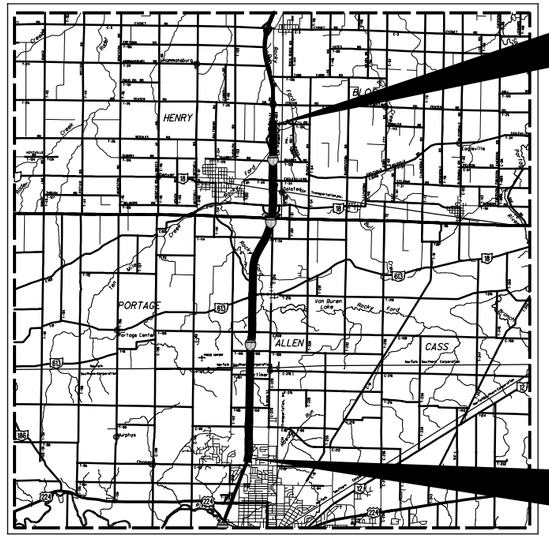

LOCATION MAP

LATITUDE: 41°08'16" LONGITUDE: 83°39'32"

SCALE IN MILES
0 1 2 3 4

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
STATE & FEDERAL ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

HAN/WOO-75-19.22/0.00

VILLAGES OF VAN BUREN & NORTH BALTIMORE
BLOOM & ALLEN TOWNSHIPS
HANCOCK & WOOD COUNTIES

PROJECT DESCRIPTION

MAJOR REHABILITATION OF EXISTING PAVEMENT. WIDENING OF PAVEMENT TO ACCOMMODATE 3 LANES IN EACH DIRECTION. REPLACE AND WIDEN BRIDGE DECKS ON HAN-75-2115 LEFT AND RIGHT OVER NS AND TR 101. REPLACE AND WIDEN BRIDGE DECKS ON HAN-75-2370 LEFT AND RIGHT OVER ROCKY FORD CREEK. REPLACE AND WIDEN BRIDGE DECKS ON WOO-75-0073 LEFT AND RIGHT OVER CSX AND WOO-75-0179 LEFT AND RIGHT OVER ROCKY FORD CREEK.

PROJECT EARTH DISTURBED AREA:	167 ACRES
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA:	2 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	169 ACRES

LIMITED ACCESS

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

2013 SPECIFICATIONS

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

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

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

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS:

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RELEASE FOR CONSTRUCTION
BU 2 4/24/2015

DESIGN DESIGNATION

	HAN (19.22-19.62)	HAN (19.62-23.07)	HAN/WOO (23.07-0.34)	WOO (0.34-1.00)	WOO (1.00-2.37)
CURRENT ADT (2016)	50150	51770	51360	49300	49250
DESIGN YEAR ADT (2036)	57570	62250	61840	60030	59800
K	0.10	0.10	0.10	0.10	0.10
DESIGN HOURLY VOLUME (2036)	5760	6430	6370	6110	6020
DIRECTIONAL DISTRIBUTION	55%	55%	55%	58%	54%
TRUCKS (24 HOUR B&C)	32%	31%	31%	30%	30%
TD	0.19	0.19	0.19	0.18	0.18
DESIGN SPEED	75 MPH	75 MPH	75 MPH	75 MPH	75 MPH
LEGAL SPEED	70 MPH	70 MPH	70 MPH	70 MPH	70 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
RURAL INTERSTATE
NHS PROJECT YES

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NUMBERS
INSIDE SHOULDER WIDTH	8-13-14	85-98 152-174 183-257

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:
DESIGN AGENCY
DGL CONSULTING ENGINEERS, LLC
3455 Briarfield Blvd. - Suite E Maumee, Ohio 43537
(419) 535-1015

ENGINEERS SEAL:	ENGINEERS SEAL:
FOR ROADWAY AND TRAFFIC (DGL)	FOR STRUCTURES (DGL)
STATE OF OHIO ★ RICHARD J. MCGUCKIN E-54615 ★ REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO ★ SCOT A. MOREHOUSE E-51421 ★ REGISTERED PROFESSIONAL ENGINEER
SIGNED: _____	SIGNED: _____
DATE: 3/19/2015	DATE: 4/23/2015

STANDARD CONSTRUCTION DRAWINGS

								SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	4/20/12	I-2.2	1/17/14	RM-1.1	7/18/14	AS-1-81	1/18/13	800	4/18/14
BP-5.1	7/19/13			RM-4.1	7/19/13	CPA-1-08	7/18/08	832	10/18/13
BP-9.1	7/19/13	MGS-1.1	7/19/13	RM-4.2	6/04/14	CPP-1-08	7/19/13	837	1/17/14
		MGS-2.1	7/19/13	RM-4.3	1/18/13	CS-1-08	7/18/08	892	12/31/12
CB-2.2	1/17/14	MGS-3.1	7/19/13	RM-4.4	7/18/14	GSD-1-96	7/19/02	902	12/31/12
CB-3.4	1/18/13	MGS-3.2	1/18/13	RM-4.5	10/16/09	PCB-91	1/18/13	937	4/20/07
		MGS-4.1	7/19/13	RM-4.6	7/19/13	SBR-1-13	7/19/13		
DM-1.1	1/18/13	MGS-4.2	7/19/13			SBR-2-13	7/19/13		
DM-1.2	1/18/13	MGS-4.3	1/18/13	TC-7.65	10/18/13	SICD-1-19	7/19/02		
DM-1.3	1/18/13	MGS-5.2	7/19/13	TC-12.30	10/18/13				
DM-1.4	1/18/13	MGS-5.3	7/19/13	TC-21.10	10/18/13				
DM-4.1	7/19/13	MGS-6.1	7/19/13	TC-21.20	10/18/13				
DM-4.3	7/19/13			TC-21.50	10/18/13				
DM-4.4	7/20/12	MH-1.2	1/18/13	TC-22.20	1/17/14				
				TC-41.10	7/19/13				
HL-10.11	1/17/14	MT-96.11	1/17/14	TC-41.20	10/18/13				
HL-10.12	1/17/14	MT-96.20	7/19/13	TC-41.25	10/18/13				
HL-20.11	1/17/14	MT-98.10	7/19/13	TC-41.30	10/18/13				
HL-20.13	1/17/14	MT-98.21	7/19/13	TC-41.50	10/18/13				
HL-30.11	1/17/14	MT-98.29	7/19/13	TC-42.10	10/18/13				
HL-30.21	1/17/14	MT-99.30	7/19/13	TC-42.20	10/18/13				
HL-30.22	1/17/14	MT-101.70	1/17/14	TC-51.11	1/17/14				
HL-30.41	1/17/14	MT-102.10	7/19/13	TC-51.12	1/17/14				
HL-50.21	1/17/14	MT-103.10	1/16/15	TC-52.10	10/18/13			SPECIAL PROVISIONS	
HL-60.11	1/17/14	MT-105.10	7/19/13	TC-52.20	1/17/14				
HL-60.12	1/17/14			TC-65.10	1/17/14				
				TC-65.11	1/17/14				
HW-2.1	1/18/13			TC-71.10	1/17/14				
HW-2.2	1/18/13			TC-72.20	7/20/12				

FEDERAL PROJECT NO. E131 (408)
PID NO. 95437
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT CSX RAILROAD, NORFOLK SOUTHERN RAILWAY COMPANY
HAN/WOO-75-19.22/0.00
1/336

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CURVE TR 99 RAMP A
P.I.= STA. 1030+41.03
Δ = 13° 07'13" (LT)
Dc = 6° 30'39.18"
R = 880.00'
T = 50.81'
L = 101.51'
E = 6.79'
SC = Sta. 1030+48.00
PT = Sta. 1031+49.51
emax = 0.072

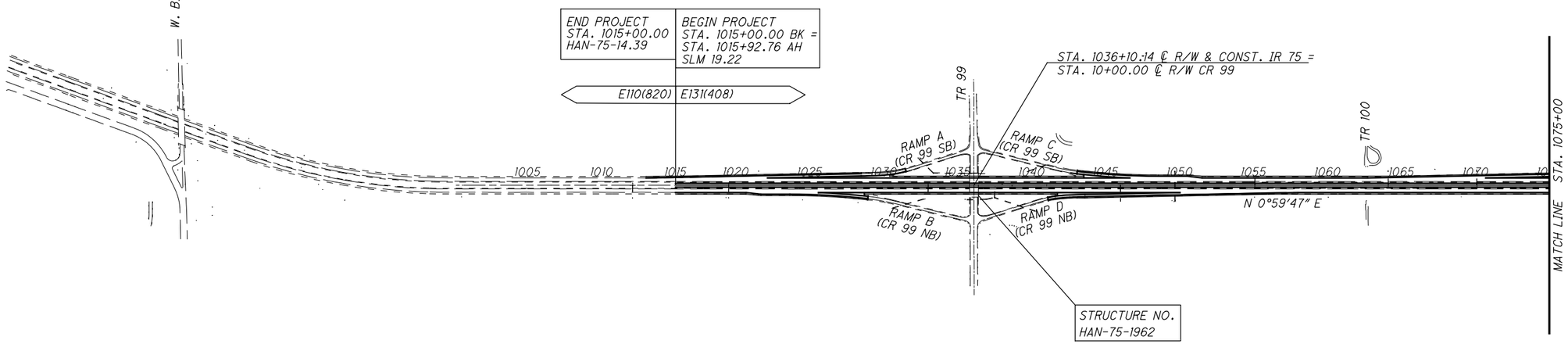
SPIRAL TR 99 RAMP A
P.I.= STA. 1029+81.42
Δ = 6° 30'39" (LT)
Dc = 6° 30'39.18"
R = 880.00'
Ls = 200.00'
θs = 2° 10'12.21"
Lt = 133.42'
St = 66.75'
P = 1.89'
Lc = 199.89'
TS = Sta. 1028+48.00
SC = Sta. 1030+48.00

CURVE TR 99 RAMP B
P.I.= STA. 1026+29.59
Δ = 6° 25'33.71" (RT)
Dc = 1° 13'00.00"
R = 4,709.24'
T = 264.36'
L = 528.17'
E = 7.41'
PC = Sta. 1023+65.23
PT = Sta. 1028+93.39
emax = 0.038

CURVE TR 99 RAMP C
P.I.= STA. 1045+82.37
Δ = 6° 41'46.62" (LT)
Dc = 1° 13'00.00"
R = 4,709.24'
T = 275.50'
L = 550.38'
E = 8.05'
PC = Sta. 1043+06.87
PT = Sta. 1048+57.25
emax = 0.038

CURVE TR 99 RAMP D
P.I.= STA. 1041+35.16
Δ = 3° 24'57.02" (RT)
Dc = 6° 56'41.79"
R = 825.00'
T = 24.60'
L = 49.18'
E = 0.37'
PC = Sta. 1041+10.56
CS = Sta. 1041+59.74
emax = 0.074

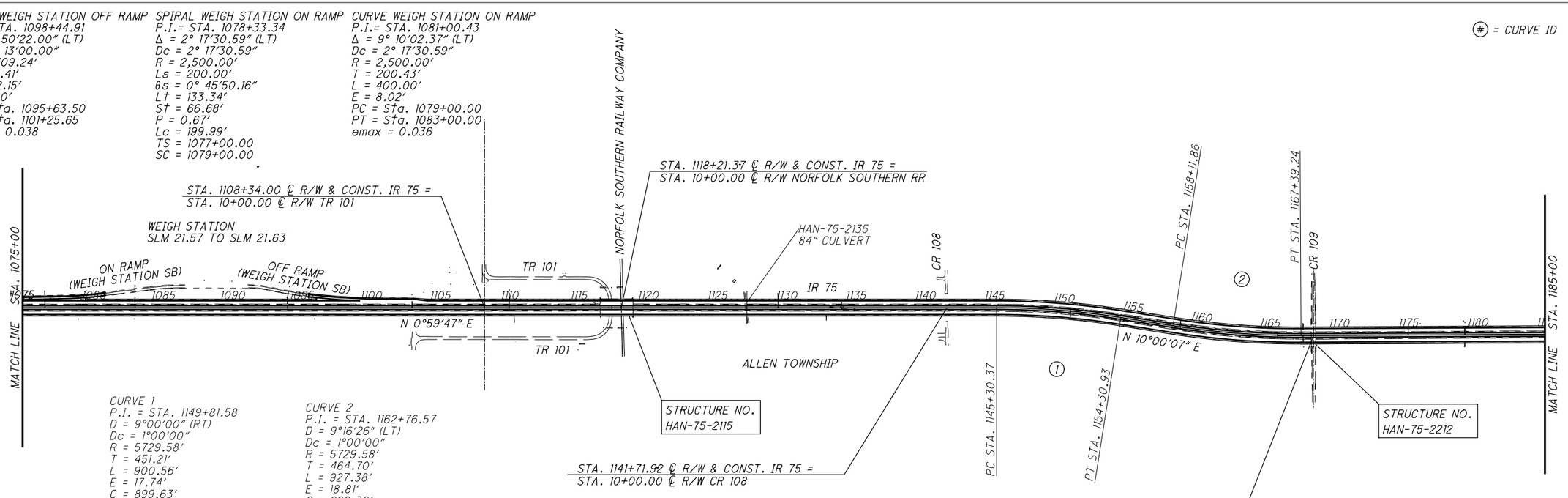
SPIRAL TR 99 RAMP D
P.I.= STA. 1042+26.50
Δ = 6° 56'41.79" (RT)
Dc = 6° 56'41.79"
R = 825.00'
Ls = 200.00'
θs = 2° 18'52.89"
Lt = 133.44'
St = 66.76'
P = 2.02'
Lc = 199.87'
CS = Sta. 1041+59.74
ST = Sta. 1043+59.74



CURVE WEIGH STATION OFF RAMP
P.I.= STA. 1098+44.91
Δ = 6° 50'22.00" (LT)
Dc = 1° 13'00.00"
R = 4,709.24'
T = 281.41'
L = 562.15'
E = 8.40'
PC = Sta. 1095+63.50
PT = Sta. 1101+25.65
emax = 0.038

SPIRAL WEIGH STATION ON RAMP
P.I.= STA. 1078+33.34
Δ = 2° 17'30.59" (LT)
Dc = 2° 17'30.59"
R = 2,500.00'
Ls = 200.00'
θs = 0° 45'50.16"
Lt = 133.34'
St = 66.68'
P = 0.67'
Lc = 199.99'
TS = 1077+00.00
SC = 1079+00.00

CURVE WEIGH STATION ON RAMP
P.I.= STA. 1081+00.43
Δ = 9° 10'02.37" (LT)
Dc = 2° 17'30.59"
R = 2,500.00'
T = 200.43'
L = 400.00'
E = 8.02'
PC = Sta. 1079+00.00
PT = Sta. 1083+00.00
emax = 0.036



CURVE 1
P.I. = STA. 1149+81.58
D = 9°00'00" (RT)
Dc = 1°00'00"
R = 5729.58'
T = 451.21'
L = 900.56'
E = 17.74'
C = 899.63'
C.B. = N 5°29'57" E
P.C. = STA. 1145+30.37
P.T. = STA. 1154+30.93
e max. = 0.040

CURVE 2
P.I. = STA. 1162+76.57
D = 9°16'26" (LT)
Dc = 1°00'00"
R = 5729.58'
T = 464.70'
L = 927.38'
E = 18.81'
C = 926.36'
C.B. = N 5°21'54" E
P.C. = STA. 1158+11.86
P.T. = STA. 1167+39.24
e max. = 0.040

HORIZONTAL SCALE IN FEET
0 200 400 800

SCHEMATIC PLAN
STA. 1015+00 TO STA. 1185+00

HAN/WOO-75-19.22/0.00

2
336

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CURVE SR 613 RAMP A
P.I.= STA. 1211+99.60
Δ = 4° 46'28.73" (LT)
Dc = 6° 21'58.31"
R = 900.00'
T = 37.52'
L = 75.00'
E = 0.78'
SC = Sta. 1211+62.08
PT = Sta. 1212+37.08
emax = 0.072

SPIRAL SR 613 RAMP A
P.I.= STA. 1210+95.50
Δ = 6° 21'58.31" (LT)
Dc = 6° 21'58.31"
R = 900.00'
Ls = 200.00'
θs = 2° 07'18.64"
Lt = 133.42'
St = 66.75'
P = 1.85'
Lc = 199.89'
TS = Sta. 1209+62.08
SC = Sta. 1211+62.08

CURVE SR 613 RAMP B
P.I.= STA. 1206+39.49
Δ = 6° 07'40.59" (RT)
Dc = 1° 13'00.00"
R = 4,709.24'
T = 252.07'
L = 503.67'
E = 6.74'
PC = Sta. 1203+87.42
PT = Sta. 1208+91.09
emax = 0.038

CURVE SR 613 RAMP C
P.I.= STA. 1229+93.96
Δ = 6° 17'18.63" (LT)
Dc = 1° 00'00.00"
R = 5,729.58'
T = 314.74'
L = 628.85'
E = 8.64'
PC = Sta. 1226+79.22
PCC = Sta. 1233+08.07
emax = 0.032

CURVE SR 613 RAMP D
P.I.= STA. 1224+98.73
Δ = 0° 43'22.78" (RT)
Dc = 5° 43'46.48"
R = 1,000.00'
T = 6.31'
L = 12.62'
E = 0.02'
PC = Sta. 1224+92.42
PT = Sta. 1225+05.04
emax = 0.068

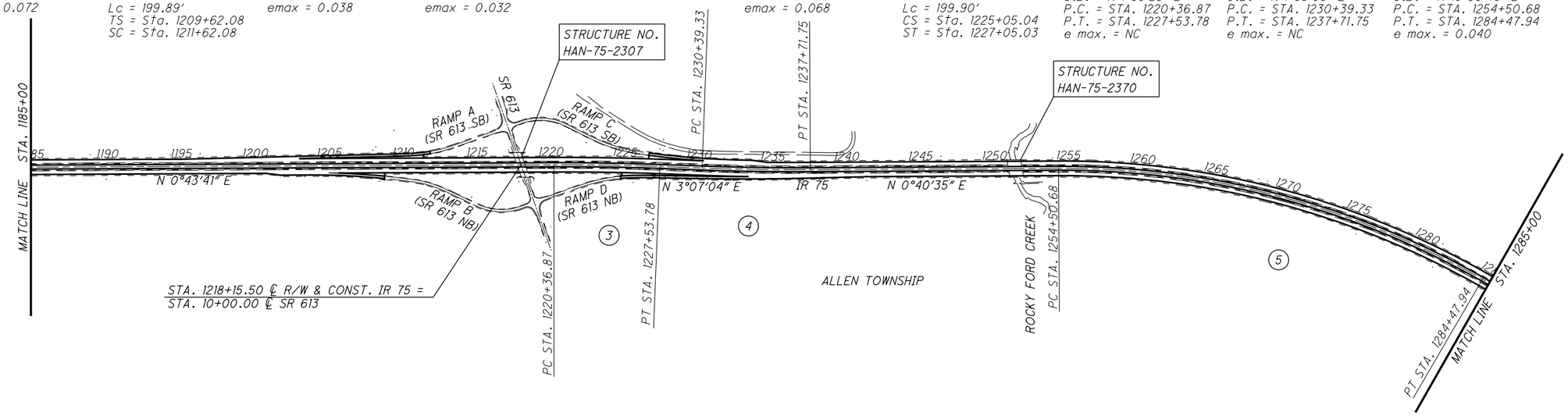
SPIRAL SR 613 RAMP D
P.I.= STA. 1225+71.77
Δ = 5° 43'45.45" (RT)
Dc = 5° 43'46.48"
R = 1,000.00'
Ls = 200.00'
θs = 1° 54'34.57"
Lt = 133.40'
St = 66.73'
P = 1.67'
Lc = 199.90'
CS = Sta. 1225+05.04
ST = Sta. 1227+05.03

CURVE 3
P.I. = STA. 1223+95.38
D = 2°23'23" (RT)
Dc = 0°20'00"
R = 17188.73'
T = 358.51'
L = 716.92'
E = 3.74'
C = 716.86'
C.B. = N 1°55'23" E
P.C. = STA. 1220+36.87
P.T. = STA. 1227+53.78
e max. = NC

CURVE 4
P.I. = STA. 1234+05.60
D = 2°26'29" (LT)
Dc = 0°20'00"
R = 17188.73'
T = 366.26'
L = 732.42'
E = 3.90'
C = 732.36'
C.B. = N 1°53'50" E
P.C. = STA. 1230+39.33
P.T. = STA. 1237+71.75
e max. = NC

CURVE 5
P.I. = STA. 1269+84.44
D = 29°58'21" (RT)
Dc = 1°00'00"
R = 5729.58'
T = 1533.77'
L = 2997.26'
E = 201.74'
C = 2963.20'
C.B. = N 15°39'46" E
P.C. = STA. 1254+50.68
P.T. = STA. 1284+47.94
e max. = 0.040

(#) = CURVE ID



CURVE SR 18 RAMP A
P.I.= STA. 10+01.83
Δ= 11° 11'58.86" (RT)
Dc = 6° 21'58.31"
R =900.00'
T =88.24'
L =175.92.'
E =4.32'
PC = STA. 9+13.59
PT = STA. 10+89.51
e max. = 0.071%

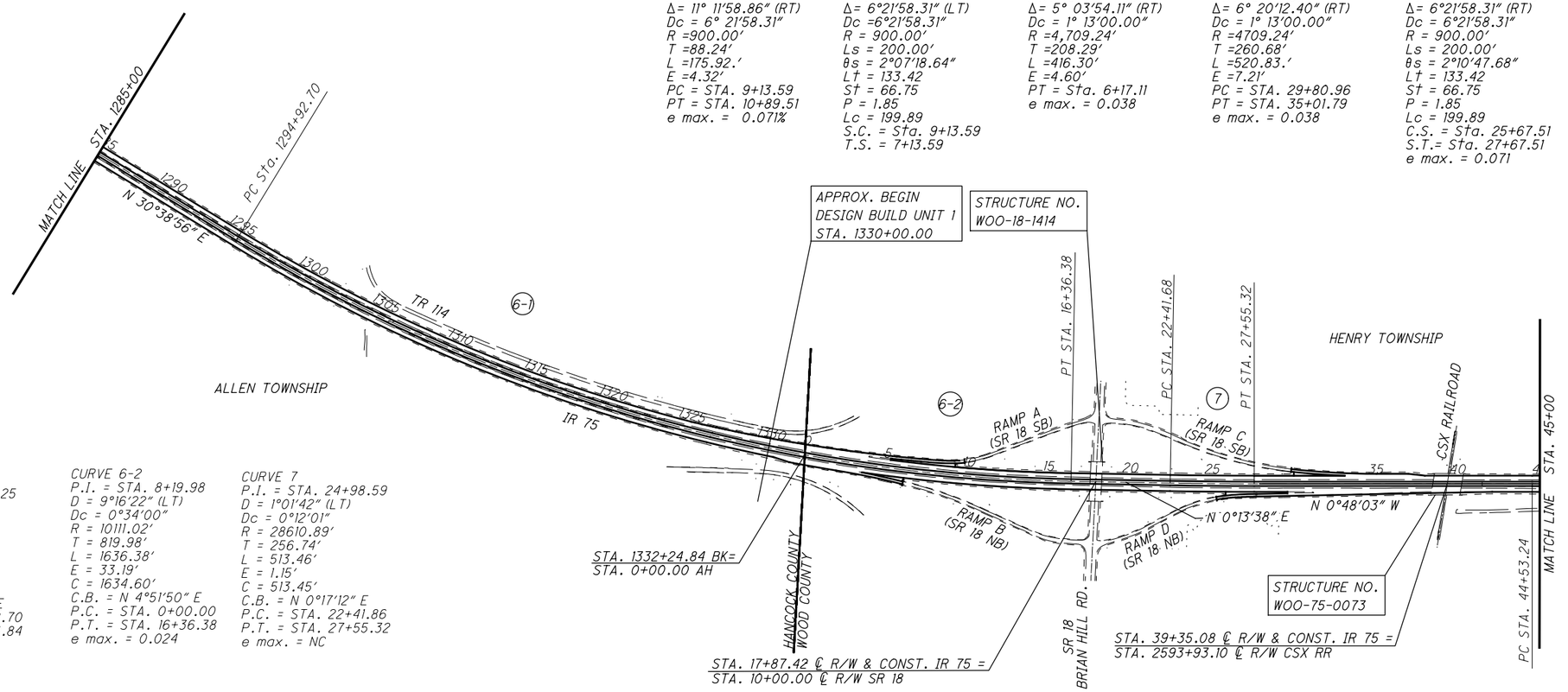
SPIRAL SR 18 RAMP A
P.I.= Sta.8+47.01
Δ= 6°21'58.31" (LT)
Dc =6°21'58.31"
R = 900.00'
Ls = 200.00'
θs = 2°07'18.64"
Lt = 133.42
St = 66.75
P = 1.85
Lc = 199.89
S.C. = Sta. 9+13.59
T.S. = 7+13.59

CURVE SR 18 RAMP B
P.I.= STA. 4+09.10
Δ= 5° 03'54.11" (RT)
Dc = 1° 13'00.00"
R =4,709.24'
T =208.29'
L =416.30'
E =4.60'
PT = Sta. 6+17.11
e max. = 0.038

CURVE SR 18 RAMP C
P.I.= STA. 32+41.64
Δ= 6° 20'12.40" (RT)
Dc = 1° 13'00.00"
R =4709.24'
T =260.68'
L =520.83.'
E =7.21'
PC = STA. 29+80.96
PT = STA. 35+01.79
e max. = 0.038

SPIRAL SR 18 RAMP D
P.I.= Sta.26+34.26
Δ= 6°21'58.31" (RT)
Dc = 6°21'58.31"
R = 900.00'
Ls = 200.00'
θs = 2°10'47.68"
Lt = 133.42
St = 66.75
P = 1.85
Lc = 199.89
C.S. = Sta. 25+67.51
S.T.= Sta. 27+67.51
e max. = 0.071

(#) = CURVE ID



CURVE 6-1
P.I. = STA. 1313+80.25
D = 21°08'56" (LT)
Dc = 0°34'00"
R = 10111.02'
T = 1887.55'
L = 3732.14'
E = 174.68'
C = 3710.99'
C.B. = N 20°04'28" E
P.C. = STA. 1294+92.70
P.T. = STA. 1332+24.84
e max. = 0.024

CURVE 6-2
P.I. = STA. 8+19.98
D = 9°16'22" (LT)
Dc = 0°34'00"
R = 10111.02'
T = 819.98'
L = 1636.38'
E = 33.19'
C = 1634.60'
C.B. = N 4°51'50" E
P.C. = STA. 0+00.00
P.T. = STA. 16+36.38
e max. = 0.024

CURVE 7
P.I. = STA. 24+98.59
D = 1°01'42" (LT)
Dc = 0°12'01"
R = 28610.89'
T = 256.74'
L = 513.46'
E = 1.15'
C = 513.45'
C.B. = N 0°17'12" E
P.C. = STA. 22+41.86
P.T. = STA. 27+55.32
e max. = NC

HORIZONTAL SCALE IN FEET
0 200 400 800

SCHEMATIC PLAN
STA. 1185+00 TO STA. 45+00

HAN/WOO-75-19.22/0.00

3
336

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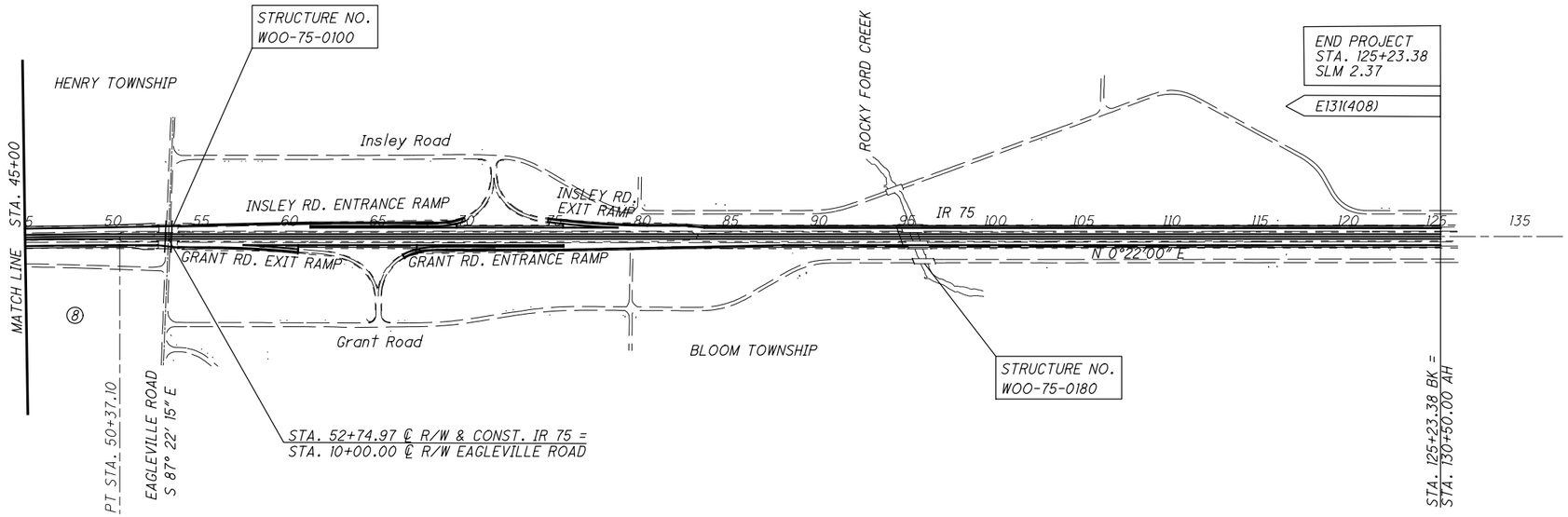

SCHEMATIC PLAN
STA. 45+00 TO STA. 125+23.38

HAN/WOO-75-19.22/0.00

4
336

HORIZONTAL SCALE IN FEET
0 200 400 800

= CURVE ID

CURVE 8
P.I. = STA. 47+45.18
D = 1°10'04" (RT)
Dc = 0°12'00"
R = 28647.89
T = 291.94'
L = 583.86'
E = 1.49'
C = 583.85'
C.B. = N 0°13'01" E
P.C. = STA. 44+53.24
P.T. = STA. 50+37.10
e max. = NC

CURVE GRANT RD. EXIT
P.I.= STA. 57+96.31
Δ= 6° 08'30.46" (RT)
Dc = 1° 13'00.00"
R =4709.24'
T =252.64'
L =504.80'
E =6.77'
PC = STA. 55+43.67
PT = STA. 60+48.47
e max. = 0.039%

CURVE GRANT RD. ENTRANCE
P.I.= STA. 66+66.09
Δ= 9° 38'10.30" (RT)
Dc = 20° 06'13.62"
R =285.00'
T =24.02'
L =47.88'
E =1.01'
PC = STA. 66+42.07
PT = STA. 66+90.00
e max. = 0.082%

SPIRAL GRANT RD. ENTRANCE
P.I.= Sta.67+57.46
Δ= 21%'15.78" (LT)
Dc = 21°37'15.78"
R =285.00'
Ls = 200.00'
θs = 6°41'39.32"
Lt = 134.20'
St = 67.46'
P = 5.82'
Lc = 198.91
C.S. = Sta. 66+90.00
S.T. = 68+90.00
e max. = 0.069%

CURVE INSLEY RD. ENTRANCE
P.I.= STA. 79+41.18
Δ= 64° 51'47.33" (RT)
Dc = 21° 37'15.78"
R =265.00'
T =168.38'
L =300.00''
E =48.97'
PC = STA. 69+80.80
PT = STA. 72+80.80
e max. = 0.082%

SPIRAL INSLEY RD. ENTRANCE
P.I.= Sta.69+15.14
Δ= 21°37'15.78" (LT)
Dc = 21°37'15.78"
R = 265.00'
Ls = 200.00'
θs = 7°11'53.87"
Lt = 134.34
St = 67.58
P = 6.26
Lc = 198.74
S.C. = Sta. 69+80.80
T.S. = 67+80.80

CURVE INSLEY RD. EXIT
P.I.= STA. 77+45.08
Δ= 6° 49'24.44" (RT)
Dc = 1° 13'00.00"
R =4,709.24'
T =280.75'
L =560.83''
E =8.36'
PC= STA. 74+64.33
PT = STA. 80+25.16
e max. = 0.038%

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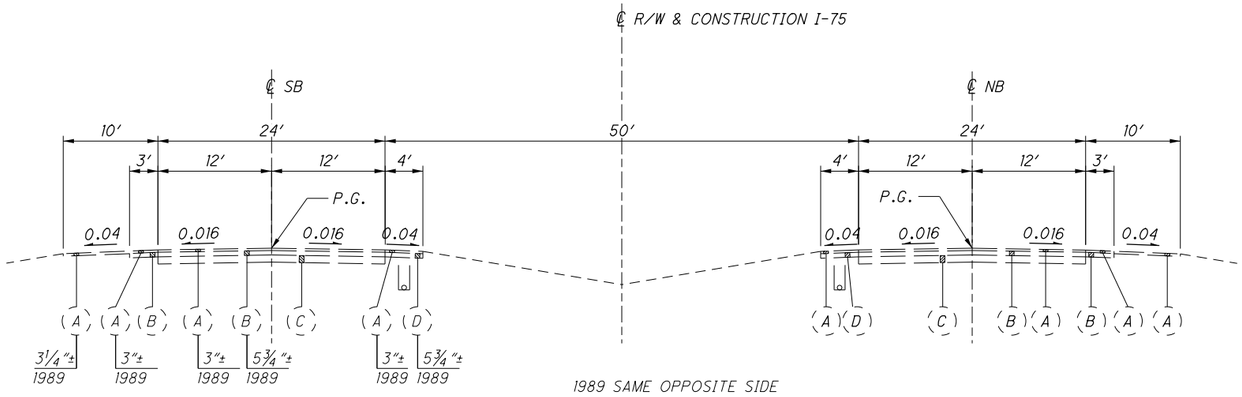
TYPICAL SECTION "A"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1016+27.5 TO STA. 1032+25
STA. 1043+25 TO STA. 1101 +75
STA. 1135+50 TO STA. 1143+60
STA. 1155+95 TO STA. 1156+00
STA. 1176+00 TO STA. 1183+74.81

(A) ASHPALT CONCRETE (THICKNESS SHOWN)
(B) ASPHALT CONCRETE BASE COURSE (THICKNESS SHOWN)
(C) 9" REINFORCED PORTLAND CONCRETE PAVEMENT
(D) AGGREGATE BASE COURSE (THICKNESS SHOWN)
(E) SUBBASE
(F) 6" PIPE UNDERDRAINS
(G) GUARDRAIL

TYPICAL SECTIONS - I.R. 75

HAN/WOO-75-19.22/0.00

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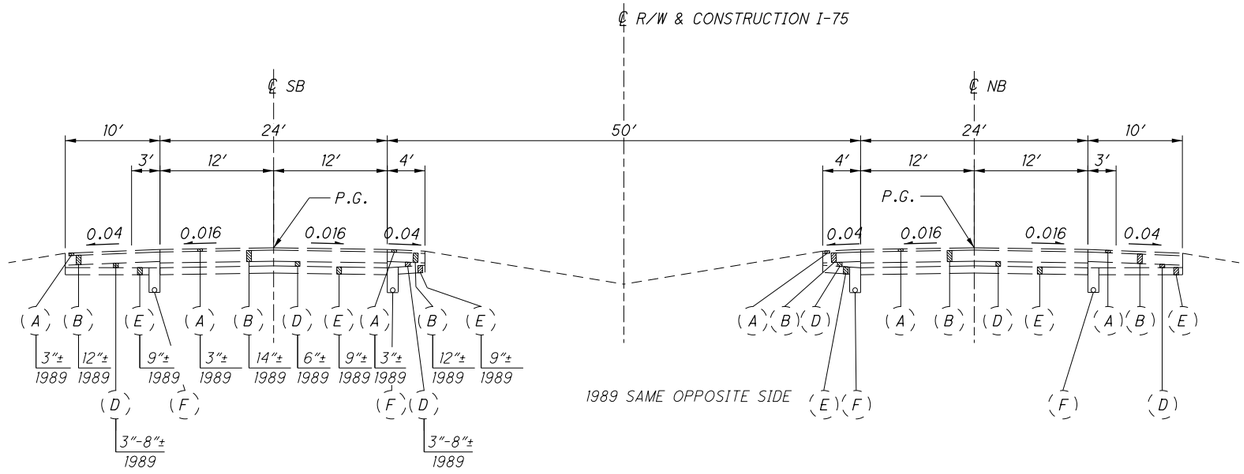
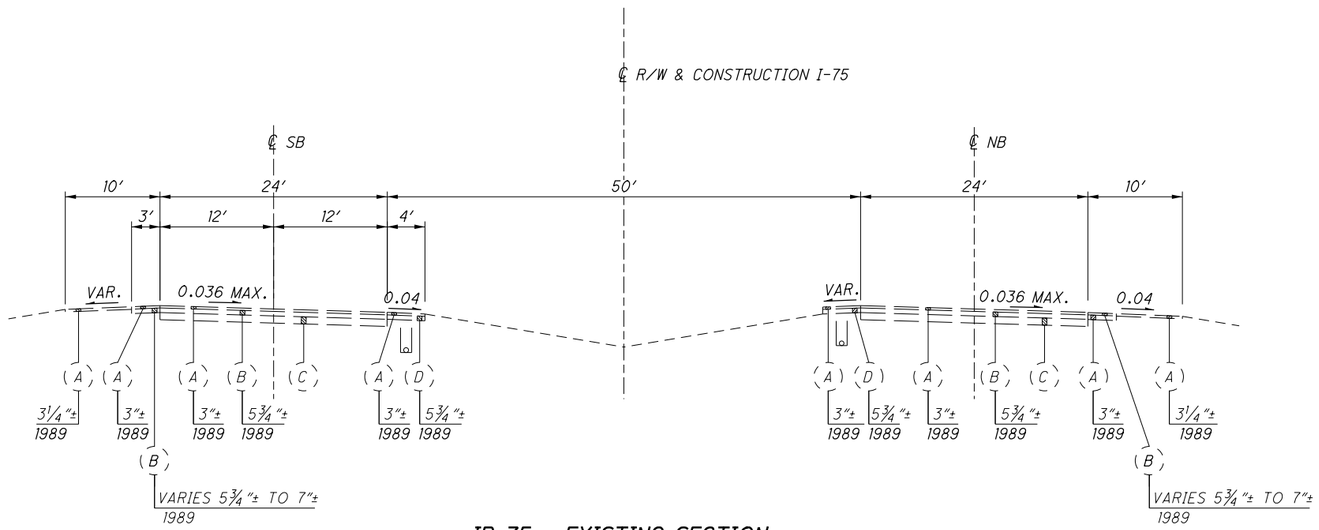
TYPICAL SECTION "B"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1032+25 TO STA. 1043+25
STA. 1101+75 TO STA. 1135+50
STA. 1156+00 TO STA. 1157+12.50
STA. 1168+37.50 TO STA. 1176+00

TYPICAL SECTION "C"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1143+60 TO 1155+95

TYPICAL SECTIONS - I.R. 75

HAN/WOO-75-19.22/0.00

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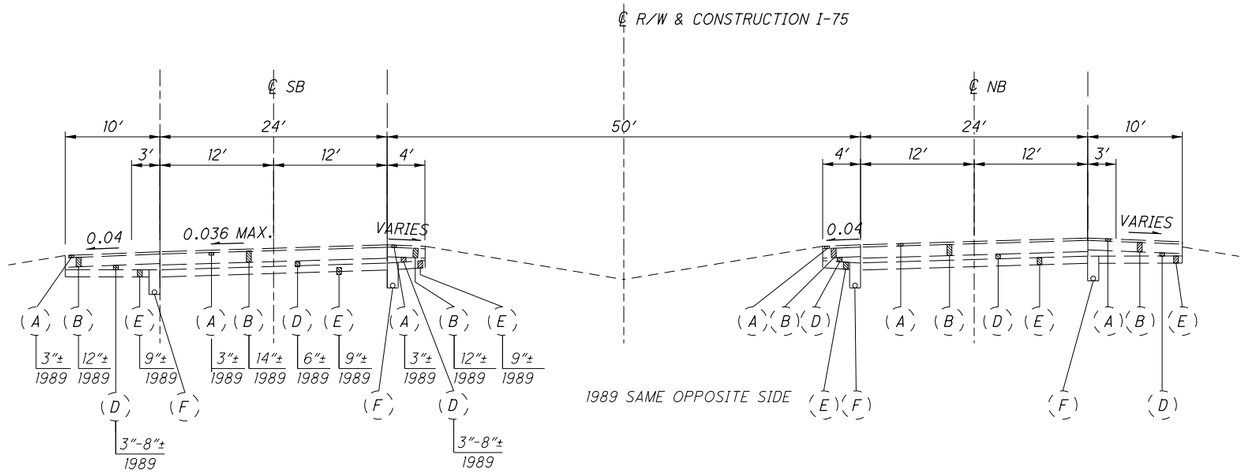
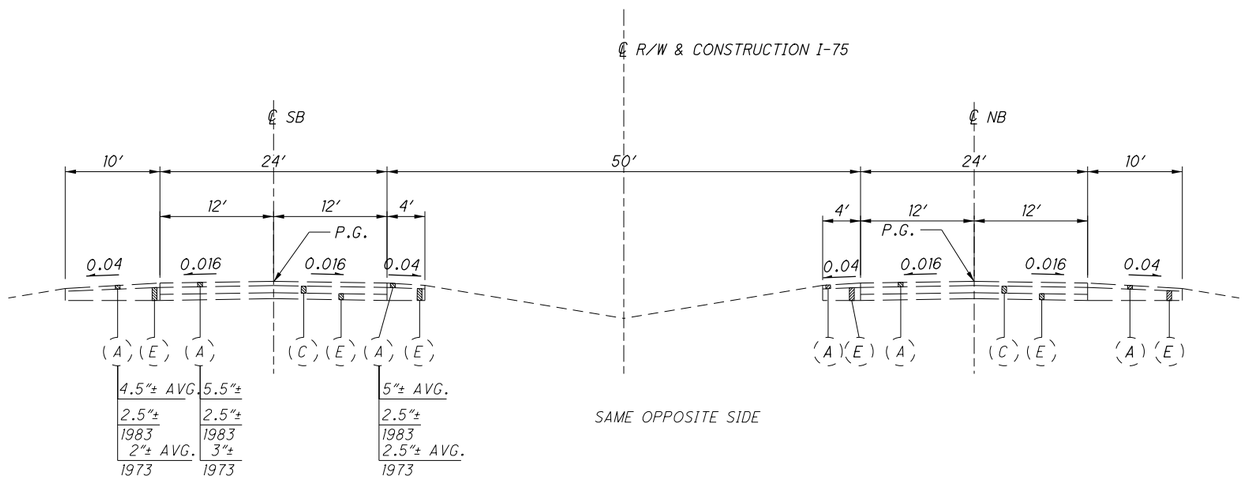
TYPICAL SECTION "D"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1157+12.5 TO STA. 1168+37.5

TYPICAL SECTION "E"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1183+74.81 TO STA. 1245+03
STA. 1278+03 TO STA. 1285+16

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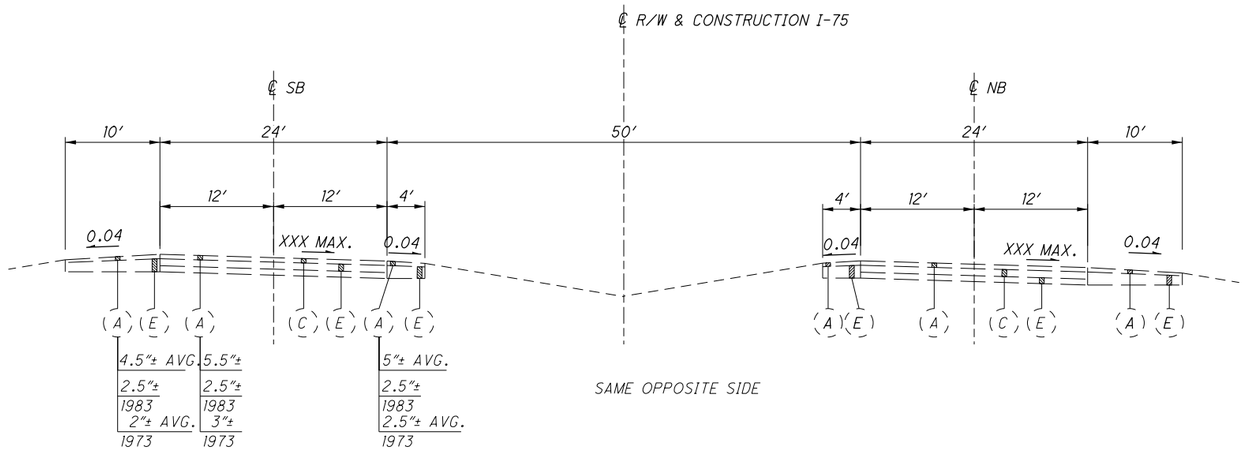
TYPICAL SECTIONS - I.R. 75

HAN/WOO-75-19.22/0.00

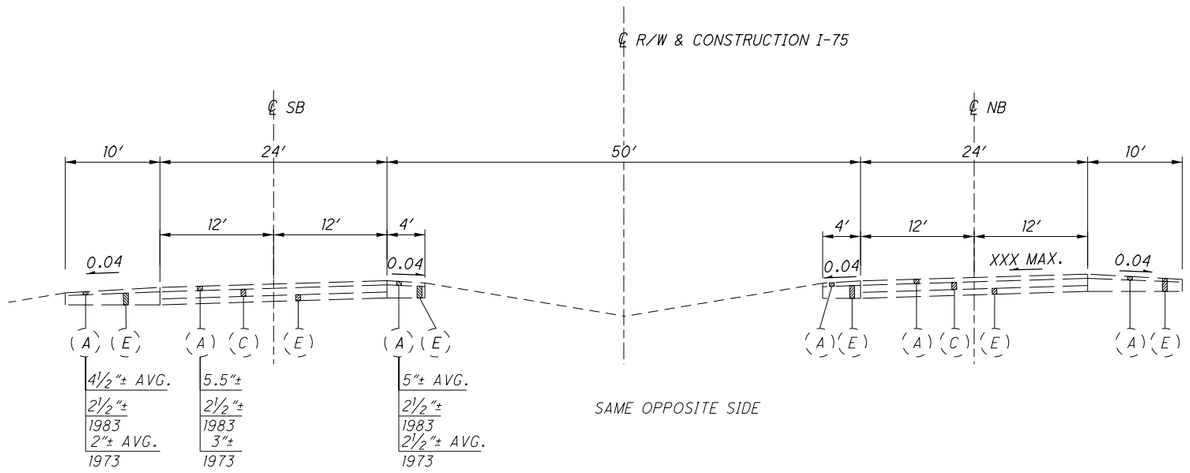
TYPICAL SECTION "F"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1245+03 TO STA. 1278+03

TYPICAL SECTION "G"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1285+16 to STA. 1323+84.88

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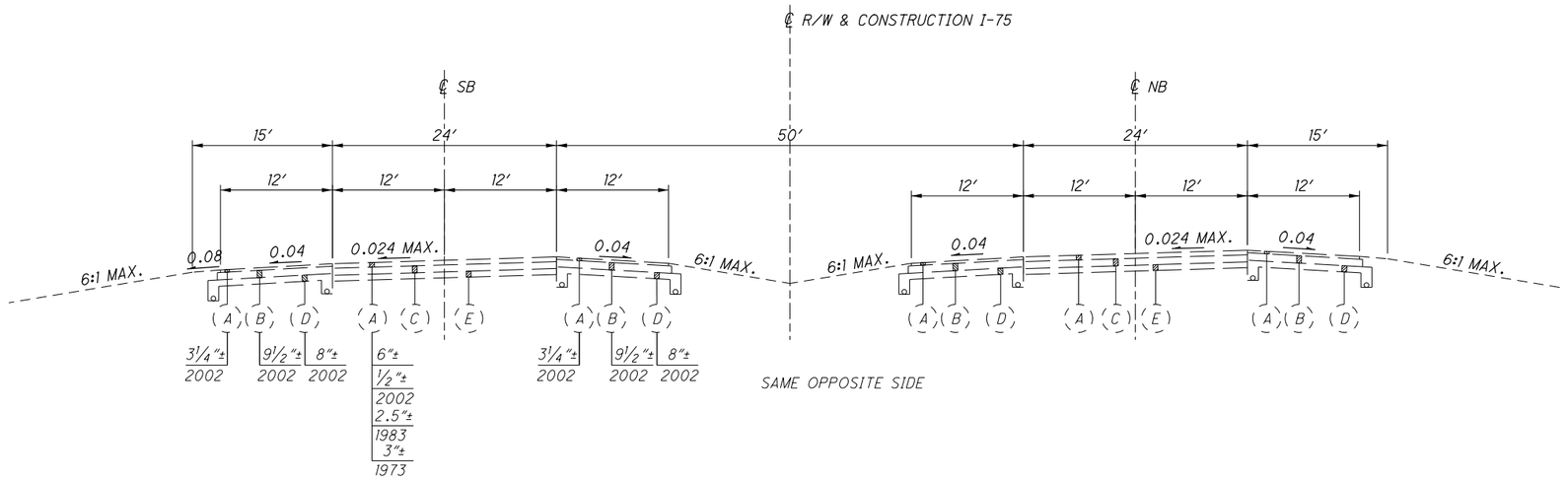
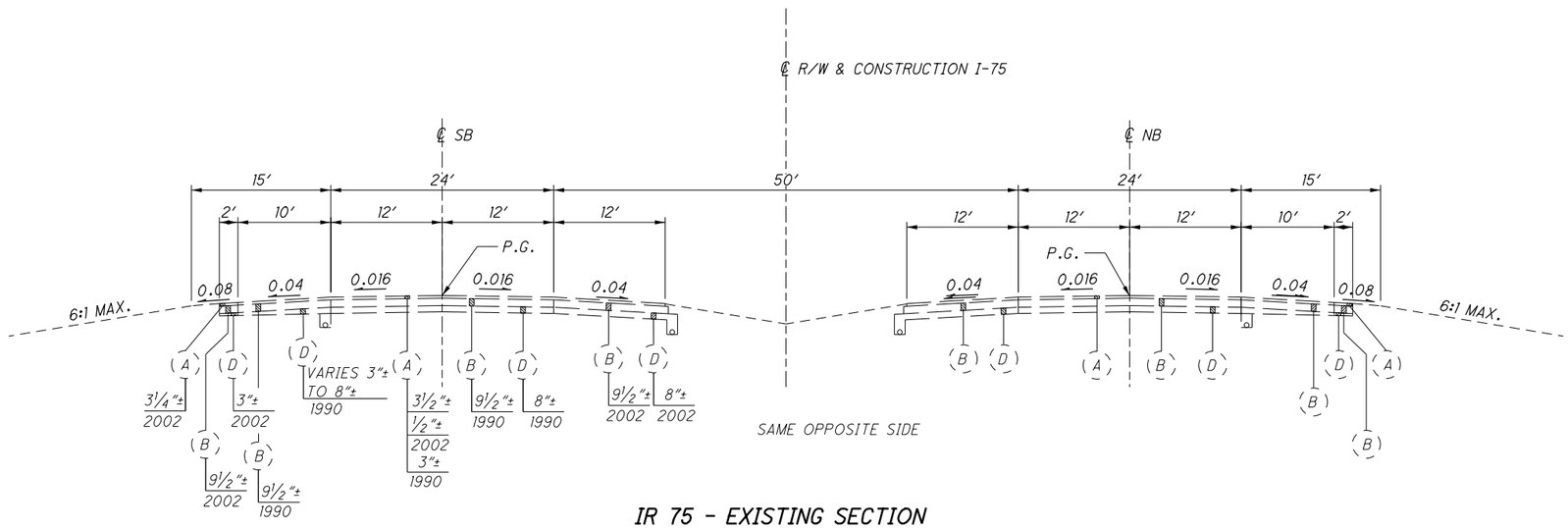
TYPICAL SECTION "H"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 1323+84.88 to STA. 13+17

TYPICAL SECTION "I"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 13+17 TO STA. 24+17

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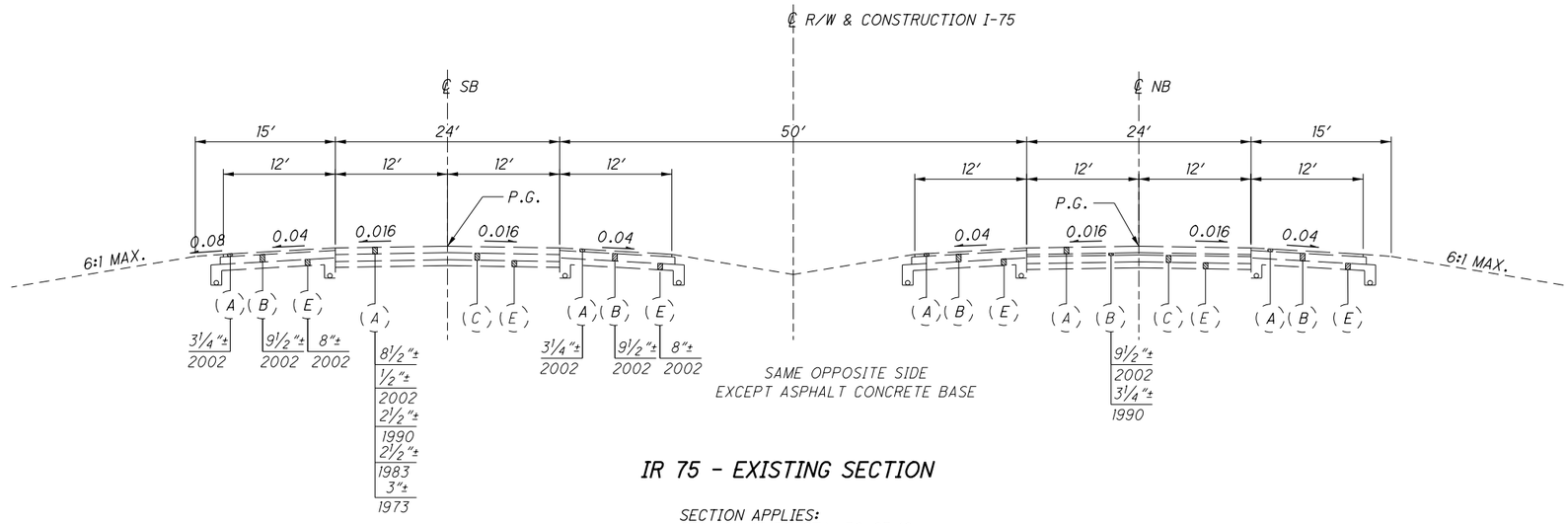
TYPICAL SECTIONS - I.R. 75

HAN/WOO-75-19.22/0.00

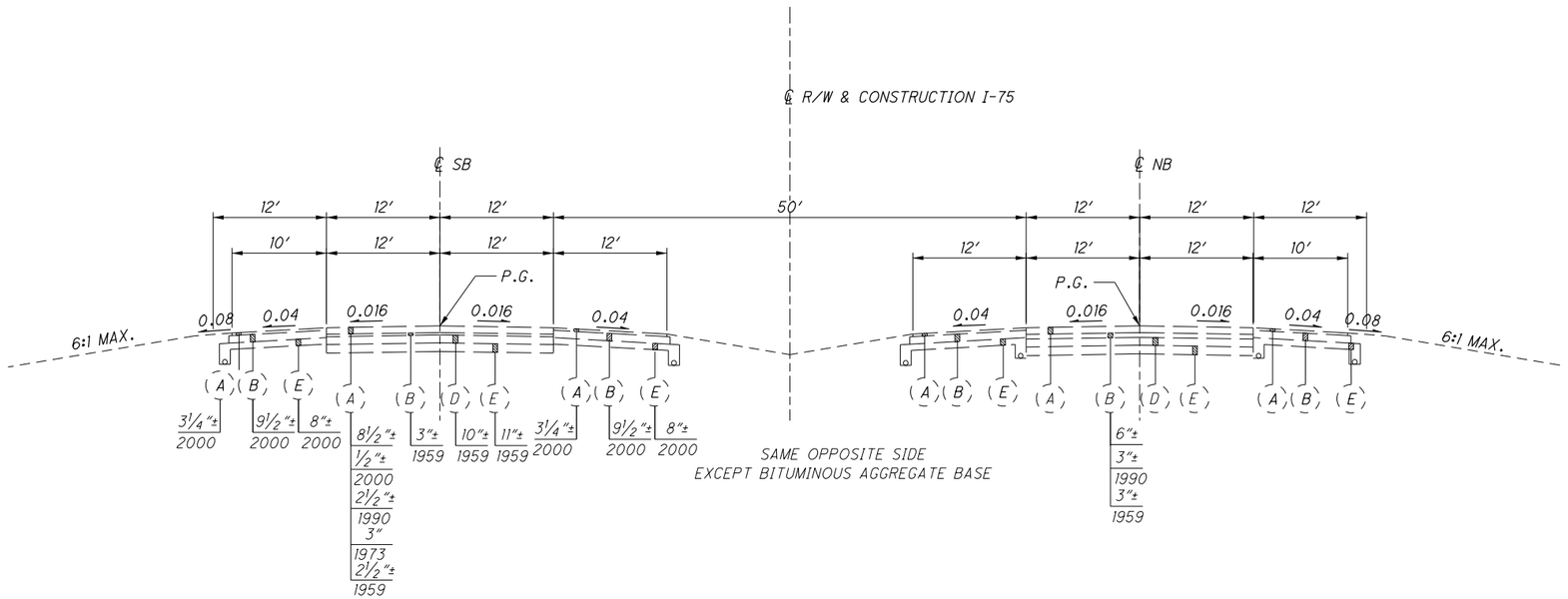
TYPICAL SECTION "J"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 24+17 TO STA. 38+23.18

TYPICAL SECTION "K"



IR 75 - EXISTING SECTION

SECTION APPLIES:
STA. 38+23.18 TO STA. 50+40

TYPICAL SECTIONS - I.R. 75

HAN/WOO-75-19.22/0.00

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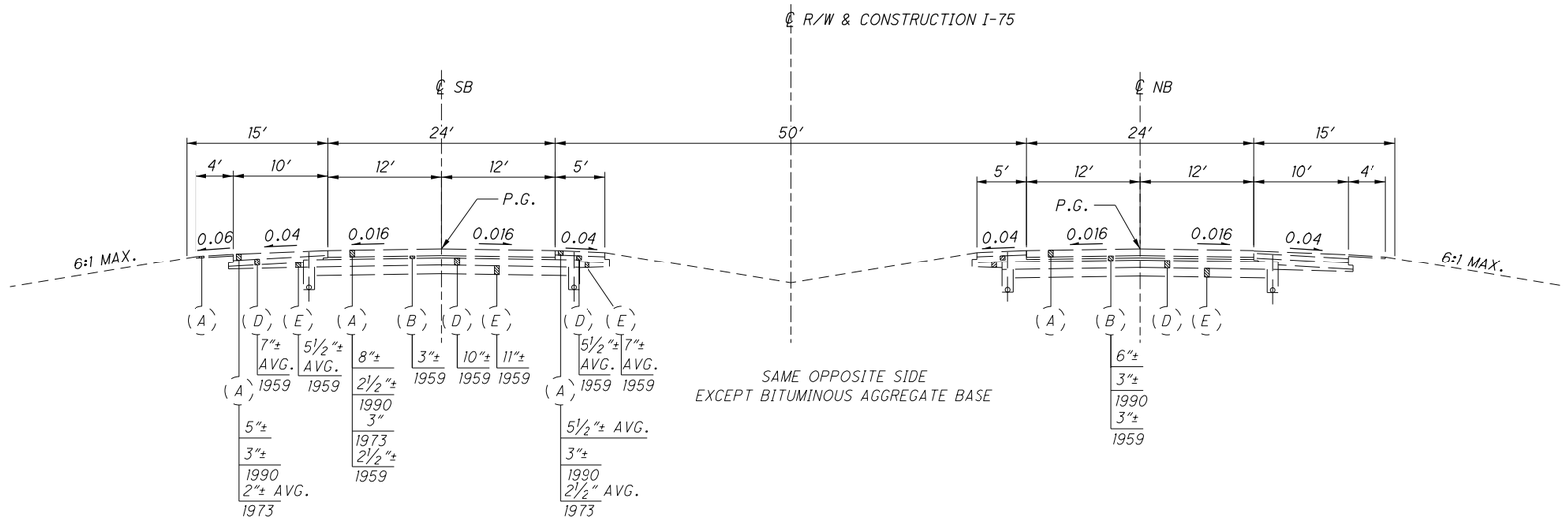
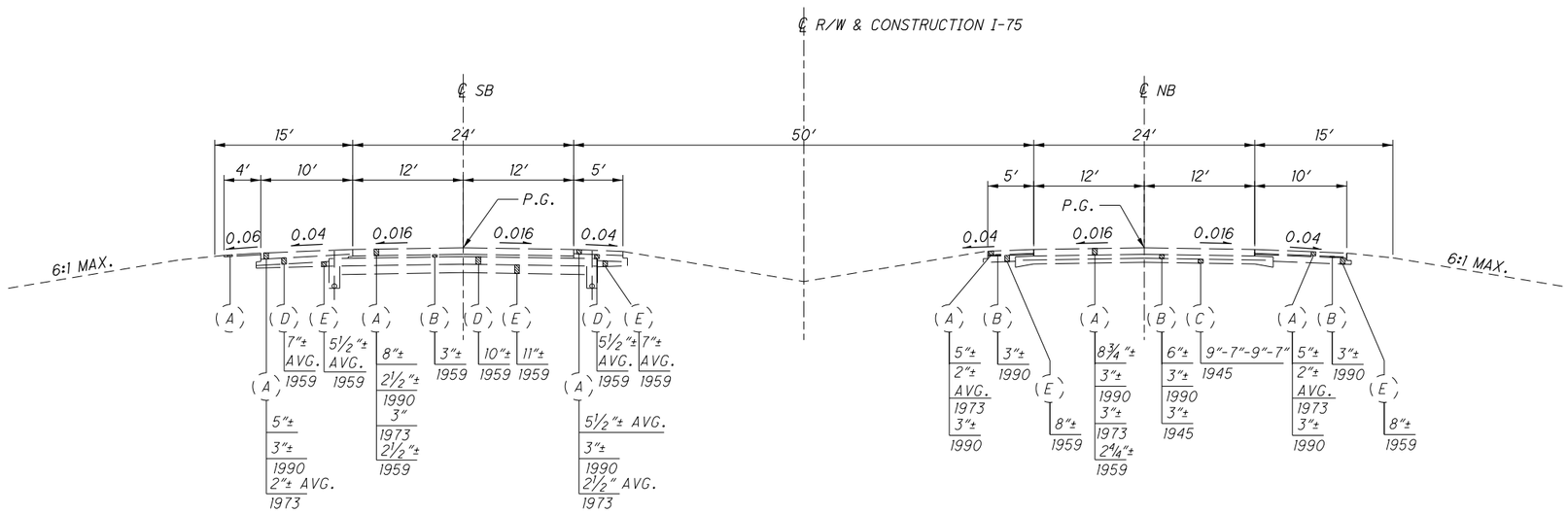
TYPICAL SECTION "L"



IR 75 - EXISTING SECTION

SECTION APPLIES
STA. 50+40 TO STA. 66+27
STA. 85+10 TO STA. 104+00

TYPICAL SECTION "M"



IR 75 - EXISTING SECTION

SECTION APPLIES
STA. 66+27 TO STA. 85+10
STA. 104+00 TO STA. 130+50

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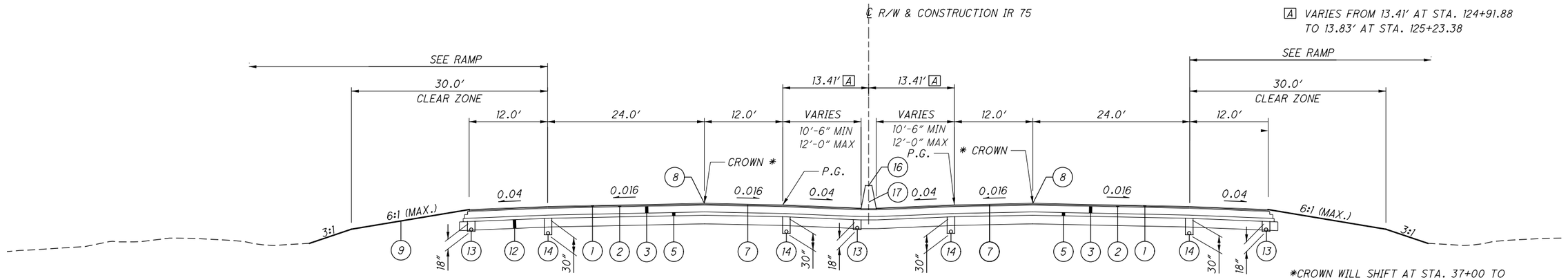


A VARIES FROM 13.41′ AT STA. 124+91.88 TO 13.83′ AT STA. 125+23.38

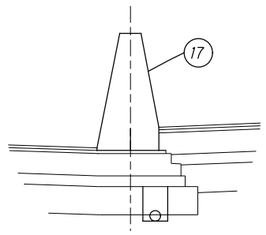
IR 75 - NORMAL SECTION

SECTION APPLIES:

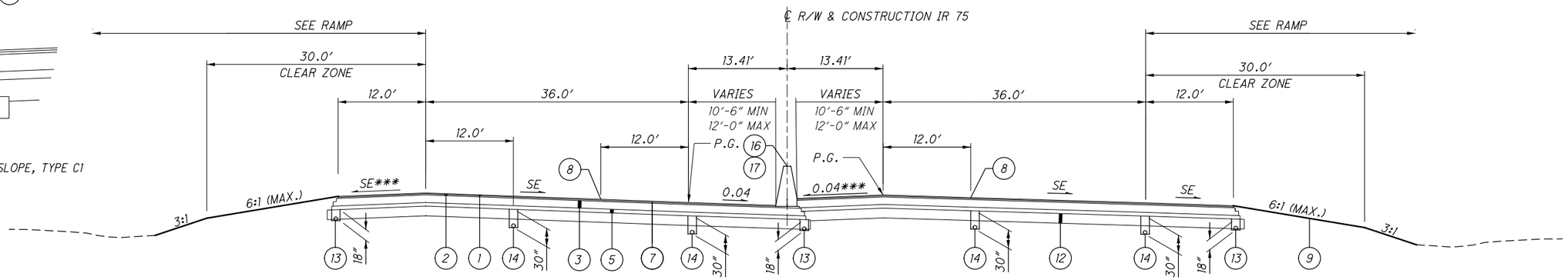
STA. 1015+92.76 TO STA. 1116+44.59	= 10051.83 FT. (BU 2)
STA. 1119+30.59 TO STA. 1142+40.01	= 2309.42 FT. (BU 2)
STA. 1170+29.60 TO STA. 1250+91.16	= 8061.56 FT. (BU 2)
STA. 1287+38.30 TO STA. 1292+77.71	= 539.41 FT. (BU 2)
STA. 18+51.37 TO STA. 38+21.92	= 1970.55 FT.
STA. 40+48.47 TO STA. 52+33.27	= 1183.12 FT.
STA. 53+91.63 TO STA. 94+59.19	= 4067.56 FT.
STA. 96+29.30 TO STA. 125+23.38	= 2894.08 FT.
TOTAL =	31077.53 FT.

*CROWN WILL SHIFT AT STA. 37+00 TO MATCH EXISTING LOCATION ON REAR APPROACH SLAB OF WOO-75-0.73. THE CROWN WILL ALSO SHIFT FROM FWD. APPROACH SLAB EXISTING LOCATION TO THE PROPOSED LOCATION AT STA. 41+75.

**SEE PLAN AND PROFILE FOR LOCATIONS OF UNEQUAL NORTHBOUND AND SOUTHBOUND PROFILE GRADES. THESE LOCATIONS REQUIRE CONCRETE BARRIER, SINGLE SLOPE, TYPE C1.



CONCRETE BARRIER, SINGLE SLOPE, TYPE C1



IR 75 - SUPERELEVATED SECTION

SECTION APPLIES:

STA. 1142+40.01 TO STA. 1156+21.40	= 1381.39 FT. (BU 2)
STA. 1156+21.40 TO STA. 1170+29.60 (OPPOSITE HAND)	= 1408.20 FT. (BU 2)
STA. 1252+25.21 TO STA. 1287+38.30	= 3513.09 FT. (BU 2)
STA. 1292+77.71 TO STA. 1332+24.84 BK. (OPPOSITE HAND)	= 3940.13 FT. (BU 1, SE MAX = 0.024)
STA. 0+00 AHD. TO STA. 18+51.37 (OPPOSITE HAND)	= 1844.37 FT. (BU 1, SE MAX = 0.024)
TOTAL =	12087.18 FT.

***SEE SUPERELEVATION SHEETS FOR LOCATIONS WHERE THE SHOULDER SLOPE MEETS THE MAX BREAK, NOT TO EXCEED 7%

LEGEND

1. ITEM 442 - 1½″ ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
2. ITEM 442 - 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
3. ITEM 302 - 12½″ ASPHALT CONCRETE BASE, PG64-22
4. ITEM 442 - 2″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 UNDER GUARDRAIL, PG64-22, AS PER PLAN
5. ITEM 304 - 6″ AGGREGATE BASE
6. ITEM 407 - TACK COAT (0.075 GAL/SQ YD)
7. ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SQ YD)
8. ITEM 409 - SEALING MISC.: LONGITUDINAL JOINT SEALER
9. ITEM 659 - SEEDING AND MULCHING
10. ITEM 202 - PAVEMENT REMOVED
11. ITEM 254 - PAVEMENT PLANING (THICKNESS AS SHOWN)
12. ITEM 690 SPECIAL MISC.: SUBGRADE CHEMICAL STABILIZATION
13. ITEM 605 - 6″ BASE PIPE UNDERDRAINS WITH FABRIC WRAP, 707.31
14. ITEM 605 - 6″ SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.31
15. ITEM 606 - GUARDRAIL, TYPE MGS
    ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS
16. ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1
17. ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C1
18. ITEM 209 - LINEAR GRADING
19. ITEM 526 - REINFORCED APPROACH SLAB, T=15″, AS PER PLAN
20. ITEM 601 - TIED CONCRETE BLOCK MAT, AS PER PLAN
21. ITEM 203 - GRANULAR EMBANKMENT, AS PER PLAN - NO. 8 STONE
22. ITEM 690 - SPECIAL GEOTEXTILE FABRIC, WRAPPED AROUND NO. 8 STONE
23. ITEM 611 - 6″ CONDUIT, TYPE E (PERFORATED)
24. ITEM 611 - 6″, TYPE F, FOR UNDERDRAIN OUTLETS
25. ITEM 611 - PRECAST REINFORCED CONCRETE OUTLET
26. ITEM 609 - CURB, TYPE 4B
27. ITEM 609 - CURB, TYPE 4C
28. ITEM 204 - 15″, GRANULAR MATERIAL, TYPE D TOPPED WITH ITEM 204 - 3″, GRANULAR MATERIAL, TYPE B
29. ITEM 609 - CURB, TYPE 4A

TYPICAL SECTIONS - I.R. 75

HAN/WOO-75-19.22/0.00

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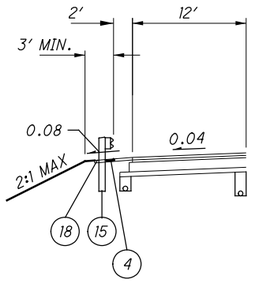
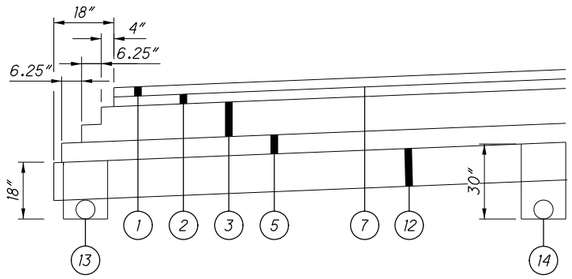
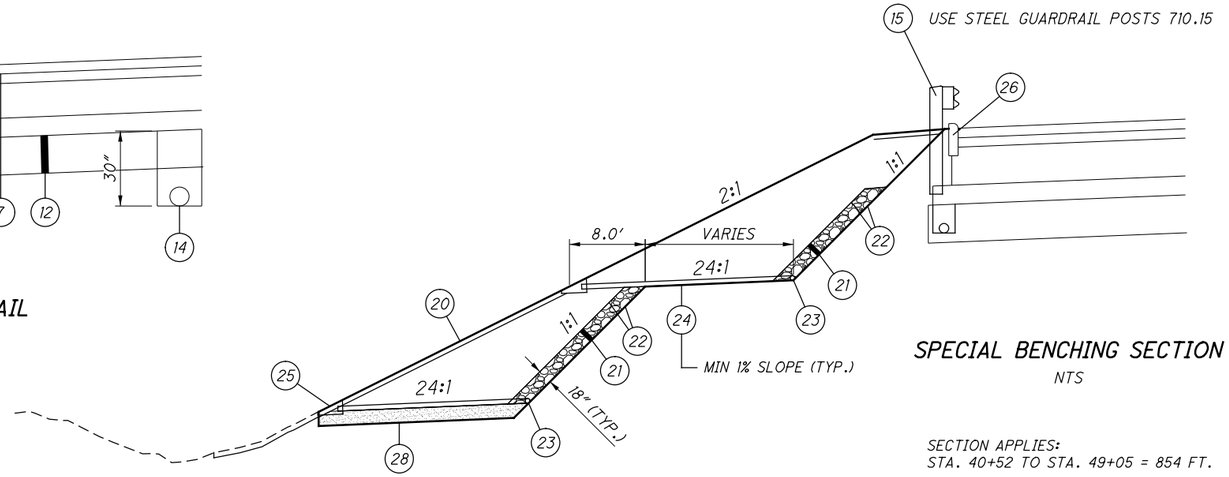


GUARDRAIL DETAIL

SEE PLAN SHEETS FOR GUARDRAIL LOCATIONS



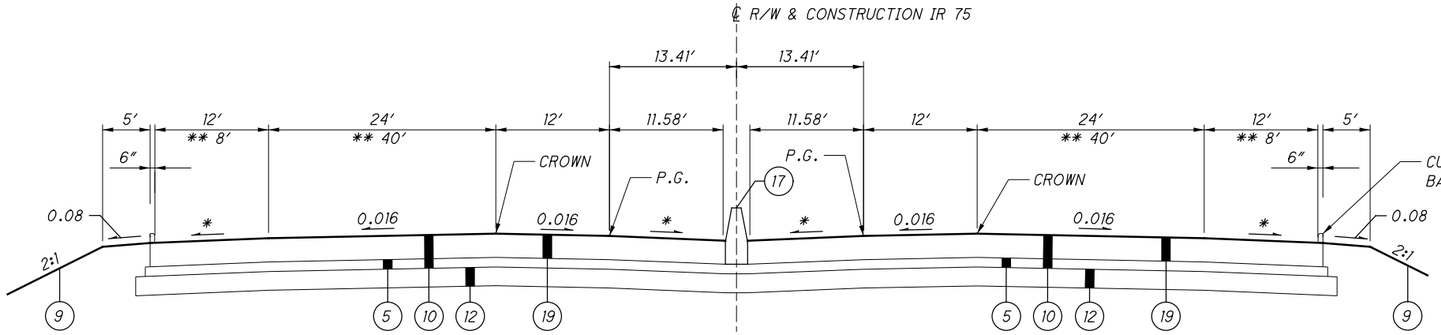
EDGE DETAIL



SPECIAL BENCHING SECTION

NTS

SECTION APPLIES:
STA. 40+52 TO STA. 49+05 = 854 FT.



* - VARIES 0.04 TO 0.016

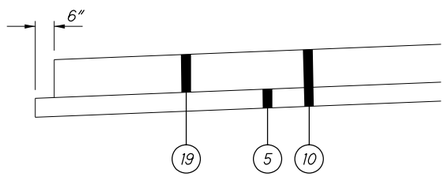
CURB TYPE 4-A ON HAN 75-2115, HAN 75-2370 AND WOO 75-0180, BARRIER ON WOO 75-0100 , SEE APPROACH SLAB DETAILS

IR 75 - APPROACH SLAB SECTION

SECTION APPLIES:

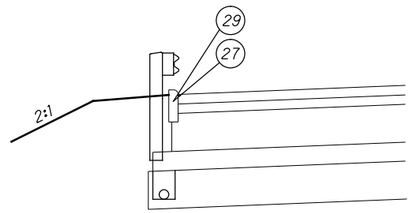
	STA. 1116+44.59 TO STA. 1116+69.59	=25 FT.(BU 2, HAN 75-2115)
	STA. 1119+05.59 TO STA. 1119+30.59	=25 FT.(BU 2, HAN 75-2115)
	STA. 1250+91.16 TO STA. 1251+11.16	=20 FT.(BU 2, HAN 75-2370)
	STA. 1252+05.21 TO STA. 1252+25.21	=20 FT.(BU 2, HAN 75-2370)
**	STA. 52+33.27 TO STA. 52+58.27	=25 FT. (BU1, WOO 75-0100)
**	STA. 53+66.63 TO STA. 53+91.63	=25 FT. (BU1, WOO 75-0100)
	STA. 94+59.19 TO STA. 94+84.99	=25 FT. (BU1, WOO 75-0180)
	STA. 96+04.30 TO STA. 96+29.30	=25 FT. (BU1, WOO 75-0180)

TOTAL = 200.00 FT



APPROACH SLAB EDGE DETAIL

NTS



CURB DETAIL

NTS

SECTION APPLIES:

STA. 1109+94.63 TO STA. 1116+67.63 (LT)	= 673.00 FT
STA. 1109+94.63 TO STA. 1116+70.56 (RT)	= 675.93 FT
STA. 1119+04.62 TO STA. 1130+05.37 (LT)	= 1100.75 FT
STA. 1119+07.07 TO STA. 1133+05.00 (RT)	= 1397.93 FT
STA. 94+36.71 TO STA. 94+61.71	= 25.00 FT
STA. 95+81.96 TO STA. 96+06.96	= 25.00 FT
STA. 94+81.63 TO STA. 95+06.45	= 25.00 FT
STA. 96+26.81 TO STA. 96+51.62	= 25.00 FT
STA. 54+94.55 TO STA. 55+18.87	= 24.00 FT
STA. 52+05.96 TO STA. 52+30.29	= 24.00 FT
STA. 53+88.68 TO STA. 54+13.05	= 24.00 FT

SEE SHEET 12 FOR PROPOSED LEGEND

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TYPICAL SECTIONS - I.R. 75

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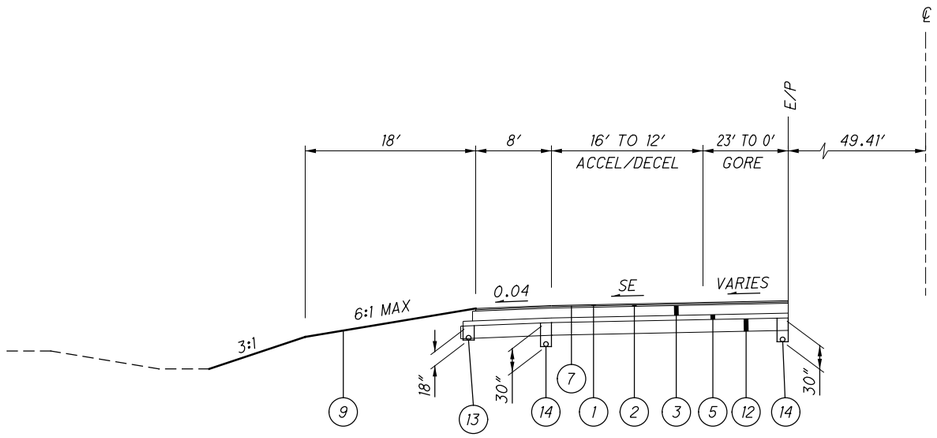
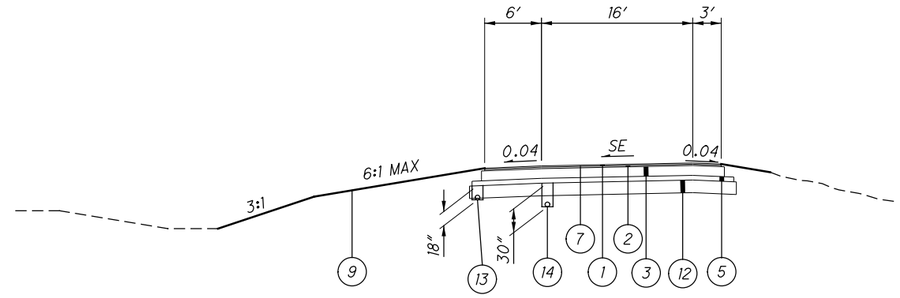


PROPOSED ACCELERATION/DECELERATION LANE SECTIONS - IR 75

STATION EQUATION
1015+00.00 BK = 1015+92.76 AH

SECTION APPLIES:

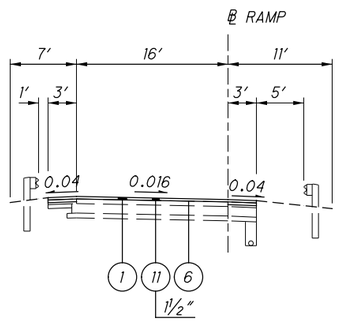
STA. 1013+01.64 TO STA. 1030+39.21 (SE = 0.072 MAX)	*= 1644.81 FT (TR 99 RAMP A)**
STA. 1020+69.64 TO STA. 1028+69.64 (SE = 0.038 MAX)	*= 800.00 FT (TR 99 RAMP B, OPPOSITE HAND)*
STA. 1041+73.50 TO STA. 1058+01.72 (SE = 0.074 MAX)	*= 1628.22 FT (TR 99 RAMP D, OPPOSITE HAND)*
STA. 1043+52.84 TO STA. 1051+52.84 (SE = 0.038 MAX)	*= 800.00 FT (TR 99 RAMP C)*
STA. 1062+69.99 TO STA. 1079+53.44 (SE = 0.036 MAX)	*= 1683.45 FT (WEIGH STATION RAMP A)*
STA. 1096+21.24 TO STA. 1104+21.24 (SE = 0.038 MAX)	*= 800.00 FT (WEIGH STATION RAMP B)*
STA. 1195+20.00 TO STA. 1211+56.43 (SE = 0.072 MAX)	*= 1636.43 FT (SR 613 RAMP A)*
STA. 1200+85.61 TO STA. 1208+91.84 (SE = 0.038 MAX)	*= 806.23 FT (SR 613 RAMP B, OPPOSITE HAND)*
STA. 1224+98.27 TO STA. 1241+50.00 (SE = 0.068 MAX)	*= 1651.73 FT (SR 613 RAMP D, OPPOSITE HAND)*
STA. 1226+77.61 TO STA. 1234+75.52 (SE = 0.032 MAX)	*= 797.91 FT (SR 613 RAMP C)*
STA. 1325+00.00 TO STA. 9+22.68 (SE= 0.071 MAX)	*= 1647.68 FT (SR 18 RAMP A)*
STA. 1330+40.00 TO STA. 6+15.17 (SE= 0.038 MAX)	*= 800.17 FT (SR 18 RAMP B, OPPOSITE HAND)*
STA. 25+81.42 TO STA. 42+08.84 (SE = 0.071 MAX)	*= 1627.42 FT (SR 18 RAMP D, OPPOSITE HAND)*
STA. 29+97.37 TO STA. 37+97.37 (SE = 0.03 MAX)	*= 800.00 FT (SR 18 RAMP C)*
STA. 48+31.16 TO STA. 69+46.46 (SE = 0.068 MAX)	*= 2115.30 FT (INSLEY RD ENTRANCE)*
STA. 52+49.22 TO STA. 60+48.09 (SE = 0.025 MAX)	*= 798.87 FT (GRANT RD EXIT, OPPOSITE HAND)*
STA. 67+20.28 TO STA. 88+02.57 (SE = 0.071 MAX)	*= 2082.29 FT (GRANT RD. ENTRANCE, OPPOSITE HAND)*
STA. 75+50.00 TO STA. 83+50.00 (SE = 0.038 MAX)	*= 800.00 FT (INSLEY RD EXIT)*



PROPOSED RAMP SECTION

SECTION APPLIES:

STA. 1028+68.58 TO STA. 1028+93.40 (SE = 0.038 MAX)	*= 24.82 FT (TR 99 RAMP B)*
STA. 1030+37.09 TO STA. 1031+49.51 (SE = 0.072 MAX)	*= 112.42 FT (TR 99 RAMP A)*
STA. 1041+10.56 TO STA. 1041+75.48 (SE = 0.074 MAX)	*= 64.92 FT (TR 99 RAMP D)*
STA. 1043+06.87 TO STA. 1043+53.90 (SE = 0.038 MAX)	*= 47.03 FT (TR 99 RAMP C)*
STA. 1079+52.16 TO STA. 1080+90.13 (SE = 0.036 MAX)	*= 137.97 FT (WEIGH STATION RAMP A)*
STA. 1095+63.50 TO STA. 1096+21.98 (SE = 0.038 MAX)	*= 58.48 FT (WEIGH STATION RAMP B)*
STA. 1211+54.94 TO STA. 1212+00.08 (SE = 0.072 MAX)	*= 48.14 FT (SR 613 RAMP A)*
STA. 1224+92.42 TO STA. 1225+00.70 (SE = 0.068 MAX)	*= 8.28 FT (SR 613 RAMP D)*
STA. 9+19.80 TO STA. 9+75.00 (SE = 0.071 MAX)	*= 55.20 FT (SR 18 RAMP A)*
STA. 25+25.00 TO STA. 25+82.31 (SE = 0.071 MAX)	*= 14.80 FT (SR 18 RAMP D) OPPOSITE HAND*
STA. 29+80.96 TO STA. 29+98.18 (SE = 0.03 MAX)	*= 17.22 FT (SR 18 RAMP C)*
STA. 66+42.07 TO STA. 67+23.06 (SE = 0.082 MAX)	*= 80.99 FT (GRANT RD ENTRANCE) OPPOSITE HAND*
STA. 69+43.20 TO STA. 69+92.63 (SE = 0.079 MAX)	*= 49.43 FT (INSLEY ENTRANCE)*

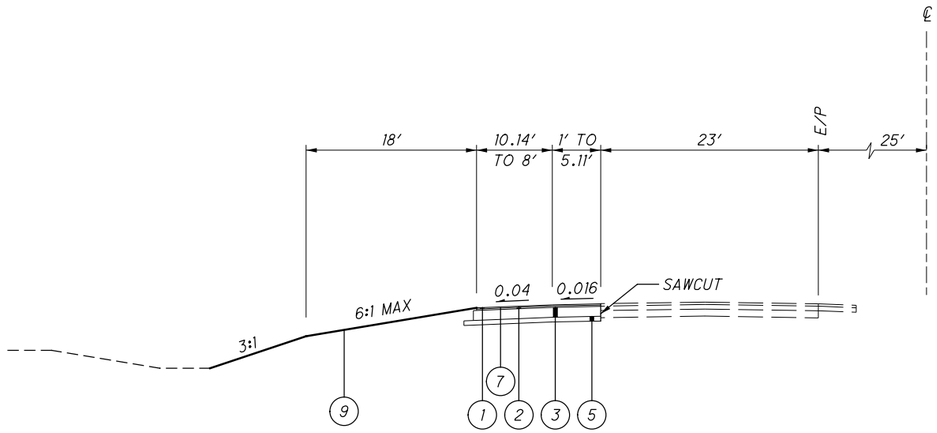


MILL AND RESURFACE RAMP SECTION

SECTION APPLIES:

TR 99 RAMP A	*= 1087 SQ YD*
TR 99 RAMP B	*= 1784 SQ YD*
TR 99 RAMP C	*= 1719 SQ YD*
TR 99 RAMP D	*= 1179 SQ YD*
SR 18 RAMP A	*= 2465 SQ YD*
SR 18 RAMP B	*= 3924 SQ YD*
SR 18 RAMP C	*= 4097 SQ YD*
SR 18 RAMP D	*= 2410 SQ YD*
GRANT ROAD	*= 2998 SQ YD*
INSLEY ROAD	*= 2549 SQ YD*

SEE SHEET 12 FOR LEGEND



PROPOSED WIDENING SECTION - IR 75

SECTION APPLIES:
STA. 1013+94.64 TO STA. 1016+00.00 = 205.36 FT

TYPICAL SECTIONS - I.R. 75

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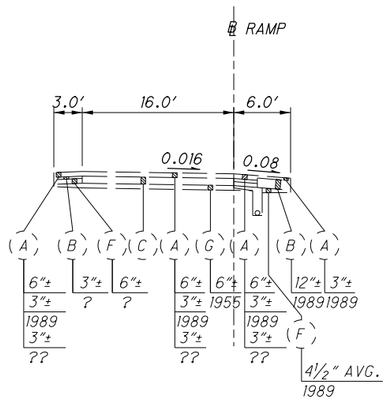
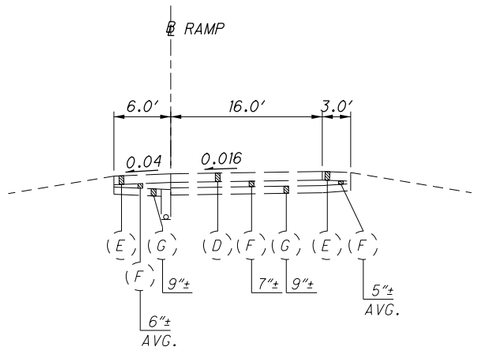


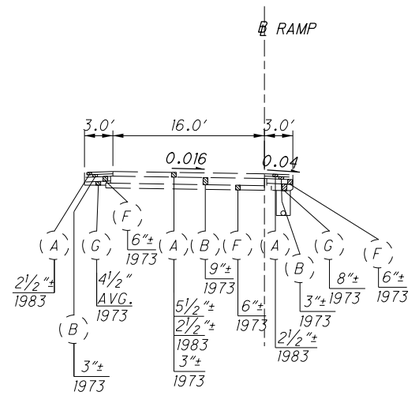
NORMAL RAMP SECTION

SECTION APPLIES:
TR 99 INTERCHANGE
RAMPS A, B, C & D



NORMAL RAMP SECTION

SECTION APPLIES:
WEIGH STATION



NORMAL RAMP SECTION

SECTION APPLIES:
SR 613

(A) ASHPALT CONCRETE (THICKNESS SHOWN)
(B) ASPHALT CONCRETE BASE COURSE (THICKNESS SHOWN)
(C) 9" REINFORCED PORTLAND CONCRETE PAVEMENT
(D) 11" REINFORCED PORTLAND CONCRETE PAVEMENT
(E) 11" PLAIN CONCRETE PAVEMENT
(F) AGGREGATE BASE COURSE (THICKNESS SHOWN)
(G) SUBBASE
(H) 6" PIPE UNDERDRAINS
(I) GUARDRAIL

TYPICAL SECTIONS - I.R. 75

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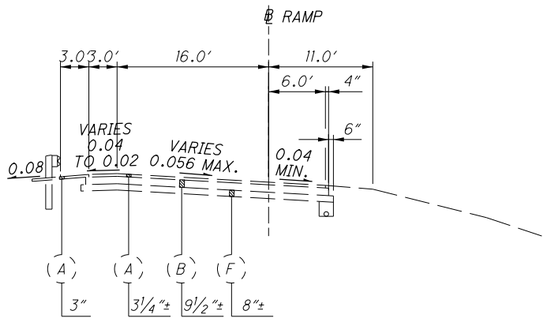
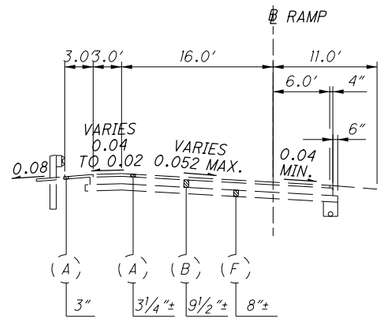


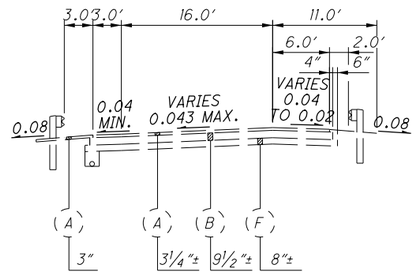
RAMP SECTION

SECTION APPLIES:
SR 18 INTERCHANGE
RAMPS A, B, & C



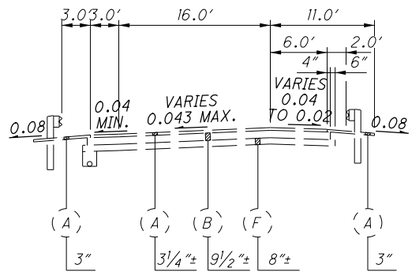
RAMP SECTION

SECTION APPLIES:
SR 18 INTERCHANGE
RAMPS A & D



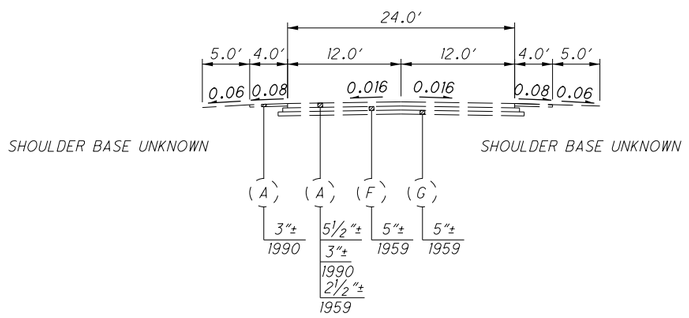
RAMP SECTION

SECTION APPLIES:
SR 18 INTERCHANGE
RAMPS A & D

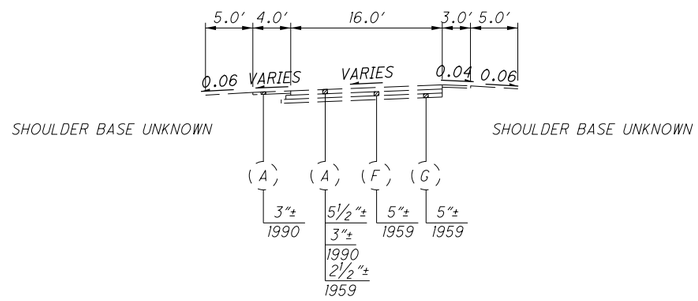


RAMP SECTION

SECTION APPLIES:
SR 18 INTERCHANGE
RAMPS B & C



SECTION APPLIES:
GRANT RD. & INSLEY RD. RAMPS



SECTION APPLIES:
GRANT RD. & INSLEY RD. RAMPS

TYPICAL SECTIONS - I.R. 75

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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES 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:

STORM SEWERS/ROADWAY LIGHTING
OHIO DEPARTMENT OF TRANSPORTATION
317 EAST POE ROAD
BOWLING GREEN, OHIO 43402
(419) 353-8131

STORM SEWERS/WATER
NORTH BALTIMORE WATER AND SEWER
205 N. MAIN STREET
NORTH BALTIMORE, OH 45872
(419) 257-2141

GAS
COLUMBIA GAS OF OHIO, INC.
2901 E. MANHATTEN BLVD
TOLEDO, OH 43611
(419) 539-6066

GAS
COLUMBIA GAS OF OHIO, INC.
3222 CENTRAL AVENUE
TOLEDO, OH 43606
CONTACT: GREG FROST
(419) 722-6804

OIL
BUCKEYE PIPELINE COMPANY
3321 YORK STREET
OREGON, OH 43616
(419) 698-8770

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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET _ OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: FAST STATIC GNSS
MONUMENT TYPE: TYPE A

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
RECORD NGS MONUMENTS: MC 1657, MC 1658, MC 1659, MC 1660

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE NORTH ZONE
COMBINED SCALE FACTOR: 1.000090348

ORIGIN OF COORDINATE
OHIO NORTH ZONE NORTHING = 0.000
EASTING = 0.000

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES.

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

WORK LIMITS

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

CONSTRUCTION LIMITS

THE CONSTRUCTION LIMITS, UNLESS SHOWN OTHERWISE ON THESE PLANS, SHALL BE CONSIDERED WITHIN THE EXISTING LIMITED ACCESS RIGHT OF WAY.

SPECIAL BENCHING SLOPE DRAINS

PLACE SPECIAL BENCHING SLOPE DRAINS AT THE LOCATIONS SHOWN ON THE PLAN & PROFILE AND CROSS SECTION SHEETS. THESE DRAINS SHALL CONSIST OF ITEM 203 GRANULAR EMBANKMENT, AS PER PLAN (NO. 8 AGGREGATE), ITEM 690 GEOTEXTILE FABRIC, 712.09 TYPE A, AND ITEM 603 CONDUIT TYPE E, 707.31 (PERFORATED). THE TYPE E CONDUIT SHALL BE PERFORATED AS PER CONDUIT FOR ITEM 605 UNCLASSIFIED PIPE UNDERDRAINS. THE GRANULAR EMBANKMENT SHALL BE PLACED IN LIFTS AS THE SPECIAL BENCHING BACKFILL IS CONSTRUCTED. TRANSVERSE OUTLET DRAINS SHALL BE PROVIDED AT THE LOCATIONS SHOWN ON THE PLAN & PROFILE AND CROSS SECTION SHEETS. THESE OUTLET DRAINS SHALL CONSIST OF ITEM 603 CONDUIT TYPE F, 707.33 WITH ITEM 604 PRECAST REINFORCED CONCRETE OUTLETS.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST 1 EACH
659, TOPSOIL 13529 CU. YD.
659, SEEDING AND MULCHING 121881 SQ. YD.
659, REPAIR SEEDING AND MULCHING 6094 SQ. YD
659, COMMERCIAL FERTILIZER 16.45 TON
659, LIME 25.11 ACRES
659, WATER 658 M. GAL.
659, MOWING 1 M. SQ. FT.

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

EXISTING PLANS

EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT 2 OFFICE IN BOWLING GREEN, OHIO.

BENCHING OF FOUNDATION SLOPES

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

ITEM 690 - SPECIAL MISC.: SUBGRADE CHEMICAL STABILIZATION

DESIGN THE MIXTURE FOR CHEMICALLY STABILIZED SUBGRADE UTILIZING CEMENT, LIME OR LIME KILN DUST (LKD). INCLUDE THE COST OF THE ASSUMED SPREADING RATE OF THE CHEMICAL INTO THE BID PRICE PER SQUARE YARDS FOR ITEM 690 SPECIAL MISC.: SUBGRADE CHEMICAL STABILIZATION.

THERE IS NO SEPARATE BID ITEM FOR THE ADDED CHEMICAL. USE THE ASSUMED SPREADING RATE AS SPECIFIED BY ODOT GEOTECHNICAL BULLETIN 1, FIGURE C. THE ASSUMED SPREADING RATE FOR CEMENT IS 6 PERCENT. THE ASSUMED SPREADING RATE FOR LIME IS 5 PERCENT. THE ASSUMED SPREADING RATE FOR LKD IS 7 PERCENT. ESTIMATE THE BID BASED ON ONE OF THESE ASSUMED SPREADING RATES FOR THE CHEMICAL SELECTED BY THE CONTRACTOR. PERFORM MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS UNDER THE SEPARATE BID ITEM. PROVIDE THE SUBGRADE CHEMICAL MIXTURE DESIGN TO THE ODOT CONSTRUCTION ENGINEER AT LEAST 14 DAYS BEFORE STARTING STABILIZATION WORK. USE THE ASSUMED CHEMICAL SPREADING RATES UNLESS THE ODOT CONSTRUCTION ENGINEER APPROVES A CHANGE. THE REQUIRED DEPTH OF CHEMICAL STABILIZATION IS 16 INCHES. PERFORM ITEM 690 SPECIAL MISC: SUBGRADE CHEMICAL STABILIZATION TO CONFORM TO THE REQUIREMENTS OF ITEM 206 CHEMICALLY STABILIZED SUBGRADE. INCLUDE ALLITEMS OF WORK LISTED UNDER ITEM 206 CHEMICALLY STABILIZED SUBGRADE UNDER THE ITEM 690 BID ITEM, UNLESS THEY ARE LISTED SEPARATELY IN THE PROPOSAL.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

   IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE OFFICE CALCS FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING 261 HOURS.

POOR SUBGRADE

CHEMICAL STABILIZATION IS USED THROUGHOUT THE LENGTH OF THE WORK ON MAINLINE I-75 EXCEPT WHERE SULFATE LEVELS ARE GREATER THAN 3,000 PPM. THE LOCATIONS WHERE SULFATE LEVELS EXCEEDED 3,000 PPM WERE FOUND AT BORING LOCATIONS 44, 46, 47, 60 AND 63. THE GEOTECHNICAL REPORT, STANTEC SOIL BORING DOCUMENT, CAN BE FOUND IN SCOPE ATTACHMENT D.

18" UNDERCUT AND REPLACEMENT WITH ITEM 204 GRANULAR MATERIAL TYPE C WITH GEOTEXTILE FABRIC ON THE BOTTOM SHALL BE USED IN THE BORING LOCATIONS WITH HIGH SULFATE LEVELS IDENTIFIED ABOVE.

NORFOLK SOUTHERN RAILWAY COMPANY

ALL WORK ON, OVER, UNDER, OR ADJACENT TO NORFOLK SOUTHERN (NS) RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS" (NS SPECIAL PROVISIONS), FOUND IN THE SPECIAL CLAUSES IN THE CONTRACT.

"ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE TWO (2) DAYS IN ADVANCE OF THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE RAILROAD UNDERGROUND LINES ON RAILROAD PROPERTY. UPON REQUEST FROM THE CONTRACTOR OR AGENCY, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG RAILROAD UNDERGROUND SIGNAL, COMMUNICATION, AND POWER LINES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD SIGNAL, COMMUNICATION, OR POWER LINE, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE

CALCULATED CMN
CHECKED RJM

GENERAL NOTES

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UNDER THE SUPERVISION AND DIRECTION OF A RAILROAD SIGNAL REPRESENTATIVE.

ALL UTILITY INSTALLATIONS OR RELOCATIONS THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR'S SUB-CONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR THE INSTALLATION OR RELOCATION TO AECOM FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES. FOR UTILITY APPLICATIONS GO TO: WWW.NSCORP.COM > REAL ESTATE > NS SERVICES > WIRE, PIPELINE, & FIBER OPTIC PROJECTS > AECOM. NOTE: LICENSE AGREEMENT MUST BE EXECUTED PRIOR TO UTILITY BEING INSTALLED OR RELOCATED.

NORFOLK SOUTHERN WILL BE PROVIDED AS-BUILT DRAWINGS OF THE BRIDGES SHOWING THE ACTUAL CLEARANCES AS CONSTRUCTED. DEPTH, SIZE, AND LOCATION OF ALL FOUNDATION COMPONENTS SHALL BE SHOWN ON THE DRAWINGS.

ITEM 409 - SEALER, MISC.: LONGITUDINAL JOINT SEALER

409 DESCRIPTION

THE WORK SHALL CONSIST OF FURNISHING AND INSTALLING A HOT-APPLIED ASPHALTIC JOINT ADHESIVE/SEALER ON LONGITUDINAL COLD CONSTRUCTION JOINTS IN ASPHALT CONCRETE PAVEMENTS AS SHOWN IN THE PLANS IN ACCORDANCE WITH THESE SPECIAL PROVISIONS.

409 MATERIALS

MATERIALS SHALL MEET THE FOLLOWING REQUIREMENTS:

CHARACTERISTIC	TEST	VALUE
BROOKFIELD VISCOSITY @ 400°	ASTM D 3236	4000-10000 CP
CONE PENETRATION @ 77°F	ASTM D 5329	60-100
FLOW @ 140°F	ASTM D 5329	5 MM MAX.
RESILIENCE @ 77°F	ASTM D 5329	30% MIN.
DUCTILITY @ 77°F	ASTM D 113	30 CM MIN.
DUCTILITY @ 39.2°F	ASTM D 113	30 CM MIN.
TENSILE ADHESION @ 77°F	ASTM D 5329	500% MIN.
SOFTENING POINT	ASTM D 36	170°F MIN.
ASPHALT COMPATIBILITY	ASTM D 5329	PASS

THE MATERIAL SHALL BE "CRAFCO PAVEMENT JOINT ADHESIVE, PRODUCT NO. 34524" OR EQUAL.

409 INSTALLATION

INSTALLATION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATION OF THE MANUFACTURER.

409 BASIS OF PAYMENT

LONGITUDINAL JOINT SEALER SHALL BE APPLIED TO ALL VERTICAL ASPHALT FACES FOR THE JOINT BETWEEN ANY CONSTRUCTRION PHASES AT A RATE OF 0.63 FT/LB.

TOTAL LENGTH OF PROJECT: LONGITUDINAL JOINT SEALER SHALL BE APPLIED TO ALL COLD JOINTS AT THE INTERMEDIATE AND SURFACE COURSES AT A RATE OF 4 FT/LB FOR EACH COURSE.

WORK UNDER THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LBS, FURNISHED AND PLACED. PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO PERFORM THE WORK, COMPLETE IN PLACE AND ACCEPTED.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING AS PER PLAN, AND PAVING UNDER THE GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING AS PER PLAN, SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 448

METHOD B:
1. PLACE ITEM 448
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

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

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

REVIEW OF DRAINAGE FACILITIES

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

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

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

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

ITEM 611 - CONDUIT BORED OR JACKED, AS PER PLAN

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 10 FEET TO THE EDGE OF PAVEMENT. PROVIDE A 0.50 INCH UNGALVANIZED CASING PIPE CONFORMING TO 748.06 THAT HAS JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

AS AN OPTION, THE CONTRACTOR MAY OPEN CUT THE EXISTING PAVEMENT TO INSTALL THE DESIGNATED PIPE CONDUITS IN LIEU OF BORING AND JACKING. THE CONTRACTOR'S LANE CLOSURE SCHEDULE AND MAINTENANCE OF TRAFFIC PLAN SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL RESTORE AND REPAIR THE EXISTING PAVEMENT WITH EITHER A CLASS MS OR CLASS FS CONCRETE REPAIR OF 14" THICKNESS AND SHALL BE AS PER BP-2.5 USING A TYPE T TIED JOINT. THE TOP OF THE REPAIR SHALL MATCH THE TOP OF THE EXISTING ASPHALT SURFACE. ALL MATERIAL, LABOR ADDITIONAL MAINTENANCE OF TRAFFIC OPERATIONS, PAVEMENT REPAIR OPERATIONS AND INCIDENTALS NECESSARY TO PROVIDE, TO THE SATISFACTION OF THE ENGINEER, THE OPEN CUT INSTALLATION OF THE DRAINAGE CONDUIT SHALL BE INCLUDED IN ITEM 611 - CONDUIT BORED AND JACKED, AS PER PLAN, BY SIZE AND TYPE.

STREAM CHANNEL EXCAVATION

STREAM CHANNEL EXCAVATION WITHIN "WATERS OF THE US" IS SUBJECT TO US ARMY CORPS OF ENGINEERS (USACE)REGULATORY JURISDICTION AND WILL REQUIRE AUTHORIZATION BY THE USACE VIA THE WATERWAY PERMITTING PROCESS (404/401). IN ACCORDANCE WITH THE APPLICABLE WATERWAY PERMITS (404/401) STREAM CHANNEL EXCAVATION CAN NOT EXCEED THE QUANTITIES AND/OR SURFACE AREA THAT HAS BEEN PERMITTED. THE WATERWAY PERMITS ARE ATTACHED TO THE CONSTRUCTION PLANS AS SPECIAL PROVISIONS AND WILL BE AVAILABLE IN THE PROJECT CONSTRUCTION OFFICE.

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.

TEMPORARY CONSTRUCTION FILL

ANY TEMPORARY CONSTRUCTION ACCESS FILL WITHIN "WATERS OF THE US" (EG., STREAMS, WETLANDS) SUBJECT TO US ARMY CORPS OF ENGINEERS (USACE) REGULATORY JURISDICTION WILL REQUIRE AUTHORIZATION BY THE USACE PRIOR TO THE PLACEMENT OF TEMPORARY FILL VIA THE WATERWAY PERMITTING PROCESS (404/401). SOIL SHALL NOT BE USED IN ANY TEMPORARY FILL WITHIN A STREAM. ALL TEMPORARY CONSTRUCTION ACCESS FILLS SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WATERWAY PERMITS (404/401) AND SHOULD NOT EXCEED THE QUANTITIES AND/OR SURFACE AREA OF TEMPORARY FILL THAT HAS BEEN PERMITTED. ADDITIONALLY, SOME TEMPORARY CONSTRUCTION ACCESS FILLS MAY ONLY BE ALLOWED IN SPECIFIC LOCATIONS, PER THE WATERWAY PERMITS(404/401) AND/OR OTHER ENVIRONMENTAL COMMITMENTS, AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH ANY SUCH LOCATIONAL RESTRICTIONS TO AVOID ENVIRONMENTALLY SENSITIVE AREAS. THE WATERWAY PERMITS ARE ATTACHED TO THE CONSTRUCTION PLANS AS SPECIAL PROVISIONS AND ARE BE AVAILABLE IN THE PROJECT CONSTRUCTION OFFICE.

CALCULATED CMN
CHECKED RJM

GENERAL NOTES

HAN/WOO-75-19.22/0.00

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ITEM 614, MAINTAINING TRAFFIC

METHODS OF MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ITEM 614, THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (THE OHIO MANUAL) AND THE FOLLOWING:

I-75 SHALL BE CONSTRUCTED UTILIZING PART-WIDTH CONSTRUCTION. PHASE 1 WILL SHIFT TRAFFIC TO THE OUTSIDE ON THE EXISTING PAVEMENT TO CONSTRUCT THE NEW INSIDE LANES. PHASE 2 WILL SHIFT TRAFFIC TO THE NEWLY CONSTRUCTED PAVEMENT AND COMPLETE CONSTRUCTION ON THE OUTSIDE LANES. ALL MOT PHASE WILL CONSTRUCTED PAVEMENT THROUGH THE INTERMEDIATE COURSE ONLY, THE SURFACE COURSE WILL BE APPLIED AT THE END OF BUILDABLE UNIT 2.

A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC. A ONE LANE CLOSURE WILL BE PERMITTED DURING THE HOURS OF 10PM TO 6AM FOR THE CONSTRUCTION OF PAVEMENT FOR MAINTAINING TRAFFIC AND EMERGENCY PULL-OFF AREAS AS DETAILED IN THE PLANS.

CR 99 RAMPS ARE PERMITTED TO BE CLOSED TWO EVENINGS (7PM-6AM) FOR EACH DIRECTION (NB AND SB) TO ALLOW FOR THE MILLING AND RESURFACING OF THE RAMPS. RAMPS CANNOT BE CLOSED WHEN AN ADJACENT INTERCHANGE IS CLOSED. RAMPS MUST BE OPEN BY 6AM.

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.

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

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

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 150 CU. YD. (BU 1)
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 150 CU. YD. (BU 2)

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

CR 99 ON/OFF RAMP

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES AT THE POINT OF ROAD CLOSURE.

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

DUST CONTROL

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

ITEM 616, WATER 346 M. GAL (BU 1)
ITEM 616, WATER 727 M. GAL (BU 2)

ITEM 622, PORTABLE BARRIER, 32"

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 32-INCH PORTABLE CONCRETE BARRIER (PCB) AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.2. PLEASE NOTE THAT SCD RM-4.2 WAS UPDATED 10-15-10 TO PROVIDE A PCB WHICH IS COMPATIBLE WITH NCHRP 350 CRITERIA.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PCB. FOR INFORMATION ON APPROVED VENDORS, SEE THE APPROVED PRODUCTS LIST MAINTAINED BY ROADWAY STANDARDS.

FLOODLIGHTING

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

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

ITEM 614, REPLACEMENT SIGN

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

PAYMENT FOR THE NEW SIGNS SHALL BE INCLUDED WITH THE LUMP SUM CONTRACT PRICE FOR MAINTENANCE OF TRAFFIC, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 50 (BU 1) AND 50 (BU 2) EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT (R2-1) (60 SPEED LIMIT) SIGNS AND SUPPORTS WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT SIGNS WITHIN THE REDUCED SPEED ZONE(S). 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 LIMIT SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK THAT CAUSES THE WARRANTING CONDITION(S) TO OCCUR. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING REMOVAL OF THE WARRANTING CONDITION(S), OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY REMOVAL OF WARRANTING CONDITION(S) SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE.

CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT THE TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED REDUCTION IN THE OPPOSITE DIRECTION. A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION, IN SUCH CASE, IS APPROPRIATE ONLY IF CONDITIONS ARE EXPECTED TO HAVE AN IMPACT ON THE DIRECTIONAL TRAFFIC FLOW, AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF THE WARRANTING CONDITION, AS DETAILED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF A DIRECTIONAL ROADWAY OF DIVIDED HIGHWAYS. THE FIRST WORK ZONE SPEED LIMIT SIGN SHALL BE PLACED APPROXIMATELY 500 FEET IN ADVANCE OF THE LANE REDUCTION, SHIFT TAPER, OR OTHER ROADWAY OR SHOULDER RESTRICTION THAT WARRANTED THE WORK ZONE SPEED ZONE. ON UNDIVIDED HIGHWAYS THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, APPROXIMATELY 250 FEET IN ADVANCE OF SUCH RESTRICTIONS. THE SIGN SHALL BE REPEATED EVERY 1 MILE FOR 60 AND 55 MPH ZONES AND EVERY ONE-HALF MILE FOR 50 MPH AND 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.

THE SPEED LIMIT REDUCTION SHALL BE LIMITED TO ONLY THE PORTION OF THE PROJECT AND THE WORK THAT WARRANTED THE WORK ZONE SPEED LIMIT REDUCTION.

SPEED REDUCTION (SPEED ZONE AHEAD SYMBOL) SIGNS (W3-5) SHALL BE ERECTED IN ADVANCE OF THE SPEED REDUCTION, APPROXIMATELY 1250 FEET ON MULTI-LANE HIGHWAYS AND 500 FEET ON TWO-LANE HIGHWAYS.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD CONDITION, PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO ITEM 630, GROUND MOUNTED SUPPORTS, NO. 3 POSTS, UNLESS MOUNTED ON A TEMPORARY SIGN SUPPORT PER SCD MT 105.10.

WORK ZONE SPEED LIMIT AND RELATED SIGN SIZES, PLACEMENT, SUPPORTS, ETC. SHALL BE PER THE OMUTCD, WITH TWO EXCEPTIONS: 1) EXPRESSWAY SIZE SPEED LIMIT SIGNS MAY BE USED ON FREEWAYS AND EXPRESSWAYS, IF NECESSARY; 2) THE HEIGHT OF SIGNS MOUNTED ON PORTABLE SUPPORTS SHOULD BE THE HEIGHT REQUIRED FOR GROUND-MOUNTED SIGNS BUT SHALL NOT BE MORE THAN 1 FOOT LOWER THAN THE HEIGHT REQUIRED BY THE OMUTCD, OR AS DIRECTED BY THE ENGINEER. PORTABLE SUPPORTS SHOULD NOT BE USED FOR A DURATION OF MORE THAN 3 DAYS.

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

ITEM 614, WORK ZONE SPEED LIMIT SIGN 8 EACH (BU 1)
ITEM 614, SPEED ZONE AHEAD SYMBOL SIGN 1 EACH (BU 1)
ITEM 614, WORK ZONE SPEED LIMIT SIGN 13 EACH (BU 2)
ITEM 614, SPEED ZONE AHEAD SYMBOL SIGN 1 EACH (BU 2)

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS WEB PAGE FOR ROADWAY STANDARDS APPROVED PRODUCTS.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

ITEM 614, REPLACEMENT DRUM

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

PAYMENT FOR THE NEW DRUMS SHALL BE INCLUDED WITH THE LUMP SUM CONTRACT PRICE FOR MAINTENANCE OF TRAFFIC, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 50 (BU 1) AND 50 (BU 2) EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

CALCULATED SRC
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MAINTENANCE OF TRAFFIC GENERAL NOTES

HAN/WOO-75-19.22-0.00

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

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

(THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UN- LESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1)SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.)

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

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

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, WORK ZONE INCREASED PENALITIES SIGN 8 EACH (BU 1)
ITEM 614, WORK ZONE INCREASED PENALITIES SIGN 12 EACH (BU 2)

WORK ZONE INCREASED PENALTIES SIGNS WILL BE PLACED AT THE FOLLOWING LOCATIONS:

ON MAINLINE - 660' FROM ROAD WORK AHEAD SIGN
ON MAINLINE - 2 MILES FROM FIRST INCREASED PENALTIES SIGN
ON ENTRANCE RAMPS - 200' FROM ROAD WORK AHEAD SIGN

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE (OFFICE OF MATERIALS MANAGEMENT WEB PAGE). THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. The PCMS shall be delineated in accordance with C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN _ HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE. THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

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

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

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

THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN FOUR (4) PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) ON SITE FOR USE DURING CONSTRUCTION.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, PORATABLE CHANGEABLE MESSAGE SIGN 68 SIGN MONTH

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

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

RAISED PAVEMENT MARKERS IN USE DURING THE SNOW- PLOWING SEASON SHALL CONFORM TO 621.

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

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.

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

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN.

SPEEDINFO DEVICES WITHIN PROJECT LIMITS

THE CONTRACTOR SHALL TAKE MEASURES TO MAINTAIN THE PROPER OPERATION OF ANY SPEEDINFO DEVICES WITHIN THE PROJECT LIMITS. THE DEVICES ARE DOPPLER RADAR UNITS WHICH LOOK LIKE CYLINDRICAL TUBES WITH SOLAR PANELS ATTACHED TO THEM. THE SENSORS ARE IMPLEMENTED ON ALL INTERSTATES STATEWIDE AND OTHER MAJOR US AND STATE ROUTES IN URBAN AREAS, GENERALLY SPACED BETWEEN 1 TO 2 MILES APART, AND INSTALLED ON ANY EXISTING ODOT INFRASTRUCTURE (TYPICALLY OVERHEAD TRUSSES, CANTILEVERS, GROUND-MOUNTED SIGN SUPPORTS, OR LIGHT POLES). ODOT WILL COORDINATE THE RELOCATION OF ANY DEVICES THAT MAY BE AFFECTED BY THE CONTRACTOR'S OPERATION. THE CONTRACTOR SHALL NOT REMOVE THE DEVICES THEMSELVES. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER A MINIMUM OF TEN CALENDAR DAYS PRIOR TO PERFORMING ANY WORK WHICH REQUIRES DEVICE RELOCATION. THE PROJECT ENGINEER SHALL THEN NOTIFY SPEEDINFO, INC. AND THE ODOT OFFICE OF TRAFFIC OPERATIONS OF ANY DEVICES THAT REQUIRE RELOCATION. THE CONTRACTOR SHOULD BE AWARE THAT SINCE SPEED DATA IS STILL DESIRABLE TO ODOT, THE PROJECT ENGINEER WILL ATTEMPT TO INFORM SPEEDINFO, INC. OF NEWLY AVAILABLE INSTALL LOCATIONS FOR THE SENSORS TO BE RELOCATED TO, WITH MINIMAL DOWNTIME.

IF IMMEDIATE ATTENTION TO A SPEEDINFO SENSOR IS REQUIRED, THE CONTRACTOR MAY DIRECTLY CONTACT THE REGIONAL INSTALLER FOR SPEEDINFO, INC. FROM THE PROVIDED CONTACT INFORMATION. THE REGIONAL INSTALLER WOULD BE ABLE TO PROVIDE THE QUICKEST POSSIBLE ATTENTION TO THE SITUATION. IF THE REGIONAL INSTALLER CANNOT BE REACHED, THE LIST OF STATEWIDE CONTACTS SHOULD BE USED IN THE ORDER IT IS PRESENTED. AN EMAIL INFORMING ALL PARTIES OF THE SITUATION SHOULD ALSO BE SENT AT THE EARLIEST CONVENIENCE.

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL AND ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

THE FOLLOWING ESTIMATED QUANITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE A	86 EACH (BU 1)
ITEM 614, OBJECT MARKER, ONE-WAY	86 EACH (BU 1)
ITEM 614, BARRIER REFLECTOR, TYPE A	95 EACH (BU 2)
ITEM 614, OBJECT MARKER, ONE-WAY	95 EACH (BU 2)

CALCULATED SRC CHECKED LLA

MAINTENANCE OF TRAFFIC
GENERAL NOTES

HAN/WOO-75-19.22-0.00

WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS SHALL BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

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

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

3. THE OHIO CONTRACTORS ASSOCIATION, TRAFFIC CONTROL SUPERVISOR (OCA/TCS) WORK ZONE CLASS, ONLY IF TAKEN AFTER MAY 5, 2004, PHONE NUMBER 1-800-229-1388.

4. OHIO LABORERS TRAINING, TRAFFIC CONTROL SUPERVISORS CLASS, PHONE NUMBER 1-740-599-7915.

A COPY OF EACH WTSS CERTIFICATION AND 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7) THE CONTRACTOR MAY DESIGNATE AN ALTERNATE WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY. EACH WTS SHALL HAVE A CURRENT WTS CERTIFICATION (WITH AN EXPIRATION DATE NO MORE THAN 5 YEARS FROM THE DATE OF ISSUE) FROM ANY OF THE APPROVED ORGANIZATIONS.

THE WTS POSITION HAS THE RESPONSIBILITY OF MONITORING TRAFFIC CONTROL DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS, AND BE ABLE TO BE ON SITE FOR ALL EMERGENCY TRAFFIC CONTROL NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF AND BE PREPARED TO EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TRAFFIC CONTROL DEVICES.

2. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TRAFFIC CONTROL MANAGEMENT IS DISCUSSED.

3. BE AVAILABLE FOR MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST OR WITHIN 36 HOURS.

4. COORDINATE A TRAFFIC INCIDENT MANAGEMENT MEETING EACH YEAR BEFORE CONSTRUCTION WORK BEGINS WITH ODOT AND THE SAFETY FORCES THAT WILL RESPOND TO INCIDENTS ON THE PROJECT. ITEMS TO BE DISCUSSED WILL BE THE:

A. TRAFFIC INCIDENT MANAGEMENT PLAN (TIMP);

B. EMERGENCY RESPONSE AND NOTIFICATION;

C. PROJECT WORK/PHASING CONCERNS (E.G., RAMP CLOSURES); AND

D. RESPONDERS CONCERNS.

5. BE AWARE OF, AND COORDINATE IF NECESSARY, ALL TRAFFIC CONTROL OPERATIONS, INCLUDING THOSE OF SUBCONTRACTORS AND SUPPLIERS.

6. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). A WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE THEY ARE ON THE PROJECT.

7. COORDINATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS WORK ZONE TRAFFIC CONTROL.

8. ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS FOR SIGNS, BARRICADES, TEMPORARY CONCRETE BARRIER, PAVEMENT MARKINGS, PORTABLE MESSAGE SIGNS, AND OTHER TRAFFIC CONTROL DEVICES ON A DAILY BASIS; AND FACILITATE ANY CORRECTIVE ACTION NECESSARY.

9. NOTIFY THE CONTRACTOR OF THE NEED FOR CLEANING AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES, INCLUDING THE COVERING AND REMOVAL OF INAPPLICABLE SIGNS.

10. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TRAFFIC CONTROL DEVICES AND/OR TRAFFIC OPERATIONS, INSPECTION TIME FRAME AS NOTED BELOW. IN ADDITION, A WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:

A. INITIAL TRAFFIC CONTROL SETUP (DAY AND NIGHT REVIEW).

B. DAILY TRAFFIC CONTROL SETUP AND REMOVAL.

C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TRAFFIC CONTROL SETUP.

D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA.

E. REMOVAL OF TRAFFIC CONTROL DEVICES AT THE END OF A PHASE OR PROJECT.

F. ALL OTHER EMERGENCY TRAFFIC CONTROL NEEDS.

G. INSPECTION TIME FRAMES:
DURING TIMES OF ACTIVE MOT OPERATIONS, INSPECT ZONE DAILY. ONCE LONG-TERM ZONES HAVE BEEN ESTABLISHED WITH PORTABLE CONCRETE BARRIER WALL, INSPECT A MINIMUM OF EVERY 48 HOURS. DURING NON-WORKING PERIODS (WEEKENDS, HOLIDAYS, WINTER SHUT-DOWN) INSPECT THE ZONE EVERY 48 HOURS OR AS AGREED UPON BY THE ENGINEER.

H. ACTIVE MOT ZONES, SHORT-TERM ZONES ARE TO BE INSPECTED BY WTS. ONCE LONG TERM ZONES ARE ESTABLISHED AND AFTER INTIAL INSPECTION BY A WTS, LONG TERM MOT ZONES ESTABLISHED BY THE USE OF PCB, MAY BE INSPECTED AT TIMES (WEEKENDS, HOLIDAYS) BY A PERSON OF AUTHORITY (FOREMAN, SUPERINDENDENT, EXPERIENCED PERSONNEL) OTHER THAN THE WTS.

11. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 10 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORK DAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TRAFFIC CONTROL MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THIS DOCUMENT CAN BE FOUND IN THE CURRENT REVISION OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION INSPECTION FORMS MANUAL.

12. VERIFY THAT ALL FLAGGING OPERATIONS ARE BEING CONDUCTED PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

13. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND APPLICABLE STANDARDS AND SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

14. IDENTIFY AND CONTACT ALL POSSIBLE RESPONSE PERSONNEL; PREPLAN AND KEEP AN UPDATED ROSTER WITH PHONE NUMBERS:

A. FEDERAL, STATE, AND LOCAL TRANSPORTATION AGENCIES (TRAFFIC MANAGEMENT CENTER);

B. REGIONAL, COUNTY OR LOCAL 911 DISPATCH; AND

C. TOWING AND RECOVERY PROVIDERS.

15. COMPLY WITH THE PROVISIONS OF OMUTCD CHAPTER 6I, CONTROL OF TRAFFIC THROUGH TRAFFIC INCIDENT MANAGEMENT AREAS.

16. PROPOSE A RESPONSE/ACTION PLAN TO:

A. ESTABLISH ALTERNATE ROUTE PLANS PER THE PROVIDED ODOT PLAYBOOK;

B. REMOVE TRAFFIC DEMAND FROM IMPACTED ROADWAY(S);

C. DIVERT TRAFFIC TO ROUTES THAT CAN ACCOMMODATE DEMANDS;

D. DETOUR TRAFFIC AWAY FROM SENSITIVE AREAS (SUCH AS SCHOOLS, HOSPITALS, ETC.);

E. DISCUSS METHODS OF DETERMINING A STAGING AREA FOR RESPONDERS WITHIN OR NEAR THE CONSTRUCTION ZONE; AND

F. DISCUSS METHODS OF DEVELOPING INGRESS AND EGRESS SITES WITHIN THE CONSTRUCTION ZONE.

THE RESPONSE/ACTION PLAN SHALL BE SUBMITTED TO ODOT FOR ACCEPTANCE BEFORE THE CONTRACTOR $^{5}/_{32}$S FIRST DAY OF WORK.

17. PERFORM, AT A MINIMUM, THE FOLLOWING FUNCTIONS IN INCIDENT DETECTION AND VERIFICATION:

A. CALL 911/ NOTIFY TRAFFIC MANAGEMENT CENTER AND PROVIDE THE FOLLOWING:

I. LOCATION INCLUDING MILEPOST NUMBER AND DIRECTION OF TRAVEL. II. NUMBER AND TYPE OF VEHICLES INVOLVED.
III. ESTIMATED EXTENT OF DAMAGE OR INJURY.
IV. ESTIMATED NUMBER OF PATIENTS INVOLVED.
V. ANY POTENTIAL HAZARDOUS CONDITIONS.
VI. THE PLACARD NUMBER ON ANY HAZARDOUS MATERIALS PLACARD FROM A SAFE DISTANCE.

B. INITIATE TRAFFIC MANAGEMENT / PROVIDE TRAFFIC CONTROL.
C. ASSIST MOTORIST WITH DISABLED VEHICLES.

D. RECOMMEND ROADWAY REPAIR NEEDS.

E. PROVIDE REPAIR RESOURCES.

18. ATTEND POST-INCIDENT DEBRIEFINGS IF REQUIRED.

THE DEPARTMENT WILL DEDUCT THE PRORATED DAILY AMOUNT OF THE UNIT PRICE BID FOR THE WTS FOR ANY DAY ON WHICH THE CONTRACTOR FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. SHOULD THE CONTRACTOR $^{5}/_{32}$S FAILURE TO PERFORM ANY OF THE DUTIES DESCRIBED ABOVE RESULT IN A MAINTENANCE OF
TRAFFIC SAFETY ISSUE, THE DEPARTMENT WILL DEDUCT THE PRORATED DAILY AMOUNT FOR ITEM 614 MAINTENANCE OF TRAFFIC FROM THE CONTRACTOR $^{5}/_{32}$S NEXT SCHEDULED ESTIMATE.

IF THREE OR MORE FAILURES TO PERFORM THE DUTIES SET FORTH ABOVE OCCUR, THE WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, WORKSITE TRAFFIC SUPERVISOR 30 MONTH

TOURIST-ORIENTED DIRECTIONAL SIGNS

TOURIST-ORIENTED DIRECTIONAL SIGNS (TODS) AND LOGO SIGNS ARE INSTALLED AND MAINTAINED BY OHIO LOGOS, INC., UNDER CONTRACT WITH AND IN LOCATIONS APPROVED BY ODOT. UNDER THE TERMS OF THE CONTRACT, OHIO LOGOS CAN BE REQUIRED TO TEMPORARILY REMOVE OR RELOCATE THE SIGNS DURING CONSTRUCTION. THEY CAN ALSO BE REQUIRED TO PERMANENTLY REMOVE OR RELOCATE THE SIGNS. CONTACT OHIO LOGOS AT LEAST 21 DAYS PRIOR TO LOGO SIGN REMOVAL AT 1-800-860-5646 TO COORDINATE REMOVALS OR RELOCATIONS OF TODS AND LOGO SIGNS.

SIGN AT 46+00 SHALL BE RELOCATED BEFORE STAGE 2 SLIDE REPAIR WORK.

RUMBLE STRIPS, (ASPHALT CONCRETE), AS PER PLAN

RUMBLE STRIPS WILL BE PLANED AND PAVED WITH ITEM 448 FOR MAINTAINING TRAFFIC. THIS 448 PAVEMENT WILL SEQUENTIALLY BE REMOVED WHEN THE ENTIRE ROUTE IS PLANED AND PAVED.

THE FOLLOWING QUANTITIES ARE BASED ON 2' WIDE MILL AND WILL BE INCLUDED IN THE AS PER PLAN PRICE OF ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE), AS PER PLAN.

BU 1

ITEM 254	PAVEMENT PANING, ASPHALT CONCRETE, 1½"	7522 SQ YD
ITEM 407	TACK COAT	564 GAL
ITEM 448	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22, 1½"	313 CU YD

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 618 - RUMBLE STRIPS, (ASPHALT CONCRETE), AS PER PLAN 33851 FT

BU 2

ITEM 254	PAVEMENT PANING, ASPHALT CONCRETE, 1½"	14333 SQ YD
ITEM 407	TACK COAT	1075 GAL
ITEM 448	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22, 1½"	597 CU YD

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 618 - RUMBLE STRIPS, (ASPHALT CONCRETE), AS PER PLAN 64500 FT

THE CONCRETE RUMBLE STRIPS LOCATED AT SR 613 WILL BE PATCHED WITH ASPHALT USING ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

CALCULATED SRC
CHECKED LLA

MAINTENANCE OF TRAFFIC GENERAL NOTES

HAN/WOO-75-19.22-0.00

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCE- MENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

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

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/ DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACE- MENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RE- TURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 2000 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL AND ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE- WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE ALONG TAPERS AND TRANSITION AREAS AND ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS. DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

BU 1

ITEM 614, BARRIER REFLECTOR, TYPE B	1549 EACH
ITEM 614, OBJECT MARKER, ONE-WAY	1549 EACH
ITEM 614, INCREASED BARRIER DELINEATION	480 FEET

BU 2

ITEM 614, BARRIER REFLECTOR, TYPE B	3053 EACH
ITEM 614, OBJECT MARKER, ONE-WAY	3053 EACH
ITEM 614, INCREASED BARRIER DELINEATION	940 FEET

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

ADVANCE WORK ZONE INFORMATION

ADVANCE WORK ZONE INFORMATION SIGNS, AS USED IN THIS NOTE, ARE FIXED MESSAGE TYPES. THE SIGNS ARE TO BE LOCATED AT EXTREME DISTANCE FROM THE WORK AREA, AS SHOWN IN THE PLANS.

THE SIGNS SHALL BE BLACK ON ORANGE (INCLUDING A BLACK BORDER). THE LAYOUT SHALL BE IN CONFORMANCE WITH TEM CHAPTER 211.

WHEN REGULATORY INFORMATION IS PROVIDED, IT SHALL BE DISPLAYED SEPARATELY AS A STANDARD BLACK-ON-WHITE SIGN. MIXING OF BLACK-ON-WHITE REGULATORY INFORMATION ON A BLACK-ON-ORANGE INFORMATION SIGN IS PROHIBITED.

IF THE MOTORIST IS BEING DETOURED OR IF AN ALTERNATE ROUTE IS PROVIDED, THE ROUTE SHOULD BE SIGNED WITH ASSEMBLIES CONSISTING OF THE APPROPRIATE BLACK-ON-ORANGE DETOUR OR ALT MARKER WITH A STANDARD ROUTE MARKER AND ARROW PLATE. IF MORE TARGET VALUE IS DESIRED, THIS TRAIL BLAZER INFORMATION MAY BE SHOWN ON AN ORANGE PANEL (OMUTCD SECTION 2D.32).

ROUTE SIGN ASSEMBLIES SHALL BE SIZED ACCORDING TO THE TYPE OF ROAD ON WHICH THEY ARE LOCATED IN ACCORDANCE WITH THE OMUTCD.

SUPPORTS FOR SIGN INSTALLATIONS SHALL CONFORM TO ALL EXISTING STANDARDS FOR PERMANENT SIGNS. THESE SIGNS SHOULD NOT BE ATTACHED TO EXISTING SUPPORTS.

WHERE THE PLANS CALL FOR AN OVERLAY TO COVER A PORTION OF AN EXISTING SIGN, THE OVERLAY SHALL BE BLACK-ON-ORANGE. LETTER SIZES SHOULD BE THE SAME AS ON THE EXISTING SIGNS. WHEN LANE ARROWS ARE TO BE COVERED, RATHER THAN USING A BLANK OVERLAY, THE LEGEND "LANE CLOSED" SHALL BE USED. WHEN A RAMP IS BEING CLOSED, RATHER THAN USING A BLANK OVERLAY TO COVER THE ENTIRE SIGN, THE LEGEND "CLOSED" SHALL BE USED ON A DIAGONAL OVERLAY (LOWER LEFT TO UPPER RIGHT) ON THE SIGN. THE SIZE OF LETTERING ON OVERLAYS AND THE SIZE OF THE OVERLAY ARE INDICATED IN THE PLANS. THE MINIMUM LETTER SIZE FOR "LANE CLOSED" SHALL BE 10" E. THE MINIMUM LETTER SIZE FOR THE DIAGONAL "CLOSED" OVERLAY SHALL BE 12" E.

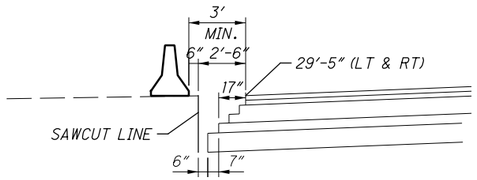
ALL ADVANCE WORK ZONE INFORMATION SIGN INSTALLATIONS LOCATED OUTSIDE OF THE PROJECT WORK LIMITS SHALL BE PAID FOR UNDER APPROPRIATE 630 ITEMS (SIGNS, SUPPORTS, CONCRETE, BREAKAWAY CONNECTION, OVERLAYS, REMOVALS, ETC.)

CALCULATED SRC
CHECKED LLA

MAINTENANCE OF TRAFFIC GENERAL NOTES

HAN/WOO-75-19.22-0.00

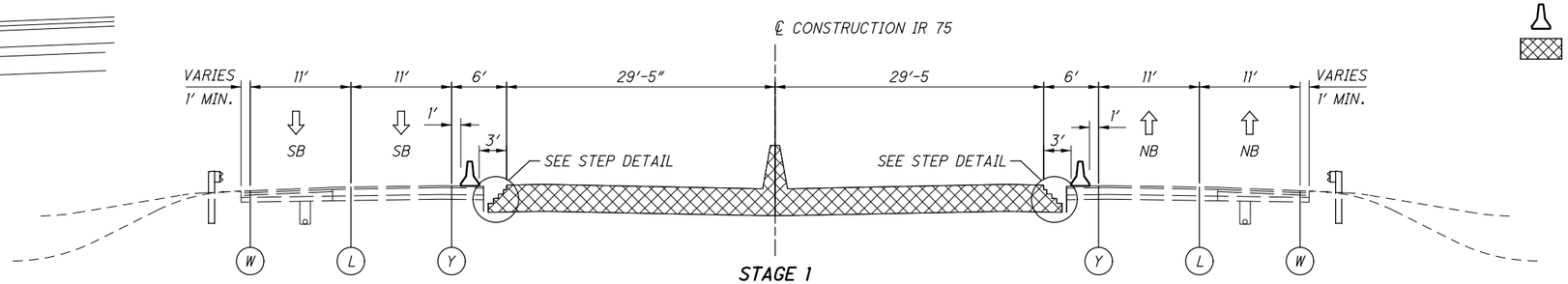
SHOULDERS SHALL HAVE A MINIMUM WIDTH OF 1'



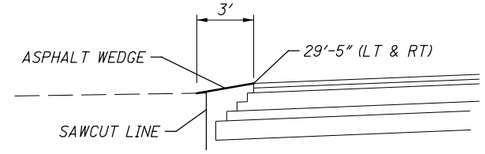
STAGE 1 STEP DETAIL

LEGEND

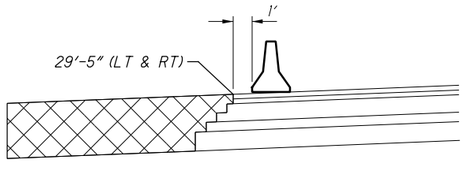
- (W) WORK ZONE EDGE LINE (WHITE)
- (Y) WORK ZONE EDGE LINE (YELLOW)
- (L) WORK ZONE LANE LINE
- BARRIER
- WORK AREA



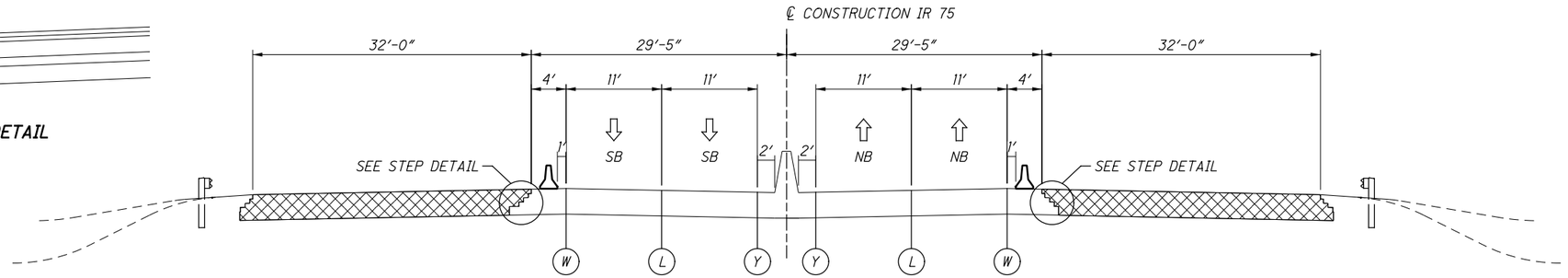
STAGE 1



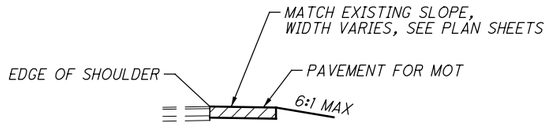
WEDGE DETAIL



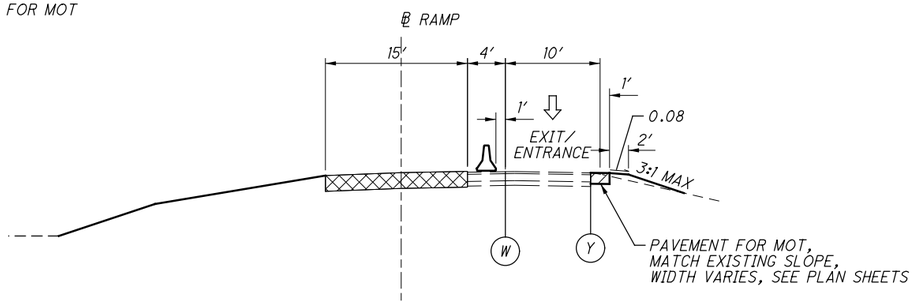
STAGE 2 STEP DETAIL



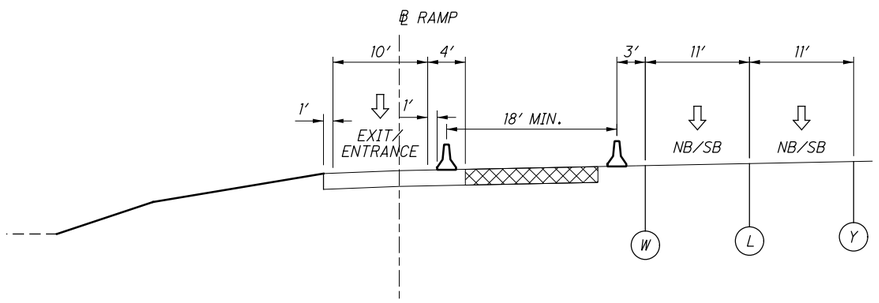
STAGE 2



PAVEMENT FOR MAINTAINING TRAFFIC DETAIL



STAGE 2

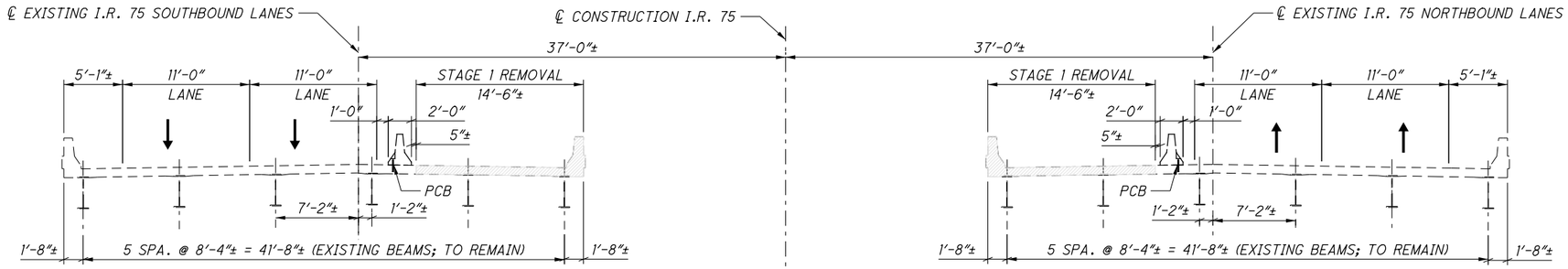


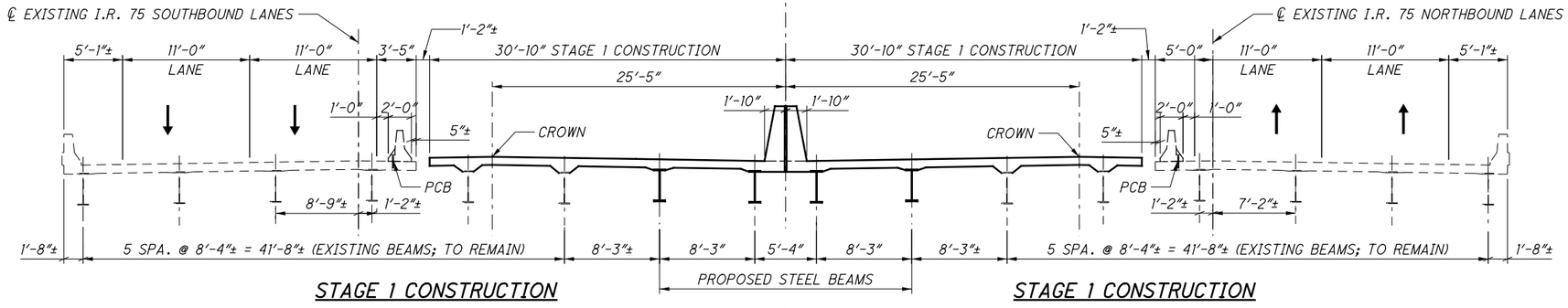
STAGE 3 & 4

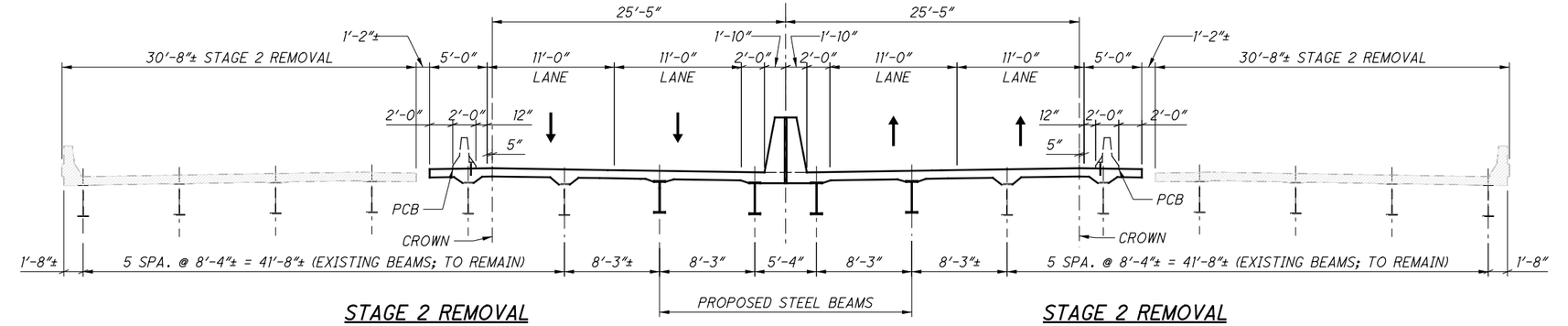
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

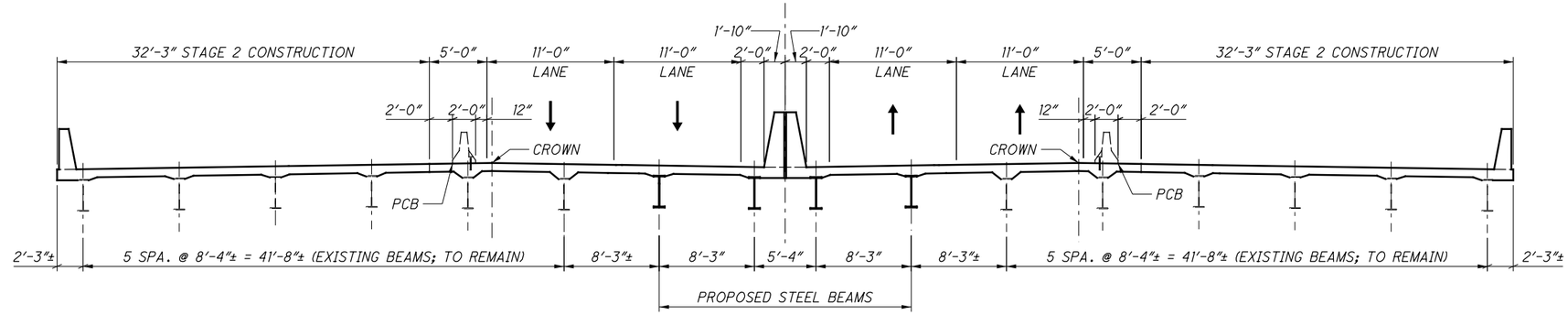
HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\MOT\95437my001.dgn 3/16/2015 8:48:00 AM SRC









NOTES

- PCB DENOTES PORTABLE CONCRETE BARRIER AND SHALL CONFORM TO ODOT STANDARD DRAWING PCB-91.

- THERE SHALL BE A MINIMUM OF 3 ANCHORS PER EACH SEGMENT OF PCB, LOCATED SYMMETRICALLY ON THE TRAFFIC SIDE, FOR EVERY STAGE OF WORK.

- SEE SHEET 12/12 FOR FINAL TYPICAL SECTION.

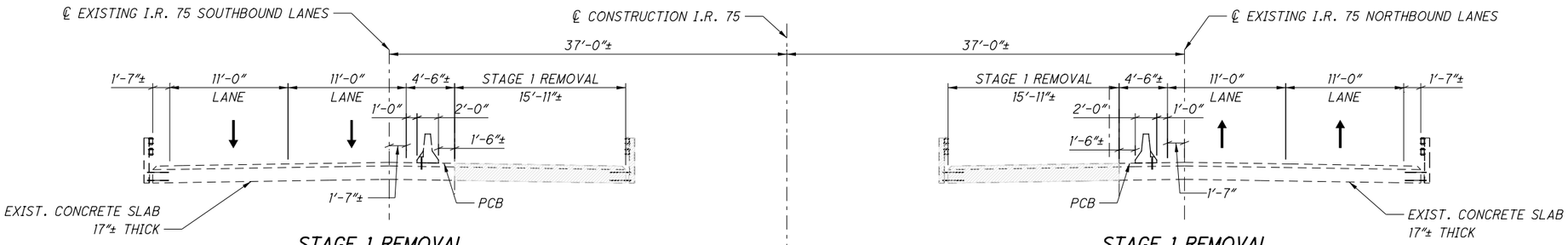
LEGEND

- CONCRETE REMOVAL LIMITS

DESIGNED KWL
CHECKED SAM

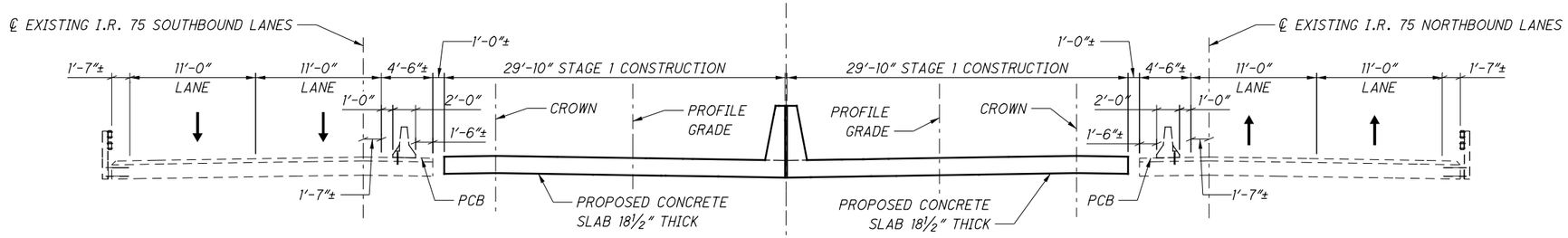
HAN-75-2115 (NORFOLK SOUTHERN RR & TR 101)
STAGE CONSTRUCTION DETAILS

HAN/WOO-75-19.22/0.00



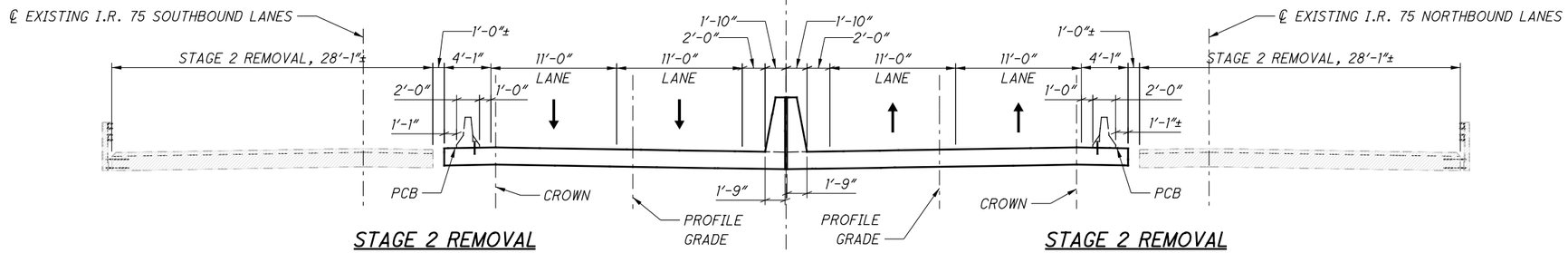
STAGE 1 REMOVAL

STAGE 1 REMOVAL



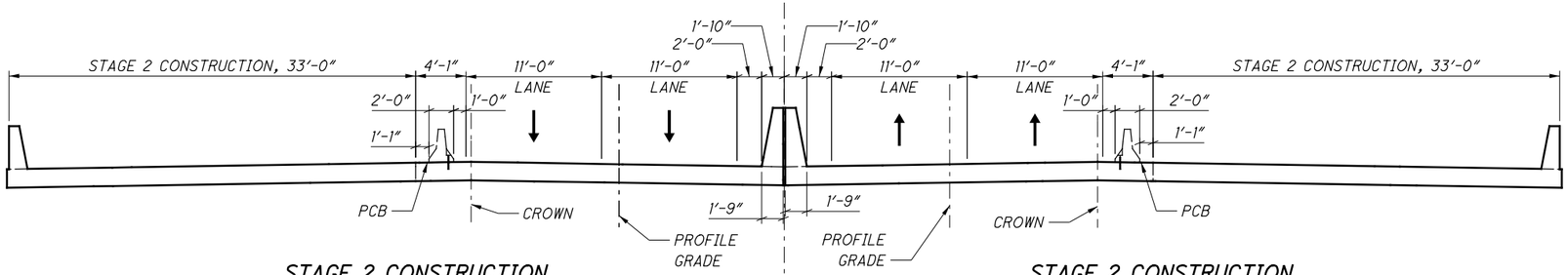
STAGE 1 CONSTRUCTION

STAGE 1 CONSTRUCTION



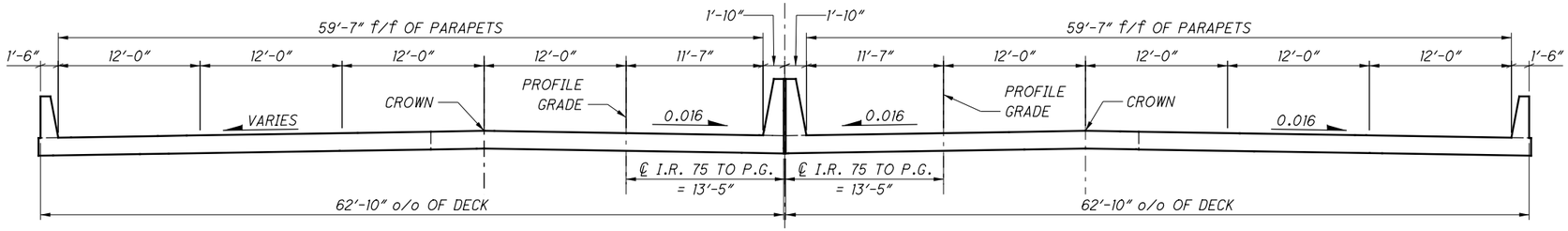
STAGE 2 REMOVAL

STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION

STAGE 2 CONSTRUCTION



FINAL TYPICAL SECTION

FINAL TYPICAL SECTION

NOTES

- PCB DENOTES PORTABLE CONCRETE BARRIER AND SHALL CONFORM TO ODOT STANDARD DRAWING PCB-91.

- THERE SHALL BE A MINIMUM OF 3 ANCHORS PER EACH SEGMENT OF PCB, LOCATED SYMMETRICALLY ON THE TRAFFIC SIDE, FOR EVERY STAGE OF WORK.

LEGEND

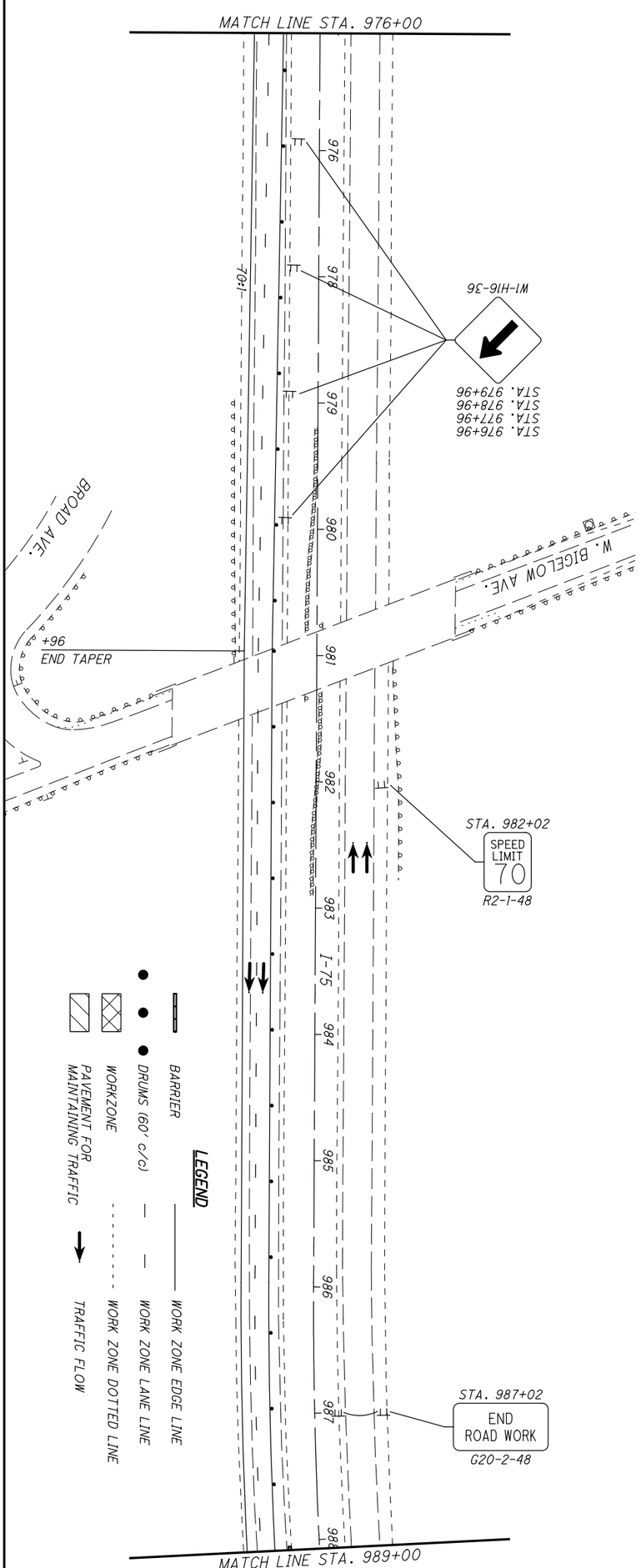
- CONCRETE/STEEL REMOVAL LIMITS

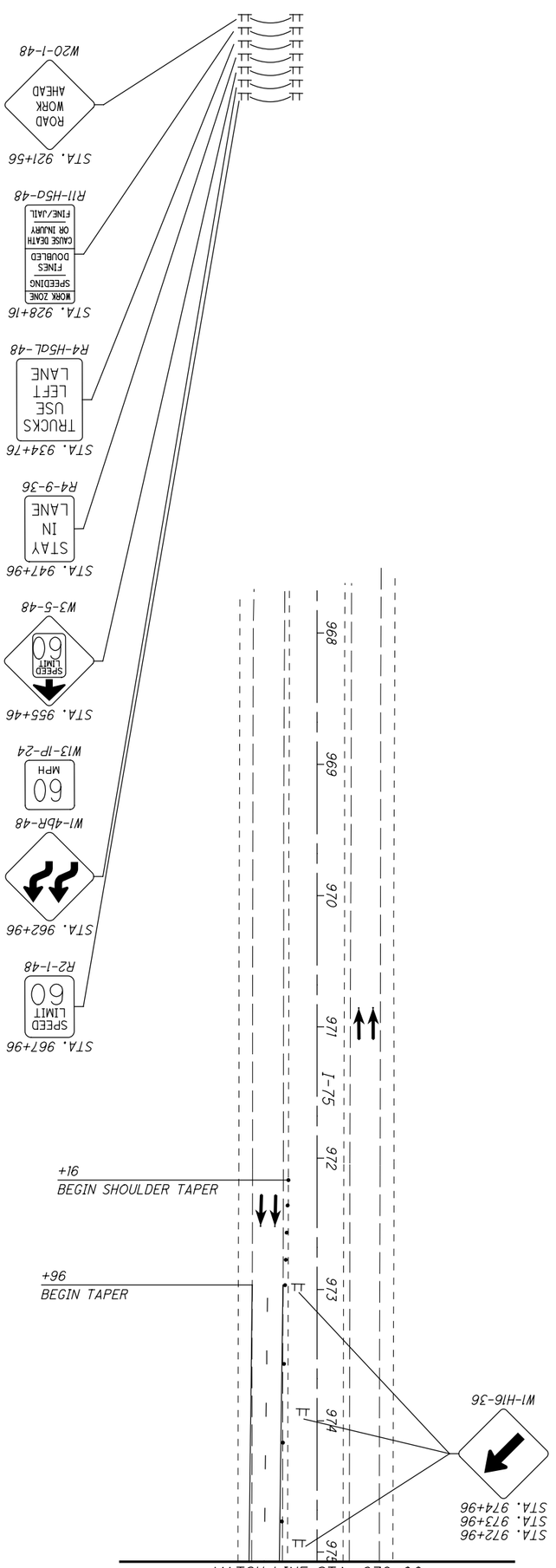
DESIGNED KWL | CHECKED SAM

HAN-75-2370 (ROCKY FORD CREEK)
STAGE CONSTRUCTION DETAILS

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\MOT\95437mp501.dgn 3/18/2015 4:15:46 PM CMN





ALL MAINTENANCE OF TRAFFIC OPERATIONS SHALL COORDINATE WITH PROJECT HAN-75-14.39

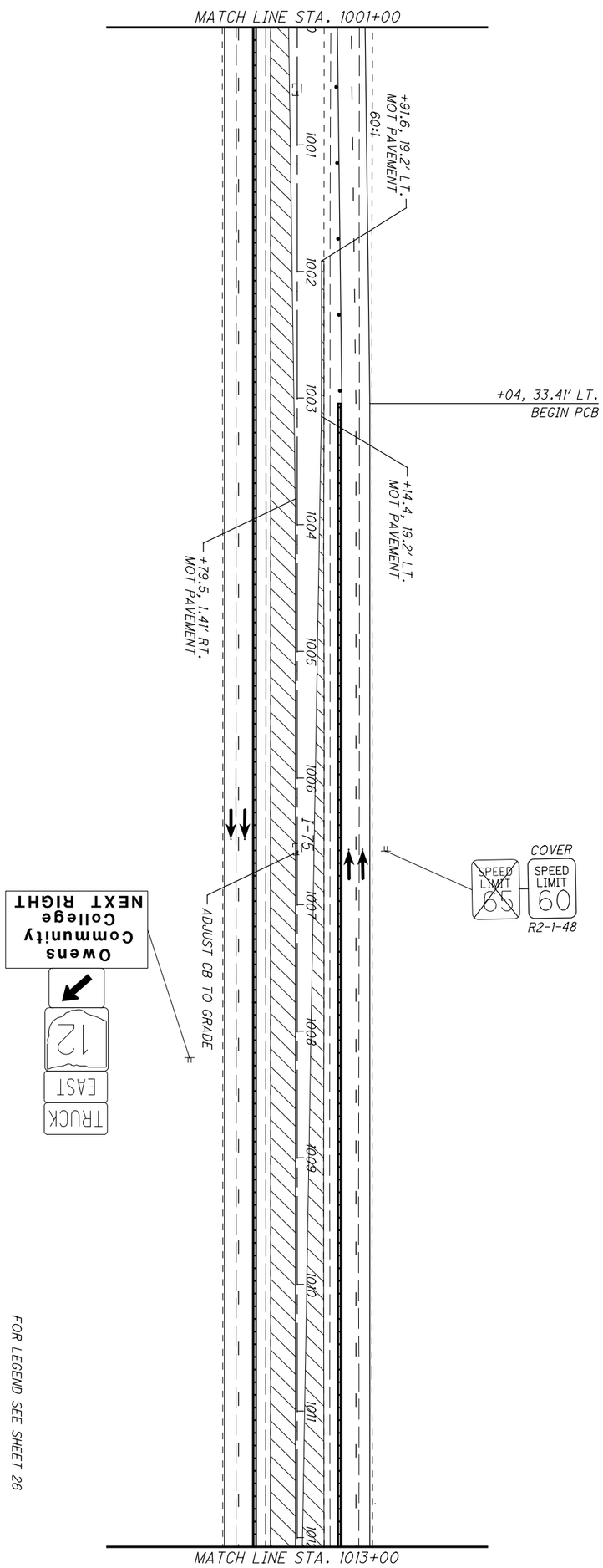
HAN/WOO-75-19.22/0.00

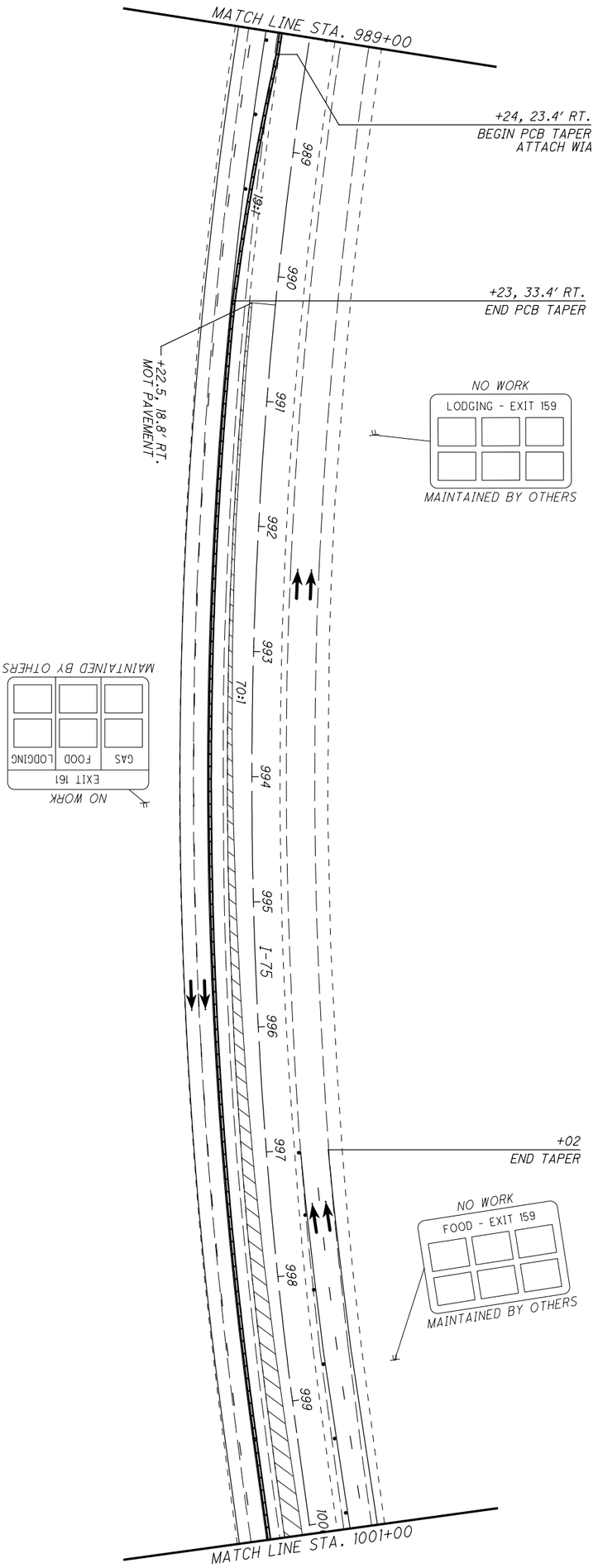
MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N





FOR LEGEND SEE SHEET 26

HAN/WOO-75-19.22/0.00

MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA

0 50
25 100
HORIZONTAL SCALE IN FEET

N

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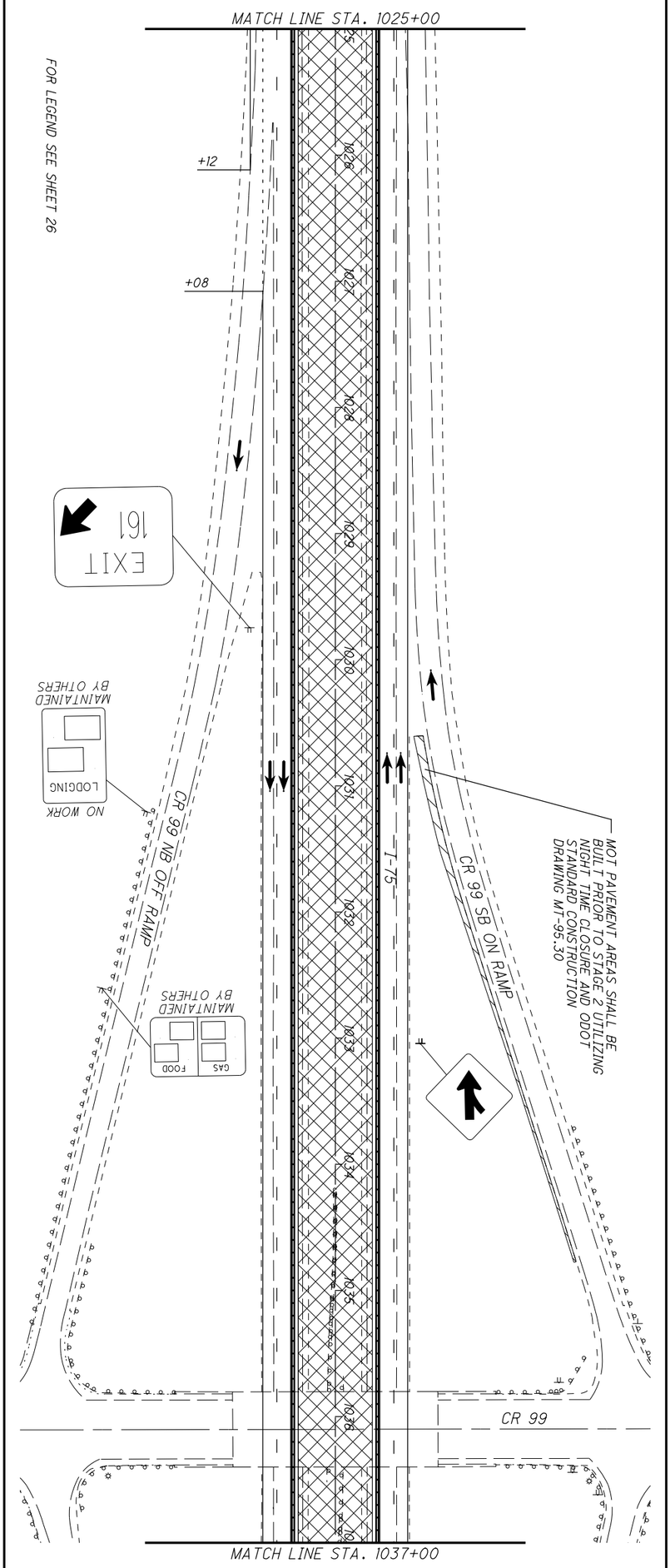
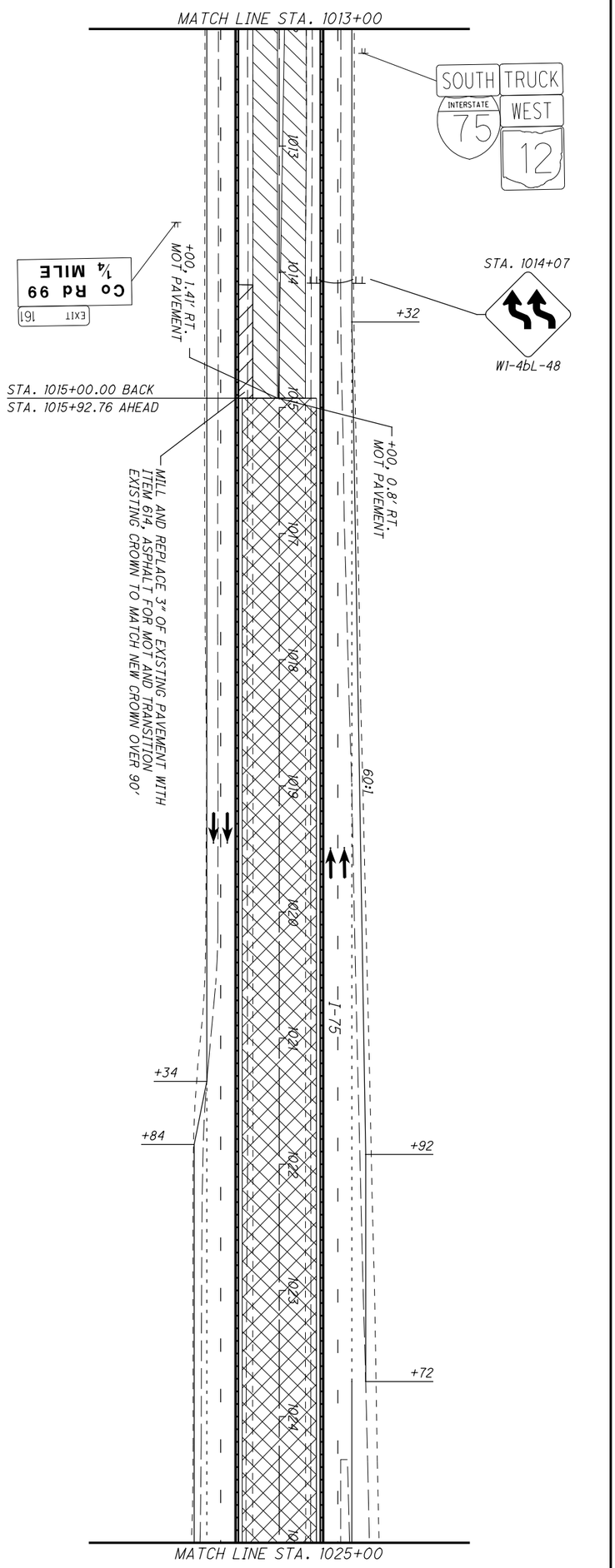
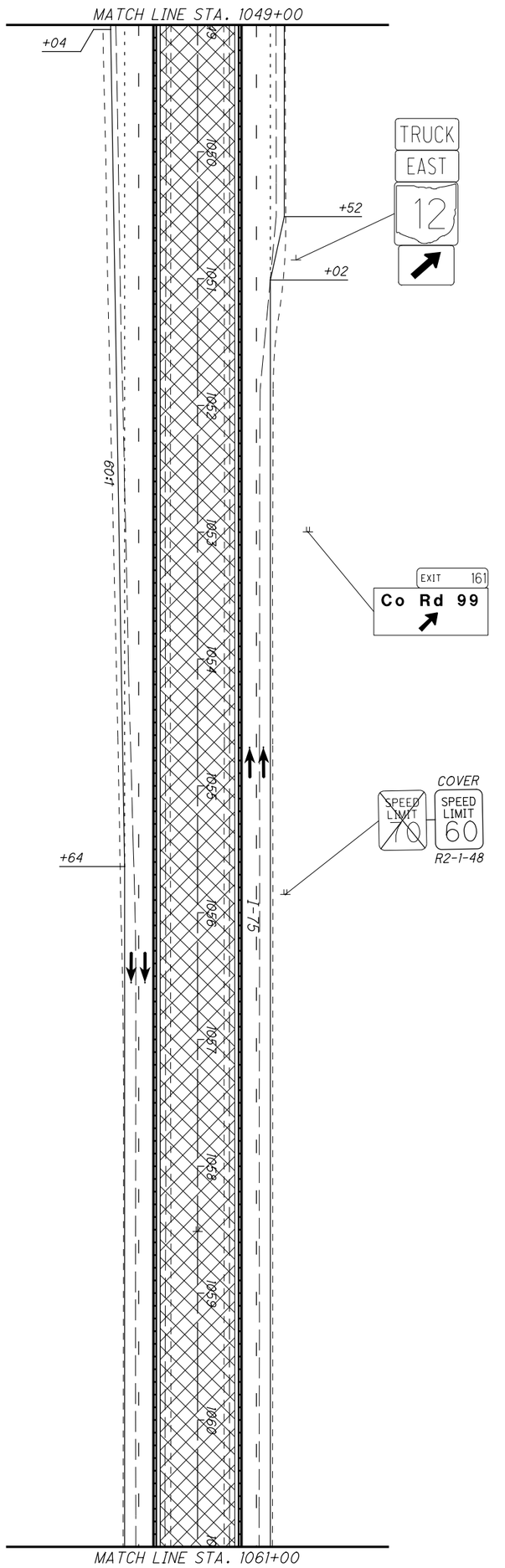
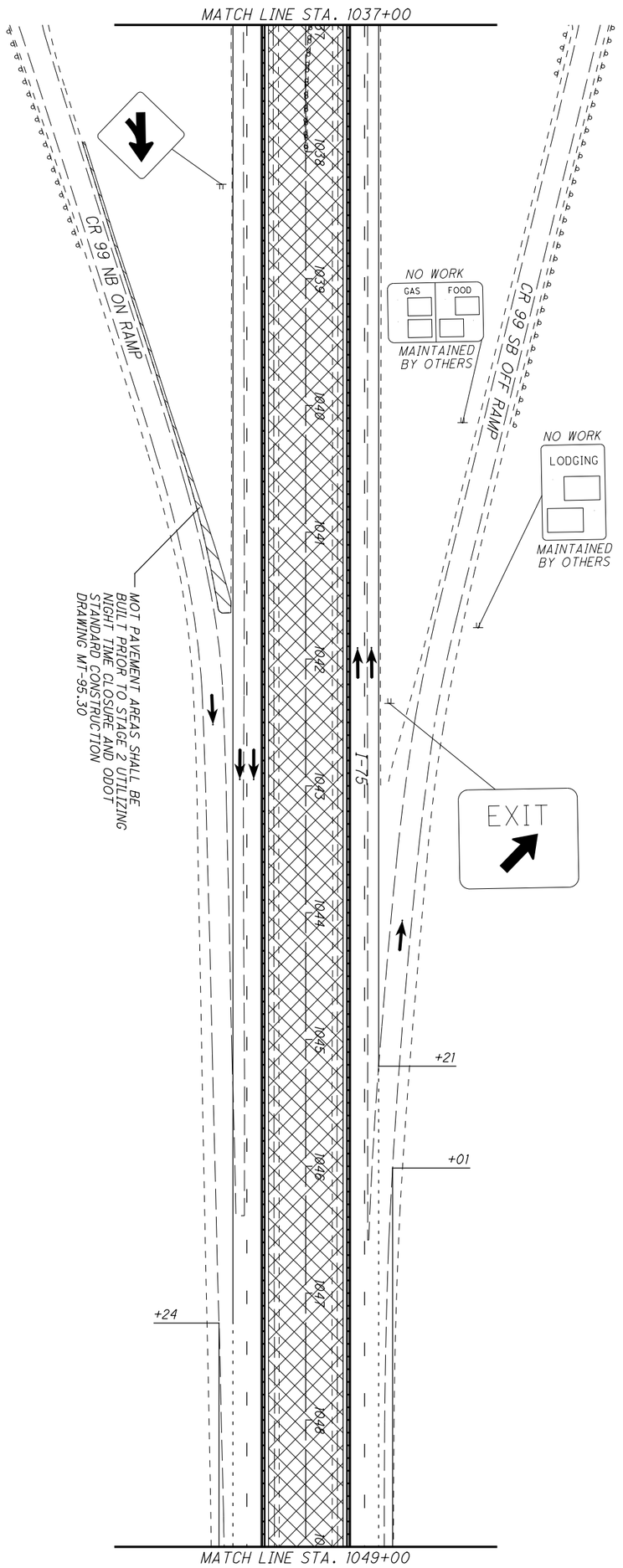




28 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 1**	CALCULATED SRC / CHECKED LLA	0 50 / 25 100 HORIZONTAL SCALE IN FEET

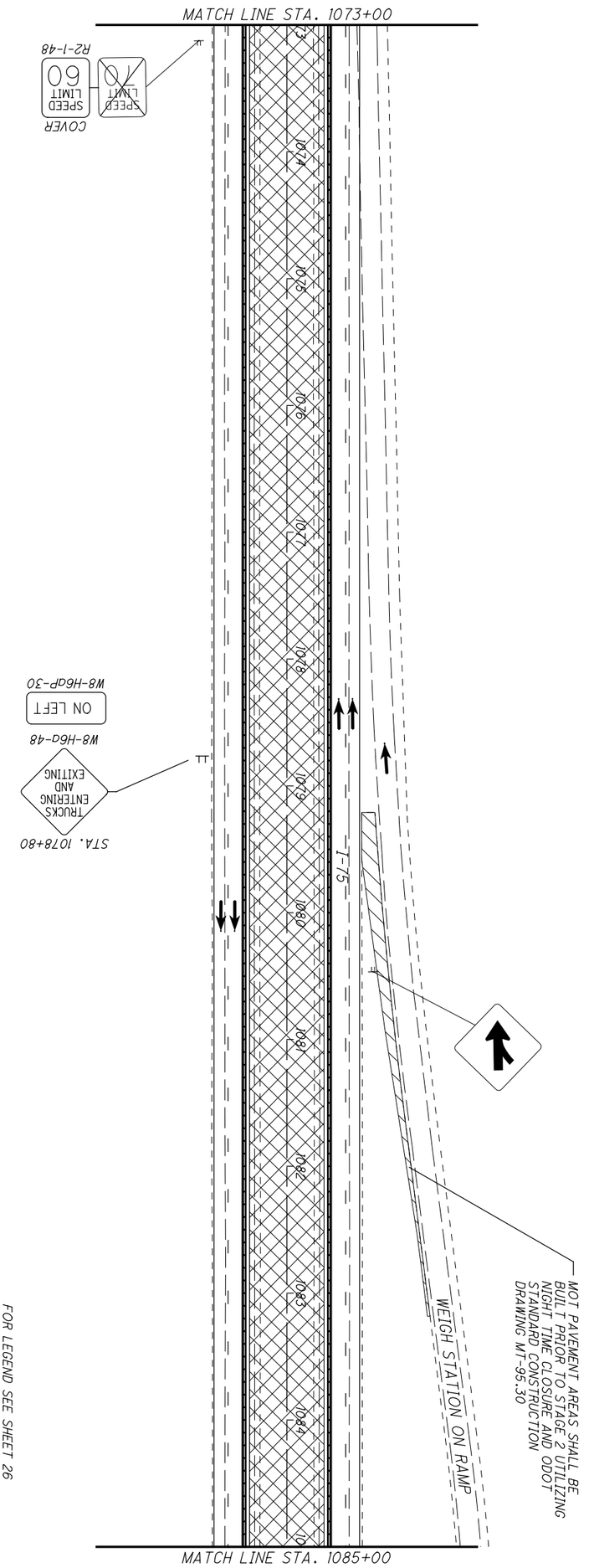


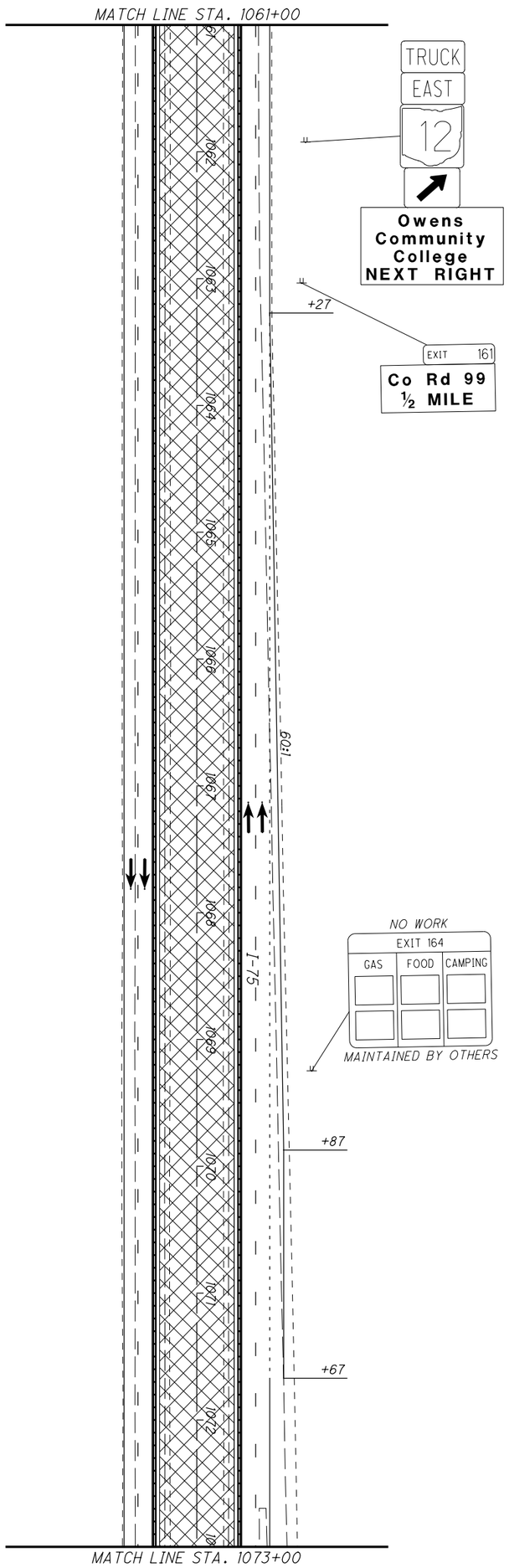


FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET
N





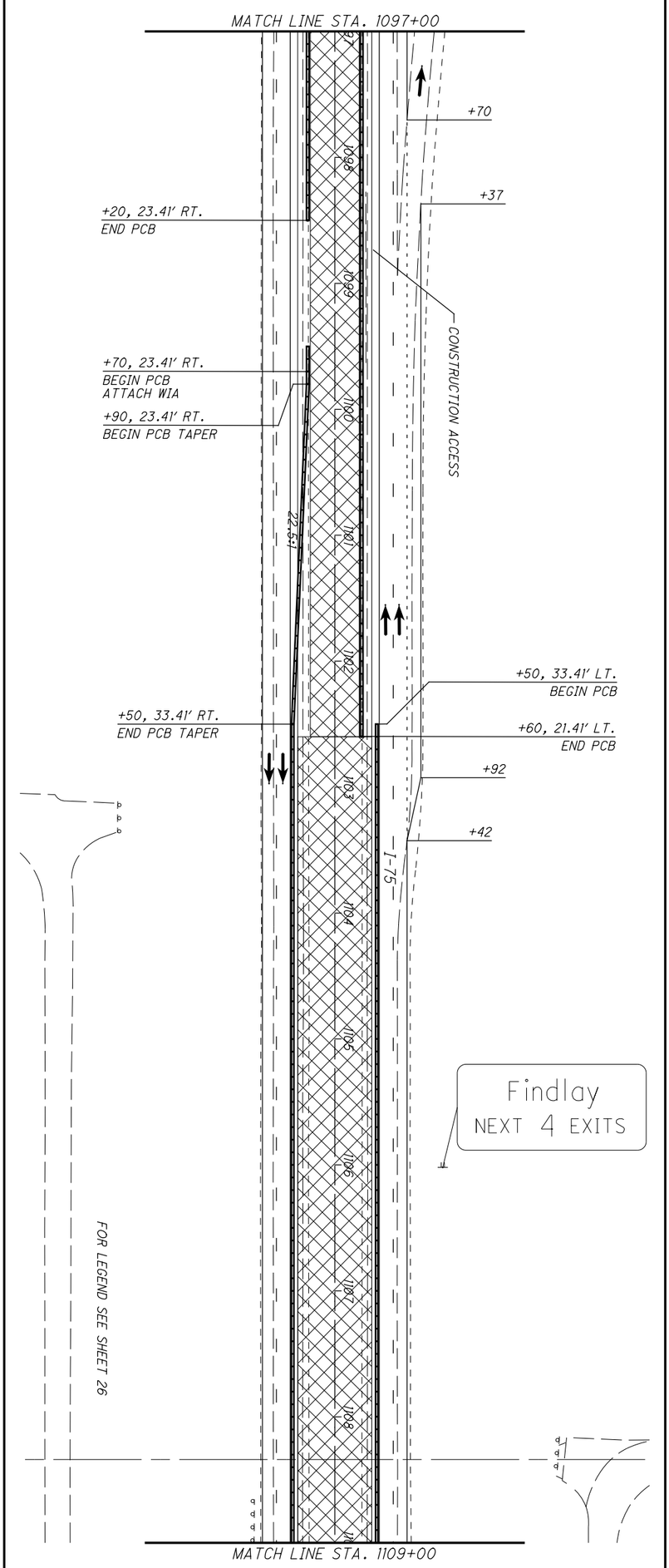
FOR LEGEND SEE SHEET 26

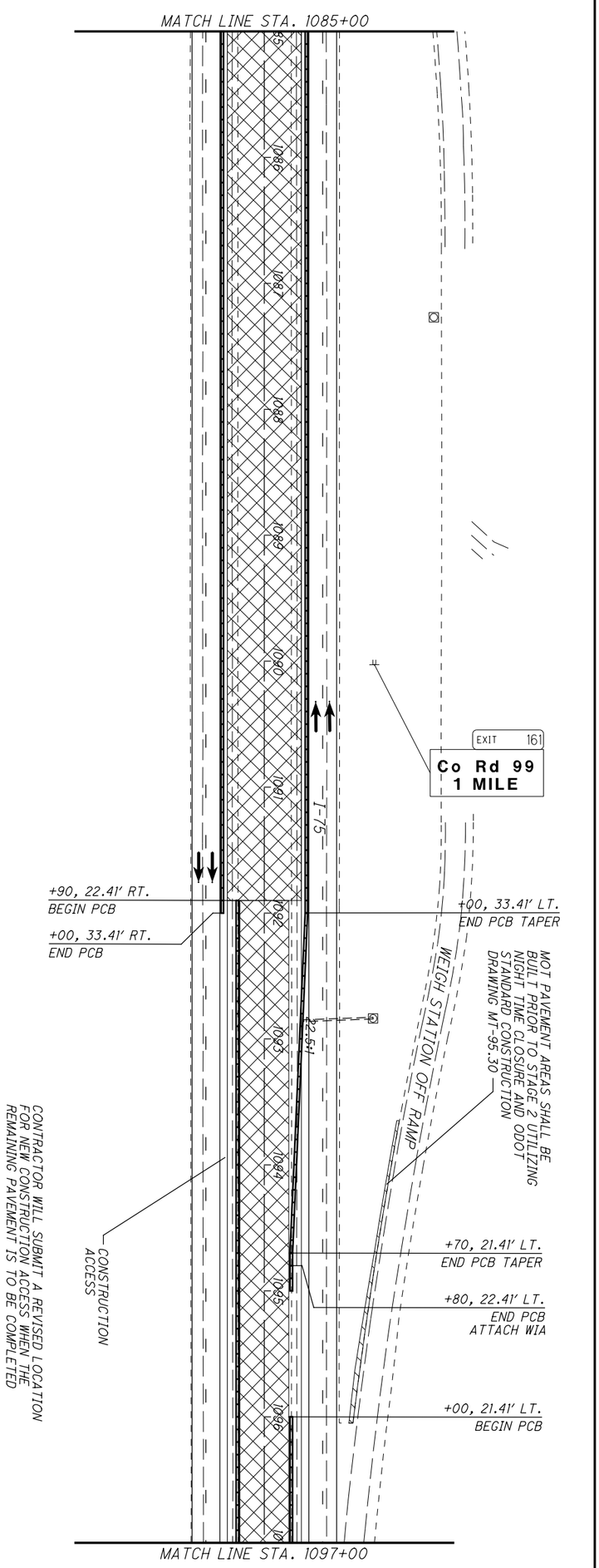
MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

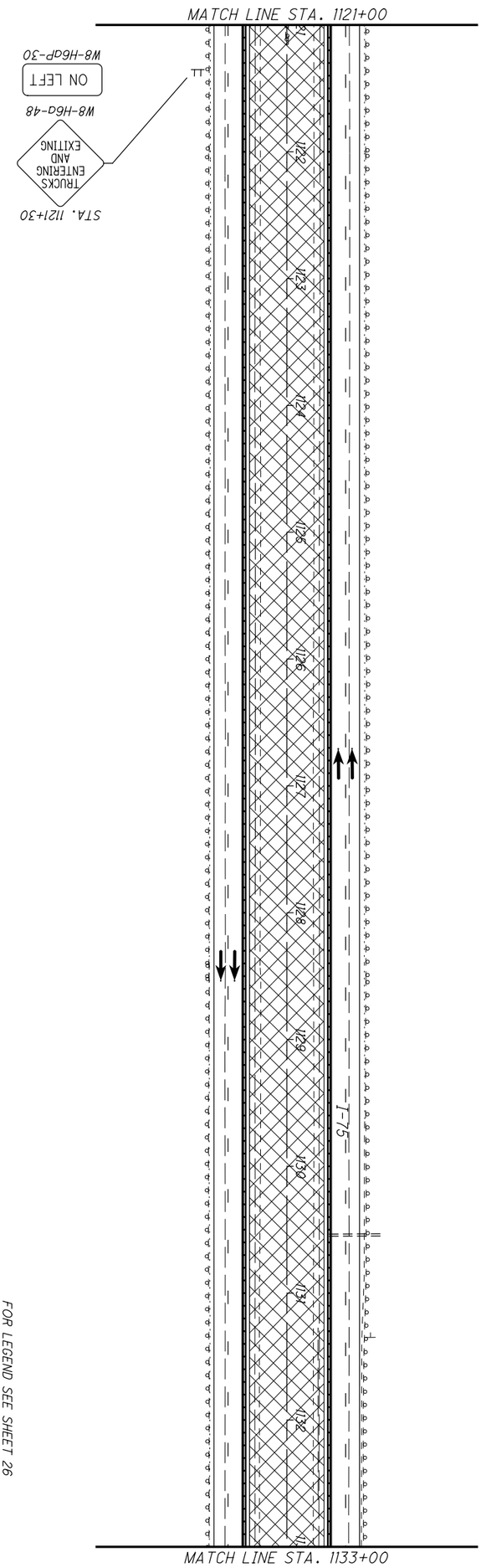
N



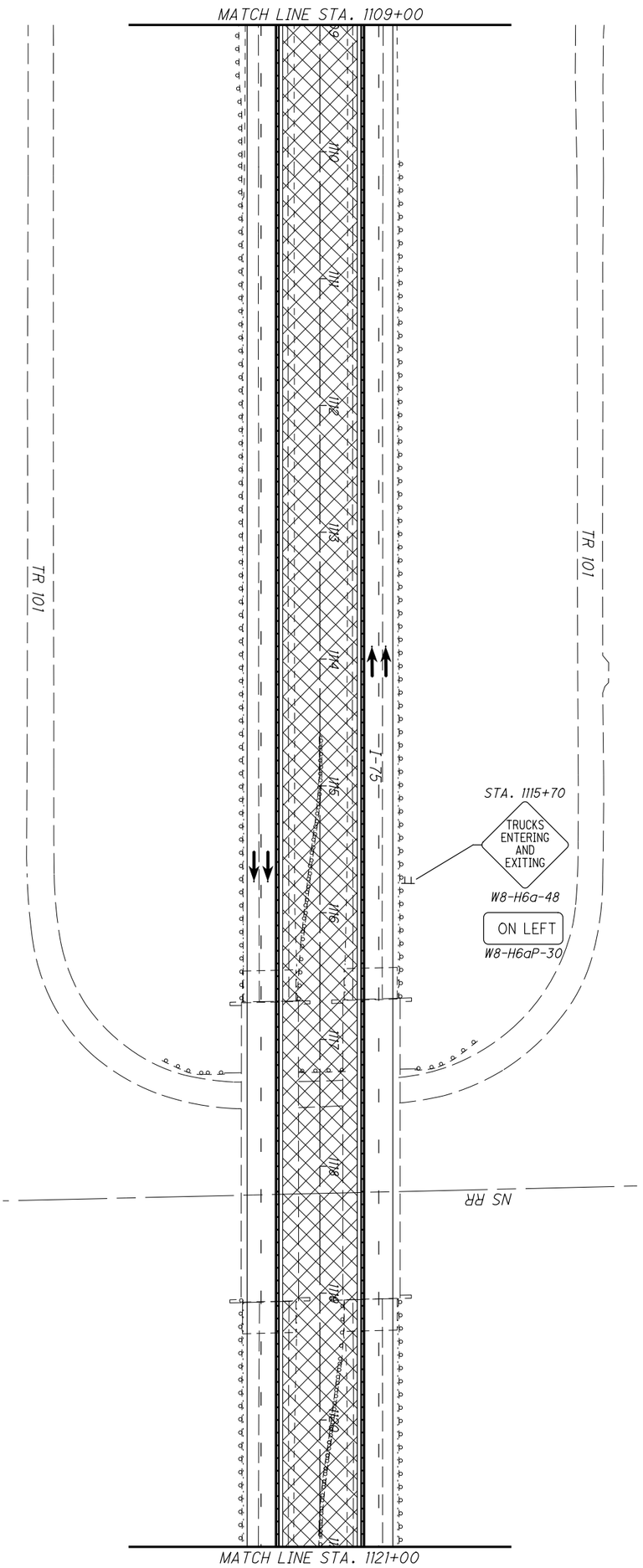


MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA
0 50
25 100
HORIZONTAL SCALE IN FEET



FOR LEGEND SEE SHEET 26

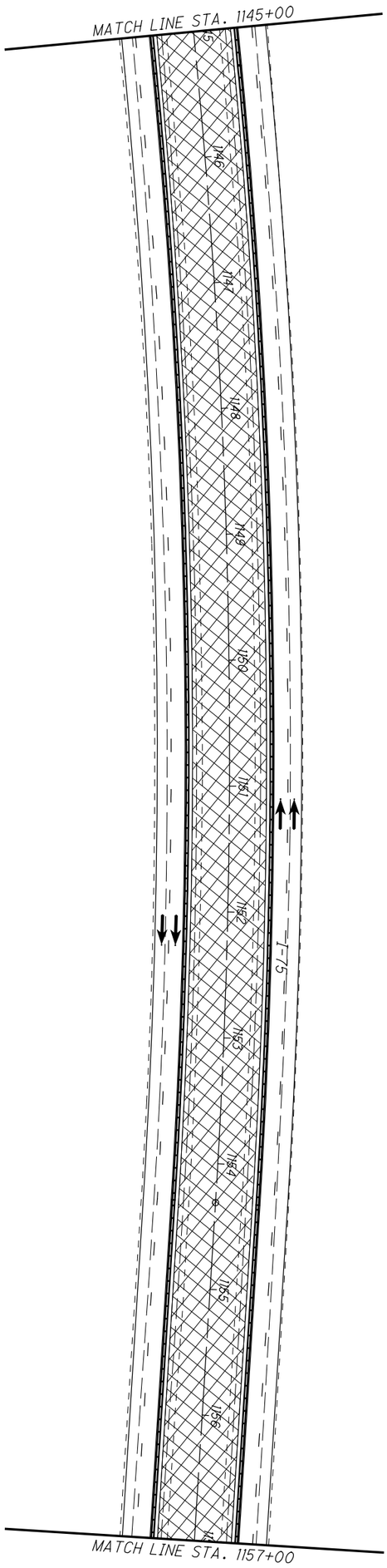


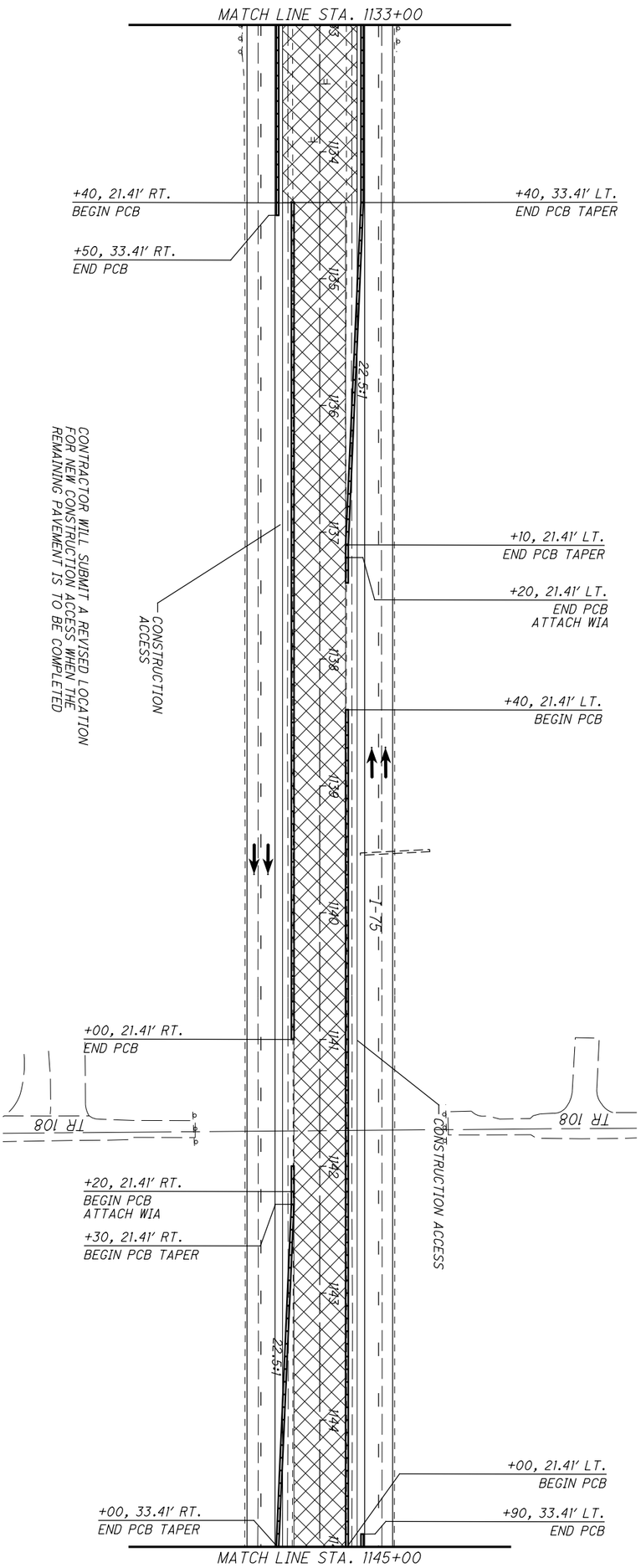
MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N

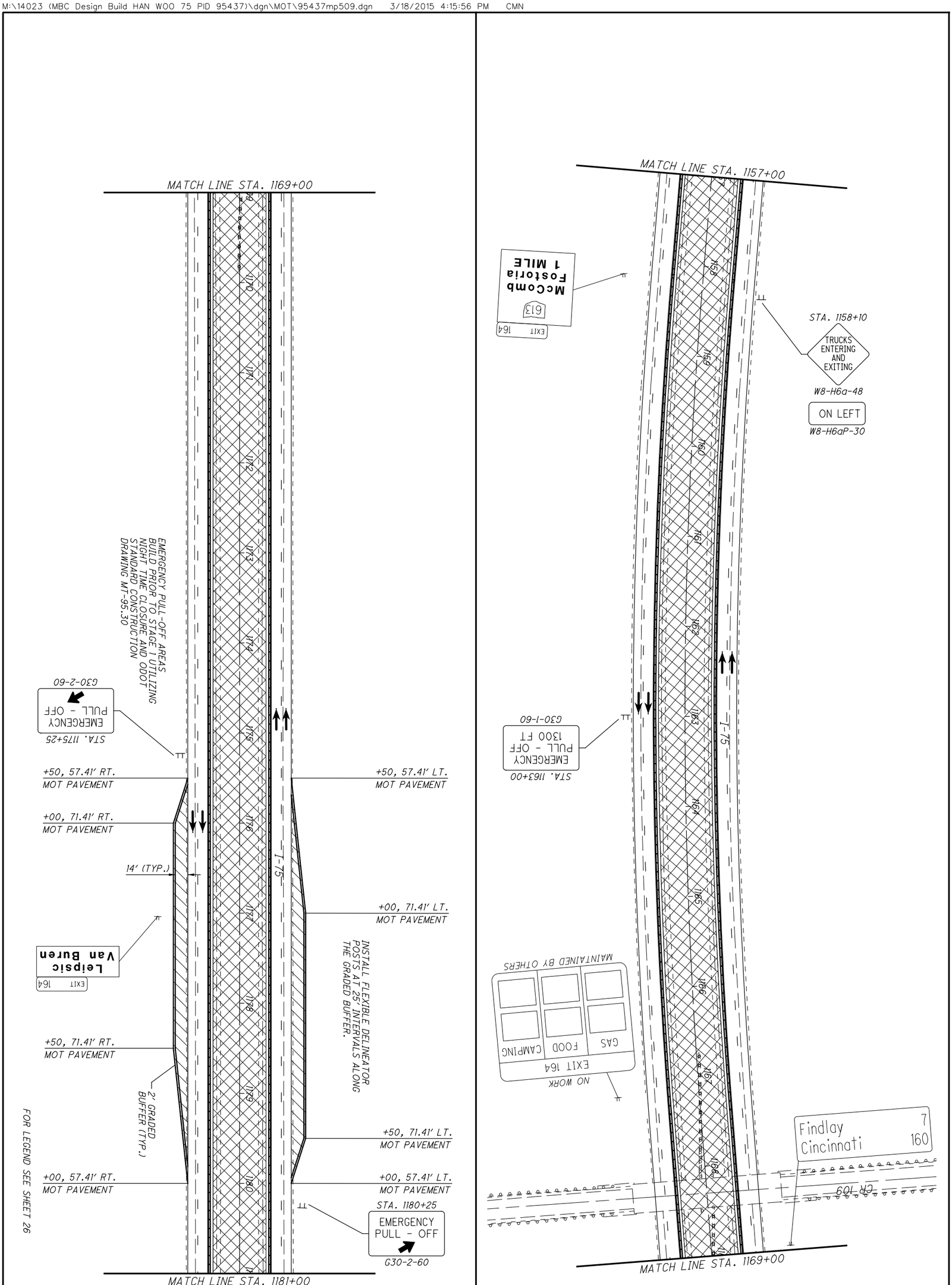




FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET
N

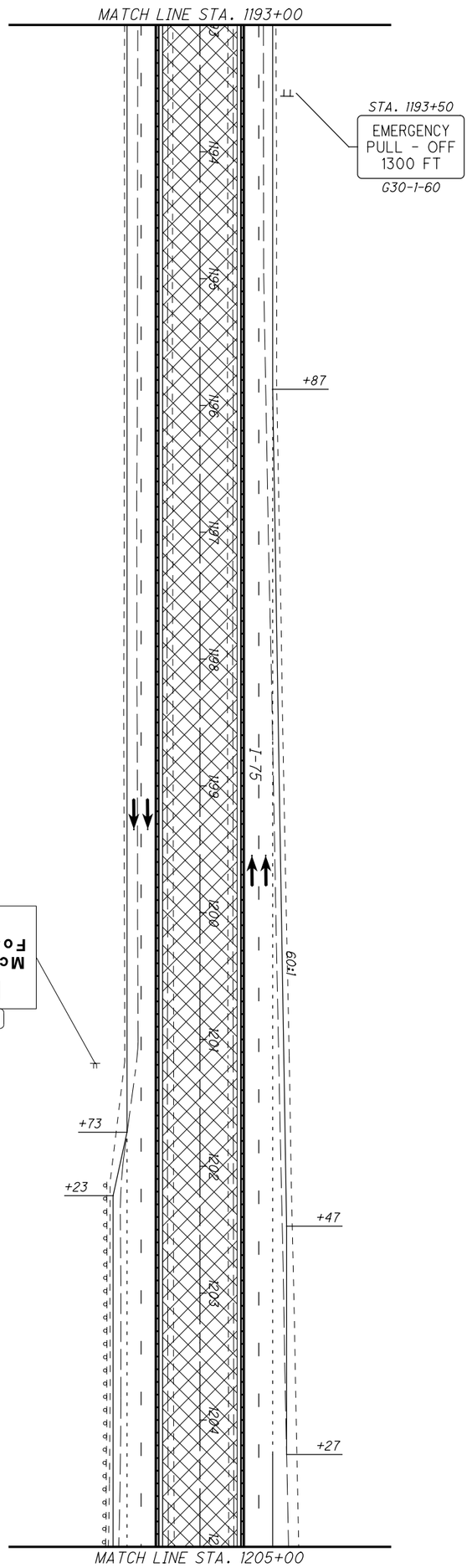


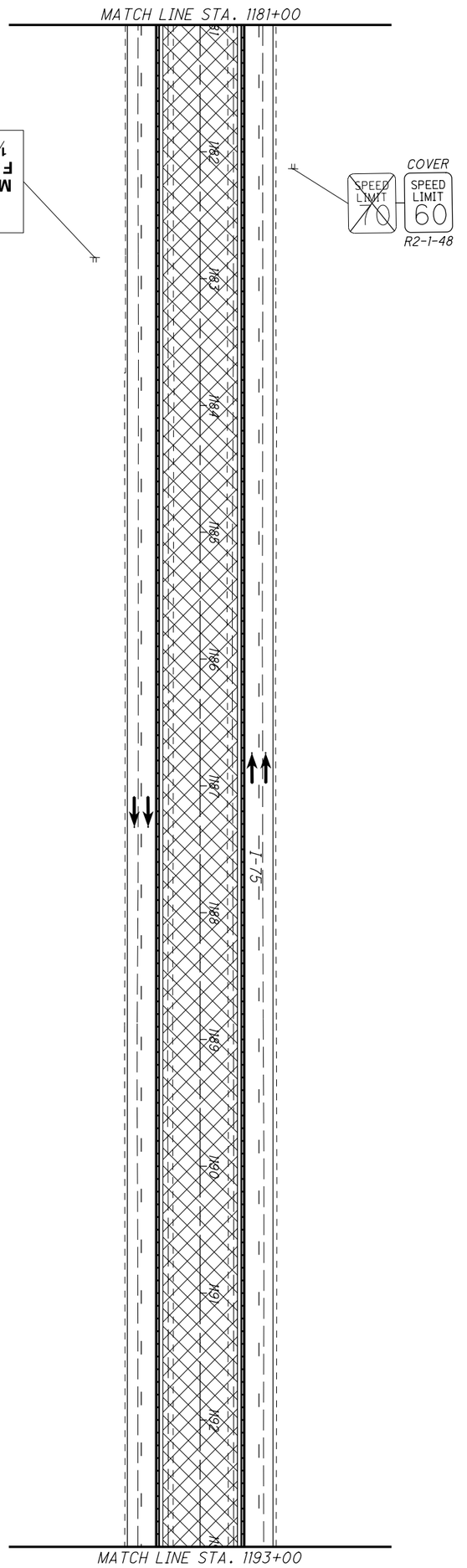
HAN/WOO-75-19.22/0.00

MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET





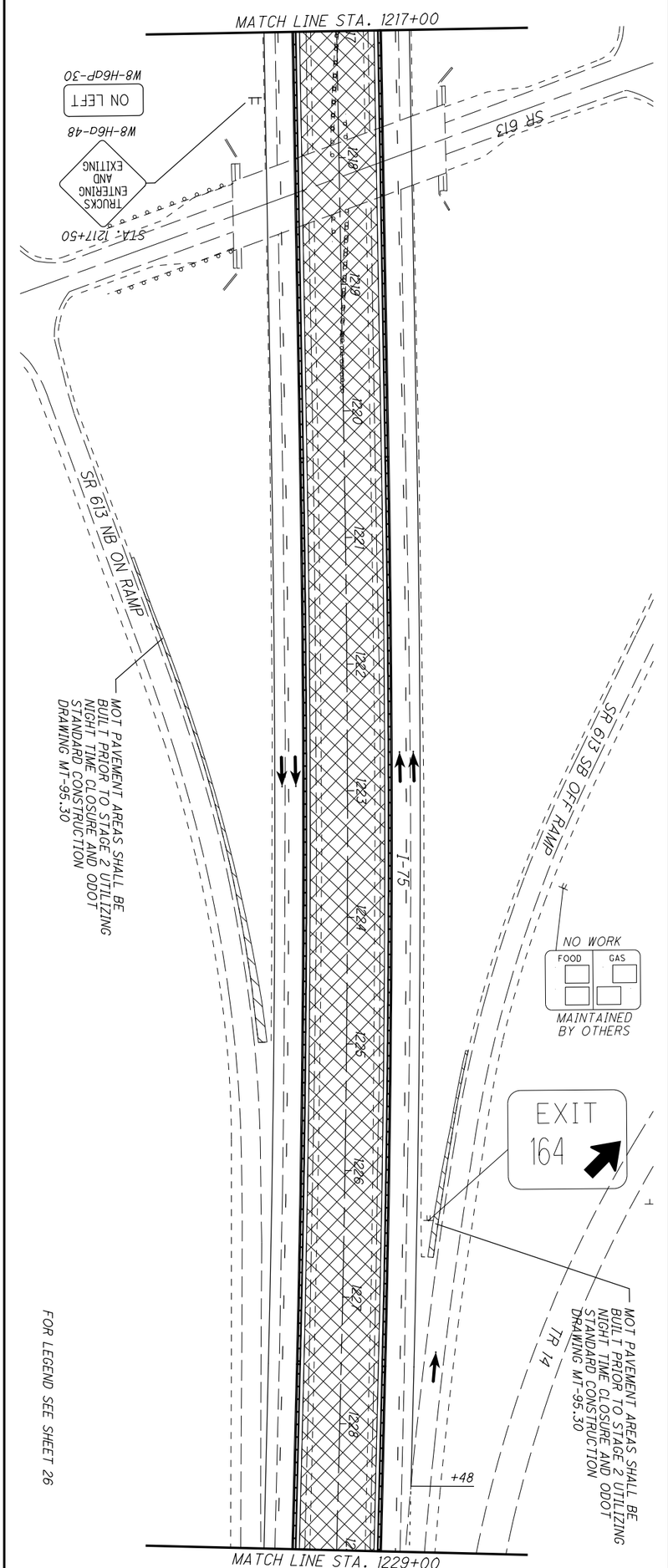
FOR LEGEND SEE SHEET 26

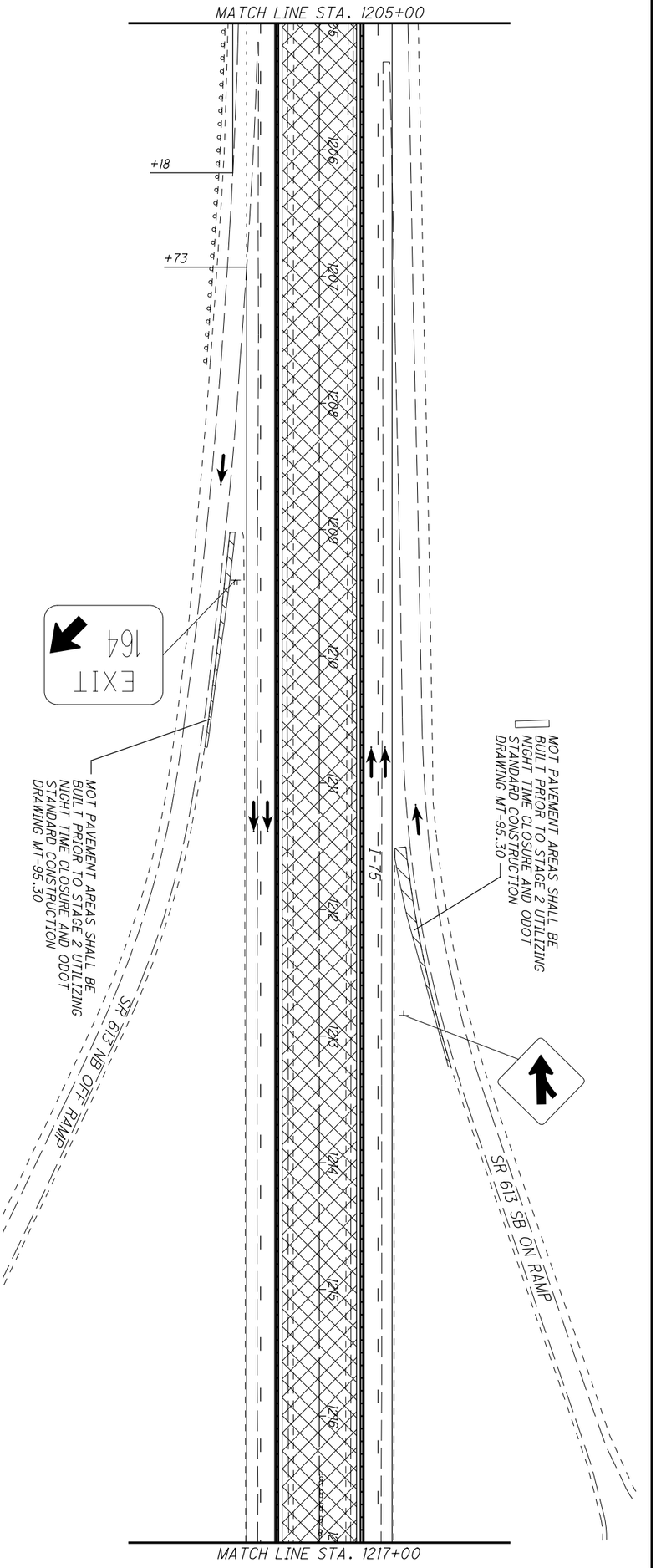
MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N

