TO HAVE ONE ROW OF TWO TERMINAL STRIPS MOUNTED HORIZONTALLY 2" FROM TOP AND SIDES OF BACK PLATE AND ONE ROW OF TWO TERMINAL STRIPS MOUNTED 8" FROM TOP AND 2" FROM SIDES OF BACK PLATE EQUIDISTANTLY SPACED. 8 LANE APPLICATIONS TO HAVE TWO ROWS OF THREE TERMINAL BLOCKS W/ 1ST ROW 2" FROM TOP AND SIDES OF BACK PLATE AND SECOND ROW 8" FROM TOP AND 2" FROM SIDES OF BACK PLATE EQUIDISTANTLY SPACED.

   I. LOCKS KEYED TO STATE MASTER.

2. THE CABINET SHALL BE ORIENTED SO THAT THE DOOR OPENS AWAY FROM THE ROADWAY, SO THAT FIELD TECHNICIAN CAN OBSERVE TRAFFIC WHILE WORKING ON THE SYSTEM.

NOTES

1. ALL LOOPS SHALL BE 6'x8'. LOOPS SHALL BE SPACED 16' FROM LEADING EDGE TO LEADING EDGE. INSTALLATION OF LOOPS SHALL CONFORM TO TC-82.10 AND TC-82.11.

2. THE PIEZOCABLE WIM SENSOR SHALL BE MADE BY MEASUREMENT SPECIALITIES ROAD TRAX BRASS LINGUINI (BL) CLASS I AXLE SENSOR OR EQUIVALENT. THE II FOOT SENSOR SHALL BE CENTERED IN THE 12 FOOT LANE.

3. THE ALUMINUM CONTROLLER CABINET SHALL BE A PEDESTAL MOUNTED NEMA SIZE 3 AS SHOWN ON THE NEMA SIZE 3 CABINET DETAILS SHEET. (ATTATCHMENT F)

4. CABLE AND WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH 632.04. IDENTIFICATION SHALL INCLUDE THE DIRECTION OF TRAVEL (I.E., NB, WB) AND THE LOOP NUMBER AS SHOWN.. EACH CABLE AND WIRE SHALL HAVE 5' COILED IN THE CONTROLLER CABINET FOR CONNECTION TO THE DATA COLLECTION SYSTEM.

5. ADJACENT LOOPS (TRANSVERSE AND LONGITUDINAL) SHALL BE INSTALLED IN OPPOSITE DIRECTIONS, I.E., LOOP 1 AND LOOP 4, CLOCKWISE AND LOOP 2 AND LOOP 3 COUNTERCLOCKWISE. EACH LOOP SHALL HAVE A SEPARATE LEAD-IN CABLE ROUTED TO THE CONTROLLER CABINET AND TAGGED.

6. REFERENCE IS MADE TO STANDARD DRAWING HL-30.11M FOR DETAILS OF DRAINING PULLBOXES. UNDERDRAINS FOR PULLBOXES 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'.

7. FIVE (5) WORKING DAYS PRIOR TO THE SCHEDULED INSTALLATION, THE CONTRACTOR SHALL CONTACT OFFICE OF TECH. SERVICES AT 614-466-3727.

8. ALL ITEMS SHALL CONFORM TO C&M SPECIFICATIONS 625, 713, 632, 732, 633 AND 733, UNLESS OTHERWISE SPECIFIED.

9. FOR ASPHALT PAVEMENT , LOOPS AND PIEZOCABLES SHALL BE CUT IN THE ASPHALT SURFACE COURSE. THEY SHALL NOT BE INSTALLED BETWEEN THE INTERMEDIATE AND SURFACE COURSES.

10. PIEXOCABLES SHALL BE INSTALLED WHEN THE TEMP. IS ABOVE 60 DEGREES FAHRENHEIT, OR SPECIAL PROVISION MADE TO ENSURE CURING OF EPOXY TAKES PLACE.

11. THE SOLAR PANEL SHALL BE INSTALLED WITH 2" RIGID CONDUIT MOUNTED IN CONCRETE BASE WITH PANEL BEING AT A MIN. HEIGHT ABOVE GROUND LEVEL OF 15'. SOLAR PANEL OUTPUT CABLE SHALL BE SECURED AND ROUTED TO THE INSIDE OF THE CABINET FOR CONNECTION TO TERMINAL BLOCK. SOLAR PANEL SHALL BE MOUNTED AT A 45° ANGLE FACING SOUTH.

12. SOLAR PANEL SHALL BE A SOLAREX MODEL VLX 32 (32 WATTS) OR AN APPROVED EQUAL WITH MOUNTING HARDWARE AND CABLES.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND TESTING THE PHONE DROP INSIDE OF THE CONTROLLER CABINET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHARGES INCURRED PRIOR TO THE TRANSFER OF THE TELEPHONE ACCOUNT. THE CONTRACTOR SHALL COORDINATE WITH ODOT, TELECOMMUNICATIONS, MR. MIKE WIGGINS (614-466-4452) TO TRANSFER THE TELEPHONE ACCOUNT AND THE BILLING RESPONSIBILITY FROM THE CONTRACTOR TO ODOT.

14. ALL SENSORS ARE TO BE TESTED BY O.D.O.T. PERSONNEL AFTER THE INSTALLATION IS COMPLETE SO AS TO VERIFY THAT THE STATION IS UP AND OPERATING PROPERLY. IF THE ELECTRONIC EQUIPMENT DOES NOT PERFORM PROPERLY BECAUSE OF A POORLY INSTALLED SENSOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE FAULTLY SENSOR, AS SOON AS POSSIBLE AT HIS OWN COST.

15. THE PULL BOX COVERS IN THE PAVED SHOULDER SHALL BE A HEAVY DUTY FRAME AND LID (NEENAH R-6686 OR APPROVED EQUAL). THE 18 AND 24 IN. PULL BOX, SHALL CONFORM TO 713.08

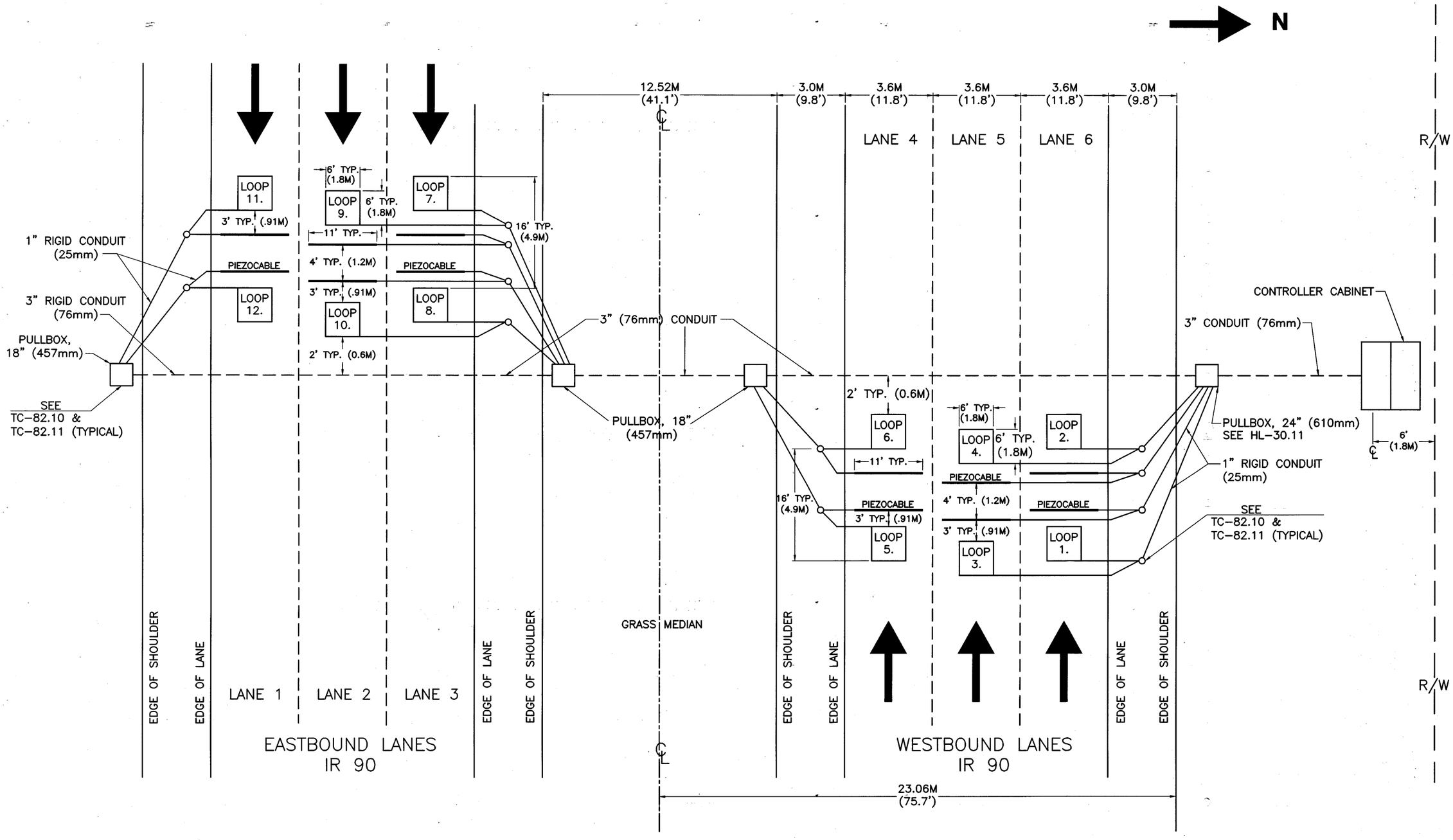
CALCULATED DLS | CHECKED LAB

AUTOMATIC TRAFFIC RECORDER
NOTES

LOR - 190 - 10.76

246
274

8:01AM
05-22-2002 [G:\93600\DWGS\R903L\93600TCD.DWG] DLS



AUTOMATIC TRAFFIC RECORDER INSTALLATION
6 LANE WEIGH-IN-MOTION STATION
IR-90, LOG POINT
DO3 SITE No 47-AA-W#

IR. 90 – 10.76
PROJECT NUMBER; 003015
ID #: 17891

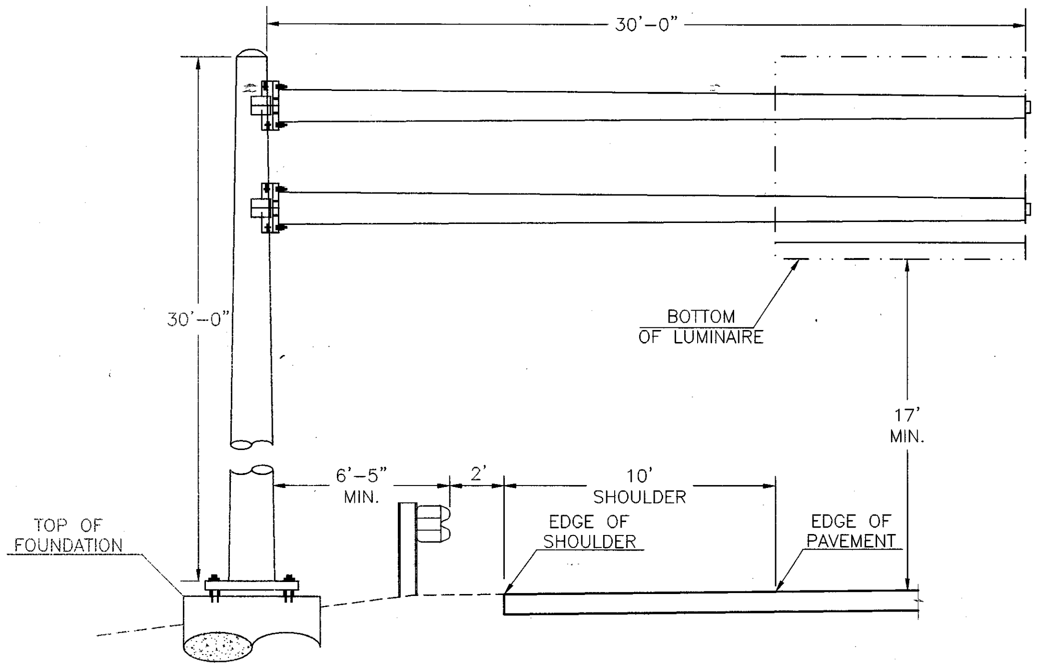
CALCULATED DLS | CHECKED LAB

AUTOMATIC TRAFFIC RECORDER PLAN SHEET FOR WEIGH IN MOTION UNIT

LOR - I90 - 10.76

246A
274

8:01AM
05-22-2002 [O:\93600\DWGS\XP903L\93600TCD.DWG] DLS



ELEVATION VIEW
NOT TO SCALE

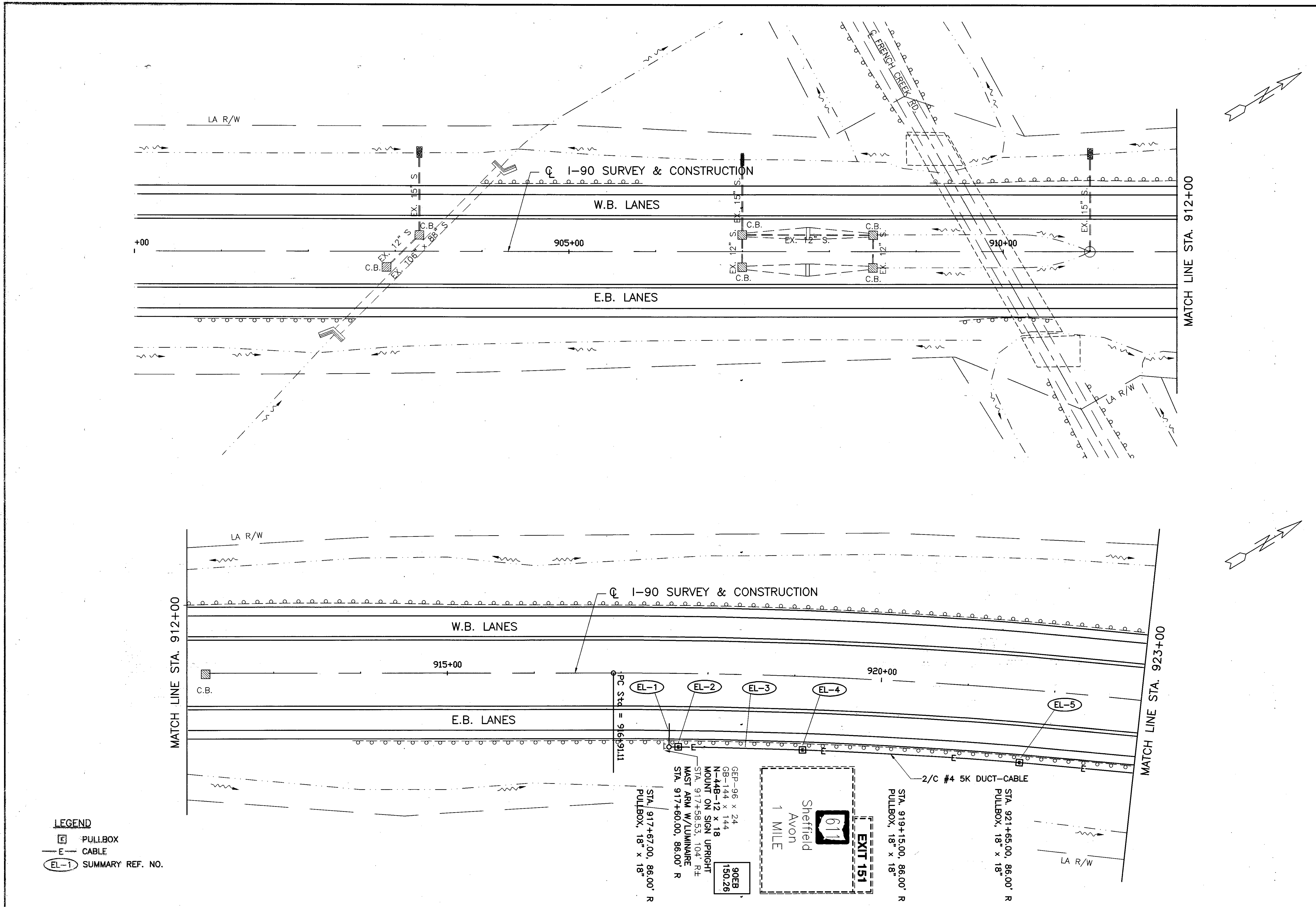
CANTILEVER OVERHEAD SIGN SUPPORT					
LOCATION	TC-12.30, DESIGN 10 OVERHEAD SIGN SUPPORT	ELEV. - TOP OF FOUNDATION	ELEV. - BOTTOM OF SIGN	ELEV. - EDGE OF SHOULDER	ELEV. - EDGE OF PAVEMENT
STA. 917+60.00, 86' RT.	1	645.25	665.85	647.84	648.34
STA. 943+25.00, 86' RT.	1	637.21	657.33	639.39	639.83
STA. 962+18.00, 86' RT.	1	633.05	651.85	633.93	634.35
STA. 992+41.00, 86' LT.	1	636.76	654.49	636.96	636.99
STA. 1009+05.00, 86' LT.	1	631.50	650.14	632.23	632.64
STA. 1035+45.00, 86' LT.	1	637.74	656.71	638.73	639.21

