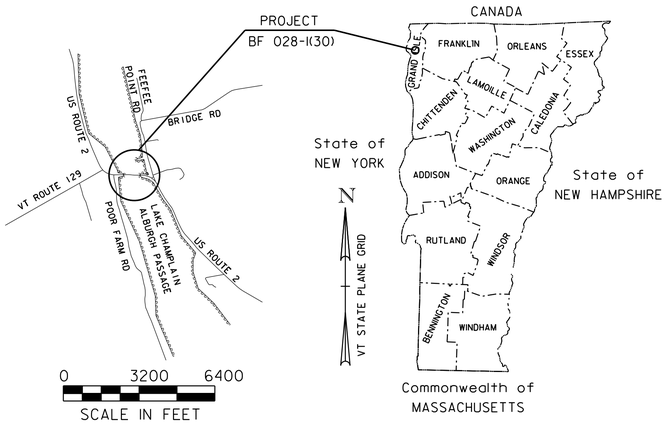
STATE OF VERMONT
AGENCY OF TRANSPORTATION

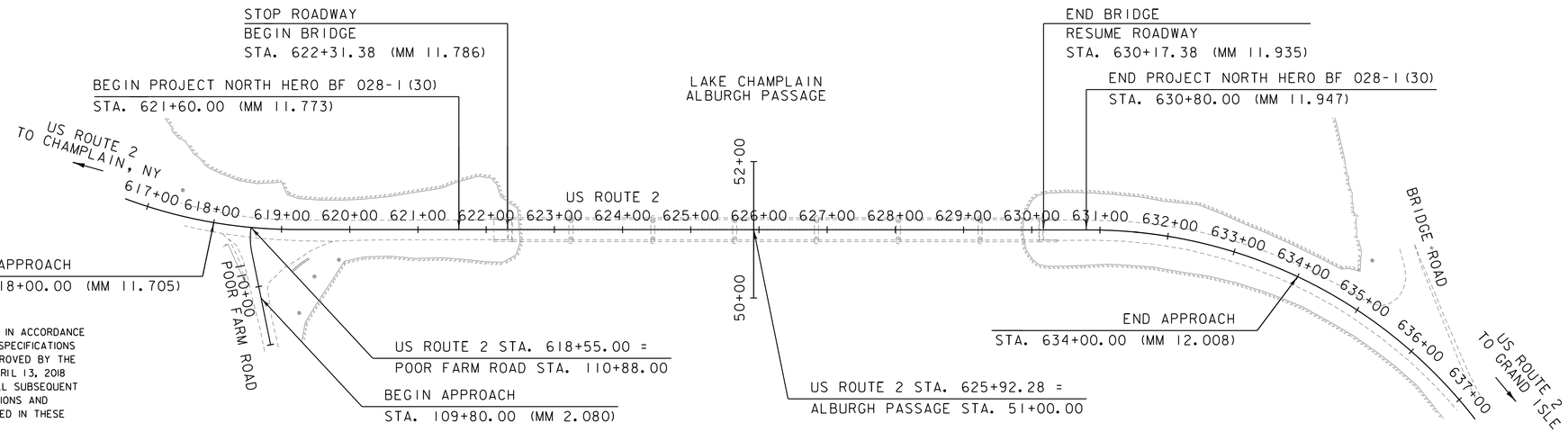


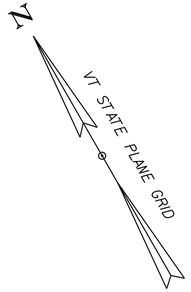
PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF NORTH HERO
COUNTY OF GRAND ISLE
US ROUTE 2 (MINOR ARTERIAL) BRIDGE NO. 5

PROJECT LOCATION: BEGINNING AT A POINT IN THE TOWN OF ALBURGH ON US ROUTE 2 AT APPROXIMATELY 11.78 MILES FROM THE NEW YORK/VERMONT STATE LINE AND EXTENDING EAST APPROXIMATELY 0.17 MILES TO APPROXIMATE MILE MARKER 11.95.

PROJECT DESCRIPTION: REPLACEMENT OF THE EXISTING DECK, MISCELLANEOUS REPAIRS TO STEEL SUPERSTRUCTURE AND CONCRETE SUBSTRUCTURE, AND RELATED APPROACH ROADWAY WORK.

LENGTH OF STRUCTURE: 786.00 FEET = 0.149 MILES
LENGTH OF ROADWAY: 134.00 FEET = 0.025 MILES
LENGTH OF PROJECT: 920.00 FEET = 0.174 MILES





CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

0 100 200
SCALE IN FEET

QUALITY ASSURANCE PROGRAM : LEVEL I	
SURVEYED BY : G. GILMAN, B. HERRING & H. MCGOWAN SURVEYED DATE : 1/2018	
DATUM VERTICAL NAVD88 HORIZONTAL NAD83(2011)	

HIGHWAY DIVISION, CHIEF ENGINEER	
APPROVED Erin B. Parize, P.E. DATE Feb. 4, 2022	
PROJECT MANAGER : ROBERT YOUNG, P.E.	
PROJECT NAME : NORTH HERO PROJECT NUMBER : BF 028-1(30)	
SHEET 1 OF 108 SHEETS	

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE 5)

Version 11.06.15

LRFD

INDEX OF SHEETS

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E-191	PAVEMENT MARKING DETAILS	2/1/1999
E-192	PAVEMENT MARKING DETAILS	10/12/2000
E-193	PAVEMENT MARKING DETAILS	8/18/1995
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T-17	TRAFFIC CONTROL MISCELLANEOUS DETAILS	8/6/2012
T-24	TRAFFIC CONTROL FOR MAINTENANCE PAVEMENT MARKING OPERATION	8/6/2012
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T-35	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS	8/6/2012
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T-40	DELINEATORS AND MILEPOSTS	1/2/2013
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HIGHWAY SAFETY DESIGN DETAILS

HSD-400.01	SAFETY EDGE DETAILS	1/5/2018
HSD-621.01	POST AND BLOCKOUT DETAILS FOR STEEL BEAM GUARDRAIL, GALVANIZED	6/9/2015
HSD-621.05	STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS	6/9/2015
HSD-621.07A	MGS	1/4/2021
HDS-621.07B	MGS COMPONENTS	4/17/2019
HDS-621.07C	MGS ANCHOR	4/17/2019
HDS-621.07D	MGS ANCHOR COMPONENTS 1	4/17/2019
HDS-621.07E	MGS ANCHOR COMPONENTS 2	4/17/2019
HSD-621.07F	MGS TRANSITION	1/4/2021

STRUCTURAL DETAILS

SD-516.11a	BRIDGE EXPANSION JOINT. VERMONT	2/24/2011
SD-516.11b	BRIDGE EXPANSION JOINT. VERMONT	2/24/2011

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LIFE ESAL (DESIGN LANE)	786,900
DESIGN NUMBER OF GYRATIONS	65
PERFORMANCE GRADED ASPHALT BINDER	SEE SUBSECTION 406.03B

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: January 2017

DRAINAGE AREA : -
CHARACTER OF TERRAIN : -
STREAM CHARACTERISTICS : -
NATURE OF STREAMBED : -

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

43% =	-	2% =	-
10% =	-	1% =	-
4% =	-	0.2% =	-

DATE OF FLOOD OF RECORD : -
ESTIMATED DISCHARGE: -
WATER SURFACE ELEV.: -
NATURAL STREAM VELOCITY : -
ICE CONDITIONS : -
DEBRIS: -
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? -
IS ORDINARY RISE RAPID? -
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? -
IF YES, DESCRIBE:

WATERSHED STORAGE: -
HEADWATERS:
UNIFORM: -
IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Steel Girder-Floorbeam-Stringer System w/ Multi Beam Suspended Span
YEAR BUILT: 1954
CLEAR SPAN(NORMAL TO STREAM): Multi-span (max clear span = 114')
VERTICAL CLEARANCE ABOVE STREAMBED: 22.41' (main channel)
WATERWAY OF FULL OPENING: -
DISPOSITION OF STRUCTURE: -
TYPE OF MATERIAL UNDER SUBSTRUCTURE: -

WATER SURFACE ELEVATIONS AT:

43% AEP =	*	VELOCITY =	*
10% AEP =	*	"	*
4% AEP =	*	"	*
2% AEP =	*	"	*
1% AEP =	*	"	*

LONG TERM STREAMBED CHANGES: None noted

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: *
FREQUENCY: *
RELIEF ELEVATION: *
DISCHARGE OVER ROAD @ 1% AEP: *

UPSTREAM STRUCTURE

TOWN: - DISTANCE: -
HIGHWAY # : - STRUCTURE #:
CLEAR SPAN: - CLEAR HEIGHT: -
YEAR BUILT: FULL WATERWAY: -
STRUCTURE TYPE: -

DOWNSTREAM STRUCTURE

TOWN: - DISTANCE: -
HIGHWAY # : - STRUCTURE #:
CLEAR SPAN: - CLEAR HEIGHT: -
YEAR BUILT: FULL WATERWAY: -
STRUCTURE TYPE: -

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A STR	4A STR	5A SEMI
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY	2.37	1.79					
POSTING							
OPERATING	3.07	2.31	4.7	2.44	3.12	3.03	4.78
COMMENTS:							

PROPOSED STRUCTURE

STRUCTURE TYPE: Non-composite Precast Post-Tensioned Deck Panel System w/ CIP Longitudinal Closure Pour and Composite Panels Suspended Span
CLEAR SPAN(NORMAL TO STREAM): Multi-span (max clear span = 114')
VERTICAL CLEARANCE ABOVE STREAMBED: -
WATERWAY OF FULL OPENING: -

WATER SURFACE ELEVATIONS AT:

43% AEP =	-	VELOCITY=	-
10% AEP =	-	"	-
4% AEP =	-	"	-
2% AEP =	-	"	-
1% AEP =	-	"	-

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: -
FREQUENCY: -
RELIEF ELEVATION: -
DISCHARGE OVER ROAD @ 1% AEP: -

BRIDGE LOW CHORD ELEVATION: -
FREEBOARD: -

SCOUR: -

REQUIRED CHANNEL PROTECTION: -

PERMIT INFORMATION

AVERAGE DAILY FLOW:	-	DEPTH OR ELEVATION:
ORDINARY LOW WATER:	-	92.92'
ORDINARY HIGH WATER:	-	98.00'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: Not required
CLEAR SPAN (NORMAL TO STREAM):
VERTICAL CLEARANCE ABOVE STREAMBED:
WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

Mean Water Elevation (MWL) = 95.50'

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN ONE LANE ALTERNATING TRAFFIC DURING CONSTRUCTION.
2. TEMPORARY TRAFFIC SIGNALS INSTALLED AT EACH END OF THE BRIDGE.

DESIGN VALUES

1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_p:	---
3. ABUTMENT BEARING TO BEARING LENGTH (SEVEN SPANS) (90.00 - 120.00 - 120.00 - 120.00 - 120.00 - 120.00 - 90.00) FT	L:	780.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	---
5. PRESTRESSING STRAND (- - - DIAMETER - LOW RELAX)	f_y:	---
6. PRESTRESSED CONCRETE STRENGTH	f'_c:	---
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	---
8. CONCRETE, HIGH PERFORMANCE CLASS AA	f'_c:	---
9. CONCRETE, HIGH PERFORMANCE CLASS PCD	f'_c:	4.0 KSI
10. CONCRETE, HIGH PERFORMANCE CLASS PCS	f'_c:	3.5 KSI
11. CONCRETE, CLASS C	f'_c:	---
12. REINFORCING STEEL	f_y:	60 KSI
13. STRUCTURAL STEEL AASHTO M270	f_y:	50 KSI
14. SOIL UNIT WEIGHT	γ:	---
15. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	---
16. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
17. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	---
18. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
19. NOMINAL AXIAL PILE RESISTANCE	q_p:	---
20. PILE YIELD STRENGTH ASTM A572	f_y:	---
21. PILE SIZE		---
22. EST. PILE LENGTH	L_p:	
23. PILE RESISTANCE FACTOR	ϕ:	---
24. LATERAL PILE DEFLECTION	Δ:	---
25. BASIC WIND SPEED	V_{3s}:	---
26. MINIMUM GROUND SNOW LOAD	p_g:	---
27. SEISMIC DATA PGA ---	S_s:	---
	S_1:	---

US ROUTE 2 TRAFFIC DATA						
YEAR	AADT	DHV	%D	%T	ADTT	20 year ESAL for flexible pavement from 2017 to 2037 : 1,290,000
2017	2000	320	61	10.9	190	40 year ESAL for flexible pavement from 2017 to 2057 : 3,027,000
2037	2300	370	61	16.6	320	Design Speed: 40 mph Posted Speed: 40 mph

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264pi.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. CARD
PRELIMINARY INFORMATION SHEET

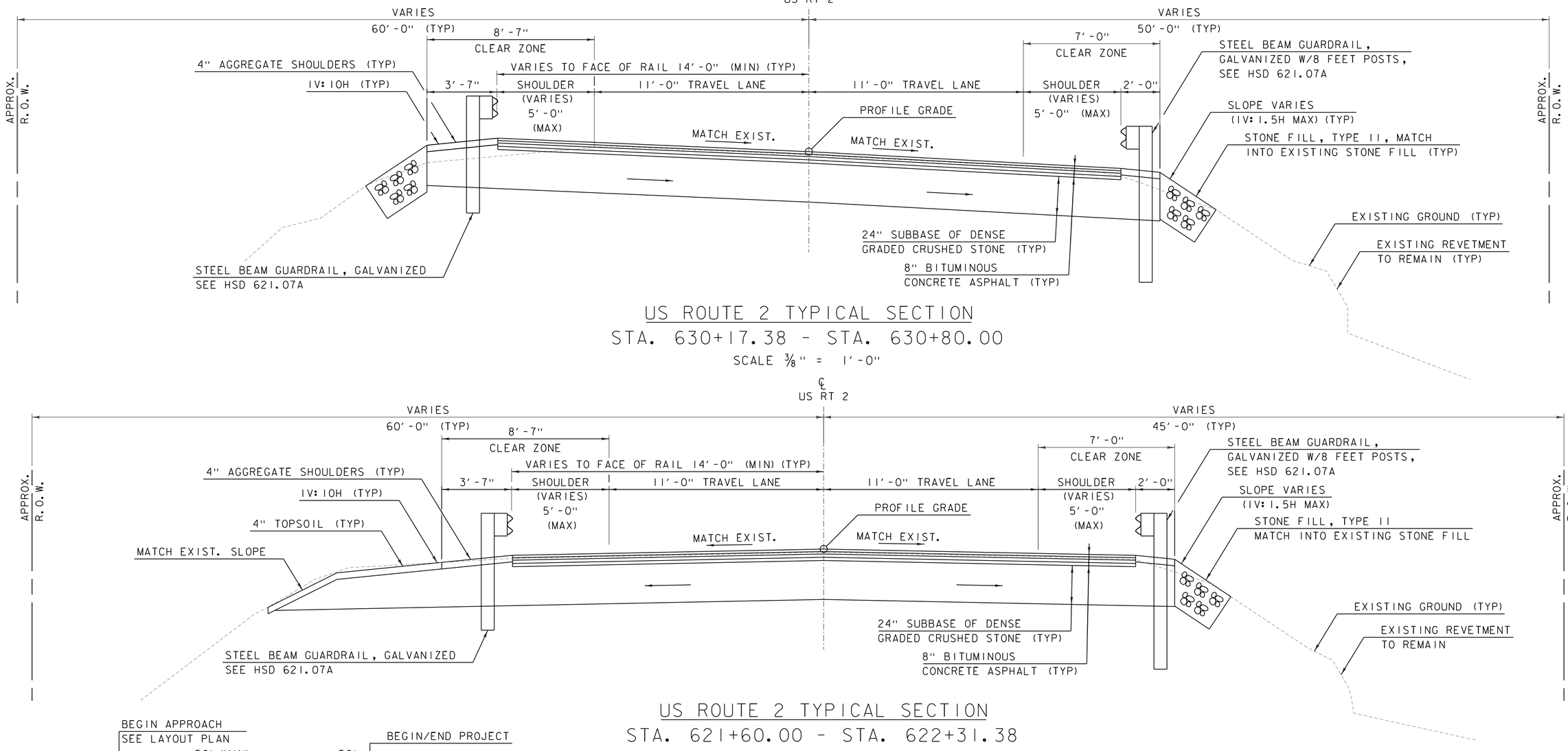
PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: M. CRUZ

TYPICAL SECTIONS

MATERIAL TOLERANCES (IF USED ON PROJECT)	
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

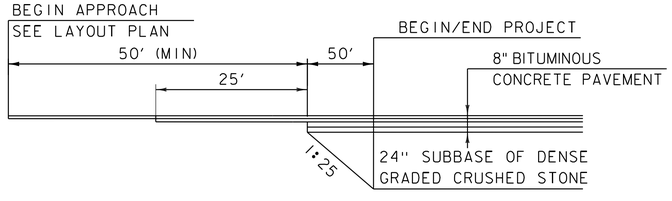
US ROUTE 2 FULL DEPTH RECONSTRUCTION:

1 1/2" TYPE IVS - WEARING COURSE
1 1/2" TYPE IVS - INTERMEDIATE COURSE
2 1/2" TYPE IIS - INTERMEDIATE COURSE
2 1/2" TYPE IIS - BASE COURSE
24" DENSE GRADED CRUSHED STONE



US ROUTE 2 TYPICAL SECTION
STA. 630+17.38 - STA. 630+80.00
SCALE 3/8" = 1'-0"

US ROUTE 2 TYPICAL SECTION
STA. 621+60.00 - STA. 622+31.38
SCALE 3/8" = 1'-0"

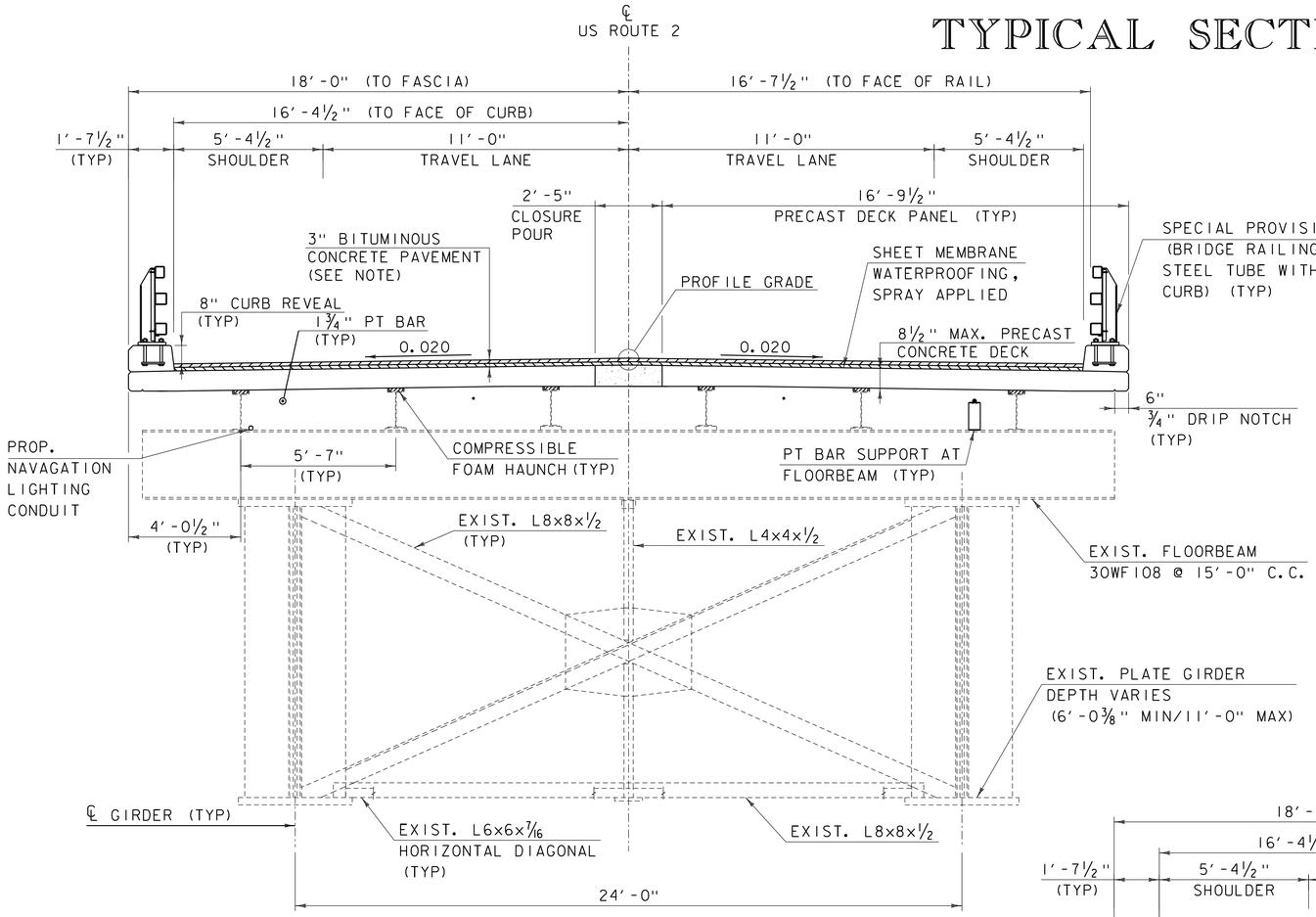


MATERIAL TRANSITION DETAIL
NOT TO SCALE

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

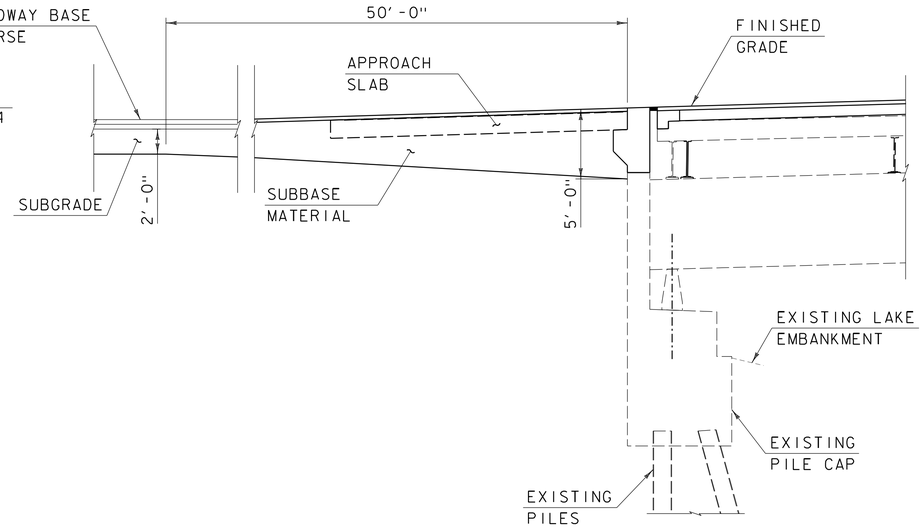
PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264typ.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: S. SACCO
DESIGNED BY: T. BIGELOW	CHECKED BY: T. BIGELOW
TYPICAL ROADWAY SECTIONS SHEET	SHEET 3 OF 108

TYPICAL SECTIONS



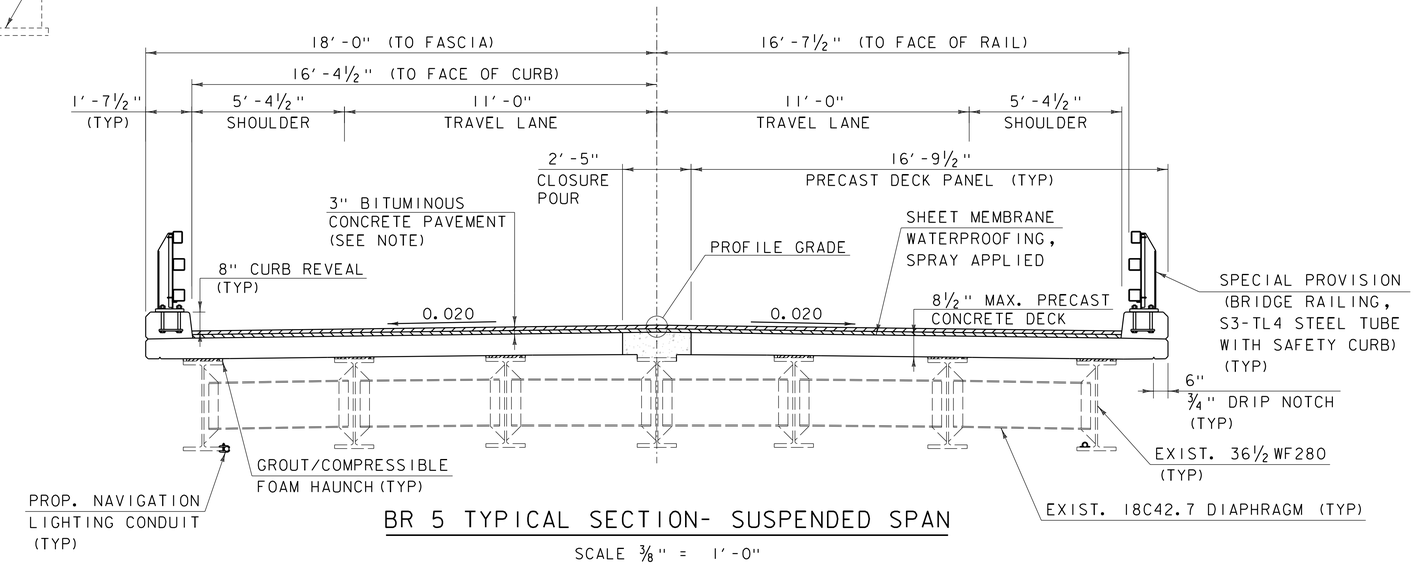
BR 5 TYPICAL SECTION - APPROACH SPANS

SCALE ⅜" = 1'-0"



TYPICAL ABUTMENT SECTION

NOT TO SCALE



BR 5 TYPICAL SECTION- SUSPENDED SPAN

SCALE ⅜" = 1'-0"

NOTE:

1½" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TYPE IVB
1½" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TYPE IVB

UTILITY SUPPORT NOTES:

1. REMOVING AND REPLACING OF THE EXISTING NAVIGATION LIGHTS AND CONDUIT SHALL BE PAID FOR AND DESCRIBED UNDER THE SPECIAL PROVISION (REMOVE AND REPLACE NAVIGATION LIGHTS & CONDUIT).
2. THE TEMPORARY SIGNAL CONDUIT AND SUPPORTS WILL BE INCIDENTAL TO ITEM 614.10 TRAFFIC CONTROL LUMP SUM ITEM.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264typ.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. BARBOSA
DESIGNED BY: Y. WANG	CHECKED BY: T. CARD
TYPICAL BRIDGE SECTION	SHEET 4 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1031 - TRAINING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
1					1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-
725					725		CY	COMMON EXCAVATION	203.15	18
25					25		CY	SOLID ROCK EXCAVATION	203.16	EST.
50					50		CY	EXCAVATION OF SURFACES AND PAVEMENTS	203.28	4
25					25		CY	EARTH BORROW	203.30	EST.
1					1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I)	204.22	-
205					205		CY	STRUCTURE EXCAVATION	204.25	3
70					70		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	4
2420					2420		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10	43
425					425		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	19
70					70		TON	AGGREGATE SHOULDERS, RAP	402.13	2
33					33		CWT	EMULSIFIED ASPHALT	404.65	1
1					1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I)	406.50	-
			600		600		LB	STRUCTURAL STEEL, PLATE GIRDER	506.55	EST.
			30000		30000		LB	REINFORCING STEEL, LEVEL II	507.12	572
			500		500		LF	DRILLING AND GROUTING DOWELS	507.16	5
			80		80		EACH	MECHANICAL BAR CONNECTOR	507.19	1
			144		144		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	-
			72		72		LF	BRIDGE EXPANSION JOINT, FINGER PLATE	516.12	-
			3100		3100		SY	MEMBRANE WATERPROOFING, SPRAY APPLIED	519.10	EST.
			1572		1572		LF	REMOVAL OF EXISTING BRIDGE RAILING	525.10	-
			1		1		EACH	PARTIAL REMOVAL OF STRUCTURE	529.20	-
			14		14		EACH	BEARING DEVICE ASSEMBLY, ELASTOMERIC PAD W/ EXT. LOAD PLATES	531.18	-
			50		50		SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I	580.13	3
			20		20		SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II	580.14	2
32					32		MGAL	DUST CONTROL WITH WATER	609.10	EST.
1					1		TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	EST.
255					255		CY	STONE FILL, TYPE II	613.11	11
75					75		LF	CAST-IN-PLACE CONCRETE CURB, TYPE B	616.28	5
2					2		EACH	BOUNDARY MARKERS	619.10	-
350					350		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	12.5
550					550		LF	STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.205	21
114					114		EACH	TRAFFIC BARRIER DELINEATOR	621.218	EST.
3					3		EACH	ENERGY ABSORPTION ATTENUATOR, TEMPORARY	621.56	-
1					1		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-
975					975		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	12.5
1100					1100		LF	TEMPORARY TRAFFIC BARRIER	621.90	EST.
1100					1100		LF	REMOVE AND RESET TEMPORARY TRAFFIC BARRIER	621.95	EST.
200					200		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.
2640					2640		HR	FLAGGERS	630.15	EST.

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
EARTHWORK SUMMARY		
750		EARTH AND ROCK EXCAVATION
25		SOLID ROCK EXCAVATION
725		EARTH EXCAVATION
-		PLANIMETERED FILL
-		LESS FACTORED SOLID ROCK
-		LESS DISPLACEMENT OF ANY LARGE STRUCTURES
-		NET PLANIMETERED FILL
1.15		FACTOR
-		PLANIMETERED FILL INCLUDING FACTOR
		MATERIALS AVAILABLE FOR FILLS
725		EARTH EXCAVATION
-		CHANNEL EXCAVATION
-		UNDERDRAIN EXCAVATION
205		STRUCTURE EXCAVATION
-		TRENCH EXCAVATION FOR DRAINAGE
930		TOTAL MATERIAL AVAILABLE FOR FILL
-		TOTAL FILL INCLUDING FACTOR
930		TOTAL MATERIAL FOR FILL
-		BORROW
930		EXCESS EXCAVATION

N.A.B.I. = NOT A BID ITEM

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264qty.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
QUANTITY SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: E. NOONAN
CHECKED BY: T. BIGELOW
SHEET 5 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
						1011 - ROADWAY	1031 - TRAINING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
										1	1		LS	FIELD OFFICE, ENGINEERS	631.10	-			
										1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16	-			
										1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-			
										1	1		LS	TESTING EQUIPMENT, GROUT	631.19	-			
										6000	6000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.26	-			
						19					19		EACH	CPM SCHEDULE	633.10	-			
							1040				1040		HR	EMPLOYEE TRAINEESHIP	634.10	EST.			
						1					1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
						1					1		LS	TRAFFIC CONTROL	641.10	-			
						2					2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
						3375					3375		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	45			
						3375					3375		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	35			
						4					4		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-			
						11500					11500		LF	TEMPORARY 4 INCH WHITE LINE	646.600	264			
						6750					6750		LF	TEMPORARY 4 INCH YELLOW LINE	646.610	70			
						30					30		LF	TEMPORARY 24 INCH STOP BAR	646.680	4			
						675					675		EACH	LINE STRIPING TARGETS	646.76	8			
						1400					1400		SF	REMOVAL OF EXISTING PAVEMENT MARKINGS	646.85	27			
								655			655		SY	GEOTEXTILE FOR FILTER CURTAIN	649.61	EST.			
								15			15		LB	SEED	651.15	EST.			
								15			15		LB	SEED, WINTER RYE	651.17	EST.			
								50			50		LB	FERTILIZER	651.18	EST.			
								0.2			0.2		TON	AGRICULTURAL LIMESTONE	651.20	EST.			
								50			50		CY	TOPSOIL	651.35	EST.			
								1			1		LS	EPSC PLAN	653.01	-			
								160			160		HR	MONITORING EPSC PLAN	653.02	EST.			
								1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.03	-			
								0.2			0.2		TON	HAY MULCH	653.10	EST.			
								35			35		CY	CHECK DAM, TYPE I	653.25	EST.			
								55			55		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35	EST.			
								2			2		EACH	FILTER BAG	653.45	-			
								2375			2375		LF	SILT FENCE, TYPE II	653.476	91			
								1575			1575		LF	BARRIER FENCE	653.50	59			
						51					51		SF	TRAFFIC SIGN, TYPE A	675.20	-			
						150					150		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	-			
						15					15		EACH	REMOVING SIGNS	675.50	-			
						1					1		EACH	DELINEATOR WITH STEEL POST	676.10	-			
						1					1		EACH	TEMPORARY TRAFFIC SIGNAL SYSTEM	678.40	-			
									60		60		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)	900.608	10			
									100		100		CY	SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B)	900.608	12			

N.A.B.I. = NOT A BID ITEM

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264qty.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
QUANTITY SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: E. NOONAN
CHECKED BY: T. BIGELOW
SHEET 6 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1031 - TRAINING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
6500					6500		DL	SPECIAL PROVISION (DISPOSAL FEES FOR CONTAMINATED SOIL)	900.615	188
314000					314000		DL	SPECIAL PROVISION (INCENTIVE/DISINCENTIVE)(N.A.B.I.)	900.615	-
			8		8		EACH	SPECIAL PROVISION (BRIDGE SCUPPER COMPONENTS)	900.620	-
1					1		EACH	SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED)(35' RADIUS)	900.620	-
4					4		EACH	SPECIAL PROVISION (TRANSITION TO BRIDGE RAIL)	900.620	-
			1680		1680		LF	SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)	900.640	EST.
			1642		1642		LF	SPECIAL PROVISION (BRIDGE RAILING, S3-TL4 STEEL TUBE WITH SAFETY CURB)	900.640	EST.
			1		1		LS	SPECIAL PROVISION (ACCELBRIDGE PRECAST DECK PANEL SYSTEM)	900.645	-
			1		1		LS	SPECIAL PROVISION (JACKING AND REMOVAL OF SUSPENDED SPAN BEARINGS)	900.645	-
			1		1		LS	SPECIAL PROVISION (STRUCTURAL STEEL REPAIRS, END FLOORBEAM CRACK)	900.645	-
			1		1		LS	SPECIAL PROVISION (STRUCTURAL STEEL REPAIRS, WELD REMOVAL)	900.645	-
			1		1		LS	SPECIAL PROVISION (REMOVE AND REPLACE NAVIGATION LIGHTING SYSTEM)	900.645	-
			1		1		LS	SPECIAL PROVISION (REMOVAL, CONTAINMENT, AND DISPOSAL OF EXISTING PAINT) (TYPE II)	900.645	-
1					1		LS	SPECIAL PROVISION (TEMPORARY ACCESS ROAD AND BULKHEAD)	900.645	-
1					1		LS	SPECIAL PROVISION (MANAGEMENT OF CONTAMINATED SOIL)	900.645	-
1					1		LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650	-
1					1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650	-
250					250		SY	SPECIAL PROVISION (IMPERVIOUS SEPARATION BARRIER)	900.675	EST.
1100					1100		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680	49

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)		
480	TON	TYPE IVB WEARING COURSE
267	TON	TYPE IVS WEARING COURSE
80	TON	TYPE IVS INTERMEDIATE COURSE
112	TON	TYPE IIS INTERMEDIATE COURSE
112	TON	TYPE IIS BASE COURSE
49	TON	ROUNDING
1100	TON	TOTAL

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264qty.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
QUANTITY SHEET 3

PLOT DATE: 2/18/2022
DRAWN BY: E. NOONAN
CHECKED BY: T. BIGELOW
SHEET 7 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION

BRIDGE QUANTITY SHEET 1

SUMMARY OF BRIDGE QUANTITIES						TOTALS	DESCRIPTIONS		
APPROACH SLAB #1	APPROACH SLAB #2	ABUTMENT #1	ABUTMENT #2	SUPER STRUCTURE	BRIDGE TOTAL	UNIT	ITEMS	ITEM NUMBER
				600	600	LB	STRUCTURAL STEEL, PLATE GIRDER	506.55
7200	7200	6300	6300	3000	30000	LB	REINFORCING STEEL, LEVEL II	507.12
		250	250		500	LF	DRILLING AND GROUTING DOWELS	507.16
23	22	18	17		80	EACH	MECHANICAL BAR CONNECTOR	507.19
36	36			72	144	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10
		36	36		72	LF	BRIDGE EXPANSION JOINT, FINGER PLATE	516.12
				3100	3100	SY	MEMBRANE WATERPROOFING, SPRAY APPLIED	519.10
				1572	1572	LF	REMOVAL OF EXISTING BRIDGE RAILING	525.10
				1	1	EACH	PARTIAL REMOVAL OF STRUCTURE	529.20
				14	14	EACH	BEARING DEVICE ASSEMBLY, ELASTOMERIC PAD W/ EXT. LOAD PLATES	531.18
		18		32	50	SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I	580.13
		15	5		20	SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II	580.14
		24	24	12	60	CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)	900.608
35	35	15	15		100	CY	SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B)	900.608
				8	8	EACH	SPECIAL PROVISION (BRIDGE SCUPPER COMPONENTS)	900.620
		2	2		4	EACH	SPECIAL PROVISION (TRANSITION TO BRIDGE RAIL)	900.620
				1680	1680	LF	SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)	900.640
				1642	1642	LF	SPECIAL PROVISION (BRIDGE RAILING, S3-TL4 STEEL TUBE WITH SAFETY CURB)	900.640
				1	1	LS	SPECIAL PROVISION (ACCELBRIDGE PRECAST DECK PANEL SYSTEM)	900.645
				1	1	LS	SPECIAL PROVISION (JACKING AND REMOVAL OF SUSPENDED SPAN BEARINGS)	900.645
				1	1	LS	SPECIAL PROVISION (STRUCTURAL STEEL REPAIRS - END FLOORBEAM CRACK)	900.645
				1	1	LS	SPECIAL PROVISION (STRUCTURAL STEEL REPAIRS - WELD REMOVAL)	900.645
				1	1	LS	SPECIAL PROVISION (REMOVE AND REPLACE NAVIGATION LIGHTING SYSTEM)	900.645
				1	1	LS	SPECIAL PROVISION (REMOVAL, CONTAINMENT, AND DISPOSAL OF EXISTING PAINT) (TYPE II)	900.645

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264qty.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
BRIDGE QUANTITY SHEET