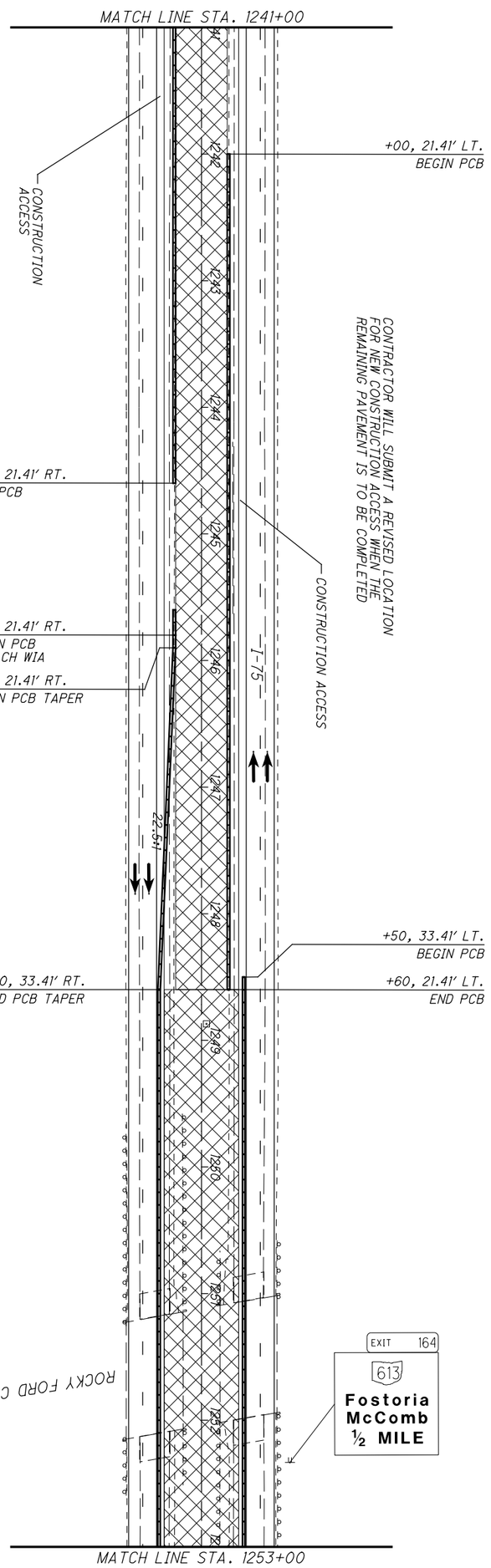


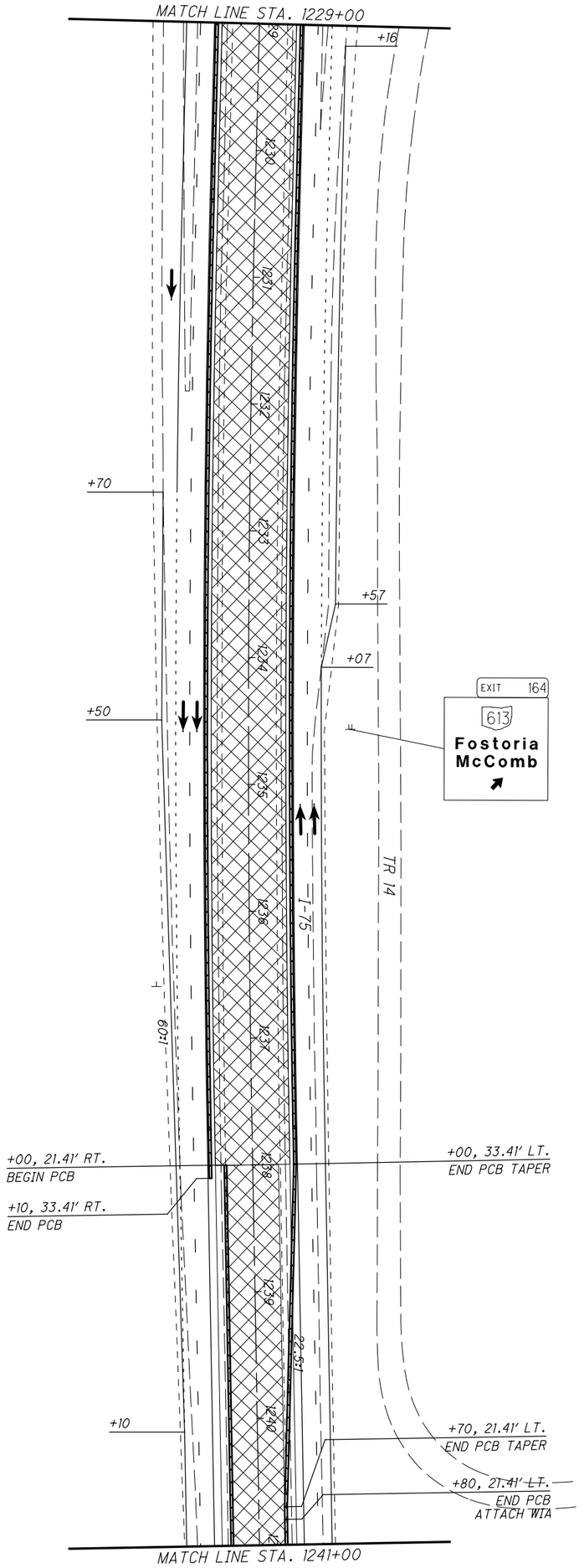


FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET
N

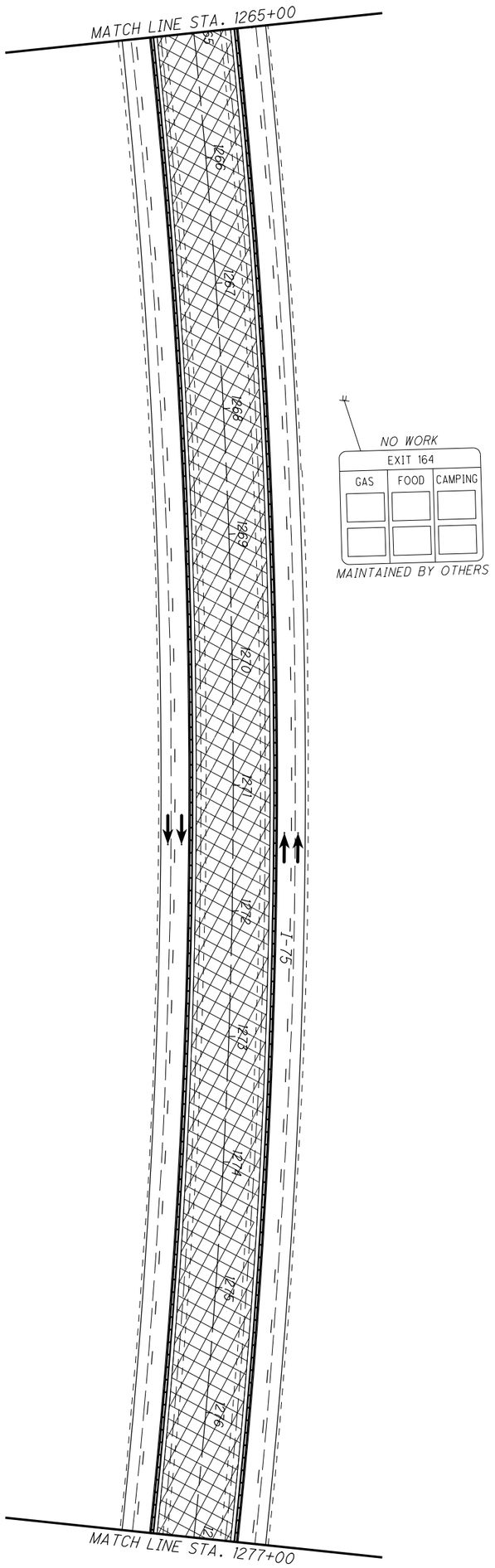


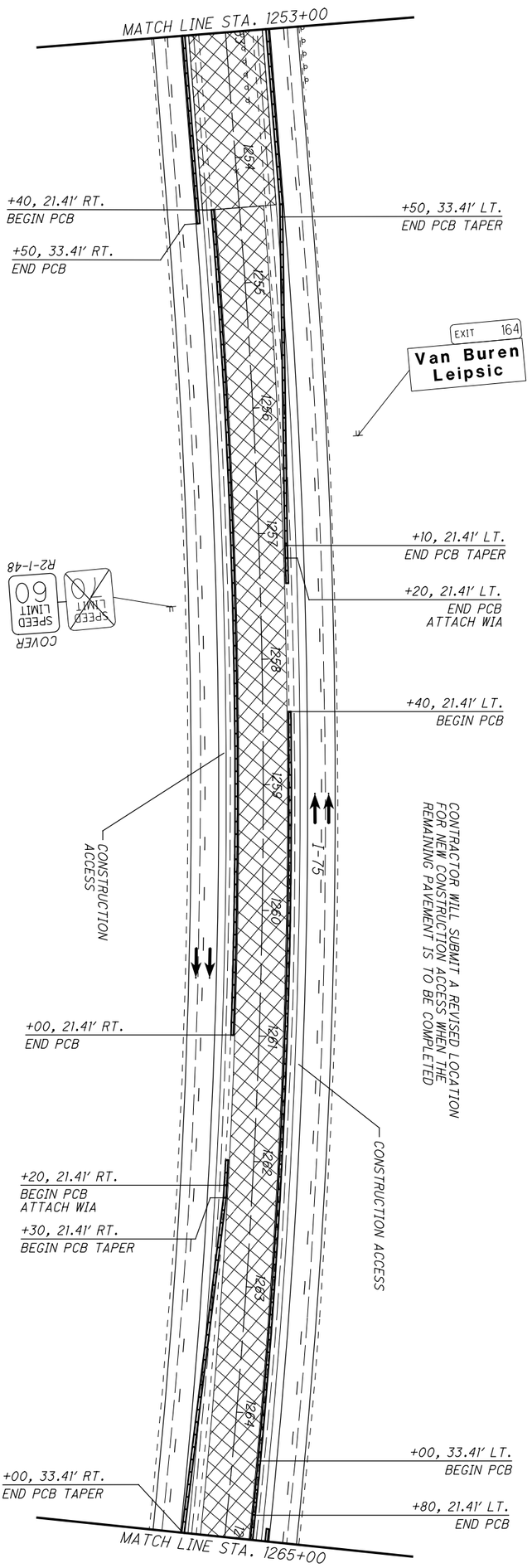


FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA
0 50
25 100
HORIZONTAL SCALE IN FEET
N





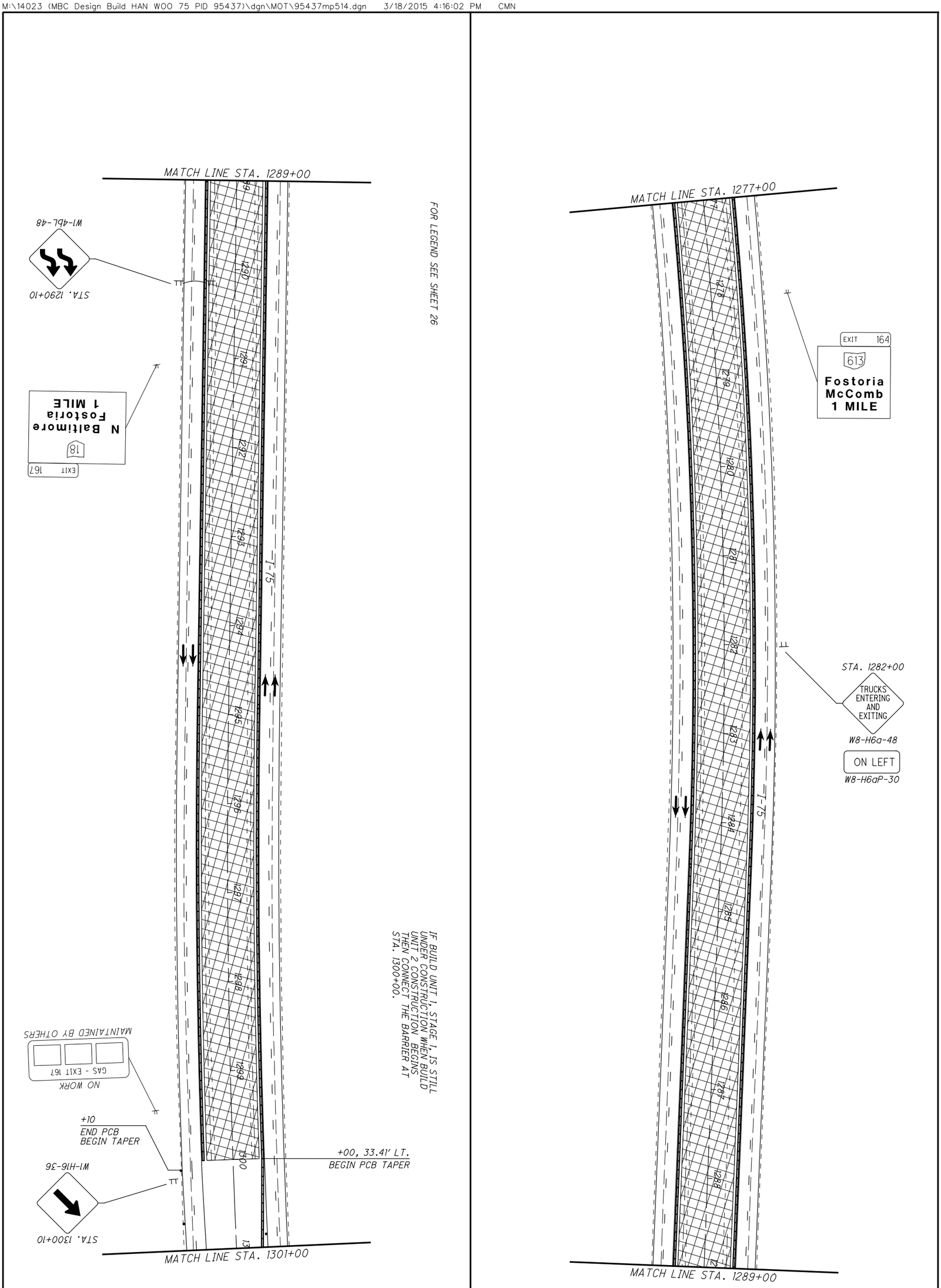
FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA

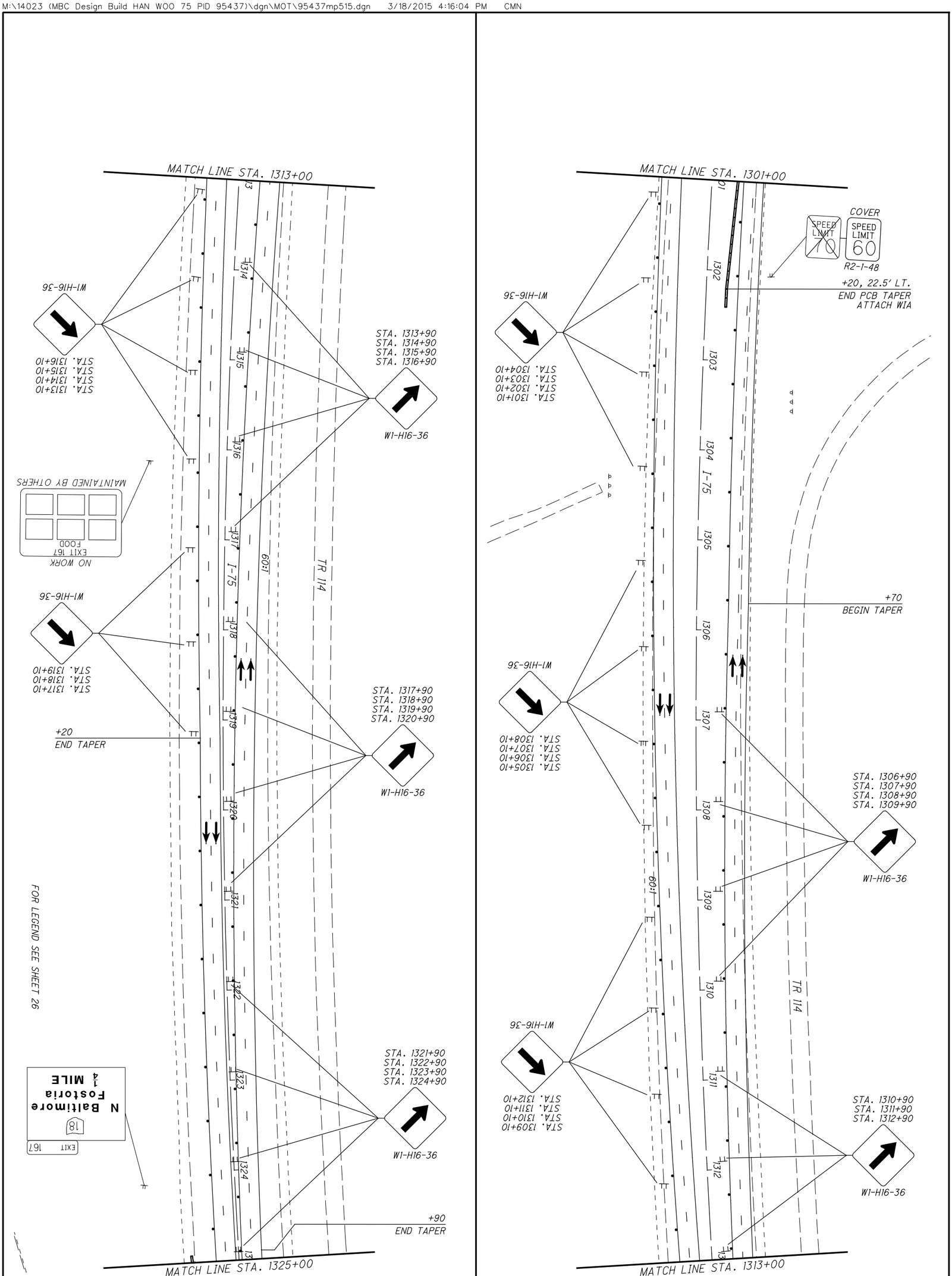
0 25 50 100
HORIZONTAL SCALE IN FEET

N



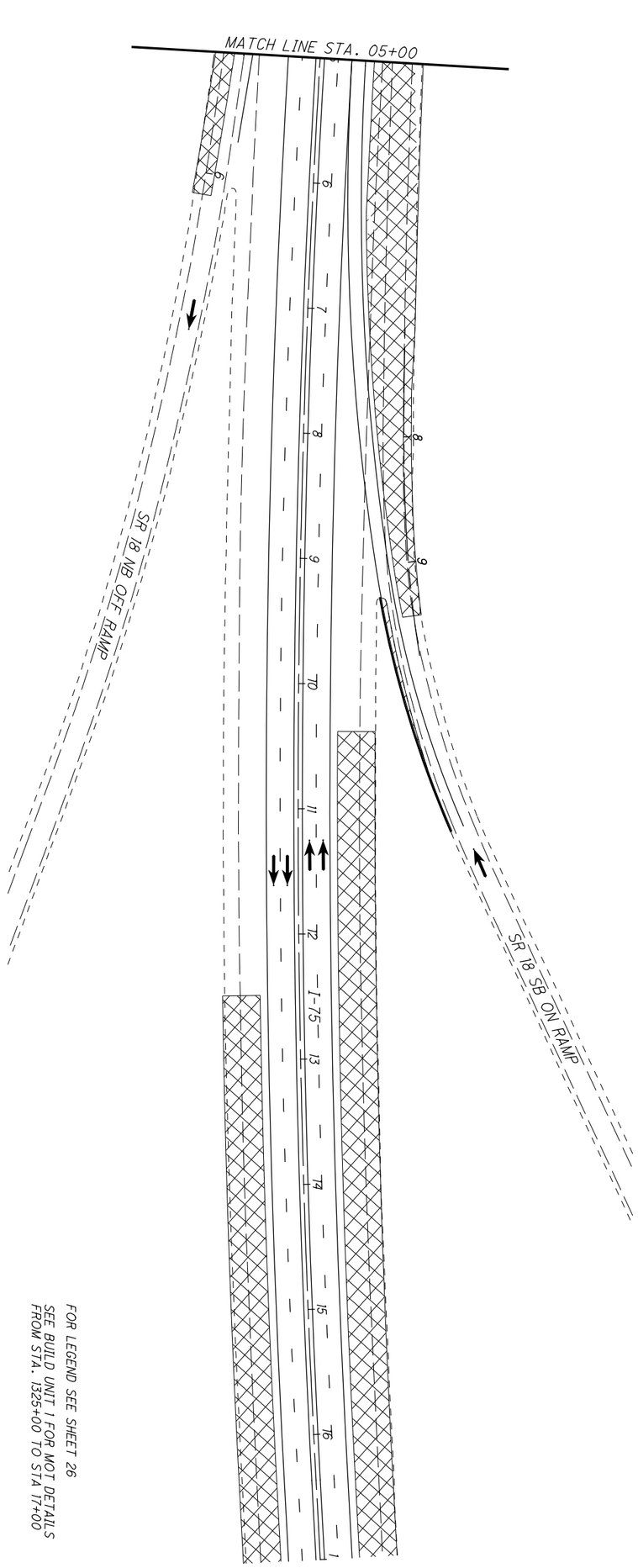
MAINTENANCE OF TRAFFIC
STAGE 1

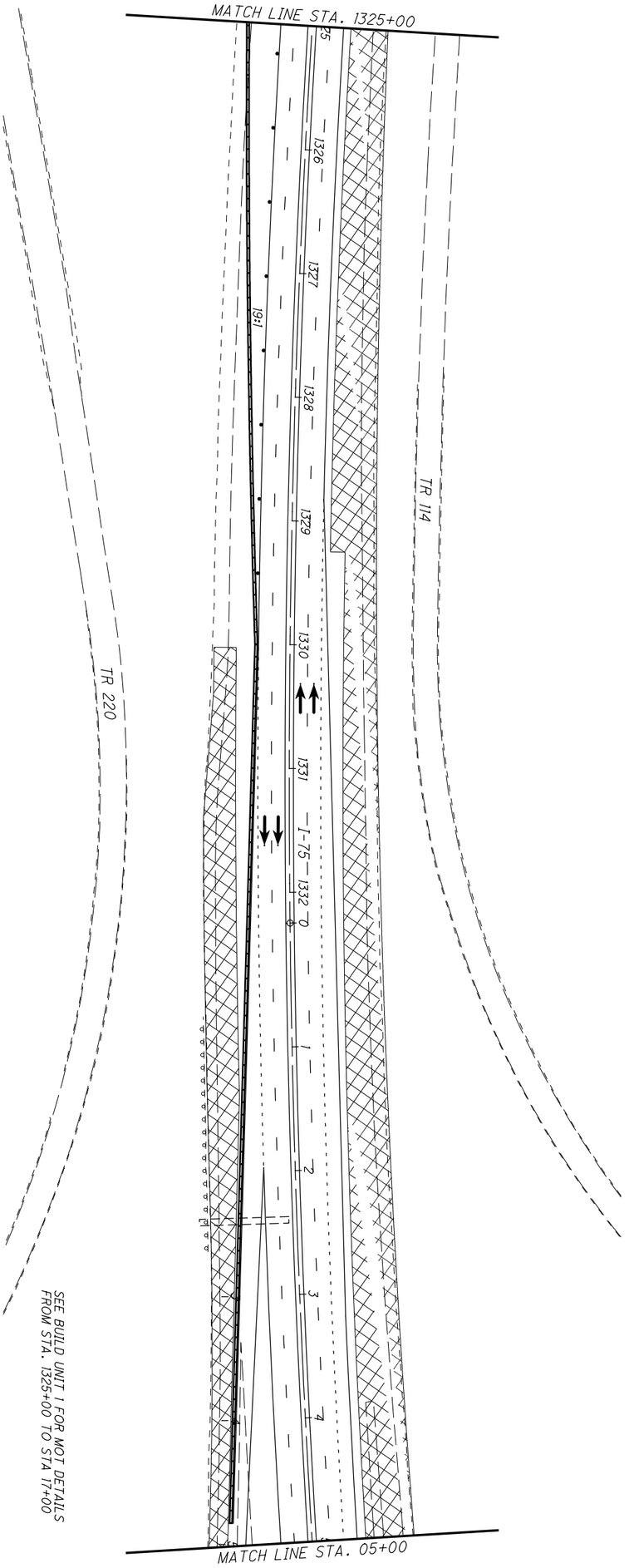
CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET



MAINTENANCE OF TRAFFIC
STAGE 1

CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET

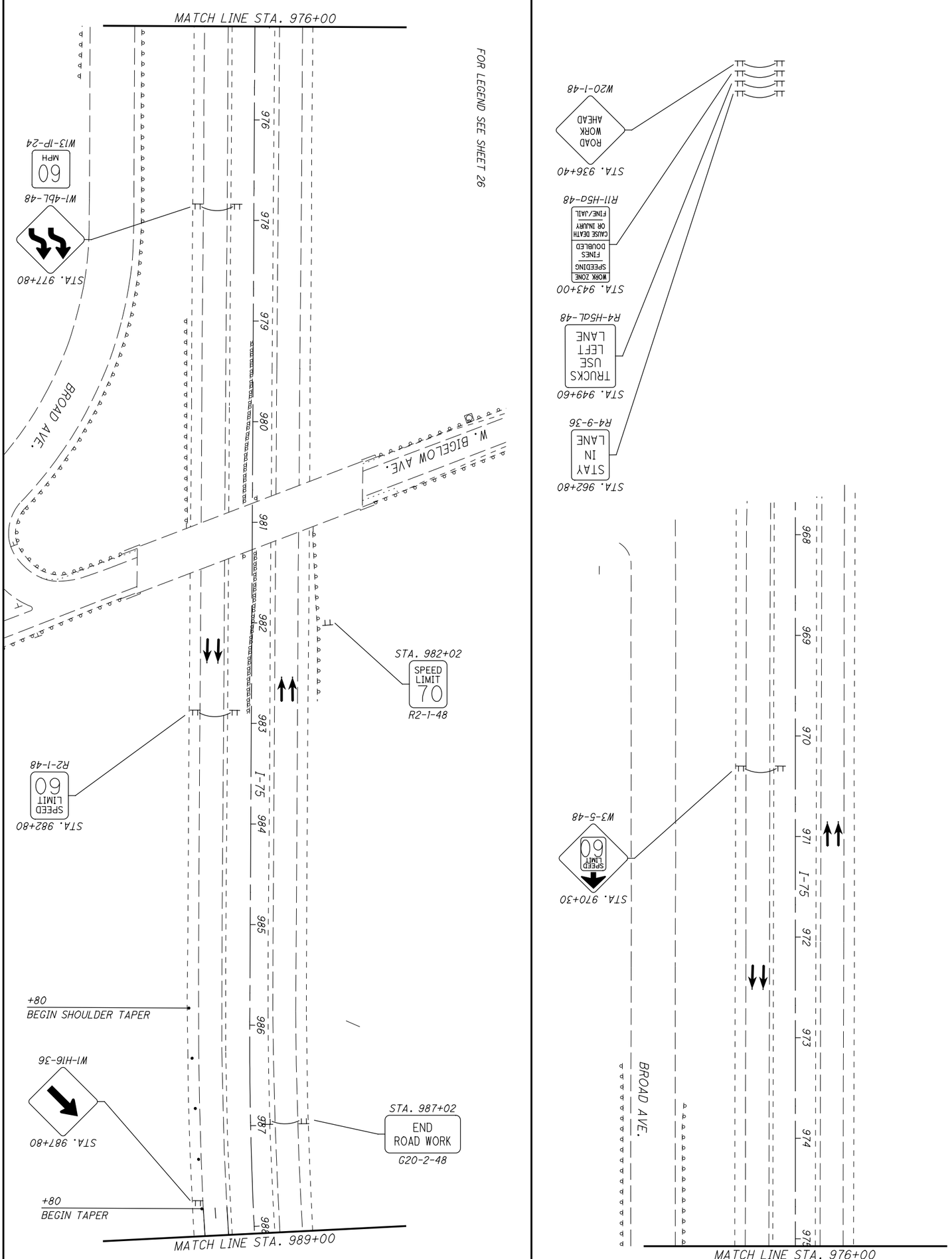




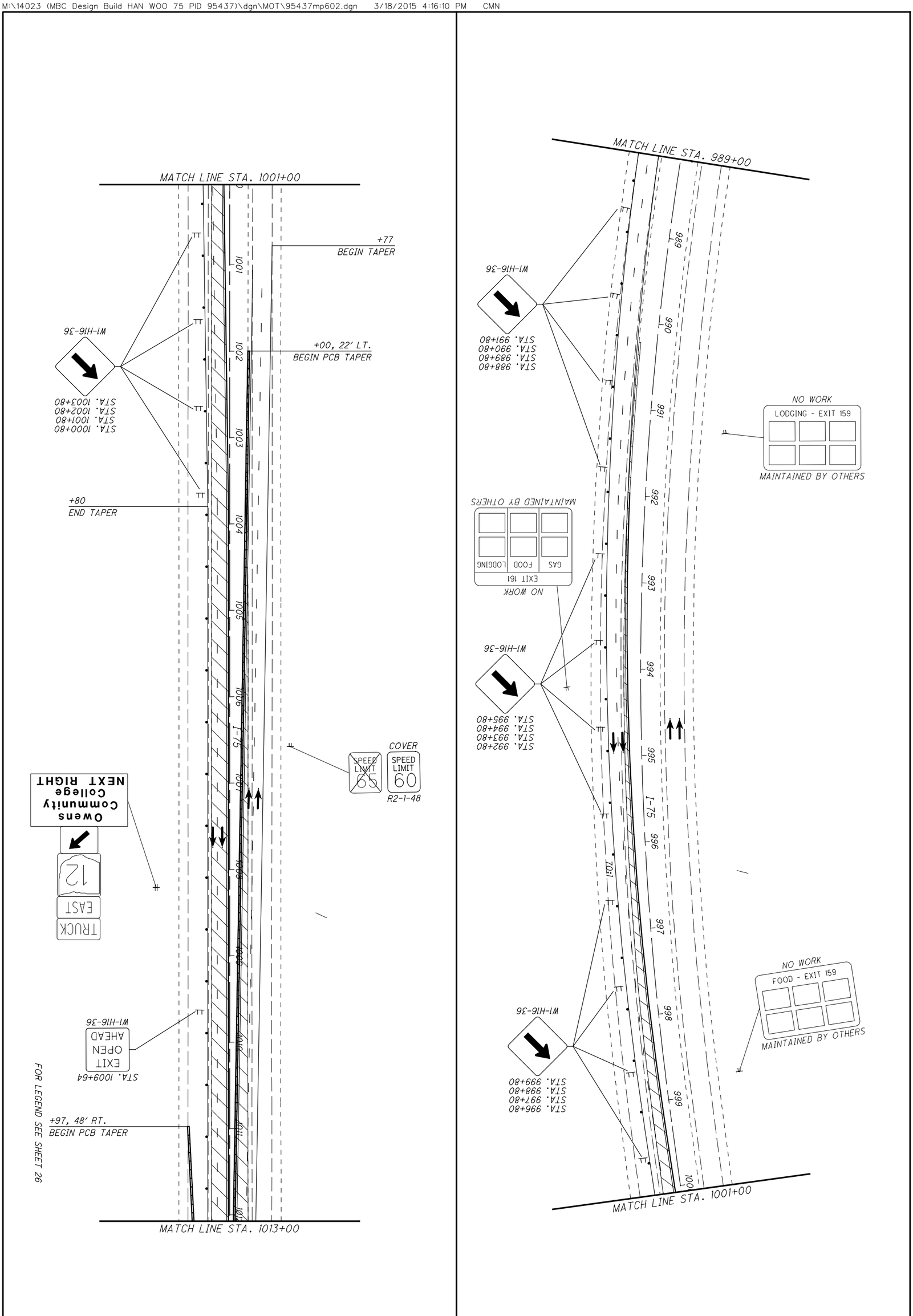
FOR LEGEND SEE SHEET 26
SEE BUILD UNIT 1 FOR MOT DETAILS FROM STA. 1325+00 TO STA 17+00

SEE BUILD UNIT 1 FOR MOT DETAILS FROM STA. 1325+00 TO STA 17+00

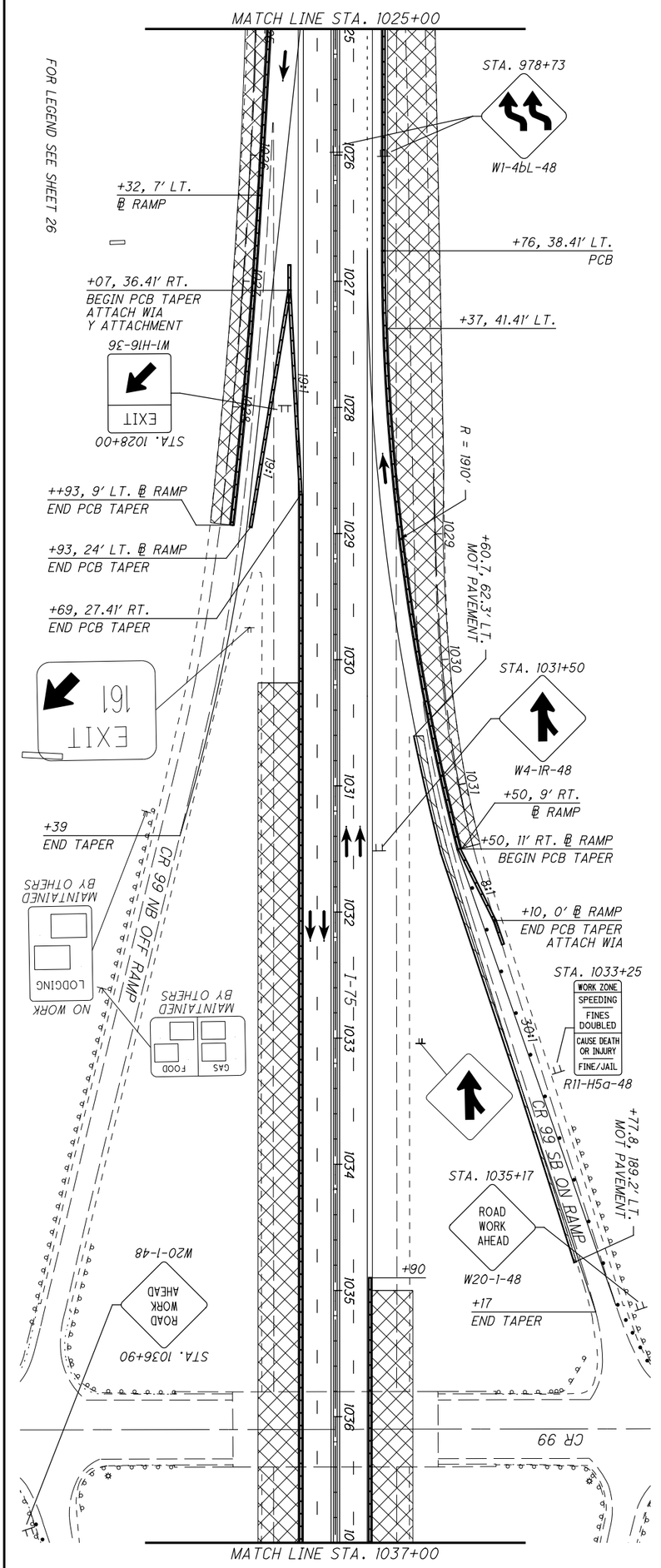
M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\MOT\95437mp601.dgn 3/18/2015 4:16:08 PM CMN

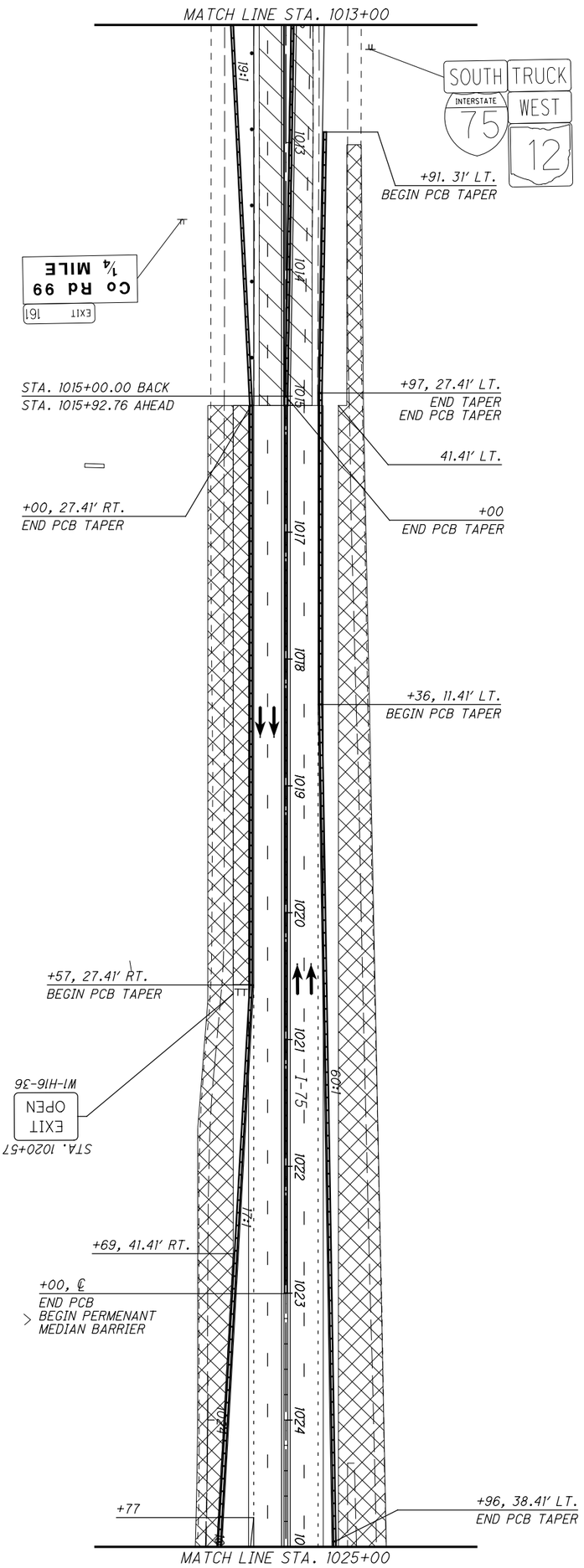


42 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 2**	CALCULATED SRC / CHECKED LLA	0 25 50 100 HORIZONTAL SCALE IN FEET



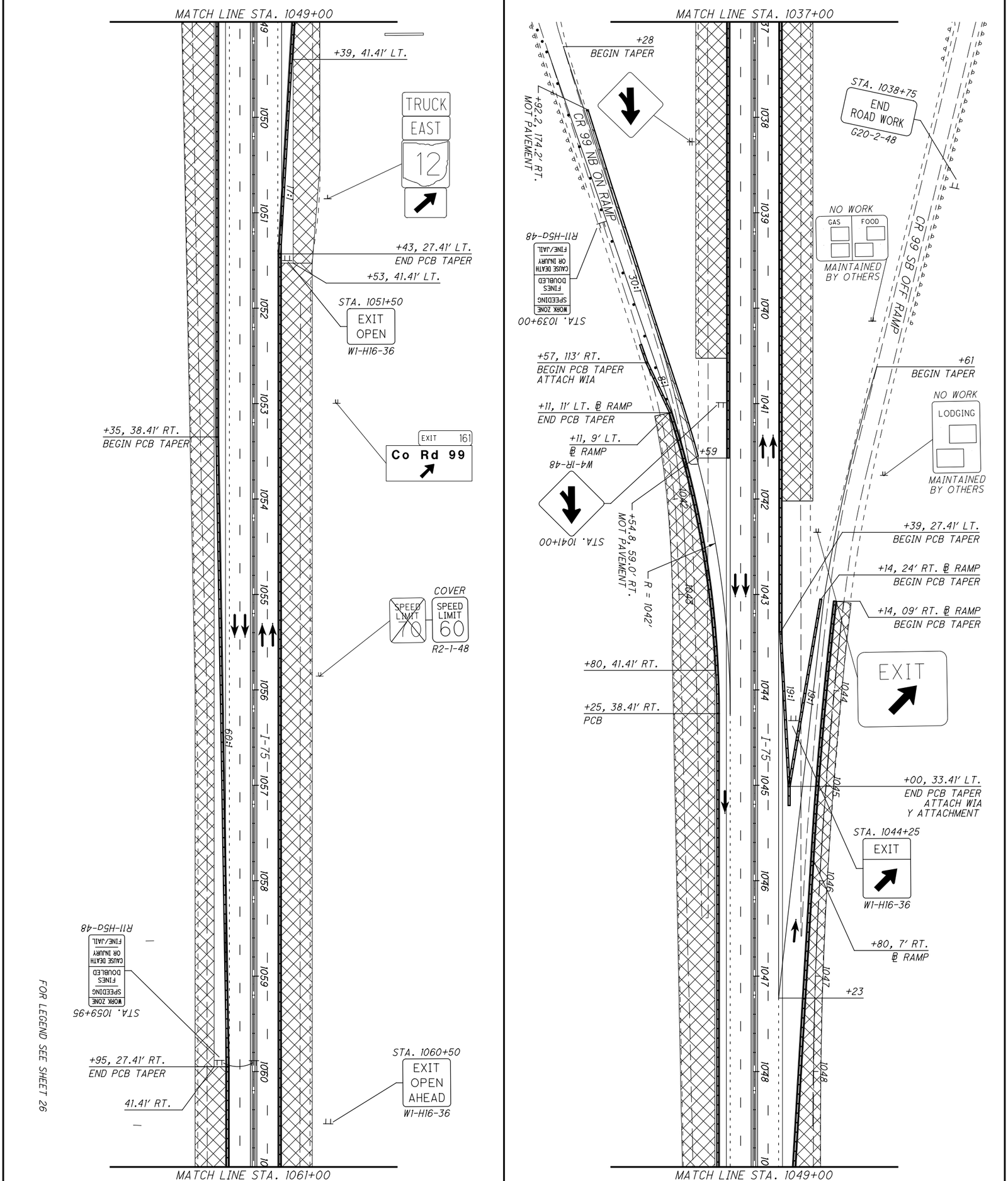
336 / 43	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 2**	CALCULATED SRC / CHECKED LLA	0 25 50 100 HORIZONTAL SCALE IN FEET





MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA
0 50 25 100
HORIZONTAL SCALE IN FEET
N



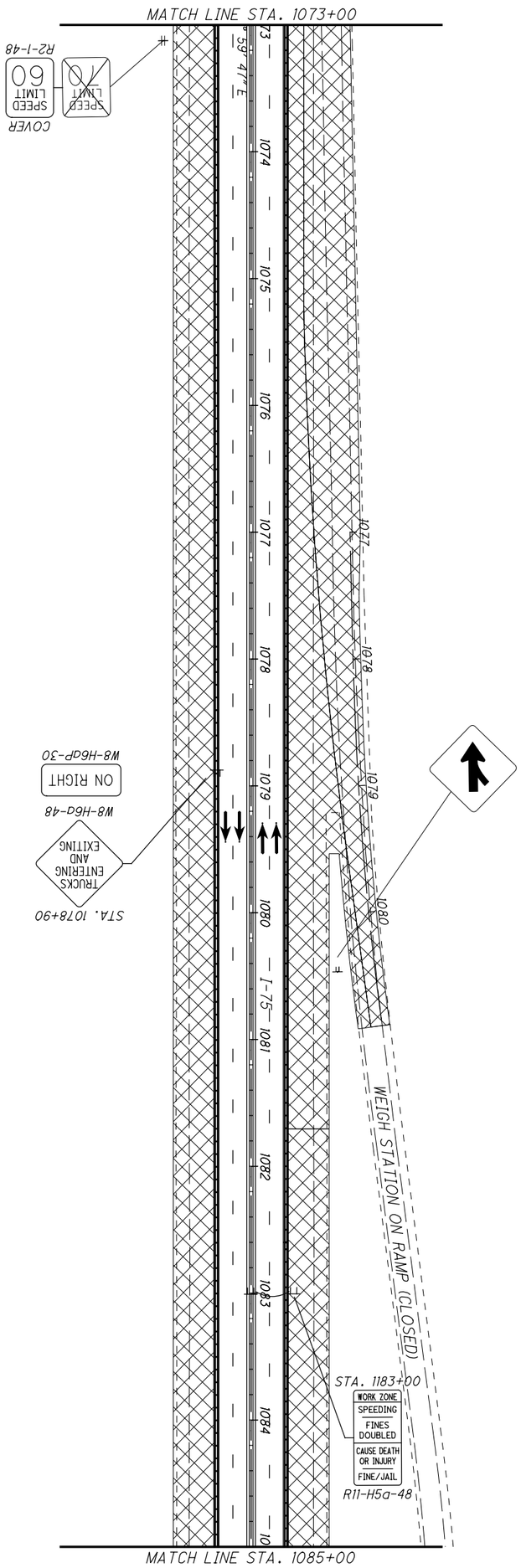
FOR LEGEND SEE SHEET 26

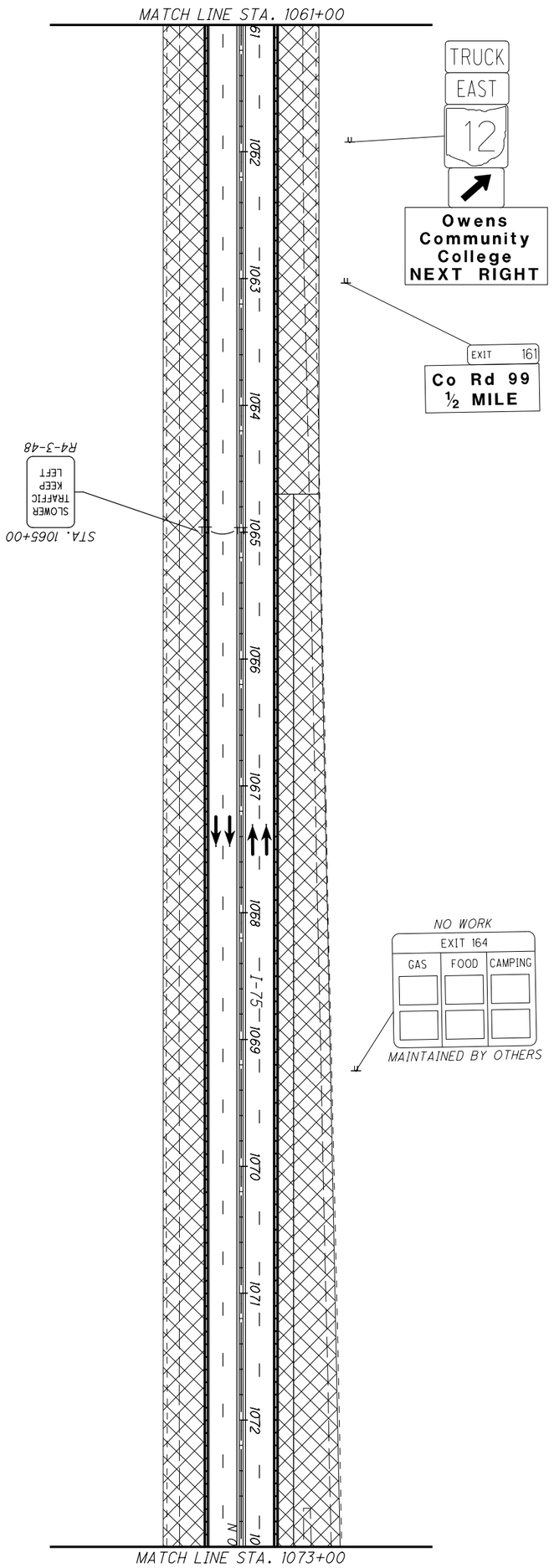
MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N

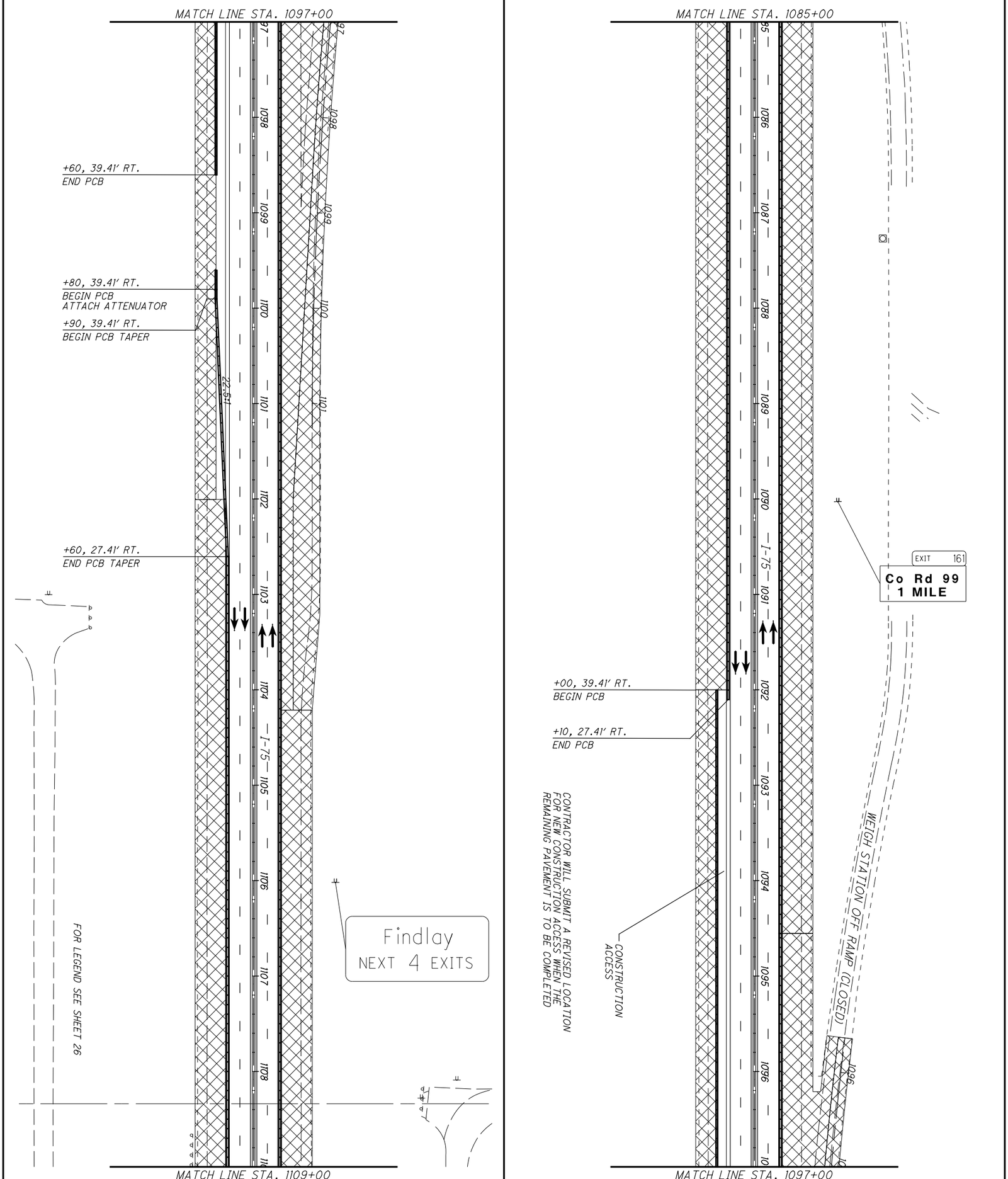




FOR LEGEND SEE SHEET 26

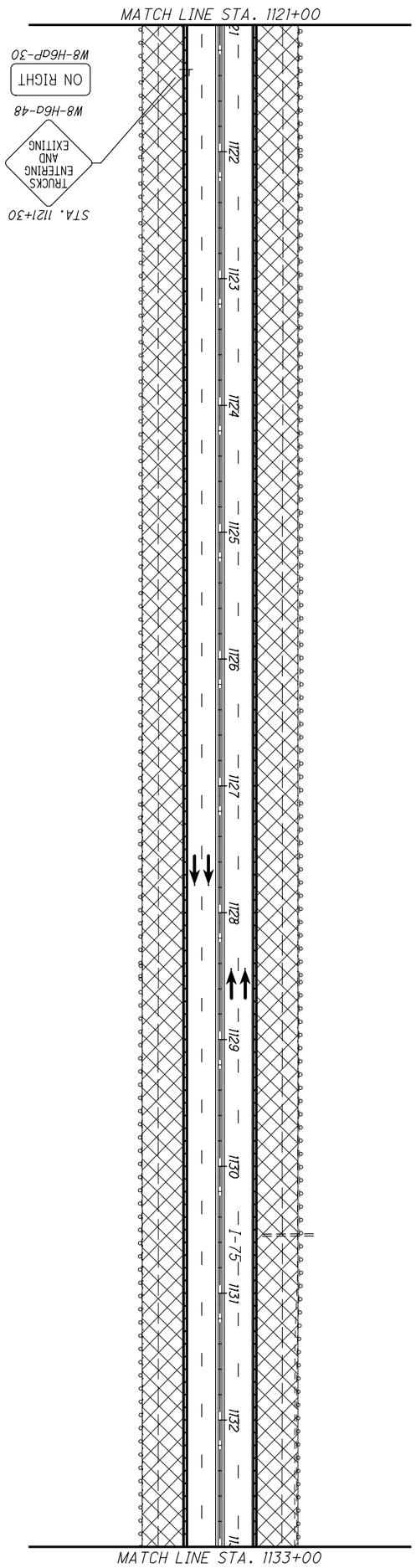
MAINTENANCE OF TRAFFIC
STAGE 2

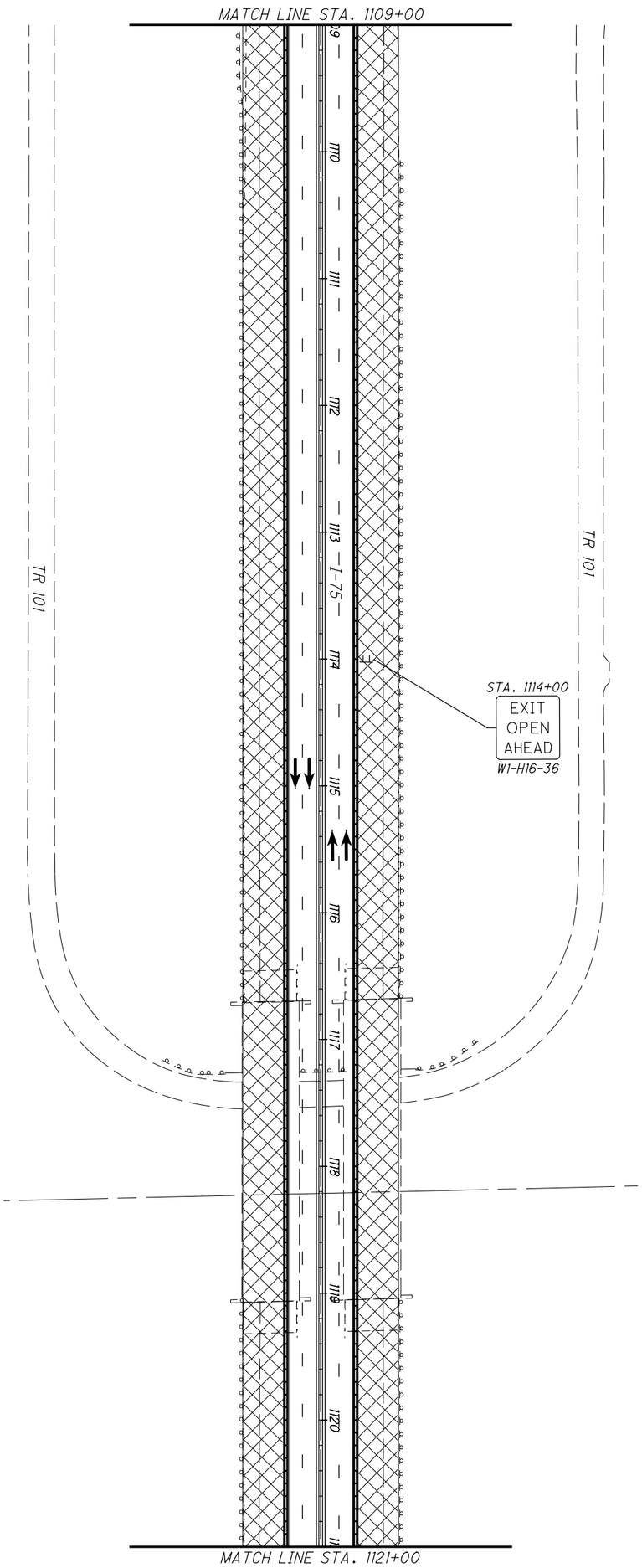
CALCULATED SRC
CHECKED LLA
0 50
25 100
HORIZONTAL SCALE IN FEET
N



MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET
N





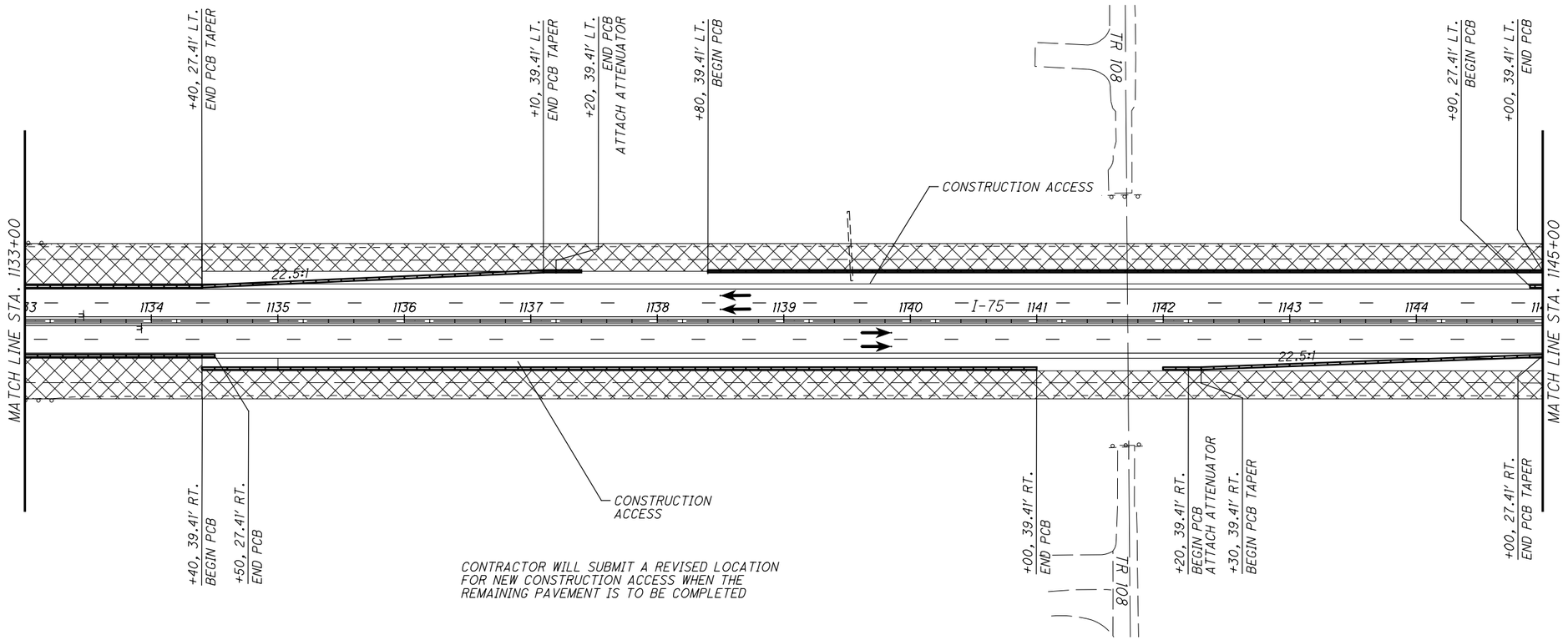
FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N



FOR LEGEND SEE SHEET 26

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED SRC
CHECKED LLA

MAINTENANCE OF TRAFFIC STAGE 2

HAN/ WOO-75-19.22/ 0.00

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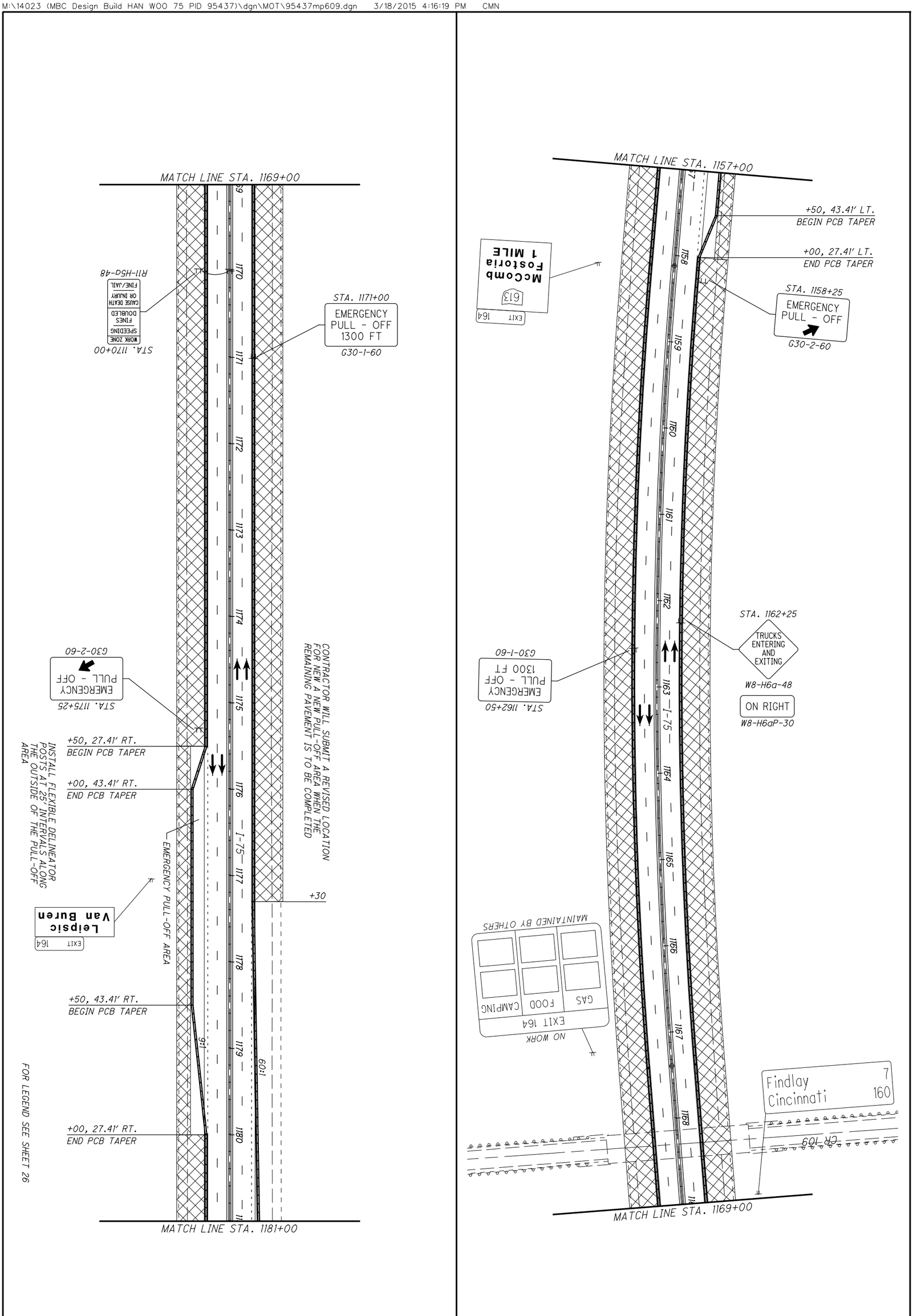
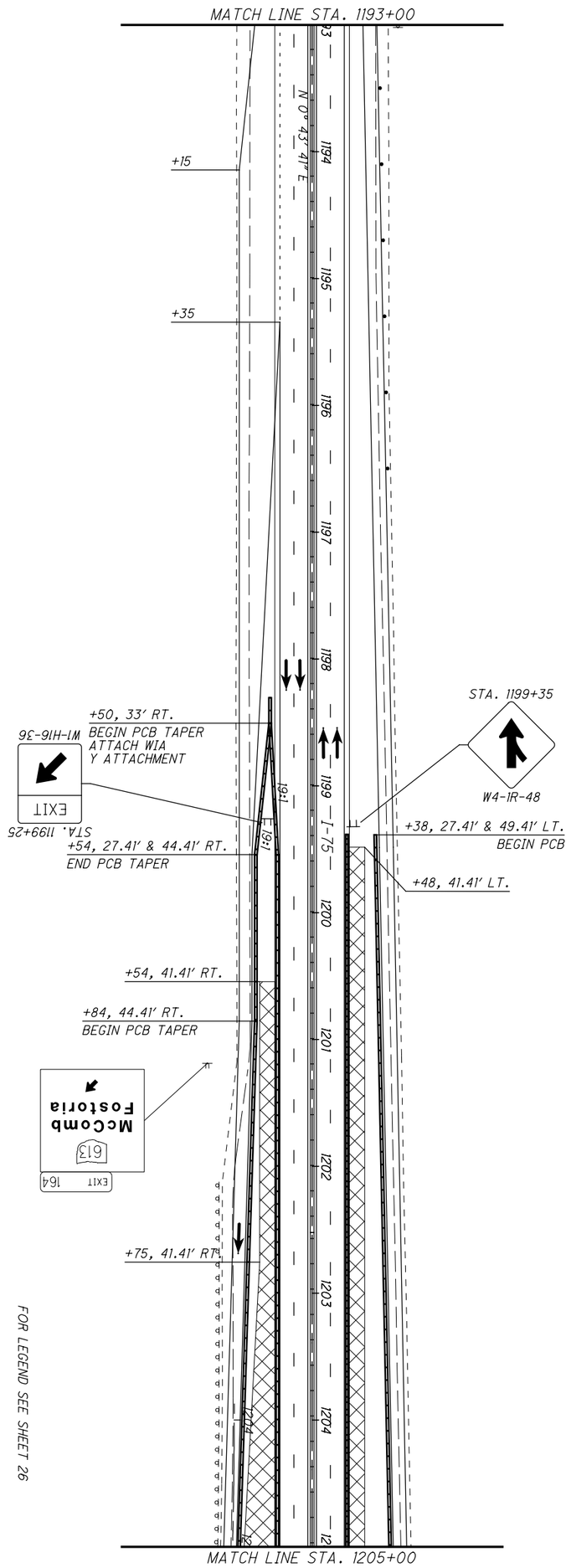
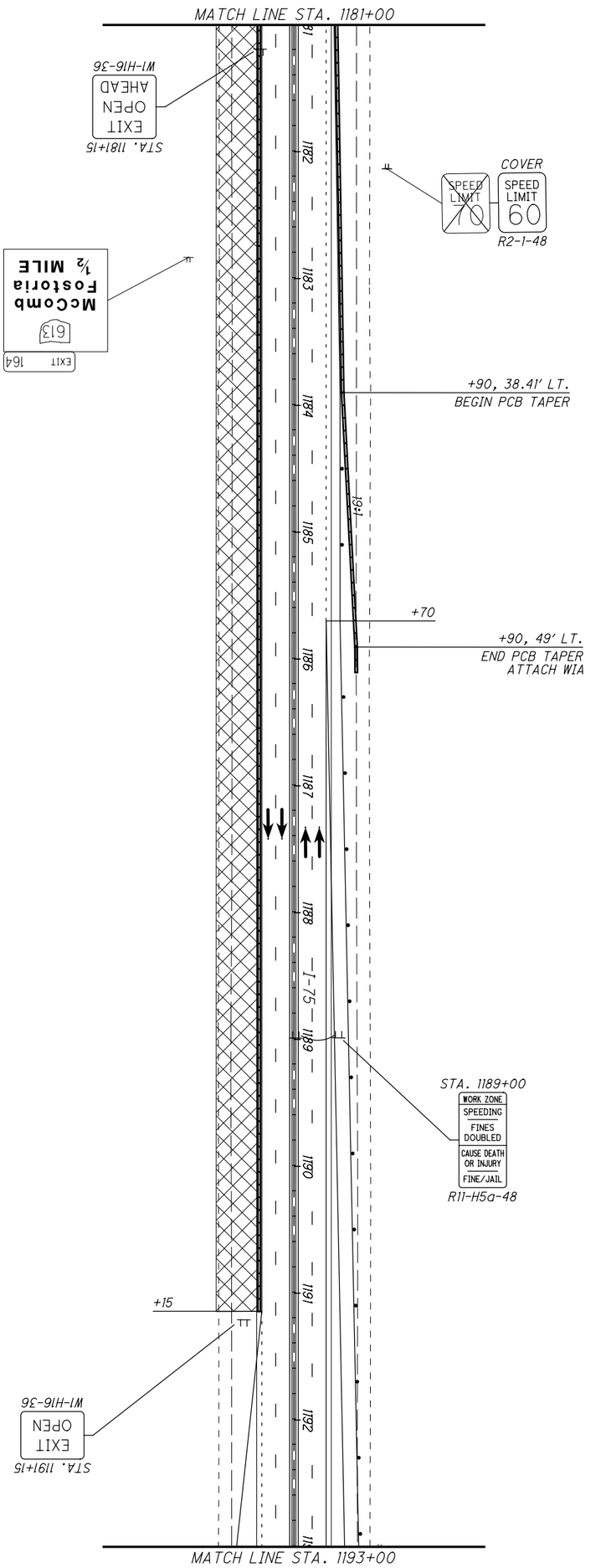


MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA
0 50 25 100
HORIZONTAL SCALE IN FEET



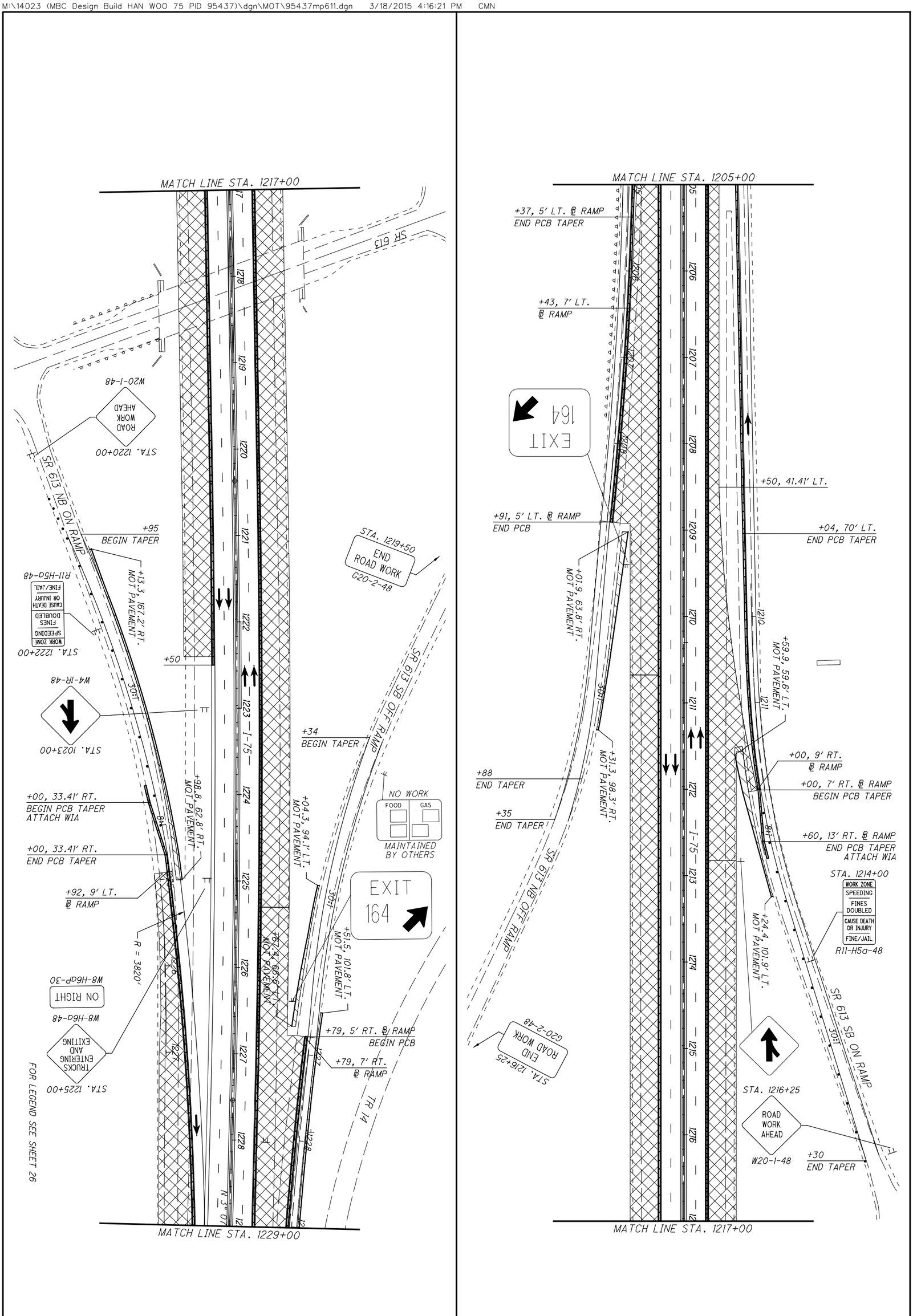


FOR LEGEND SEE SHEET 26

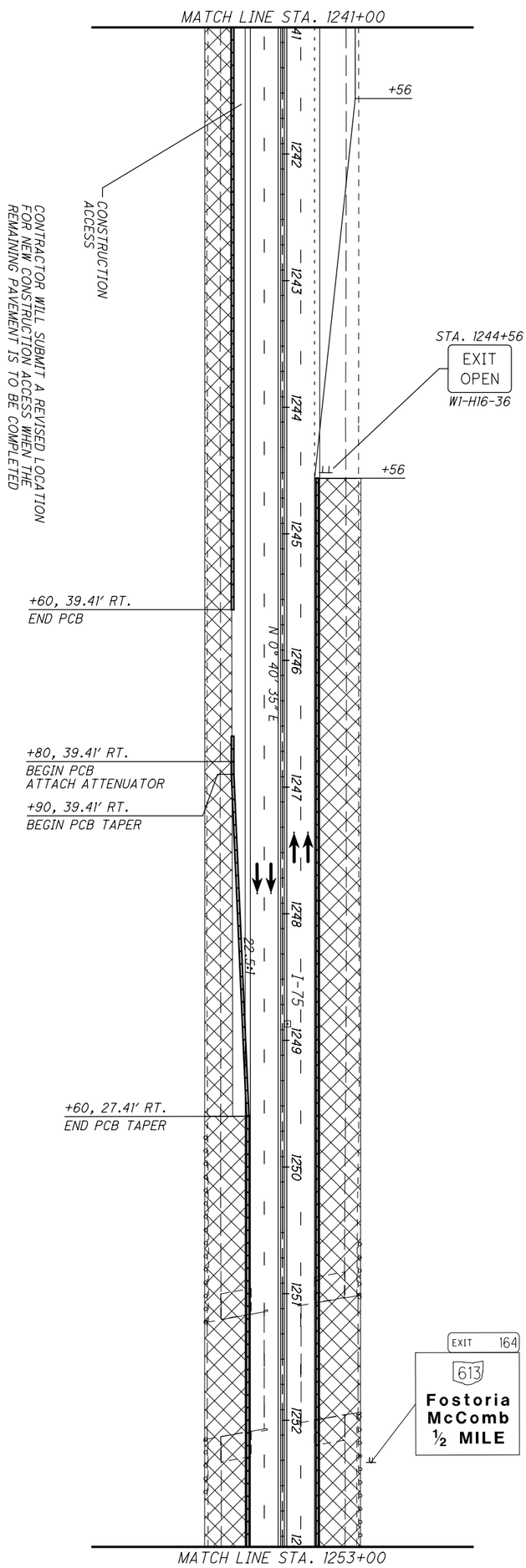
MAINTENANCE OF TRAFFIC
STAGE 2

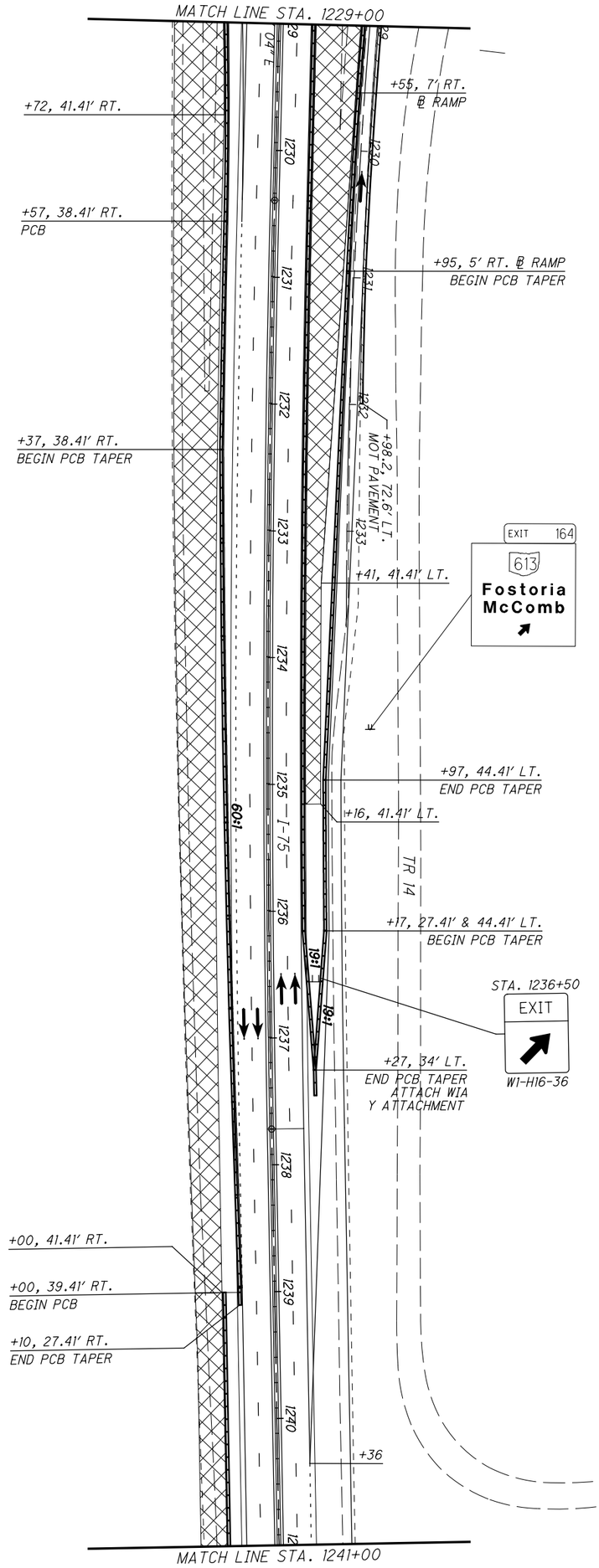
CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET



52 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 2**	CALCULATED SRC / CHECKED LLA	0 50 25 100 HORIZONTAL SCALE IN FEET

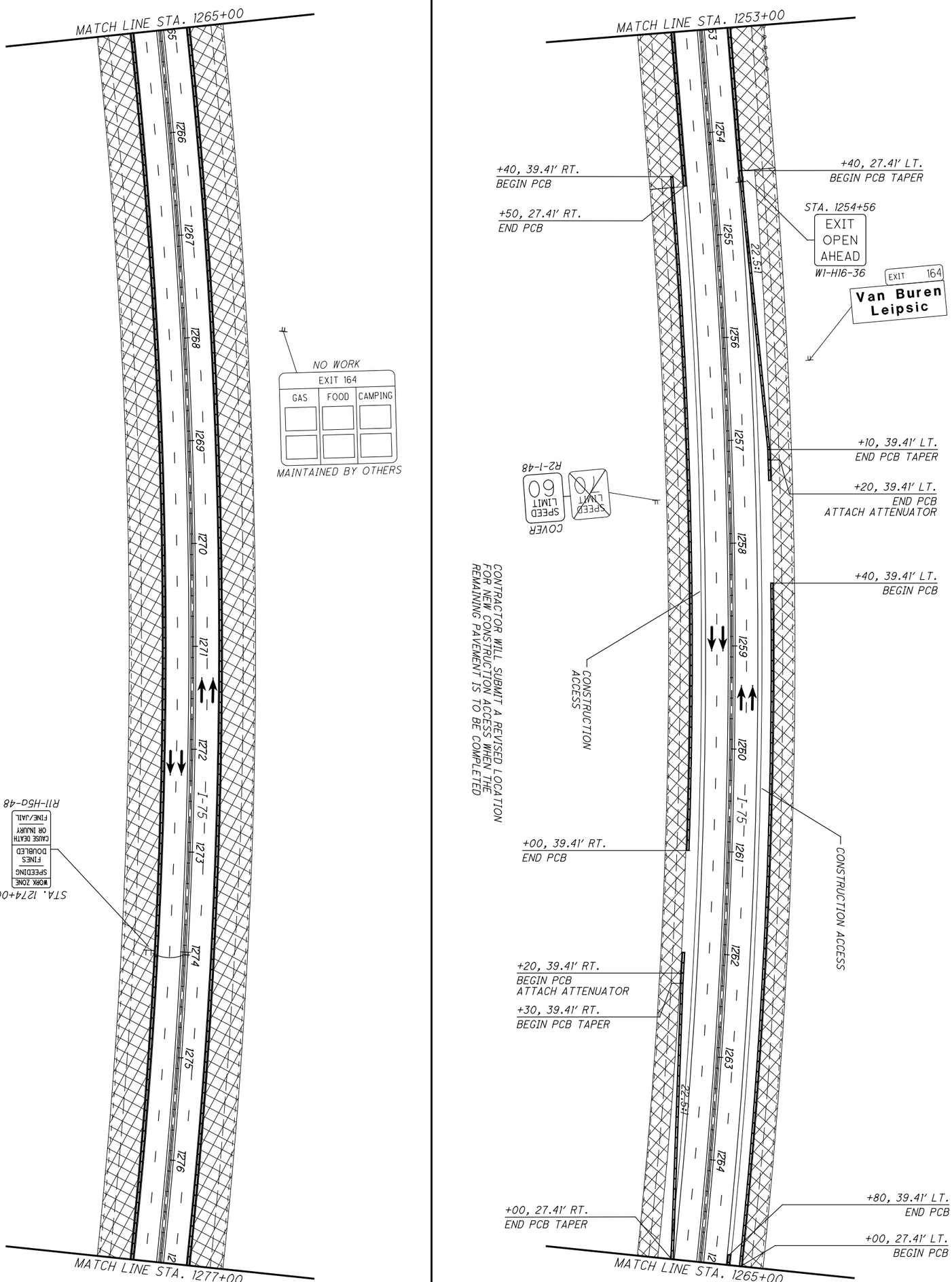




FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET
N



FOR LEGEND SEE SHEET 26

HAN/WOO-75-19.22/0.00

MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N

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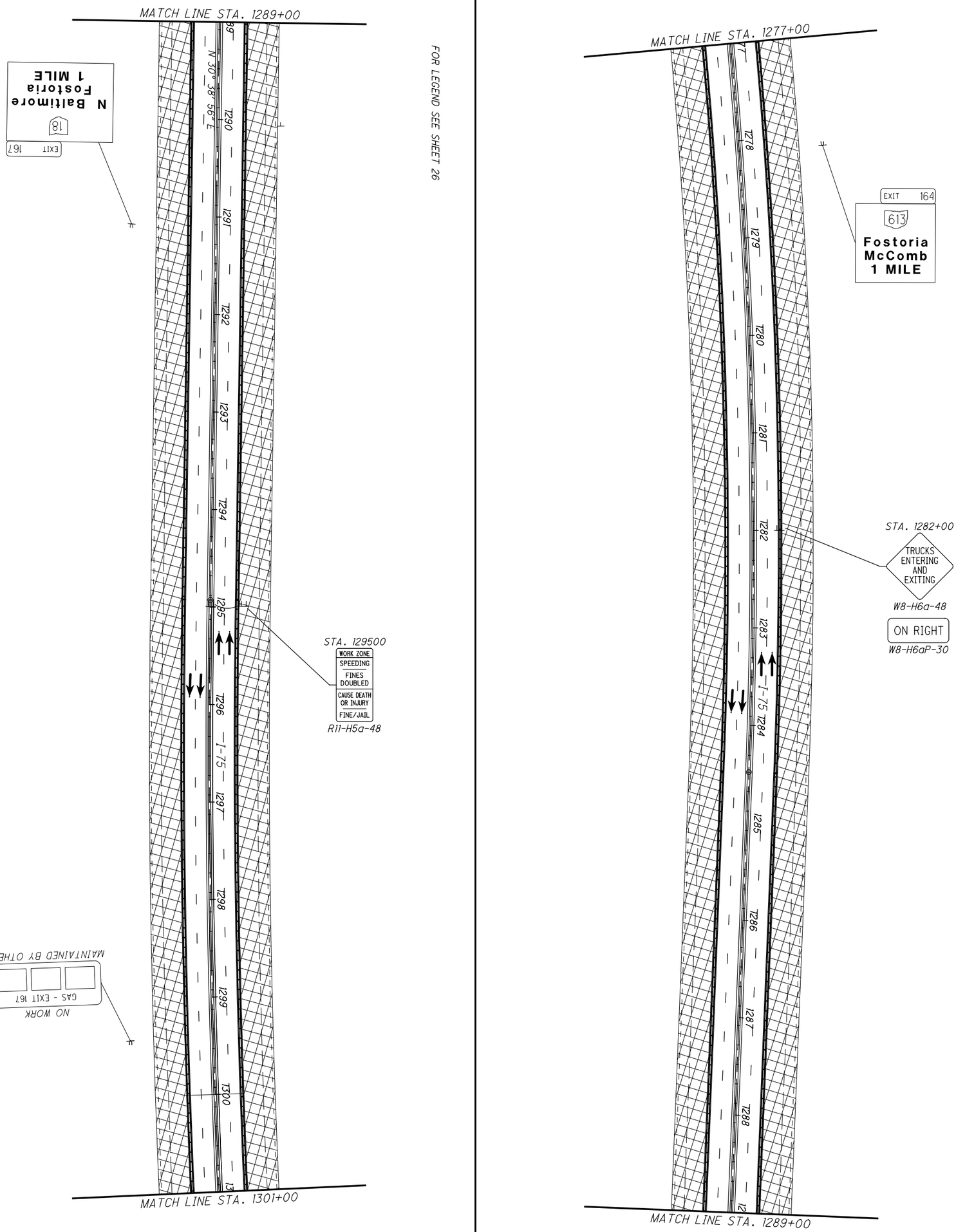


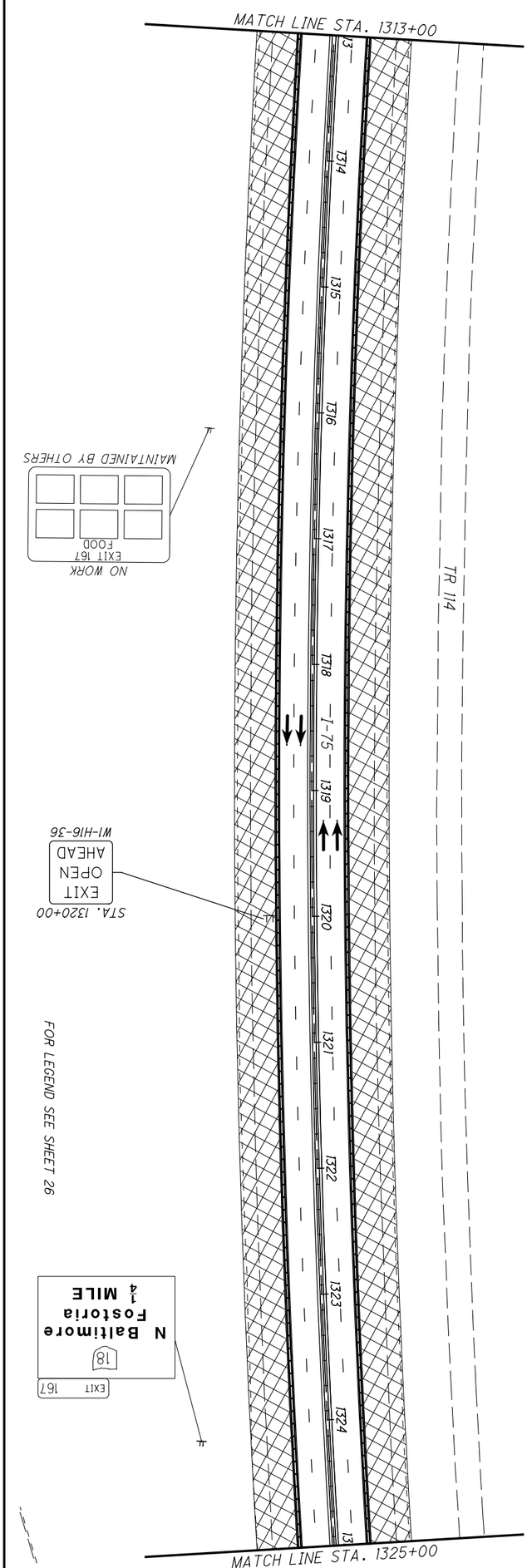
HAN/WOO-75-19.22/0.00

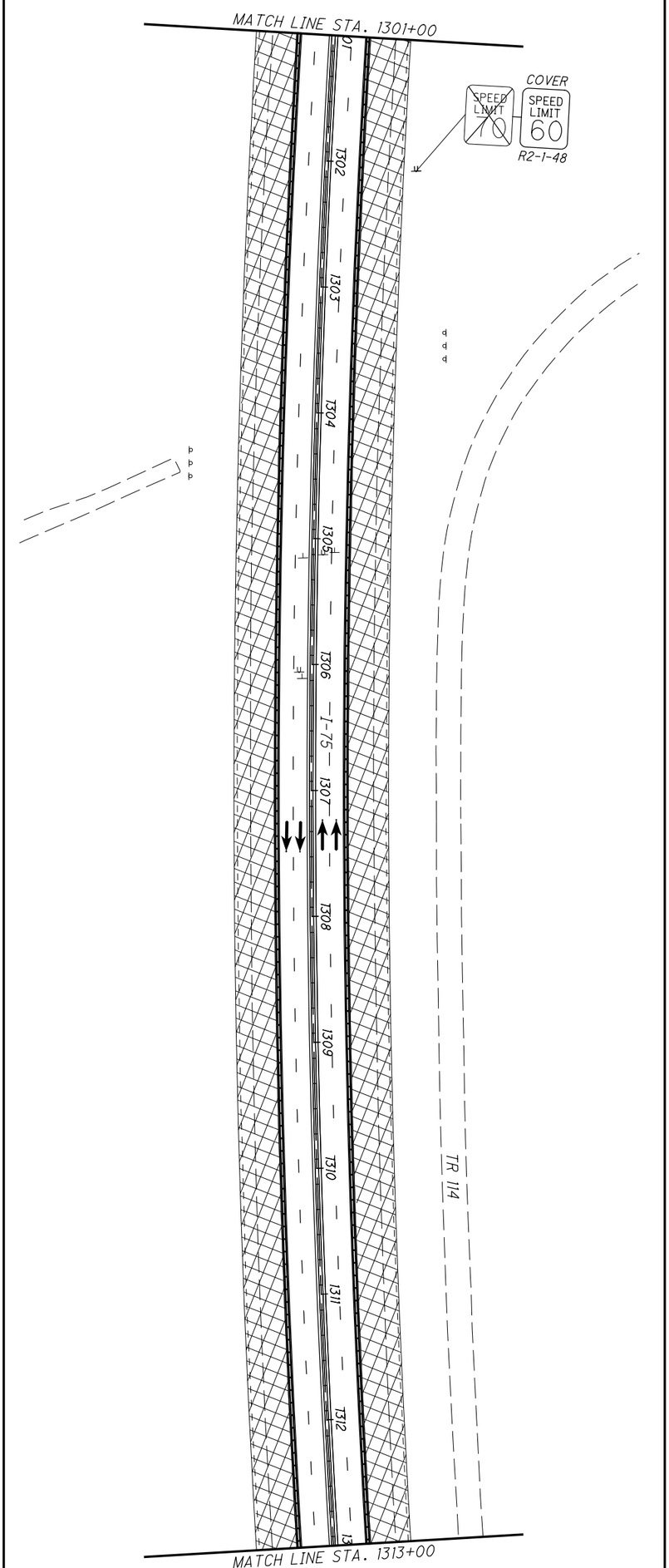
MAINTENANCE OF TRAFFIC
STAGE 2

CALCULATED SRC
CHECKED LLA

0 50
25 100
HORIZONTAL SCALE IN FEET

N





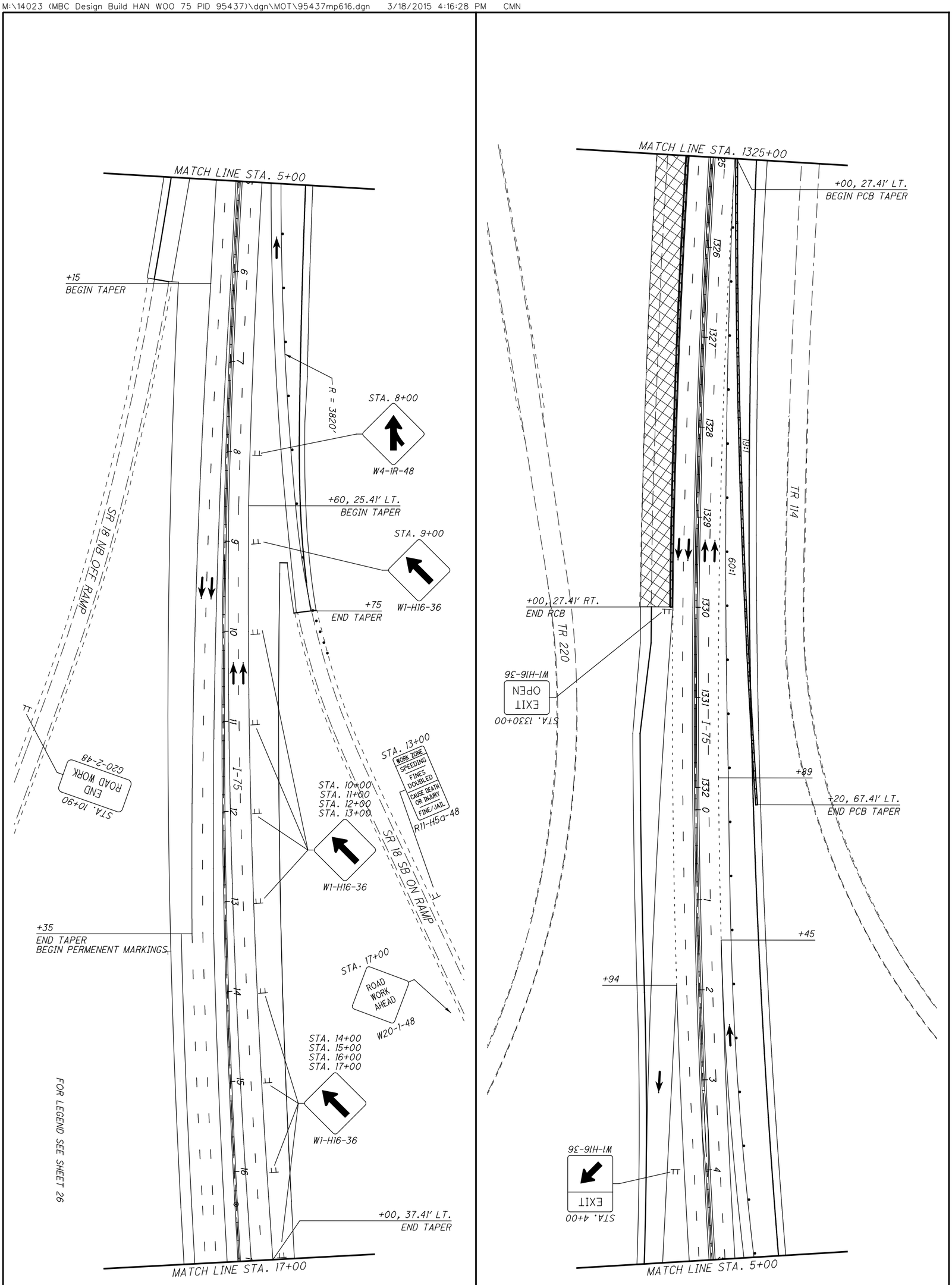
HAN/WOO-75-19.22/0.00

MAINTENANCE OF TRAFFIC
STAGE 2

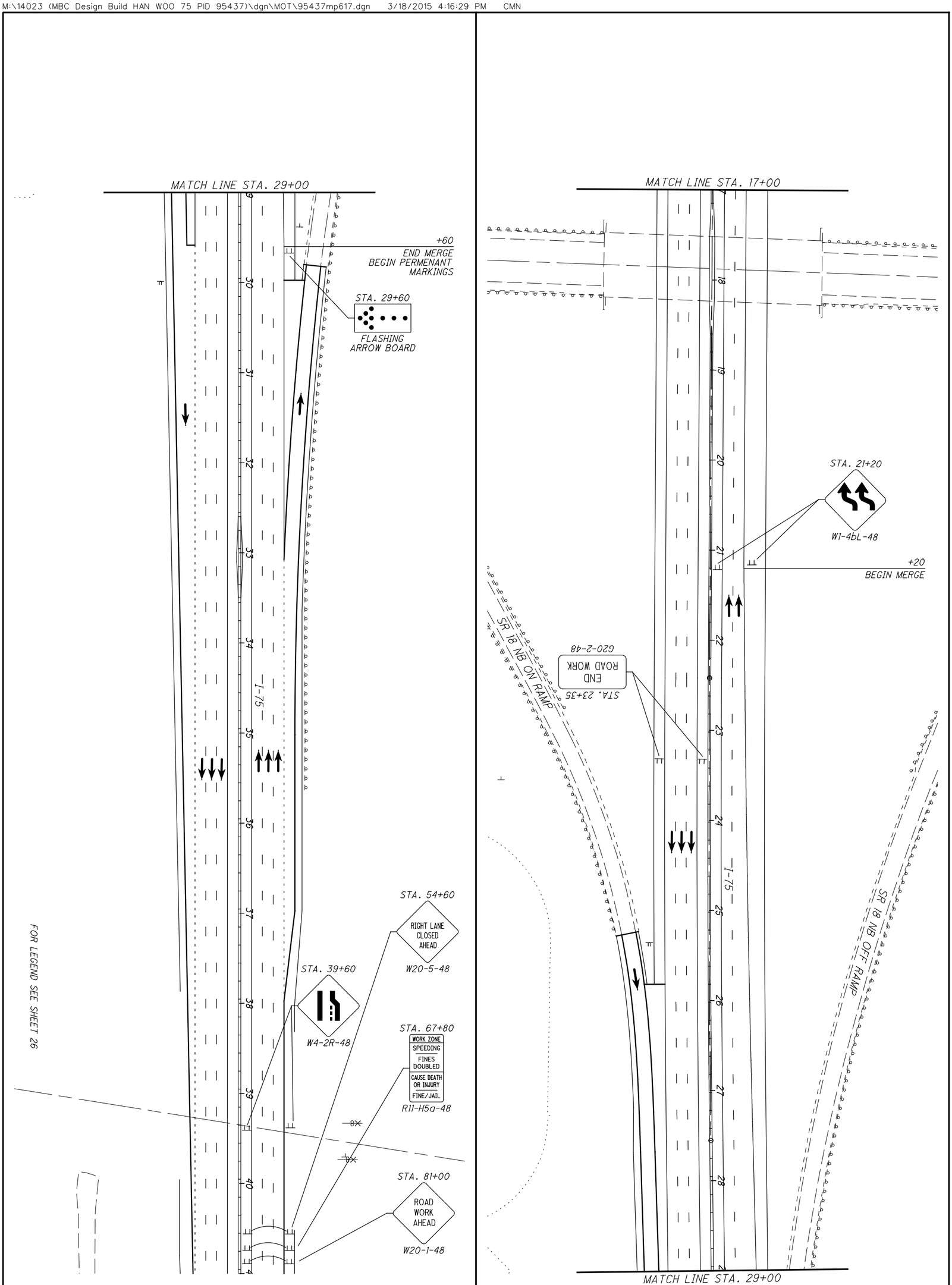
CALCULATED SRC
CHECKED LLA

0 50
25 100
HORIZONTAL SCALE IN FEET

N

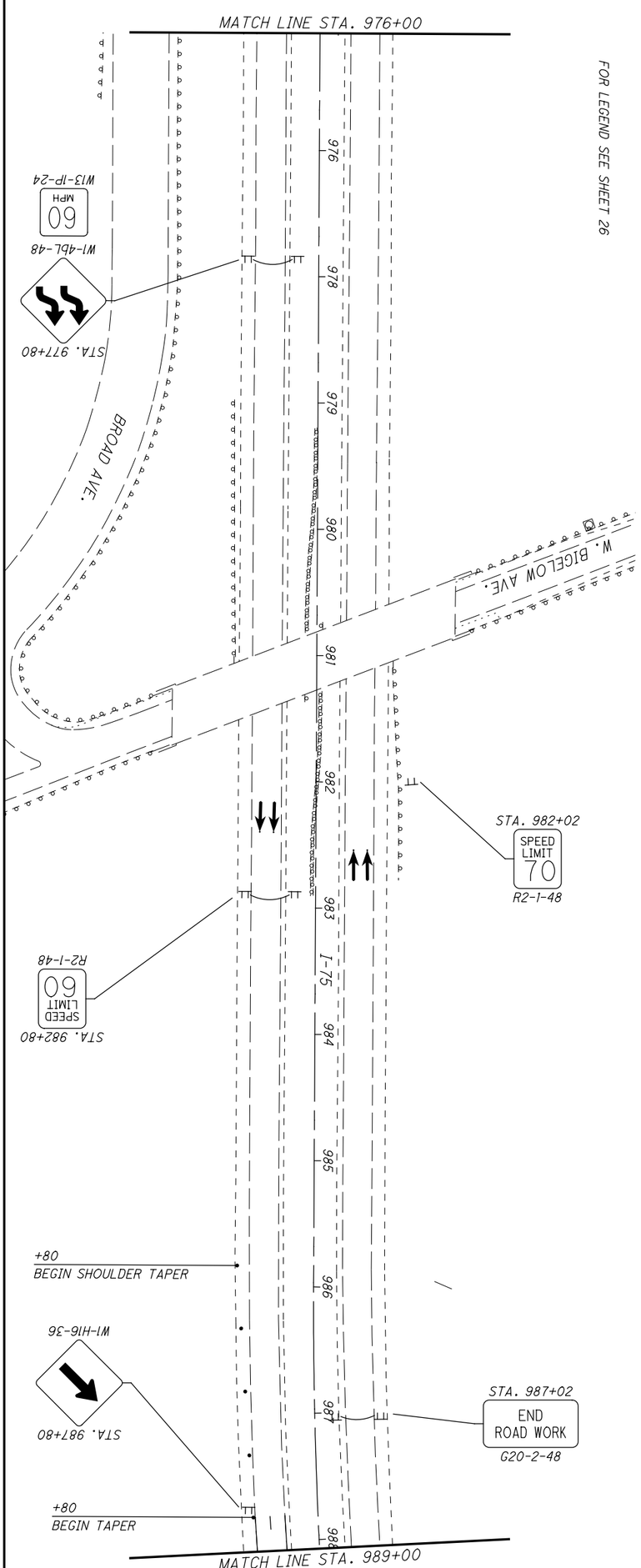


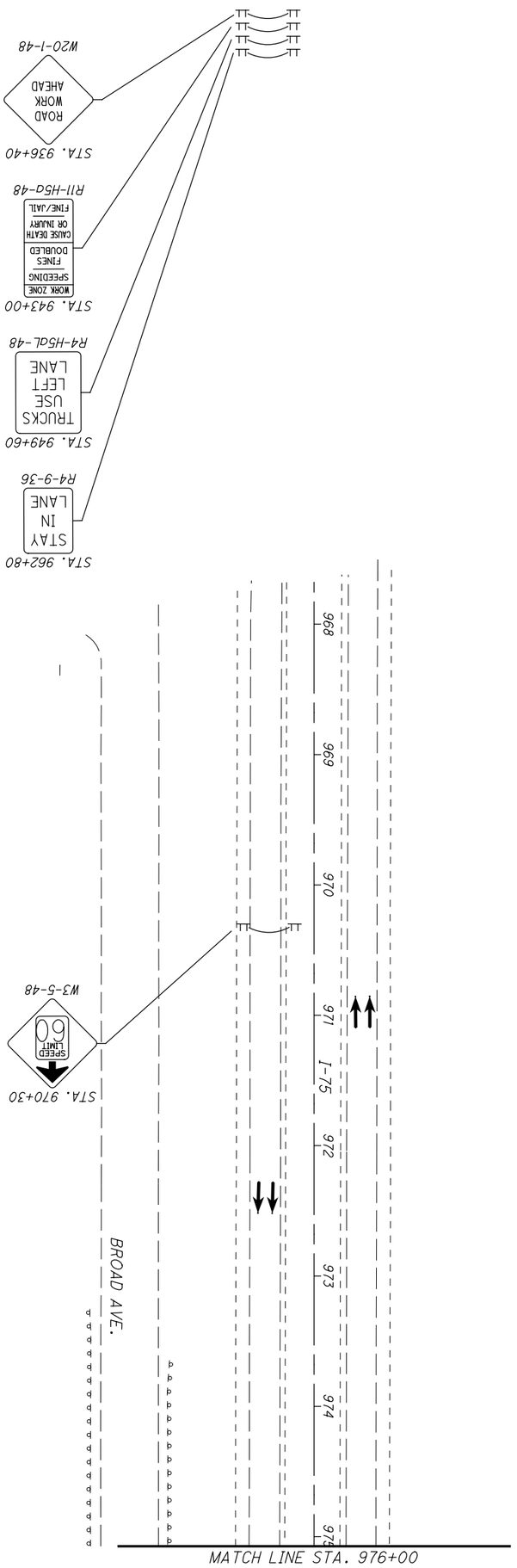
57 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 2**	CALCULATED SRC / CHECKED LLA	0 50 25 100 HORIZONTAL SCALE IN FEET



58 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 2**	CALCULATED SRC / CHECKED LLA	0 25 50 100 HORIZONTAL SCALE IN FEET

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\MOT\95437mp701.dgn 3/18/2015 4:16:33 PM CMN



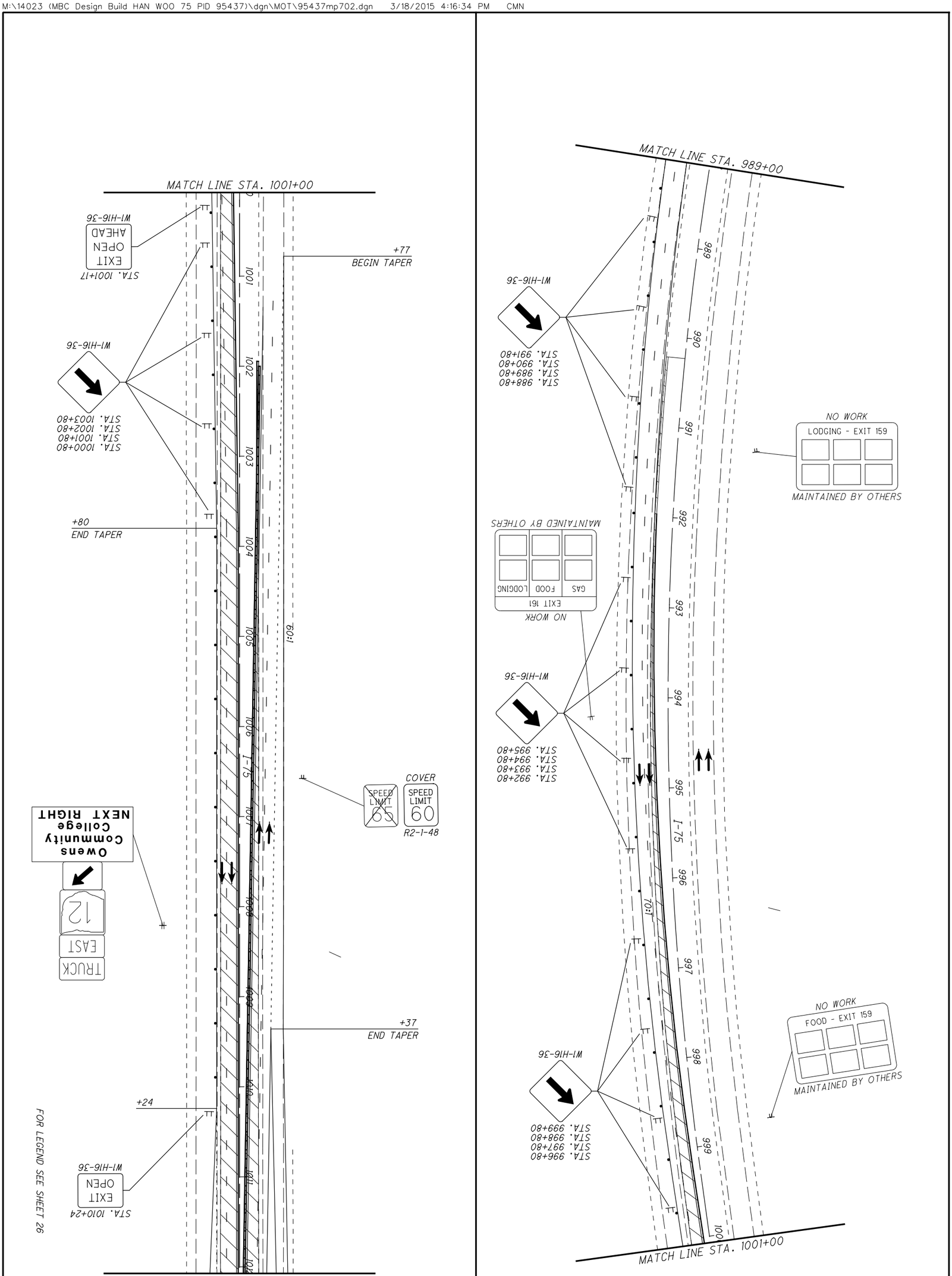


MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA

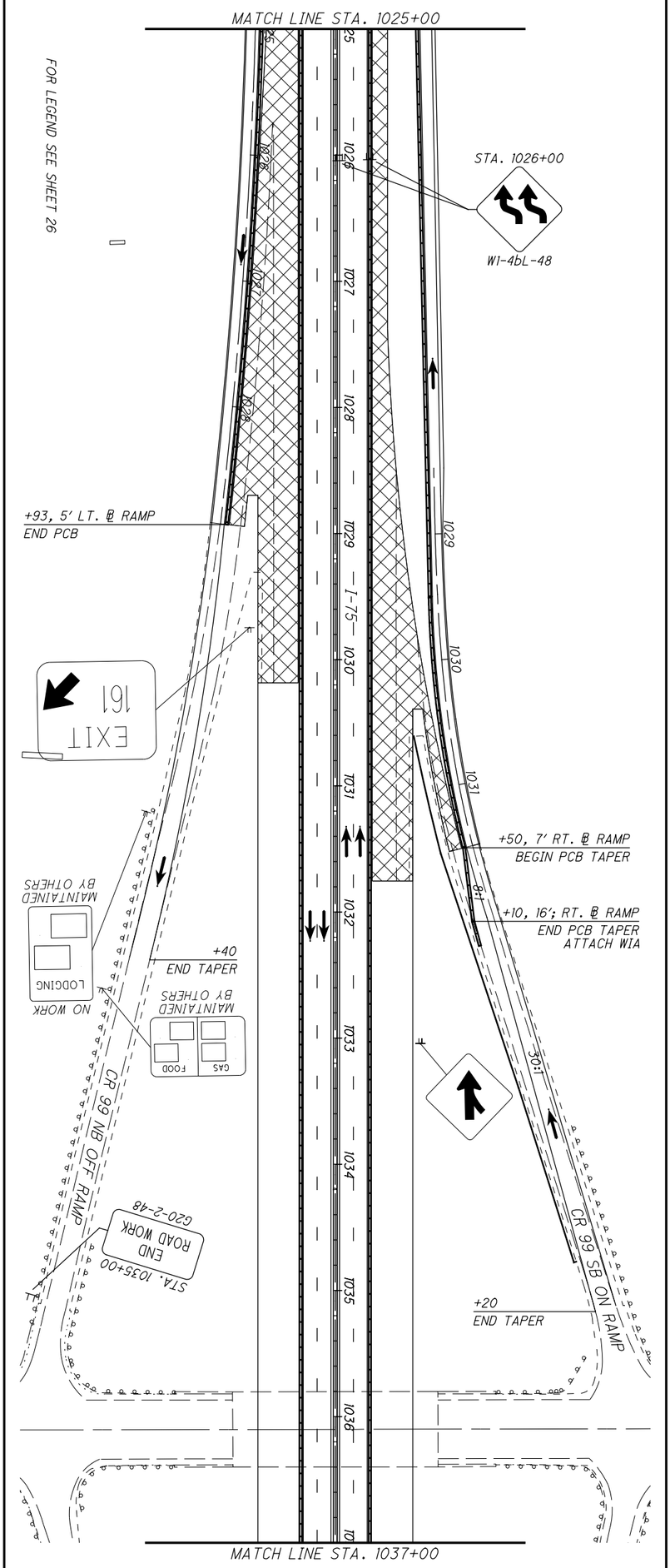
0 25 50 100
HORIZONTAL SCALE IN FEET

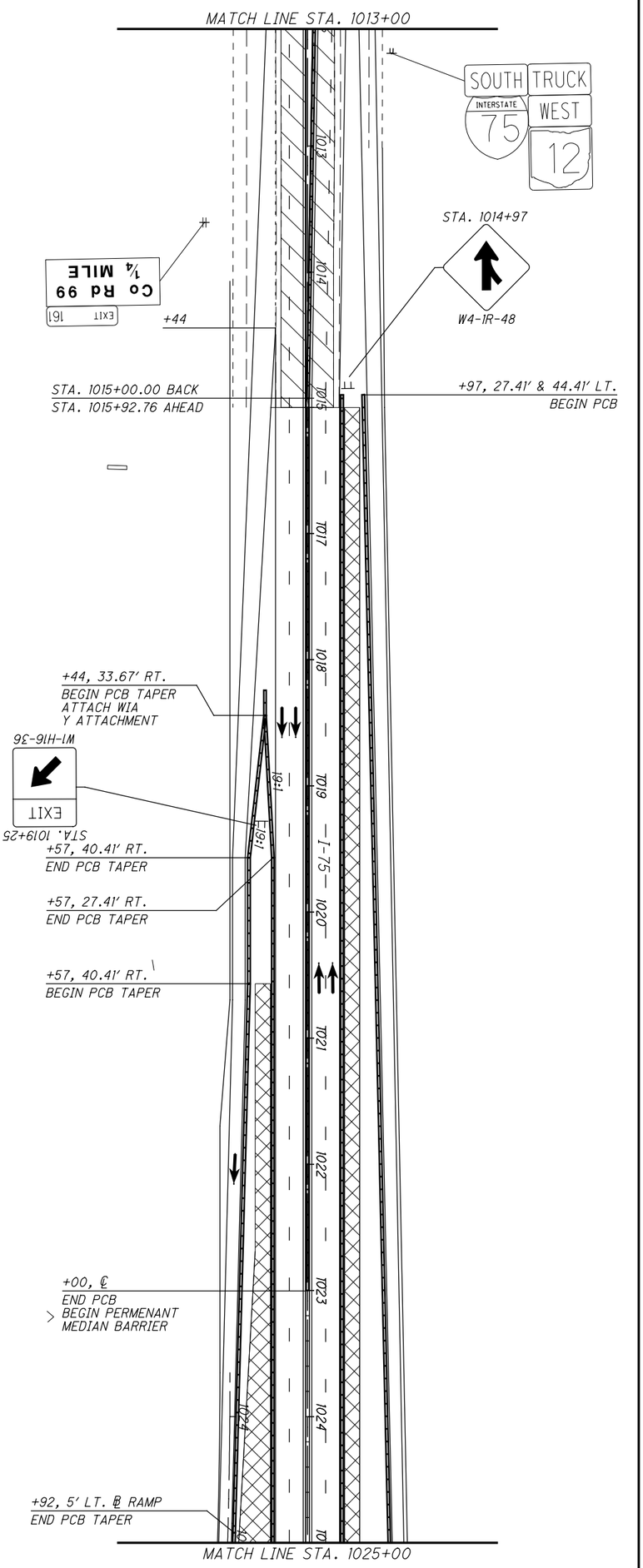
N



MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA
0 50
25 100
HORIZONTAL SCALE IN FEET
N





MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA
0 50
25 100
HORIZONTAL SCALE IN FEET

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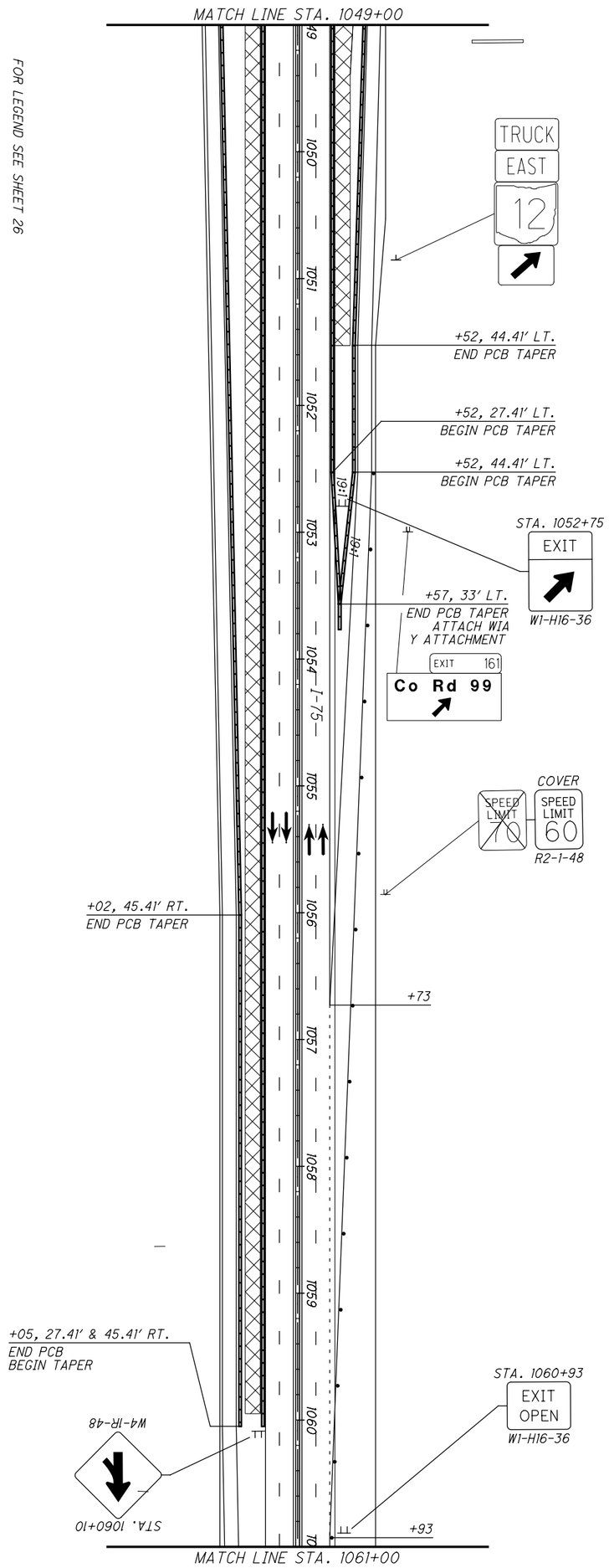
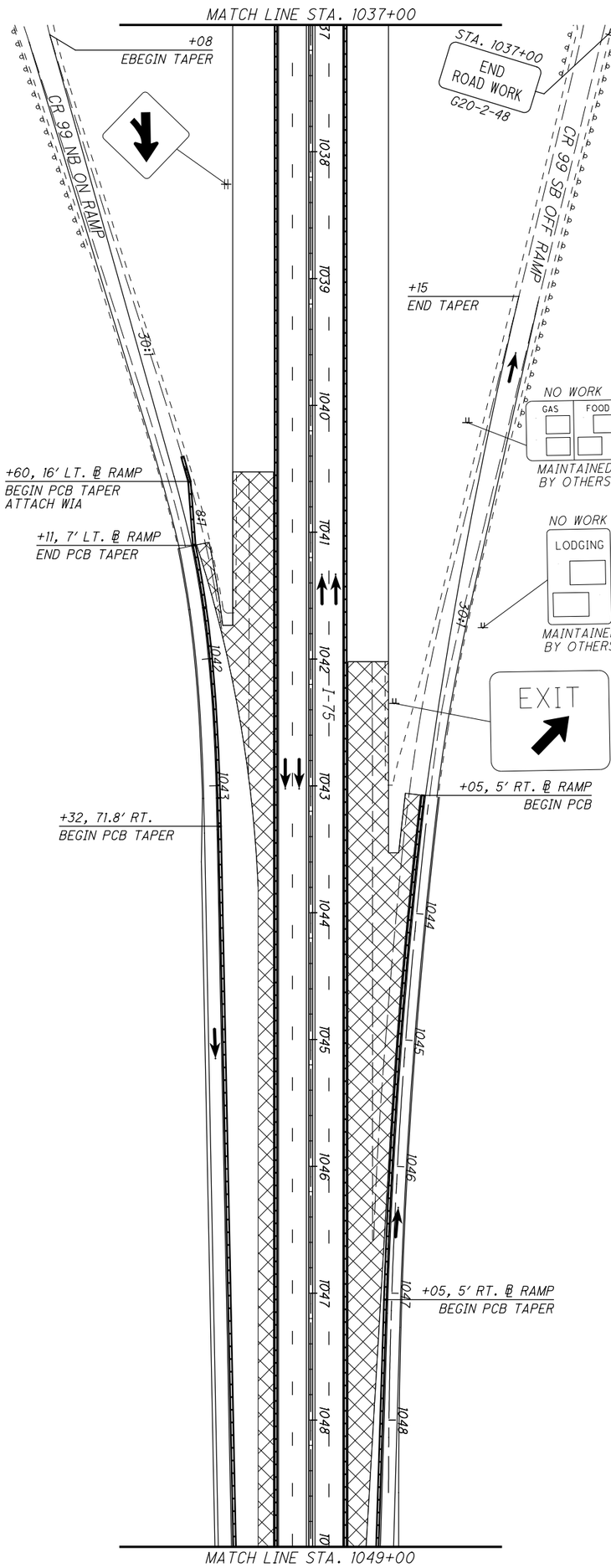
FOR LEGEND SEE SHEET 26





MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA
0 50
25 100
HORIZONTAL SCALE IN FEET
N

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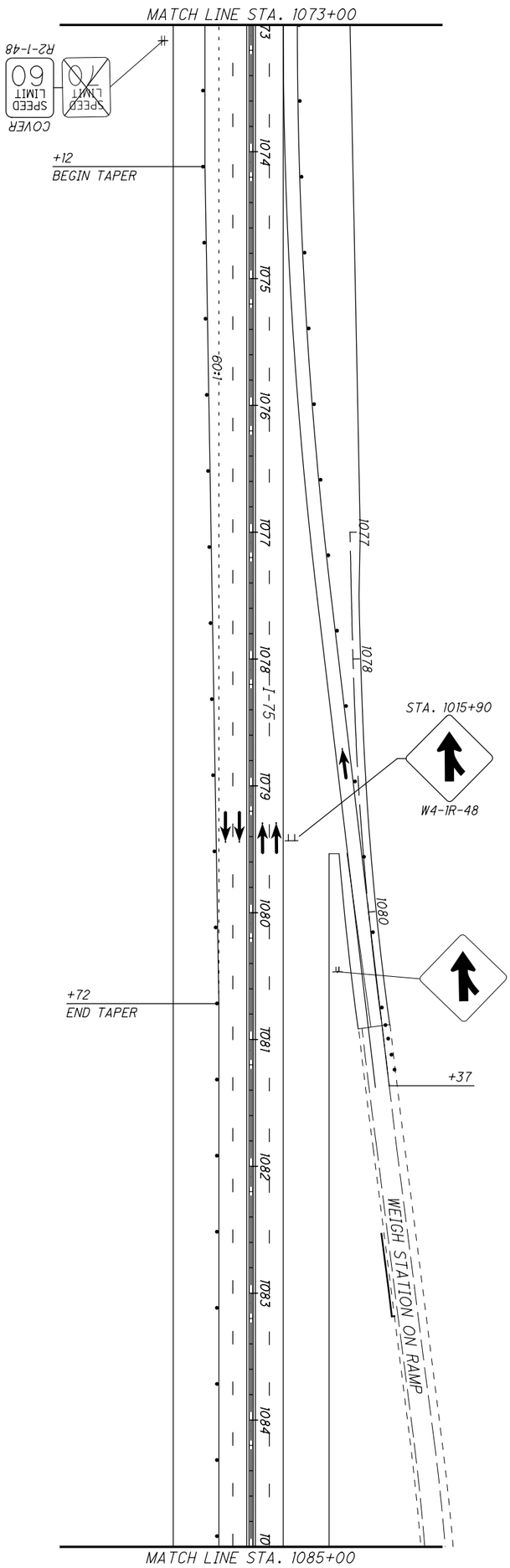
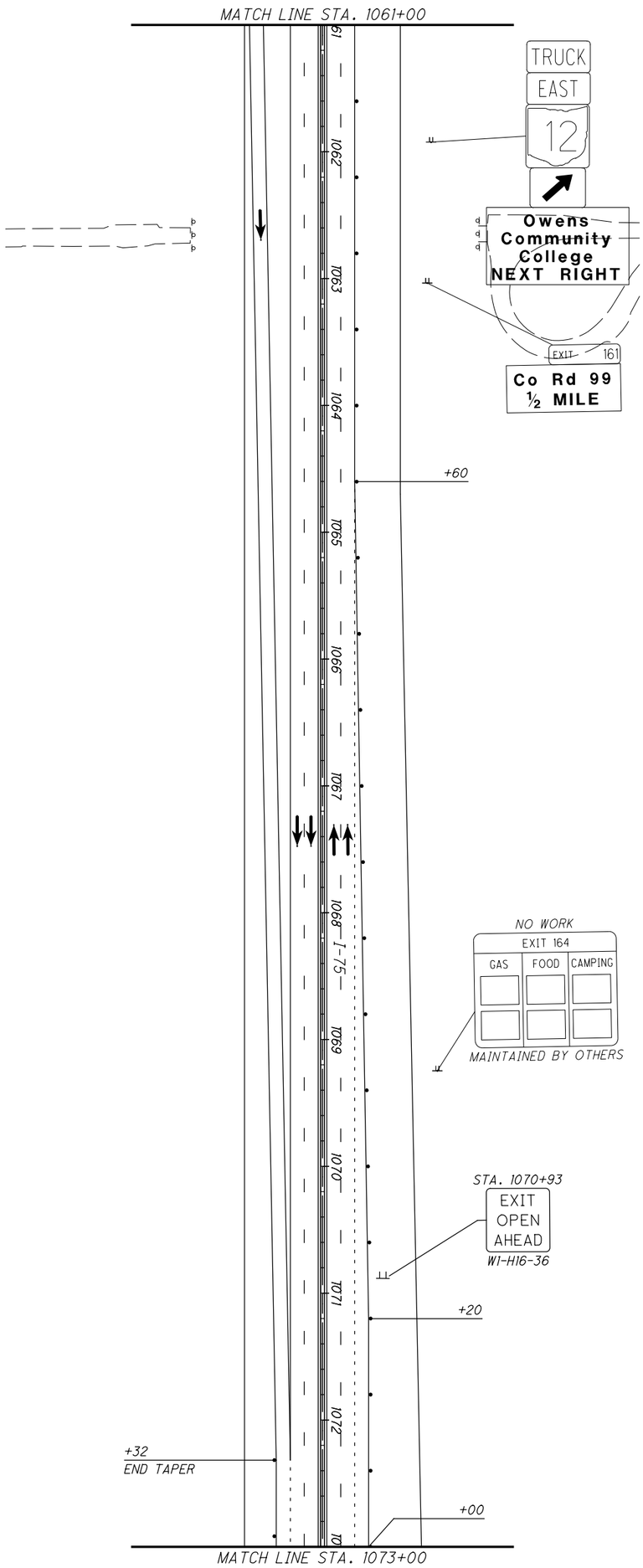




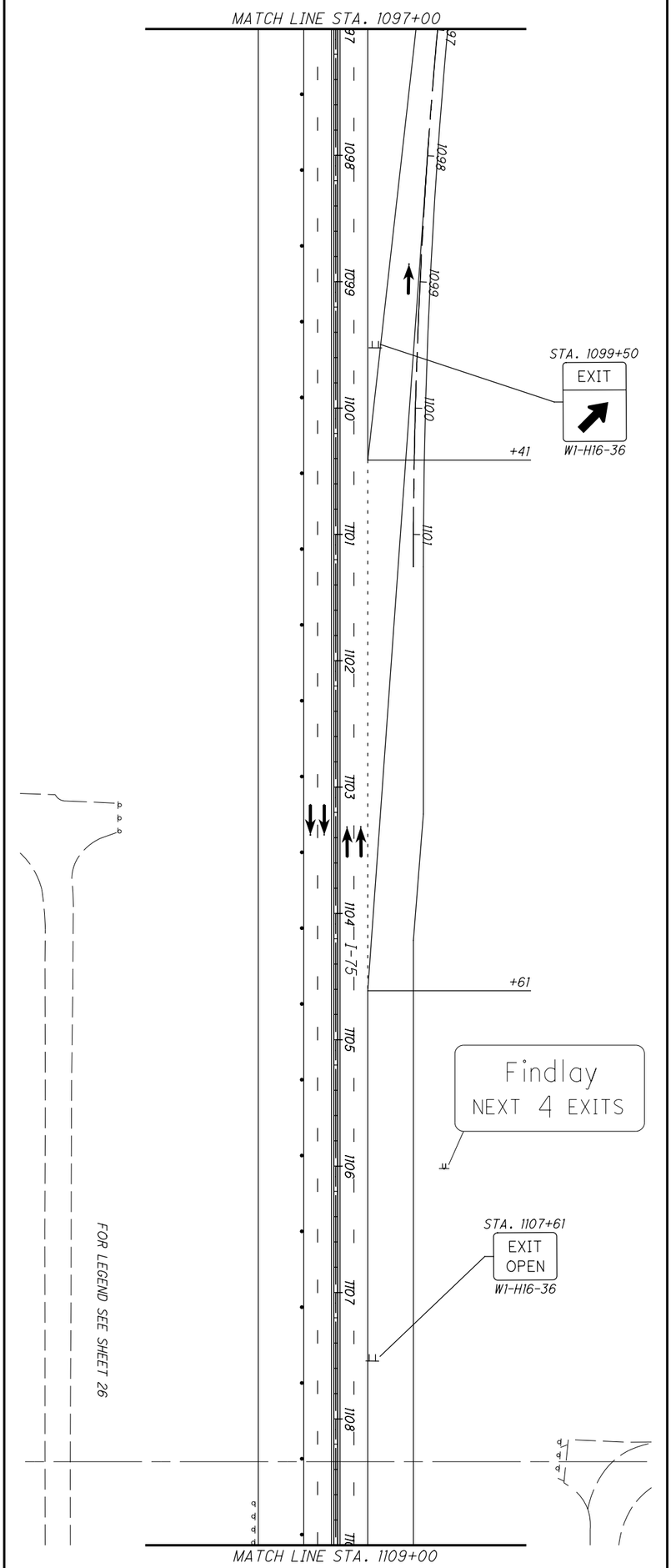
FOR LEGEND SEE SHEET 26

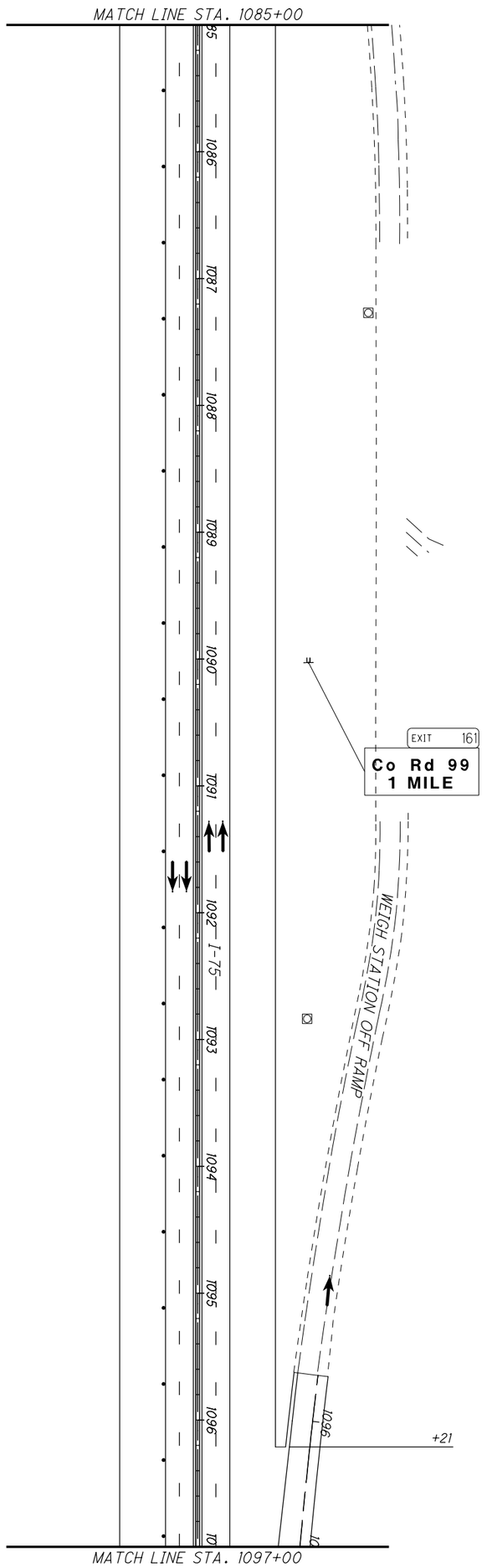
MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N





MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA
0 25 50 100
HORIZONTAL SCALE IN FEET

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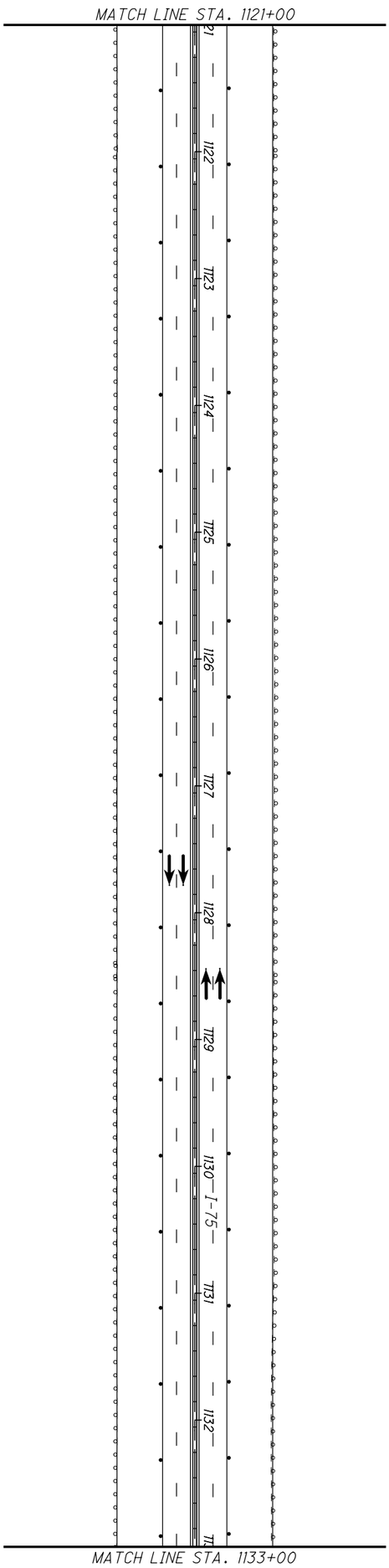
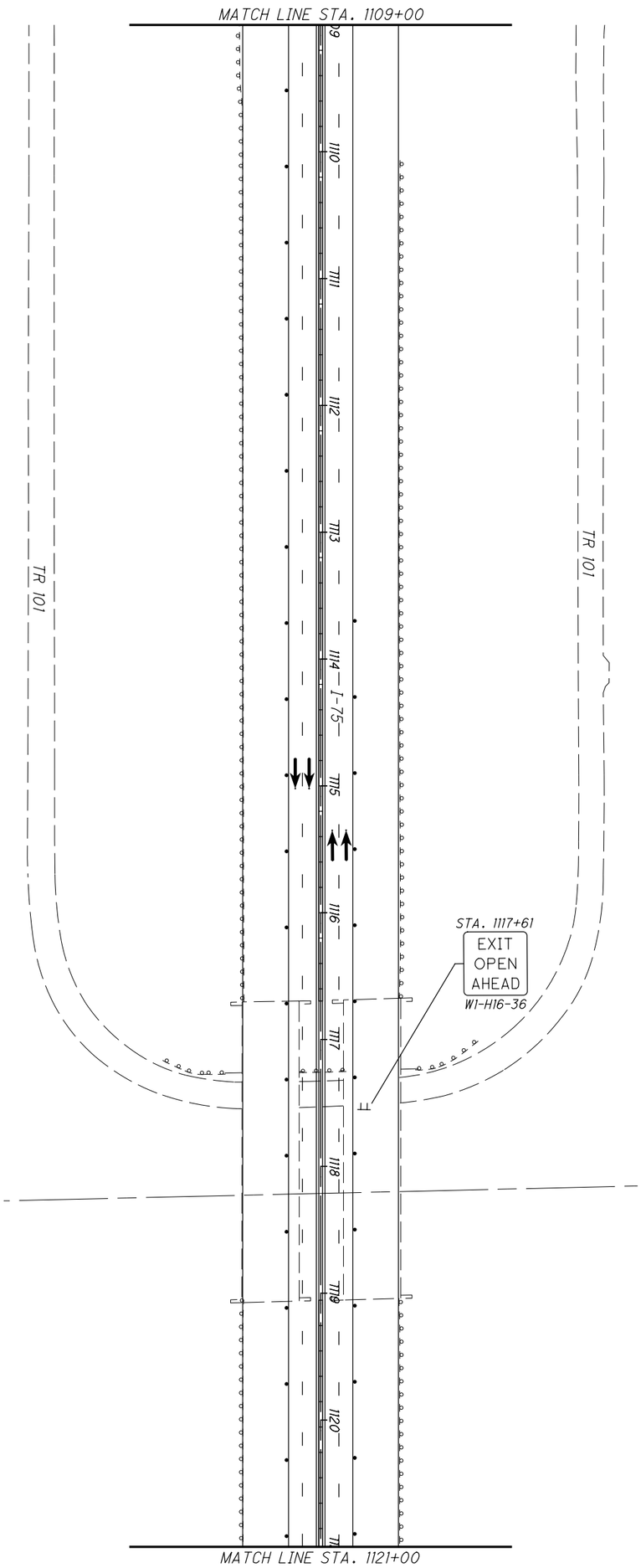




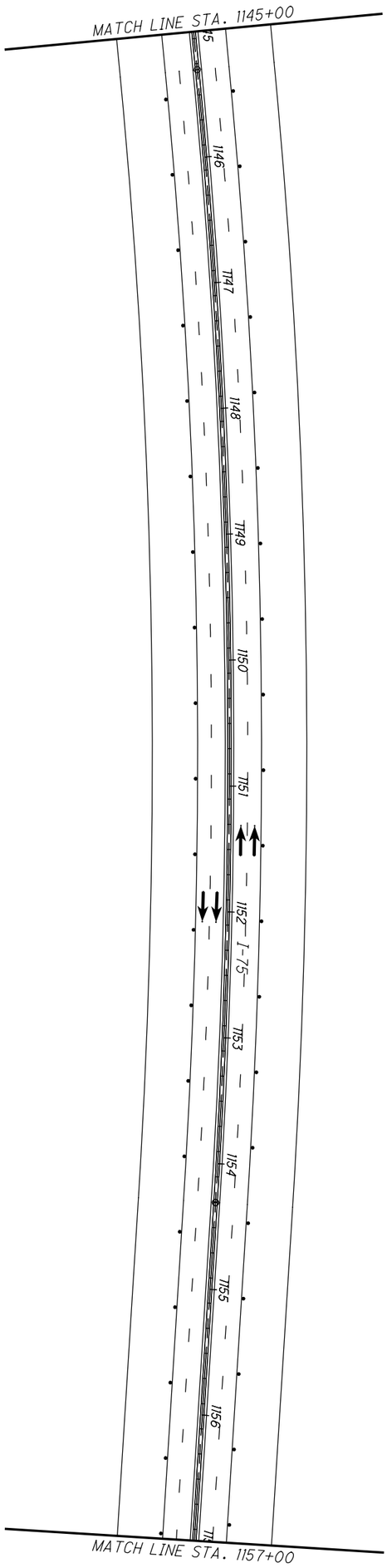
FOR LEGEND SEE SHEET 26

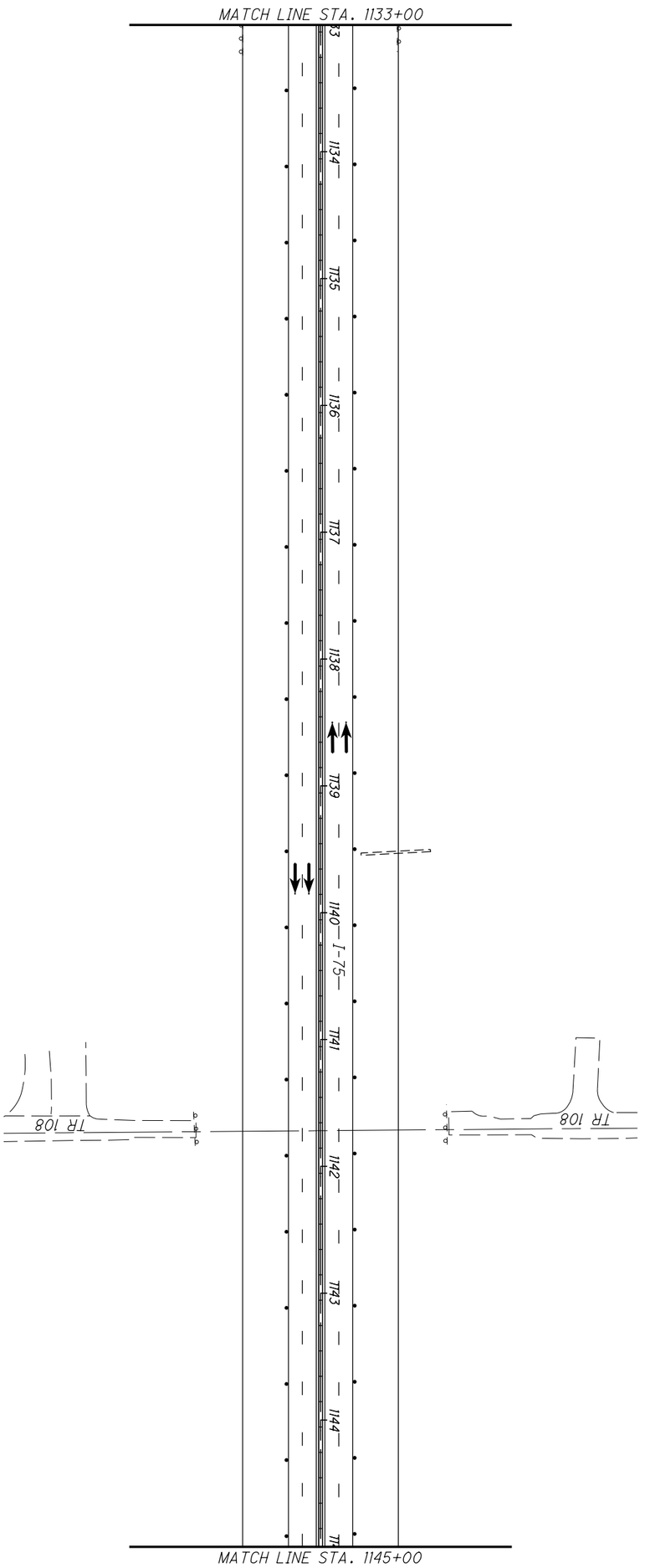
MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N





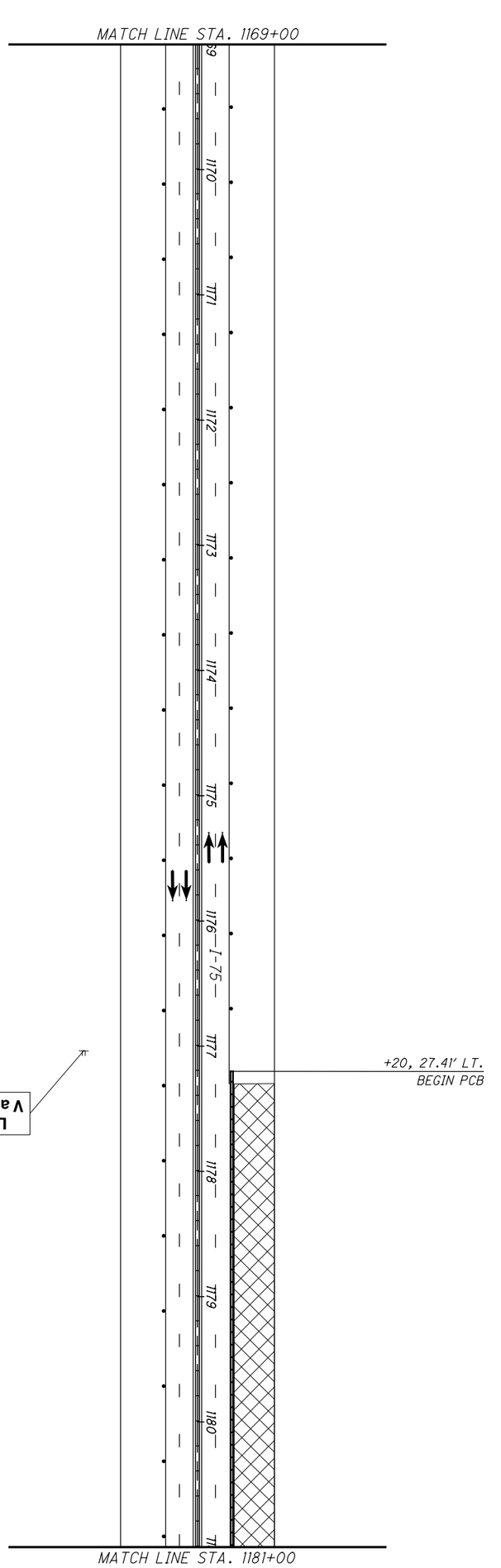
FOR LEGEND SEE SHEET 26

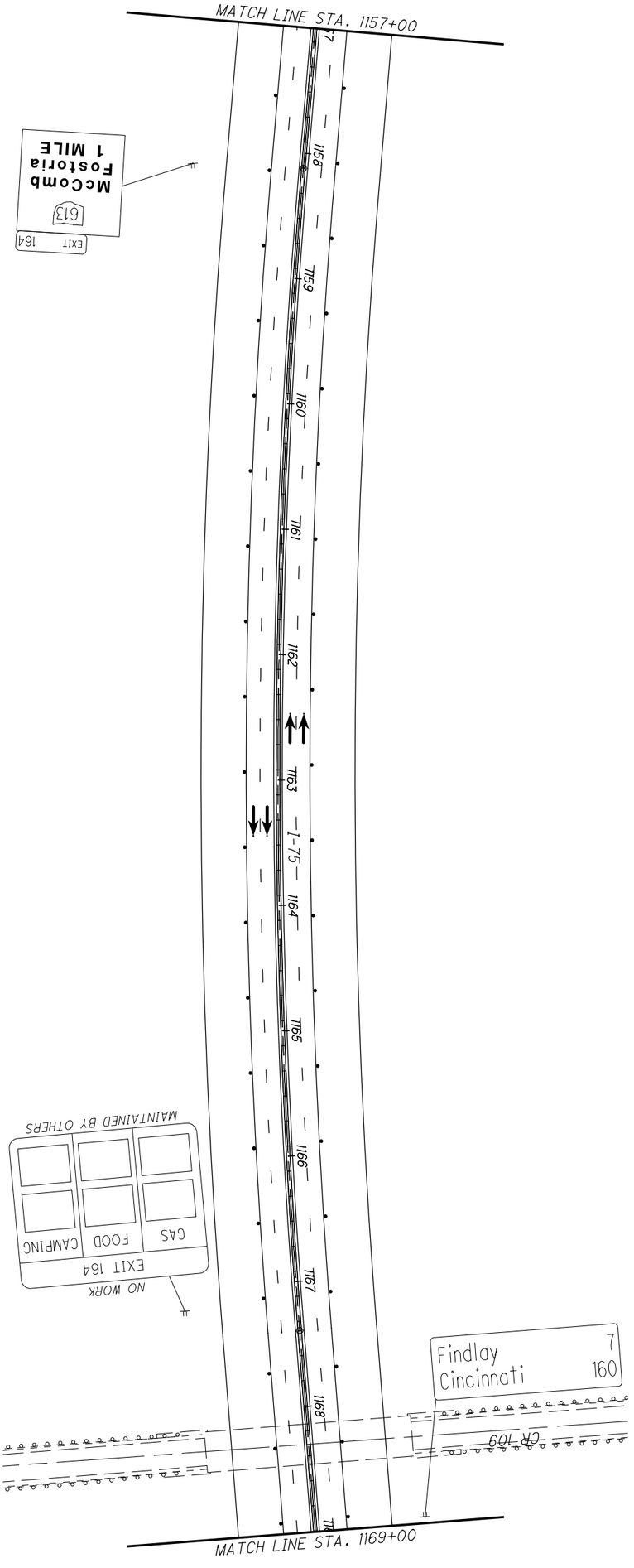
MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N





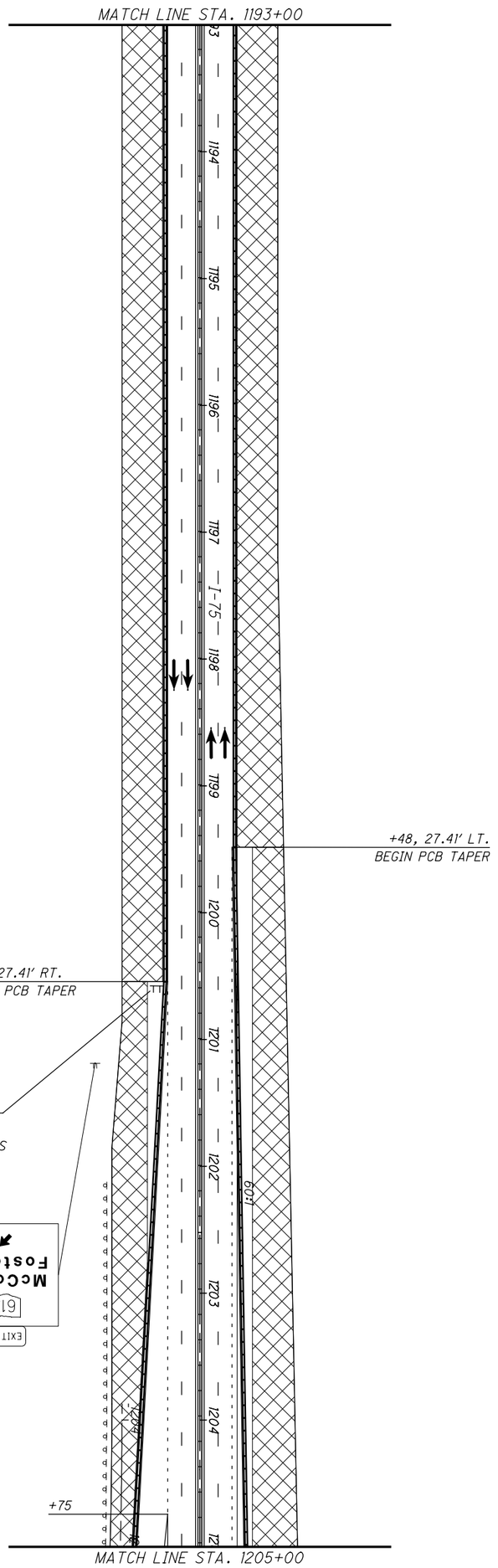
FOR LEGEND SEE SHEET 26

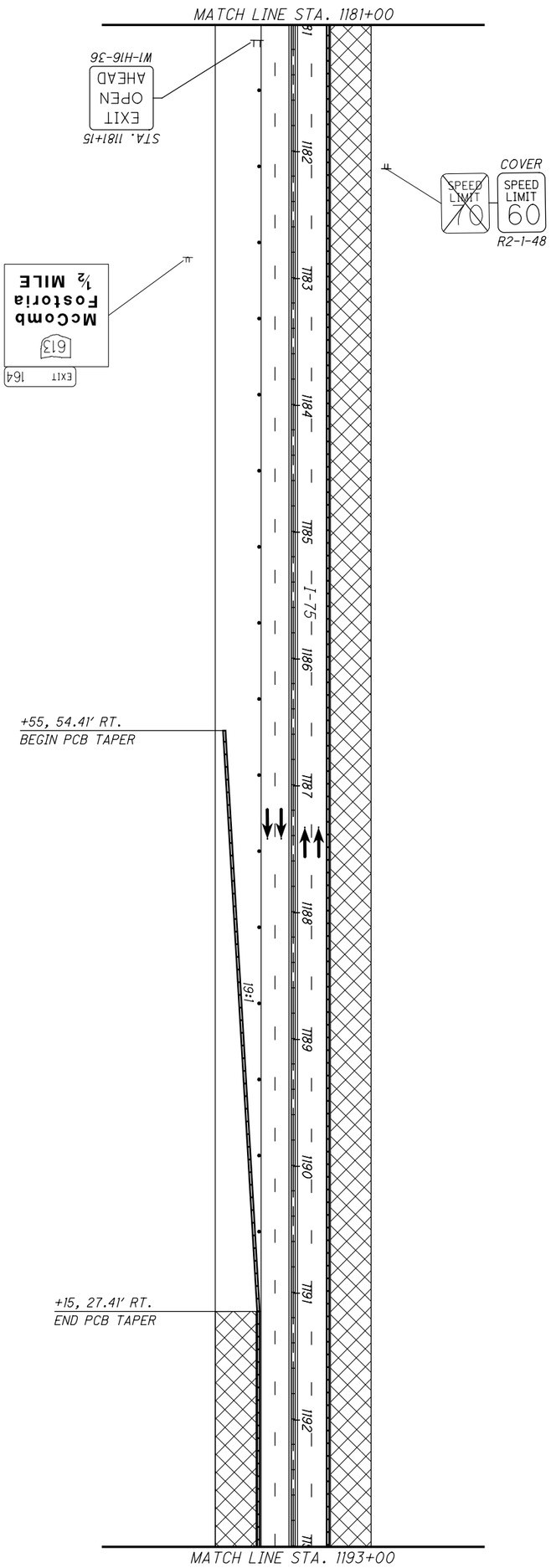
MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N



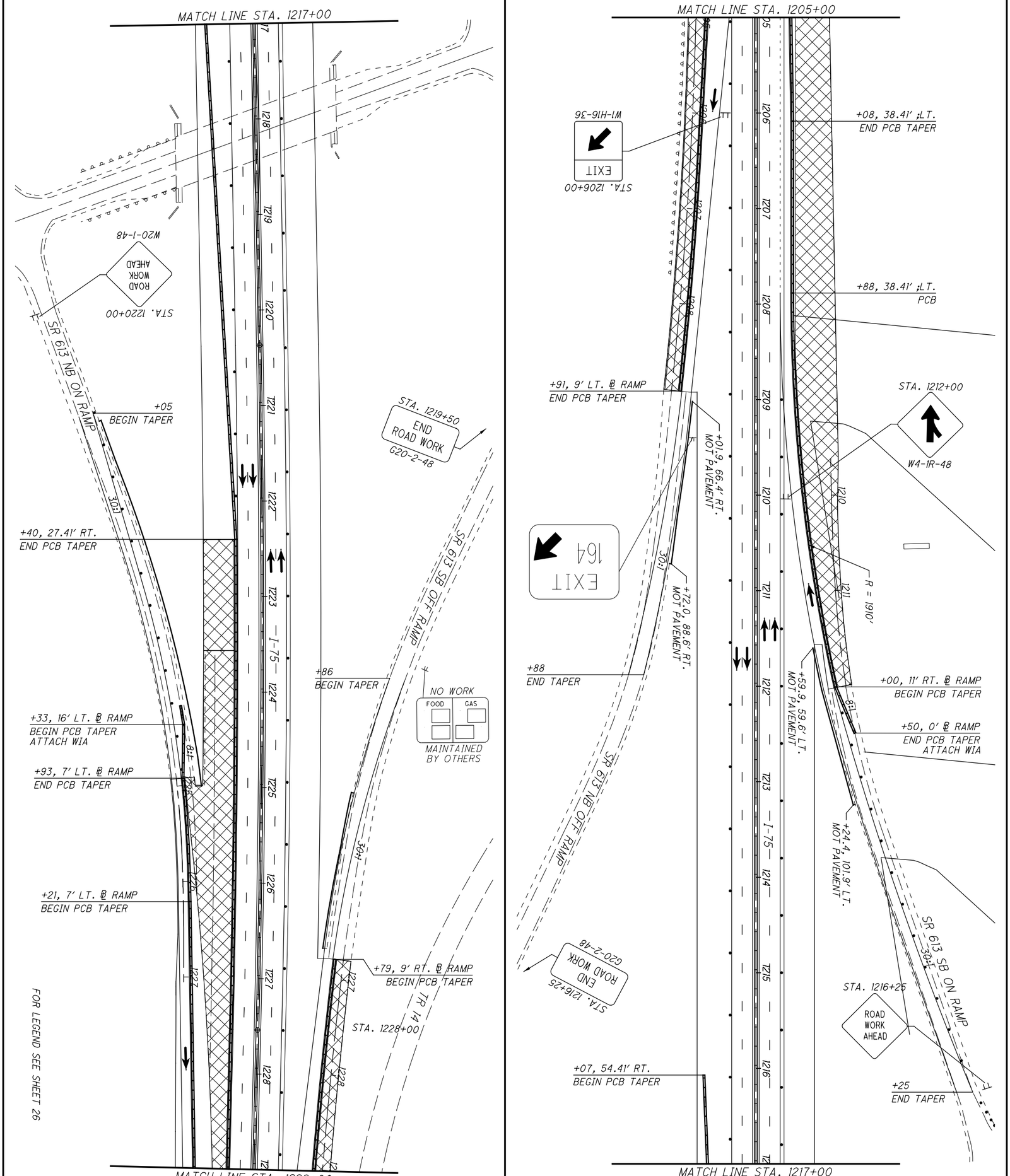


FOR LEGEND SEE SHEET 26

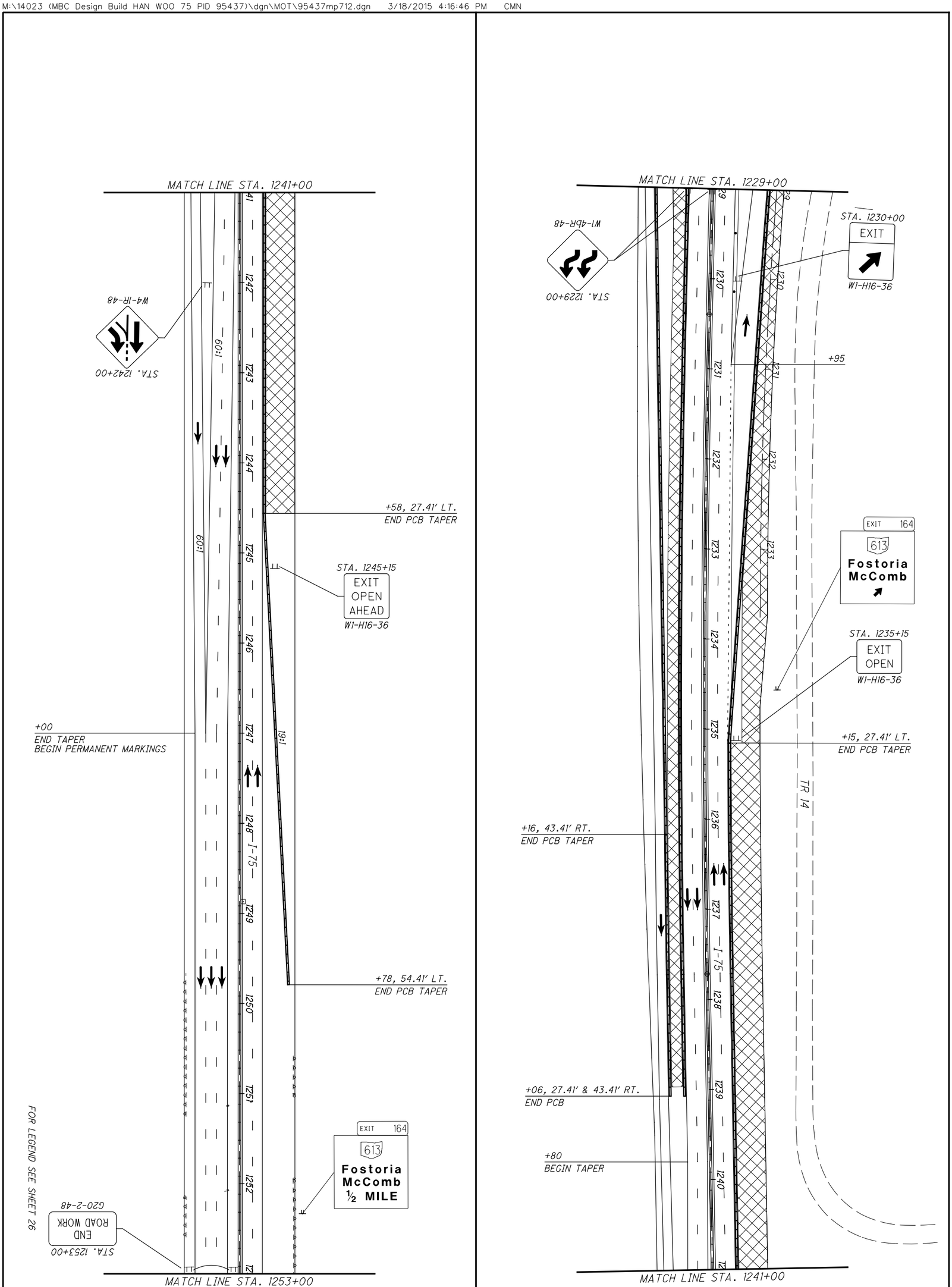
MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET



69 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 3**	CALCULATED SRC / CHECKED LLA	0 25 50 100 HORIZONTAL SCALE IN FEET



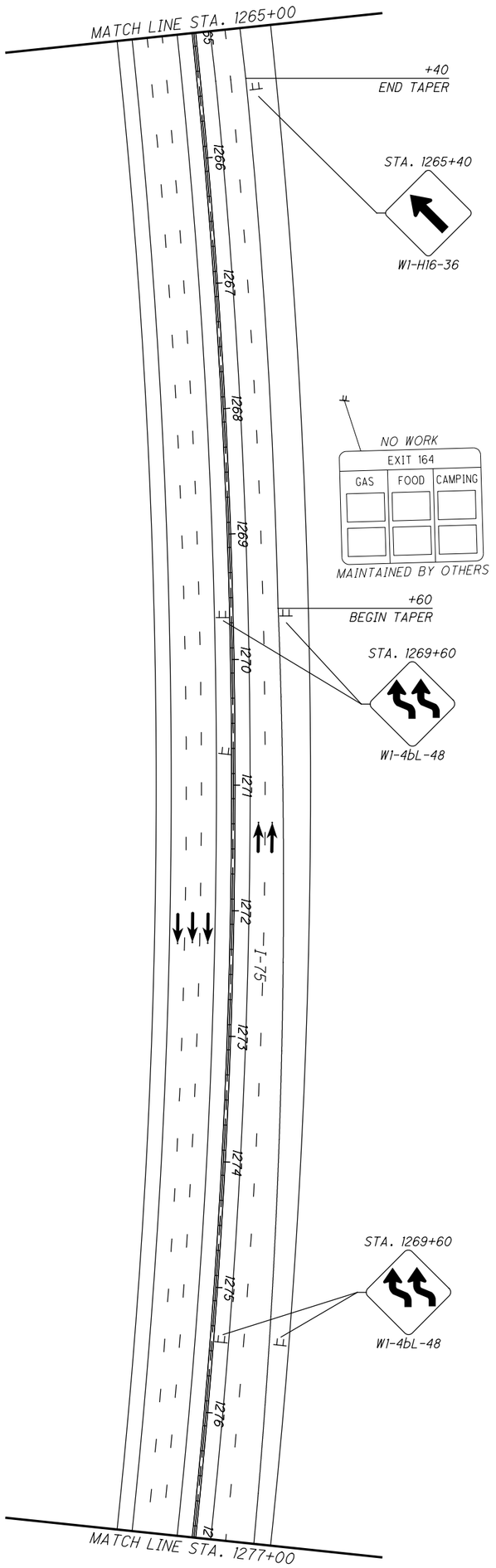
FOR LEGEND SEE SHEET 26

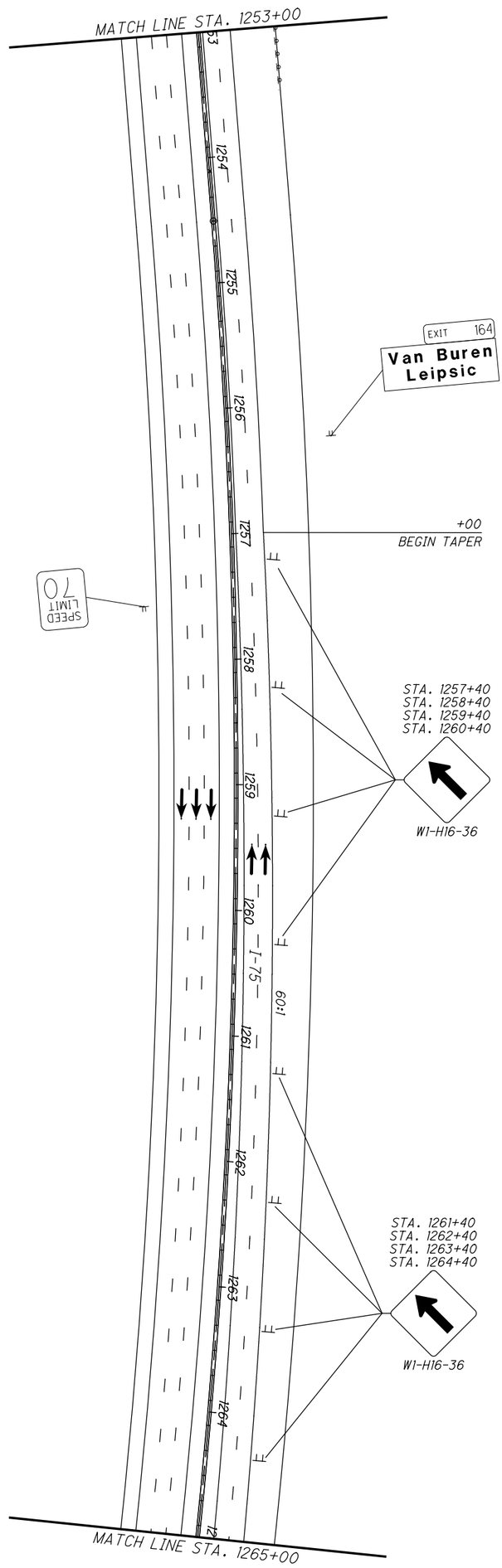
MAINTENANCE OF TRAFFIC
STAGE 3

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

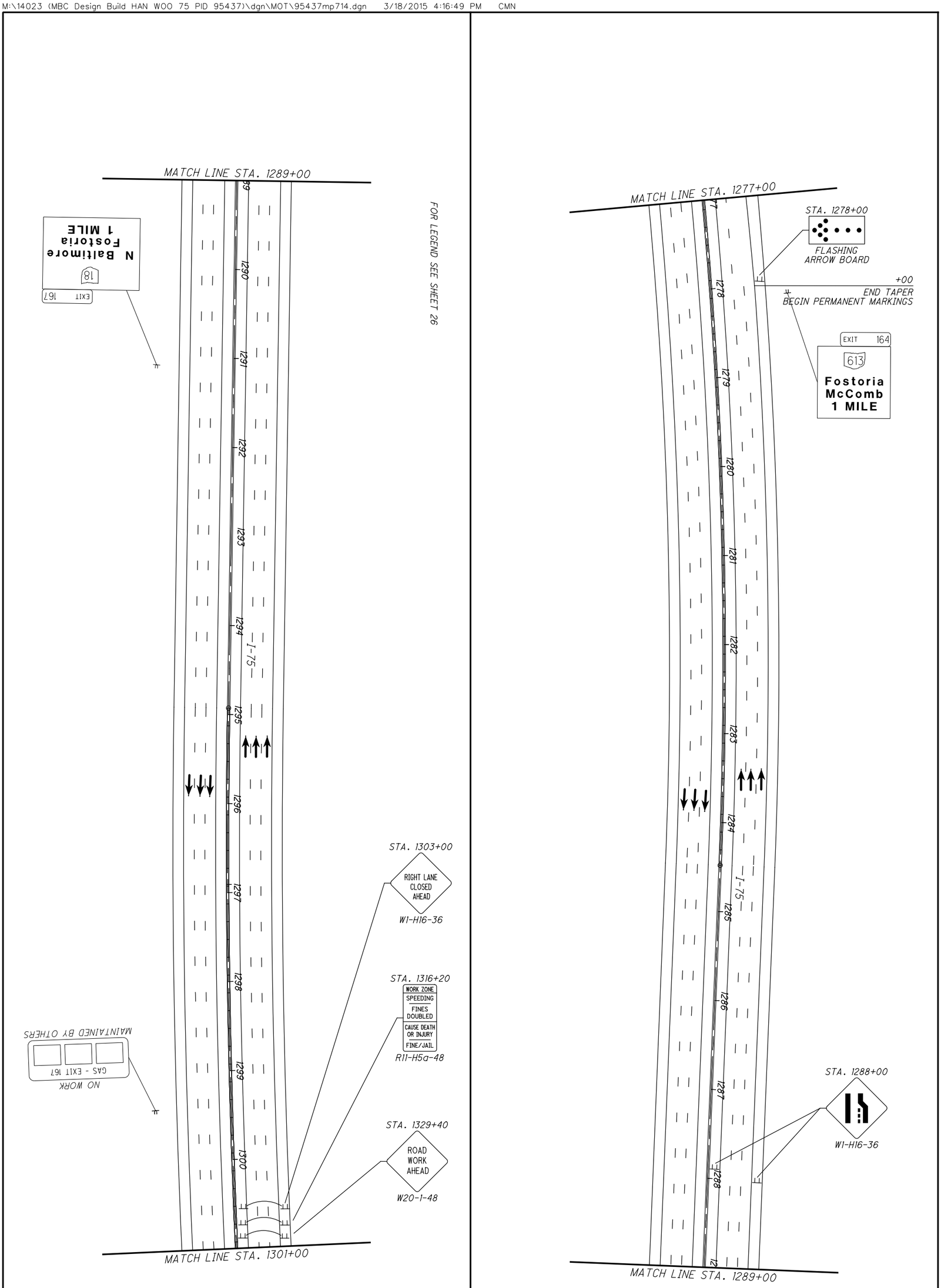
N





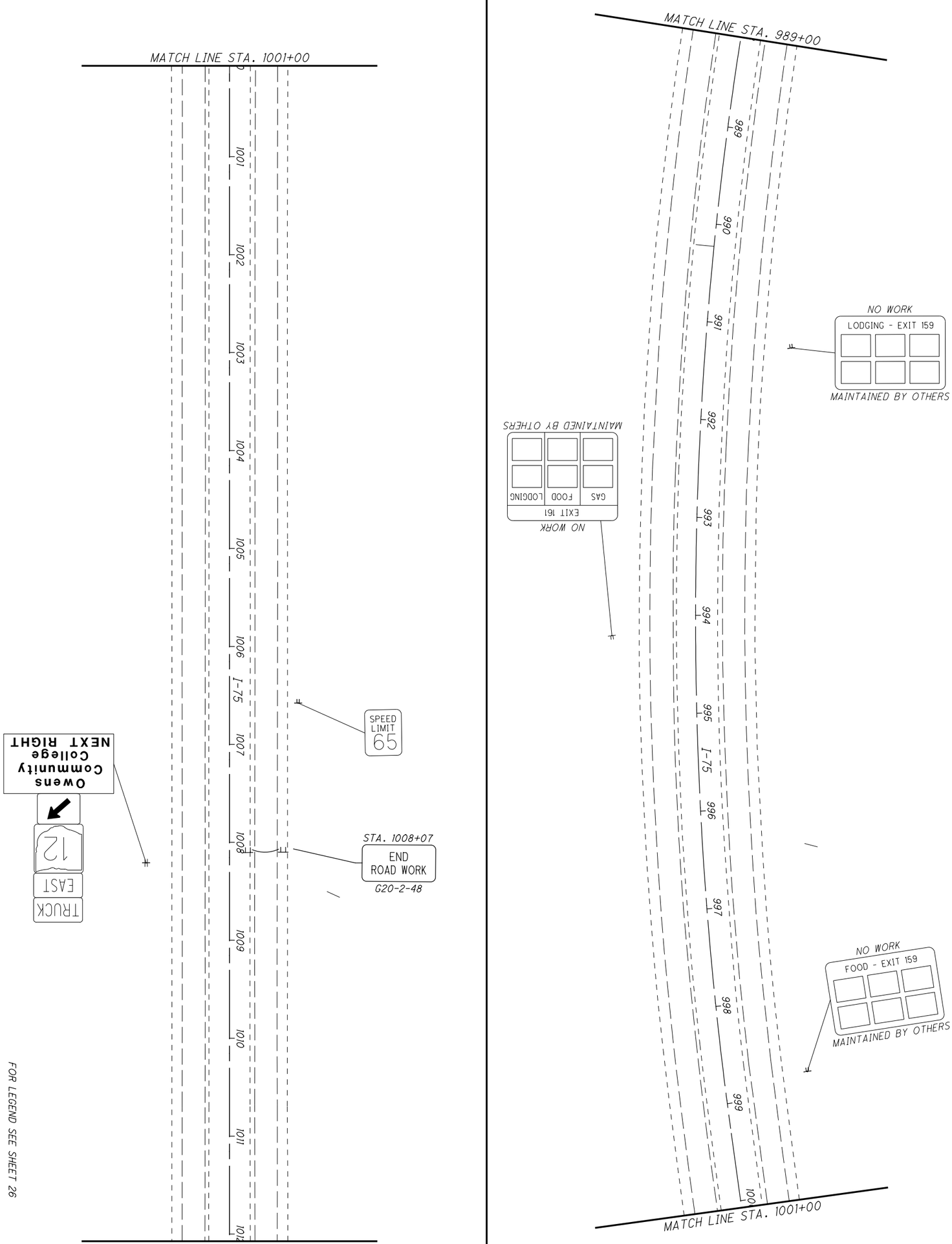
FOR LEGEND SEE SHEET 26

71 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 3**	CALCULATED SRC / CHECKED LLA	0 50 25 100 HORIZONTAL SCALE IN FEET



72 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 3**	CALCULATED SRC / CHECKED LLA	0 25 50 100 HORIZONTAL SCALE IN FEET

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\MOT\95437mp802.dgn 3/18/2015 4:16:52 PM CMN



73 / 336	HAN/WOO-75-19.22/0.00	MAINTENANCE OF TRAFFIC STAGE 4	CALCULATED SRC CHECKED LLA	0 50 25 100 HORIZONTAL SCALE IN FEET

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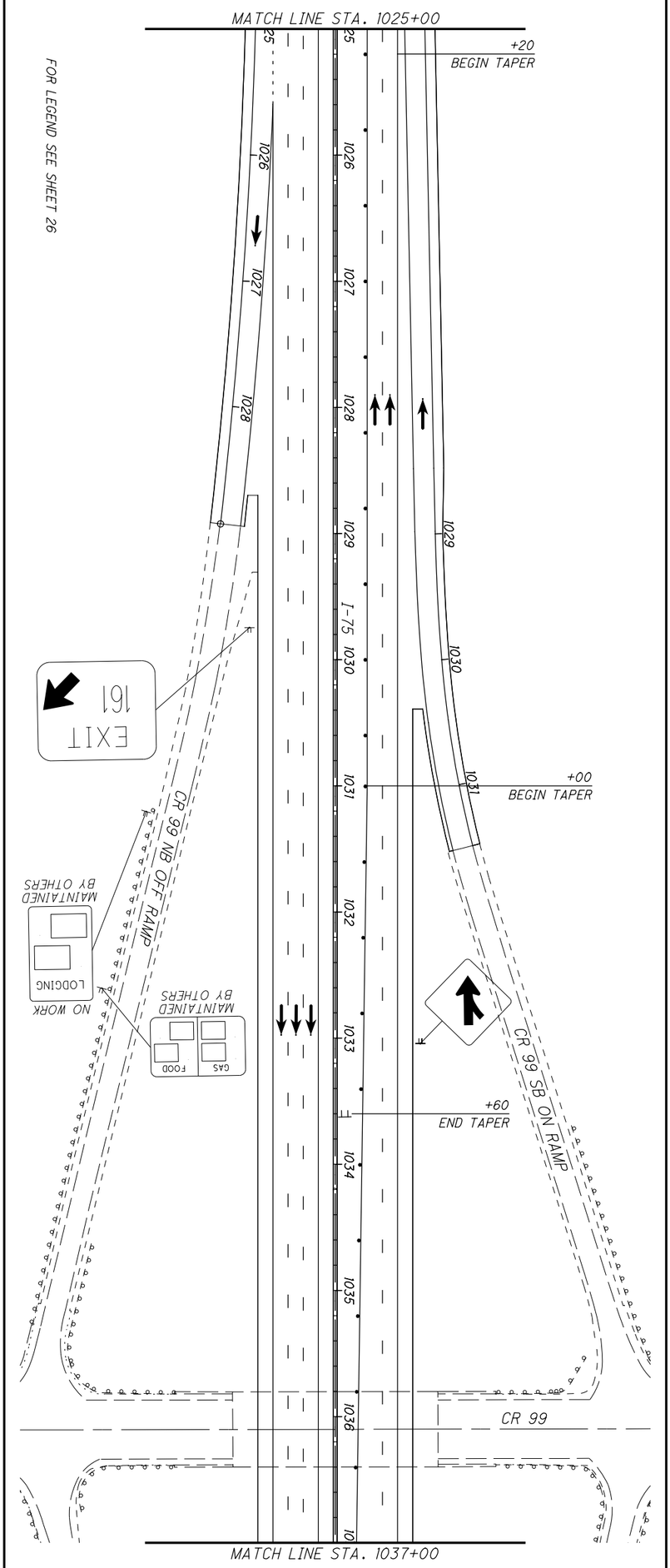
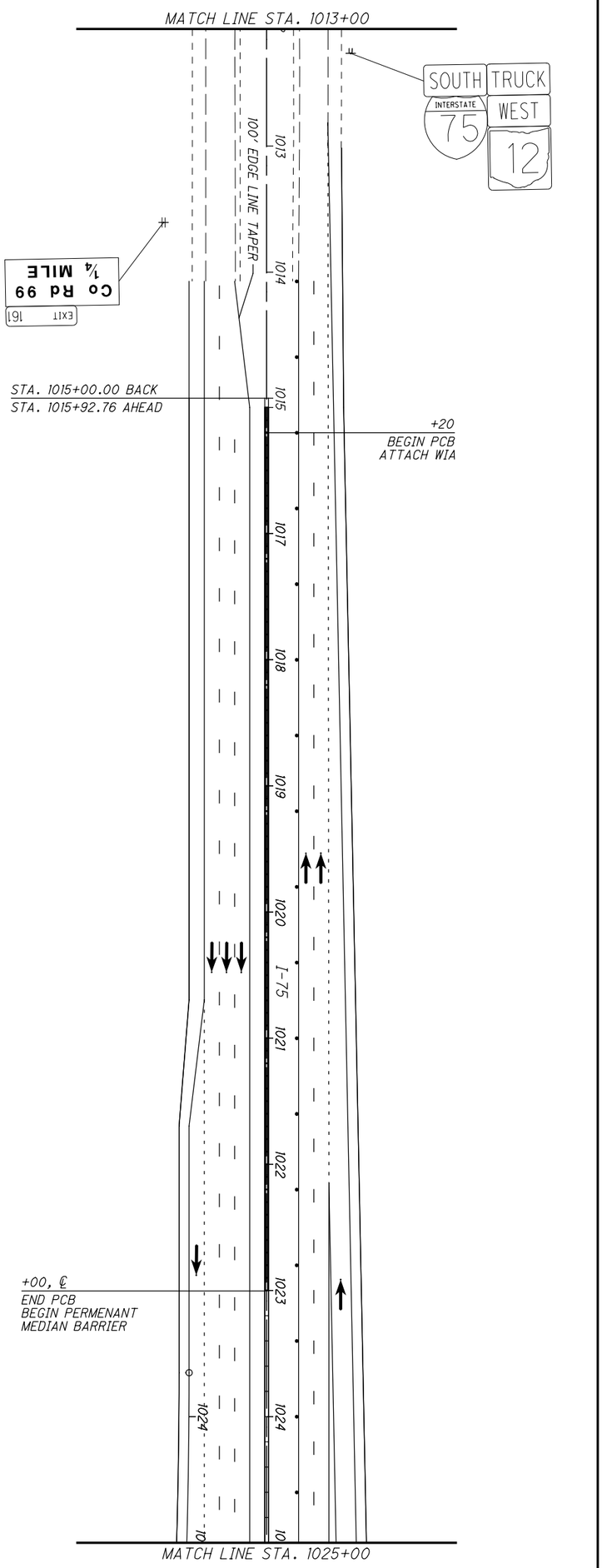




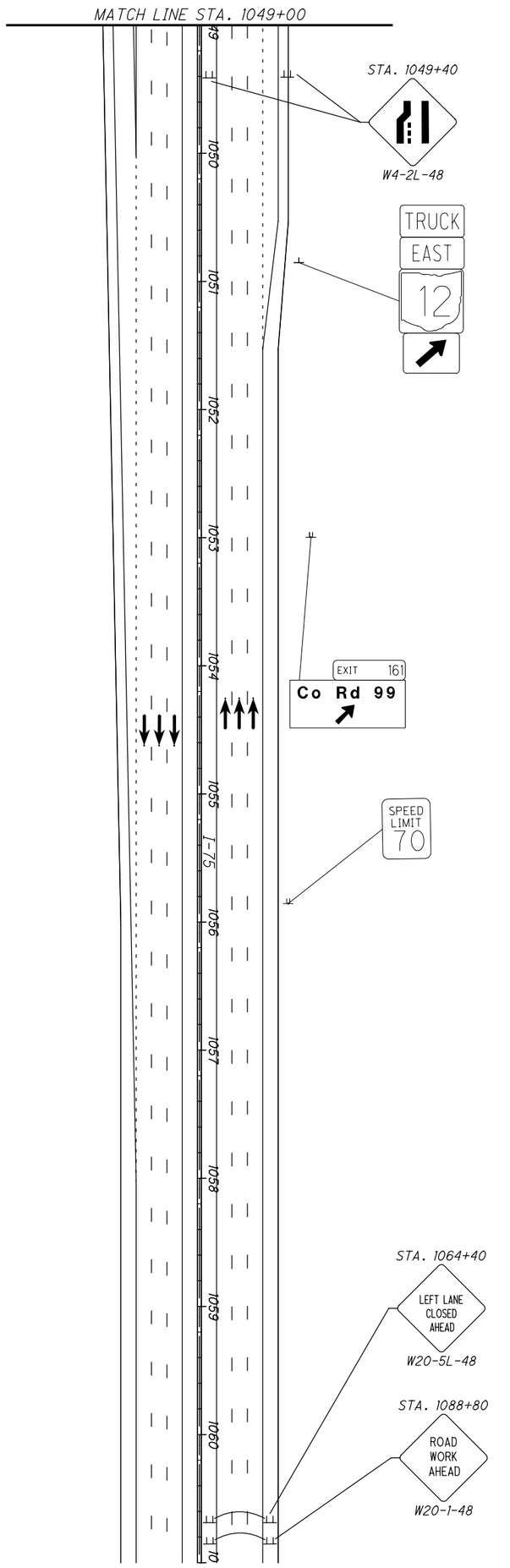
HAN/WOO-75-19.22/0.00

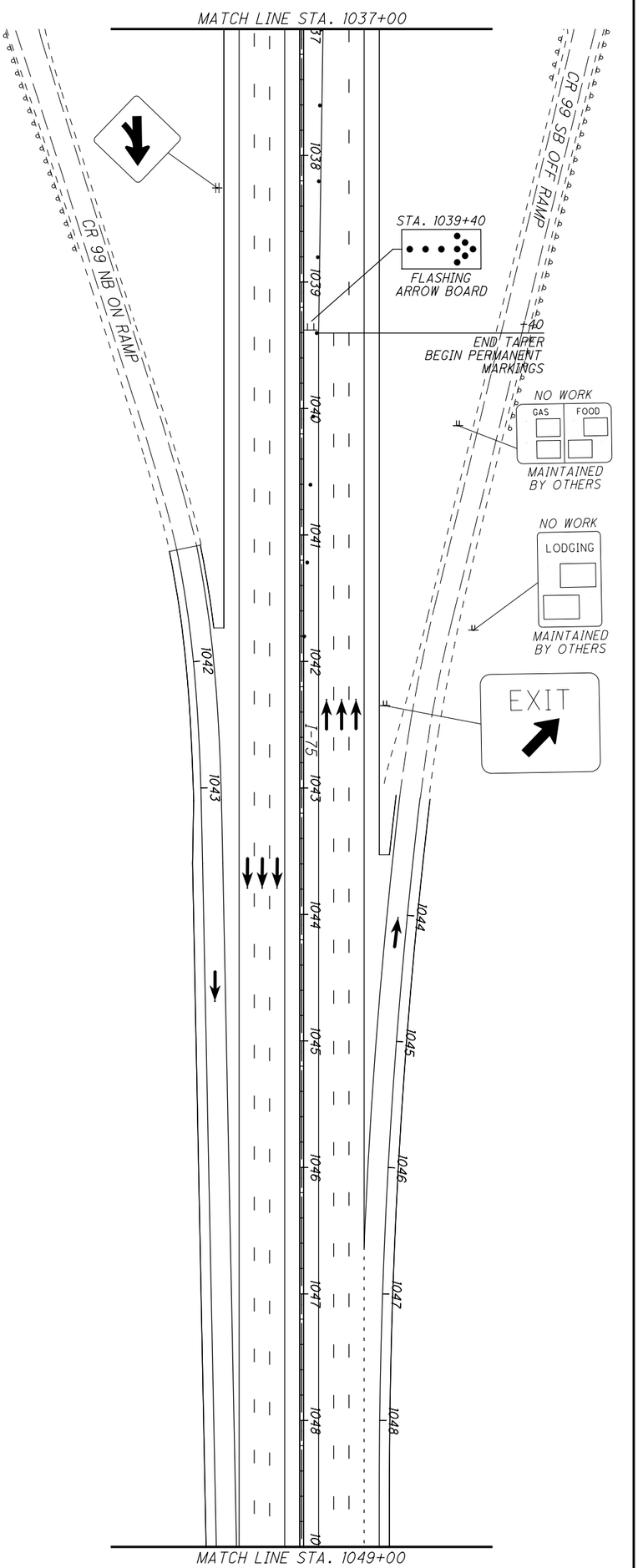
MAINTENANCE OF TRAFFIC
STAGE 4

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

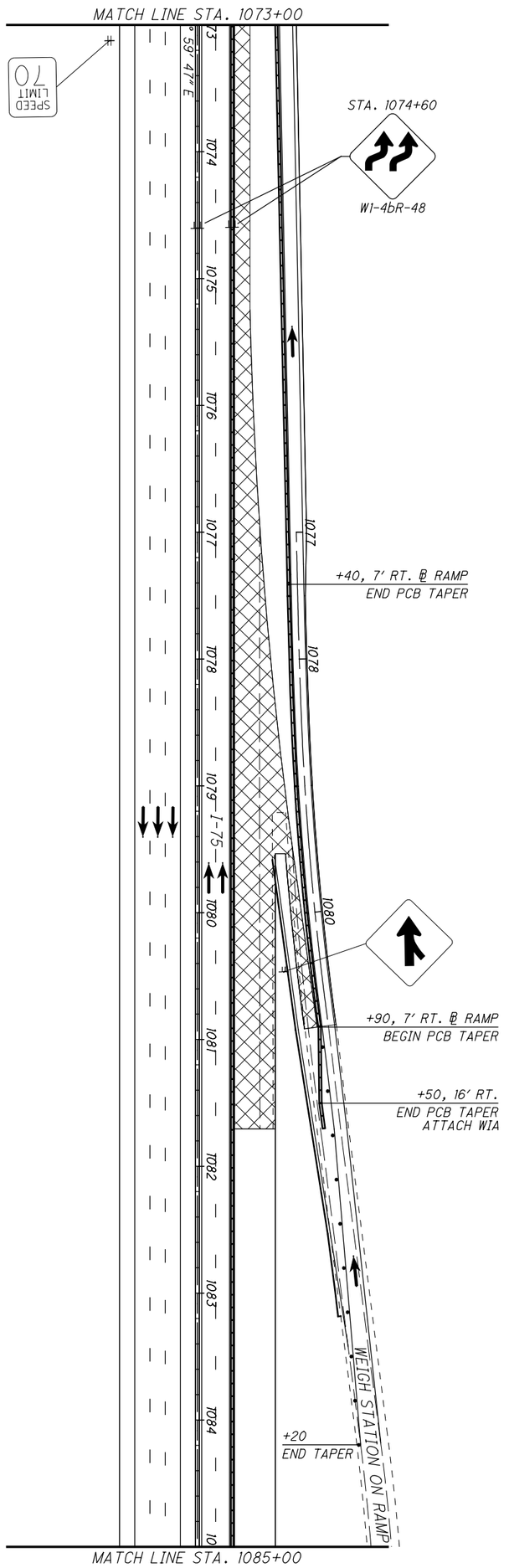
N

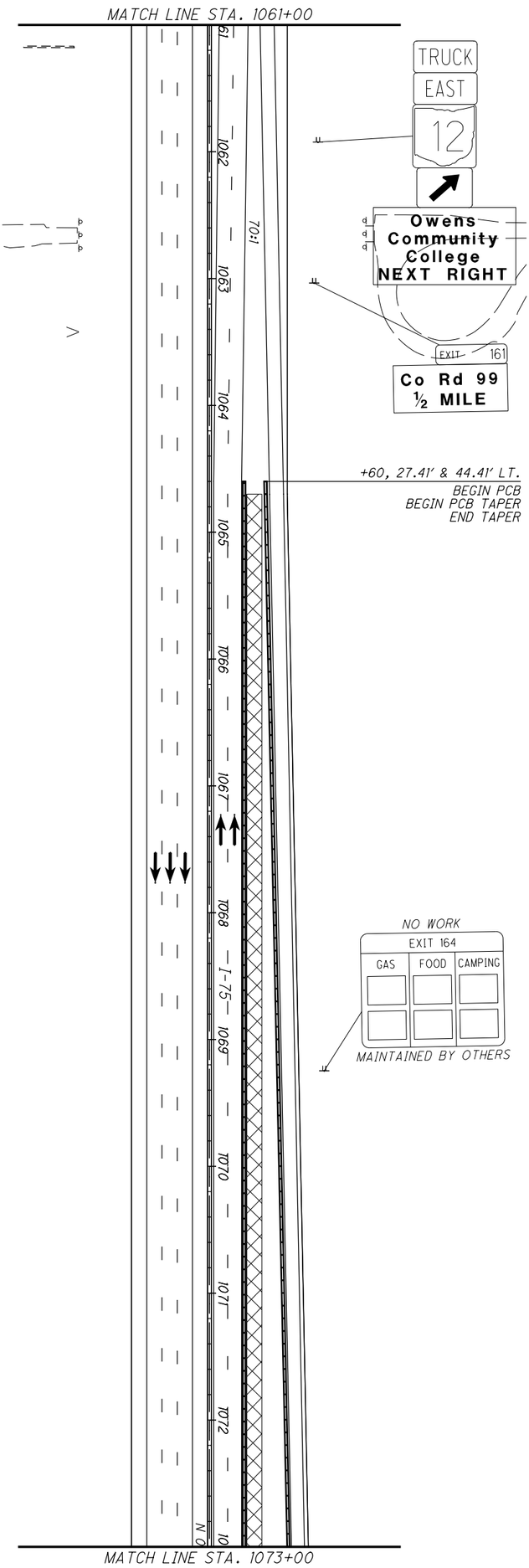




FOR LEGEND SEE SHEET 26

75 336	HAN/WOO-75-19.22/0.00	MAINTENANCE OF TRAFFIC STAGE 4	CALCULATED SRC; CHECKED LLA; 0 25 50 100 HORIZONTAL SCALE IN FEET; N



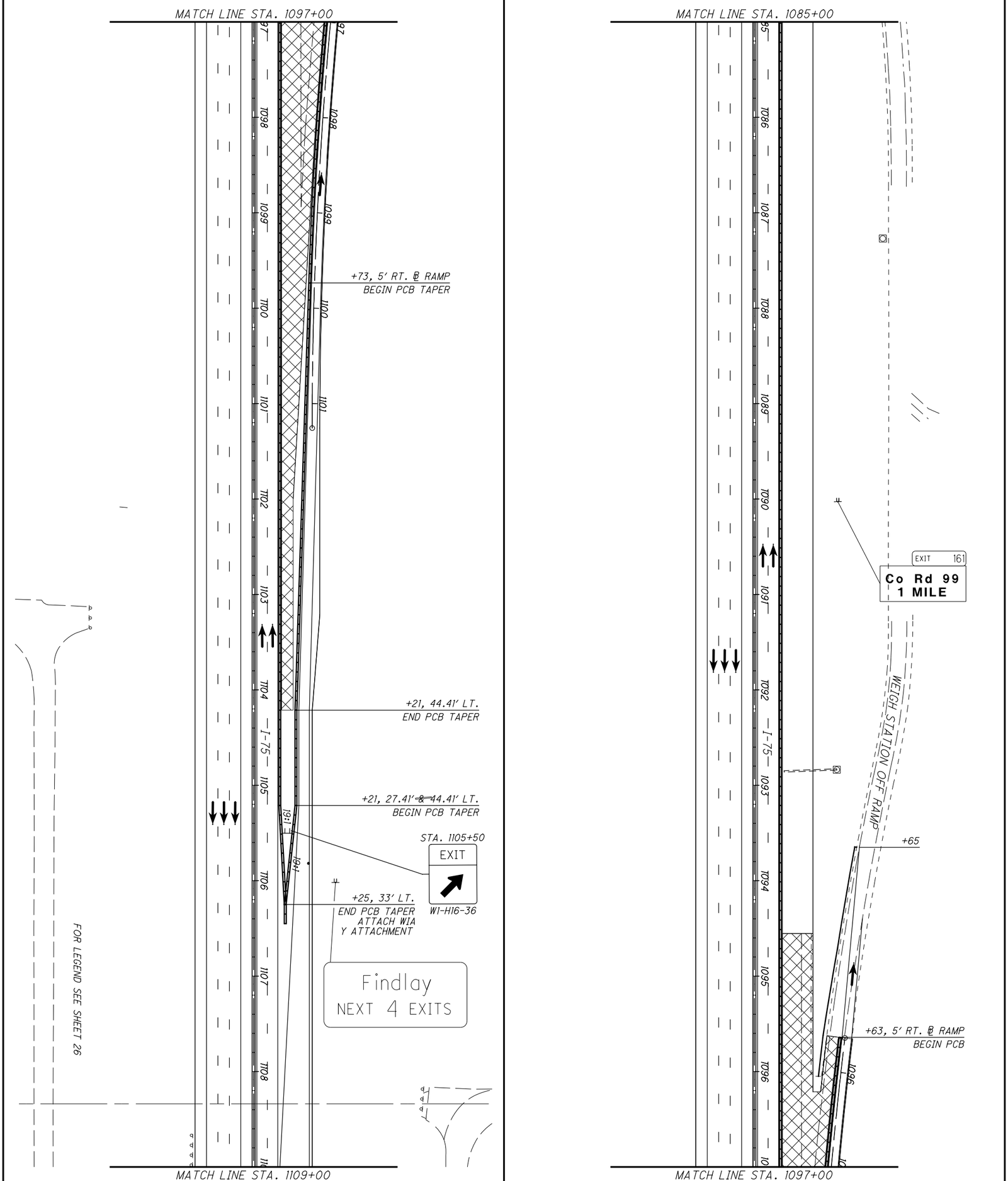


FOR LEGEND SEE SHEET 26

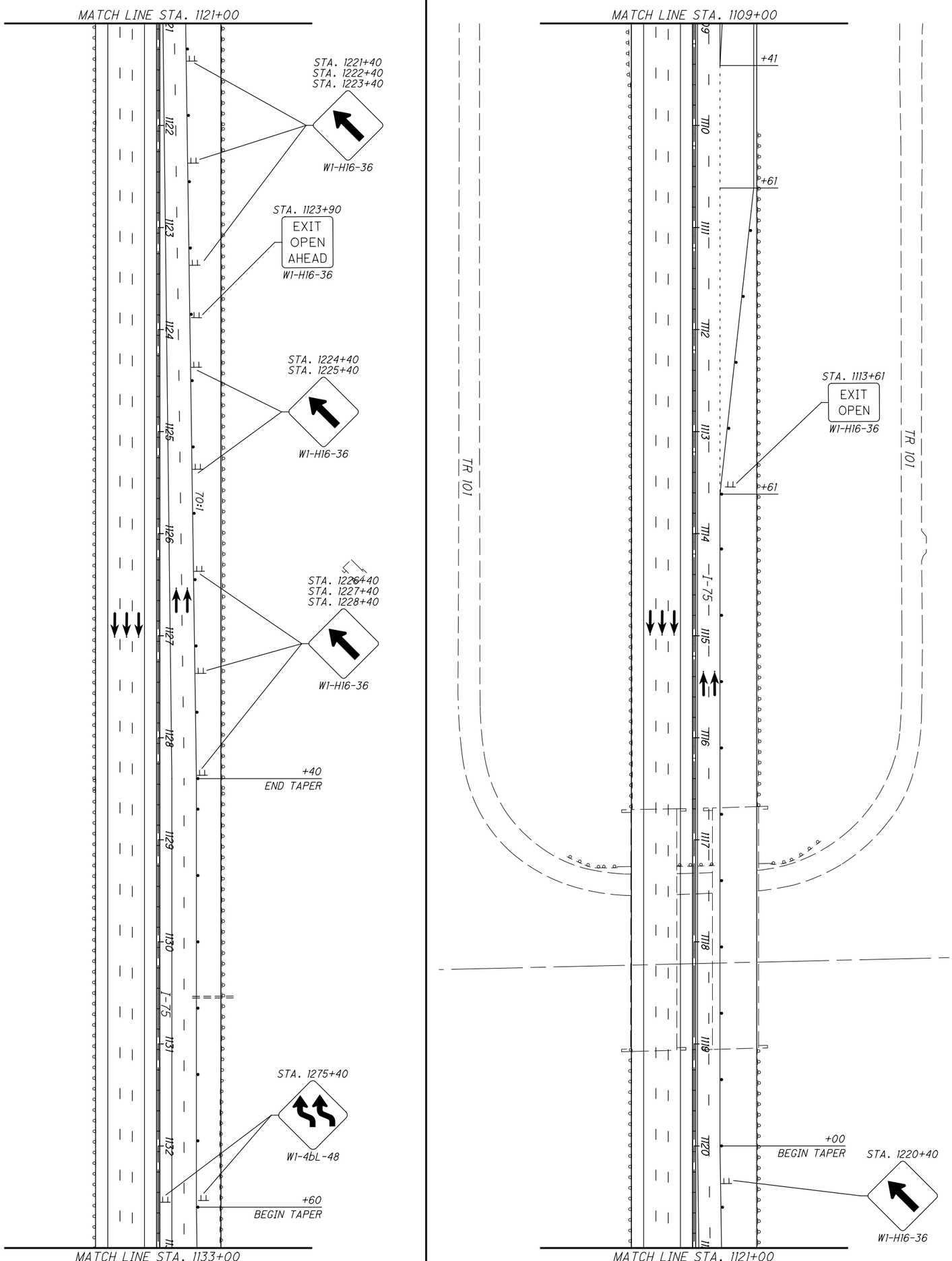
MAINTENANCE OF TRAFFIC
STAGE 4

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET



77 / 336	HAN/WOO-75-19.22/0.00	**MAINTENANCE OF TRAFFIC STAGE 4**	CALCULATED SRC / CHECKED LLA	0 25 50 100 HORIZONTAL SCALE IN FEET



FOR LEGEND SEE SHEET 26

78
336

HAN/WOO-75-19.22/0.00

MAINTENANCE OF TRAFFIC
STAGE 4

CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N

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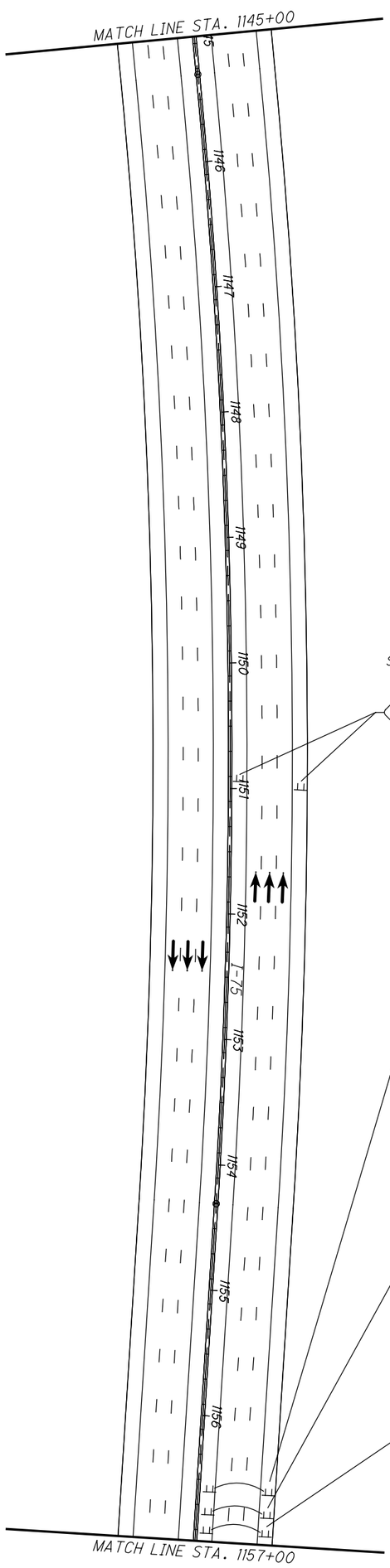
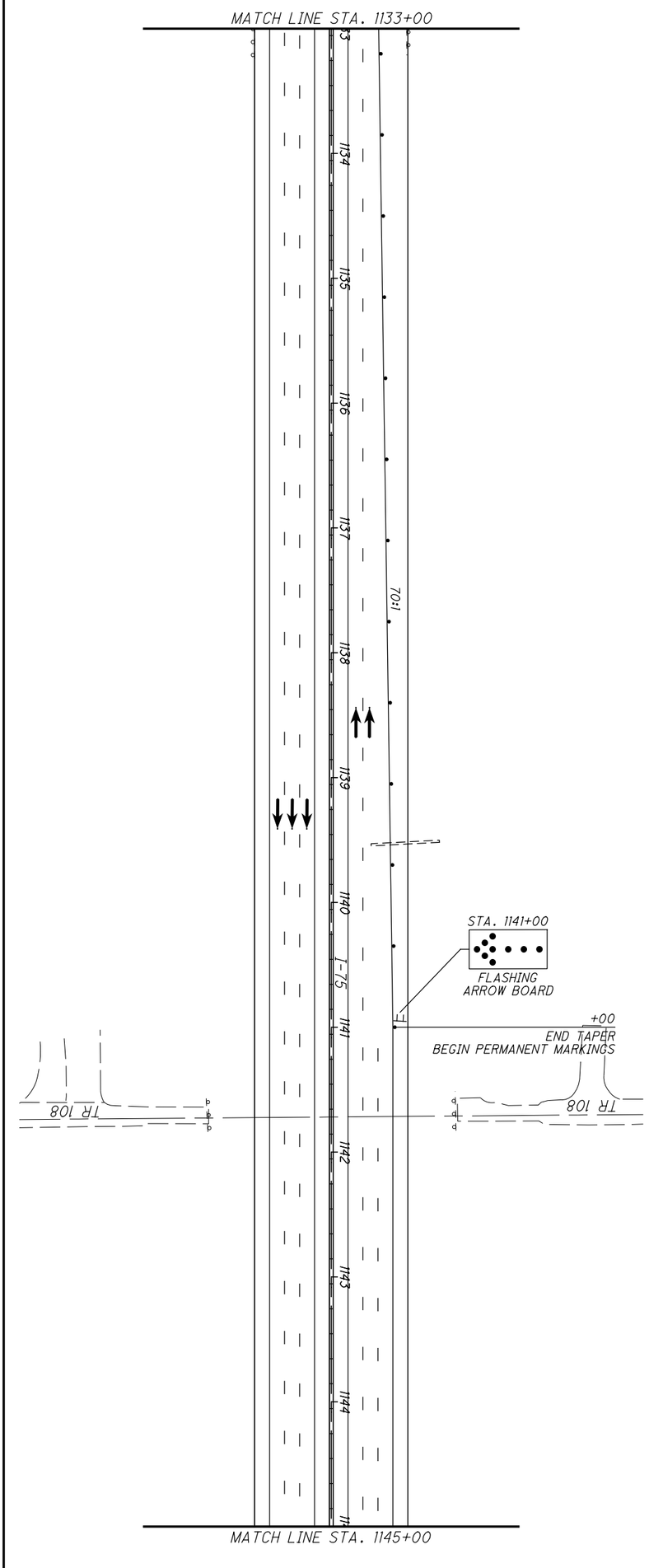




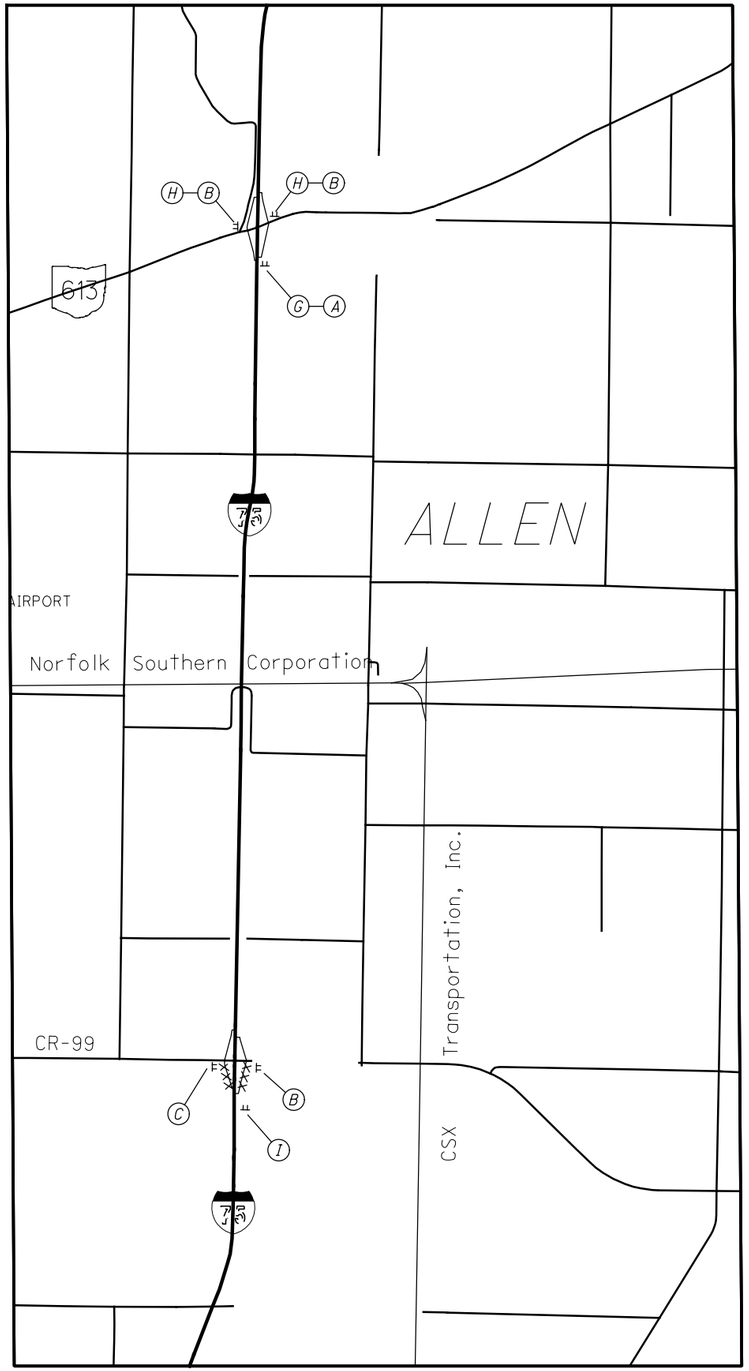
FOR LEGEND SEE SHEET 26

MAINTENANCE OF TRAFFIC
STAGE 4

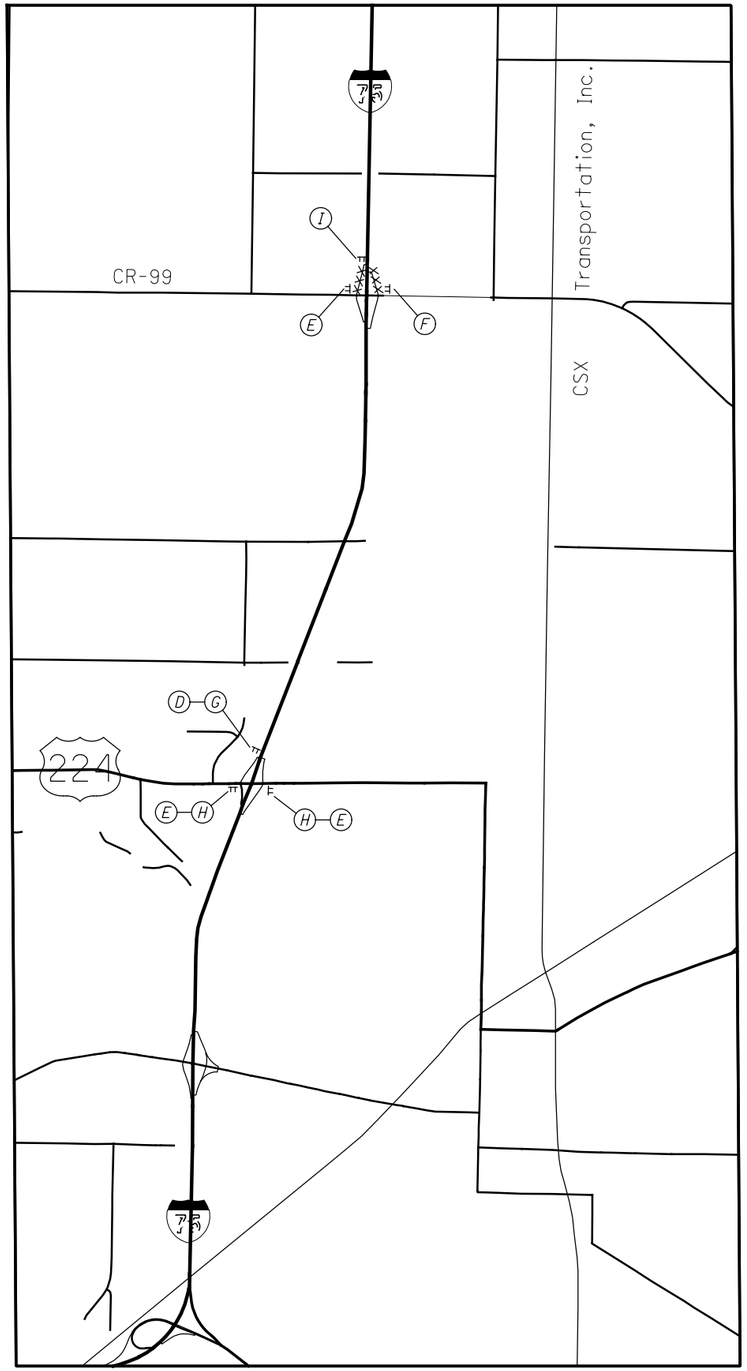
CALCULATED SRC
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

N



CR 99 NB DETOUR MAP
I-75 SB DETOUR MAP



CR 99 SB DETOUR MAP
I-75 NB DETOUR MAP

Ⓐ
DETOUR
SOUTH
INTERSTATE
75

M4-8-30
M3-3-30
M1-2-2-30
M6-2R-30

Ⓑ
DETOUR
SOUTH
INTERSTATE
75

M4-8-30
M3-3-30
M1-2-2-30
M6-1L-30

Ⓒ
DETOUR
SOUTH
INTERSTATE
75

M4-8-30
M3-3-30
M1-2-2-30
M6-3-30

Ⓓ
DETOUR
NORTH
INTERSTATE
75

M4-8-30
M3-1-30
M1-2-2-30
M6-2R-30

Ⓔ
DETOUR
NORTH
INTERSTATE
75

M4-8-30
M3-1-30
M1-4-3-30
M6-1L-30

Ⓕ
DETOUR
NORTH
INTERSTATE
75

M4-8-30
M3-1-30
M1-4-3-30
M6-3-30

Ⓖ
DETOUR
CR 99

M4-8-30
D3-1
M6-2R-30

Ⓗ
DETOUR
CR 99

M4-8-30
D3-1
M6-1L-30

Ⓘ
DETOUR
CR 99

M4-8-30
D3-1
M6-3-30

Ⓙ
DETOUR
AHEAD

W20-2-36

Ⓚ
ROAD
CLOSED

R11-2-48

NOTES:

DETOUR CR 99 VIA SR 613 AND US 224.

PLACE ADVANCE DETOUR SIGN ASSEMBLIES 1000' PRIOR TO LOCATIONS OF REGULAR DETOUR SIGN ASSEMBLIES SHOWN ON MAP, USE M5-1L(R)-30 IN PLACE OF M6-1L(R)-30.

PLACE DETOUR AHEAD SIGN "J" 1500' PRIOR TO ADVANCE DETOUR SIGN ASSEMBLIES.

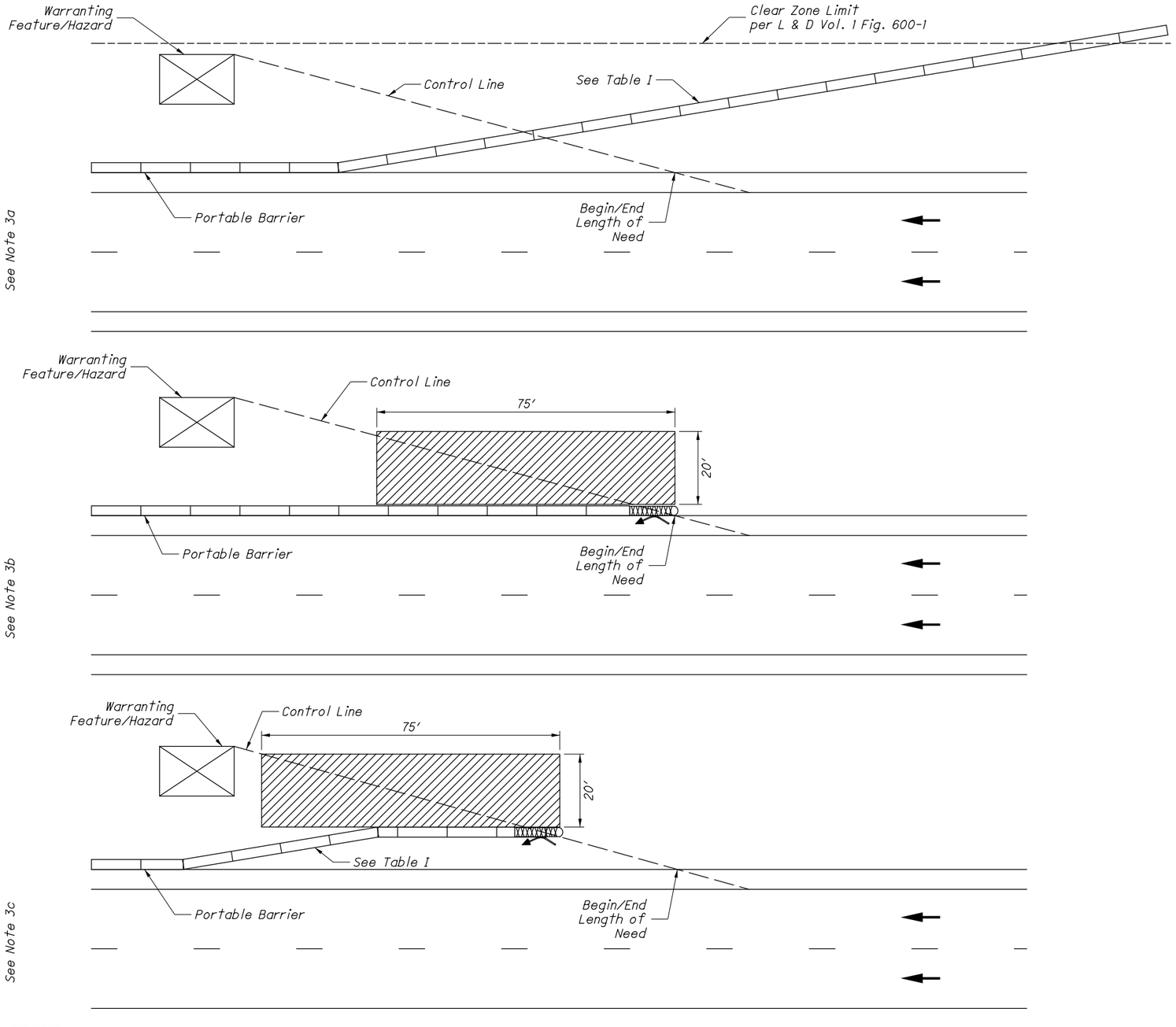
INSTALL SIGN ASSEMBLY "K" AT THE POINT OF CLOSURE.

HORIZONTAL SCALE IN MILES
0 1 2 4

CALCULATED SRC
CHECKED LLA

MAINTENANCE OF TRAFFIC DETOUR MAP

HAN/WOO-75-19.22/0.00



LEGEND

- RECOVERY AREA
- PORTABLE BARRIER
- NON-GATING IMPACT ATTENUATOR
- DIRECTION OF TRAVEL

NOTES:

1. Attenuators shall be installed per the manufacturer's specifications.

2. Recovery area shall have slopes 3:1 or flatter and be free of workers, hazards, equipment, drop-offs, and material storage.

3. The Contractor shall select one of the three acceptable options for terminating portable barrier:

   a) Terminate flared section of portable barrier outside clear zone with tapered end only where cross slopes are 10:1 or flatter.
   b) Terminate portable barrier with an impact attenuator. A non-gating attenuator may be included in the length of need measurement.
   c) Flare a section of portable barrier to the length of need control line and terminate with an impact attenuator. A non-gating impact attenuator may be included in the flared section of portable barrier.

4. The Contractor shall submit documentation to the Engineer, 2 weeks prior to implementation, for acceptance when:

   a) Deviating from the three acceptable options for terminating portable barrier.

      Documentation shall explain any deviations and verify that the recovery area fulfills the manufacturer's specifications and Note 2.

   b) Using a gating impact attenuator in lieu of a non-gating impact attenuator.

      The gating impact attenuator length shall not be included as part of the length of need or recovery area requirements. Additional portable barrier will need to be added. The additional cost for the additional barrier required for a gating impact attenuator shall be included in the cost of the gating impact attenuator.

      Documentation shall verify that the extended recovery area fulfills the manufacturer's specifications and and Note 2.

5. Gating impact attenuators shall not be used in gore locations or within the clear zone between bi-directional traffic.

TABLE I

SPEED LIMIT (MPH)	PB FLARE RATE MINIMUM
25	8:1
30	8:1
35	9:1
40	10:1
45	12:1
50	14:1
55	16:1
60	18:1
65	19:1
70	20:1

THIS DRAWING REPLACES PIS 2010175 DATED 7-20-2012.

OFFICE OF ROADWAY ENGINEERING

DESIGNED | REVIEWED

REVISION DATE 7-19-2013 | CHECKED

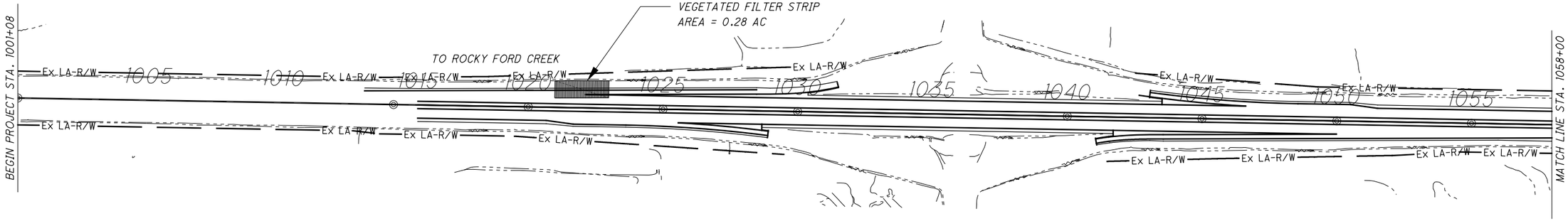
PIS NUMBER 2010175

PLAN INSERT SHEET

IMPACT ATTENUATOR PLACEMENT

HAN/WOO-75-19.22/0.00

PROJECT DATA			
TOTAL AREA (RIGHT-OF-WAY)		RUNOFF COEFFICENT FOR PRE-CONSTRUCTION SITE	0.3-0.9
PROJECT EARTH DISTURBED AREA	167 AC	RUNOFF COEFFICENT FOR POST CONSTRUCTION SITE	0.9
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	02 AC	POST CONSTRUCTION BMP: VEGETATED BIOFILTERS WERE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS. LOCATIONS GIVEN IN SITE PLAN SHEETS.	REQUIRED 33.4 AC PROVIDED 35.0 AC
NOTICE OF INTENT EARTH DISTURBED AREA	169 AC		
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUTION SITE	86 AC	IMMEDIATE RECEIVING WATERS	ROCKY FORD CREEK
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUTION SITE	140 AC	SUBSEQUENT RECEIVING WATERS	PORTAGE RIVER, LAKE ERIE



USGS QUADRANT MAP: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

*LATITUDE AND LONGITUDE TO APPROX. CENTER OF PROJECT

LEGEND

- CATCH BASIN, TYPE 4
- VEGETATED FILTER STRIP
- VEGETATED BIOFILTER
- SHEET FLOW OUTSIDE ODOT R/W

PROJECT DESCRIPTION:
MAJOR REHABILITATION OF EXISTING PAVEMENT. WIDENING OF PAVEMENT TO ACCOMMODATE 3 LANES IN EACH DIRECTION. REPLACE AND WIDEN BRIDGE DECKS ON HAN-75-2115 LEFT AND RIGHT OVER NS AND TR 101. REPLACE AND WIDEN BRIDGE DECKS ON HAN-75-2370 LEFT AND RIGHT OVER ROCKY FORD CREEK. REPLACE AND WIDEN BRIDGE DECKS ON WOO-75-0073 LEFT AND RIGHT OVER CSX AND WOO-75-0179 LEFT AND RIGHT OVER ROCKY FORD CREEK.

THE SQUARE YARDAGE OF VEGETATED FILTER STRIP INCLUDES AREA OF EXISTING GRASS SLOPES THAT WILL NOT BE DISTURBED OR REQUIRE ITEM 670 SLOPE EROSION PROTECTION.

N

0 100 200 400 HORIZONTAL SCALE IN FEET

CALCULATED XXX CHECKED XXX

PROJECT SITE PLAN
STA. 1001+08 TO STA. 1058+00

HAN/WOO-75-19.22/0.00

82
336

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Vegetated Filter Strip Calculations

Southbound

Station From	Station To	Distance from Shoulder to Ditch (ft.)	3:1 Or Flatter Slope Width (min)	Max. Allow. Pavement Width	Actual Pavement Width	Credit Area	Disturbed Width (ft.)	Item 659 (cu. yd.)	Item 670 (sq. yd.)
1021+00	1022+00	25	25	46	36	6100	25	46	278
1022+00	1023+00	26	25	46	36	6200	26	48	289
1104+00	1105+00	55	25	46	38	9300*	23	43	256
1105+00	1106+00	83	25	46	36	11900*	31	57	344
1144+00	1145+00	22	22	30	12	3400	18	33	200
1145+00	1146+00	17	17	24	12	2900	18	33	200
1146+00	1147+00	15	15	22	12	2700	14	26	156
1148+00	1149+00	18.5	18.5	26	12	3050	10	19	111
1149+00	1150+00	15	15	22	12	2700	9	17	100
1150+00	1151+00	22	22	30	12	3400	6	11	67
1151+00	1152+00	17	17	24	12	2900	8	15	89
1155+00	1156+00	22	22	30	12	3400	6	11	67
1200+00	1201+00	40	25	46	42	8600*	27	50	300
1201+00	1202+00	39	25	46	44	8500*	25	46	278
1224+00	1225+00	37	25	46	36	7300	15	28	167
1261+00	1262+00	27	25	46	12	3900	21	39	233
1262+00	1263+00	22	22	30	12	3400	13	24	144
1263+00	1264+00	17	17	24	12	2900	12	22	133
1264+00	1265+00	18.5	18.5	26	12	3050	7	13	78
1265+00	1266+00	25	25	46	12	3700	12	22	133
1268+00	1269+00	20.5	20.5	28	12	3250	28	52	311
1281+00	1282+00	22	22	30	12	3400	17	31	189
20+00	21+00	27	25	46	36	6300	27	50	300
21+00	22+00	29	25	46	36	6500	25	46	278
25+00	26+00	51	25	46	36	8700	15	28	167
71+00	72+00	29	25	46	36	6500	11	20	122
72+00	73+00	26	25	46	36	6200	7	13	78

Total Sq. Ft.	101850
Total Acres	2.3

Total Cu. Yd.	Total Sq. Yd.
844	5067

*These areas are not included in the total Vegetated Filter Strip Calculations above. Areas are included with the Sheet Flow Outside ODOT Right-of-Way Calculations.