GROUND MOUNDED SUPPORT					
LOCATION	GROUND MOUNDED SUPPORT, W10x12 BEAM	ELEV. - BOTTOM OF SIGN	ELEV. - TOP OF ELEVATION, LT.	ELEV. - TOP OF ELEVATION, RT.	
STA. 977+52.49, 88.39' RT.	2	636.60	630.60	629.85	

CALCULATED DLS
CHECKED LAB

MISCELLANEOUS DETAILS

LOR - I90 - 10.76

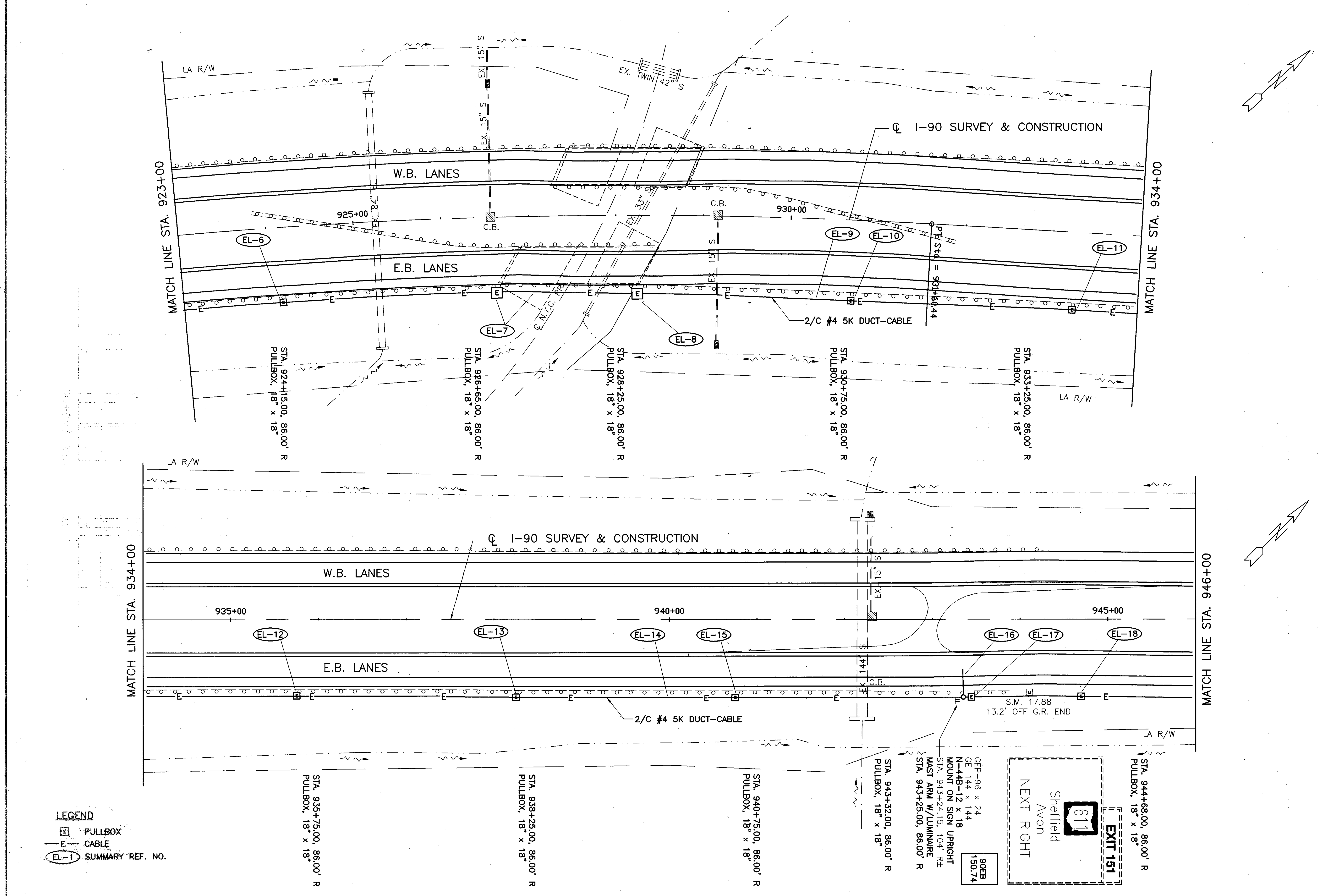


0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

LIGHTING PLAN
STA. 885+00 TO STA. 923+00

LOR - I90 - 10.76



CALCULATED DLS

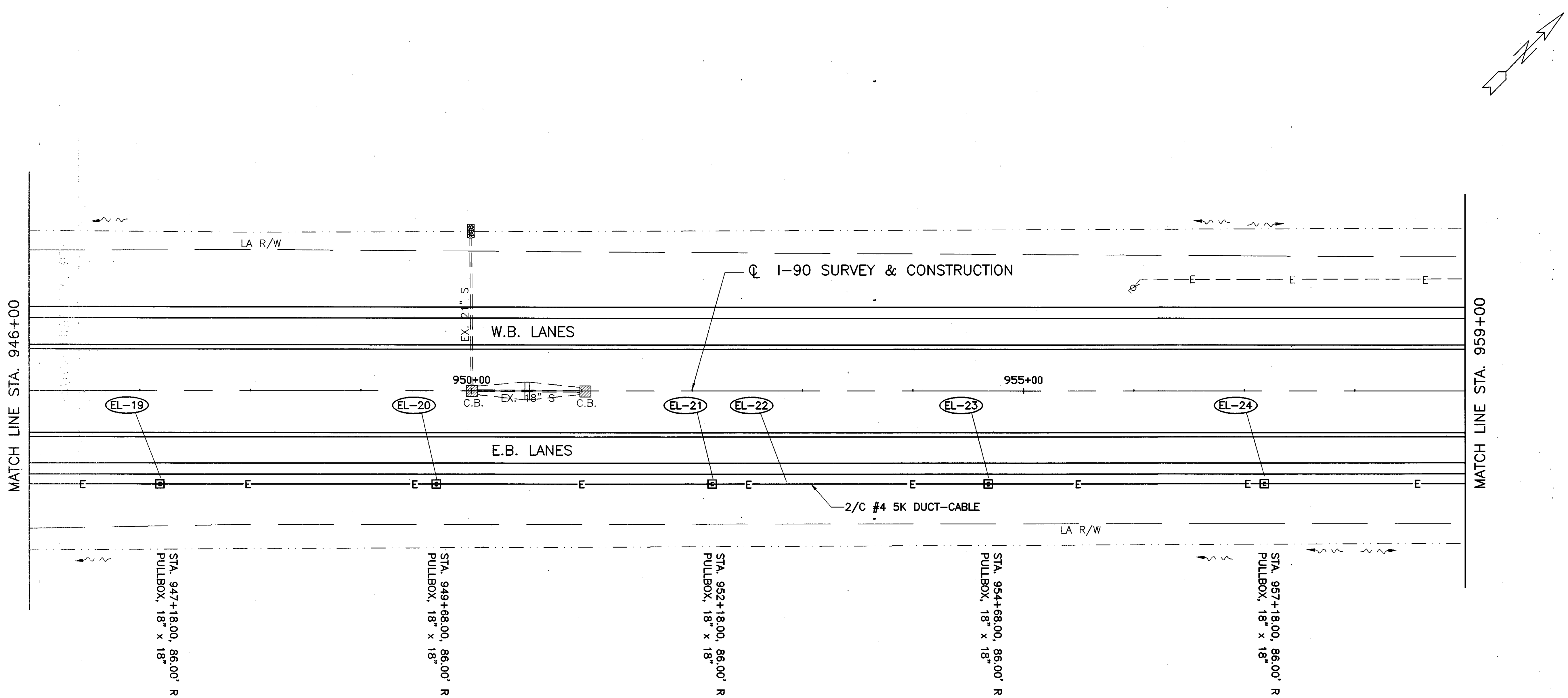
CHECKED LAB

0 50' 100

HORIZONTAL SCALE IN FEET

LIGHTING PLAN
STA. 923+00 TO STA. 946+00

LOR - I90 - 10.76



LEGEND

- E PULLBOX
- —E— CABLE
- (EL-1) SUMMARY REF. NO.

0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED DLS
CHECKED LAB

LIGHTING PLAN
STA. 946+00 TO STA. 959+00

LOR - I90 - 10.76

MATCH LINE STA. 959+00

960+00

965+00

970+00

MATCH LINE STA. 972+00

EX. LA

STA. R965+14.43=
STA. 965+14.43
I.R.90, 91' LT.

EX. 15"S

P.C. STA. R968+14.4

R970+00

℄ CONSTRUCTION RAMP R

WESTBOUND

℄ I-90 N 45°47'30" E
℄ R/W & CONSTRUCTION

EX. 12"S

EX. 12"S

EASTBOUND

P970+00

℄ CONSTRUCTION RAMP P

EL-25 EL-26 EL-27 EL-28 EL-29 EL-30 EL-31

2/C #4 5K DUCT-CABLE

EX. LA

STA. 959+68.00, 87.00' R
PULLBOX, 18" x 18"

STA. 962+25.00, 87.00' R
PULLBOX, 18" x 18"

STA. 962+16.92, 103.37' R
MAST ARM W/LUMINAIRE
STA. 962+18.00, 86.00' R

GEP-96 x 24
GE-144 x 144
N-44B-12 x 18
MOUNT ON SIGN UPRIGHT

90EB
151.10

611
Sheffield
Avon

EXIT 151

STA. 963+04.00, 87.00' R
PULLBOX, 18" x 18"

STA. P965+69.82=
STA. 965+69.82
78', 90.1' RT.

STA. 966+50.32, 94.97' R
EX. PULLBOX
REMOVE & REPLACE
PULLBOX, 18" x 18"

EX. LA

FRENCH CREEK

STA. 967+49.32, 98.58' R
EX. PULLBOX
REMOVE & REPLACE
PULLBOX, 18" x 18"

STA. P971+22.89

LEGEND

- E PULLBOX
- —E— CABLE
- (EL-1) SUMMARY REF. NO.

CALCULATED DLS | CHECKED LAB

0 50' 100
HORIZONTAL SCALE IN FEET

LIGHTING PLAN
STA. 959+00 TO STA. 972+00

LOR - I90 - 10.76

251
274

PHB18 2002-08-02

LEGEND

- [E] PULLBOX
- —E— CABLE
- (EL-1) SUMMARY REF. NO.

CALCULATED DLS
CHECKED LAB

0 50' 100
HORIZONTAL SCALE IN FEET

LIGHTING PLAN
STA. 972+00 TO STA. 984+00

LOR - I90 - 10.76

252
274

LEGEND

- E PULLBOX
- —E— CABLE
- (EL-1) SUMMARY REF. NO.

CALCULATED DLS | CHECKED LAB

0 50' 100
HORIZONTAL SCALE IN FEET

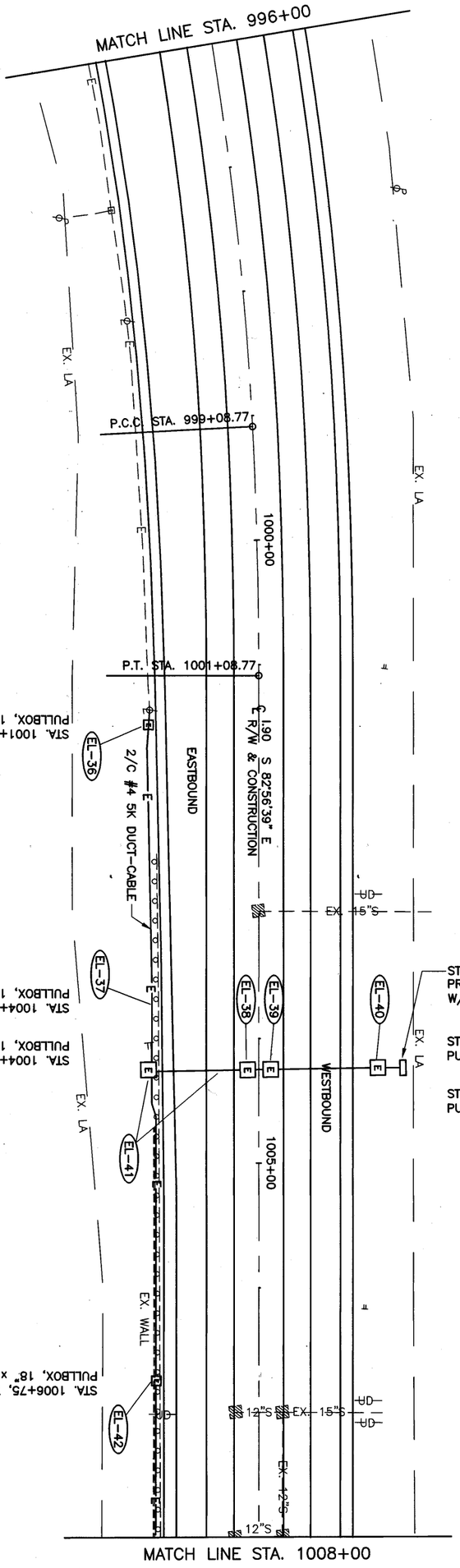
LIGHTING PLAN
STA. 984+00 TO STA. 996+00

LOR - I90 - 10.76

253
274

05-22-2002
[O:\93600\DWGS\IR903L\93600EL7.DWG] DLS

LEGEND
E PULLBOX
—E— CABLE
EL-1 SUMMARY REF. NO.



