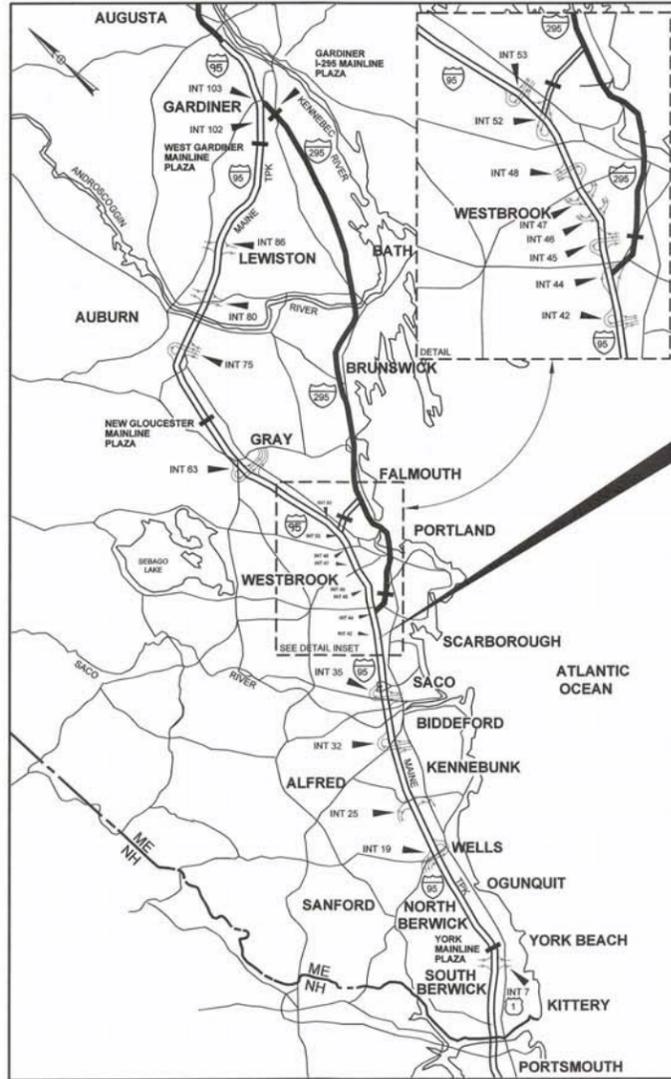


Date: 5/25/2016

Filename: 001_Title_Sheet.dgn



LOCATION MAP

CONTRACT 2016.11
 EMERGENCY VEHICLE RAMPS
 TWO ROD ROAD UNDERPASS
 (MM 42.0)



THE GOLD STAR
 MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR
 MICHAEL J. CIANCHETTE, MEMBER
 GERARD P. CONLEY, SR., MEMBER
 JOHN E. DORITY, MEMBER
 ROBERT D. STONE, MEMBER
 FREEMAN R. GOODRICH, MEMBER
 KAREN S. DOYLE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

CONTRACT 2016.11 EMERGENCY VEHICLE RAMPS TWO ROD ROAD UNDERPASS MILE 42.0

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES & EARTHWORK SUMMARY
3	GENERAL NOTES
4	TYPICAL SECTION & MISCELLANEOUS DETAILS
5-6	MAINTENANCE OF TRAFFIC DETAILS
7	EROSION CONTROL DETAILS
8	CHAIN LINK FENCE DETAILS
9	NORTHBOUND GUARDRAIL DETAILS
10-11	PLANS/PROFILES
12	LIMIT OF DISTURBANCE
13-18	SOUTHBOUND CROSS SECTIONS
19-26	NORTHBOUND CROSS SECTIONS

APPROVED: MAINE TURNPIKE AUTHORITY

Peter S. Merfeld
 PETER S. MERFELD, P.E. - CHIEF OPERATIONS OFFICER
 DATE: 6/1/16

Stephen R. Tartre
 STEPHEN R. TARTRE, P.E., - DIRECTOR OF ENGINEERING & BUILDING MAINTENANCE
 DATE: 5/31/16

HNTB



Roland A. Lavalley
 ROLAND A. LAVALLEY, P.E., PLS
 VICE PRESIDENT
 DIRECTOR OF OPERATIONS
 DATE: 5/26/16

CONTRACT 2016.11

Date:6/3/2016

Filename: 002_Est Qtys & EWSummary.dgn

Item No.	Item	Unit	Project Items	Southbound EVR	Northbound EVR	Two Rod Road Total Quantity
201.11	Clearing	AC		0.2	0.45	0.65
203.20	Common Excavation	CY		1140	1227	2367
203.25	Granular Borrow	CY			226	226
205.511	Widening of Existing Shoulder, Plan Quantity	LF			420	420
304.09	Aggregate Base Course - Crushed	CY		190	120	310
304.10	Aggregate Subbase Course - Gravel	CY		680	560	1240
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	TON		120	110	230
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base Course)	TON		120	110	230
409.15	Bituminous Tack Coat, Applied	GAL		27	26	53
419.30	Sawing Bituminous Pavement	LF		180	180	360
603.179	18 inch Culvert Pipe Option III - HDPE only	LF		56	48	104
605.09	6 inch Underdrain Type B	LF		100		100
605.10	6 inch Underdrain Type B Outlet	LF		50		50
606.232	Guardrail Type 3c - Over 15ft Radius	LF		25		25
606.265	Terminal End - Single Rail - Galvanized Steel	EA		1		1
606.353	Reflectorized Flexible Guardrail Marker	EA		2	3	5
606.356	Underdrain Delinerator Post	EA		6	2	8
606.3631	Guardrail - Remove and Dispose	LF		30		30
606.3651	Guardrail - Remove, Modify, and Reset Existing to Type 3d	LF			300	300
606.481	Single Galvanized Steel Post - 7 ft	EA			10	10
607.2325	Pipe Entry Gate	EA		1	1	2
607.2326	Remove and Reset Pipe Entry Gate	EA		1		1
610.08	Plain Riprap	CY		10	8	18
610.18	Stone Ditch Protection	CY		22	13	35
610.181	Temporary Stone Check Dams	CY		6	18	24
613.319	Erosion Control Blanket	SY		140	810	950
615.07	Loam	CY		150	150	300
618.14	Seeding Method Number 2	UNIT		12	12	24
619.1201	Mulch	UNIT		12	12	24
619.1202	Temporary Mulch	LS	1			1
620.58	Erosion Control Geotextile	SY		84	52	136
620.60	Separation Geotextile	SY			810	810
629.05	Hand Labor, Straight Time	HR	10			10
631.12	All Purpose Excavator (including operator)	HR	10			10
631.171	Truck - small (including operator)	HR	10			10
631.36	Foreman	HR	10			10
652.30	Flashing Arrow	EA	1			1
652.33	Drum	EA	50			50
652.34	Cone	EA	50			50
652.35	Construction Signs	EA	370			370
652.361	Maintenance of Traffic Control Devices	LS	1			1
652.38	Flaggers	HR	240			240
652.45	Truck Mounted Attenuator	CD	5			5
655.204	3-inch Schedule 80 PVC Conduit	LF		115	115	230
656.50	Baled Hay, in place	EA	25			25
656.632	30 Inch Temporary Silt Fence	LF		790	230	1020
659.10	Mobilization	LS	1			1

SOUTHBOUND

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	1,049
EARTH FROM DRIVES, OLD ROAD, ETC.	0
GRUBBING IN FILL	91
TOTAL COMMON EXCAVATION (for estimate)	1,140

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	147
FILL FOR DRIVES	0
GRUBBING IN FILL	91
TOTAL FILL	238

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION	1,140
DEDUCTIONS:	
GRUBBING IN CUT	328
GRUBBING IN FILL	91
PAVEMENT SALVAGE (CUT)	11
(2) TOTAL DEDUCTIONS	430
TOTAL AVAILABLE NON-ROCK EXCAVATION (1) MINUS (2)	710

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

(3)TOTAL FILL	238
TOTAL AVAIL. NON-ROCK EXCAV.	710 x 0.90 = 639
(4)TOTAL AVAILABLE EXCAVATION	= 639
SURPLUS MATERIAL = TOTAL AVAILABLE EXCAVATION - TOTAL FILL	401

NORTHBOUND

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	884
GRUBBING IN FILL	117
MUCK EXCAVATION IN FILL	226
TOTAL COMMON EXCAVATION (for estimate)	1,227

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	83
GRUBBING IN FILL	117
TOTAL FILL	200

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION	1,227
DEDUCTIONS:	
GRUBBING IN CUT	214
GRUBBING IN FILL	117
MUCK EXCAVATION (CUT & FILL)	433
(2) TOTAL DEDUCTIONS	764
TOTAL AVAILABLE NON-ROCK EXCAVATION (1) MINUS (2)	463

COMPUTATION OF GRANULAR BORROW FOR ESTIMATE

GRANULAR BORROW TO REPLACE MUCK (IN FILL)	226
GRANULAR BORROW =	226 x 1.00 = 226

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

(3)TOTAL FILL	200
TOTAL AVAIL. NON-ROCK EXCAV.	463 x 0.90 = 417
TOTAL AVAIL. STR. ROCK EXCAV.	x 1.30 = 0
TOTAL WASTE MATERIAL TO BE UTILIZED	x 0.90 = 0
(4)TOTAL AVAILABLE EXCAVATION	= 417
SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS TOTAL FILL	217

Scale:			
No.	Revision	By	Date

Designed by:					
HNTB					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	RWH	05/16	Checked	DAM	05/16
	Drawn	SLR	In Charge of	RAL	05/16

HNTB CORPORATION
 340 County Road, Suite 6-C
 Westbrook, ME 04092
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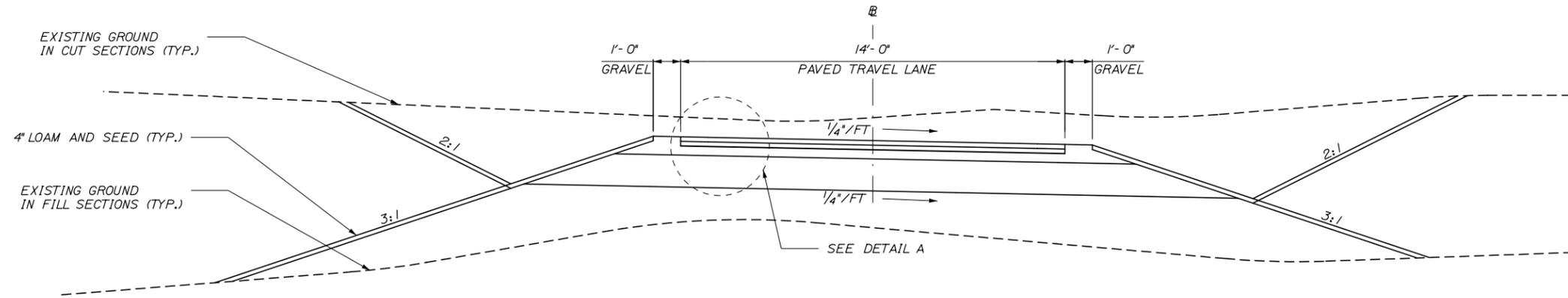
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

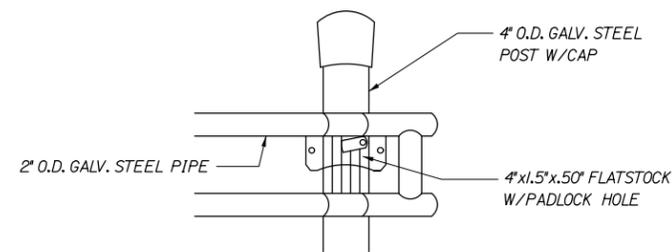
TWO ROD ROAD UNDERPASS
 EMERGENCY VEHICLE RAMPS
 ESTIMATED QUANTITIES
 & EARTHWORK SUMMARY

SHEET NUMBER: ES-01
 CONTRACT: 2016.11
 2 OF 26

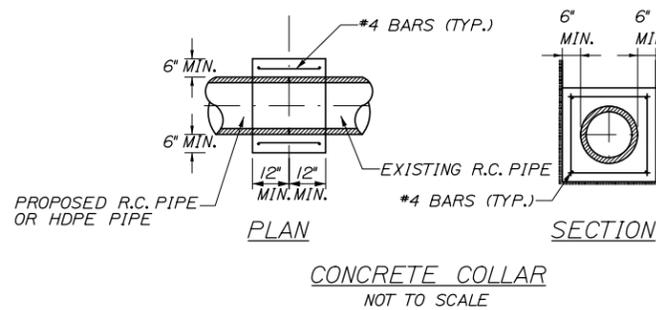
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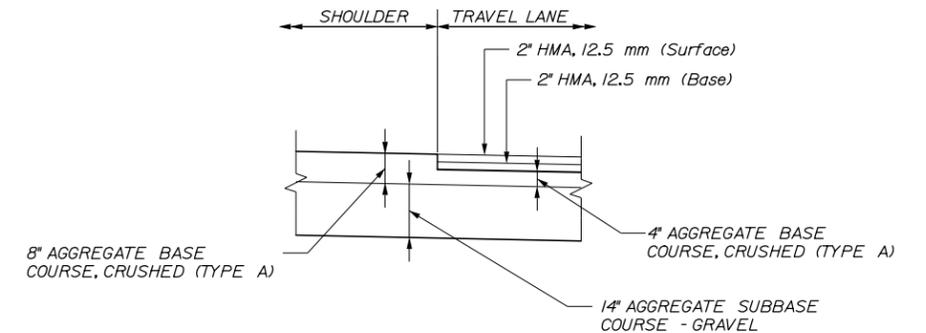
EMERGENCY VEHICLE RAMP SECTION
N.T.S.



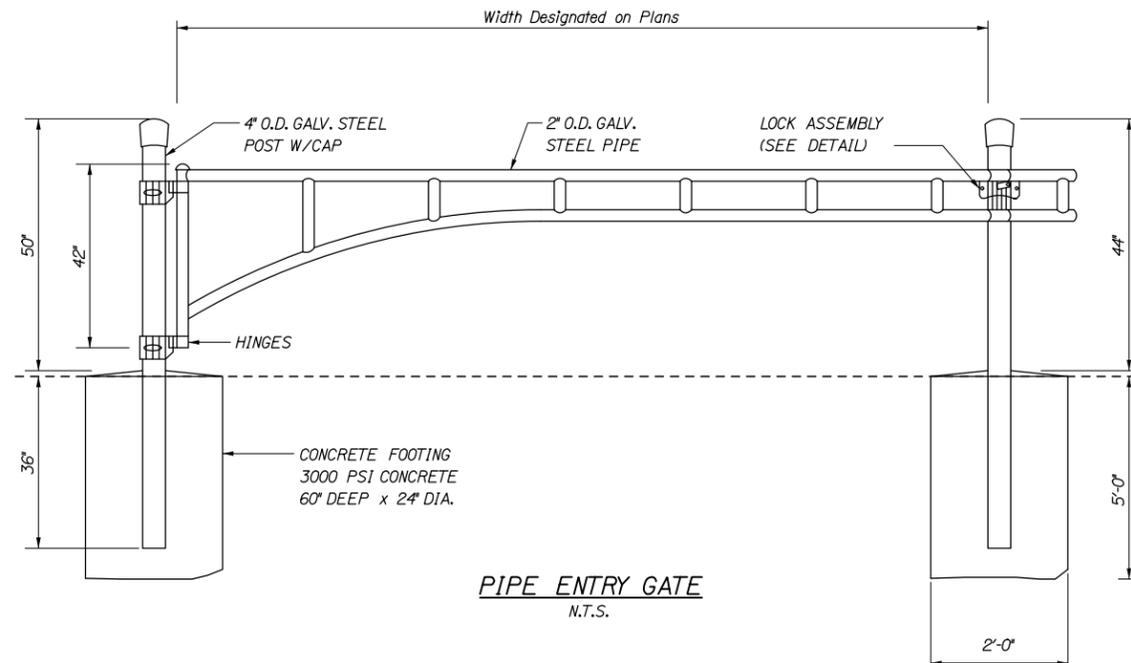
LOCK ASSEMBLY
N.T.S.