Northbound

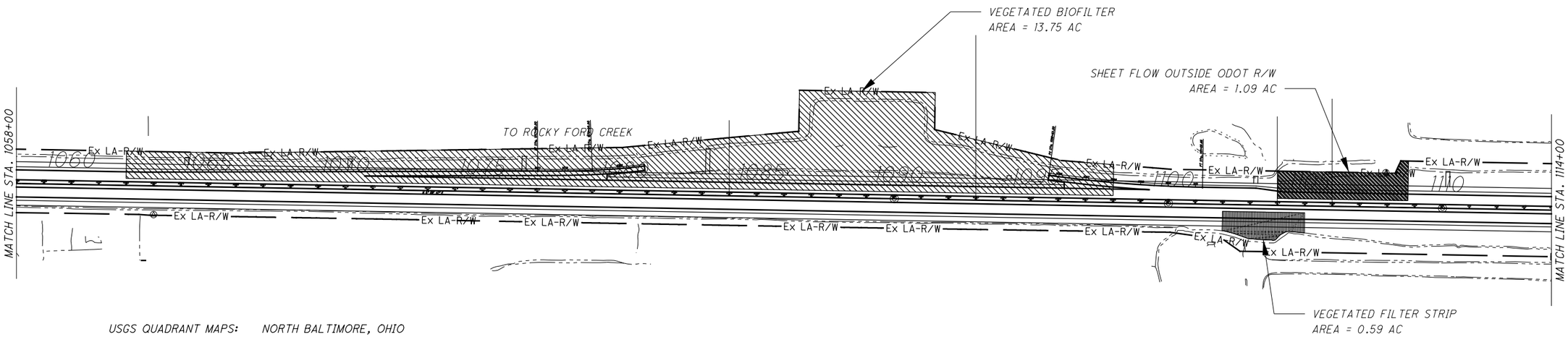
Station From	Station To	Distance from Shoulder to Ditch (ft.)	3:1 Or Flatter Slope Width (min)	Max. Allow. Pavement Width	Actual Pavement Width	Credit Area	Disturbed Width (ft.)	Item 659 (cu. yd.)	Item 670 (sq. yd.)
1102+00	1103+00	37	25	46	36	7300	8	15	89
1103+00	1104+00	58	25	46	36	9400	13	24	144
1104+00	1105+00	52	25	46	36	8800	17	31	189
1158+00	1159+00	22	22	30	12	3400	10	19	111
1159+00	1160+00	24	24	32	12	3600	12	22	133
1160+00	1161+00	25	25	34	12	3700	9	17	100
1161+00	1162+00	27	25	34	12	3900	7	13	78
1162+00	1163+00	26	25	34	12	3800	12	22	133
1163+00	1164+00	24	24	32	12	3600	12	22	133
1164+00	1165+00	24	24	32	12	3600	12	22	133
1165+00	1166+00	22	22	30	12	3400	10	19	111
1166+00	1167+00	24	24	32	12	3600	14	26	156
1167+00	1168+00	22	22	30	12	3400	11	20	122
1169+00	1170+00	22	22	30	12	3298	23	43	256
1294+00	1295+00	27	25	34	12	3900	37	69	411
1295+00	1296+00	27	25	34	12	3900	37	69	411
1296+00	1297+00	27	25	34	12	3900	37	69	411
1297+00	1298+00	27	25	34	12	3900	37	69	411
1298+00	1299+00	26	25	34	12	3800	37	69	411
1299+00	1300+00	29	25	34	12	4100	40	74	444
1300+00	1301+00	29	25	34	12	4100	37	69	411
1301+00	1302+00	15	15	22	12	2700	38	70	422
1302+00	1303+00	29	25	34	12	4100	40	74	444
1303+00	1304+00	28	25	34	12	4000	38	70	422
1304+00	1305+00	17	17	24	12	2900	37	69	411
1305+00	1306+00	17	17	24	12	2900	37	69	411
1306+00	1307+00	17	17	24	12	2900	38	70	422
1307+00	1308+00	17	17	24	12	2900	37	69	411
1308+00	1309+00	17	17	24	12	2900	36	67	400
1309+00	1310+00	17	17	24	12	2900	35	65	389
1310+00	1311+00	17	17	24	12	2900	35	65	389
1311+00	1312+00	17	17	24	12	2900	35	65	389
1312+00	1313+00	17	17	24	12	2900	34	63	378
1313+00	1314+00	17	17	24	12	2900	33	61	367
1314+00	1315+00	17	17	24	12	2900	33	61	367
1315+00	1316+00	17	17	24	12	2900	32	59	356

Northbound Continued

Station From	Station To	Distance from Shoulder to Ditch (ft.)	3:1 Or Flatter Slope Width (min)	Max. Allow. Pavement Width	Actual Pavement Width	Credit Area	Disturbed Width (ft.)	Item 659 (cu. yd.)	Item 670 (sq. yd.)
1316+00	1317+00	17	17	24	12	2900	30	56	333
1317+00	1318+00	25	25	34	12	3700	36	67	400
1318+00	1319+00	17	17	24	12	2900	37	69	411
1319+00	1320+00	26	25	34	12	3800	38	70	422
1320+00	1321+00	27	25	34	12	3900	39	72	433
1321+00	1322+00	29	25	34	12	4100	39	72	433
1322+00	1323+00	31	25	34	12	4300	42	78	467
1323+00	1324+00	33	25	34	12	4500	43	80	478
1324+00	1325+00	35	25	34	12	4700	44	81	489
1325+00	1326+00	37	25	34	12	4900	47	87	522
1326+00	1327+00	38	25	34	12	5000	48	89	533
1327+00	1328+00	40	25	34	12	5200	49	91	544
1328+00	1329+00	43	25	34	12	5500	44	81	489
1329+00	1330+00	44	25	34	12	5600	31	57	344
1330+00	1331+00	41	25	34	12	5300	18	33	200
1331+00	1332+00	34	25	34	10	4400	27	50	300
1332+00	1333+00	38	25	34	8	4600	28	52	311
01+00	02+00	30	25	34	8	3800	24	44	267
02+00	03+00	54	25	34	8	6200	27	50	300
03+00	04+00	57	25	34	8	6500	22	41	244
04+00	05+00	51	25	34	26	7700	38	70	422
05+00	06+00	47	25	34	34	8100	30	56	333
08+00	09+00	20.5	20.5	28	12	3250	22	41	244
09+00	10+00	26	25	46	12	3800	24	44	267
10+00	11+00	41	25	46	12	5300	14	26	156
11+00	12+00	64	25	46	12	7600	48	89	533
12+00	13+00	67	25	46	12	7900	12	22	133
13+00	14+00	34	25	34	12	4600	23	43	256
14+00	15+00	37	25	34	12	4900	37	69	411
15+00	16+00	33	25	34	12	4500	34	63	378
16+00	17+00	30	25	34	12	4200	31	57	344
64+00	65+00	47	25	46	36	8300	69	128	767
65+00	66+00	50	25	46	36	8600	50	93	556
66+00	67+00	31	25	46	36	6700	66	122	733

Total Sq. Ft.	315248
Total Acres	7.2

Total Cu. Yd.	Total Sq. Yd.
4039	24233



USGS QUADRANT MAPS: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

*LATITUDE AND LONGITUDE IS APPROX. CENTER OF PROJECT

LEGEND

- CATCH BASIN, TYPE 4
- VEGETATED FILTER STRIP
- VEGETATED BIOFILTER
- SHEET FLOW OUTSIDE ODOT R/W

N

0 100 200 400 HORIZONTAL SCALE IN FEET

CALCULATED XXX CHECKED XXX

PROJECT SITE PLAN
STA. 1058+00 TO STA. 1114+00

HAN/WOO-75-19.22/0.00

83
336

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Vegetated Biofilter Calculations

Southbound

Station	Length of Area	Distance to R/W	Credit Area	Disturbed Width (ft.)	Item 659 (cu. yd.)
1062+00*	3600	165	599080	12	800
1098+00*					
1241+00	550	78	42900	17	173
1246+50					
1260+00	100	85	8500	8	15
1261+00					
		Total Sq.Ft.	650480	Total Cu. Yd.	988
		Total Acres	14.9		

Northbound

Station	Length of Area	Distance to R/W	Credit Area	Disturbed Width (ft.)	Item 659 (cu. yd.)
1256+00	1900	107	203300	13	
1275+00					457.4074
		Total Sq.Ft.	203300	Total Cu. Yd.	457.4074
		Total Acres	4.7		

Limits shown in the table above are areas where existing ditch bottoms are a minimum 10 feet wide. No calculations for EBW or "Standard" width are shown due to the maximum 10 foot ditch bottom width being used as Vegetated Biofilters.

* This area includes the weigh station contained within the ODOT Right-of-Way and is part of the 167 acre Earth Disturbed Area. This area contains two ditches with 10 foot bottoms acting as Vegetated Biofilters. The 165 feet distance to R/W is an average accross the 3600 feet length.

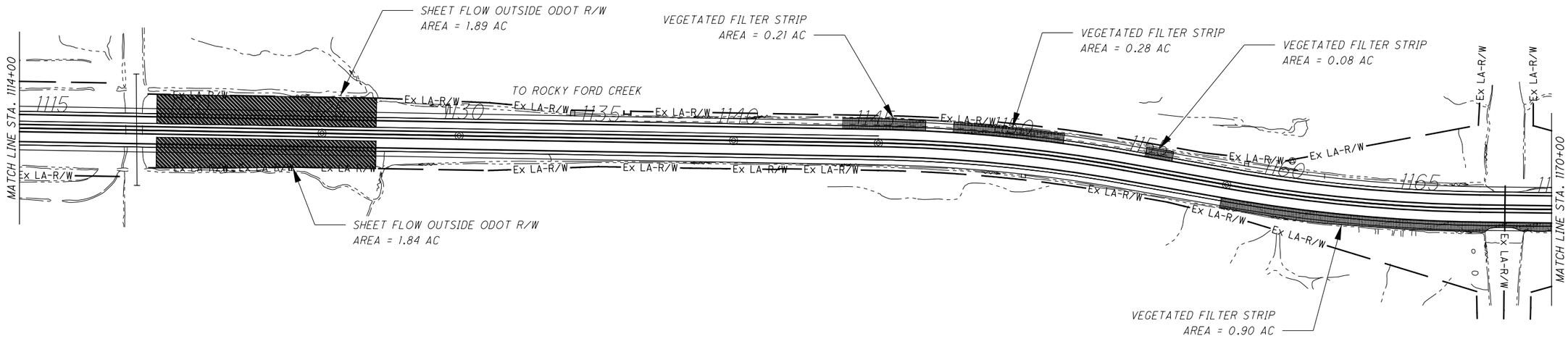
Sheet Flow Outside ODOT R/W Calculations

Southbound

Station	Length of Area	Distance to R/W	Credit Area
1104+00	475	100	47500
1108+75			
1119+00	800	103	82400
1127+00			
1199+00	625	75	46875
1205+25			
		Total Sq.Ft.	176775
		Total Acres	4.1

Northbound

Station	Length of Area	Distance to R/W	Credit Area
1119+00	800	100	80000
1127+00			
		Total Sq.Ft.	80000
		Total Acres	1.8



USGS QUADRANT MAP: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

*LATITUDE AND LONGITUDE TO APPROX. CENTER OF PROJECT

LEGEND

- CATCH BASIN, TYPE 4
- VEGETATED FILTER STRIP
- VEGETATED BIOFILTER
- SHEET FLOW OUTSIDE ODOT R/W

N

0 100 200 400
HORIZONTAL SCALE IN FEET

CALCULATED XXX
CHECKED XXX

PROJECT SITE PLAN
STA. 1114+00 TO STA. 1170+00

HAN/WOO-75-19.22/0.00

84
336

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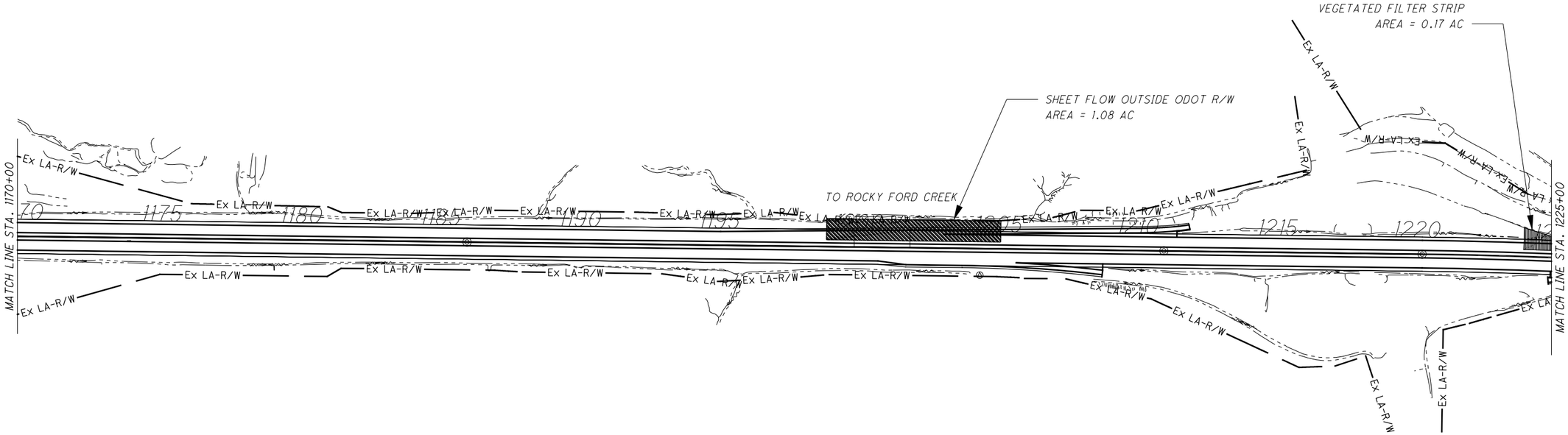

USGS QUADRANT MAP: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

**LATITUDE AND LONGITUDE TO APPROX.*
CENTER OF PROJECT

LEGEND

- ■ *CATCH BASIN, TYPE 4*
- *VEGETATED FILTER STRIP*
- *VEGETATED BIOFILTER*
- *SHEET FLOW OUTSIDE ODOT R/W*

N

0 100 200 400
HORIZONTAL SCALE IN FEET

CALCULATED XXX
CHECKED XXX

PROJECT SITE PLAN
STA. 1170+00 TO STA. 1225+00

HAN/WOO-75-19.22/0.00

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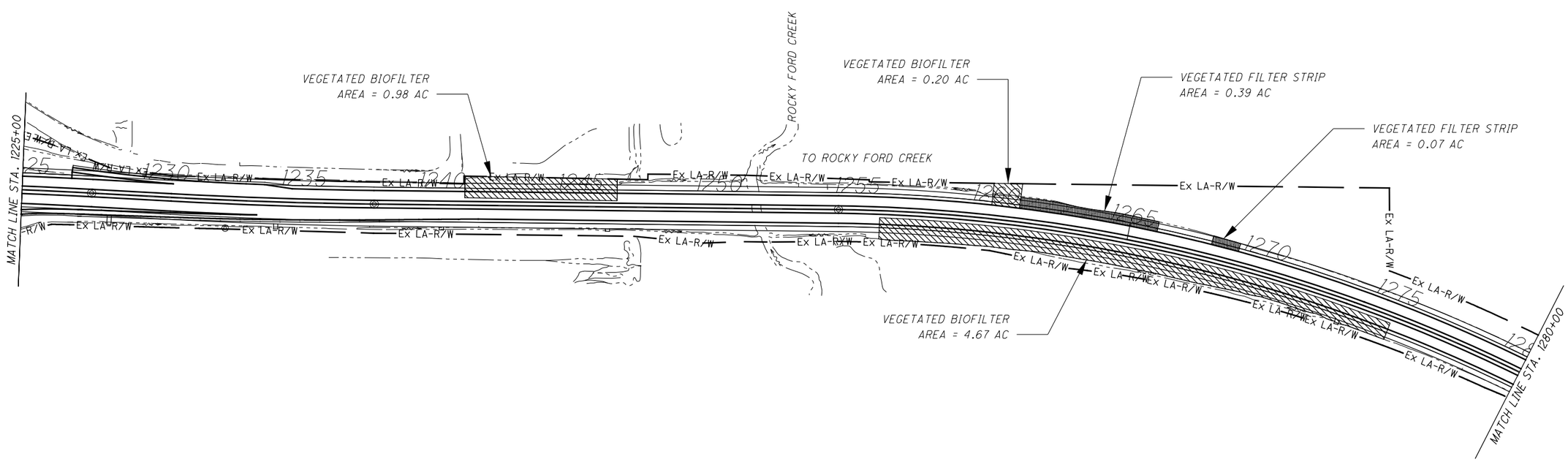

USGS QUADRANT MAP: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

**LATITUDE AND LONGITUDE TO APPROX. CENTER OF PROJECT*

LEGEND

- *CATCH BASIN, TYPE 4*
- *VEGETATED FILTER STRIP*
- *VEGETATED BIOFILTER*
- *SHEET FLOW OUTSIDE ODOT R/W*

N

0 100 200 400
HORIZONTAL SCALE IN FEET

CALCULATED XXX
CHECKED XXX

PROJECT SITE PLAN
STA. 1225+00 TO STA. 1280+00

HAN/WOO-75-19.22/0.00

86
336

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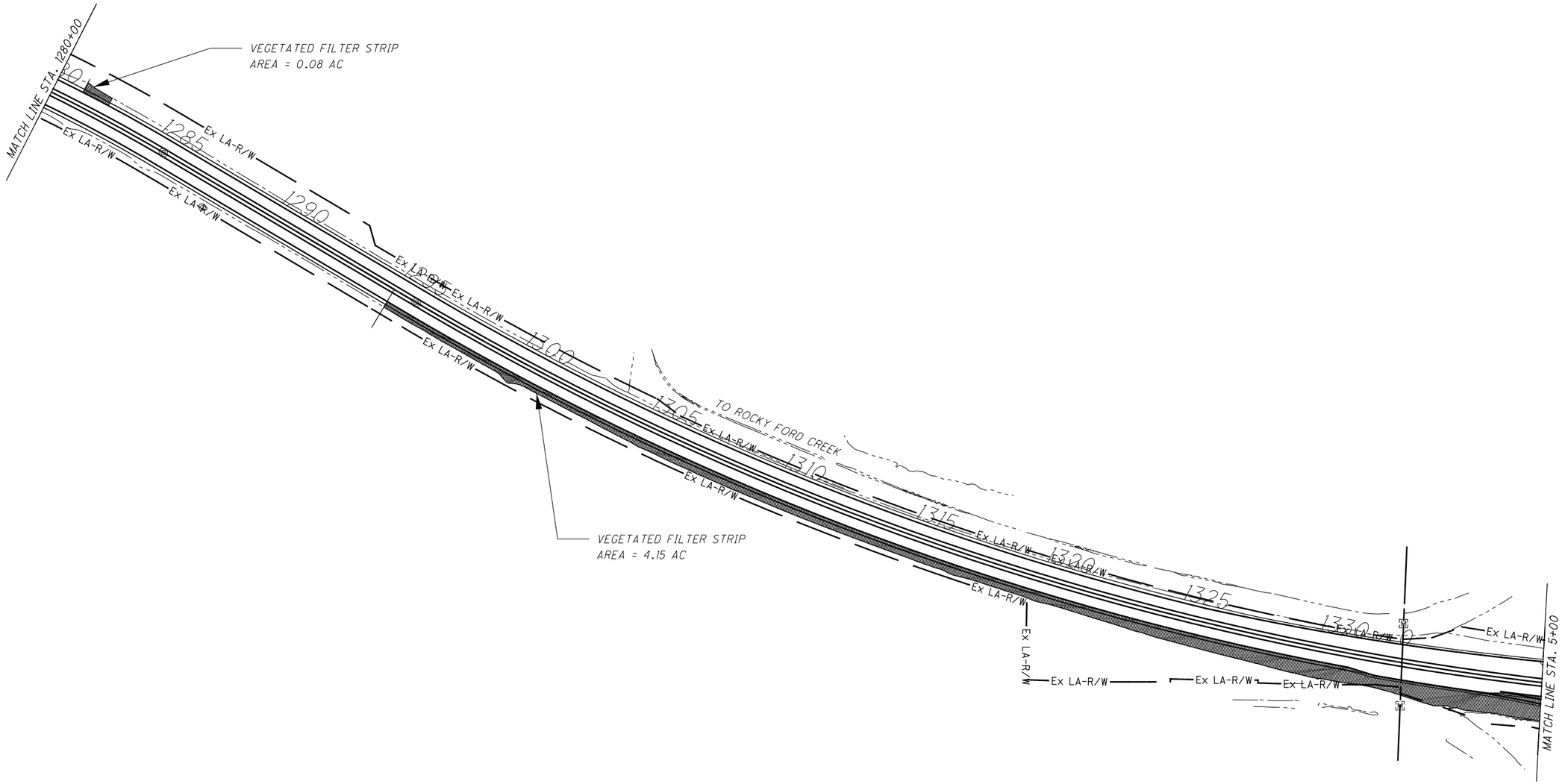

USGS QUADRANT MAP: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

*LATITUDE AND LONGITUDE TO APPROX. CENTER OF PROJECT

LEGEND

- CATCH BASIN, TYPE 4
- VEGETATED FILTER STRIP
- VEGETATED BIOFILTER
- SHEET FLOW OUTSIDE ODOT R/W

N

0 100 200 400
HORIZONTAL SCALE IN FEET

CALCULATED XXX
CHECKED XXX

PROJECT SITE PLAN
STA. 1280+00 TO STA. 5+00

HAN/WOO-75-19.22/0.00

87
336

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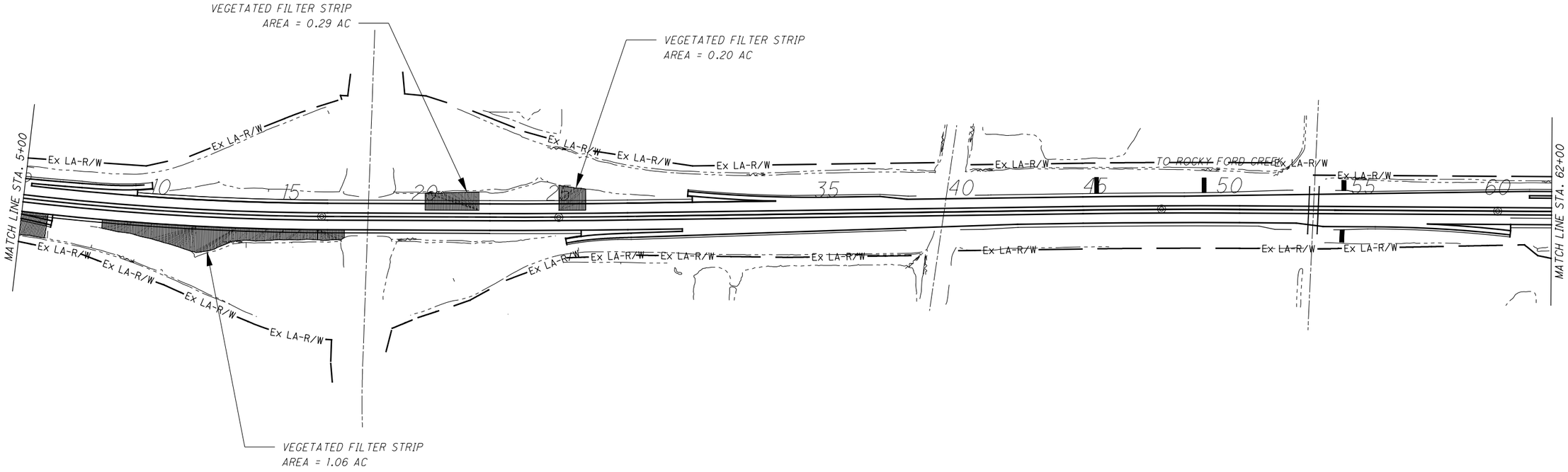

USGS QUADRANT MAP: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

*LATITUDE AND LONGITUDE TO APPROX.
CENTER OF PROJECT

LEGEND

- CATCH BASIN, TYPE 4
- VEGETATED FILTER STRIP
- VEGETATED BIOFILTER
- SHEET FLOW OUTSIDE ODOT R/W

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED XXX
CHECKED XXX

PROJECT SITE PLAN
STA. 5+00 TO STA. 62+00

HAN/WOO-75-19.22/0.00

88
336

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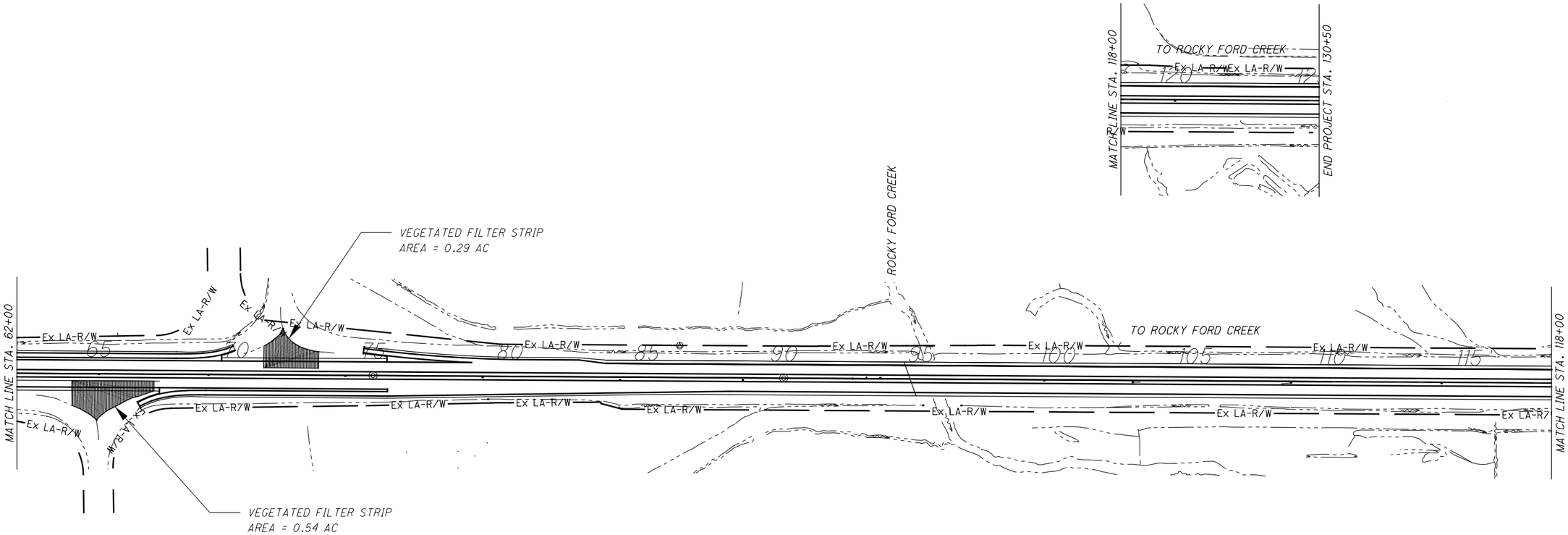

USGS QUADRANT MAP: NORTH BALTIMORE, OHIO
FINDLAY, OHIO

LATITUDE: 41° 08′ 33″
LONGITUDE: 83° 39′ 32″

*LATITUDE AND LONGITUDE TO APPROX.
CENTER OF PROJECT

LEGEND

- CATCH BASIN, TYPE 4
- VEGETATED FILTER STRIP
- VEGETATED BIOFILTER
- SHEET FLOW OUTSIDE ODOT R/W

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED XXX
CHECKED XXX

PROJECT SITE PLAN
STA. 62+00 TO STA. 130+50

HAN/WOO-75-19.22/0.00

89
336

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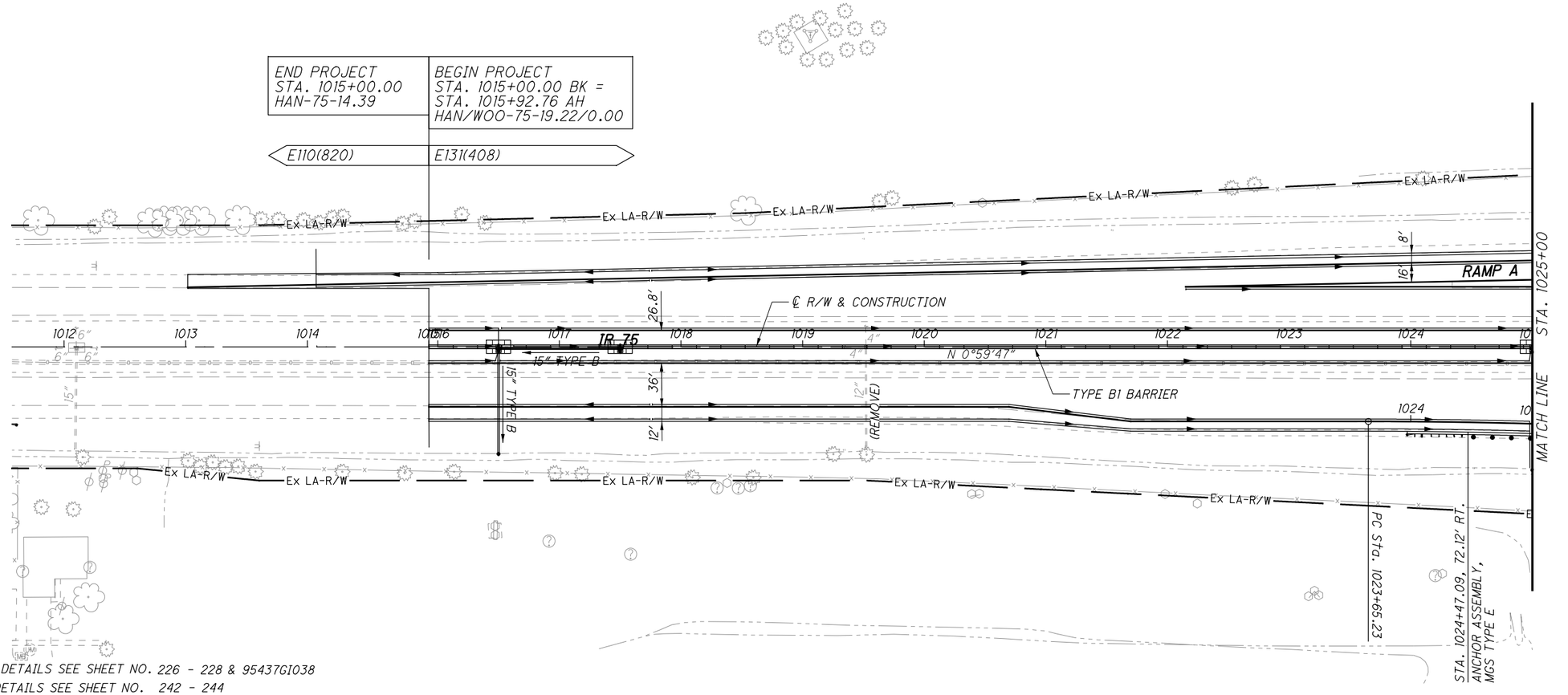
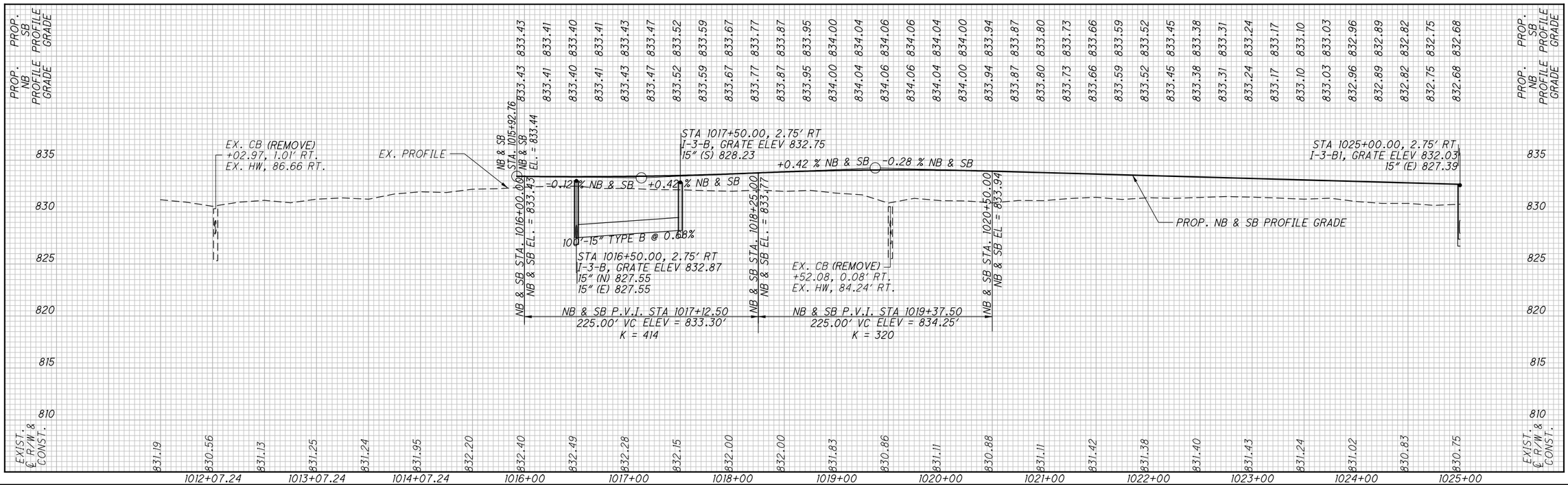
END PROJECT
STA. 1015+00.00
HAN-75-14.39

BEGIN PROJECT
STA. 1015+00.00 BK =
STA. 1015+92.76 AH
HAN/WOO-75-19.22/0.00

E110(820) | E131(408)



FOR INTERCHANGE DETAILS SEE SHEET NO. 226 - 228 & 95437GI038
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

PLAN AND PROFILE
STA. 1012+50 TO STA. 1025+00

HAN/WOO-75-19.22/0.00

90
336

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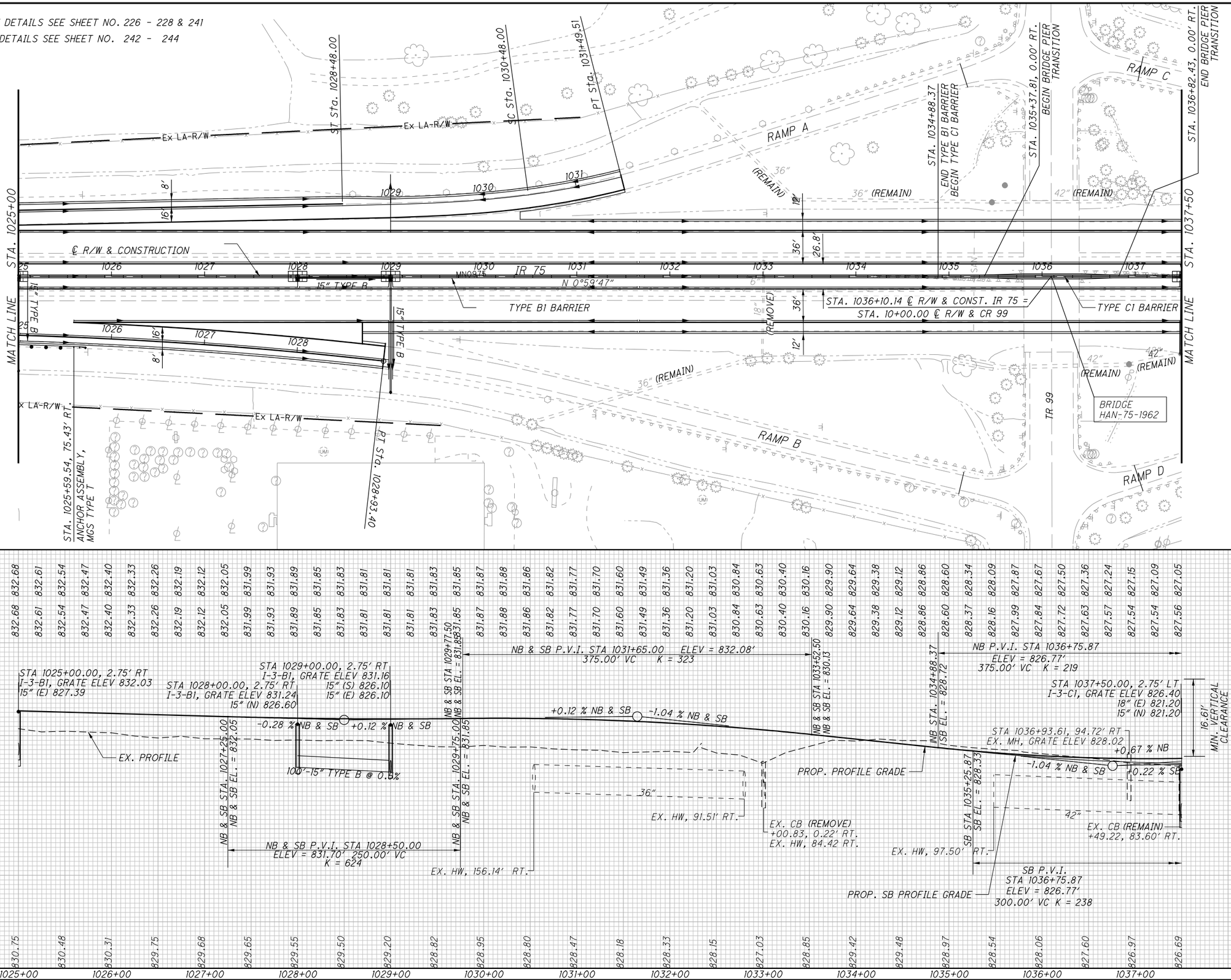
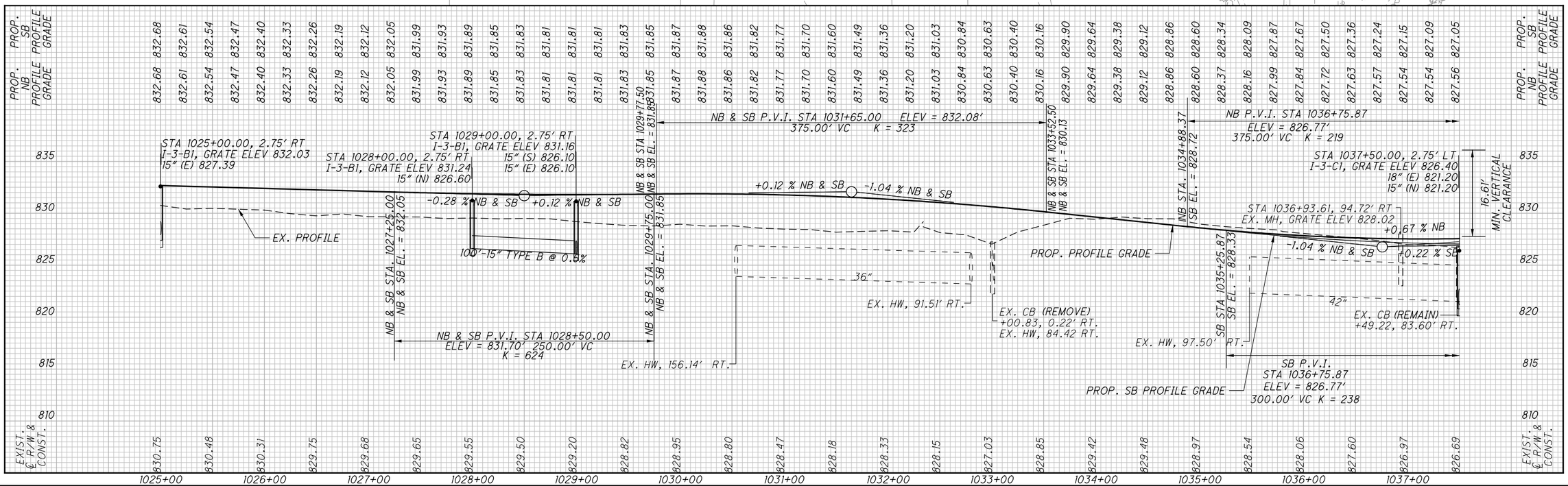
FOR INTERCHANGE DETAILS SEE SHEET NO. 226 - 228 & 241
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244





PLAN AND PROFILE
STA. 1025+00 TO STA. 1037+50

HAN/WOO-75-19.22/0.00

91
336

CALCULATED .
CHECKED .

HORIZONTAL SCALE IN FEET
0 25 50 100

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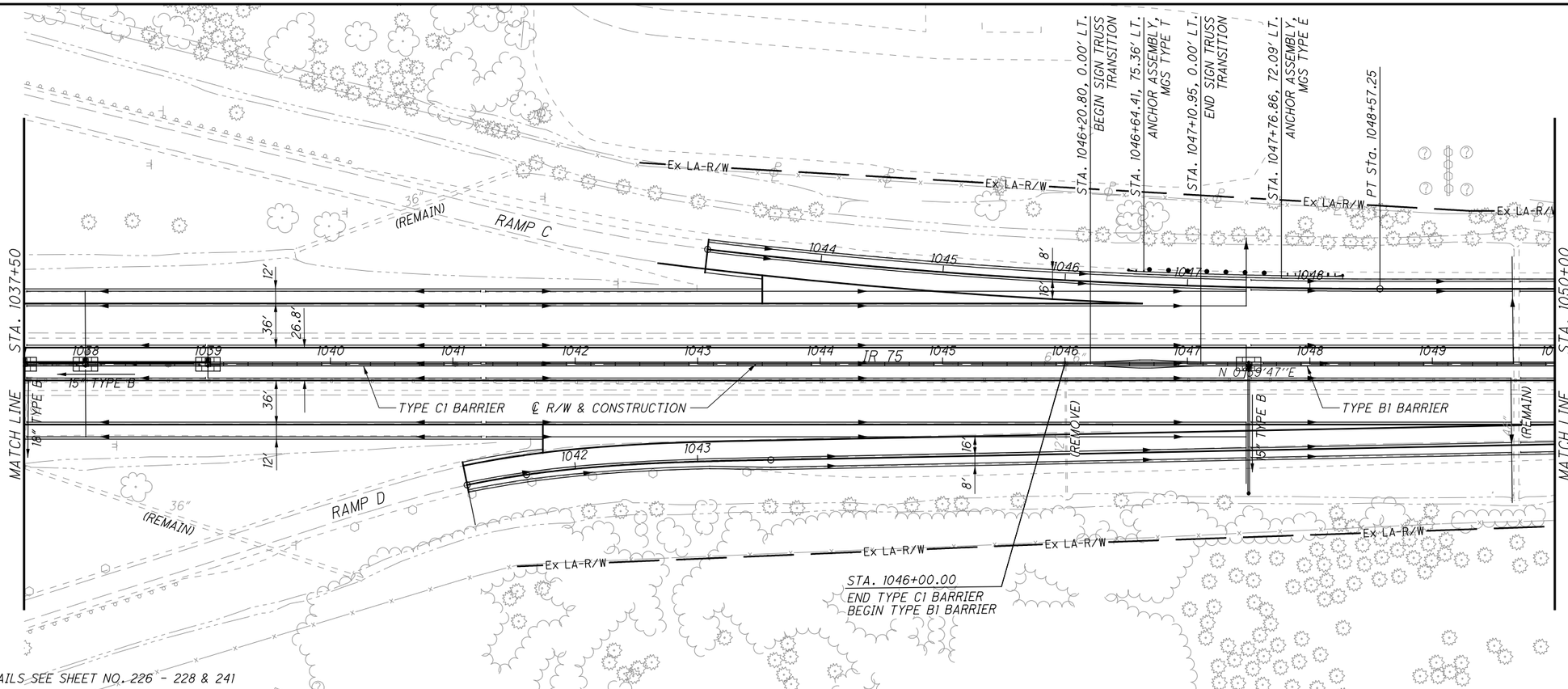
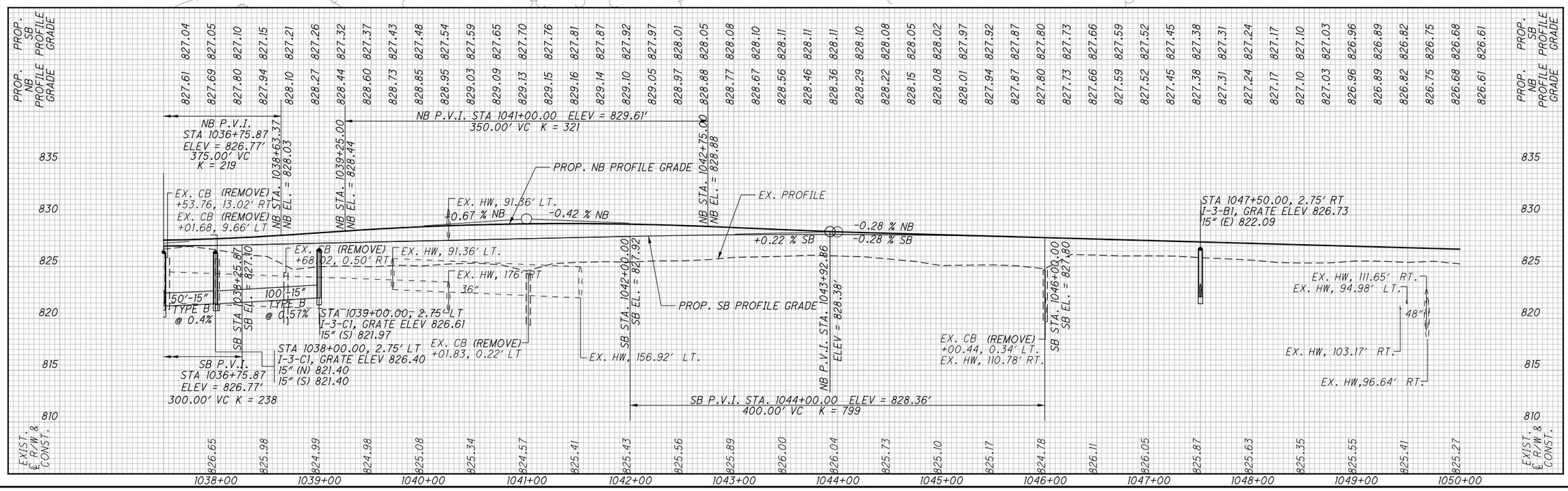


FOR INTERCHANGE DETAILS SEE SHEET NO. 226 - 228 & 241

FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



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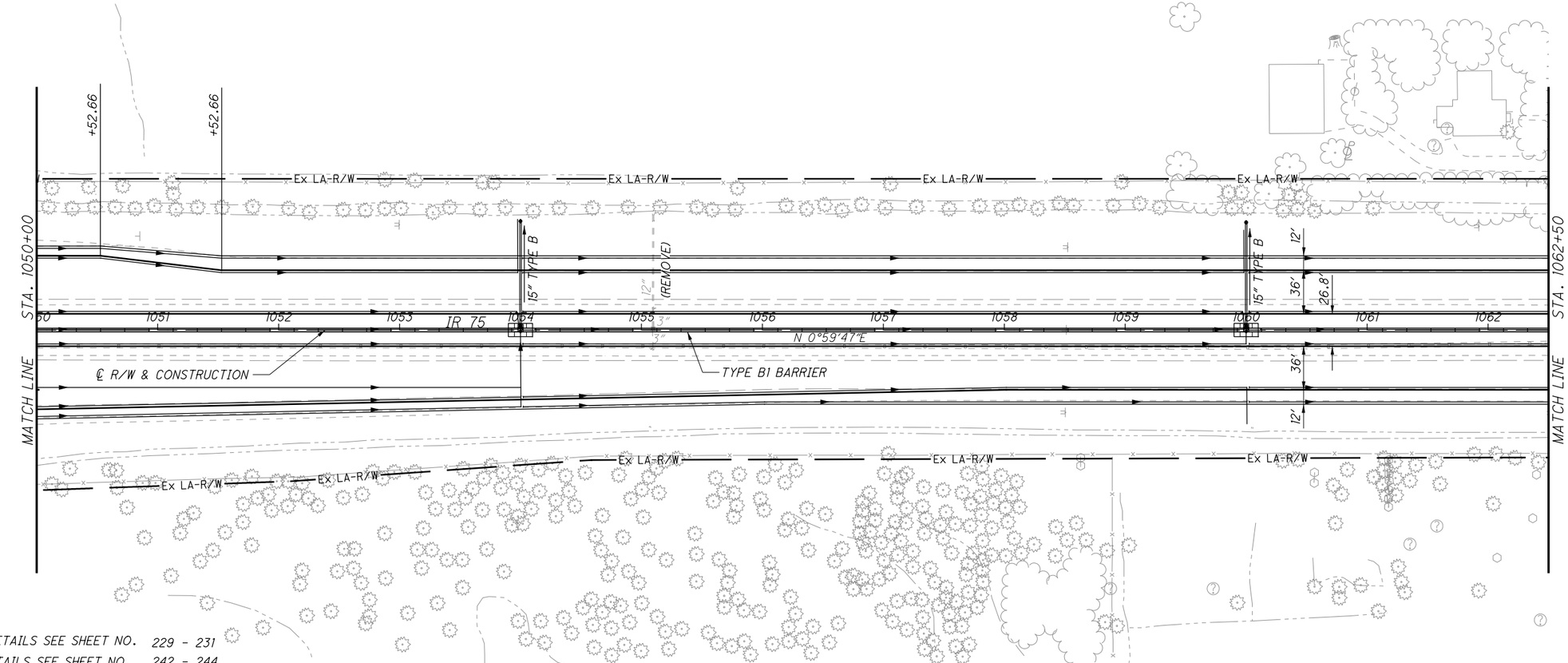
N

0 25 50 100 HORIZONTAL SCALE IN FEET

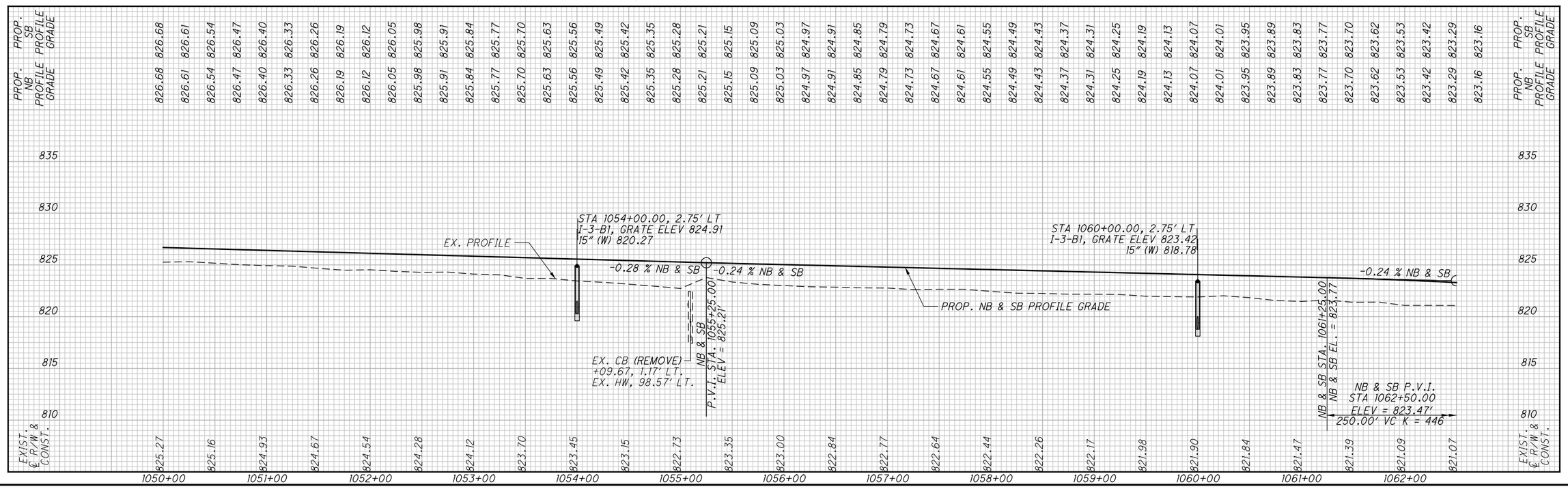
CALCULATED ALZ CHECKED RJM

PLAN AND PROFILE STA. 1037+50 TO STA. 1050+00

HAN/WOO-75-19.22/0.00



FOR INTERCHANGE DETAILS SEE SHEET NO. 229 - 231
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



PLAN AND PROFILE
STA. 1050+00 TO STA. 1062+50

CALCULATED ALZ
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 25 50 100

HAN/WOO-75-19.22/0.00

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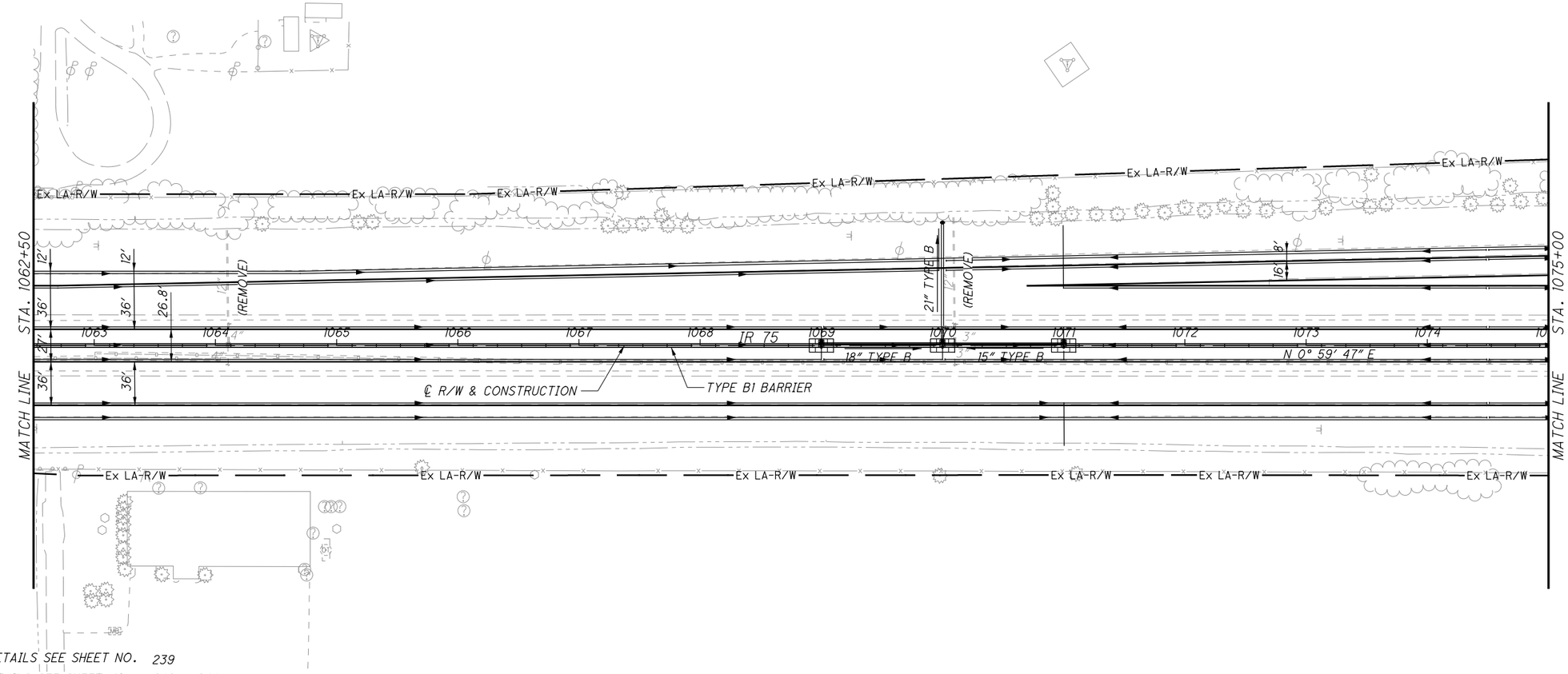
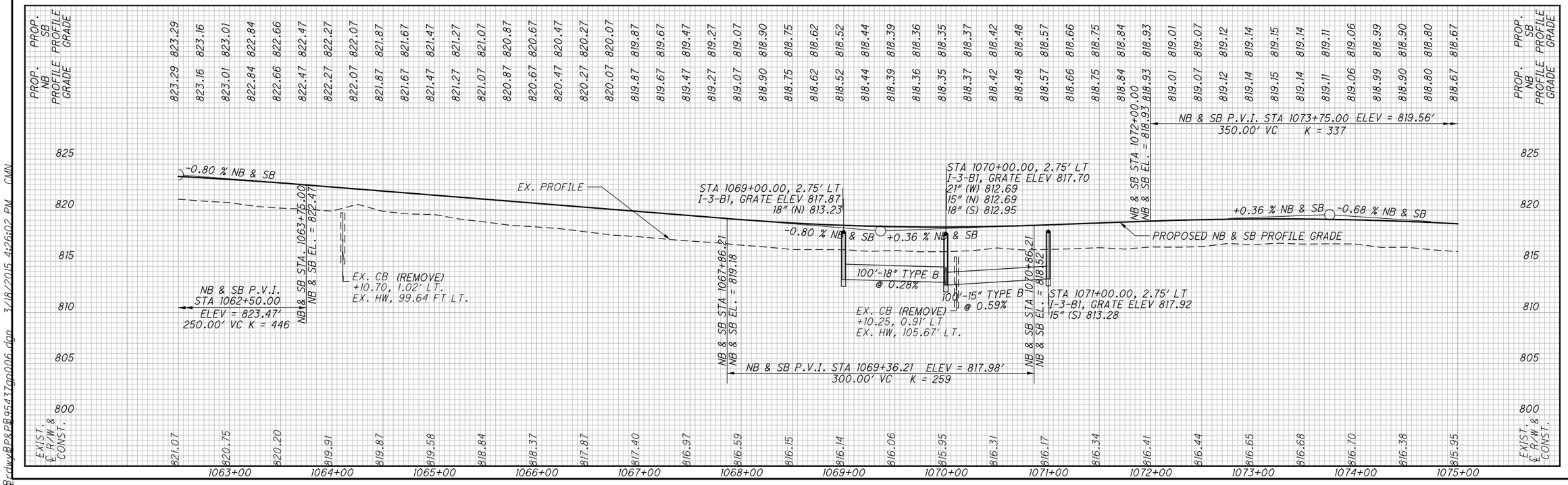


FOR INTERCHANGE DETAILS SEE SHEET NO. 239

FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



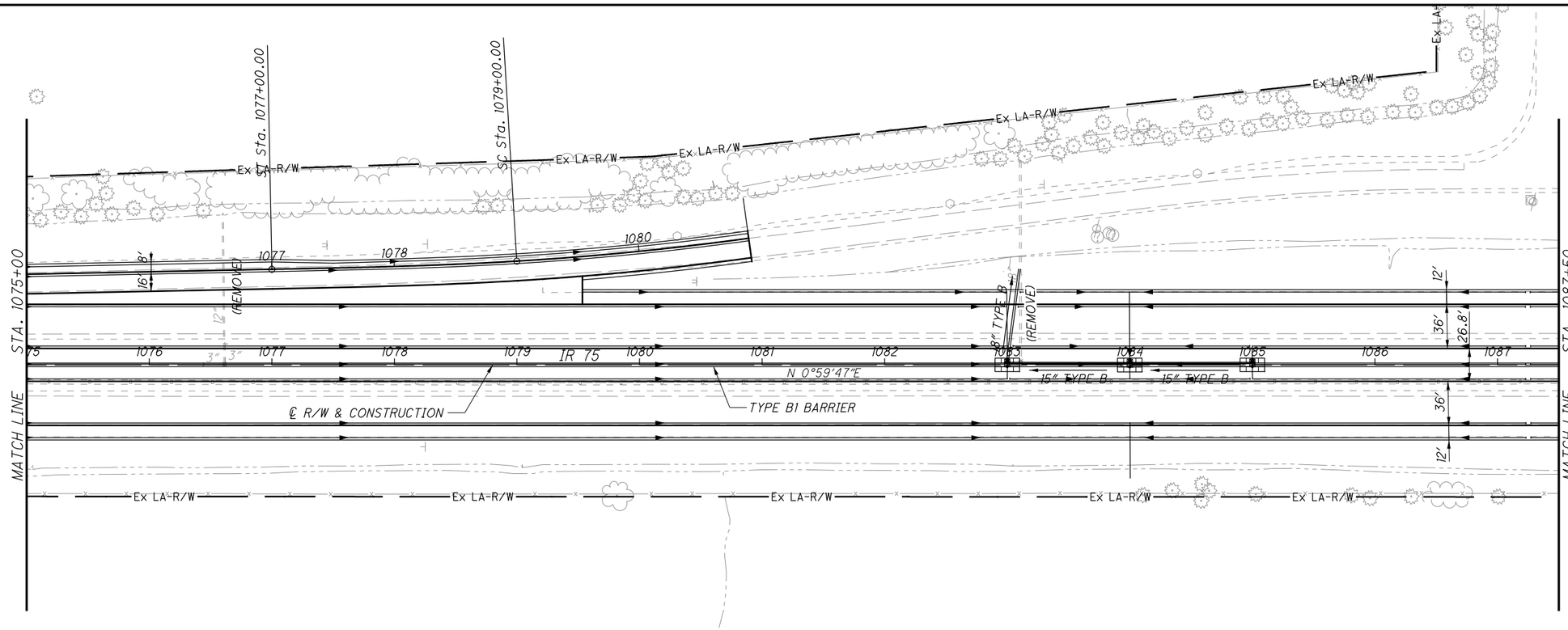
dgn E:\rdwy\B\P\B95437gp006.dgn 3/18/2015 4:26:02 PM CWN

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

PLAN AND PROFILE
STA. 1062+50 TO STA. 1075+00

HAN/WOO-75-19.22/0.00



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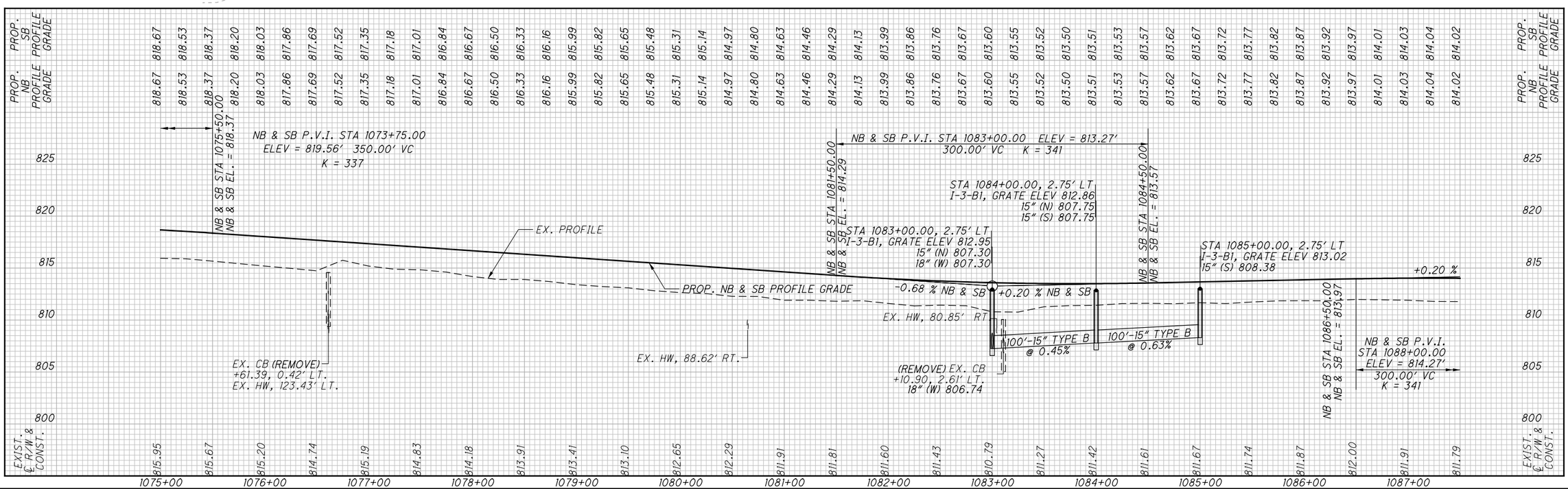
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

PLAN AND PROFILE
STA. 1075+00 TO STA. 1087+50

HAN/WOO-75-19.22/0.00

95
336

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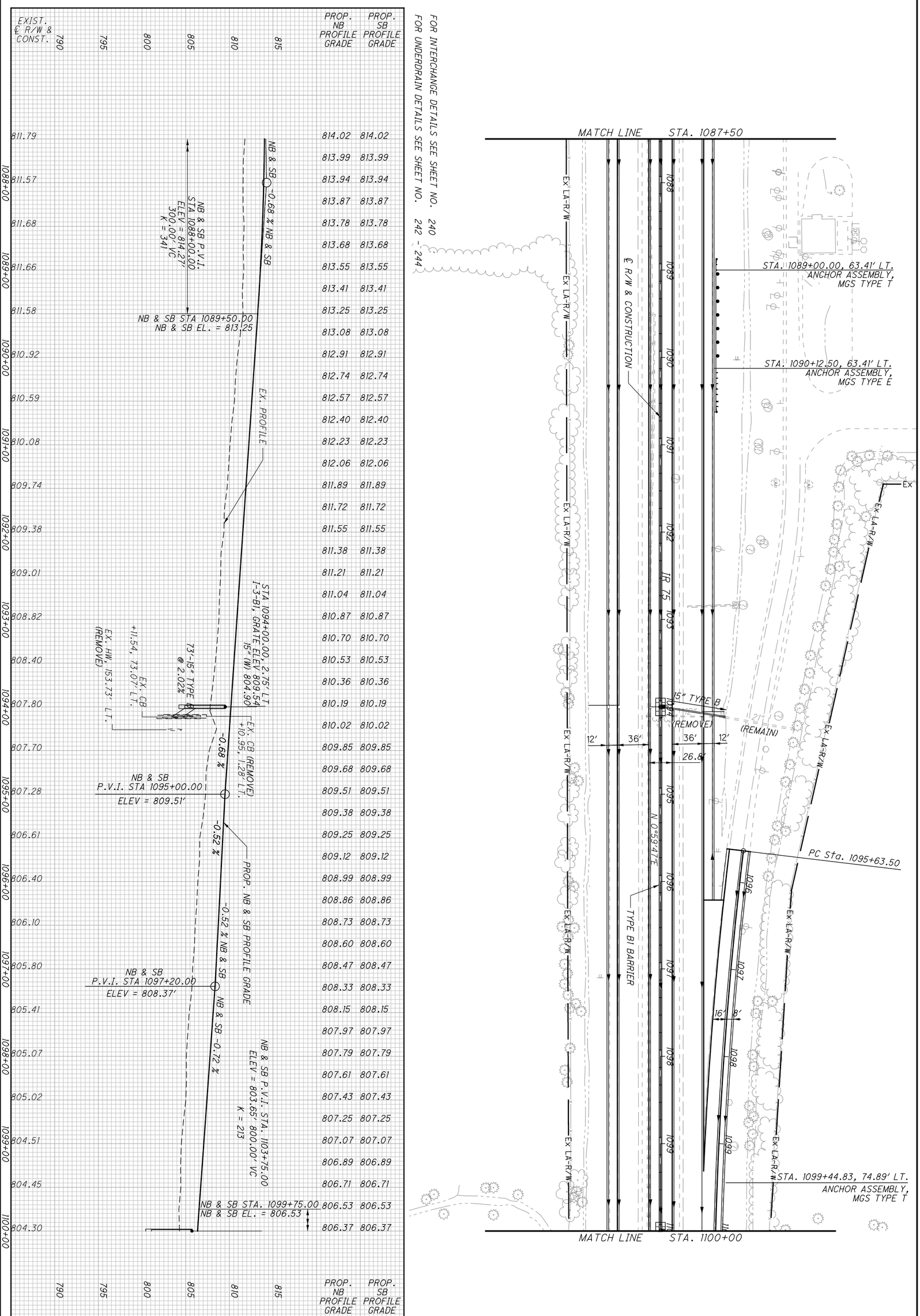
EXIST. ℄ R/W & CONST.
790
795
800
805
810
815
PROP. NB PROFILE GRADE
PROP. SB PROFILE GRADE
FOR INTERCHANGE DETAILS SEE SHEET NO. 240
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244
1088+00
1089+00
1090+00
1091+00
1092+00
1093+00
1094+00
1095+00
1096+00
1097+00
1098+00
1099+00
1100+00
811.79
811.57
811.68
811.66
811.58
810.92
810.59
810.08
809.74
809.38
809.01
808.82
808.40
807.80
807.70
807.28
806.61
806.40
806.10
805.80
805.41
805.07
805.02
804.51
804.45
804.30
814.02 814.02
813.99 813.99
813.94 813.94
813.87 813.87
813.78 813.78
813.68 813.68
813.55 813.55
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812.91 812.91
812.74 812.74
812.57 812.57
812.40 812.40
812.23 812.23
812.06 812.06
811.89 811.89
811.72 811.72
811.55 811.55
811.38 811.38
811.21 811.21
811.04 811.04
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810.70 810.70
810.53 810.53
810.36 810.36
810.19 810.19
810.02 810.02
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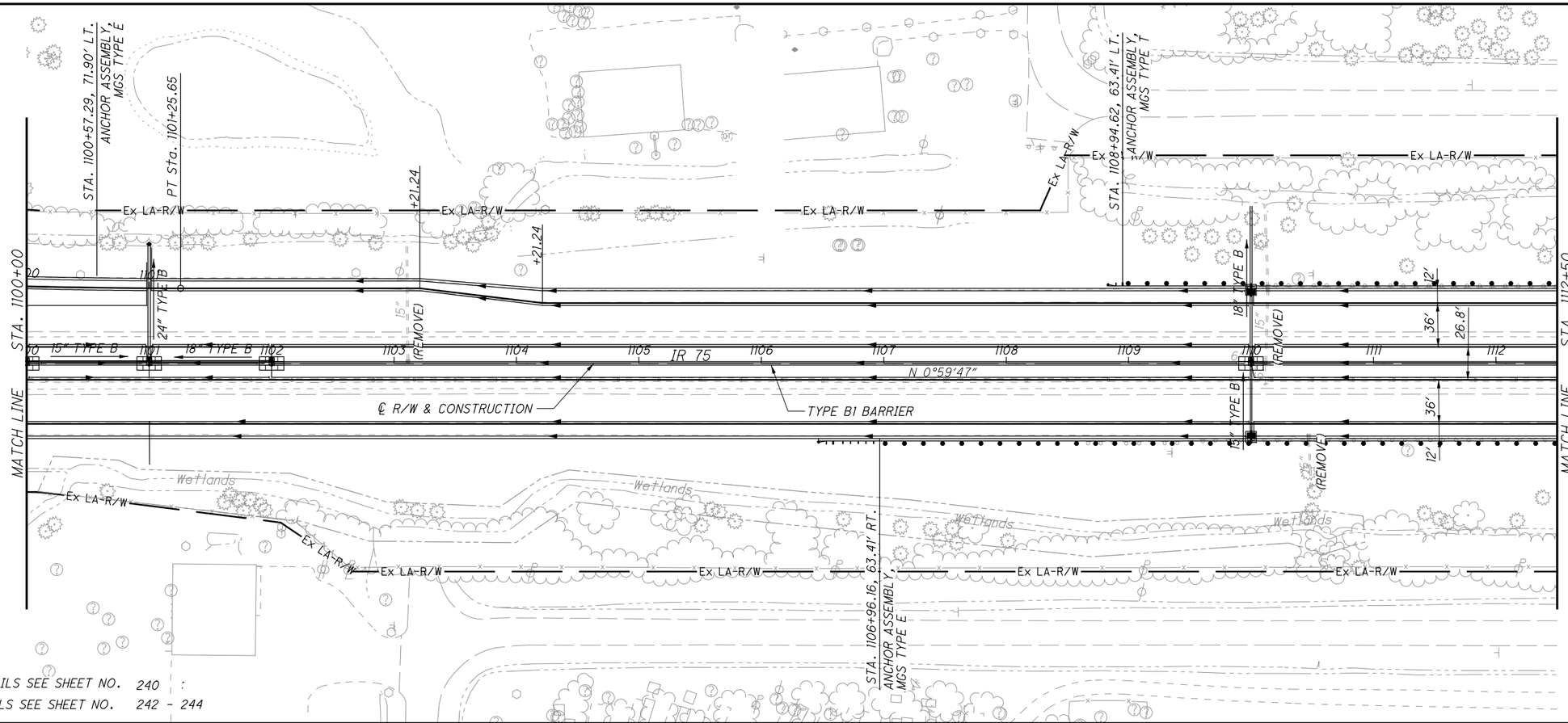
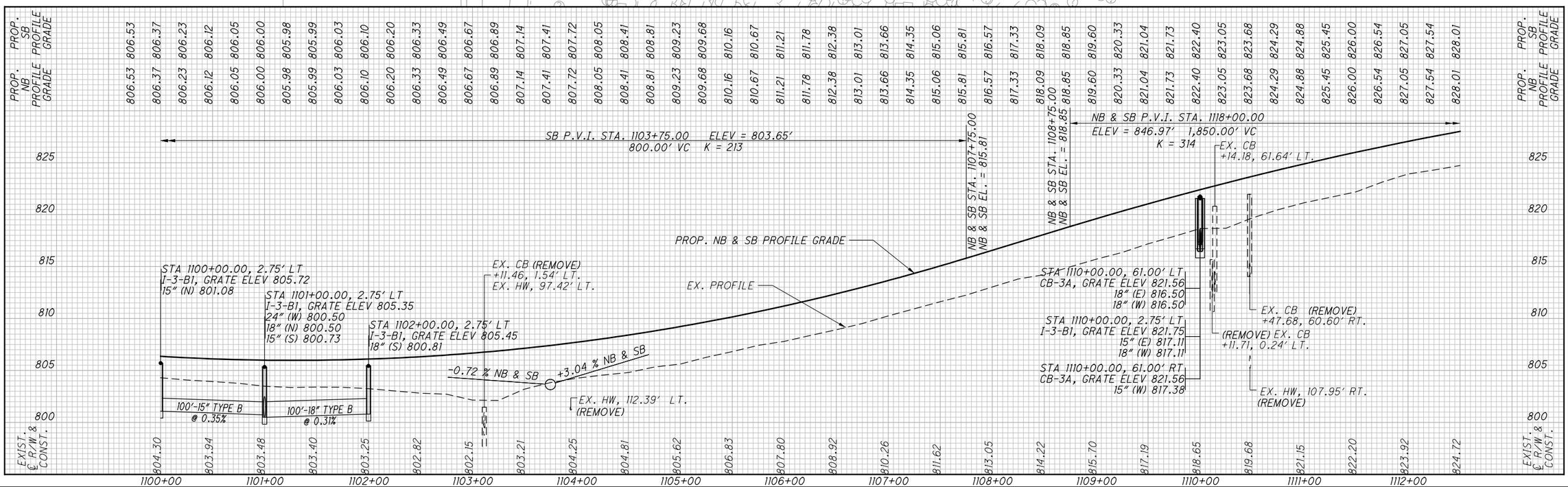
809.68 809.68
809.51 809.51
809.38 809.38
809.25 809.25
809.12 809.12
808.99 808.99
808.86 808.86
808.73 808.73
808.60 808.60
808.47 808.47
808.33 808.33
808.15 808.15
807.97 807.97
807.79 807.79
807.61 807.61
807.43 807.43
807.25 807.25
807.07 807.07
806.89 806.89
806.71 806.71
806.53 806.53
806.37 806.37
NB & SB -0.68 % NB & SB
NB & SB P.V.I. STA 1088+00.00 ELEV = 814.27' 300.00' VC K = 341
NB & SB STA 1089+50.00 NB & SB EL. = 813.25
EX. PROFILE
STA 1094+00.00, 2.75' LT. I-3-BI, GRATE ELEV 809.54 15" (W) 804.90
EX. HW (REMOVE) 153.73' LT.
+11.54, 73.07' LT.
EX. CB 73'-15" TYPE B @ 2.02%
EX. CB (REMOVE) +10.95, 11.28' LT.
-0.68 %
NB & SB P.V.I. STA 1095+00.00 ELEV = 809.51'
-0.52 %
PROP. NB & SB PROFILE GRADE
-0.52 % NB & SB
NB & SB P.V.I. STA 1097+20.00 ELEV = 808.37'
NB & SB -0.72 %
NB & SB P.V.I. STA. 1103+75.00 ELEV = 803.65' 800.00' VC K = 213
NB & SB STA. 1099+75.00 NB & SB EL. = 806.53
MATCH LINE STA. 1087+50
Ex LA-R/W
℄ R/W & CONSTRUCTION
IR 75
STA. 1089+00.00, 63.41' LT. ANCHOR ASSEMBLY, MGS TYPE T
STA. 1090+12.50, 63.41' LT. ANCHOR ASSEMBLY, MGS TYPE E
15" TYPE B (REMOVE)
(REMAIN)
12'
36"
36'
12'
26.8'
N 0°59'47"E
TYPE B1 BARRIER
PC Sta. 1095+63.50
16'
8'
STA. 1099+44.83, 74.89' LT. ANCHOR ASSEMBLY, MGS TYPE T
MATCH LINE STA. 1100+00



FOR INTERCHANGE DETAILS SEE SHEET NO. 240 :

FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



PLAN AND PROFILE
STA. 1100+00 TO STA. 1112+50

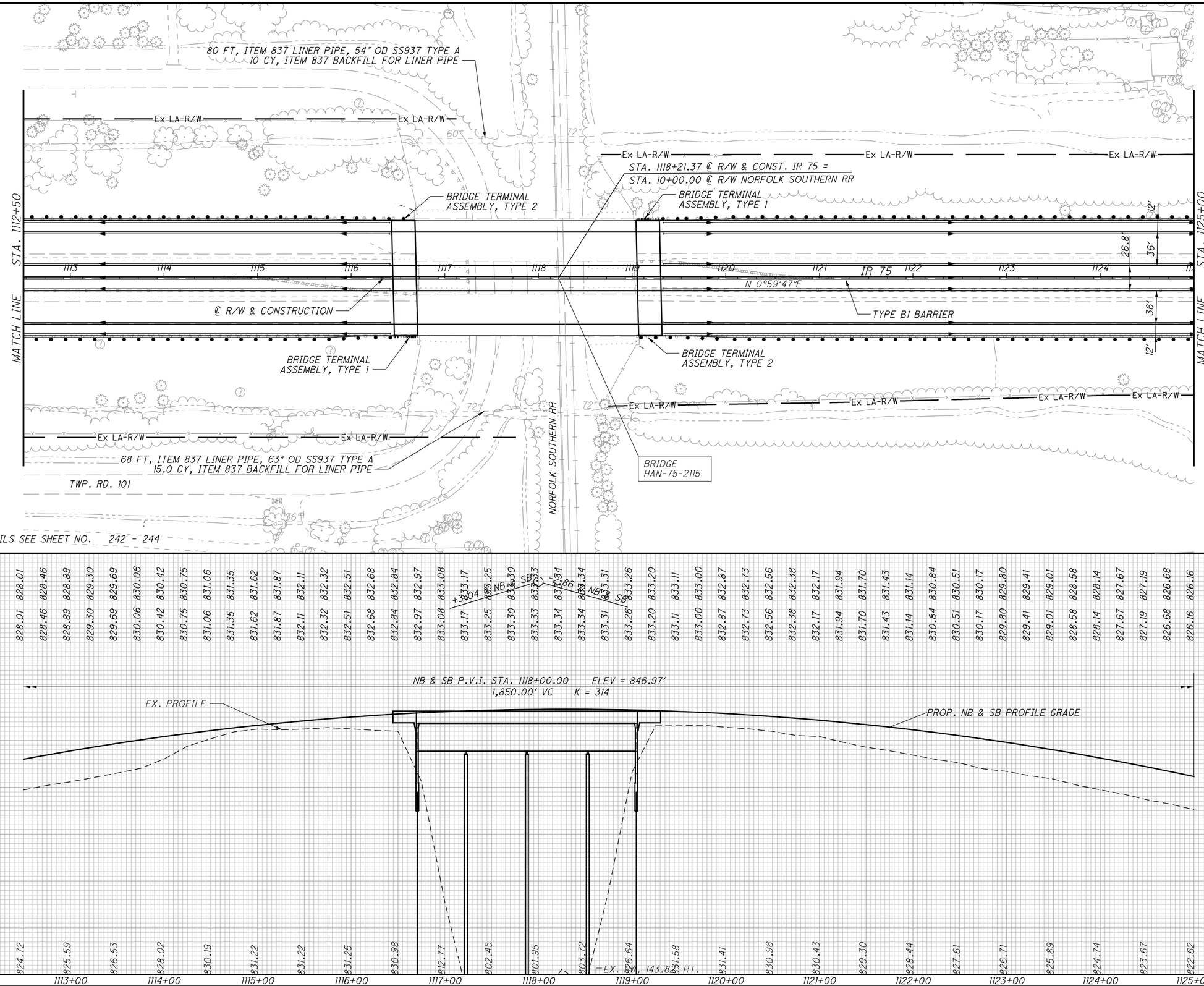
HAN/WOO-75-19.22/0.00

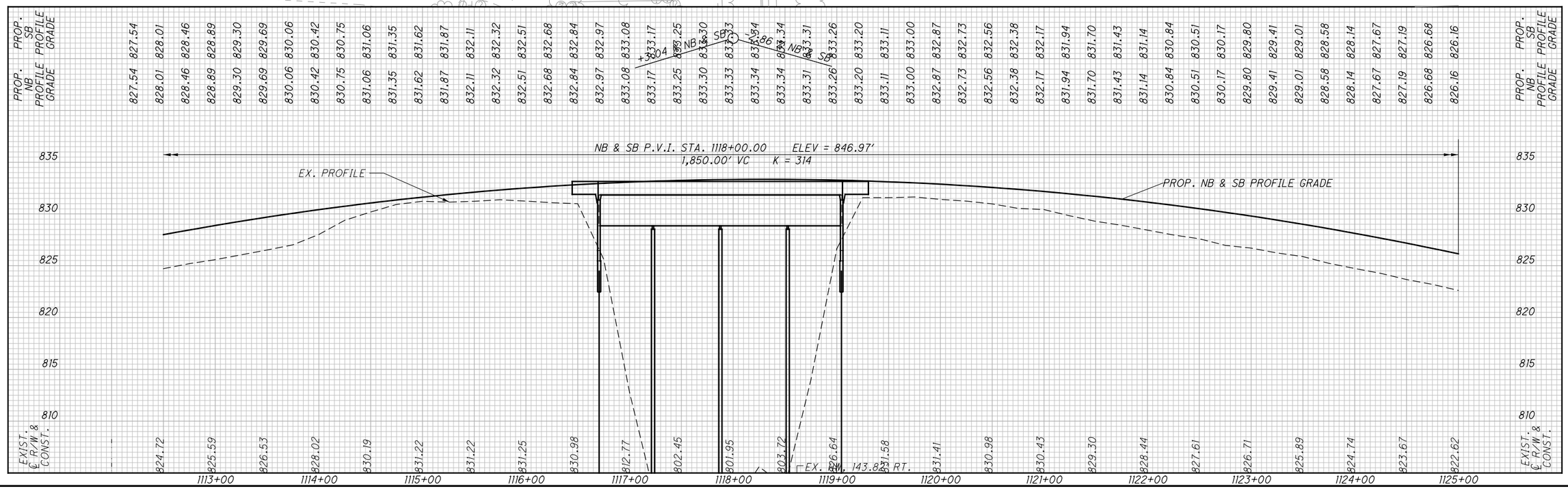
97
336

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp009.dgn 4/24/2015 9:24:34 AM rjm





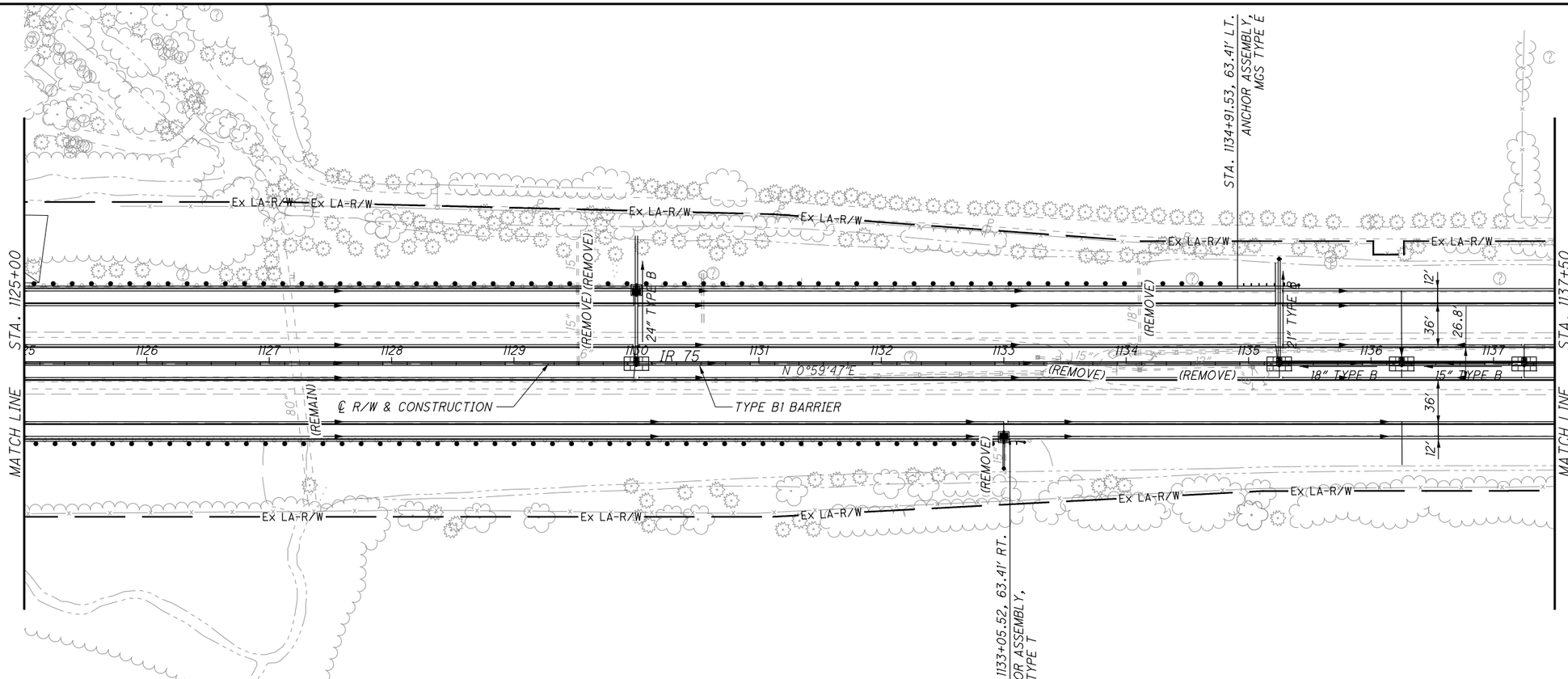
PLAN AND PROFILE
STA. 1112+50 TO STA. 1125+00

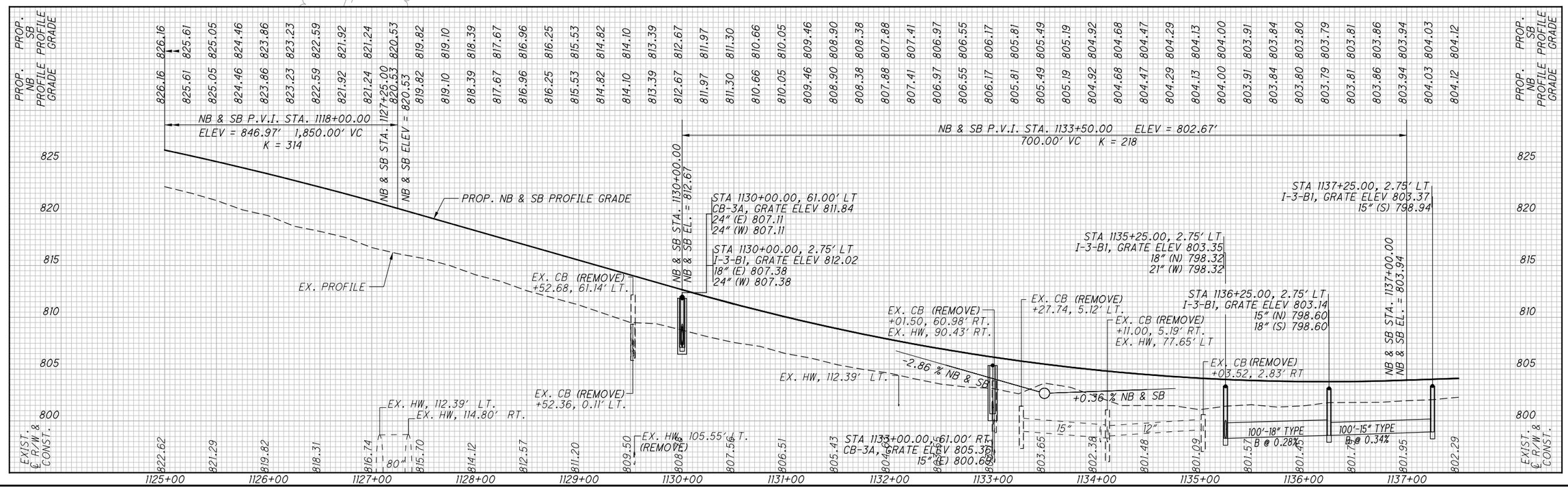
CALCULATED ALZ
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 25 50 100

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp010.dgn 4/24/2015 9:29:37 AM rjm





HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

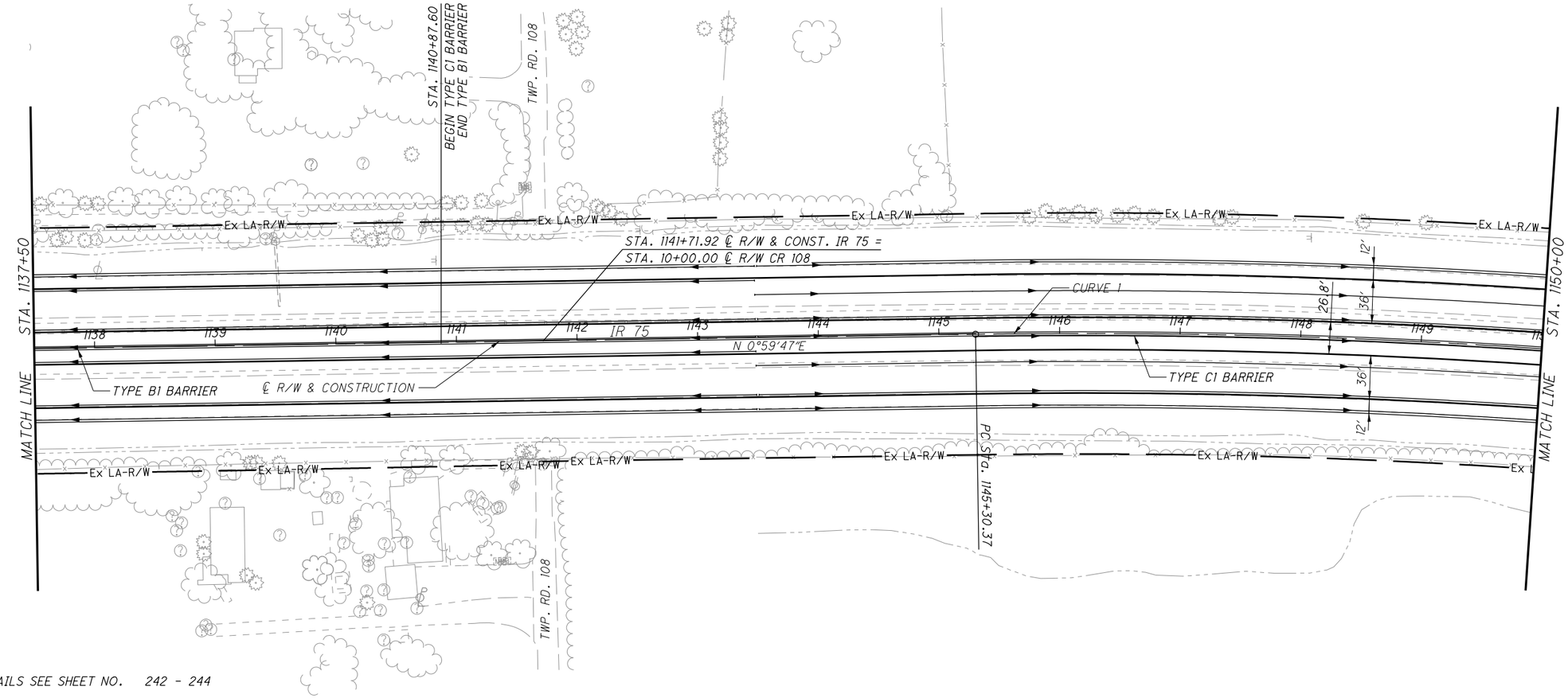
PLAN AND PROFILE
STA. 1125+00 TO STA. 1137+50

HAN/WOO-75-19.22/0.00

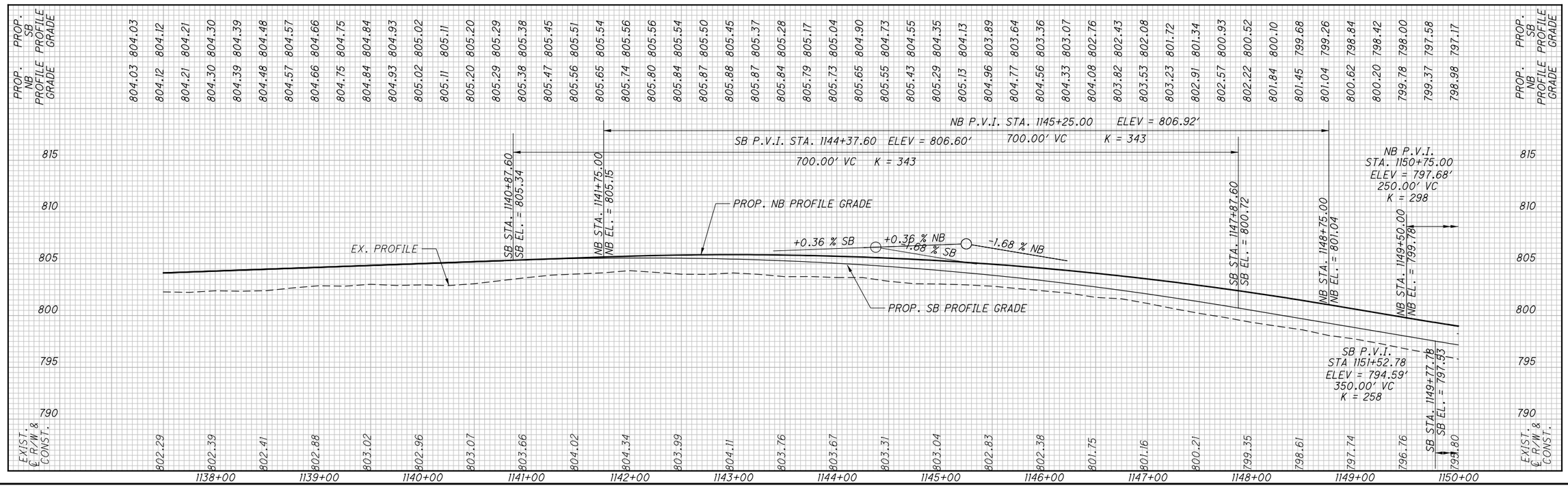
99
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp011.dgn 4/24/2015 9:30:23 AM rjm

CURVE 1
P.I. = STA. 1149+81.58
D = 9°00'00" (RT)
Dc = 1°00'00"
R = 5729.58'
T = 451.21'
L = 900.56'
E = 17.74'
C = 899.63'
C.B. = N 5°29'57" E
P.C. = STA. 1145+30.37
P.T. = STA. 1154+30.93
e max. = 0.040



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp012.dgn 3/18/2015 4:26:11 PM CMN

HORIZONTAL SCALE IN FEET
0 25 50 100

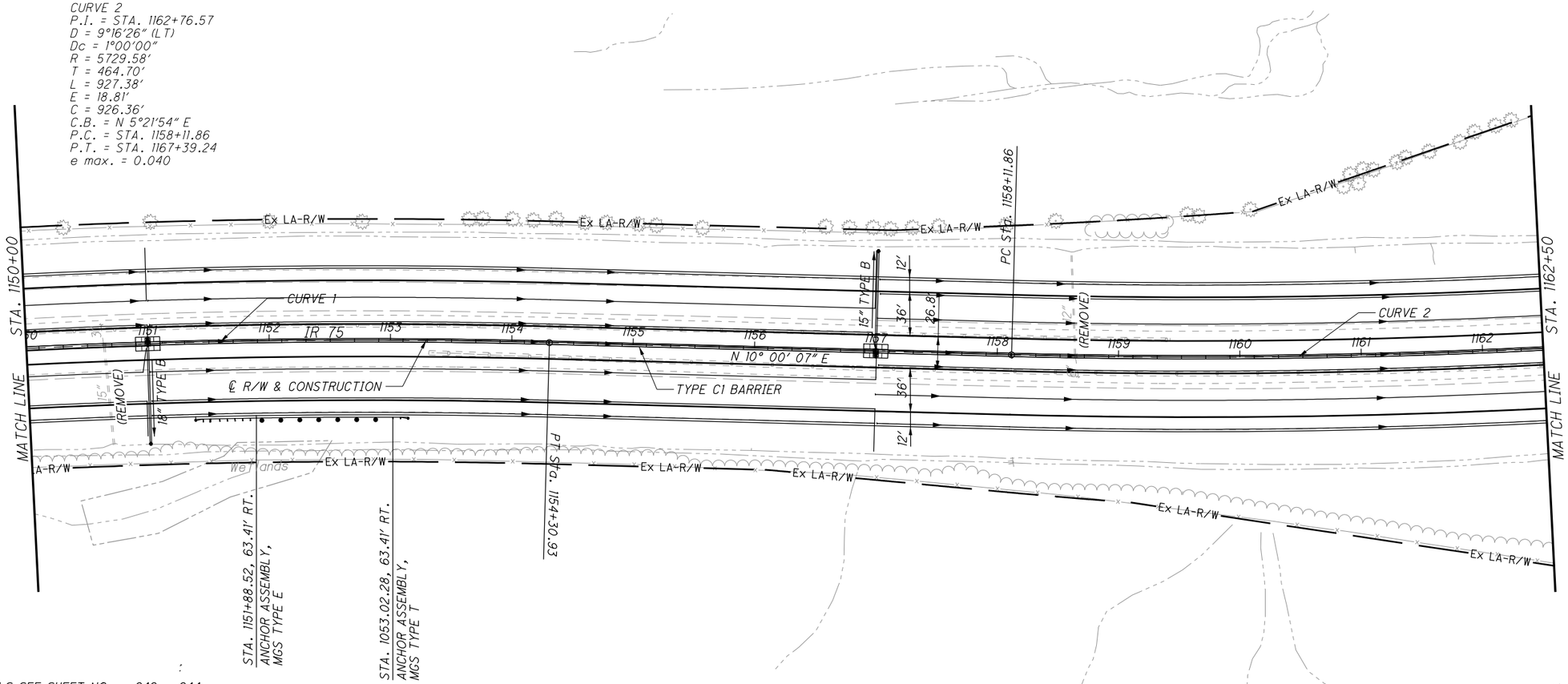
CALCULATED ALZ
CHECKED RJM

PLAN AND PROFILE
STA. 1137+50 TO STA. 1150+00

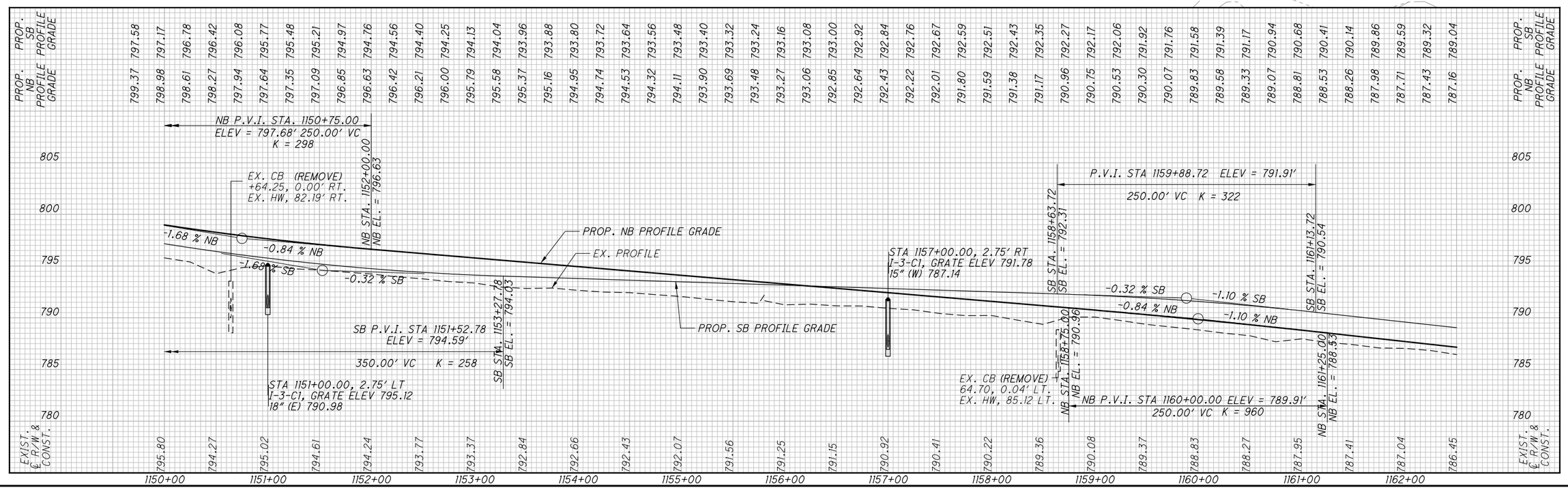
HAN/WOO-75-19.22/0.00

CURVE 1
P.I. = STA. 1149+81.58
D = 9°00'00" (RT)
Dc = 1°00'00"
R = 5729.58'
T = 451.21'
L = 900.56'
E = 17.74'
C = 899.63'
C.B. = N 5°29'57" E
P.C. = STA. 1145+30.37
P.T. = STA. 1154+30.93
e max. = 0.040

CURVE 2
P.I. = STA. 1162+76.57
D = 9°16'26" (LT)
Dc = 1°00'00"
R = 5729.58'
T = 464.70'
L = 927.38'
E = 18.81'
C = 926.36'
C.B. = N 5°21'54" E
P.C. = STA. 1158+11.86
P.T. = STA. 1167+39.24
e max. = 0.040



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



CALCULATED ALZ
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 25 50 100

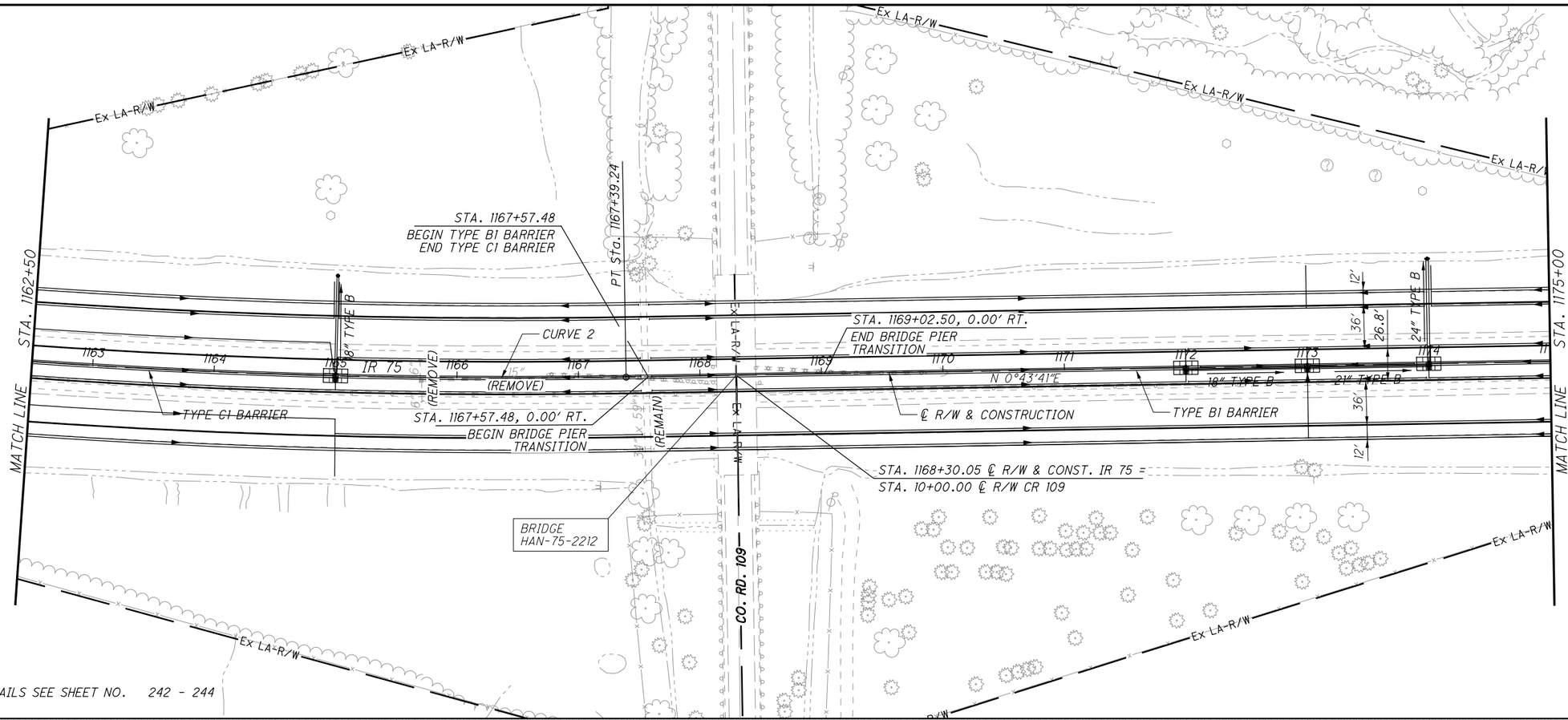
PLAN AND PROFILE
STA. 1150+00 TO STA. 1162+50

HAN/WOO-75-19.22/0.00

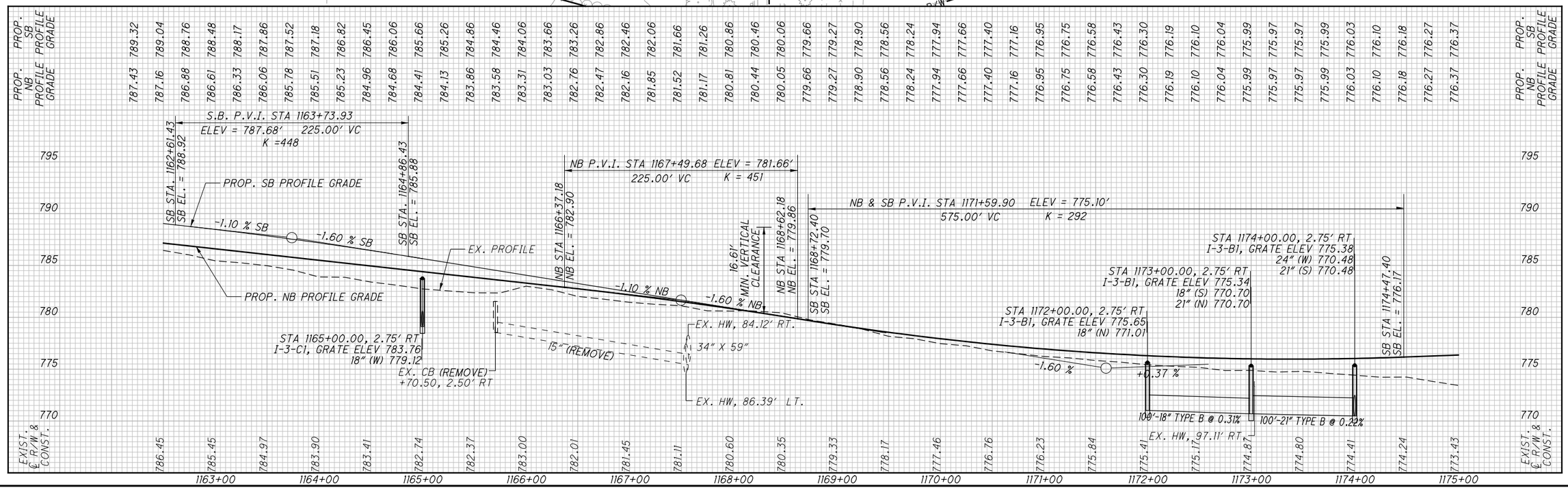
101
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp013.dgn 3/18/2015 4:26:12 PM CMN

CURVE 2
P.I. = STA. 1162+76.57
D = 9°16'26" (LT)
Dc = 1°00'00"
R = 5729.58'
T = 464.70'
L = 927.38'
E = 18.81'
C = 926.36'
C.B. = N 5°21'54" E
P.C. = STA. 1158+11.86
P.T. = STA. 1167+39.24
e max. = 0.040



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



HORIZONTAL SCALE IN FEET
0 25 50 100

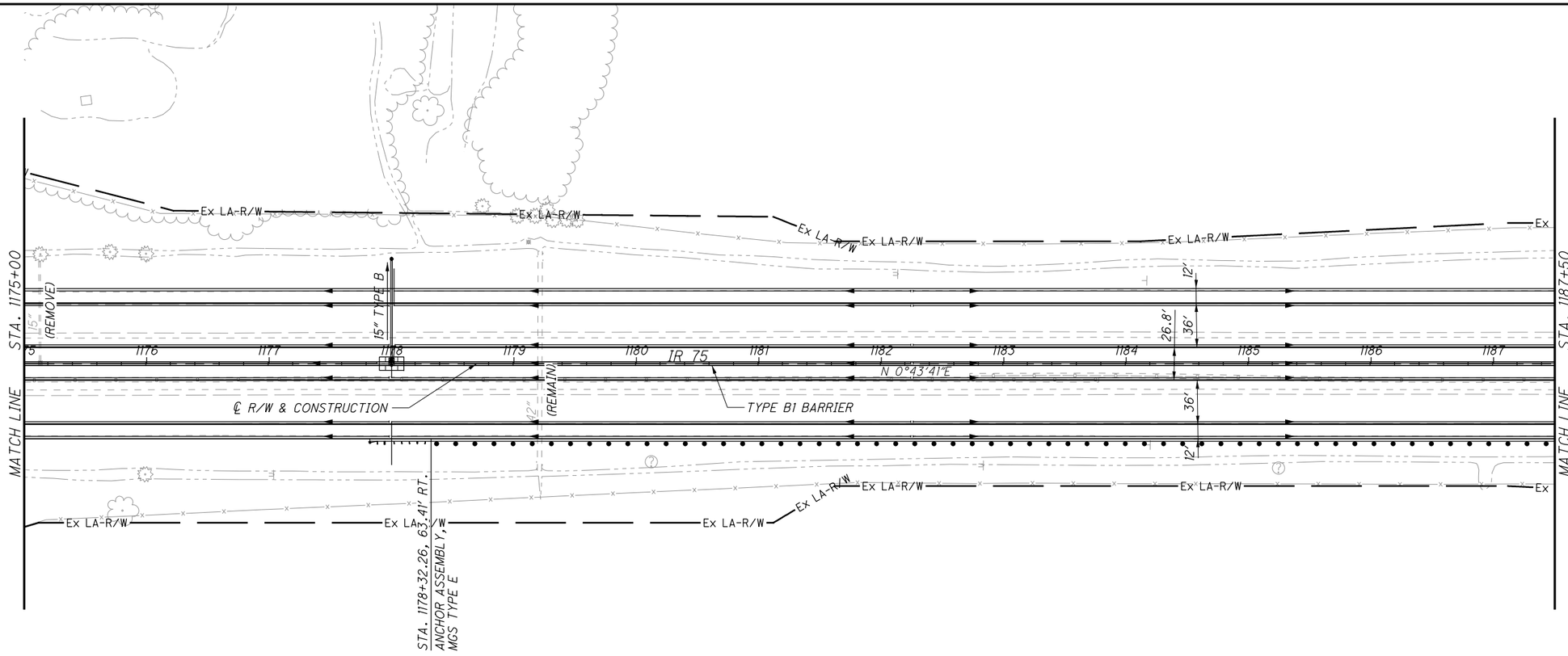
CALCULATED ALZ
CHECKED RJM

PLAN AND PROFILE
STA. 1162+50 TO STA. 1175+00

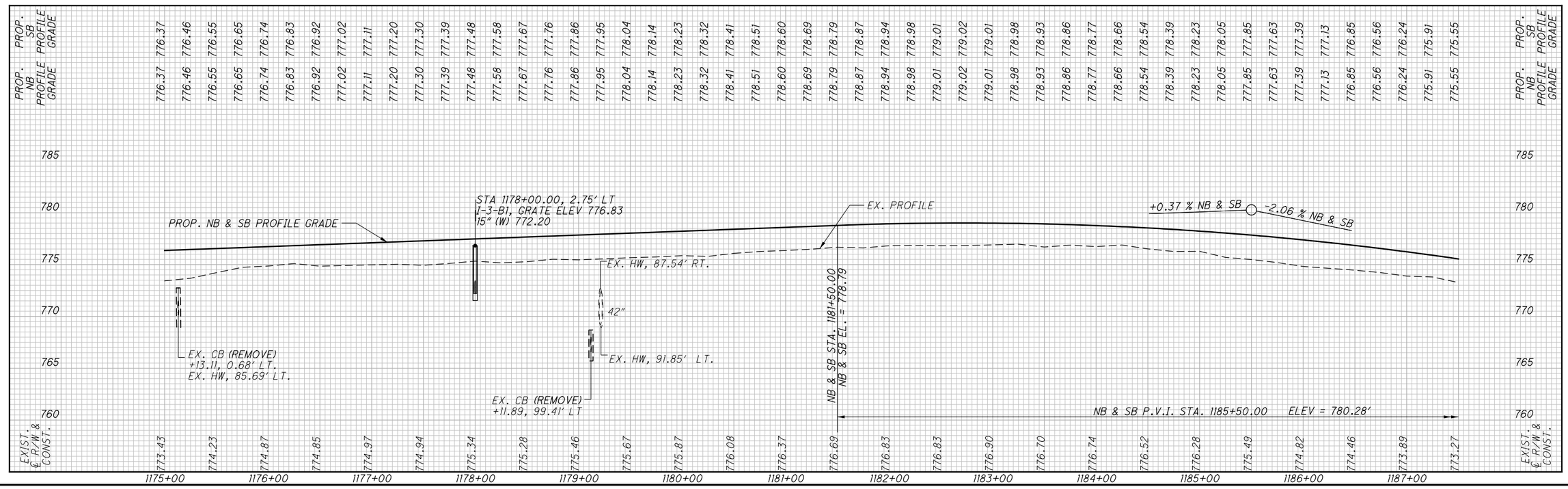
HAN/WOO-75-19.22/0.00

102
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp014.dgn 3/18/2015 4:26:13 PM CMN



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



PLAN AND PROFILE
STA. 1175+00 TO STA. 1187+50

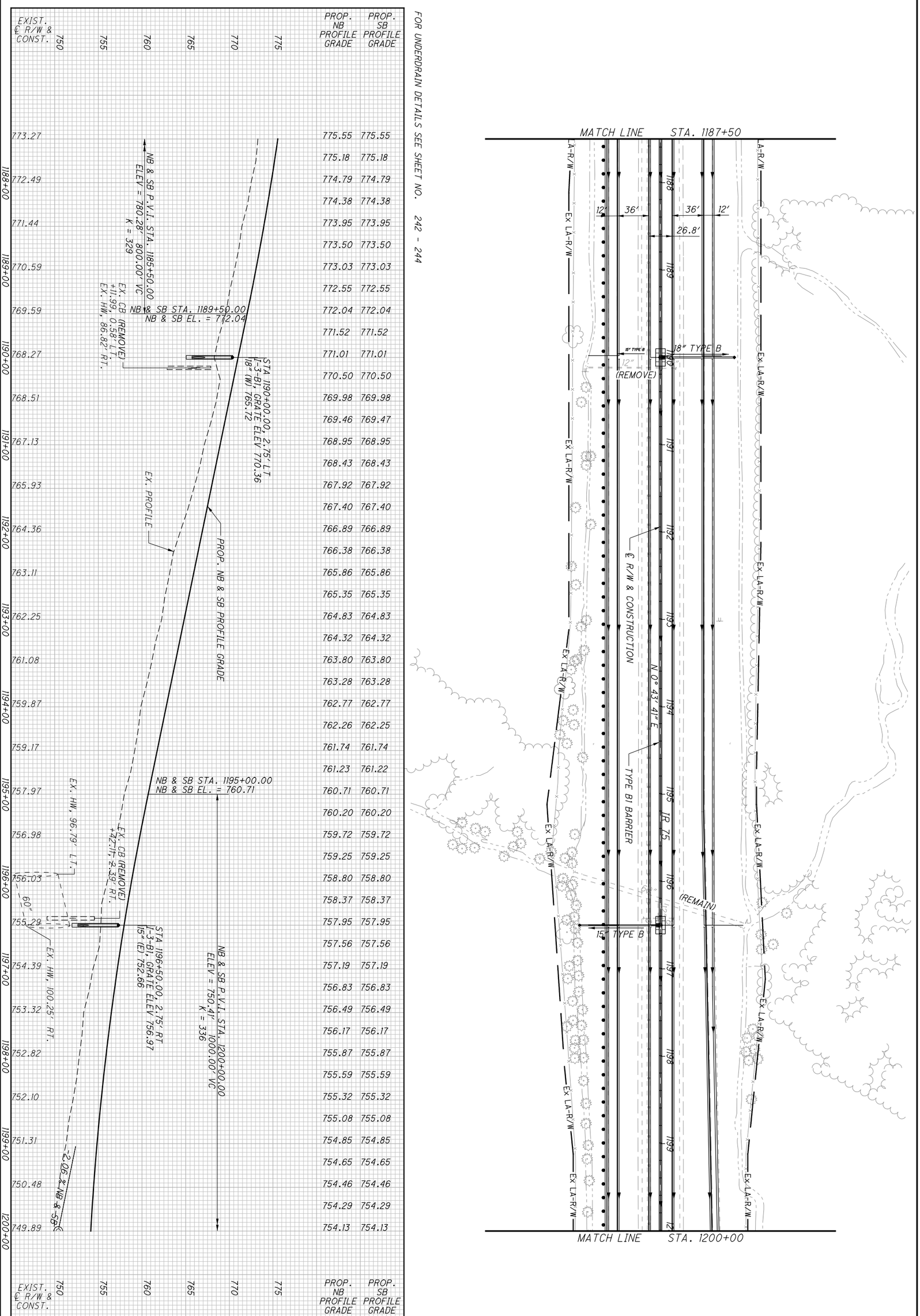
HAN/WOO-75-19.22/0.00

103
336

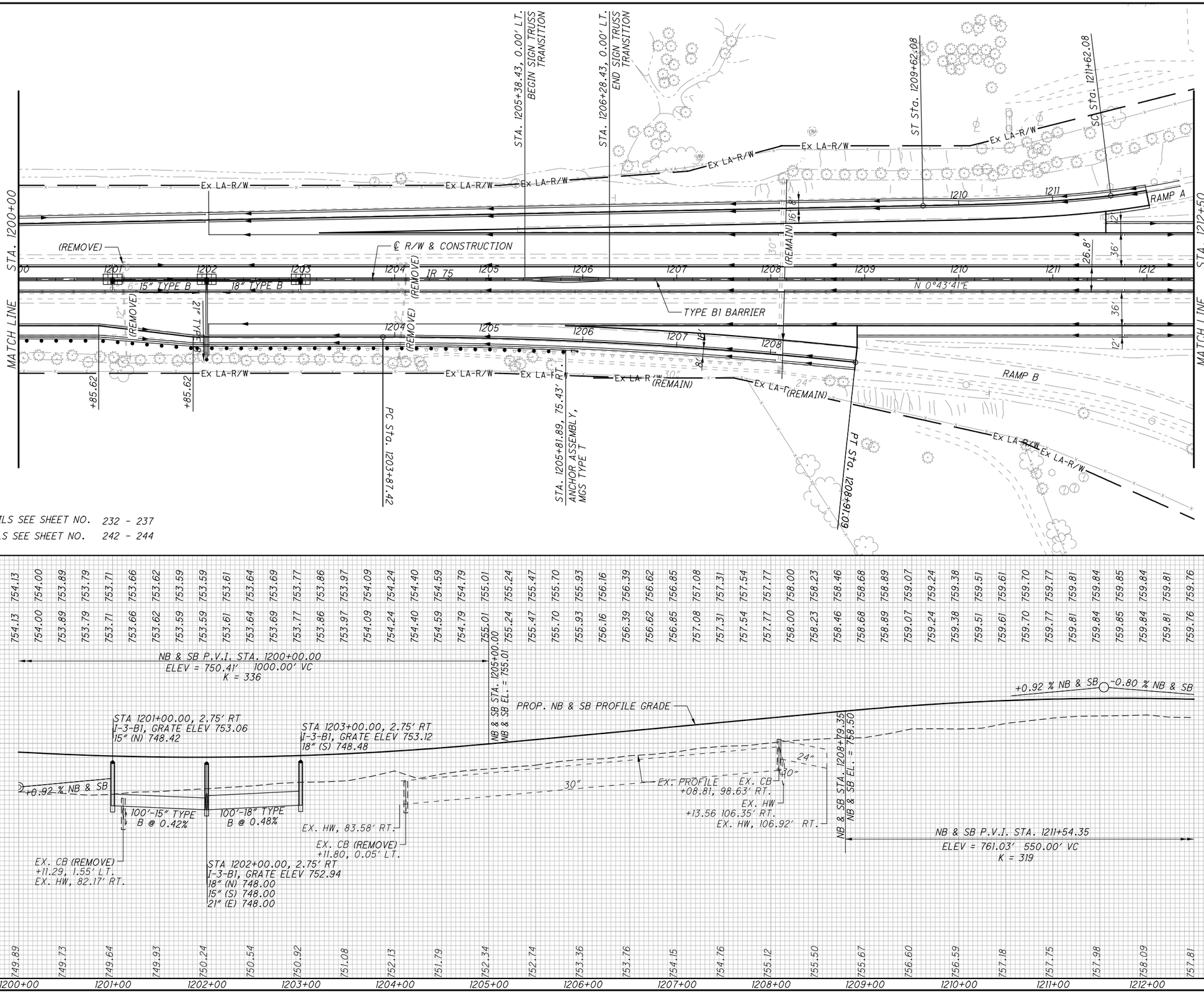
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

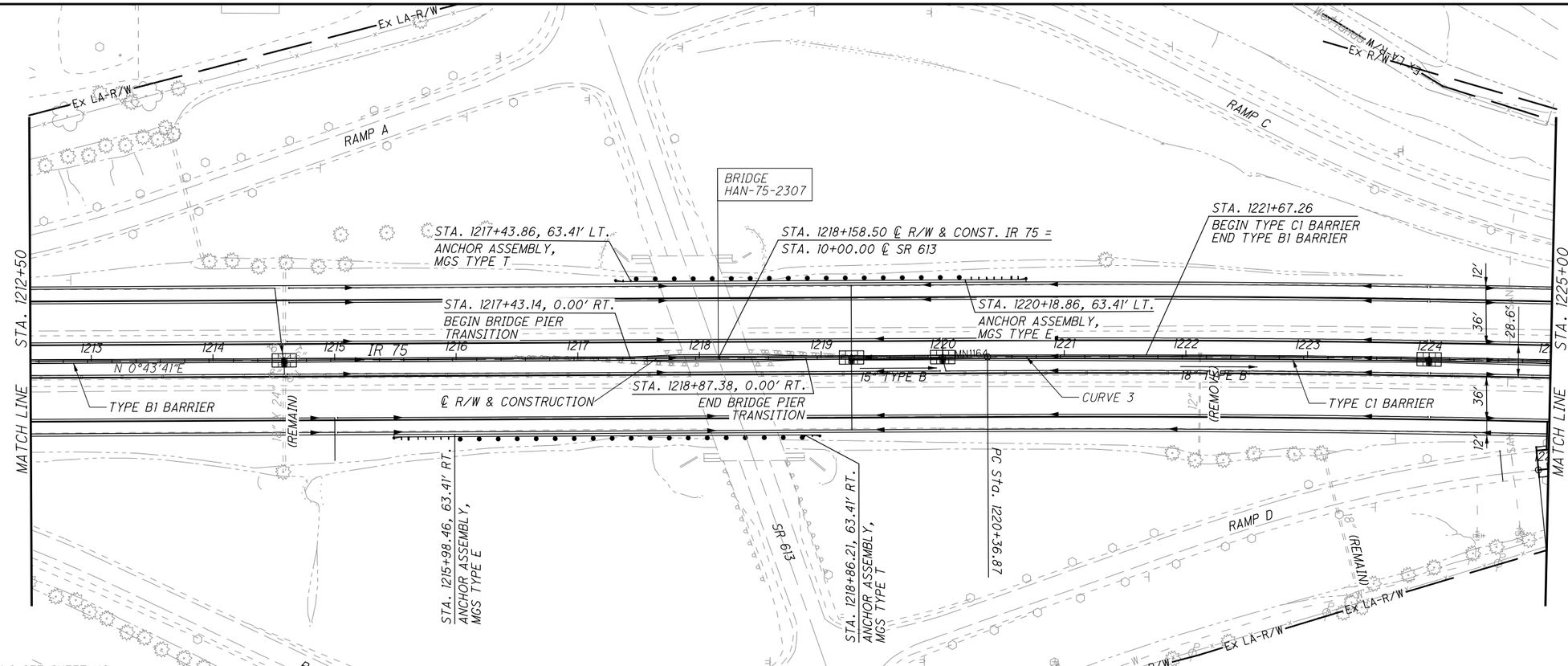
M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp015.dgn 3/18/2015 4:26:15 PM CMN



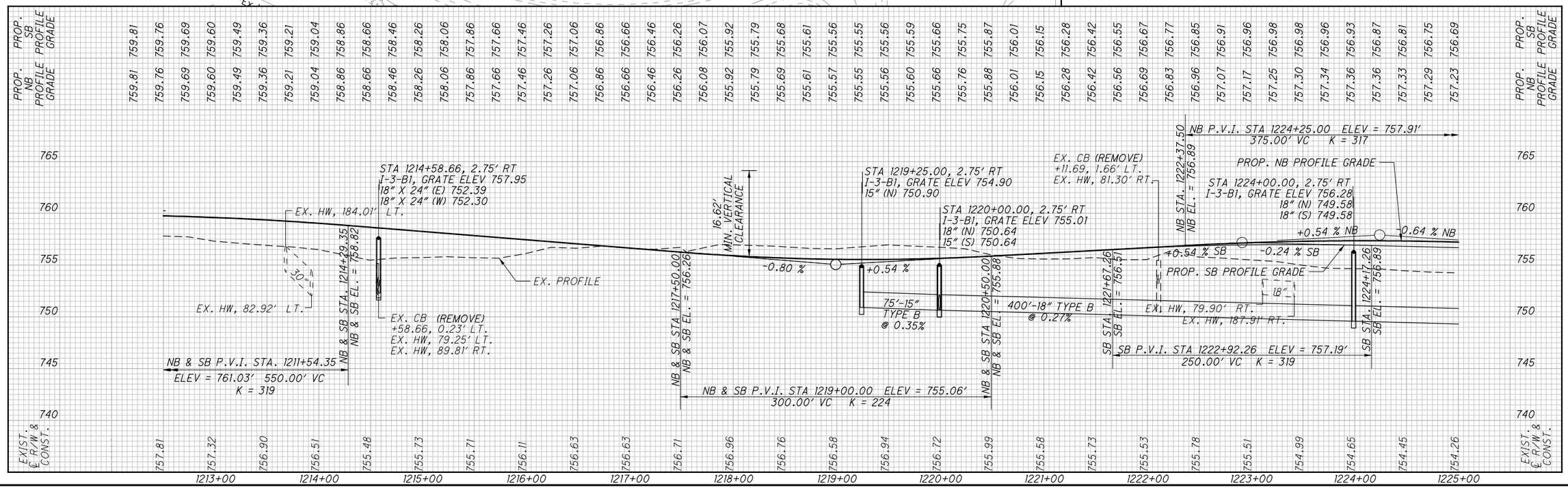
336 / 104	HAN/WOO-75-19.22/0.00	PLAN AND PROFILE STA. 1187+50 TO STA. 1200+00	CALCULATED ALZ CHECKED RJM	0 50 25 100 HORIZONTAL SCALE IN FEET


STA. 1205+38.43, 0.00' LT.
BEGIN SIGN TRUSS TRANSITION
STA. 1206+28.43, 0.00' LT.
END SIGN TRUSS TRANSITION
ST Sta. 1209+62.08
SC Sta. 1211+62.08
STA. 1200+00
STA. 1212+50
MATCH LINE
MATCH LINE
Ex LA-R/W
(REMOVE)
℄ R/W & CONSTRUCTION
IR 75
15" TYPE B
18" TYPE B
21" TYPE B
(REMOVE)
(REMOVE)
(REMOVE)
TYPE B1 BARRIER
N 0°43'41"E
RAMP A
RAMP B
(REMAIN)
(REMAIN)
(REMAIN)
Ex LA-R/W
Ex LA-R/W
Ex LA-R/W

CURVE 3
P.I. = 1223+95.38 ℄
Δ = 2° 23' 23.00"
D_c = 0° 20' 00.00"
R = 17188.73'
T = 358.51'
L = 716.92'
E = 3.74'
e_{max} = 0.000



FOR INTERCHANGE DETAILS SEE SHEET NO. 232 - 237
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



PLAN AND PROFILE
STA. 1212+50 TO STA. 1225+00

HAN/WOO-75-19.22/0.00

106
336

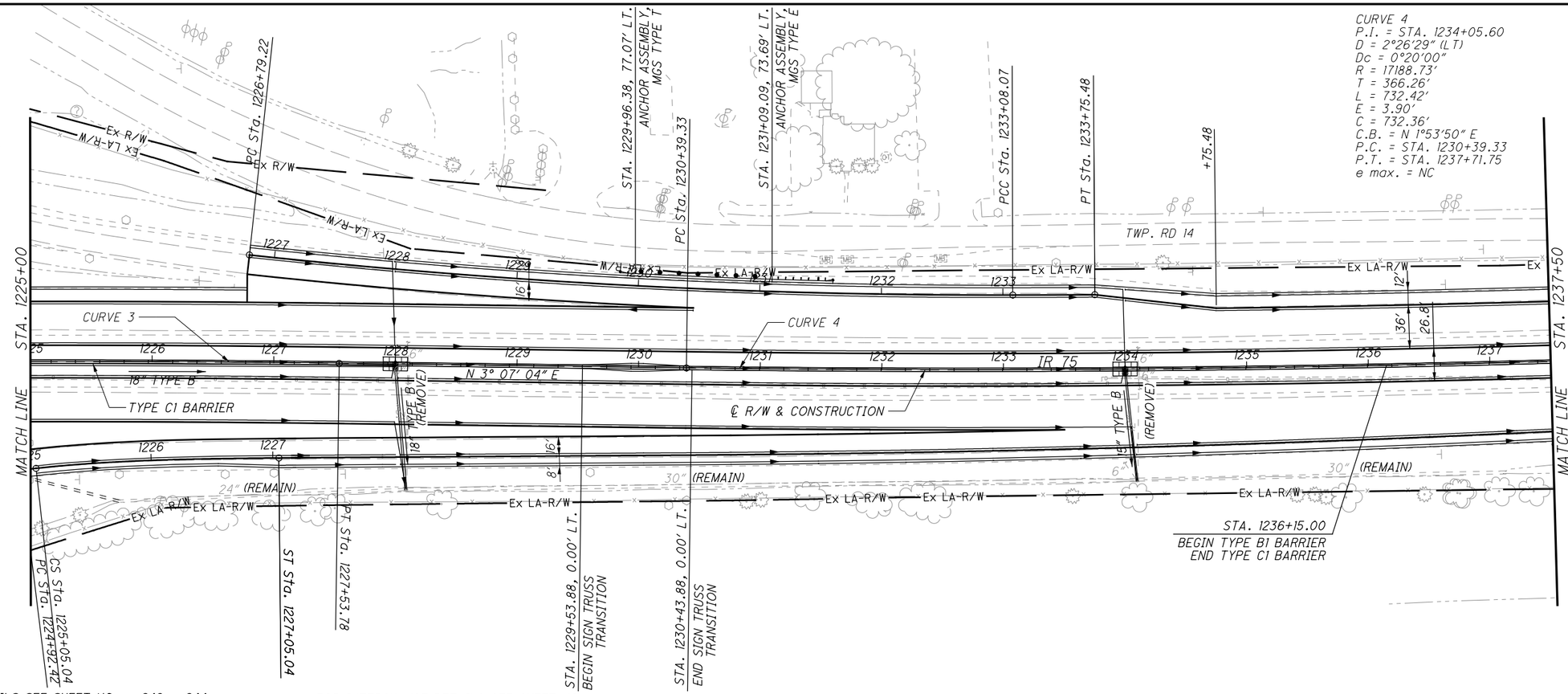
CALCULATED ALZ
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 25 50 100

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp018.dgn 3/18/2015 4:26:19 PM CMN

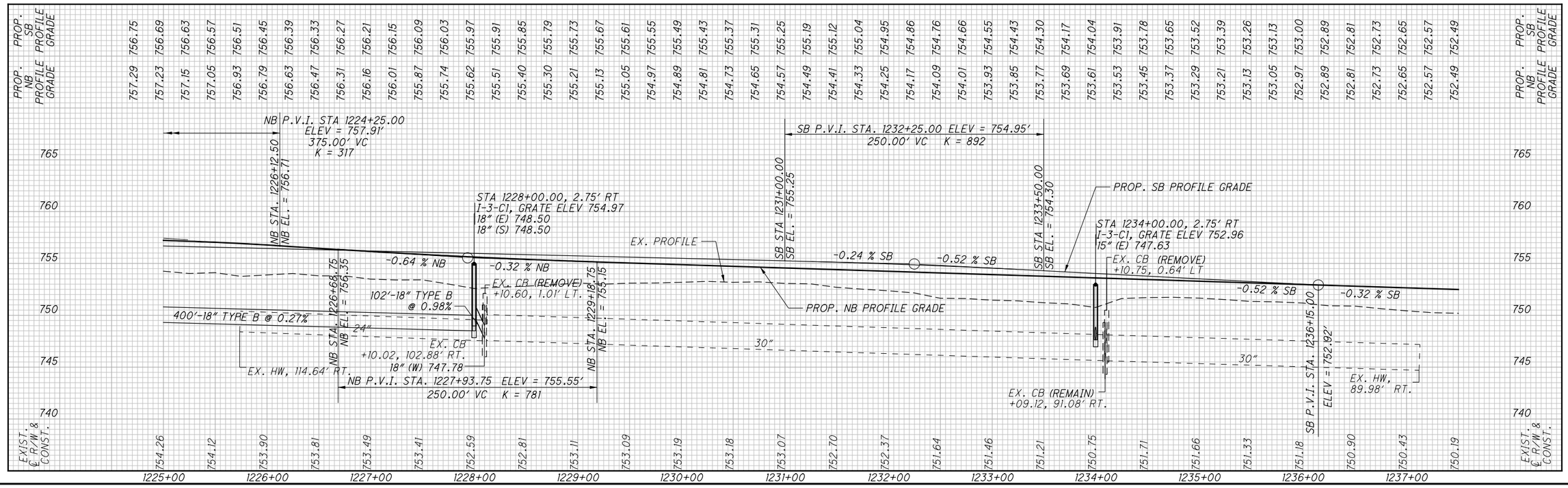
CURVE 3
P.I. = STA. 1223+95.38
D = 2°23'23" (RT)
Dc = 0°20'00"
R = 17188.73'
T = 358.51'
L = 716.92'
E = 3.74'
C = 716.86'
C.B. = N 1°55'23" E
P.C. = STA. 1220+36.87
P.T. = STA. 1227+53.78
e max. = NC

CURVE 4
P.I. = STA. 1234+05.60
D = 2°26'29" (LT)
Dc = 0°20'00"
R = 17188.73'
T = 366.26'
L = 732.42'
E = 3.90'
C = 732.36'
C.B. = N 1°53'50" E
P.C. = STA. 1230+39.33
P.T. = STA. 1237+71.75
e max. = NC



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244

FOR INTERCHANGE DETAILS SEE SHEET NO. 232 - 237



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

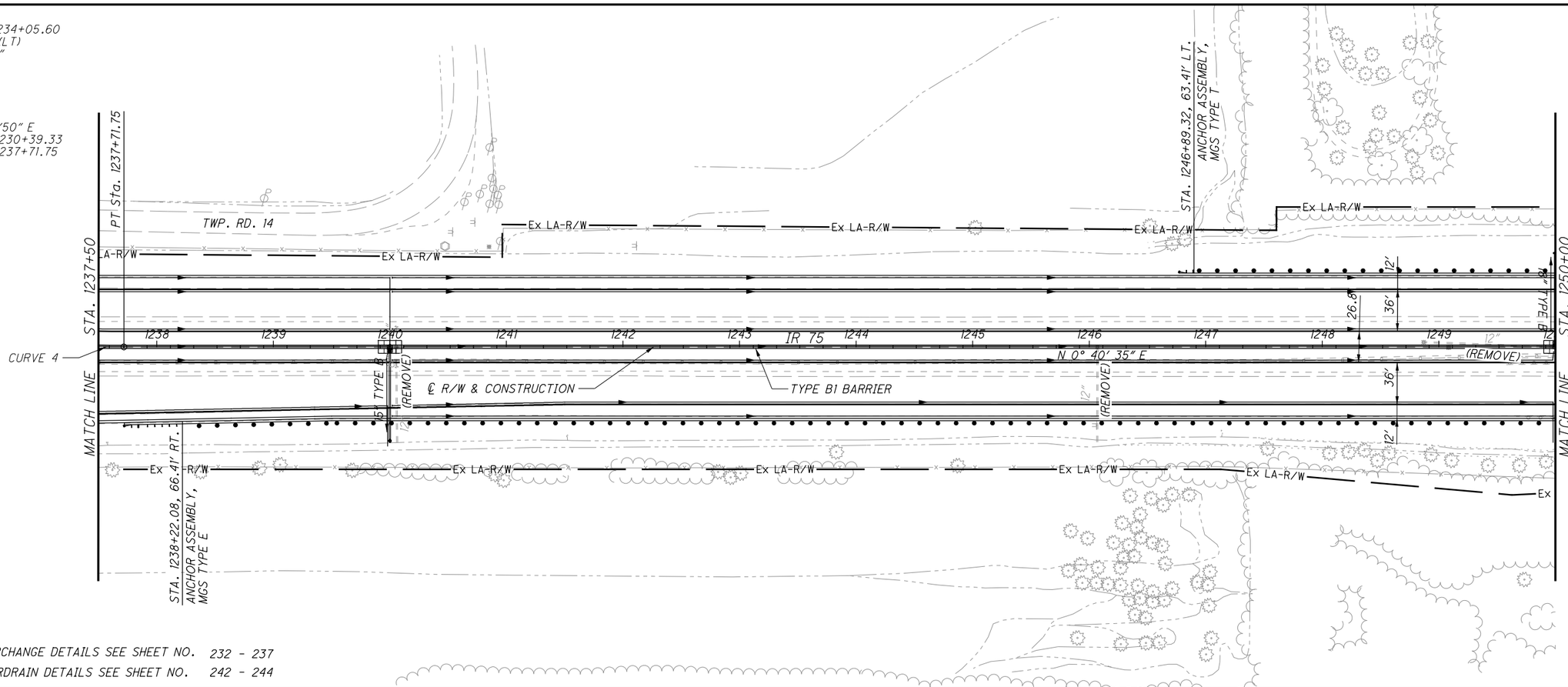
PLAN AND PROFILE
STA. 1225+00 TO STA. 1237+50

HAN/WOO-75-19.22/0.00

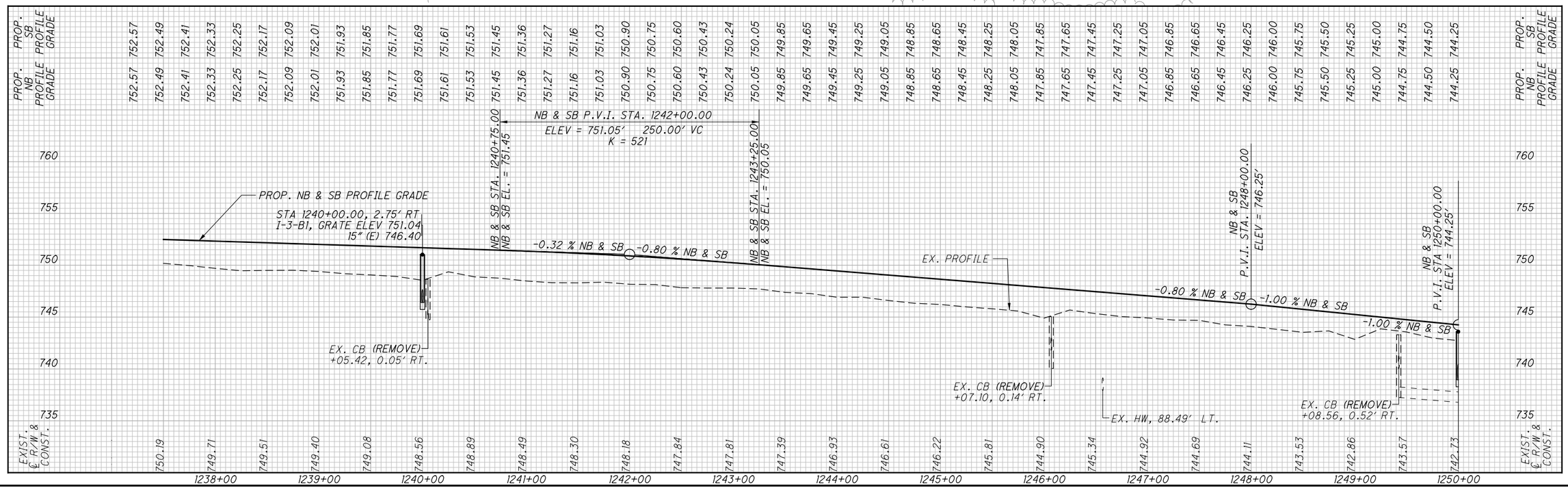
107
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp019.dgn 3/18/2015 4:26:20 PM CMN

CURVE 4
P.I. = STA. 1234+05.60
D = 2°26'29" (LT)
Dc = 0°20'00"
R = 17188.73'
T = 366.26'
L = 732.42'
E = 3.90'
C = 732.36'
C.B. = N 1°53'50" E
P.C. = STA. 1230+39.33
P.T. = STA. 1237+71.75
e max. = NC



FOR INTERCHANGE DETAILS SEE SHEET NO. 232 - 237
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



CALCULATED AL Z
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 25 50 100

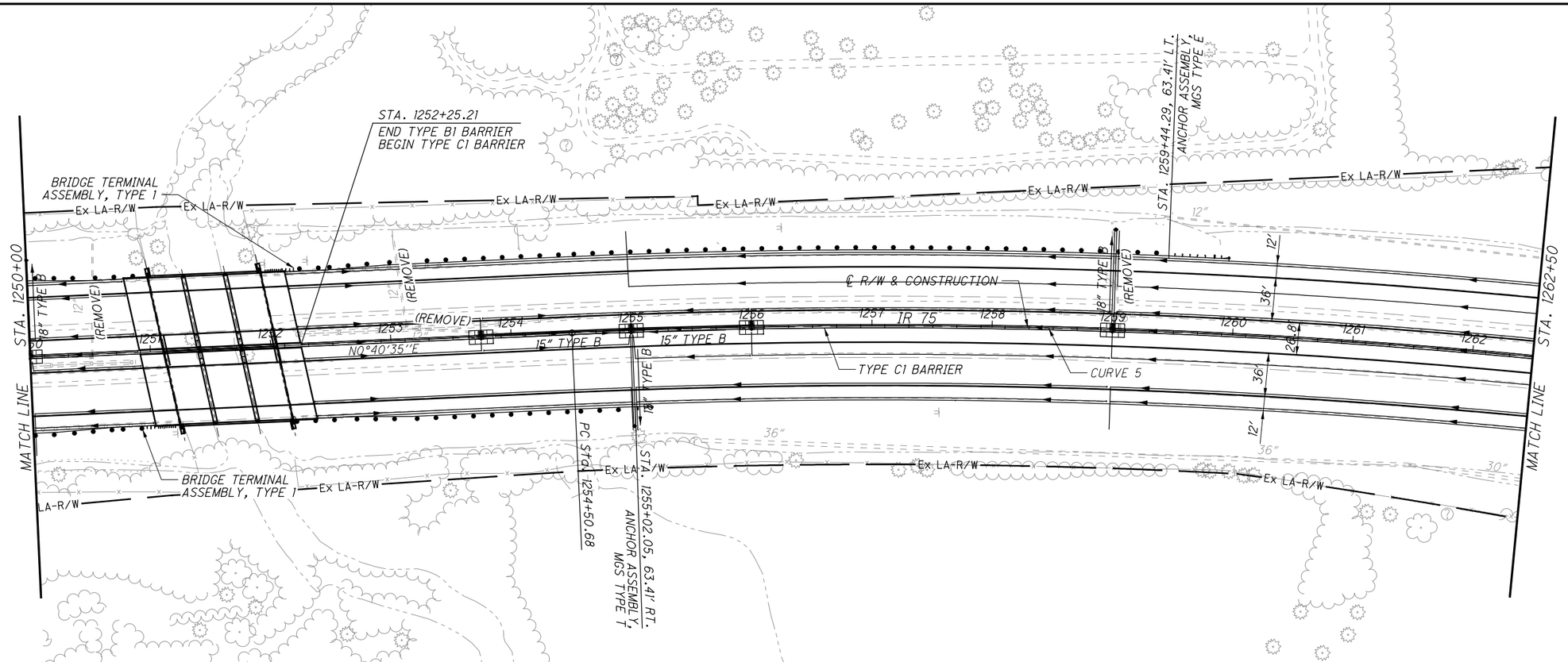
PLAN AND PROFILE
STA. 1237+50 TO STA. 1250+00

HAN/WOO-75-19.22/0.00

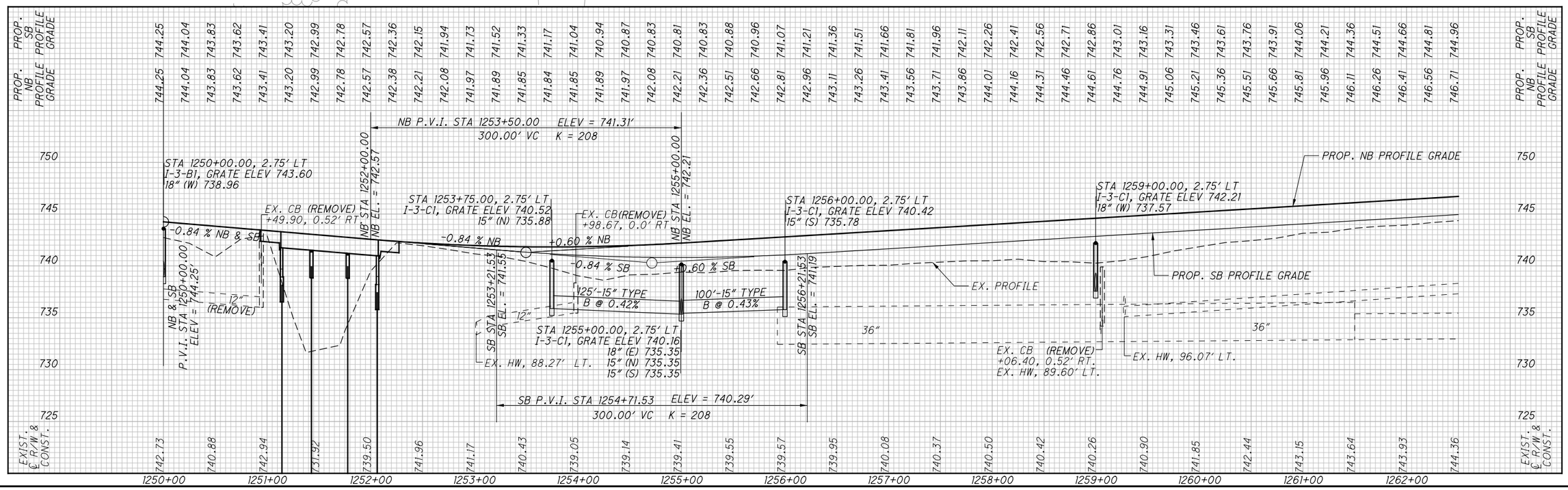
108
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp020.dgn 4/24/2015 9:31:17 AM rjm

CURVE 5
P.I. = STA. 1269+84.44
D = 29°58'21" (RT)
Dc = 1°00'00"
R = 5729.58'
T = 1533.77'
L = 2997.26'
E = 201.74'
C = 2963.20'
C.B. = N 15°39'46" E
P.C. = STA. 1254+50.68
P.T. = STA. 1284+47.94
e max. = 0.040



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp021.dgn 4/24/2015 9:32:26 AM rjm

CALCULATED ALZ
CHECKED RJM

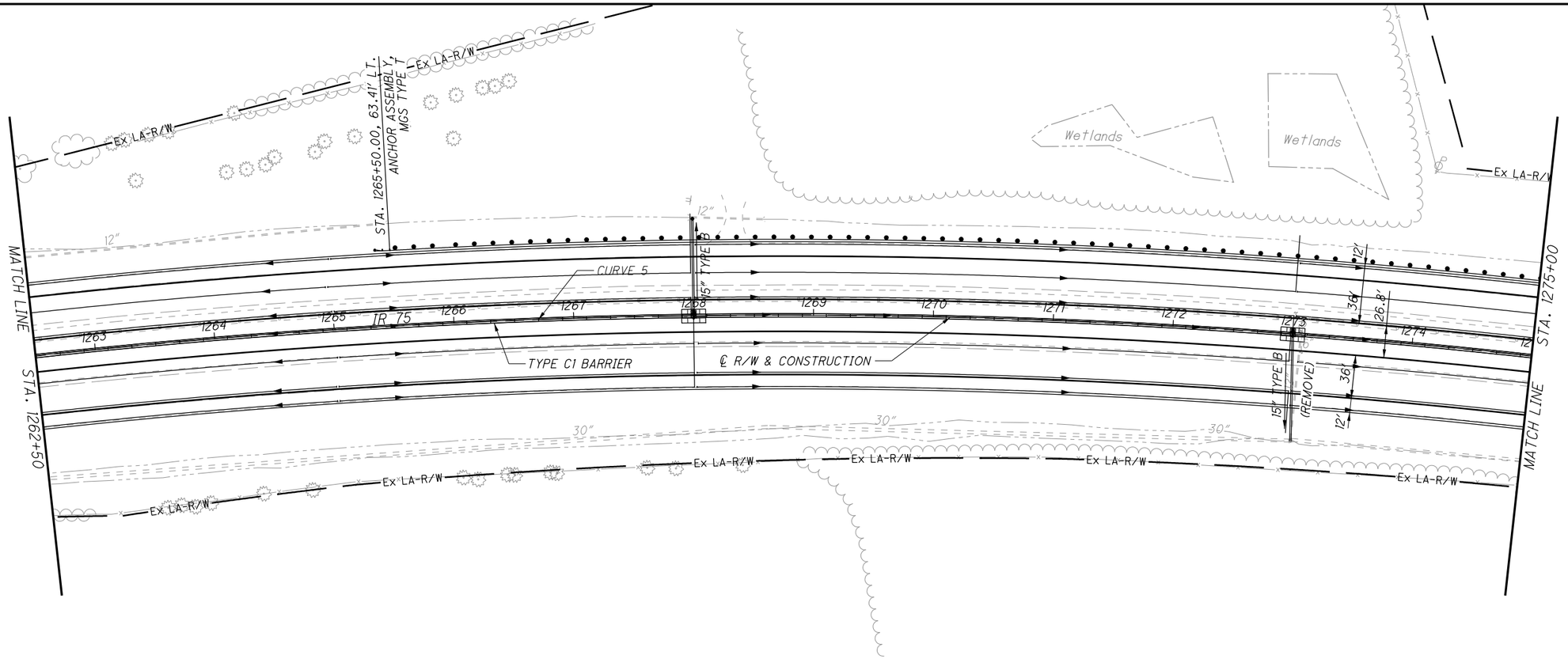
HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN AND PROFILE
STA. 1250+00 TO STA. 1262+50

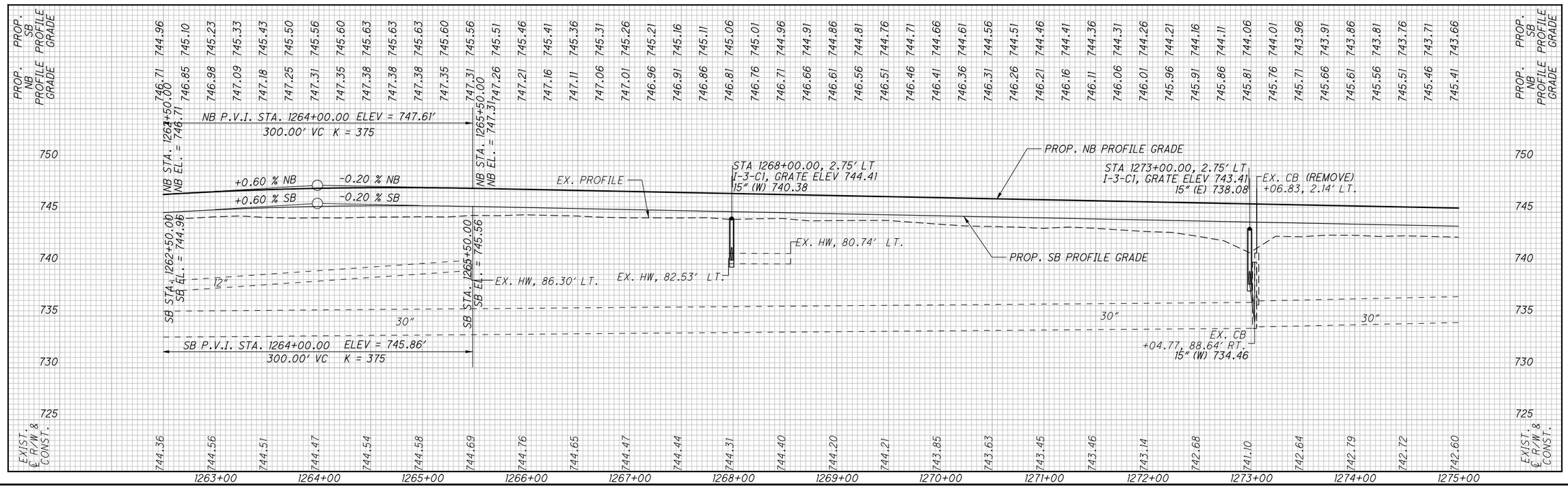
HAN/WOO-75-19.22/0.00

109
336

CURVE 5
P.I. = STA. 1269+84.44
D = 29°58'21" (RT)
Dc = 1°00'00"
R = 5729.58'
T = 1533.77'
L = 2997.26'
E = 201.74'
C = 2963.20'
C.B. = N 15°39'46" E
P.C. = STA. 1254+50.68
P.T. = STA. 1284+47.94
e max. = 0.040



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



PLAN AND PROFILE
STA. 1262+50 TO STA. 1275+00

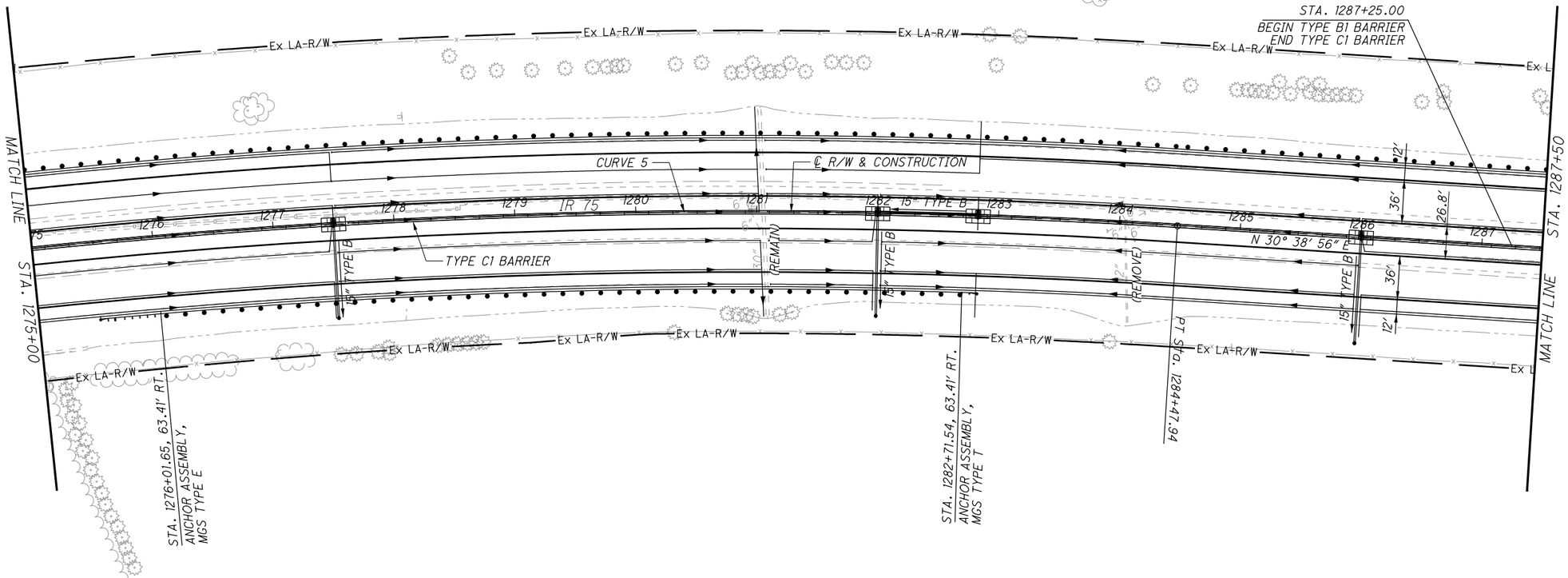
CALCULATED ALZ
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 25 50 100

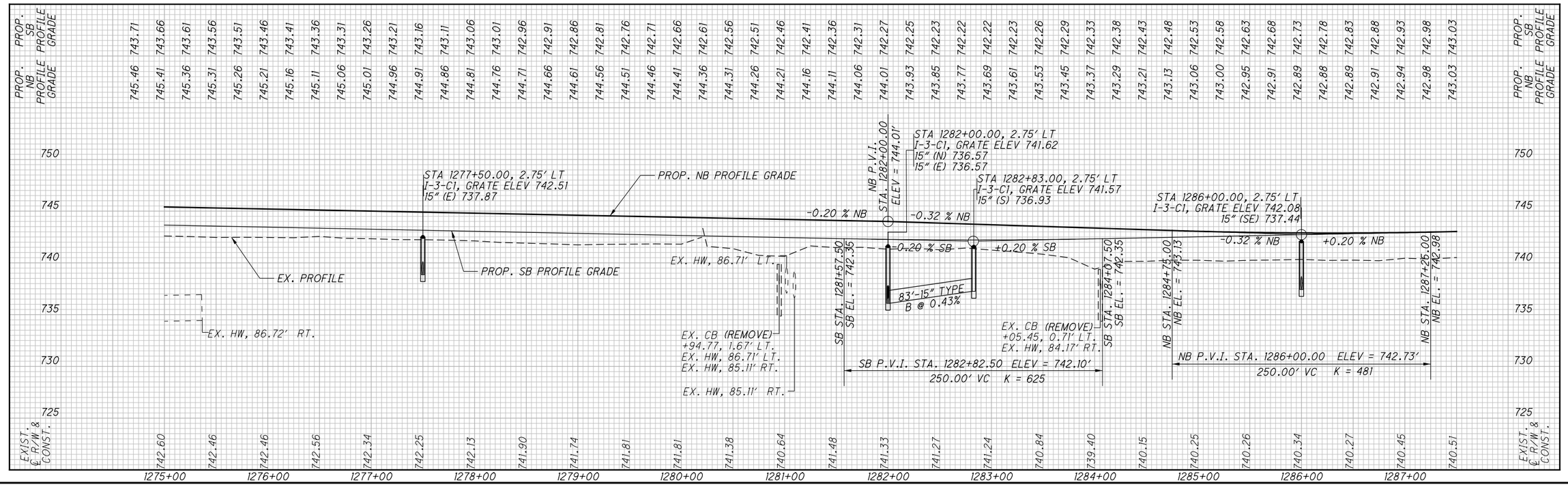
HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp022.dgn 3/18/2015 4:26:25 PM CMN

CURVE 5
P.I. = STA. 1269+84.44
D = 29°58'21" (RT)
Dc = 1°00'00"
R = 5729.58'
T = 1533.77'
L = 2997.26'
E = 201.74'
C = 2963.20'
C.B. = N 15°39'46" E
P.C. = STA. 1254+50.68
P.T. = STA. 1284+47.94
e max. = 0.040



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



CALCULATED ALZ
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 25 50 100

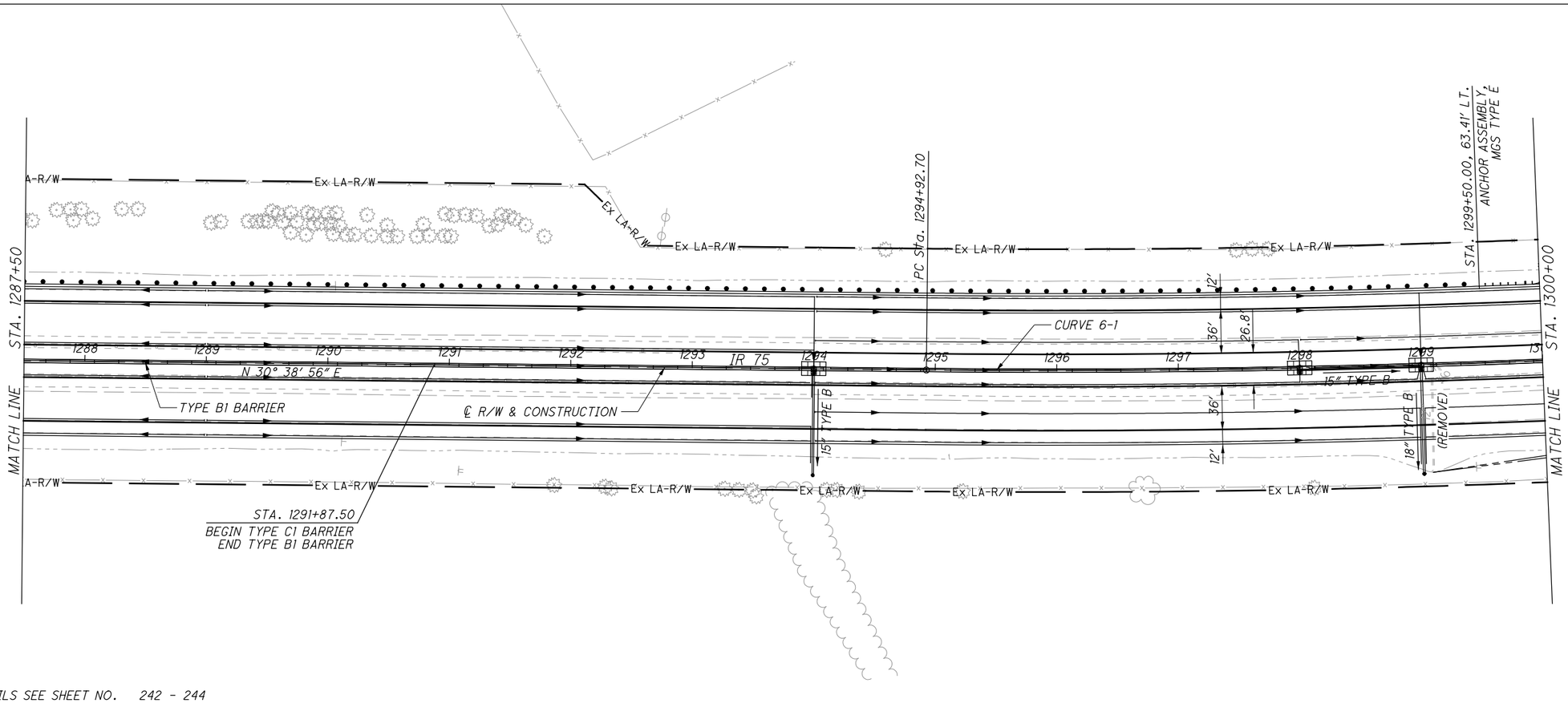
PLAN AND PROFILE
STA. 1275+00 TO STA. 1287+50

HAN/ WOO-75-19.22/ 0.00

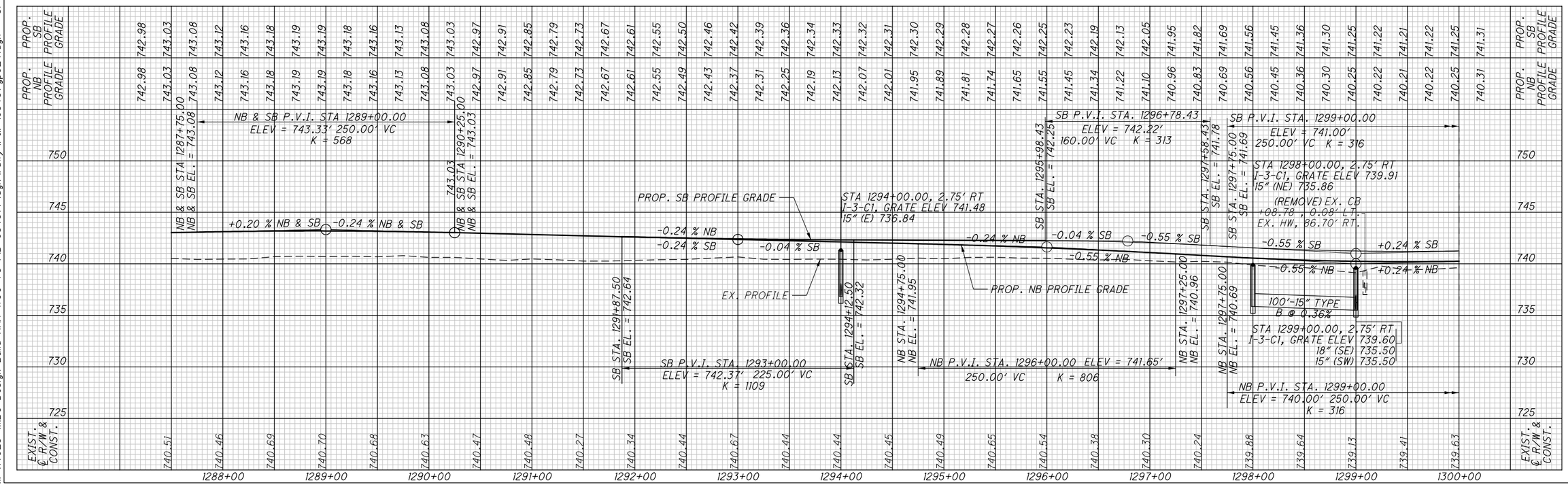
111
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp023.dgn 3/18/2015 4:26:26 PM CMN

CURVE 6-1
P.I. = STA. 1313+80.25
D = 21°08'56" (LT)
Dc = 0°34'00"
R = 10111.02'
T = 1887.55'
L = 3732.14'
E = 174.68'
C = 3710.99'
C.B. = N 20°04'28" E
P.C. = STA. 1294+92.70
P.T. = STA. 1332+24.84
e max. = 0.024



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALZ
CHECKED RJM

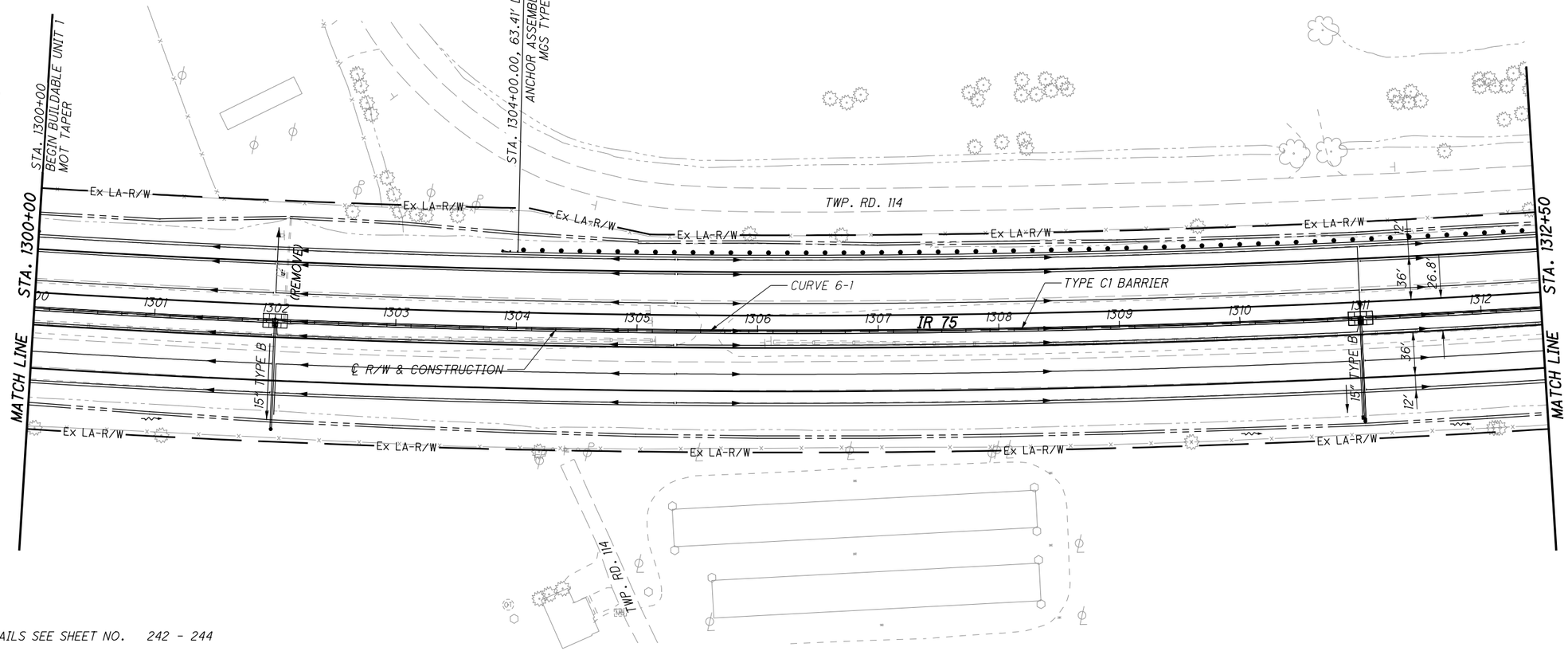
PLAN AND PROFILE
STA. 1287+50 TO STA. 1300+00

HAN/WOO-75-19.22/0.00

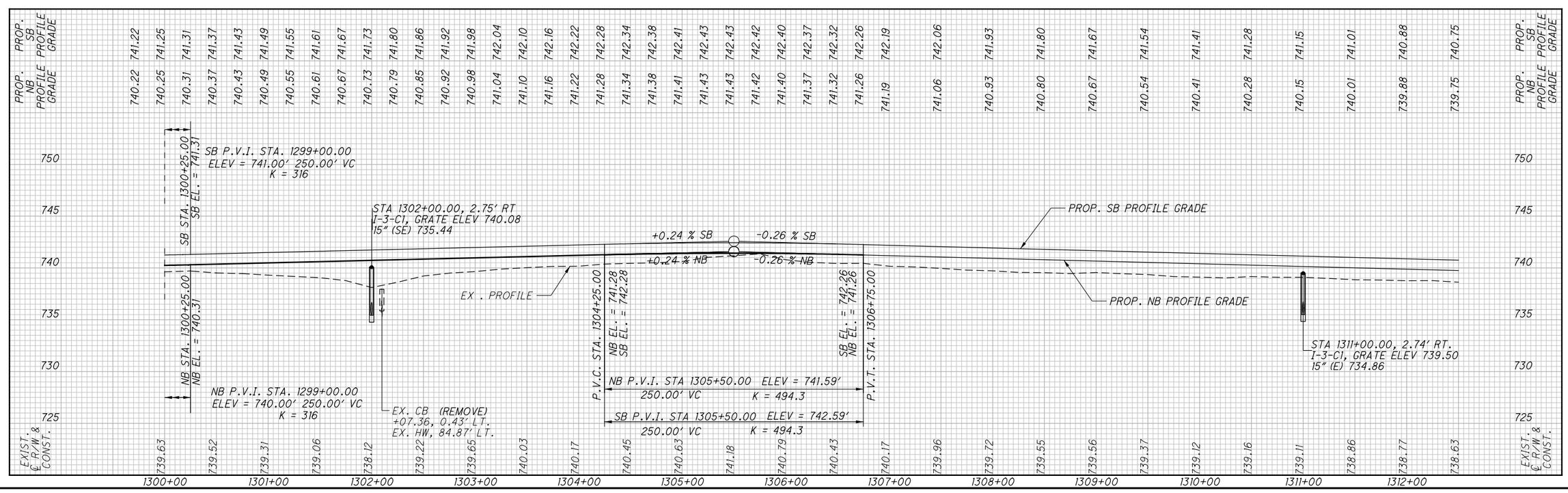
112
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp024.dgn 3/18/2015 4:26:27 PM CMN

CURVE 6-1
P.I. = STA. 1313+80.25
D = 21°08'56" (LT)
Dc = 0°34'00"
R = 10111.02'
T = 1887.55'
L = 3732.14'
E = 174.68'
C = 3710.99'
C.B. = N 20°04'28" E
P.C. = STA. 1294+92.70
P.T. = STA. 1332+24.84
e max. = 0.024



FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AL Z
CHECKED RJM

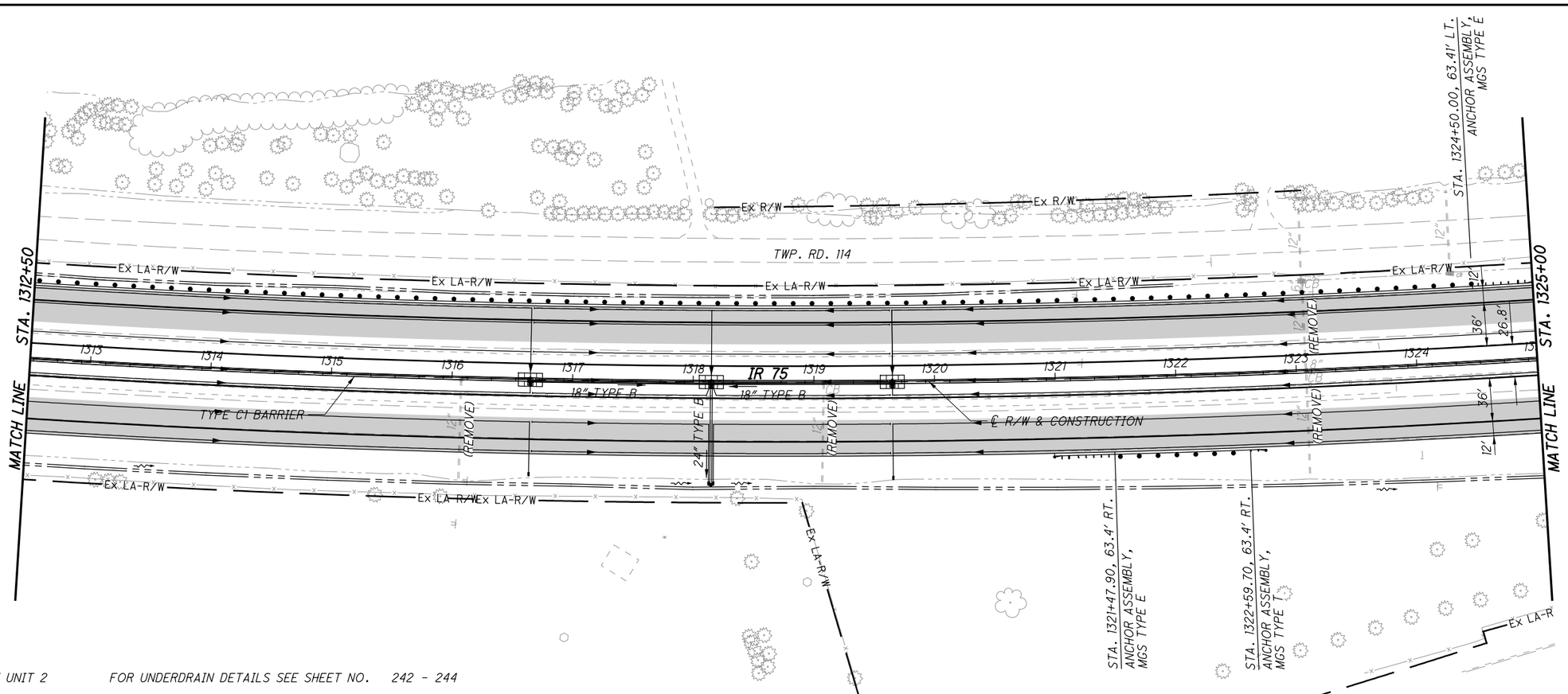
PLAN AND PROFILE
STA. 1300+00 TO STA. 1312+50

HAN/ WOO-75-19.22/ 0.00

113
336

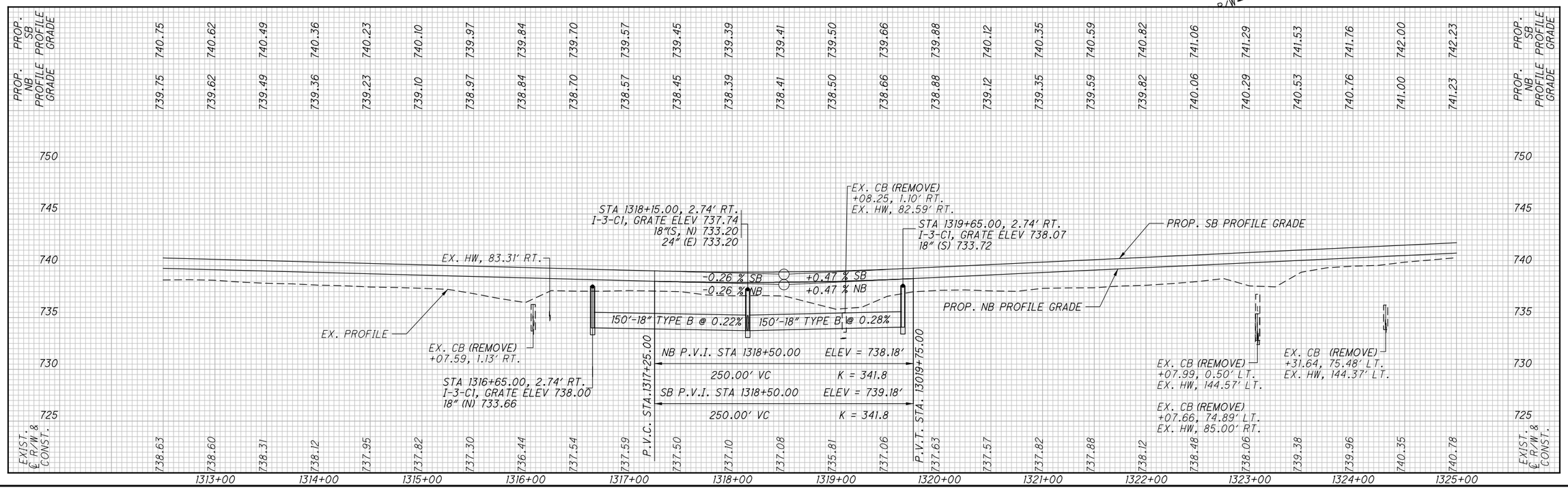
M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp025.dgn 3/18/2015 4:26:29 PM CMN

CURVE 6-1
P.I. = STA. 1313+80.25
D = 21°08'56" (LT)
Dc = 0°34'00"
R = 10111.02'
T = 1887.55'
L = 3732.14'
E = 174.68'
C = 3710.99'
C.B. = N 20°04'28" E
P.C. = STA. 1294+92.70
P.T. = STA. 1332+24.84
e max. = 0.024



BUILDABLE UNIT 2

FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244



PLAN AND PROFILE
STA. 1312+50 TO STA. 1325+00

HAN/WOO-75-19.22/0.00

114
336

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AL Z
CHECKED RJM

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp026.dgn 3/18/2015 4:26:31 PM CMN

CURVE 6-1
P.I. = STA. 1313+80.25
D = 21°08'56" (LT)
Dc = 0°34'00"
R = 10111.02'
T = 1887.55'
L = 3732.14'
E = 174.68'
C = 3710.99'
C.B. = N 20°04'28" E
P.C. = STA. 1294+92.70
P.T. = STA. 1332+24.84
e max. = 0.024

CURVE 6-2
P.I. = 8+19.98 ℄
Δ = 9° 16' 22.22"
D = 0° 34' 00.00"
R = 10111.02'
T = 819.98'
L = 1636.38'
E = 33.19'
e = 0.024

STA. 1325+00
STA. +00.00 BEGIN TAPER LT.
STA. 1330+00 BEGIN BUILDABLE UNIT 1 FULL TYPICAL SECTION
HANCOCK COUNTY
WOOD COUNTY
CR 589
TR 114
IR 75
CR 220
CR 588
Ex LA-R/W
STA. 3+11.56, 0.00' RT. BEGIN SIGN SUPPORT TRANSITION
STA. 4+01.56, 0.00' RT. END SIGN SUPPORT TRANSITION
RAMP A
RAMP B
CURVE 6-1
CURVE 6-2
℄ R/W & CONSTRUCTION
TYPE C1 BARRIER
(REMOVE)
MATCH LINE
STA. 5+25
12'
36'
26.8'
18"
15" TYPE B
STA. +40.00 BEGIN TAPER RT.
STA. +40.00 END TAPER LT.
EQUATION: Sta 1332+24.84 BK = Sta 0+00.00 AH
STA. 2+42.85, 71.7' RT. ANCHOR ASSEMBLY, MGS TYPE E
STA. 3+54.48, 75.1' RT. ANCHOR ASSEMBLY, MGS TYPE T

BUILDABLE UNIT 2

FOR INTERCHANGE DETAILS SEE SHEET NO. 140-141 (BU 1)
FOR UNDERDRAIN DETAILS SEE SHEET NO. 242 - 244

PROP. SB PROFILE GRADE
PROP. NB PROFILE GRADE
EXIST. ℄ R/W & CONST.
EX. PROFILE
+0.47 % SB
+0.67 % SB
-1.20 % SB
+0.47 % NB
-1.20 % NB
STA 1326+00.00, 2.75' RT. I-3-C1, GRATE ELEV 741.05
18"
EX. HW 96.69' RT.
EX. HW 108.47' LT.
P.V.I. STA 1329+00.00 ELEV = 744.11'
P.V.C. STA. 1329+87.18 SB EL. = 744.70
P.V.C. STA. 1330+34.17 NB EL. = 743.74'
600.00' VC K = 359.4
NB P.V.I. STA 1+09.33 ELEV = 745.15'
SB P.V.I. STA 0+62.34 ELEV = 746.71'
600.00' VC K = 320.9
EX. CB (REMOVE) +60.47, 0.25' LT.
EX. MH (REMOVE) +89.33, 5.13' RT.
P.V.C. STA. 4+25.00
SB EL. = 743.11'
P.V.T. STA. 3+62.34
NB EL. = 741.54
P.V.T. STA. 1+09.33
NB P.V.I. ELEV= 738.66' STA 6+50.00 450.00' VC K = 593.8
SB P.V.I. ELEV= 739.66' STA 6+50.00 450.00' VC K = 593.8

PROP. NB PROFILE GRADE	PROP. SB PROFILE GRADE	EXIST. ℄ R/W & CONST.
741.23	742.23	740.78
741.47	742.47	740.82
741.70	742.70	741.31
741.93	742.93	741.32
742.17	743.17	741.57
742.40	743.40	741.86
742.64	743.64	742.12
742.87	743.87	742.39
743.11	744.11	742.62
743.34	744.45	743.09
743.58	744.78	743.20
743.81	745.06	743.44
743.99	745.26	743.61
744.09	745.38	743.79
744.13	745.42	743.67
744.13	745.41	743.83
744.06	745.34	743.80
743.93	745.18	743.93
743.72	744.95	743.61
743.45	744.65	743.20
743.10	744.26	742.44
742.69	743.80	741.88
742.21	743.25	741.48
741.66	742.66	740.81
741.06	742.06	740.51
740.50	741.50	740.17

1325+00 1326+00 1327+00 1328+00 1329+00 1330+00 1331+00 1332+000 1+00 2+00 3+00 4+00 5+00

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED ALZ CHECKED RJM

PLAN AND PROFILE
STA. 1325+00 TO STA. 5+25

HAN/WOO-75-19.22/0.00

115
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\P&P\95437gp027.dgn 3/18/2015 4:26:32 PM CMN

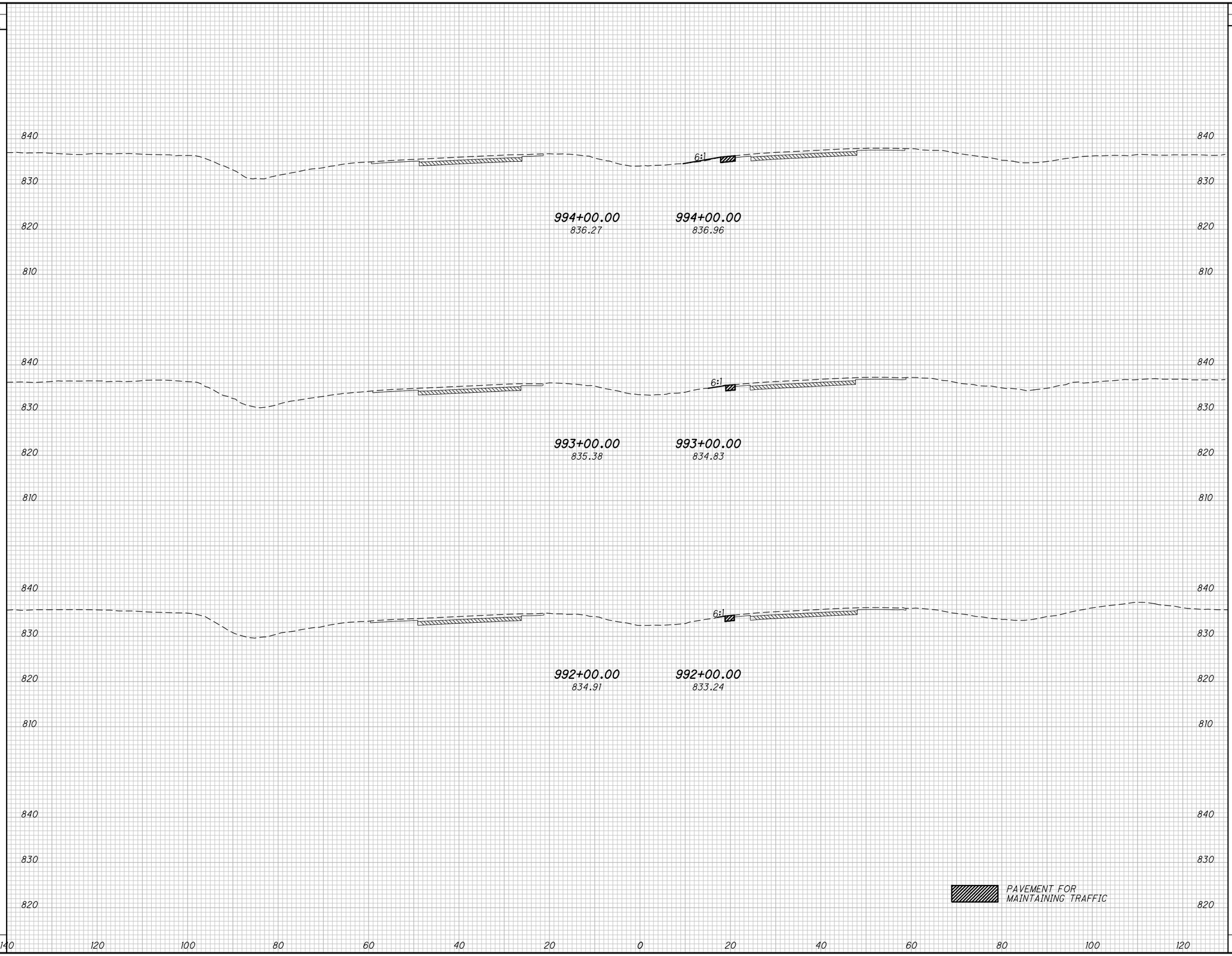
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS I.R. 75
STA. 992+00.00 TO STA. 994+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:32 PM CMN

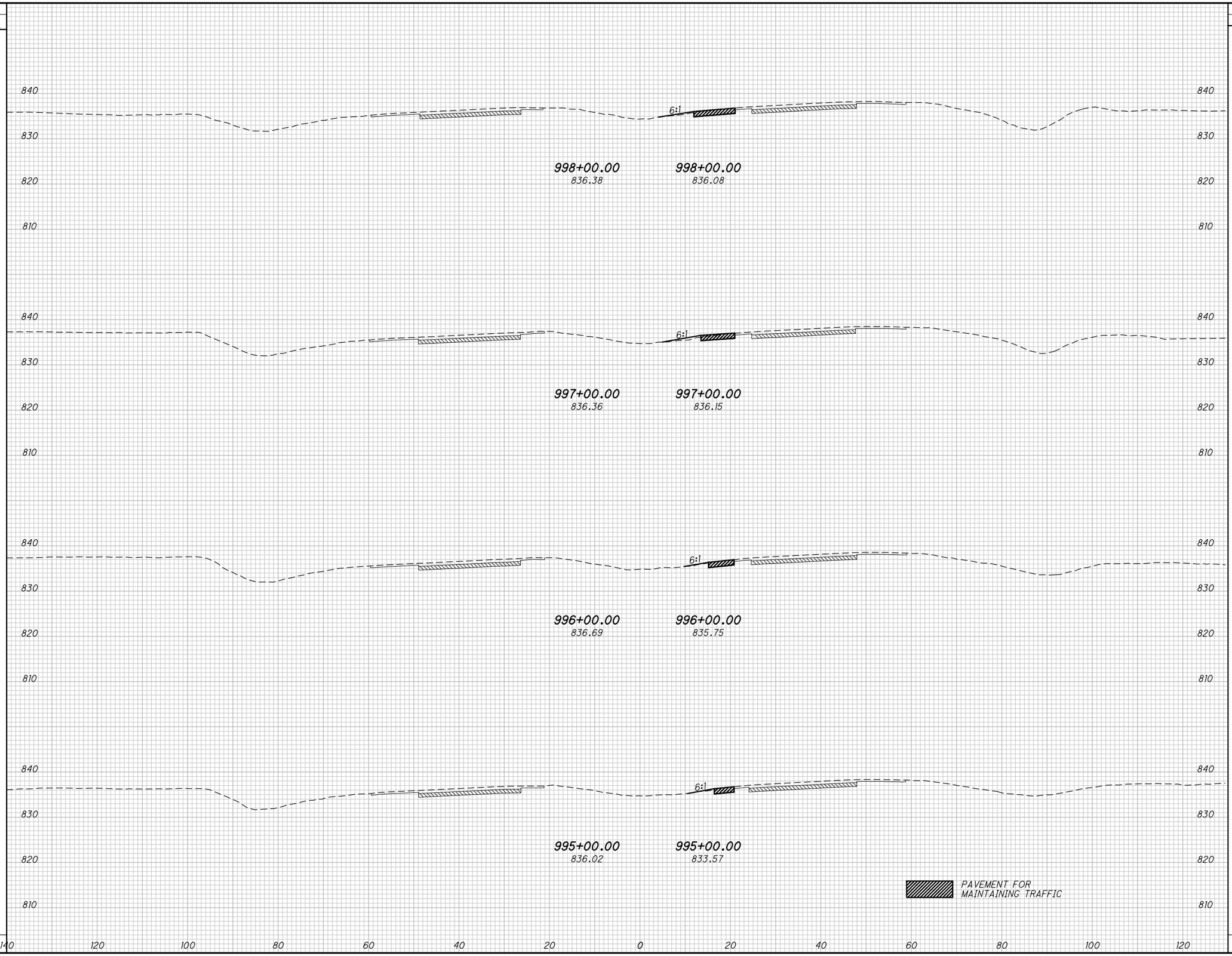
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS I.R. 75
STA. 995+00.00 TO STA. 998+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:38 PM CMN

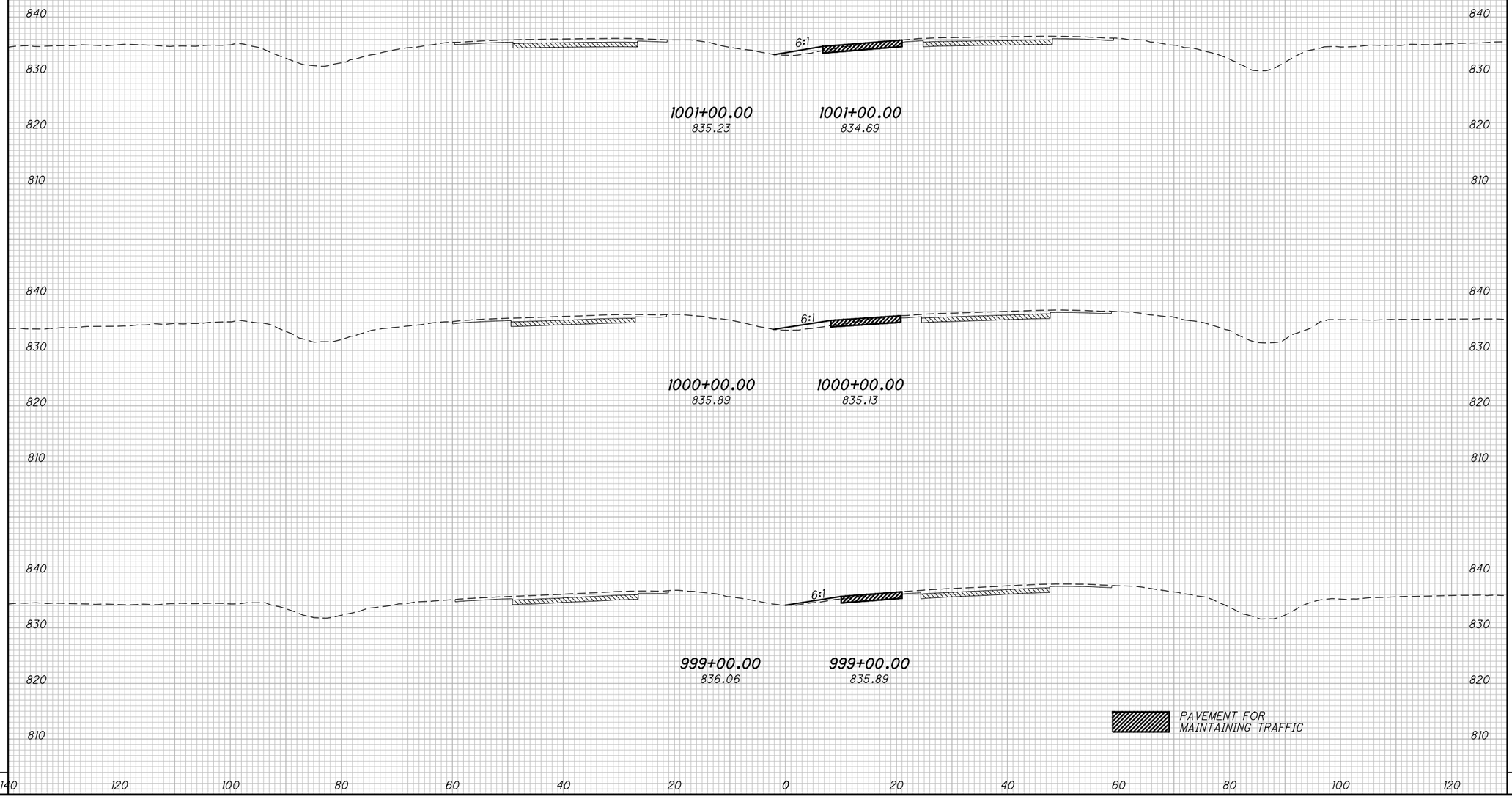
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS I.R. 75

STA. 999+00.00 TO STA. 1001+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:40 PM CMN

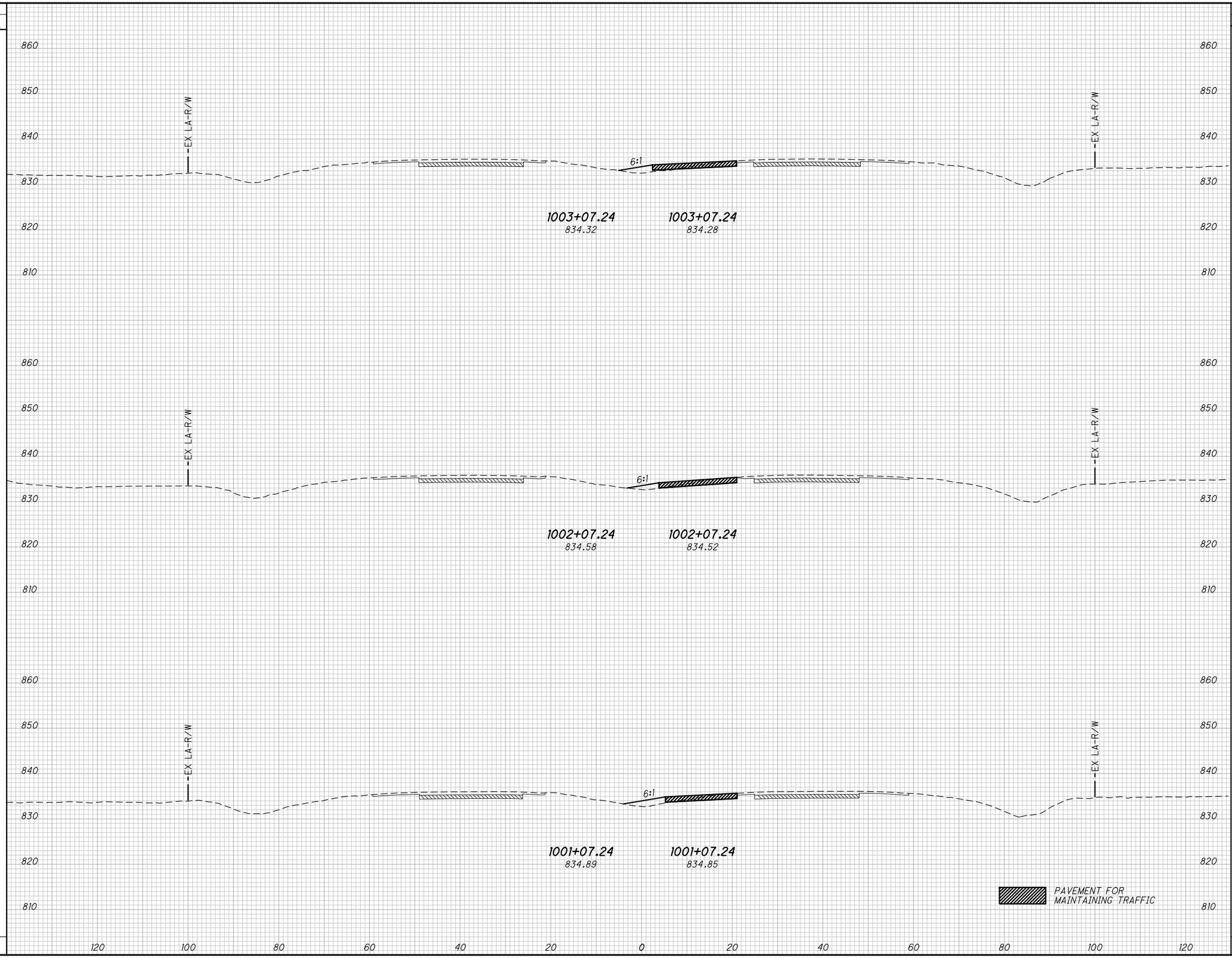
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS I.R. 75

STA. 1002+00.00 TO STA. 1004+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:42 PM CMN

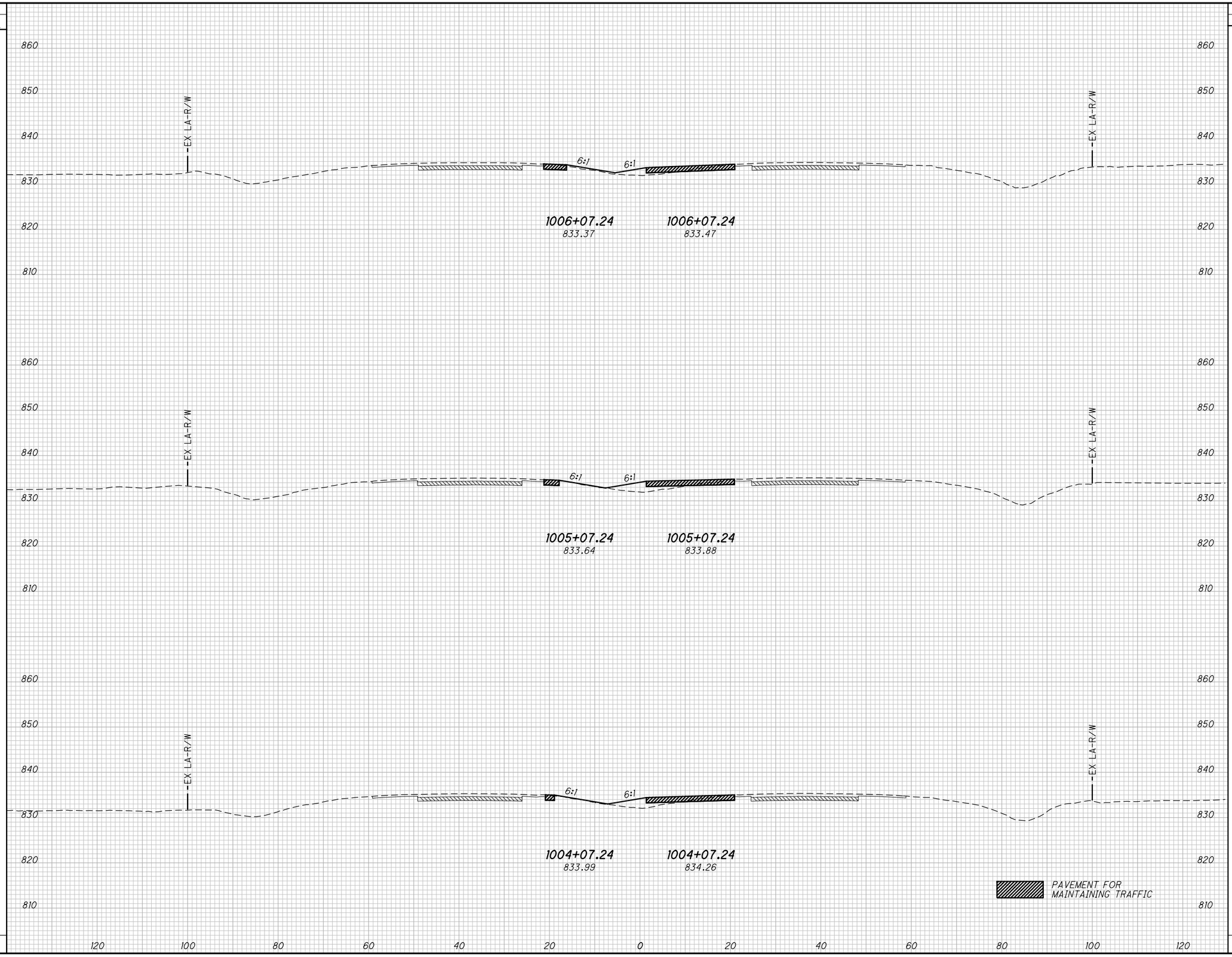
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS I.R. 75

STA. 1005+00.00 TO STA. 1007+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:44 PM CMN

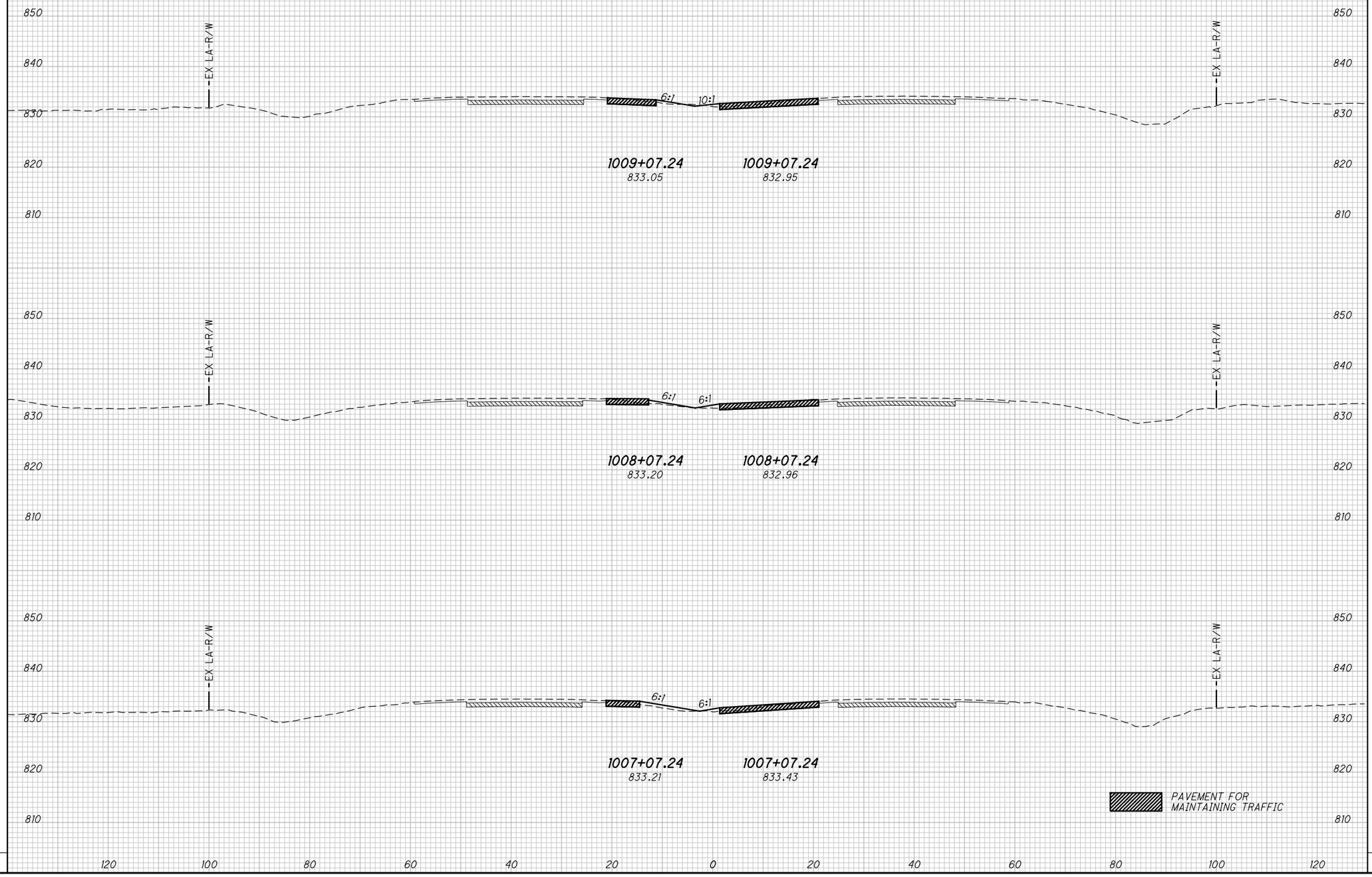
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



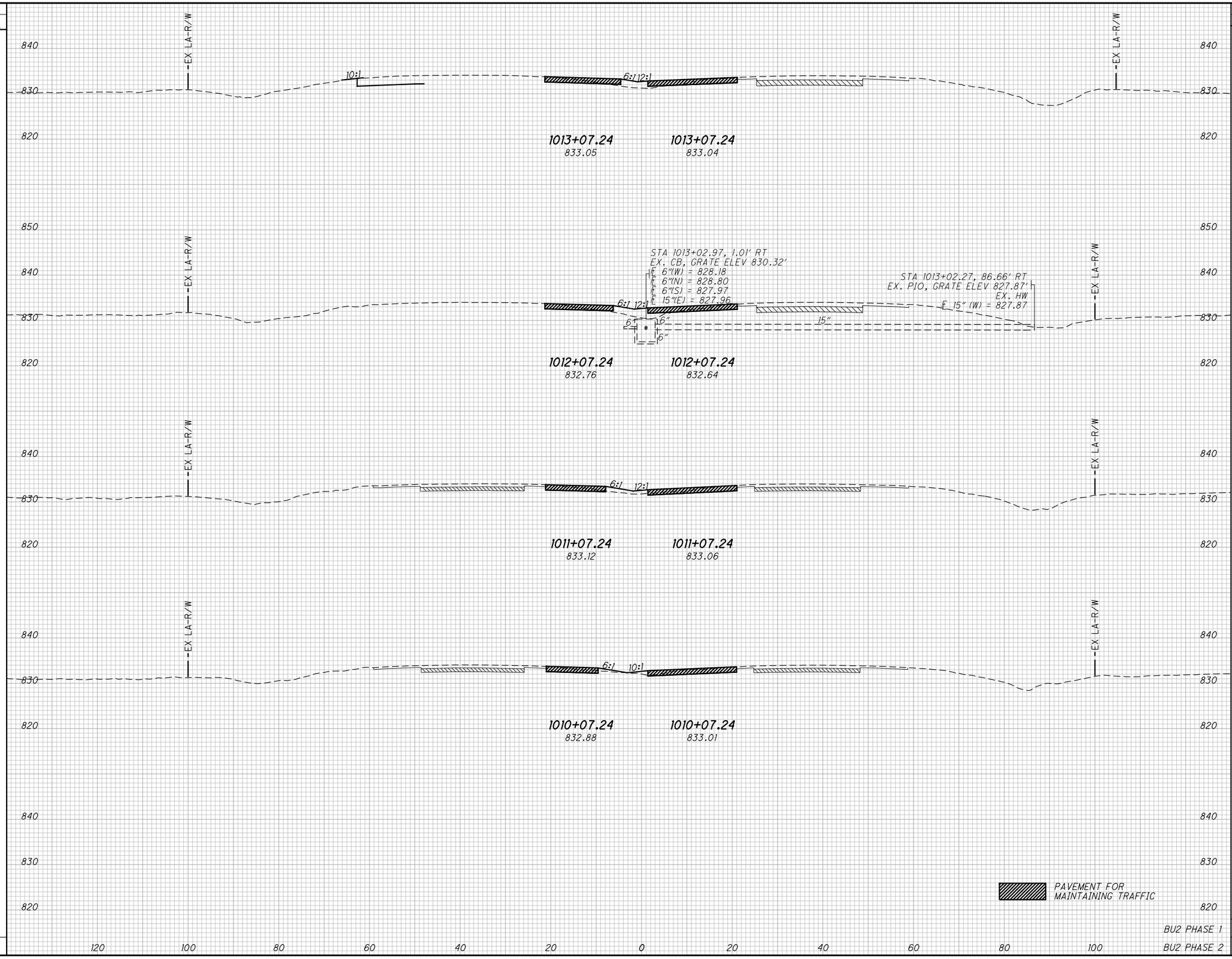
CROSS SECTIONS I.R. 75

STA. 1007+00.00 TO STA. 1010+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:46 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
.	.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
.	.	.	.
.	.	.	.