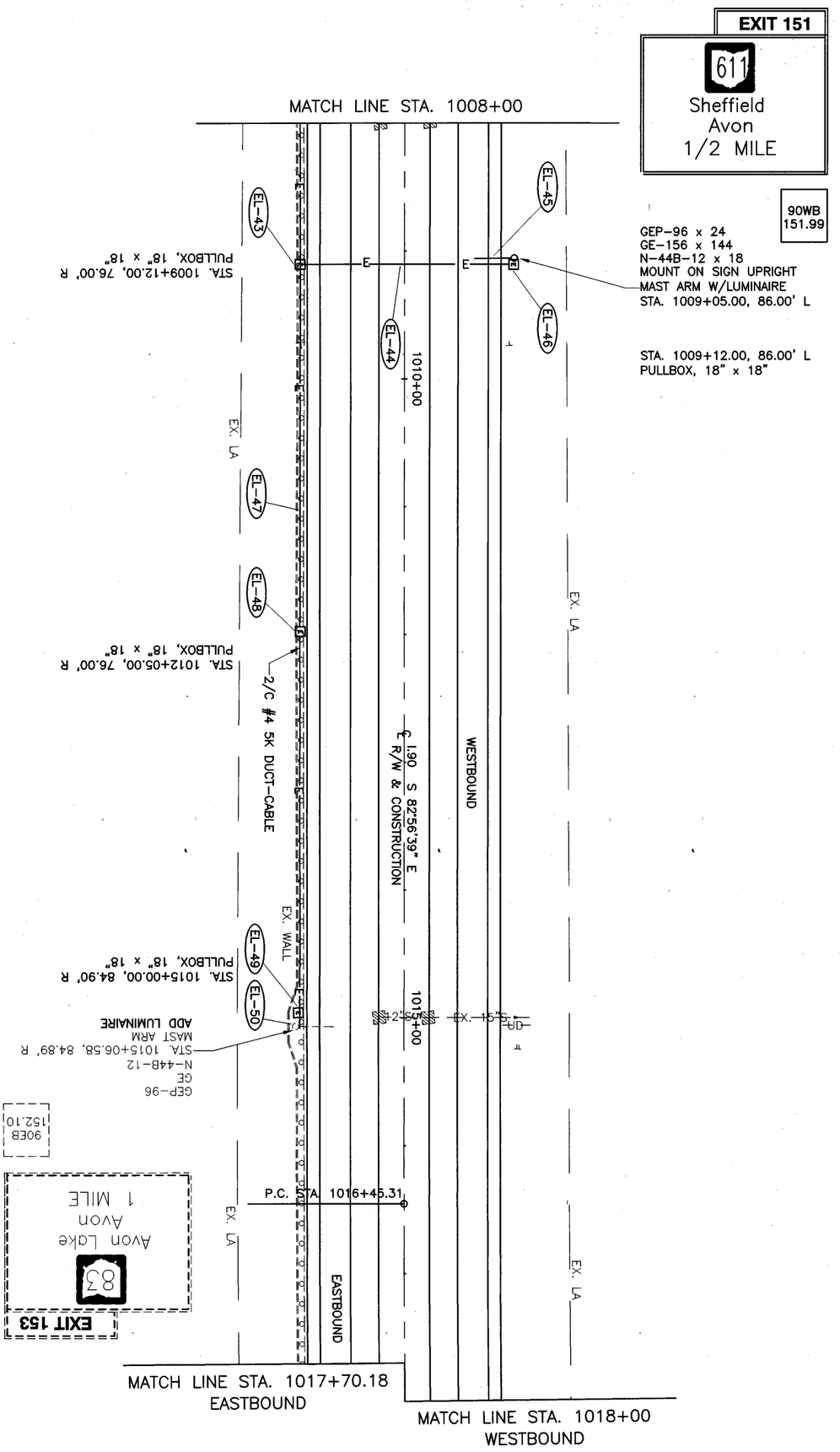
254 / 274	LOR - I90 - 10.76	LIGHTING PLAN STA. 996+00 TO STA. 1008+00	CALCULATED DLS CHECKED LAB 0 50' 100 HORIZONTAL SCALE IN FEET

LEGEND

E PULLBOX

E CABLE

EL-1 SUMMARY REF. NO.



LIGHTING PLAN

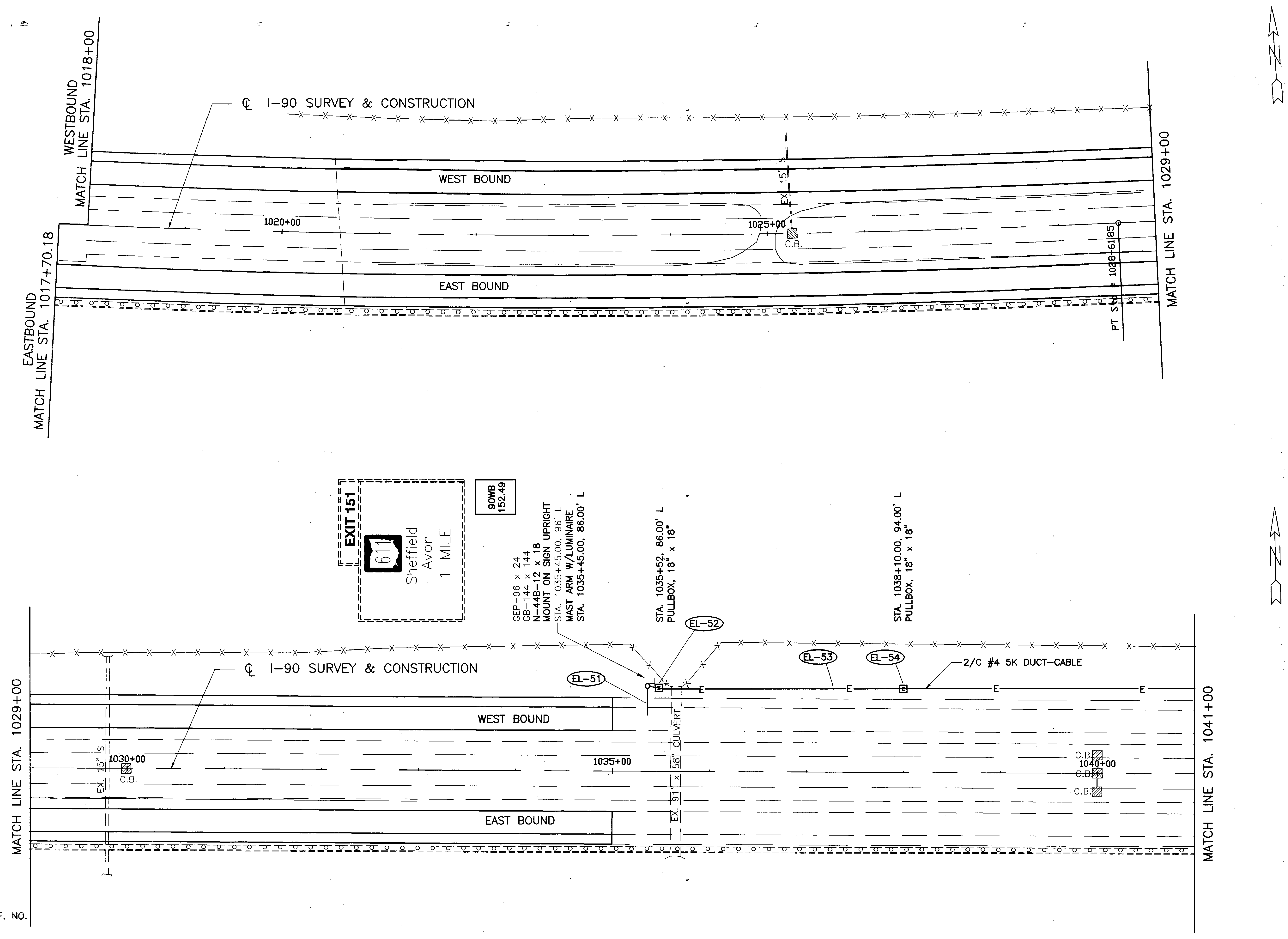
STA. 1008+00 TO STA. 1018+00

CALCULATED DLS

CHECKED LAB

0 50' 100

HORIZONTAL SCALE IN FEET



WESTBOUND MATCH LINE STA. 1018+00
EASTBOUND MATCH LINE STA. 1017+70.18
℄ I-90 SURVEY & CONSTRUCTION
WEST BOUND
EAST BOUND
1020+00
1025+00
EX. 15" S.
C.B.
MATCH LINE STA. 1029+00
PT STA = 1038+61.85
EXIT 151
611
Sheffield
Avon
1 MILE
90WB
152.49
GEP-96 x 24
GB-144 x 144
N-44B-12 x 18
MOUNT ON SIGN UPRIGHT
STA. 1035+45.00, 96' L
MAST ARM W/LUMINAIRE
STA. 1035+45.00, 86.00' L
STA. 1035+52, 86.00' L
PULLBOX, 18" x 18"
STA. 1038+10.00, 94.00' L
PULLBOX, 18" x 18"
EL-51
EL-52
EL-53
EL-54
2/C #4 5K DUCT-CABLE
1030+00
1035+00
EX. 91" x 58" CULVERT
1040+00
MATCH LINE STA. 1041+00

LEGEND

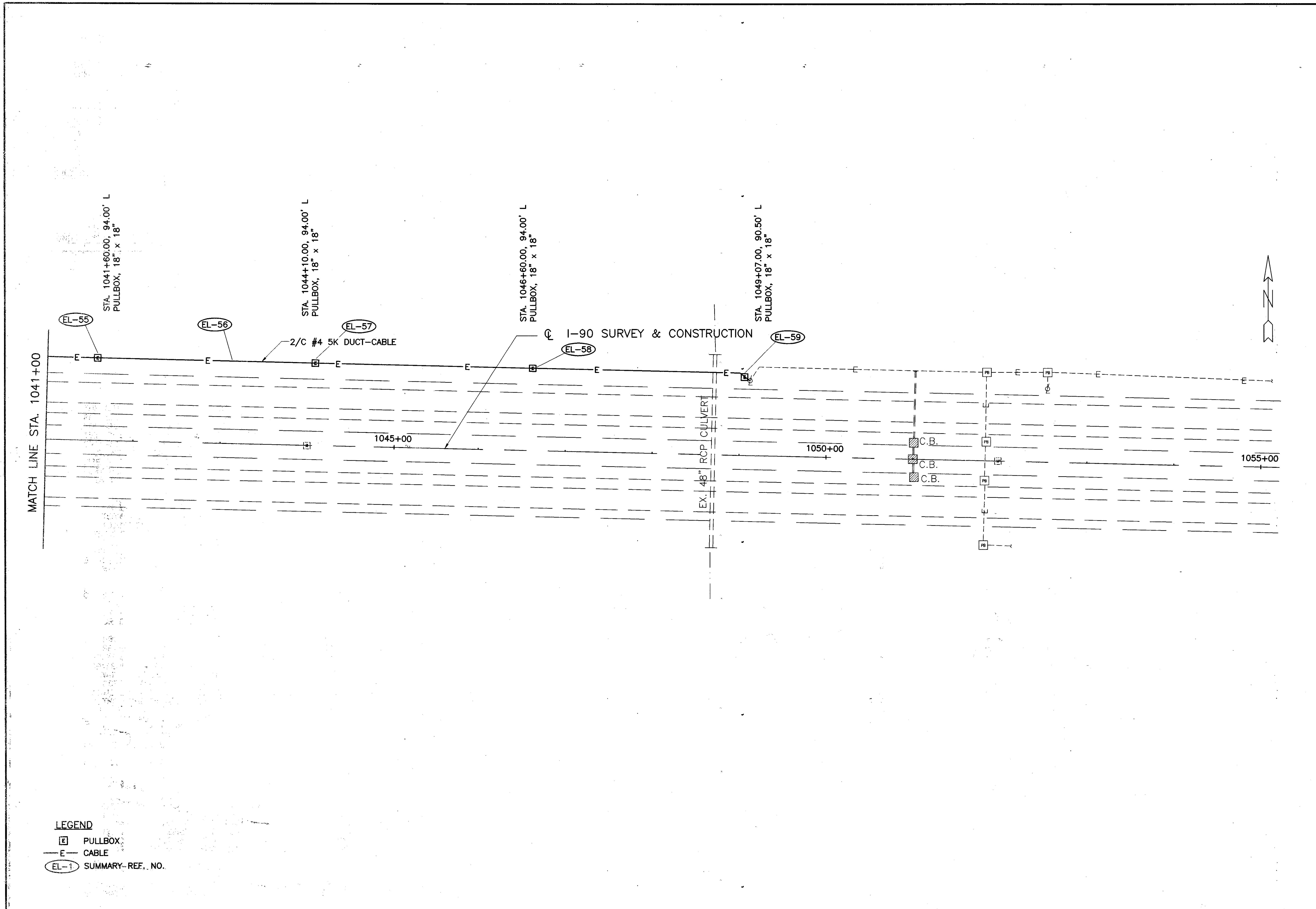
- E PULLBOX
- —E— CABLE
- (EL-1) SUMMARY REF. NO.

CALCULATED DLS
CHECKED LAB

0 50' 100'
HORIZONTAL SCALE IN FEET

LIGHTING PLAN
STA. 1017+70.18 TO STA. 1041+00

LOR - I90 - 10.76



0 50' 100
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

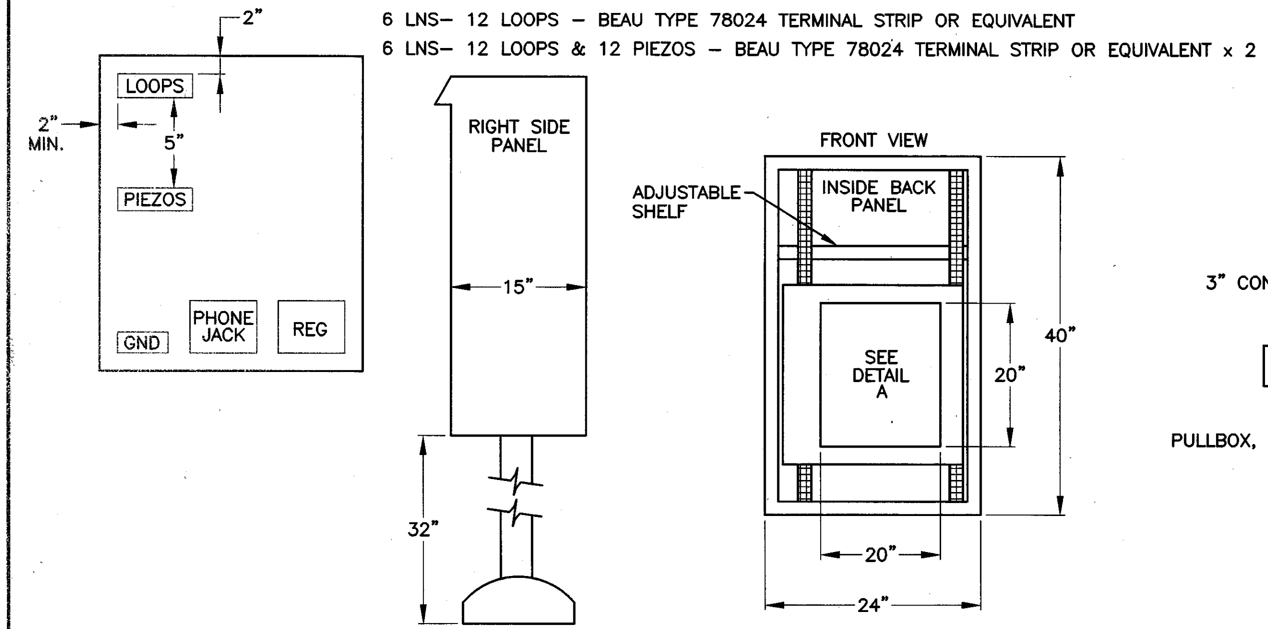
LIGHTING PLAN
STA. 1041+00 TO STA. 1055+00

LOR - I90 - 10.76

ATTACHMENT F

NEMA SIZE 3 CABINET DETAILS

-NOT TO SCALE-



NOTES

1. THE ALUMINUM CABINET SHALL BE A PEDESTAL MOUNTED SIZE 3 AS SHOWN IN TABLE 7.3-1 OF THE NEMA STANDARD PUBLICATION NO. TS 2-1992. THE NOMINAL DIMENSIONS ARE: 24 INCHES WIDE BY 40 INCHES HIGH BY 15 INCHES DEEP. IT SHALL BE SHEET ALUMINUM AS DETAILED IN SECTION 7.2.2.1 OR CAST ALUMINUM DETAILED IN SECTION 7.2.2.2. IT SHALL ALSO CONFORM TO SECTIONS: 7.4, 7.5 EXCEPT FOR 7.5.7, 7.6 WITH ONE SHELF, 7.7.3, 7.8.3 SIZE 5, 7.8.4. THE CABINET SHALL BE INSTALLED WITH INTERNAL COMPONENTS FOR THE WEIGH-IN-MOTION EQUIPMENT AS NECESSARY TO PROVIDE COMPLETE OPERATION OF THE WIM SYSTEM.