CONCRETE COLLAR
NOT TO SCALE



DETAIL A
N.T.S.



PIPE ENTRY GATE
N.T.S.

GENERAL NOTES

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER TO LEAVE A CLEAN, VERTICAL FACE.
3. 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.
4. A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO SURFACE LAYER OF ALL SAWCUT AND PAVEMENT JOINTS PRIOR TO PAVING.

Scale:

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	RWH	05/16	Checked	DAM	05/16
Drawn	SLR	05/16	In Charge of	RAL	05/16

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**THE GOLD STAR
MEMORIAL HIGHWAY**

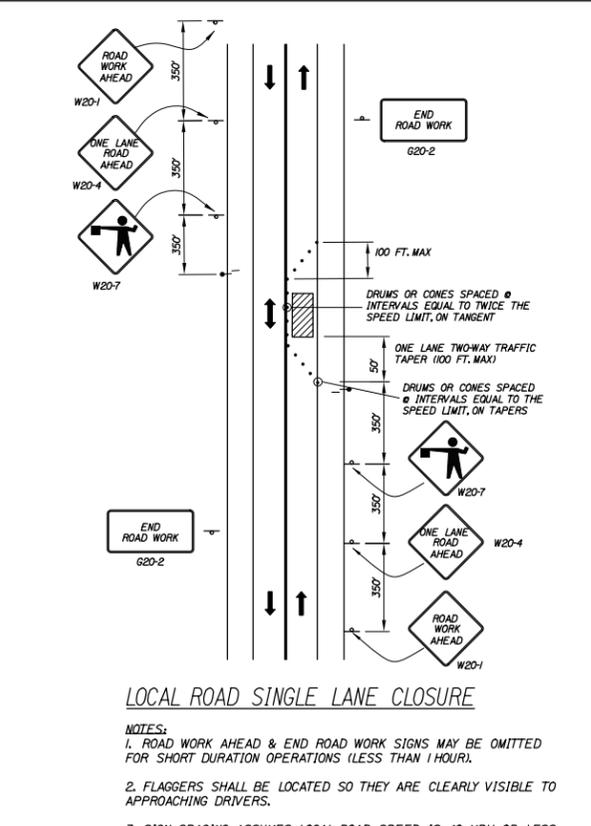
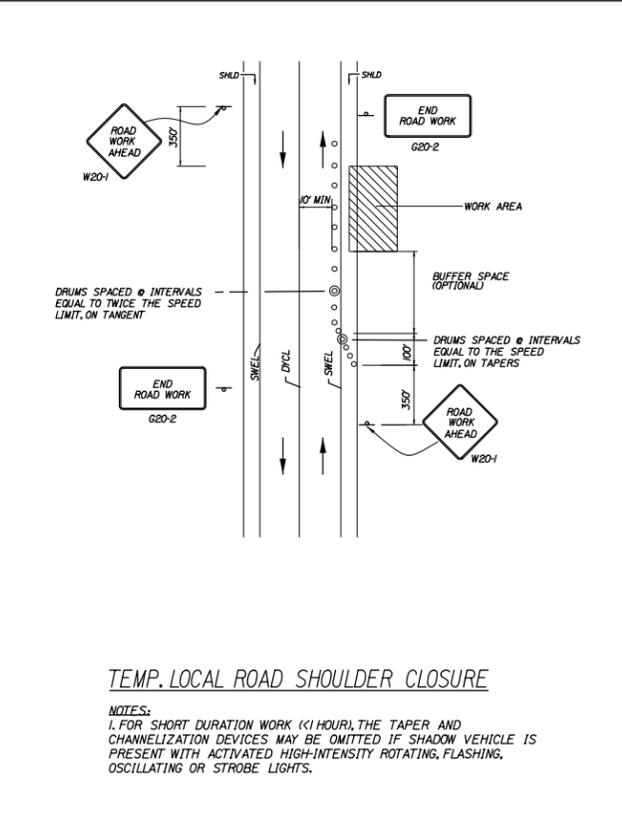
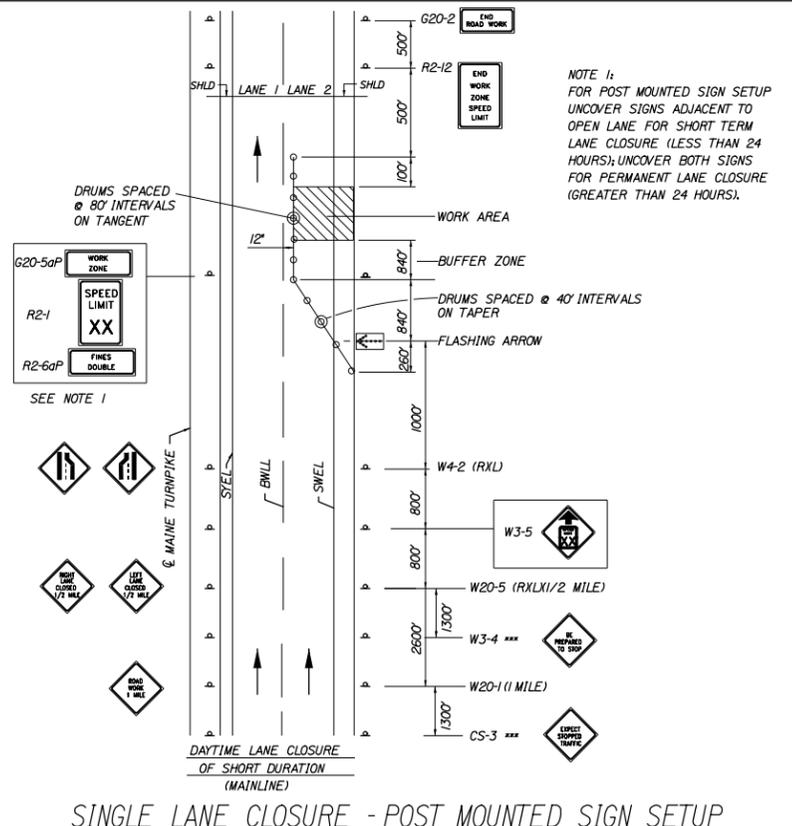
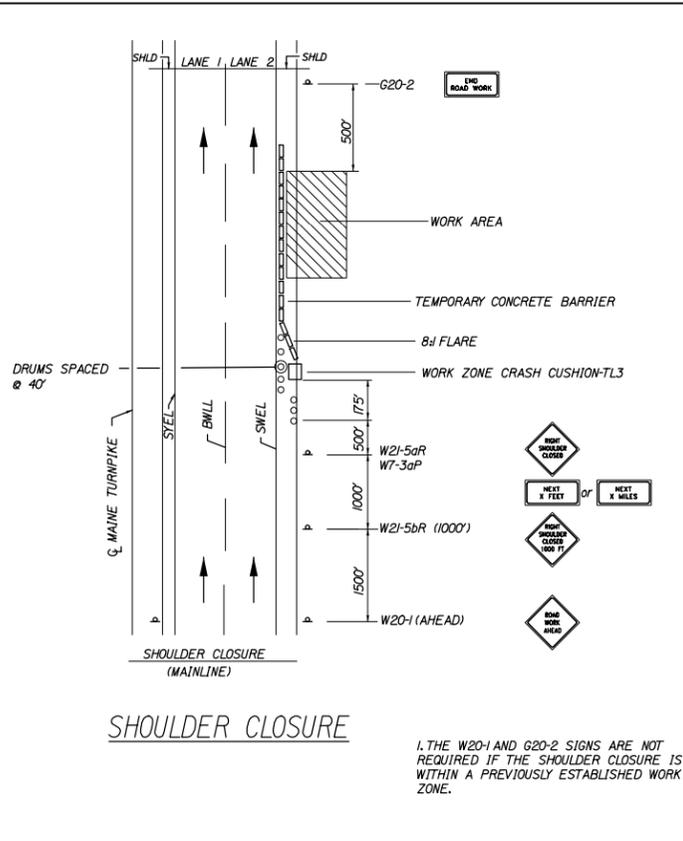
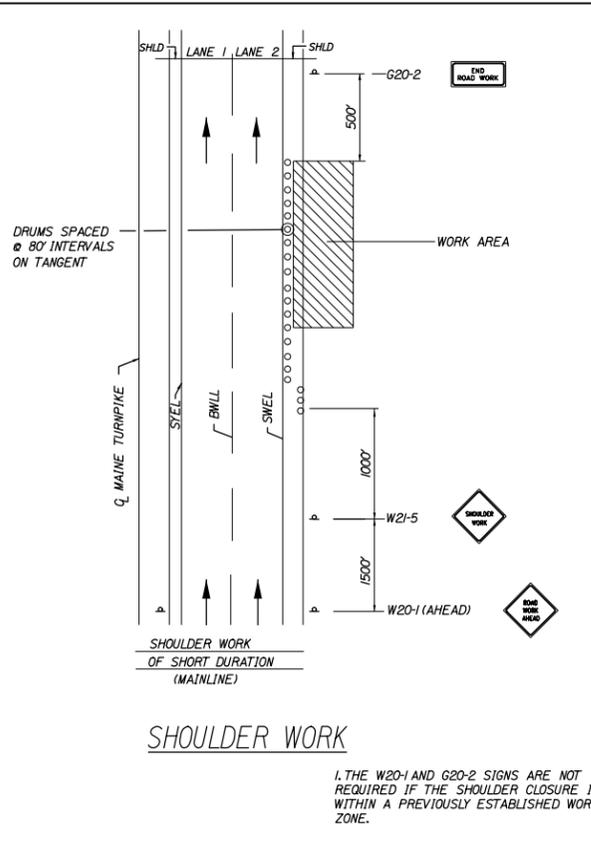
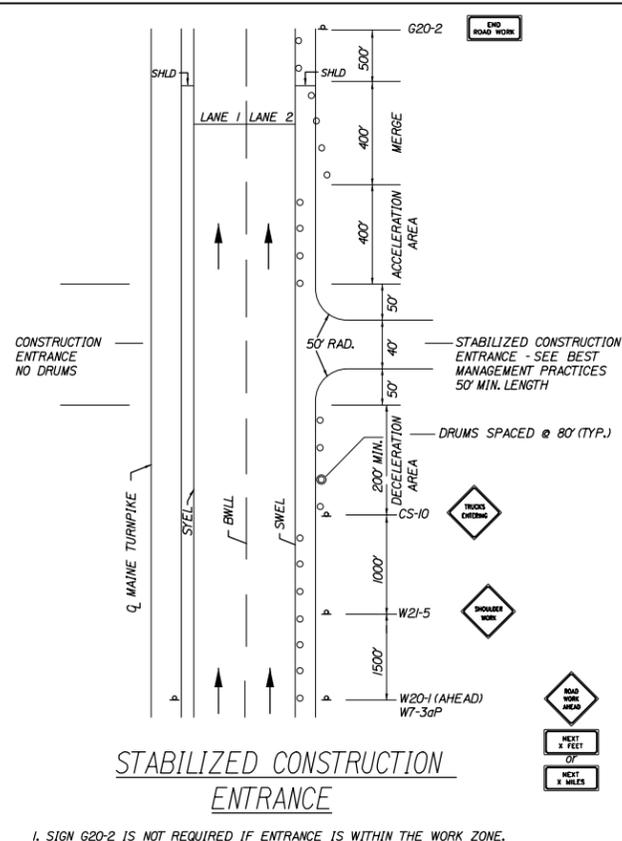
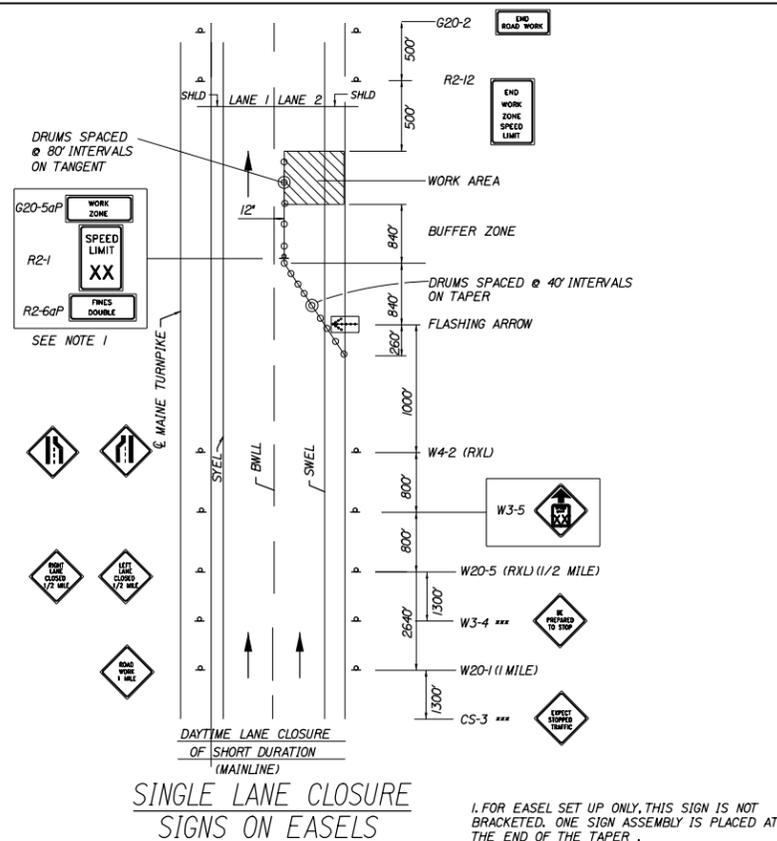
MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
TYPICAL SECTION &
MISCELLANEOUS DETAILS

SHEET NUMBER: TYP-01
CONTRACT: 2016.11
4 OF 26

Filename: 004_Typ.dgn

Date: 6/3/2016



GENERAL MAINTENANCE OF TRAFFIC NOTES:

- FOR SIGN DETAILS, SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.
- "TRUCKS ENTERING" SIGN SHALL ALSO BE USED AT LOCATIONS WHERE TRUCKS ENTER THE WORK ZONE FROM THE TRAVEL LANE.
- SIGNS DESIGNATED WITH xxx SHALL BE USED DURING STOPPAGES OF TRAFFIC.
- TRUCK MOUNTED ATTENUATORS SHALL NOT BE LOCATED WITHIN THE BUFFER ZONE.

ABBREVIATIONS FOR ALL M.O.T. PLANS

BWLL = BROKEN WHITE LANE LINE
 SWLL = SOLID WHITE LANE LINE
 SYLL = SOLID YELLOW LANE LINE
 TBWLL = TEMPORARY BROKEN WHITE LANE LINE
 TSWLL = TEMPORARY SOLID WHITE LANE LINE
 TSYLL = TEMPORARY SOLID YELLOW LANE LINE

Scale:

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	By	Date	
Designed	RWH	05/16	Checked	DAM	05/16
Drawn	SLR	05/16	In Charge of	RAL	05/16

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MAINE TURNPIKE

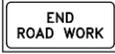
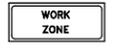
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
 EMERGENCY VEHICLE RAMPS
 MAINTENANCE OF TRAFFIC
 DETAILS 1

SHEET NUMBER: MT-01
 CONTRACT: 2016.11
 5 OF 26

CONSTRUCTION SIGN SUMMARY

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER	
G20-2	48"	24"		TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT			4	ORANGE	BLACK	8.00 (32.00)
G20-5aP	48"	24"		6" 6"	4.5"		1	ORANGE	BLACK	8.00 (8.00)
R2-1 (45)	48"	60"		TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT			1	WHITE	BLACK	20.00 (20.00)
R2-6aP	48"	24"		6" 6"	4.5"		1	WHITE	BLACK	8.00 (8.00)
R2-12	48"	60"		TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT			2	WHITE	BLACK	20.00 (40.00)
W3-5 (50)	48"	48"					2	ORANGE	BLACK	16.00 (32.00)
W4-2R	48"	48"					2			16.00 (32.00)
W20-1 (AHEAD) (1 MILE)	48"	48"					2 2			16.00 (64.00)
W20-5R (1/2 MILE)	48"	48"					2			16.00 (32.00)
W21-5	48"	48"					2			16.00 (32.0)
W20-4	48"	48"					2			16.00 (32.0)
W20-7	48"	48"					2			16.00 (32.0)

Date: 6/3/2016

Filename: 006_TCP_Sign_Summary.dgn

Scale: N.T.S.