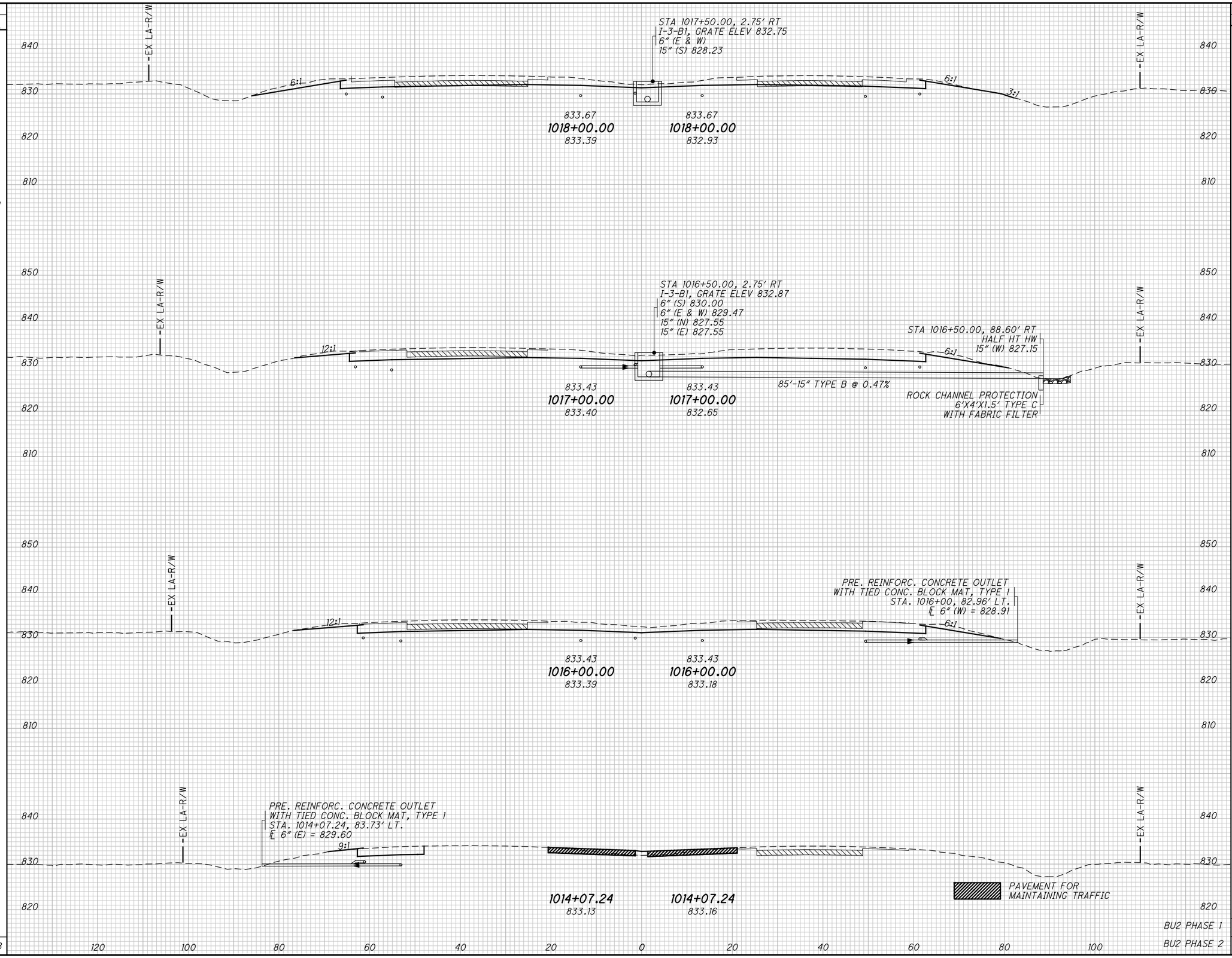
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1010+00.00 TO STA. 1014+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:49 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
46	461
37	417
38	878



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
58	0		
60	0		
		250	0
		276	0
77	0		
89	0		
		298	0
		320	0
84	0		
84	0		
BU2 PHASE 1 ·	·	548	0
BU2 PHASE 2 ·	·	596	0

CALCULATED ALZ
CHECKED RJM

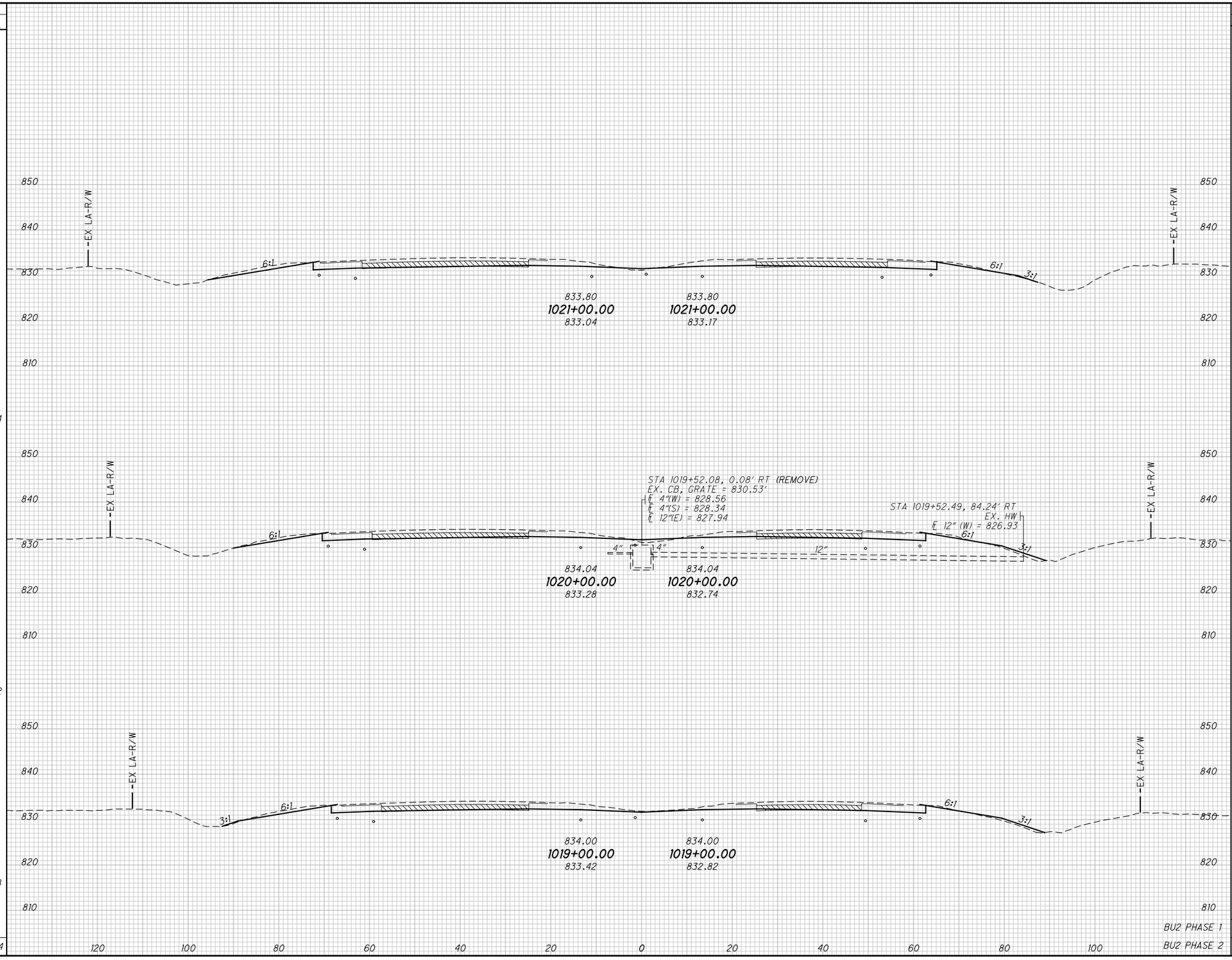
CROSS SECTIONS I.R. 75
STA. 1015+00.00 TO STA. 1018+00.00

HAN/WOO-75-19.22/0.00

123
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/19/2015 8:42:55 AM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
53	594
54	622
58	578
·	1794



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
40	2	135	13
50	1	178	13
33	5	135	9
46	6	176	22
40	0	181	0
49	6	202	11
·	·	451	22
·	·	556	46

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

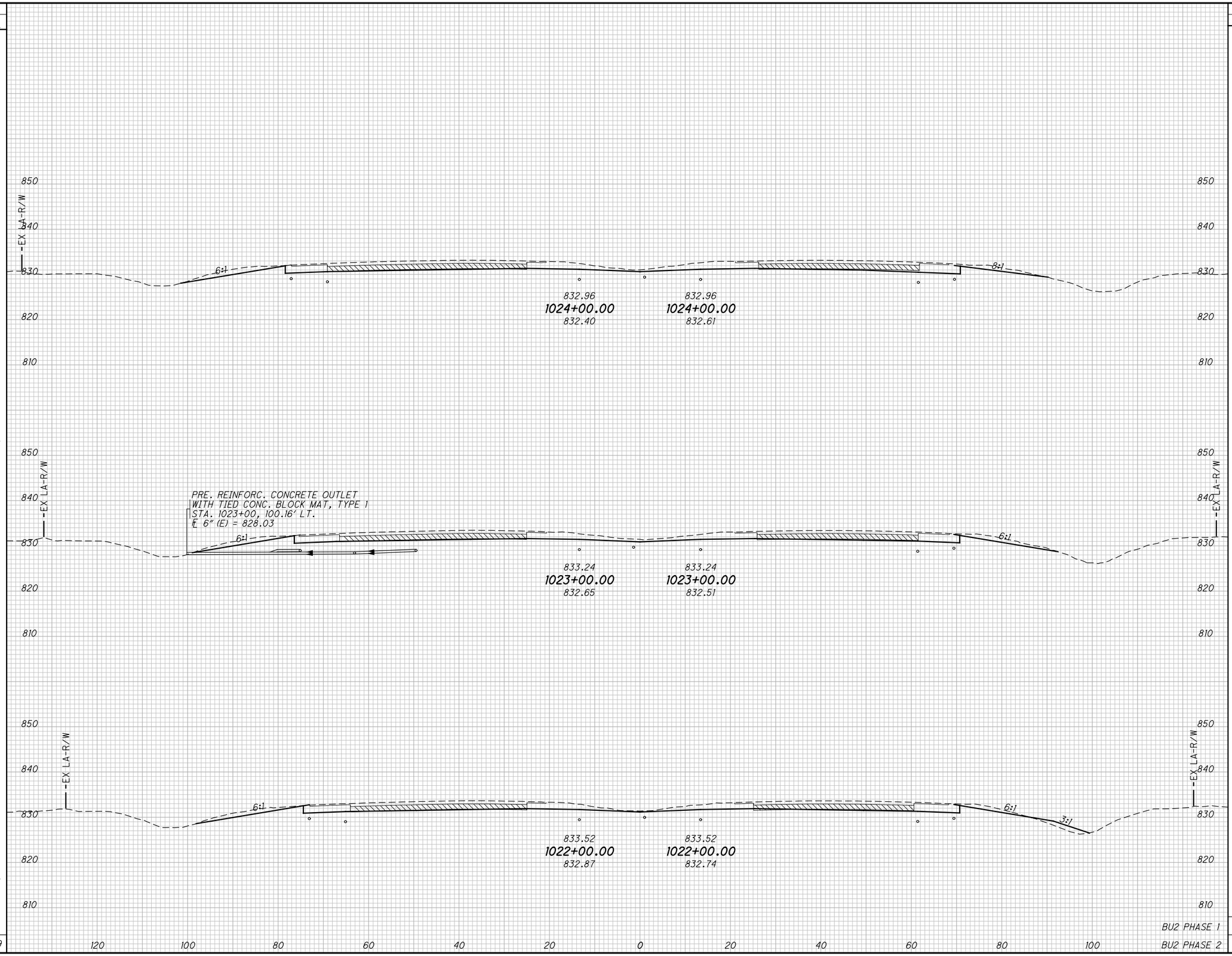
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1019+00.00 TO STA. 1021+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:53 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
50	561
51	617
60	628
·	1189



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
58	0		
71	0		
			0
		259	0
54	0		
69	0		
			0
		239	
45	0		
60	9		
·	·	547	4
·	·	702	36

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1022+00.00 TO STA. 1024+00.00

HAN/WOO-75-19.22/0.00

125
336

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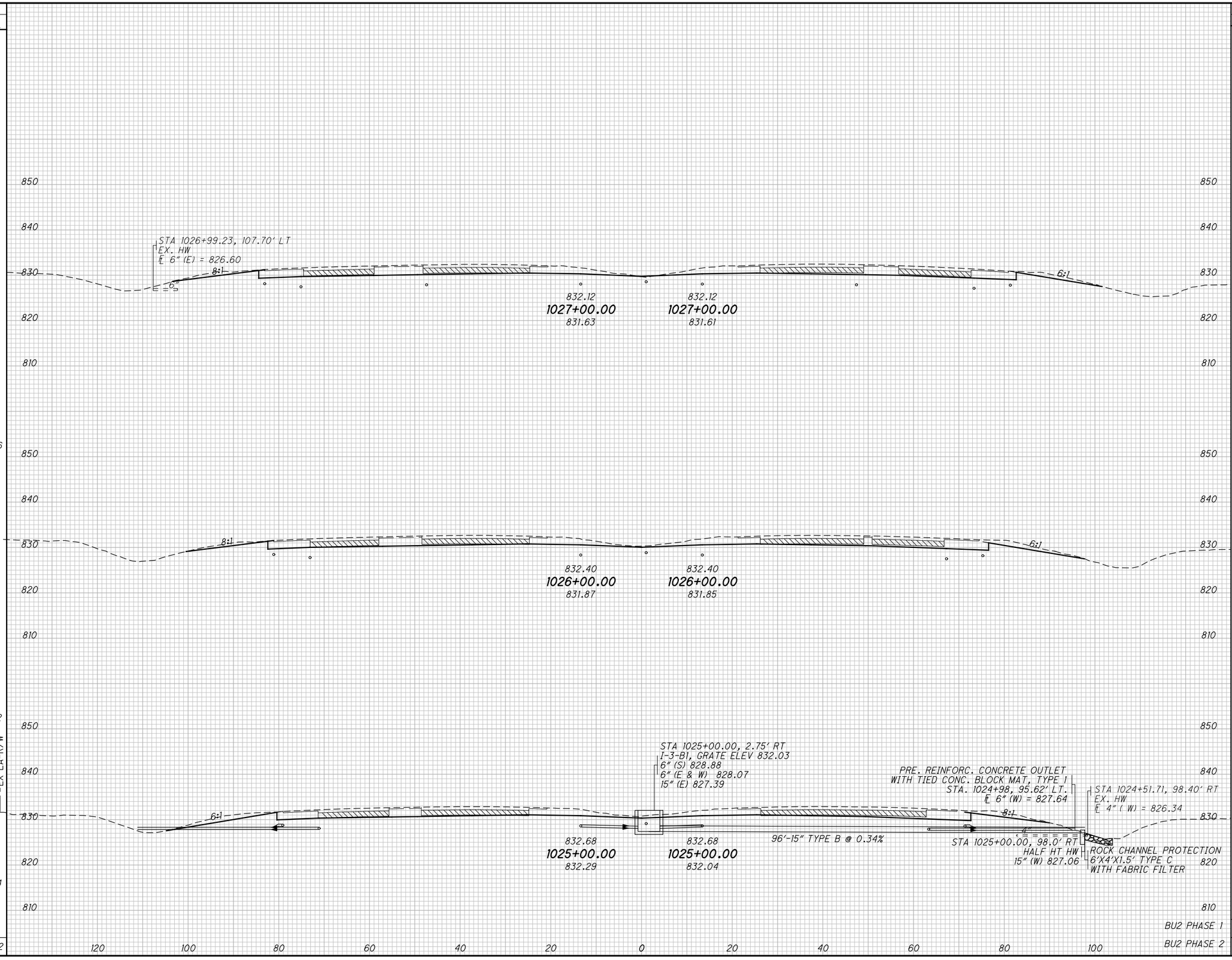
SEEDING	
END WIDTH	SQ. YDS.
45	506
46	522
48	544
·	1572



END AREA		VOLUME	
CUT	FILL	CUT	FILL
51	0		
102	0		
		193	0
		361	0
53	0		
93	0		
		198	0
		337	0
54	0		
87	0		
		207	0
		293	0
BU2 PHASE 1	· ·	598	0
BU2 PHASE 2	· ·	991	0

CALCULATED ALZ
CHECKED RJM

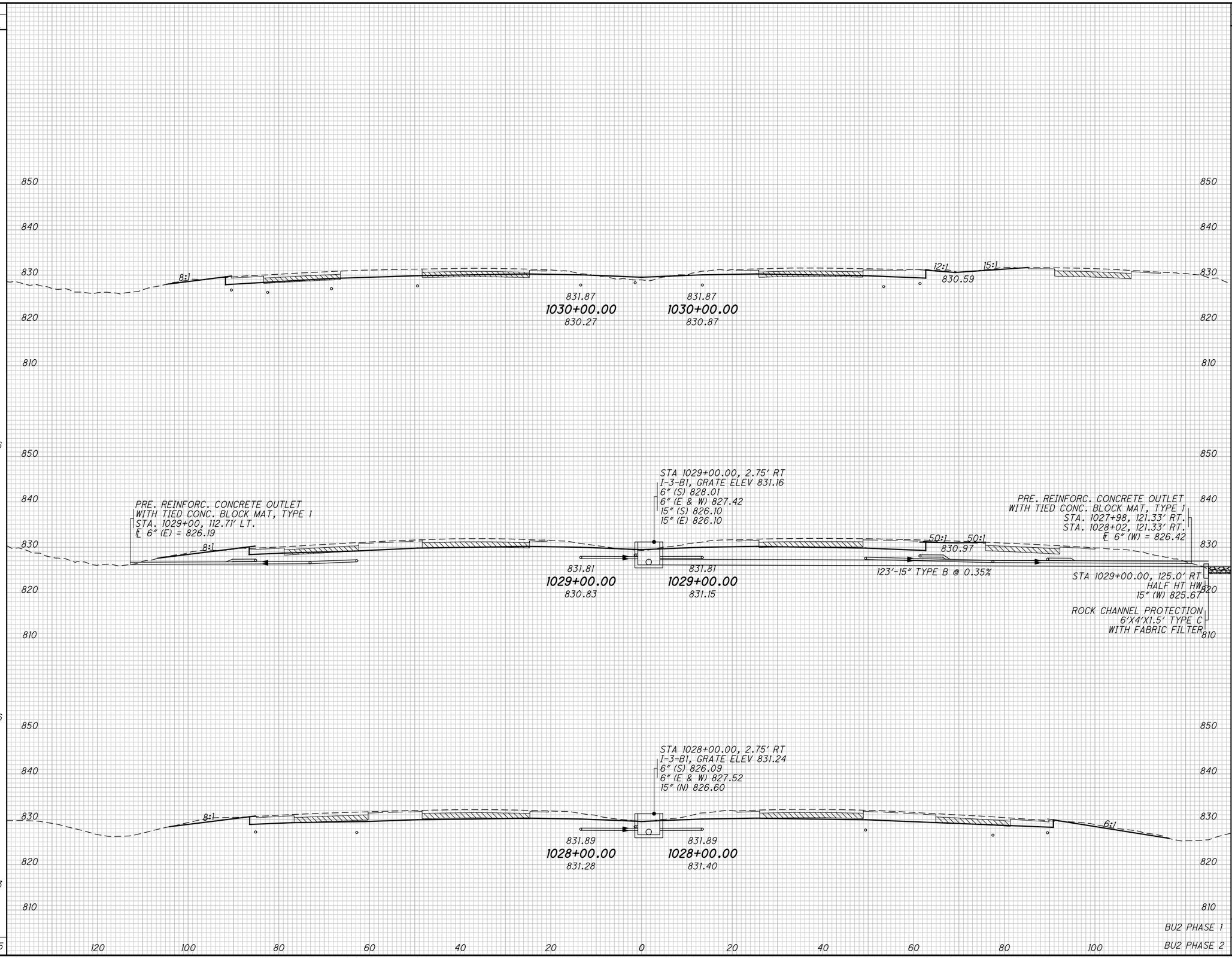
CROSS SECTIONS I.R. 75
STA. 1025+00.00 TO STA. 1027+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:27:58 PM CMN

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:00 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
42	456
40	506
51	533
·	1495



END AREA		VOLUME	
CUT	FILL	CUT	FILL
23	7		
66	0		
		119	15
		241	4
41	1		
64	2		
		167	2
		311	6
49	0		
104	1	185	0
		381	2
·	·	471	17
·	·	933	12

BU2 PHASE 1

BU2 PHASE 2

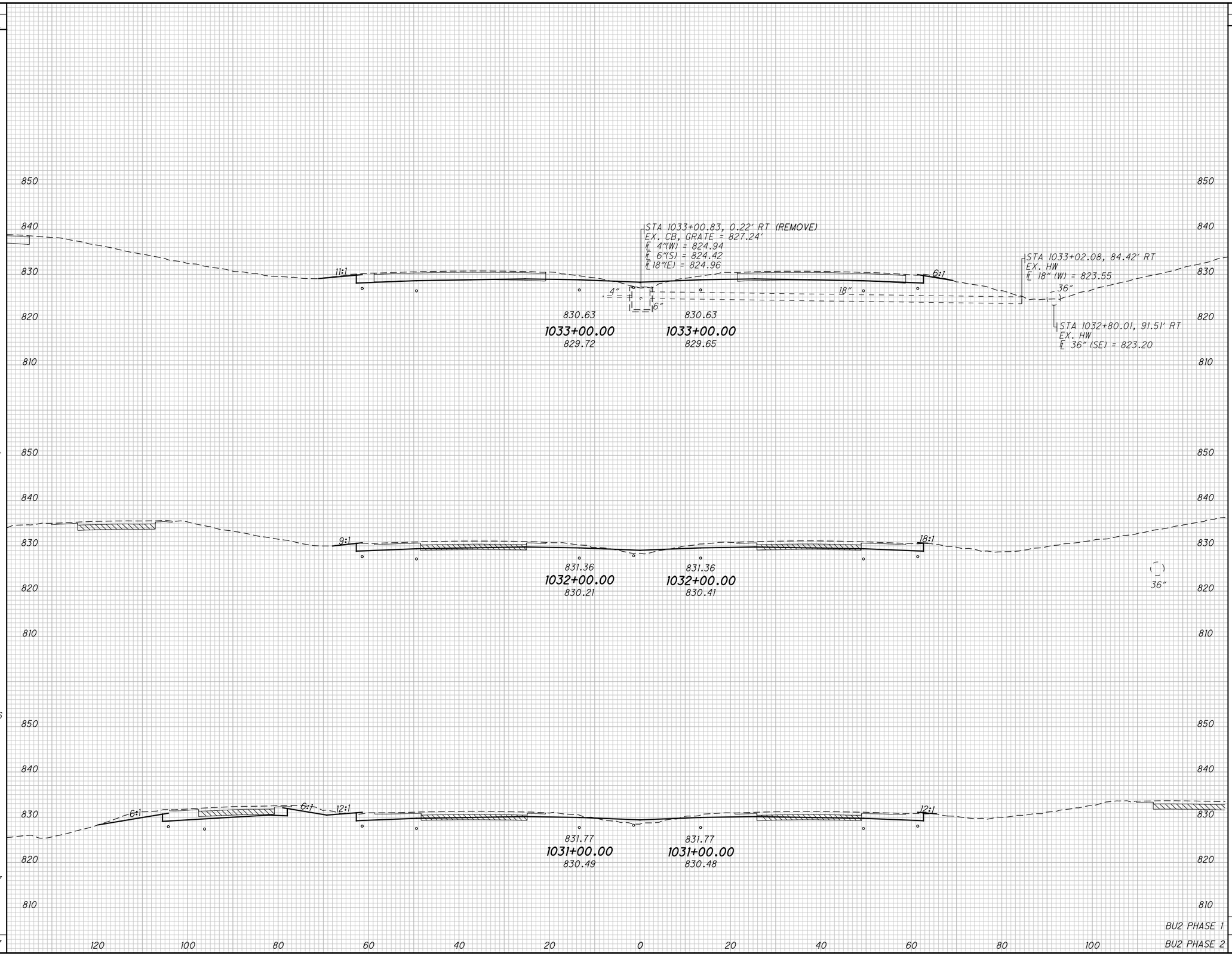
CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1028+00.00 TO STA. 1030+00.00

HAN/WOO-75-19.22/0.00

SEEDING	
END WIDTH	SQ. YDS.
	22
	194
	13
	306
	42
	467
·	967



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		102	
		104	28
29	6		
39			
		91	30
		237	2
20			
89	1		
		80	13
		287	19
BU2 PHASE 1	· ·	273	43
BU2 PHASE 2	· ·	626	49

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1031+00.00 TO STA. 1033+00.00

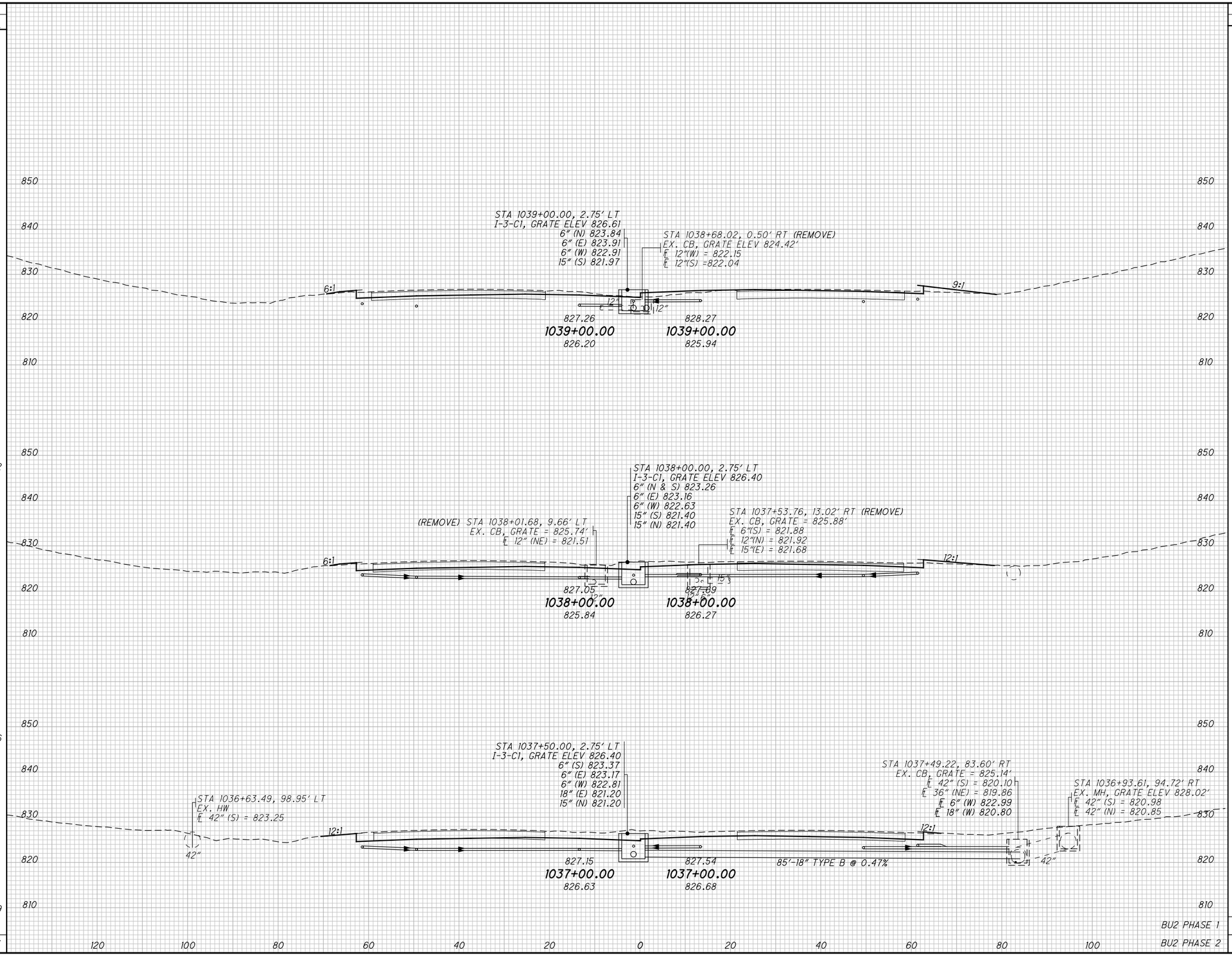
HAN/WOO-75-19.22/0.00

128
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:02 PM CMN

SEEDING	
END WIDTH	SQ. YDS.

SEEDING	
END WIDTH	SQ. YDS.
	30
	322
	28
	256
	18
	239
·	817



END AREA		VOLUME	
CUT	FILL	CUT	FILL
10	11		
7	10		
		87	20
		31	30
37	0		
10	6		
		183	0
		43	13
62	0		
13	1		
		596	0
		263	4
·	·	866	20
·	·	337	47

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

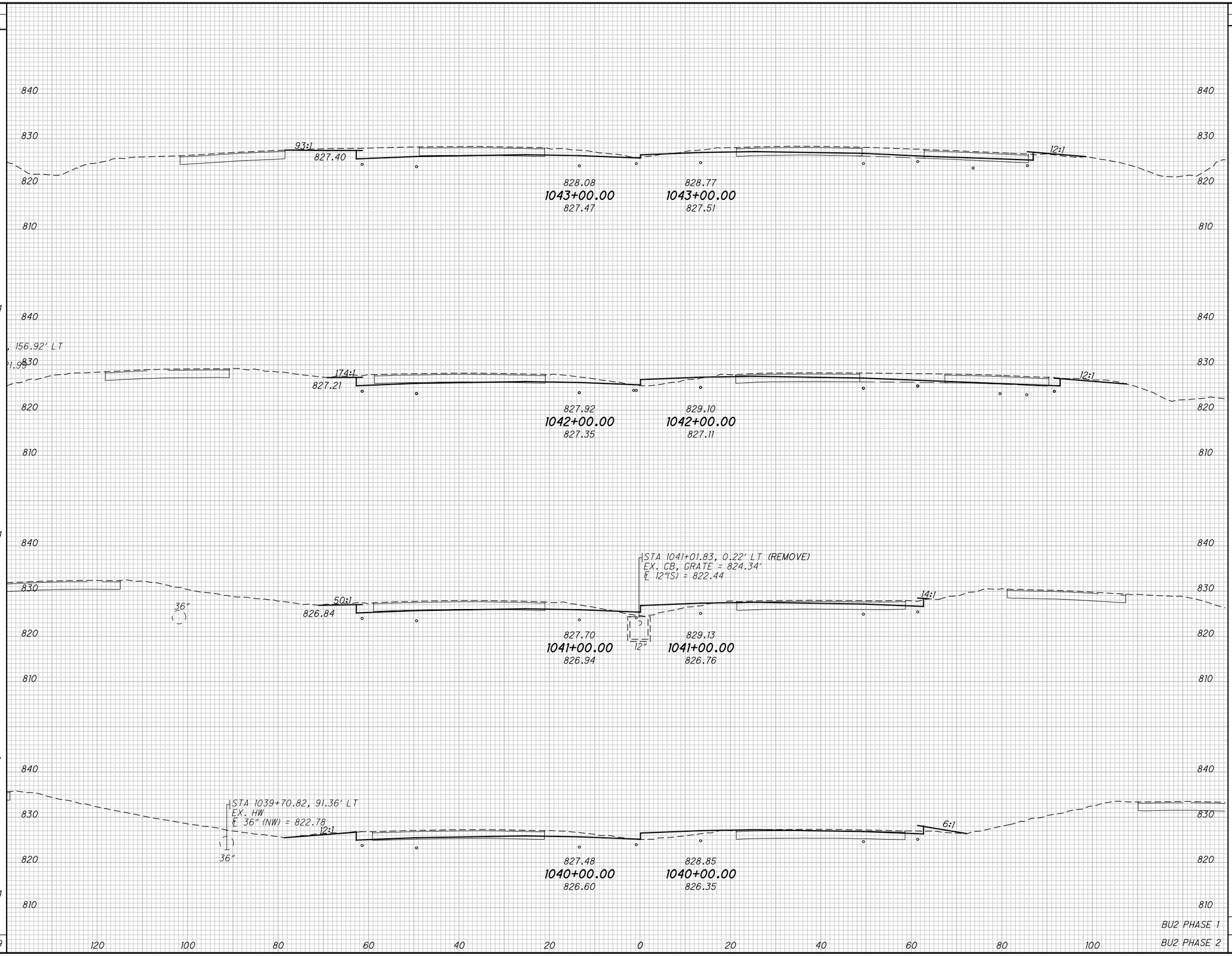
CROSS SECTIONS I.R. 75
STA. 1037+00.00 TO STA. 1039+00.00

HAN/WOO-75-19.22/0.00

130
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:07 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
34	
	344
28	
	244
16	
	267
32	
	344
·	1199



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
29	2		
58	3		
		93	28
		202	6
21	13		
51	0		
		69	65
		128	0
16	22		
18	0		
		57	74
		54	9
15	18		
11	5	46	54
		33	28
·	·	265	221
·	·	417	43

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

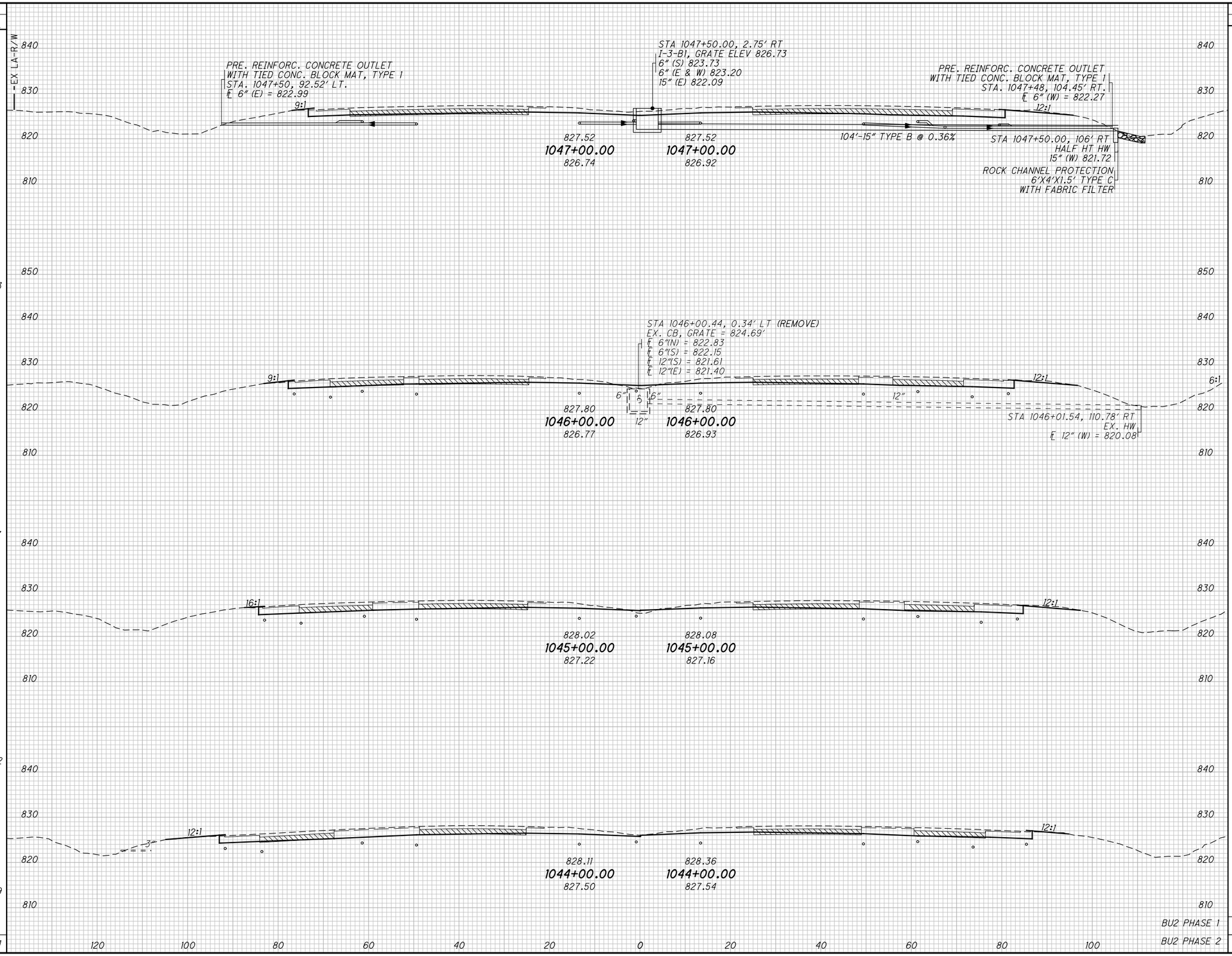
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1040+00.00 TO STA. 1043+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:09 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
	25
	283
	26
	267
	22
	272
	27
	339
·	1161



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
49	0		
33	1		
		150	7
		157	4
32	4		
52	1		
		126	11
		224	2
36	2		
69	0		
		148	4
		265	2
44	0		
74	1	135	4
		244	7
·	·	559	26
·	·	890	15

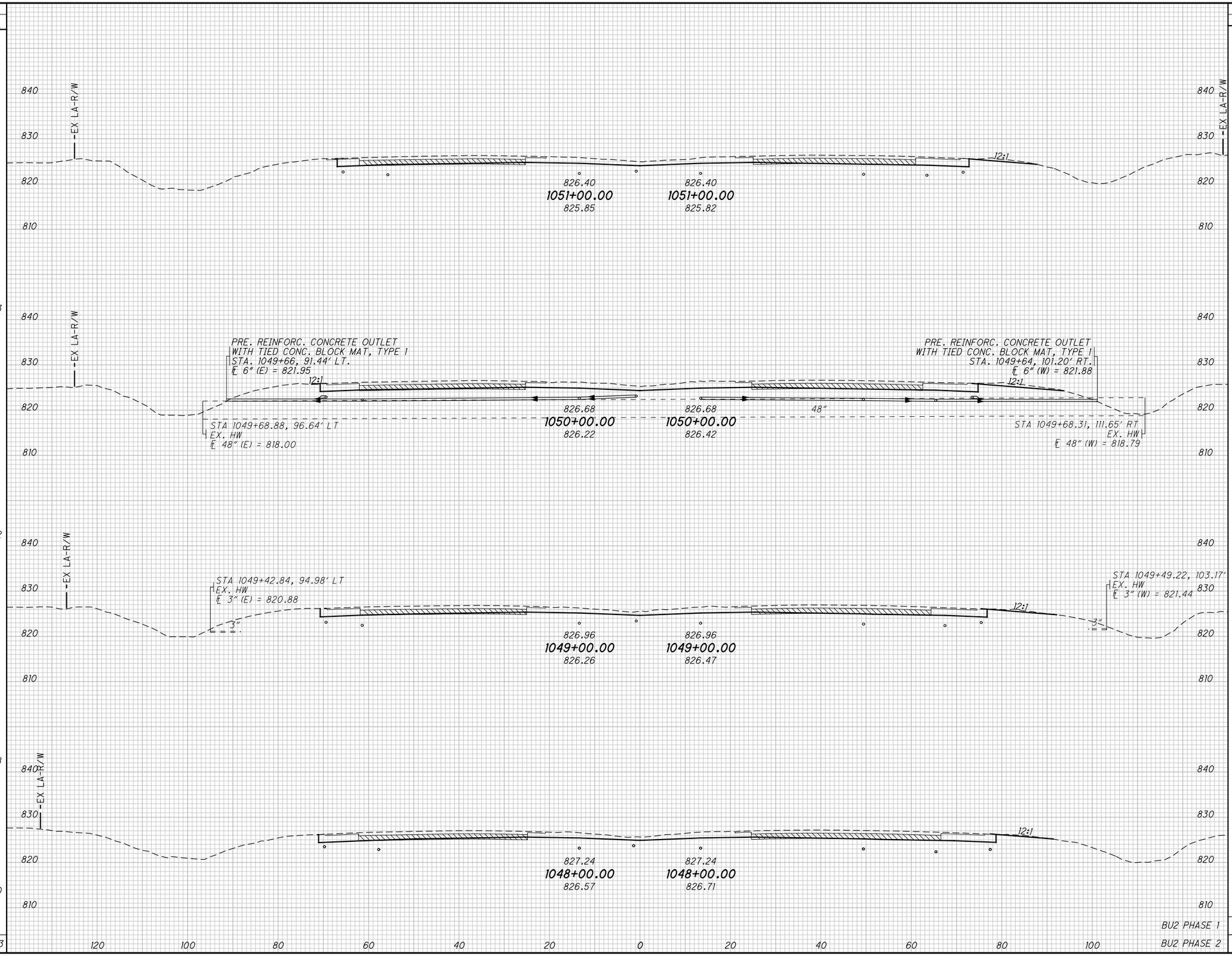
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1044+00.00 TO STA. 1047+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:11 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
23	283
28	
21	272
20	228
	250
·	1033



END AREA		VOLUME	
CUT	FILL	CUT	FILL
56	0		
31	0		
		220	0
		130	0
61	0		
39	0		
		213	0
		139	0
54	0		
36	0		
		194	0
		131	0
51	0		
35	0	185	0
		126	2
·	·	812	0
·	·	526	2

BU2 PHASE 1
BU2 PHASE 2

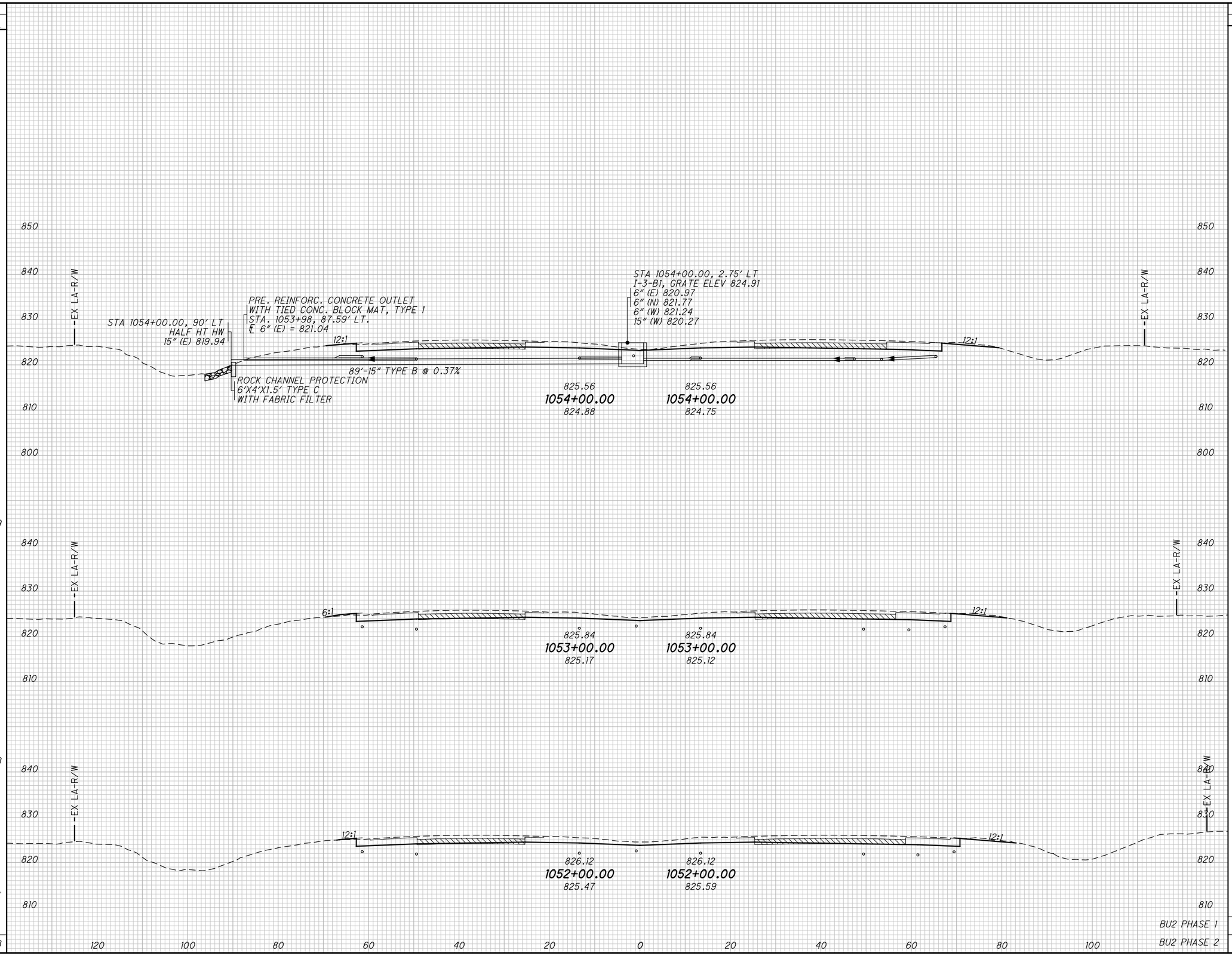
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1048+00.00 TO STA. 1051+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:14 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
26	289
26	278
24	261
·	828



END AREA		VOLUME	
CUT	FILL	CUT	FILL
45	0	176	0
44	0	157	4
50	0	191	0
41	2	152	6
53	0	202	0
41	1	133	2
BU2 PHASE 1	·	·	569	0
BU2 PHASE 2	·	·	442	12

CALCULATED ALZ
CHECKED RJM

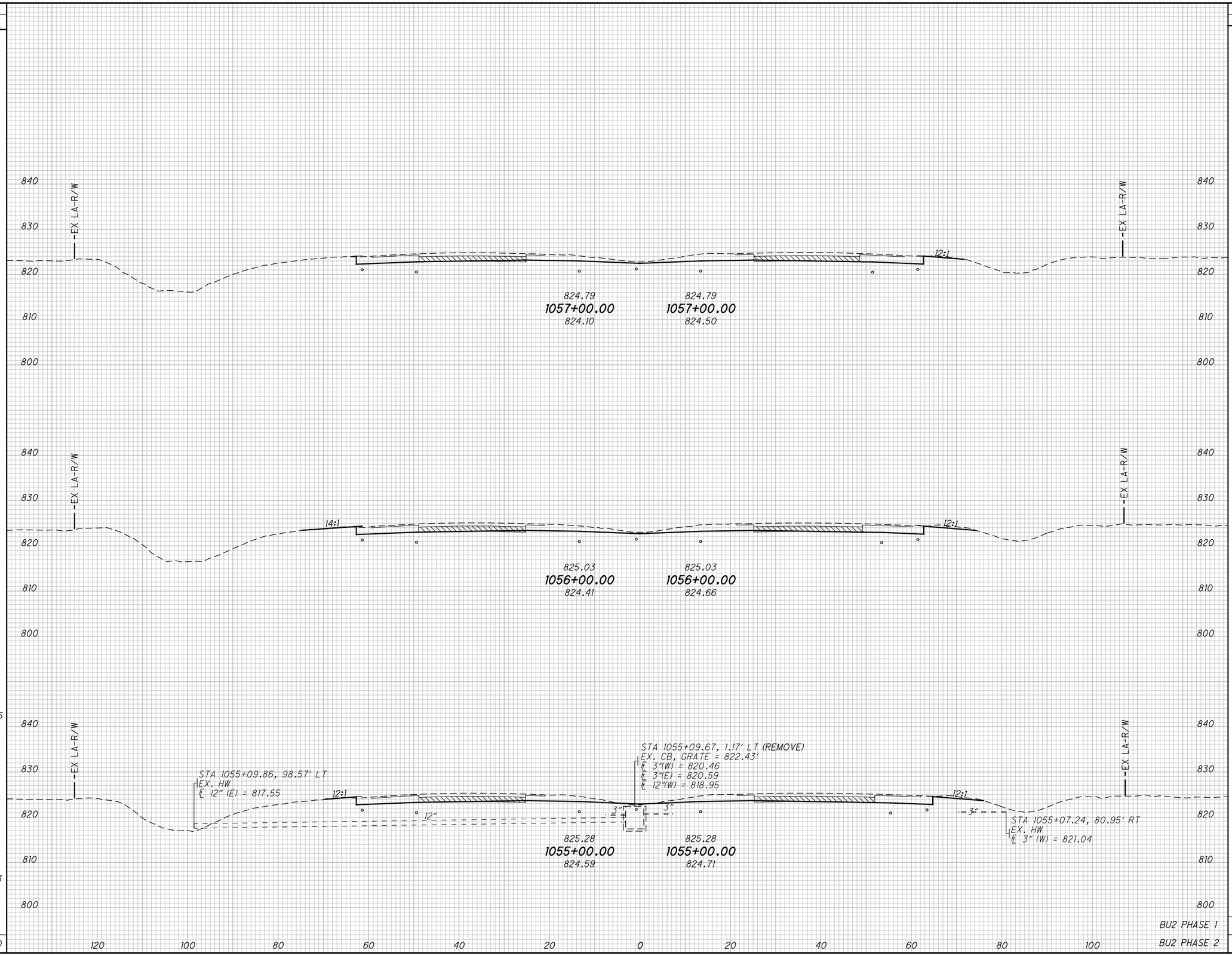
CROSS SECTIONS I.R. 75
STA. 1052+00.00 TO STA. 1054+00.00

HAN/WOO-75-19.22/0.00

134
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:16 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
17	
	261
30	
	306
25	
	283
·	850



END AREA		VOLUME	
CUT	FILL	CUT	FILL
52	0		
44	0		
		194	0
		169	0
53	0		
47	0		
		178	2
		170	0
43	1		
45	0		
		163	2
		165	0
BU2 PHASE 1 ·	·	535	4
BU2 PHASE 2 ·	·	504	0

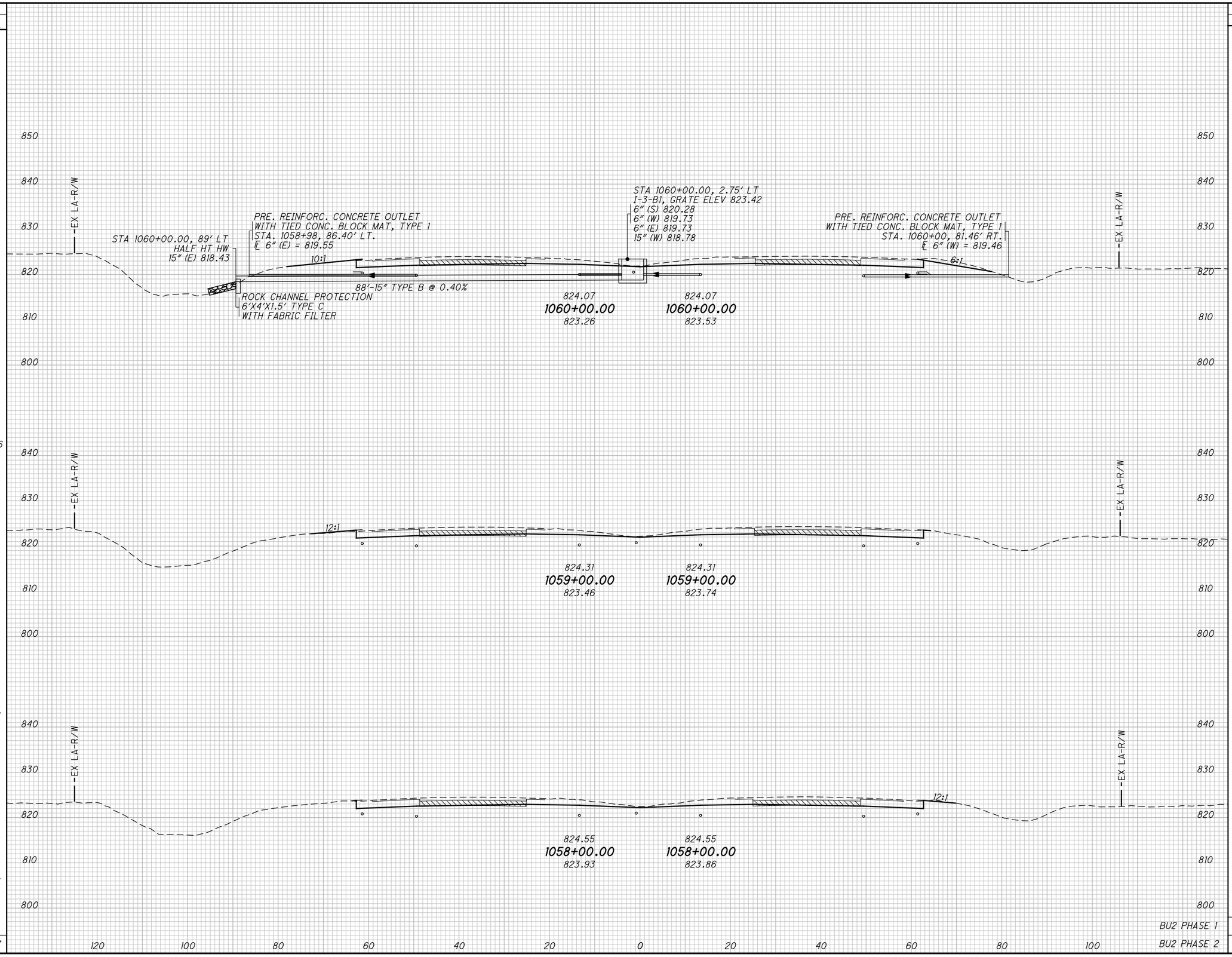
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1055+00.00 TO STA. 1057+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:18 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
	37
	306
	18
	183
	15
	178
·	667



END AREA		VOLUME	
CUT	FILL	CUT	FILL
47	0		
52	0		
		169	0
		170	2
44	0		
40	1		
		169	0
		154	2
47	0		
43	0		
		183	0
		161	0
·	·	521	0
·	·	485	4

BU2 PHASE 1
BU2 PHASE 2

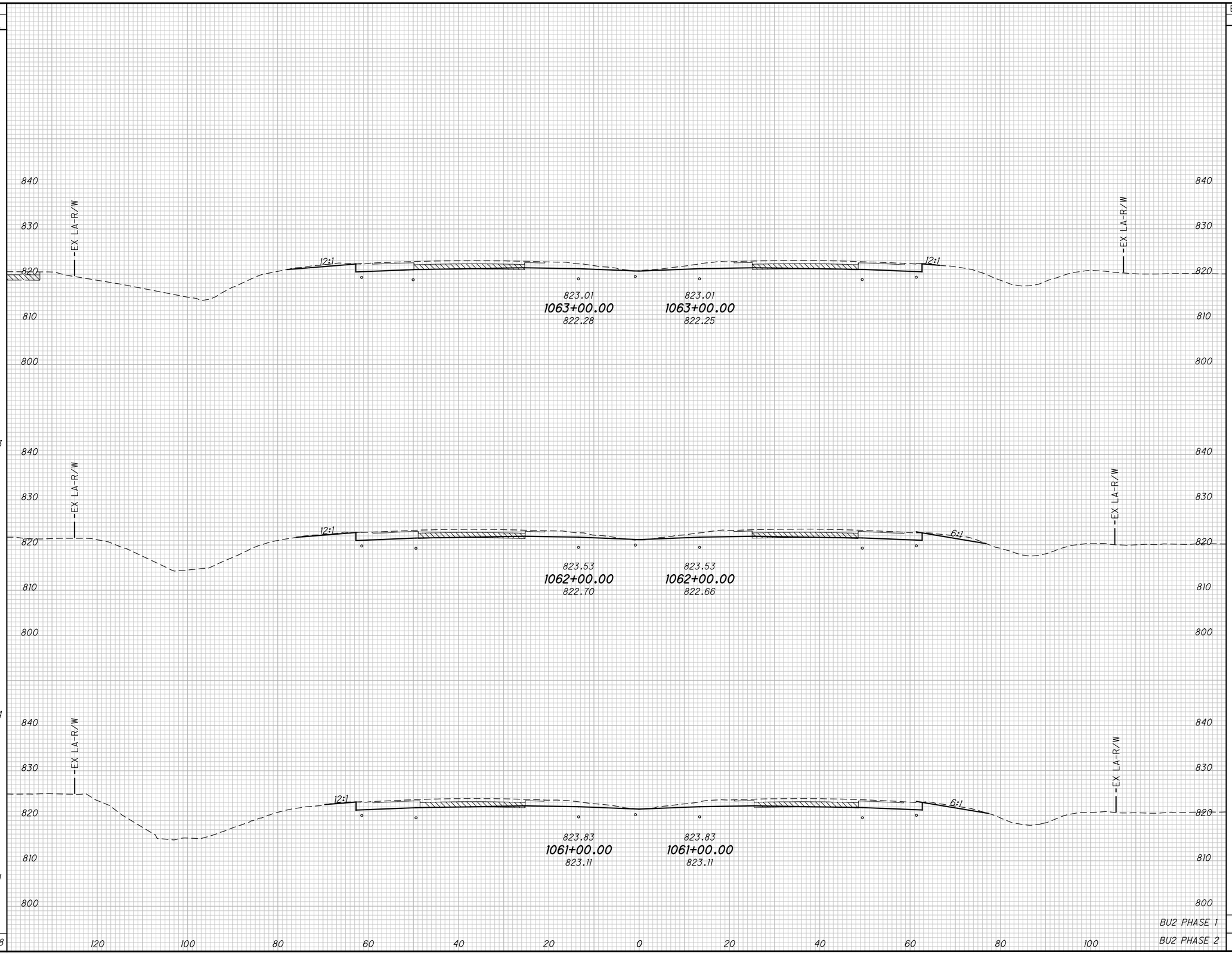
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1058+00.00 TO STA. 1060+00.00

HAN/WOO-75-19.22/0.00

136
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:20 PM CMN



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
26		44	0		
		47	0		
	333			154	0
				181	0
34		39	0		
		51	0		
	344			154	0
				185	0
28		44	0		
		49	0		
	361			169	0
				187	2
BU2 PHASE 1		·	·	477	0
BU2 PHASE 2	1038	·	·	553	2

CALCULATED ALZ
CHECKED RJM

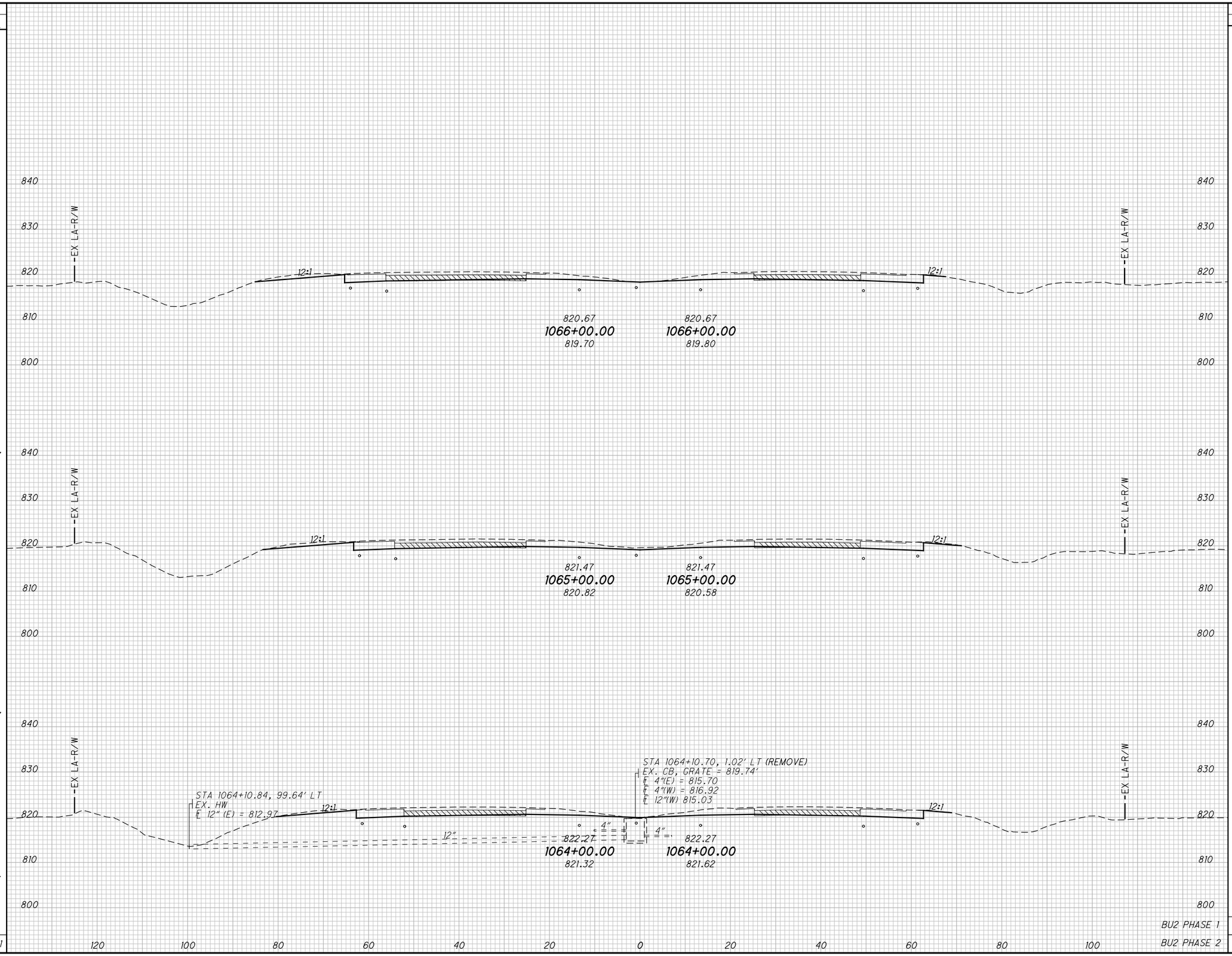
CROSS SECTIONS I.R. 75
STA. 1061+00.00 TO STA. 1063+00.00

HAN/WOO-75-19.22/0.00

137
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/19/2015 8:40:52 AM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
31	367
35	367
31	317
·	1051



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
38	0		
49	0		
		157	0
		181	0
47	0		
49	0		
		165	0
		178	0
42	0		
47	0		
		159	0
		174	0
·	·	481	0
·	·	533	0

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

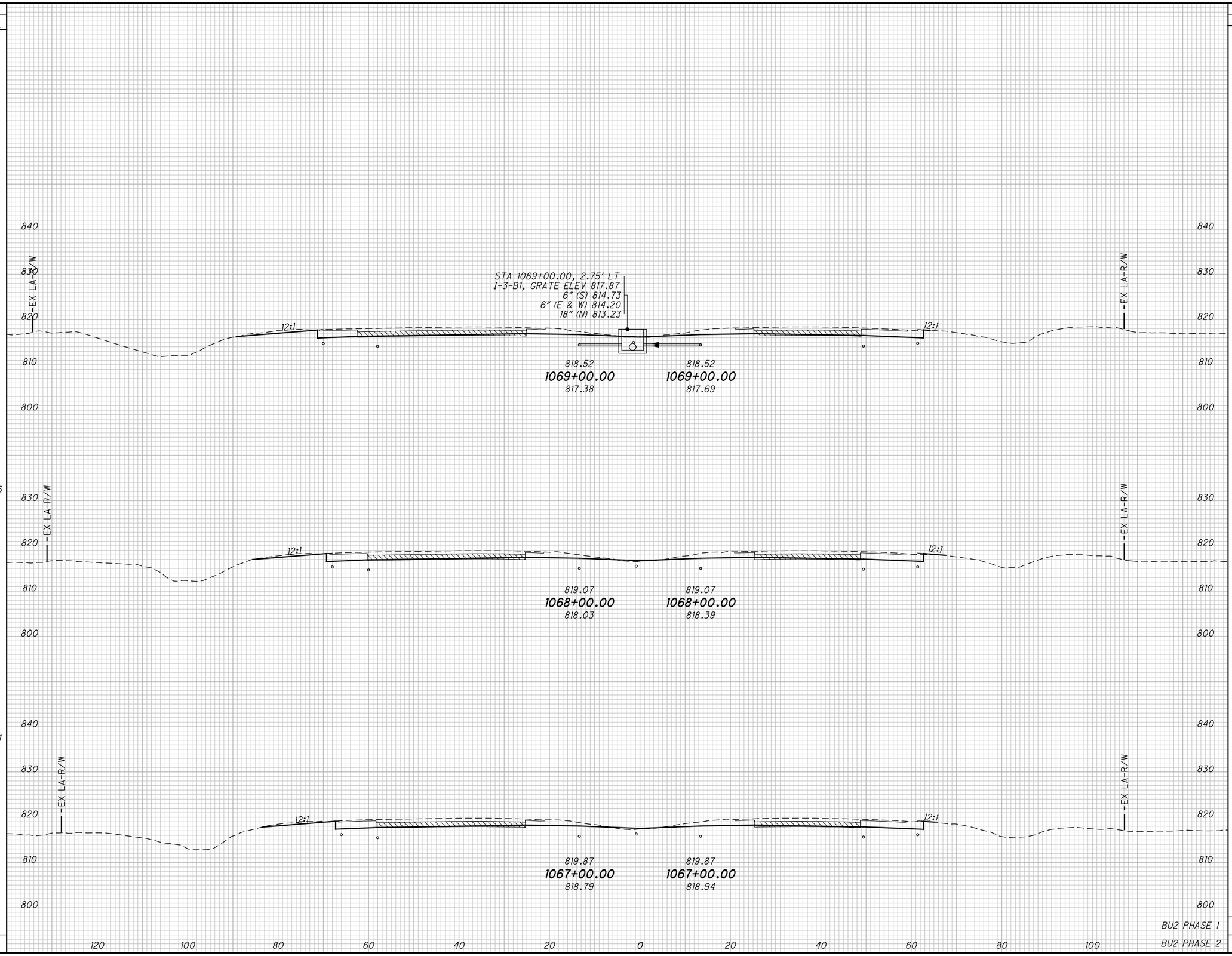
CROSS SECTIONS I.R. 75
STA. 1064+00.00 TO STA. 1066+00.00

HAN/WOO-75-19.22/0.00

138
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:25 PM CMN

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
27	306	34	1		
		39	0		
28	294	35	2	128	6
		38	0	143	0
25	311	35	2	130	7
		39	0	143	0
				135	4
				163	0
.	911	.	.	393	17
		.	.	449	0



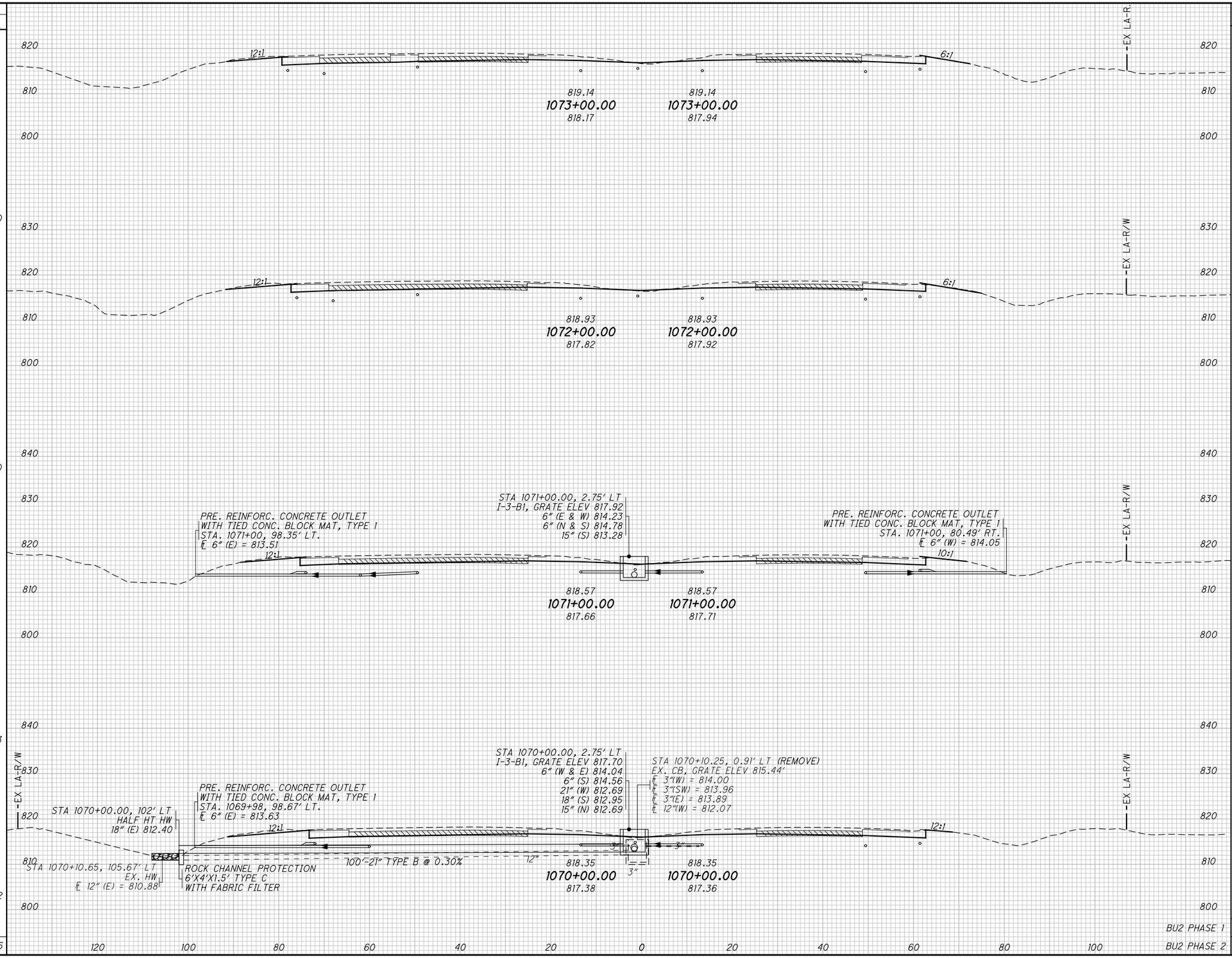
M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:27 PM CMN

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1067+00.00 TO STA. 1069+00.00

HAN/WOO-75-19.22/0.00

SEEDING END WIDTH	SEEDING SQ. YDS.
29	350
34	350
29	333
31	322
·	1355



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
33	1		
46	0		
		115	4
		156	0
29	1		
38	0		
		117	4
		133	0
34	1		
34	0		
		124	4
		135	0
33	1		
39	0	124	4
		144	0
·	·	480	16
·	·	568	0

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

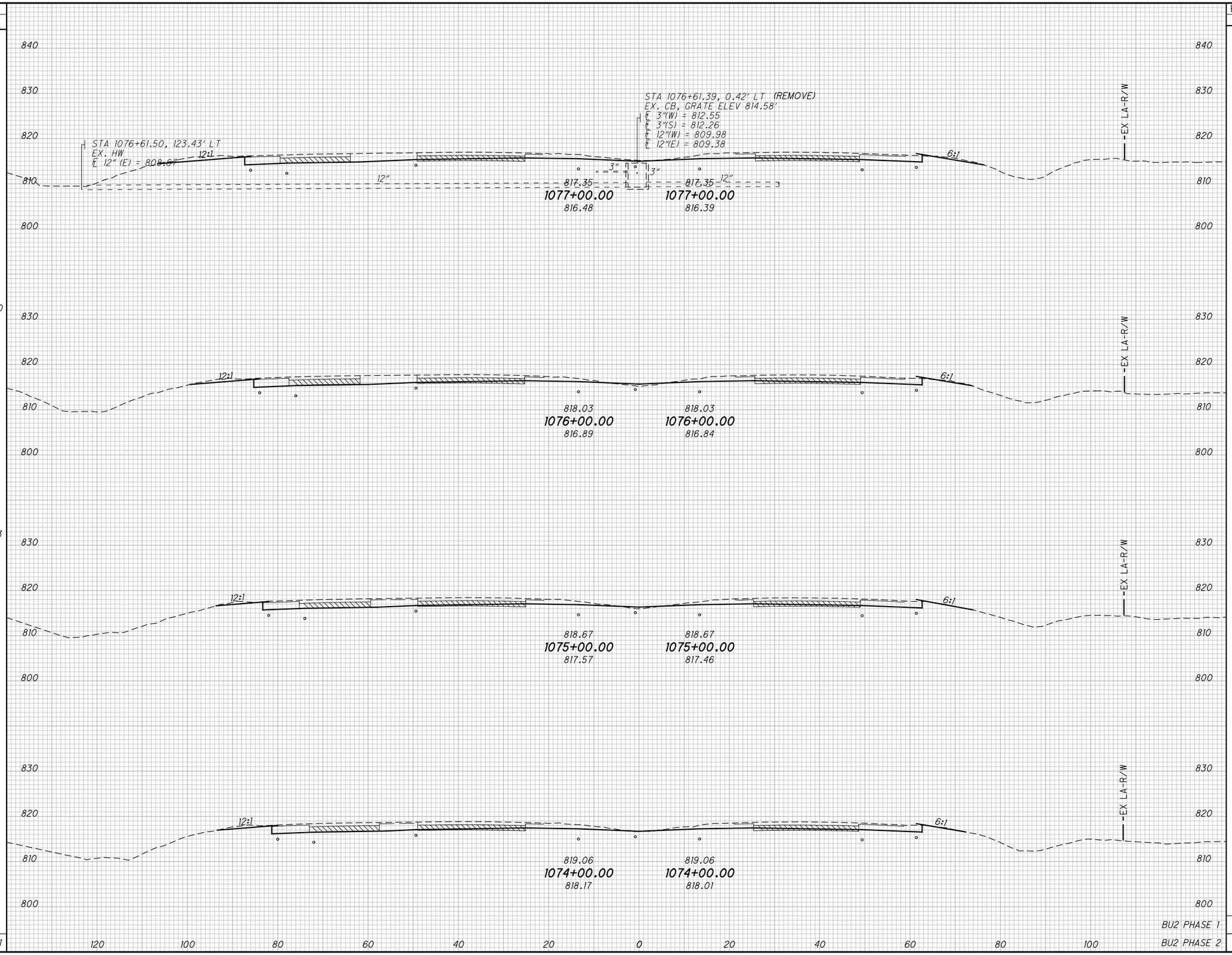
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1070+00.00 TO STA. 1073+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:29 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
40	400
32	333
28	311
28	317
·	1361



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34	0		
68	0		
		115	7
		241	0
28	4		
62	0		
		104	11
		204	0
28	2		
48	0		
		115	6
		180	4
34	1		
49	0	124	4
		176	0
·	·	458	28
·	·	801	4

BU2 PHASE 1

BU2 PHASE 2

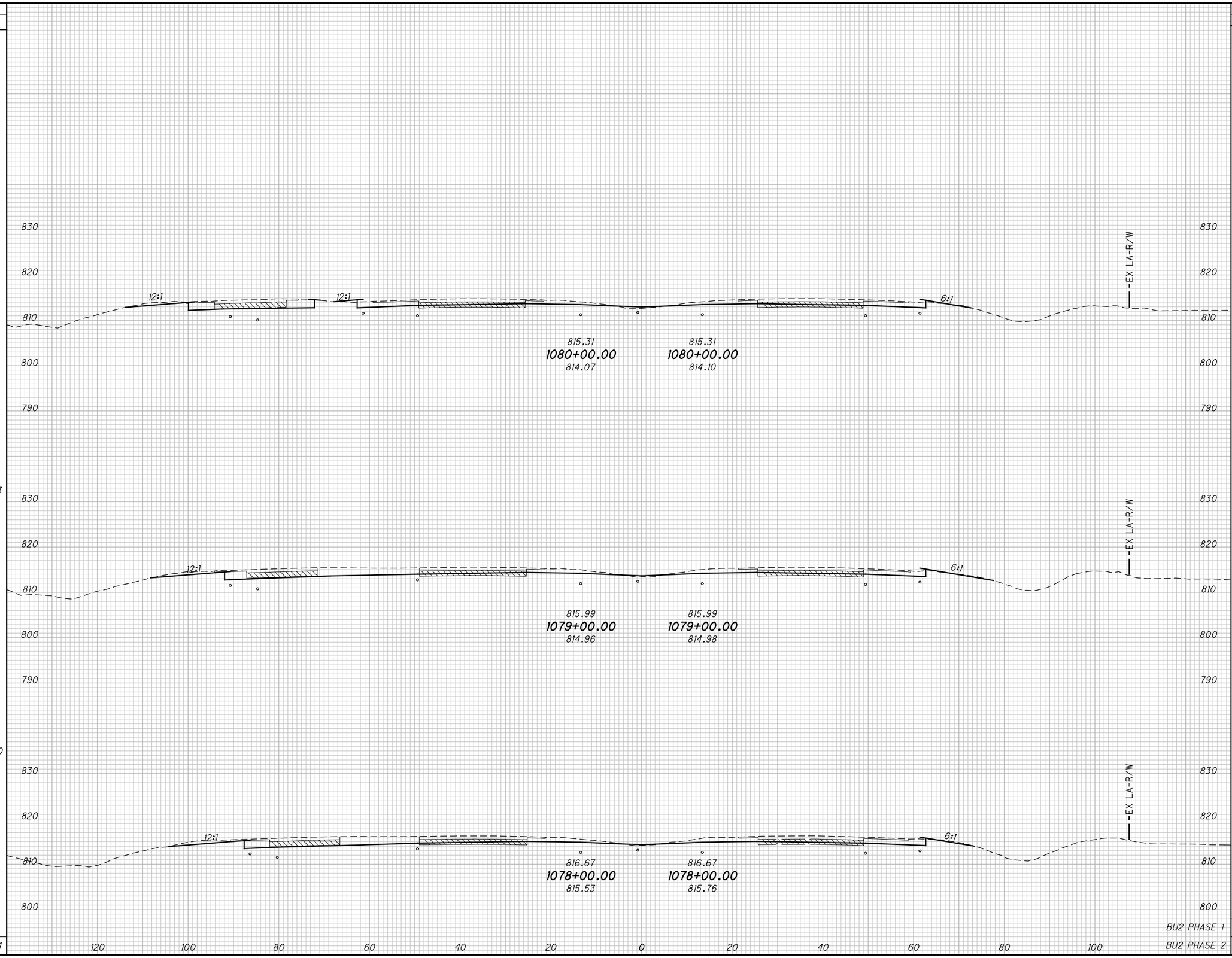
CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1074+00.00 TO STA. 1077+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:32 PM CMN



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22		23	3		
		29	2		
				94	9
	333			176	6
38		28	2		
		67	1		
	400			106	6
				248	2
34	411	29	1		
		67	0	117	2
				250	0
·	1144	·	·	317	17
		BU2 PHASE 1			
		BU2 PHASE 2	·	·	674	8

CALCULATED ALZ
CHECKED RJM

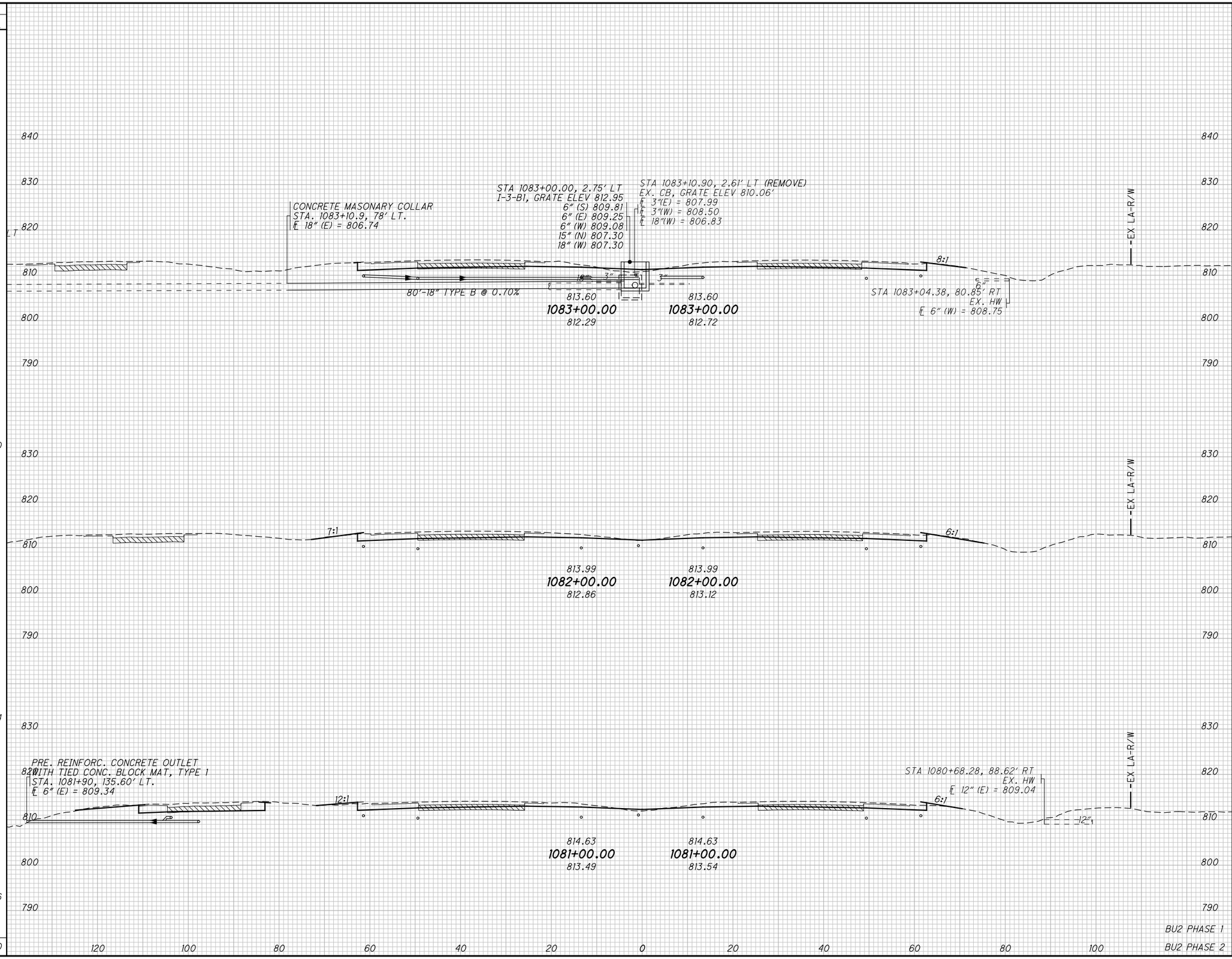
CROSS SECTIONS I.R. 75
STA. 1078+00.00 TO STA. 1080+00.00

HAN/WOO-75-19.22/0.00

142
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:34 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
16	250
29	294
24	256
·	800



END AREA		VOLUME	
CUT	FILL	CUT	FILL
30	6		
38	0		
		115	11
		133	2
32	0		
34	1		
		107	4
		115	7
26	2		
28	3		
		91	9
		106	9
·	·	313	24
·	·	354	18

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

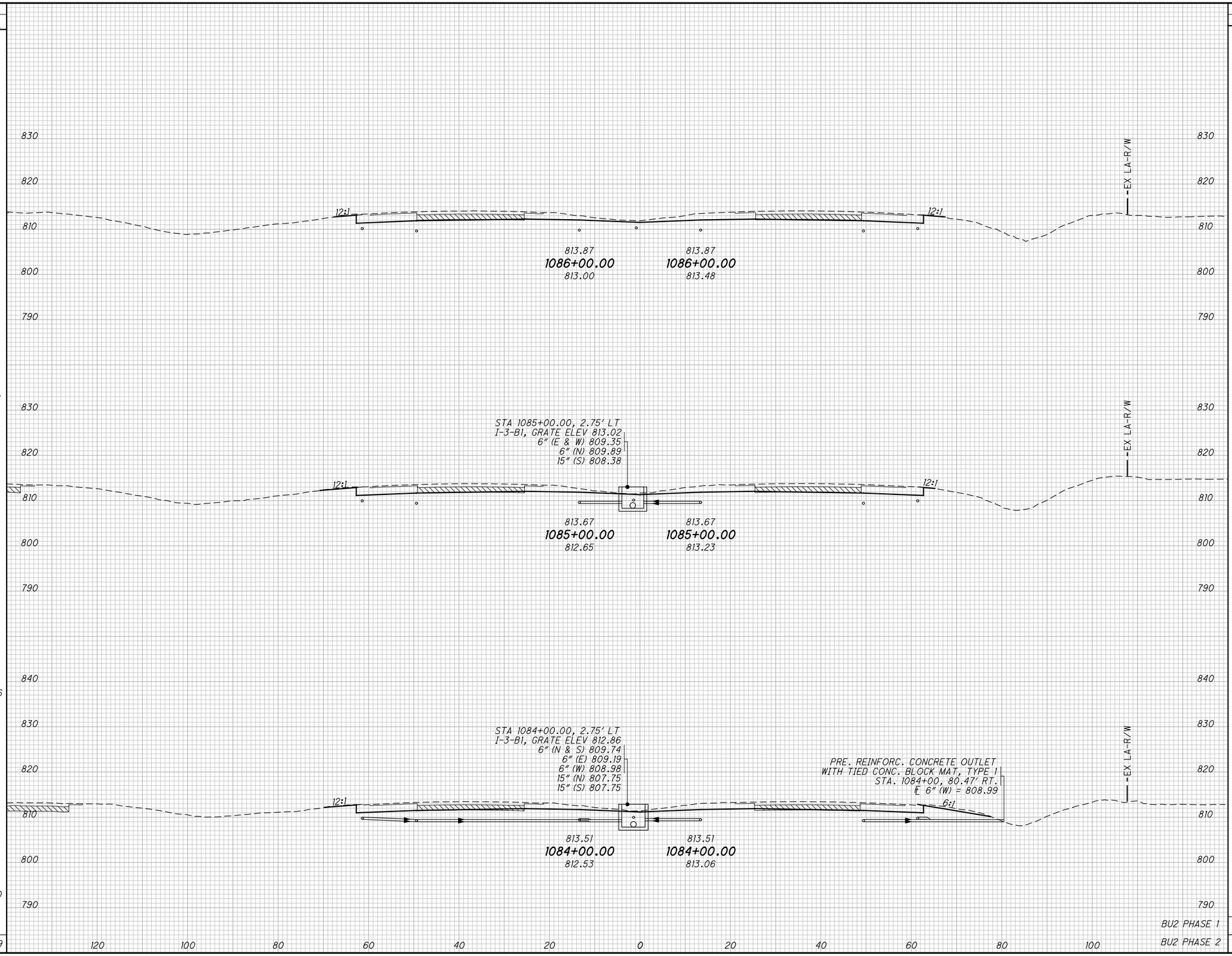
CROSS SECTIONS I.R. 75
STA. 1081+00.00 TO STA. 1083+00.00

HAN/WOO-75-19.22/0.00

143
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:36 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
16	183
17	256
29	250
·	689



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
52	0		
51	0		
		183	0
		181	0
47	0		
47	0		
		174	0
		178	0
47	0		
49	0		
		143	11
		161	0
·	·	500	11
·	·	520	0

BU2 PHASE 1
BU2 PHASE 2

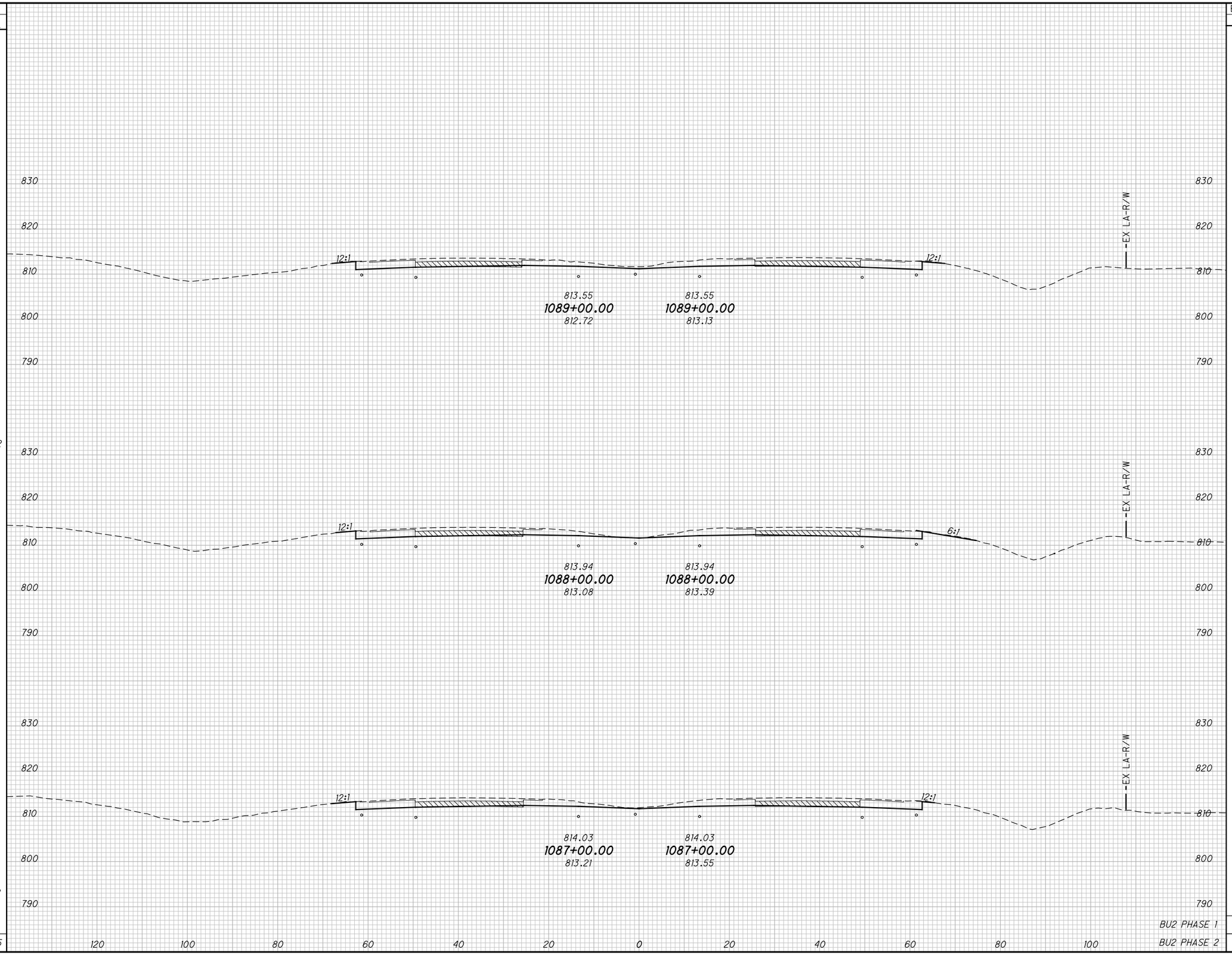
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1084+00.00 TO STA. 1086+00.00

HAN/WOO-75-19.22/0.00

144
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:38 PM CMN



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17		53	0		
		45	0		
	222			183	0
				163	0
23		46	0		
		43	0		
	211			176	0
				161	0
15		49	0		
		44	0		
	172			187	0
				176	0
BU2 PHASE 1		·	·	546	0
BU2 PHASE 2		·	·	500	0
·	605				

CALCULATED ALZ
CHECKED RJM

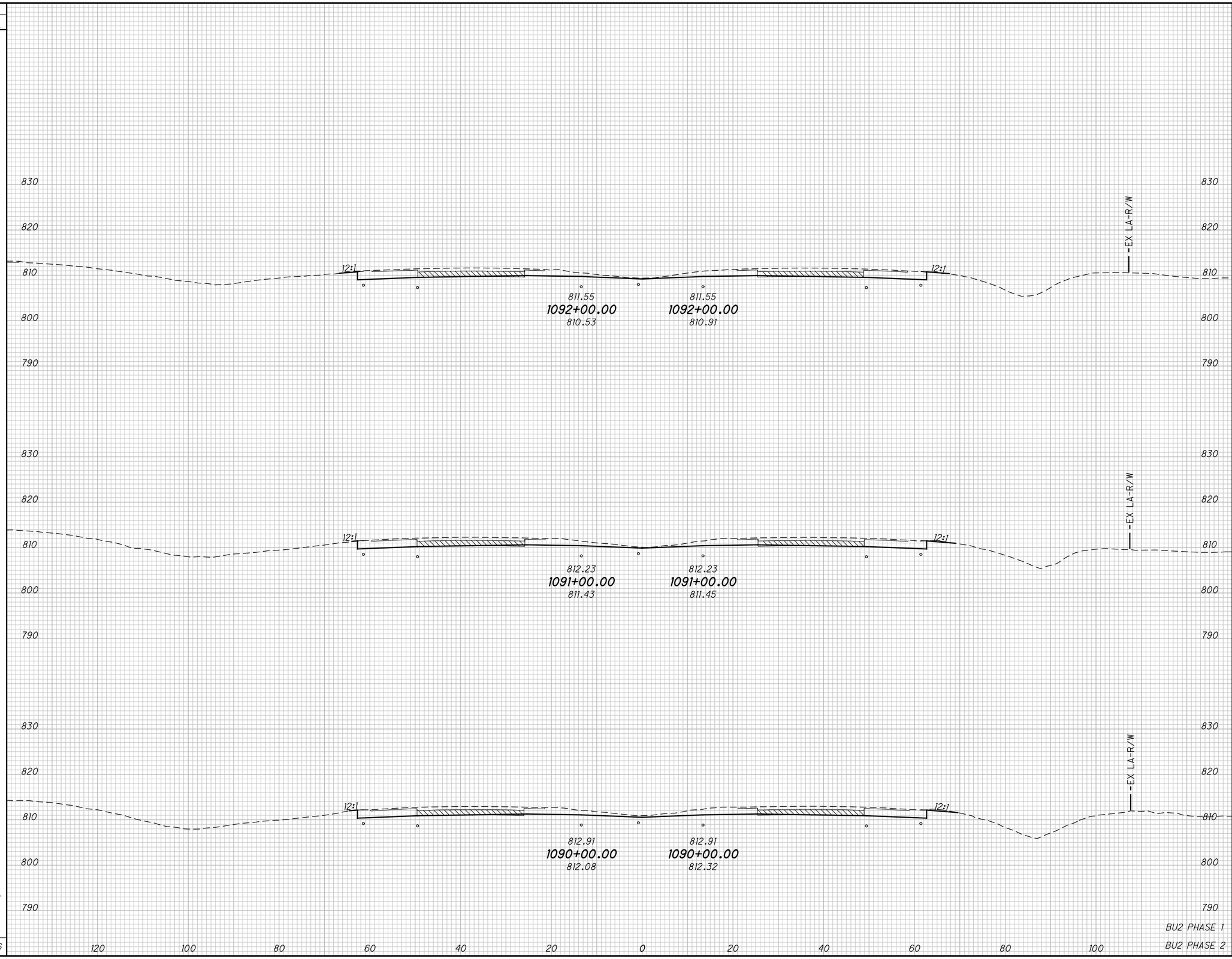
CROSS SECTIONS I.R. 75
STA. 1087+00.00 TO STA. 1089+00.00

HAN/WOO-75-19.22/0.00

145
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:41 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
16	167
14	161
15	178
·	506



END AREA	
CUT	FILL
44	0
45	0
46	0
44	0
52	0
45	0
·	·
·	·

VOLUME	
CUT	FILL
167	0
165	0
181	0
165	0
194	0
167	0
542	0
497	0

BU2 PHASE 1
BU2 PHASE 2

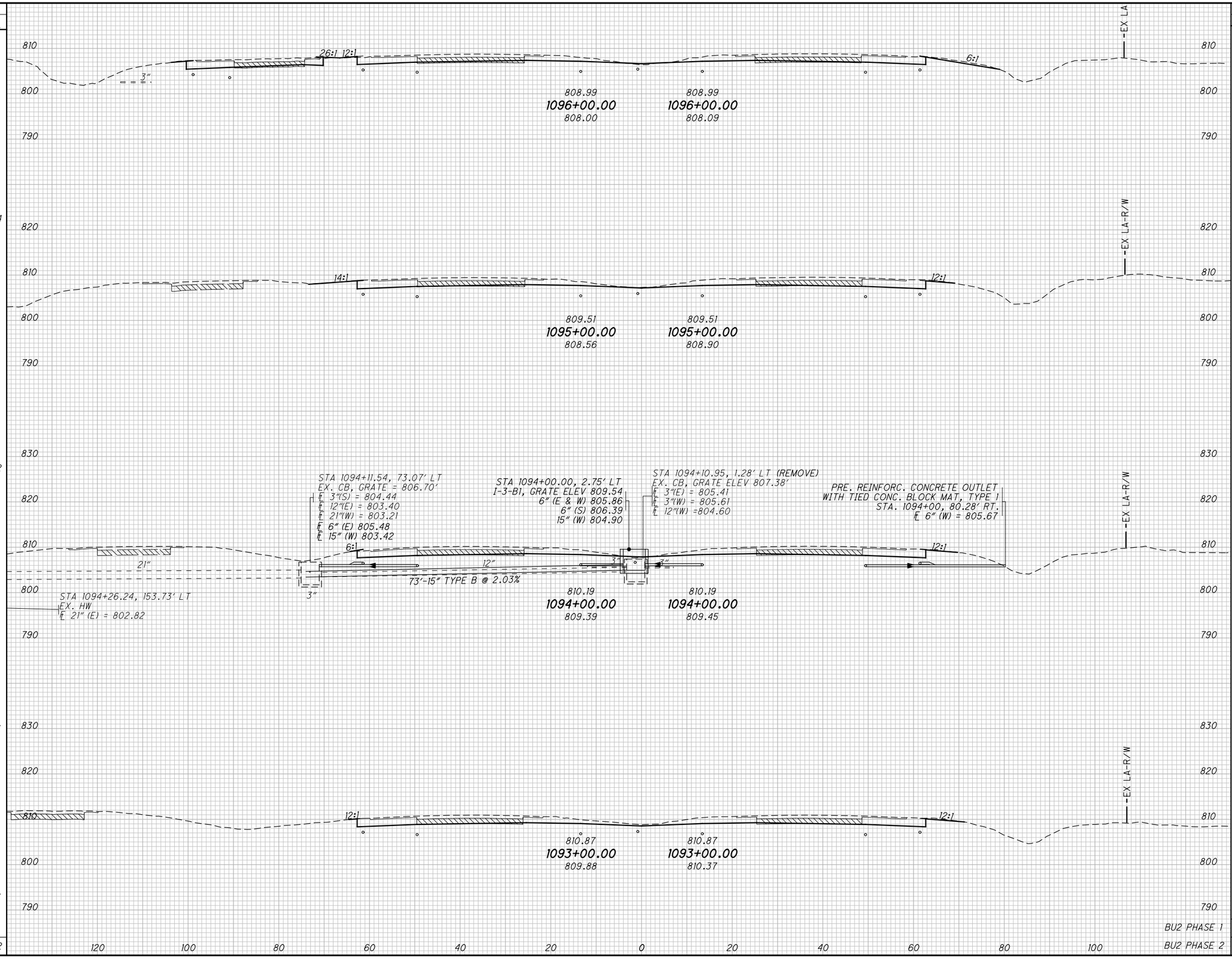
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1090+00.00 TO STA. 1092+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:43 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
38	344
24	
16	222
	183
17	
	183
·	932



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34	1		
66	1		
		141	2
		207	2
42	0		
46	0		
41	1		
44	0		
49	0		
46	0		
		154	2
		167	0
		167	2
		167	0
		172	0
		169	0
BU2 PHASE 1 ·	·	634	6
BU2 PHASE 2 ·	·	710	2

CALCULATED ALZ
CHECKED RJM

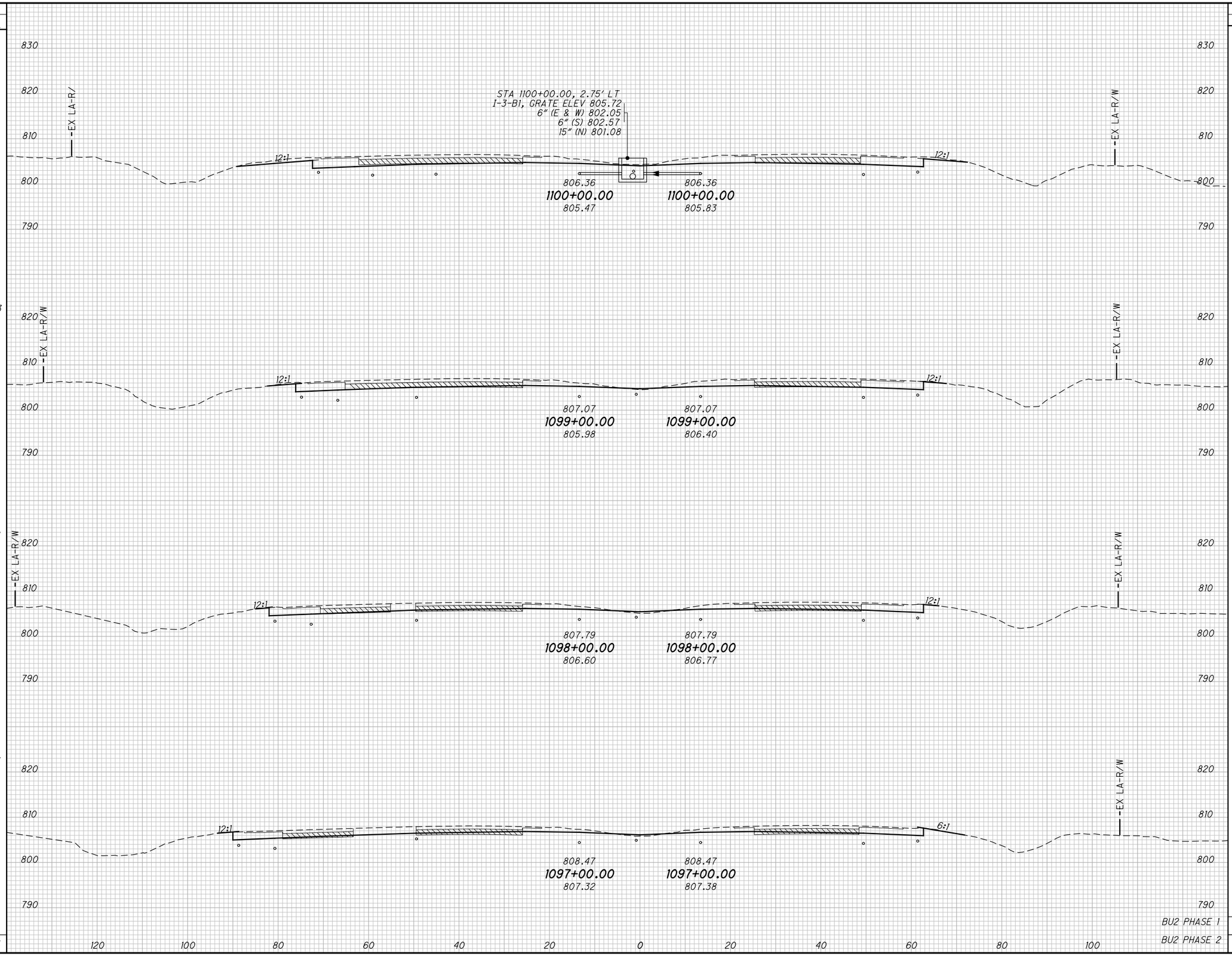
CROSS SECTIONS I.R. 75
STA. 1093+00.00 TO STA. 1096+00.00

HAN/WOO-75-19.22/0.00

147
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:45 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
	33
	283
	18
	178
	14
	183
	19
	317
.	961



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
50	0		
67	0		
		165	2
		206	0
39	1		
44	0		
		128	7
		169	0
30	3		
47	0		
		107	11
		193	0
28	3		
57	0	115	7
		228	2
.	.	515	27
.	.	796	2

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

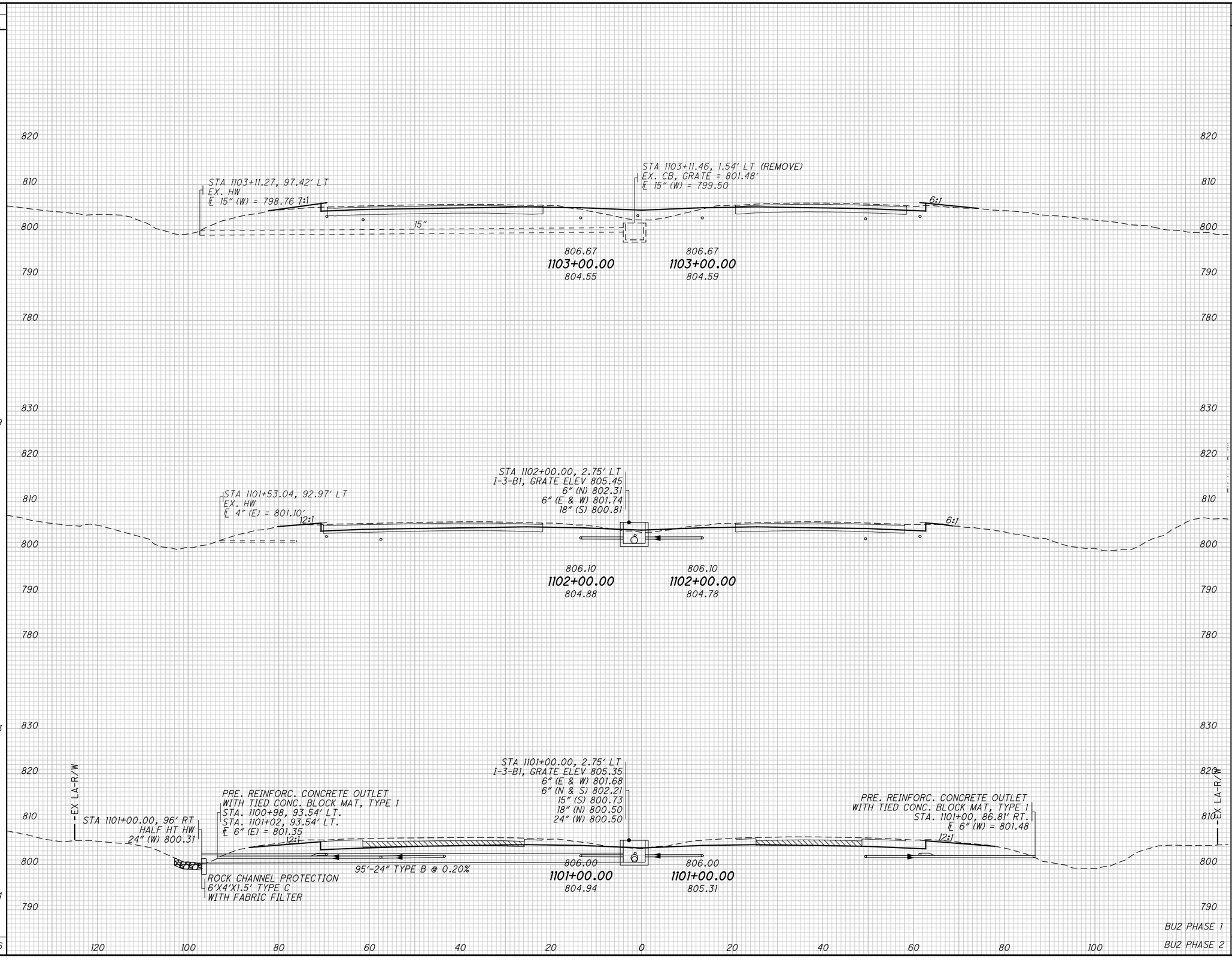
CROSS SECTIONS I.R. 75
STA. 1097+00.00 TO STA. 1100+00.00

HAN/WOO-75-19.22/0.00

148
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:47 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
30	289
22	333
38	394
·	1016



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4	40		
6	8		
		37	81
		24	19
16	4		
7	2		
		102	9
		111	4
39	1		
53	0	165	2
		222	0
BU2 PHASE 1	·	·	304	92
BU2 PHASE 2	·	·	357	23

CALCULATED ALZ
CHECKED RJM

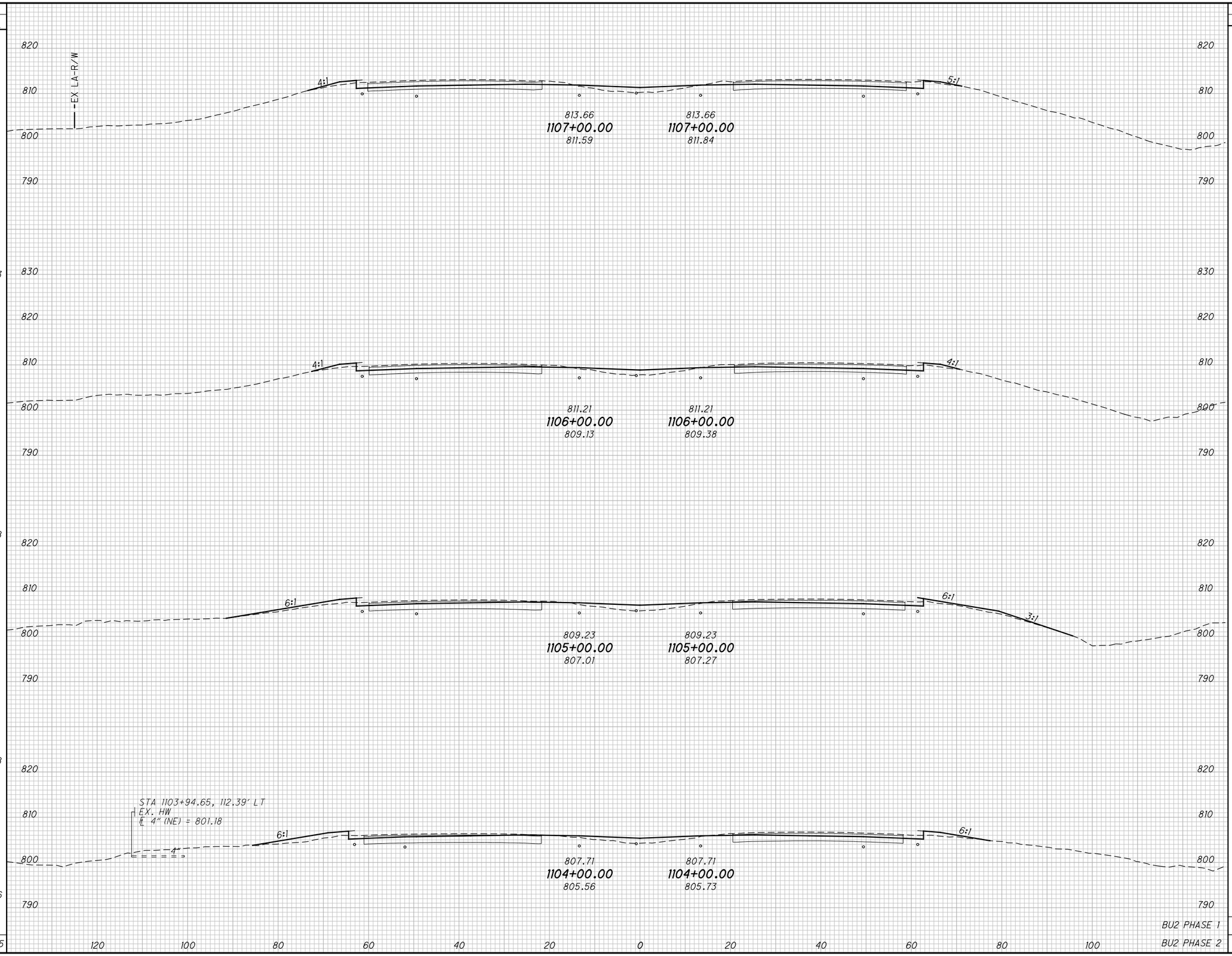
CROSS SECTIONS I.R. 75
STA. 1101+00.00 TO STA. 1103+00.00

HAN/WOO-75-19.22/0.00

149
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:50 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
26	283
25	528
70	628
43	406
·	1845



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
8	22		
8	7		
		24	80
		28	28
5	21		
7	8		
		13	85
		24	57
2	25		
6	23		
		6	91
		22	87
1	24		
6	24	9	119
		22	59
BU2 PHASE 1 ·	·	52	375
BU2 PHASE 2 ·	·	96	231

CALCULATED ALZ
CHECKED RJM

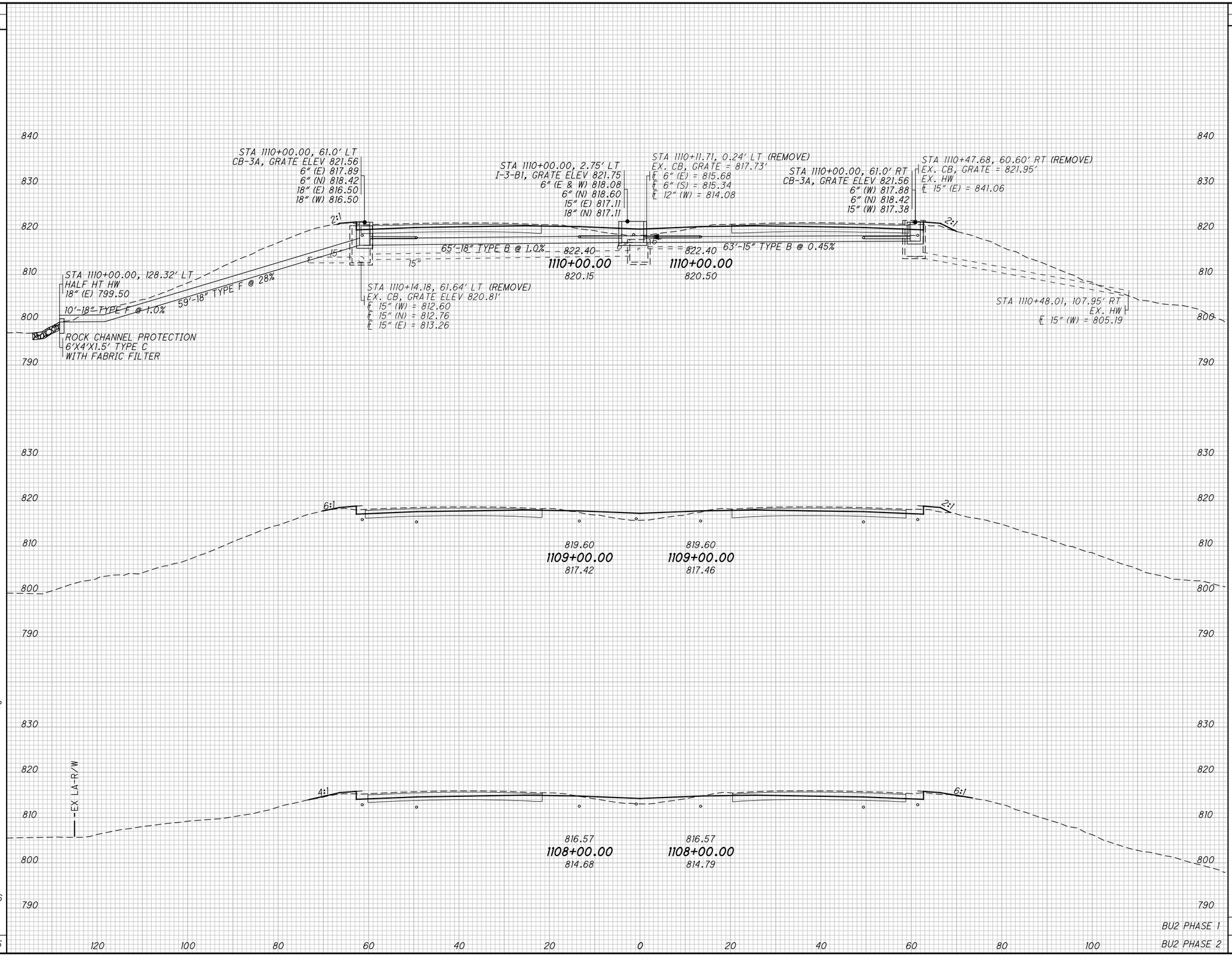
CROSS SECTIONS I.R. 75
STA. 1104+00.00 TO STA. 1107+00.00

HAN/WOO-75-19.22/0.00

150
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:52 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
19	
	217
20	
	272
29	
	306
·	795



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4	27		
5	4		
		13	106
		20	19
3	30		
6	6		
		19	94
		26	20
7	21		
8	5		
		28	80
		30	22
BU2 PHASE 1 ·	·	60	280
BU2 PHASE 2 ·	·	76	61

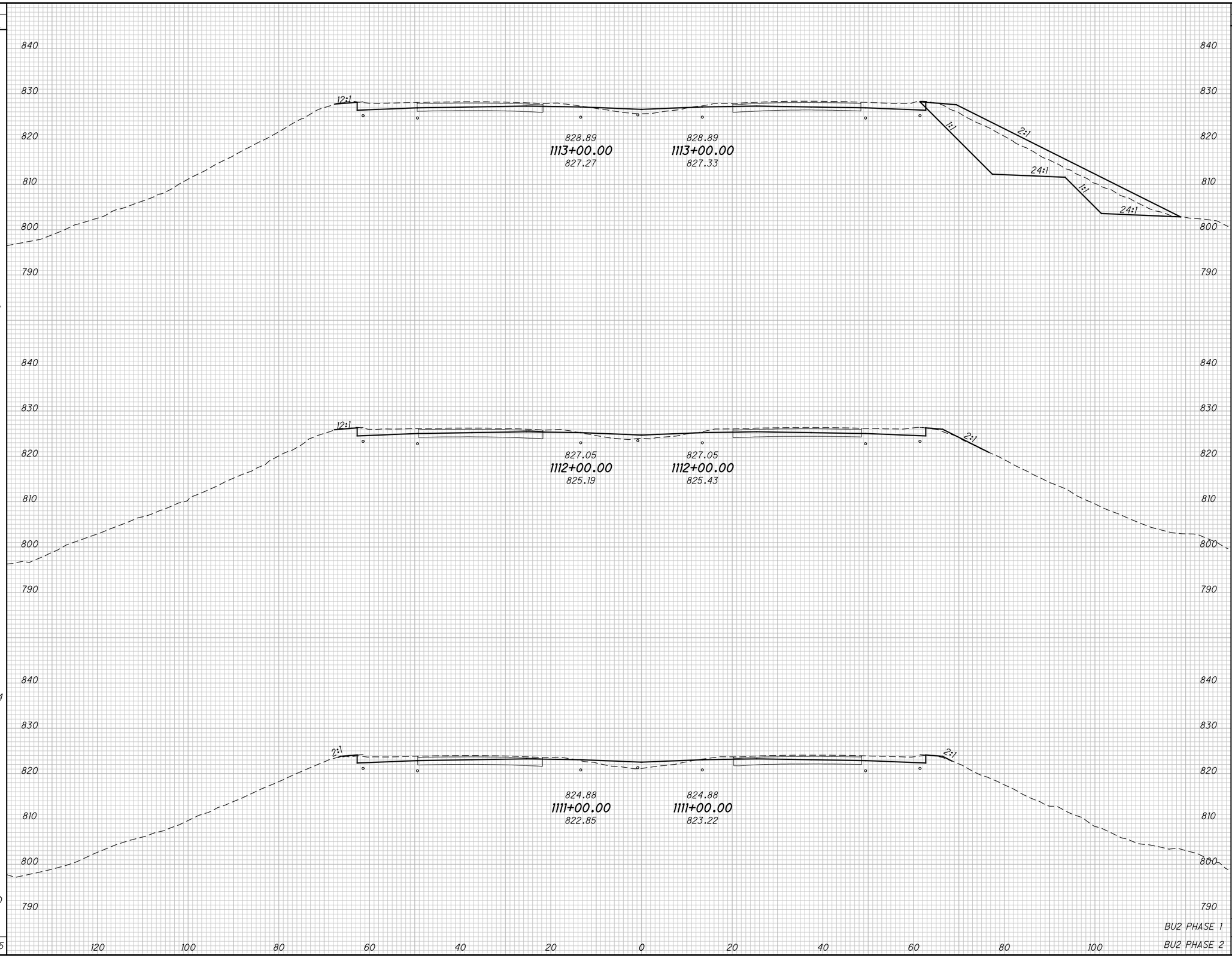
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1108+00.00 TO STA. 1110+00.00

HAN/WOO-75-19.22/0.00

151
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:55 PM CMN



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		9	14		
		297	344		
74					
				31	56
	561			619	641
		8	16		
		37	2		
27					
				26	72
				128	7
	244				
		6	23		
17		32	2		
				19	93
	200			69	11
·	1005	·	·	76	221
		·	·	816	659

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

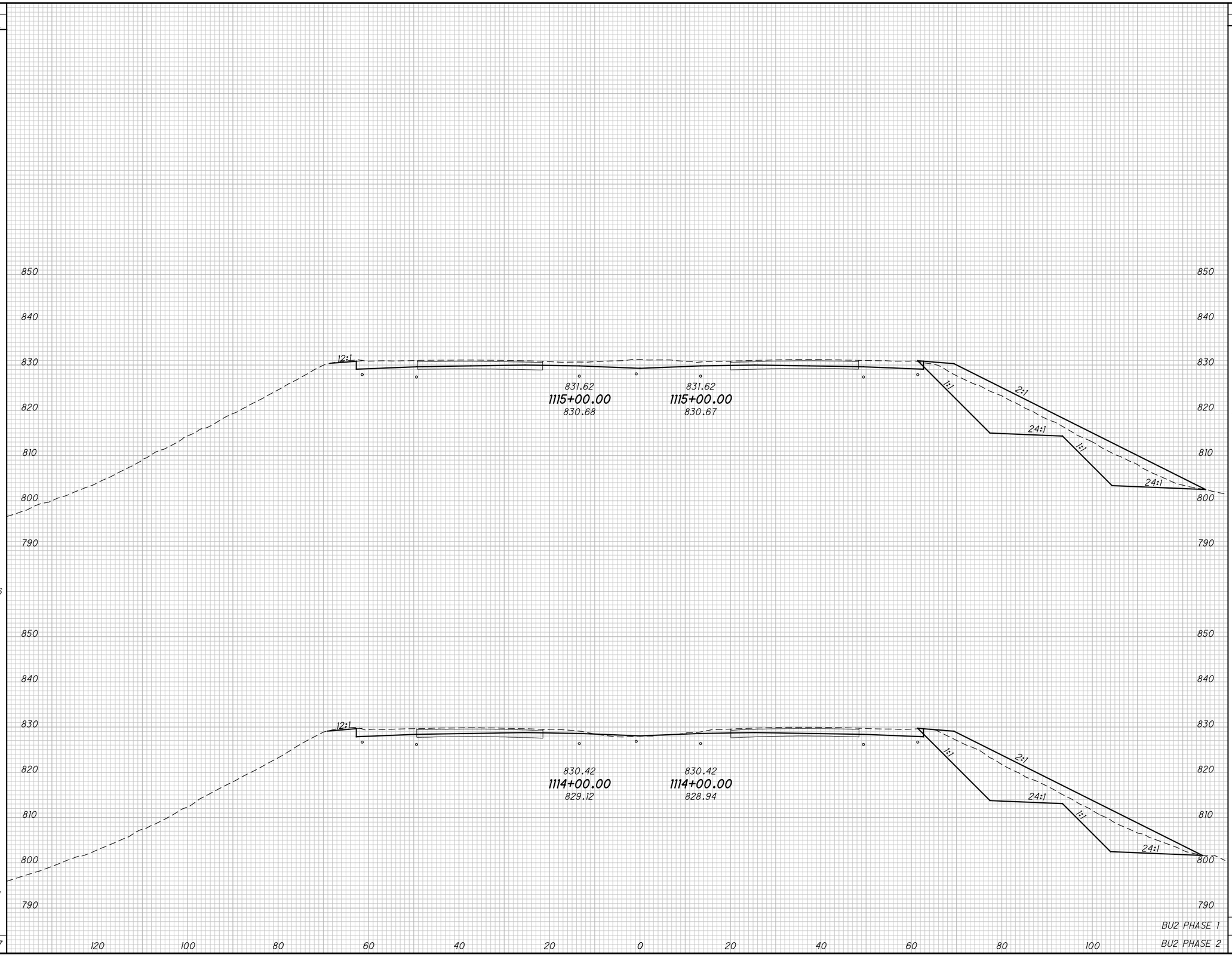
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1111+00.00 TO STA. 1113+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:57 PM CMN

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
82		51	0		
		370	398		
	906			119	6
				1294	1463
81		13	3		
		329	392		
	861			41	31
				1159	1363
·	1767	·	·	160	37
		·	·	2453	2826



BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75

STA. 1114+00.00 TO STA. 1115+00.00

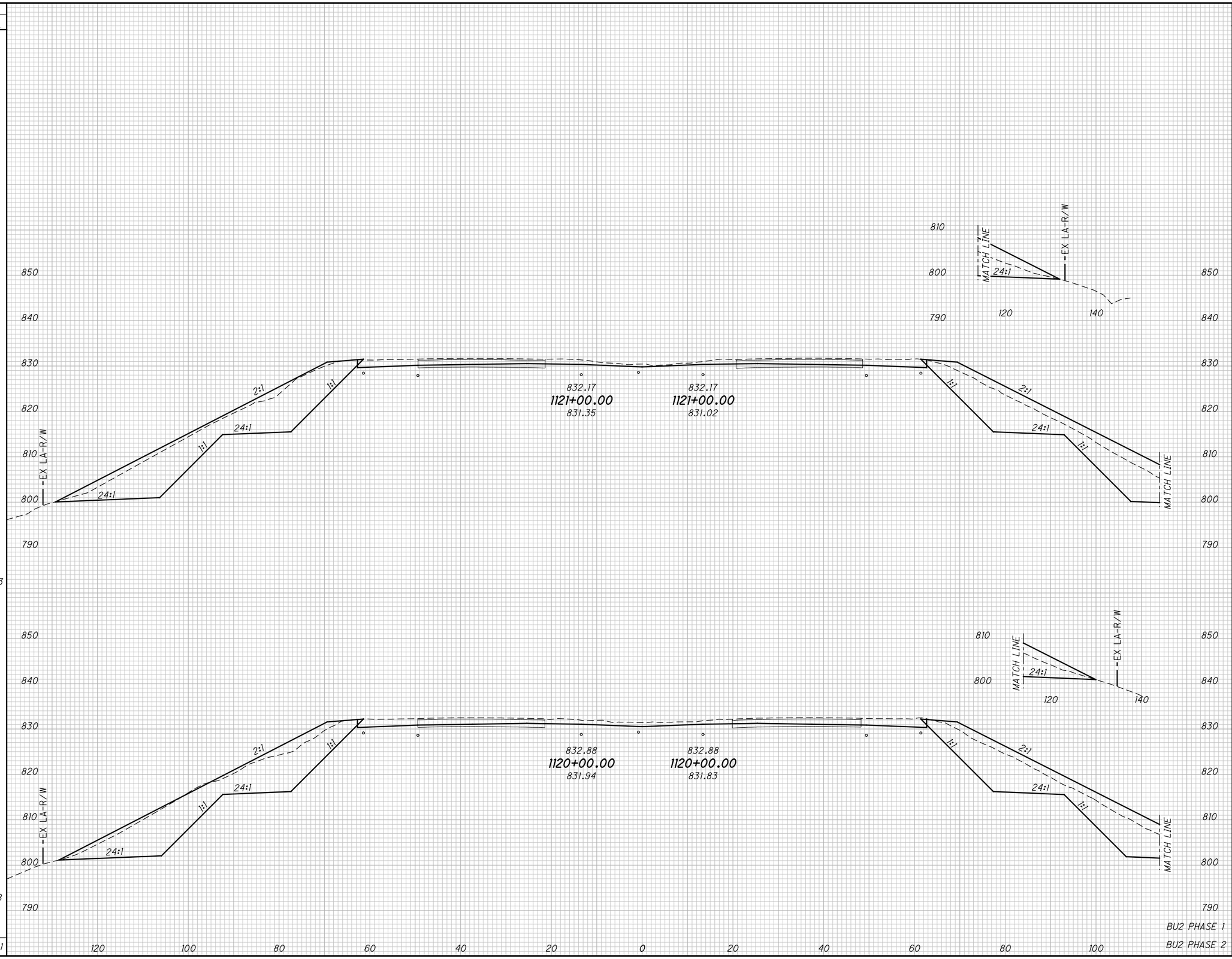
HAN/WOO-75-19.22/0.00

153
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:28:59 PM CMN

SEEDING	
END WIDTH	SQ. YDS.

SEEDING	
END WIDTH	SQ. YDS.
158	1733
154	1188
·	2921



END AREA		VOLUME	
CUT	FILL	CUT	FILL
29	0		
777	919		
36	0		
773	889		
		120	0
		2870	3348
		93	0
		1987	2285
BU2 PHASE 1	·	213	0
BU2 PHASE 2	·	4857	5633

CALCULATED ALZ
CHECKED RJM

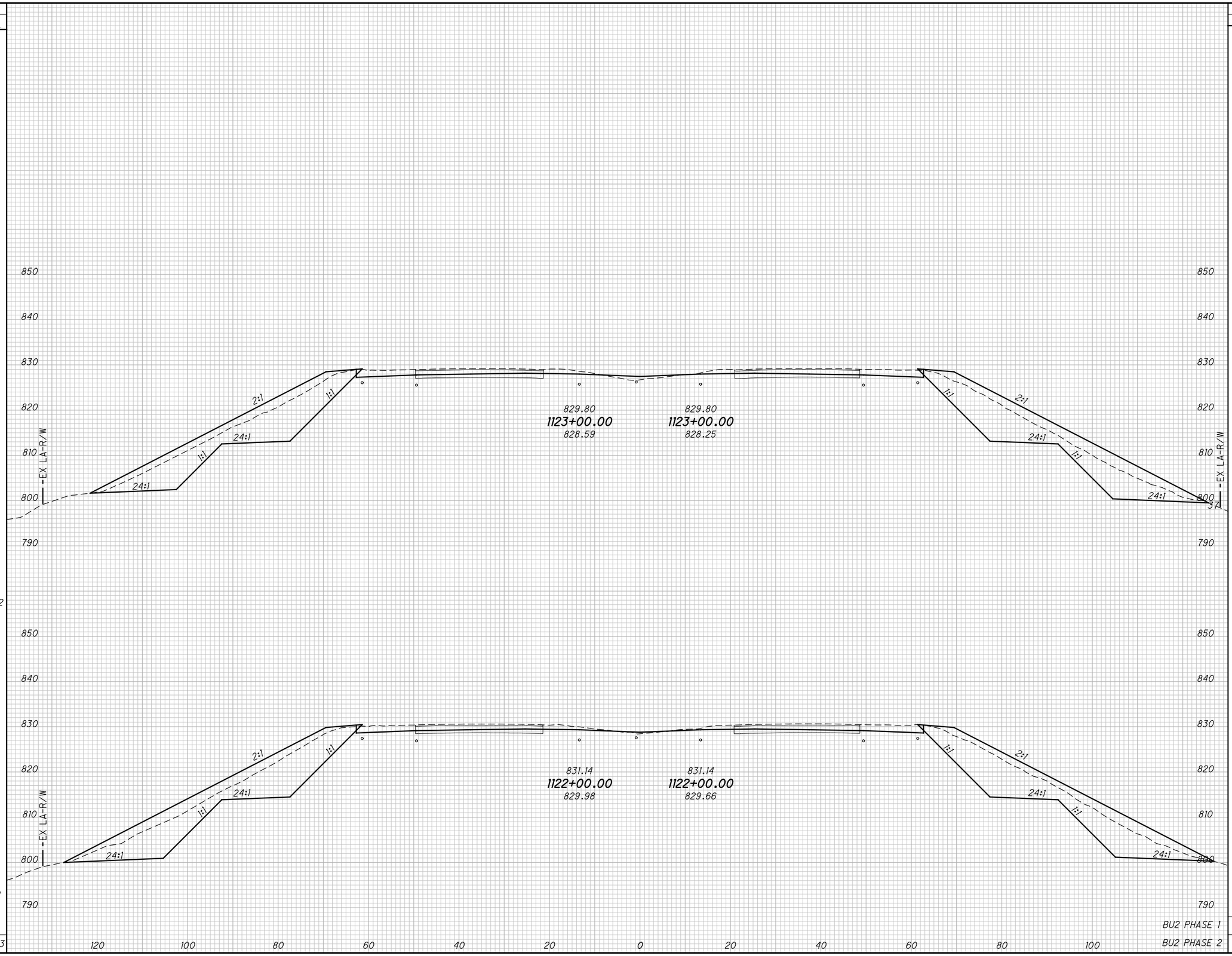
CROSS SECTIONS I.R. 75
STA. 1120+00.00 TO STA. 1121+00.00

HAN/WOO-75-19.22/0.00

155
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:04 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
142	1622
150	1711
·	3333



END AREA		VOLUME	
CUT	FILL	CUT	FILL
15	9		
598	780		
17	2		
668	848		
		59	20
		2344	3015
		85	4
		2676	3272
BU2 PHASE 1	·	·	144	24
BU2 PHASE 2	·	·	5020	6287

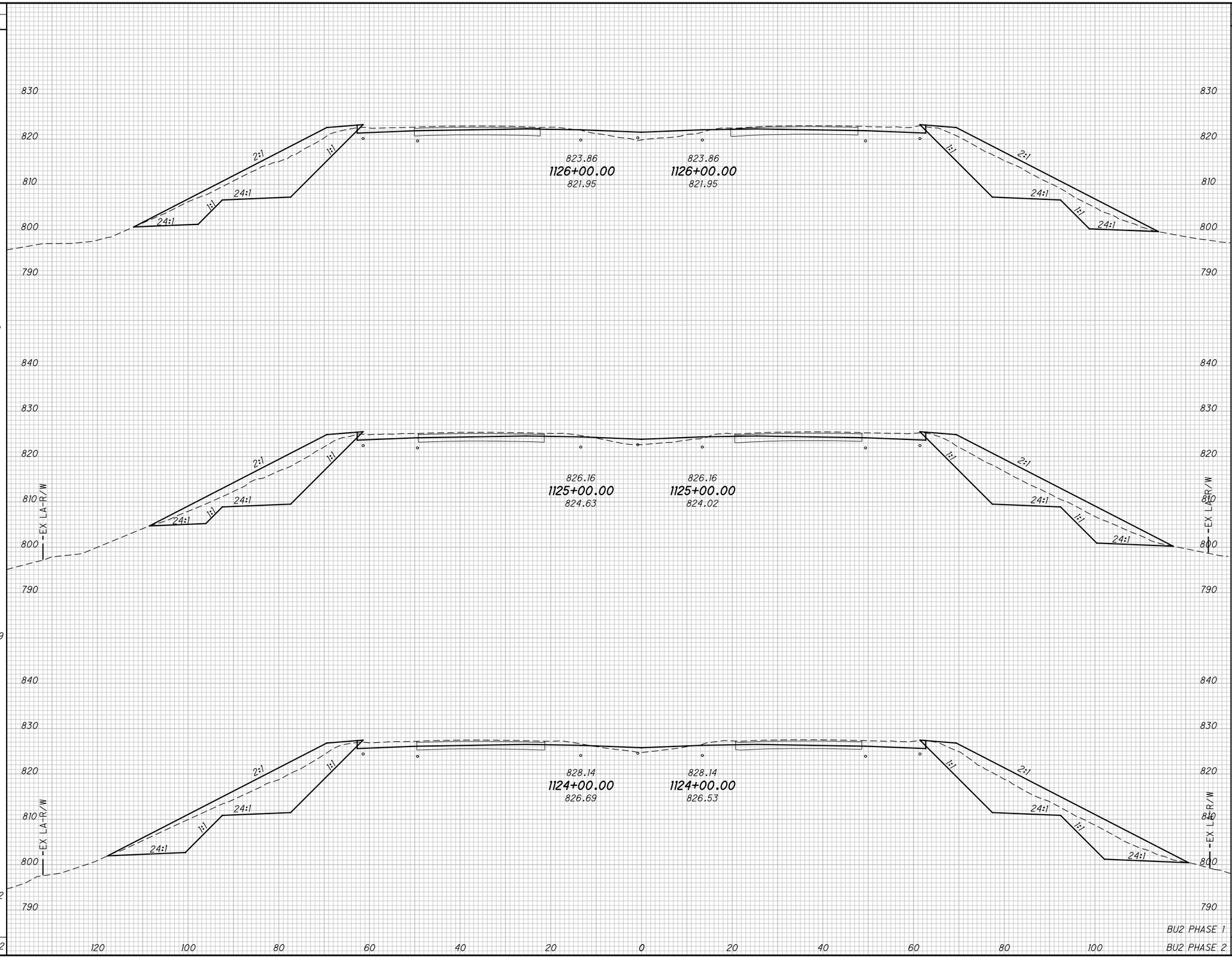
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1122+00.00 TO STA. 1123+00.00

HAN/WOO-75-19.22/0.00

156
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:06 PM CMN



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
118		4	31		
		496	605		
	1311			22	94
				1752	2246
118		8	20		
		450	608		
	1389			37	61
				1830	2422
132		12	13		
		538	700		
	1522			50	41
				2104	2741
		BU2 PHASE 1 ·	·	109	196
·	4222	BU2 PHASE 2 ·	·	5686	7409

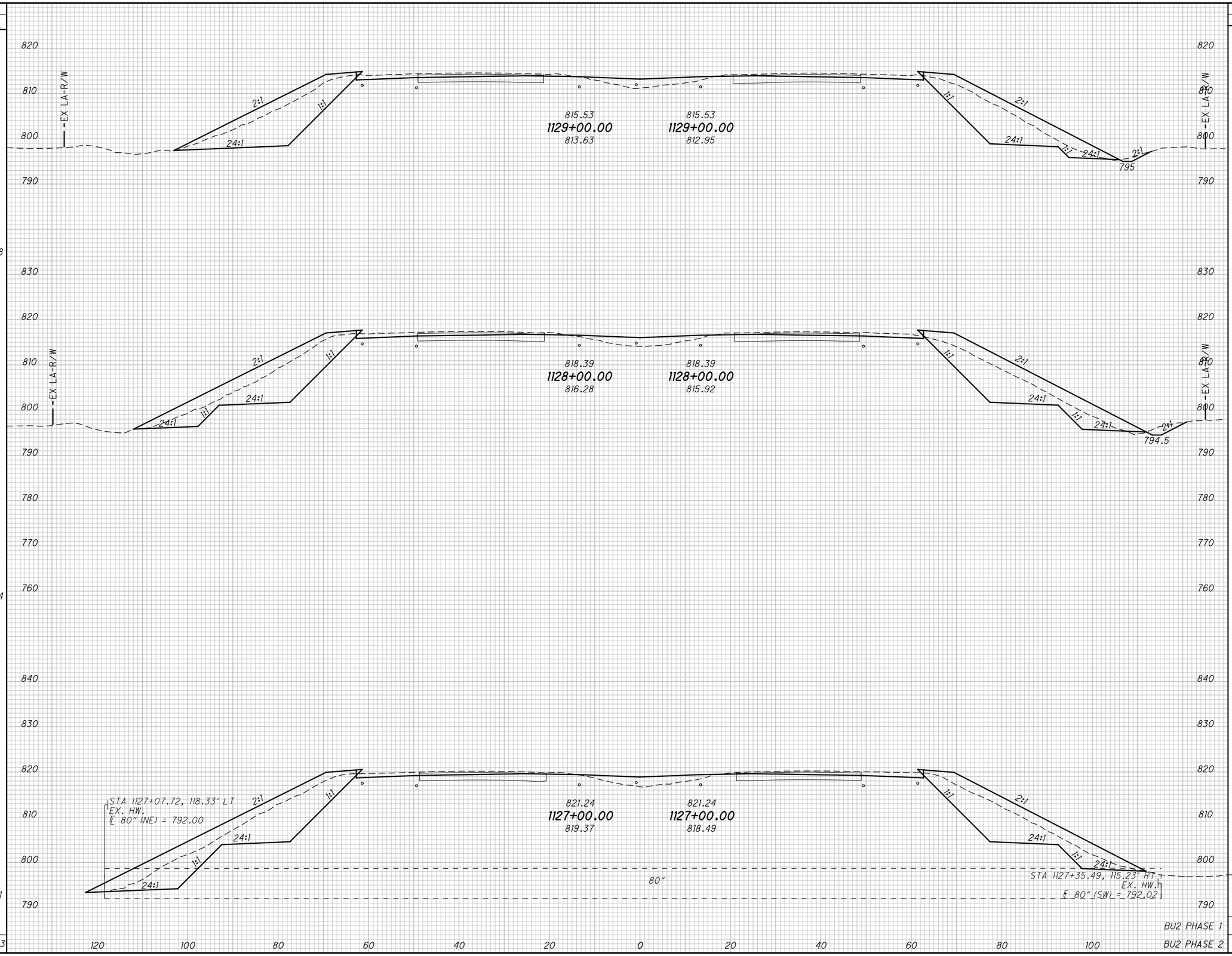
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1124+00.00 TO STA. 1126+00.00

HAN/WOO-75-19.22/0.00

157
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:09 PM CMN



SEEDING END WIDTH	SEEDING SQ. YDS.
106	1278
124	
127	1394
	1361
·	4033

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4	37		
389	515		
		13	143
		1465	2056
3	40		
402	595		
2	41		
473	680		
		9	150
		1620	2361
		11	133
		1794	2380
BU2 PHASE 1 ·	·	33	426
BU2 PHASE 2 ·	·	4879	6797

CALCULATED ALZ
CHECKED RJM

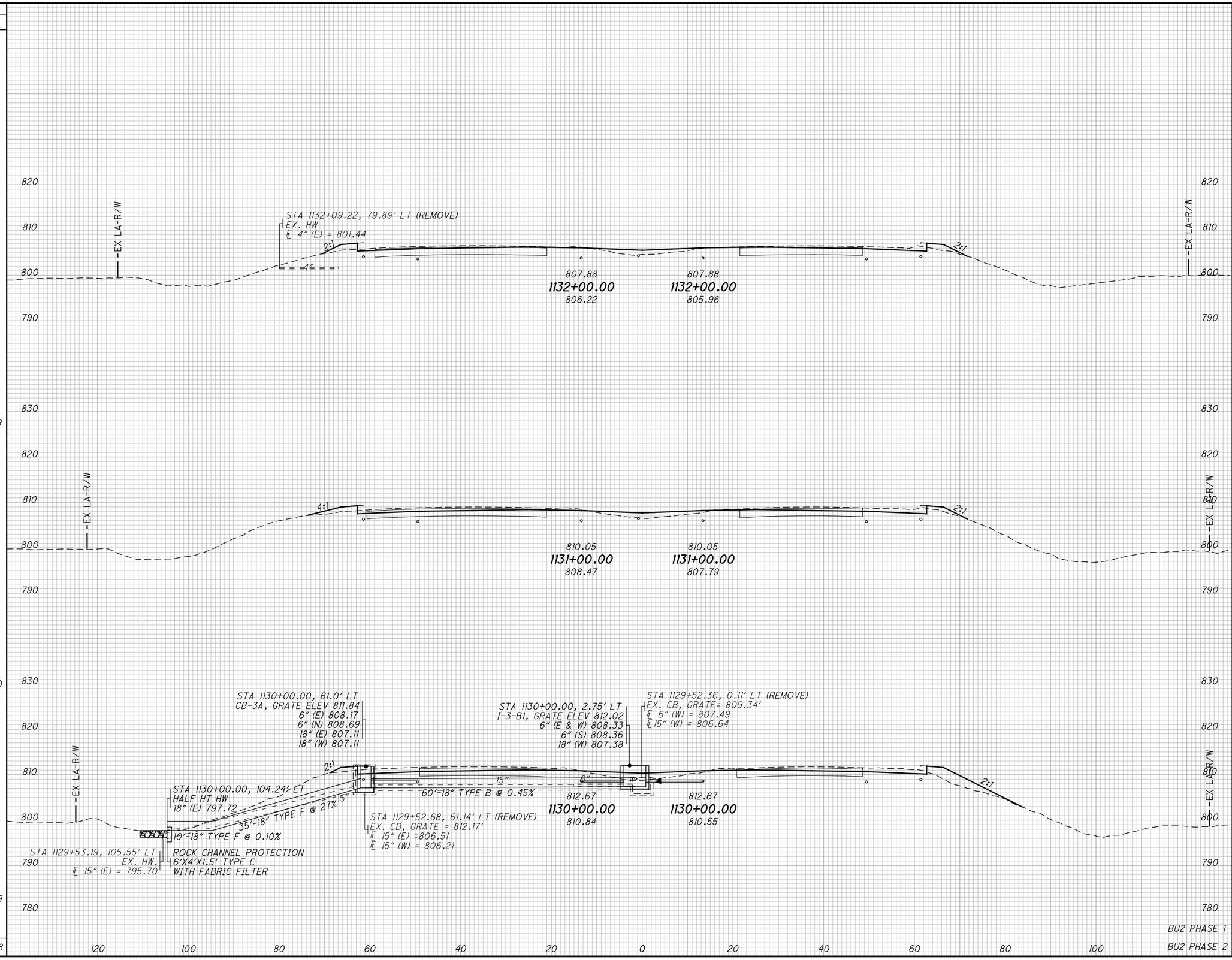
CROSS SECTIONS I.R. 75
STA. 1127+00.00 TO STA. 1129+00.00

HAN/WOO-75-19.22/0.00

158
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:11 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
25	289
27	350
36	789
·	1428



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1	17		
10	15		
		9	70
		43	54
4	21		
13	14		
		17	91
		72	87
5	28		
26	33		
		17	120
		769	1015
BU2 PHASE 1 ·	·	43	281
BU2 PHASE 2 ·	·	884	1156

CALCULATED ALZ
CHECKED RJM

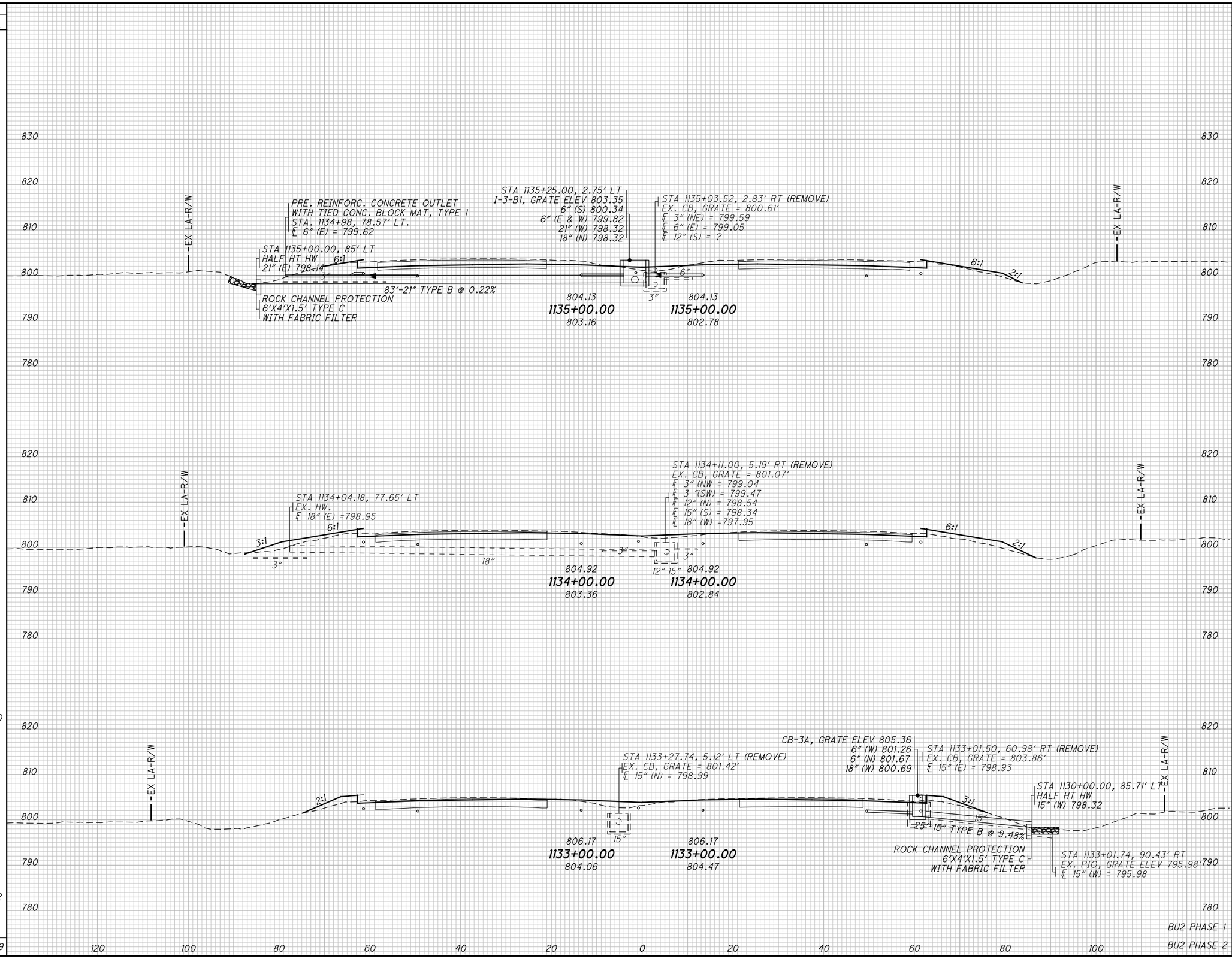
CROSS SECTIONS I.R. 75
STA. 1130+00.00 TO STA. 1132+00.00

HAN/WOO-75-19.22/0.00

159
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:13 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
36	517
57	500
33	322
·	1339



END AREA		VOLUME	
CUT	FILL	CUT	FILL
17	8		
11	11		
		39	28
		30	109
4	7		
5	48		
		11	43
		22	141
2	16		
7	28		
		6	61
		31	80
·	·	56	132
·	·	83	330

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

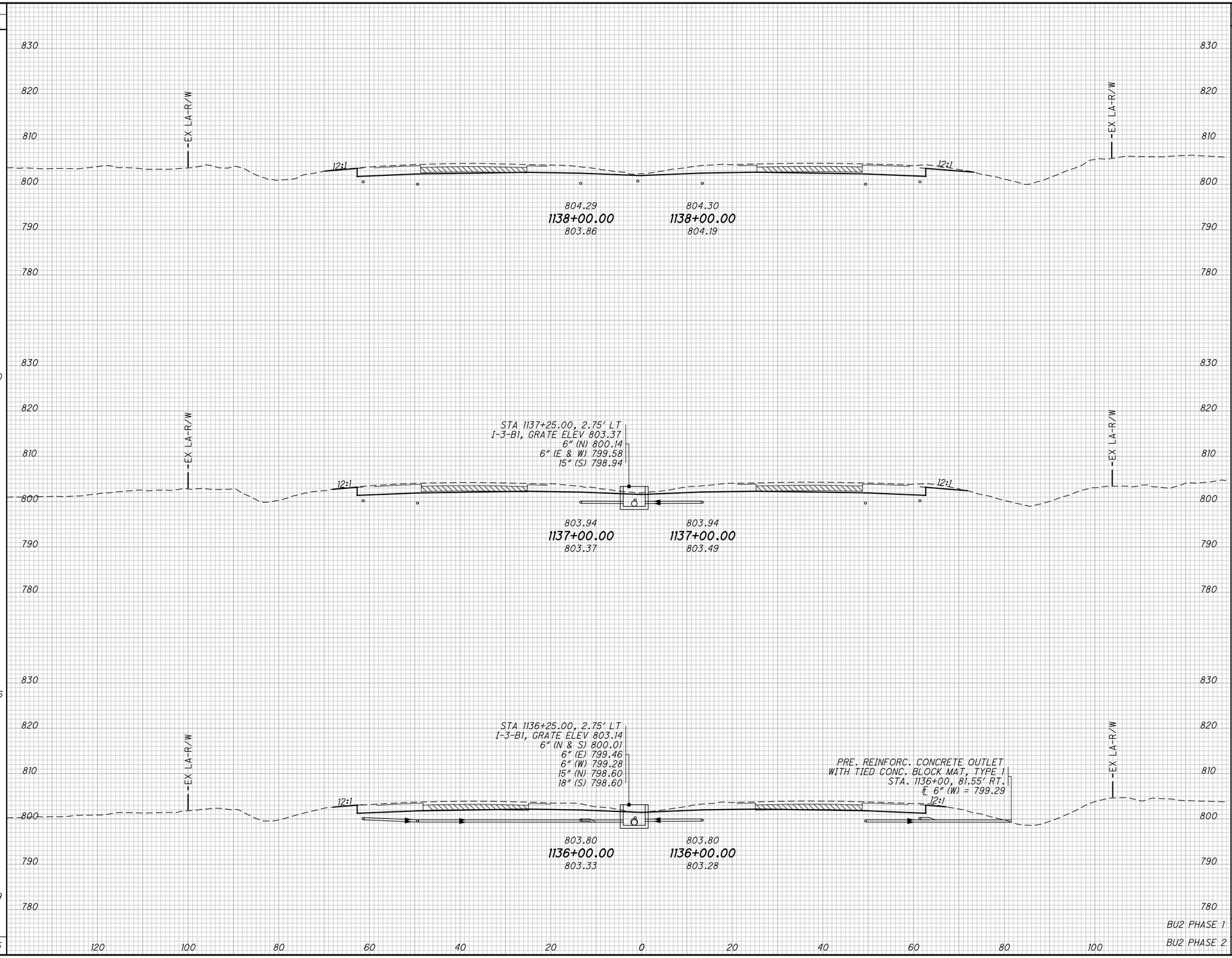
CROSS SECTIONS I.R. 75
STA. 1133+00.00 TO STA. 1135+00.00

HAN/WOO-75-19.22/0.00

160
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:16 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
24	250
21	206
16	289
·	745



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
63	0		
71	0		
		224	0
		263	0
58	0		
71	0		
		196	0
		230	0
48	0		
53	0		
		120	15
		119	20
·	·	540	15
·	·	612	20

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

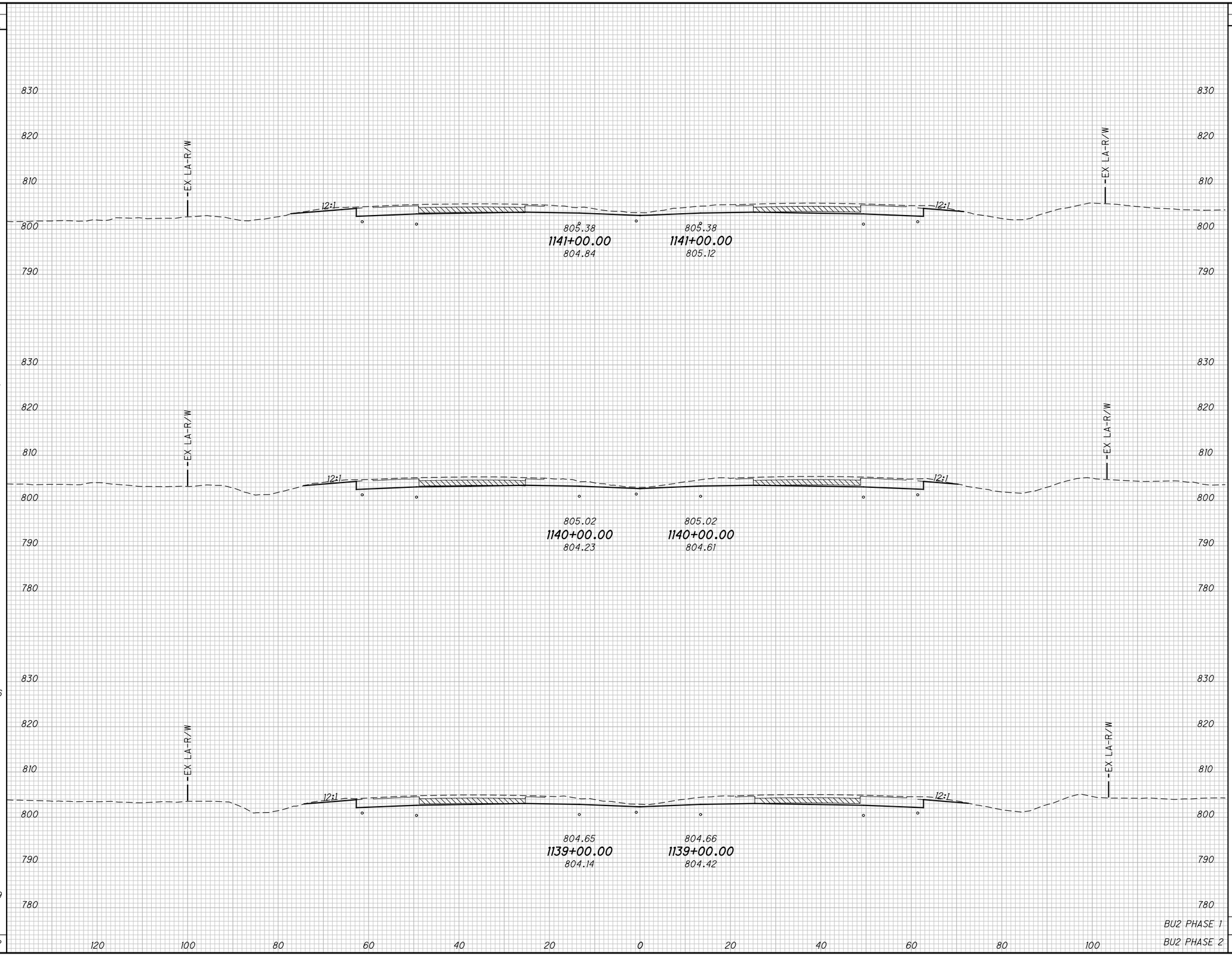
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1136+00.00 TO STA. 1138+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:18 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
30	317
27	306
28	289
·	912



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
63	0		
74	0		
		217	0
		267	0
54	0		
70	0		
		219	0
		267	0
64	0		
74	0		
		235	0
		269	0
·	·	671	0
·	·	803	0

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

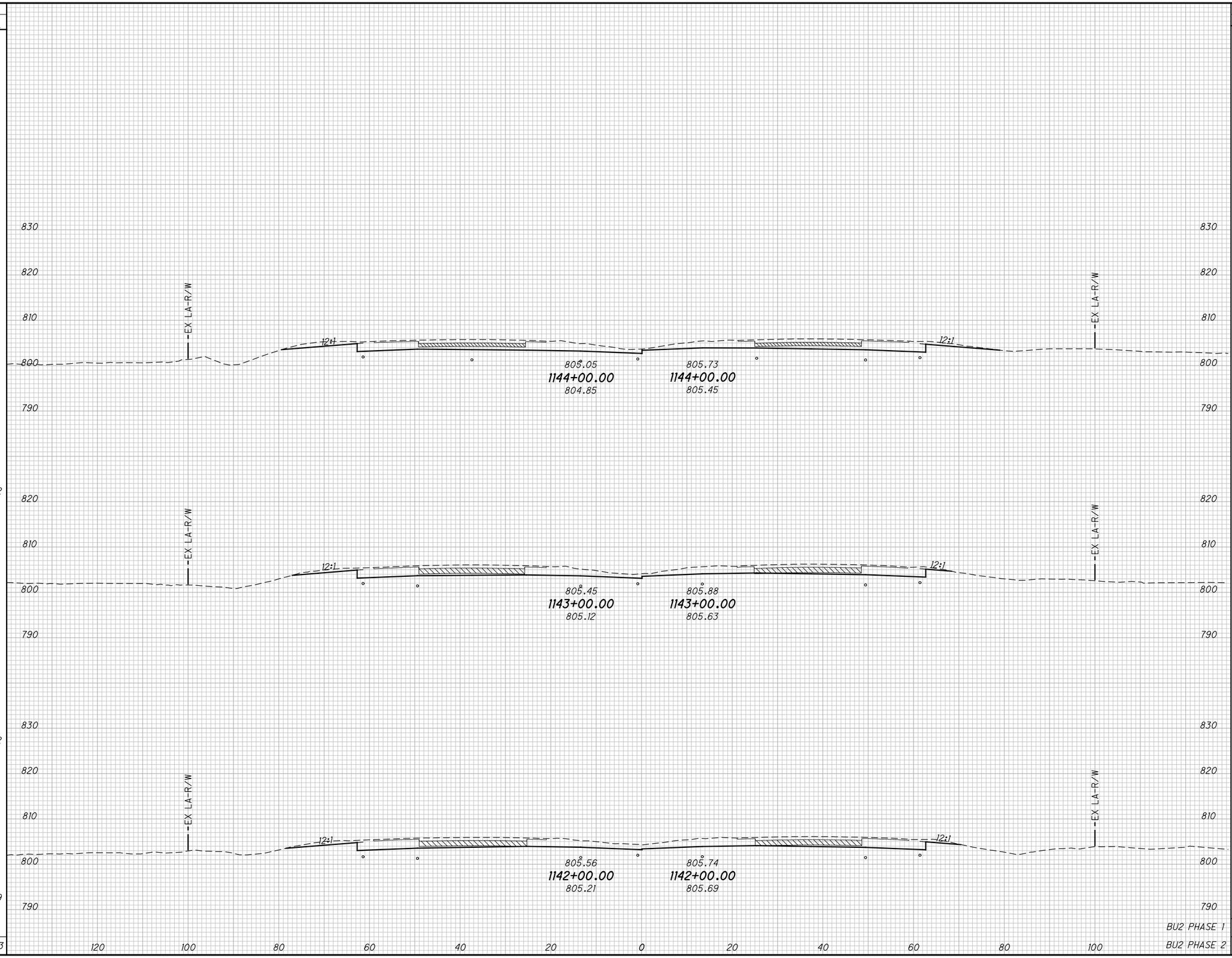
CROSS SECTIONS I.R. 75
STA. 1139+00.00 TO STA. 1141+00.00

HAN/WOO-75-19.22/0.00

162
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:20 PM CMN

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
40	372	78	0		
		105	0		
				276	0
				344	0
27		71	0		
		81	0		
	322			274	0
				306	0
31	339	77	0		
		84	0	259	0
				293	0
		.	.	809	0
.	1033	.	.	943	0



BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75

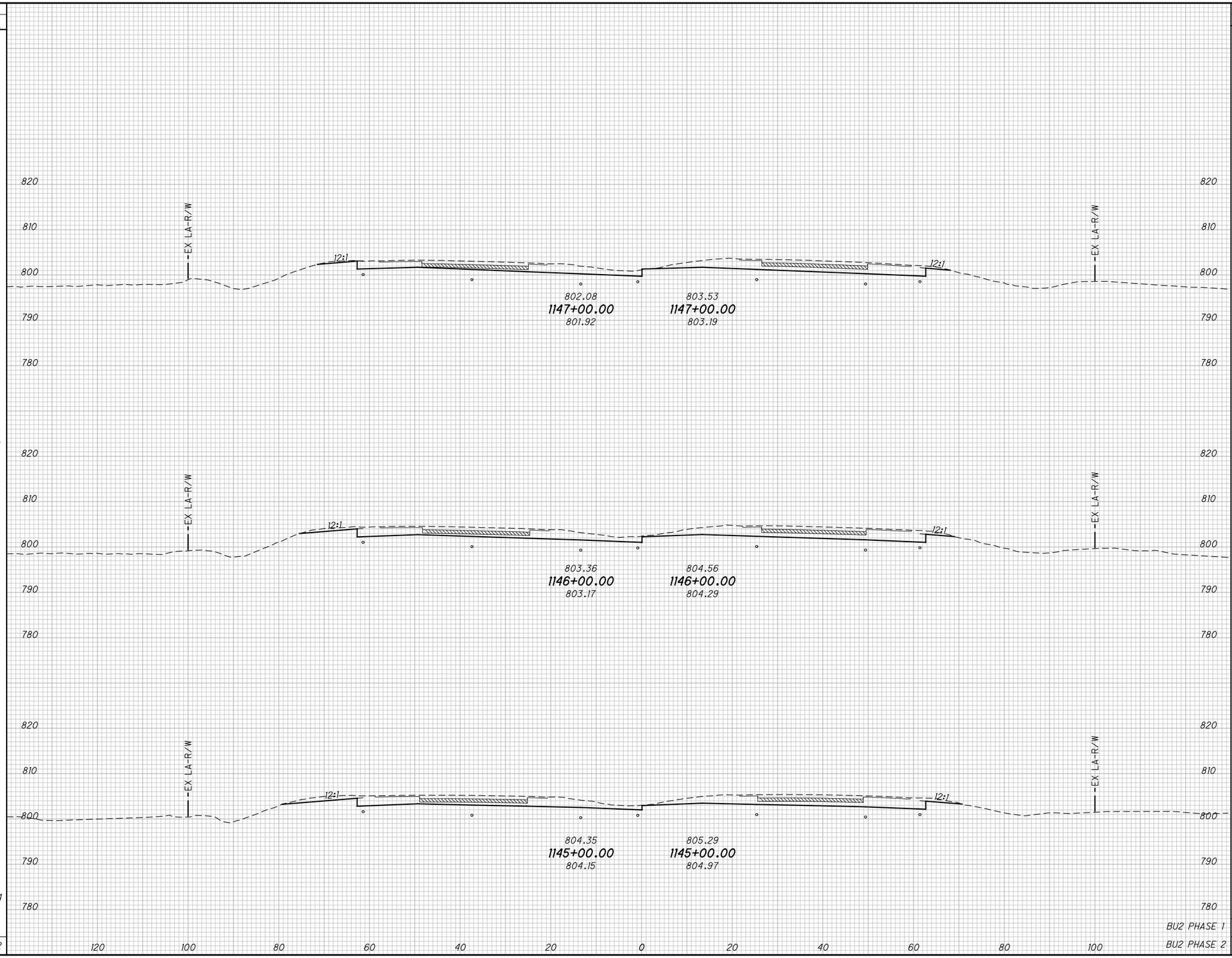
STA. 1142+00.00 TO STA. 1144+00.00

HAN/ WOO-75-19.22/ 0.00

163
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:22 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
21	261
26	317
31	394
·	972



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
86	0		
83	0		
		324	0
		343	0
89	0		
102	0		
		319	0
		383	0
83	0		
105	0		
		298	0
		389	0
·	·	941	0
·	·	1115	0

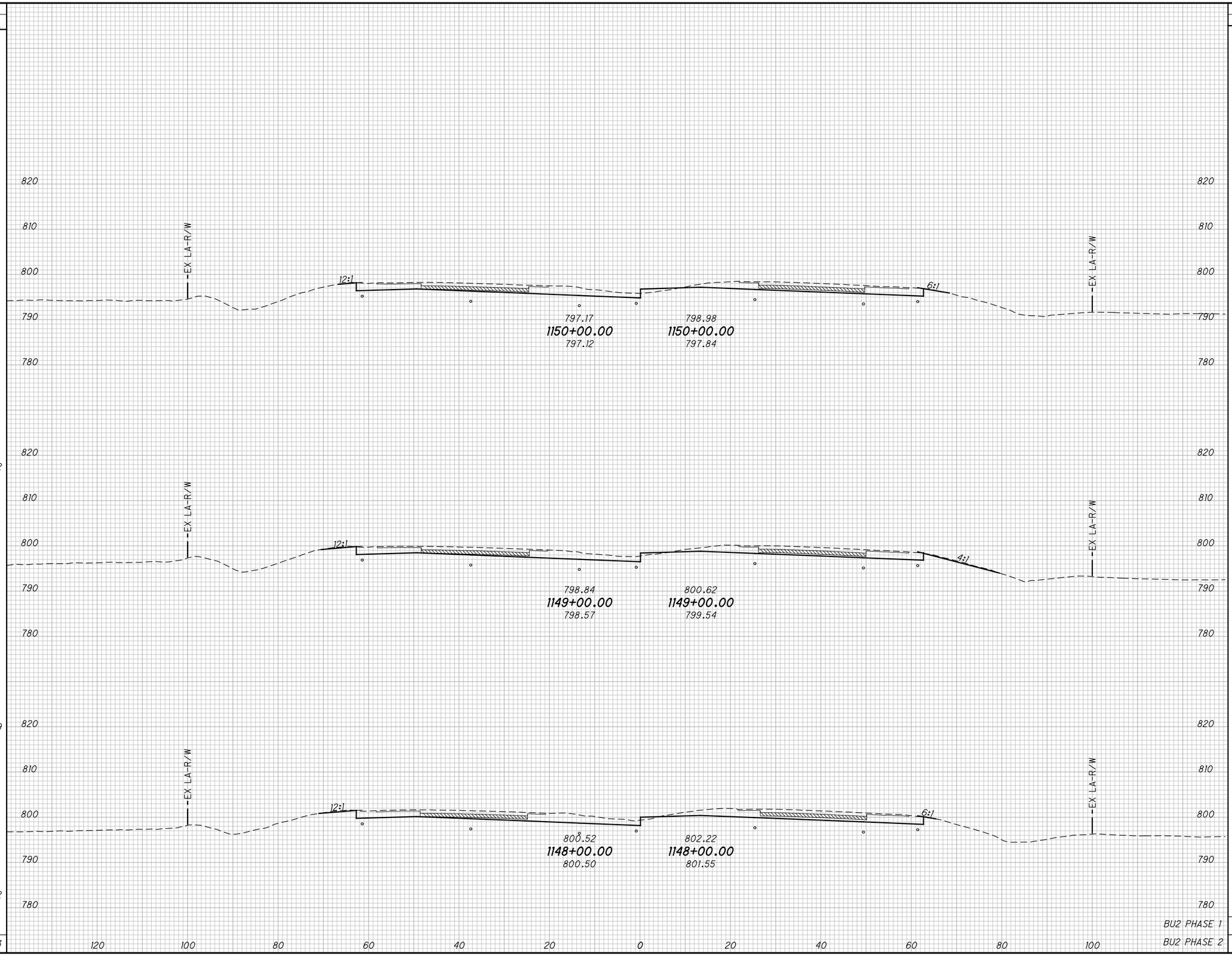
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1145+00.00 TO STA. 1147+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:25 PM CMN

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
		820				
		810				
		800				
		790				
16		780	58	5		
			50	0		
		820			228	13
	272	810			206	0
		800				
		790				
33		780	65	2		
			61	0		
		820			265	7
	289	810			233	0
		800				
		790				
19		780	78	2		
			65	0		
		820			304	4
	222	810			274	0
		800				
		790				
		780				
					797	24
					713	0



BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75

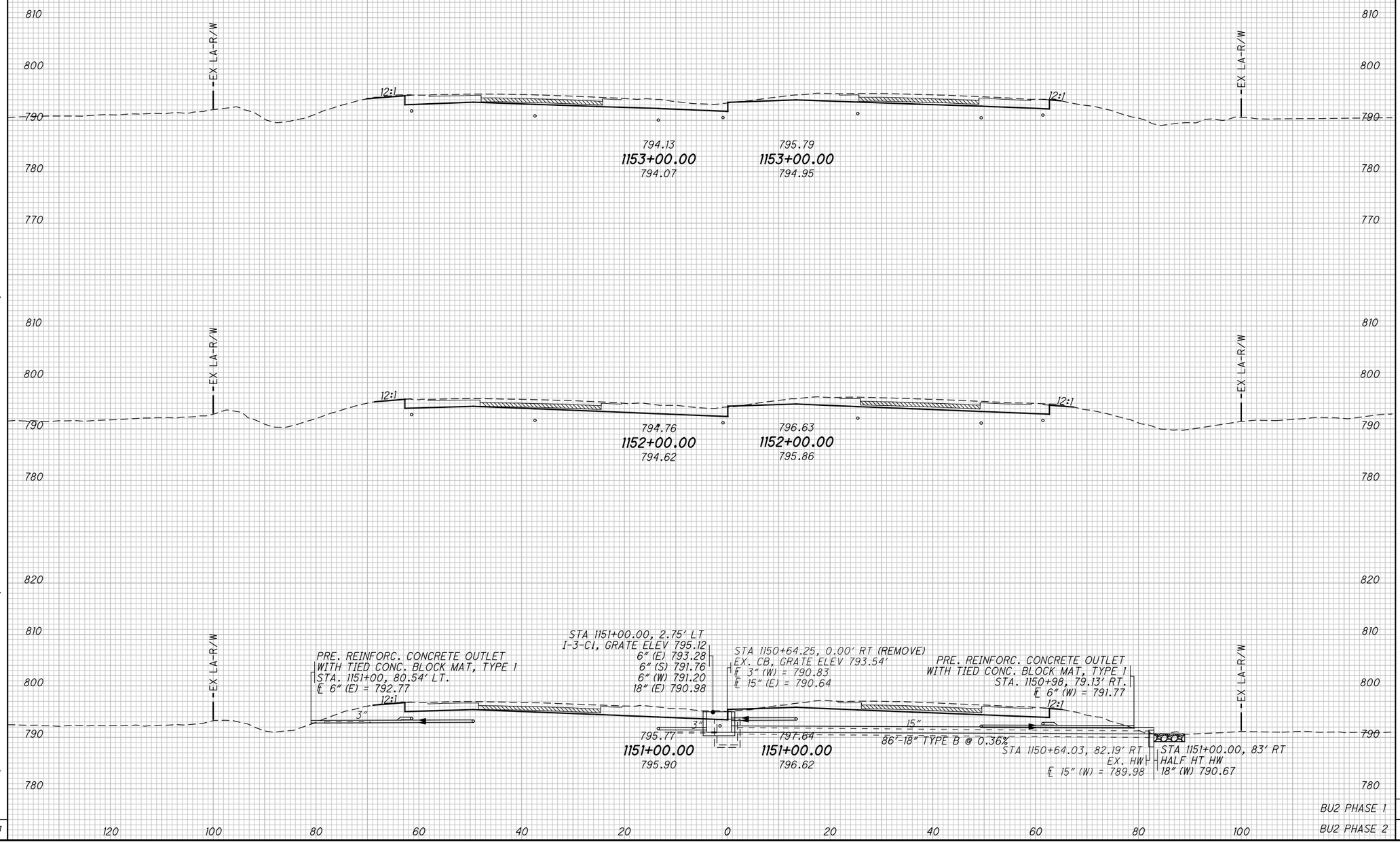
STA. 1148+00.00 TO STA. 1150+00.00

HAN/WOO-75-19.22/0.00

165
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:27 PM CMN

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
16	183	63	0	256	0
		58	0	222	0
17	183	75	0	265	4
		62	0	219	0
16	178	68	2	233	13
		56	0	196	0
·	544	·	·	754	17
		·	·	637	0



BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75

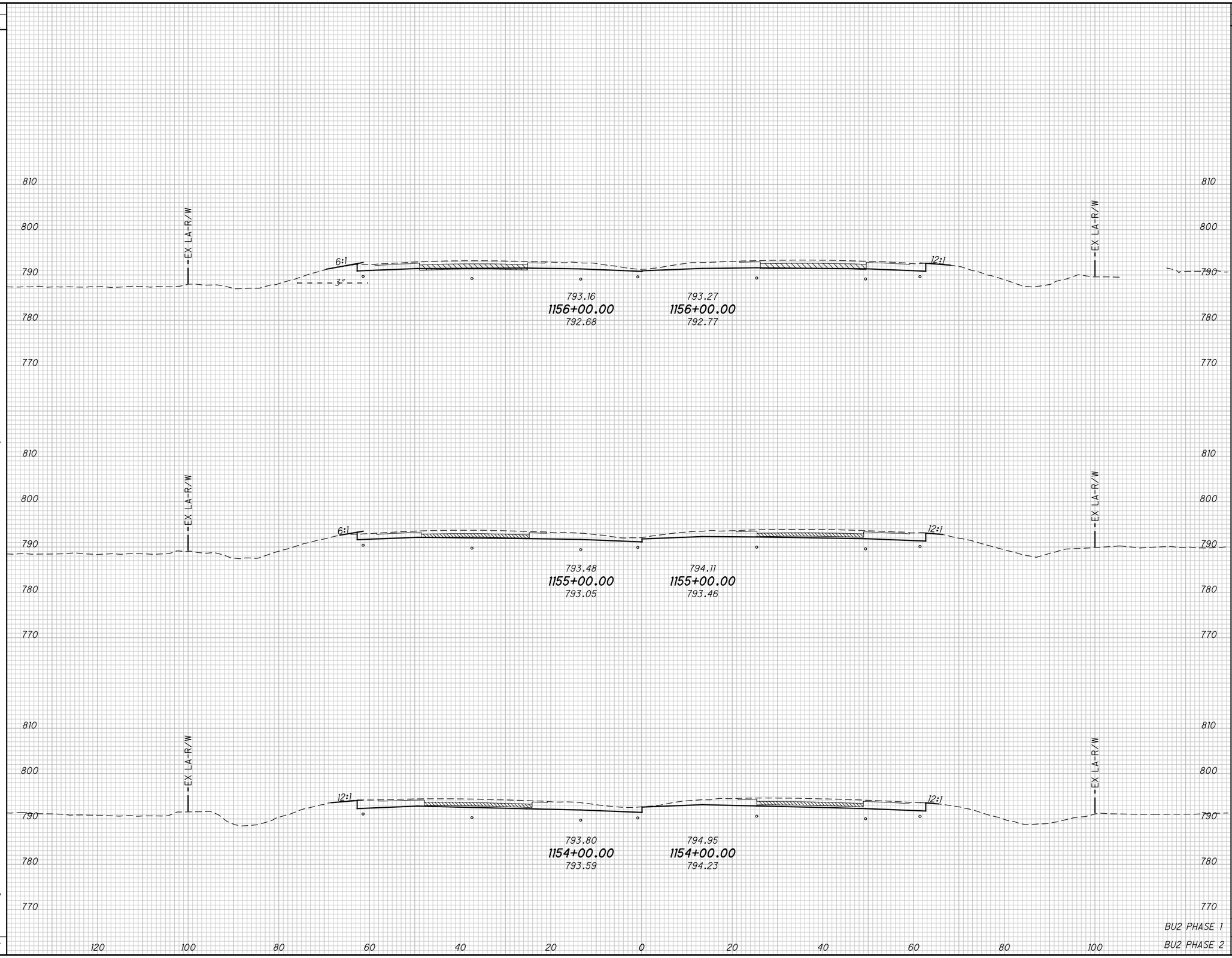
STA. 1151+00.00 TO STA. 1153+00.00

HAN/WOO-75-19.22/0.00

166
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:29 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
19	183
14	161
15	172
·	516



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
58	0		
36	0		
		215	0
		152	2
58	0		
46	1		
		222	0
		191	2
62	0		
57	0		
		231	0
		213	0
BU2 PHASE 1 ·	·	668	0
BU2 PHASE 2 ·	·	556	4

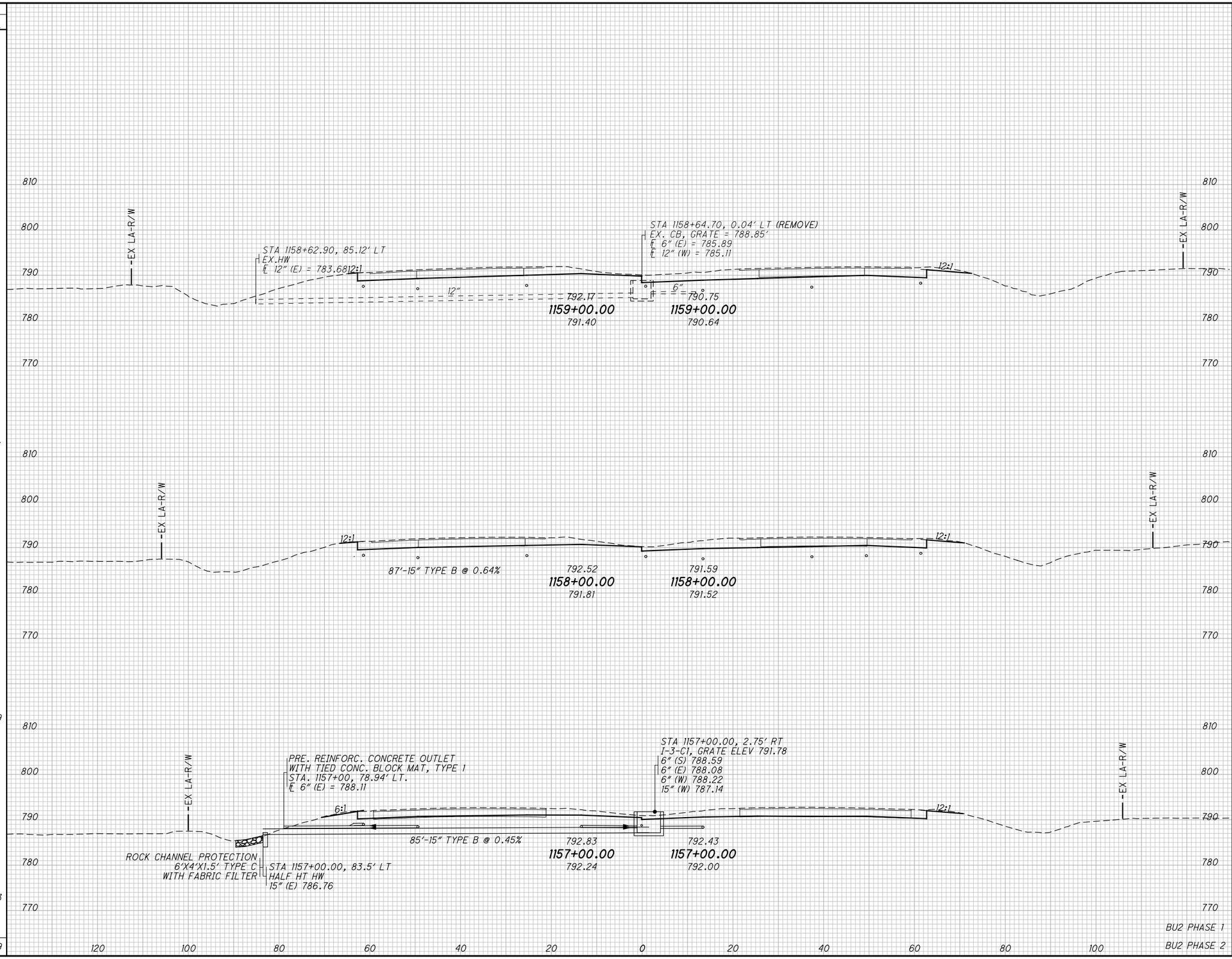
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1154+00.00 TO STA. 1156+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:32 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
19	217
20	239
23	233
·	689



END AREA		VOLUME	
CUT	FILL	CUT	FILL
75	0		
54	0		
		265	0
		189	0
68	0		
48	0		
		215	0
		120	2
48	0		
17	1		
		196	0
		98	2
BU2 PHASE 1 ·	·	676	0
BU2 PHASE 2 ·	·	407	4

CALCULATED ALZ
CHECKED RJM

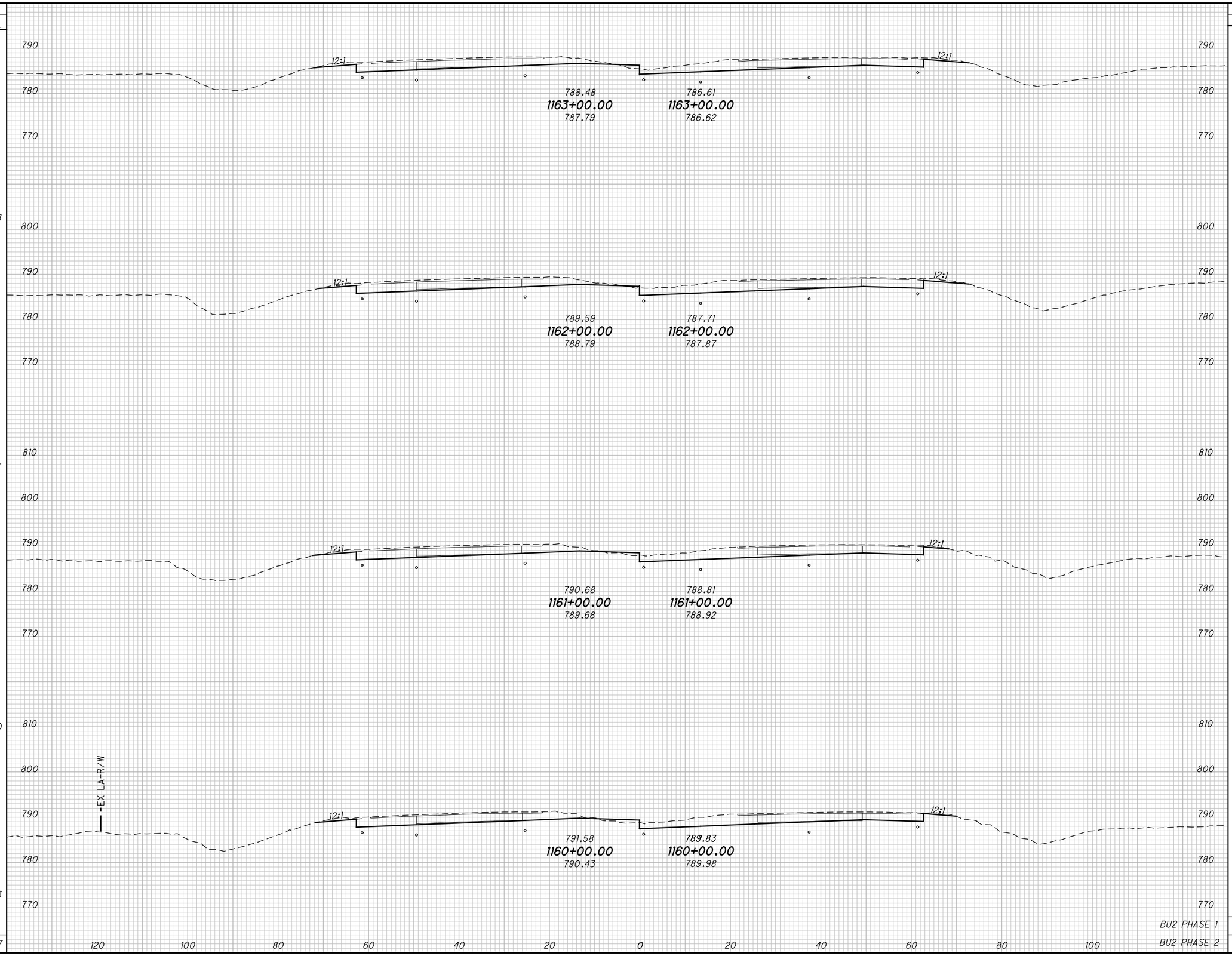
CROSS SECTIONS I.R. 75
STA. 1157+00.00 TO STA. 1159+00.00

HAN/WOO-75-19.22/0.00

168
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:34 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.	
26	283	
25	261	
22	250	
23	233	
·	1027	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
69	3		
61	0		
		276	7
		237	0
80	1		
67	0		
		280	7
		237	0
71	3		
61	0		
		256	15
		219	0
67	5		
57	0		
		263	9
		206	0
·	·	1075	38
·	·	899	0

BU2 PHASE 1
BU2 PHASE 2

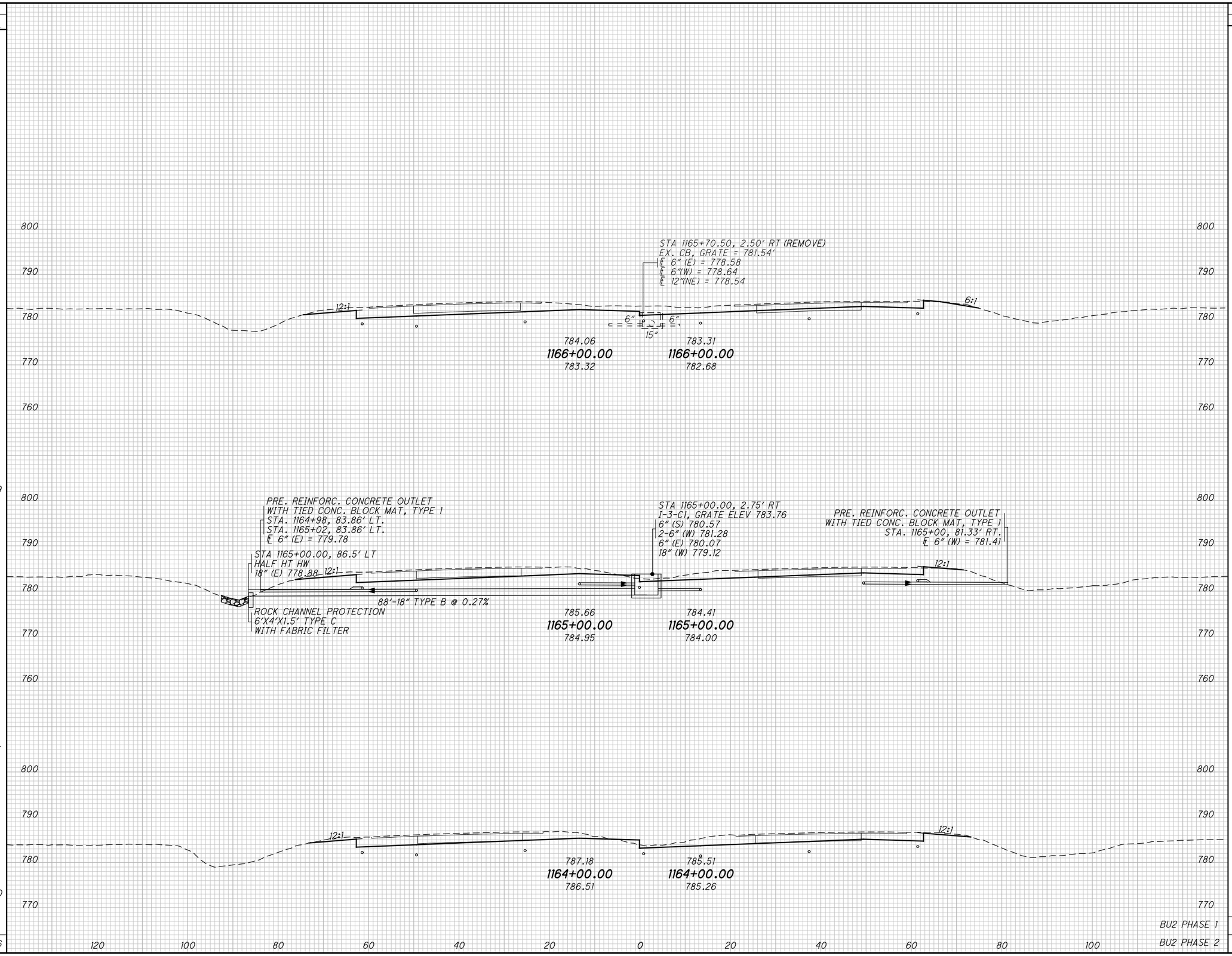
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1160+00.00 TO STA. 1163+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:36 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
32	
	339
29	
	317
28	
	300
.	956



END AREA		VOLUME	
CUT	FILL	CUT	FILL
75	0		
62	1		
		244	4
		222	4
57	2		
58	1		
		213	9
		215	2
58	3		
58	0	235	11
		220	0
.	.	692	24
.	.	657	6

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

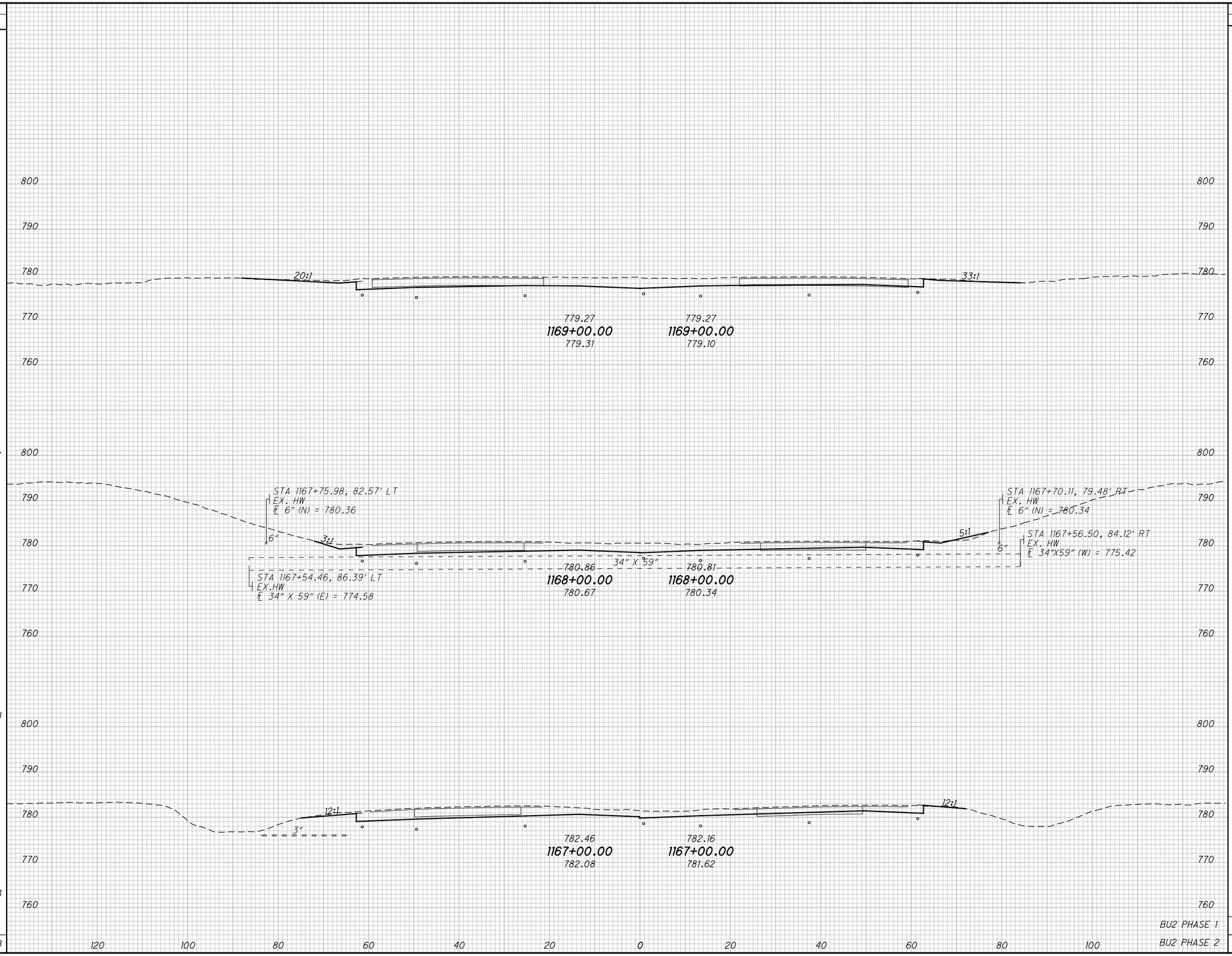
CROSS SECTIONS I.R. 75
STA. 1164+00.00 TO STA. 1166+00.00

HAN/WOO-75-19.22/0.00

170
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:38 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
53	467
31	328
28	333
·	1128



END AREA		VOLUME	
CUT	FILL	CUT	FILL
84	0		
30	0		
		322	0
		169	6
90	0		
61	3		
		307	0
		220	6
76	0		
58	0		
		280	0
		222	2
·	·	909	0
·	·	611	14

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

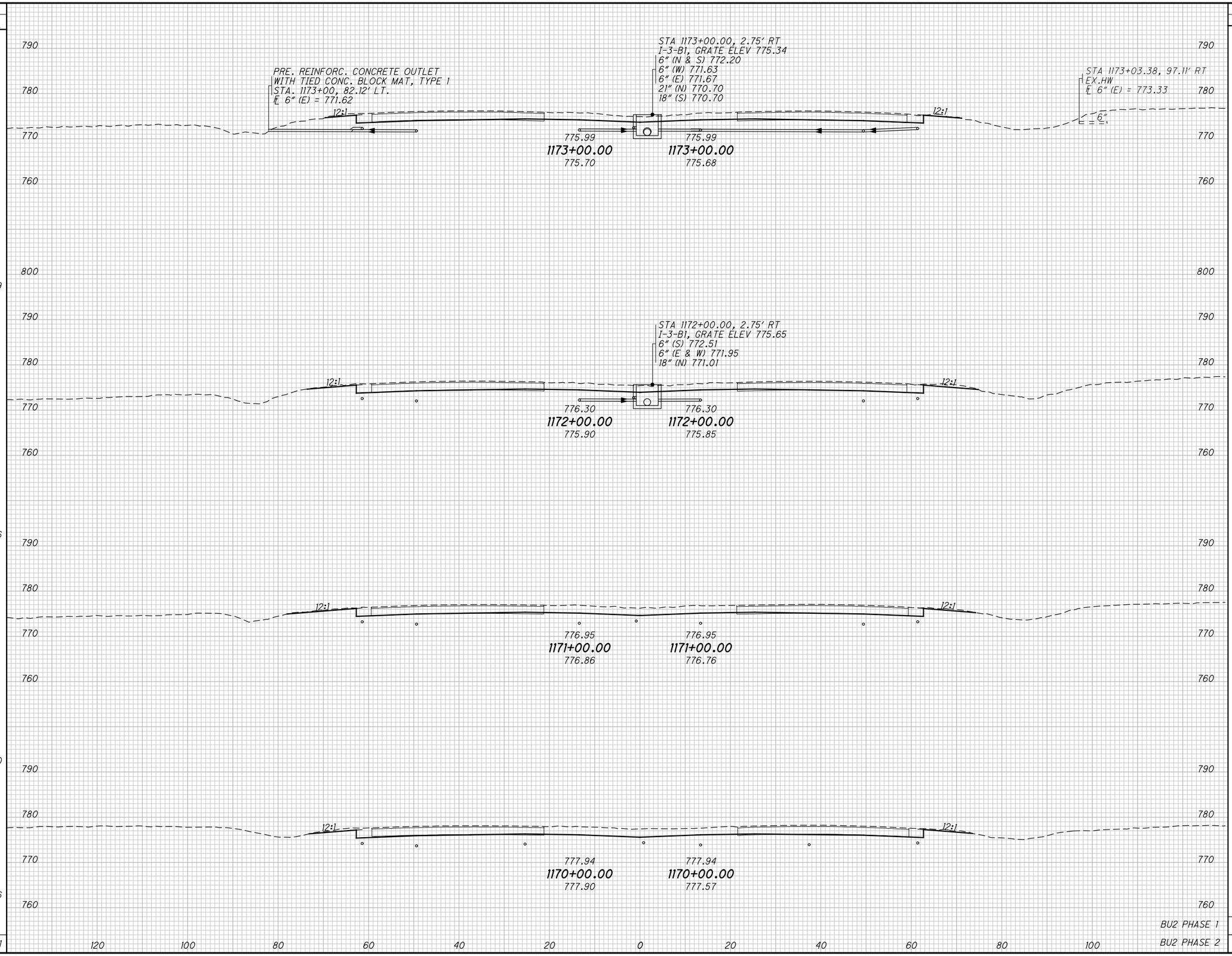
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1167+00.00 TO STA. 1169+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:41 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
	22
	289
	30
	356
	34
	350
	29
	456
·	1451



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
60	0		
20	0		
		224	0
		78	0
61	0		
22	0		
		243	0
		74	0
70	0		
18	0		
		265	0
		78	0
73	0		
24	0	291	0
		100	0
·	·	1023	0
·	·	330	0

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

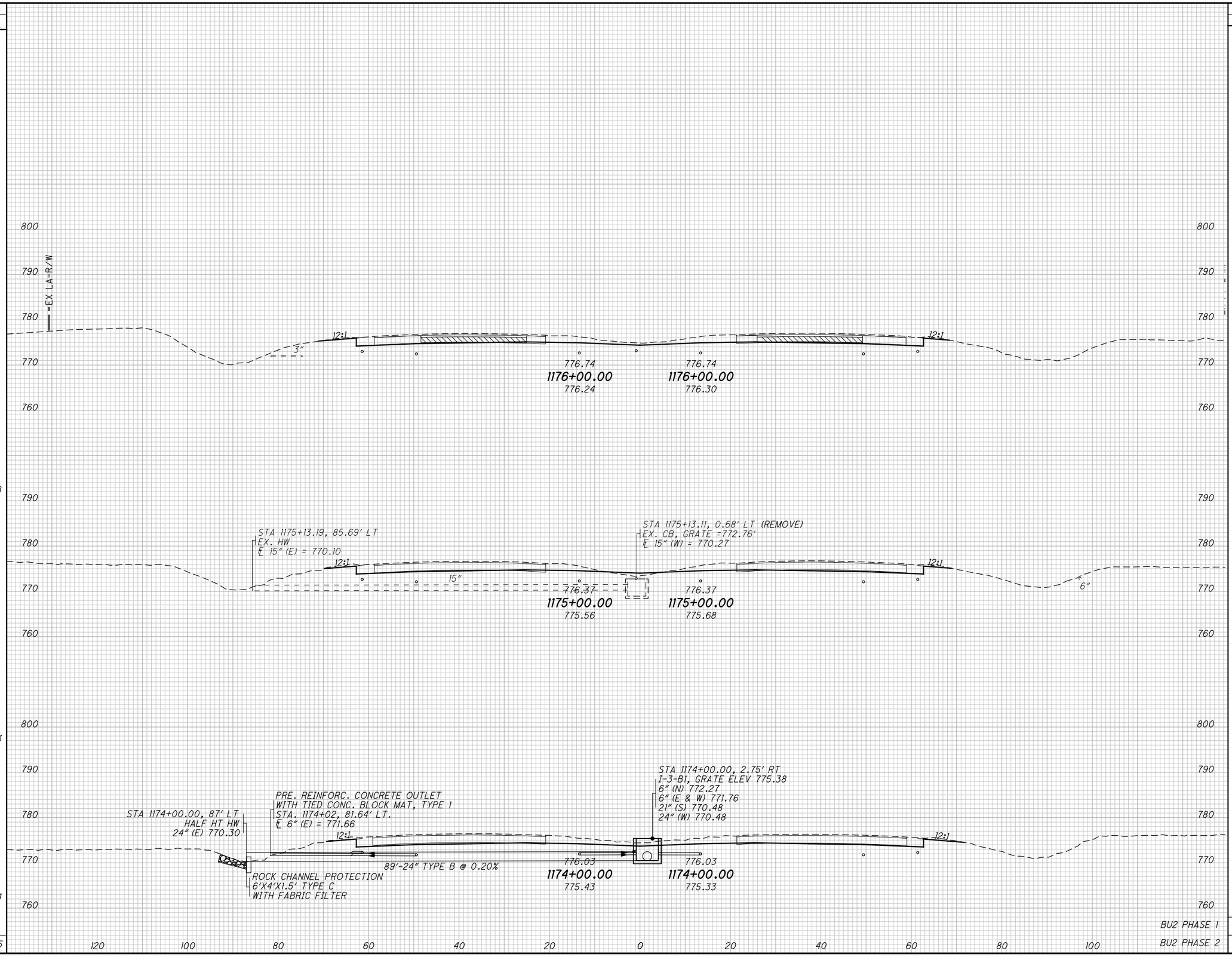
CROSS SECTIONS I.R. 75
STA. 1170+00.00 TO STA. 1173+00.00

HAN/WOO-75-19.22/0.00

172
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:43 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
21	228
20	233
22	244
·	705



END AREA		VOLUME	
CUT	FILL	CUT	FILL
44	0		
24	0		
		137	9
		98	0
30	5		
29	0		
		146	9
		111	0
49	0		
31	0	202	0
		94	0
BU2 PHASE 1 ·	·	485	18
BU2 PHASE 2 ·	·	303	0

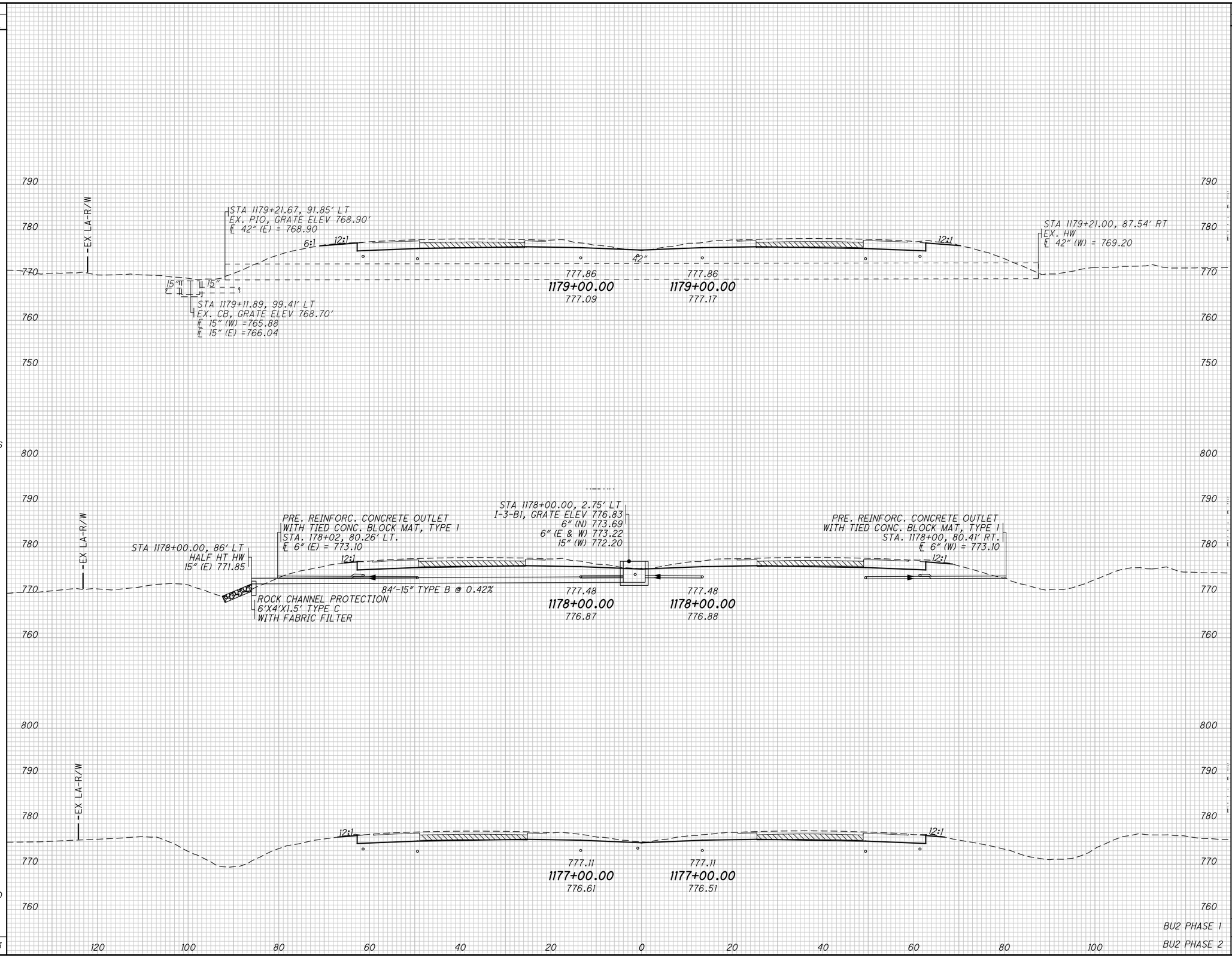
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1174+00.00 TO STA. 1176+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:45 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
	22
	206
	15
	167
	15
	200
·	573



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
47	0		
58	0		
		183	0
		211	0
52	0		
56	0		
		194	0
		209	0
53	0		
57	0	180	0
		150	0
·	·	557	0
·	·	570	0

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

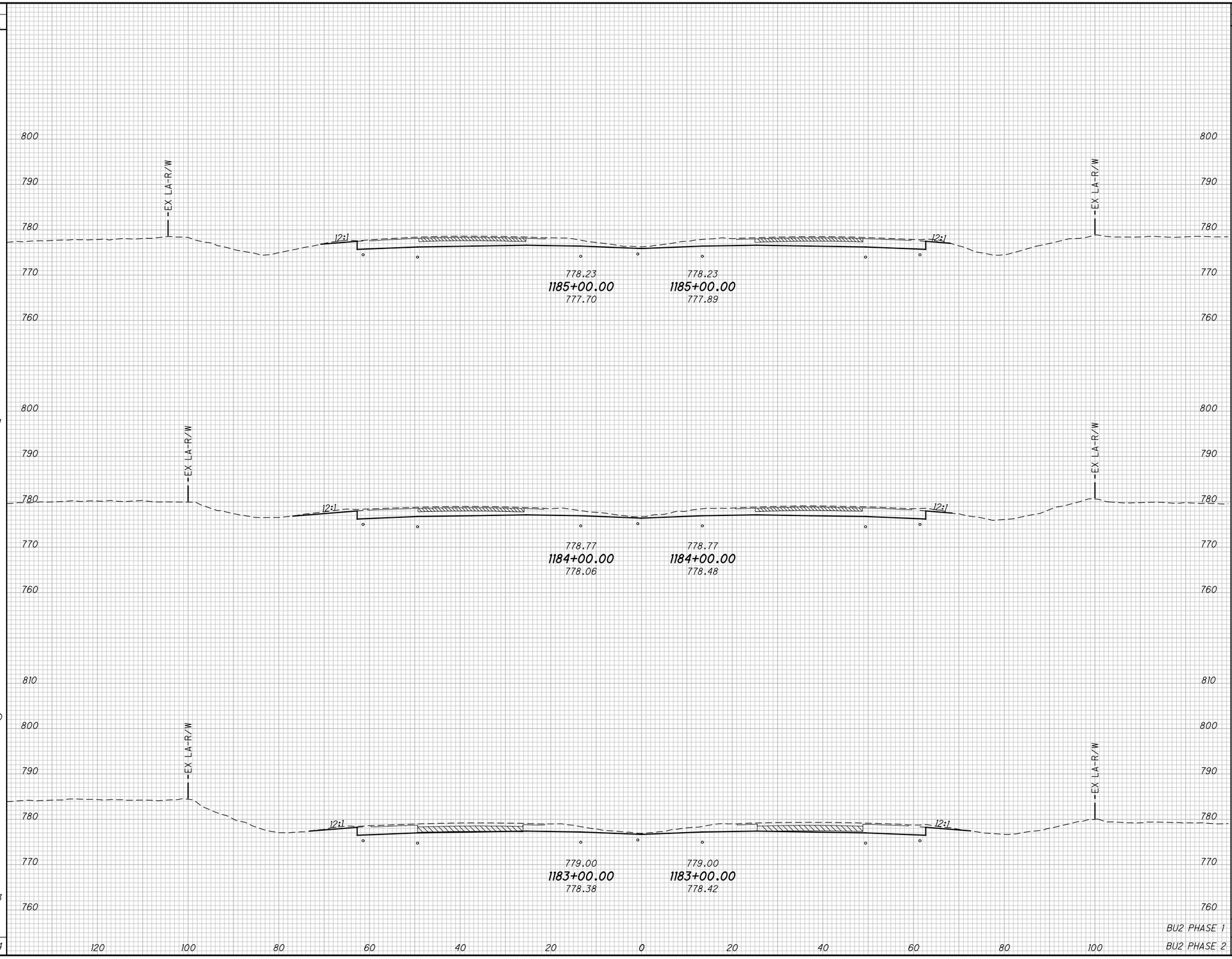
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1177+00.00 TO STA. 1179+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:47 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
20	261
27	300
27	233
·	794



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
68	0		
96	0		
		246	0
		359	0
65	0		
98	0		
		224	0
		302	0
56	0		
65	0	198	0
		219	0
BU2 PHASE 1 ·	·	668	0
BU2 PHASE 2 ·	·	880	0

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1183+00.00 TO STA. 1185+00.00

HAN/WOO-75-19.22/0.00

176
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:50 PM CMN

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
		800				
		790				
		780				
		770				
15		760	51	0		
			53	0		
		800			183	0
	200				187	0
		790				
		780				
		770	48	0		
21		760	48	0		
		800			174	0
	217				183	0
		790				
		780				
		770	46	0		
18			51	0	172	0
	222	760			202	0
					529	0
	639				572	0

EX LA-R/W — 12:1 — 778.93 — 1182+00.00 — 778.11 — 778.93 — 1182+00.00 — 778.25 — 12:1 — EX LA-R/W

EX LA-R/W — 6:1 — 778.60 — 1181+00.00 — 777.79 — 778.60 — 1181+00.00 — 777.93 — 12:1

EX LA-R/W — 12:1 — 778.23 — 1180+00.00 — 777.35 — 778.23 — 1180+00.00 — 777.52 — 12:1

120 100 80 60 40 20 0 20 40 60 80 100

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

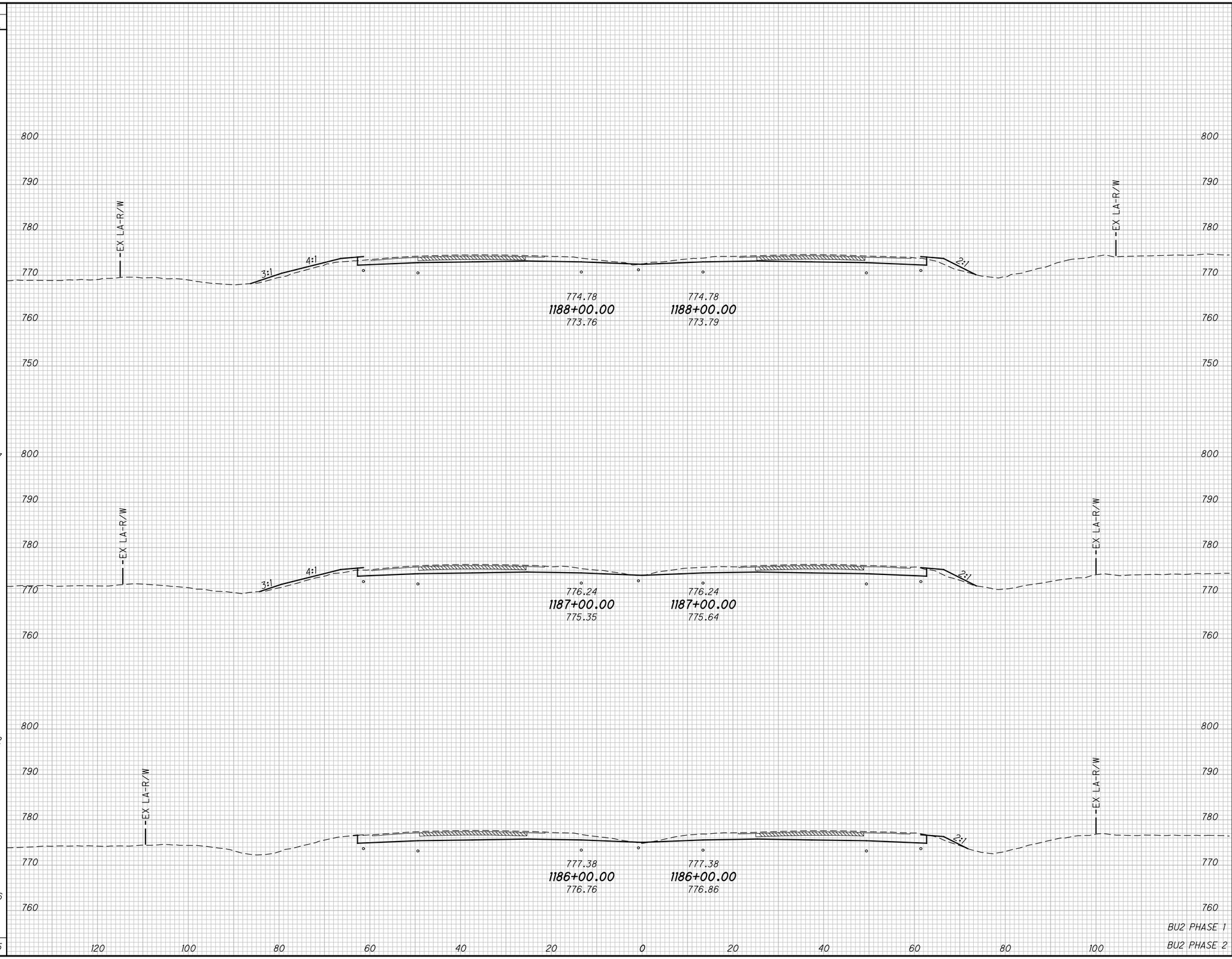
CROSS SECTIONS I.R. 75
STA. 1180+00.00 TO STA. 1182+00.00

HAN/WOO-75-19.22/0.00

175
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:52 PM CMN

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
43		39	0		
		51	23		
				170	0
	467			224	76
41		53	0		
		70	18		
				207	2
	322			287	39
17		59	1		
		85	3	235	2
	206			335	6
		BU2 PHASE 1		612	4
	995	BU2 PHASE 2		846	121



CALCULATED ALZ
CHECKED RJM

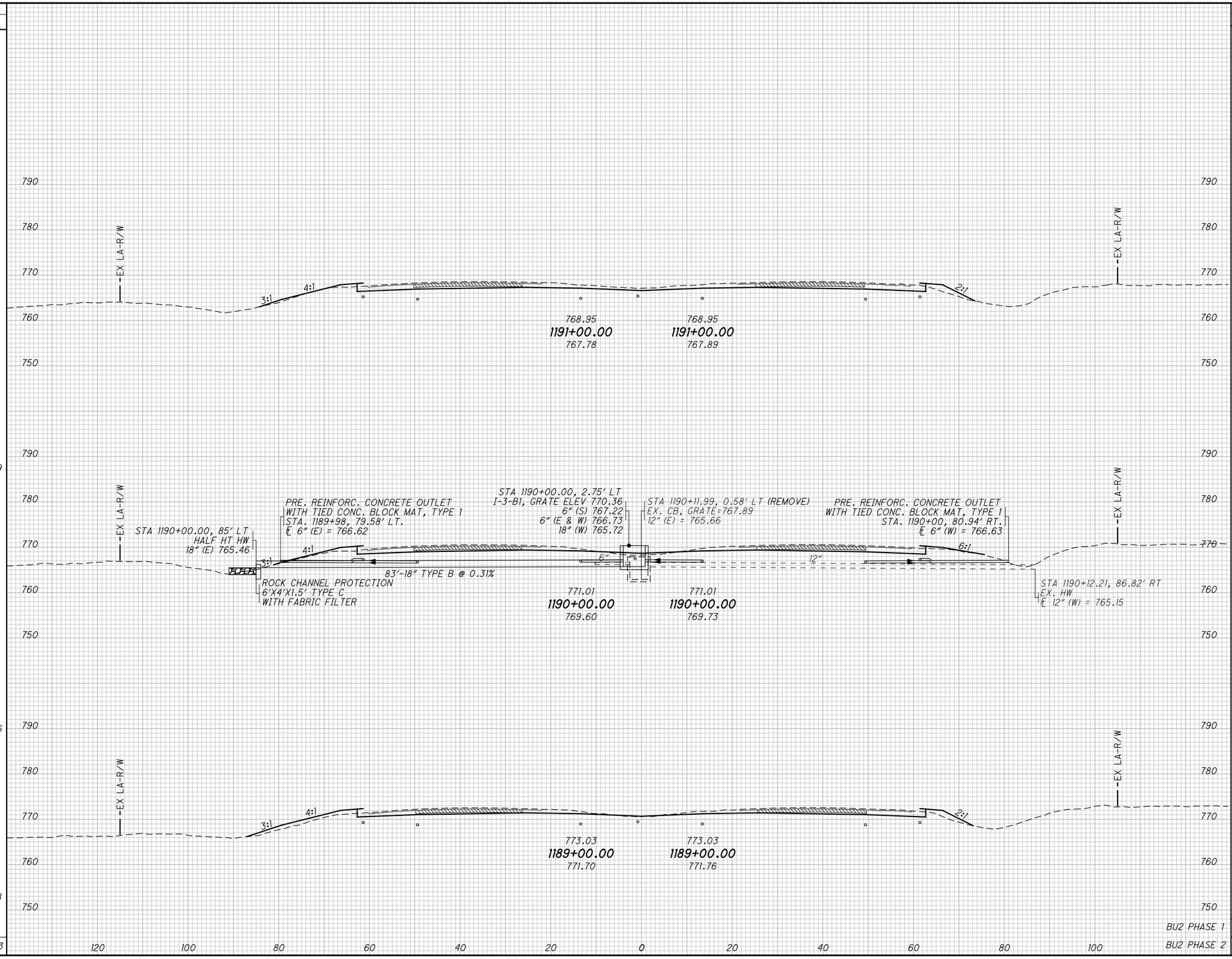
CROSS SECTIONS I.R. 75
STA. 1186+00.00 TO STA. 1188+00.00

HAN/WOO-75-19.22/0.00

177
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:54 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
40	439
39	456
43	478
·	1373



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
40	0		
43	15		
		115	11
		150	46
22	6		
38	10		
		83	13
		137	67
23	1		
36	26		
		115	2
		161	91
BU2 PHASE 1 ·	·	313	26
BU2 PHASE 2 ·	·	448	204

CALCULATED ALZ
CHECKED RJM

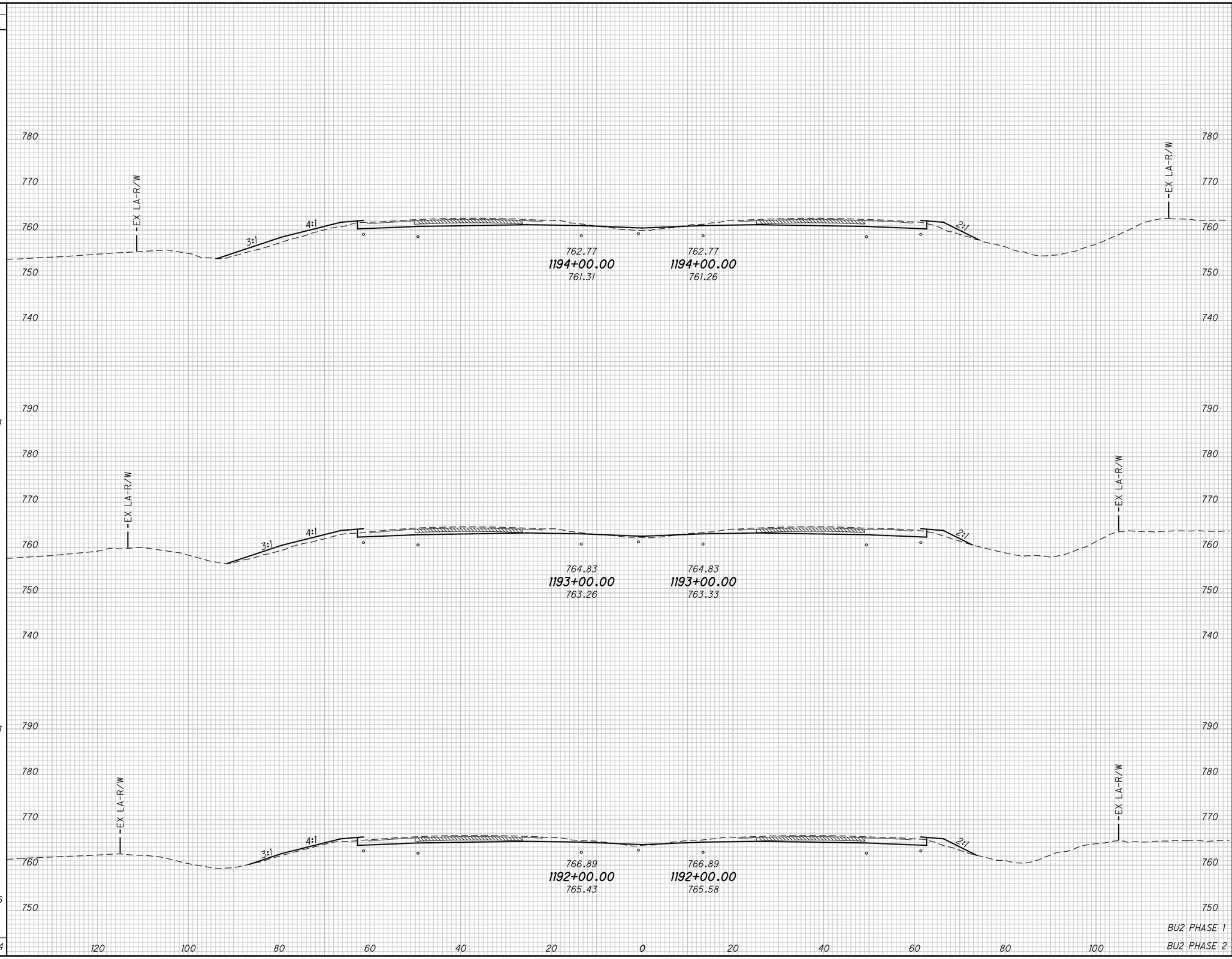
CROSS SECTIONS I.R. 75
STA. 1189+00.00 TO STA. 1191+00.00

HAN/WOO-75-19.22/0.00

178
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:56 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
51	544
47	494
42	456
·	1494



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
26	6		
54	36		
		89	19
		193	122
22	4		
50	30		
		91	11
		178	89
27	2		
46	18	124	4
		165	61
BU2 PHASE 1 ·	·	304	34
BU2 PHASE 2 ·	·	536	272

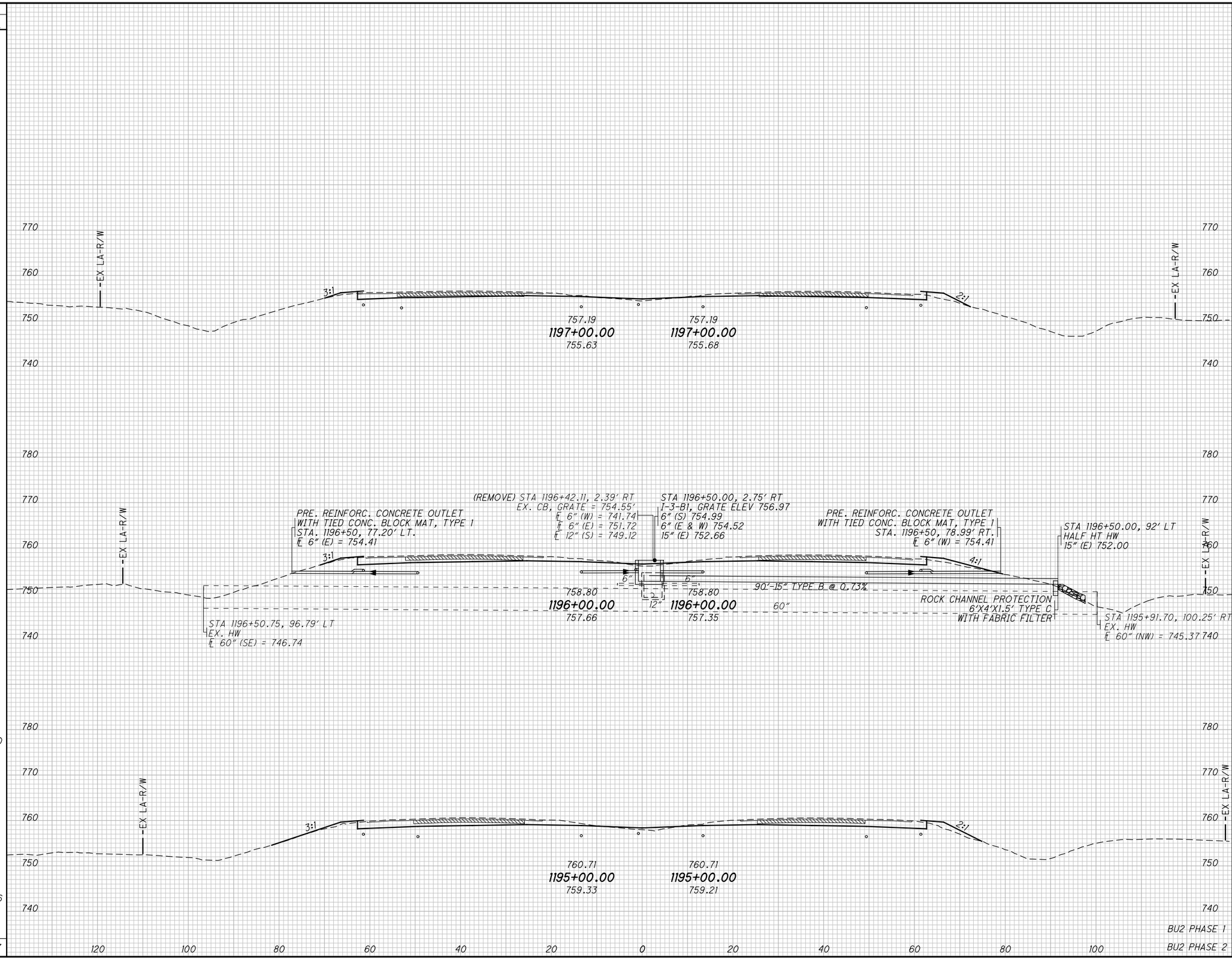
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1192+00.00 TO STA. 1194+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:29:59 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
24	311
32	400
40	506
·	1217



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
13	4		
29	10		
		76	15
		146	35
28	4		
50	9		
		104	17
		206	43
28	5		
61	14	100	20
		213	93
·	·	280	52
·	·	565	171

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

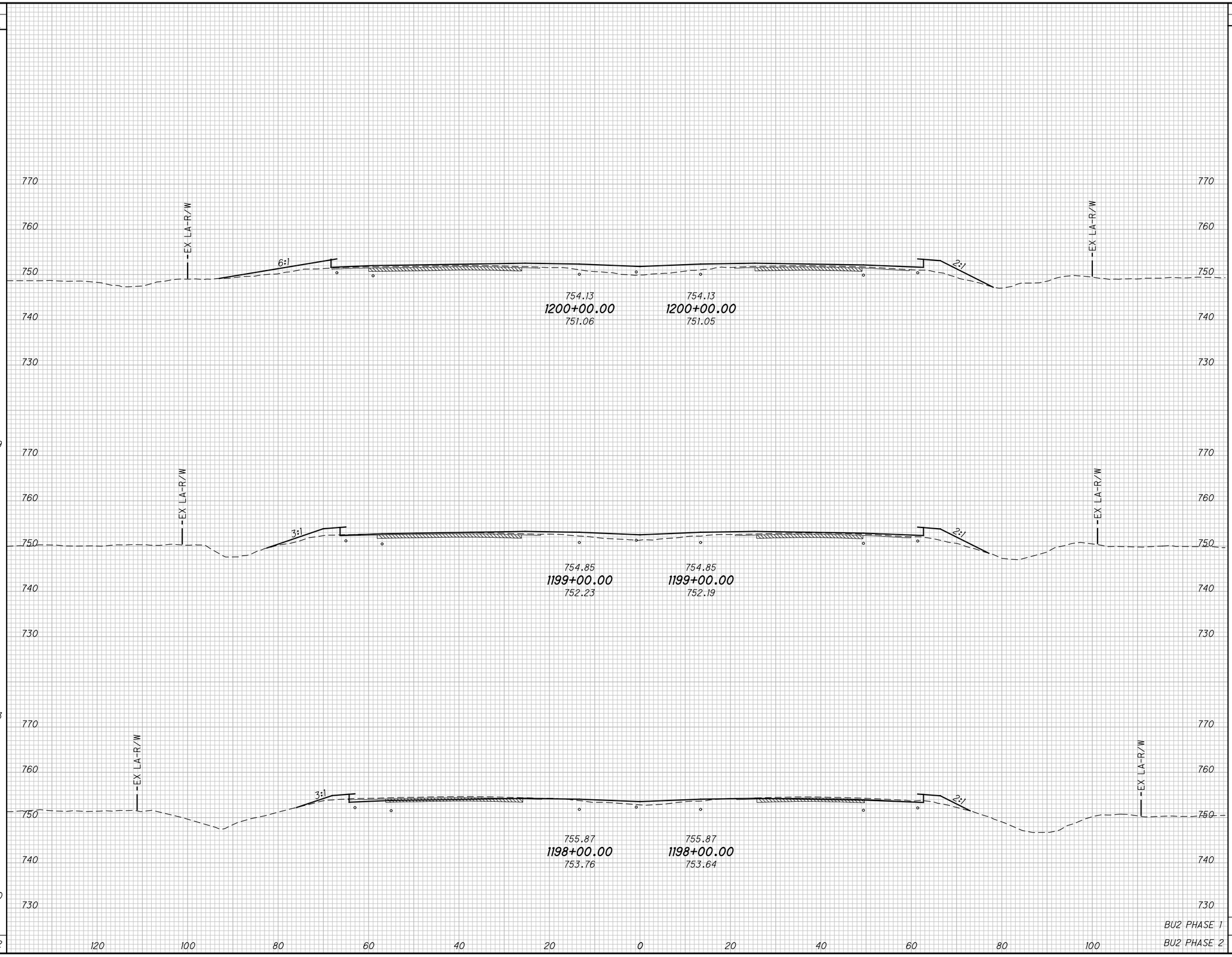
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1195+00.00 TO STA. 1197+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:01 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
49	489
39	383
30	300
·	1172



