



THE GOLD STAR
MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR
ROBERT D. STONE, VICE CHAIR
MICHAEL J. CIANCHETTE, MEMBER
JOHN E. DORITY, MEMBER
ANN R. ROBINSON, MEMBER
THOMAS J. ZUKE, MEMBER
KAREN S. DOYLE, MEMBER EX-OFFICIO

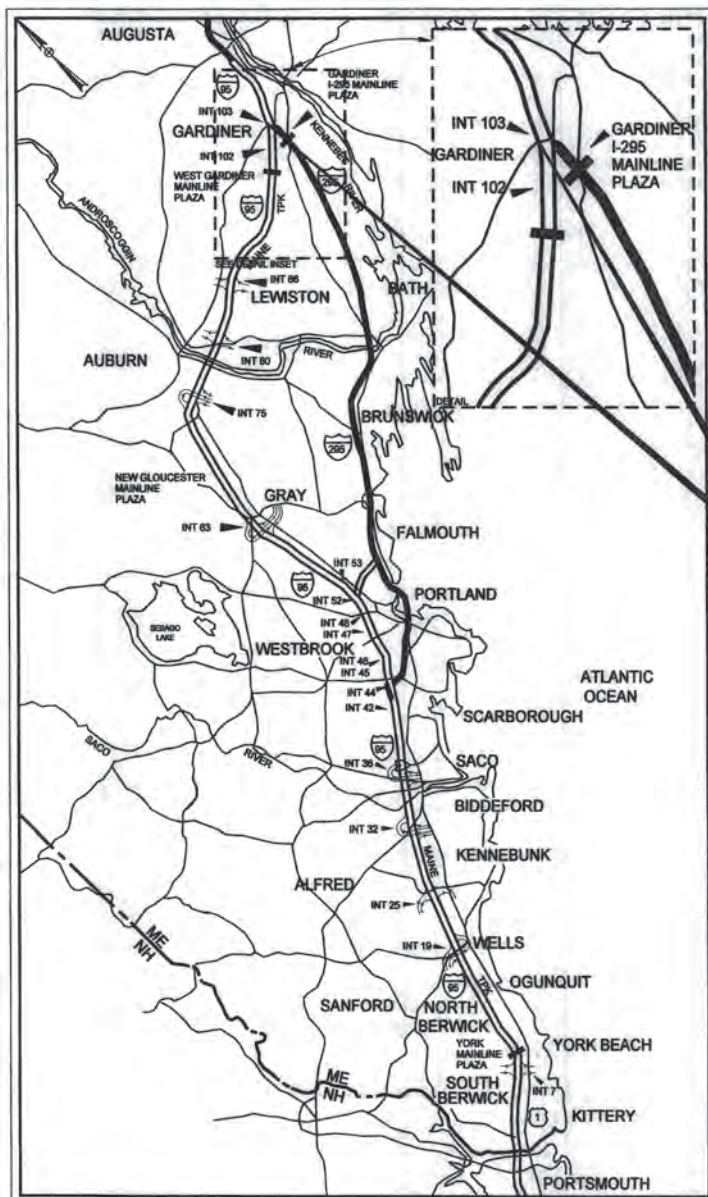
S. PETER MILLS, EXECUTIVE DIRECTOR

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CONTRACT 2018.05

CONTRACT 2018.05 EXIT 103 I-295 SOUTHBOUND UNDERPASS BRIDGE REHABILITATION MM 103.0



LOCATION MAP

APPROVED:

MAINE TURNPIKE AUTHORITY

PETER S. MERFELD, P.E. - CHIEF OPERATIONS OFFICER

02-20-18

DATE



GREGORY EDWARDS, P.E. - SENIOR PRINCIPAL

2-20-18

DATE

Date: 2/19/2018

Filename: ... \BRIDGE\MSTA\001_MTA_TITLE.dgn

Date: 2/20/2018

Filename: ...002_Estimated Quantities.dgn

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	ROADWAY QTY	STRUCTURAL QTY	MAINLINE PAVING QTY	TOTAL QUANTITY	UNIT	ITEM NO.	DESCRIPTION	ROADWAY QTY	STRUCTURAL QTY	MAINLINE PAVING QTY	TOTAL QUANTITY	UNIT
202.10	REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR		1		1	LS	606.13	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POSTS, 8" OFFSET BLOCKS, SINGLE FACED)	2,625			2,625	LF
202.12	REMOVING EXISTING STRUCTURAL CONCRETE		190		190	CY	606.132	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POSTS, 8" OFFSET BLOCKS, DOUBLE FACED)	88			88	LF
202.202	REMOVING PAVEMENT SURFACE	7,000		15,200	22200	SY	606.1351	TERMINAL END - ANCHORED END - 31" W-BEAM GUARDRAIL	2			2	EA
202.2026	REMOVING PAVEMENT SURFACE - DRAINAGE PATHS			680	680	SF	606.1723	BRIDGE TRANSITION - TYPE III	6			6	EA
202.206	REMOVING RUMBLE STRIPS			7,000	7000	LF	606.1724	BRIDGE TRANSITION - TYPE III - MODIFIED	2			2	EA
203.20	COMMON EXCAVATION	5,222			5222	CY	606.352	REFLECTORIZED BEAM GUARDRAIL DELINEATOR	70			70	EA
203.21	ROCK EXCAVATION		58		58	CY	606.356	UNDERDRAIN DELINEATOR POST	5			5	EA
203.24	COMMON BORROW	8,600			8600	CY	606.3561	DELINEATOR POST - REMOVE AND RESET	14			14	EA
203.25	GRANULAR BORROW	3,650	300		3950	CY	606.791	GUARDRAIL - FLARED TERMINAL - 31" W-BEAM	2			2	EA
203.26	GRAVEL BORROW		720		720	CY	606.82	GUARDRAIL - REMOVE AND STACK EXISTING CRASH END	2			2	EA
206.082	STRUCTURAL EARTH EXCAVATION-MAJOR STRUCTURES		520		520	CY	609.15	SLOPED CURB TYPE 1		820		820	LF
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	1,200			1200	CY	609.191	CONCRETE CURB TYPE 2	96			96	LF
304.14	AGGREGATE BASE COURSE - TYPE A	1,300			1300	CY	610.08	PLAIN RIPRAP	15			15	CY
403.207	HOT MIX ASPHALT - 19 MM	1,850			1850	TON	610.18	STONE DITCH PROTECTION	6			6	CY
403.2081	HOT MIX ASPHALT, 12.5 MM (POLYMER MODIFIED)	1,100	220	1,275	2595	TON	610.181	TEMPORARY STONE CHECK DAM	50			50	CY
403.209	HOT MIX ASPHALT - 9.5 MM MAXIMUM SIZE (SIDEWALKS, DRIVES, & INCIDENTALS)	55			55	TON	613.319	EROSION CONTROL BLANKET	6,500			6,500	SY
403.211	HOT MIX ASPHALT - SHIM	1,350		420	1770	TON	615.07	LOAM	1,150			1,150	CY
403.213	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE)	750	220		970	TON	618.14	SEEDING METHOD NUMBER 2	27			27	UNIT
409.15	BITUMINOUS TACK COAT, APPLIED	1,150	160	770	2080	GAL	618.141	SEEDING METHOD NUMBER 3	62			62	UNIT
419.30	SAWING BITUMINOUS PAVEMENT	4,350		115	4465	LF	619.1201	MULCH - PLAN QUANTITY	89			89	UNIT
470.08	BERM DROP OFF CORRECTION - GRINDINGS			70	70	TON	619.1202	TEMPORARY MULCH	1			1	LS
470.081	BERM CORRECTION			4,800	4800	LF	620.58	EROSION CONTROL GEOTEXTILE	36			36	SY
502.219	STRUCTURAL CONCRETE ABUTMENTS & RETAINING WALLS (360 CY)		1		1	LS	620.6012	HDPE GEOMEMBRANE		52		52	SY
502.239	STRUCTURAL CONCRETE PIERS (97 CY)		1		1	LS	627.681	TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE - YELLOW OR WHITE	33,000		14,500	47,500	LF
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGES (640 CY)		1		1	LS	627.73	TEMPORARY 6 INCH PAVEMENT MARKING TAPE	3,000			3,000	LF
502.264	STRUCTURAL CONCRETE PARAPETS (97 CY)		1		1	LS	627.744	6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	12,300		14,500	26,800	LF
502.31	STRUCTURAL CONCRETE APPROACH SLAB (83 CY)		1		1	LS	627.77	REMOVING EXISTING PAVEMENT MARKING	30,000			30,000	SF
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED & DELIVERED		296,000		296000	LB	627.812	TEMPORARY RAISED PAVEMENT MARKERS	500		1,350	1,850	EA
503.15	EPOXY-COATED REINFORCING STEEL, PLACING		296,000		296000	LB	627.94	PAVEMENT MARKING TAPE			200	200	LF
503.17	MECHANICAL/WELDED SPLICE		1,426		1426	EA	629.05	HAND LABOR, STRAIGHT TIME	200			200	HR
504.701	STRUCTURAL STEEL FABRICATED & DELIVERED, ROLLED (30150 LB)		1		1	LS	631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	40			40	HR
504.702	STRUCTURAL STEEL FABRICATED & DELIVERED, WELDED (184650 LB)		1		1	LS	631.11	AIR TOOL (INCLUDING OPERATOR)	80			80	HR
504.71	STRUCTURAL STEEL ERECTION (214800 LB)		1		1	LS	631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	100			100	HR
505.08	SHEAR CONNECTORS (12714 EA)		1		1	LS	631.171	TRUCK-SMALL (INCLUDING OPERATOR)	60			60	HR
507.0849	BARRIER - MOUNTED ALUMINUM BRIDGE RAIL, 1 BAR		870		870	LF	631.172	TRUCK - LARGE (INCLUDING OPERATOR)	80			80	HR
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (2600 SY)		1		1	LS	631.36	FOREMAN	100			100	HR
511.091	TEMPORARY EARTH SUPPORT SYSTEMS		1		1	LS	639.18	FIELD OFFICE, TYPE A	1			1	EA
512.081	FRENCH DRAINS (127 LF)		1		1	LS	645.105	REMOVE AND STACK SIGN	4			4	EA
513.09	SLOPE PROTECTION - PORTLAND CEMENT CONCRETE		669		669	SY	645.109	REMOVE AND RESET SIGN	2			2	EA
514.06	CURING BOX FOR CONCRETE CYLINDERS		1		1	EA	645.271	REGULATORY, WARNING, CONFIRMATION AND ROUTE ASSEMBLY SIGN, TYPE 1	40			40	SF
515.201	PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES		870		870	SY	652.30	FLASHING ARROW	3		2	5	EA
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES		1,350		1350	SY	652.33	DRUM	150		150	300	EA
518.10	ABUTMENT REPAIRS		115		115	SF	652.34	CONE	50		50	100	EA
518.20	PIER REPAIRS		600		600	SF	652.35	CONSTRUCTION SIGNS	1,200		510	1,710	SF
518.40	EPOXY INJECTION CRACK REPAIR		27		27	LF	652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1			1	LS
521.23	EXPANSION DEVICE-FINGER JOINT		2		2	EA	652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	2		2	4	EA
523.33	REMOVE AND RESET BEARINGS		30		30	EA	652.45	TRUCK MOUNTED ATTENUATOR	90		10	100	CD
523.52	BEARING INSTALLATION		10		10	EA	652.452	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	1			1	EA
523.5405	SEISMIC ISOLATION BEARINGS - FABRICATED & DELIVERED		10		10	EA	652.46	TEMPORARY PORTABLE RUMBLE STRIP	90		10	100	UNIT
524.301	TEMPORARY JACKING AND STRUCTURAL SUPPORT		1		1	LS	656.60	TEMPORARY BERMS	1,900			1,900	LF
524.303	TEMPORARY DECK SUPPORT		1		1	LS	656.62	TEMPORARY SLOPE DRAINS	400			400	LF
524.40	PROTECTIVE SHIELDING - STEEL GIRDERS		2,400		2400	SY	656.632	30" TEMPORARY SILT FENCE	4,600			4,600	LF
526.304	TEMPORARY CONCRETE BARRIER, ANCHORED		1		1	LS	659.10	MOBILIZATION	1			1	LS
526.306	TEMPORARY CONCRETE BARRIER TYPE 1 - SUPPLIED BY AUTHORITY (5,000 LF)	1			1	LS							
526.35	PIER PROTECTION CONCRETE BARRIER		600		600	LF							
527.343	WORK ZONE CRASH CUSHIONS - TL-3	3			3	UNIT							
603.225	42 INCH REINFORCED CONCRETE PIPE - CLASS III	8			8	LF							
603.55	CONCRETE PIPE TIES	2			2	GP							

Scale:			
No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

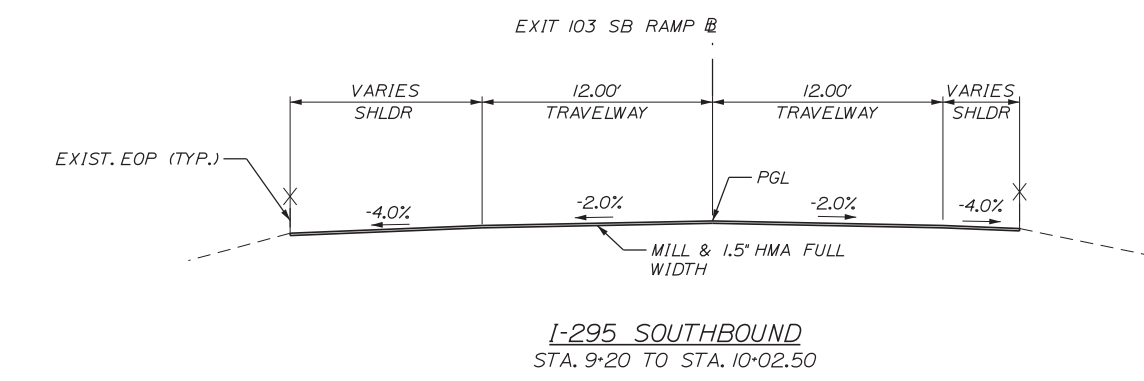
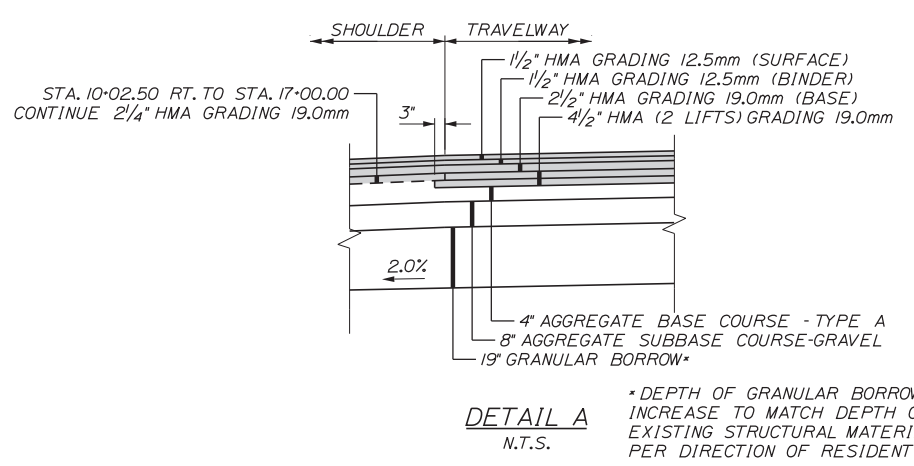
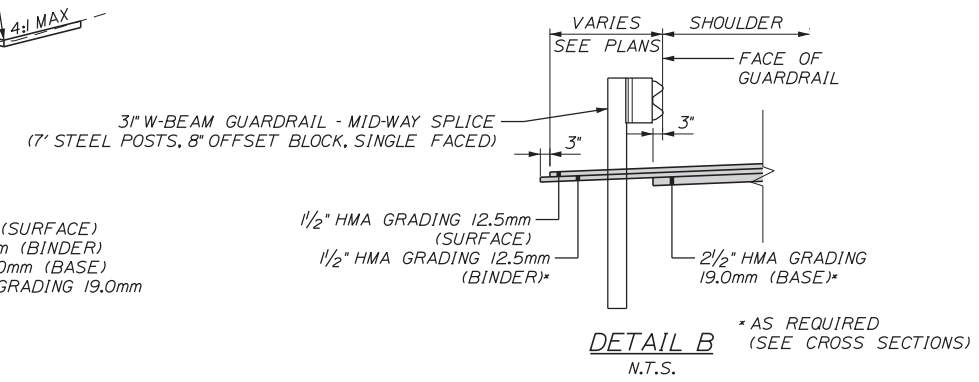
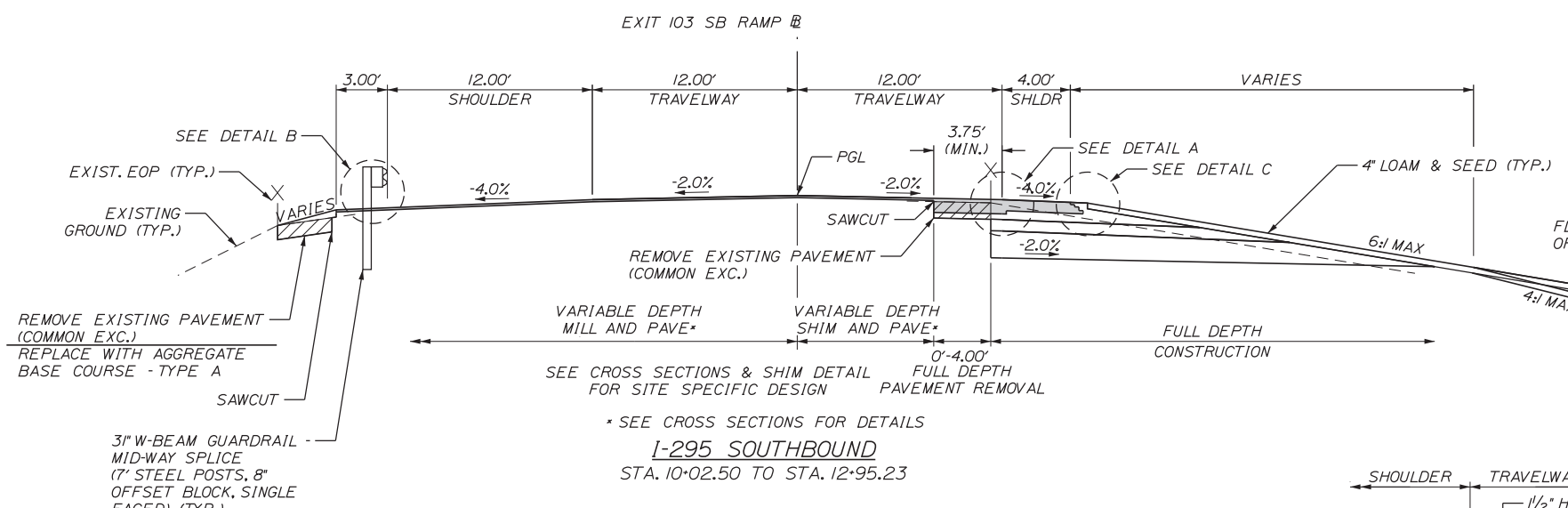
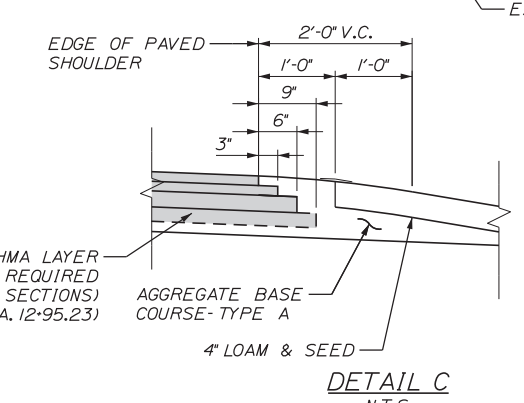
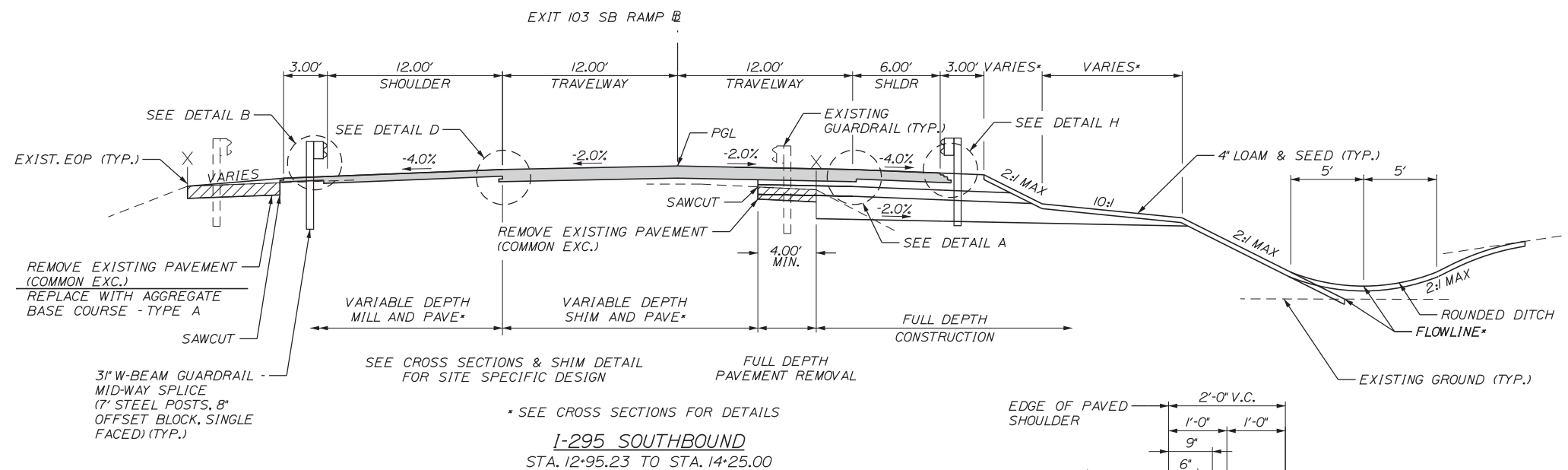
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

ESTIMATE QUANTITIES

SHEET NUMBER: QTY-01
CONTRACT: 2018.05
2 OF 176

GENERAL NOTES

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. CROWNS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
3. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER AS TO LEAVE A CLEAN, VERTICAL FACE.
4. BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT, OR AS DIRECTED BY RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.
5. A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO SURFACE LAYER OF ALL SAWCUT AND PAVEMENT JOINTS AND PAVEMENT AND CONCRETE JOINTS PRIOR TO PAVING. IT SHALL ALSO BE APPLIED TO THE INTERFACE BETWEEN CONCRETE AND PAVEMENT, INCLUDING ALONG BRIDGE CURBING. REMAINDER OF SAWCUT TO BE BITUMINOUS TACK COAT. PAYMENT SHALL BE INCIDENTAL TO THE PAVEMENT ITEMS.
6. COMMON BORROW SHALL BE COMPACTED TO 90% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR. GRANULAR BORROW SHALL BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR. AGGREGATE SHALL BE COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR.
7. BORROW PLACED WITH CONTROLLED MOISTURE SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR, AND EACH LAYER OF AGGREGATE PLACED WITH CONTROLLED MOISTURE SHALL BE COMPACTED TO NOT LESS THAN 98% OF THE MAXIMUM DENSITY MODIFIED PROCTOR.
8. WHEN SUPERELEVATION EXCEEDS 4%, LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVEL LANE.
9. *ROLLOVER* ALGEBRAIC DIFFERENCE IN RATES OF CROSS SLOPE SHALL NOT EXCEED 8%.
10. STATIONING IN TYPICAL SECTIONS ARE APPROXIMATE.
11. THE GRANULAR BORROW DEPTH OF 19" IS A MINIMUM AND SHALL INCREASE TO MATCH THE DEPTH OF EXISTING STRUCTURAL BOX MATERIALS PER THE DIRECTION OF THE RESIDENT ENGINEER TO ENSURE PROPER SUBSURFACE DRAINAGE.



Date: 2/19/2018
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Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
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Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

TYPICAL SECTIONS 1

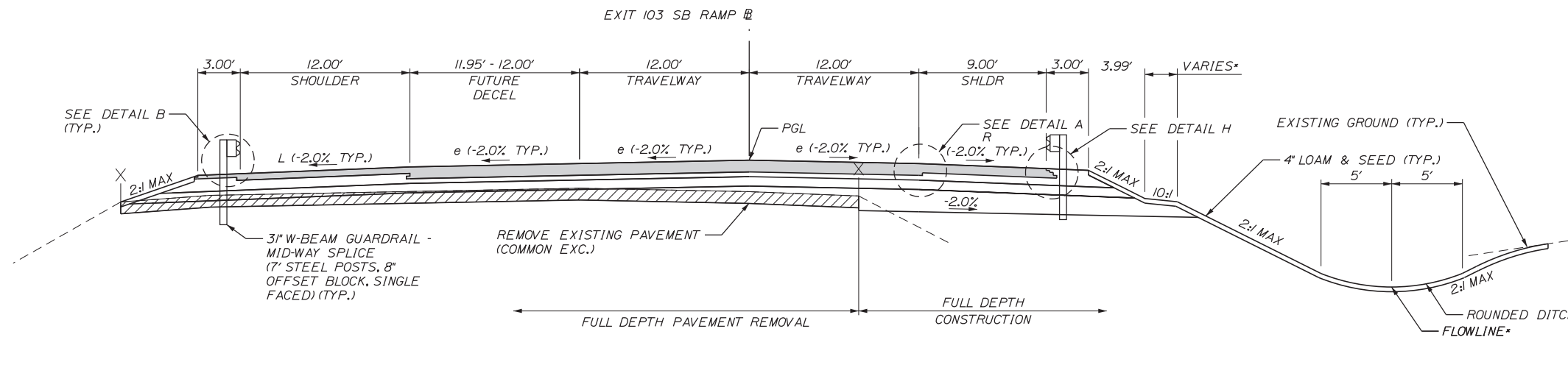
SHEET NUMBER: TS-01

CONTRACT: 2018.05

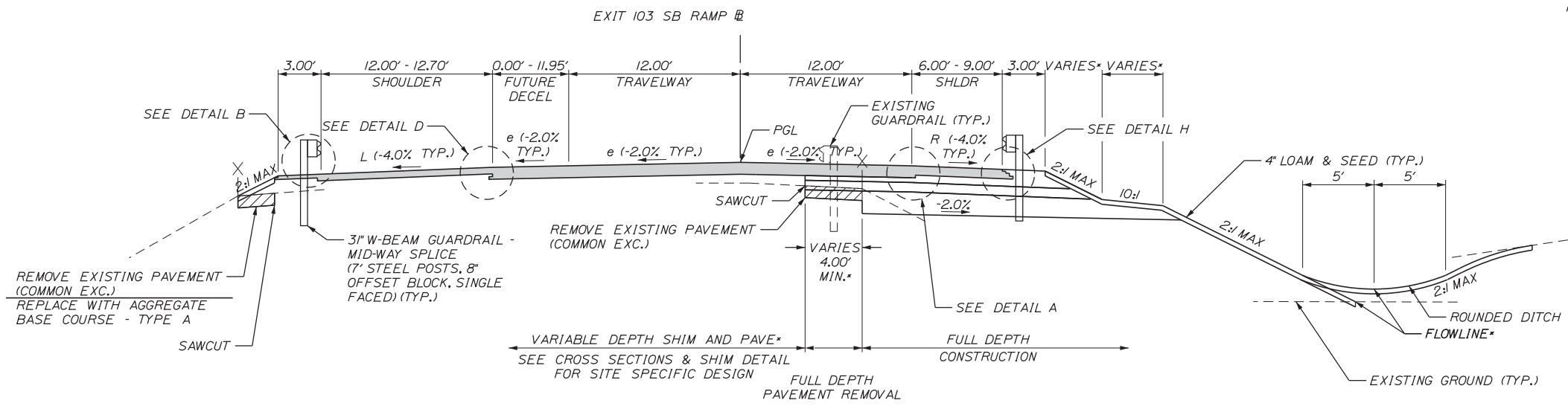
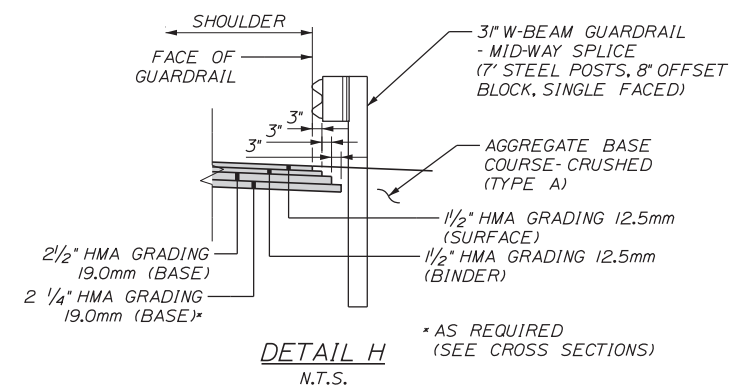
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Date: 2/19/2018

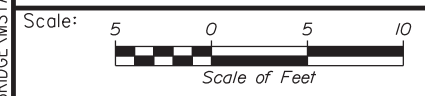
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* SEE CROSS SECTIONS FOR DETAILS *
I-295 SOUTHBOUND WITH AUXILIARY LANE
 STA. 16+75 TO STA. 17+00



* SEE CROSS SECTIONS FOR DETAILS *
I-295 SOUTHBOUND WITH AUXILIARY LANE
 STA. 14+25 TO STA. 16+75



No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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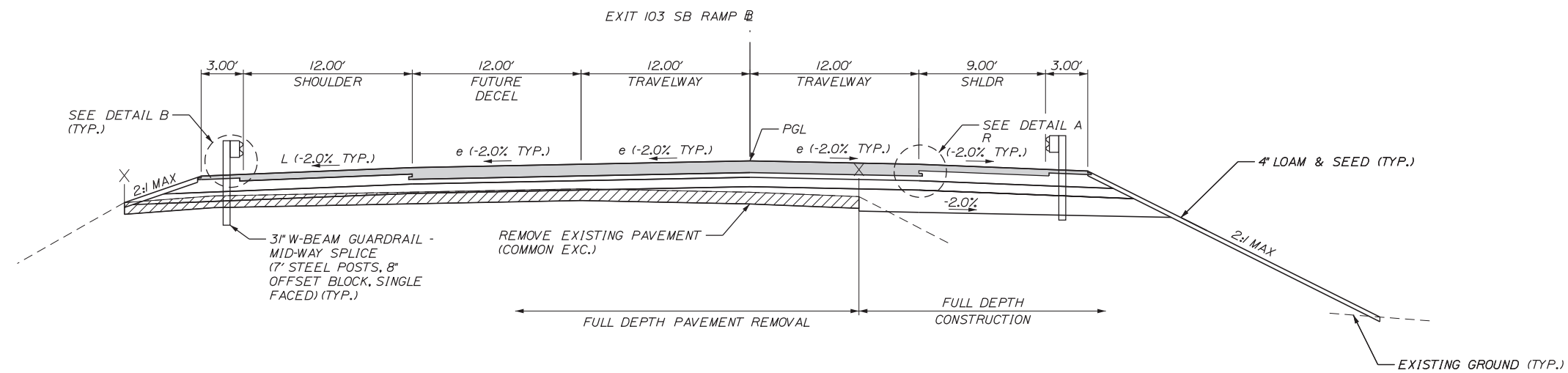
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

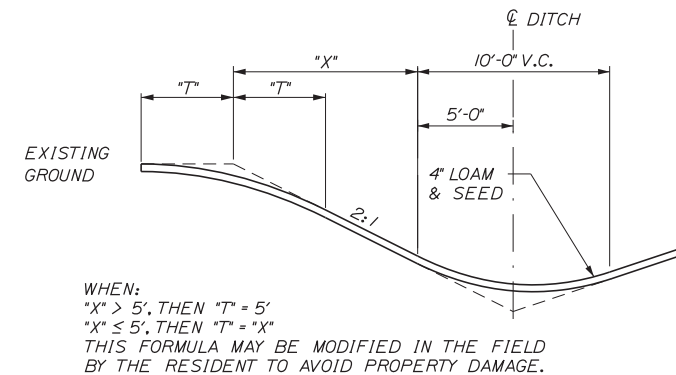
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

TYPICAL SECTIONS 2

SHEET NUMBER: TS-02
 CONTRACT: 2018.05
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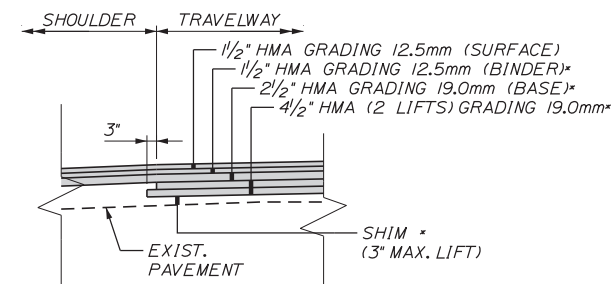


* SEE CROSS SECTIONS FOR DETAILS *
I-295 SOUTHBOUND BRIDGE APPROACH
 STA. 17+00 TO BRIDGE
 BRIDGE TO STA. 21+95

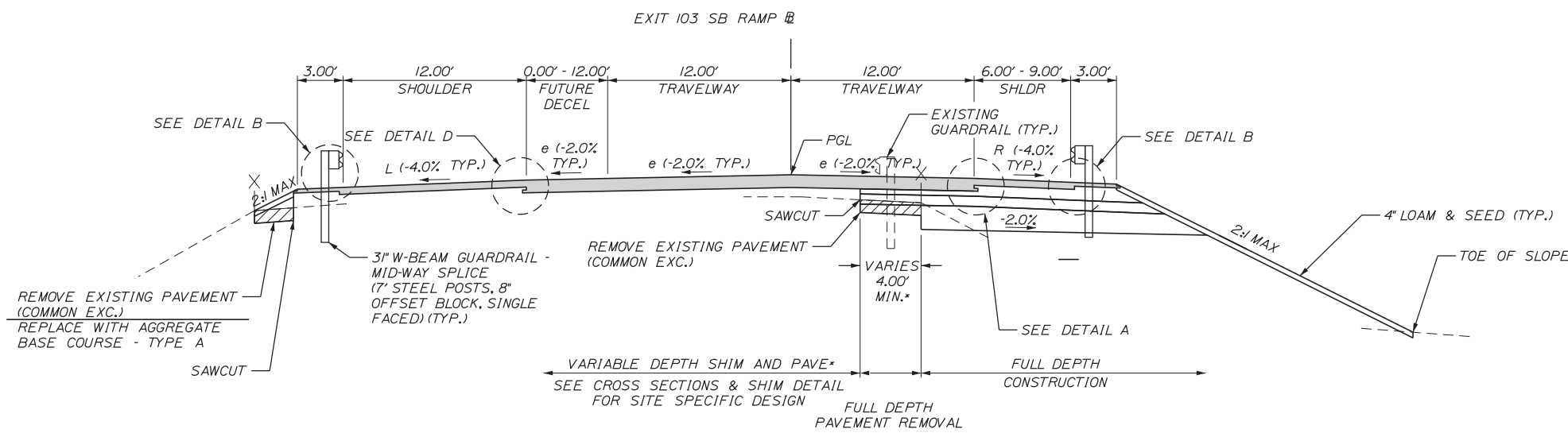


BACKSLOPE ROUNDING DETAIL

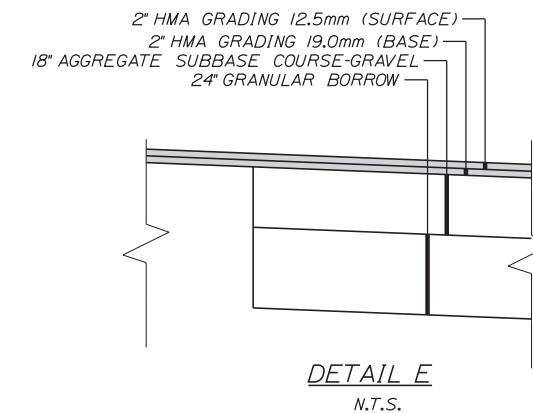
WHEN:
 "X" > 5', THEN "T" = 5'
 "X" ≤ 5', THEN "T" = "X"
 THIS FORMULA MAY BE MODIFIED IN THE FIELD
 BY THE RESIDENT TO AVOID PROPERTY DAMAGE.



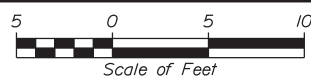
DETAIL D
 N.T.S. * AS REQUIRED (SEE CROSS SECTIONS)



* SEE CROSS SECTIONS FOR DETAILS *
I-295 SOUTHBOUND WITH AUXILIARY LANE
 STA. 21+95 TO STA. 24+25



DETAIL E
 N.T.S.



Revision	By	Date

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed	SJB 2\16\18	Checked	LEM 2\16\18
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

**EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION**

TYPICAL SECTIONS 3

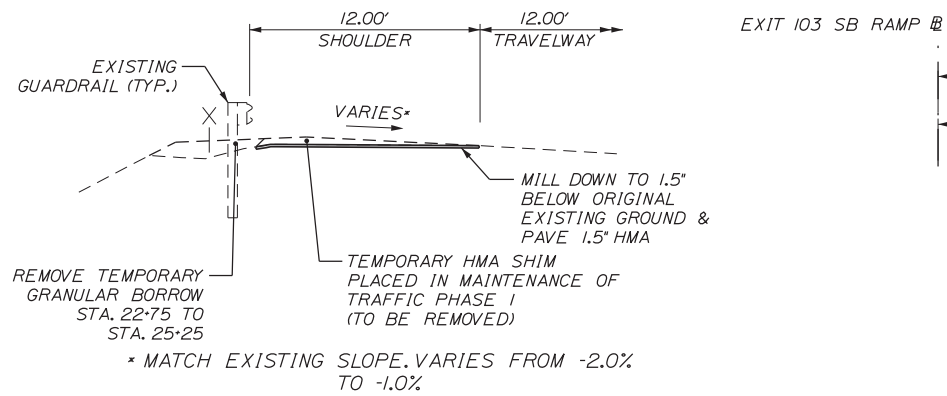
CONTRACT: 2018.05

SHEET NUMBER: TS-03

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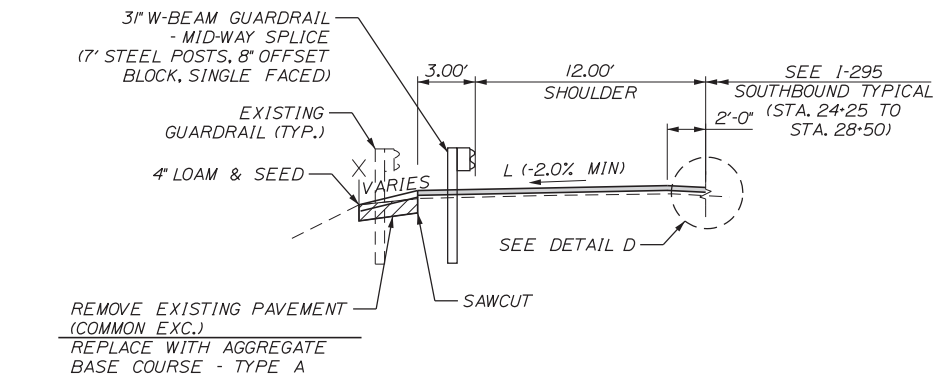
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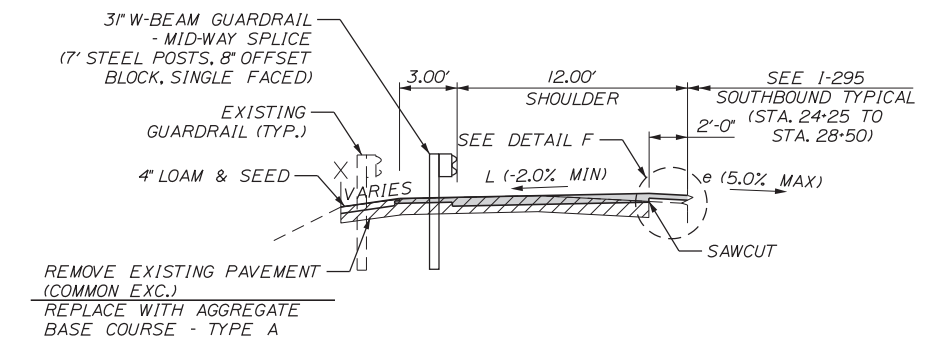


**TEMPORARY SHIM REMOVAL:
MAINTENANCE OF TRAFFIC PHASE 2**

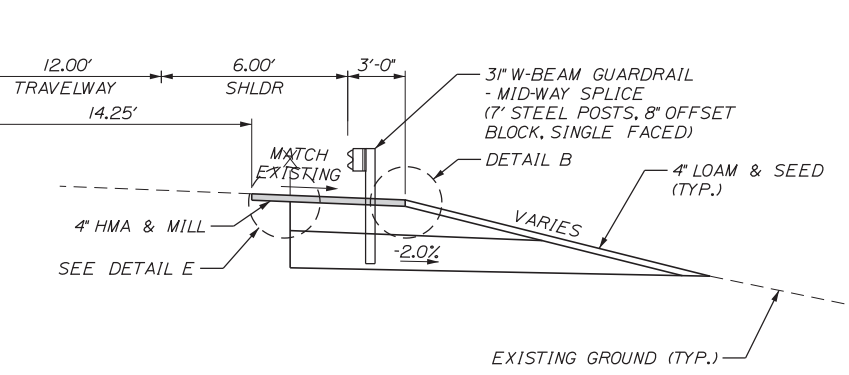
STA. 22-75 TO STA. 25-25
STA. 28-50 TO STA. 42-45



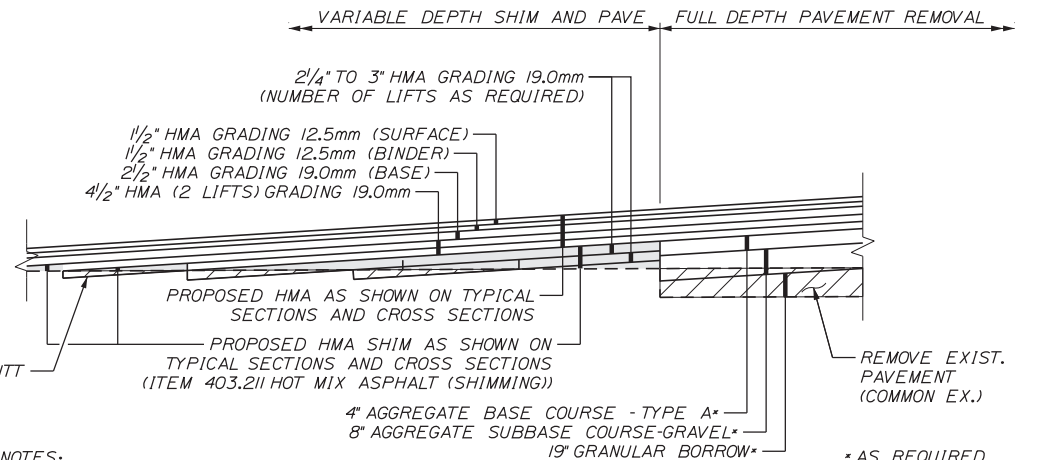
**I-295 SOUTHBOUND LEFT SHOULDER WITH
PAVEMENT MILLING**
STA. 24-25 TO STA. 25-25



**I-295 SOUTHBOUND LEFT SHOULDER WITH
PAVEMENT REMOVAL**
STA. 25-25 TO STA. 28-50

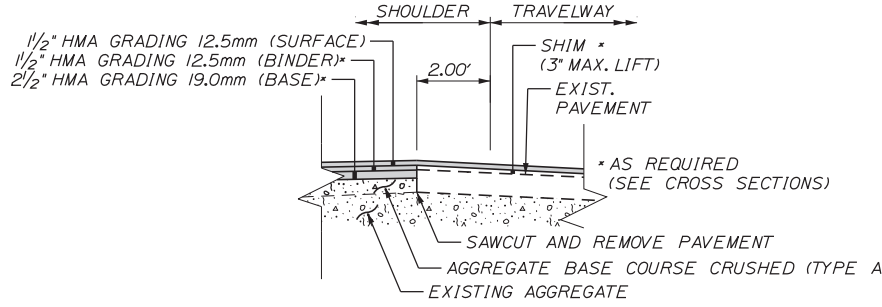


I-295 SOUTHBOUND BOX WIDENING
STA. 28-50 TO STA. 29-95.25



NOTES:
1. SHIM SHALL CONSIST OF HMA GRADING 19.0mm WHEN DEPTH IS 2/4" OR GREATER.

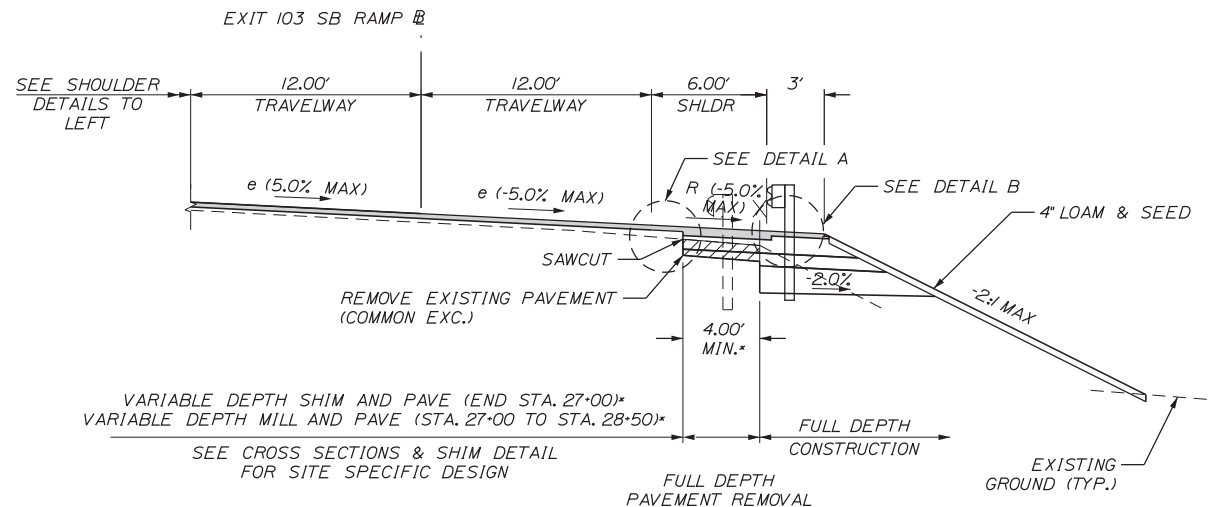
PAVEMENT SHIM TRANSITION DETAIL
N.T.S.



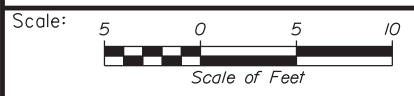
DETAIL F
N.T.S.

TURNPIKE SUPERELEVATION TABLE

LEFT SHOULDER (L %)	LEFT TRAVELWAY (e %)	STATION	RIGHT TRAVELWAY (e %)	RIGHT SHOULDER (R %)
-4.0%	-2.0%	9-20	-1.0%	-4.0%
-4.0%	-2.0%	9-50	-2.0%	-4.0%
TO				
-4.0%	-2.0%	16-50	-2.0%	-4.0%
-2.0%	-2.0%	17-00	-2.0%	-4.0%
-2.0%	-2.0%	17-30	-2.0%	-4.0%
-2.0%	-2.0%	17-50	-2.0%	-3.2%
-2.0%	-2.0%	17-80	-2.0%	-2.0%
TO				
-2.0%	-2.0%	21-00	-2.0%	-2.0%
-2.0%	-2.0%	21-40	-2.0%	-2.0%
-2.4%	-2.0%	21-50	-2.0%	-2.0%
-4.0%	-2.0%	21-90	-2.0%	-2.0%
-4.0%	-2.0%	22-00	-2.0%	-2.0%
-4.0%	-1.5%	22-15	-2.0%	-2.0%
-4.0%	-0.60%	22-50	-2.0%	-3.4%
-4.0%	-0.18%	22-65	-2.0%	-4.0%
-4.0%	0.80%	23-00	-2.0%	-4.0%
-4.0%	2.0%	23-42.86	-2.0%	-4.0%
-3.8%	2.2%	23-50	-2.2%	-4.0%
-2.4%	3.6%	24-00	-3.6%	-4.0%
-2.0%	4.0%	24-14.29	-4.0%	-4.0%
-2.0%	5.0%	24-50	-5.0%	-5.0%
TO				
-2.0%	5.0%	28-00	-5.0%	-5.0%
0.5%	5.7%	28-50	-6.9%	-6.9%



I-295 SOUTHBOUND TRAVEL LANES & RIGHT SHOULDER
STA. 24-25 TO STA. 28-50



No.	Revision	By	Date

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

STANTEC CONSULTING SERVICES INC.
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

TYPICAL SECTIONS 4

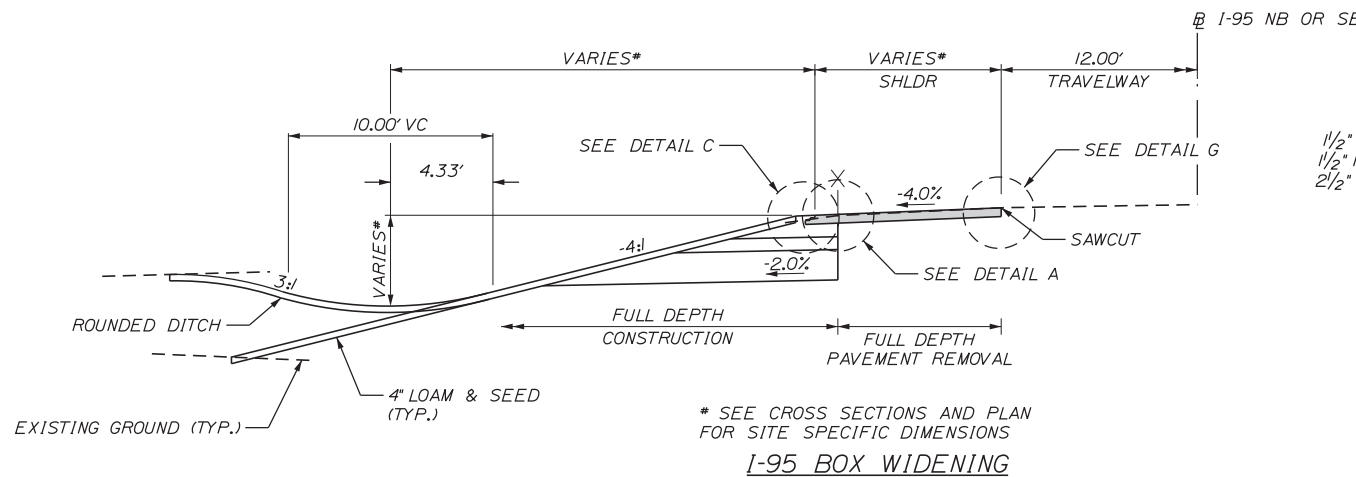
SHEET NUMBER: TS-04

CONTRACT: 2018.05

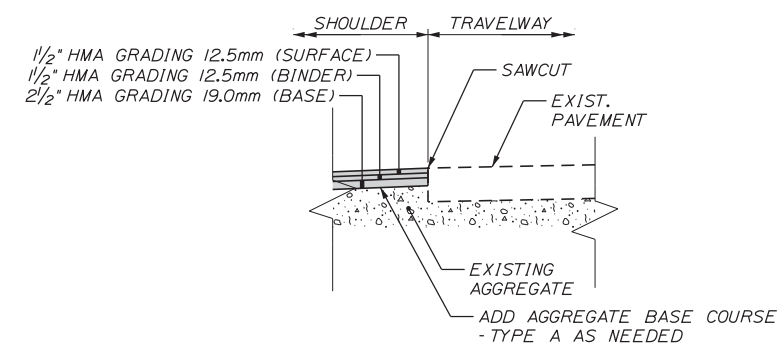
7 OF 176

Date: 2/19/2018

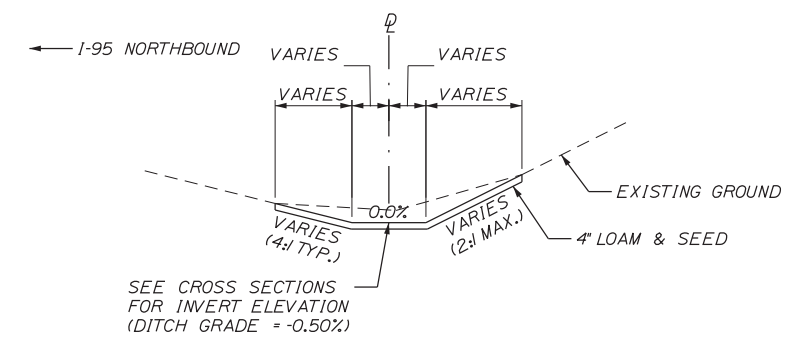
Filename: ...000\BRIDGE\MST\A\004-008_Typ.dgn



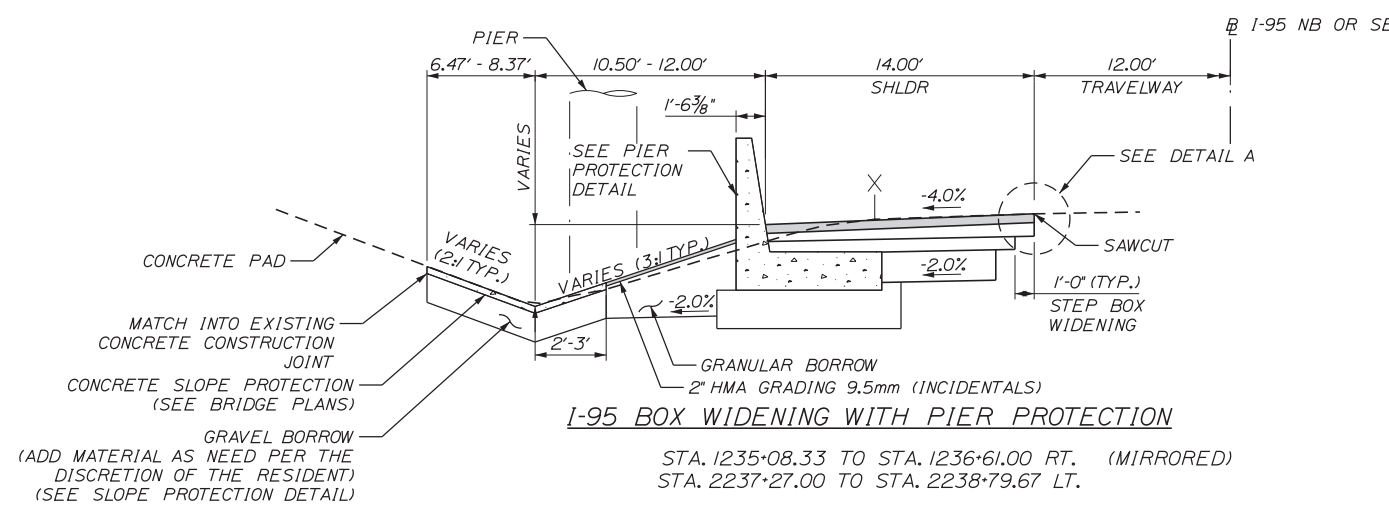
* SEE CROSS SECTIONS AND PLAN FOR SITE SPECIFIC DIMENSIONS
I-95 BOX WIDENING
STA. 1236+61.00 TO STA. 1237+61.00 RT. (MIRRORED)
STA. 2236+27.00 TO STA. 2237+27.00 LT.
STA. 2240+00.67 TO STA. 2240+70.67 LT.



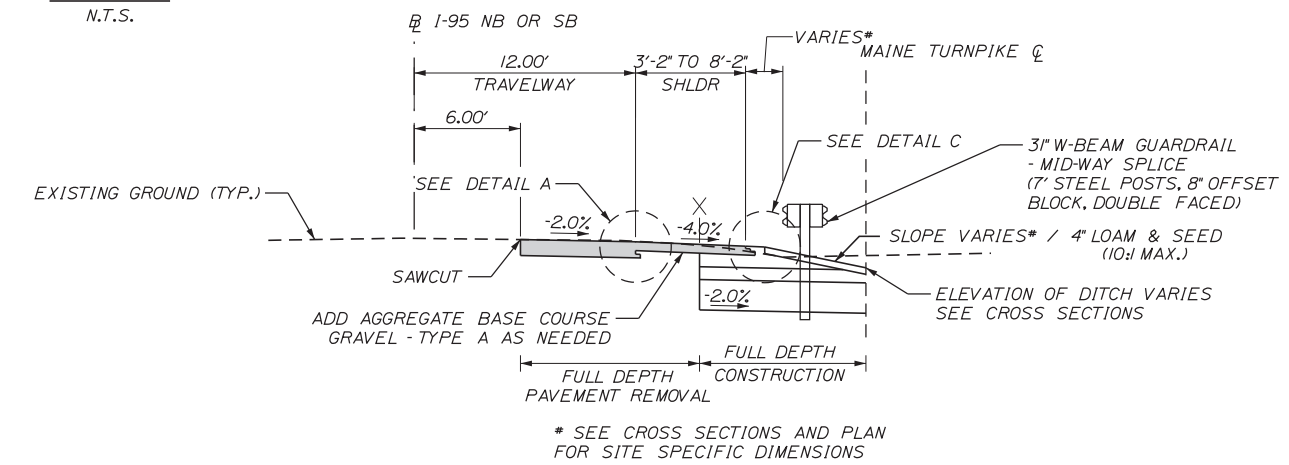
DETAIL G
N.T.S.



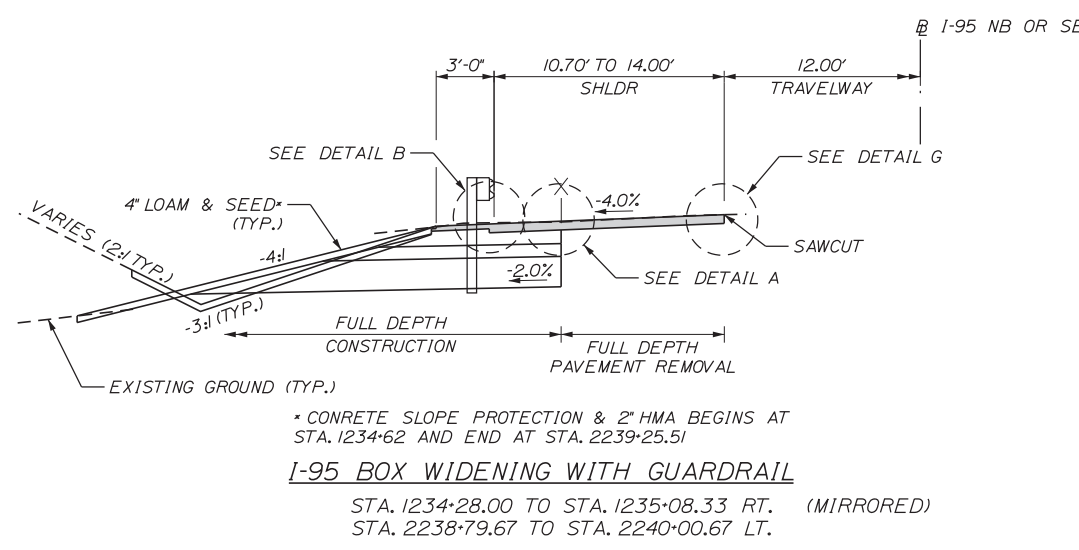
I-95 DITCH GRADING
STA. 1233+00.00 TO STA. 1234+28.00 RT.



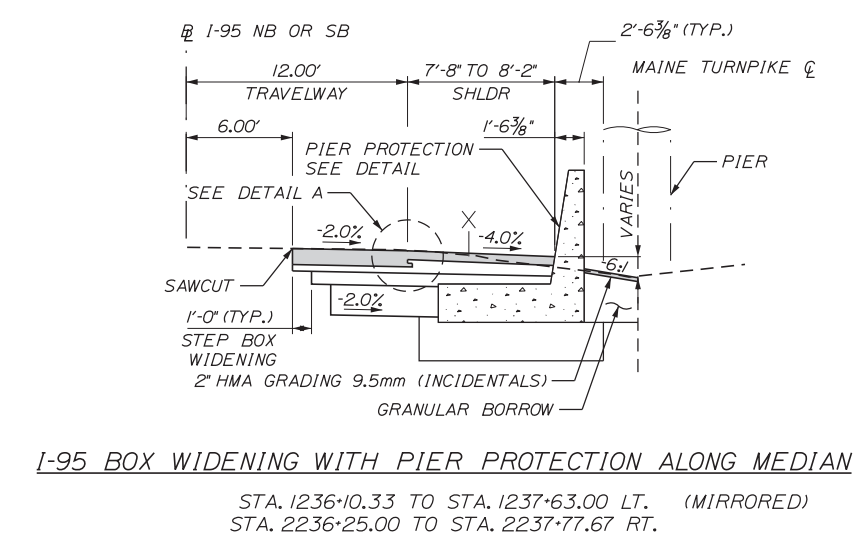
I-95 BOX WIDENING WITH PIER PROTECTION
STA. 1235+08.33 TO STA. 1236+61.00 RT. (MIRRORED)
STA. 2237+27.00 TO STA. 2238+79.67 LT.



I-95 BOX WIDENING ALONG MEDIAN
STA. 1235+60.33 TO STA. 1236+10.33 LT. (MIRRORED)
STA. 1237+63.00 TO STA. 1238+27.67 LT. (MIRRORED)
STA. 2235+60.33 TO STA. 2236+25.00 RT.
STA. 2237+77.67 TO STA. 2238+27.67 RT.



* CONCRETE SLOPE PROTECTION & 2" HMA BEGINS AT STA. 1234+62 AND END AT STA. 2239+25.51
I-95 BOX WIDENING WITH GUARDRAIL
STA. 1234+28.00 TO STA. 1235+08.33 RT. (MIRRORED)
STA. 2238+79.67 TO STA. 2240+00.67 LT.



I-95 BOX WIDENING WITH PIER PROTECTION ALONG MEDIAN
STA. 1236+10.33 TO STA. 1237+63.00 LT. (MIRRORED)
STA. 2236+25.00 TO STA. 2237+77.67 RT.



Designed by:

Stantec

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

TYPICAL SECTIONS 5

SHEET NUMBER: TS-05

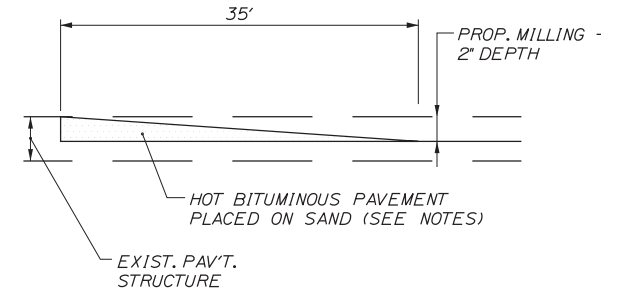
CONTRACT: 2018.05

8 OF 176

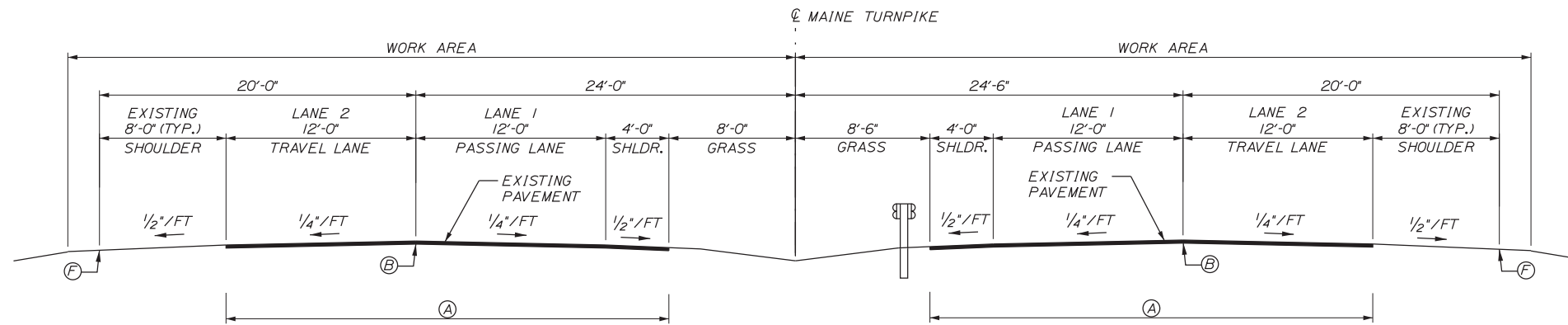
Date: 2/19/2018

NOTES

- HOT MIX ASPHALT FOR TEMPORARY RAMPS WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE CONSIDERED INCIDENTAL TO HOT MIX ASPHALT 12.5 MM.
- REMOVAL OF TEMPORARY BITUMINOUS RAMPS WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED INCIDENTAL TO HOT MIX ASPHALT 12.5 MM.



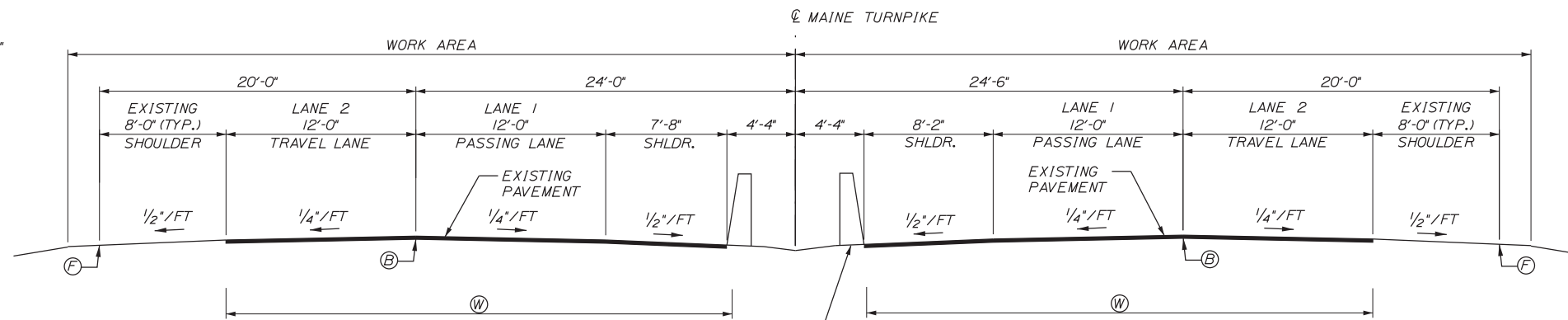
TEMPORARY BITUMINOUS RAMP
N.T.S.



PAVEMENT MILL & FILL
MM 102.1 TO MM 102.5
STA. 5216+00 TO STA. 5235+60.33
MM 102.6 TO MM 102.6
STA. 5238+27.62 TO 5240+00

NB & SB 102.1 - 102.6
2\"/>

- PAVEMENT LEGEND**
- (A) = LIMITS OF 2\"/>

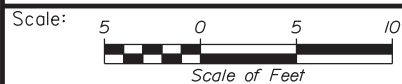


PAVEMENT MILL & FILL
MM 102.5 TO MM 102.6
STA. 5235+60.33 TO STA. 5238+27.62

GENERAL NOTES

- A COATING OF HOT RUBBERIZED ASPHALT (ASTM D6690 TYPE IV) SHALL BE APPLIED AT THE TOP SURFACE LIFT TO ALL TRANSVERSE BUTT JOINTS AND LONGITUDINAL JOINTS EXCEPT WHERE THE NOTCHED WEDGE IS USED.
- BITUMINOUS TACK COAT IS REQUIRED BETWEEN EXISTING PAVEMENT AND HMA, 12.5 MM, 9.5 MM OR SHIM.

Filename: ...MSTA\009-012_Typ_PVT.dgn



No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TFD	2\16\18	Checked	MJF	2\16\18
Drawn	JMB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

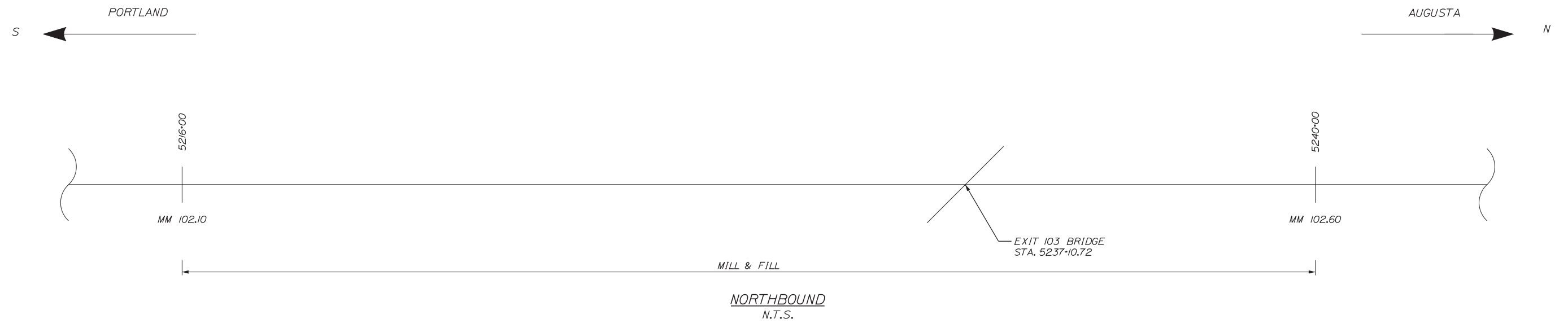
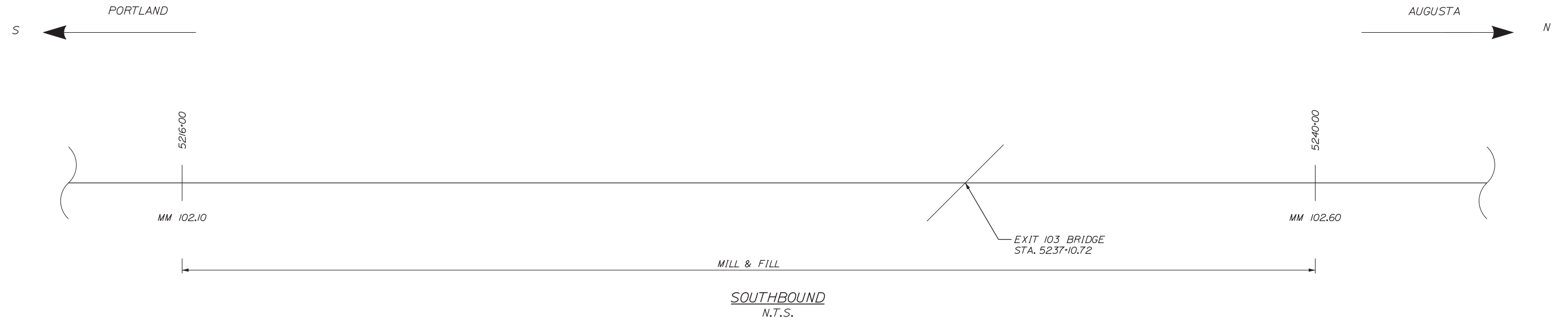
**EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
MILL & FILL
TYPICAL SECTIONS 1**

CONTRACT: 2018.05

SHEET NUMBER:

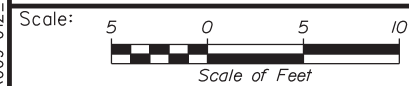
9 OF 176

Date: 2/19/2018



MAINLINE PAVING WORK LIMITS

Filename: ...MSTA\009-012_Typ_PVT.dgn



No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TFD	2\16\18	Checked	MJF	2\16\18
Drawn	JMB	2\16\18	In Charge of	GAE	2\16\18

STANTEC CONSULTING SERVICES INC.
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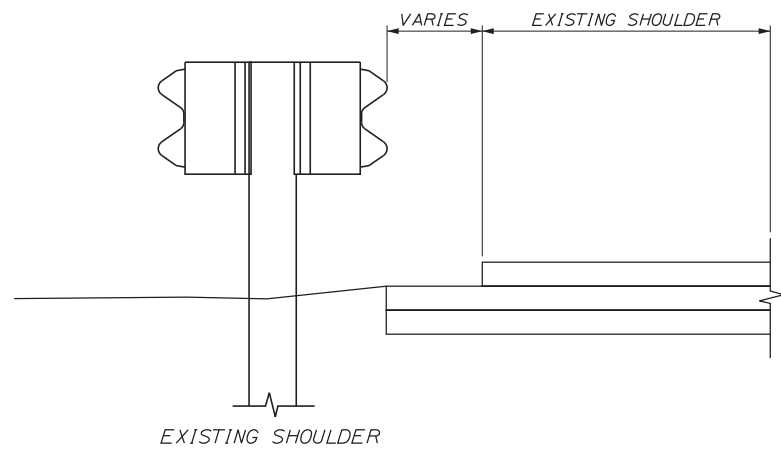
**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

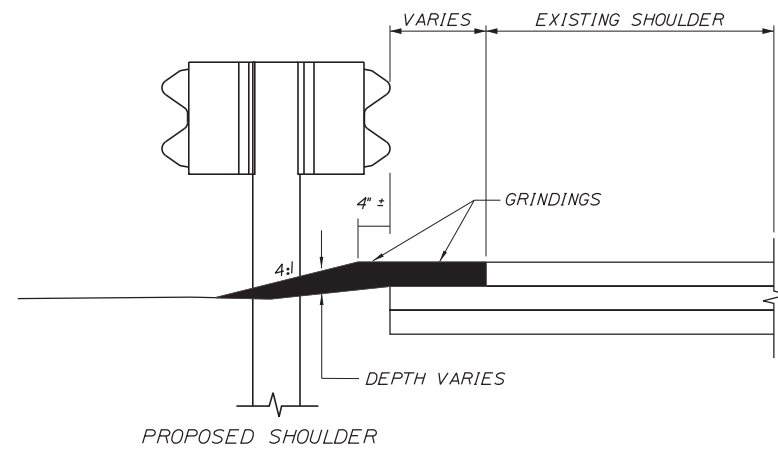
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 MILL & FILL
 PAVING LIMITS OVERVIEW

SHEET NUMBER:
 CONTRACT: 2018.05

Date: 2/19/2018

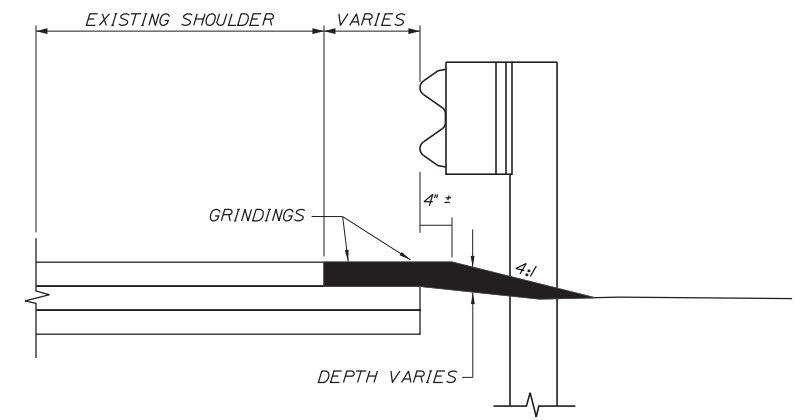


EXISTING SHOULDER

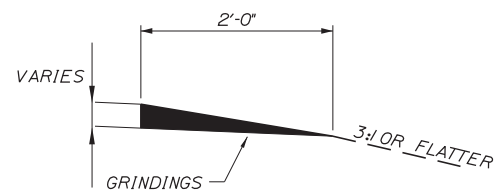


PROPOSED SHOULDER

BERM DROPOFF CORRECTION WITH GUARDRAIL
MEDIAN GUARDRAIL
N.T.S.



BERM DROPOFF CORRECTION WITH GUARDRAIL
RIGHT OUTSIDE SHOULDER
N.T.S.

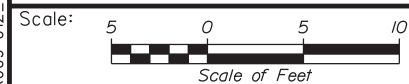


DETAIL A
(WITHOUT GUARDRAIL)

NOTES

- 1. BERM DROPOFF CORRECTION WILL BE PLACED AT ALL LOCATIONS.

Filename: ...MSTA\009-012_Typ_PVT.dgn



No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TFD	2\16\18	Checked	MJF	2\16\18
Drawn	JMB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

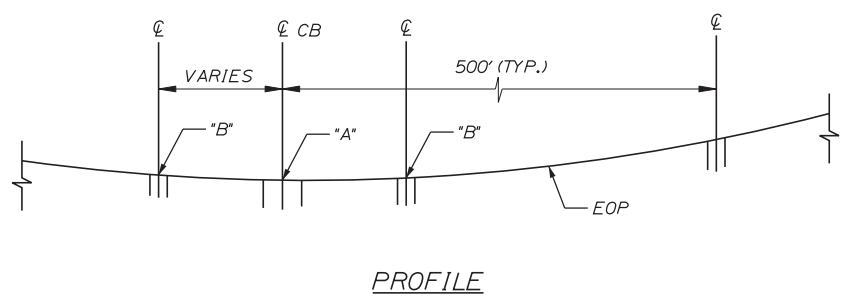
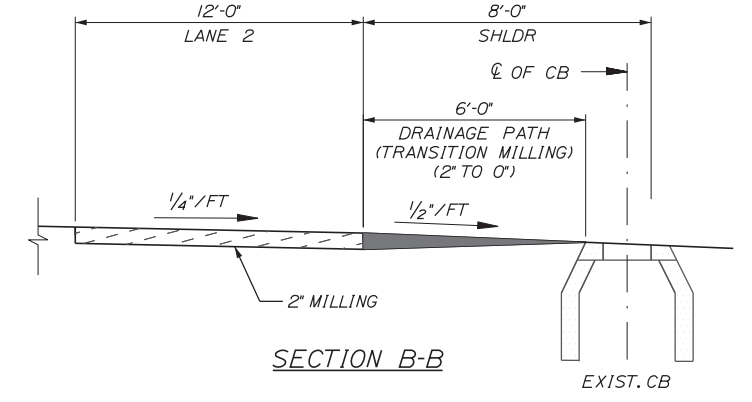
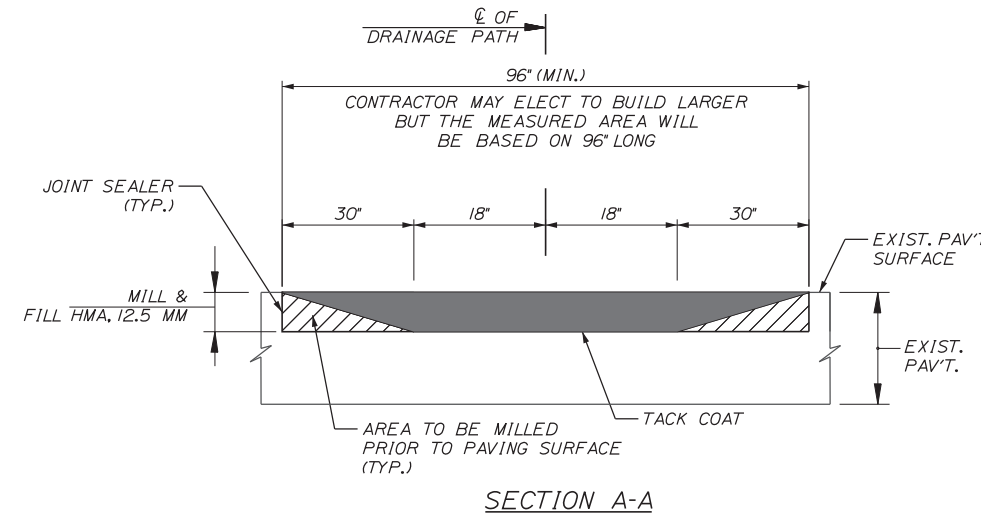
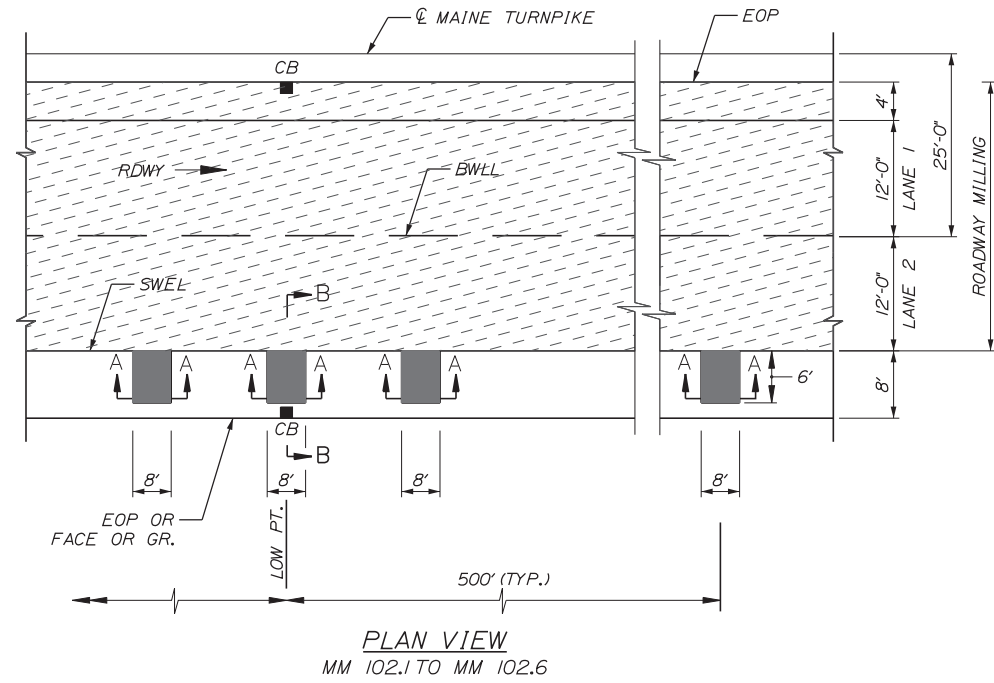
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
MILL & FILL
BERM DETAILS

CONTRACT: 2018.05

SHEET NUMBER:

11 OF 176

Date: 2/19/2018



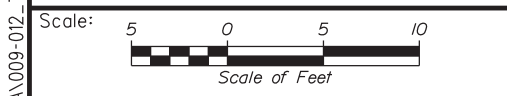
NOTE
 THE CATCH BASINS IN THE FOUR FOOT MEDIAN SHOULDER SHALL HAVE A TEN FOOT TEMPORARY BITUMINOUS RAMP ON BOTH SIDES, PARALLEL WITH MAINLINE, AND SHALL BE INCIDENTAL TO HMA, 12.5 MM.

DRAINAGE PATH DETAILS

LEGEND

	= DRAINAGE PATH MILLING
	= ROADWAY MILLING

- NOTES**
1. POINT "B" IS 1" HIGHER THAN POINT "A".
 2. DRAINAGE PATH SHALL BE CONSTRUCTED AT ALL LOW POINTS.
 3. MEDIAN LOW POINTS JUST INSIDE THE MILLED SHOULDER, SHALL BE OPENED FOR WATER FLOW. IF THE EXISTING MATERIAL IS HIGH, THIS SHALL BE CONSIDERED INCIDENTAL TO MILLING.
 4. DRAINAGE PATHS SHALL BE PAVED REESTABLISHED WITH HMA, 12.5 MM. PAVEMENT PATCHES SHALL BE FLUSH WITH THE SURROUNDING PAVEMENT. PAVEMENT PATCHING SHALL BE CONSIDERED INCIDENTAL TO THE DRAINAGE PATH ITEM.



Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date	By	Date	
Designed	TFD	2\16\18	Checked	MJF	2\16\18
Drawn	JMB	2\16\18	In Charge of	GAE	2\16\18

STANTEC CONSULTING SERVICES INC.
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THE GOLD STAR MEMORIAL HIGHWAY

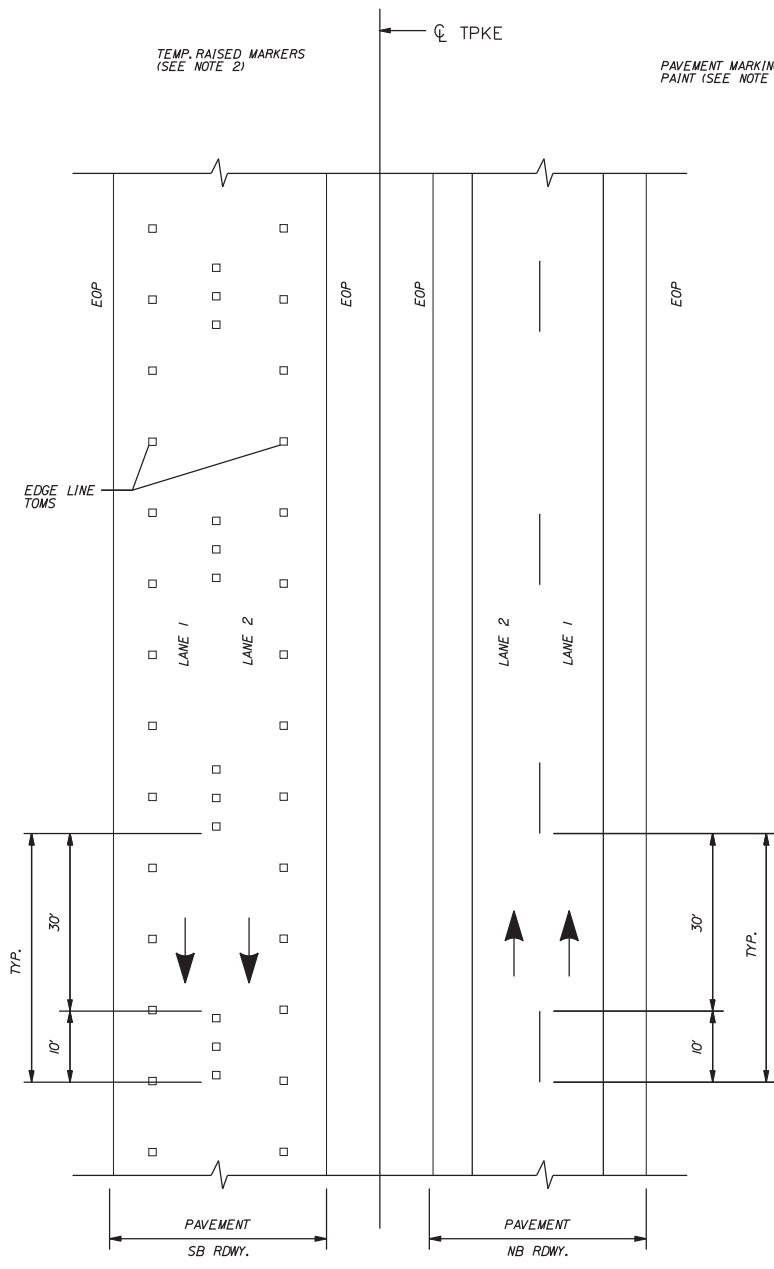
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 MILL & FILL
 MISCELLANEOUS DETAILS 1

Filename: ...MSTA\009-012_Typ_PVT.dgn

Date: 2/19/2018

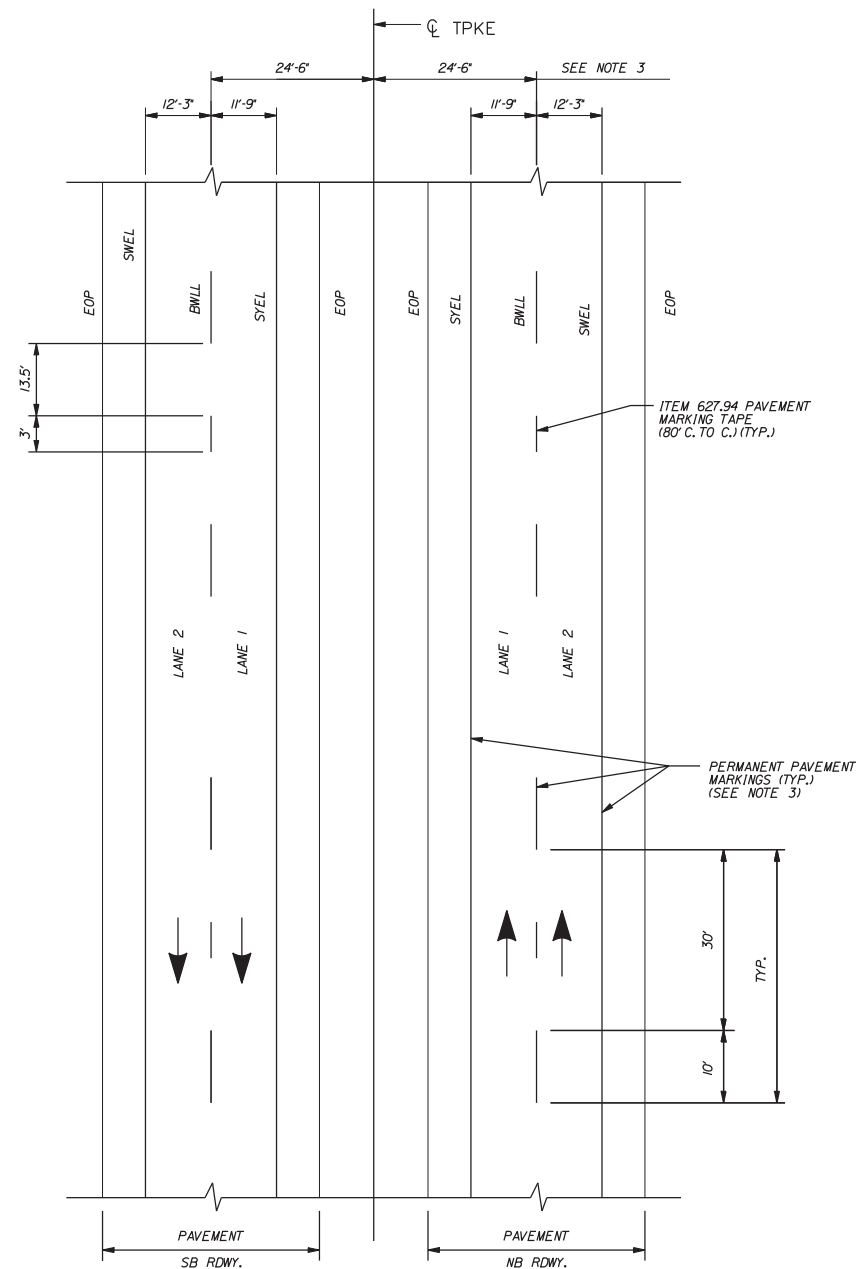
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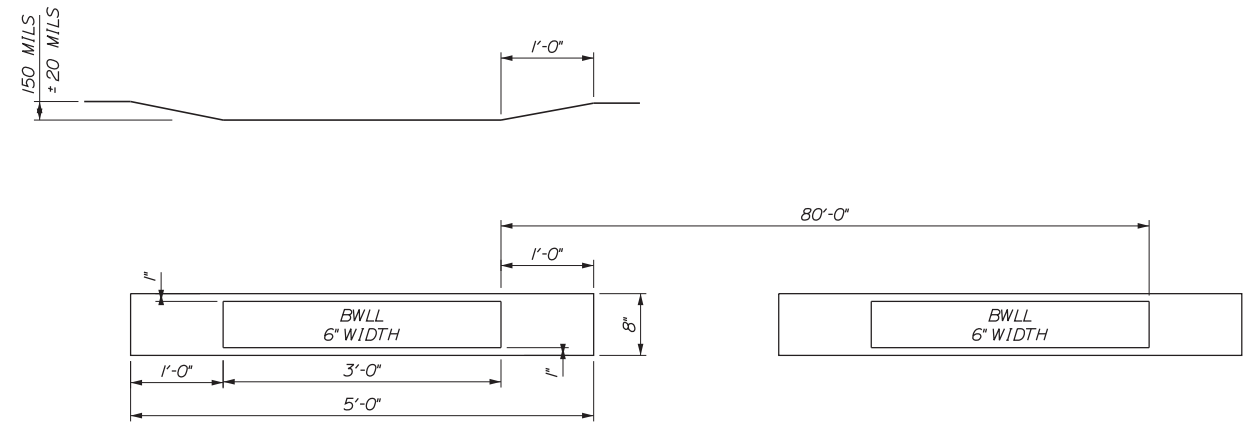
**TEMP. PAVEMENT MARKINGS
2 LANE RDWY**

NOTES:

- TEMPORARY PAVEMENT MARKINGS ON MILLED PAVEMENT SHALL BE 6" SOLID WHITE, BROKEN WHITE AND SOLID YELLOW PAINT LINES.
- TEMPORARY PAVEMENT MARKINGS ON NEW HMA (2.5 MM OR SHIM MATERIAL) SHALL BE TEMPORARY RAISED PAVEMENT MARKERS. "SOLID" WHITE AND "SOLID" YELLOW LANE LINES SHALL BE TEMPORARY RAISED PAVEMENT MARKERS SPACED AT 10'-0" C. TO C. "BROKEN" WHITE LANE LINES SHALL BE TEMPORARY RAISED PAVEMENT MARKERS SPACED 5'-0" C. TO C. EVERY 40'-0". TEMPORARY 6" PAVEMENT MARKING TAPE SHALL BE USED ON RADII ON SURFACE PAVEMENT, A 3' PIECE EVERY 40'.



**PERMANENT PAVEMENT MARKINGS
2 LANE RDWY**



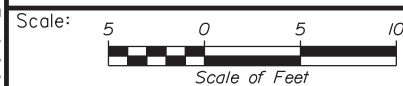
**ITEM 627.94 - PERMANENT PAVEMENT
MARKINGS WITH TAPE
GROOVING DETAIL
N.T.S.**

LEGEND

- SYEL = SOLID YELLOW EDGE LINE (6" PAINT)
- SWEL = SOLID WHITE EDGE LINE (6" PAINT)
- BWLL = BROKEN WHITE LANE LINE (6" PAINT)
- EOP = EDGE OF PAVEMENT

NOTES:

- PERMANENT PAVEMENT MARKINGS SHALL BE 6" WIDE LINES.
- PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED ON BOTH ROADWAYS.
- THE OFFSET DISTANCE SHOWN ARE MEASURED FROM THE CENTER OF THE 6" PAINT LINES.



No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TFD	2\16\18	Checked	MJF	2\16\18
Drawn	JMB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
MILL & FILL
MISCELLANEOUS DETAILS 2

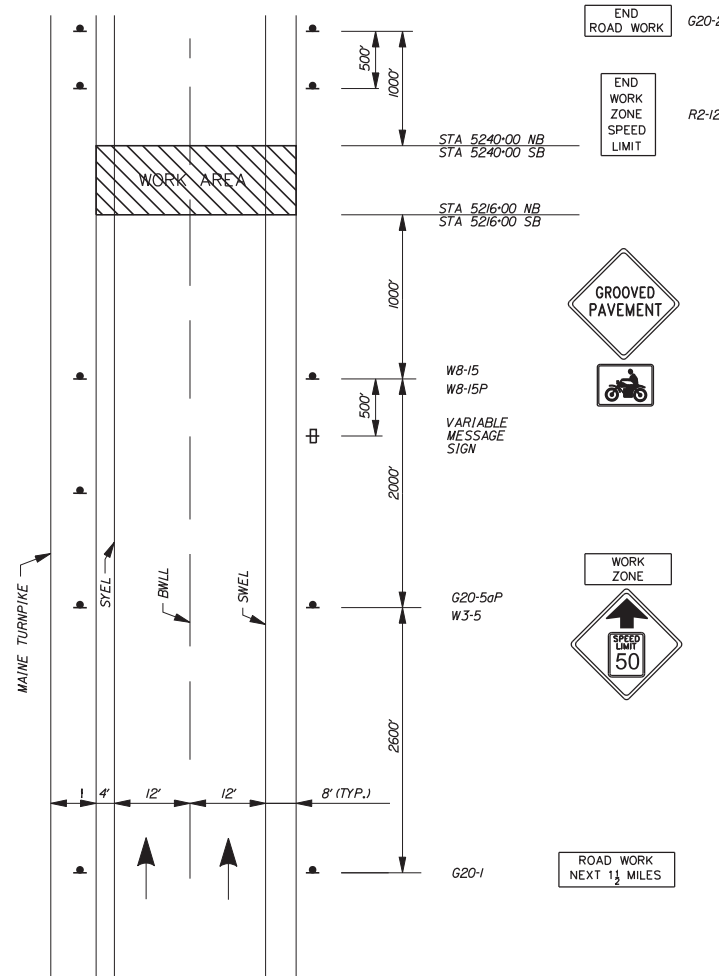
CONTRACT: 2018.05

SHEET NUMBER: TS-3

13 OF 176

Date: 2/19/2018

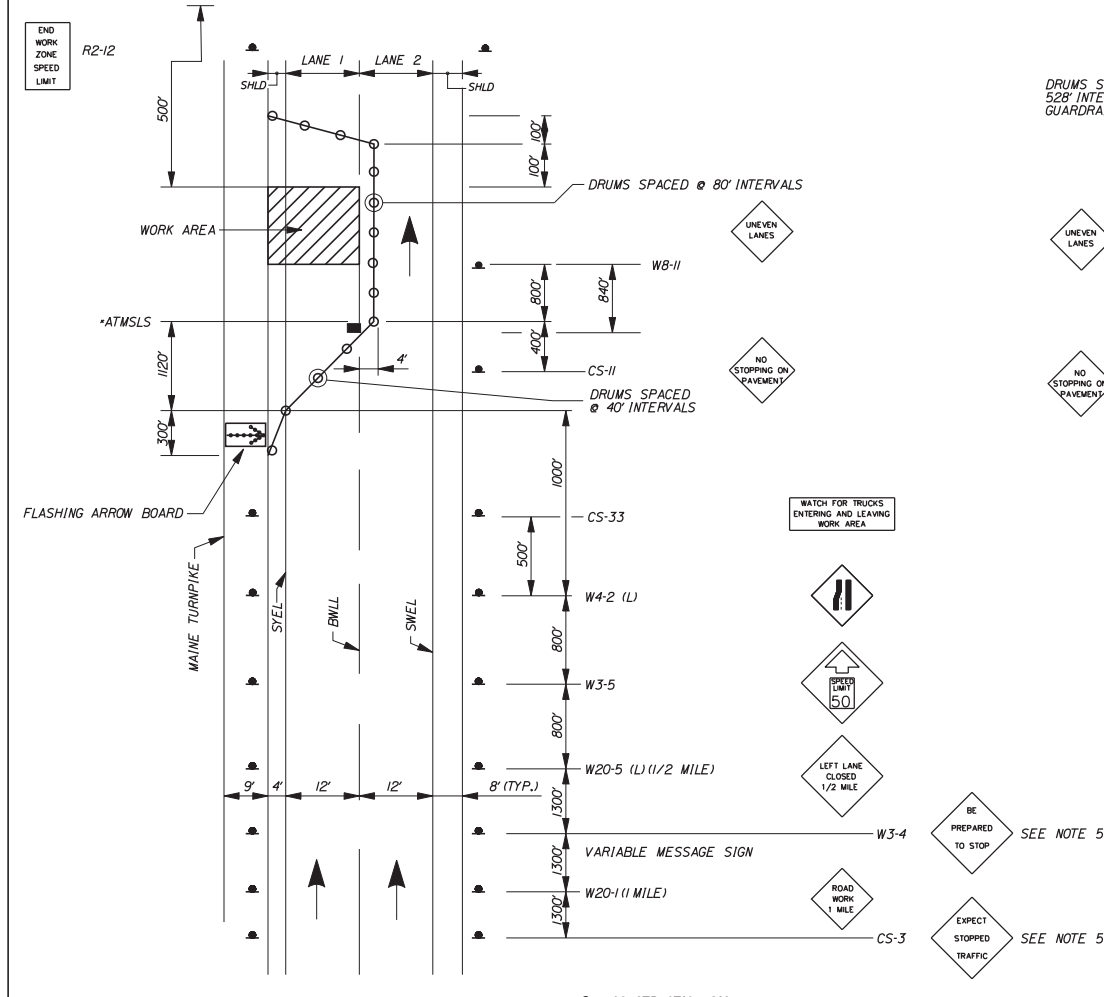
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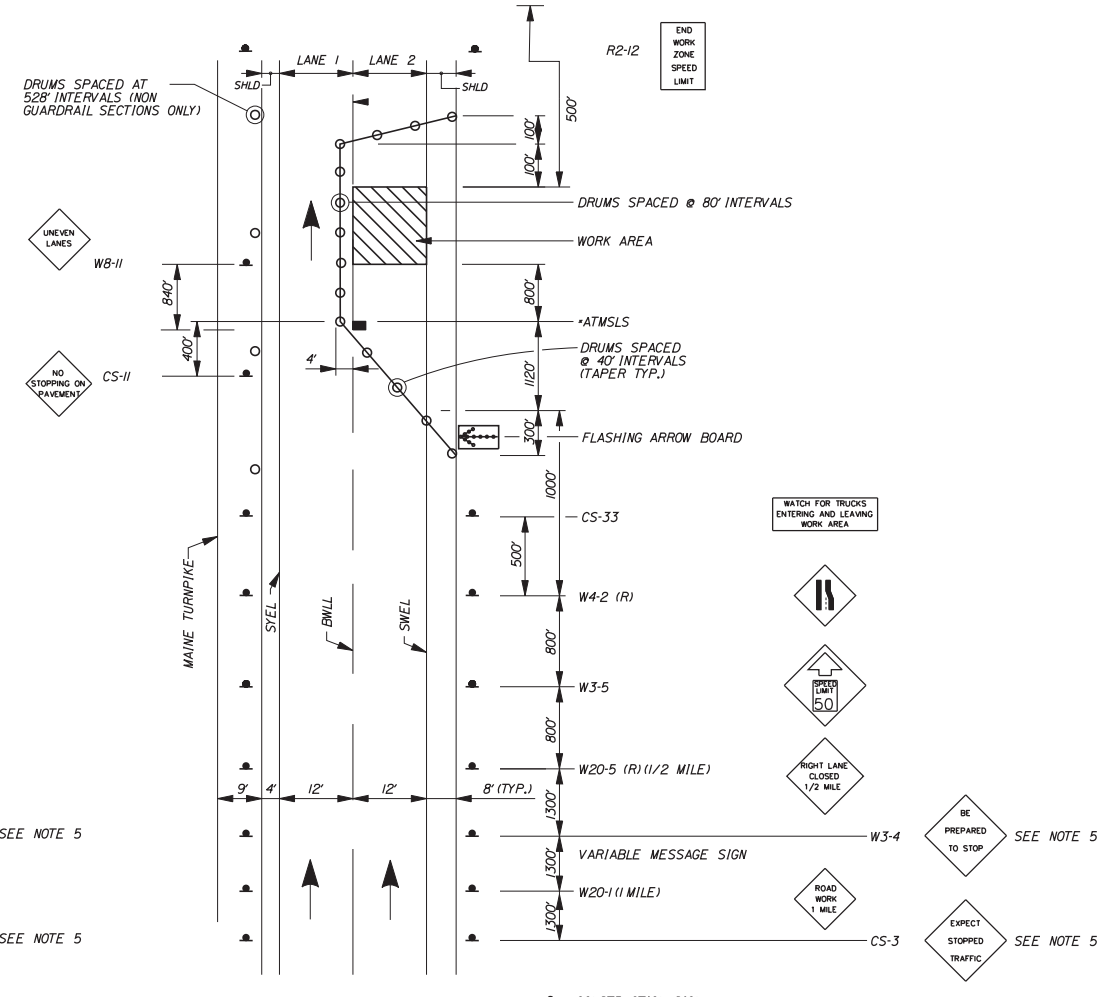
MAINLINE PAVING
ADVANCED PROJECT SIGNING

NOTES

1. FOR SIGN DETAILS, SEE SIGN SUMMARY SHEETS.
2. ALL SIGNS ARE TO BE MOUNTED ON NCHRP 350 APPROVED POSTS.
3. PROVIDE W8-15 AND W8-15P AT ALL MILLED LOCATIONS.
4. UNCOVER W8-15 AND W8-15P SIGNS WHEN PAVEMENT IS MILLED, OR AS DIRECTED BY THE RESIDENT.



LANE CLOSURE FOR MILLING AND PAVING OPERATIONS
LANE 1
LANE CLOSURE FOR PAVEMENT MARKINGS
LANE 1

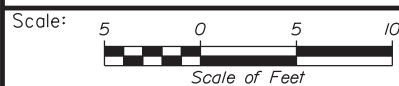


LANE CLOSURE FOR MILLING AND PAVING OPERATIONS
LANE 2

* AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN (ATMSLS)

NOTES

1. FOR SIGN DETAILS, SEE SIGN SUMMARY SHEETS.
2. ALL TEMPORARY LANE CLOSURE SIGNS ARE TO BE MOUNTED ON EASELS.
3. STANDARD SINGLE LANE CLOSURES FOR LANES 1 AND 2 SHALL BE USED FOR DRAINAGE WORK, GUARDRAIL WORK, CLEAR ZONE IMPROVEMENTS, MEDIAN CROSSOVER WORK, EQUIPMENT MOVES, BERM DROPOFF CORRECTION WORK, PAINTING OR SOLID WHITE LANE LINES AND ALL OTHER WORK NOT REQUIRING ENCROACHMENT INTO THE ADJACENT LANE.
4. SEE SHEET MILL & FILL MAINTENANCE OF TRAFFIC DETAILS 2, FOR STANDARD SINGLE LANE CLOSURE DETAILS.
5. ERECT CS-3 AND W3-4 SIGNS IMMEDIATELY PRIOR TO SCHEDULED STOPPAGES FOR EQUIPMENT MOVES AND REMOVE THE CS-3 AND W3-4 SIGNS IMMEDIATELY AFTER THE SCHEDULED STOPPAGES ARE COMPLETE.



Designed by:



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THE GOLD STAR
MEMORIAL HIGHWAY

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
MILL & FILL
MAINTENANCE OF TRAFFIC DETAILS 1

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
	By	Date	
Designed	TFD	2\16\18	Checked MJF 2\16\18
Drawn	JMB	2\16\18	In Charge of GAE 2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

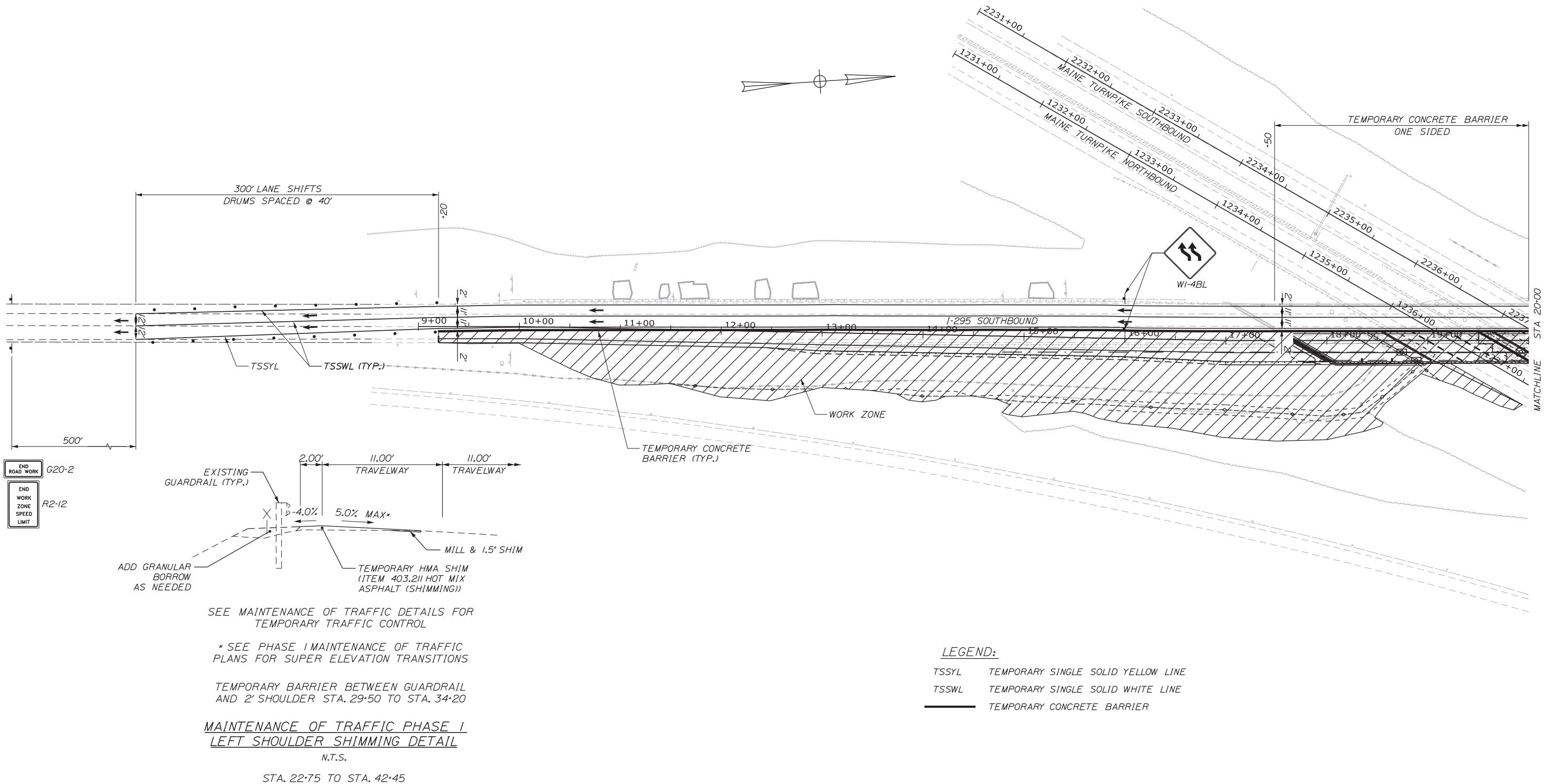
CONTRACT: 2018.05

SHEET NUMBER:

14 OF 176

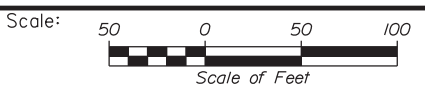
Date: 2/19/2018

Filename: ...MSTA\009_MOT_PH1_2Lone_01.dgn



END ROAD WORK G20-2

END WORK ZONE SPEED LIMIT R2-12



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	08/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

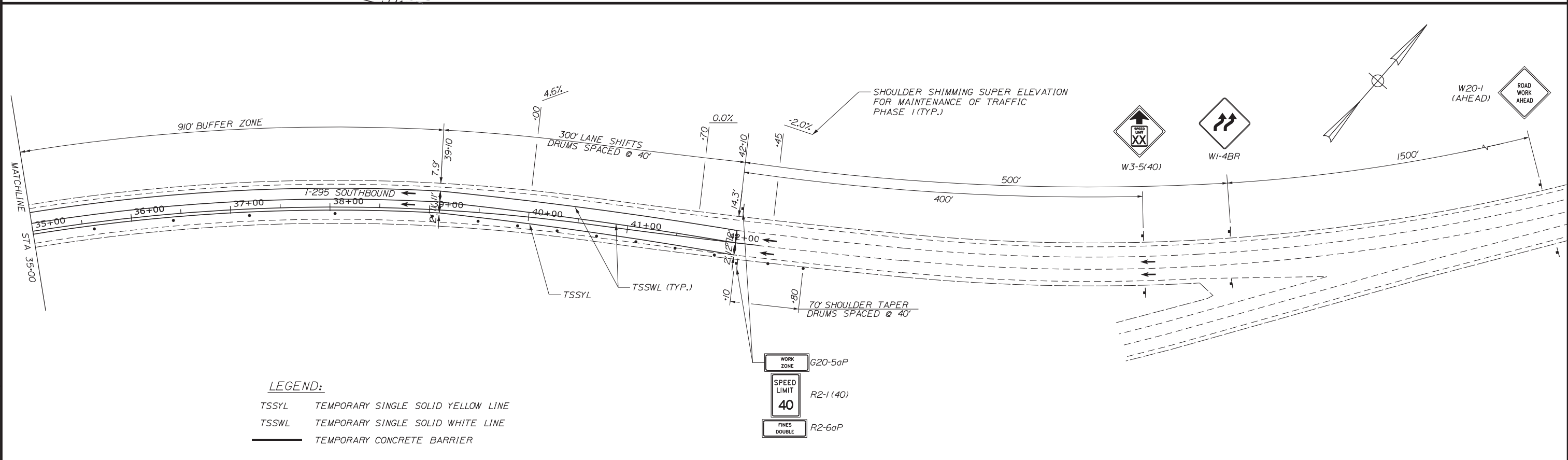
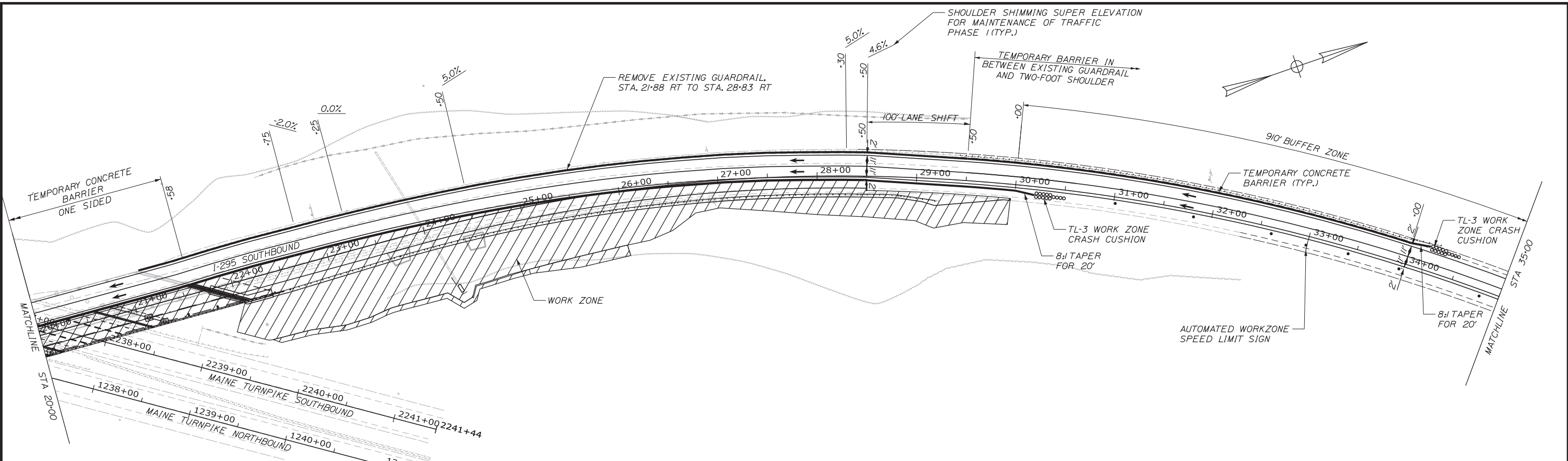
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 11-295 (2 LANES)
MAINTENANCE OF TRAFFIC PLAN 1 OF 2

SHEET NUMBER: MOT1-01

CONTRACT: 2018.05

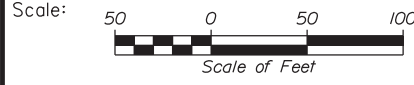
15 OF 176

Date: 2/19/2018



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 TEMPORARY CONCRETE BARRIER

WORK ZONE G20-5aP
 SPEED LIMIT 40 R2-1(40)
 FINES DOUBLE R2-6aP



No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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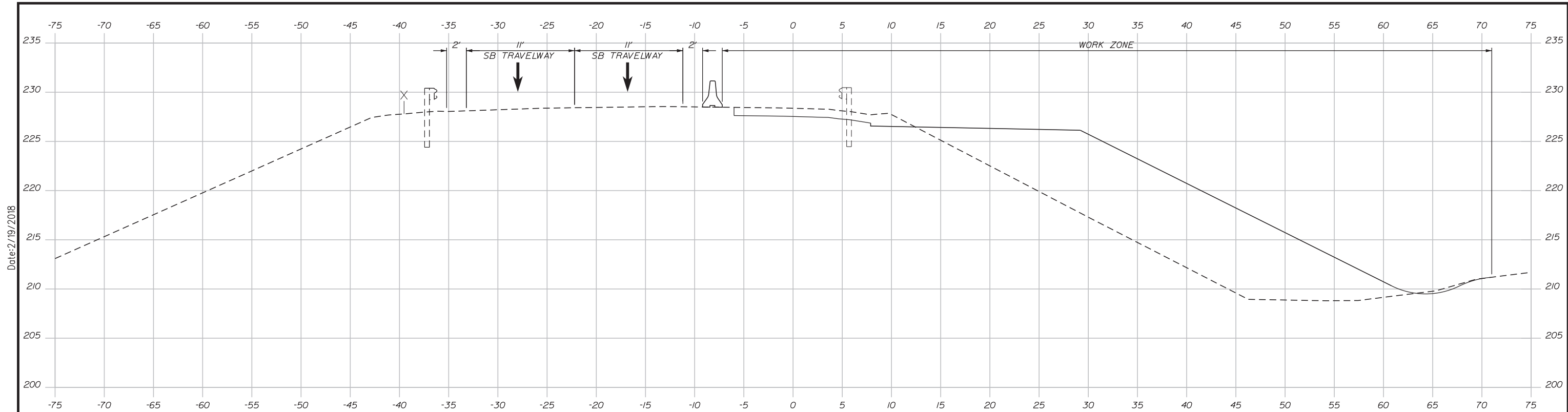
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 1I-295 (2 LANES)
 MAINTENANCE OF TRAFFIC PLAN 2 OF 2

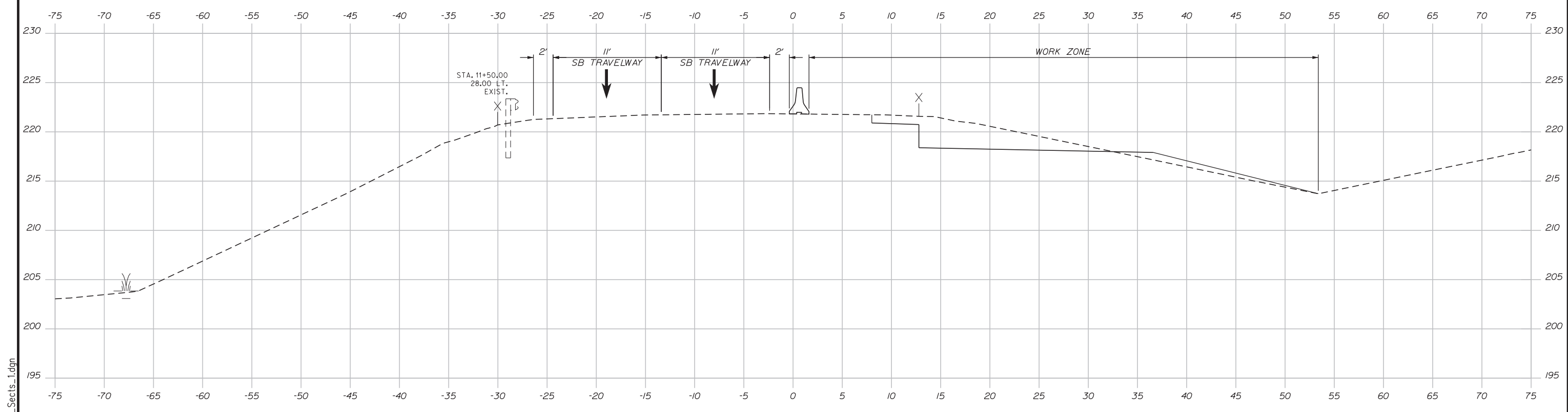
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 CONTRACT: 2018.05
 16 OF 176

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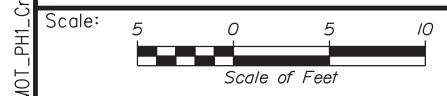


SEE BRIDGE CONSTRUCTION PHASING PLANS
FOR CONSTRUCTION PHASING CRITICAL
CROSS SECTION ALONG THE BRIDGE

16+50.00



11+50.00



Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date	By	Date	
Designed	MJD	2\16\18	Checked	SJB	2\16\18
Drawn	MJD	2\16\18	In Charge of	GAE	2\16\18

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

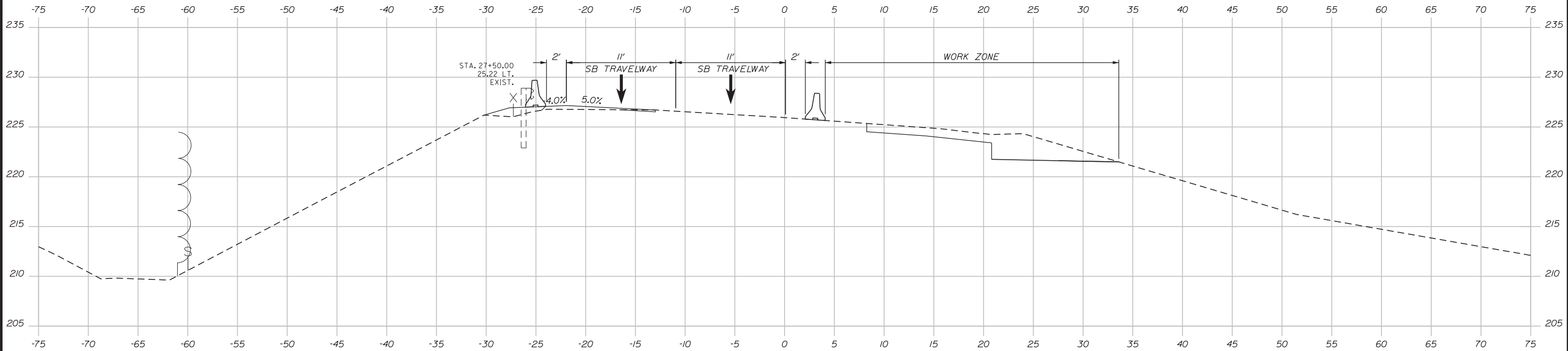
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 1, I-295 (2 LANES)
MAINTENANCE OF TRAFFIC SECTIONS 1 OF 2

SHEET NUMBER: MOT1-03
CONTRACT: 2018.05
17 OF 176

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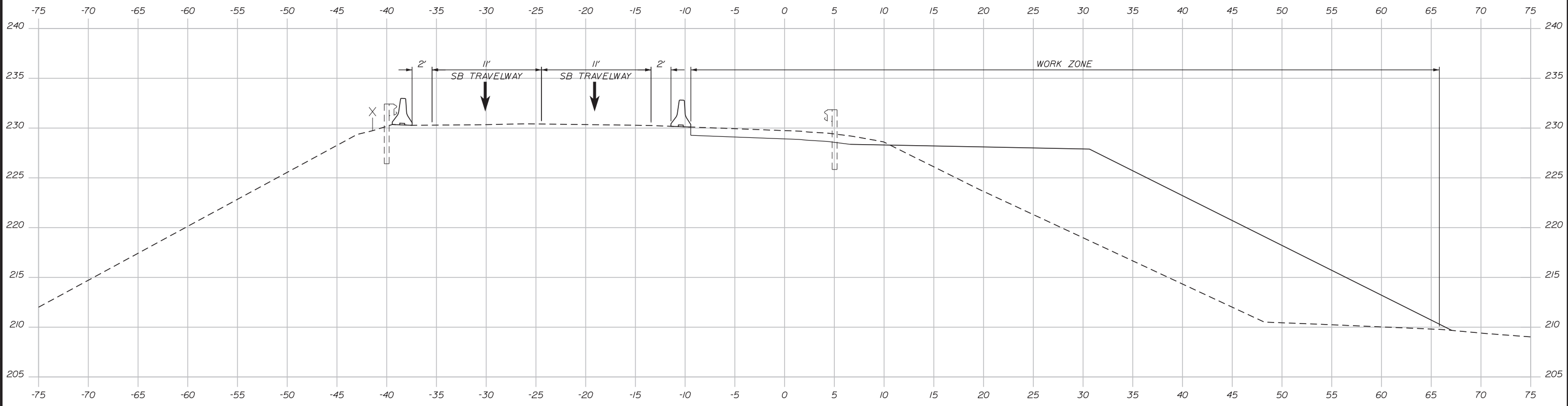
Date: 2/19/2018

Date: 2/19/2018

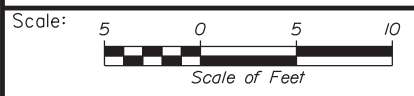


SEE BRIDGE CONSTRUCTION PHASING PLANS FOR CONSTRUCTION PHASING CRITICAL CROSS SECTION ALONG THE BRIDGE

27+50.00



22+50.00



Designed by:

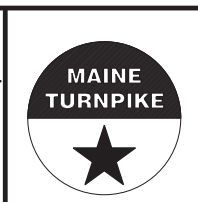
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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	MJD	2\16\18	Checked	SJB	2\16\18
Drawn	MJD	2\16\18	In Charge of	GAE	2\16\18