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	RWH	05/16	Checked	DAM	05/16
Drawn	SLR	05/16	In Charge of	RAL	05/16

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 340 County Road, Suite 6-C
 Westbrook, ME 04092
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

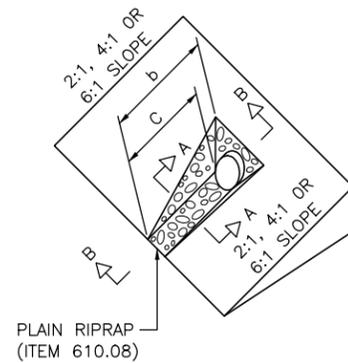
TWO ROD ROAD UNDERPASS
 EMERGENCY VEHICLE RAMPS
 MAINTENANCE OF TRAFFIC
 SIGN SUMMARY 1

SHEET NUMBER: MT-02
 CONTRACT: 2016.11
 6 OF 26

Date:6/3/2016

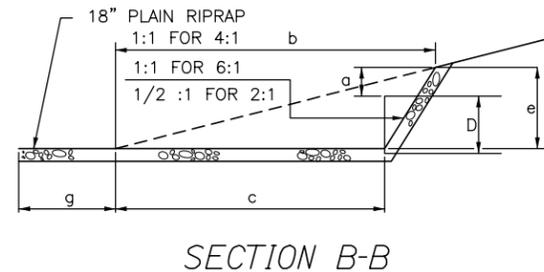
DIMENSIONS FOR SLOPE OF 2:1

D	a (FT)	b (FT)	c (FT)	e (FT)	f (FT)	g (FT)	STONE DEPTH (FT)	STONE (CY)
12"	1.00	4.00	3.00	2.00	6.00	1.00	1.50	1.30
15"	1.00	4.50	3.37	2.25	6.75	1.63	1.50	1.70
18"	1.00	5.00	3.75	2.50	7.50	2.25	1.50	2.09
21"	1.00	5.50	4.13	2.75	8.25	2.88	1.50	2.58
24"	1.00	6.00	4.50	3.00	9.00	3.50	1.50	3.12
30"	1.00	7.00	5.25	3.50	10.50	4.75	1.50	4.33
36"	1.00	8.00	6.00	4.00	12.00	6.00	1.50	5.75
42"	1.00	9.00	6.75	4.50	13.50	7.25	1.50	7.37
48"	1.00	10.00	7.50	5.00	15.00	8.50	1.50	9.18
54"	1.00	11.00	8.25	5.50	16.50	9.75	1.50	11.19
60"	1.00	12.00	9.00	6.00	18.00	11.00	1.50	13.40
66"	1.00	13.00	9.75	6.50	19.50	12.25	1.50	15.81
72"	1.00	14.00	10.50	7.00	21.00	13.50	1.50	18.41
84"	1.00	16.00	12.00	8.00	24.00	16.00	1.50	24.22



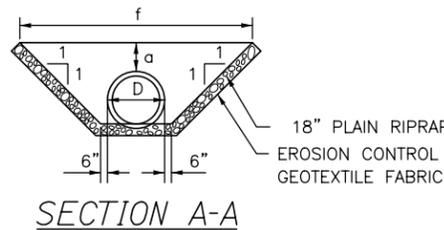
DIMENSIONS FOR SLOPE OF 4:1

D	a (FT)	b (FT)	c (FT)	e (FT)	f (FT)	g (FT)	STONE DEPTH (FT)	STONE (CY)
12"	1.00	8.00	6.00	2.00	6.00	0.00	1.50	2.20
15"	1.00	9.00	6.75	2.25	6.75	0.00	1.50	2.80
18"	1.00	10.00	7.50	2.50	7.50	0.00	1.50	3.40
21"	1.00	11.00	8.25	2.75	8.25	0.00	1.50	4.10
24"	1.00	12.00	9.00	3.00	9.00	0.00	1.50	4.86
30"	1.00	14.00	10.50	3.50	10.50	0.00	1.50	6.58
36"	1.00	16.00	12.00	4.00	12.00	0.00	1.50	8.56
42"	1.00	18.00	13.50	4.50	13.50	0.50	1.50	10.92
48"	1.00	20.00	15.00	5.00	15.00	1.00	1.50	13.57
54"	1.00	22.00	16.50	5.50	16.50	1.50	1.50	16.50
60"	1.00	24.00	18.00	6.00	18.00	2.00	1.50	19.72
66"	1.00	26.00	19.50	6.50	19.50	2.50	1.50	23.22
72"	1.00	28.00	21.00	7.00	21.00	3.00	1.50	27.01
84"	1.00	32.00	24.00	8.00	24.00	4.00	1.50	35.45



DIMENSIONS FOR SLOPE OF 6:1

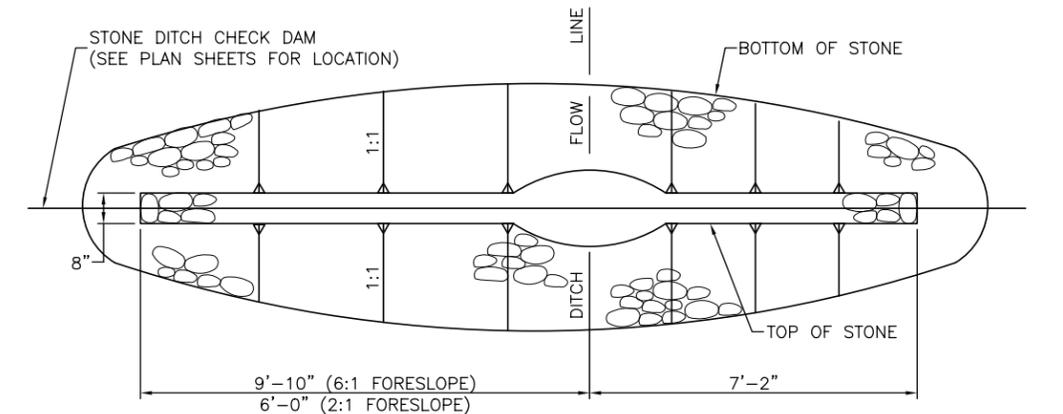
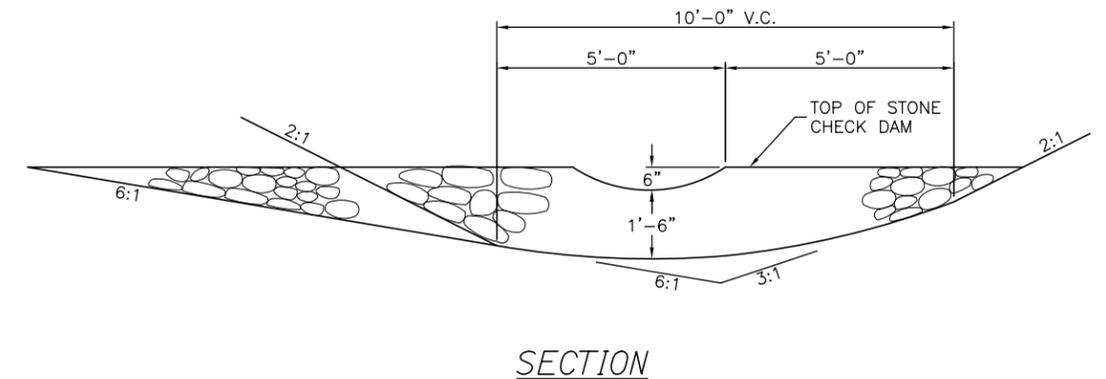
D	a (FT)	b (FT)	c (FT)	e (FT)	f (FT)	g (FT)	STONE DEPTH (FT)	STONE (CY)
12"	0.50	9.00	7.50	1.50	4.50	0.00	1.50	2.30
15"	0.50	10.50	8.75	1.75	5.50	0.00	1.50	2.93
18"	0.50	12.00	10.00	2.00	6.50	0.00	1.50	3.57
21"	0.50	13.50	11.25	2.25	7.25	0.00	1.50	4.46
24"	0.50	15.00	12.50	2.50	8.00	0.00	1.50	5.44
30"	0.50	18.00	15.00	3.00	9.50	0.00	1.50	7.71
36"	0.50	21.00	17.50	3.50	11.00	0.00	1.50	10.37
42"	0.50	24.00	20.00	4.00	12.50	0.00	1.50	13.42
48"	0.50	27.00	22.50	4.50	14.00	0.00	1.50	16.87
54"	0.50	30.00	25.00	5.00	15.50	0.00	1.50	20.70
60"	0.50	33.00	27.50	5.50	17.00	0.00	1.50	24.93
66"	0.50	36.00	30.00	6.00	18.50	0.00	1.50	29.55
72"	0.50	39.00	32.50	6.50	20.00	0.00	1.50	34.56
84"	0.50	45.00	37.50	7.50	23.00	0.00	1.50	45.76



ROADWAY CULVERT END SLOPE TREATMENT

NOTES:

1. THE DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE MODIFIED BY THE RESIDENT.
2. STONE QUANTITIES ARE FOR ONE END OF THE PIPE.



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: 007_Erosion_Con_Det1.dgn

Scale:				Designed by:																			
<table border="1"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				No.	Revision	By	Date																
				No.	Revision	By	Date																
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.																							
Designed	RWH	05/16	Checked	DAM	05/16																		
Drawn	SLR	05/16	In Charge of	RAL	05/16																		

HNTB CORPORATION
340 County Road, Suite 6-C
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TEL (207) 774-5155
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian Taddeo, P.E.

**TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMPS**

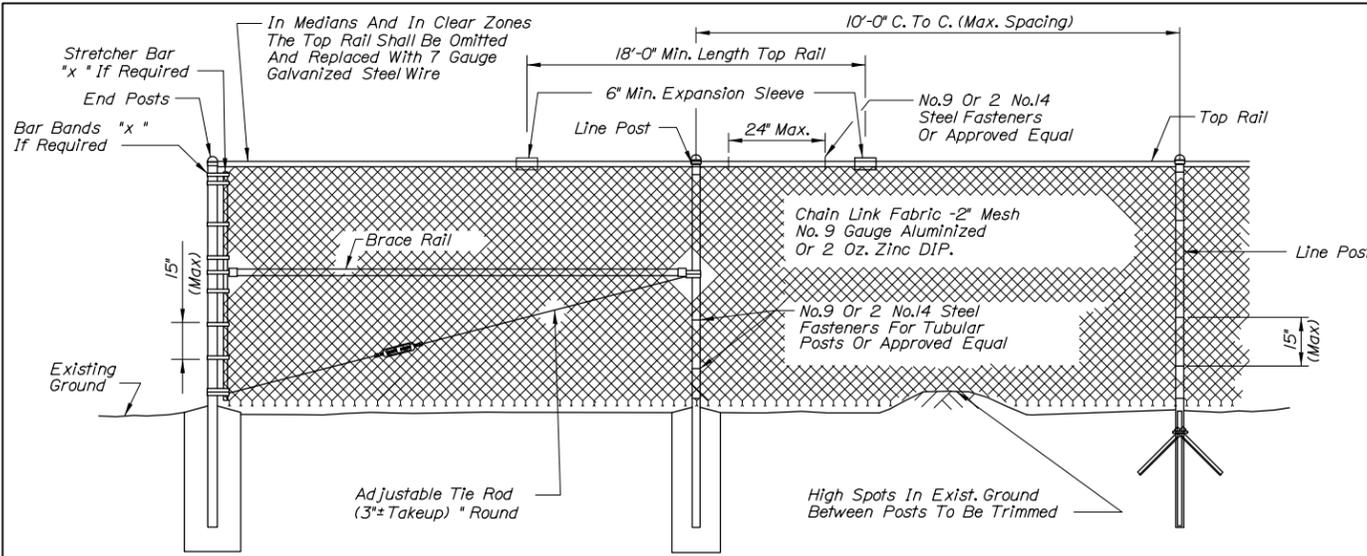
EROSION CONTROL DETAILS

CONTRACT:2016.11

SHEET NUMBER: MD-01

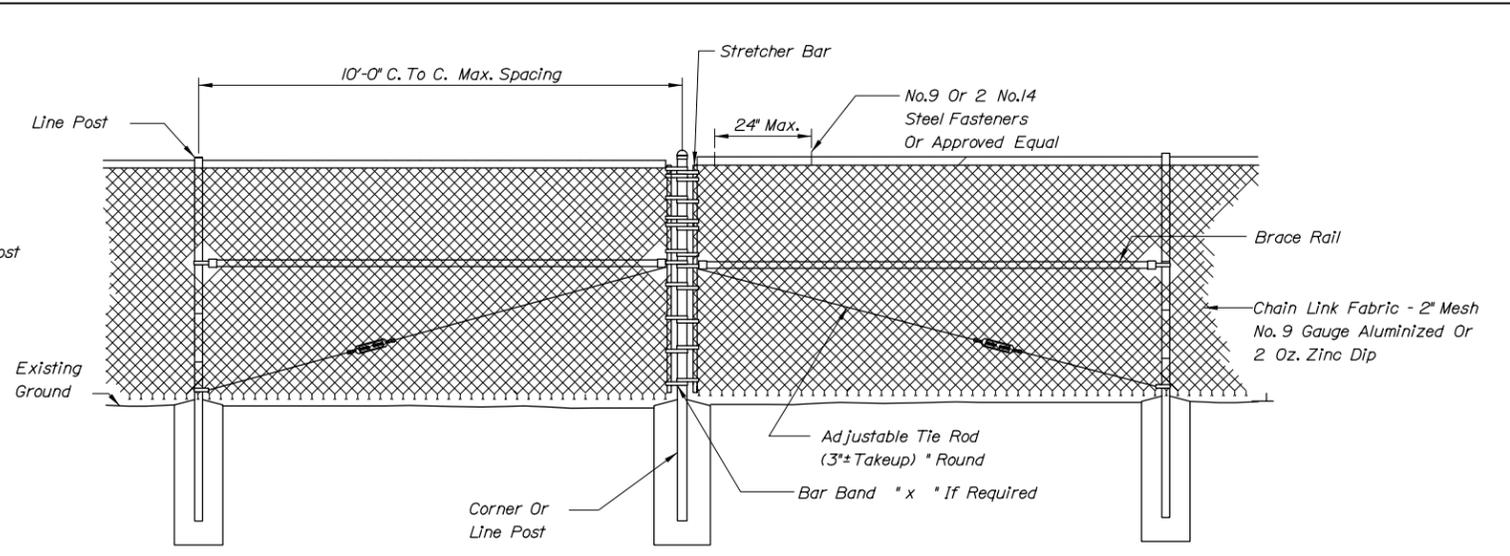
7 OF 26

Date: 6/3/2016

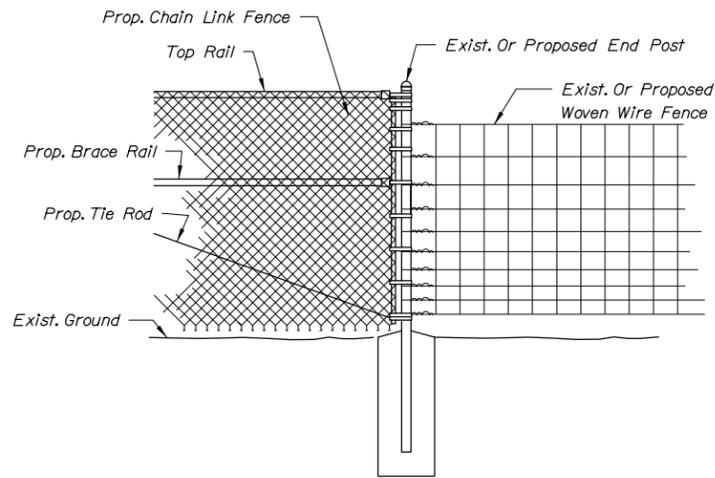


TYPICAL TYPE I END PANEL
N.T.S.