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 8 OF 108

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY. THE SYMBOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

R.O.W. ABBREVIATIONS (CODES) & SYMBOLS

POINT	CODE	DESCRIPTION
	BF	BARRIER FENCE
	CH	CHANNEL EASEMENT
	CONST	CONSTRUCTION EASEMENT
	CUL	CULVERT EASEMENT
	D&C	DISCONNECT & CONNECT
	DIT	DITCH EASEMENT
	DR	DRAINAGE EASEMENT
	DRIVE	DRIVEWAY EASEMENT
	EC	EROSION CONTROL
	HWY	HIGHWAY EASEMENT
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	PDF	PROJECT DEMARCATION FENCE
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	R.T.& I.	RIGHT, TITLE, AND INTEREST
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⧈	BNDNS	BOUND TO BE SET
◎	IPNF	IRON PIN FOUND
●	IPNS	IRON PIN TO BE SET
⊠	CALC	EXISTING ROW POINT
○	PROW	PROPOSED ROW POINT
[LENGTH]		LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

POINT	CODE	DESCRIPTION
	APL	BOUND APPARENT LOCATION
	BM	BENCHMARK
	BND	BOUND
	CB	CATCH BASIN
	COMB	COMBINATION POLE
	DITHR	DROP INLET THROATED DNC
	EL	ELECTRIC POWER POLE
	FPOLE	FLAGPOLE
	GASFIL	GAS FILLER
	GP	GUIDE POST
	GSO	GAS SHUT OFF
	GUY	GUY POLE
	GUYW	GUY WIRE
	GV	GATE VALVE
	H	TREE HARDWOOD
	HCTRL	CONTROL HORIZONTAL
	HVCTRL	CONTROL HORIZ.& VERTICAL
	HYD	HYDRANT
	IP	IRON PIN
	IPIPE	IRON PIPE
	LI	LIGHT - STREET OR YARD
	MB	MAILBOX
	MH	MANHOLE (MH)
	MM	MILE MARKER
	PM	PARKING METER
	PMK	PROJECT MARKER
	POST	POST STONE/WOOD
	RRSIG	RAILROAD SIGNAL
	RRSL	RAILROAD SWITCH LEVER
	S	TREE SOFTWOOD
	SAT	SATELLITE DISH
	SHRUB	SHRUB
	SIGN	SIGN
	STUMP	STUMP
	TEL	TELEPHONE POLE
	TIE	TIE
	TSIGN	SIGN W/DOUBLE POST
	VCTRL	CONTROL VERTICAL
	WELL	WELL
	WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADIUS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE
CB	CHORD BEARING

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

- UGU — UTILITY (GENERIC-UNKNOWN)
- UT — TELEPHONE
- UE — ELECTRIC
- UC — CABLE (TV)
- UEC — ELECTRIC+CABLE
- UET — ELECTRIC+TELEPHONE
- UCT — CABLE+TELEPHONE
- UECT — ELECTRIC+CABLE+TELEPHONE
- G — GAS LINE
- W — WATER LINE
- S — SANITARY SEWER (SEPTIC)

ABOVE GROUND UTILITIES (AERIAL)

- AGU — UTILITY (GENERIC-UNKNOWN)
- T — TELEPHONE
- E — ELECTRIC
- C — CABLE (TV)
- EC — ELECTRIC+CABLE
- ET — ELECTRIC+TELEPHONE
- AER E&T — ELECTRIC+TELEPHONE
- CT — CABLE+TELEPHONE
- ECT — ELECTRIC+CABLE+TELEPHONE
- UTILITY POLE GUY WIRE

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

- CZ — CLEAR ZONE
- PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

- TOP OF CUT SLOPE
- TOE OF FILL SLOPE
- STONE FILL
- BOTTOM OF DITCH ℄
- CULVERT PROPOSED
- STRUCTURE SUBSURFACE
- PDF — PDF — PROJECT DEMARCATION FENCE
- BF — BF — BARRIER FENCE
- TREE PROTECTION ZONE (TPZ)
- STRIPING LINE REMOVAL
- SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

- TOWN LINE — TOWN BOUNDARY LINE
- COUNTY LINE — COUNTY BOUNDARY LINE
- STATE LINE — STATE BOUNDARY LINE
- PROPOSED STATE R.O.W. (LIMITED ACCESS)
- PROPOSED STATE R.O.W.
- STATE ROW (LIMITED ACCESS)
- STATE ROW
- TOWN ROW
- PERMANENT EASEMENT LINE (P)
- TEMPORARY EASEMENT LINE (T)
- SURVEY LINE
- P/L — PROPERTY LINE (P/L)
- SR SR SR — SLOPE RIGHTS
- 6f — 6f — 6F PROPERTY BOUNDARY
- 4f — 4f — 4F PROPERTY BOUNDARY
- HAZ — HAZ — HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

- FILTER CURTAIN
- SILT FENCE
- SILT FENCE WOVEN WIRE
- CHECK DAM
- DISTURBED AREAS REQUIRING RE-VEGETATION
- EROSION MATTING

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

ENVIRONMENTAL RESOURCES

- WETLAND BOUNDARY
- RIPARIAN BUFFER ZONE
- WETLAND BUFFER ZONE
- SOIL TYPE BOUNDARY
- T&E — THREATENED & ENDANGERED SPECIES
- HAZ — HAZ — HAZARDOUS WASTE AREA
- AG — AGRICULTURAL LAND
- HABITAT — FISH & WILDLIFE HABITAT
- FLOOD PLAIN — FLOOD PLAIN
- OHW — ORDINARY HIGH WATER (OHW)
- STORM WATER
- USDA FOREST SERVICE LANDS
- WILDLIFE HABITAT SUIT/CONN

ARCHEOLOGICAL & HISTORIC

- ARCH — ARCHEOLOGICAL BOUNDARY
- HISTORIC DIST — HISTORIC DISTRICT BOUNDARY
- HISTORIC — HISTORIC AREA
- (H) HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

- ROAD EDGE PAVEMENT
- ROAD EDGE GRAVEL
- DRIVEWAY EDGE
- DITCH
- FOUNDATION
- FENCE (EXISTING)
- FENCE WOOD POST
- FENCE STEEL POST
- GARDEN
- ROAD GUARDRAIL
- RAILROAD TRACKS
- CULVERT (EXISTING)
- STONE WALL
- WALL
- WOOD LINE
- BRUSH LINE
- HEDGE
- BODY OF WATER EDGE
- LEDGE EXPOSED

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264legend.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
CONVENTIONAL SYMBOLOGY LEGEND SHEET

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 9 OF 108

GENERAL:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND ITS LATEST REVISIONS AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, NINTH EDITION, AND ITS LATEST REVISIONS.

2. ALL PAVEMENT MARKING PLACEMENTS SHALL MATCH INTO EXISTING AT THE LIMITS OF THE ROADWAY APPROACHES.

3. BORINGS INDICATED ON THE PLANS HAVE BEEN MADE FOR DESIGN PURPOSES ONLY.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND DELINEATING ANY RESTRICTIONS TO THE NAVIGABLE CHANNEL IN COMPLIANCE WITH THE ARMY CORPS OF ENGINEERS (ACOE) AND THE UNITED STATES COAST GUARD BASED ON THEIR MEANS AND METHODS. THIS INCLUDES BUT IS NOT LIMITED TO SIGNAGE, LIGHTING, ETC. PAYMENT WILL BE INCIDENTAL TO ITEM 641.10 TRAFFIC CONTROL AND SHALL BE INCLUDED IN THE TCP CONTRACTOR SUBMITTAL TO THE ENGINEER.

EARTHWORK:

5. SOILS THROUGHOUT THE SITE HAVE BEEN SAMPLED AND CHARACTERIZED PRIOR TO CONSTRUCTION. SOIL CONTAMINANTS AND FINAL DISPOSITION OF SOILS ARE REGULATED BY THE PROJECT SPECIFIC SOIL MANAGEMENT PLAN (SMP).

6. CONTAMINATED SOILS WILL BE ALLOWED FOR USE AS GENERAL BACKFILL IN AREAS THROUGHOUT THE PROJECT AREA IN ACCORDANCE WITH THE SMP. FOR SOIL CATEGORIES AND PROPER MANAGEMENT OF THEM, SEE THE SMP.

    a. CATEGORY-1 (NON-CONTAMINATED, NON-HAZARDOUS) AND CATEGORY-2 (CONTAMINATED, NON-HAZARDOUS) SOIL MAY BE RE-USED WITHIN THE PROJECT AREA AS PART OF PROJECT CONSTRUCTION.

    b. ALL CATEGORY-3 (CONTAMINATED, NON-HAZARDOUS) SOIL SHALL BE DISPOSED OF OFF-SITE AND SHALL NOT BE RE-USED WITHIN THE PROJECT AREA AS PART OF PROJECT CONSTRUCTION.

7. ANY CATEGORY-2 OR CATEGORY-3 MATERIAL THAT WILL BE TAKEN OFF SITE SHALL BE REMOVED AND HAULED TO AN APPROVED RECEIVING FACILITY IN ACCORDANCE WITH THE SMP AND APPLICABLE STATE OF VERMONT SOLID WASTE MANAGEMENT RULES. CATEGORY-1 SOIL MAY BE RELOCATED OUTSIDE OF THE PROJECT AREA, IN ACCORDANCE WITH SUBSECTION 105.25.

8. IF OFF-SITE SOIL STOCKPILING OF CATEGORY-2 OR CATEGORY-3 SOILS IS DETERMINED NECESSARY BY THE CONTRACTOR, THE CONTRACTOR SHALL OBTAIN THE APPROPRIATE APPROVAL FROM VTRANS AND DEC PRIOR TO USING AN OFF-SITE TEMPORARY STOCKPILE LOCATION. TEMPORARY OFF-SITE CONTAMINATED SOIL STOCKPILES SHALL BE LOCATED AND MANAGED IN ACCORDANCE WITH THE VERMONT DEC INVESTIGATION AND REMEDIATION OF CONTAMINATED PROPERTIES (IRULE, JULY 2019) PART 35-510(f). THE COST OF STOCKPILING WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELEVANT EXCAVATION ITEM.

9. THE CONTRACTOR SHALL DECONTAMINATE SURFACES OF EXCAVATION EQUIPMENT, LOADING EQUIPMENT, AND ALL OTHER EQUIPMENT THAT CONTACTS CONTAMINATED NON-HAZARDOUS SOIL (CATEGORY-2 AND CATEGORY-3), BY PHYSICALLY REMOVING, WASHING, AND RINSING SOIL FROM EQUIPMENT SURFACES BEFORE THE EQUIPMENT LEAVES THE PROJECT AREA OR BEFORE IT WILL BE UTILIZED FOR HANDLING NON-CONTAMINATED SOIL OR MATERIAL, IN ACCORDANCE WITH THE SMP. THE COST OF DECONTAMINATION WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELEVANT EXCAVATION ITEM.

10. THE CONTRACTOR SHALL HAVE DESIGNATED PERSONNEL TO MANAGE, MONITOR, AND DOCUMENT IMPLEMENTATION OF THE SMP. THIS INDIVIDUAL WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 900.645 SPECIAL PROVISION (MANAGEMENT OF CONTAMINATED SOIL).

11. ALL COSTS FOR REMOVAL OF CONTAMINATED SOIL FROM THE PROJECT OR STOCKPILE AREA SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONTRACT ITEM 900.645 SPECIAL PROVISION (MANAGEMENT OF CONTAMINATED SOIL). ALL DISPOSAL FEES ASSOCIATED WITH THE REMOVAL OF CONTAMINATED SOIL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONTRACT ITEM 900.615 SPECIAL PROVISION (DISPOSAL FEES FOR CONTAMINATED SOIL).

12. AREAS OF CATEGORY-3 SOIL (CONTAMINATED, NON-HAZARDOUS) THAT ARE TO BE EXCAVATED SHALL BE COVERED BY AN ENGINEERED SOIL CAP AS SPECIFIED IN THE SMP. NON-BIODEGRADABLE INDICATOR MATERIAL SHALL BE INSTALLED OVER THE CONTAMINATED SOIL AND CAPPED WITH EITHER 6 INCHES OF CLEAN FILL COVERED BY AN IMPERVIOUS SURFACE (REFER TO SECTION 4.3.2 OF THE SMP) OR AT LEAST 18 INCHES OF CLEAN FILL, CATEGORY-1, OR -2 SOIL, AND STABILIZED. ALL COSTS ASSOCIATED WITH THE ENGINEERED ISOLATION BARRIER WILL BE PAID FOR UNDER ITEM 900.675 SPECIAL PROVISION (IMPERVIOUS SEPARATION BARRIER).

13. THE 18" CLEAN SOIL CAP SHALL BE CONSTRUCTED WITH EXCESS EARTH BORROW MATERIAL FROM THE PROJECT SITE. A CONTINGENCY FOR EARTH BORROW HAS BEEN INCLUDED IN THE EVENT THAT THE EXCESS EARTH BORROW FROM THE PROJECT SITE IS NOT SUITABLE FOR USE IN THE CONSTRUCTION OF THE 18" CLEAN SOIL CAP.

SUPERSTRUCTURE REMOVAL AND DISPOSAL:

14. THE PAINT ON RAILINGS AND METAL EXTERIOR BEAMS HAVE BEEN EVALUATED FOR THE PRESENCE OF CONTAMINANTS. RAILING PAINT CONTAINS LEAD, CHROMIUM, HEXAVALENT CHROMIUM, AND POLYCHLORINATED BIPHENYLS (PCBS). EXTERIOR BEAM PAINT CONTAINS CHROMIUM AND LEAD. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING A CERTIFIED HAULER AND A WASTE/RECYLING FACILITY FOR APPROVAL BY VTRANS. POTENTIAL FACILITIES AND SAMPLING INFORMATION IS PROVIDED IN THE PAINT SAMPLING MEMORANDUM DATED JUNE 15, 2020.

15. THE CONTRACTOR SHALL PROVIDE DEMOLITION PLAN SUBMISSION FOR THE ENGINEER'S REVIEW AND APPROVAL WHICH IS INCIDENTAL TO ITEM NO. 529.20 PARTIAL REMOVAL OF STRUCTURE.

ACCELBRIDGE PRECAST PANEL SYSTEM:

16. REINFORCING IS SHOWN AS A MINIMUM REQUIREMENT. FINAL REINFORCING DESIGN SHALL BE PERFORMED DURING SHOP DRAWING PROCESS AND TAKEN INTO ACCOUNT CONSTRUCTION MEANS AND METHODS.

17. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, BEAM PROFILES, AND SHALL PROVIDE THIS INFORMATION TO THE ACCELBRIDGE DESIGNERS AS PART OF THEIR SUBSEQUENT COORDINATION.

STRUCTURAL STEEL:

18. ALL STRUCTURAL STEEL SHALL BE IN COMPLIANCE WITH VTRANS STANDARD SPECIFICATION SECTION 506, AND ALL ASSOCIATED MATERIAL SPECIFICATION SECTION 506, AND ALL ASSOCIATED MATERIAL SPECIFICATIONS IN SUBSECTION 714. ALL STRUCTURAL STEEL SHALL BE 50 KSI AND SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.

19. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.

20. ALL HARDWARE SHALL BE IN COMPLIANCE WITH SECTIONS 506 AND 714. ALL BOLTS SHALL BE HIGH STRENGTH 7/8" DIAMETER WITH 15/16" DIAMETER HOLES UNLESS OTHERWISE NOTED.

21. THE FOLLOWING STRUCTURAL STEEL ELEMENTS REQUIRE CHARPY V-NOTCH TESTING IN COMPLIANCE WITH SECTIONS 506 AND 714:
    - PROPOSED END FLOORBEAMS
    - PROPOSED STRINGERS
    - RAILING BASE PLATES

CONCRETE:

22. PROPOSED APPROACH SLABS AND MOMENT SLABS SHALL BE MEASURED AND PAID FOR UNDER ITEM 900.608 SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B).

23. PROPOSED ABUTMENT BACKWALLS, WINGWALLS, JOINT HEADERS, AND CONCRETE END POSTS SHALL BE MEASURED AND PAID FOR UNDER ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET).

24. ALL OTHER APPLICATIONS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) SHOWN ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (ACCELBRIDGE PRECAST DECK PANEL SYSTEM).

PRIMARY CONTROL

HVCTRL #1
NORTH = 873495.9560
EAST = 1438951.2500
ELEV = 104.9800

GENERAL LOCATION, ALBURGH, VT.
ALBURGH TEMP2: TO REACH FROM THE INTERSECTION OF US ROUTE 2 AND VT ROUTE 129 AT "GOD'S LITTLE BROWN CHURCH" GO NORTH ALONG US ROUTE 2 FOR 0.4 MI TO THE SITE OF THE MARK ON THE RIGHT. THE MARK IS A 3/4" REBAR WITH RED PLASTIC CAP DRIVEN 0.3' BELOW GROUND SURFACE. IT IS 23.8' SOUTHEAST OF THE CENTERLINE OF US ROUTE 2, 10.0' SOUTH OF THE WOODEN POST AT THE NORTHEAST END OF A STEEL BEAM GUARDRAIL, 45.6' SOUTHEAST OF AND ACROSS THE ROAD FROM POLE NO 10 130/1/118 AND 62.3' WEST-SOUTHWEST OF A 48" COTTONWOOD.

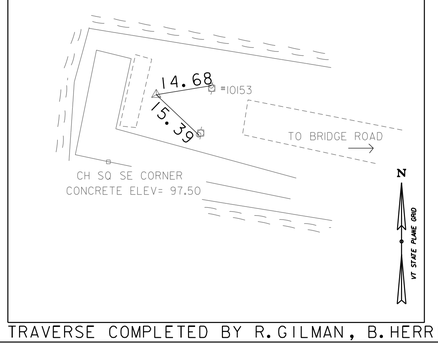
HVCTRL #2
NORTH = 870347.4710
EAST = 1440410.0000
ELEV = 103.1600

GENERAL LOCATION, NORTH HERO, VT.
N HERO TEMP : TO REACH FROM THE INTERSECTION OF US ROUTE 2 AND VT ROUTE 129 AT "GOD'S LITTLE BROWN CHURCH" IN ALBURGH, GO SOUTH ALONG US ROUTE 2 FOR 0.2 MI TO THE INTERSECTION OF BRIDGE ROAD LEFT. TURN LEFT AND GO NORTH ALONG BRIDGE ROAD FOR 0.1 MI TO THE SITE OF THE MARK ON THE LEFT AT "ANCHOR ISLAND MARINA". THE MARK IS A 3/4" REBAR WITH ALUMINUM CAP DRIVEN 0.3' BELOW GROUND SURFACE. IT IS 47.9' NORTHWEST OF THE CENTERLINE OF BRIDGE ROAD, 9.7' SOUTH OF THE NORTHEAST END OF A STEEL-PIPE PEDESTRIAN BARRIER FENCE AND 7.1' SOUTHEAST OF THE FENCE.

SECONDARY CONTROL

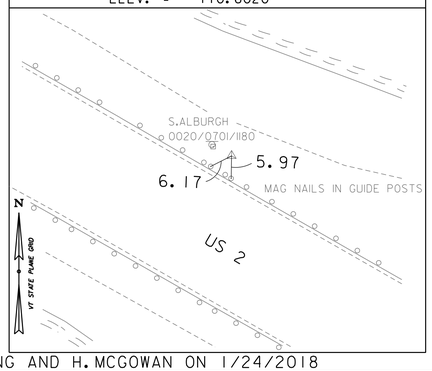
HVCTRL 3

NORTH = 870519.5980
EAST = 1440033.2829
ELEV. = 102.7180



HVCTRL 4

NORTH = 870725.5587
EAST = 1439108.4658
ELEV. = 110.6020

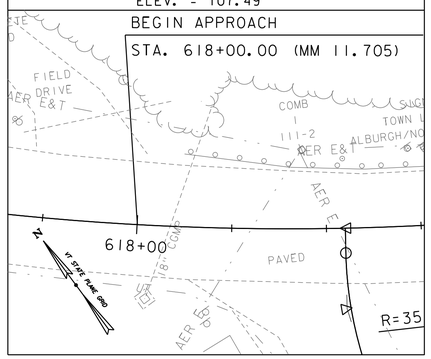


TRAVERSE COMPLETED BY R.GILMAN, B.HERRING AND H.MCGOWAN ON 1/24/2018

ALIGNMENT TIES

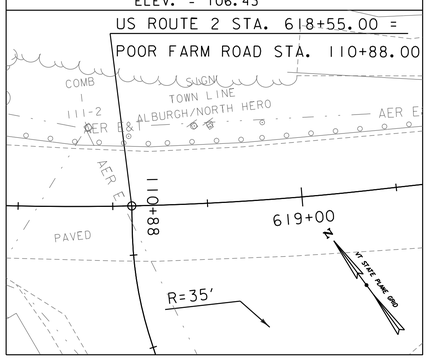
POC STA. 618+00.00

NORTH = 870853.34
EAST = 1438865.25
ELEV. = 107.49



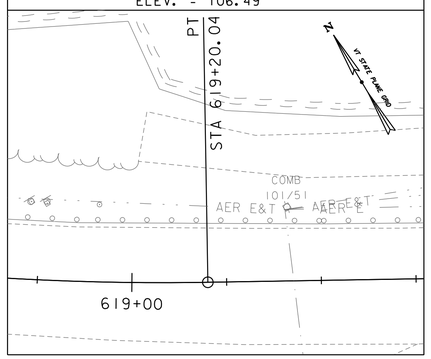
POC STA. 618+55.00

NORTH = 870819.97
EAST = 1438908.95
ELEV. = 106.43



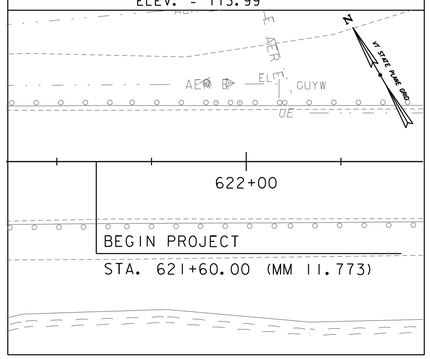
PT STA. 619+20.04

NORTH = 870784.98
EAST = 1438963.75
ELEV. = 106.49



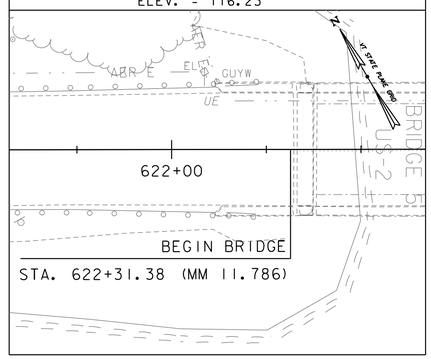
POT STA. 621+60.00

NORTH = 870665.18
EAST = 1439171.67
ELEV. = 113.99



POT STA. 622+31.38

NORTH = 870629.55
EAST = 1439233.51
ELEV. = 116.23



DATUM
VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT COMPASS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264ti.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
TIE SHEET 1

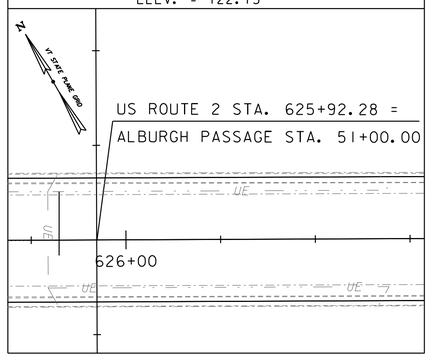
PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 11 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

ALIGNMENT TIES

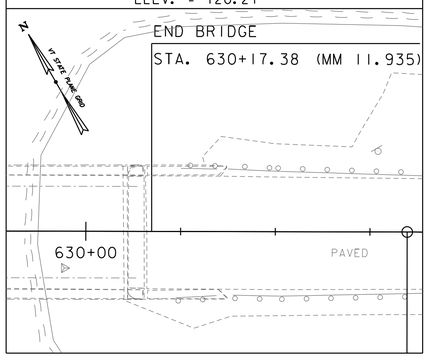
POT STA. 625+92.28

NORTH = 870449.37
EAST = 1439546.22
ELEV. = 122.75



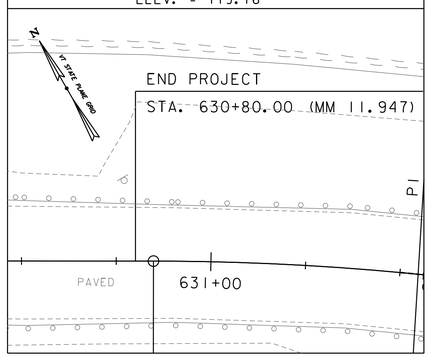
POT STA. 630+17.38

NORTH = 870237.14
EAST = 1439914.55
ELEV. = 120.21



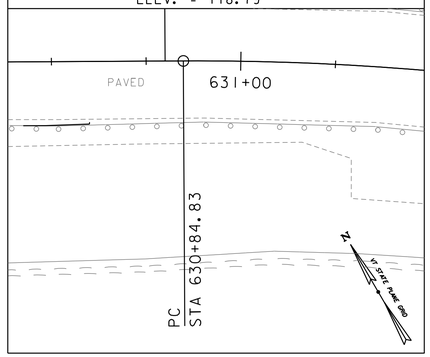
POT STA. 630+80.00

NORTH = 871280.29
EAST = 1440698.64
ELEV. = 119.76



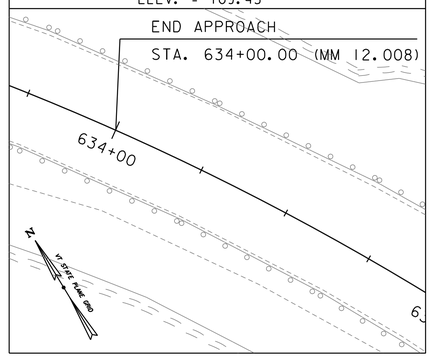
PC STA. 630+84.83

NORTH = 870203.47
EAST = 1439972.99
ELEV. = 118.79



POC STA. 634+00.00

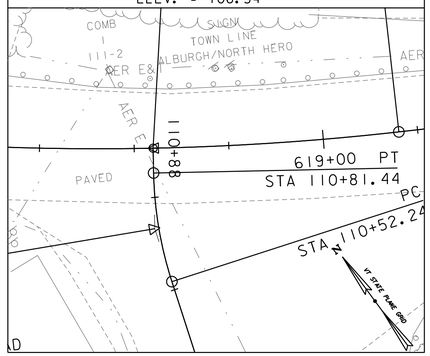
NORTH = 869991.95
EAST = 1440203.20
ELEV. = 109.45



ALIGNMENT TIES

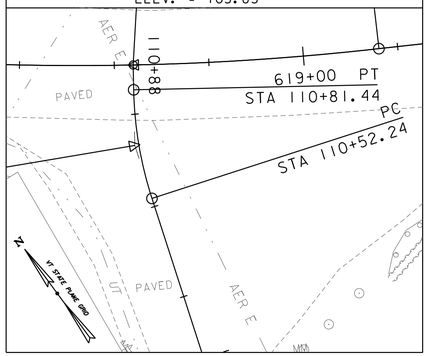
PT STA. 110+81.44

NORTH = 870814.61
EAST = 1438905.17
ELEV. = 106.34



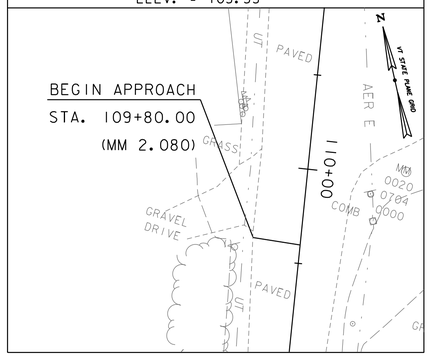
PC STA. 110+52.24

NORTH = 870788.64
EAST = 1438892.06
ELEV. = 105.83



POT STA. 109+80.00

NORTH = 870720.10
EAST = 1438869.21
ELEV. = 105.53



ALIGNMENT TIES

DATUM

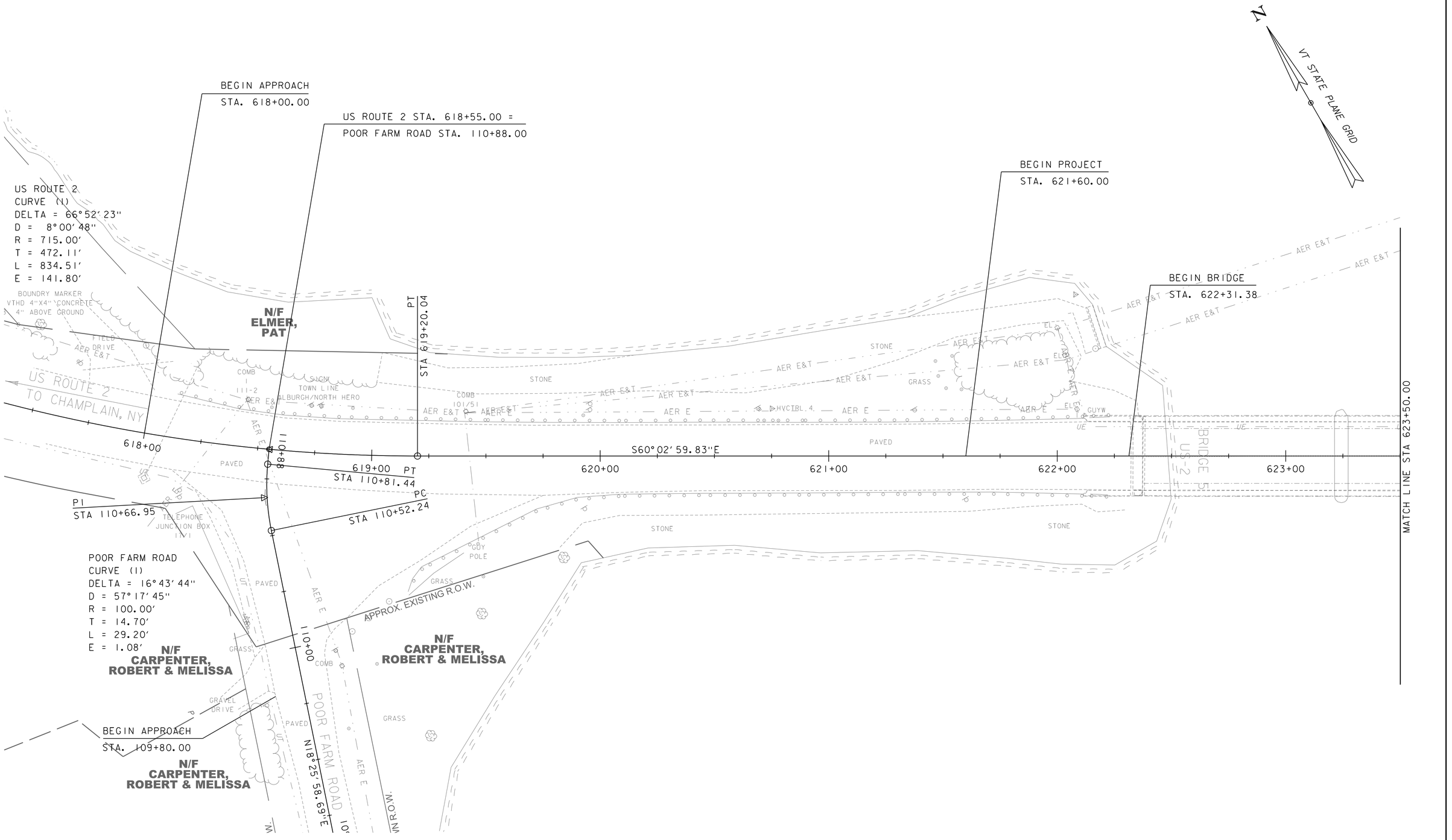
VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT COMPASS

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264ti.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
TIE SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 12 OF 108



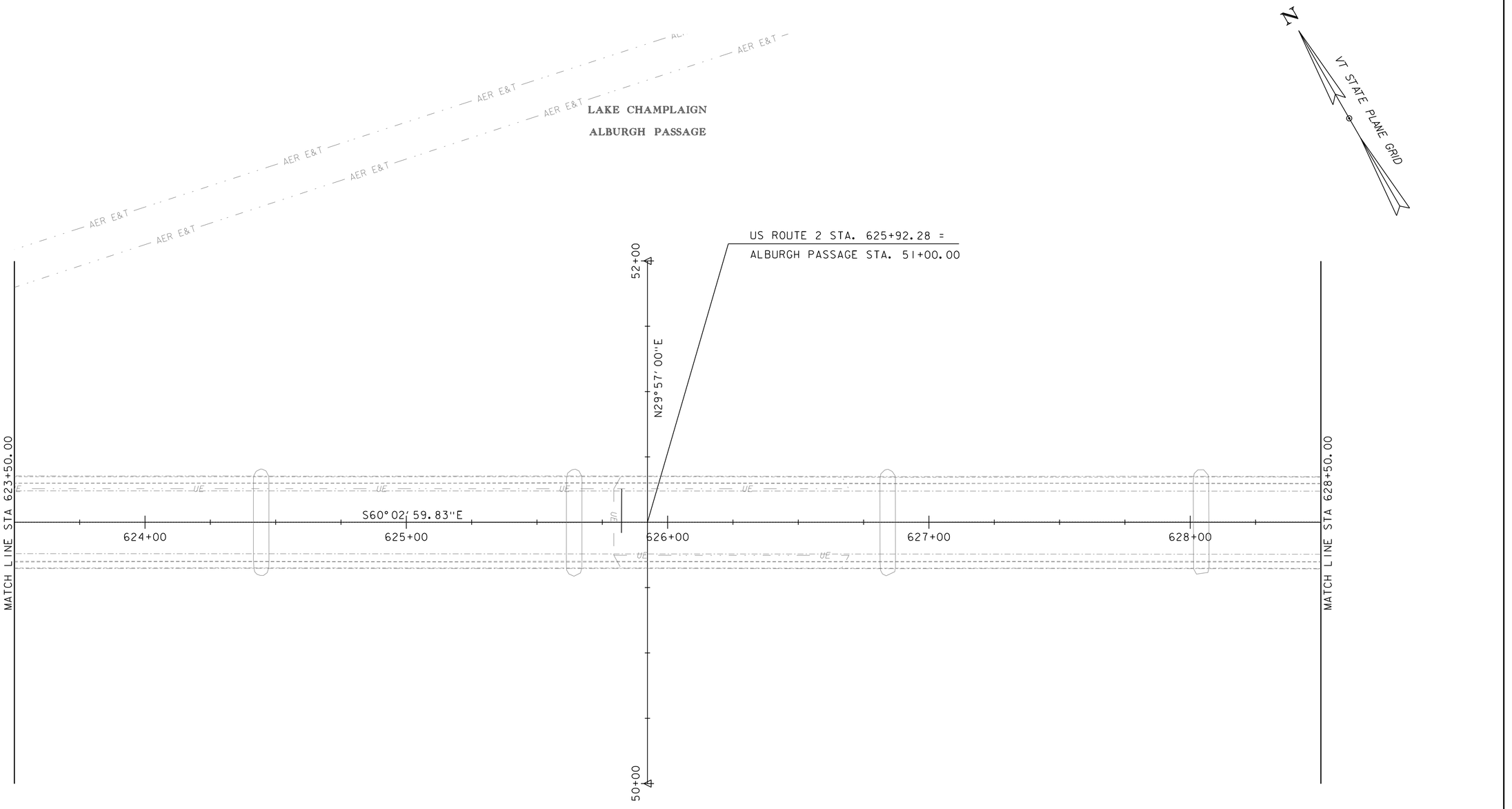
SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264alg.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: E. NOONAN
DESIGNED BY: T. BIGELOW	CHECKED BY: T. BIGELOW
ALIGNMENT SHEET 1	SHEET 13 OF 108



SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264alg.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ALIGNMENT SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: E. NOONAN
CHECKED BY: T. BIGELOW
SHEET 14 OF 108

N

VT STATE PLANE GRID

END BRIDGE
STA. 630+17.38

END PROJECT
STA. 630+80.00

MATCH LINE STA 628+50.00

S60°02'59.83"E

629+00

630+00

631+00

632+00

633+00

BRIDGE 5
US-2

STONE

PAVED

GRASS

STONE

STONE

STONE

PC
STA 630+84.83

MATCH LINE STA 633+50.00

US ROUTE 2
CURVE (2)
DELTA = 62°22'08"
D = 8°00'48"
R = 715.00'
T = 432.75'
L = 778.31'
E = 120.76'

SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264alg.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ALIGNMENT SHEET 3

PLOT DATE: 2/18/2022
DRAWN BY: E. NOONAN
CHECKED BY: T. BIGELOW

N/F
MACDONALD, PETER

N/F
MACDONALD, PETER

N/F
MACDONALD, PETER

N/F
MACDONALD, PETER

N/F
KEYWORTH REAL ESTATE
HOLDINGS, LLC

N/F
BARSALOW, CHARLES M.

N/F
BARSALOW, CHARLES M

VT STATE PLANE GRID

STA 635+17.58

APPX. 8" D.I. WATER MAIN

BOUNDRY MARKER
VTHD 4"X4" CONCRETE
BROKEN OFF FLUSH

BRIDGE ROAD
TO NORTH HERO

18" RCP

GRASS

APPX. BURIED
GATE VALVE

APPROX. LOW WATER TIE LINE

PAVED

18" CCMP

HVCTRL

GRAVEL
DRIVE

APPX. 8" D.I. WATER MAIN

APPROX. EXISTING R.O.W.

US ROUTE 2
TO GRAND ISLE

S60°02'59.83"E

STONE

APPROX. EXISTING R.O.W.