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MEMORIAL HIGHWAY**

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 1, I-295 (2 LANES)
MAINTENANCE OF TRAFFIC SECTIONS 2 OF 2

Filename: ...\\012_MOT_PH1_Critical_Sects_2.dgn

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

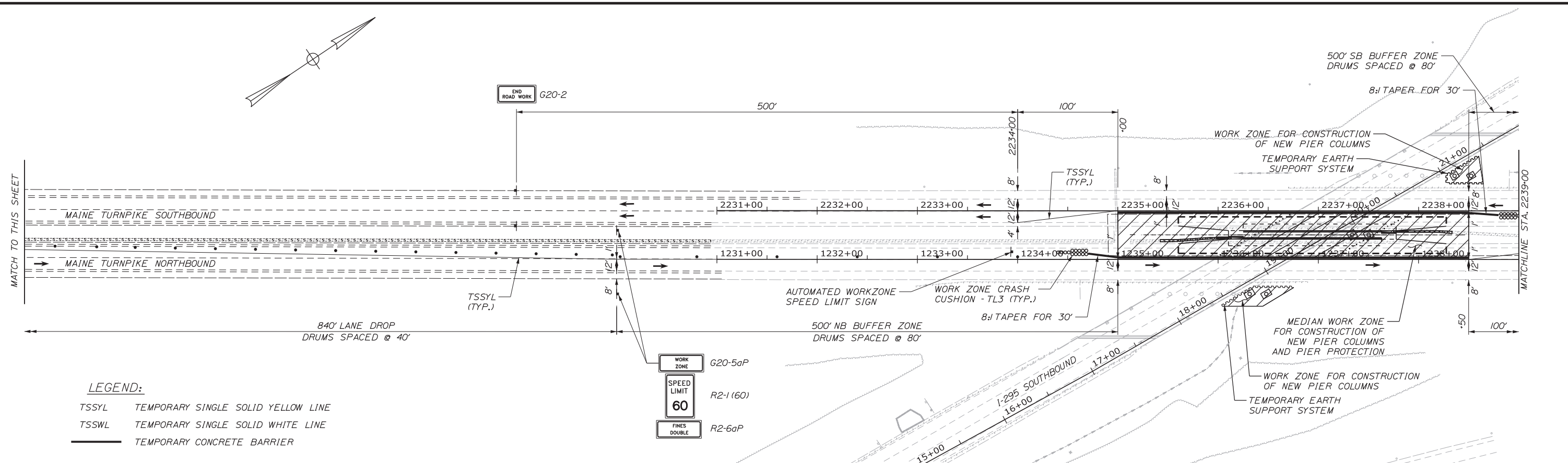
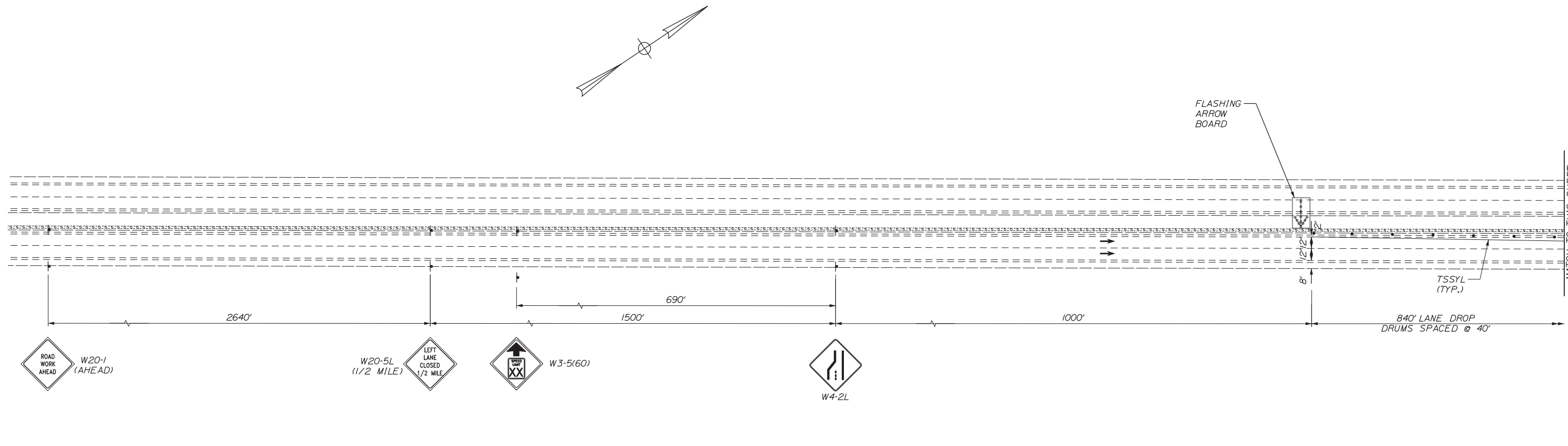
CONTRACT: 2018.05

SHEET NUMBER: MOT1-04

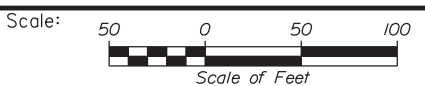
18 OF 176

Date: 2/19/2018

Filename: ...013_MOT_P1_Center_Piers_1.dgn



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 TEMPORARY CONCRETE BARRIER



Designed by:

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No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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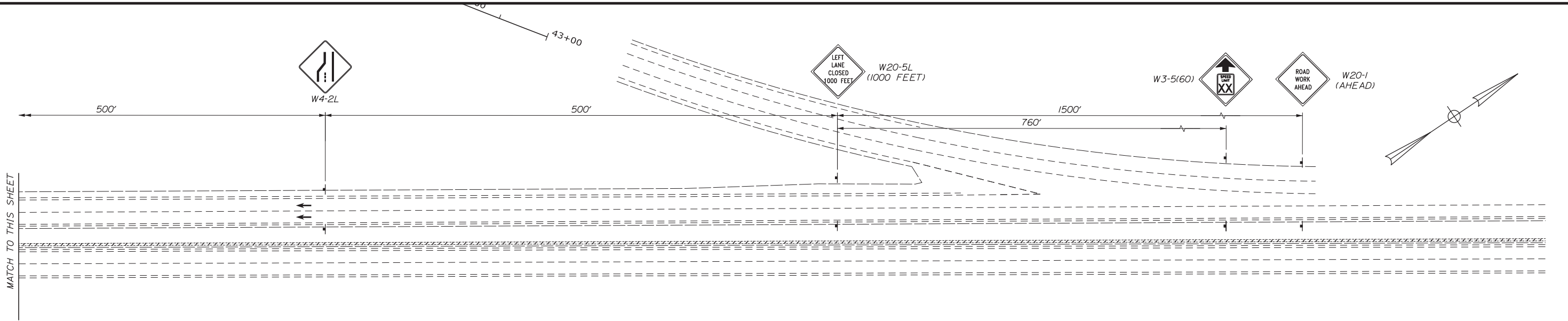
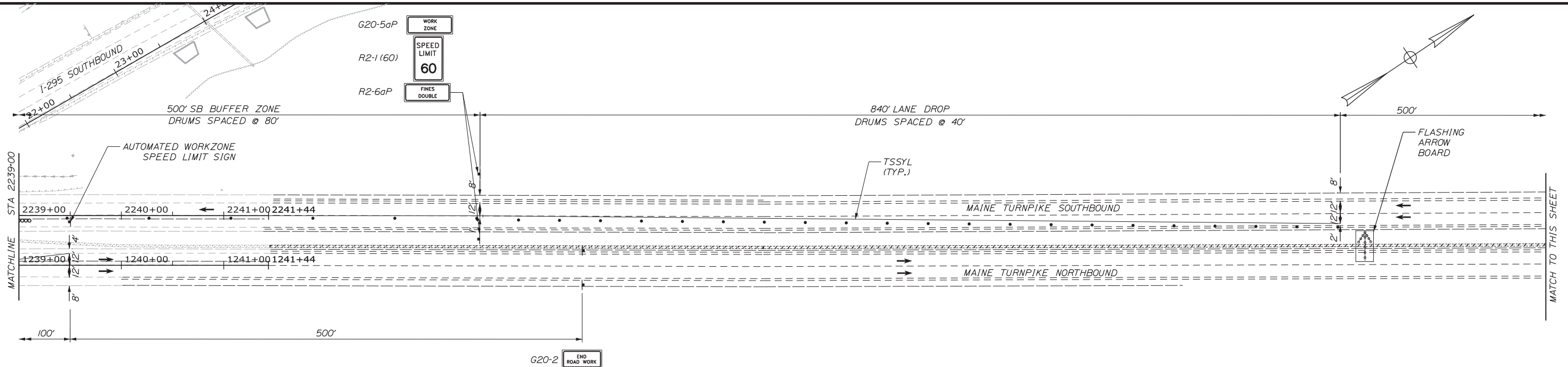
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 1, I-95 (LEFT LANE CLOSURE)
 MAINTENANCE OF TRAFFIC PLAN (1 OF 2)

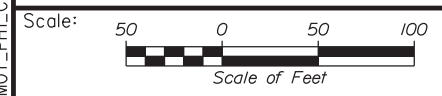
SHEET NUMBER: MOT1-05
 CONTRACT: 2018.05
 19 OF 176

Date: 2/19/2018

Filename: ...014_MOT_PH1_Center_Piers_2.dgn



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 ——— TEMPORARY CONCRETE BARRIER



Designed by:

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No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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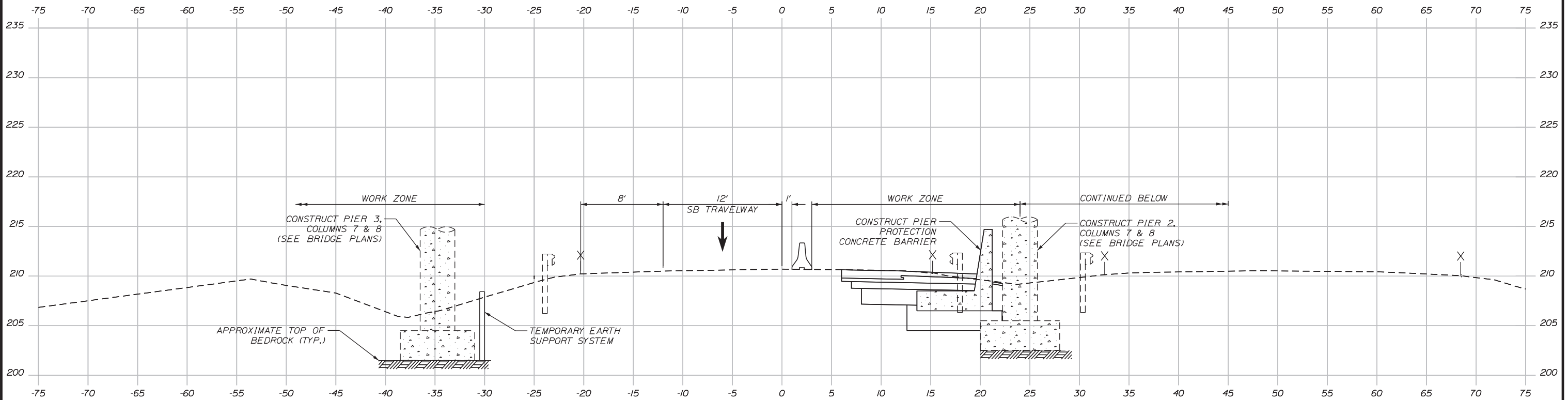
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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 1, I-95 (LEFT LANE CLOSURE)
 MAINTENANCE OF TRAFFIC PLAN (2 OF 2)

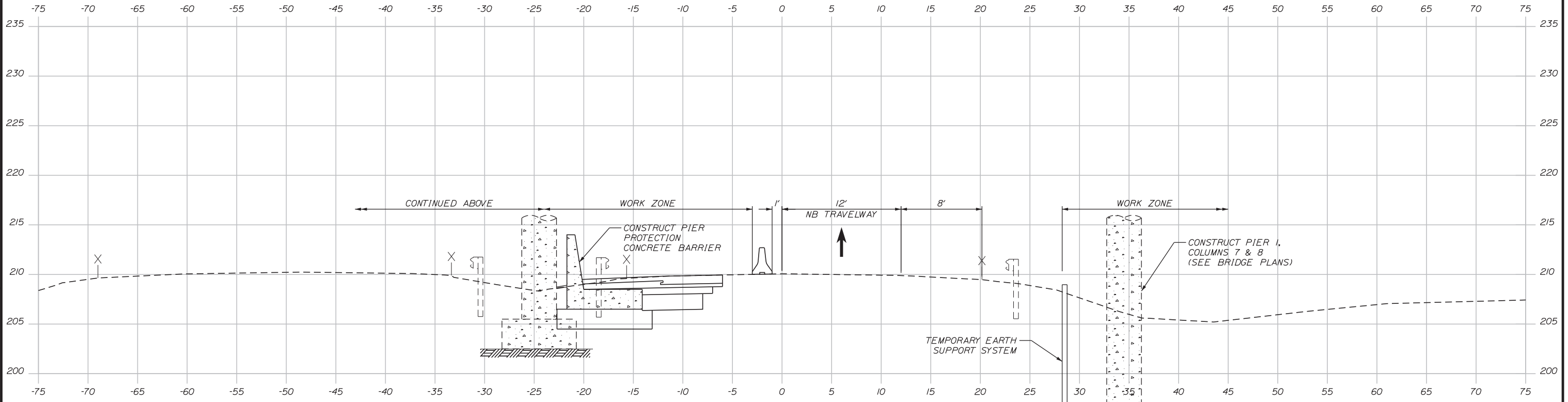
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 CONTRACT: 2018.05
 20 OF 176

Date: 2/19/2018

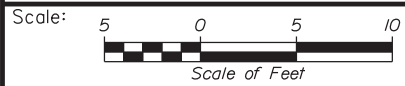


2237+50.00

PHASE 1: I-95 LEFT LANE CLOSURE
(CONSTRUCT NEW PIER COLUMNS AND
CONSTRUCT PIER PROTECTION AT PIER 2)



1236+50.00



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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 1, I-95 (LEFT LANE CLOSURE)
MAINTENANCE OF TRAFFIC SECTIONS

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
Designed	SJB	2\16\18	Checked
Drawn	SJB	2\16\18	In Charge of
			GAE
			2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

CONTRACT: 2018.05

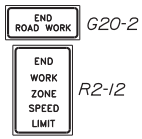
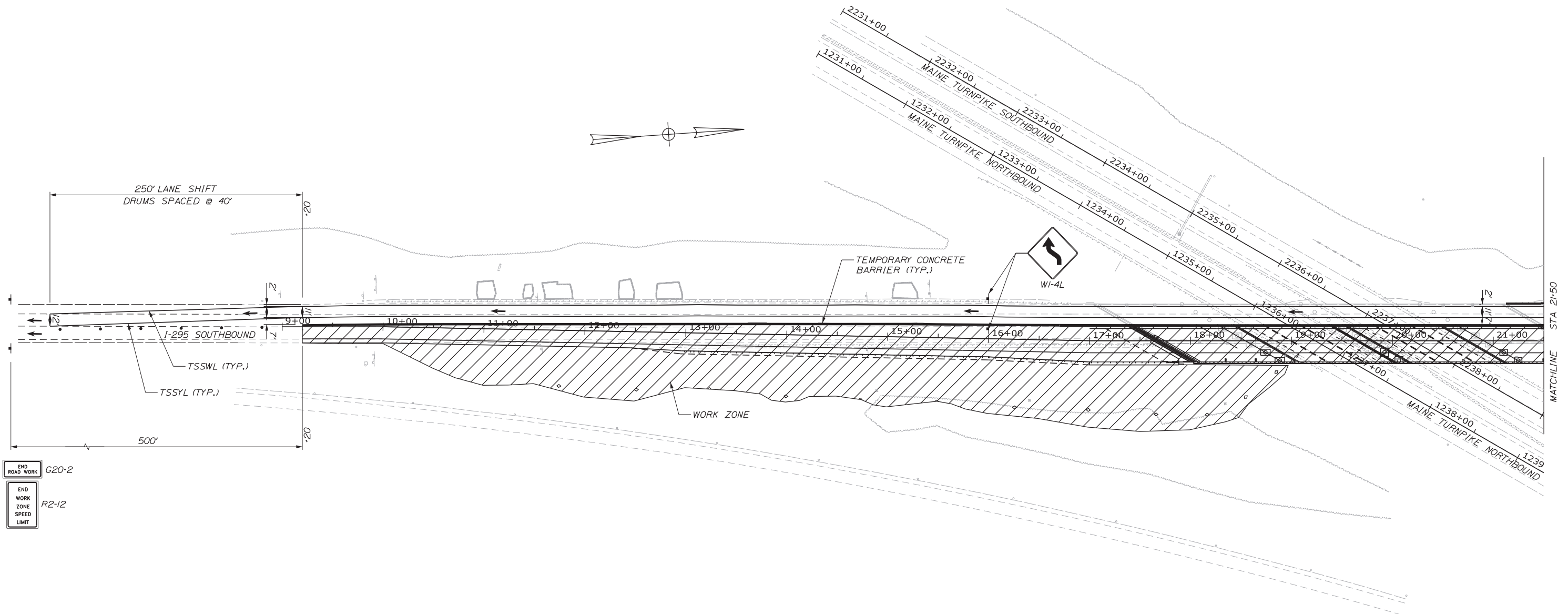
SHEET NUMBER: MOT1-07

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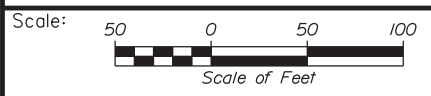
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Date: 2/19/2018

Filename: ...MSTA019_MOT_PHIA_ILane_01.dgn



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 ——— TEMPORARY CONCRETE BARRIER



Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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MAINE TURNPIKE

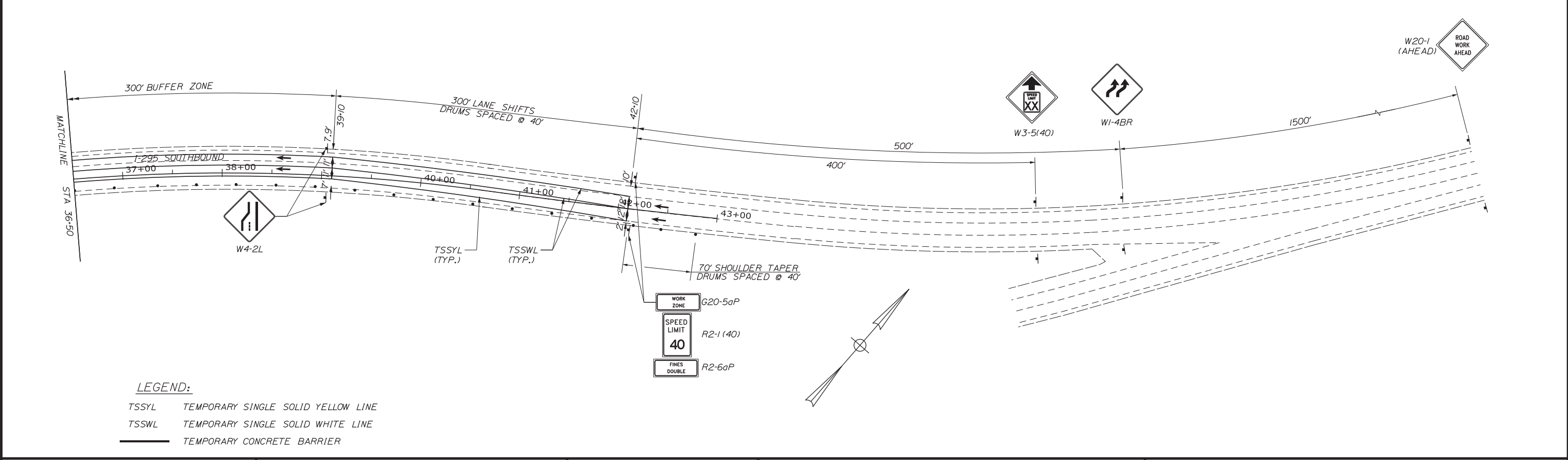
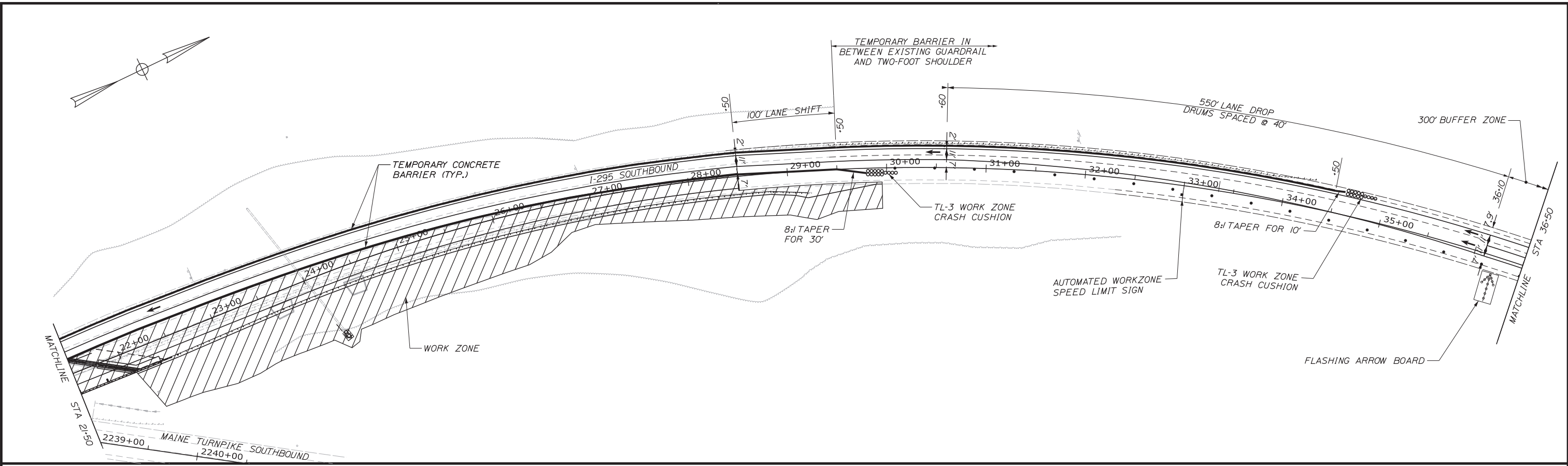
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

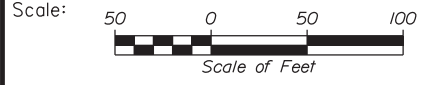
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 1A I-295 (1 LANE)
 MAINTENANCE OF TRAFFIC PLAN 1 OF 2

SHEET NUMBER: MOT1-8
 CONTRACT: 2018.05
 22 OF 176

Date: 2/19/2018



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 TEMPORARY CONCRETE BARRIER



No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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THE GOLD STAR MEMORIAL HIGHWAY

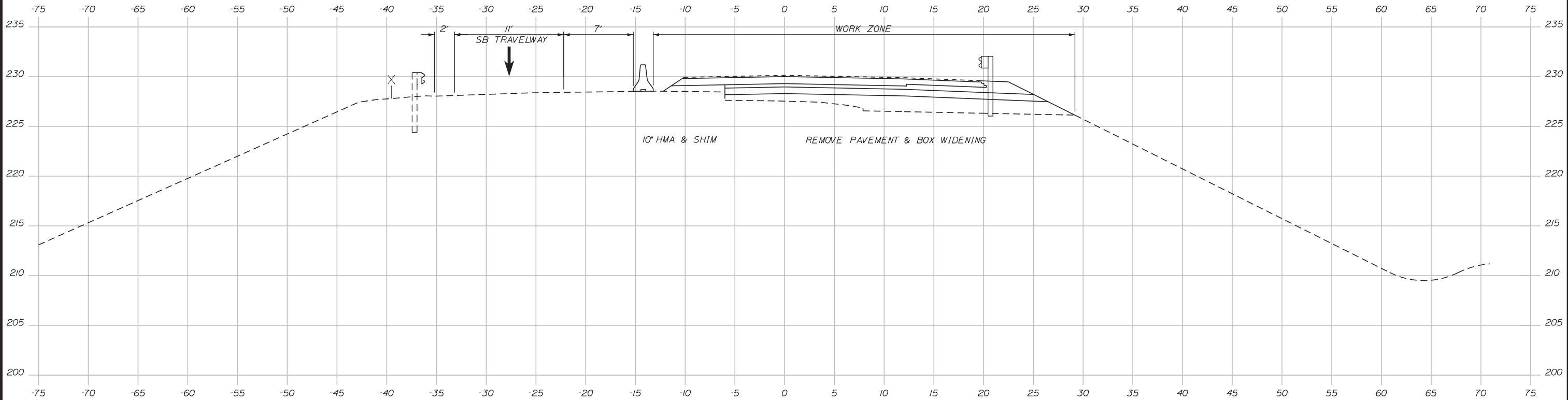
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 1A I-295 (1LANE)
 MAINTENANCE OF TRAFFIC PLAN 2 OF 2

SHEET NUMBER: MOT1-9
 CONTRACT: 2018.05
 23 OF 176

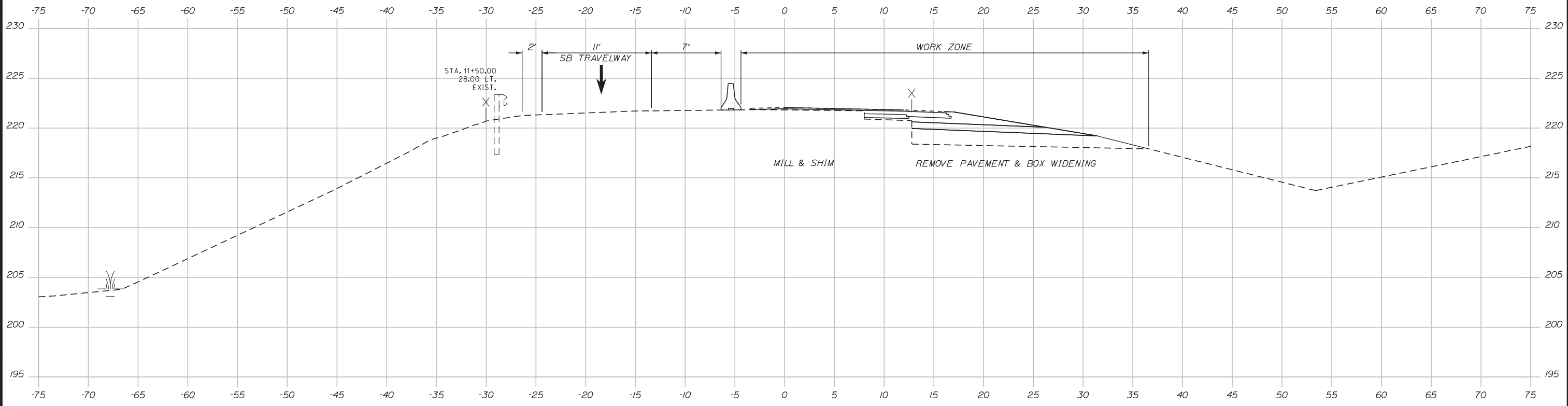
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Date: 2/19/2018

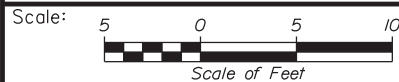


SEE BRIDGE CONSTRUCTION PHASING PLANS FOR CONSTRUCTION PHASING CRITICAL CROSS SECTION ALONG THE BRIDGE

16+50.00



11+50.00



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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 1A, I-295 (1 LANE)
MAINTENANCE OF TRAFFIC SECTIONS 1 OF 2

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	MJD	2\16\18	Checked	SJB	2\16\18
Drawn	MJD	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

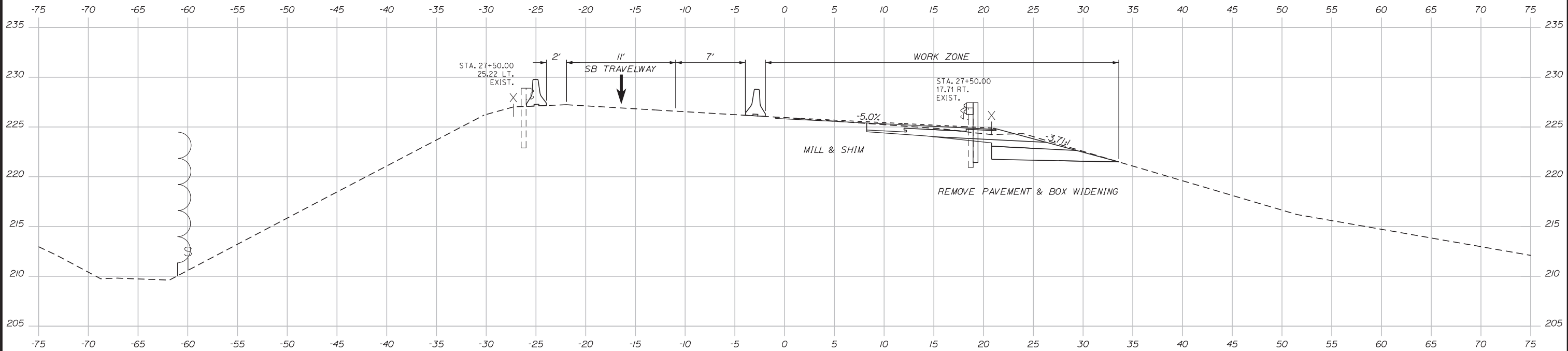
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SHEET NUMBER: MOT1-10

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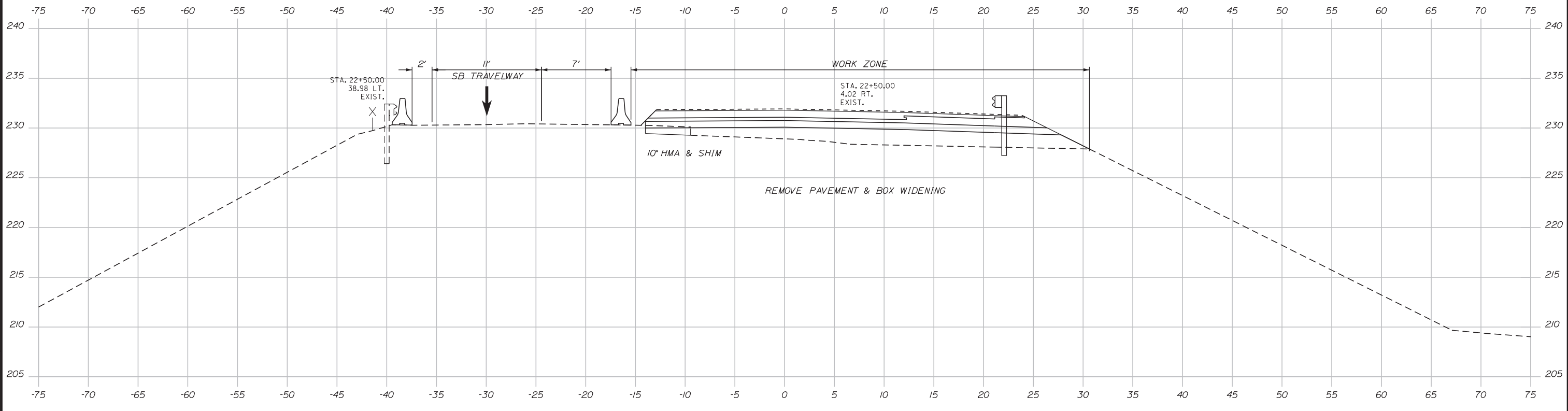
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Date: 2/19/2018

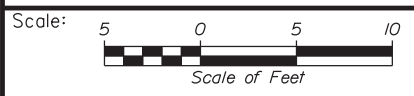


SEE BRIDGE CONSTRUCTION PHASING PLANS FOR CONSTRUCTION PHASING CRITICAL CROSS SECTION ALONG THE BRIDGE

27+50.00



22+50.00



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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 1A, I-295 (1 LANE)
MAINTENANCE OF TRAFFIC SECTIONS 2 OF 2

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
Designed	MJD	2\16\18	Checked	SJB	2\16\18
Drawn	MJD	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

CONTRACT: 2018.05

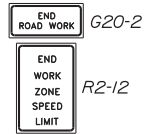
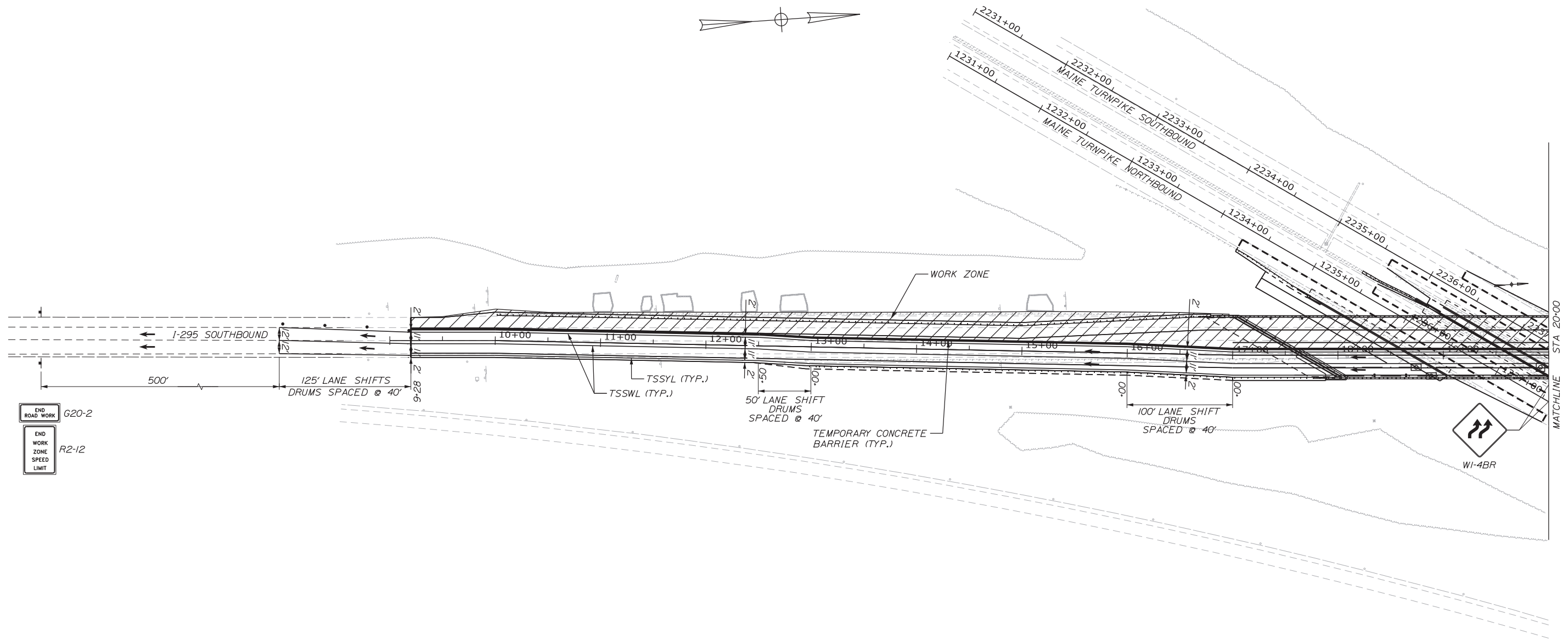
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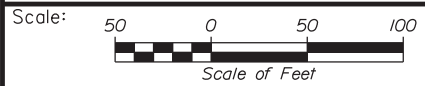
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Date: 2/19/2018

Filename: ...MSTA\023_MOT_PH2_2Lane_01.dgn



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 ——— TEMPORARY CONCRETE BARRIER



Designed by:



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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2 I-295 (2 LANES)
 MAINTENANCE OF TRAFFIC PLAN 1 OF 2

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	TJW	8/10/17	Checked	MJD	8/10/17
Drawn	TJW	8/10/17	In Charge of	GB	8/10/17

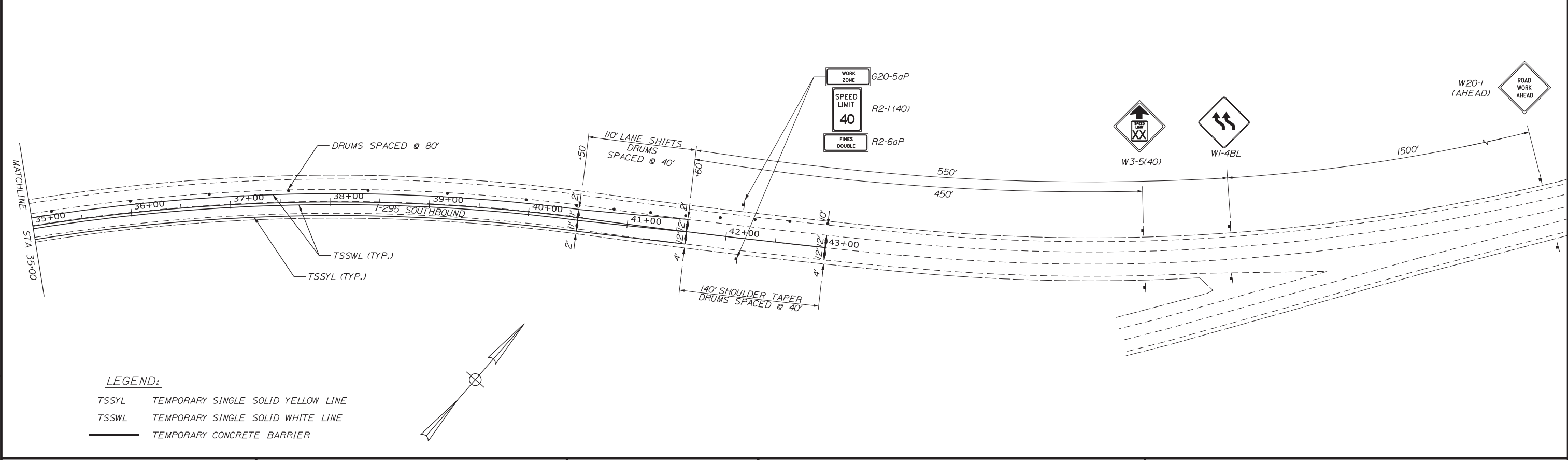
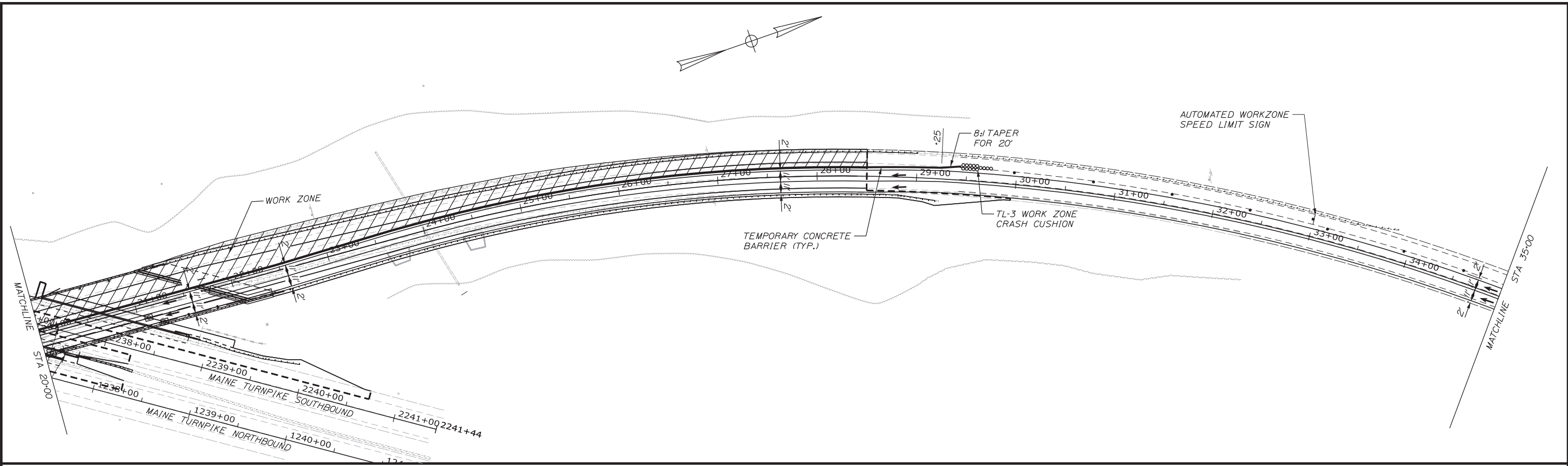
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

CONTRACT: 2018.05

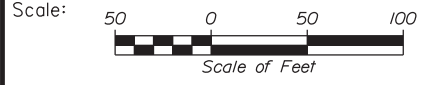
SHEET NUMBER: MOT2-01

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Date: 2/19/2018



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 ——— TEMPORARY CONCRETE BARRIER



Designed by:



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**THE GOLD STAR
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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2 I-295 (2 LANES)
 MAINTENANCE OF TRAFFIC PLAN 2 OF 2

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
Designed	By	Date	Checked
	TJW	8/08/17	MJD
Drawn	By	Date	In Charge of
	TJW	8/08/17	GB

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

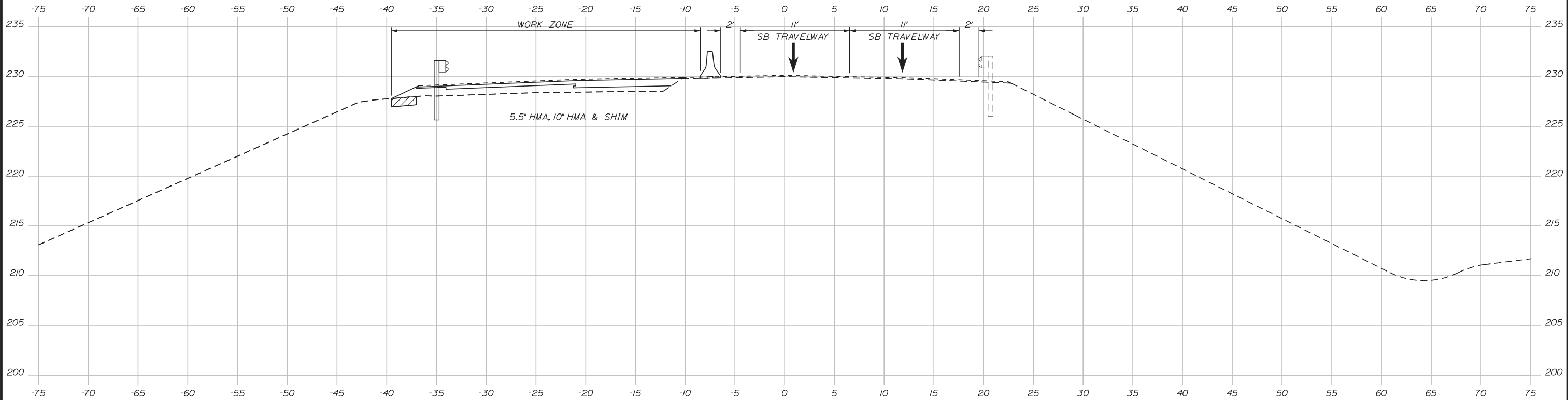
CONTRACT: 2018.05

SHEET NUMBER: MOT2-02

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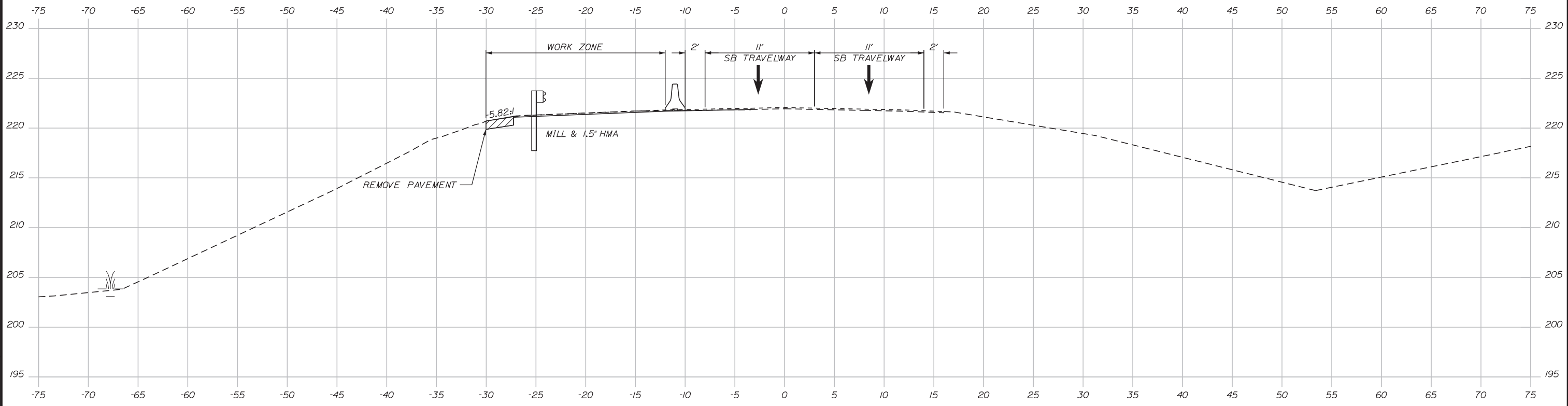
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Date: 2/19/2018

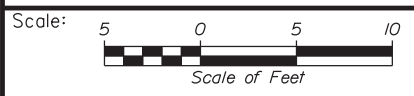


SEE BRIDGE CONSTRUCTION PHASING PLANS FOR CONSTRUCTION PHASING CRITICAL CROSS SECTION ALONG THE BRIDGE

16+50.00



11+50.00



Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

By	Date	By	Date
Designed	MJD 2\16\18	Checked	SJB 2\16\18
Drawn	MJD 2\16\18	In Charge of	GAE 2\16\18

STANTEC CONSULTING SERVICES INC.
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

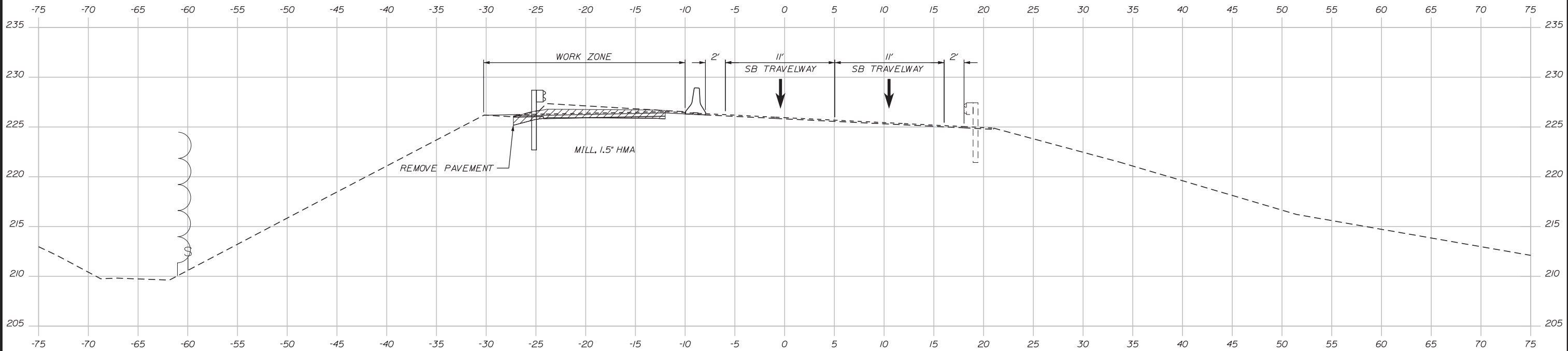
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2, I-295 (2 LANES)
 MAINTENANCE OF TRAFFIC SECTIONS 1 OF 2

SHEET NUMBER: MOT2-03
 CONTRACT: 2018.05
 28 OF 176

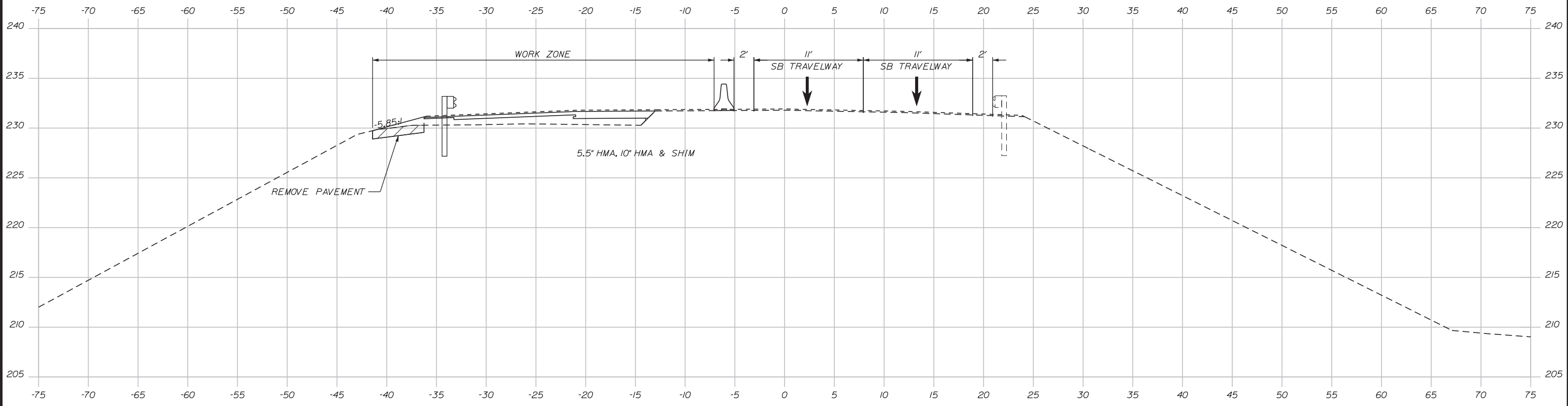
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Date: 2/19/2018

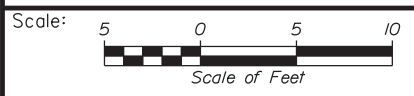


SEE BRIDGE CONSTRUCTION PHASING PLANS
FOR CONSTRUCTION PHASING CRITICAL
CROSS SECTION ALONG THE BRIDGE

27+50.00



22+50.00

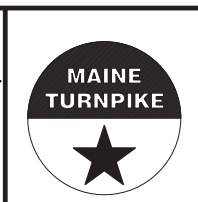


Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date	By	Date	
Designed	MJD	2\16\18	Checked	SJB	2\16\18
Drawn	MJD	2\16\18	In Charge of	GAE	2\16\18

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 2, I-295 (2 LANES)
MAINTENANCE OF TRAFFIC SECTIONS 2 OF 2

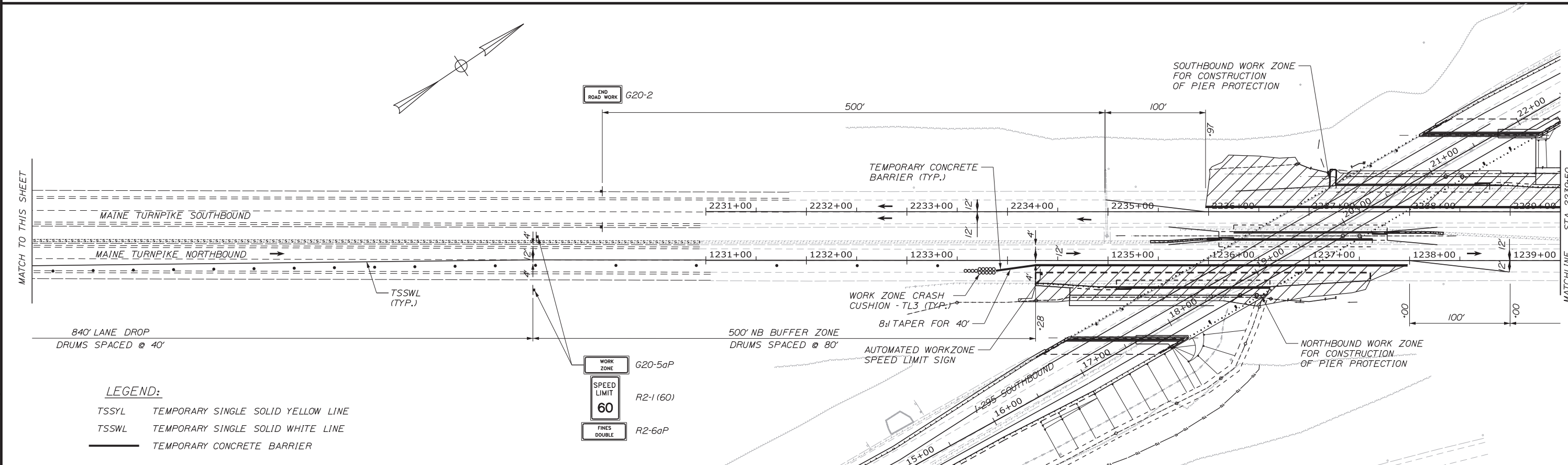
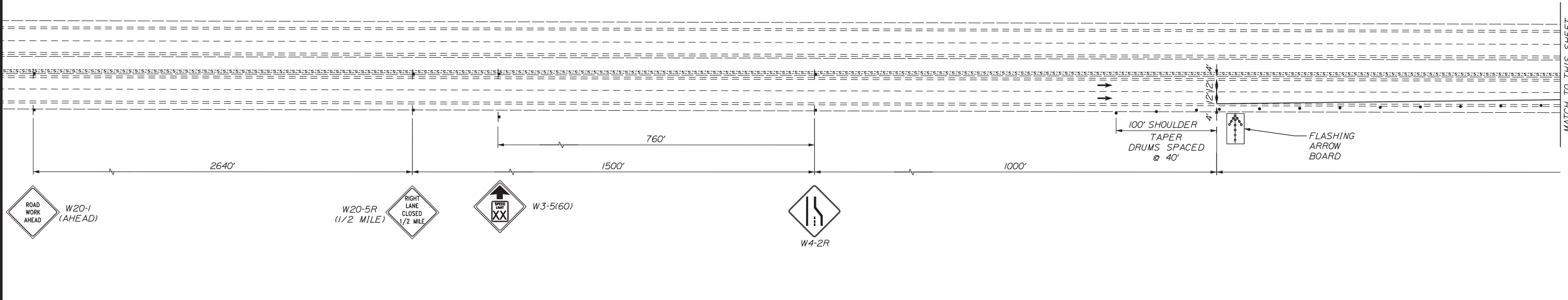
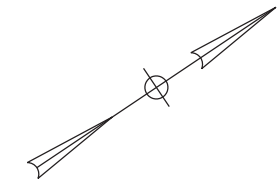
SHEET NUMBER: MOT2-04

CONTRACT: 2018.05

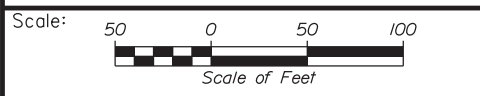
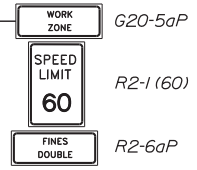
29 OF 176

Filename: ... \026_MOT_Ph2_Critical_Sects_2.dgn

Date: 2/19/2018



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 TEMPORARY CONCRETE BARRIER



Designed by:

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

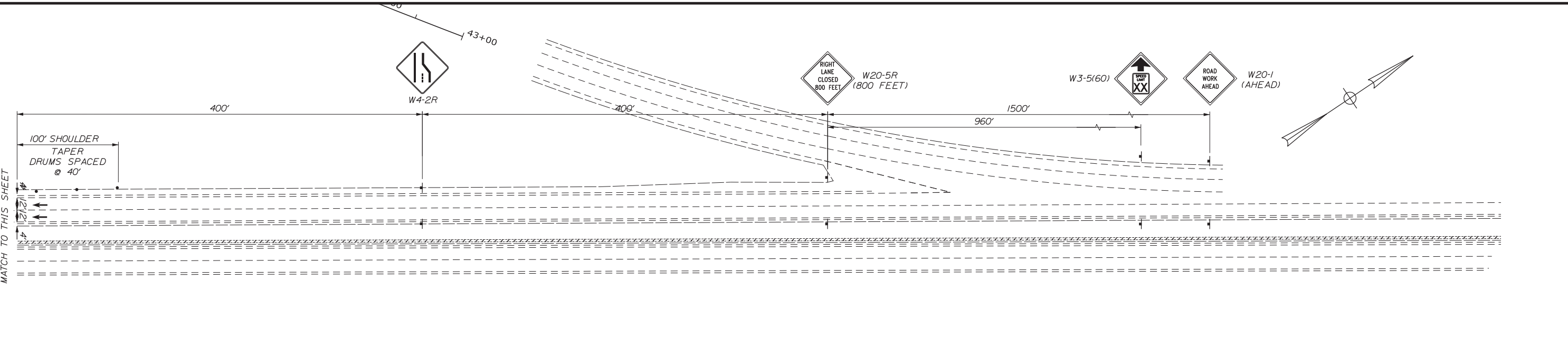
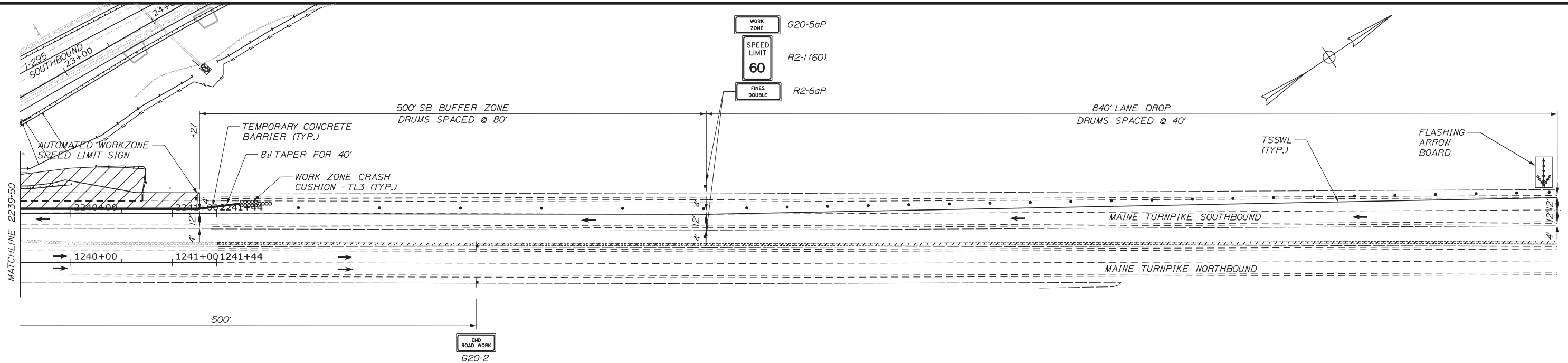
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2, I-95 (RIGHT LANE CLOSURE)
 MAINTENANCE OF TRAFFIC PLAN (1 OF 2)

SHEET NUMBER: MOT2-05
 CONTRACT: 2018.05
 30 OF 176

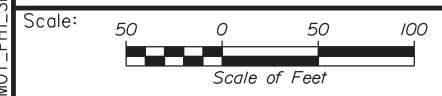
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Date: 2/19/2018

Filename: ...017_MOT_PH1_SB&NB_PERS_2.dgn



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 ——— TEMPORARY CONCRETE BARRIER



Designed by:

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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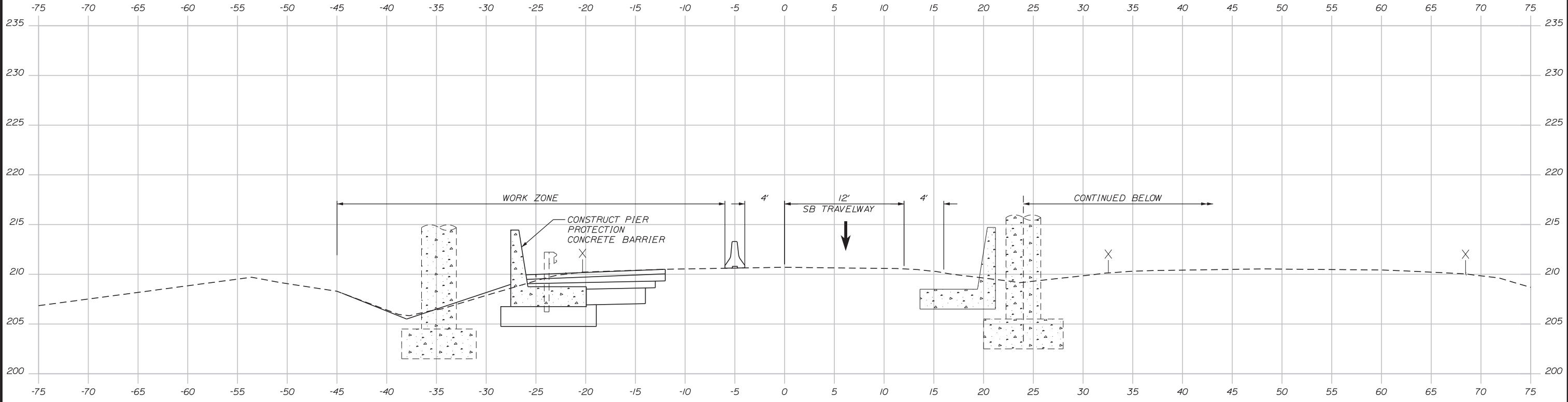
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2, I-95 (RIGHT LANE CLOSURE)
 MAINTENANCE OF TRAFFIC PLAN (2 OF 2)

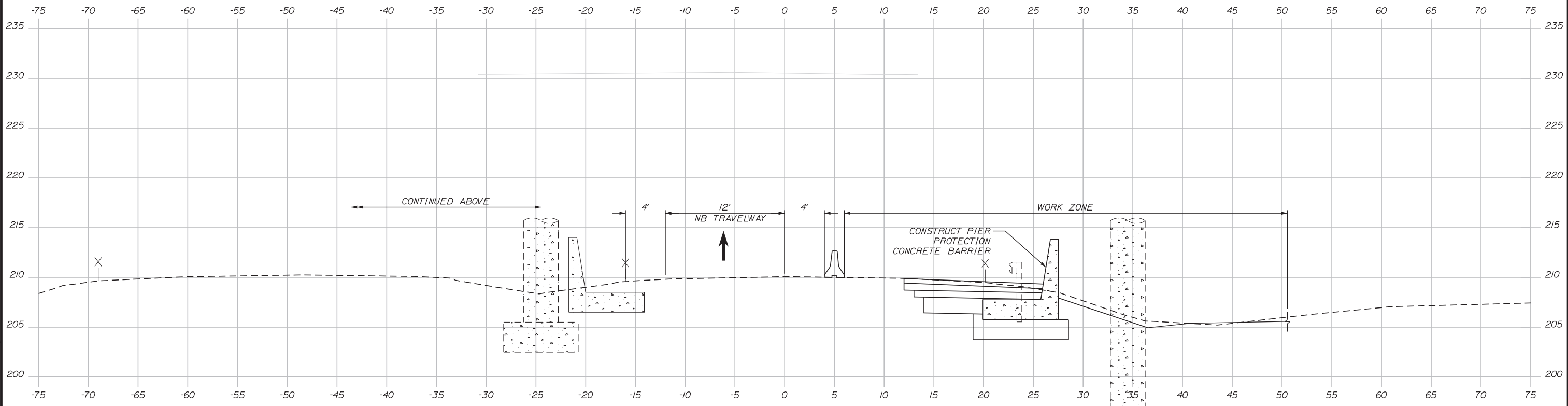
SHEET NUMBER: MOT2-06
 CONTRACT: 2018.05
 31 OF 176

Date: 2/19/2018

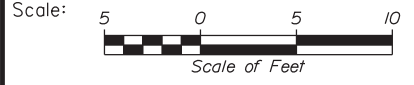


2237+50.00

PHASE 2: I-95 RIGHT LANE CLOSURE
(CONSTRUCT PIER PROTECTION
AT PIERS 1 AND 3)



1236+50.00



Designed by:



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THE GOLD STAR
MEMORIAL HIGHWAY

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 2, I-95 (RIGHT LANE CLOSURE)
MAINTENANCE OF TRAFFIC SECTIONS

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	MJD	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

CONTRACT: 2018.05

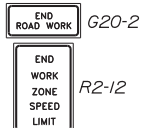
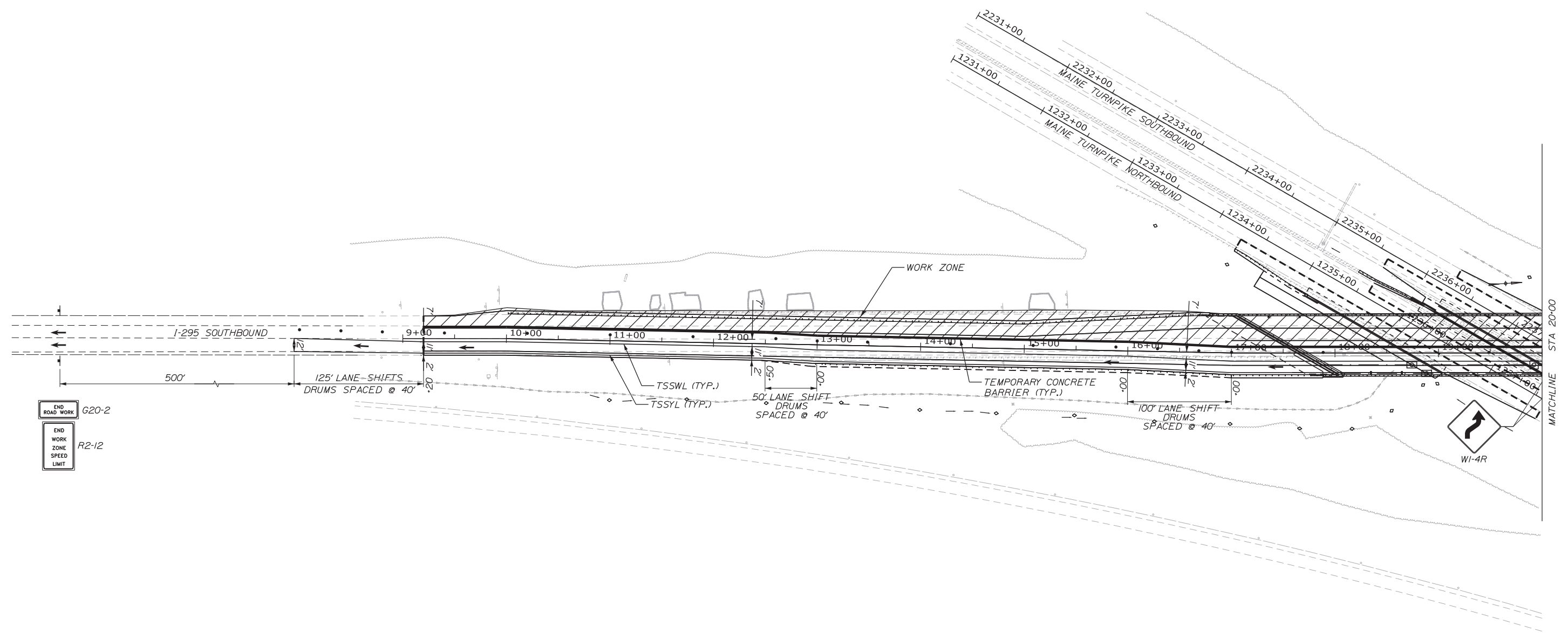
SHEET NUMBER: MOT2-07

32 OF 176

Filename: ... \018_MOT_PH1195_NB & SB_XSECT.dgn

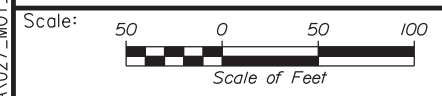
Date: 2/19/2018

Filename: ...MSTA027_MOT_PH2A_1.lane_01.dgn



NOTE: AT THE CONCLUSION OF PHASE 2A MAINTENANCE OF TRAFFIC, REVERT TO PHASE 2.

LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 ——— TEMPORARY CONCRETE BARRIER



Designed by:

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	TJW	8/08/17	Checked	MJD	8/10/17
Drawn	TJW	8/08/17	In Charge of	GB	8/10/17

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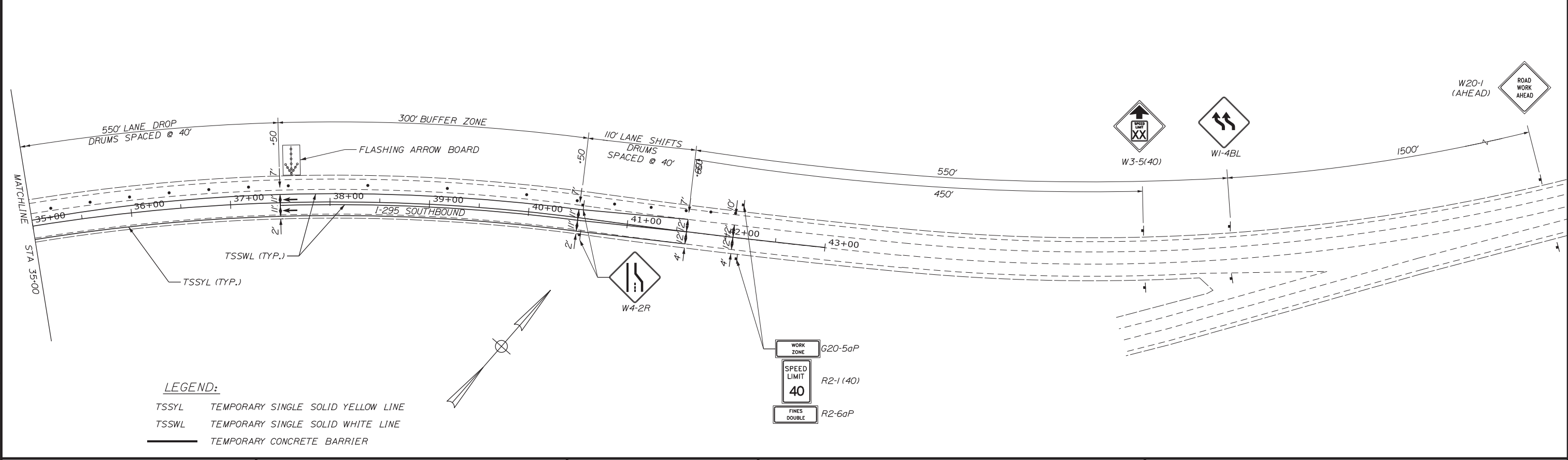
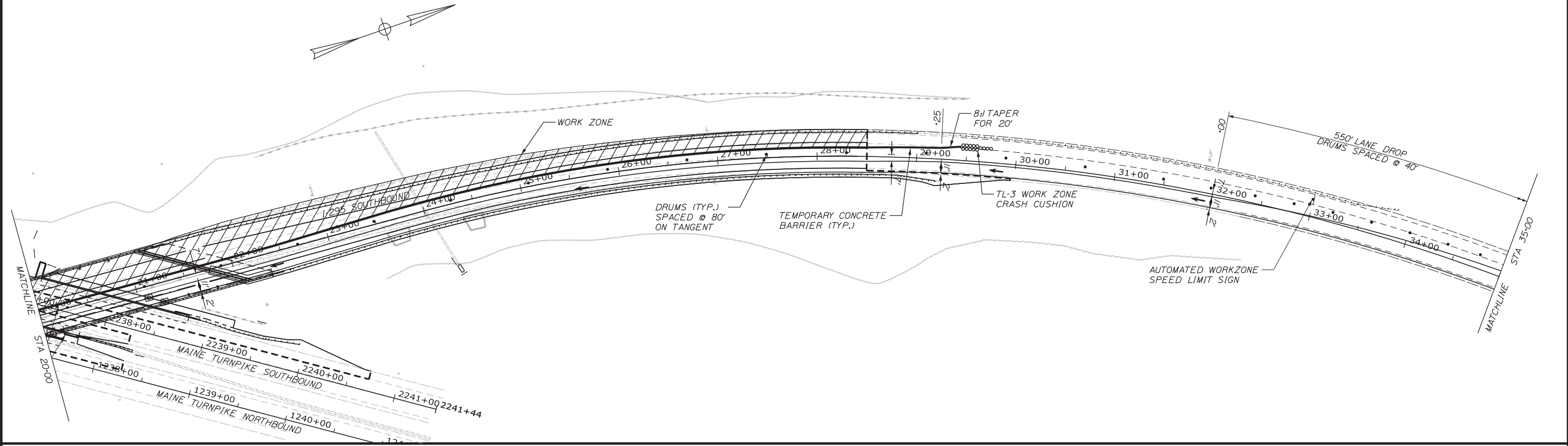
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

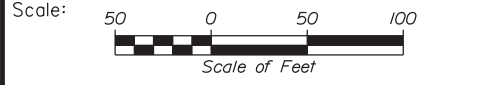
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2A I-295 (1LANE)
 MAINTENANCE OF TRAFFIC PLAN 1 OF 2

SHEET NUMBER: MOT2-08
 CONTRACT: 2018.05
 33 OF 176

Date: 2/19/2018



LEGEND:
 TSSYL TEMPORARY SINGLE SOLID YELLOW LINE
 TSSWL TEMPORARY SINGLE SOLID WHITE LINE
 ——— TEMPORARY CONCRETE BARRIER



Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

By	Date	By	Date
Designed T.JW	8/08/17	Checked MJD	8/10/17
Drawn T.JW	8/08/17	In Charge of GB	8/10/17

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MAINE TURNPIKE

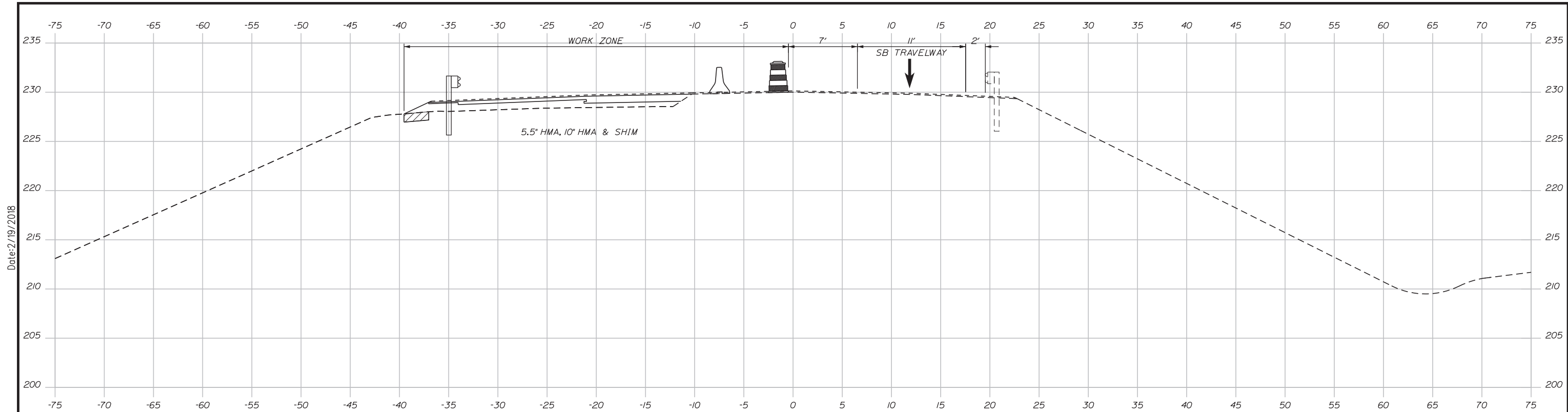
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2A I-295 (1 LANE)
 MAINTENANCE OF TRAFFIC PLAN 2 OF 2

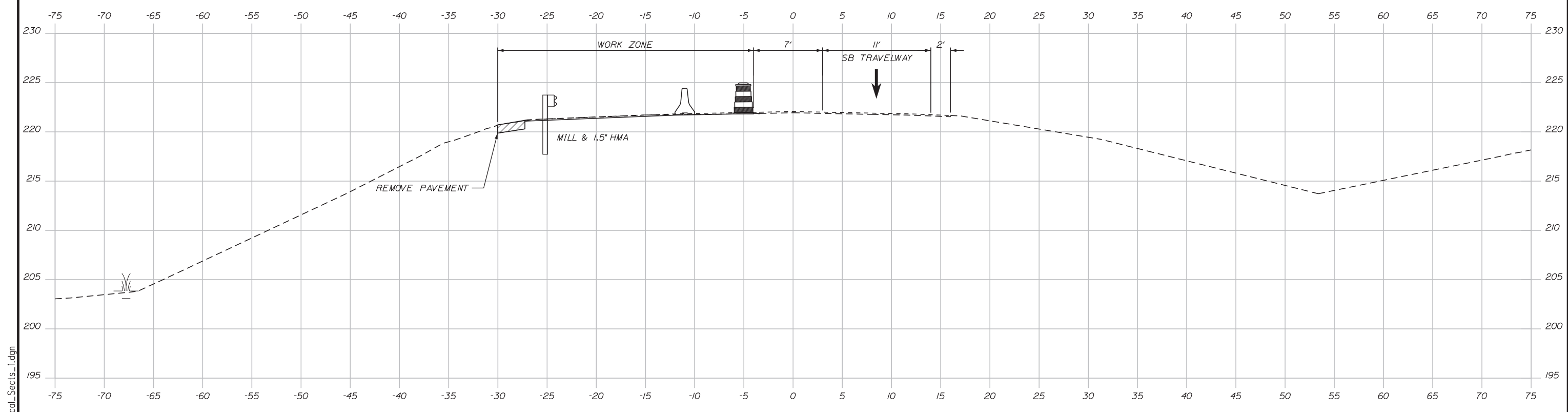
SHEET NUMBER: MOT2-09
 CONTRACT: 2018.05
 34 OF 176

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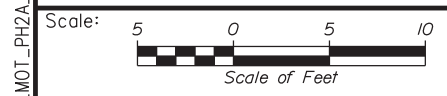


SEE BRIDGE CONSTRUCTION PHASING PLANS
FOR CONSTRUCTION PHASING CRITICAL
CROSS SECTION ALONG THE BRIDGE

16+50.00



11+50.00



Designed by:

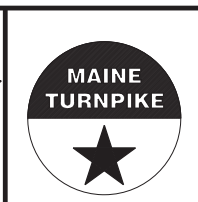
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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

By	Date	By	Date
Designed	MJD 2\16\18	Checked	SJB 2\16\18
Drawn	MJD 2\16\18	In Charge of	GAE 2\16\18

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MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

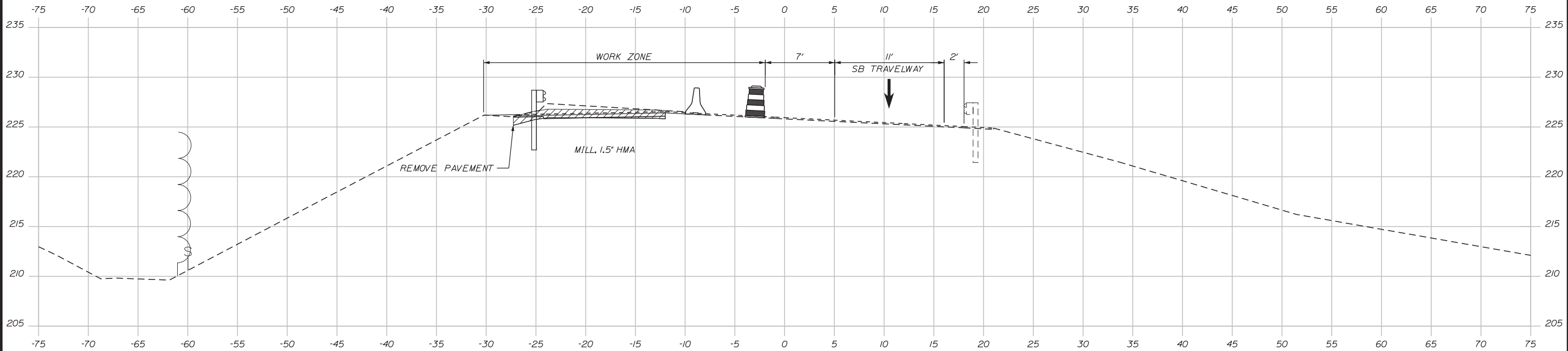
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PHASE 2A, I-295 (1 LANE)
MAINTENANCE OF TRAFFIC SECTIONS 1 OF 2

SHEET NUMBER: MOT2-10
CONTRACT: 2018.05
35 OF 176

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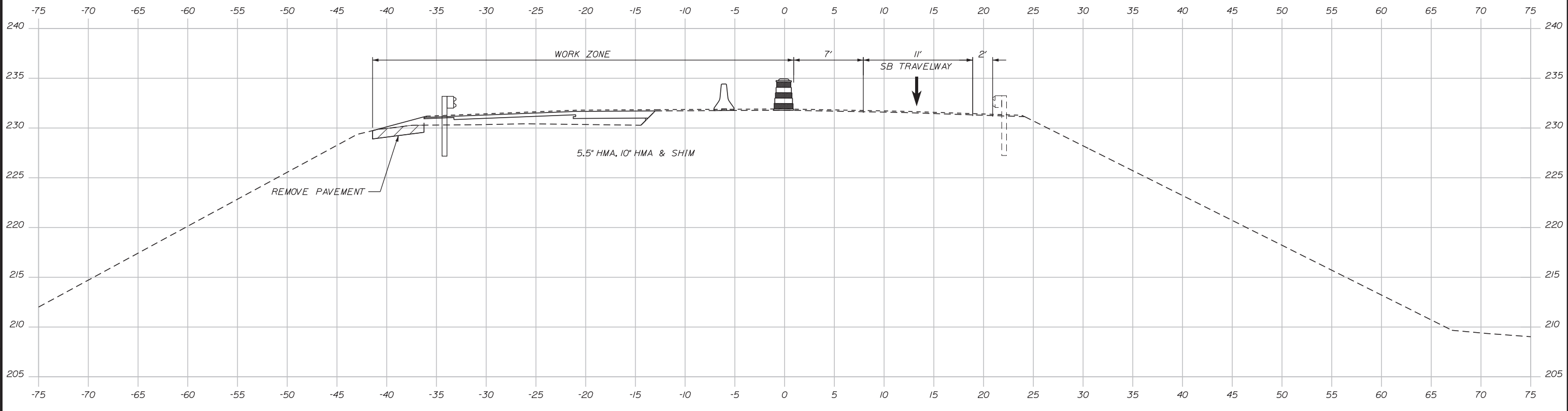
Date: 2/19/2018

Date: 2/19/2018

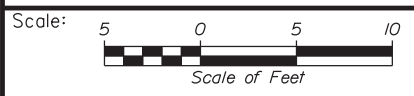


SEE BRIDGE CONSTRUCTION PHASING PLANS FOR CONSTRUCTION PHASING CRITICAL CROSS SECTION ALONG THE BRIDGE

27+50.00



22+50.00



Designed by:

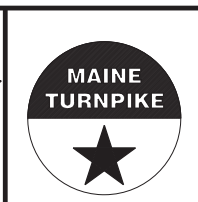
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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

By	Date	By	Date
Designed MJD	2\16\18	Checked SJB	2\16\18
Drawn MJD	2\16\18	In Charge of GAE	2\16\18

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

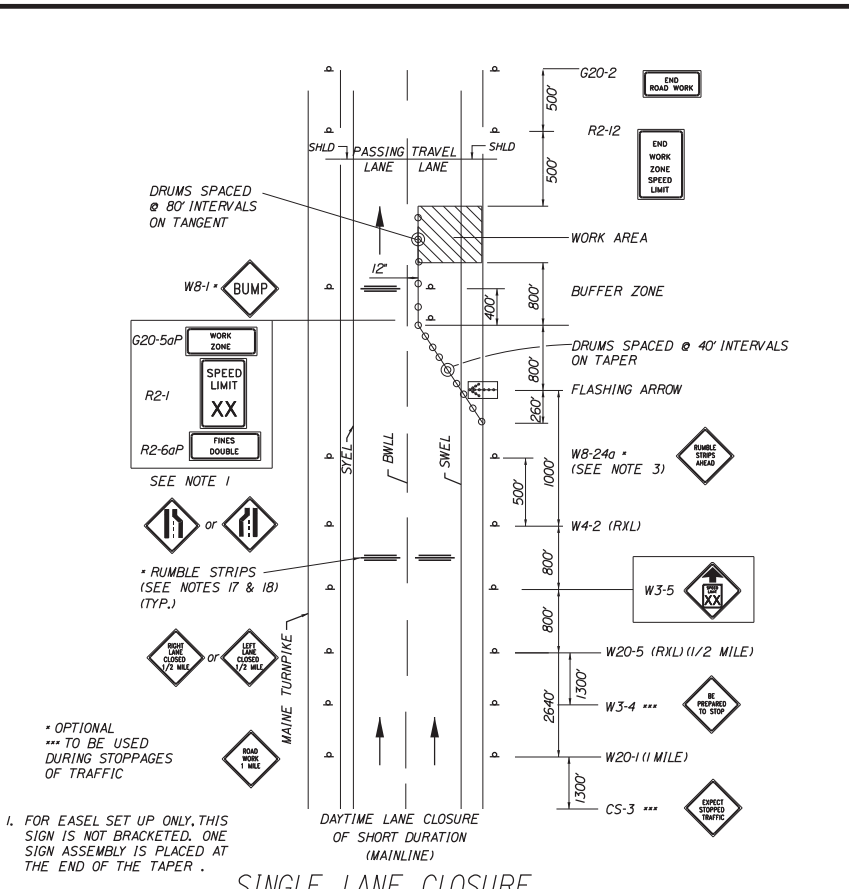
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PHASE 2A, I-295 (1 LANE)
 MAINTENANCE OF TRAFFIC SECTIONS 2 OF 2

SHEET NUMBER: MOT2-11
 CONTRACT: 2018.05
 36 OF 176

Filename: ...\\030_MOT_PH2A_Critical_Sects_2.dgn

Date: 2/19/2018

Filename: ... \BRIDGE\MSTAV031_MOT_Detail.dgn



1. FOR EASEL SET UP ONLY, THIS SIGN IS NOT BRACKETED. ONE SIGN ASSEMBLY IS PLACED AT THE END OF THE TAPER.

2. SIGNS DESIGNATED WITH *** SHALL BE USED DURING STOPPAGES OF TRAFFIC.

SINGLE LANE CLOSURE SIGNS ON EASELS

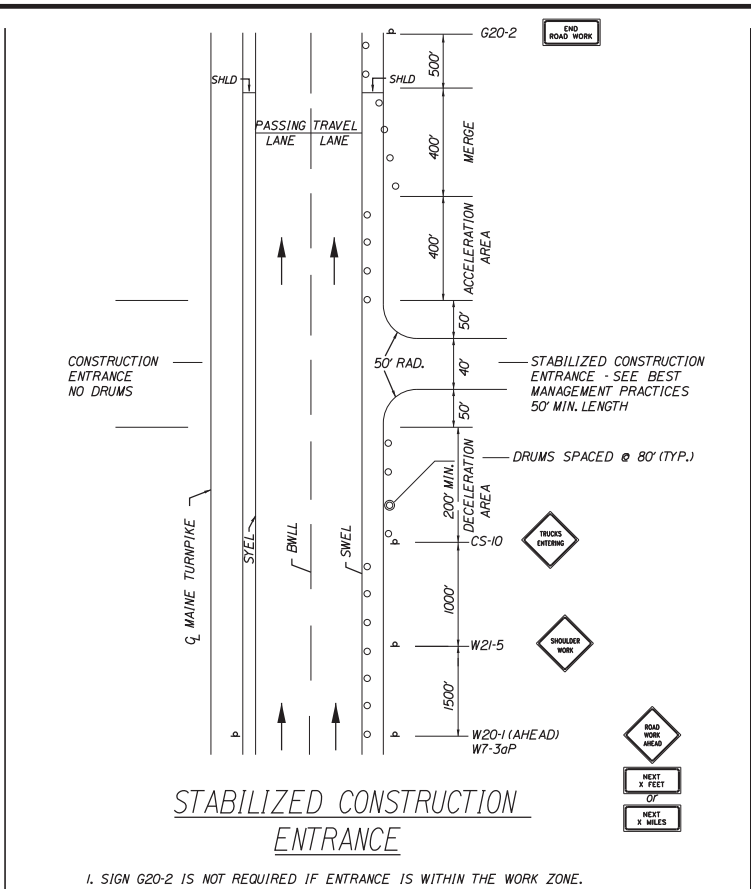
GENERAL NOTES:

1. FOR SIGN DETAILS, SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.

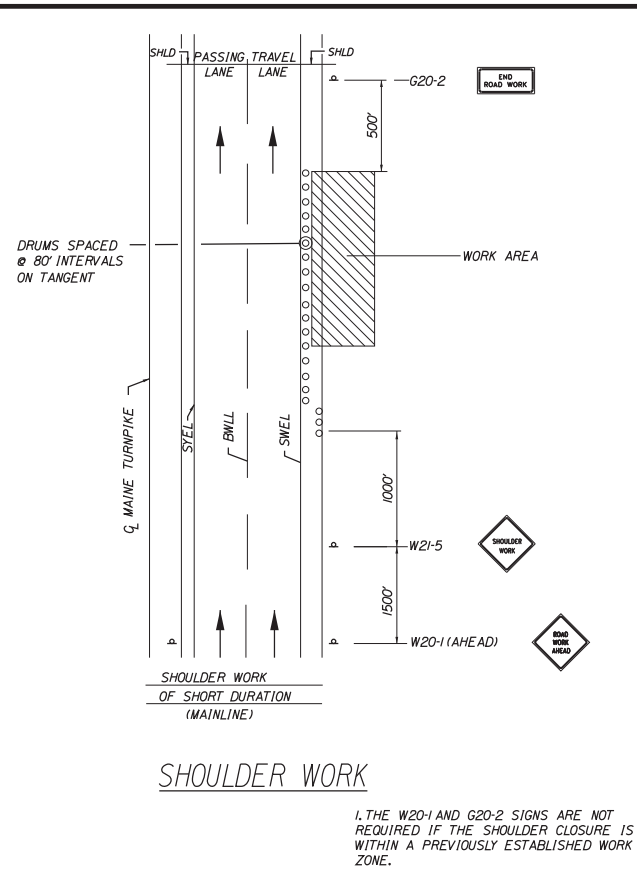
2. "TRUCKS ENTERING" SIGN SHALL ALSO BE USED AT LOCATIONS WHERE TRUCKS ENTER THE WORK ZONE FROM THE TRAVEL LANE.

ABBREVIATIONS FOR ALL M.O.T. PLANS

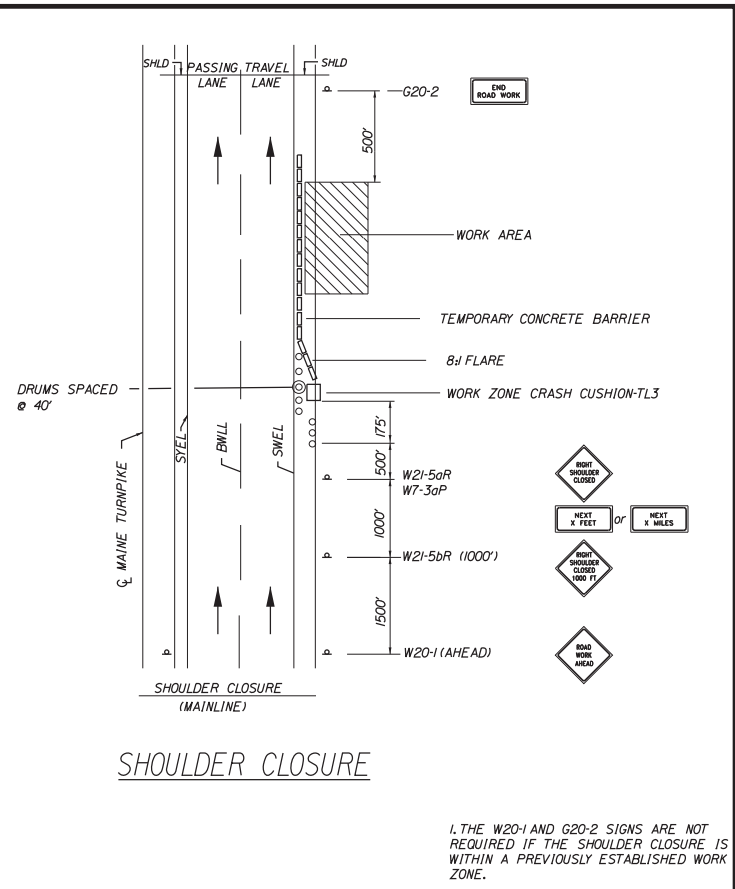
BWLL = BROKEN WHITE LANE LINE
 SWEL = SOLID WHITE EDGE LINE
 SYEL = SOLID YELLOW EDGE LINE
 TBWLL = TEMPORARY BROKEN WHITE LANE LINE
 TSWEL = TEMPORARY SOLID WHITE EDGE LINE
 TSYEL = TEMPORARY SOLID YELLOW EDGE LINE



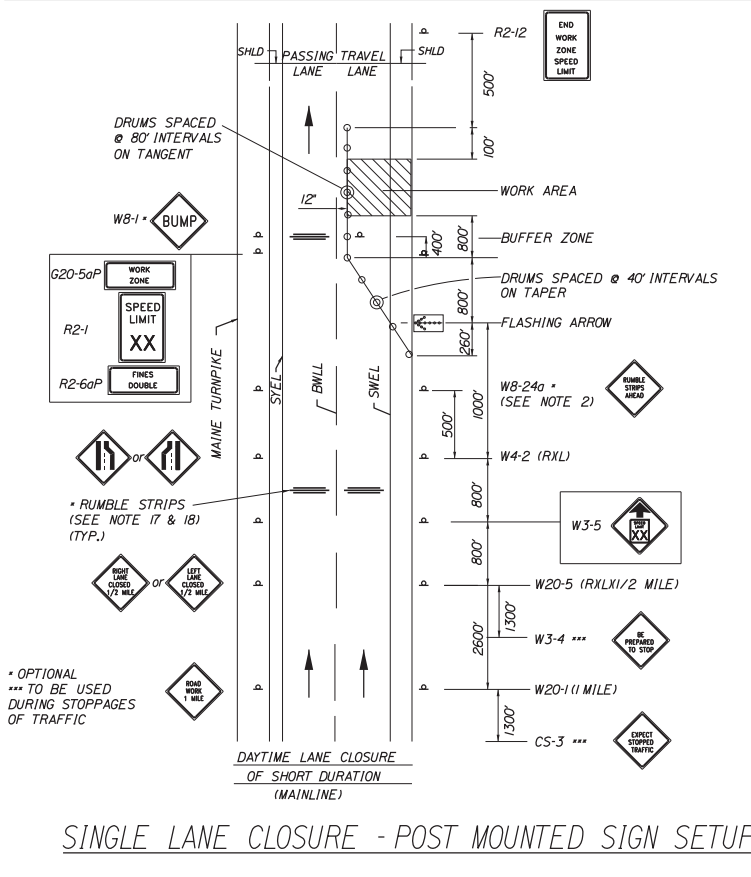
1. SIGN G20-2 IS NOT REQUIRED IF ENTRANCE IS WITHIN THE WORK ZONE.



1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.



1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.



SINGLE LANE CLOSURE - POST MOUNTED SIGN SETUP

GENERAL MAINTENANCE OF TRAFFIC NOTES:

- ALL WORK TO CONFORM TO MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, EXCEPT AS MODIFIED BY THE MAINE TURNPIKE AUTHORITY'S SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
- ALL PAVEMENT STRIPING & SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., F.H.W.A., LATEST EDITION. NOTE THERE IS A 2009 EDITION OF MUTCD.
- THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIKE MAINLINE TRAFFIC CONTROL. DURING CONSTRUCTION, SLIGHT MODIFICATIONS IN CONSTRUCTION PROCEDURE MAY OCCUR AND MAY REQUIRE SOME MINOR ADJUSTMENTS TO BE MADE IN THE FIELD. ALL PROCEDURES MUST BE APPROVED BY THE RESIDENT.
- THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND MUTCD. PAYMENT SHALL BE MADE UNDER ITEM 627.77 - REMOVING PAVEMENT MARKINGS.
- TEMPORARY PAVEMENT MARKINGS SHALL BE PAINTED, UNLESS OTHERWISE NOTED. PAYMENT FOR MARKINGS SHALL BE UNDER ITEM 627.681 - TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINES, YELLOW OR WHITE.
- PAINTED PAVEMENT MARKINGS SHALL NOT BE INSTALLED ON NEW PAVEMENT. TEMPORARY PAVEMENT MARKING TAPE SHALL BE USED.
- EXPOSED BARRIER ENDS SHALL BE PROTECTED BY A WORK ZONE CRASH CUSHION. PAYMENT WILL BE UNDER ITEM 527.343 - WORK ZONE CRASH CUSHION - TL-3.
- ALL TEMPORARY BARRIER SHALL BE SET WITH A MINIMUM 8:1 TAPER. THE 8:1 TAPER BARRIER LENGTH IS DEPENDENT ON THE LOCATION OF THE BARRIER RELATIVE TO THE MAINE TURNPIKE SHOULDERS OR LANES.

- REMOVAL OF TEMPORARY PAVEMENT MARKINGS ON FINAL PAVEMENT SURFACE SHALL BE DONE IN SUCH A MANNER TO REMOVE AS LITTLE PAVEMENT AS POSSIBLE.
- FOR SIGN DETAIL, SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.
- "TRUCK ENTERING" SIGN SHALL ALSO BE USED AT LOCATIONS WHERE TRUCKS ENTER THE WORK ZONE FROM THE TRAVEL LANE.
- TRUCK MOUNTED ATTENUATOR SHALL NOT BE LOCATED WITHIN THE BUFFER ZONE.
- ALL POSTED SPEED LIMIT, STOP, AND YIELD SIGNS MUST BE 5 FEET OR MORE ABOVE THE PAVEMENT.
- THESE PLANS SHOW THE GENERAL LAYOUT OF CONSTRUCTION ZONE SIGNING; ALL LOCATIONS REQUIRING SIGNS MAY NOT BE SHOWN. FINAL CONTENT AND LAYOUT OF SIGNS MUST BE SUBMITTED TO AND APPROVED BY THE RESIDENT.
- WORK ZONE SPEED LIMIT ASSEMBLY MAY BE REPLACED WITH AN AUTOMATED WORK ZONE SPEED LIMIT SIGN (ITEM 652.451).
- WORK IN THE MEDIAN AND OUTSIDE SHOULDER OF I-95 NORTHBOUND OR SOUTHBOUND SHALL NOT OCCUR SIMULTANEOUSLY. CONTRACTOR SHALL STAGE WORK ACCORDINGLY.
- IF RUMBLE STRIPS ARE USED THEY SHALL BE PLACED IN ONE OF THE FOLLOWING CONFIGURATIONS:
 - ADJACENT TO THE WORK ZONE (1 UNIT)
 - UPSTREAM FROM THE TAPER FOR THE WORK ZONE (2 UNITS)
 - BOTH ADJACENT TO THE WORK ZONE AND PRIOR TO THE TAPER (3 UNITS)
- W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST RUMBLE STRIP AT ANY LOCATION. ONLY ONE SET OF W8-24a SIGNS ARE REQUIRED FOR ANY OF THE ABOVE CONFIGURATIONS.
- RUMBLE STRIPS MAY BE PLACED UPSTREAM OF THE TAPER BETWEEN THE W3-5 SIGNS AND THE W4-2 SIGNS. IF RUMBLE STRIPS ARE INSTALLED PRIOR TO TAPER, W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST STRIP AND THE W8-24a SIGNS SHALL BE MOVED 400' AFTER THE W20-5 SIGNS

Scale:

No.	Revision	By	Date

Designed by:

Stantec

STANTEC CONSULTING SERVICES INC.
 482 PAYNE ROAD
 SCARBOROUGH, ME 04074
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 FAX (207) 883-3376

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
	By	Date	
Designed	SJB	2\16\18	Checked MJD 2\16\18
Drawn	SJB	2\16\18	In Charge of GAE 2\16\18

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS BRIDGE REHABILITATION

MAINTENANCE OF TRAFFIC DETAILS

SHEET NUMBER: MOTD-01

CONTRACT: 2018.05

94 OF 176

Date: 2/19/2018

Filename: ...MSTA\032_MOT_Sign_Summary.dgn

MUTCD NUMBER	SIZE OF SIGN		TEXT	COLOR		TEXT DIMENSIONS			NUMBER OF SIGNS REQUIRED	SIGN AREA (SQ. FEET)	
	WIDTH	HEIGHT		BACK-GROUND	LEGEND BORDER	LETTER HEIGHT	VERTICAL SPACING	SHIELD/ARROW		NOM. AREA	TOTAL AREA
G20-1	48"	24"		ORANGE	BLACK	TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS"			4	8.00	32.00
G20-2	48"	24"		ORANGE	BLACK				9	8.00	72.00
G20-5aP	36"	24"		ORANGE	BLACK				6	6.00	36.00
R2-1 (40) (50) (60)	36"	48"		WHITE	BLACK				2 1 4	12.00 12.00 12.00	24.00 12.00 48.00
W3-5 (40) (50) (60)	48"	48"		ORANGE / WHITE	BLACK / BLACK				2 6 4	16.00 16.00 16.00	32.00 96.00 64.00
R2-6aP	36"	24"		WHITE	BLACK				6	6.00	36.00
R2-12	36"	54"		WHITE	BLACK				6	13.5	81.00
W1-4L	48"	48"		ORANGE	BLACK				2	16.00	32.00
W1-4R	48"	48"		ORANGE	BLACK				2	16.00	32.00
W1-4BL	48"	48"		ORANGE	BLACK				2	16.00	32.00
W1-4BR	48"	48"		ORANGE	BLACK				2	16.00	32.00
W4-2L	48"	48"		ORANGE	BLACK				6	16.00	96.00

MUTCD NUMBER	SIZE OF SIGN		TEXT	COLOR		TEXT DIMENSIONS			NUMBER OF SIGNS REQUIRED	SIGN AREA (SQ. FEET)	
	WIDTH	HEIGHT		BACK-GROUND	LEGEND BORDER	LETTER HEIGHT	VERTICAL SPACING	SHIELD/ARROW		NOM. AREA	TOTAL AREA
W4-2R	48"	48"		ORANGE	BLACK	TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS"			6	16.00	96
W7-3aP (1)	36"	30"		ORANGE	BLACK				3	7.50	22.50
W8-1	48"	48"		ORANGE	BLACK				2	16.00	32.00
W8-11	48"	48"		ORANGE	BLACK				2	16.00	32.00
W8-15	48"	48"		ORANGE	BLACK				4	16.00	64.00
W8-15P	30"	24"		ORANGE	BLACK				4	5.00	20.00
W8-24a	48"	48"		ORANGE	BLACK				2	16.00	32.00
W20-1 (AHEAD) (1 MILE)	48"	48"		ORANGE	BLACK				6 4	16.00 16.00	96.00 64.00
W20-5L (1/2 MILE) (1000 FT)	48"	48"		ORANGE	BLACK				4 2	16.00 16.00	64.00 32.00
W20-5R (1/2 MILE) (800 FT)	48"	48"		ORANGE	BLACK				4 2	16.00 16.00	64.00 32.00
W3-4	48"	48"		ORANGE	BLACK				4	16.00	64.00
W21-5	48"	48"		ORANGE	BLACK				2	16.00	32.00

Scale: N.T.S.

No.	Revision	By	Date

Designed by:

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD
SCARBOROUGH, ME 04074
TEL (207) 887-3448
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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
By	Date	By	Date
Designed	SJB 2\16\18	Checked	LEM 2\16\18
Drawn	SJB 2\16\18	In Charge of	GAE 2\16\18

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS BRIDGE REHABILITATION

MOT SIGN SUMMARY (1 OF 2)






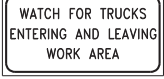
SHEET NUMBER: MOTD-02

CONTRACT: 2018.05

38 OF 176

Date: 2/19/2018


Filename: ...MSTA\032_MOT_Sign_Summary.dgn

MUTCD NUMBER	SIZE OF SIGN		TEXT	COLOR		TEXT DIMENSIONS			NUMBER OF SIGNS REQUIRED	SIGN AREA (SQ. FEET)	
	WIDTH	HEIGHT		BACK-GROUND	LEGEND BORDER	LETTER HEIGHT	VERTICAL SPACING	SHIELD/ARROW		NOM. AREA	TOTAL AREA
W21-5bR (1000)	48"	48"		ORANGE	BLACK	TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS"			1	16.00	16.00
W21-5aR	48"	48"		ORANGE	BLACK	↓	↓	↓	1	16.00	16.00
CS-3	48"	48"		ORANGE	BLACK	6" C 6" C 6" C	4.5" 4.5"	-	4	16.00	64.00
CS-5	48"	48"		ORANGE	BLACK	6" C 6" C	4.5"	-	1	16.00	16.00
CS-11	48"	48"		ORANGE	BLACK	6" C 6" C 6" C	4.5" 4.5"	-	2	16.00	32.00
CS-33	96"	36"		ORANGE	BLACK	6" C 6" C 6" C	4.5" 4.5"	-	2	24.00	48.00

Scale: N.T.S.

No.	Revision	By	Date

Designed by:



CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

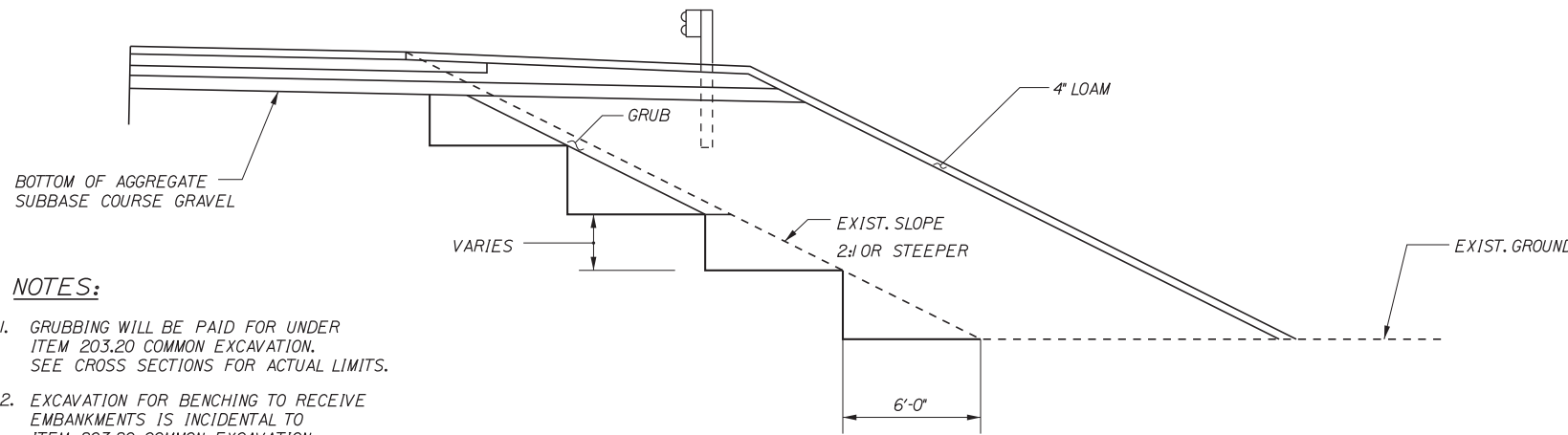
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

MOT SIGN SUMMARY (2 OF 2)

SHEET NUMBER: MOTD-03
 CONTRACT: 2018.05
 39 OF 176

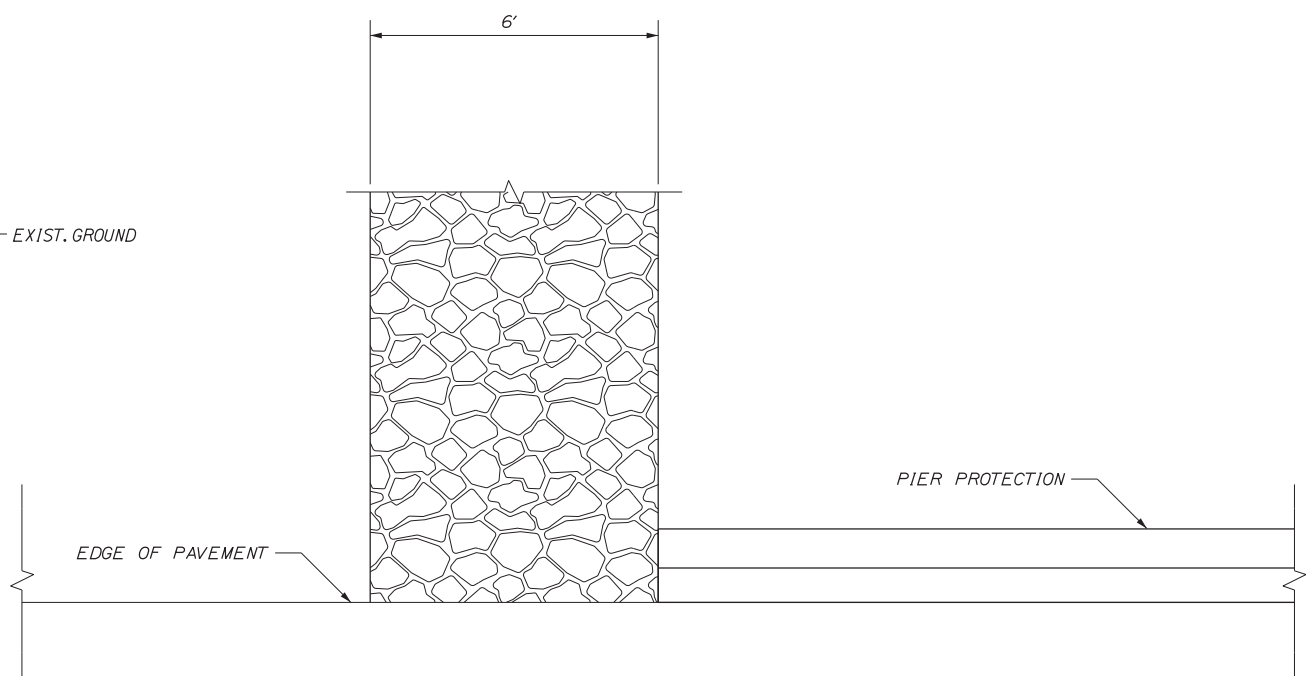
Date: 2/19/2018

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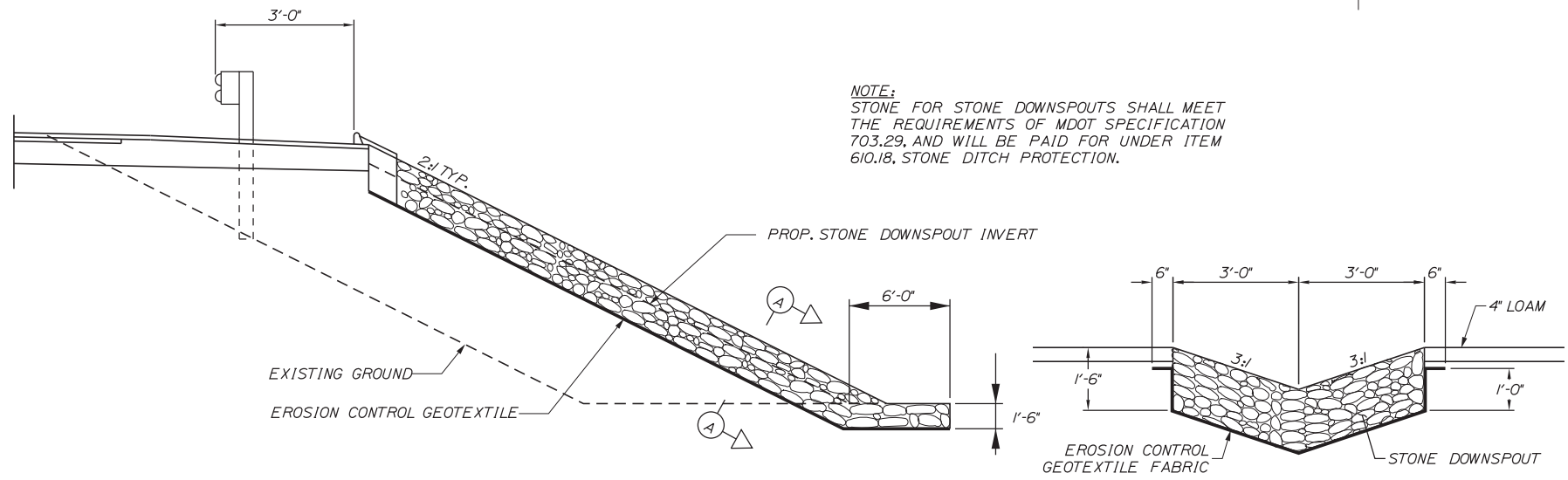


- NOTES:**
- GRUBBING WILL BE PAID FOR UNDER ITEM 203.20 COMMON EXCAVATION. SEE CROSS SECTIONS FOR ACTUAL LIMITS.
 - EXCAVATION FOR BENCHING TO RECEIVE EMBANKMENTS IS INCIDENTAL TO ITEM 203.20 COMMON EXCAVATION.
 - BENCHING IS REQUIRED WHERE FILL IS TO BE PLACED ON EXISTING EMBANKMENTS WITH SLOPES 2:1 OR STEEPER.

BENCH DETAIL
1" = 4'-0"



PLAN
NTS
STONE DOWNSPOUT



NOTE:
STONE FOR STONE DOWNSPOUTS SHALL MEET THE REQUIREMENTS OF MDOT SPECIFICATION 703.29, AND WILL BE PAID FOR UNDER ITEM 610.18, STONE DITCH PROTECTION.

SECTION
NTS

SECTION A-A
1/2" = 1'-0"

STONE DOWNSPOUT

1 LF of Downspout = .33 CY of Stone Ditch Protection
1 LF of Downspout = 1.04 SY of Erosion Control Geotextile Fabric

Scale:

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	SJB	2\16\18
Drawn	SJB	2\16\18	In Charge of	SJB	2\16\18

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MAINE TURNPIKE

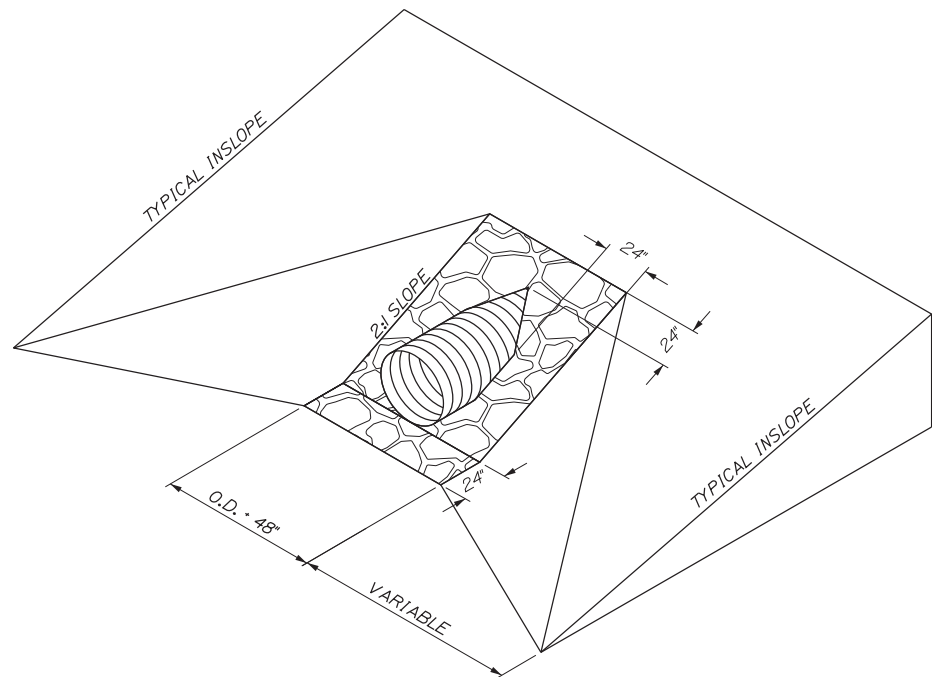
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

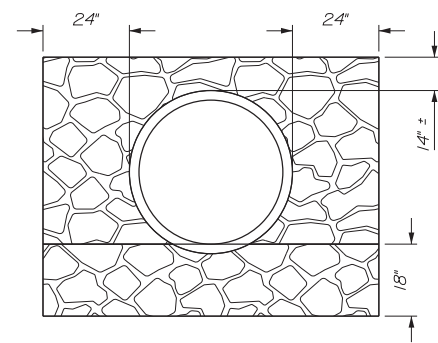
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
BENCHING AND
EROSION CONTROL DETAILS

SHEET NUMBER: DET-01
CONTRACT: 2018.05
40 OF 176

Date: 2/19/2018

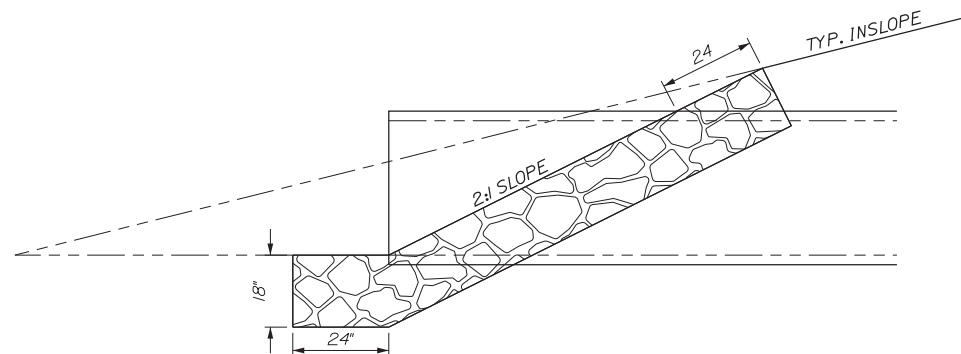


ISOMETRIC



SEE NOTE #3

FRONT

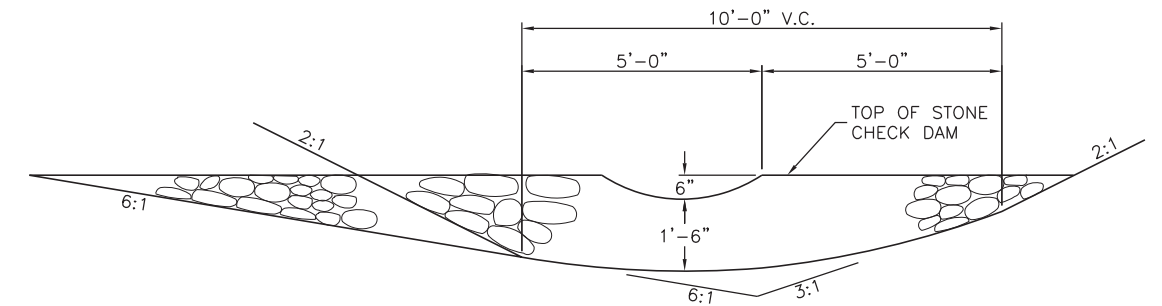


SECTION

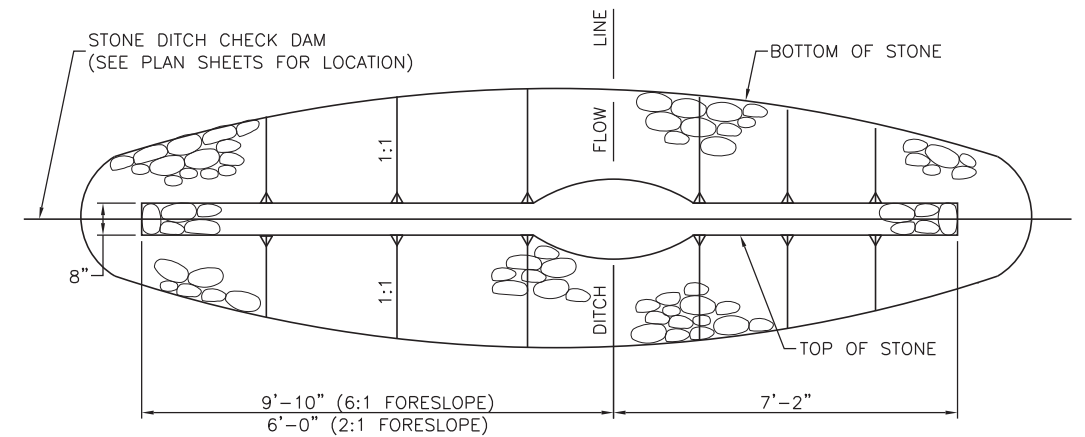
NOTES:

1. THE DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE MODIFIED IN THE FIELD BY THE RESIDENT.
 2. RIPRAP WILL BE REQUIRED ON PORTIONS OF THE CULVERT END TREATMENT THAT LIE ON 2:1 SLOPE. THE REMAINING PORTIONS SHALL BE LOAMED, SEEDED AND MULCHED AS DIRECTED.
 3. INSTALL RIPRAP 24" AROUND THE OUTSIDE DIAMETER OF THE CULVERT PIPE.
- REFERENCE: BEST MANEGMENT PRACTICES FOREROSION AND SEDIMENT CONTROL - CULVERT INLET OUTLET PROTECTION.

ROADWAY CULVERT END SLOPE TREATMENT



SECTION



PLAN

STONE CHECK DAM

1" = 2'-0"

FORESLOPE	BACKSLOPE	QUANTITY C.Y. STONE
6:1	3:1	2.5
2:1	3:1	2.0

NOTES:

1. STONE FOR TEMPORARY AND PERMANENT STONE CHECK DAMS SHALL MEET THE REQUIREMENTS OF MDOT SPECIFICATION 703.29, STONE DITCH PROTECTION.
2. TEMPORARY STONE CHECK DAMS WILL BE PAID FOR UNDER ITEM 610.181.

Filename: ...034_Erosion_Control_Details.dgn

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	MJD	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

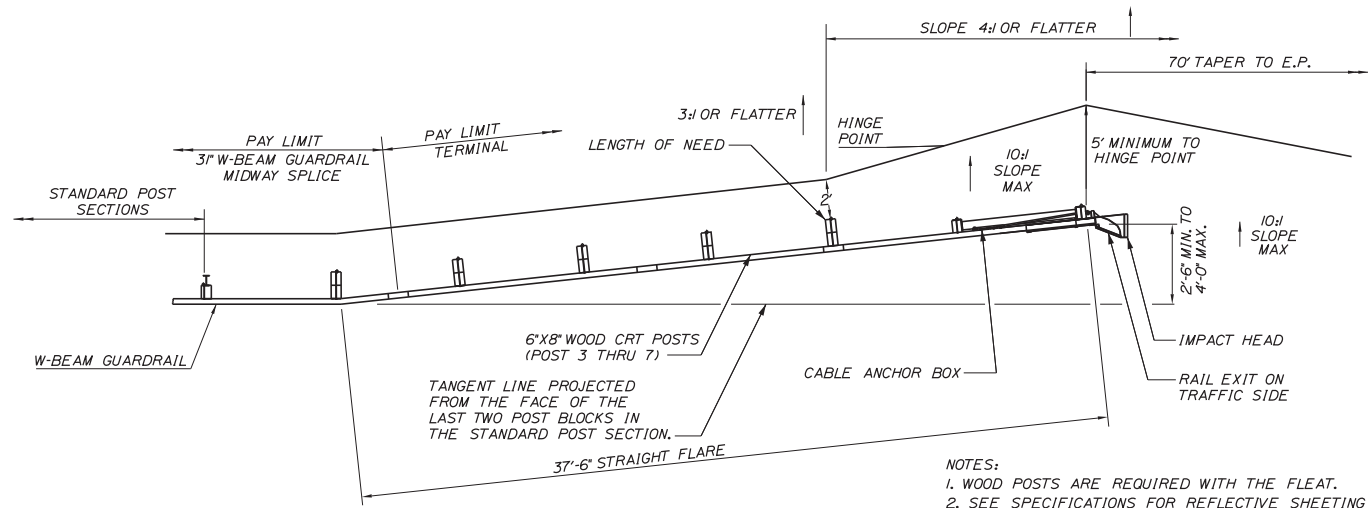
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

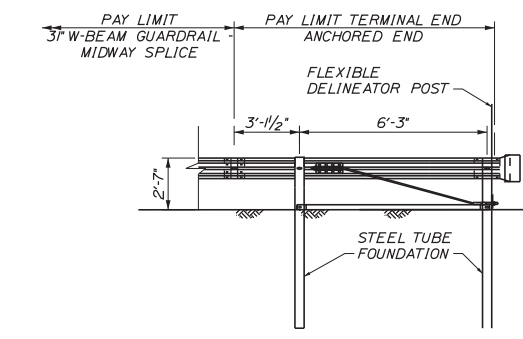
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 EROSION CONTROL DETAILS

SHEET NUMBER: DET-02
 CONTRACT: 2018.05
 41 OF 176

Date: 2/19/2018

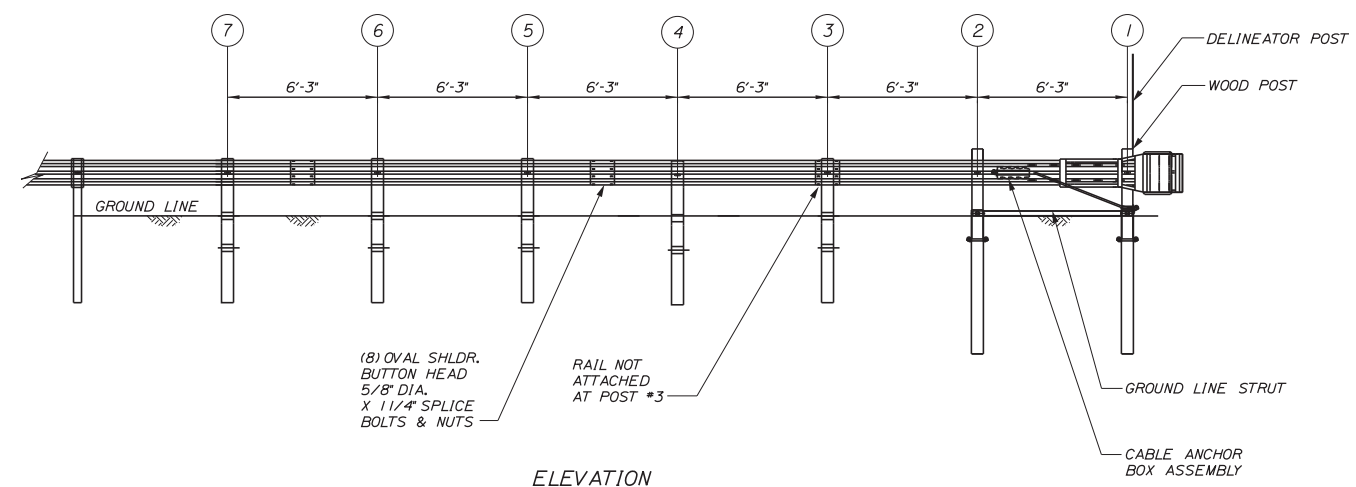


NOTES:
 1. WOOD POSTS ARE REQUIRED WITH THE FLARE.
 2. SEE SPECIFICATIONS FOR REFLECTIVE SHEETING REQUIREMENTS.