   A. IT SHALL BE EQUIPPED WITH TWO ADJUSTABLE "C" CHANNELS MOUNTED ON EACH OF THE THREE INTERIOR SIDES FOR THE PURPOSE OF MOUNTING TERMINAL STRIP PANELS AND SHELVING. FURNISH THE CABINETS WITH ONE ADJUSTABLE SHELF WHICH WILL NOT SAG WHEN LOADED WITH THE WIM ELECTRONICS. DESIGH THE SHELVING TO ALLOW FOR THE PASSAGE OF AIR. PLACE NO EQUIPMENT ON THE BOTTOM OF THE CABINET.

   B. MOUNT A GROUNDING STRIP TO THE TERMINAL STRIP PANEL ON THE CABINET WALL FOR CONNECTION OF ALL COMMON CONDUCTORS WITH THE STRIP GROUNDING TO THE GROUND ROD.

   C. INSTALL THE HOUSING CABINET AS TO ALLOW ALL EQUIPMENT TO STAND IN AN UPRIGHT POSITION WITH ALL EQUIPMENT AND DEVICES CAPABLE OF BEING REMOVED BY PULLING STRAIGHT OUT AND NOT TURNING SIDEWAYS AND WITHOUT RELOCATING OR DISCONNECTING ONE DEVICE TO REMOVE ANOTHER DEVICE.

   D. PROVIDE THAT ALL CONNECTIONS ARE MADE ON TERMINAL BLOCKS USING SOLDERED SPADE TYPE CONNECTORS. PROVIDE THAT ALL HOUSING CABINET WIRING AND TERMINALS ARE CLEARLY MARKED AND LABELED AS SHOWN ON THE CABINET WIRING DIAGRAM DETAILS. PROVIDE THAT WIRING IS LACED OR BOUND TOGETHER WITH SELF-LOCKING NYLON TIE-WRAPS. MAKE A LOOP NUMBERING DIAGRAM WITH CORRESPONDING TERMINAL NUMBERS FOR EACH SITE AND STORE IN A PLASTIC WEATHER PROOF ENVELOPE IN THE ENCLOSURE. PROVIDE A DUPLICATE DIAGRAM TO THE ODOT PROJECT INSPECTOR.

   E. INSTALL ALL HOUSING CABINETS SO AS TO WITHSTAND ALL WEATHER CONDITIONS AND PREVENT THE INTRUSION OF REPTILES, RODENTS AND INSECTS.

   F. THE CABINET SHALL INCLUDE A VENT, BUT NO FAN.

   G. MOUNTING FACILITIES SHALL INCLUDE ONE BACK PANEL WITH 5 HOLES (ALUMINUM).

   H. TERMINAL STRIPS MOUNTED HORIZONTALLY ON BACK PANEL 2" FROM TOP AND SIDES EQUIDISTANTLY SPACED FOR 2 LANE APPLICATIONS. SOLAR PANEL AND GROUND BAR TO BE MOUNTED 2" FROM BOTTOM AND LEFT OF BACK PANEL FOR ALL APPLICATIONS. 4-6 LANE APPLICATIONS TO HAVE ONE ROW OF TWO TERMINAL STRIPS MOUNTED HORIZONTALLY 2" FROM TOP AND SIDES OF BACK PLATE AND ONE ROW OF TWO TERMINAL STRIPS MOUNTED 8" FROM TOP AND 2" FROM SIDES OF BACK PLATE EQUIDISTANTLY SPACED. 8 LANE APPLICATIONS TO HAVE TWO ROWS OF THREE TERMINAL BLOCKS W/ 1ST ROW 2" FROM TOP AND SIDES OF BACK PLATE AND SECOND ROW 8" FROM TOP AND 2" FROM SIDES OF BACK PLATE EQUIDISTANTLY SPACED.

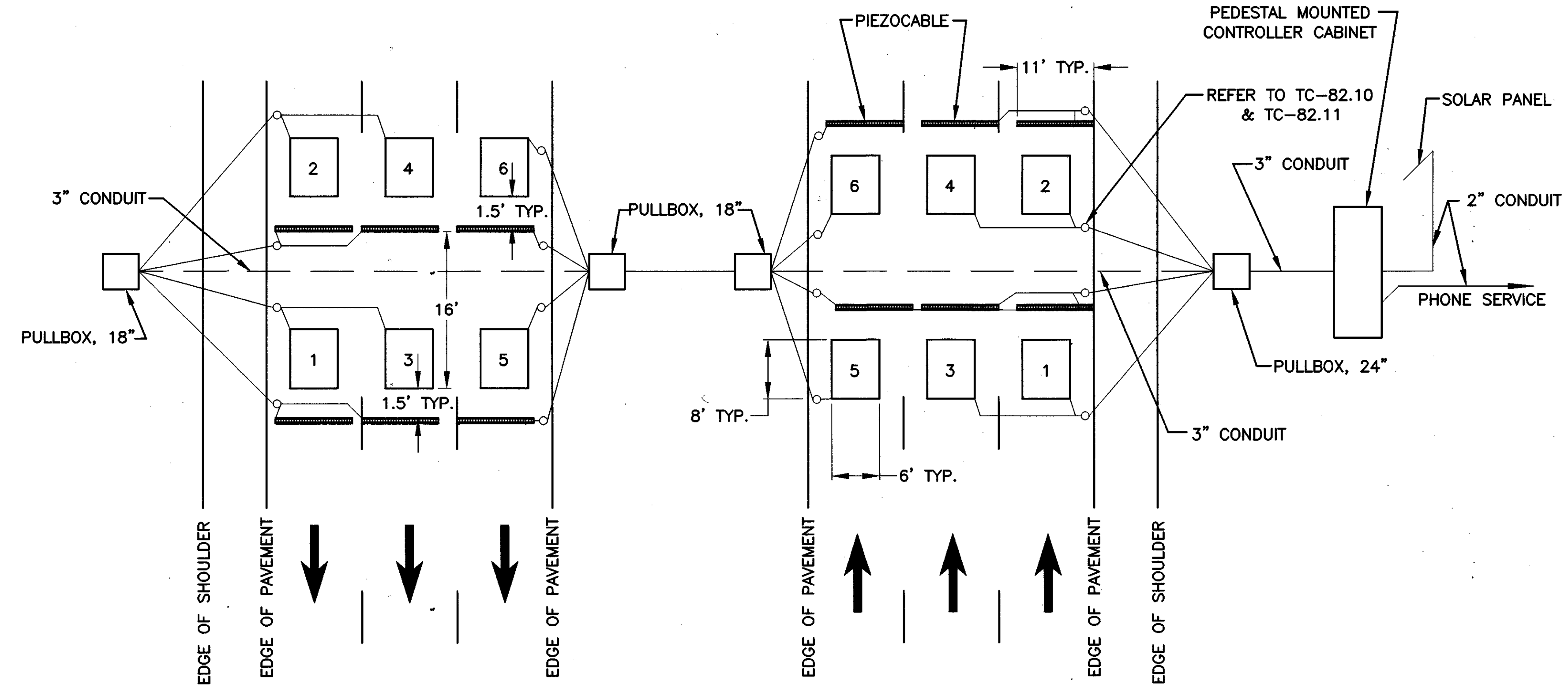
   I. LOCKS KEYED TO STATE MASTER.

2. THE CABINET SHALL BE ORIENTED SO THAT THE DOOR OPENS AWAY FROM THE ROADWAY, SO THAT FIELD TECHNICIAN CAN OBSERVE TRAFFIC WHILE WORKING ON THE SYSTEM.

AUTOMATIC TRAFFIC RECORDER

6 LANE SECTION

-NOT TO SCALE-



NOTES

1. ALL LOOPS SHALL BE 6'x8'. LOOPS SHALL BE SPACED 16' FROM LEADING EDGE TO LEADING EDGE. INSTALLATION OF LOOPS SHALL CONFORM TO TC-82.10 AND TC-82.11.

2. THE PIEZOCABLE WIM SENSOR SHALL BE MADE BY MEASUREMENT SPECIALITIES ROAD TRAX BRASS LINGUINI (BL) CLASS I AXLE SENSOR OR EQUIVALENT. THE II FOOT SENSOR SHALL BE CENTERED IN THE 12 FOOT LANE.

3. THE ALUMINUM CONTROLLER CABINET SHALL BE A PEDESTAL MOUNTED NEMA SIZE 3 AS SHOWN ON THE NEMA SIZE 3 CABINET DETAILS SHEET. (ATTACHMENT F)

4. CABLE AND WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH 632.04. IDENTIFICATION SHALL INCLUDE THE DIRECTION OF TRAVEL (I.E., NB, WB) AND THE LOOP NUMBER AS SHOWN.. EACH CABLE AND WIRE SHALL HAVE 5' COILED IN THE CONTROLLER CABINET FOR CONNECTION TO THE DATA COLLECTION SYSTEM.

5. ADJACENT LOOPS (TRANSVERSE AND LONGITUDINAL) SHALL BE INSTALLED IN OPPOSITE DIRECTIONS, I.E., LOOP 1 AND LOOP 4, CLOCKWISE AND LOOP 2 AND LOOP 3 COUNTERCLOCKWISE. EACH LOOP SHALL HAVE A SEPARATE LEAD-IN CABLE ROUTED TO THE CONTROLLER CABINET AND TAGGED.

6. REFERENCE IS MADE TO STANDARD DRAWING HL-30.11M FOR DETAILS OF DRAINING PULLBOXES. UNDERDRAINS FOR PULLBOXES 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'.

7. FIVE (5) WORKING DAYS PRIOR TO THE SCHEDULED INSTALLATION, THE CONTRACTOR SHALL CONTACT OFFICE OF TECH. SERVICES AT 614-466-3727.

8. ALL ITEMS SHALL CONFORM TO C&M SPECIFICATIONS 625, 713, 632, 732, 633 AND 733, UNLESS OTHERWISE SPECIFIED.

9. FOR ASPHALT PAVEMENT , LOOPS AND PIEZOCABLES SHALL BE CUT IN THE ASPHALT SURFACE COURSE. THEY SHALL NOT BE INSTALLED BETWEEN THE INTERMEDIATE AND SURFACE COURSES.

10. PIEXOCABLES SHALL BE INSTALLED WHEN THE TEMP. IS ABOVE 60 DEGREES FAHRENHEIT, OR SPECIAL PROVISION MADE TO ENSURE CURING OF EPOXY TAKES PLACE.

11. THE SOLAR PANEL SHALL BE INSTALLED WITH 2" RIGID CONDUIT MOUNTED IN CONCRETE BASE WITH PANEL BEING AT A MIN. HEIGHT ABOVE GROUND LEVEL OF 15'. SOLAR PANEL OUTPUT CABLE SHALL BE SECURED AND ROUTED TO THE INSIDE OF THE CABINET FOR CONNECTION TO TERMINAL BLOCK. SOLAR PANEL SHALL BE MOUNTED AT A 45° ANGLE FACING SOUTH.

12. SOLAR PANEL SHALL BE A SOLAREX MODEL VLX 32 (32 WATTS) OR AN APPROVED EQUAL WITH MOUNTING HARDWARE AND CABLES.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND TESTING THE PHONE DROP INSIDE OF THE CONTROLLER CABINET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHARGES INCURRED PRIOR TO THE TRANSFER OF THE TELEPHONE ACCOUNT. THE CONTRACTOR SHALL COORDINATE WITH ODOT, TELECOMMUNICATIONS, MR. MIKE WIGGINS (614-466-4452) TO TRANSFER THE TELEPHONE ACCOUNT AND THE BILLING RESPONSIBILITY FROM THE CONTRACTOR TO ODOT.

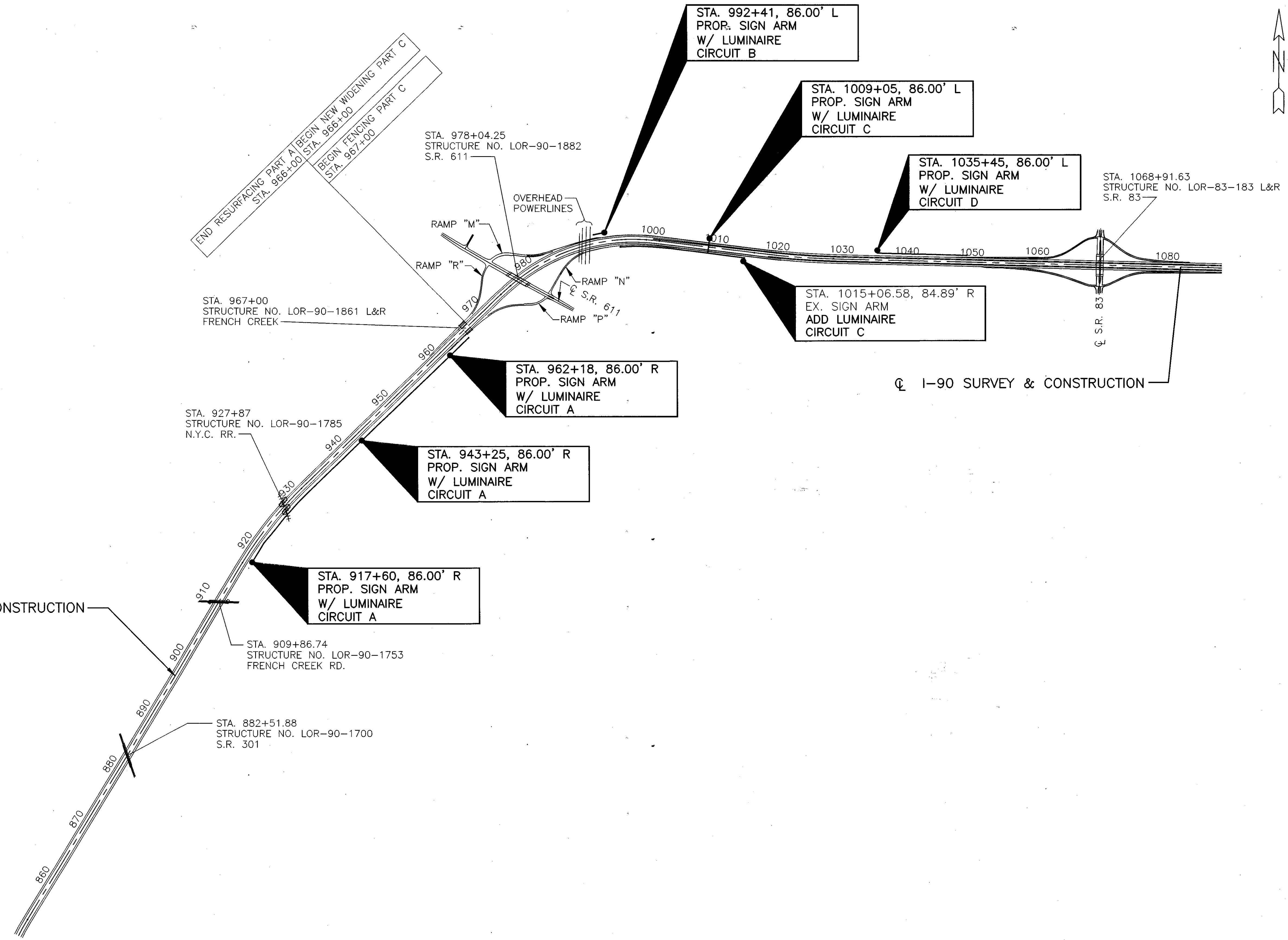
14. ALL SENSORS ARE TO BE TESTED BY O.D.O.T. PERSONNEL AFTER THE INSTALLATION IS COMPLETE SO AS TO VERIFY THAT THE STATION IS UP AND OPERATING PROPERLY. IF THE ELECTRONIC EQUIPMENT DOES NOT PERFORM PROPERLY BECAUSE OF A POORLY INSTALLED SENSOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE FAULTLY SENSOR, AS SOON AS POSSIBLE AT HIS OWN COST.