PROJECT MARKER
VT 1951
F128/8
VT 1939
FAP 128/8

PT STA 638+63.13

MATCH LINE STA 633+50.00

634+00

635+00

636+00

637+00

638+00

639+00

END APPROACH
STA. 634+00.00

US ROUTE 2
CURVE (2)
DELTA = 62°22'08"
D = 8°00'48"
R = 715.00'
T = 432.75'
L = 778.31'
E = 120.76'

SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264alg.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: E. NOONAN
DESIGNED BY: T. BIGELOW	CHECKED BY: T. BIGELOW
ALIGNMENT SHEET 4	SHEET 16 OF 108

COARSE-MILLING, BITUMINOUS PAVEMENT
STA. 618+00.0 - STA. 621+10.0
STA 109+80.0 - STA 110+73.4

EXCAVATION OF SURFACES AND PAVEMENTS
STA. 110+05.0 - STA. 619+75.0

AGGREGATE SHOULDERS, RAP
STA. 109+80.0 RT - STA. 622+11.4 RT
STA. 620+60.0 LT - STA. 622+11.4 LT

STONE FILL, TYPE II
STA. 621+10.0 RT - STA. 622+31.4 RT
STA. 622+00.0 LT - STA. 622+31.4 LT

CAST-IN-PLACE CONCRETE CURB, TYPE B
STA. 621+88.8 LT - STA. 622+06.3 LT
STA. 621+88.8 RT - STA. 622+06.3 RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 109+80.0 RT - STA. 110+17.5 RT
STA. 619+20.3 RT - STA. 620+00.0 RT
STA. 620+60.0 LT - STA. 621+88.8 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 620+00.0 RT - STA. 621+88.8 RT

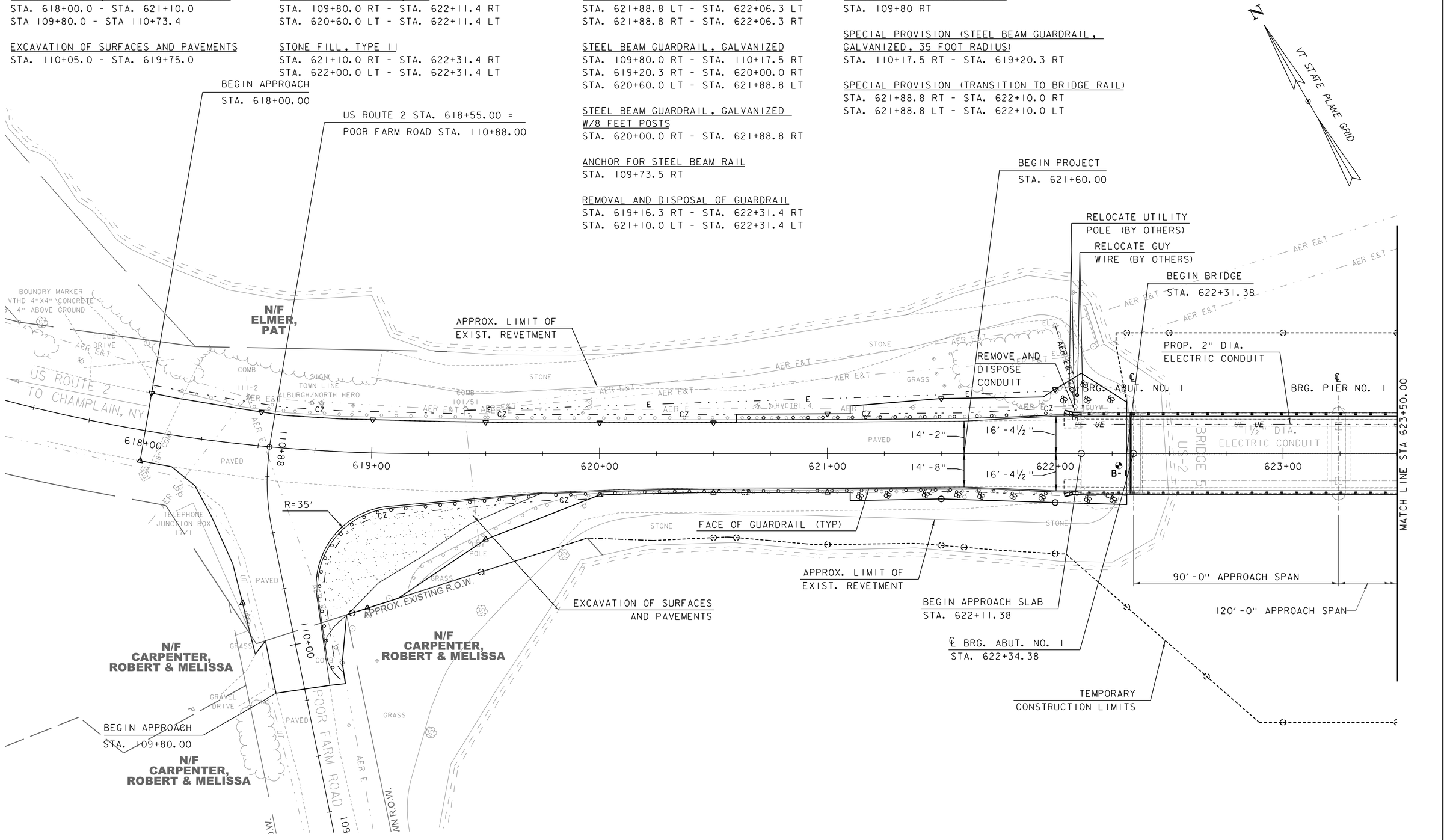
ANCHOR FOR STEEL BEAM RAIL
STA. 109+73.5 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 619+16.3 RT - STA. 622+31.4 RT
STA. 621+10.0 LT - STA. 622+31.4 LT

DELINEATOR WITH STEEL POST
STA. 109+80 RT

SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED, 35 FOOT RADIUS)
STA. 110+17.5 RT - STA. 619+20.3 RT

SPECIAL PROVISION (TRANSITION TO BRIDGE RAIL)
STA. 621+88.8 RT - STA. 622+10.0 RT
STA. 621+88.8 LT - STA. 622+10.0 LT



LEGEND

——— = CONSTRUCTION LIMITS
- - - - - = TEMPORARY CONSTRUCTION LIMITS
·—·—· = TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

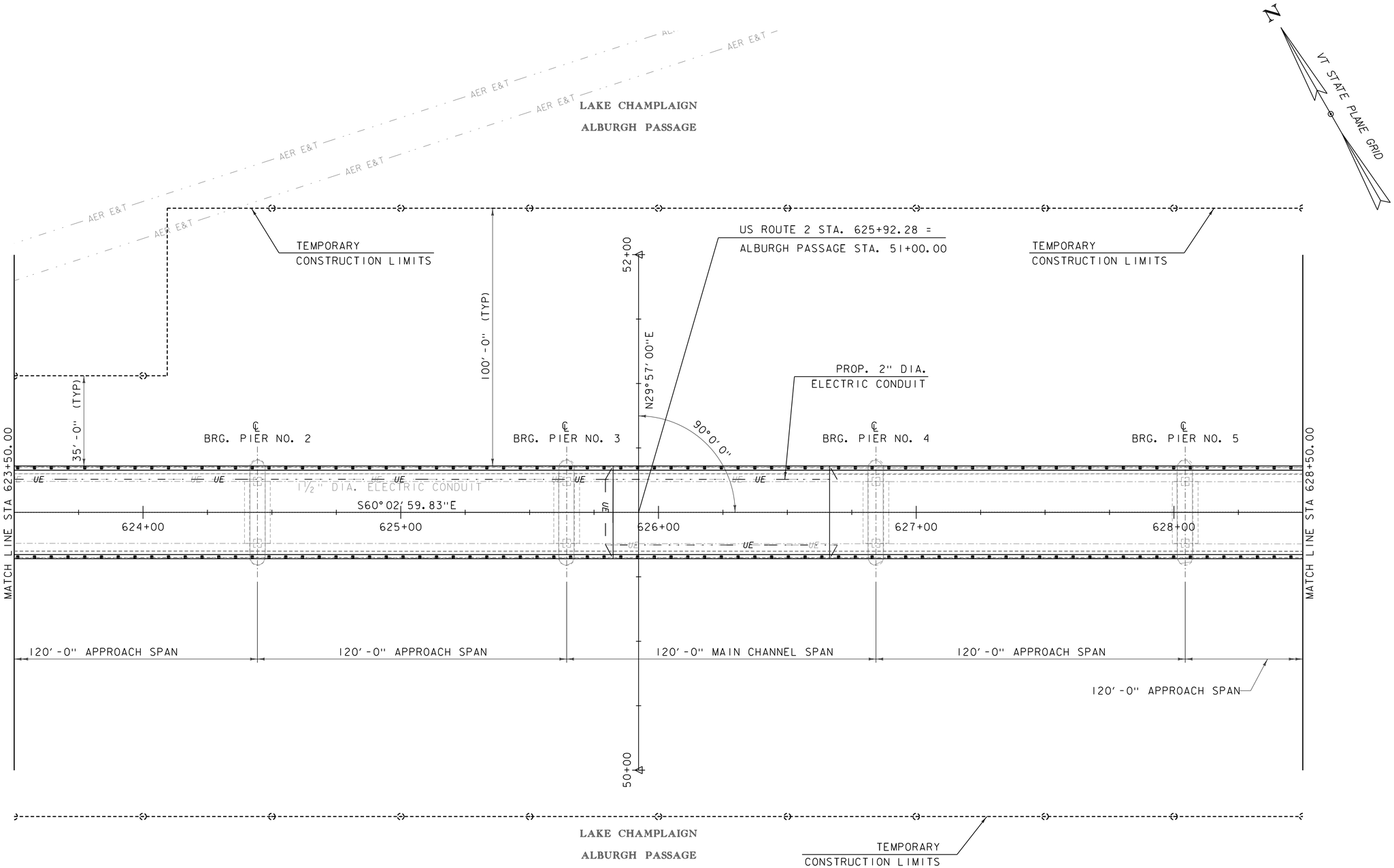
SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264bdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
LAYOUT SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 17 OF 108



LEGEND

——— = CONSTRUCTION LIMITS

– – – – = TEMPORARY CONSTRUCTION LIMITS

·–·–·– = TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264bdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
LAYOUT SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 18 OF 108

COARSE-MILLING, BITUMINOUS PAVEMENT
STA. 631+30.0 - STA. 633+50.0

AGGREGATE SHOULDERS, RAP
STA. 630+37.4 LT - STA. 631+40.0 LT
STA. 630+37.4 RT - STA. 633+50.0 RT

STONE FILL, TYPE II
STA. 630+17.4 LT - STA. 630+70.0 LT
STA. 630+17.4 RT - STA. 631+30.0 RT

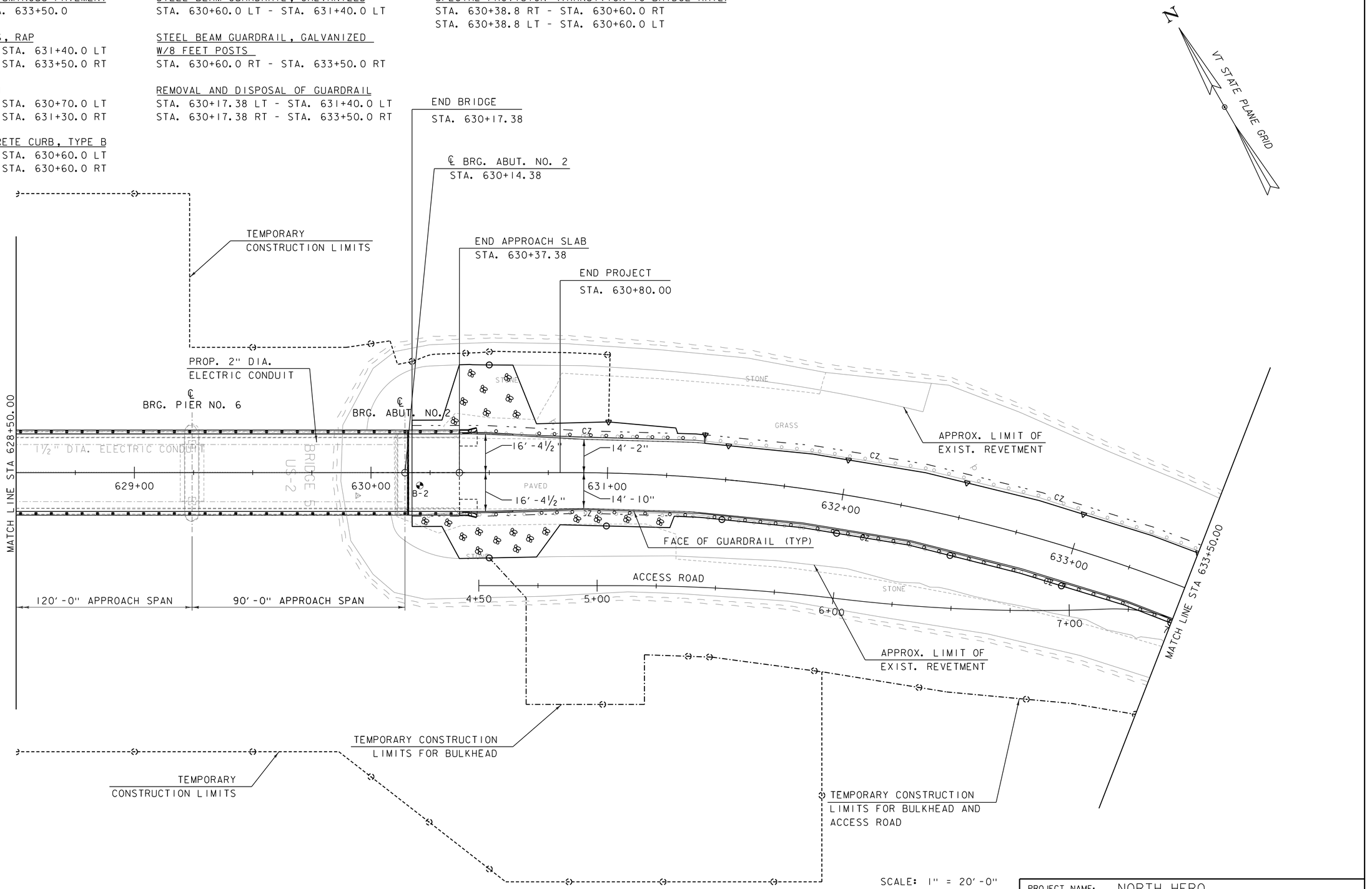
CAST-IN-PLACE CONCRETE CURB, TYPE B
STA. 630+42.5 LT - STA. 630+60.0 LT
STA. 630+42.5 RT - STA. 630+60.0 RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 630+60.0 LT - STA. 631+40.0 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 630+60.0 RT - STA. 633+50.0 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 630+17.38 LT - STA. 631+40.0 LT
STA. 630+17.38 RT - STA. 633+50.0 RT

SPECIAL PROVISION (TRANSITION TO BRIDGE RAIL)
STA. 630+38.8 RT - STA. 630+60.0 RT
STA. 630+38.8 LT - STA. 630+60.0 LT



LEGEND

——— = CONSTRUCTION LIMITS

- - - - - - - - = TEMPORARY CONSTRUCTION LIMITS

—·—·— = TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264bdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
LAYOUT SHEET 3

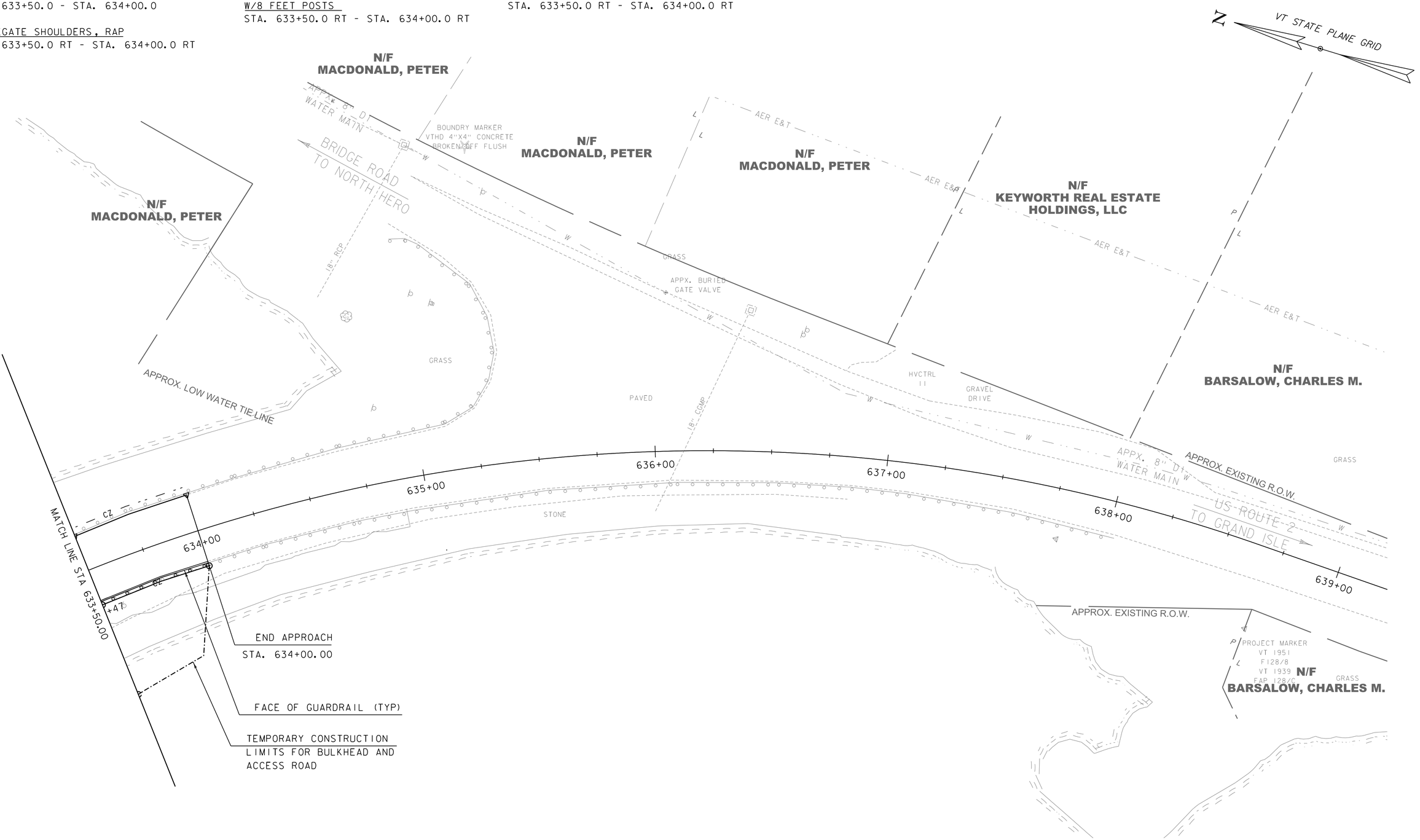
PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 19 OF 108

COARSE-MILLING, BITUMINOUS PAVEMENT
STA. 633+50.0 - STA. 634+00.0

AGGREGATE SHOULDERS, RAP
STA. 633+50.0 RT - STA. 634+00.0 RT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 633+50.0 RT - STA. 634+00.0 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 633+50.0 RT - STA. 634+00.0 RT



LEGEND

——— = CONSTRUCTION LIMITS

--------- = TEMPORARY CONSTRUCTION LIMITS

·-·-·-·- = TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

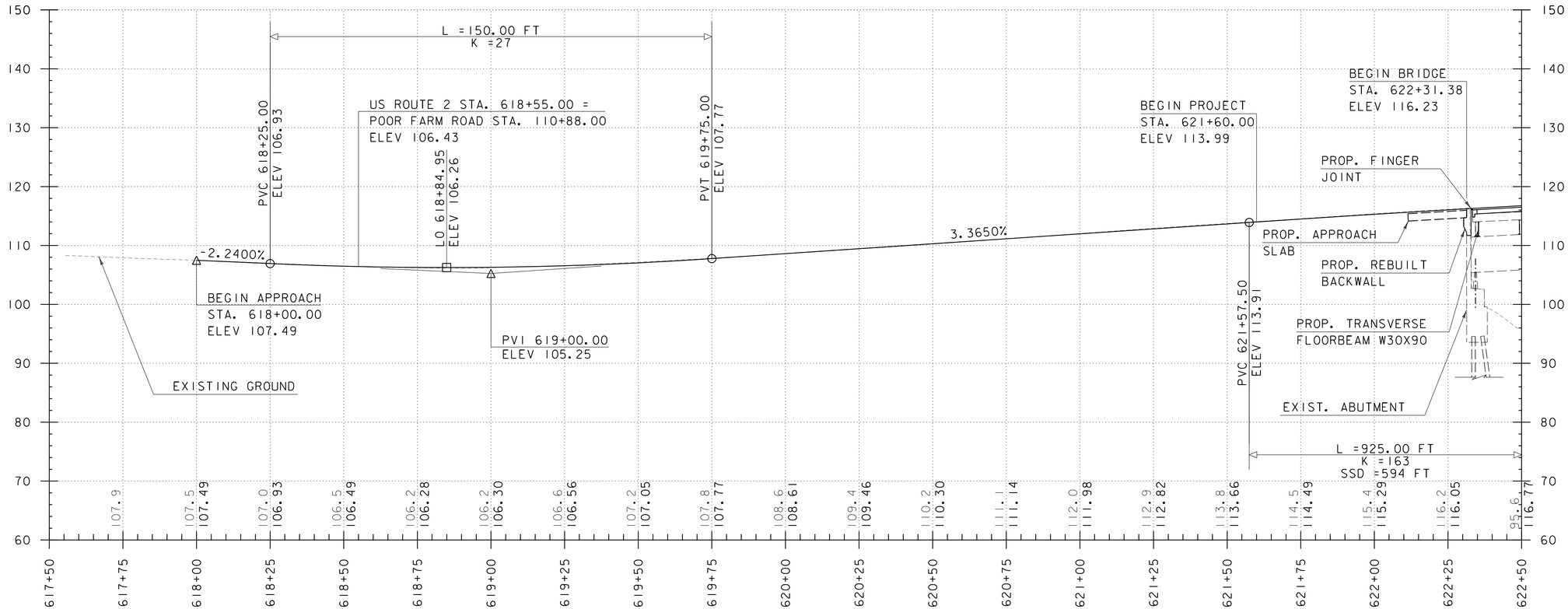
SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3b264bdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
LAYOUT SHEET 4

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 20 OF 108



PROFILE - US ROUTE 2

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 10'-0"

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND APPROXIMATE ELEVATIONS ALONG THE PROPOSED ALIGNMENT. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE PROPOSED PROFILE GRADES FOR THE NEW ALIGNMENT.

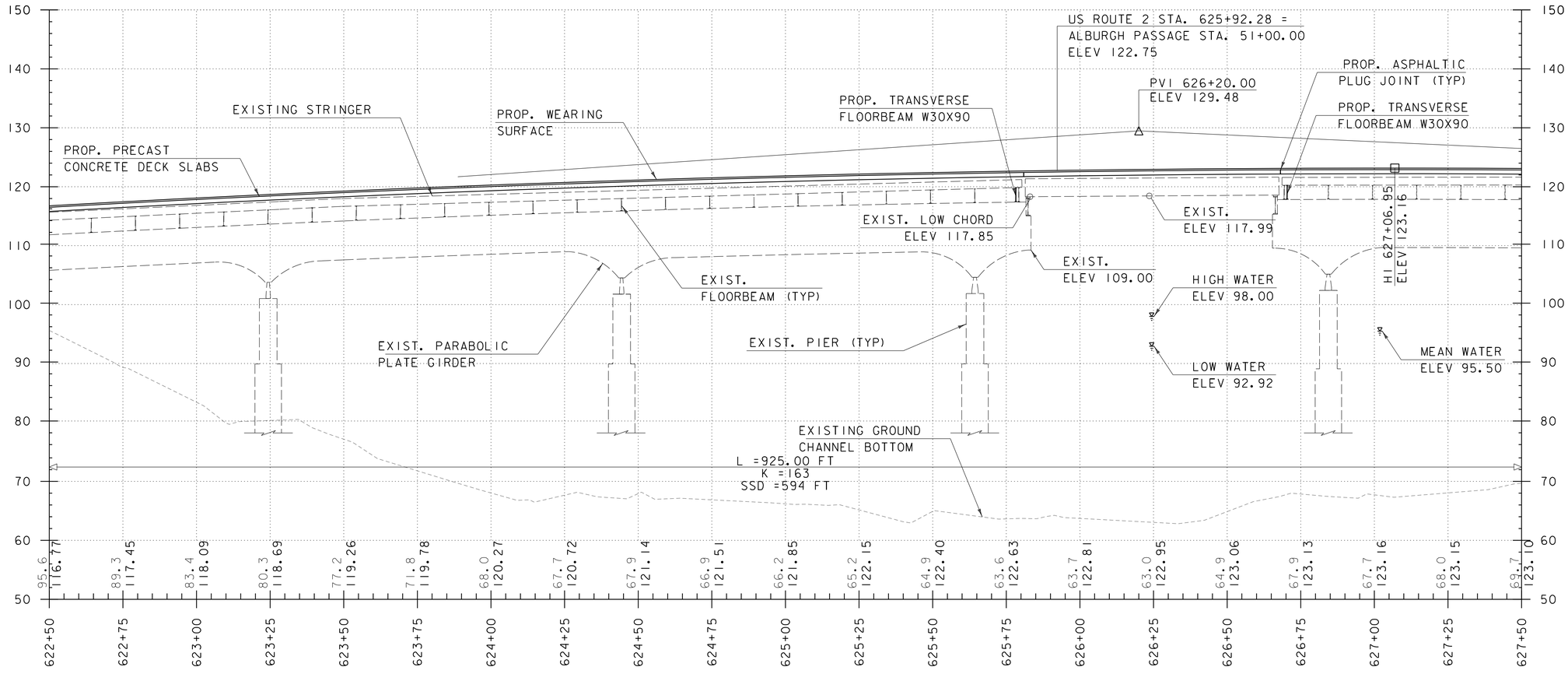
NOTES:
1) ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
2) EXISTING ELEVATION AT STA. 622+50 IS ALONG THE EXISTING CHANNEL BOTTOM.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264profile.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
PROFILE SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 21 OF 108



PROFILE - US ROUTE 2

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 10'-0"

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND APPROXIMATE ELEVATIONS ALONG THE PROPOSED ALIGNMENT. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE PROPOSED PROFILE GRADES FOR THE NEW ALIGNMENT.

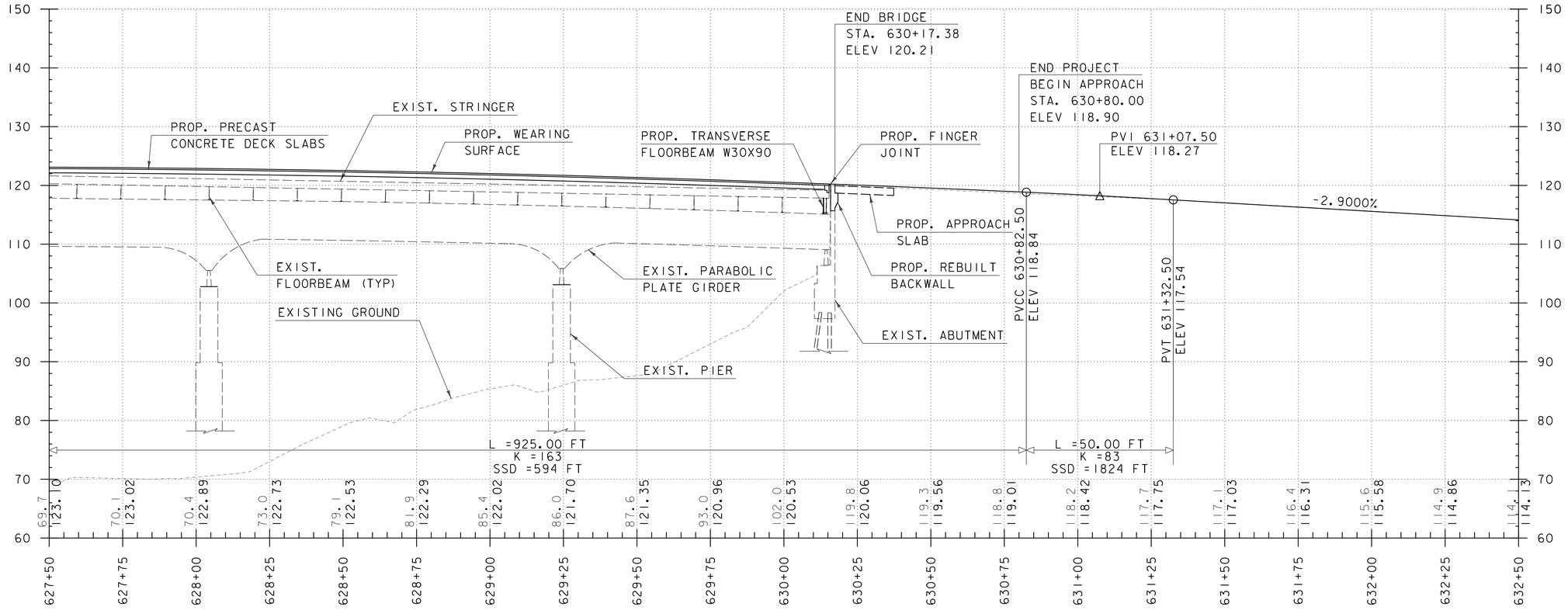
NOTES:
1) ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
2) EXISTING ELEVATIONS BETWEEN STA. 622+50 AND 627+50 ARE ALONG THE EXISTING CHANNEL BOTTOM.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264profile.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
PROFILE SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 22 OF 108



PROFILE - US ROUTE 2

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 10'-0"

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND APPROXIMATE ELEVATIONS ALONG THE PROPOSED ALIGNMENT. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE PROPOSED PROFILE GRADES FOR THE NEW ALIGNMENT.

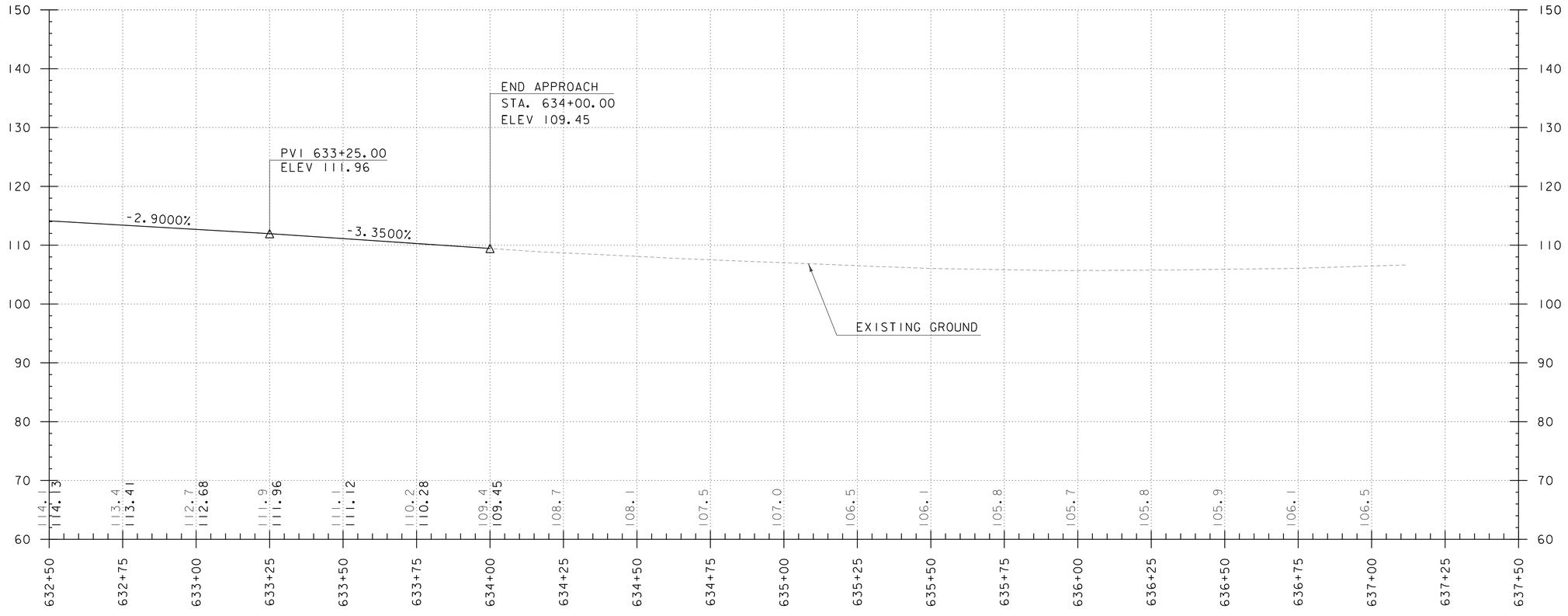
NOTES:
1) ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
2) EXISTING ELEVATIONS BETWEEN STA. 627+50 AND 630+00 ARE ALONG THE EXISTING CHANNEL BOTTOM.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264profile.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
PROFILE SHEET 3

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 23 OF 108



PROFILE - US ROUTE 2

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 10'-0"

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND APPROXIMATE ELEVATIONS ALONG THE PROPOSED ALIGNMENT. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE PROPOSED PROFILE GRADES FOR THE NEW ALIGNMENT.

NOTES:
1) ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264profile.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
PROFILE SHEET 4

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 24 OF 108

LEGEND

- SIGNAL HEAD
- BICYCLE DETECTION AREA
- VEHICLE DETECTION AREA
- MAST ARM MOUNTED SIGN
- BICYCLE PUSH BUTTON (BPB)
- WIRED CONDUIT/ELECTRICAL CONDUIT
- CONTROLLER CABINET
- JUNCTION BOX
- CONCRETE BARRIER
- EL — TEMPORARY 4" WHITE EDGELINE
- PRE-EMPTION RECEIVER
- PRE-EMPTION DIRECTIONAL STROBE LIGHT
- VIDEO DETECTION CAMERA
- PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE
- REFLECTORIZED DRUM

N

VT STATE PLANE GRID

TEMPORARY LIMITED DEFLECTION BARRIER

PROPOSED SERVICE CONNECTION

RELOCATED UTILITY POLE (BY OTHERS)

PROP VEHICLE DETECTION AREA

TEMPORARY TRAFFIC SIGNAL SYSTEM W/ VIDEO DETECTION

WORK ZONE FOR PROP STAGE I WORK

BOUNDRY MARKER VTHD 4"X4" CONCRETE 4" ABOVE GROUND

N/F ELMER, PAT

PT STA 619+20.04

50' BUFFER

110'

50' BUFFER

JB1

JB2

1:6 TAPER

PAVED 1:6 TAPER

618+00

619+00

620+00

621+00

622+00

623+00

MATCH LINE STA 623+50.00

BPB

JB3

40' MIN - 80' MAX

12'-0" TRAVELWAY

TEMP 2" DIA. WIRED CONDUIT

10'-0" TEMPORARY TRAVEL LANE

TEMPORARY "DO NOT BLOCK INTERSECTION" PAVEMENT MARKINGS

APPROX. EXISTING R.O.W.

PROP BICYCLE DETECTION AREA

N/F CARPENTER, ROBERT & MELISSA

N/F CARPENTER, ROBERT & MELISSA

N/F CARPENTER, ROBERT & MELISSA

110+00

250'

10' R.O.W.