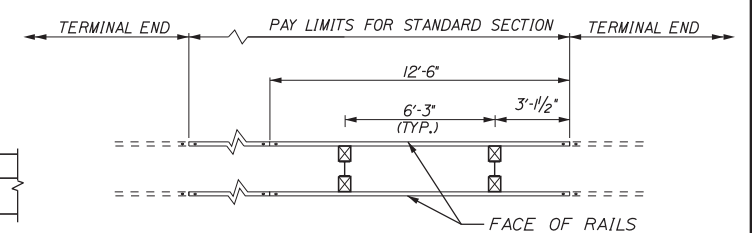
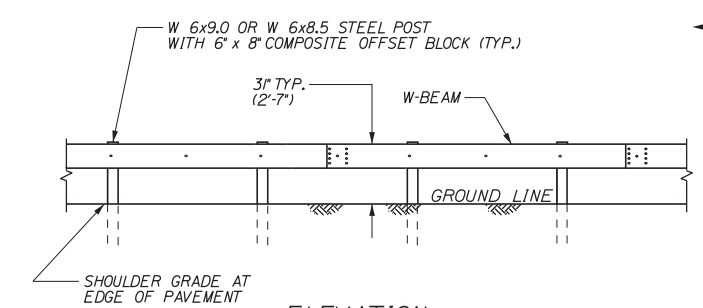
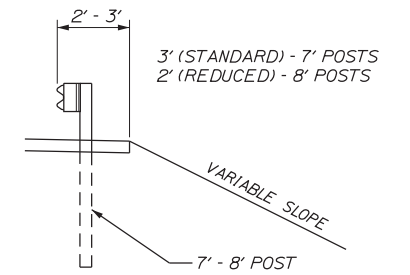
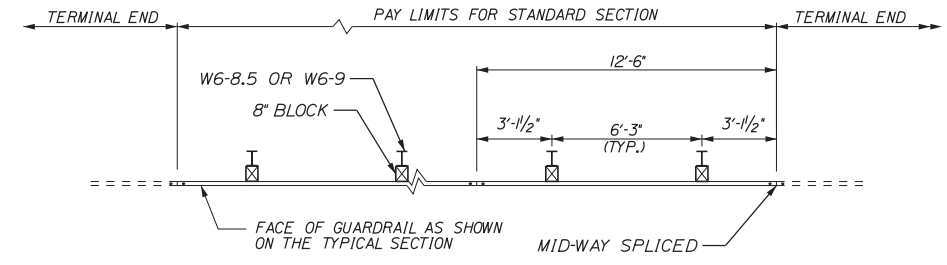


NOTES:
 1. THIS DETAIL MODIFIES THE SEW31 DRAWING SUCH THAT W-BEAM DOES NOT EXTEND BEYOND THE LAST GUARDRAIL POST. THE RWMI40 W-BEAM PANEL SHALL HAVE A LENGTH OF 9'-4 1/2" MEASURED FROM THE CENTER OF THE MIDWAY SPLICE TO THE CENTER OF THE LAST GUARDRAIL POST.

TERMINAL END - ANCHORED END - 3" W-BEAM GUARDRAIL (ITEM 606.1351) NOT TO SCALE



GUARDRAIL 350 FLARED TERMINAL - 3" W-BEAM GUARDRAIL NOT TO SCALE



3" W-BEAM GUARDRAIL - MID-WAY SPLICE (8" OFFSET BLOCKS) (ITEMS 606.13, 606.132) NOT TO SCALE

GENERAL GUARDRAIL INSTALLATION NOTE:

1. THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE INSTALLATION OF ALL GUARDRAIL COMPONENTS TO BE INSTALLED. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY CONFLICTS OR IRREGULARITIES BETWEEN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASH END TREATMENT ON ALL GUARDRAIL ENDS PRIOR TO THE REMOVAL OF ANY MOT FEATURES.
3. GUARDRAIL HEIGHT SHALL BE 3'-1/2". GUARDRAIL HEIGHT SHALL BE MEASURED FROM AT GROUND ELEVATION ADJACENT TO EACH POST.
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CUT BOLTS, DISCARD PARTS, TRASH, PAVEMENT DEBRIS, ETC., AFTER COMPLETING THE GUARDRAIL INSTALLATION.
5. CONNECTION FOR PROPOSED RAIL TO EXISTING RAIL SHALL BE INCIDENTAL TO THE PROPOSED GUARDRAIL ITEMS.

No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	SJB	2\16\18
Drawn	SJB	2\16\18	In Charge of	SJB	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

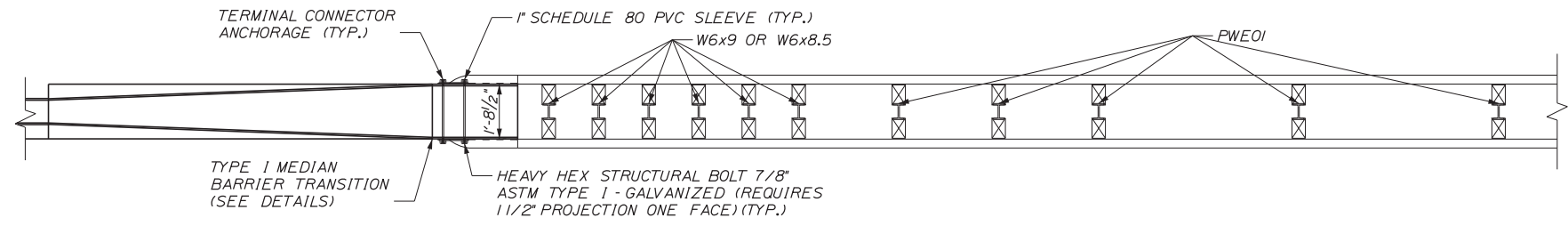
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 GUARDRAIL DETAILS 1 OF 3

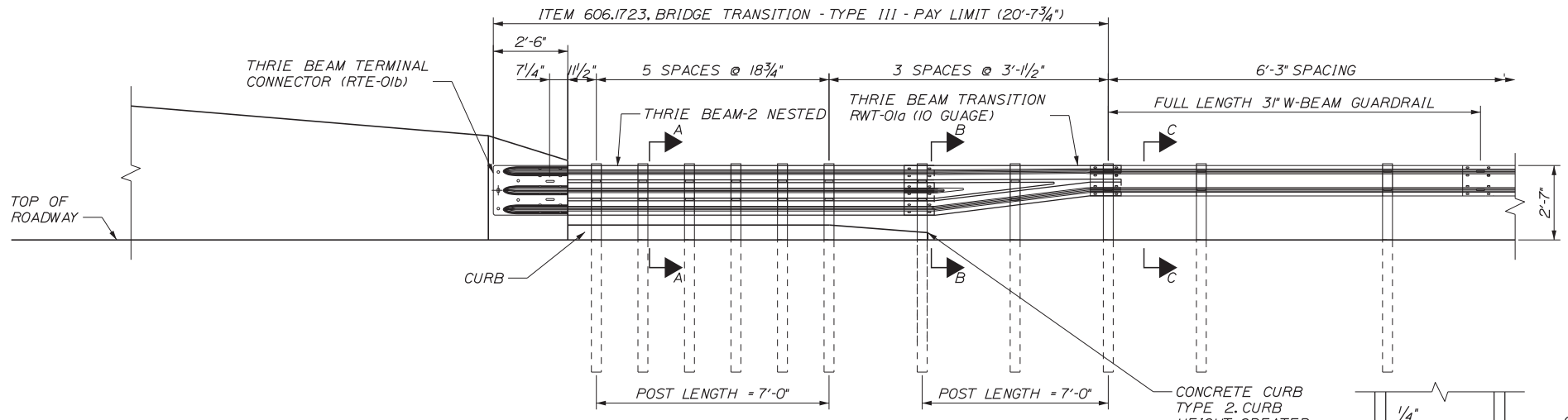
SHEET NUMBER: DET-03
 CONTRACT: 2018.05
 42 OF 176

Date: 2/19/2018

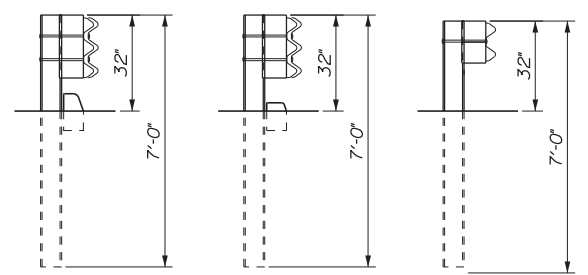
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PLAN VIEW
BRIDGE TRANSITION - TYPE III MODIFIED (ITEM 606.1724)
3/8" = 1'-0"



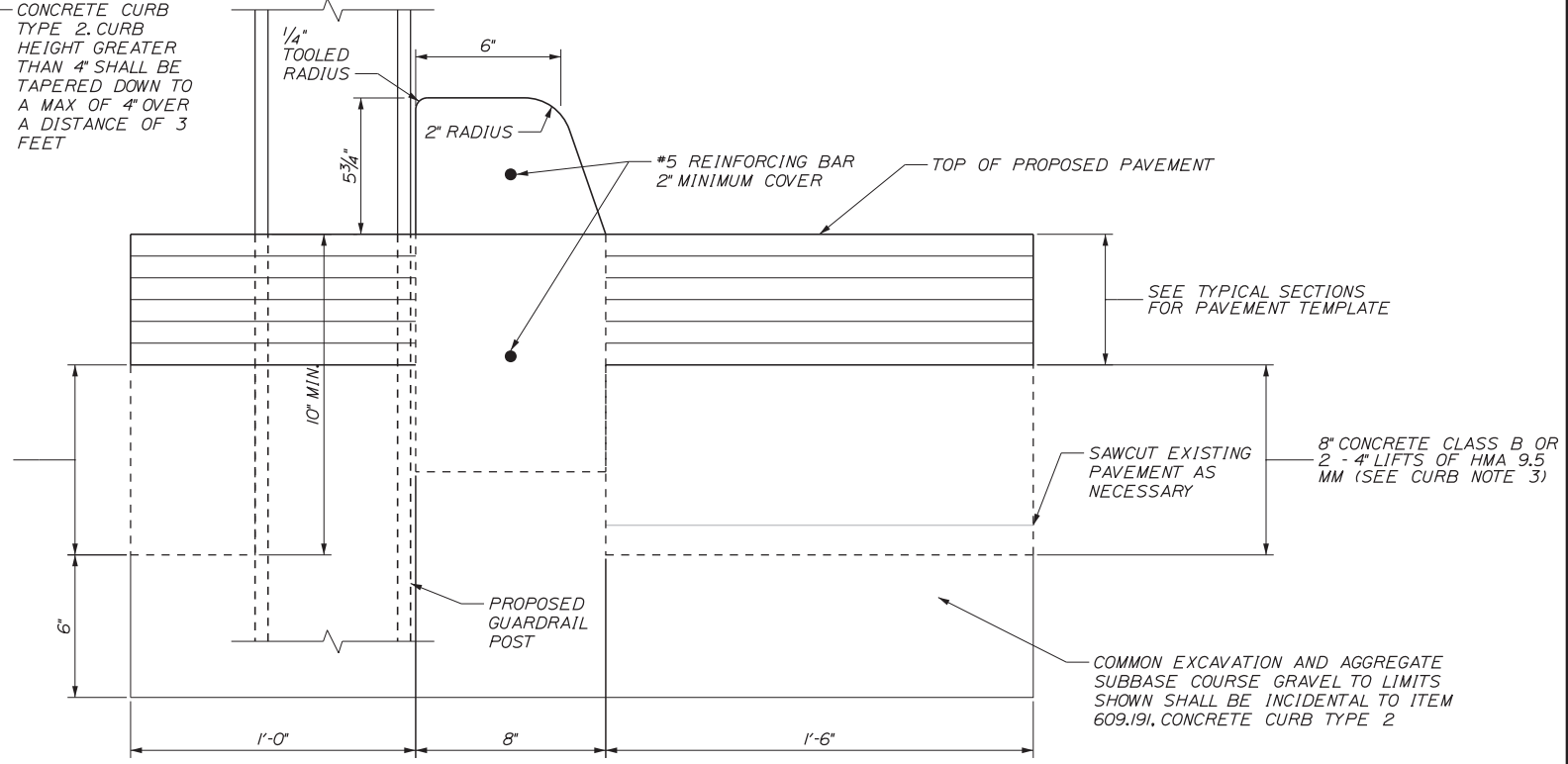
BRIDGE TRANSITION - TYPE III
3/8" = 1'-0"



CURB NOTES

1. CURBING SHALL BE EITHER PRECAST CONCRETE, CAST-IN-PLACE CONCRETE OR GRANITE TO MEET DIMENSIONS SHOWN ON THE PLANS. CURBING SHALL BE PAID UNDER ITEM 609.191 CONCRETE CURB TYPE 2.
2. CONCRETE CURBS USED IN CONJUNCTION WITH THRIE-BEAM BRIDGE ATTACHMENT SHALL BE TYPE 2. SEE DETAILS THIS SHEET. CONCRETE CURBS SHALL BE CONTINUOUS WITHOUT DRAINAGE CUTS.
3. CURB TRANSITION SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 609.191 CONCRETE CURB TYPE 2.
4. SAWCUTTING EXISTING PAVEMENT, CONCRETE FILL, AND PAVEMENT TO LIMITS SHOWN SHALL BE INCIDENTAL TO ITEM 609.191.

8" CONCRETE CLASS B OR 2 - 4" LIFTS OF HMA 9.5 MM (SEE CURB NOTE 3)



GENERAL NOTES

1. ADDITIONAL HOLES MAY BE MADE IN THE THRIE-BEAM PANELS BY DRILLING, PUNCHING, OR OTHER MEANS THAT PRODUCE A NEAT, CLEAN HOLE. BURNING HOLES WILL NOT BE ALLOWED.
2. THRIE BEAM SHALL BE PLACED WITH THE COMPOSITE BLOCKOUT FACE IN FRONT OF OR DIRECTLY ABOVE THE CURB FACE.
3. RAIL ELEMENT SHALL MEET ALL REQUIREMENTS OF AASHTO M-180 EXCEPT AS MODIFIED ON THE PLANS. THE THRIE BEAM TRANSITION TO W-BEAM SHALL BE OF THE SAME MATERIAL, BUT SHALL NOT BE LESS THAN 10 GAUGE.
4. AFTER INSTALLATION IS COMPLETE, UPSET THE THREAD ON THE ANCHOR BOLTS IN THREE PLACES AROUND EACH BOLT, AT THE JUNCTION OF THE NUT AND THE EXPOSED THREAD, WITH A CENTER PUNCH OR SIMILAR TOOL.
5. STANDARD BARRIER HARDWARE HAS BEEN USED TO DEVELOP THESE GUARDRAIL ATTACHMENTS. DESIGNATIONS PROVIDED IN PARENTHESIS RELATE TO STANDARD ELEMENTS DETAILED IN "A GUIDE TO STANDARDIZED BARRIER RAIL HARDWARE," 1979, AASHTO-AGC-ARTBA JOINT COOPERATE COMMITTEE.
6. 1" HOLE IN CONCRETE SHALL BE FORMED BY A METHOD APPROVED BY THE ENGINEER
7. FOR THE GUARDRAIL TRANSITION, SECTION C-C 3" W-BEAM GUARDRAIL - MID-WAY SPLICE SHALL TAPER FROM 32" TO TOP OF POST AT TRANSITION TO 31.5" OVER 12.5'

Scale:

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	JGS	2\16\18	Checked	GAB	2\16\18
Drawn	KLW	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

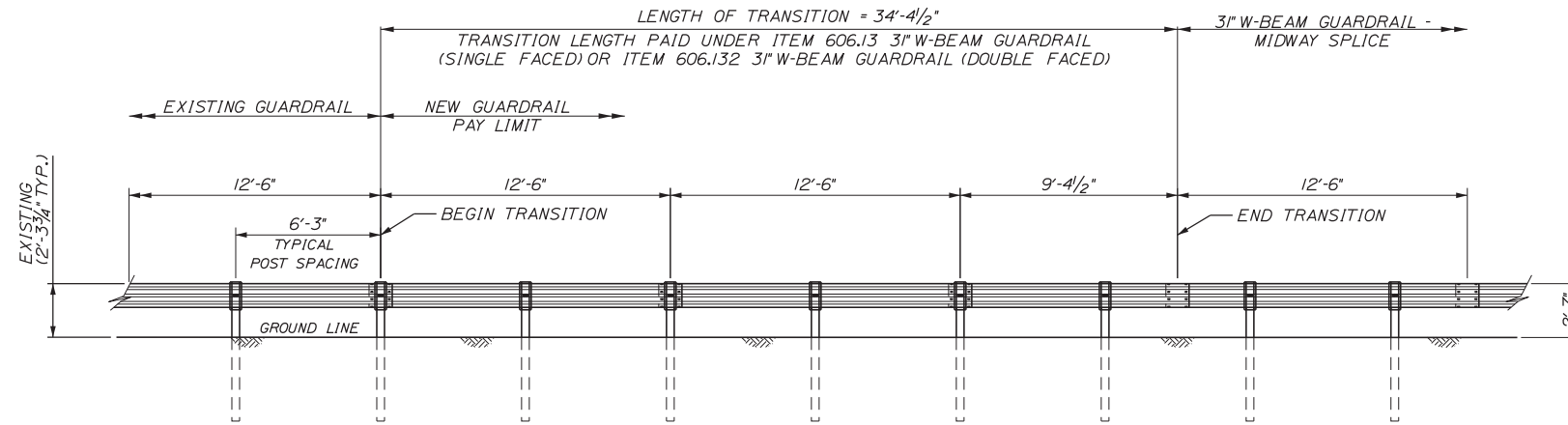
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
GUARDRAIL DETAILS 2 OF 3

SHEET NUMBER: DET-04
CONTRACT: 2018.05
43 OF 176

Date: 2/19/2018



TRANSITION FROM EXISTING GUARDRAIL TO 3" MID-WAY SPLICED GUARDRAIL
NOT TO SCALE


NOTES:

1. MAINTAIN STANDARD 1" CLEARANCE OF BOST ABOVE PANEL THROUGHOUT THE ENTIRE LENGTH OF TRANSITION.
2. A MINIMUM OF ONE (1) 12'-6" PANEL SHALL BE PLACED BETWEEN THIS TRANSITION AND THE START OF ANY END TREATMENT OR ANCHORAGE.
3. ALL NEW POST SHALL BE 84" IN LENGTH UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
4. ALL NEW POSTS AND OFFSET BLOCK MATERIALS SHALL MATCH EXISTING UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

Filename: ...MSTA\037_GRD_Detail_3.dgn

Scale:			
No.	Revision	By	Date

Designed by:



CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed SJB	2\16\18	Checked LEM	2\16\18
Drawn SJB	2\16\18	In Charge of GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

GUARDRAIL DETAILS 3 OF 3

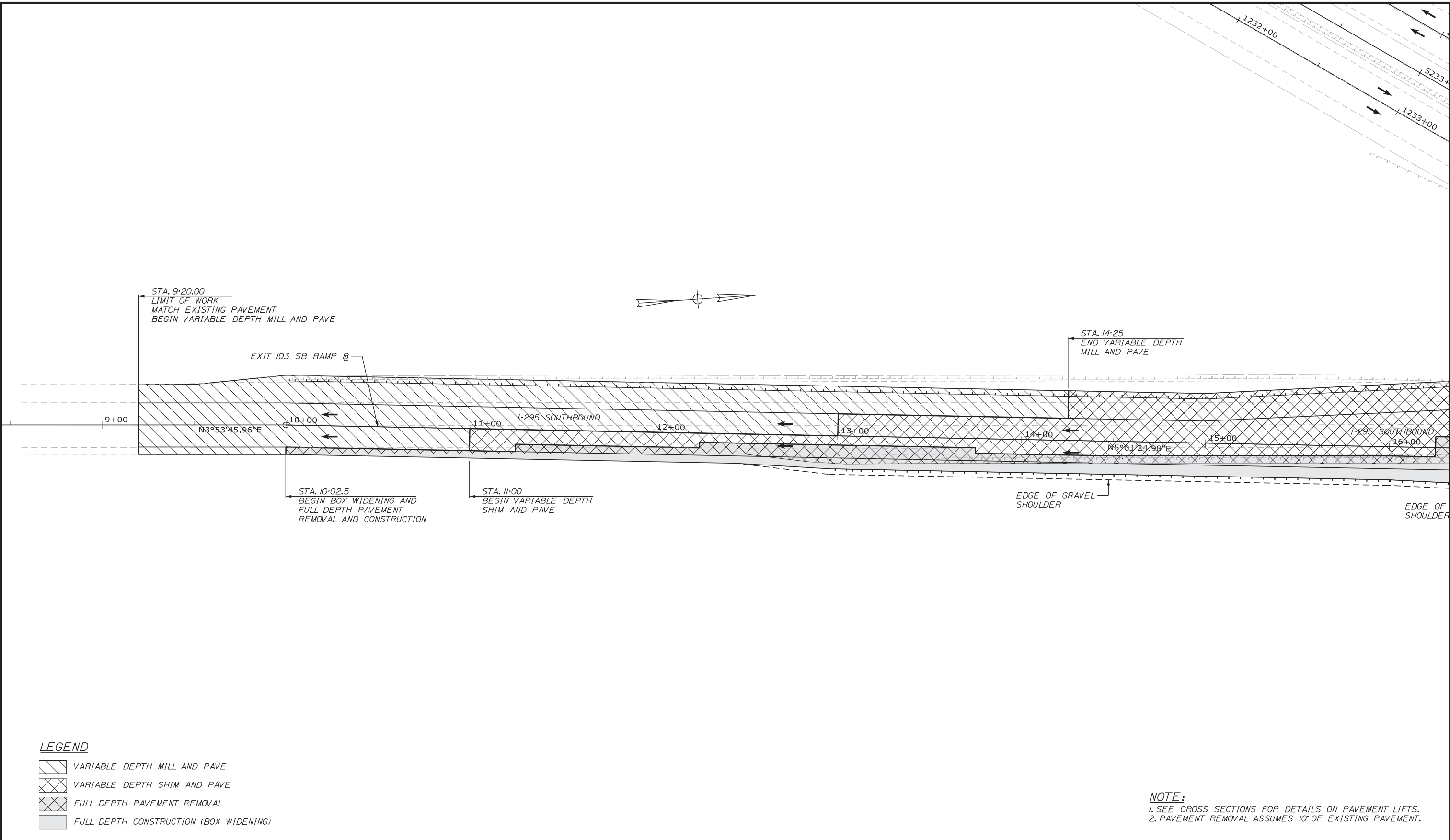
SHEET NUMBER: DET-05

CONTRACT: 2018.05

44 OF 176

Date: 2/19/2018

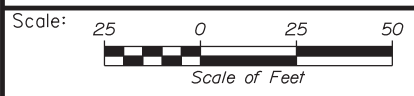
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LEGEND

- VARIABLE DEPTH MILL AND PAVE
- VARIABLE DEPTH SHIM AND PAVE
- FULL DEPTH PAVEMENT REMOVAL
- FULL DEPTH CONSTRUCTION (BOX WIDENING)

NOTE:
 1. SEE CROSS SECTIONS FOR DETAILS ON PAVEMENT LIFTS.
 2. PAVEMENT REMOVAL ASSUMES 10' OF EXISTING PAVEMENT.



Designed by:

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

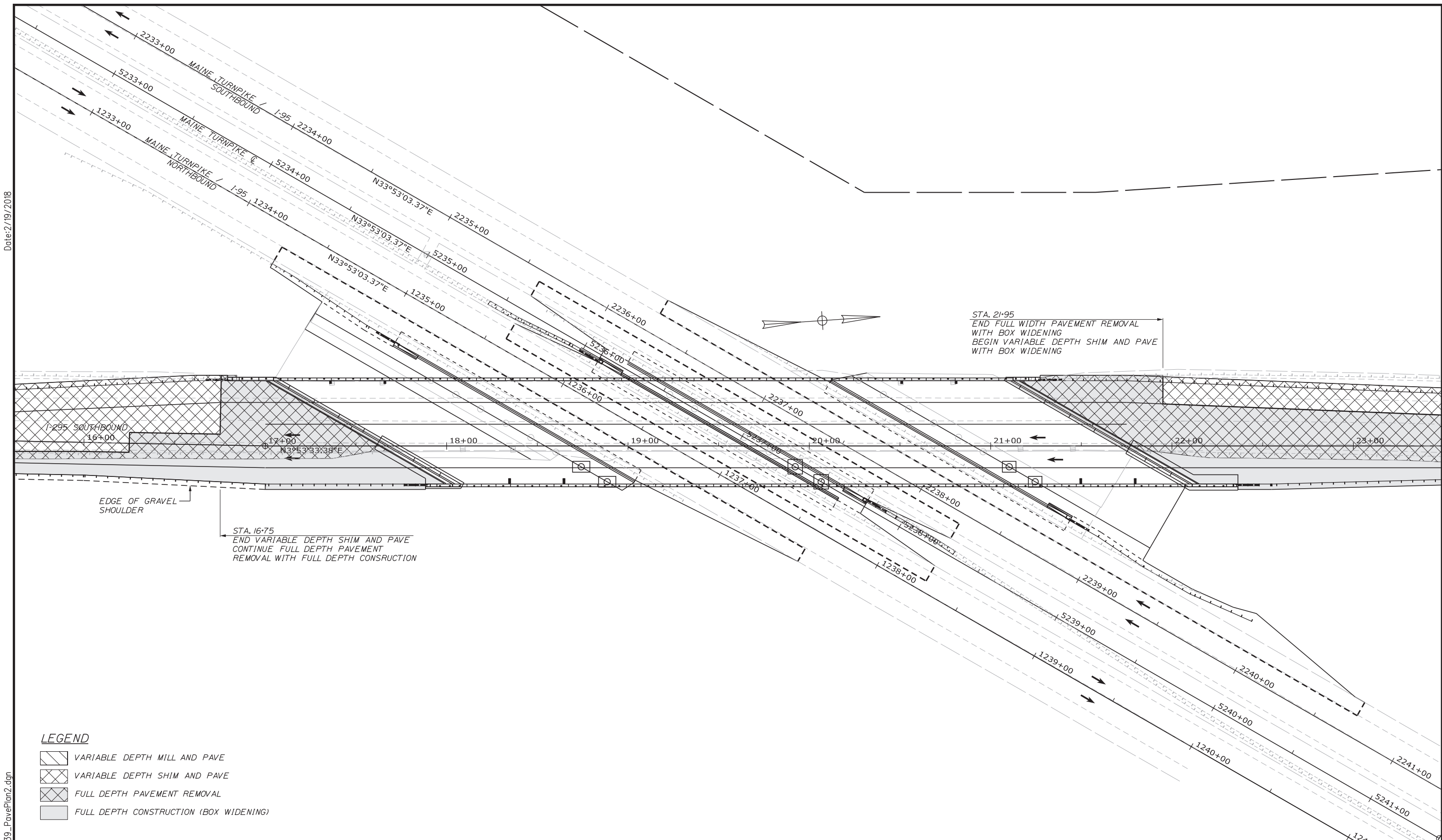
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

PAVEMENT PLAN 1

SHEET NUMBER: PP-01
 CONTRACT: 2018.05
 45 OF 176

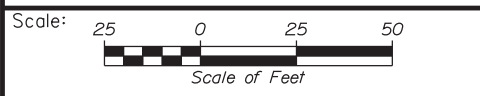
Date: 2/19/2018



LEGEND

- VARIABLE DEPTH MILL AND PAVE
- VARIABLE DEPTH SHIM AND PAVE
- FULL DEPTH PAVEMENT REMOVAL
- FULL DEPTH CONSTRUCTION (BOX WIDENING)

Filename: ... \BRIDGE\MSTA\039_PavePlan2.dgn



Designed by:

Stantec

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
	By	Date	
Designed	SJB	2\16\18	Checked LEM 2\16\18
Drawn	SJB	2\16\18	In Charge of GAE 2\16\18

STANTEC CONSULTING SERVICES INC.
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

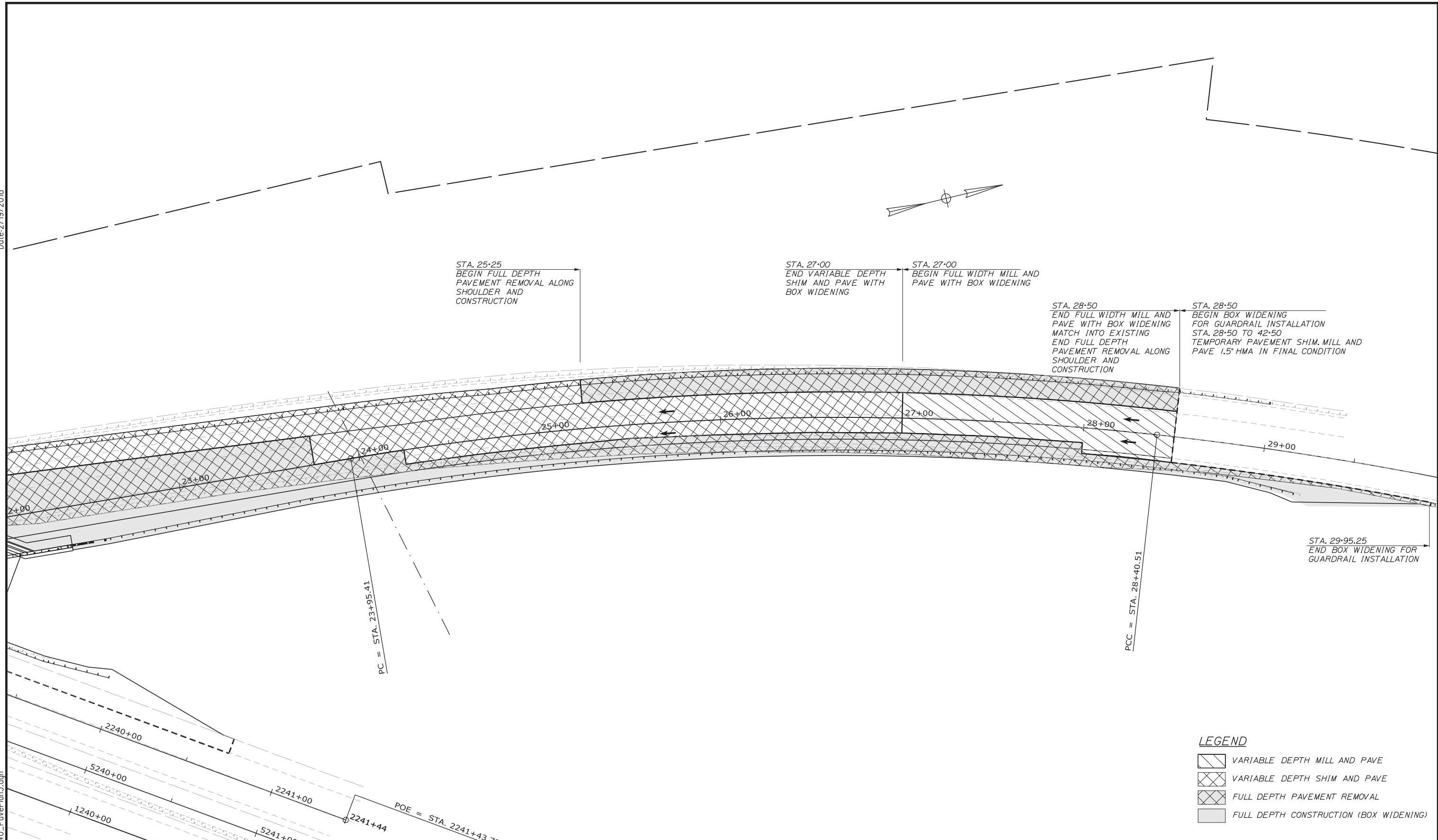
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

PAVEMENT PLAN 2

SHEET NUMBER: PP-02
CONTRACT: 2018.05
46 OF 176

Date: 2/19/2018

Filename: ... \BRIDGE\MSTA\040_PavePlan3.dgn



LEGEND

	VARIABLE DEPTH MILL AND PAVE
	VARIABLE DEPTH SHIM AND PAVE
	FULL DEPTH PAVEMENT REMOVAL
	FULL DEPTH CONSTRUCTION (BOX WIDENING)

Scale: 25 0 25 50
Scale of Feet

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

PAVEMENT PLAN 3

SHEET NUMBER: PP-03
CONTRACT: 2018.05
47 OF 176

ITEM 606.135 TERMINAL END - ANCHORED END - 31" W-BEAM GUARDRAIL	EA	1
STA. 10+01.5, LT. TO STA. 10+10.9, LT.		1
STA. 12+98.8, RT. TO STA. 13+08.2, RT.		1
ITEM 606.13 31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7'S STEEL POSTS, 8" OFFSET BLOCKS, SINGLE FACED)	LF	650.0
STA. 10+10.9, LT. TO STA. 16+60.5, LT.		462.5
STA. 13+08.2, RT. TO STA. 17+70.2, RT.		462.5

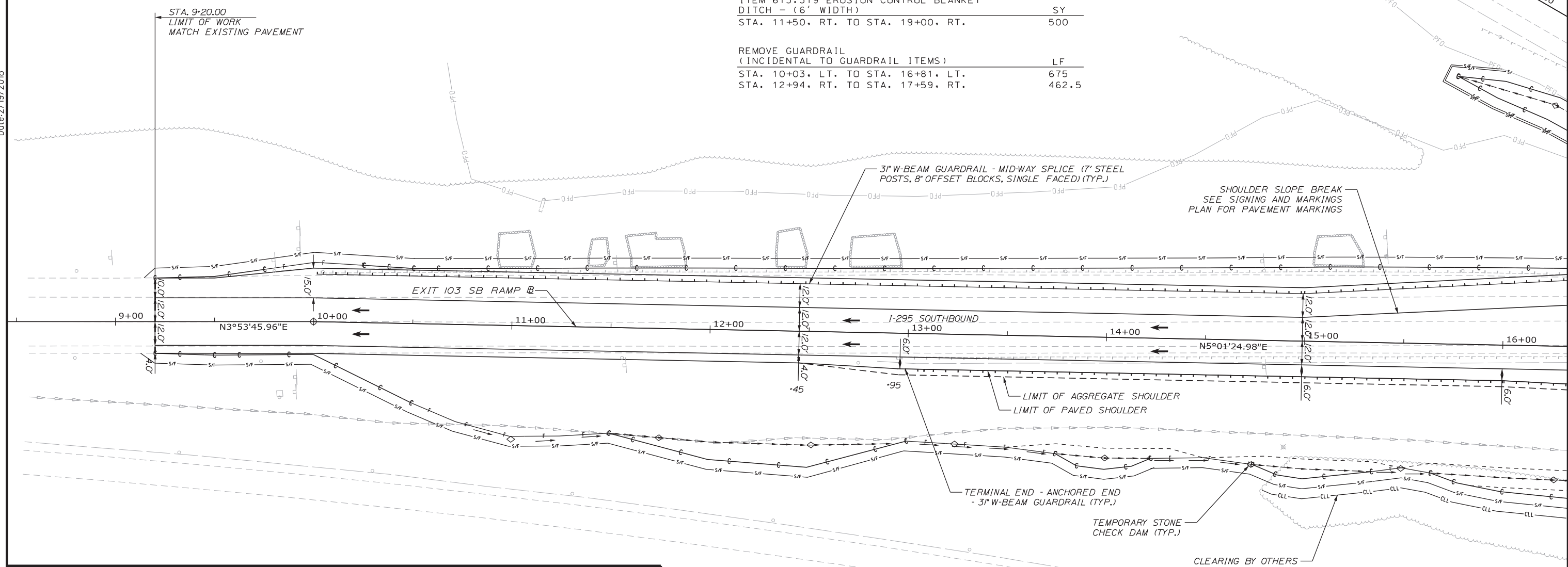
ITEM 656.632 30" TEMPORARY SILT FENCE	LF	803
STA. 9+14, LT. TO STA. 17+10, LT.		1023
STA. 9+13, RT. TO STA. 18+95, RT.		

ITEM 613.319 EROSION CONTROL BLANKET 2:1 SLOPES	SY	3183
STA. 13+00, RT. STA. 18+97, RT.		

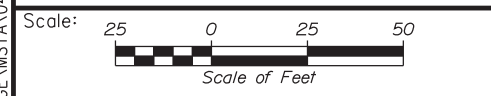
ITEM 613.319 EROSION CONTROL BLANKET DITCH - (6' WIDTH)	SY	500
STA. 11+50, RT. TO STA. 19+00, RT.		

REMOVE GUARDRAIL (INCIDENTAL TO GUARDRAIL ITEMS)	LF	675
STA. 10+03, LT. TO STA. 16+81, LT.		462.5
STA. 12+94, RT. TO STA. 17+59, RT.		

Date: 2/19/2018



PLAN LEGEND	
	PROPOSED PAVEMENT EDGE
	EXISTING TRAVELWAY
	PROPOSED TRAVELWAY
	CATCH BASINS
	PROPOSED DITCH
	EXISTING DITCH
	LIGHT POLES
	UTILITY POLES
	BORING
	SIGNS (SINGLE POST)
	SIGNS (DOUBLE POST)
	PROPOSED-SLOPE CUT LINE
	PROPOSED-SLOPE FILL LINE
	EXISTING ■ PROPOSED
	○ EXISTING ● PROPOSED
	⊕ EXISTING ⊕ PROPOSED
	⊙ EXISTING ⊙ PROPOSED
	⊕ EXISTING ⊕ PROPOSED
	— EXISTING — PROPOSED
	— EXISTING — PROPOSED



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
No.	Revision	By	Date	By	Date

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

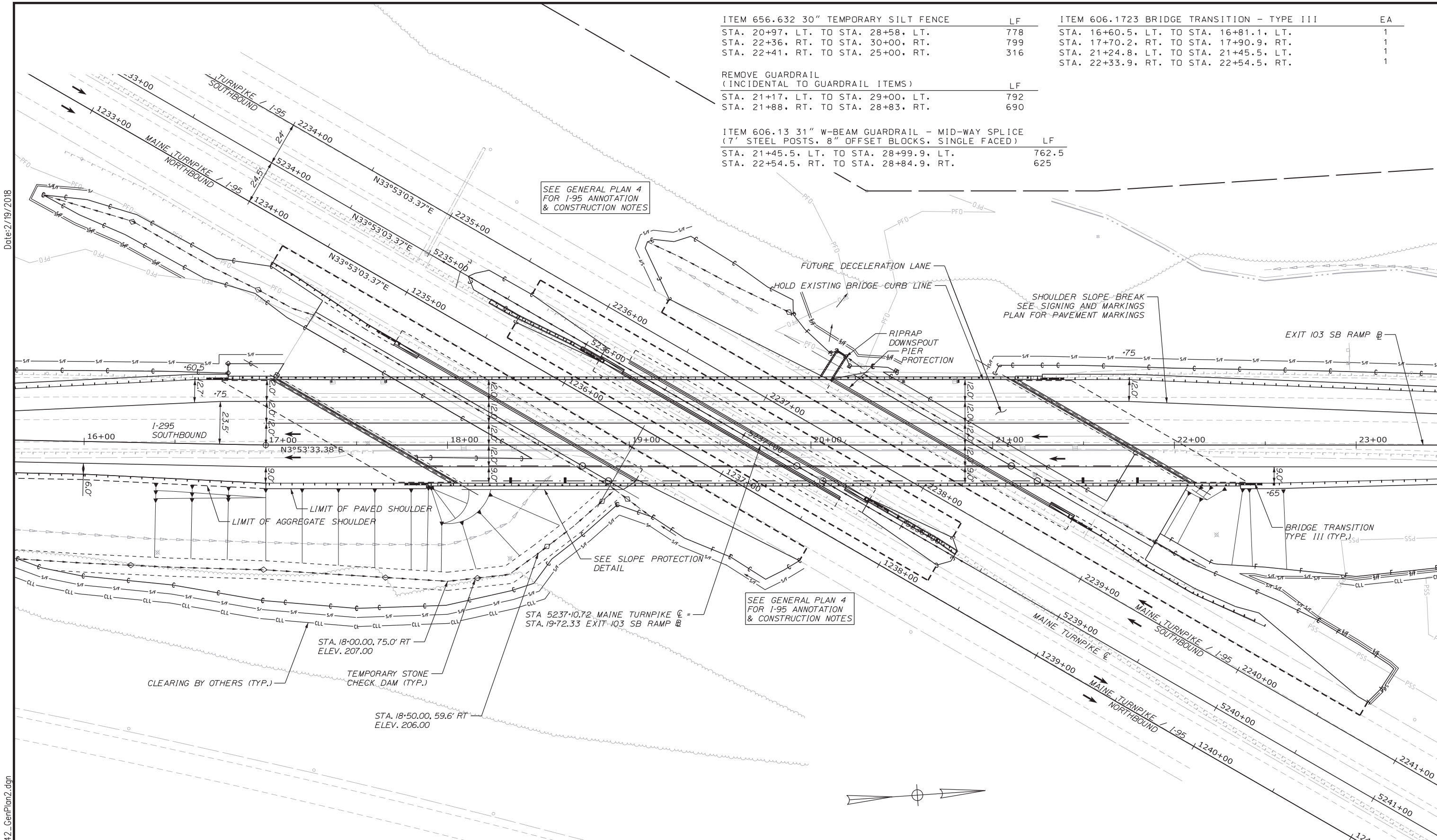
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

GENERAL PLAN 1

SHEET NUMBER: GP-01
 CONTRACT: 2018.05
 48 OF 176

Filename: ... \BRIDGE\MSTA\041_GenPlan1.dgn

ITEM 656.632 30" TEMPORARY SILT FENCE	LF	ITEM 606.1723 BRIDGE TRANSITION - TYPE III	EA
STA. 20+97, LT. TO STA. 28+58, LT.	778	STA. 16+60.5, LT. TO STA. 16+81.1, LT.	1
STA. 22+36, RT. TO STA. 30+00, RT.	799	STA. 17+70.2, RT. TO STA. 17+90.9, RT.	1
STA. 22+41, RT. TO STA. 25+00, RT.	316	STA. 21+24.8, LT. TO STA. 21+45.5, LT.	1
		STA. 22+33.9, RT. TO STA. 22+54.5, RT.	1
REMOVE GUARDRAIL (INCIDENTAL TO GUARDRAIL ITEMS)	LF		
STA. 21+17, LT. TO STA. 29+00, LT.	792		
STA. 21+88, RT. TO STA. 28+83, RT.	690		
ITEM 606.13 31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POSTS, 8" OFFSET BLOCKS, SINGLE FACED)	LF		
STA. 21+45.5, LT. TO STA. 28+99.9, LT.	762.5		
STA. 22+54.5, RT. TO STA. 28+84.9, RT.	625		



SEE GENERAL PLAN 4
FOR I-95 ANNOTATION
& CONSTRUCTION NOTES

SEE GENERAL PLAN 4
FOR I-95 ANNOTATION
& CONSTRUCTION NOTES

Date: 2/19/2018

Filename: ... \BRIDGE\MSTA\042_GenPlan2.dgn

Scale: 25 0 25 50
Scale of Feet

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

GENERAL PLAN 2

SHEET NUMBER: GP-02
CONTRACT: 2018.05
49 OF 176

ITEM 613.319 EROSION CONTROL BLANKET
2:1 SLOPE
STA. 21+92. RT. TO STA. 27+00. RT. SY 2416

ITEM 606.791 GUARDRAIL -
FLARED TERMINAL - 31" W-BEAM
STA. 28+84.9. RT. TO STA. 29+19.4. RT. EA 1

ITEM 603.225 42" REINFORCED
CONCRETE PIPE - CLASS III
STA. 24+21. 61.5' RT. TO STA. 24+23. 69.1' RT. LF 8

ITEM 610.08 PLAIN RIPRAP
CY 15
STA. 24+21. 61' RT.

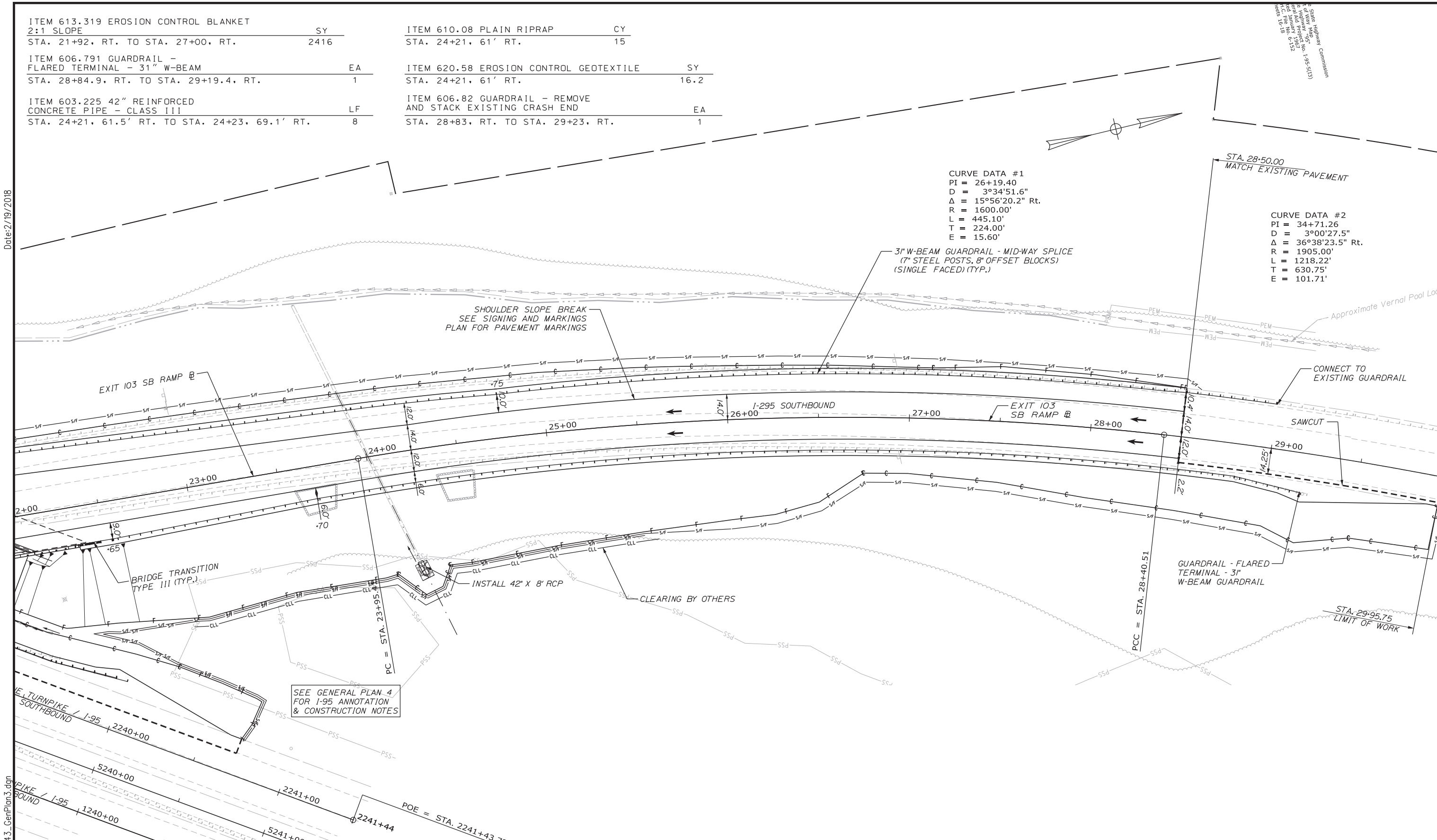
ITEM 620.58 EROSION CONTROL GEOTEXTILE
SY 16.2
STA. 24+21. 61' RT.

ITEM 606.82 GUARDRAIL - REMOVE
AND STACK EXISTING CRASH END
EA 1
STA. 28+83. RT. TO STA. 29+23. RT.

State Highway Commission
of Maine
2018
Maine
No. 1-95-513
Project No. 1967
and
Maine No. 6-152
Scale 16:18

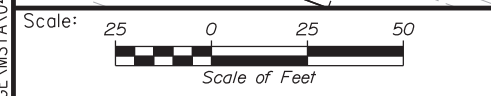
CURVE DATA #1
PI = 26+19.40
D = 3°34'51.6"
Δ = 15°56'20.2" Rt.
R = 1600.00'
L = 445.10'
T = 224.00'
E = 15.60'

CURVE DATA #2
PI = 34+71.26
D = 3°00'27.5"
Δ = 36°38'23.5" Rt.
R = 1905.00'
L = 1218.22'
T = 630.75'
E = 101.71'



Date: 2/19/2018

Filename: ... \BRIDGE\MSTA\043_GenPlan3.dgn



No.	Revision	By	Date

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date	Checked	By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

GENERAL PLAN 3

SHEET NUMBER: GP-03
CONTRACT: 2018.05
50 OF 176

Date: 2/19/2018

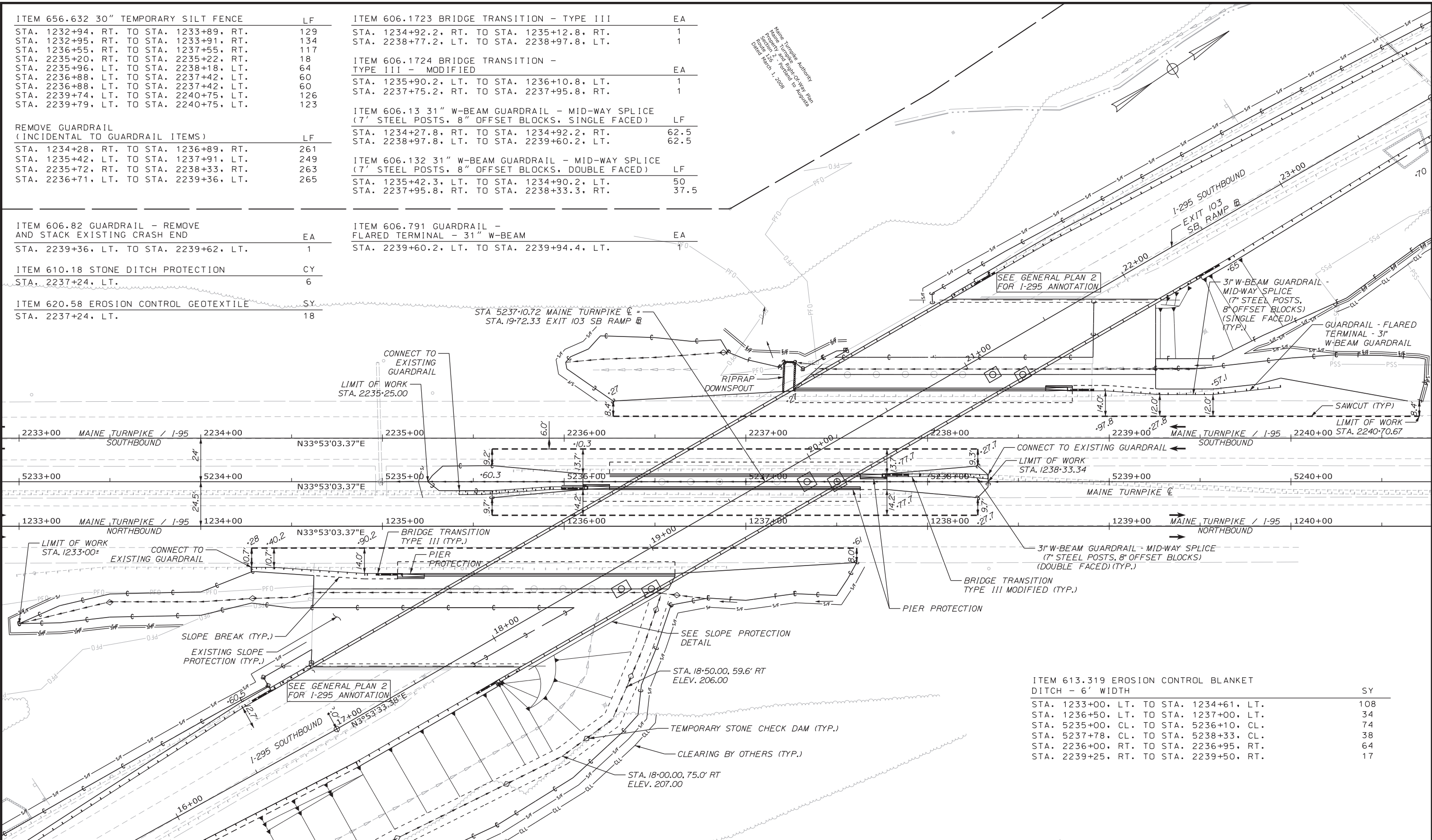
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ITEM 656.632 30" TEMPORARY SILT FENCE	LF	129
STA. 1232+94, RT. TO STA. 1233+89, RT.		134
STA. 1232+95, RT. TO STA. 1233+91, RT.		117
STA. 1236+55, RT. TO STA. 1237+55, RT.		18
STA. 2235+20, RT. TO STA. 2235+22, RT.		64
STA. 2235+96, LT. TO STA. 2238+18, LT.		60
STA. 2236+88, LT. TO STA. 2237+42, LT.		60
STA. 2236+88, LT. TO STA. 2237+42, LT.		126
STA. 2239+74, LT. TO STA. 2240+75, LT.		123
REMOVE GUARDRAIL (INCIDENTAL TO GUARDRAIL ITEMS)	LF	261
STA. 1234+28, RT. TO STA. 1236+89, RT.		249
STA. 1235+42, LT. TO STA. 1237+91, LT.		263
STA. 2235+72, RT. TO STA. 2238+33, RT.		265
STA. 2236+71, LT. TO STA. 2239+36, LT.		

ITEM 606.1723 BRIDGE TRANSITION - TYPE III	EA	1
STA. 1234+92.2, RT. TO STA. 1235+12.8, RT.		1
STA. 2238+77.2, LT. TO STA. 2238+97.8, LT.		
ITEM 606.1724 BRIDGE TRANSITION - TYPE III - MODIFIED	EA	1
STA. 1235+90.2, LT. TO STA. 1236+10.8, LT.		1
STA. 2237+75.2, RT. TO STA. 2237+95.8, RT.		1
ITEM 606.13 31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POSTS, 8" OFFSET BLOCKS, SINGLE FACED)	LF	62.5
STA. 1234+27.8, RT. TO STA. 1234+92.2, RT.		62.5
STA. 2238+97.8, LT. TO STA. 2239+60.2, LT.		
ITEM 606.132 31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POSTS, 8" OFFSET BLOCKS, DOUBLE FACED)	LF	50
STA. 1235+42.3, LT. TO STA. 1234+90.2, LT.		37.5
STA. 2237+95.8, RT. TO STA. 2238+33.3, RT.		

ITEM 606.82 GUARDRAIL - REMOVE AND STACK EXISTING CRASH END	EA	1
STA. 2239+36, LT. TO STA. 2239+62, LT.		
ITEM 610.18 STONE DITCH PROTECTION	CY	6
STA. 2237+24, LT.		
ITEM 620.58 EROSION CONTROL GEOTEXTILE	SY	18
STA. 2237+24, LT.		

ITEM 606.791 GUARDRAIL - FLARED TERMINAL - 31" W-BEAM	EA	1
STA. 2239+60.2, LT. TO STA. 2239+94.4, LT.		



ITEM 613.319 EROSION CONTROL BLANKET DITCH - 6' WIDTH	SY	108
STA. 1233+00, LT. TO STA. 1234+61, LT.		34
STA. 1236+50, LT. TO STA. 1237+00, LT.		74
STA. 5235+00, CL. TO STA. 5236+10, CL.		38
STA. 5237+78, CL. TO STA. 5238+33, CL.		64
STA. 2236+00, RT. TO STA. 2236+95, RT.		17
STA. 2239+25, RT. TO STA. 2239+50, RT.		



Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
By	Date	By	Date	By	Date
Designed	SJB 2\16\18	Checked	LEM 2\16\18		
Drawn	SJB 2\16\18	In Charge of	GAE 2\16\18		

STANTEC CONSULTING SERVICES INC.
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS BRIDGE REHABILITATION

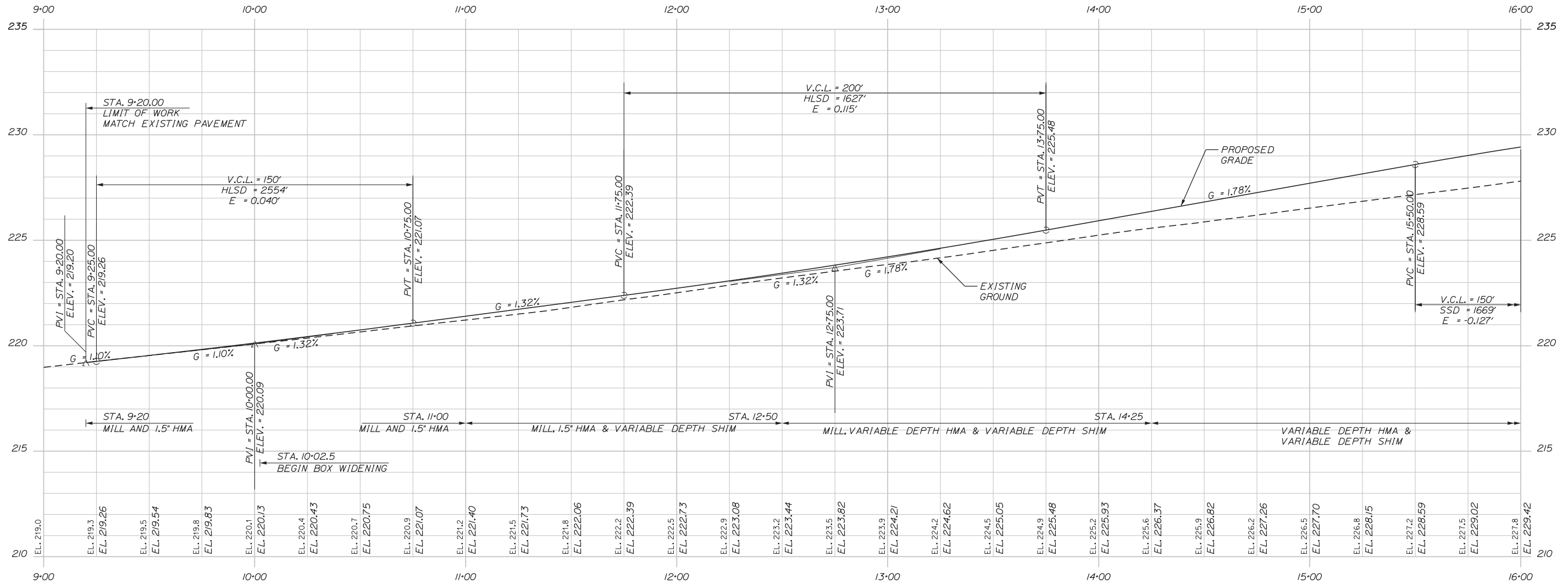
GENERAL PLAN 4

SHEET NUMBER: GP-04

CONTRACT: 2018.05

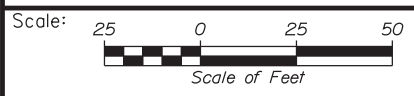
91 OF 176

Date: 2/19/2018



PROFILE

Filename: ...MSTA\045-047_Profiles.dgn



No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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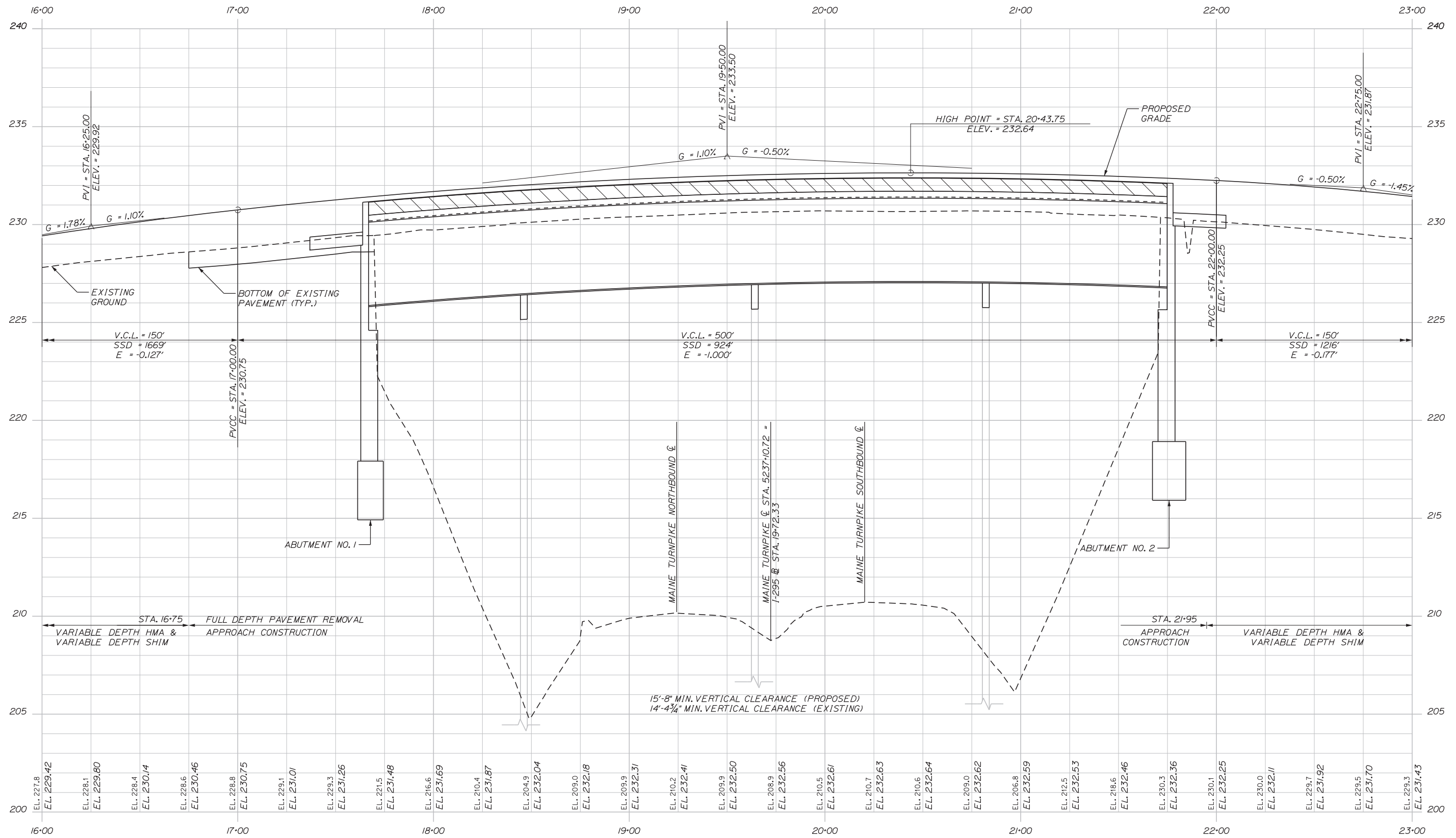
**THE GOLD STAR
MEMORIAL HIGHWAY**

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

PROFILE 1

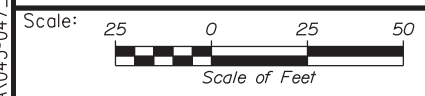
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

Date: 2/19/2018



PROFILE

Filename: ...MSTA\045-047_Profiles.dgn



No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

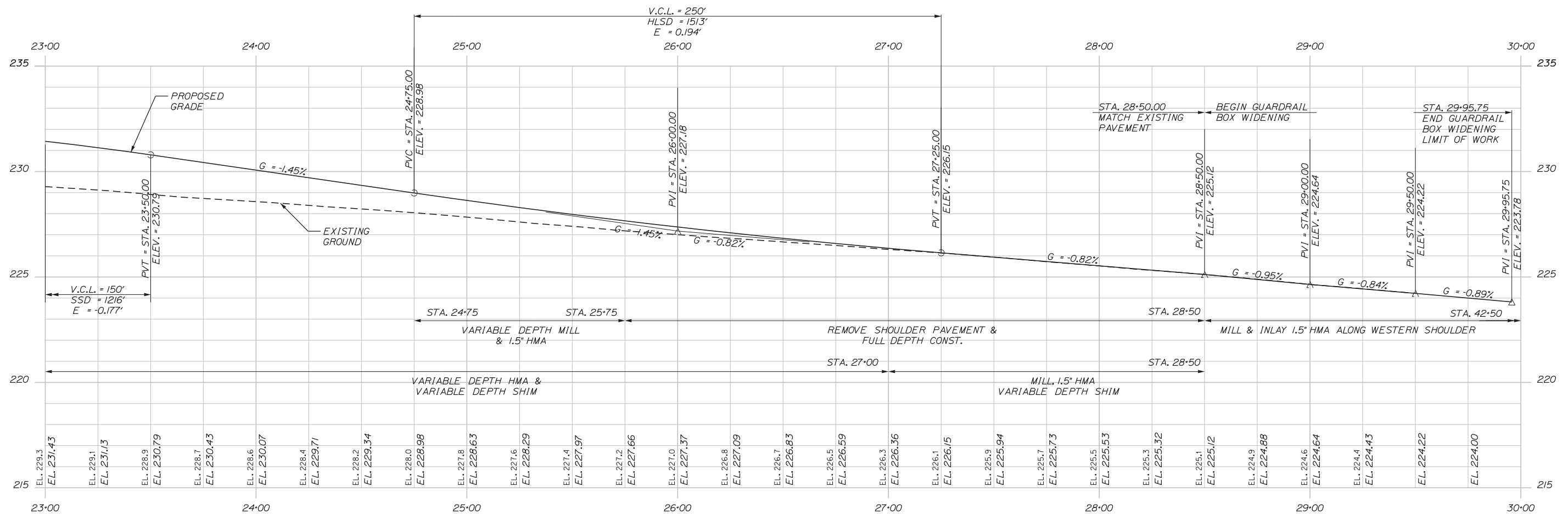
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

PROFILE 2

CONTRACT: 2018.05 SHEET NUMBER: PR-02 53 OF 176

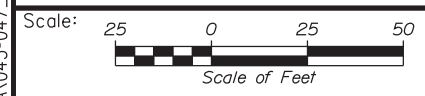
Date: 2/19/2018



42" EXISTING RCP
STA. 24+00.89
ELEV. 203.68

PROFILE

Filename: ...MSTA\045-047_Profiles.dgn



Designed by:

Stantec

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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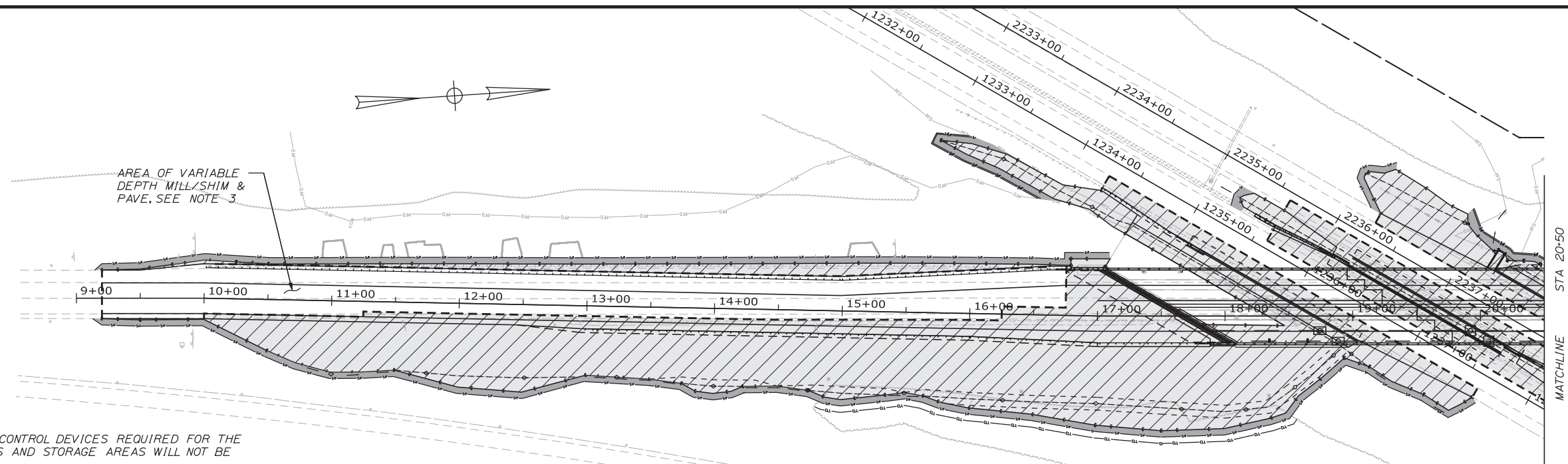
**THE GOLD STAR
MEMORIAL HIGHWAY**

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

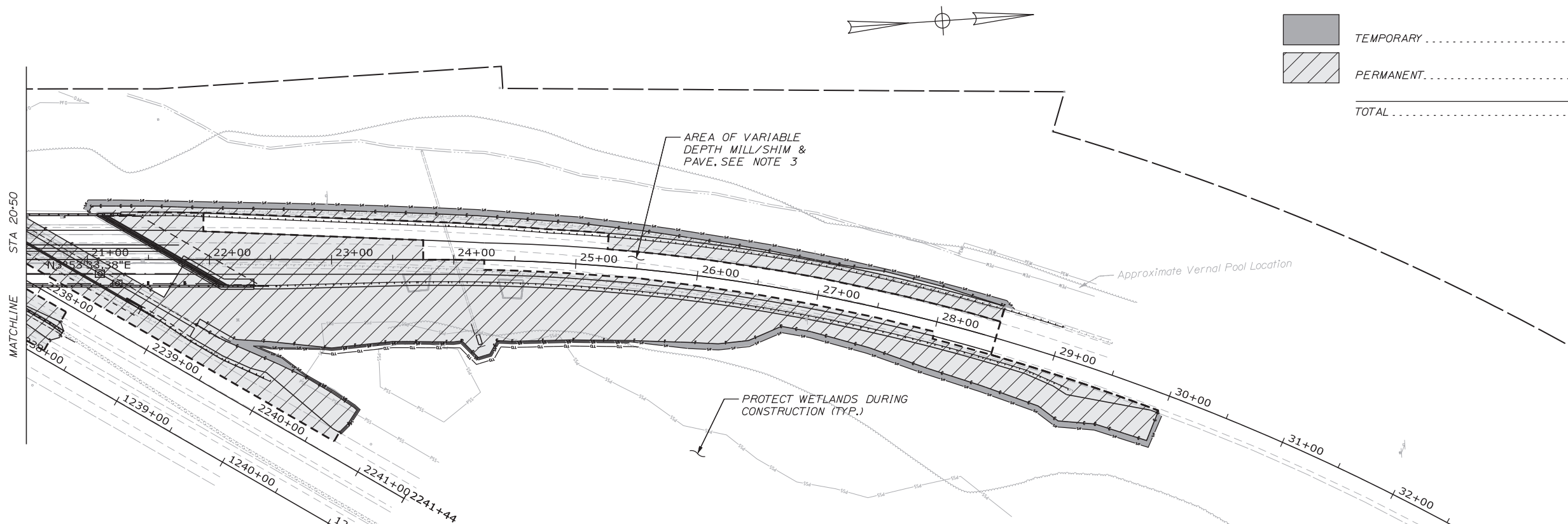
PROFILE 3

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

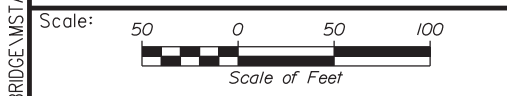
Date: 2/19/2018



NOTES:
 1. EROSION AND SEDIMENTATION CONTROL DEVICES REQUIRED FOR THE CONTRACTOR'S ACCESS LOCATIONS AND STORAGE AREAS WILL NOT BE MEASURED FOR PAYMENT.
 2. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF ADDING ADDITIONAL LIMITS OF DISTURBANCE TO THE PROJECT ESTIMATED QUANTITIES.
 3. AREA OF VARIABLE DEPTH MILL/SHIM & PAVE, IS NOT INCLUDED IN THE CALCULATION FOR TOTAL DISTURBANCE AREA. SEE PAVEMENT PLANS FOR MORE INFORMATION ON PAVEMENT CONSTRUCTION.
 4. AN ADDITIONAL ACRE HAS BEEN ESTIMATED FOR CONTRACTOR ACCESS LOCATIONS AND STORAGE AREAS.



	TEMPORARY	0.42 ACRES (18,078 SF)
	PERMANENT	3.34 ACRES (145,616 SF)
	TOTAL	3.76 ACRES (163,694 SF)



Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date	By	Date	
Designed	TJW	2\16\18	Checked		2\16\18
Drawn	TJW	2\16\18	In Charge of		2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

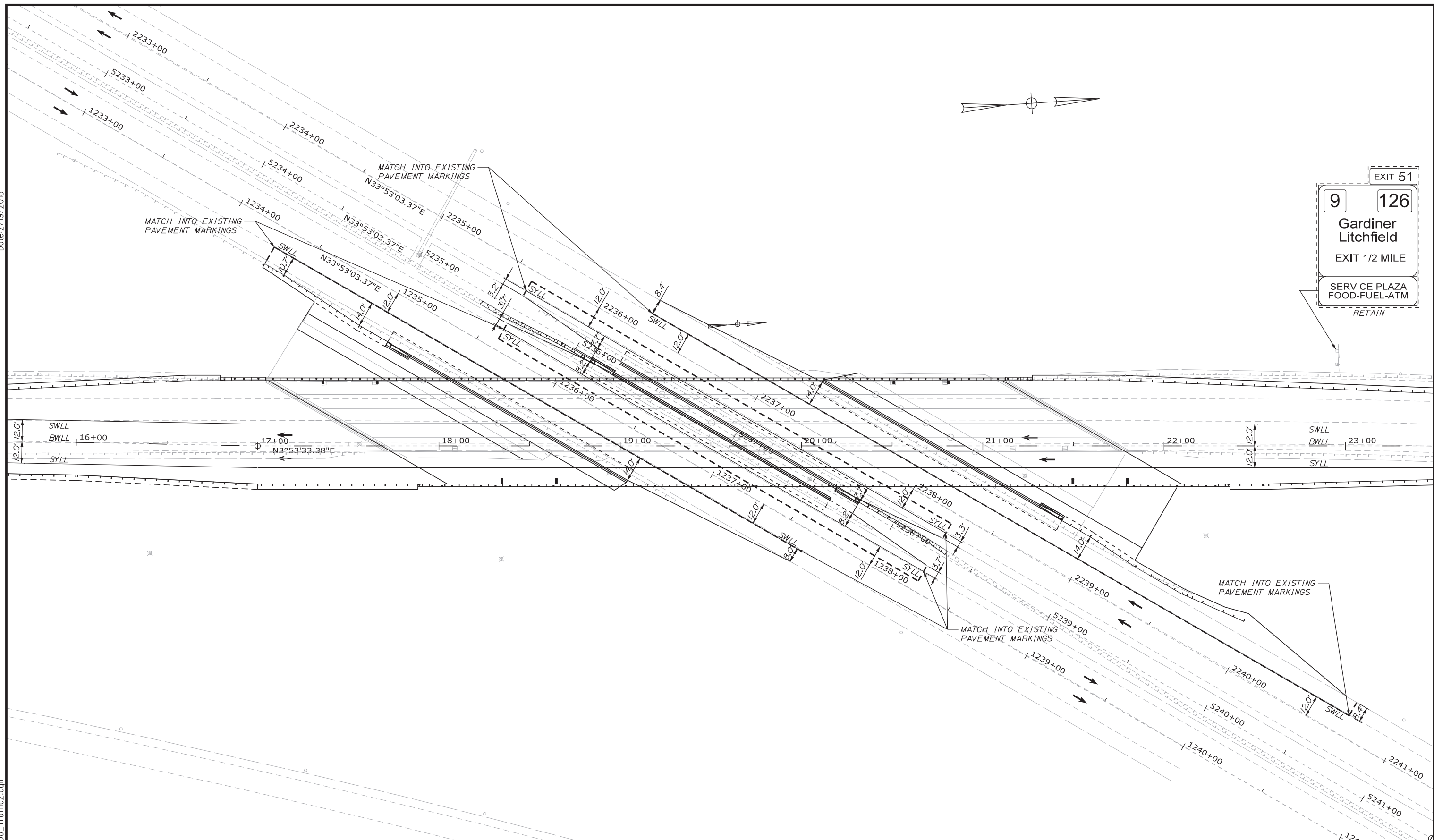
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 LIMITS OF DISTURBANCE

SHEET NUMBER: LOD-01
 CONTRACT: 2018.05
 55 OF 176

Filename: ...\\00.BRIDGE.MST\A\048.L00.dgn

Date: 2/19/2018

Filename: ... \BRIDGE\MSTA\050_Traffic2.dgn



Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

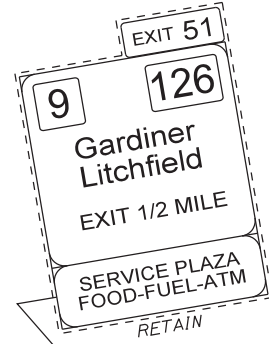
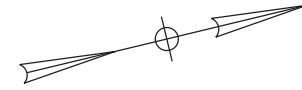
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

SIGNING AND PAVEMENT MARKINGS PLAN 2

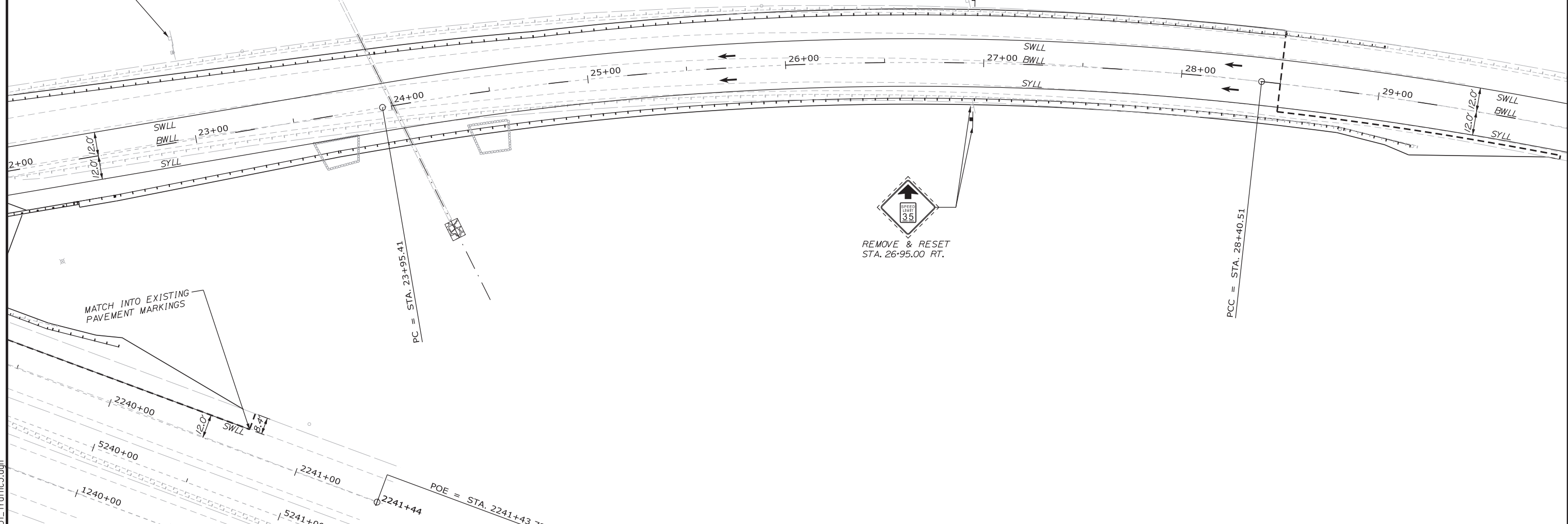
SHEET NUMBER: SS-02
 CONTRACT: 2018.05
 57 OF 176

Date: 2/19/2018



CURVE DATA #1
 PI = 26+19.40
 D = 3°34'51.6"
 Δ = 15°56'20.2" Rt.
 R = 1600.00'
 L = 445.10'
 T = 224.00'
 E = 15.60'

CURVE DATA #2
 PI = 34+71.26
 D = 3°00'27.5"
 Δ = 36°38'23.5" Rt.
 R = 1905.00'
 L = 1218.22'
 T = 630.75'
 E = 101.71'



Filename: ... \BRIDGE\MSTA\051_Traffic3.dgn

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

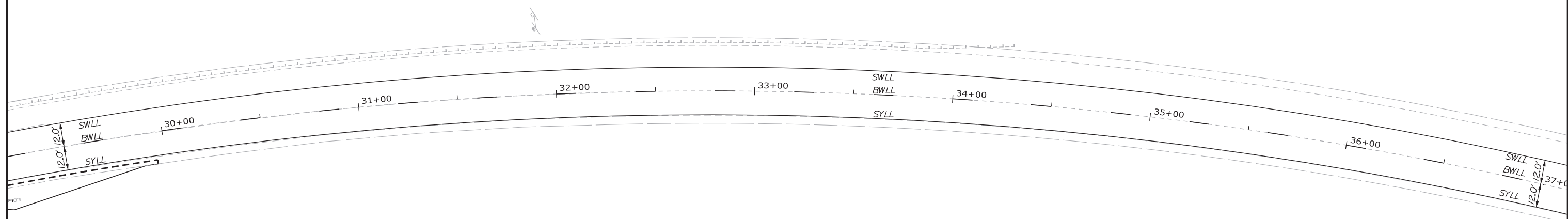
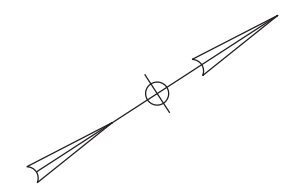
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

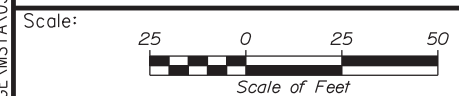
SIGNING AND PAVEMENT MARKINGS PLAN 3

SHEET NUMBER: SS-03
 CONTRACT: 2018.05
 58 OF 176


Date: 2/19/2018



Filename: ... \BRIDGE\MSTA\052_Traffic4.dgn



Designed by:



CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

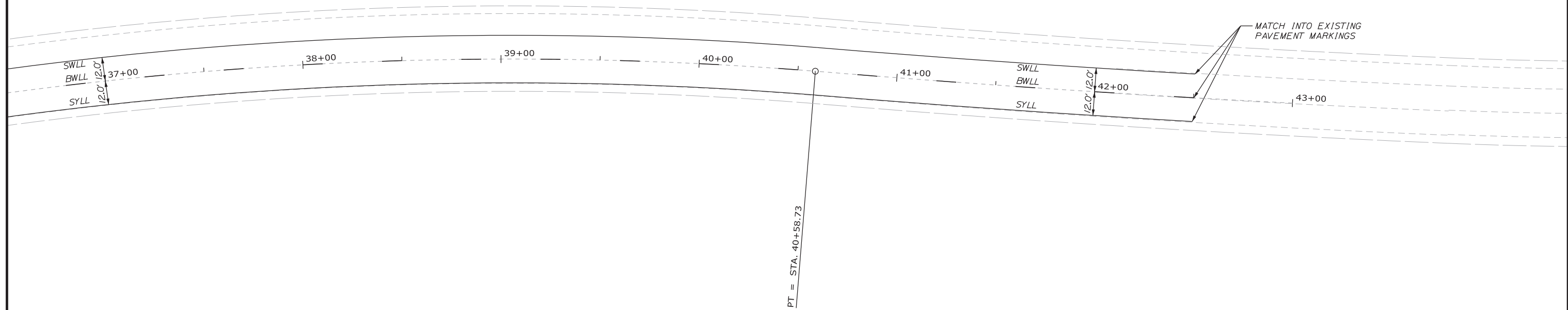
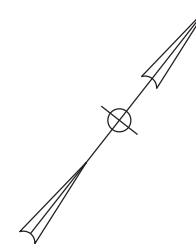
SIGNING AND PAVEMENT MARKINGS PLAN 4

SHEET NUMBER: SS-04

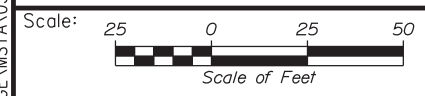
CONTRACT: 2018.05

59 OF 176

Date: 2/19/2018



Filename: ... \BRIDGE\MSTA\053_Traffic5.dgn



Designed by:

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

SIGNING AND PAVEMENT MARKINGS PLAN 5

SHEET NUMBER: SS-05



CONTRACT: 2018.05 60 OF 176

Date: 2/19/2018

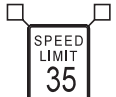
Filename: ...MSTA\054...Sign Summary.dgn

REMOVE AND STACK SIGN SUMMARY

* CONTRACTOR TO VERIFY


DESCRIPTION	QUANTITY	HEIGHT* (IN.)	WIDTH* (IN.)	AREA* (SQ. FT.)	NUMBER AND TYPE OF POSTS	COLOR		DIRECTION & ROUTE	LOCATION	NOTES
						BACKGROUND	LEGEND			
	2	48	48	16.00	1 - WOOD	YELLOW	BLACK	I-295 RAMP SOUTHBOUND	STA. 14+80, RT & LT	
	2	60	48	20.00	1 - WOOD	WHITE	BLACK	I-295 RAMP SOUTHBOUND	STA. 11+55 RT. & LT.	RESET CONSPICUITY FLAGS

PROPOSED SIGN SUMMARY

IDENTIFICATION NUMBER	DESCRIPTION	QUANTITY	COLOR		SIGN SIZE			NUMBER OF POSTS	POST SIZE	BREAKAWAY	DIRECTION & ROUTE	STATIONS	PAY ITEM NUMBER	NOTES
			BACK-GROUND	LEGEND	HEIGHT (IN)	WIDTH (IN)	AREA (SQ. FT.)							
R2-1(35)		2	WHITE	BLACK	60	48	20.00 (40.00)	1	6'X6' WOOD POST	YES	I-295 SB	STA. 11+55 LT & RT	645.271	RESET CONSPICUITY FLAGS

REMOVE AND RESET SIGN SUMMARY


* CONTRACTOR TO VERIFY

EXISTING									PROPOSED					
DESCRIPTION	HEIGHT* (IN.)	WIDTH* (IN.)	AREA* (SQ. FT.)	NUMBER AND TYPE OF POSTS	COLOR		DIRECTION & ROUTE	LOCATION	SUPPORT	BREAKAWAY	DIRECTION & ROUTE	LOCATION	PAY ITEM NUMBER	
					BACKGROUND	LEGEND								
	48	48	16	1 - 6'X6' WOOD POST	YELLOW	BLACK	I-295 SB	STA. 26+95 LT & RT	1 - 6'X6' WOOD POST	NOT REQUIRED	I-295 SB	STA. 26+95 LT & RT	645.271	

SIGN SUMMARY NOTES:

1. SIGN TEXT SHALL CONFORM TO MUTCD.
2. SIGN TYPE AND LOCATIONS SHALL BE IN ACCORDANCE WITH MUTCD.
3. THE COST OF BREAKAWAY AND SUPPORTS FOR TYPE 1 SIGNS SHALL BE INCIDENTAL TO ITEM 645.271 AND 645.109.
4. SIGN LOCATIONS ARE APPROXIMATE AND TO BE VERIFIED IN THE FIELD.
5. THE COST OF RESETTING THE CONSPICUITY FLAGS SHALL BE INCIDENTAL TO ITEM 645.271.

Scale: N.T.S.			
No.	Revision	By	Date

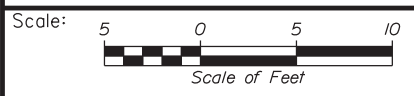
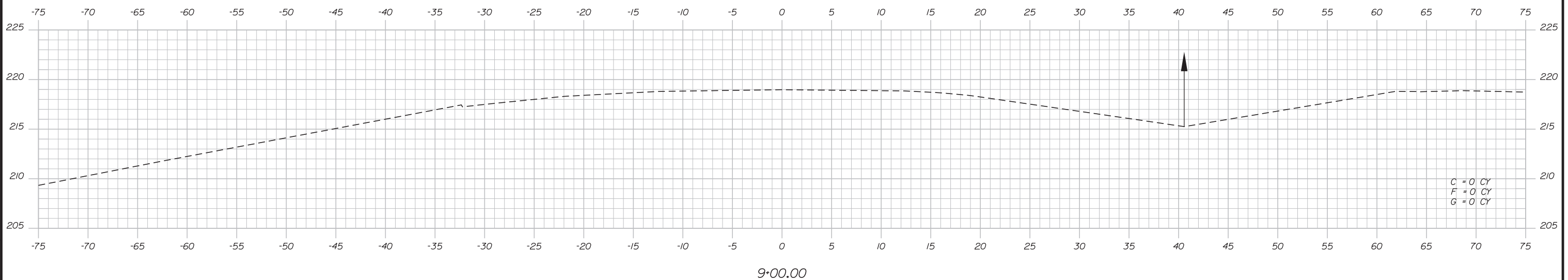
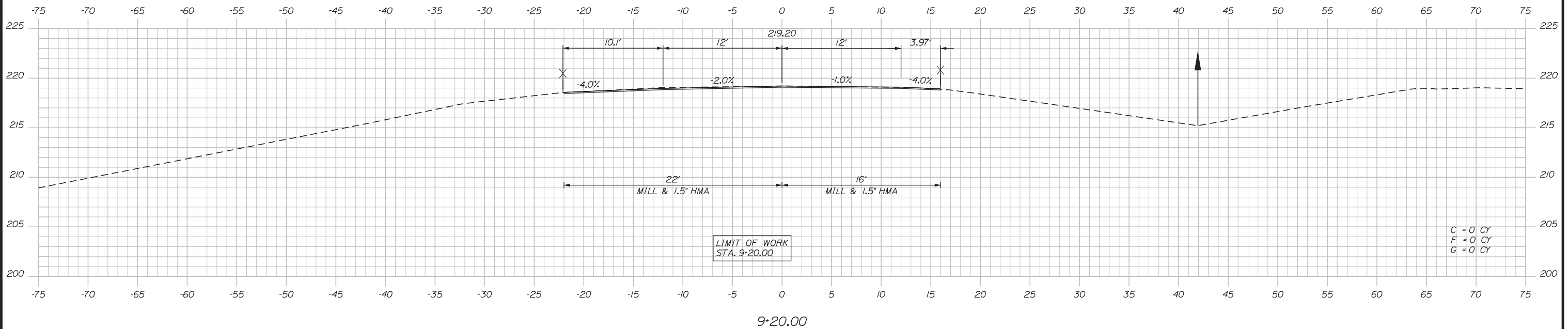
Designed by:					
					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

STANTEC CONSULTING SERVICES INC.
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	THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE	

EXIT 103 I-295 SOUTHBOUND UNDERPASS BRIDGE REHABILITATION	
SIGN SUMMARY	
SHEET NUMBER: SS-06	
CONTRACT: 2018.05	
61 OF 176	

Date: 2/19/2018



Designed by:

Stantec

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 9+00.00 TO STA. 9+20.00

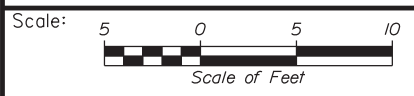
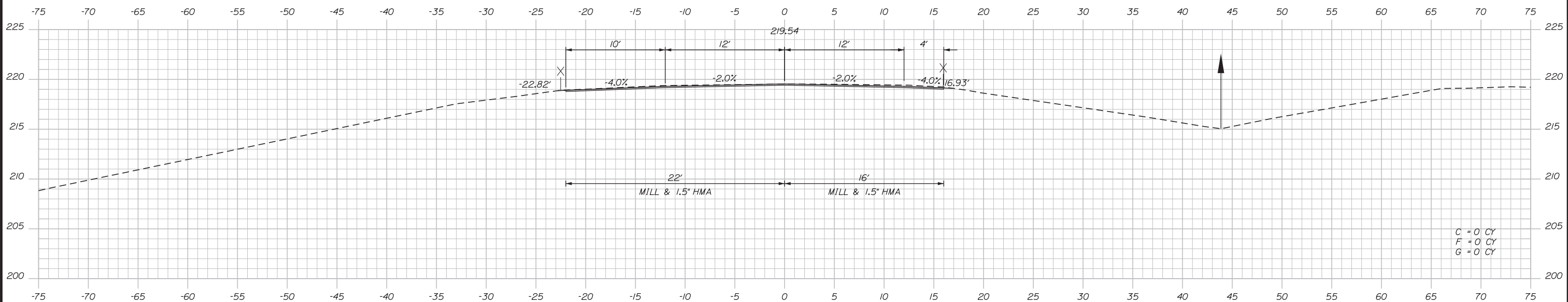
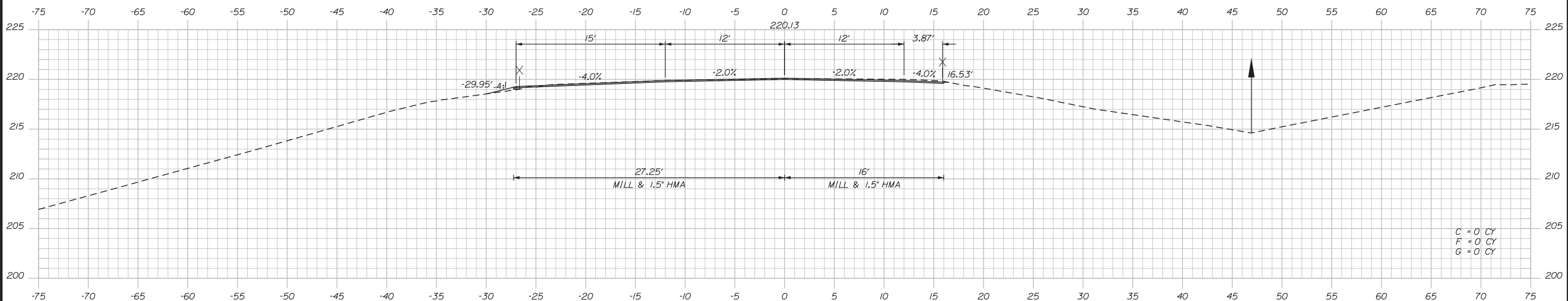
SHEET NUMBER: XS-01

CONTRACT: 2018.05

62 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date	By	Date	
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 9+50.00 TO STA. 10+00.00

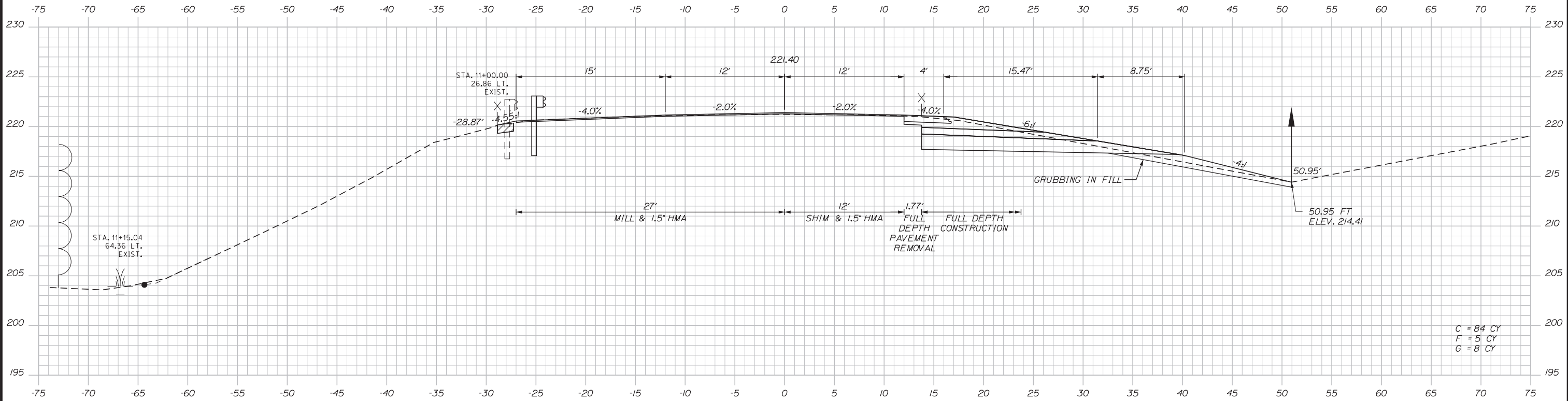
SHEET NUMBER: XS-02

CONTRACT: 2018.05

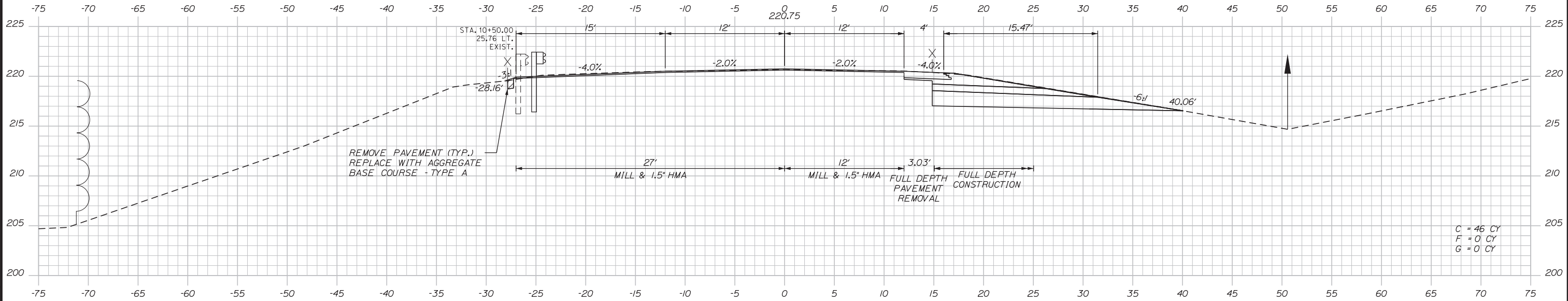
63 OF 176

Filename: ...MSTA\055-100_Sections.dgn

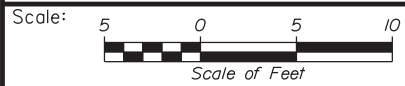
Date: 2/19/2018



11+00.00



10+50.00



Designed by:



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THE GOLD STAR
MEMORIAL HIGHWAY

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 10+50.00 TO STA. 11+00.00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

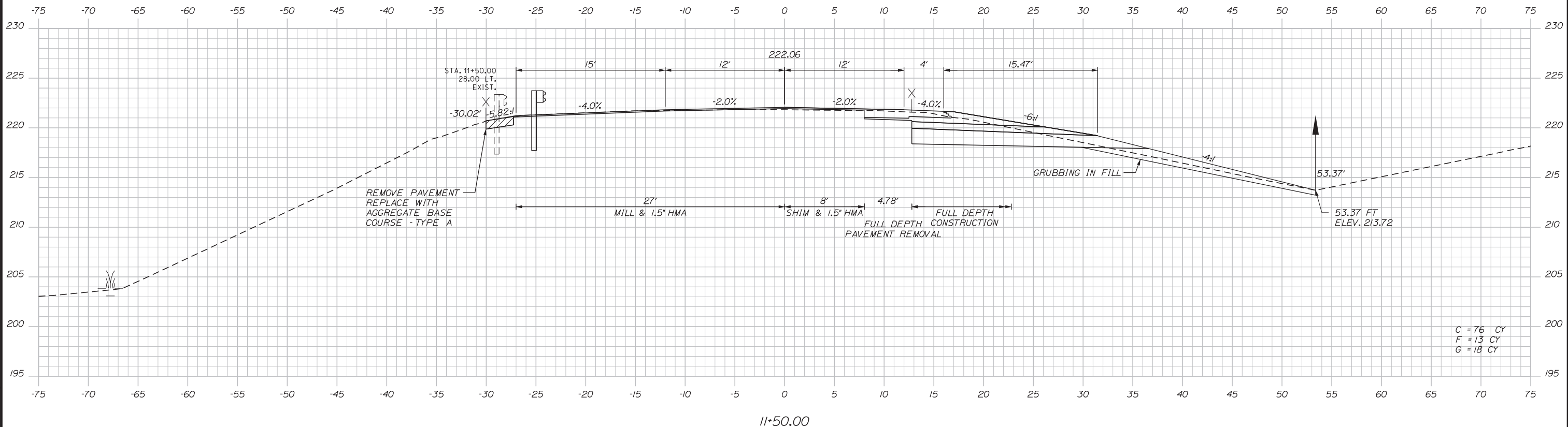
CONTRACT: 2018.05

SHEET NUMBER: XS-03

64 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date	Checked	By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

STANTEC CONSULTING SERVICES INC.
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

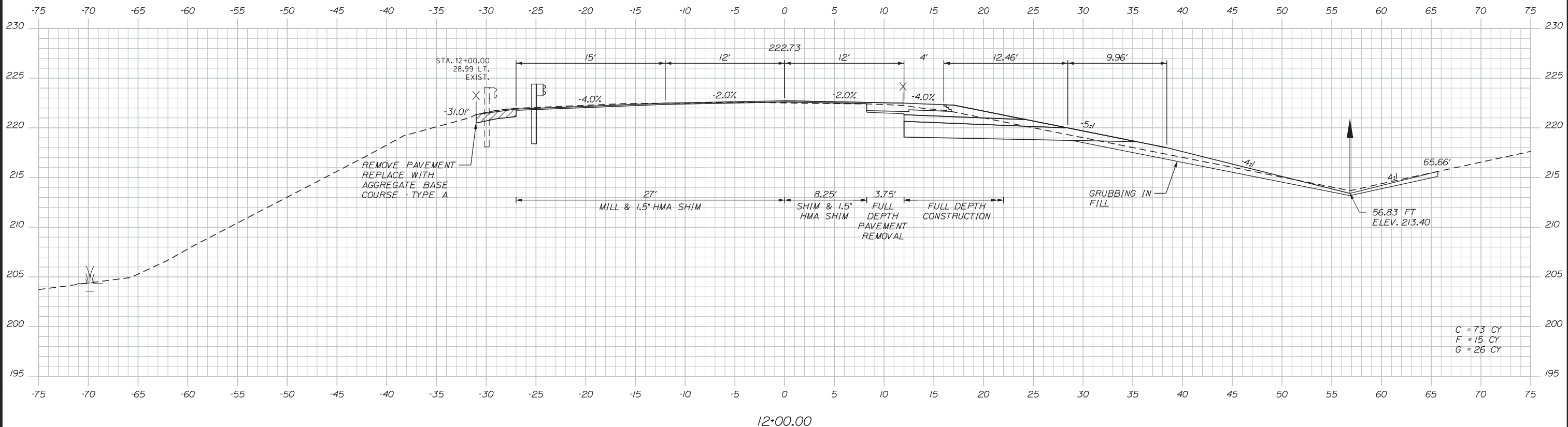
STA. 11+50.00 TO STA. 11+50.00

SHEET NUMBER: XS-04

CONTRACT: 2018.05

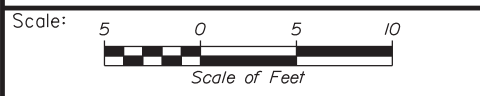
65 OF 176

Date: 2/19/2018



C = 73 CY
F = 15 CY
G = 26 CY

Filename: ...MSTA\055-100_Sections.dgn



Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date	By	Date	
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

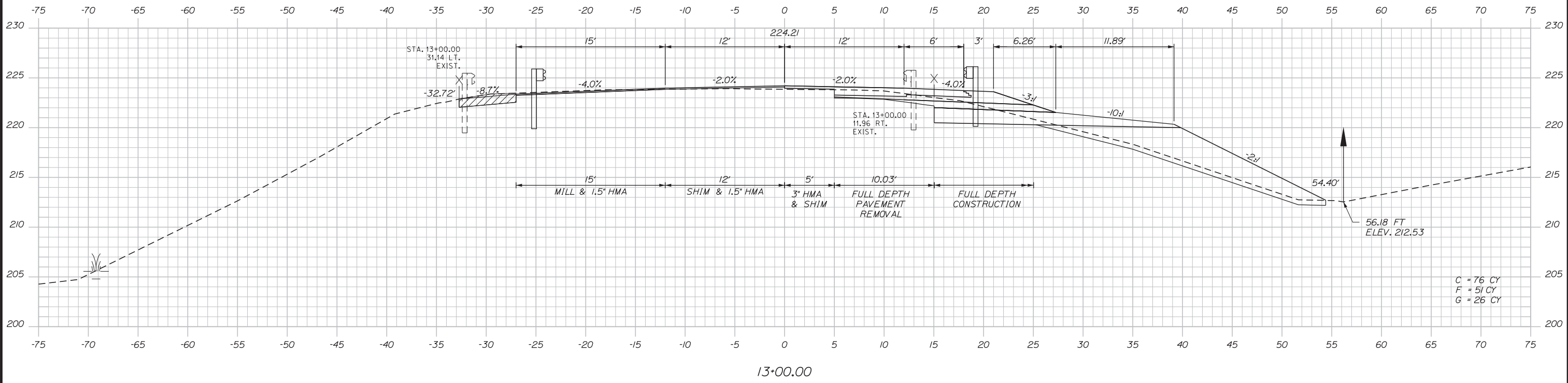
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SHEET NUMBER: XS-05

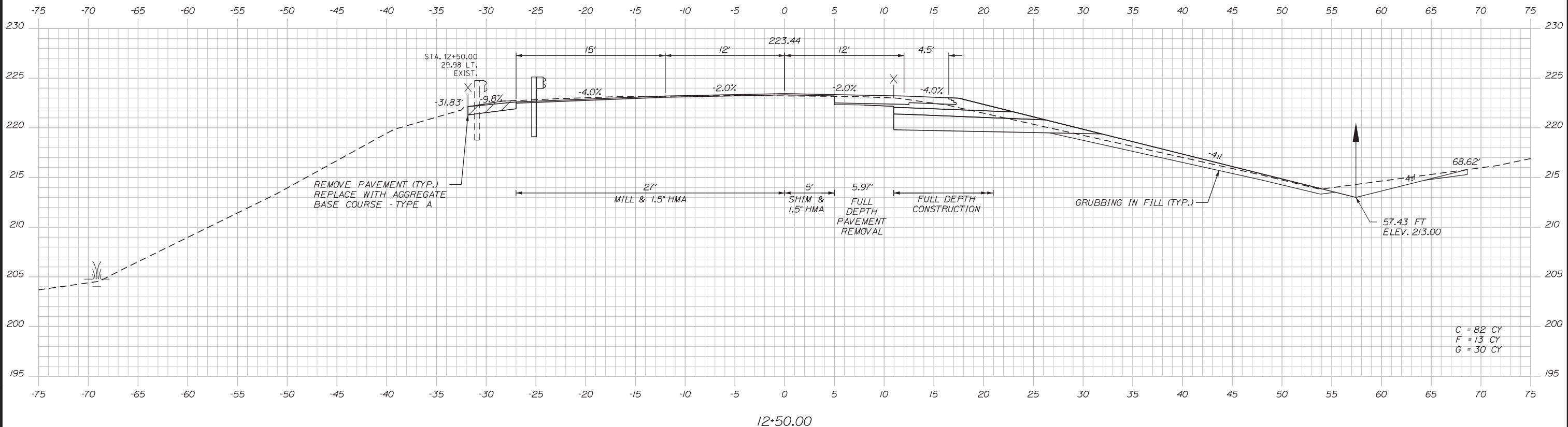
CONTRACT: 2018.05

66 OF 176

Date: 2/19/2018



13+00.00



12+50.00

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

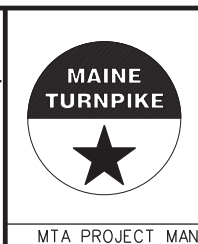
Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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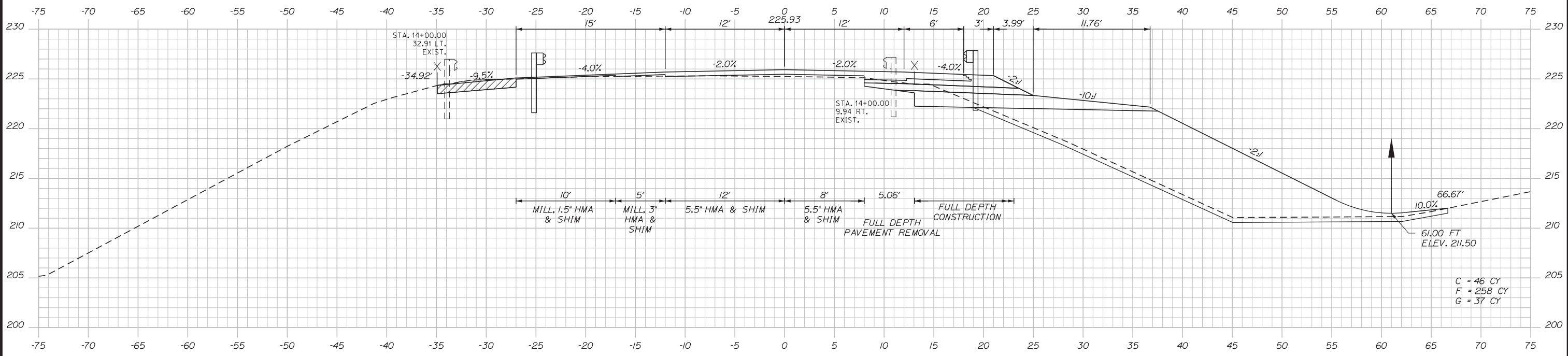
**THE GOLD STAR
MEMORIAL HIGHWAY**

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
STA. 12+50.00 TO STA. 13+00.00

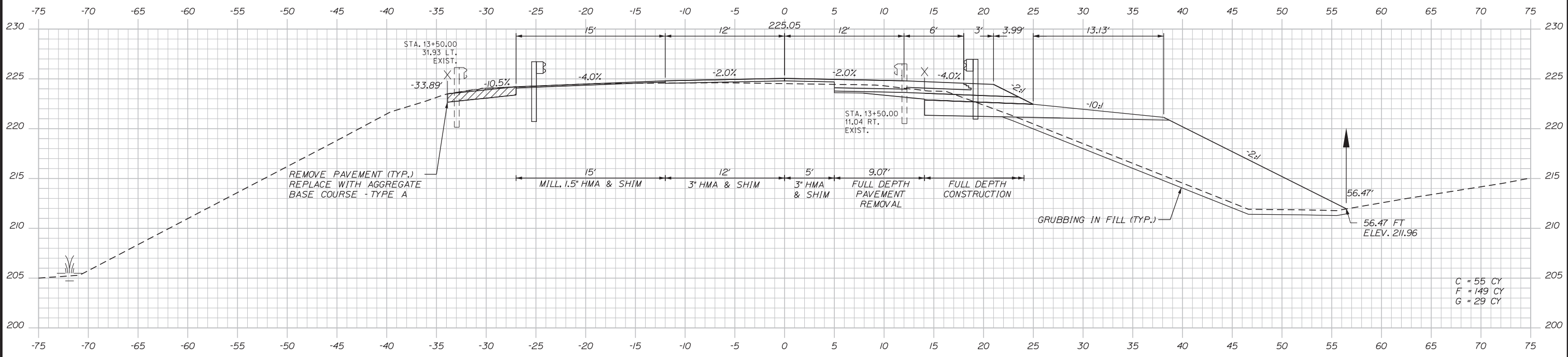
SHEET NUMBER: XS-06
CONTRACT: 2018.05
67 OF 176

Filename: ...MSTA\055-100_Sections.dgn

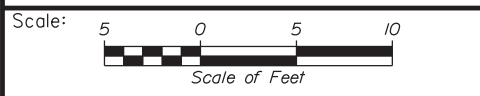
Date: 2/19/2018



14+00.00



13+50.00



Designed by:

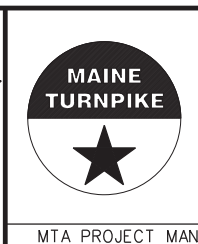
Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MEMORIAL HIGHWAY**

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 13+50.00 TO STA. 14+00.00

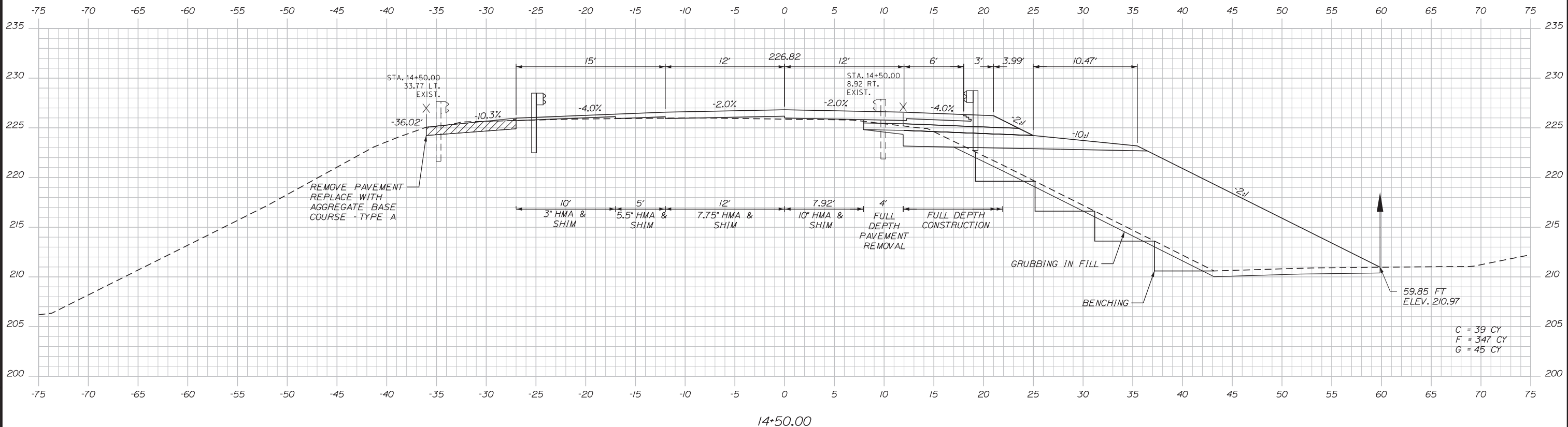
SHEET NUMBER: XS-07

CONTRACT: 2018.05

68 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



C = 39 CY
 F = 347 CY
 G = 45 CY

Filename: ...MSTA\055-100_Sections.dgn

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

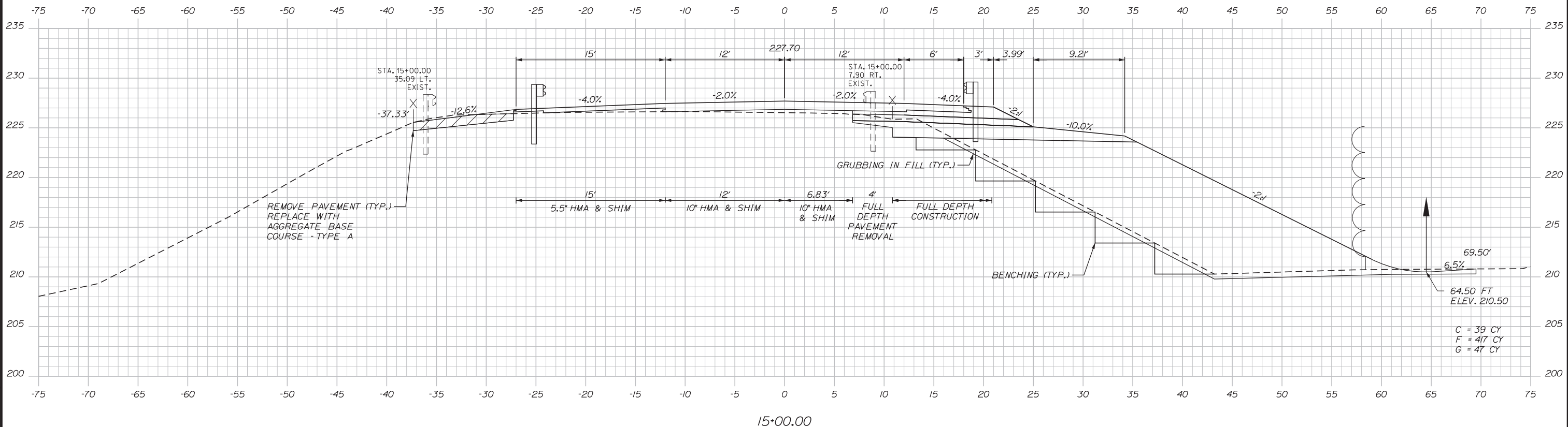
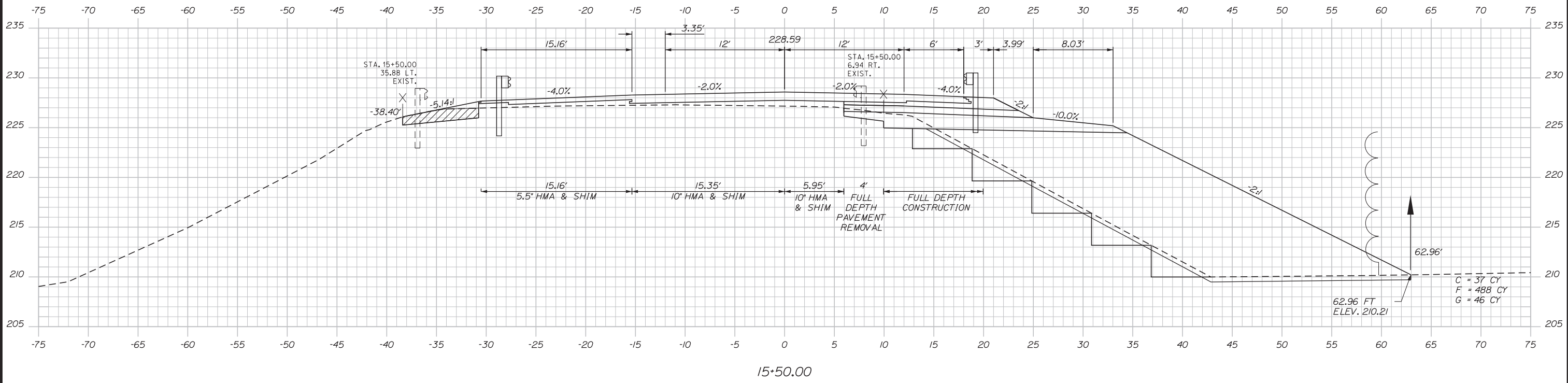
STA. 14+50.00 TO STA. 14+50.00

SHEET NUMBER: XS-08

CONTRACT: 2018.05

69 OF 176

Date: 2/19/2018



Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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FAX (207) 883-3376



**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

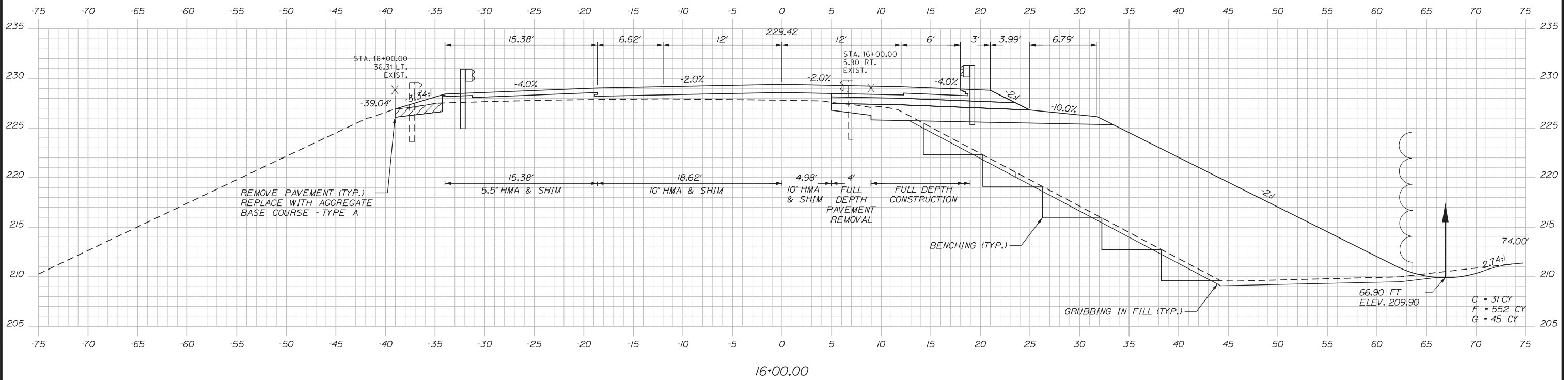
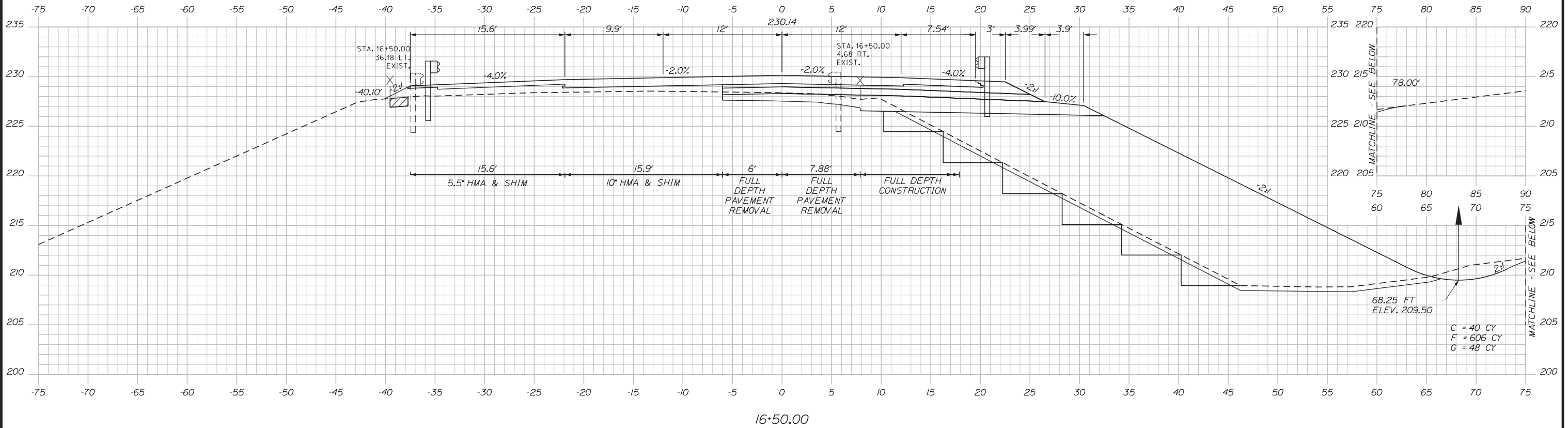
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 15+00.00 TO STA. 15+50.00

SHEET NUMBER: XS-09
CONTRACT: 2018.05
70 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 16+00.00 TO STA. 16+50.00