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	73		
0	73		
		0	224
		0	217
0	48		
0	44		
		2	120
		11	115
1	17		
6	18		
		26	39
		65	52
·	·	28	383
·	·	76	384

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75

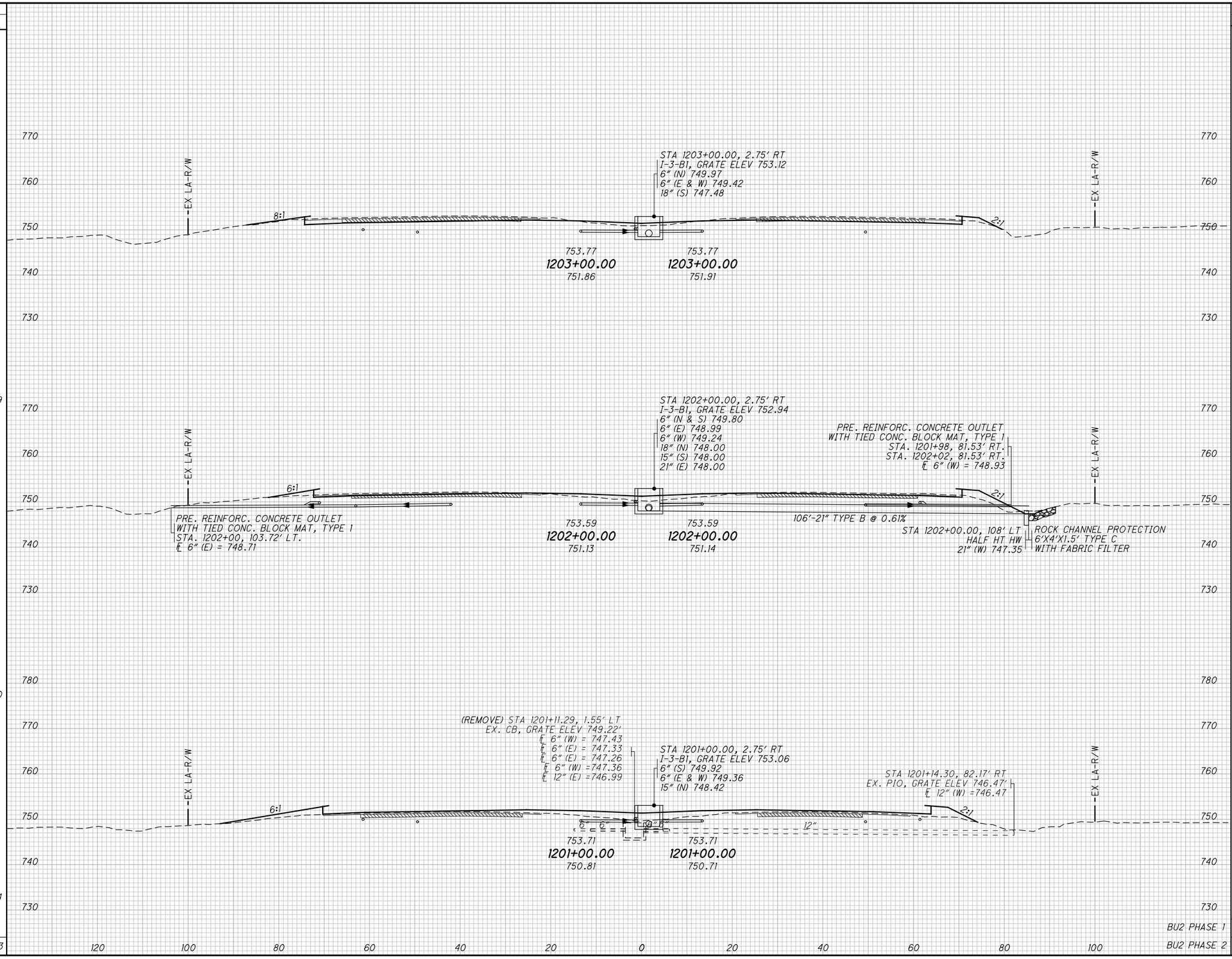
STA. 1198+00.00 TO STA. 1200+00.00

HAN/WOO-75-19.22/0.00

181
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:03 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
	29
	339
	32
	400
	40
	494
·	1233



END AREA		VOLUME	
CUT	FILL	CUT	FILL
8	12		
18	8		
		15	78
		43	57
0	30		
5	23		
		0	170
		9	135
		0	250
		0	228
·	·	15	498
·	·	52	420

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

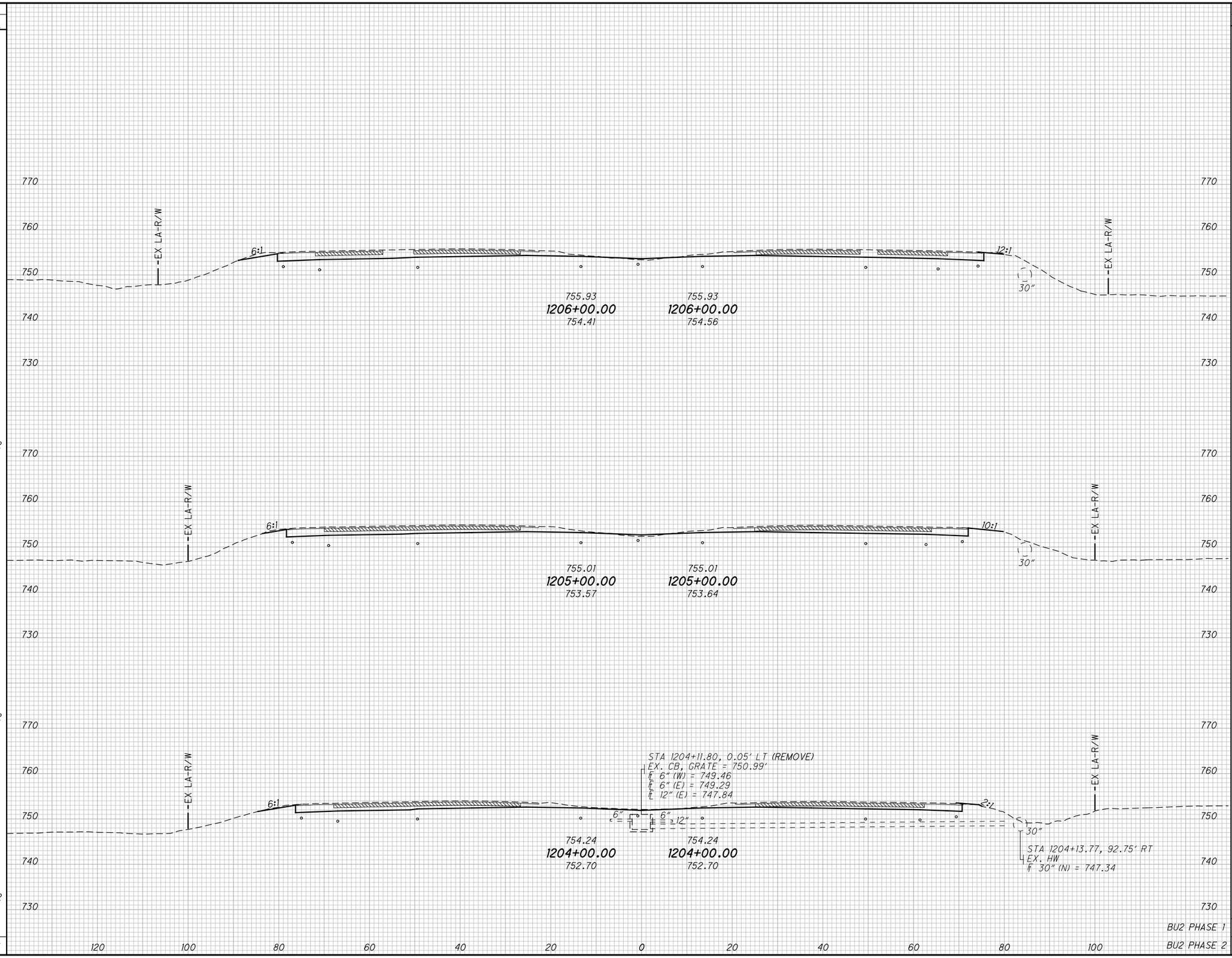
CROSS SECTIONS I.R. 75
STA. 1201+00.00 TO STA. 1203+00.00

HAN/WOO-75-19.22/0.00

182
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:06 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
20	222
20	222
20	272
·	716



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
26	0		
96	0		
		100	9
		317	0
28	3		
75	0		
		96	6
		259	0
24	0		
65	0		
		59	22
		154	15
·	·	255	37
·	·	730	15

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

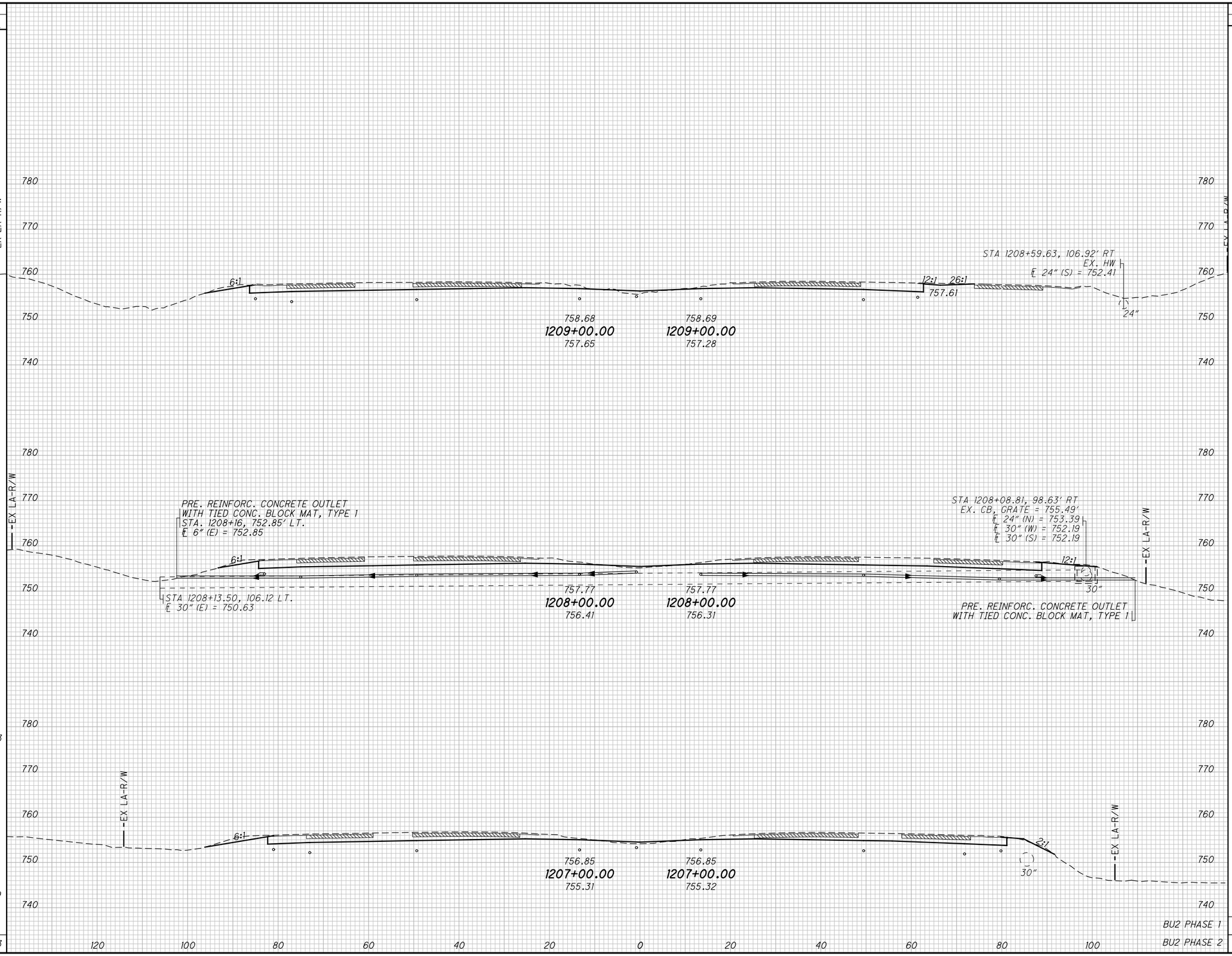
CROSS SECTIONS I.R. 75
STA. 1204+00.00 TO STA. 1206+00.00

HAN/WOO-75-19.22/0.00

183
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:08 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
28	311
28	333
32	289
·	933



END AREA		VOLUME	
CUT	FILL	CUT	FILL
28	5		
96	0		
		104	15
		430	0
28	3		
136	0		
		98	15
		470	2
25	5		
118	1	94	9
		396	2
·	·	296	39
·	·	1296	4

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

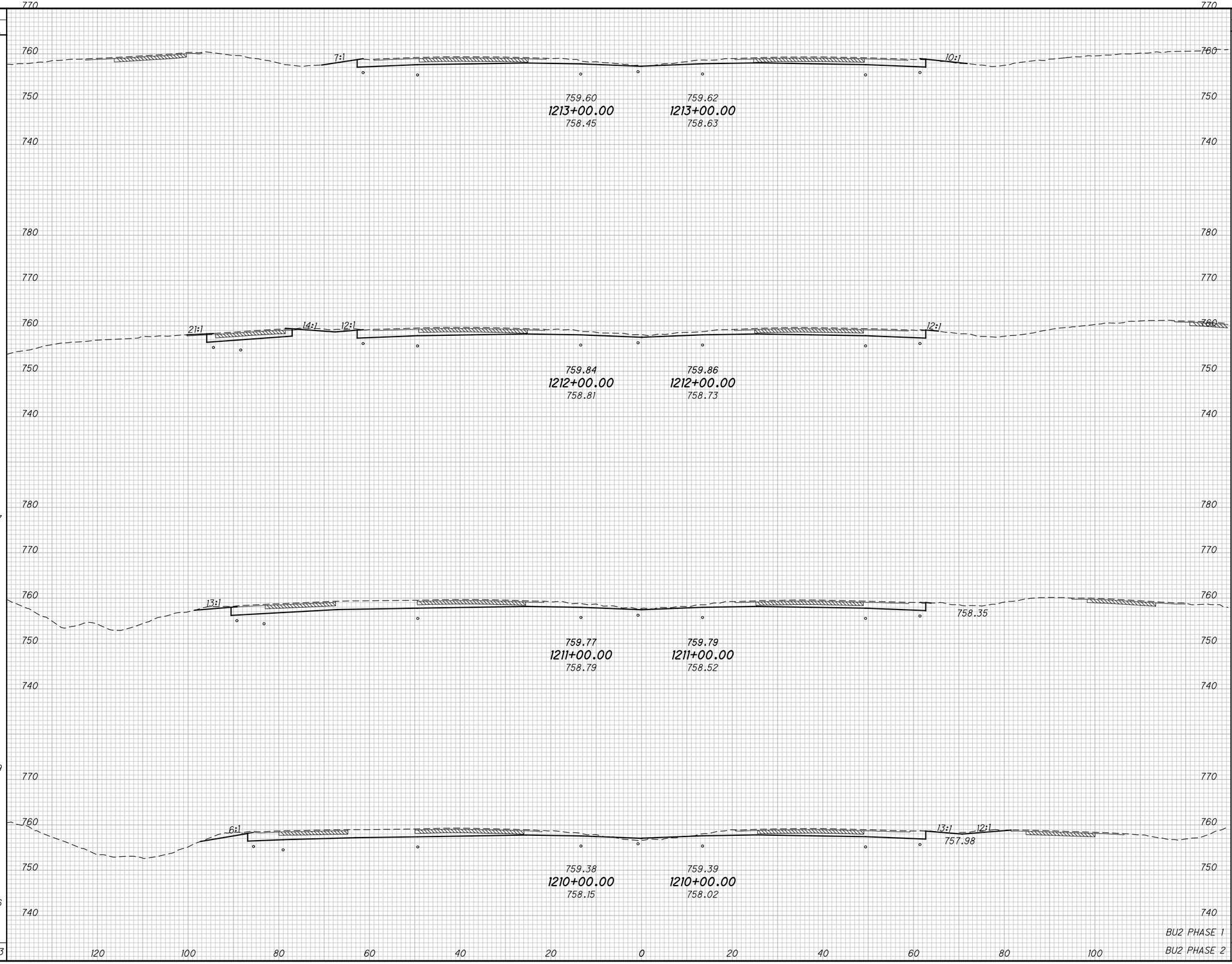
CROSS SECTIONS I.R. 75
STA. 1207+00.00 TO STA. 1209+00.00

HAN/WOO-75-19.22/0.00

184
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:10 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
24	311
32	267
16	289
36	356
·	1223



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36	0		
57	1		
		146	0
		263	2
43	0		
85	0		
39	0		
106	0		
		124	9
		389	0
28	5		
104	0	104	20
		370	0
·	·	526	29
·	·	1376	2

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1210+00.00 TO STA. 1213+00.00

HAN/WOO-75-19.22/0.00

185
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:12 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
19	
	283
32	
	328
26	
	278
24	
	267
·	1156

END AREA	
CUT	FILL
78	0
64	1
37	0
39	3
19	1
44	6
22	2
50	8
·	·
·	·

VOLUME	
CUT	FILL
213	0
191	7
104	2
154	17
76	6
174	26
107	4
198	17
500	12
717	67

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1214+00.00 TO STA. 1217+00.00

HAN/WOO-75-19.22/0.00

186
336

770
760
750
740
780

8:1
12:1
6:1
2:1

756.66
1217+00.00
755.98
1217+00.00
756.11

757.46
1216+00.00
756.29
1216+00.00
756.42

(REMOVE) STA 1214+58.66, 0.23' LT
EX. CB, GRATE ELEV 755.16'
℄ 6" (NE) =752.26
℄ 6" (NW) = 752.64
℄ 6" (SW) = 752.69
℄ 6" (SE) = 752.62
℄ 18" X 24" (W) = 752.30
℄ 18" X " 24" (E) = 752.39

STA 1214+58.66, 2.75' RT
I-3-B1, GRATE ELEV 757.95
6" (S) 754.47
6" (E) 753.91
6" (W) 753.57
18" X 24" (E) 752.39
18" X 24" (W) 752.30

STA 1214+57.68, 79.25' LT
EX. HW
℄ 18" X 24" (E) = 752.12

18" X 24"

758.26
1215+00.00
756.76
758.26
1215+00.00
756.66

PRE. REINFORC. CONCRETE OUTLET
WITH TIED CONC. BLOCK MAT, TYPE 1
STA. 1215+00, 87.00' RT.
℄ 6" (W) = 753.76

STA 1214+57.50, 89.81' RT
EX. PIO, GRATE ELEV 752.28'
℄ 18" X 24" (E) = 752.28

STA 1214+56.64, 96.43' RT
EX. HW
℄ 6" (E) = 752.73

STA 1213+93.90, 82.92' LT
EX. HW
℄ 30" (W) = 752.03

30"

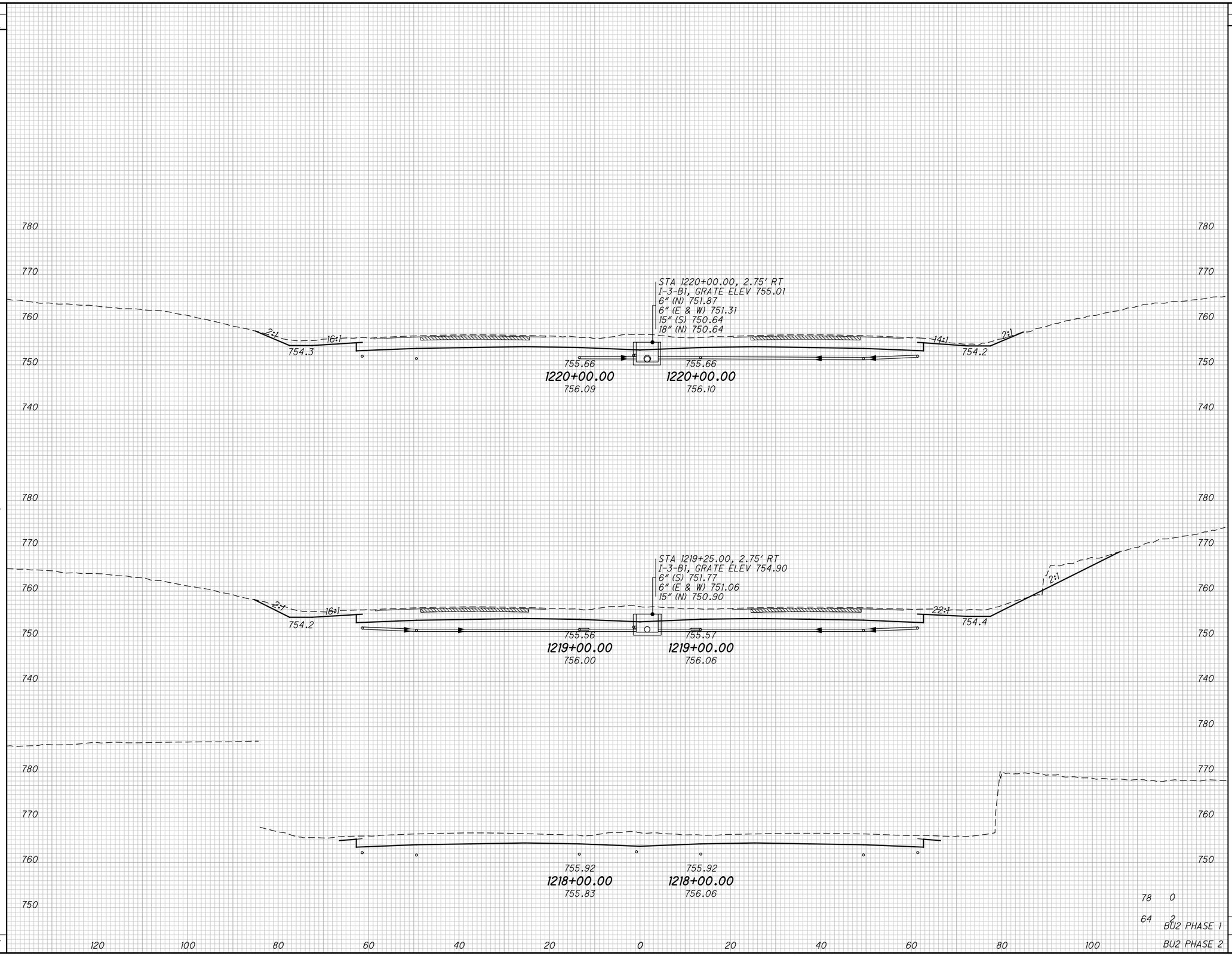
759.05
1214+00.00
757.43
759.05
1214+00.00
757.68

120 100 80 60 40 20 0 20 40 60 80 100

BU2 PHASE 1
BU2 PHASE 2

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:15 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
52	
	717
77	
.	717



END AREA		VOLUME	
CUT	FILL	CUT	FILL
146	0		
168	0		
147	0		
221	1		
78	0		
64	2		
.	.	1376	0
.	.	1776	10

		543	0
		720	2
		833	0
		1056	8

BU2 PHASE 1
BU2 PHASE 2

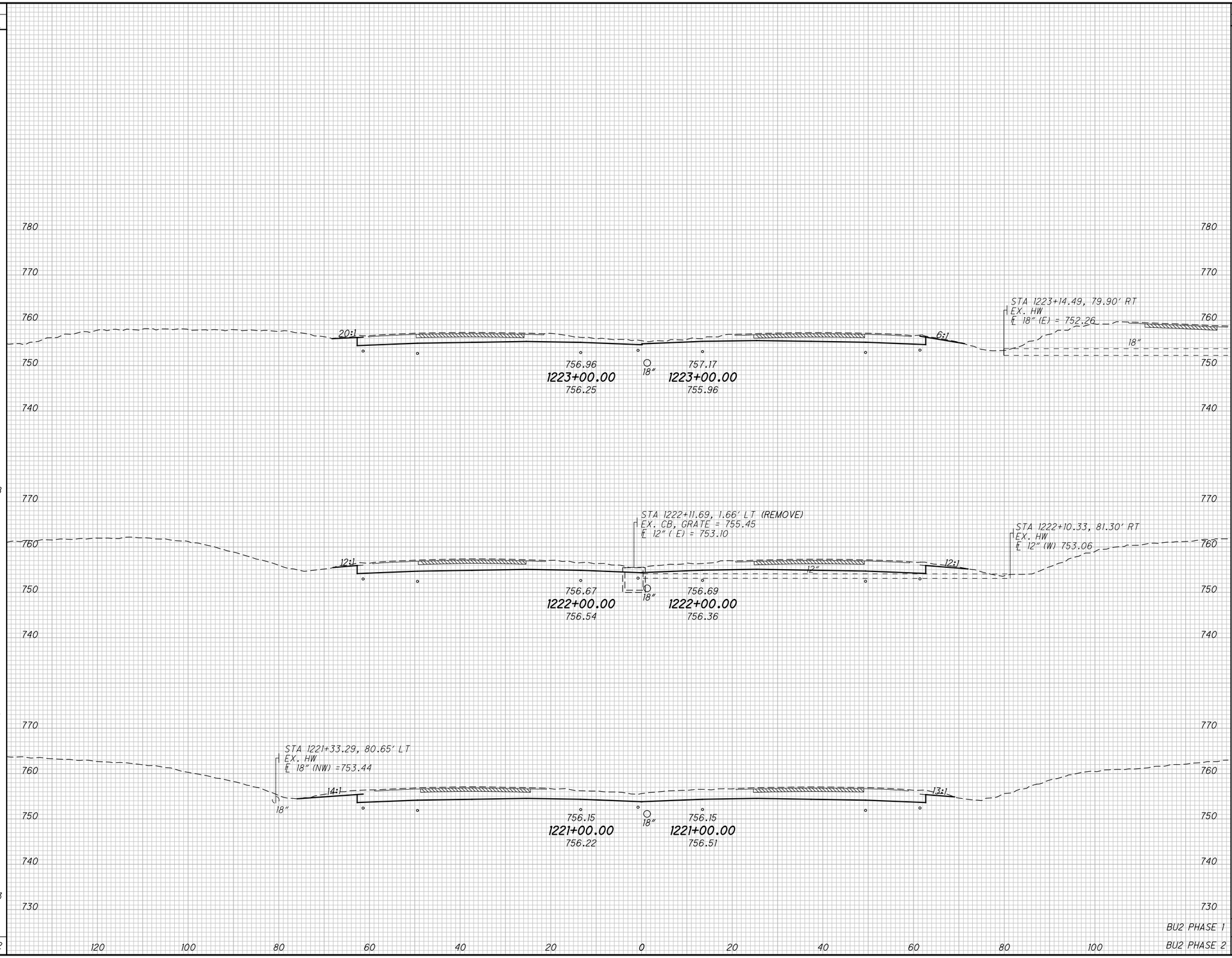
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1218+00.00 TO STA. 1220+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:17 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
20	228
21	261
26	433
·	922



END AREA		VOLUME	
CUT	FILL	CUT	FILL
63	0		
92	0		
		298	0
		387	0
98	0		
117	0		
		404	0
		478	0
120	0		
141	0		
		493	0
		572	0
·	·	1195	0
·	·	1437	0

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

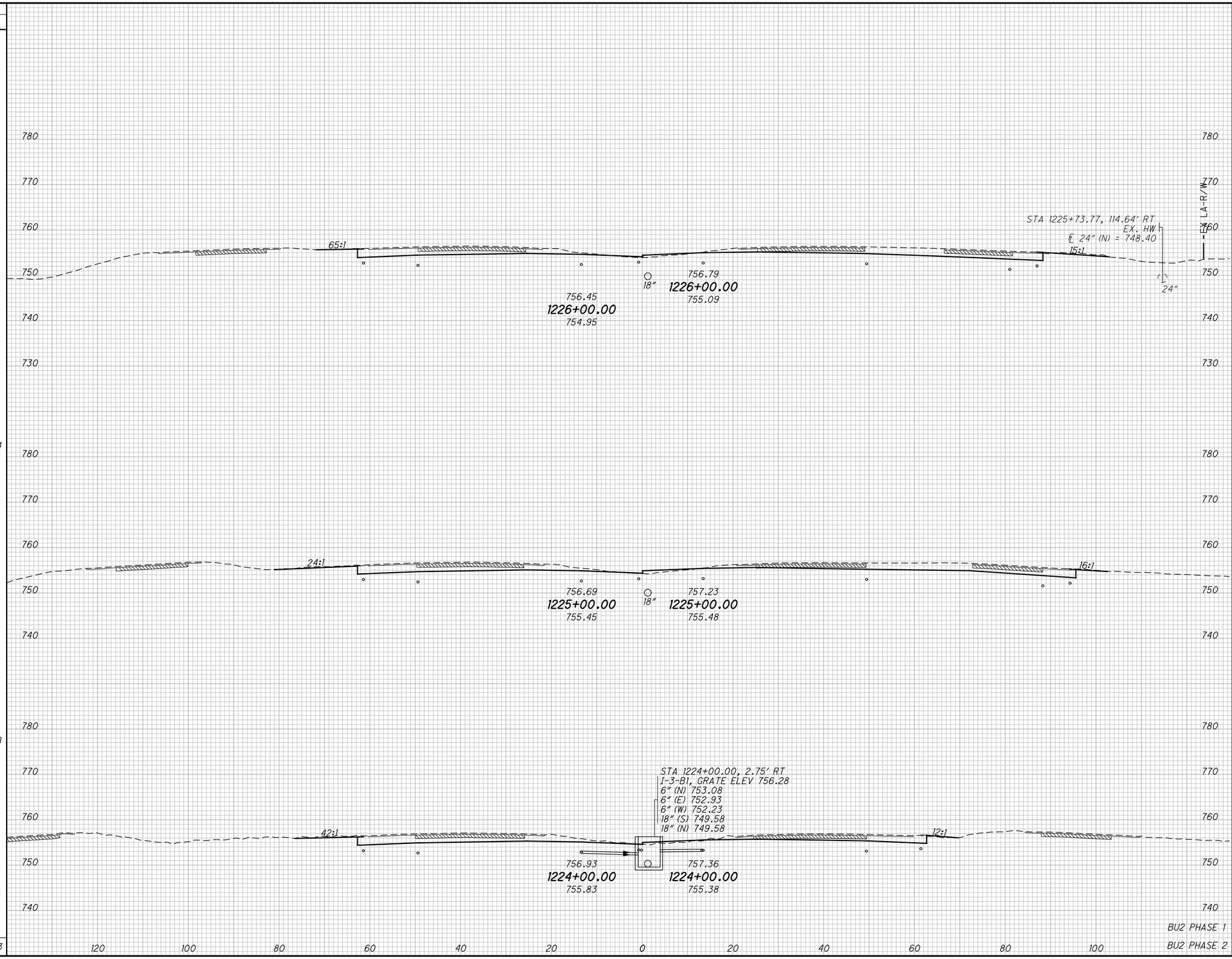
CROSS SECTIONS I.R. 75
STA. 1221+00.00 TO STA. 1223+00.00

HAN/WOO-75-19.22/0.00

188
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:19 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
30	344
32	328
27	261
·	933



END AREA		VOLUME	
CUT	FILL	CUT	FILL
22	5		
96	0		
		87	19
		374	0
25	5		
106	0		
		98	17
		322	2
28	4		
68	1	170	7
		296	2
BU2 PHASE 1 ·	·	355	43
BU2 PHASE 2 ·	·	992	4

CALCULATED ALZ
CHECKED RJM

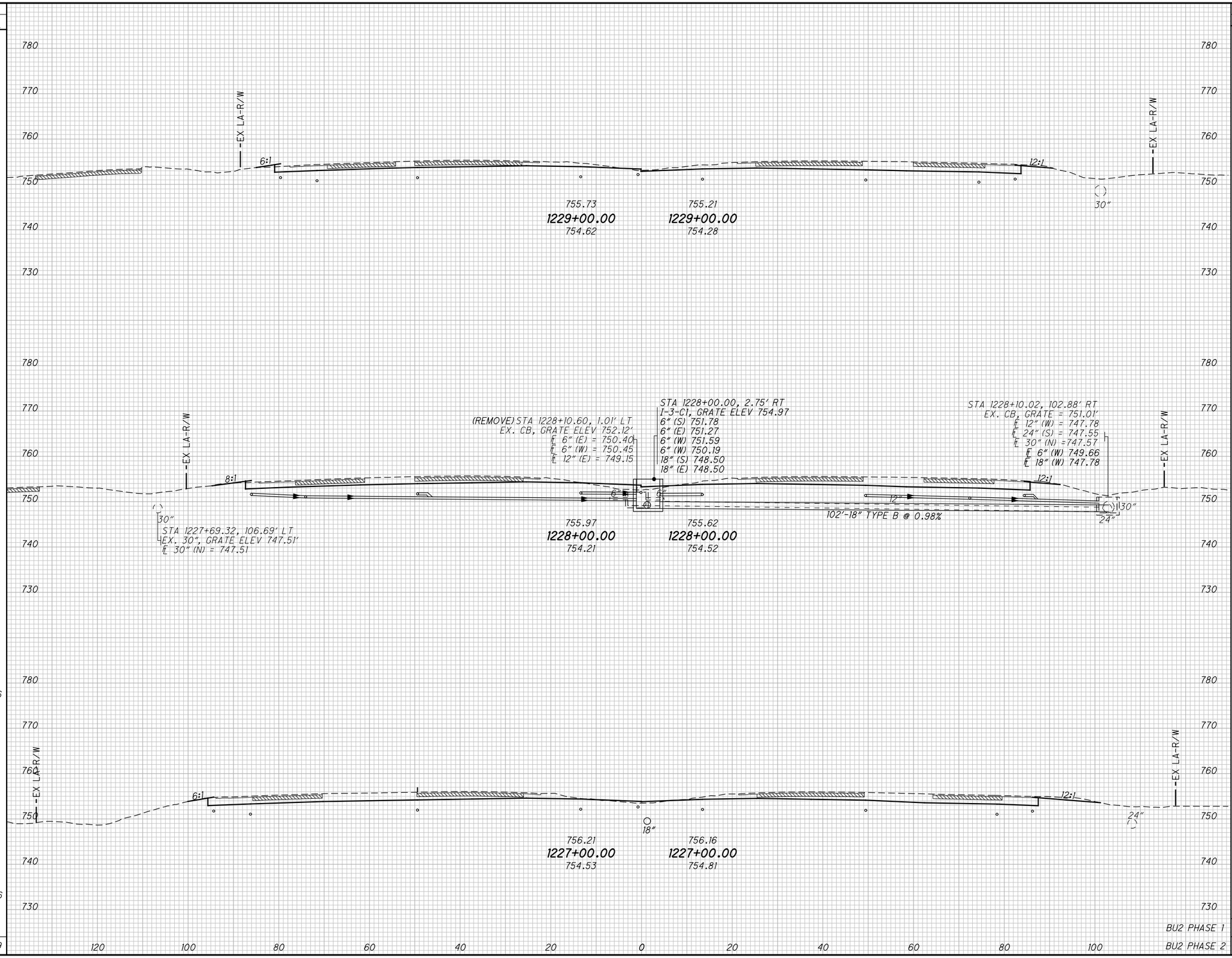
CROSS SECTIONS I.R. 75
STA. 1224+00.00 TO STA. 1226+00.00

HAN/WOO-75-19.22/0.00

189
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:22 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
18	217
21	256
25	306
·	779



END AREA		VOLUME	
CUT	FILL	CUT	FILL
39	1		
98	1		
		120	26
		406	2
26	13		
121	0		
		96	31
		498	0
26	4		
148	0		
		89	17
		452	0
·	·	305	74
·	·	1356	2

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

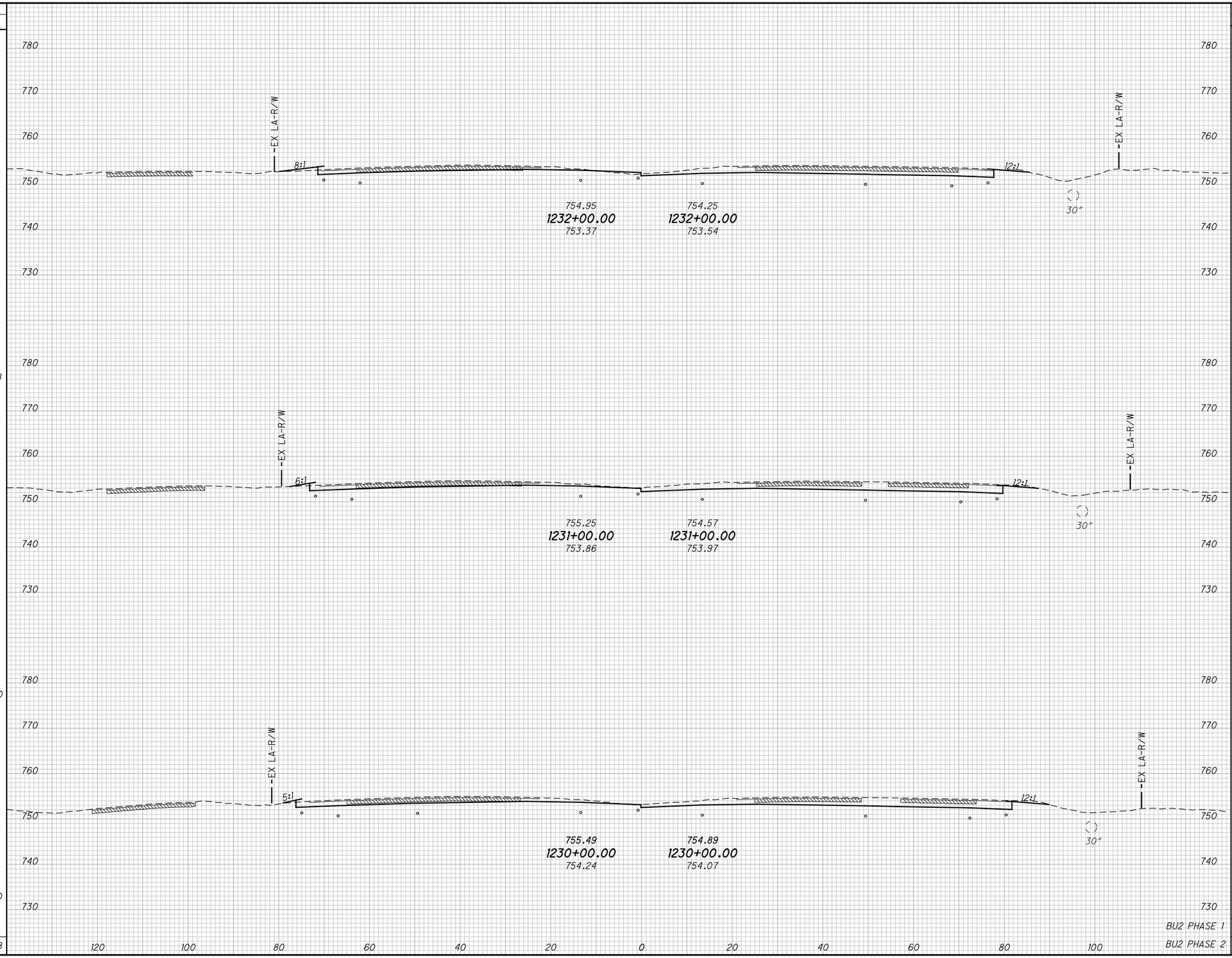
CROSS SECTIONS I.R. 75
STA. 1227+00.00 TO STA. 1229+00.00

HAN/WOO-75-19.22/0.00

190
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:24 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
23	228
18	200
18	200
·	628



END AREA		VOLUME	
CUT	FILL	CUT	FILL
33	3		
49	3		
		141	6
		219	7
43	0		
69	1		
		154	0
		278	4
40	0		
81	1		
		146	2
		331	4
·	·	441	8
·	·	828	15

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1230+00.00 TO STA. 1232+00.00

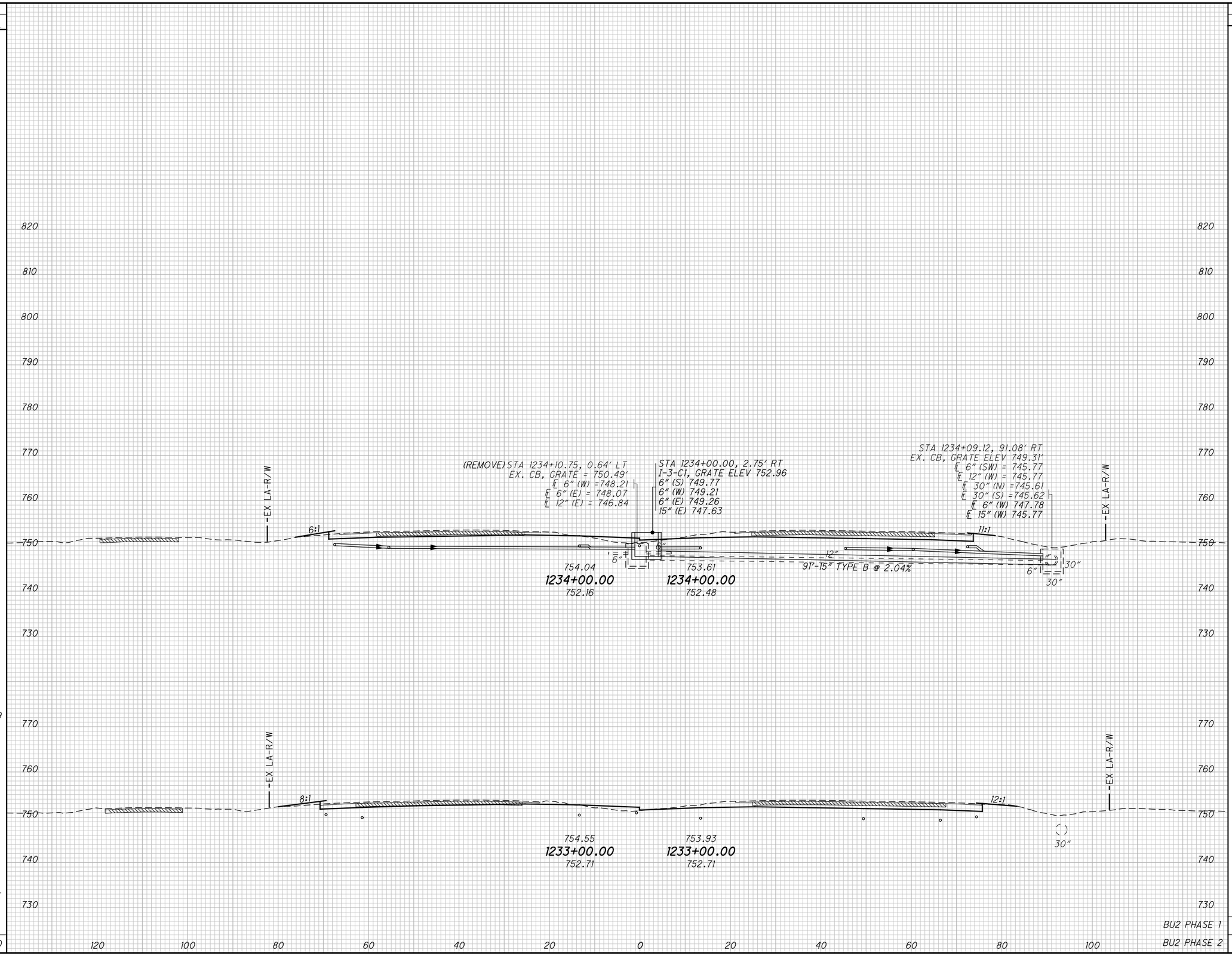
HAN/WOO-75-19.22/0.00

191
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:26 PM CMN

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:29 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
	19
	239
	24
	261
·	500



END AREA		VOLUME	
CUT	FILL	CUT	FILL
21	13		
50	3		
		83	41
		178	11
24	9		
46	3		
		106	22
		176	11
BU2 PHASE 1 ·	·	189	63
BU2 PHASE 2 ·	·	354	22

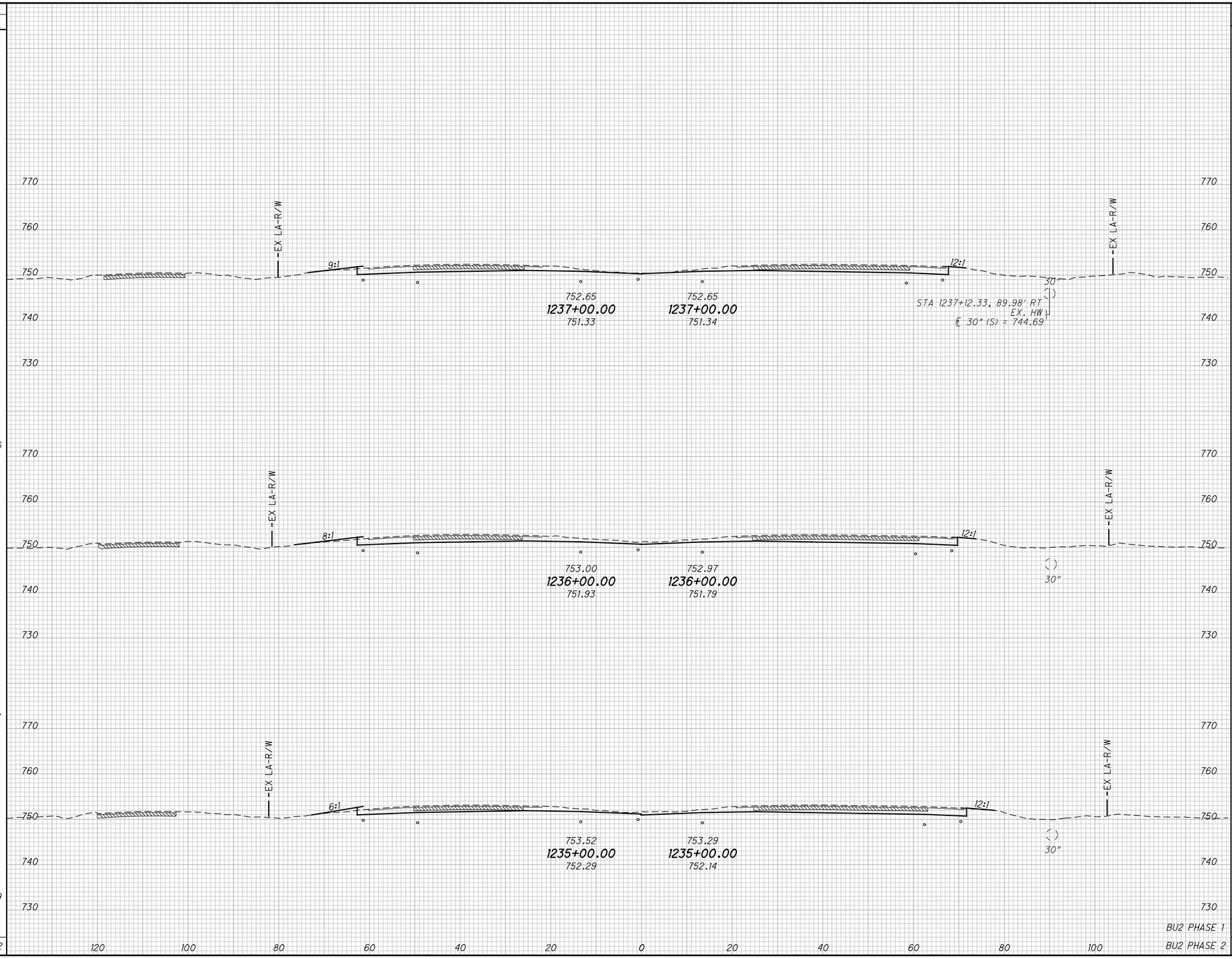
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1233+00.00 TO STA. 1234+00.00

HAN/WOO-75-19.22/0.00

192
336

SEEDING END WIDTH	SEEDING SQ. YDS.
22	256
24	267
24	239
·	762



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28	0		
54	2		
		130	0
		207	9
42	0		
58	3		
		146	0
		209	13
37	0		
55	4		
		107	24
		194	13
·	·	383	24
·	·	610	35

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

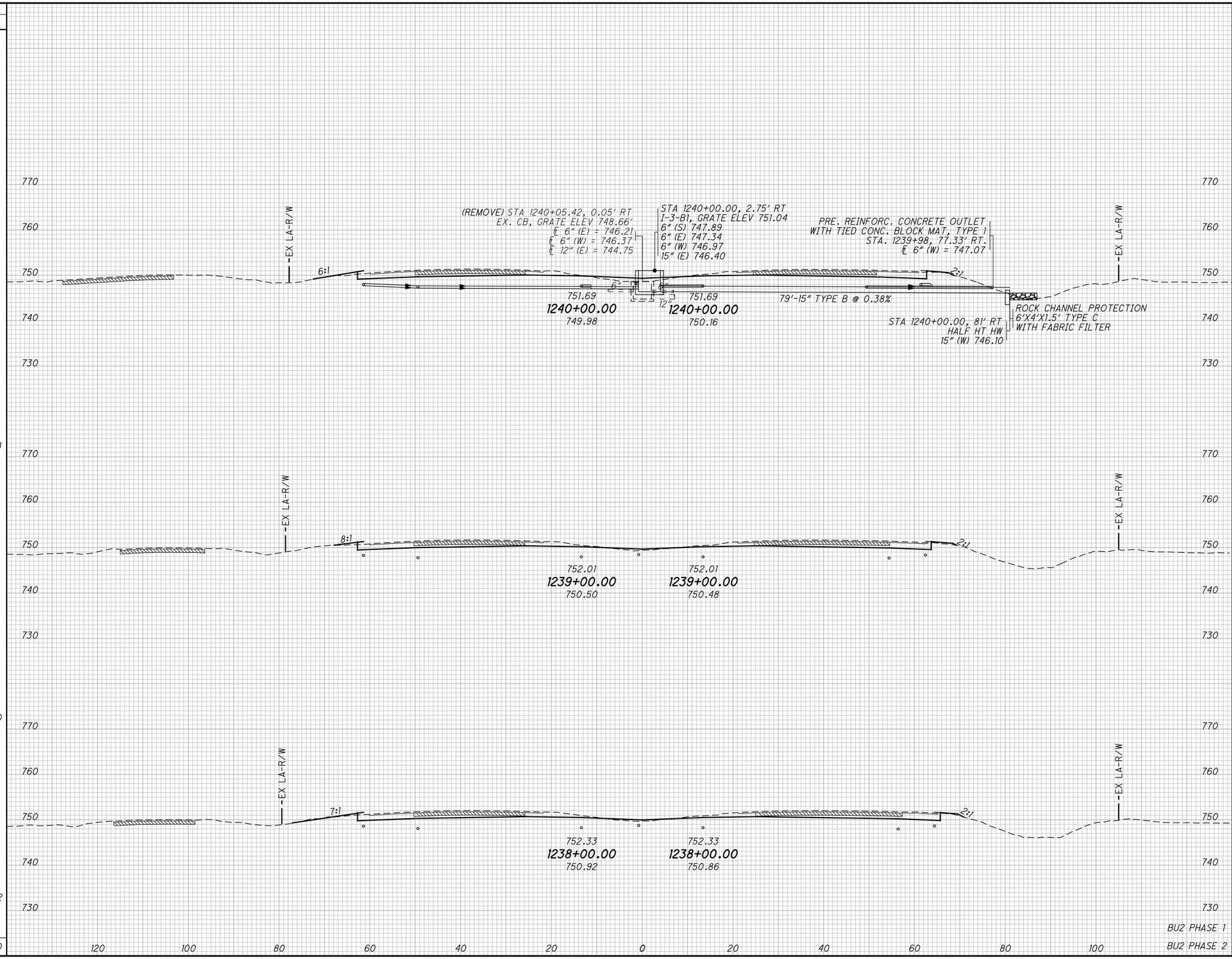
CROSS SECTIONS I.R. 75
STA. 1235+00.00 TO STA. 1237+00.00

HAN/WOO-75-19.22/0.00

193
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:31 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
23	228
18	250
27	272
·	750



END AREA		VOLUME	
CUT	FILL	CUT	FILL
18	11		
46	3		
		72	26
		169	11
21	3		
45	3		
		83	11
		174	9
24	3		
49	2		
		96	6
		191	7
BU2 PHASE 1	·	·	251	43
BU2 PHASE 2	·	·	534	27

CALCULATED ALZ
CHECKED RJM

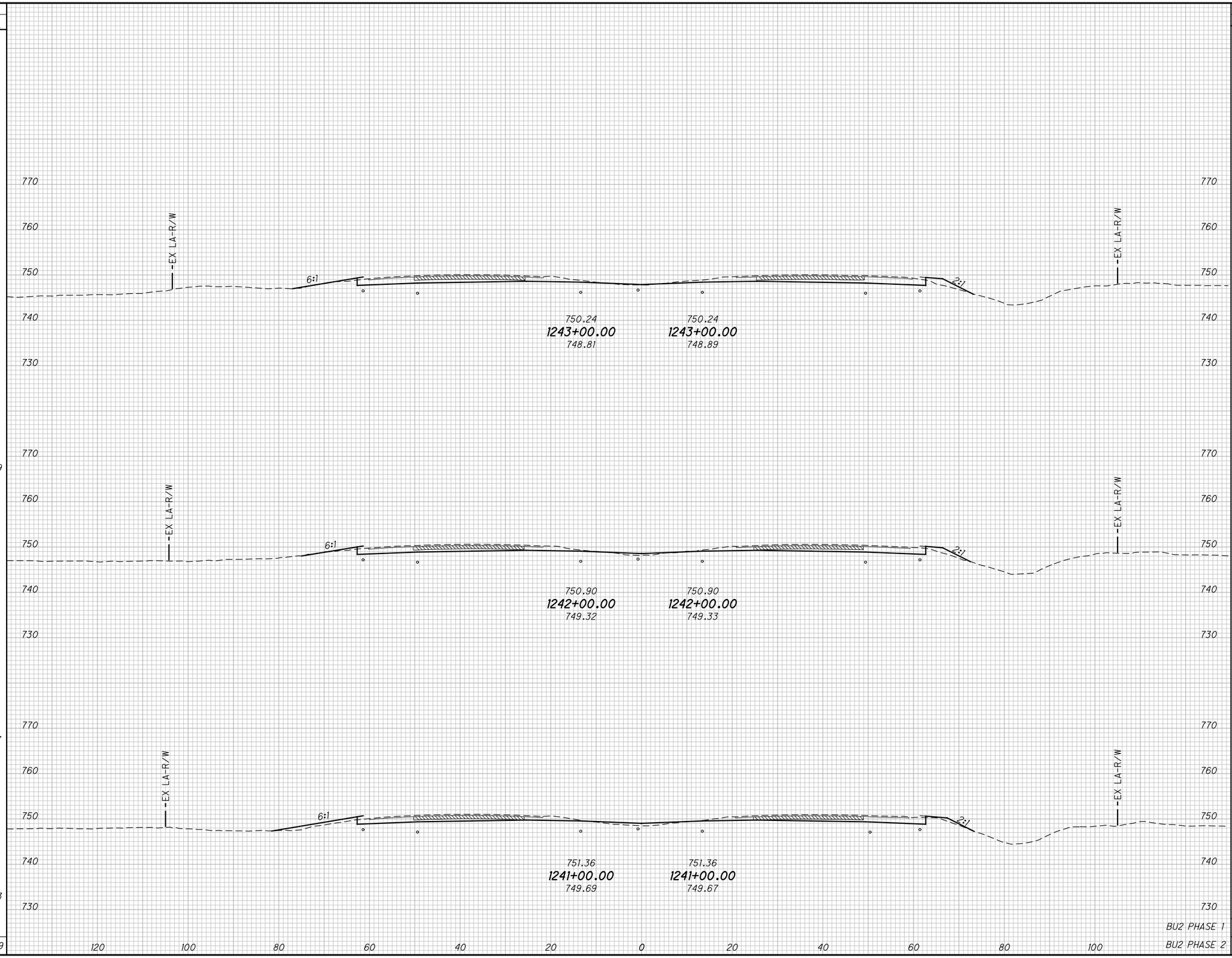
CROSS SECTIONS I.R. 75
STA. 1238+00.00 TO STA. 1240+00.00

HAN/WOO-75-19.22/0.00

194
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:33 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
32	339
29	367
37	333
·	1039



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
29	1		
58	10		
		93	9
		200	33
21	4		
50	8		
		70	22
		178	41
17	8		
46	14	65	35
		170	31
·	·	228	66
·	·	548	105

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

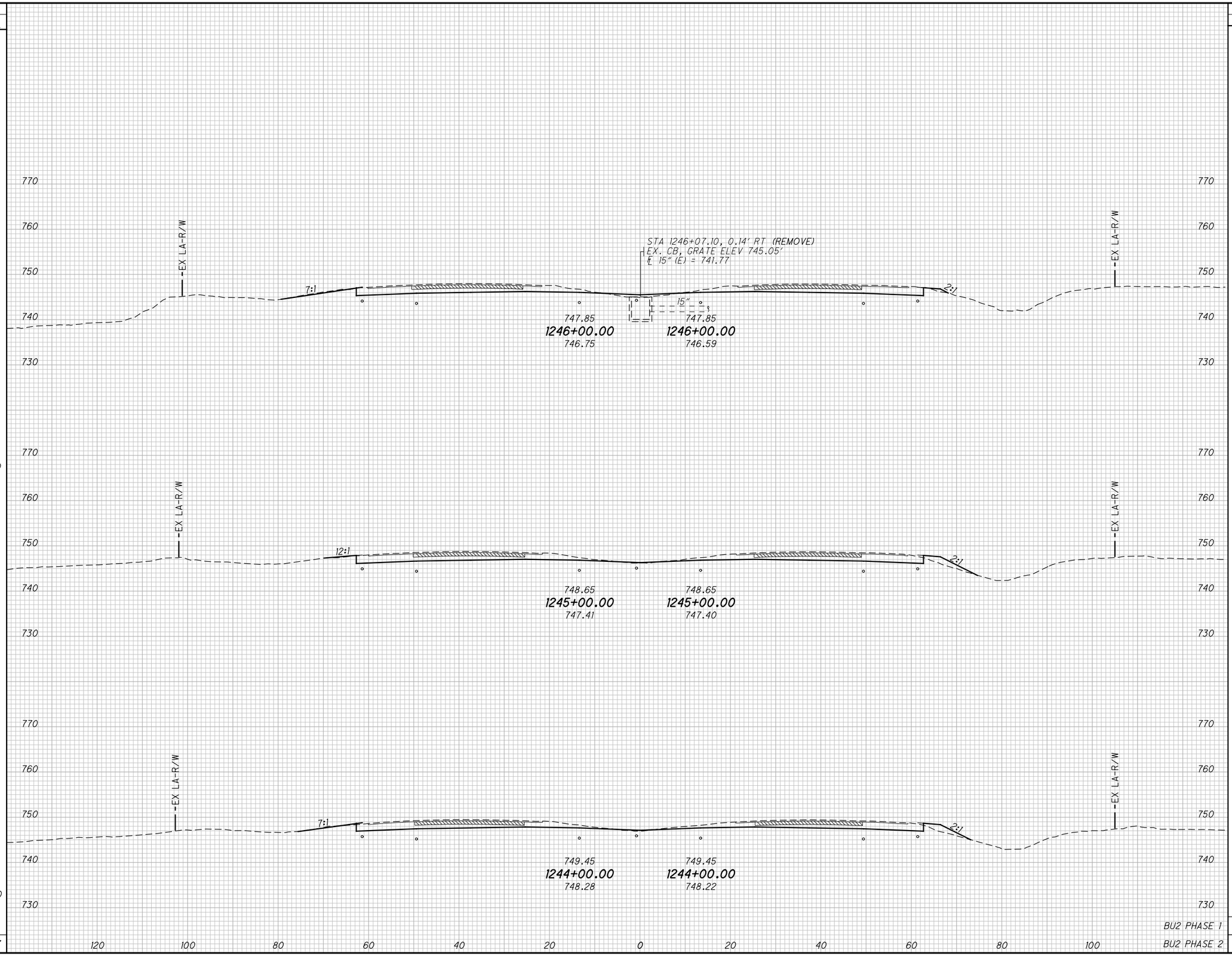
CROSS SECTIONS I.R. 75
STA. 1241+00.00 TO STA. 1243+00.00

HAN/WOO-75-19.22/0.00

195
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:36 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
29	310
26	317
31	350
·	977



END AREA		VOLUME	
CUT	FILL	CUT	FILL
37	6		
76	2		
		137	13
		278	24
37	1		
74	11		
		137	4
		265	37
37	1		
69	9	122	4
		235	35
BU2 PHASE 1		396	21
BU2 PHASE 2		778	96

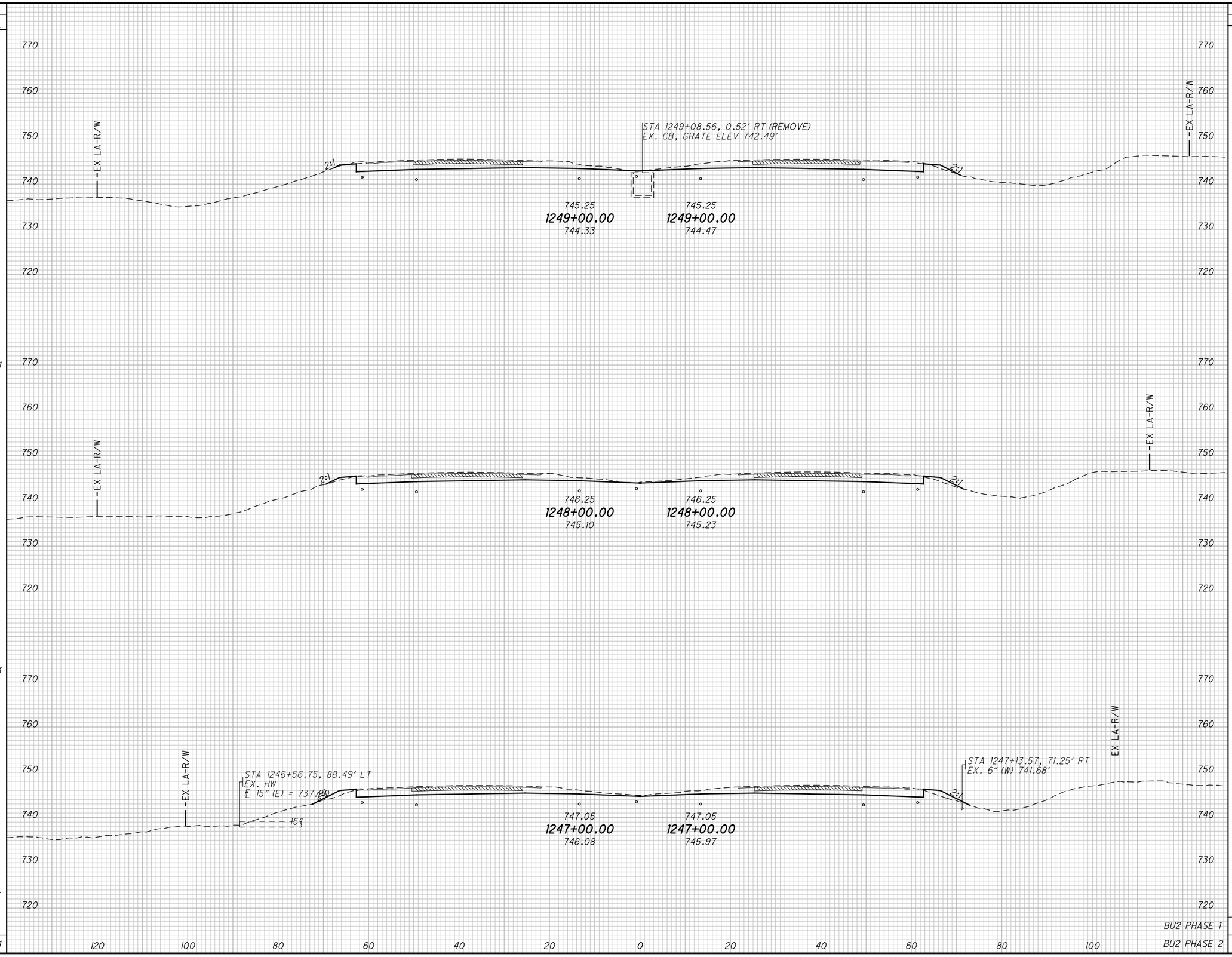
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1244+00.00 TO STA. 1246+00.00

HAN/WOO-75-19.22/0.00

196
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:38 PM CMN



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
21		55	0		
		89	3		
	244			187	0
				306	17
23		46	0		
		76	6		
				176	0
	283			276	33
28		49	0		
		73	12		
				159	11
	317			276	26
·	844	·	·	522	11
		·	·	858	76

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1247+00.00 TO STA. 1249+00.00

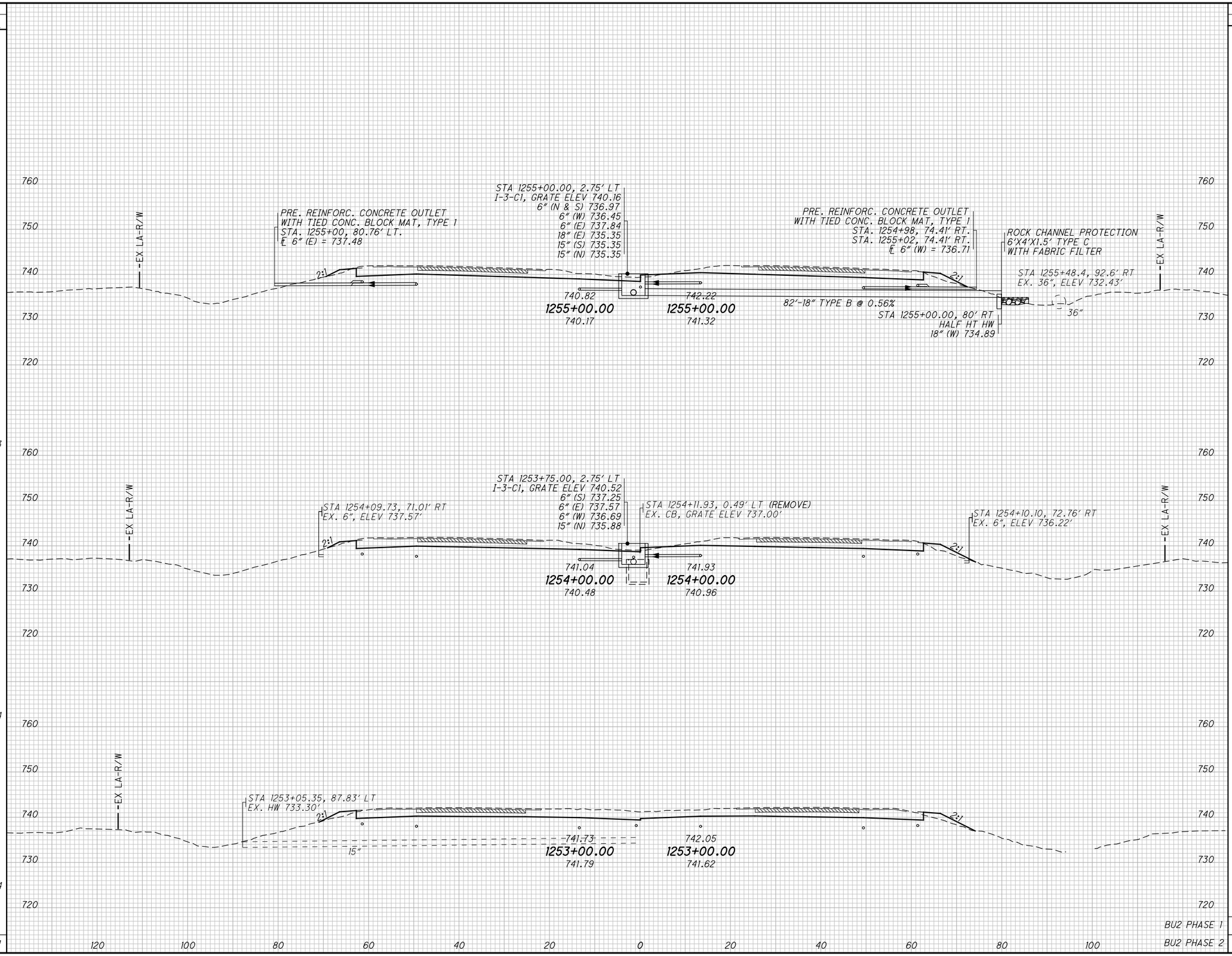
HAN/WOO-75-19.22/0.00

197
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:41 PM CMN

SEEDING	
END WIDTH	SQ. YDS.

SEEDING	
END WIDTH	SQ. YDS.
25	283
26	294
27	224
·	801



END AREA		VOLUME	
CUT	FILL	CUT	FILL
67	2		
84	9		
		239	7
		322	35
62	2		
90	10		
		293	4
		320	44
96	0		
83	14		
		266	0
		230	39
BU2 PHASE 1	·	·	872	11
BU2 PHASE 2	·	·	944	118

CALCULATED ALZ
CHECKED RJM

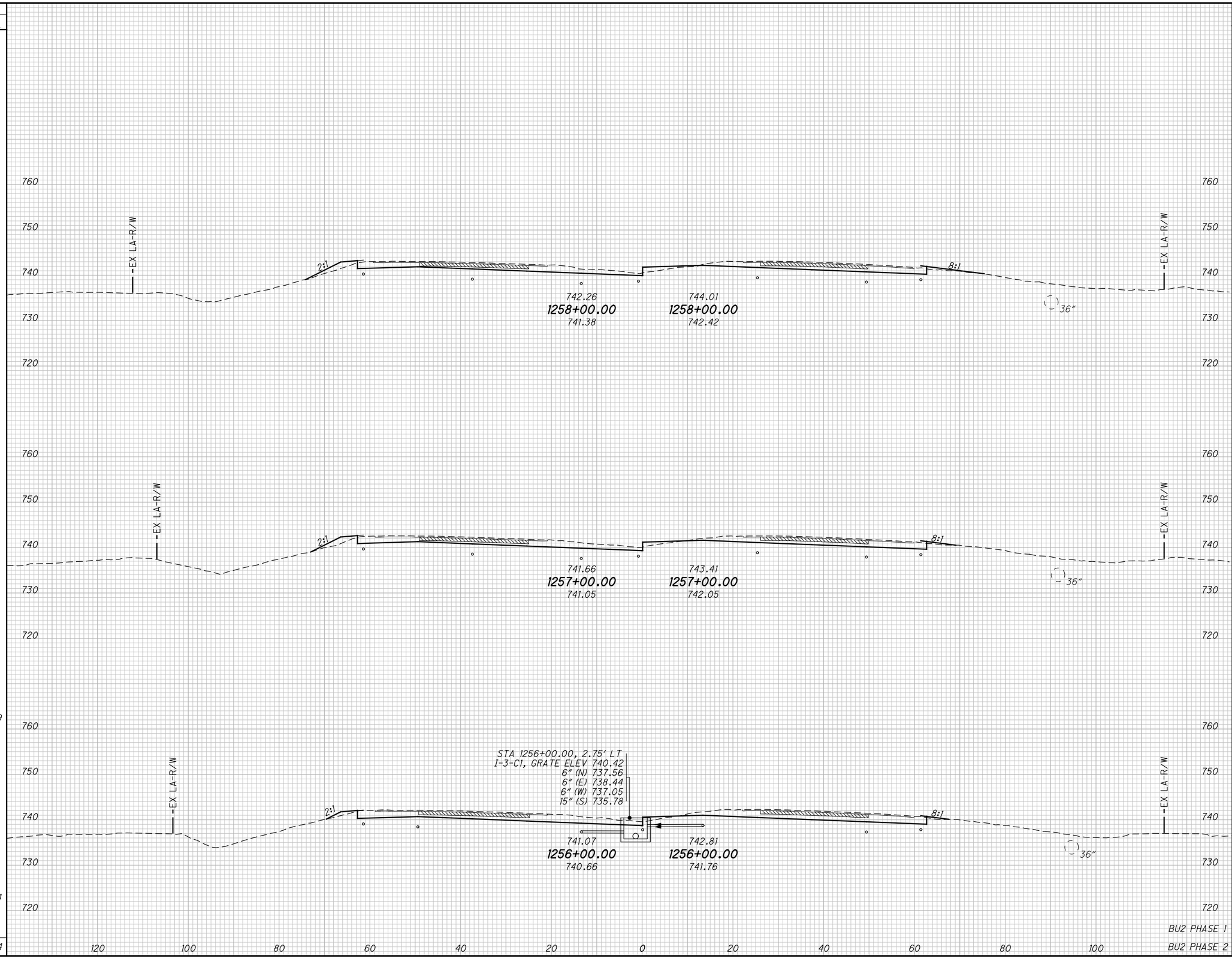
CROSS SECTIONS I.R. 75
STA. 1253+00.00 TO STA. 1255+00.00

HAN/WOO-75-19.22/0.00

199
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:45 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
32	311
24	239
19	244
·	794



END AREA	
CUT	FILL
44	7
51	12
48	4
55	10
62	4
67	5
·	·
·	·

VOLUME	
CUT	FILL
170	20
196	41
204	15
226	28
239	11
280	26
613	46
702	95

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

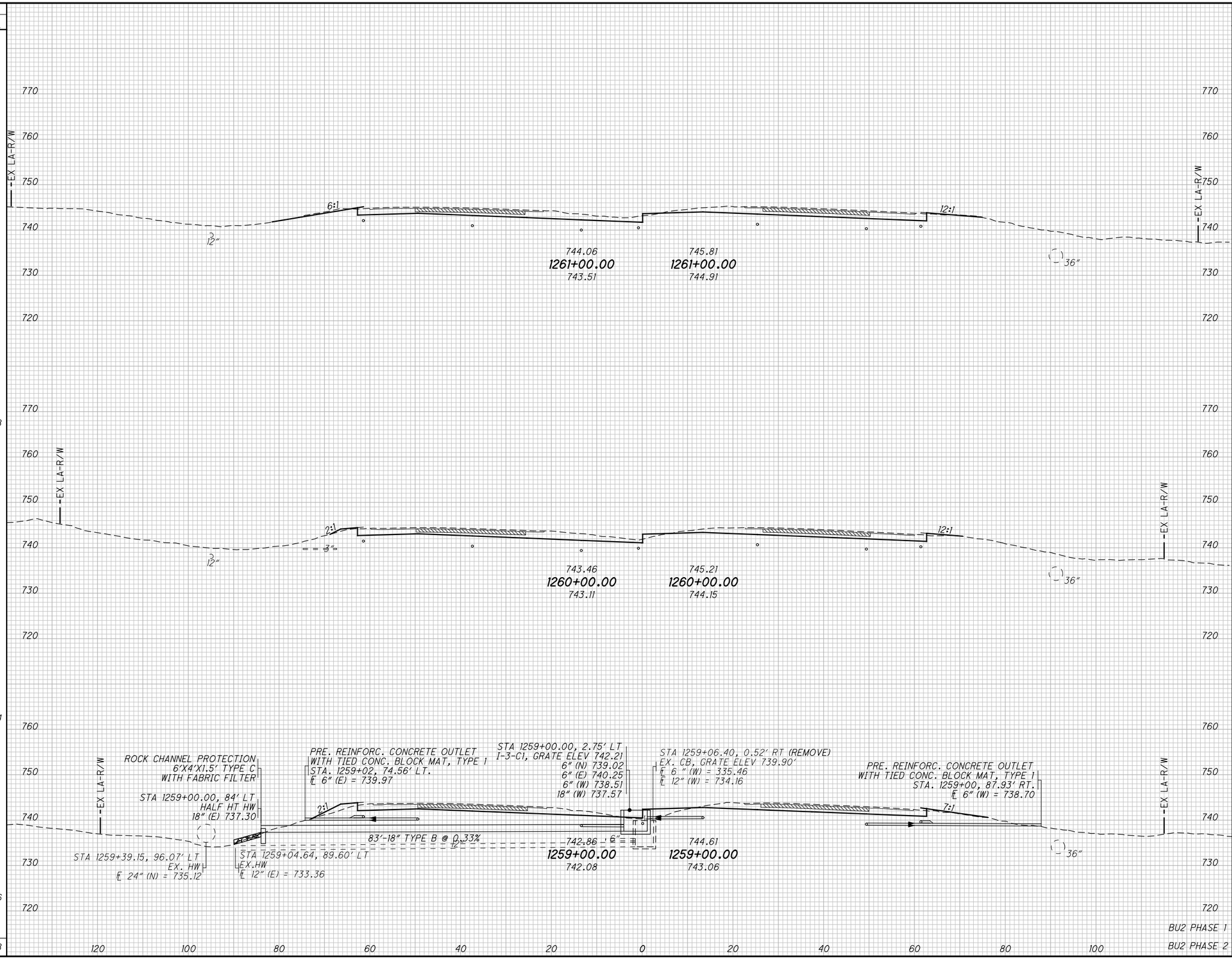
CROSS SECTIONS I.R. 75
STA. 1256+00.00 TO STA. 1258+00.00

HAN/WOO-75-19.22/0.00

200
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:48 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
	38
	328
	21
	294
	32
	356
·	978



END AREA		VOLUME	
CUT	FILL	CUT	FILL
62	1		
61	1		
		222	7
		213	7
58	3		
54	3		
		181	33
		194	24
40	15		
51	10		
		156	41
		189	41
BU2 PHASE 1	· ·	559	81
BU2 PHASE 2	· ·	596	72

CALCULATED ALZ
CHECKED RJM

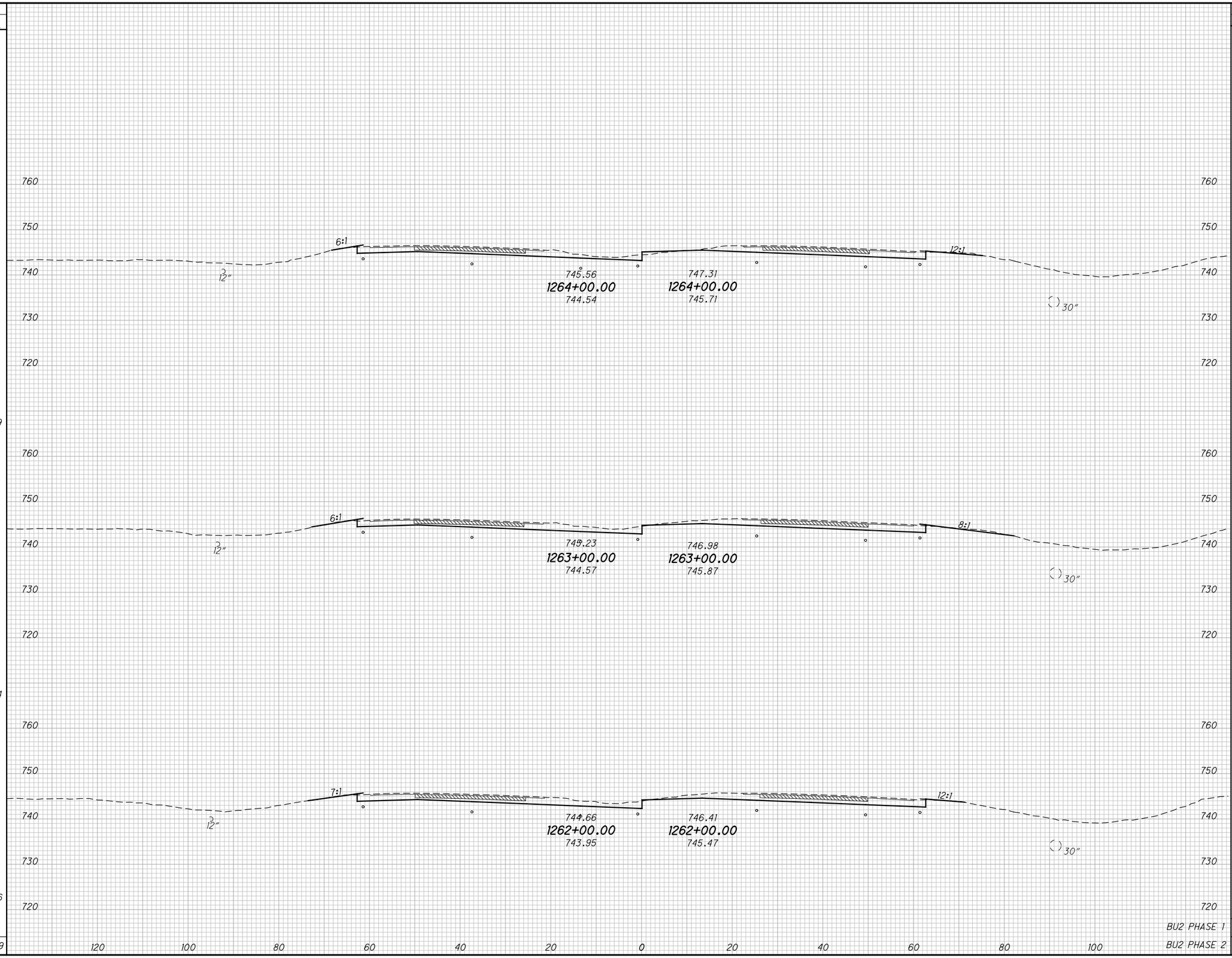
CROSS SECTIONS I.R. 75
STA. 1259+00.00 TO STA. 1261+00.00

HAN/WOO-75-19.22/0.00

201
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:50 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
25	339
36	344
26	356
·	1039



END AREA	
CUT	FILL
43	3
56	1
58	0
57	1
61	0
59	0
·	·
·	·

VOLUME	
CUT	FILL
187	6
209	4
220	0
215	2
228	2
222	2
635	8
646	8

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

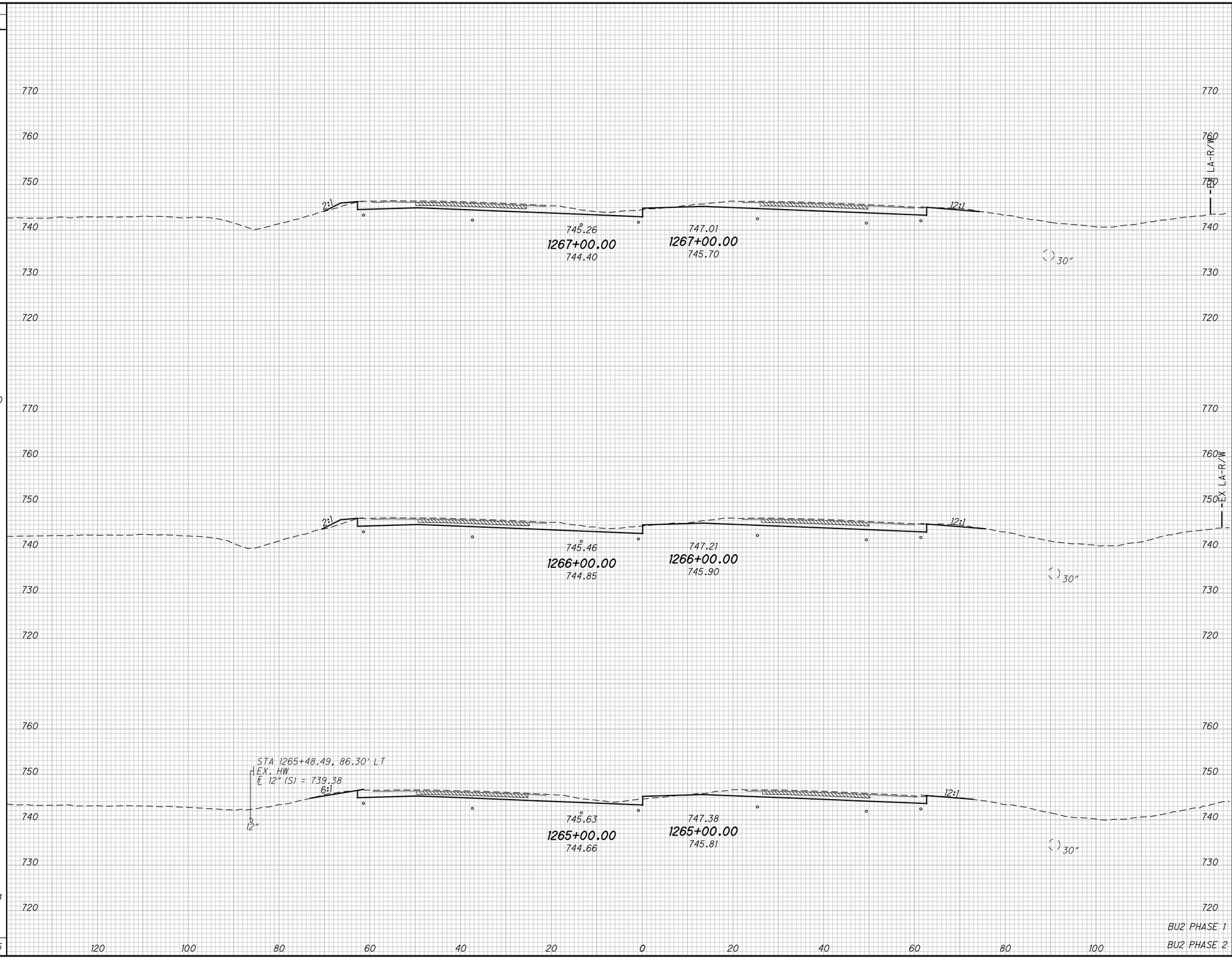
CROSS SECTIONS I.R. 75
STA. 1262+00.00 TO STA. 1264+00.00

HAN/WOO-75-19.22/0.00

202
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:52 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
26	300
28	311
28	294
·	905



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
55	1		
69	3		
		206	2
		252	13
56	0		
67	4		
		189	6
		235	7
46	3		
60	0		
		165	11
		215	2
BU2 PHASE 1 ·	·	560	19
BU2 PHASE 2 ·	·	702	22

CALCULATED ALZ
CHECKED RJM

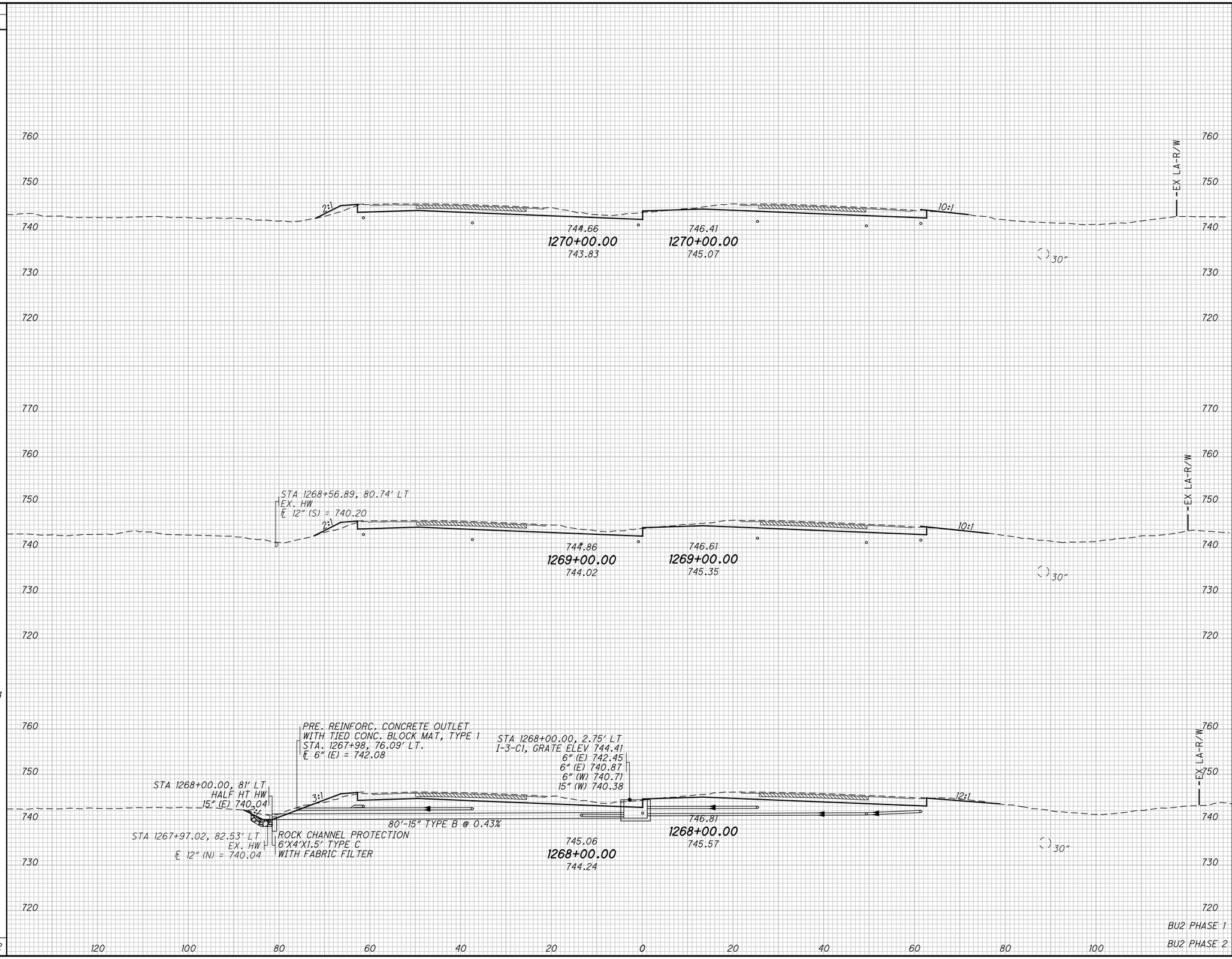
CROSS SECTIONS I.R. 75
STA. 1265+00.00 TO STA. 1267+00.00

HAN/WOO-75-19.22/0.00

203
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:55 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
25	311
31	444
49	417
·	1172



END AREA		VOLUME	
CUT	FILL	CUT	FILL
53	1		
65	7		
		206	2
		241	26
58	0		
65	7		
		213	0
		261	22
57	0		
76	5		
		207	2
		269	15
·	·	626	4
·	·	771	63

BU2 PHASE 1
BU2 PHASE 2

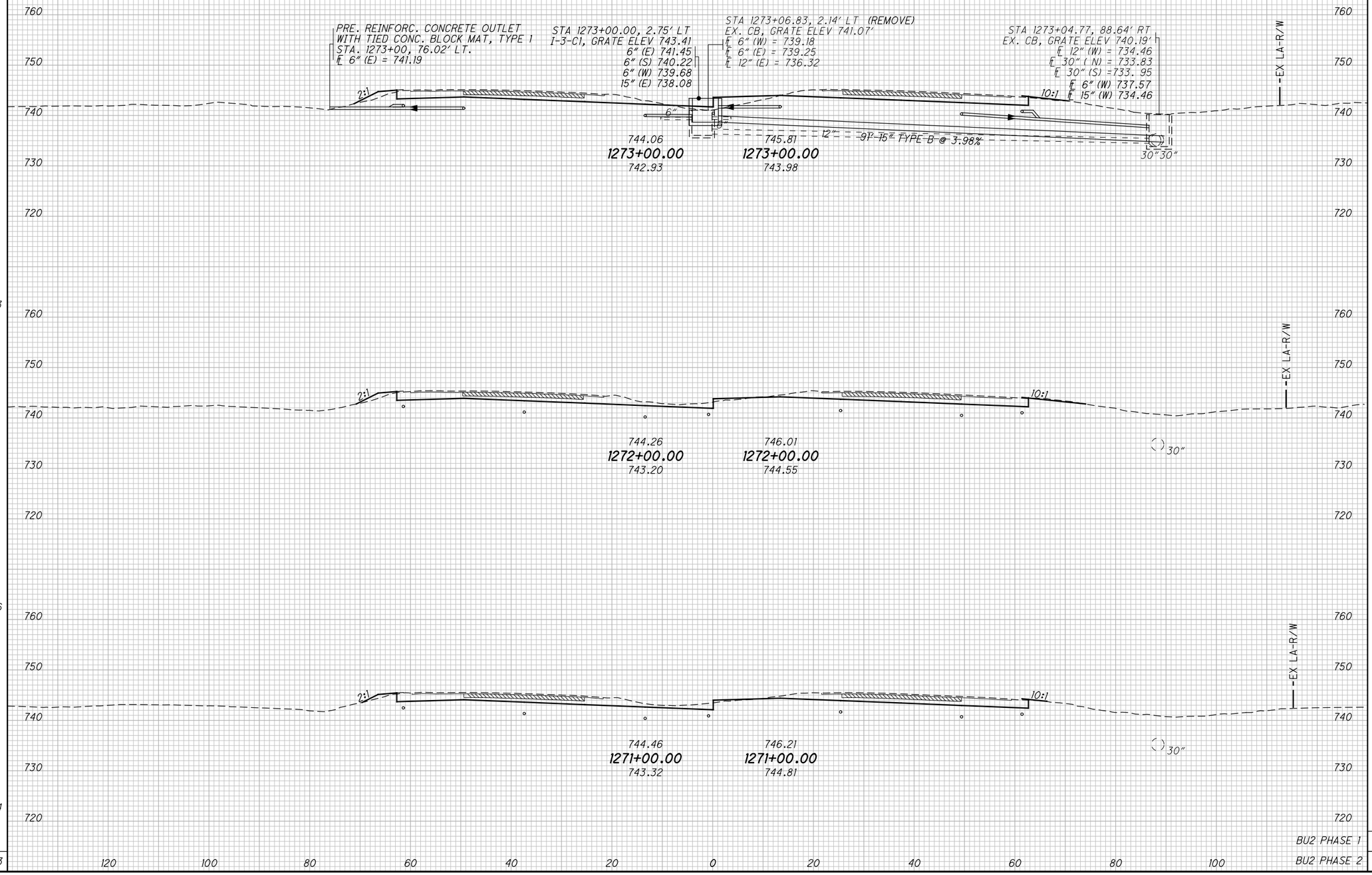
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1268+00.00 TO STA. 1270+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:30:57 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
	24
	283
	27
	256
	19
	244
·	783



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
40	22		
65	7		
		165	44
		246	22
49	2		
68	5		
		180	7
		246	15
48	2		
65	3		
		187	6
		241	19
·	·	532	57
·	·	733	56

BU2 PHASE 1

BU2 PHASE 2

CALCULATED ALZ

CHECKED RJM

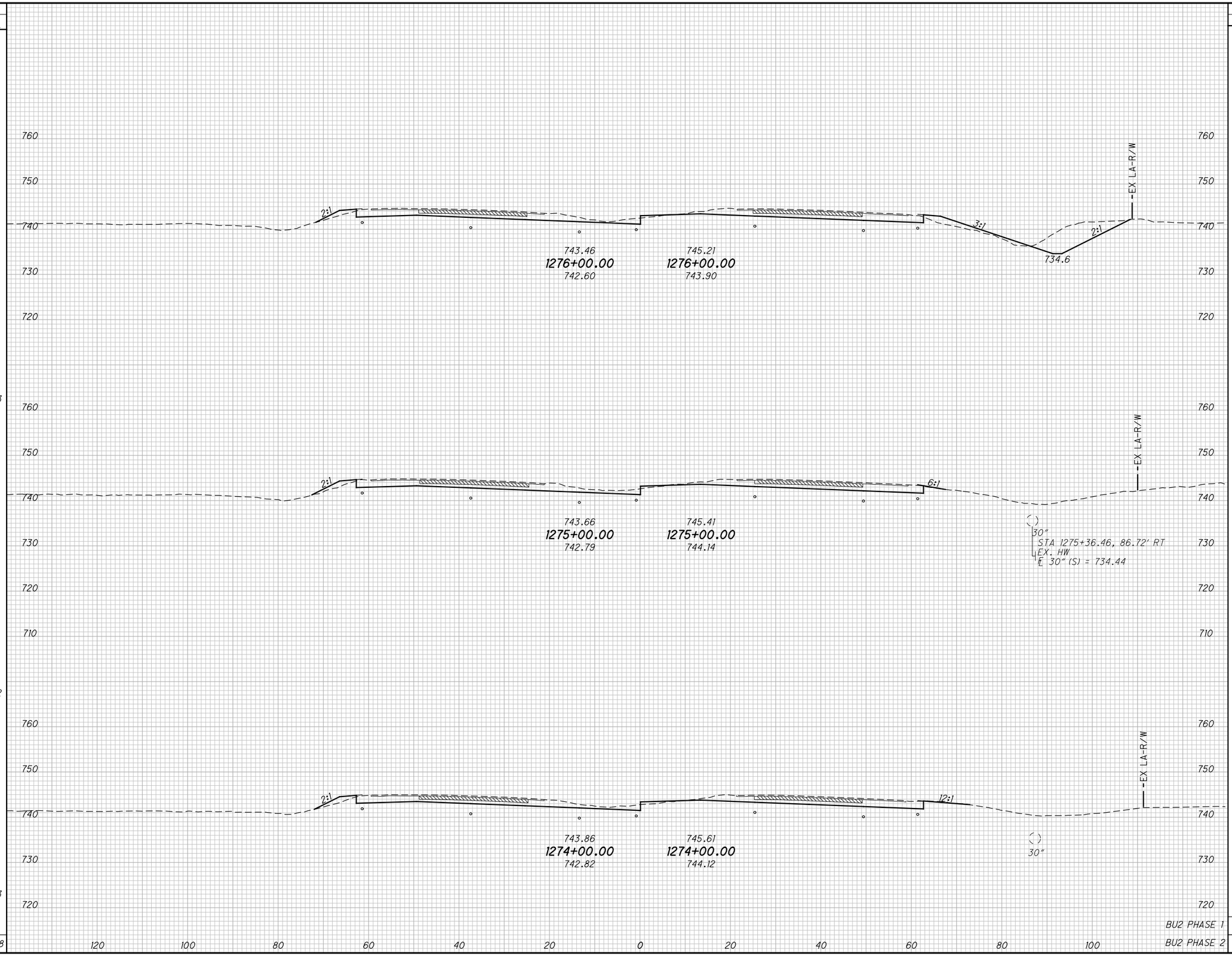
CROSS SECTIONS I.R. 75
STA. 1271+00.00 TO STA. 1273+00.00

HAN/WOO-75-19.22/0.00

205
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:00 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
65	483
22	272
27	283
·	1038



END AREA		VOLUME	
CUT	FILL	CUT	FILL
49	2		
132	25		
		185	7
		369	59
51	2		
67	7		
		181	9
		248	26
47	3		
67	7		
		161	46
		244	26
BU2 PHASE 1 ·	·	527	62
BU2 PHASE 2 ·	·	861	111

CALCULATED ALZ
CHECKED RJM

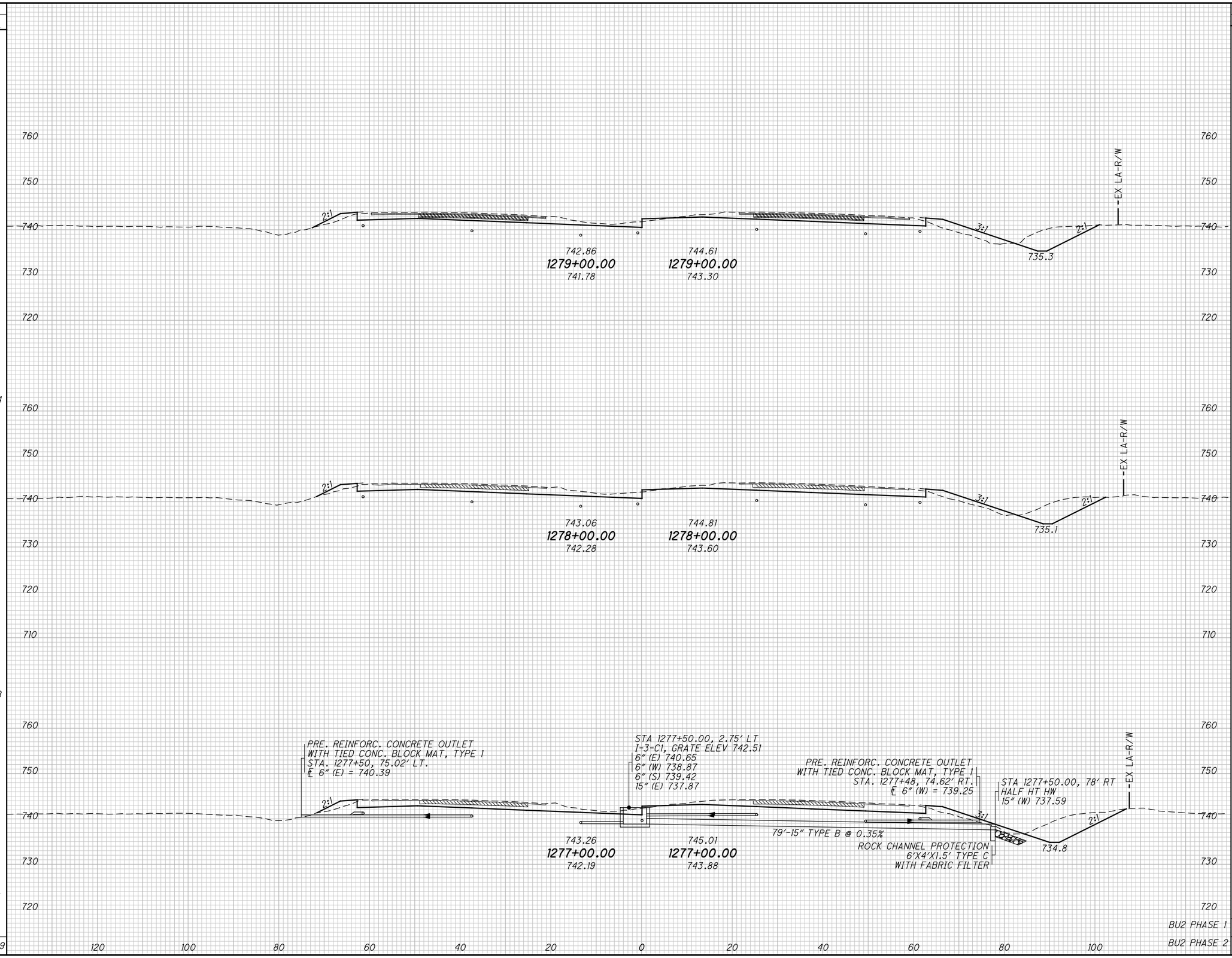
CROSS SECTIONS I.R. 75
STA. 1274+00.00 TO STA. 1276+00.00

HAN/WOO-75-19.22/0.00

206
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:02 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
58	644
58	678
64	717
.	2039



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
43	2		
99	35		
		181	6
		394	111
55	1		
114	25		
		196	4
		450	93
51	1		
129	25		
		185	6
		483	93
.	.	562	16
.	.	1327	297

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

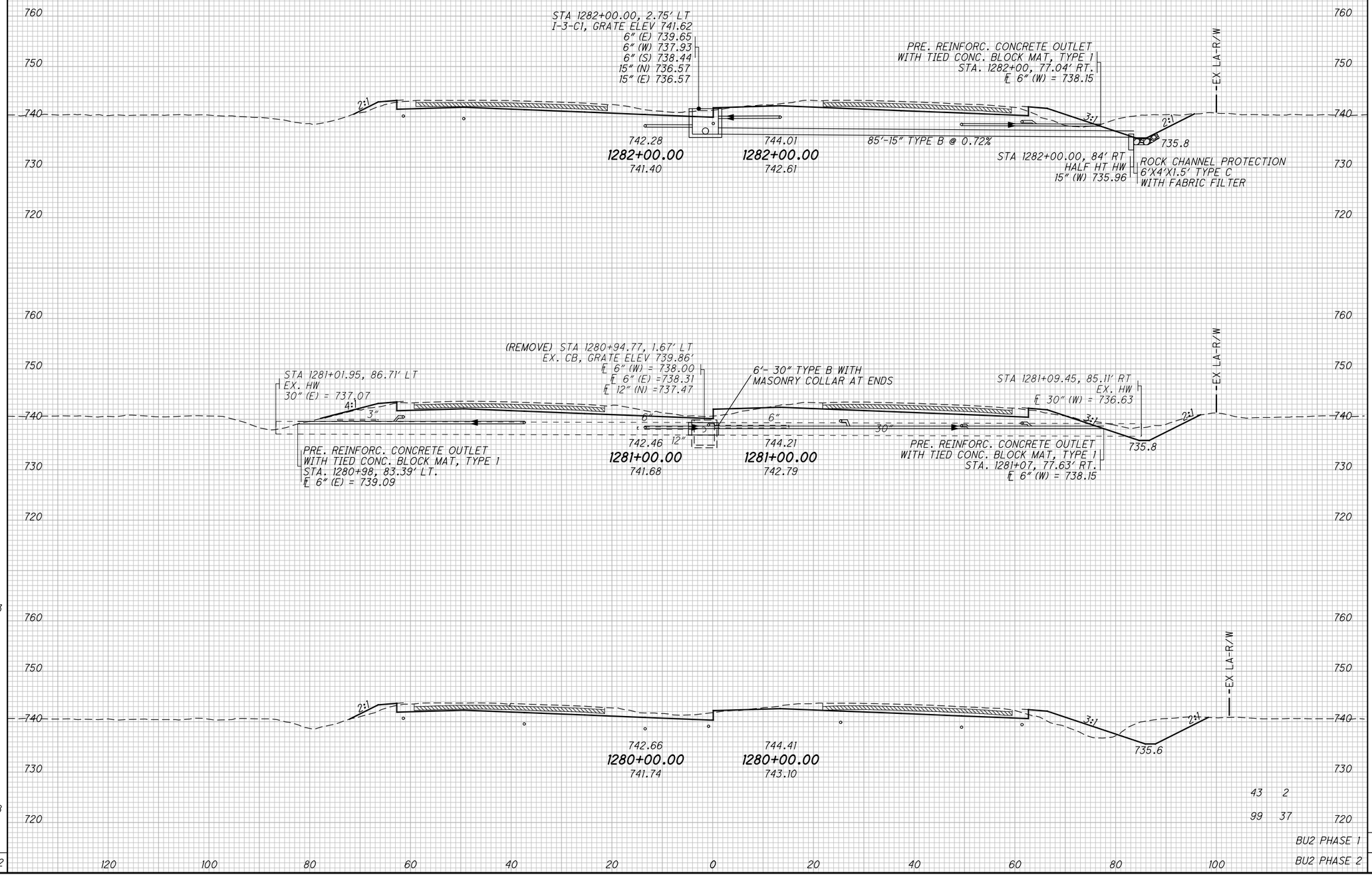
CROSS SECTIONS I.R. 75
STA. 1277+00.00 TO STA. 1279+00.00

HAN/WOO-75-19.22/0.00

207
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\.dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:04 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
51	611
59	633
55	628
·	1872



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
43	1		
86	27		
		150	17
		293	65
38	8		
72	8		
		150	17
		293	83
43	1		
86	37		
43	2	159	6
99	37	343	133
BU2 PHASE 1 ·	·	459	40
BU2 PHASE 2 ·	·	929	281

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1280+00.00 TO STA. 1282+00.00

HAN/WOO-75-19.22/0.00

208
336

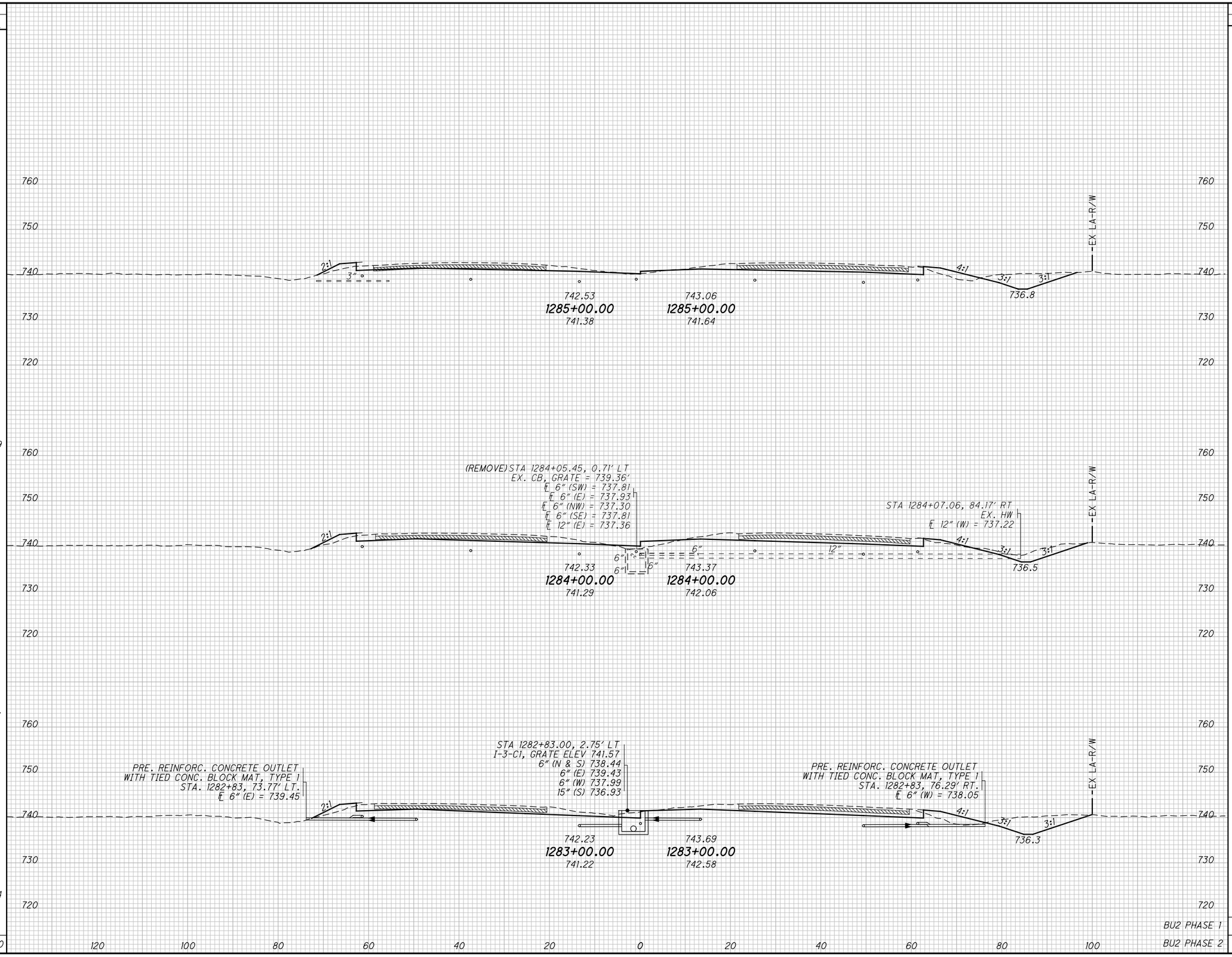
M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:07 PM CMN

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:10 PM CWN

CROSS SECTIONS I.R. 75
STA. 1283+00.00 TO STA. 1285+00.00

HAN/WOO-75-19.22/0.00

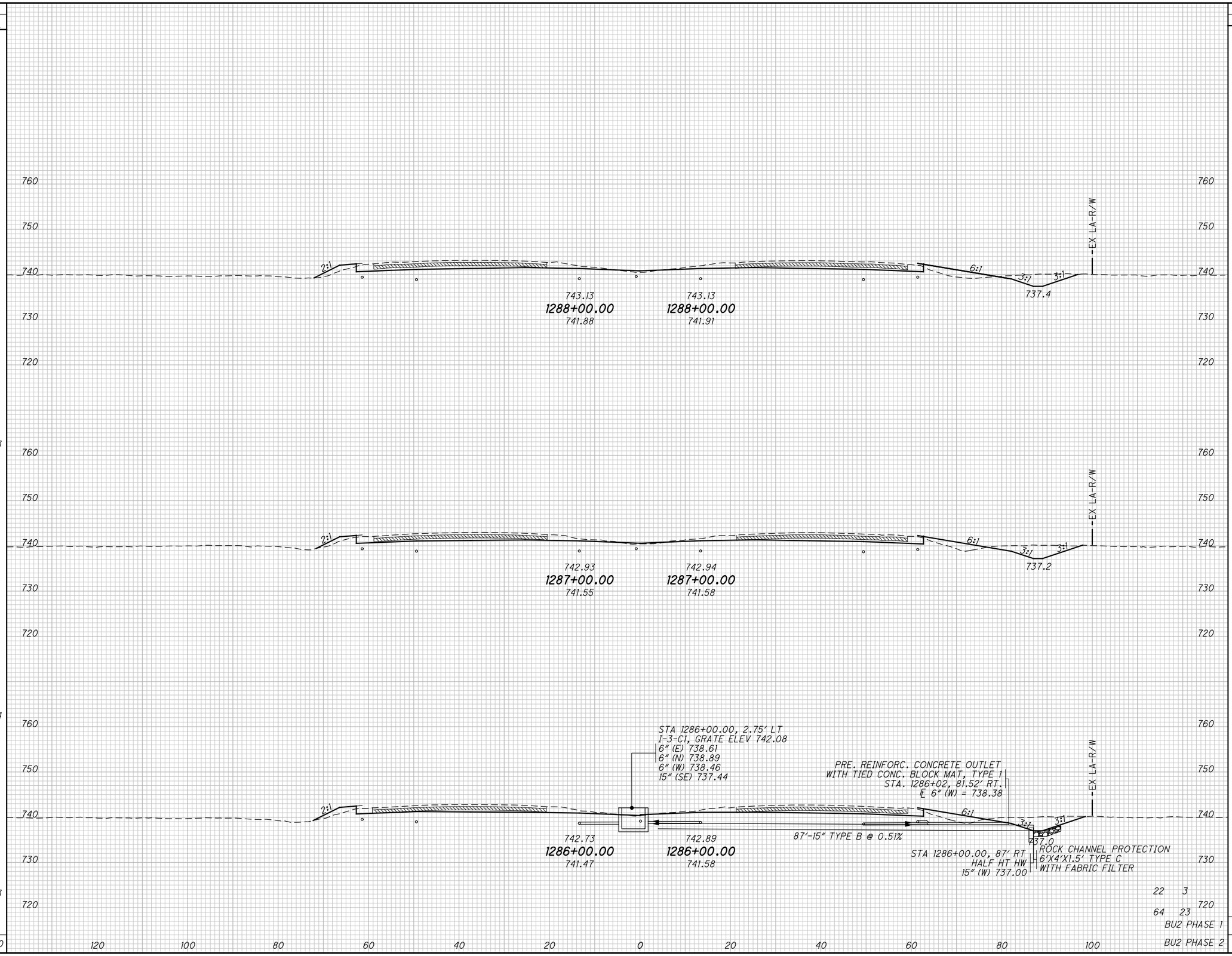
CALCULATED ALZ
CHECKED RJM



SEEDING END WIDTH	SEEDING SQ. YDS.
51	589
55	617
56	594
·	1800

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
24	2	102	24
67	21	237	61
		137	20
		274	72
31	11		
61	12		
43	0		
87	27		
		159	2
		320	100
BU2 PHASE 1	·	398	46
BU2 PHASE 2	·	831	233

SEEDING END WIDTH	SEEDING SQ. YDS.
52	583
53	594
54	583
·	1760



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
25	2		
65	27		
		91	7
		248	87
24	2		
69	20		
		91	6
		248	81
25	1		
65	24		
		91	6
22	3	244	83
64	23		
BU2 PHASE 1		·	·	273	19
BU2 PHASE 2		·	·	740	251

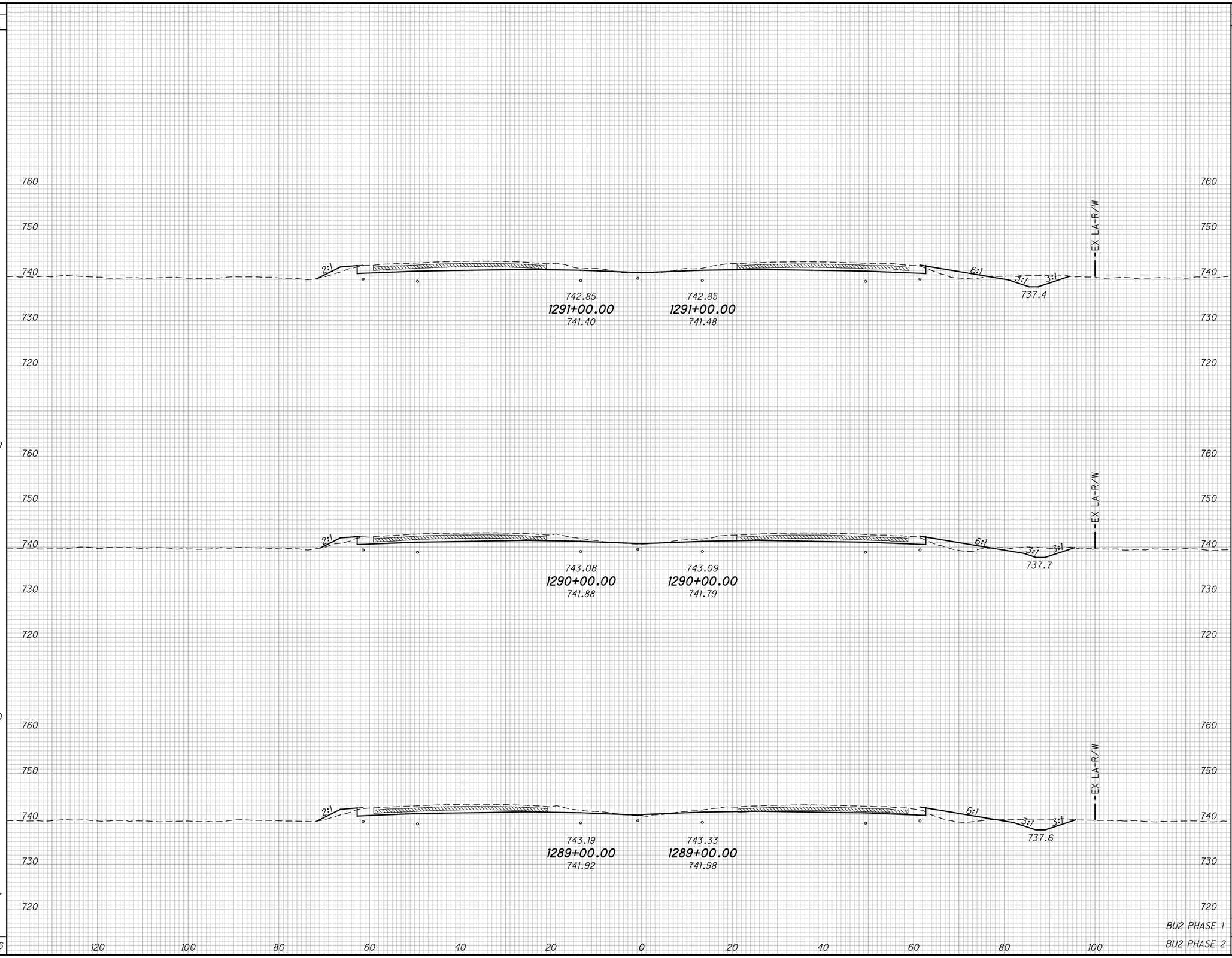
CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1286+00.00 TO STA. 1288+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:12 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
48	539
49	550
50	567
·	1656



END AREA		VOLUME	
CUT	FILL	CUT	FILL
29	1		
70	19		
		104	4
		246	78
27	1		
63	23		
		91	6
		222	93
22	2		
57	27		
		87	7
		226	100
BU2 PHASE 1	·	·	282	17
BU2 PHASE 2	·	·	694	271

CALCULATED ALZ
CHECKED RJM

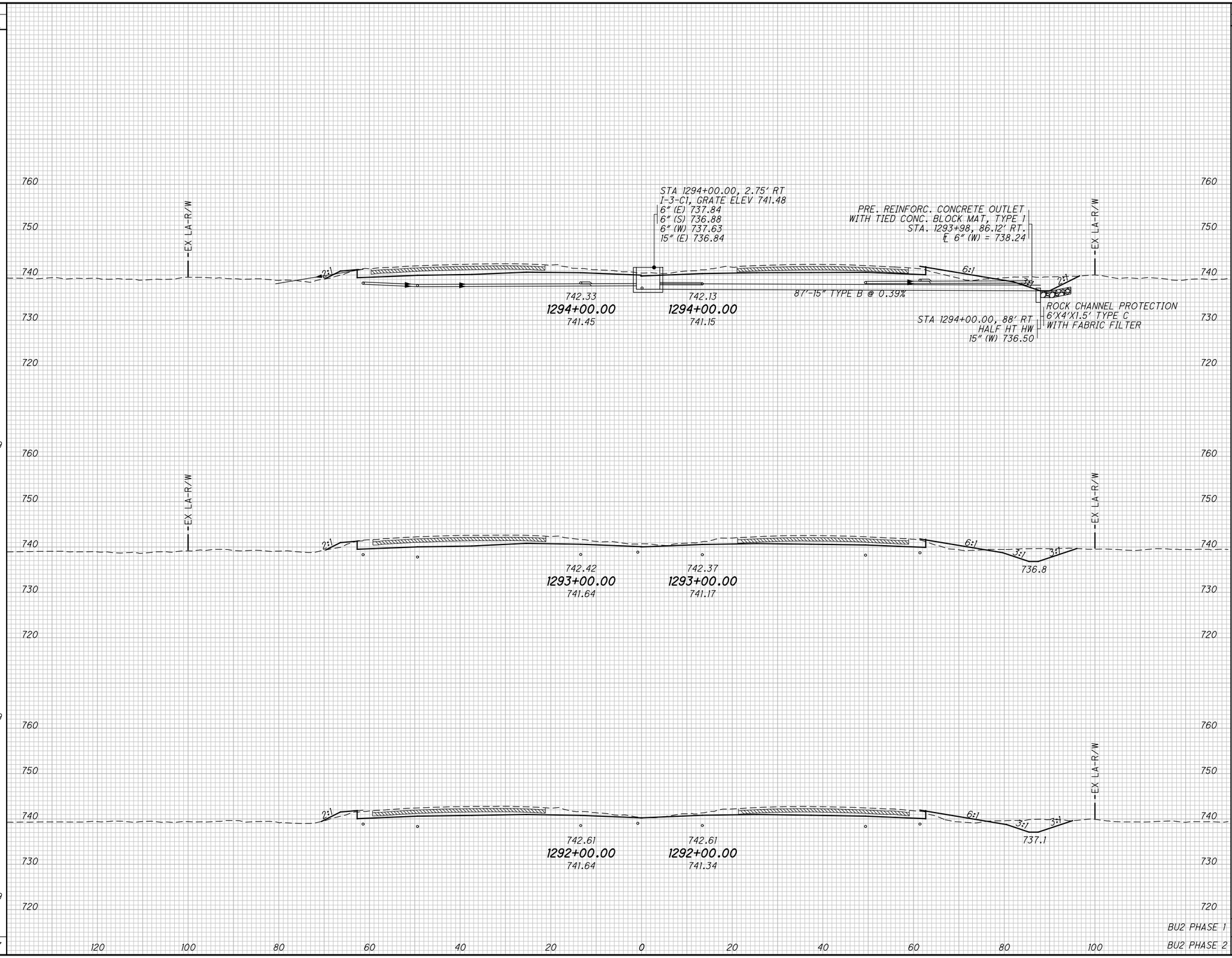
CROSS SECTIONS I.R. 75
STA. 1289+00.00 TO STA. 1291+00.00

HAN/WOO-75-19.22/0.00

211
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:14 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
49	539
48	539
49	539
·	16.17



END AREA		VOLUME	
CUT	FILL	CUT	FILL
48	0		
79	17		
		172	0
		309	56
45	0		
88	13		
		154	0
		300	54
38	0		
74	16		
		124	2
		267	65
BU2 PHASE 1	·	450	2
BU2 PHASE 2	·	876	175

CALCULATED ALZ
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1292+00.00 TO STA. 1294+00.00

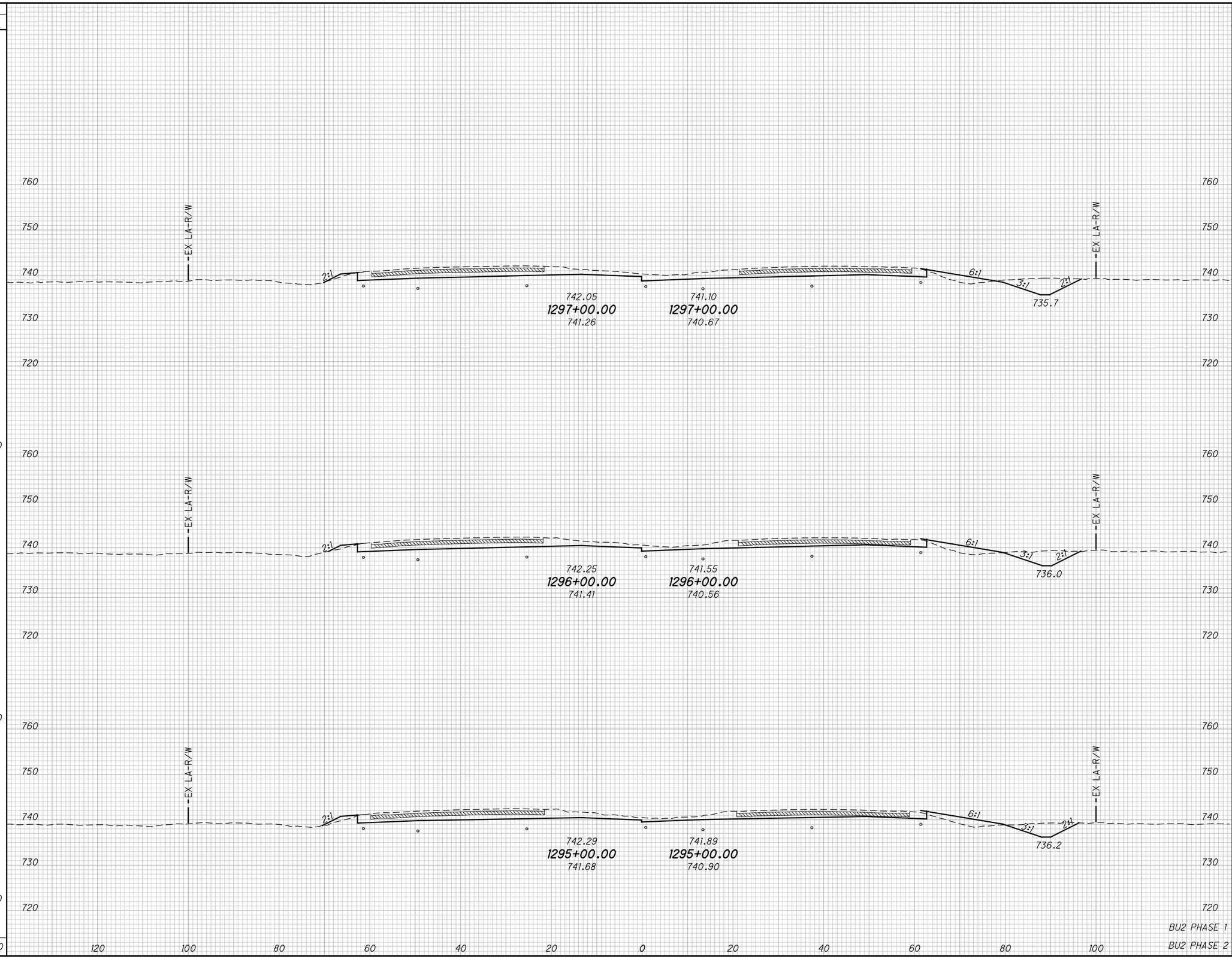
HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:17 PM CMN

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
50		72	0		
		98	18		
				248	0
	550			333	72
49		62	0		
		82	21		
				224	0
	550			291	81
50		59	0		
		75	23		
				198	0
	550			285	74
				670	0
				909	227
·	1650	·	·	·	·

BU2 PHASE 1

BU2 PHASE 2



CALCULATED ALZ

CHECKED RJM

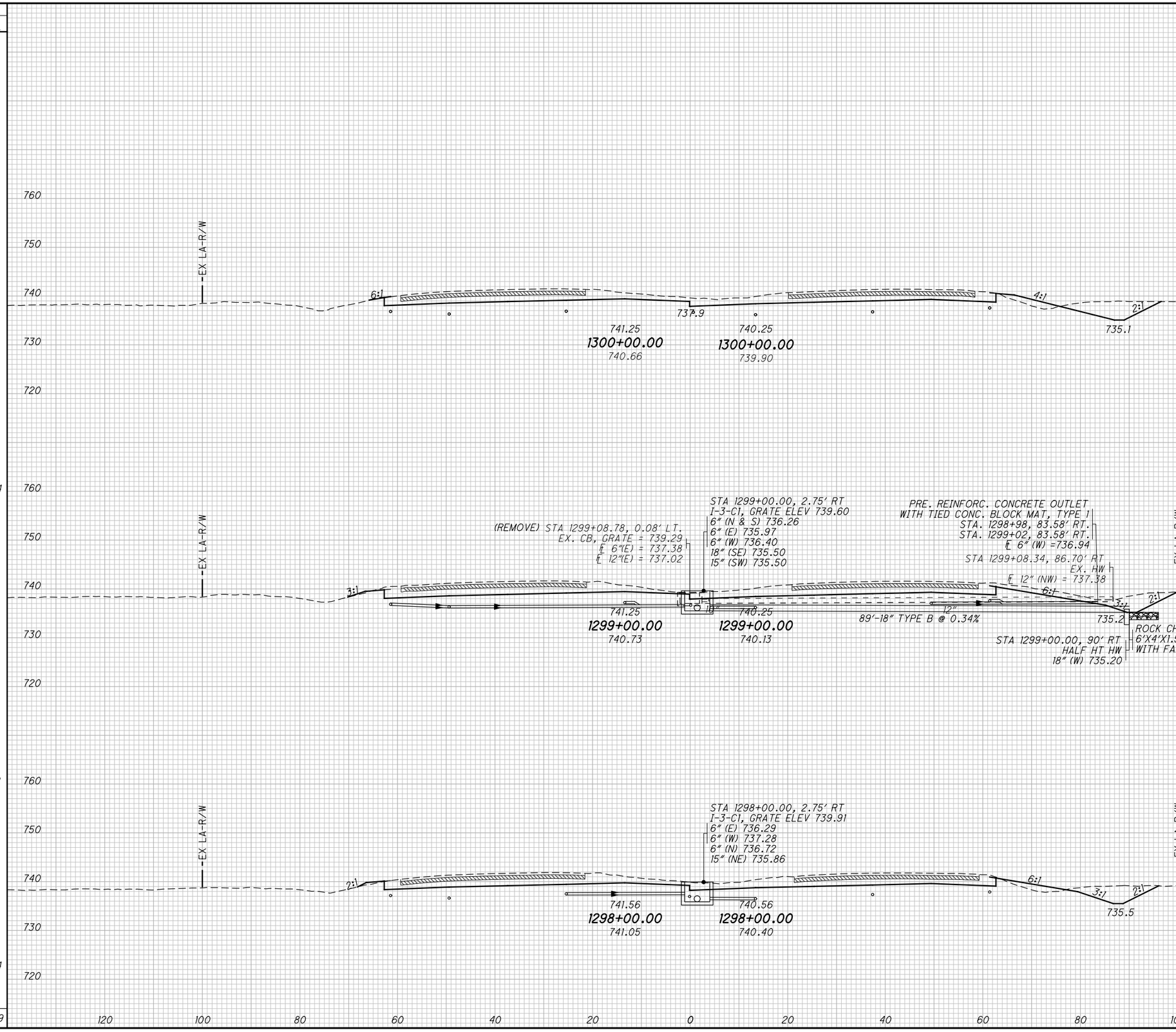
CROSS SECTIONS I.R. 75

STA. 1295+00.00 TO STA. 1297+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:19 PM CWN

SEEDING	
END WIDTH	SQ. YDS.
45	544
53	561
48	544
·	1649



END AREA		VOLUME	
CUT	FILL	CUT	FILL
80	0		
120	12		
		304	0
		483	24
84	0		
141	1		
		313	0
		478	24
85	0		
117	12		
		291	0
		398	56
·	·	908	0
·	·	1359	104

BU2 PHASE 1
BU2 PHASE 2

CALCULATED ALZ
CHECKED RJM

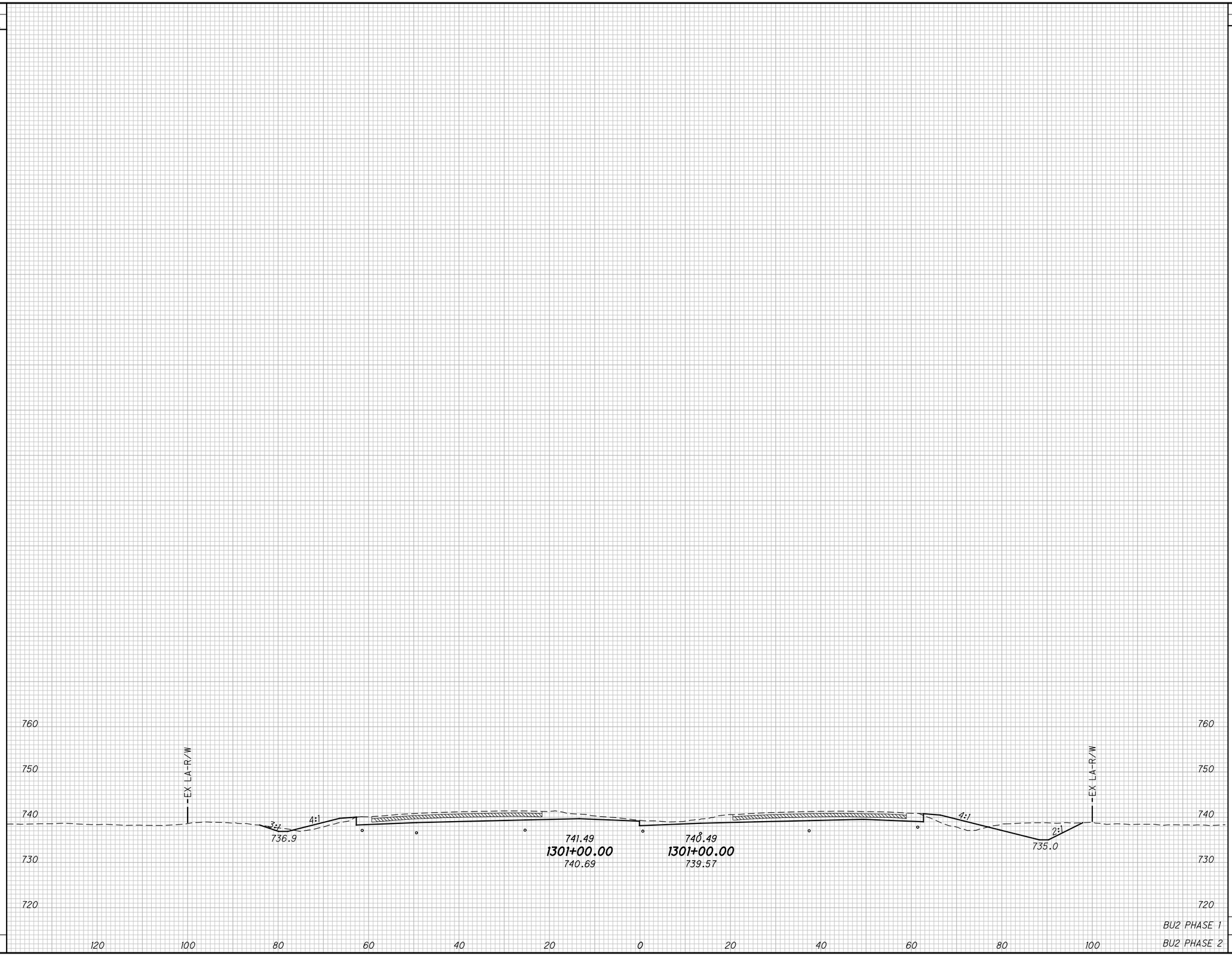
CROSS SECTIONS I.R. 75
STA. 1298+00.00 TO STA. 1300+00.00

HAN/WOO-75-19.22/0.00

214
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:22 PM CMN

SEEDING	
END WIDTH	SQ. YDS.
66	617
·	617



END AREA		VOLUME	
CUT	FILL	CUT	FILL
56	0		
100	30		
		252	0
		407	78
BU2 PHASE 1	·	·	252	0
BU2 PHASE 2	·	·	407	78

CALCULATED ALZ

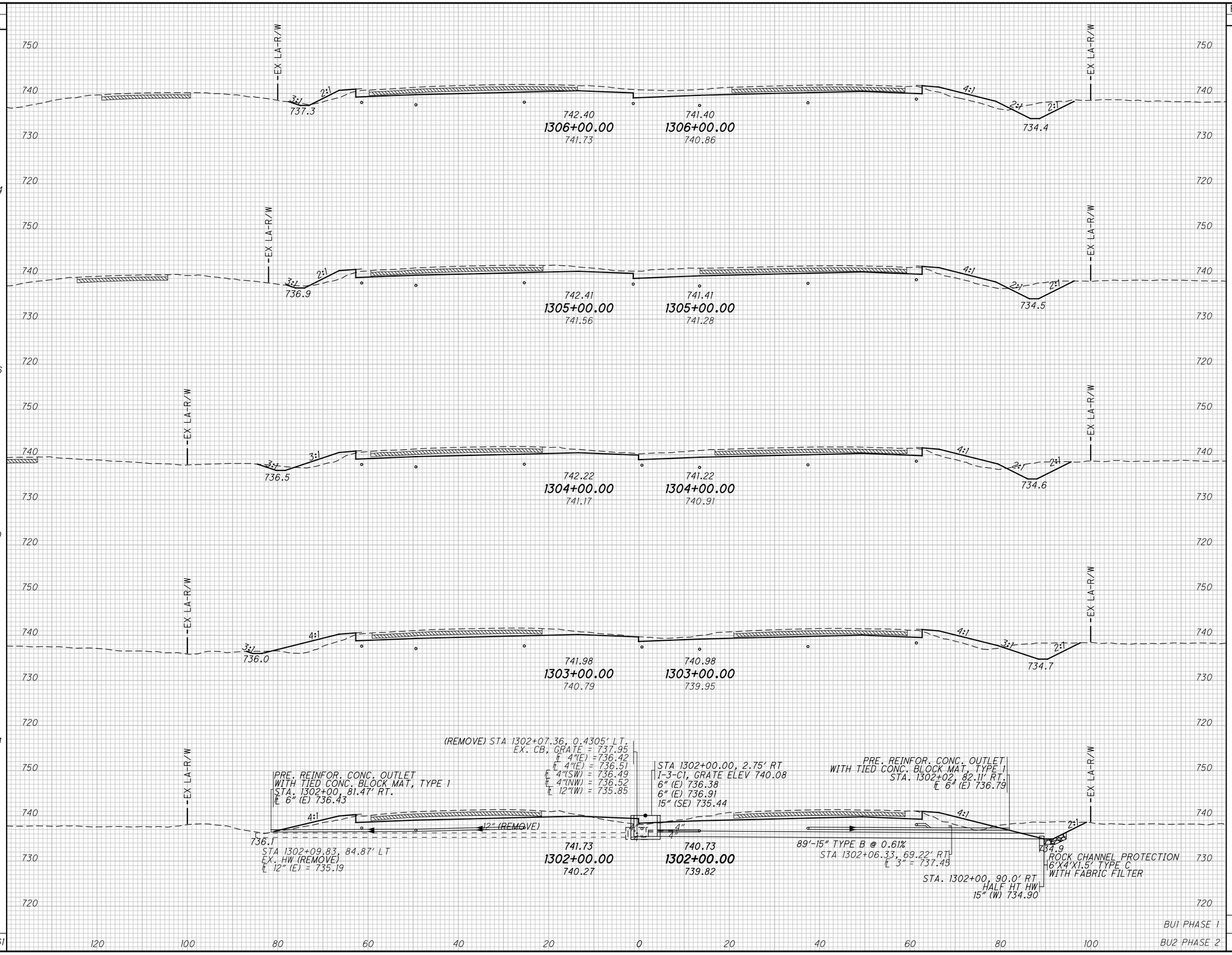
CHECKED RJM

CROSS SECTIONS I.R. 75
STA. 1301+00.00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:24 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
53	594
54	656
64	750
71	744
63	717
·	3461



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
54	0		
59	32		
		202	0
		215	124
55	0		
57	35		
		196	0
		228	146
51	0		
66	44		
		169	0
		263	172
40	0		
76	49		
		133	17
		300	150
32	9		
86	32		
		163	17
		344	115
BU1 PHASE 1 ·	·	863	34
BU2 PHASE 2 ·	·	1350	707

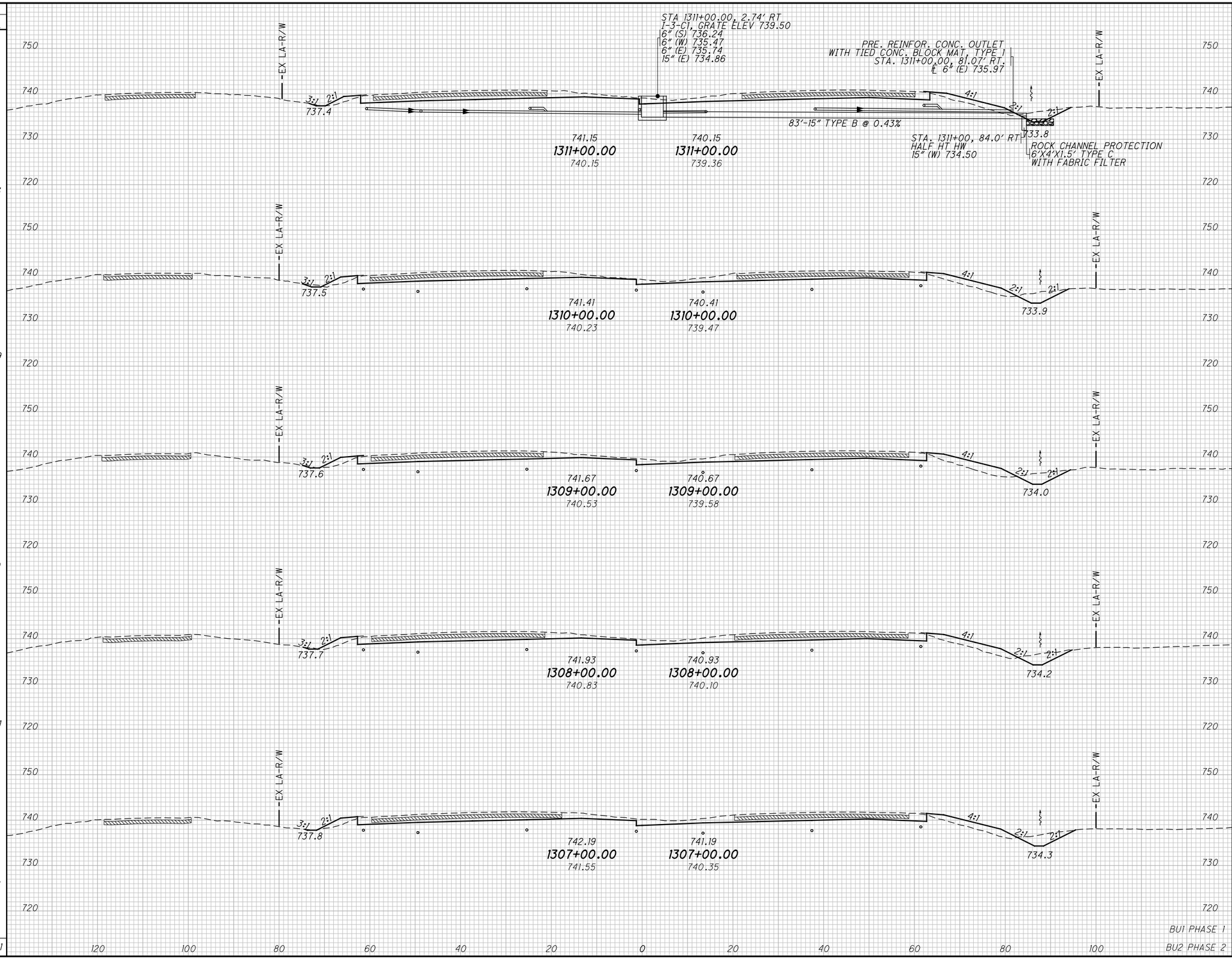
CALCULATED SRH
CHECKED JEH

CROSS SECTIONS - IR. 75
STA. 1302+00 TO STA. 1306+00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:31:59 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
48	533
48	539
49	550
50	561
51	578
·	2761



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
51	0		
59	25		
		176	0
		217	102
44	0		
58	30		
		165	0
		222	120
45	0		
62	35		
		172	0
		226	126
48	0		
60	33		
		181	0
		219	119
50	0		
58	31		
		193	0
		217	117
BU1 PHASE 1	·	·	887	0
BU2 PHASE 2	·	·	1101	584

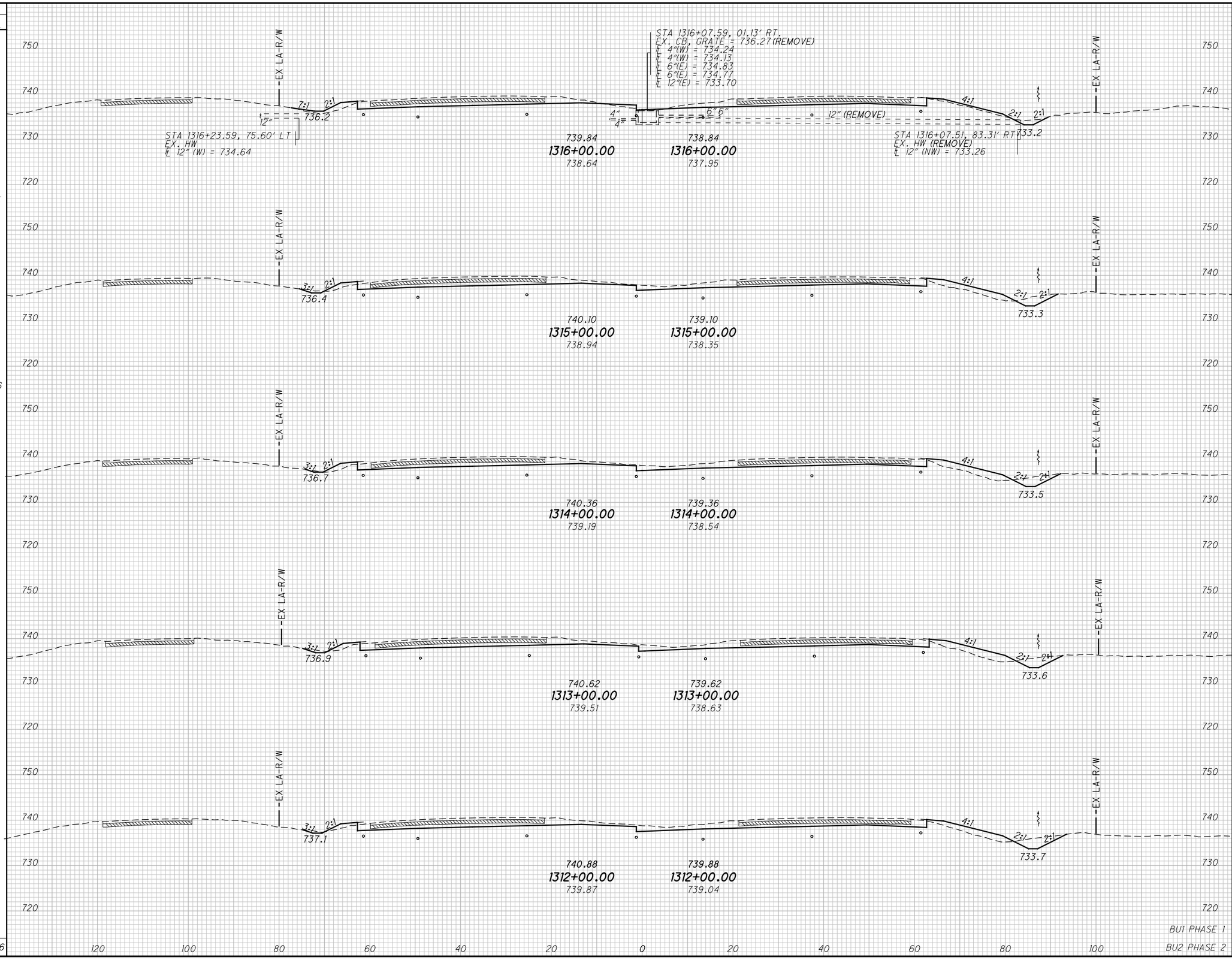
CALCULATED SRH
CHECKED JEH

CROSS SECTIONS - I.R. 75
STA. 1307+00 TO STA. 1311+00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:32:04 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
44	494
45	506
46	511
46	517
47	528
·	2556



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
37	4		
48	14		
		157	7
		185	76
48	0		
52	27		
		180	0
		196	104
49	0		
54	29		
		185	0
		204	109
51	0		
56	30		
		193	0
		213	102
53	00		
59	25		
		193	0
		219	92
·	·	908	7
·	·	1017	483

BU1 PHASE 1
BU2 PHASE 2

CALCULATED SRH
CHECKED JEH

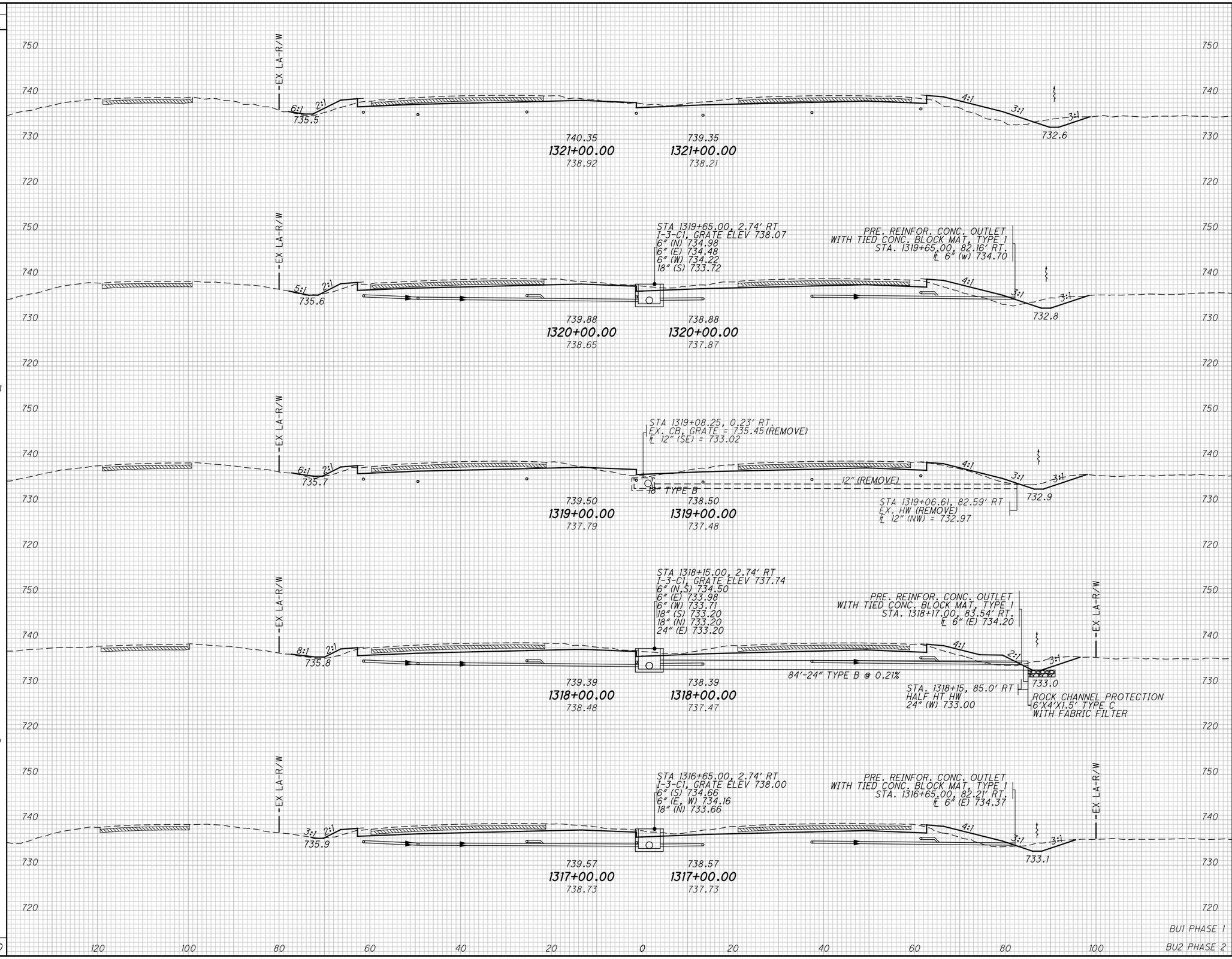
CROSS SECTIONS - I.R. 75
STA. 1312+00 TO STA. 1316+00

HAN/WOO-75-19.22/0.00

218
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:32:07 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
54	594
53	583
52	572
51	550
48	511
·	2810



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28	0		
33	52		
		124	0
		139	167
39	0		
42	38		
		124	20
		170	94
28	11		
50	13		
		137	20
		200	87
46	0		
58	34		
		180	0
		206	122
51	0		
53	32		
		163	7
		187	85
·	·	728	40
·	·	902	555

BU1 PHASE 1
BU2 PHASE 2

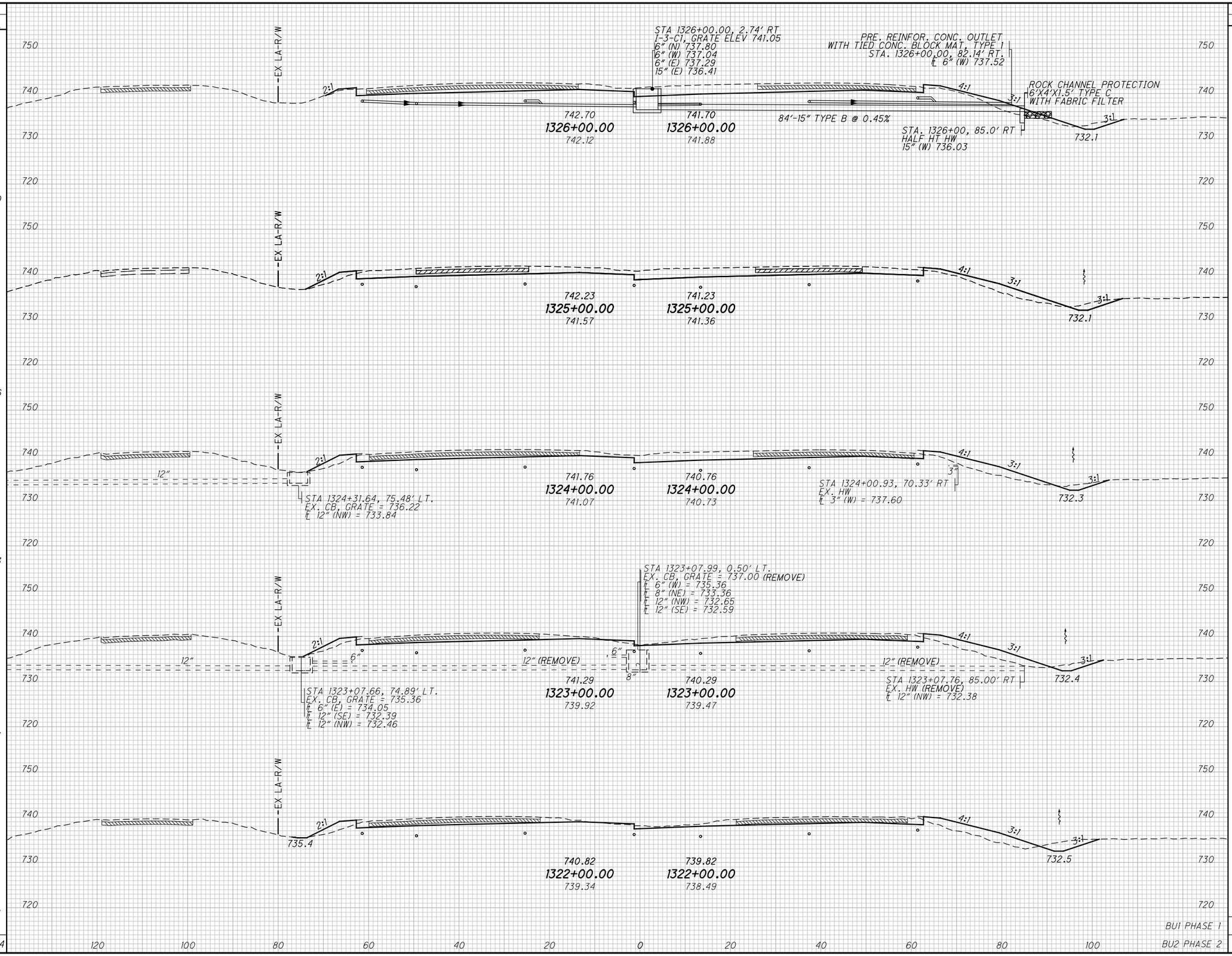
CALCULATED SRH
CHECKED JEH

CROSS SECTIONS I.R.R 75
STA. 1317+00 TO STA. 1321+00

HAN/WOO-75-19.22/0.00

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:32:09 PM CMN

SEEDING END WIDTH	SEEDING SQ. YDS.
61	700
65	706
62	683
61	667
52	628
59	3384



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
77	0		
40	33		
		307	0
		204	144
89	0		
70	45		
		283	0
		194	180
64	0		
35	52		
33	3		
39	54		
		180	6
		137	196
		109	9
		146	204
26	2		
40	56		
		100	4
		135	200
·	·	979	19
·	·	816	924

BU1 PHASE 1
BU2 PHASE 2

CALCULATED SRH
CHECKED JEH

CROSS SECTIONS I.R 75
STA. 1322+00 TO STA. 1326+00

HAN/WOO-75-19.22/0.00

220
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\basemaps\95437XS001 BU2.dgn 3/18/2015 4:32:11 PM CMN

HAN/WOO-75-19.22/0.00 - SUPERELEVATION TABLE

P.I. STA. 1149+81.58 | Dc = 1° 00' 00"

CALCULATED CMS | CHECKED RJM

SOUTHBOUND LANES																NORTHBOUND LANES														
OUTSIDE SHOULDER			LANE			LANE			LANE				INSIDE SHOULDER					INSIDE SHOULDER				LANE			LANE			LANE			OUTSIDE SHOULDER			
ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	STATION	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	REMARKS
804.88	-0.0400	12	805.36	-0.0160	12	805.55	-0.0160	12	805.74	0.0160	12	805.55	12	-0.0400	805.07	1142+40.01	805.35	-0.0400	12	805.83	12	0.0160	806.02	12	-0.0160	805.83	12	-0.0160	805.64	12	-0.0400	805.16	NORMAL SB
804.91	-0.0400	12	805.39	-0.0144	12	805.56	-0.0144	12	805.73	0.0160	12	805.54	12	-0.0400	805.06	1142+50.00	805.36	-0.0400	12	805.84	12	0.0160	806.04	12	-0.0160	805.85	12	-0.0160	805.66	12	-0.0400	805.18	
804.96	-0.0400	12	805.44	-0.0105	12	805.57	-0.0105	12	805.70	0.0160	12	805.50	12	-0.0400	805.02	1142+75.00	805.39	-0.0400	12	805.87	12	0.0160	806.06	12	-0.0160	805.87	12	-0.0160	805.68	12	-0.0400	805.20	
805.00	-0.0400	12	805.48	-0.0065	12	805.56	-0.0065	12	805.64	0.0160	12	805.45	12	-0.0400	804.97	1143+00.00	805.40	-0.0400	12	805.88	12	0.0160	806.07	12	-0.0160	805.88	12	-0.0160	805.69	12	-0.0400	805.21	
805.03	-0.0400	12	805.51	-0.0025	12	805.54	-0.0025	12	805.57	0.0160	12	805.37	12	-0.0400	804.89	1143+25.00	805.39	-0.0400	12	805.87	12	0.0160	806.06	12	-0.0160	805.87	12	-0.0160	805.68	12	-0.0400	805.20	
805.03	-0.0400	12	805.51	0.0000	12	805.51	0.0000	12	805.51	0.0160	12	805.32	12	-0.0400	804.84	1143+41.00	805.37	-0.0400	12	805.85	12	0.0160	806.04	12	-0.0160	805.85	12	-0.0160	805.66	12	-0.0400	805.18	1/2 LEVEL SB, NORMAL NB
805.04	-0.0400	12	805.52	0.0014	12	805.50	0.0014	12	805.48	0.0160	12	805.28	12	-0.0400	804.80	1143+50.00	805.36	-0.0400	12	805.84	12	0.0131	806.00	12	-0.0160	805.81	12	-0.0160	805.62	12	-0.0400	805.14	
805.01	-0.0400	12	805.49	0.0054	12	805.43	0.0054	12	805.37	0.0160	12	805.17	12	-0.0400	804.69	1143+75.00	805.31	-0.0400	12	805.79	12	0.0052	805.86	12	-0.0160	805.67	12	-0.0160	805.48	12	-0.0400	805.00	
805.00	-0.0400	12	805.48	0.0080	12	805.38	0.0080	12	805.28	0.0160	12	805.09	12	-0.0400	804.61	1143+91.50	805.27	-0.0400	12	805.75	12	0.0000	805.75	12	-0.0160	805.56	12	-0.0160	805.37	12	-0.0400	804.89	1/2 LEVEL NB
804.98	-0.0400	12	805.46	0.0093	12	805.35	0.0093	12	805.24	0.0160	12	805.04	12	-0.0400	804.56	1144+00.00	805.25	-0.0400	12	805.73	12	-0.0027	805.70	12	-0.0160	805.51	12	-0.0160	805.32	12	-0.0400	804.84	
804.93	-0.0400	12	805.41	0.0133	12	805.25	0.0133	12	805.09	0.0160	12	804.90	12	-0.0400	804.42	1144+25.00	805.17	-0.0400	12	805.65	12	-0.0106	805.52	12	-0.0160	805.33	12	-0.0160	805.14	12	-0.0400	804.66	
804.88	-0.0400	12	805.36	0.0160	12	805.17	0.0160	12	804.98	0.0160	12	804.79	12	-0.0400	804.31	1144+42.00	805.10	-0.0400	12	805.58	12	-0.0160	805.39	12	-0.0160	805.20	12	-0.0160	805.01	12	-0.0400	804.53	
804.86	-0.0400	12	805.34	0.0168	12	805.14	0.0168	12	804.94	0.0168	12	804.73	12	-0.0400	804.25	1144+50.00	805.07	-0.0400	12	805.55	12	-0.0168	805.34	12	-0.0168	805.14	12	-0.0168	804.94	12	-0.0400	804.46	
804.76	-0.0400	12	805.24	0.0195	12	805.01	0.0195	12	804.78	0.0195	12	804.55	12	-0.0400	804.07	1144+75.00	804.95	-0.0400	12	805.43	12	-0.0195	805.19	12	-0.0195	804.96	12	-0.0195	804.73	12	-0.0400	804.25	
804.68	-0.0400	12	805.16	0.0221	12	804.89	0.0221	12	804.62	0.0221	12	804.35	12	-0.0400	803.87	1145+00.00	804.81	-0.0400	12	805.29	12	-0.0221	805.02	12	-0.0221	804.75	12	-0.0221	804.48	12	-0.0400	804.00	
804.55	-0.0400	12	805.03	0.0248	12	804.73	0.0248	12	804.43	0.0248	12	804.13	12	-0.0400	803.65	1145+25.00	804.65	-0.0400	12	805.13	12	-0.0248	804.84	12	-0.0248	804.54	12	-0.0248	804.24	12	-0.0400	803.76	
804.50	-0.0400	12	804.98	0.0253	12	804.68	0.0253	12	804.38	0.0253	12	804.08	12	-0.0400	803.60	1145+30.37	804.62	-0.0400	12	805.10	12	-0.0253	804.79	12	-0.0253	804.49	12	-0.0253	804.19	12	-0.0400	803.71	PC
804.40	-0.0400	12	804.88	0.0274	12	804.55	0.0274	12	804.22	0.0274	12	803.89	12	-0.0400	803.41	1145+50.00	804.48	-0.0400	12	804.96	12	-0.0274	804.63	12	-0.0274	804.30	12	-0.0274	803.97	12	-0.0400	803.49	
804.24	-0.0400	12	804.72	0.0300	12	804.36	0.0300	12	804.00	0.0300	12	803.64	12	-0.0400	803.16	1145+75.00	804.29	-0.0400	12	804.77	12	-0.0300	804.41	12	-0.0300	804.05	12	-0.0300	803.69	12	-0.0400	803.21	
804.08	-0.0373	12	804.53	0.0327	12	804.14	0.0327	12	803.75	0.0327	12	803.36	12	-0.0400	802.88	1146+00.00	804.11	-0.0373	12	804.56	12	-0.0327	804.16	12	-0.0327	803.77	12	-0.0327	803.38	12	-0.0400	802.90	
803.91	-0.0347	12	804.33	0.0353	12	803.91	0.0353	12	803.49	0.0353	12	803.07	12	-0.0400	802.59	1146+25.00	803.91	-0.0347	12	804.33	12	-0.0353	803.90	12	-0.0353	803.48	12	-0.0353	803.06	12	-0.0400	802.58	
803.76	-0.0320	12	804.14	0.0380	12	803.68	0.0380	12	803.22	0.0380	12	802.76	12	-0.0400	802.28	1146+50.00	803.70	-0.0320	12	804.08	12	-0.0380	803.63	12	-0.0380	803.17	12	-0.0380	802.71	12	-0.0400	802.23	
803.58	-0.0300	12	803.94	0.0400	12	803.46	0.0400	12	802.98	0.0400	12	802.50	12	-0.0400	802.02	1146+69.22	803.52	-0.0300	12	803.88	12	-0.0400	803.40	12	-0.0400	802.92	12	-0.0400	802.44	12	-0.0400	801.96	FS
803.51	-0.0300	12	803.87	0.0400	12	803.39	0.0400	12	802.91	0.0400	12	802.43	12	-0.0400	801.95	1146+75.00	803.46	-0.0300	12	803.82	12	-0.0400	803.34	12	-0.0400	802.86	12	-0.0400	802.38	12	-0.0400	801.90	
803.16	-0.0300	12	803.52	0.0400	12	803.04	0.0400	12	802.56	0.0400	12	802.08	12	-0.0400	801.60	1147+00.00	803.17	-0.0300	12	803.53	12	-0.0400	803.05	12	-0.0400	802.57	12	-0.0400	802.09	12	-0.0400	801.61	
802.80	-0.0300	12	803.16	0.0400	12	802.68	0.0400	12	802.20	0.0400	12	801.72	12	-0.0400	801.24	1147+25.00	802.87	-0.0300	12	803.23	12	-0.0400	802.75	12	-0.0400	802.27	12	-0.0400	801.79	12	-0.0400	801.31	
802.42	-0.0300	12	802.78	0.0400	12	802.30	0.0400	12	801.82	0.0400	12	801.34	12	-0.0400	800.86	1147+50.00	802.55	-0.0300	12	802.91	12	-0.0400	802.43	12	-0.0400	801.95	12	-0.0400	801.47	12	-0.0400	800.99	
802.01	-0.0300	12	802.37	0.0400	12	801.89	0.0400	12	801.41	0.0400	12	800.93	12	-0.0400	800.45	1147+75.00	802.21	-0.0300	12	802.57	12	-0.0400	802.09	12	-0.0400	801.61	12	-0.0400	801.13	12	-0.0400	800.65	
801.60	-0.0300	12	801.96	0.0400	12	801.48	0.0400	12	801.00	0.0400	12	800.52	12	-0.0400	800.04	1148+00.00	801.86	-0.0300	12	802.22	12	-0.0400	801.74	12	-0.0400	801.26	12	-0.0400	800.78	12	-0.0400	800.30	
801.18	-0.0300	12	801.54	0.0400	12	801.06	0.0400	12	800.58	0.0400	12	800.10	12	-0.0400	799.62	1148+25.00	801.48	-0.0300	12	801.84	12	-0.0400	801.36	12	-0.0400	800.88	12	-0.0400	800.40	12	-0.0400	799.92	
800.76	-0.0300	12	801.12	0.0400	12	800.64	0.0400	12	800.16	0.0400	12	799.68	12	-0.0400	799.20	1148+50.00	801.09	-0.0300	12	801.45	12	-0.0400	800.97	12	-0.0400	800.49	12	-0.0400	800.01	12	-0.0400	799.53	
800.34	-0.0300	12	800.70	0.0400	12	800.22	0.0400	12	799.74	0.0400	12	799.26	12	-0.0400	798.78	1148+75.00	800.68	-0.0300	12	801.04	12	-0.0400	800.56	12	-0.0400	800.08	12	-0.0400	799.60	12	-0.0400	799.12	
799.92	-0.0300	12	800.28	0.0400	12	799.80	0.0400	12	799.32	0.0400	12	798.84	12	-0.0400	798.36	1149+00.00	800.26	-0.0300	12	800.62	12	-0.0400	800.14	12	-0.0400	799.66	12	-0.0400	799.18	12	-0.0400	798.70	
799.50	-0.0300	12	799.86	0.0400	12	799.38	0.0400	12	798.90	0.0400	12	798.42	12	-0.0400	797.94	1149+25.00	799.84	-0.0300	12	800.20	12	-0.0400	799.72	12	-0.0400	799.24	12	-0.0400	798.76	12	-0.0400	798.28	
799.08	-0.0300	12	799.44	0.0400	12	798.96	0.0400	12	798.48	0.0400	12	798.00	12	-0.0400	797.52	1149+50.00	799.42	-0.0300	12	799.78	12	-0.0400	799.30	12	-0.0400	798.82	12	-0.0400	798.34	12	-0.0400	797.86	
798.66	-0.0300	12	799.02	0.0400	12	798.54	0.0400	12	798.06	0.0400	12	797.58	12	-0.0400	797.10	1149+75.00	799.01	-0.0300	12	799.37	12	-0.0400	798.89	12	-0.0400	798.41	12	-0.0400	797.93	12	-0.0400	797.45	
798.25	-0.0300	12	798.61	0.0400	12	798.13	0.0400	12	797.65	0.0400	12	797.17	12	-0.0400	796.69	1150+00.00	798.62	-0.0300	12	798.98	12	-0.0400	798.50	12	-0.0400	798.02	12	-0.0400	797.54	12	-0.0400	797.06	
797.86	-0.0300	12	798.22	0.0400	12	797.74	0.0400	12	797.26	0.0400	12	796.78	12	-0.0400	796.30	1150+25.00	798.25	-0.0300	12	798.61	12	-0.0400	798.13	12	-0.0400	797.65	12	-0.0400	797.17	12	-0.0400	796.69	
797.50	-0.0300	12	797.86	0.0400	12	797.38	0.0400	12	796.90	0.0400	12	796.42	12	-0.0400	795.94	1150+50.00	797.91	-0.0300	12	798.27	12	-0.0400	797.79	12	-0.0400	797.31	12	-0.0400	796.83	12	-0.0400	796.35	
797.16	-0.0300	12	797.52	0.0400	12	797.04	0.0400	12	796.56	0.0400	12	796.08	12	-0.0400	795.60	1150+75.00	797.58	-0.0300	12	797.94	12	-0.0400	797.46	12	-0.0400	796.98	12	-0.0400	796.50	12	-0.0400	796.02	
796.85	-0.0300	12	797.21	0.0400	12	796.73	0.0400	12	796.25	0.0400	12	795.77	12	-0.0400	795.29	1151+00.00	797.28	-0.0300	12	797.64	12	-0.0400	797.16	12	-0.0400	796.68	12	-0.0400	796.20	12	-0.0400	795.72	
796.56	-0.0300	12	796.92	0.0400	12	796.44	0.0400	12	795.96	0.0400	12	795.48	12	-0.0400	795.00	1151+25.00	796.99	-0.0300	12	797.35	12	-0.0400	796.87	12	-0.0400	796.39	12	-0.0400	795.91	12	-0.0400	795.43	
796.29	-0.0300	12	796.65	0.0400	12	796.17	0.0400	12	795.69	0.0400	12	795.21	12	-0.0400	794.73	1151+50.00	796.73	-0.0300	12	797.09	12	-0.0400	796.61	12	-0.0400	796.13	12	-0.0400	795.65	12	-0.0400	795.17	
796.05	-0.0300	12	796.41	0.0400	12	795.93	0.0400	12	795.45	0.0400	12	794.97	12	-0.0400	794.49	1151+75.00	796.49	-0.0300	12	796.85	12	-0.0400	796.37	12	-0.0400	795.89	12	-0.0400	795.41	12	-0.0400	794.93	
795.84	-0.0300	12	796.20	0.0400	12	795.72	0.0400	12	795.24	0.0400	12	794.76	12	-0.0400	794.28	1152+00.00	796.27	-0.0300	12	796.63	12	-0.0400	796.15	12	-0.0400	795.67	12	-0.0400	795.19	12	-0.0400	794.71	
795.64	-0.0300	12	796.00	0.0400	12	795.52	0.0400	12	795.04	0.0400	12	794.56	12	-0.0400	794.08	1152+25.00	796.06	-0.0300	12	796.42	12	-0.0400	795.94	12	-0.0400	795.46	12	-0.0400	794.98	12	-0.0400	794.50	
795.52	-0.0300	12	795.88	0.0400	12	795.40	0.0400	12	794.92	0.0400	12	794.44	12	-0.0400	793.96	1152+42.69	795.91	-0.0300	12	796.27	12	-0.0400	795.79	12	-0.0400	795.31	12	-0.0400	794.83	12	-0.0400	794.35	FS
795.44	-0.0308	12	795.81	0.0392	12	795.34	0.0392	12	794.87	0.0392	12	794.40	12	-0.0400	793.92	1152+50.00	795.84	-0.0308	12	796.21	12	-0.0392	795.74	12	-0.0392	795.27	12	-0.0392	794.80	12	-0.0400	794.32	
795.17	-0.0334	12	795.57	0.0366	12	795.13	0.0366	12	794.69	0.0366	12	794.25	12	-0.0400	793.77	1152+75.00	795.60	-0.0334	12	796.00	12	-0.0366	795.56	12	-0.0366	795.12	12	-0.0366	794.68	12	-0.0400	794.20	
794.93	-0.0361	12	795.36	0.0339	12	794.95	0.0339	12	794.54	0.0339	12	794.13	12	-0.0400	793.65	1153+00.00	795.36	-0.0361	12	795.79	12	-0.0339	795.38	12	-0.0339	794.97	12	-0.0339	794.56	12	-0.0400	794.08	
794.71	-0.0387	12	795.17	0.0313	12	794.79	0.0313	12	794.41	0.0313	12	794.04	12	-0.0400	793.56	1153+25.00	795.12	-0.0387	12	795.58	12	-0.0313	795.20	12	-0.0313	794.82	12	-0.0313	794.44	12	-0.0400	793.96	
794.50	-0.0400	12	794.98	0.0287	12	794.64	0.0287	12	794.30	0.0287	12	793.96	12	-0.0400	793.48	1153+50.00	794.89	-0.0400	12	795.37	12	-0.0287	795.03	12	-0.0287	794.69	12	-0.0287	794.35	12	-0.0400	793.87	
794.33	-0.0400	12	794.81	0.0260	12	794.50	0.0260	12	794.19	0.0260	12	793.88	12	-0.0400	793.40	1153+75.00	794.68	-0.0400	12	795.16	12	-0.0260	794.85	12	-0.0260	794.54	12	-0.0260	794.23	12	-0.0400	793.75	
794.15	-0.0400	12	794.63	0.0234	12	794.35	0.0234	12	794.07	0.0234	12	793.79	12	-0.0400	793.31	1154+00.00	794.47	-0.0400	12	794.95	12	-0.0234	794.67	12	-0.0234	794.39	12	-0.0234	794.11	12	-0.0400	793.63	
793.99	-0.0400	12	794.47	0.0207	12	794.22	0.0207	12	793.97	0.0207	12	793.72	12	-0.0400	793.24	1154+25.00	794.26	-0.0400	12	794.74	12	-0.0207	794.49	12	-0.0207	794.24	12	-0.0207	793.99	12	-0.0400	793.51	
793.94	-0.0400	12	794.42	0.0201	12	794.18	0.0201	12	793.94	0.0201	12	793.70	12	-0.0400	793.22	1154+30.93	794.21	-0.0400	12	794.69	12	-0.0201	794.45	12	-0.0201	794.21	12	-0.0201	793.97	12	-0.0400	793.49	PT
793.81	-0.0400	12	794.29	0.0181	12	794.07	0.0181	12	793.85	0.0181	12	793.64	12	-0.0400	793.16	1154+50.00	794.05	-0.0400	12	794.53	12	-0.0181	794.31	12	-0.0181	794.09	12	-0.0181	793.87	12	-0.0400	793.39	
793.67	-0.0400	12	794.15	0.0160	12	793.96	0.0160	12	793.77	0.0160	12	793.57	12	-0.0400	793.09	1154+69.91	793.88	-0.0400	12	794.36	12	-0.0160	794.17	12	-0.0160	793.98	12	-0.0160	793.79	12	-0.0400	793.31	
793.63	-0.0400	12	794.11	0.0152	12	793.93	0.0152	12	793.75	0.0160	12	793.56	12	-0.0400	793.08	1154+75.00	793.84	-0.0400	12	794.32	12	-0.0144	794.15	12	-0.0160	793.96	12	-0.0160	793.77	12	-0.0400	793.29	
793.45	-0.0400	12	793.93	0.0112	12	793.80	0.0112	12	793.67	0.0160	12	793.48	12	-0.0400	793.00	1155+00.00	793.63	-0.0400	12	794.11	12	-0.0065	794.03	12	-0.0160	793.84	12	-0.0160	793.65	12	-0.0400	793.17	
793.32	-0.0400	12	793.80	0.0080	12	793.70	0.0080	12	793.60	0.0160	12	793.41	12	-0.0400	792.93	1155+20.41	793.46	-0.0400	12	793.94	12	0.0000	793.94	12	-0.0160	793.75	12	-0.0160	793.56	12	-0.0400	793.08	
793.29	-0.0400	12	793.77	0.0073	12	793.68	0.0073	12	793.59	0.0160	12	793.40	12	-0.0400	792.92	1155+25.00	793.42	-0.0400	12	793.90	12	0.0007	793.91	12	-0.0156	793.72	12	-0.0156	793.53	12	-0.0400	793.05	
793.11	-0.0400	12	793.59	0.0033	12	793.55	0.0033	12	793.51	0.0160	12	793.32	12	-0.0400	792.84	1155+50.00	793.21	-0.0400	12	793.69	12	0.0047	793.75	12	-0.0137	793.59	12	-0.0137	793.43	12	-0.0400	792.95	
792.93	-0.0400	12	793.41	-0.0006	12	793.42	-0.0006	12	793.43	0.0160	12	793.24	12	-0.0400	792.76	1155+75.00	793.00	-0.0400	12	793.48	12	0.0086	793.58	12	-0.0117	793.44	12	-0.0117	793.30	12	-0.0400	792.82	
792.75	-0.0400	12	793.23	-0.0046	12	793.29	-0.0046	12	793.35	0.0160	12	793.16	12	-0.0400	792.68	1156+00.00	792.79	-0.0400	12	793.27	12	0.0126	793.42	12	-0.0097	793.30	12	-0.0097	793.18	12	-0.0400	792.70	
792.60	-0.0400	12	793.08	-0.0080	12	793.18	-0.0080	12	793.28	0.0160	12	793.09	12	-0.0400	792.61	1156+21.40	792.61	-0.0400	12	793.09	12	0.0160	793.28	12	-0.0080	793.18	12	-0.0080	793.08	12	-0.0400	792.60	

SUPERELEVATION TABLE

HAN/WOO-75-19.22/0.00

HAN/WOO-75-19.22/0.00 - SUPERELEVATION TABLE

P.I. STA. 1162+76.57 | Dc = 1° 00' 00"

CALCULATED CMS | CHECKED RJM

SOUTHBOUND LANES																	NORTHBOUND LANES														
OUTSIDE SHOULDER			LANE			LANE			LANE				INSIDE SHOULDER					INSIDE SHOULDER				LANE			LANE			LANE			OUTSIDE SHOULDER			
ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	STATION	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	REMARKS
792.60	-0.0400	12	793.08	-0.0080	12	793.18	-0.0080	12	793.28	0.0160	12	793.09	12	-0.0400	792.61	1156+21.40	792.61	-0.0400	12	793.09	12	0.0160	793.28	12	-0.0080	793.18	12	-0.0080	793.08	12	-0.0400	792.60	
792.58	-0.0400	12	793.06	-0.0083	12	793.16	-0.0083	12	793.26	0.0154	12	793.08	12	-0.0400	792.60	1156+25.00	792.58	-0.0400	12	793.06	12	0.0160	793.25	12	-0.0074	793.16	12	-0.0074	793.07	12	-0.0400	792.59	
792.41	-0.0400	12	792.89	-0.0103	12	793.01	-0.0103	12	793.13	0.0115	12	793.00	12	-0.0400	792.52	1156+50.00	792.37	-0.0400	12	792.85	12	0.0160	793.04	12	-0.0035	793.00	12	-0.0035	792.96	12	-0.0400	792.48	
792.23	-0.0400	12	792.71	-0.0122	12	792.86	-0.0122	12	793.01	0.0075	12	792.92	12	-0.0400	792.44	1156+75.00	792.16	-0.0400	12	792.64	12	0.0160	792.83	12	0.0005	792.84	12	0.0005	792.85	12	-0.0400	792.37	
792.06	-0.0400	12	792.54	-0.0142	12	792.71	-0.0142	12	792.88	0.0035	12	792.84	12	-0.0400	792.36	1157+00.00	791.95	-0.0400	12	792.43	12	0.0160	792.62	12	0.0045	792.67	12	0.0045	792.72	12	-0.0400	792.24	
791.90	-0.0400	12	792.38	-0.0160	12	792.57	-0.0160	12	792.76	0.0000	12	792.76	12	-0.0400	792.28	1157+22.39	791.76	-0.0400	12	792.24	12	0.0160	792.43	12	0.0080	792.53	12	0.0080	792.63	12	-0.0400	792.15	1/2 LEVEL SB
791.89	-0.0400	12	792.37	-0.0160	12	792.56	-0.0160	12	792.75	-0.0008	12	792.76	12	-0.0400	792.28	1157+25.00	791.74	-0.0400	12	792.22	12	0.0160	792.41	12	0.0084	792.51	12	0.0084	792.61	12	-0.0400	792.13	
791.71	-0.0400	12	792.19	-0.0160	12	792.38	-0.0160	12	792.57	-0.0087	12	792.67	12	-0.0400	792.19	1157+50.00	791.53	-0.0400	12	792.01	12	0.0160	792.20	12	0.0124	792.35	12	0.0124	792.50	12	-0.0400	792.02	
791.55	-0.0400	12	792.03	-0.0160	12	792.22	-0.0160	12	792.41	-0.0160	12	792.60	12	-0.0400	792.12	1157+72.89	791.34	-0.0400	12	791.82	12	0.0160	792.01	12	0.0160	792.20	12	0.0160	792.39	12	-0.0400	791.91	
791.54	-0.0400	12	792.02	-0.0162	12	792.21	-0.0162	12	792.40	-0.0162	12	792.59	12	-0.0400	792.11	1157+75.00	791.32	-0.0400	12	791.80	12	0.0162	791.99	12	0.0162	792.18	12	0.0162	792.37	12	-0.0400	791.89	
791.35	-0.0400	12	791.83	-0.0189	12	792.06	-0.0189	12	792.29	-0.0189	12	792.51	12	-0.0400	792.03	1158+00.00	791.11	-0.0400	12	791.59	12	0.0189	791.82	12	0.0189	792.05	12	0.0189	792.28	12	-0.0400	791.80	
791.28	-0.0400	12	791.76	-0.0201	12	792.00	-0.0201	12	792.24	-0.0201	12	792.48	12	-0.0400	792.00	1158+11.86	791.01	-0.0400	12	791.49	12	0.0201	791.73	12	0.0201	791.97	12	0.0201	792.21	12	-0.0400	791.73	PC
791.18	-0.0400	12	791.66	-0.0215	12	791.92	-0.0215	12	792.18	-0.0215	12	792.43	12	-0.0400	791.95	1158+25.00	790.90	-0.0400	12	791.38	12	0.0215	791.64	12	0.0215	791.90	12	0.0215	792.16	12	-0.0400	791.68	
791.00	-0.0400	12	791.48	-0.0241	12	791.77	-0.0241	12	792.06	-0.0241	12	792.35	12	-0.0400	791.87	1158+50.00	790.69	-0.0400	12	791.17	12	0.0241	791.46	12	0.0241	791.75	12	0.0241	792.04	12	-0.0400	791.56	
790.83	-0.0400	12	791.31	-0.0268	12	791.63	-0.0268	12	791.95	-0.0268	12	792.27	12	-0.0400	791.79	1158+75.00	790.48	-0.0400	12	790.96	12	0.0268	791.28	12	0.0268	791.60	12	0.0268	791.92	12	-0.0400	791.44	
790.64	-0.0400	12	791.12	-0.0294	12	791.47	-0.0294	12	791.82	-0.0294	12	792.17	12	-0.0400	791.69	1159+00.00	790.27	-0.0400	12	790.75	12	0.0294	791.10	12	0.0294	791.45	12	0.0294	791.80	12	-0.0400	791.32	
790.43	-0.0400	12	790.91	-0.0321	12	791.29	-0.0321	12	791.67	-0.0321	12	792.06	12	-0.0379	791.60	1159+25.00	790.05	-0.0400	12	790.53	12	0.0321	790.91	12	0.0321	791.29	12	0.0321	791.67	12	-0.0379	791.21	
790.18	-0.0400	12	790.66	-0.0347	12	791.08	-0.0347	12	791.50	-0.0347	12	791.92	12	-0.0353	791.49	1159+50.00	789.82	-0.0400	12	790.30	12	0.0347	790.72	12	0.0347	791.14	12	0.0347	791.56	12	-0.0353	791.14	
789.93	-0.0400	12	790.41	-0.0373	12	790.86	-0.0373	12	791.31	-0.0373	12	791.76	12	-0.0327	791.37	1159+75.00	789.59	-0.0400	12	790.07	12	0.0373	790.52	12	0.0373	790.97	12	0.0373	791.42	12	-0.0327	791.03	
789.66	-0.0400	12	790.14	-0.0400	12	790.62	-0.0400	12	791.10	-0.0400	12	791.58	12	-0.0300	791.22	1160+00.00	789.35	-0.0400	12	789.83	12	0.0400	790.31	12	0.0400	790.79	12	0.0400	791.27	12	-0.0300	790.91	
789.66	-0.0400	12	790.14	-0.0400	12	790.62	-0.0400	12	791.10	-0.0400	12	791.58	12	-0.0300	791.22	1160+00.11	789.35	-0.0400	12	789.83	13	0.0400	790.31	12	0.0400	790.83	12	0.0400	791.31	13	-0.0300	790.92	FS
789.47	-0.0400	12	789.95	-0.0400	12	790.43	-0.0400	12	790.91	-0.0400	12	791.39	12	-0.0300	791.03	1160+25.00	789.10	-0.0400	12	789.58	12	0.0400	790.06	14	0.0400	790.62	12	0.0400	791.10	14	-0.0300	790.68	
789.25	-0.0400	12	789.73	-0.0400	12	790.21	-0.0400	12	790.69	-0.0400	12	791.17	12	-0.0300	790.81	1160+50.00	788.85	-0.0400	12	789.33	12	0.0400	789.81	12	0.0400	790.29	12	0.0400	790.77	12	-0.0300	790.41	
789.02	-0.0400	12	789.50	-0.0400	12	789.98	-0.0400	12	790.46	-0.0400	12	790.94	12	-0.0300	790.58	1160+75.00	788.59	-0.0400	12	789.07	12	0.0400	789.55	12	0.0400	790.03	12	0.0400	790.51	12	-0.0300	790.15	
788.76	-0.0400	12	789.24	-0.0400	12	789.72	-0.0400	12	790.20	-0.0400	12	790.68	12	-0.0300	790.32	1161+00.00	788.33	-0.0400	12	788.81	12	0.0400	789.29	12	0.0400	789.77	12	0.0400	790.25	12	-0.0300	789.89	
788.49	-0.0400	12	788.97	-0.0400	12	789.45	-0.0400	12	789.93	-0.0400	12	790.41	12	-0.0300	790.05	1161+25.00	788.05	-0.0400	12	788.53	12	0.0400	789.01	12	0.0400	789.49	12	0.0400	789.97	12	-0.0300	789.61	
788.22	-0.0400	12	788.70	-0.0400	12	789.18	-0.0400	12	789.66	-0.0400	12	790.14	12	-0.0300	789.78	1161+50.00	787.78	-0.0400	12	788.26	12	0.0400	788.74	12	0.0400	789.22	12	0.0400	789.70	12	-0.0300	789.34	
787.94	-0.0400	12	788.42	-0.0400	12	788.90	-0.0400	12	789.38	-0.0400	12	789.86	12	-0.0300	789.50	1161+75.00	787.50	-0.0400	12	787.98	12	0.0400	788.46	12	0.0400	788.94	12	0.0400	789.42	12	-0.0300	789.06	
787.67	-0.0400	12	788.15	-0.0400	12	788.63	-0.0400	12	789.11	-0.0400	12	789.59	12	-0.0300	789.23	1162+00.00	787.23	-0.0400	12	787.71	12	0.0400	788.19	12	0.0400	788.67	12	0.0400	789.15	12	-0.0300	788.79	
787.40	-0.0400	12	787.88	-0.0400	12	788.36	-0.0400	12	788.84	-0.0400	12	789.32	12	-0.0300	788.96	1162+25.00	786.95	-0.0400	12	787.43	12	0.0400	787.91	12	0.0400	788.39	12	0.0400	788.87	12	-0.0300	788.51	
787.12	-0.0400	12	787.60	-0.0400	12	788.08	-0.0400	12	788.56	-0.0400	12	789.04	12	-0.0300	788.68	1162+50.00	786.68	-0.0400	12	787.16	12	0.0400	787.64	12	0.0400	788.12	12	0.0400	788.60	12	-0.0300	788.24	
786.84	-0.0400	12	787.32	-0.0400	12	787.80	-0.0400	12	788.28	-0.0400	12	788.76	12	-0.0300	788.40	1162+75.00	786.40	-0.0400	12	786.88	12	0.0400	787.36	12	0.0400	787.84	12	0.0400	788.32	12	-0.0300	787.96	
786.56	-0.0400	12	787.04	-0.0400	12	787.52	-0.0400	12	788.00	-0.0400	12	788.48	12	-0.0300	788.12	1163+00.00	786.13	-0.0400	12	786.61	12	0.0400	787.09	12	0.0400	787.57	12	0.0400	788.05	12	-0.0300	787.69	
786.25	-0.0400	12	786.73	-0.0400	12	787.21	-0.0400	12	787.69	-0.0400	12	788.17	12	-0.0300	787.81	1163+25.00	785.85	-0.0400	12	786.33	12	0.0400	786.81	12	0.0400	787.29	12	0.0400	787.77	12	-0.0300	787.41	
785.94	-0.0400	12	786.42	-0.0400	12	786.90	-0.0400	12	787.38	-0.0400	12	787.86	12	-0.0300	787.50	1163+50.00	785.58	-0.0400	12	786.06	12	0.0400	786.54	12	0.0400	787.02	12	0.0400	787.50	12	-0.0300	787.14	
785.60	-0.0400	12	786.08	-0.0400	12	786.56	-0.0400	12	787.04	-0.0400	12	787.52	12	-0.0300	787.16	1163+75.00	785.30	-0.0400	12	785.78	12	0.0400	786.26	12	0.0400	786.74	12	0.0400	787.22	12	-0.0300	786.86	
785.26	-0.0400	12	785.74	-0.0400	12	786.22	-0.0400	12	786.70	-0.0400	12	787.18	12	-0.0300	786.82	1164+00.00	785.03	-0.0400	12	785.51	12	0.0400	785.99	12	0.0400	786.47	12	0.0400	786.95	12	-0.0300	786.59	
784.90	-0.0400	12	785.38	-0.0400	12	785.86	-0.0400	12	786.34	-0.0400	12	786.82	12	-0.0300	786.46	1164+25.00	784.75	-0.0400	12	785.23	12	0.0400	785.71	12	0.0400	786.19	12	0.0400	786.67	12	-0.0300	786.31	
784.53	-0.0400	12	785.01	-0.0400	12	785.49	-0.0400	12	785.97	-0.0400	12	786.45	12	-0.0300	786.09	1164+50.00	784.48	-0.0400	12	784.96	12	0.0400	785.44	12	0.0400	785.92	12	0.0400	786.40	12	-0.0300	786.04	
784.14	-0.0400	12	784.62	-0.0400	12	785.10	-0.0400	12	785.58	-0.0400	12	786.06	12	-0.0300	785.70	1164+75.00	784.20	-0.0400	12	784.68	12	0.0400	785.16	12	0.0400	785.64	12	0.0400	786.12	12	-0.0300	785.76	
783.74	-0.0400	12	784.22	-0.0400	12	784.70	-0.0400	12	785.18	-0.0400	12	785.66	12	-0.0300	785.30	1165+00.00	783.93	-0.0400	12	784.41	12	0.0400	784.89	12	0.0400	785.37	12	0.0400	785.85	12	-0.0300	785.49	
783.34	-0.0400	12	783.82	-0.0400	12	784.30	-0.0400	12	784.78	-0.0400	12	785.26	12	-0.0300	784.90	1165+25.00	783.65	-0.0400	12	784.13	12	0.0400	784.61	12	0.0400	785.09	12	0.0400	785.57	12	-0.0300	785.21	
782.94	-0.0400	12	783.42	-0.0400	12	783.90	-0.0400	12	784.38	-0.0400	12	784.86	12	-0.0300	784.50	1165+50.00	783.38	-0.0400	12	783.86	12	0.0400	784.34	12	0.0400	784.82	12	0.0400	785.30	12	-0.0300	784.94	
782.54	-0.0400	12	783.02	-0.0400	12	783.50	-0.0400	12	783.98	-0.0400	12	784.46	12	-0.0300	784.10	1165+75.00	783.10	-0.0400	12	783.58	12	0.0400	784.06	12	0.0400	784.54	12	0.0400	785.02	12	-0.0300	784.66	
782.14	-0.0400	12	782.62	-0.0400	12	783.10	-0.0400	12	783.58	-0.0400	12	784.06	12	-0.0300	783.70	1166+00.00	782.83	-0.0400	12	783.31	12	0.0400	783.79	12	0.0400	784.27	12	0.0400	784.75	12	-0.0300	784.39	
782.14	-0.0400	12	782.62	-0.0400	12	783.10	-0.0400	12	783.58	-0.0400	12	784.06	12	-0.0300	783.70	1166+00.39	782.82	-0.0400	12	783.30	12	0.0400	783.78	12	0.0400	784.26	12	0.0400	784.74	12	-0.0300	784.38	FS
781.83	-0.0400	12	782.31	-0.0374	12	782.76	-0.0374	12	783.21	-0.0374	12	783.66	12	-0.0326	783.27	1166+25.00	782.55	-0.0400	12	783.03	12	0.0374	783.48	12	0.0374	783.93	12	0.0374	784.38	12	-0.0326	783.99	
781.52	-0.0400	12	782.00	-0.0348	12	782.42	-0.0348	12	782.84	-0.0348	12	783.26	12	-0.0352	782.84	1166+50.00	782.28	-0.0400	12	782.76	12	0.0348	783.17	12	0.0348	783.59	12	0.0348	784.01	12	-0.0352	783.59	
781.22	-0.0400	12	781.70	-0.0321	12	782.09	-0.0321	12	782.48	-0.0321	12	782.86	12	-0.0379	782.41	1166+75.00	781.99	-0.0400	12	782.47	12	0.0321	782.85	12	0.0321	783.24	12	0.0321	783.63	12	-0.0379	783.18	
780.93	-0.0400	12	781.41	-0.0295	12	781.76	-0.0295	12	782.11	-0.0295	12	782.46	12	-0.0400	781.98	1167+00.00	781.68	-0.0400	12	782.16	12	0.0295	782.52	12	0.0295	782.87	12	0.0295	783.22	12	-0.0400	782.74	
780.62	-0.0400	12	781.10	-0.0268	12	781.42	-0.0268	12	781.74	-0.0268	12	782.06	12	-0.0400	781.58	1167+25.00	781.37	-0.0400	12	781.85	12	0.0268	782.17	12	0.0268	782.49	12	0.0268	782.81	12	-0.0400	782.33	
780.45	-0.0400	12	780.93	-0.0253	12	781.23	-0.0253	12	781.53	-0.0253	12	781.83	12	-0.0400	781.35	1167+39.24	781.18	-0.0400	12	781.66	12	0.0253	781.96	13	0.0253	782.29	13	0.0253	782.62	12	-0.0400	782.14	PT
780.29	-0.0400	12	780.77	-0.0242	12	781.06	-0.0242	13	781.37	-0.0242	12	781.66	12	-0.0400	781.18	1167+50.00	781.04	-0.0400	12	781.52	12	0.0242	781.81	14	0.0242	782.15	14	0.0242	782.49	12	-0.0400	782.01	
780.00	-0.0400	12	780.48	-0.0216	12	780.74	-0.0216	12	781.00	-0.0216	12	781.26	12	-0.0400	780.78	1167+75.00	780.69	-0.0400	12	781.17	12	0.0216	781.43	15	0.0216	781.75	15	0.0216	782.07	12	-0.0400	781.59	
779.69	-0.0400	12	780.17	-0.0189	12	780.40	-0.0189	12	780.63	-0.0189	12	780.86	12	-0.0400	780.38	1168+00.00	780.33	-0.0400	12	780.81	12	0.0189	781.04	12	0.0189	781.27	12	0.0189	781.50	12	-0.0400	781.02	
779.38	-0.0400	12	779.86	-0.0163	12	780.06	-0.0163	12	780.26	-0.0163	12	780.46	12	-0.0400	779.98	1168+25.00	779.96	-0.0400	12	780.44	12	0.0163	780.64	12	0.0163	780.84	12	0.0163	781.04	12	-0.0400	780.56	
779.37	-0.0400	12	779.85	-0.0160	12	780.04	-0.0160	12	780.23	-0.0160	12	780.42	12	-0.0400	779.94	1168+27.61	779.92	-0.0400	12	780.40	12	0.0160	780.59	12	0.0160	780.78	12	0.0160	780.97	12	-0.0400	780.49	
779.09	-0.0400	12	779.57	-0.0160	12	779.76	-0.0160	12	779.95	-0.0089	12	780.06	12	-0.0400	779.58	1168+50.00	779.57	-0.0400	12	780.05	12	0.0160	780.25	12	0.0125	780.40	12	0.0125	780.55	12	-0.0400	780.07	
778.79	-0.0400	12	779.27	-0.0160	12	779.46	-0.0160	12	779.65	-0.0010	12	779.66	12	-0.0400	779.18	1168+75.00	779.18	-0.0400	12	779.66	12	0.0160	779.85	12	0.0085	779.95	12	0.0085	780.05	12	-0.0400	779.57	
778.75	-0.0400	12	779.23	-0.0160	12	779.42	-0.0160	12	779.61	0.0000	12	779.61	12	-0.0400	779.13	1168+78.11	779.13	-0.0400	12	779.61	12	0.0160	779.80	12	0.0080	779.90	12	0.0080	780.00	12	-0.0400	779.52	1/2 LEVEL SB
778.50	-0.0400	12	778.98	-0.0160	12	779.17	-0.0160	12	779.36	0.0069	12	779.27	12	-0.0400	778.79	1169+00.00	778.79	-0.0400	12	779.27	12	0.0160	779.46	12	0.0045	779.51	12	0.0045	779.56	12	-0.0400	779.08	
778.22	-0.0400	12	778.70	-0.0160	12	778.89	-0.0160	12	779.08	0.0149	12	778.90	12	-0.0400	778.42	1169+25.00	778.42	-0.0400	12	778.90	12	0.0160	779.10	12	0.0006	779.11	12	0.0006	779.12	12	-0.0400	778.64	
778.18	-0.0400	12	778.66	-0.0160	12	778.85	-0.0160	12	779.04	0.0160	12	778.85	12	-0.0400	778.37	1169+28.61	778.37	-0.0400	12	778.85	12	0.0160	779.04	12	0.0000	779.04	12	0.0000	779.04	12	-0.0400	778.56	1/2 LEVEL NB, , NORMAL SB
777.89	-0.0400	12	778.37	-0.0160	12	778.56	-0.0160	12	778.75	0.0160	12	778.56	12	-0.0400	778.08	1169+50.00	778.08	-0.0400	12	778.56	12	0.0160	778.75	12	-0.0034	778.71	12	-0.0034	778.67	12	-0.0400	778.19	
777.57	-0.0400	12	778.05	-0.0160	12	778.24	-0.0160	12	778.43	0.0160	12	778.24	12	-0.0400	777.76	1169+75.00	777.76	-0.0400	12	778.24	12	0.0160	778.43	12	-0.0074	778.34	12	-0.0074	778.25	12	-0.0400	777.77	
777.27	-0.0400	12	777.75	-0.0160	12	777.94	-0.0160	12	778.13	0.0160	12	777.94	12	-0.0400	777.46	1170+00.00	777.46	-0.0400	12	777.94	12	0.0160	778.13	12	-0.0113	777.99	12	-0.0113	777.85	12	-0.0400	777.37	
776.99	-0.0400	12	777.47	-0.0160	12	777.66	-0.0160	12	777.85	0.0160	12	777.66	12	-0.0400	777.18	1170+25.00	777.18	-0.0400	12	777.66	12	0.0160	777.85	12	-0.0153	777.67	12	-0.0153	777.49	12	-0.0400	777.01	
776.94	-0.0400	12	777.42	-0.0160	12	777.61	-0.0160	12	777.80	0.0160	12	777.61	12	-0.0400	777.13	1170+29.60	777.13	-0.0400	12	777.61	12	0.0160	777.80	12	-0.0160	777.61	12	-0.0160	777.42	12	-0.0400	776.94	NORMAL NB

SUPERELEVATION TABLE

HAN/WOO-75-19.22/0.00

HAN/WOO-75-19.22/0.00 - SUPERELEVATION TABLE

P.I. STA. 1269+84.44 | Dc = 1° 00' 00"

CALCULATED CMS | CHECKED RJM

SOUTHBOUND LANES																	NORTHBOUND LANES															
OUTSIDE SHOULDER			LANE			LANE			LANE				INSIDE SHOULDER					INSIDE SHOULDER				LANE			LANE			LANE			OUTSIDE SHOULDER			
ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	STATION	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	REMARKS
742.24	-0.0400	12	742.72	-0.0160	12	742.91	-0.0160	12	743.10	0.0160	12	742.90	12	-0.0400	742.42	1251+60.32	742.42	-0.0400	12	742.90	12	0.0160	743.10	12	-0.0160	742.91	12	-0.0160	742.72	12	-0.0400	742.24	NORMAL
742.17	-0.0400	12	742.65	-0.0137	12	742.81	-0.0137	12	742.97	0.0160	12	742.78	12	-0.0400	742.30	1251+75.00	742.30	-0.0400	12	742.78	12	0.0160	742.97	12	-0.0160	742.78	12	-0.0160	742.59	12	-0.0400	742.11	SEE BRIDGE PLANS
742.04	-0.0400	12	742.52	-0.0097	12	742.64	-0.0097	12	742.76	0.0160	12	742.57	12	-0.0400	742.09	1252+00.00	742.09	-0.0400	12	742.57	12	0.0160	742.76	12	-0.0160	742.57	12	-0.0160	742.38	12	-0.0400	741.90	FOR DECK ELEV'S
741.93	-0.0400	12	742.41	-0.0058	12	742.48	-0.0058	12	742.55	0.0160	12	742.36	12	-0.0400	741.88	1252+25.00	741.90	-0.0400	12	742.38	12	0.0160	742.57	12	-0.0160	742.38	12	-0.0160	742.19	12	-0.0400	741.71	WITHIN HATCH AREA
741.82	-0.0400	12	742.30	-0.0018	12	742.32	-0.0018	12	742.34	0.0160	12	742.15	12	-0.0400	741.67	1252+50.00	741.73	-0.0400	12	742.21	12	0.0160	742.40	12	-0.0160	742.21	12	-0.0160	742.02	12	-0.0400	741.54	
741.77	-0.0400	12	742.25	0.0000	13	742.25	0.0000	12	742.25	0.0160	12	742.06	12	-0.0400	741.58	1252+61.31	741.67	-0.0400	12	742.15	12	0.0160	742.34	12	-0.0160	742.15	12	-0.0160	741.96	12	-0.0400	741.48	1/2 LEVEL SB, NORMAL NB
741.71	-0.0400	12	742.19	0.0022	12	742.16	0.0022	12	742.13	0.0160	12	741.94	12	-0.0400	741.46	1252+75.00	741.60	-0.0400	12	742.08	12	0.0117	742.21	12	-0.0160	742.02	12	-0.0160	741.83	12	-0.0400	741.35	
741.58	-0.0400	12	742.06	0.0061	12	741.99	0.0061	12	741.92	0.0160	12	741.73	12	-0.0400	741.25	1253+00.00	741.49	-0.0400	12	741.97	12	0.0037	742.01	12	-0.0160	741.82	12	-0.0160	741.63	12	-0.0400	741.15	
741.54	-0.0400	12	742.02	0.0080	12	741.92	0.0080	12	741.82	0.0160	12	741.63	12	-0.0400	741.15	1253+11.81	741.45	-0.0400	12	741.93	12	0.0000	741.93	12	-0.0160	741.74	12	-0.0160	741.55	12	-0.0400	741.07	1/2 LEVEL NB
741.47	-0.0400	12	741.95	0.0101	12	741.83	0.0101	12	741.71	0.0160	12	741.52	12	-0.0400	741.04	1253+25.00	741.42	-0.0400	12	741.90	12	-0.0042	741.84	12	-0.0160	741.65	12	-0.0160	741.46	12	-0.0400	740.98	
741.38	-0.0400	12	741.86	0.0140	12	741.69	0.0140	12	741.52	0.0160	12	741.33	12	-0.0400	740.85	1253+50.00	741.37	-0.0400	12	741.85	12	-0.0121	741.71	12	-0.0160	741.52	12	-0.0160	741.33	12	-0.0400	740.85	
741.34	-0.0400	12	741.82	0.0160	12	741.63	0.0160	12	741.44	0.0160	12	741.25	12	-0.0400	740.77	1253+62.31	741.36	-0.0400	12	741.84	12	-0.0160	741.65	12	-0.0160	741.46	12	-0.0160	741.27	12	-0.0400	740.79	
741.32	-0.0400	12	741.80	0.0173	12	741.59	0.0173	12	741.38	0.0173	12	741.17	12	-0.0400	740.69	1253+75.00	741.36	-0.0400	12	741.84	12	-0.0173	741.63	12	-0.0173	741.42	12	-0.0173	741.21	12	-0.0400	740.73	
741.28	-0.0400	12	741.76	0.0200	12	741.52	0.0200	12	741.28	0.0200	12	741.04	12	-0.0400	740.56	1254+00.00	741.37	-0.0400	12	741.85	12	-0.0200	741.61	12	-0.0200	741.37	12	-0.0200	741.13	12	-0.0400	740.65	
741.27	-0.0400	12	741.75	0.0226	12	741.48	0.0226	12	741.21	0.0226	12	740.94	12	-0.0400	740.46	1254+25.00	741.42	-0.0400	12	741.90	12	-0.0226	741.62	12	-0.0226	741.35	12	-0.0226	741.08	12	-0.0400	740.60	
741.29	-0.0400	12	741.77	0.0253	12	741.47	0.0253	12	741.17	0.0253	12	740.87	12	-0.0400	740.39	1254+50.00	741.49	-0.0400	12	741.97	12	-0.0252	741.67	12	-0.0252	741.37	12	-0.0252	741.07	12	-0.0400	740.59	
741.29	-0.0400	12	741.77	0.0253	12	741.47	0.0253	12	741.17	0.0253	12	740.87	12	-0.0400	740.39	1254+50.68	741.49	-0.0400	12	741.97	12	-0.0253	741.67	12	-0.0253	741.37	12	-0.0253	741.07	12	-0.0400	740.59	PC
741.34	-0.0400	12	741.82	0.0279	12	741.49	0.0279	12	741.16	0.0279	12	740.83	12	-0.0400	740.35	1254+75.00	741.60	-0.0400	12	742.08	12	-0.0279	741.74	12	-0.0279	741.41	12	-0.0279	741.08	12	-0.0400	740.60	
741.45	-0.0395	12	741.92	0.0305	12	741.55	0.0305	12	741.18	0.0305	12	740.82	12	-0.0400	740.34	1255+00.00	741.74	-0.0395	12	742.21	12	-0.0305	741.84	12	-0.0305	741.47	12	-0.0305	741.10	12	-0.0400	740.62	
741.59	-0.0368	12	742.03	0.0332	12	741.63	0.0332	12	741.23	0.0332	12	740.83	12	-0.0400	740.35	1255+25.00	741.92	-0.0368	12	742.36	12	-0.0332	741.96	12	-0.0332	741.56	12	-0.0332	741.16	12	-0.0400	740.68	
741.76	-0.0342	12	742.17	0.0358	12	741.74	0.0358	12	741.31	0.0358	12	740.88	12	-0.0400	740.40	1255+50.00	742.10	-0.0342	12	742.51	12	-0.0358	742.08	12	-0.0358	741.65	12	-0.0358	741.22	12	-0.0400	740.74	
741.96	-0.0315	12	742.34	0.0385	12	741.88	0.0385	12	741.42	0.0385	12	740.96	12	-0.0400	740.48	1255+75.00	742.28	-0.0316	12	742.66	12	-0.0384	742.20	12	-0.0384	741.74	12	-0.0384	741.28	12	-0.0400	740.80	
742.10	-0.0300	12	742.46	0.0400	12	741.98	0.0400	12	741.50	0.0400	12	741.02	12	-0.0400	740.54	1255+89.53	742.39	-0.0300	12	742.75	12	-0.0400	742.27	12	-0.0400	741.79	12	-0.0400	741.31	12	-0.0400	740.83	FS
742.15	-0.0300	12	742.51	0.0400	12	742.03	0.0400	12	741.55	0.0400	12	741.07	12	-0.0400	740.59	1256+00.00	742.45	-0.0300	12	742.81	12	-0.0400	742.33	12	-0.0400	741.85	12	-0.0400	741.37	12	-0.0400	740.89	
742.29	-0.0300	12	742.65	0.0400	12	742.17	0.0400	12	741.69	0.0400	12	741.21	12	-0.0400	740.73	1256+25.00	742.60	-0.0300	12	742.96	12	-0.0400	742.48	12	-0.0400	742.00	12	-0.0400	741.52	12	-0.0400	741.04	
742.44	-0.0300	12	742.80	0.0400	12	742.32	0.0400	12	741.84	0.0400	12	741.36	12	-0.0400	740.88	1256+50.00	742.75	-0.0300	12	743.11	12	-0.0400	742.63	12	-0.0400	742.15	12	-0.0400	741.67	12	-0.0400	741.19	
742.59	-0.0300	12	742.95	0.0400	12	742.47	0.0400	12	741.99	0.0400	12	741.51	12	-0.0400	741.03	1256+75.00	742.90	-0.0300	12	743.26	12	-0.0400	742.78	12	-0.0400	742.30	12	-0.0400	741.82	12	-0.0400	741.34	
742.74	-0.0300	12	743.10	0.0400	12	742.62	0.0400	12	742.14	0.0400	12	741.66	12	-0.0400	741.18	1257+00.00	743.05	-0.0300	12	743.41	12	-0.0400	742.93	12	-0.0400	742.45	12	-0.0400	741.97	12	-0.0400	741.49	
742.89	-0.0300	12	743.25	0.0400	12	742.77	0.0400	12	742.29	0.0400	12	741.81	12	-0.0400	741.33	1257+25.00	743.20	-0.0300	12	743.56	12	-0.0400	743.08	12	-0.0400	742.60	12	-0.0400	742.12	12	-0.0400	741.64	
743.04	-0.0300	12	743.40	0.0400	12	742.92	0.0400	12	742.44	0.0400	12	741.96	12	-0.0400	741.48	1257+50.00	743.35	-0.0300	12	743.71	12	-0.0400	743.23	12	-0.0400	742.75	12	-0.0400	742.27	12	-0.0400	741.79	
743.19	-0.0300	12	743.55	0.0400	12	743.07	0.0400	12	742.59	0.0400	12	742.11	12	-0.0400	741.63	1257+75.00	743.50	-0.0300	12	743.86	12	-0.0400	743.38	12	-0.0400	742.90	12	-0.0400	742.42	12	-0.0400	741.94	
743.34	-0.0300	12	743.70	0.0400	12	743.22	0.0400	12	742.74	0.0400	12	742.26	12	-0.0400	741.78	1258+00.00	743.65	-0.0300	12	744.01	12	-0.0400	743.53	12	-0.0400	743.05	12	-0.0400	742.57	12	-0.0400	742.09	
743.49	-0.0300	12	743.85	0.0400	12	743.37	0.0400	12	742.89	0.0400	12	742.41	12	-0.0400	741.93	1258+25.00	743.80	-0.0300	12	744.16	12	-0.0400	743.68	12	-0.0400	743.20	12	-0.0400	742.72	12	-0.0400	742.24	
743.64	-0.0300	12	744.00	0.0400	12	743.52	0.0400	12	743.04	0.0400	12	742.56	12	-0.0400	742.08	1258+50.00	743.95	-0.0300	12	744.31	12	-0.0400	743.83	12	-0.0400	743.35	12	-0.0400	742.87	12	-0.0400	742.39	
743.79	-0.0300	12	744.15	0.0400	12	743.67	0.0400	12	743.19	0.0400	12	742.71	12	-0.0400	742.23	1258+75.00	744.10	-0.0300	12	744.46	12	-0.0400	743.98	12	-0.0400	743.50	12	-0.0400	743.02	12	-0.0400	742.54	
743.94	-0.0300	12	744.30	0.0400	12	743.82	0.0400	12	743.34	0.0400	12	742.86	12	-0.0400	742.38	1259+00.00	744.25	-0.0300	12	744.61	12	-0.0400	744.13	12	-0.0400	743.65	12	-0.0400	743.17	12	-0.0400	742.69	
744.09	-0.0300	12	744.45	0.0400	12	743.97	0.0400	12	743.49	0.0400	12	743.01	12	-0.0400	742.53	1259+25.00	744.40	-0.0300	12	744.76	12	-0.0400	744.28	12	-0.0400	743.80	12	-0.0400	743.32	12	-0.0400	742.84	
744.24	-0.0300	12	744.60	0.0400	12	744.12	0.0400	12	743.64	0.0400	12	743.16	12	-0.0400	742.68	1259+50.00	744.55	-0.0300	12	744.91	12	-0.0400	744.43	12	-0.0400	743.95	12	-0.0400	743.47	12	-0.0400	742.99	
744.39	-0.0300	12	744.75	0.0400	12	744.27	0.0400	12	743.79	0.0400	12	743.31	12	-0.0400	742.83	1259+75.00	744.70	-0.0300	12	745.06	12	-0.0400	744.58	12	-0.0400	744.10	12	-0.0400	743.62	12	-0.0400	743.14	
744.54	-0.0300	12	744.90	0.0400	12	744.42	0.0400	12	743.94	0.0400	12	743.46	12	-0.0400	742.98	1260+00.00	744.85	-0.0300	12	745.21	12	-0.0400	744.73	12	-0.0400	744.25	12	-0.0400	743.77	12	-0.0400	743.29	
744.69	-0.0300	12	745.05	0.0400	12	744.57	0.0400	12	744.09	0.0400	12	743.61	12	-0.0400	743.13	1260+25.00	745.00	-0.0300	12	745.36	12	-0.0400	744.88	12	-0.0400	744.40	12	-0.0400	743.92	12	-0.0400	743.44	
744.84	-0.0300	12	745.20	0.0400	12	744.72	0.0400	12	744.24	0.0400	12	743.76	12	-0.0400	743.28	1260+50.00	745.15	-0.0300	12	745.51	12	-0.0400	745.03	12	-0.0400	744.55	12	-0.0400	744.07	12	-0.0400	743.59	
744.99	-0.0300	12	745.35	0.0400	12	744.87	0.0400	12	744.39	0.0400	12	743.91	12	-0.0400	743.43	1260+75.00	745.30	-0.0300	12	745.66	12	-0.0400	745.18	12	-0.0400	744.70	12	-0.0400	744.22	12	-0.0400	743.74	
745.14	-0.0300	12	745.50	0.0400	12	745.02	0.0400	12	744.54	0.0400	12	744.06	12	-0.0400	743.58	1261+00.00	745.45	-0.0300	12	745.81	12	-0.0400	745.33	12	-0.0400	744.85	12	-0.0400	744.37	12	-0.0400	743.89	
745.29	-0.0300	12	745.65	0.0400	12	745.17	0.0400	12	744.69	0.0400	12	744.21	12	-0.0400	743.73	1261+25.00	745.60	-0.0300	12	745.96	12	-0.0400	745.48	12	-0.0400	745.00	12	-0.0400	744.52	12	-0.0400	744.04	
745.44	-0.0300	12	745.80	0.0400	12	745.32	0.0400	12	744.84	0.0400	12	744.36	12	-0.0400	743.88	1261+50.00	745.75	-0.0300	12	746.11	12	-0.0400	745.63	12	-0.0400	745.15	12	-0.0400	744.67	12	-0.0400	744.19	
745.59	-0.0300	12	745.95	0.0400	12	745.47	0.0400	12	744.99	0.0400	12	744.51	12	-0.0400	744.03	1261+75.00	745.90	-0.0300	12	746.26	12	-0.0400	745.78	12	-0.0400	745.30	12	-0.0400	744.82	12	-0.0400	744.34	
745.74	-0.0300	12	746.10	0.0400	12	745.62	0.0400	12	745.14	0.0400	12	744.66	12	-0.0400	744.18	1262+00.00	746.05	-0.0300	12	746.41	12	-0.0400	745.93	12	-0.0400	745.45	12	-0.0400	744.97	12	-0.0400	744.49	
745.89	-0.0300	12	746.25	0.0400	12	745.77	0.0400	12	745.29	0.0400	12	744.81	12	-0.0400	744.33	1262+25.00	746.20	-0.0300	12	746.56	12	-0.0400	746.08	12	-0.0400	745.60	12	-0.0400	745.12	12	-0.0400	744.64	
746.04	-0.0300	12	746.40	0.0400	12	745.92	0.0400	12	745.44	0.0400	12	744.96	12	-0.0400	744.48	1262+50.00	746.35	-0.0300	12	746.71	12	-0.0400	746.23	12	-0.0400	745.75	12	-0.0400	745.27	12	-0.0400	744.79	
746.18	-0.0300	12	746.54	0.0400	12	746.06	0.0400	12	745.58	0.0400	12	745.10	12	-0.0400	744.62	1262+75.00	746.49	-0.0300	12	746.85	12	-0.0400	746.37	12	-0.0400	745.89	12	-0.0400	745.41	12	-0.0400	744.93	
746.31	-0.0300	12	746.67	0.0400	12	746.19	0.0400	12	745.71	0.0400	12	745.23	12	-0.0400	744.75	1263+00.00	746.62	-0.0300	12	746.98	12	-0.0400	746.50	12	-0.0400	746.02	12	-0.0400	745.54	12	-0.0400	745.06	
746.42	-0.0300	12	746.78	0.0400	12	746.30	0.0400	12	745.82	0.0400	12	745.34	12	-0.0400	744.86	1263+25.00	746.73	-0.0300	12	747.09	12	-0.0400	746.61	12	-0.0400	746.13	12	-0.0400	745.65	12	-0.0400	745.17	
746.51	-0.0300	12	746.87	0.0400	12	746.39	0.0400	12	745.91	0.0400	12	745.43	12	-0.0400	744.95	1263+50.00	746.82	-0.0300	12	747.18	12	-0.0400	746.70	12	-0.0400	746.22	12	-0.0400	745.74	12	-0.0400	745.26	
746.58	-0.0300	12	746.94	0.0400	12	746.46	0.0400	12	745.98	0.0400	12	745.50	12	-0.0400	745.02	1263+75.00	746.89	-0.0300	12	747.25	12	-0.0400	746.77	12	-0.0400	746.29	12	-0.0400	745.81	12	-0.0400	745.33	
746.64	-0.0300	12	747.00	0.0400	12	746.52	0.0400	12	746.04	0.0400	12	745.56	12	-0.0400	745.08	1264+00.00	746.95	-0.0300	12	747.31	12	-0.0400	746.83	12	-0.0400	746.35	12	-0.0400	745.87	12	-0.0400	745.39	
746.68	-0.0300	12	747.04	0.0400	12	746.56	0.0400	12	746.08	0.0400	12	745.60	12	-0.0400	745.12	1264+25.00	746.99	-0.0300	12	747.35	12	-0.0400	746.87	12	-0.0400	746.39	12	-0.0400	745.91	12	-0.0400	745.43	
746.71	-0.0300	12	747.07	0.0400	12	746.59	0.0400	12	746.11	0.0400	12	745.63	12	-0.0400	745.15	1264+50.00	747.02	-0.0300	12	747.38	12	-0.0400	746.90	12	-0.0400	746.42	12	-0.0400	745.94	12	-0.0400	745.46	
746.72	-0.0300	12	747.08	0.0400	12	746.60	0.0400	12	746.12	0.0400	12	745.64	12	-0.0400	745.16	1264+75.00	747.03	-0.0300	12	747.39	12	-0.0400	746.91	12	-0.0400	746.43	12	-0.0400	745.95	12	-0.0400	745.47	
746.71	-0.0300	12	747.07	0.0400	12	746.59	0.0400	12	746.11	0.0400	12	745.63	12	-0.0400	745.15	1265+00.00	747.02	-0.0300	12	747.38	12	-0.0400	746.90	12	-0.0400	746.42	12	-0.0400	745.94	12	-0.0400	745.46	
746.68	-0.0300	12	747.04	0.0400	12	746.56	0.0400	12	746.08	0.0400	12	745.60	12	-0.0400	745.12	1265+25.00	746.99	-0.0300	12	747.35	12	-0.0400	746.87	12	-0.0400	746.39	12	-0.0400	745.91	12	-0.0400	745.43	
746.64	-0.0300	12	747.00	0.0400	12	746.52	0.0400	12	746.04	0.0400	12	745.56	12	-0.0400	745.08	1265+50.00	746.95	-0.0300	12	747.31	12	-0.0400	746.83	12	-0.0400	746.35	12	-0.0400	745.87	12	-0.0400	745.39	
746.59	-0.0300	12	746.95	0.0400	12	746.47	0.0400	12	745.99	0.0400	12	745.51	12	-0.0400	745.03	1265+75.00	746.90	-0.0300	12	747.26	12	-0.0400	746.78	12	-0.0400	746.30	12	-0.0400	745.82	12	-0.0400	745.34	
746.54	-0.0300	12	746.90	0.0400	12	746.42	0.0400	12	745.94	0.0400	12	745.46	12	-0.0400	744.98	1266+00.00	746.85	-0.0300	12	747.21	12	-0.0400	746.73	12	-0.0400	746.25	12	-0.0400	745.77	12	-0.0400	745.29	
746.49	-0.0300	12	746.85	0.0400	12	746.37	0.0400	12	745.89	0.0400	12	745.41	12	-0.0400	744.93	1266+25.00	746.80	-0.0300	12	747.16	12	-0.0400	746.68	12	-0.0400	746.20	12	-0.0400	745.72	12	-0.0400	745.24	
746.44	-0.0300	12	746.80	0.0400	12	746.32	0.0400	12	745.84	0.0400	12	745.36	12	-0.0400	744.88	1266+50.00	746.75	-0.0300	12	747.11	12	-0.0400	746.63	12	-0.0400	746.15	12	-0.0400	745.67	12	-0.0400	745.19	
746.39	-0.0300	12	746.75	0.0400	12	746.27	0.0400	12	745.79	0.0400	12	745.31	12	-0.0400	744.83	1266+75.00	746.70	-0.0300	12	747.06	12	-0.0400	746.58	12	-0.0400	746.10	12	-0.0400	745.62	12	-0.0400	745.14	
746.34	-0.0300	12	746.70	0.0400	12	746.22	0.0400	12	745.74	0.0400	12	745.26	12	-0.0400	744.78	1267+00.00	746.65	-0.0300	12	747.01	12	-0.0400	746.53	12	-0.0400	746.05	12	-0.0400	745.57	12	-0.0400	745.09	