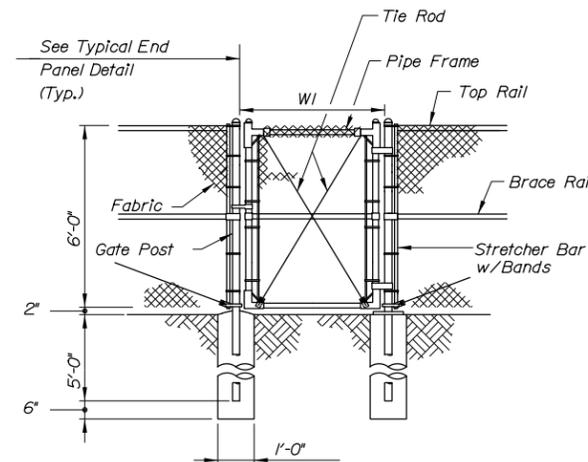
TYPICAL INTERMEDIATE PANEL
N.T.S.



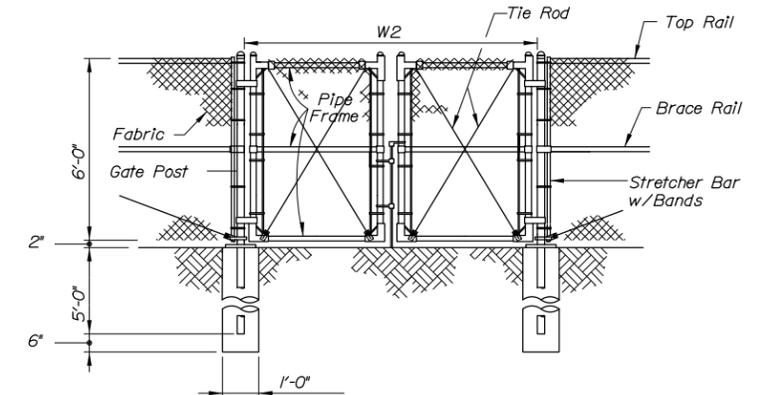
TYPICAL TYPE II BRACE PANEL
N.T.S.



METHOD OF ATTACHING CHAIN LINK FENCE TO WOVEN WIRE FENCE
N.T.S.



SINGLE GATE



DOUBLE GATE

Gate Width		Gate Post O.D.
W1	W2	
to 6'	to 12'	3"
6' to 12'	12' to 24'	4"
12' to 18'	24' to 36'	6"

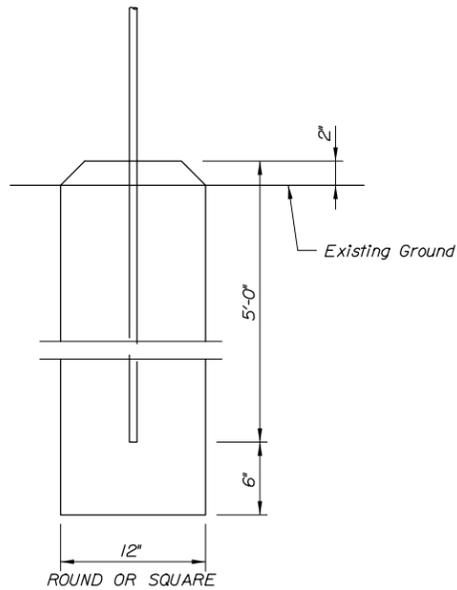
BENDING MOMENTS BASED ON GRADE 1 (SCHEDULE 40 STEEL)

CHAIN LINK FENCE	SHAPE	NOMINAL SIZE (INCHES)	BENDING MOMENT* (LBS.-IN.)
END & CORNER POSTS	∅	2 I.D.	14,025
LINE POSTS	∅	1-1/2 I.D.	8,150
TOP & BRACE RAILS	∅	1-1/4 I.D.	5,875

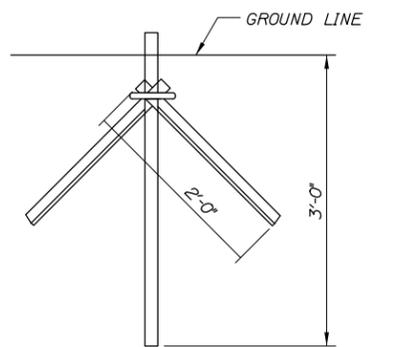
* MATERIAL FOR GRADE 2 END, CORNER & LINE POSTS AND TOP & BRACE RAILS MUST MEET OR EXCEED BENDING MOMENTS FOR GRADE 1 STEEL AS NOTED ABOVE.

NOTES:

- BRACE PANELS SHALL BE INSTALLED WHERE THE CHANGE IN GRADE BETWEEN ANY THREE POSTS EXCEEDS 15 PERCENT.
- NO ADDITIONAL PAYMENT WILL BE MADE FOR LONGER POSTS NECESSITATED BY LARGE GRADE DIFFERENTIAL.
- TYPE I BRACING WILL BE USED AT FENCE ENDS. TYPE II BRACING WILL BE USED AT CORNER POSTS.
- WHEN LEDGE IS ENCOUNTERED, STEEL POSTS SHALL BE SET AND GROUTED 12" DEEP UNLESS THE POSTS PENETRATE THE GROUND TO THE DEPTH INDICATED ON THE DRAWINGS.
- CONCRETE FOR POST FOUNDATION SHALL BE CLASS B.
- BRACE, GATE AND END POSTS SHALL BE SET IN CONCRETE.
- CHAIN LINK FENCE SHALL BE INSTALLED WITH BARBS DOWN.
- ALL COMPONENTS OF CHAIN LINK FENCE SHALL BE IN ACCORDANCE WITH AASHTO M181.



BRACE, GATE AND END POST BASE DETAIL
N.T.S.



LINE POST DRIVE ANCHOR DETAIL
N.T.S.

Filename: 008_Fence Details.dgn

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

By	Date	By	Date
Designed	RWH 05/16	Checked	DAM 05/16
Drawn	SLR 05/16	In Charge of	RAL 05/16

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340 County Road, Suite 6-C
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMPS
CHAIN LINK FENCE DETAILS

SHEET NUMBER: MD-02
CONTRACT: 2016.11
8 OF 26

DRIVE/ENTRANCES
STA. 3+99, RT.

ITEM 610.18 STONE DITCH PROTECTION CY
STA. 6+00, LT TO STA. 6+47, LT. 11.1
STA. 6+00, RT TO STA. 6+46, RT. 10.4

STATION 6+75.63
END FULL DEPTH CONSTRUCTION
MATCH EXISTING PAVEMENT
LIMIT OF WORK

ALL STUMPS WITHIN CLEARING LIMIT
LINES SHALL BE REMOVED, AREA
REGRADED, LOAMED AND SEED.
STUMP REMOVAL AND REGRADING SHALL
BE INCIDENTAL TO CLEARING.

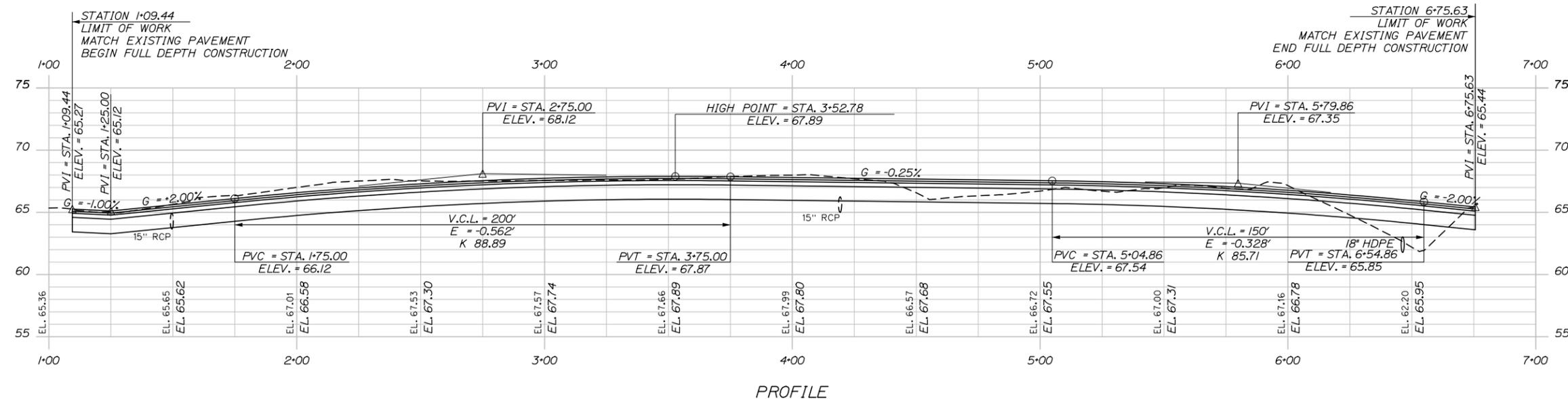
CURVE DATA #1
PI = 1+89.29
D = 81°51'04.0"
Δ = 87°03'30.5" Lt.
R = 70.00'
L = 106.36'
T = 66.50'
E = 26.55'

CURVE DATA #3
PI = 5+56.11
D = 28°38'52.4"
Δ = 39°50'36.1" Lt.
R = 200.00'
L = 139.08'
T = 72.48'
E = 12.73'

CURVE DATA #2
PI = 3+82.81
D = 3°49'11.0"
Δ = 7°42'47.2" Rt.
R = 1500.00'
L = 201.93'
T = 101.12'
E = 3.40'

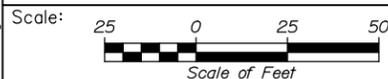
ITEM 606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL LF
STA. 1+29.08, 16.41' LT 103
ITEM 606.3631 GUARDRAIL - REMOVE AND DISPOSE LF
STA. 1+13.54, 35.33, LT. TO STA. 1+31.91, 13.67' LT 417
ITEM 606.232 GUARDRAIL TYPE 3c - OVER 15 FT RADIUS LF
STA. 1+13.54, 35.33, LT. TO STA. 1+29.08, 16.41' LT 29

ITEM 656.632 30 INCH TEMPORARY SILT FENCE LF
STA. 1+16, RT. TO STA. 1+87, RT. 103
STA. 1+19, LT. TO STA. 5+74, LT. 417
STA. 3+00, RT. TO STA. 4+27, RT. 129
STA. 4+39, RT. TO STA. 5+25, RT. 88
STA. 6+23, RT. TO STA. 6+66, RT. 49



Date: 6/3/2016

Filename: 010_Plan_SB.dgn



Designed by:



CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

No.	Revision	By	Date	By	Date

Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian Taddeo, P.E.

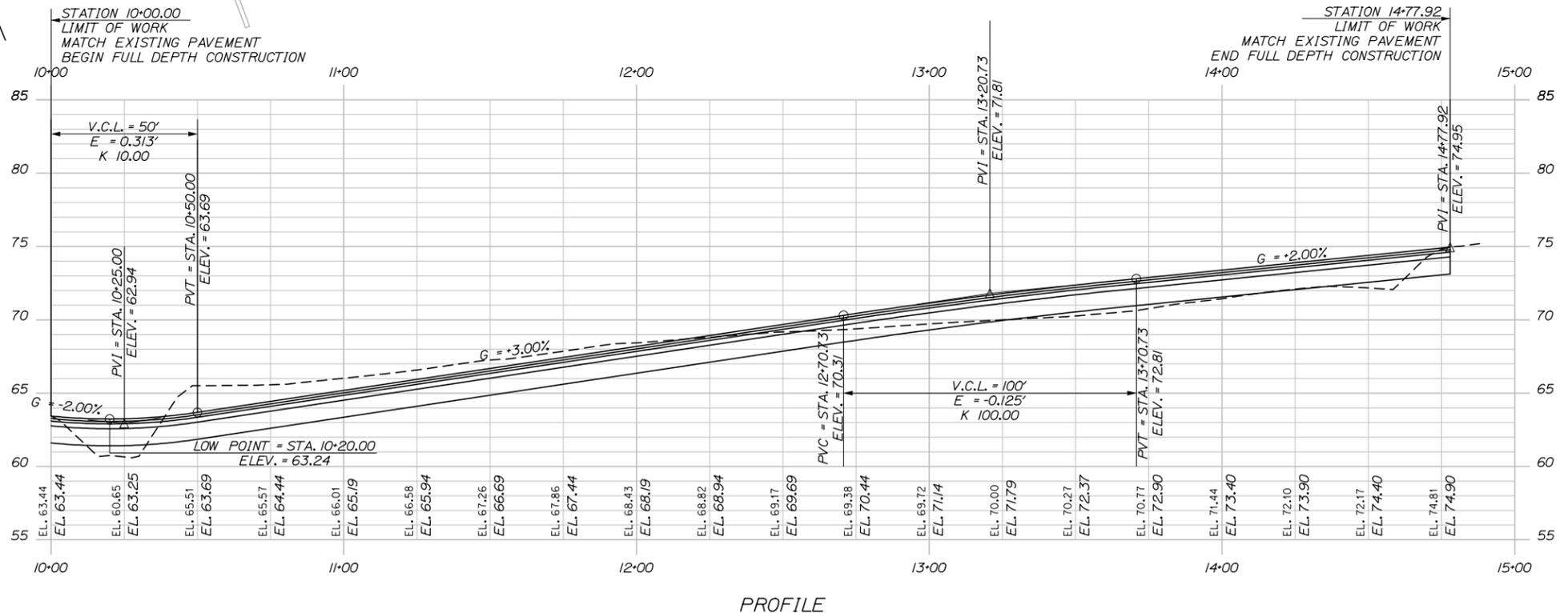
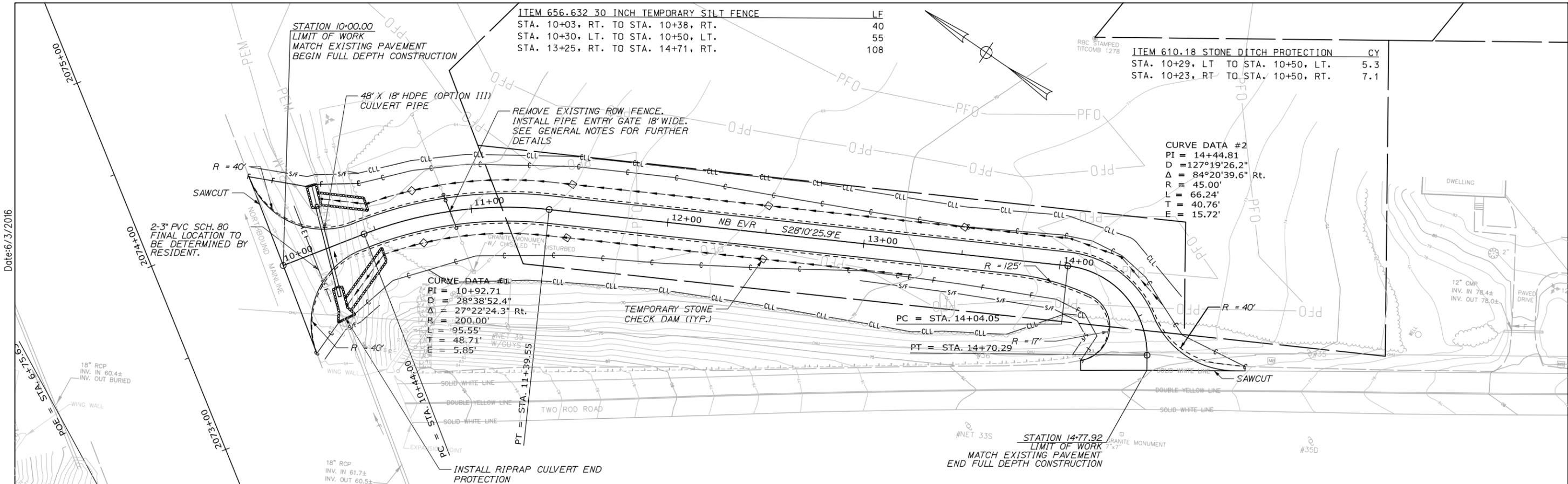
TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMPS
SOUTHBOUND RAMP PLAN/PROFILE