SHEET NUMBER: XS-10

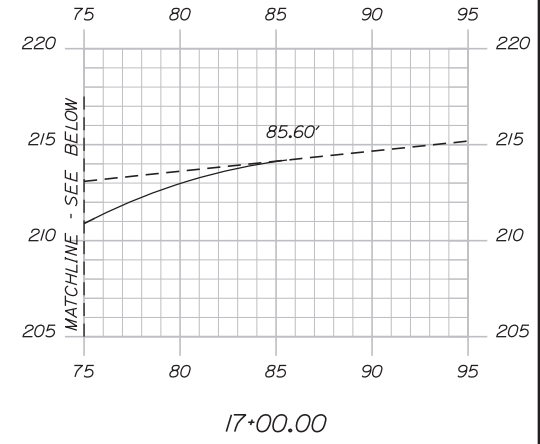
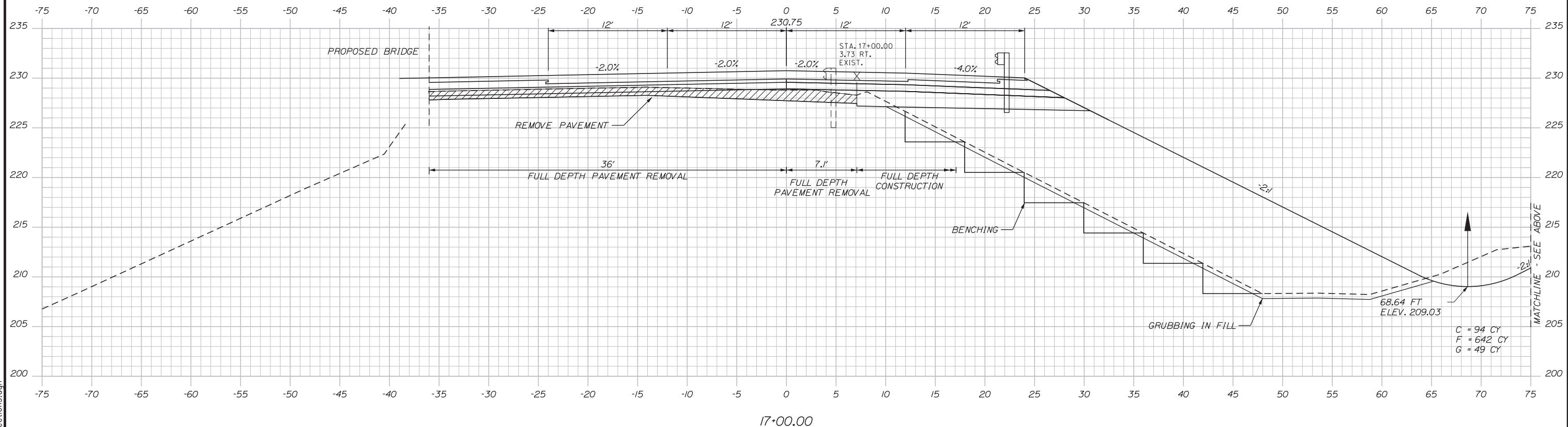
CONTRACT: 2018.05

71 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018

Filename: ...MSTA\055-100_Sections.dgn



Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 17+00.00 TO STA. 17+00.00

SHEET NUMBER: XS-11

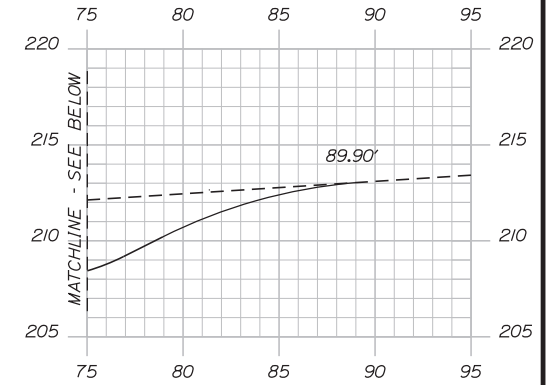
CONTRACT: 2018.05

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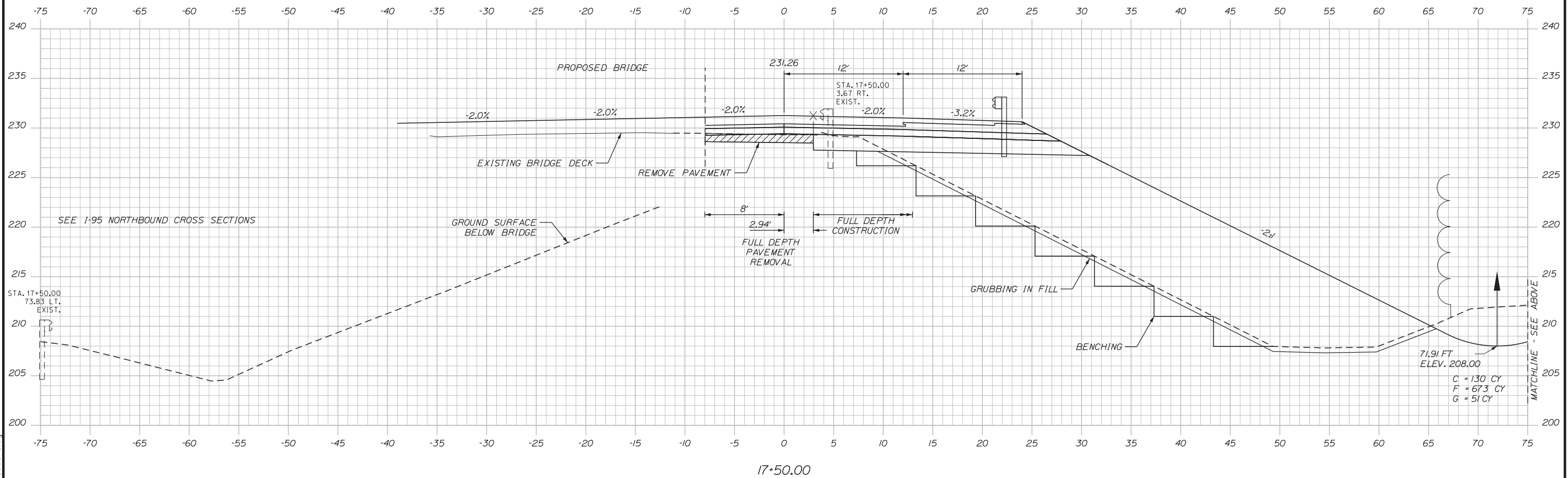
C = 94 CY
F = 642 CY
G = 49 CY

Date: 2/19/2018

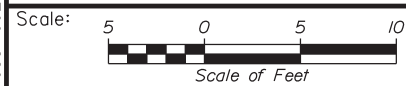
BRIDGE STA. 17+63.83 TO STA. 21+77.83



17+50.00



Filename: ...MSTA\055-100_Sections.dgn



Designed by:



STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD
SCARBOROUGH, ME 04074
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FAX (207) 883-3376



THE GOLD STAR
MEMORIAL HIGHWAY

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 17+50.00 TO STA. 17+50.00

SHEET NUMBER: XS-12

CONTRACT: 2018.05

73 OF 176

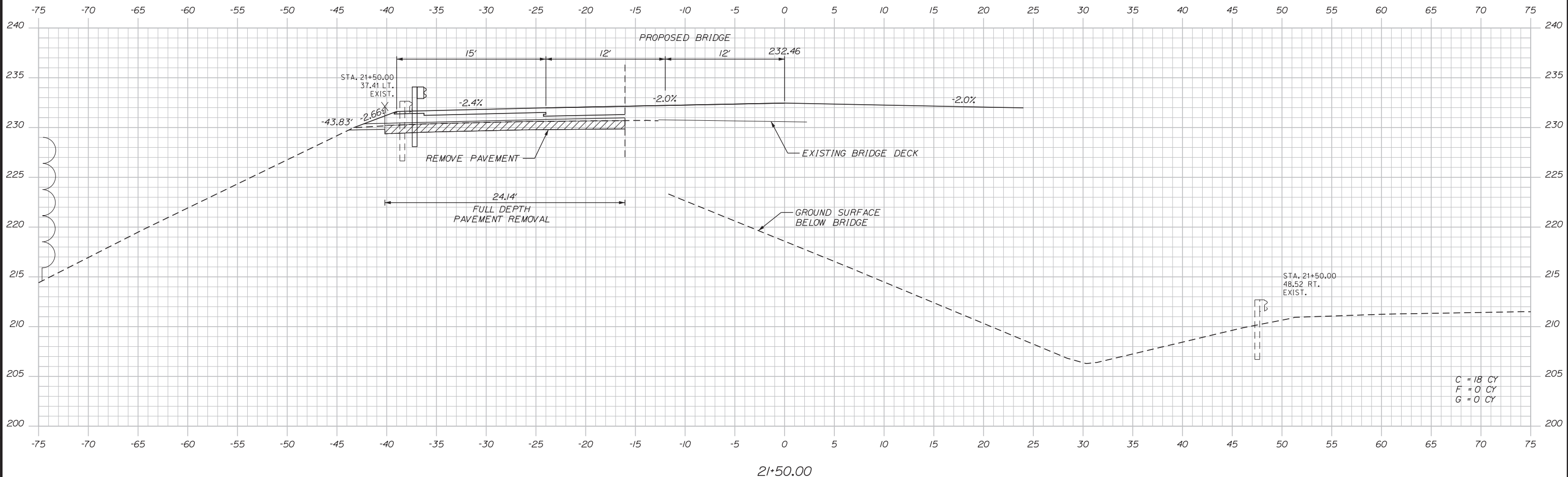
No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

Date: 2/19/2018

BRIDGE STA. 17+63.83 TO STA. 21+77.83



C = 18 CY
F = 0 CY
G = 0 CY

Filename: ...MSTA\055-100_Sections.dgn

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

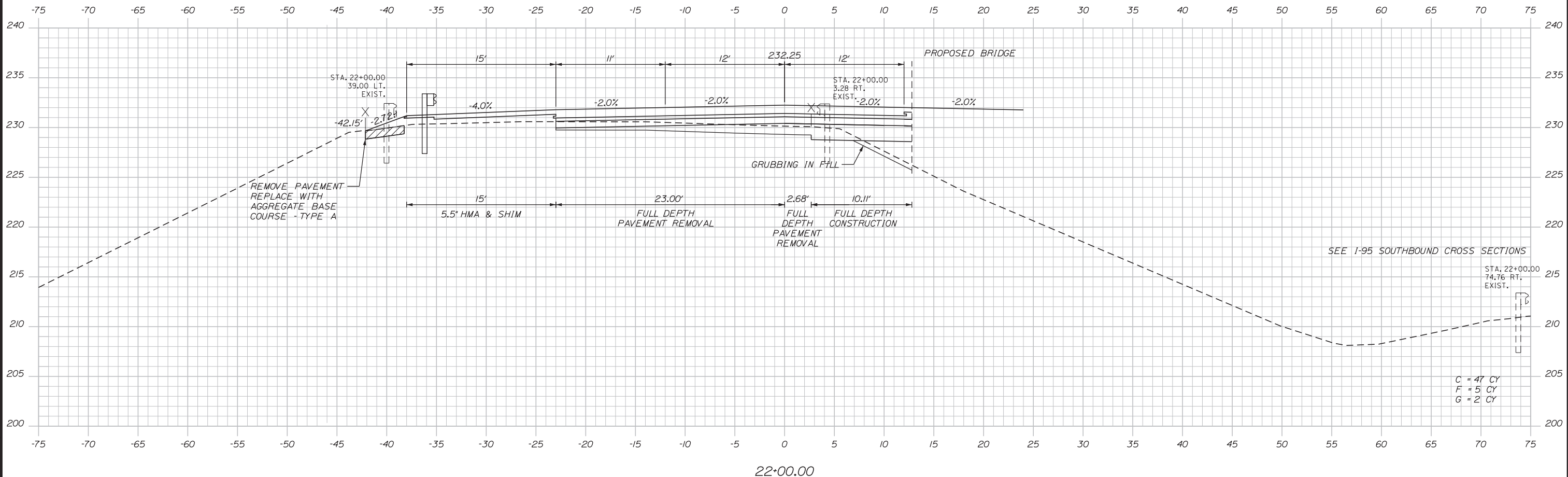
STA. 21+50.00 TO STA. 21+50.00

SHEET NUMBER: XS-13

CONTRACT: 2018.05

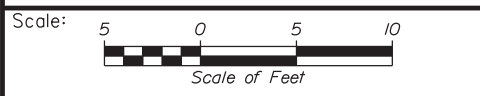
74 OF 176

Date: 2/19/2018



STA. 22+00.00
74.76 RT.
EXIST.
C = 47 CY
F = 5 CY
G = 2 CY

Filename: ...MSTA\055-100_Sections.dgn



Designed by:

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No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
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Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

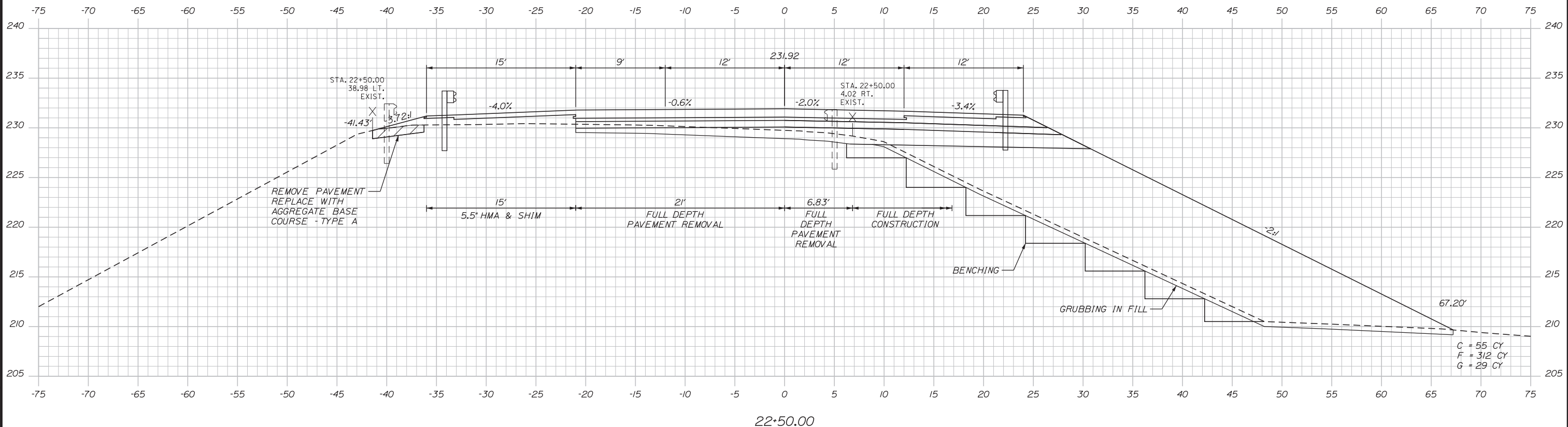
STA. 22+00.00 TO STA. 22+00.00

SHEET NUMBER: XS-14

CONTRACT: 2018.05

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Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: Scale of Feet

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

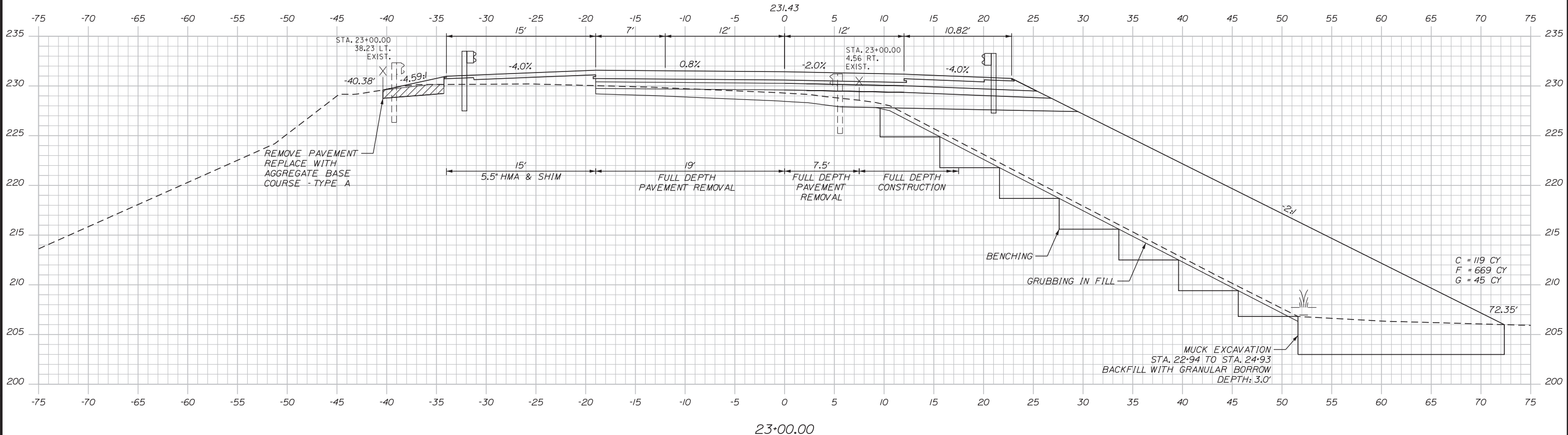
STA. 22+50.00 TO STA. 22+50.00

SHEET NUMBER: XS-15

CONTRACT: 2018.05

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Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: Scale of Feet

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

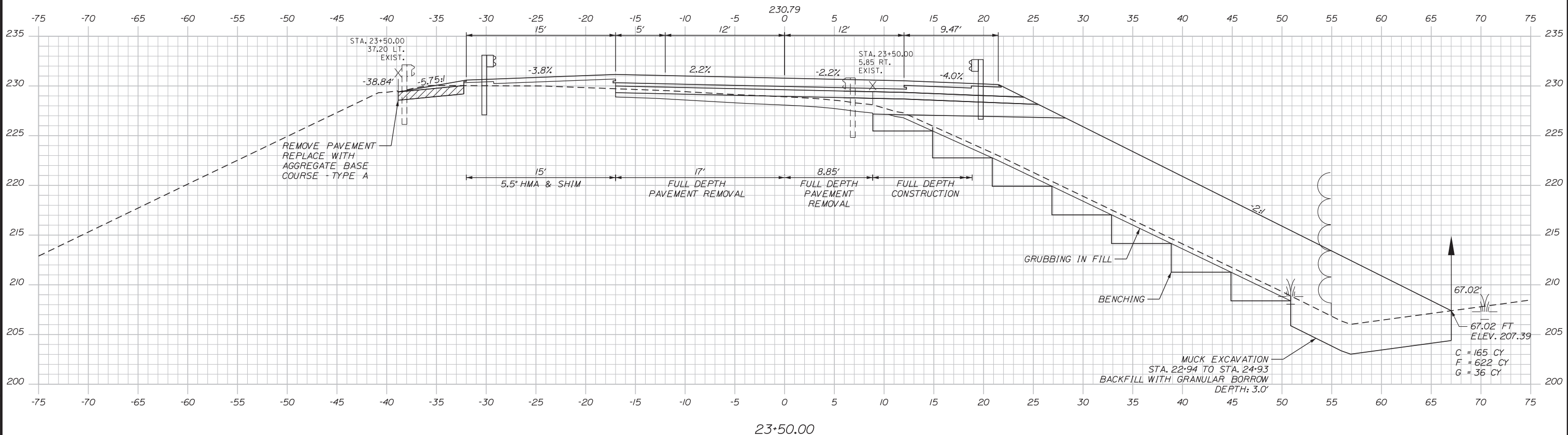
STA. 23+00.00 TO STA. 23+00.00

SHEET NUMBER: XS-16

CONTRACT: 2018.05

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Date: 2/19/2018



23+50.00

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

STA. 23+50.00 TO STA. 23+50.00

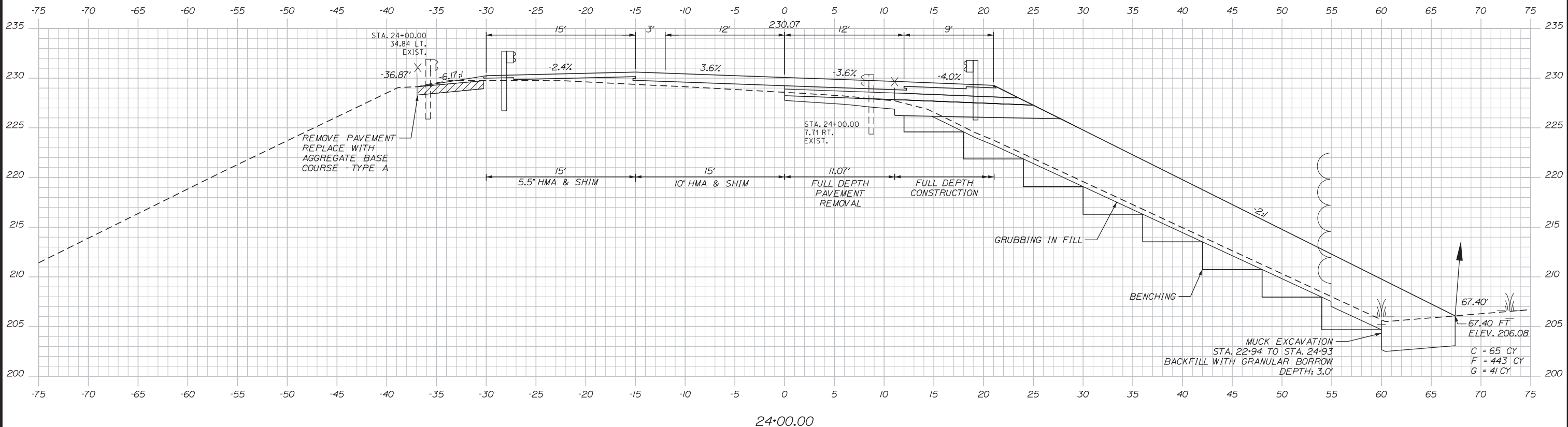
SHEET NUMBER: XS-17

CONTRACT: 2018.05

78 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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Designed	SJB	2\16\18	LEM	2\16\18	
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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

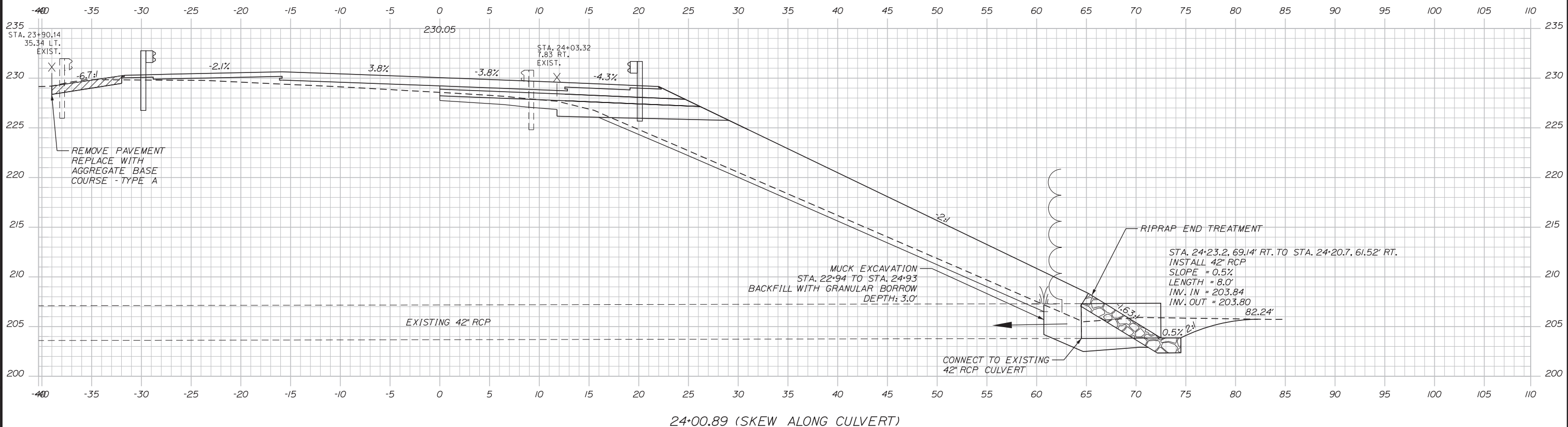
STA. 24+00.00 TO STA. 24+00.00

SHEET NUMBER: XS-18

CONTRACT: 2018.05

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Date: 2/19/2018



24+00.89 (SKEW ALONG CULVERT)

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

STA. 24+00.89 TO STA. 24+00.89

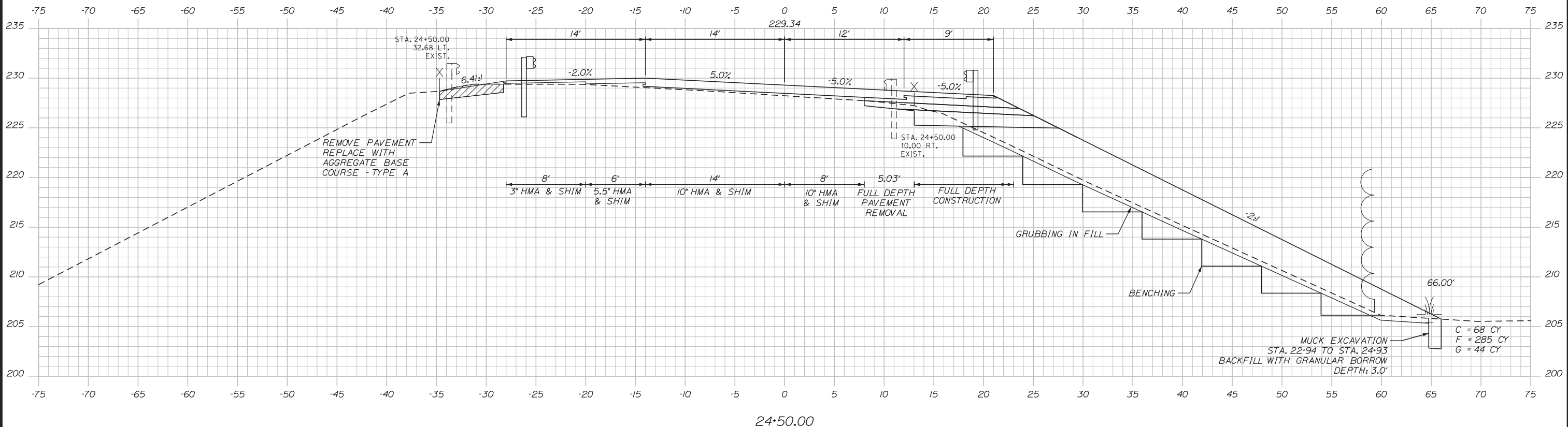
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CONTRACT: 2018.05

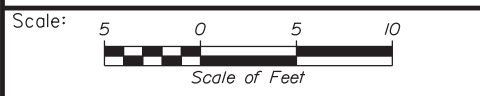
80 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



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No.	Revision	By	Date

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

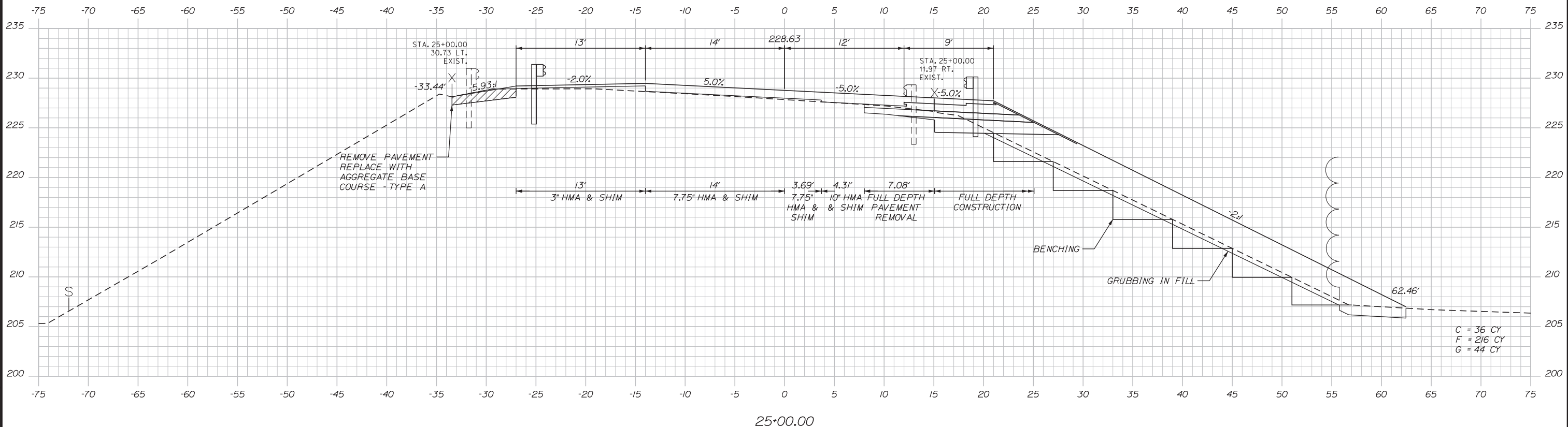
STA. 24+50.00 TO STA. 24+50.00

SHEET NUMBER: XS-20

CONTRACT: 2018.05

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Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: Scale of Feet

No.	Revision	By	Date

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

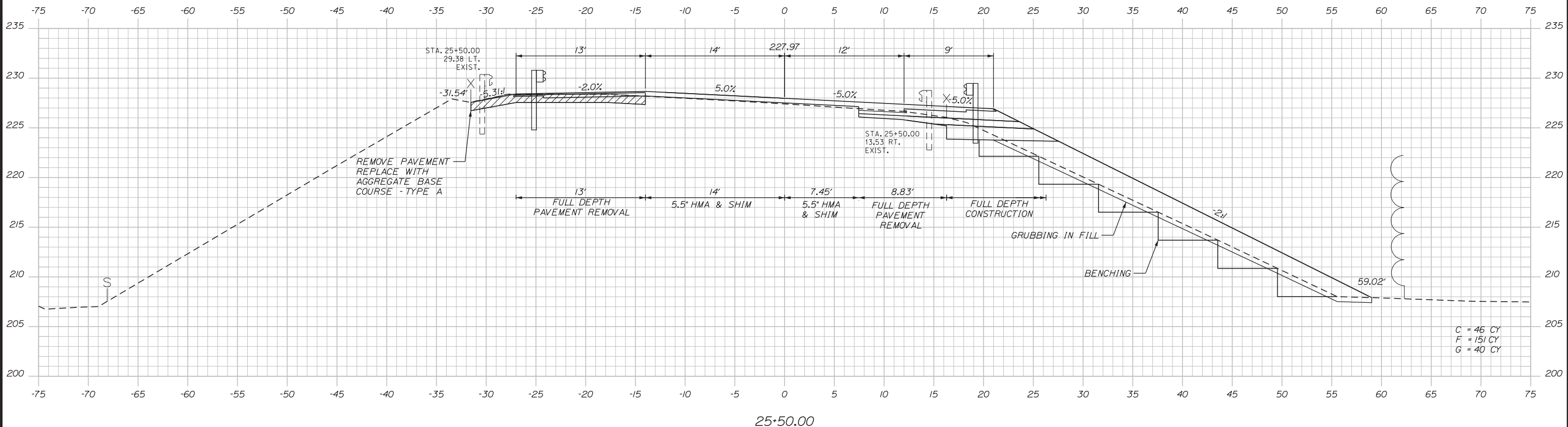
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SHEET NUMBER: XS-21

CONTRACT: 2018.05

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Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: Scale of Feet

No.	Revision	By	Date

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Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

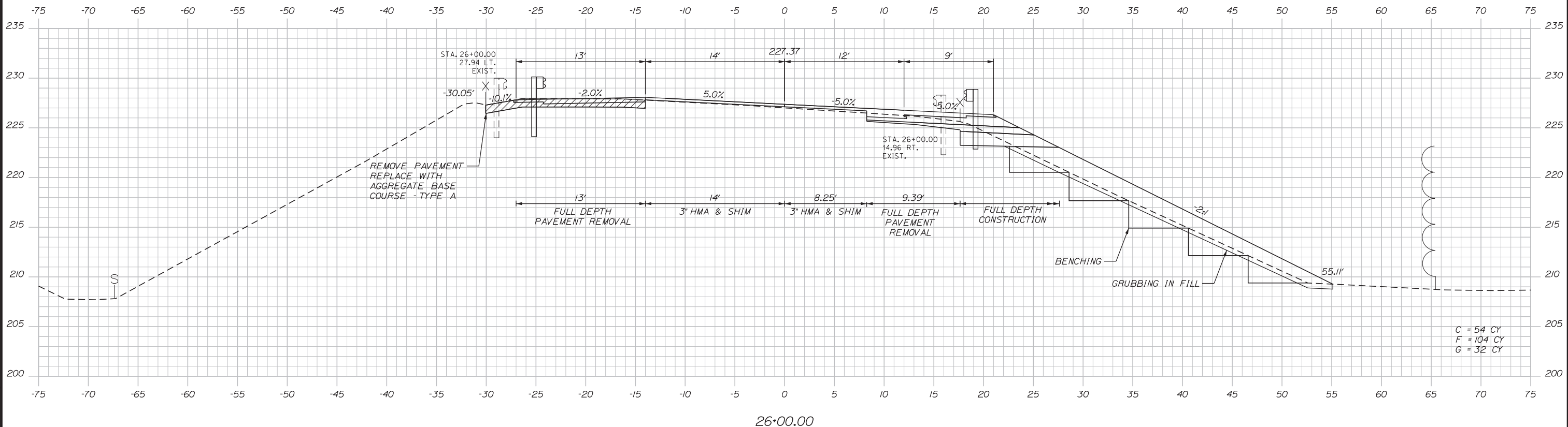
STA. 25+50.00 TO STA. 25+50.00

SHEET NUMBER: XS-22

CONTRACT: 2018.05

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Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

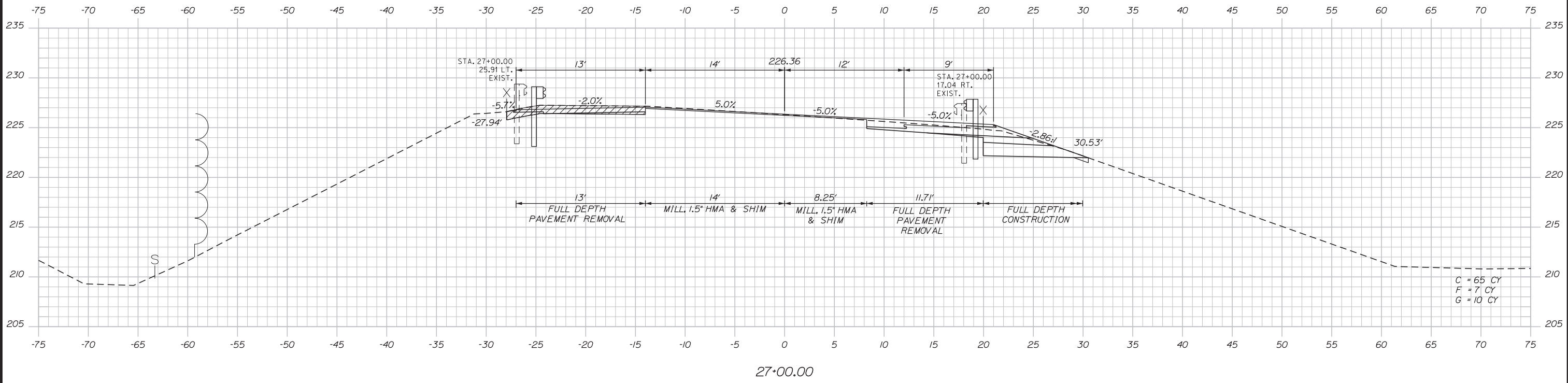
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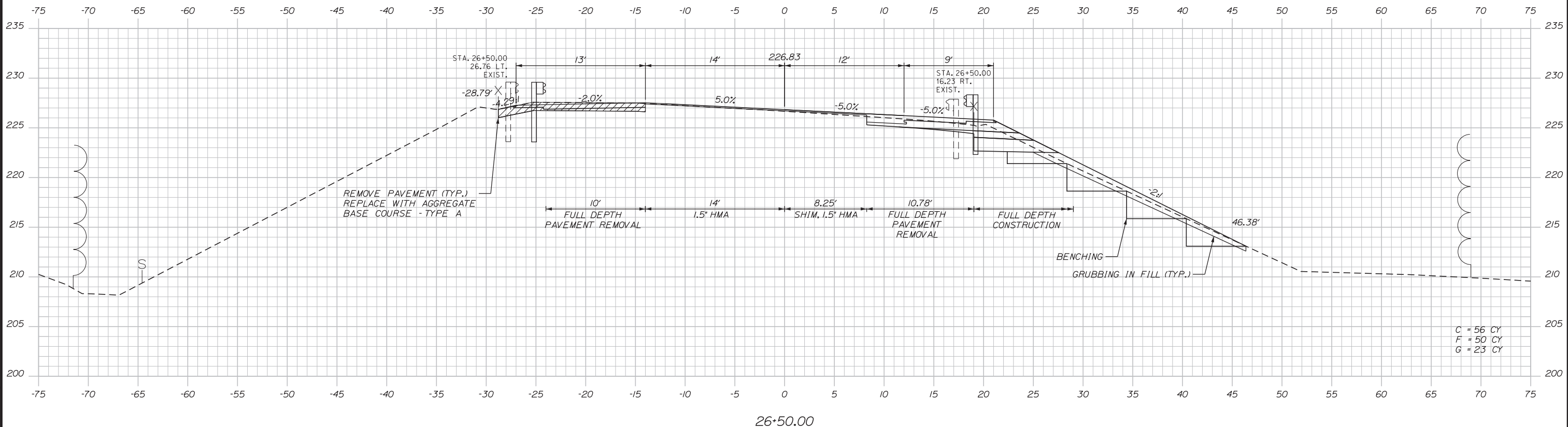
CONTRACT: 2018.05

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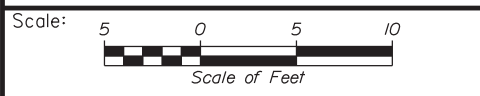
Date: 2/19/2018



27+00.00



26+50.00



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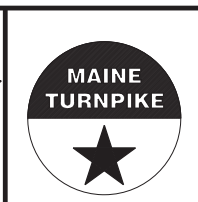
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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

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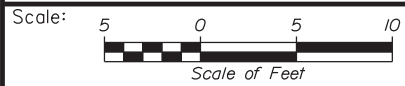
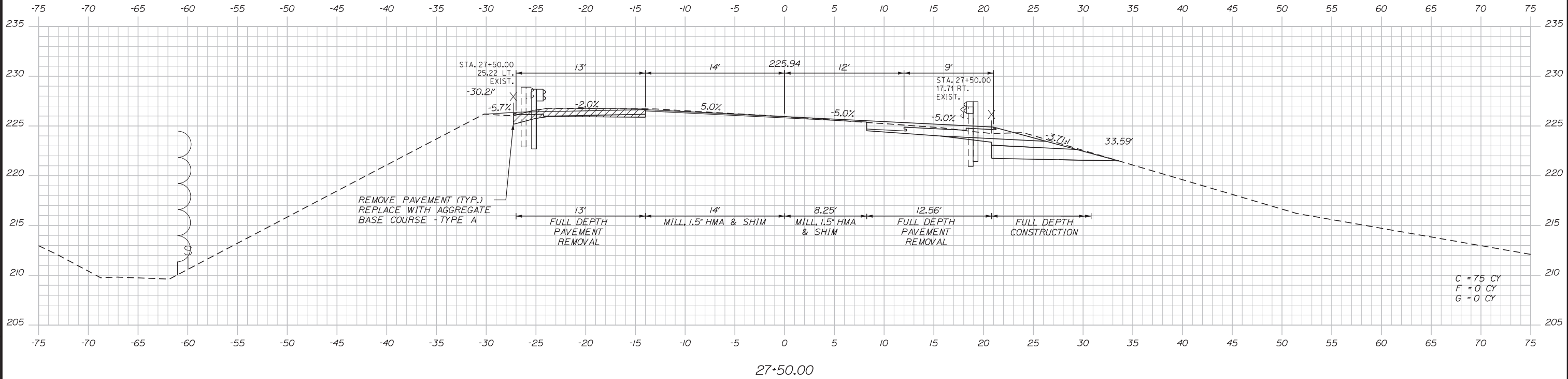
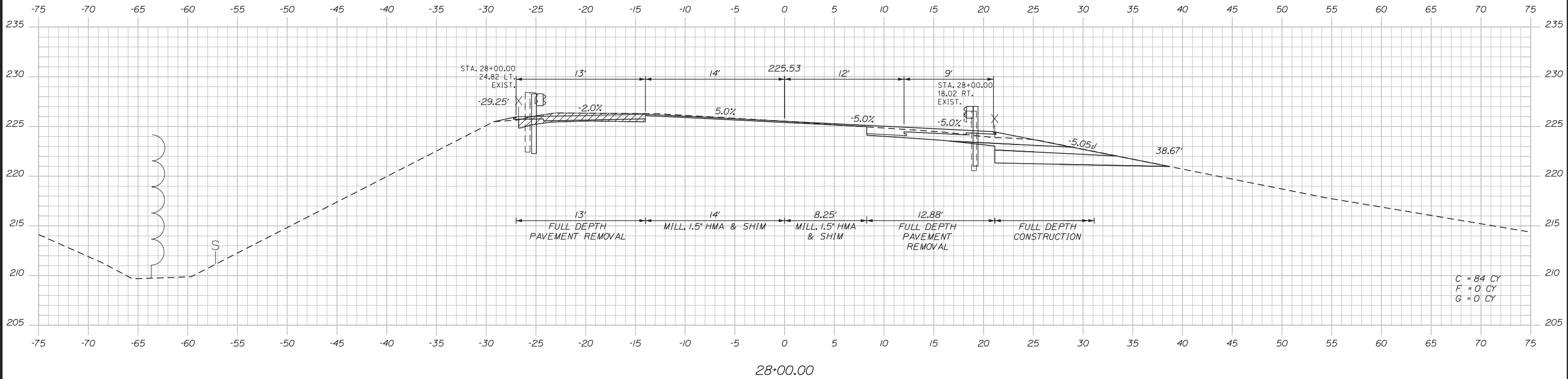
**THE GOLD STAR
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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
STA. 26+50.00 TO STA. 27+00.00

SHEET NUMBER: XS-24
CONTRACT: 2018.05
85 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

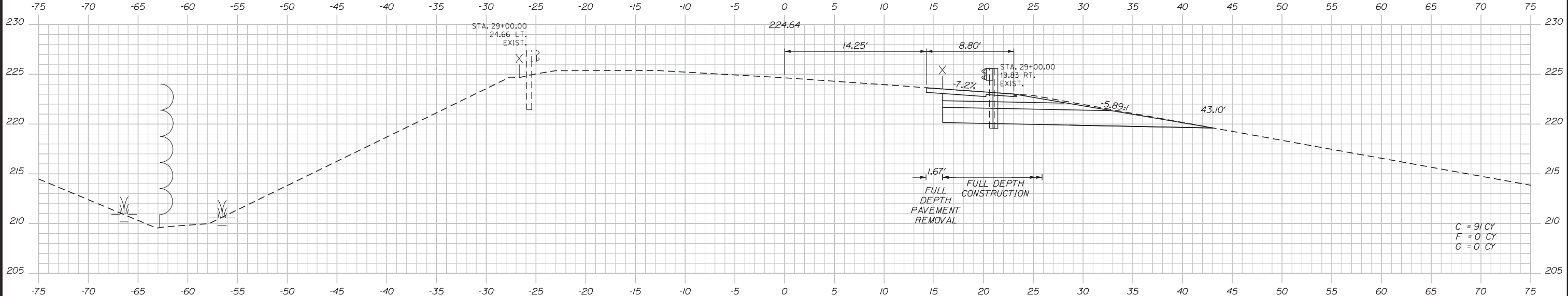
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

STA. 27+50.00 TO STA. 28+00.00

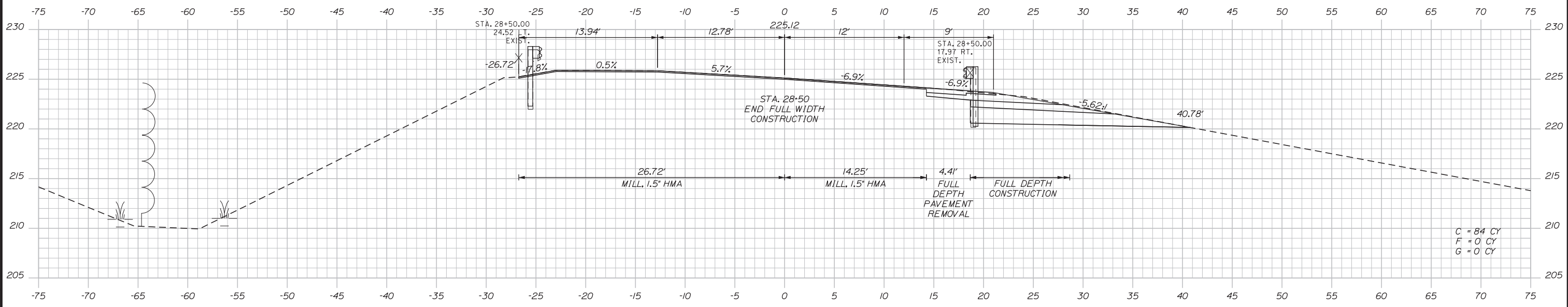
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 CONTRACT: 2018.05
 86 OF 176

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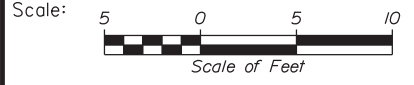
Date: 2/19/2018



29+00.00



28+50.00



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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

STA. 28+50.00 TO STA. 29+00.00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

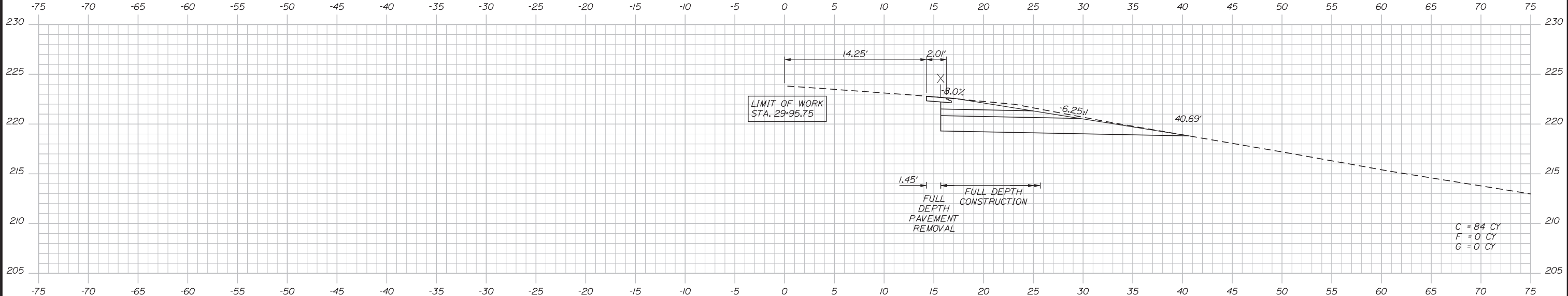
CONTRACT: 2018.05

SHEET NUMBER: XS-26

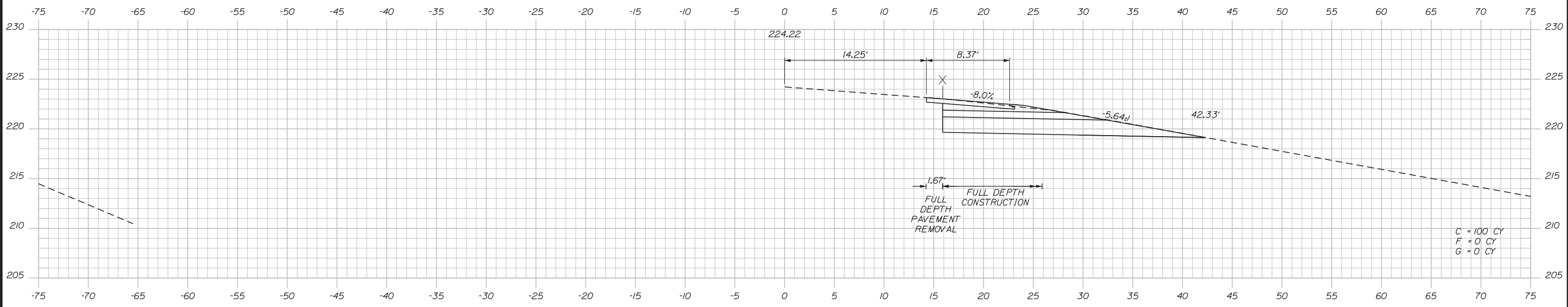
87 OF 176

Filename: ...MSTA\055-100_Sections.dgn

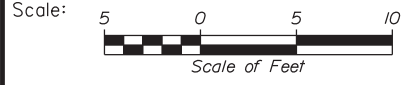
Date: 2/19/2018



29+95.75



29+50.00



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**THE GOLD STAR
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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

STA. 29+50.00 TO STA. 29+95.25

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

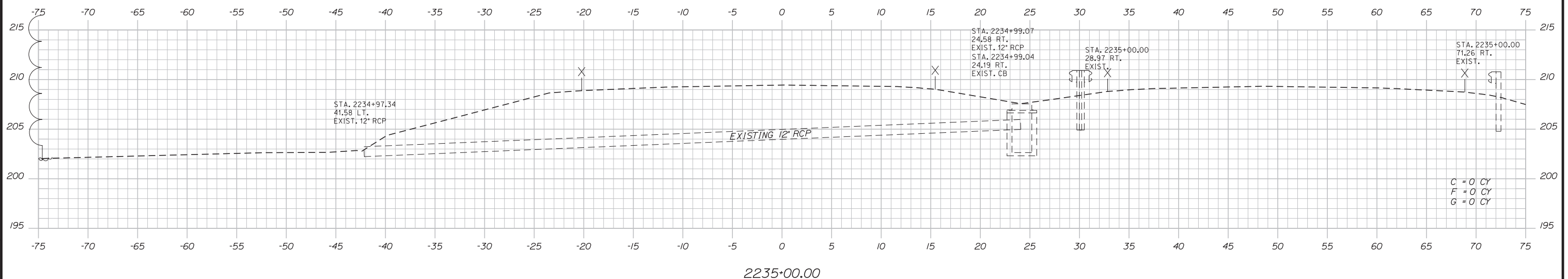
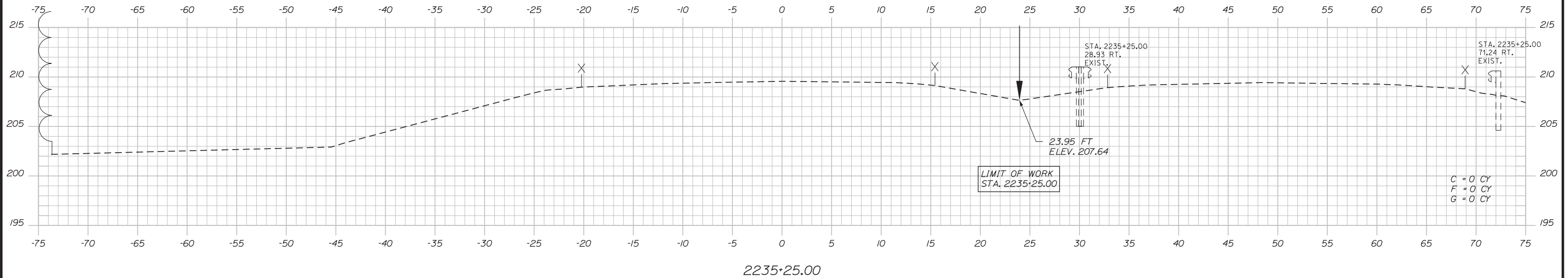
CONTRACT: 2018.05

SHEET NUMBER: XS-27

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Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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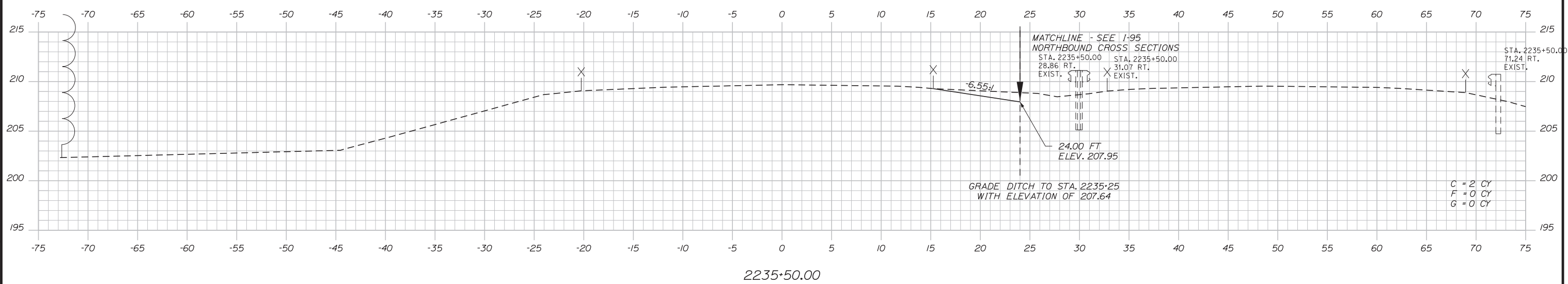
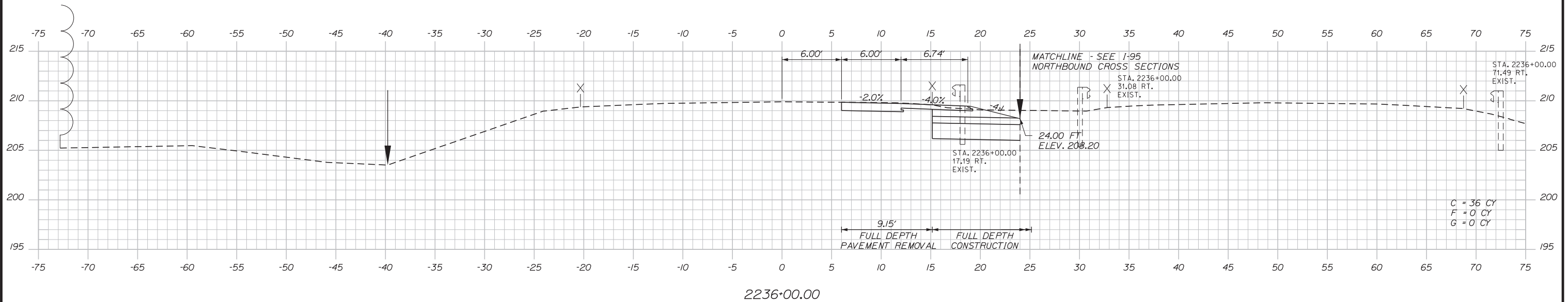
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 SOUTHBOUND
STA. 2235+00.00 TO STA. 2235+25.00

SHEET NUMBER: XS-28
CONTRACT: 2018.05
89 OF 176

Date: 2/19/2018



Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 SOUTHBOUND
STA. 2235+50.00 TO STA. 2236+00.00

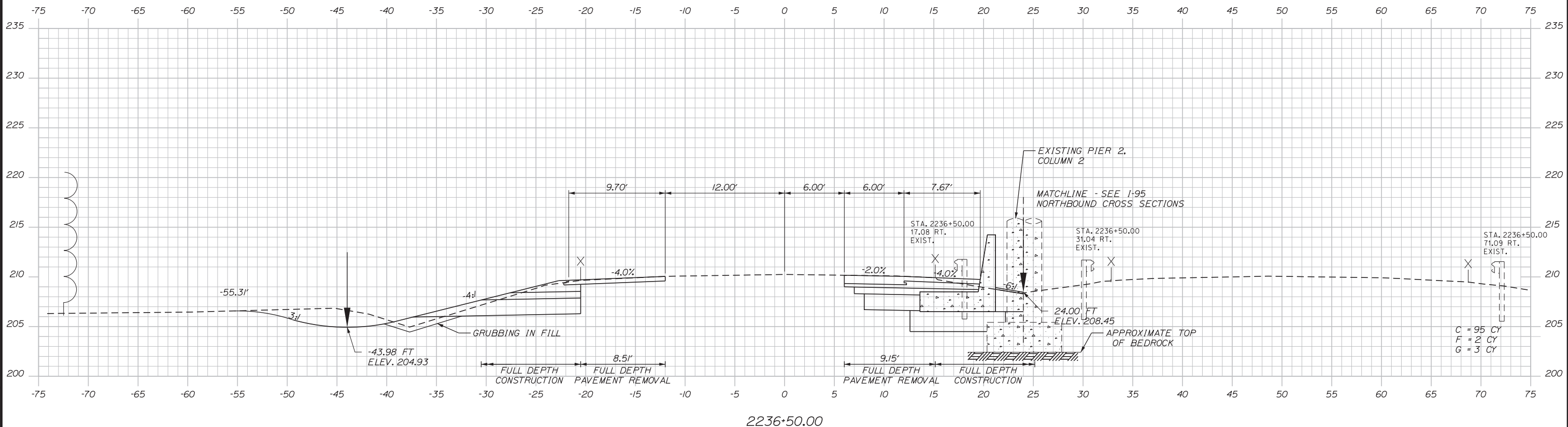
SHEET NUMBER: XS-29

CONTRACT: 2018.05

90 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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482 PAYNE ROAD
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MAINE TURNPIKE

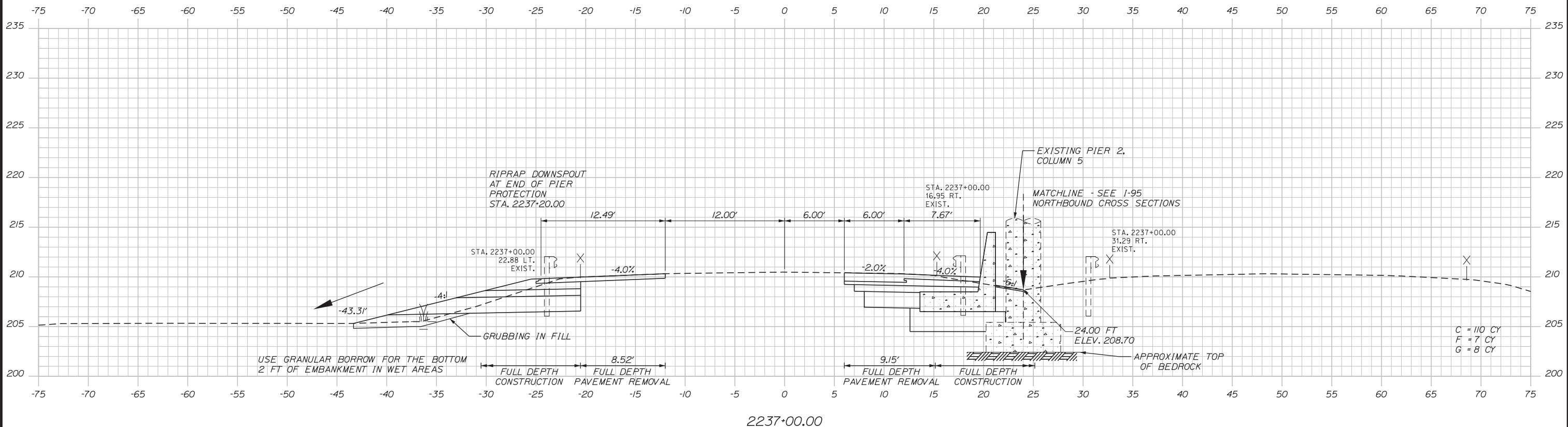
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 SOUTHBOUND
STA. 2236+50.00 TO STA. 2236+50.00

SHEET NUMBER: XS-30
CONTRACT: 2018.05
91 OF 176

Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 I-95 SOUTHBOUND
 STA. 2237+00.00 TO STA. 2237+00.00

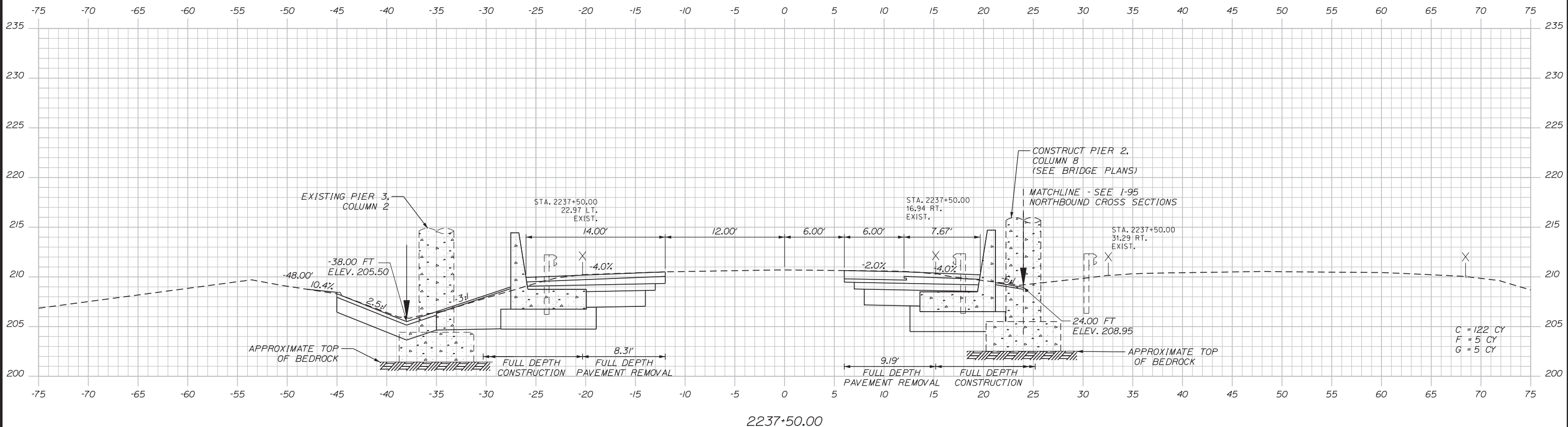
SHEET NUMBER: XS-31

CONTRACT: 2018.05

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Date: 2/19/2018

Filename: ...MSTA\055-100_Sections.dgn



Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date	Checked	By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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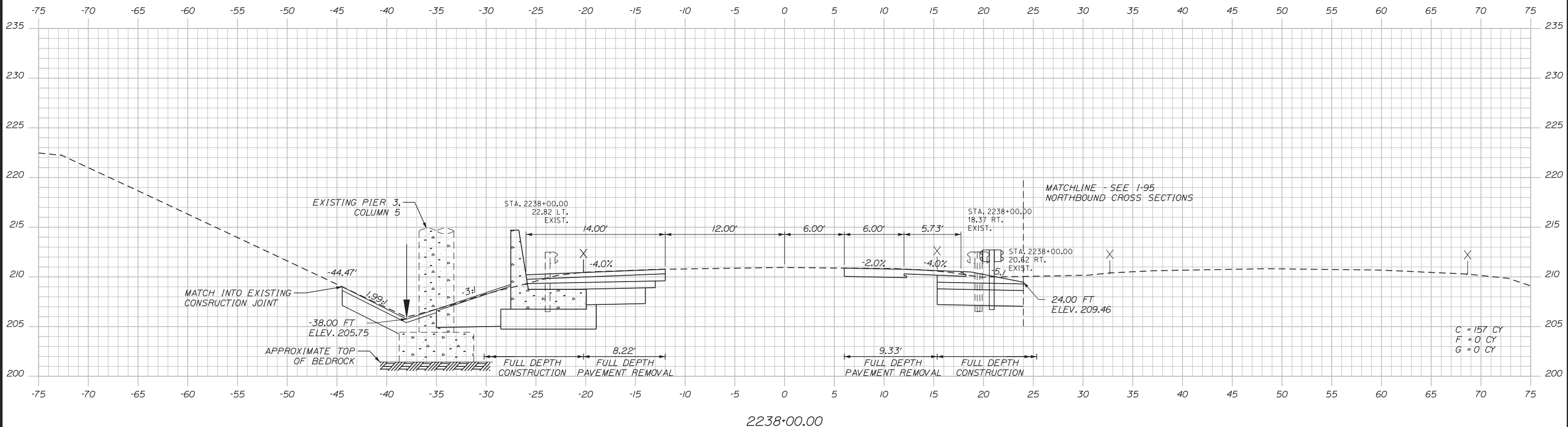
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 I-95 SOUTHBOUND
 STA. 2237+50.00 TO STA. 2237+50.00

SHEET NUMBER: XS-32
 CONTRACT: 2018.05
 93 OF 176

Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

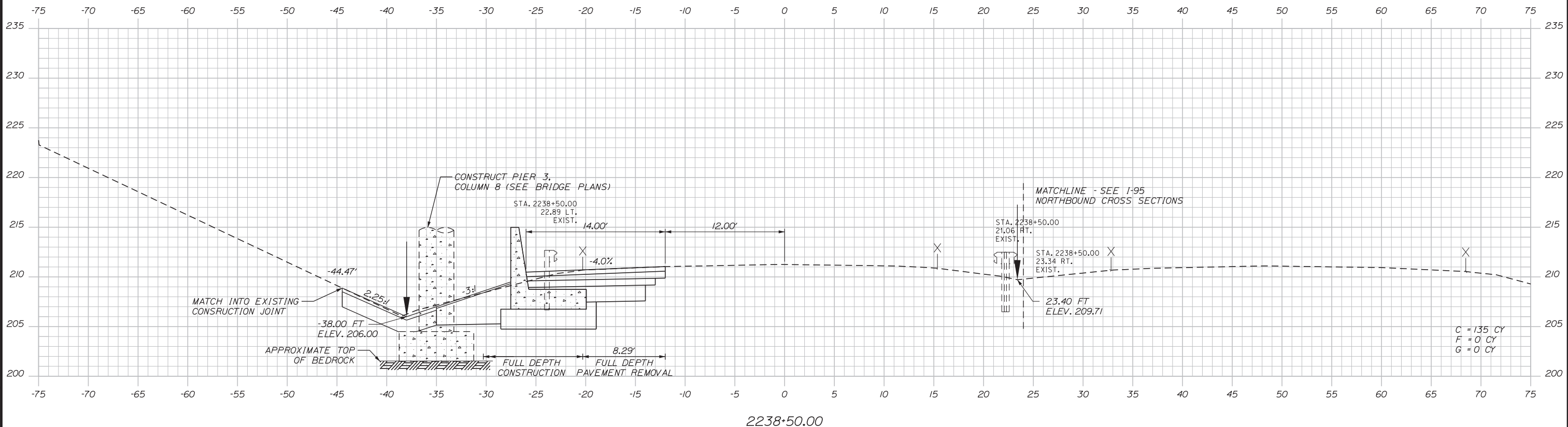
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 BRIDGE REHABILITATION
 I-95 SOUTHBOUND
 STA. 2238+00.00 TO STA. 2238+00.00

SHEET NUMBER: XS-33

CONTRACT: 2018.05

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Date: 2/19/2018



Filename: ...MSTA\055-100_Sections.dgn



No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

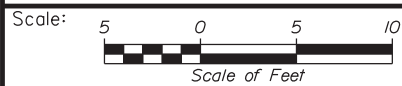
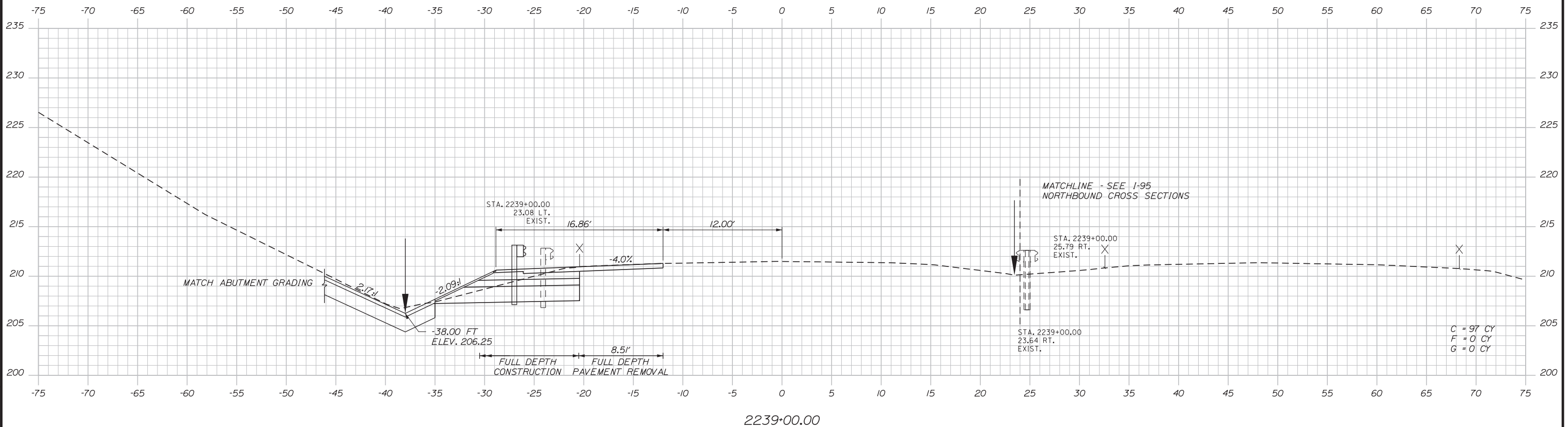
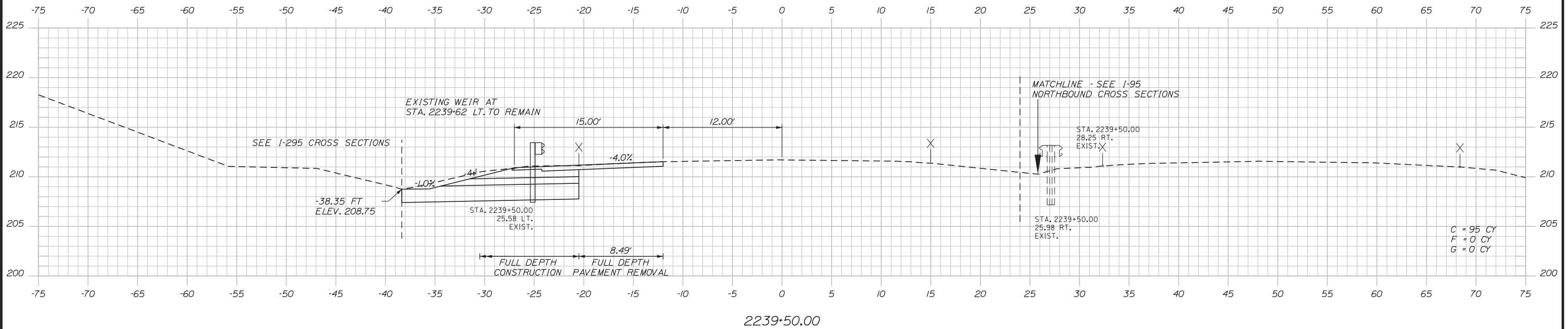
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 I-95 SOUTHBOUND
 STA. 2238+50.00 TO STA. 2238+50.00

SHEET NUMBER: XS-34

CONTRACT: 2018.05

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Date: 2/19/2018



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THE GOLD STAR
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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 SOUTHBOUND
STA. 2239+00.00 TO STA. 2239+50.00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
Designed	By	Date	Checked	By	Date
Drawn	SJB	2\16\18	In Charge of	LEM	2\16\18
	SJB	2\16\18		GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

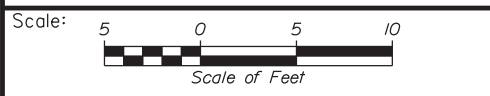
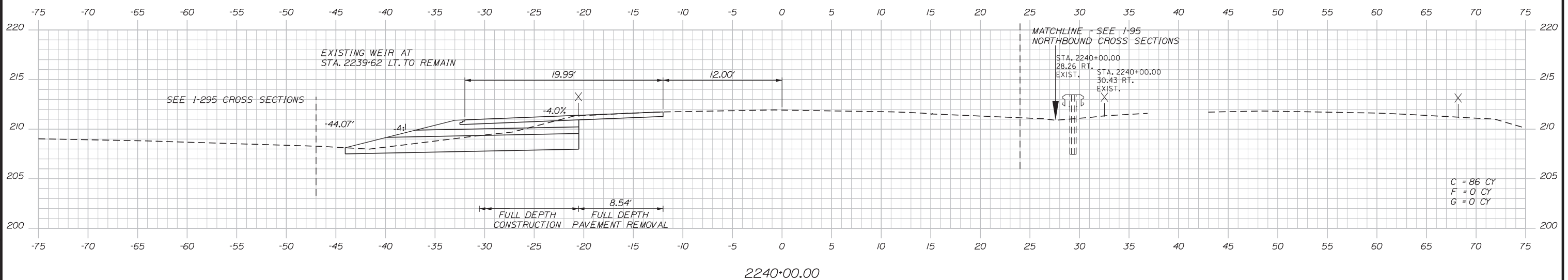
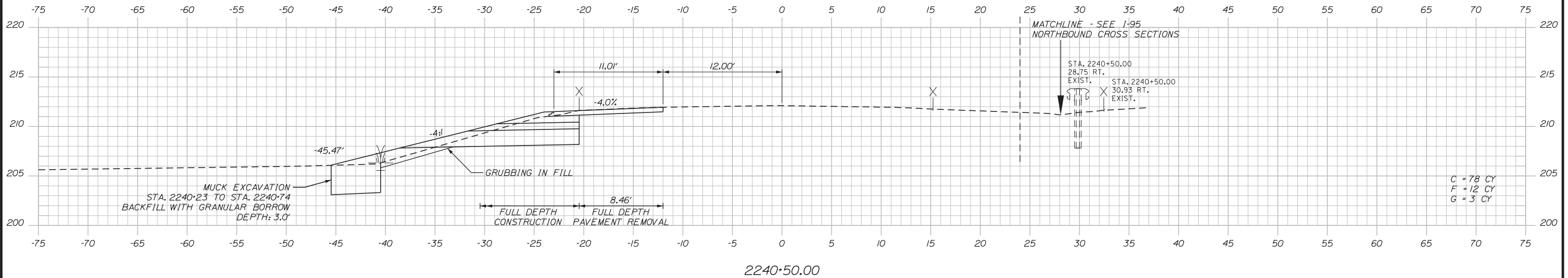
CONTRACT: 2018.05

SHEET NUMBER: XS-35

96 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

By	Date	By	Date
Designed SJB	2\16\18	Checked LEM	2\16\18
Drawn SJB	2\16\18	In Charge of GAE	2\16\18

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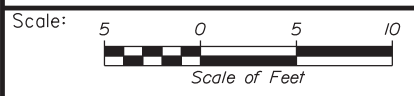
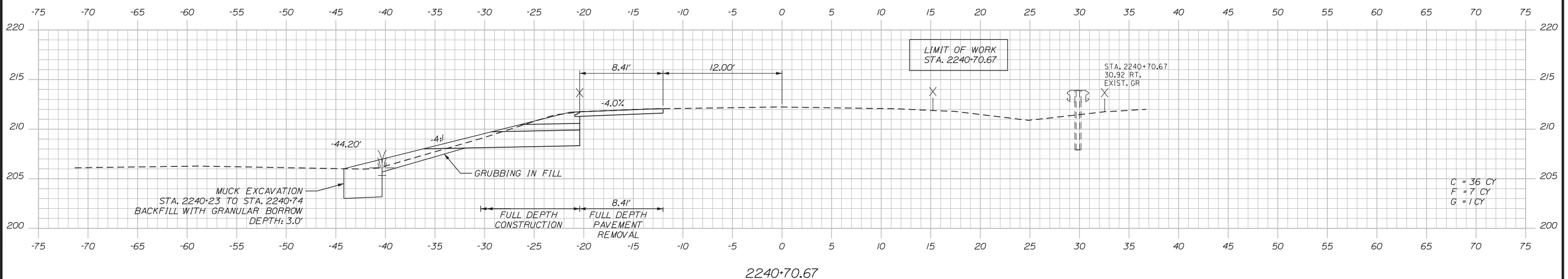
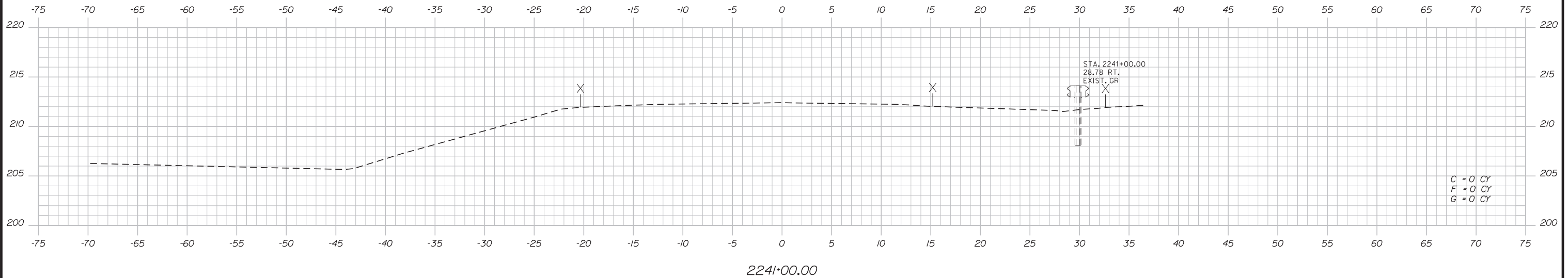
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 SOUTHBOUND
STA. 2240+00.00 TO STA. 2240+50.00

SHEET NUMBER: XS-36
CONTRACT: 2018.05
97 OF 176

Filename: ...MSTA\055-100-Sections.dgn

Date: 2/19/2018



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No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
Designed	By	Date	Checked
	SJB	2\16\18	LEM
Drawn	By	Date	In Charge of
	SJB	2\16\18	GAE

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 I-95 SOUTHBOUND
 STA. 2240+70.67 TO STA. 2241+00.00

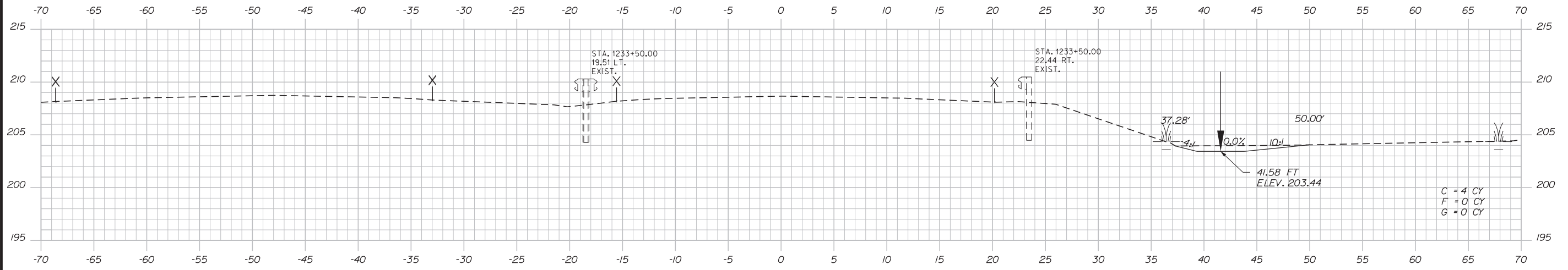
SHEET NUMBER: XS-37

CONTRACT: 2018.05

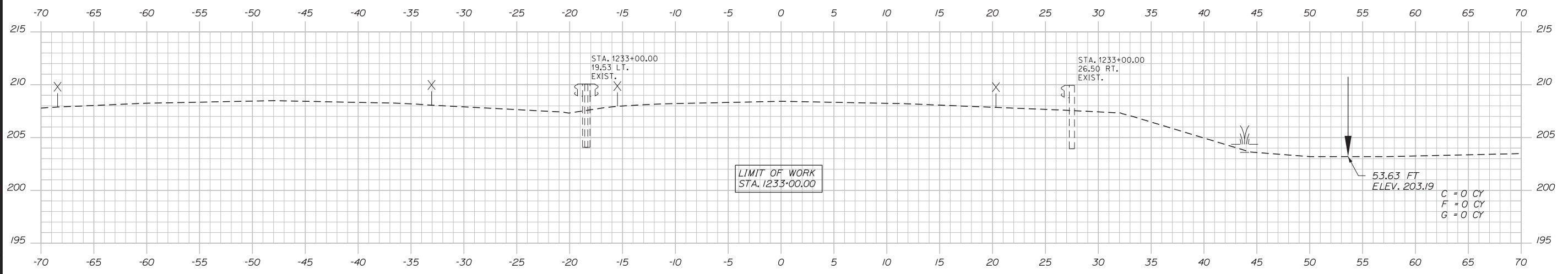
98 OF 176

Filename: ...MSTA\055-100_Sections.dgn

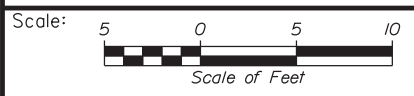
Date: 2/19/2018



1233+50.00



1233+00.00



Designed by:

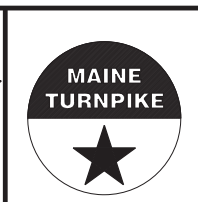
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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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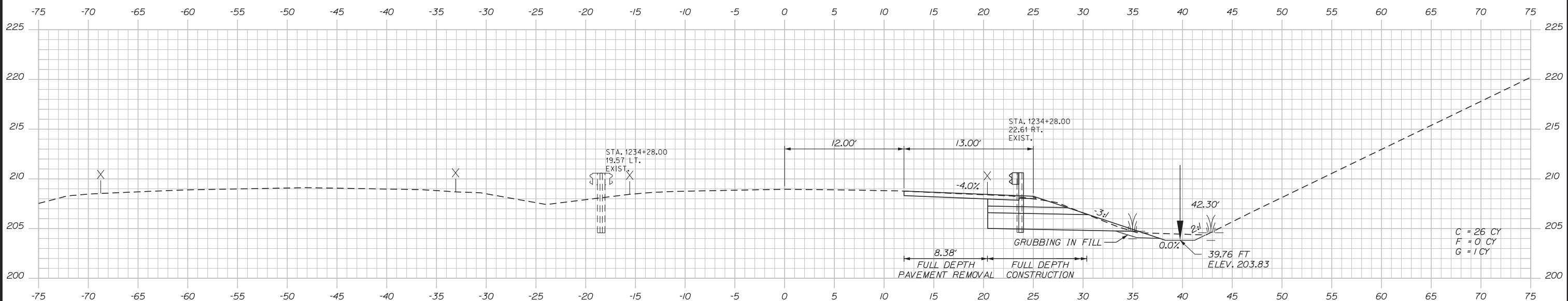
**THE GOLD STAR
MEMORIAL HIGHWAY**

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 NORTHBOUND
STA. 1233+00.00 TO STA. 1233+50.00

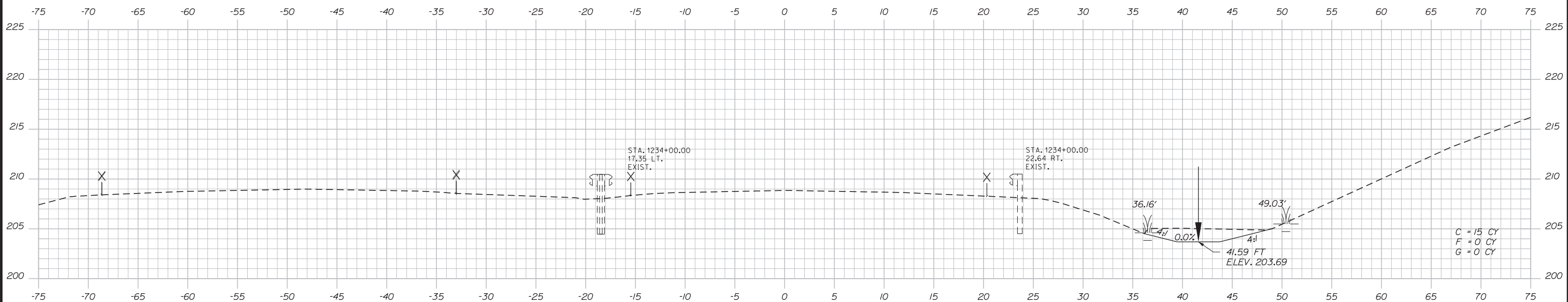
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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

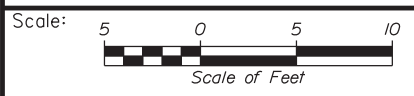
Date: 2/19/2018



1234+28.00



1234+00.00



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 NORTHBOUND
STA. 1234+00.00 TO STA. 1234+25.00

Filename: ...MSTA\055-100_Sections.dgn

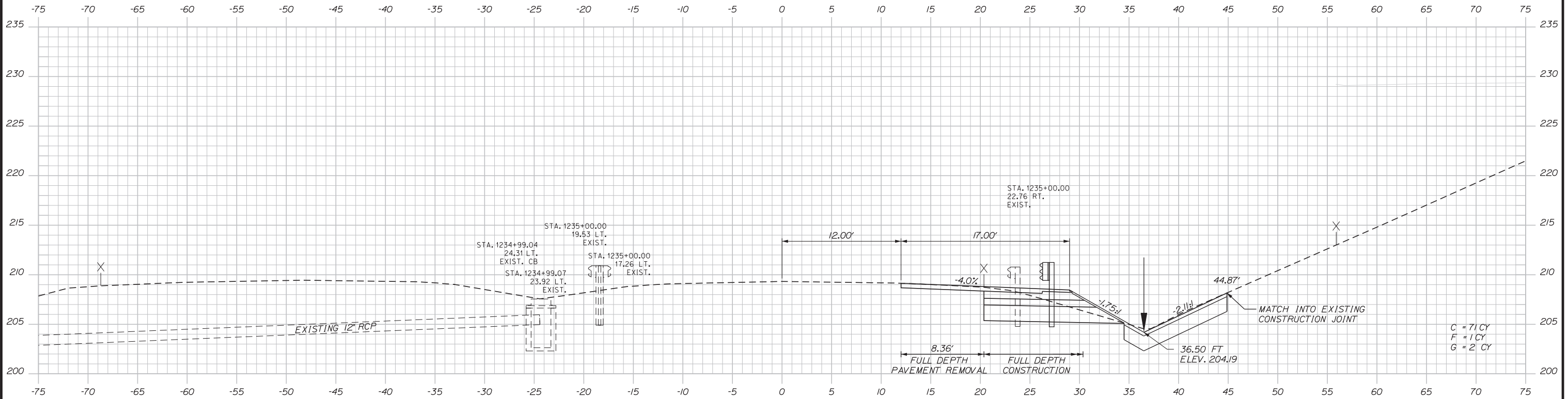
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

CONTRACT: 2018.05

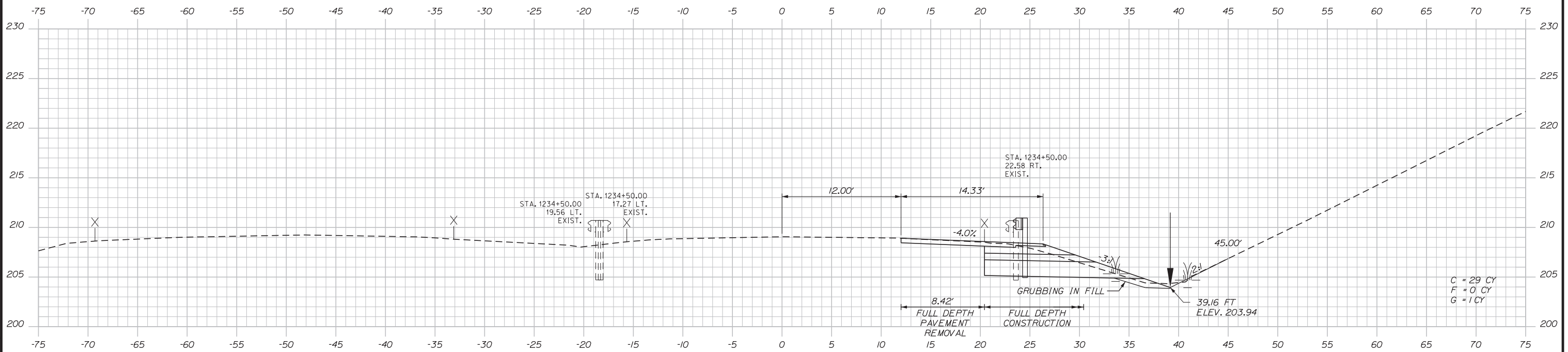
SHEET NUMBER: XS-39

100 OF 176

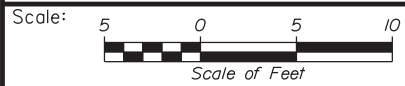
Date: 2/19/2018



1235+00.00



1234+50.00



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THE GOLD STAR
MEMORIAL HIGHWAY

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 NORTHBOUND
STA. 1234+50.00 TO STA. 1235+00.00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

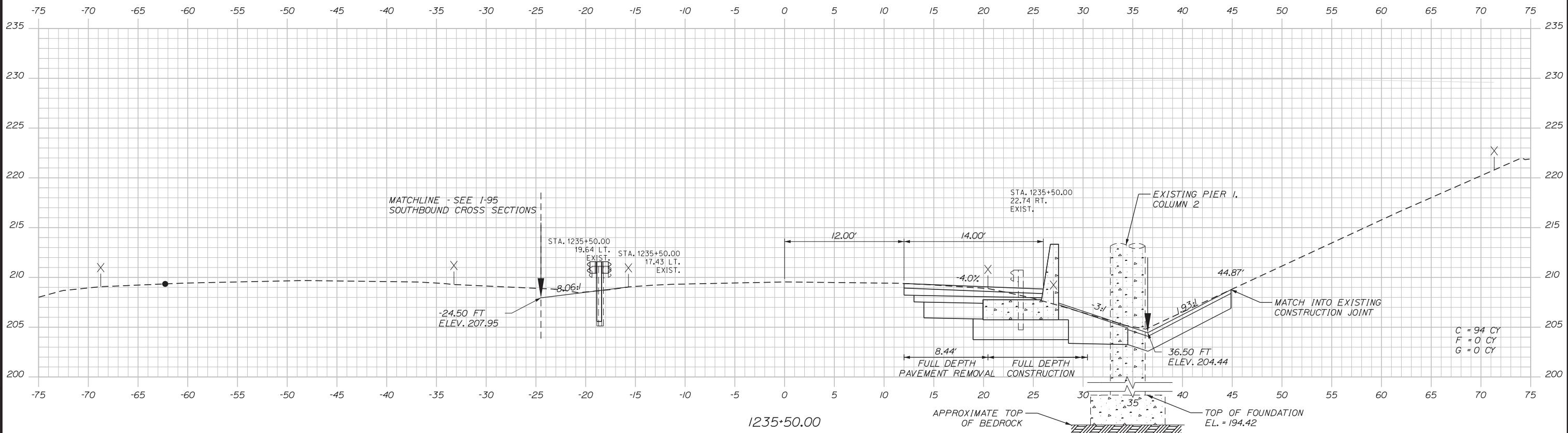
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SHEET NUMBER: XS-40

101 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018



Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

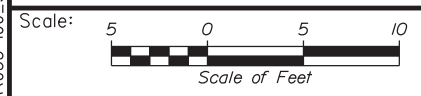
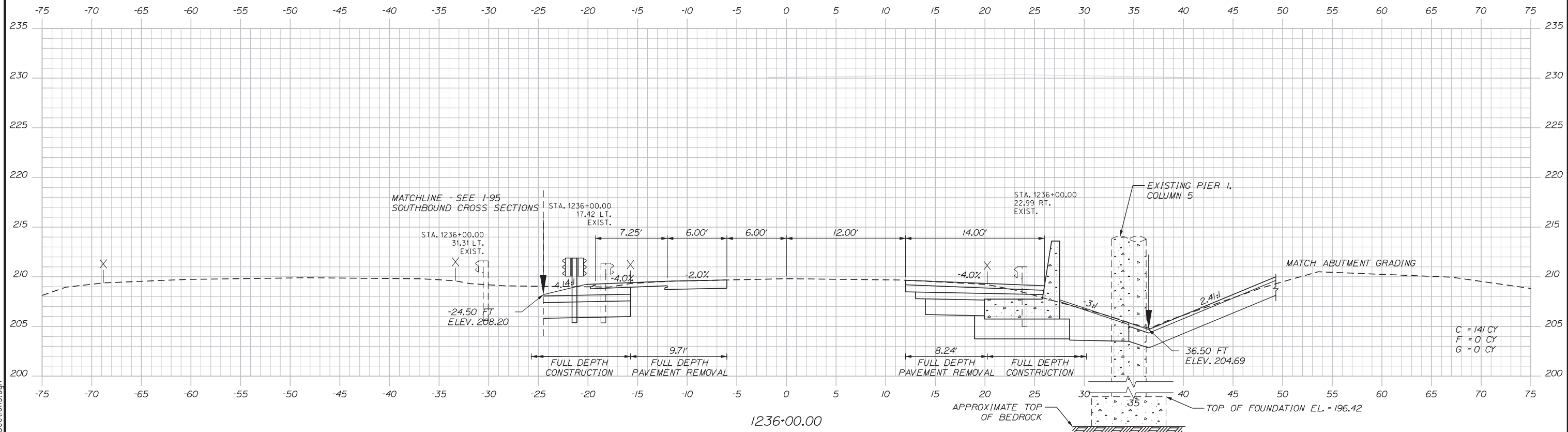
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 I-95 NORTHBOUND
 STA. 1235+50.00 TO STA. 1235+50.00

SHEET NUMBER: XS-41
 CONTRACT: 2018.05
 102 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018

Filename: ...MSTA\055-100_Sections.dgn



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No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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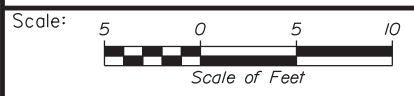
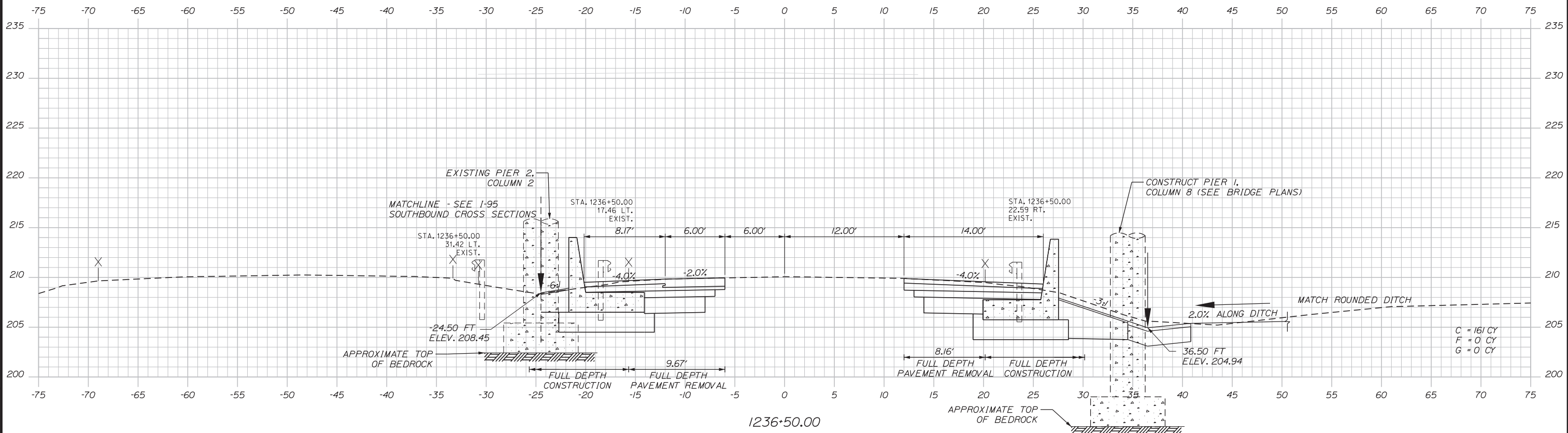
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 NORTHBOUND
STA. 1236+00.00 TO STA. 1236+00.00

SHEET NUMBER: XS-42
CONTRACT: 2018.05
103 OF 176

Date: 2/19/2018



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

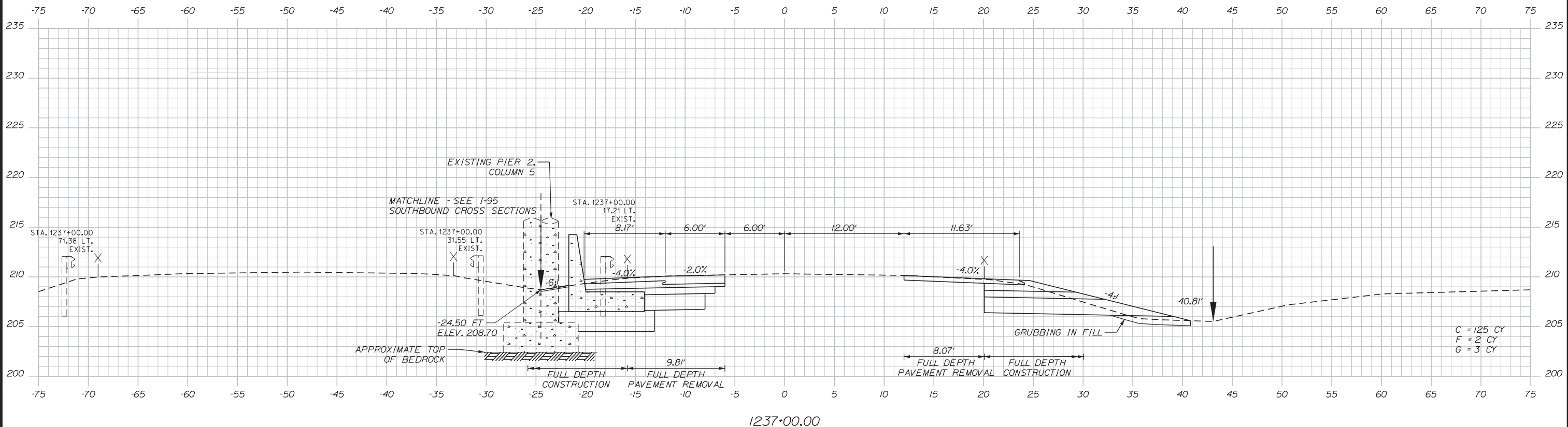
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 NORTHBOUND
STA. 1236+50.00 TO STA. 1236+50.00

SHEET NUMBER: XS-43
CONTRACT: 2018.05
104 OF 176

Filename: ...MSTA\055-100_Sections.dgn

Date: 2/19/2018

Filename: ...MSTA\055-100_Sections.dgn



Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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FAX (207) 883-3376

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 NORTHBOUND
STA. 1237+00.00 TO STA. 1237+00.00

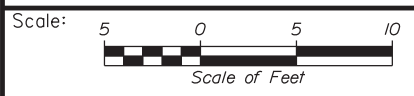
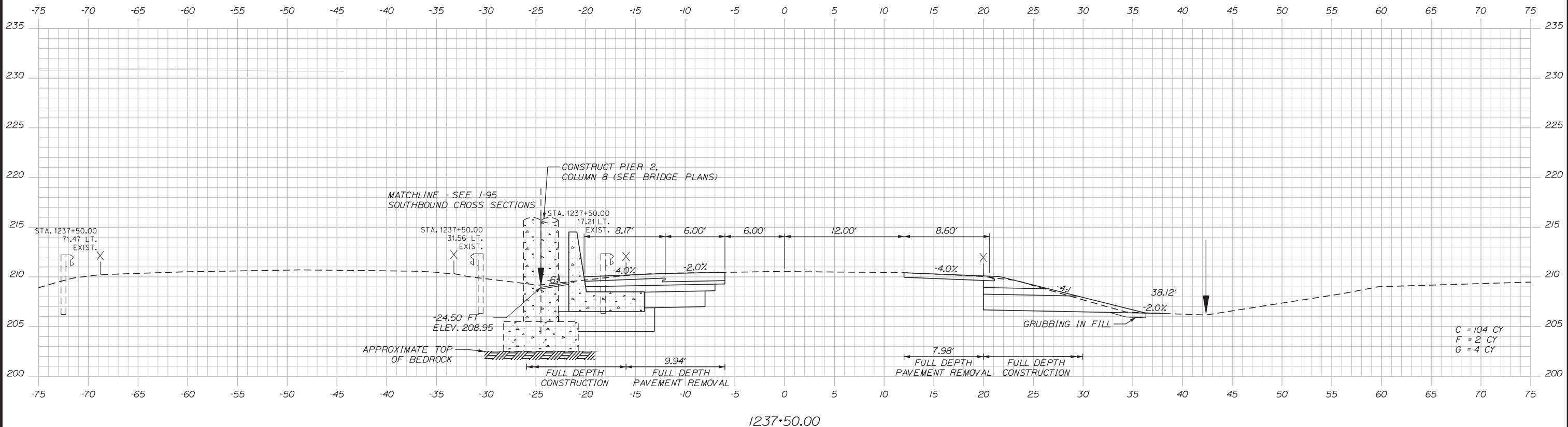
SHEET NUMBER: XS-44

CONTRACT: 2018.05

105 OF 176

Date: 2/19/2018

Filename: ...MSTA\055-100_Sections.dgn



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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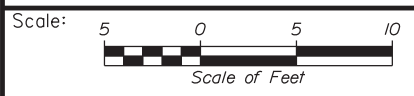
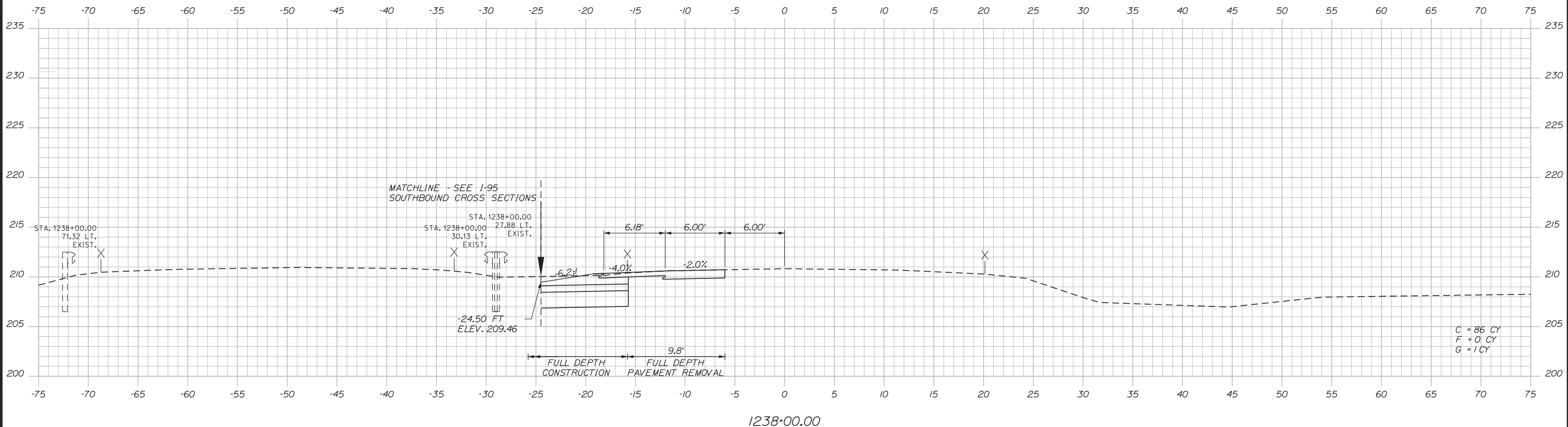
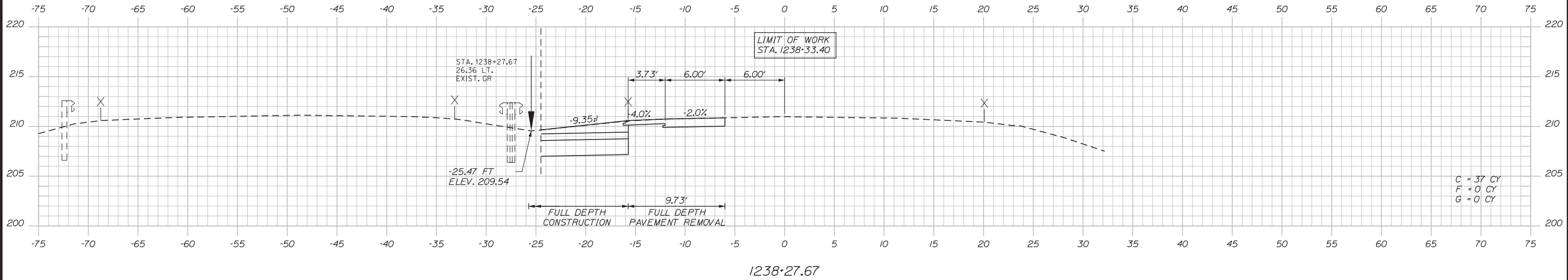
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
I-95 NORTHBOUND
STA. 1237+50.00 TO STA. 1237+50.00

SHEET NUMBER: XS-45
CONTRACT: 2018.05
106 OF 176

Date: 2/19/2018



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

No.	Revision	By	Date

	By	Date		By	Date
Designed	SJB	2\16\18	Checked	LEM	2\16\18
Drawn	SJB	2\16\18	In Charge of	GAE	2\16\18

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 482 PAYNE ROAD
 SCARBOROUGH, ME 04074
 TEL (207) 887-3448
 FAX (207) 883-3376

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 I-95 NORTHBOUND
 STA. 1238+00.00 TO STA. 1238+27.67

SHEET NUMBER: XS-46

CONTRACT: 2018.05

107 OF 176

Filename: ...MSTA\055-100_Sections.dgn

SPECIFICATIONS

DESIGN

- LOAD AND RESISTANCE FACTOR DESIGN PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION 2014 AND INTERIM SPECIFICATIONS THROUGH 2016.

- MAINEDOT BRIDGE DESIGN GUIDE, 2013 WITH UPDATES TO JULY 2017.

CONSTRUCTION

- STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION.

- MAINE TURNPIKE AUTHORITY SUPPLEMENTAL SPECIFICATIONS, 2016 EDITION.

- STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR HIGHWAYS AND BRIDGES, NOVEMBER 2014 EDITION, WITH ALL REVISIONS THERETO.

- AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 4TH EDITION.

DESIGN LOADING

LIVE LOAD HL-93 MODIFIED FOR STRENGTH I

TRAFFIC DATA

CURRENT (2017) AADT = 11,840
HEAVY TRUCKS (% OF AADT) = 11%
DESIGN SPEED = 50 MPH
FUNCTIONAL CLASS = FREEWAY

MATERIALS

CONCRETE

BRIDGE DECK CLASS AAA-DECK

ALL PATCHING AND REPAIR AREAS CLASS AAA-MODIFIED

ALL OTHER STRUCTURAL CONCRETE CLASS AAA

REINFORCING STEEL

STEEL BARS ASTM A 615, GRADE 60 (EPOXY-COATED, U.N.O.)

STRUCTURAL STEEL

ALL MATERIAL (EXCEPT AS NOTED) ASTM A 709, GRADE 50 (PAINTED)
HIGH STRENGTH BOLTS ASTM A 325, TYPE 1

BASIC DESIGN STRESSES

CONCRETE

CLASS AAA $f'c = 4,500$ PSI

REINFORCING

REINFORCING STEEL $F_y = 60,000$ PSI

STRUCTURAL STEEL

ASTM A 709, GRADE 50 $F_y = 50,000$ PSI
ASTM A 709, GRADE 36 $F_y = 36,000$ PSI
ASTM A 325 $F_u = 120,000$ PSI

GENERAL NOTES

- COPIES OF AS-BUILT PLANS ARE ON FILE AT THE MAINE TURNPIKE AUTHORITY. A PORTION OF THESE PLANS ARE INCLUDED IN THIS CONTRACT FOR THE CONTRACTOR'S CONVENIENCE. THE COMPLETENESS AND ACCURACY OF THESE PLANS IS NOT GUARANTEED.
- ALL PROPOSED ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988. THE ORIGINAL AS-BUILT PLANS REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929. AN OBSERVED DATUM SHIFT OF -0.58 FT WAS USED TO CONVERT THE ORIGINAL AS-BUILT PLAN ELEVATIONS FROM NGVD 1929 TO THE EXISTING CONDITIONS USING NAVD 1988. THE CONTRACTOR SHALL PERFORM A FULL VERIFICATION FIELD SURVEY OF ALL EXISTING BRIDGE FEATURES PRIOR TO PERFORMING ANY PERMANENT WORK OR DEVELOPING ANY WORKING OR SHOP DRAWINGS, AND REPORT ANY DEVIATIONS FROM ELEVATIONS SHOWN ON THE PLANS TO THE ENGINEER, AND ADJUST WORK ACCORDINGLY.
- FOR ADDITIONAL DETAILS REFERENCED IN THESE DRAWINGS, SEE THE STATE OF MAINE DEPARTMENT OF TRANSPORTATION, STANDARD DETAILS FOR HIGHWAYS AND BRIDGES, NOVEMBER 2014 AND ITS LATEST REVISIONS.
- REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2" UNLESS NOTED OTHERWISE.

LIST OF ABBREVIATIONS

ABUT.	ABUTMENT
ADDL.	ADDITIONAL
ALT.	ALTERNATE
APPROX.	APPROXIMATE
BOT.	BOTTOM
BRG.	BEARING
CL	CLEAR
☉	CENTERLINE
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
DEMO.	DEMOLITION
DIA.	DIAMETER
DIAPH.	DIAPHRAGM
EA.	EACH
EB	EASTBOUND
E.F.	EACH FACE
EL.	ELEVATION
EQ.	EQUAL
EXIST.	EXISTING
EXP.	EXPANSION
F.F.	FAR FACE
JOINT	JOINT
JT.	JOINT
MAX.	MAXIMUM
MIN.	MINIMUM
MTA	MAINE TURNPIKE AUTHORITY
NB	NORTHBOUND
N.F.	NEAR FACE
N.T.S.	NOT TO SCALE
PED.	PEDESTAL
PGL	PROFILE GRADE LINE
☐	PLATE
PROP.	PROPOSED
RDWY.	ROADWAY
SHLD.	SHOULDER
SIB	SEISMIC ISOLATION BEARING
SB	SOUTHBOUND
SP.	SPACES
STA.	STATION
T.&B.	TOP & BOTTOM
TPKE.	TURNPIKE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
WB	WESTBOUND

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR	1	LS
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	190	CY
203.21	ROCK EXCAVATION	58	CY
203.25	GRANULAR BORROW	300	CY
203.26	GRAVEL BORROW	720	CY
206.082	STRUCTURAL EARTH EXCAVATION-MAJOR STRUCTURES	520	CY
403.2081	HOT MIX ASPHALT-12.5 MM HMA (POLYMER MODIFIED)	220	T
403.213	HOT MIX ASPHALT-12.5 MM (BASE)	220	T
409.15	BITUMINOUS TACK COAT, APPLIED	160	G
502.219	STRUCTURAL CONCRETE ABUTMENTS & RETAINING WALLS (360 CY)	1	LS
502.239	STRUCTURAL CONCRETE PIERS (97 CY)	1	LS
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGES (640 CY)	1	LS
502.264	STRUCTURAL CONCRETE PARAPETS (97 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB (83 CY)	1	LS
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED & DELIVERED	296000	LB
503.15	EPOXY-COATED REINFORCING STEEL, PLACING	296000	LB
503.17	MECHANICAL/WELDED SPLICE	1426	EA
504.701	STRUCTURAL STEEL FABRICATED & DELIVERED, ROLLED (30150 LB)	1	LS
504.702	STRUCTURAL STEEL FABRICATED & DELIVERED, WELDED (18465G LB)	1	LS
504.71	STRUCTURAL STEEL ERECTION (214800 LB)	1	LS
505.08	SHEAR CONNECTORS (12714 EA)	1	LS
507.0849	BARRIER - MOUNTED ALUMINUM BRIDGE RAIL, 1 BAR	870	LF
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (2600 SY)	1	LS
511.091	TEMPORARY EARTH SUPPORT SYSTEMS	1	LS
512.081	FRENCH DRAINS (127 LF)	1	LS
513.09	SLOPE PROTECTION - PORTLAND CEMENT CONCRETE	669	SY
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.201	PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES	870	SY
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES	1350	SY
518.10	ABUTMENT REPAIRS	115	SF
518.20	PIER REPAIRS	600	SF
518.40	EPOXY INJECTION CRACK REPAIR	27	LF
521.23	EXPANSION DEVICE-FINGER JOINT	2	EA
523.33	REMOVE AND RESET BEARINGS	30	EA
523.52	BEARING INSTALLATION	10	EA
523.5405	SEISMIC ISOLATION BEARINGS - FABRICATED & DELIVERED	10	EA
524.301	TEMPORARY JACKING AND STRUCTURAL SUPPORT	1	EA
524.303	TEMPORARY DECK SUPPORT	1	LS
524.40	PROTECTIVE SHIELDING - STEEL GIRDERS	2400	SY
526.304	TEMPORARY CONCRETE BARRIER, ANCHORED	1	LS
526.35	PIER PROTECTION CONCRETE BARRIER	600	LF
609.15	SLOPED CURB TYPE 1	820	LF
620.6012	HDPE GEOMEMBRANE	52	SY

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- CHAMFER ALL EXPOSED CONCRETE EDGES $\frac{3}{4}$ " UNLESS NOTED OTHERWISE.
- SHIELDING REQUIRED DURING CONSTRUCTION SHALL NOT PROJECT BELOW THE BOTTOM FLANGES OF GIRDERS.
- ALL PAINT ON THE EXISTING STRUCTURAL STEEL DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS ADVISED THAT THE COATING ON THE STEEL PORTION OF THE EXISTING BRIDGE STRUCTURE CONTAINS TRACE AMOUNTS OF LEAD BUT THE CONCENTRATIONS HAVE BEEN FOUND TO BE BELOW THE REGULATORY THRESHOLD LIMITS FOR CLASSIFICATION AS A LEAD-BASED PAINT SYSTEM OR HAZARDOUS WASTE. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING APPROPRIATE OSHA MANDATED PERSONAL PROTECTION STANDARDS RELATED TO WORKING WITH STEEL COATED WITH LEAD-CONTAINING PAINT. PAYMENT FOR ALL LABOR, MATERIALS, EQUIPMENT AND OTHER COSTS REQUIRED FOR PROPER MANAGEMENT OF LEAD-CONTAINING PAINT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT ITEMS. SEE SPECIAL PROVISIONS FOR A COPY OF THE LEAD DETERMINATION REPORT.

9. WHERE DRILLING AND ANCHORING IS SPECIFIED THE CONTRACTOR SHALL USE A MATERIAL LISTED ON THE MAINE DEPARTMENT OF TRANSPORTATION QUALIFIED LIST OF CONCRETE ADHESIVE ANCHOR SYSTEMS. THE DEPTH OF EMBEDMENT SHALL BE SUFFICIENT TO DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR, BUT SHALL BE NO LESS THAN THE MINIMUM DEPTH OF EMBEDMENT WHEN SPECIFIED. WHERE MINIMUM EMBEDMENT DEPTHS HAVE NOT BEEN SPECIFIED BAR LENGTHS HAVE BEEN DEVELOPED BASED ON AN ASSUMED EMBEDMENT DEPTH OF 9" FOR #5 BARS. THE CONTRACTOR SHALL VERIFY THE REQUIRED DEPTH OF EMBEDMENT AND ADJUST THE REQUIRED BAR LENGTHS AS REQUIRED.

10. PAY LIMITS FOR STRUCTURAL EARTH EXCAVATION SHALL BE A VERTICAL PLANE LOCATED 18" FROM THE NEAT LINES OF THE ABUTMENT AND PIER FOOTINGS.


11. ALL EXISTING AND PROPOSED PIER COLUMN AND ABUTMENT SURFACES, EXCEPT FOR THE WINGWALL-MOUNTED BARRIERS AND ENDPOSTS, SHALL BE COATED WITH PIGMENTED COATING FOR CONCRETE SURFACES AFTER RECONSTRUCTION (INCLUDING CONCRETE SURFACE PATCH REPAIRS, BRIDGE SEAT AND BACKWALL RECONSTRUCTION, TOP OF PIER COLUMN MODIFICATIONS, AND PROPOSED SUBSTRUCTURE WIDENING) IS COMPLETE AND MATERIAL HAS CURED.

Date: 2/19/2018

Filename: ...MSTA_60\AS-01_GenNotes.dgn

Scale:			
No.	Revision	By	Date


Designed by:



CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed	PAG 2\16\18	Checked	GAB 2\16\18
Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

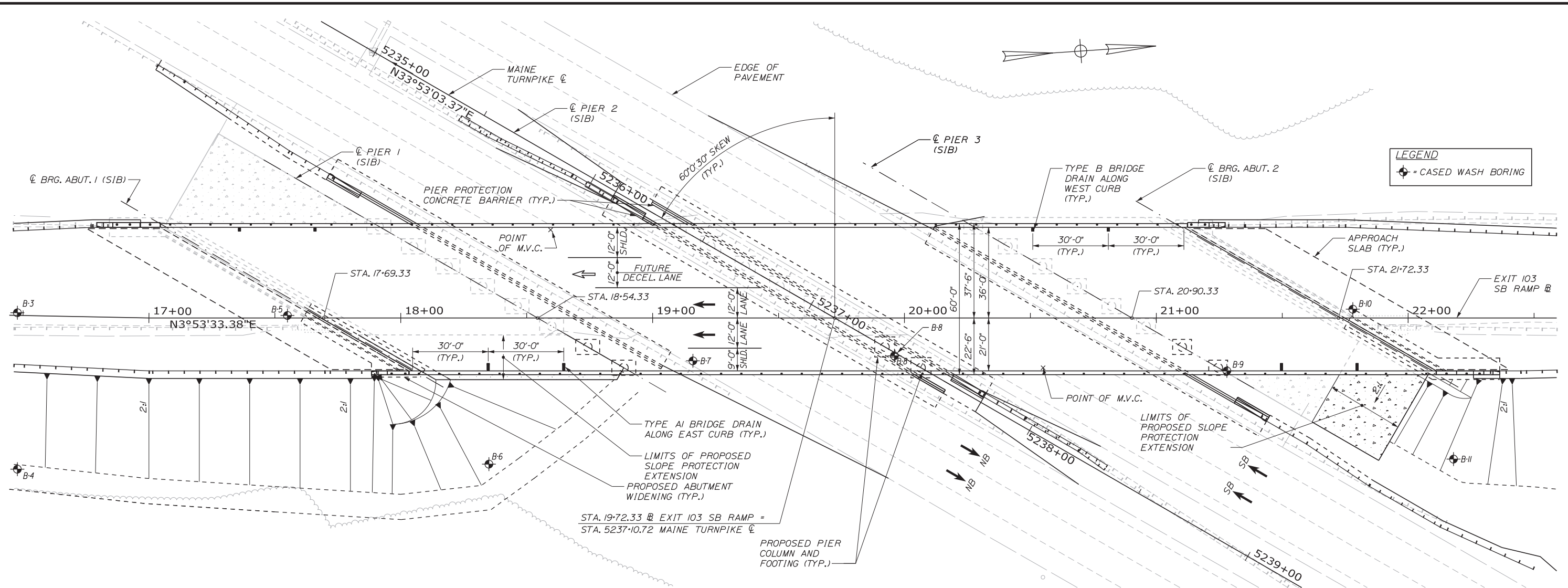
GENERAL NOTES, INDEX & QUANTITIES

SHEET NUMBER: S-01

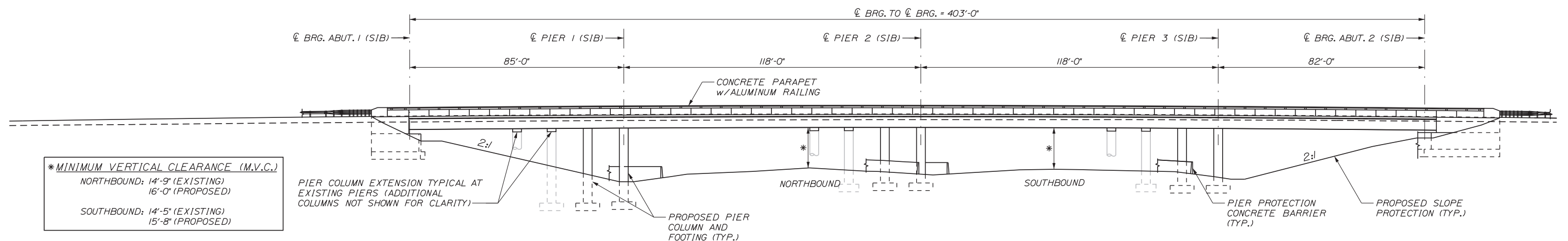
CONTRACT: 2018.05

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Date: 2/19/2018



GENERAL PLAN
1" = 20'-0"



ELEVATION
1" = 20'-0"

Filename: ...S-02_BRGenPlanElev.dgn

Scale:

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	PAG	2\16\18	Checked	GAB	2\16\18
Drawn	JTB	2\16\18	In Charge of	GAE	2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

BRIDGE GENERAL PLAN & ELEVATION

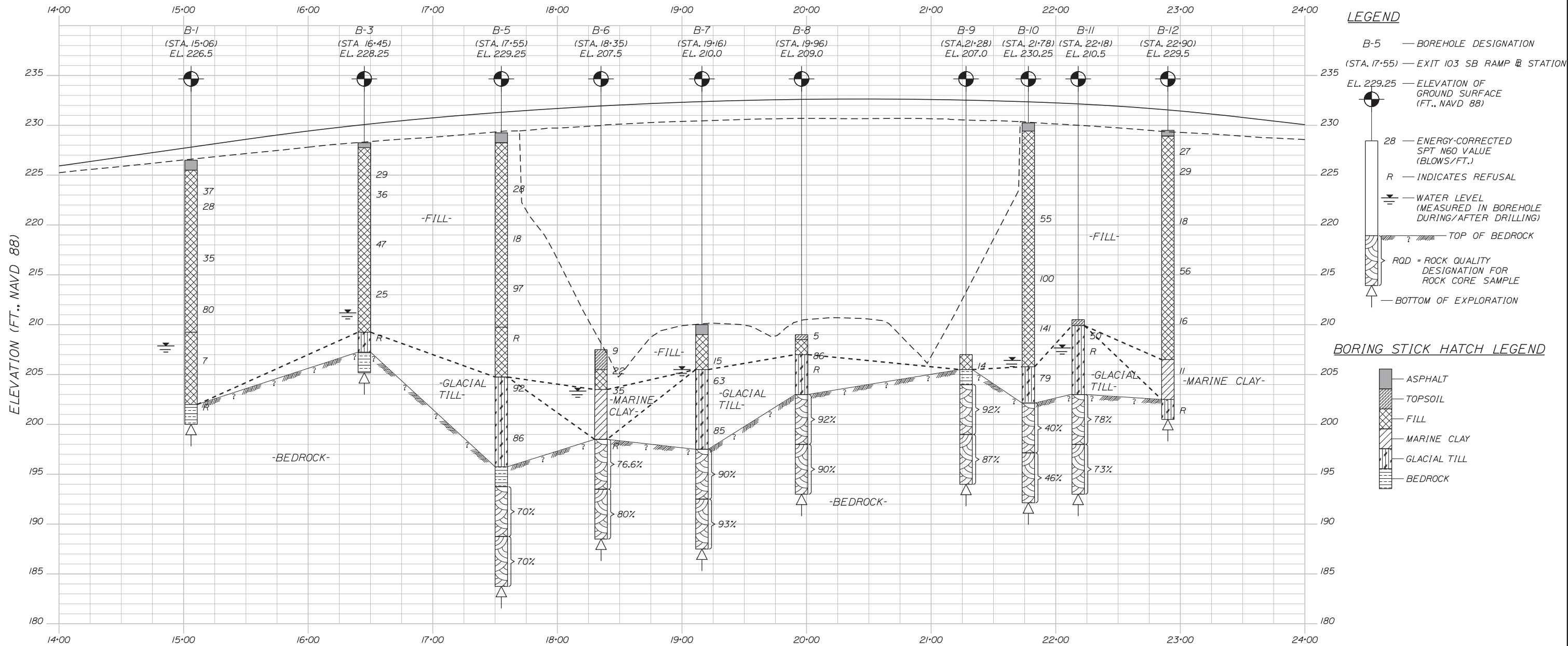
SHEET NUMBER: S-02

CONTRACT: 2018.05

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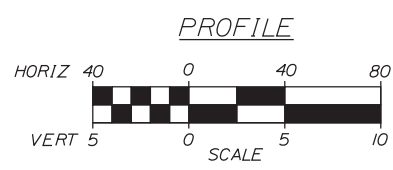
Date: 2/19/2018

Filename: ...MSTA_60\AS-03_BorPlanPro.dgn



NOTES

1. THIS GENERALIZED INTERPRETIVE SOIL PROFILE IS INTENDED TO CONVEY TRENDS IN SUBSURFACE CONDITIONS. THE BOUNDARIES BETWEEN STRATA ARE APPROXIMATE AND IDEALIZED, AND HAVE BEEN DEVELOPED BY INTERPRETATIONS OF WIDELY SPACED EXPLORATIONS AND SAMPLES. ACTUAL SOIL TRANSITIONS MAY VARY AND ARE PROBABLY MORE ERRATIC. FOR MORE SPECIFIC INFORMATION REFER TO THE EXPLORATION LOGS.
2. BORINGS WERE DRILLED BY NEW ENGLAND BORING CONTACTORS OF DERRY, NH UNDER SUPERVISION OF STANTEC ON JULY 17, 2017 THROUGH JULY 25, 2017.
3. GROUNDWATER ELEVATIONS WERE MEASURED AT THE TIME OF DRILLING AND WILL VARY.
4. BORINGS B-2, B-4, AND B-13 WERE EXCLUDED FROM THE SUBSURFACE PROFILE FOR CLARITY.



Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date	By	Date	
Designed	TD	2\16\18	Checked	GAB	2\16\18
Drawn	JTB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER: S-03

CONTRACT: 2018.05

110 OF 176

Date: 2/19/2018

Filename: ...MSTA_60\AS-04-06_BorLogs.dgn

BOREHOLE LOG B-1

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-1
 EXPLORATION DATE: 7/18/2017 to 7/18/2017 WATER LEVEL: 19.0 feet b.g.s. DATUM: NAVD 88

Station 15+06 ft
Offset 0 ft
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
0	226.5	12" Asphalt Pavement																		
224.5	224.5	Dense, brown, medium to fine SAND, some Gravel, moist			SS	1	11	18	37	37										
222.5	222.5	Dense, brown, medium to fine SAND and Silt, some Gravel. Silty clay seams			SS	2	18	12	11	28										
220.5	220.5	-FILL-																		
217.5	217.5	Hard, CLAY and Silt																		
215.5	215.5	Dense, brown, medium to fine SAND and Silt, some coarse sand			SS	3	16	17	18	35	35									
212.5	212.5	Very dense, brown, coarse to fine SAND, some Silt, little Gravel			SS	4	10	21	40	80	80									
207.5	207.5	Loose, coarse to fine SAND, some Clay, some Silt, wet			SS	5	1	4	4	7	7									

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG B-1

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-1
 EXPLORATION DATE: 7/18/2017 to 7/18/2017 WATER LEVEL: 19.0 feet b.g.s. DATUM: NAVD 88

Station 15+06 ft
Offset 0 ft
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
202.5	202.5	Gray medium to fine SAND and Silt, some Gravel			SS	6	6	9	50	1										
200.0	200.0	-BEDROCK- End of boring at 26.5 feet Roller bit refusal in bedrock.																		

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG B-2

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-2
 EXPLORATION DATE: 7/18/2017 to 7/18/2017 WATER LEVEL: 19.0 feet b.g.s. DATUM: NAVD 88

Station 15+00 ft
Offset 50 ft RT
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
210.5	210.5	Medium dense, brown, medium to fine SAND and Silt, trace Gravel, moist			SS	1	13	12	12	12										
208.5	208.5	Loose, gray, coarse to fine SAND and Silt, trace Gravel, moist			SS	2	15	4	3	8	8									
206.5	206.5	-FILL-																		
205.5	205.5	Brown fine to coarse SAND, and Gravel, moist			SS	3	9	27	50	3										
205.0	205.0	-BEDROCK- Based on roller bit resistance top of bedrock at 4.7 feet. End of boring at 5.5 feet. Roller bit refusal in bedrock.																		

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG B-3

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-3
 EXPLORATION DATE: 7/18/2017 to 7/18/2017 WATER LEVEL: 17.0 feet b.g.s. DATUM: NAVD 88

Station 16+45 ft
Offset 1 ft LT
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
227.8	227.8	6 inches of Asphalt Pavement																		
226.3	226.3	Medium dense, brown, medium to fine SAND, trace Silt, moist			SS	1	9	17	18	29	29									
224.3	224.3	Dense, brown, coarse to fine SAND, trace Gravel, trace Silt, moist			SS	2	7	12	15	31	36									
222.3	222.3	-FILL-																		
219.3	219.3	Dense, brown, coarse to fine SAND and Silt, some Gravel, moist			SS	3	16	14	12	47	47									
217.3	217.3																			
214.3	214.3	Medium dense, brown, SILT and coarse to fine SAND, some Gravel, moist			SS	4	14	15	10	25	25									
212.3	212.3	Decrease in roller bit resistance at 17.5 feet																		
209.3	209.3	Brown, SILT and coarse to fine SAND, some Gravel, Rock in shoe.			SS	5	5	30	100	1										
207.3	207.3	-GLACIAL TILL- Based on roller bit resistance top of bedrock at 21 feet.																		

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG B-3

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-3
 EXPLORATION DATE: 7/18/2017 to 7/18/2017 WATER LEVEL: 17.0 feet b.g.s. DATUM: NAVD 88

Station 16+45 ft
Offset 1 ft LT
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
205.3	205.3	-BEDROCK- End of boring at 23 feet Roller bit refusal in bedrock.																		

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG B-4

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-4
 EXPLORATION DATE: 7/18/2017 to 7/18/2017 WATER LEVEL: 2.0 feet b.g.s. DATUM: NAVD 88

Station 16+45 ft
Offset 60 ft RT
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
209.0	209.0	Medium dense, brown, medium to fine SAND, trace Gravel. Silty clay seams, dry			SS	1	18	16	12	12										
207.0	207.0	Dense, brown, medium to fine SAND, and Gravel, trace coarse Sand, moist			SS	2	16	16	32	32										
205.0	205.0	Dense, brown medium to fine SAND and Silt, some Gravel, wet			SS	3	17	19	24	43	43									
203.0	203.0	Roller bit cutting slowly. Possible cobbles and gravel.																		
200.0	200.0	Very dense, light gray/brown, coarse to fine SAND and Gravel, some Silt.			SS	4	14	32	30	62	62									
198.0	198.0	-GLACIAL TILL- Roller bit cutting through till from 11.5 to 12.5 feet.																		
196.5	196.5	Based on roller bit resistance top of bedrock at 12.5 feet.																		
195.5	195.5	-BEDROCK- End of Boring at 13.5 feet Roller bit refusal in bedrock.																		

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG B-5

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-5
 EXPLORATION DATE: 7/19/2017 to 7/20/2017 WATER LEVEL: 19.0 feet b.g.s. DATUM: NAVD 88

Station 17+55 ft
Offset 1 ft LT
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
229.3	229.3	6" Asphalt Pavement																		
227.8	227.8	Concrete Approach Slab																		
226.8	226.8																			
225.3	225.3	Medium dense, brown, coarse to fine SAND and Gravel, trace Silt, wet			SS	1	2	14	14	28	28									
223.3	223.3	-FILL-																		
222.3	222.3																			
220.3	220.3	Medium dense, gray/brown, coarse to fine SAND, little Gravel, trace Silt, moist			SS	2	4	10	9	18	18									
218.3	218.3																			
215.3	215.3	Very dense, brown, coarse to fine SAND, little Gravel, little Silt			SS	3	12	23	45	97	97									
213.3	213.3																			
210.3	210.3	Very dense, brown, coarse to fine SAND, little Gravel, little Silt			SS	4	9	34	71	142	142									
208.3	208.3	-FILL-																		

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG B-5

CLIENT: Maine Turnpike Authority PROJECT No. 195311384
 LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME EXPLORATION No. B-5
 EXPLORATION DATE: 7/19/2017 to 7/20/2017 WATER LEVEL: 19.0 feet b.g.s. DATUM: NAVD 88

Station 17+55 ft
Offset 1 ft LT
Exit 103 SB Ramp Baseline

DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					Standard Penetration Test, blow/foot @										
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	SPT N60-value	10	20	30	40	50	60	70	80	90	
205.3	205.3	Very dense, brown, coarse to fine SAND, little Gravel, little Silt			SS	5	12	39	61	92	92									
203.3	203.3																			
200.3	200.3	Very dense, brown coarse to fine SAND and Silt, some Gravel			SS	6	13	43	43	86	86									
198.3	198.3	-GLACIAL TILL-																		
196.3	196.3	Top of bedrock at 33 feet. Roller bit to 35 feet																		
194.3	194.3	Moderately hard, fresh, gray/dark gray, fine grained SCHIST, with moderately dipping, moderately close rough tight joints. Slightly weathered in joints. Recovery: 48 inches (80%) RQD: 42 inches (70%)			C	1	60													
189.3	189.3	Moderately hard, fresh, light gray, fine grained SCHIST, with low angle, wide spaced, rough tight joints. Slightly weathered in joints. Recovery: 48 inches (80%) RQD: 42 inches (70%)			C	2	60													

Driller: New England Boring-Derry, NH; Supervisor: Stantec; Jason Ward
 Rig Type: Track Mounted Dredge D-50 Rig; Hammer: Safety Hammer with Cathead, 4" diam. Drive and Wash, 2" Split Spoon Sampler

Scale:

Date: 2/19/2018

BOREHOLE LOG										B-5	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-5							
EXPLORATION DATE: 7/19/2017 to 7/20/2017				WATER LEVEL: 5.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
45	184.3	End of boring at 45 feet in bedrock.									

BOREHOLE LOG										B-8	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-8							
EXPLORATION DATE: 7/24/2017 to 7/24/2017				WATER LEVEL: 2.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
0	209.0	TOPSOIL									
0	208.4	Loose, brown silt and fine sand			SS	1	17	2	5		
0	207.0	Very dense, fine sand and silt, some gravel			SS	2	14	41	86		
5	204.3	Silty weathered rock			SS	3	5	20	100		
10	202.0	Moderately hard, fresh, gray/light gray, fine grained SCHIST, with moderately dipping, wide spaced, rough tight joints. Slightly weathered in joints.			C	1	60				
15	197.0	Moderately hard, fresh, gray/white, fine grained SCHIST, with moderately dipping to high angle, wide spaced, rough tight joints. Slightly weathered in joints.			C	2	60				
20	192.0	End of boring at 17 feet in bedrock.									

BOREHOLE LOG										B-6	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-6							
EXPLORATION DATE: 7/18/2017 to 7/19/2017				WATER LEVEL: 4.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
0	207.5	Loose, brown medium to fine sand and silt, some gravel, little organic, moist			SS	1	13	6	9		
0	205.5	Medium dense, brown fine sand and silt, some gravel, wet			SS	2	7	13	22		
5	201.5	Hard, gray, silt and clay			SS	3	14	17	35		
10	196.5	Rock fragments in wash at 9-10 feet.									
10	197.4	Weathered/Fractured Bedrock									
15	191.5	Moderately hard, fresh, gray/light gray, fine grained SCHIST, with low angle, moderately close, rough tight joints. Slightly weathered in joints.			C	1	60				
20	186.5	End of boring at 21 feet in bedrock.									

BOREHOLE LOG										B-9	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-9							
EXPLORATION DATE: 7/25/2017 to 7/25/2017				WATER LEVEL: 2.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
0	207.0	Medium dense, brown m/f SAND, and silt, some gravel, wet			SS	1	6	14	14		
5	204.0	Span casing to 3 through bedrock from 1.5 to 3.0 feet. Obtained 18 inch long sample of intact bedrock.									
10	199.0	Moderately hard, fresh, gray/light gray, fine grained SCHIST, with moderately dipping, wide spaced, rough tight joints. Slightly weathered in joints.			C	1	60				
15	194.0	End of boring at 13 feet.									

BOREHOLE LOG										B-7	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-7							
EXPLORATION DATE: 7/24/2017 to 7/24/2017				WATER LEVEL: 5.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
0	210.0	6 inch Asphalt Pavement									
5	206.0	Medium dense, medium to fine sand, trace silt			SS	1	13	9	15		
10	201.0	Very dense, brown medium to fine sand and silt, some gravel			SS	2	11	22	63		
15	199.0	Moderately hard, fresh, gray/light gray, fine grained SCHIST, with moderately dipping, moderately close, rough tight joints. Slightly weathered in joints.			SS	3	17	28	85		
20	193.0	Moderately hard, fresh, gray/light gray, fine grained SCHIST, with moderately dipping, wide spaced, rough tight joints. Slightly weathered in joints.			C	2	60				
25	188.0	End of boring at 22 feet in bedrock.									

BOREHOLE LOG										B-10	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-10							
EXPLORATION DATE: 7/20/2017 to 7/20/2017				WATER LEVEL: 2.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
0	230.3	6 inch Asphalt Pavement									
5	227.8	Concrete bridge approach slab from 1.5 to 2.5 feet.									
10	222.3	Very dense, brown, coarse to fine sand, and gravel, trace silt			SS	1	10	20	55		
15	216.3	Very dense, brown coarse to fine sand, and gravel, trace silt			SS	2	15	38	100		
20	211.3	Very dense, brown coarse to fine sand, and gravel, trace silt			SS	3	15	67	141		
25	206.3	End of boring at 39 feet.									


BOREHOLE LOG										B-7	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-7							
EXPLORATION DATE: 7/24/2017 to 7/24/2017				WATER LEVEL: 5.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
25	206.3	Very dense, orange-brown, coarse to fine sand, some gravel, some silt			SS	4	9	47	79		
30	201.3	Hard, light brown slightly weathered, medium grained, DIORITE, with moderately dipping, very close, rough joints.			C	1	60				
35	196.3	Hard, light brown slightly weathered, medium grained, DIORITE, with moderately dipping, close, rough joints.			C	2	60				
40	191.3	End of boring at 39 feet.									

BOREHOLE LOG										B-10	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-10							
EXPLORATION DATE: 7/20/2017 to 7/20/2017				WATER LEVEL: 2.0 feet b.g.s.						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES		Standard Penetration Test, blow/foot @				
					TYPE	NUMBER	RECOVERY	SPT Blows / ft	SPT N-value	10 20 30 40 50 60 70 80 90	
25	206.3	Very dense, orange-brown, coarse to fine sand, some gravel, some silt			SS	4	9	47	79		
30	201.3	Hard, light brown slightly weathered, medium grained, DIORITE, with moderately dipping, very close, rough joints.			C	1	60				
35	196.3	Hard, light brown slightly weathered, medium grained, DIORITE, with moderately dipping, close, rough joints.			C	2	60				
40	191.3	End of boring at 39 feet.									

Filename: ...MSTA_60\AS-04-06_BorLogs.dgn

No.	Revision	By	Date


Scale: _____

Designed by: 

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed	TD 2\16\18	Checked	GAB 2\16\18
Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

STANTEC CONSULTING SERVICES INC.
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

BORING LOG 2

SHEET NUMBER: S-05

CONTRACT: 2018.05

12 OF 176

Date: 2/19/2018

BOREHOLE LOG										B-11	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-11							
EXPLORATION DATE: 7/25/2017 to 7/25/2017				WATER LEVEL: 5.8 feet b.g.s						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT WATER LEVEL	SAMPLES					SPT N-Value	SPT N60-Value	Standard Penetration Test, blows/foot @ 10 20 30 40 50 60 70 80 90
				TYPE	NUMBER	RECOVERY	SPT blows / ft	SPT N-Value			
0	210.5	TOPSOIL									
0	209.9	Very dense, brown, fine SAND and Silt, some Gravel		SS 1	14	9	24	26	19	50	
0	208.5	Brown, fine SAND and Silt, some Gravel		SS 2	7	7	50	3"	R	R	
0	206.5	Boulder from 2.75 to 4 feet.									
0	206.5	-GLACIAL TILL-									
0	203.5	Top of bedrock at 7 feet. Advanced roller bit to 7.5 feet.									
0	203.0	Moderately hard, fresh, gray/light gray, fine grained GNEISS, with moderately dipping, wide spaced, rough tight joints. Slightly weathered in joints.									
0	198.0	Recovery: 53 inches (88%) RQD: 47 inches (78%)		C 1	60						
0	198.0	Moderately hard, fresh, gray/light gray, fine grained GNEISS, with moderately dipping, wide spaced, rough tight joints. Slightly weathered in joints.									
0	198.0	Recovery: 51 inches (85%) RQD: 44 inches (73%)		C 2	60						
0	193.0	End of boring at 17.5 feet									

Driller: New England Boring-Derry, NH; Supervisor: Stantec: Jason Ward
Rig Type: Track Mounted Diedrill D-50 Rig; Hammer: Safety Hammer with Cathed, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG										B-12	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-12							
EXPLORATION DATE: 7/17/2017 to 7/17/2017				WATER LEVEL: NAVD 88						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT WATER LEVEL	SAMPLES					SPT N-Value	SPT N60-Value	Standard Penetration Test, blows/foot @ 10 20 30 40 50 60 70 80 90
				TYPE	NUMBER	RECOVERY	SPT blows / ft	SPT N-Value			
0	229.5	7" Asphalt pavement									
0	228.9										
0	227.5	Medium dense, brown, coarse to fine SAND and Silt, trace Silt, moist		SS 1	13	10	15	12	27	27	
0	225.5	Medium dense, brown, coarse to fine SAND and Silt, trace Silt, moist		SS 2	16	18	15	15	29	29	
0	224.6	Very stiff, gray SILT and Clay, moist									
0	223.5										
0	220.5	Stiff, gray SILT and Clay, moist									
0	219.4	Brown, medium to fine SAND seam		SS 3	16	6	9	19	18	18	
0	218.5	-FILL-									
0	215.5	Very dense, brown medium to fine SAND, trace Gravel, trace Silt, moist		SS 4	13	26	28	28	56	56	
0	213.5										
0	210.5	Medium dense, brown, coarse to fine SAND, trace Gravel, trace Silt, moist		SS 5	8	13	8	8	16	16	
0	208.5										

Driller: New England Boring-Derry, NH; Supervisor: Stantec: Jason Ward
Rig Type: Track Mounted Diedrill D-50 Rig; Hammer: Safety Hammer with Cathed, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG										B-12	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-12							
EXPLORATION DATE: 7/17/2017 to 7/17/2017				WATER LEVEL: NAVD 88						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT WATER LEVEL	SAMPLES					SPT N-Value	SPT N60-Value	Standard Penetration Test, blows/foot @ 10 20 30 40 50 60 70 80 90
				TYPE	NUMBER	RECOVERY	SPT blows / ft	SPT N-Value			
0	205.5	Medium dense, brown coarse to fine SAND, some Gravel, trace Silt, moist		SS 6	10	20	8	3	11	11	
0	204.9	Medium stiff, gray CLAY and Silt									
0	203.5	-MARINE CLAY-									
0	201.5	Very dense, brown, coarse to fine SAND and Silt, some Gravel		SS 7	51	50	3	7	R	R	
0	200.3	-GLACIAL TILL-									
0	199.5	End of boring at 29.25 feet Sampler refusal									

Driller: New England Boring-Derry, NH; Supervisor: Stantec: Jason Ward
Rig Type: Track Mounted Diedrill D-50 Rig; Hammer: Safety Hammer with Cathed, 4" diam. Drive and Wash, 2" Split Spoon Sampler

BOREHOLE LOG										B-13	
CLIENT: Maine Turnpike Authority				PROJECT No. 195311384							
LOCATION: Exit 103 I-295 Over I-95, Gardiner, ME				EXPLORATION No. B-13							
EXPLORATION DATE: 7/17/2017 to 7/17/2017				WATER LEVEL: NAVD 88						DATUM: NAVD 88	
DEPTH (ft)	ELEVATION (ft)	MATERIAL DESCRIPTION	STRATA PLOT WATER LEVEL	SAMPLES					SPT N-Value	SPT N60-Value	Standard Penetration Test, blows/foot @ 10 20 30 40 50 60 70 80 90
				TYPE	NUMBER	RECOVERY	SPT blows / ft	SPT N-Value			
0	207.0	Loose, brown, medium to fine SAND and Silt, dry		SS 1	5	5	6	4	10	10	
0	205.0	Dense, light gray, fine SAND, trace Gravel		SS 2	17	16	16	35	35	35	
0	203.0	-FILL-									
0	201.0	Very dense, gray/brown, coarse to fine SAND, some Silt, little Gravel. Orange iron staining		SS 3	12	42	34	54	54	54	
0	198.0	-GLACIAL TILL-									
0	196.0	Very dense, brown fine SAND, and Silt, some Gravel		SS 4	22	71	50	R	R	R	
0	194.3	-GLACIAL TILL-									
0	193.5	Top of bedrock at 12.7 feet. Advanced roller bit to 13.5 feet.									
0	193.5	End of boring at 13.5 feet Roller bit refusal in bedrock.									

Driller: New England Boring-Derry, NH; Supervisor: Stantec: Jason Ward
Rig Type: Track Mounted Diedrill D-50 Rig; Hammer: Safety Hammer with Cathed, 4" diam. Drive and Wash, 2" Split Spoon Sampler

Filename: ...MSTA_60\AS-04-06_BorLogs.dgn

Scale:			
No.	Revision	By	Date

Designed by:			
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
By	Date	By	Date
Designed	TD 2\16\18	Checked	GAB 2\16\18
Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

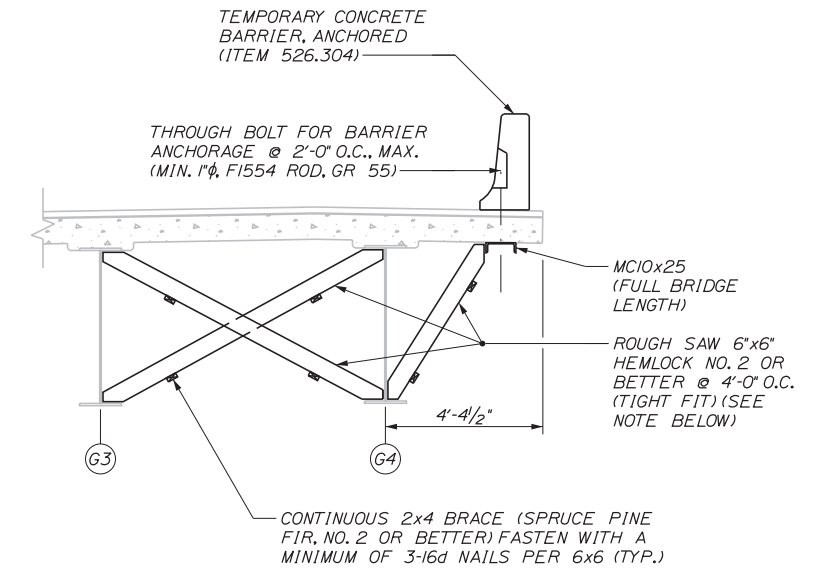
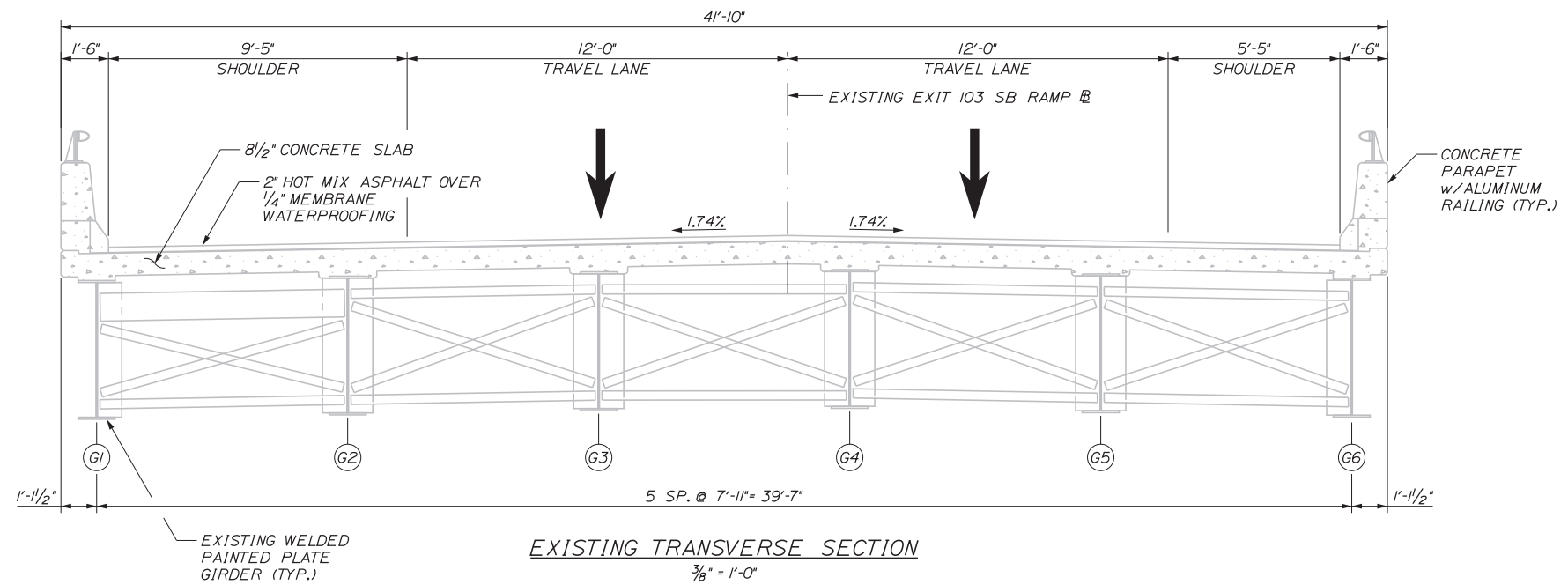
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

BORING LOG 3

SHEET NUMBER: S-06
113 OF 176

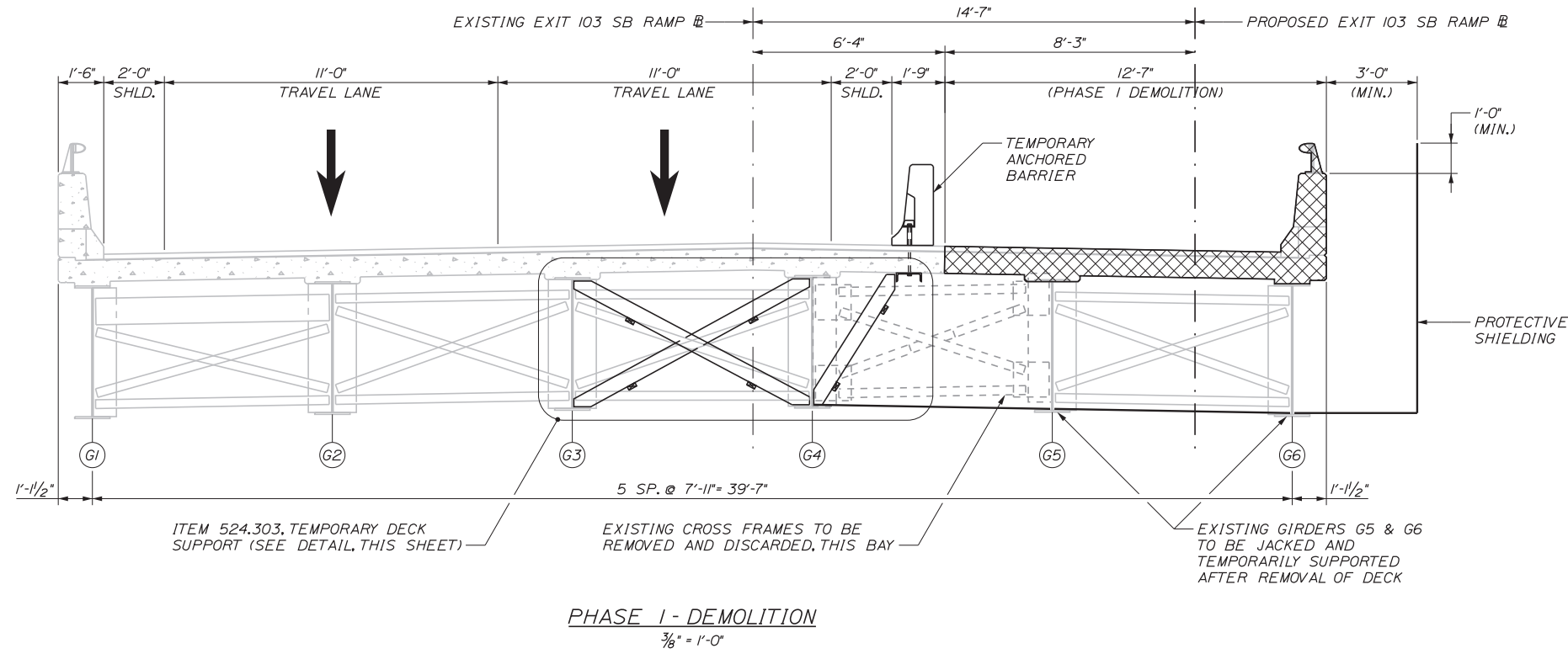
CONTRACT: 2018.05

Date: 2/19/2018



NOTE
 AFTER THE DECK HAS BEEN CUT CONTRACTOR SHALL VERIFY TEMPORARY BRACING IS STILL A TIGHT FIT. IF THE BRACING HAS BECOME LOOSE CONTRACTOR SHALL INSTALL SHIMS TO RESTORE A TIGHT FIT.

TEMPORARY DECK SUPPORT DETAIL
 3/8" = 1'-0"



APPROXIMATE SHIELDING QUANTITIES*	PHASE 1		PHASE 2		TOTAL
	DEMOLITION	CONSTRUCTION	DEMOLITION	CONSTRUCTION	
APPROXIMATE WIDTH OF NEW SHIELDING INSTALLED (FT)	20	34	33	8	95
APPROXIMATE AREA OF NEW SHIELDING INSTALLED (SQ)	505	865	830	200	2400

*PROTECTIVE SHIELDING SHALL EXTEND IN THE LONGITUDINAL DIRECTION 10 FEET BEYOND THE EDGE OF PAVEMENT OF THE ROADWAY BELOW, FROM ROADSIDE PIER 1 TO ROADSIDE PIER 3.

- STAGED CONSTRUCTION NOTES**
 PHASE 1 DEMOLITION SHALL INCLUDE THE FOLLOWING:
- INSTALL TEMPORARY ANCHORED BARRIER AND SHIFT BRIDGE TRAFFIC TO THE WEST
 - REMOVE EXISTING CROSS-FRAMES BETWEEN GIRDERS G4 AND G5 AND INSTALL TEMPORARY DECK OVERHANG SUPPORT
 - DEMOLISH EASTERN PORTION OF THE EXISTING BRIDGE DECK
 - JACK AND TEMPORARILY SUPPORT EXISTING GIRDERS G5 AND G6 TO ALLOW ROOM FOR ABUTMENT AND PIER RECONSTRUCTION
 - DEMOLISH EASTERN PORTION OF THE EXISTING ABUTMENTS AND WINGWALLS

Filename: ...MSTA_60\AS-07_ConstPhase1.dgn

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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THE GOLD STAR MEMORIAL HIGHWAY

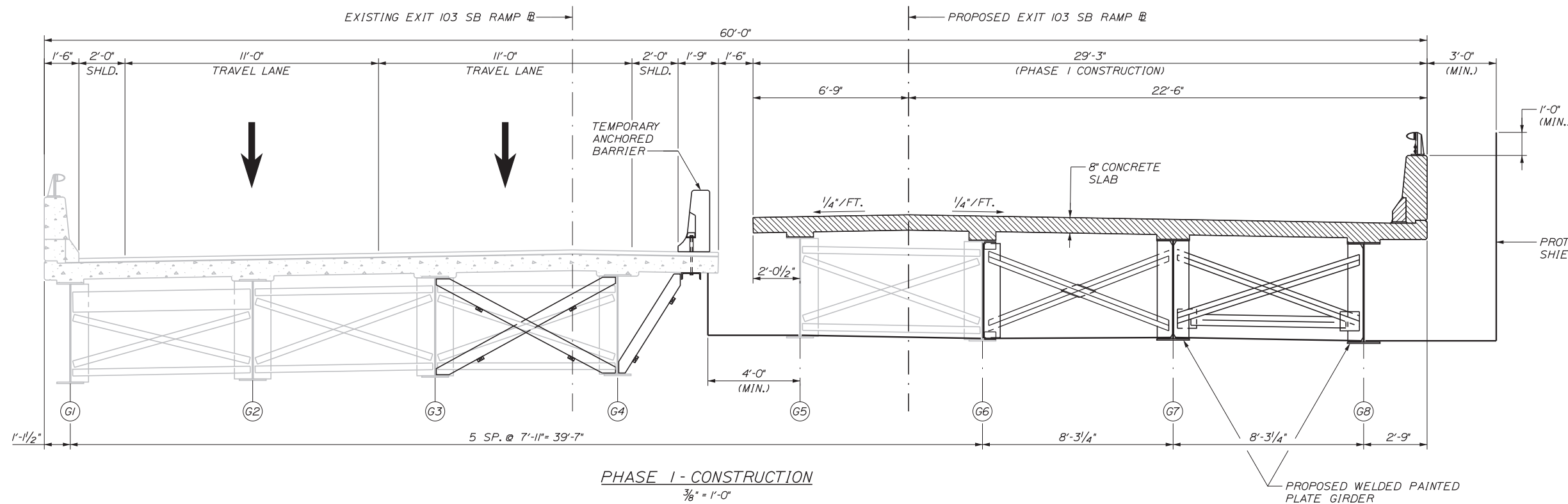
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 CONSTRUCTION PHASING 1

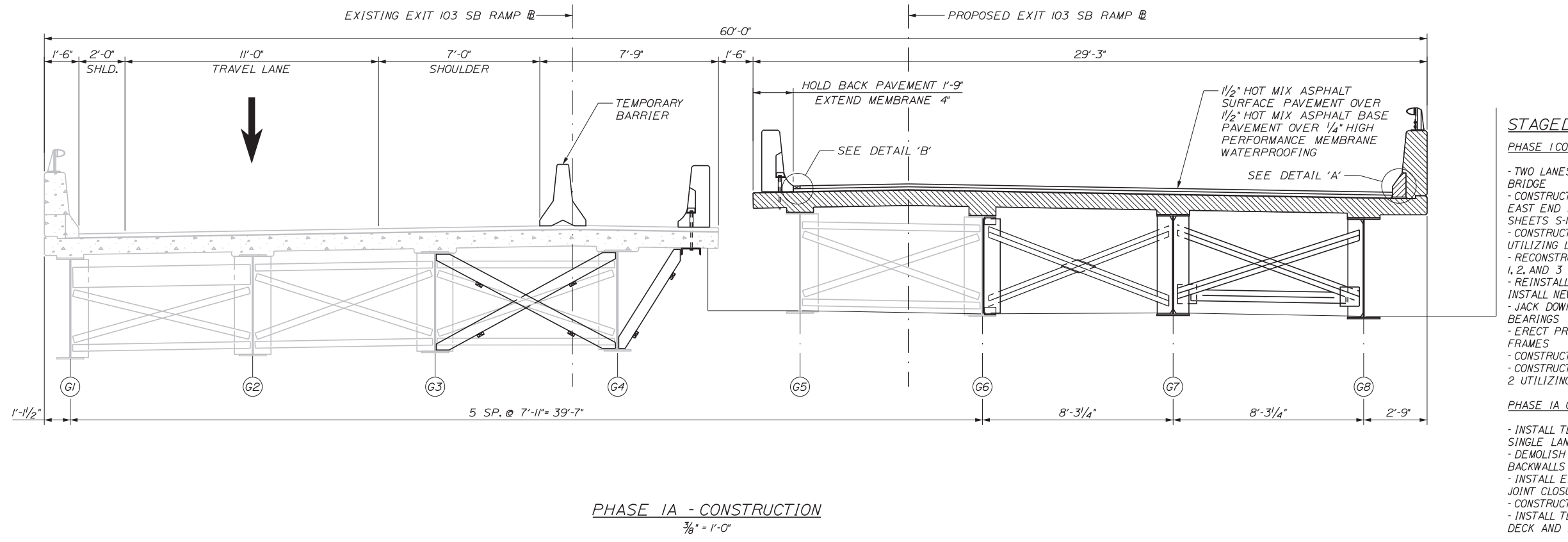
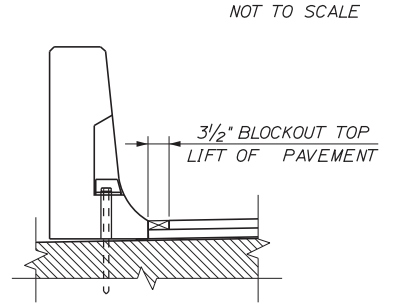
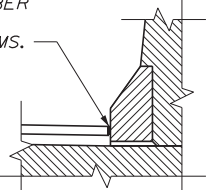
SHEET NUMBER: S-07
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PRIOR TO THE PLACEMENT OF THE SURFACE COURSE OF PAVEMENT, APPLY HOT RUBBER TO THE CURB, AS DIRECTED BY THE RESIDENT. COSTS FOR THE HOT RUBBER SHALL BE INCIDENTAL TO THE RELATED PAVING ITEMS.



STAGED CONSTRUCTION NOTES

- PHASE I CONSTRUCTION SHALL INCLUDE THE FOLLOWING:
- TWO LANES OF TRAFFIC MAINTAINED ON WESTERN PORTION OF BRIDGE
 - CONSTRUCT PROPOSED WINGWALLS AND ABUTMENT WIDENINGS AT EAST END AND RECONSTRUCT BEAM SEATS TO LIMITS SHOWN ON SHEETS S-12 AND S-16
 - CONSTRUCT PROPOSED PIER COLUMNS 7 AND 8 AT PIERS 1, 2, AND 3 UTILIZING LEFT LANE CLOSURES ON I-95 (BELOW THE BRIDGE)
 - RECONSTRUCT TOP PORTIONS OF PIER COLUMNS 5 AND 6 AT PIERS 1, 2, AND 3
 - REINSTALL EXISTING BEARINGS FOR GIRDERS G5 AND G6 AND INSTALL NEW BEARINGS FOR GIRDERS G7 AND G8
 - JACK DOWN EXISTING GIRDERS G5 AND G6 ONTO REINSTALLED BEARINGS
 - ERECT PROPOSED GIRDERS G7 AND G8 AND INSTALL NEW CROSS FRAMES
 - CONSTRUCT PROPOSED EASTERN PORTION OF DECK SLAB
 - CONSTRUCT PIER PROTECTION SYSTEM ALONG EITHER SIDE OF PIER 2 UTILIZING LEFT LANE CLOSURES ON I-95 (BELOW THE BRIDGE)
- PHASE IA CONSTRUCTION SHALL INCLUDE THE FOLLOWING:
- INSTALL TEMPORARY BARRIER TO REDUCE BRIDGE TRAFFIC TO A SINGLE LANE
 - DEMOLISH AND RECONSTRUCT MIDDLE PORTION OF ABUTMENT BACKWALLS TO LIMITS SHOWN ON SHEETS S-12 AND S-16
 - INSTALL EASTERN PORTION OF FINGER JOINTS AND CAST FINGER JOINT CLOSURE POURS AT END OF DECK AND TOP OF BACKWALL
 - CONSTRUCT EASTERN PORTIONS OF APPROACH SLABS
 - INSTALL TEMPORARY ANCHORED BARRIER ON EASTERN PORTION OF DECK AND PAVE

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

CONSTRUCTION PHASING 2

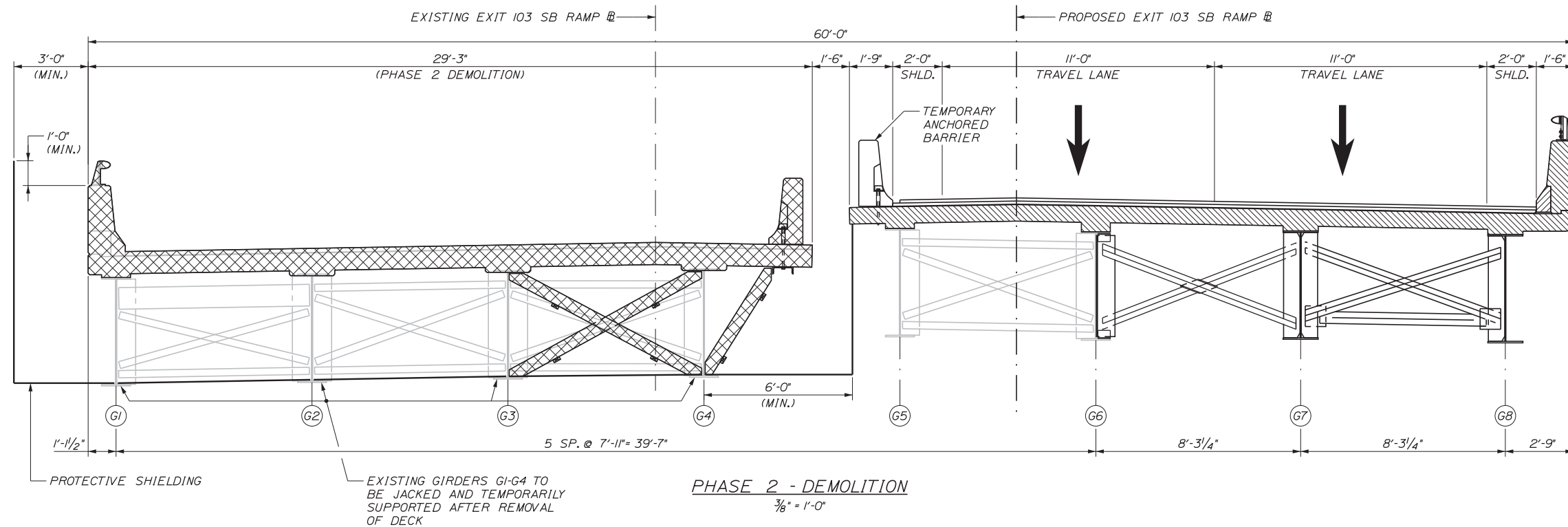
SHEET NUMBER: S-08

CONTRACT: 2018.05

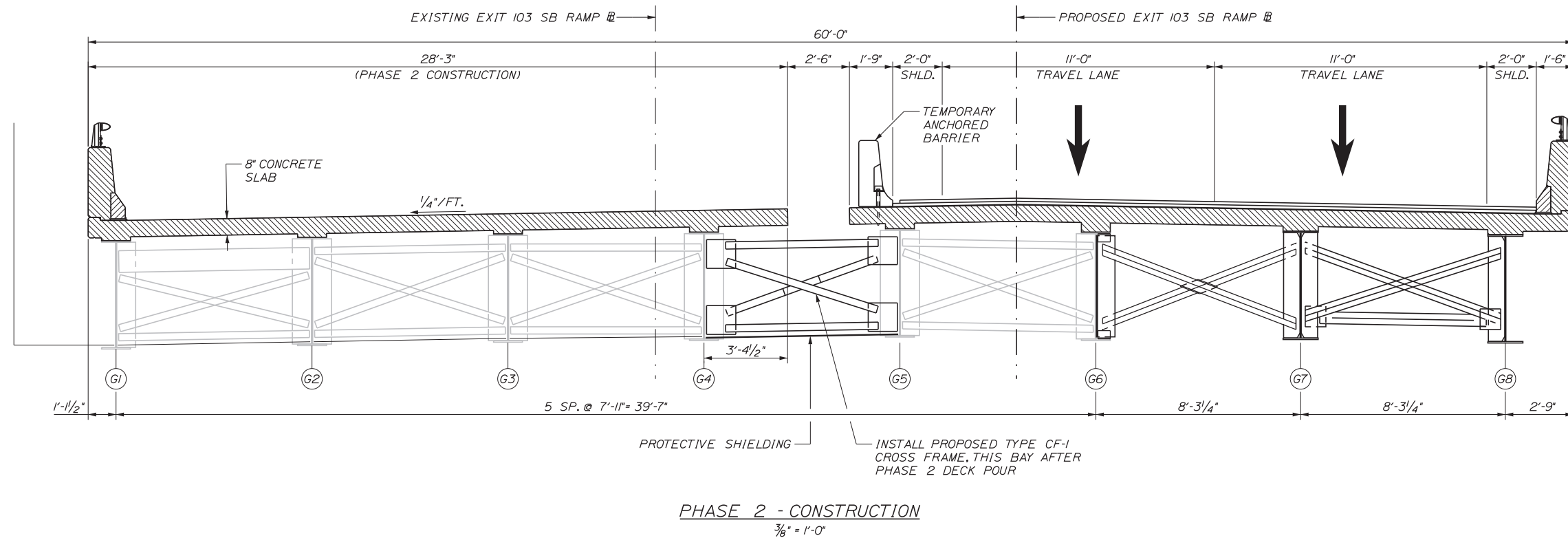
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PHASE 2 - DEMOLITION
3/8" = 1'-0"



PHASE 2 - CONSTRUCTION
3/8" = 1'-0"

STAGED CONSTRUCTION NOTES

PHASE 2 DEMOLITION SHALL INCLUDE THE FOLLOWING:

- INSTALL TEMPORARY ANCHORED BARRIER AND SHIFT BRIDGE TRAFFIC TO THE EAST ONTO THE NEWLY CONSTRUCTED PORTION OF THE DECK (TEMPORARY DECK SUPPORT NOT REQUIRED THIS PHASE)
- DEMOLISH WESTERN PORTION OF THE EXISTING BRIDGE DECK
- JACK AND TEMPORARILY SUPPORT EXISTING GIRDERS G1 THROUGH G4 TO ALLOW ROOM FOR ABUTMENT AND PIER RECONSTRUCTION
- DEMOLISH UPPER PORTIONS OF THE BACKWALLS ALONG THE WESTERN PORTION OF THE EXISTING ABUTMENTS

PHASE 2 CONSTRUCTION SHALL INCLUDE THE FOLLOWING:

- TWO LANES OF TRAFFIC MAINTAINED ON THE NEWLY CONSTRUCTED PORTION OF THE DECK
- RECONSTRUCT BRIDGE SEATS, UPPER PORTIONS OF THE ABUTMENT BACKWALLS AND WINGWALLS, AND CONSTRUCT APPROACH SLABS AT WEST PORTION
- RECONSTRUCT TOP PORTIONS OF PIER COLUMNS 1 THROUGH 4 AT PIERS 1, 2, AND 3
- REINSTALL EXISTING BEARINGS FOR GIRDERS G1 THROUGH G4
- JACK DOWN EXISTING GIRDERS G1 THROUGH G4 ONTO REINSTALLED BEARINGS
- CONSTRUCT PROPOSED WESTERN PORTION OF DECK SLAB INCLUDING BARRIER AND REMAINING PORTION OF FINGER JOINT
- INSTALL PROPOSED CROSS FRAMES BETWEEN GIRDERS G4 AND G5 AFTER DECK POUR
- CONSTRUCT PIER PROTECTION SYSTEM ALONG ROADWAY SIDE OF PIERS 1 AND 3 UTILIZING RIGHT LANE CLOSURES ON I-95 (BELOW THE BRIDGE)

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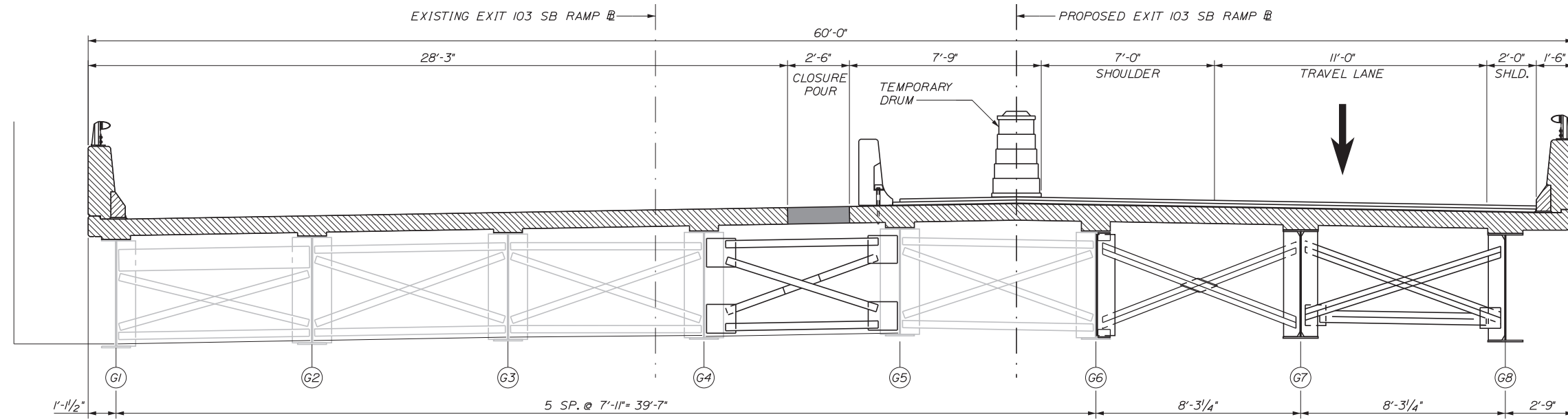
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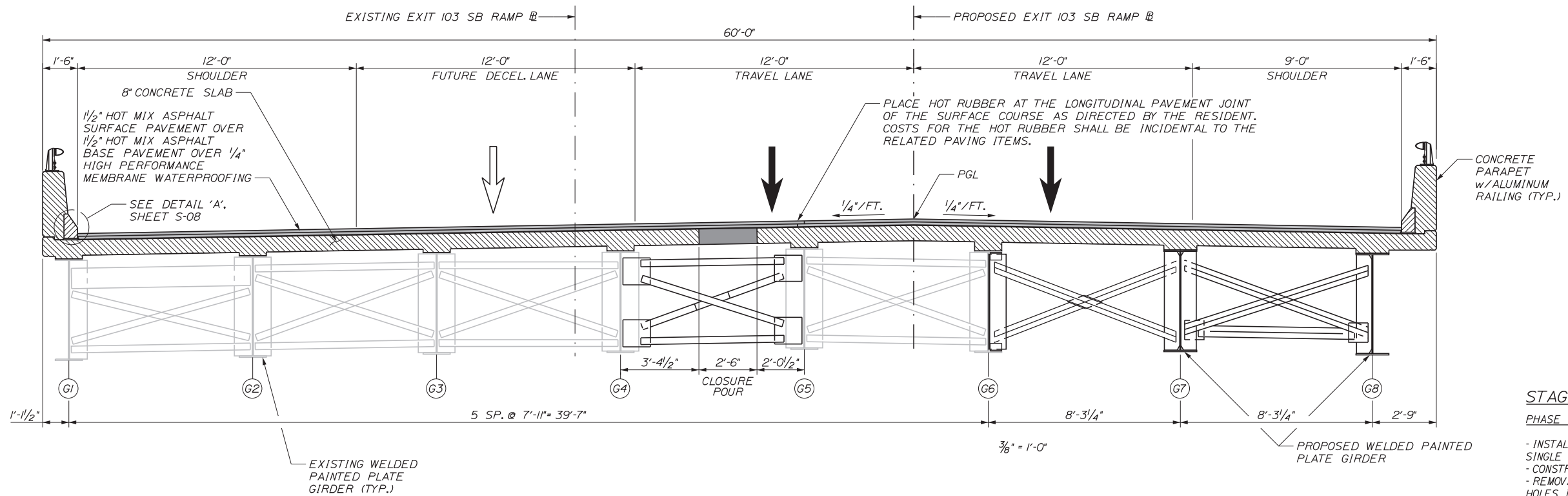
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
CONSTRUCTION PHASING 3

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PHASE 2A - CONSTRUCTION
3/8" = 1'-0"



PROPOSED TRANSVERSE SECTION
3/8" = 1'-0"

STAGED CONSTRUCTION NOTES

PHASE 2A CONSTRUCTION SHALL INCLUDE THE FOLLOWING:

- INSTALL TEMPORARY DRUMS TO REDUCE BRIDGE TRAFFIC TO A SINGLE LANE
- CONSTRUCT LONGITUDINAL DECK CLOSURE POUR
- REMOVAL OF TEMPORARY ANCHORED BARRIER, REPAIR OF ANCHOR HOLES IN DECK

FINAL CONSTRUCTION SHALL INCLUDE THE FOLLOWING:

- PERFORM FINAL PAVING

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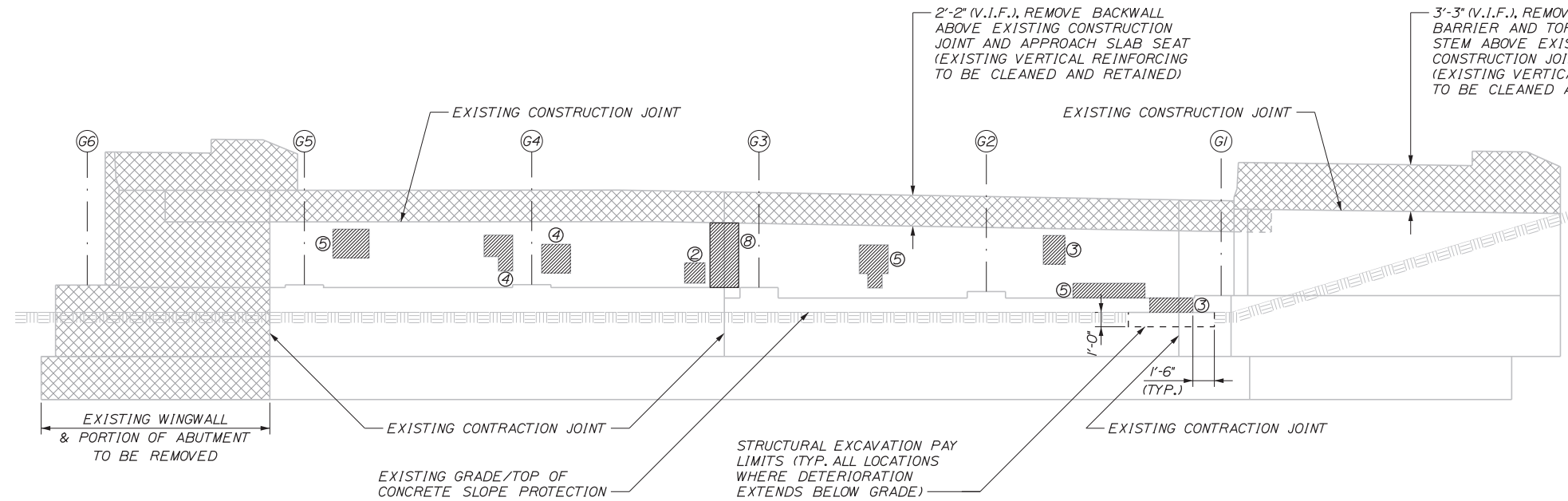
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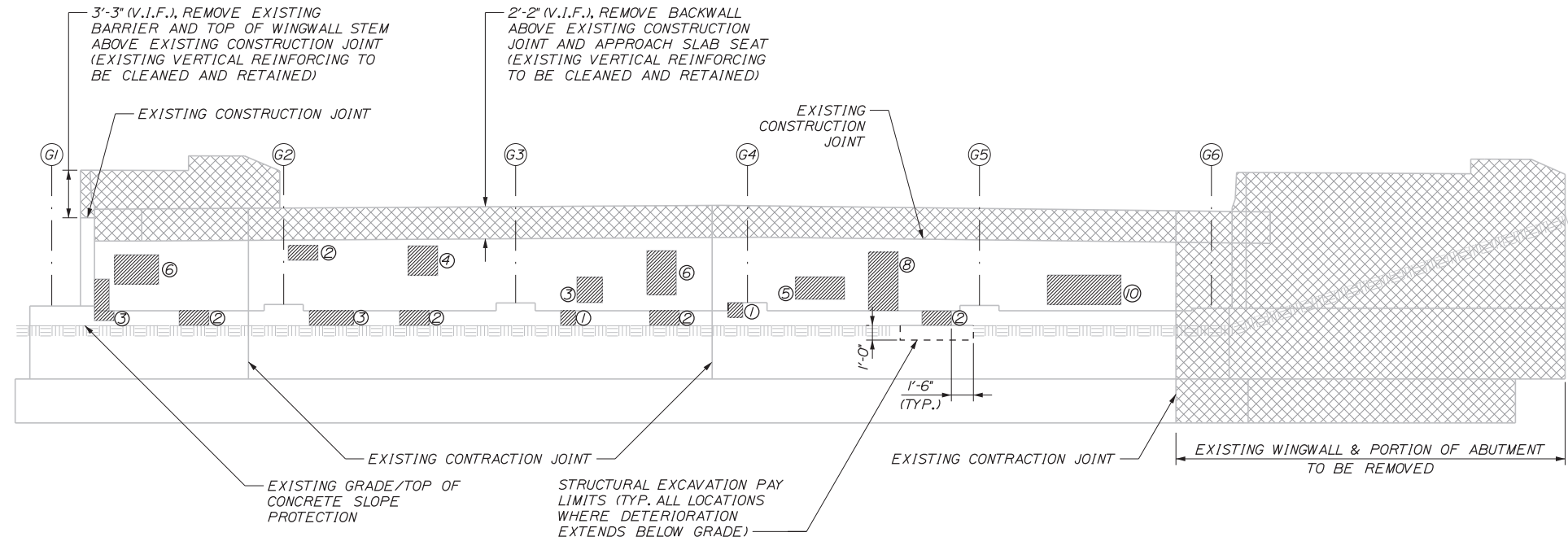
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
CONSTRUCTION PHASING 4

SHEET NUMBER: S-10
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Date: 2/19/2018



ABUTMENT NO. 1 ELEVATION
3/16" = 1'-0"



ABUTMENT NO. 2 ELEVATION
3/16" = 1'-0"

ABUTMENT NO. 1 - ESTIMATED AREA OF PATCH REPAIR

ABUTMENT SURFACE 39 SF*

*INCLUDES 15% SF ADDITIONAL AREA AS A CONTINGENCY

ABUTMENT NO. 2 - ESTIMATED AREA OF PATCH REPAIR

ABUTMENT SURFACE 69 SF*

*INCLUDES 15% SF ADDITIONAL AREA AS A CONTINGENCY

LEGEND

- LIMIT OF ABUTMENT AND WINGWALL DEMOLITION
- LIMIT OF SURFACE PATCH REPAIR
- ESTIMATED SQUARE FOOT AREA OF REPAIR

NOTES

1. ABUTMENT REPAIR WORK SHALL INCLUDE: PROVIDING ACCESS FOR INSPECTION, ABUTMENT SURFACE PATCH REPAIRS, AND SURFICIAL EXCAVATION TO PERFORM REPAIRS UP TO 6' BELOW GRADE.
2. WHERE ABUTMENT SURFACE PATCH REPAIRS ARE SPECIFIED THE WORK SHALL INCLUDE REMOVAL OF UNSOUND CONCRETE AND PLACEMENT AND CURING OF REPAIR MATERIALS. REPAIRS SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 518.10, ABUTMENT REPAIRS.
3. THE QUANTITIES OF ABUTMENT SURFACE REPAIRS NOTED ON THESE DRAWINGS HAVE BEEN DEVELOPED BASED PRIMARILY ON VISUAL AND TACTILE INSPECTION FROM THE GROUND LEVEL. ACTUAL REPAIR AREAS WILL BE DETERMINED BY THE RESIDENT DURING CONSTRUCTION.
4. EXCAVATION OF THE CONCRETE SLOPE PROTECTION AND THE UNDERLYING SOIL AT THE BASE OF THE ABUTMENTS FOR INSPECTION AND REPAIR OF DAMAGED SUBSTRUCTURE CONCRETE SHALL BE PAID UNDER ITEM 206.082, STRUCTURAL EXCAVATION. PRIOR TO EXCAVATION THE LIMITS OF THE SLOPE PROTECTION REMOVAL SHALL BE DELINEATED BY A FULL DEPTH SAWCUT. ALL EQUIPMENT AND LABOR ASSOCIATED WITH SAWCUTTING, EXCAVATION, BACKFILLING AND DISPOSAL OF THE EXISTING SLOPE PROTECTION SHALL BE INCIDENTAL TO THE STRUCTURAL EXCAVATION ITEM.
5. ALL SLOPE PROTECTION REMOVED AS PART OF CONCRETE REPAIR WORK SHALL BE REPLACED IN-KIND BY THE CONTRACTOR. PAYMENT FOR ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO REPLACE THE REMOVED PORTIONS OF CONCRETE SLOPE PROTECTION SHALL BE MADE UNDER ITEM 513.09, SLOPE PROTECTION-PORTLAND CEMENT CONCRETE. FOR LIMITS AND DETAILS OF EXISTING CONCRETE SLOPE PROTECTION SEE AS-BUILT DRAWINGS.
6. PAY LIMITS OF STRUCTURAL EXCAVATION AND SLOPE PROTECTION REPLACEMENT SHALL BE 1'-6" OUT FROM FACE OF ABUTMENT AND 1'-0" BELOW GRADE.
7. SEE SHEET S-27 FOR CONCRETE SURFACE PATCH REPAIR DETAILS AND NOTES.

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
EXISTING ABUTMENTS
REPAIR & REMOVAL LIMITS

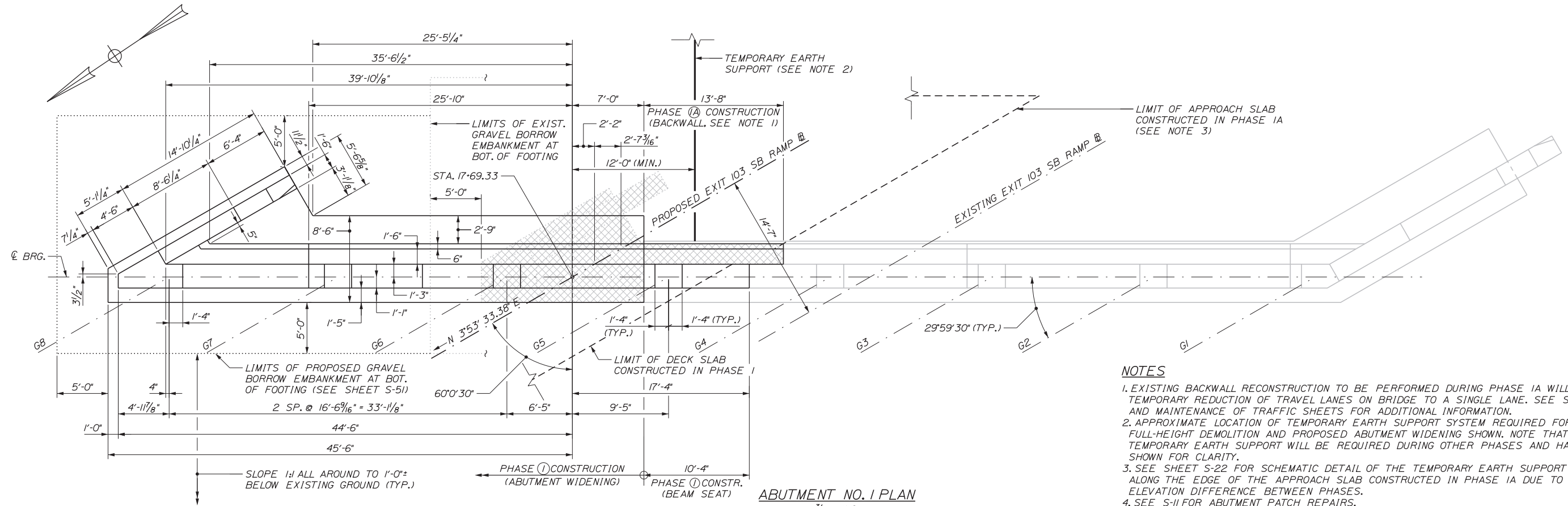
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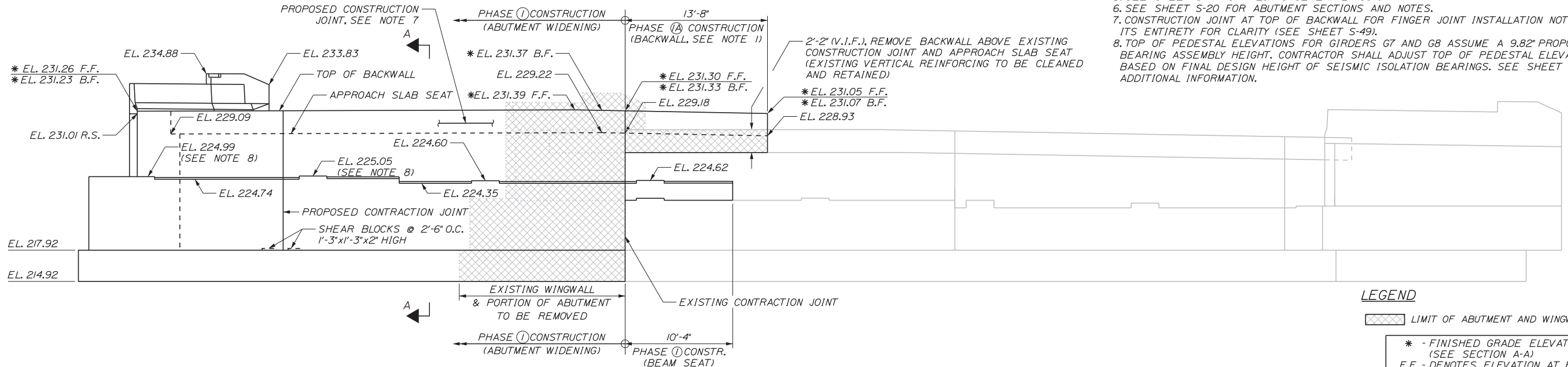
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ABUTMENT NO. 1 PLAN
3/16" = 1'-0"

- NOTES**
- EXISTING BACKWALL RECONSTRUCTION TO BE PERFORMED DURING PHASE 1A WILL REQUIRE TEMPORARY REDUCTION OF TRAVEL LANES ON BRIDGE TO A SINGLE LANE. SEE SHEET S-08 AND MAINTENANCE OF TRAFFIC SHEETS FOR ADDITIONAL INFORMATION.
 - APPROXIMATE LOCATION OF TEMPORARY EARTH SUPPORT SYSTEM REQUIRED FOR THE FULL-HEIGHT DEMOLITION AND PROPOSED ABUTMENT WIDENING SHOWN. NOTE THAT ADDITIONAL TEMPORARY EARTH SUPPORT WILL BE REQUIRED DURING OTHER PHASES AND HAS NOT BEEN SHOWN FOR CLARITY.
 - SEE SHEET S-22 FOR SCHEMATIC DETAIL OF THE TEMPORARY EARTH SUPPORT REQUIRED ALONG THE EDGE OF THE APPROACH SLAB CONSTRUCTED IN PHASE 1A DUE TO THE ELEVATION DIFFERENCE BETWEEN PHASES.
 - SEE S-11 FOR ABUTMENT PATCH REPAIRS.
 - SEE SHEET S-14 FOR REINFORCEMENT LAYOUT.
 - SEE SHEET S-20 FOR ABUTMENT SECTIONS AND NOTES.
 - CONSTRUCTION JOINT AT TOP OF BACKWALL FOR FINGER JOINT INSTALLATION NOT SHOWN IN ITS ENTIRETY FOR CLARITY (SEE SHEET S-49).
 - TOP OF PEDESTAL ELEVATIONS FOR GIRDERS G7 AND G8 ASSUME A 9.82' PROPOSED BEARING ASSEMBLY HEIGHT. CONTRACTOR SHALL ADJUST TOP OF PEDESTAL ELEVATIONS BASED ON FINAL DESIGN HEIGHT OF SEISMIC ISOLATION BEARINGS. SEE SHEET S-34 FOR ADDITIONAL INFORMATION.



ABUTMENT NO. 1 ELEVATION
3/16" = 1'-0"

- LEGEND**
- LIMIT OF ABUTMENT AND WINGWALL DEMOLITION
 - * - FINISHED GRADE ELEVATIONS (SEE SECTION A-A)
 - F.F. - DENOTES ELEVATION AT FRONT FACE OF BACKWALL
 - B.F. - DENOTES ELEVATION AT BACK FACE OF BACKWALL
 - R.S. - DENOTES ELEVATION AT ROADWAY SIDE OF WINGWALL BELOW CURB (1/2" KEY NOT SHOWN FOR CLARITY)

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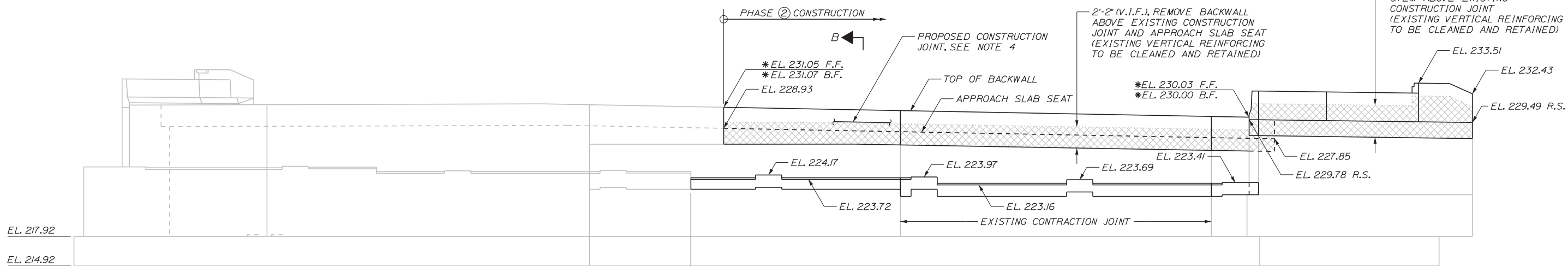
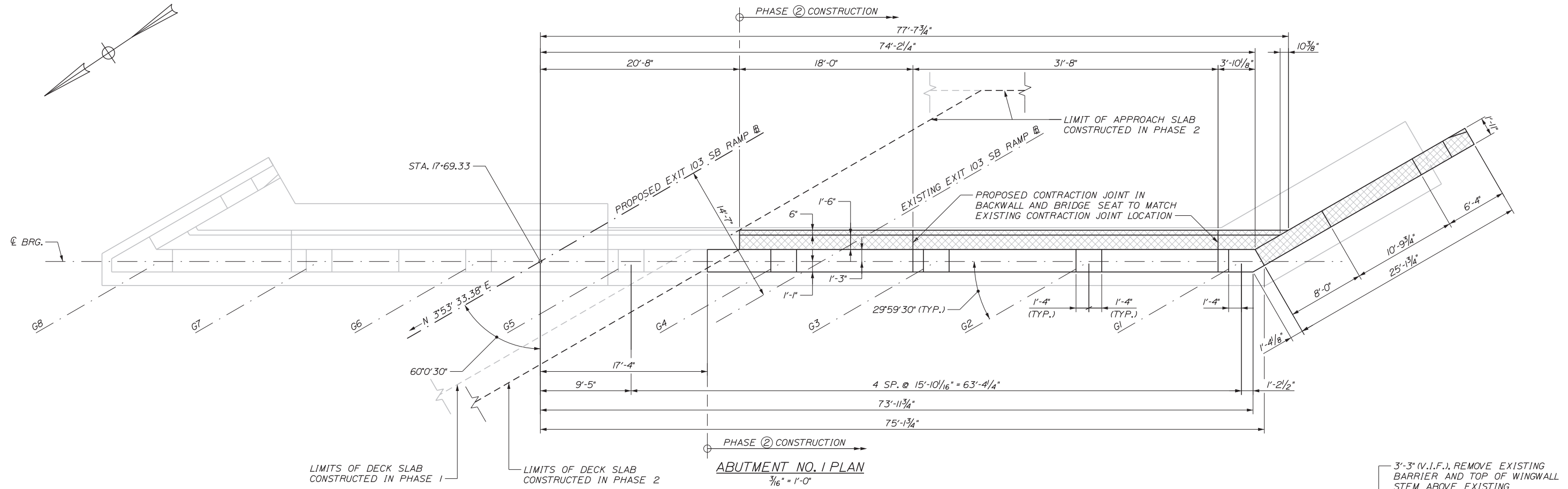
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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
ABUTMENT NO. 1 PLAN & ELEVATION
PHASE 1 & 1A

SHEET NUMBER: S-12
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LEGEND

- LIMIT OF ABUTMENT AND WINGWALL DEMOLITION
- * - FINISHED GRADE ELEVATIONS (SEE SECTION B-B)
- F.F. - DENOTES ELEVATION AT FRONT FACE OF BACKWALL
- B.F. - DENOTES ELEVATION AT BACK FACE OF BACKWALL
- R.S. - DENOTES ELEVATION AT ROADWAY SIDE OF WINGWALL BELOW CURB (1/2" KEY NOT SHOWN FOR CLARITY)

NOTES

1. SEE S-11 FOR ABUTMENT PATCH REPAIRS.
2. SEE SHEET S-15 FOR REINFORCEMENT LAYOUT.
3. SEE SHEET S-20 FOR ABUTMENT SECTIONS AND NOTES.
4. CONSTRUCTION JOINT AT TOP OF BACKWALL FOR FINGER JOINT INSTALLATION NOT SHOWN IN ITS ENTIRETY FOR CLARITY (SEE SHEET S-49).

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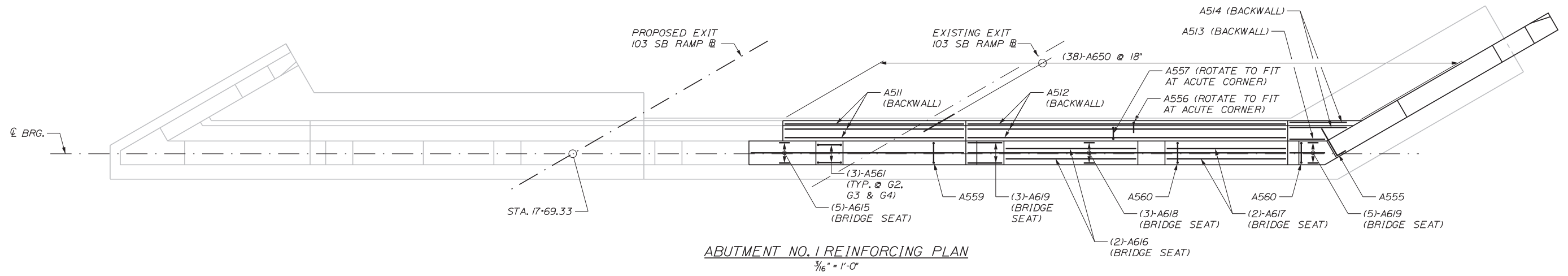
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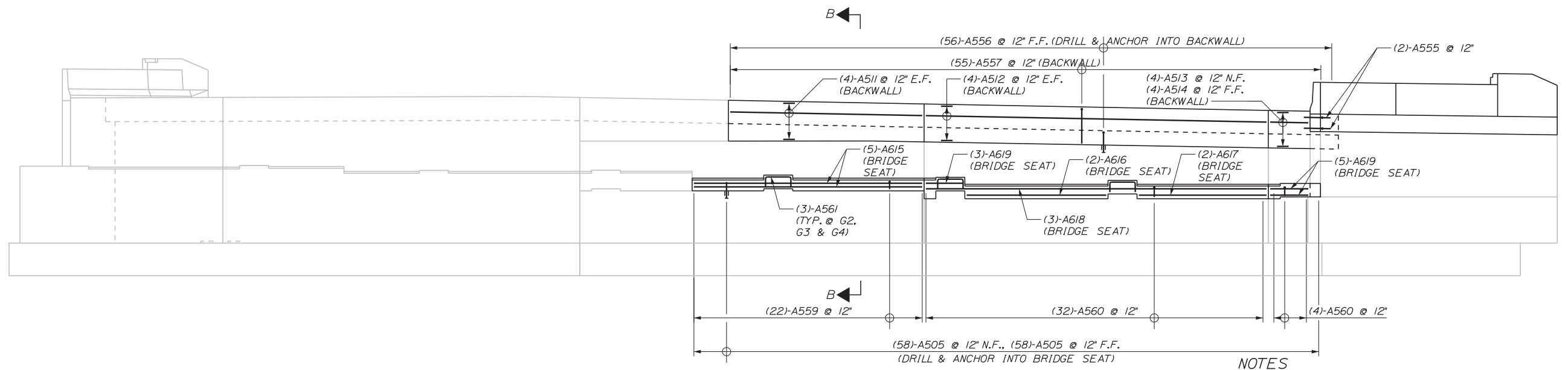
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
ABUTMENT NO. 1 PLAN & ELEVATION
PHASE 2

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ABUTMENT NO. 1 REINFORCING PLAN
3/16" = 1'-0"



ABUTMENT NO. 1 REINFORCING ELEVATION
3/16" = 1'-0"

- NOTES**
- SEE SHEET S-13 FOR DIMENSIONING AND ELEVATIONS NOT SHOWN.
 - SEE SHEET S-20 FOR ABUTMENT SECTIONS AND NOTES.

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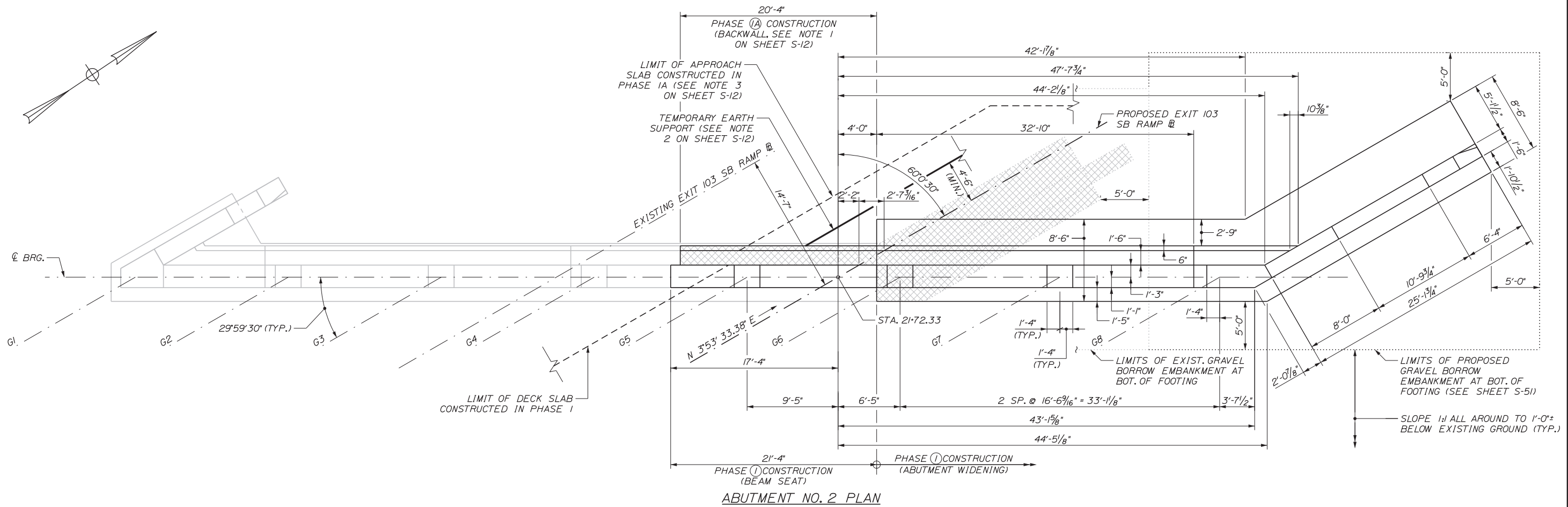
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
ABUTMENT NO. 1 REINFORCEMENT
PHASE 2

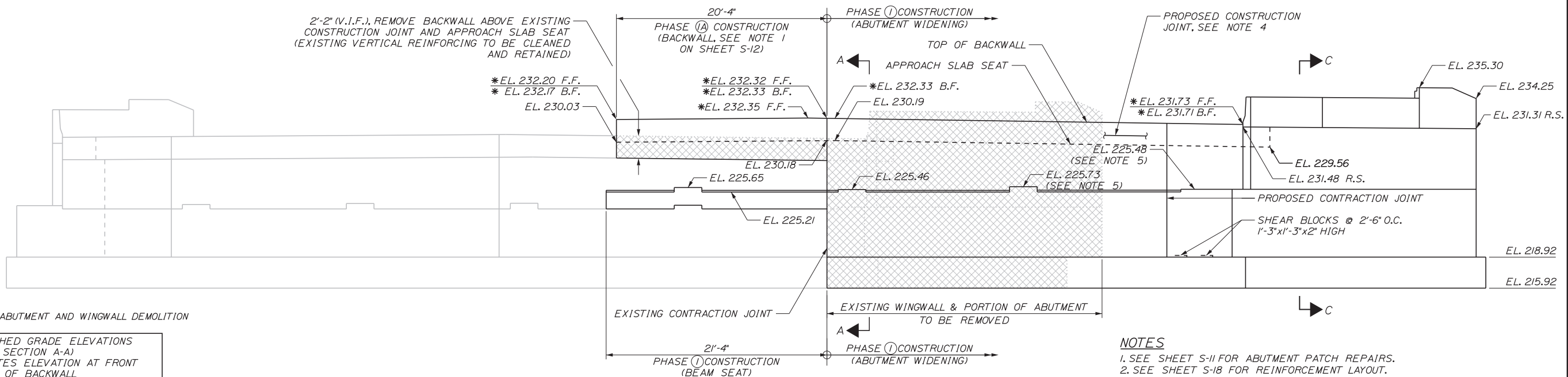
SHEET NUMBER: S-15
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Date: 2/19/2018

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ABUTMENT NO. 2 PLAN
3/16" = 1'-0"



ABUTMENT NO. 2 ELEVATION
3/16" = 1'-0"

LEGEND
 [Hatched Box] LIMIT OF ABUTMENT AND WINGWALL DEMOLITION
 * - FINISHED GRADE ELEVATIONS (SEE SECTION A-A)
 F.F. - DENOTES ELEVATION AT FRONT FACE OF BACKWALL
 B.F. - DENOTES ELEVATION AT BACK FACE OF BACKWALL
 R.S. - DENOTES ELEVATION AT ROADWAY SIDE OF WINGWALL BELOW CURB (1/2" KEY NOT SHOWN FOR CLARITY)

NOTES
 1. SEE SHEET S-11 FOR ABUTMENT PATCH REPAIRS.
 2. SEE SHEET S-18 FOR REINFORCEMENT LAYOUT.
 3. SEE SHEET S-21 FOR ABUTMENT SECTIONS AND NOTES.
 4. CONSTRUCTION JOINT AT TOP OF BACKWALL FOR FINGER JOINT INSTALLATION NOT SHOWN IN ITS ENTIRETY FOR CLARITY (SEE SHEET S-49).
 5. TOP OF PEDESTAL ELEVATIONS FOR GIRDERS G7 AND G8 ASSUME A 9.82" PROPOSED BEARING ASSEMBLY HEIGHT. CONTRACTOR SHALL ADJUST TOP OF PEDESTAL ELEVATIONS BASED ON FINAL DESIGN HEIGHT OF SEISMIC ISOLATION BEARINGS. SEE SHEET S-34 FOR ADDITIONAL INFORMATION.

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

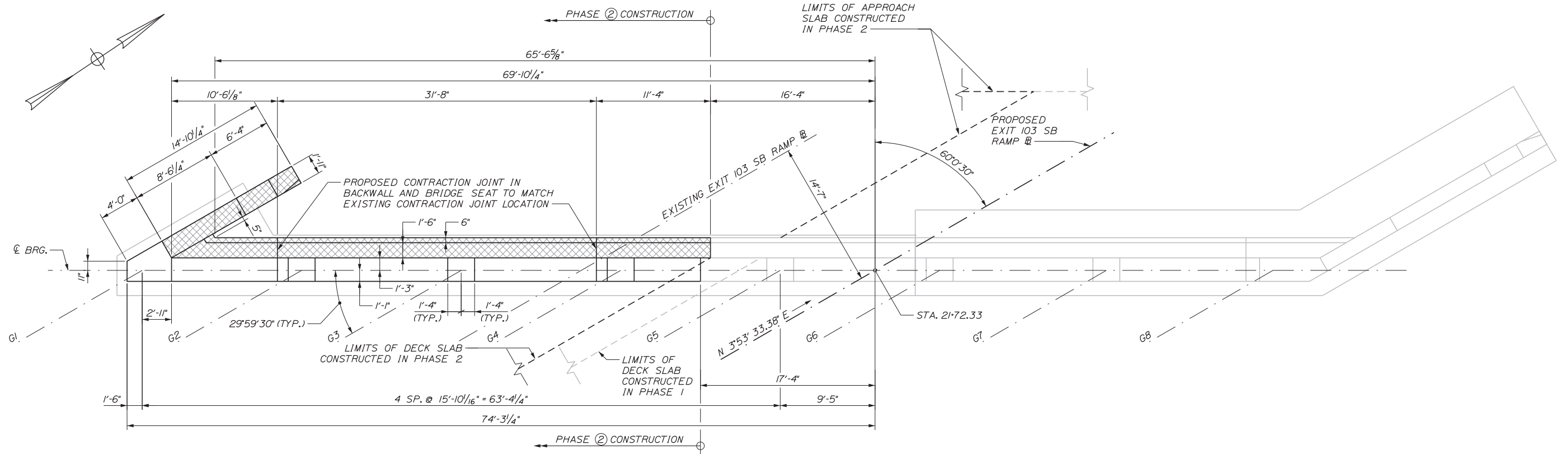
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 ABUTMENT NO. 2 PLAN & ELEVATION
 PHASE 1 & 1A

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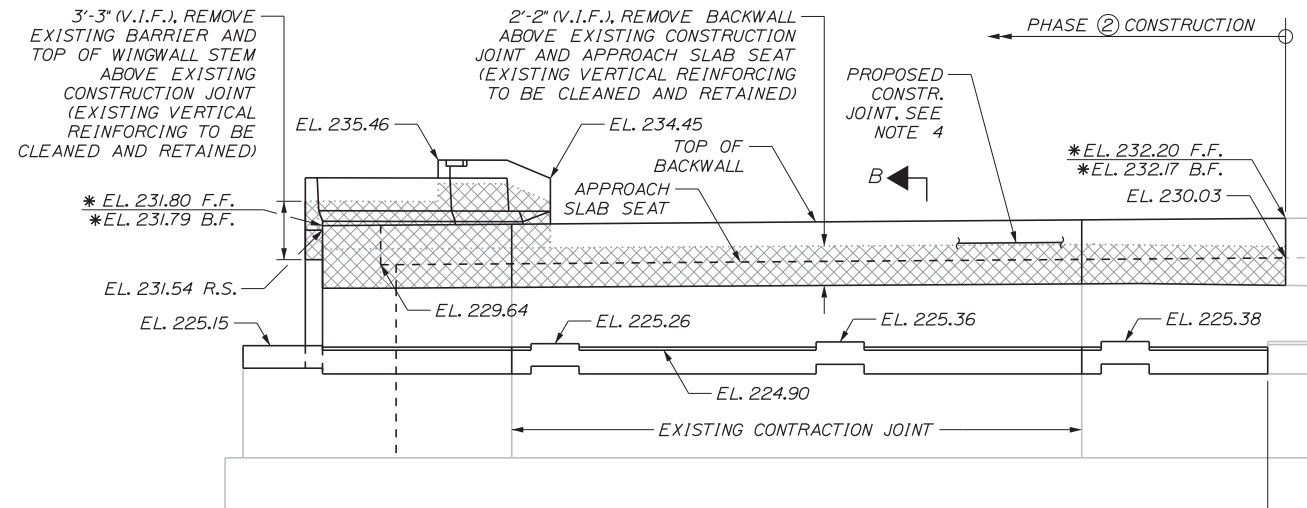
CONTRACT: 2018.05

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Filename: ...MSTA_60\AS-17_Abut2_ph2.dgn



ABUTMENT NO. 2 PLAN
3/16" = 1'-0"



ABUTMENT NO. 2 ELEVATION
3/16" = 1'-0"

LEGEND

XXXXX LIMIT OF ABUTMENT AND WINGWALL DEMOLITION

* - FINISHED GRADE ELEVATIONS (SEE SECTION B-B)
 F.F. - DENOTES ELEVATION AT FRONT FACE OF BACKWALL
 B.F. - DENOTES ELEVATION AT BACK FACE OF BACKWALL
 R.S. - DENOTES ELEVATION AT ROADWAY SIDE OF WINGWALL BELOW CURB (1/2" KEY NOT SHOWN FOR CLARITY)

NOTES

- SEE SHEET S-11 FOR ABUTMENT PATCH REPAIRS.
- SEE SHEET S-19 FOR REINFORCEMENT LAYOUT.
- SEE SHEET S-21 FOR ABUTMENT SECTIONS AND NOTES.
- CONSTRUCTION JOINT AT TOP OF BACKWALL FOR FINGER JOINT INSTALLATION NOT SHOWN IN ITS ENTIRETY FOR CLARITY (SEE SHEET S-49).

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

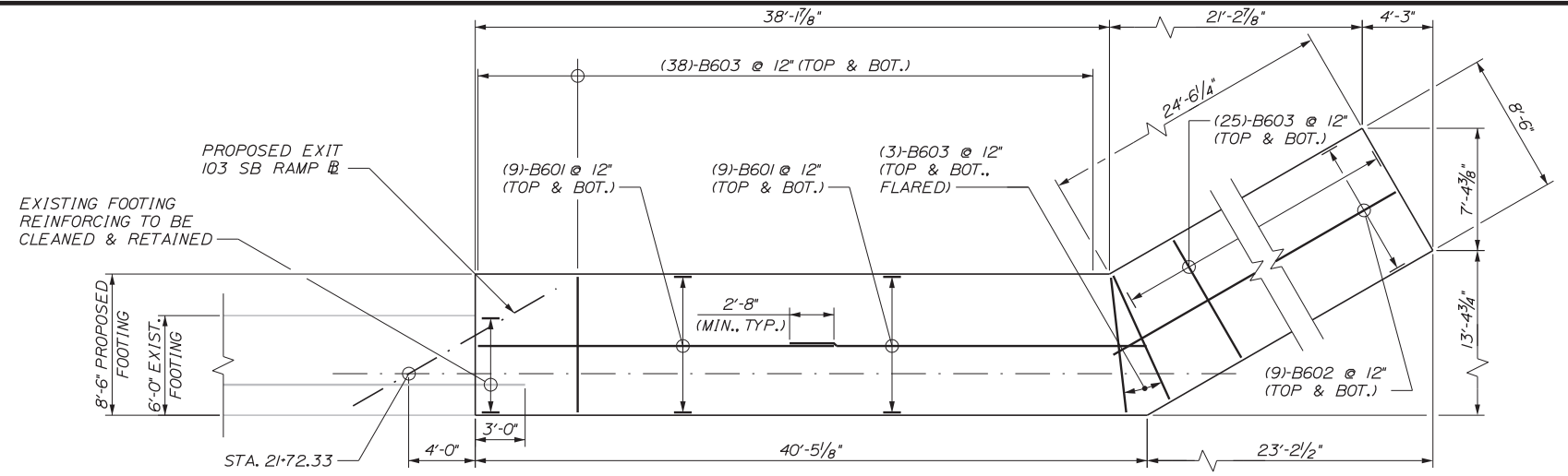
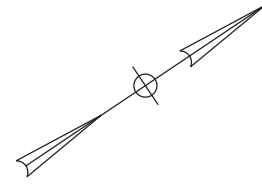
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 ABUTMENT NO. 2 PLAN & ELEVATION
 PHASE 2

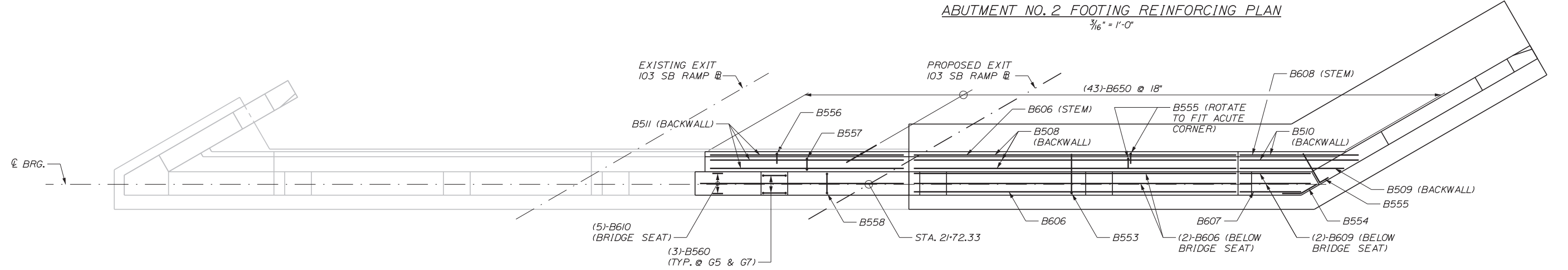
SHEET NUMBER: S-17
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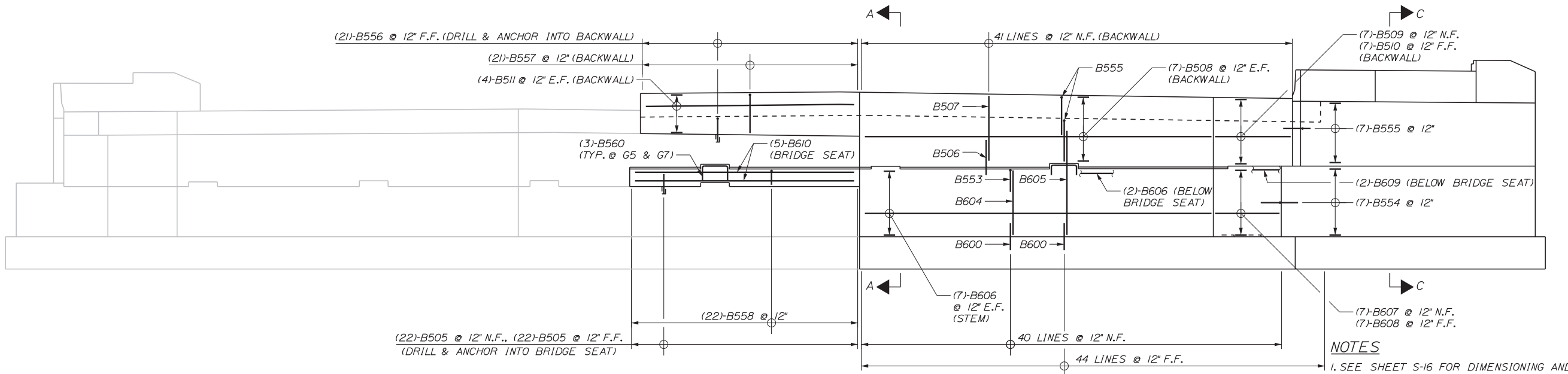
Filename: ...S-18_Abut2rein_ph1.dgn



ABUTMENT NO. 2 FOOTING REINFORCING PLAN
3/16" = 1'-0"



ABUTMENT NO. 2 REINFORCING PLAN
3/16" = 1'-0"



ABUTMENT NO. 2 REINFORCING ELEVATION
3/16" = 1'-0"

- NOTES**
- SEE SHEET S-16 FOR DIMENSIONING AND ELEVATIONS NOT SHOWN.
 - SEE SHEET S-21 FOR ABUTMENT SECTIONS AND NOTES.

No.	Revision	By	Date

Scale: _____

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed	PAG 2\16\18	Checked	GAB 2\16\18
Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

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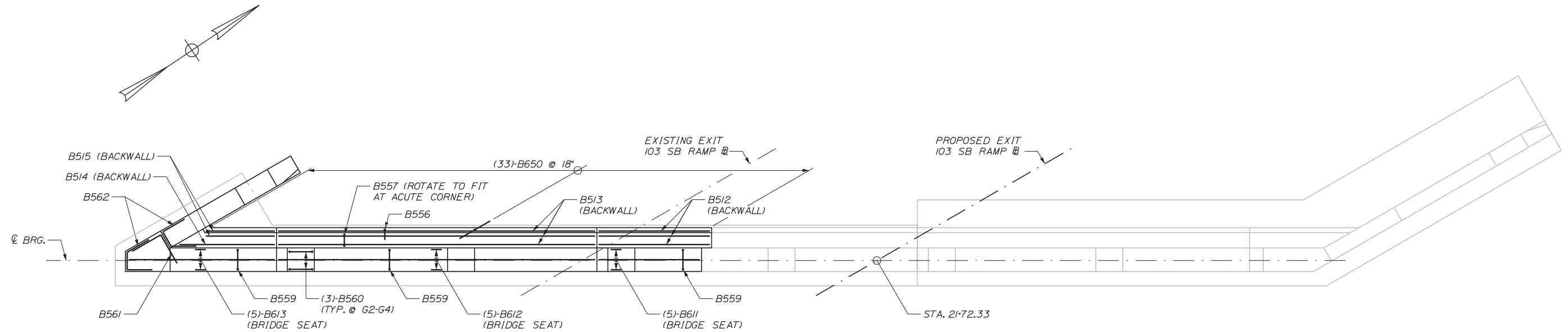
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
ABUTMENT NO. 2 REINFORCEMENT
PHASE 1 & 1A

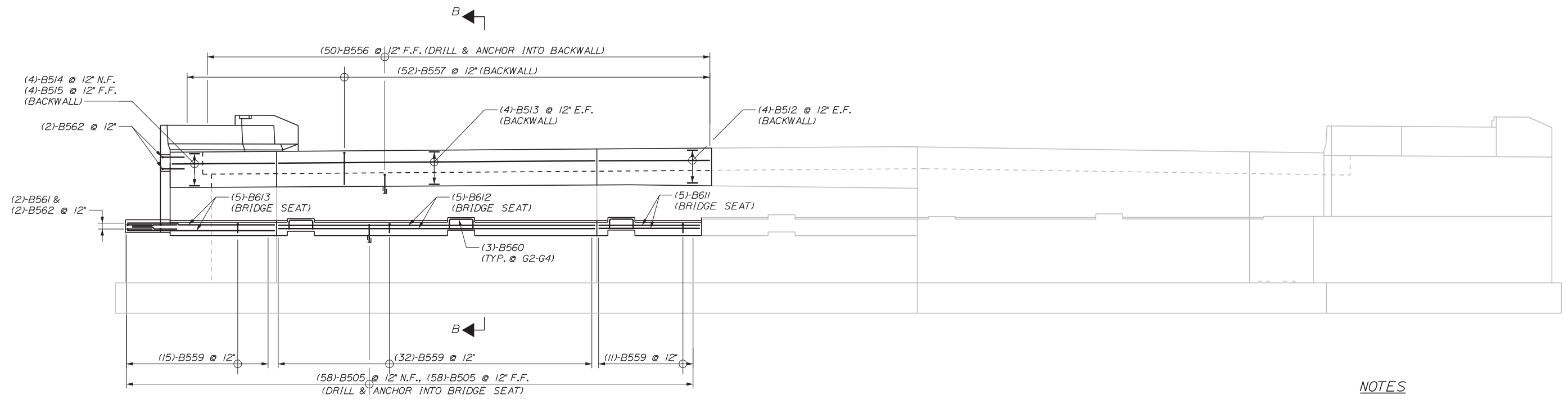
SHEET NUMBER: S-18
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Date: 2/19/2018



ABUTMENT NO. 2 REINFORCING PLAN
3/16" = 1'-0"



ABUTMENT NO. 2 REINFORCING ELEVATION
3/16" = 1'-0"

- NOTES**
- SEE SHEET S-17 FOR DIMENSIONING AND ELEVATIONS NOT SHOWN.
 - SEE SHEET S-21 FOR ABUTMENT SECTIONS AND NOTES.

Filename: ...S-19_Abut2rein_ph2.dgn

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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Designed	PAG	2\16\18	Checked	GAB	2\16\18
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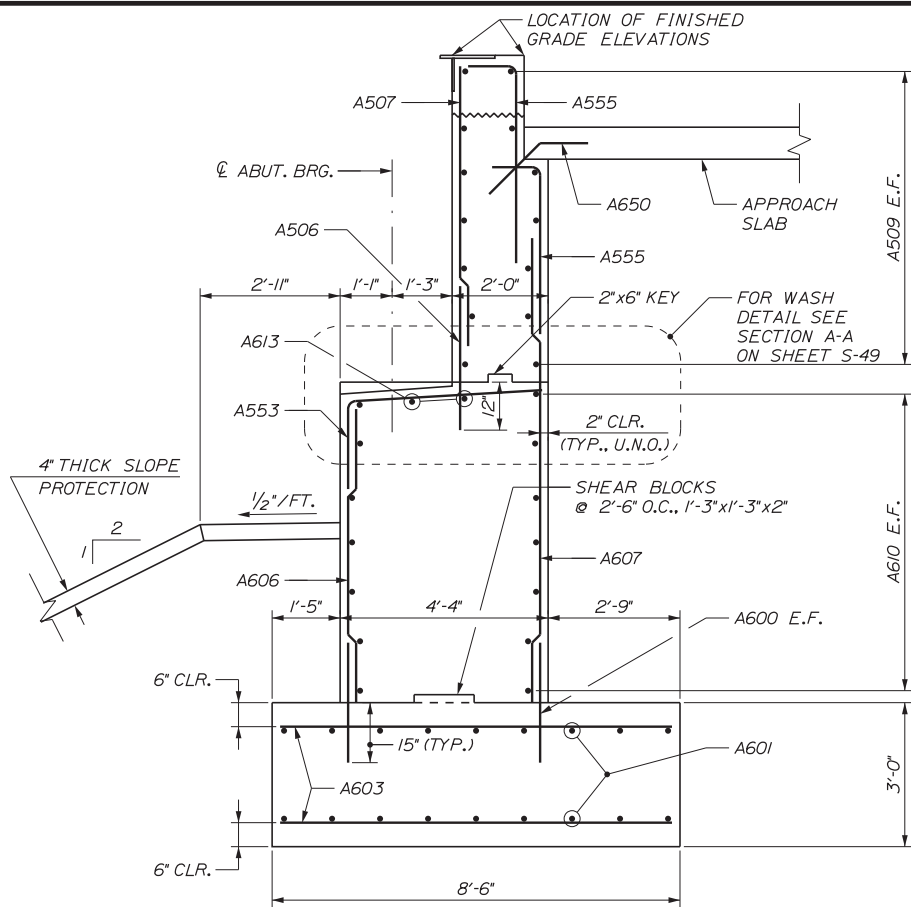
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

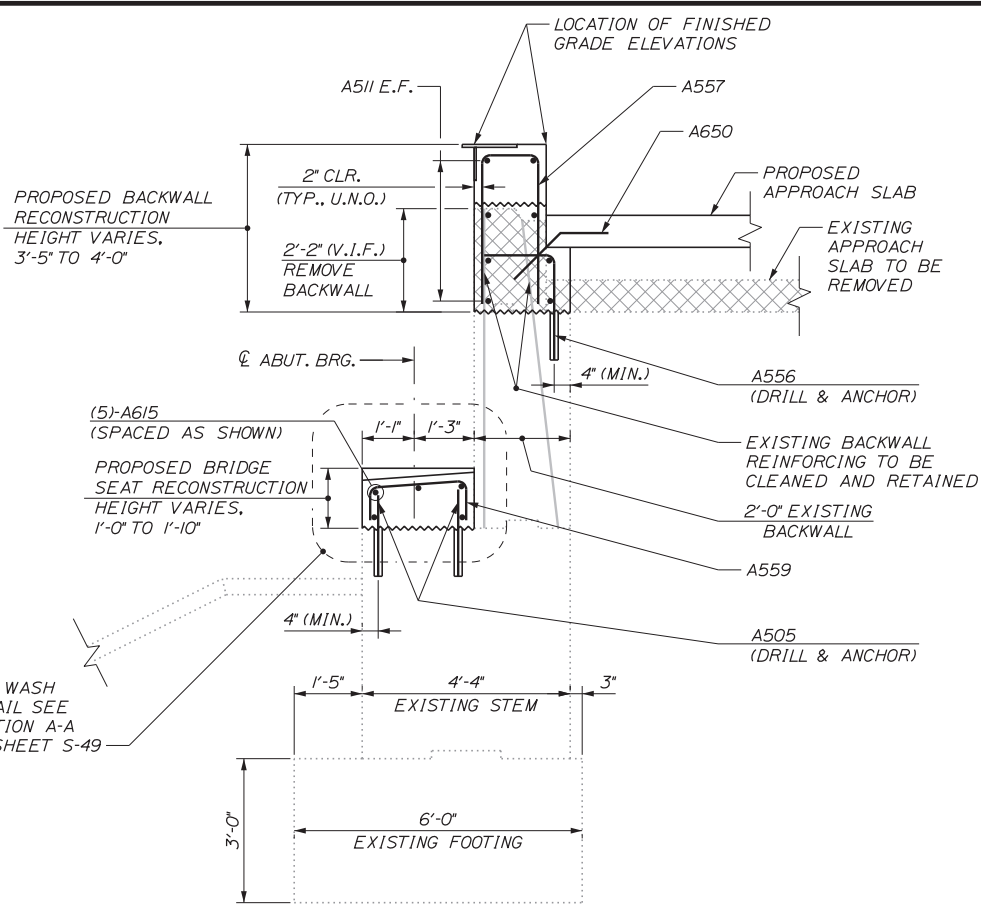
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
ABUTMENT NO. 2 REINFORCEMENT
PHASE 2

SHEET NUMBER: S-19
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Date: 2/19/2018



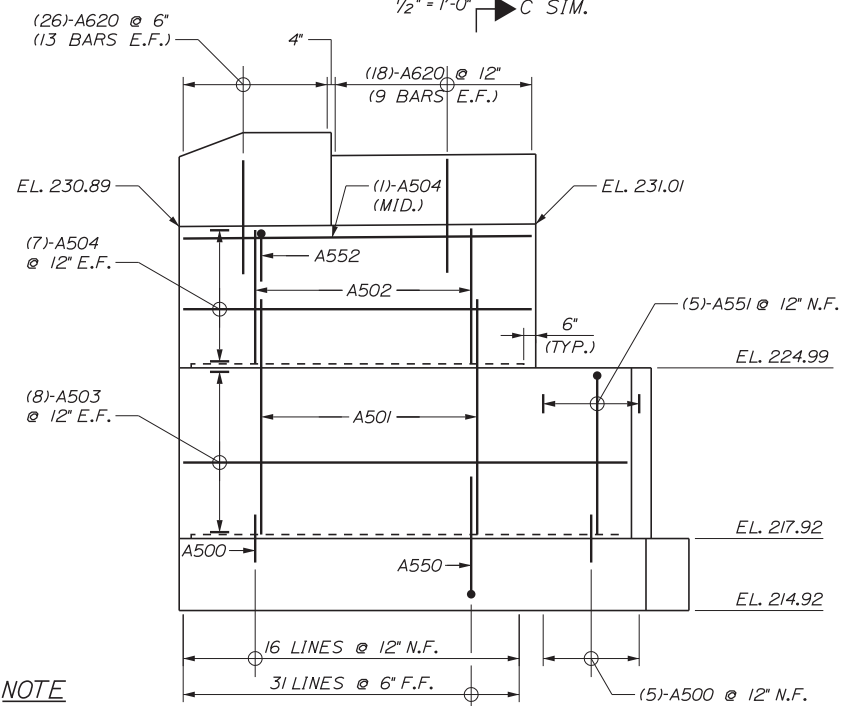
SECTION A-A
1/2" = 1'-0" C SIM.



SECTION B-B
1/2" = 1'-0"

ABUTMENT NOTES

1. REINFORCING STEEL SHALL HAVE A MINIMUM CONCRETE COVER OF 2 INCHES IN THE WALLS AND 3 INCHES COVER IN THE FOOTINGS UNLESS OTHERWISE NOTED.
2. COVER JOINTS WHERE WATERSTOPS ARE NOT REQUIRED IN ACCORDANCE WITH STANDARD DETAIL 502 (01).
3. PLACE 4 INCH DIAMETER DRAINS IN BREASTWALL AND WINGWALLS AT 10 FEET MAXIMUM SPACING. THE EXACT LOCATION WILL BE DETERMINED BY THE RESIDENT.
4. CONSTRUCT FRENCH DRAINS BEHIND ABUTMENTS AND WINGWALLS IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 512, FRENCH DRAINS.
5. STRUCTURAL EARTH EXCAVATION, ABUTMENTS AND RETAINING WALLS, REQUIRING MORE THAN 12 INCHES BELOW THE BOTTOM OF THE STRUCTURE, WILL BE PAID FOR IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 206, STRUCTURAL EXCAVATION.
6. ABUTMENTS, WINGWALLS, AND THEIR FOOTINGS SHALL BE BACKFILLED WITH GRAVEL BORROW (SEE GENERAL NOTE 7 ON SHEET TS-1 FOR COMPACTION REQUIREMENTS). PAY LIMITS WILL BE STRUCTURAL EXCAVATION LIMITS IN CUT AREAS AND A VERTICAL PLANE LOCATED 10 FEET BEHIND THE WALLS IN FILL AREAS.
7. THE MAXIMUM FACTORED APPLIED FOOTING PRESSURE FOR THE PROPOSED WIDENED PORTION OF THE ABUTMENTS IS 5.1 KSF.



NOTE

FOR SECTION C-C SEE SHEET S-21.

ABUTMENT NO. 1 - PROPOSED EAST WINGWALL
1/4" = 1'-0" C SIM.

No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
Designed	PAG	2\16\18	Checked	GAB	2\16\18
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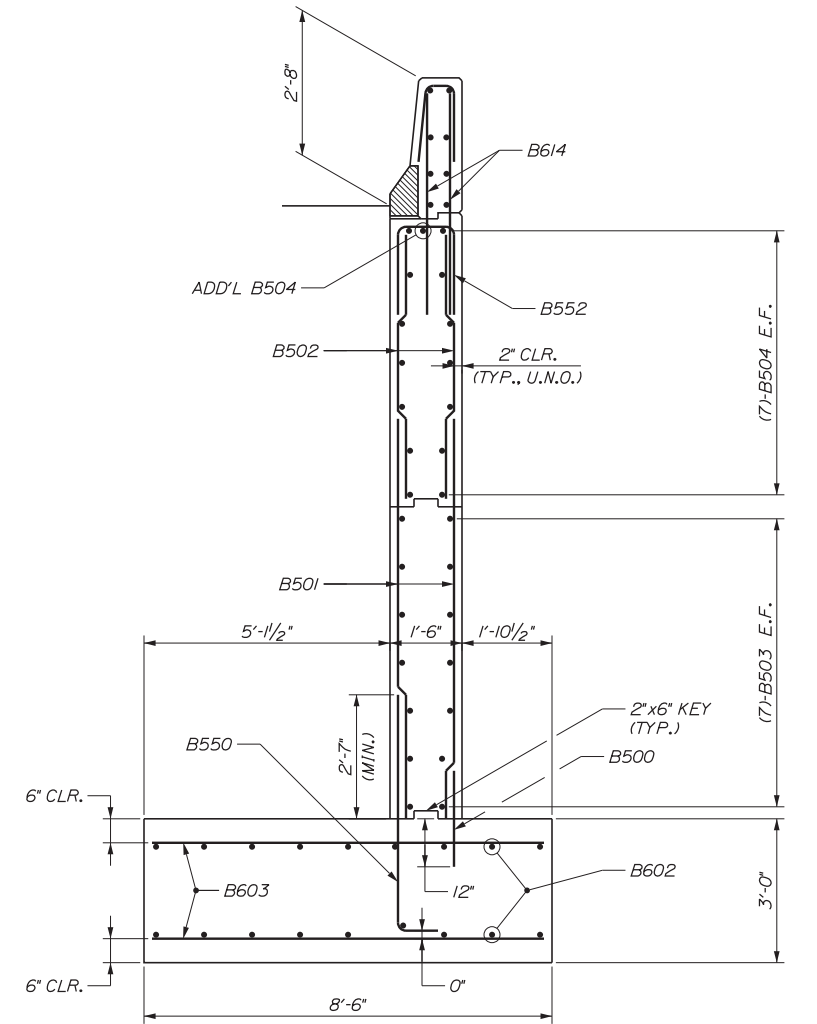
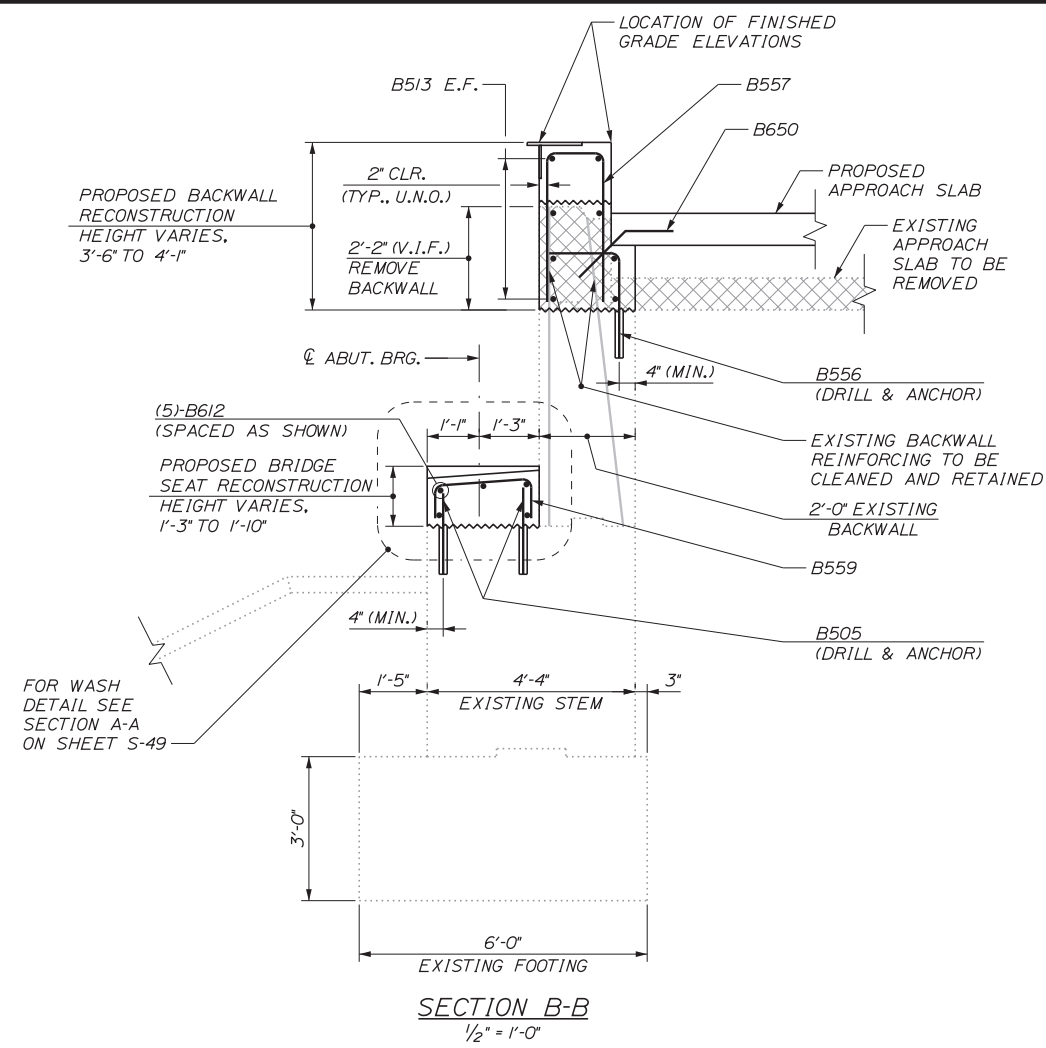
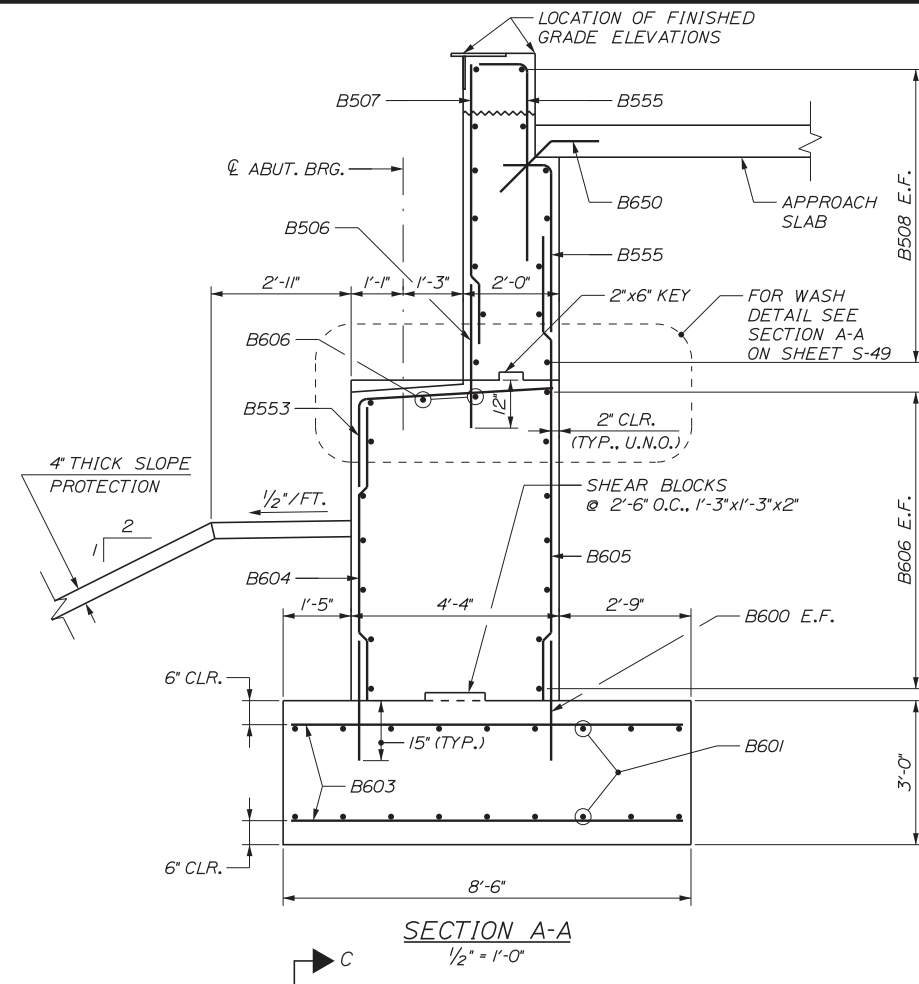
THE GOLD STAR MEMORIAL HIGHWAY

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
ABUTMENT NO. 1 & WINGWALL DETAILS

SHEET NUMBER: S-20
CONTRACT: 2018.05
127 OF 176

Filename: ...S-20_Abut1Sections.dgn

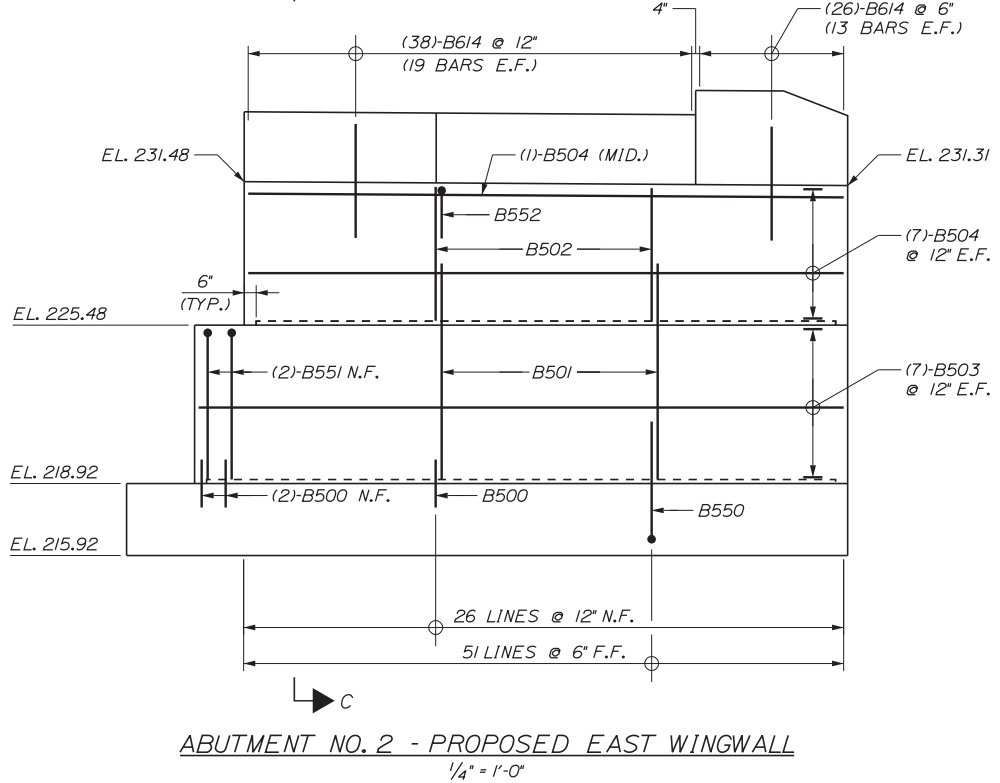
Date: 2/19/2018



NOTE
 ABUTMENT NO. 2 PROPOSED EAST WINGWALL SHOWN, ABUTMENT NO. 1 PROPOSED EAST WINGWALL SIMILAR (SEE SHEETS S-12, S-14 AND S-20 FOR WINGWALL FOOTING GEOMETRY AND BAR MARKS).

SECTION C-C
 1/2" = 1'-0"

NOTE
 REFER TO SHEET S-20 FOR ABUTMENT NOTES.