15. THE PULL BOX COVERS IN THE PAVED SHOULDER SHALL BE A HEAVY DUTY FRAME AND LID (NEENAH R-6686 OR APPROVED EQUAL). THE 18 AND 24 IN. PULL BOX, SHALL CONFORM TO 713.08

CALCULATED DLS
CHECKED LAB

TRAFFIC CONTROL DETAILS

LOR - I90 - 10.76

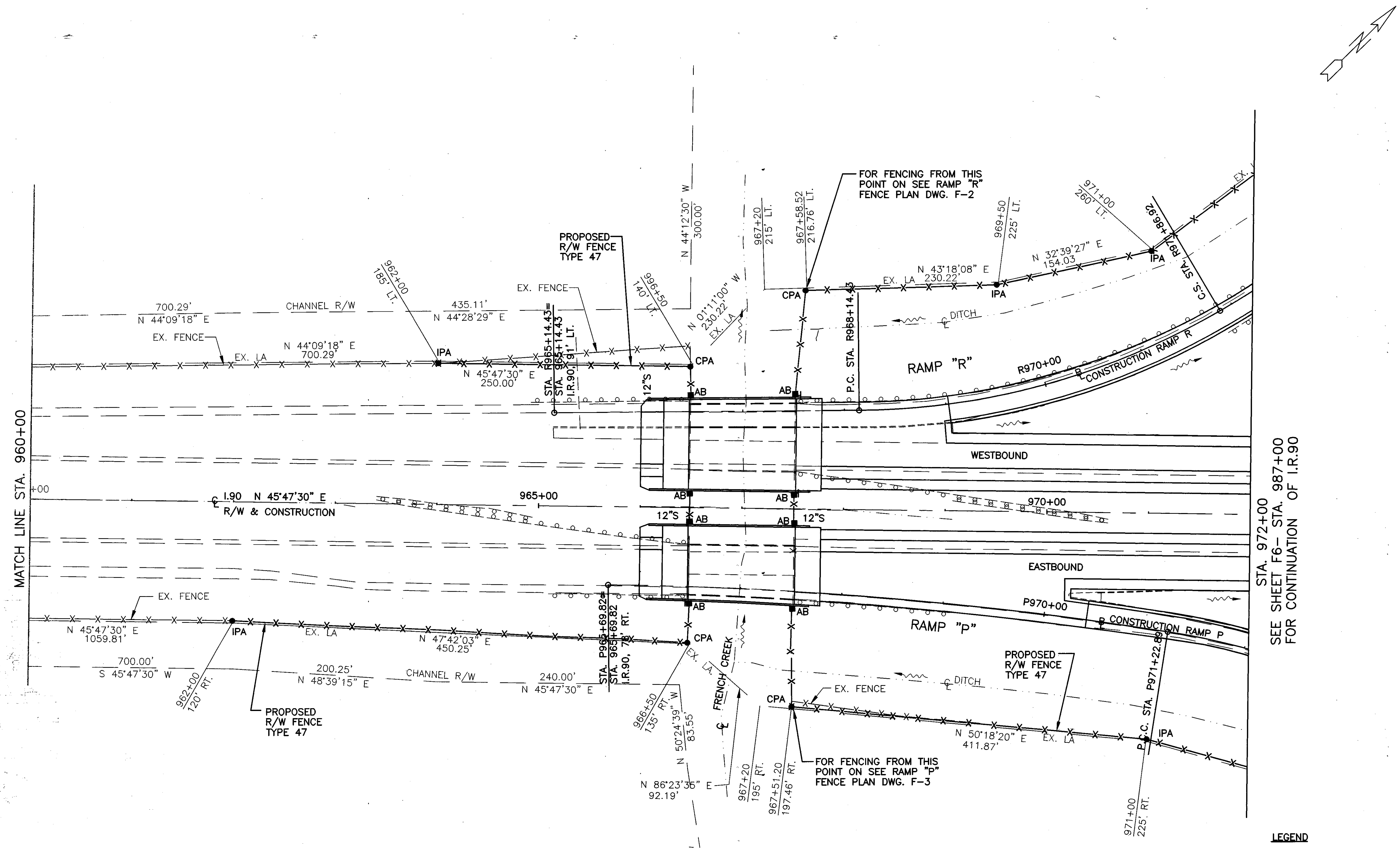


0 800' 1600'
HORIZONTAL
SCALE IN FEET

CALCULATED DLS
CHECKED LAB

TRAFFIC CONTROL LIGHTING LAYOUT

LOR - I90 - 10.76



LEGEND

CPA ● = CORNER POST ASSEMBLY

IPA ● = INTERMEDIATE POST ASSEMBLY

WP ● = WOOD POST OR ENCASED STEEL POST

AB ■ = ABUTMENT CONNECTION

NOTES:

1.) THE R/W FENCE WILL BE SET 2 FEET INSIDE THE EXISTING LA LINE UNLESS OTHERWISE NOTED ON THE PLANS.

2.) THE LENGTH BETWEEN DEFLECTION POINTS IS THE EXISTING LA LENGTH, NOT THE LENGTH OF THE FENCING.

0 50' 100

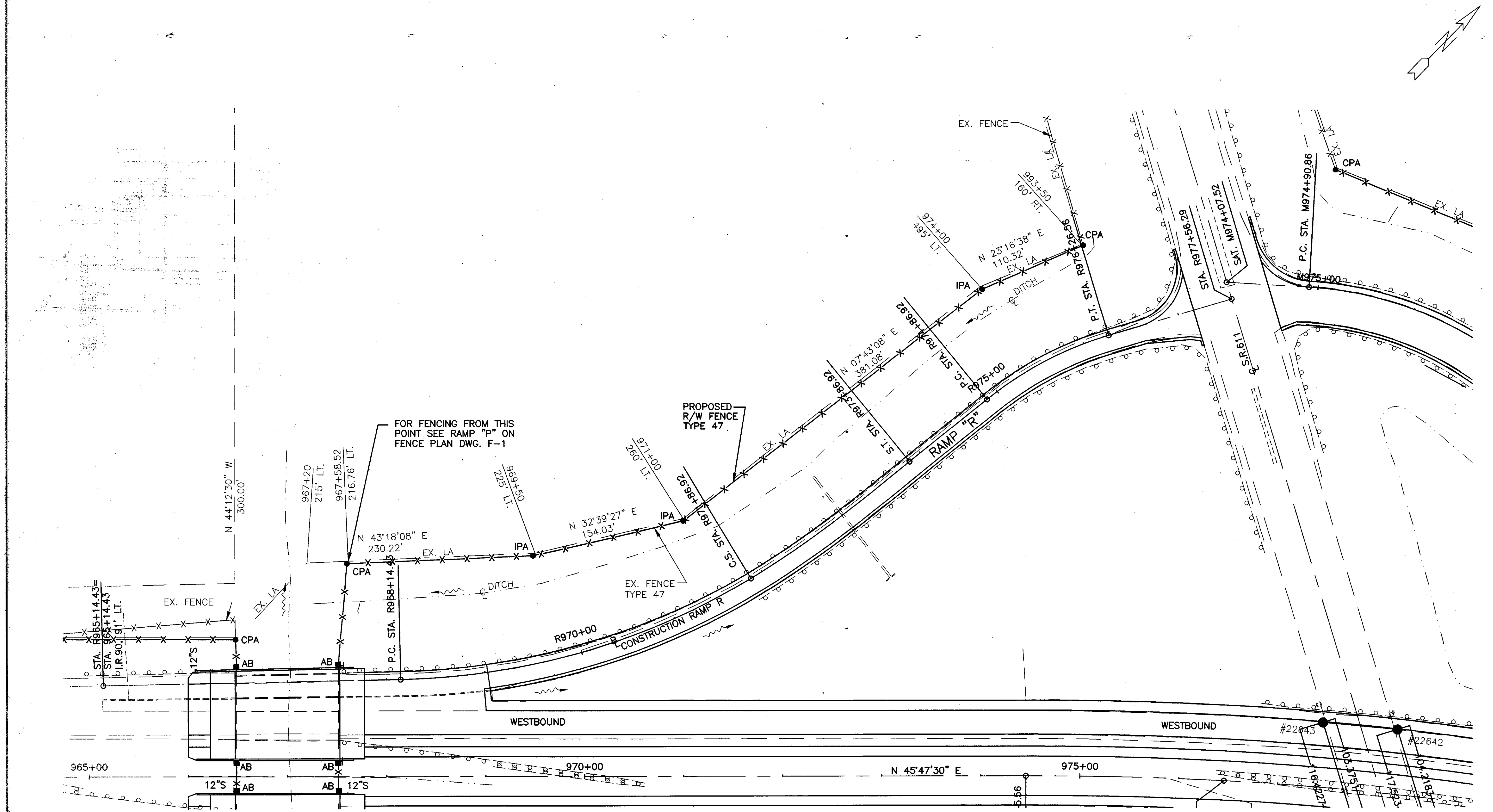
HORIZONTAL SCALE IN FEET

CALCULATED NJW

CHECKED LAB

FENCE PLAN
STA. 960+00 TO STA. 972+00

LOR - I90 - 10.76



LEGEND

CPA ● = CORNER POST ASSEMBLY

IPA ● = INTERMEDIATE POST ASSEMBLY

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NOTES:

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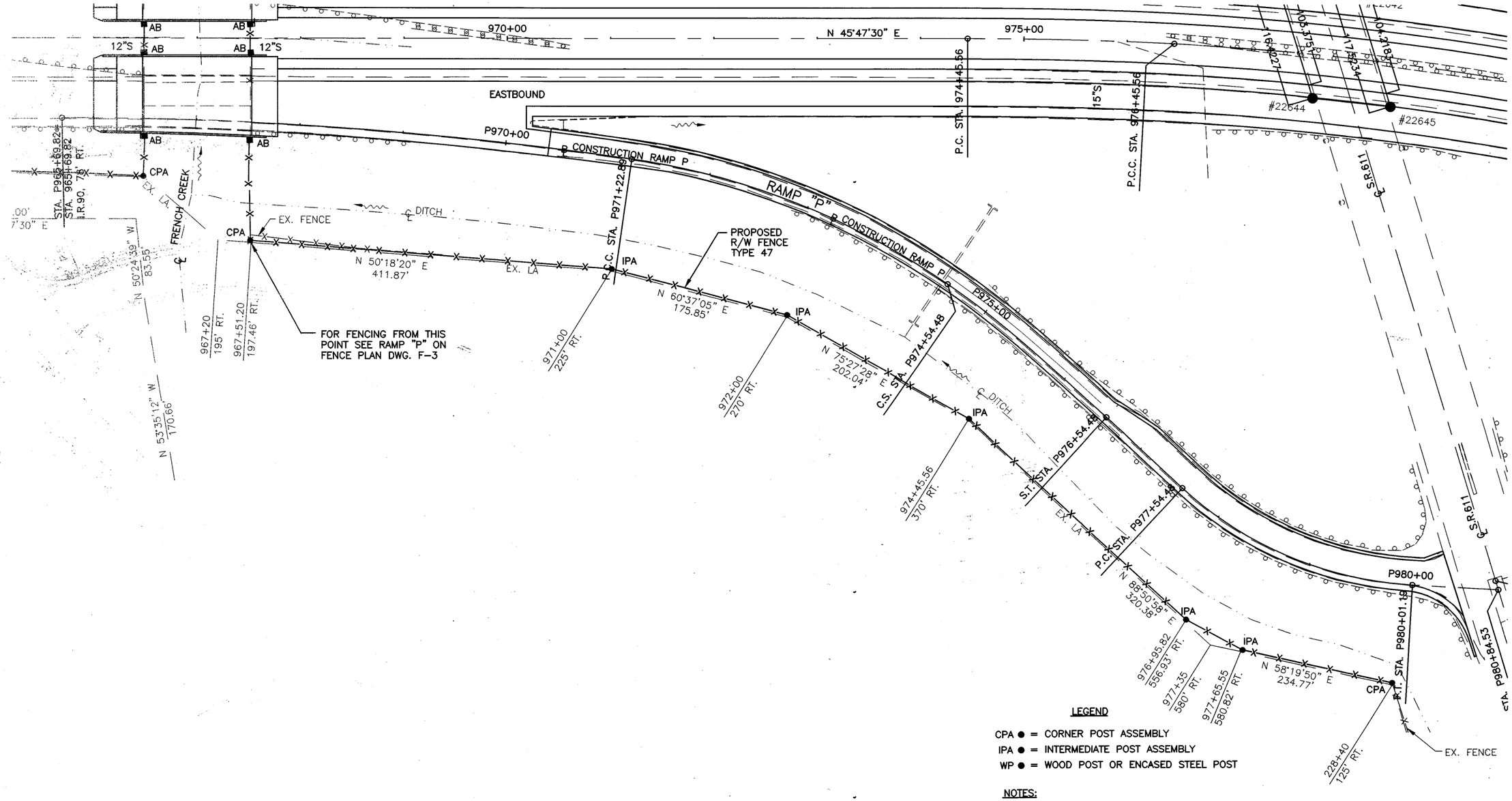
CALCULATED NJW | CHECKED LAB

FENCE PLAN I.R. 90 & S.R. 611 INTERCHANGE - RAMP "R"
STA. R965+14.43 TO STA. R977+56.29

LOR - I90 - 10.76



LEGEND

CPA ● = CORNER POST ASSEMBLY
IPA ● = INTERMEDIATE POST ASSEMBLY
WP ● = WOOD POST OR ENCASED STEEL POST

NOTES:

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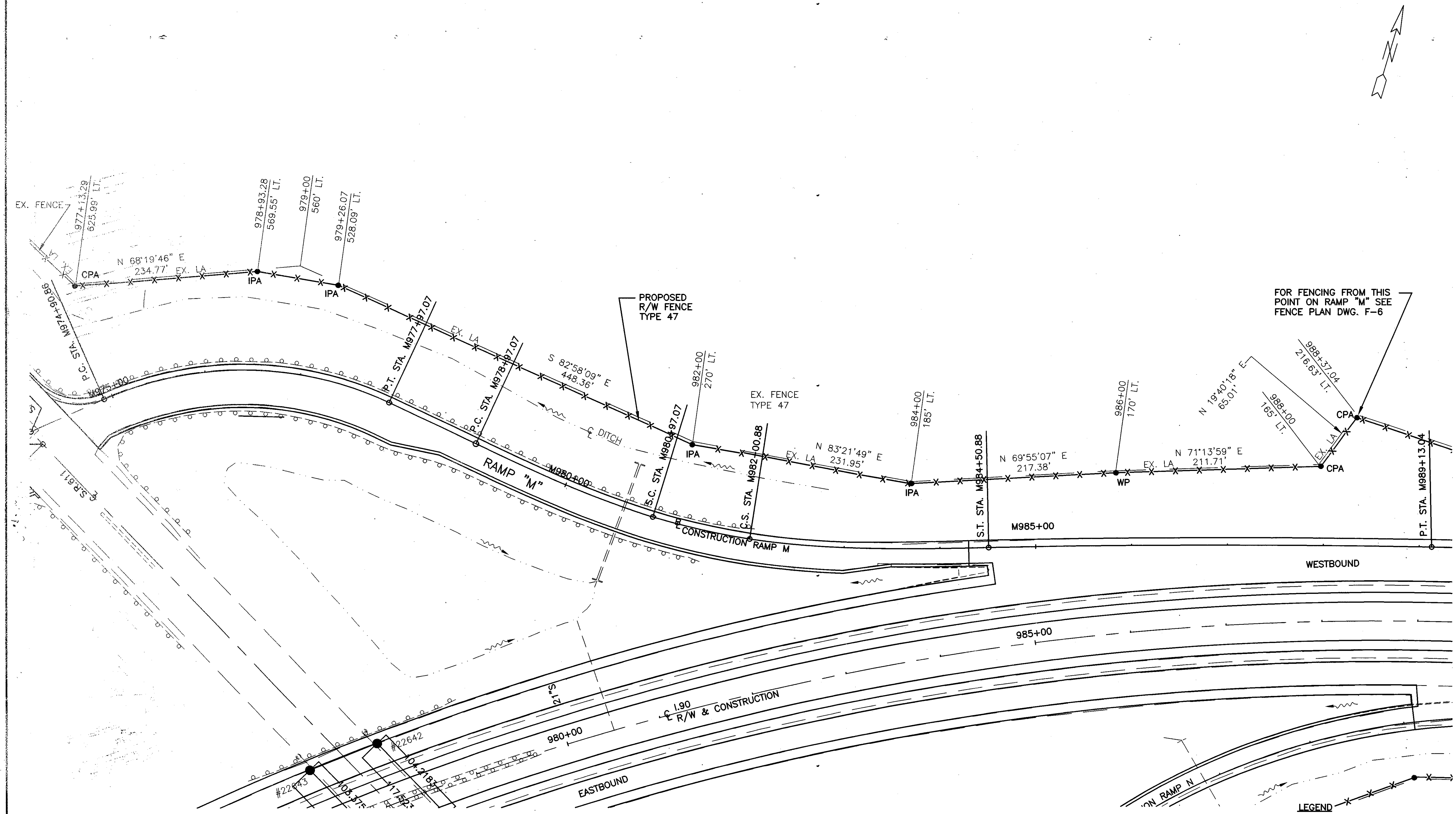
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED NJW | CHECKED LAB