SHEET NUMBER: TR-01

CONTRACT: 2016.11

10 OF 26

Date: 6/3/2016



PROFILE

Scale: 25 0 25 50
Scale of Feet

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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MAINE TURNPIKE

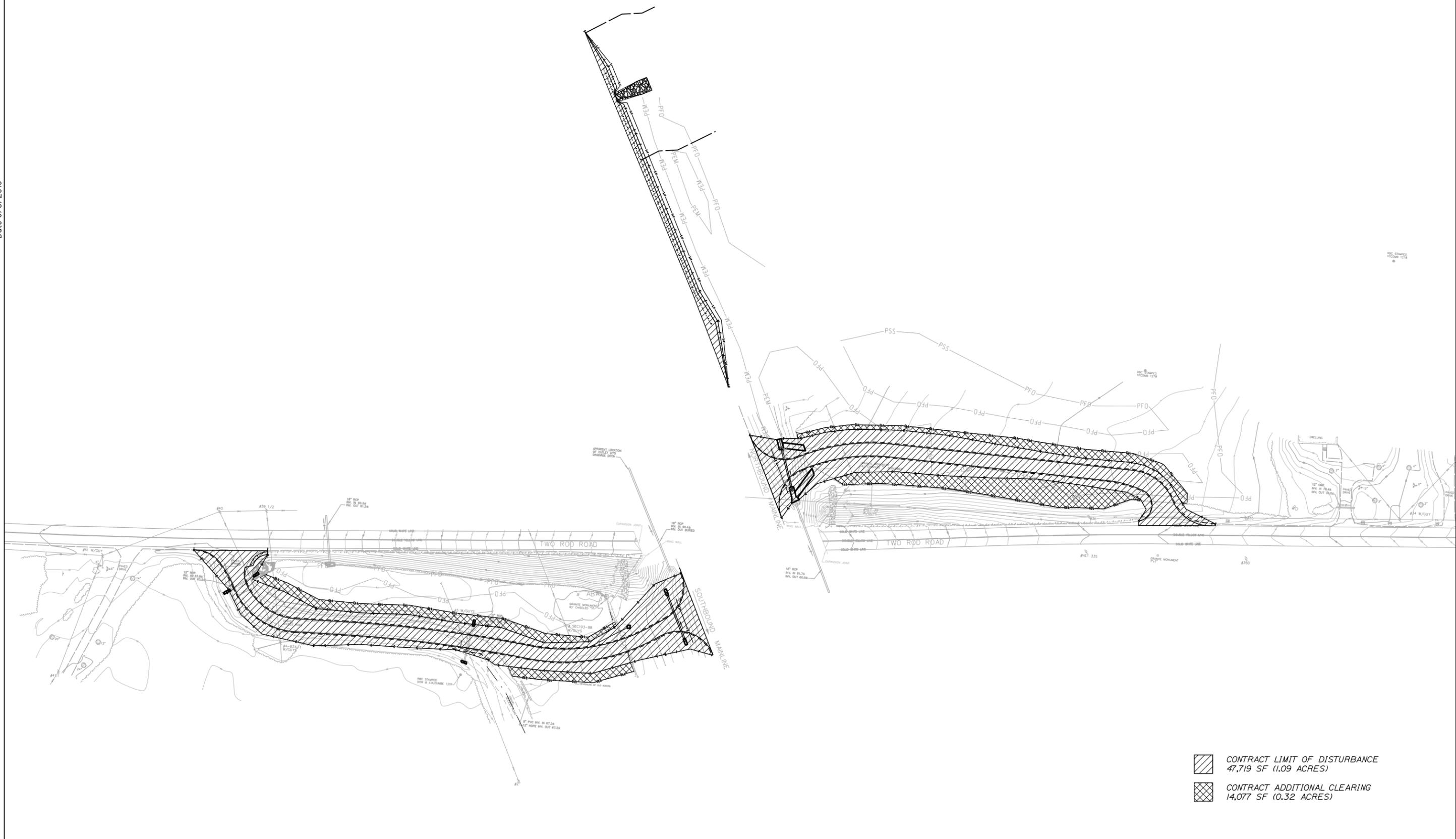
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMPS
NORTHBOUND PLAN/PROFILE

SHEET NUMBER: TR-02
CONTRACT: 2016.11
11 OF 26

Date: 6/3/2016



 CONTRACT LIMIT OF DISTURBANCE
 47,719 SF (1.09 ACRES)
 CONTRACT ADDITIONAL CLEARING
 14,077 SF (0.32 ACRES)

Scale:

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: -----

	By	Date	Checked	By	Date
Designed	---	--/--		---	--/--
Drawn	SLR	02/16	In Charge of	RAL	--/--

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**THE GOLD STAR
MEMORIAL HIGHWAY**

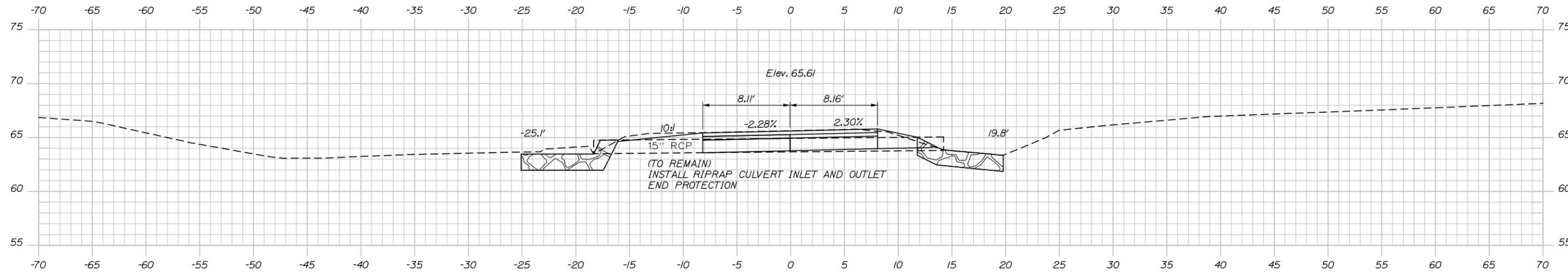
MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
LIMITS OF DISTURBANCE PLAN

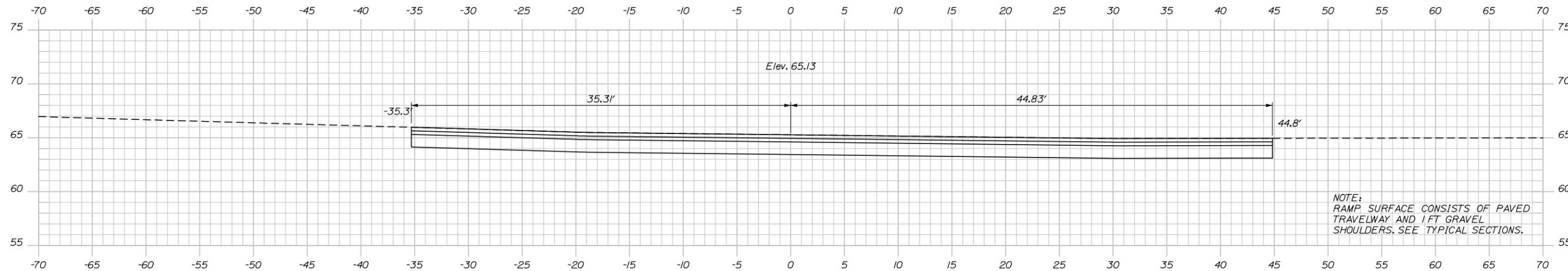
SHEET NUMBER: LOD-01
CONTRACT: 2016.11
12 OF 26

Filename: 012_LOD.dgn

Date: 6/3/2016

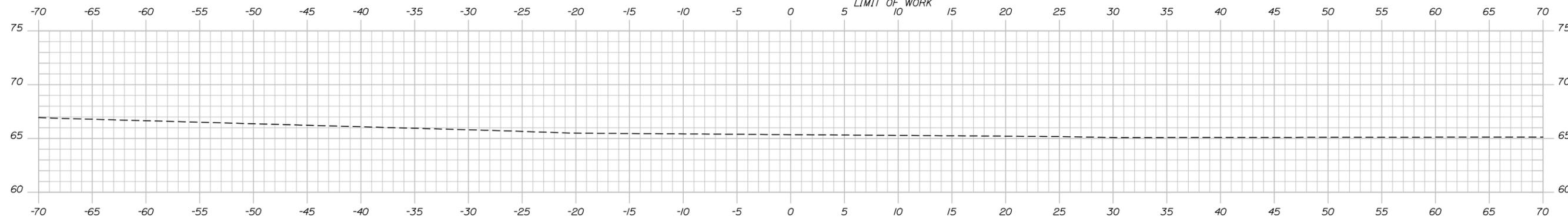


1+49.58 (SKEWED CULVERT)

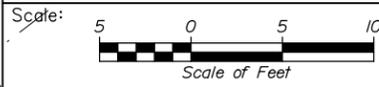


1+09.44
STA. 1+09.44
BEGIN FULL DEPTH CONSTRUCTION
MATCH EXISTING PAVEMENT
LIMIT OF WORK

NOTE:
RAMP SURFACE CONSISTS OF PAVED
TRAVELWAY AND 1 FT GRAVEL
SHOULDERS. SEE TYPICAL SECTIONS.



1+00.00



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THE GOLD STAR
MEMORIAL HIGHWAY

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMPS
SOUTHBOUND RAMP CROSS SECTIONS
STA. 1+00.00 TO STA. 1+49.58

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

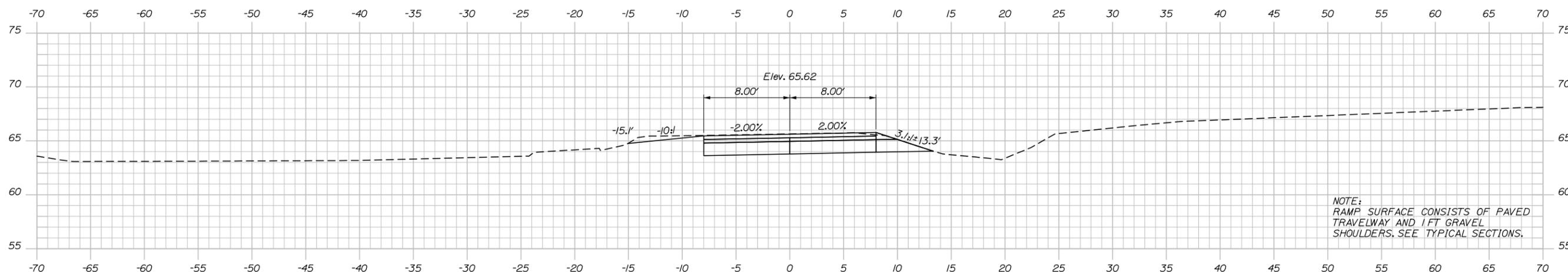
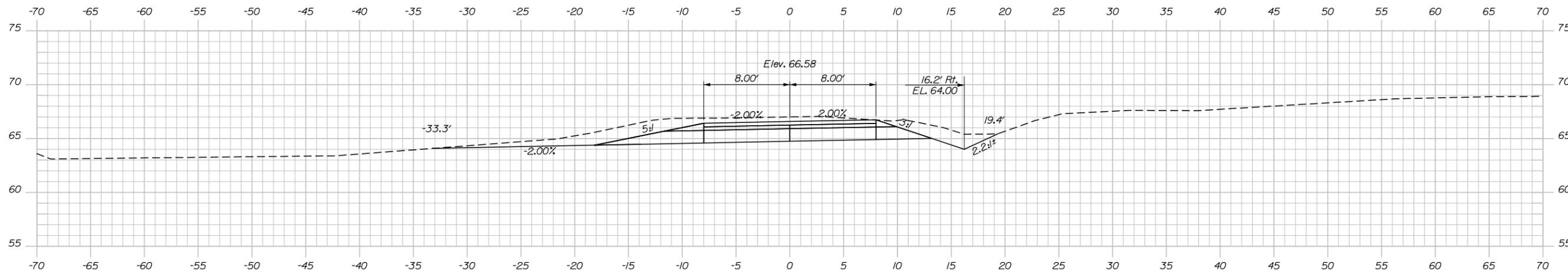
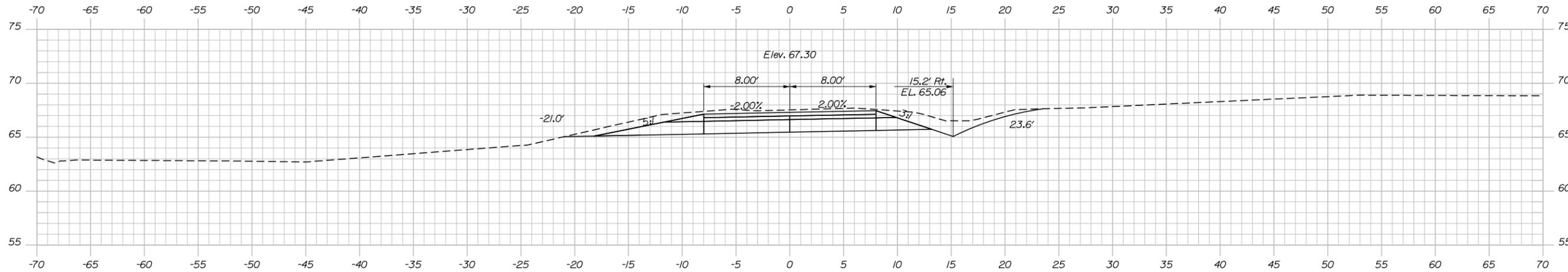
MTA PROJECT MANAGER: Brian Taddeo, P.E.

CONTRACT: 2016.11

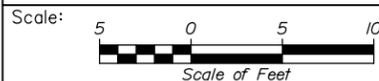
SHEET NUMBER: TR-XS01

13 OF 26

Date: 6/3/2016



NOTE:
RAMP SURFACE CONSISTS OF PAVED
TRAVELWAY AND 1 FT GRAVEL
SHOULDERS. SEE TYPICAL SECTIONS.



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THE GOLD STAR
MEMORIAL HIGHWAY

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
SOUTHBOUND RAMP CROSS SECTIONS
STA. 1+50.00 TO STA. 2+50.00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
Designed	RWH	03/16	Checked DAM 03/16
Drawn	SLR	03/16	In Charge of RAL 03/16

MTA PROJECT MANAGER: Brian Taddeo, P.E.