1 — ROAD WORK AHEAD — W20-1 48"X48"

7 — G20-5aP 36"X24" WORK ZONE; R2-1 36"X48" SPEED LIMIT 25; R2-6aP 36"X24" FINES DOUBLE

8 — R10-6 24"X36" STOP HERE ON RED; R10-24 9"X15" PUSH BUTTON FOR GREEN LIGHT

9 — WATCH FOR (LED BLANKOUT SIGN) 36"X36"

10 — MAY USE FULL LANE — R4-11 30"X30"

11 — NO STOPPING ON BRIDGE — SEE SHEET 34 FOR DETAIL

12 — END ROAD WORK — G20-2 48"X24"

13 — DO NOT BLOCK INTERSECTION — R10-7 24"X30"

14 — SPEED LIMIT 40 — R2-1 36"X48"

NOTE:
1. DOUBLE YELLOW CENTERLINE IS TO BE REMOVED BETWEEN THE TWO TEMPORARY STOP BAR LOCATIONS (STA. 620+74 TO STA. 631+85) PRIOR TO IMPLEMENTING TEMPORARY TRAFFIC CONTROL SET-UP.
2. CONTRACTOR WILL BE RESPONSIBLE FOR POSTING TEMPORARY CHANNEL RESTRICTION SIGNAGE IN ACCORDANCE WITH USCG AND ACOE REQUIREMENTS

SCALE: 1" = 20'-0"

0 20 40

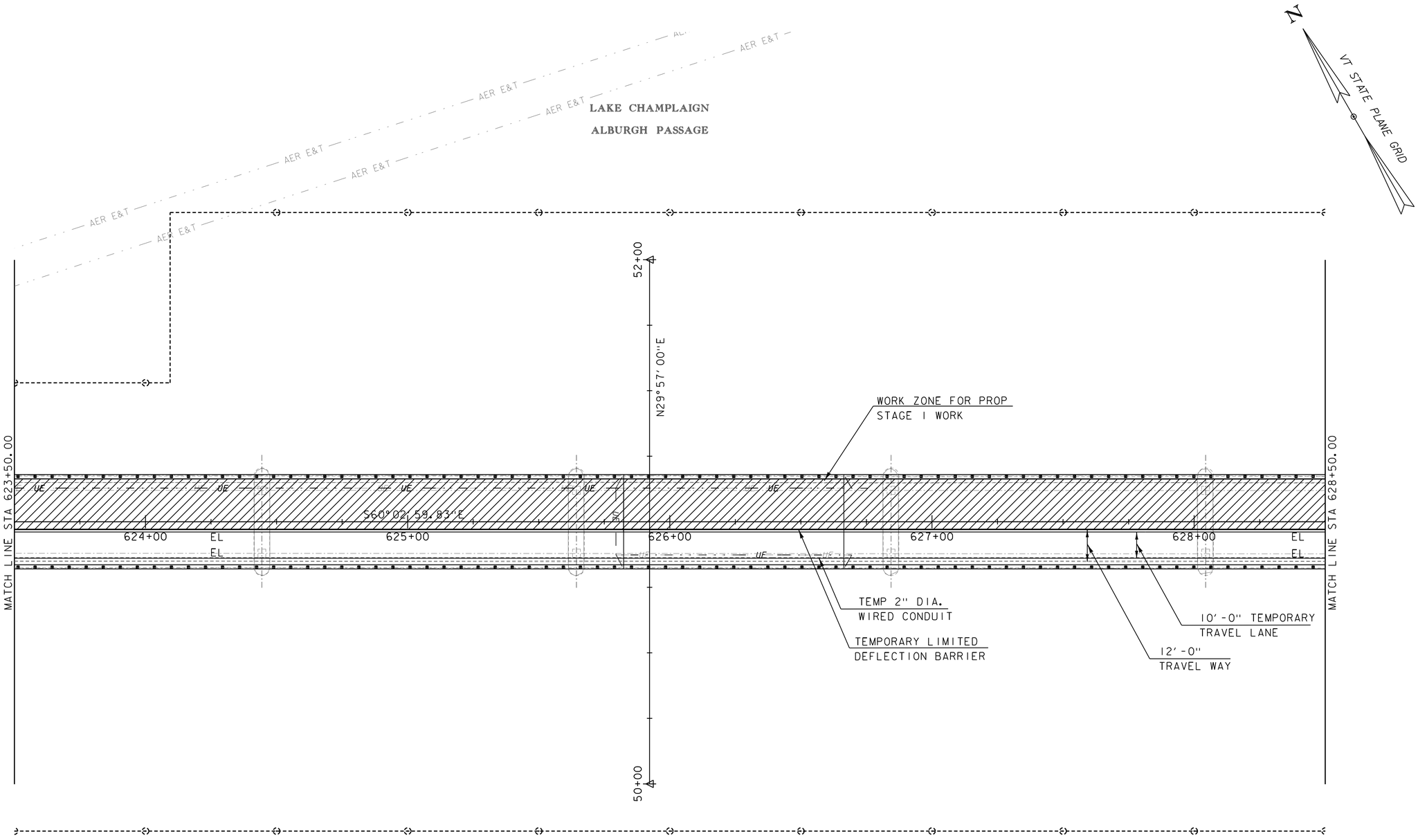
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264tmpbdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: J. GAUVIN
TRAFFIC CONTROL SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: H. GAO
CHECKED BY: W. WONG
SHEET 25 OF 108



SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264tmpbdr.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: H. GAO
DESIGNED BY: J. GAUVIN	CHECKED BY: W. WONG
TRAFFIC CONTROL SHEET 2	SHEET 26 OF 108

N

VT STATE PLANE GRID

TEMPORARY LIMITED DEFLECTION BARRIER

TEMPORARY TRAFFIC SIGNAL SYSTEM
W/ VIDEO DETECTION

PROP BICYCLE DETECTION AREA

PROP VEHICLE DETECTION AREA

WORK ZONE FOR PROP
STAGE I WORK

MATCH LINE STA 628+50.00

50' BUFFER

110'

50' BUFFER

1:6 TAPER

1:6 TAPER

629+00

630+00

631+00

632+00

633+00

EL

EL

PAVED

CZ

BPB-

JB4

40' MIN - 80' MAX

12'-0"
TRAVEL WAY

TEMP 2" DIA.
WIRED CONDUIT

10'-0" TEMPORARY
TRAVEL LANE

PC
STA 630+84.83

TEMPORARY TRAFFIC SIGNAL SYSTEM
W/ VIDEO DETECTION

1 TO BE INSTALLED ON BRIDGE ROAD APPROXIMATELY 250'
IN ADVANCE OF ITS INTERSECTION WITH U.S. ROUTE 2
STA 635+05.7 LT

SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264tmpbdr.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: H. GAO
DESIGNED BY: J. GAUVIN	CHECKED BY: W. WONG
TRAFFIC CONTROL SHEET 3	SHEET 27 OF 108

LEGEND

- SIGNAL HEAD
- BICYCLE DETECTION AREA
- VEHICLE DETECTION AREA
- MAST ARM MOUNTED SIGN
- BICYCLE PUSH BUTTON (BPB)
- WIRED CONDUIT/ELECTRICAL CONDUIT
- CONTROLLER CABINET
- JUNCTION BOX
- CONCRETE BARRIER
- EL TEMPORARY 4" WHITE EDGELINE
- PRE-EMPTION RECEIVER
- PRE-EMPTION DIRECTIONAL STROBE LIGHT
- VIDEO DETECTION CAMERA
- PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE
- REFLECTORIZED DRUM

N

VT STATE PLANE GRID

TEMPORARY LIMITED DEFLECTION BARRIER

PROPOSED SERVICE CONNECTION

RELOCATED UTILITY POLE (BY OTHERS)

PROP VEHICLE DETECTION AREA

TEMPORARY TRAFFIC SIGNAL SYSTEM W/ VIDEO DETECTION

BOUNDRY MARKER VTHD 4"X4" CONCRETE 4" ABOVE GROUND

N/F ELMER, PAT

PT STA 619+20.04

50' BUFFER

110'

50' BUFFER

10'-0" TEMPORARY TRAVEL LANE

12'-0" TRAVELWAY

TEMP 2" DIA. WIRED CONDUIT

JB1

JB2

618+00

619+00

620+00

621+00

622+00

623+00

MATCH LINE STA 623+50.00

US ROUTE 2

BPB

JB3

40' MIN - 80' MAX

WORK ZONE FOR PROP STAGE 2 WORK

TEMPORARY "DO NOT BLOCK INTERSECTION" PAVEMENT MARKINGS

POOR FARM RD

APPROX. EXISTING R.O.W.

PROP BICYCLE DETECTION AREA

N/F CARPENTER, ROBERT & MELISSA

N/F CARPENTER, ROBERT & MELISSA

N/F CARPENTER, ROBERT & MELISSA

250'

I

ROAD WORK AHEAD
W20-1
48"X48"

7

G20-5aP 36"X24"

WORK ZONE

R2-1 36"X48"

SPEED LIMIT 25

R2-6aP 36"X24"

FINES DOUBLE

8

R10-6 24"X36"

STOP HERE ON RED

R10-24 9"X15"

PUSH BUTTON FOR GREEN LIGHT

9

WATCH FOR

(LED BLANKOUT SIGN) 36"X36"

10

MAY USE FULL LANE
R4-11
30"X30"

11

NO STOPPING ON BRIDGE

SEE SHEET 34 FOR DETAIL

12

END ROAD WORK
G20-2
48"X24"

13

DO NOT BLOCK INTERSECTION
R10-7
24"X30"

14

SPEED LIMIT 40
R2-1
36"X48"

NOTE:
1. DOUBLE YELLOW CENTERLINE IS TO BE REMOVED BETWEEN THE TWO TEMPORARY STOP BAR LOCATIONS (STA. 620+74 TO STA. 631+85) PRIOR TO IMPLEMENTING TEMPORARY TRAFFIC CONTROL SET-UP.
2. CONTRACTOR WILL BE RESPONSIBLE FOR POSTING TEMPORARY CHANNEL RESTRICTION SIGNAGE IN ACCORDANCE WITH USCG AND ACOE REQUIREMENTS

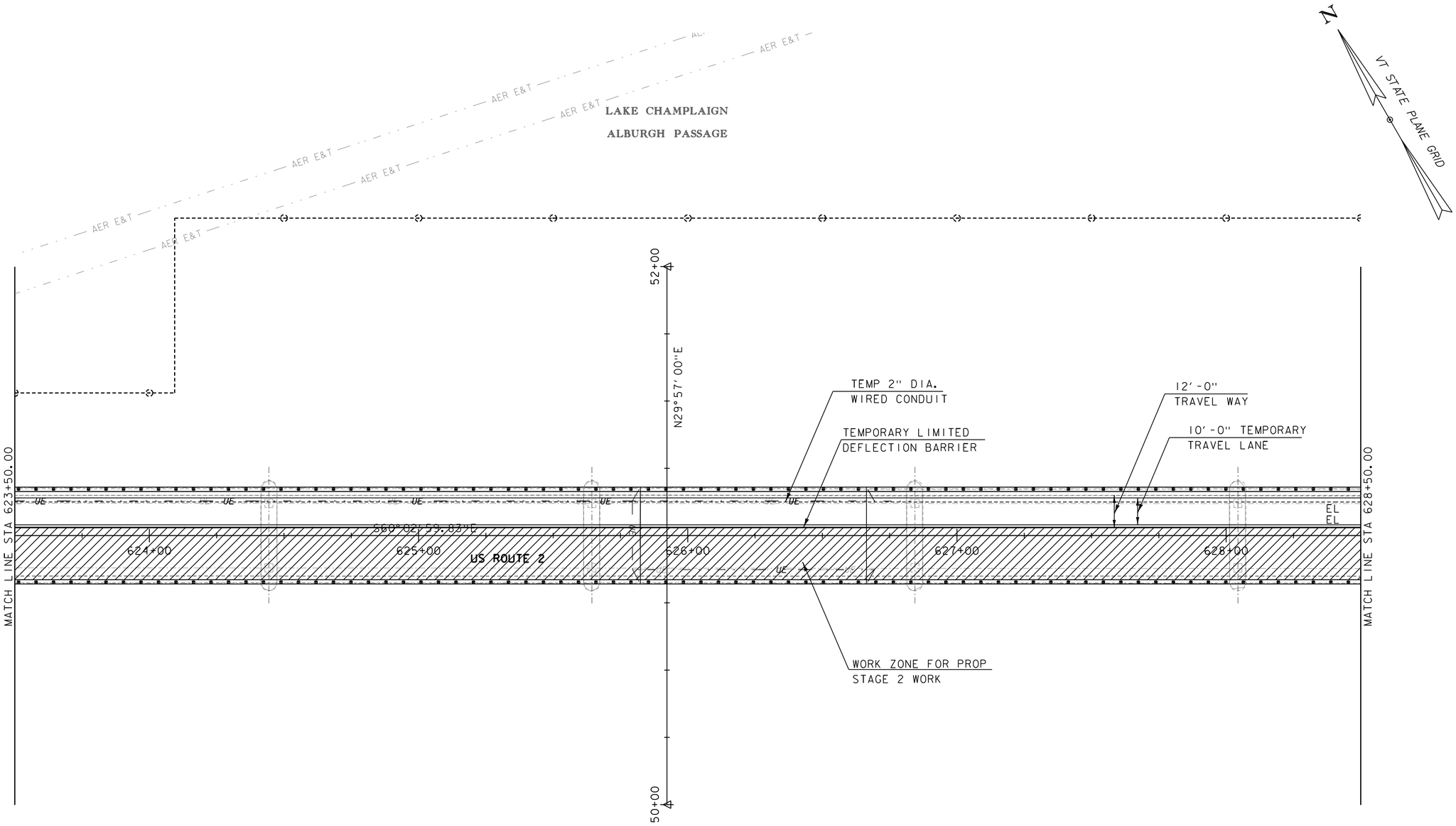
SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3b264tmpbdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: J. GAUVIN
TRAFFIC CONTROL SHEET 4

PLOT DATE: 2/18/2022
DRAWN BY: H. GAO
CHECKED BY: W. WONG



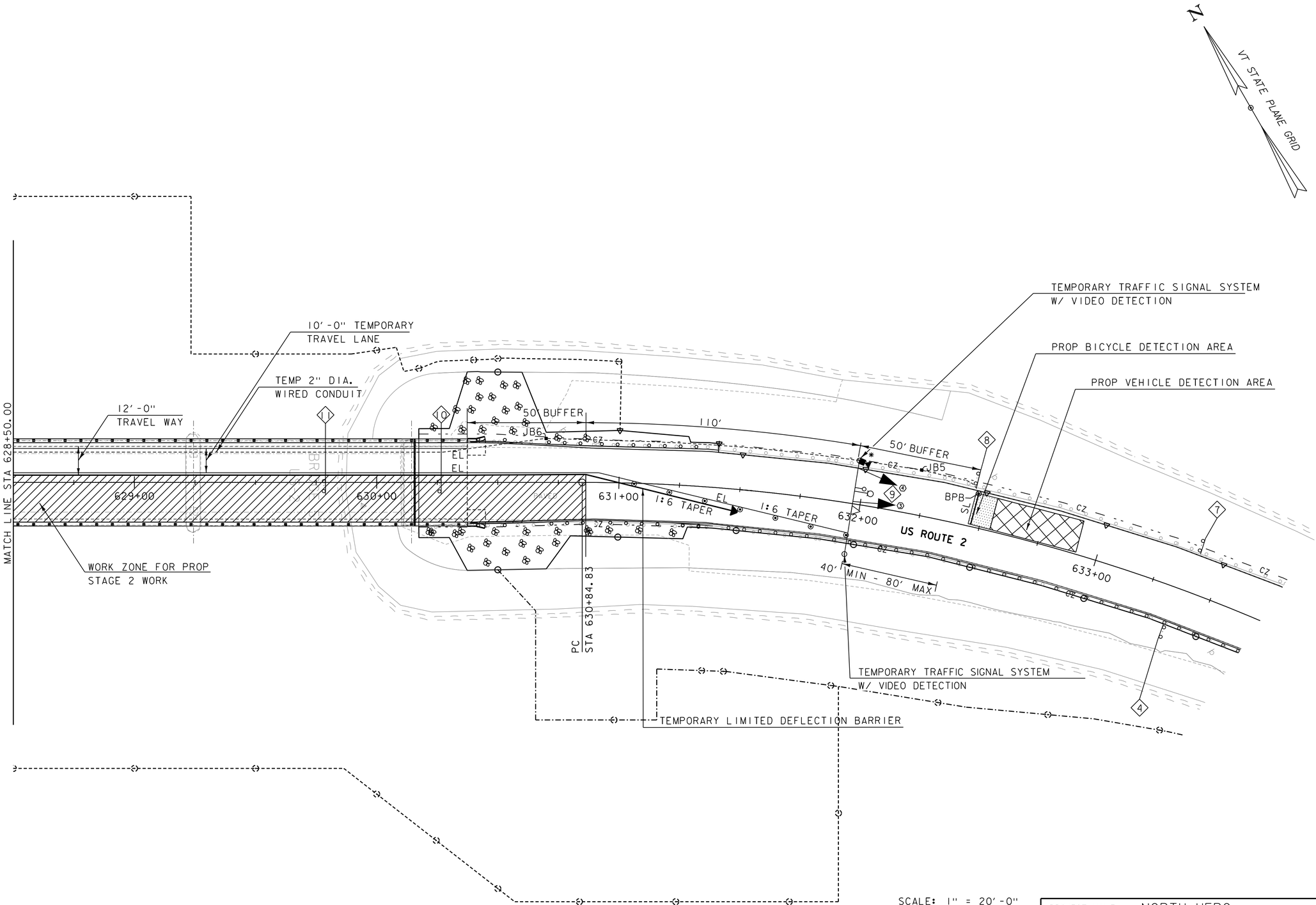
SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: zl3b264tmpbdr.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: H.GAO
DESIGNED BY: J. GAUVIN	CHECKED BY: W. WONG
TRAFFIC CONTROL SHEET 5	SHEET 29 OF 108



SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264tmpbdr.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: H. GAO
DESIGNED BY: J. GAUVIN	CHECKED BY: W. WONG
TRAFFIC CONTROL SHEET 6	SHEET 30 OF 108

SUGGESTED SEQUENCE OF CONSTRUCTION

THE FOLLOWING SUGGESTED SEQUENCE OF CONSTRUCTION IS A CONCEPTUAL APPROACH WHICH THE CONTRACTOR MAY OR MAY NOT FOLLOW. THIS CONCEPTUAL SEQUENCE IS BASED OFF IMPLEMENTATION OF THE PANEL CART DELIVERY SYSTEM WHICH IS SHOWN SCHEMATICALLY ON SHEET 55.

WORK PERFORMED PRIOR TO LANE RESTRICTION
INCLUDING, BUT NOT LIMITED TO:

1. MOBILIZATION
2. LAND CLEARING AND EROSION CONTROL BARRIERS
3. INSTALL TEMPORARY ACCESS ROAD, MARINE BULKHEAD, AND MARINE ACCESS POINTS
4. INSTALL TEMPORARY OVERHANG SHIELDING SYSTEM ON BOTH FASCIA
5. INSTALL TEMPORARY TIMBER SHIELDING BETWEEN STRINGERS
6. INSTALL TEMPORARY SIGNAL INFRASTRUCTURE

WORK PERFORMED – STAGE 1 1/D PERIOD AS DEFINED IN THE SPECIAL PROVISIONS

PLEASE NOTE THAT THE FOLLOWING WORK SHALL BE COORDINATED WITH ANY PERMITS AND IN WATER WORK RESTRICTIONS.

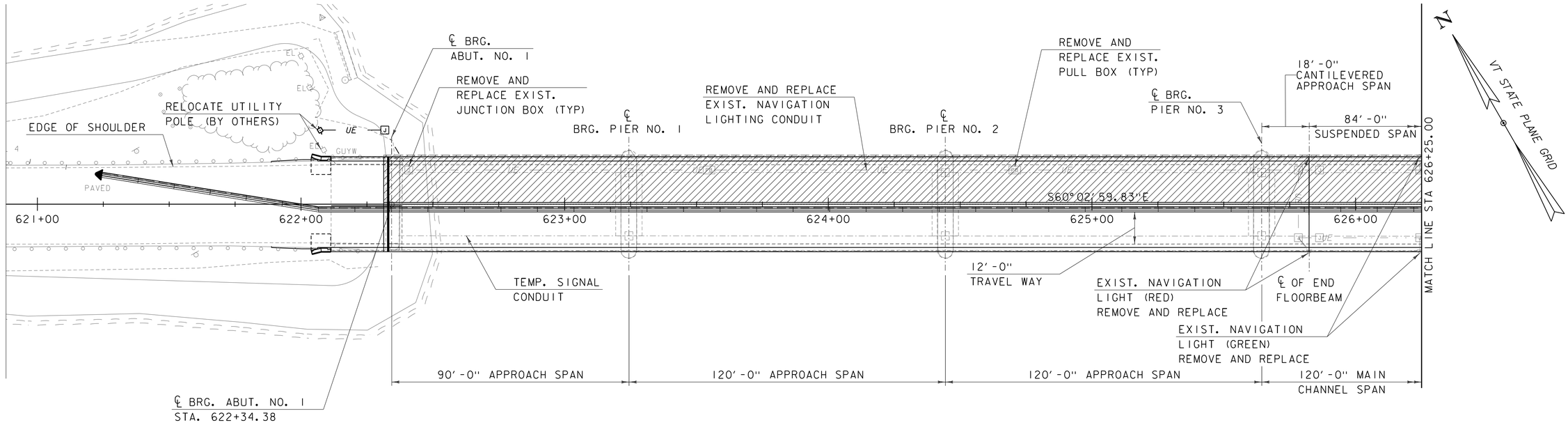
1. INSTALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT, TEMPORARY LIMITED DEFLECTION BARRIER ON BRIDGE, AND IMPLEMENT SINGLE ALTERNATING LANE CLOSURE
2. REMOVE & DISPOSE OF EXISTING REINFORCED CONCRETE DECK
3. CLEAN STRINGER TOP FLANGES
4. PERFORM STAGE 1 STRUCTURAL STEEL REPAIRS AND BEARING REPLACEMENT IN SUSPENDED SPAN PRIOR TO SETTING DECK PANELS IN SUSPENDED SPAN
5. SURVEY STRINGERS AND INSTALL HAUNCH FORMS
6. PREPARE EXISTING FLOOR BEAMS AND INSTALL PT BAR SUPPORT COMPONENTS.
7. INSTALL NEW END FLOORBEAMS AT APPROACH SPANS ENDS
8. INSTALL NEW TIE BEAMS AT APPROACH SPANS ENDS
9. INSTALL ACCELBRIDGE DELIVERY CART AND RAILS IN APPROACH SPANS
10. PLACE PT BARS IN APPROACH SPANS BUT KEEP LOOSE
11. INSTALL FIRST DECK PANEL ADJACENT TO SUSPENDED SPAN WITH STUDS AND GROUT IN PLACE TO TIE BEAMS.
12. INSTALL REMAINING APPROACH SPAN DECK PANELS AND STUDS. COUPLE PT BARS ALONG WITH PANEL ERECTION. ADJUST PT BAR SUPPORT ELEVATION TO FIT DECK PROFILE, IF NEEDED.
13. INSTALL LAST DECK PANEL (NEXT TO ABUTMENT), STUDS AND GROUT IN PLACE TO TIE BEAMS.
14. SECURE AND CONNECT THE ENTIRE PT BAR SYSTEM.
15. INSTALL JACKS AND STRESS PT BARS. SECURE PT BARS TO SUPPORTING BRACKETS.
16. GROUT ALL REMAINING APPROACH SPAN PANEL SHEAR POCKET AND HAUNCHES.
17. MOVE PANEL DELIVERY CART TO SUSPENDED SPAN.
18. INSTALL SUSPENDED SPAN PANELS, FROM JOINT TO JACKING CLOSURE.
19. INSTALL STUDS AND GROUT HAUNCHES FOR BOTH END PANELS IN THE SUSPENDED SPAN.
20. INSTALL JACKING CLOSURE FORMWORKS
21. INSTALL JACKS AND APPLY JACKING FORCE
22. PLACE JACKING CLOSURE POUR (PARTIAL) AND GROUT REMAINING STUD POCKETS AND HAUNCHES
23. AFTER STRENGTH AND CURE, REMOVE JACKING SYSTEM AND PLACE REMAINING JACKING CLOSURE POUR
24. APPLY TREATMENT TO DECK JOINTS AND CLOSURE POUR JOINTS PER THE SPECIFICATIONS.
25. INSTALL FINGER JOINT (PARTIAL) AT EACH ABUTMENT AND TEMPORARY PAVEMENT RAMPS
26. INSTALL BRIDGE RAIL - STAGE 1 SIDE
27. INSTALL TEMPORARY RESTRAINED BARRIER AND PAVEMENT MARKINGS ON NEW BRIDGE IN ANTICIPATION OF STAGE 2

WORK PERFORMED – STAGE 2 1/D PERIOD AS DEFINED IN THE SPECIAL PROVISIONS

1. ADJUST/MODIFY TEMPORARY TRAFFIC SIGNAL EQUIPMENT
2. IMPLEMENT SINGLE ALTERNATING LANE CLOSURE
3. REMOVE AND DISPOSE OF EXISTING REINFORCED CONCRETE DECK
4. CLEAN STRINGER TOP FLANGES
5. PERFORM STAGE 2 STRUCTURAL STEEL REPAIRS AND BEARING REPLACEMENT IN SUSPENDED SPAN PRIOR TO SETTING DECK PANELS IN SUSPENDED SPAN
6. SURVEY STRINGERS AND INSTALL HAUNCH FORMS
7. PREPARE EXISTING FLOOR BEAMS AND INTSTALL PT BAR SUPPORT COMPONENTS.
8. INSTALL NEW END FLOORBEAMS AT APPROACH SPANS ENDS
9. INSTALL NEW TIE BEAMS AT APPROACH SPANS ENDS
10. INSTALL ACCELBRIDGE DELIVERY CART AND RAILS IN APPROACH SPANS
11. PLACE PT BARS IN APPROACH SPANS BUT KEEP LOOSE
12. INSTALL FIRST DECK PANEL ADJACENT TO SUSPENDED SPAN WITH STUDS AND GROUT IN PLACE TO TIE BEAMS.
13. INSTALL REMAINING APPROACH SPAN DECK PANELS AND STUDS. COUPLE PT BARS ALONG WITH PANEL ERECTION. ADJUST PT BAR SUPPORT ELEVATION TO FIT DECK PROFILE, IF NEEDED.
14. INSTALL LAST DECK PANEL (NEXT TO ABUTMENT), STUDS AND GROUT IN PLACE TO TIE BEAMS.
15. SECURE AND CONNECT THE ENTIRE PT BAR SYSTEM.
16. INSTALL JACKS AND STRESS PT BARS. SECURE PT BARS TO SUPPORTING BRACKETS.
17. GROUT ALL REMAINING APPROACH SPAN PANEL SHEAR POCKET AND HAUNCHES.
18. MOVE PANEL DELIVERY CART TO SUSPENDED SPAN.
19. INSTALL PANELS SUSPENDED SPAN PANELS, FROM JOINT TO JACKING CLOSURE.
20. INSTALL STUDS AND GROUT HAUNCHES FOR BOTH END PANELS FOR THE SUSPENDED SPAN.
21. INSTALL JACKING CLOSURE FORMWORKS
22. INSTALL JACKS AND APPLY JACKING FORCE
23. PLACE JACKING CLOSURE POUR (PARTIAL) AND GROUT REMAINING STUD POCKETS AND HAUNCHES
24. AFTER STRENGTH AND CURE, REMOVE JACKING SYSTEM AND PLACE REMAINING JACKING CLOSURE POUR
25. INSTALL FINGER JOINT (PARTIAL) AT EACH ABUTMENT AND TEMPORARY PAVEMENT RAMPS
26. INSTALL BRIDGE RAIL - NORTH SIDE
27. FORM, REBAR, PLACE AND CURE LONGITUDINAL DECK CLOSURE POUR
28. APPLY TREATMENT TO DECK JOINTS AND CLOSURE POUR JOINTS PER THE SPECIFICATIONS.
29. REMOVE RESTRAINED BARRIER ON BRIDGE
30. REMOVE AND DECOMMISSION TEMPORARY TRAFFIC SIGNAL AND OPEN TO TWO-WAY TRAFFIC

WORK PERFORMED AFTER LANE RESTRICTION IS LIFTED
INCLUDING, BUT NOT LIMITED TO:

1. WATERPROOF DECK
2. INSTALL FINAL DECK WEARING COURSE WITHIN 1 WEEK OF COMPLETION OF WATERPROOFING
3. INSTALL (2) ASPHALTIC PLUG JOINTS AT EACH CANTILEVER SPAN END
4. INSTALL PERMANENT PAVEMENT MARKINGS
5. REMOVE OVERHANG SHIELDING AND TEMPORARY TIMBER SHIELDING SYSTEMS
6. DEMOBILIZE MARINE EQUIPMENT (CRANES, BARGES, BULKHEADS, ETC.)
7. INSTALL SLOPE REVETMENT, FINAL LOAM AND SEEDING



LEGEND

= LIMITS OF STAGE 1 DEMOLITION

= SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)

◀ = PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE

[J] = JUNCTION BOX FOR NAVIGATION LIGHTING

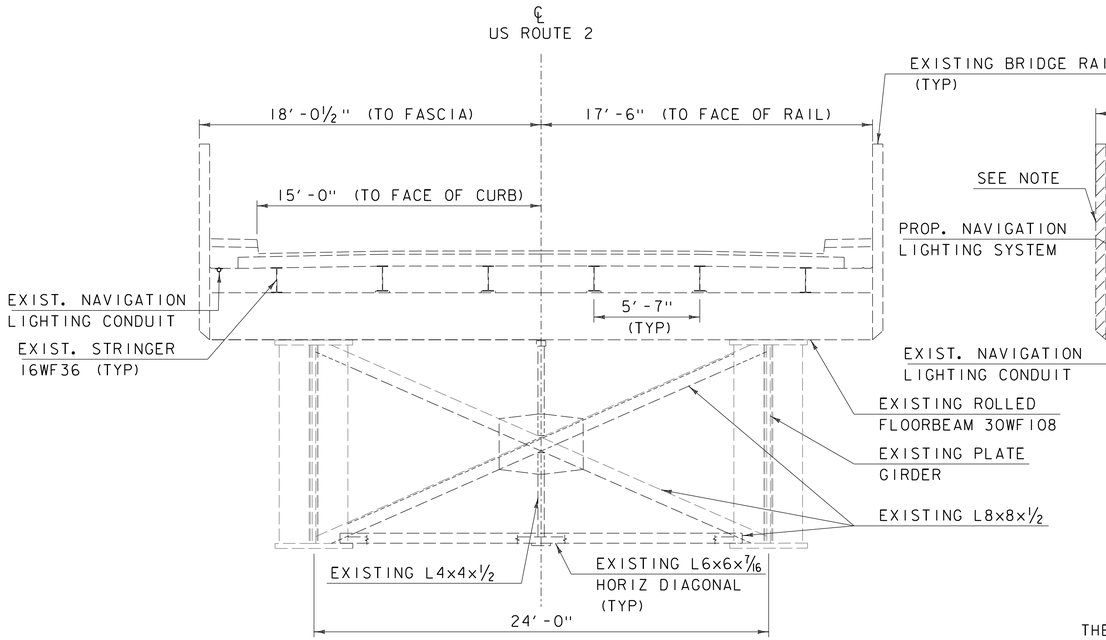
[PB] = PULL BOX FOR NAVIGATION LIGHTING

STAGE 1 DEMOLITION PLAN

SCALE 1" = 20'-0"

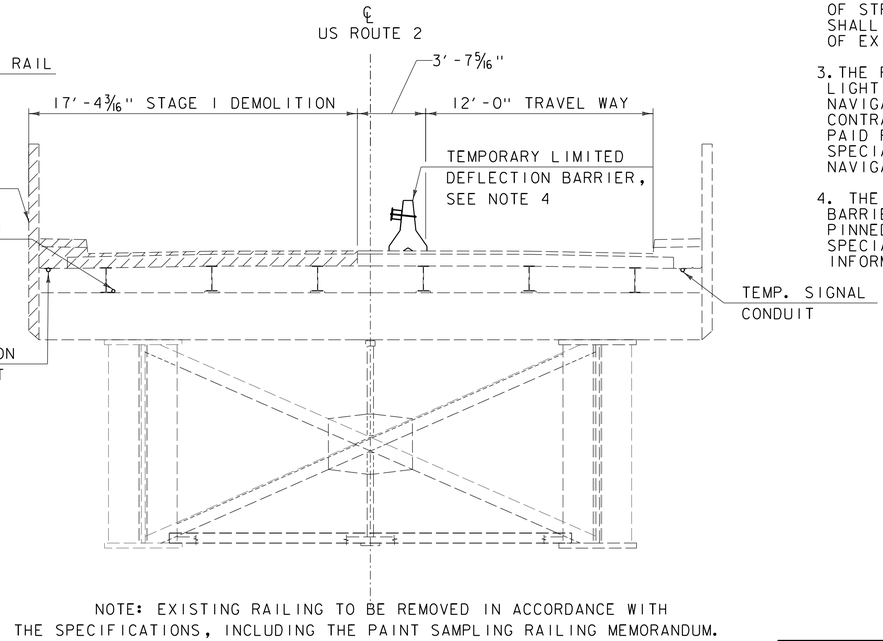
NOTES:

1. SEE SHEET 31 FOR SUGGESTED SEQUENCE OF CONSTRUCTION NOTES.
2. DEMOLITION FOR THE LIMITS SHOWN SHALL BE PAID FOR UNDER ITEM 529.20 PARTIAL REMOVAL OF STRUCTURE, EXCEPT FOR THR RAILING WHICH SHALL BE PAID FOR UNDER ITEM 525.10 REMOVAL OF EXISTING BRIDGE RAILING.
3. THE REPLACEMENT OF THE EXISTING NAVIGATION LIGHTING SYSTEM, AS WELL AS ANY INTERIM NAVIGATION LIGHTING REQUIRED BASED ON CONTRACTOR'S MEANS AND METHODS, SHALL BE PAID FOR AND DESCRIBED UNDER ITEM 900.645 SPECIAL PROVISION (REMOVE AND REPLACE NAVIGATION LIGHTING SYSTEM).
4. THE PROPOSED TEMPORARY LIMITED DEFLECTION BARRIER SHALL BE A STIFFENED BARRIER SYSTEM PINNED TO THE DECK AT 200' INTERVALS. SEE SPECIAL PROVISIONS FOR MORE DETAILED INFORMATION.



EXISTING TYPICAL APPROACH SPAN SECTION

SCALE ¼" = 1'-0"



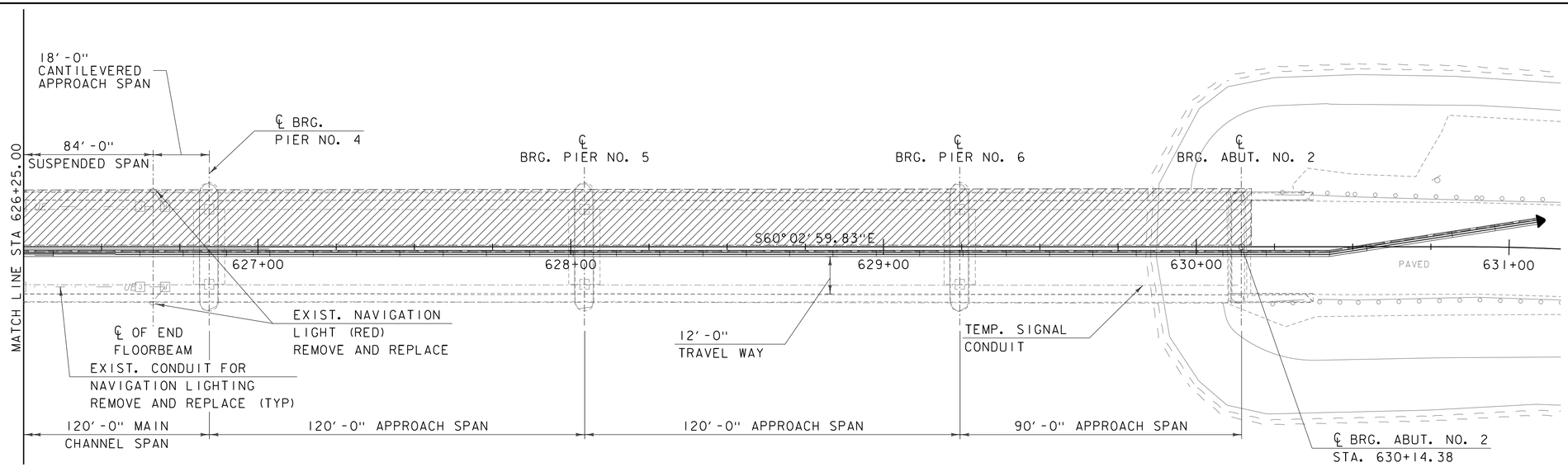
NOTE: EXISTING RAILING TO BE REMOVED IN ACCORDANCE WITH THE SPECIFICATIONS, INCLUDING THE PAINT SAMPLING RAILING MEMORANDUM.

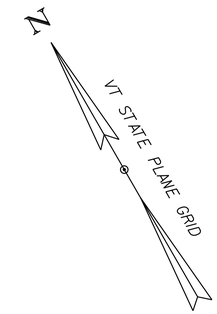
STAGE 1 DEMOLITION TYPICAL APPROACH SPAN SECTION

SCALE ¼" = 1'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264staging2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: S. BIBINSKI
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
STAGING PLAN & SECTIONS SHEET 1OF 6	SHEET 32 OF 108





LEGEND

= LIMITS OF STAGE I DEMOLITION

= SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)

= PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE

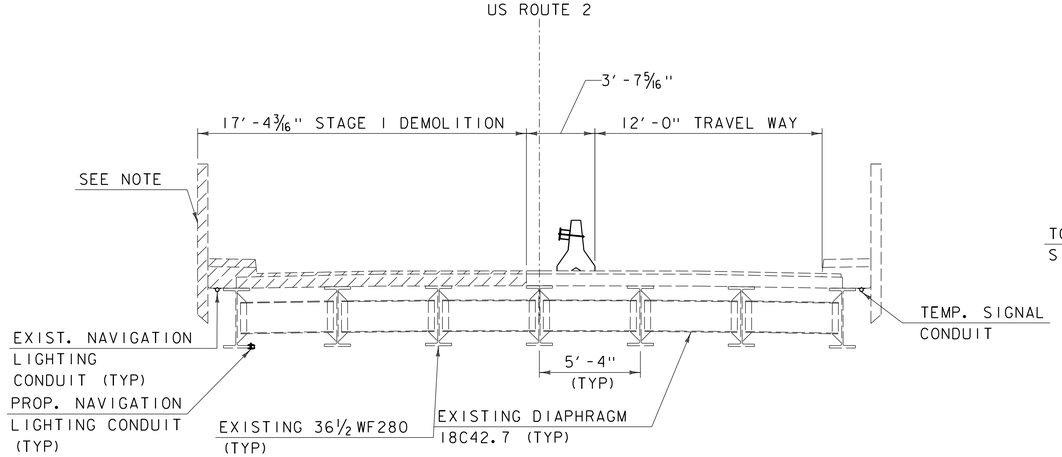
J = JUNCTION BOX FOR NAVIGATION LIGHTING

STAGE I DEMOLITION PLAN

SCALE 1" = 20'-0"

NOTE:

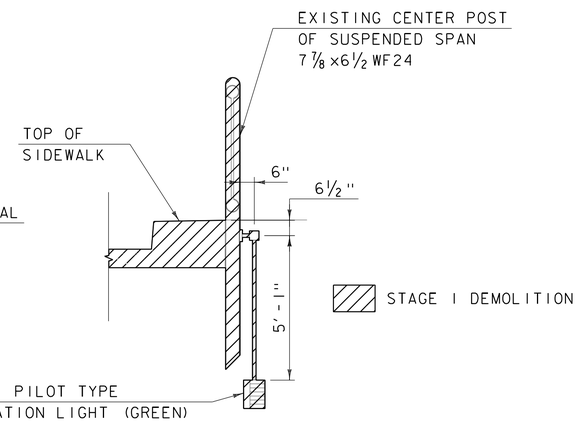
1. SEE SHEET 31 FOR SUGGESTED SEQUENCE OF CONSTRUCTION NOTES.



NOTE: EXISTING RAILING TO BE REMOVED IN ACCORDANCE WITH THE SPECIFICATIONS, INCLUDING THE RAILING MEMORANDUM.