Scale:

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

ABUTMENT NO. 2 & WINGWALL DETAILS

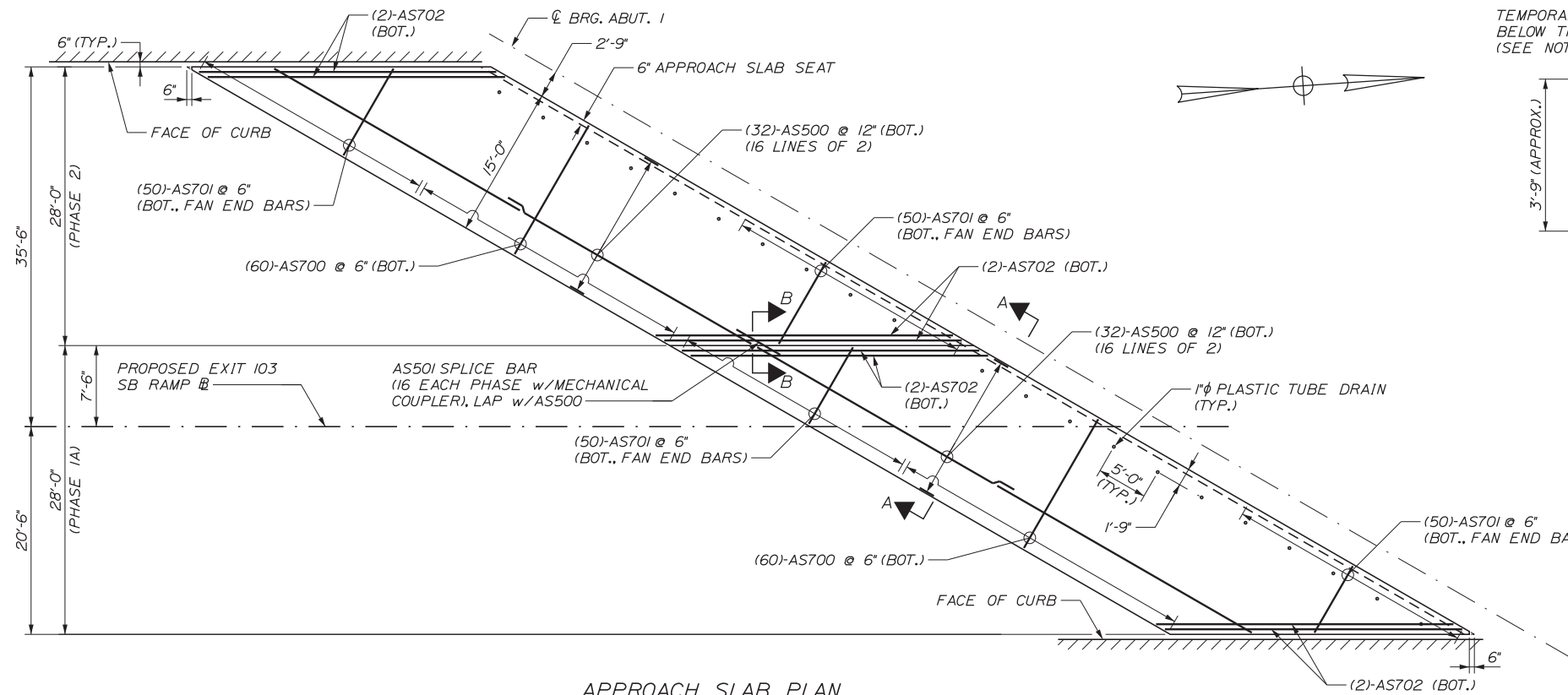
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CONTRACT: 2018.05

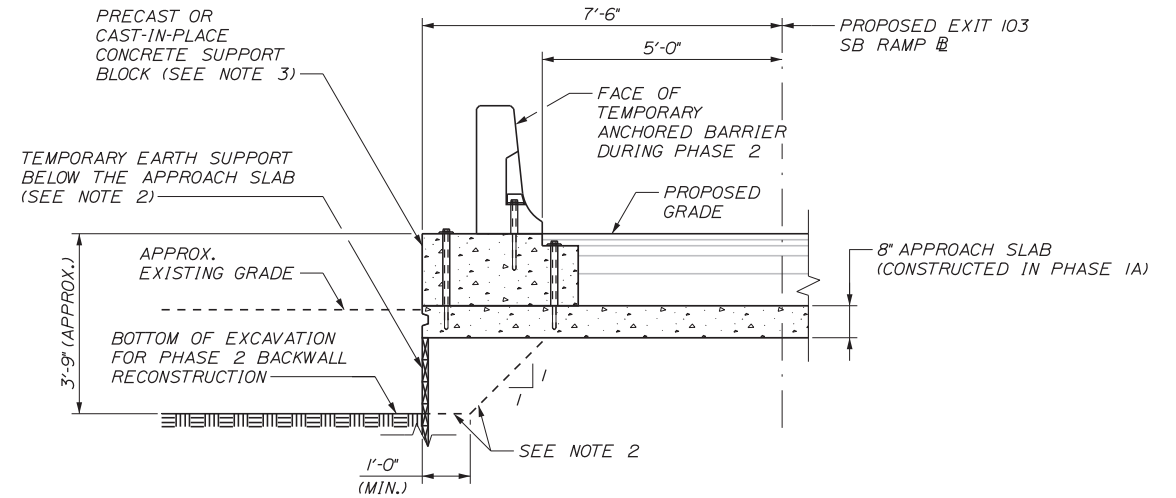
128 OF 176

Filename: ...S-21-Abut2Sections.dgn

Date: 2/19/2018



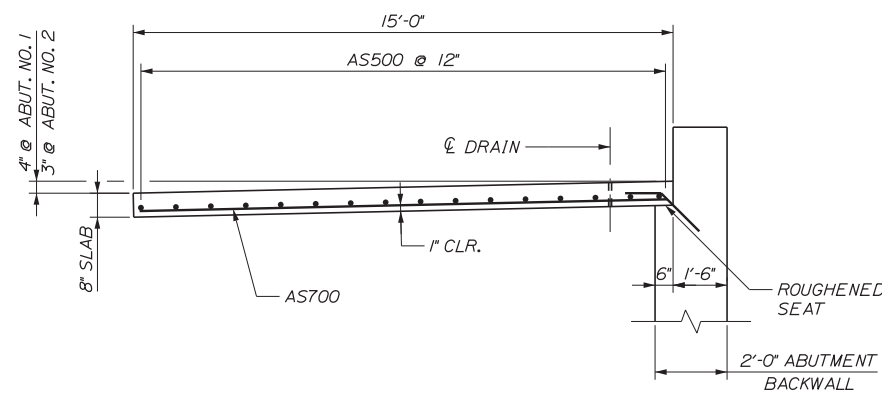
APPROACH SLAB PLAN
 (APPROACH SLAB @ ABUTMENT NO. 1 SHOWN,
 APPROACH SLAB @ ABUTMENT NO. 2 OPPOSITE HAND)
 $\frac{1}{8}'' = 1'-0''$



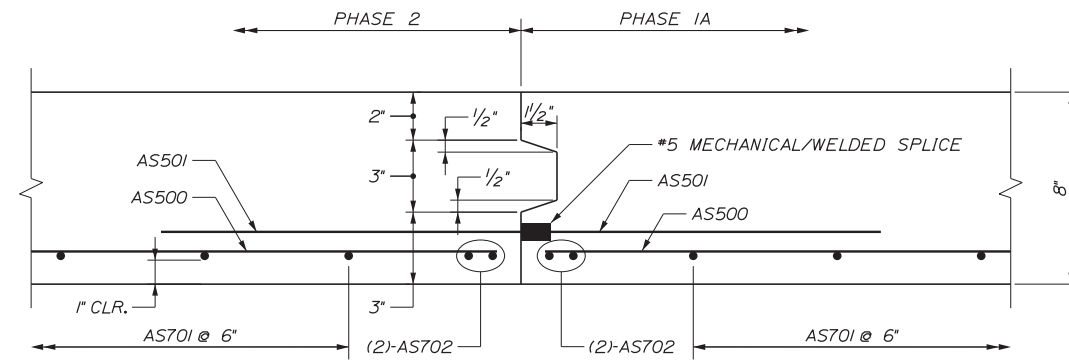
NOTES

1. TEMPORARY EARTH SUPPORT DETAIL SHOWN HERE IS SCHEMATIC ONLY AND SHALL BE DESIGNED BY THE CONTRACTOR.
2. AT CONTRACTOR'S OPTION, THE EDGE OF THE APPROACH SLAB ALONG THE CONSTRUCTION JOINT MAY BE THICKENED IN LIEU OF AN INDEPENDENT EARTH SUPPORT SYSTEM BELOW THE APPROACH SLAB.
3. THE CONCRETE SUPPORT BLOCK SHALL BE ANCHORED INTO THE TOP OF THE APPROACH SLAB AND SHALL BE DESIGNED AND DETAILED TO FACILITATE REMOVAL IN FINAL CONDITION.

TEMPORARY EARTH SUPPORT DETAIL
ALONG APPROACH SLAB CONSTRUCTION JOINT
 (LOOKING UPSTATION)
 NOT TO SCALE



SECTION A-A
 $\frac{3}{8}'' = 1'-0''$



SECTION B-B
 $3'' = 1'-0''$

Filename: ...MSTA_60\A\S-22_AppSlab.dgn

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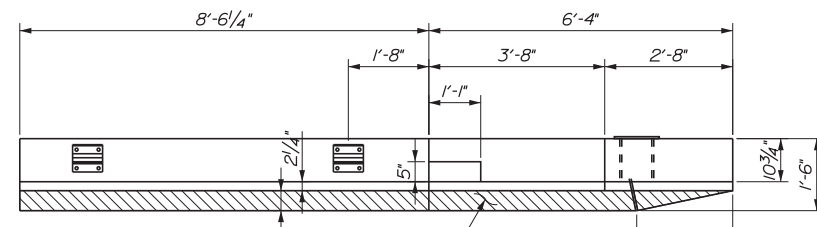
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

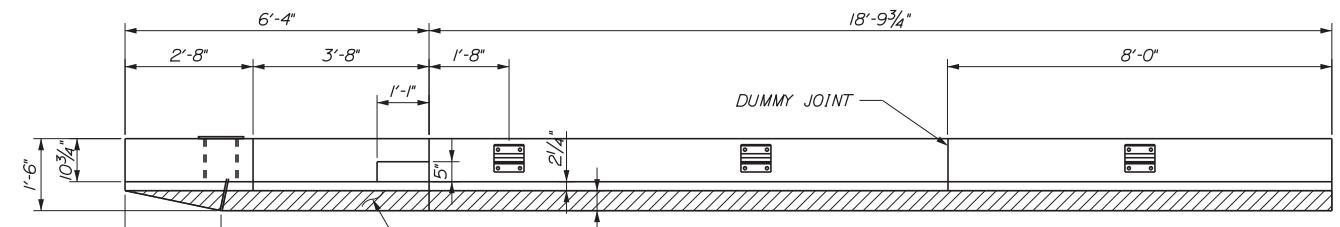
APPROACH SLAB DETAILS

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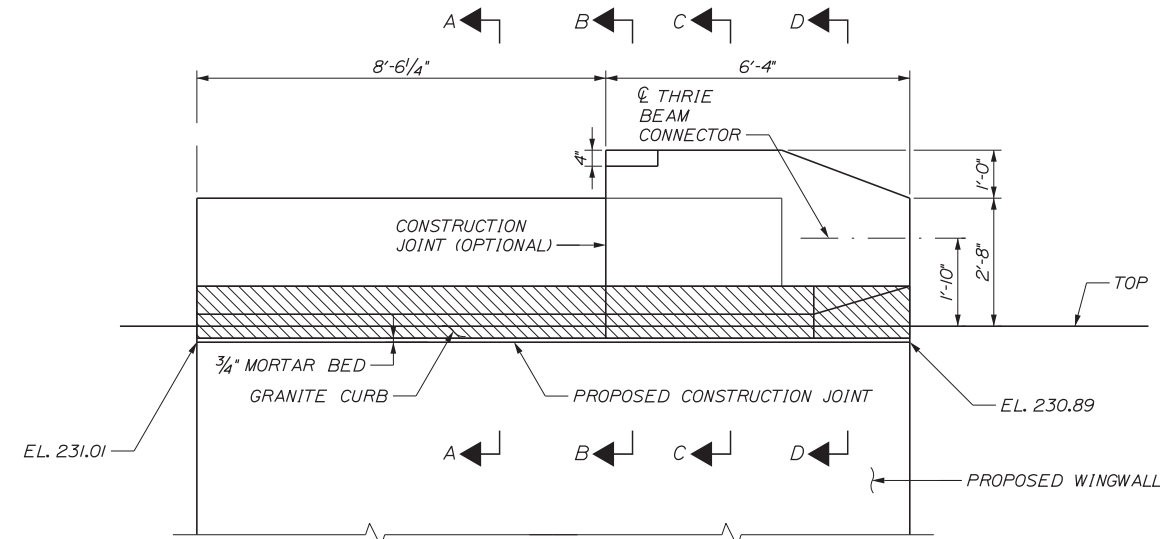
Date: 2/19/2018



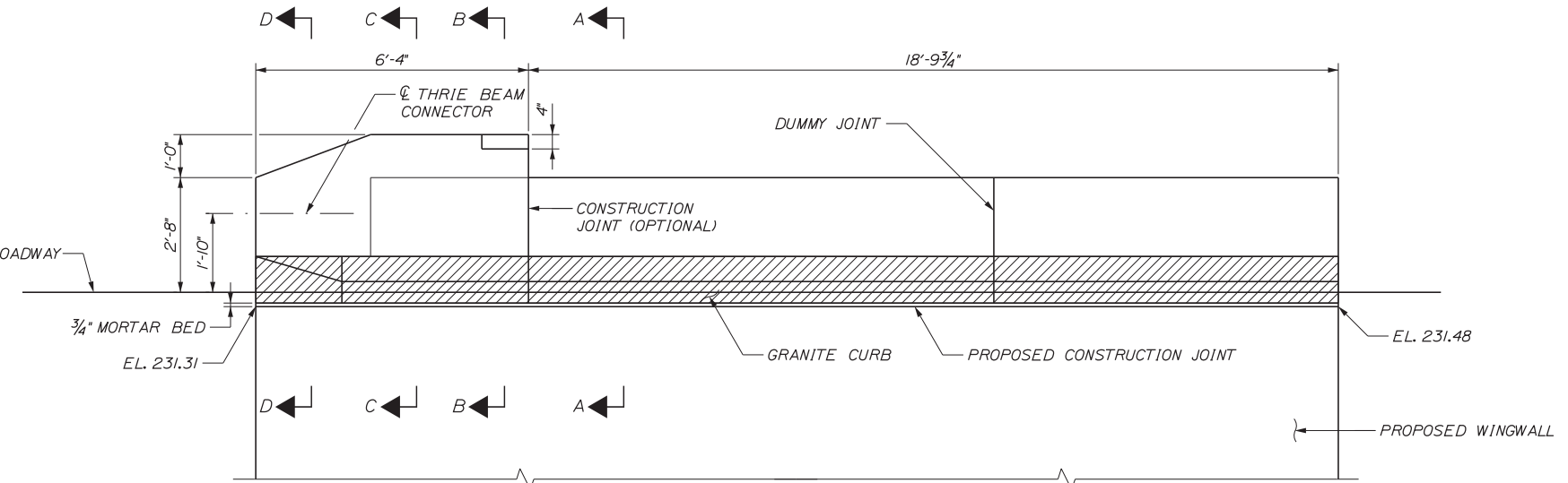
PROPOSED GRANITE CURB
(SEE SHEET S-46 FOR DETAILS)
PLAN



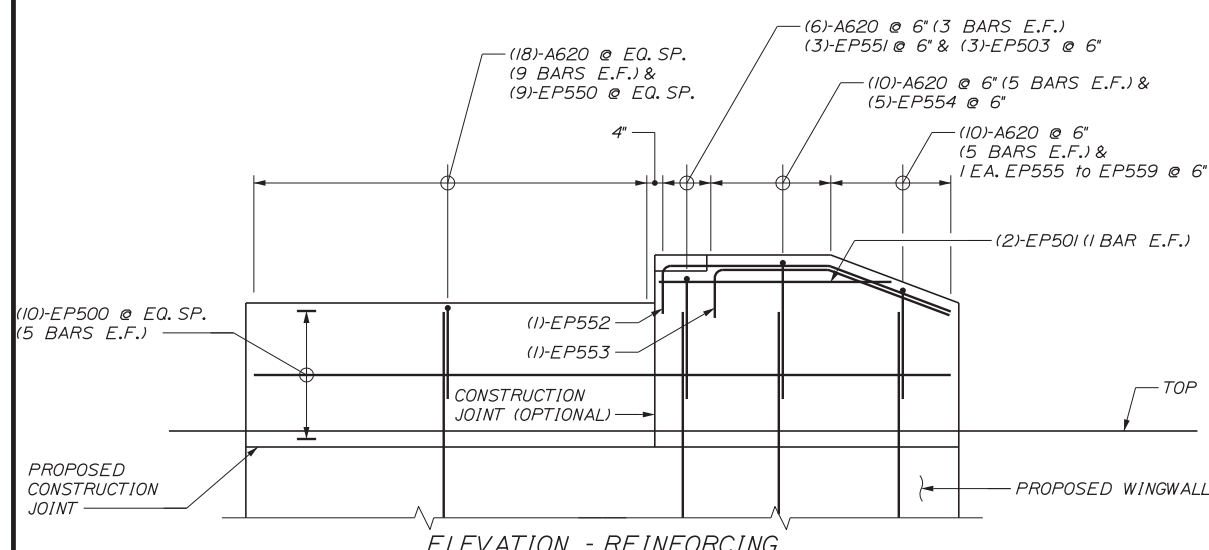
PROPOSED GRANITE CURB
(SEE SHEET S-46 FOR DETAILS)
PLAN



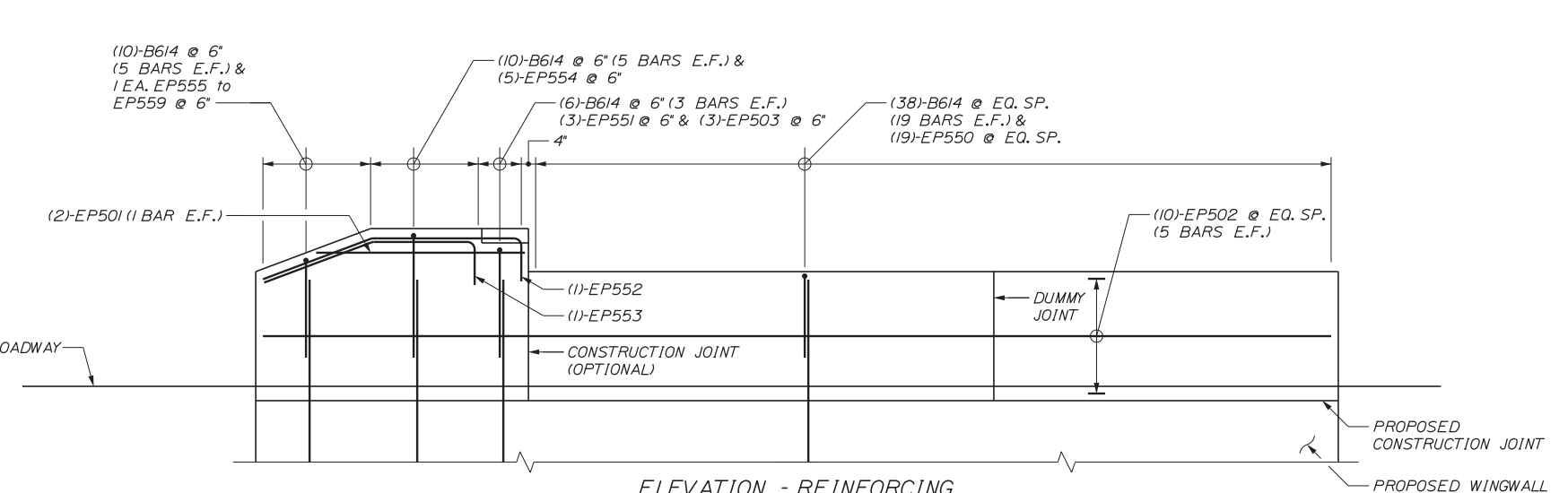
ELEVATION



ELEVATION



ELEVATION - REINFORCING



ELEVATION - REINFORCING

ABUTMENT NO. 1 - PROPOSED EAST WINGWALL
1/2" = 1'-0"

ABUTMENT NO. 2 - PROPOSED EAST WINGWALL
1/2" = 1'-0"

NOTE:
SEE SHEET S-25 FOR SECTIONS.

Filename: ...MSTA_60\AS-23_WWdetails1.dgn

Scale:			
No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
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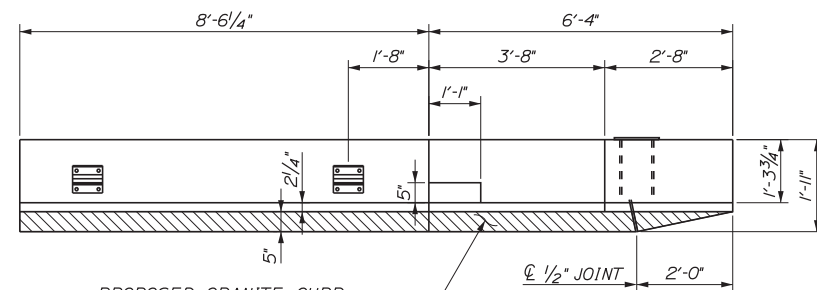
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
WINGWALL PARAPET & ENDPOST DETAILS
PROPOSED WINGWALLS

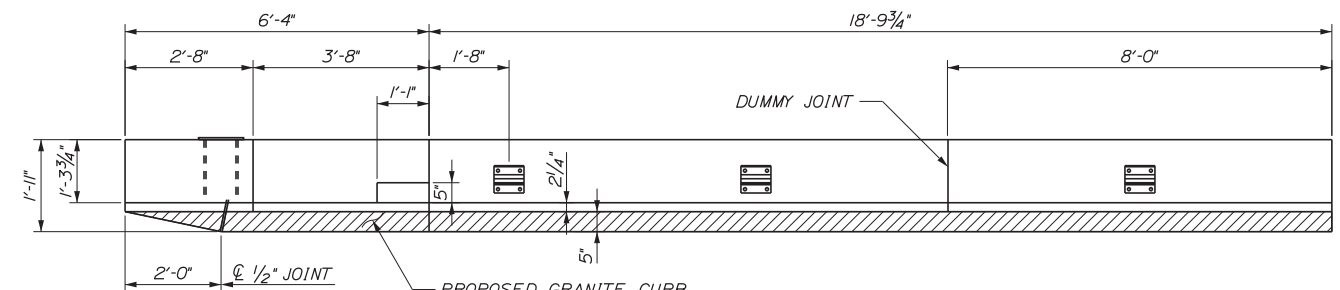
SHEET NUMBER: S-23
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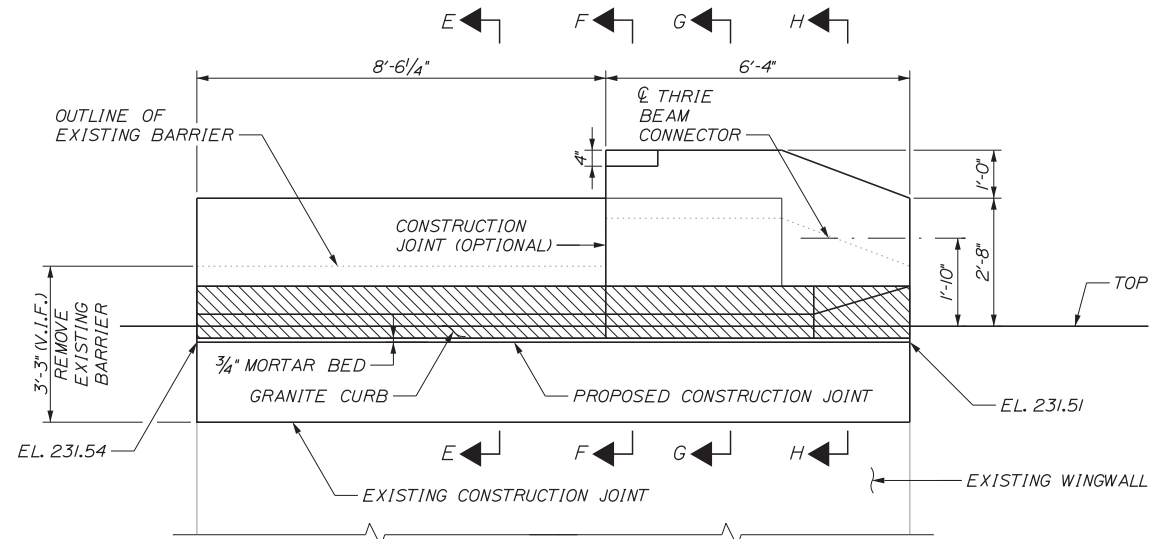
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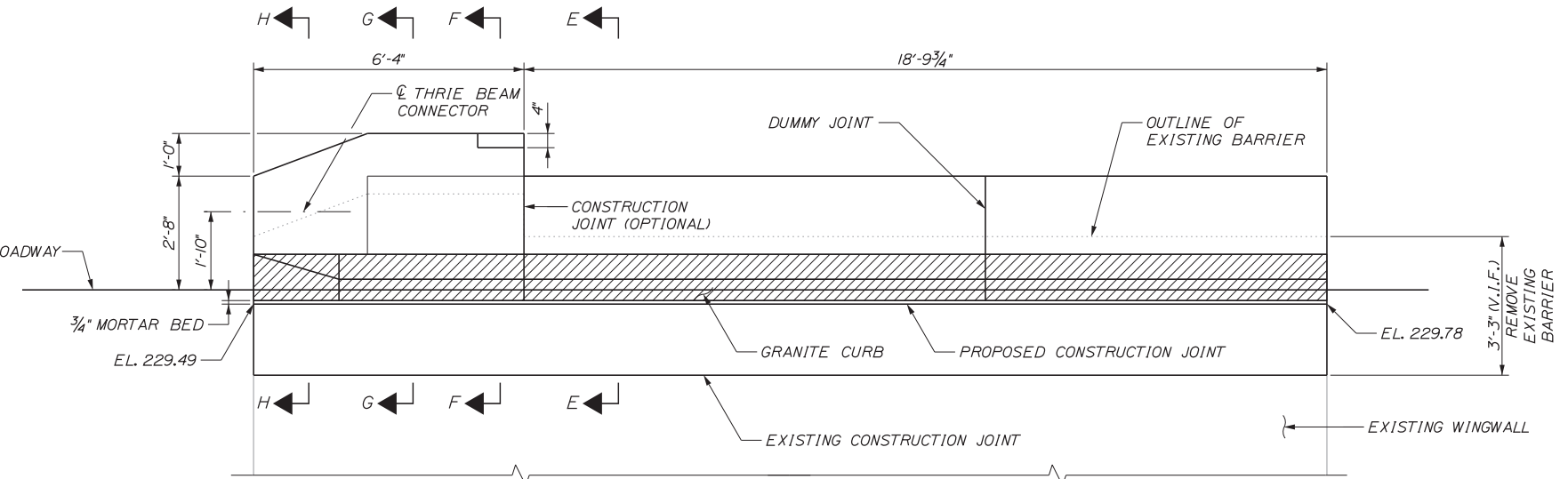
PROPOSED GRANITE CURB
(SEE SHEET S-46 FOR DETAILS)
PLAN



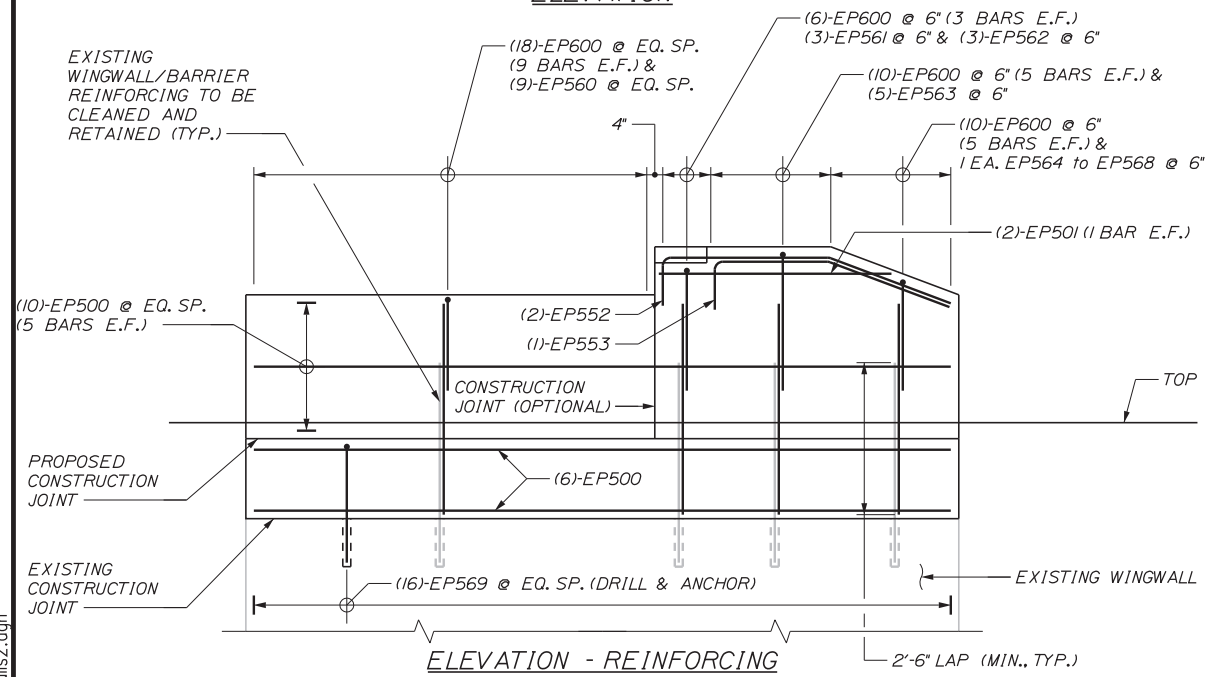
PROPOSED GRANITE CURB
(SEE SHEET S-46 FOR DETAILS)
PLAN



ELEVATION

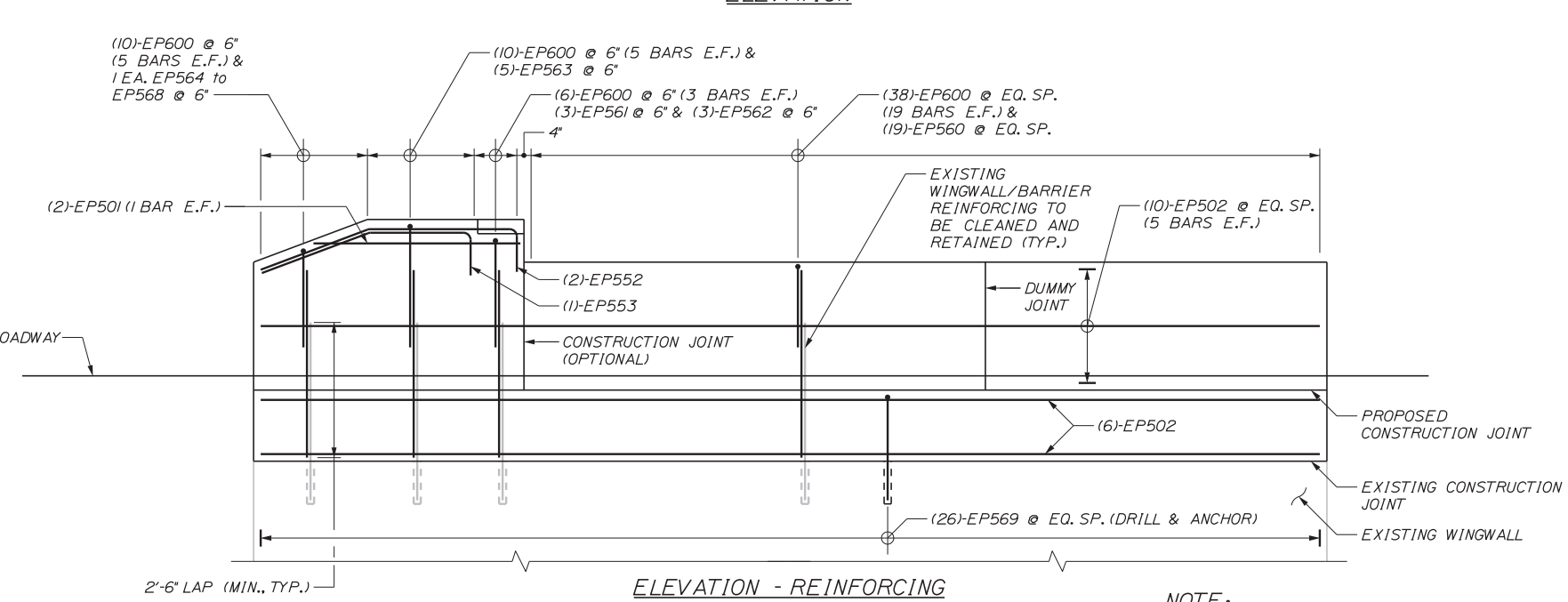


ELEVATION



ELEVATION - REINFORCING

ABUTMENT NO. 2 - EXISTING WEST WINGWALL
1/2" = 1'-0"



ELEVATION - REINFORCING

ABUTMENT NO. 1 - EXISTING WEST WINGWALL
1/2" = 1'-0"

NOTE:
SEE SHEET S-25 FOR SECTIONS.

No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
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Drawn	JTB	2\16\18	In Charge of	GAE	2\16\18

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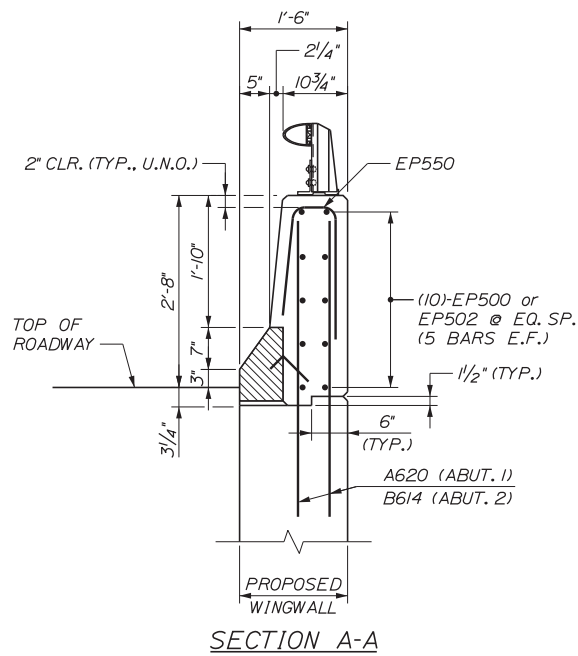
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
WINGWALL PARAPET & ENDPOST DETAILS
EXISTING WINGWALLS

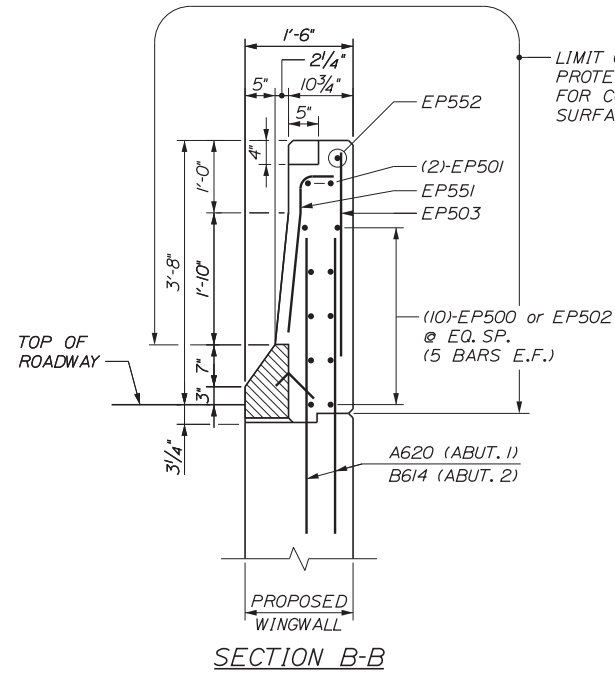
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CONTRACT: 2018.05
131 OF 176

Date: 2/19/2018

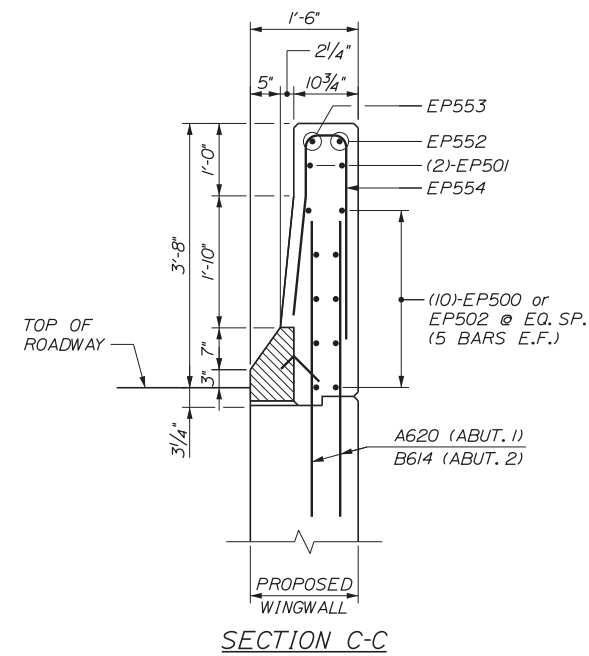
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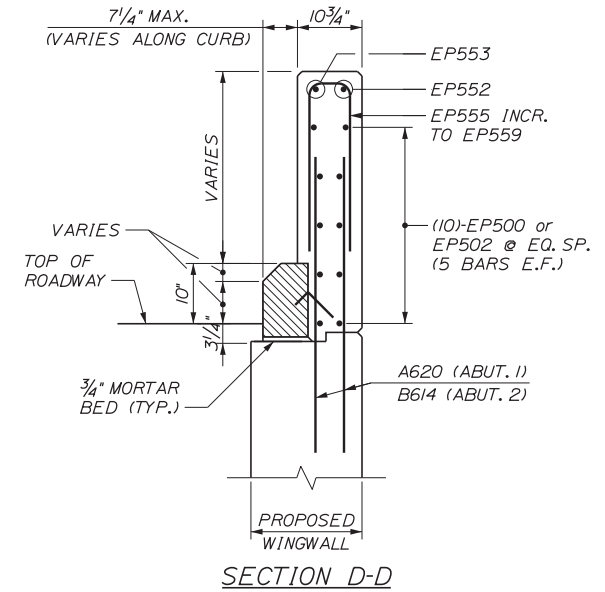
SECTION A-A



SECTION B-B



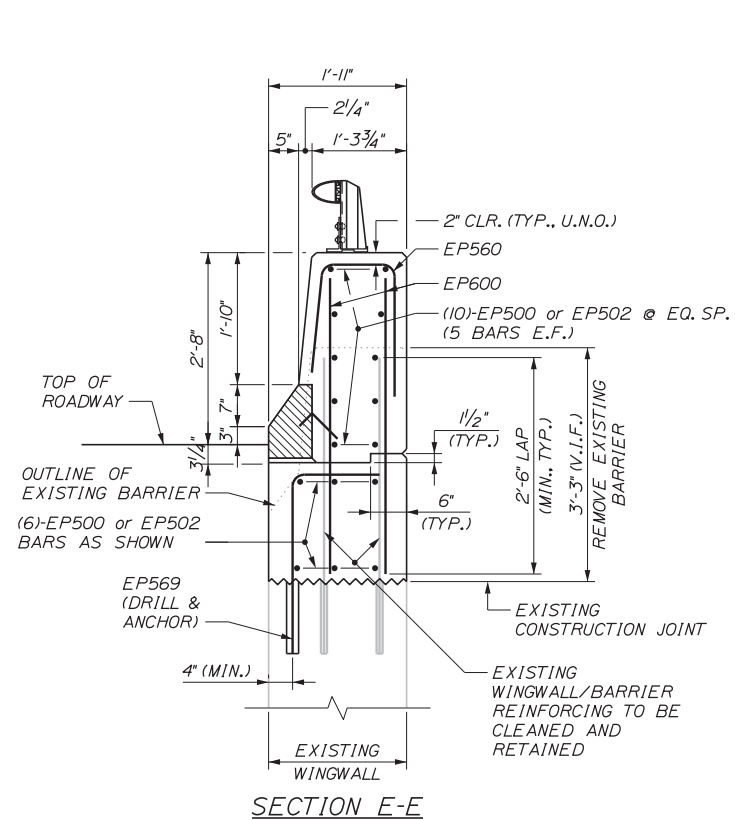
SECTION C-C



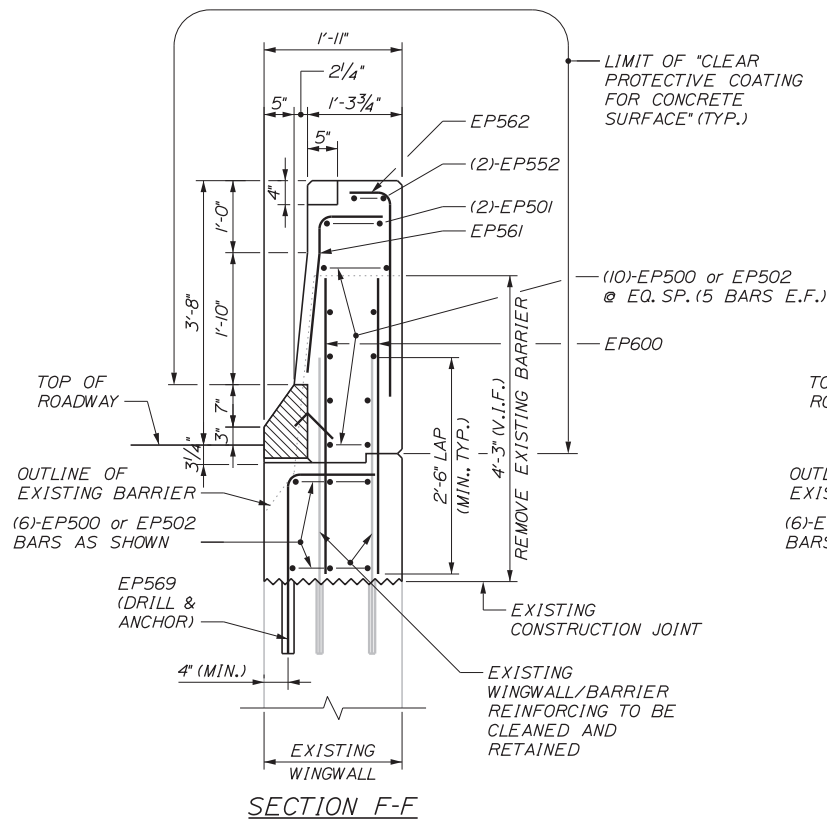
SECTION D-D

PROPOSED WINGWALL SECTIONS

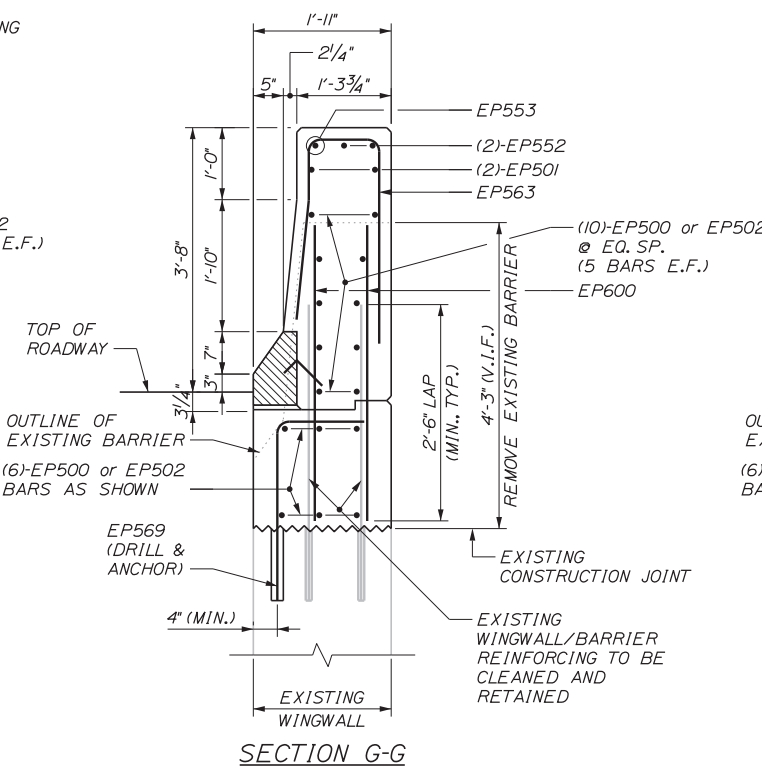
3/4" = 1'-0"



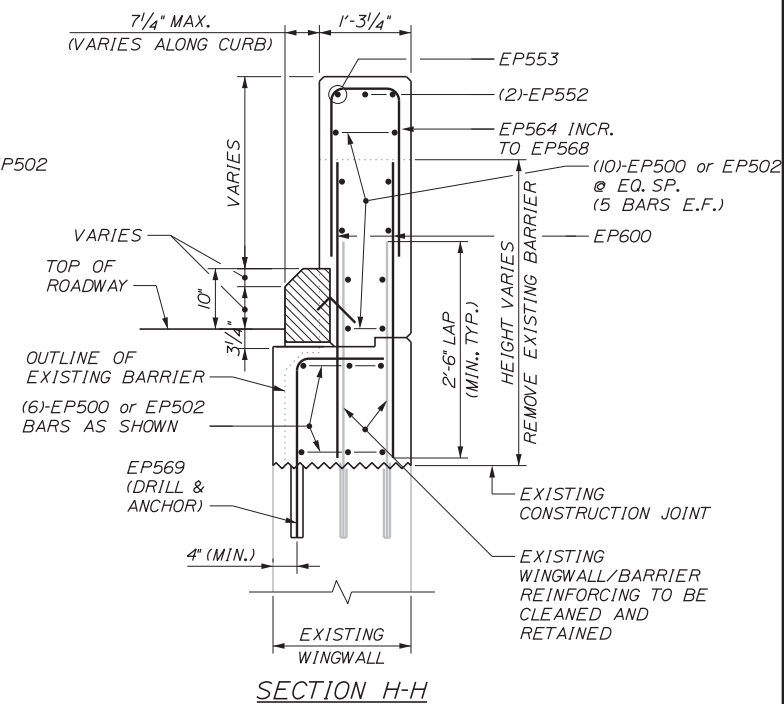
SECTION E-E



SECTION F-F



SECTION G-G



SECTION H-H

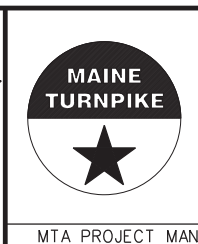
EXISTING WINGWALL SECTIONS

3/4" = 1'-0"

No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
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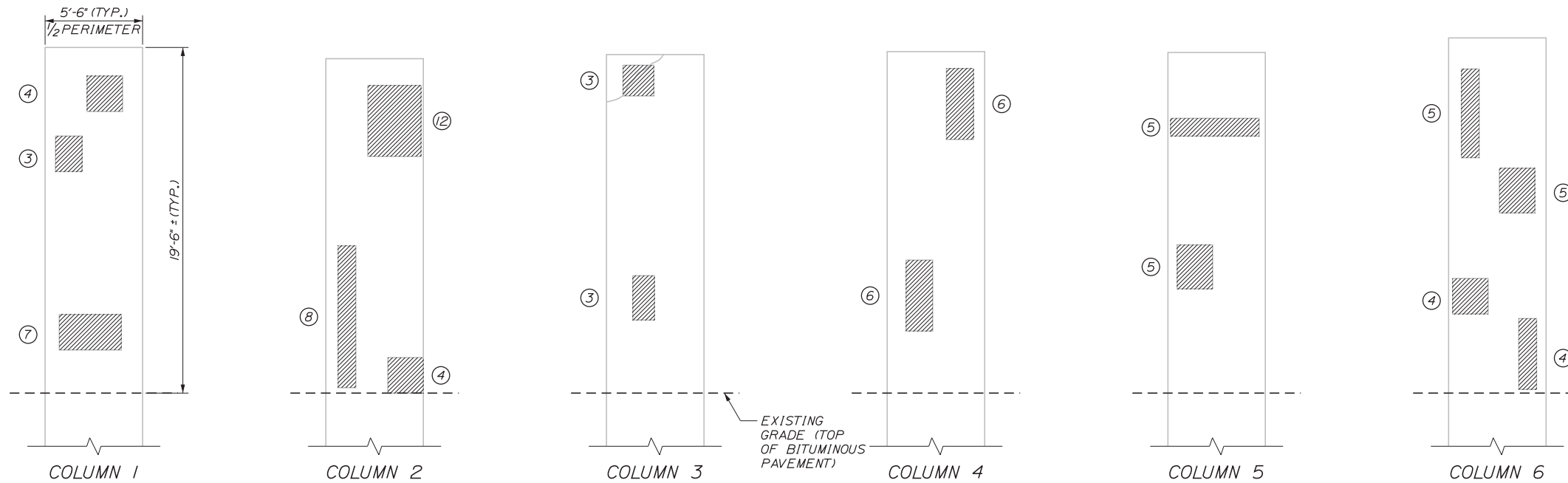
**THE GOLD STAR
 MEMORIAL HIGHWAY**

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 WINGWALL PARAPET & ENDPOST DETAILS
 SECTIONS

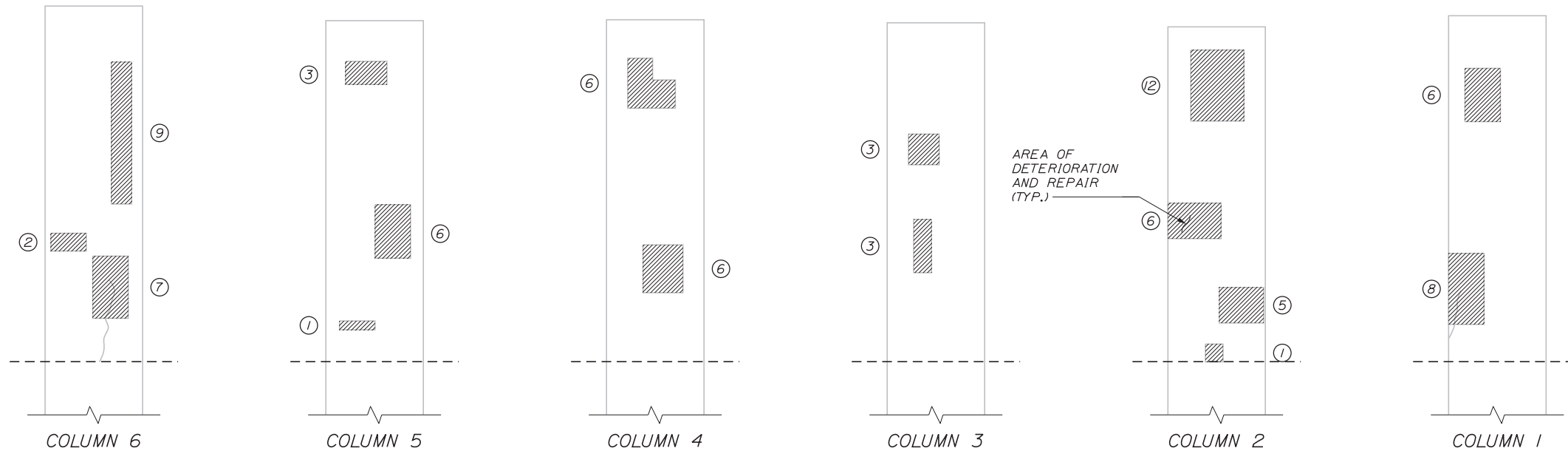
SHEET NUMBER: S-25
 CONTRACT: 2018.05
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Date: 2/19/2018

Filename: ...MSTA_60\AS-26_Pier1Repair.dgn



PIER 1, EAST ELEVATION LOOKING WEST
 (→ DIRECTION OF NB TRAFFIC)
 NOT TO SCALE



PIER 1, WEST ELEVATION LOOKING EAST
 (← DIRECTION OF NB TRAFFIC)
 NOT TO SCALE

LEGEND

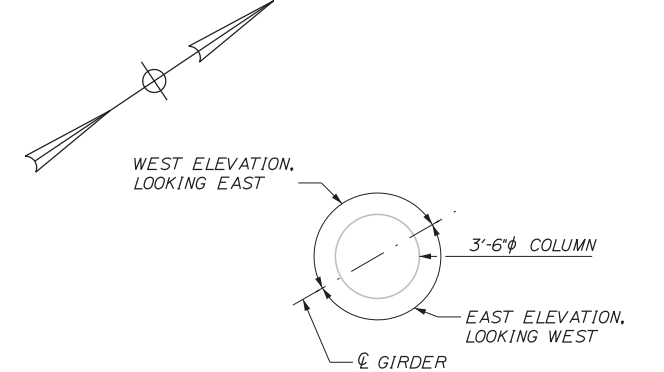
- LIMIT OF SURFACE PATCH REPAIR
- ESTIMATED SQUARE FOOT AREA OF REPAIR
- EPOXY INJECTION CRACK REPAIR

PIER 1 - ESTIMATED AREA OF REPAIR

COLUMN SURFACES 168 SF *
 EPOXY INJECTION CRACK REPAIR 12 LF
 *INCLUDES 15% SF ADDITIONAL AREA AS A CONTINGENCY

GENERAL NOTES

1. PIER REPAIR WORK SHALL INCLUDE PROVIDING ACCESS FOR INSPECTION, PIER SURFACE PATCH REPAIRS, AND SURFICIAL EXCAVATION TO PERFORM REPAIRS UP TO 6' BELOW GRADE.
2. WHERE PIER SURFACE PATCH REPAIRS ARE SPECIFIED THE WORK SHALL INCLUDE REMOVAL OF UNSOUND CONCRETE AND PLACEMENT AND CURING OF REPAIR MATERIALS. REPAIRS SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 518.20, PIER REPAIRS.
3. THE CONTRACTOR SHALL PROVIDE STAGING, OR ANOTHER ACCEPTABLE MEANS OF ACCESS, AT ALL PIER LOCATIONS THAT WILL ALLOW THE RESIDENT TO SAFELY PERFORM A DETAILED CONCRETE INSPECTION OF ALL PIER SURFACES. THIS WORK SHALL BE INCIDENTAL TO PAY ITEM 518.20, PIER REPAIRS.
4. THE CONTRACTOR SHALL NOT REMOVE GREATER THAN ONE-HALF OF THE CIRCUMFERENCE OF THE COLUMN AT ANY ONE LOCATION WHILE TRAFFIC IS ON THE BRIDGE. IF THE DETERIORATED AREA OF THE PIER COLUMN EXCEEDS ONE-HALF OF THE CIRCUMFERENCE OF THE COLUMN THE REMOVAL AND SUBSEQUENT REPAIR OF THE CONCRETE SURFACE SHALL BE PERFORMED IN PHASES AND AS DIRECTED BY THE RESIDENT.
5. THE QUANTITIES OF PIER REPAIR NOTED ON THESE DRAWINGS HAVE BEEN DEVELOPED BASED PRIMARILY ON VISUAL AND TACTILE INSPECTION OF THE PIERS FROM THE GROUND LEVEL. ACTUAL REPAIR AREAS WILL BE DETERMINED BY THE RESIDENT DURING CONSTRUCTION.
6. TEMPORARY CONCRETE BARRIER, TYPE I MAY BE USED FOR CLOSURES DURING PIER REPAIRS AS SHOWN IN THE MOT DETAILS.
7. CONTRACTOR SHALL NOTE THAT EXISTING GRADE AT BASE OF COLUMNS IS SLOPING. EXISTING GRADE IN DRAWING IS SHOWN LEVEL FOR SIMPLIFICATION.
8. SEE SHEET S-27 FOR CONCRETE SURFACE PATCH REPAIR DETAILS AND ADDITIONAL NOTES.



TYPICAL PIER PLAN VIEW

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	SJW	2\16\18	Checked	GAB	2\16\18
Drawn	KW	2\16\18	In Charge of	GAE	2\16\18

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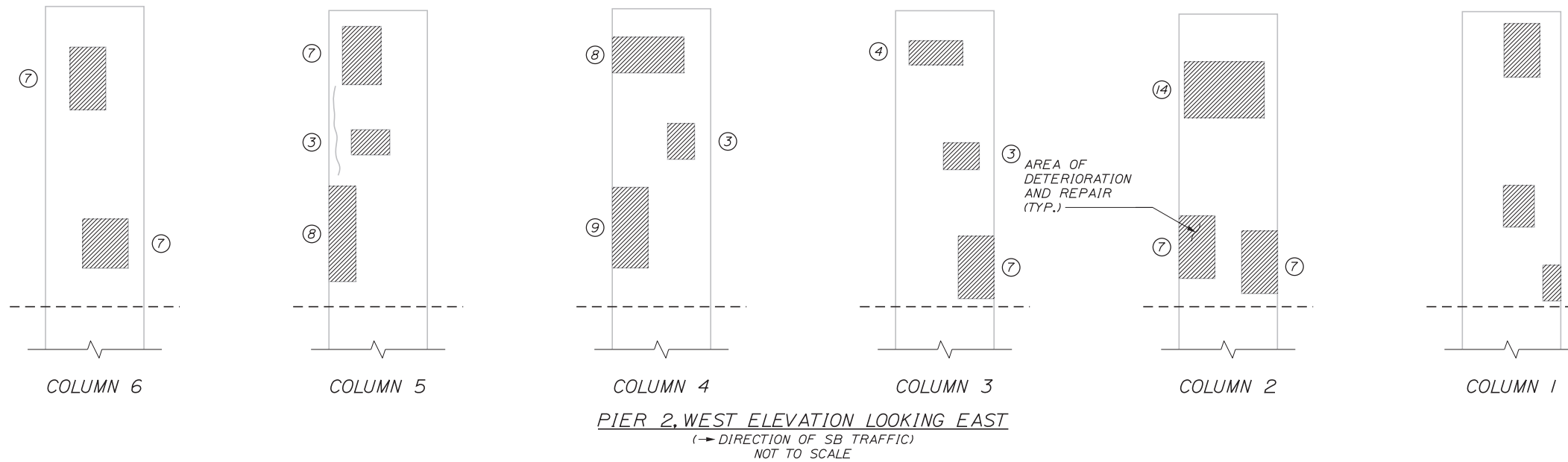
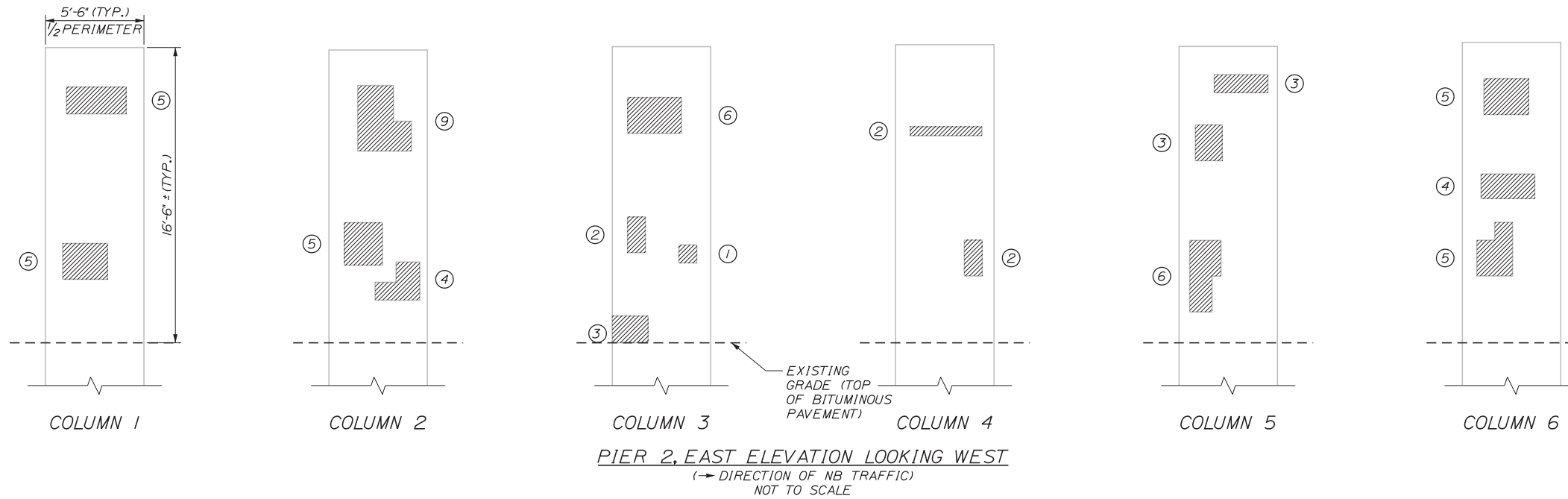
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 EXISTING PIER REPAIRS 1

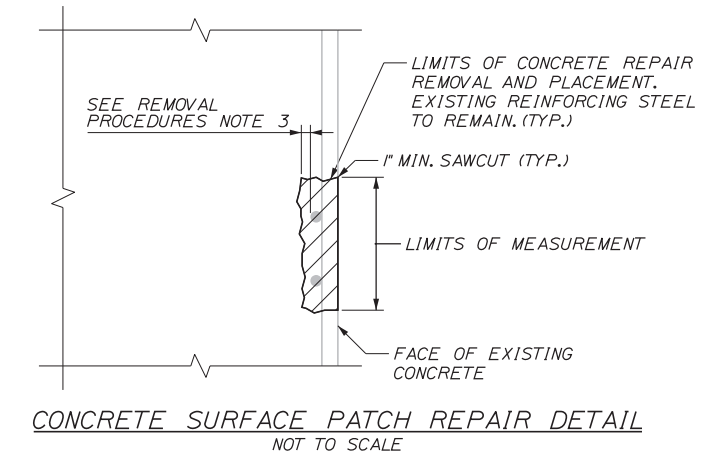
SHEET NUMBER: S-26
 CONTRACT: 2018.05
 133 OF 176

Date: 2/19/2018



LEGEND

- LIMIT OF SURFACE PATCH REPAIR
- ESTIMATED SQUARE FOOT AREA OF REPAIR
- EPOXY INJECTION CRACK REPAIR



GENERAL NOTES

1. SEE SHEET S-26 FOR ADDITIONAL NOTES.

REMOVAL PROCEDURES

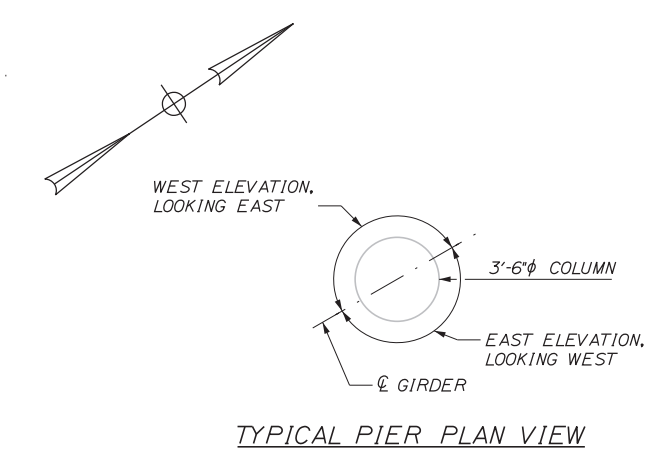
1. PRIOR TO THE START OF THE CONCRETE REMOVALS, THE RESIDENT AND THE CONTRACTOR SHALL SOUND THE CONCRETE AND AGREE ON THE REPAIR LIMITS. ESTIMATED REPAIR QUANTITY MAY INCREASE AT THE RESIDENT'S DISCRETION.
2. PERFORM 1 INCH DEEP SAWCUTS ALONG LIMITS OF REMOVAL.
3. CHIP CONCRETE TO DEPTH REQUIRED PER THE MTA SUPPLEMENTAL SPECIFICATIONS. IF THE LIMITS OF REMOVAL CHANGE DURING THE DEMOLITION PROCESS THE CONTRACTOR SHALL NOTIFY THE RESIDENT. THE RESIDENT AND CONTRACTOR SHALL AGREE ON THE REVISED PAY LIMITS PRIOR TO THE CONTRACTOR CONTINUING THE REMOVAL.

CONCRETE SURFACE PATCH/REPAIR PROCEDURE

1. PREPARE AND PATCH REPAIR AREAS WITH CLASS AAA-MODIFIED CONCRETE. SEE MTA SUPPLEMENTAL SPECIFICATIONS FOR MATERIAL PREPARATION, PLACEMENT, AND CURING REQUIREMENTS.
2. PERFORM GENERAL FINISHING (SEE GENERAL NOTE 11 ON SHEET S-01).

PIER 2 - ESTIMATED AREA OF REPAIR

COLUMN SURFACES..... 176 SF *
 EPOXY INJECTION CRACK REPAIR..... 5 LF
 *INCLUDES 15% SF ADDITIONAL AREA AS A CONTINGENCY



Filename: ...MSTA_60\AS-27_Pier2Repair.dgn

Scale:			
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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

EXISTING PIER REPAIRS 2

SHEET NUMBER: S-27




CONTRACT: 2018.05

134 OF 176

Date: 2/19/2018

Filename: ...MSTA_60\AS-28_Pier3Repair.dgn

LEGEND

-  LIMIT OF SURFACE PATCH REPAIR
-  ESTIMATED SQUARE FOOT AREA OF REPAIR
-  EPOXY INJECTION CRACK REPAIR

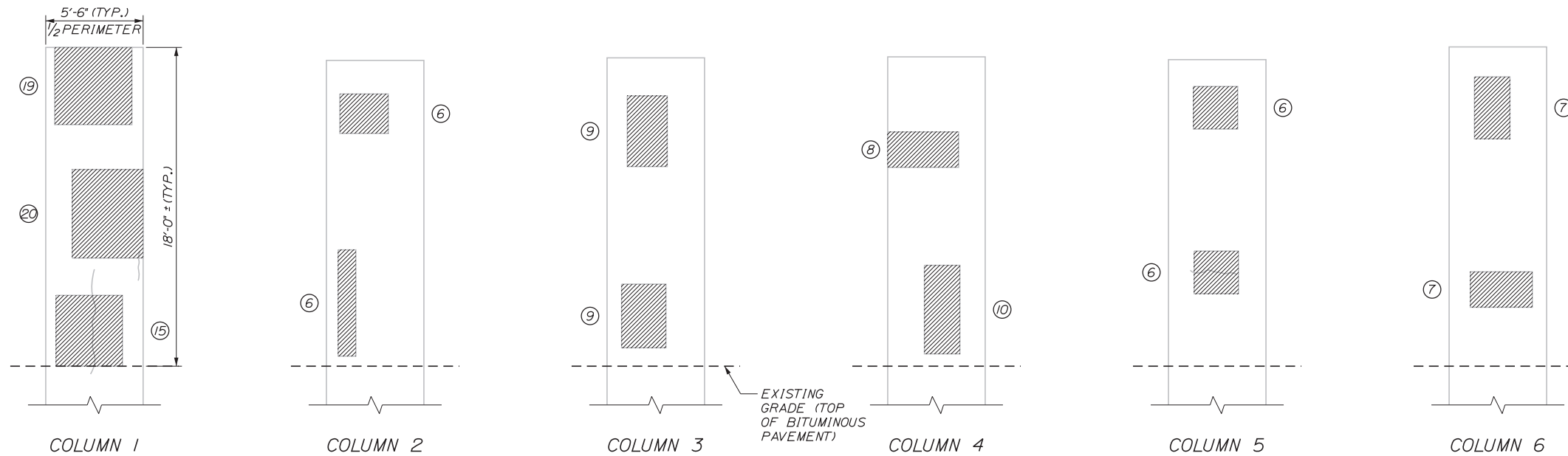
PIER 3 - ESTIMATED AREA OF REPAIR

COLUMN SURFACES 256 SF *
 EPOXY INJECTION CRACK REPAIR 10 LF

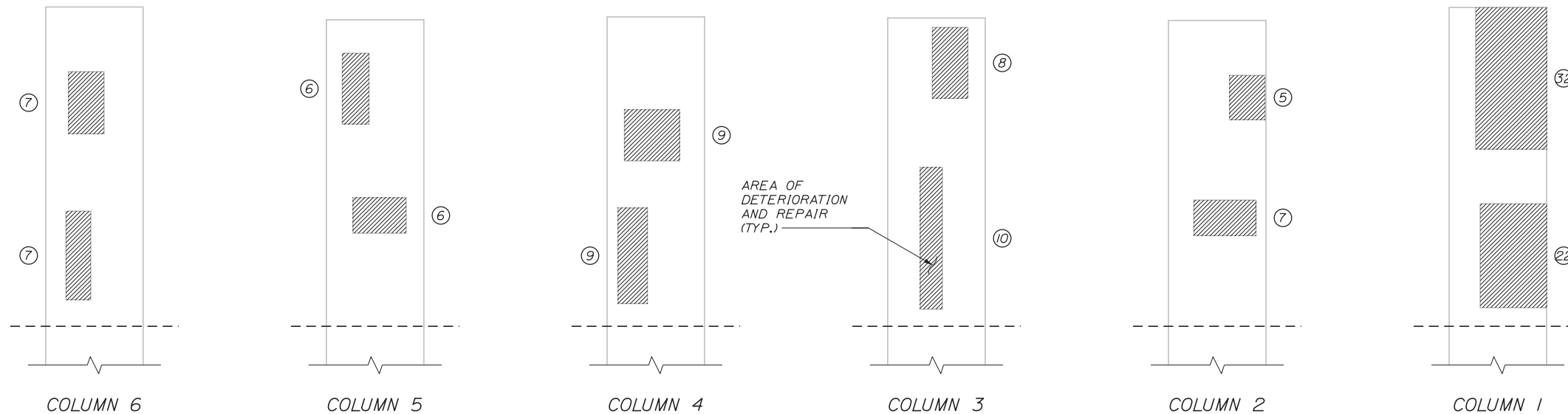
*INCLUDES 15% SF ADDITIONAL AREA AS A CONTINGENCY

NOTES

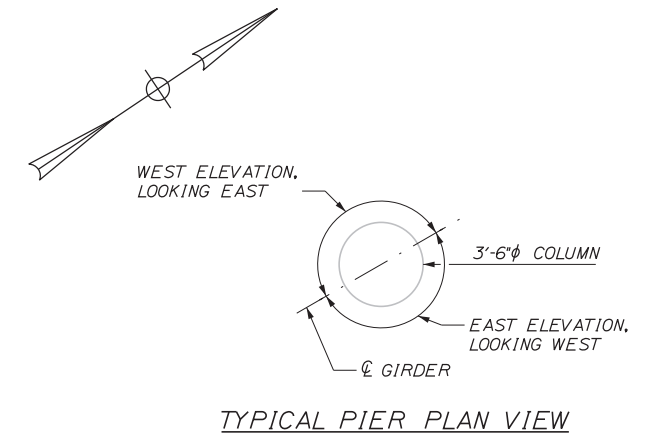
1. SEE SHEETS S-26 AND S-27 FOR NOTES AND REPAIR DETAILS.



PIER 3, EAST ELEVATION LOOKING WEST
 (← DIRECTION OF SB TRAFFIC)
 NOT TO SCALE




PIER 3, WEST ELEVATION LOOKING EAST
 (→ DIRECTION OF SB TRAFFIC)
 NOT TO SCALE



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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

EXISTING PIER REPAIRS 3

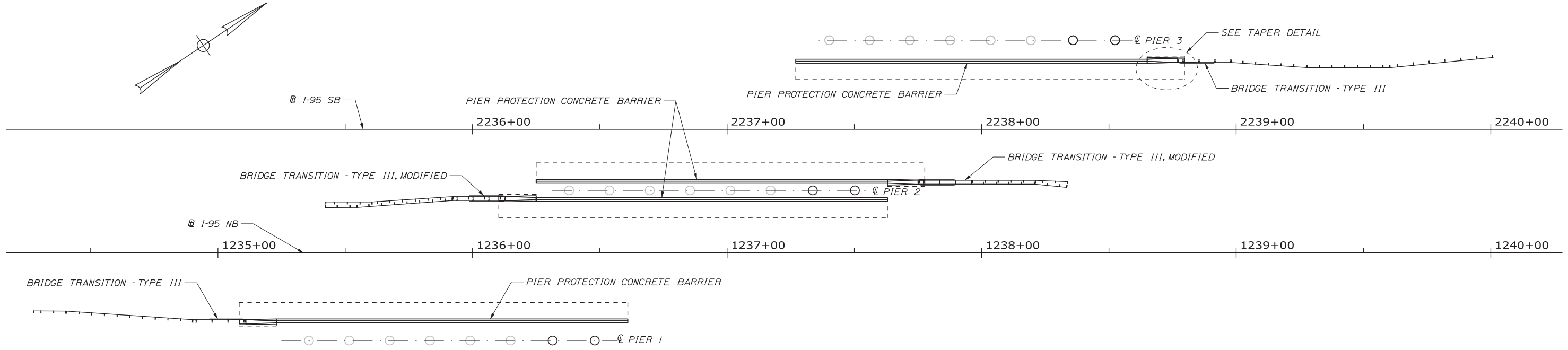
SHEET NUMBER: S-28

CONTRACT: 2018.05

135 OF 176

Date: 2/19/2018

Filename: ...S-31_PierProtect_1.dgn



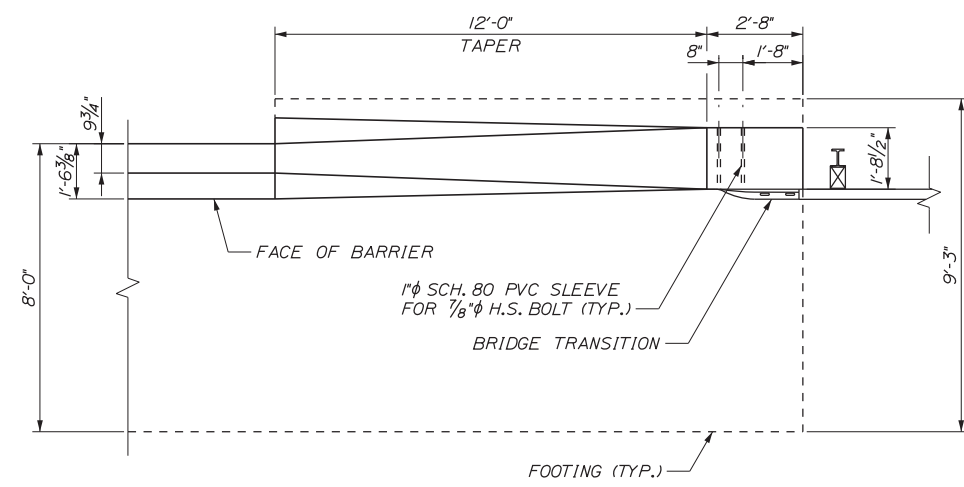
PLAN
1" = 20'

PIER PROTECTION CONCRETE BARRIER NOTES

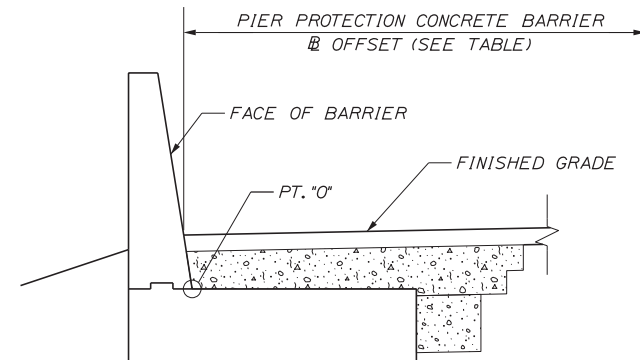
1. APPLY ITEM 515.202, CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES TO ALL EXPOSED SURFACES OF THE PROPOSED PIER PROTECTION CONCRETE BARRIER.
2. ALL REINFORCING BARS IN THE PIER PROTECTION CONCRETE BARRIER SHALL BE EPOXY COATED.
3. PIER PROTECTION CONCRETE BARRIER SHALL BE PAID UNDER ITEM 526.35.
4. REINFORCING BARS IN FOOTING CONTINUOUS THROUGH CONTRACTION JOINTS AND END 2" CLEAR FROM EXPANSION JOINT. ALL OTHER REINFORCING BARS END 2" CLEAR FROM BOTH CONTRACTION AND EXPANSION JOINTS.

526.35 PIER PROTECTION CONCRETE BARRIER

BEGIN	1235+08.33, 26.27' RT TO 1235+11.00, 26.27' RT	2.67 LF
	1235+11.00, 26.27' RT TO 1235+23.00, 26.00' RT	12.00 LF
END	1235+23.00, 26.00' RT TO 1236+61.00, 26.00' RT	138.00 LF
BEGIN	1236+10.33, 20.44' LT TO 1236+13.00, 20.44' LT	2.67 LF
	1236+13.00, 20.44' LT TO 1236+25.00, 20.17' LT	12.00 LF
END	1236+25.00, 20.17' LT TO 1237+63.00, 20.17' LT	138.00 LF
BEGIN	2236+25.00, 19.67' RT TO 2237+63.00, 19.67' RT	138.00 LF
	2237+63.00, 19.67' RT TO 2237+75.00, 19.94' RT	12.00 LF
END	2237+75.00, 19.94' RT TO 2237+77.67, 19.94' RT	2.67 LF
BEGIN	2237+27.00, 26.00' LT TO 2238+65.00, 26.00' LT	138.00 LF
	2238+65.00, 26.00' LT TO 2238+77.00, 26.27' LT	12.00 LF
END	2238+77.00, 26.27' LT TO 2238+79.67, 26.27' LT	2.67 LF



TAPER DETAIL
3/8" = 1'-0"



TYPICAL SECTION
3/8" = 1'-0"

PT. "0"

1235+08.33	26.27' RT
1235+11.00	26.27' RT
1235+23.00	25.85' RT
1236+61.00	25.74' RT
1236+10.33	20.44' LT
1236+13.00	20.44' LT
1236+25.00	20.03' LT
1237+63.00	19.92' LT
2236+25.00	19.49' RT
2237+63.00	19.39' RT
2237+75.00	19.94' RT
2237+77.67	19.94' RT
2237+27.00	25.83' LT
2238+65.00	25.71' LT
2238+77.00	26.27' LT
2238+79.67	26.27' LT

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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MAINE TURNPIKE

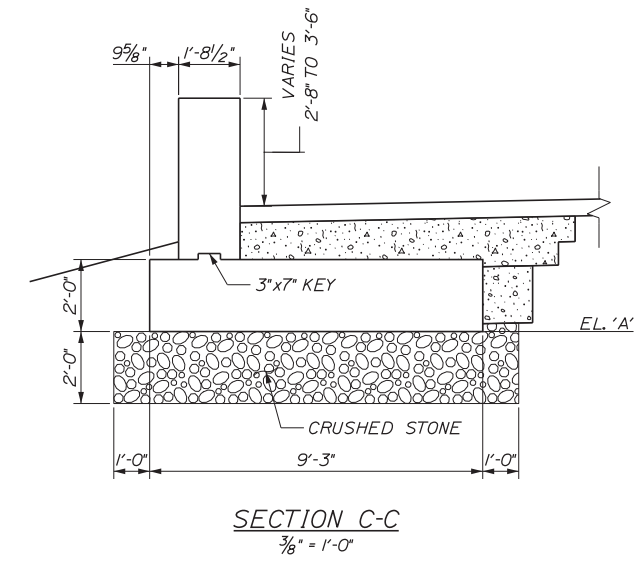
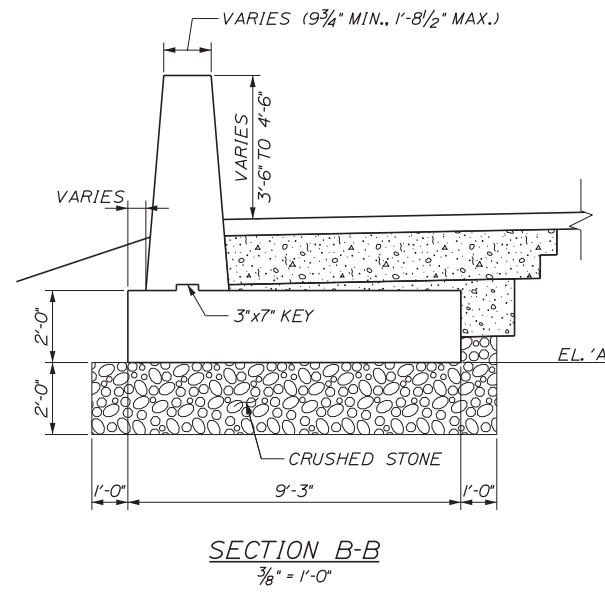
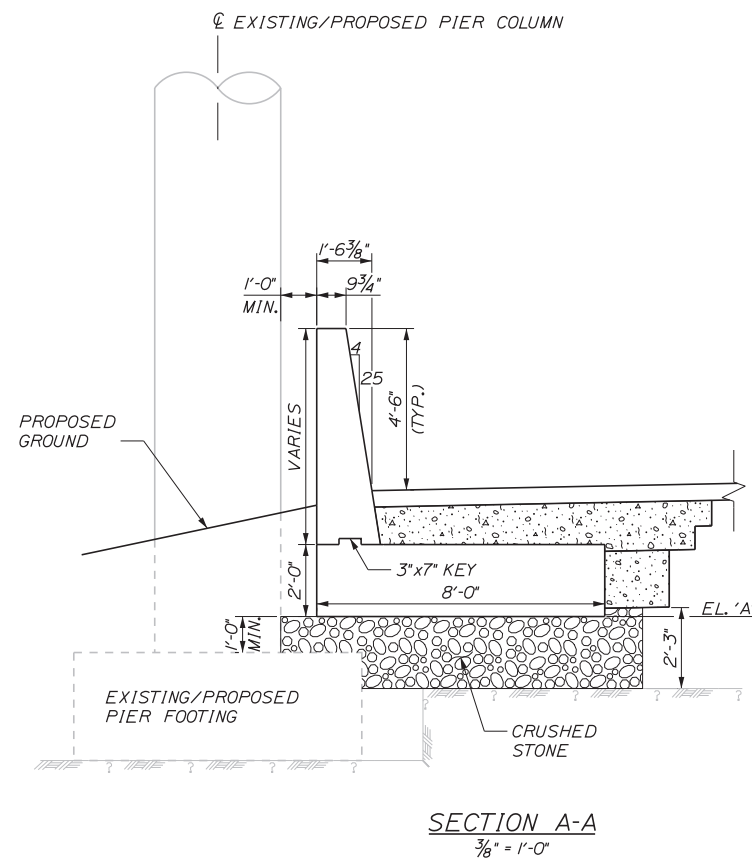
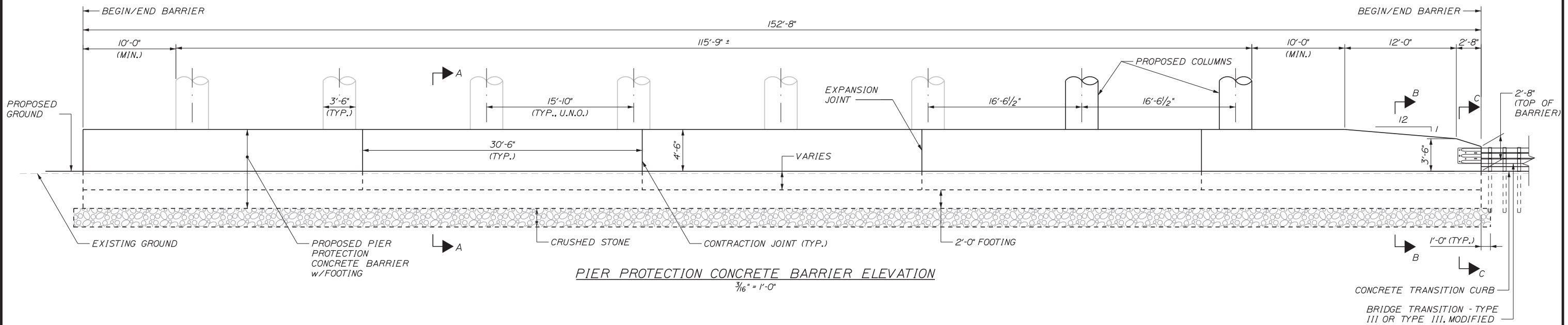
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PIER PROTECTION CONCRETE BARRIER
DETAILS 1

SHEET NUMBER: S-31
CONTRACT: 2018.05
138 OF 176

Date: 2/19/2018



BOTTOM OF FOOTING ELEVATIONS

LOCATION	EL. 'A'
1235+08.33 TO 1236+61.00	205.75
1236+10.33 TO 1237+63.00	206.50
2236+25.00 TO 2237+77.67	206.50
2237+27.00 TO 2238+79.67	206.75

Filename: ...S-32_PierProtect_2.dgn

Scale:

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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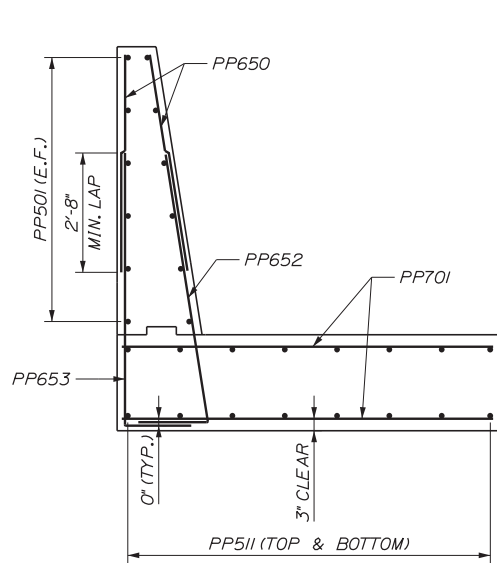
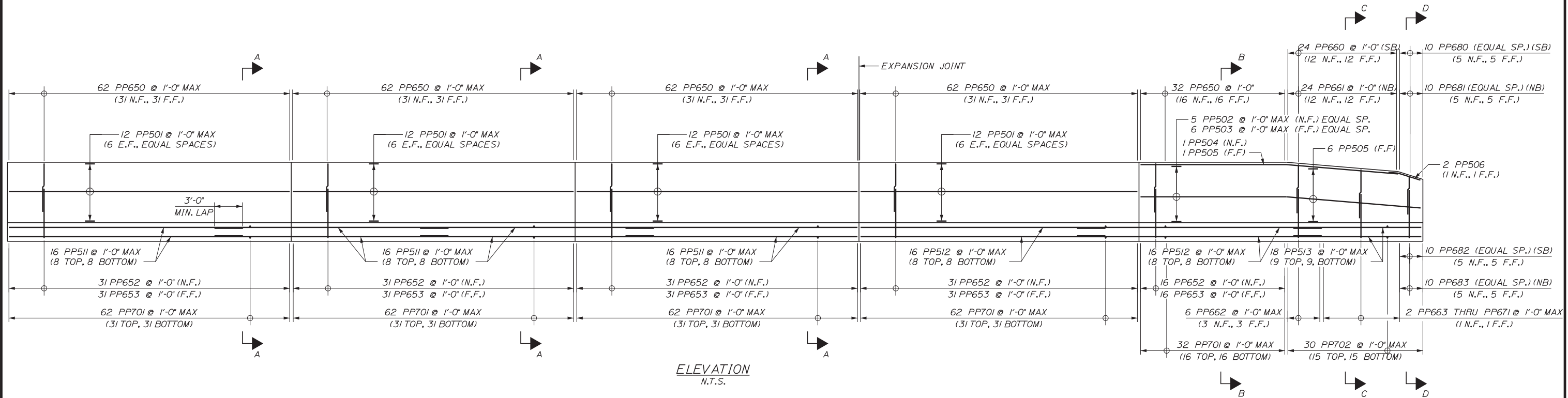
THE GOLD STAR MEMORIAL HIGHWAY

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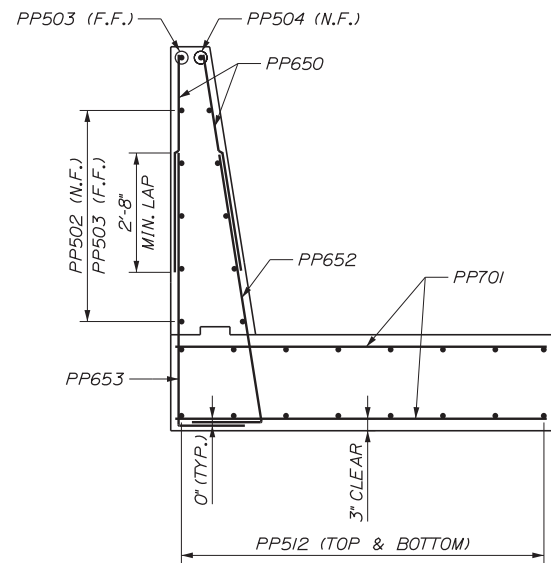
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 PIER PROTECTION CONCRETE BARRIER
 DETAILS 2

SHEET NUMBER: S-32
 CONTRACT: 2018.05
 139 OF 176

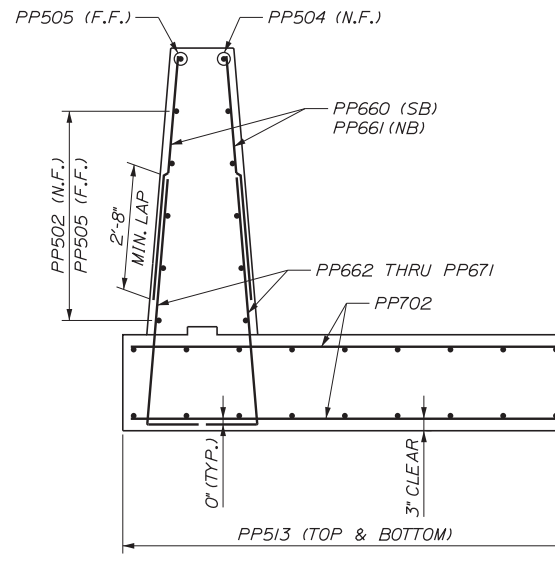
Date: 2/19/2018



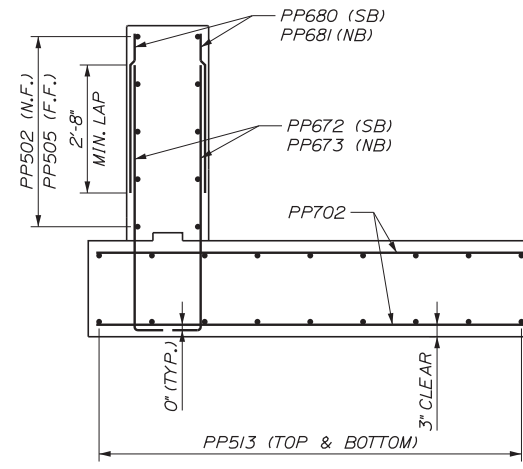
SECTION A-A
1/2" = 1'-0"



SECTION B-B
1/2" = 1'-0"



SECTION C-C
1/2" = 1'-0"



SECTION D-D
1/2" = 1'-0"

- NOTES:**
- UNLESS NOTED OTHERWISE, REINFORCING STEEL CLEAR COVER SHALL BE 2".
 - REINFORCING KEY:
N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE

Filename: ...S-33_PierProtect_Reinforce.dgn

No.	Revision	By	Date

Scale: _____

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Drawn	KLW 2\16\18	In Charge of	GAE 2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

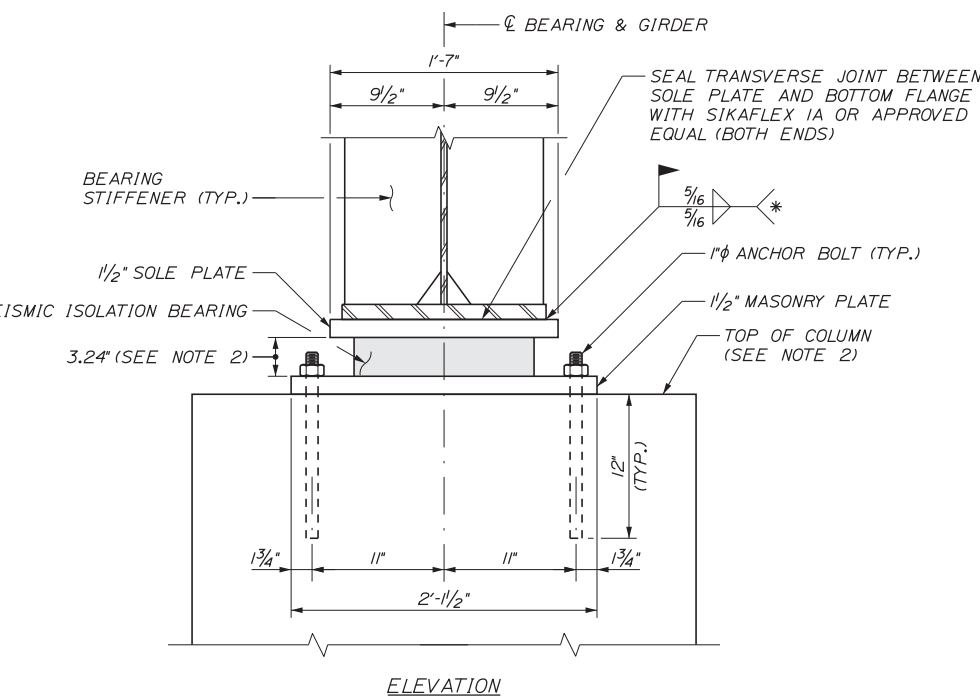
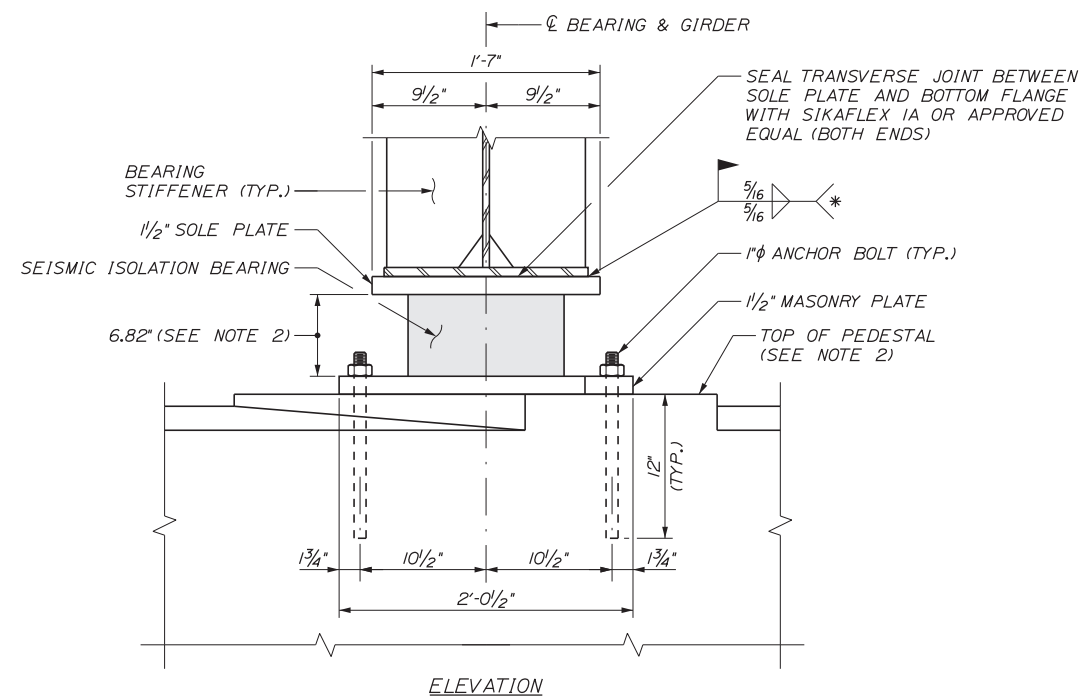
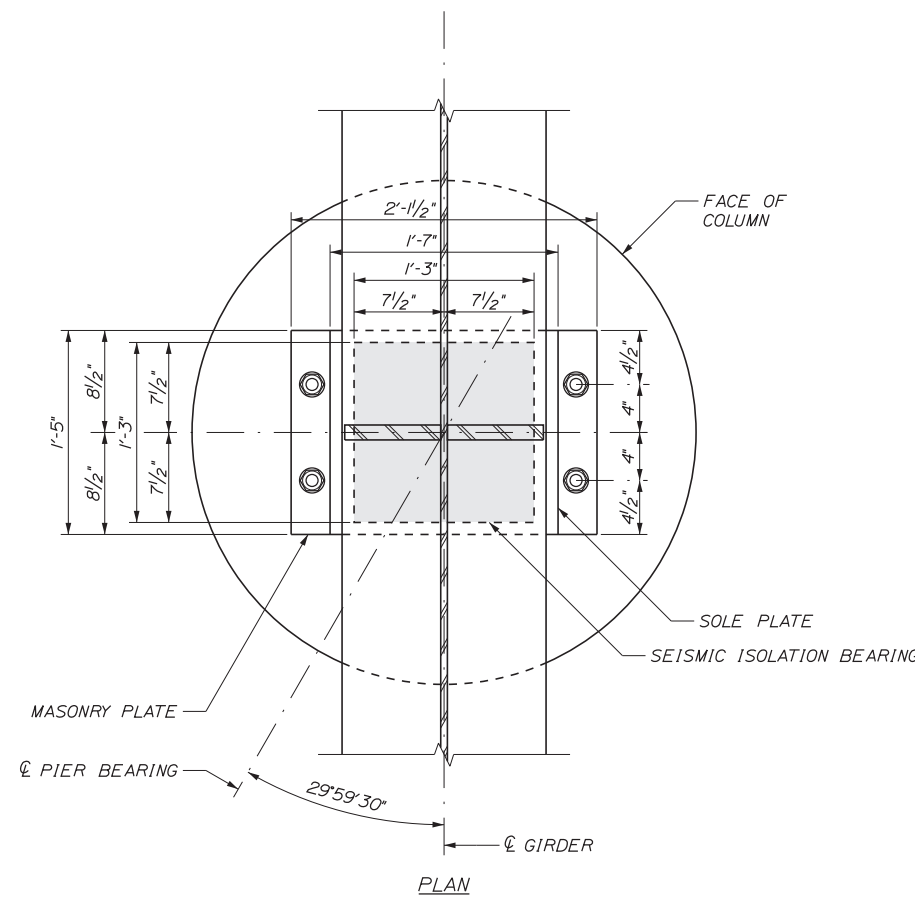
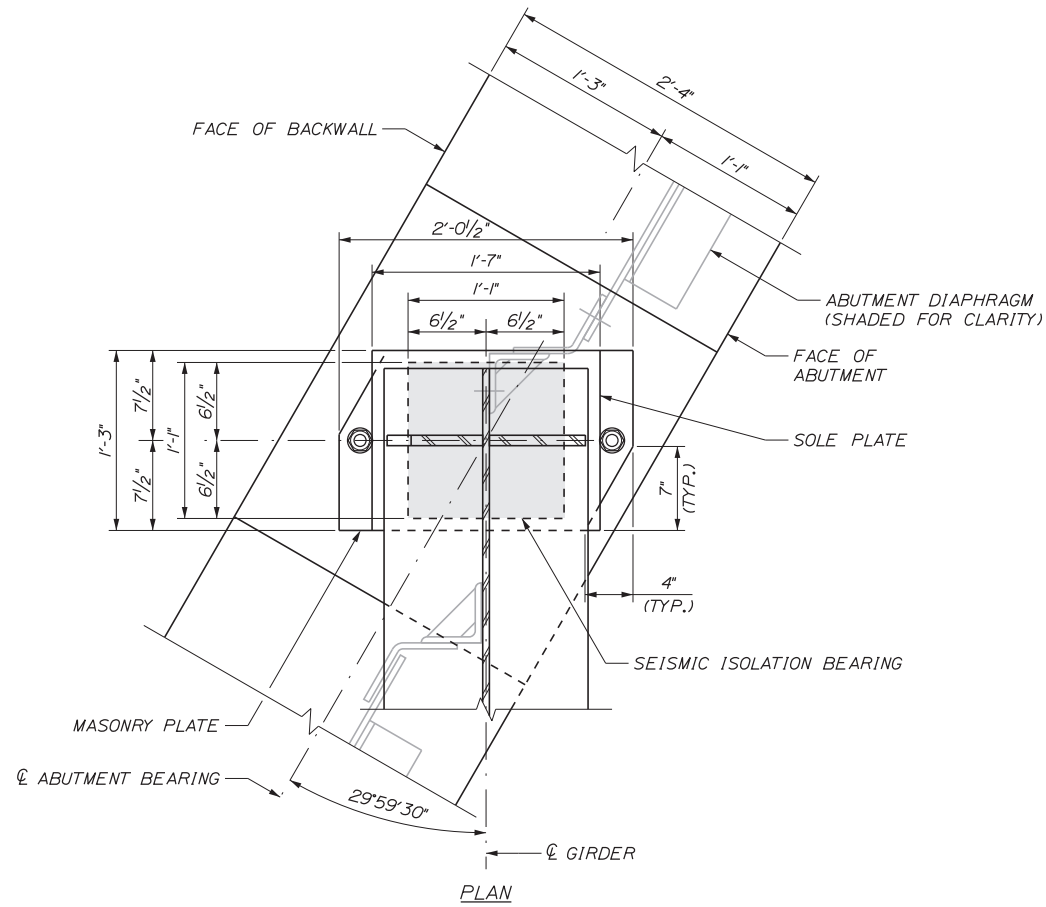
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
PIER PROTECTION CONCRETE BARRIER
REINFORCING DETAILS

SHEET NUMBER: S-33
CONTRACT: 2018.05
140 OF 176

Date: 2/19/2018

Filename: ... \BRIDGE\MSTA_60\AS-34_brgs1.dgn



PROPOSED ABUTMENT BEARINGS
GIRDERS G7 & G8
1/2" = 1'-0"

PROPOSED PIER BEARINGS
GIRDERS G7 & G8
1/2" = 1'-0"

*WELDS SHALL TERMINATE
1/4" FROM EDGE

PROPOSED SEISMIC ISOLATION BEARING NOTES

1. PROPOSED SEISMIC LEAD/RUBBER ISOLATION BEARINGS FOR GIRDERS 7 AND 8 SHALL BE DESIGNED AND FABRICATED BY THE D.S. BROWN COMPANY (FORMERLY SEISMIC ENERGY PRODUCTS, LP) OR APPROVED EQUAL.
2. PROPOSED BEARING HEIGHTS SHOWN MATCH THE HEIGHTS OF THE EXISTING SEISMIC ISOLATION BEARINGS AT THE ABUTMENTS AND PIERS. CONTRACTOR SHALL ADJUST TOP OF ABUTMENT PEDESTAL AND TOP OF COLUMN ELEVATIONS BASED ON FINAL DESIGN HEIGHT OF THE SEISMIC ISOLATION BEARINGS.
3. VULCANIZING ELASTOMER TO STEEL PLATES SHALL BE DONE DURING THE PRIMARY MOLD PROCESS.
4. UPSET THE THREADS ON THE ANCHOR BOLTS AFTER ASSEMBLY.
5. BEARINGS SHALL BE COVERED DURING TRANSIT.
6. ALL EXTERNAL PLATES SHALL MEET THE REQUIREMENT OF ASTM A709, GRADE 36.
7. NEW ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554, GRADE 55 AND SHALL BE SWEDGED OR THREADED ON THE EMBEDDED PORTION OF THE ROD.
8. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE LOCATION ON THE BRIDGE AND A DIRECTION ARROW INDICATING UPSTATION. ALL MARKS SHALL BE PERMANENT AND VISIBLE AFTER THE BEARING IS INSTALLED.
9. THE BEARINGS SHALL BE DESIGNED SO THAT THEY MAY BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS WITHIN THE RANGE OF 65°F AND 90°F.
10. ALL PRECAUTIONS NECESSARY SHALL BE TAKEN TO PROTECT BEARING COMPONENTS FROM WELD FLASH AND SPLATTER. WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE OF STEEL ADJACENT TO THE ELASTOMER TO 200°F THROUGH THE USE OF TEMPERATURE INDICATING CRAYONS OR OTHER SUITABLE MEANS.
11. STEEL PLATES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123. ANY DAMAGE TO PAINTED OR GALVANIZED PROTECTIVE COATINGS RESULTING FROM THE INSTALLATION OR WELDING PROCESS SHALL BE REPAIRED IN ACCORDANCE WITH ASTM 780.

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Designed by:					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	xxx	2\16\18	Checked	GAB	2\16\18
Drawn	JTB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

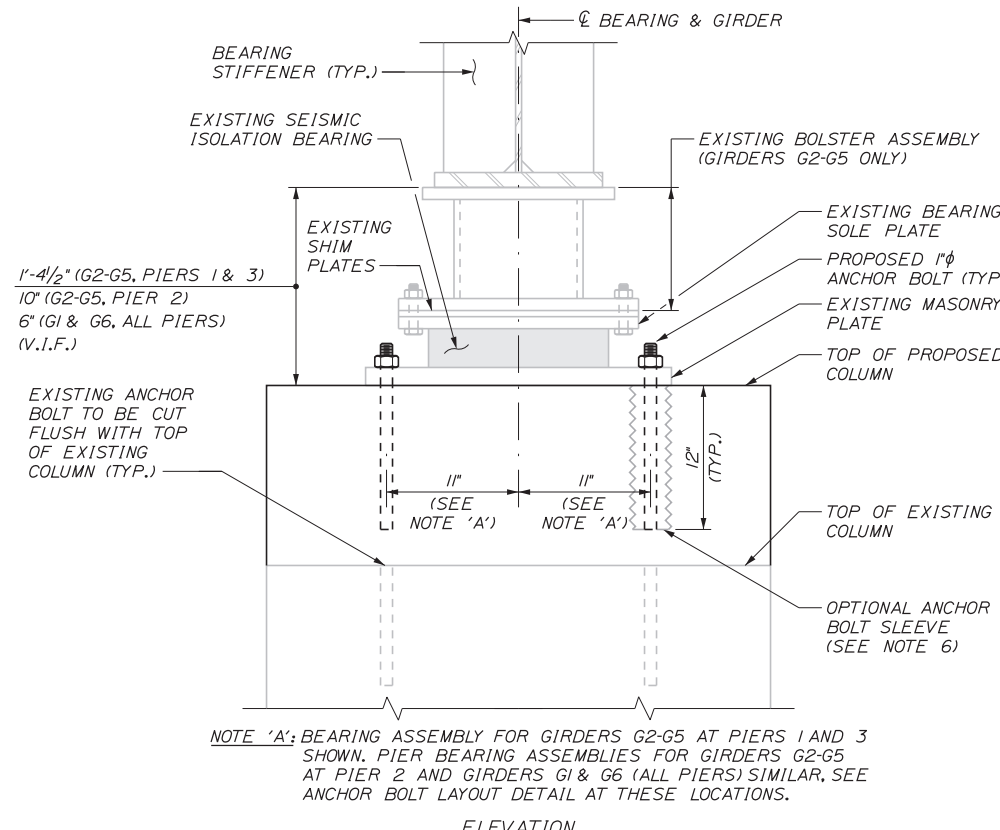
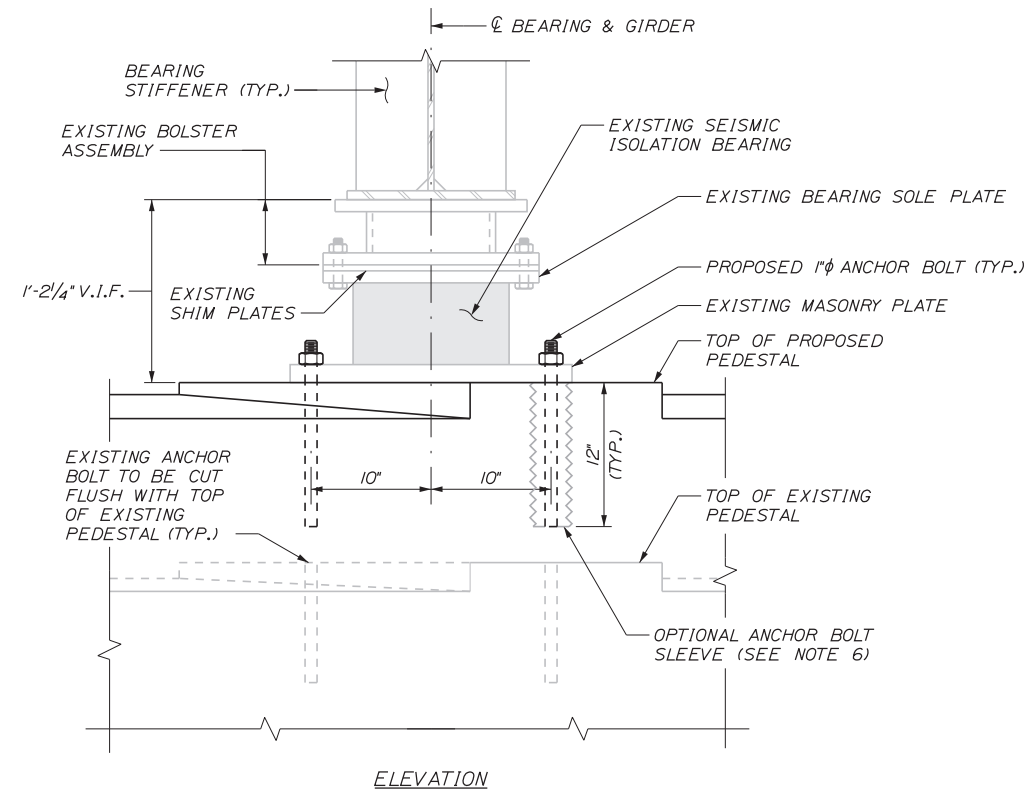
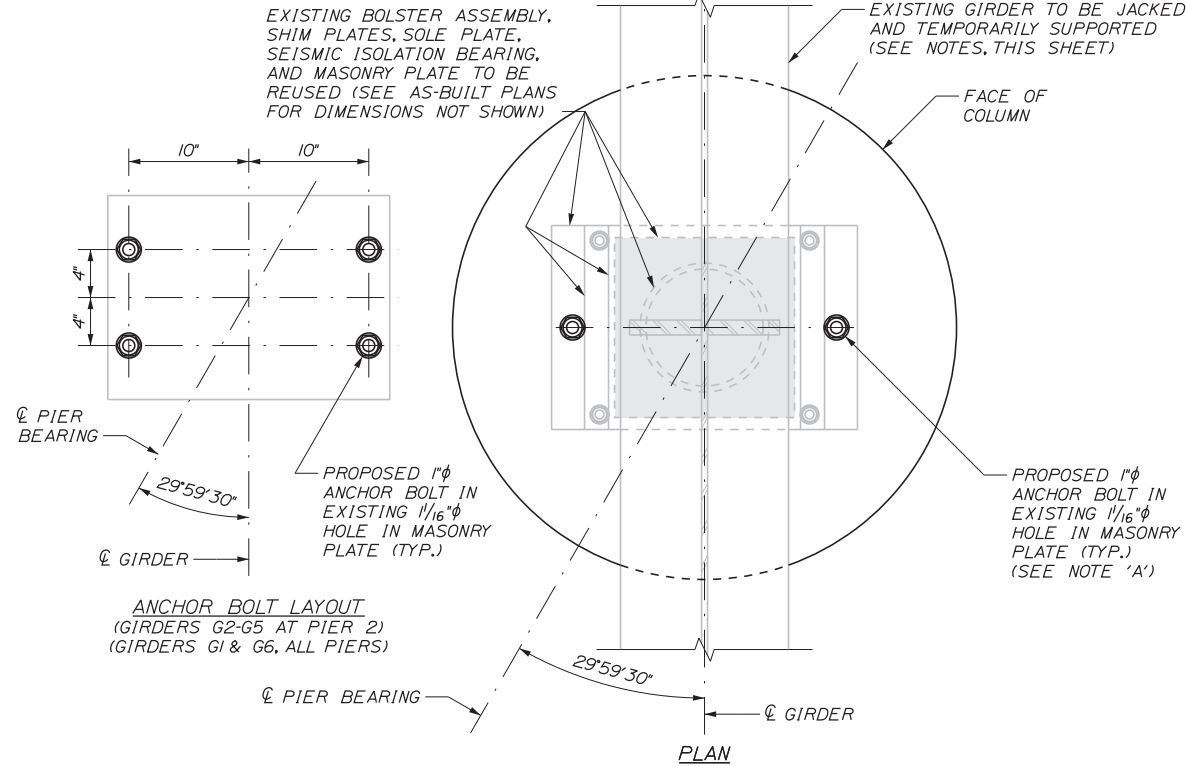
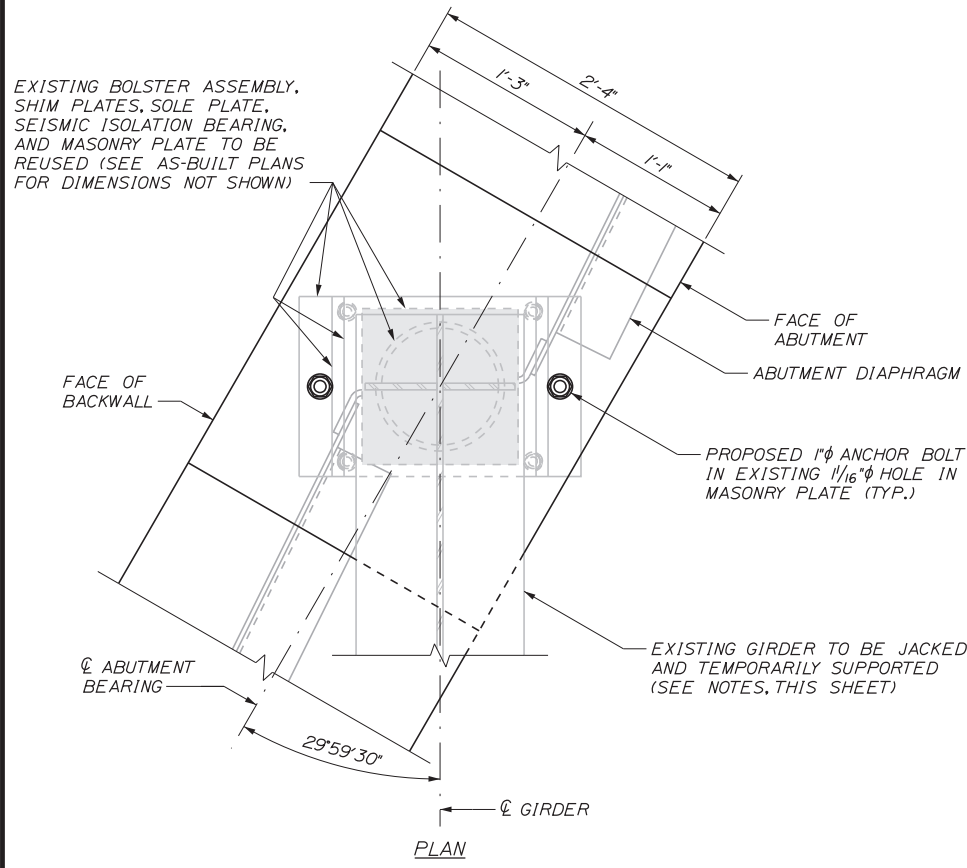
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

PROPOSED BEARING DETAILS

SHEET NUMBER: S-34
CONTRACT: 2018.05
141 OF 176

Date: 2/19/2018

Filename: ... \BRIDGE\MSTA_60\AS-35_brgs2.dgn



EXISTING ABUTMENT BEARING MODIFICATIONS
1/2" = 1'-0"

EXISTING PIER BEARING MODIFICATIONS
1/2" = 1'-0"

TEMPORARY JACKING AND STRUCTURAL SUPPORT SYSTEM NOTES

1. THE TEMPORARY JACKING AND STRUCTURAL SUPPORT SYSTEM SHALL BE DESIGNED BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF DESIGN CALCULATIONS AND DRAWINGS FOR THE TEMPORARY SUPPORT, JACKING SYSTEM AND BRIDGE SEAT/TOP OF COLUMN MODIFICATION PROCEDURE. THE CALCULATIONS AND DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MAINE. SEE SPECIAL PROVISION FOR ADDITIONAL REQUIREMENTS.

2. RIGID VERTICAL SUPPORT OF SUPERSTRUCTURE IN THE JACKED POSITION SHALL BE PROVIDED BY LOCKING THE JACK RAMS OR BY FURNISHING AND INSTALLING AN INDEPENDENT SUPPORT SYSTEM. EXCEPT DURING JACKING OPERATIONS, THE SUPERSTRUCTURE SHALL NOT BE HYDRAULICALLY SUPPORTED.

3. SEE SPECIAL PROVISIONS FOR CALCULATED UNFACTORED JACKING AND TEMPORARY STRUCTURAL SUPPORT LOADS.

SUGGESTED PROCEDURE FOR TEMPORARY SUPPORT AND JACKING

1. CONTRACTOR TO FIELD MEASURE AND VERIFY ALL MEMBER DIMENSIONS IN THE FIELD BEFORE FABRICATION AND SHALL PROVIDE DETAILS TO BE APPROVED BY THE ENGINEER.

2. FURNISH AND INSTALL TEMPORARY SUPPORT AND JACKING SYSTEM. INSTALL BEARING STIFFENERS OR PROVIDE BLOCKING BETWEEN THE EXISTING GIRDER FLANGES DIRECTLY ABOVE THE JACK LOCATION. REMOVE EXISTING ANCHOR BOLT NUTS BEFORE THE COMMENCEMENT OF THE JACKING OPERATION. JACK BRIDGE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

3. SUPPORT SUPERSTRUCTURE IN JACKED POSITION BY LOCKING THE JACK RAMS OR BY FURNISHING AND INSTALLING AN INDEPENDENT TEMPORARY SUPPORT SYSTEM.

4. TRIM EXISTING ANCHOR RODS FLUSH WITH THE TOP OF THE PIER COLUMN OR ABUTMENT PEDESTAL.

5. RECONSTRUCT THE EXISTING ABUTMENT BRIDGE SEATS AND TOPS OF COLUMNS AND PROVIDE NEW BEARING ANCHOR BOLTS. SEE SHEETS S-12, S-13, S-16, S-17, AND S-29 FOR PROPOSED ABUTMENT PEDESTAL AND TOP OF COLUMN ELEVATIONS.

6. AT CONTRACTOR'S OPTION AND SUBJECT TO APPROVAL BY THE ENGINEER, ANCHOR BOLT SLEEVES MAY BE CAST INTO THE PROPOSED CONCRETE TO AID IN RESETTING THE EXISTING BEARINGS. SLEEVES SHALL BE CORRUGATED HIGH-DENSITY POLYETHYLENE OR GALVANIZED CORRUGATED METAL POST-TENSIONING DUCT. DO NOT USE PVC OR OTHER SMOOTH PLASTIC OR STEEL DUCT. VOID SHALL BE CLEANED BEFORE FILLING WITH A PRE-QUALIFIED GROUT FOR ANCHORING LISTED ON THE MAINE DEPARTMENT OF TRANSPORTATION QUALIFIED PRODUCT LIST.

7. JACK (HYDRAULICALLY SUPPORT) BRIDGE AND REMOVE TEMPORARY VERTICAL SUPPORTS (BLOCKING OR RAM LOCKS) IN PREPARATION FOR SUPERSTRUCTURE LOWERING.

8. SLOWLY RELEASE JACKS AND LOWER SUPERSTRUCTURE ONTO THE RECONSTRUCTED SUBSTRUCTURE ELEMENTS.

9. REMOVE TEMPORARY SUPPORT SYSTEM.

Scale:			
No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE					
	By	Date		By	Date
Designed	xxx	2\16\18	Checked	GAB	2\16\18
Drawn	JTB	2\16\18	In Charge of	GAE	2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

EXISTING BEARING MODIFICATIONS

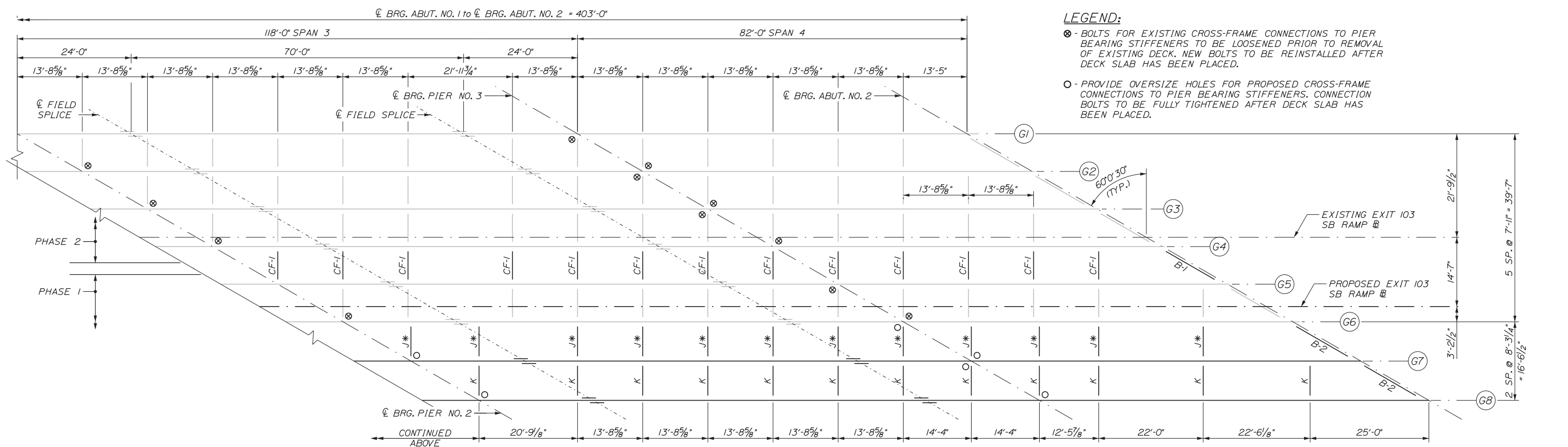
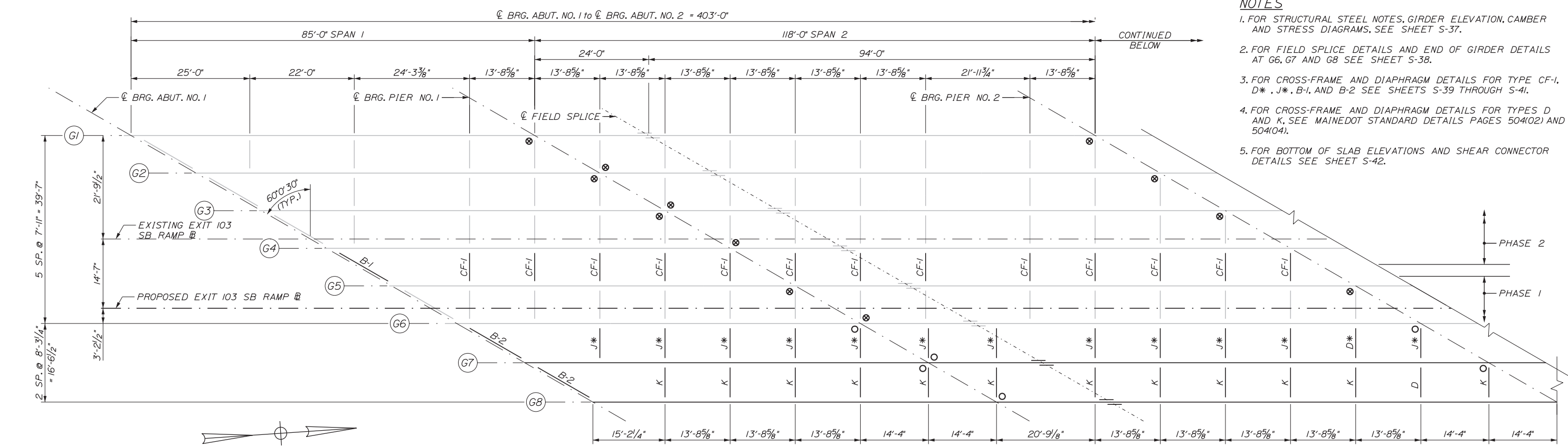
SHEET NUMBER: S-35
CONTRACT: 2018.05
142 OF 176

Date: 2/19/2018

Filename: ...MSTA_60\AS-36_Framing.dgn

NOTES

1. FOR STRUCTURAL STEEL NOTES, GIRDER ELEVATION, CAMBER AND STRESS DIAGRAM, SEE SHEET S-37.
2. FOR FIELD SPLICE DETAILS AND END OF GIRDER DETAILS AT G6, G7 AND G8 SEE SHEET S-38.
3. FOR CROSS-FRAME AND DIAPHRAGM DETAILS FOR TYPE CF-1, D*, J*, B-1, AND B-2 SEE SHEETS S-39 THROUGH S-41.
4. FOR CROSS-FRAME AND DIAPHRAGM DETAILS FOR TYPES D AND K, SEE MAINE DOT STANDARD DETAILS PAGES 504(02) AND 504(04).
5. FOR BOTTOM OF SLAB ELEVATIONS AND SHEAR CONNECTOR DETAILS SEE SHEET S-42.



LEGEND:

- ⊗ - BOLTS FOR EXISTING CROSS-FRAME CONNECTIONS TO PIER BEARING STIFFENERS TO BE LOOSENED PRIOR TO REMOVAL OF EXISTING DECK. NEW BOLTS TO BE REINSTALLED AFTER DECK SLAB HAS BEEN PLACED.
- - PROVIDE OVERSIZE HOLES FOR PROPOSED CROSS-FRAME CONNECTIONS TO PIER BEARING STIFFENERS. CONNECTION BOLTS TO BE FULLY TIGHTENED AFTER DECK SLAB HAS BEEN PLACED.