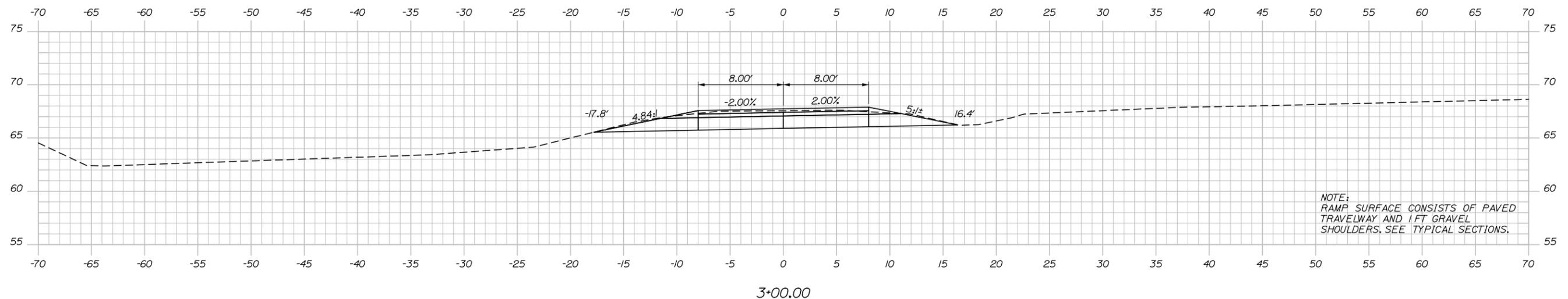
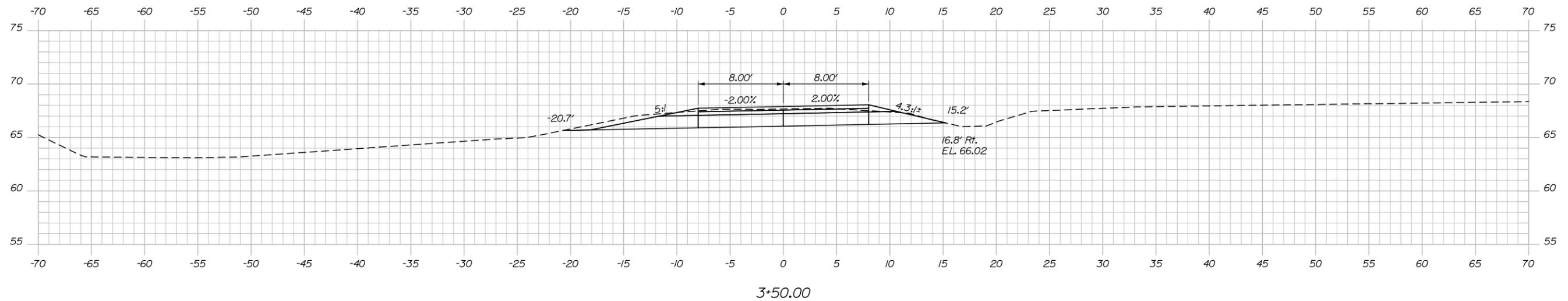
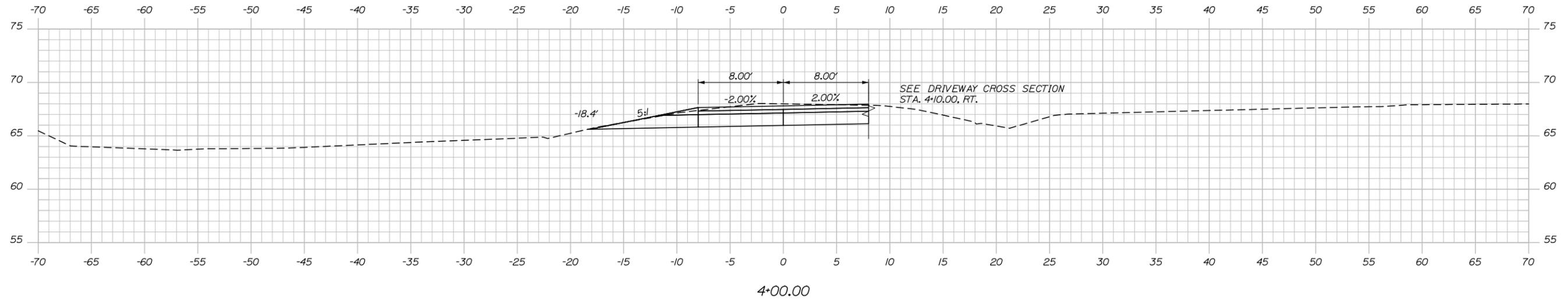
CONTRACT: 2016.11

SHEET NUMBER: TR-XS02

14 OF 26

Filename: xsecx.dgn

Date: 6/3/2016



NOTE:
RAMP SURFACE CONSISTS OF PAVED
TRAVELWAY AND 1 FT GRAVEL
SHOULDERS. SEE TYPICAL SECTIONS.

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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THE GOLD STAR
MEMORIAL HIGHWAY

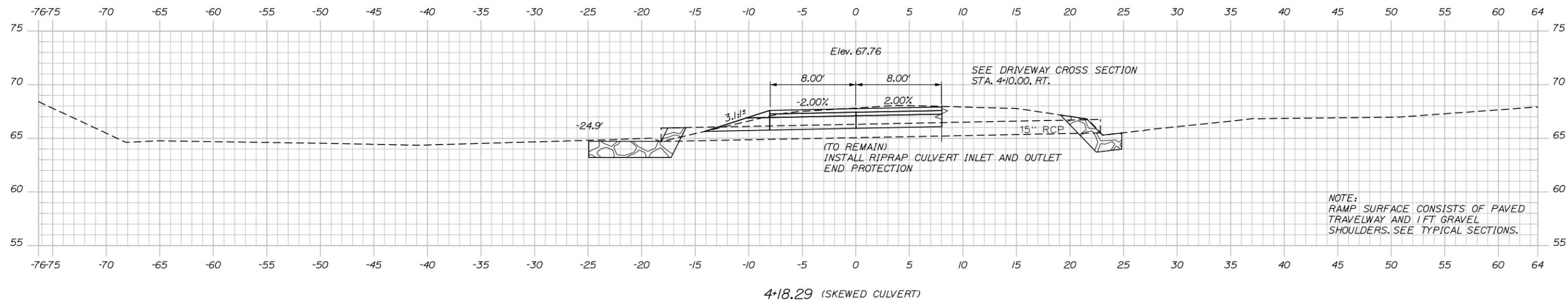
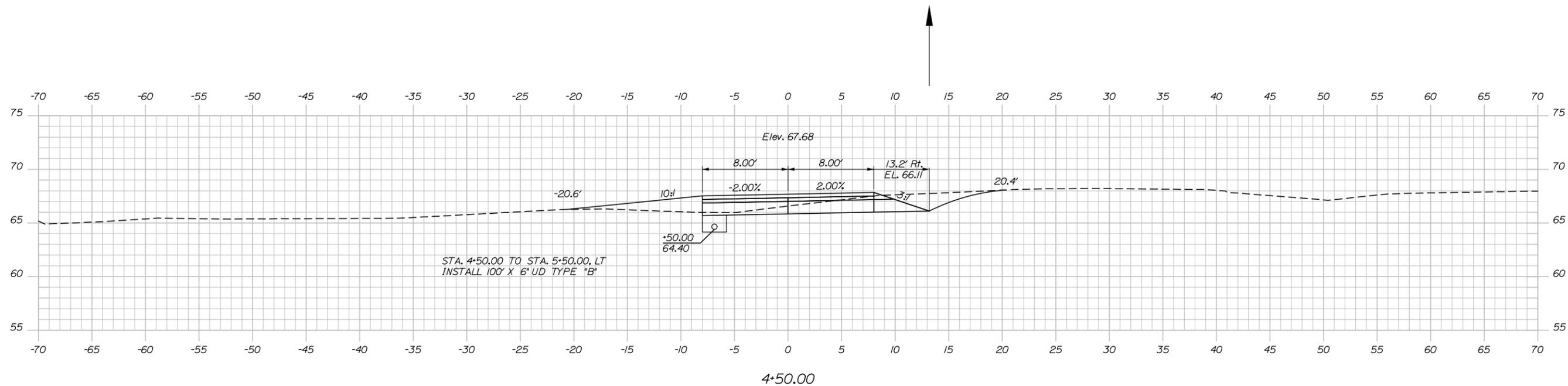
MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
SOUTHBOUND RAMP CROSS SECTIONS
STA. 3+00.00 TO STA. 4+00.00

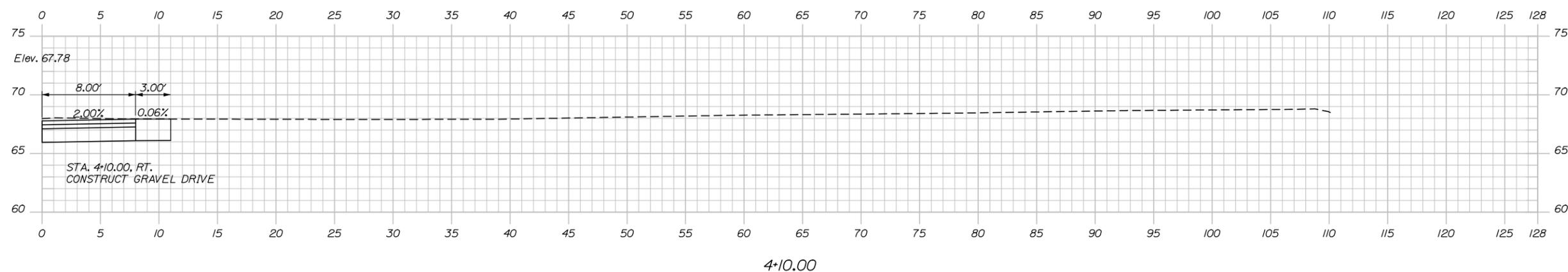
SHEET NUMBER: TR-XS03
15 OF 26

CONTRACT: 2016.11

Date: 6/3/2016



NOTE:
RAMP SURFACE CONSISTS OF PAVED TRAVELWAY AND 1 FT GRAVEL SHOULDERS. SEE TYPICAL SECTIONS.



No.	Revision	By	Date

Scale of Feet: 0, 5, 10

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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Drawn	SLR	03/16	In Charge of	RAL	03/16

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**THE GOLD STAR
MEMORIAL HIGHWAY**

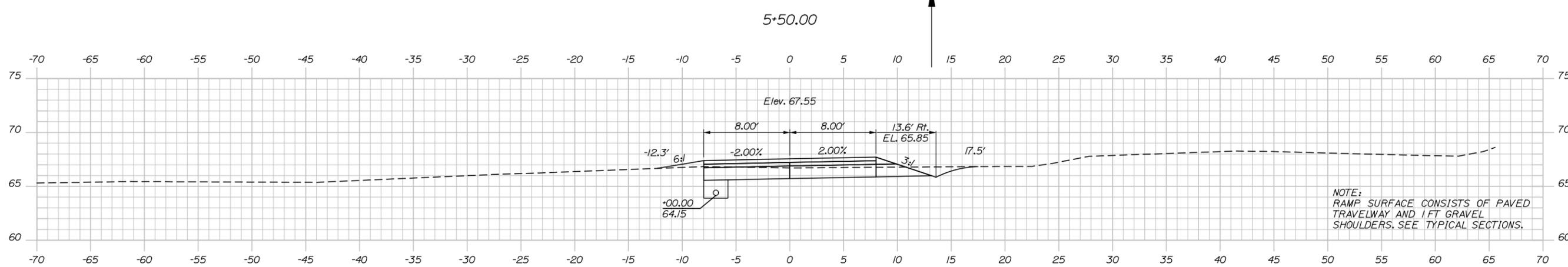
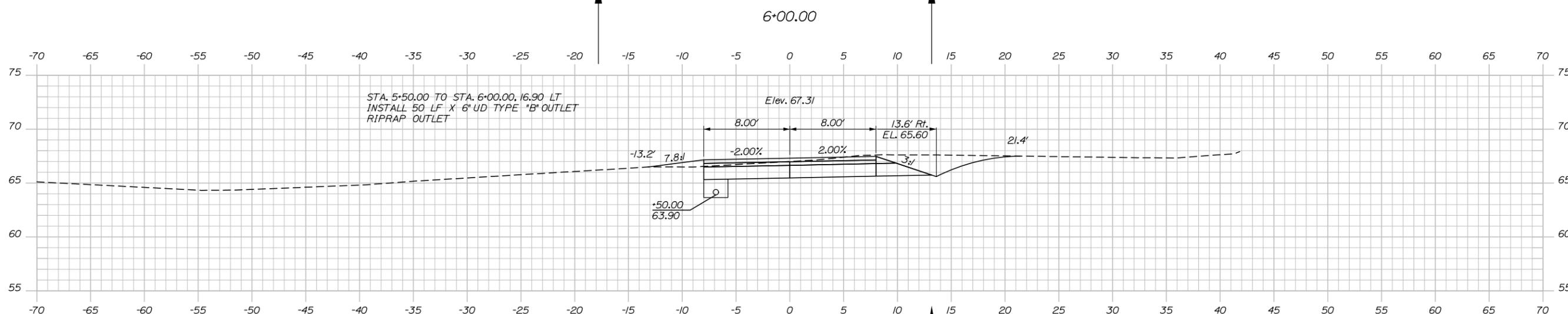
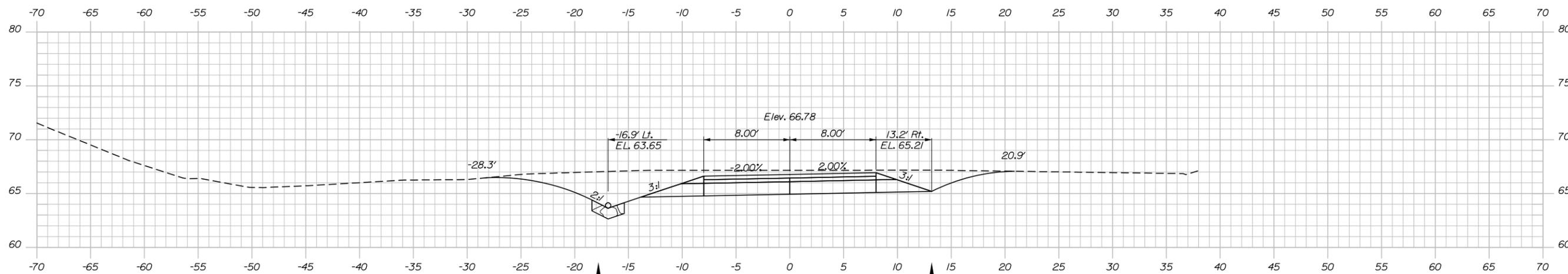
MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
SOUTHBOUND RAMP CROSS SECTIONS
STA. 4+10.00 TO STA. 4+50.00

SHEET NUMBER: TR-XS04
16 OF 26

CONTRACT: 2016.11

Date: 6/3/2016



NOTE:
RAMP SURFACE CONSISTS OF PAVED
TRAVELWAY AND 1 FT GRAVEL
SHOULDERS. SEE TYPICAL SECTIONS.



Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date	Checked	By	Date
Designed	RWH	03/16	DAM	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

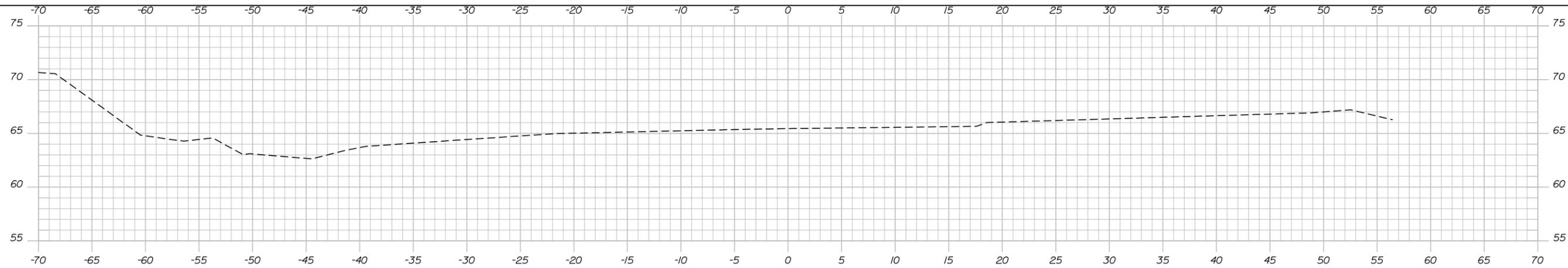
**TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
SOUTHBOUND RAMP CROSS SECTIONS
STA. 5+00.00 TO STA. 6+00.00**

CONTRACT: 2016.11

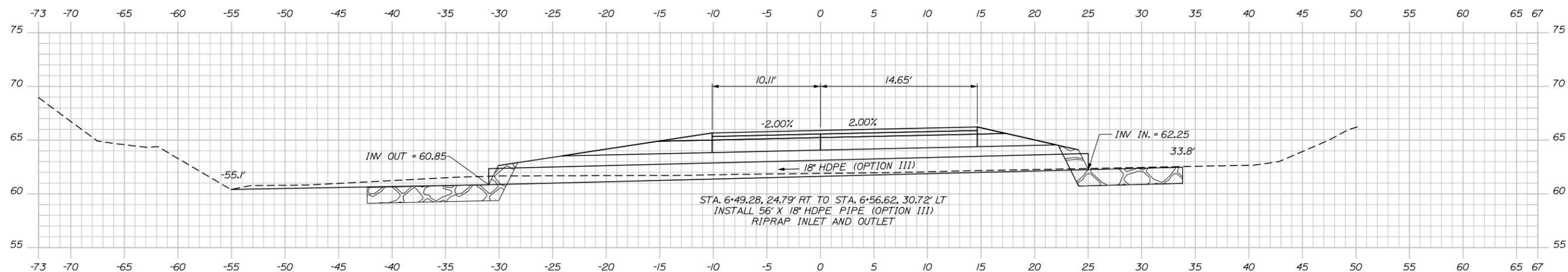
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17 OF 26

Filename: xsecx.dgn

Date: 6/3/2016

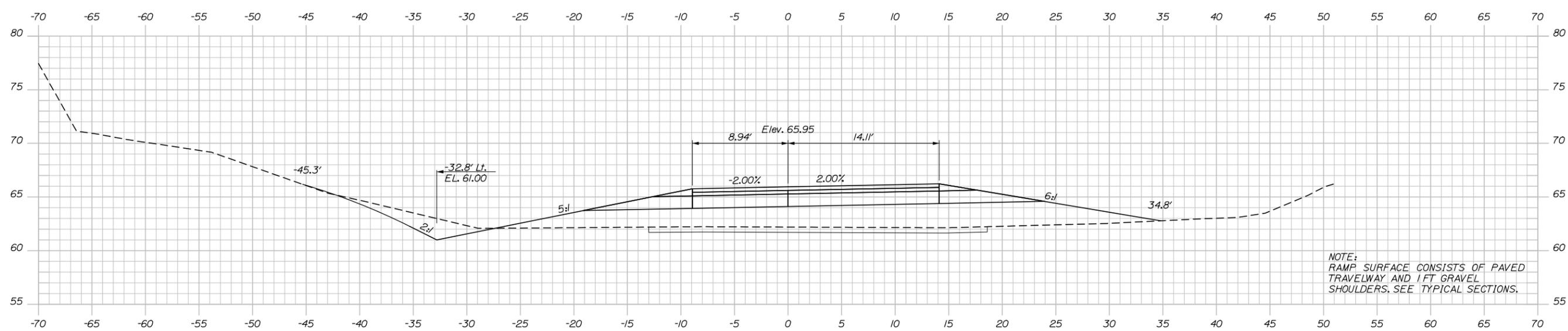


6+75.63
 STA. 6+75.63
 END FULL DEPTH CONSTRUCTION
 MATCH EXISTING PAVEMENT



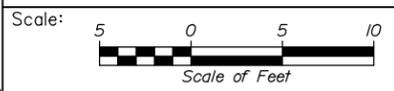
STA. 6+49.28, 24.79' RT TO STA. 6+56.62, 30.72' LT
 INSTALL 56' X 18" HDPE PIPE (OPTION III)
 RIPRAP INLET AND OUTLET

6+52.56



NOTE:
 RAMP SURFACE CONSISTS OF PAVED
 TRAVELWAY AND 1 FT GRAVEL
 SHOULDERS. SEE TYPICAL SECTIONS.

6+50.00



Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
By	Date	By	Date
Designed	RWH 03/16	Checked	DAM 03/16
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
 EMERGENCY VEHICLE RAMPS
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 6+50.00 TO STA. 6+75.63

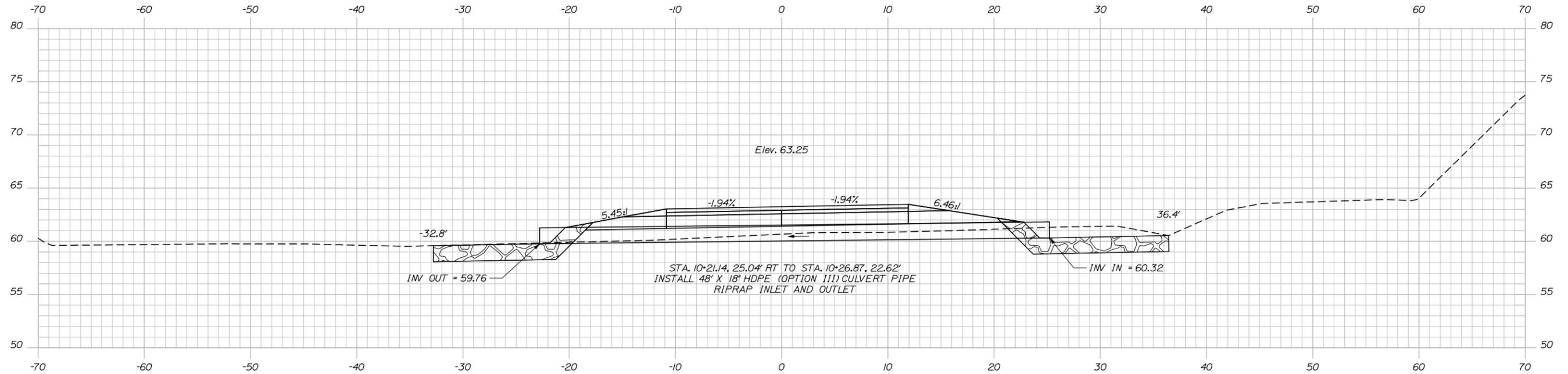
CONTRACT: 2016.11

SHEET NUMBER: TR-XS06

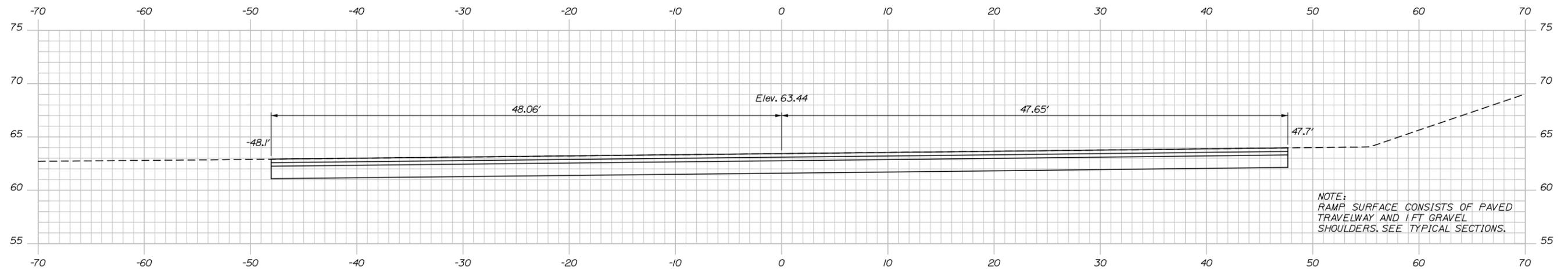
18 OF 26

Filename: xsecx.dgn

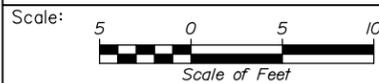
Date: 6/3/2016



10+24.15 (SKEWED CULVERT SECTION)



10+00.00 STA. 10+00.00
BEGIN FULL DEPTH CONSTRUCTION
MATCH EXISTING PAVEMENT
LIMIT OF WORK



Designed by:



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THE GOLD STAR
MEMORIAL HIGHWAY

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
NORTHBOUND RAMP CROSS SECTIONS
STA. 10+00.00 TO STA. 10+24.15

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

MTA PROJECT MANAGER: Brian Taddeo, P.E.

CONTRACT: 2016.11

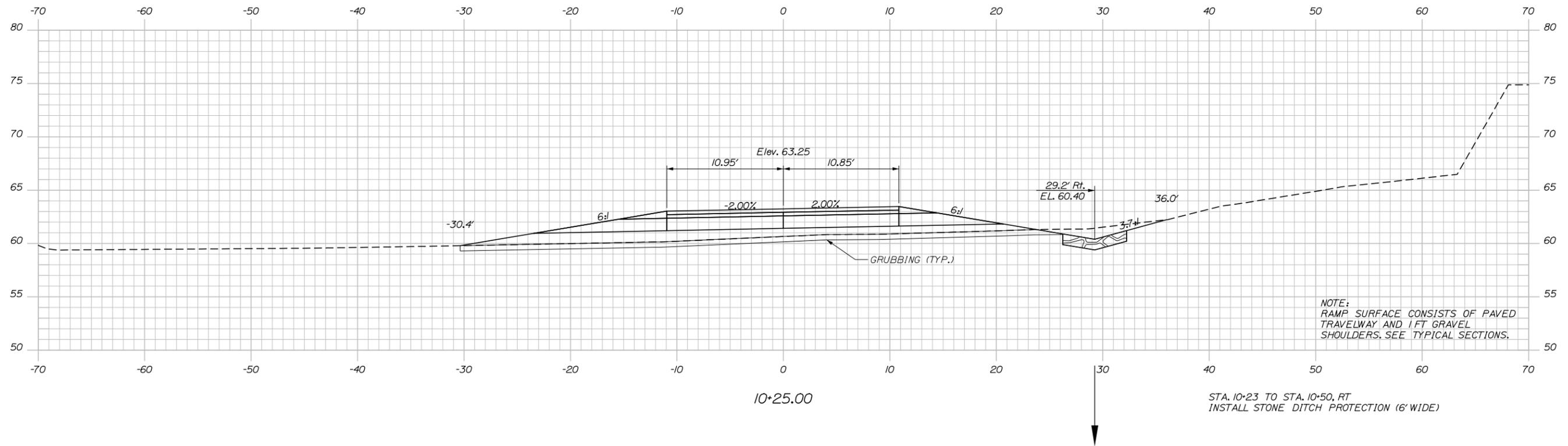
SHEET NUMBER: TR-XS11

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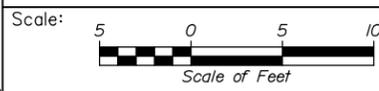
Filename: xsecx.dgn

Date: 6/3/2016

STA. 10+29 TO STA. 10+50, LT
INSTALL STONE DITCH PROTECTION (6' WIDE)



STA. 10+23 TO STA. 10+50, RT
INSTALL STONE DITCH PROTECTION (6' WIDE)



Designed by:

HNTB

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

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340 County Road, Suite 6-C
Westbrook, ME 04092
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FAX (207) 228-0909



**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

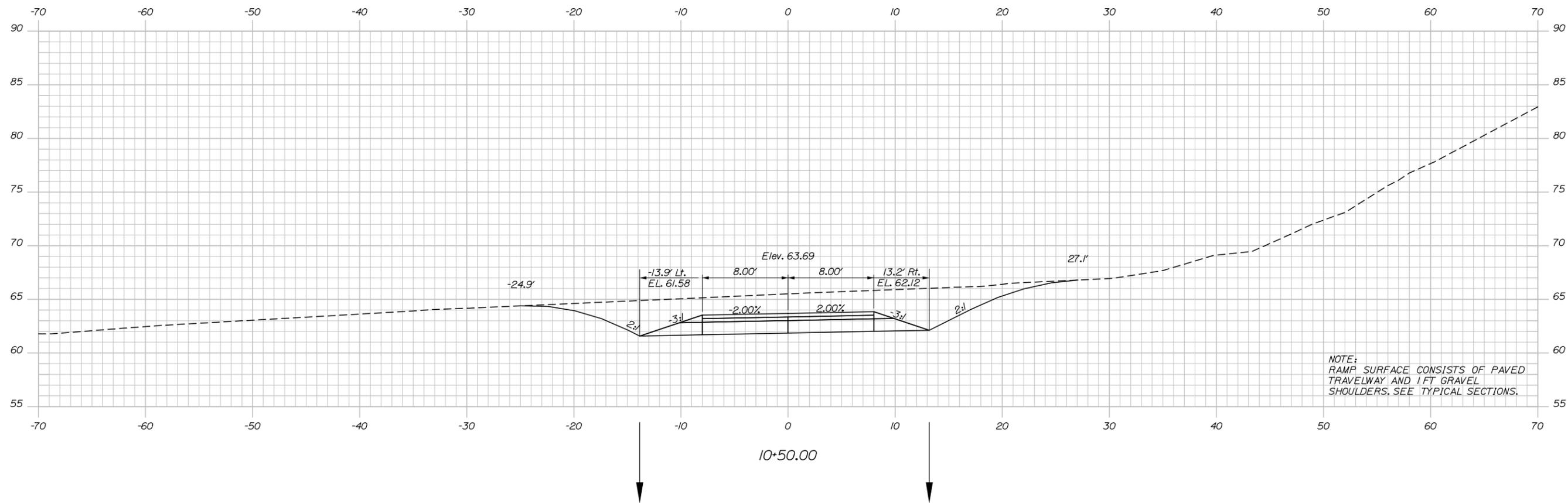
TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
NORTHBOUND RAMP CROSS SECTIONS
STA. 10+25.00

CONTRACT: 2016.11

SHEET NUMBER: TR-XS12
20 OF 26

Filename: xsecx.dgn

Date: 6/3/2016



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**THE GOLD STAR
MEMORIAL HIGHWAY**

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
NORTHBOUND RAMP CROSS SECTIONS
STA. 10+50.00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

MTA PROJECT MANAGER: Brian Taddeo, P.E.

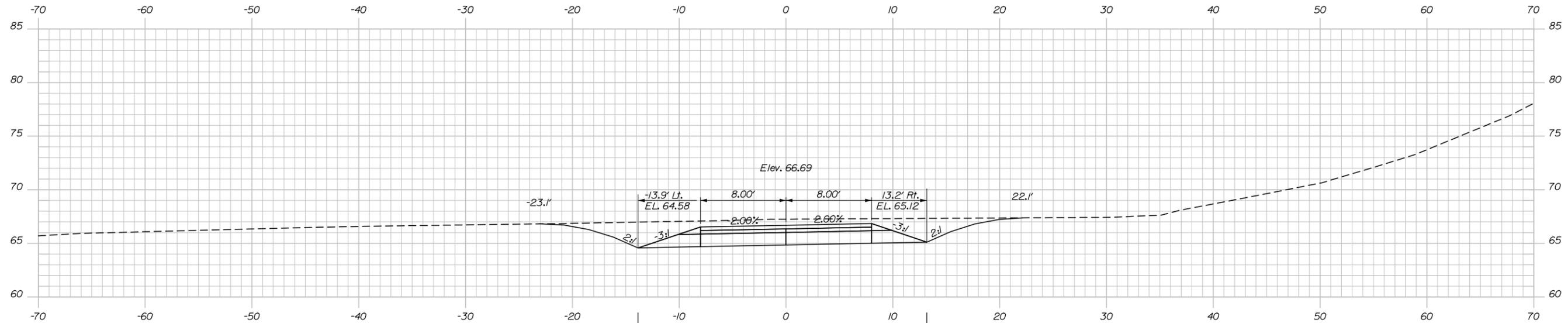
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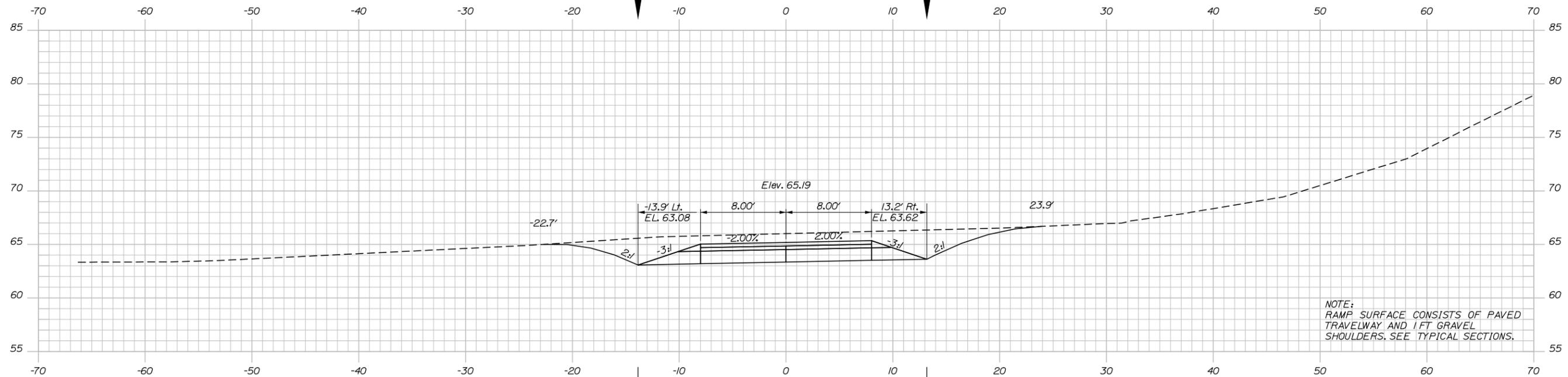
21 OF 26

Filename: xsecx.dgn

Date: 6/3/2016

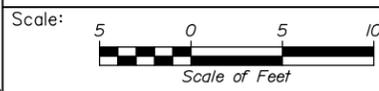


11+50.00



11+00.00

NOTE:
RAMP SURFACE CONSISTS OF PAVED
TRAVELWAY AND 1 FT GRAVEL
SHOULDERS. SEE TYPICAL SECTIONS.