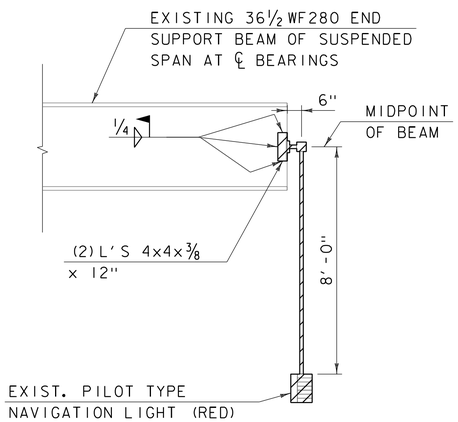
STAGE I DEMOLITION SUSPENDED SPAN SECTION

SCALE 1/4" = 1'-0"



EXISTING GREEN NAVIGATION LIGHT DETAIL

SCALE 3/8" = 1'-0"



EXISTING RED NAVIGATION LIGHT DETAIL

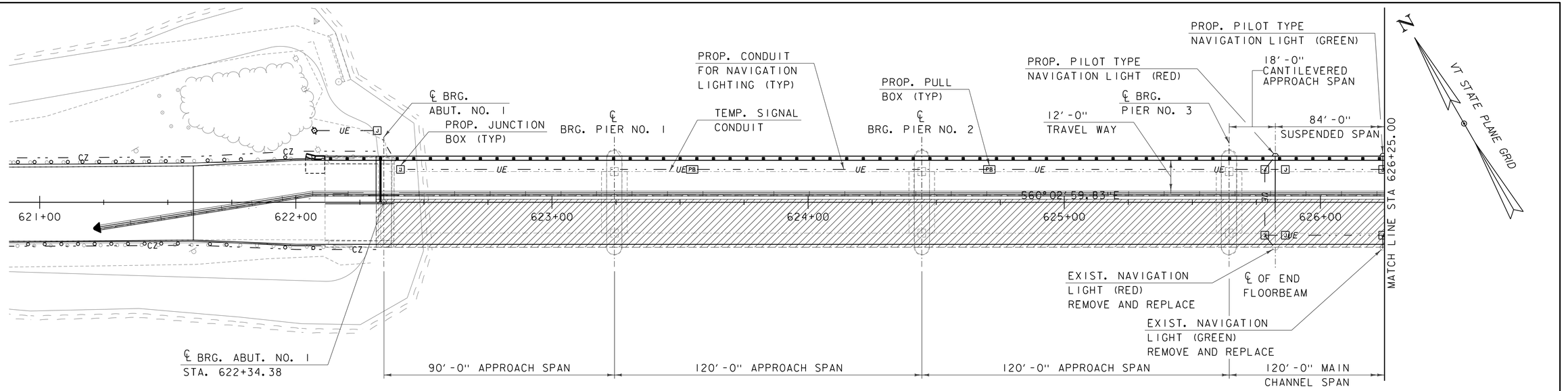
SCALE 3/8" = 1'-0"

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264staging2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
STAGING PLAN & SECTIONS SHEET 2 OF 6

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 33 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



LEGEND

= LIMITS OF STAGE 2 DEMOLITION

= SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)

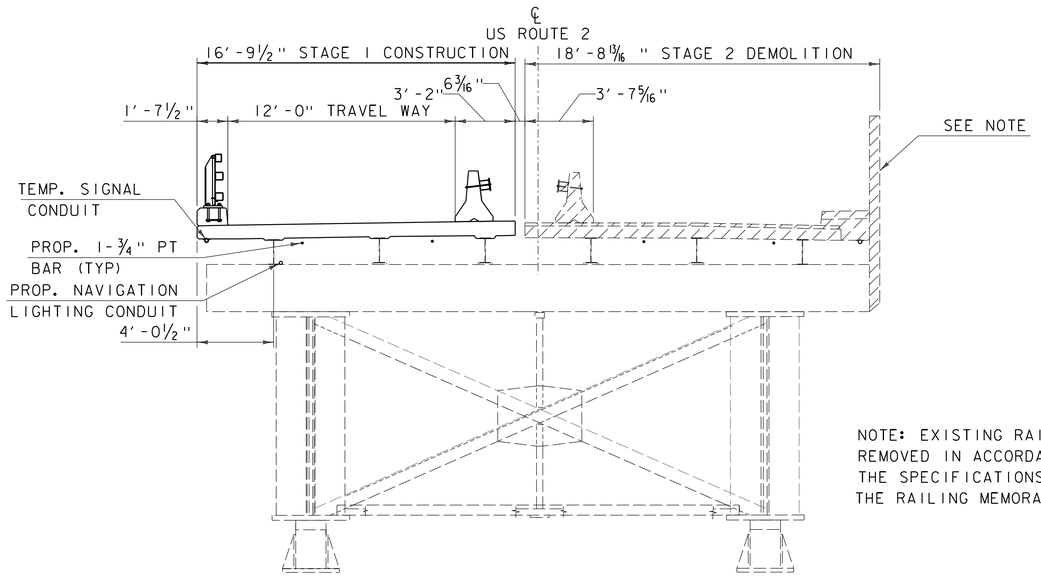
◀ = PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE

[J] = JUNCTION BOX FOR NAVIGATION LIGHTING

[PB] = PULL BOX FOR NAVIGATION LIGHTING

STAGE 1 CONSTRUCTION/STAGE 2 DEMOLITION PLAN

SCALE 1" = 20'-0"



NOTE: EXISTING RAILING TO BE REMOVED IN ACCORDANCE WITH THE SPECIFICATIONS, INCLUDING THE RAILING MEMORANDUM.

STAGE 1 CONSTRUCTION/STAGE 2 DEMOLITION TYPICAL APPROACH SPAN SECTION

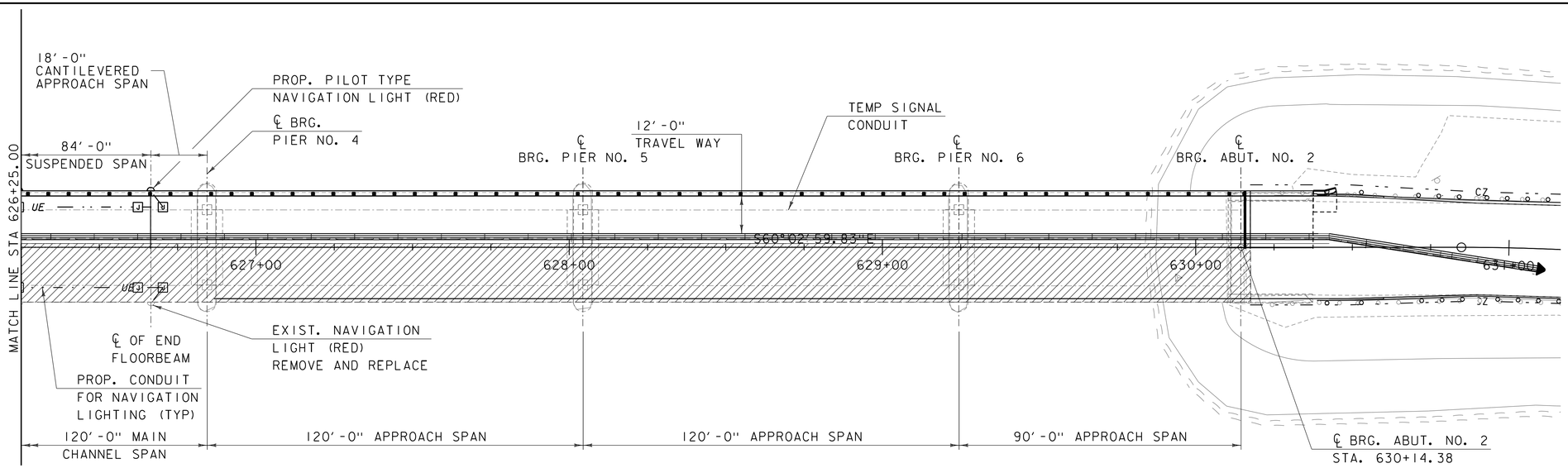
SCALE ¼" = 1'-0"

NOTE:

1. SEE SHEET 31 FOR SUGGESTED SEQUENCE OF CONSTRUCTION NOTES.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264staging2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: S. BIBINSKI
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
STAGING PLAN & SECTIONS SHEET 3 OF 6	SHEET 34 OF 108



LEGEND

= LIMITS OF STAGE 2 DEMOLITION

= SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)

= PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE

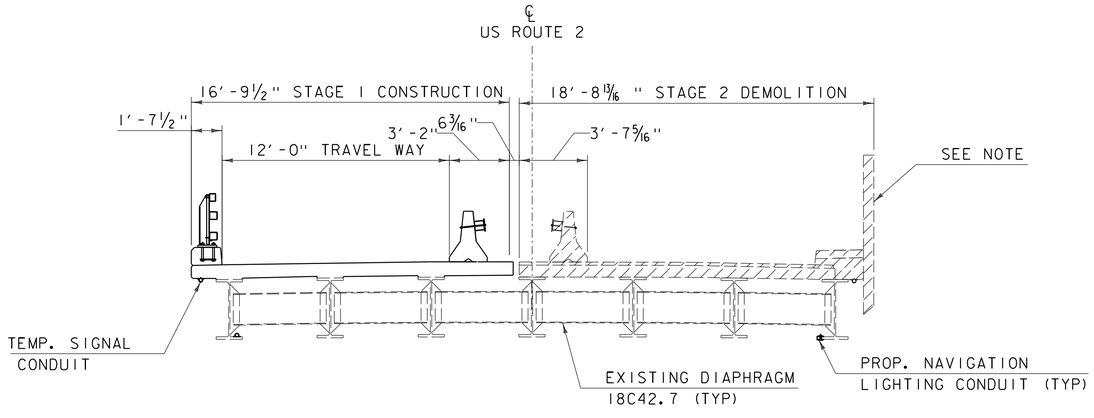
[J] = JUNCTION BOX FOR NAVIGATION LIGHTING

STAGE 1 CONSTRUCTION/STAGE 2 DEMOLITION PLAN

SCALE 1" = 20'-0"

NOTE:

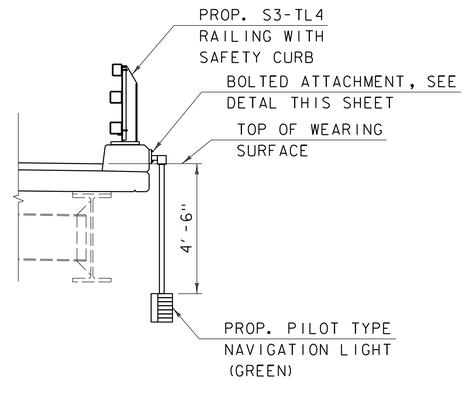
1. SEE SHEET 31 FOR SUGGESTED SEQUENCE OF CONSTRUCTION NOTES.



NOTE: EXISTING RAILING TO BE REMOVED IN ACCORDANCE WITH THE SPECIFICATIONS, INCLUDING THE RAILING MEMORANDUM.

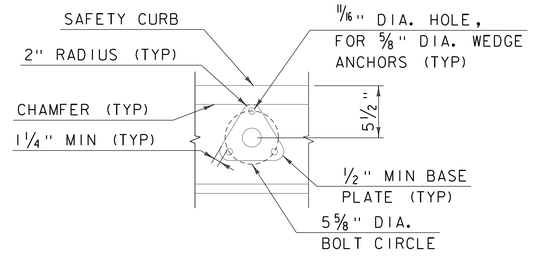
STAGE 1 CONSTRUCTION/STAGE 2 DEMOLITION SUSPENDED SPAN SECTION

SCALE ¼" = 1'-0"



PROPOSED GREEN NAVIGATION LIGHT DETAIL

SCALE ⅜" = 1'-0"



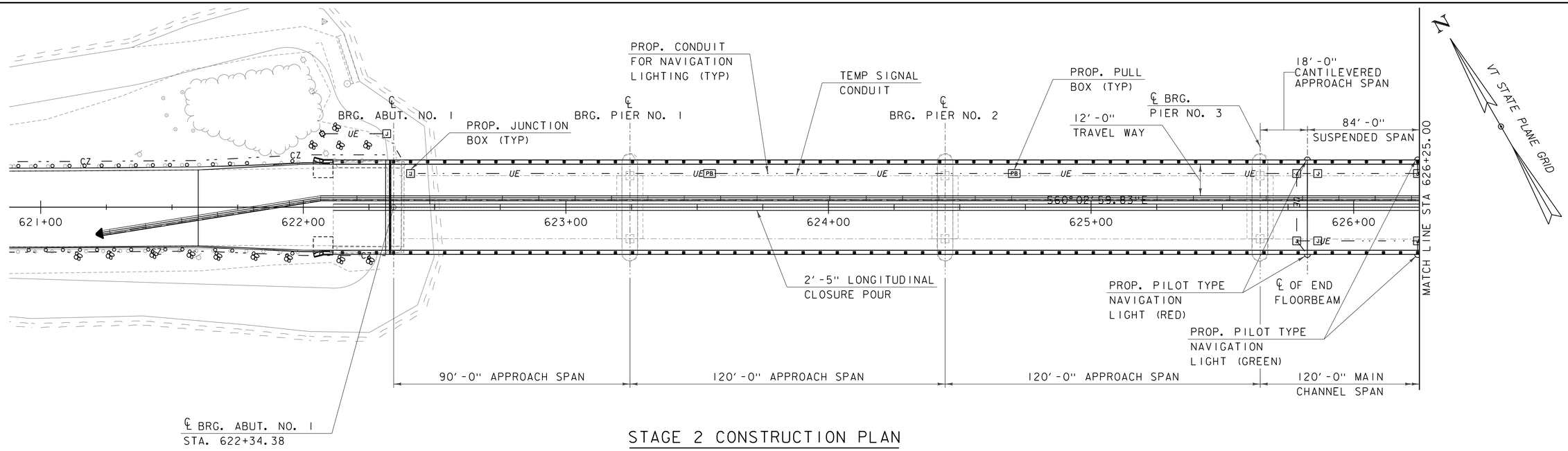
NOTE: ONLY BASE PLATE SHOWN FOR CLARITY. ALTERNATIVE ATTACHMENT DETAIL PER LIGHT FABRICATOR RECOMMENDATIONS CAN BE SUBMITTED FOR REVIEW AND APPROVAL AS PART OF THE SHOP DRAWING PROCESS.

SAFETY CURB ATTACHMENT DETAIL

SCALE 1½" = 1'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264staging2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: S. BIBINSKI
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
STAGING PLAN & SECTIONS SHEET 4 OF 6	SHEET 35 OF 108



STAGE 2 CONSTRUCTION PLAN

SCALE 1" = 20'-0"

LEGEND

= SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)

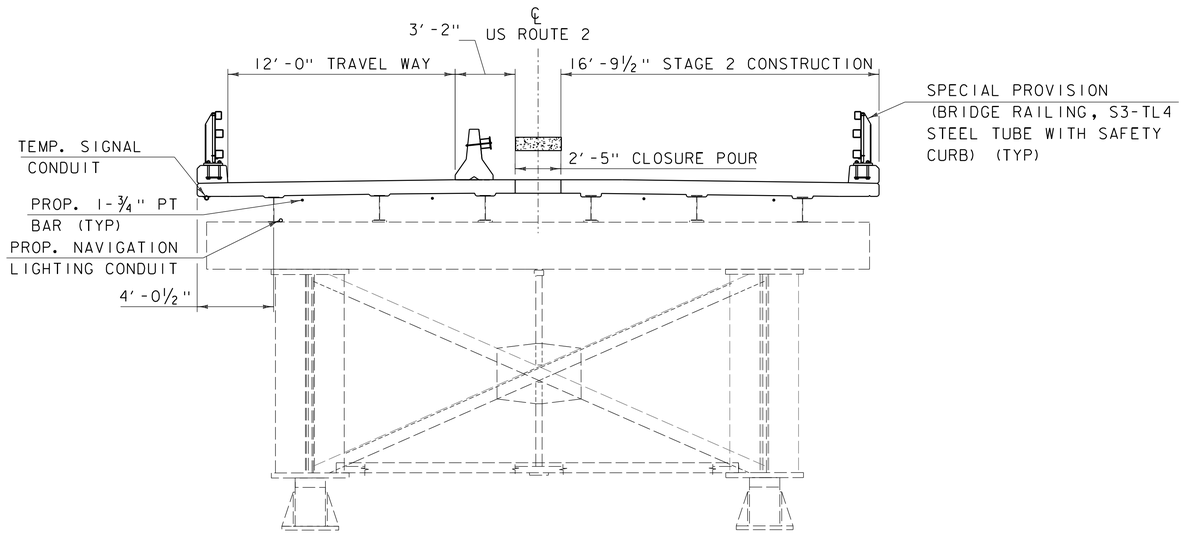
◀ = PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE

[J] = JUNCTION BOX FOR NAVIGATION LIGHTING

[PB] = PULL BOX FOR NAVIGATION LIGHTING

NOTE:

1. SEE SHEET 31 FOR SUGGESTED SEQUENCE OF CONSTRUCTION NOTES.

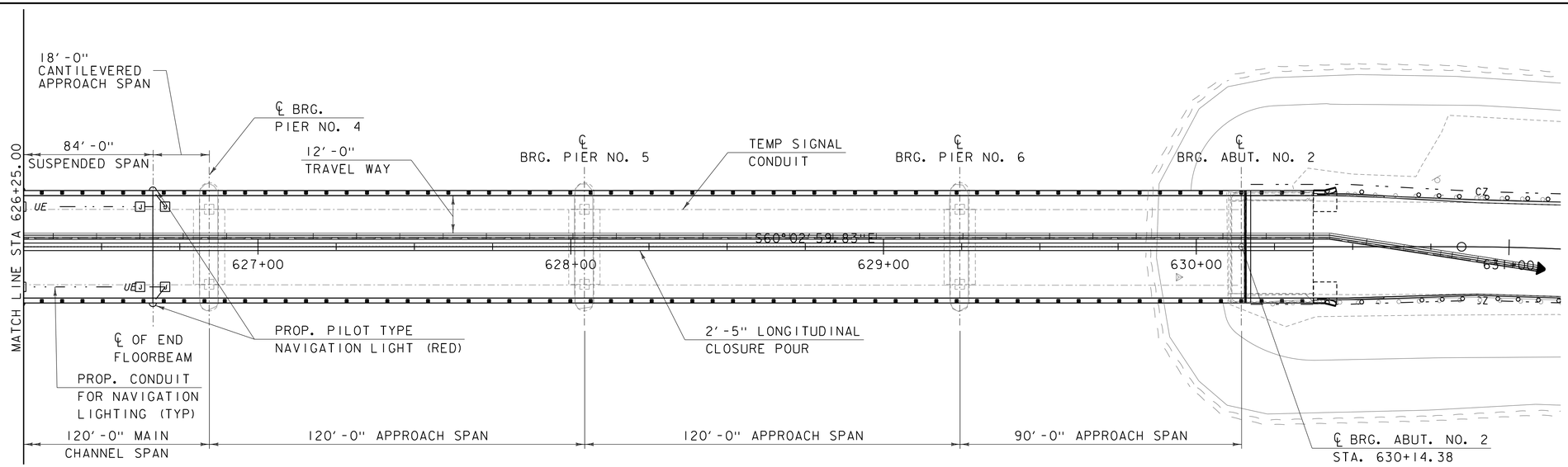


STAGE 2 CONSTRUCTION
TYPICAL APPROACH SPAN SECTION

SCALE ⅜" = 1'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264staging2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: S. BIBINSKI
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
STAGING PLAN & SECTIONS SHEET 5 OF 6	SHEET 36 OF 108



STAGE 2 CONSTRUCTION PLAN

SCALE 1" = 20'-0"

LEGEND

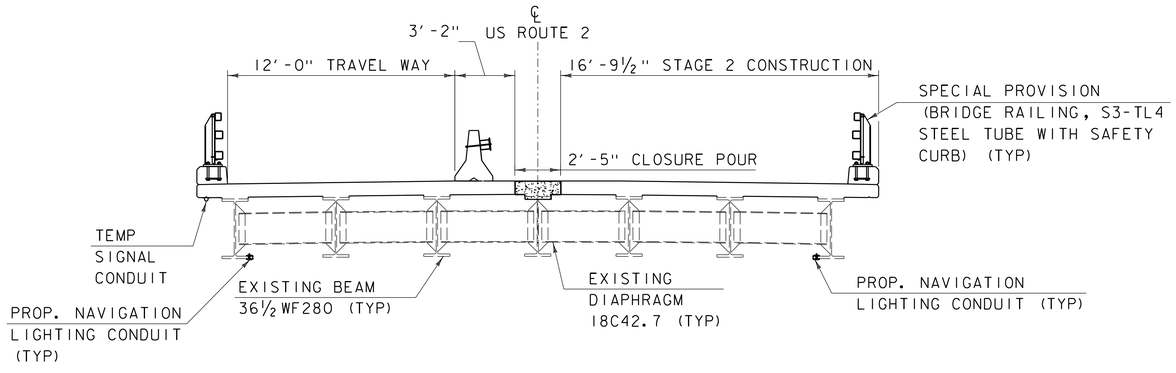
= SPECIAL PROVISION (TEMPORARY LIMITED DEFLECTION BARRIER)

◀ = PROVIDE ENERGY ABSORPTION ATTENUATOR OR TERMINATE BARRIER OUTSIDE OF CLEAR ZONE

[J] = JUNCTION BOX FOR NAVIGATION LIGHTING

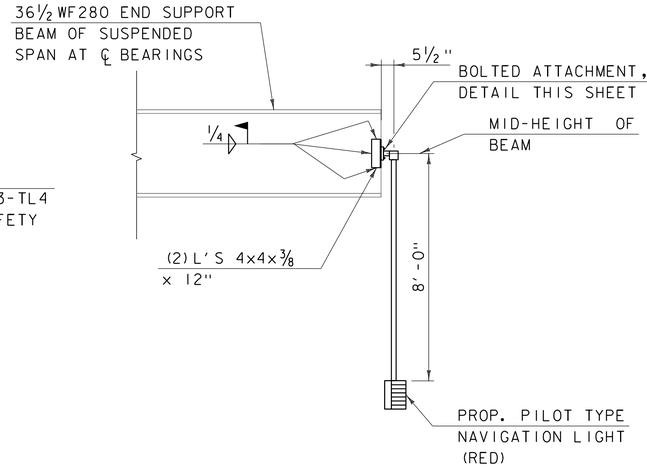
NOTE:

1. SEE SHEET 31 FOR SUGGESTED SEQUENCE OF CONSTRUCTION NOTES.



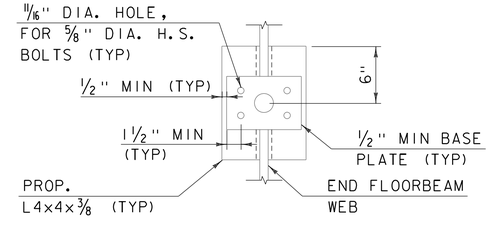
STAGE 2 CONSTRUCTION SUSPENDED SPAN SECTION

SCALE ¼" = 1'-0"



PROPOSED RED NAVIGATION LIGHT DETAIL

SCALE ⅜" = 1'-0"



NOTE: ONLY BASE PLATE SHOWN FOR CLARITY. ALTERNATIVE ATTACHMENT DETAIL PER LIGHT FABRICATOR RECOMMENDATIONS CAN BE SUBMITTED FOR REVIEW AND APPROVAL AS PART OF THE SHOP DRAWING PROCESS.

END FLOOR BEAM ATTACHEMENT DETAIL

SCALE 1½" = 1'-0"

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264staging2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
STAGING PLAN & SECTIONS SHEET 6 OF 6

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 37 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

① ROAD WORK AHEAD — W20-1 48"X48"

② W3-5 48"X48"

③ ONE LANE ROAD AHEAD — W20-4 48"X48"

④ G20-5aP 36"X24" (WORK ZONE) R2-1 36"X48" (SPEED LIMIT 30) R2-6aP 36"X24" (FINES DOUBLE)

⑤ W3-5 48"X48"

⑥ W3-3 (ORANGE BACKGROUND) 48"X48"

⑦ G20-5aP 36"X24" (WORK ZONE) R2-1 36"X48" (SPEED LIMIT 25) R2-6aP 36"X24" (FINES DOUBLE)

⑧ R10-6 24"X36" (STOP WHEN FLASHING RED) R10-24 9"X15"

⑨ (LED BLANKOUT SIGN) 36"X36"

⑩ R4-11 30"X30"

⑪ SEE THIS SHEET FOR DETAIL — NO STOPPING ON BRIDGE

⑫ G20-2 48"X24"

⑬ R10-7 24"X30"

⑭ R2-1 36"X48"

SIGN DETAIL

① NO STOPPING ON BRIDGE

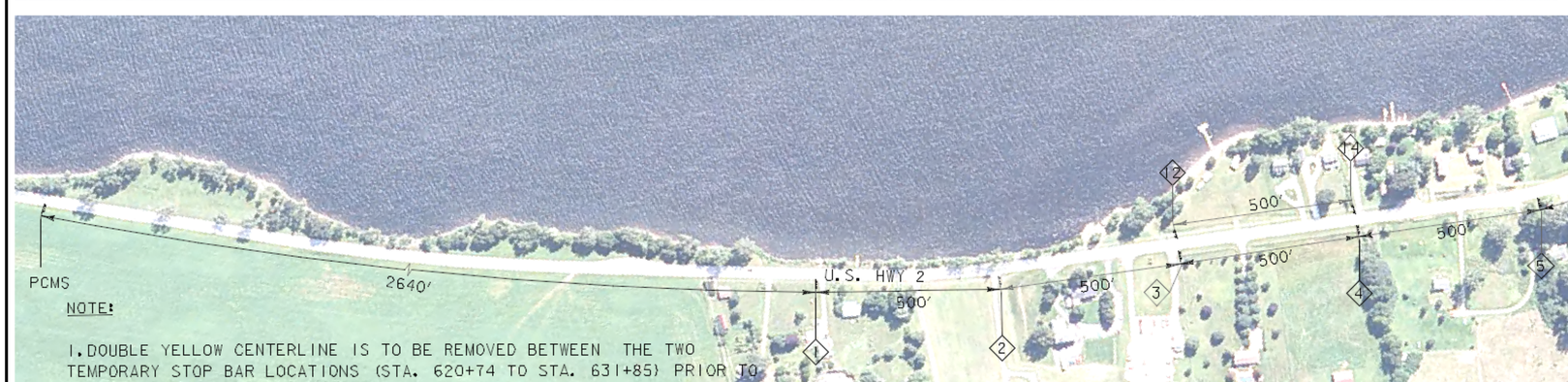
(NOT TO SCALE)

SUGGESTED PCMS MESSAGE DISPLAY

SIGNAL AHEAD 1 MILE
REDUCE SPEED

* SEE NOTE 2 ON THIS SHEET

INSERT A



NOTE:

1. DOUBLE YELLOW CENTERLINE IS TO BE REMOVED BETWEEN THE TWO TEMPORARY STOP BAR LOCATIONS (STA. 620+74 TO STA. 631+85) PRIOR TO IMPLEMENTING TEMPORARY TRAFFIC CONTROL SET-UP.

2. CONTRACTOR SHALL UPDATE THE PCMS MESSAGE DISPLAYS AS NEEDED SUCH THAT THE MESSAGE BEING DISPLAYED RELATES TO THE NATURE OF THE WORK BEING COMPLETED AT THAT TIME. PCMS MESSAGE DISPLAYS CAN BE TURNED OFF/LEFT BLANK IF/WHEN THEY ARE NOT NEEDED

PHOTO IMAGE SOURCE: VERMONT CENTER FOR GEOGRAPHIC INFORMATION (VCGI)

SCALE 1" = 200'-0"

0 100 200

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264tmpaerialbdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: J. GAUVIN
TRAFFIC CONTROL ADVANCE SIGNAGE PLAN

PLOT DATE: 2/18/2022
DRAWN BY: H.GAO
CHECKED BY: W. WONG
SHEET 38 OF 108

MAJOR EQUIPMENT LIST - TEMPORARY TRAFFIC SIGNAL SYSTEM

EQUIPMENT ITEM NO. 678.40	US ROUTE 2 AT NORTH HERO ALBURGH BRIDGE
WOODEN SPAN WIRE POLES	4
TEMPORARY TRAFFIC SIGNAL CABINET WITH CONTROLLER	1
BLANK-OUT SIGN	2
PEDESTRIAN PUSH BUTTON ASSEMBLY	2
NEW 12" TRAFFIC SIGNAL HEADS (ONE-WAY, 3-SECTION) W/TUNNEL VISORS, DISCONNECT HANGERS, BACK PLATES WITH TYPE 2 RETROREFLECTIVE BORDER AND MOUNTING HARDWARE.	4
TEMPORARY TRAFFIC SIGNAL VIDEO DETECTION SYSTEM	1
OPTICAL EMERGENCY PRE-EMPTION PHASE DISCRIMINATOR (OVAL CHANNEL)	1
PRE-EMPTION INDICATOR (STROBE) LIGHT	2
PRE-EMPTION PHASE SELECTION RACK	1
POWER METER ON STANCHION	1

THE QUANTITIES LISTED ABOVE ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY. MISCELLANEOUS (UNLISTED) WIRE, CABLE, HARDWARE ETC., ARE REQUIRED TO PROVIDE FOR A FUNCTIONING TRAFFIC SIGNAL SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE NUMBER OF ITEMS AND THE TYPES OF EQUIPMENT REQUIRED.

BLANK-OUT SIGN

(LED BLANKOUT SIGN)
36"X36"

US ROUTE 2 AT
NORTH HERO-ALBURGH BRIDGE

TABLE OF CHANGE SEQUENCE							FLASHING OPERATION
FACE	Ø2 R/W	Ø2 CLEAR TO Ø6		Ø6 R/W	Ø6 CLEAR TO Ø2		
1	G	Y	R	R	R	R	FR
2	G	Y	R	R	R	R	FR
3	R	R	R	G	Y	R	FR
4	R	R	R	G	Y	R	FR

NOTE:
LED BICYCLE (PICTOGRAPH) SIGN SHALL BE ILLUMINATED AT BOTH APPROACHES WHEN A BICYCLE IS DETECTED AT ONE OF THE APPROACHES. LEGEND "WATCH FOR" SHALL ALSO BE ILLUMINATED AT THE APPROACH OPPOSITE FROM WHERE BICYCLE WAS DETECTED.

PRE-EMPTION SETTINGS

	RECEIVER 1	RECEIVER 2
PRIORITY	NO	NO
DET. LOCK	YES	YES
DELAY	0	0
ALT. MIN. GREEN	5	5
ALT. YELLOW	PARENT	PARENT
ALT. RED	PARENT	PARENT
ALT. PED. CIR.	-	-
HOLD GREEN	15	15
HOLD YELLOW	4	4
HOLD RED	33	33
HOLD PHASE	6	2
EXIT PHASE	2	6
EXIT CALL	NONE	NONE

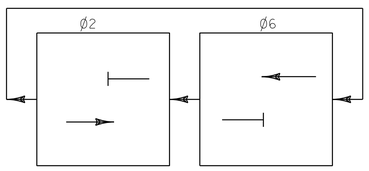
US ROUTE 2 AT
NORTH HERO-ALBURGH BRIDGE

CONTROLLER TIMING CHART							
LOCAL PROGRAMMING	PHASE						
	1	2	3	4	5	6	PED
MINIMUM GREEN		10				10	-
PASSAGE/VEHICLE EXT		3				3	-
YELLOW CLEARANCE		4				4	-
ALL RED CLEARANCE		33*				33*	-
MAX. GREEN 1		19				17	-
MAX. GREEN 2 (PM PEAK)		17				19	-
MAX. GREEN 3		36				28	-
MAX. GREEN 4 (PM PEAK)		34				30	-
SEC/AT		-				-	-
TIME BEFORE REDUCE		-				-	-
TIME TO REDUCE		-				-	-
WALK		-				-	-
FLASHING DON'T WALK		-				-	-
DON'T WALK		-				-	-
RECALL		MIN				MIN	-
DETECTION (MEMORY)		LOCK				LOCK	-

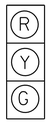
NOTE:
MAX GREEN 2 AND MAX GREEN 4 SHALL BE IN EFFECT ON WEEKDAYS FROM 4:00PM TO 7:00PM.
MAX GREEN 1 AND MAX GREEN 3 SHALL BE IN EFFECT DURING ALL OTHER TIMES.
* WHEN BICYCLE IS DETECTED, ALL RED CLEARANCE WILL BE 104 SECONDS ON ALL PHASES.
MAX GREEN 3 AND MAX GREEN 4 ARE ONLY IN EFFECT WHEN A BICYCLIST IS DETECTED ALONG EITHER OF THE TWO APPROACHES TO THE BRIDGE.

PHASING DIAGRAM

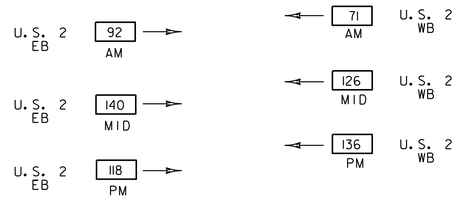
US ROUTE 2 AT
NORTH HERO-ALBURGH BRIDGE



PROPOSED SIGNAL FACE ARRANGEMENT



FACE 1,2,3,4



2017 HOURLY VOLUMES

EQUIPMENT	ITEM NO.	U.S. ROUTE 2 NORTH HERO-ALBURGH BRIDGE
WIRED CONDUIT (2") (PVC)	678.40	1207 *
JUNCTION BOX, HEAVY DUTY	678.40	6 EA

* WIRED CONDUIT IS TO BE REUSED AND RUN TWICE DURING CONSTRUCTION STAGE ONE AND TWO. THE LONGEST LENGTH BETWEEN TWO STAGES IS ACCOUNTED.

CONDUIT SCHEDULE	2" WIRED CONDUIT	DESCRIPTION
UTILITY POLE TO CONTROLLER W/ METER	12 FT	POWER/SIGNAL SERVICE
CONTROLLER TO JUNCTION BOX #1	28 FT	SIGNAL SERVICE
JUNCTION BOX #1 TO SPAN WIRE POLE	125 FT	SIGNAL SERVICE
CONTROLLER TO JUNCTION BOX #2	38 FT	SIGNAL SERVICE
BICYCLE PUSH BUTTON TO JUNCTION BOX #3	18 FT	SIGNAL SERVICE
BICYCLE PUSH BUTTON TO JUNCTION BOX #5	26 FT	SIGNAL SERVICE
JUNCTION BOX #3 TO SPAN WIRE POLE	21FT	SIGNAL SERVICE
JUNCTION BOX #5 TO SPAN WIRE POLE	27 FT	SIGNAL SERVICE
JUNCTION BOX #2 TO JUNCTION BOX #4	848 FT	SIGNAL SERVICE
JUNCTION BOX #4 TO SPAN WIRE POLE	139 FT	SIGNAL SERVICE
JUNCTION BOX #6 TO SPAN WIRE POLE	87 FT	SIGNAL SERVICE
JUNCTION BOX #2 TO JUNCTION BOX #6	837 FT	SIGNAL SERVICE

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264trfsig.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: J. GAUVIN
TRAFFIC SIGNAL SEQUENCE AND TIMMING

PLOT DATE: 2/18/2022
DRAWN BY: H. GAO
CHECKED BY: W. WONG
SHEET 39 OF 108

TRAFFIC CONTROL NOTES

1. TRAFFIC CONTROL SET-UP FOR PROPOSED SHORT-TERM CONSTRUCTION WORK SHALL FOLLOW FIGURE 6H-6 OR FIGURE 6H-10 IN CHAPTER 6 OF THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

2. CONTRACTOR MAY INSTALL TRAFFIC CONTROL SIGNAGE RELATED TO FUTURE TRAFFIC CONTROL. ALL SIGNAGE NOT BEING USED FOR THE CURRENT TRAFFIC CONTROL SETUP SHALL BE COVERED AND NOT BLOCK VISIBILITY OF SIGNS INSTALLED FOR THE CURRENT CONSTRUCTION STAGE UNTIL THE CURRENT CONSTRUCTION STAGE IS COMPLETED AND THE ASSOCIATED TRAFFIC CONTROL SETUP IS NO LONGER IN PLACE.

3. WITH PRIOR WRITTEN APPROVAL FROM VTRANS, THE CONTRACTOR MAY USE FLAGGERS TO DIRECT TRAFFIC FOR CERTAIN LIMITED CONSTRUCTION OPERATIONS DURING DAYTIME WORK HOURS. IF FLAGGERS ARE TO BE USED TO DIRECT TRAFFIC, THE TEMPORARY TRAFFIC SIGNAL SYSTEM SHALL BE SET TO FLASHING OPERATION DURING THIS TIME. REQUEST TO USE FLAGGERS IN LIEU OF THE TEMPORARY TRAFFIC SIGNAL SHALL BE MADE ONE WEEK IN ADVANCE. APPROVAL IS NOT GUARANTEED.

4. THE BID PRICE FOR ITEM 641.10 TRAFFIC CONTROL SHALL INCLUDE ALL APPROACH AND ON PROJECT CONSTRUCTION SIGNING, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS AND POSTS AS DETAILED IN THE VTRANS STANDARDS. IN ADDITION, THE BID PRICE FOR ITEM 678.40 SHALL INCLUDE ALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT INCLUDED, BUT NOT LIMITED TO, WOODEN SPAN WIRE POLES, TEMPORARY TRAFFIC SIGNAL CONTROLLER AND CABINET, ELECTRONIC BLANK-OUT SIGNS, PEDESTRIAN PUSH BUTTON ASSEMBLIES, VEHICLE SIGNAL INDICATIONS, DETECTION SYSTEM, PREEMPTION EQUIPMENT, WIRING, CONDUIT, JUNCTION BOXES, POWER METER STANCHION, MAINTENANCE OF TEMPORARY TRAFFIC SIGNAL SYSTEM AND ALL LABOR AND INCIDENTALS REQUIRED TO MAINTAIN A FULLY OPERATIONAL TEMPORARY TRAFFIC SIGNAL SYSTEM THROUGH THE DURATIONS OF THE CONSTRUCTION PERIOD. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS SHALL BE PAID FOR SEPARATELY: 621.56 - ENERGY ABSORPTION ATTENUATOR, TEMPORARY, 621.90 - TEMPORARY TRAFFIC BARRIER, 621.95 REMOVE AND RESET TEMPORARY TRAFFIC BARRIER, 631.10 - UNIFORMED TRAFFIC OFFICERS, 630.15 - FLAGGERS, 641.15 - PORTABLE CHANGEABLE MESSAGE SIGN.

TEMPORARY TRAFFIC SIGNAL NOTES:

1. TEMPORARY TRAFFIC SIGNAL SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH ITEM 678.40 "TEMPORARY TRAFFIC SIGNAL SYSTEM" AND IN COMPLIANCE WITH THE LATEST EDITION OF THE MUTCD. SIGNAL FACES SHALL BE LED AND CONSIST OF 12 INCH LENSES (RED, YELLOW AND GREEN).

2. LUMINAIRES SHALL BE INSTALLED AT EACH OF THE APPROACHES TO ADEQUATELY LIGHT THE STOP BAR AREAS. PAYMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 678.40 "TEMPORARY TRAFFIC SIGNAL SYSTEM".

3. ALL TEMPORARY SIGNAL EQUIPMENT, SIGNS, ETC. SHALL BELONG TO THE CONTRACTOR AT THE END OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR REMOVAL INCLUDING UTILITY POLES, WIRES, ETC. PAYMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 678.40 "TEMPORARY TRAFFIC SIGNAL SYSTEM".