FRAMING PLAN
3/32" = 1'-0"

Scale:

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed	SJW 2\16\18	Checked	GAB 2\16\18
Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

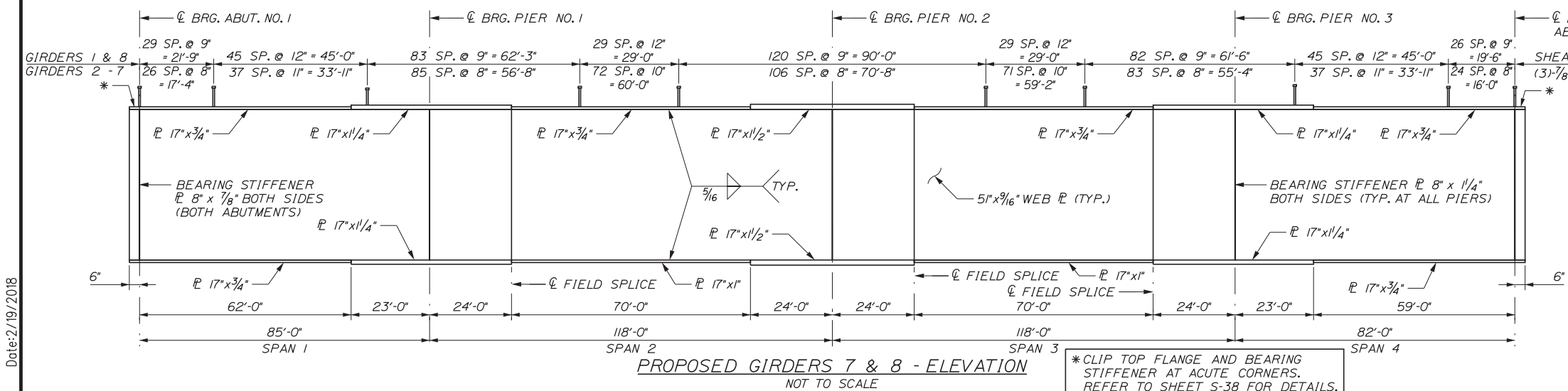
FRAMING PLAN

SHEET NUMBER: S-36

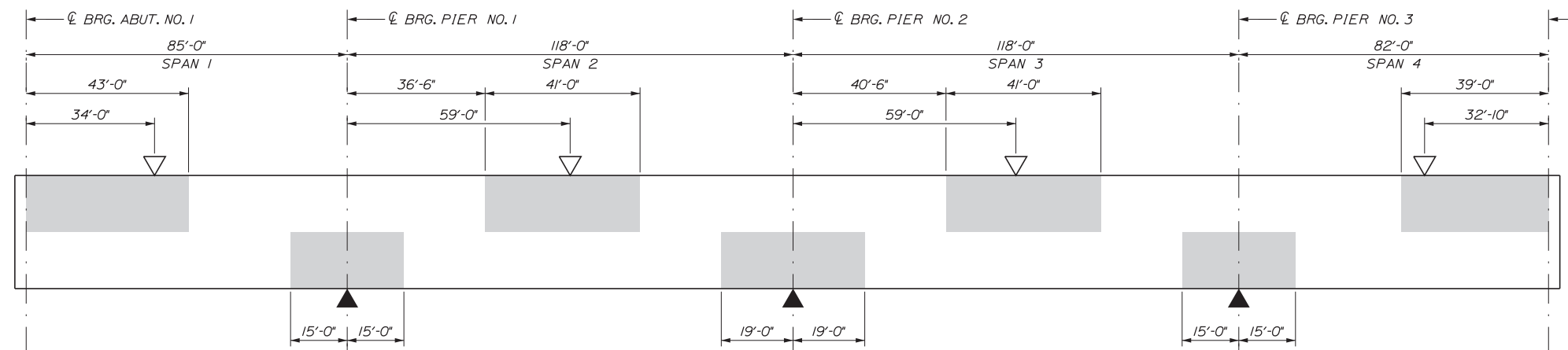
CONTRACT: 2018.05

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Date: 2/19/2018



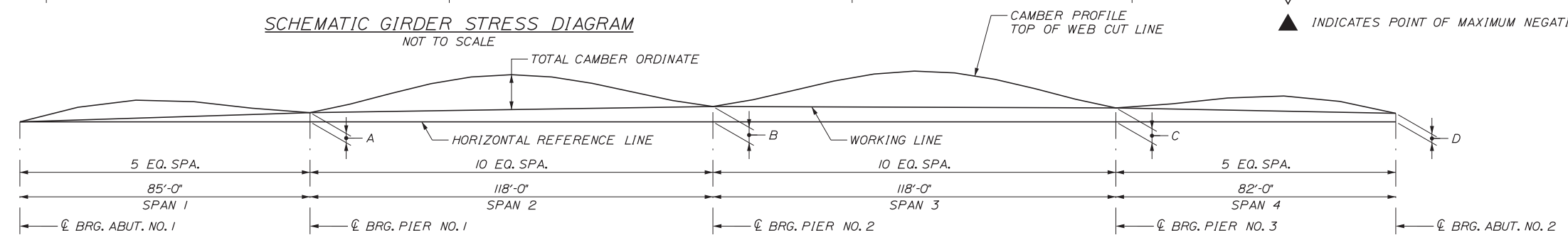
- STRUCTURAL STEEL NOTES**
- CAMBER ORDINATES, AS SHOWN, ARE COMPUTED TO COMPENSATE FOR ALL DEAD LOAD DEFLECTIONS AND FOR THE CURVATURE OF THE FINISHED GRADE PROFILE.
 - NO TRANSVERSE BUTT-WELD SPLICES WILL BE ALLOWED IN THE FLANGE PLATES OR WEB PLATES WITHIN 10 FEET OR 10% OF THE SPAN LENGTH (WHICHEVER IS GREATER) FROM THE POINTS OF MAXIMUM NEGATIVE MOMENT OR MAXIMUM POSITIVE MOMENT. BUTT-WELD SPLICES IN FLANGES SHALL BE NOT LESS THAN 3 FEET FROM TRANSVERSE BUTT-WELDS IN THE WEB PLATES AND NO TRANSVERSE WEB OR FLANGE BUTT-WELDS SHALL BE LOCATED WITHIN 3 FEET OF OTHER TRANSVERSE WELDS (E.G. CONNECTION PLATES TO WEB WELDS) ON EITHER FLANGE OR WEB. NO TRANSVERSE BUTT-WELD SPLICES WILL BE ALLOWED IN AREAS OF STRESS REVERSAL.
 - SECTIONS OF FLANGE PLATES OR WEB PLATES BETWEEN TRANSVERSE SHOP SPLICES OR BETWEEN A TRANSVERSE SHOP SPLICE AND A FIELD SPLICE SHALL BE NOT LESS THAN 20 FEET IN LENGTH UNLESS OTHERWISE SHOWN ON THE PLANS.
 - BEARING STIFFENERS SHALL BE PLUMB AFTER ERECTION AND DEAD LOADING OF THE STRUCTURE.
 - CROSSFRAME OR DIAPHRAGM CONNECTION PLATES MAY BE EITHER PLUMB OR NORMAL TO THE TOP FLANGE.
 - FILLER PLATES MAY BE STEEL CONFORMING TO THE REQUIREMENTS OF A709, GRADE 36.
 - SEE MAINEDOT STANDARD DETAILS PAGE 504(07) FOR ADDITIONAL NOTES.
 - THE FINISH TOPCOAT ON ALL NEW STEEL SHALL BE FEDERAL STANDARD 595C, COLOR #14272, LIGHT GREEN.



- KEY:**
- INDICATES AREAS ALWAYS IN COMPRESSION. ALL OTHER AREAS ARE IN TENSION OR HAVE STRESS REVERSALS.
 - INDICATES POINT OF MAXIMUM POSITIVE MOMENT
 - INDICATES POINT OF MAXIMUM NEGATIVE MOMENT

CAMBER DIAGRAM DIMENSIONS (FT)

	G7	G8
A	0.58	0.54
B	0.99	0.90
C	0.97	0.82
D	0.68	0.50



CAMBER TABLE (INCHES)

GIRDER	DESIGNATION	CL BRG. ABUT. 1	SPAN NO. 1				CL BRG. PIER 1	SPAN NO. 2								CL BRG. PIER 2	SPAN NO. 3								CL BRG. PIER 3	SPAN NO. 4				CL BRG. ABUT. 2		
			0.2L	0.4L	0.6L	0.8L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L		0.9L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L		0.8L	0.9L	0.2L	0.4L		0.6L	0.8L
G7	STEEL DEAD LOAD	0.00	0.08	0.10	0.07	0.02	0.00	0.04	0.11	0.18	0.23	0.24	0.21	0.16	0.09	0.03	0.00	0.03	0.09	0.16	0.22	0.25	0.24	0.19	0.12	0.05	0.00	0.01	0.05	0.08	0.06	0.00
	CONCRETE DEAD LOAD	0.00	0.36	0.50	0.37	0.11	0.00	0.14	0.40	0.66	0.84	0.89	0.80	0.58	0.32	0.10	0.00	0.11	0.35	0.62	0.84	0.94	0.89	0.70	0.43	0.16	0.00	0.07	0.27	0.39	0.29	0.00
	SUPERIMPOSED D.L.	0.00	0.15	0.20	0.15	0.05	0.00	0.07	0.18	0.29	0.37	0.39	0.35	0.26	0.15	0.04	0.00	0.05	0.15	0.27	0.37	0.41	0.38	0.31	0.19	0.07	0.00	0.03	0.11	0.16	0.12	0.00
	TOTAL CAMBER	0.00	0.22	0.33	0.33	0.22	0.00	0.24	0.43	0.56	0.64	0.67	0.64	0.56	0.43	0.24	0.00	0.24	0.43	0.56	0.64	0.67	0.64	0.56	0.43	0.24	0.00	0.21	0.31	0.31	0.21	0.00
G8	STEEL DEAD LOAD	0.00	0.08	0.10	0.07	0.02	0.00	0.04	0.11	0.18	0.23	0.24	0.21	0.16	0.09	0.03	0.00	0.03	0.09	0.16	0.22	0.25	0.24	0.19	0.12	0.05	0.00	0.01	0.05	0.08	0.06	0.00
	CONCRETE DEAD LOAD	0.00	0.31	0.42	0.31	0.09	0.00	0.12	0.34	0.56	0.71	0.76	0.67	0.49	0.27	0.08	0.00	0.09	0.29	0.52	0.71	0.80	0.75	0.60	0.37	0.14	0.00	0.06	0.23	0.33	0.25	0.00
	SUPERIMPOSED D.L.	0.00	0.15	0.20	0.15	0.05	0.00	0.07	0.18	0.29	0.37	0.39	0.35	0.26	0.15	0.04	0.00	0.05	0.15	0.27	0.37	0.41	0.38	0.31	0.19	0.07	0.00	0.03	0.11	0.16	0.12	0.00
	TOTAL CAMBER	0.00	0.22	0.33	0.33	0.22	0.00	0.24	0.43	0.56	0.64	0.67	0.64	0.56	0.43	0.24	0.00	0.24	0.43	0.56	0.64	0.67	0.64	0.56	0.43	0.24	0.00	0.21	0.31	0.31	0.21	0.00
	TOTAL CAMBER	0.00	0.75	1.06	0.86	0.37	0.00	0.47	1.05	1.59	1.95	2.05	1.88	1.47	0.93	0.39	0.00	0.41	0.96	1.52	1.94	2.12	2.02	1.65	1.11	0.50	0.00	0.30	0.71	0.89	0.64	0.00

Filename: ...S-37_GirderElevStress.dgn

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed	SJW 2\16\18	Checked	GAB 2\16\18
Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

GIRDER ELEVATION & STEEL DETAILS

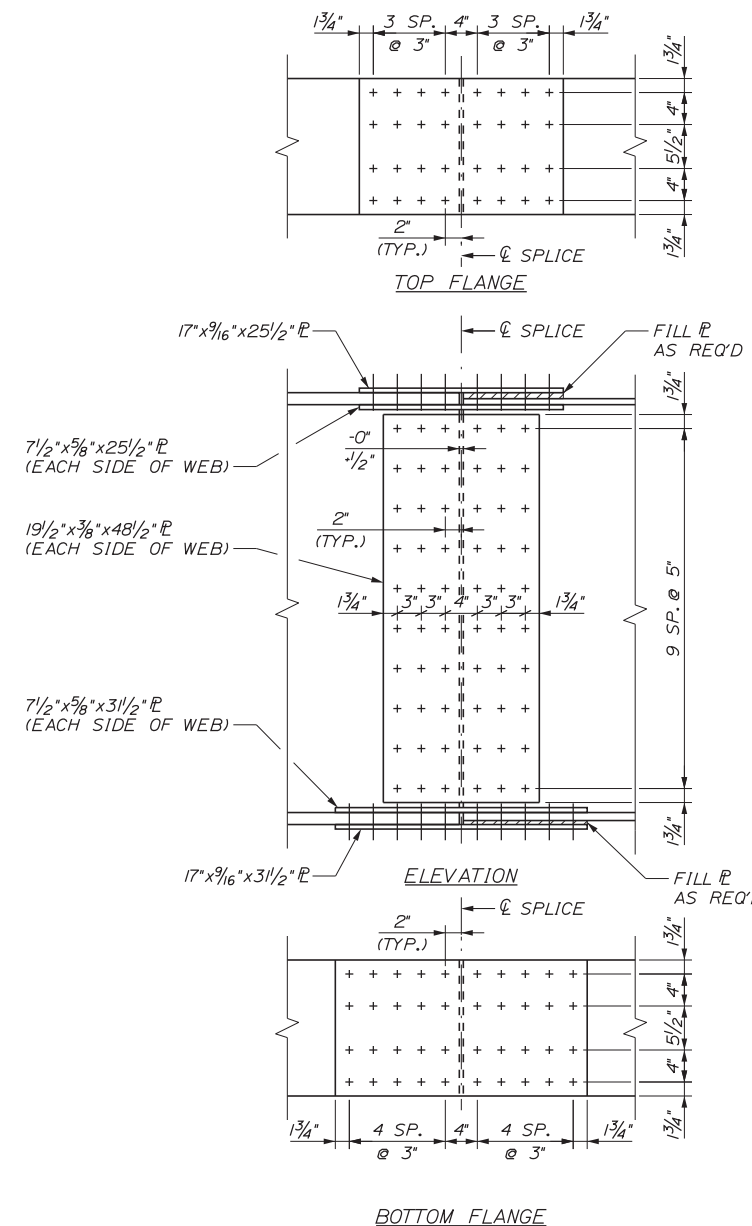
SHEET NUMBER: S-37

CONTRACT: 2018.05

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Date: 2/19/2018

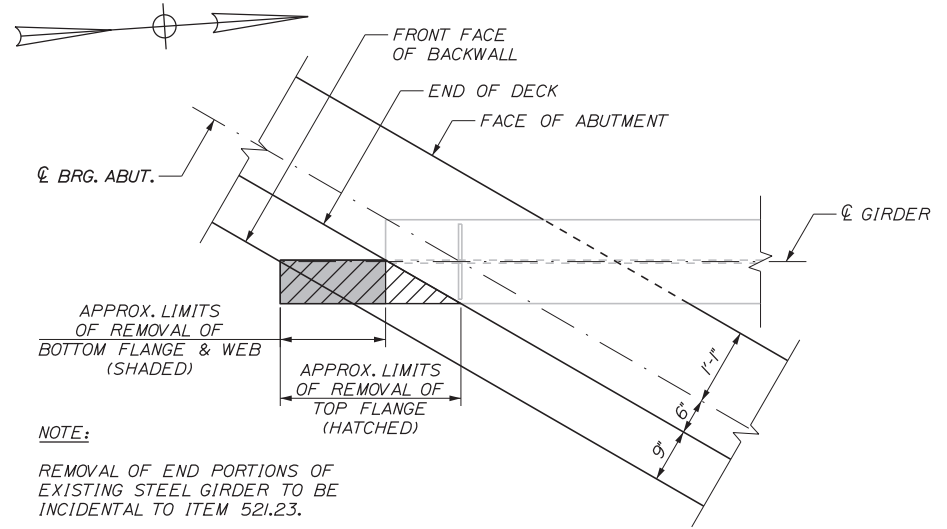
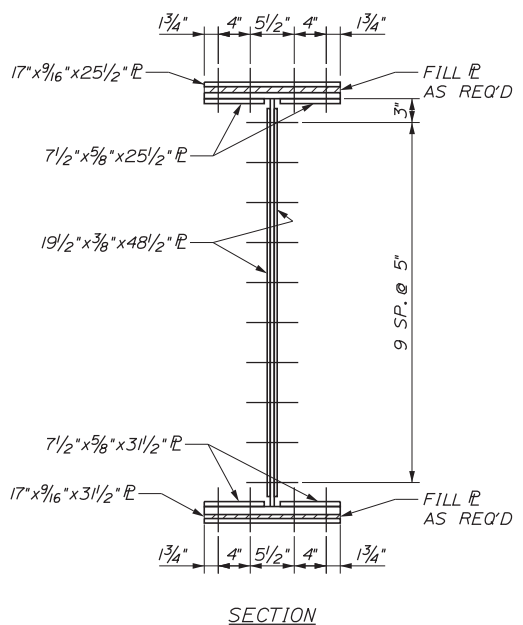
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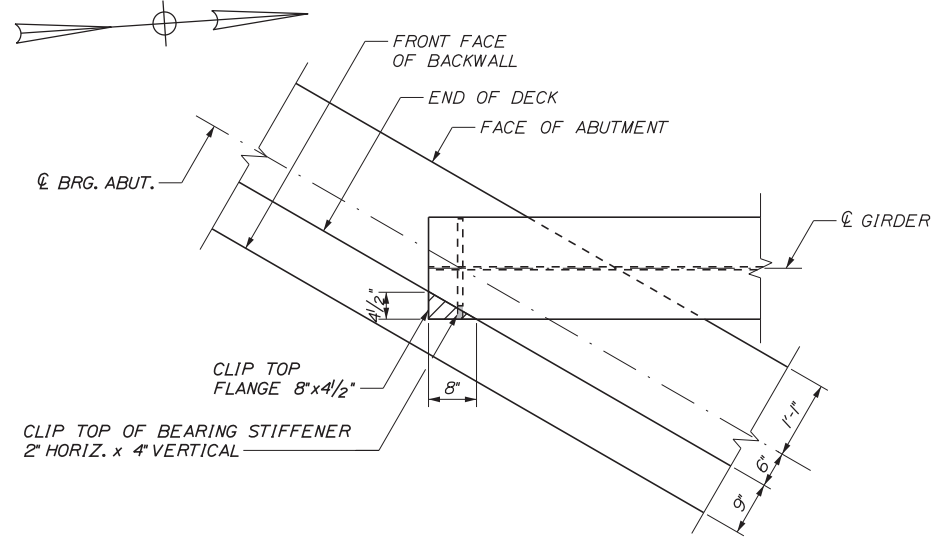
BOLTED FIELD SPLICE
1" = 1'-0"

NOTES

1. BOLTED FIELD SPLICES SHALL BE CONSIDERED SLIP CRITICAL CONNECTIONS WITH CLASS B FAYING SURFACES.
2. + DENOTES 7/8" φ ASTM A325 HIGH STRENGTH BOLT IN 15/16" φ HOLE.
3. ONE ROW OF STUD SHEAR CONNECTORS SHALL BE PLACED ALONG THE CENTERLINE OF THE TOP FLANGE SPLICE PLATE.



END OF G6 PARTIAL REMOVAL DETAIL
(ABUTMENT NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)
3/4" = 1'-0"



END OF G7 & G8 GIRDER CLIPPING DETAIL
(ABUTMENT NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)
3/4" = 1'-0"

Scale:			
No.	Revision	By	Date

Designed by:			
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
	By	Date	
	PAG	2\16\18	
	Checked	GAB	2\16\18
	By	Date	
	Drawn	JTB	2\16\18
	In Charge of	GAE	2\16\18

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**THE GOLD STAR
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EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

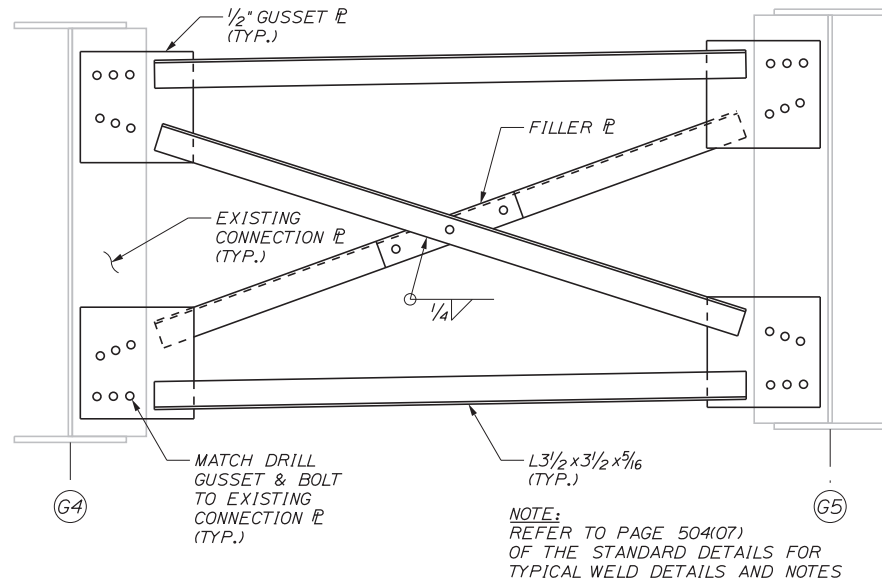
FIELD SPLICE & END OF GIRDER DETAILS

SHEET NUMBER: S-38

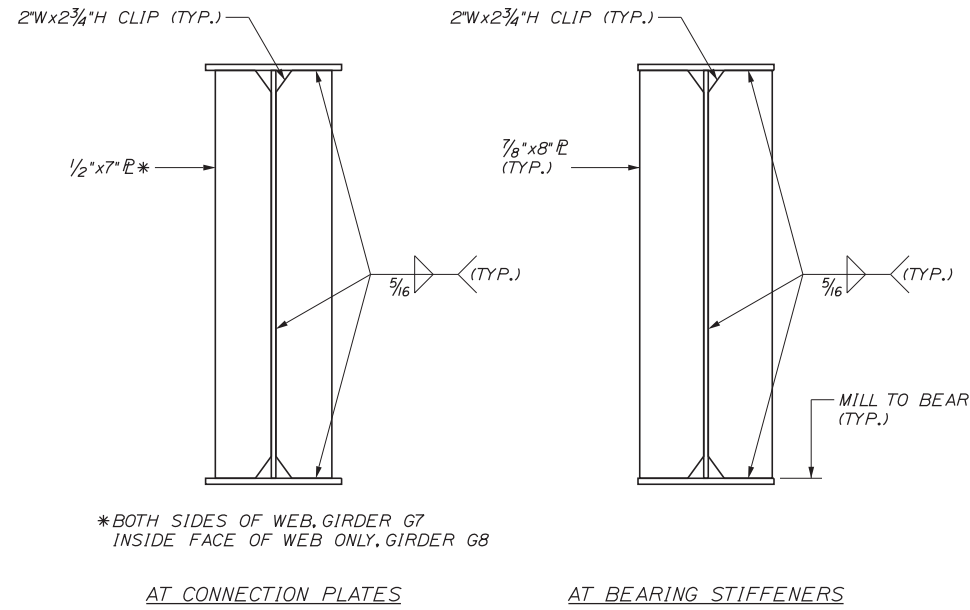
CONTRACT: 2018.05

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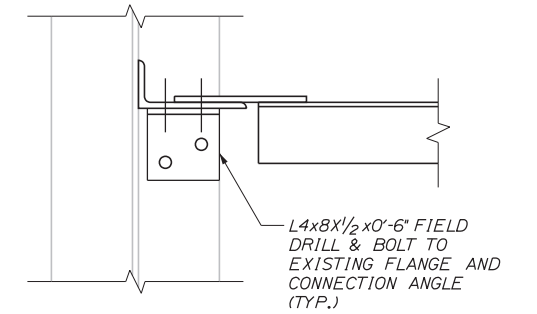
Date: 2/19/2018



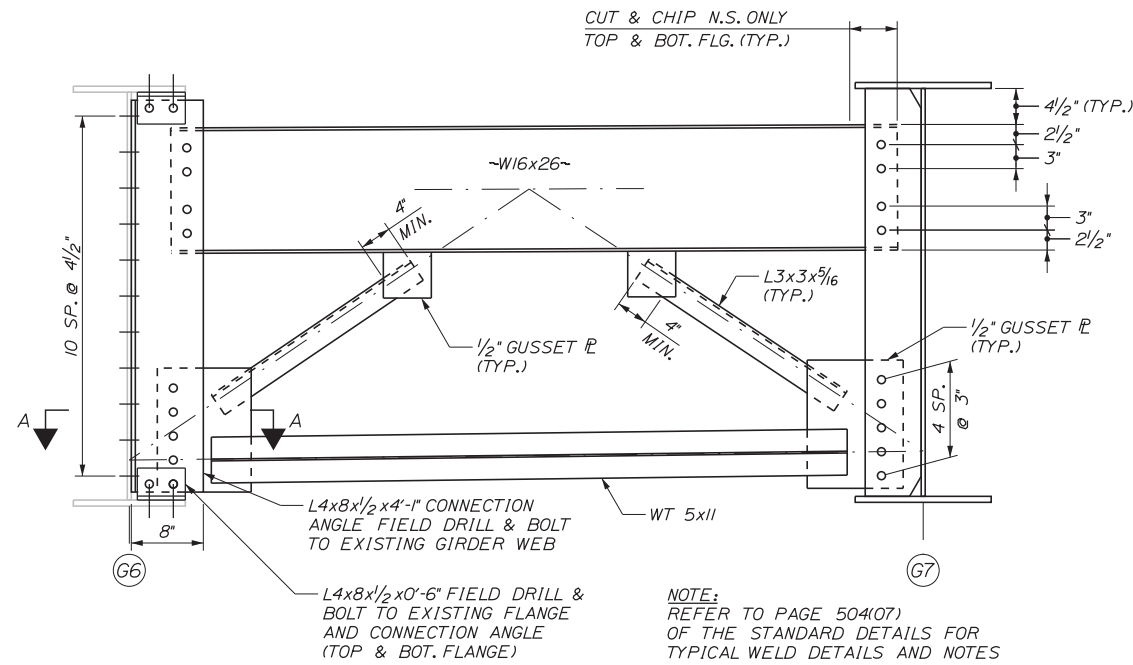
TYPE CF-1
BETWEEN G4 & G5
1' - 1'-0"



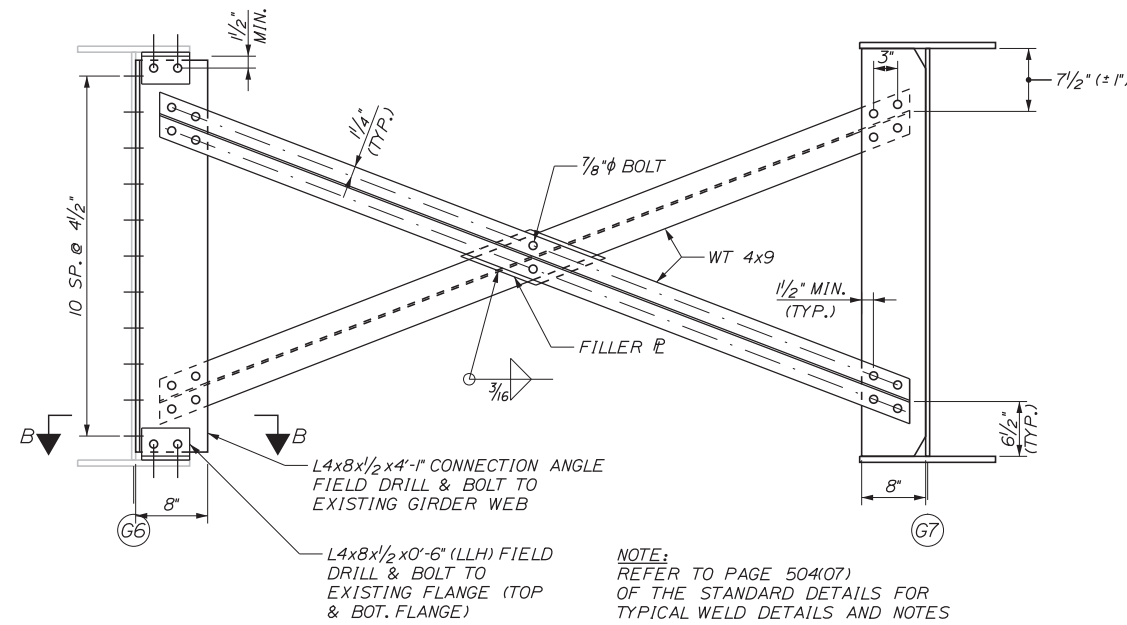
STIFFENER & CONNECTION PLATE DETAILS
PROPOSED GIRDERS 7 & 8
1' - 1'-0"



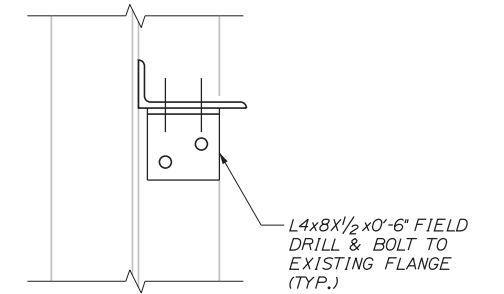
SECTION A-A
1/2" = 1'-0"



TYPE D*
BETWEEN G6 & G7
1' - 1'-0"



TYPE J*
BETWEEN G6 & G7
1' - 1'-0"



SECTION B-B
1/2" = 1'-0"

Filename: ...S-39_SteelDetails1.dgn

Scale:			
No.	Revision	By	Date

Designed by:			
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
	By	Date	
Designed	TEK	2\16\18	Checked GAB 2\16\18
Drawn	JTB	2\16\18	In Charge of GAE 2\16\18

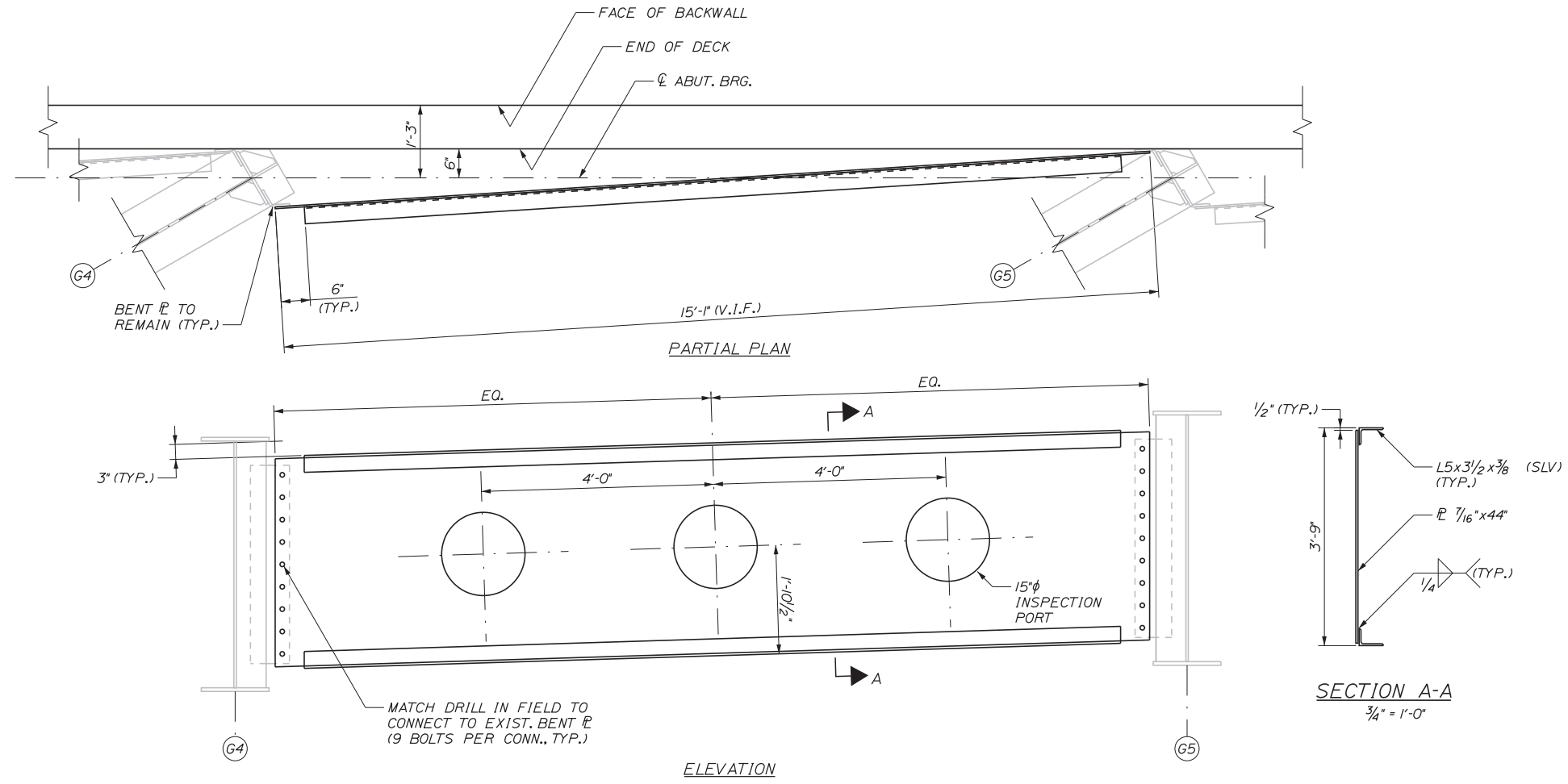
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
CROSS-FRAME & DIAPHRAGM DETAILS 1
SHEET NUMBER: S-39
CONTRACT: 2018.05
146 OF 176

Date: 2/19/2018



DIAPHRAGM TYPE B-1
 (ABUTMENT NO. 2 SHOWN, ABUTMENT NO. 1 SIMILAR)
 $\frac{3}{4}'' = 1'-0''$

Filename: ...S-40_SteelDetails2.dgn

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	PAG	2\16\18	Checked	GAB	2\16\18
Drawn	JTB	2\16\18	In Charge of	GAE	2\16\18

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

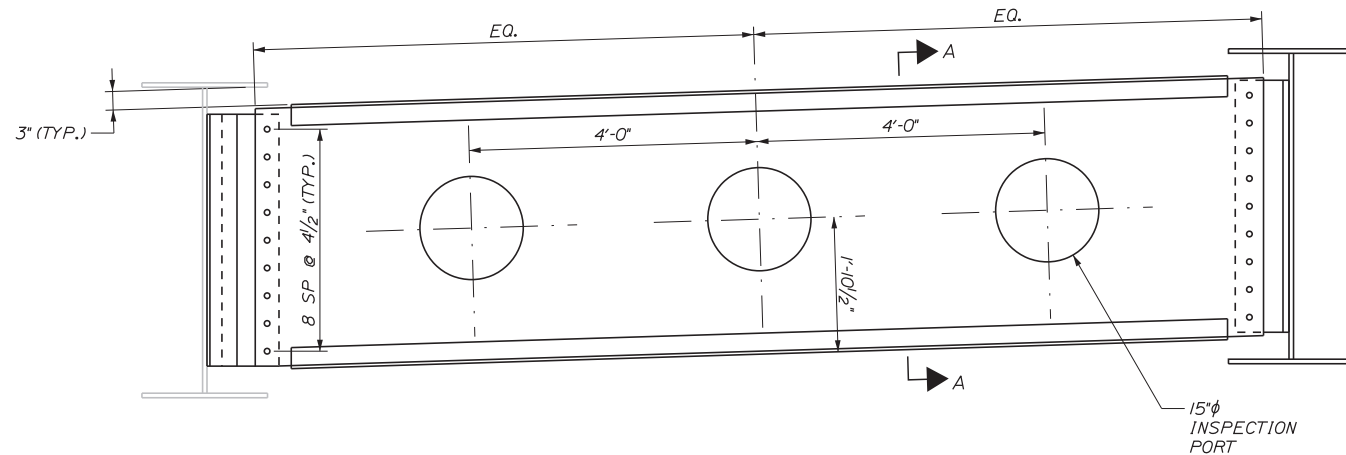
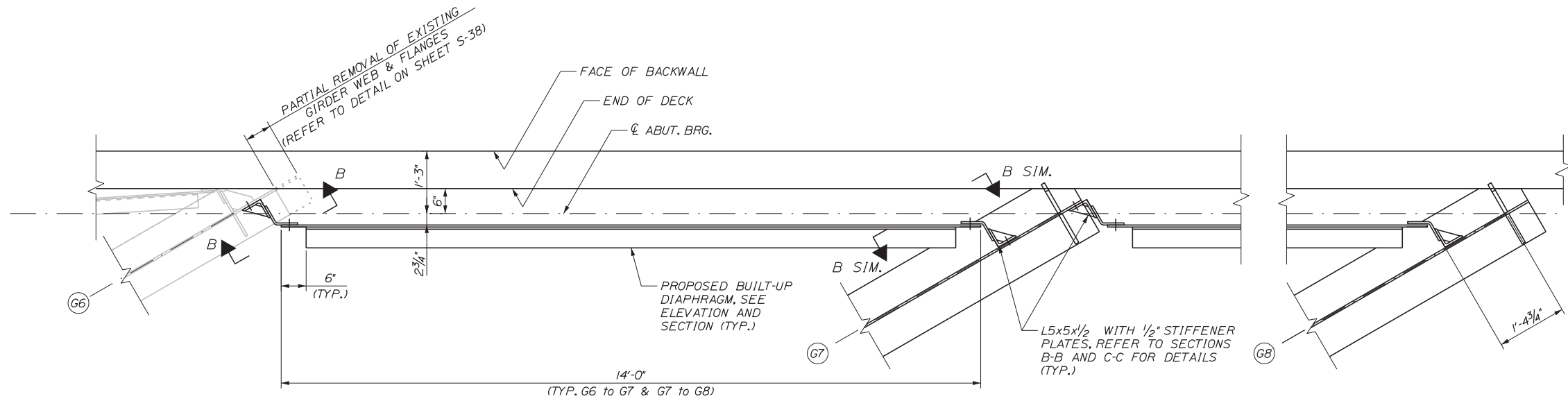
CROSS-FRAME & DIAPHRAGM DETAILS 2

SHEET NUMBER: S-40

CONTRACT: 2018.05

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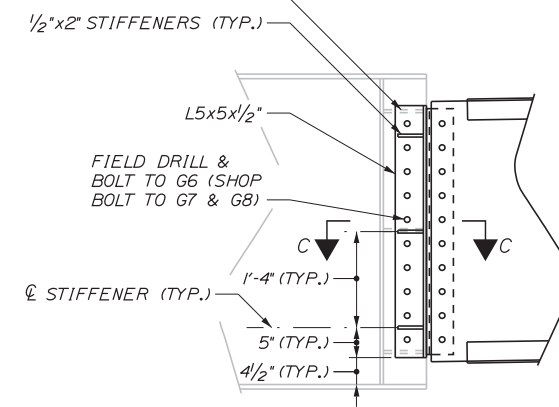
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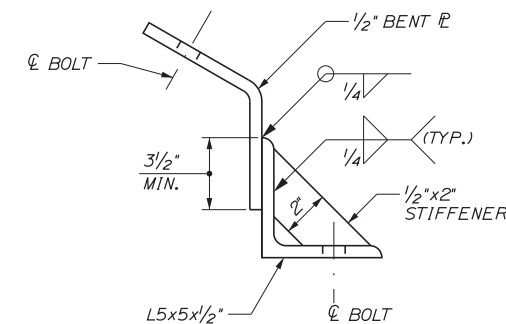
DIAPHRAGM TYPE B-2 DETAILS
 (ABUTMENT NO. 2 SHOWN, ABUTMENT NO. 1 SIMILAR)
 3/4" = 1'-0"

NOTE:
 FOR SECTION A-A SEE SHEET S-40

FIELD VERIFY LOCATION
 OF EXIST. STIFFENERS
 (LOCATE HOLES TO AVOID,
 WHERE APPLICABLE)



SECTION B-B
 3/4" = 1'-0"



SECTION C-C
 (DIAPHRAGM & GIRDER NOT SHOWN FOR CLARITY)
 NOT TO SCALE

Filename: ...S-41_SteelDetails3.dgn

Scale:			
No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
	By	Date	
Designed	PAG	2\16\18	Checked GAB 2\16\18
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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

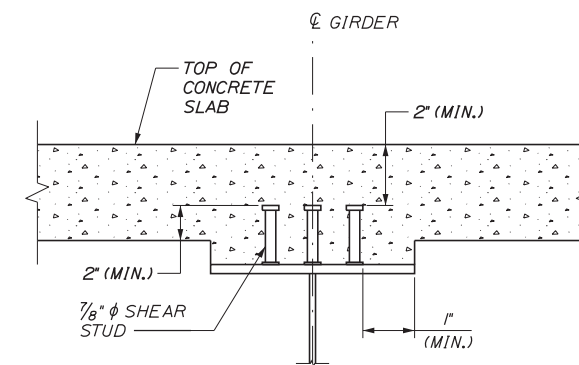
CROSS-FRAME & DIAPHRAGM DETAILS 3

SHEET NUMBER: S-41
 CONTRACT: 2018.05
 148 OF 176

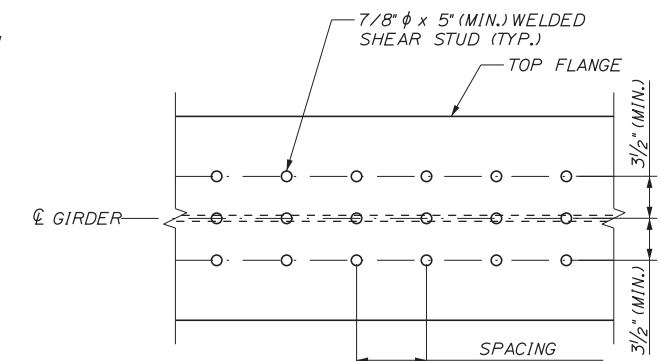
SUPERSTRUCTURE NOTES

- FORM A ONE INCH V-GROOVE ON THE FASCIAS AT THE HORIZONTAL JOINT BETWEEN THE PARAPET AND SLAB.
- REINFORCING STEEL SHALL HAVE A MINIMUM CONCRETE COVER OF 2 INCHES UNLESS OTHERWISE NOTED.
- ADJUST REINFORCING STEEL TO FIT AROUND THE BRIDGE DRAINS IN A MANNER APPROVED BY THE RESIDENT. DO NOT CUT TRANSVERSE REINFORCING BARS.
- THE SUPERSTRUCTURE SLAB CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE DECK POUR SEQUENCE SHOWN ON THE PLANS. AS AN ALTERNATE AND AT THE CONTRACTOR'S OPTION, THE ENTIRE DECK FOR A GIVEN PHASE OF CONSTRUCTION MAY BE PLACED IN ONE CONTINUOUS OPERATION WITHOUT CONSTRUCTION JOINTS PROVIDED THAT THE CONCRETE BE KEPT PLASTIC ONE COMPLETE SPAN BEHIND THE SPAN BEING PLACED. AN APPROVED SET RETARDER SHALL BE USED, WHEN NECESSARY TO RETAIN WORKABILITY OF THE CONCRETE. IF MULTIPLE PLACEMENTS ARE MADE THE "A" PANEL SHALL BE PLACED PRIOR TO THE "B" PANEL FOR A GIVEN PHASE OF CONSTRUCTION AND A MINIMUM OF 5 DAYS SHALL ELAPSE BETWEEN PLACEMENTS. THE SUPERSTRUCTURE SLAB CONCRETE PLACEMENT SEQUENCE SHALL BE APPROVED BY THE RESIDENT.
- THE FORMWORK AND ITS SUPPORTS, OVER THE FULL WIDTH OF THE STRUCTURAL SLAB, SHALL REMAIN IN PLACE UNTIL A MINIMUM OF 48 HOURS HAS ELAPSED AFTER PLACEMENT OF THE FINAL SECTION OF THE SLAB. AFTER THIS PERIOD, REMOVAL OF FORMWORK FOR SECTIONS MEETING THE REQUIREMENTS FOR FORM REMOVAL OF STANDARD SPECIFICATIONS SECTION 502, STRUCTURAL CONCRETE, MAY PROCEED.
- MORTAR FOR BEDDING AND FOR JOINTS IN THE GRANITE CURB SHALL CONTAIN AN APPROVED NON-SHRINK ADDITIVE.
- GRANITE CURB JOINTS SHALL LINE UP WITH PARAFFIN AND DUMMY JOINTS.
- CLEAR PROTECTIVE COATING FOR CONCRETE SURFACE SHALL BE APPLIED TO THE FOLLOWING AREAS: PARAPET SURFACES, FASCIA DOWN TO DRIP NOTCH, UNDERSIDE OF DECK BEHIND THE ABUTMENT DIAPHRAGMS AND ALL EXPOSED CONCRETE SURFACES ON THE END POSTS.
- ALL BRIDGE BARRIER CONCRETE, INCLUDING INSIDE FACE, TOP AND OUTSIDE FACE, END POSTS AND DECK FASCIA SHALL HAVE A RUBBED FINISH PRIOR TO THE APPLICATION OF THE CLEAR PROTECTIVE COATING FOR CONCRETE SURFACE.
- DUE TO SKEW ANGLE, PRECAST DECK PANELS SHALL NOT BE USED IN PLACE OF THE FULL DEPTH CAST-IN-PLACE DECK SLAB.

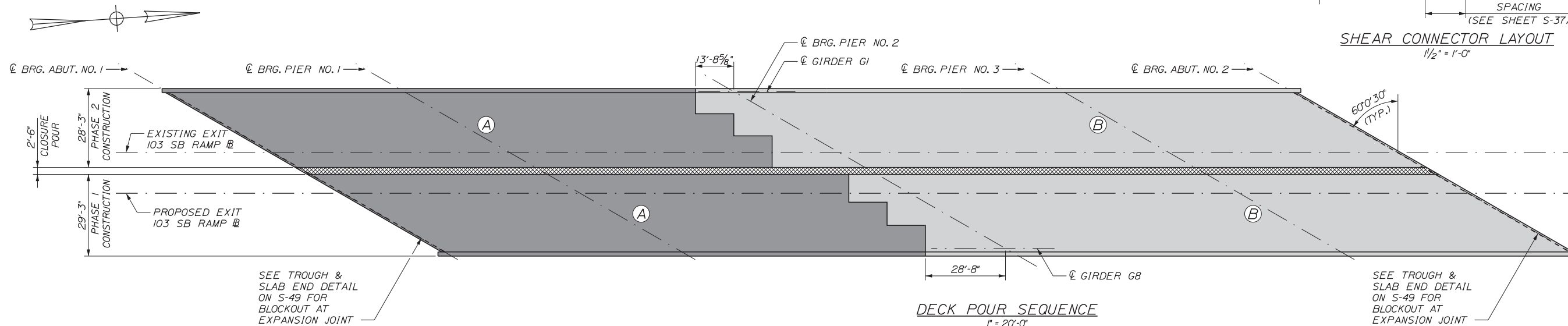
- PRIOR TO INSTALLING THE PROPOSED SHEAR STUDS, THE CONTRACTOR SHALL CLEAN THE TOP FLANGE SO THAT IT IS FREE OF DEBRIS, RUST, SCALE, OIL, AND OTHER CONTAMINATES THAT WOULD ADVERSELY AFFECT THE WELDING OPERATION. PAYMENT FOR CLEANING THE TOP FLANGE FOR INSTALLATION OF PROPOSED SHEAR STUDS SHALL BE INCIDENTAL TO ITEM 505.08, SHEAR CONNECTORS.
- THE PROPOSED SHEAR STUDS SHALL BE 7/8" DIAMETER. STUDS SHALL PENETRATE A MINIMUM OF 2" AND MAINTAIN A CLEAR COVER OF 2" TO THE TOP OF THE STUD.
- SPAN LOCATIONS PROVIDED ON THE BOTTOM OF SLAB ELEVATION TABLE ARE BASED ON THE CENTERLINE OF BEARING TO CENTERLINE OF BEARING 'L' FOR EACH GIRDER.
- THE THEORETICAL BLOCKING USED FOR DESIGN OF THE PROPOSED GIRDERS IS 3' AT THE CENTERLINE OF BEARINGS OF THE ABUTMENTS AND PIERS. REFER TO STANDARD DETAIL 502(03) FOR BLOCKING DETAILS.
- THE THEORETICAL BLOCKING DISTANCES FOR THE EXISTING GIRDERS VARIES FROM 2 1/2" MIN. TO 4 3/4" MAX. DUE TO PROPOSED CHANGES TO THE EXISTING ROADWAY CROSS-SLOPE AND VERTICAL PROFILE. THE CONTRACTOR SHALL PROFILE THE TOPS OF THE GIRDERS BEFORE THE FORMWORK IS STARTED AND SHALL SUBMIT TO THE RESIDENT THE FINAL BLOCKING ELEVATIONS FOR REVIEW. FIVE (5) WORKING DAYS SHALL BE ALLOWED FOR THE BLOCKING POINT TURN AROUND TIME.
- EXISTING SHEAR CONNECTORS SHALL BE REMOVED FROM THE EXISTING GIRDERS SUCH THAT THEY PROJECT 1 INCH MAXIMUM ABOVE THE TOP OF THE EXISTING TOP FLANGE UNLESS THEY CONFLICT WITH THE INSTALLATION OF THE NEW SHEAR CONNECTORS OR ANY OTHER WORK. IF THE EXISTING SHEAR CONNECTORS INTERFERE WITH INSTALLATION OF THE NEW SHEAR CONNECTORS OR ANY OTHER WORK, THEY SHALL BE REMOVED COMPLETELY AND GROUND FLUSH WITH THE TOP FLANGE. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCIDENTAL TO RELATED CONTRACT ITEMS.
- CONCRETE PARAPET ON BRIDGE SHALL BE FORMED SO THAT THE BARRIER OPENING AT THE EXPANSION JOINT IS 2 1/8" AT 45°. THIS OPENING DIMENSION SHALL BE INCREASED BY 3/16" FOR EVERY 10° TEMPERATURE DECREASE BELOW 45°. THE OPENING DIMENSION SHALL BE DECREASE BY 3/16" FOR EACH 10° TEMPERATURE INCREASE ABOVE 45°.



SHEAR CONNECTOR DETAIL
1/2" = 1'-0"



SHEAR CONNECTOR LAYOUT
1/2" = 1'-0"



DECK POUR SEQUENCE
1" = 20'-0"

BOTTOM OF SLAB ELEVATION TABLE

GIRDER	CL BRG. ABUT. 1	SPAN NO. 1				CL BRG. PIER 1	SPAN NO. 2									CL BRG. PIER 2	SPAN NO. 3									CL BRG. PIER 3	SPAN NO. 4				CL BRG. ABUT. 2
		0.2L	0.4L	0.8L	0.8L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L		0.2L	0.4L	0.6L	0.8L	
G1	229.12	229.34	229.53	229.68	229.80	229.93	230.04	230.16	230.27	230.37	230.45	230.51	230.55	230.58	230.61	230.66	230.72	230.79	230.86	230.92	230.97	230.99	230.99	230.97	230.95	230.94	230.95	230.95	230.94	230.88	
G2	229.43	229.65	229.83	229.96	230.08	230.20	230.30	230.42	230.53	230.62	230.70	230.75	230.79	230.82	230.84	230.88	230.93	231.00	231.07	231.12	231.16	231.18	231.17	231.15	231.13	231.11	231.12	231.13	231.12	231.01	
G3	229.74	229.94	230.11	230.24	230.35	230.47	230.57	230.67	230.78	230.87	230.94	230.99	231.02	231.04	231.06	231.09	231.14	231.21	231.27	231.32	231.35	231.36	231.35	231.32	231.29	231.27	231.27	231.28	231.22	231.14	
G4	230.04	230.23	230.40	230.52	230.62	230.73	230.82	230.92	231.02	231.11	231.18	231.22	231.25	231.26	231.28	231.30	231.35	231.40	231.46	231.51	231.53	231.54	231.52	231.49	231.46	231.43	231.42	231.42	231.40	231.34	231.26
G5	230.33	230.52	230.67	230.79	230.88	230.98	231.07	231.17	231.26	231.34	231.40	231.44	231.46	231.47	231.48	231.50	231.54	231.60	231.65	231.69	231.71	231.71	231.69	231.65	231.61	231.58	231.56	231.56	231.53	231.47	231.37
G6	230.48	230.66	230.81	230.92	231.00	231.10	231.18	231.27	231.36	231.44	231.49	231.53	231.54	231.55	231.55	231.57	231.60	231.65	231.70	231.73	231.75	231.74	231.72	231.68	231.63	231.59	231.57	231.55	231.52	231.45	231.35
G7	230.43	230.60	230.74	230.84	230.92	231.00	231.08	231.17	231.25	231.32	231.37	231.40	231.41	231.41	231.41	231.42	231.45	231.49	231.53	231.53	231.56	231.57	231.56	231.53	231.49	231.39	231.39	231.34	231.30	231.22	231.11
G8	230.37	230.54	230.67	230.76	230.83	230.91	230.98	231.06	231.14	231.21	231.25	231.27	231.28	231.27	231.26	231.27	231.29	231.33	231.37	231.39	231.40	231.38	231.34	231.29	231.24	231.19	231.15	231.12	231.07	230.98	230.86

Date: 2/19/2018

Filename: ...S-42_SuperstructureDetails.dgn

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

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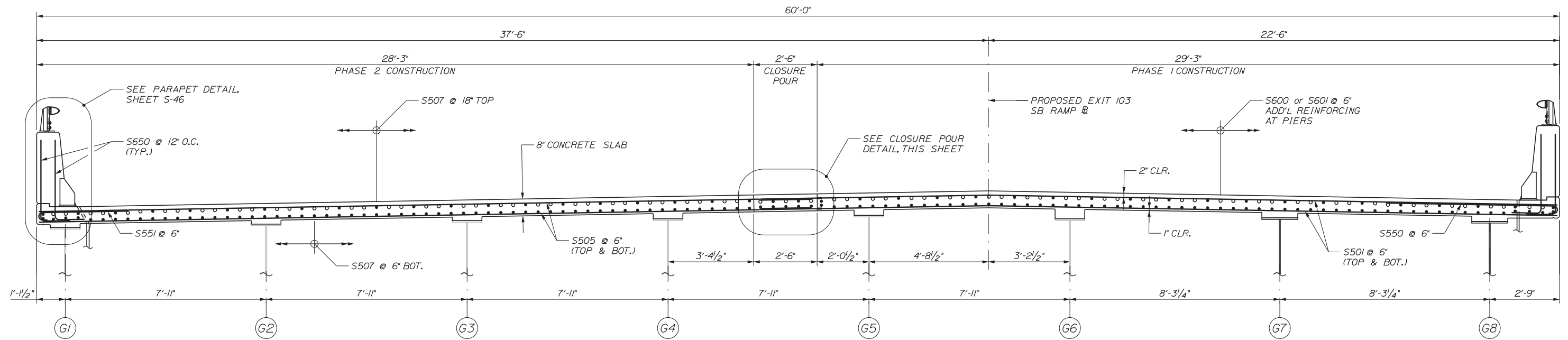
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

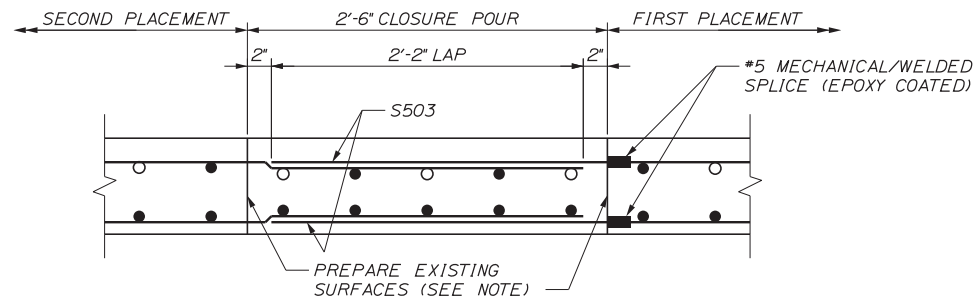
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
SUPERSTRUCTURE DETAILS

SHEET NUMBER: S-42
CONTRACT: 2018.05
149 OF 176

Date: 2/19/2018



TRANSVERSE REINFORCEMENT SECTION
1/2" = 1'-0"



CLOSURE POUR NOTE

THE SURFACE OF THE PREVIOUSLY CAST CONCRETE SHALL BE BLAST CLEANED, ROUGHENED, WETTED WITH CLEAN WATER, AND THEN FLUSHED WITH A MORTAR COMPOSED OF EQUAL PARTS OF THE CEMENT AND SAND SPECIFIED FOR THE NEW CONCRETE, BEFORE NEW CONCRETE IS PLACED ADJACENT THERETO. NEW CONCRETE SHALL BE PLACED BEFORE MORTAR HAS TAKEN INITIAL SET.

CLOSURE POUR DETAIL
1/2" = 1'-0"

NOTES

1. SEE SHEETS S-42 FOR SUPERSTRUCTURE NOTES.
2. SEE SHEETS S-44 AND S-45 FOR DECK REINFORCEMENT PLAN AND DETAILS.

Filename: ...MSTA_60\A\S-43_DeckReinf1.dgn

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**THE GOLD STAR
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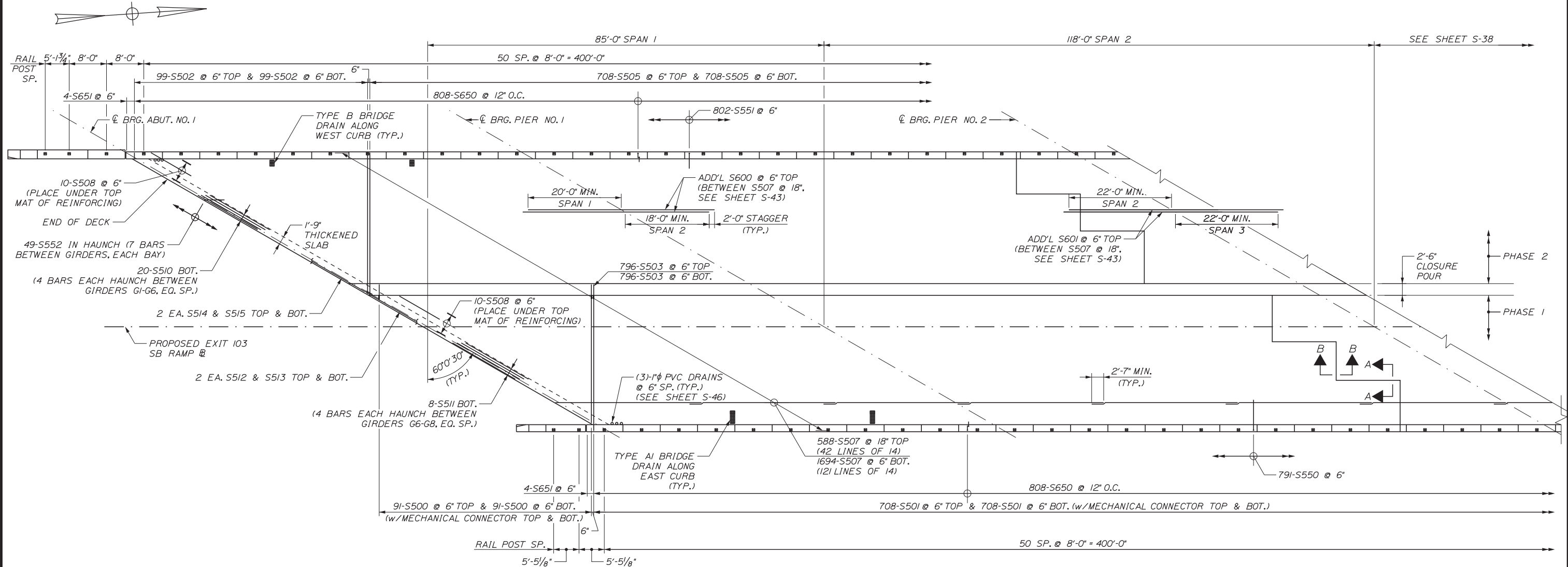
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
DECK REINFORCEMENT 1

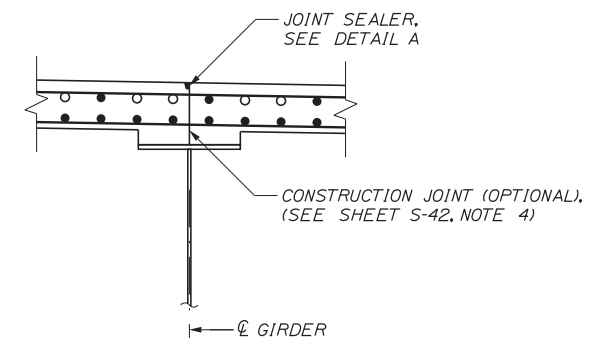
SHEET NUMBER: S-43
CONTRACT: 2018.05
150 OF 176

Date: 2/19/2018

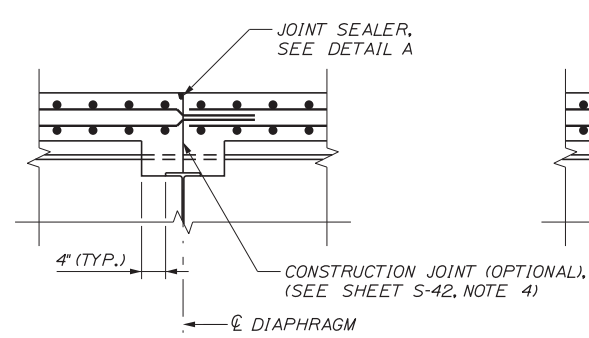
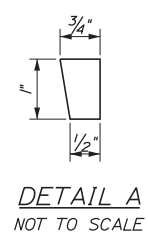
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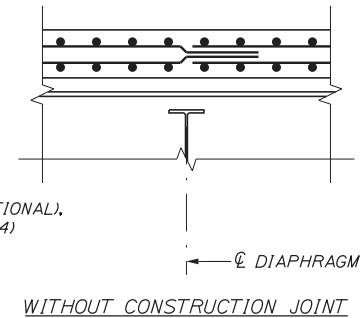
DECK REINFORCEMENT PLAN - SPANS 1 & 2
3/32" = 1'-0"



SECTION A-A
3/4" = 1'-0"



SECTION B-B
3/4" = 1'-0"



NOTES

1. SEE SHEET S-42 FOR SUPERSTRUCTURE NOTES AND DECK POUR SEQUENCE.
2. SEE SHEET S-43 FOR TRANSVERSE REINFORCEMENT SECTION.
3. SEE MAINEDOT STANDARD DETAILS PAGES 502(15) THROUGH 502(24) FOR BRIDGE DRAIN DETAILS AND NOTES.

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

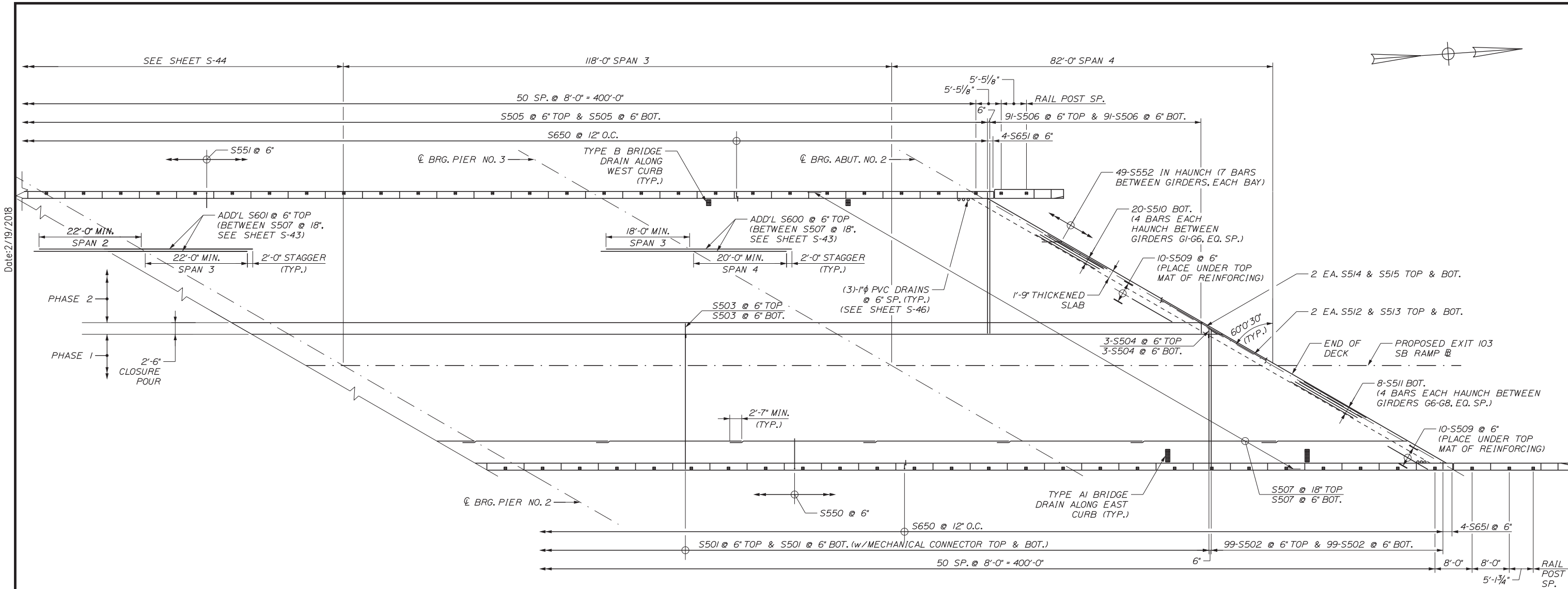
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

DECK REINFORCEMENT 2

SHEET NUMBER: S-44

CONTRACT: 2018.05

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DECK REINFORCEMENT PLAN - SPANS 3 & 4
 $\frac{3}{32}'' = 1'-0''$

- NOTES**
- SEE SHEET S-42 FOR SUPERSTRUCTURE NOTES AND DECK POUR SEQUENCE.
 - SEE SHEET S-43 FOR TRANSVERSE REINFORCEMENT SECTION.
 - SEE S-44 FOR CONSTRUCTION JOINT DETAILS.

Filename: ...MSTA_60\A\S-45_DeckReinf3.dgn

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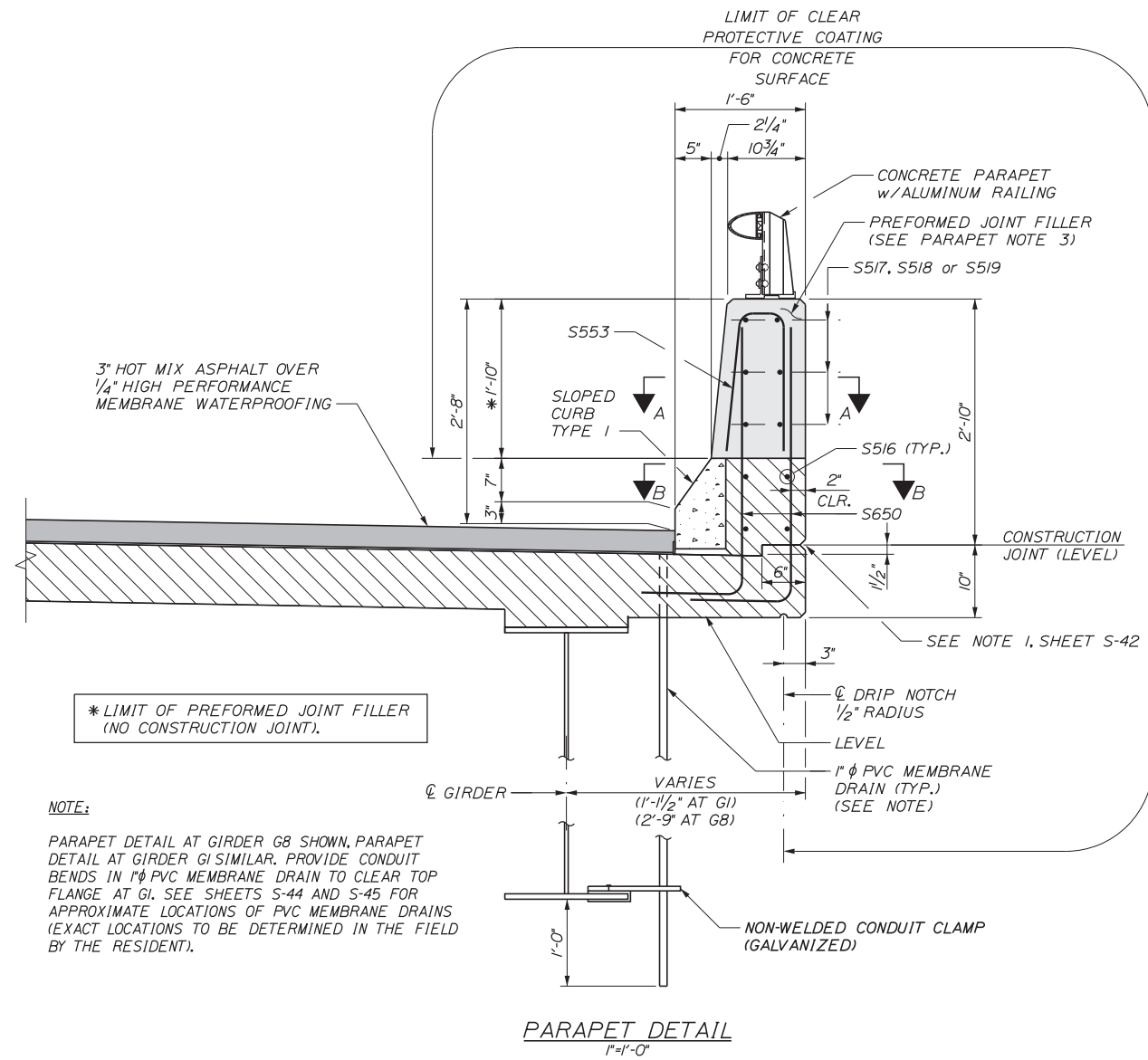
MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
 DECK REINFORCEMENT 3

SHEET NUMBER: S-45
 CONTRACT: 2018.05
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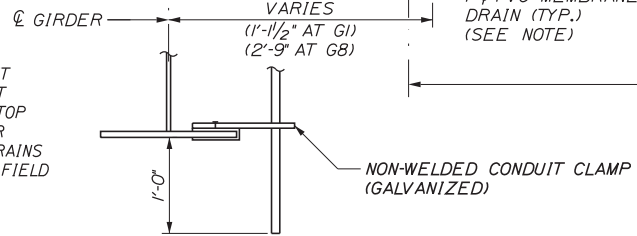
Date: 2/19/2018

Filename: ...MSTA_60\A\S-46_ParapetDetails.dgn

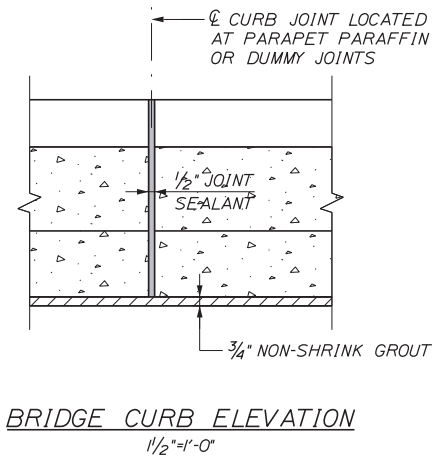


* LIMIT OF PREFORMED JOINT FILLER (NO CONSTRUCTION JOINT).

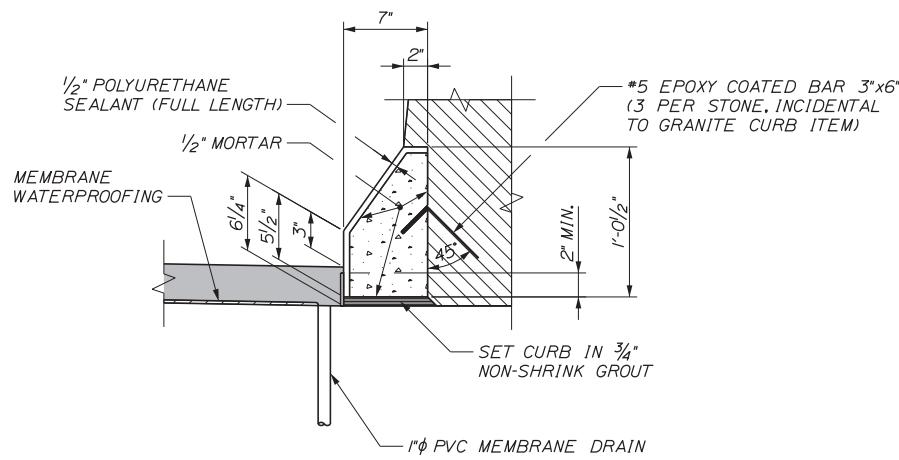
NOTE:
 PARAPET DETAIL AT GIRDER G8 SHOWN, PARAPET DETAIL AT GIRDER G1 SIMILAR. PROVIDE CONDUIT BENDS IN 1" PVC MEMBRANE DRAIN TO CLEAR TOP FLANGE AT G1. SEE SHEETS S-44 AND S-45 FOR APPROXIMATE LOCATIONS OF PVC MEMBRANE DRAINS (EXACT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE RESIDENT).



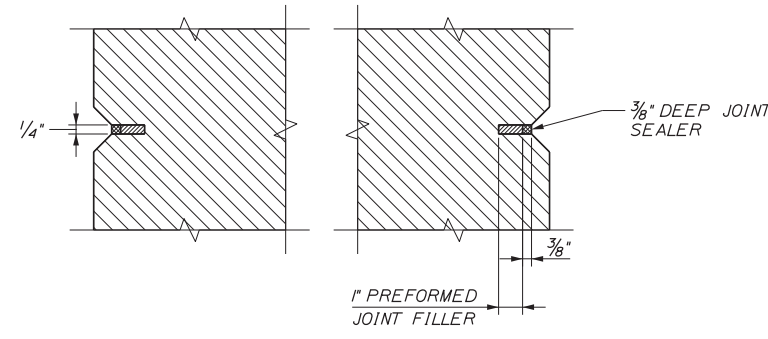
PARAPET DETAIL
1'-1'-0"



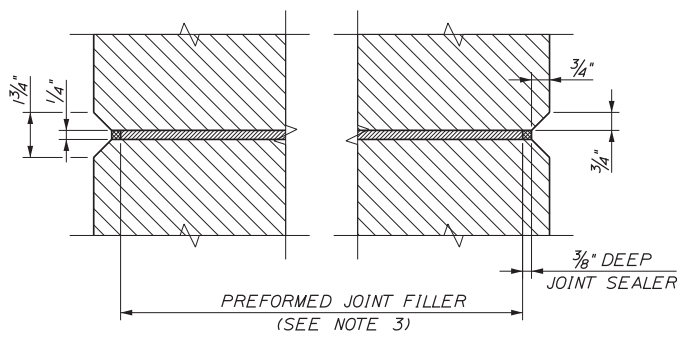
BRIDGE CURB ELEVATION
1/2'-1'-0"



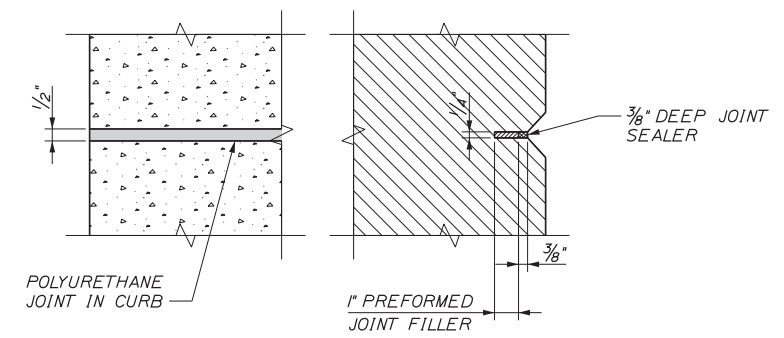
SLOPED CURB TYPE I
1/2'-1'-0"



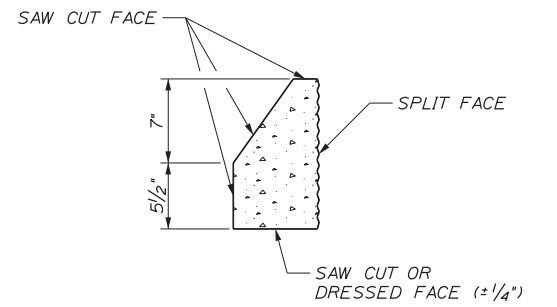
SECTION A-A
(@ DUMMY JOINT)
3'-1'-0"



SECTION A-A
(@ PARAFFIN JOINT)
3'-1'-0"



SECTION B-B
(@ DUMMY & PARAFFIN JOINT LOCATIONS)
3'-1'-0"



SLOPED CURB TYPE I - CUT DETAIL
1/2'-1'-0"

PARAPET NOTES

1. CONSTRUCTION OF PARAFFIN AND DUMMY JOINTS, INCLUDING JOINT FILLER, SHALL BE INCIDENTAL TO RELATED STRUCTURAL CONCRETE PAY ITEM.
2. CONCRETE SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES OF THE JOINT. THE JOINTS SHALL REMAIN PLUMB AND STRAIGHT DURING PLACEMENT. A THIN STEEL PLATE MAY BE USED TO SUPPORT THE JOINT DURING CONCRETE PLACEMENT. THE PLATE SHALL BE CAREFULLY REMOVED WHILE THE CONCRETE IS PLASTIC.
3. PREFORMED JOINT FILLER SHALL CONFORM TO ASTM DESIGNATION D1752, TYPE 1 OR ASTM D5249, TYPE 2. PREFORMED JOINT FILLER SHALL BE A NON-STAINING, NON-BLEEDING TYPE. PRODUCTS SUCH AS 'CERAMAR', MANUFACTURED BY W.R. MEADOWS OR AN APPROVED EQUAL WILL BE ACCEPTABLE. CORK IS NOT AN ACCEPTABLE JOINT FILLER MATERIAL.
4. JOINT SEALER SHALL CONFORM WITH SUBSECTION 714.04 OF THE SPECIFICATIONS AND SHALL BE INCIDENTAL TO RELATED CONTRACT ITEMS.
5. SEE SHEET S-42 FOR ADDITIONAL SUPERSTRUCTURE NOTES.
6. SEE SHEET S-47 FOR PARAPET ELEVATION AND LOCATION OF DUMMY AND PARAFFIN JOINTS.

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MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

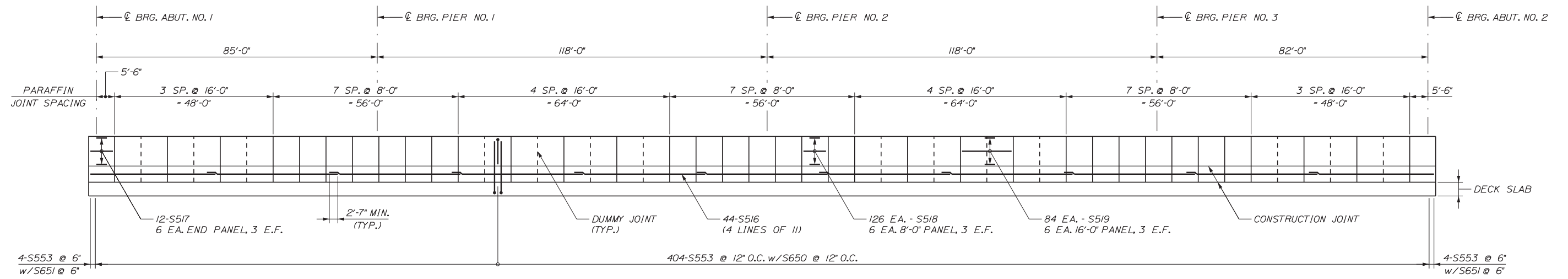
EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

PARAPET DETAILS

SHEET NUMBER: S-46
 CONTRACT: 2018.05 153 OF 176

Date: 2/19/2018

Filename: ...MSTA_60\A\S-47_ParapetElev.dgn




TYPICAL PARAPET ELEVATION
 (WEST PARAPET SHOWN, EAST PARAPET OPPOSITE HAND)
 NOT TO SCALE

NOTE
 SEE SHEETS S-42 AND S-46 FOR ADDITIONAL NOTES AND DETAILS.

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EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION

PARAPET ELEVATION

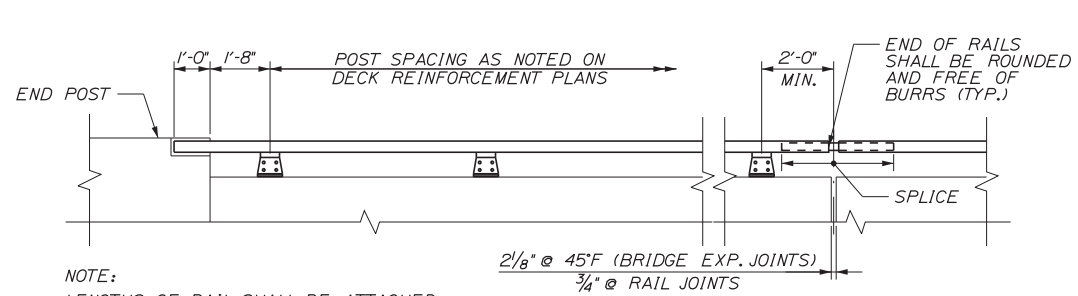
SHEET NUMBER: S-47

CONTRACT: 2018.05

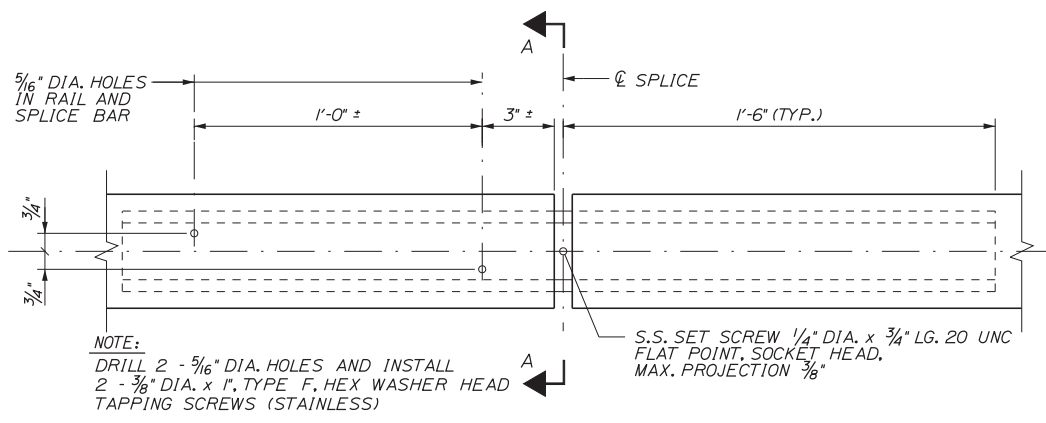
154 OF 176

Date: 2/19/2018

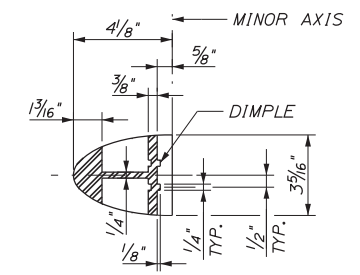
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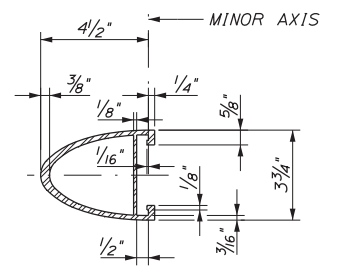
RAILING - ELEVATION
3/8" = 1'-0"



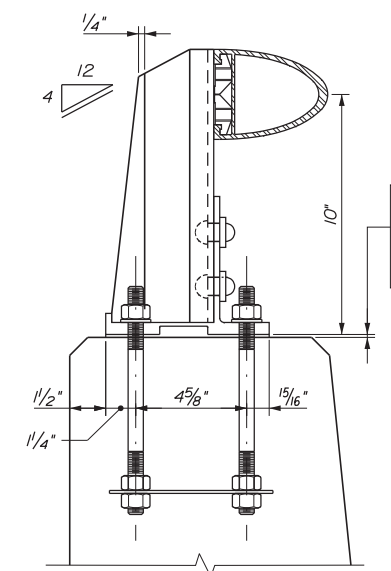
SPLICE DETAIL
3" = 1'-0"



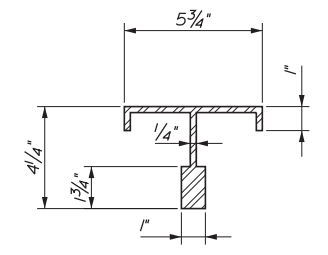
SECTION A-A
3" = 1'-0"



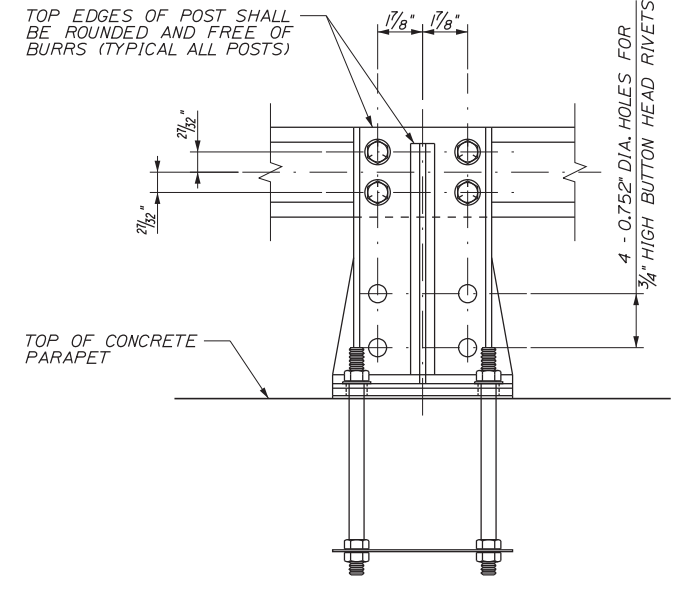
RAIL MEMBER
3" = 1'-0"



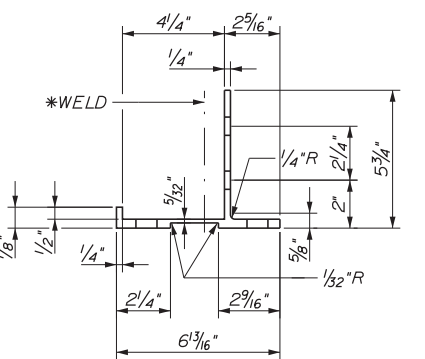
BRIDGE RAILING ASSEMBLY
3" = 1'-0"



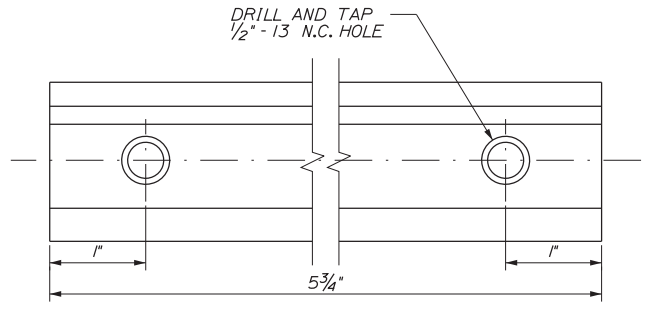
POST SECTION
3" = 1'-0"



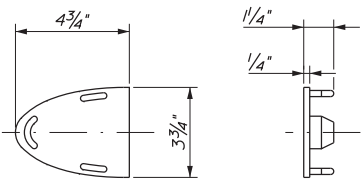
OUTSIDE ELEVATION OF POST
3" = 1'-0"



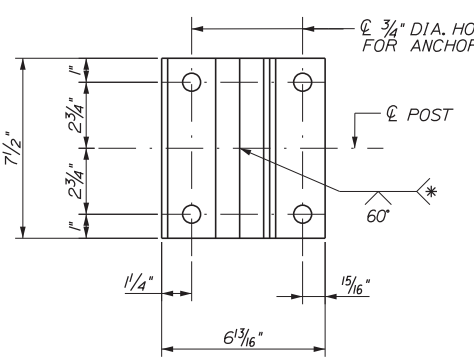
POST BASE SECTION
3" = 1'-0"



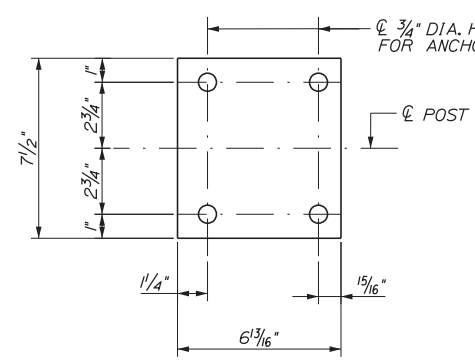
CLAMP BAR DETAILS
1" = 1'-0"



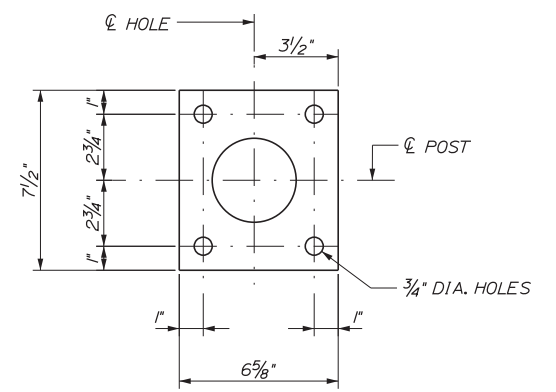
CAST ALUMINUM DRIVE FIT RAIL CAP
3" = 1'-0"



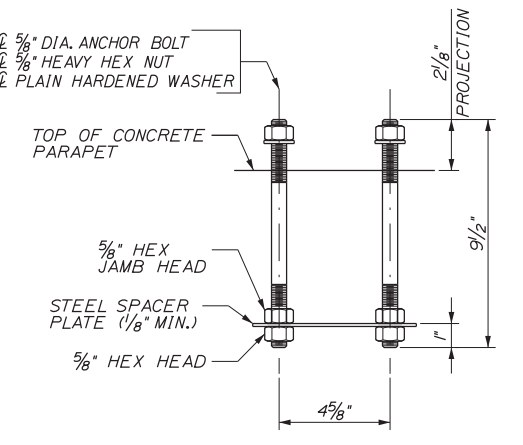
POST BASE (BOTTOM VIEW)
3" = 1'-0"



PREFORMED PAD
3" = 1'-0"

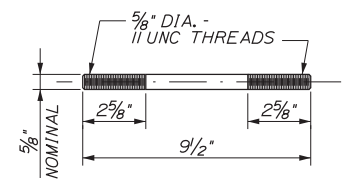


STEEL SPACER PLATE (FOR ANCHORAGE)
3" = 1'-0"



RAIL POST ANCHORAGE (ASSEMBLY)
3" = 1'-0"

NOTE:
* ONE PIECE BASE PLATE MAY BE SUBSTITUTED, PROVIDED THAT THE REQUIRED LENGTH IS CUT FROM ONE PIECE EXTRUSION AND HAS THE GEOMETRIC SHAPE OF THE TWO-PIECE BASE.



ANCHOR BOLT
3" = 1'-0"

NOTE:
IF CUT THREADS ARE USED, BODY DIAMETER SHALL BE NOT LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, BODY DIAMETER SHALL BE NOT LESS THAN PITCH DIAMETER OF THE THREADS.

NOTE:
FOUR (4) BOLT, NUT AND WASHER SETS ARE REQUIRED PER ASSEMBLY. ALL HARDWARE SHALL BE GALVANIZED.

No.	Revision	By	Date

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
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Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

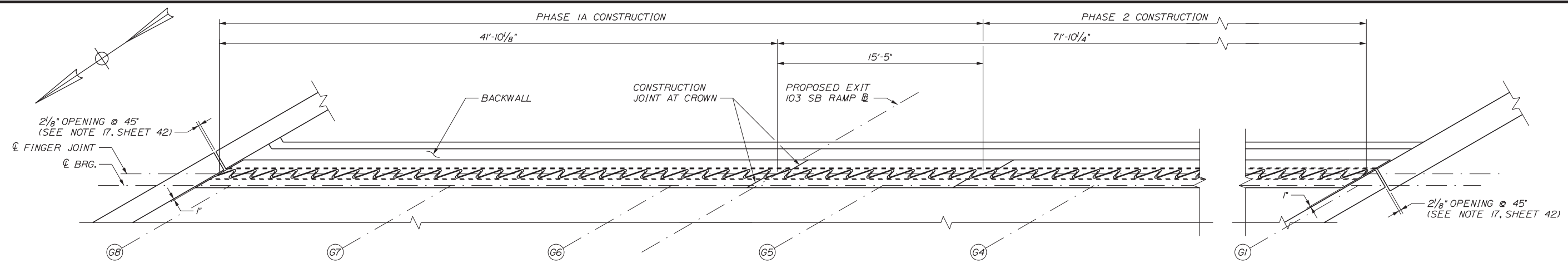
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

BRIDGE RAIL DETAILS

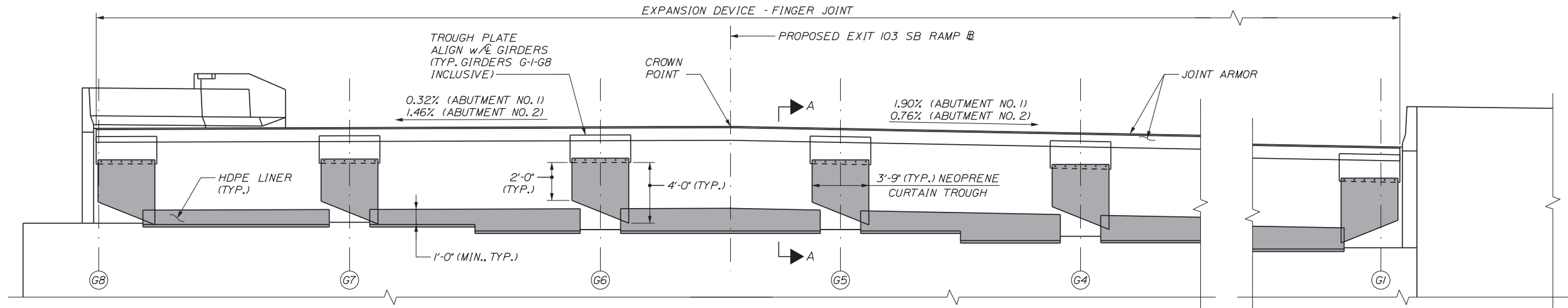
SHEET NUMBER: S-48
CONTRACT: 2018.05
155 OF 176

Date: 2/19/2018

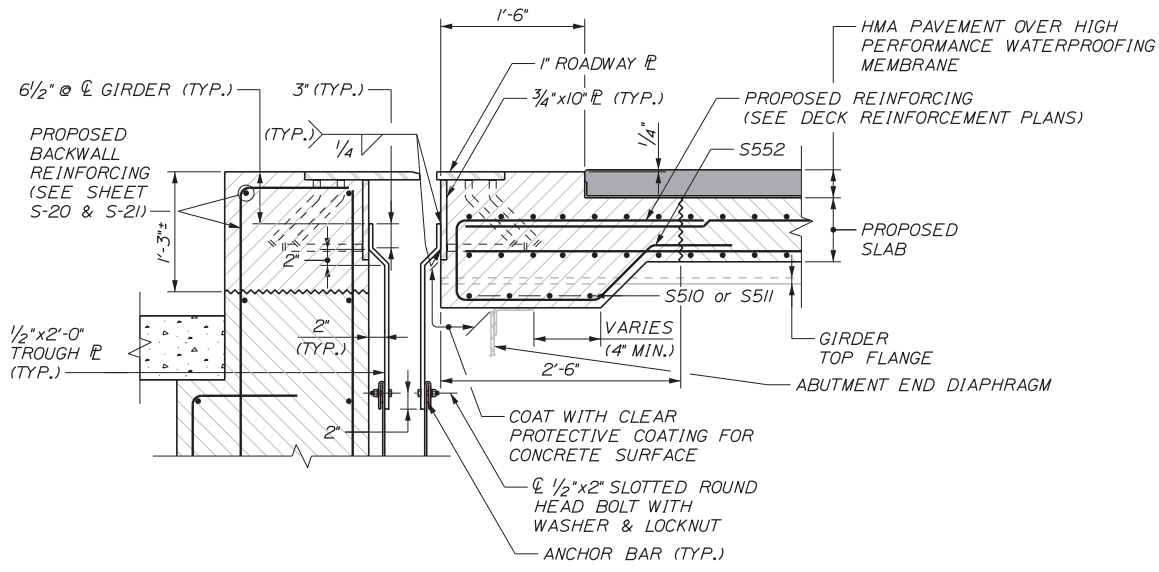
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FINGER JOINT PLAN
(ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR)
1/4" = 1'-0"

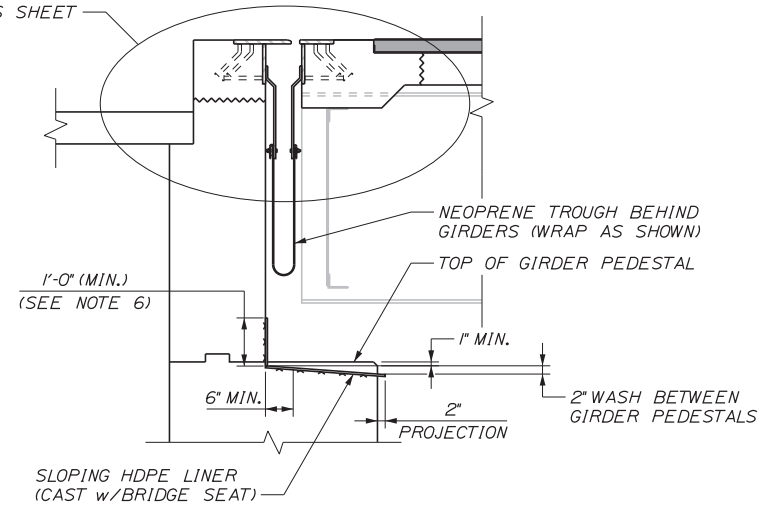


FINGER JOINT ELEVATION
(ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR)
1/4" = 1'-0"



TROUGH & SLAB END DETAIL
1" = 1'-0"

SEE TROUGH & SLAB END DETAIL, THIS SHEET



SECTION A-A
1/2" = 1'-0"

NOTES

- SEE MAINEDOT STANDARD DETAILS 521(01) THROUGH 521(12) FOR NOTES AND ADDITIONAL INFORMATION NOT SHOWN.
- FABRICATION AND MATERIALS FOR THE TROUGH, INCLUDING GALVANIZATION OF STEEL COMPONENTS, SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 521 OF THE STANDARD SPECIFICATIONS.
- PAYMENT FOR NEOPRENE TROUGHS AND STEEL TROUGH PLATES, INCLUDING ANCHOR BARS AND HARDWARE SHALL BE INCIDENTAL TO ITEM 521.23, EXPANSION DEVICE - FINGER JOINT.
- HDPE LINER SHALL BE INSTALLED ON THE SLOPING PORTION OF THE ABUTMENT BRIDGE SEAT BETWEEN EACH GIRDER AT BOTH ABUTMENTS AND AS SHOWN ON THE PLANS. THE HDPE LINER SHALL BE SECURELY FASTENED IN ACCORDANCE WITH SECTION 620 OF THE SPECIAL PROVISIONS. PAYMENT FOR THE HDPE LINERS SHALL BE MADE UNDER ITEM 620.6012, HDPE GEOMEMBRANE.
- THE CONTRACTOR SHALL TAKE CARE IN THE INSTALLATION OF THE HDPE MEMBRANE THAT THE EXTRUDED ANCHORS ARE UNDAMAGED AND INSTALLED IN THE CEMENTITIOUS SUBSTRATE AND IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS. PAYMENT FOR ALL WORK AND MATERIALS NEEDED TO INSTALL THE HDPE MEMBRANE, INCLUDING GROUT BEDDING WHERE REQUIRED, SHALL BE CONSIDERED PAID FOR UNDER ITEM 620.6012, HDPE GEOMEMBRANE.

No.	Revision	By	Date

Scale: _____

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

	By	Date		By	Date
Designed	PAG	2\16\18	Checked	GAB	2\16\18
Drawn	JTB	2\16\18	In Charge of	GAE	2\16\18

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD
SCARBOROUGH, ME 04074
TEL (207) 887-3448
FAX (207) 883-3376

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

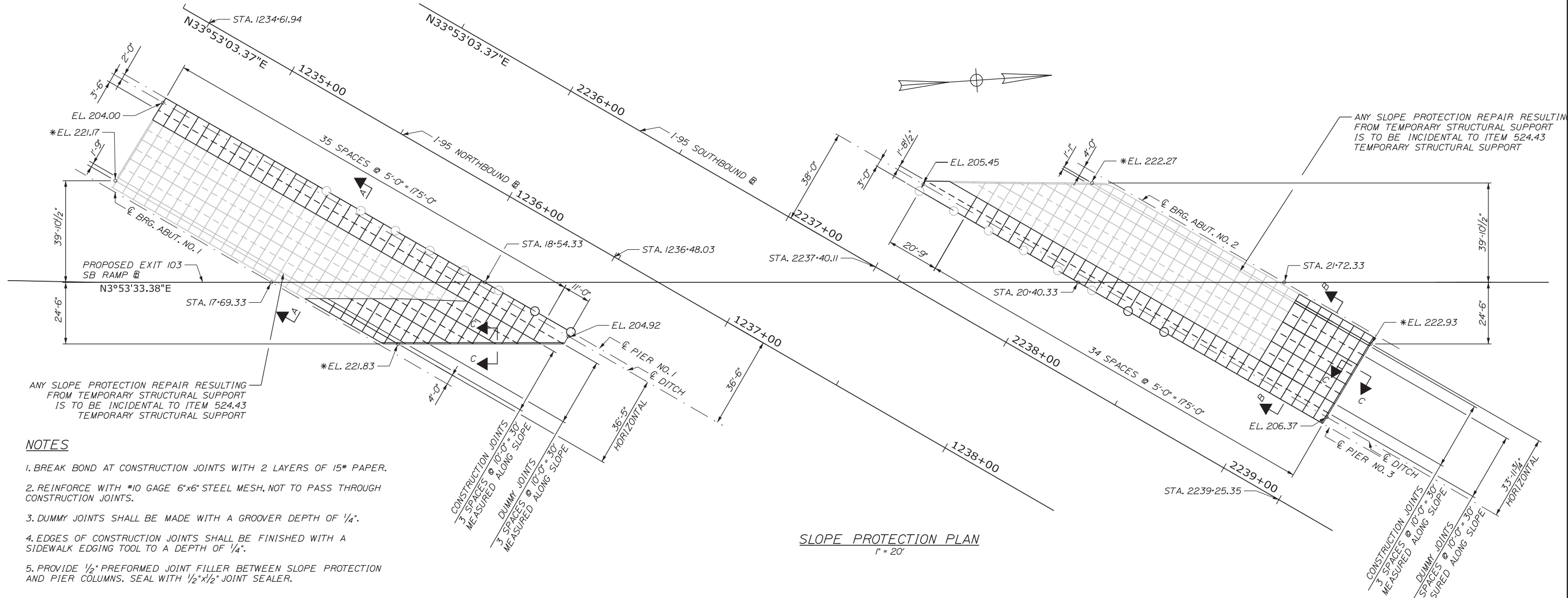
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

FINGER JOINT DETAILS 1

SHEET NUMBER: S-49
CONTRACT: 2018.05
156 OF 176

Date: 2/19/2018

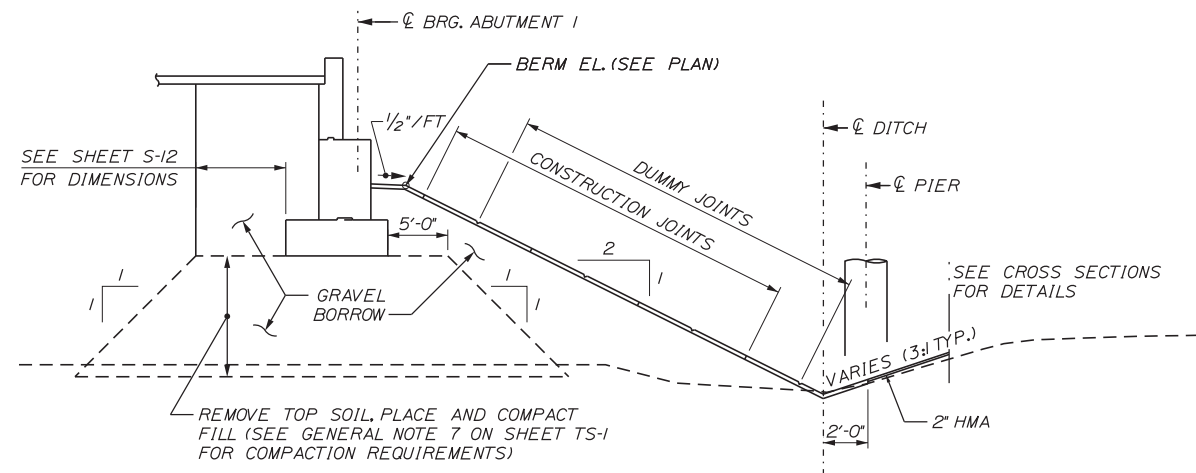
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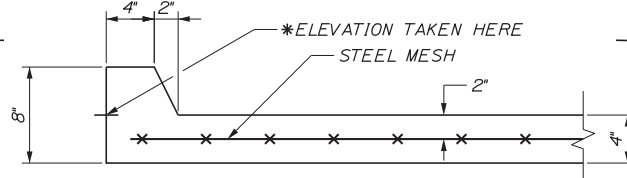
ANY SLOPE PROTECTION REPAIR RESULTING FROM TEMPORARY STRUCTURAL SUPPORT IS TO BE INCIDENTAL TO ITEM 524.43 TEMPORARY STRUCTURAL SUPPORT

NOTES

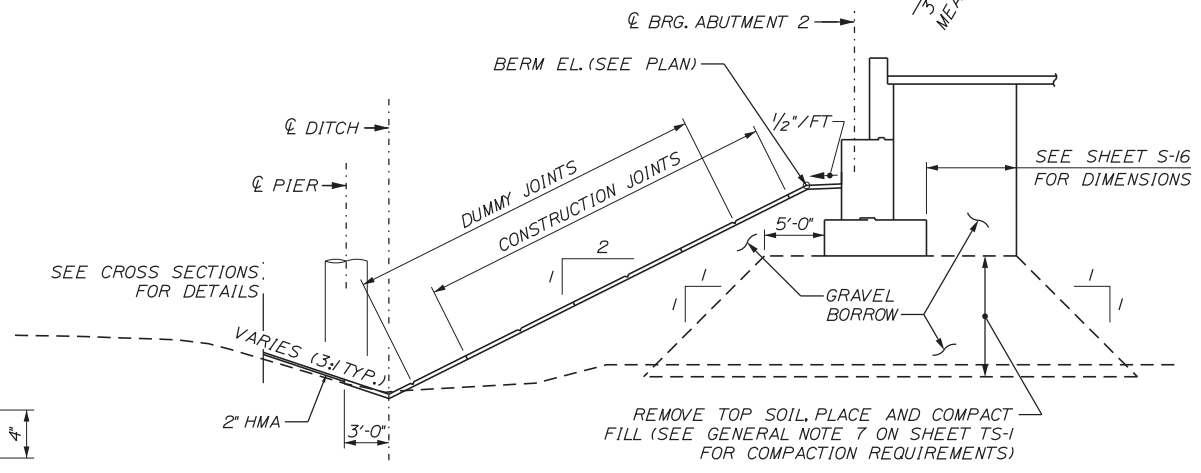
1. BREAK BOND AT CONSTRUCTION JOINTS WITH 2 LAYERS OF 15# PAPER.
2. REINFORCE WITH #10 GAGE 6"x6" STEEL MESH, NOT TO PASS THROUGH CONSTRUCTION JOINTS.
3. DUMMY JOINTS SHALL BE MADE WITH A GROOVER DEPTH OF 1/4".
4. EDGES OF CONSTRUCTION JOINTS SHALL BE FINISHED WITH A SIDEWALK EDGING TOOL TO A DEPTH OF 1/4".
5. PROVIDE 1/2" PREFORMED JOINT FILLER BETWEEN SLOPE PROTECTION AND PIER COLUMNS. SEAL WITH 1/2"x1/2" JOINT SEALER.



SECTION A-A
1/8" = 1'-0"



SECTION C-C
1/2" = 1'-0"



SECTION B-B
1/8" = 1'-0"

Scale:			
No.	Revision	By	Date

Designed by:			
CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE			
Designed	PAG	2\16\18	Checked
Drawn	JTB	2\16\18	In Charge of
			GAB
			GAE

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FAX (207) 883-3376

**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

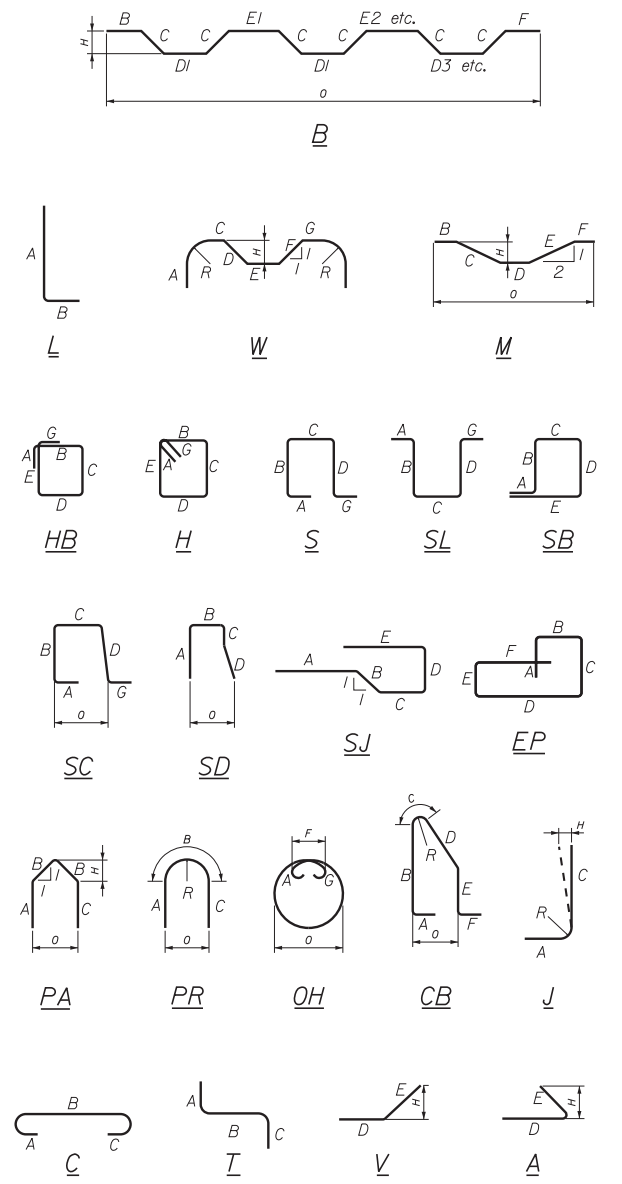
EXIT 103 I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
SLOPE PROTECTION

SHEET NUMBER: S-51
CONTRACT: 2018.05
158 OF 176

Date: 2/19/2018

STRAIGHT BARS					BENT BARS																				
MARK	QTY.	LENGTH	INCREMENT	LOCATION	MARK	QTY.	LENGTH	INCREMENT	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
Pier No. 1					Pier No. 1																				
1P500	20	5'-6"		Pier Footing - Transverse	1P450	18	10'-11"		OH									1'-6"						3'-0"	Columns 1-6
1P501	12	9'-0"		Pier Footing - Longitudinal	1P550	84	11'-11"		OH	6"								1'-6"	6"					3'-0"	Columns 7-8
1P700	22	9'-0"		Pier Footing - Longitudinal	1P551	4	5'-8"		S		1'-4"	2'-10"	1'-4"												Columns 7-8
1P701	20	5'-6"		Pier Footing - Transverse	1P552	8	5'-0"		S		1'-4"	2'-4"	1'-4"												Columns 7-8
1P1100	12	20'-6"		Column Bars	1P553	16	4'-4"		S		1'-0"	2'-4"	1'-0"												Columns 1-4
1P1101	12	28'-0"		Column Bars	1P554	8	5'-2"		S		1'-5"	2'-4"	1'-5"												Columns 5-6
Pier No. 2					Pier No. 2																				
2P500	32	7'-6"		Pier Footing - Long. & Trans.	1P555	8	4'-10"		S		1'-0"	2'-10"	1'-0"												Columns 1-4
2P700	60	7'-6"		Pier Footing - Long. & Trans.	1P556	4	5'-8"		S		1'-5"	2'-10"	1'-5"												Columns 5-6
2P1100	12	13'-0"		Column Bars	1P557	60	2'-7"		C	7"	2'-0"														Columns 1-6
2P1101	12	20'-4"		Column Bars	1P1150	12	11'-7"		L	9'-7"	2'-0"														Columns 7-8 - Footing
2P1101	12	20'-4"		Column Bars	1P1151	12	19'-5"		L	17'-5"	2'-0"														Columns 7-8 - Footing
Pier No. 3					Pier No. 3																				
3P500	16	5'-6"		Pier Footing - Transverse	2P450	18	10'-11"		OH									1'-6"						3'-0"	Columns 1-6
3P501	12	7'-0"		Pier Footing - Longitudinal	2P550	64	11'-11"		OH	6"								1'-6"	6"					3'-0"	Columns 7-8
3P700	22	7'-0"		Pier Footing - Longitudinal	2P551	4	5'-6"		S		1'-4"	2'-10"	1'-4"												Columns 7-8
3P701	16	5'-6"		Pier Footing - Transverse	2P552	8	5'-0"		S		1'-4"	2'-4"	1'-4"												Columns 7-8
3P1100	12	14'-0"		Column Bars	2P553	16	4'-4"		S		1'-0"	2'-4"	1'-0"												Columns 1-4
3P1101	12	21'-4"		Column Bars	2P554	8	5'-2"		S		1'-5"	2'-4"	1'-5"												Columns 5-6
Pier Protection Concrete Barrier					Pier Protection Concrete Barrier																				
*PP511	256	25'-1"		Footing Longitudinal	2P555	8	4'-10"		S		1'-0"	2'-10"	1'-0"												Columns 1-4
*PP512	128	26'-3"		Footing Longitudinal	2P556	4	5'-8"		S		1'-5"	2'-10"	1'-5"												Columns 5-6
*PP513	72	14'-4"		Footing Longitudinal	2P557	60	2'-7"		C	7"	2'-0"														Columns 1-6
*PP701	1120	7'-8"		Footing Transverse	2P1150	12	11'-7"		L	9'-7"	2'-0"														Columns 7-8 - Footing
*PP702	120	8'-11"		Footing Transverse	2P1151	12	19'-5"		L	17'-5"	2'-0"														Columns 7-8 - Footing
*PP501	192	30'-2"		Barrier Horizontal	3P450	18	10'-11"		OH									1'-6"						3'-0"	Columns 1-6
*PP502	20	30'-3"		Barrier Horizontal	3P550	66	11'-11"		OH	6"								1'-6"	6"					3'-0"	Columns 7-8
*PP503	24	18'-0"		Barrier Horizontal	3P551	4	5'-6"		S		1'-4"	2'-10"	1'-4"												Columns 7-8
*PP504	4	27'-9"		Barrier Horizontal	3P552	8	5'-0"		S		1'-4"	2'-4"	1'-4"												Columns 7-8
*PP505	24	14'-4"		Barrier Horizontal	3P553	16	4'-4"		S		1'-0"	2'-4"	1'-0"												Columns 1-4
*PP650	1120	5'-2"		Barrier Vertical	3P554	8	5'-2"		S		1'-5"	2'-4"	1'-5"												Columns 5-6
*PP660	48	5'-2"		Barrier Vertical (SB)	3P555	8	4'-10"		S		1'-0"	2'-10"	1'-0"												Columns 1-4
*PP661	48	4'-2"		Barrier Vertical (NB)	3P556	4	5'-8"		S		1'-5"	2'-10"	1'-5"												Columns 5-6
*PP680	20	4'-4"		Barrier Vertical (SB)	3P557	60	2'-7"		C	7"	2'-0"														Columns 1-6
*PP681	20	3'-4"		Barrier Vertical (NB)	3P1150	12	11'-7"		L	9'-7"	2'-0"														Columns 7-8 - Footing
					3P1151	12	19'-5"		L	17'-5"	2'-0"														Columns 7-8 - Footing
Pier Protection Concrete Barrier					Pier Protection Concrete Barrier																				
					*PP506	8	5'-2"		V									2'-7"							Barrier Top
					*PP652	560	6'-5"		J	1'-0"															Barrier Vertical
					*PP653	560	6'-5"		L	5'-5"	1'-0"														Barrier Vertical
					*PP662	24	6'-5"		J	1'-0"															Barrier Vertical
					*PP663	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP664	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP665	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP666	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP667	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP668	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP669	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP670	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP671	8	6'-5"		J	1'-0"															Barrier Vertical
					*PP682	20	6'-3"		L	5'-3"	1'-0"														Barrier Vertical (SB)
					*PP683	20	6'-1"		L	5'-1"	1'-0"														Barrier Vertical (NB)

TYPE - BENDING DIAGRAMS



• Bar is incidental to related concrete pay item.
 All dimensions are out-to-out of bar.
 Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.
 Reinforcing Bar: ASTM A615/A615M, Grade 60

GENERAL NOTES

- The first two digits following the letter(s) of the mark indicate the size of the bar:
 Mark "A502" = bar size #5
 Mark "P805" = bar size #8
 Mark "S650" = bar size #6
- Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.
- All reinforcing steel and mechanical/welded splices shall be epoxy coated.

Filename: ...MSTA_60\AS-53_ReinSched2.dgn

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: GREG EDWARDS, PE

By	Date	By	Date
Designed	PAG 2\16\18	Checked	GAB 2\16\18
Drawn	JTB 2\16\18	In Charge of	GAE 2\16\18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE, PTOE

EXIT 103 I-295 SOUTHBOUND UNDERPASS
 BRIDGE REHABILITATION
REINFORCEMENT SCHEDULE 2
 SHEET NUMBER: S-53
 CONTRACT: 2018.05
 160 OF 176

① SPIRAL DATA
 $\Delta s = 4^{\circ}30'00''$
 $Ls = 300.00'$
 $Xs = 299.81'$
 $Ys = 7.85'$
 $P = 1.96'$
 $K = 149.97'$

SPECIFICATIONS

DESIGN:
 A.A.S.H.O. Standard Specifications for Highway Bridges 1963 with interim Specifications

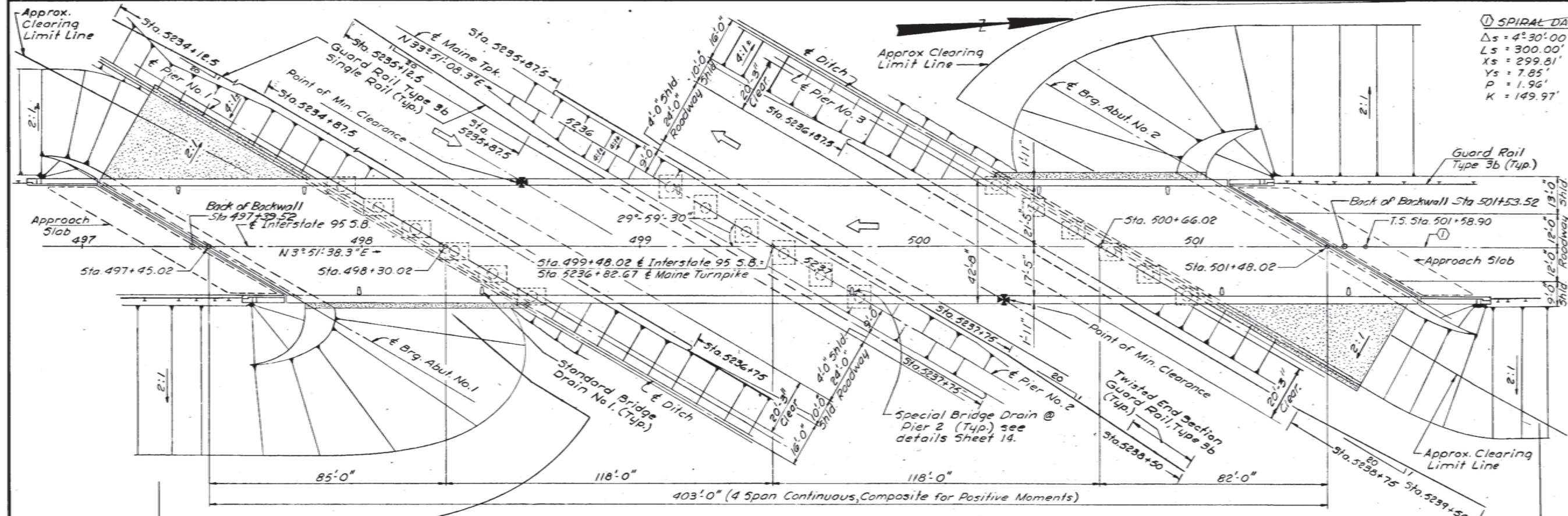
CONTRACT:
 State of Maine, State Highway Commission, Standard Specifications for Highways and Bridges, Revision of June 1968.

LOADING:
 HS 20-44 Modified for Interstate Highways.

FOUNDATIONS:
 Abutments - Spread Footing on Gravel Borrow @ 3T/5F Max. allowable.
 Piers 1, 2 & 3 - Spread Footing in Ledge @ 9.5T/5.F. Max. allowable.

ALLOWABLE STRESSES:
 Concrete ($n=10$) $f_c = 1200$ p.s.i.
 Reinforcing Steel ASTM Designation A615 Grade 60 $f_s = 24,000$ p.s.i.
 ASTM Designation A572-50, $f_s = 27,000$ p.s.i. thickness up to and including $1\frac{1}{2}''$ and A36 Designation A36, $f_s = 20,000$ p.s.i. for additional data see Sheets 3 & 10.

CONCRETE CLASSIFICATION:
 All Concrete shall be Class "A" except Slope Protection, which shall be Class "Y".

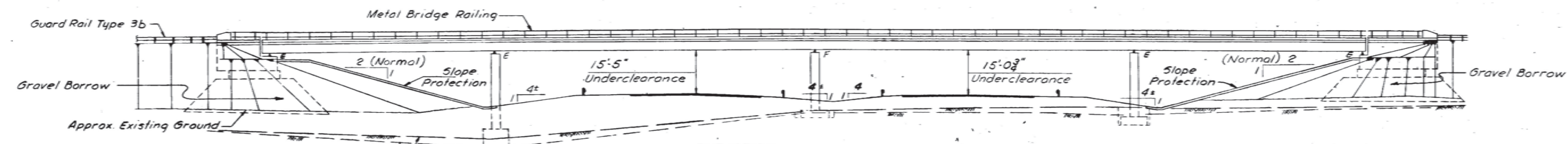


PLAN
 1" = 20'

NOTE:
 Abutments and Piers parallel to Bearing $N33^{\circ}51'08.3''E$.
 For embankment limits, see Sheet 15.

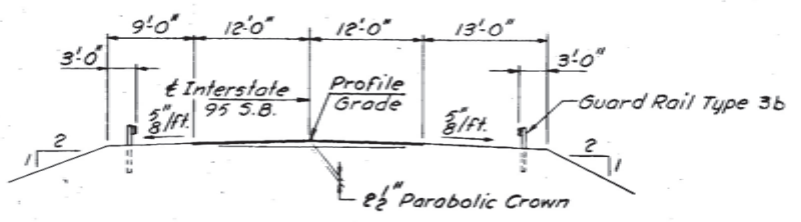
Limit of Clearing to Sta. 495+50±

Limit of clearing to bank of brook

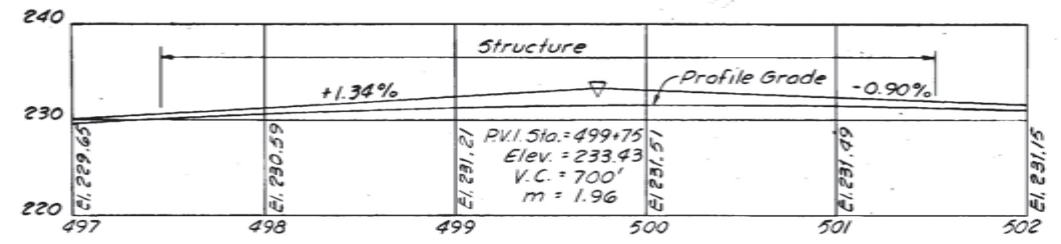


ELEVATION
 1" = 20'

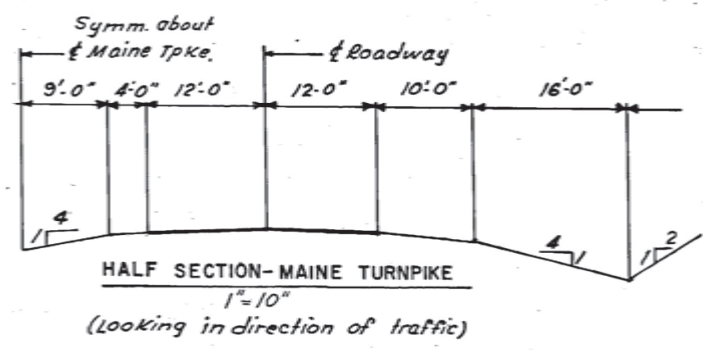
Loam, seed and hay mulch areas around pier columns as directed by the Engineer and in accordance with Sections 615, 618 and 619 of the Standard Specifications. Cost shall be incidental to the contract items.