FENCE PLAN I.R. 90 & S.R. 611 INTERCHANGE - RAMP "P"
STA. P965+69.82 TO STA. P980+84.53

LOR - I90 - 10.76



EX. FENCE
977+13.29 628.99' LT.
978+93.28 569.55' LT.
979+00 560' LT.
979+26.07 528.09' LT.
N 68°19'46" E 234.77' EX. LA
CPA
IPA
IPA
P.C. STA. M974+90.86
M975+00
P.T. STA. M977+97.07
P.C. STA. M978+97.07
EX. LA
S 82°58'09" E 448.36'
PROPOSED R/W FENCE TYPE 47
982+00 270' LT.
EX. FENCE TYPE 47
℄ DITCH
S.C. STA. M980+97.07
C.S. STA. M982+00.88
IPA
M980+00
RAMP "M"
℄ CONSTRUCTION RAMP M
EX. LA
N 83°21'49" E 231.95'
984+00 185' LT.
IPA
S.T. STA. M984+50.88
M985+00
N 69°55'07" E 217.38'
986+00 170' LT.
WP
EX. LA
N 71°13'59" E 211.71'
N 19°40'18" E 65.01'
988+37.04 216.63' LT.
988+00 165' LT.
CPA
CPA
EX. LA
FOR FENCING FROM THIS POINT ON RAMP "M" SEE FENCE PLAN DWG. F-6
P.T. STA. M989+13.04
WESTBOUND
985+00
℄ S.R.611
℄ I.90 R/W & CONSTRUCTION
980+00
21"S
#22642
#22643
EASTBOUND
RAMP N

LEGEND

CPA ● = CORNER POST ASSEMBLY

IPA ● = INTERMEDIATE POST ASSEMBLY

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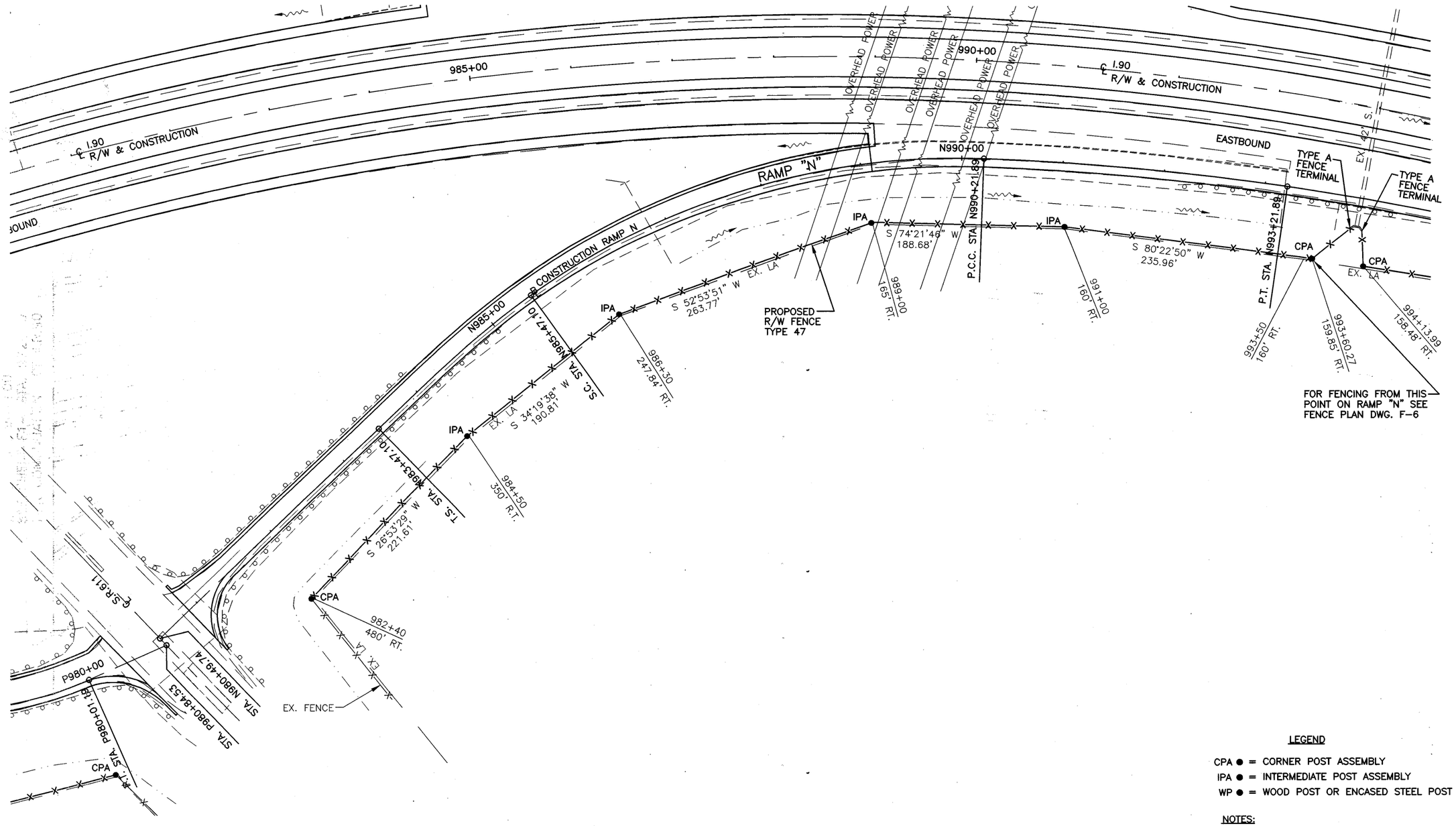
0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED NJW
CHECKED LAB

FENCE PLAN I.R. 90 & S.R. 611 INTERCHANGE - RAMP "M"
STA. M974+07.52 TO STA. M989+13.04

LOR - I90 - 10.76



LEGEND

CPA ● = CORNER POST ASSEMBLY
IPA ● = INTERMEDIATE POST ASSEMBLY
WP ● = WOOD POST OR ENCASED STEEL POST

NOTES:

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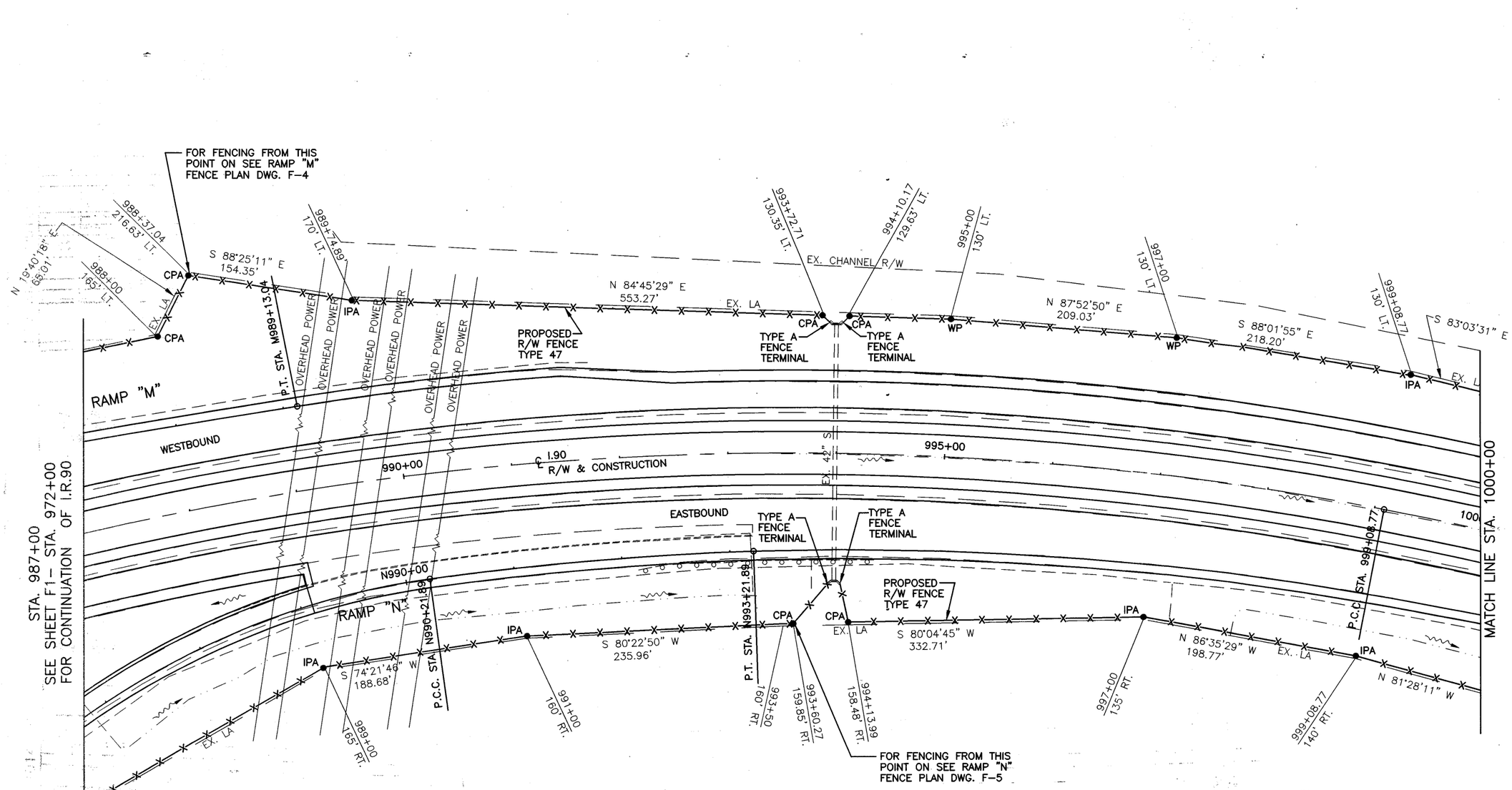
CALCULATED NJW | CHECKED LAB

0 50' 100 HORIZONTAL SCALE IN FEET

FENCE PLAN I.R. 90 & S.R. 611 INTERCHANGE - RAMP "N"
STA. N980+49.74 TO STA. N993+21.89

LOR - I90 - 10.76



LEGEND

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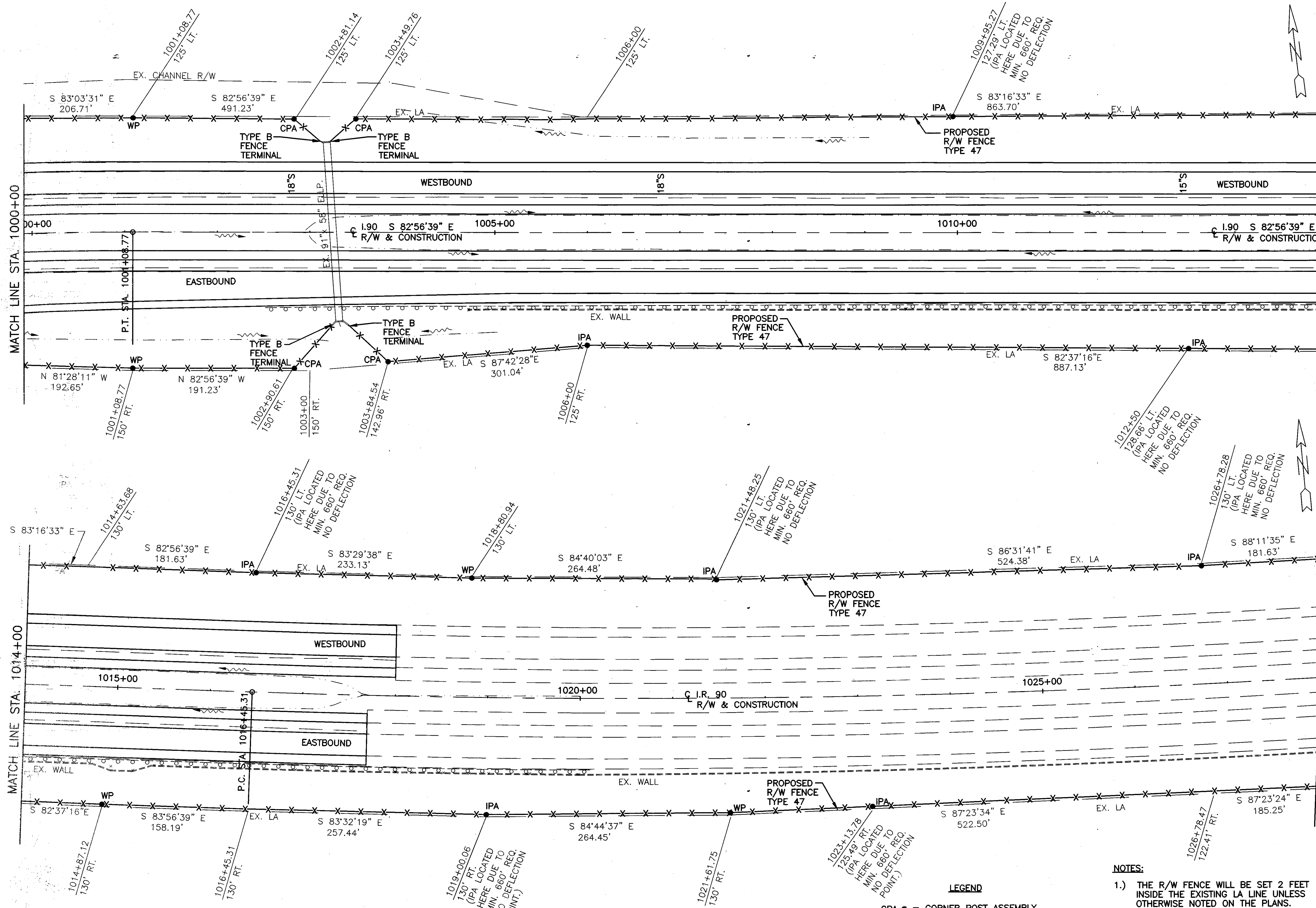
HORIZONTAL SCALE IN FEET
0 50' 100

CALCULATED NJW | CHECKED LAB

FENCE PLAN
STA. 987+00 TO STA. 1000+00

LOR - I90 - 10.76

265
274



LEGEND

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WP ● = WOOD POST OR ENCASED STEEL POST

NOTES:

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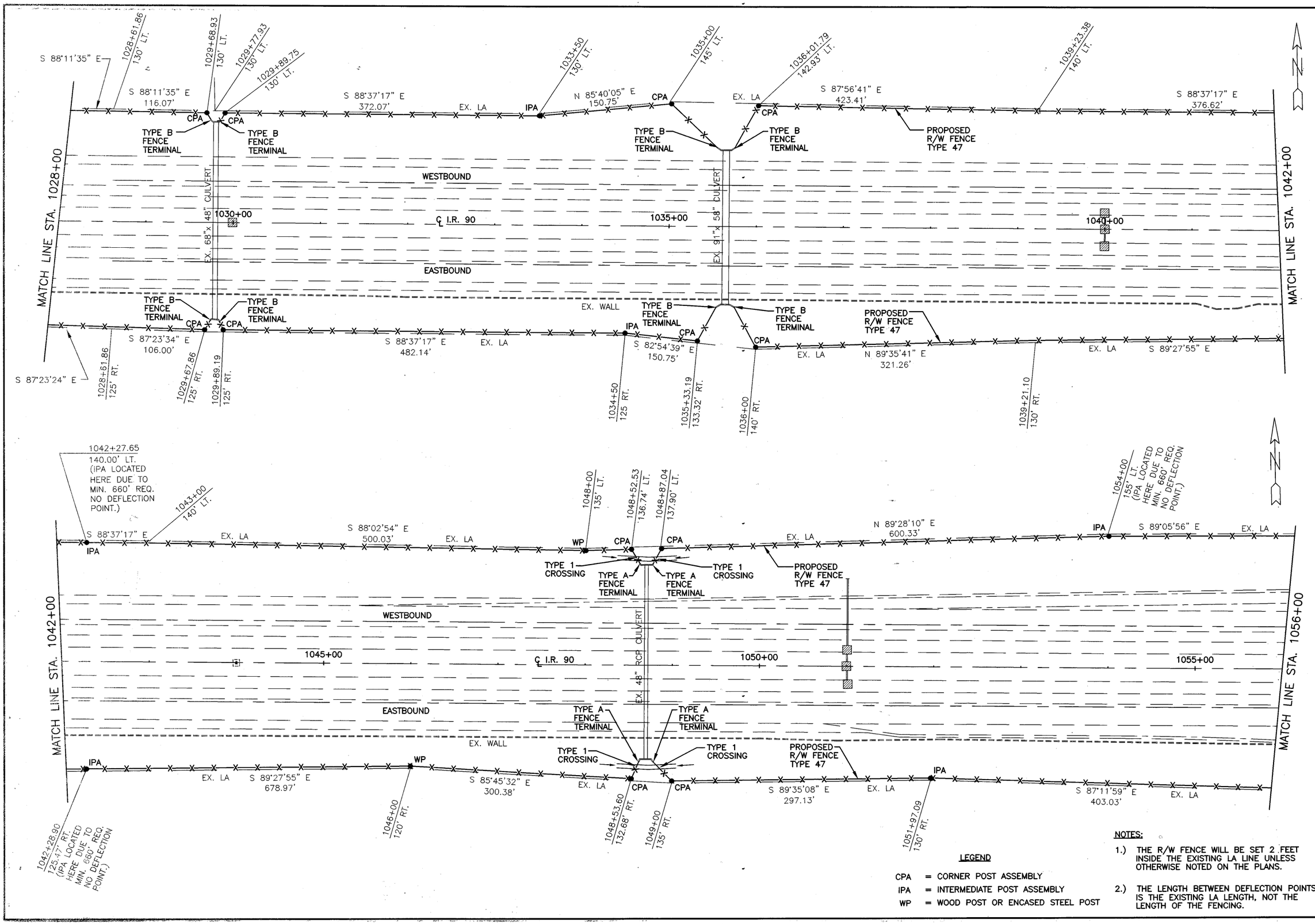
0 50' 100'
HORIZONTAL SCALE IN FEET

CALCULATED NJW
CHECKED LAB

FENCE PLAN
STA. 1000+00 TO STA. 1028+00

LOR - I90 - 10.76



LEGEND

CPA = CORNER POST ASSEMBLY
IPA = INTERMEDIATE POST ASSEMBLY
WP = WOOD POST OR ENCASED STEEL POST

NOTES:

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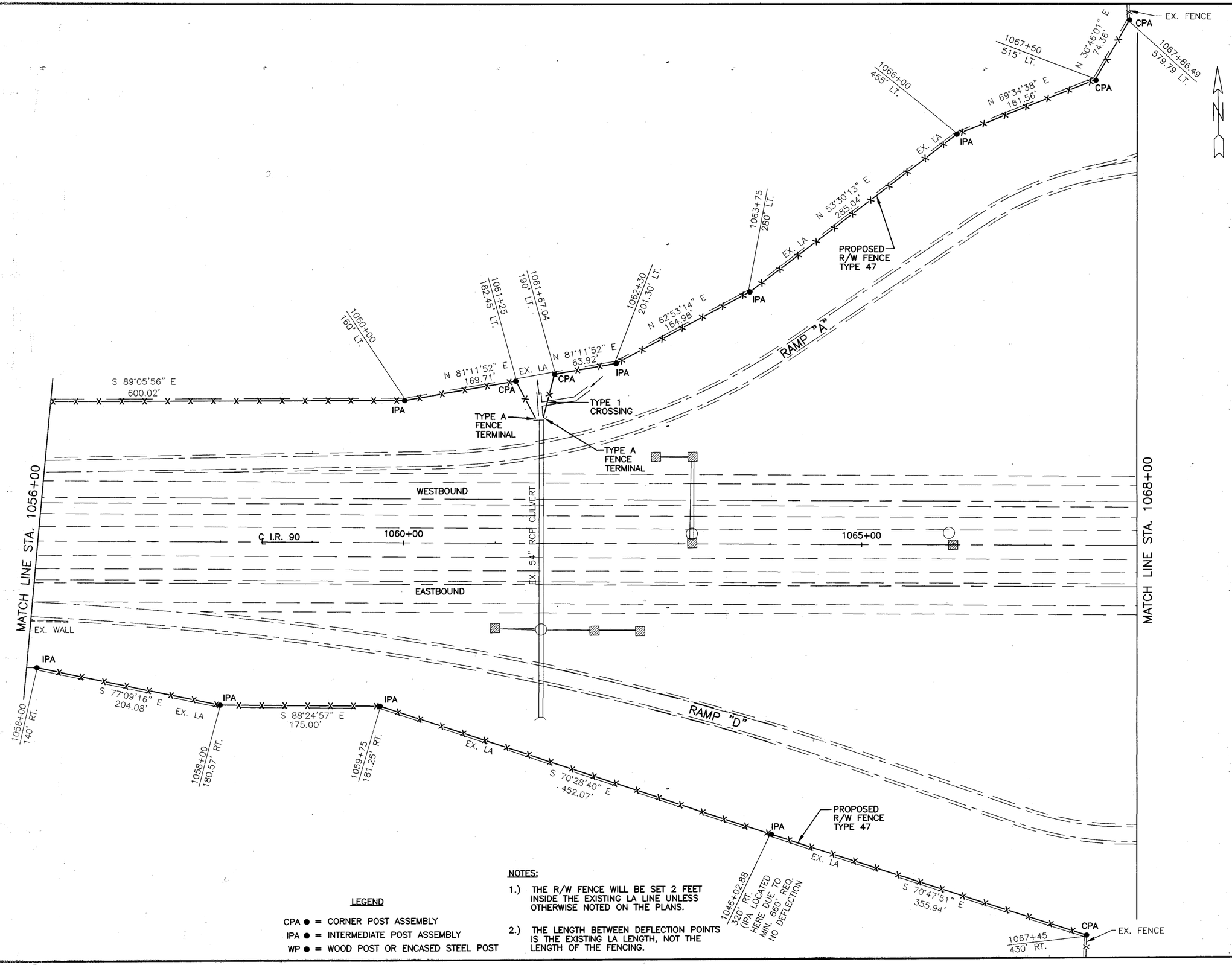

LEGEND

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HORIZONTAL SCALE IN FEET
0 50' 100'

CALCULATED NJW
CHECKED LAB

FENCE PLAN
STA. 1056+00 TO STA. 1068+00

ODOT PROJECT 3015-00

FENCE PLAN
STA. 1068+00 TO STA. 1082+00

LOR - I90 - 10.76

CALCULATED NJW | CHECKED LAB

HORIZONTAL SCALE IN FEET
0 50' 100'

EX. FENCE
CPA
1070+21.51
484.81' LT.
S 50°57'20" E
114.75'
1071+12.18'
414.82' LT.
EX. LA
S 50°57'20" E
164.58'
1072+42.46
314.25' LT.
CPA
S 88°28'47" E
159.22'
EX. LA
CPA
1074+01.68
313.57' LT.
S 12°27'29" E
101.64'
1074+20
213.34' LT.
CPA
S 88°22'32" E
90.98'
1075+06.63
213.12' LT.
EX. LA
S 88°23'17" E
502.50'
EX. LA
1080+07.45
213.59' LT.
S 30°45'47" E
46.15'
CPA
1080+32
174.51' LT.
CPA
1081+04.69
163.91' LT.
S 80°19'15" E
169.78'
CPA
1082+00
150' LT.
CPA
PROPOSED R/W FENCE TYPE 47
TYPE A FENCE TERMINAL
TYPE A FENCE TERMINAL
RAMP "B"
996+00
995+00
994+00
993+00
992+00
991+00
990+00
989+00
988+00
987+00
MATCH LINE STA. 1068+00
1070+00
1075+00
1080+00
MATCH LINE STA. 1082+00
℄ S.R. 83
℄ I.R. 90
WESTBOUND
EASTBOUND
60" RCP CULVERT
RAMP "C"
IPA
N 65°28'39" E
111.17'
1073+85
186.44' RT.
EX. LA
1072+85
235' RT.
N 49°04'35" E
282.34'
N 68°13'07" E
30.07'
IPA
1070+75
425.03' RT.
CPA
1070+40
30.07' RT.
EX. FENCE
PROPOSED R/W FENCE TYPE 47
IPA
EX. LA
S 88°28'57" E
365'
IPA
1077+50
187.47' RT.
S 69°13'15" E
53.05'
IPA
1078+00
205' RT.
S 80°29'29" E
141.42'
IPA
1079+40
225' RT.
S 88°37'17" E
60.00'
IPA
1080+00
225' RT.
CPA
1080+45.38
225' RT.
TYPE 2 CROSSING
TYPE A FENCE TERMINAL
TYPE A FENCE TERMINAL
TYPE 2 CROSSING
CPA
S 80°29'29" E
140.80'
CPA
1080+97.09
238.87' RT.
IPA
1081+40
245' RT.
IPA
N 82°50'52"E

LEGEND

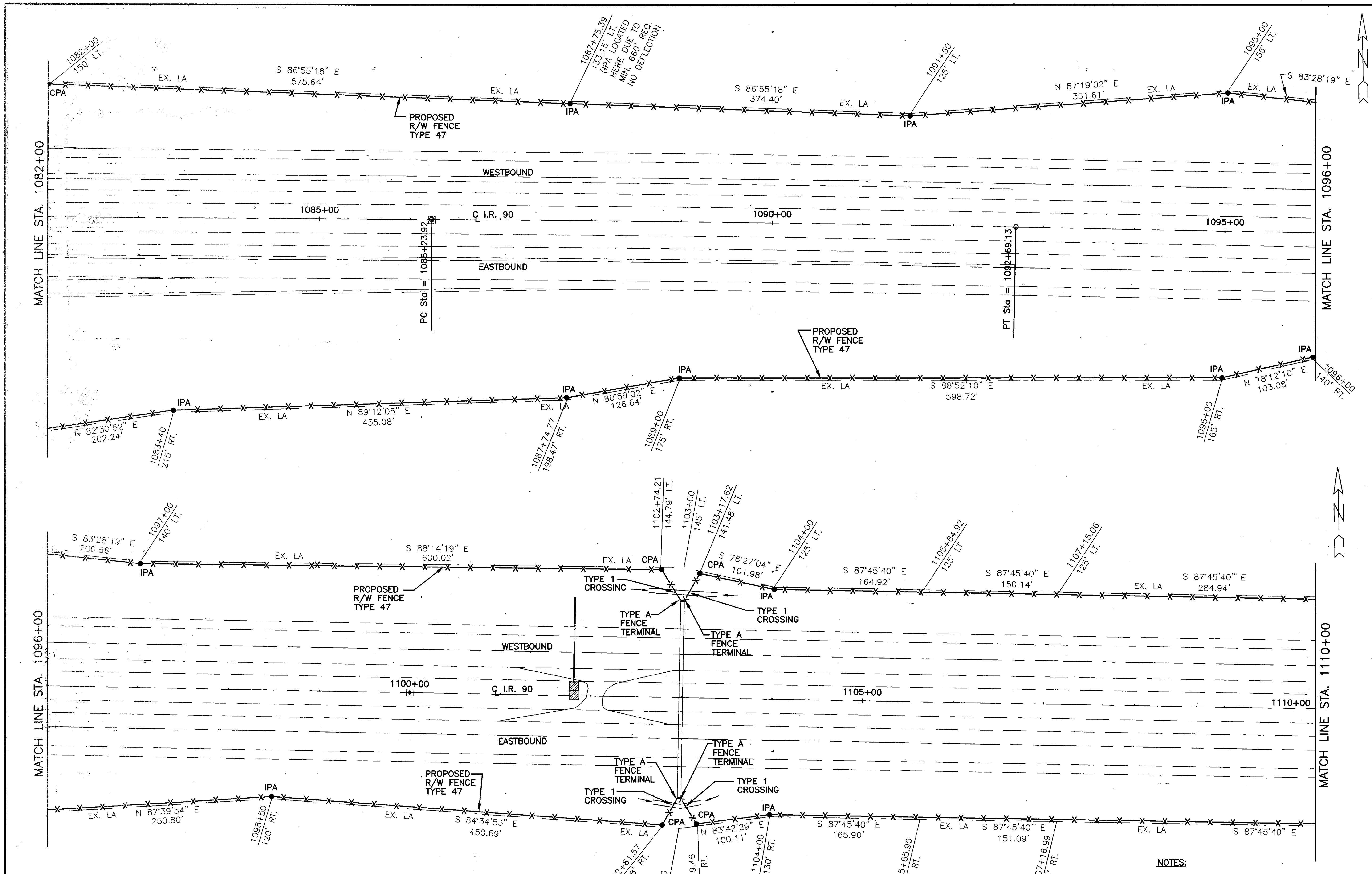
CPA ● = CORNER POST ASSEMBLY
IPA ● = INTERMEDIATE POST ASSEMBLY
WP ● = WOOD POST OR ENCASED STEEL POST

NOTES:

1.) THE R/W FENCE WILL BE SET 2 FEET INSIDE THE EXISTING LA LINE UNLESS OTHERWISE NOTED ON THE PLANS.

2.) THE LENGTH BETWEEN DEFLECTION POINTS IS THE EXISTING LA LENGTH, NOT THE LENGTH OF THE FENCING.