4. THE CONTRACTOR SHALL IMPLEMENT THE SIGNAL PHASING AND TIMING SCHEDULE AS SHOWN IN THE PLANS. PAYMENT FOR ADDITIONAL ADJUSTMENTS TO SIGNAL TIMING OR PHASING WILL BE CONSIDERED INCIDENTAL TO ITEM 678.40 "TEMPORARY TRAFFIC SIGNAL SYSTEM".

5. THE SUBMITTAL FOR ITEM 678.40 "TEMPORARY TRAFFIC SIGNAL SYSTEM" SHALL INCLUDE AS A MINIMUM, THE SIGNAL LOCATION, TIMING AND PHASING PLAN, VEHICLE DETECTION SYSTEM, AND EMERGENCY VEHICLE PREEMPTION SYSTEM.

TEMPORARY TRAFFIC SIGNAL DETECTION SYSTEM

- ALL TEMPORARY TRAFFIC SIGNAL DETECTORS SHALL HAVE THE CAPABILITY OF DETECTING BOTH VEHICLES AND BICYCLES.
- THE TEMPORARY TRAFFIC SIGNAL DETECTION SYSTEM SHALL BE CAPABLE OF DISTINGUISHING BETWEEN VEHICLES AND BICYCLES.
- ALL DETECTORS SHALL HAVE FLAT BLACK HOUSINGS.
- STOP BAR VEHICLE AND BICYCLE DETECTOR LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE MANUFACTURER'S GUIDANCE FOR THE TYPE OF DETECTOR SUPPLIED. THE CONTRACTOR SHALL SUBMIT PROPOSED MOUNTING LOCATIONS AND DOCUMENTATION OF CONFORMANCE WITH THE MANUFACTURER'S GUIDANCE TO THE ENGINEER.
- ALL DETECTORS SHALL BE PLACED SUCH THAT OCCLUSION IS MINIMIZED AND PHASING IS NOT NEGATIVELY AFFECTED.
- STOP BAR BICYCLE DETECTION ZONES SHALL EXTEND FIVE FEET PAST THE FINAL STOP BAR AND SHALL EXTEND THE FULL WIDTH OF THE PAVEMENT SURFACE.
- THERE SHALL BE NO WIRING SPLICES BETWEEN THE VEHICLE DETECTORS AND THE TEMPORARY TRAFFIC SIGNAL CONTROLLER EQUIPMENT.
- SEE THE PLANS OR THE SPECIAL PROVISIONS FOR A DETAILED LIST OF EQUIPMENT.

JUNCTION BOXES

- THE LOGO ON JUNCTION BOXES SHALL BE "TRAFFIC SIGNAL".

EMERGENCY PREEMPTION

- EMERGENCY PREEMPTION RECEIVER AND STROBE LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE MANUFACTURER'S GUIDANCE, IF AVAILABLE. THE CONTRACTOR SHALL TEST ALL PREEMPTION EQUIPMENT IN THE PRESENCE OF THE ENGINEER.

GENERAL

- THE CONTRACTOR SHALL ACQUIRE ALL THE NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY TO PROVIDE A POWER SUPPLY TO THE TEMPORARY TRAFFIC SIGNAL EQUIPMENT, IF APPLICABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER TO THE TEMPORARY TRAFFIC SIGNAL SYSTEM.
- THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER TO SCHEDULE ONE PRE-FINAL INSPECTION AFTER THE CONTRACTOR HAS DEMONSTRATED TO THE ENGINEER THAT ALL TRAFFIC SIGNAL WORK AT EACH APPROACH TO THE BRIDGE HAS BEEN COMPLETED IN THEIR ENTIRETY. THE PRE-FINAL INSPECTION SHALL NOT OCCUR UNTIL AFTER FINAL STOP BARS ARE INSTALLED AND DETECTION ZONES ARE APPROPIATELY ADJUSTED.
- HARD WIRE CONNECTION BETWEEN THE SIGNAL EQUIPMENT FOR STABLE COMMUNICATIONS AND POWER CONNECTIONS. REQUIREMENT FOR BACKUP GENERATOR POWER IN THE EVENT OF ELECTRICAL BLACKOUTS IS INCLUDED IN THE COSTS OF THE TEMPORARY TRAFFIC SIGNAL SYSTEM.
- TEMPORARY TRAFFIC SIGNAL SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH CONTRACT ITEM 678.40 - TEMPORARY TRAFFIC SIGNAL SYSTEM.
- DESIGN OF THE SIGNAL SUPPORTS AND ANY REQUIRED GUYING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. POLES SUPPORTING SPAN WIRES AND/OR MAST ARMS SHALL BE ADEQUATELY BRACED OR GUYED AND SHALL NOT BE PLACED SO AS TO CREATE A HAZARD TO THE TRAVELING PUBLIC.
- ATTACHMENT TO UTILITY POLES SHALL BE COORDINATED BY THE CONTRACTOR WITH THE UTILITY COMPANY.
- TEMPORARY POLES SHALL BE PLACED OUTSIDE OF THE CLEAR ZONE.

TRAFFIC CONTROL NOTES FOR TEMPORARY TRAFFIC SIGNAL WORK:

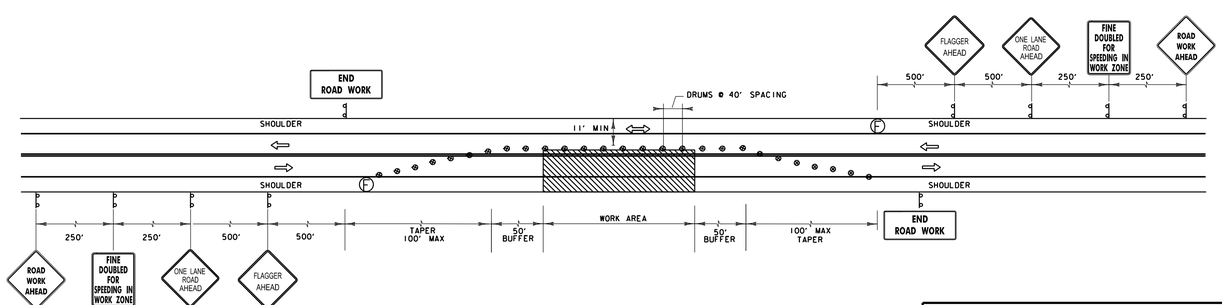
1. AFTER SIGNAL INSTALLATION, ALL SIGNAL HEADS MUST BE COVERED (TURNING SHALL NOT BE ALLOWED) UNTIL TURNED ON. THE METHOD OF COVERING SHALL BE AS FOLLOWS:
   - ALL NEW TRAFFIC SIGNAL HEADS WHICH HAVE BEEN INSTALLED BUT NOT PLACED IN EITHER FLASHING OR FULL OPERATION SHALL BE COVERED.
   - THE SIGNAL COVERS SHALL CONSIST OF A ONE-PIECE PLASTIC BAG HAVING A MINIMUM THICKNESS OF 4 MIL. THE BAG SHALL BE OPAQUE. THE COVER SHALL SLIP OVER THE ENTIRE SIGNAL HEAD AND SHALL BE SECURELY TIED AT THE OPENING WITH A ROPE OF SUFFICIENT SIZE AND STRENGTH TO SECURE THE COVER. AN INTERMEDIATE ROPE OF THE SAME MATERIAL SHALL BE DRAWN AROUND THE CENTER OF THE COVER TO PREVENT EXCESS FLAPPING IN THE WIND.
   - A DRAIN HOLE SHALL BE MADE AT THE BOTTOM OF THE BAG TO ALLOW THE ESCAPE OF MOISTURE. NO TAPE OR ADHESIVE WILL BE ALLOWED TO BE ATTACHED TO ANY SURFACE OF THE SIGNAL HOUSING OR LENSES. ALL COVERS SHALL BE PLACED IN A NEAT WORKMANLIKE MANNER. ANY COVER WHICH IS TORN OR MISSING SHALL BE IMMEDIATELY REPLACED. PAYMENT FOR THE COVERS, THEIR PLACEMENT, AND REMOVAL AND ALL INCIDENTALS FOR COMPLETION OF THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE TRAFFIC SIGNAL.

REVIEWER NOTES:

1. BICYCLE PUSHBUTTONS WILL BE INSTALLED AT BOTH STOP BAR LOCATIONS ALONG BOTH U.S. ROUTE 2 APPROACHES TO THE BRIDGE. THESE PUSHBUTTONS WILL BE A SUPPLEMENTAL BICYCLE DETECTION OPTION TO THE BICYCLE DETECTION. A BICYCLIST WILL NOT NEED TO PUSH THE PUSHBUTTON IN ORDER TO BE DETECTED AT THE APPROACHES, HOWEVER, THEY WILL HAVE THE OPTION TO AND WILL BE ABLE TO PUSH THE PUSHBUTTON IN A SCENARIO WHERE THE BICYCLE DETECTION IS MALFUNCTIONING.

LEGEND

- WORK AREA
- REFLECTORIZED PLASTIC DRUM
- FLOW OF TRAFFIC
- TYPE III BARRICADE
- (F) - FLAGGER



2 - LANE ROADWAY
ONE WAY ALTERNATING
NOT TO SCALE

NOTE:
ONLY TO BE USED FOR SHORT-TERM CONSTRUCTION WORK, THE SET-UP SHOULD BE IMPLEMENTED FOR A MAXIMUM OF 8 CONTINUOUS HOURS.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264trfsig.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: J. GAUVIN
TRAFFIC SIGNAL NOTES

PLOT DATE: 2/18/2022
DRAWN BY: H. GAO
CHECKED BY: W. WONG
SHEET 40 OF 108

TEMPORARY 4 INCH WHITE LINE, PAINT
DURABLE 4 INCH WHITE LINE, (POLYUREA)
STA. 618+00.0 - STA. 623+50.0 (SOLID LT & RT)
STA. 109+80.0 - STA. 110+88.0 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE, (POLYUREA)
STA. 618+00.0 - STA. 623+50.0 (SOLID LT & RT)
STA. 618+67.0 - STA. 618+74.7 (DOUBLE SOLID RT)

TEMPORARY 24 INCH STOP BAR, PAINT
DURABLE 24 INCH STOP BAR, (POLYUREA)
STA. 618+74.5 RT

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL, (POLYUREA)
STA. 618+74.5 RT"STOP" (4 EA)

REMOVING SIGNS
AS SHOWN - 15

LEGEND
BL = BASELINE
EL = 4" WIHTE EDGELINE
CL = 4' YELLOW CENTERLINE

SIGN LEGEND
R = REMOVE
RET = RETAIN
R&S = REMOVE AND SALVAGE
N = NEW
B-B = BACK TO BACK
—— = EXISTING
—— = NEW

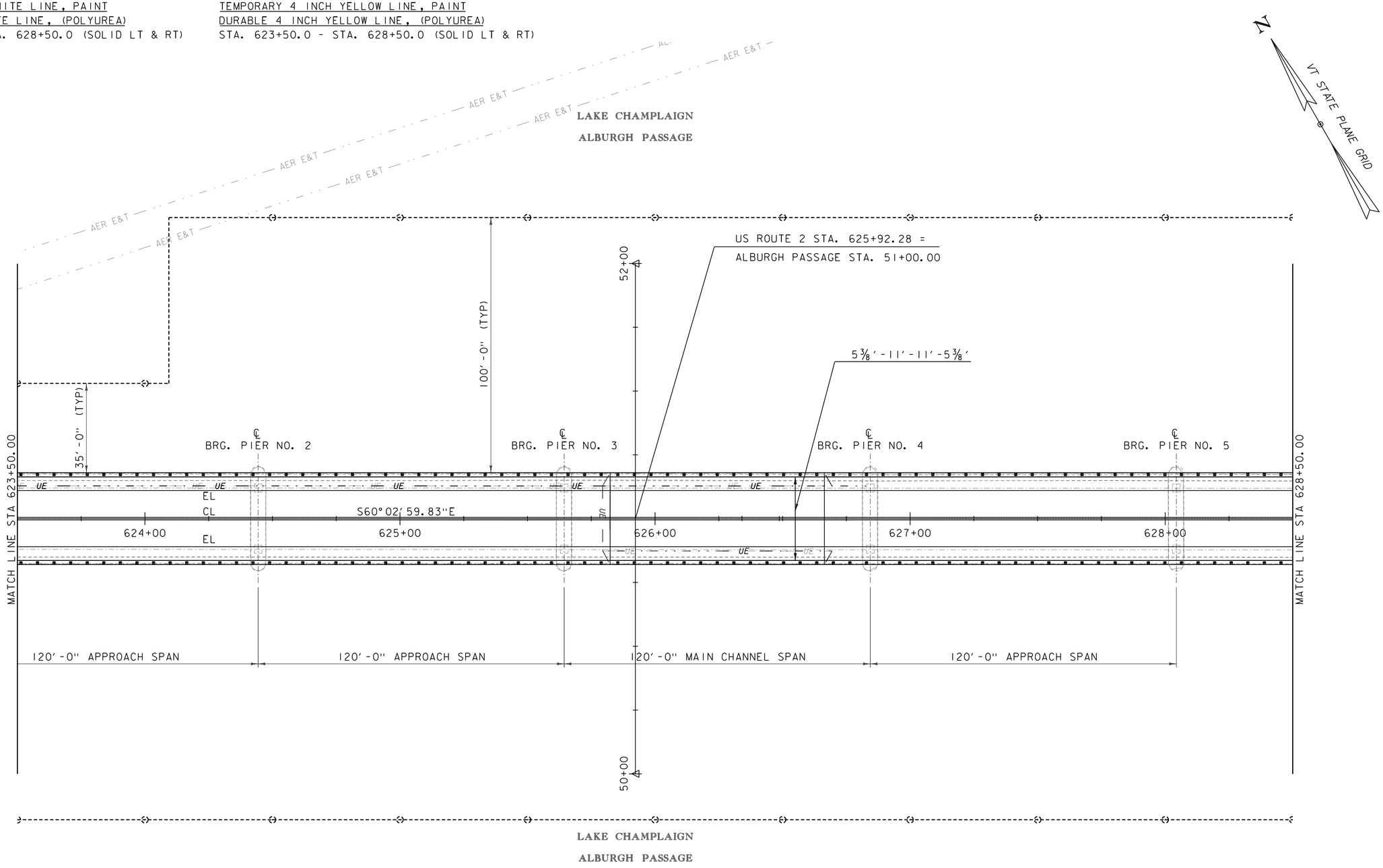
SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264trfbdr.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: H. GAO
DESIGNED BY: J. GAUVIN	CHECKED BY: W. WONG
PAVEMENT MARKING & SIGN SHEET 1	SHEET 41 OF 108

TEMPORARY 4 INCH WHITE LINE, PAINT
DURABLE 4 INCH WHITE LINE, (POLYUREA)
STA. 623+50.0 - STA. 628+50.0 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE, (POLYUREA)
STA. 623+50.0 - STA. 628+50.0 (SOLID LT & RT)



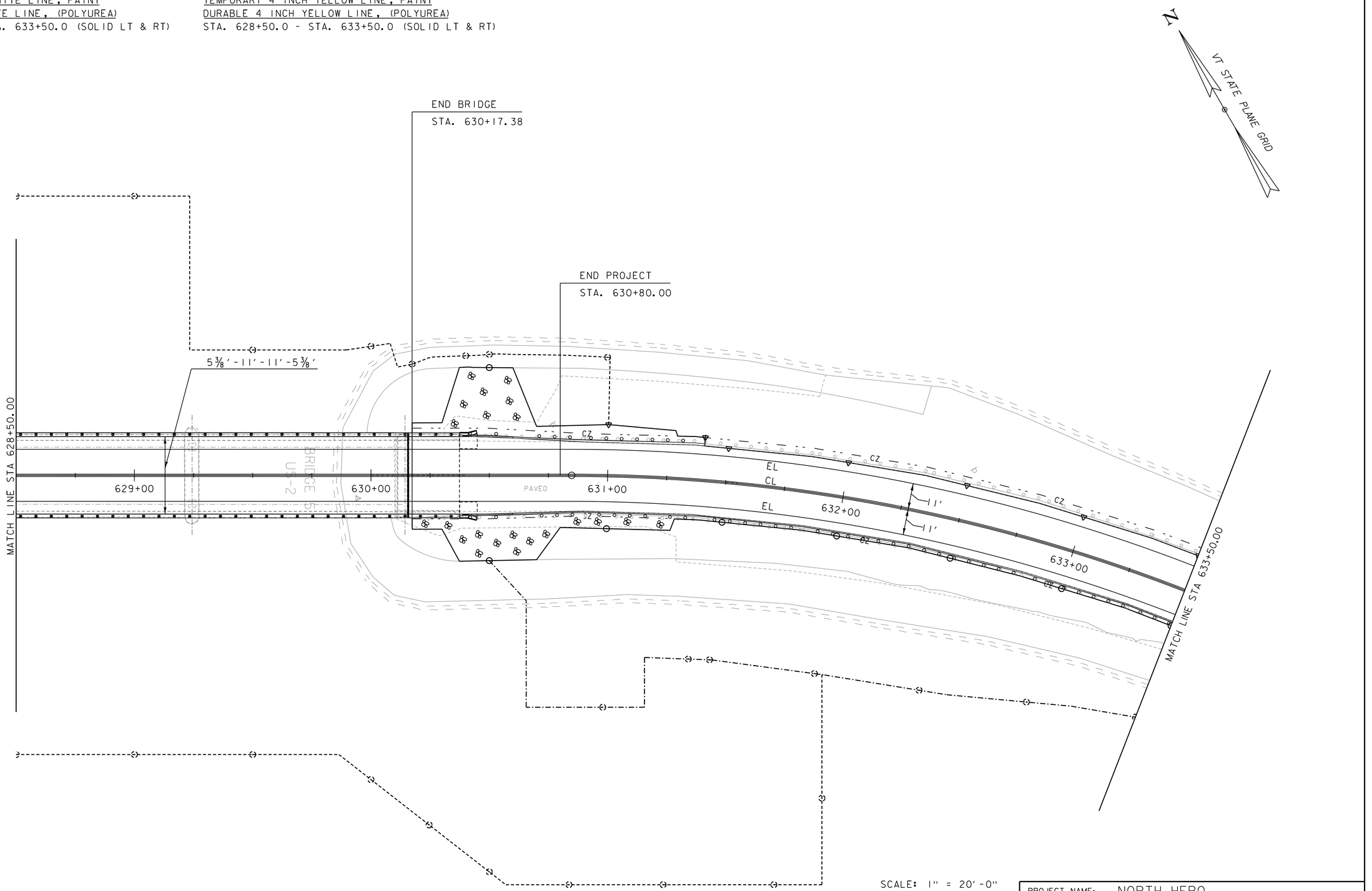
SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264trfbdr.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: H. GAO
DESIGNED BY: J. GAUVIN	CHECKED BY: W. WONG
PAVEMENT MARKING & SIGN SHEET 2	SHEET 42 OF 108

TEMPORARY 4 INCH WHITE LINE, PAINT
DURABLE 4 INCH WHITE LINE, (POLYUREA)
STA. 628+50.0 - STA. 633+50.0 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE, (POLYUREA)
STA. 628+50.0 - STA. 633+50.0 (SOLID LT & RT)



SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

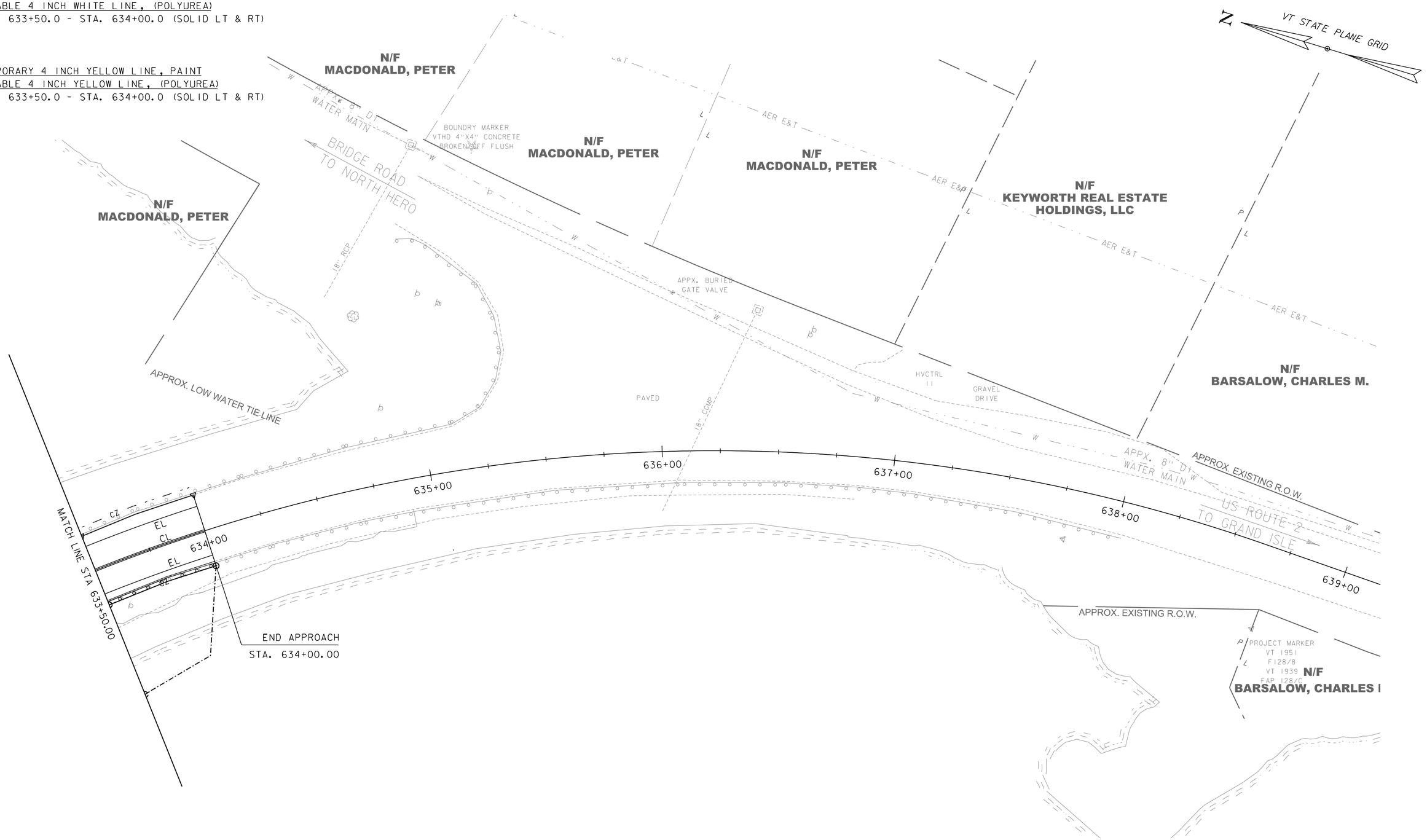
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264trfbdr.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: J. GAUVIN
PAVEMENT MARKING & SIGN SHEET 3

PLOT DATE: 2/18/2022
DRAWN BY: H. GAO
CHECKED BY: W. WONG
SHEET 43 OF 108

TEMPORARY 4 INCH WHITE LINE, PAINT
DURABLE 4 INCH WHITE LINE, (POLYUREA)
STA. 633+50.0 - STA. 634+00.0 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE, (POLYUREA)
STA. 633+50.0 - STA. 634+00.0 (SOLID LT & RT)



SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264trfbdr.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: H. GAO
DESIGNED BY: J. GAUVIN	CHECKED BY: W. WONG
PAVEMENT MARKING & SIGN SHEET 4	SHEET 44 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 1

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) 1.75 lb/ft 1.88	2.0 lb/ft 2.42	2.5 lb/ft 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) 3.0 lb/ft 1.3	4.0 lb/ft 1.7	4.0 MOD lb/ft 1.7	TUBULAR STEEL Ø (in) FOUNDATION	3.0 lb/ft 7.6	3.5 lb/ft 9.0	4.0 lb/ft 10.8	5.0 lb/ft 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL S.H.S.M.*	DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
OPTION ITEMS																																						
NORTH HERO U.S ROUTE 2																																						
STA 618+25.4 RT	Poor Farm Rd	1	60	12	5.00						2					X		2															INSTALL NEW SIGN ON NEW POSTS	D3-1	SIGN DETAIL SHEET	
STA 618+74.2 LT	Alburgh / North Hero	1	72	10	5.00						2					X		2															INSTALL NEW SIGN ON NEW POSTS VD-024		SIGN DETAIL SHEET	T-94
	0020 0701 1172	1	6	10	0.42																												INSTALL NEW SIGN (SUB-MOUNT WITH PREVIOUS VD-024 SIGN) VD-700			T-44
	JCT	1	15	21	2.19																												INSTALL NEW SIGN (SUBMOUNT WITH PREVIOUS VD-024 SIGN)"	M2-1		
	VERMONT 129	1	30	24	5.00																												INSTALL NEW SIGN (SUB-MOUNT WITH PREVIOUS SIGN)"	MI-5		
	0020 0704 0000	1	6	10	0.42																												INSTALL NEW SIGN (SUB-MOUNT WITH PREVIOUS M6-3 SIGN) VD-700			T-44
STA 618+87.7 RT	STOP	1	30	30	6.25						1					X		1															INSTALL NEW SIGN ON NEW POST	RI-1		
STA 619+92.4 RT	SPEED LIMIT 40	1	24	30	5.00						1					X		1															INSTALL NEW SIGN ON NEW POST	R2-1 (40)		
STA 619+96.3 LT		1	36	36	9.00						2					X		2															INSTALL NEW SIGN ON NEW POST (FLOURESCENT YELLOW-GREEN)	S3-1		
STA 620+70.0 LT	South Alburgh Alburgh Ctr. 5	1	36	24	6.00						1					X		1															INSTALL NEW SIGN ON NEW POST VD-018B		SIGN DETAIL SHEET	T-95
STA 621+38.4 LT		1	30	30	6.25						1					X		1															INSTALL NEW SIGN ON NEW POST	WI-2		
TOTALS		SF 50.53	SF	EA.	EA.							FT	FT	FT	FT	FT 150.0	FT	EA	LB	LB	LB	EA.	LB	LB	LB	LB	EA.	EA.	LB						

THE TOTAL LENGTH OF EACH POST HAS BEEN ASSUMED TO BE 15 FEET, WITH THE EXCEPTION OF POSTS FOR OBJECT MARKERS AND POSTS FOR BRIDGE PLAQUES AND MILE MARKERS WHICH HAVE BEEN ASSUMED TO BE 8 FEET AND 10 FEET PER POST, RESPECTIVELY FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE VAOT STANDARD SHEETS AND THE "SIGN POST DESIGN GUIDELINE".

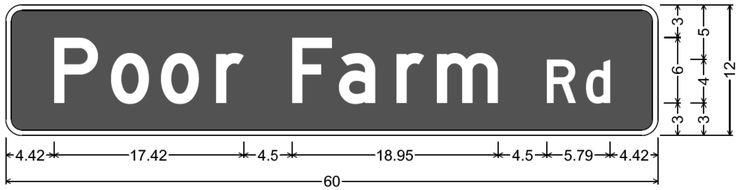
*STANDARD HIGHWAY SIGNS AND MARKINGS BOOK

** REFLECTIVE GREEN LEGEND ON REFLECTORIZED WHITE BACKGROUND

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3v264tss.dgn
PROJECT LEADER: M.CRUZ
DESIGNED BY: H. GAO
TRAFFIC SIGN SUMMARY SHEET

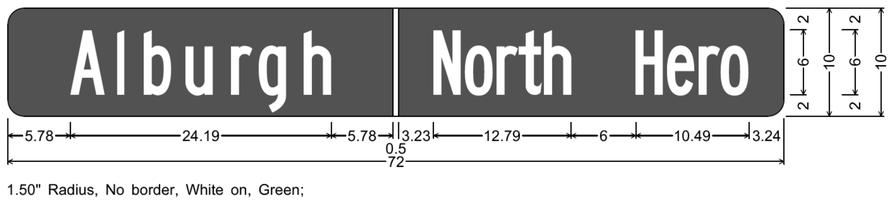
PLOT DATE: 2/18/2022
DRAWN BY: H.GAO
CHECKED BY: W. WONG
SHEET 45 OF 116



1.50" Radius, 0.50" Border, White on, Green;
"Poor", D; "Farm", D; "Rd", D;
Table of distances between letter and object lefts

	P	o	o	r	F	a	r	m	R	d		
4.42	5.25	4.59	5.04	7.04	4.30	5.30	3.73	10.12	3.56	2.23	4.42	

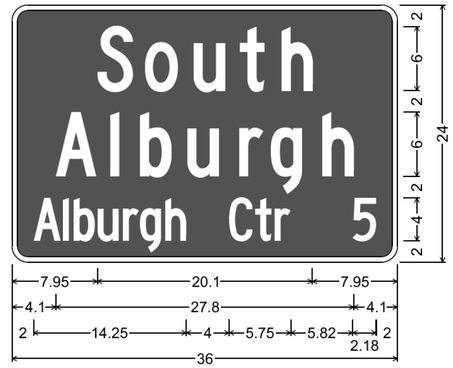
STA. 618+25.4 RT
NOT TO SCALE



1.50" Radius, No border, White on, Green;
"Alburgh", B specified length; "North Hero", B specified length;
Table of distances between letter and object lefts

	A	l	b	u	r	g	h	l	N	o	r	t	h	H	e	r	o	
5.78	4.35	2.43	3.88	4.21	2.57	4.21	8.32	3.73	2.91	2.96	2.07	2.31	8.54	2.90	2.87	2.09	2.63	3.24

STA. 618+74.2 LT
NOT TO SCALE



1.50" Radius, 0.50" Border, White on, Green;
"South", C; "Alburgh", C;
"Alburgh Ctr", C specified length; "5", C;
Table of distances between letter and object lefts

7.95	S	o	u	t	h	7.95			
	4.43	4.57	4.32	3.84	2.94				
4.10	A	l	b	u	r	g	h	4.10	
	5.06	2.73	4.45	4.83	2.96	4.83	2.94		
2.00	A	l	b	u	r	g	h		
	2.76	0.94	2.27	2.34	1.64	2.34			
	5.96	C	t	r	5				
		2.42	1.84	7.31	2.18	2.00			

STA. 620+70.0 LT
NOT TO SCALE

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: zl3v264tss.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M.CRUZ	DRAWN BY: H.GAO
DESIGNED BY: Y. CAO	CHECKED BY: W. WONG
SIGN DETAIL SHEET	SHEET 46 OF 116

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

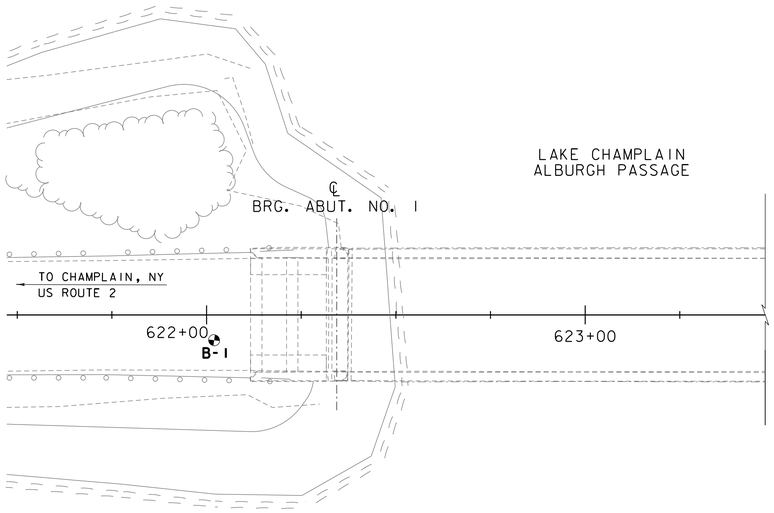
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

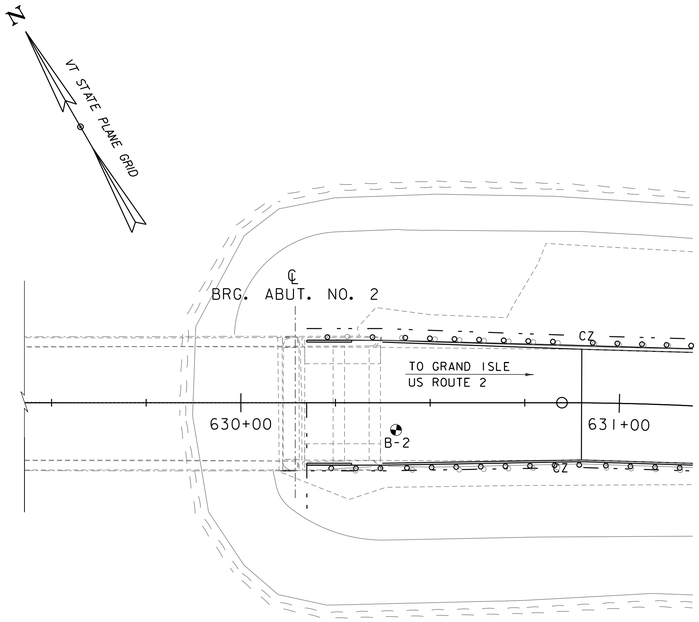
DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊕	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1 3/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1 1/8"
BX	Core Size 1 5/8"
NX	Core Size 2 1/8"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	Top of Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)
VTSPG	NAD83 - See Note 7

COLOR			
blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		





BORING LAYOUT

SCALE 1" = 20'-0"

0 20 40

SCALE IN FEET

BORING CHART

HOLE NO.	STATION	OFFSET (FT)	NORTHING (FT)	EASTING (FT)	GROUND ELEV.	BEDROCK ELEV.
B-1	US ROUTE 2 622+02.00	6.70 RT	870631.87	1439219.80	113.0	74.0
B-2	US ROUTE 2 630+41.00	7.20 RT	870232.92	1439113.80	110.0	51.0

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 12 inches.

COBBLE - Rock fragments with an average dimension between 3 and 12 inches.

GRAVEL - Rounded particles of rock < 3" and > 0.0787" (#10 sieve).

SAND - Particles of rock < 0.0787" (#10 sieve) and > 0.0029" (#200 sieve).

SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

MUCK - Soft organic soil (containing > 10% organic material.

MOISTURE CONTENT - Weight of water divided by dry weight of soil.

FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP - Inclination of bed with a horizontal plane.

GENERAL NOTES

1. The subsurface explorations shown herein were made between 5/4/18 through 5/8/18 by Terracon Consultants, Inc.

2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.

3. Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.

4. Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.

5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.