SUPERELEVATION TABLE

HAN/WOO-75-19.22/0.00

HAN/WOO-75-19.22/0.00 - SUPERELEVATION TABLE

P.I. STA. 1269+84.44 | Dc = 1° 00' 00"

CALCULATED CMS | CHECKED RJM

SOUTHBOUND LANES																NORTHBOUND LANES														
OUTSIDE SHOULDER			LANE			LANE			LANE				INSIDE SHOULDER					INSIDE SHOULDER				LANE			LANE			LANE			OUTSIDE SHOULDER			
ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	STATION	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	REMARKS
746.29	-0.0300	12	746.65	0.0400	12	746.17	0.0400	12	745.69	0.0400	12	745.21	12	-0.0400	744.73	1267+25.00	746.60	-0.0300	12	746.96	12	-0.0400	746.48	12	-0.0400	746.00	12	-0.0400	745.52	12	-0.0400	745.04	
746.24	-0.0300	12	746.60	0.0400	12	746.12	0.0400	12	745.64	0.0400	12	745.16	12	-0.0400	744.68	1267+50.00	746.55	-0.0300	12	746.91	12	-0.0400	746.43	12	-0.0400	745.95	12	-0.0400	745.47	12	-0.0400	744.99	
746.19	-0.0300	12	746.55	0.0400	12	746.07	0.0400	12	745.59	0.0400	12	745.11	12	-0.0400	744.63	1267+75.00	746.50	-0.0300	12	746.86	12	-0.0400	746.38	12	-0.0400	745.90	12	-0.0400	745.42	12	-0.0400	744.94	
746.14	-0.0300	12	746.50	0.0400	12	746.02	0.0400	12	745.54	0.0400	12	745.06	12	-0.0400	744.58	1268+00.00	746.45	-0.0300	12	746.81	12	-0.0400	746.33	12	-0.0400	745.85	12	-0.0400	745.37	12	-0.0400	744.89	
746.09	-0.0300	12	746.45	0.0400	12	745.97	0.0400	12	745.49	0.0400	12	745.01	12	-0.0400	744.53	1268+25.00	746.40	-0.0300	12	746.76	12	-0.0400	746.28	12	-0.0400	745.80	12	-0.0400	745.32	12	-0.0400	744.84	
746.04	-0.0300	12	746.40	0.0400	12	745.92	0.0400	12	745.44	0.0400	12	744.96	12	-0.0400	744.48	1268+50.00	746.35	-0.0300	12	746.71	12	-0.0400	746.23	12	-0.0400	745.75	12	-0.0400	745.27	12	-0.0400	744.79	
745.99	-0.0300	12	746.35	0.0400	12	745.87	0.0400	12	745.39	0.0400	12	744.91	12	-0.0400	744.43	1268+75.00	746.30	-0.0300	12	746.66	12	-0.0400	746.18	12	-0.0400	745.70	12	-0.0400	745.22	12	-0.0400	744.74	
745.94	-0.0300	12	746.30	0.0400	12	745.82	0.0400	12	745.34	0.0400	12	744.86	12	-0.0400	744.38	1269+00.00	746.25	-0.0300	12	746.61	12	-0.0400	746.13	12	-0.0400	745.65	12	-0.0400	745.17	12	-0.0400	744.69	
745.89	-0.0300	12	746.25	0.0400	12	745.77	0.0400	12	745.29	0.0400	12	744.81	12	-0.0400	744.33	1269+25.00	746.20	-0.0300	12	746.56	12	-0.0400	746.08	12	-0.0400	745.60	12	-0.0400	745.12	12	-0.0400	744.64	
745.84	-0.0300	12	746.20	0.0400	12	745.72	0.0400	12	745.24	0.0400	12	744.76	12	-0.0400	744.28	1269+50.00	746.15	-0.0300	12	746.51	12	-0.0400	746.03	12	-0.0400	745.55	12	-0.0400	745.07	12	-0.0400	744.59	
745.79	-0.0300	12	746.15	0.0400	12	745.67	0.0400	12	745.19	0.0400	12	744.71	12	-0.0400	744.23	1269+75.00	746.10	-0.0300	12	746.46	12	-0.0400	745.98	12	-0.0400	745.50	12	-0.0400	745.02	12	-0.0400	744.54	
745.74	-0.0300	12	746.10	0.0400	12	745.62	0.0400	12	745.14	0.0400	12	744.66	12	-0.0400	744.18	1270+00.00	746.05	-0.030	12	746.41	12	-0.0400	745.93	12	-0.0400	745.45	12	-0.0400	744.97	12	-0.0400	744.49	
745.69	-0.0300	12	746.05	0.0400	12	745.57	0.0400	12	745.09	0.0400	12	744.61	12	-0.0400	744.13	1270+25.00	746.00	-0.030	12	746.36	12	-0.0400	745.88	12	-0.0400	745.40	12	-0.0400	744.92	12	-0.0400	744.44	
745.64	-0.0300	12	746.00	0.0400	12	745.52	0.0400	12	745.04	0.0400	12	744.56	12	-0.0400	744.08	1270+50.00	745.95	-0.030	12	746.31	12	-0.0400	745.83	12	-0.0400	745.35	12	-0.0400	744.87	12	-0.0400	744.39	
745.59	-0.0300	12	745.95	0.0400	12	745.47	0.0400	12	744.99	0.0400	12	744.51	12	-0.0400	744.03	1270+75.00	745.90	-0.030	12	746.26	12	-0.0400	745.78	12	-0.0400	745.30	12	-0.0400	744.82	12	-0.0400	744.34	
745.54	-0.0300	12	745.90	0.0400	12	745.42	0.0400	12	744.94	0.0400	12	744.46	12	-0.0400	743.98	1271+00.00	745.85	-0.030	12	746.21	12	-0.0400	745.73	12	-0.0400	745.25	12	-0.0400	744.77	12	-0.0400	744.29	
745.49	-0.0300	12	745.85	0.0400	12	745.37	0.0400	12	744.89	0.0400	12	744.41	12	-0.0400	743.93	1271+25.00	745.80	-0.030	12	746.16	12	-0.0400	745.68	12	-0.0400	745.20	12	-0.0400	744.72	12	-0.0400	744.24	
745.44	-0.0300	12	745.80	0.0400	12	745.32	0.0400	12	744.84	0.0400	12	744.36	12	-0.0400	743.88	1271+50.00	745.75	-0.030	12	746.11	12	-0.0400	745.63	12	-0.0400	745.15	12	-0.0400	744.67	12	-0.0400	744.19	
745.39	-0.0300	12	745.75	0.0400	12	745.27	0.0400	12	744.79	0.0400	12	744.31	12	-0.0400	743.83	1271+75.00	745.70	-0.030	12	746.06	12	-0.0400	745.58	12	-0.0400	745.10	12	-0.0400	744.62	12	-0.0400	744.14	
745.34	-0.0300	12	745.70	0.0400	12	745.22	0.0400	12	744.74	0.0400	12	744.26	12	-0.0400	743.78	1272+00.00	745.65	-0.030	12	746.01	12	-0.0400	745.53	12	-0.0400	745.05	12	-0.0400	744.57	12	-0.0400	744.09	
745.29	-0.0300	12	745.65	0.0400	12	745.17	0.0400	12	744.69	0.0400	12	744.21	12	-0.0400	743.73	1272+25.00	745.60	-0.030	12	745.96	12	-0.0400	745.48	12	-0.0400	745.00	12	-0.0400	744.52	12	-0.0400	744.04	
745.24	-0.0300	12	745.60	0.0400	12	745.12	0.0400	12	744.64	0.0400	12	744.16	12	-0.0400	743.68	1272+50.00	745.55	-0.030	12	745.91	12	-0.0400	745.43	12	-0.0400	744.95	12	-0.0400	744.47	12	-0.0400	743.99	
745.19	-0.0300	12	745.55	0.0400	12	745.07	0.0400	12	744.59	0.0400	12	744.11	12	-0.0400	743.63	1272+75.00	745.50	-0.030	12	745.86	12	-0.0400	745.38	12	-0.0400	744.90	12	-0.0400	744.42	12	-0.0400	743.94	
745.14	-0.0300	12	745.50	0.0400	12	745.02	0.0400	12	744.54	0.0400	12	744.06	12	-0.0400	743.58	1273+00.00	745.45	-0.030	12	745.81	12	-0.0400	745.33	12	-0.0400	744.85	12	-0.0400	744.37	12	-0.0400	743.89	
745.09	-0.0300	12	745.45	0.0400	12	744.97	0.0400	12	744.49	0.0400	12	744.01	12	-0.0400	743.53	1273+25.00	745.40	-0.030	12	745.76	12	-0.0400	745.28	12	-0.0400	744.80	12	-0.0400	744.32	12	-0.0400	743.84	
745.04	-0.0300	12	745.40	0.0400	12	744.92	0.0400	12	744.44	0.0400	12	743.96	12	-0.0400	743.48	1273+50.00	745.35	-0.030	12	745.71	12	-0.0400	745.23	12	-0.0400	744.75	12	-0.0400	744.27	12	-0.0400	743.79	
744.99	-0.0300	12	745.35	0.0400	12	744.87	0.0400	12	744.39	0.0400	12	743.91	12	-0.0400	743.43	1273+75.00	745.30	-0.030	12	745.66	12	-0.0400	745.18	12	-0.0400	744.70	12	-0.0400	744.22	12	-0.0400	743.74	
744.94	-0.0300	12	745.30	0.0400	12	744.82	0.0400	12	744.34	0.0400	12	743.86	12	-0.0400	743.38	1274+00.00	745.25	-0.030	12	745.61	12	-0.0400	745.13	12	-0.0400	744.65	12	-0.0400	744.17	12	-0.0400	743.69	
744.89	-0.0300	12	745.25	0.0400	12	744.77	0.0400	12	744.29	0.0400	12	743.81	12	-0.0400	743.33	1274+25.00	745.20	-0.030	12	745.56	12	-0.0400	745.08	12	-0.0400	744.60	12	-0.0400	744.12	12	-0.0400	743.64	
744.84	-0.0300	12	745.20	0.0400	12	744.72	0.0400	12	744.24	0.0400	12	743.76	12	-0.0400	743.28	1274+50.00	745.15	-0.030	12	745.51	12	-0.0400	745.03	12	-0.0400	744.55	12	-0.0400	744.07	12	-0.0400	743.59	
744.79	-0.0300	12	745.15	0.0400	12	744.67	0.0400	12	744.19	0.0400	12	743.71	12	-0.0400	743.23	1274+75.00	745.10	-0.030	12	745.46	12	-0.0400	744.98	12	-0.0400	744.50	12	-0.0400	744.02	12	-0.0400	743.54	
744.74	-0.0300	12	745.10	0.0400	12	744.62	0.0400	12	744.14	0.0400	12	743.66	12	-0.0400	743.18	1275+00.00	745.05	-0.030	12	745.41	12	-0.0400	744.93	12	-0.0400	744.45	12	-0.0400	743.97	12	-0.0400	743.49	
744.69	-0.0300	12	745.05	0.0400	12	744.57	0.0400	12	744.09	0.0400	12	743.61	12	-0.0400	743.13	1275+25.00	745.00	-0.030	12	745.36	12	-0.0400	744.88	12	-0.0400	744.40	12	-0.0400	743.92	12	-0.0400	743.44	
744.64	-0.0300	12	745.00	0.0400	12	744.52	0.0400	12	744.04	0.0400	12	743.56	12	-0.0400	743.08	1275+50.00	744.95	-0.030	12	745.31	12	-0.0400	744.83	12	-0.0400	744.35	12	-0.0400	743.87	12	-0.0400	743.39	
744.59	-0.0300	12	744.95	0.0400	12	744.47	0.0400	12	743.99	0.0400	12	743.51	12	-0.0400	743.03	1275+75.00	744.90	-0.030	12	745.26	12	-0.0400	744.78	12	-0.0400	744.30	12	-0.0400	743.82	12	-0.0400	743.34	
744.54	-0.0300	12	744.90	0.0400	12	744.42	0.0400	12	743.94	0.0400	12	743.46	12	-0.0400	742.98	1276+00.00	744.85	-0.030	12	745.21	12	-0.0400	744.73	12	-0.0400	744.25	12	-0.0400	743.77	12	-0.0400	743.29	
744.49	-0.0300	12	744.85	0.0400	12	744.37	0.0400	12	743.89	0.0400	12	743.41	12	-0.0400	742.93	1276+25.00	744.80	-0.030	12	745.16	12	-0.0400	744.68	12	-0.0400	744.20	12	-0.0400	743.72	12	-0.0400	743.24	
744.44	-0.0300	12	744.80	0.0400	12	744.32	0.0400	12	743.84	0.0400	12	743.36	12	-0.0400	742.88	1276+50.00	744.75	-0.030	12	745.11	12	-0.0400	744.63	12	-0.0400	744.15	12	-0.0400	743.67	12	-0.0400	743.19	
744.39	-0.0300	12	744.75	0.0400	12	744.27	0.0400	12	743.79	0.0400	12	743.31	12	-0.0400	742.83	1276+75.00	744.70	-0.030	12	745.06	12	-0.0400	744.58	12	-0.0400	744.10	12	-0.0400	743.62	12	-0.0400	743.14	
744.34	-0.0300	12	744.70	0.0400	12	744.22	0.0400	12	743.74	0.0400	12	743.26	12	-0.0400	742.78	1277+00.00	744.65	-0.030	12	745.01	12	-0.0400	744.53	12	-0.0400	744.05	12	-0.0400	743.57	12	-0.0400	743.09	
744.29	-0.0300	12	744.65	0.0400	12	744.17	0.0400	12	743.69	0.0400	12	743.21	12	-0.0400	742.73	1277+25.00	744.60	-0.030	12	744.96	12	-0.0400	744.48	12	-0.0400	744.00	12	-0.0400	743.52	12	-0.0400	743.04	
744.24	-0.0300	12	744.60	0.0400	12	744.12	0.0400	12	743.64	0.0400	12	743.16	12	-0.0400	742.68	1277+50.00	744.55	-0.030	12	744.91	12	-0.0400	744.43	12	-0.0400	743.95	12	-0.0400	743.47	12	-0.0400	742.99	
744.19	-0.0300	12	744.55	0.0400	12	744.07	0.0400	12	743.59	0.0400	12	743.11	12	-0.0400	742.63	1277+75.00	744.50	-0.030	12	744.86	12	-0.0400	744.38	12	-0.0400	743.90	12	-0.0400	743.42	12	-0.0400	742.94	
744.14	-0.0300	12	744.50	0.0400	12	744.02	0.0400	12	743.54	0.0400	12	743.06	12	-0.0400	742.58	1278+00.00	744.45	-0.030	12	744.81	12	-0.0400	744.33	12	-0.0400	743.85	12	-0.0400	743.37	12	-0.0400	742.89	
744.09	-0.0300	12	744.45	0.0400	12	743.97	0.0400	12	743.49	0.0400	12	743.01	12	-0.0400	742.53	1278+25.00	744.40	-0.030	12	744.76	12	-0.0400	744.28	12	-0.0400	743.80	12	-0.0400	743.32	12	-0.0400	742.84	
744.04	-0.0300	12	744.40	0.0400	12	743.92	0.0400	12	743.44	0.0400	12	742.96	12	-0.0400	742.48	1278+50.00	744.35	-0.030	12	744.71	12	-0.0400	744.23	12	-0.0400	743.75	12	-0.0400	743.27	12	-0.0400	742.79	
743.99	-0.0300	12	744.35	0.0400	12	743.87	0.0400	12	743.39	0.0400	12	742.91	12	-0.0400	742.43	1278+75.00	744.30	-0.030	12	744.66	12	-0.0400	744.18	12	-0.0400	743.70	12	-0.0400	743.22	12	-0.0400	742.74	
743.94	-0.0300	12	744.30	0.0400	12	743.82	0.0400	12	743.34	0.0400	12	742.86	12	-0.0400	742.38	1279+00.00	744.25	-0.030	12	744.61	12	-0.0400	744.13	12	-0.0400	743.65	12	-0.0400	743.17	12	-0.0400	742.69	
743.89	-0.0300	12	744.25	0.0400	12	743.77	0.0400	12	743.29	0.0400	12	742.81	12	-0.0400	742.33	1279+25.00	744.20	-0.030	12	744.56	12	-0.0400	744.08	12	-0.0400	743.60	12	-0.0400	743.12	12	-0.0400	742.64	
743.84	-0.0300	12	744.20	0.0400	12	743.72	0.0400	12	743.24	0.0400	12	742.76	12	-0.0400	742.28	1279+50.00	744.15	-0.030	12	744.51	12	-0.0400	744.03	12	-0.0400	743.55	12	-0.0400	743.07	12	-0.0400	742.59	
743.79	-0.0300	12	744.15	0.0400	12	743.67	0.0400	12	743.19	0.0400	12	742.71	12	-0.0400	742.23	1279+75.00	744.10	-0.030	12	744.46	12	-0.0400	743.98	12	-0.0400	743.50	12	-0.0400	743.02	12	-0.0400	742.54	
743.74	-0.0300	12	744.10	0.0400	12	743.62	0.0400	12	743.14	0.0400	12	742.66	12	-0.0400	742.18	1280+00.00	744.05	-0.030	12	744.41	12	-0.0400	743.93	12	-0.0400	743.45	12	-0.0400	742.97	12	-0.0400	742.49	
743.69	-0.0300	12	744.05	0.0400	12	743.57	0.0400	12	743.09	0.0400	12	742.61	12	-0.0400	742.13	1280+25.00	744.00	-0.030	12	744.36	12	-0.0400	743.88	12	-0.0400	743.40	12	-0.0400	742.92	12	-0.0400	742.44	
743.64	-0.0300	12	744.00	0.0400	12	743.52	0.0400	12	743.04	0.0400	12	742.56	12	-0.0400	742.08	1280+50.00	743.95	-0.030	12	744.31	12	-0.0400	743.83	12	-0.0400	743.35	12	-0.0400	742.87	12	-0.0400	742.39	
743.59	-0.0300	12	743.95	0.0400	12	743.47	0.0400	12	742.99	0.0400	12	742.51	12	-0.0400	742.03	1280+75.00	743.90	-0.030	12	744.26	12	-0.0400	743.78	12	-0.0400	743.30	12	-0.0400	742.82	12	-0.0400	742.34	
743.54	-0.0300	12	743.90	0.0400	12	743.42	0.0400	12	742.94	0.0400	12	742.46	12	-0.0400	741.98	1281+00.00	743.85	-0.030	12	744.21	12	-0.0400	743.73	12	-0.0400	743.25	12	-0.0400	742.77	12	-0.0400	742.29	
743.49	-0.0300	12	743.85	0.0400	12	743.37	0.0400	12	742.89	0.0400	12	742.41	12	-0.0400	741.93	1281+25.00	743.80	-0.030	12	744.16	12	-0.0400	743.68	12	-0.0400	743.20	12	-0.0400	742.72	12	-0.0400	742.24	
743.44	-0.0300	12	743.80	0.0400	12	743.32	0.0400	12	742.84	0.0400	12	742.36	12	-0.0400	741.88	1281+50.00	743.75	-0.030	12	744.11	12	-0.0400	743.63	12	-0.0400	743.15	12	-0.0400	742.67	12	-0.0400	742.19	
743.40	-0.0300	12	743.76	0.0400	12	743.28	0.0400	12	742.80	0.0400	12	742.32	12	-0.0400	741.84	1281+75.00	743.70	-0.030	12	744.06	12	-0.0400	743.58	12	-0.0400	743.10	12	-0.0400	742.62	12	-0.0400	742.14	
743.36	-0.0300	12	743.72	0.0400	12	743.24	0.0400	12	742.76	0.0400	12	742.28	12	-0.0400	741.80	1282+00.00	743.65	-0.030	12	744.01	12	-0.0400	743.53	12	-0.0400	743.05	12	-0.0400	742.57	12	-0.0400	742.09	
743.33	-0.0300	12	743.69	0.0400	12	743.21	0.0400	12	742.73	0.0400	12	742.25	12	-0.0400	741.77	1282+25.00	743.57	-0.030	12	743.93	12	-0.0400	743.45	12	-0.0400	742.97	12	-0.0400	742.49	12	-0.0400	742.01	
743.31	-0.0300	12	743.67	0.0400	12	743.19	0.0400	12	742.71	0.0400	12	742.23	12	-0.0400	741.75	1282+50.00	743.49	-0.030	12	743.85	12	-0.0400	743.37	12	-0.0400	742.89	12	-0.0400	742.41	12	-0.0400	741.93	
743.31	-0.0300	12	743.67	0.0400	12	743.19	0.0400	12	742.71	0.0400	12	742.23	12	-0.0400	741.75	1282+75.00	743.41	-0.030	12	743.77	12	-0.0400	743.29	12	-0.0400	742.81	12	-0.0400	742.33	12	-0.0400	741.85	
743.31	-0.0300	12	743.67	0.0400	12	743.19	0.0400	12	742.71	0.0400	12	742.23	12	-0.0400	741.75	1283+00.00	743.33	-0.030	12	743.69	12	-0.0400	743.21	12	-0.0400	742.73	12	-0.0400	742.25	12	-0.0400	741.77	
743.31	-0.0300	12	743.67	0.0400	12	743.19	0.0400	12	742.71	0.0400	12	742.23	12	-0.0400	741.75	1283+09.09	743.30	-0.030	12	743.66	12	-0.0400	743.18	12	-0.0400	742.70	12	-0.0400	742.22	12	-0.0400	741.74	FS
743.24	-0.0317	12	743.62	0.0383	12	743.16	0.0383	12	742.70	0.0383	12	742.24	12	-0.0400	741.76	1283+25.00	743.23	-0.032	12	743.61	12	-0.0383	743.15	12	-0.0383	742.69	12	-0.0383	742.23	12	-0.0400	741.75	
743.14	-0.0343	12	743.55	0.0357	12	743.12	0.0357	12	742.69	0.0357	12	742.26	12	-0.0400	741.78	1283+50.00	743.12	-0.034	12	743.53	12	-0.0357	743.10	12	-0.0357	742.67	12	-0.0357	742.24	12	-0.0400	741.76	
743.05	-0.0370	12	743.49	0.0330	12	743.09	0.0330	12	742.69	0.0330	12	742.29	12	-0.0400	741.81	1283+75.00	743.01	-0.037	12	743.45	12	-0.0330	743.05	12	-0.0330	742.65	12	-0.0330	742.25	12	-0.0400	741.77	

SUPERELEVATION TABLE

HAN/WOO-75-19.22/0.00

HAN/WOO-75-19.22/0.00 - SUPERELEVATION TABLE

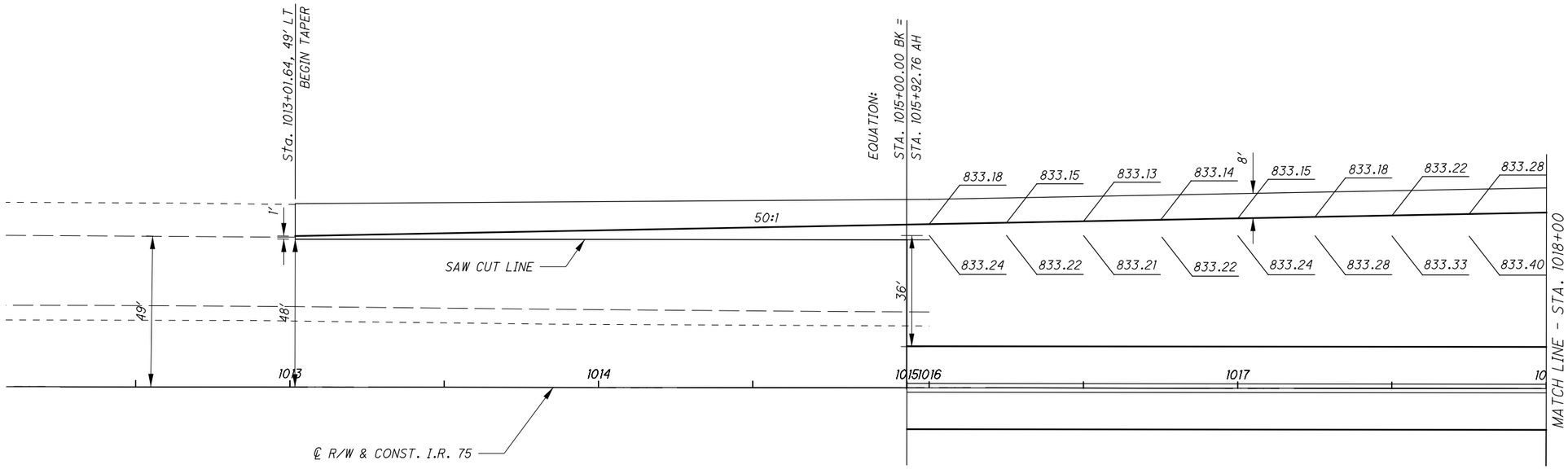
P.I. STA. 1269+84.44 | Dc = 1° 00' 00"

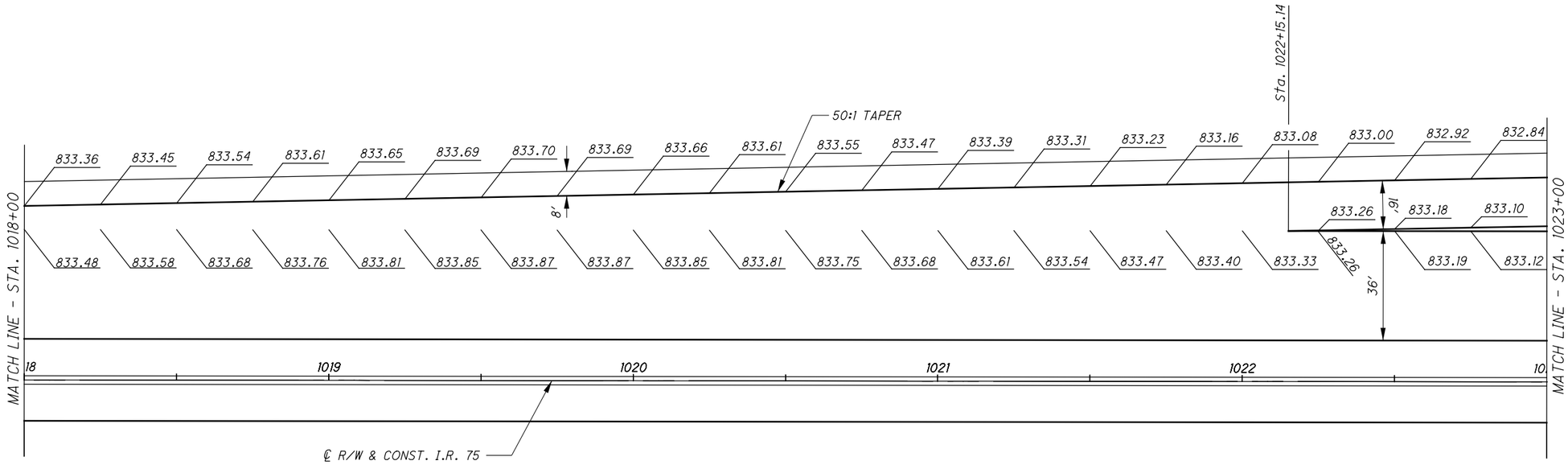
SOUTHBOUND LANES																	NORTHBOUND LANES																
OUTSIDE SHOULDER			LANE			LANE			LANE				INSIDE SHOULDER				INSIDE SHOULDER				LANE			LANE			LANE			OUTSIDE SHOULDER			
ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	STATION	ELEVATION	CROSS SLOPE	WIDTH	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	WIDTH	CROSS SLOPE	ELEVATION	REMARKS
742.94	-0.0396	12	743.42	0.0304	12	743.06	0.0304	12	742.70	0.0304	12	742.33	12	-0.0400	741.85	1284+00.00	742.89	-0.0396	12	743.37	12	-0.0304	743.01	12	-0.0304	742.65	12	-0.0304	742.29	12	-0.0400	741.81	
742.90	-0.0400	12	743.38	0.0278	12	743.05	0.0278	12	742.72	0.0278	12	742.38	12	-0.0400	741.90	1284+25.00	742.81	-0.0400	12	743.29	12	-0.0278	742.96	12	-0.0278	742.63	12	-0.0278	742.30	12	-0.0400	741.82	
742.85	-0.0400	12	743.33	0.0253	12	743.03	0.0253	12	742.73	0.0253	12	742.43	12	-0.0400	741.95	1284+47.94	742.74	-0.0400	12	743.22	12	-0.0253	742.91	12	-0.0253	742.61	12	-0.0253	742.31	12	-0.0400	741.83	PT
742.85	-0.0400	12	743.33	0.0251	12	743.03	0.0251	12	742.73	0.0251	12	742.43	12	-0.0400	741.95	1284+50.00	742.73	-0.0400	12	743.21	12	-0.0251	742.91	12	-0.0251	742.61	12	-0.0251	742.31	12	-0.0400	741.83	
742.81	-0.0400	12	743.29	0.0225	12	743.02	0.0225	12	742.75	0.0225	12	742.48	12	-0.0400	742.00	1284+75.00	742.65	-0.0400	12	743.13	12	-0.0225	742.86	12	-0.0225	742.59	12	-0.0225	742.32	12	-0.0400	741.84	
742.77	-0.0400	12	743.25	0.0198	12	743.01	0.0198	12	742.77	0.0198	12	742.53	12	-0.0400	742.05	1285+00.00	742.58	-0.0400	12	743.06	12	-0.0198	742.82	12	-0.0198	742.58	12	-0.0198	742.34	12	-0.0400	741.86	
742.73	-0.0400	12	743.21	0.0172	12	743.00	0.0172	12	742.79	0.0172	12	742.58	12	-0.0400	742.10	1285+25.00	742.52	-0.0400	12	743.00	12	-0.0172	742.79	12	-0.0172	742.58	12	-0.0172	742.37	12	-0.0400	741.89	
742.70	-0.0400	12	743.18	0.0160	12	742.99	0.0160	12	742.80	0.0160	12	742.61	12	-0.0400	742.13	1285+36.31	742.49	-0.0400	12	742.97	12	-0.0160	742.78	12	-0.0160	742.59	12	-0.0160	742.40	12	-0.0400	741.92	
742.68	-0.0400	12	743.16	0.0138	12	742.99	0.0138	12	742.82	0.0160	12	742.63	12	-0.0400	742.15	1285+50.00	742.47	-0.0400	12	742.95	12	-0.0117	742.81	12	-0.0160	742.62	12	-0.0160	742.43	12	-0.0400	741.95	
742.63	-0.0400	12	743.11	0.0099	12	742.99	0.0099	12	742.87	0.0160	12	742.68	12	-0.0400	742.20	1285+75.00	742.43	-0.0400	12	742.91	12	-0.0037	742.87	12	-0.0160	742.68	12	-0.0160	742.49	12	-0.0400	742.01	
742.62	-0.0400	12	743.10	0.0080	12	743.00	0.0080	12	742.90	0.0160	12	742.71	12	-0.0400	742.23	1285+86.81	742.42	-0.0400	12	742.90	12	0.0000	742.90	12	-0.0160	742.71	12	-0.0160	742.52	12	-0.0400	742.04	1/2 LEVEL NB
742.58	-0.0400	12	743.06	0.0059	12	742.99	0.0059	12	742.92	0.0160	12	742.73	12	-0.0400	742.25	1286+00.00	742.41	-0.0400	12	742.89	12	0.0042	742.94	12	-0.0160	742.75	12	-0.0160	742.56	12	-0.0400	742.08	
742.53	-0.0400	12	743.01	0.0020	12	742.99	0.0020	12	742.97	0.0160	12	742.78	12	-0.0400	742.30	1286+25.00	742.40	-0.0400	12	742.88	12	0.0121	743.03	12	-0.0160	742.84	12	-0.0160	742.65	12	-0.0400	742.17	
742.52	-0.0400	12	743.00	0.0000	12	743.00	0.0000	12	743.00	0.0160	12	742.81	12	-0.0400	742.33	1286+37.31	742.40	-0.0400	12	742.88	12	0.0160	743.08	12	-0.0160	742.89	12	-0.0160	742.70	12	-0.0400	742.22	1/2 LEVEL SB, NORMAL NB
742.50	-0.0400	12	742.98	-0.0020	12	743.00	-0.0020	12	743.02	0.0160	12	742.83	12	-0.0400	742.35	1286+50.00	742.41	-0.0400	12	742.89	12	0.0160	743.08	12	-0.0160	742.89	12	-0.0160	742.70	12	-0.0400	742.22	
742.45	-0.0400	12	742.93	-0.0060	12	743.00	-0.0060	12	743.07	0.0160	12	742.88	12	-0.0400	742.40	1286+75.00	742.43	-0.0400	12	742.91	12	0.0160	743.10	12	-0.0160	742.91	12	-0.0160	742.72	12	-0.0400	742.24	
742.40	-0.0400	12	742.88	-0.0099	12	743.00	-0.0099	12	743.12	0.0160	12	742.93	12	-0.0400	742.45	1287+00.00	742.46	-0.0400	12	742.94	12	0.0160	743.13	12	-0.0160	742.94	12	-0.0160	742.75	12	-0.0400	742.27	
742.35	-0.0400	12	742.83	-0.0139	12	743.00	-0.0139	12	743.17	0.0160	12	742.98	12	-0.0400	742.50	1287+25.00	742.50	-0.0400	12	742.98	12	0.0160	743.17	12	-0.0160	742.98	12	-0.0160	742.79	12	-0.0400	742.31	
742.34	-0.0400	12	742.82	-0.0160	12	743.01	-0.0160	12	743.20	0.0160	12	743.01	12	-0.0400	742.53	1287+38.30	742.53	-0.0400	12	743.01	12	0.0160	743.20	12	-0.0160	743.01	12	-0.0160	742.82	12	-0.0400	742.34	

CALCULATED CMS
CHECKED RJM

SUPERELEVATION TABLE

HAN/WOO-75-19.22/0.00





N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND T.R. 99 - RAMP A

HAN/WOO-75-19.22/0.00

226
336

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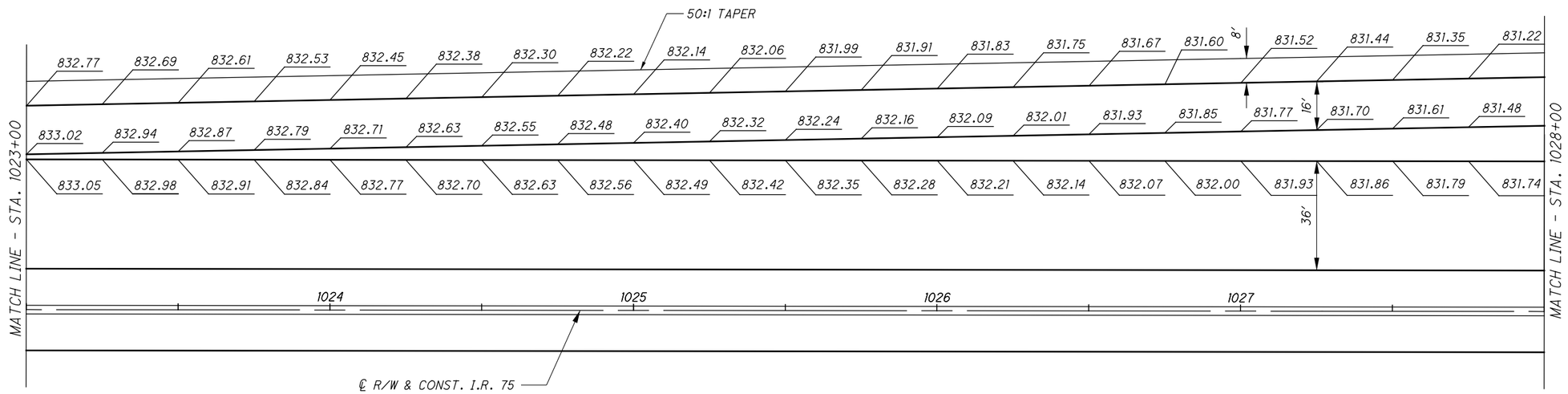

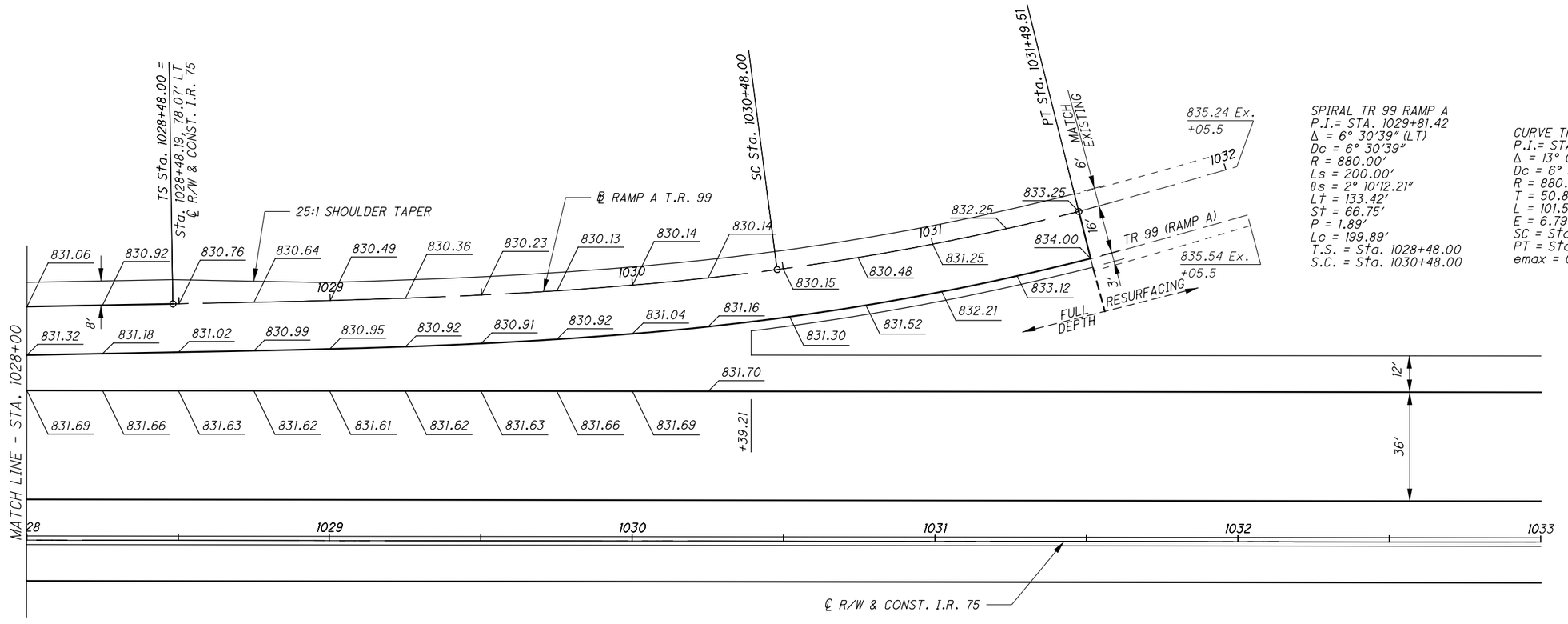

SPIRAL TR 99 RAMP A
P.I.= STA. 1029+81.42
Δ = 6° 30′39″ (LT)
Dc = 6° 30′39″
R = 880.00′
Ls = 200.00′
θs = 2° 10′12.21″
Lt = 133.42′
St = 66.75′
P = 1.89′
Lc = 199.89′
T.S. = Sta. 1028+48.00
S.C. = Sta. 1030+48.00

CURVE TR 99 RAMP A
P.I.= STA. 1030+41.03
Δ = 13° 07′13″ (LT)
Dc = 6° 30′39″
R = 880.00′
T = 50.81′
L = 101.51′
E = 6.79′
SC = Sta. 1030+48.00
PT = Sta. 1031+49.51
emax = 0.072

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND T.R. 99 - RAMP A

HAN/WOO-75-19.22/0.00

227
336

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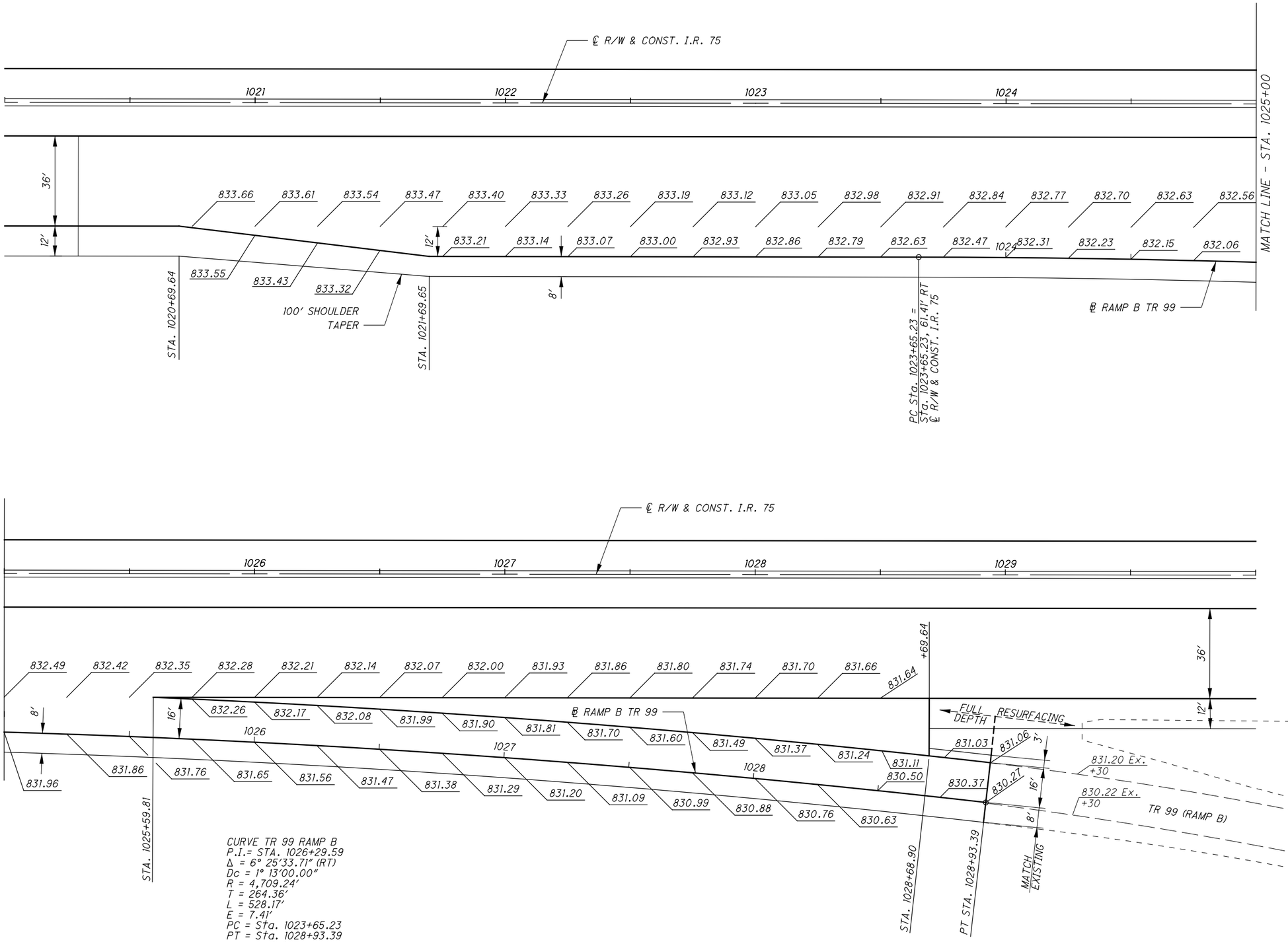

CURVE TR 99 RAMP B
P.I.= STA. 1026+29.59
Δ = 6° 25′33.71″ (RT)
Dc = 1° 13′00.00″
R = 4,709.24′
T = 264.36′
L = 528.17′
E = 7.41′
PC = Sta. 1023+65.23
PT = Sta. 1028+93.39
emax = 0.038

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND T.R. 99 - RAMP B

HAN/WOO-75-19.22/0.00

228
336

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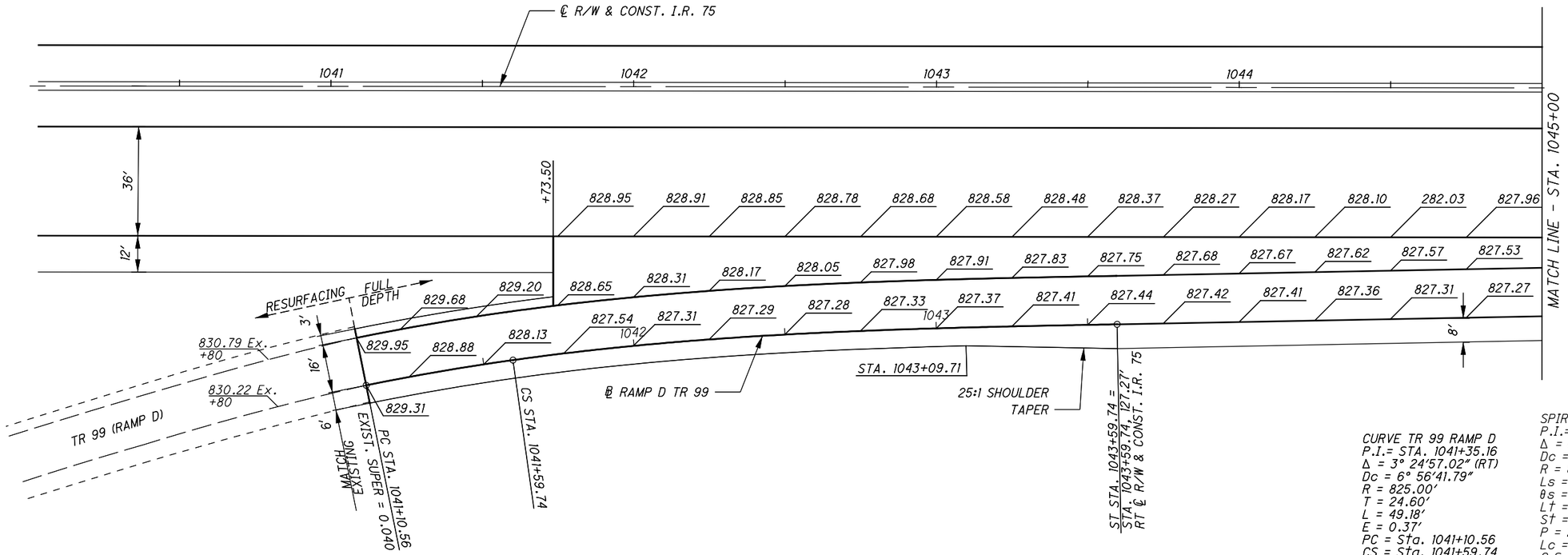
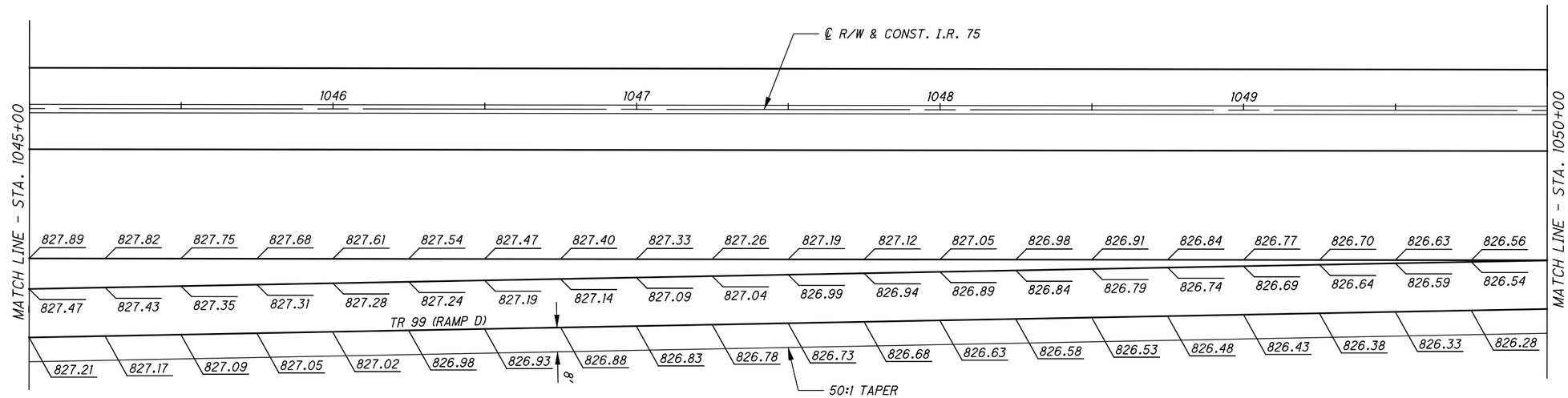


CURVE TR 99 RAMP D
P.I.= STA. 1041+35.16
Δ = 3° 24'57.02" (RT)
Dc = 6° 56'41.79"
R = 825.00'
T = 24.60'
L = 49.18'
E = 0.37'
PC = Sta. 1041+10.56
CS = Sta. 1041+59.74
emax = 0.074

SPIRAL TR 99 RAMP D
P.I.= STA. 1042+26.50
Δ = 6° 56'41.79" (RT)
Dc = 6° 56'41.79"
R = 825.00'
Ls = 200.00'
θs = 2° 18'52.89"
Lt = 133.44'
St = 66.76'
P = 2.02'
Lc = 199.87'
C.S. = Sta. 1041+59.74
S.T. = Sta. 1043+59.74



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND T.R. 99 - RAMP D

HAN/WOO-75-19.22/0.00

229
336

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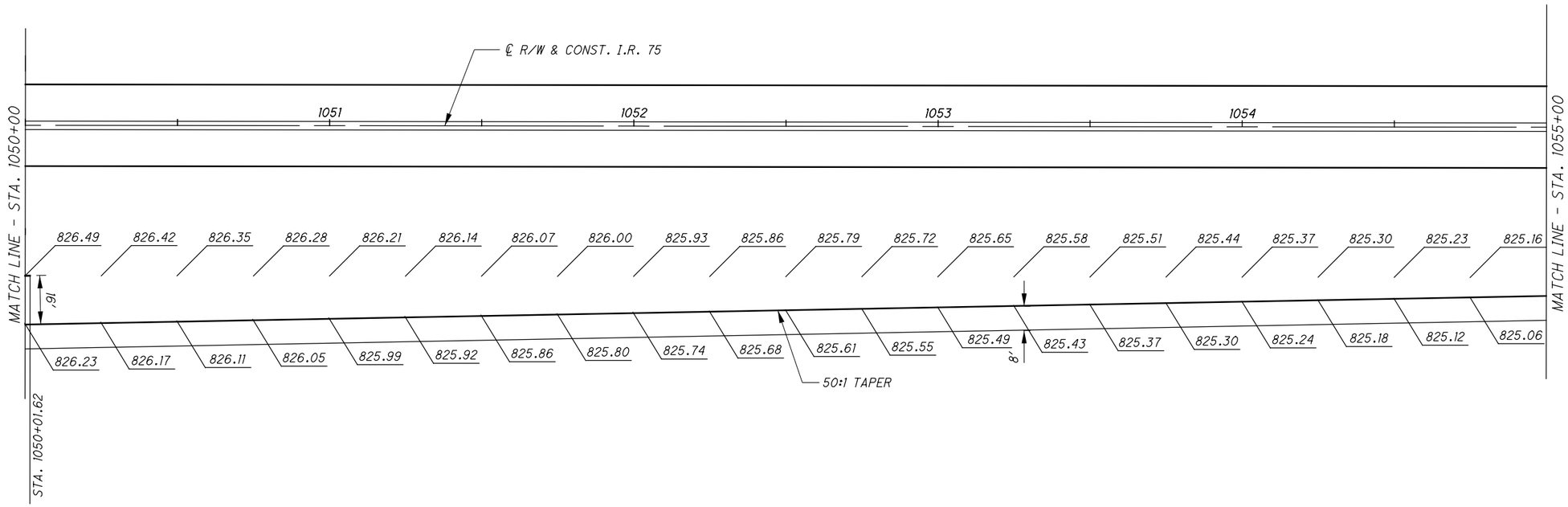

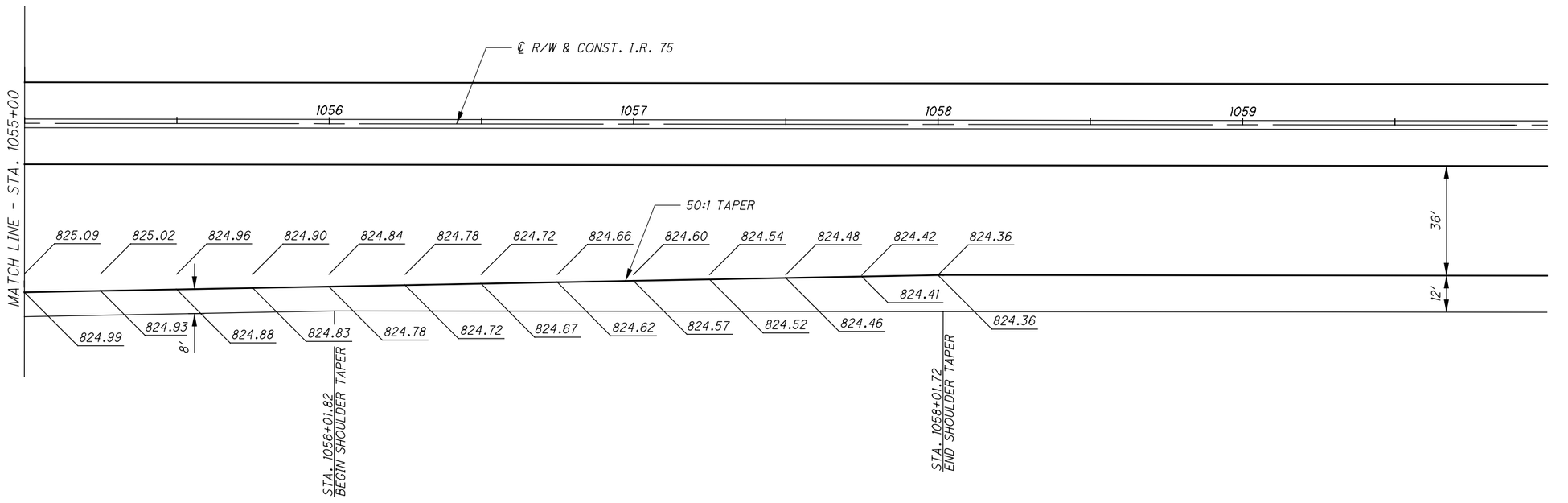

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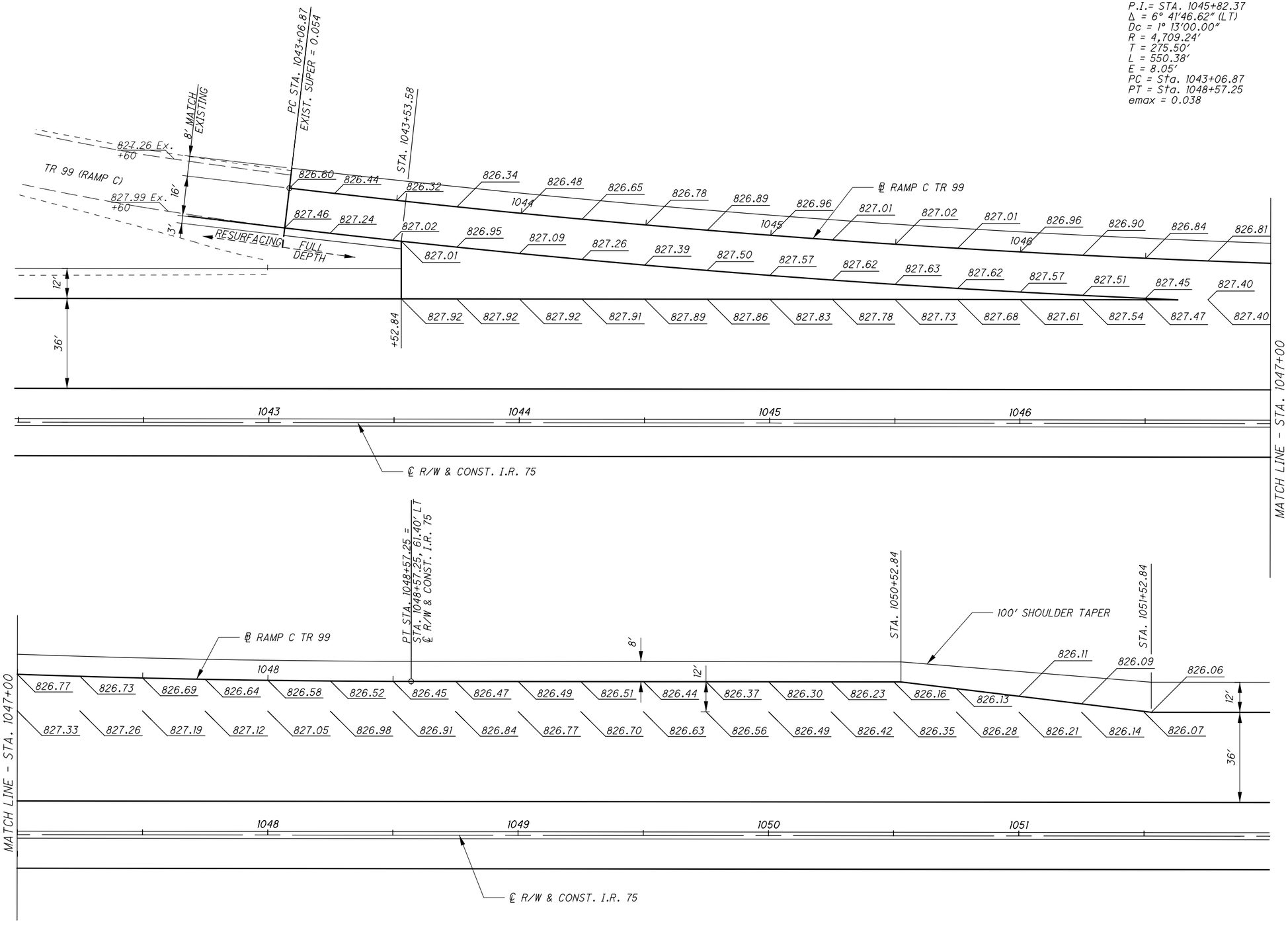
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND T.R. 99 - RAMP D

HAN/WOO-75-19.22/0.00



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND T.R. 99 - RAMP C

HAN/ WOO-75-19.22/ 0.00

231
336

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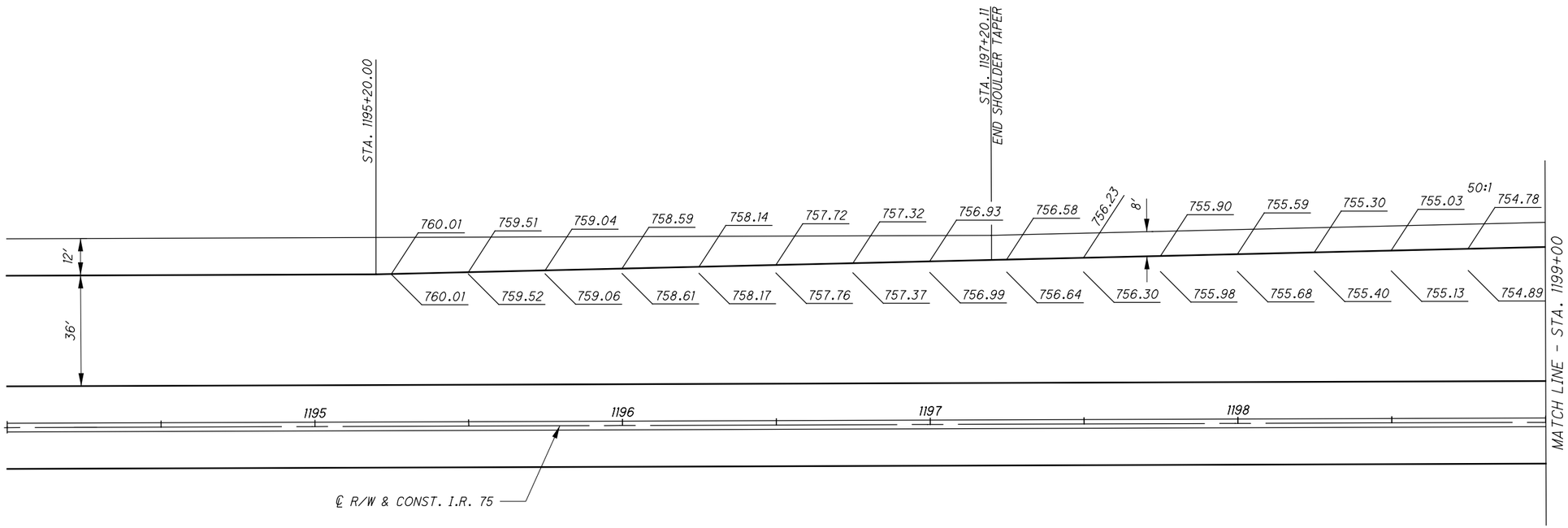

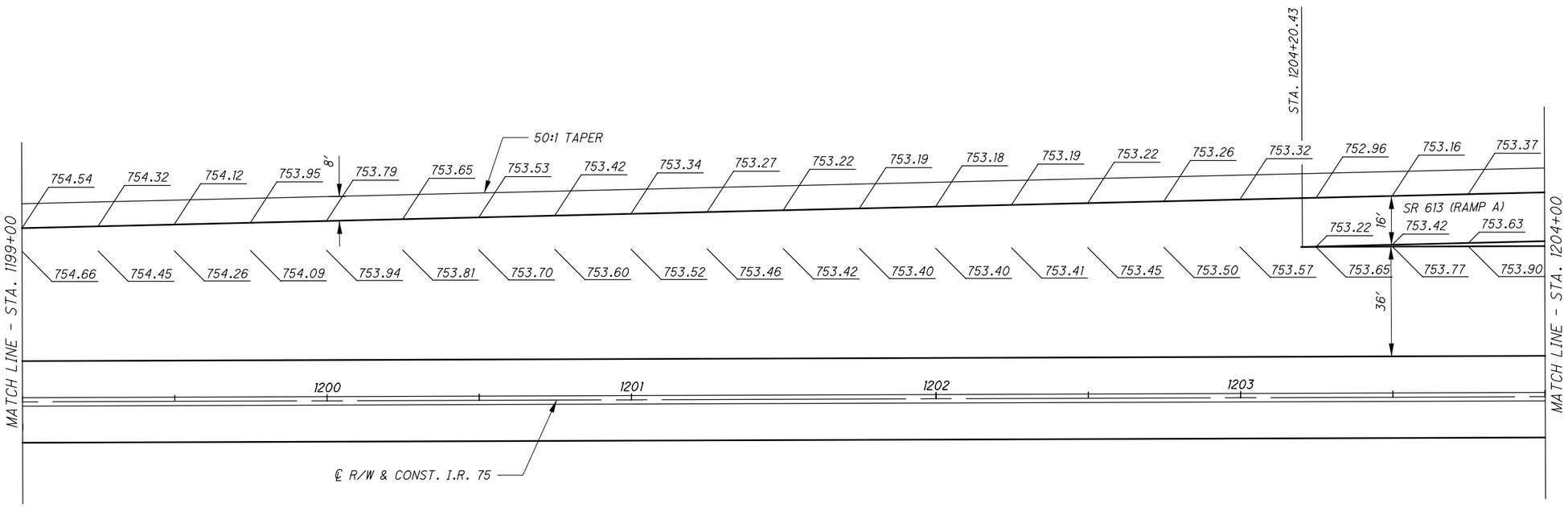

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND S.R. 613 - RAMP A

HAN/WOO-75-19.22/0.00

232
336

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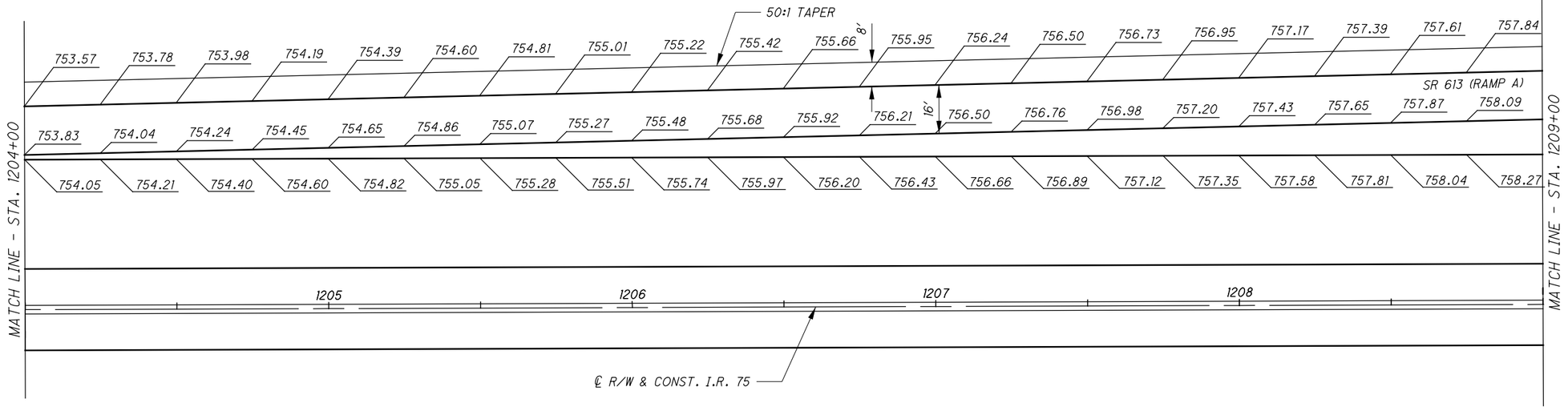

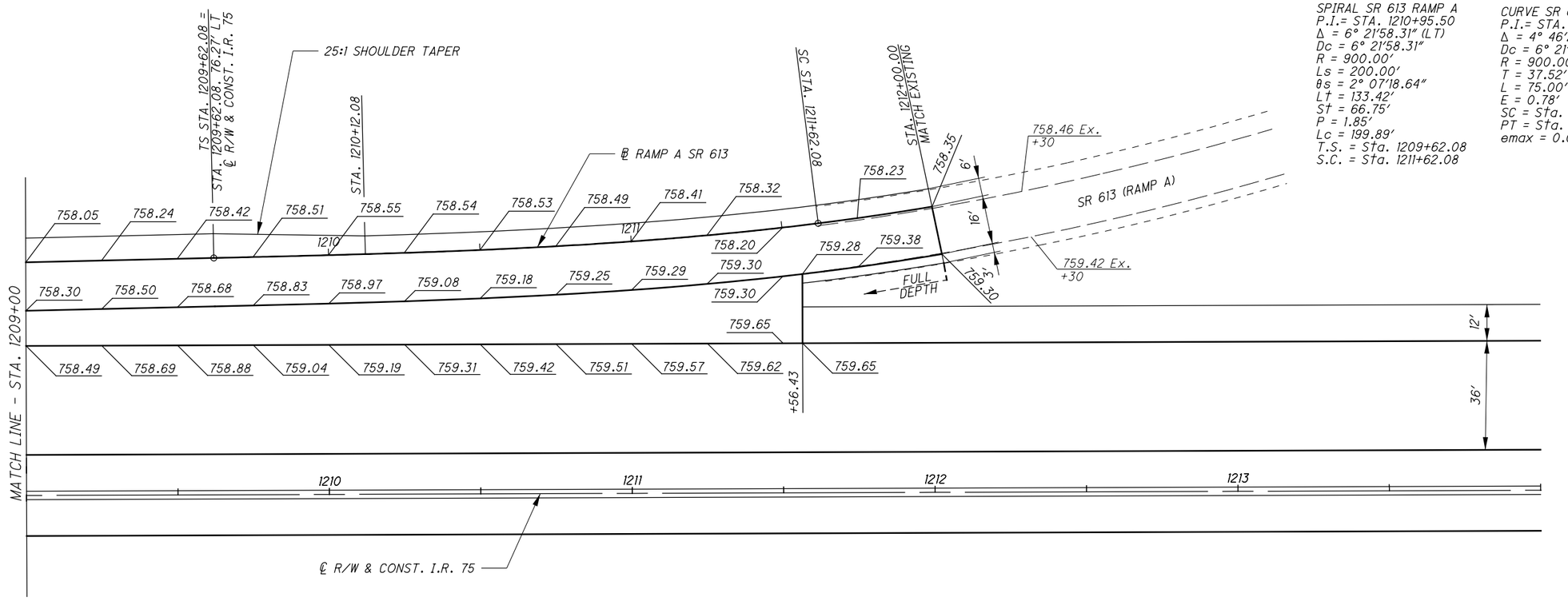

SPIRAL SR 613 RAMP A
P.I.= STA. 1210+95.50
Δ = 6° 21'58.31" (LT)
Dc = 6° 21'58.31"
R = 900.00'
Ls = 200.00'
θs = 2° 07'18.64"
Lt = 133.42'
St = 66.75'
P = 1.85'
Lc = 199.89'
T.S. = Sta. 1209+62.08
S.C. = Sta. 1211+62.08

CURVE SR 613 RAMP A
P.I.= STA. 1211+99.60
Δ = 4° 46'28.73" (LT)
Dc = 6° 21'58.31"
R = 900.00'
T = 37.52'
L = 75.00'
E = 0.78'
SC = Sta. 1211+62.08
PT = Sta. 1212+37.08
emax = 0.072

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND S.R. 613 - RAMP A

HAN/WOO-75-19.22/0.00

233
336

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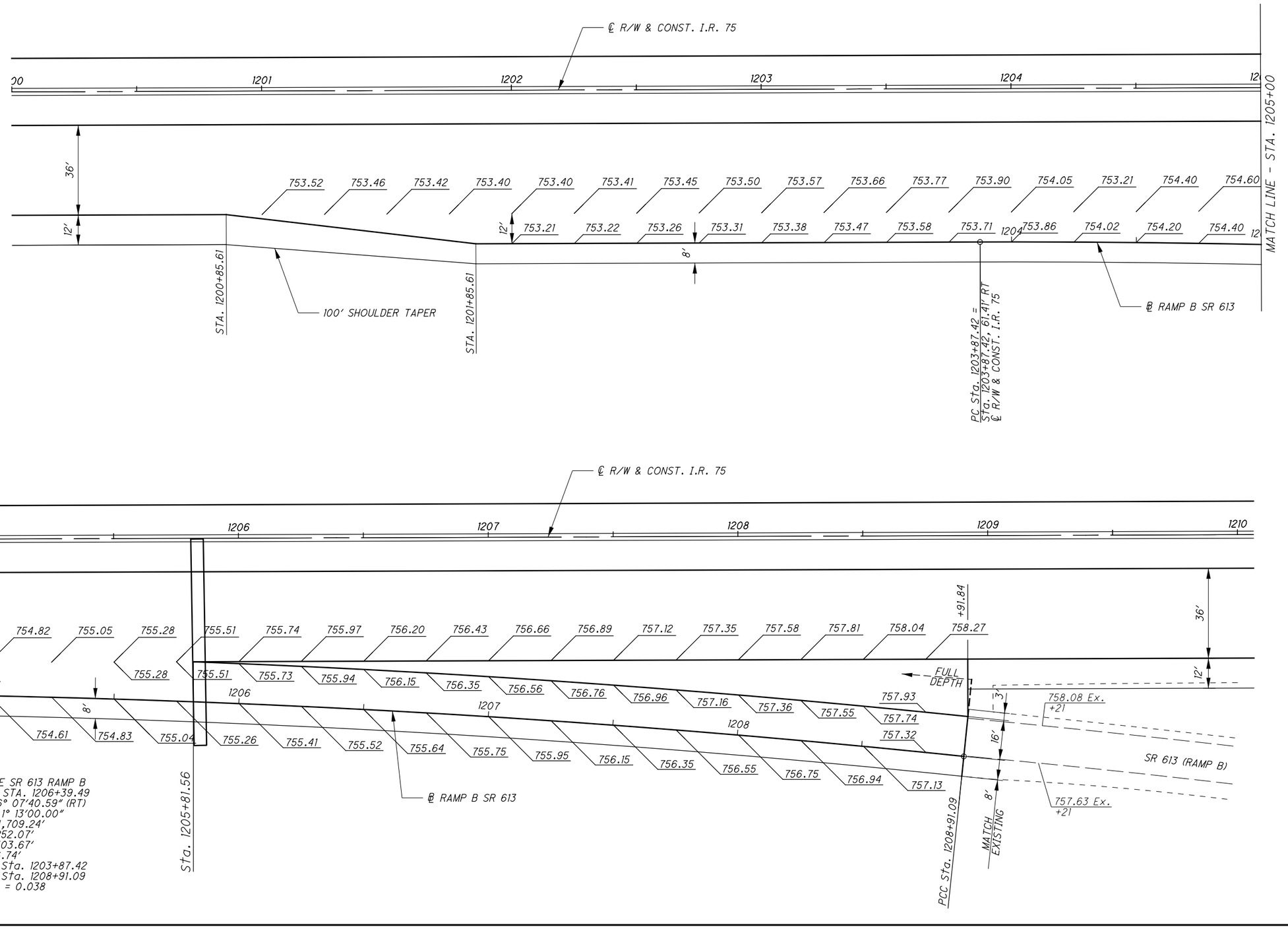


N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND S.R. 613 - RAMP B

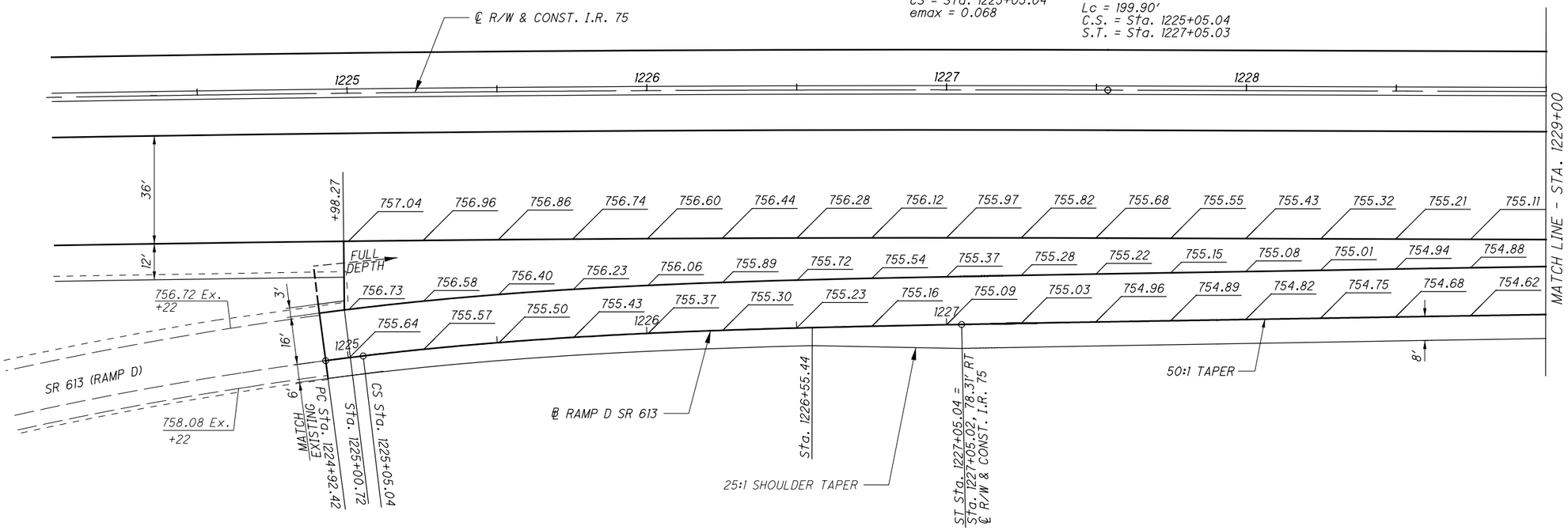
HAN/WOO-75-19.22/0.00

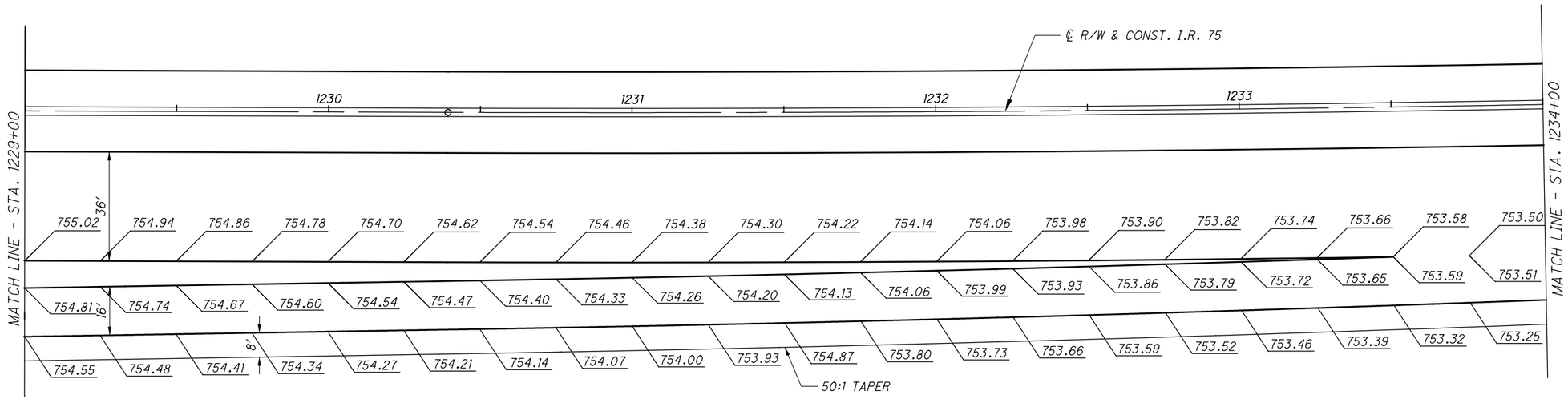
234
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\95437gi028.dgn 3/18/2015 4:41:22 PM CMN

CURVE SR 613 RAMP D
P.I.= STA. 1224+98.73
Δ = 0° 43'22.78" (RT)
Dc = 5° 43'46.48"
R = 1,000.00'
T = 6.31'
L = 12.62'
E = 0.02'
PC = Sta. 1224+92.42
CS = Sta. 1225+05.04
emax = 0.068

SPIRAL SR 613 RAMP D
P.I.= STA. 1225+71.77
Δ = 5° 43'45.45" (RT)
Dc = 5° 43'46.48"
R = 1,000.00'
Ls = 200.00'
θs = 1° 54'34.57"
Lt = 133.40'
St = 66.73'
P = 1.67'
Lc = 199.90'
C.S. = Sta. 1225+05.04
S.T. = Sta. 1227+05.03





HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND S.R. 613 - RAMP D

HAN/WOO-75-19.22/0.00

235
336

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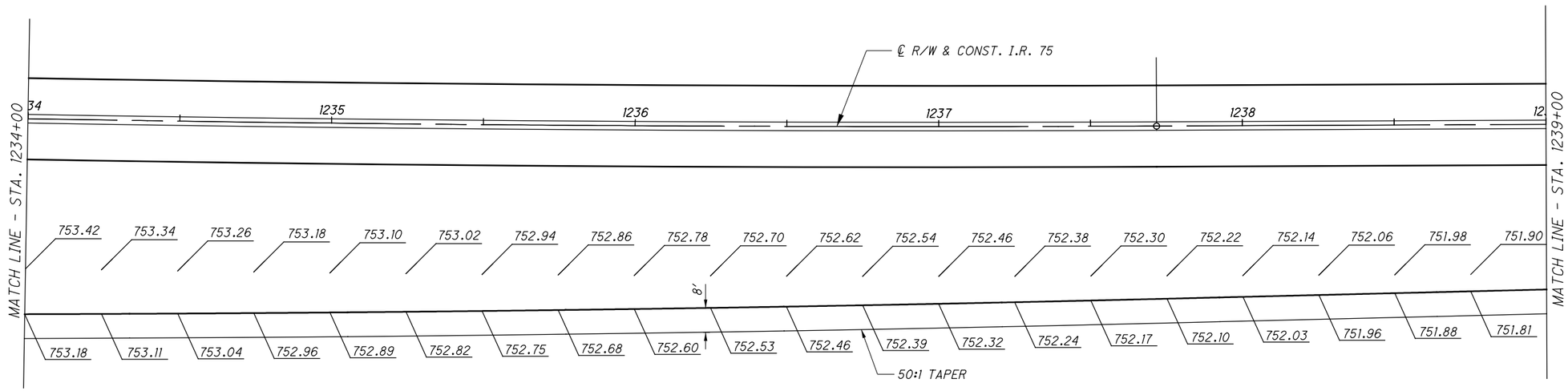

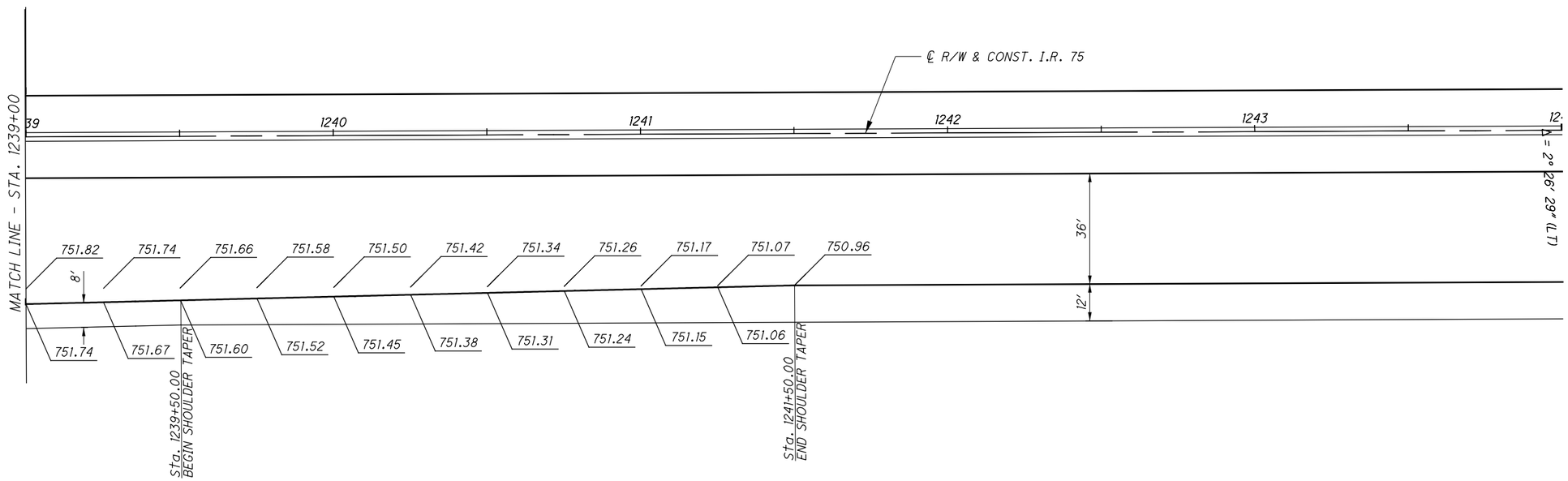

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND S.R. 613 - RAMP D

HAN/WOO-75-19.22/0.00

236
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\rdwy\95437gi030.dgn 3/18/2015 4:41:24 PM CMN

CURVE SR 613 RAMP C
P.I.= STA. 1229+93.96
Δ = 6° 17'18.63" (LT)
Dc = 1° 00'00.00"
R = 5,729.58'
T = 314.74'
L = 628.85'
E = 8.64'
PC = Sta. 1226+79.22
PCC = Sta. 1233+08.07
emax = 0.032

PC Sta. 1226+79.22
MATCH EXISTING
8'
℄ RAMP C SR 613
755.30 Ex. +49
SR 613 (RAMP C)
755.75 Ex. +49
16'
3'
12'
36'
FULL DEPTH
+77.61
755.13 755.10 755.07 755.04 755.00 754.97 754.94 754.91 754.87 754.84 754.81 754.78 754.74 754.71 754.68 754.65
755.16 755.67 755.65 755.61 755.58 755.55 755.52 755.48 755.45 755.42 755.39 755.35 755.32 755.29 755.26 755.22
756.08 756.03 755.97 755.91 755.85 755.79 755.73 755.67 755.61 755.55 755.49 755.43 755.37 755.31 755.25 755.19 755.13
1226 1227 1228 1229 1230 1231
N 3° 07' 04" E
MATCH LINE - STA. 1231+00
℄ R/W & CONST. I.R. 75

℄ RAMP C SR 613
8'
PCC Sta. 1233+08.07
Sta. 1233+75.48
100' SHOULDER TAPER
Sta. 1234+75.52
753.71 753.62 753.54
753.82 753.79 753.46
12'
36'
1231 1232 1233 1234 1235 1236
754.61 754.56 754.50 754.43 754.35 754.27 754.18 754.08 753.98 753.86
755.07 755.01 754.93 754.85 754.76 754.67 754.57 754.47 754.36 754.24 754.11 753.98 753.85 753.72 753.59
MATCH LINE - STA. 1231+00
℄ R/W & CONST. I.R. 75

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND S.R. 613 - RAMP C

HAN/WOO-75-19.22/0.00

237
336

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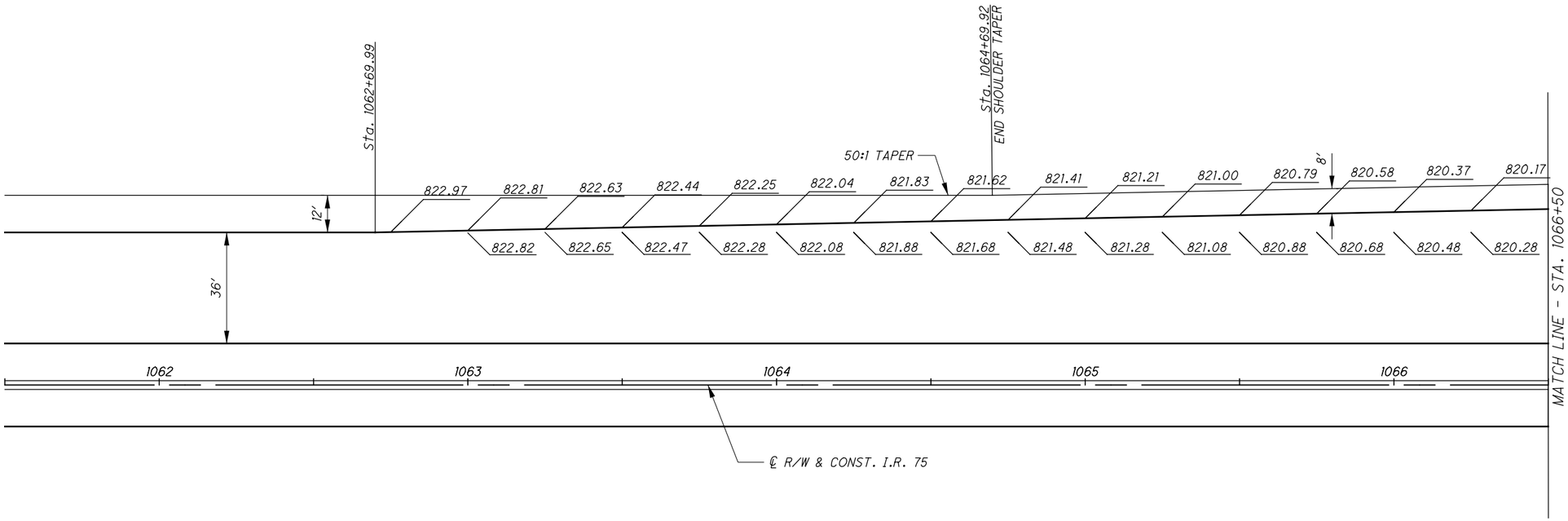

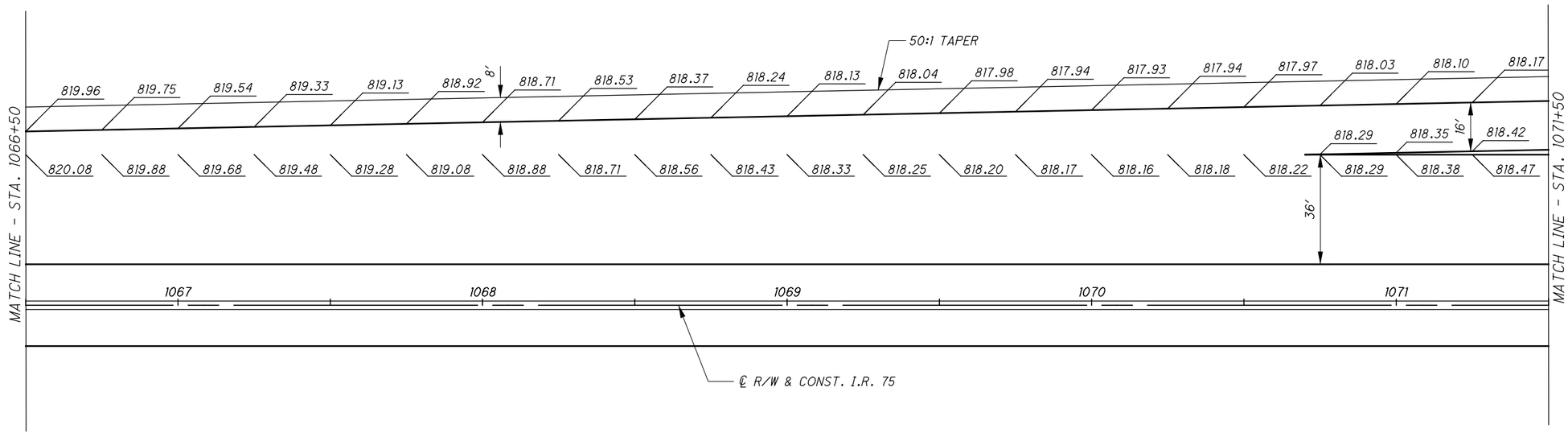

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND WEIGH STATION ENTRANCE

HAN/WOO-75-19.22/0.00

238
336

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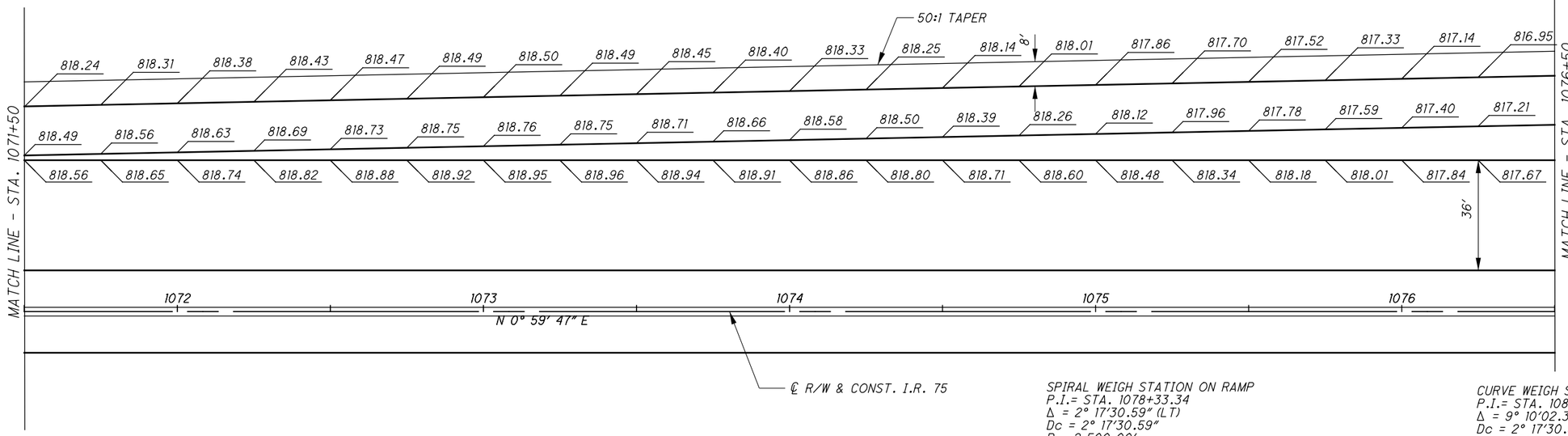
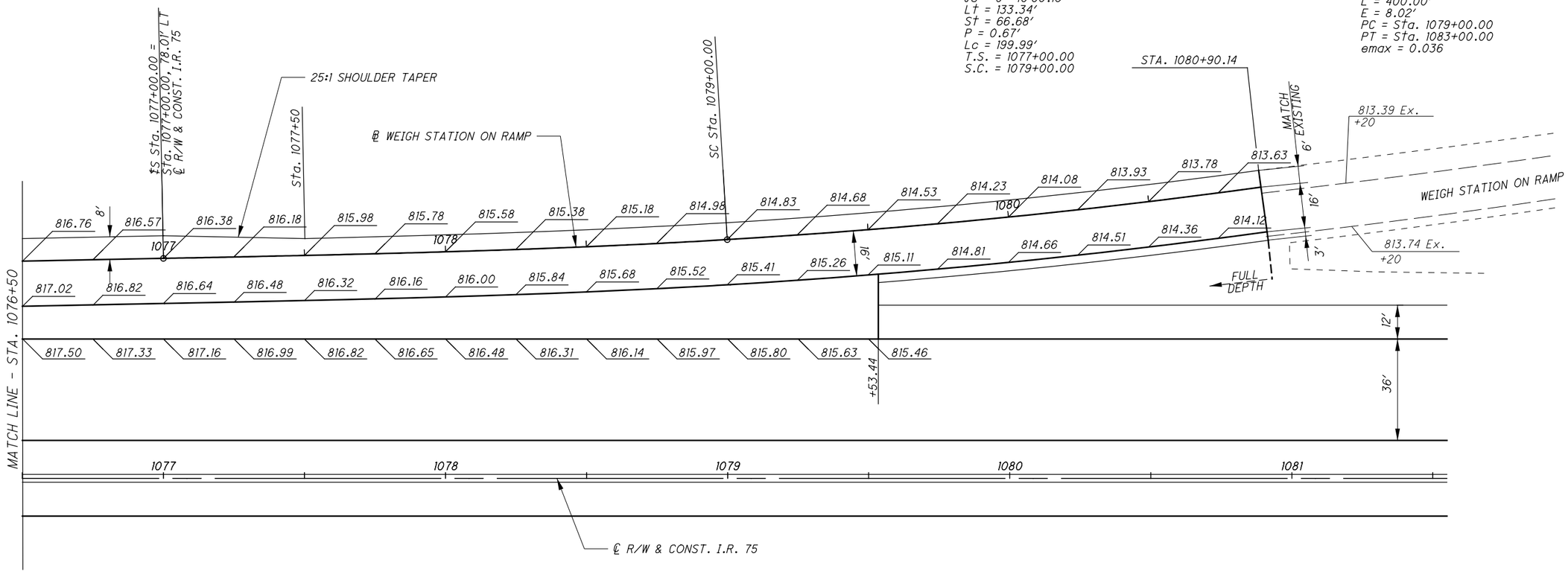


SPIRAL WEIGH STATION ON RAMP
P.I.= STA. 1078+33.34
Δ = 2° 17'30.59" (LT)
Dc = 2° 17'30.59"
R = 2,500.00'
Ls = 200.00'
θs = 0° 45'50.16"
Lt = 133.34'
St = 66.68'
P = 0.67'
Lc = 199.99'
T.S. = 1077+00.00
S.C. = 1079+00.00

CURVE WEIGH STATION ON RAMP
P.I.= STA. 1081+00.43
Δ = 9° 10'02.37" (LT)
Dc = 2° 17'30.59"
R = 2,500.00'
T = 200.43'
L = 400.00'
E = 8.02'
PC = Sta. 1079+00.00
PT = Sta. 1083+00.00
emax = 0.036



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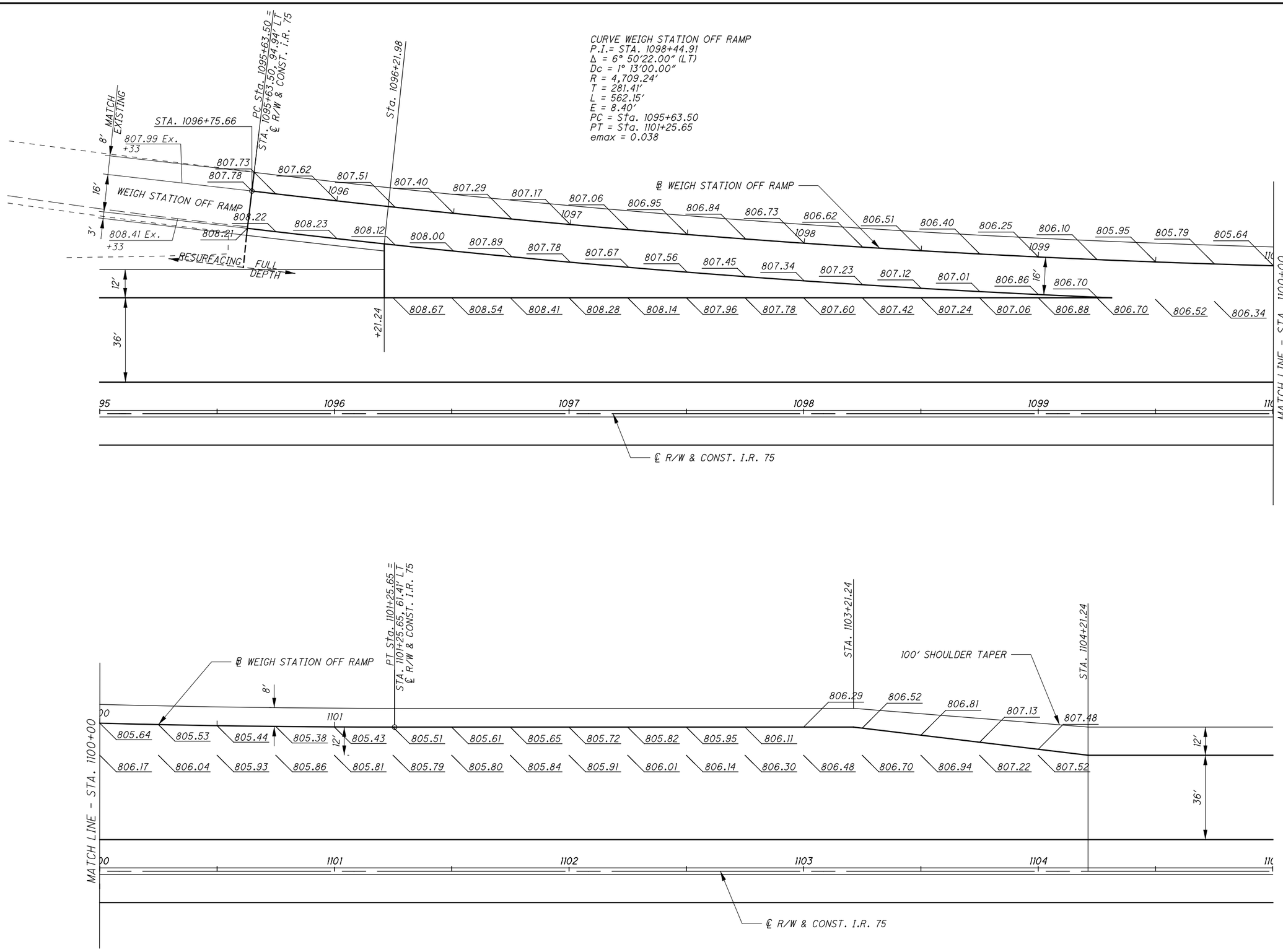
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ALZ
CHECKED RJM

PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND WEIGH STATION ENTRANCE

HAN/WOO-75-19.22/0.00



PAVEMENT DETAIL & ELEVATIONS
I.R. 75 AND WEIGH STATION EXIT

HAN/WOO-75-19.22/0.00

240
336

CALCULATED ALZ
CHECKED RJM

HORIZONTAL SCALE IN FEET
0 10 20 40

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RAMP A

END RESURFACING AT CONCRETE EDGE

SC Sta. 1030+48.00

PT Sta. 1031+49.51

TR 99

RAMP C

END RESURFACING AT CONCRETE EDGE

1028 1030 1031

1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043

RAMP B

END RESURFACING AT CONCRETE EDGE

RAMP D

END RESURFACING AT CONCRETE EDGE

1042 1043

BT Sta. 1028+93.40

LEGEND

MILL AND RESURFACE
SEE TYPICAL SECTIONS FOR DETAILS

N

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ---
CHECKED ---

TR 99
RAMP DETAILS

HAN/ WOO-75-19.22/ 0.00

241
336

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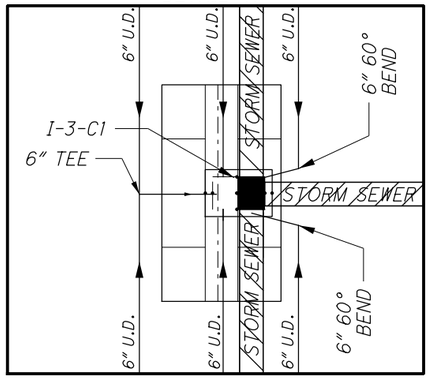
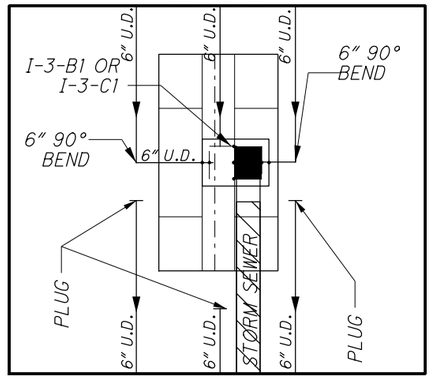
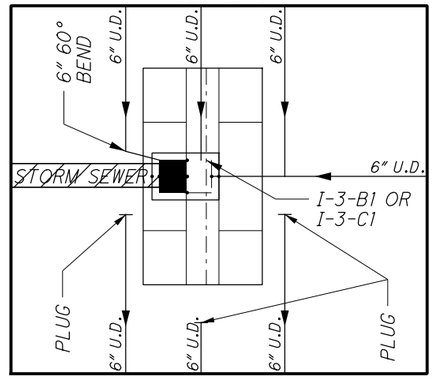
DETAIL 'A'



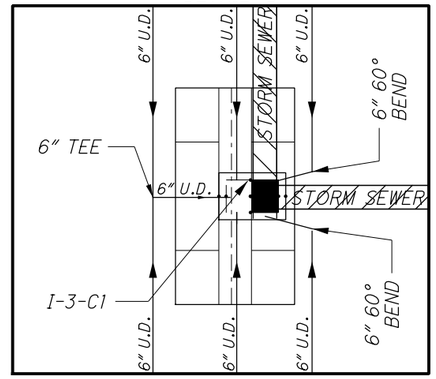
DETAIL 'B'



DETAIL 'C'



DETAIL 'D'



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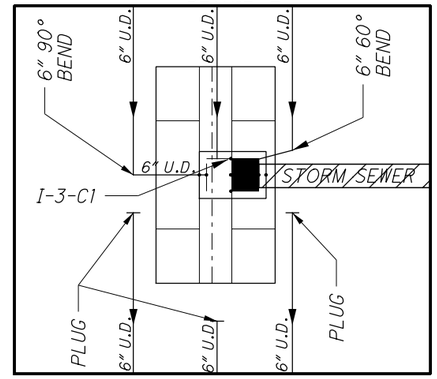

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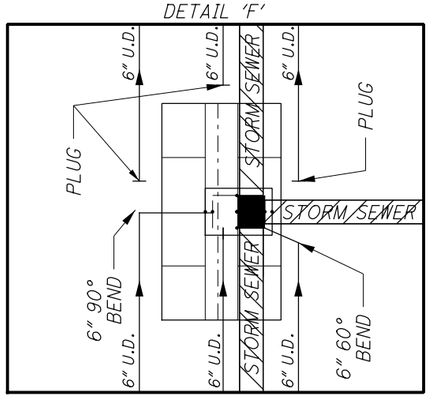

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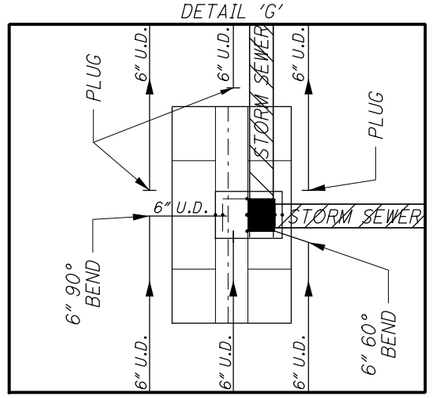

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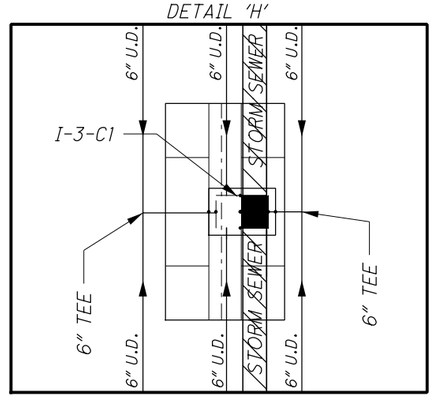

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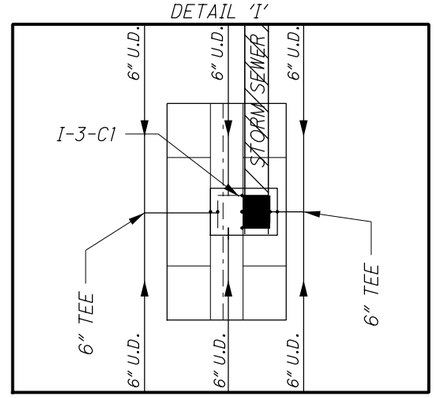

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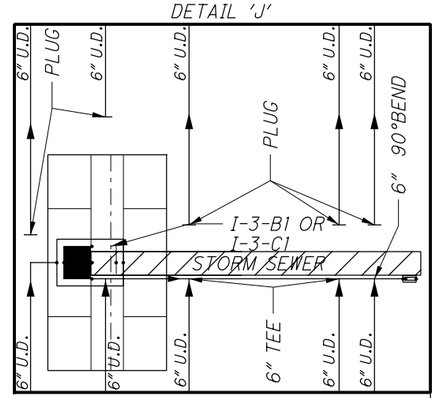

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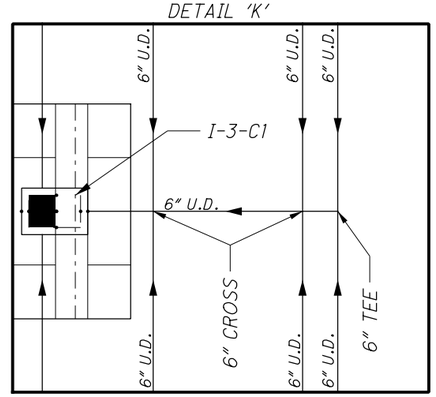

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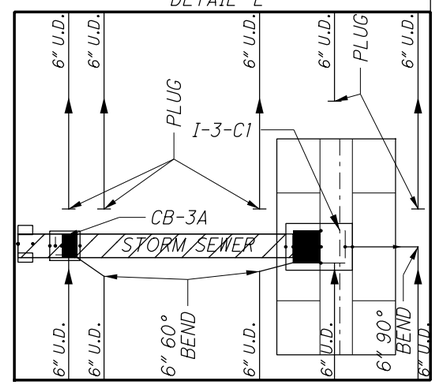

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	1101+00.00		1201+00.00		69+05.00		1158+00.00		101+00.00	K	1038+00.00	N	1054+00.00
	1255+00.00		1253+75.00	D	1029+00.00		1166+00.00	F	1070+00.00		1084+00.00		1202+00.00
	87+00.00		1256+00.00		1250+00.00		1178+00.00	G	1037+50.00		1136+25.00	O	1083+00.00
	108+40.00		1298+00.00		1299+00.00		1190+00.00		1174+00.00		1219+25.00	P	1234+00.00
	120+10.00		20+65.00		19+15.00		1228+00.00		1203+00.00		1318+15.00		79+05.00
B	1028+00.00		64+50.00		51+50.00		1234+00.00		1220+00.00		66+00.00	Q	87+00.00
	1039+00.00		85+50.00	E	1023+00.00		1240+00.00	H	1038+00.00	L	47+05.00		108+40.00
	1069+00.00		88+50.00		1047+50.00		1259+00.00		1084+00.00	M	1037+50.00		120+10.00
	1083+00.00		106+90.00		1054+00.00		1273+00.00		1136+25.00		1214+58.00	R	66+00.00
	1085+00.00		109+90.00		1060+00.00		1282+00.00		1173+00.00		1220+00.00	S	1023+00.00
	1100+00.00		118+60.00		1094+00.00		1286+00.00		1202+00.00		1277+50.00		1037+50.00
	1102+00.00		121+60.00		1110+00.00		1294+00.00	I	1071+00.00		1294+00.00		1054+00.00
	1137+25.00	C	1311+00.00		1130+00.00		1302+00.00		1219+25.00		1316+65.00		1060+00.00
	1172+00.00		08+00.00		1135+25.00		1326+00.00		1282+75.00		1319+65.00		1070+00.00

DETAIL	STATION	DETAIL	STATION	DETAIL	STATION	DETAIL	STATION	DETAIL	STATION	DETAIL	STATION	DETAIL	STATION
S	1110+00.00	S	1286+00.00	Z	1228+00.00	EE	1110+00.00	EE	1302+00.00	FF	1071+00.00	JJ	1047+50.00
	1130+00.00		08+00.00	AA	1234+00.00		1130+00.00		1316+65.00		1084+00.00		1054+00.00
	1135+25.00	T	45+05.00	BB	1094+00.00		1151+00.00		1319+65.00		1101+00.00	KK	58+50.00
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	1158+00.00	U	1084+00.00		1311+00.00		1166+00.00		15+50.00		1173+00.00	MM	69+05.00
	1166+00.00		1250+00.00		1326+00.00		1178+00.00		20+65.00		1250+00.00	NN	1023+00.00
	1174+00.00		1255+00.00		15+50.00		1190+00.00		47+05.00		1255+00.00		1228+00.00
	1178+00.00		1318+15.00		26+05.00		1196+50.00		85+50.00		1282+75.00	OO	1029+00.00
	1190+00.00		19+15.00		101+00.00		1215+00.00		88+50.00		19+15.00	PP	1071+00.00
	1240+00.00		51+50.00	CC	69+05.00		1234+00.00		101+00.00		51+50.00		1202+00.00
	1259+00.00	V	1029+00.00	DD	1047+50.00		1240+00.00		106+90.00		87+00.00		
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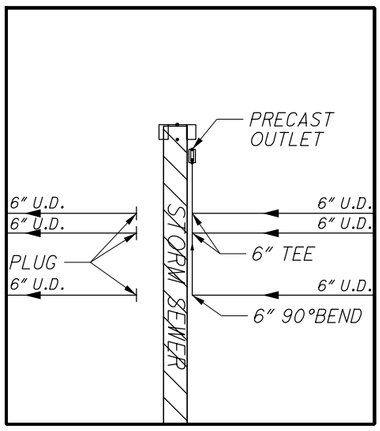
	1277+50.00	X	1101+00.00		1060+00.00		1273+00.00		121+60.00	GG	26+05.00		
	1282+00.00	Y	1220+00.00		1094+00.00		1294+00.00	FF	1038+00.00	HH	1081+00.00		

CALCULATED CMN
CHECKED SRH

UNDERDRAIN DETAIL (1/3)

HAN/WOO-75-19.22/0.00



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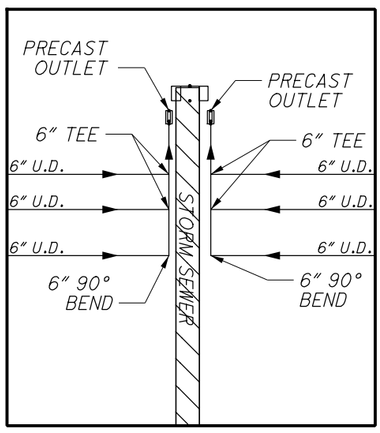

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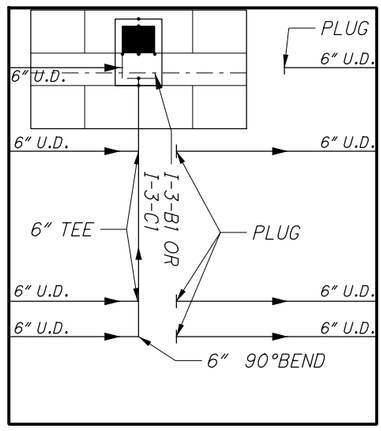

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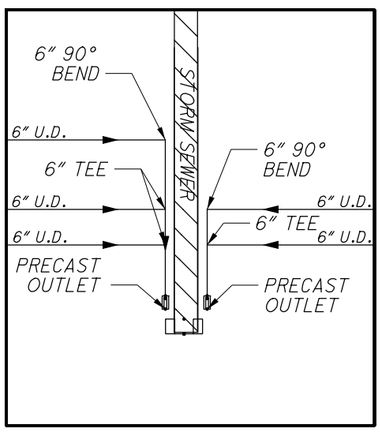

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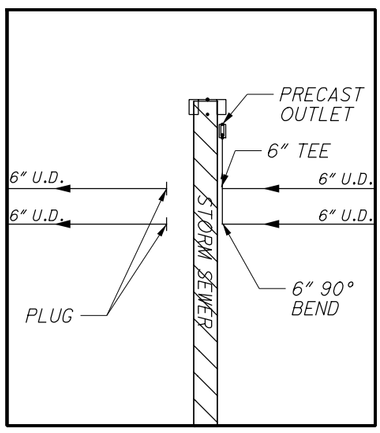

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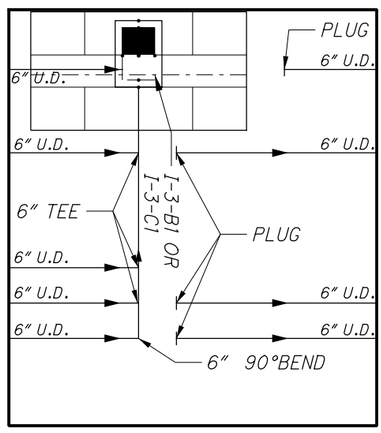

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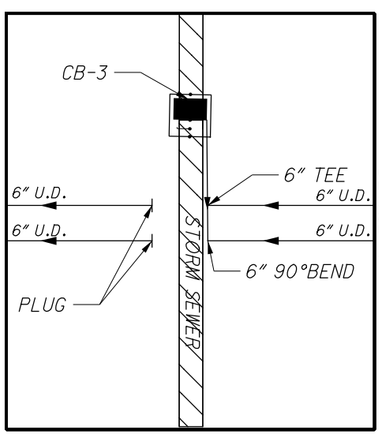

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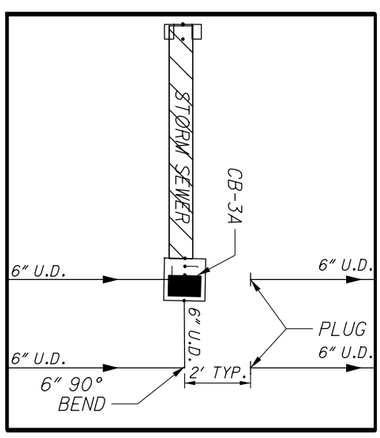

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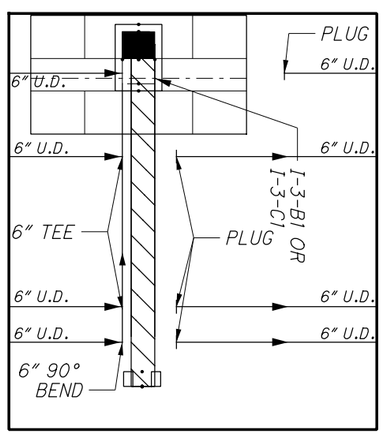

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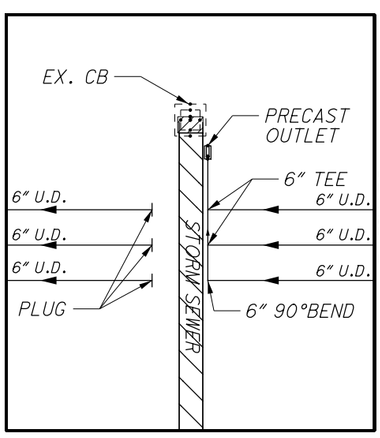

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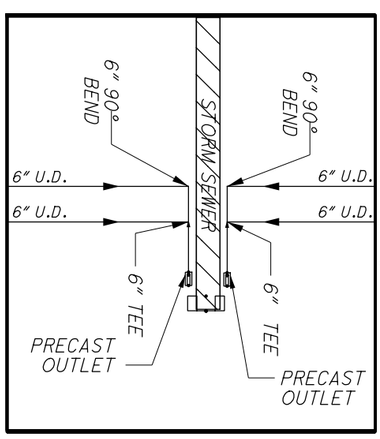

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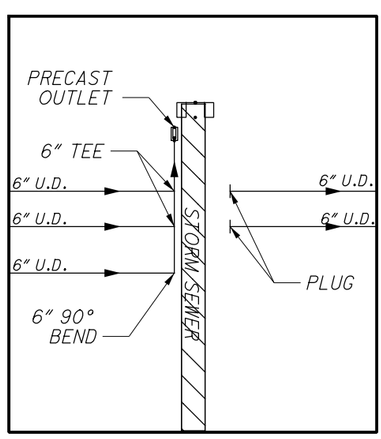

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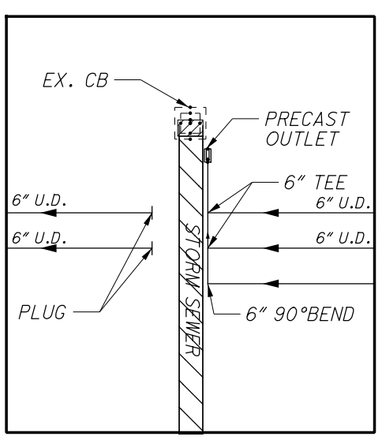

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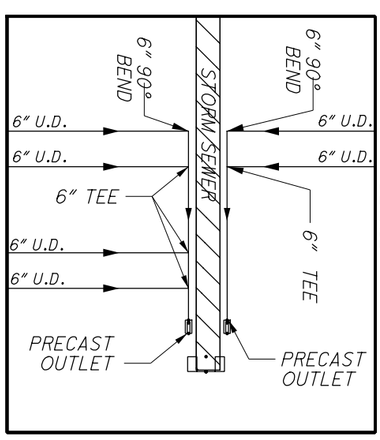

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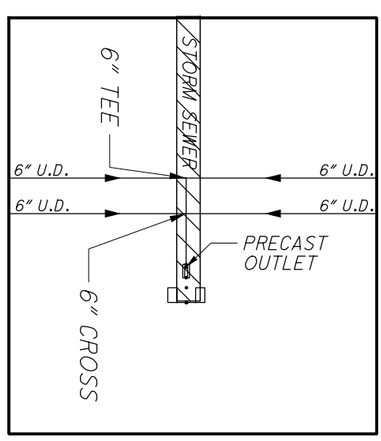

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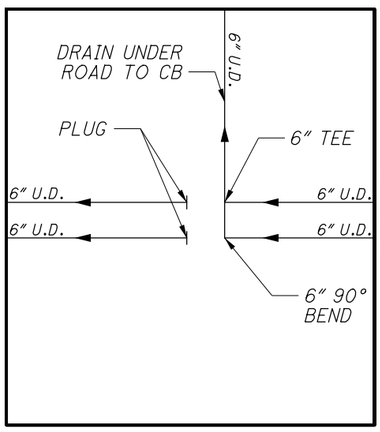

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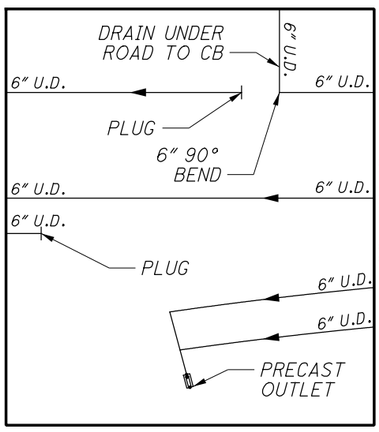

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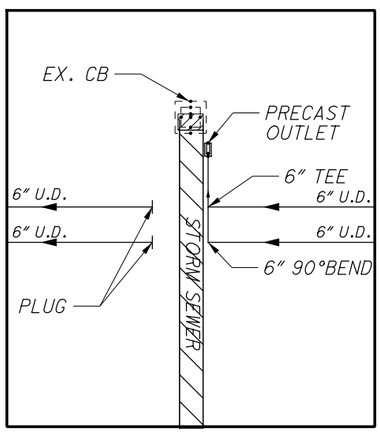

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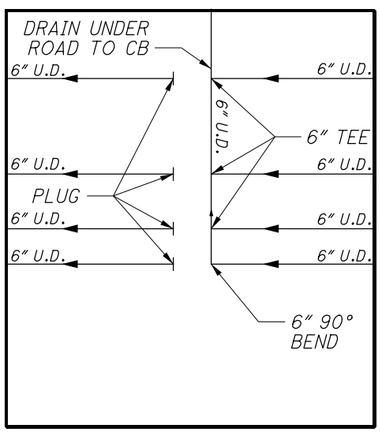

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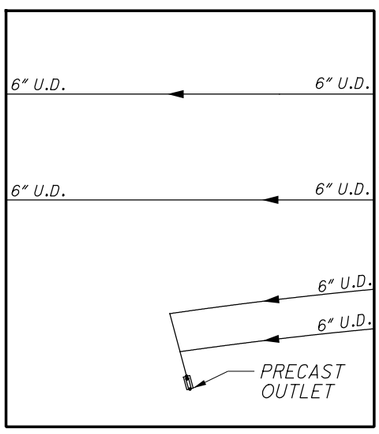

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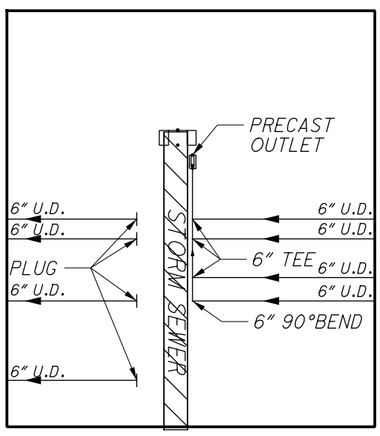

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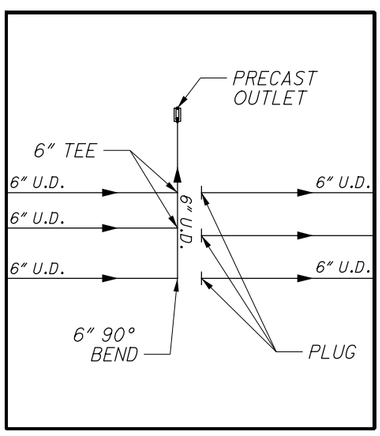

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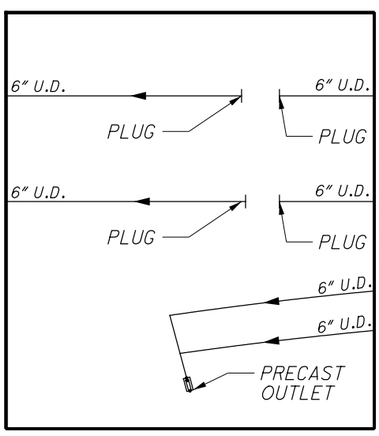

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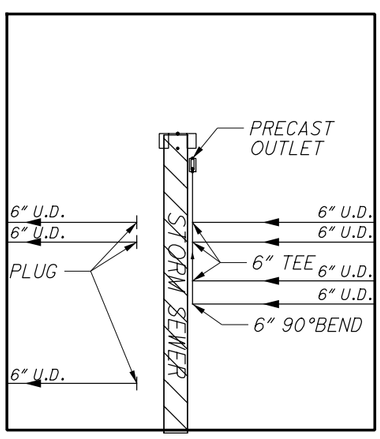

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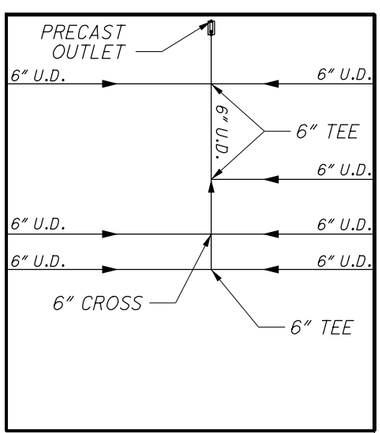

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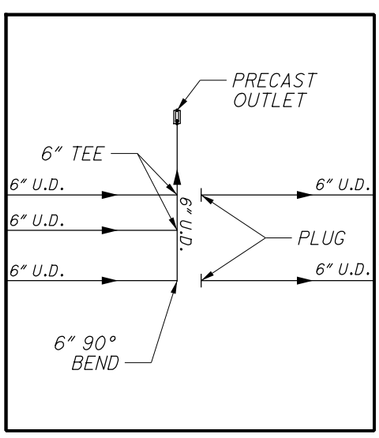

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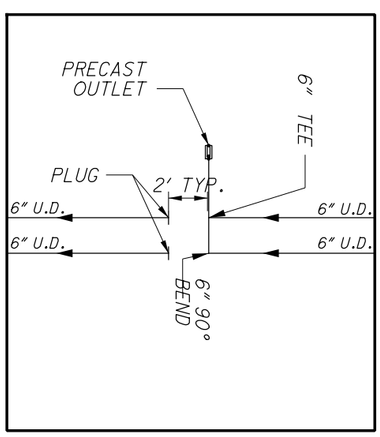

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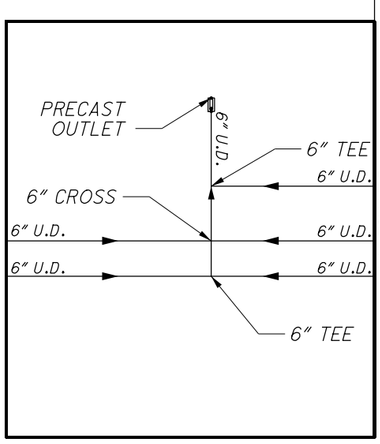

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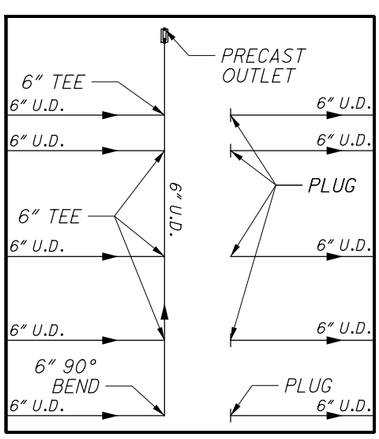

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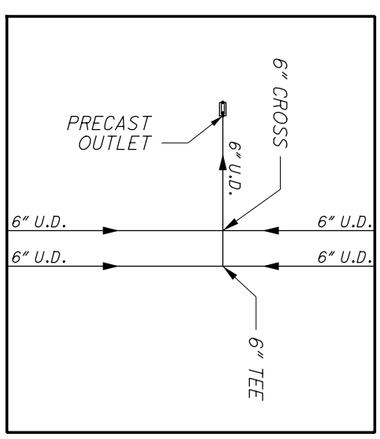


DETAIL 'FF'

ITEM 630 - REFERENCE LOCATION SIGN

THE LOCATION OF REFERENCE LOCATION SIGNS ON THE PLANS ARE APPROXIMATE AND A MORE PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 30 DAYS IN ADVANCE OF THE PLANNED DATE OF REFERENCE LOCATION SIGN INSTALLATION. THE ENGINEER WILL CONTACT THE OFFICE OF TECHNICAL SERVICES WHICH WILL LOCATE THE LONGITUDINAL POSITION OF REFERENCE LOCATION SIGNS BY MEANS OF A PAINT MARK ON THE PAVEMENT EDGE. ALTERNATE MARKS WILL NOT BE PROVIDED ON DIVIDED HIGHWAYS AND THE CONTRACTOR SHALL SET REFERENCE LOCATION SIGNS FOR THE OPPOSITE ROADWAY ACROSS FROM THE PROVIDED MARK. DELINEATORS WHOSE NORMAL POSITION FALLS WITHIN 50 FEET OF A REFERENCE LOCATION SIGN SHALL BE OMITTED.

ITEM 630 - SIGNING, MISC., 6" X 8" SOLID WOOD POST

THIS ITEM SHALL CONSIST OF INSTALLING A GROUND MOUNTED 6" X 8" SOLID WOOD POST. FIGURE 298-26 OF THE TRAFFIC ENGINEERING MANUAL (P. 2-238) SHOULD BE USED AS A GUIDE FOR INSTALLATION OF THE 6" X 8" POST.

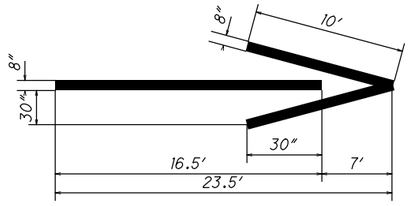
GRADE 2 SOUTHERN YELLOW PINE SHOULD BE USED, AND SHOULD BE PRESSURE TREATED WITH CCA PRESERVATIVE.

U-CHANNEL DRIVE POSTS OF THE SAME HEIGHT AS THE SIGN, WILL BE ATTACHED TO THE WOOD POST WITH LAG SCREWS. THE EXTRUSHEET WILL THEN BE INSTALLED USING STANDARD SIGN CLIPS.

ITEM 644 - PAVEMENT MARKING, MISC.; WRONG WAY ARROW, AS PER PLAN

THIS ITEM SHALL CONSIST OF INSTALLING A WRONG WAY ARROW ON EXIT RAMPS ALONG FREEWAYS, TO DISCOURAGE DRIVERS FROM TRAVELLING THE WRONG DIRECTION.

THE SIZE AND DIMENSIONS OF THE WRONG WAY ARROW ARE SHOWN BELOW:



AUTOMATIC TRAFFIC RECORDER

THERE IS AN ATR (AUTOMATIC TRAFFIC RECORDER) LOCATED AT HAN-75-21.58 SLM. THE CONTRACTOR SHALL CONTACT THE ODOT OFFICE OF TECHNICAL SERVICES, TRAFFIC MONITORING SECTION AT (614) 752-4507, TWO (2) WEEKS PRIOR TO REMOVAL OF THIS FACILITY. ODOT WILL THEN REMOVE THE ATR FACILITY WITH THEIR FORCES. THE CONTRACTOR WILL BE REPSONSIBLE FOR TRAFFIC CONTROL DURING THE REMOVAL OPERATION.

ITEM 642 - SPEEDINFO DEVICES WITHIN PROJECT LIMITS

THE CONTRACTOR SHALL TAKE MEASURES TO MAINTAIN THE PROPER OPERATION OF ANY SPEEDINFO DEVICES WITHIN THE PROJECT LIMITS. THE DEVICES ARE DOPPLER RADAR UNITS WHICH LOOK LIKE CYLINDRICAL TUBES WITH SOLAR PANELS ATTACHED TO THEM. THE SENSORS ARE IMPLEMENTED ON ALL INTERSTATES STATEWIDE AND OTHER MAJOR US AND STATE ROUTES IN URBAN AREAS, GENERALLY SPACED BETWEEN 1 TO 2 MILES APART, AND INSTALLED ON ANY EXISTING ODOT INFRASTRUCTURE (TYPICALLY OVERHEAD TRUSSES, CANTILEVERS, GROUND -MOUNTED SIGN SUPPORTS, OR LIGHT POLES. ODOT WILL COORDINATE THE RELOCATION OF ANY DEVICES THAT MAY BE AFFECTED BY THE CONTRACTORS OPERATION. THE CONTRACTOR SHALL NOT REMOVE THE DEVICES THEMSELVES. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER A MINIMUM OF TEN CALENDAR DAYS PRIOR TO PERFORMING ANY WORK WHICH REQUIRES DEVICE RELOCATION. THE PROJECT ENGINEER SHALL THEN NOTIFY SPEEDINFO, INC. AND THE ODOT OFFICE OF TRAFFIC ENGINEERING OF ANY DEVICES THAT REQUIRE RELOCATION. THE CONTRACTOR SHOULD BE AWARE THAT SINCE SPEED DATA IS STILL DESIRABLE TO ODOT, THE PROJECT ENGINEER WILL ATTEMPT TO INFORM SPEEDINFO, INC. OF NEWLY AVAILABLE INSTALL LOCATIONS FOR THE SENSORS TO BE RELOCATED TO, WITH MINIMAL DOWNTIME.

IF IMMEDIATE ATTENTION TO A SPEEDINFO SENSOR IS REQUIRED, THE CONTRACTOR MAY DIRECTLY CONTACT THE REGIONAL INSTALLER FOR SPEEDINFO, INC. FROM THE PROVIDED CONTACT INFORMATION. THE REGIONAL INSTALLER WOULD BE ABLE TO PROVIDE THE QUICKEST POSSIBLE ATTENTION TO THE SITUATION. IF THE REGIONAL INSTALLER CANNOT BE REACHED, THE LIST OF STATEWIDE CONTACTS SHOULD BE USED IN THE ORDER IT IS PRESENTED. AN EMAIL INFORMING ALL PARTIES OF THE SITUATION SHOULD ALSO BE SENT AT THE EARLIEST CONVENIENCE.

REGIONAL CONTACTS:

MATT SLUSHER, CAPITAL ELECTRIC
(937) 531-7518
MSLUSHER@CAPITALELECTRIC.COM

JOE HUTSELL, CAPITAL ELECTRIC
(937) 604-5838
JHUTSELL@CAPITALELECTRIC.COM

JEFF CHASE, A+A SAFETY
WORK: (216) 283-8040
CELL: (216) 864-6531
JEFFC@AASAFETY.COM

STATEWIDE CONTACTS:

CHARLIE ARMIGER, SPEEDINFO
OFFICE: (408) 333-9960
CELL: (408) 425-4684
CARMIGER@SPEEDINFO.COM

BRYAN COMER, ODOT
(614) 387-1253
BRYAN.COMER@DOT.STATE.OH.US

JOHN MACADAM, ODOT
(614) 752-9695
JOHN.MACADAM@DOT.STATE.OH.US

JASON YERAY, ODOT
(614) 466-2168
JASON.YERAY@DOT.STATE.OH.US

THE SPEEDINFO DEVICES WITHIN THE PROJECT LIMITS ARE LOCATED AT THE BELOW LOCATIONS. THE CONTRACTOR SHALL BE ADVISED THAT THESE LOCATIONS MAY HAVE CHANGED BY THE TIME OF CONSTRUCTION AND SHALL USE THE ABOVE PROCEDURE FOR ANY OTHER SPEED DETECTION DEVICES.

STATE SLM	NUMBER OF SPEED SENSORS
161.75	2
163.95	2
166.00	2
168.20	2

ITEM 630 - SIGN, GROUND MOUNTED EXTRUSHEET, AS PER PLAN & SIGN ERECTED, EXTRUSHEET, AS PER PLAN

THE DESIGN OF THE D8-H2 WEIGH STATION SIGN LOCATED AT STATION 1113+00 IS TO INCLUDE A LED DISPLAY FOR THE OPEN/CLOSED INFORMATION. CONTACT OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 1 FOR PREFERENCES TO SUPPLY POWER TO THE SIGN.

CALCULATED NAT
CHECKED LLA

TRAFFIC CONTROL GENERAL NOTES

HAN/WOO-75-19.22/0.00

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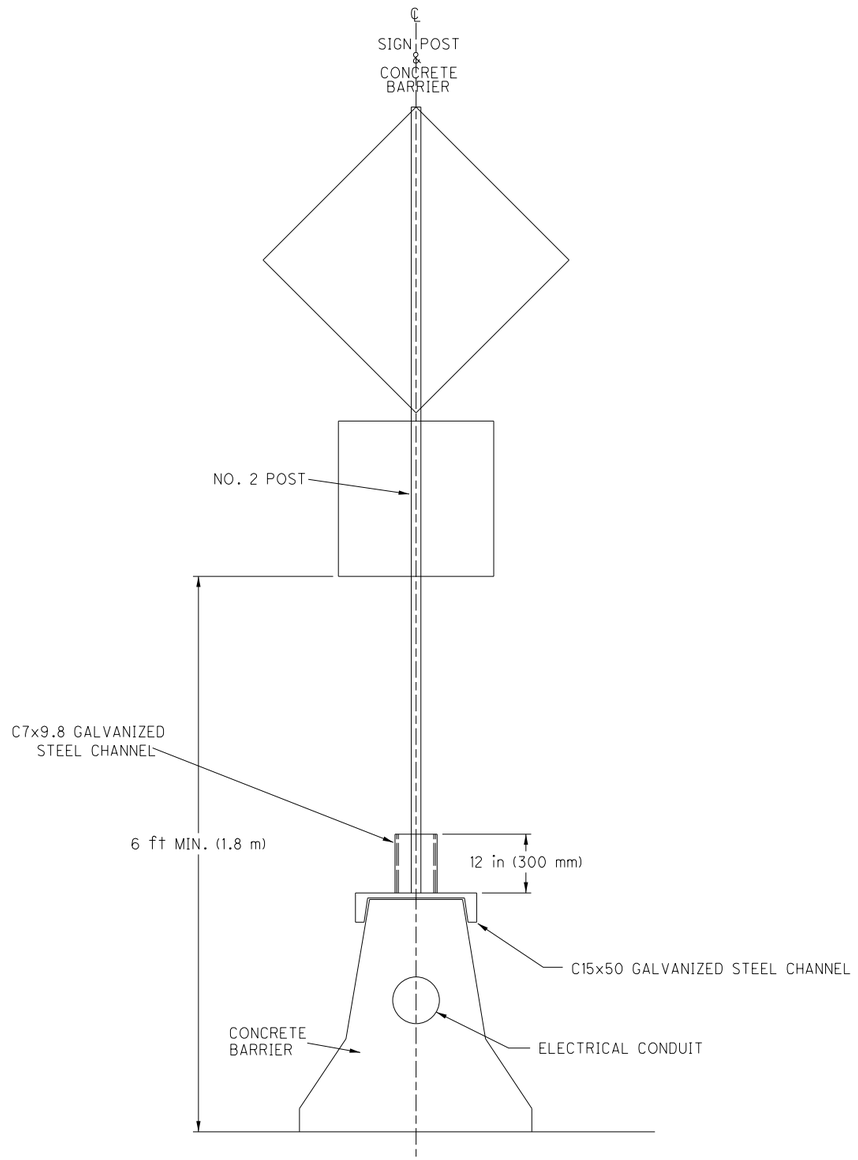
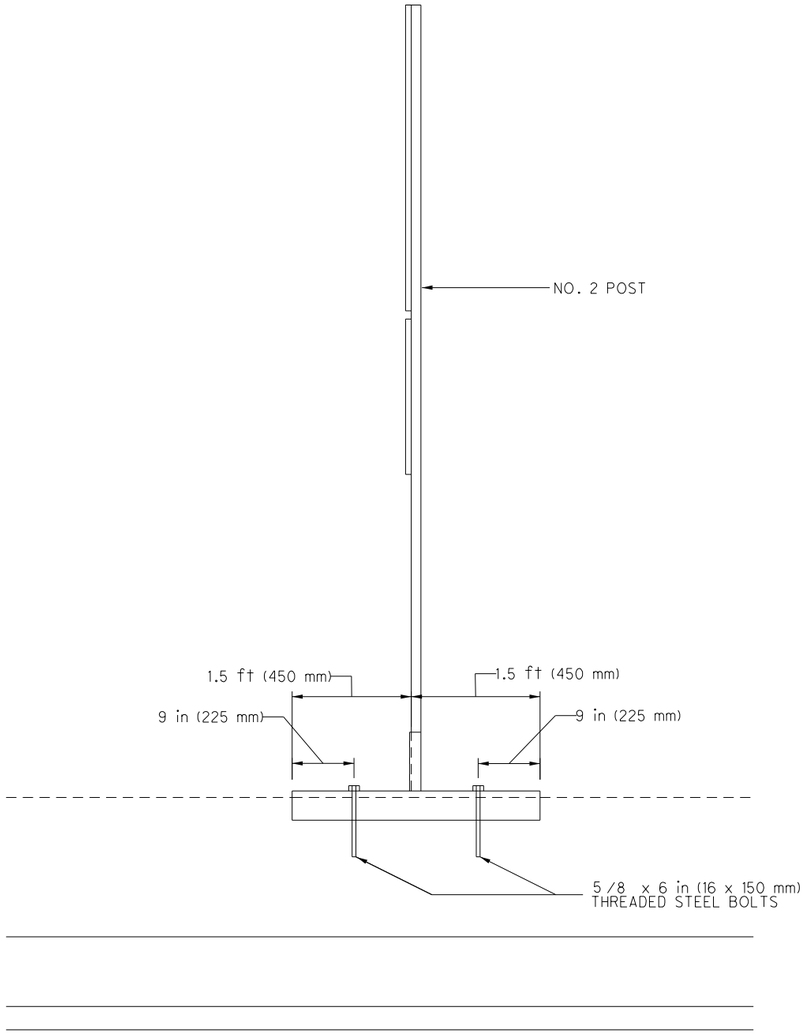
NOTES

1. The C7x9.8 galvanized steel channel shall be welded to the C15x50 galvanized steel channel.
2. The No. 2 post shall be attached to the C7x9.8 galvanized steel channel with two 5/16 inch (8 mm) steel hex head bolts. The holes in the C7x9.8 steel channel shall be drilled before galvanizing. The holes shall be 9" (225 mm) center to center.
3. The 5/8 inch (16 mm) threaded steel bolts shall be attached to the concrete barrier with grout meeting the requiremets of 255.02.





OFFICE OF TRAFFIC ENGINEERING

DESIGNED | REVIEWED LAM

REVISION DATE 11/27/06 | CHECKED

PID NUMBER 202020

PLAN INSERT SHEET

CONCRETE BARRIER MOUNTED SIGN SUPPORT DETAIL METHOD A

HAN/WOO-75-19.22/0.00

1 / 1

246 / 336

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PAVEMENT MARKING LEGEND (642)

(LW-2) 6" LANE LINE, WHITE
(EW-2) 6" EDGE LINE, WHITE
(EY-2) 6" EDGE LINE, YELLOW
(CH-2) 12" CHANNELIZING LINE, WHITE
(CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

(CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-12.20
(DW-4) 6" DOTTED LINE, WHITE
(ST-4) 24" STOP LINE, WHITE
(LA-4) 96" LANE ARROW

WRONG WAY ARROW
EXISTING TO REMAIN
DIRECTION OF TRAVEL

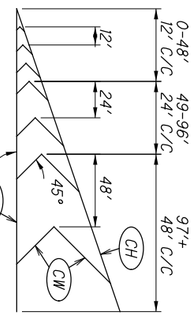
RAISED PAVEMENT MARKERS

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING TO REMAIN
EXISTING TO BE REMOVED

EXIT GORE DETAIL



GROUND MOUNTED SIGN & BEAM SUPPORTS

	EXIST.	PROP.
SINGLE POST		
DOUBLE POST		
TRIPLE POST		
BACK TO BACK POST		
ONE WAY SUPPORT		

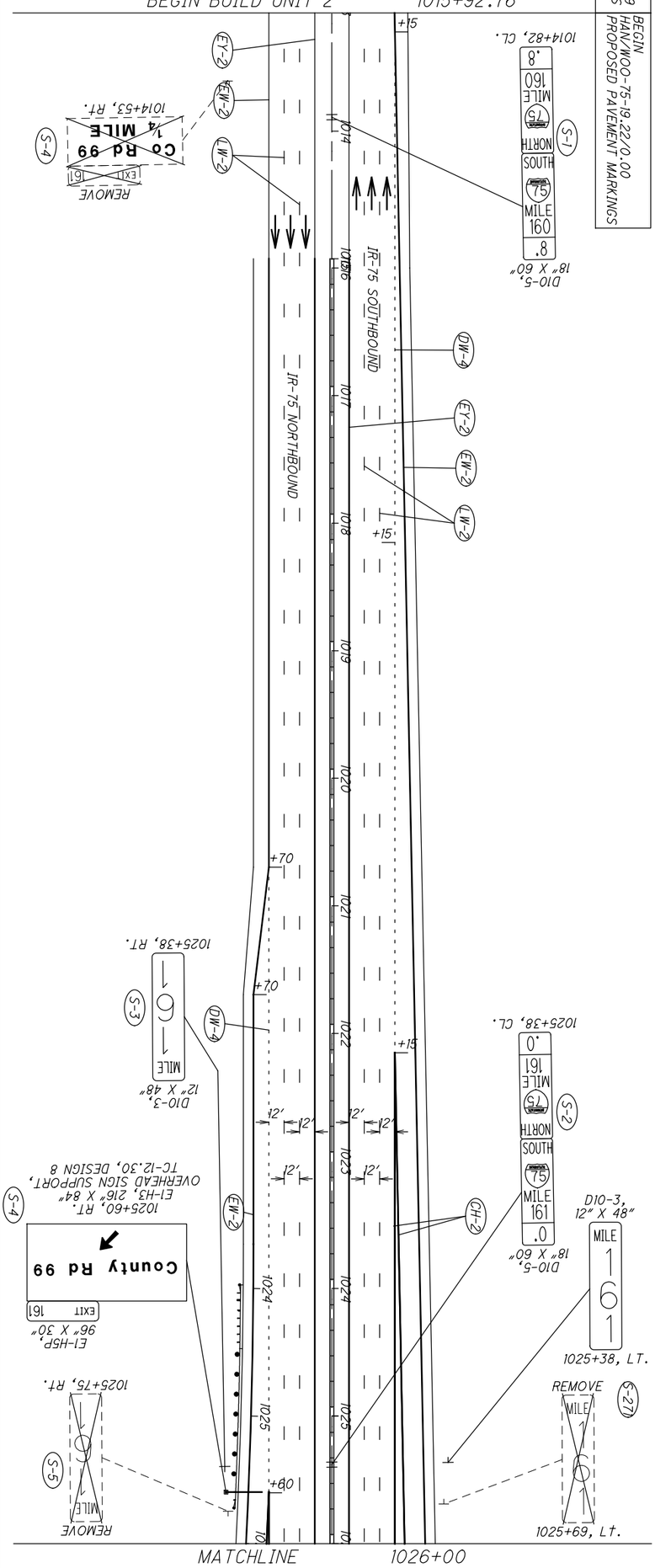
OVERHEAD MOUNTED SIGN SUPPORTS

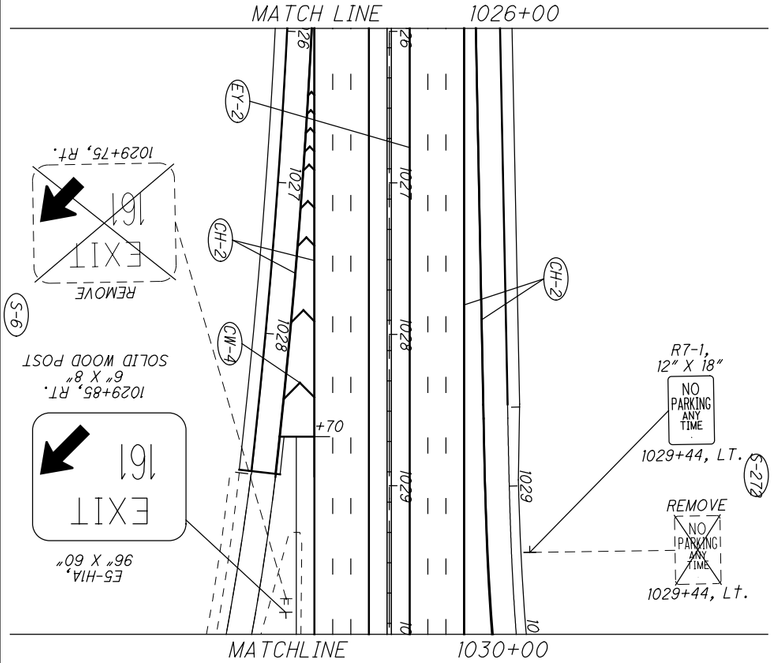
	EXIST.	PROP.
CANTILEVER SUPPORT		
TRUSS SUPPORT		

HAN-75-14.39 BY OTHERS

BEGIN HAN/WOO-75-19.22/0.00 PROPOSED PAVEMENT MARKINGS

BEGIN BUILD UNIT 2 1015+92.76





HAN/WOO-75-19.22/0.00

SIGNING AND PAVEMENT MARKING PLAN

CALCULATED NAT
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

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PAVEMENT MARKING LEGEND (642)

(LW-2) 6" LANE LINE, WHITE
(EW-2) 6" EDGE LINE, WHITE
(EY-2) 6" EDGE LINE, YELLOW
(GH-2) 12" CHANNELIZING LINE, WHITE
(CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

(CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
(DW-4) 6" DOTTED LINE, WHITE
(ST-4) 24" STOP LINE, WHITE
(LA-4) 96" LANE ARROW

WRONG WAY ARROW

EXISTING TO REMAIN

DIRECTION OF TRAVEL

PROPOSED EXISTING TO REMAIN BE REMOVED

SIGNING LEGEND

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

RAISED PAVEMENT MARKERS

GROUND MOUNTED SIGN & BEAM SUPPORTS — EXIST. / PROP.

SINGLE POST
DOUBLE POST
TRIPLE POST
BACK TO BACK POST
ONE WAY SUPPORT

OVERHEAD MOUNTED SIGN SUPPORTS — EXIST. / PROP.

CANTILEVER SUPPORT
TRUSS SUPPORT

EXIT GORE DETAIL

0-48' 12' C/C
49-96' 24' C/C
97'+ 48' C/C
12'
24'
48'
45°
CH
CW

MATCHLINE 1030+00

MAINTAINED BY OTHERS
NO WORK
GAS FOOD
LODGING

IR-75 NORTHBOUND
IR-75 SOUTHBOUND

W4-1, 48" X 48" 1031+00, LT.
R7-1, 12" X 18" NO PARKING ANY TIME 1031+43, LT.
REMOVE NO PARKING ANY TIME 1031+43, Lt.
REMOVE 1033+04, Lt.
R7-1, 12" X 18" NO PARKING ANY TIME 1033+42, LT.
REMOVE NO PARKING ANY TIME 1033+42, Lt.
REMOVE PROHIBITED PEDESTRIANS FARM MACHINERY ANIMALS BICYCLES OR MOTORCYCLES LESS THAN 5 BRAKE HP 1035+26, Lt.
REMOVE TRUCK 12 1035+57, Lt.
M4-4, 30" X 15"
M3-2, 30" X 15"
M1-5, 36" X 36"
M6-1, 30" X 21"
TRUCK EAST 12
1035+57, LT.
D10-5, 18" X 60" MILE 161.2 NORTH 75 SOUTH 75 MILE 161.2
1095+34, CL

R5-1a, 42" X 30" WRONG WAY 1033+58, RT.
REMOVE WRONG WAY 1033+58, Rt.
R5-1a, 42" X 30" WRONG WAY 1033+64, RT.
REMOVE WRONG WAY 1033+64, Rt.
R6-1, 54" X 18" ONE WAY 1035+56, RT.
R6-1, 54" X 18" ONE WAY 1035+59, RT.
REMOVE STOP HERE TO ACTUATE SIGNAL DO NOT ENTER ONE WAY ONE WAY 1035+59, Rt.
R5-1, 48" X 48" DO NOT ENTER 1035+71, RT.
REMOVE DO NOT ENTER ONE WAY ONE WAY 1035+59, RT.
REMOVE DO NOT ENTER 1035+71, Rt.

CR 99

REMOVE TRUCK EAST 12
M4-4, 30" X 15"
M3-2, 30" X 15"
M1-5, 36" X 36"
M6-1, 30" X 21"
1036+54, Rt. 1036+54, RT.
W4-1, 48" X 48" 1038+26, Rt.
REMOVE PROHIBITED PEDESTRIANS FARM MACHINERY ANIMALS BICYCLES OR MOTORCYCLES LESS THAN 5 BRAKE HP 1036+78, Rt.
REMOVE NO PARKING ANY TIME 1039+72, Rt. 1039+72, RT.
W4-1, 48" X 48" 1041+00, Rt.
REMOVE STOP HERE TO ACTUATE SIGNAL DO NOT ENTER ONE WAY ONE WAY 1036+62, Lt.
R5-1, 48" X 48" DO NOT ENTER 1036+46, Lt.
R6-1, 54" X 18" ONE WAY 1036+66, Lt.
REMOVE DO NOT ENTER ONE WAY ONE WAY 1036+66, LT.
R5-1, 48" X 48" DO NOT ENTER 1036+58, LT.
REMOVE DO NOT ENTER ONE WAY ONE WAY 1036+62, LT.
R6-1, 54" X 18" ONE WAY 1038+54, LT.
REMOVE WRONG WAY 1038+54, Lt.
R5-1a, 42" X 30" WRONG WAY 1038+54, LT.
REMOVE WRONG WAY 1038+63, Lt.
R5-1a, 42" X 30" WRONG WAY 1038+63, LT.
NO WORK GAS FOOD MAINTAINED BY OTHERS
NO WORK LODGING MAINTAINED BY OTHERS

MATCHLINE 1042+00

HAN/WOO-75-19.22/0.00

SIGNING AND PAVEMENT MARKING PLAN

CALCULATED NAT
CHECKED LLA

0 50 25 100
HORIZONTAL SCALE IN FEET

N

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PAVEMENT MARKING LEGEND (642)

(LW-2) 6" LANE LINE, WHITE

(EW-2) 6" EDGE LINE, WHITE

(EY-2) 6" EDGE LINE, YELLOW

(CH-2) 12" CHANNELIZING LINE, WHITE

(CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

(CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20

(DW-4) 6" DOTTED LINE, WHITE

(ST-4) 24" STOP LINE, WHITE

(LA-4) 96" LANE ARROW

WRONG WAY ARROW

EXISTING TO REMAIN

DIRECTION OF TRAVEL

PROPOSED EXISTING TO REMAIN

EXISTING TO BE REMOVED

SIGNING LEGEND

RAISED PAVEMENT MARKERS

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

EXIT GORE DETAIL

0-48' 12" C/C
49-96' 24" C/C
97'+ 48" C/C
12'
24'
48'
45°
CH
CW

GROUND MOUNTED SIGN & BEAM SUPPORTS — EXIST. — PROP.

SINGLE POST

DOUBLE POST

TRIPLE POST

BACK TO BACK POST

ONE WAY SUPPORT

OVERHEAD MOUNTED SIGN SUPPORTS — EXIST. — PROP.

CANTILEVER SUPPORT

TRUSS SUPPORT

MATCHLINE 1042+00

REMOVE EXIT

1042+35, Lt.

S-438

E5-H1A, 96" X 60"

EXIT 161

1042+85, LT. 6" X 8" SOLID WOOD POST

1046+50, CL.

D10-S, 18" X 60"

E1-H5P, 96" X 30"

EXIT 159

224

Findlay Ottawa 2 MILES

E1-H1, 132" X 144"

S-275

E1-H5P, 96" X 30"

EXIT 161

County Rd 99

E1-H3, 216" X 84"

1046+66, LT. OVERHEAD TRUSS SUPPORT, TC-7.65, DESIGN 8, 5 FT. BOX

REMOVE TRUCK EAST 12

1053+01, Lt.

S-276

REMOVE EXIT 161 Co Rd 99

1053+01, Lt.

S-277

IR-75 NORTHBOUND

IR-75 SOUTHBOUND

MATCHLINE 1054+00

MATCHLINE 1054+00

REMOVE SPEED LIMIT 70

1055+86, Lt.

S-278

R2-1, 48" X 60" SPEED LIMIT 70

1056+00, LT. 1056+00, CL.

1057+07, CL.

D10-S, 18" X 60"

I1-S

M1-1, 36" X 36"

M3-1, 36" X 18"

I2-S

1062+00, RT.

1062+52, RT.

REMOVE TRUCK EAST 12

Owens Community College NEXT RIGHT

1091+62, Lt.

S-279

E1-H5P, 96" X 30"

EXIT 161

Owens Community College

HWY PATROL

1062+00, LT. E1-2, 156" X 84" E1-2, 156" X 24" GROUND MOUNTED W10 X 22 BEAMS

REMOVE EXIT 161 Co Rd 99 1/2 MILE

1063+03, Lt.

S-280

MATCHLINE 1066+00

IR-75 NORTHBOUND

IR-75 SOUTHBOUND

249 / 336	HAN/WOO-75-19.22/0.00	SIGNING AND PAVEMENT MARKING PLAN	CALCULATED NAT	0 50	N
			CHECKED LLA	25 100 HORIZONTAL SCALE IN FEET	

PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

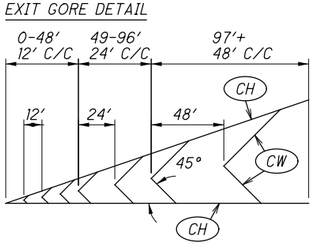
RAISED PAVEMENT MARKERS

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED

EXIT GORE DETAIL

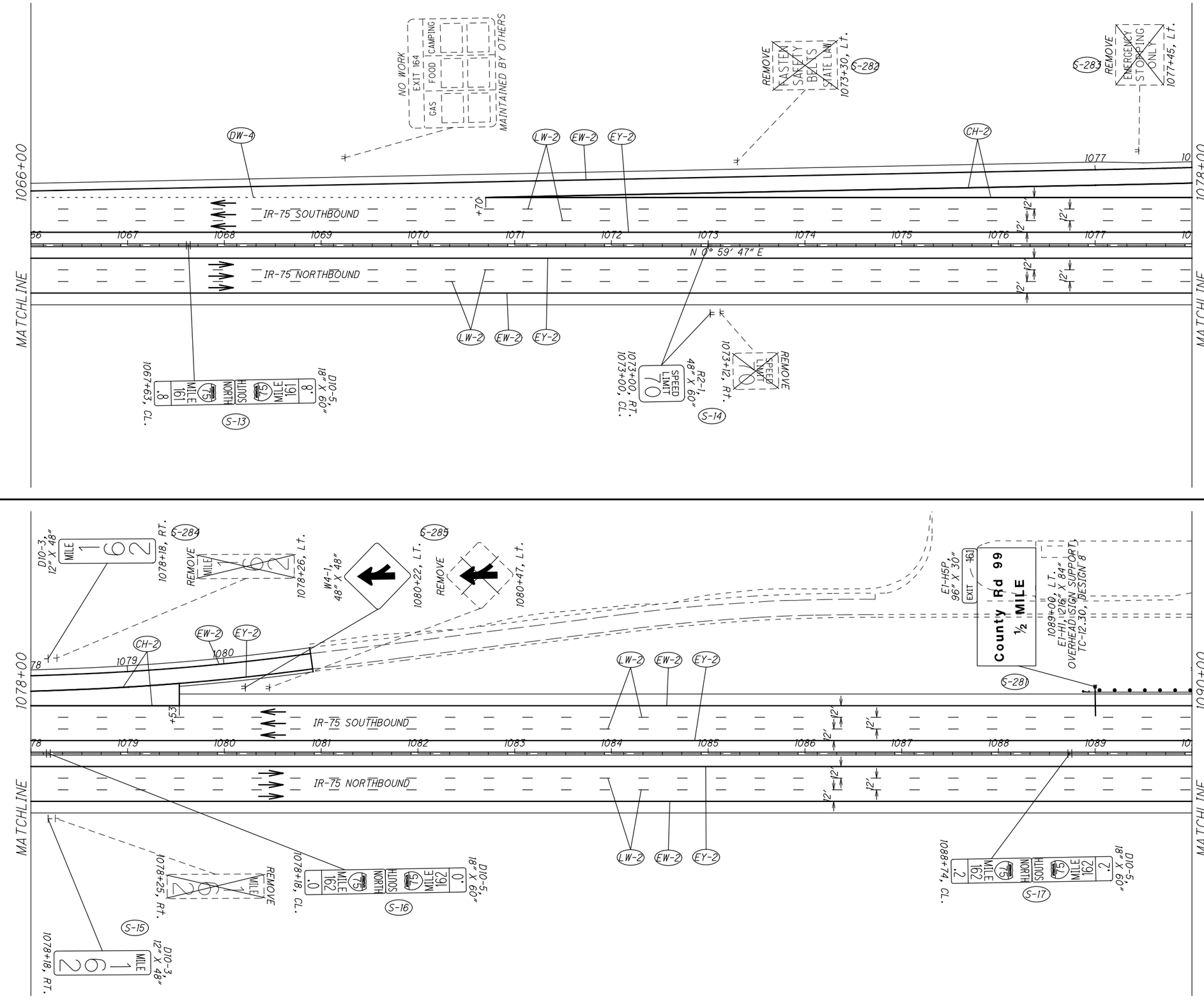


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	H	H
ONE WAY SUPPORT	⊥#	⊥#

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT		
TRUSS SUPPORT		



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HORIZONTAL SCALE IN FEET: 0, 25, 50, 100

CALCULATED NAT CHECKED LLA

SIGNING AND PAVEMENT MARKING PLAN

HAN/WOO-75-19.22/0.00

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PAVEMENT MARKING LEGEND (642)

(LW-2) 6" LANE LINE, WHITE

(EW-2) 6" EDGE LINE, WHITE

(EY-2) 6" EDGE LINE, YELLOW

(CH-2) 12" CHANNELIZING LINE, WHITE

(CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

(CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-12.20

(DW-4) 6" DOTTED LINE, WHITE

(ST-4) 24" STOP LINE, WHITE

(LA-4) 96" LANE ARROW

WRONG WAY ARROW

EXISTING TO REMAIN

DIRECTION OF TRAVEL

RAISED PAVEMENT MARKERS

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING TO REMAIN

EXISTING TO BE REMOVED

EXIT GORE DETAIL

0-48' 12" C/C
49-96' 24" C/C
97'+ 48" C/C
12'
24'
48'
45°
CH
CW

GROUND MOUNTED SIGN & BEAM SUPPORTS — EXIST. — PROP.

SINGLE POST

DOUBLE POST

TRIPLE POST

BACK TO BACK POST

ONE WAY SUPPORT

OVERHEAD MOUNTED SIGN SUPPORTS — EXIST. — PROP.

CANTILEVER SUPPORT

TRUSS SUPPORT

MATCHLINE 1090+00

REMOVE EXIT 161 Co Rd 99 1 MILE (S-28) 1090+03, Lt.

IR-75 NORTHBOUND

IR-75 SOUTHBOUND

D8-3, 84" X 72" WEIGH STATION 1095+61, Lt. GROUND MOUNTED W6 X 9 BEAMS (S-28)

REMOVE WEIGH STATION 1095+66, Lt.

REMOVE NO PARKING ANY TIME (S-28) 1096+54, Lt.

R7-1, 12" X 18" NO PARKING ANY TIME 1096+54, Lt.

REMOVE NO PARKING ANY TIME (S-28) 1098+54, Lt.

R7-1, 12" X 18" NO PARKING ANY TIME 1098+54, Lt.

REMOVE NO PARKING ANY TIME (S-28) 1100+44, Lt.

R7-1, 12" X 18" NO PARKING ANY TIME 1100+44, Lt.

1097+00, RT. BRIDGE ICES BEFORE ROAD W8-13, 48" X 48" (S-18)

1097+10, Rt. MATCH LINE FOR BRIDGES REMOVE

1099+30, CL. D10-5, 18" X 60" (S-19) 75 NORTH SOUTH MILE 162 .4

MATCHLINE 1102+00

MATCHLINE 1102+00

REMOVE NO PARKING ANY TIME (DW-4) 1102+70, Lt.

R7-1, 12" X 18" NO PARKING ANY TIME (S-29) 1102+70, Lt.

REMOVE Findlay NEXT 4 EXITS 1106+02, Lt.

E7-H4, 132" X 60" Findlay NEXT 4 EXITS 1107+00, LT. GROUND MOUNTED W10 X 12 BEAMS (S-29)

1109+00, RT. GROUND MOUNTED W10 X 12 BEAMS MOVE OVER FOR STOPPED VEHICLE WITH FLASHING LIGHTS R25-H1, 120" X 60" (S-20)

REMOVE STATE LAW MOVE OVER OR SLOW DOWN FOR STOPPED PUBLIC SAFETY AND ROAD SERVICE VEHICLES 1109+35, Rt.

1109+86, CL. D10-5, 18" X 60" (S-21) 75 NORTH SOUTH MILE 162 .6

REMOVE WEIGH STATION CLOSED NEXT RIGHT 1110+51, Lt. (S-29)

D8-H2, 144" X 72 WEIGH STATION NEXT RIGHT OPEN 1113+00, LT. GROUND MOUNTED W10 X 12 BEAMS

MATCHLINE 1114+00

251 / 336	HAN/WOO-75-19.22/0.00	SIGNING AND PAVEMENT MARKING PLAN	CALCULATED NAT / CHECKED LLA	0 50 25 100 HORIZONTAL SCALE IN FEET

PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

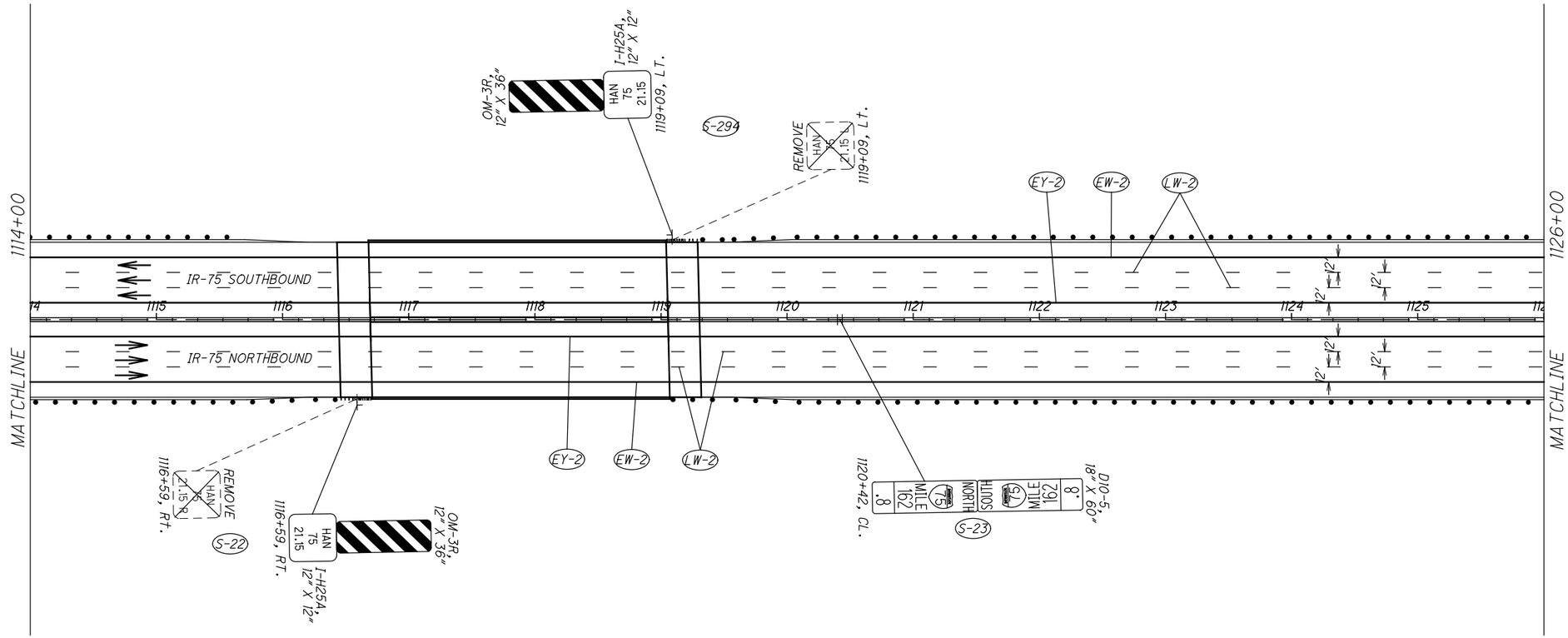
- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

RAISED PAVEMENT MARKERS

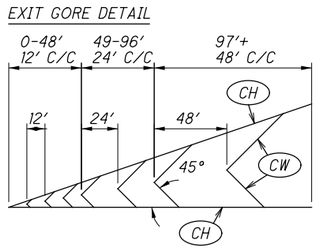
INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED



EXIT GORE DETAIL

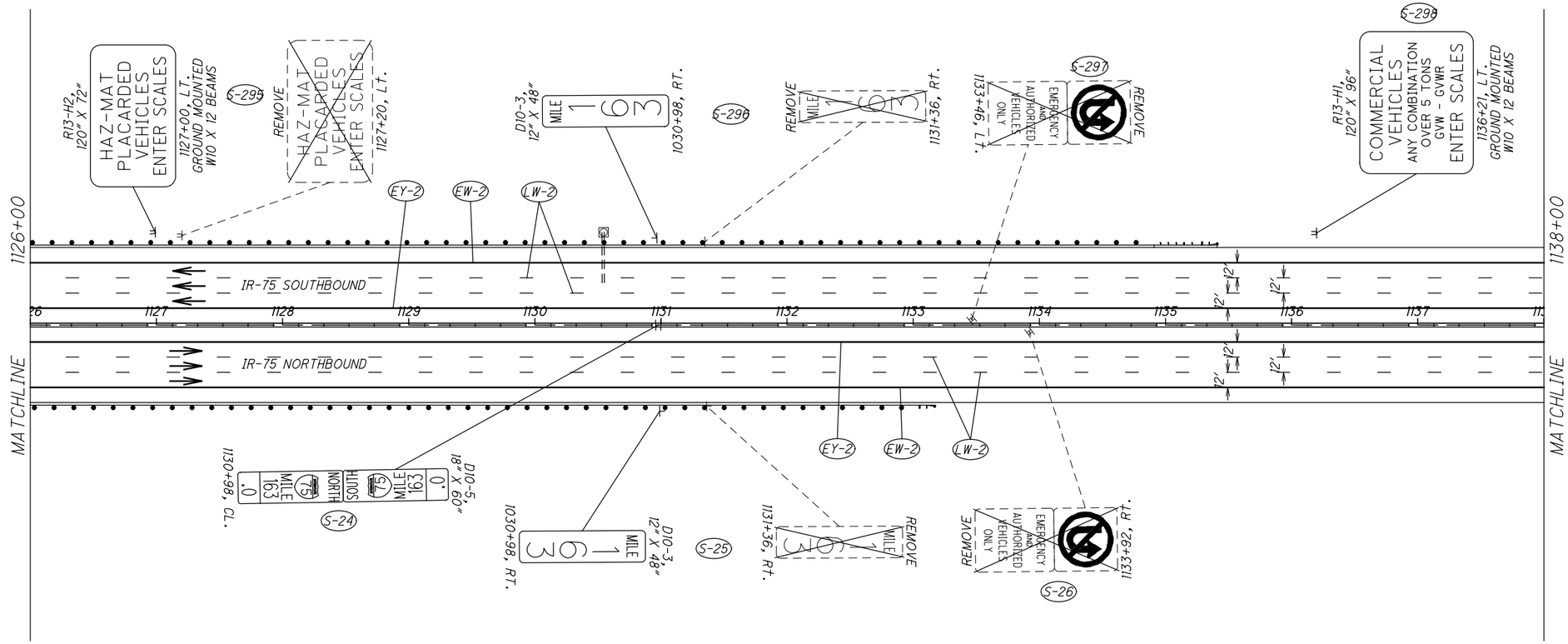


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	H	H
ONE WAY SUPPORT	⊥#	⊥#

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT	⊥– –	⊥———
TRUSS SUPPORT	⊥H H⊥	⊥H H⊥



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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED NAT
CHECKED LLA

PAVEMENT MARKING PLAN

SIGNING AND

HAN/WOO-75-19.22/0.00

252
336

PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

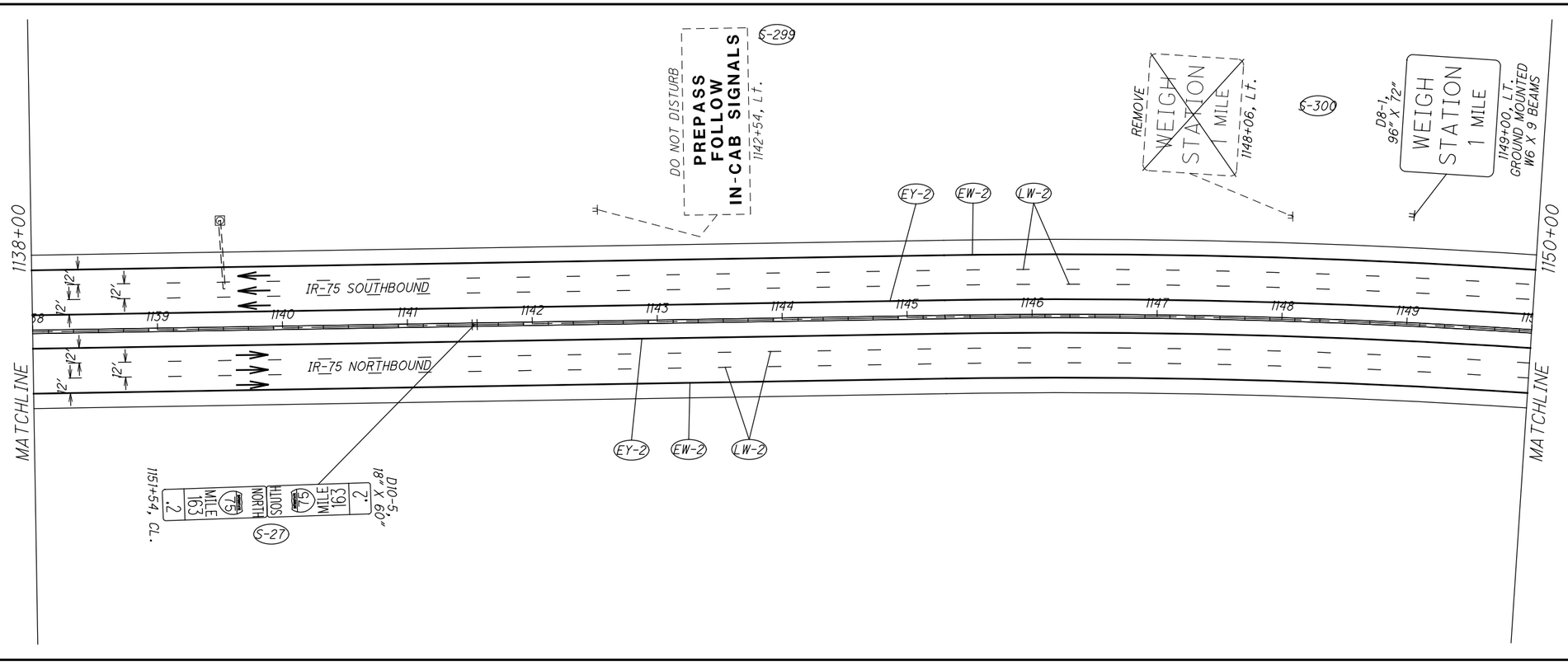
- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

RAISED PAVEMENT MARKERS

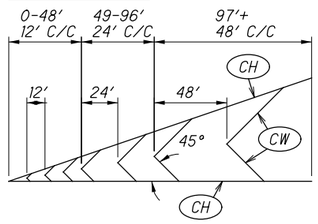
INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED



EXIT GORE DETAIL

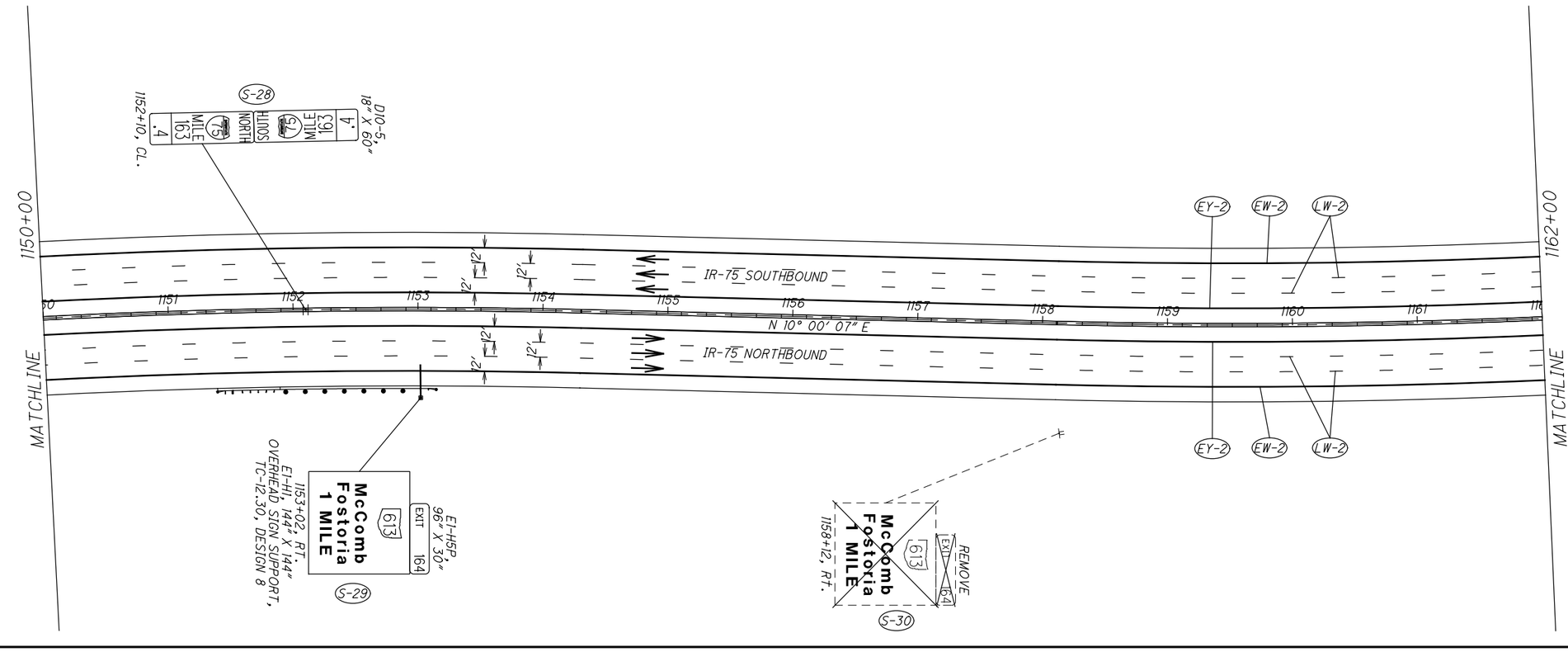


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	⊥⊥	⊥⊥
ONE WAY SUPPORT	⊥#	⊥#

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT		
TRUSS SUPPORT		



CALCULATED NAT
CHECKED LLA

HORIZONTAL SCALE IN FEET
0 25 50 100

SIGNING AND PAVEMENT MARKING PLAN

HAN/WOO-75-19.22/0.00

253
336

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PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

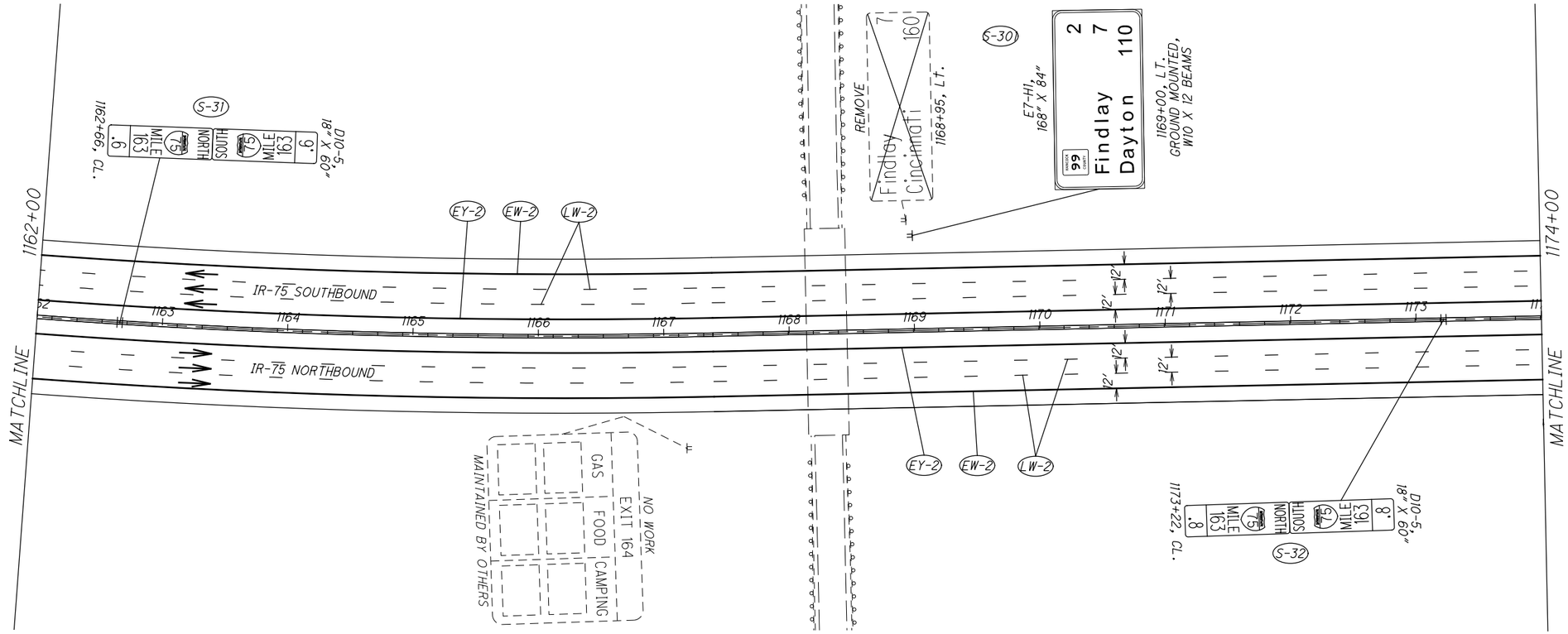
- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

RAISED PAVEMENT MARKERS

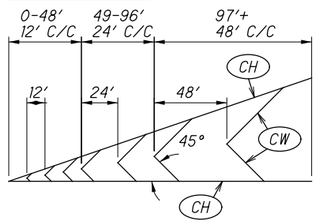
INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED



EXIT GORE DETAIL

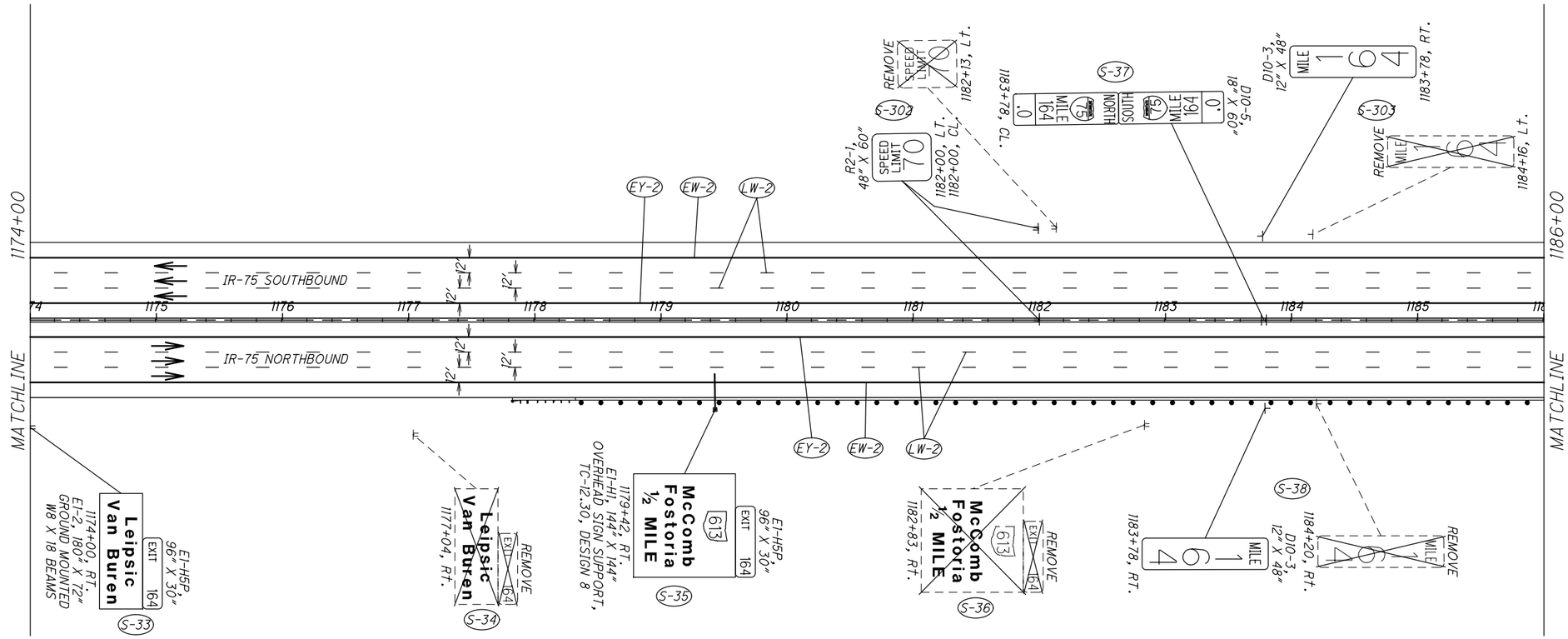


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	⊥⊥	⊥⊥
ONE WAY SUPPORT	⊥	⊥

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT	⊥ – –	⊥ ———
TRUSS SUPPORT	⊥ ⊏⊐	⊥ ⊏⊐



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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED NAT
CHECKED LLA

SIGNING AND PAVEMENT MARKING PLAN

HAN/WOO-75-19.22/0.00

PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

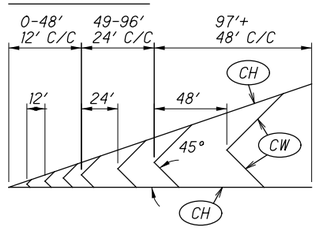
RAISED PAVEMENT MARKERS

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED

EXIT GORE DETAIL

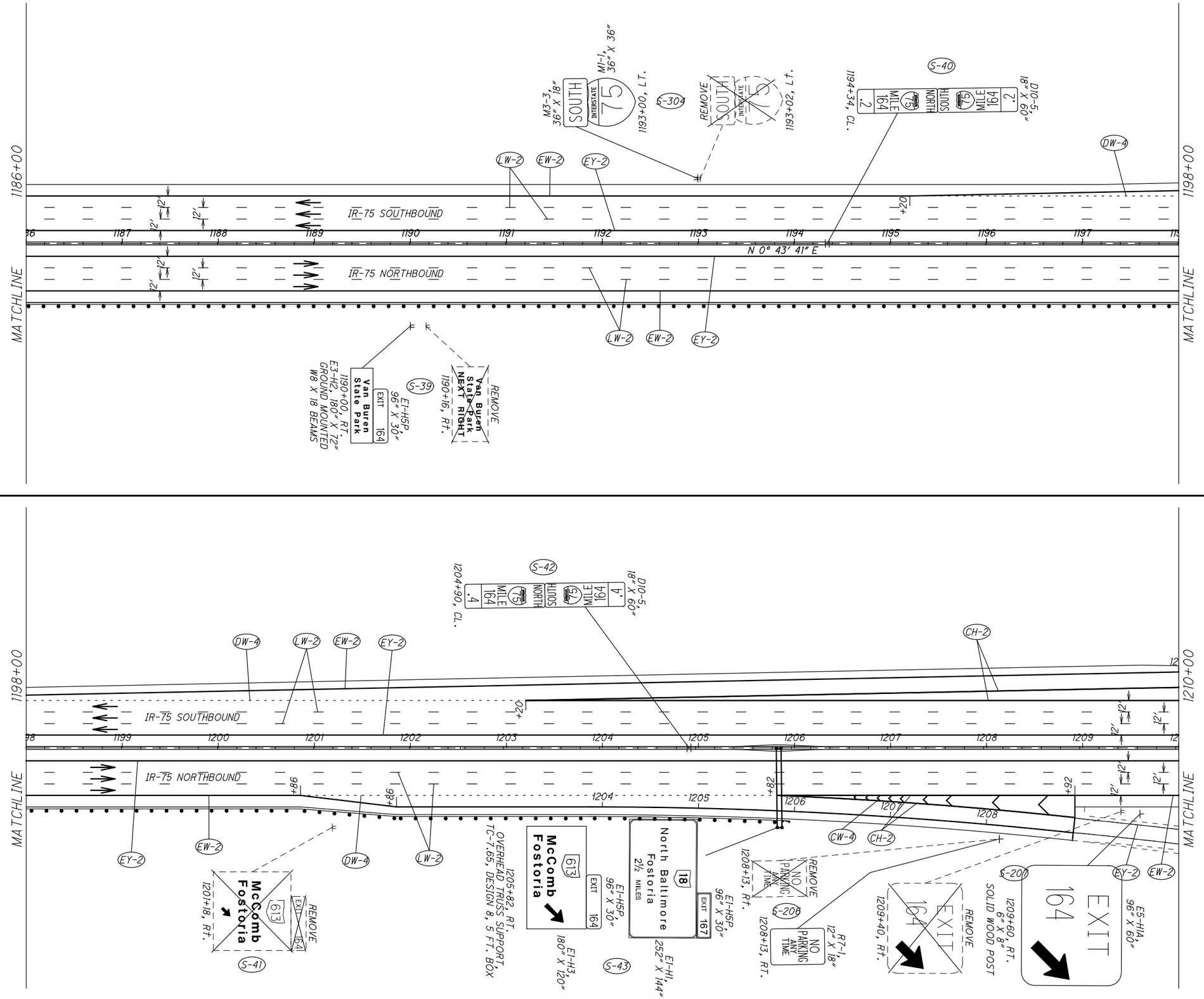


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	H	H
ONE WAY SUPPORT	⊥‖	⊥‖

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT		
TRUSS SUPPORT		



0 25 50 100 HORIZONTAL SCALE IN FEET

CALCULATED NAT CHECKED LLA

SIGNING AND PAVEMENT MARKING PLAN

HAN/WOO-75-19.22/0.00

255 336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\Traffic\Buildable Unit 2\954377P010.dgn 3/18/2015 4:43:15 PM CMN

PAVEMENT MARKING LEGEND (642)

(LW-2) 6" LANE LINE, WHITE

(EW-2) 6" EDGE LINE, WHITE

(EY-2) 6" EDGE LINE, YELLOW

(CH-2) 12" CHANNELIZING LINE, WHITE

(CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

(CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20

(DW-4) 6" DOTTED LINE, WHITE

(ST-4) 24" STOP LINE, WHITE

(LA-4) 96" LANE ARROW

WRONG WAY ARROW

EXISTING TO REMAIN

DIRECTION OF TRAVEL

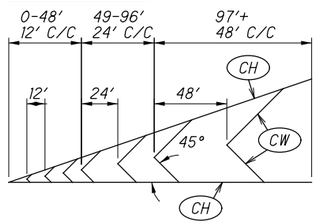
RAISED PAVEMENT MARKERS

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED

EXIT GORE DETAIL

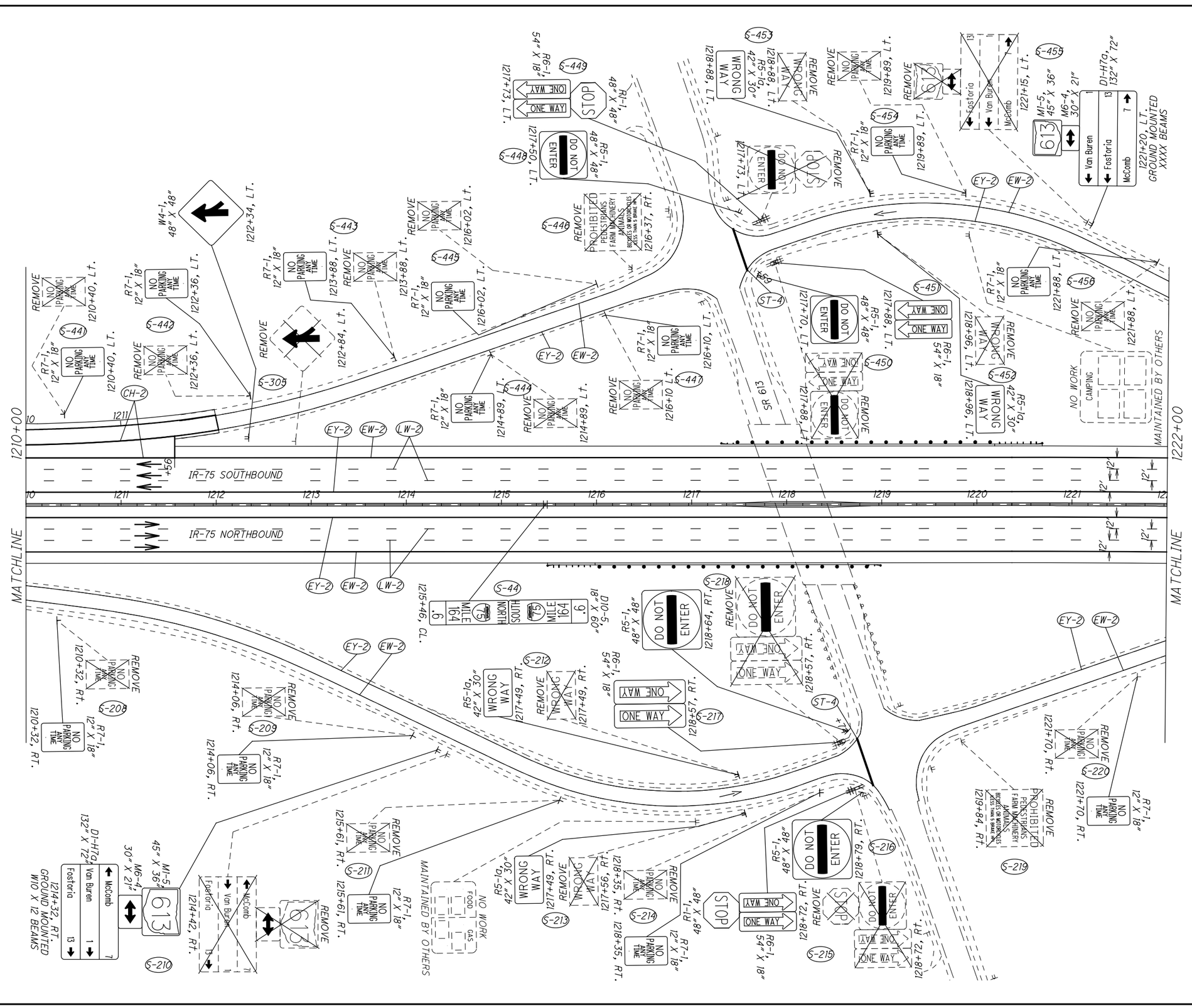


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⫫	⫫
TRIPLE POST	⫴	⫴
BACK TO BACK POST	H	H
ONE WAY SUPPORT	⫫	⫫

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT	⊥ — —	
TRUSS SUPPORT	⫫ ⫫	


1210+00
1222+00
IR-75 SOUTHBOUND
IR-75 NORTHBOUND
MATCHLINE
MATCHLINE
SR 613
NO WORK
CAMPING
MAINTAINED BY OTHERS
NO WORK
FOOD
GAS
MAINTAINED BY OTHERS
REMOVE
PROHIBITED
PEDESTRIANS
FARM MACHINERY
ANIMALS
BICYCLES OR MOTORCYCLES LESS THAN 5 BRAKE HP
R7-1, 12" X 18" NO PARKING ANY TIME
W4-1, 48" X 48"
R1-1, 48" X 48" STOP
R5-1, 48" X 48" DO NOT ENTER
R5-1a, 42" X 30" WRONG WAY
R6-1, 54" X 18" ONE WAY
D10-5, 18" X 60" I-75 SOUTH MILE 164
D10-5, 18" X 60" I-75 NORTH MILE 164
M1-5, 45" X 36"
M6-4, 30" X 21"
D1-HTg, 132" X 72"
Fostoria
Van Buren
McComb
1214+32, RT. GROUND MOUNTED W/O X 12 BEAMS
1221+20, LT. GROUND MOUNTED XXXX BEAMS
S-44
S-44a
S-44b
S-44c
S-44d
S-44e
S-44f
S-44g
S-44h
S-44i
S-44j
S-44k
S-44l
S-44m
S-44n
S-44o
S-44p
S-44q
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PAVEMENT MARKING LEGEND (642)

(LW-2) 6" LANE LINE, WHITE
(EW-2) 6" EDGE LINE, WHITE
(EY-2) 6" EDGE LINE, YELLOW
(CH-2) 12" CHANNELIZING LINE, WHITE
(CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

(CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-12.20
(DW-4) 6" DOTTED LINE, WHITE
(ST-4) 24" STOP LINE, WHITE
(LA-4) 96" LANE ARROW

WRONG WAY ARROW
EXISTING TO REMAIN
DIRECTION OF TRAVEL

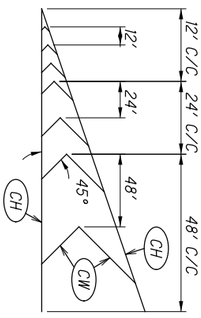
RAISED PAVEMENT MARKERS

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED
EXISTING TO REMAIN
EXISTING TO BE REMOVED

EXIT GORE DETAIL

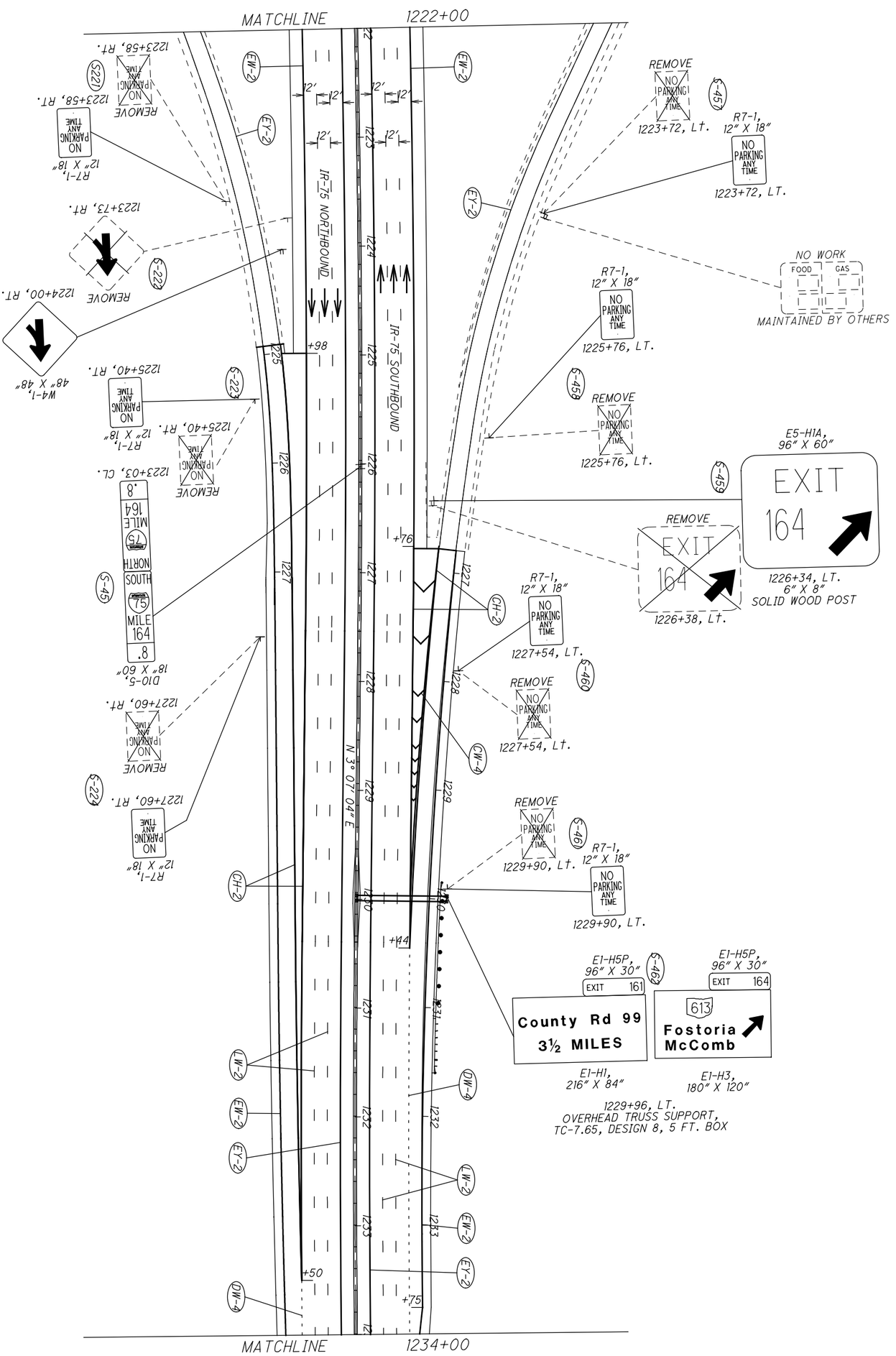


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EXIST.	PROP.
SINGLE POST		
DOUBLE POST		
TRIPLE POST		
BACK TO BACK POST		
ONE WAY SUPPORT		

OVERHEAD MOUNTED SIGN SUPPORTS

	EXIST.	PROP.
CANTILEVER SUPPORT		
TRUSS SUPPORT		



SIGNING AND PAVEMENT MARKING PLAN

CALCULATED NAT
CHECKED LLA

0 25 50 100
HORIZONTAL SCALE IN FEET

PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

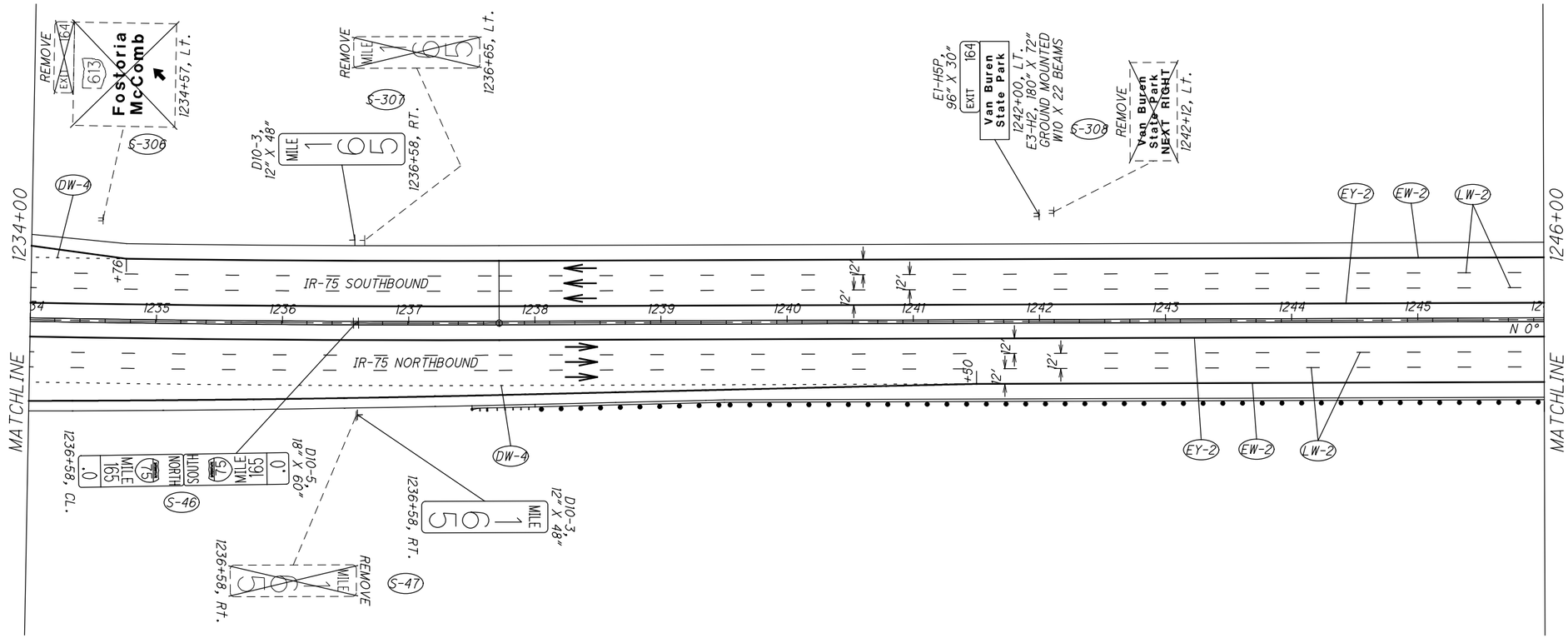
- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

RAISED PAVEMENT MARKERS

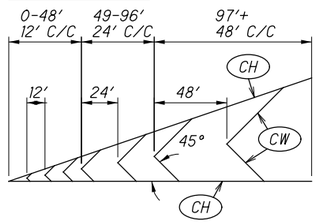
INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED



EXIT GORE DETAIL

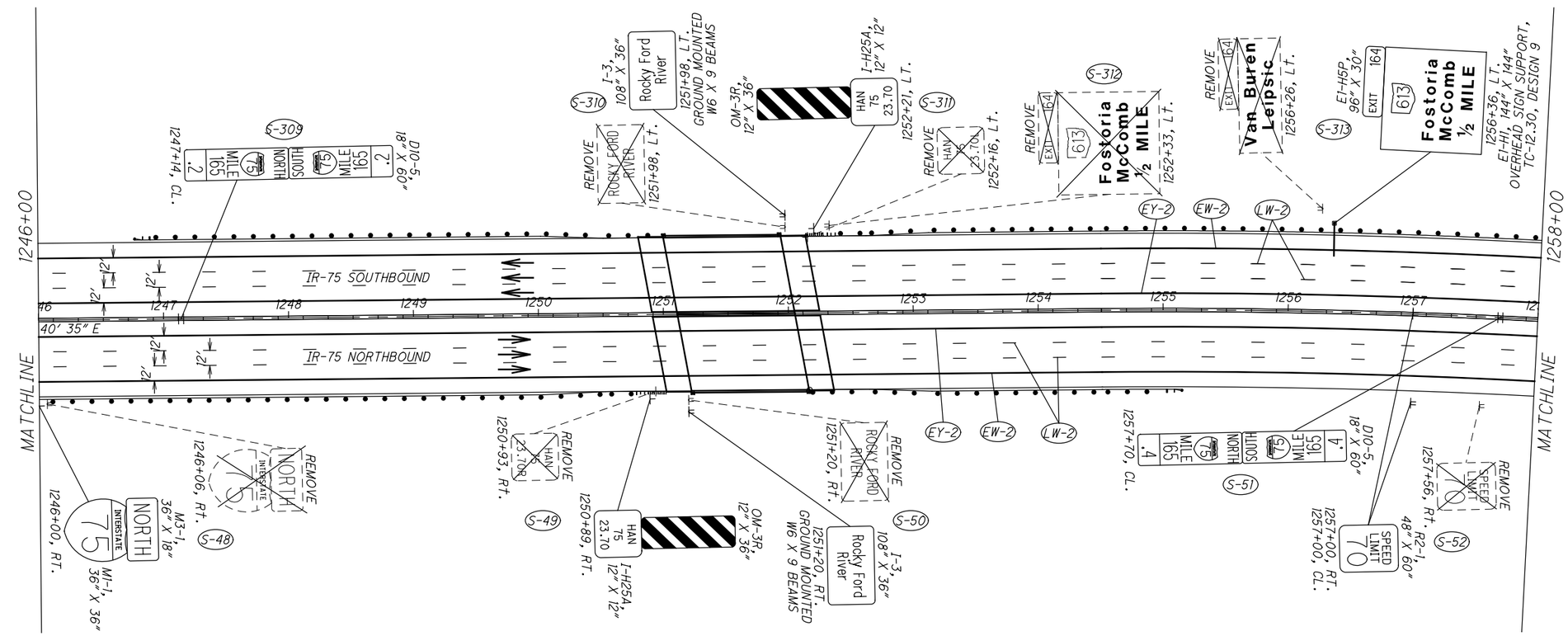


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	H	H
ONE WAY SUPPORT	⊥#	⊥#

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT		
TRUSS SUPPORT		



CALCULATED NAT CHECKED LLA

HORIZONTAL SCALE IN FEET 0 25 50 100

SIGNING AND PAVEMENT MARKING PLAN

HAN/WOO-75-19.22/0.00

258 336

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PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

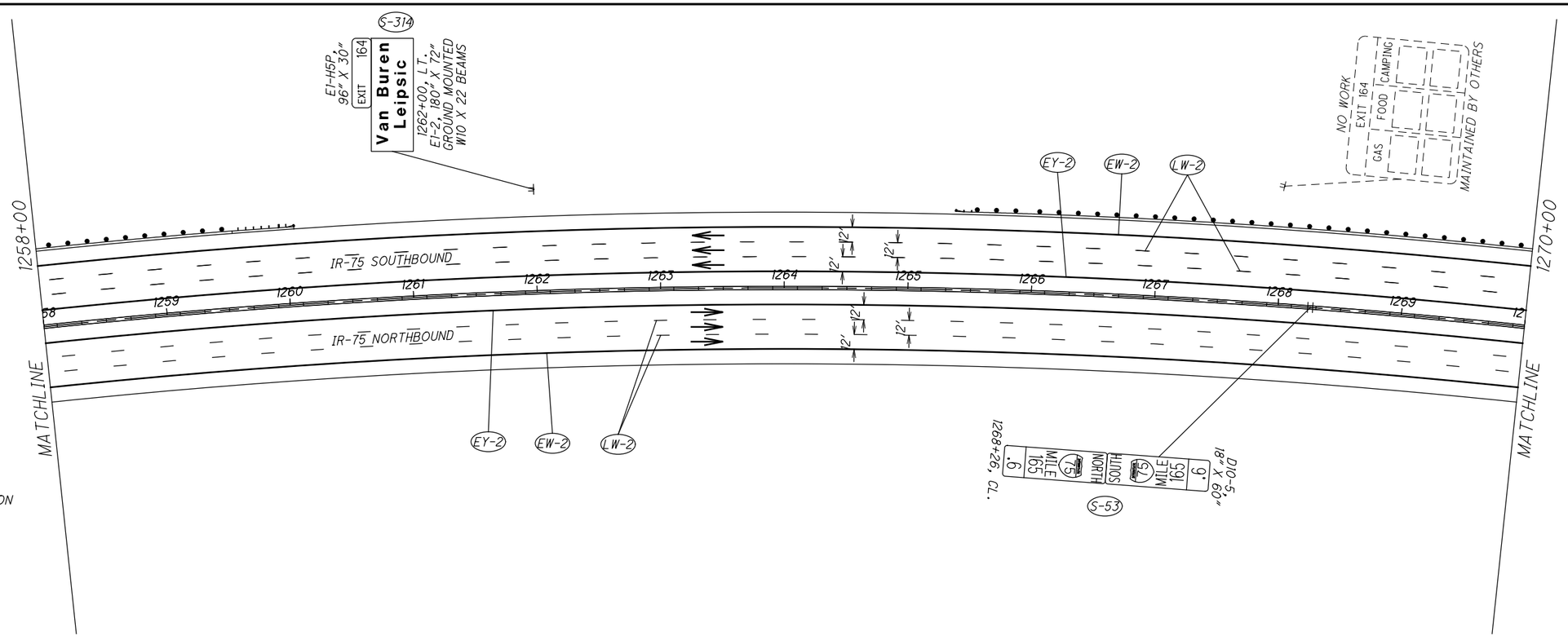
- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

RAISED PAVEMENT MARKERS

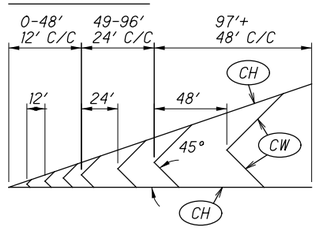
INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED



EXIT GORE DETAIL

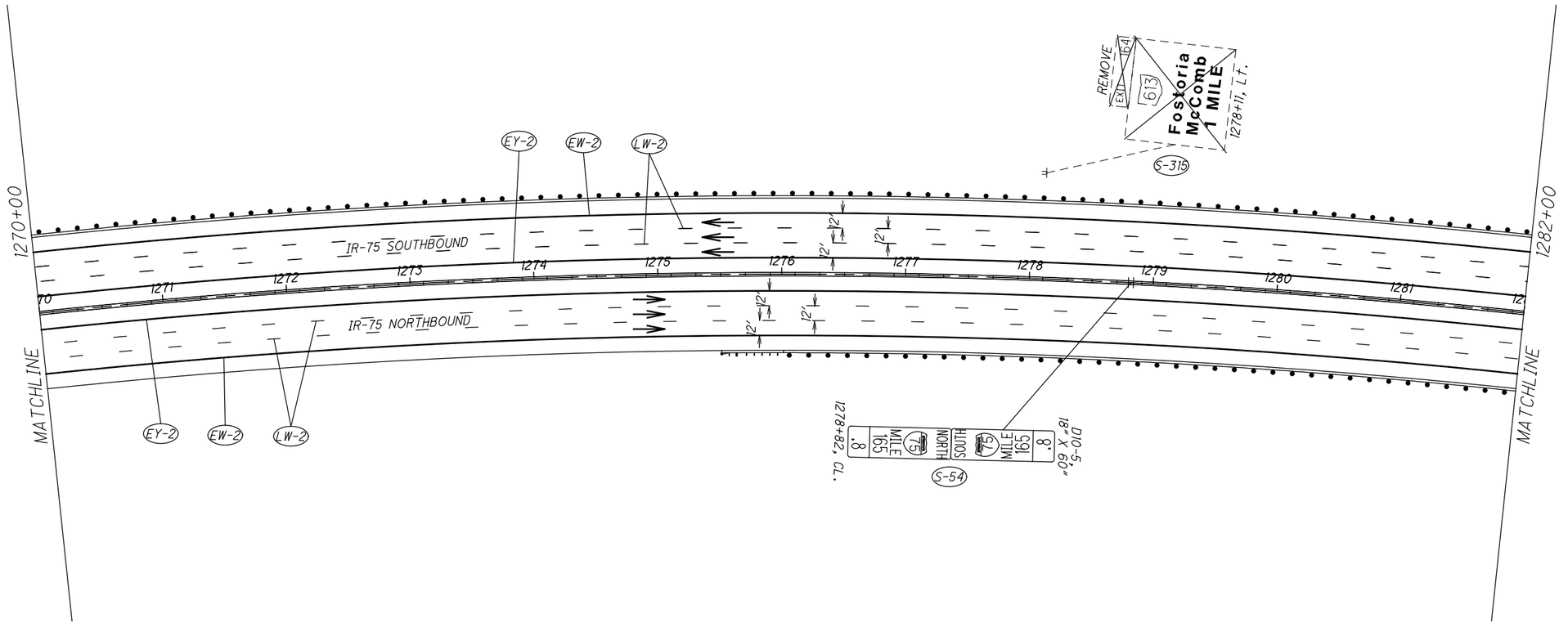


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	⊥⊥	⊥⊥
ONE WAY SUPPORT	⊥	⊥

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT	⊥– –	⊥—
TRUSS SUPPORT	⊥⊏⊐⊥	⊥═⊥



CALCULATED NAT CHECKED LLA

HORIZONTAL SCALE IN FEET 0 25 50 100

SIGNING AND PAVEMENT MARKING PLAN

HAN/WOO-75-19.22/0.00

259 / 336

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PAVEMENT MARKING LEGEND (642)

- (LW-2) 6" LANE LINE, WHITE
- (EW-2) 6" EDGE LINE, WHITE
- (EY-2) 6" EDGE LINE, YELLOW
- (CH-2) 12" CHANNELIZING LINE, WHITE
- (CL-2) 4" CENTER LINE, SOLID, DOUBLE, YELLOW

PAVEMENT MARKING LEGEND (644)

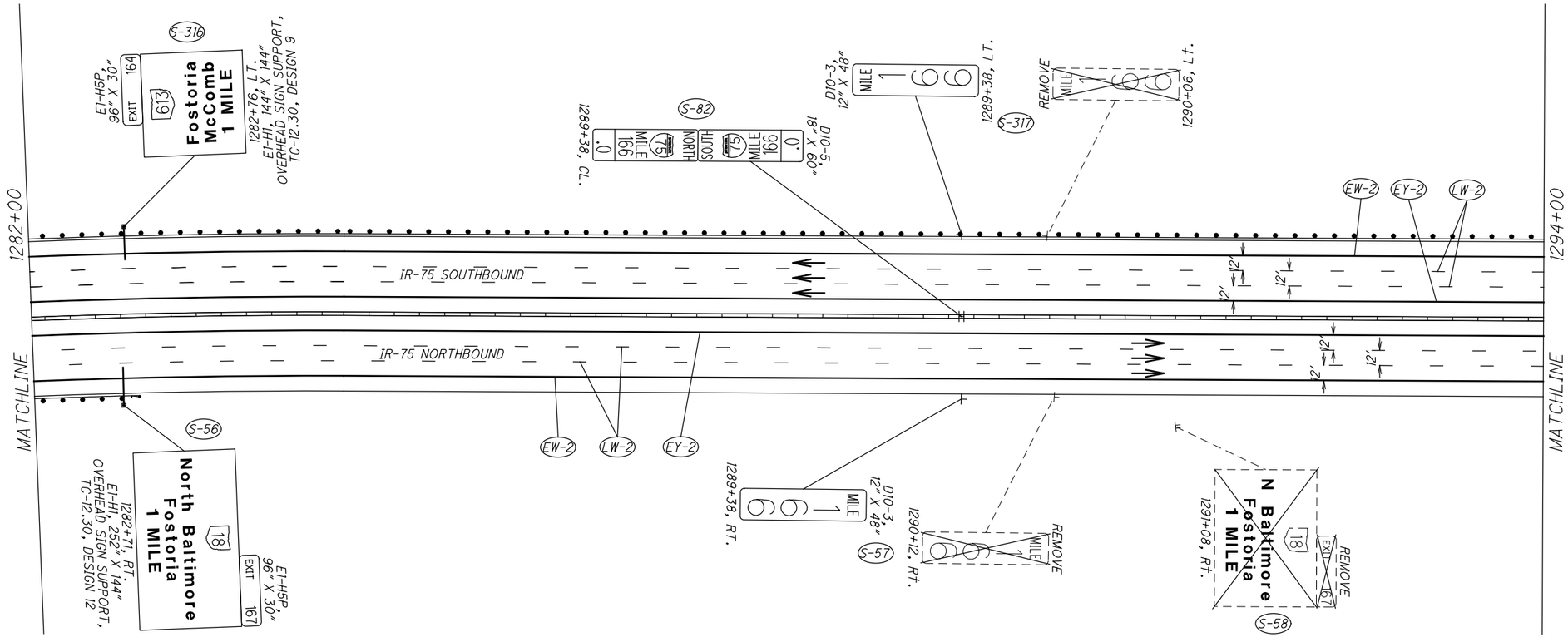
- (CW-4) 24" CHEVRON MARKING, WHITE, @45 DEGREES, W/SPACING PER SCD TC-72.20
- (DW-4) 6" DOTTED LINE, WHITE
- (ST-4) 24" STOP LINE, WHITE
- (LA-4) 96" LANE ARROW
- WRONG WAY ARROW
- EXISTING TO REMAIN
- DIRECTION OF TRAVEL

RAISED PAVEMENT MARKERS

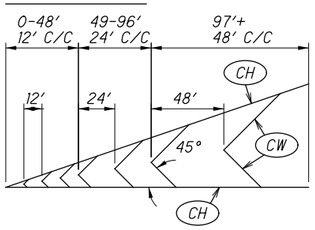
INSTALL RAISED PAVEMENT MARKERS ACCORDING TO STANDARD CONSTRUCTION DRAWINGS: TC-65.10 AND TC-65.11.