APPROACH SECTION
 1" = 10'
 (Looking in direction of traffic)



PROFILE - INTERSTATE 95 SOUTHBOUND
 Hor. 1" = 50'
 Vert. 1" = 10'



HALF SECTION - MAINE TURNPIKE
 1" = 10'
 (Looking in direction of traffic)

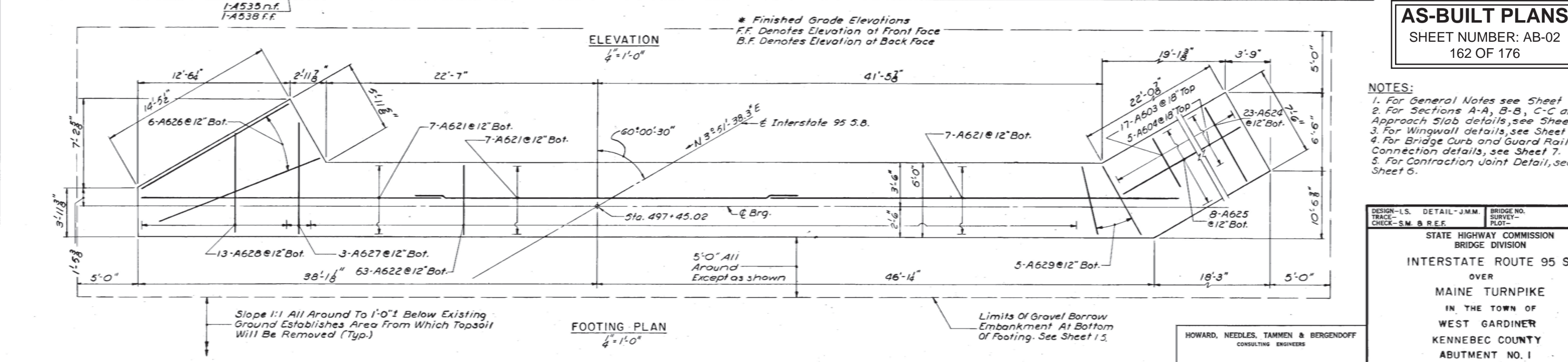
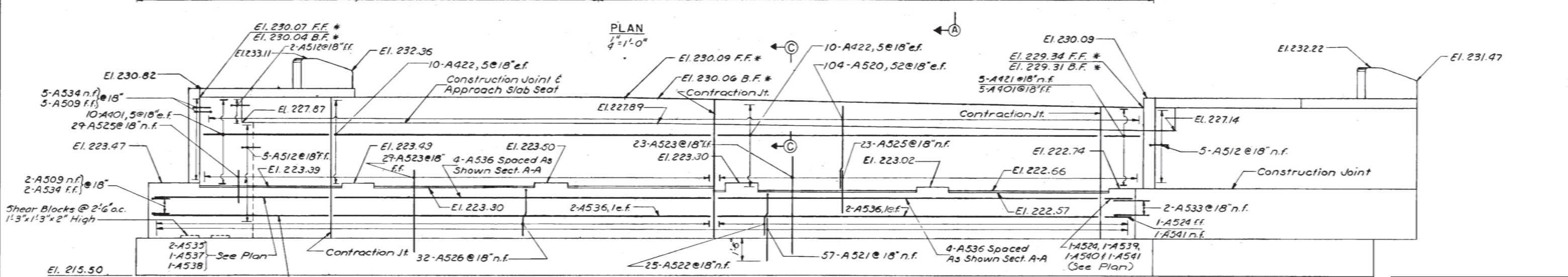
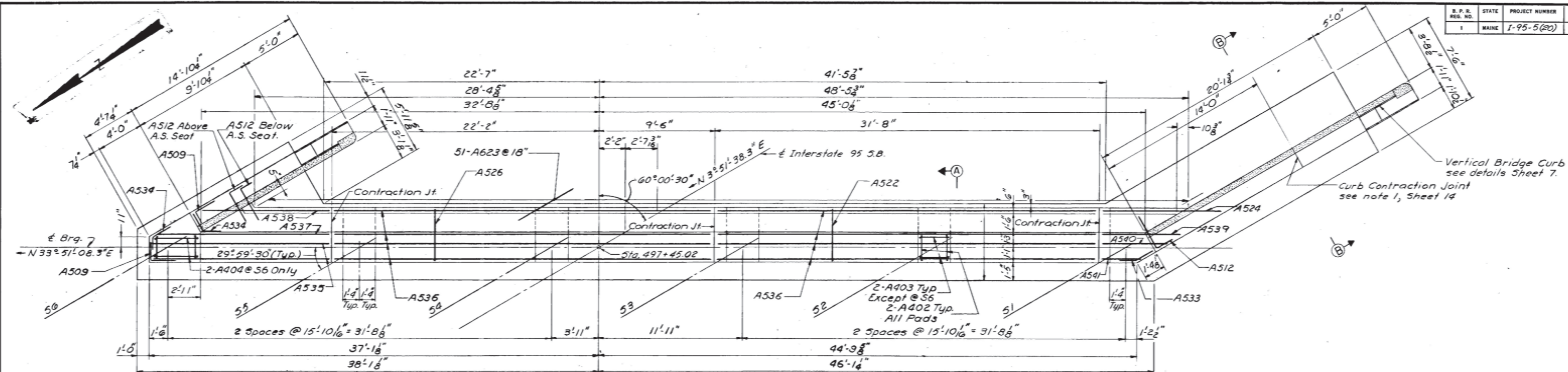
AS-BUILT PLANS

SHEET NUMBER: AB-01
 161 OF 176

DESIGN - E.F.K. DETAIL - J.M.M. BRIDGE NO. SURVEY - PLOT -
 TRACE - G.J.D. CHECK - G.J.D.

STATE HIGHWAY COMMISSION
 BRIDGE DIVISION
 INTERSTATE ROUTE 95 S.B.
 OVER
 MAINE TURNPIKE
 IN THE TOWN OF
 WEST GARDINER
 KENNEBEC COUNTY
 GENERAL PLAN

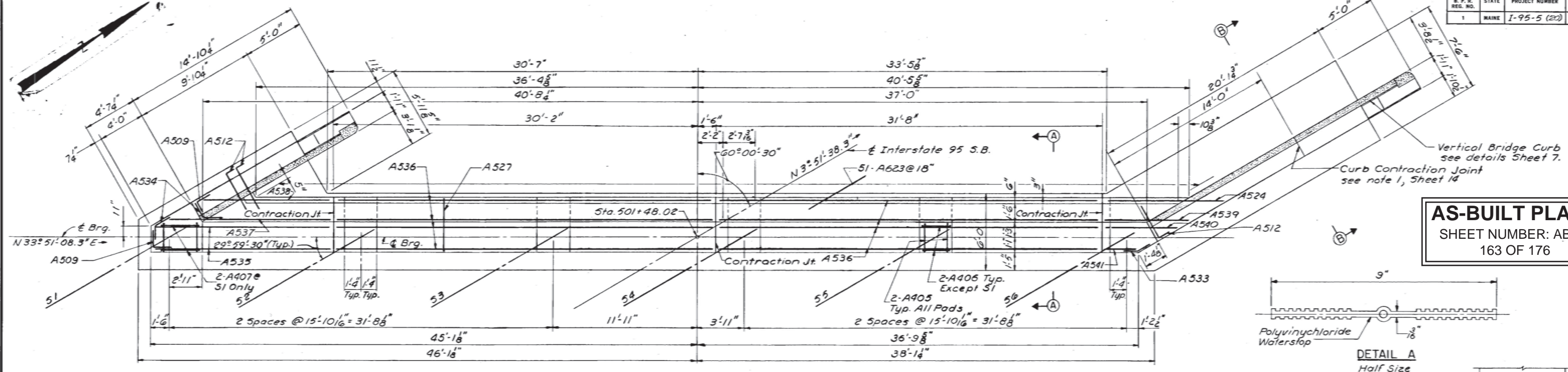
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS



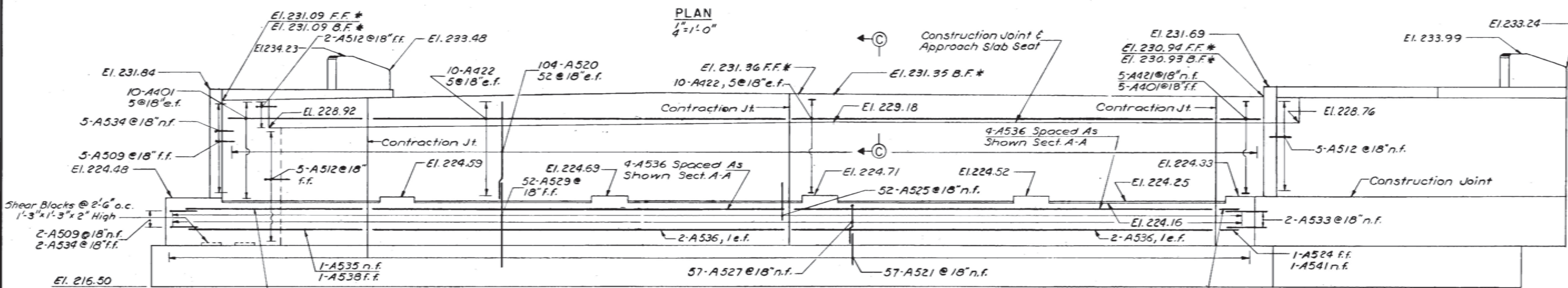
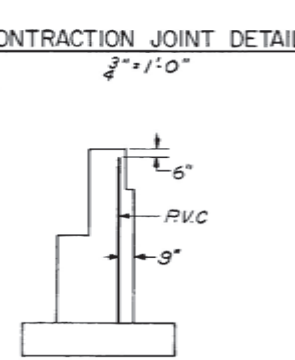
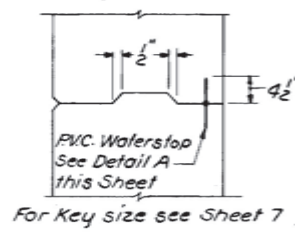
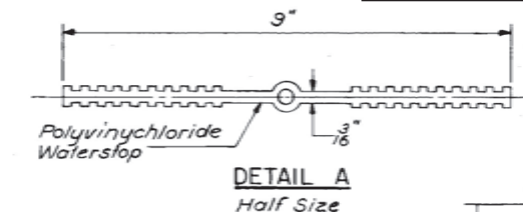
AS-BUILT PLANS
SHEET NUMBER: AB-02
162 OF 176

- NOTES:**
1. For General Notes see Sheet 7.
 2. For Sections A-A, B-B, C-C and Approach Slab details, see Sheet 7.
 3. For Wingwall details, see Sheet 7.
 4. For Bridge Curb and Guard Rail Connection details, see Sheet 7.
 5. For Construction Joint Detail, see Sheet 6.

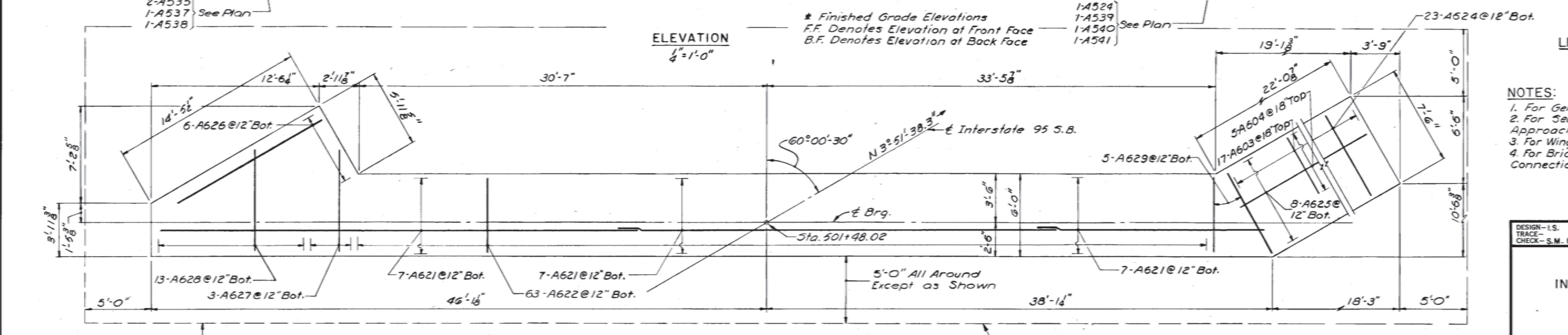
DESIGN—L.S. DETAIL—J.M.M.	BRIDGE NO.
TRACE—	SURVEY—
CHECK—S.M. B. REF.	PLOT—
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE ROUTE 95 S.B.	
OVER MAINE TURNPIKE	
IN THE TOWN OF WEST GARDINER KENNEBEC COUNTY ABUTMENT NO. 1	
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	
BOSTON	



AS-BUILT PLANS
SHEET NUMBER: AB-03
163 OF 176



* Finished Grade Elevations
F.F. Denotes Elevation at Front Face
B.F. Denotes Elevation at Back Face

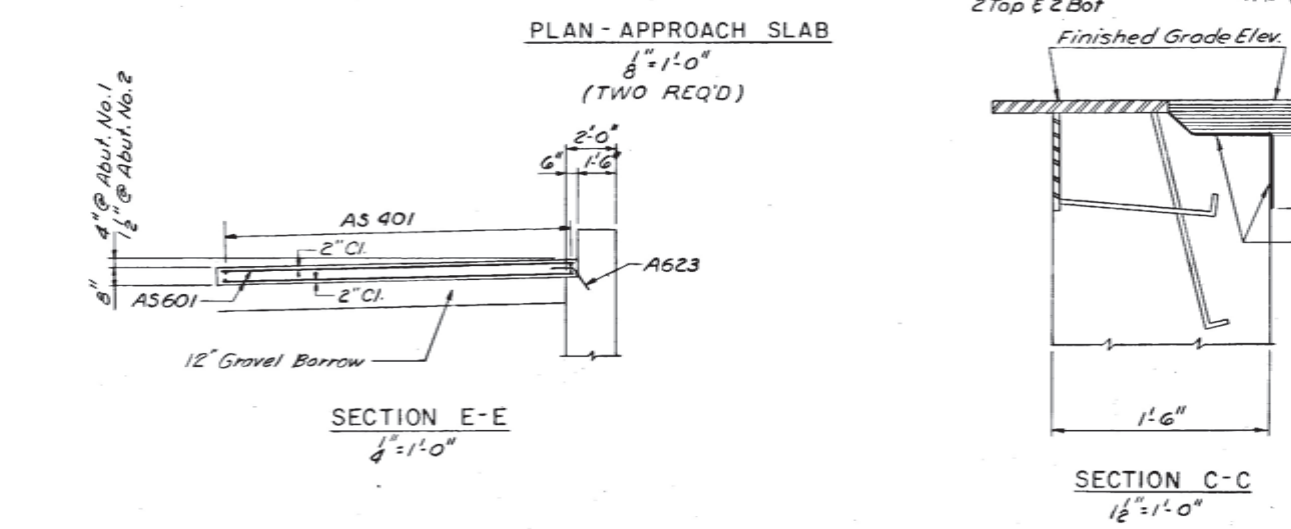
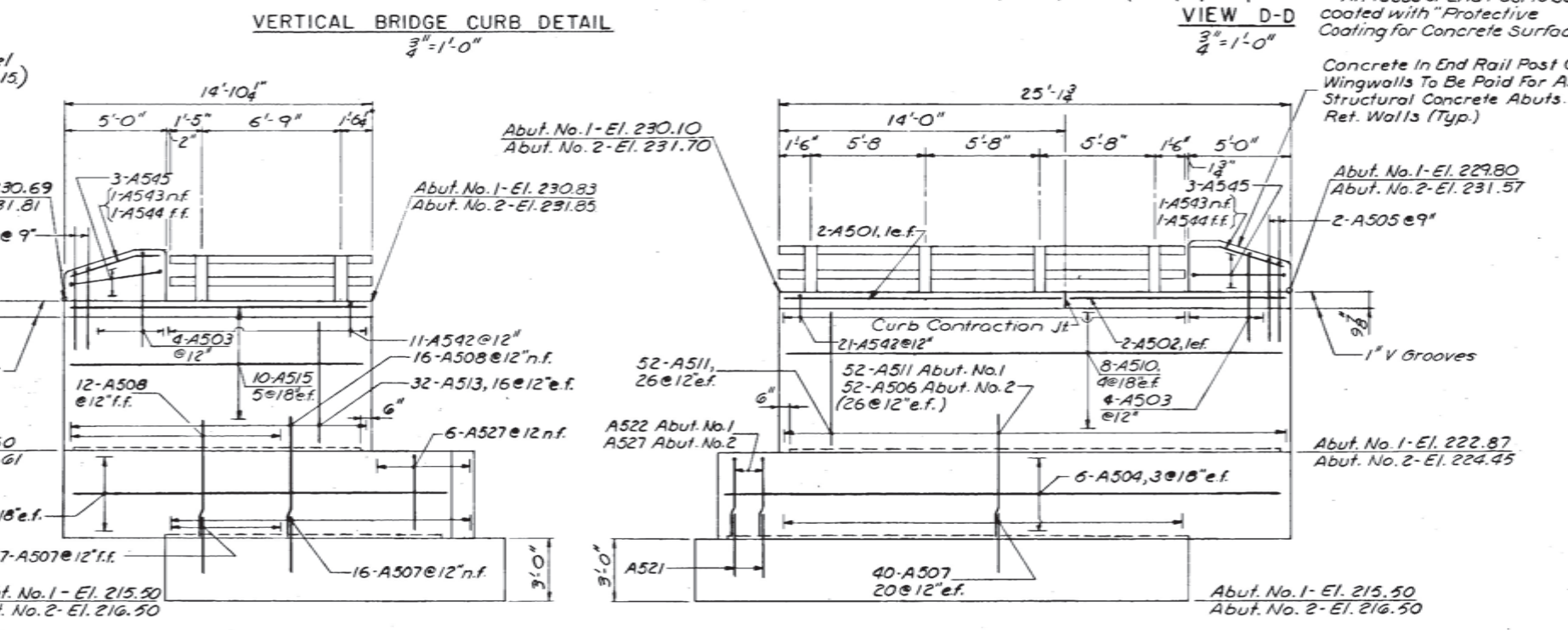
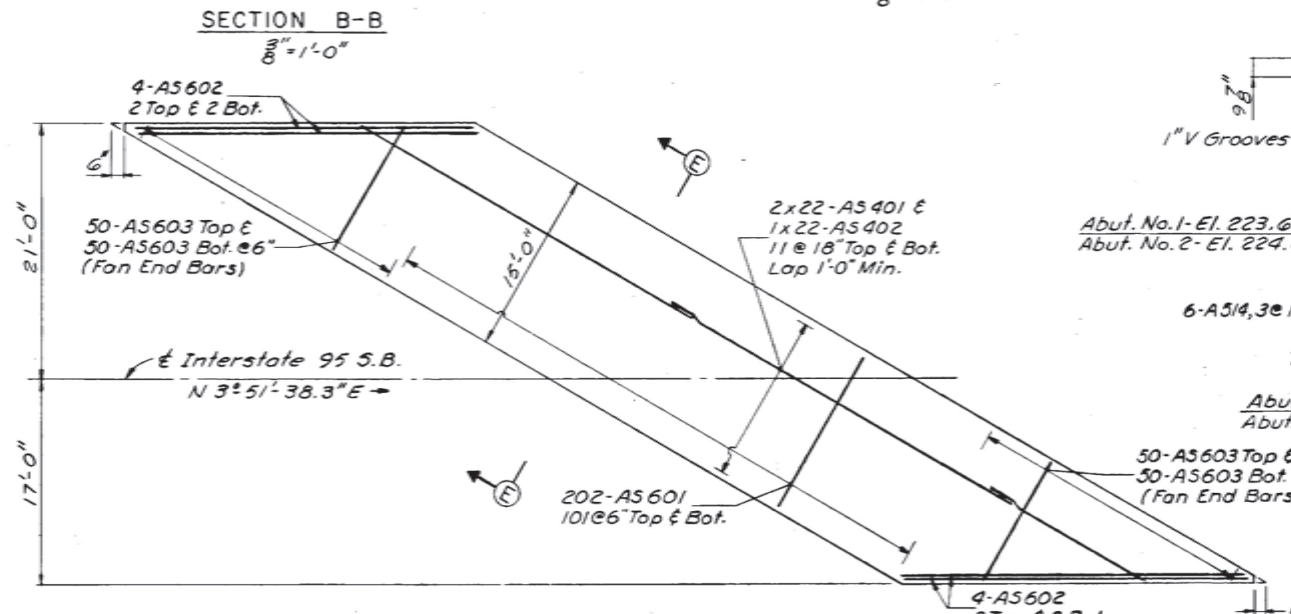
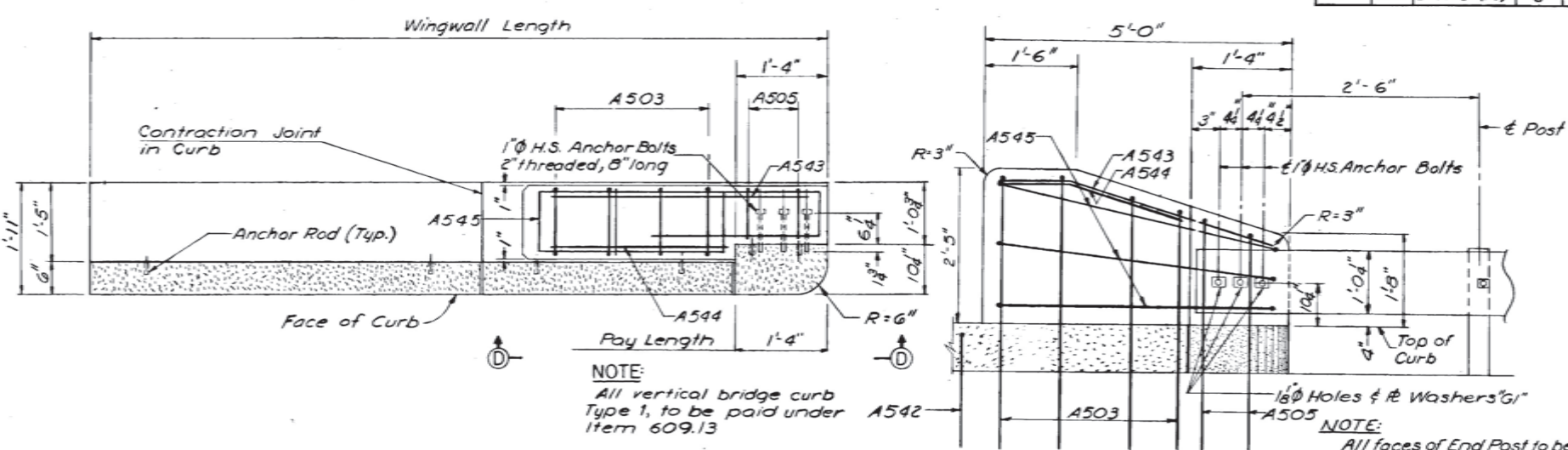
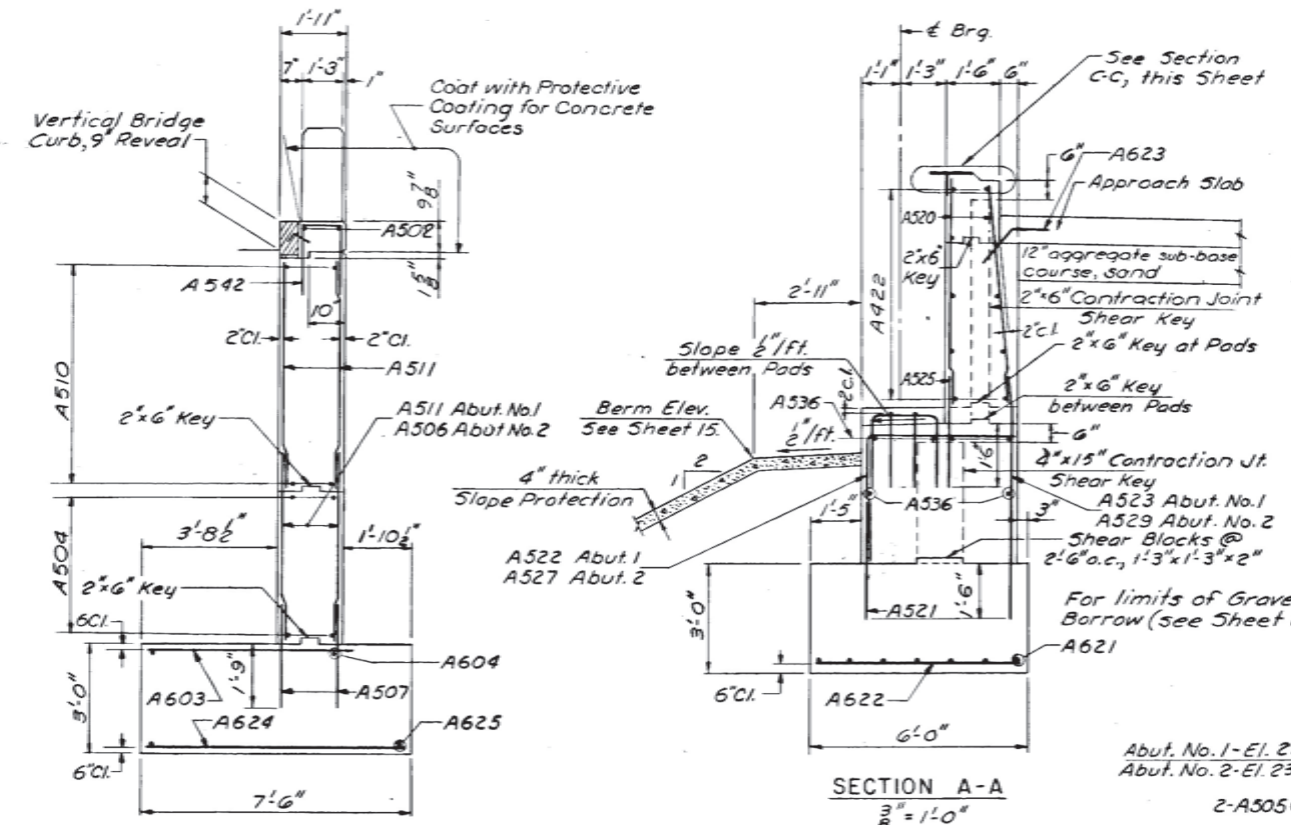


Slope 1:1 All Around To 1'-0\"/>

Limits Of Gravel Borrow Embankment At Bottom Of Footing, See Sheet 15.

- NOTES:**
1. For General Notes see Sheet 7.
 2. For Sections A-A, B-B, C-C and Approach Slab details, see Sheet 7.
 3. For Wingwall details, see Sheet 7.
 4. For Bridge Curb and Guard Rail Connection details, see Sheet 7.

DESIGN-LS. DETAIL-J.M.M.	BRIDGE NO.
TRACE-S.M. B.R.E.F.	SURVEY-
	PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
INTERSTATE ROUTE 95 S.B.	
OVER MAINE TURNPIKE	
IN THE TOWN OF WEST GARDINER KENNEBEC COUNTY	
ABUTMENT NO. 2	
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	
BOSTON	
SHEET 6 OF 17 AUGUSTA, MAINE	



AS-BUILT PLANS
 SHEET NUMBER: AB-04
 164 OF 176

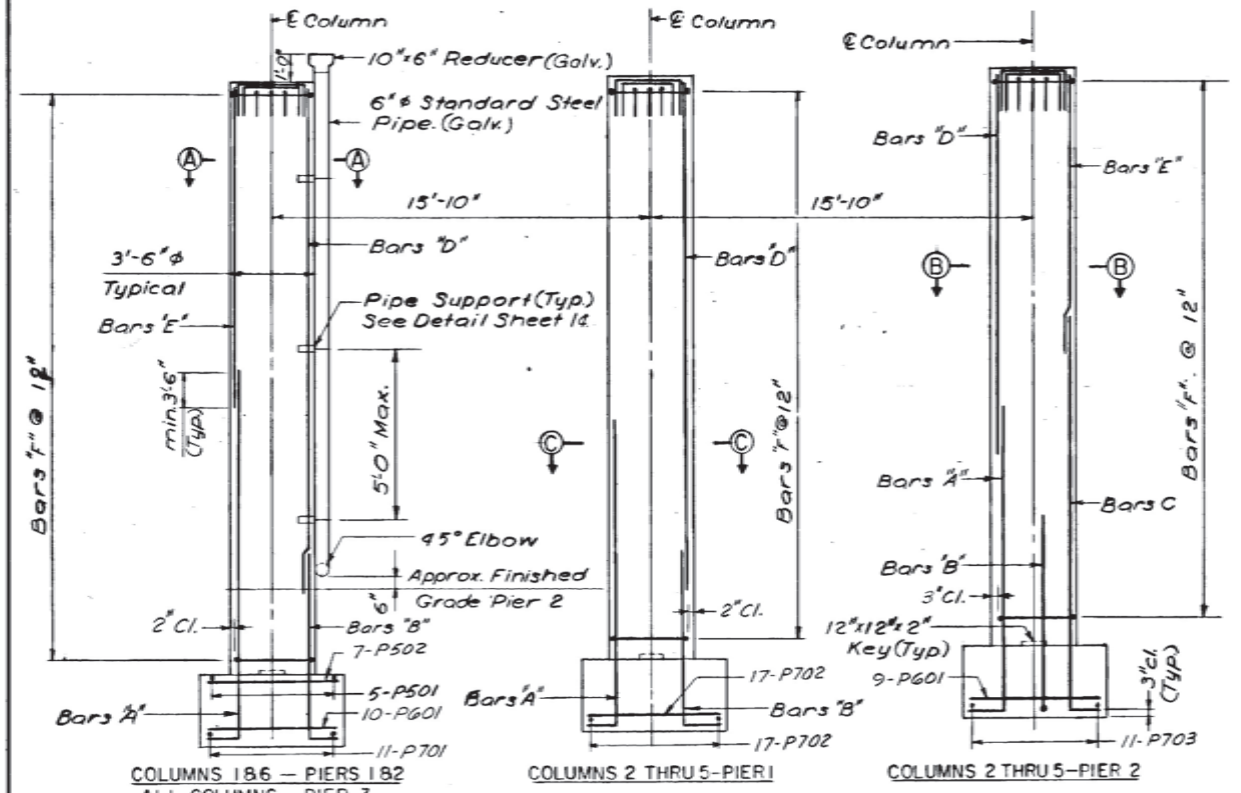
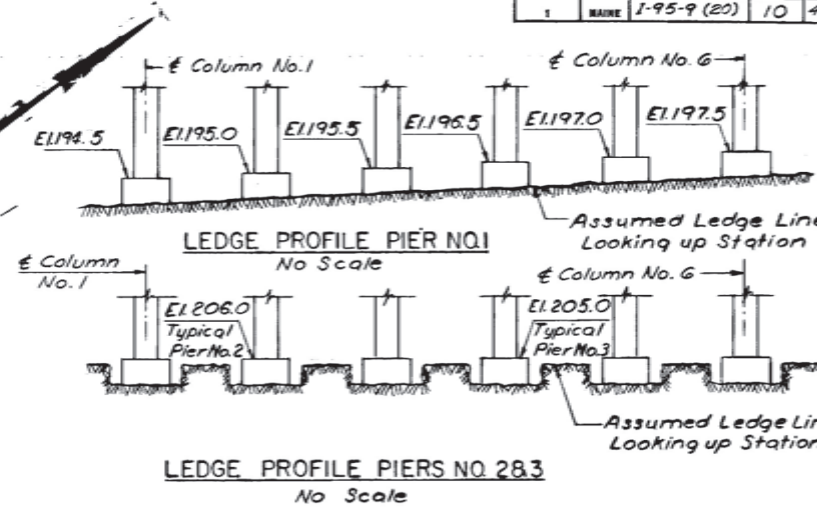
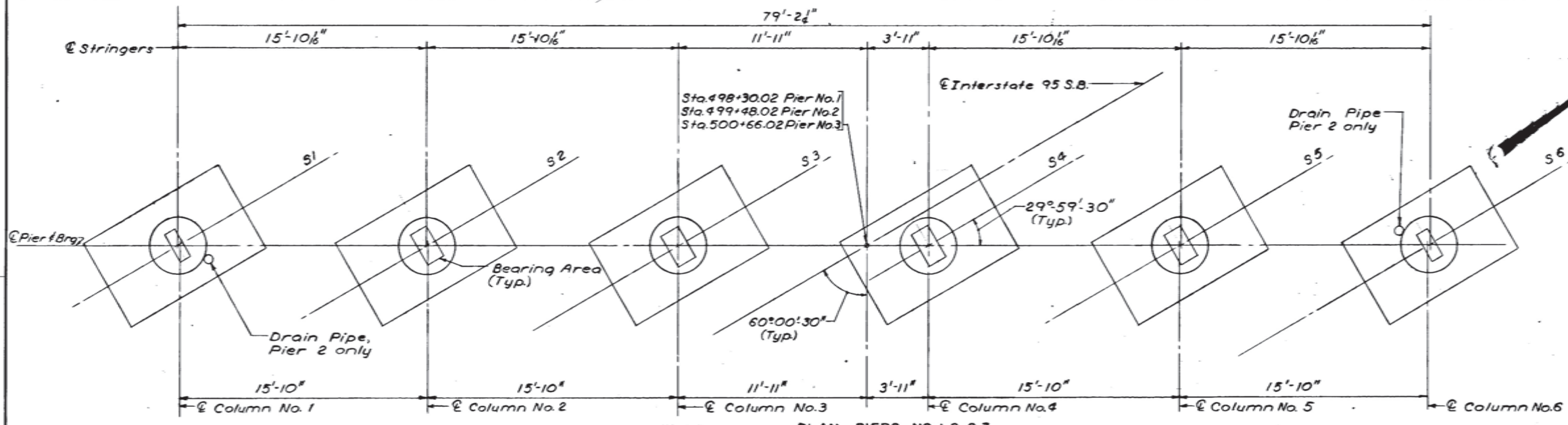
GUARD RAIL NOTES
 1. Three anchor bolts required to each End Post. Bolts to be furnished with hex head, nut and washer. All parts to be galvanized. Payment for acquiring and installing anchor bolts shall be incidental to Item 502.21. (Structural concrete, Abutments and Retaining Walls)
 2. For detail of R washer "G" see Standard Details Guard Rail August 1969 (6)

GENERAL NOTES:
 1. Paint bridge seat, face of backwall and down to 1'-0" below top of slope protection on face and ends of breast wall with "Protective Coating for Concrete Surfaces".
 2. Top portion of abutment backwalls shall not be placed until after superstructure concrete is placed.
 3. Place reinforcing to clear anchor bolts.
 4. Reinforcing steel to have 3" minimum cover unless otherwise noted.
 5. n.f. denotes near face; f.f. denotes far face & e.f. denotes each face.
 6. For Footing Plans, see Sheet 5 & 6.
 7. Dress bearing pad area 1" larger all around than masonry plates to exact elevations shown.
 8. Chamfer all exposed edges of concrete 1/2".
 9. Break bond at vertical contraction joints by a method to be approved by the Engineer.
 10. Waterstops are not required in the horizontal construction joints in abutment backwall.

NOTE:
 For details of Tooth Joint, see Sheet 12 and Standard Details Sheet BD 105-64.

WINGWALL ELEVATIONS
 4" = 1'-0"

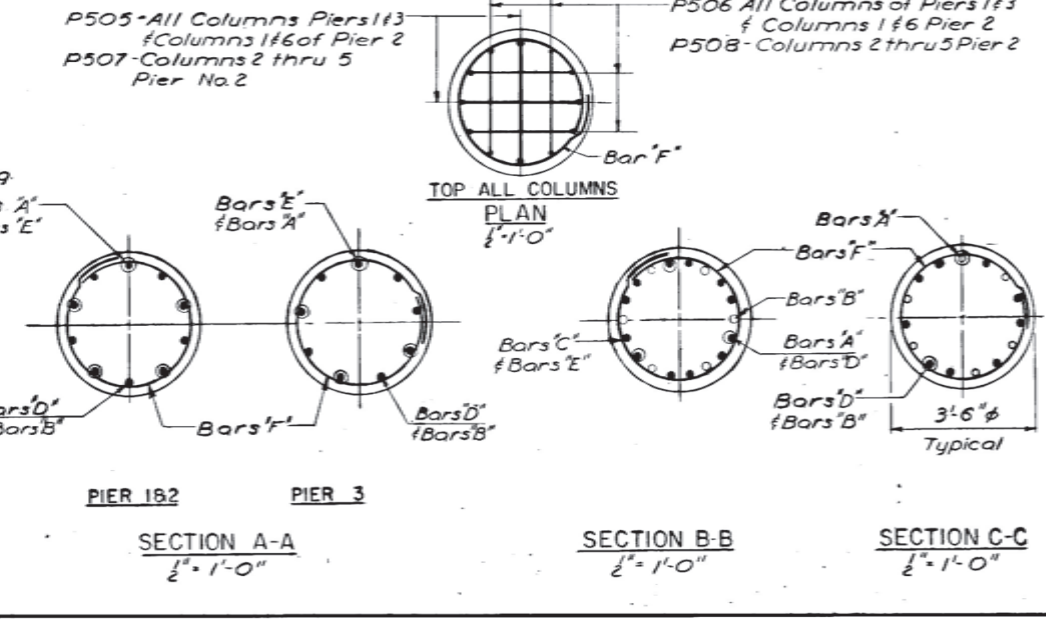
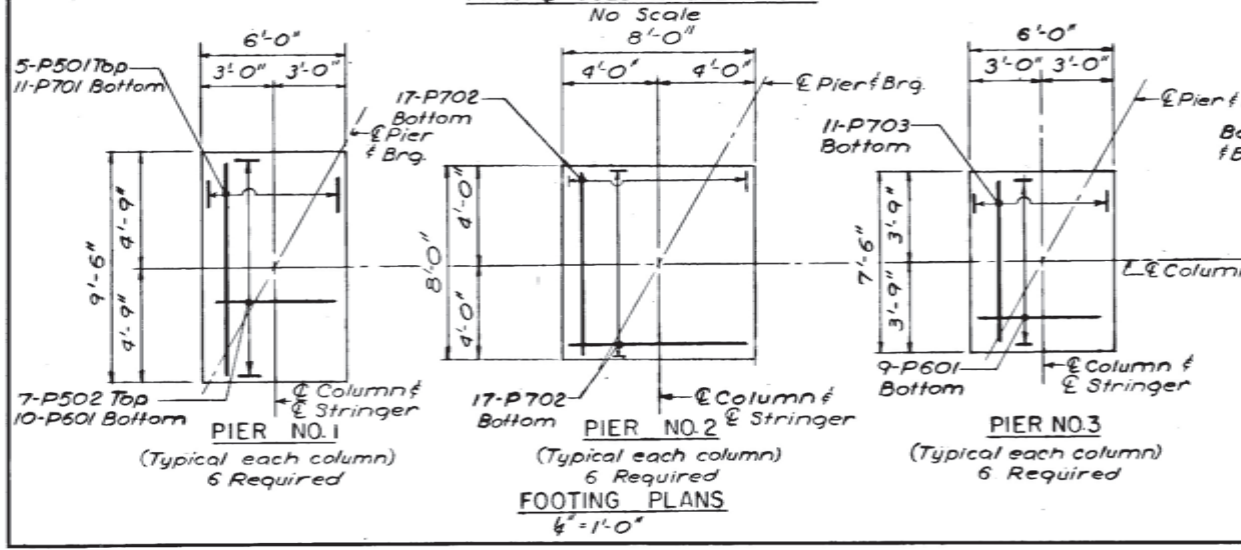
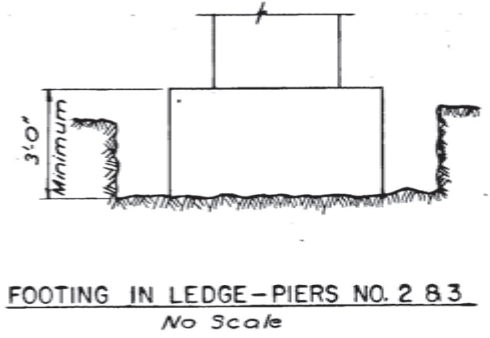
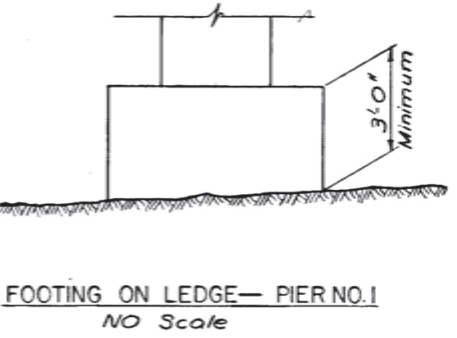
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TRACE - S.M. & REF.
 STATE HIGHWAY COMMISSION
 BRIDGE DIVISION
 INTERSTATE ROUTE 95 S.B.
 OVER
 MAINE TURNPIKE
 IN THE TOWN OF
 WEST GARDINER
 KENNEBEC COUNTY
 ABUTMENT DETAILS
 SHEET 7 OF 17 AUGUSTA, MAINE
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 BOSTON



TOP OF COLUMN ELEVATIONS

	S1	S2	S3	S4	S5	S6
Pier 1	224.19	223.56	223.79	223.96	223.91	224.73
Pier 2	224.89	224.75	224.94	225.05	224.95	225.18
Pier 3	225.19	224.46	224.60	224.66	224.50	225.22

Pier No.	Column No.	Reinforcing Bars					
		A	B	C	D	E	F
1	1	5-P1101	5-P1102	—	5-P1103	5-P1109	30-P503
	2	6-P1101	9-P1102	—	9-P1105	—	29-P503
	3	6-P1101	9-P1102	—	9-P1106	—	29-P503
	4	6-P1101	9-P1102	—	9-P1107	—	28-P503
	5	6-P1101	9-P1102	—	9-P1108	—	28-P503
	6	5-P1101	5-P1102	—	5-P1104	5-P1110	28-P503
2	1	5-P1111	5-P1112	—	5-P1113	5-P1115	19-P503
	2	3-P1401	6-P1402	9-P1403	3-P1114	9-P1116	19-P504
	3	3-P1401	6-P1402	9-P1403	3-P1114	9-P1116	19-P504
	4	3-P1401	6-P1402	9-P1403	3-P1114	9-P1116	19-P504
	5	3-P1401	6-P1402	9-P1403	3-P1114	9-P1116	19-P504
	6	5-P1111	5-P1112	—	5-P1113	5-P1115	19-P503
3	1	4-P1111	5-P1112	—	5-P1117	4-P1119	21-P503
	2	4-P1111	5-P1112	—	5-P1118	4-P1120	20-P503
	3	4-P1111	5-P1112	—	5-P1118	4-P1120	20-P503
	4	4-P1111	5-P1112	—	5-P1118	4-P1120	20-P503
	5	4-P1111	5-P1112	—	5-P1118	4-P1120	20-P503
	6	4-P1111	5-P1112	—	5-P1117	4-P1119	21-P503



GENERAL NOTES:

1. Dress bearing pad areas 1" larger all around than masonry plates to exact elevations shown.
2. Reinforcing steel to have 2" minimum cover except 3" as noted.
3. Place reinforcing steel to clear anchor bolts.
4. All weathered or broken ledge shall be removed before any footing concrete is placed.
5. Top of footing elevation may be altered to suit field conditions. No change in top of footing elevations greater than 2 feet shall be made without approval of the Engineer. Top of footing shall have a minimum of one foot of earth cover.
6. Footing side forms may be omitted in rock provided rock is excavated outside the plan dimensions and if approved by the Engineer. Payment for Structural Concrete-Piers, will be made according to plan dimensions of footing.
7. Pier footings shall have a minimum depth of 3'-0" below the top of footing elevations. In excavating to locate bottom of the pier footing, no payment for Structural Rock Excavation Piers, or for Structural Concrete-Piers, will be made below a horizontal plane located 1'-0" below the bottom of footing elevation determined by the Engineer after rock is exposed.
8. Maximum Design Footing Pressure

Pier No. 1	Group I 3.2 Tons/S.F.	Pier No. 3	Group I 3.3 Tons/S.F.
	Group III 9.5 Tons/S.F.		Group III 8.2 Tons/S.F.
Pier No. 2	Group I 2.6 Tons/S.F.		
	Group III 9.0 Tons/S.F.		

AS-BUILT PLANS
SHEET NUMBER: AB-05
165 OF 176

DESIGN - E.F.K. DETAIL - S.H.R. BRIDGE NO. SURVEY - PLOT -
TRACE - R.E.E. CHECK - R.E.E.

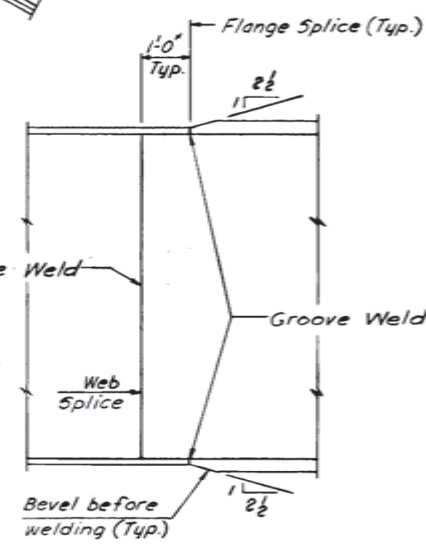
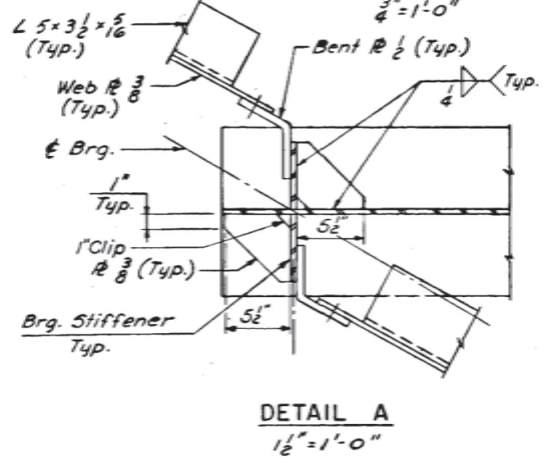
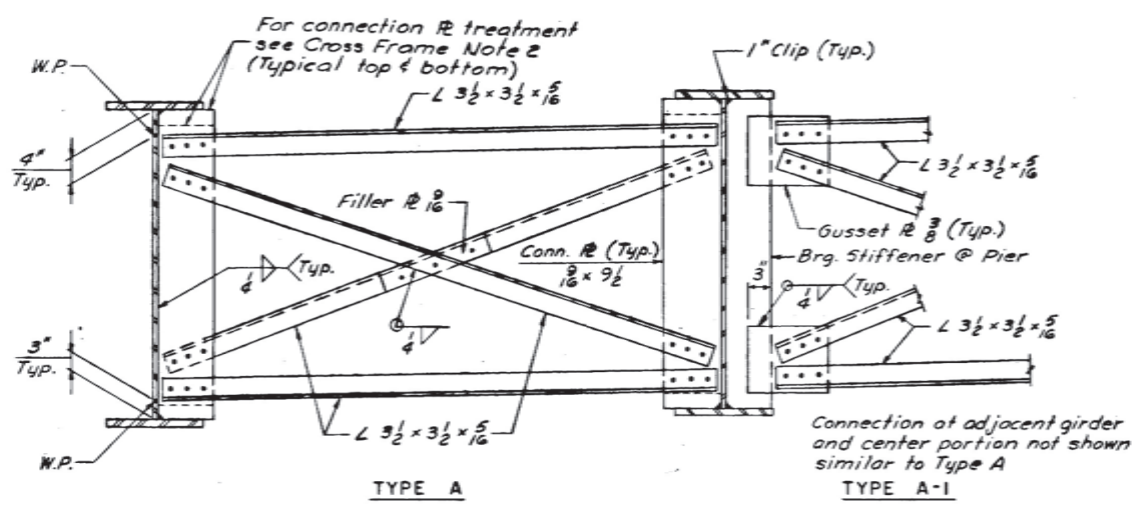
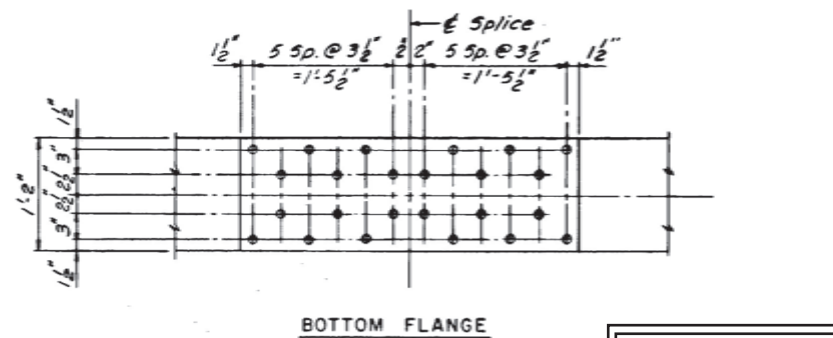
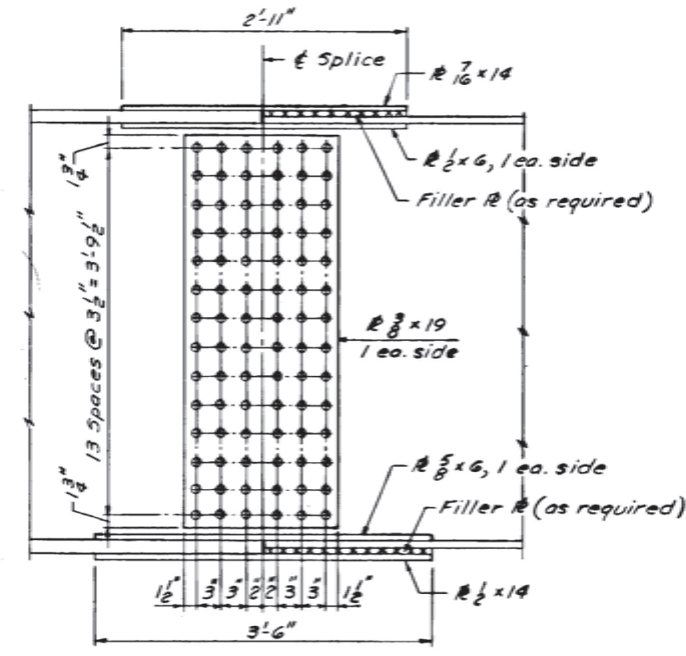
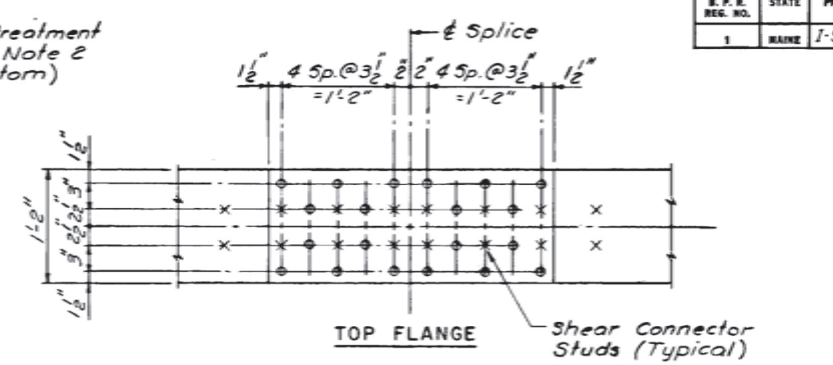
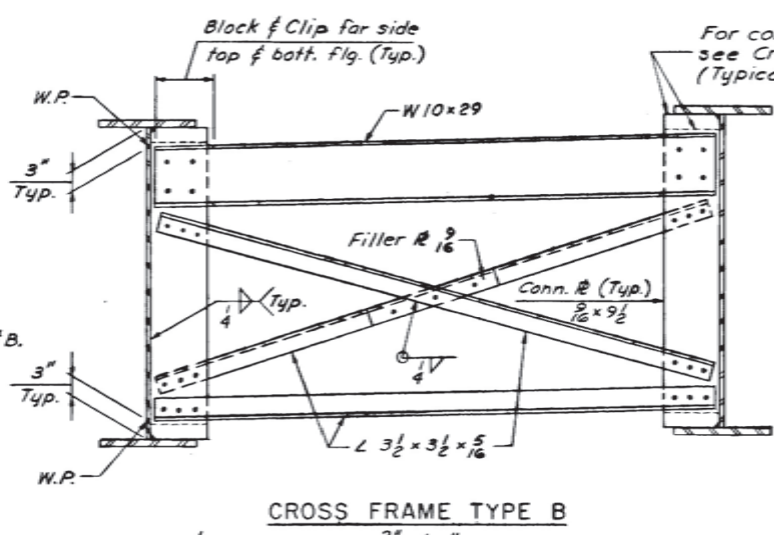
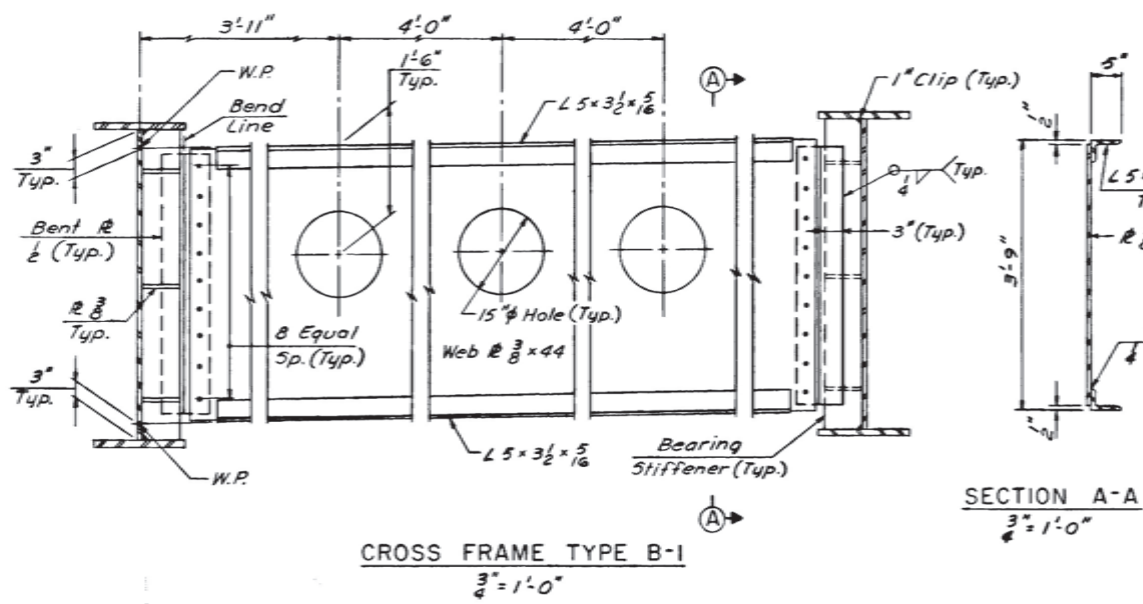
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE ROUTE 95 S.B.
OVER
MAINE TURNPIKE
IN THE TOWN OF
WEST GARDINER
KENNEBEC COUNTY
PIERS NO 1, 2 & 3

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

BOSTON

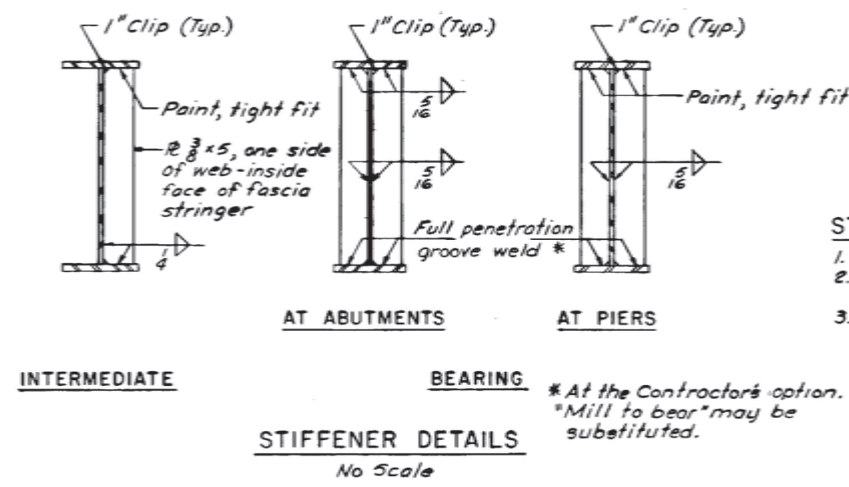
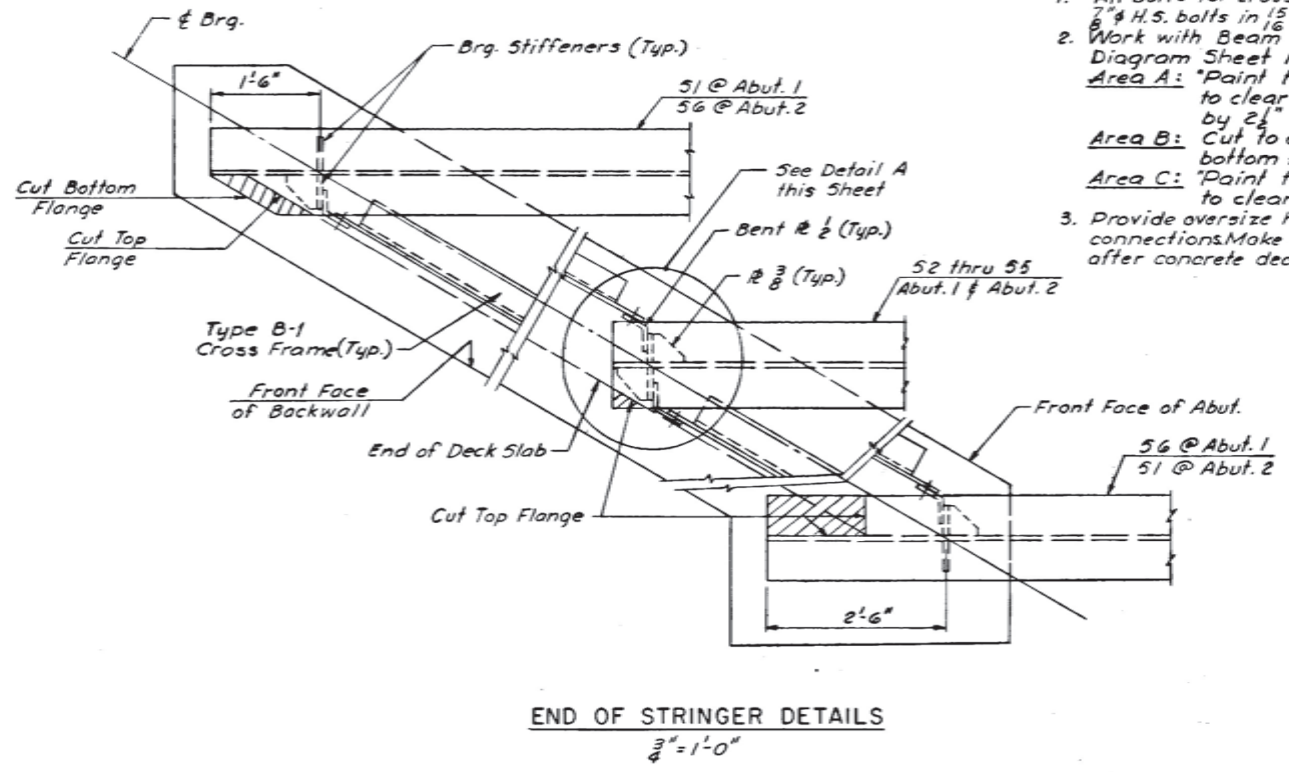
SHEET 8 OF 17 AUGUSTA, MAINE

WEST GARDINER (20)



- CROSS FRAME NOTES:**
- All bolts for cross frames to be 7/8" H.S. bolts in 1/2" holes, except as noted. See Note 3.
 - Work with Beam Stress Type Diagram Sheet 10
 - Area A: "Paint tight fit" top-cut to clear bottom flange by 2 1/2"
 - Area B: Cut to clear top and bottom flange by 2 1/2"
 - Area C: "Paint tight fit" bottom-cut to clear top flange by 2 1/2"
 - Provide oversize holes for Type A-1 connections. Make up connection only after concrete deck slab is placed.

- FIELD SPICE NOTES:**
- All bolts to be 7/8" H.S. in 1/2" holes.
 - Nuts to be on inside face of web splice at fascia stringer.
 - Nuts to be up on all flange splices.



- STIFFENER NOTES:**
- All stiffeners shall be 90° to the web.
 - Intermediate stiffeners shall be 90° to flanges.
 - Bearing stiffeners shall be plumb after girder is fully deflected under dead load.

AS-BUILT PLANS
SHEET NUMBER: AB-07
167 OF 176

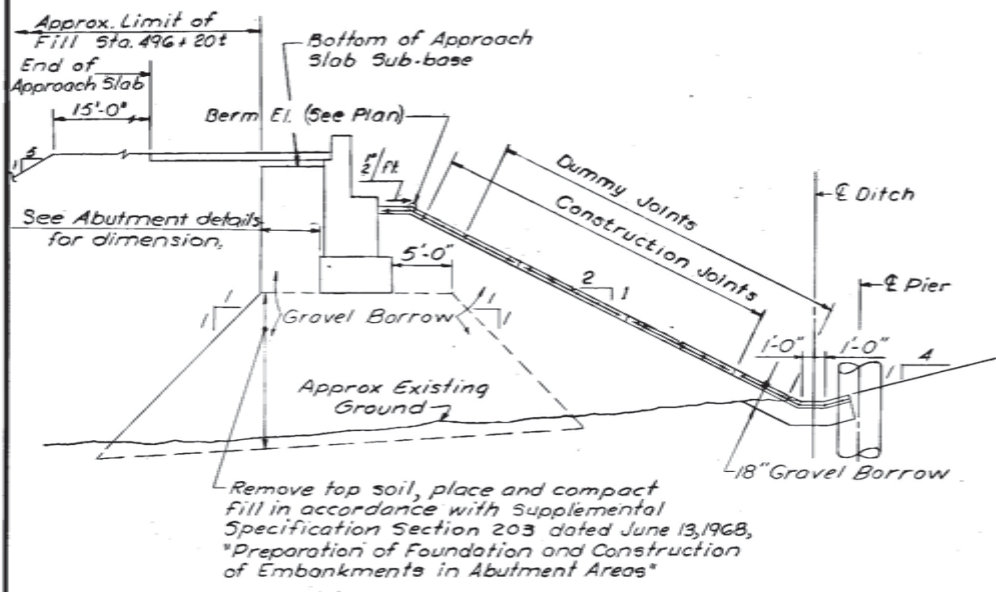
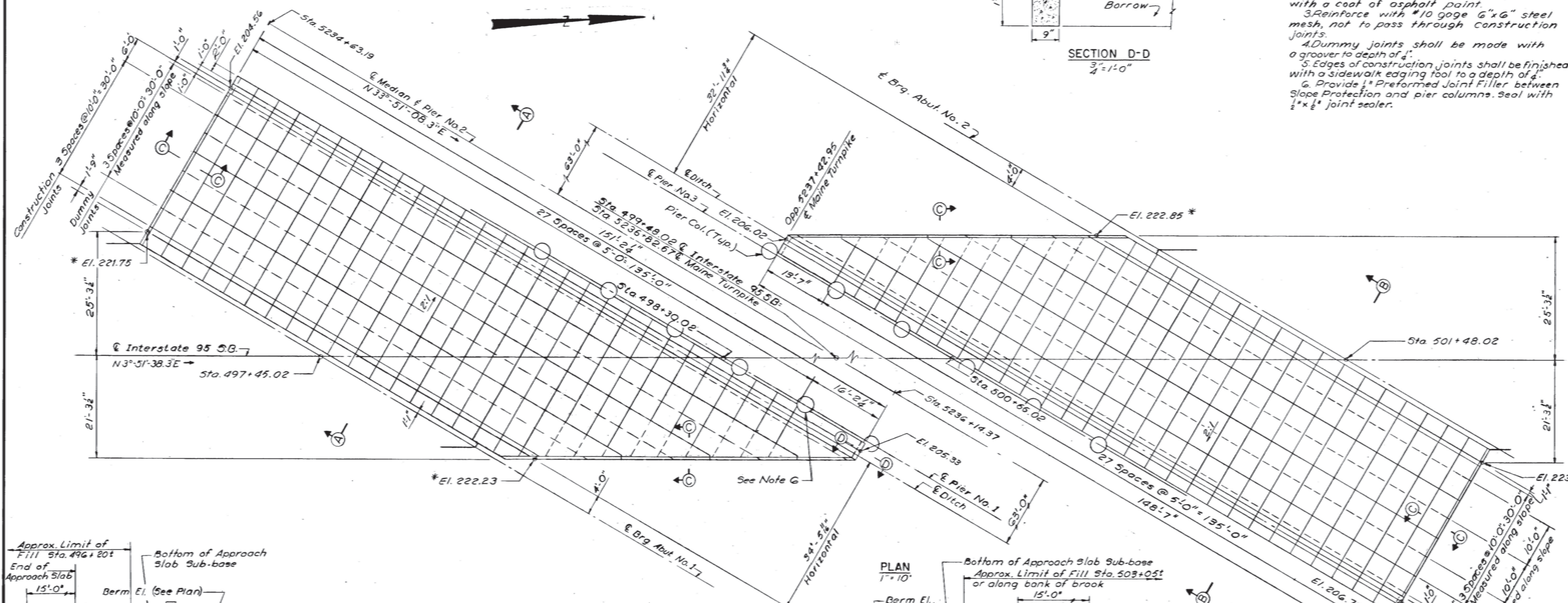
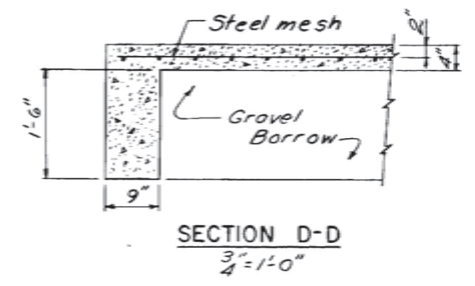
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TRACE- I.S. CHECK- I.S.

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE ROUTE 95 S.B.
OVER
MAINE TURNPIKE
IN THE TOWN OF
WEST GARDINER
KENNEBEC COUNTY
STRUCTURAL STEEL DETAILS
SHEET 11 OF 17 AUGUSTA, MAINE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
BOSTON

NOTES

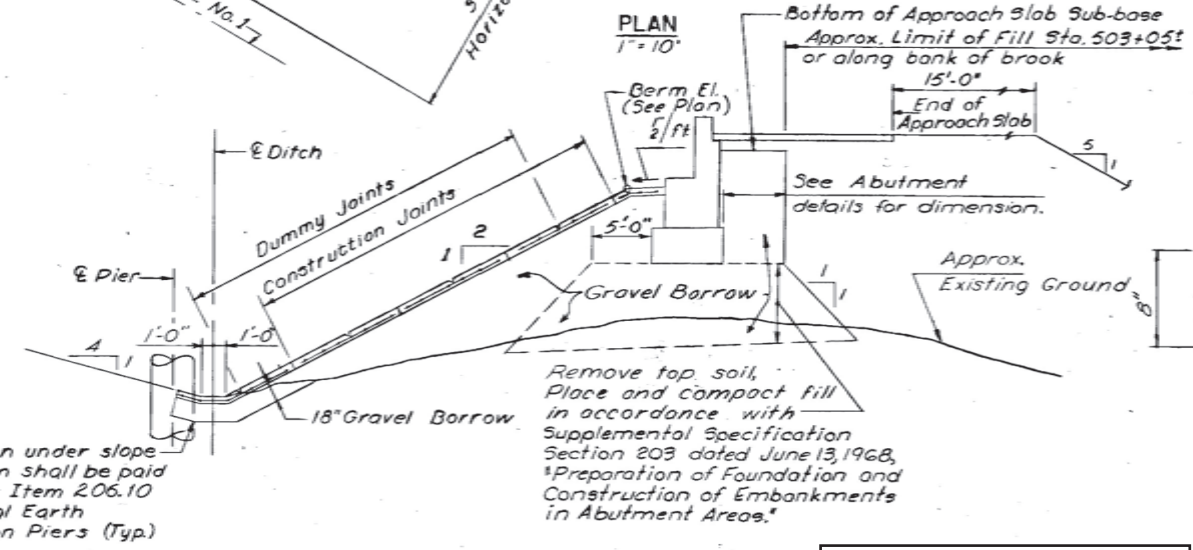
1. The 18" of Gravel Borrow under slope protection may be reduced or omitted, if in the opinion of the Engineer the existing material is suitable.
2. Break band at construction joints with a coat of asphalt paint.
3. Reinforce with #10 gage "6"x6" steel mesh, not to pass through construction joints.
4. Dummy joints shall be made with a groover to depth of 4".
5. Edges of construction joints shall be finished with a sidewalk edging tool to a depth of 4".
6. Provide 1/2" Preformed Joint Filler between Slope Protection and pier columns. Seal with 1/2"x1/2" joint sealer.



Remove top soil, place and compact fill in accordance with Supplemental Specification Section 203 dated June 13, 1968, "Preparation of Foundation and Construction of Embankments in Abutment Areas"

SECTION A-A
3/8" = 1'-0"

NOTE:
Removal of Topsoil shall be paid for under Item 203.20 Common Excavation



Excavation under slope protection shall be paid for under Item 206.10 Structural Earth Excavation Piers (Typ)

SECTION B-B
3/8" = 1'-0"

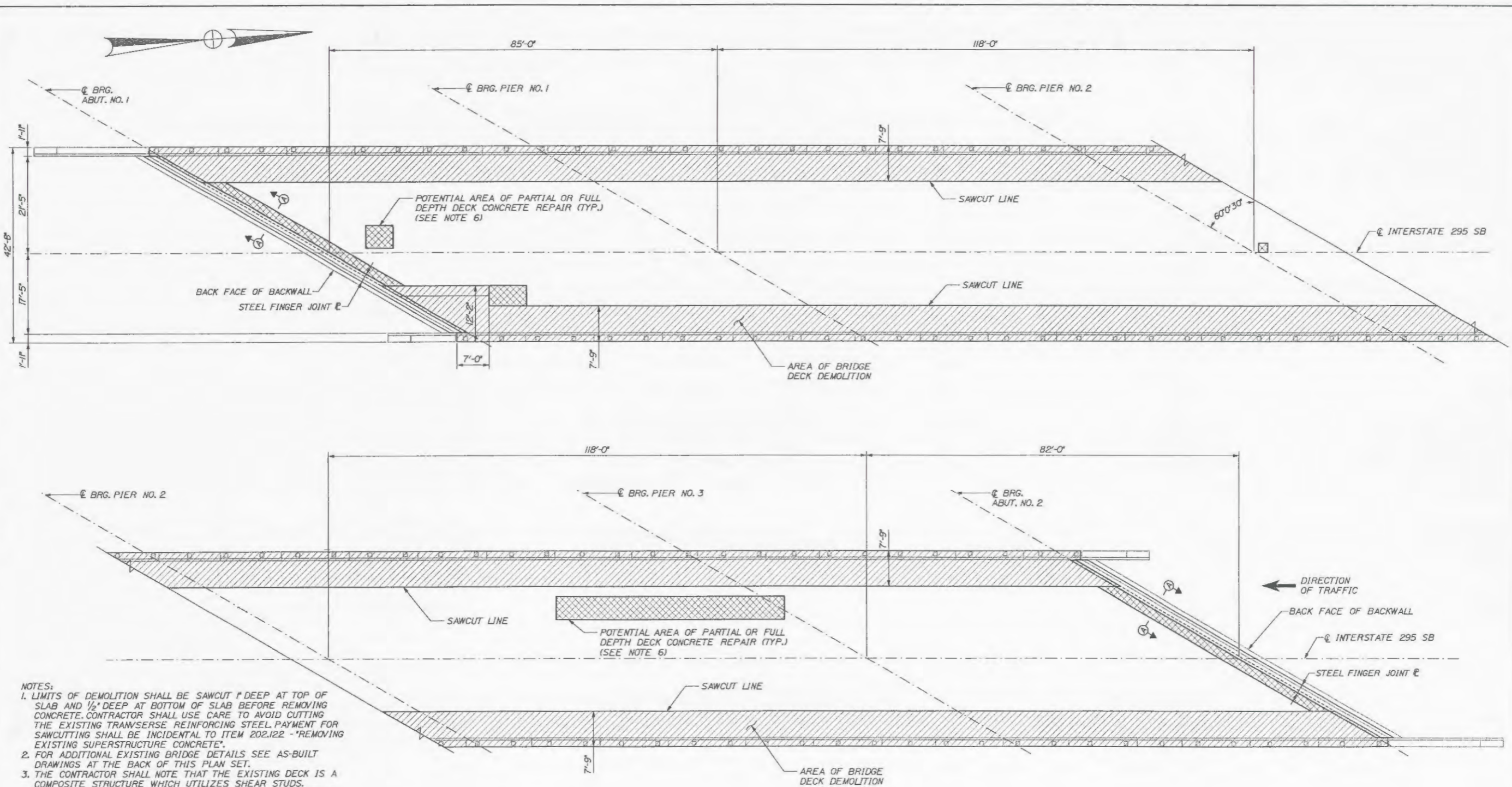
AS-BUILT PLANS
SHEET NUMBER: AB-09
169 OF 176

SECTION C-C
1/2" = 1'-0"
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
BOSTON

DESIGN-TRACE-CHECK- G.J.D.	DETAIL-S.H.R.	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE ROUTE 95 S.B. OVER MAINE TURNPIKE IN THE TOWN OF WEST GARDINER KENNEBEC COUNTY SLOPE PROTECTION		
SHEET 15 OF 17 AUGUSTA, MAINE		

Date: 2/27/2006

Filename: ...014_deckdemolition.dgn



- NOTES:
- LIMITS OF DEMOLITION SHALL BE SAWCUT 1" DEEP AT TOP OF SLAB AND 1/2" DEEP AT BOTTOM OF SLAB BEFORE REMOVING CONCRETE. CONTRACTOR SHALL USE CARE TO AVOID CUTTING THE EXISTING TRANSVERSE REINFORCING STEEL. PAYMENT FOR SAWCUTTING SHALL BE INCIDENTAL TO ITEM 202.122 - "REMOVING EXISTING SUPERSTRUCTURE CONCRETE".
 - FOR ADDITIONAL EXISTING BRIDGE DETAILS SEE AS-BUILT DRAWINGS AT THE BACK OF THIS PLAN SET.
 - THE CONTRACTOR SHALL NOTE THAT THE EXISTING DECK IS A COMPOSITE STRUCTURE WHICH UTILIZES SHEAR STUDS.
 - THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID GOUGING, DEFORMING, OR OTHERWISE DAMAGING THE EXISTING STRUCTURAL STEEL DURING SUPERSTRUCTURE DEMOLITION. DAMAGE TO STEEL RESULTING FROM THE CONTRACTORS OPERATIONS, SHALL BE REPAIRED AT NO ADDITIONAL EXPENSE TO THE AUTHORITY. PRIOR TO COMPLETING ANY REQUIRED STEEL REPAIRS THE CONTRACTOR SHALL SUBMIT A REPAIR PROCEDURE TO THE RESIDENT FOR APPROVAL.
 - FOR SECTION A-A SEE SHEET 1295-S5.
 - SHIELDING SHALL BE INSTALLED BENEATH ALL AREAS OF PARTIAL OR FULL DEPTH DECK REPAIR LOCATED OVER, OR WITHIN 10' OF, ACTIVE LANES ON THE MAINE TURNPIKE.

PLAN
3/32" = 1'-0"

AS-BUILT PLANS
SHEET NUMBER: AB-10
170 OF 176

Scale: 1/4" = 1'-0"

No.	Revision	By	Date

Designed by:

HNTB

	By	Date	Checked	By	Date
Designed	TRC	02/06		CAH	02/06
Drawn	MPC	02/06	In Charge of	RAL	02/06

HNTB CORPORATION
2 Thomas Drive
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 772-7410

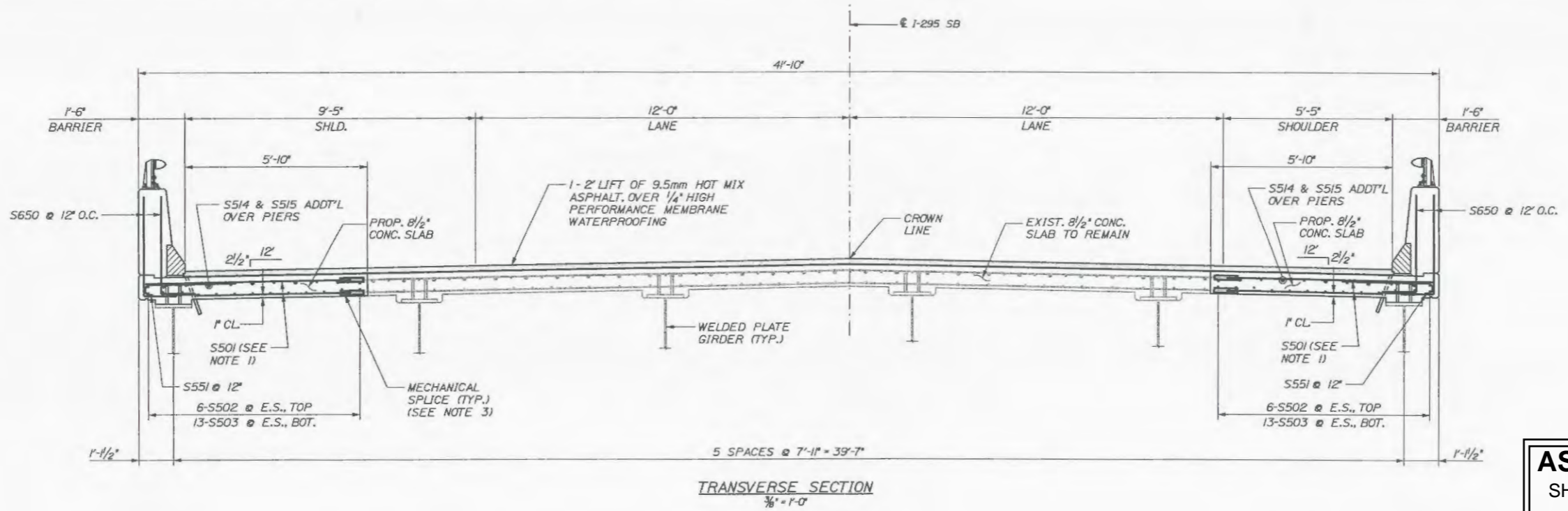


**THE GOLD STAR
MEMORIAL HIGHWAY**

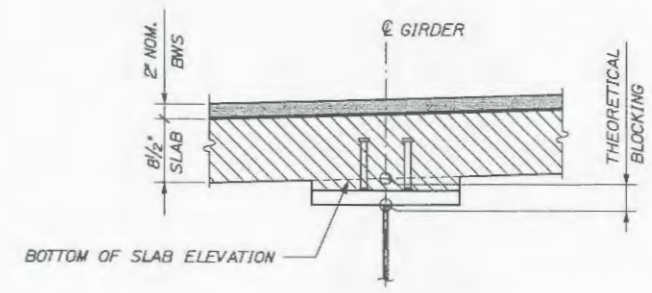
I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

DECK DEMOLITION AND REPAIR PLAN

SHEET NUMBER: 1295-S3
CONTRACT: 2006.02
14 OF 39



AS-BUILT PLANS
SHEET NUMBER: AB-11
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BLOCKING DETAIL
THEORETICAL BLOCKING IS 2 1/2" AT CL BRG., ABUTMENTS AND PIERS
(DO NOT USE THEORETICAL BLOCKING TO SET FORMS)

BOTTOM OF SLAB ELEVATIONS AT BLOCKING POINTS																					
GIRDER NO.	CL BRG. ABUT. 1	SPAN 1									CL BRG. PIER 1	SPAN 2									CL BRG. PIER 2
		0.1*L	0.2*L	0.3*L	0.4*L	0.5*L	0.6*L	0.7*L	0.8*L	0.9*L		0.1*L	0.2*L	0.3*L	0.4*L	0.5*L	0.6*L	0.7*L	0.8*L	0.9*L	
G1	228.020	228.129	228.232	228.328	228.415	228.494	228.564	228.629	228.691	228.753	228.820	228.926	229.039	229.148	229.245	229.326	229.388	229.435	229.472	229.505	229.546
G6	228.753	228.841	228.924	228.999	229.066	229.125	229.178	229.225	229.270	229.316	229.366	229.448	229.534	229.615	229.684	229.736	229.771	229.792	229.804	229.815	229.834

GIRDER NO.	CL BRG. PIER 2	SPAN 3									CL BRG. PIER 3	SPAN 4									CL BRG. ABUT. 2
		0.1*L	0.2*L	0.3*L	0.4*L	0.5*L	0.6*L	0.7*L	0.8*L	0.9*L		0.1*L	0.2*L	0.3*L	0.4*L	0.5*L	0.6*L	0.7*L	0.8*L	0.9*L	
G1	229.546	229.605	229.671	229.736	229.792	229.833	229.856	229.861	229.852	229.838	229.828	229.830	229.836	229.844	229.849	229.851	229.846	229.835	229.816	229.791	229.761
G6	229.834	229.868	229.908	229.946	229.974	229.986	229.981	229.959	229.926	229.869	229.856	229.842	229.832	229.822	229.810	229.793	229.770	229.740	229.702	229.658	229.609

- NOTES:
- PROPOSED TRANSVERSE REINFORCING STEEL SPACING SHALL MATCH EXISTING TRANSVERSE REINFORCING STEEL SPACING.
 - FOR ADDITIONAL REINFORCING DETAILS NOT SHOWN SEE SUPERSTRUCTURE DETAIL SHEETS.
 - PAYMENT FOR MECHANICAL SPLICE SHALL BE MADE UNDER PAY ITEM 503.071 "MECHANICAL SPLICE". MECHANICAL SPLICERS SHALL BE ONE OF THE DEVICES LISTED SPECIAL PROVISION SECTION 503.
 - ALL REINFORCING STEEL SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE NOTED.
 - FOR ADDITIONAL DETAILS OF THE EXISTING STRUCTURE SEE AS-BUILT DRAWINGS AT THE BACK OF THIS PLAN SET.

Date: 2/27/2006

Filename: ...066 I-295\015_transverse.dgn

Scale: 3/8" = 1'-0"

No.	Revision	By	Date

Designed by:

HNTB

By	Date	Checked	By	Date
TRC	02/06	CLC	CLC	02/06
MPC	02/06	In Charge of	RAL	02/06

HNTB CORPORATION
2 Thomas Drive
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 772-7410

THE GOLD STAR MEMORIAL HIGHWAY

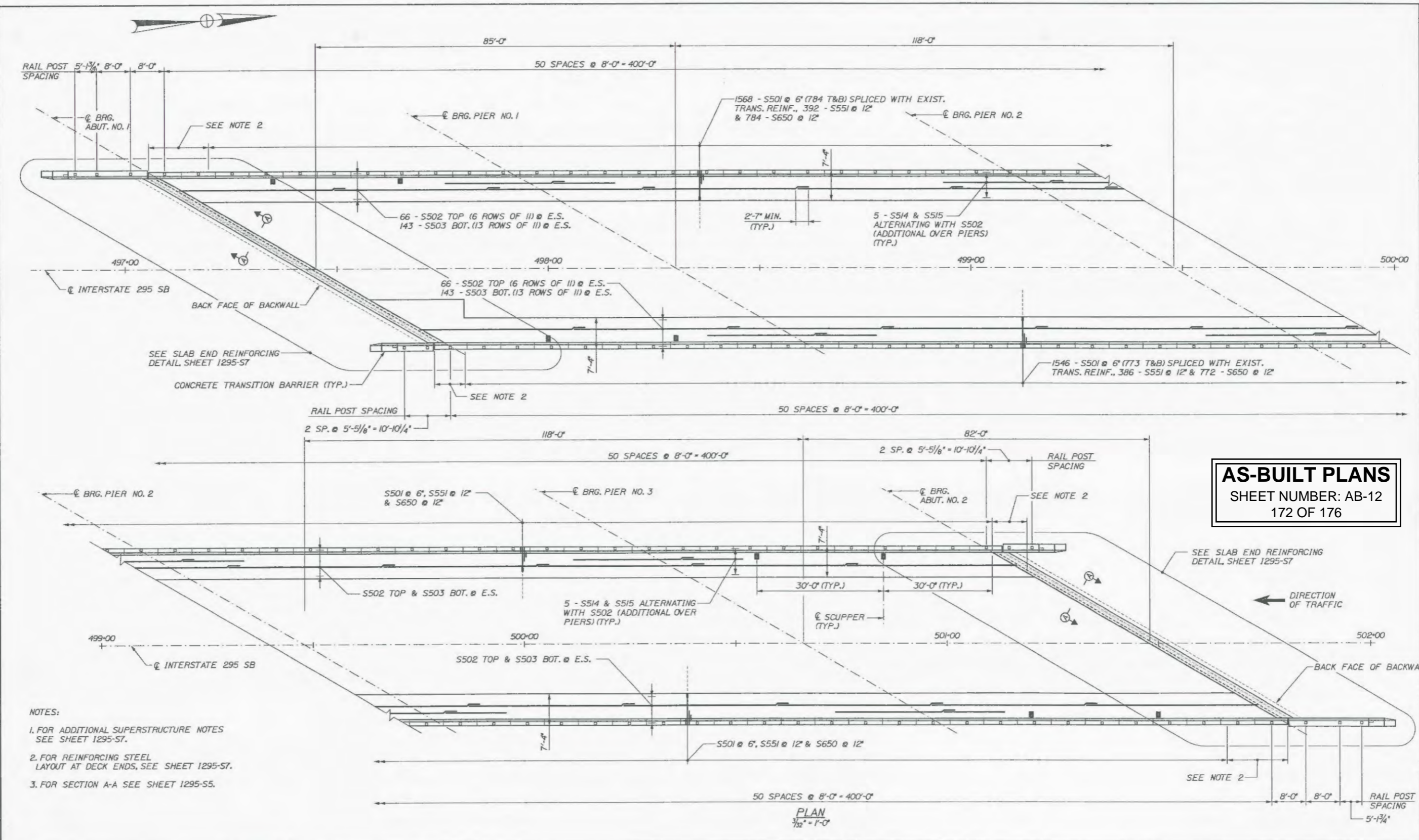
I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION

PROPOSED TRANSVERSE SECTION

SHEET NUMBER: I295-S4
CONTRACT: 2006.02
15 OF 39

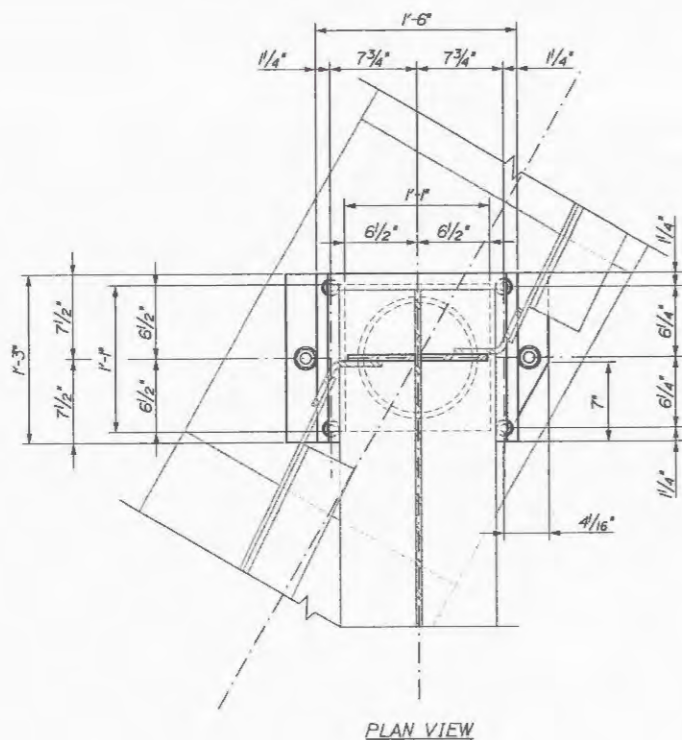
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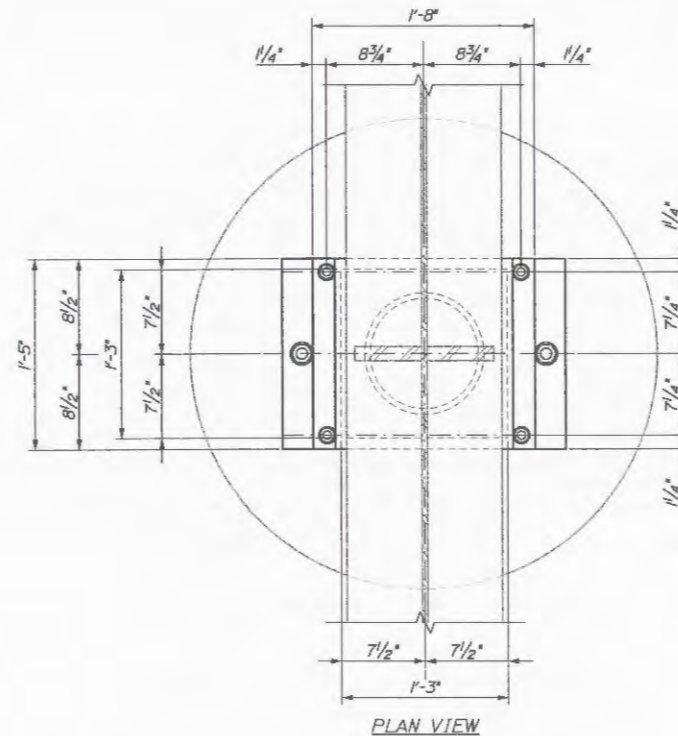


- NOTES:
1. FOR ADDITIONAL SUPERSTRUCTURE NOTES SEE SHEET 1295-S7.
 2. FOR REINFORCING STEEL LAYOUT AT DECK ENDS, SEE SHEET 1295-S7.
 3. FOR SECTION A-A SEE SHEET 1295-S5.

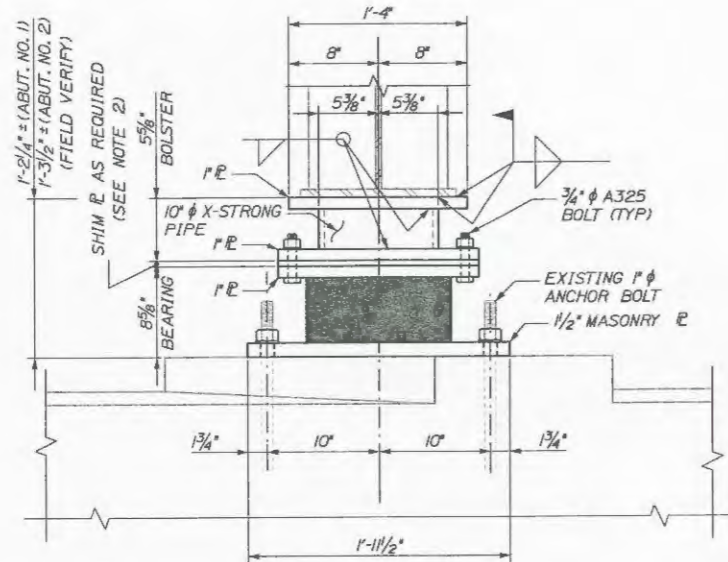
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No.	Revision	By	Date																																		
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MPC	02/06	RAL	02/06																																		



PLAN VIEW

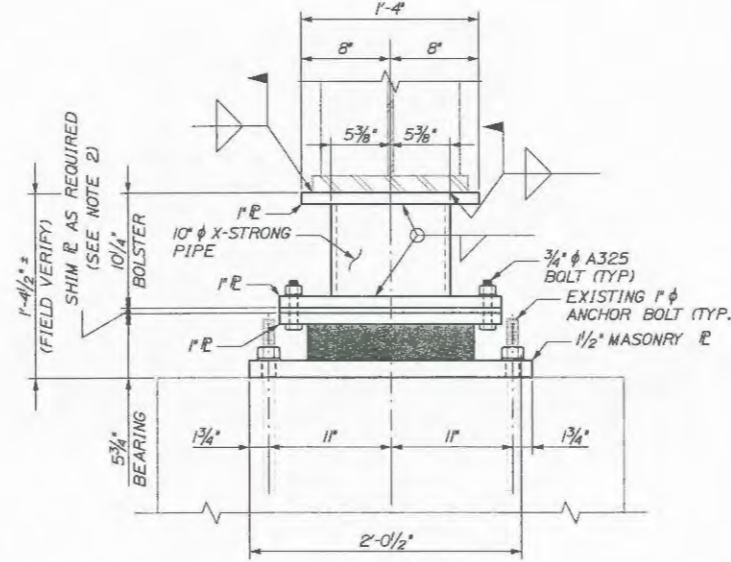


PLAN VIEW



FRONT ELEVATION

BEARING ASSEMBLY - ABUTMENTS
(12 REQUIRED)



FRONT ELEVATION

BEARING ASSEMBLY - PIERS 1 & 3
GIRDERS 2 - 5 (8 REQUIRED)

SEISMIC ISOLATION BEARINGS NOTES

1. SEISMIC LEAD/RUBBER ISOLATION BEARING SHALL BE DESIGN AND FABRICATED BY SEISMIC ENERGY PRODUCTS, LP OF ATHENS, TX OR APPROVED EQUAL.
2. DIMENSIONS SHOWN OF THE EXISTING STRUCTURE ARE BASED ON AS-BUILT DRAWINGS. ALL DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO THE FABRICATION OF BEARING, BOLSTERS AND PLATES. SHIM PLATE DIMENSIONS MAY VARY AT EACH LOCATION. ADDITIONAL ADJUSTMENTS WILL BE REQUIRED IF THE APPROVED BEARING DIMENSIONS DIFFER FROM THOSE SHOWN.
3. VULCANIZING ELASTOMER TO STEEL PLATES SHALL BE DONE DURING THE PRIMARY MOLD PROCESS.
4. UPSET THE THREADS ON THE ANCHOR BOLTS AFTER ASSEMBLY.
5. BEARINGS SHALL BE COVERED DURING TRANSIT.
6. ALL EXTERNAL PLATES SHALL MEET THE REQUIREMENTS OF ASTM A709/A709M, GRADE 36. STEEL PIPE SHALL MEET THE REQUIREMENTS OF ASTM A53, GRADE B.
7. NEW ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554, GRADE 55 AND SHALL BE SWEDGED OR THREADED ON THE EMBEDDED PORTION OF THE ROD.
8. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE LOCATION ON THE BRIDGE AND A DIRECTION ARROW POINTING UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISABLE AFTER THE BEARING IS INSTALLED.
9. THE BEARINGS SHALL BE DESIGNED SO THAT THEY MAY BE INSTALLED WHEN THE AMBIENT AIR TEMPERATURE IS WITHIN THE RANGE OF 65°F AND 90°F.
10. ALL PRECAUTIONS NECESSARY SHALL BE TAKEN TO PROTECT BEARING COMPONENTS FROM WELD FLASH AND SPATTER. WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE OF STEEL ADJACENT TO THE ELASTOMER TO 200°F THROUGH THE USE OF TEMPERATURE INDICATING CRAYONS OR OTHER SUITABLE MEANS.
11. STEEL PLATES AND BOLSTERS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123. FABRICATOR SHALL PROVIDED VENT HOLES IN THE BOLSTERS AS REQUIRED FOR THE GALVANIZATION PROCESS. ANY DAMAGE TO PAINTED OR GALVANIZED PROTECTIVE COATINGS RESULTING FROM THE INSTALLATION OR WELDING PROCESS SHALL BE REPAIRED IN ACCORDANCE ASTM 780.
12. EXISTING BEARINGS SHALL BE REMOVED AND TRANSPORTED TO THE MAINE TURNPIKE AUTHORITY'S GARDINER MAINTENANCE FACILITY AT MILE MARK 101.8. PAYMENT FOR REMOVAL AND TRANSPORTATION SHALL BE INCIDENTAL TO ITEM NO. 523.5405, SEISMIC ISOLATION BEARINGS - INSTALLATION.

AS-BUILT PLANS

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Date: 2/27/2006

Filename: ...066 I-295\021_Bearings_001.dgn

Scale: 1 1/2" = 1'-0"

No.	Revision	By	Date

Designed by:

HNTB

By	Date	By	Date
CLC	02/06	TRC	02/06
CLC	02/06	RAL	02/06

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**THE GOLD STAR
MEMORIAL HIGHWAY**

I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
SEISMIC ISOLATION
BEARING DETAILS 1

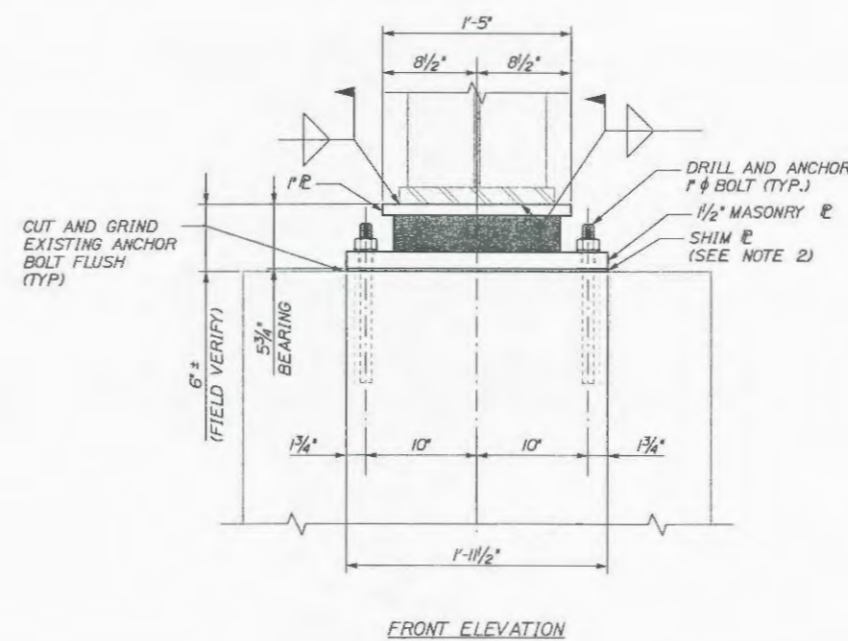
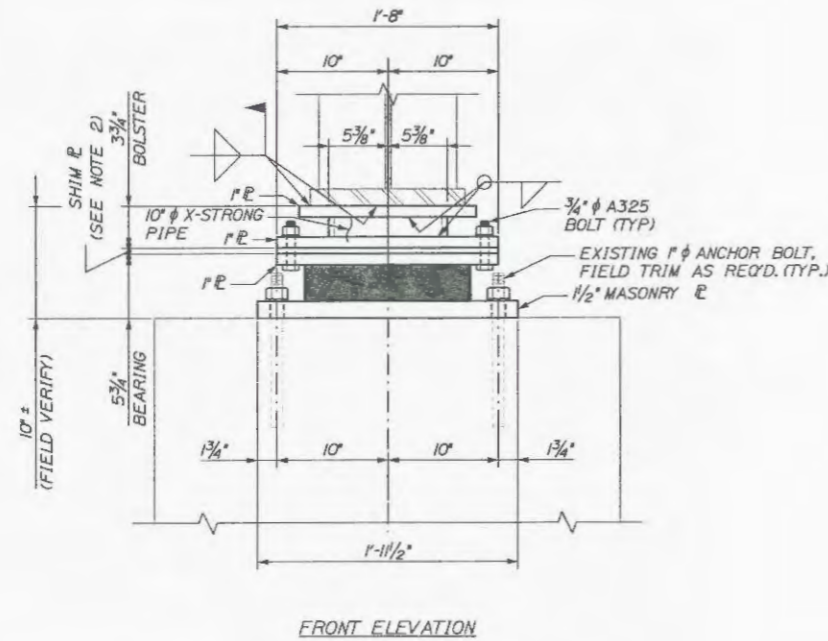
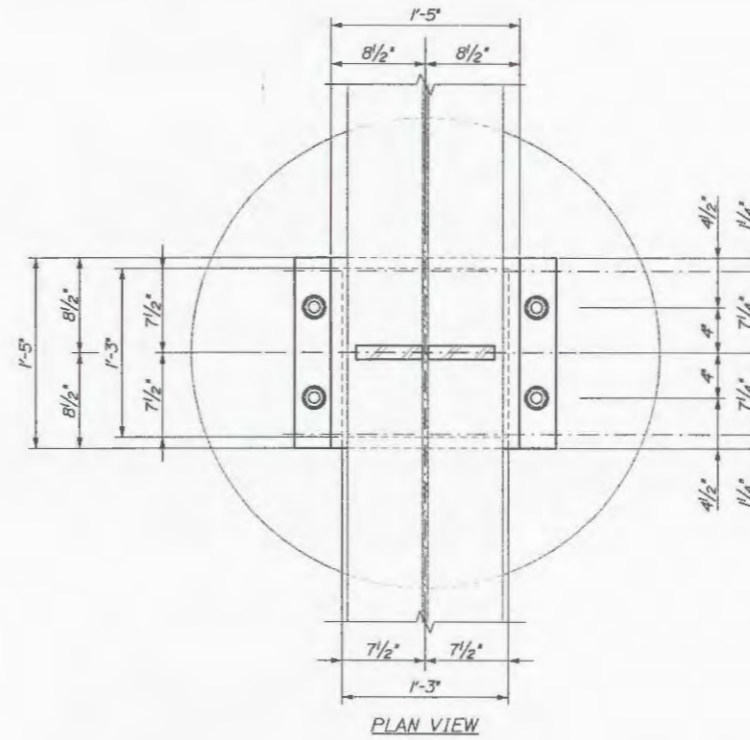
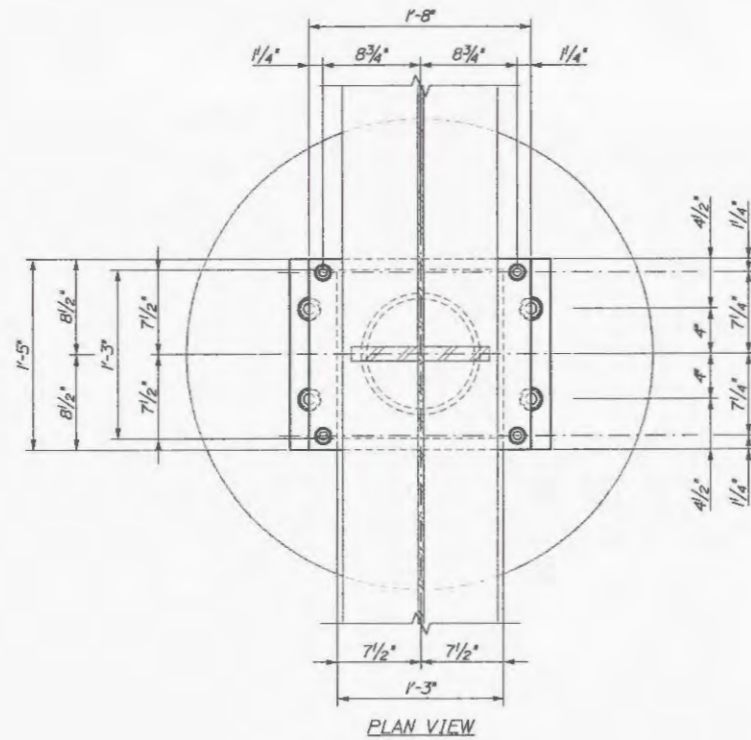
CONTRACT: 2006.02

SHEET NUMBER: I295-S10

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Date: 2/27/2006

Filename: ... \066 1-295\022_Bearings_002.dgn



BEARING ASSEMBLY - PIER 2
GIRDERS 2 - 5 (4 REQUIRED)

BEARING ASSEMBLY - PIERS
GIRDERS 1 & 6 (6 REQUIRED)

AS-BUILT PLANS
SHEET NUMBER: AB-14
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NOTE:
SEE SHEET I295-S10 FOR BEARING DETAIL NOTES.

Scale: 1 1/2" = 1'-0"

No.	Revision	By	Date

Designed by:

HNTB

	By	Date		By	Date
Designed	CLC	02/06	Checked	TRC	02/06
Drawn	CLC	02/06	In Charge of	RAL	02/06

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MAINE TURNPIKE

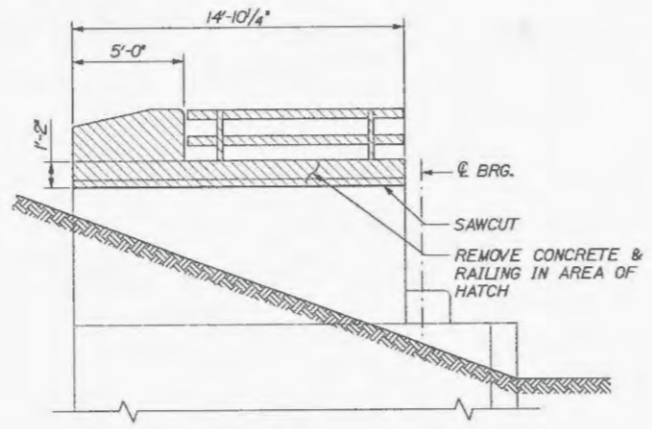
THE GOLD STAR MEMORIAL HIGHWAY

I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
SEISMIC ISOLATION
BEARING DETAILS 2

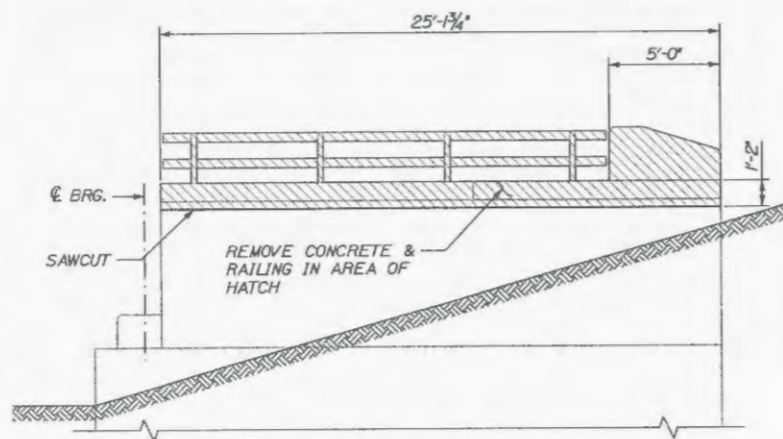
SHEET NUMBER: I295-S11
CONTRACT: 2006.02
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Date: 2/27/2006

Filename: ...066 1-295\023_existdetails.dgn



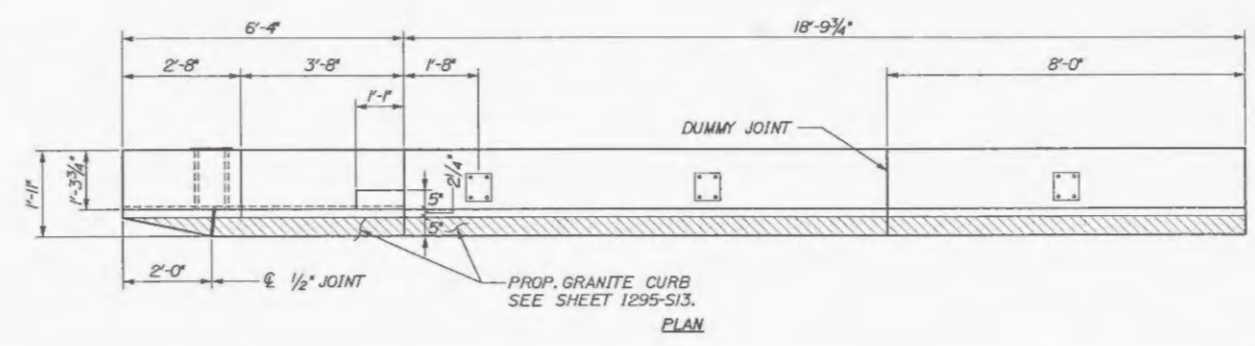
ELEVATION
(ABUT. NO. 1 EAST WINGWALL & ABUT. NO. 2 WEST WINGWALL)



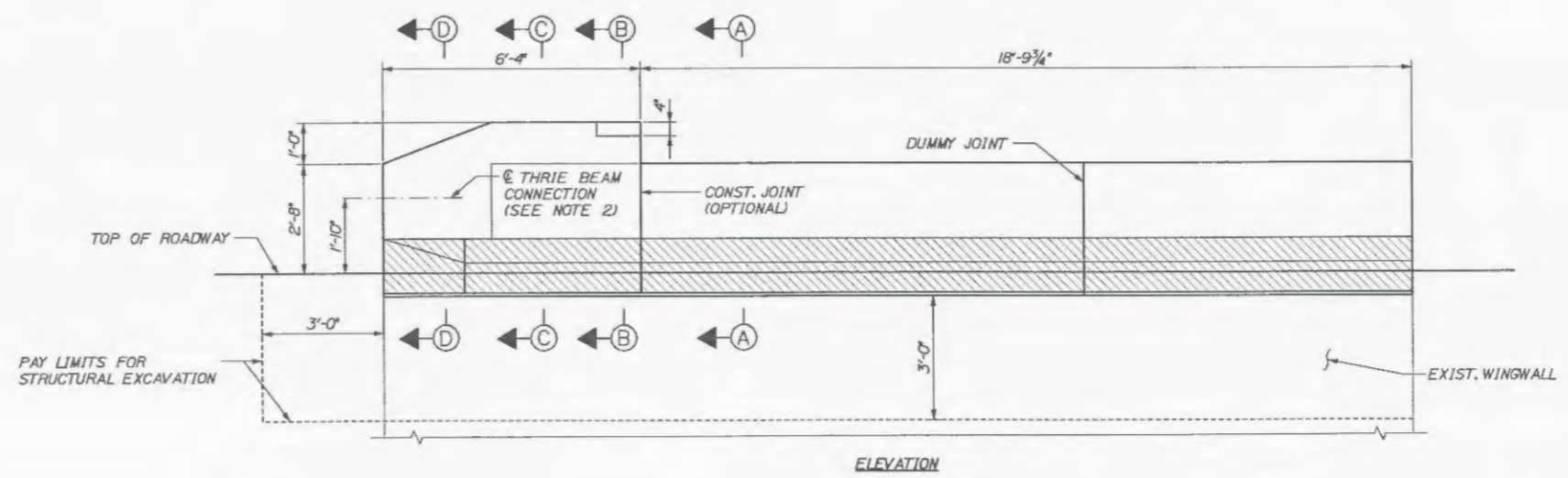
ELEVATION
(ABUT. NO. 1 WEST WINGWALL & ABUT. NO. 2 EAST WINGWALL)
WINGWALL & ENDPOST DEMOLITION DETAILS
1/4\" = 1'-0"

NOTES:

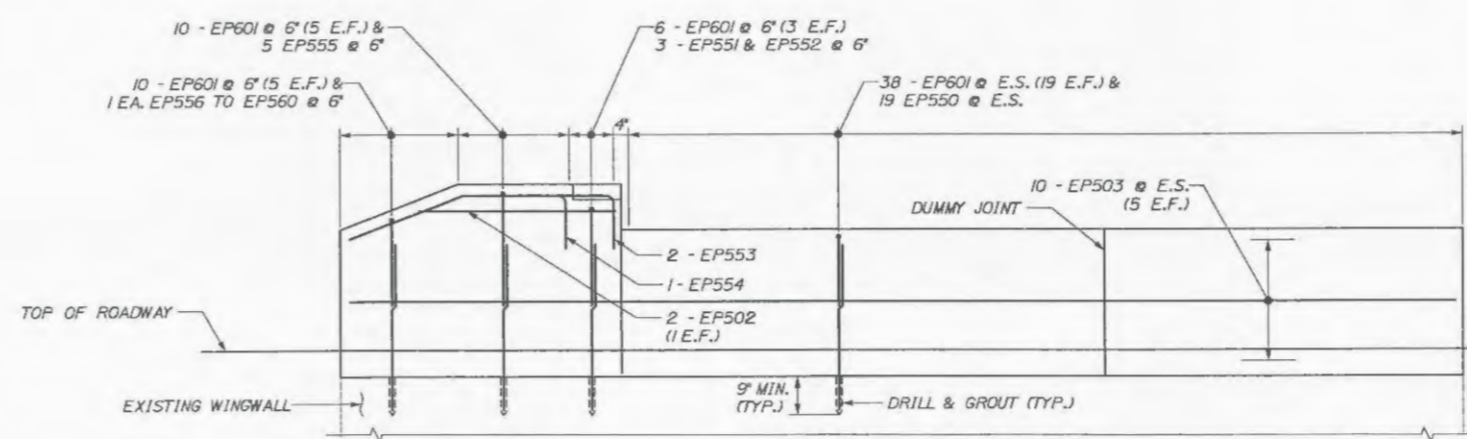
- LIMITS OF DEMOLITION SHALL BE SAWCUT 1\" DEEP (MIN.) BEFORE REMOVING CONCRETE.
- AFTER INSTALLATION OF GUARDRAIL IS COMPLETE, UPSET THE THREADS ON THE ANCHOR BOLTS IN THREE PLACES AROUND EACH BOLT, AT THE JUNCTION OF THE NUT AND THE EXPOSED THREAD, WITH A CENTER PUNCH OR SIMILAR TOOL.
- REINFORCING STEEL SHALL HAVE 2\" MIN. CONCRETE COVER.
- TERMINAL CONNECTOR ANCHORAGE SHALL BE INCIDENTAL TO THE APPLICABLE CONCRETE PAY ITEM. FOR TERMINAL CONNECTOR ANCHORAGE, SEE SHEET SD-C2.
- END POST SHALL BE CONSTRUCTED NORMAL TO GRADE, UNLESS OTHERWISE SHOWN ON THE PLANS.
- WHERE DRILLING AND ANCHORING IS SPECIFIED THE CONTRACTOR SHALL USE A MATERIAL LISTED ON THE DEPARTMENT'S LIST OF PREQUALIFIED TYPE 3 ANCHORING MATERIALS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DRILLING AND ANCHORING SHALL NOT BE PAID FOR DIRECTLY. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO THE RELATED CONTRACT ITEMS.
- REMOVAL, TRUCKING AND STACKING OF ALUMINUM RAILING AT THE AUTHORITY'S GARDINER MAINTENANCE FACILITY SHALL BE INCIDENTAL TO ITEM 202.12 - "REMOVING EXISTING STRUCTURAL CONCRETE".
- FOR SECTIONS AT PARAPET AND ENDPOST, SEE SHEET I295-S13.
- FOR DUMMY JOINT DETAILS SEE SHEET I295-S5



PLAN



ELEVATION



ELEVATION - REINFORCING

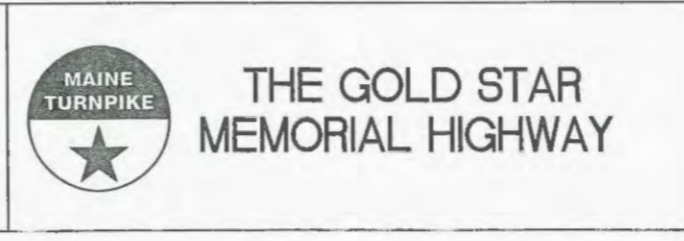
ABUT. NO. 1 WEST & ABUT. NO. 2 EAST WINGWALL DETAILS
1/2\" = 1'-0"

AS-BUILT PLANS
SHEET NUMBER: AB-15
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Scale:		AS NOTED	
Designed by:		HNTB	
No.	Revision	By	Date

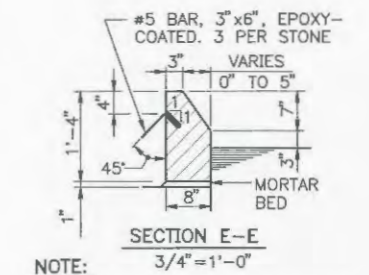
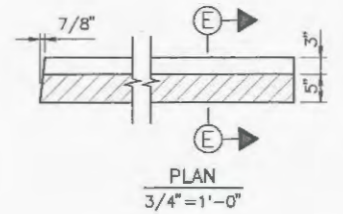
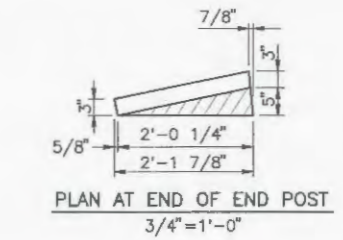
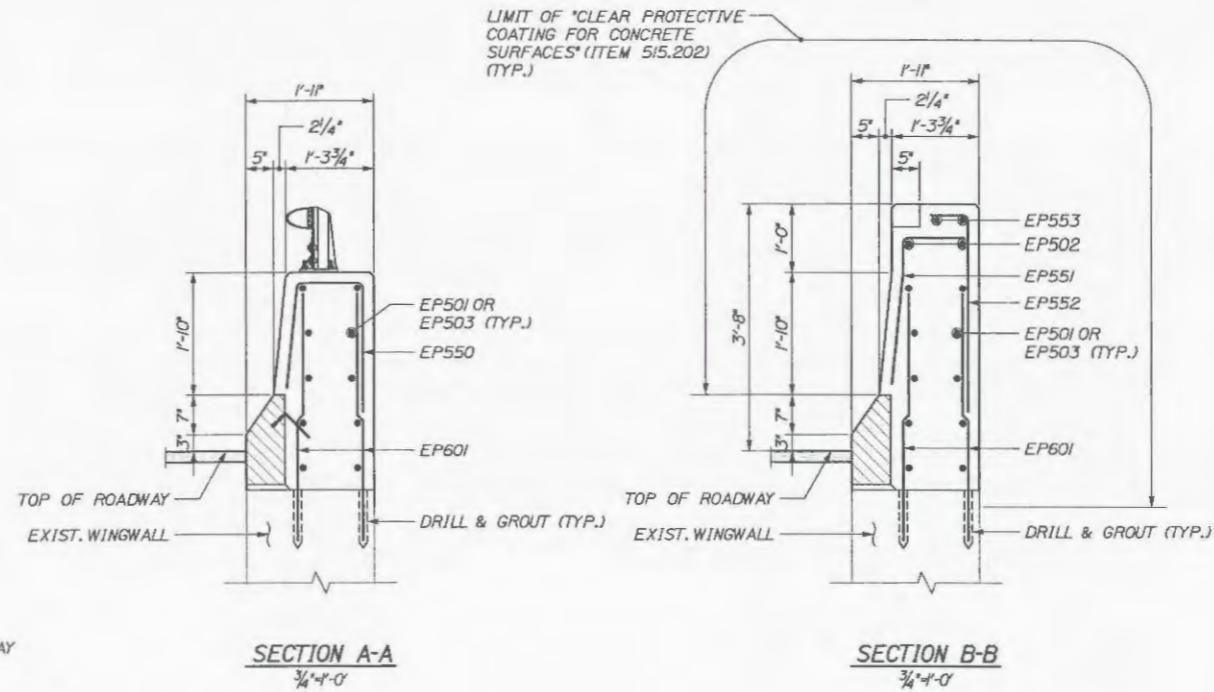
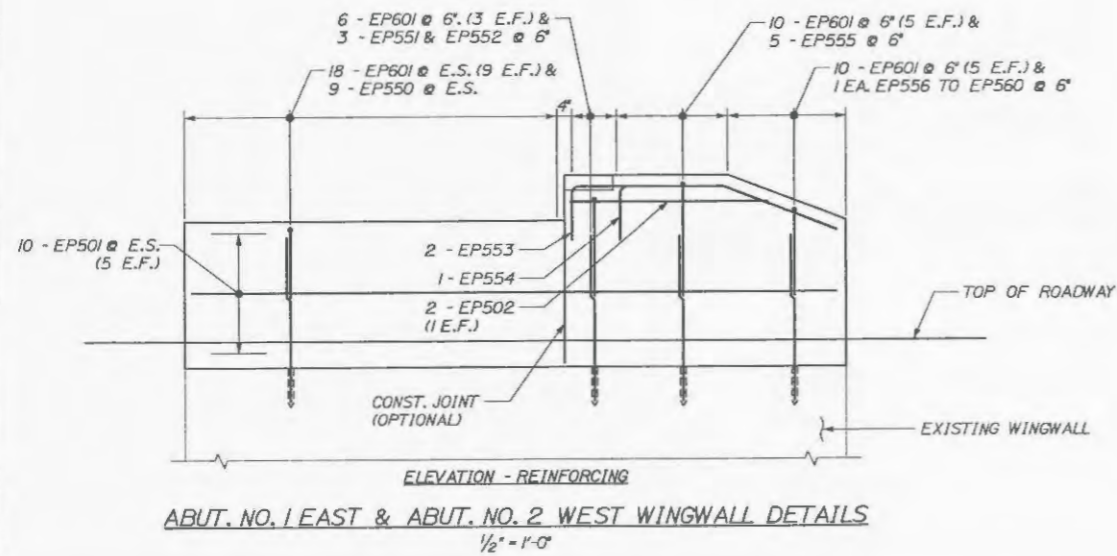
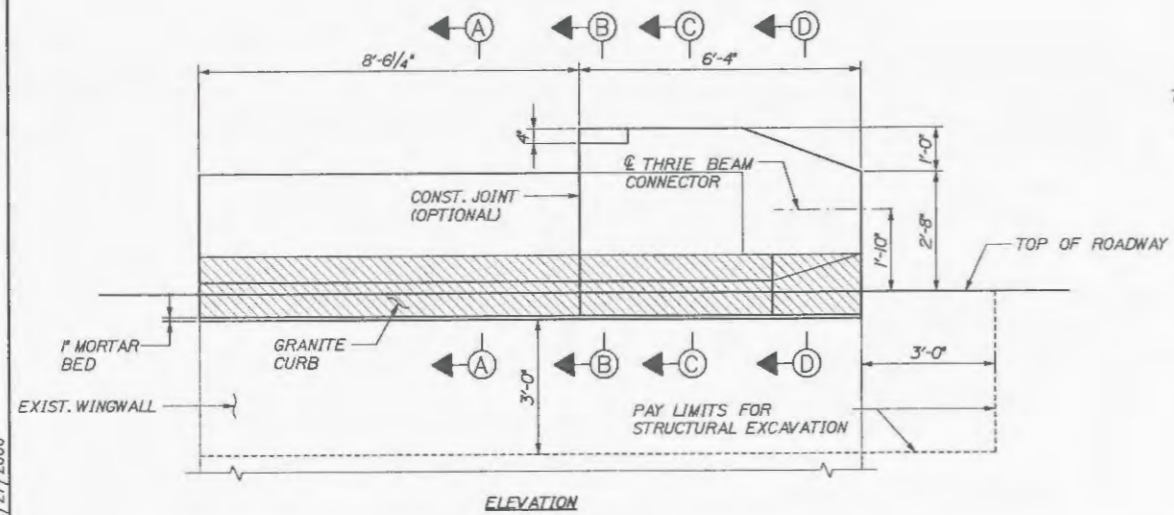
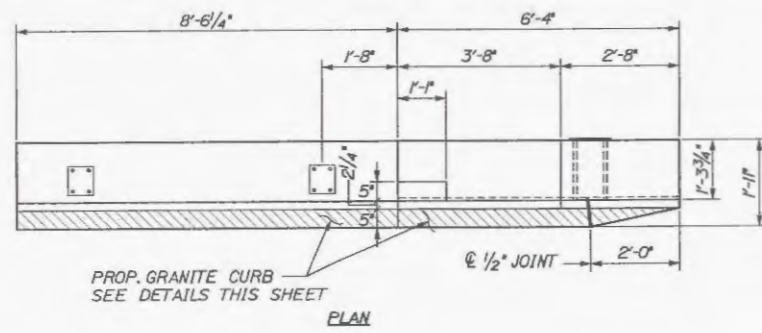
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	MPC	02/06	In Charge of	RAL	02/06

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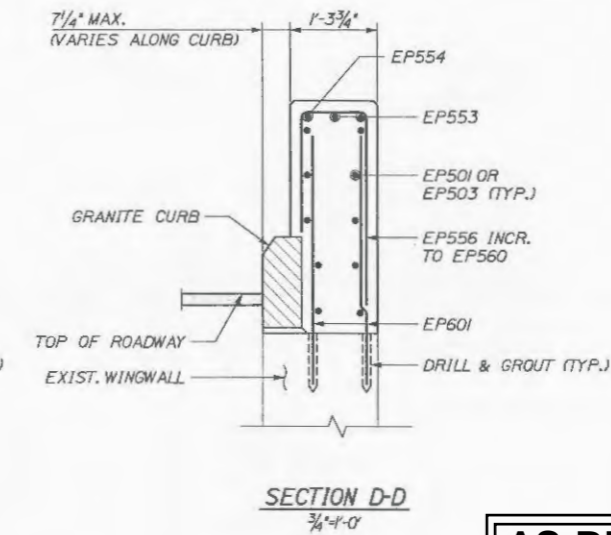
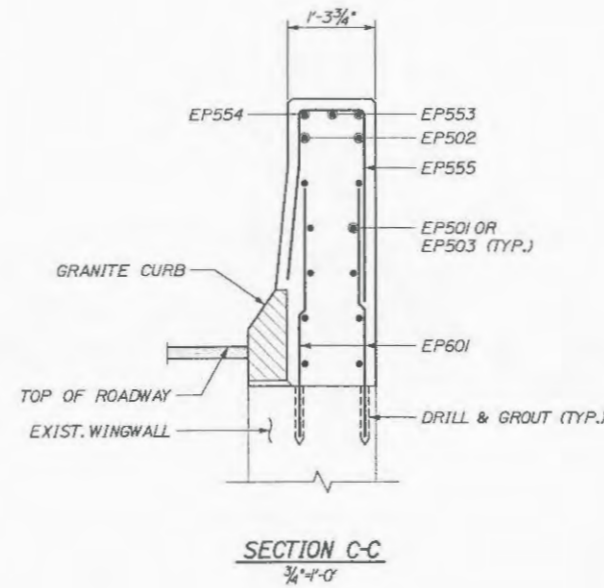
I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
WINGWALL & ENDPOST
MODIFICATIONS I

SHEET NUMBER: I295-S12
CONTRACT: 2006.02
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NOTE:
ACTUAL STONE CUT DIMENSIONS SHOWN

GRANITE CURB DETAILS



AS-BUILT PLANS
SHEET NUMBER: AB-16
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Date: 2/27/2006

Filename: ...066 I-295\024_existdetails.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: HNTB					
Designed	By	Date	Checked	By	Date
Drawn	TRC	02/06	CLC	02/06	
	MPC	02/06	In Charge of	RAL	02/06

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MEMORIAL HIGHWAY**

I-295 SOUTHBOUND UNDERPASS
BRIDGE REHABILITATION
WINGWALL & ENDPOST
MODIFICATIONS II

SHEET NUMBER: I295-S13
CONTRACT: 2006.02
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