6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

7. Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264bor.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: Y. WANG
BORING LAYOUT

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 47 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

North Hero
BF 028-1(30)

Boring No.: **B-1**
Page No.: 1 of 2
Pin No.: 13B264
Checked By: LJD

Boring Crew: SS, AF
Date Started: 5/04/18 Date Finished: 5/07/18
VTSPG NAD83: N 870631.87 ft E 1439219.80 ft
Station: 622+02 Offset: 6.7RT
Ground Elevation: 113.0 ft

	Casing	Sampler
Type:	S.S.A./casing	SS
I.D.:	4	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto	
Rig:	CME 55 LCX	C_E = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
05/07/18	17.3	End of Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		10-inches of asphalt pavement, 0.0 ft - 0.8 ft								
		A-1-a, GrSa, black, Rec. = 1.08 ft, (Fill)				19-38-24-10 (62)	5	35	60	5
		Rec. = 0.0 ft, 3.5 ft - 5.0 ft, (Fill)				10-22-32-18 (54)				
5		A-1-a, SaGr, black, Rec. = 0.33 ft, (Fill)				8-14-15-17 (29)	22	73	24	3
		A-1-a, GrSa, black, Rec. = 0.5 ft, (Fill)				10-12-15-15 (27)	8	45	49	6
10		A-1-a, SaGr, black, Rec. = 0.33 ft, (Fill)				9-11-10-9 (21)	6	53	43	4
15		A-1-a, GrSa, black, Rec. = 0.58 ft, (Fill)				10-12-15-11 (27)	11	42	51	7
20		A-1-a, SaGr, black, Rec. = 0.58 ft, (Fill)				9-9-17-13 (26)	13	51	46	3
25		A-1-a, SaGr, black, Rec. = 0.5 ft, (Fill)				11-12-7-6 (19)	10	53	45	2

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor. C_E is an estimated value.
3. Water level readings have been made at times and under conditions stated.
Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.
4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

Terracon

2010 COPY J1185055 NORTH HERO BF 02.GPJ VERMONT AOT.GDT 6/2/18

ABUTMENT NO. 1
BOTTOM OF PILE CAP
EL 93.40

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

North Hero
BF 028-1(30)

Boring No.: **B-1**
Page No.: 2 of 2
Pin No.: 13B264
Checked By: LJD

Boring Crew: SS, AF
Date Started: 5/04/18 Date Finished: 5/07/18
VTSPG NAD83: N 870631.87 ft E 1439219.80 ft
Station: 622+02 Offset: 6.7RT
Ground Elevation: 113.0 ft

	Casing	Sampler
Type:	S.S.A./casing	SS
I.D.:	4	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto	
Rig:	CME 55 LCX	C_E = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
05/07/18	17.3	End of Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-4, SiSa, brown, Rec. = 0.33 ft				9-10-13-14 (23)	23	9	53	38
35		A-2-4, SiSa, brown, Rec. = 0.8 ft, weathered rock in sampler tip. advanced roller bit to competent rock at 39 feet.				32-50/4" (50+)	16	7	61	32
40		39.0 ft - 44.0 ft, Hard, fresh weathering, black, fine-grained MUDSTONE, moderately dipping fractures, close spacing	1	93.3(86.7)	3 3.5 4 5 5.5	Top of Bedrock @ 39.0 ft				
45		44.0 ft - 49.0 ft, Hard, fresh weathering, black, fine-grained MUDSTONE, moderately dipping fractures, close spacing	2	95(95)	2.5 3 3 3.5 3					
50		Hole stopped @ 49.0 ft								
55										

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor. C_E is an estimated value.
3. Water level readings have been made at times and under conditions stated.
Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.
4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

Terracon

2010 COPY J1185055 NORTH HERO BF 02.GPJ VERMONT AOT.GDT 6/2/18

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3b264bor.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: Y. WANG
BORING LOGS SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 48 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

ABUTMENT NO. 2
BOTTOM OF PILE CAP
EL 97.07

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

North Hero
BF 028-1(30)

Boring No.: **B-2**
Page No.: 1 of 3
Pin No.: 13B264
Checked By: LJD

Boring Crew: SS, AF
Date Started: 5/07/18 Date Finished: 5/08/18
VTSPG NAD83: N 870232.92 ft E 1439913.80 ft
Station: 630+41 Offset: 7.2RT
Ground Elevation: 110.0 ft

	Casing	Sampler
Type:	S.S.A./casing	SS
I.D.:	4	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto	
Rig:	CME 55 LCX	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
05/08/18		Water added

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		0.0 ft - 0.4 ft								
		A-1-a, GrSa, black, Rec. = 0.75 ft, (Fill)				21-14-11-10 (25)	3	46	50	4
		A-1-a, GrSa, black, Rec. = 0.83 ft, (Fill)				6-6-13-11 (19)	2	46	49	5
5		A-1-a, SaGr, black, Rec. = 0.58 ft, (Fill)				7-7-9-6 (16)	7	52	40	8
		A-1-a, SaGr, black, Rec. = 0.33 ft, (Fill)				4-5-6-5 (11)	3	72	26	2
10		A-1-a, SaGr, black, Rec. = 0.5 ft, (Fill)				6-5-9-4 (14)	8	51	39	10
15		Rec. = 0.0 ft, 15.0 ft - 17.0 ft, (Fill)				4-5-3-3 (8)				
20		A-1-a, SaGr, black, Rec. = 0.5 ft, (Fill)				8-15-8-9 (23)	12	48	44	8
25		A-1-a, SaGr, black, Rec. = 0.25 ft, (Fill)				8-8-6-6 (14)	19	53	46	1

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor. C_E is an estimated value.
3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.
4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

Terracon

2010 COPY J:\185055 NORTH HERO BF 02.GPJ VERMONT AOT.GDT 6/2/18

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

North Hero
BF 028-1(30)

Boring No.: B-2
Page No.: 2 of 3
Pin No.: 13B264
Checked By: LJD

Boring Crew: SS, AF
Date Started: 5/07/18 Date Finished: 5/08/18
VTSPG NAD83: N 870232.92 ft E 1439913.80 ft
Station: 630+41 Offset: 7.2RT
Ground Elevation: 110.0 ft

Type: S.S.A./casing SS
I.D.: 4 2 in
Hammer Wt: N.A. 140 lb.
Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto
Rig: CME 55 LCX C_E = 1.33

Groundwater Observations
05/08/18 Water added

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Rec. = 0.0 ft, 30.0 ft - 32.0 ft, (Fill)				10-9-6-4 (15)				
35		A-1-b, GrSa, black, Rec. = 0.25 ft, (Fill)				6-5-27-12 (32)	13	43	43	14
40		Rec. = 0.0 ft, 40.0 ft - 42.0 ft				5-2-2-5 (4)				
45		A-4, Si, gray, Rec. = 1.33 ft				5-5-8-4 (13)	26	4	13	83
50		A-2-4, SiSa, gray, Rec. = 0.9 ft				9-11-15-18 (26)	10	16	56	28
55		A-4, SaSi, gray, Rec. = 0.5 ft				18-2-50/5" (50+)	12	2	29	69
		59.0 ft - 64.0 ft, Hard, very slight weathering, black, fine-grained MUDSTONE, moderately dipping fractures, very close to close	1	97(52)	2.5	*Top of Bedrock @ 59.0 ft*				

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor. C_E is an estimated value.
3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.
4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

Terracon

2010 COPY J:\185055 NORTH HERO BF 02.GPJ VERMONT AOT.GDT 6/2/18

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264bor.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: Y. WANG
BORING LOGS SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 49 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

North Hero
BF 028-1(30)

Boring No.: **B-2**
Page No.: 3 of 3
Pin No.: 13B264
Checked By: LJD

Boring Crew: SS, AF
Date Started: 5/07/18 Date Finished: 5/08/18
VTSPG NAD83: N 870232.92 ft E 1439913.80 ft
Station: 630+41 Offset: 7.2RT
Ground Elevation: 110.0 ft

	Casing	Sampler
Type:	S.S.A./casing	SS
I.D.:	4	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto	
Rig:	CME 55 LCX	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
05/08/18		Water added

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		spacing, 4 to 6-inch black silty clay seam at 61 feet. No water return from 60 feet to 64 feet.			3 3.5 3.5 3					
65		64.0 ft - 69.0 ft, Hard, very slight weathering, black, fine-grained MUDSTONE, moderately dipping fractures, close spacing, approximate 1 to 2 inch black silty clay seam at 68.5 feet.	2	92(72)	3 3 3.5 3 3					
70		Hole stopped @ 69.0 ft								
75										
80										
85										

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor. C_E is an estimated value.
3. Water level readings have been made at times and under conditions stated.
Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.
4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

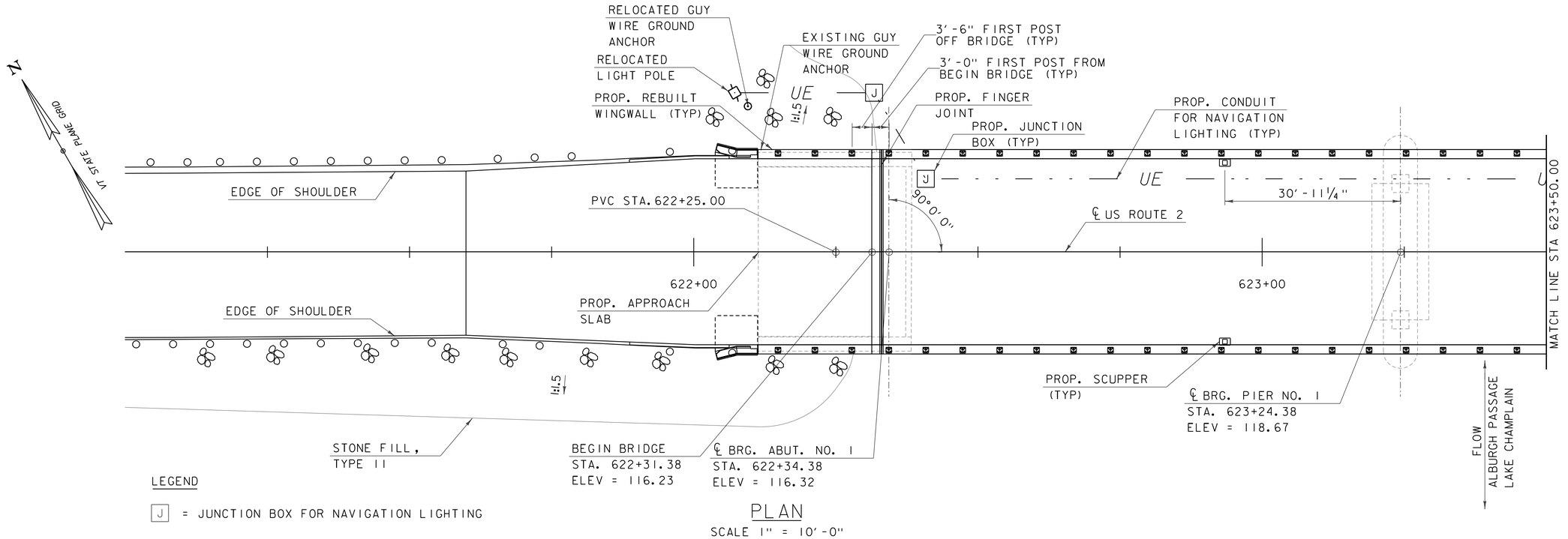
Terracon

2010 COPY J:\185055 NORTH HERO BF 02.GPJ VERMONT AOT.GDT 6/2/18

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

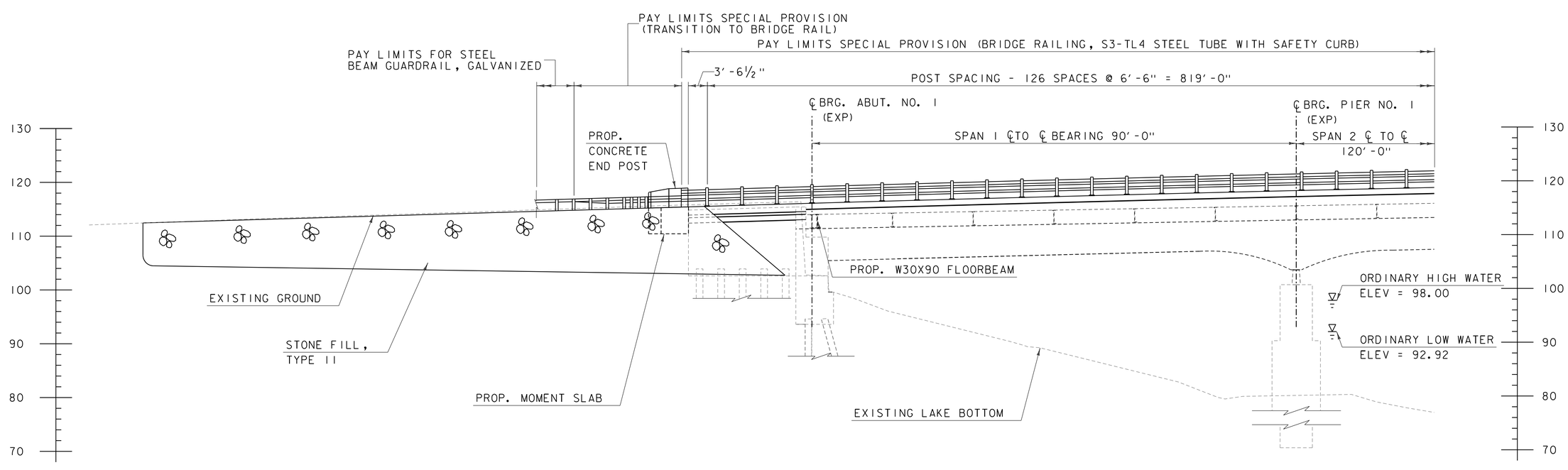
FILE NAME: z13b264bor.dgn PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ DRAWN BY: S. BIBINSKI
DESIGNED BY: Y. WANG CHECKED BY: T. CARD
BORING LOGS SHEET 3 SHEET 50 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



PLAN

SCALE 1" = 10'-0"



ELEVATION SOUTH FASCIA

SCALE 1" = 10'-0"

0 10 20

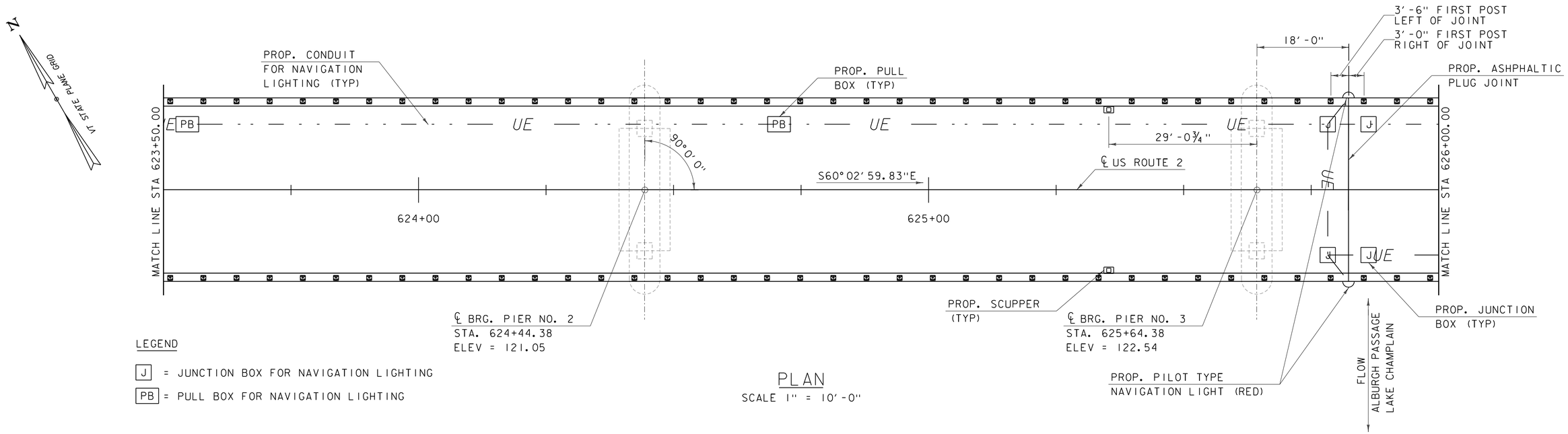
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

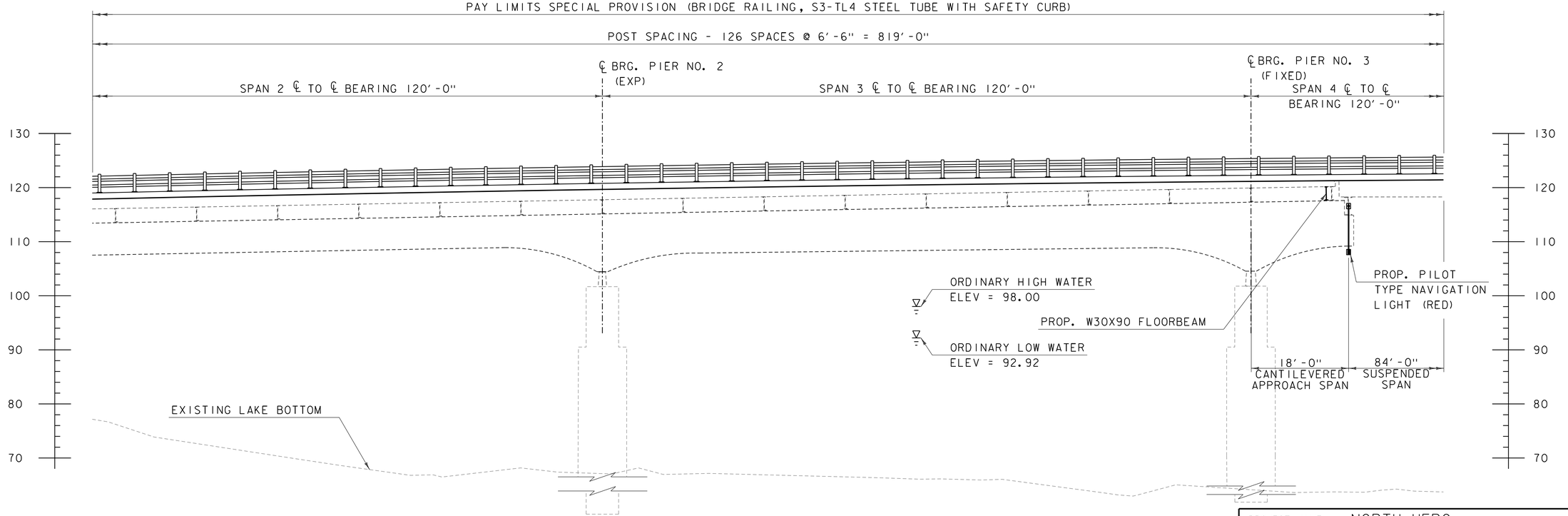
FILE NAME: z13b264pe.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
PLAN & ELEVATION SHEET 1OF 4

PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: T. CARD
SHEET 51 OF 108



PLAN

SCALE 1" = 10'-0"



ELEVATION SOUTH FASCIA

SCALE 1" = 10'-0"

0 10 20

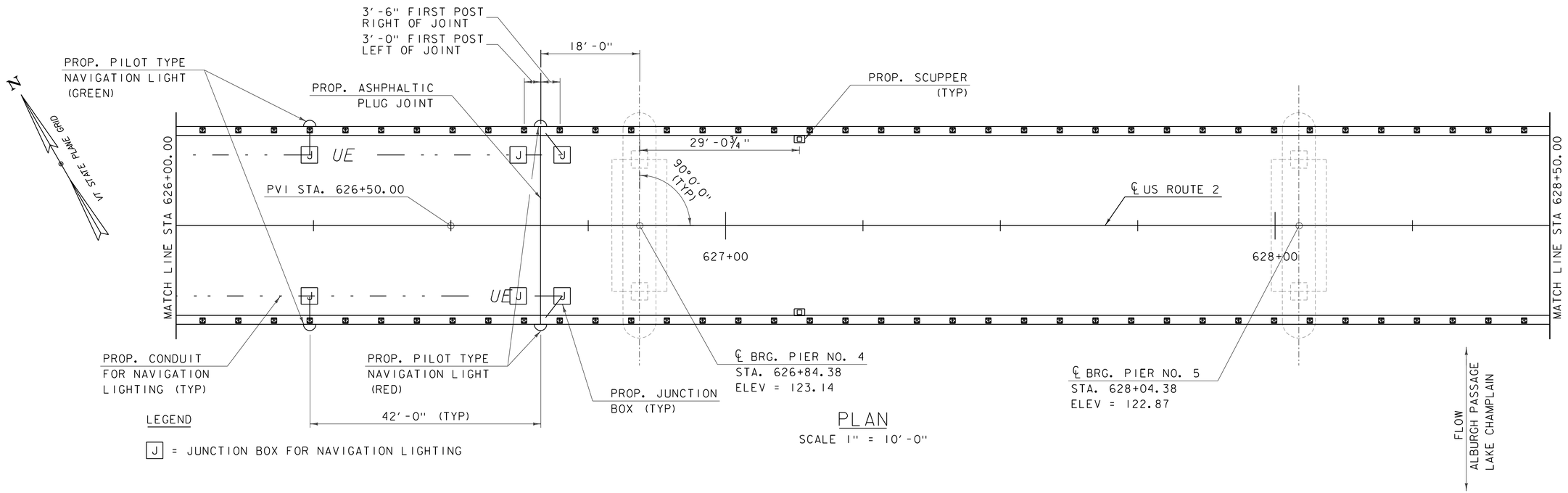
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

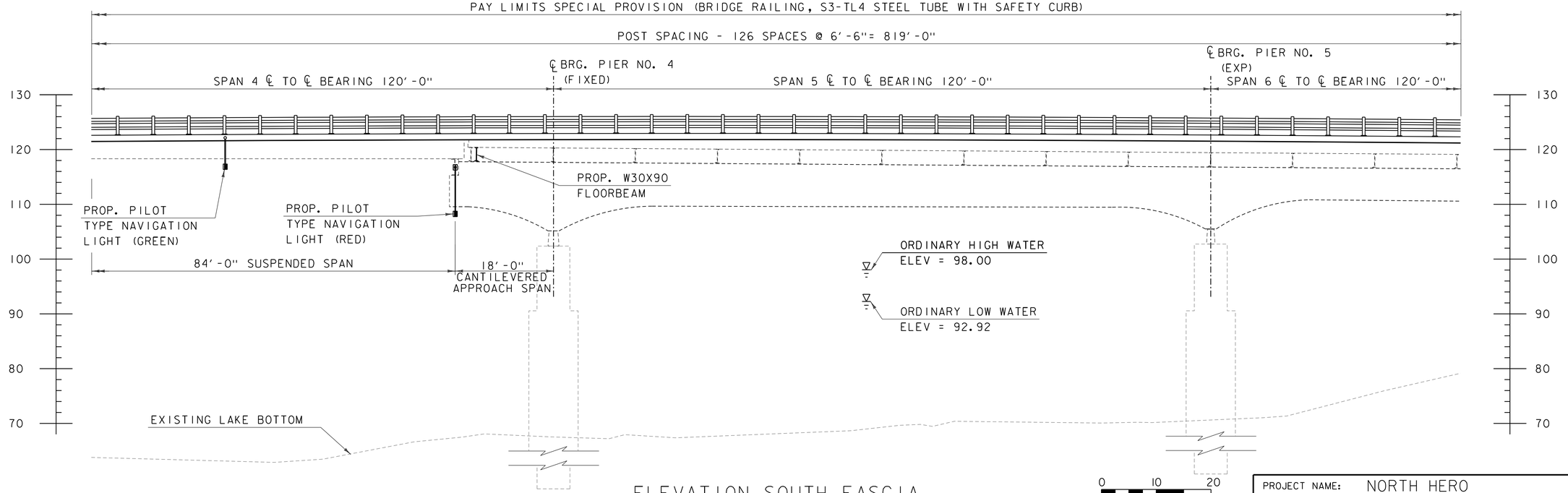
FILE NAME: z13b264pe.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
PLAN & ELEVATION SHEET 2 OF 4

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 52 OF 108



PLAN

SCALE 1" = 10'-0"



ELEVATION SOUTH FASCIA

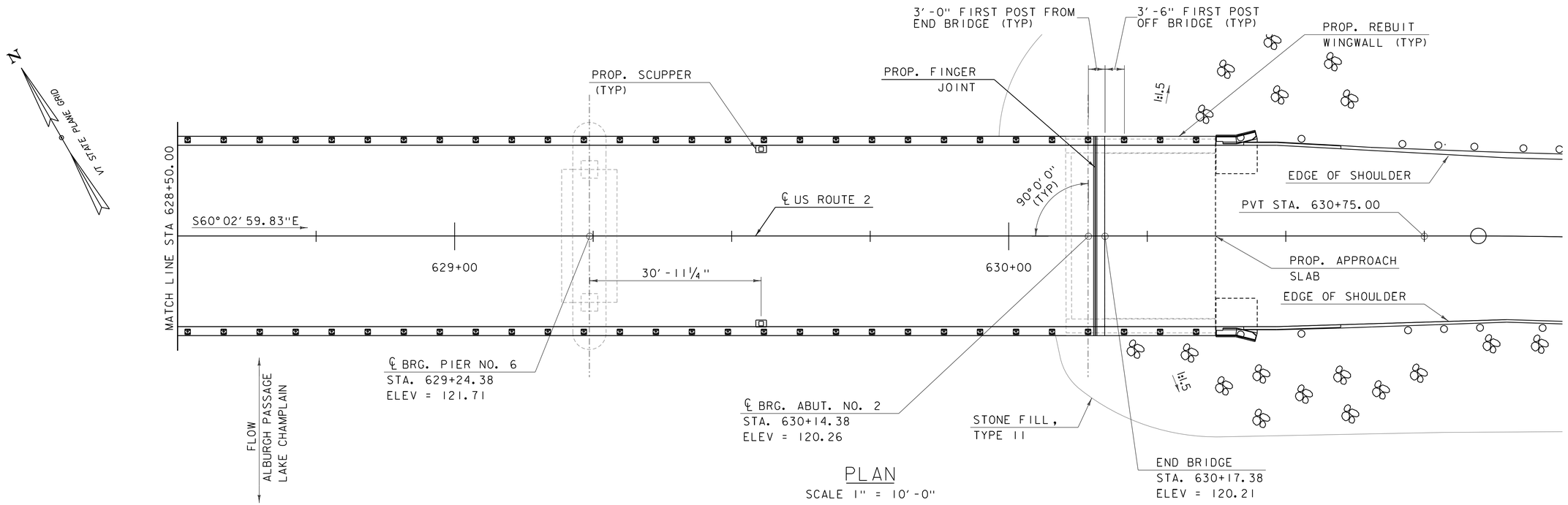
SCALE 1" = 10'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

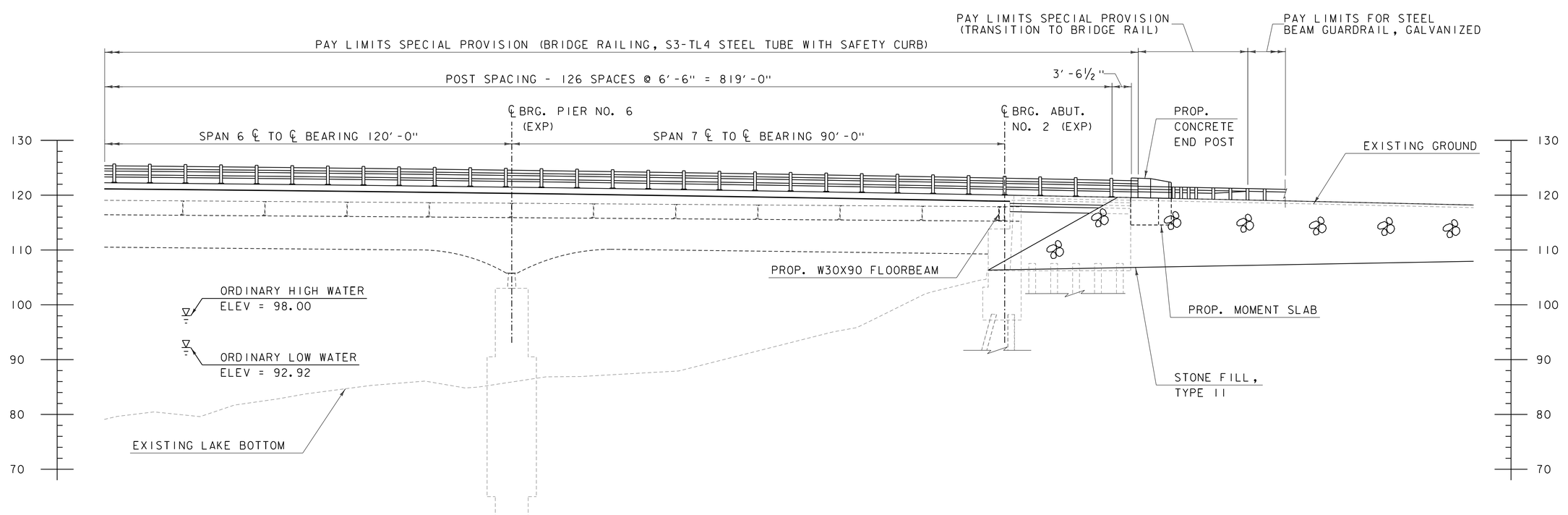
FILE NAME: zl3b264pe.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
PLAN & ELEVATION SHEET 3 OF 4

PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: T. CARD
SHEET 53 OF 108



PLAN

SCALE 1" = 10'-0"



ELEVATION SOUTH FASCIA

SCALE 1" = 10'-0"

0 10 20

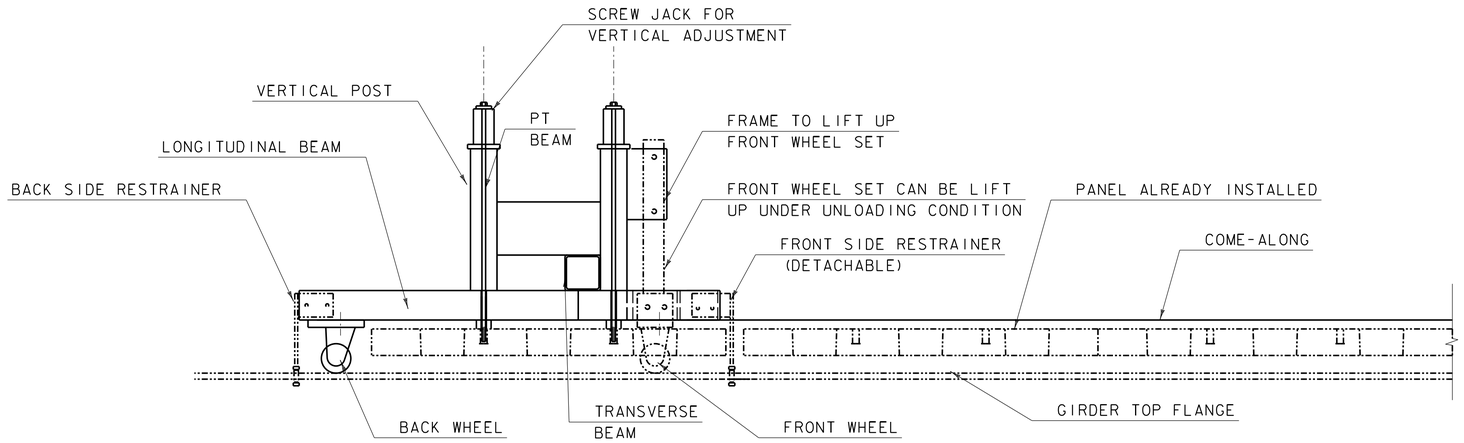
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

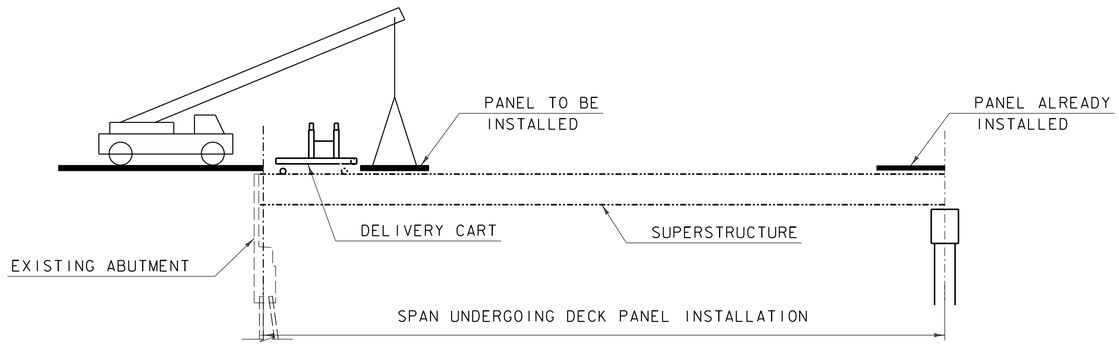
FILE NAME: z13b264pe.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
PLAN & ELEVATION SHEET 4 OF 4

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 54 OF 108



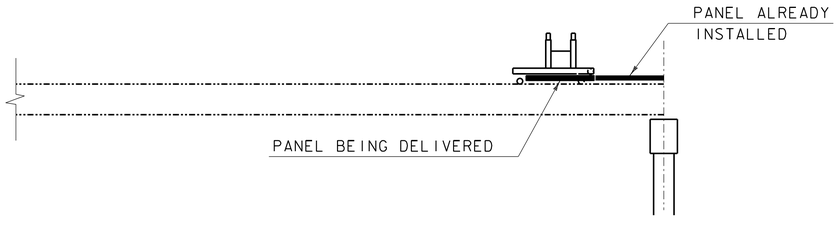
PANEL DELIVERY SYSTEM LONGITUDINAL SECTION

NOT TO SCALE



SCHEMATIC STEP 1

NOT TO SCALE



SCHEMATIC STEP 2

NOT TO SCALE

PANEL DELIVERY SYSTEM NOTES:

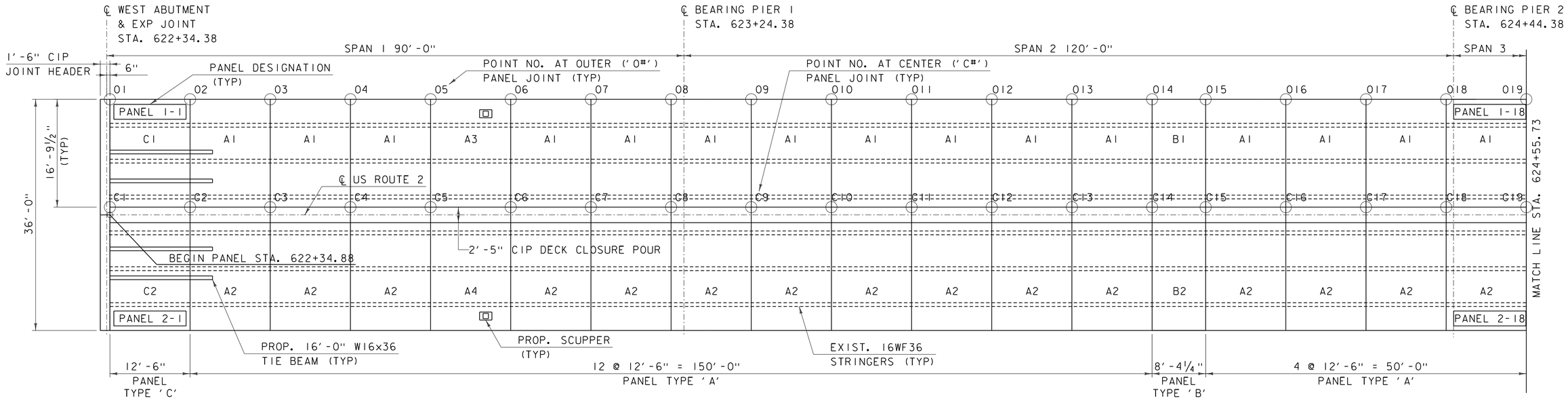
1. PANEL DELIVERY SYSTEM SHOWN ON THIS SHEET IS A CONCEPTUAL APPROACH TO THE PANEL INSTALLATION FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR'S MEANS AND METHODS FOR PANEL ERECTION SHALL BE INCLUDED IN THE SHOP DRAWING SUBMITTAL FOR ITEM 900.645 SPECIAL PROVISION (ACCELBRIDGE DECK PANEL SYSTEM).

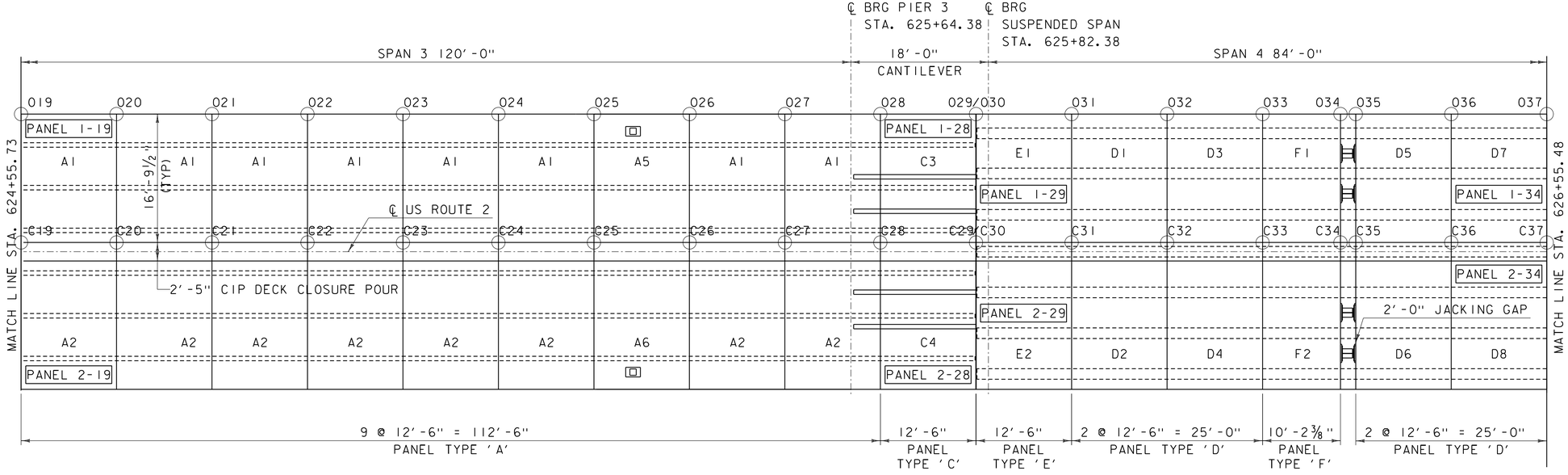
SUGGESTED SEQUENCE OF CONSTRUCTION NOTES:

1. CART SYSTEM IS INSTALLED ON THE EXPOSED SUPERSTRUCTURE AFTER DEMOLITION OF THE EXISTING DECK IS COMPLETE.
2. CRANE OR OTHER EQUIPMENT PLACES DECK PANEL IN FRONT OF THE DELIVERY CART SO THAT IT CAN MOVE FORWARD, PICK UP THE PANEL, AND TRANSPORT IT TO THE PROPOSED LOCATION AT THE INTERFACE BETWEEN THE APPROACH SPAN AND SUSPENDED SPAN.
3. DELIVERY CART WILL PLACE THE PANEL AT THE PROPOSED LOCATION AND A COME-ALONG WILL BE USED TO PULL THE NEW PANEL TIGHT TO THE PREVIOUSLY PLACED PANELS.
4. DELIVERY CART WILL ASSIST IN OPERATIONS TO LEVEL THE PANEL, FINE TUNE PLACEMENT, AND CLOSE THE MATCH CAST JOINT WITH EPOXY.
5. DELIVERY CART WILL RELEASE THE PANEL ONCE PLACEMENT IS FINALIZED AND BACK UP TO RETURN TO THE BEGINNING OF THE LIMITS, WHERE THE PROCESS WILL REPEAT UNTIL ALL PANELS ARE PLACED.
6. CRANE OR OTHER EQUIPMENT WILL PLACE THE END PANEL AND PREPARATIONS FOR LONGITUDINAL JACKING WILL COMMENCE.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264paneldel.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: C. NICHOLS
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
PANEL DELIVERY SYSTEM DETAIL SHEET	SHEET 55 OF 108





PANEL DESIGNATION NOTES:

PANEL X-##

X = STAGE NO. PANEL IS INSTALLED UNDER
- PANEL NO. INCREASING ALONG BASELINE STATIONING

PANEL DESIGNATION NUMBERING IS INDEPENDENT OF THE PANEL TYPE WHICH IS IDENTIFIED USING LETTERS AND NUMBERS 'A#' THROUGH 'F#'

PRECAST CONCRETE DECK SLAB LAYOUT 1 OF 2

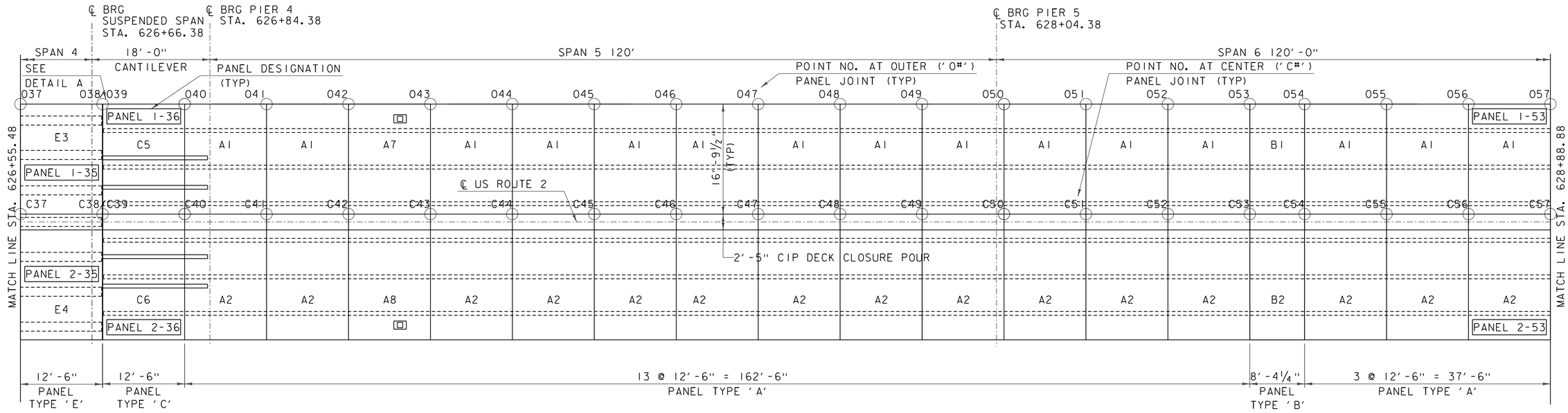
SCALE ⅛" = 1'-0"

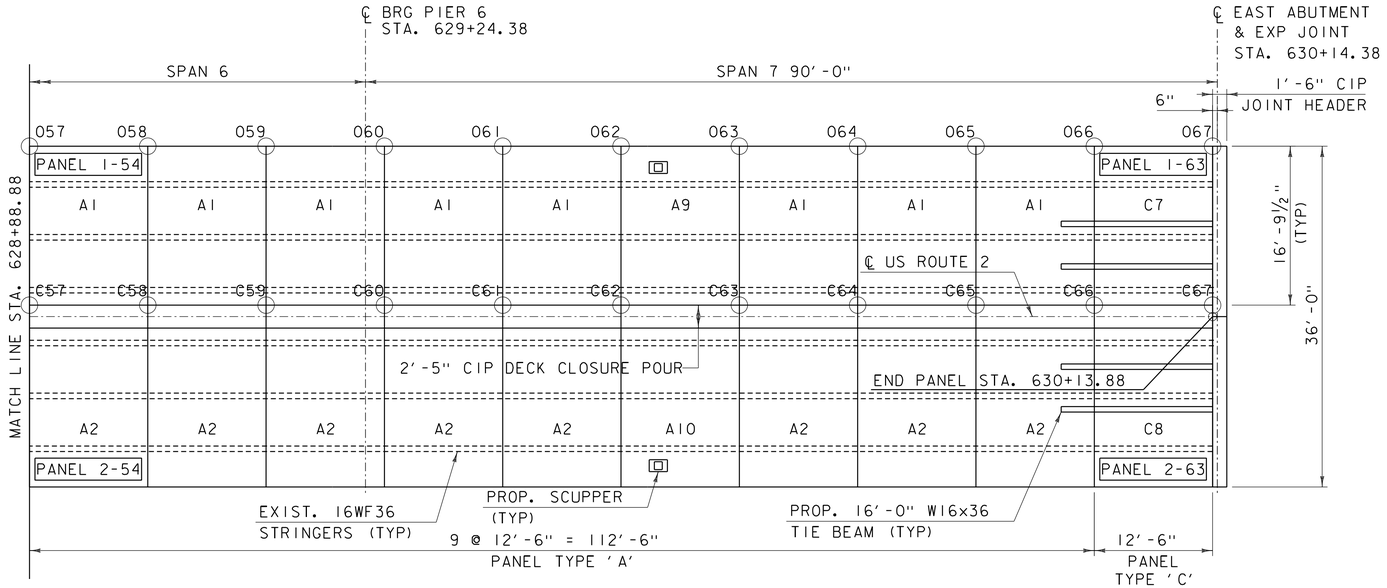
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

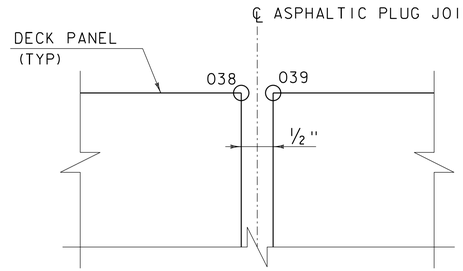
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264decklay.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
PRECAST DECK PANEL LAYOUT SHT 1OF 3

PLOT DATE: 2/18/2022
DRAWN BY: R. STICKLES
CHECKED BY: T. CARD
SHEET 56 OF 108







DETAIL A

NTS

NOTE:
OUTER POINTS 038 & 039 SHOWN.
DETAIL SIMILAR FOR OUTER POINTS
029 & 030, AS WELL AS CORRESPONDING
CENTER POINTS C38, C39, C29 & C30.