SIGNING LEGEND

PROPOSED EXISTING EXISTING TO TO REMAIN BE REMOVED



EXIT GORE DETAIL

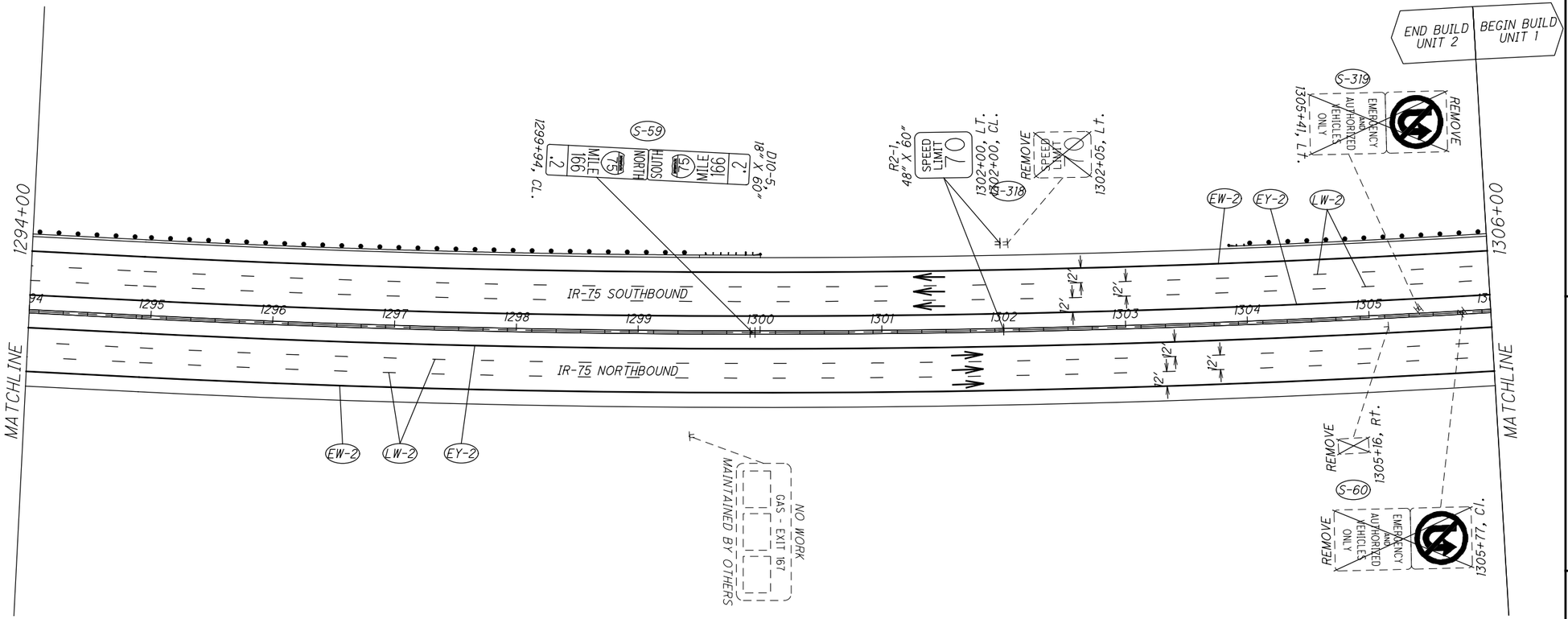


GROUND MOUNTED SIGN & BEAM SUPPORTS

	EX'G	PROP.
SINGLE POST	⊥	⊥
DOUBLE POST	⊥⊥	⊥⊥
TRIPLE POST	⊥⊥⊥	⊥⊥⊥
BACK TO BACK POST	H	H
ONE WAY SUPPORT	⊥#	⊥#

OVERHEAD MOUNTED SIGN SUPPORTS

	EX'G	PROP.
CANTILEVER SUPPORT		
TRUSS SUPPORT		



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED NAT
CHECKED LLA

SIGNING AND PAVEMENT MARKING PLAN

HAN/WOO-75-19.22/0.00

260
336

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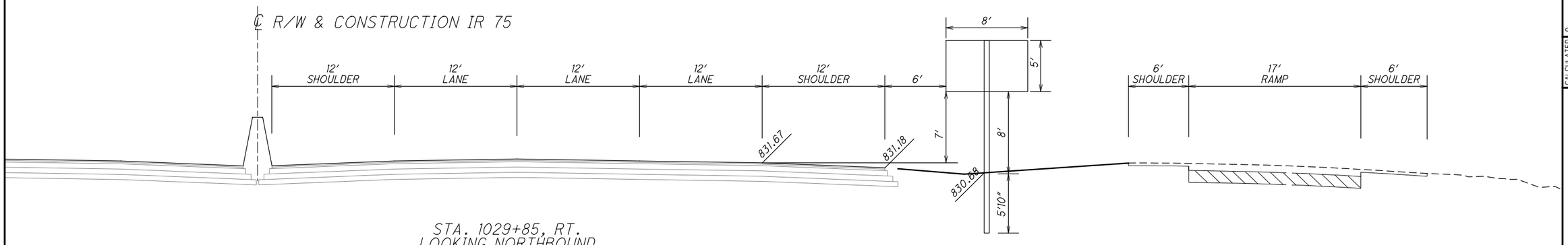
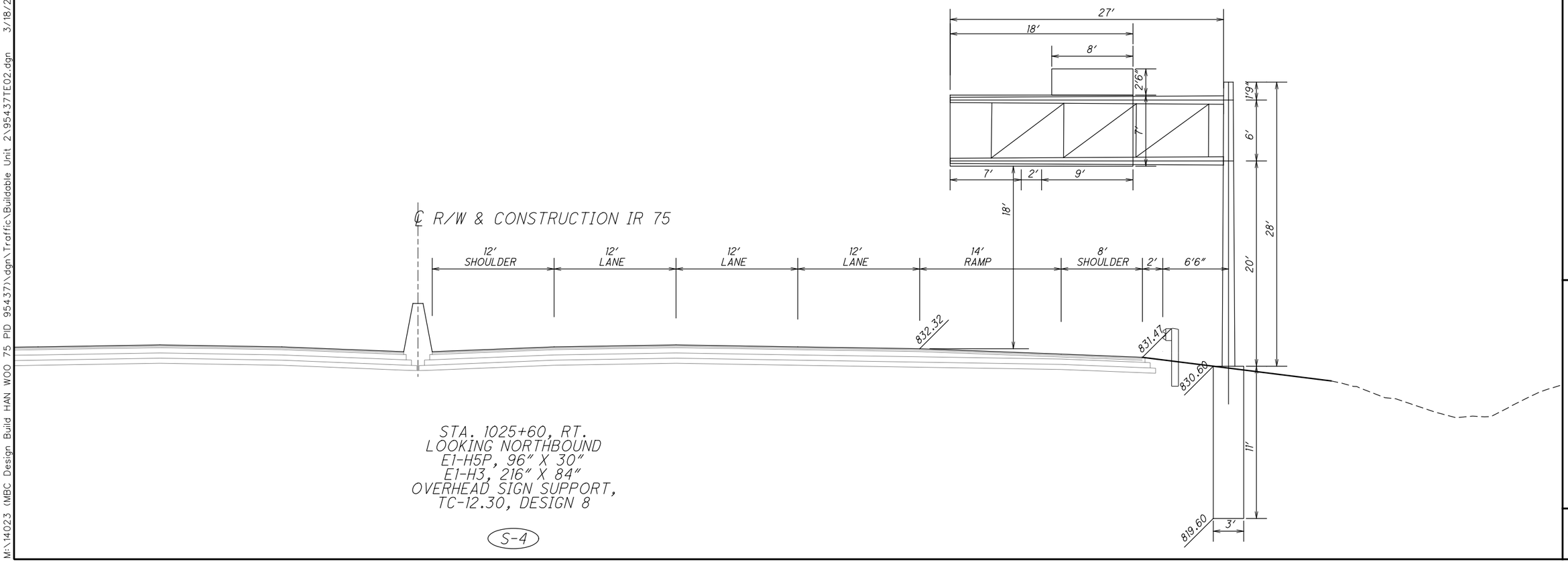


STA. 1029+85, RT.
LOOKING NORTHBOUND
E5-H1A, 96″ X 60″
USE SOLID WOOD POST, 6″ X 8″

S-6



STA. 1025+60, RT.
LOOKING NORTHBOUND
E1-H5P, 96″ X 30″
E1-H3, 216″ X 84″
OVERHEAD SIGN SUPPORT,
TC-12.30, DESIGN 8

S-4

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

261
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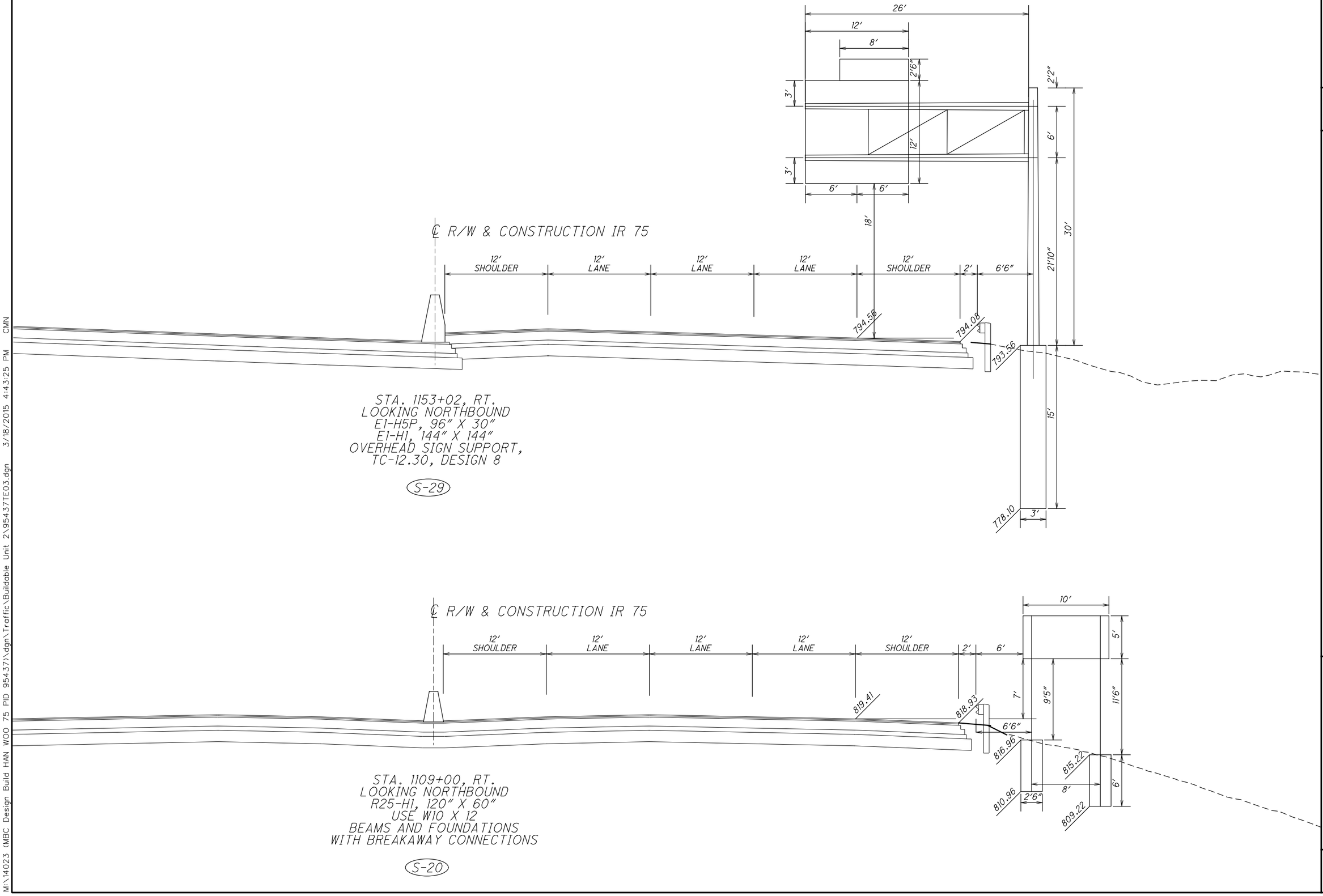

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

262
336

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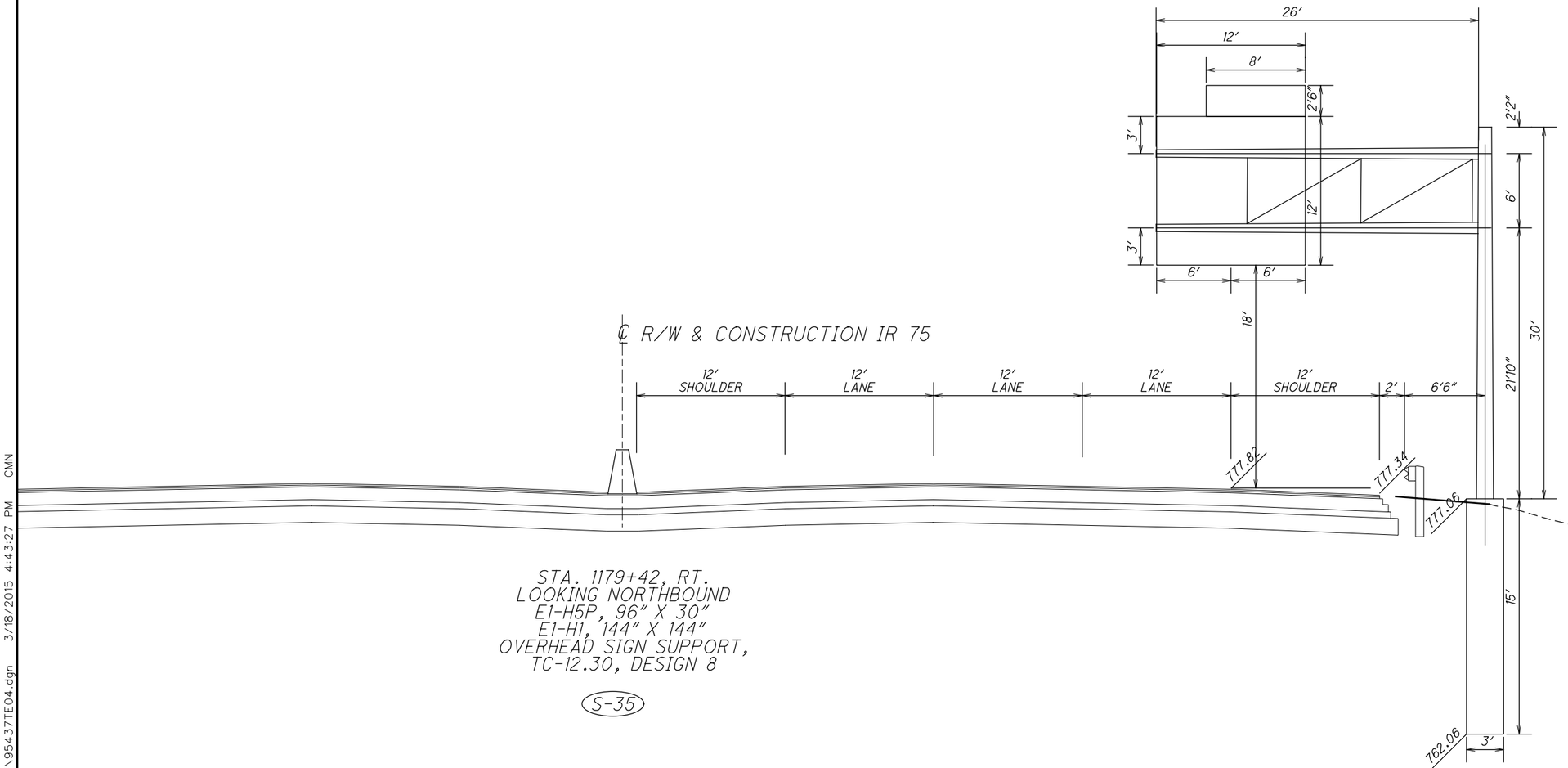
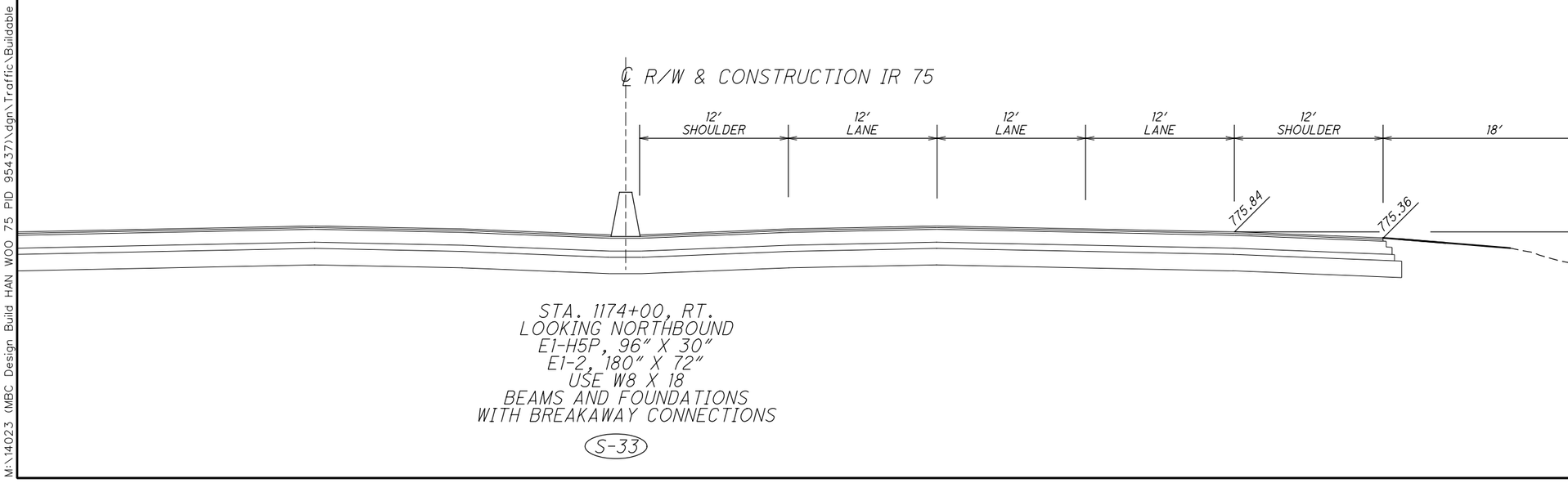


STA. 1179+42, RT.
LOOKING NORTHBOUND
E1-H5P, 96″ X 30″
E1-H1, 144″ X 144″
OVERHEAD SIGN SUPPORT,
TC-12.30, DESIGN 8

S-35



STA. 1174+00, RT.
LOOKING NORTHBOUND
E1-H5P, 96″ X 30″
E1-2, 180″ X 72″
USE W8 X 18
BEAMS AND FOUNDATIONS
WITH BREAKAWAY CONNECTIONS

S-33

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

263
336

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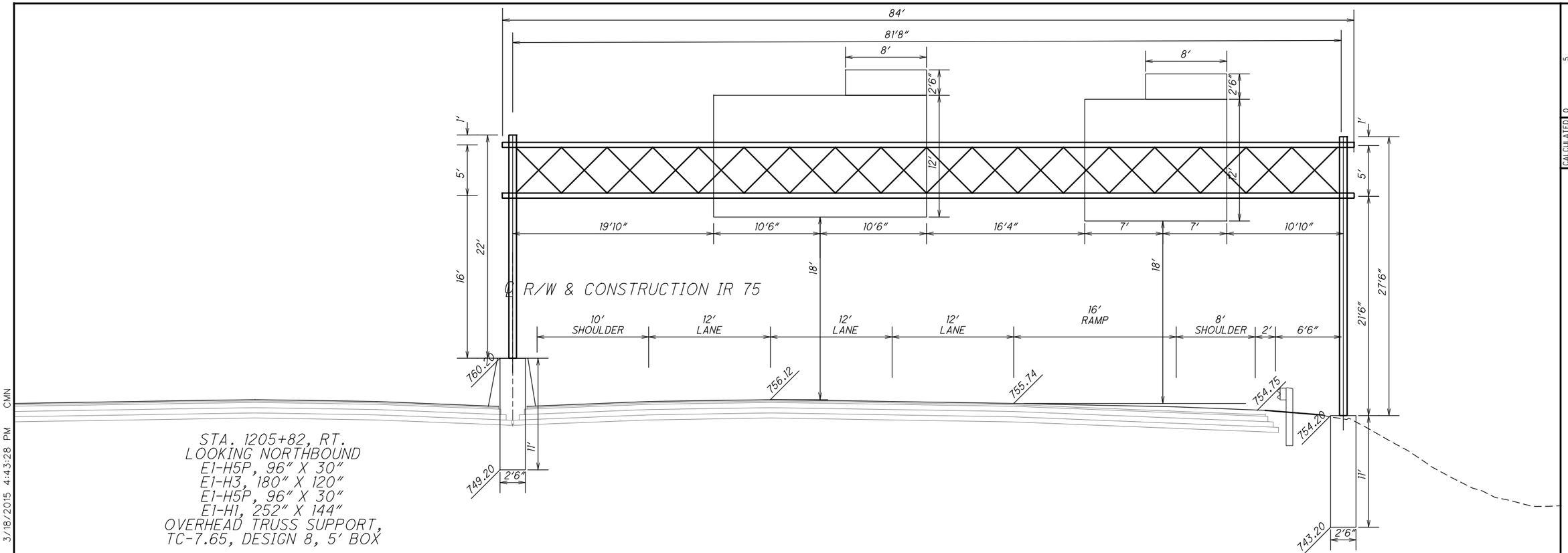
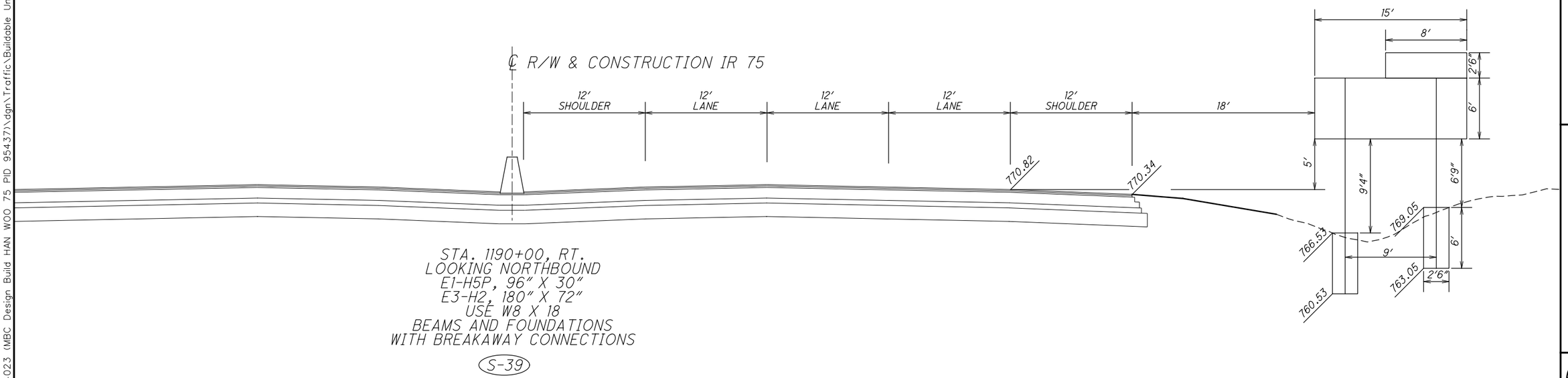


STA. 1205+82, RT.
LOOKING NORTHBOUND
E1-H5P, 96″ X 30″
E1-H3, 180″ X 120″
E1-H5P, 96″ X 30″
E1-H1, 252″ X 144″
OVERHEAD TRUSS SUPPORT,
TC-7.65, DESIGN 8, 5′ BOX

S-43



STA. 1190+00, RT.
LOOKING NORTHBOUND
E1-H5P, 96″ X 30″
E3-H2, 180″ X 72″
USE W8 X 18
BEAMS AND FOUNDATIONS
WITH BREAKAWAY CONNECTIONS

S-39

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT/CMN
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

264
336

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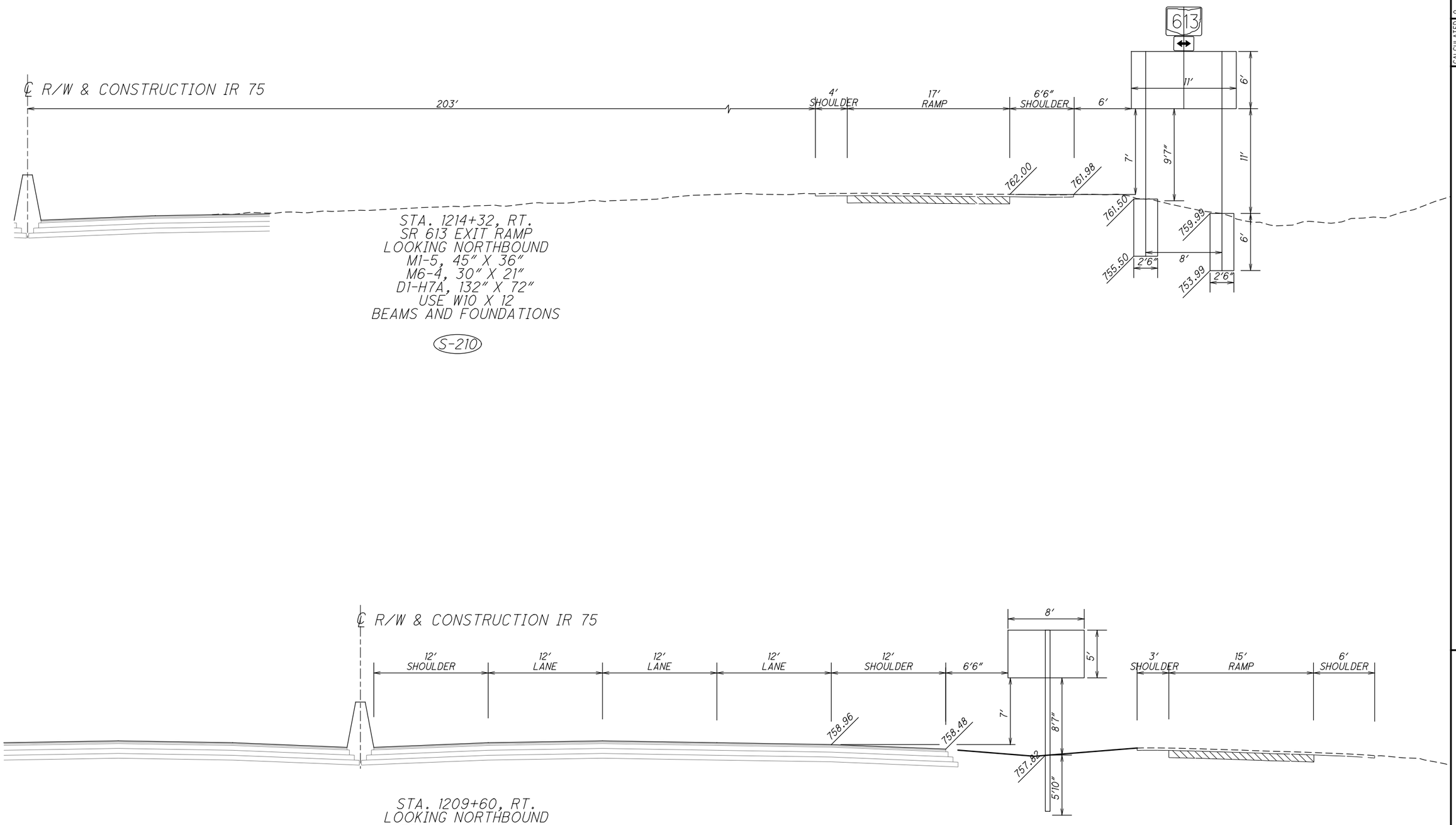

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

265
336

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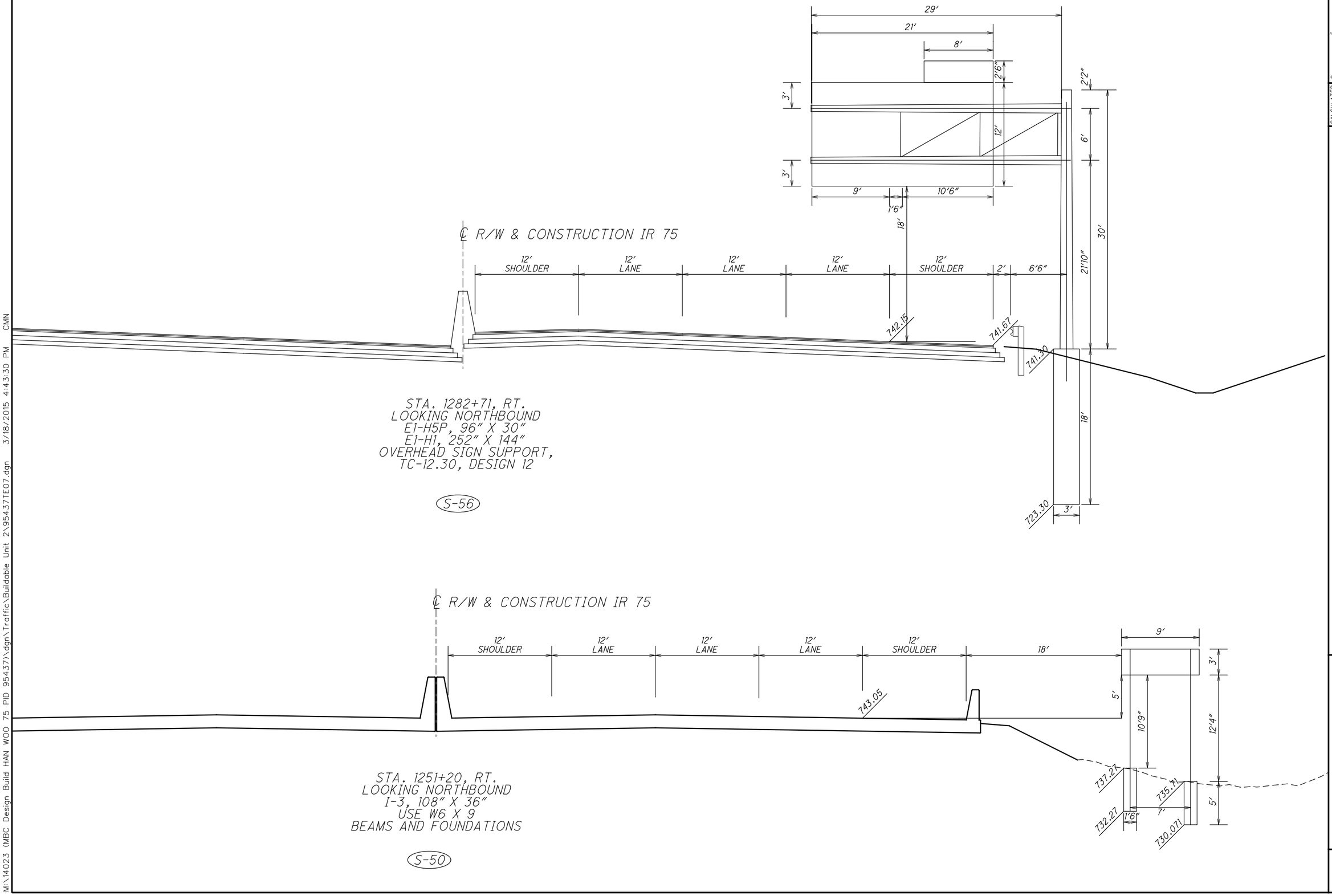


HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

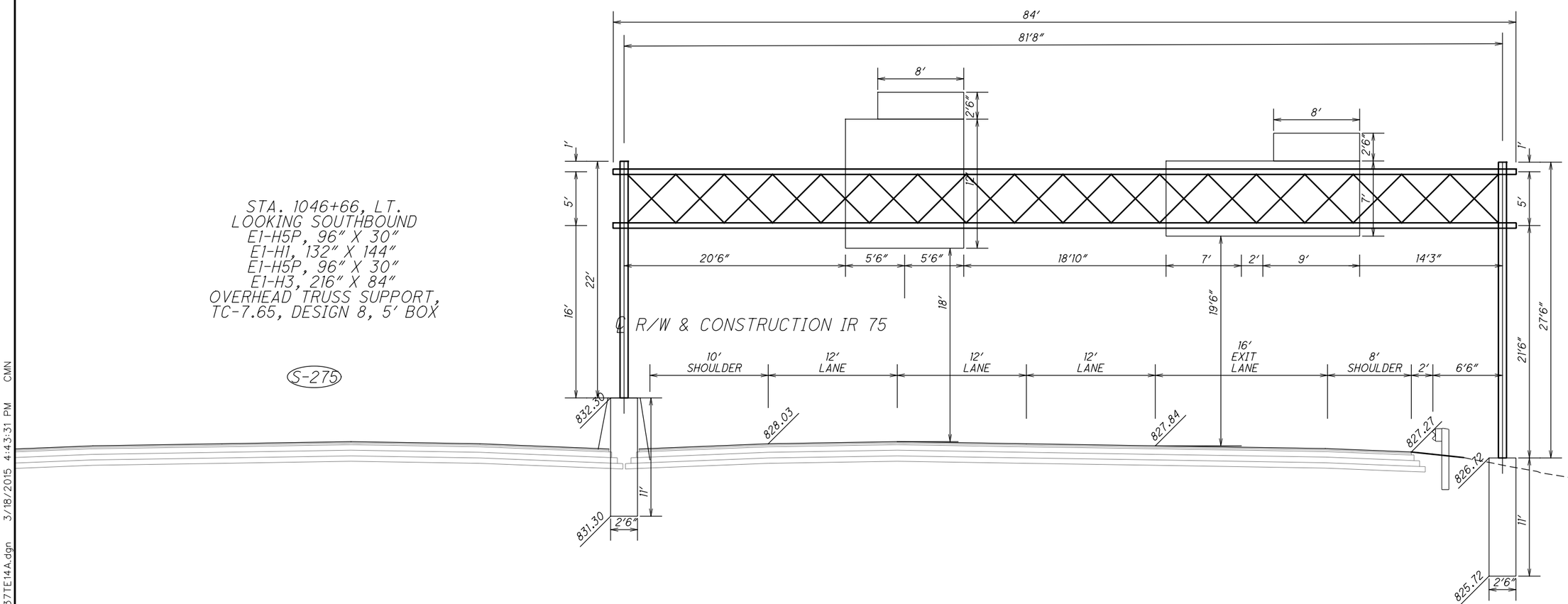
HAN/WOO-75-19.22/0.00

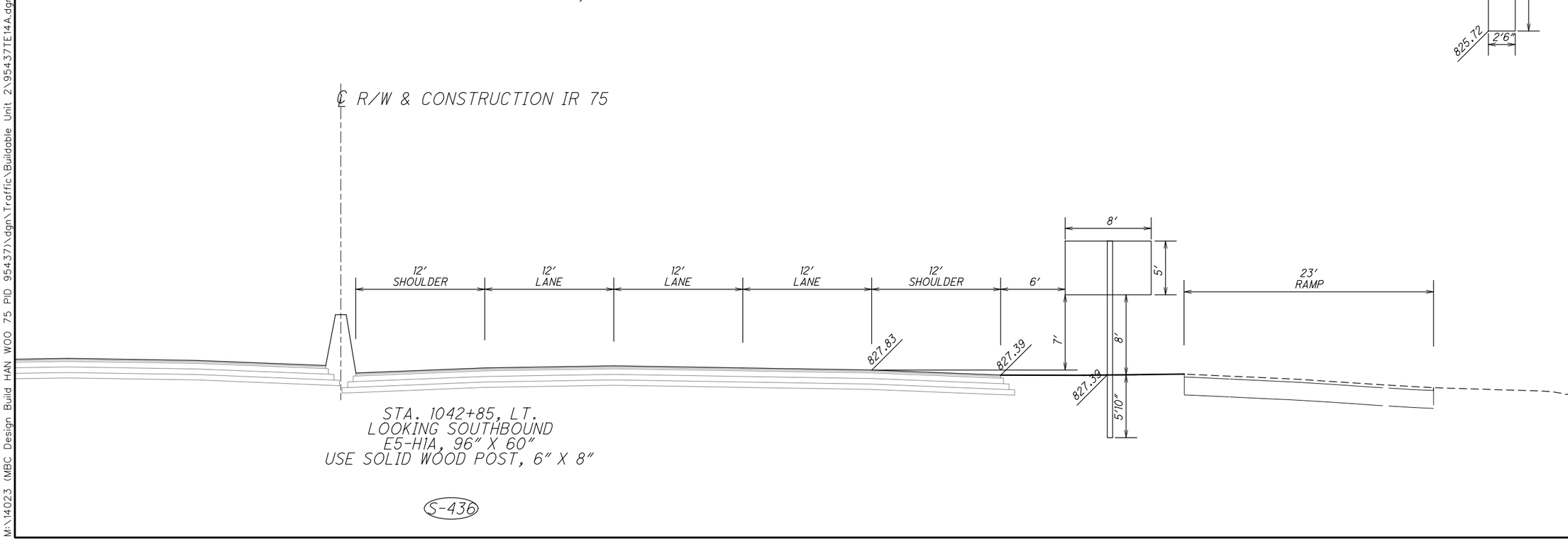
266
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\Traffic\Buildable Unit 2\95437TE07.dgn 3/18/2015 4:43:30 PM CMN

STA. 1046+66, LT.
LOOKING SOUTHBOUND
E1-H5P, 96" X 30"
E1-H1, 132" X 144"
E1-H5P, 96" X 30"
E1-H3, 216" X 84"
OVERHEAD TRUSS SUPPORT,
TC-7.65, DESIGN 8, 5' BOX

S-275





STA. 1042+85, LT.
LOOKING SOUTHBOUND
E5-H1A, 96" X 60"
USE SOLID WOOD POST, 6" X 8"

S-436

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

267
336

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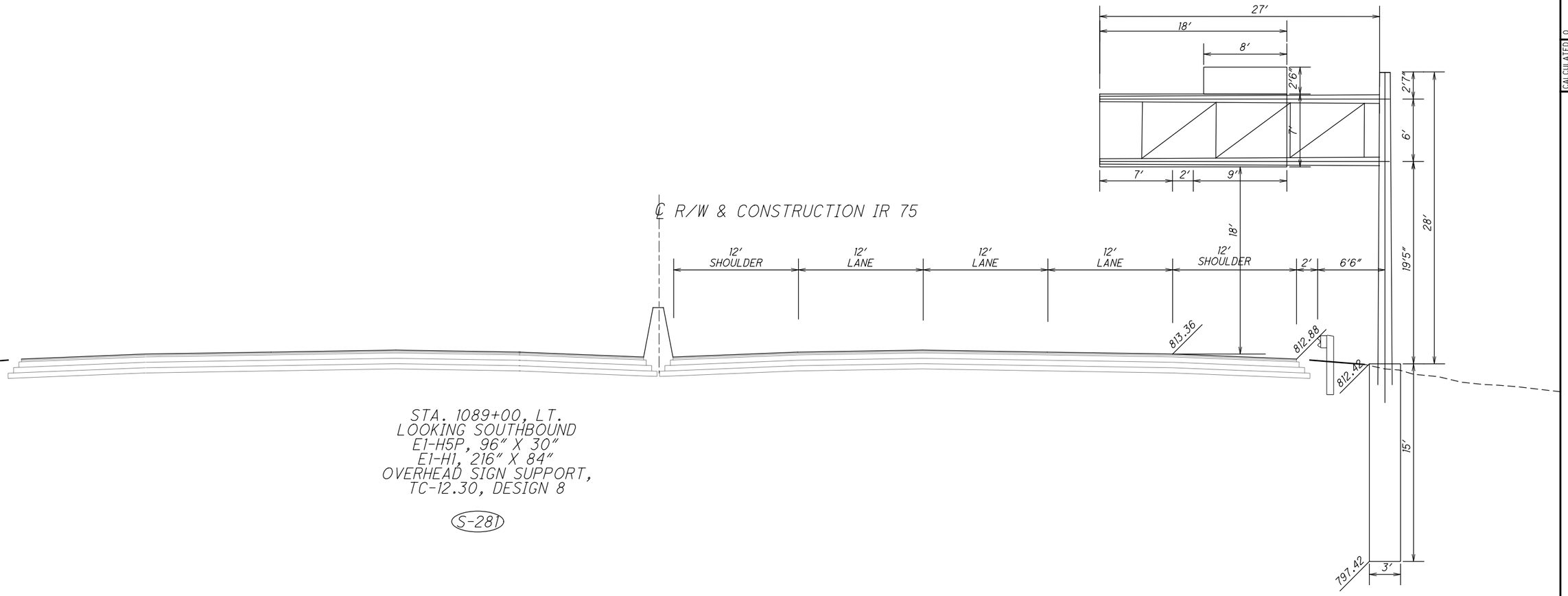
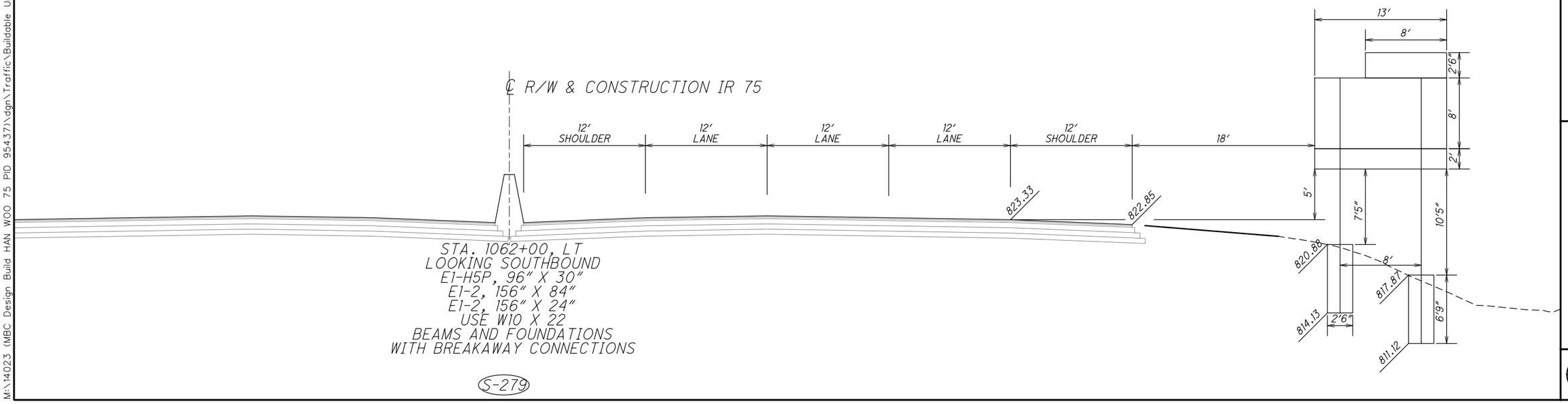


STA. 1089+00, LT.
LOOKING SOUTHBOUND
E1-H5P, 96″ X 30″
E1-H1, 216″ X 84″
OVERHEAD SIGN SUPPORT,
TC-12.30, DESIGN 8

S-281



STA. 1062+00, LT
LOOKING SOUTHBOUND
E1-H5P, 96″ X 30″
E1-2, 156″ X 84″
E1-2, 156″ X 24″
USE W10 X 22
BEAMS AND FOUNDATIONS
WITH BREAKAWAY CONNECTIONS

S-279

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

268
336

M:\14023 (MBC Design Build HAN WOO 75 PID 95437)\dgn\Traffic\Buildable Unit 2\95437TE15.dgn 3/18/2015 4:43:33 PM CMN

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SIGNING ELEVATION VIEWS

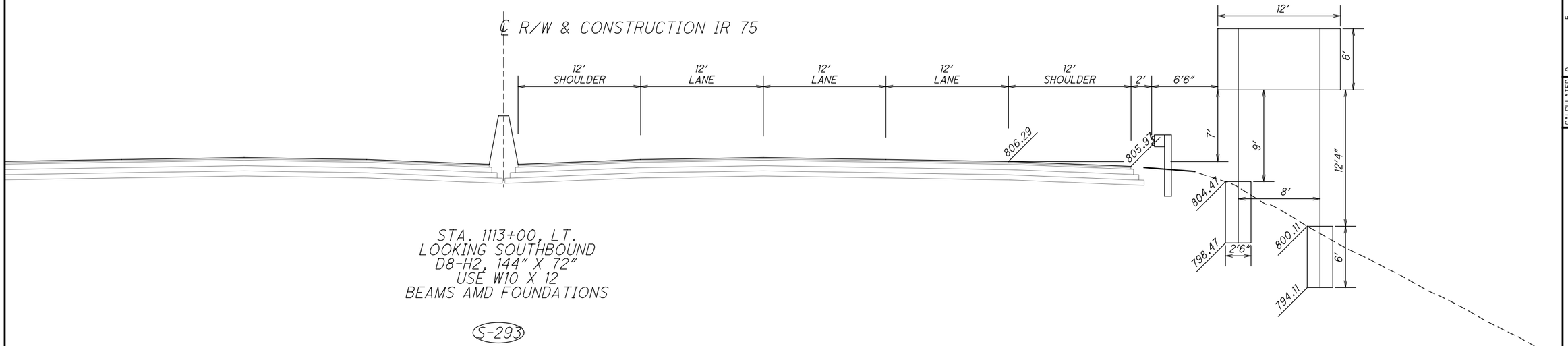
HAN/WOO-75-19.22/0.00

CALCULATED	CHECKED
NAT	LLA

HORIZONTAL SCALE IN FEET
0 5 10

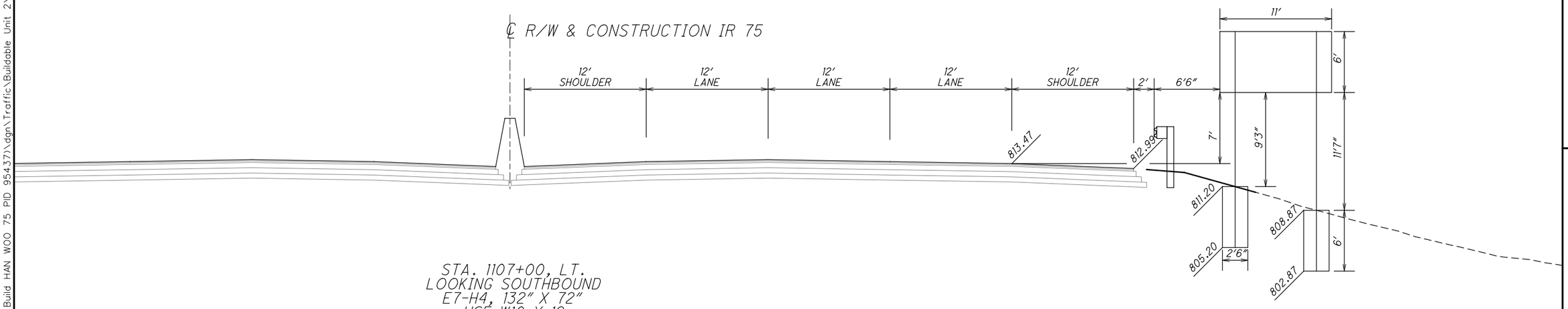
STA. 1095+61, LT.
LOOKING SOUTHBOUND
D8-3, 84" X 72"
USE W6 X 9
BEAMS AMD FOUNDATIONS
WITH BREAKAWAY CONNECTIONS

S-286



STA. 1113+00, LT.
LOOKING SOUTHBOUND
D8-H2, 144″ X 72″
USE W10 X 12
BEAMS AMD FOUNDATIONS

S-293



STA. 1107+00, LT.
LOOKING SOUTHBOUND
E7-H4, 132″ X 72″
USE W10 X 12
BEAMS AMD FOUNDATIONS

S-292

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

270
336

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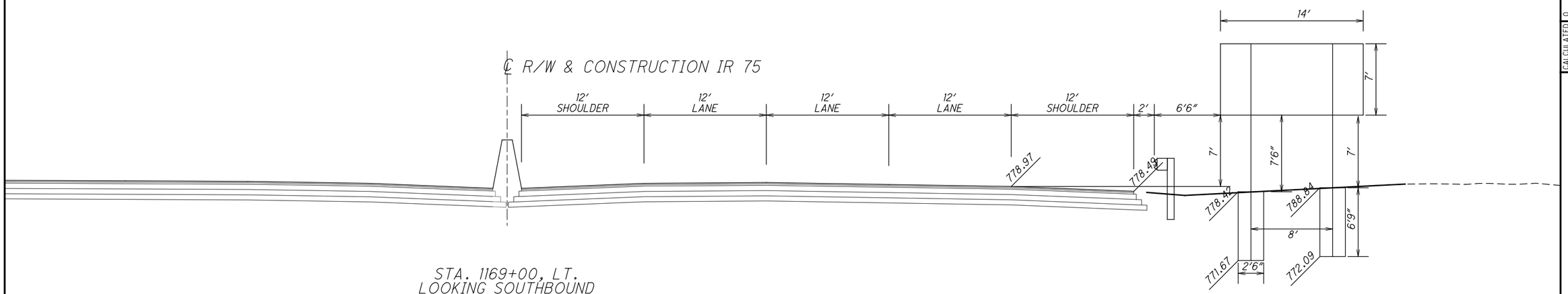
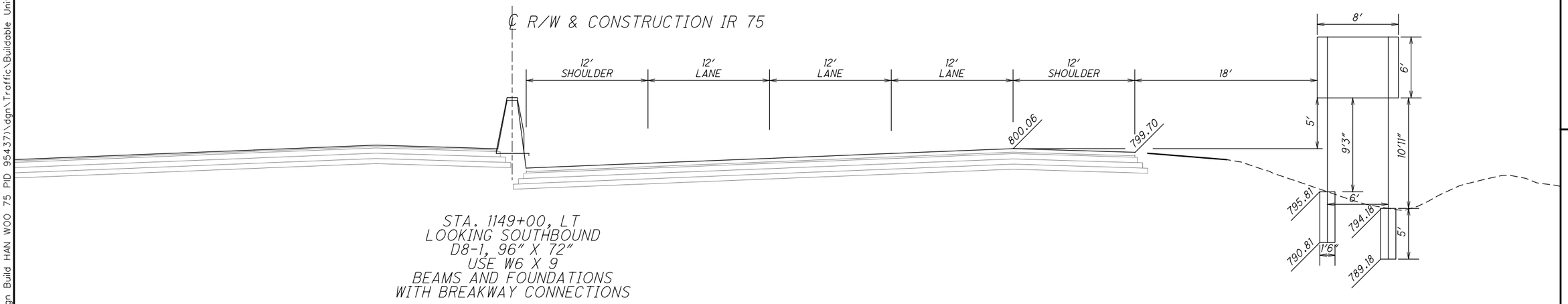


STA. 1169+00, LT.
LOOKING SOUTHBOUND
E7-H1, 168″ X 84″
USE W10 X 12
BEAMS AMD FOUNDATIONS

S-301



STA. 1149+00, LT
LOOKING SOUTHBOUND
D8-1, 96″ X 72″
USE W6 X 9
BEAMS AND FOUNDATIONS
WITH BREAKWAY CONNECTIONS

S-300

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

271
336

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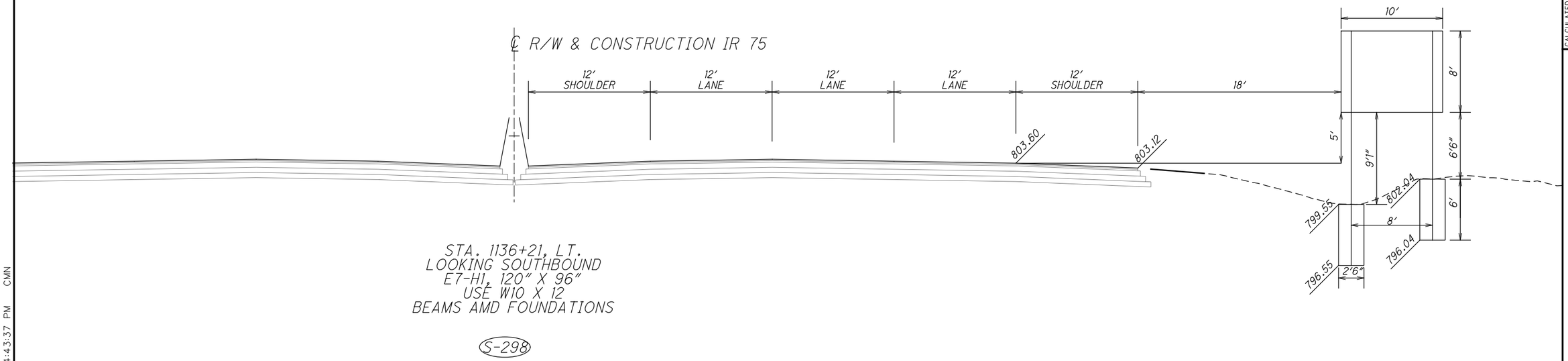
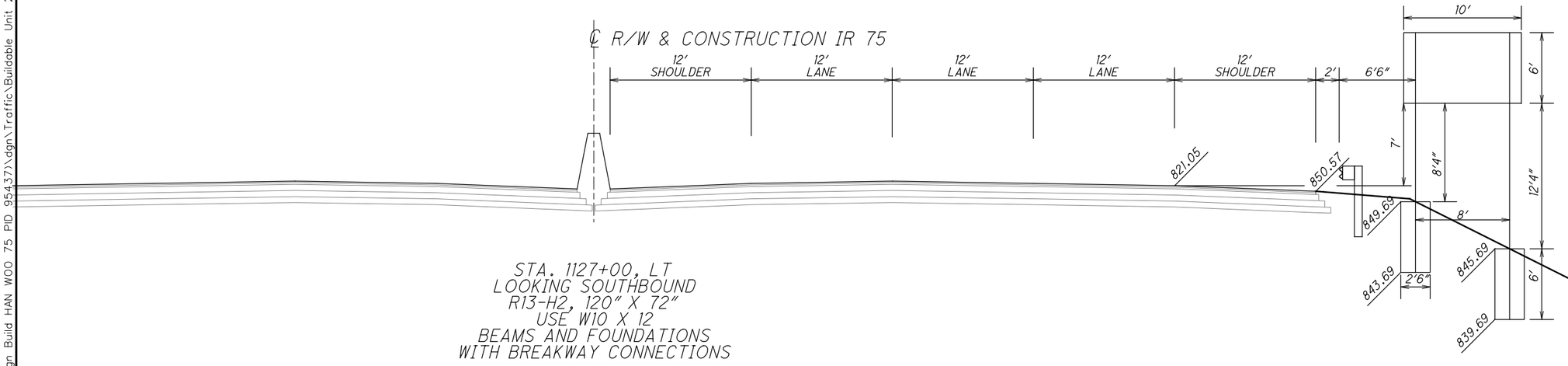


STA. 1136+21, LT.
LOOKING SOUTHBOUND
E7-H1, 120″ X 96″
USE W10 X 12
BEAMS AMD FOUNDATIONS

S-298



STA. 1127+00, LT
LOOKING SOUTHBOUND
R13-H2, 120″ X 72″
USE W10 X 12
BEAMS AND FOUNDATIONS
WITH BREAKWAY CONNECTIONS

S-295

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

272
336

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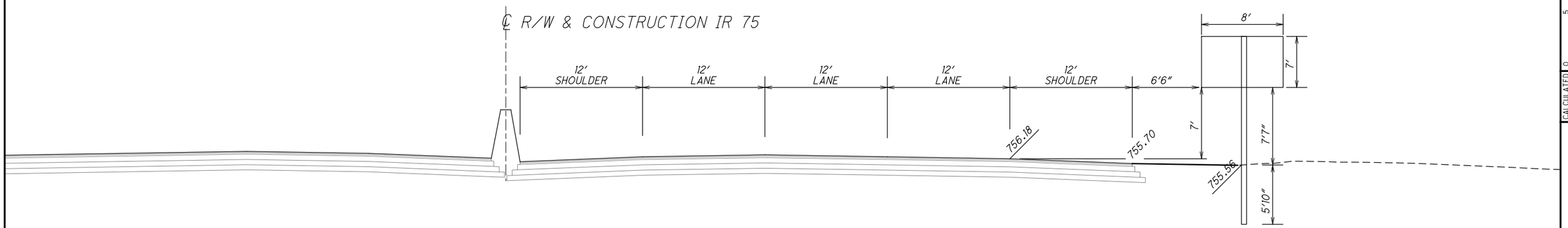
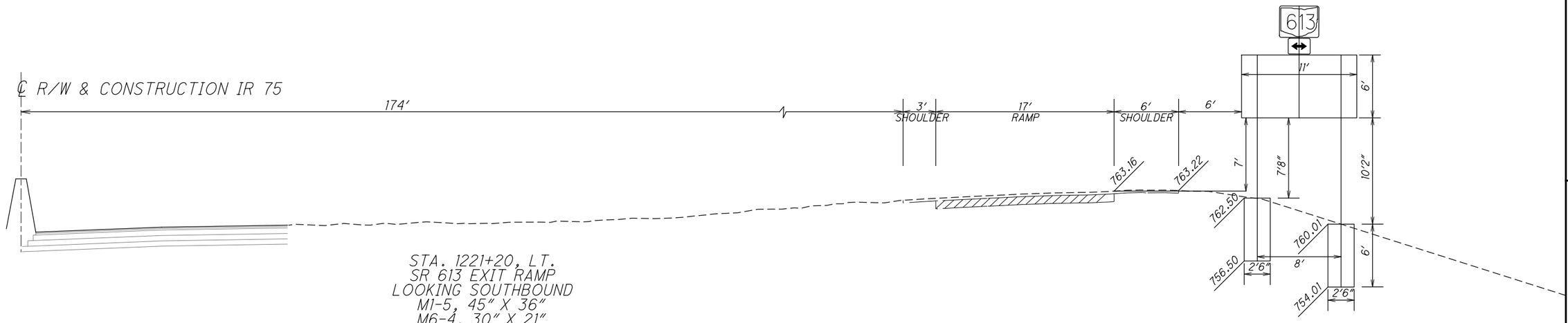


STA. 1226+34, LT.
LOOKING SOUTHBOUND
E5-HIA, 96″ X 60″
USE SOLID WOOD POST, 6″ X 8″

S-459



STA. 1221+20, LT.
SR 613 EXIT RAMP
LOOKING SOUTHBOUND
M1-5, 45″ X 36″
M6-4, 30″ X 21″
D1-H7A, 132″ X 72″
USE W10X12
BEAMS AND FOUNDATIONS

S-455

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

273
336

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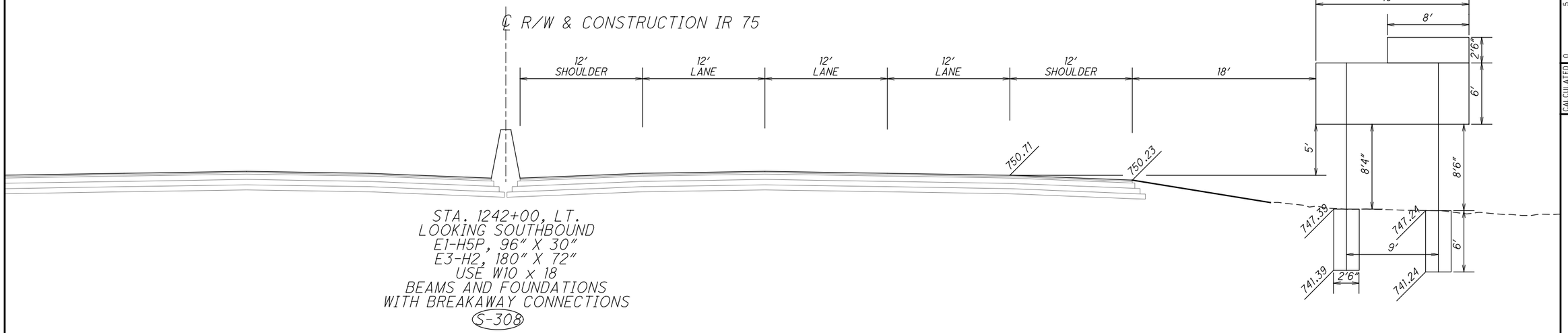
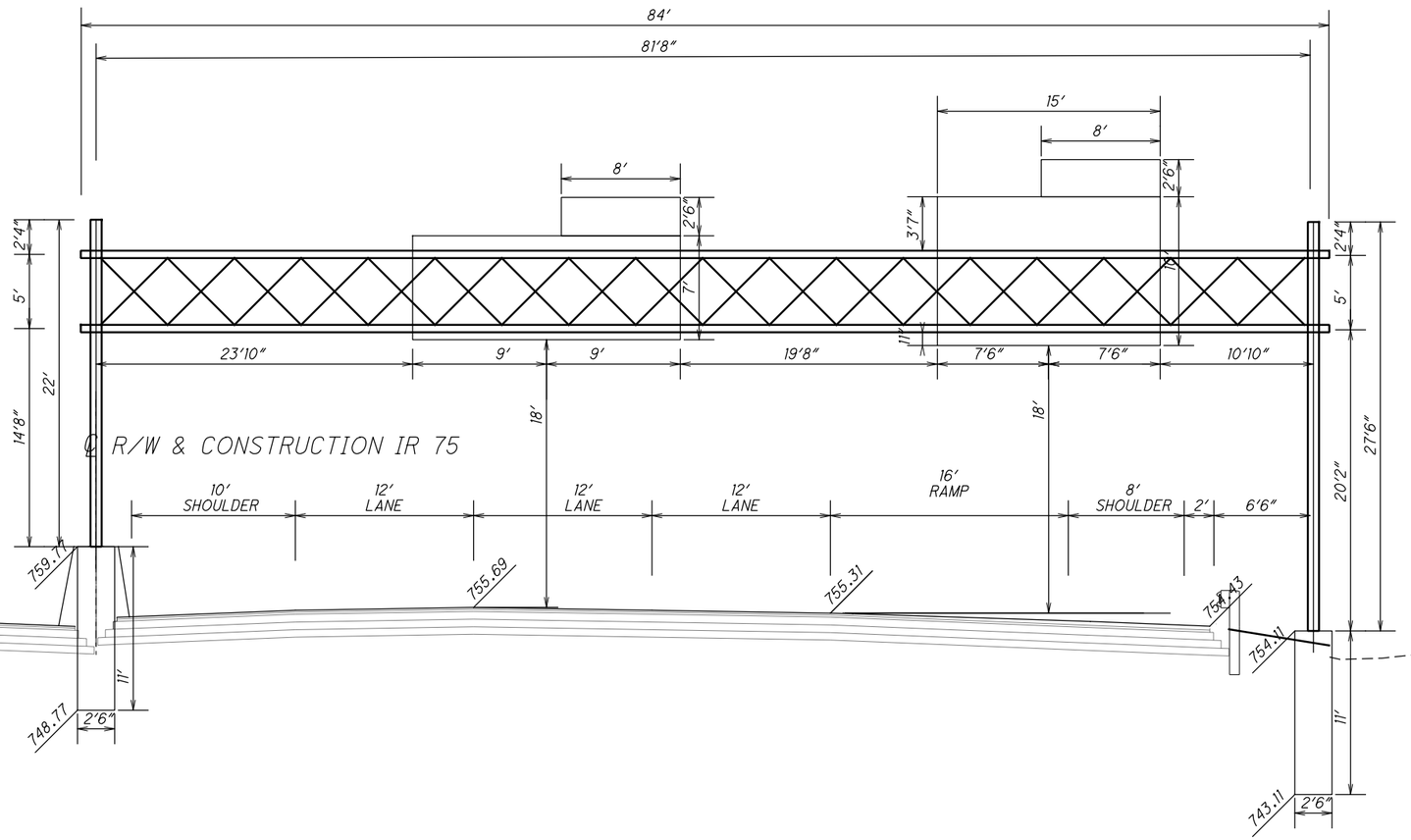


STA. 1242+00, LT.
LOOKING SOUTHBOUND
E1-H5P, 96″ X 30″
E3-H2, 180″ X 72″
USE W10 x 18
BEAMS AND FOUNDATIONS
WITH BREAKAWAY CONNECTIONS

S-308



STA. 1229+96, LT.
LOOKING SOUTHBOUND
E1-H5P, 96″ X 30″
E1-H3, 180″ X 120″
E1-H5P, 96″ X 30″
E1-H1, 216″ X 84″
OVERHEAD TRUSS SUPPORT,
TC-7.65, DEISGN 8, 5 FT. BOX

S-462

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

274
336

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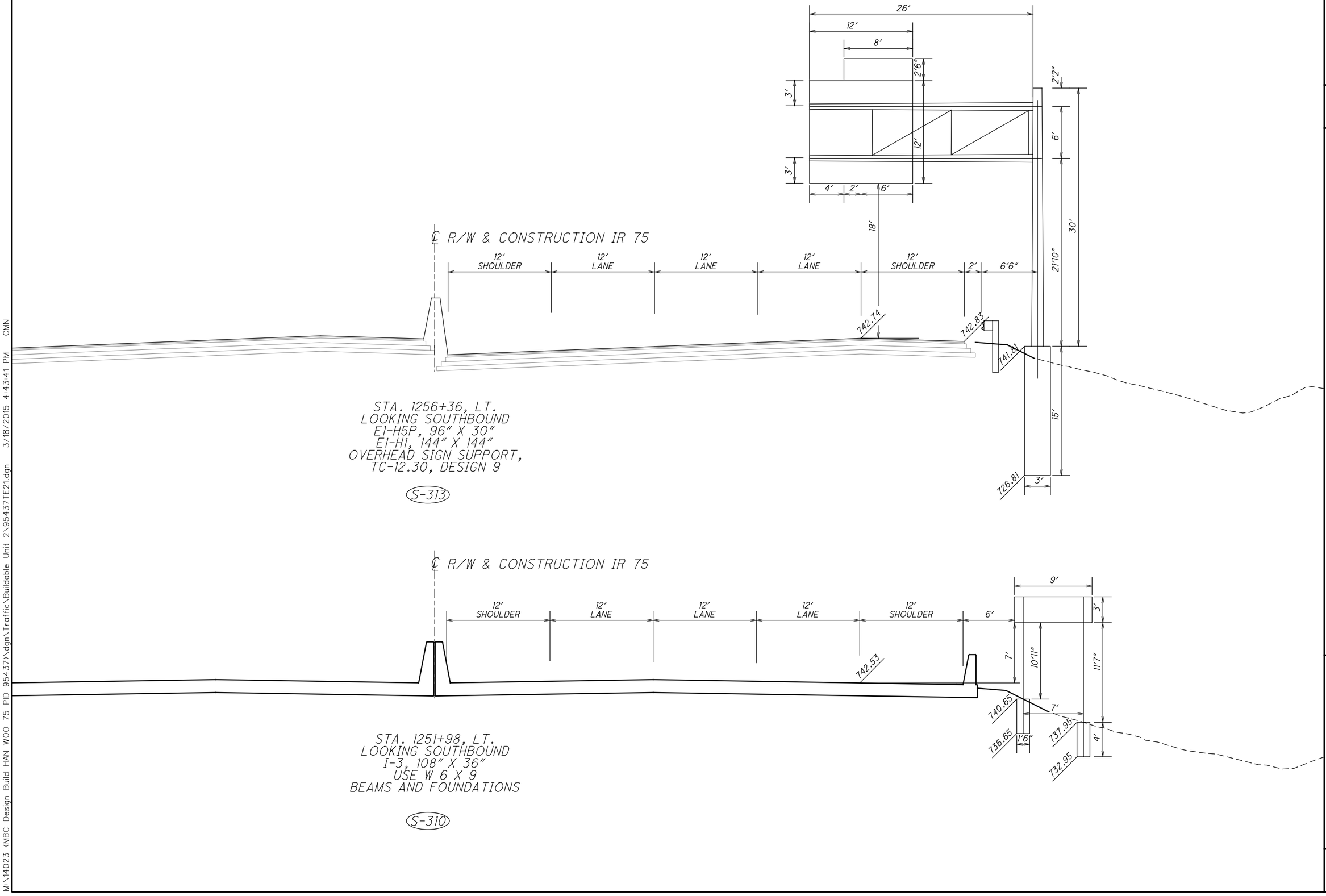

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

275
336

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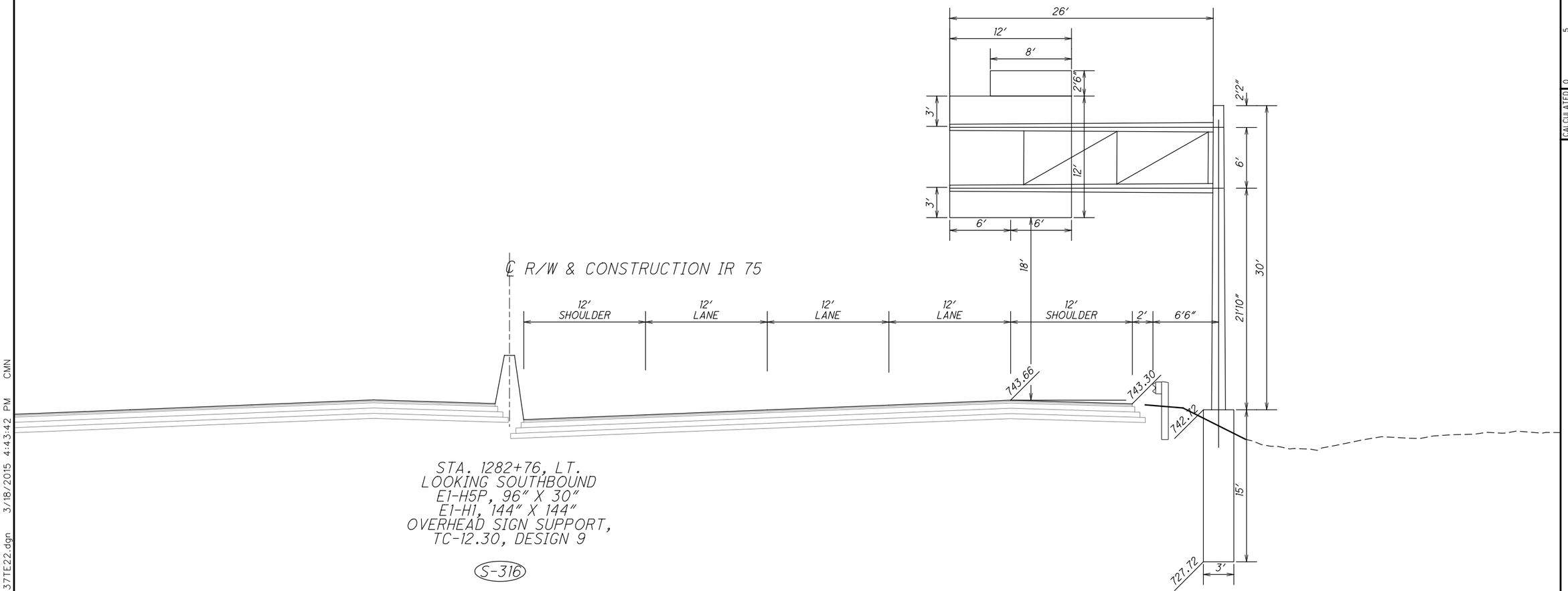
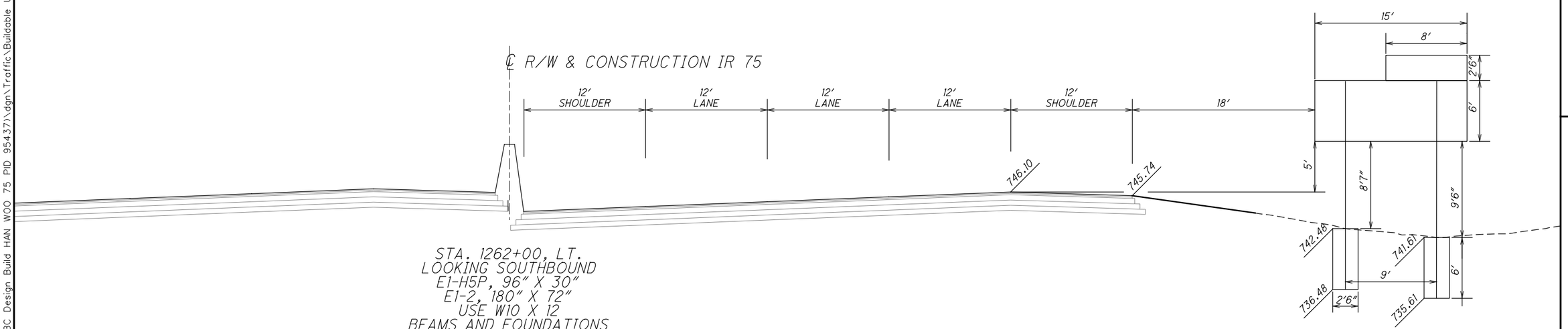


STA. 1282+76, LT.
LOOKING SOUTHBOUND
E1-H5P, 96″ X 30″
E1-H1, 144″ X 144″
OVERHEAD SIGN SUPPORT,
TC-12.30, DESIGN 9

S-316



STA. 1262+00, LT.
LOOKING SOUTHBOUND
E1-H5P, 96″ X 30″
E1-2, 180″ X 72″
USE W10 X 12
BEAMS AND FOUNDATIONS
WITH BREAKAWAY CONNECTIONS

S-314

HORIZONTAL SCALE IN FEET
0 5 10

CALCULATED NAT
CHECKED LLA

SIGNING ELEVATION VIEWS

HAN/WOO-75-19.22/0.00

276
336

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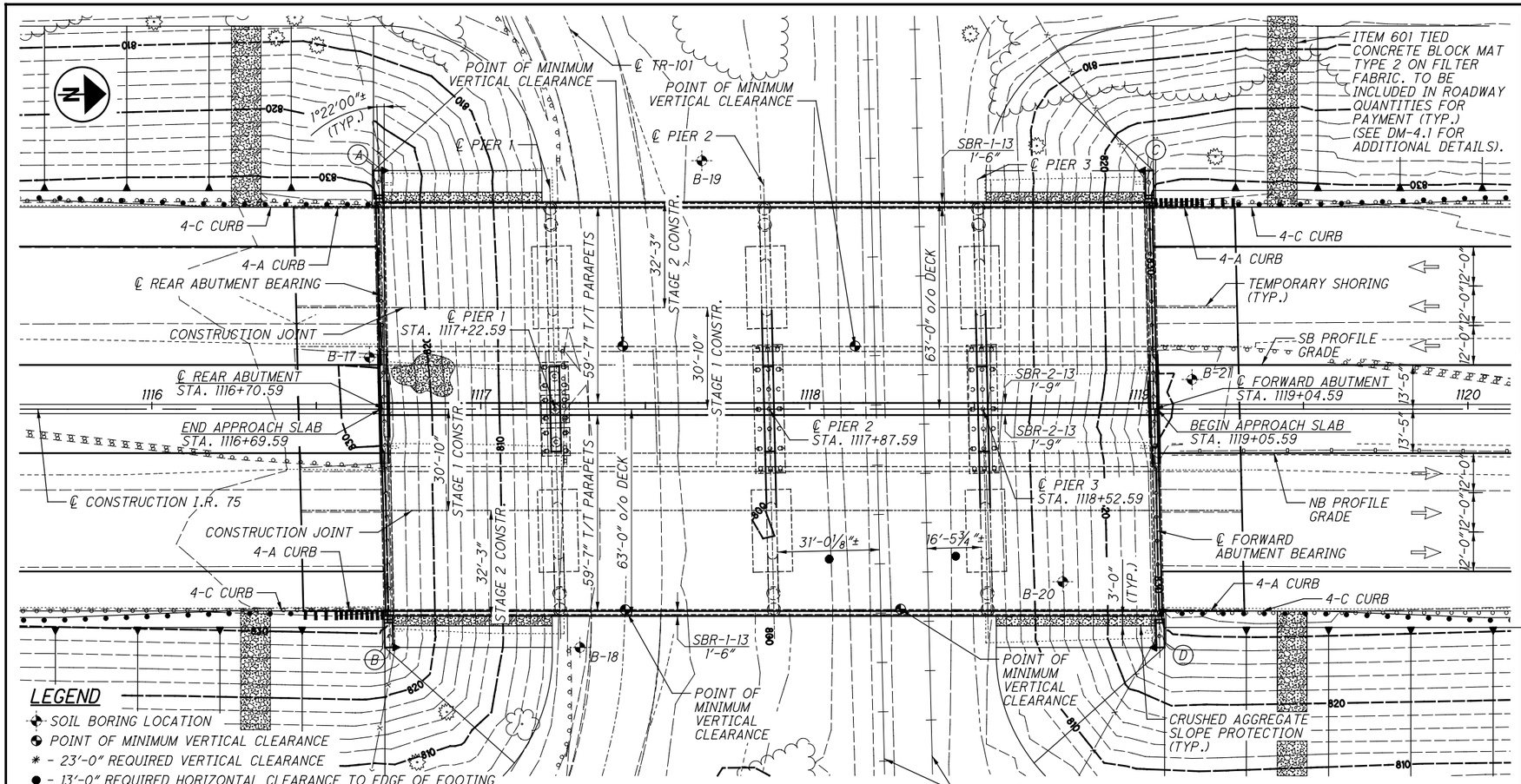
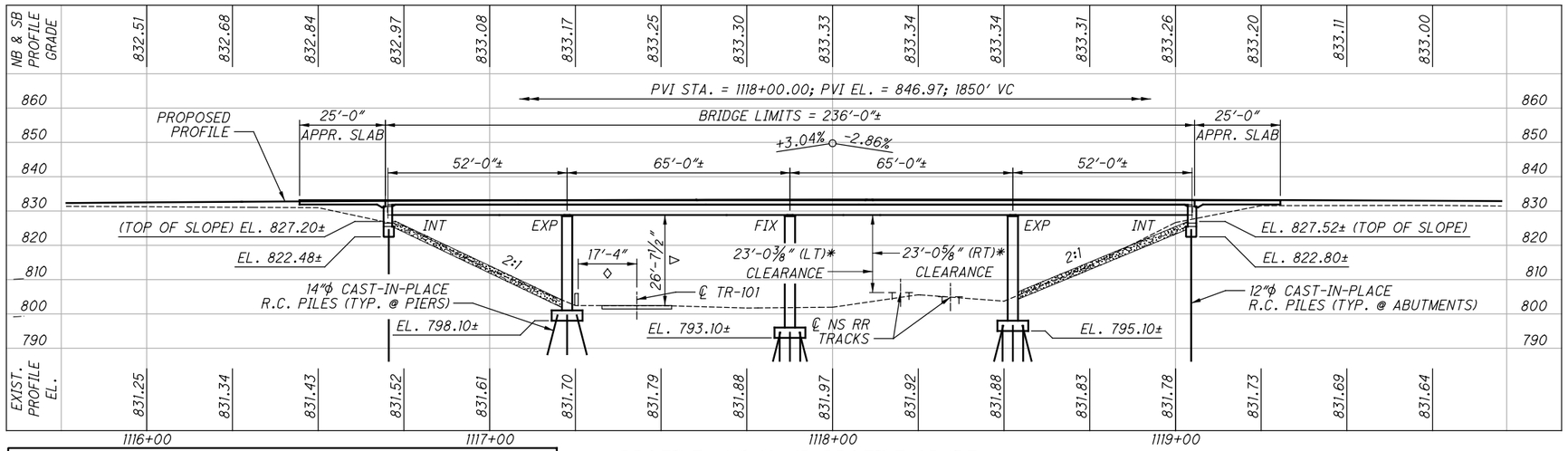


LEGEND

- SOIL BORING LOCATION
- POINT OF MINIMUM VERTICAL CLEARANCE
- ✱ - 23'-0" REQUIRED VERTICAL CLEARANCE
- ● - 13'-0" REQUIRED HORIZONTAL CLEARANCE TO EDGE OF FOOTING
- ◇ - 17'-0" REQUIRED HORIZONTAL CLEARANCE FROM ℄ OF ROADWAY (ASSUMED 10'-0" LANE)
- ▽ - 14'-6" REQUIRED VERTICAL CLEARANCE

PLAN

ESTIMATED 12"ϕ CAST IN PLACE R.C. ABUTMENT PILE LENGTH = 60'
ESTIMATED 14"ϕ CAST IN PLACE R.C. PIER PILE LENGTH = 60'



BENCHMARK DATA

BM #1	STA. 1107+93.86	EL. 805.06	OFFSET 126.1' LT.	
	NGS MONUMENT MC1656			
BM #2	STA. 1130+02.65	EL. 808.285	OFFSET 0.2' LT.	
	CONCRETE MONUMENT			

PROFILE ALONG NB PROFILE GRADE (RIGHT STRUCTURE)

(LEFT STRUCTURE IS NOT SHOWN FOR CLARITY)

GUARDRAIL FIRST POST LOCATIONS:

- (A) STA. 1116+66.50 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2)
- (B) STA. 1116+69.60 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1)
- (C) STA. 1119+05.59 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1)
- (D) STA. 1119+08.65 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2)

EXISTING STRUCTURE DATA

TYPE: FOUR SPAN CONTINUOUS COMPOSITE STEEL BEAM (A572 PAINTED) WITH REINFORCED CONCRETE DECK AND REINFORCED CONCRETE SUBSTRUCTURES

SPANS: 52'-0"±, 65'-0"±, 65'-0"±, 52'-0"± c/c BEARINGS

ROADWAY: 42'-0"± FACE/FACE CURBS

LOADING: HS20-44 & THE ALTERNATE MILITARY LOADING, SUPERSTRUCTURE & CF-2000 (51), SUBSTRUCTURE

SKEW: 1°22'00"± RF

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-81 (25'± LONG)

ALIGNMENT: TANGENT

DATE BUILT: 1958, REHABILITATED 1989

STRUCTURE FILE NUMBER: 3203166L/3203174R

PROPOSED WORK

1. REMOVE EXISTING APPROACH SLABS AND CONCRETE DECK SLABS IN STAGES.
2. REMOVE PORTIONS OF THE EXISTING CONCRETE SUBSTRUCTURES IN STAGES AS SHOWN ON THE PLANS.
3. REBUILD AND WIDEN THE EXISTING CONCRETE SUBSTRUCTURES IN STAGES TO ACCOMMODATE THE PROPOSED SUPERSTRUCTURES.
4. EXTEND AND REPAIR ROCK SLOPE PROTECTION.
5. CONSTRUCT NEW CONCRETE DECK SLABS AND APPROACH SLABS IN STAGES. RAISE FASCIA BEAM ON RIGHT STRUCTURE.
6. PATCH EXISTING SUBSTRUCTURE.

PROPOSED STRUCTURE DATA

TYPE: FOUR SPAN CONTINUOUS COMPOSITE STEEL BEAM WITH REINFORCED CONCRETE DECK AND REINFORCED CONCRETE SUBSTRUCTURES

SPANS: 52'-0"±, 65'-0"±, 65'-0"±, 52'-0"± c/c BEARINGS

ROADWAY: 59'-7" TOE/TOE OF PARAPET

LOADING: HS20-44 & ALTERNATE MILITARY LOADING, FWS=60 PSF, SUPERSTRUCTURE & CF-2000 (51), SUBSTRUCTURE

SKEW: 1°22'00"± RF

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-81 (25' LONG)

ALIGNMENT: TANGENT

CROWN: 0.016

BRIDGE COORDINATES: 41°-06'-37" LAT., 83°-39'-35" LONG.

RAIL TRAFFIC DATA

(FROM NS R.R. AGREEMENT)

NS TRACKS:
25 FREIGHT TRAINS PER DAY

TRAFFIC DATA

CURRENT ADT (2016) = 51,770
DESIGN YEAR ADT (2036) = 62,250
CURRENT ADTT (2016) = 16,050
DESIGN YEAR ADTT (2036) = 19,300

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

ALL EXISTING SUBSTRUCTURE ELEVATIONS WERE ADJUSTED TO THE CURRENT PROJECT SURVEY ELEVATION AND ARE APPROXIMATELY 0.92± FEET LOWER THAN EXISTING ELEVATIONS SHOWN ON THE EXISTING REHAB PLANS.

BORING INFORMATION

BORING	STATION	OFFSET	TOP OF ROCK ELEVATION
B-17	STA. 1116+66.13	15.75' LT.	N/A
B-18	STA. 1117+30.12	72.50' RT.	722.0±
B-19	STA. 1117+67.15	75.50' LT.	719.6±
B-20	STA. 1118+76.85	52.50' RT.	711.4±
B-21	STA. 1119+16.14	8.98' LT.	N/A

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE 02-16-2015
STRUCTURE FILE NUMBER 3203166L/3203174R

REVIEWED SAM
DRAWN KWL
DESIGNED KWL
CHECKED NBL
REVISED

HANCOCK COUNTY
STA. 1116+69.59
STA. 1119+05.59

SITE PLAN
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD DRAWINGS:

AS-1-81	REVISED	1-18-2013
DM-4.1	REVISED	7-19-13
GSD-1-96	REVISED	7-19-2002
ICD-1-82	REVISED	7-19-2002
PCB-91	REVISED	1-18-2013
SBR-1-13	REVISED	1-17-2014
SBR-2-13	REVISED	1-17-2014

DESIGN LOADING:

HS20-44, CLASS I, AND THE ALTERNATE MILITARY LOADING

FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

STAY-IN-PLACE FORMS: 17 POUNDS PER SQUARE FOOT

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

CONCRETE CLASS QC2 – COMPRESSIVE STRENGTH 4.0 KSI (DRILLED SHAFT)
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
REINFORCING STEEL – ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60KSI
SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615
STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD:

2 1/2" CONCRETE COVER
EPOXY COATED REINFORCING STEEL
SEALING CONCRETE SURFACES

MONOLITHIC WEARING SURFACE:

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

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

DESCRIPTION: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE CONCRETE DECKS INCLUDING CURBS AND PARAPETS, ABUTMENT BREASTWALLS AND WINGWALLS, ALONG WITH THE PIER ENDS, TO THE LIMITS SHOWN IN THE PLANS. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED IN TO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTORS APPROVAL BEFORE PERFORMING ANY REPAIR WORK.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBER.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN DIRECTOR APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

DECK REMOVALS – COMPOSITE DECK DESIGNS – STEEL SUPERSTRUCTURE: DUE TO THE PRESENCE OF WELDED STUDS TO THE EXISTING STRUCTURAL STEEL, SUBMIT A DETAILED PROCEDURE OF THE DECK REMOVAL TO THE ENGINEER AT LEAST 7 DAYS BEFORE CONSTRUCTION BEGINS. DEPARTMENT ACCEPTANCE IS NOT REQUIRED. THE PROCEDURE SHALL INCLUDE ALL DETAILS, EQUIPMENT AND METHODS TO BE USED FOR REMOVAL OF THE CONCRETE OVER THE FLANGES AND AROUND THE STUDS. REPLACE OR REPAIR MAIN STEEL AND STUDS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER, TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR WORK.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE 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, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 35 TONS PER PILE FOR THE CIP CONCRETE ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 58 TONS PER PILE FOR THE CIP CONCRETE PIER PILES.

ABUTMENT PILES:
- 12" CIP CONCRETE PILES 65 FEET LONG, ORDER LENGTH
- 1 DYNAMIC LOAD TESTING ITEM

PIER PILES:
- 14" CIP CONCRETE PILES 65 FEET LONG, ORDER LENGTH
- 1 DYNAMIC LOAD TESTING ITEM

CONSTRUCTION CLEARANCE

MAINTAIN A CONSTRUCTION CLEARANCE OF THIRTEEN FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND TWENTY-TWO FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND EIGHT FEET FROM THE CENTER OF TRACKS, AT ALL TIMES.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE (DECK), AS PER PLAN

DESCRIPTION:
IN ADDITION TO THE WORK REQUIREMENTS OF 511 THE CONTRACTOR MAY EITHER PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508 OR DESIGN, BUILD, PROVIDE AND CONSTRUCT GALVANIZED STEEL STAY-IN-PLACE (SIP) FABRICATED METAL FORMS CONFORMING TO CMS 508 AND THESE ADDITIONAL REQUIREMENTS. THE DEPARTMENT WILL NOT SEPARATELY PAY FOR SIP FORMS. THE COST OF THIS WORK IF CHOSEN BY THE CONTRACTOR SHALL BE INCLUDED FOR PAYMENT IN THE PRICE BID FOR ITEM 511. THE DEPARTMENT WILL PAY NO EXTRA FOR ANY ADDITIONAL CONCRETE, REINFORCEMENT STEEL, OR STRUCTURAL STEEL THAT MAY BE REQUIRED WHEN USING SIP FORMS. ANY ADDITIONAL COST AND/OR DESIGN ASSOCIATED WITH THE USE OF SIP FORMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ADDITIONAL DEAD LOAD OF THE SIP FORM PLUS THE WEIGHT OF THE ADDITIONAL CONCRETE SHALL BE DETERMINED FROM THE REQUIRED BEAM SPACING AND DEPTH OF FORM. THIS LOAD WILL BE IN ADDITION TO THE LOADS AS SPECIFIED AS DESIGN LOADS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DESIGN, FABRICATION AND INSTALLATION MODIFICATIONS TO THE BRIDGE COMPONENTS INCLUDING THE BRIDGE BEAMS OR GIRDERS, CAMBER DIAGRAMS, DECK SCREED TABLES, BRIDGE BEARINGS, AND SUBSTRUCTURES. ALL PLAN MODIFICATIONS SHALL BE PREPARED AS PER 501.

DESIGN, BUILD, SIP FORMS WILL NOT BE PERMITTED AT OVERHANGS AND WITHIN EIGHT FEET OF ALL EXPANSION JOINTS AND FOUR FEET OF ALL THROUGH DECK DRAINAGE SYSTEMS. IN ADDITION SIP FORMS WILL NOT BE PERMITTED WITHIN STRINGER BAYS WHERE CONSTRUCTION IS PHASED OR CLOSURE POURS ARE USED.

SUBMIT CONSTRUCTION PLANS ACCORDING TO 501.05.B.3. DESIGN SIP FORMS TO SUPPORT THE SELF WEIGHT OF SIP FORMS, REINFORCEMENT, WET CONCRETE FOR THE DECK, ANY CONSTRUCTION EQUIPMENT LOADS, AND AT LEAST A 50 PSF LOAD FOR CONSTRUCTION LIVE LOADS. MEET THE DEFLECTION REQUIREMENTS OF 508.

DESIGN SIP FORMS THAT HAVE THE DEPTH OF THE FORM CORRUGATION FILLED WITH CONCRETE.

INCLUDE THE FOLLOWING INFORMATION IN THE CONSTRUCTION PLAN:

A. DESIGN CALCULATIONS.
B. PHYSICAL PROPERTIES OF THE SIP FORMS (GAGE, SECTION MODULUS, WEIGHT, DEPTH AND PITCH).
C. CROSS SECTION VIEW AND DIMENSIONS OF: SIP FORMS, SUPPORT ANGLES, CHANNEL CLOSURES, SAFETY STOPS, CLIPS, PLATES AND HARDWARE.
D. INCLUDE AN OVERALL LAYOUT PLAN WITH:
   1. WORKING POINTS OR CONTROL ELEVATIONS NECESSARY TO SET SUPPORT ANGLES.
   2. TYPICAL AND SPECIFIC CROSS SECTIONS OR DETAILS: SUPPORT CONNECTIONS TO THE STRUCTURAL MEMBERS, SIP, FORM CONNECTIONS TO SUPPORTS, FORM LAPS AND CLOSURE SECTIONS.
   3. MINIMUM BEARING LENGTHS (EDGE DISTANCES) OF SIP FORMS TO THE SUPPORT ANGLES.
   4. WELDING DETAILS: SIZE, LENGTH, LOCATIONS, ELECTRODES AND PROCESS.
E. WORKER SAFETY REGULATIONS.
F. INSTALLATION INSPECTION CHECK LISTS.

MATERIALS:
SUBMIT 501.06 TEST REPORTS AND WRITTEN ACCEPTANCE LETTERS TO THE ENGINEER. MATERIALS INSPECTION AND ACCEPTANCE IS PERFORMED BY THE ENGINEER AT THE PROJECT SITE. FURNISH FORM, SUPPORT MATERIALS AND HARDWARE CONFORMING THE FOLLOWING:

A. FORM AND SUPPORT MATERIAL, ASTM A653 HAVING A COATING DESIGNATION OF G235, AND CONFORMING TO THE MECHANICAL PROPERTIES THE DESIGN REQUIRES.
B. PROVIDE DECK FORMS WITH A 2 INCH MINIMUM FORM DEPTH.
C. PROVIDE MINIMUM MATERIAL THICKNESS AS FOLLOWS: SIP FORMS (20 GAGE), SUPPORT ANGLES (12 GAGE) AND SUPPORT BARS (12 GAGE).
D. SUPPLY DECK, SELF DRILLING FASTENERS WITH CADMIUM PLATING PER ASTM B766 WITH MINIMUM THICKNESS OF 5, TEN THOUSANDTHS (0.0005 INCH). THE HEADS OF THESE FASTENERS WILL BE A HIGHLY VISIBLE COLOR, RED OR OTHER, TO AID INSPECTION.

WELDING:
DO NOT WELD SIP FORMS OR THEIR SUPPORTS TO THE STEEL BRIDGE MEMBERS. SIP SUPPORTS MAY BE WELDED TO ANCHORS CAST INTO PRECAST CONCRETE BRIDGE MEMBERS. PERFORM WELDING PER 513.21.

INSTALLATION LIMITATIONS:
A. FIELD CUT SIP FORMS MECHANICAL CUTTING METHODS. THERMAL CUTTING IS NOT PERMITTED.
B. PLACE FORMS ON FORM SUPPORTS. DO NOT INSTALL SIP FORMS DIRECTLY TO THE BRIDGE'S STRUCTURAL MEMBERS.
C. ADJUST THE SCREED ELEVATIONS BY PRORATING THE CONCRETE DEAD LOAD DEFLECTION TO ACCOUNT FOR

DESIGN AGENCY
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GENERAL NOTES (1 OF 2)
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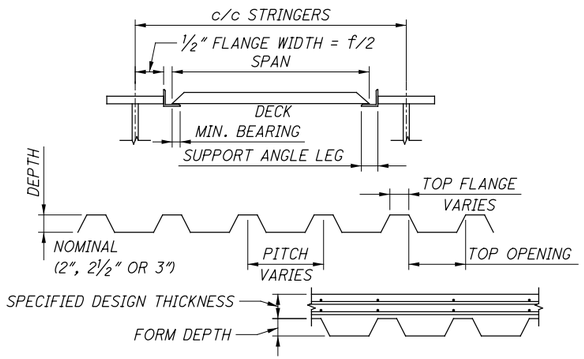
THE ADDITIONAL PERMANENT DEAD LOADS ASSOCIATED WITH CONCRETE FILLED STAY IN PLACE FORMS.

D. SET THE HEIGHT OF THE FORM SUPPORTS TO DEVELOP THE ADJUSTED SCREED ELEVATIONS, DECK THICKNESS AND PLAN PROFILE.
E. PLACE SIP FORMS ON FORM SUPPORTS TO ACHIEVE MINIMUM BEARING LENGTH PER MANUFACTURERS DESIGN.
F. CONNECT SIP FORMS TO FORM SUPPORTS BEFORE USING THE SIP AS A WORKING SURFACE AND BEFORE THE END OF EACH WORK SHIFT.
G. PROVIDE SAFETY STOPS TO ELIMINATE HAZARDS FROM SUDDEN UPLIFT AND LATERAL MOVEMENT. AFTER THE DECK CONCRETE MEETS THE LOADING REQUIREMENTS OF C&MS 511.17, REMOVE THE VISIBLE PORTION OF ALL SAFETY STOPS.
H. COATINGS DAMAGED CAUSED BY MECHANICAL CUTTING OR FIELD WELDING NEED NOT BE REPAIRED UNLESS SPECIFIED BY THE SIP FORM MANUFACTURE.
I. FILL THE ENTIRE FORM WITH CONCRETE.
J. THE CONTRACTOR SHALL PROTECT INSTALLED SIP FORMS FROM ANY CLEANING SOLUTIONS, BLASTING OR OTHER WORK OPERATIONS THAT MAY DAMAGE THE FORM COATING. FORMS THAT ARE DAMAGED FROM LACK OF PROTECTION SHALL BE REPAIRED OR REMOVED AS DIRECTED BY THE ENGINEER. IF DIRECTED TO REPAIR, THE DAMAGED AREAS SHALL BE METALIZED AS PER 516.03 AND SUPPLEMENTAL SPECIFICATION 845. ALL COST FOR THE REPAIR OR REMOVAL SHALL BE PAID BY THE CONTRACTOR.

INSPECTION:
THE ENGINEER WILL CHECK SIP MATERIALS MEET DESIGN REQUIREMENTS AND EVALUATE INSTALLATION BASED ON CONSTRUCTION PLAN.

BASIS OF PAYMENT:
THE DEPARTMENT WILL NOT SEPARATELY PAY FOR SIP FORMS. THE COST OF THIS WORK IS INCLUDED FOR PAYMENT IN THE PRICE BID FOR THE ITEM FOR WHICH THE SIP FORMS ARE USED.



ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN:

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPER-STRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 1.22 KIPS FOR A TOTAL MACHINE LOAD OF 9.76 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

UTILITY LINES:

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELO-CATION (INSTALLING) THE AFFECTED UTILITY LINES. THE CON-TRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN

THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

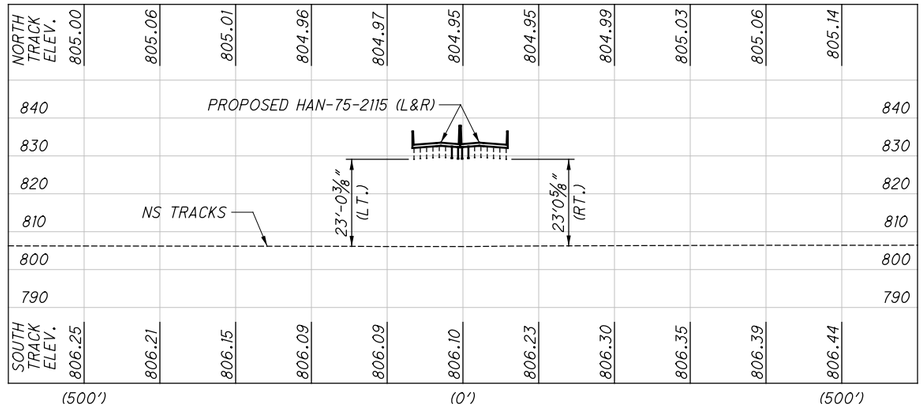
ADDITIONAL RAILROAD INFORMATION

SEE PROJECT GENERAL NOTES FOR ADDITIONAL RAILROAD INFORMATION.

NORFOLK SOUTHERN RAILROAD EXISTING TRACKS PROFILE

SEE PROFILE BELOW.

THE ELEVATIONS OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE NORFOLK SOUTHERN PUBLIC PROJECTS ENGINEER.



NORFOLK SOUTHERN RAILROAD TRACK PROFILE

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:

THIS WORK CONSISTS OF RAISING PARTS OF THE EXISTING STRUCTURE TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05

IF, DURING THE JACKING OPERATIONS, DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. THE DEPARTMENT WILL NOT PAY FOR THE COST OF REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

SHEET LEGEND

ABUT.	ABUTMENT
APPR.	APPROACH
BM	BENCHMARK
BOT.	BOTTOM
BRG.	BEARING
BTW.	BETWEEN
C.B.	CATCH BASIN
C.I.P	CAST-IN-PLACE
C.J.	CONSTRUCTION JOINT
C.P.P.	CORRUGATED PLASTIC PIPE
C/C	CENTER TO CENTER
CLR.	CLEARANCE
CNTR.	CENTER
CONSTR.	CONSTRUCTION
DIA.	DIAMETER
DL	DEAD LOAD
DWG.	DRAWING
E.F.	EACH FACE
E.W.	EACH WAY
EL. OR ELEV.	ELEVATION
EMB.	EMBEDMENT
EQ.	EQUAL
EST.	ESTIMATED
EX. OR EXIST.	EXISTING
EXP.	EXPANSION
F.F.	FAR FACE
F.S.	FIELD SPLICE
F/F	FACE TO FACE
FA	FORWARD ABUTMENT
FIX.	FIXED
FTG.	FOOTING
FWD.	FORWARD
GFRP	GLASS FIBER REINFORCED POLYMER
HW	HIGH WATER MARK
JT.	JOINT
LL	LIVE LOAD
LT	LEFT
M.S.	MECHANICAL SPLICE
MAX.	MAXIMUM
MID	MIDDLE
MIN.	MINIMUM
MSE	MECHANICALLY STABILIZED EARTH
N.F.	NEAR FACE
N.P.C.P.P.	NON-PERFORATED CORRUGATED PLASTIC PIPE
NB	NORTHBOUND
NO.	NUMBER
O.C.J.	OPTIONAL CONSTRUCTION JOINT
O/O	OUT TO OUT
ORD.	ORDINARY
P.C.P.P.	PERFORATED CORRUGATED PLASTIC PIPE
P1	PIER 1
P2	PIER 2
P3	PIER 3
PEJF	PREFORMED EXPANSION JOINT FILLER
PG	PROFILE GRADE
PROP.	PROPOSED
PX	PIER X
R.C.	REINFORCED CONCRETE
R.C.P.	ROCK CHANNEL PROTECTION
RA	REAR ABUTMENT
REF.	REFERENCE
REINF.	REINFORCING
REQ.	REQUIRED
RT	RIGHT
SB	SOUTHBOUND
SER.	SERIES
SHLD.	SHOULDER
SPA.	SPACE(S) OR SPACING
STA.	STATION
STM.	STORM SEWER
T/T	TOE/TOE
T/S	TOP OF SLOPE
TYP.	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VAR.	VARIES
VC	VERTICAL CURVE
W.P.	WORKING POINT
W/	WITH

DESIGN AGENCY
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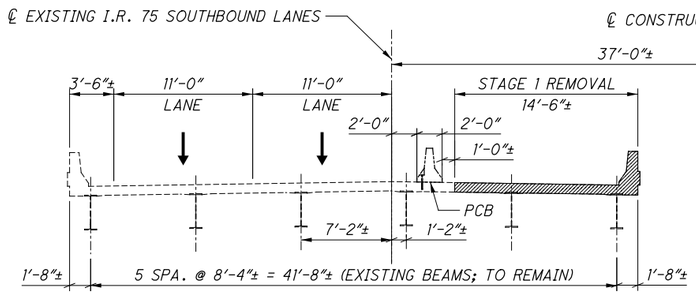
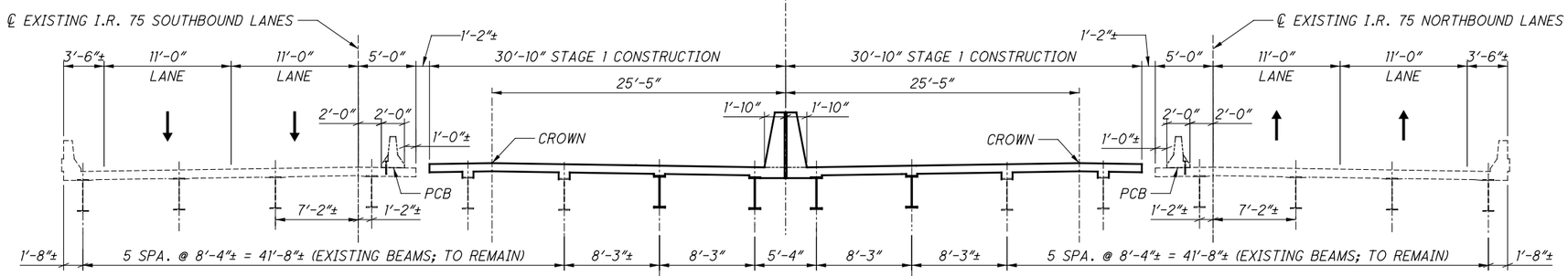
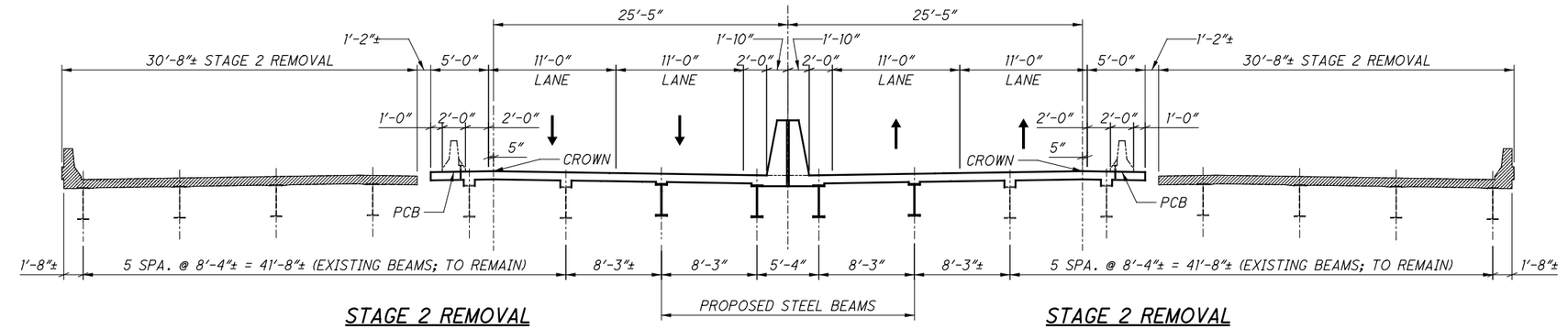


STAGE 1 REMOVAL



STAGE 1 CONSTRUCTION



STAGE 2 REMOVAL

STAGE 2 CONSTRUCTION

NOTES

- PCB DENOTES PORTABLE CONCRETE BARRIER AND SHALL CONFORM TO ODOT STANDARD DRAWING PCB-91.

- THERE SHALL BE A MINIMUM OF 4 ANCHORS PER EACH SEGMENT OF PCB, LOCATED SYMMETRICALLY ON THE TRAFFIC SIDE, FOR EVERY STAGE OF WORK.

- SEE SHEET 27/35 FOR FINAL TYPICAL SECTION.

LEGEND

▨ - CONCRETE REMOVAL LIMITS

STAGE CONSTRUCTION DETAILS
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

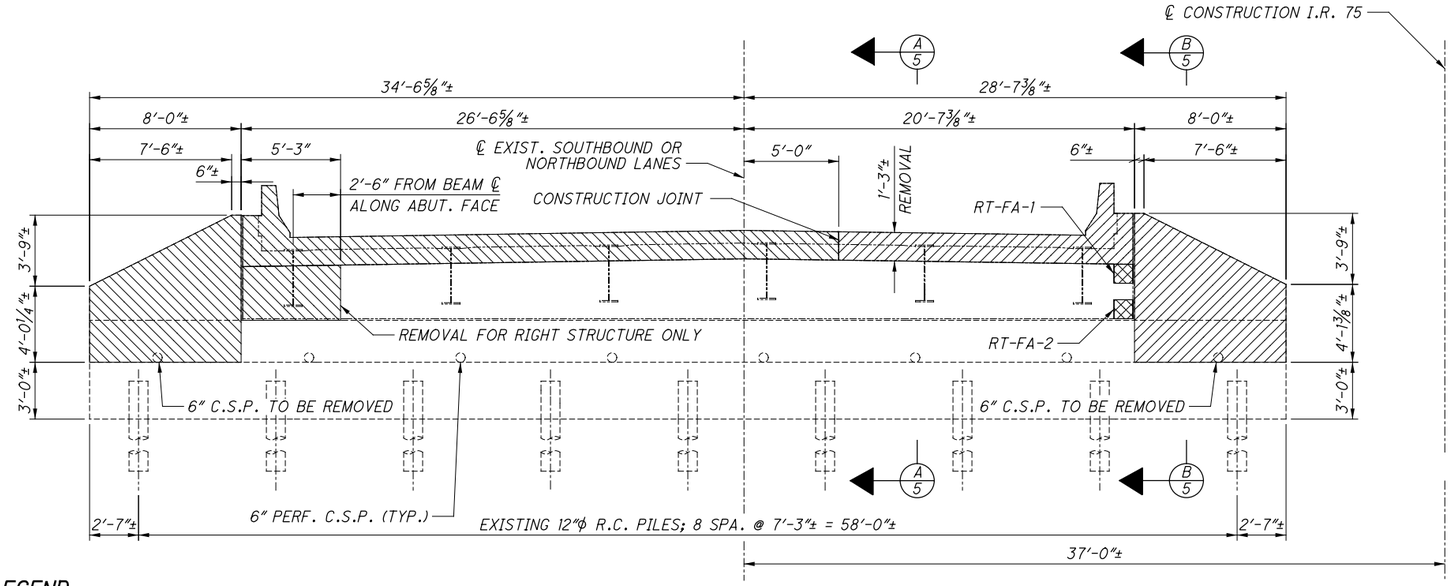
HAN/WOO-75-19.22/0.00

4/35

280/336

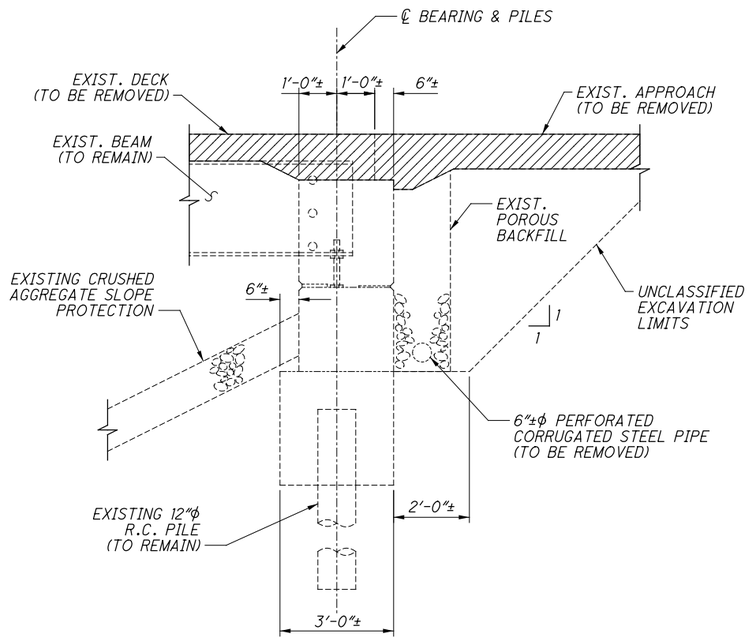
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-29-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015



TYPICAL ABUTMENT ELEVATION - REMOVAL LIMITS

(LT-FA SHOWN; RT-RA SIMILAR. RT-FA & LT-RA SIMILAR BUT OPPOSITE HAND)



SECTION A-A

LEGEND

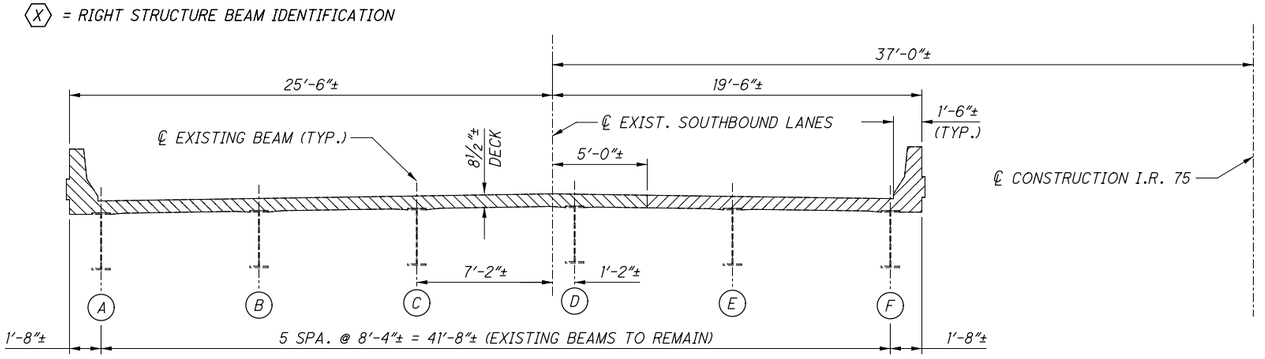
STAGE 1 CONCRETE REMOVAL LIMITS

STAGE 2 CONCRETE REMOVAL LIMITS

CONCRETE PATCHING LIMITS

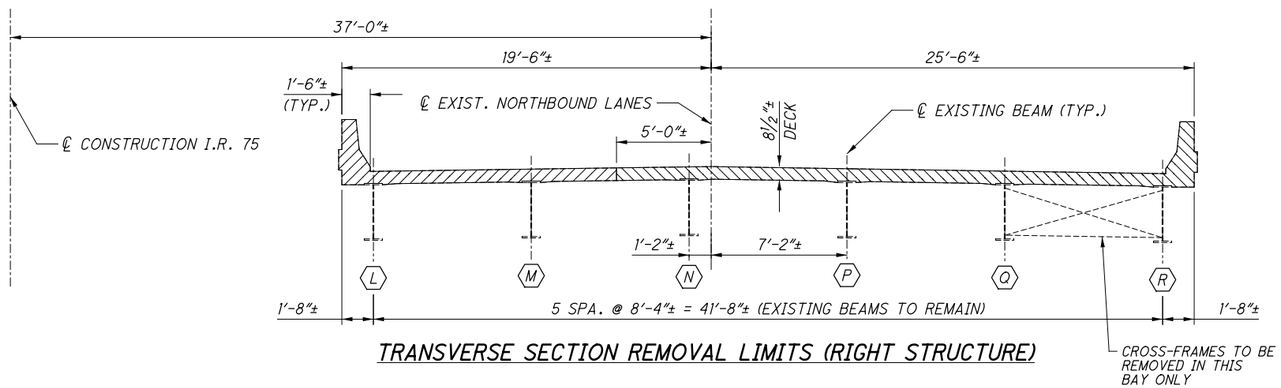
(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

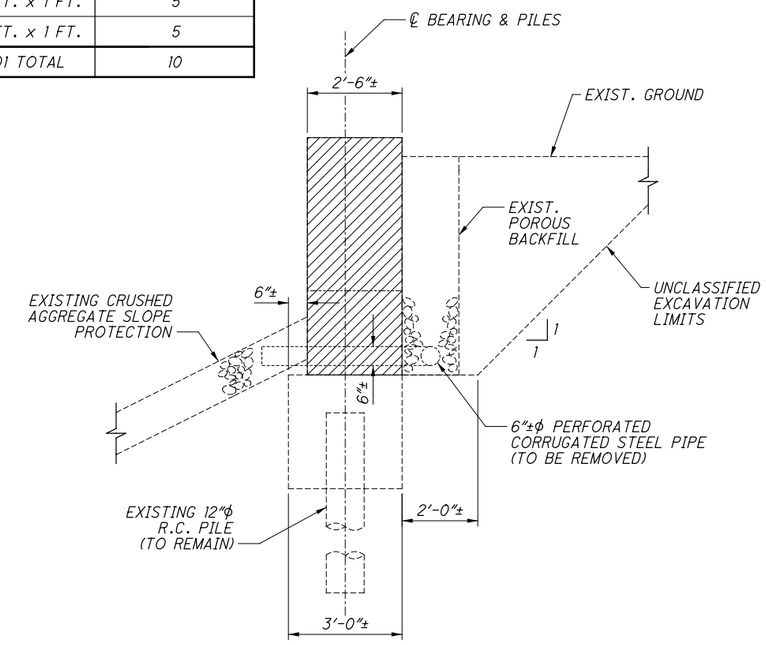


TRANSVERSE SECTION REMOVAL LIMITS (LEFT STRUCTURE)

ABUTMENT CONCRETE PATCHING TABLE		
PATCH ID	DIMENSIONS	AREA (SQ. FT.)
RT-FA-1	5 FT. x 1 FT.	5
RT-FA-2	5 FT. x 1 FT.	5
ABUTMENT 519-11101 TOTAL		10



TRANSVERSE SECTION REMOVAL LIMITS (RIGHT STRUCTURE)



SECTION B-B

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

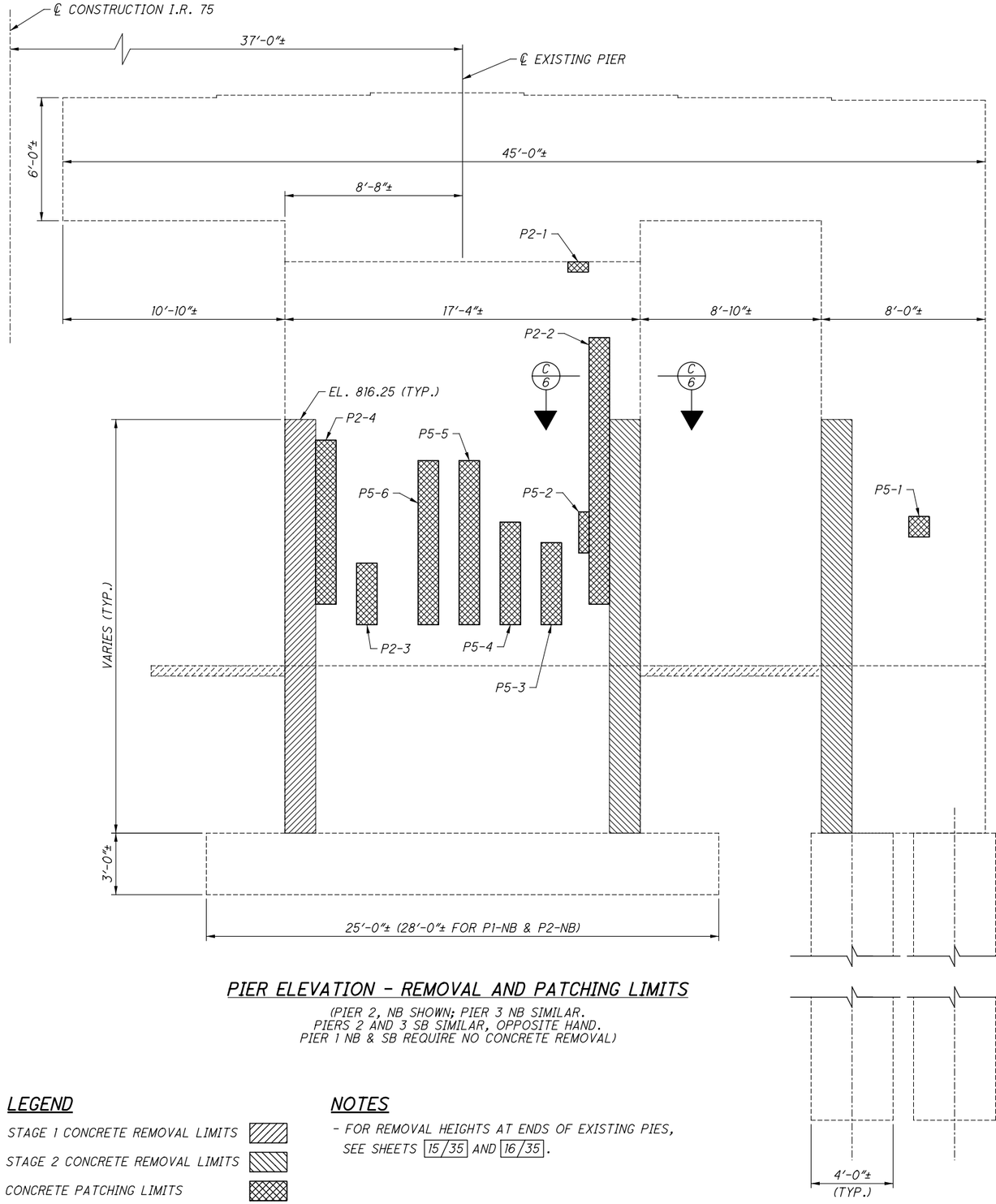
DATE
REVIEWED SAM 01-29-2015
STRUCTURE FILE NUMBER 3203166L/3203174R
DRAWN KWL REVISED
DESIGNED KWL CHECKED NBL

REMOVAL LIMIT DETAILS (1 OF 2)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

5 / 35

281 / 336



PIER ELEVATION - REMOVAL AND PATCHING LIMITS

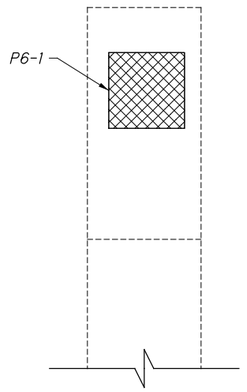
(PIER 2, NB SHOWN; PIER 3 NB SIMILAR.
PIERS 2 AND 3 SB SIMILAR, OPPOSITE HAND.
PIER 1 NB & SB REQUIRE NO CONCRETE REMOVAL)

LEGEND

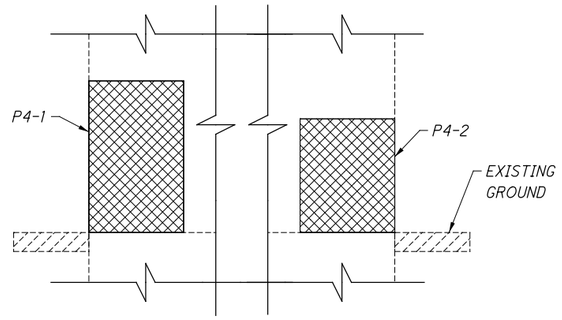
- STAGE 1 CONCRETE REMOVAL LIMITS
- STAGE 2 CONCRETE REMOVAL LIMITS
- CONCRETE PATCHING LIMITS

NOTES

- FOR REMOVAL HEIGHTS AT ENDS OF EXISTING PIES, SEE SHEETS 15/35 AND 16/35.

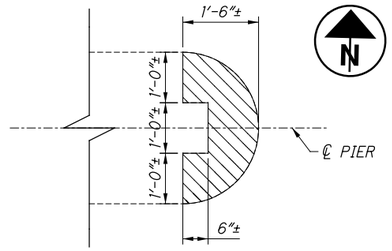


PIER 3 (NB) - WEST CAP END

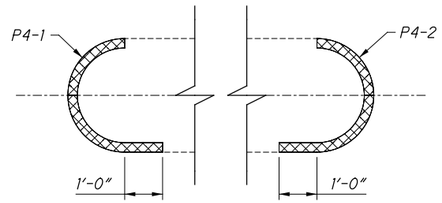


PIER 1 (NB) ELEVATION - PATCHING LIMITS

(SOUTH FACE OF ORIGINAL MAIN WALL)



SECTION C-C



PIER 1 (NB) PLAN - PATCHING LIMITS

CONCRETE PATCHING TABLE

PATCH ID	LOCATION	DIMENSIONS (FT. x FT.)	AREA (SQ. FT.)
P2-1	N. FACE	5 x 1	5
P2-2	N. FACE	1 x 15	15
P2-3	N. FACE	1 x 5	5
P2-4	N. FACE	1 x 10	10
P4-1	W. END	5 x 5	25
P4-2	E. END	5 x 4	20
P5-1	N. FACE	2.5 x 2	5
P5-2	N. FACE	1 x 5	5
P5-3	N. FACE	1 x 5	5
P5-4	N. FACE	2 x 5	10
P5-5	N. FACE	1 x 10	10
P5-6	N. FACE	1 x 10	10
P6-1	W. END	2 x 5	10
519-11101 TOTAL			135

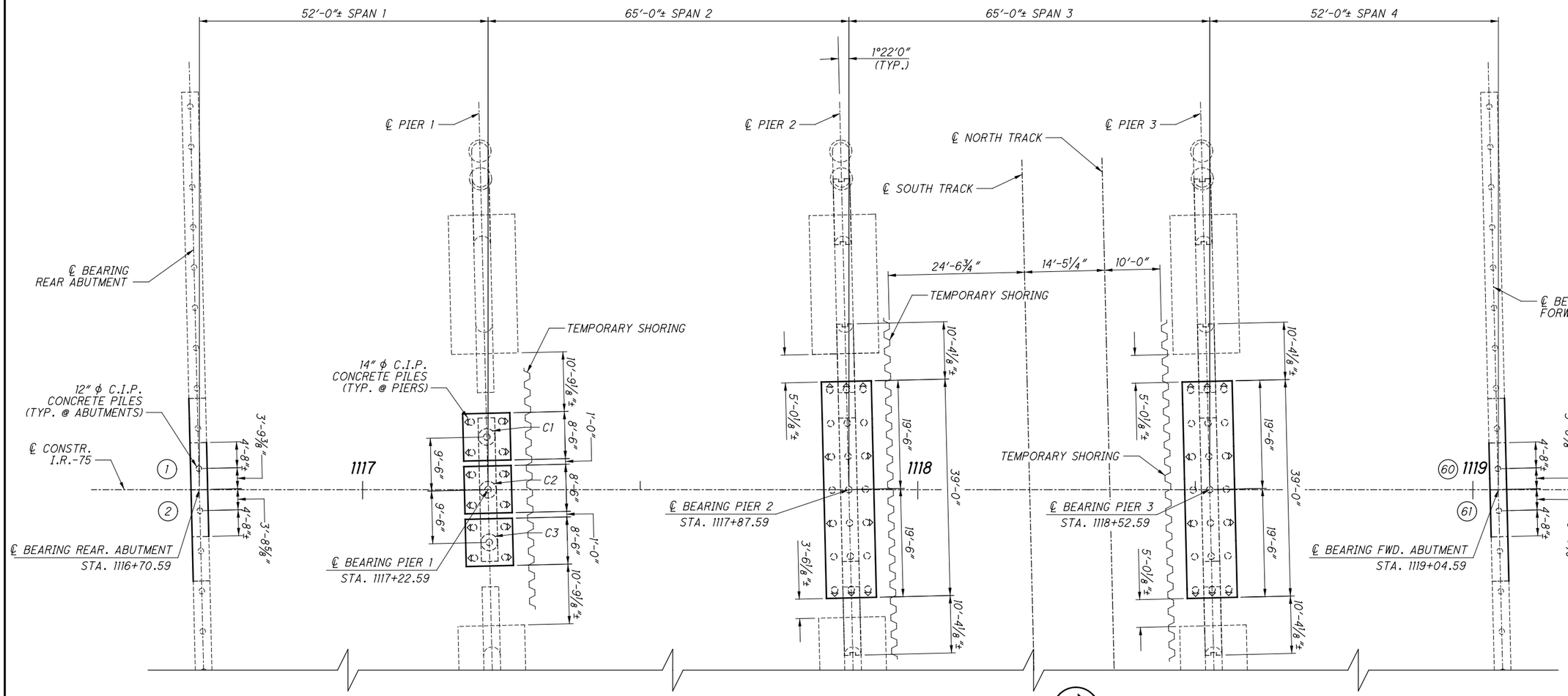
DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-29-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

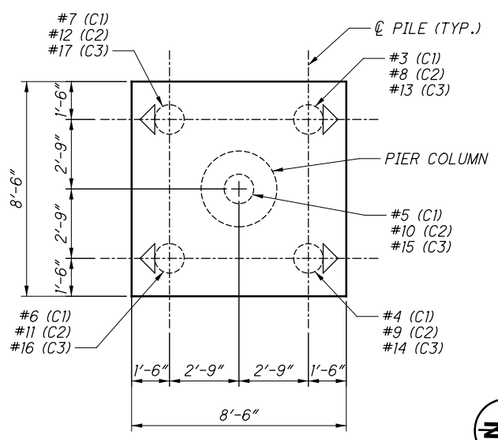
REMOVAL LIMIT DETAILS (2 OF 2)

BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD & TR-101

HAN/WOO-75-19.22/0.00

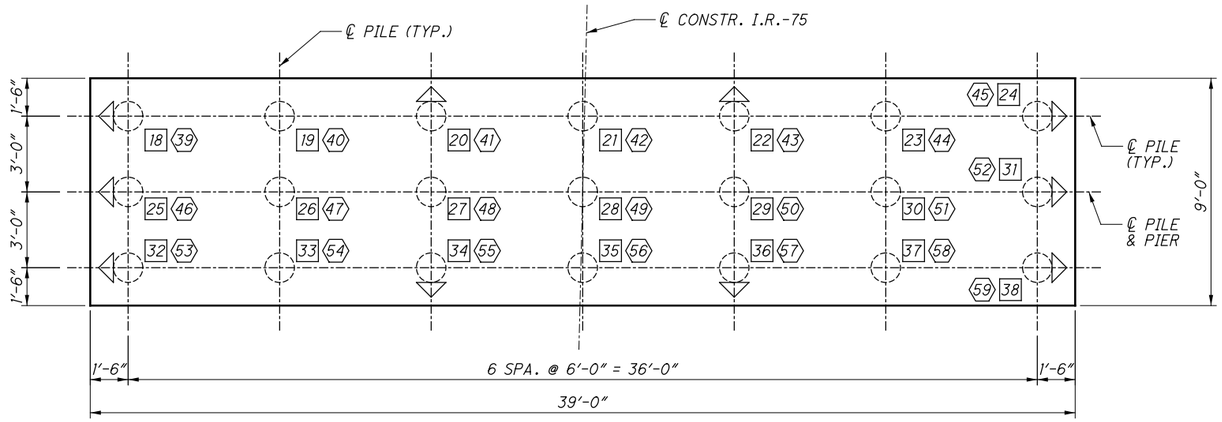


FOUNDATION LAYOUT PLAN



PIER 1 FOOTING PLAN

COLUMN 1 SHOWN, COLUMNS 2 & 3 ARE SIMILAR



PIER 2 & 3 FOOTING PLAN

LEGEND

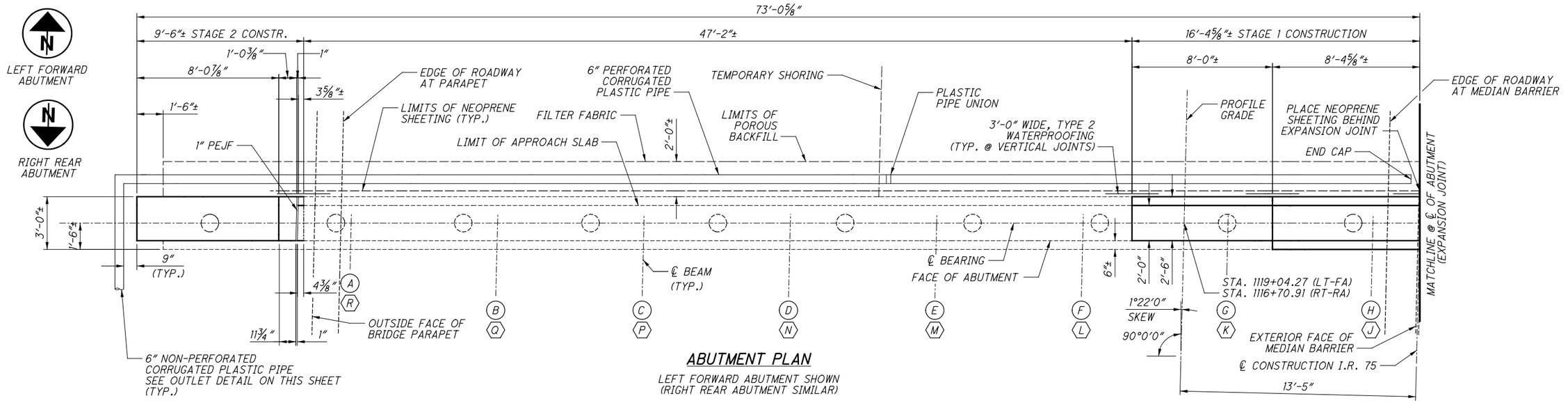
- (X) = ABUTMENT PILE DESIGNATION
- [X] = PIER 2 PILE DESIGNATION
- ⟨X⟩ = PIER 3 PILE DESIGNATION
- = INDICATES PILE BATTERED 1:4 IN DIRECTION SHOWN

FOUNDATION PLAN
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

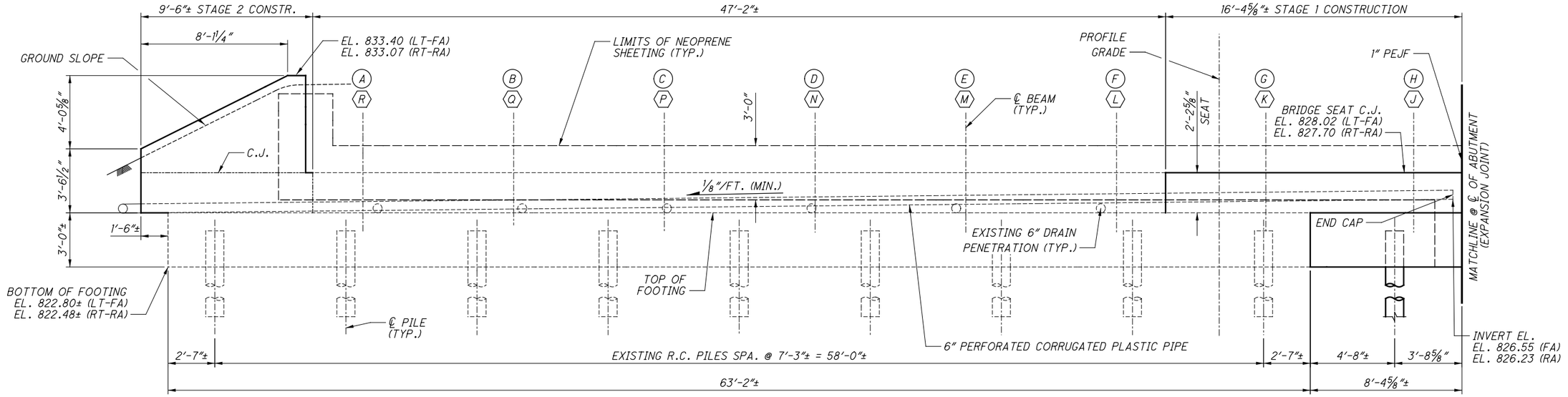
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	02-16-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

HAN/W00-75-19.22/0.00



ABUTMENT PLAN

LEFT FORWARD ABUTMENT SHOWN
(RIGHT REAR ABUTMENT SIMILAR)



ABUTMENT ELEVATION

LEFT FORWARD ABUTMENT SHOWN
(RIGHT REAR ABUTMENT SIMILAR)

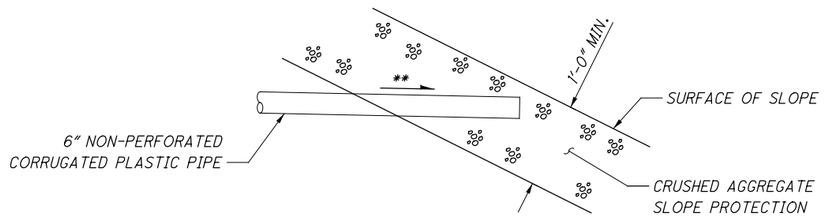
NOTES

- FOR ADDITIONAL ABUTMENT DETAILS SEE SHEETS 9/35, 12/35 AND STD. DWG. ICD-1-82.
- FOR PILE LAYOUT, SEE SHEET 7/35.
- ALL EXISTING 6" DRAIN PENETRATIONS SHALL BE PLUGGED.

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION



OUTLET DETAIL

(** SLOPE AS NEEDED, SEE PLAN VIEW ON THIS SHEET)

DESIGN AGENCY
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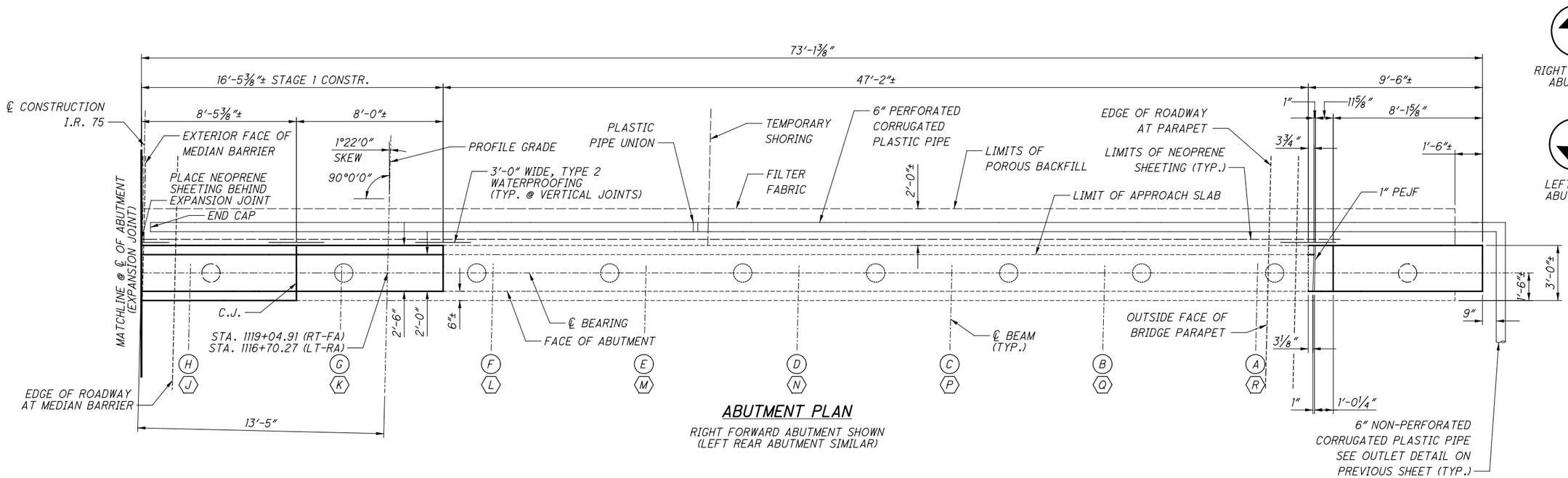
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	02-16-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

ABUTMENT DETAILS (1 OF 5)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

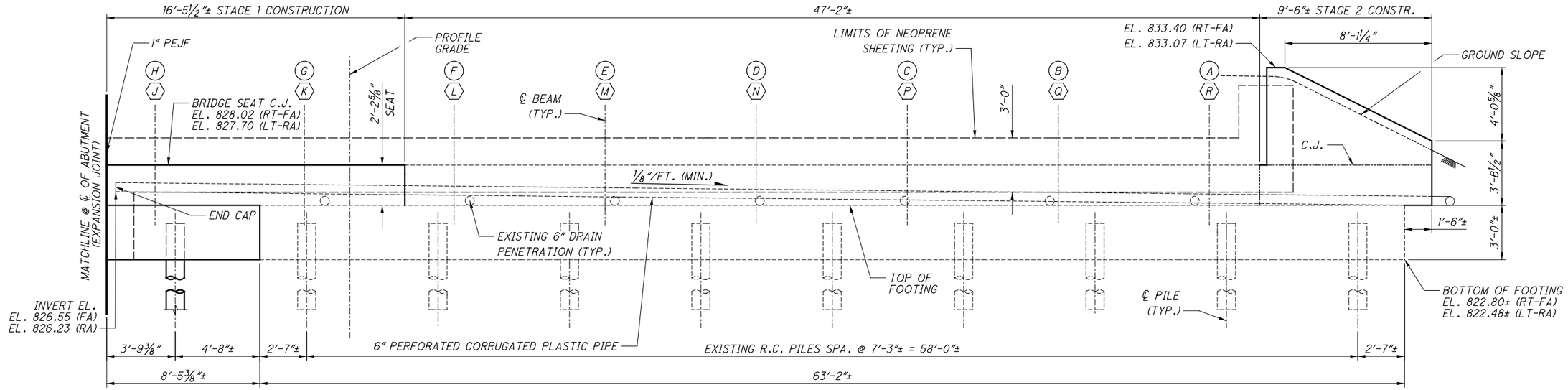
8/35

284/336



ABUTMENT PLAN

RIGHT FORWARD ABUTMENT SHOWN
(LEFT REAR ABUTMENT SIMILAR)



ABUTMENT ELEVATION

RIGHT FORWARD ABUTMENT SHOWN
(LEFT REAR ABUTMENT SIMILAR)

NOTES

- FOR ADDITIONAL ABUTMENT DETAILS SEE SHEETS 8/35, 12/35 AND STD. DWG. ICD-1-82.
- FOR PILE LAYOUT, SEE SHEET 7/35.
- ALL EXISTING 6" DRAIN PENETRATIONS SHALL BE PLUGGED.

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

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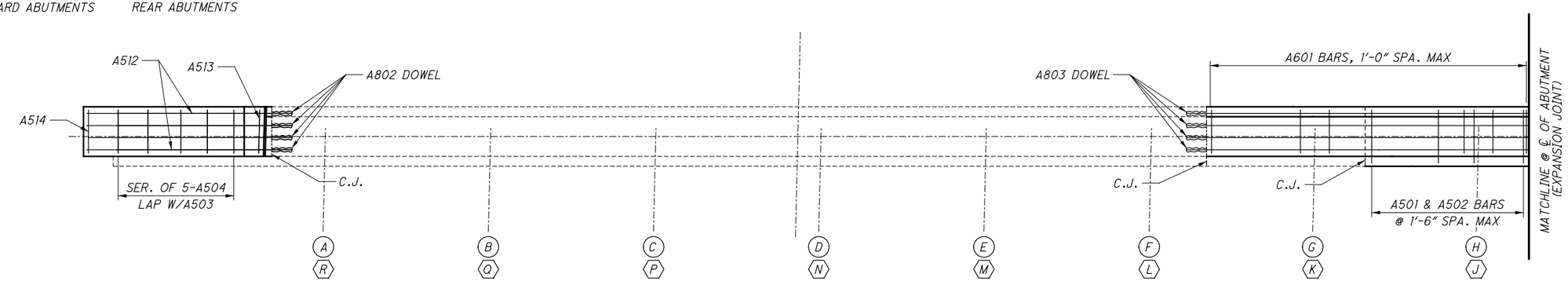
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	02-16-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

ABUTMENT DETAILS (2 OF 5)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

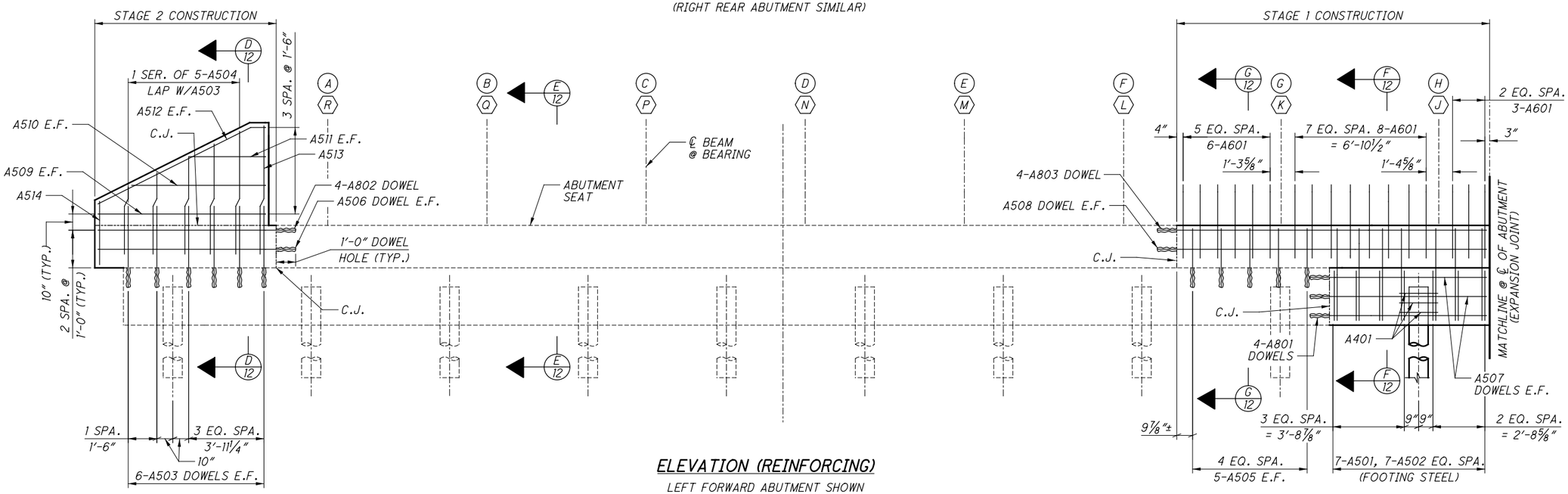
FORWARD ABUTMENTS

REAR ABUTMENTS



PLAN REINFORCING

LEFT FORWARD ABUTMENT SHOWN
(RIGHT REAR ABUTMENT SIMILAR)



ELEVATION (REINFORCING)

LEFT FORWARD ABUTMENT SHOWN
(RIGHT REAR ABUTMENT SIMILAR)

NOTES

- FOR ADDITIONAL ABUTMENT DETAILS SEE SHEETS 11/35, 12/35 AND STD. DWG. ICD-1-82.
- FOR PILE LAYOUT, SEE SHEET 7/35.
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #8 BARS - 7'-3"
  #5 BARS - 2'-6"
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

DESIGN AGENCY
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DATE REVIEWED: SAM 01-29-2015
STRUCTURE FILE NUMBER: 3203166L/3203174R

DRAWN: KWL
REVISED:

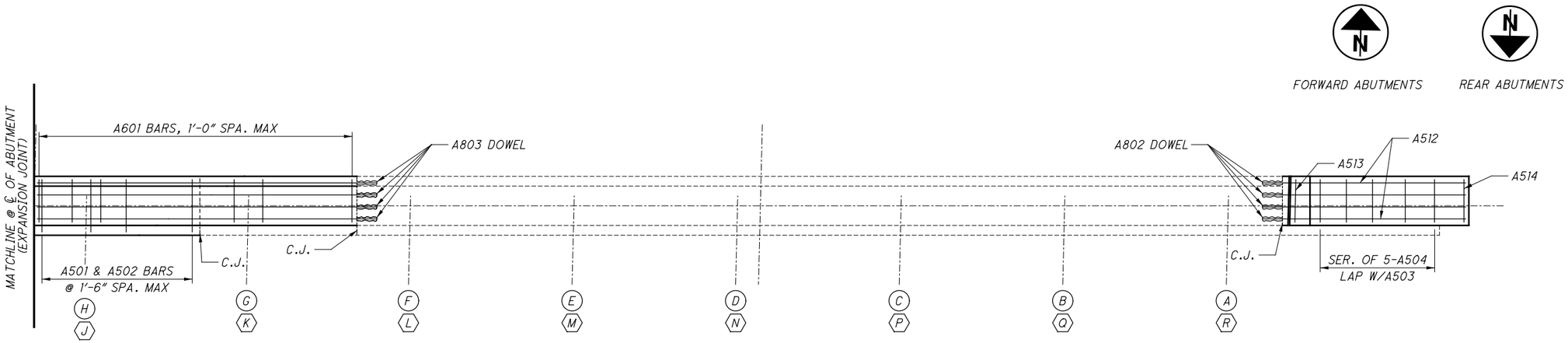
DESIGNED: KWL
CHECKED: NBL

ABUTMENT DETAILS (3 OF 5)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

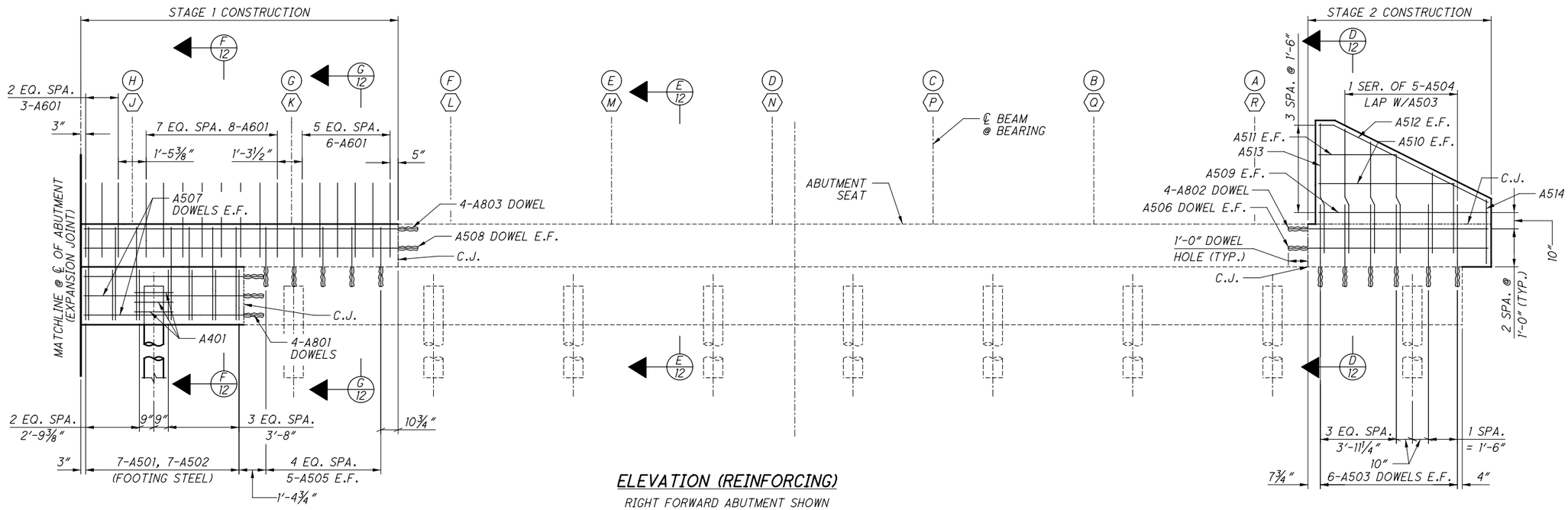
10/35

286/336



PLAN REINFORCING

RIGHT FORWARD ABUTMENT SHOWN
(LEFT REAR ABUTMENT SIMILAR)



ELEVATION (REINFORCING)

RIGHT FORWARD ABUTMENT SHOWN
(LEFT REAR ABUTMENT SIMILAR)

NOTES

- FOR ADDITIONAL ABUTMENT DETAILS SEE SHEETS 10/35, 12/35 AND STD. DWG. ICD-1-82.
- FOR PILE LAYOUT, SEE SHEET 7/35.
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #8 BARS - 7'-3"
  #5 BARS - 2'-6"
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

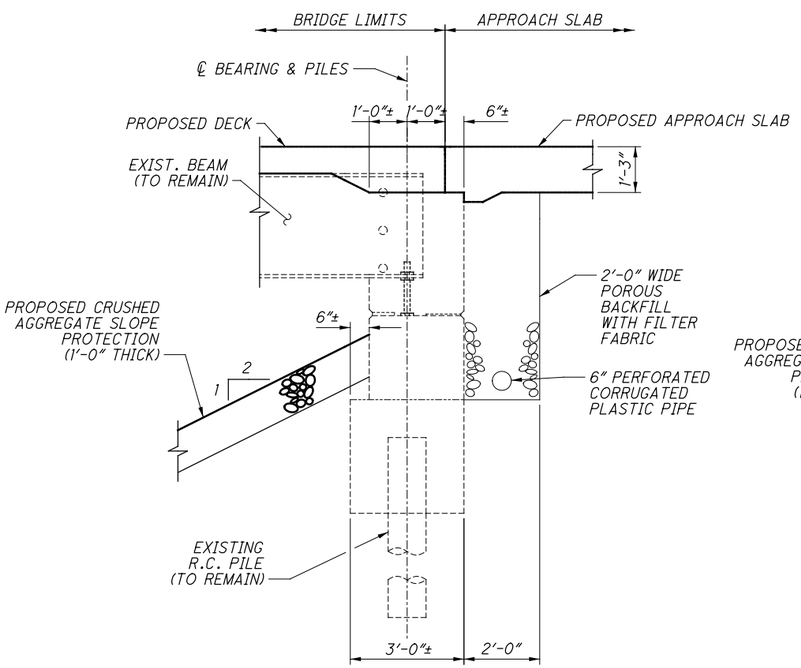
⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

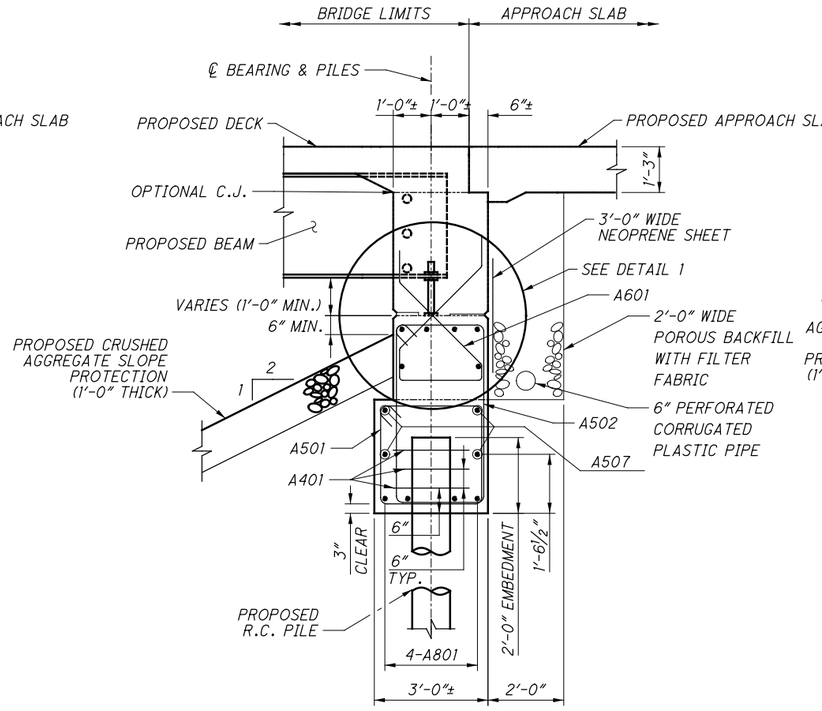
DATE 01-29-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203166L/3203174R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

ABUTMENT DETAILS (4 OF 5)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

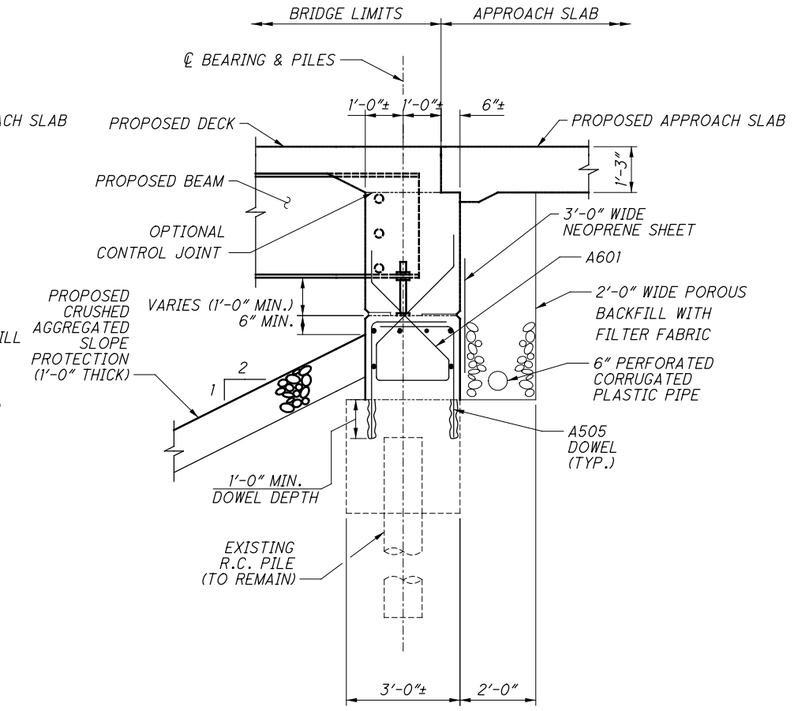


SECTION E-E



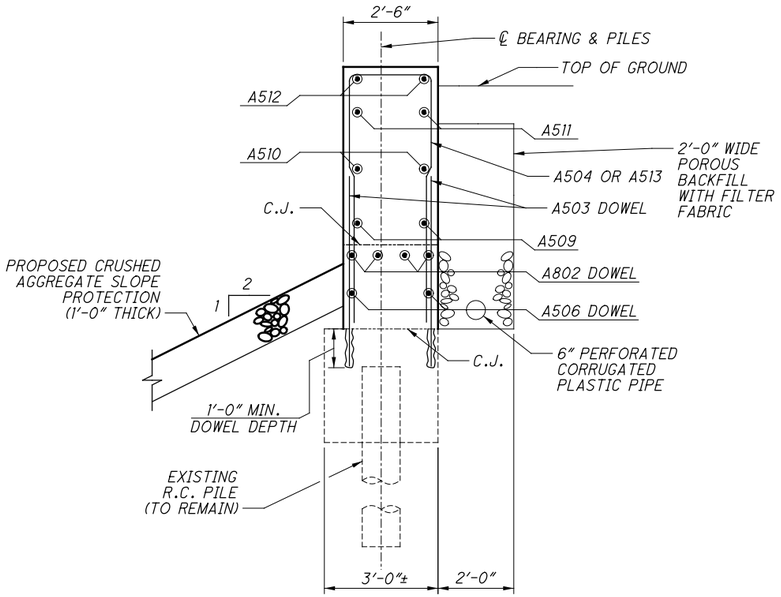
SECTION F-F

(FOR CLARITY, SUPERSTRUCTURE REINFORCMENT IS NOT SHOWN)



SECTION G-G

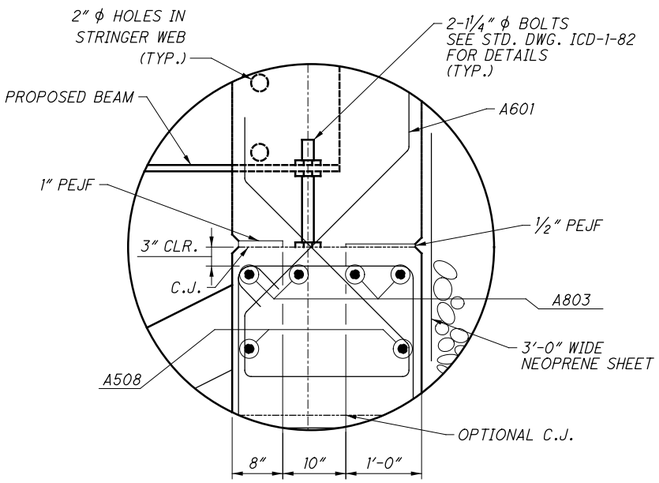
(FOR CLARITY, SUPERSTRUCTURE REINFORCMENT IS NOT SHOWN)



SECTION D-D

NOTES

- SEE SHEETS 10/35 AND 11/35 FOR SECTION CALLOUTS
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.
- ALL EXISTING 6" DRAIN PENETRATIONS SHALL BE PLUGGED.



DETAIL 1

(FOR CLARITY, SUPERSTRUCTURE REINFORCMENT IS NOT SHOWN)

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

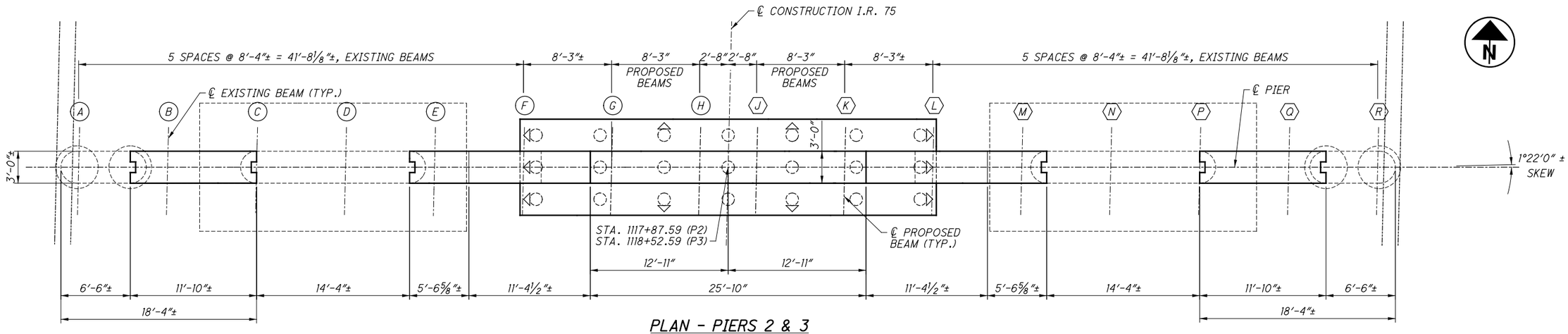
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-29-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

ABUTMENT DETAILS (5 OF 5)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

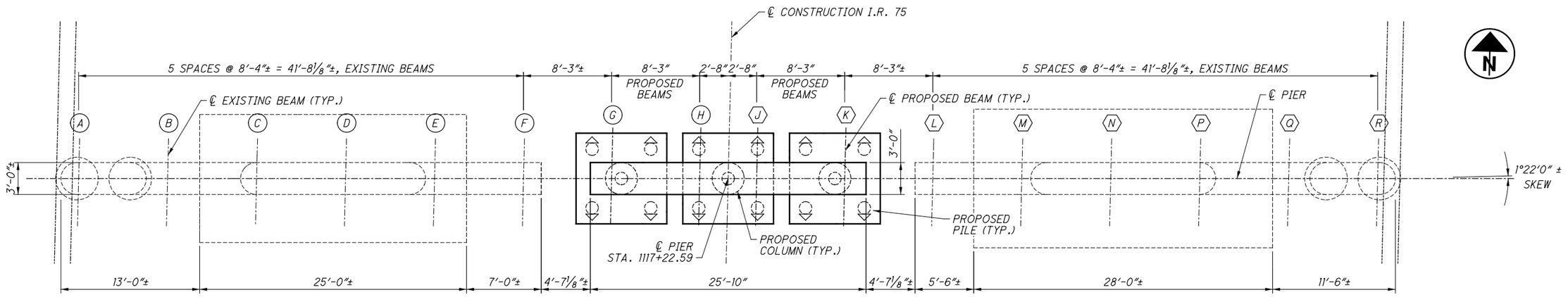
12/35

288/336



PLAN - PIERS 2 & 3

PIER 3 SHOWN; PIER 2 SIMILAR



PLAN - PIER 1

NOTES

- FOR PILE FOUNDATION LAYOUT, SEE SHEET 7/35

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

= INDICATES PILE BATTERED 1:4 IN DIRECTION SHOWN

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

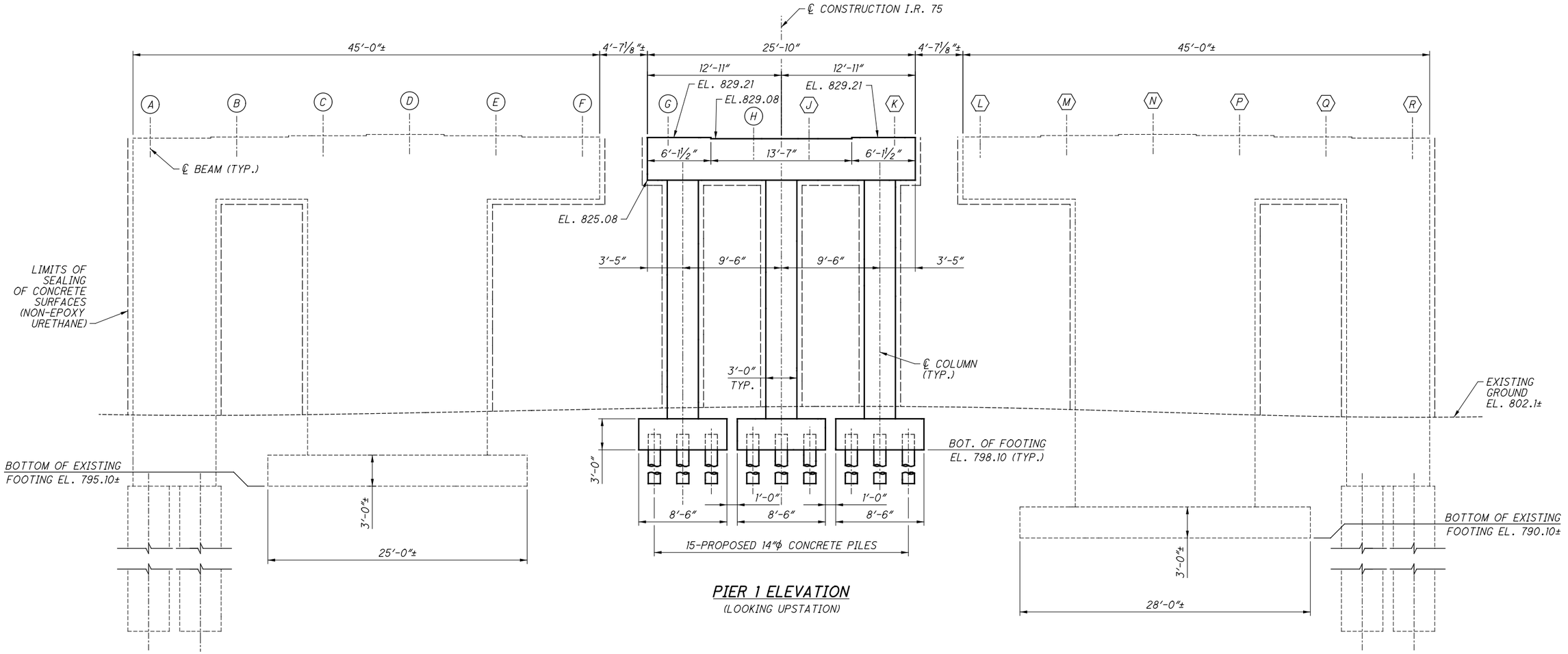
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	02-16-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

PIER DETAILS (1 OF 8)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

13/35

289/336



PIER 1 ELEVATION
(LOOKING UPSTATION)

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

NOTES

- FOR PILE FOUNDATION LAYOUT, SEE SHEET 7/35
- PILES TO BE BATTERED AT 1:4 WHERE APPLICABLE

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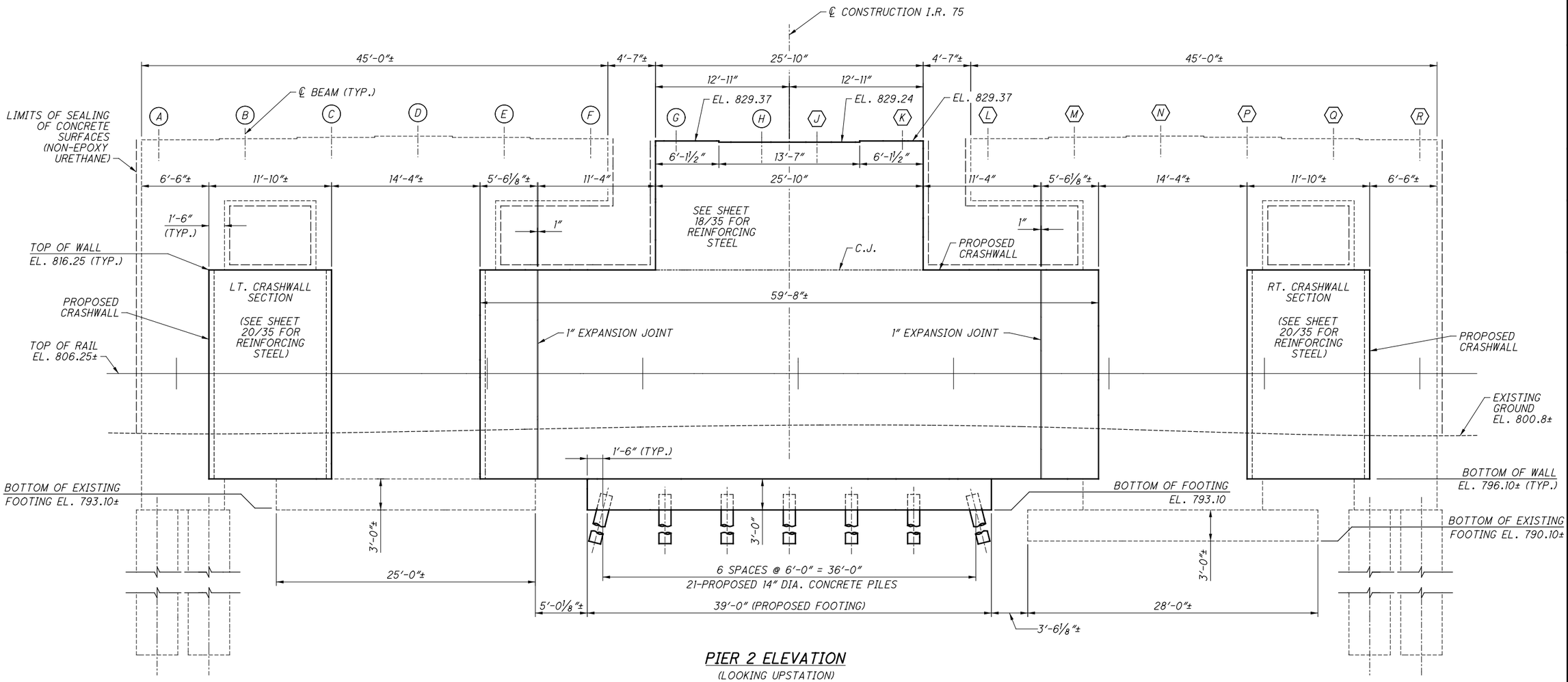
PIER 1 ELEVATION DETAILS (2 OF 8)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00



PIER 2 ELEVATION

(LOOKING UPSTATION)

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

NOTES

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- PILES TO BE BATTERED AT 1:4 WHERE APPLICABLE

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3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE
REVIEWED 02-16-2015
STRUCTURE FILE NUMBER 3203166L/3203174R

DRAWN KWL
REVISED

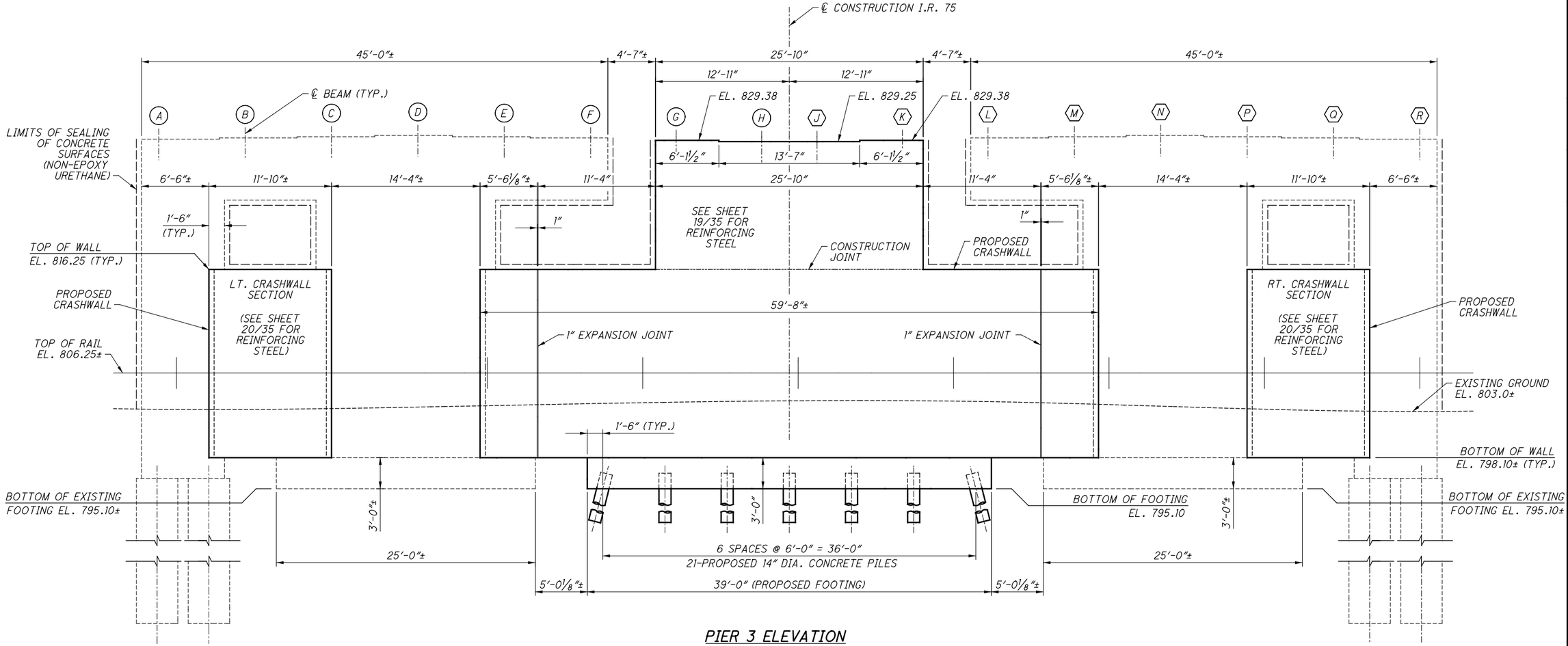
DESIGNED KWL
CHECKED NBL

PIER 2 ELEVATION DETAILS (3 OF 8)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

15/35

291/336



PIER 3 ELEVATION

(LOOKING UPSTATION)

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

NOTES

- FOR PILE FOUNDATION LAYOUT, SEE SHEET 7/35
- PILES TO BE BATTERED AT 1:4 WHERE APPLICABLE

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PIER 3 ELEVATION DETAILS (4 OF 8)

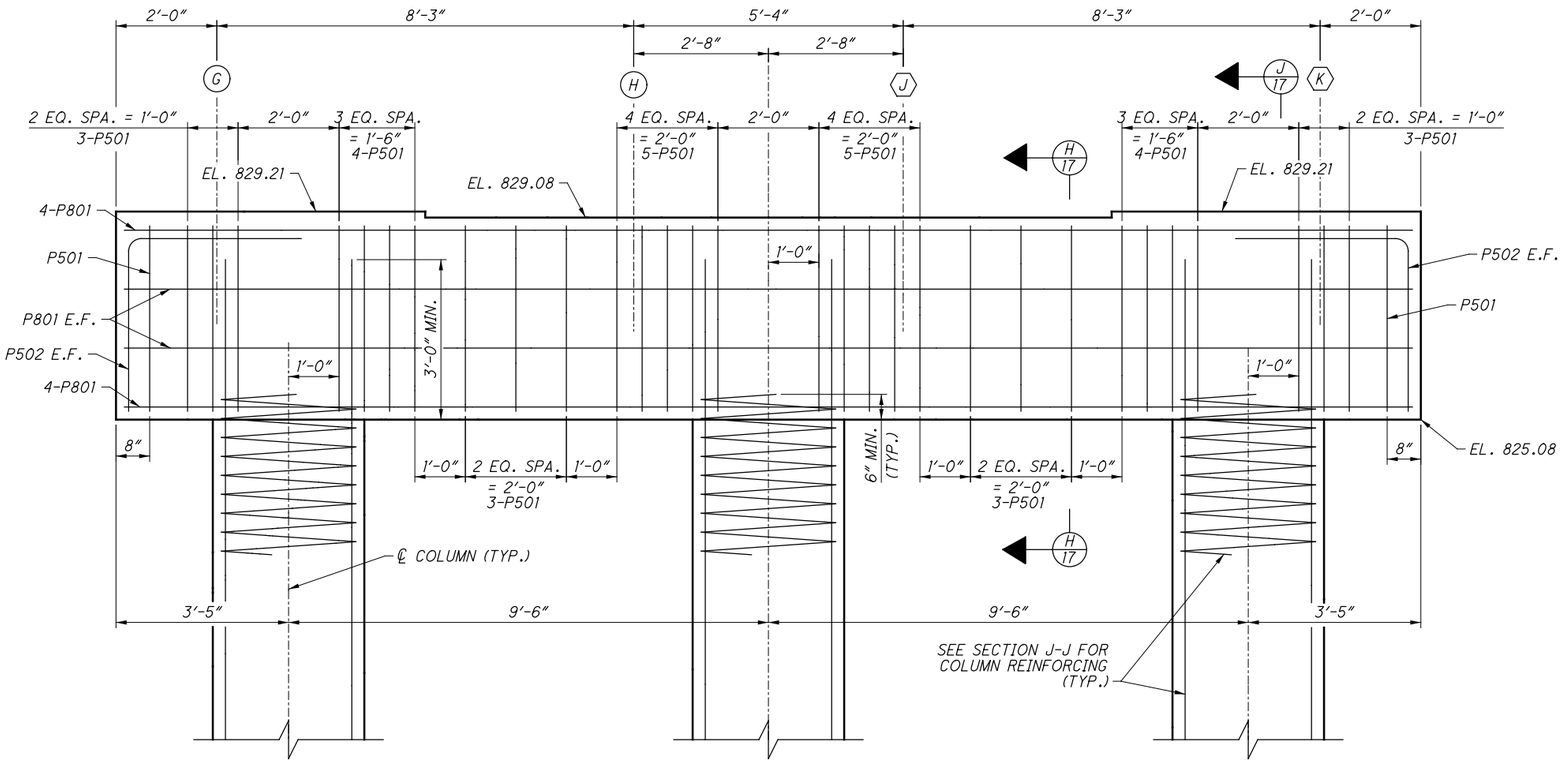
BRIDGE NO. HAN-75-2115 (L & R)

I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

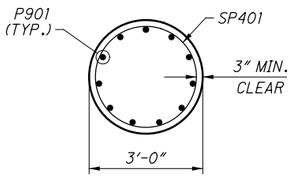
16/35

292/336

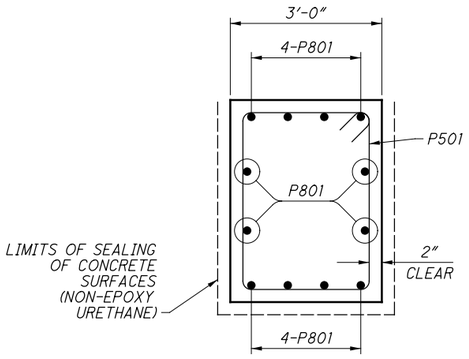


PIER 1 ELEVATION REINFORCING

(SOUTH FACE SHOWN)



SECTION K-K

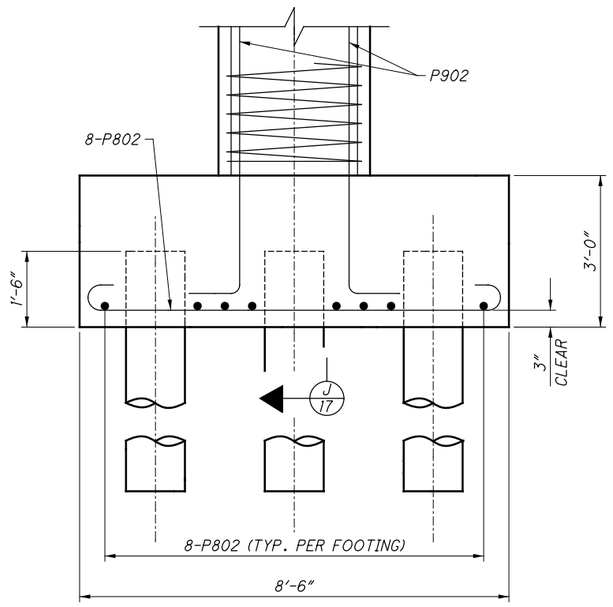


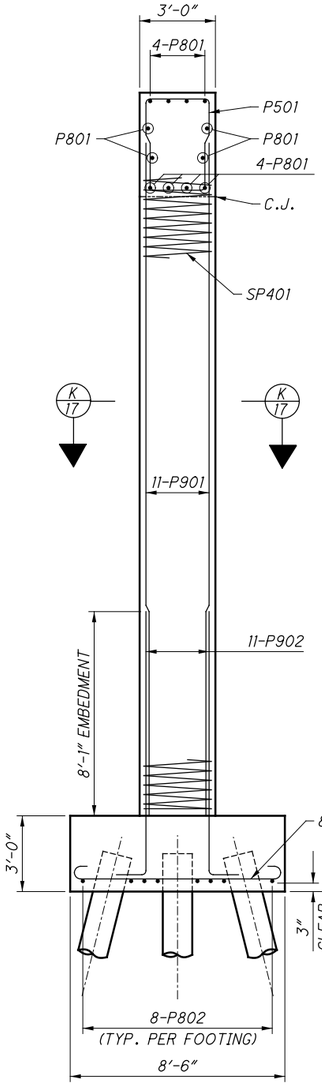
SECTION H-H

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION





SECTION J-J

TYPICAL PER COLUMN

NOTES

- FOR PILE FOUNDATION LAYOUT, SEE SHEET 7/35
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - #9 BARS - 9'-2"
  - #8 BARS - 7'-3"
  - #5 BARS - 3'-7"
- PILES TO BE BATTERED AT 1:4 WHERE APPLICABLE

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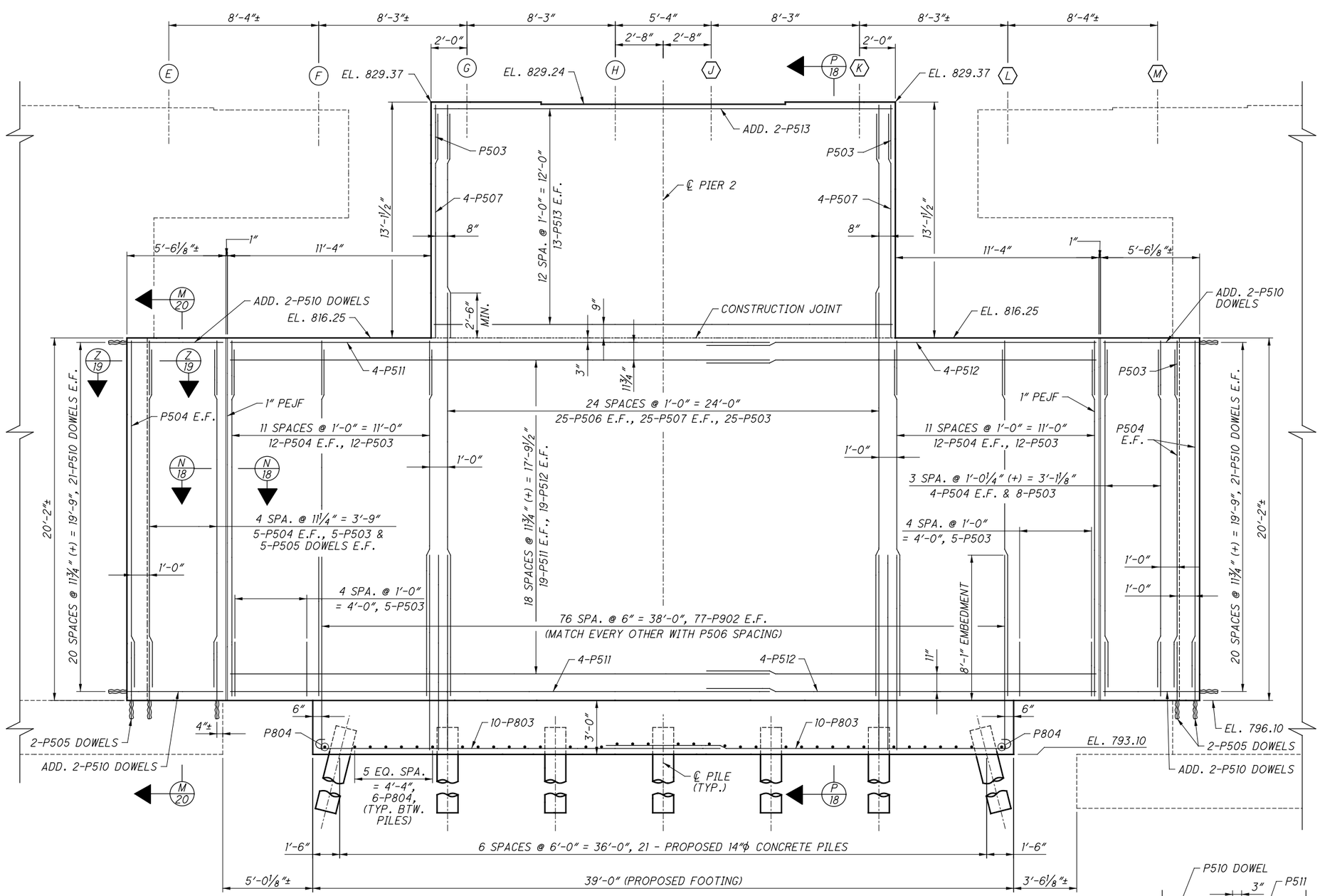
PIER 1 REINFORCING DETAILS (5 OF 8)

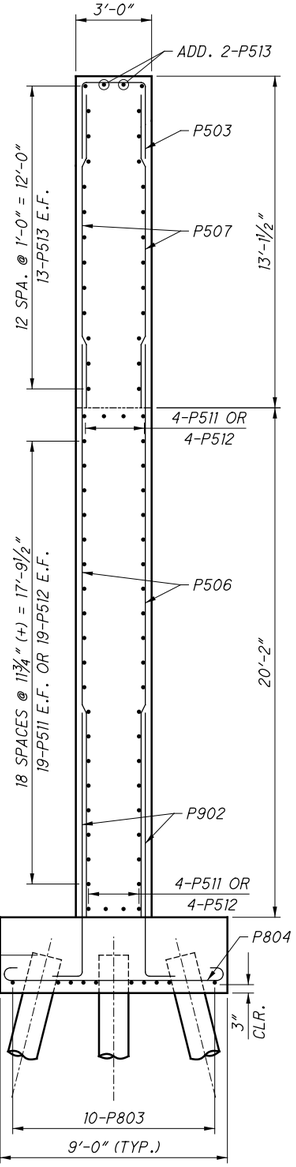
BRIDGE NO. HAN-75-2115 (L & R)

I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

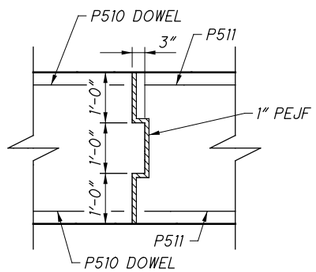
HAN/WOO-75-19.22/0.00



PIER 2 MAIN WALL REINFORCING



SECTION P-P



SECTION N-N

NOTES

- FOR PILE FOUNDATION LAYOUT, SEE SHEET 7/35
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - #9 BARS - 9'-2"
  - #8 BARS - 6'-4"
  - #5 BARS - 3'-7"
- ALL DOWELS REQ. 1'-0" MINIMUM EMBEDMENT
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.
- PILES TO BE BATTERED AT 1:4 WHERE APPLICABLE

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

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3455 Briarfield Blvd. Suite E
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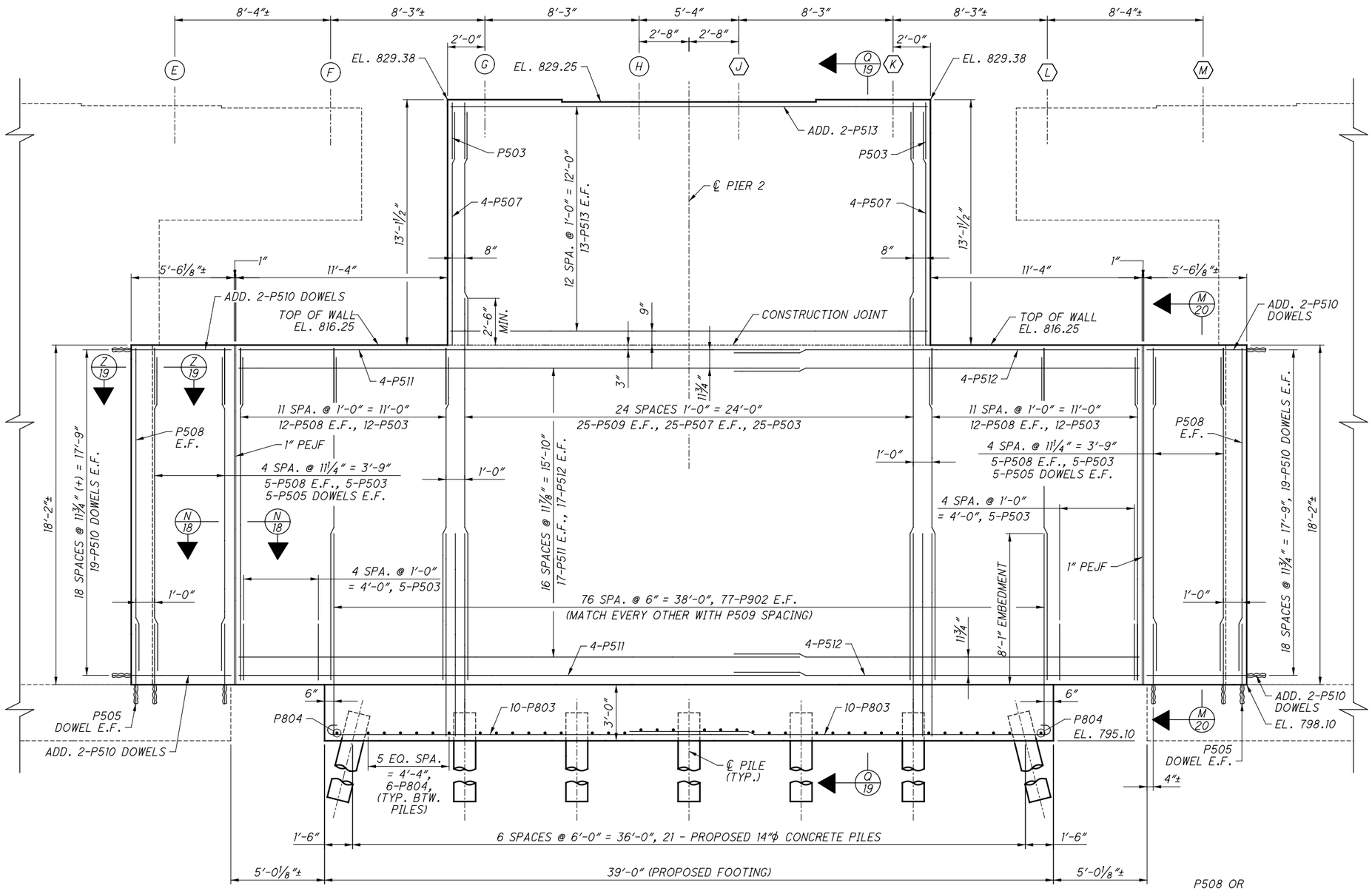
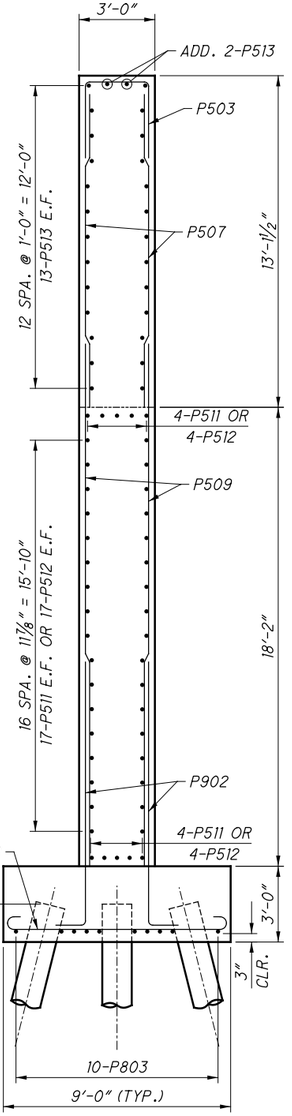
PIER 2 REINFORCING DETAILS (6 OF 8)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

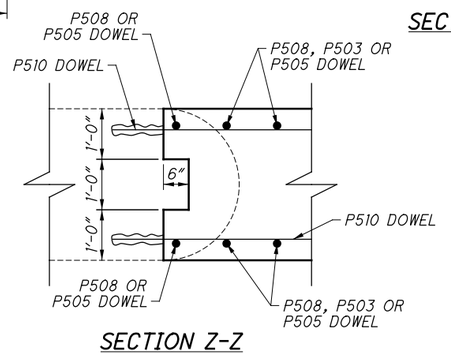
HAN/WOO-75-19.22/0.00



PIER 3 MAIN WALL REINFORCING



SECTION Q-Q



SECTION Z-Z

NOTES

- FOR PILE FOUNDATION LAYOUT, SEE SHEET 7/35
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - #9 BARS - 9'-2"
  - #8 BARS - 6'-4"
  - #5 BARS - 3'-7"
- ALL DOWELS REQ. 1'-0" MINIMUM EMBEDMENT
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.
- PILES TO BE BATTERED AT 1:4 WHERE APPLICABLE

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

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3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

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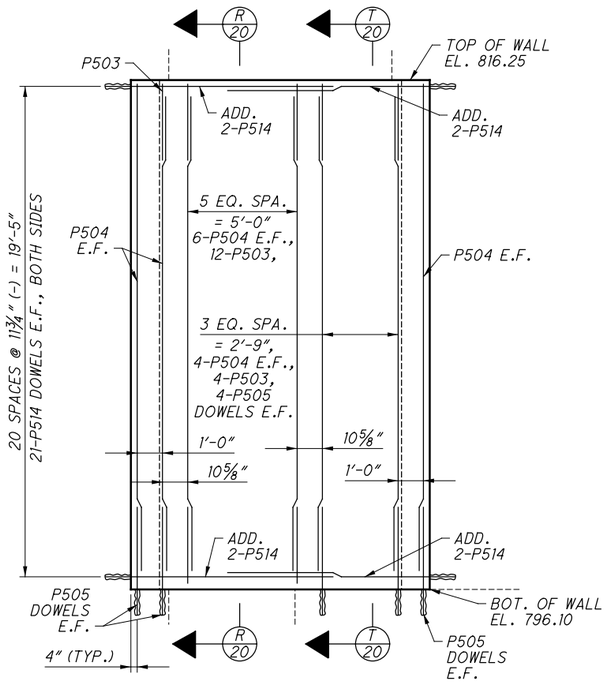
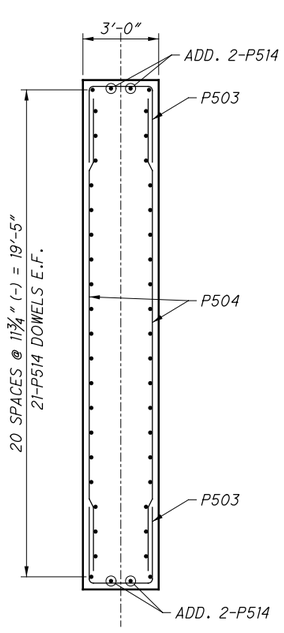
PIER 3 REINFORCING DETAILS (7 OF 8)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

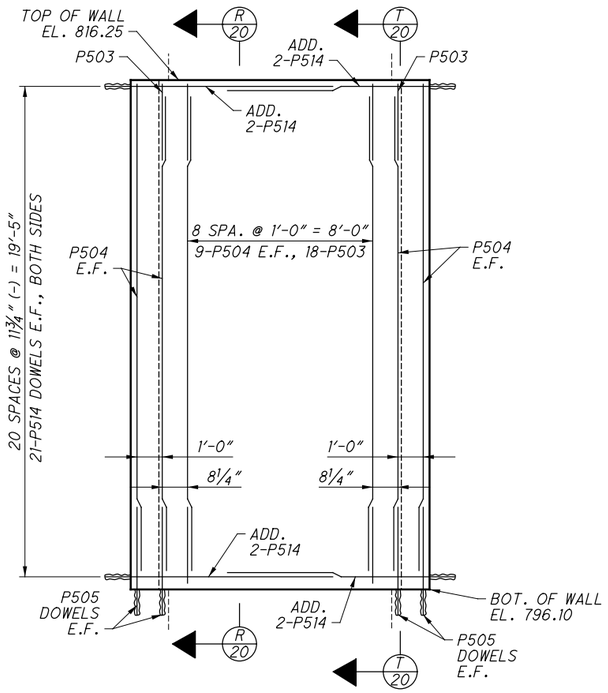
HAN/WOO-75-19.22/0.00



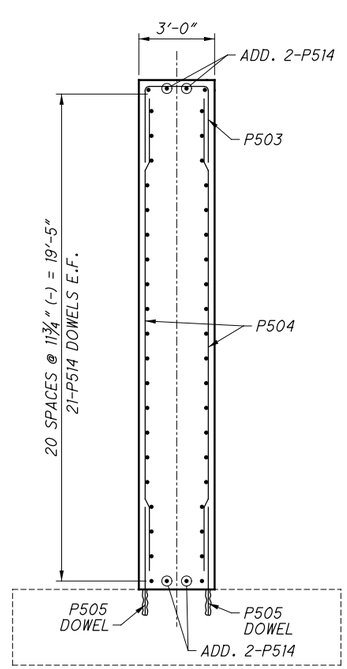
LT. CRASHWALL SECTION, PIER 2



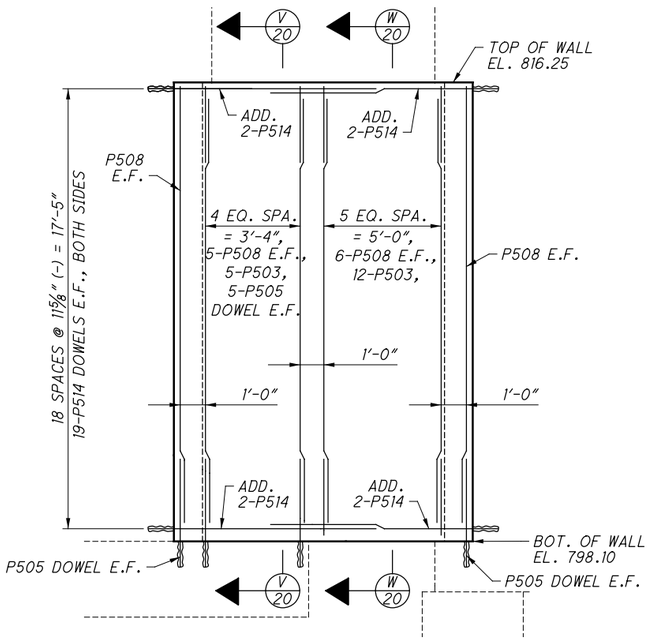
SECTION R-R



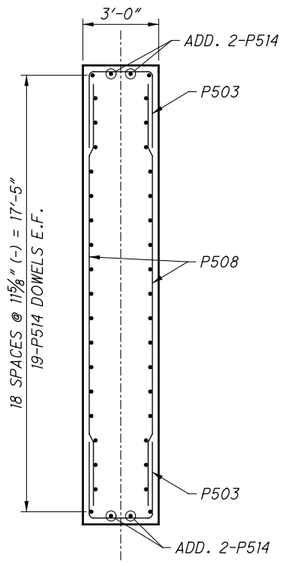
RT. CRASHWALL SECTION, PIER 2



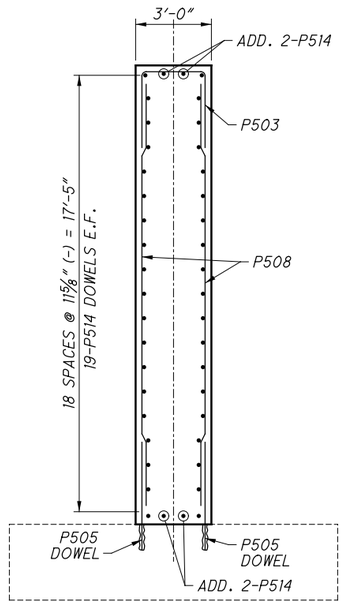
SECTION T-T



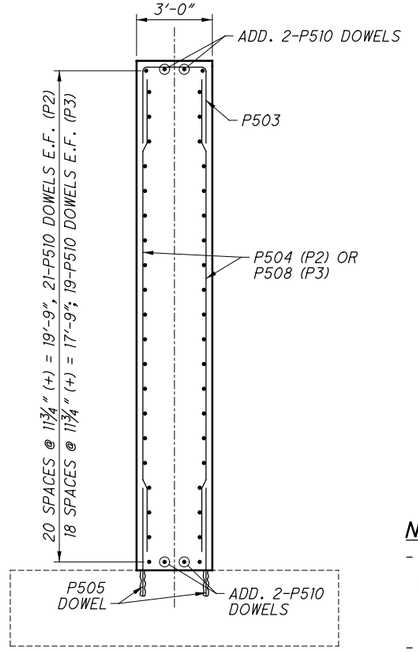
RT. CRASHWALL SECTION, PIER 3
(LT. CRASHWALL SECTION SIMILAR)



SECTION W-W



SECTION V-V



SECTION M-M

NOTES

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #9 BARS - 9'-2"
  #5 BARS - 3'-7"
- ALL DOWELS REQ. 1'-0" MINIMUM EMBEDMENT
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.

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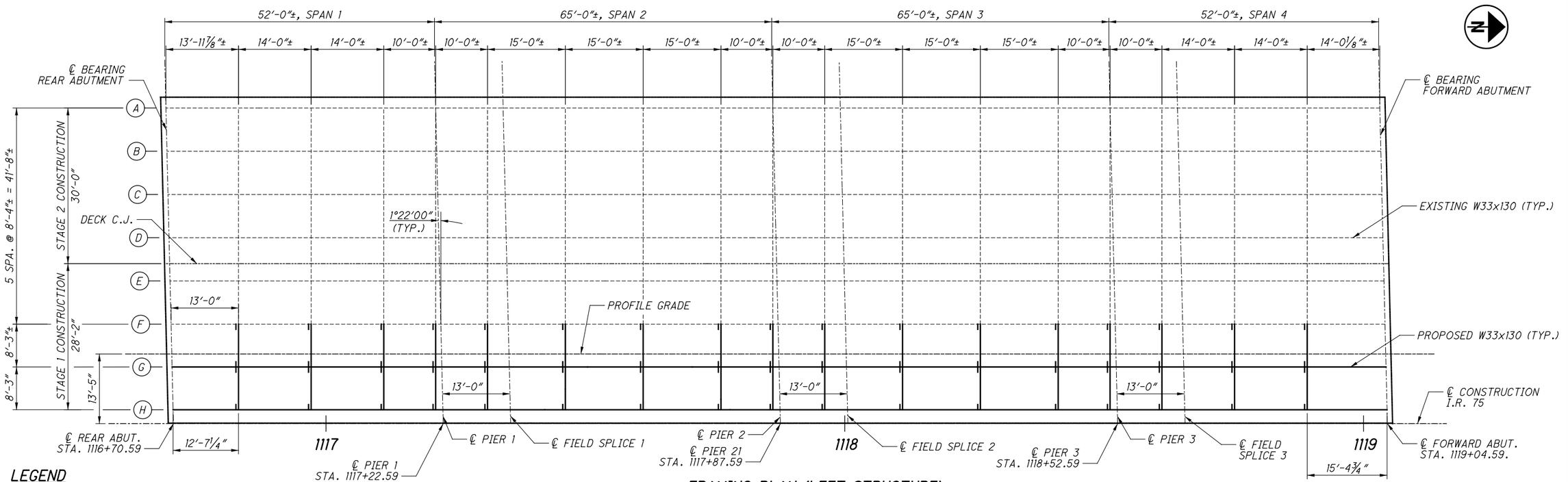
PIER DETAILS (8 OF 8)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

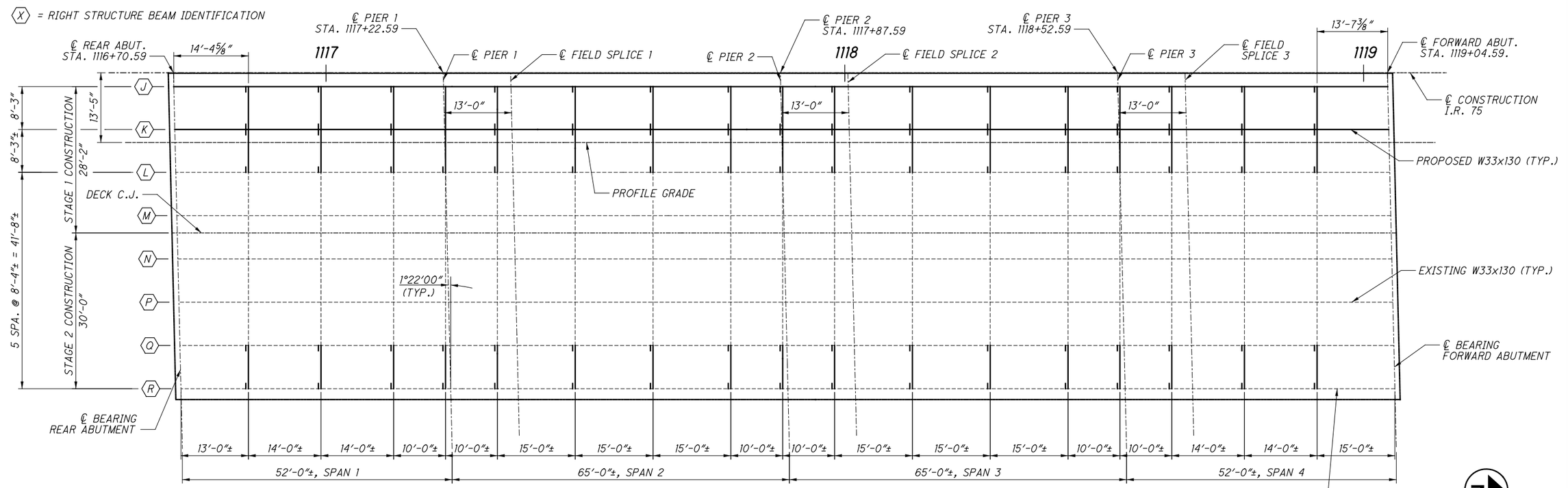


LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

FRAMING PLAN (LEFT STRUCTURE)



FRAMING PLAN (RIGHT STRUCTURE)

BEAM 'R' TO BE RAISED 2"
SEE 31/35 FOR BEARING PLATE ADJUSTMENT
SEE 28/35 FOR ABUTMENT CAP REPLACEMENT

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DESIGNED KWL
DRAWN KWL
CHECKED NBL
REVIEWED SAM
DATE 01-29-2015
REVISED
STRUCTURE FILE NUMBER 3203166L/3203174R

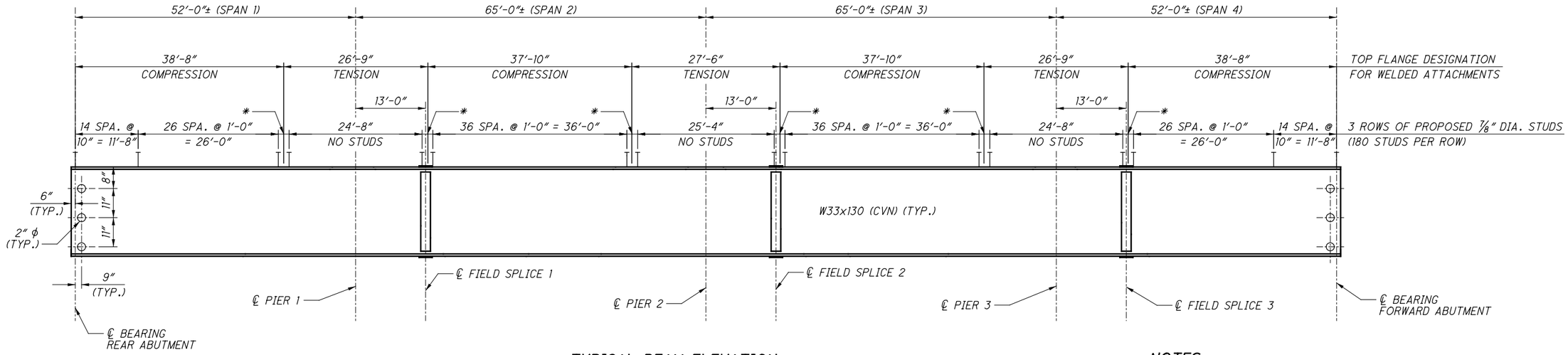
SUPERSTRUCTURE DETAILS (1 OF 10)

BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

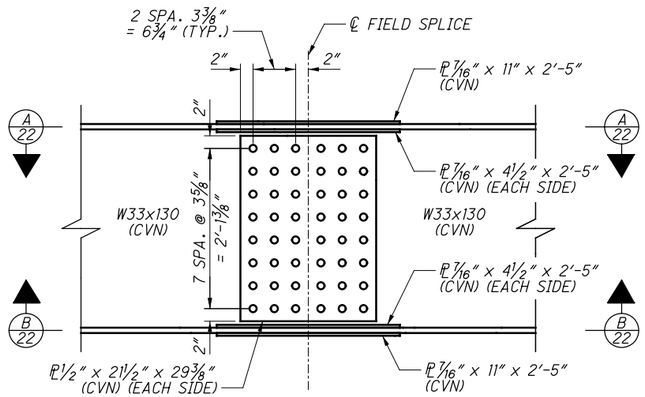
21/35

297/336



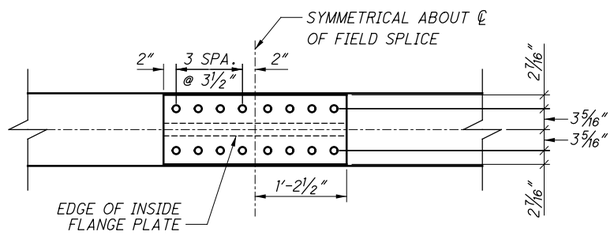
TYPICAL BEAM ELEVATION

* - 4 SPA. @ 6" = 2'-0"
(ADJUST AS NECESSARY TO AVOID SPLICE BOLTS)



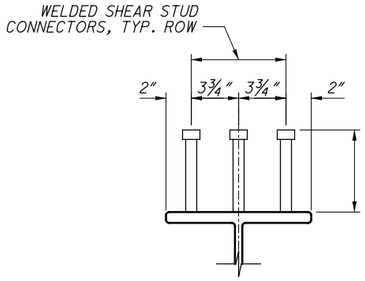
FIELD SPLICE DETAIL

(SYMMETRICAL ABOUT ℄ FIELD SPLICE)



VIEW A-A TOP FLANGE
VIEW B-B BOTTOM FLANGE

(OUTSIDE AND 2 INSIDE PLATES REQUIRED)



SHEAR STUD DETAIL

NOTES

- FOR FINAL DECK SURFACE ELEVATIONS TABLE, SEE SHEET 24/35.

- CVN: WHERE THE SHAPE OR PLATE IS DESIGNATED (CVN) FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.

- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM THE EDGE OF THE FLANGE, BE AT LEAST 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESS UP TO 3/4" AND 5/16" FOR GREATER THAN 3/4".

- FOR CROSSFRAME DETAILS, SEE ODOT STANDARD DRAWING GSD-1-96, TYPE 3 INTERMEDIATE WELDED CROSSFRAME DETAILS, SHEET 1 OF 3 WITH THE EXCEPTION THAT 4x4x3/8 ANGLES ARE TO BE USED.

- HIGH STRENGTH BOLTS FOR FIELD SPLICES SHALL BE 1 1/8" DIAMETER A325 TYPE III BOLTS UNLESS OTHERWISE NOTED.

ERECTION BOLTS: THE HOLE DIAMETER IN THE CROSS FRAMES AND GIRDER STIFFENERS SHALL BE 3/16" LARGER THAN THE DIAMETER OF THE ERECTION BOLTS. ERECTION BOLTS SHALL BE HIGH STRENGTH BOLTS AND SHALL REMAIN IN PLACE. SUPPLY TWO HARDENED WASHERS WITH EACH HIGH STRENGTH BOLT. FULLY TORQUE THE BOLTS OR USE A LOCK WASHER IN ADDITION TO THE TWO HARDENED WASHERS. FURNISH ERECTION BOLTS AS PART OF ITEM 513.

TOP OF HAUNCH ELEVATIONS

	LEFT STRUCTURE								RIGHT STRUCTURE							
	BEAM A	BEAM B	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	BEAM H	BEAM J	BEAM K	BEAM L	BEAM M	BEAM N	BEAM P	BEAM Q	BEAM R
CL REAR ABUT. BEARING	831.86	831.99	832.12	832.26	832.39	832.33	832.20	832.07	832.07	832.20	832.33	832.40	832.27	832.14	832.00	831.87
1/4 PT. SPAN 1	831.94	832.08	832.21	832.35	832.48	832.42	832.29	832.15	832.15	832.29	832.42	832.49	832.36	832.22	832.09	831.96
1/2 PT. SPAN 1	832.00	832.14	832.28	832.41	832.55	832.48	832.35	832.21	832.21	832.35	832.48	832.55	832.42	832.29	832.15	832.02
3/4 PT. SPAN 1	832.04	832.18	832.31	832.45	832.58	832.52	832.38	832.25	832.25	832.39	832.52	832.59	832.45	832.32	832.19	832.05
CL PIER 1	832.08	832.21	832.35	832.48	832.61	832.55	832.42	832.28	832.28	832.42	832.55	832.62	832.48	832.35	832.22	832.09
FIELD SPLICE 1	832.13	832.27	832.40	832.54	832.67	832.61	832.47	832.34	832.34	832.48	832.61	832.68	832.54	832.41	832.28	832.14
1/4 PT. SPAN 2	832.15	832.29	832.42	832.55	832.69	832.62	832.49	832.36	832.36	832.49	832.62	832.69	832.56	832.43	832.29	832.16
1/2 PT. SPAN 2	832.21	832.35	832.48	832.61	832.75	832.68	832.55	832.41	832.41	832.55	832.68	832.75	832.62	832.48	832.35	832.21
3/4 PT. SPAN 2	832.23	832.36	832.50	832.63	832.76	832.70	832.57	832.43	832.43	832.57	832.70	832.77	832.63	832.50	832.37	832.23
CL PIER 2	832.23	832.37	832.50	832.63	832.77	832.70	832.57	832.44	832.44	832.57	832.70	832.77	832.64	832.50	832.37	832.24
FIELD SPLICE 2	832.26	832.40	832.53	832.66	832.80	832.73	832.60	832.47	832.47	832.60	832.73	832.80	832.67	832.53	832.40	832.26
1/4 PT. SPAN 3	832.27	832.41	832.54	832.67	832.81	832.74	832.61	832.47	832.47	832.61	832.74	832.81	832.67	832.54	832.41	832.27
1/2 PT. SPAN 3	832.29	832.43	832.57	832.70	832.83	832.77	832.64	832.50	832.50	832.64	832.77	832.84	832.70	832.57	832.43	832.30
3/4 PT. SPAN 3	832.28	832.42	832.55	832.68	832.82	832.75	832.62	832.48	832.48	832.62	832.75	832.82	832.68	832.55	832.42	832.28
CL PIER 3	832.25	832.39	832.52	832.65	832.79	832.72	832.59	832.45	832.45	832.59	832.72	832.78	832.65	832.52	832.38	832.25
FIELD SPLICE 3	832.25	832.38	832.52	832.65	832.78	832.72	832.58	832.45	832.45	832.58	832.72	832.78	832.65	832.51	832.38	832.25
1/4 PT. SPAN 4	832.25	832.39	832.52	832.65	832.79	832.72	832.59	832.45	832.45	832.59	832.72	832.79	832.65	832.52	832.39	832.25
1/2 PT. SPAN 4	832.25	832.39	832.52	832.65	832.79	832.72	832.59	832.45	832.45	832.59	832.72	832.79	832.65	832.52	832.38	832.25
3/4 PT. SPAN 4	832.22	832.36	832.49	832.63	832.76	832.69	832.56	832.42	832.42	832.56	832.69	832.76	832.62	832.49	832.35	832.22
CL FWD. ABUT. BEARING	832.17	832.30	832.44	832.57	832.70	832.64	832.50	832.37	832.37	832.50	832.63	832.70	832.57	832.43	832.30	832.17

- TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS. SEE SHEET 23/35 FOR LOCATIONS.