02-08-2022 10:27PM



LEGEND

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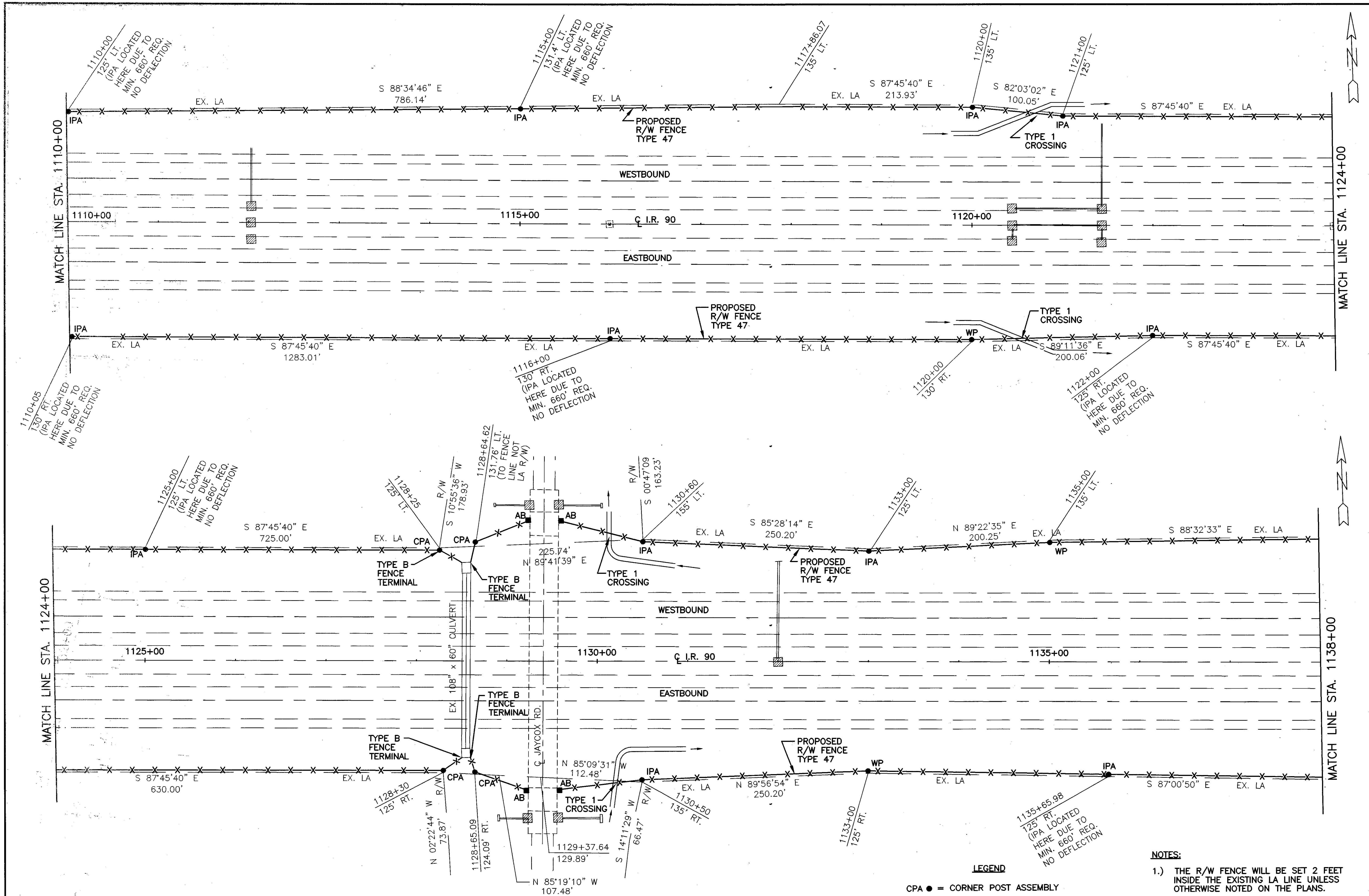
CALCULATED NJW
CHECKED LAB

FENCE PLAN
STA. 1082+00 TO STA. 1110+00

LOR - I90- 10.76



LEGEND

CPA ● = CORNER POST ASSEMBLY

IPA ● = INTERMEDIATE POST ASSEMBLY

WP ● = WOOD POST OR ENCASED STEEL POST

AB ■ = ABUTMENT CONNECTION

NOTES:

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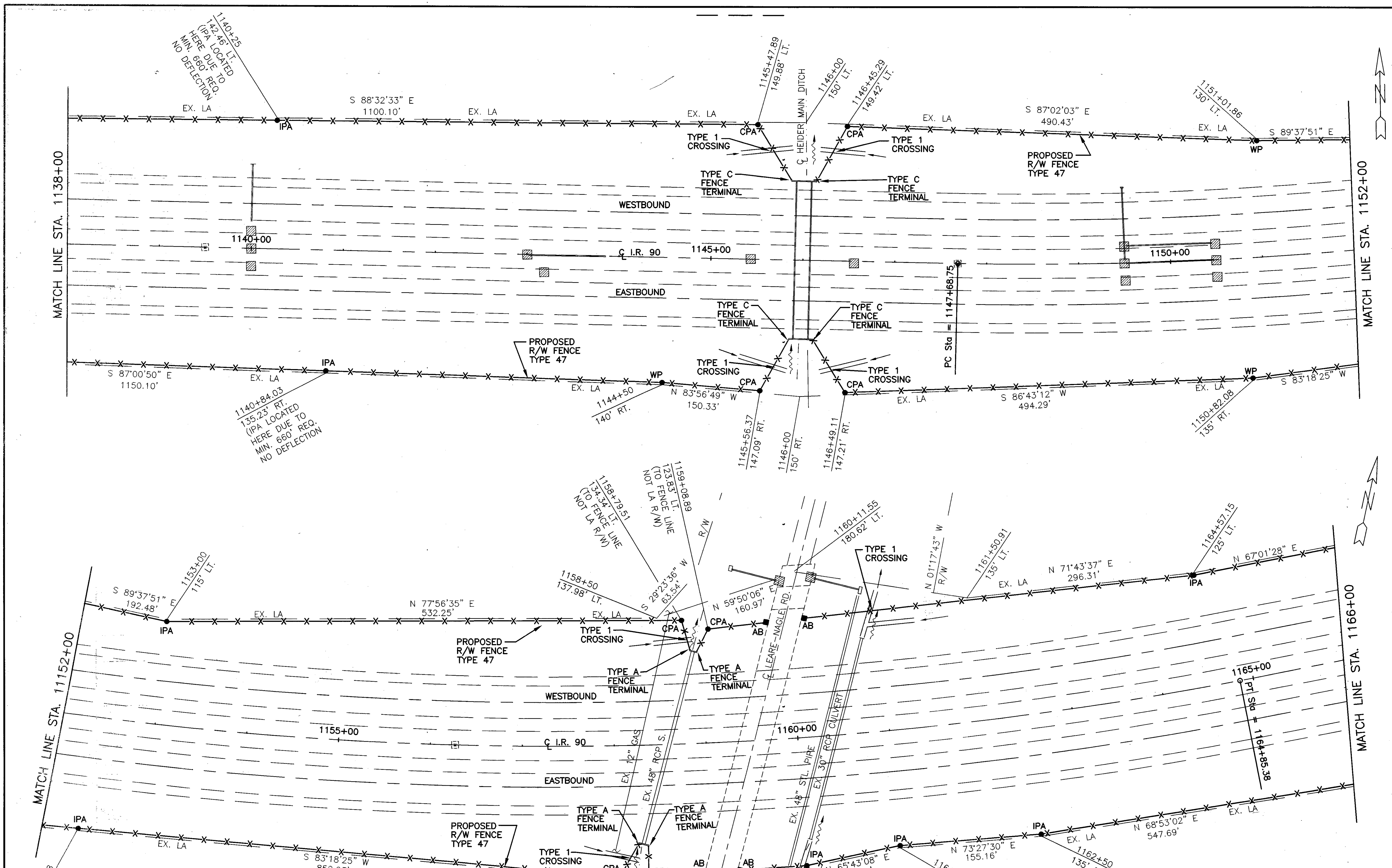
CALCULATED NJW
CHECKED LAB

0 50' 100
HORIZONTAL SCALE IN FEET

FENCE PLAN
STA. 1110+00 TO STA. 11138+00

LOR I90-10.76



LEGEND

- CPA ● = CORNER POST ASSEMBLY
- IPA ● = INTERMEDIATE POST ASSEMBLY
- WP ● = WOOD POST OR ENCASED STEEL POST
- AB ■ = ABUTMENT CONNECTION

NOTES:

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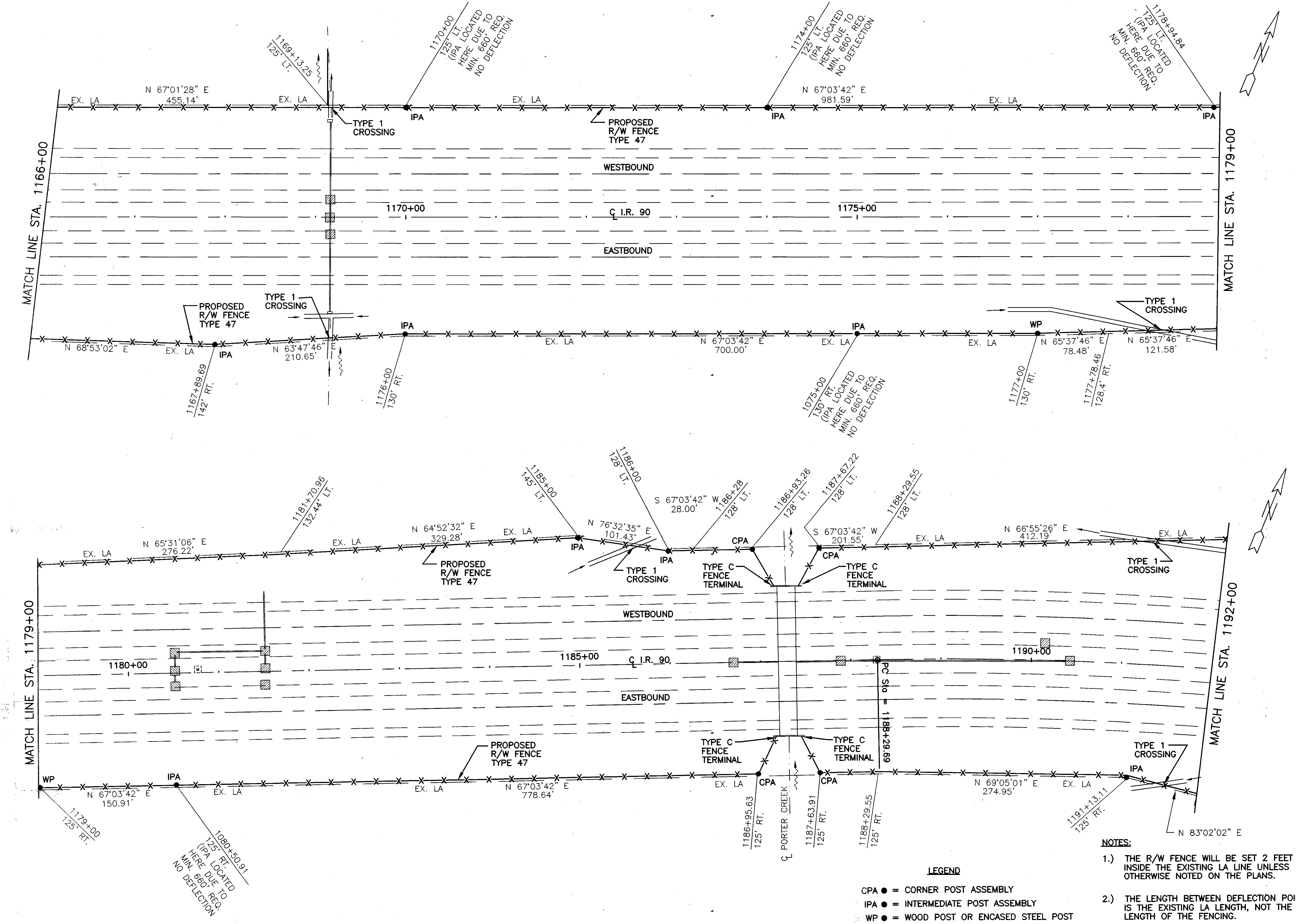
0 50' 100
HORIZONTAL SCALE IN FEET

CALCULATED NJW
CHECKED LAB

FENCE PLAN
STA. 1138+00 TO STA. 1166+00

LOR - I90 - 10.76



LEGEND

CPA ● = CORNER POST ASSEMBLY

IPA ● = INTERMEDIATE POST ASSEMBLY

WP ● = WOOD POST OR ENCASED STEEL POST

NOTES:

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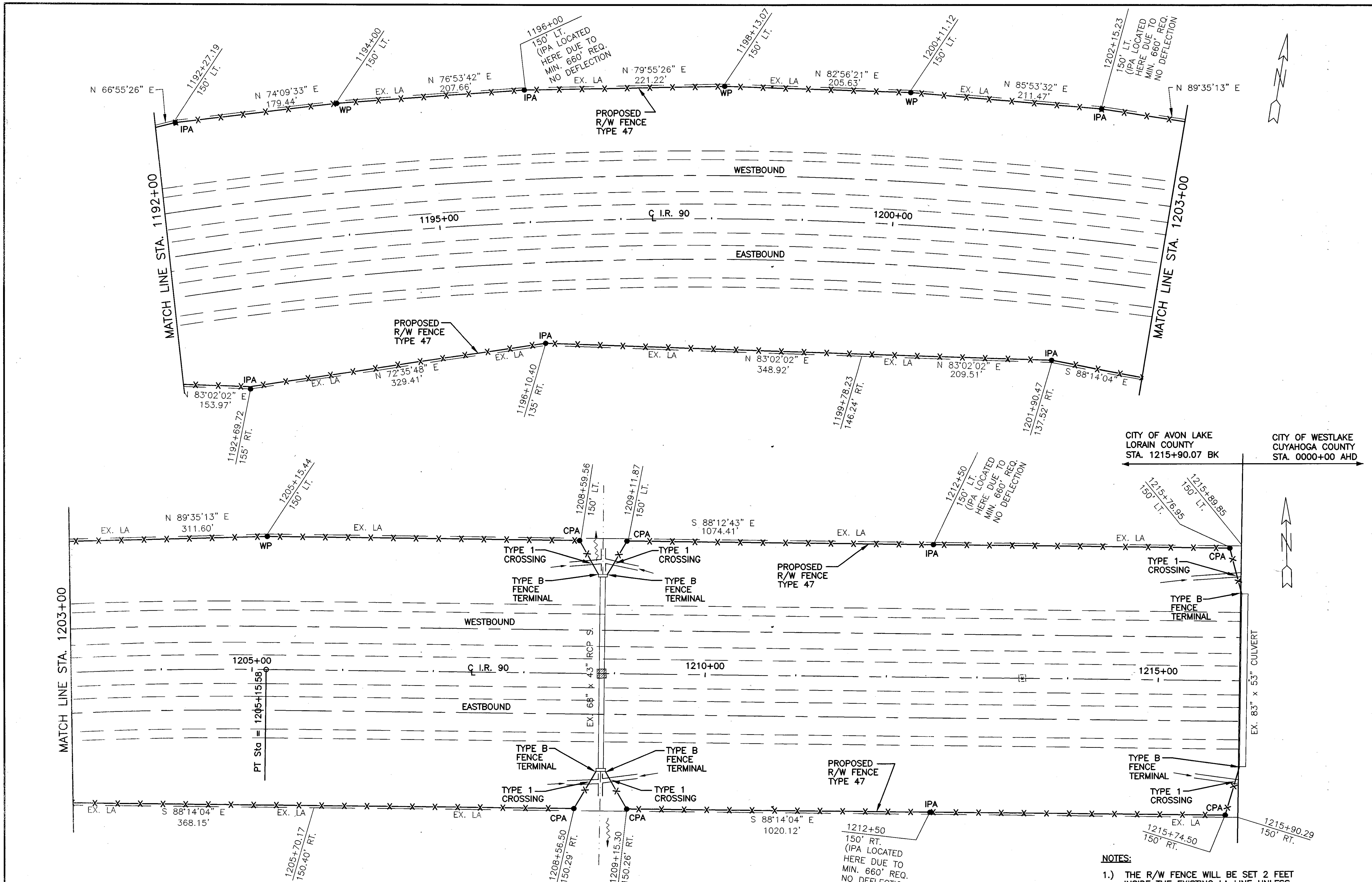
CALCULATED NJW
CHECKED LAB

FENCE PLAN
STA. 1166+00 TO STA. 1192+00

LOR - I90 - 10.76



LEGEND

CPA ● = CORNER POST ASSEMBLY

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NOTES:

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CALCULATED NJW
CHECKED LAB

FENCE PLAN
STA. 1192+00 TO STA. 1215+90.07

LOR - I90 - 10.76