Designed by:

HNTB

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
NORTHBOUND RAMP CROSS SECTIONS
STA. 11+00.00 TO STA. 11+50.00

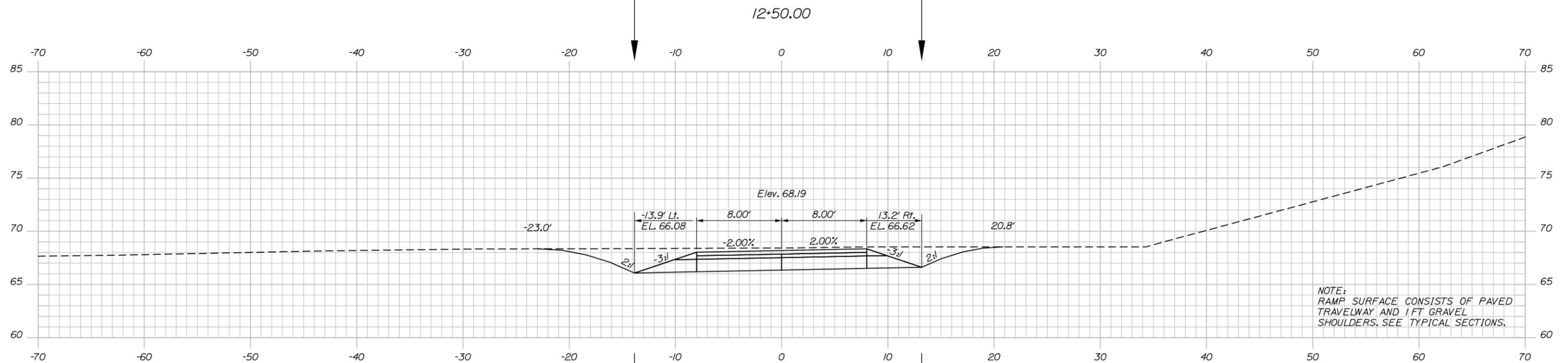
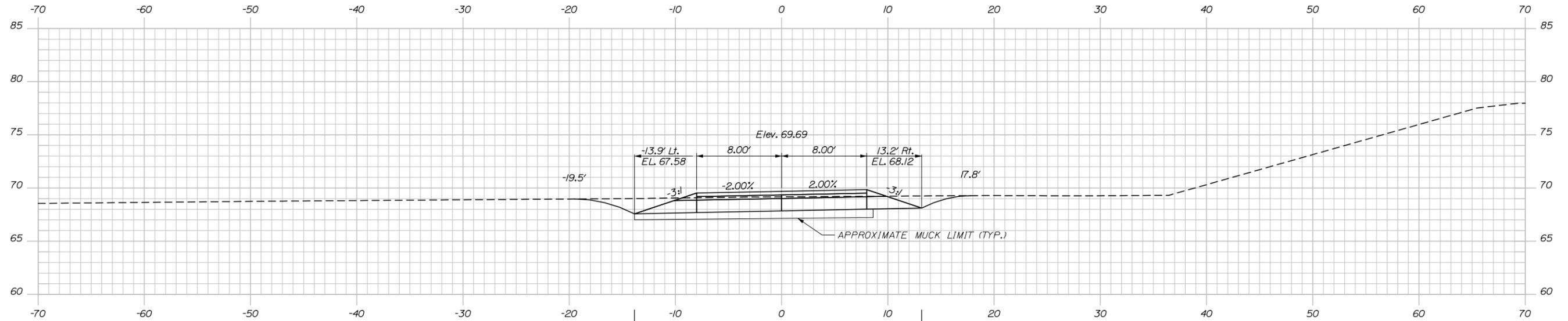
SHEET NUMBER: TR-XS14

CONTRACT: 2016.11

22 OF 26

Filename: xsecx.dgn

Date: 6/3/2016



NOTE:
RAMP SURFACE CONSISTS OF PAVED
TRAVELWAY AND 1 FT GRAVEL
SHOULDERS. SEE TYPICAL SECTIONS.

STA. 11+80 TO STA. 14+50
MUCK EXCAVATION AND GRANULAR BORROW HAVE BEEN
ESTIMATED. FINAL LIMITS TO BE DETERMINED IN THE FIELD
BY THE RESIDENT. SEE GENERAL NOTES FOR ADDITIONAL
INFORMATION.



Designed by:

HNTB

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

**TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
NORTHBOUND RAMP CROSS SECTIONS
STA. 12+00.00 TO STA. 12+50.00**

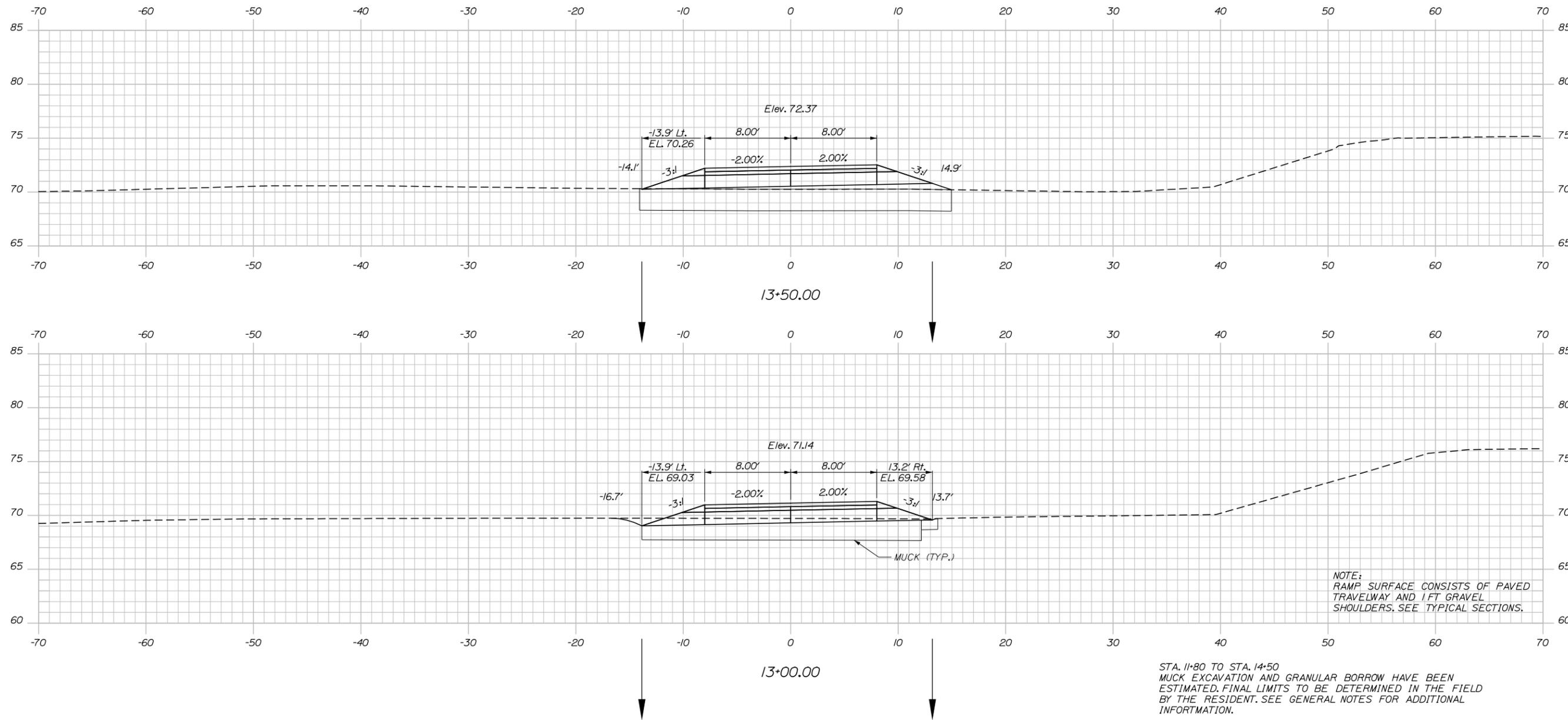
CONTRACT: 2016.11

SHEET NUMBER: TR-XS15

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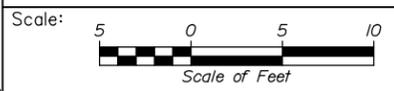
Filename: xsecx.dgn

Date: 6/3/2016



NOTE:
RAMP SURFACE CONSISTS OF PAVED
TRAVELWAY AND 1 FT GRAVEL
SHOULDERS. SEE TYPICAL SECTIONS.

STA. 11+80 TO STA. 14+50
MUCK EXCAVATION AND GRANULAR BORROW HAVE BEEN
ESTIMATED. FINAL LIMITS TO BE DETERMINED IN THE FIELD
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Designed by:

HNTB

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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Drawn	SLR	03/16	In Charge of	RAL	03/16

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Brian Taddeo, P.E.

TWO ROD ROAD UNDERPASS
EMERGENCY VEHICLE RAMP
NORTHBOUND RAMP CROSS SECTIONS
STA. 13+00.00 TO STA. 13+50.00

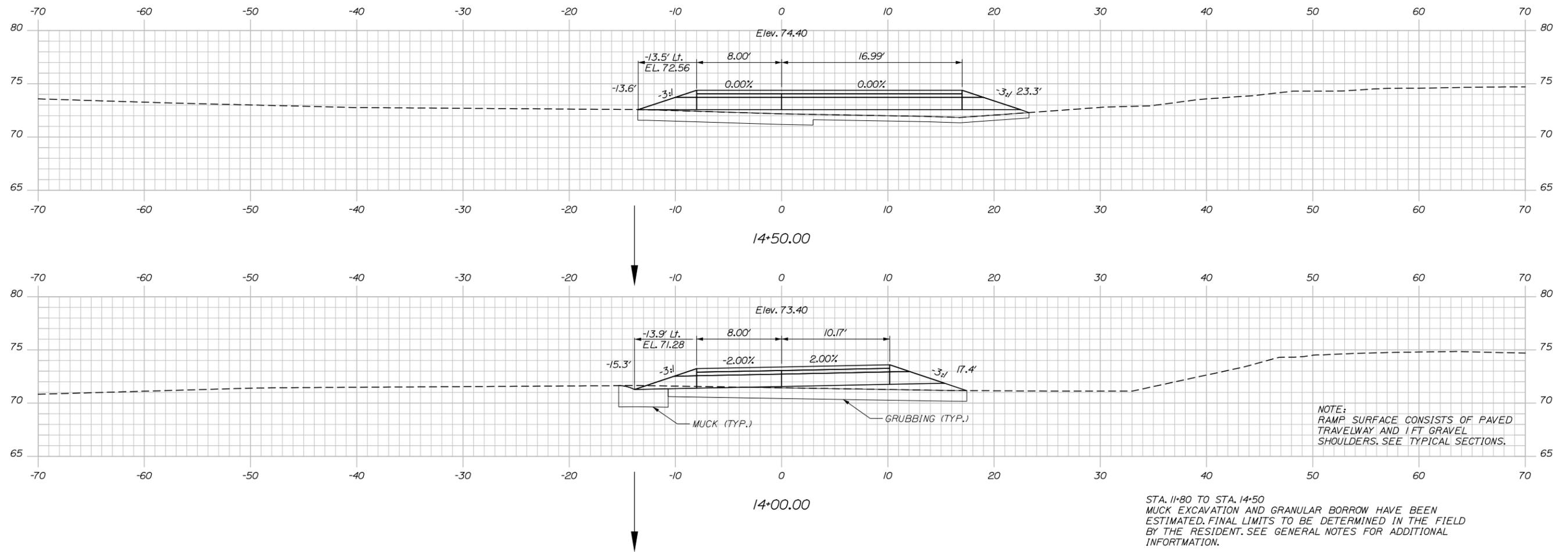
CONTRACT: 2016.11

SHEET NUMBER: TR-XS16

24 OF 26

Filename: xsecx.dgn

Date: 6/3/2016



STA. 14+80 TO STA. 14+50
 MUCK EXCAVATION AND GRANULAR BORROW HAVE BEEN
 ESTIMATED. FINAL LIMITS TO BE DETERMINED IN THE FIELD
 BY THE RESIDENT. SEE GENERAL NOTES FOR ADDITIONAL
 INFORMATION.

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian Taddeo, P.E.

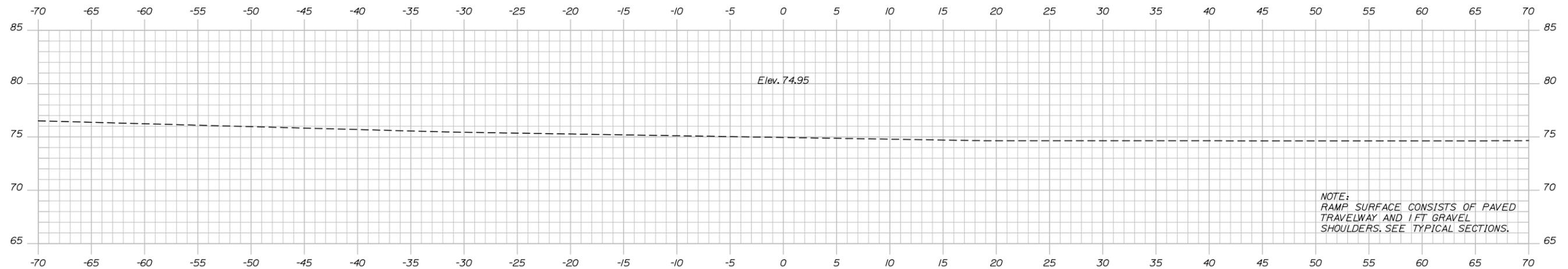
TWO ROD ROAD UNDERPASS
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 14+00.00 TO STA. 14+50.00

SHEET NUMBER: TR-XS17
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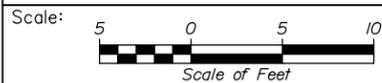
CONTRACT: 2016.11

Filename: xsecx.dgn

Date: 6/3/2016



14+77.92 STA. 14+77.92
 END FULL DEPTH CONSTRUCTION
 MATCH EXISTING PAVEMENT
 LIMIT OF WORK



Designed by:



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**THE GOLD STAR
 MEMORIAL HIGHWAY**

TWO ROD ROAD UNDERPASS
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 14+77.92

No.	Revision	By	Date

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	By	Date		By	Date
Designed	RWH	03/16	Checked	DAM	03/16
Drawn	SLR	03/16	In Charge of	RAL	03/16

MTA PROJECT MANAGER: Brian Taddeo, P.E.

CONTRACT: 2016.11

SHEET NUMBER: TR-XS18

26 OF 26

Filename: xsecx.dgn