DESIGN AGENCY
DGL Consulting Engineers, LLC
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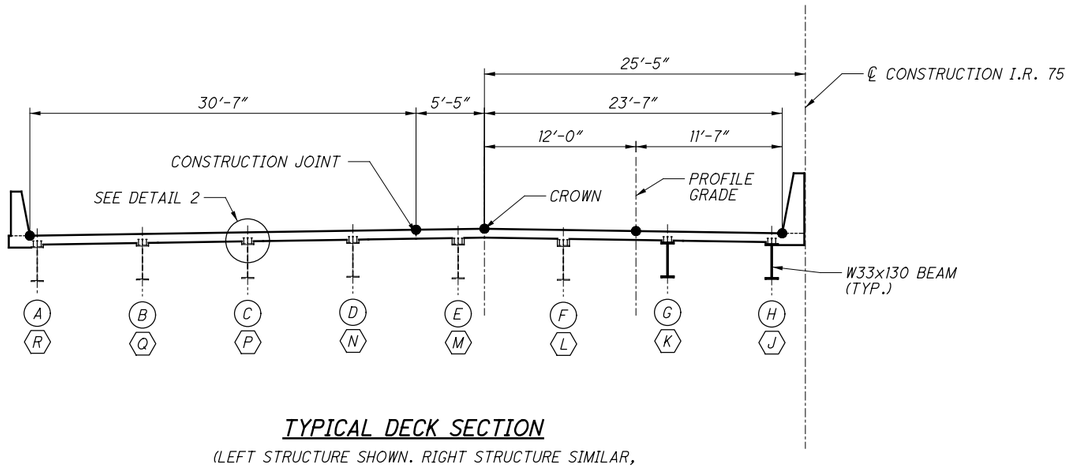
DATE 01-29-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203166L/3203174R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

SUPERSTRUCTURE DETAILS (2 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

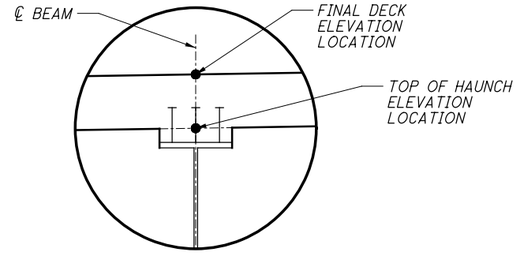
22/35

298/336



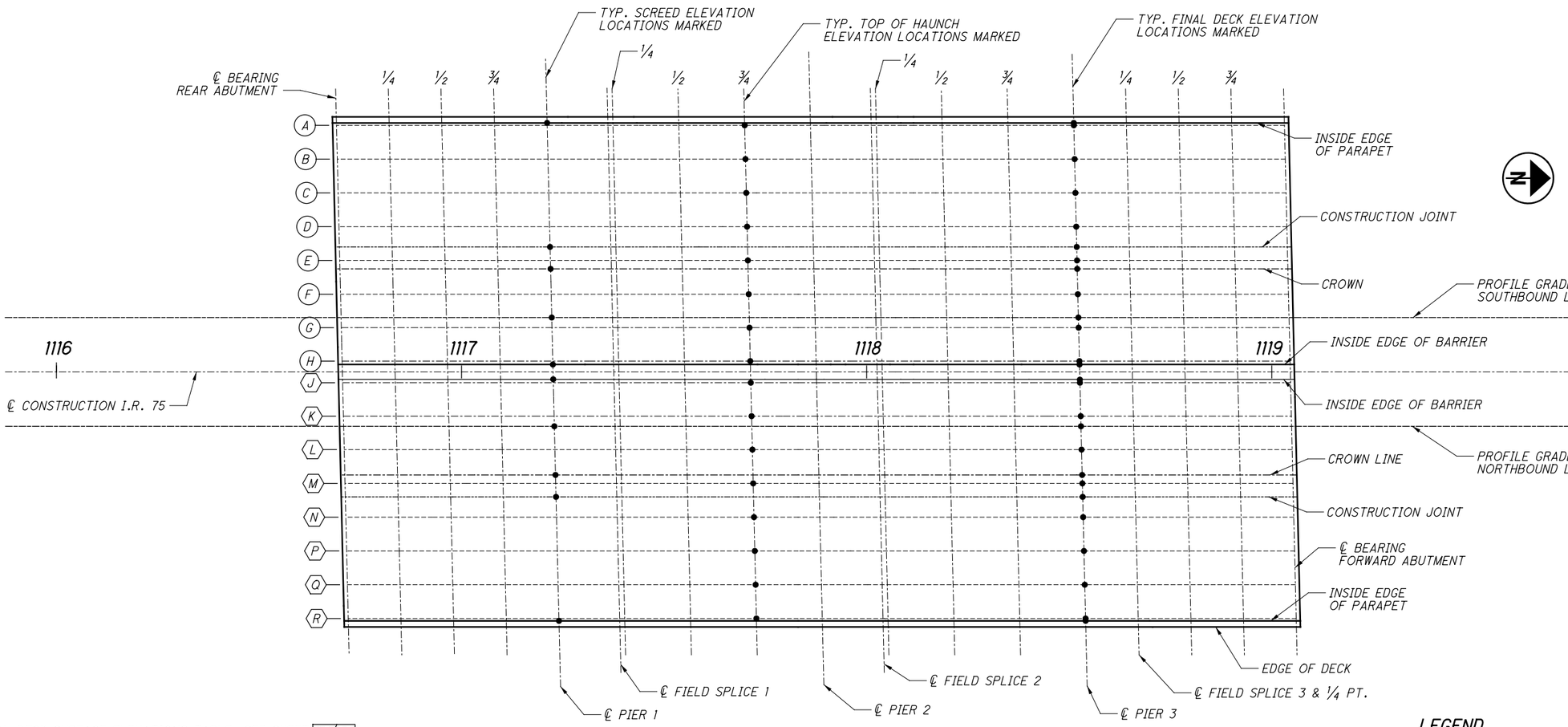
TYPICAL DECK SECTION

(LEFT STRUCTURE SHOWN. RIGHT STRUCTURE SIMILAR, OPPOSITE HAND ABOUT ℄ CONSTRUCTION I.R. 75)



DETAIL 2

(TYPICAL ALL BEAMS)



DECK PLACEMENT PLAN

NOTES

- FOR FINAL DECK SURFACE ELEVATIONS TABLE, SEE SHEET 25/35
- FOR TOP OF HAUNCH ELEVATIONS TABLE, SEE SHEET 22/35
- FOR SCREED ELEVATIONS TABLE, SEE SHEET 27/35

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

DESIGN AGENCY
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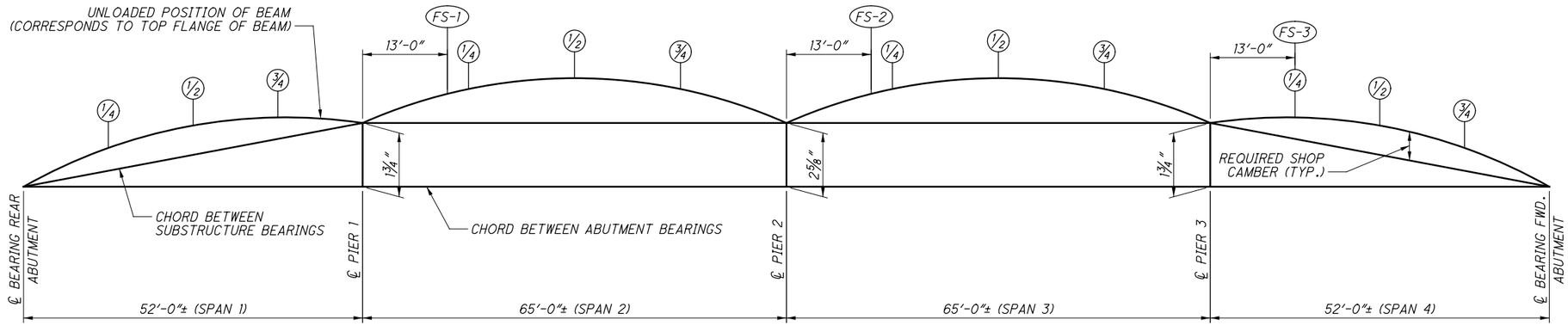
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-29-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

SUPERSTRUCTURE DETAILS (3 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00



CAMBER DIAGRAM

DEFLECTION AND CAMBER SCHEDULE (INCHES)

		SPAN 1			SPAN 2				SPAN 3				SPAN 4		
		1/4	1/2	3/4	FS-1	1/4	1/2	3/4	FS-2	1/4	1/2	3/4	1/4 PT. & FS-3	1/2	3/4
BEAMS A,H,J,R	DEFLECTION DUE TO WEIGHT OF STEEL	1/16	1/16	0	0	1/16	1/16	1/16	0	1/16	1/16	1/16	0	1/16	1/16
	DEFLECTION DUE TO REMAINING D.L.	1/4	5/16	1/8	3/16	1/4	7/16	1/4	3/16	1/4	7/16	1/4	1/8	5/16	1/4
	VERTICAL CURVE ADJUSTMENT	1/8	1/8	1/8	1/4	1/8	3/16	1/8	1/8	1/8	3/16	1/8	1/8	1/8	1/8
	REQUIRED SHOP CAMBER	7/16	1/2	1/4	7/16	7/16	11/16	7/16	5/16	7/16	11/16	7/16	1/4	1/2	7/16
BEAMS B,C,D,G,K, N,P,Q	DEFLECTION DUE TO WEIGHT OF STEEL	1/16	1/16	0	0	1/16	1/16	1/16	0	1/16	1/16	1/16	0	1/16	1/16
	DEFLECTION DUE TO REMAINING D.L.	5/16	3/8	3/16	3/16	1/4	1/2	1/4	3/16	1/4	1/2	1/4	3/16	3/8	5/16
	VERTICAL CURVE ADJUSTMENT	1/8	1/8	1/8	1/4	1/8	3/16	1/8	1/8	1/8	3/16	1/8	1/8	1/8	1/8
	REQUIRED SHOP CAMBER	1/2	9/16	5/16	7/16	7/16	3/4	7/16	5/16	7/16	3/4	7/16	5/16	9/16	1/2
BEAMS E,F,L,M	DEFLECTION DUE TO WEIGHT OF STEEL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DEFLECTION DUE TO REMAINING D.L.	5/16	3/8	3/16	3/16	5/16	1/2	1/4	3/16	1/4	1/2	5/16	3/16	3/8	5/16
	VERTICAL CURVE ADJUSTMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	REQUIRED SHOP CAMBER	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES

- ALL VALUES IN THE DEFLECTION AND CAMBER TABLES ARE GIVEN TO THE NEAREST 1/16".
- POSITIVE VALUES FOR DEFLECTIONS INDICATE DOWNWARD DEFLECTIONS.
- DEFLECTIONS DUE TO REMAINING DEAD LOAD IS DEFLECTIONS DUE TO SLAB AND COMPOSITE DECK LOADS, EXCLUDING FUTURE WEARING SURFACE.
- SHOP CAMBER REQUIRED IS THE SUM OF THE TOTAL DEFLECTION PLUS THE CORRECTION REQUIRED FOR VERTICAL CURVE.
- REQUIRED SHOP CAMBER IS ONLY APPLICABLE TO BEAMS G,H,J & K

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DESIGNED KWL | DRAWN KWL | REVIEWED SAM | DATE 01-29-2015
CHECKED NBL | REVISED | STRUCTURE FILE NUMBER 3203166L/3203174R

SUPERSTRUCTURE DETAILS (4 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

FINAL DECK SURFACE ELEVATIONS (LEFT STRUCTURE)

	LT. CURB	BEAM A	BEAM B	BEAM C	BEAM D	CONSTR. JT.	BEAM E	CROWN	BEAM F	PROFILE GRADE	BEAM G	BEAM H	RT. CURB
CL REAR ABUT. BEARING	832.55	832.56	832.70	832.83	832.97	833.05	833.10	833.14	833.04	832.94	832.90	832.77	832.76
1/4 PT. SPAN 1	832.62	832.63	832.76	832.90	833.03	833.11	833.16	833.20	833.10	833.01	832.97	832.84	832.82
1/2 PT. SPAN 1	832.68	832.69	832.82	832.95	833.09	833.17	833.22	833.26	833.16	833.06	833.03	832.89	832.88
3/4 PT. SPAN 1	832.73	832.74	832.87	833.01	833.14	833.22	833.27	833.31	833.21	833.12	833.08	832.95	832.93
CL PIER 1	832.78	832.79	832.92	833.05	833.19	833.27	833.32	833.35	833.26	833.16	833.12	832.99	832.98
FIELD SPLICE 1	832.82	832.83	832.96	833.10	833.23	833.31	833.36	833.40	833.30	833.21	833.17	833.03	833.02
1/4 PT. SPAN 2	832.83	832.84	832.97	833.10	833.24	833.32	833.37	833.41	833.31	833.21	833.17	833.04	833.03
1/2 PT. SPAN 2	832.87	832.88	833.01	833.15	833.28	833.36	833.42	833.45	833.35	833.26	833.22	833.09	833.07
3/4 PT. SPAN 2	832.91	832.91	833.05	833.18	833.32	833.40	833.45	833.48	833.38	833.29	833.25	833.12	833.11
CL PIER 2	832.93	832.94	833.07	833.21	833.34	833.42	833.47	833.51	833.41	833.32	833.28	833.15	833.13
FIELD SPLICE 2	832.95	832.96	833.09	833.22	833.36	833.44	833.49	833.52	833.42	833.33	833.29	833.16	833.15
1/4 PT. SPAN 3	832.95	832.96	833.09	833.23	833.36	833.44	833.49	833.53	833.43	833.33	833.29	833.16	833.15
1/2 PT. SPAN 3	832.96	832.97	833.10	833.23	833.37	833.45	833.50	833.53	833.43	833.34	833.30	833.17	833.16
3/4 PT. SPAN 3	832.96	832.97	833.10	833.24	833.37	833.45	833.50	833.54	833.43	833.34	833.30	833.17	833.16
CL PIER 3	832.95	832.96	833.09	833.23	833.36	833.44	833.49	833.53	833.43	833.33	833.29	833.16	833.15
FIELD SPLICE 3	832.94	832.95	833.08	833.22	833.35	833.43	833.48	833.51	833.41	833.32	833.28	833.15	833.14
1/4 PT. SPAN 4	832.94	832.95	833.08	833.22	833.35	833.43	833.48	833.51	833.41	833.32	833.28	833.15	833.14
1/2 PT. SPAN 4	832.92	832.93	833.06	833.20	833.33	833.41	833.46	833.50	833.40	833.30	833.26	833.13	833.12
3/4 PT. SPAN 4	832.90	832.91	833.04	833.17	833.31	833.39	833.44	833.47	833.37	833.28	833.24	833.11	833.10
CL FWD. ABUT. BEARING	832.87	832.88	833.01	833.15	833.28	833.36	833.41	833.45	833.34	833.25	833.21	833.08	833.07

FINAL DECK SURFACE ELEVATIONS (RIGHT STRUCTURE)

	LT. CURB	BEAM J	BEAM K	PROFILE GRADE	BEAM L	CROWN	BEAM M	CONSTR. JT.	BEAM N	BEAM P	BEAM Q	BEAM R	RT. CURB
CL REAR ABUT. BEARING	832.76	832.77	832.91	832.95	833.04	833.14	833.11	833.06	832.98	832.84	832.71	832.58	832.57
1/4 PT. SPAN 1	832.82	832.84	832.97	833.01	833.10	833.20	833.17	833.12	833.04	832.91	832.77	832.64	832.63
1/2 PT. SPAN 1	832.88	832.89	833.03	833.07	833.16	833.26	833.23	833.17	833.10	832.96	832.83	832.70	832.69
3/4 PT. SPAN 1	832.93	832.95	833.08	833.12	833.21	833.31	833.28	833.23	833.15	833.01	832.88	832.75	832.74
CL PIER 1	832.98	832.99	833.13	833.17	833.26	833.36	833.33	833.27	833.19	833.06	832.93	832.80	832.79
FIELD SPLICE 1	833.02	833.03	833.17	833.21	833.30	833.40	833.37	833.31	833.23	833.10	832.97	832.84	832.83
1/4 PT. SPAN 2	833.03	833.04	833.18	833.22	833.31	833.41	833.38	833.32	833.24	833.11	832.98	832.84	832.84
1/2 PT. SPAN 2	833.07	833.09	833.22	833.26	833.35	833.45	833.42	833.36	833.29	833.15	833.02	832.89	832.88
3/4 PT. SPAN 2	833.11	833.12	833.25	833.29	833.38	833.48	833.45	833.40	833.32	833.19	833.05	832.92	832.91
CL PIER 2	833.13	833.15	833.28	833.32	833.41	833.51	833.48	833.42	833.34	833.21	833.08	832.94	832.94
FIELD SPLICE 2	833.15	833.16	833.29	833.33	833.42	833.52	833.49	833.44	833.36	833.22	833.09	832.96	832.95
1/4 PT. SPAN 3	833.15	833.16	833.29	833.33	833.43	833.53	833.49	833.44	833.36	833.23	833.09	832.96	832.95
1/2 PT. SPAN 3	833.16	833.17	833.30	833.34	833.43	833.53	833.50	833.45	833.37	833.23	833.10	832.97	832.96
3/4 PT. SPAN 3	833.16	833.17	833.30	833.34	833.43	833.53	833.50	833.45	833.37	833.23	833.10	832.97	832.96
CL PIER 3	833.15	833.16	833.29	833.33	833.43	833.53	833.49	833.44	833.36	833.23	833.09	832.96	832.95
FIELD SPLICE 3	833.14	833.15	833.28	833.32	833.41	833.51	833.48	833.43	833.35	833.21	833.08	832.95	832.94
1/4 PT. SPAN 4	833.14	833.15	833.28	833.32	833.41	833.51	833.48	833.43	833.35	833.21	833.08	832.95	832.94
1/2 PT. SPAN 4	833.12	833.13	833.26	833.30	833.40	833.49	833.46	833.41	833.33	833.19	833.06	832.93	832.92
3/4 PT. SPAN 4	833.10	833.11	833.24	833.28	833.37	833.47	833.44	833.38	833.30	833.17	833.04	832.90	832.89
CL FWD. ABUT. BEARING	833.07	833.08	833.21	833.25	833.34	833.44	833.41	833.36	833.27	833.14	833.01	832.87	832.86

NOTES

- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL THE ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

DESIGN AGENCY
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3455 Briarfield Blvd. Suite E
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DATE 01-29-2015
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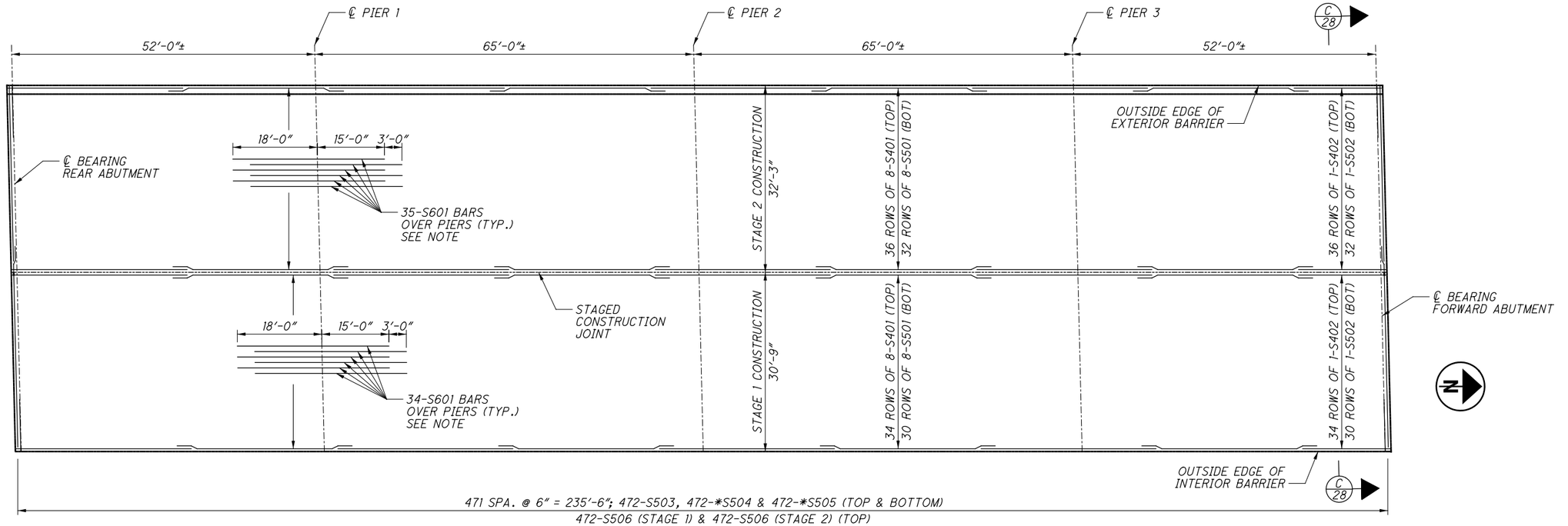
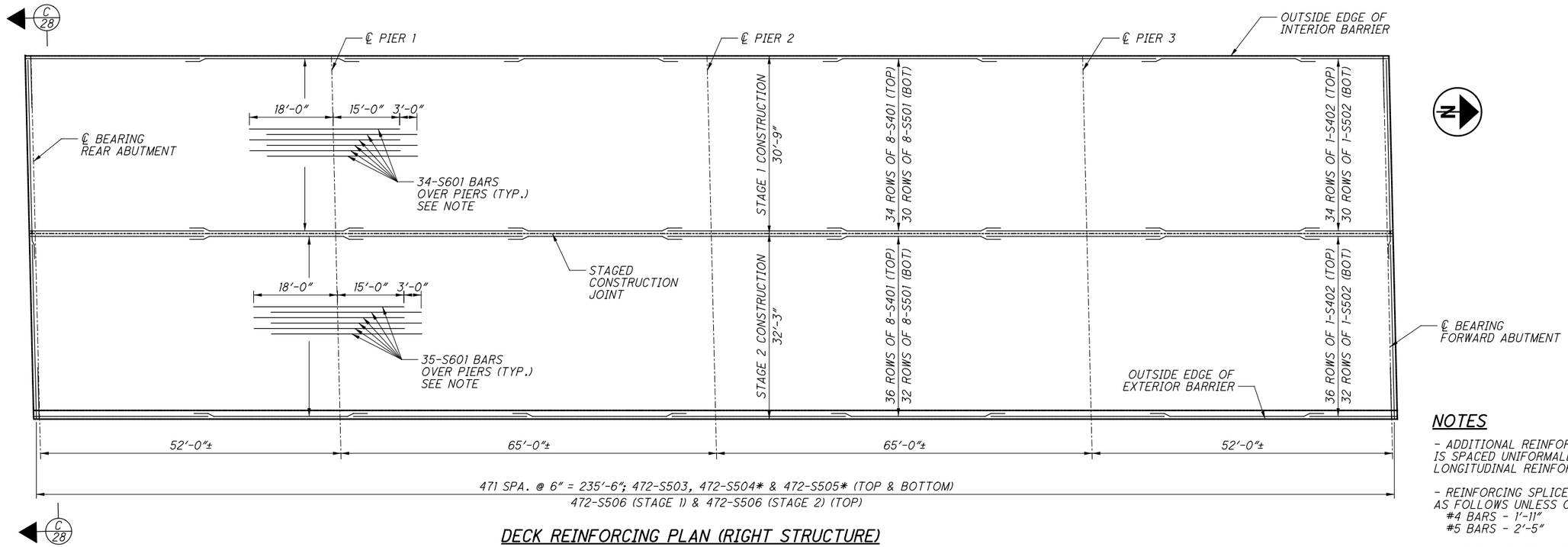
STRUCTURE FILE NUMBER 3203166L/3203174R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

SUPERSTRUCTURE DETAILS (5 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00



DECK REINFORCING PLAN (LEFT STRUCTURE)



DECK REINFORCING PLAN (RIGHT STRUCTURE)

NOTES

- ADDITIONAL REINFORCMENT OVER PIERS IS SPACED UNIFORMALLY BETWEEN LONGITUDINAL REINFORCEMENT.

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #4 BARS - 1'-11"
  #5 BARS - 2'-5"

* = BAR HAS MECHANICAL SPLICE AT END

DESIGN AGENCY
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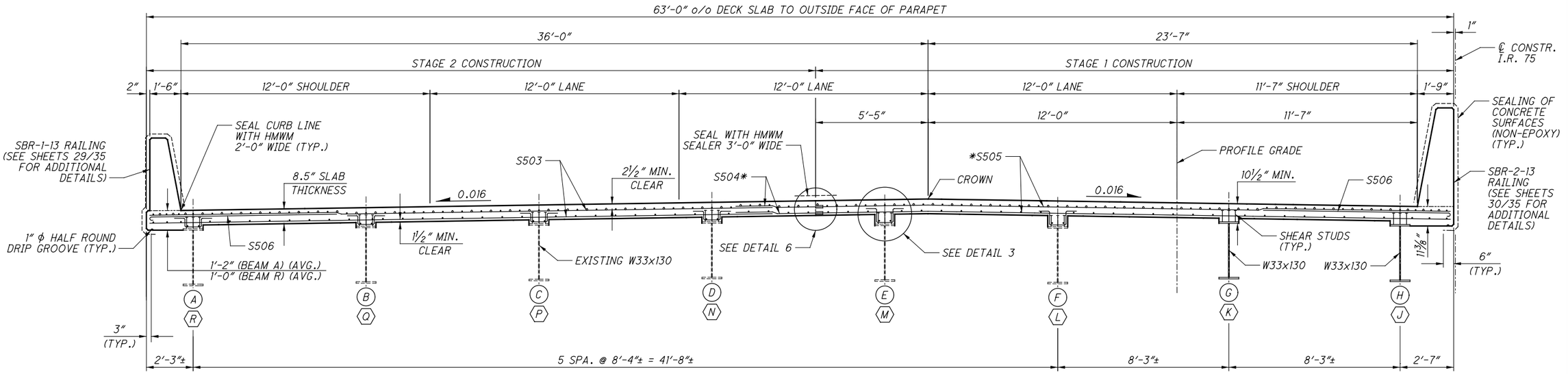
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-29-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

SUPERSTRUCTURE DETAILS (6 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

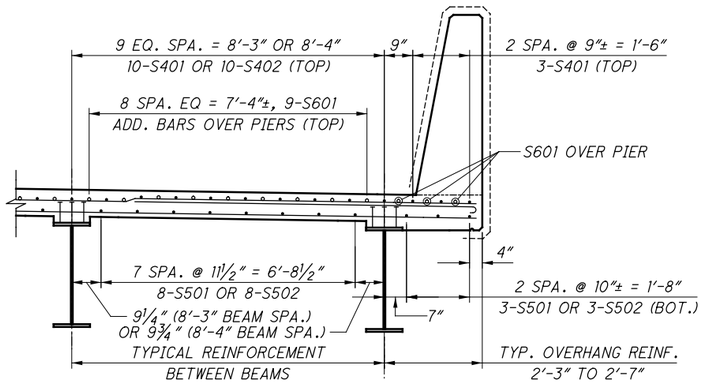
26 / 35

302 / 336



TRANSVERSE BRIDGE SECTION

(LEFT STRUCTURE SHOWN. RIGHT STRUCTURE SIMILAR, OPPOSITE HAND)



TYPICAL DECK REINFORCING STEEL

NOTES

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #4 BARS - 1'-11"
  #5 BARS - 2'-5"

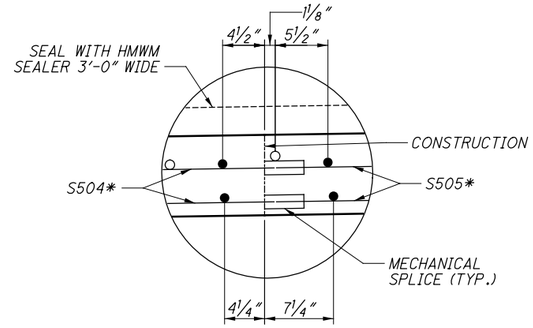
* = BAR HAS MECHANICAL SPLICE AT END

- FOR ADDITIONAL CONCRETE RAILING DETAILS, SEE SHEETS 29/35 & 30/35 AND STD. DWGS. SBR-1-13 AND SBR-2-13

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

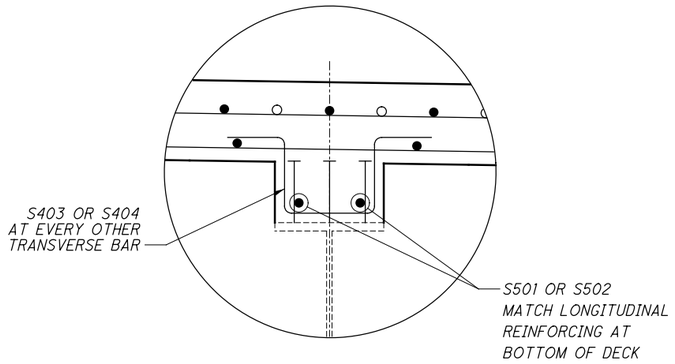
⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION



DETAIL 6

SCREED ELEVATIONS

	LEFT STRUCTURE					RIGHT STRUCTURE				
	LT. CURB	CONSTR. JT.	CROWN	PROFILE GRADE	RT. CURB	LT. CURB	PROFILE GRADE	CROWN	CONSTR. JT.	RT. CURB
CL REAR ABUT. BEARING	832.55	833.05	833.14	832.94	832.76	832.76	832.95	833.14	833.06	832.57
1/4 PT. SPAN 1	832.64	833.14	833.23	833.03	832.85	832.85	833.04	833.23	833.14	832.65
1/2 PT. SPAN 1	832.70	833.20	833.29	833.10	832.91	832.91	833.10	833.29	833.21	832.72
3/4 PT. SPAN 1	832.74	833.24	833.32	833.13	832.95	832.95	833.13	833.33	833.24	832.75
CL PIER 1	832.78	833.27	833.35	833.16	832.98	832.98	833.17	833.36	833.27	832.79
FIELD SPLICE 1	832.83	833.33	833.41	833.22	833.04	833.04	833.22	833.42	833.33	832.84
1/4 PT. SPAN 2	832.85	833.34	833.43	833.24	833.05	833.05	833.24	833.43	833.35	832.86
1/2 PT. SPAN 2	832.91	833.40	833.49	833.30	833.11	833.11	833.30	833.49	833.41	832.91
3/4 PT. SPAN 2	832.92	833.42	833.51	833.31	833.13	833.13	833.31	833.51	833.42	832.93
CL PIER 2	832.93	833.42	833.51	833.32	833.13	833.13	833.32	833.51	833.42	832.94
FIELD SPLICE 2	832.96	833.45	833.54	833.35	833.16	833.16	833.35	833.54	833.45	832.96
1/4 PT. SPAN 3	832.97	833.46	833.55	833.36	833.17	833.17	833.36	833.55	833.46	832.97
1/2 PT. SPAN 3	832.99	833.49	833.58	833.38	833.19	833.19	833.38	833.58	833.49	832.99
3/4 PT. SPAN 3	832.98	833.47	833.56	833.37	833.18	833.18	833.37	833.56	833.47	832.98
CL PIER 3	832.95	833.44	833.53	833.33	833.15	833.15	833.33	833.53	833.44	832.95
FIELD SPLICE 3	832.95	833.44	833.53	833.33	833.15	833.15	833.33	833.52	833.44	832.95
1/4 PT. SPAN 4	832.95	833.44	833.53	833.34	833.15	833.15	833.34	833.53	833.44	832.95
1/2 PT. SPAN 4	832.95	833.44	833.53	833.34	833.15	833.15	833.34	833.53	833.44	832.95
3/4 PT. SPAN 4	832.92	833.41	833.50	833.31	833.12	833.12	833.31	833.50	833.41	832.92
CL FWD. ABUT. BEARING	832.87	833.36	833.45	833.25	833.07	833.07	833.25	833.44	833.36	832.86



DETAIL 3

USE S403 FOR BEAMS A, B, C, D, N, P & Q
USE S404 FOR BEAMS E, F, L & M

NOTES

- SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS

DESIGN AGENCY
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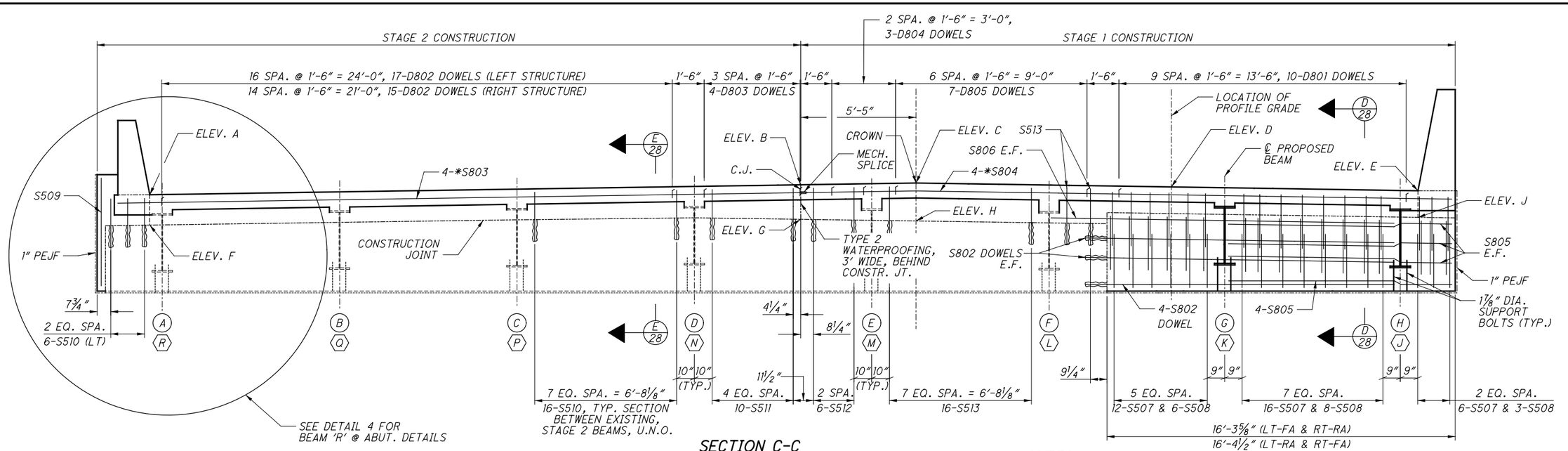
DATE 01-29-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203166L/3203174R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

SUPERSTRUCTURE DETAILS (7 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

27/35

303/336



SECTION C-C

(LEFT FORWARD SHOWN. RIGHT REAR SIMILAR. ALL OTHER CAPS ARE OPPOSITE HAND)

LEGEND

(X) = LEFT STRUCTURE BEAM IDENTIFICATION

⟨X⟩ = RIGHT STRUCTURE BEAM IDENTIFICATION

SECTION C-C ELEVATION TABLE

	LT. REAR	LT. FWD.	RT. REAR	RT. FWD.
ELEV. A	832.55	832.87	832.57	832.86
ELEV. B	833.05	833.36	833.06	833.36
ELEV. C	833.14	833.45	833.14	833.44
ELEV. D	832.94	833.25	832.95	833.25
ELEV. E	832.76	833.07	832.76	833.07
ELEV. F	830.91±	831.32±	831.32	831.61
ELEV. G	831.19±	831.48±	831.23±	831.48±
ELEV. H	831.10±	831.40±	831.12±	831.40±
ELEV. J	831.51	831.82	831.51	831.82

NOTES

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:

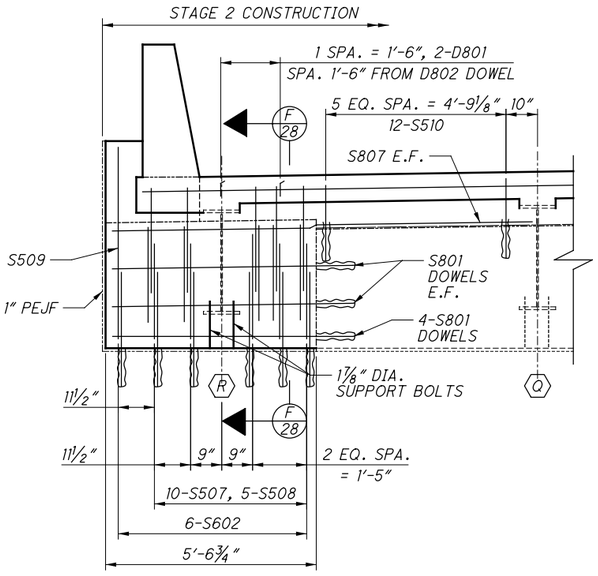
  #4 BARS - 1'-11"
  #5 BARS - 2'-5"
  #8 BARS - 7'-3"

* = BAR HAS MECHANICAL SPLICE AT END

- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.

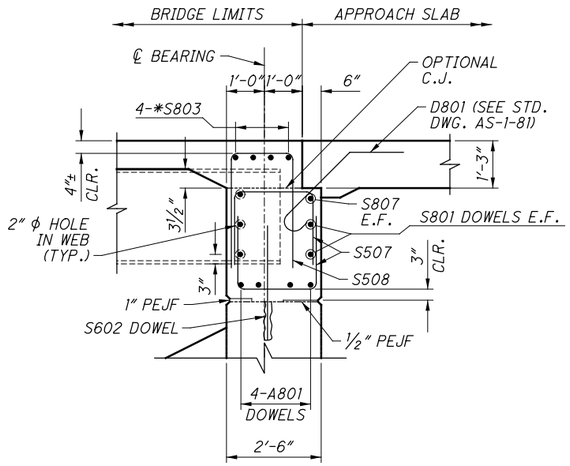
- ADJUST DEPTH OF DOWEL HOLE AS NECESSARY TO MAINTAN PROPER CLEARANCE

ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION:
PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET.



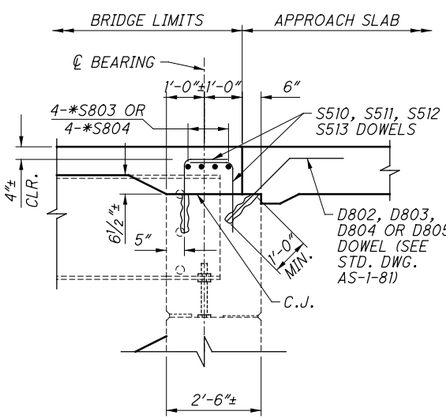
DETAIL 4

CAP REPLACEMENT REQUIRED AFTER RAISING BEAM 'R'
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR)

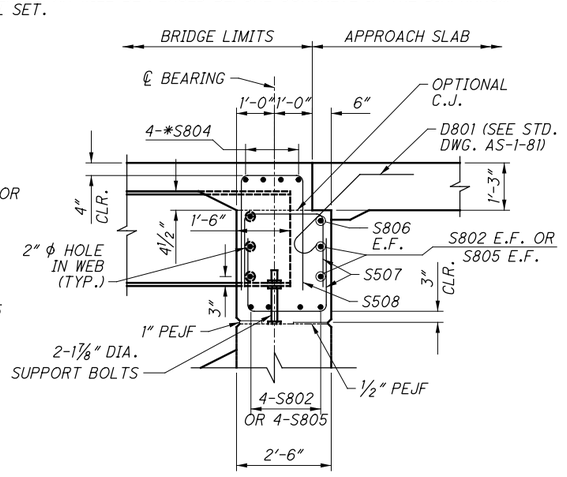


SECTION F-F

FOR CLARITY, DECK & SUBSTRUCTURE
REINFORCING AND SUPPORT BOLTS NOT SHOWN



SECTION E-E



SECTION D-D

FOR CLARITY, DECK & SUBSTRUCTURE
REINFORCING NOT SHOWN

DESIGN AGENCY
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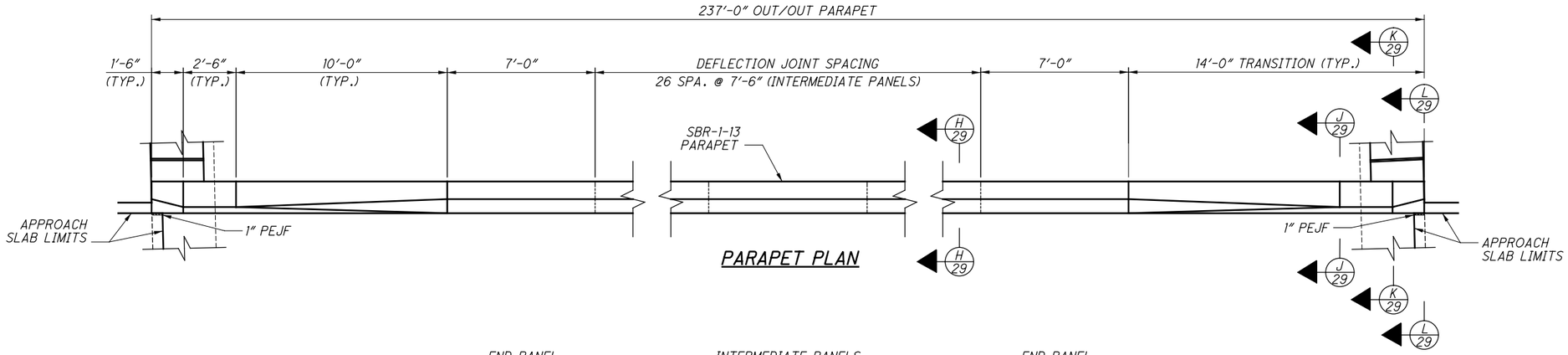
DESIGNED KWL | DRAWN KWL | REVIEWED SAM 01-29-2015 | DATE | STRUCTURE FILE NUMBER 3203166L/3203174R | CHECKED NBL | REVISED

SUPERSTRUCTURE DETAILS (8 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFLOK SOUTHERN RAILROAD AND TR-101

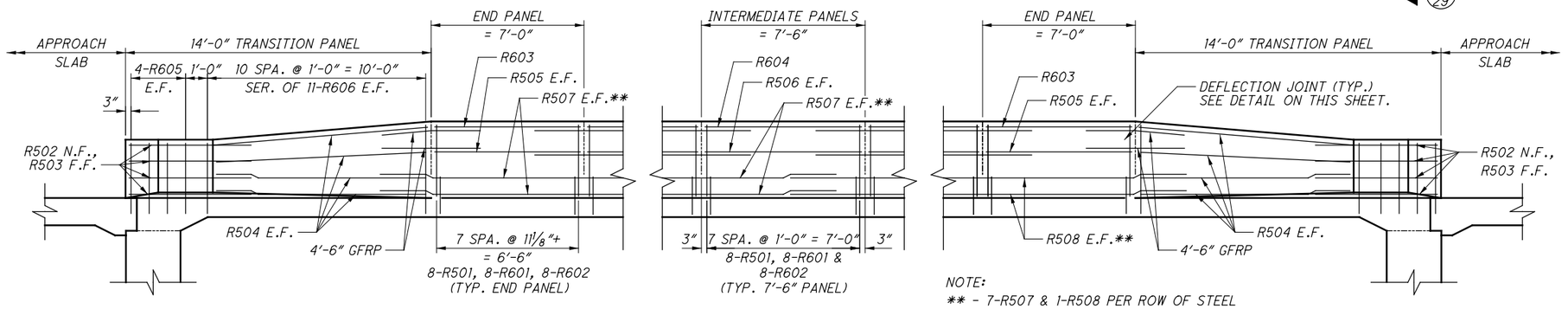
HAN/WOO-75-19.22/0.00



PARAPET PLAN

LEFT PARAPET (LEFT STRUCTURE)

RIGHT PARAPET (RIGHT STRUCTURE)



NOTE:
** - 7-R507 & 1-R508 PER ROW OF STEEL

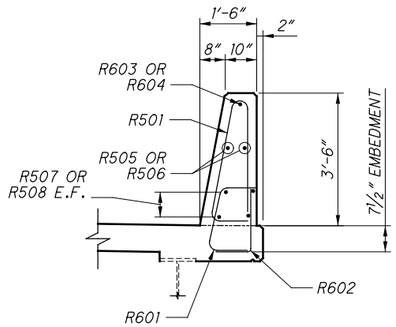
PARAPET ELEVATION

NOTES

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #6 BARS - 3'-3"
  #5 BARS - 2'-5"

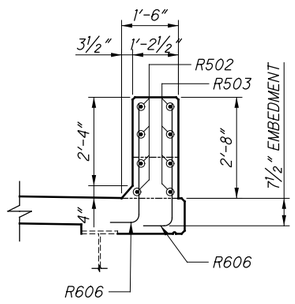
- SEE STD. DWG. SBR-1-13 FOR ADDITIONAL PARAPET DETAILS.

- PAYMENT FOR ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT SHALL BE INCLUDED WITH 511 CLASS QC/QA SUPERSTRUCTURE CONCRETE.



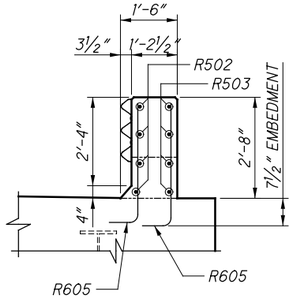
SECTION H-H

(DECK REINFORCING AND GFRP NOT SHOWN)



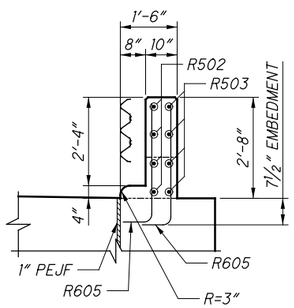
SECTION J-J

(DECK REINFORCEMENT NOT SHOWN)



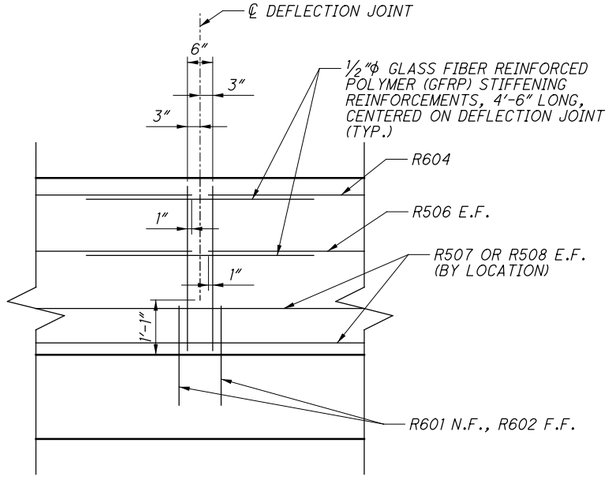
SECTION K-K

(CAP REINFORCEMENT NOT SHOWN)



SECTION L-L

(CAP REINFORCEMENT NOT SHOWN)



DEFLECTION JOINT DETAIL

DESIGN AGENCY
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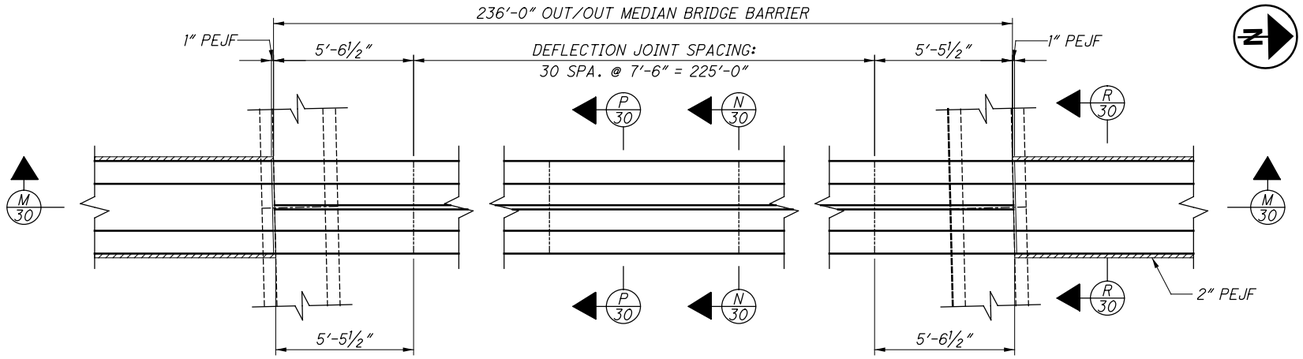
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-29-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203166L/3203174R	

SUPERSTRUCTURE DETAILS (9 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

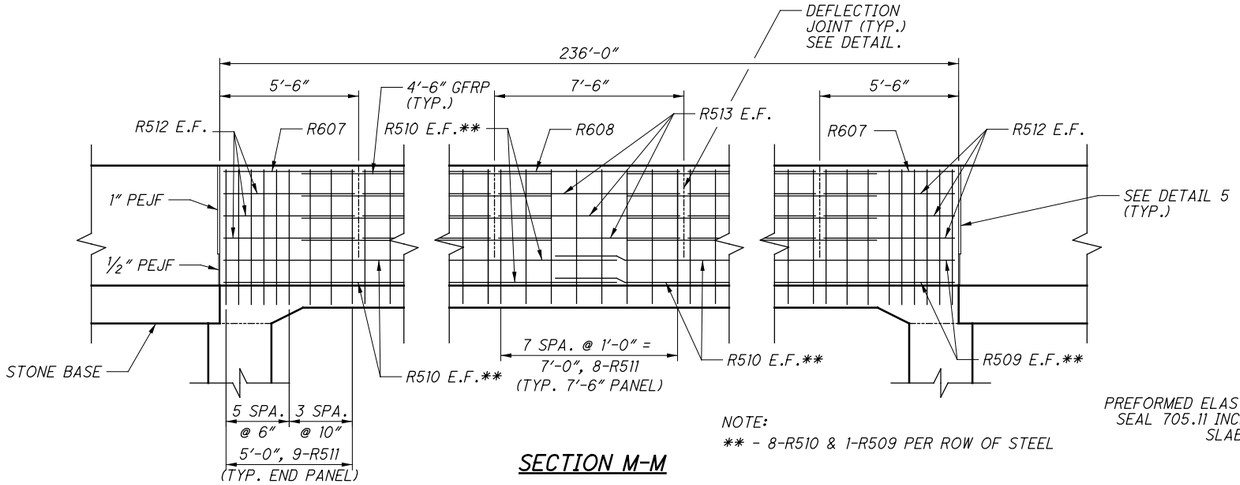
HAN/WOO-75-19.22/0.00

29/35

305/336

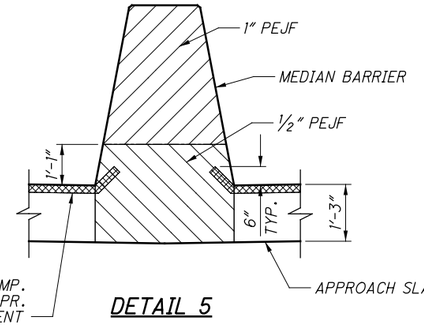


MEDIAN BARRIER PLAN



SECTION M-M

NOTE:
** - 8-R510 & 1-R509 PER ROW OF STEEL



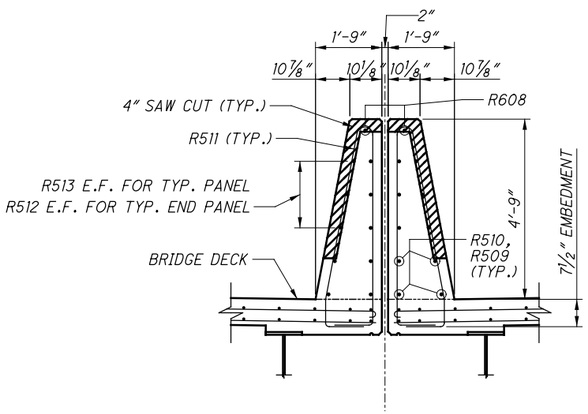
DETAIL 5

NOTES

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #6 BARS - 3'-3"
  #5 BARS - 2'-5"

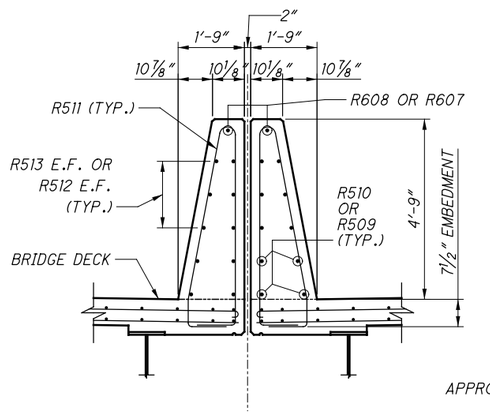
- SEE STD. DWG. SBR-2-13 FOR ADDITIONAL BARRIER DETAILS.

- PAYMENT FOR ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT SHALL BE INCLUDED WITH 511 CLASS QC/QA SUPERSTRUCTURE CONCRETE.

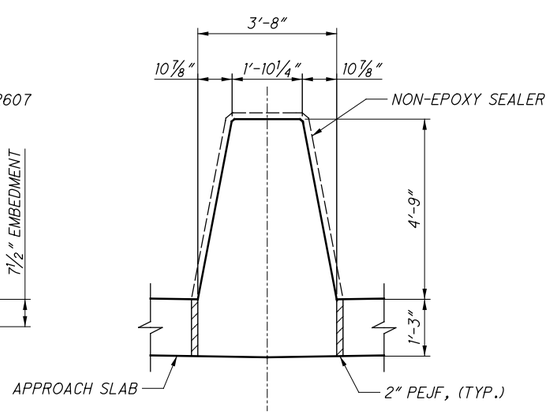


SECTION N-N

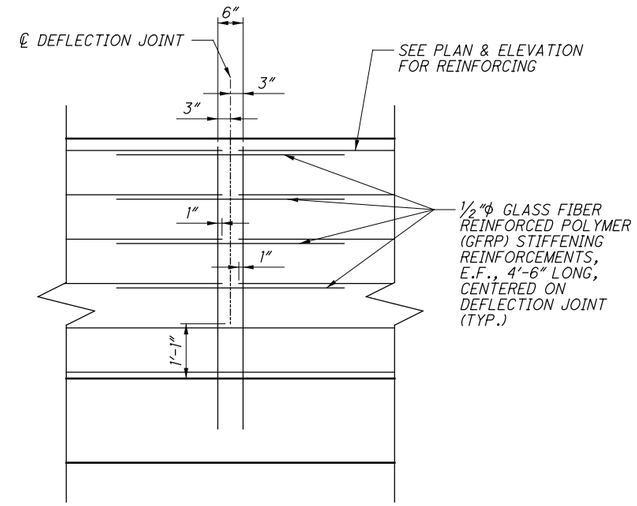
(GFRP NOT SHOWN)



SECTION P-P



SECTION R-R



DEFLECTION JOINT DETAIL

DESIGN AGENCY
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Maumee, Ohio 43537 (419) 535-1015

DATE 01-29-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203166L/3203174R

DRAWN KWL
REVISED

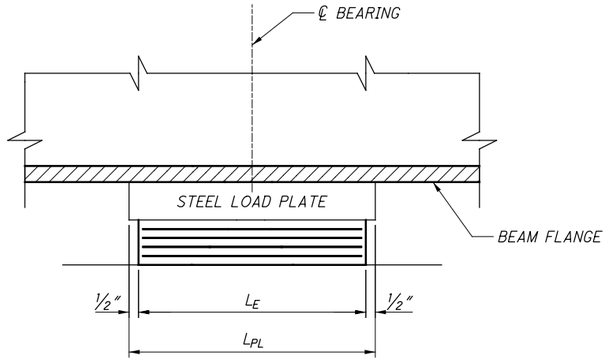
DESIGNED KWL
CHECKED NBL

SUPERSTRUCTURE DETAILS (10 OF 10)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

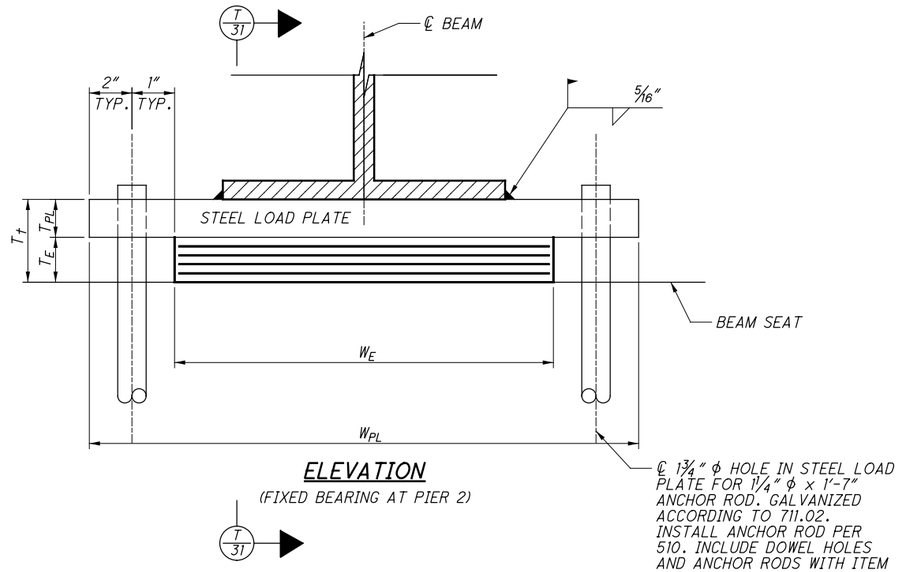
HAN/WOO-75-19.22/0.00

30/35

306/336

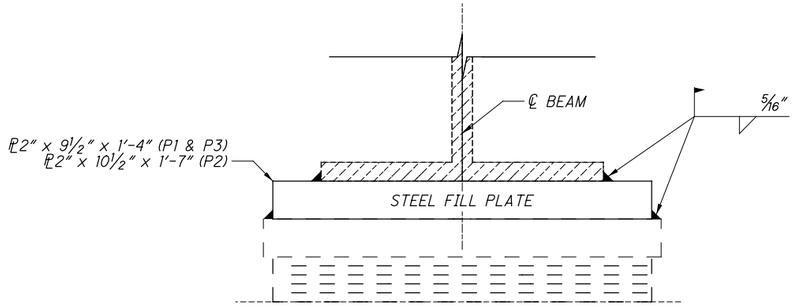


SECTION T-T



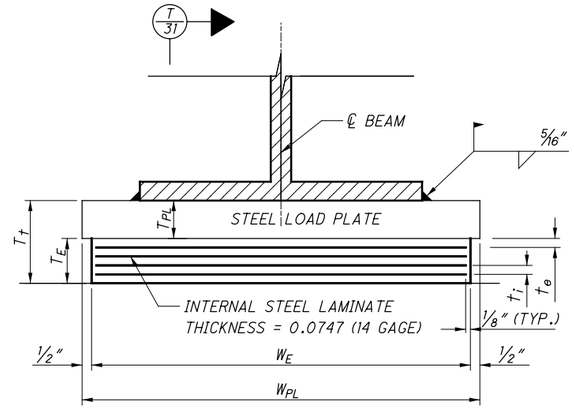
ELEVATION

(FIXED BEARING AT PIER 2)



BEAM 'R' BEARING ELEVATION

CONTRACTOR HAS THE OPTION OF USING THIS DETAIL AS IS, OR TO PROVIDE A COMPLETELY NEW BEARING



LAMINATED ELASTOMERIC EXPANSION BEARING ELEVATION

(EXPANSION BEARING AT PIER 1 & 3)

T/31

NOTES

ELASTOMERIC BEARINGS:
THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.5 (METHOD B) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

LOAD PLATE:
THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. THE STEEL LOAD PLATE & THE HP 10x42 SHALL BE A709 STEEL, BE CLEANED AND SHOP PRIMED PER ITEM 514.

WELDING:
SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300° F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING:
IF THE BEARINGS ARE PLACED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40° F AND THE BEARING SHEAR DEFLECTION EXCEEDS ONE-SIXTH OF THE BEARING HEIGHT AT 60° F ± 10° F, THE GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F ± 10° F.

BASIS OF PAYMENT:
THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, STEEL PEDESTAL AND LOAD PLATE, LABOR, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARING. PAYMENT SHALL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE).

BEARING SHOP PLANS:
SHALL CONFORM TO 501.04 OF THE ODOT CMS.

N = NUMBER OF INTERNAL ELASTOMER LAYERS

t_i = THICKNESS OF INTERNAL ELASTOMER LAYER

t_e = THICKNESS OF EXTERNAL ELASTOMER LAYER

			ELASTOMER							STEEL LAMINATES		LOAD PLATE			LOADS (KIPS)		
LOCATION	TYPE	T_t	DUROMETER	L_E	W_E	T_E	t_i	t_e	N	NO.	t	L_{PL}	W_{PL}	T_{PL}	DL	LL	TOTAL
PIER 1	EXP.	3⅜"	60	10.5"	16"	1.88"	0.358"	0.256"	3	4	0.0747"	11½"	17"	1.5"	113	53	166
PIER 2	FIXED	3¼"	60	11"	14"	1.75"	0.328"	0.234"	3	4	0.0747"	12½"	20"	1.5"	115	52	167
PIER 3	EXP.	3⅜"	60	10.5"	16"	1.88"	0.358"	0.256"	3	4	0.0747"	11½"	17"	1.5"	113	53	166

DESIGN AGENCY
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DESIGNED KWL | DRAWN KWL | REVIEWED SAM | DATE 01-29-2015
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BEARING DETAILS
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

MARK	2115 L STRUCTURE			2115 R STRUCTURE			GRAND TOTAL	LENGTH	2115 L WEIGHT	2115 R WEIGHT	TYPE	DIMENSIONS						
	STAGE 1	STAGE 2	TOTAL	STAGE 1	STAGE 2	TOTAL						A	B	C	D	E	R	INC.
ABUTMENTS																		
A401	6		6	6		6	12	9'-0"	36	36	3	2'-6"	1'-9"					
A501	14		14	14		14	28	11'-1"	162	162	3	2'-8"	2'-7"					
A502	14		14	14		14	28	14'-5"	211	211	3	2'-2"	4'-9"					
A503		24	24		24	24	48	4'-3"	106	106	STR.	4'-3"						
		2	2		2	2	4	9'-1"				3'-7"	2'-2"	3'-7"				
A504		SER	SER.		SER	SER.	SER.	TO	125	125	2	TO	TO	TO				1'-5 1/2"
		5	5		5	5	5	14'-11"				6'-6"	2'-2"	6'-6"				
A505	20		20	20		20	40	4'-8"	97	97	1	1'-10"	3'-0"					
A506		4	4		4	4	8	10'-4"	43	43	STR.	10'-4"						
A507	8		8	8		8	16	9'-2"	76	76	STR.	9'-2"						
A508	4		4	4		4	8	17'-2"	72	72	STR.	17'-2"						
A509		4	4		4	4	8	8'-9"	37	37	STR.	8'-9"						
A510		4	4		4	4	8	7'-0"	29	29	STR.	7'-0"						
A511		4	4		4	4	8	4'-0"	17	17	STR.	4'-0"						
A512		4	4		4	4	8	9'-8"	40	40	19	8'-11"	8 1/2"	4"				
A513		2	2		2	2	4	15'-5"	32	32	2	6'-9"	2'-2"	6'-9"				
A514		2	2		2	2	4	11'-5"	24	24	3	2'-2"	3'-3"					
A601	34		34	34		34	68	10'-9"	549	549	26	2'-2"	5"	2'-7"	10"	1'-9"		
A801	8		8	8		8	16	9'-2"	196	196	STR.	9'-2"						
A802		8	8		8	8	16	10'-4"	221	221	STR.	10'-4"						
A803	8		8	8		8	16	17'-2"	367	367	STR.	17'-2"						
						2115 L ABUTMENTS TOTAL =			2440									
						2115 R ABUTMENTS SUB-TOTAL =				2440								

NOTES:

- FOR DETAILS NOT SHOWN, SEE STD. DWG. AS-1-81

- BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

- ALL REINFORCING STEEL TO BE EPOXY COATED.

- MECHANICAL SPLICES SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED AND SHALL BE INCLUDED WITH ITEM 509 FOR PAYMENT

THE LENGTH OF THE MECHANICAL CONNECTOR IS INCLUDED IN THE BAR DIMENSIONS GIVEN. THE THREADED PORTION OF THE MECHANICAL CONNECTION IS NOT INCLUDED IN THE BAR DIMENSIONS GIVEN.

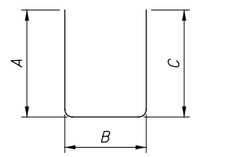
* BAR HAS MECHANICAL SPLICE ON ONE END

BAR LEGEND

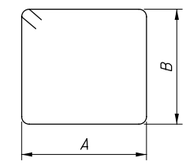
A 5 0 6

- BAR LOCATION
- BAR NUMBER
- BAR SIZE

- A - ABUTMENT
- P - PIER
- R - RAILING/PARAPET
- S - SUPERSTRUCTURE



TYPE-2



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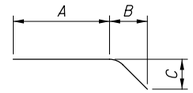

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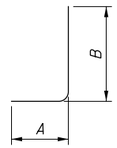

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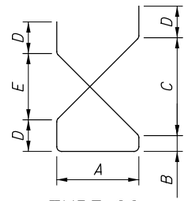

TYPE-26

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE 03-19-2015
STRUCTURE FILE NUMBER 3203166L/3203174R

REVISED

DESIGNED KWL
DRAWN KWL
CHECKED NBL
REVIEWED SAM

REINFORCING STEEL TABLE (1 OF 4)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

MARK	PIER 1	PIER 2	PIER 3	GRAND TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS						
								A	B	C	D	E	R	INC.
PIERS														
P501	32			32	13'-3"	442	3	2'-8"	3'-8"					
P502	4			4	7'-2"	30	1	3'-8"	3'-8"					
P503		112	105	217	9'-11"	2244	2	3'-9"	2'-8"	3'-9"				
P504		124		124	19'-10"	2565	STR.	19'-10"						
P505		38	52	90	4'-9"	446	STR.	4'-9"						
P506		50		50	22'-8"	1182	STR.	22'-8"						
P507		58	58	116	12'-9"	1542	STR.	12'-9"						
P508			124	124	17'-10"	2306	STR.	17'-10"						
P509			50	50	20'-8"	1078	STR.	20'-8"						
P510		92	84	176	6'-4"	1163	STR.	6'-4"						
P511		46	42	88	30'-0"	2753	STR.	30'-0"						
P512		46	42	88	22'-3"	2043	STR.	22'-3"						
P513		28	28	56	25'-6"	1490	STR.	25'-6"						
P514		184	168	352	8'-9"	3212	STR.	8'-9"						
P801	12			12	25'-6"	817	STR.	25'-6"						
P802	48			48	10'-0"	1282	17	8'-2"						
P803		20	20	40	23'-11"	2554	16	23'-0"						
P804		38	38	76	10'-6"	2130	17	8'-8"						
P901	33			33	27'-3"	3057	STR.	27'-3"						
P902	33	154	154	341	12'-2"	14105	1	1'-7"	10'-10"					
SP401	3			3	24'-6"	1057	27	24'-6"	2'-6"	4 1/2"				
				PIERS TOTAL =		47498								

NOTES:

- FOR DETAILS NOT SHOWN, SEE STD. DWG. AS-1-81

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- ALL REINFORCING STEEL TO BE EPOXY COATED.

- MECHANICAL SPLICES SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED AND SHALL BE INCLUDED WITH ITEM 509 FOR PAYMENT

THE LENGTH OF THE MECHANICAL CONNECTOR IS INCLUDED IN THE BAR DIMENSIONS GIVEN. THE THREADED PORTION OF THE MECHANICAL CONNECTION IS NOT INCLUDED IN THE BAR DIMENSIONS GIVEN.

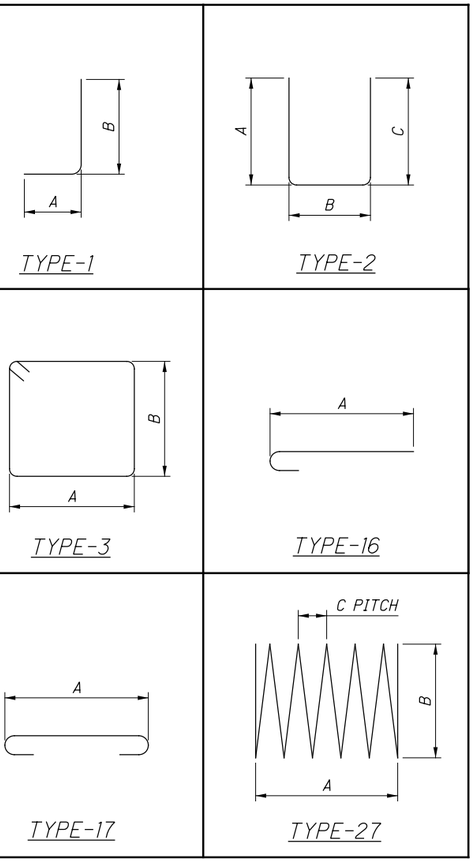
* BAR HAS MECHANICAL SPLICE ON ONE END

BAR LEGEND

A 5 0 6

- A 5 0 6 — BAR LOCATION
- 5 — BAR SIZE
- 0 6 — BAR NUMBER

- A - ABUTMENT
- P - PIER
- R - RAILING/PARAPET
- S - SUPERSTRUCTURE



DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE 03-19-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203166L/3203174R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

REINFORCING STEEL TABLE (2 OF 4)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

MARK	2115 L STRUCTURE			2115 R STRUCTURE			GRAND TOTAL	LENGTH	2115 L WEIGHT	2115 R WEIGHT	TYPE	DIMENSIONS						
	STAGE 1	STAGE 2	TOTAL	STAGE 1	STAGE 2	TOTAL						A	B	C	D	E	R	INC.
SUPERSTRUCTURE (RAILING)																		
R501		224	224		224	224	448	7'-4"	1713	1713	23	11"	3'-3"	3'-0"				
R502		8	8		8	8	16	5'-8"	47	47	25	1'-10"	2'-5"	1'-4"	1 1/2"	5"		
R503		8	8		8	8	16	5'-8"	47	47	STR.	5'-8"						
R504		16	16		16	16	32	10'-0"	167	167	STR.	10'-0"						
R505		4	4		4	4	8	6'-8"	28	28	STR.	6'-8"						
R506		52	52		52	52	104	7'-2"	389	389	STR.	7'-2"						
R507		28	28		28	28	56	30'-0"	876	876	STR.	30'-0"						
R508		4	4		4	4	8	19'-0"	79	79	STR.	19'-0"						
R509	4		4	4		4	8	15'-0"	63	63	STR.	15'-0"						
R510	32		32	32		32	64	30'-0"	1001	1001	STR.	30'-0"						
R511	258		258	258		258	516	13'-0"	3498	3498	64	1'-5"	1'-0"	7 1/2"	4'-7"			
R512	12		12	12		12	24	5'-2"	65	65	STR.	5'-2"						
R513	180		180	180		180	360	7'-2"	1345	1345	STR.	7'-2"						
R601		224	224		224	224	448	3'-2"	1065	1065	51	1'-6 1/2"	1'-0"	11"	3 1/2"			
R602		224	224		224	224	448	2'-5"	813	813	1	1'-0"	1'-6 1/2"					
R603		2	2		2	2	4	6'-8"	20	20	STR.	6'-8"						
R604		26	26		26	26	52	7'-2"	280	280	STR.	7'-2"						
R605		16	16		16	16	32	4'-0"	96	96	1	3'-1 1/2"	1'-0"					
		4	4		4	4	8	4'-0"				3'-1 1/2"	1'-0"					
R606		SER.	SER.		SER.	SER.	SER.	TO	55	55	1	TO	TO					1"
		11	11		11	11	11	4'-10"				3'-11 1/2"	1'-0"					
R607	2		2	2		2	4	5'-2"	16	16	STR.	5'-2"						
R608	30		30	30		30	60	7'-2"	323	323	STR.	7'-2"						
						(2115 L RAILING SUB-TOTAL) =			11986									
						(2115 R RAILING SUB-TOTAL) =				11986								

NOTES:

- FOR DETAILS NOT SHOWN, SEE STD. DWG. AS-1-81

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- MECHANICAL SPLICES SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED AND SHALL BE INCLUDED WITH ITEM 509 FOR PAYMENT

THE LENGTH OF THE MECHANICAL CONNECTOR IS INCLUDED IN THE BAR DIMENSIONS GIVEN. THE THREADED PORTION OF THE MECHANICAL CONNECTION IS NOT INCLUDED IN THE BAR DIMENSIONS GIVEN.

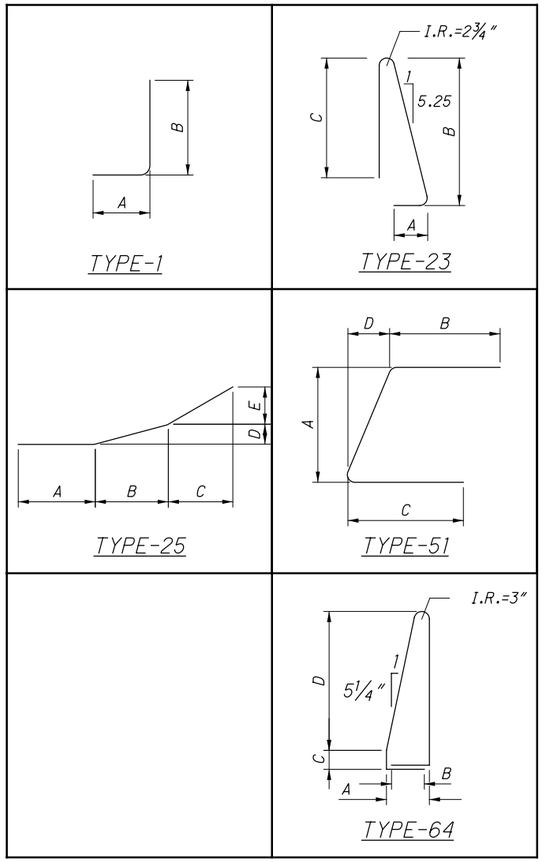
* BAR HAS MECHANICAL SPLICE ON ONE END

BAR LEGEND

A 5 0 6

- BAR LOCATION
- BAR SIZE
- BAR NUMBER

- A - ABUTMENT
- P - PIER
- R - RAILING/PARAPET
- S - SUPERSTRUCTURE



DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE 03-19-2014
REVIEWED SAM
STRUCTURE FILE NUMBER 32031661/32031741R

DRAWN KWL
REVISED

DESIGNED KWL
CHECKED NBL

REINFORCING STEEL TABLE (3 OF 4)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00

34 / 35

310
336

MARK	2115 L STRUCTURE			2115 R STRUCTURE			GRAND TOTAL	LENGTH	2115 L WEIGHT	2115 R WEIGHT	TYPE	DIMENSIONS						
	STAGE 1	STAGE 2	TOTAL	STAGE 1	STAGE 2	TOTAL						A	B	C	D	E	R	INC.
SUPERSTRUCTURE																		
S401	272	288	560	272	288	560	1120	30'-0"	11222	11222	STR.	30'-0"						
S402	34	36	70	34	36	70	140	12'-0"	561	561	STR.	12'-0"						
S403		944	944		708	708	1652	2'-3"	1419	1064	6	7 1/2"	6"	6"				
S404	472		472	472		472	944	2'-10"	893	893	6	7 1/2"	10"	6"				
S501	272	320	592	272	304	576	1168	30'-0"	18524	18023	STR.	30'-0"						
S502	34	40	74	34	38	72	146	15'-6"	1196	1164	STR.	15'-6"						
S503		944	944		944	944	1888	30'-0"	29538	29538	STR.	30'-0"						
*S504		944	944		944	944	1888	4'-8"	4595	4595	STR.	4'-8"						
*S505	944		944	944		944	1888	30'-6"	30030	30030	STR.	30'-6"						
S506	472	472	944	472	472	944	1888	9'-4"	9190	9190	16	8'-9"						
S507	68		68	68	20	88	156	8'-1"	573	742	2	3'-1"	2'-2"	3'-1"				
S508	34		34	34	10	44	78	7'-5"	263	340	2	3'-0"	1'-8"	3'-0"				
S509		2	2		2	2	4	13'-9"	29	29	3	1'-8"	4'-11"					
S510		108	108		108	108	216	3'-6"	394	394	1	1'-4"	2'-4"					
S511		20	20		20	20	40	3'-8"	76	76	1	1'-4"	2'-6"					
S512	12		12	12		12	24	3'-10"	48	48	1	1'-4"	2'-8"					
S513	32		32	32		32	64	3'-11"	131	131	1	1'-4"	2'-9"					
S601	102	105	207	102	105	207	414	33'-0"	10260	10260	STR.	33'-0"						
S602					12	12	12	3'-6"		63	STR.	3'-6"						
S801					16	16	16	6'-4"		271	STR.	6'-4"						
S802	16		16	16		16	32	14'-6"	619	619	STR.	14'-6"						
*S803		8	8		8	8	16	32'-10"	701	701	STR.	32'-10"						
*S804	8		8	8		8	16	30'-7"	653	653	STR.	30'-7"						
S805	20		20	20		20	40	10'-3"	547	547	STR.	10'-3"						
S806	4		4	4		4	8	16'-2"	173	173	STR.	16'-2"						
S807					4	4	4	11'-0"		117	STR.	11'-0"						
D801	20		20	20	4	24	44	4'-10"	258	310	18	2'-7"	1'-0"	1'-0"				
D802		34	34		30	30	64	4'-3"	386	340	19	2'-11"	1'-0"	1'-0"				
D803		8	8		8	8	16	4'-6"	96	96	19	3'-2"	1'-0"	1'-0"				
D804	6		6	6		6	12	4'-8"	75	75	19	3'-4"	1'-0"	1'-0"				
D805	14		14	14		14	28	4'-10"	181	181	19	3'-6"	1'-0"	1'-0"				
									(2115 L SUPERSTRUCTURE SUB-TOTAL) =		122631							
									(RAILING TOTAL CARRIED FROM SHEET 34/35) =		11986							
									(2115 L SUPERSTRUCTURE TOTAL) =		134617							
									(2115 R SUPERSTRUCTURE SUB-TOTAL) =		122446							
									(RAILING TOTAL CARRIED FROM SHEET 34/35) =		11986							
									(2115 R SUPERSTRUCTURE TOTAL) =		134432							

NOTES:

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BAR LEGEND

A 5 0 6

- BAR LOCATION
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- A - ABUTMENT
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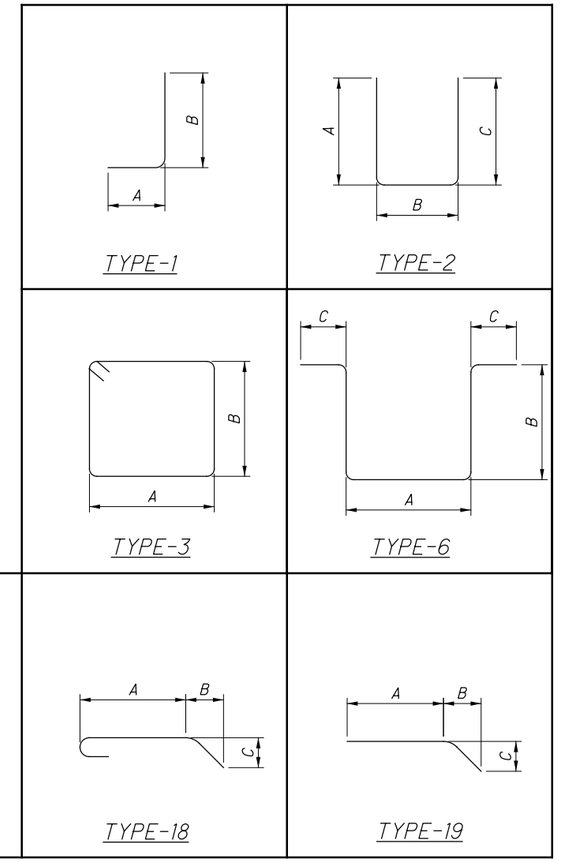
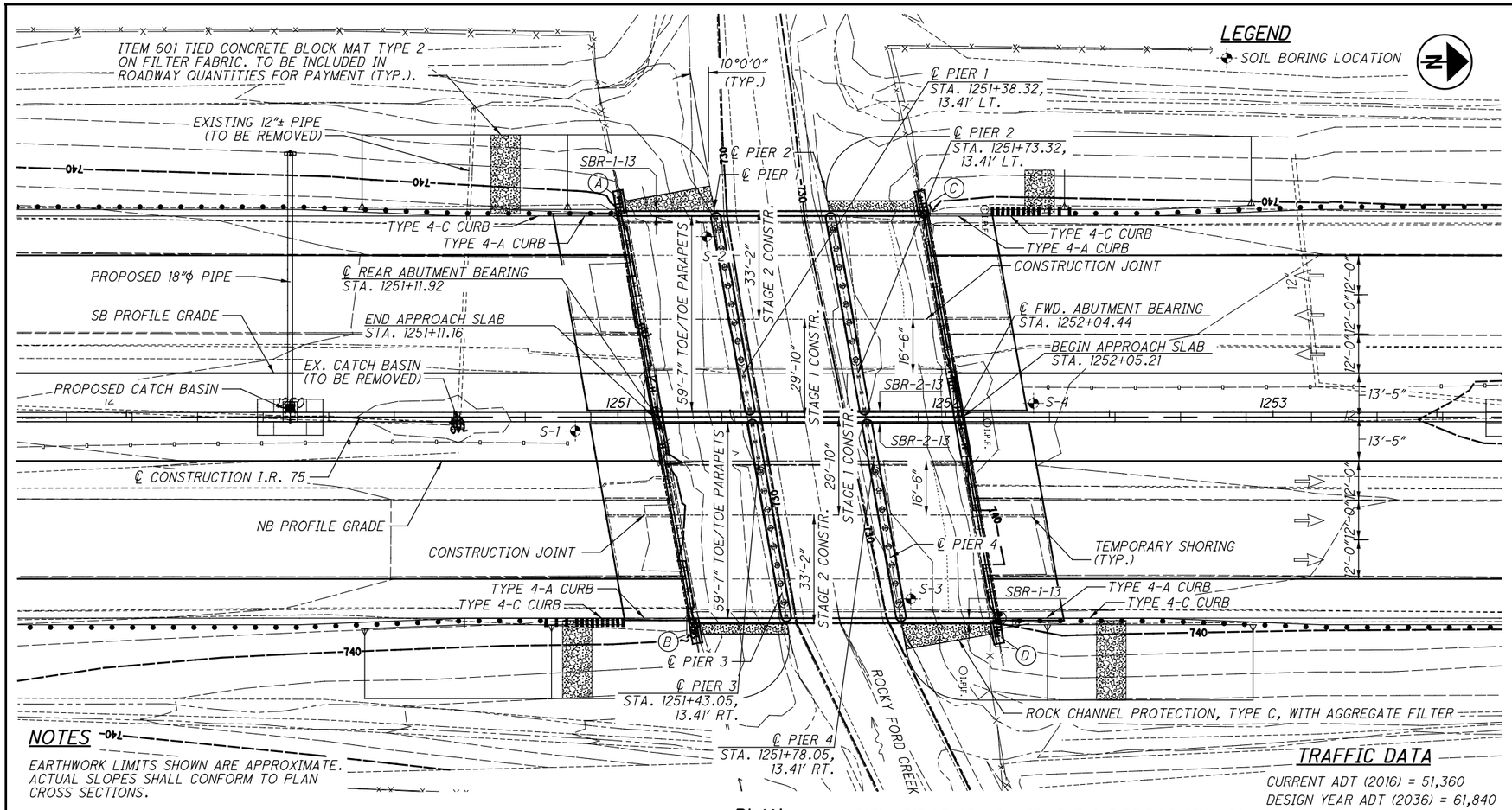


DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE 03-19-2014
REVIEWED SAM
STRUCTURE FILE NUMBER 3203166L/3203174R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

REINFORCING STEEL TABLE (4 OF 4)
BRIDGE NO. HAN-75-2115 (L & R)
I.R. 75 OVER NORFOLK SOUTHERN RAILROAD AND TR-101

HAN/WOO-75-19.22/0.00



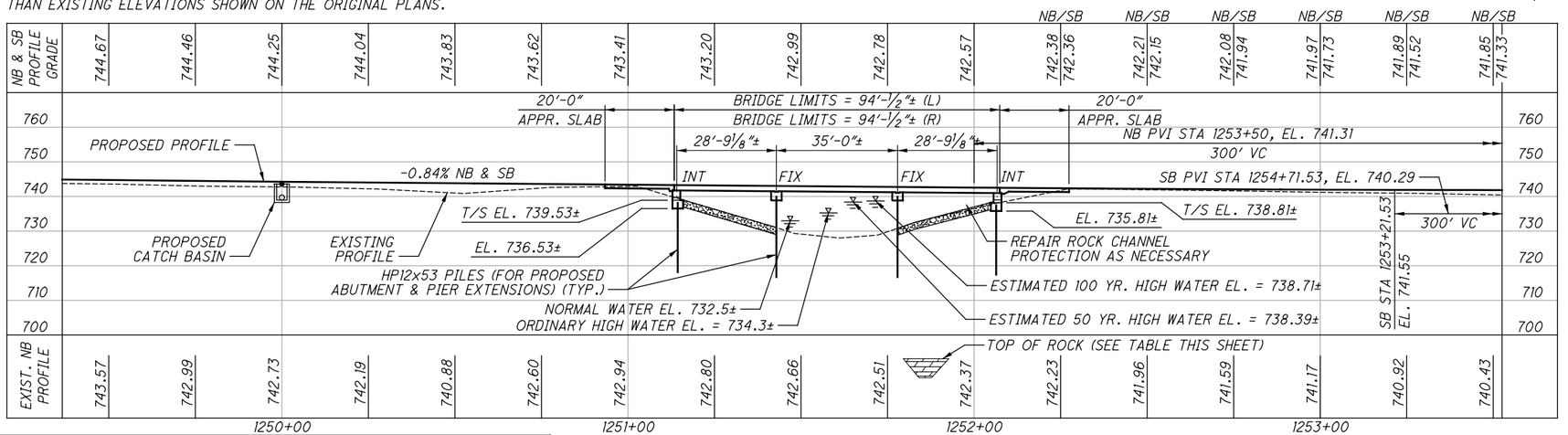
PLAN

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

ALL EXISTING SUBSTRUCTURE, TOP OF ROCK AND WATER ELEVATIONS WERE ADJUSTED TO THE CURRENT PROJECT SURVEY ELEVATION AND ARE APPROXIMATELY 0.55± FEET LOWER THAN EXISTING ELEVATIONS SHOWN ON THE ORIGINAL PLANS.

ESTIMATED LENGTH HP12x53 ABUTMENT PILE LENGTH = 30'
ESTIMATED LENGTH HP12x53 PIER PILE LENGTH = 35'



TRAFFIC DATA

CURRENT ADT (2016) = 51,360
DESIGN YEAR ADT (2036) = 61,840
CURRENT ADTT (2016) = 15,920
DESIGN YEAR ADTT (2036) = 19,170

EXISTING STRUCTURE DATA

TYPE: THREE SPAN CONTINUOUS REINFORCED CONCRETE SLAB DECK WITH CAPPED PILE CONCRETE ABUTMENTS AND CAPPED PILE CONCRETE PIERS

SPANS: 28'-0"±, 35'-0"±, 28'-0"± c/c BEARINGS

ROADWAY: 44'-0"± FACE/FACE GUARDRAIL

LOADING: MS-18 & THE ALTERNATE MILITARY LOAD

SKEW: 10°00'00"± RF

WEARING SURFACE: MICRO SILICA CONCRETE

APPROACH SLABS: AS-1-81M (20'± LONG)

ALIGNMENT: TANGENT

DATE BUILT: 1956

STRUCTURE FILE NUMBER: 3203271L/3203301R

PROPOSED WORK

1. REMOVE EXISTING APPROACH SLABS AND CONCRETE DECK SLABS IN STAGES.

2. REMOVE PORTIONS OF THE EXISTING CONCRETE SUBSTRUCTURES IN STAGES AS SHOWN ON THE PLANS.

3. REBUILD AND WIDEN THE EXISTING CONCRETE SUBSTRUCTURES IN STAGES TO ACCOMMODATE THE PROPOSED SUPERSTRUCTURES.

4. EXTEND AND REPAIR ROCK SLOPE PROTECTION.

5. CONSTRUCT NEW CONCRETE DECK SLABS AND APPROACH SLABS IN STAGES.

6. PATCH EXISTING SUBSTRUCTURE.

PROPOSED STRUCTURE DATA

TYPE: THREE SPAN CONTINUOUS REINFORCED CONCRETE SLAB DECK WITH CAPPED PILE CONCRETE ABUTMENTS AND CAPPED PILE CONCRETE PIERS

SPANS: 28'-9 1/8" ±, 35'-0"±, 28'-9 1/8"± c/c BEARINGS

ROADWAY: 59'-7" TOE/TOE OF PARAPET

LOADING: HS25 AND ALTERNATE MILITARY, FWS=60 PSF (SUPERSTRUCTURE ONLY); MS-18 & THE ALTERNATE MILITARY LOAD (SUBSTRUCTURE ONLY)

SKEW: 10°00'00" RF

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-81 (20' LONG)

ALIGNMENT: TANGENT

CROWN: 0.016

BRIDGE COORDINATES: 41°-8'-49" LAT., 83°-39'-32" LONG.

HYDRAULIC DATA

DRAINAGE AREA = 27.4 SQ. MI.

FLOOD FREQUENCY (YEARS)	DISCHARGE (CFS)	PROPOSED STRUCTURE		
		TOTAL WATERWAY AREA = 1091 SQ. FT.		
		VELOCITY (FT./SEC.)	HEADWATER (ELEV.)	WATER AREA (SQ. FT.)
50	1890	3.81	738.61	495.98
100	2090	4.0	738.95	522.71

THE LOWEST ELEVATION OF THE BOTTOM OF THE SUPERSTRUCTURE CLEARS THE 100 YEAR DISCHARGE WATER SURFACE ELEVATION BY 1.9 FEET AND THE 25 YEAR DESIGN WATER SURFACE ELEVATION BY 2.3 FEET.

BENCHMARK DATA

BM #1	STA. 1232+38.47	EL.	751.44	OFFSET 101.4' RT.
	NGS MONUMENT (MC 1659)			
BM #2	STA. 1286+66.54	EL.	739.56	OFFSET 95.6' RT.
	NGS MONUMENT (MC 1660)			

PROFILE ALONG PROFILE GRADE (RIGHT STRUCTURE)

(L) = LEFT STRUCTURE
(R) = RIGHT STRUCTURE
(LEFT STRUCTURE IS NOT SHOWN FOR CLARITY)

GUARDRAIL FIRST POST LOCATIONS

(A) STA. 1250+98.70 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2)
(B) STA. 1251+20.52 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1)
(C) STA. 1251+95.85 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1)
(D) STA. 1252+17.67 (MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2)

BORING INFORMATION

BORING	STATION	OFFSET	TOP OF ROCK ELEVATION
S-1	STA. 1250+87.05	4.22' RT.	711.6±
S-2	STA. 1251+27.07	55.13' LT.	709.9±
S-3	STA. 1251+89.40	55.53' RT.	710.0±
S-4	STA. 1252+26.89	4.21' LT.	715.5±

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED KWL | DRAWN KWL | REVIEWED SAM | DATE 02-16-2015
CHECKED NBL | REVISED | STRUCTURE FILE NUMBER 3203271L/3203301R

HANCOCK COUNTY
STA. 1251+11.16
STA. 1252+05.21

SITE PLAN
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

1/25

312/336

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD DRAWINGS:

DM-4.1	REVISED	7-19-2013
AS-1-81	REVISED	1-18-2013
CPA-1-08	DATED	7-18-2008
CPP-1-08	REVISED	7-19-2013
CS-1-03	DATED	4-18-2003
PCB-91	REVISED	1-18-2013
SBR-1-13	DATED	7-19-2013
SBR-2-13	REVISED	1-17-2014

DESIGN LOADING:

DESIGN LOADING: HS 25 (CASE I) AND THE ALTERNATE MILITARY LOADING (SUPERSTRUCTURE), MS-18 AND THE ALTERNATE MILITARY LOADING (SUBSTRUCTURE)

FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

DESIGN SPECIFICATIONS:

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANS-PORTATION OFFICIALS, 2002, AND THE ODOT BRIDGE DESIGN MANUAL, 2004.

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
REINFORCING STEEL – ASTM A615 OR A996GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI
STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD:

2 1/2" CONCRETE COVER
EPOXY COATED REINFORCING STEEL
SEALING CONCRETE SURFACES

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PUR-POSES, TO BE 1 INCH THICK.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

DESCRIPTION: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE CONCRETE DECKS INCLUDING CURBS AND PARAPETS, ABUTMENT BREASTWALLS AND WINGWALLS, ALONG WITH THE PIER CAPS, TO THE LIMITS SHOWN IN THE PLANS. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUND-ARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REIN-FORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE 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, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UN-CERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:

THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C, PLACED AND COMPACTED IN 6 INCH LIFTS.

PILES DESIGN LOADS (ULTIMATE BEARING VALUE):

DRIVE PILE TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED BY PENETRATING WEAK BEDROCK FOR SEVERAL INCHES TO A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR BY CONTACTING STRONG BEDROCK AND THE PILE RECEIVING AT LEAST 20 BLOWS. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL. INSTEAD OF DRIVING TO REFUSAL, THE CONTRACTOR MAY PERFORM DYNAMIC LOAD TESTING ACCORDING TO CMS 523 TO ESTABLISH DRIVING CRITERIA TO ACHIEVE AN ULTIMATE CRITERION FOR EACH PILE TYPE AND CAPACITY. ESTABLISH THE DRIVING CRITERIA TO ACHIEVE AN ULTIMATE BEARING VALUE GIVEN BELOW FOR THE PILES. PAYMENT FOR DYNAMIC LOAD TESTING PERFORMED AT THE CONTRACTOR'S OPTION IS INCLUDED IN THE UNIT PRICE PAY ITEM FOR PILES DRIVEN.

THE ULTIMATE BEARING VALUE IS 52 TONS PER PILE FOR THE ABUTMENT PILES AND 74 TONS PER PILE FOR THE PIER PILES.

ABUTMENT PILES:
- HP12x53 STEEL PILES 35 FEET LONG, ORDER LENGTH

PIER PILES:
- HP12x53 STEEL PILES 40 FEET LONG, ORDER LENGTH

PILE SPLICES:

IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION
8 WOOD HOLLOW RD. PLAZA 1
PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPER-STRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 1.3 KIPS FOR A TOTAL MACHINE LOAD OF 10.4 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN:

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ITEM SPECIAL - PILE ENCASEMENT:

ENCASE ALL STEEL H-PILES FOR THE CAPPED PILE PIERS IN CLASS QC1 CONCRETE. PROVIDE A CONCRETE SLUMP BETWEEN 6 TO 8 INCHES WITH THE USE OF A SUPERPLASTICIZER. PLACE THE CONCRETE WITHIN A FORM THAT CONSISTS OF POLYETHYLENE PIPE (707.33), OR PVC PIPE (707.42). THE ENCASEMENT SHALL EXTEND FROM 3 FEET BELOW THE FINISHED GROUND SURFACE UP TO THE CONCRETE PIER CAP. POSITION THE PIPE SO THAT AT LEAST 3 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE.

IN LIEU OF ENCASING THE PILE IN CONCRETE, GALVANIZE THE PILES ACCORDING TO 711.02. THE GALVANIZING SHALL BE CONTINUOUS FROM A MINIMUM OF 3 FEET BELOW THE FINISH GROUND SURFACE UP TO THE CONCRETE PIER CAP. THE GALVANIZED COATING THICKNESS SHALL BE A MINIMUM OF 4 MILS. REPAIR ALL GOUGES, SCRAPES, SCRATCHES OR OTHER SURFACE IMPERFECTIONS CAUSED BY THE HANDLING OR THE DRIVING OF THE PILE TO THE SATISFACTION OF THE ENGINEER.

THE DEPARTMENT WILL MEASURE PILE ENCASEMENT BY THE NUMBER OF FEET. THE DEPARTMENT WILL DETERMINE THE SUM AS THE LENGTH MEASURED ALONG THE AXIS OF EACH PILE FROM THE BOTTOM OF THE ENCASEMENT TO THE BOTTOM OF THE PIER CAP. THE DEPARTMENT WILL NOT PAY FOR GALVANIZING PROVIDED BEYOND THE PROJECT REQUIREMENTS. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM - SPECIAL, PILE ENCASEMENT.

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015

REVISED

STRUCTURE FILE NUMBER
3203271L/3203301R

GENERAL NOTES (1 OF 2)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/ WOO-75-19.22/ 0.00

2 / 25

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SHEET LEGEND

ABUT.	ABUTMENT
APPR.	APPROACH
BM	BENCHMARK
BOT.	BOTTOM
BRG.	BEARING
C.B.	CATCH BASIN
C.I.P	CAST-IN-PLACE
C.J.	CONSTRUCTION JOINT
C.P.P.	CORRUGATED PLASTIC PIPE
C/C	CENTER TO CENTER
CLR.	CLEARANCE
CNTR.	CENTER
CONSTR.	CONSTRUCTION
DIA.	DIAMETER
DL	DEAD LOAD
DWG.	DRAWING
E.F.	EACH FACE
E.W.	EACH WAY
EL. OR ELEV.	ELEVATION
EMB.	EMBEDMENT
EQ.	EQUAL
EST.	ESTIMATED
EX. OR EXIST.	EXISTING
EXP.	EXPANSION
F.F.	FAR FACE
F.S.	FIELD SPLICE
F/F	FACE TO FACE
FA	FORWARD ABUTMENT
FIX.	FIXED
FTG.	FOOTING
FWD.	FORWARD
GFRP	GLASS FIBER REINFORCED POLYMER
HW	HIGH WATER MARK
JT.	JOINT
LL	LIVE LOAD
LT	LEFT
M.S.	MECHANICAL SPLICE
MAX.	MAXIMUM
MID	MIDDLE
MIN.	MINIMUM
MSE	MECHANICALLY STABILIZED EARTH
N.F.	NEAR FACE
N.P.C.P.P.	NON-PERFORATED CORRUGATED PLASTIC PIPE
NB	NORTHBOUND
NO.	NUMBER
O.C.J.	OPTIONAL CONSTRUCTION JOINT
O/O	OUT TO OUT
ORD.	ORDINARY
P.C.P.P.	PERFORATED CORRUGATED PLASTIC PIPE
P1	PIER 1
P2	PIER 2
P3	PIER 3
PEJF	PREFORMED EXPANSION JOINT FILLER
PG	PROFILE GRADE
PROP.	PROPOSED
PX	PIER X
R.C.	REINFORCED CONCRETE
R.C.P.	ROCK CHANNEL PROTECTION
RA	REAR ABUTMENT
REF.	REFERENCE
REINF.	REINFORCING
RELOC.	RELOCATED
REQ.	REQUIRED
RT	RIGHT
SB	SOUTHBOUND
SER.	SERIES
SHLD.	SHOULDER
SPA.	SPACE(S) OR SPACING
STA.	STATION
STM.	STORM SEWER
T/S	TOP OF SLOPE
TYP.	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VAR.	VARIES
VC	VERTICAL CURVE
W.P.	WORKING POINT
W/	WITH

DESIGN AGENCY
DGL Consulting Engineers, LLC
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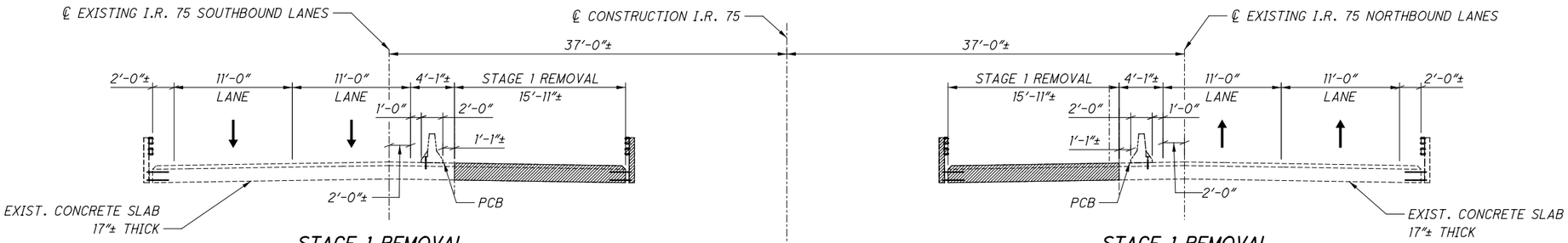
NBL		3203271L/3203301R	

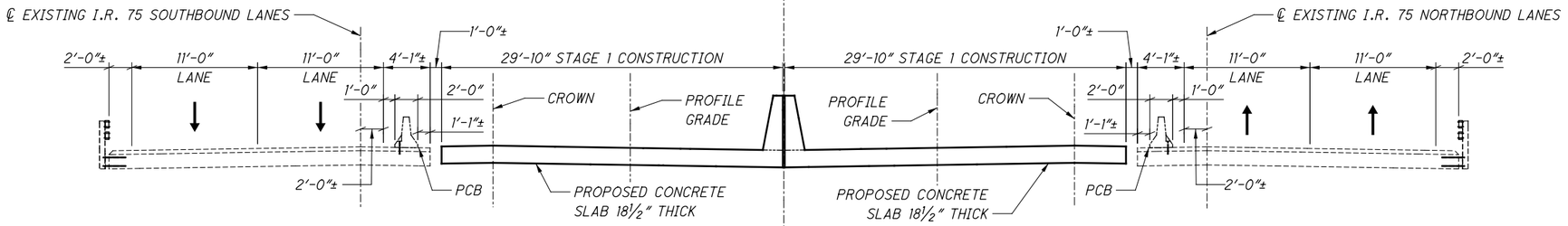
GENERAL NOTES (2 OF 2)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00



STAGE 1 REMOVAL

STAGE 1 REMOVAL



STAGE 1 CONSTRUCTION

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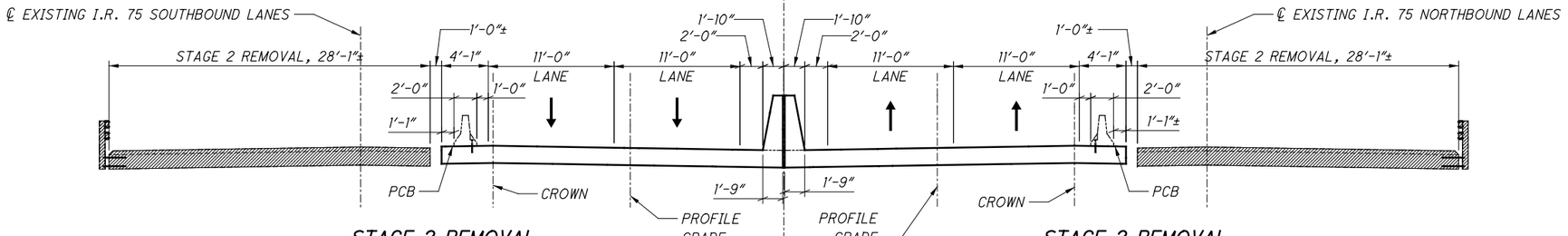
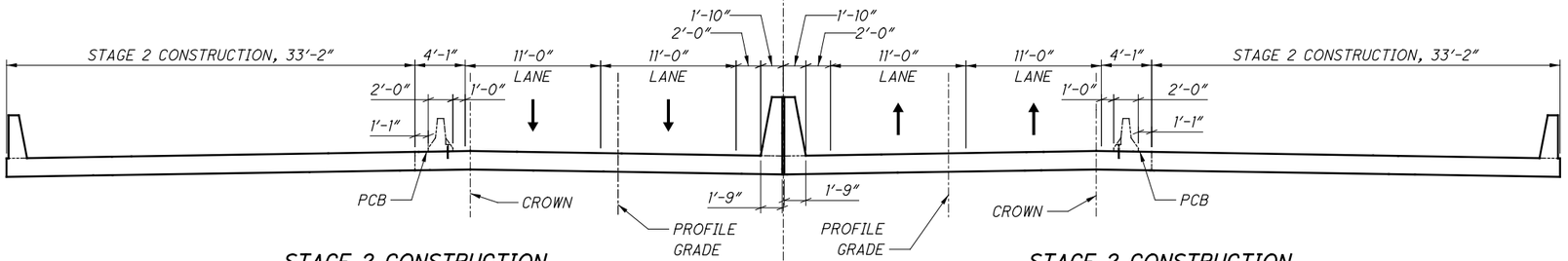


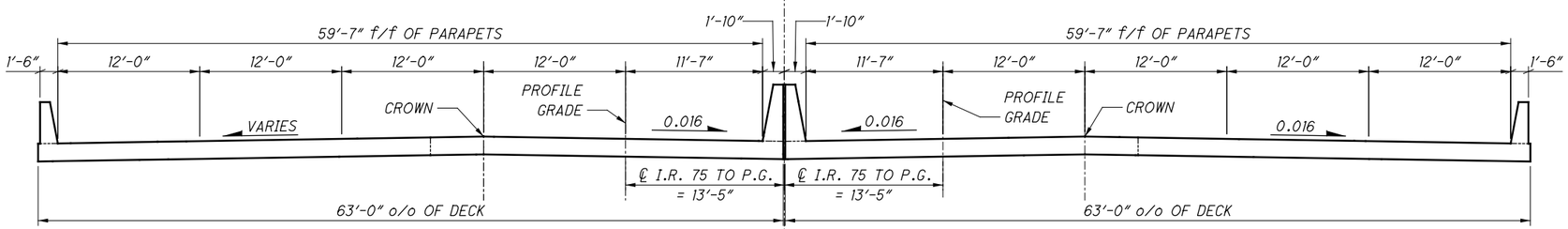
STAGE 2 REMOVAL

STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION

STAGE 2 CONSTRUCTION



FINAL TYPICAL SECTION

FINAL TYPICAL SECTION

NOTES

- PCB DENOTES PORTABLE CONCRETE BARRIER AND SHALL CONFORM TO ODOT STANDARD DRAWING PCB-91.

- THERE SHALL BE A MINIMUM OF 4 ANCHORS PER EACH SEGMENT OF PCB, LOCATED SYMMETRICALLY ON THE TRAFFIC SIDE, FOR EVERY STAGE OF WORK.

LEGEND

▨ - CONCRETE/STEEL REMOVAL LIMITS

DESIGN AGENCY
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DESIGNED	DRAWN	REVIEWED	DATE
SAM	KWL	SAM	01-27-2015
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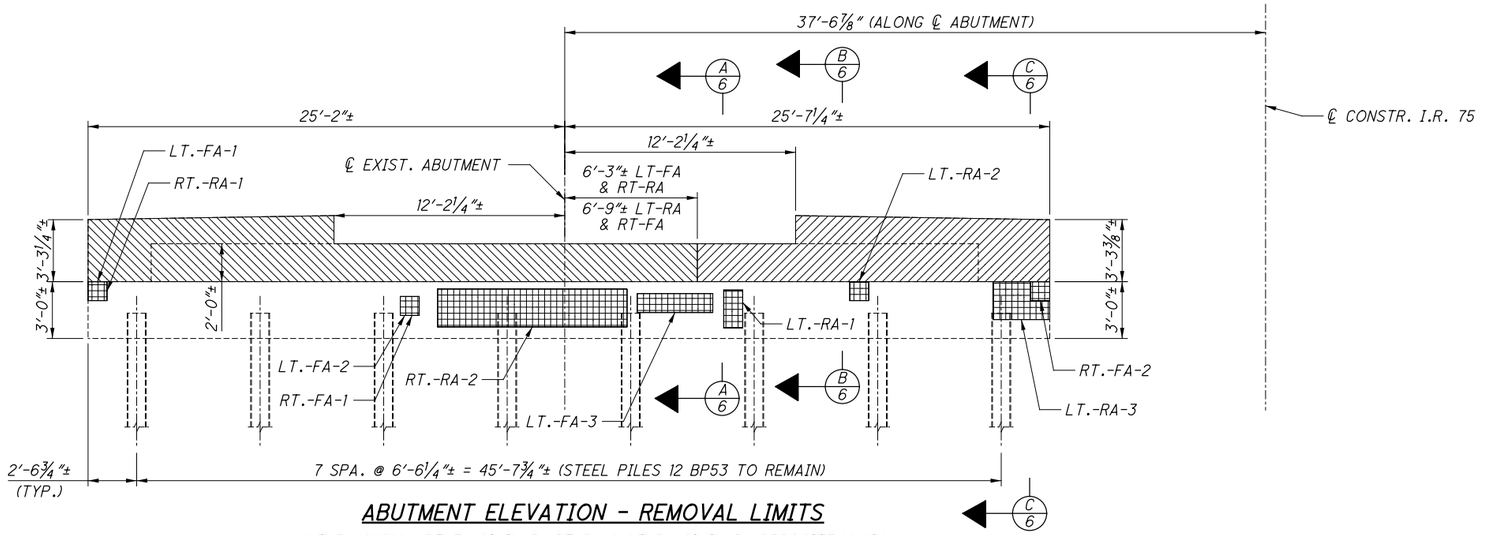
NBL		3203271L/3203301R	

STAGE CONSTRUCTION DETAILS

BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00



ABUTMENT ELEVATION - REMOVAL LIMITS

(LT-FA SHOWN; RT-FA SIMILAR. RT-RA & LT-RA SIMILAR, OPPOSITE HAND)
(DECK AND APPROACH SLAB NOT SHOWN FOR CLARITY)

CONCRETE PATCHING TABLE

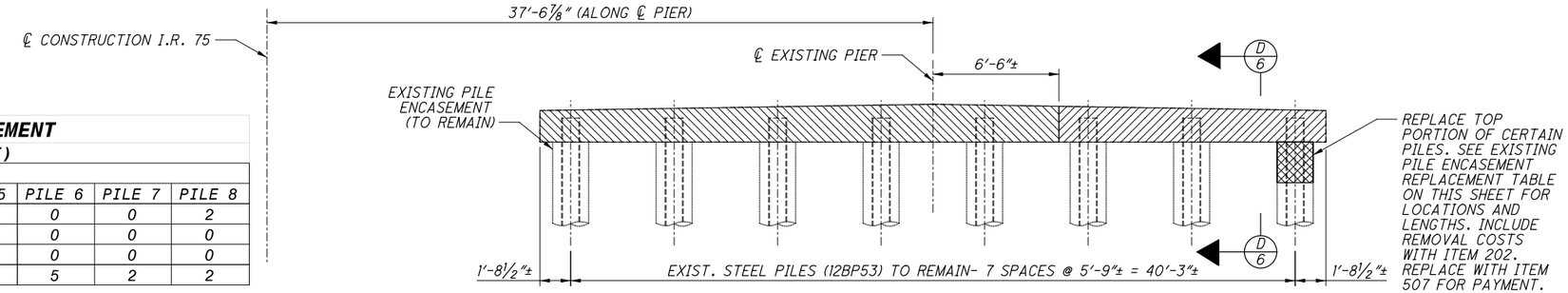
PATCH ID	DIMENSIONS (FT. x FT.)	AREA (SQ. FT.)
LT-RA-1	1 x 5	5
LT-RA-2	2 x 2.5	5
LT-RA-3	5 x 2	10
LT-FA-1	2 x 2.5	5
LT-FA-2	2 x 2.5	5
LT-FA-3	5 x 1	5
RT-RA-1	2 x 2.5	5
RT-RA-2	2.5 x 10	25
RT-FA-1	2 x 2.5	5
RT-FA-2	2 x 2.5	5
519-11101 TOTAL		75

EXISTING PILE ENCASEMENT REPLACEMENT

(EXISTING PILES NUMBERED WEST TO EAST)

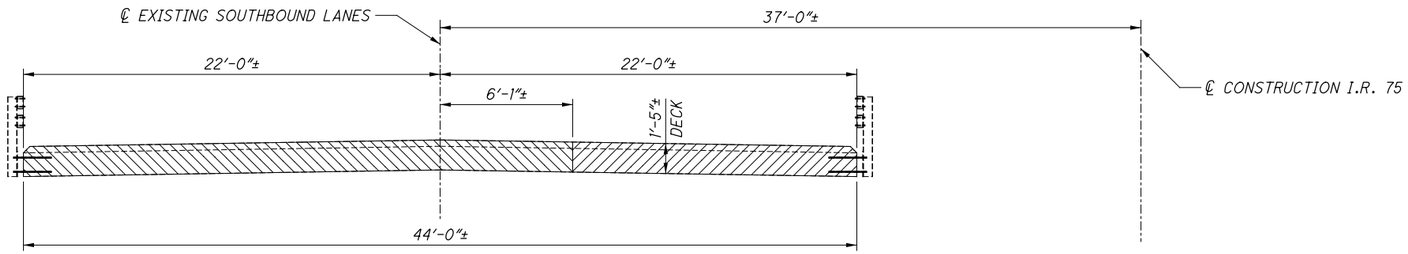
REPLACEMENT LENGTH (FEET)

	PILE 1	PILE 2	PILE 3	PILE 4	PILE 5	PILE 6	PILE 7	PILE 8
PIER 1	0	0	0	0	0	0	0	2
PIER 2	0	0	0	0	0	0	0	0
PIER 3	3	0	0	0	3	0	0	0
PIER 4	0	0	2	0	2	5	2	2

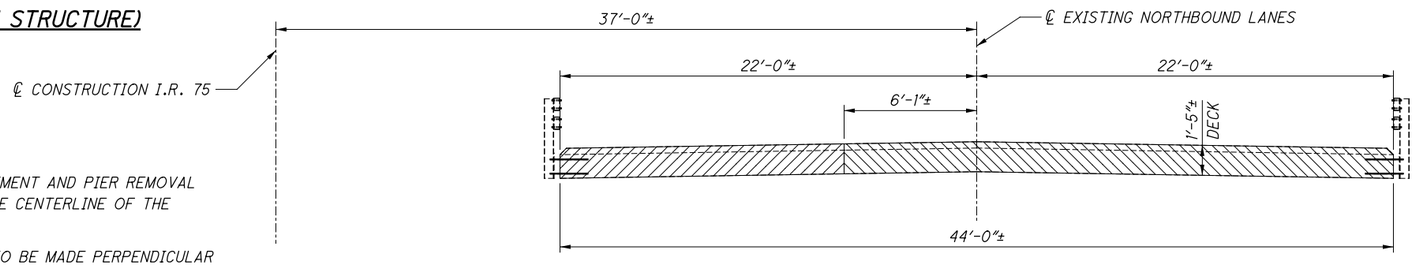


PIER ELEVATION - REMOVAL LIMITS

(ALL PIERS SIMILAR, SYMMETRICAL ABOUT ℄ OF PIER)



TRANSVERSE DECK REMOVAL (LEFT STRUCTURE)



TRANSVERSE DECK REMOVAL (RIGHT STRUCTURE)

LEGEND

- STAGE 1 CONCRETE REMOVAL LIMITS
- STAGE 2 CONCRETE REMOVAL LIMITS
- EX. PILE ENCASEMENT REPLACEMENT
- CONCRETE PATCHING LIMITS

NOTES

- ALL DIMENSIONS FOR THE ABUTMENT AND PIER REMOVAL ELEVATIONS ARE TAKEN ALONG THE CENTERLINE OF THE ASSOCIATED SUBSTRUCTURE UNIT.
- ALL REMOVAL CUT LINES ARE TO BE MADE PERPENDICULAR TO CENTERLINE OF SUBSTRUCTURE

DESIGN AGENCY
DGL Consulting Engineers, LLC
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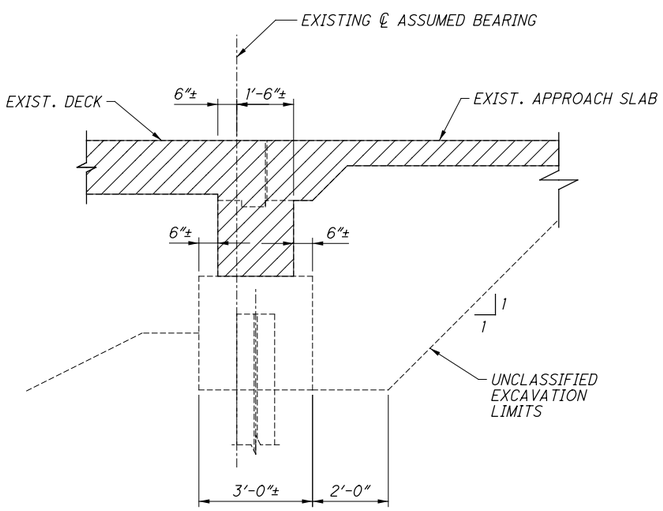
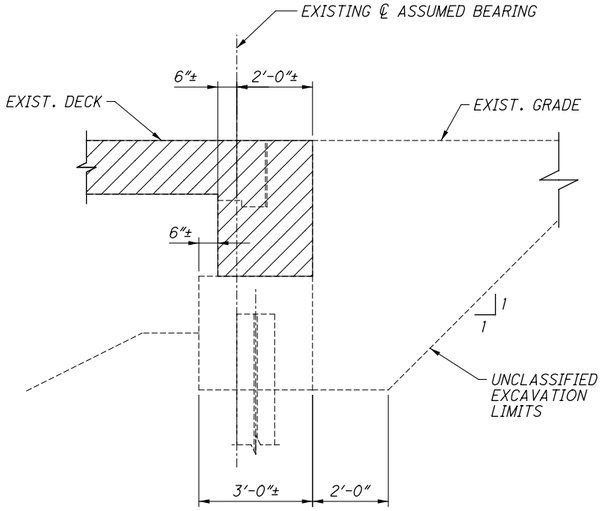
DESIGNED KWL | DRAWN KWL | REVIEWED SAM 01-27-2015 | DATE | STRUCTURE FILE NUMBER 3203271L/3203301R | CHECKED NBL | REVISED

REMOVAL LIMIT DETAILS (1 OF 2)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00



SECTION A-A



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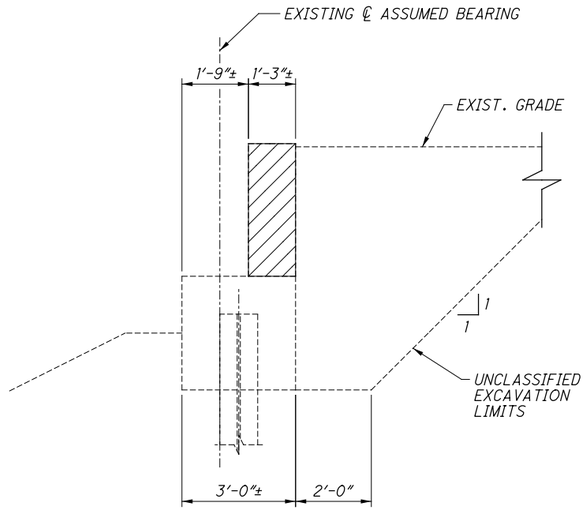
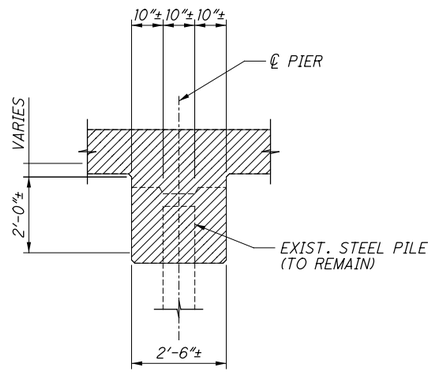


SECTION C-C

LEGEND

CONCRETE REMOVAL LIMITS



SECTION D-D

DESIGN AGENCY
DGL Consulting Engineers, LLC
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DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
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REMOVAL LIMIT DETAILS (2 OF 2)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

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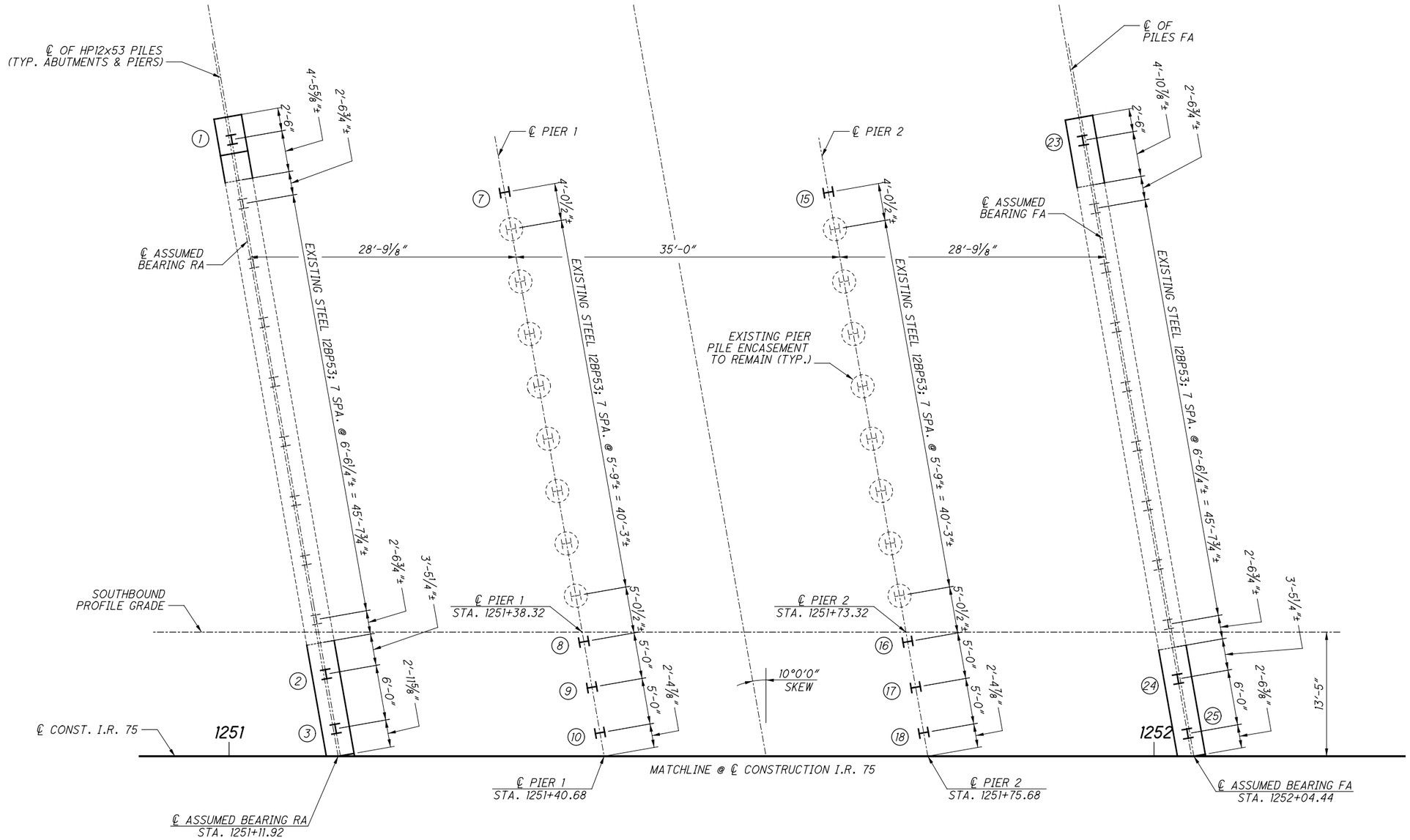
317
336



PILE LAYOUT PLAN

LEFT STRUCTURE

NOTES

NEW PIER PILES MAY BE ENCASED OR GALVANIZED AS PER STD. DWG. CPP-1-08. INCLUDE PAYMENT WITH "ITEM SPECIAL - PILE ENCASEMENT".

LEGEND

(X) = PILE DESIGNATION

DESIGN AGENCY
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DESIGNED	DRAWN	REVIEWED	DATE
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PILE LAYOUT PLAN (1 OF 2)
BRIDGE NO. HAN-75-2370 (L & R)
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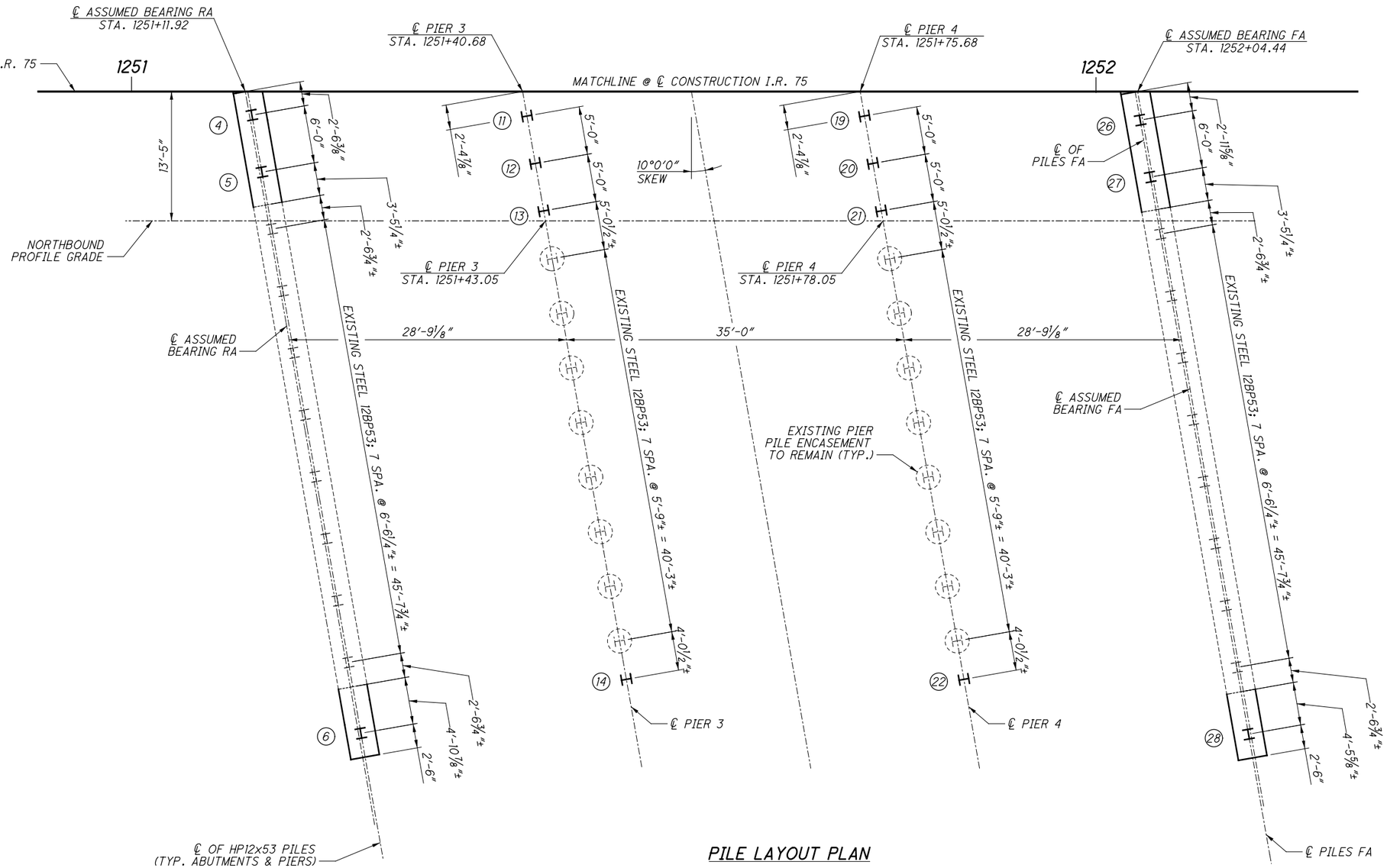

PILE LAYOUT PLAN

RIGHT STRUCTURE

NOTES

NEW PIER PILES MAY BE ENCASED OR GALVANIZED AS PER STD. DWG. CPP-1-08. INCLUDE PAYMENT WITH "ITEM SPECIAL - PILE ENCASEMENT".

LEGEND

(X) = PILE DESIGNATION

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PILE LAYOUT PLAN (2 OF 2)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

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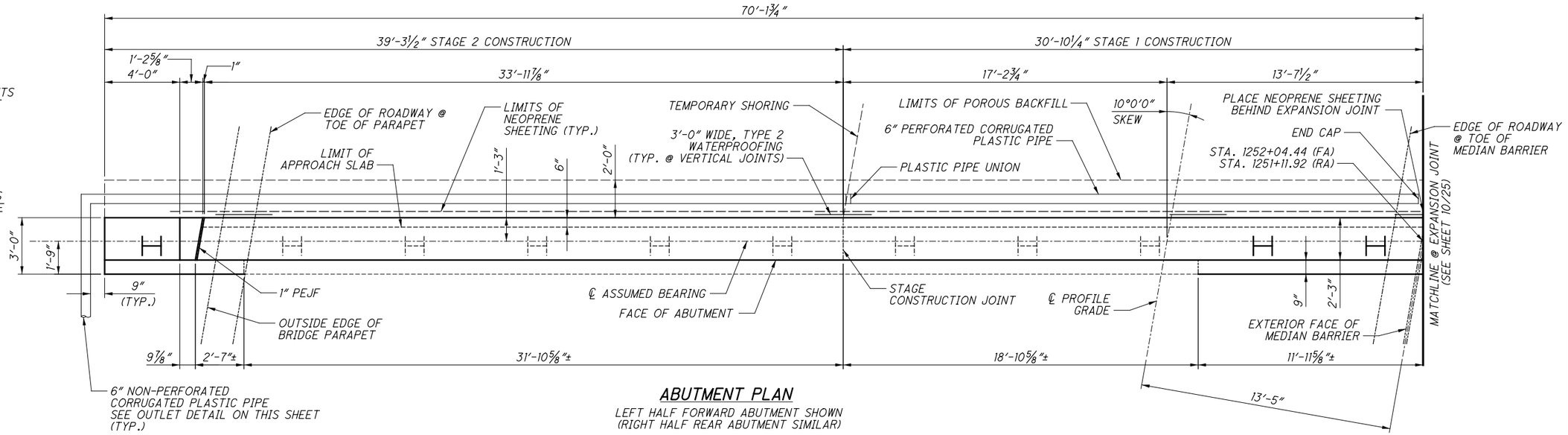
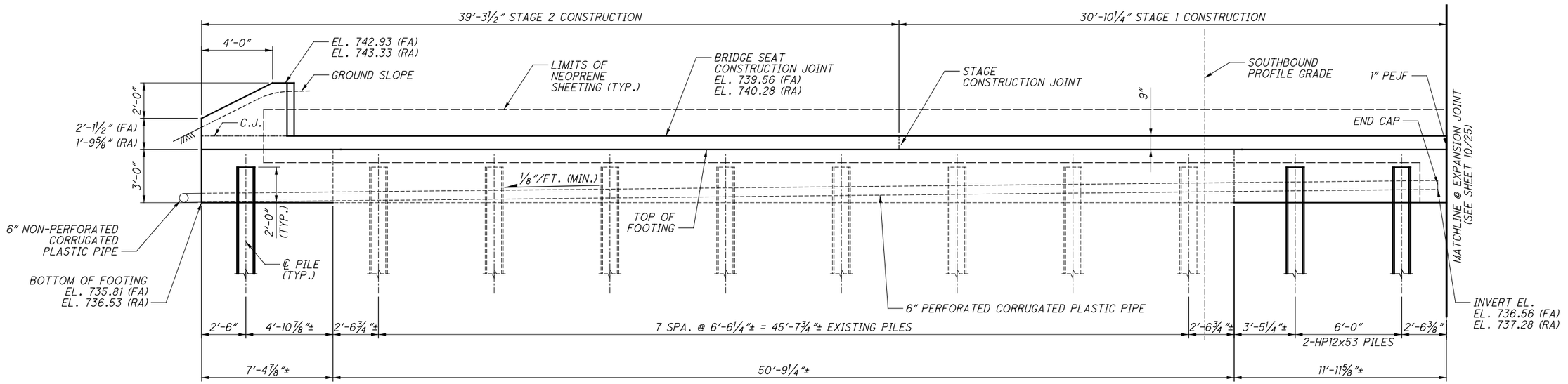
FORWARD ABUTMENTS
LEFT STRUCTURE

REAR ABUTMENTS
RIGHT STRUCTURE



ABUTMENT PLAN

LEFT HALF FORWARD ABUTMENT SHOWN
(RIGHT HALF REAR ABUTMENT SIMILAR)

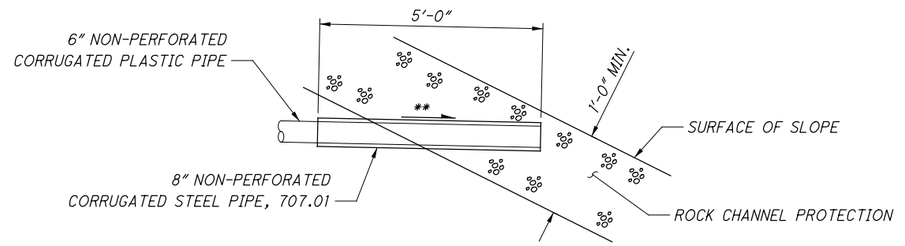


ABUTMENT ELEVATION

LEFT HALF FORWARD ABUTMENT SHOWN
(RIGHT HALF REAR ABUTMENT SIMILAR)
(DIMENSIONS ALONG ℄ OF ABUTMENT)

NOTES

- FOR ADDITIONAL ABUTMENT DETAILS SEE SHEETS 10/25, 11/25, 12/25, 13/25 AND STD. DWG. CPA-1-08.
- FOR PILE LAYOUT, SEE SHEET 7/25 AND 8/25.



OUTLET DETAIL

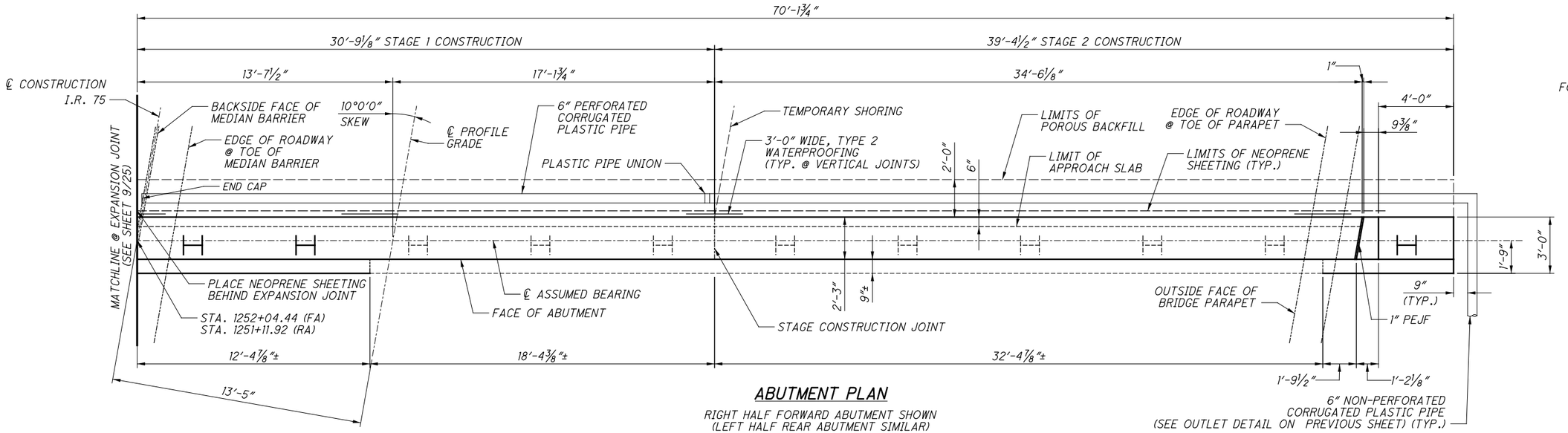
(** SLOPE AS NEEDED, SEE PLAN VIEW ON THIS SHEET)

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	02-16-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

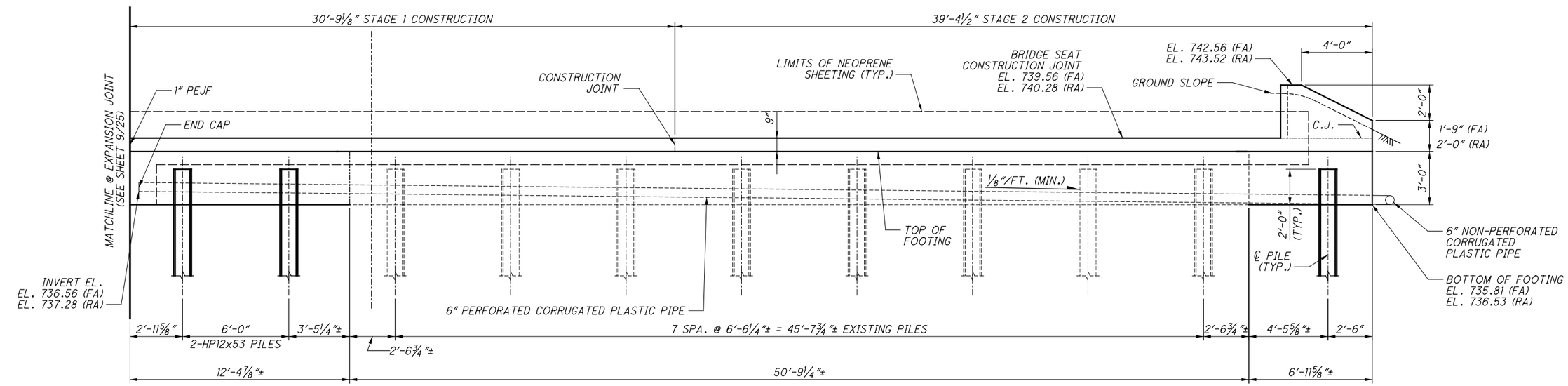
ABUTMENT DETAILS (1 OF 5)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00



ABUTMENT PLAN

RIGHT HALF FORWARD ABUTMENT SHOWN
(LEFT HALF REAR ABUTMENT SIMILAR)



ABUTMENT ELEVATION

RIGHT HALF FORWARD ABUTMENT SHOWN
(LEFT HALF REAR ABUTMENT SIMILAR)
(DIMENSIONS ALONG ℄ OF ABUTMENT)

NOTES

- FOR ADDITIONAL ABUTMENT DETAILS SEE SHEETS 9/25, 11/25, 12/25, 13/25 AND STD. DWG. CPA-1-08.
- FOR PILE LAYOUT, SEE SHEET 7/25 AND 8/25.

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

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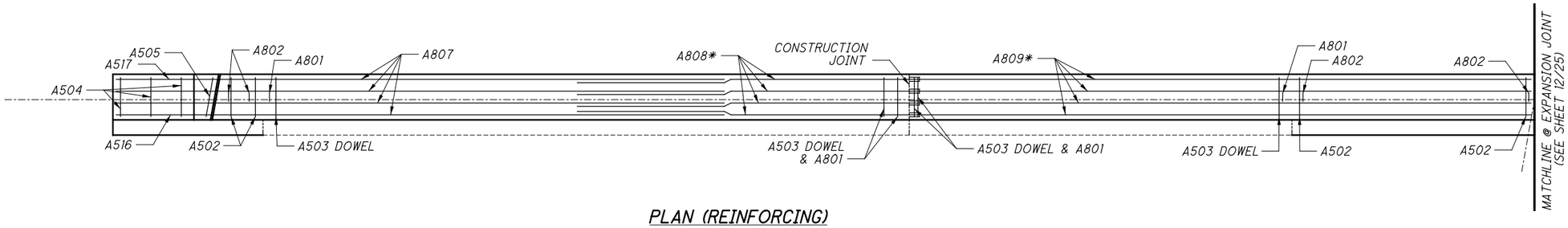
ABUTMENT DETAILS (2 OF 5)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

FORWARD ABUTMENTS
LEFT STRUCTURE

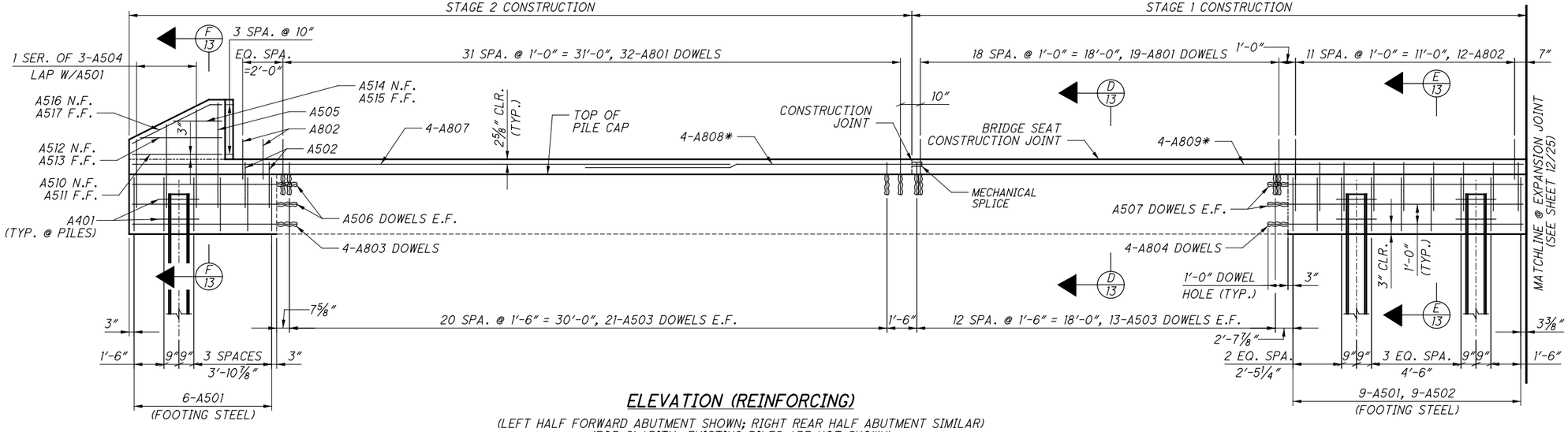
REAR ABUTMENTS
RIGHT STRUCTURE



PLAN (REINFORCING)

(LEFT HALF FORWARD ABUTMENT SHOWN; RIGHT HALF REAR ABUTMENT SIMILAR)
(FOR CLARITY, EXISTING PILES ARE NOT SHOWN)

*-BAR HAS MECHANICAL SPLICE ON ONE END



ELEVATION (REINFORCING)

(LEFT HALF FORWARD ABUTMENT SHOWN; RIGHT REAR HALF ABUTMENT SIMILAR)
(FOR CLARITY, EXISTING PILES ARE NOT SHOWN)

*-BAR HAS MECHANICAL SPLICE ON ONE END

NOTES

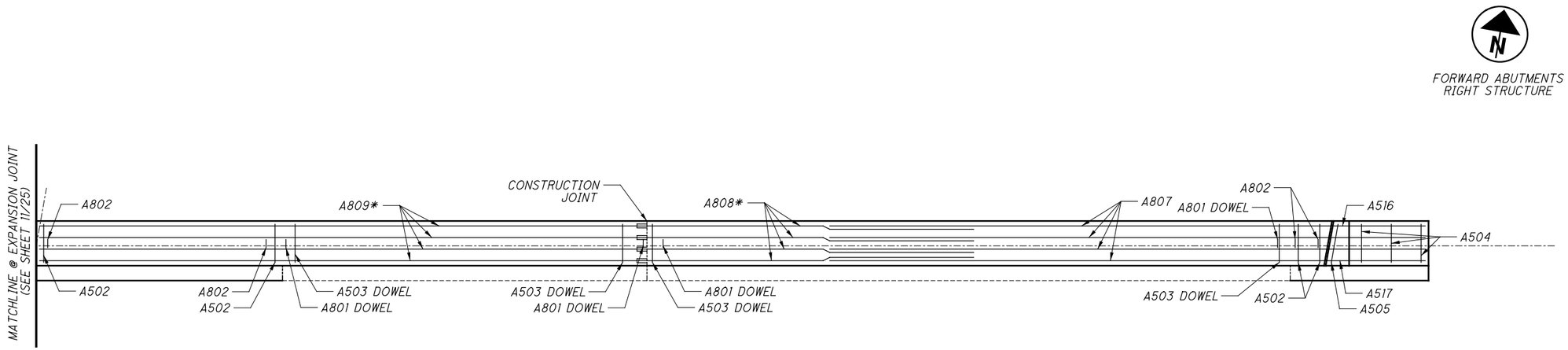
- FOR PILE LAYOUT, SEE SHEETS 7/25 AND 8/25.
- FOR DIMENSIONS AND ELEVATIONS, SEE SHEETS 9/25 AND 10/25.
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #8 BARS - 7'-3"
  #5 BARS - 3'-7"
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

ABUTMENT DETAILS (3 OF 5)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

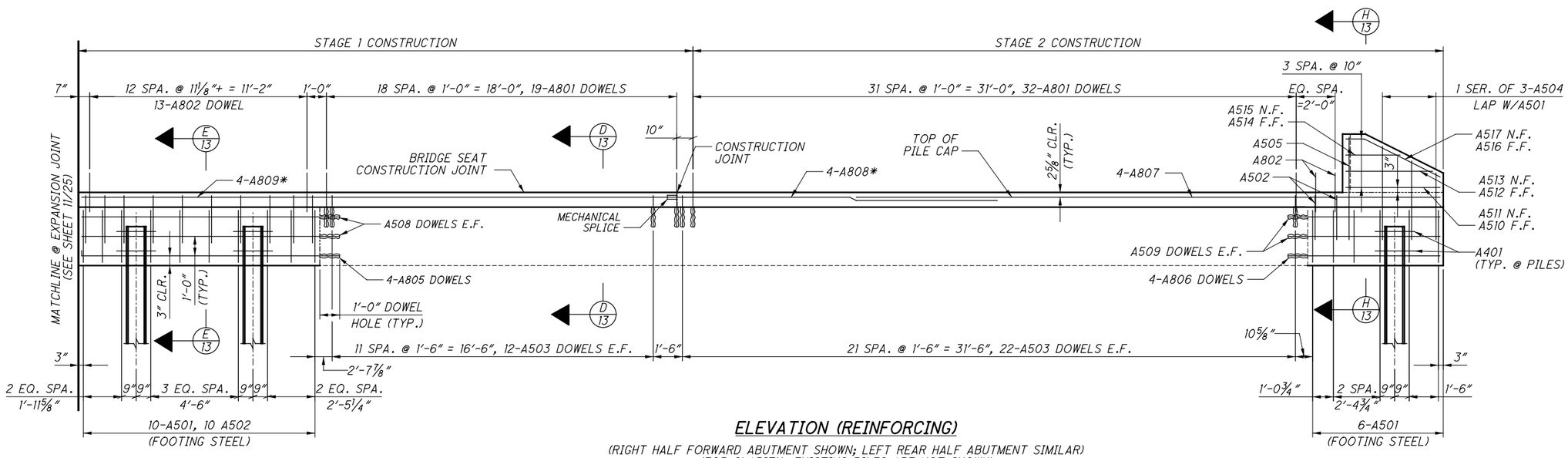
HAN/WOO-75-19.22/0.00



PLAN (REINFORCING)

(LEFT HALF FORWARD ABUTMENT SHOWN; RIGHT HALF REAR ABUTMENT SIMILAR)
(FOR CLARITY, EXISTING PILES ARE NOT SHOWN)

*-BAR HAS MECHANICAL SPLICE ON ONE END



ELEVATION (REINFORCING)

(RIGHT HALF FORWARD ABUTMENT SHOWN; LEFT REAR HALF ABUTMENT SIMILAR)
(FOR CLARITY, EXISTING PILES ARE NOT SHOWN)

*-BAR HAS MECHANICAL SPLICE ON ONE END

NOTES

- FOR PILE LAYOUT, SEE SHEETS 7/25 AND 8/25.
- FOR DIMENSIONS AND ELEVATIONS, SEE SHEETS 9/25 AND 10/25.
- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #8 BARS - 7'-3"
  #5 BARS - 3'-7"
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

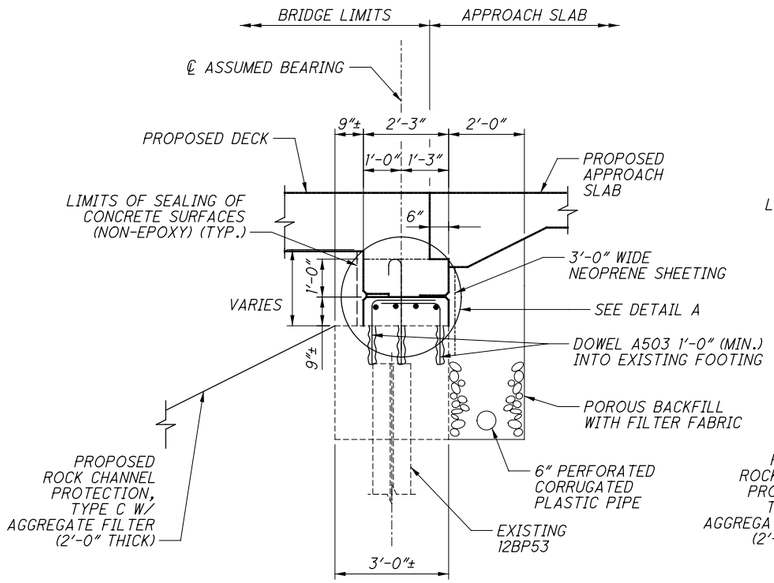
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

ABUTMENT DETAILS (4 OF 5)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

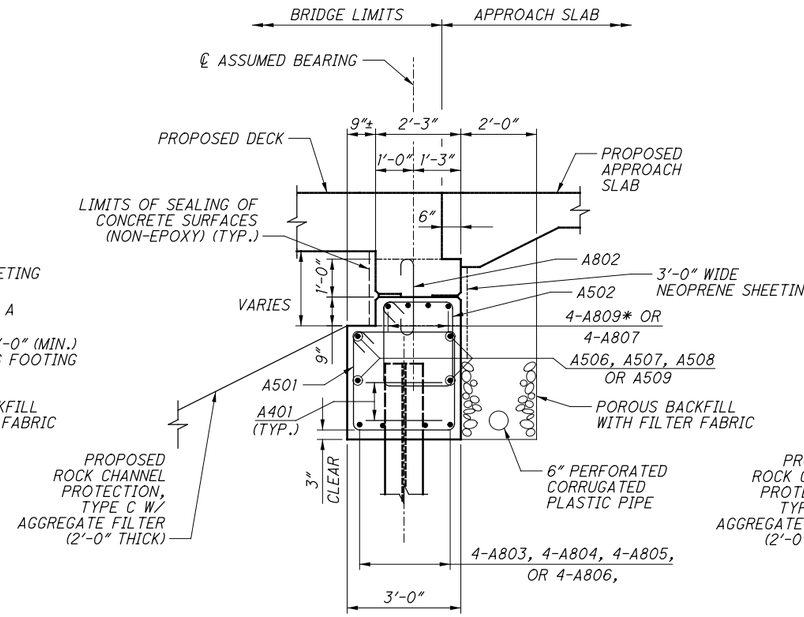
HAN/WOO-75-19.22/0.00

12/25

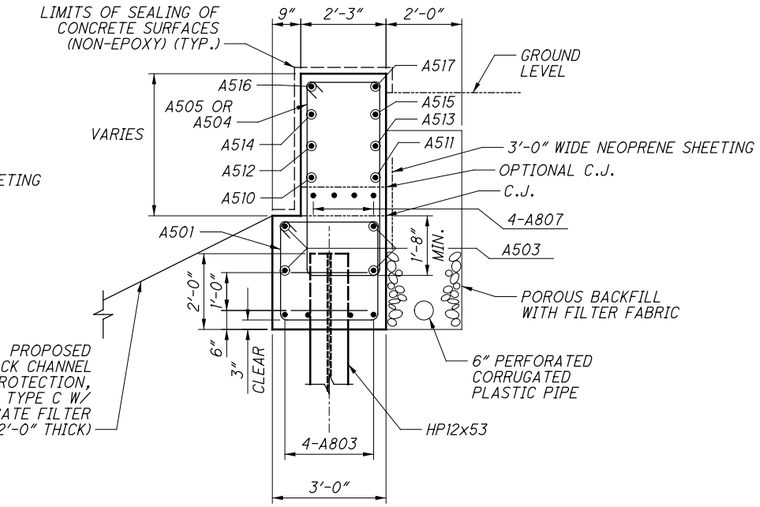
323/336



SECTION D-D



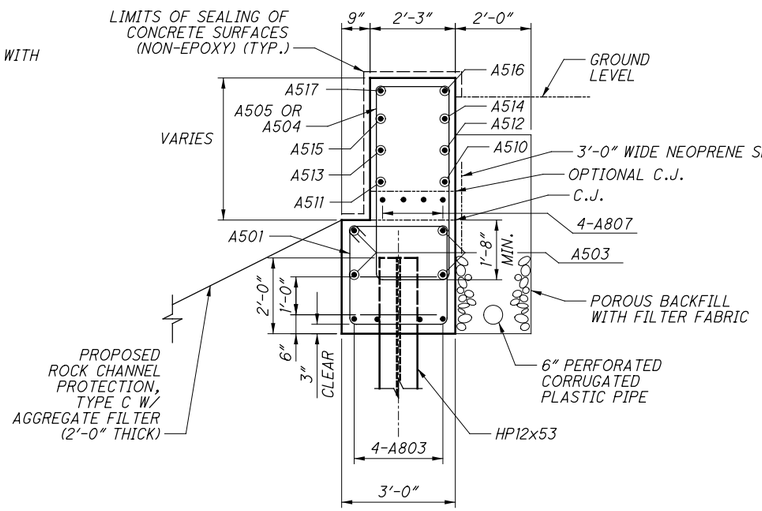
SECTION E-E



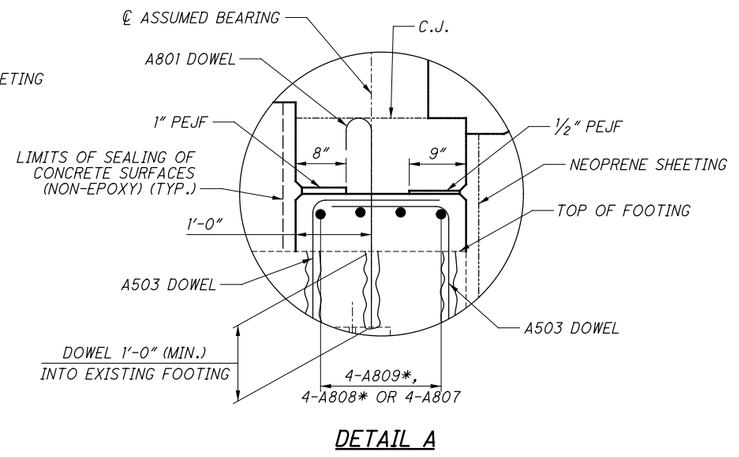
SECTION F-F

NOTES

- SEE SHEETS 11/25 AND 12/25 FOR SECTION CALLOUTS
- ADJUST LOCATION OF DOWEL HOLES AS NECESSARY TO AVOID CONFLICT WITH EXISTING REINFORCEMENT AND OTHER PROPOSED DOWELS.



SECTION H-H



DETAIL A

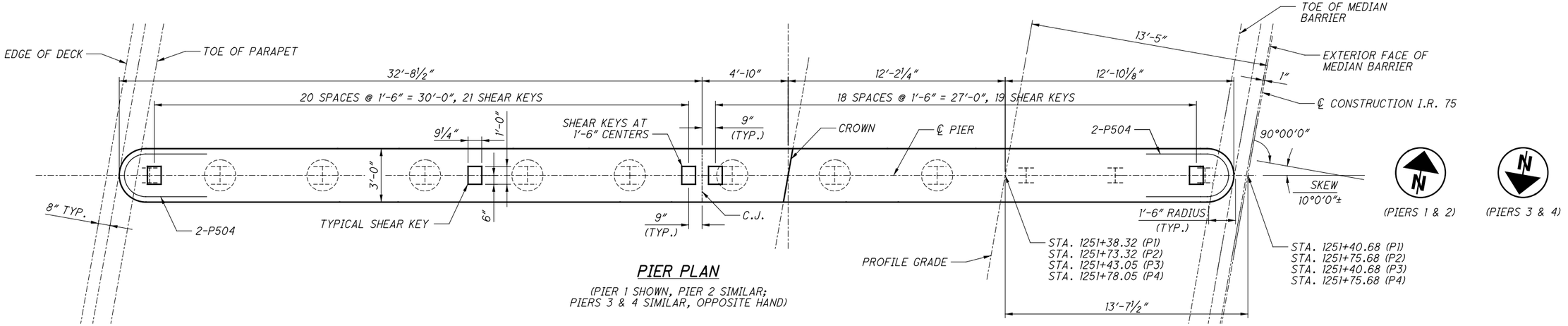
DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

ABUTMENT DETAILS (5 OF 5)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

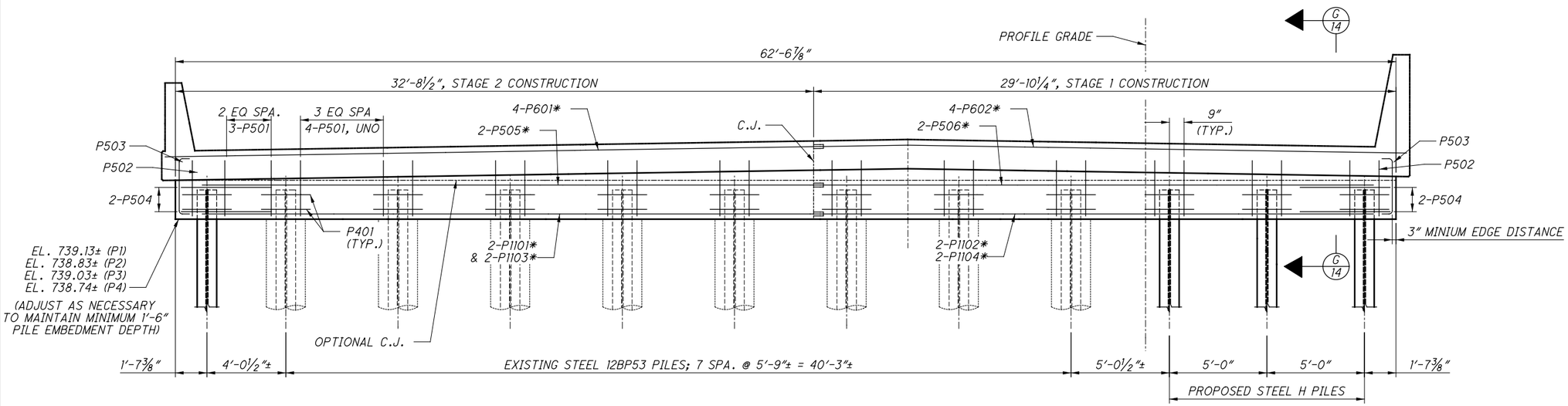
HAN/WOO-75-19.22/0.00

13/25



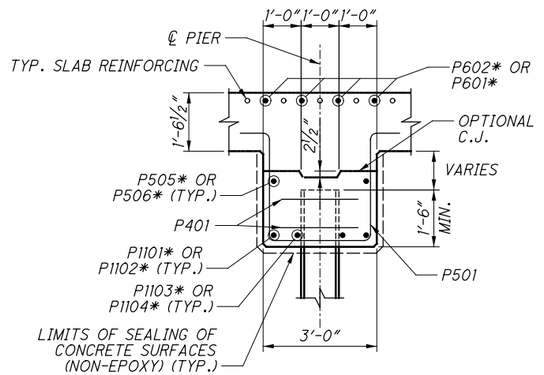
PIER PLAN

(PIER 1 SHOWN, PIER 2 SIMILAR; PIERS 3 & 4 SIMILAR, OPPOSITE HAND)



PIER ELEVATION

(PIER 1 SHOWN, PIER 2 SIMILAR; PIERS 3 & 4 SIMILAR, OPPOSITE HAND)



SECTION G-G

NOTES

- FOR ADDITIONAL PIER DETAILS SEE STD. DWG. CPP-1-08.
- REINFORCING LAP LENGTHS SHALL BE PER STD. DWG. CPP-1-08.
- FOR PILE LAYOUT, SEE SHEETS 7 / 25 AND 8 / 25.

LEGEND

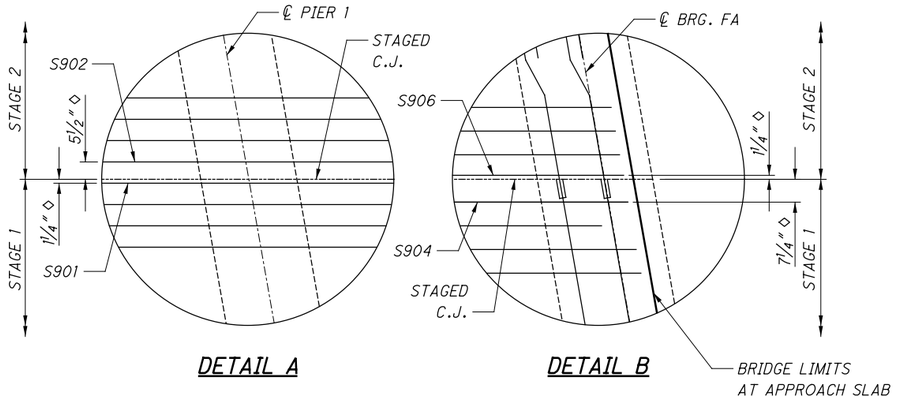
* = BAR HAS MECHANICAL SPLICE AT END

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

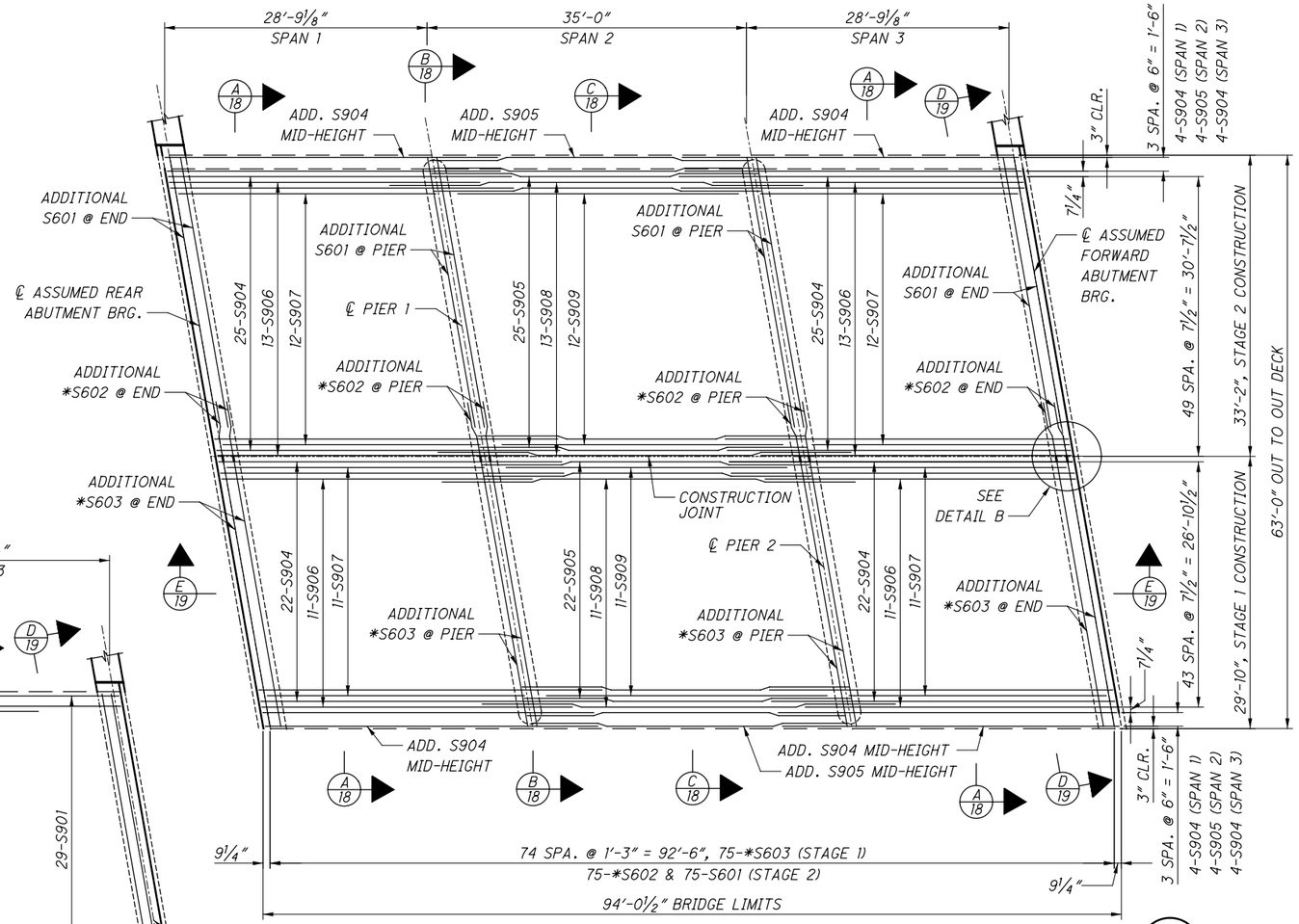
DATE 01-27-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203271L/3203301R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

PIER DETAILS
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

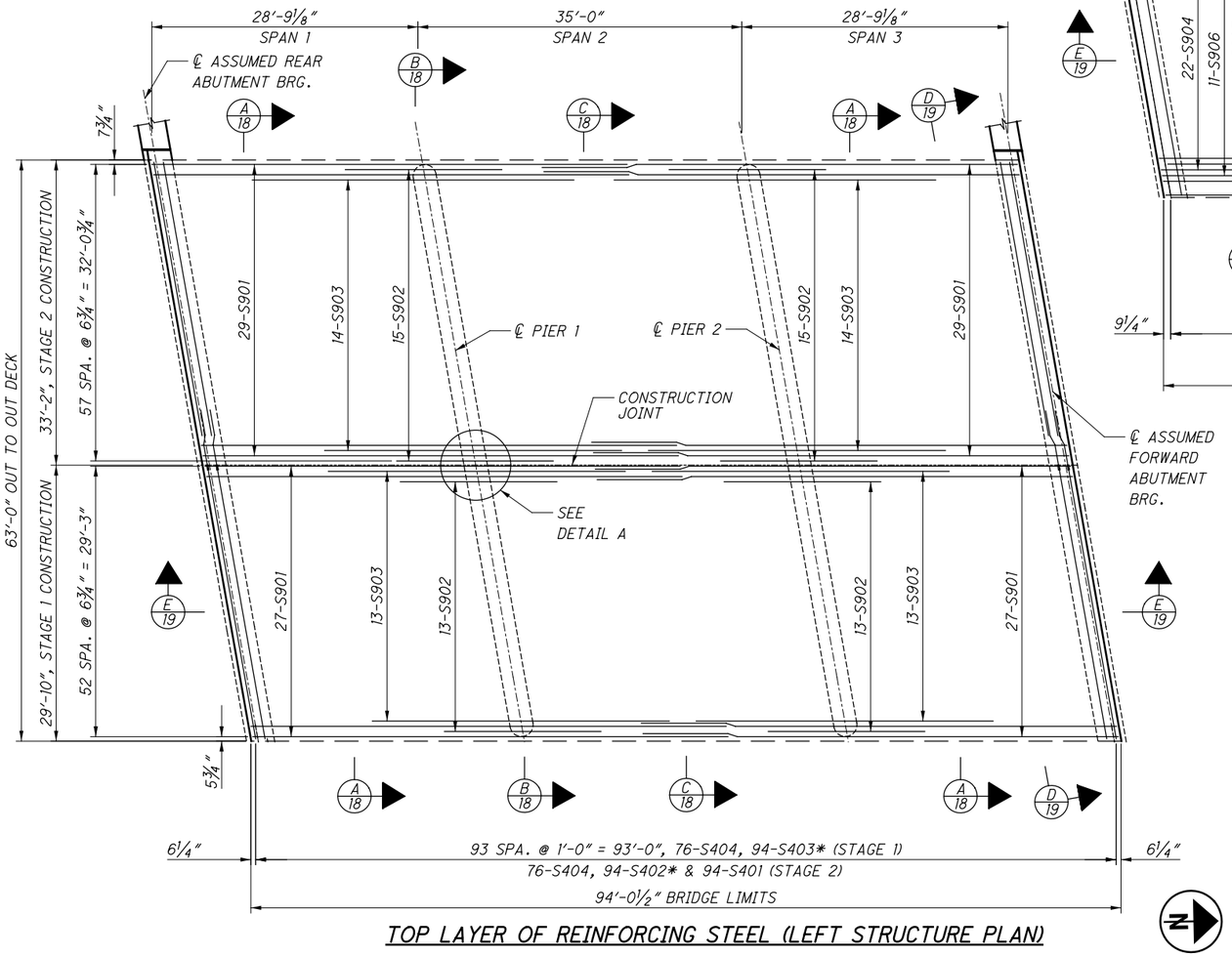
HAN/WOO-75-19.22/0.00



DETAIL A **DETAIL B**



BOTTOM LAYER OF REINFORCING STEEL (LEFT STRUCTURE PLAN)



TOP LAYER OF REINFORCING STEEL (LEFT STRUCTURE PLAN)

SUPPLEMENTAL SLAB DATA

	LENGTH	DIM. (E,D,G,K,OR L)
S902 (E BARS)	19'-7"	21'-3"
S903 (D BARS)	34'-9"	9'-8"
S905 (G BARS)	STD.	29'-1"
S908 (K BARS)	STD.	24'-10"
S909 (L BARS)	STD.	32'-1"

- THE DATA IN THIS TABLE SHALL BE USED TO SUPPLEMENT STD. DWG CS-1-03 WHERE BAR LENGTHS OR POSITION DIMENSIONS HAVE CHANGED.

NOTES

- REINFORCING LAP LENGTHS SHALL BE PER STD. DWG CS-1-03.
- FOR ADDITIONAL DETAILS SEE STD. DWG. CS-1-03.
◇ = ADJUST AS NECESSARY TO AVOID C.J. CONFLICTS
* = BAR HAS MECHANICAL SPLICE AT END
- SEE SHEET 17/25 FOR FINAL DECK SURFACE ELEVATIONS.

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED KWL | DRAWN KWL | REVIEWED SAM 01-27-2015 | DATE | STRUCTURE FILE NUMBER 3203271L/3203301R

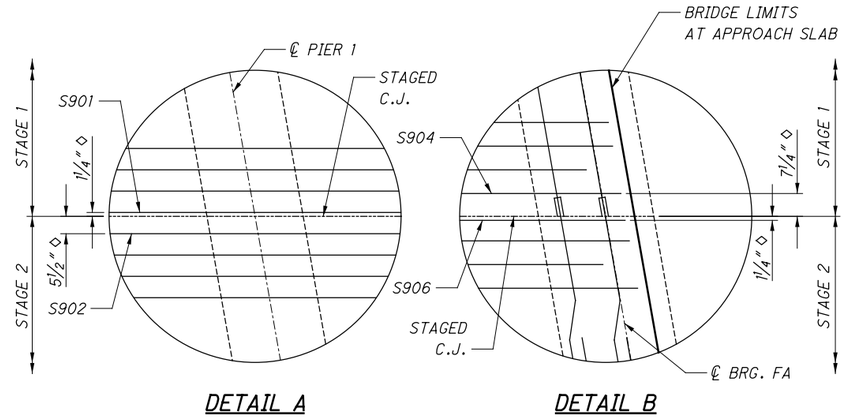
CHECKED NBL | REVISED

SUPERSTRUCTURE DETAILS (1 OF 7)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

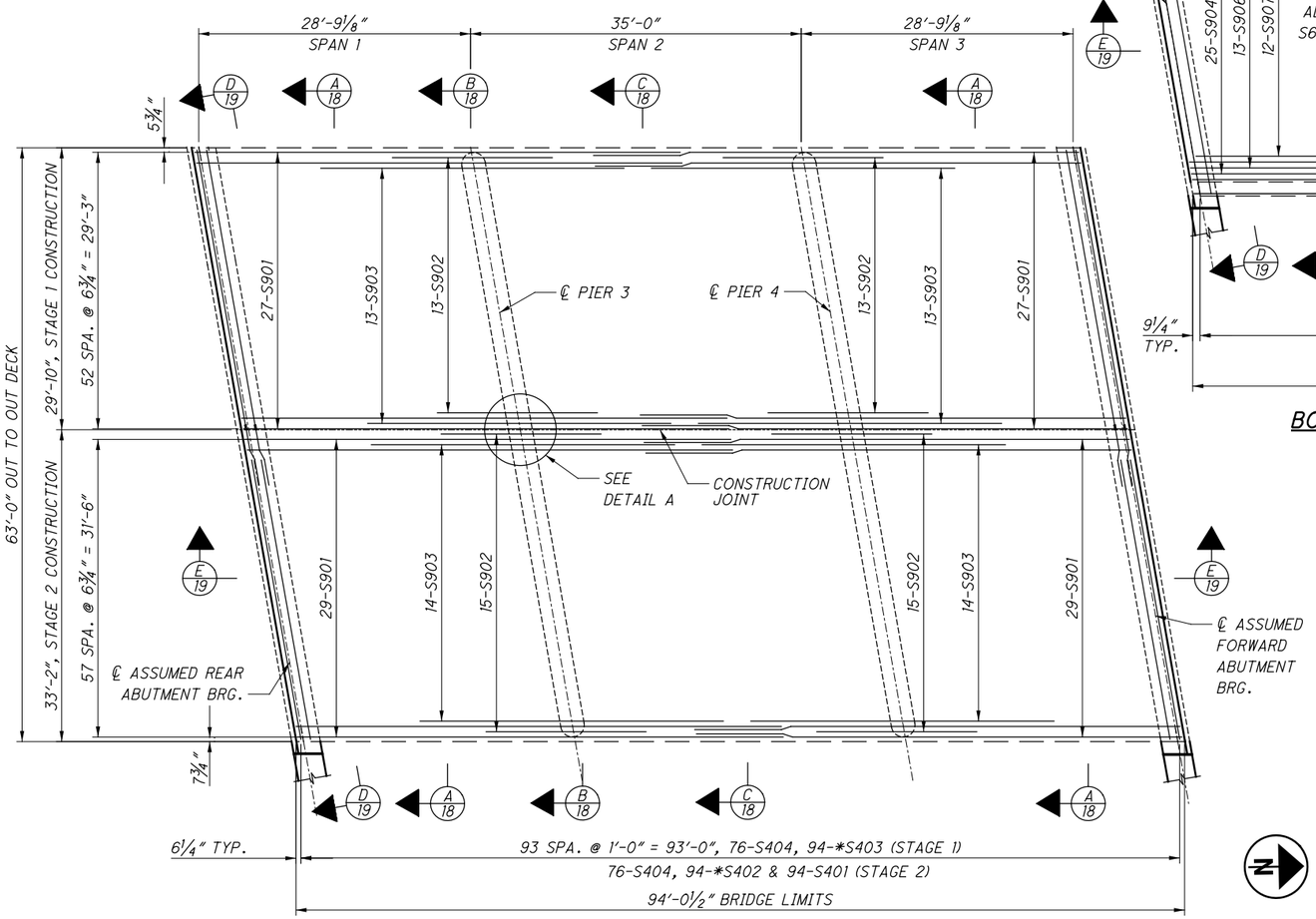
HAN/WOO-75-19.22/0.00

15/25

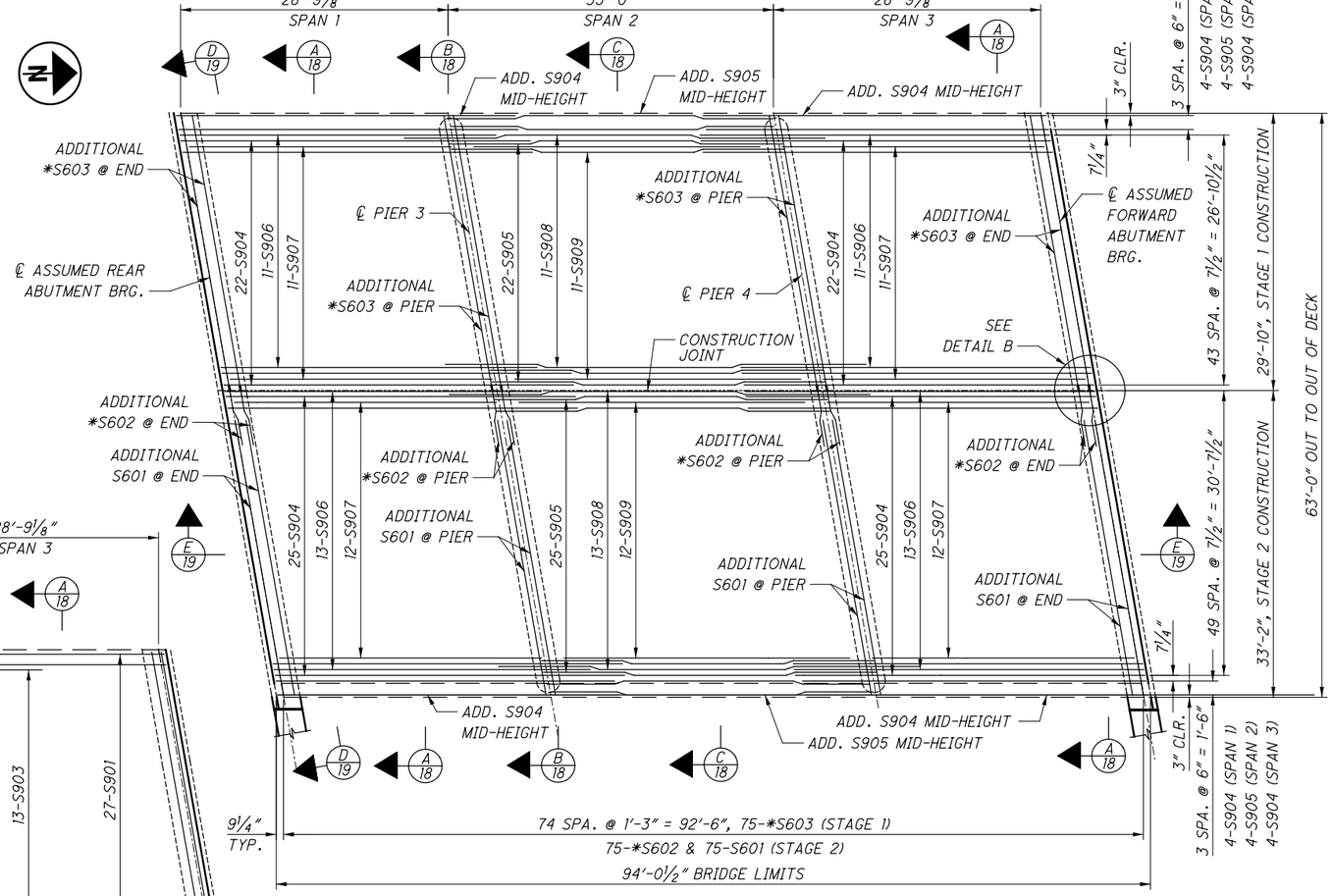
326/336



DETAIL A DETAIL B



TOP LAYER OF REINFORCING STEEL (RIGHT STRUCTURE PLAN)



BOTTOM LAYER OF REINFORCING STEEL (RIGHT STRUCTURE PLAN)

SUPPLEMENTAL SLAB DATA

	LENGTH	DIM. (E,D,G,K,OR L)
S902 (E BARS)	19'-7"	21'-3"
S903 (D BARS)	34'-9"	9'-8"
S905 (G BARS)	STD.	29'-1"
S908 (K BARS)	STD.	24'-10"
S909 (L BARS)	STD.	32'-1"

- THE DATA IN THIS TABLE SHALL BE USED TO SUPPLEMENT STD. DWG CS-1-03 WHERE BAR LENGTHS OR POSITION DIMENSIONS HAVE CHANGED.

NOTES

- REINFORCING LAP LENGTHS SHALL BE PER STD. DWG CS-1-03.
- FOR ADDITIONAL DETAILS SEE STD. DWG. CS-1-03.
- ◊ = ADJUST AS NECESSARY TO AVOID C.J. CONFLICTS
- * = BAR HAS MECHANICAL SPLICE AT END
- SEE SHEET 17/25 FOR FINAL DECK SURFACE ELEVATIONS.

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED KWL | DRAWN KWL | CHECKED NBL | REVIEWED SAM | DATE 01-27-2015

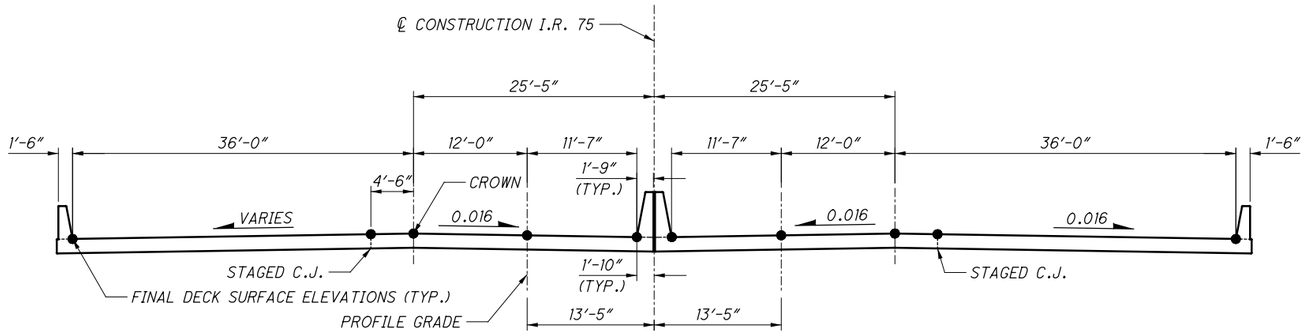
STRUCTURE FILE NUMBER 3203271L/3203301R

REVISED

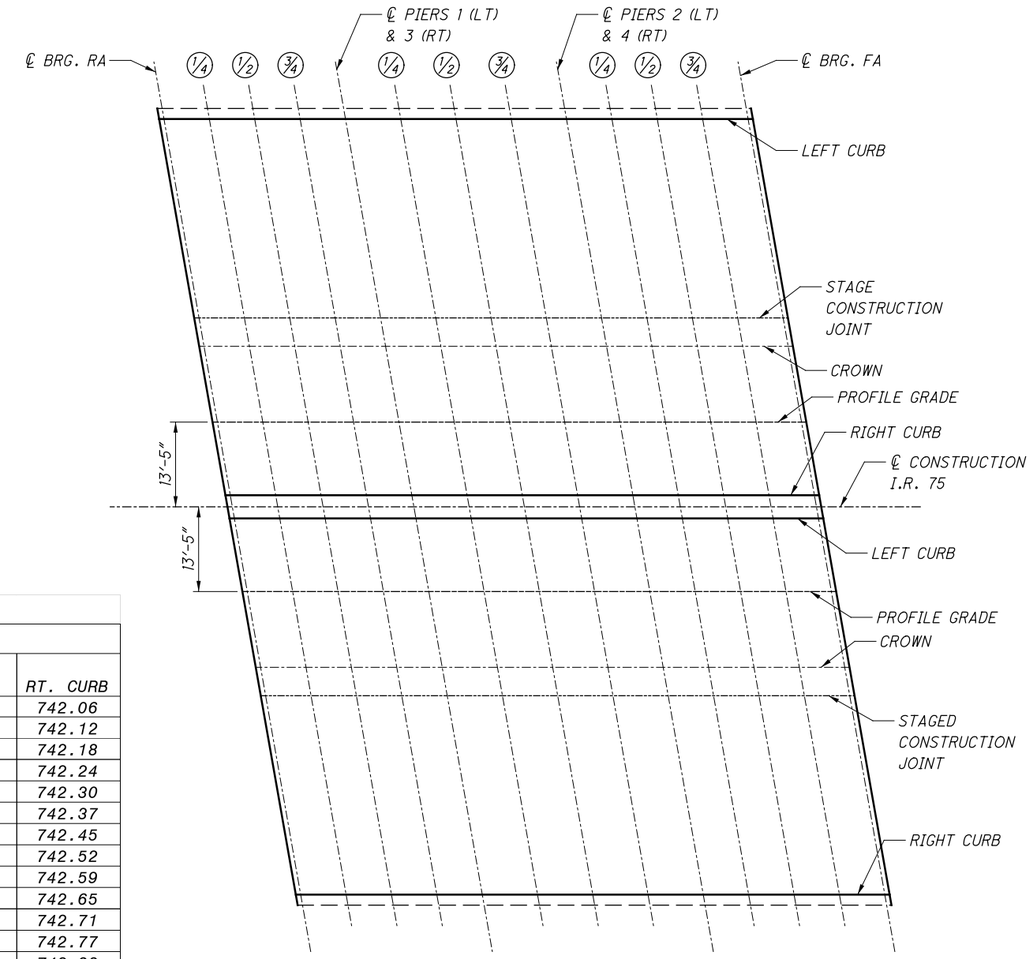
SUPERSTRUCTURE DETAILS (2 OF 7)

BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00



TRANSVERSE DECK PLACEMENT SECTION



DECK SURFACE ELEVATION LOCATION DIAGRAM

NOTES

- REINFORCING LAP LENGTHS SHALL BE PER STD. DWG CS-1-03.
- FOR ADDITIONAL DETAILS SEE STD. DWG. CS-1-03.

FINAL DECK SURFACE ELEVATIONS

	LEFT STRUCTURE					RIGHT STRUCTURE				
	LT. CURB	CONSTR. JOINT	CROWN	PROFILE GRADE	RT. CURB	LT. CURB	PROFILE GRADE	CROWN	CONSTR. JOINT	RT. CURB
CL FWD. ABUT. BRG.	742.43	742.73	742.76	742.55	742.35	742.35	742.51	742.69	742.61	742.06
1/4 PT. SPAN 1	742.45	742.78	742.82	742.61	742.41	742.41	742.57	742.75	742.67	742.12
1/2 PT. SPAN 1	742.47	742.84	742.88	742.67	742.47	742.47	742.63	742.81	742.73	742.18
3/4 PT. SPAN 1	742.49	742.89	742.94	742.73	742.53	742.53	742.69	742.87	742.79	742.24
CL PIER 2 LT (PIER 4 RT)	742.51	742.95	743.00	742.79	742.59	742.59	742.75	742.93	742.85	742.30
1/4 PT. SPAN 2	742.56	743.01	743.08	742.87	742.67	742.66	742.83	743.00	742.92	742.37
1/2 PT. SPAN 2	742.63	743.09	743.15	742.94	742.74	742.73	742.90	743.08	743.00	742.45
3/4 PT. SPAN 2	742.70	743.16	743.23	743.02	742.81	742.81	742.97	743.15	743.07	742.52
CL PIER 1 LT (PIER 3 RT)	742.78	743.23	743.30	743.09	742.89	742.88	743.05	743.22	743.14	742.59
1/4 PT. SPAN 3	742.84	743.29	743.36	743.15	742.95	742.94	743.11	743.28	743.20	742.65
1/2 PT. SPAN 3	742.90	743.35	743.42	743.21	743.01	743.00	743.17	743.34	743.26	742.71
3/4 PT. SPAN 3	742.96	743.41	743.48	743.27	743.07	743.06	743.23	743.40	743.33	742.77
CL REAR. ABUT. BRG.	743.02	743.48	743.54	743.33	743.13	743.12	743.29	743.46	743.39	742.83

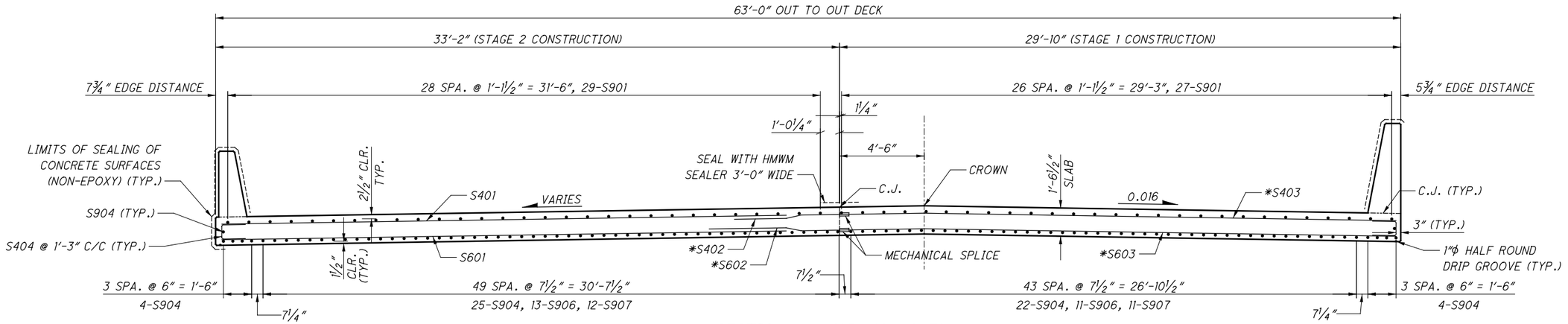
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE ELEVATIONS AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

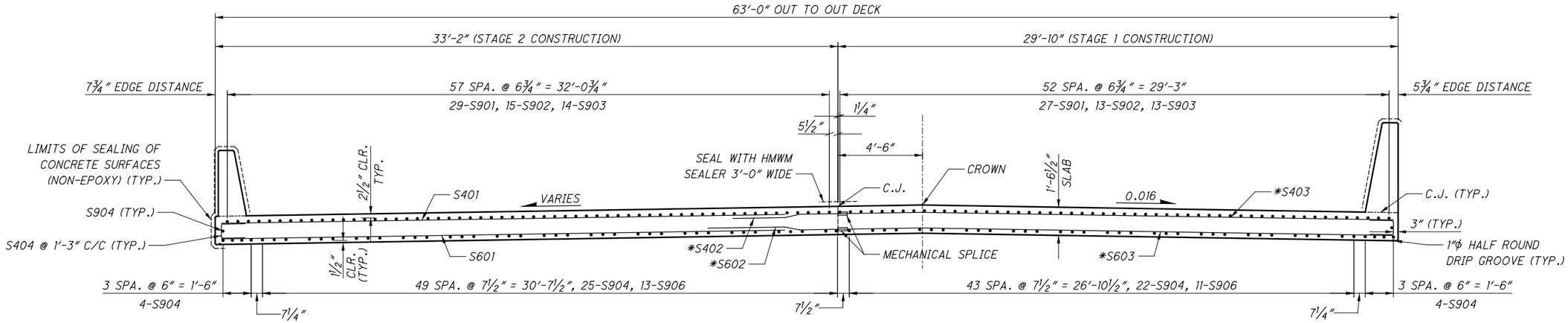
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

SUPERSTRUCTURE DETAILS (3 OF 7)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

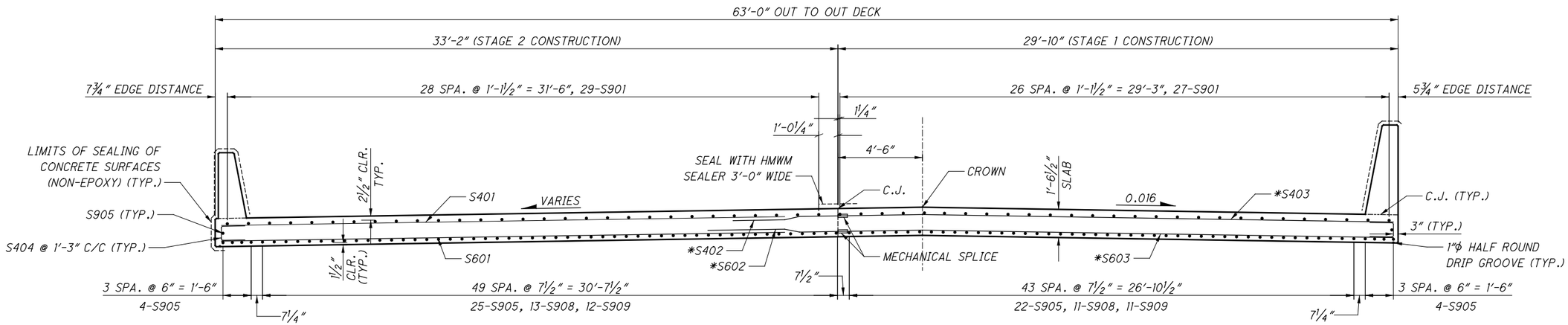
HAN/WOO-75-19.22/0.00



SECTION A-A (SPANS 1 & 3)



SECTION B-B (OVER PIER)



SECTION C-C (SPAN 2)

NOTES

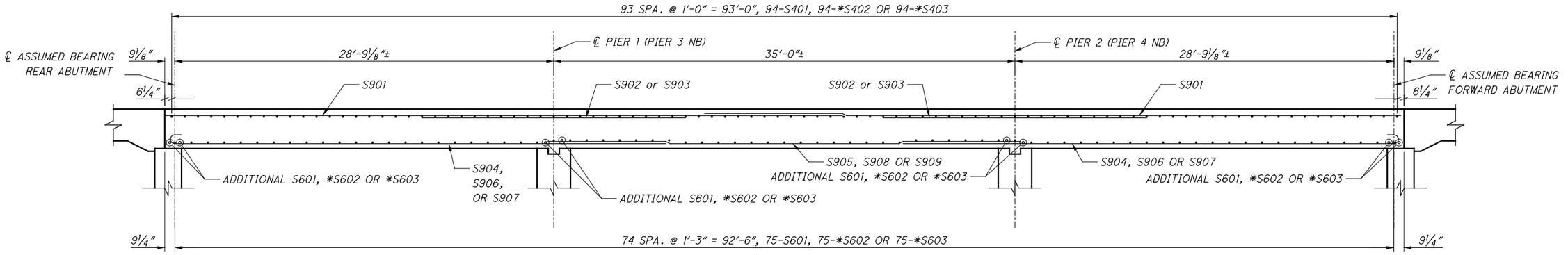
- FOR LOCATION OF SECTIONS A-A, B-B AND C-C SEE SHEETS 15/25 AND 16/25.
* = BAR HAS MECHANICAL SPLICE AT END

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

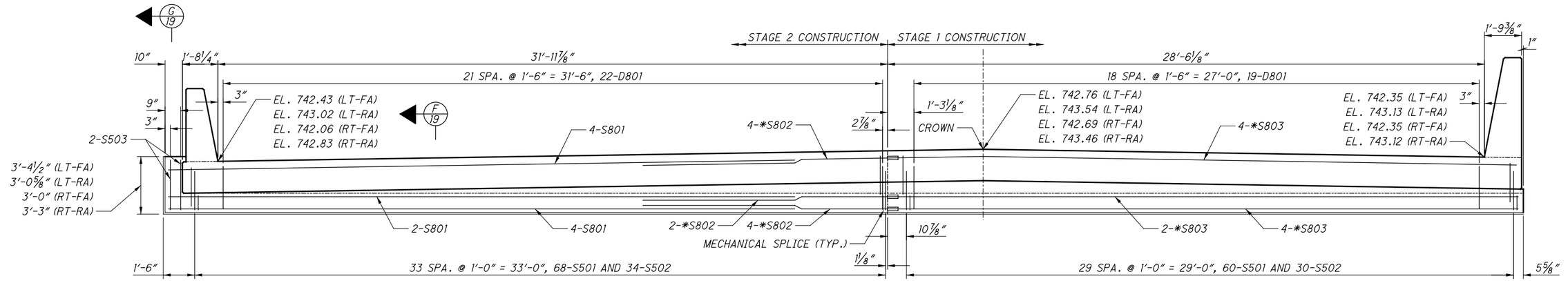
DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

SUPERSTRUCTURE DETAILS (4 OF 7)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00



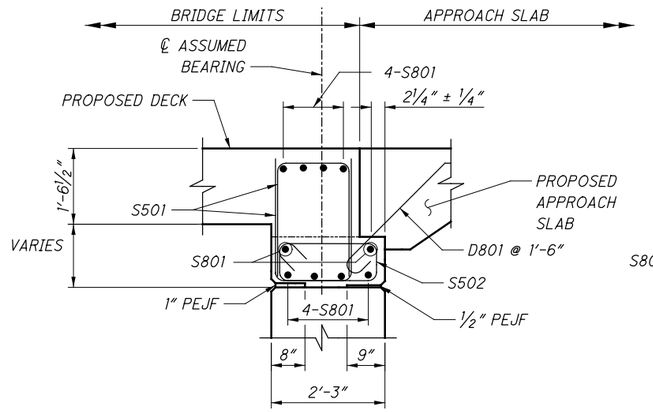
SOUTHBOUND AND NORTHBOUND LONGITUDINAL SECTION E-E



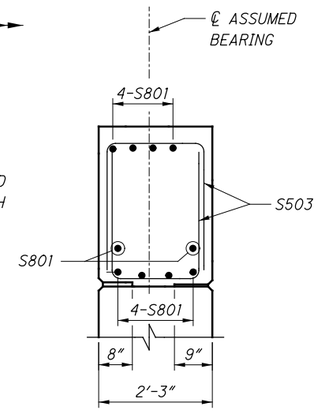
SECTION D-D

(LEFT FORWARD ABUTMENT SHOWN, RIGHT REAR ABUTMENT IS SIMILAR. ALL OTHER ABUTMENTS SIMILAR, BUT OPPOSITE HAND)
(ALL DIMENSION ARE MEASURED ALONG ℄ ASSUMED BEARING. REINFORCING STEEL SPLICE LENGTH PER CPA-1-08)

* = BAR HAS MECHANICAL SPLICE AT END



SECTION F-F



SECTION G-G

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

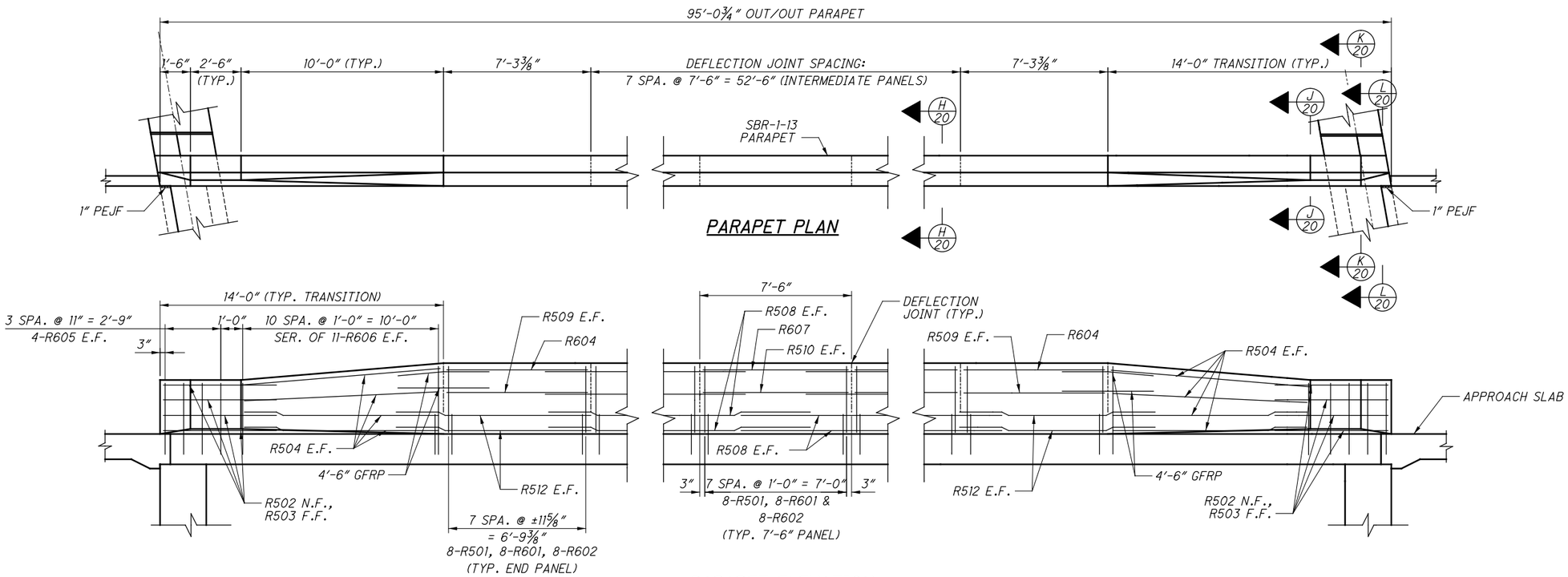
DATE
REVIEWED SAM 01-27-2015
STRUCTURE FILE NUMBER 3203271L/3203301R

DRAWN KWL
REVISED

DESIGNED KWL
CHECKED NBL

SUPERSTRUCTURE DETAILS (5 OF 7)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00



PARAPET PLAN

PARAPET ELEVATION

LEFT STRUCTURE PARAPET

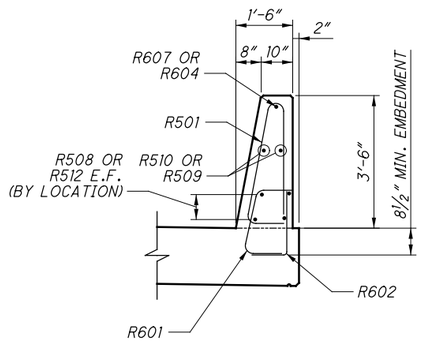
RIGHT STRUCTURE PARAPET

NOTES

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #6 BARS - 3'-3"
  #5 BARS - 2'-5"

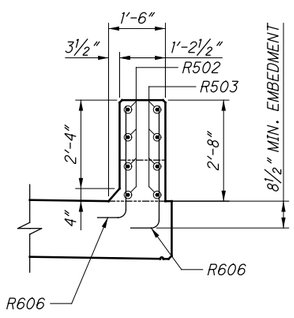
- SEE STD. DWG. SBR-1-13 FOR ADDITIONAL PARAPET DETAILS.

- PAYMENT FOR ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT SHALL BE INCLUDED WITH 511 CLASS QC/QA SUPERSTRUCTURE CONCRETE.

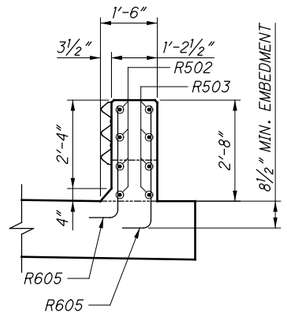


SECTION H-H

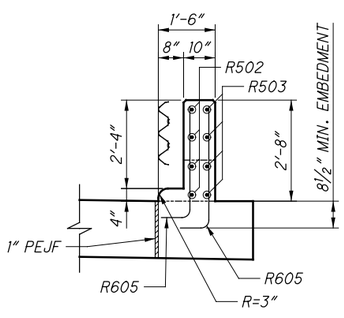
(GFRP NOT SHOWN)



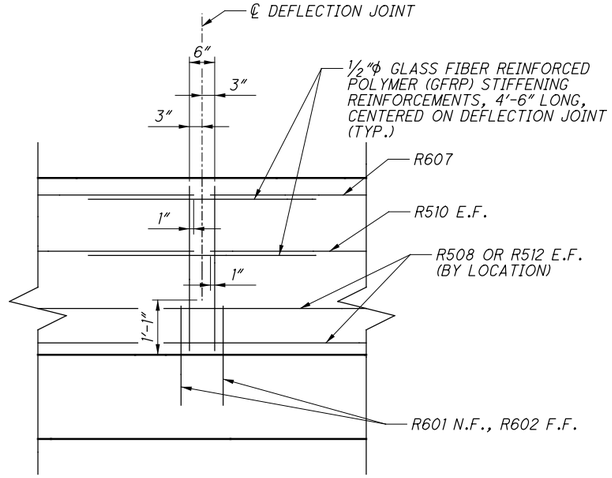
SECTION J-J



SECTION K-K



SECTION L-L



DEFLECTION JOINT DETAIL

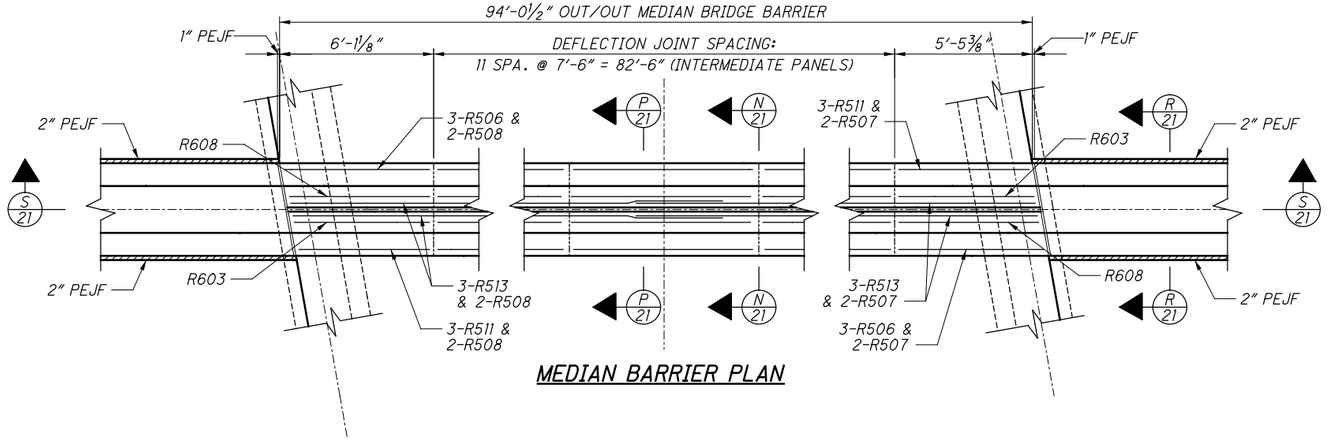
DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

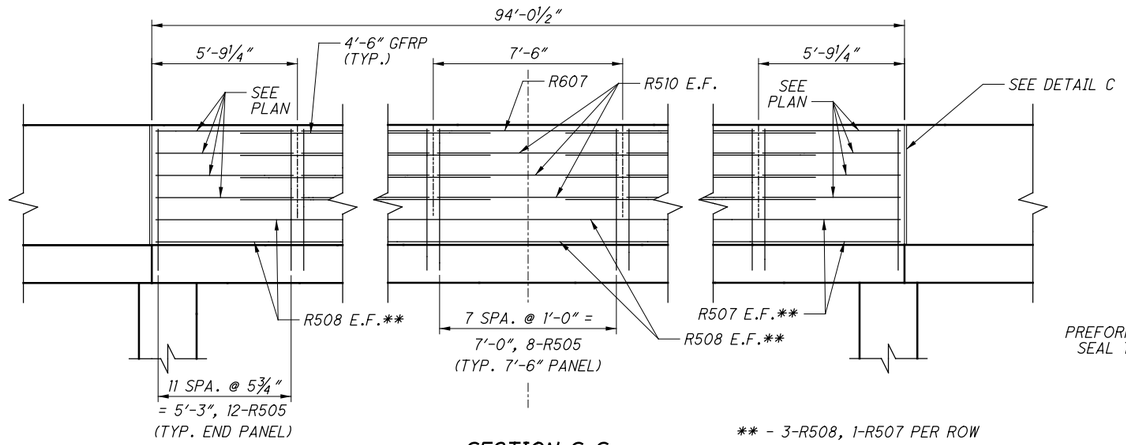
SUPERSTRUCTURE DETAILS (6 OF 7)

BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

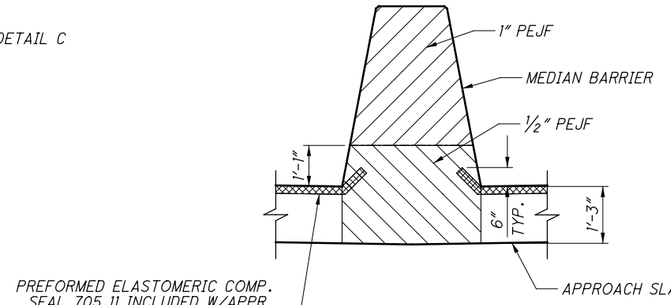


MEDIAN BARRIER PLAN



SECTION S-S

(RIGHT BRIDGE SHOWN, LEFT SIMILAR)



DETAIL C

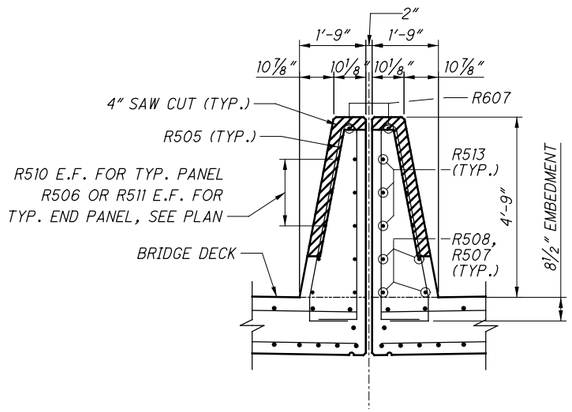
** - 3-R508, 1-R507 PER ROW

NOTES

- REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
  #6 BARS - 3'-3"
  #5 BARS - 2'-5"

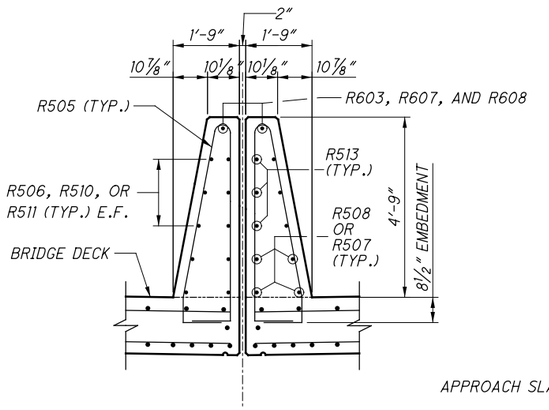
- SEE STD. DWG. SBR-2-13 FOR ADDITIONAL BARRIER DETAILS.

- PAYMENT FOR ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT SHALL BE INCLUDED WITH 511 CLASS QC/QA SUPERSTRUCTURE CONCRETE.

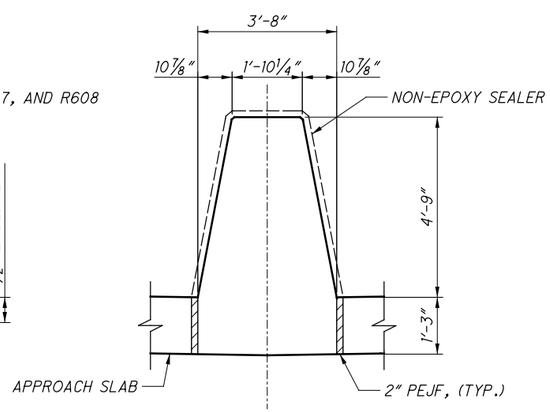


SECTION N-N

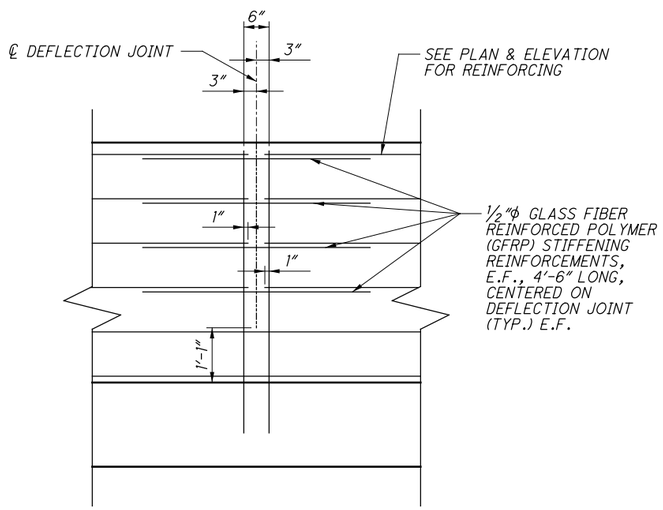
(GFRP NOT SHOWN)



SECTION P-P



SECTION R-R



DEFLECTION JOINT DETAIL

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	01-27-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

SUPERSTRUCTURE DETAILS (7 OF 7)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

21/25

332
336

MARK	2370 L STRUCTURE			2370 R STRUCTURE			GRAND TOTAL	LENGTH	2370 L WEIGHT	2370 R WEIGHT	TYPE	DIMENSIONS						
	STAGE 1	STAGE 2	TOTAL	STAGE 1	STAGE 2	TOTAL						A	B	C	D	E	R	INC.
ABUTMENTS																		
A401	8	4	12	8	4	12	24	9'-0"	72	72	3	1'-9"	2'-6"					
A501	19	12	31	19	12	31	62	11'-1"	358	358	3	2'-8"	2'-7"					
A502	19	4	23	19	4	23	46	8'-11"	214	214	3	1'-11"	2'-3"					
A503	50	86	136	50	86	136	272	3'-0"	426	426	1	1'-7"	1'-7"					
		2	2		2	2	4	12'-3"				1'-11"	3'-11"					
A504		SER	SER.		SER	SER.	SER.	TO	86	86	3	TO	TO					1'-0"
		3	3		3	3	3	15'-3"				1'-11"	5'-5"					
A505		2	2		2	2	4	16'-0"	33	33	3	1'-11 1/2"	5'-9"					
A506		4	4		4	4	8	8'-3"	34	34	STR.	8'-3"						
A507	4		4	4		4	8	12'-9"	53	53	STR.	12'-9"						
A508	4		4	4		4	8	13'-3"	55	55	STR.	13'-3"						
A509		4	4		4	4	8	7'-9"	32	32	STR.	7'-9"						
A510		2	2		2	2	4	4'-5"	9	9	STR.	4'-5"						
A511		2	2		2	2	4	4'-9"	10	10	STR.	4'-9"						
A512		2	2		2	2	4	4'-1"	9	9	STR.	4'-1"						
A513		2	2		2	2	4	4'-5"	9	9	STR.	4'-5"						
A514		2	2		2	2	4	2'-2"	5	5	STR.	2'-2"						
A515		2	2		2	2	4	2'-7"	5	5	STR.	2'-7"						
A516		2	2		2	2	4	4'-11"	10	10	19	4'-5"	6"	3"				
A517		2	2		2	2	4	5'-4"	11	11	19	4'-5"	10"	5"				
A801	38	64	102	38	64	102	204	3'-8"	999	999	16	2'-9"						
A802	25	4	29	25	4	29	58	3'-10"	297	297	17	2'-0"						
A803		4	4		4	4	8	8'-3"	88	88	STR.	8'-3"						
A804	4		4	4		4	8	12'-9"	136	136	STR.	12'-9"						
A805	4		4	4		4	8	13'-3"	142	142	STR.	13'-3"						
A806		4	4		4	4	8	7'-9"	83	83	STR.	7'-9"						
A807		8	8		8	8	16	30'-0"	641	641	STR.	30'-0"						
A808*		8	8		8	8	16	16'-6"	352	352	STR.	16'-6"						
A809*	8		8	8		8	16	30'-7"	653	653	STR.	30'-7"						
							2370 L ABUTMENTS TOTAL =		4822									
							2370 R ABUTMENTS SUB-TOTAL =			4822								

NOTES:

- FOR DETAILS NOT SHOWN, SEE STD. DWG. AS-1-81

- BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

- ALL REINFORCING STEEL TO BE EPOXY COATED.

- MECHANICAL SPLICES SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED AND SHALL BE INCLUDED WITH ITEM 509 FOR PAYMENT

THE LENGTH OF THE MECHANICAL CONNECTOR IS INCLUDED IN THE BAR DIMENSIONS GIVEN. THE THREADED PORTION OF THE MECHANICAL CONNECTION IS NOT INCLUDED IN THE BAR DIMENSIONS GIVEN.

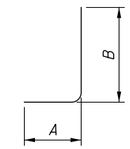
* BAR HAS MECHANICAL SPLICE ON ONE END

BAR LEGEND

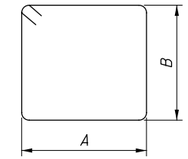
A 5 0 6

- BAR LOCATION
- BAR SIZE
- BAR NUMBER

- A - ABUTMENT
- P - PIER
- R - RAILING/PARAPET
- S - SUPERSTRUCTURE



TYPE-1



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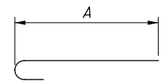

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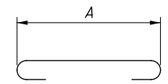
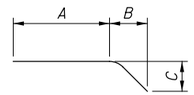


TYPE-17



TYPE-19

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE 03-19-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203271L/3203301R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

REINFORCING STEEL TABLE (1 OF 4)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

22/25

333
336

MARK	2370 L STRUCTURE			2370 R STRUCTURE			GRAND TOTAL	LENGTH	2370 L WEIGHT	2370 R WEIGHT	TYPE	DIMENSIONS						
	STAGE 1	STAGE 2	TOTAL	STAGE 1	STAGE 2	TOTAL						A	B	C	D	E	R	INC.
PIERS																		
P401	24	24	48	24	24	48	96	9'-6"	305	305	3	2'-0"	2'-6"					
P501	42	44	86	42	44	86	172	9'-8"	867	867	6	2'-8"	2'-11"	10"				
P502	2	2	4	2	2	4	8	8'-9"	37	37	6	1'-9"	2'-11"	10"				
P503	2	2	4	2	2	4	8	4'-4"	18	18	2	10"	2'-11"	10"				
P504	4	4	8	4	4	8	16	10'-11"	91	91	24	2'-6"	4'-9"				1'-2 3/8"	
P505*		4	4		4	4	8	31'-2"	130	130	STR.	31'-2"						
P506*	4		4	4		4	8	28'-4"	118	118	STR.	28'-4"						
P601*		8	8		8	8	16	33'-3"	400	400	STR.	33'-3"						
P602*	8		8	8		8	16	30'-1"	361	361	STR.	30'-1"						
P1101*		4	4		4	4	8	31'-2"	662	662	STR.	31'-2"						
P1102*	4		4	4		4	8	28'-4"	602	602	STR.	28'-4"						
P1103*		4	4		4	4	8	32'-2"	684	684	STR.	32'-2"						
P1104*	4		4	4		4	8	29'-4"	623	623	STR.	29'-4"						
						2370 L PIERS TOTAL =			4898									
						2370 R PIERS TOTAL =				4898								

NOTES:

- FOR DETAILS NOT SHOWN, SEE STD. DWG. AS-1-81

- BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

- ALL REINFORCING STEEL TO BE EPOXY COATED.

- MECHANICAL SPLICES SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED AND SHALL BE INCLUDED WITH ITEM 509 FOR PAYMENT

THE LENGTH OF THE MECHANICAL CONNECTOR IS INCLUDED IN THE BAR DIMENSIONS GIVEN. THE THREADED PORTION OF THE MECHANICAL CONNECTION IS NOT INCLUDED IN THE BAR DIMENSIONS GIVEN.

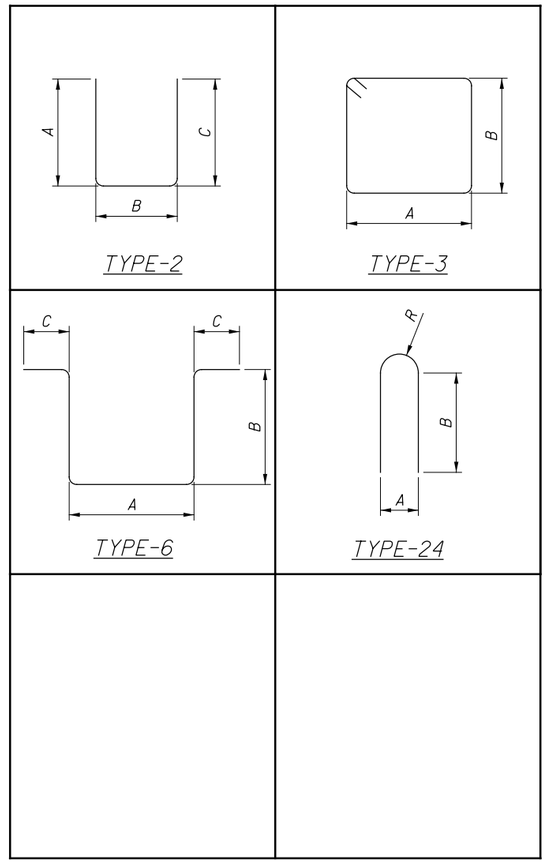
* BAR HAS MECHANICAL SPLICE ON ONE END

BAR LEGEND

A 5 0 6

- A 5: BAR LOCATION
- 0 6: BAR NUMBER
- 5: BAR SIZE

- A - ABUTMENT
- P - PIER
- R - RAILING/PARAPET
- S - SUPERSTRUCTURE



DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED KWL
DRAWN KWL
REVIEWED SAM
DATE 03-19-2015
CHECKED NBL
REVISED
STRUCTURE FILE NUMBER 3203271L/3203301R

REINFORCING STEEL TABLE (2 OF 4)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

23/25

334/336

MARK	2370 L STRUCTURE			2370 R STRUCTURE			GRAND TOTAL	LENGTH	2370 L WEIGHT	2370 R WEIGHT	TYPE	DIMENSIONS						
	STAGE 1	STAGE 2	TOTAL	STAGE 1	STAGE 2	TOTAL						A	B	C	D	E	R	INC.
SUPERSTRUCTURE (RAILING)																		
R501		72	72		72	72	144	7'-4"	551	551	23	11"	3'-3"	3'-0"				
R502		8	8		8	8	16	5'-8"	47	47	25	1'-10"	2'-5"	1'-4"	1 1/2"	5"		
R503		8	8		8	8	16	5'-8"	47	47	STR.	5'-8"						
R504		16	16		16	16	32	10'-0"	167	167	STR.	10'-0"						
R505	112		112	112		112	224	13'-2"	1538	1538	64	1'-5"	1'-0"	8 1/2"	4'-7"			
R506	3		3	3		3	6	5'-8"	18	18	STR.	5'-8"						
R507	4		4	4		4	8	11'-6"	48	48	STR.	11'-6"						
R508	12	8	20	12	8	20	40	30'-0"	626	626	STR.	30'-0"						
R509		4	4		4	4	8	6'-11"	29	29	STR.	6'-11"						
R510	66	14	80	66	14	80	160	7'-2"	598	598	STR.	7'-2"						
R511	3		3	3		3	6	5'-2"	16	16	STR.	5'-2"						
R512		8	8		8	8	16	9'-8"	81	81	STR.	9'-8"						
R513	6		6	6		6	12	5'-3"	33	33	STR.	5'-3"						
R601		72	72		72	72	144	3'-4"	360	360	51	1'-8"	11"	1'-0"	3 1/2"			
R602		72	72		72	72	144	2'-6"	270	270	1	1'-0"	1'-8"					
R603	1		1	1		1	2	5'-3"	8	8	STR.	5'-3"						
R604		2	2		2	2	4	6'-11"	21	21	STR.	6'-11"						
R605		16	16		16	16	32	4'-1"	98	98	1	3'-3"	1'-0"					
		4	4		4	4	8	4'-1"				3'-3"	1'-0"					
R606		SER.	SER.		SER.	SER.	SER.	TO	297	297	1	TO	TO					0 7/8"
		11	11		11	11	11	4'-11"				4'-1"	1'-0"					
R607	11	7	18	11	7	18	36	7'-2"	194	194	STR.	7'-2"						
R608	1		1	1		1	2	5'-6"	8	8	STR.	5'-6"						
						(2370 L RAILING SUB-TOTAL) =			5055									
							(2370 R RAILING SUB-TOTAL) =			5055								

NOTES:

- FOR DETAILS NOT SHOWN, SEE STD. DWG. AS-1-81

- BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

- ALL REINFORCING STEEL TO BE EPOXY COATED.

- MECHANICAL SPLICES SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED AND SHALL BE INCLUDED WITH ITEM 509 FOR PAYMENT

THE LENGTH OF THE MECHANICAL CONNECTOR IS INCLUDED IN THE BAR DIMENSIONS GIVEN. THE THREADED PORTION OF THE MECHANICAL CONNECTION IS NOT INCLUDED IN THE BAR DIMENSIONS GIVEN.

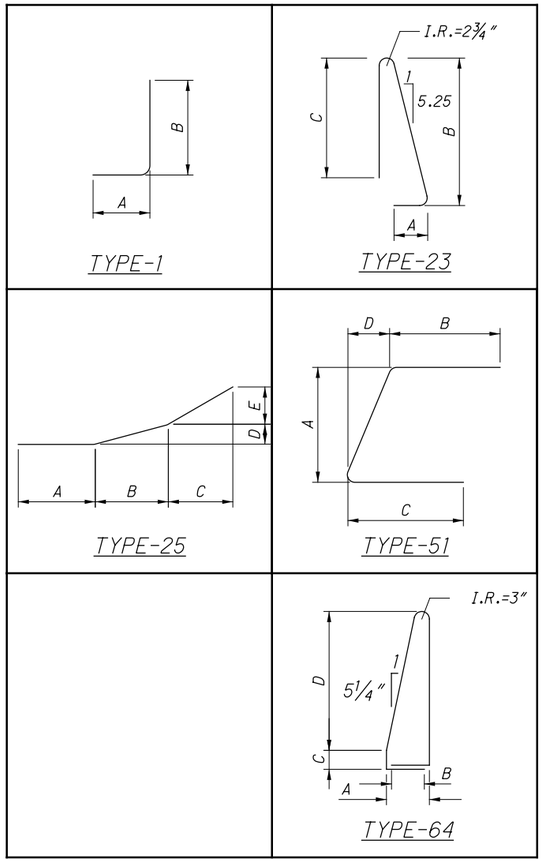
* BAR HAS MECHANICAL SPLICE ON ONE END

BAR LEGEND

A 5 0 6

- BAR LOCATION
- BAR SIZE
- BAR NUMBER

- A - ABUTMENT
- P - PIER
- R - RAILING/PARAPET
- S - SUPERSTRUCTURE



DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE 03-19-2015
REVIEWED SAM
STRUCTURE FILE NUMBER 3203271L/3203301R
DRAWN KWL
REVISED
DESIGNED KWL
CHECKED NBL

REINFORCING STEEL TABLE (3 OF 4)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

MARK	2370 L STRUCTURE			2370 R STRUCTURE			GRAND TOTAL	LENGTH	2370 L WEIGHT	2370 R WEIGHT	TYPE	DIMENSIONS						
	STAGE 1	STAGE 2	TOTAL	STAGE 1	STAGE 2	TOTAL						A	B	C	D	E	R	INC.
SUPERSTRUCTURE																		
S401		94	94		94	94	188	30'-0"	1884	1884	STR.	30'-0"						
*S402		94	94		94	94	188	6'-3"	392	392	STR.	6'-3"						
*S403	94		94	94		94	188	30'-1"	1889	1889	STR.	30'-1"						
S404	75	75	150	75	75	150	300	3'-4"	334	334	2	1'-3"	1'-0 1/2"	1'-3"				
S501	120	136	256	120	136	256	512	5'-2"	1380	1380	2	2'-0"	1'-5"	2'-0"				
S502	60	68	128	60	68	128	256	5'-11"	790	790	3	1'-11"	9"					
S503		8	8		8	8	16	4'-4"	36	36	2	1'-11"	2'-8"					
S601		83	83		83	83	166	30'-0"	3740	3740	STR.	30'-0"						
*S602		83	83		83	83	166	7'-8"	956	956	STR.	7'-8"						
*S603	83		83	83		83	166	30'-1"	3750	3750	STR.	30'-1"						
S801		20	20		20	20	40	30'-0"	1602	1602	STR.	30'-0"						
*S802		20	20		20	20	40	12'-0"	641	641	STR.	12'-0"						
*S803	20		20	20		20	40	30'-1"	1606	1606	STR.	30'-1"						
D801	38	44	82	38	44	82	164	6'-3"	1368	1368	18	4'-0"	1'-0"	1'-0"				
S901	54	58	112	54	58	112	224	52'-0"	19802	19802	STR.	52'-0"						
S902	26	30	56	26	30	56	112	19'-7"	3729	3729	STR.	19'-7"						
S903	26	28	54	26	28	54	108	34'-9"	6380	6380	STR.	34'-9"						
S904	54	60	114	54	60	114	228	39'-4"	15246	15246	16	38'-1"						
S905	27	30	57	27	30	57	114	35'-10"	6945	6945	STR.	35'-10"						
S906	22	26	48	22	26	48	96	34'-0"	5549	5549	STR.	34'-0"						
S907	22	24	46	22	24	46	92	28'-2"	4405	4405	STR.	28'-2"						
S908	11	13	24	11	13	24	48	45'-3"	3692	3692	STR.	45'-3"						
S909	11	12	23	11	12	23	46	30'-9"	2405	2405	STR.	30'-9"						
								(2370 L SUPERSTRUCTURE SUB-TOTAL) =	88521									
								(RAILING TOTAL CARRIED FROM SHEET 24/25) =	5055									
								(2370 L SUPERSTRUCTURE TOTAL) =	93576									
								(2370 R SUPERSTRUCTURE SUB-TOTAL) =		88521								
								(RAILING TOTAL CARRIED FROM SHEET 24/25) =		5055								
								(2370 R SUPERSTRUCTURE TOTAL) =		93576								

NOTES:

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* BAR HAS MECHANICAL SPLICE ON ONE END

BAR LEGEND

A 5 0 6

- BAR LOCATION
- BAR SIZE
- BAR NUMBER

- A - ABUTMENT
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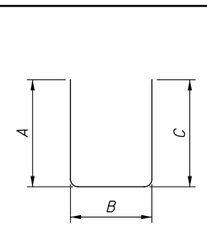
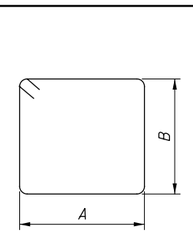


TYPE-2



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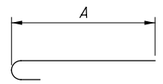

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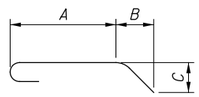

TYPE-18

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED	DRAWN	REVIEWED	DATE
KWL	KWL	SAM	03-19-2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NBL		3203271L/3203301R	

REINFORCING STEEL TABLE (4 OF 4)
BRIDGE NO. HAN-75-2370 (L & R)
I.R. 75 OVER ROCKY FORD CREEK

HAN/WOO-75-19.22/0.00

25 / 25

336
336