DECK PANEL LAYOUT NOTES:

1. BRIDGE RAILING, SHEAR POCKETS, LEVELING DEVICES AND REINFORCING STEEL NOT SHOWN FOR CLARITY.
2. SEE SHEET 58 FOR TOP OF SLAB ELEVATIONS AT PROVIDED POINTS:
   O = OUTER
   C = CENTER
3. TOP OF SLAB ELEVATIONS ONLY PROVIDED FOR ONE SIDE OF PANELS SINCE THE DECK SLAB LAYOUT IS SYMMETRICAL ABOUT THE BASELINE AND PROPOSED CLOSURE POUR.
4. SEE SHEET 56 FOR PANEL DESIGNATION NUMBERING DETAIL.

PRECAST CONCRETE DECK SLAB LAYOUT 2 OF 2

SCALE ⅛" = 1'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264decklay.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M . CRUZ	DRAWN BY: R. STICKLES
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
PRECAST DECK PANEL LAYOUT SHT 2 OF 3	SHEET 57 OF 108

TOP OF SLAB ELEVATIONS TABLE - APPROACH SPAN 1 TO WEST CANTILEVER

Station	CENTER PT. NO.	CENTER PT. FINAL ELEV	CENTER DL DEFLECTION (IN)	OUTER PT. NO.	OUTER PT. ELEV	OUTER DL DEFLECTION (IN)
622+34.88	C1	116.06	0.000	O1	115.75	-0.005
622+47.38	C2	116.41	-0.165	O2	116.11	-0.111
622+59.88	C3	116.76	-0.237	O3	116.46	-0.185
622+72.38	C4	117.10	-0.257	O4	116.80	-0.204
622+84.88	C5	117.43	-0.280	O5	117.12	-0.228
622+97.38	C6	117.75	-0.203	O6	117.44	-0.151
623+09.88	C7	118.05	-0.097	O7	117.75	-0.037
623+22.38	C8	118.35	-0.127	O8	118.05	-0.071
623+34.88	C9	118.64	-0.099	O9	118.34	-0.038
623+47.38	C10	118.92	-0.171	O10	118.62	-0.114
623+59.88	C11	119.19	-0.249	O11	118.89	-0.195
623+72.38	C12	119.46	-0.307	O12	119.15	-0.254
623+84.88	C13	119.71	-0.329	O13	119.40	-0.275
623+97.38	C14	119.95	-0.364	O14	119.65	-0.310
624+05.73	C15	120.10	-0.325	O15	119.80	-0.272
624+18.23	C16	120.33	-0.219	O16	120.03	-0.165
624+30.73	C17	120.55	-0.101	O17	120.24	-0.041
624+43.23	C18	120.75	-0.134	O18	120.45	-0.076
624+55.73	C19	120.95	-0.090	O19	120.65	-0.031
624+68.23	C20	121.14	-0.147	O20	120.84	-0.091
624+80.73	C21	121.32	-0.208	O21	121.01	-0.154
624+93.23	C22	121.49	-0.256	O22	121.18	-0.202
625+05.73	C23	121.64	-0.280	O23	121.34	-0.226
625+18.23	C24	121.79	-0.292	O24	121.49	-0.238
625+30.73	C25	121.93	-0.307	O25	121.63	-0.252
625+43.23	C26	122.06	-0.256	O26	121.76	-0.203
625+55.73	C27	122.18	-0.153	O27	121.88	-0.101
625+68.23	C28	122.30	-0.059	O28	121.99	0.002
625+80.73	C29	122.40	-0.063	O29	122.09	-0.019

TOP OF SLAB ELEVATIONS TABLE - APPROACH EAST CANTILEVER TO SPAN 7

Station	CENTER PT. NO.	CENTER PT. FINAL ELEV	CENTER DL DEFLECTION (IN)	OUTER PT. NO.	OUTER PT. ELEV	OUTER DL DEFLECTION (IN)
626+68.01	C39	122.84	-0.063	O39	122.54	-0.019
626+80.51	C40	122.86	-0.059	O40	122.56	0.002
626+93.01	C41	122.88	-0.153	O41	122.58	-0.101
627+05.51	C42	122.89	-0.256	O42	122.58	-0.203
627+18.01	C43	122.88	-0.307	O43	122.58	-0.252
627+30.51	C44	122.87	-0.292	O44	122.56	-0.238
627+43.01	C45	122.85	-0.280	O45	122.54	-0.226
627+55.51	C46	122.81	-0.256	O46	122.51	-0.202
627+68.01	C47	122.77	-0.208	O47	122.47	-0.154
627+80.51	C48	122.72	-0.147	O48	122.42	-0.091
627+93.01	C49	122.66	-0.090	O49	122.36	-0.031
628+05.51	C50	122.59	-0.134	O50	122.28	-0.076
628+18.01	C51	122.51	-0.101	O51	122.20	-0.041
628+30.51	C52	122.42	-0.219	O52	122.11	-0.165
628+38.86	C53	122.35	-0.325	O53	122.05	-0.272
628+51.36	C54	122.25	-0.364	O54	121.94	-0.310
628+63.86	C55	122.13	-0.329	O55	121.83	-0.275
628+76.36	C56	122.01	-0.307	O56	121.70	-0.254
628+88.86	C57	121.87	-0.249	O57	121.57	-0.195
629+01.36	C58	121.73	-0.171	O58	121.42	-0.114
629+13.86	C59	121.57	-0.099	O59	121.27	-0.038
629+26.36	C60	121.41	-0.127	O60	121.11	-0.071
629+38.86	C61	121.24	-0.097	O61	120.94	-0.037
629+51.36	C62	121.06	-0.203	O62	120.75	-0.151
629+63.86	C63	120.86	-0.280	O63	120.56	-0.228
629+76.36	C64	120.66	-0.257	O64	120.36	-0.204
629+88.86	C65	120.45	-0.237	O65	120.15	-0.185
630+01.36	C66	120.23	-0.165	O66	119.93	-0.111
630+13.88	C67	120.00	0.000	O67	119.70	-0.005

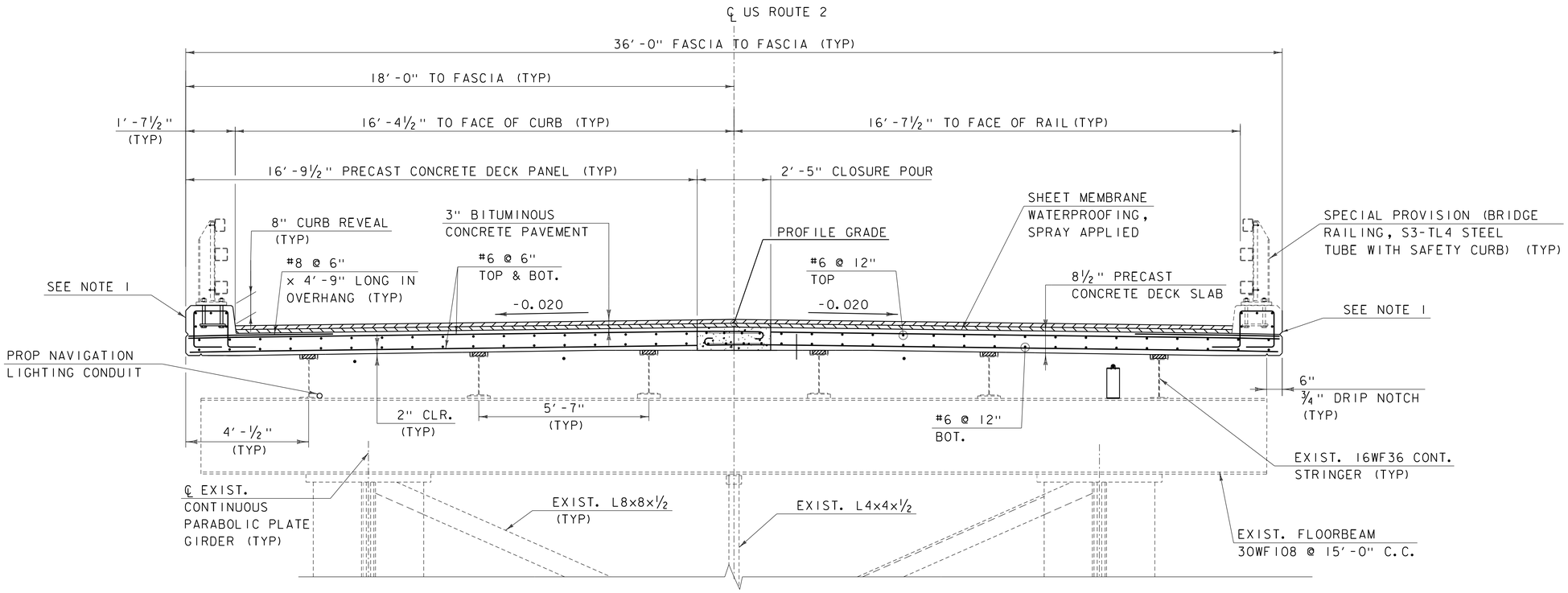
TOP OF SLAB ELEVATIONS TABLE - SUSPENDED SPAN

Station	CENTER PT. NO.	CENTER PT. FINAL ELEV	CENTER DL DEFLECTION (IN)	OUTER PT. NO.	OUTER PT. ELEV	OUTER DL DEFLECTION (IN)	JACKING FORCE DEFLECTION (IN)
625+80.78	C30	122.40	-0.060	O30	122.09	-0.019	0.000
625+93.28	C31	122.49	-0.060	O31	122.19	-0.022	0.470
626+05.78	C32	122.57	-0.201	O32	122.27	-0.177	0.864
626+18.28	C33	122.64	-0.304	O33	122.34	-0.293	1.057
626+28.48	C34	122.70	-0.356	O34	122.39	-0.355	1.068
2'-0" Jacking Gap							
626+30.48	C35	122.71	-0.304	O35	122.40	-0.293	1.057
626+42.98	C36	122.76	-0.201	O36	122.46	-0.177	0.864
626+55.48	C37	122.80	-0.060	O37	122.50	-0.022	0.470
626+67.98	C38	122.84	-0.060	O38	122.54	-0.019	0.000

NOTE: ADDITIONAL DEFLECTION DUE TO JACKING FORCES ARE ESTIMATED, AND SHALL BE RECALCULATED AS PART OF THE SHOP DRAWING PROCESS. THESE VALUES DO NOT APPLY TO GIRDER 4 WHICH IS WITHIN THE LIMITS OF THE LONGITUDINAL CLOSURE POUR IN THE SUSPENDED SPAN.

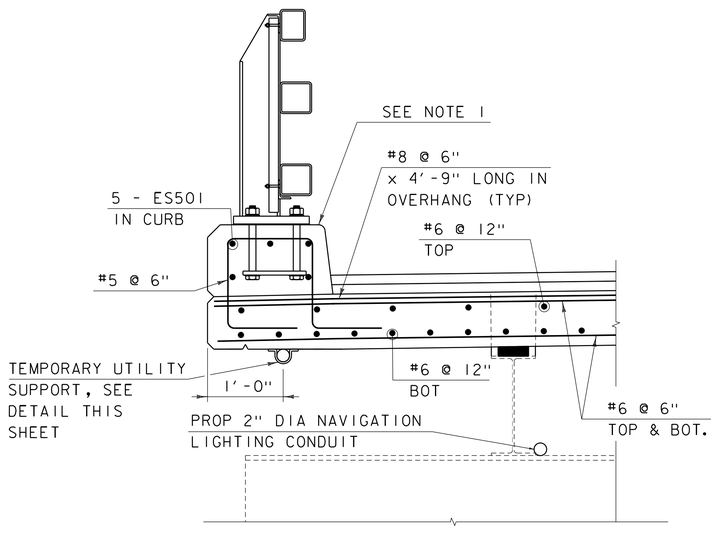
NOTES:

1. INFORMATION PROVIDED FOR ONE SET OF PANELS SINCE THE DECK SLAB LAYOUT IS SYMMETRICAL ABOUT THE BASELINE AND PROPOSED CLOSURE POUR.
2. DECK SLAB ELEVATIONS PROVIDED ARE THE FINAL CONDITION ELEVATIONS. CONTRACTOR SHALL CONSIDER DEFLECTION, JACKING CAMBER, AND MINIMUM HAUNCH REQUIREMENTS TO ACHIEVE ELEVATIONS SHOWN.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SURVEY ELEVATIONS FOR THE TOP OF THE EXISTING EXTERIOR STRINGERS/BEAMS AT THE STATIONS SHOWN IN THE TABLES ON THIS SHEET. THE CONTRACTOR MAY NOT SET ANY PANELS PRIOR TO PROVIDING THESE ELEVATIONS TO THE ENGINEER FOR REVIEW. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE SPECIAL PROVISION (ACCELBRIDGE PRECAST DECK PANEL SYSTEM) ITEM



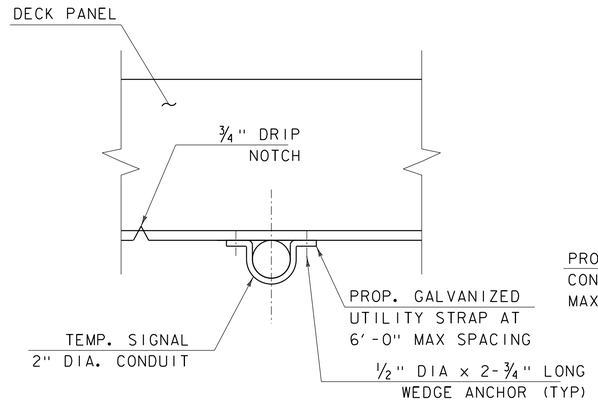
APPROACH SPAN PRECAST DECK SLAB TYPICAL REINFORCING

SCALE ½" = 1′-0"



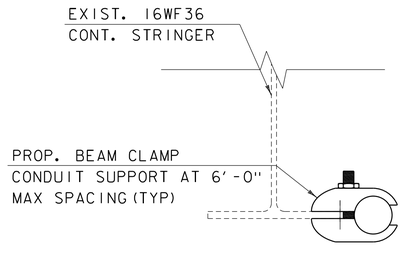
APPROACH SPAN TYPICAL OVERHANG REINFORCING

SCALE 1" = 1′-0"



TEMPORARY UTILITY SUPPORT DETAIL

SCALE 3" = 1′-0"



NOTE: APPROACH SPAN ATTACHMENT SHOWN, SUSPENDED SPAN SIMILAR.

LIGHTING CONDUIT DETAIL

SCALE 3" = 1′-0"

NOTES:

1. SHOULD THE CONTRACTOR ELECT TO INCLUDE THE SAFETY CURB ON THE PRECAST SLAB, THE S3-TL4 POST ANCHOR BOLTS SHALL BE CAST INTO THE PANEL, AND NO ADDITIONAL PAYMENT FOR SAFETY CURB REINFORCEMENT WILL BE MADE.
2. POST ANCHORAGES CANNOT BE DRILLED INTO THE PRECAST DECK SLABS AFTER FABRICATION.
3. PROPOSED DECK PANELS, CLOSURE POUR REINFORCING SHALL BE PAID FOR UNDER SPECIAL PROVISION (ACCELBRIDGE DECK PANEL SYSTEM).
4. PROPOSED BRIDGE RAILING AND SAFETY CURB REINFORCING SHALL BE PAID FOR UNDER SPECIAL PROVISION (BRIDGE RAILING, S3-TL4 STEEL TUBE WITH SAFETY CURB).

UTILITY SUPPORT NOTES:

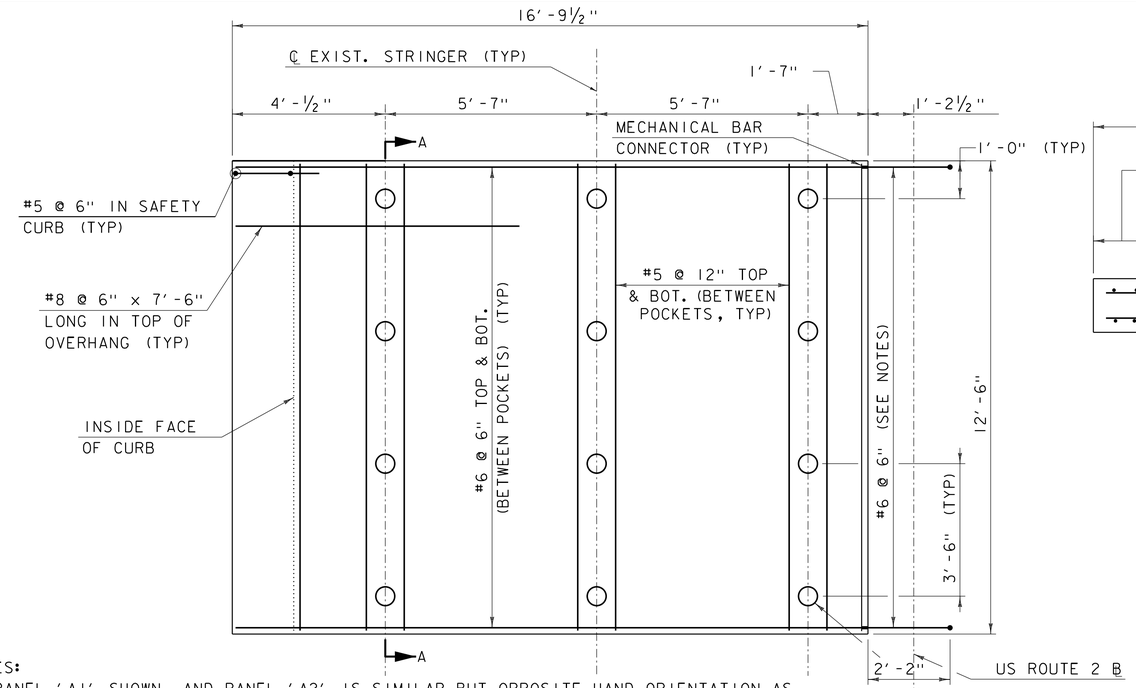
1. ALL STEEL SHALL BE MINIMUM 36 KSI AND GALVANIZED IN ACCORDANCE WITH SECTION 726.08 OF VTRANS STANDARD SPECIFICATIONS.
2. PROPOSED HARDWARE SHALL BE INSTALLED FOLLOWING THE MANUFACTURERS RECOMMENDATIONS, AND TAKING CARE TO AVOID IMPACTS TO DECK REINFORCING WHEN INSTALLED.
3. REMOVING AND REPLACING OF THE EXISTING NAVIGATION LIGHTS AND CONDUIT, AS WELL AS PROPOSED UTILITY SUPPORTS SHOWN, SHALL BE PAID FOR AND DESCRIBED UNDER SPECIAL PROVISION (REMOVE AND REPLACE NAVIGATION LIGHTS & CONDUIT).
4. THE TEMPORARY SIGNAL CONDUIT AND SUPPORTS WILL BE INCIDENTAL TO ITEM 614.10 TRAFFIC CONTROL.

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264typ2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
APPROACH SPAN DECK SECTIONS SHEET

PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: T. CARD
SHEET 59 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

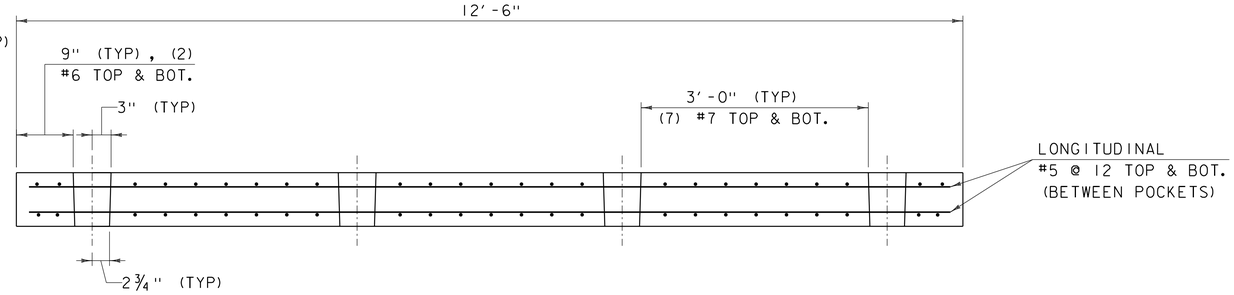


NOTES:

1. PANEL 'A1' SHOWN, AND PANEL 'A2' IS SIMILAR BUT OPPOSITE HAND ORIENTATION AS SHOWN ON SHEETS 56 AND 57.
2. PRECASTER MUST BE INFORMED THAT THE MECHANICAL BAR CONNECTORS FOR THE HOOK BARS SHALL BE STAGGERED RELATIVE TO THE OPPOSITE HAND PANEL TO AVOID CONFLICT WITHIN THE LONGITUDINAL CLOSURE POUR LIMITS WHEN PLACING THE PANELS BETWEEN STAGE 1 AND STAGE 2.
3. STAGE 'A1' PANELS SHALL HAVE HOOK BARS IN TOP, AND STAGE 2 'A2' PANEL SHALL HAVE HOOK BARS IN BOTTOM, AS SHOWN IN LONGITUDINAL CLOSURE POUR DETAIL ON SHEET 64.

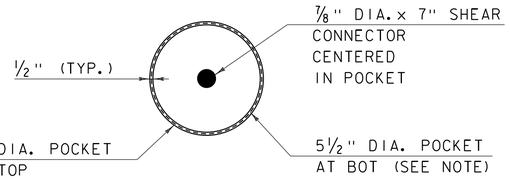
APPROACH SPAN PANEL 'A1' DETAILS

SCALE ½" = 1'-0"



SECTION A-A

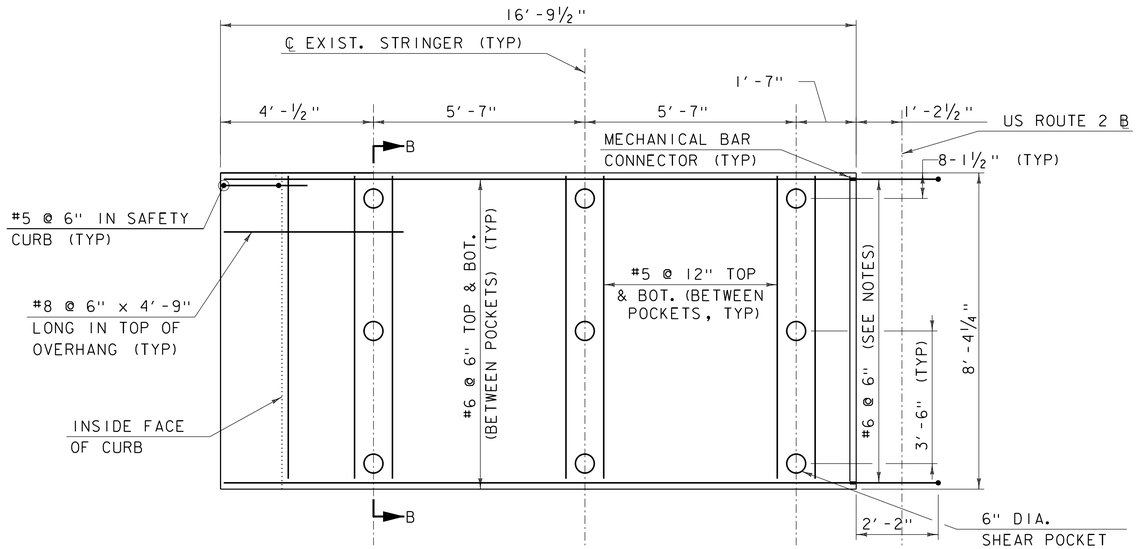
SCALE 1" = 1'-0"



NOTE: PROPOSED SHEAR STUD POCKETS SHALL HAVE A ¼" TAPER TO AID IN RESISTING PULLOUT FORCES.

APPROACH SPAN PANEL 'A#' SHEAR CONNECTOR POCKET DETAIL

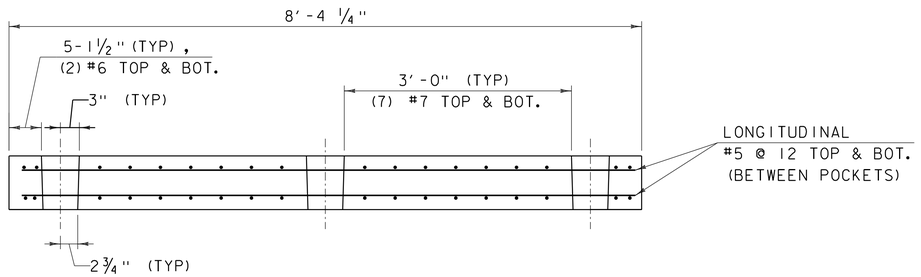
SCALE 3" = 1'-0"



NOTE: PANEL A1 NOTES ON MECHANICAL BAR CONNECTORS, HOOK BARS, AND LONGITUDINAL CLOSURE POUR APPLY.

APPROACH SPAN PANEL 'B1' DETAILS

SCALE ½" = 1'-0"

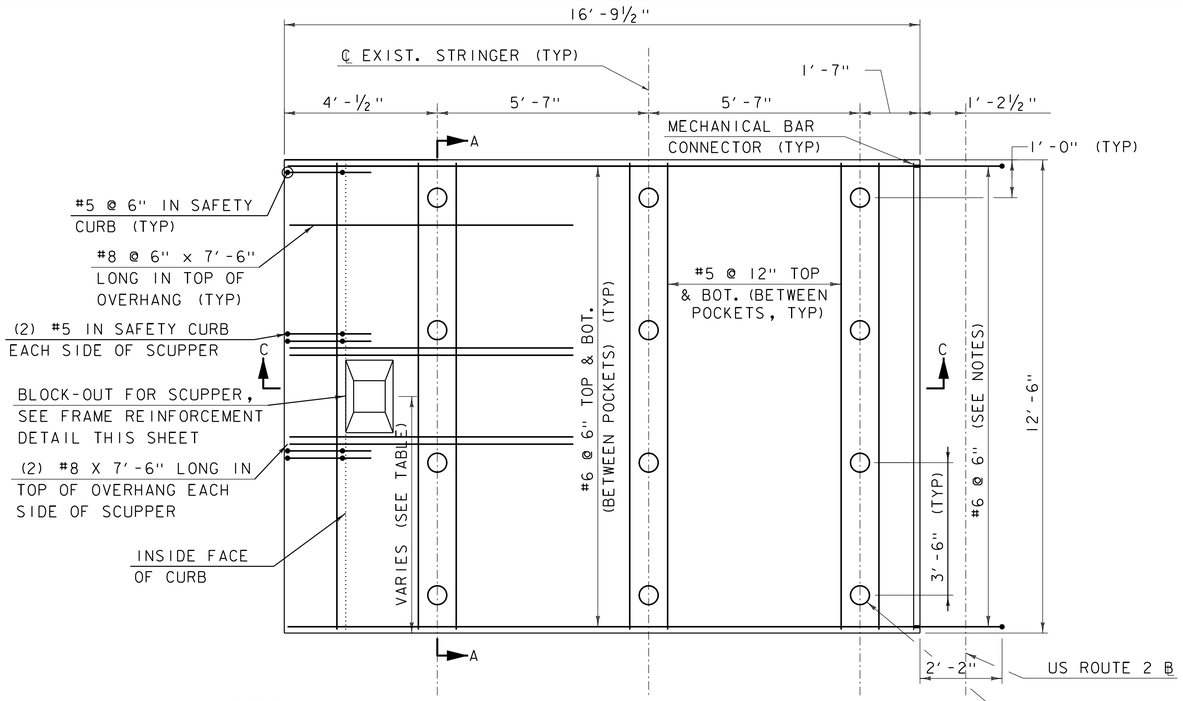


SECTION B-B

SCALE 1" = 1'-0"

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. GORE
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
APPROACH SPAN DECK PANEL DETAILS 1 OF 3 SHEET	60 OF 108

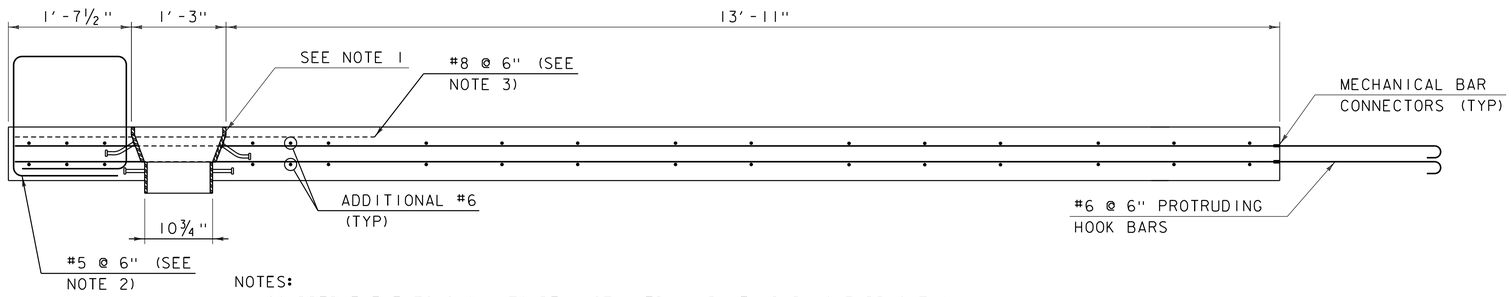
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



NOTES:
1. PANEL 'A3' SHOWN, AND PANELS 'A4' THROUGH 'A10' ARE SIMILAR WITH MIRRORED AND/OR OPPOSITE HAND ORIENTATION RELATIVE TO PANEL 'A3' AS SHOWN ON SHEETS 56 AND 57.
2. PRECASTER MUST BE INFORMED THAT THE MECHANICAL BAR CONNECTORS FOR THE HOOK BARS SHALL BE STAGGERED RELATIVE TO THE OPPOSITE HAND PANEL TO AVOID CONFLICT WITHIN THE LONGITUDINAL CLOSURE POUR LIMITS WHEN PLACING THE PANELS BETWEEN STAGE 1 AND STAGE 2.
3. A3, A5, A7, A9 PANELS SHALL HAVE HOOK BARS IN TOP, AND A4, A6, A8, A10 PANELS SHALL HAVE HOOK BARS IN BOTTOM, AS SHOWN IN LONGITUDINAL CLOSURE POUR DETAIL ON SHEET 64.

APPROACH SPAN PANEL 'A3' WITH SCUPPER DETAILS

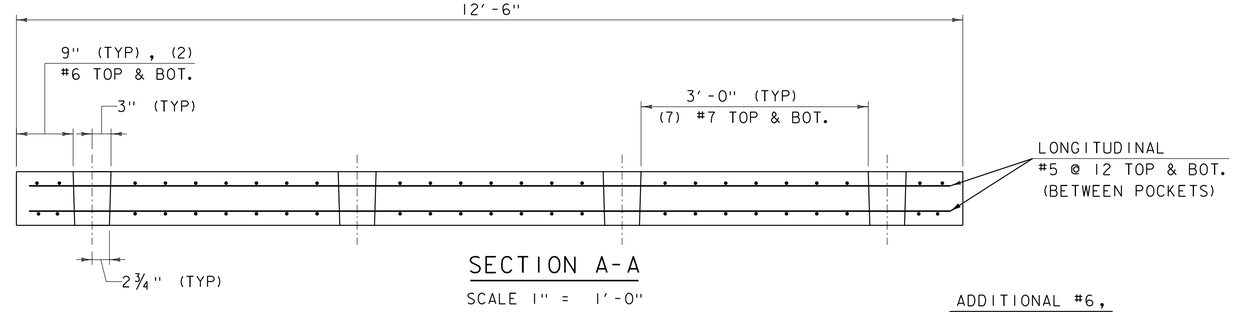
SCALE ½" = 1'-0"



NOTES:
1. SCUPPER ELEMENTS SHOWN TO BE INSTALLED IN PANEL DURING FABRICATION.
2. ADJUST INTERIOR LEG OF SAFETY CURB BARS AT SCUPPER LOCATIONS TO AVOID CONFLICT.
3. ADJUST SPACING OF ADDITIONAL OVERHANG REINFORCING AT SCUPPER LOCATIONS, WHILE MAINTAINING REQUIRED NUMBER OF BARS PER 6" SPACING BASED ON OVERALL PANEL HEIGHT.

SECTION C-C

SCALE 1" = 1'-0"

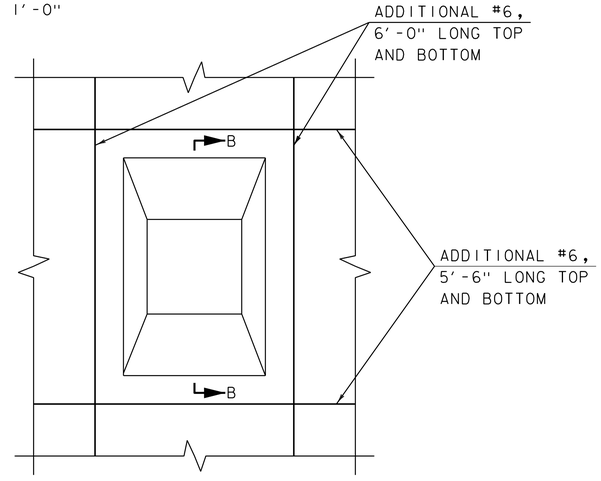


SECTION A-A

SCALE 1" = 1'-0"

SCUPPER LOCATION TABLE	
PANEL	DIMENSION
A3 & A4	8'-7 3/16"
A5 & A6	5'-1½"
A7 & A8	7'-10⅜"
A9 & A10	3'-11¼"

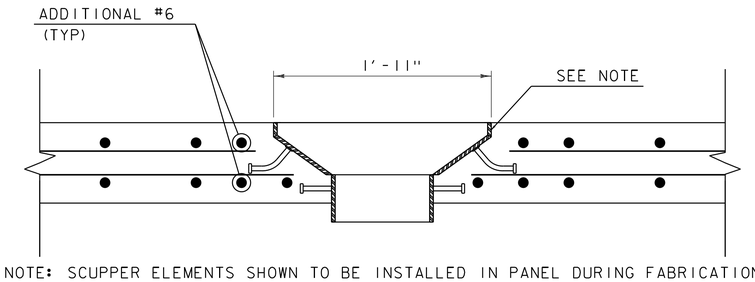
NOTE: ALL DIMENSIONS PROVIDED TAKEN FROM UPSTATION PANEL JOINT.



NOTE: TYPICAL REINFORCING NOT SHOWN FOR CLARITY

SCUPPER FRAMING REINFORCEMENT DETAIL

SCALE 3" = 1'-0"



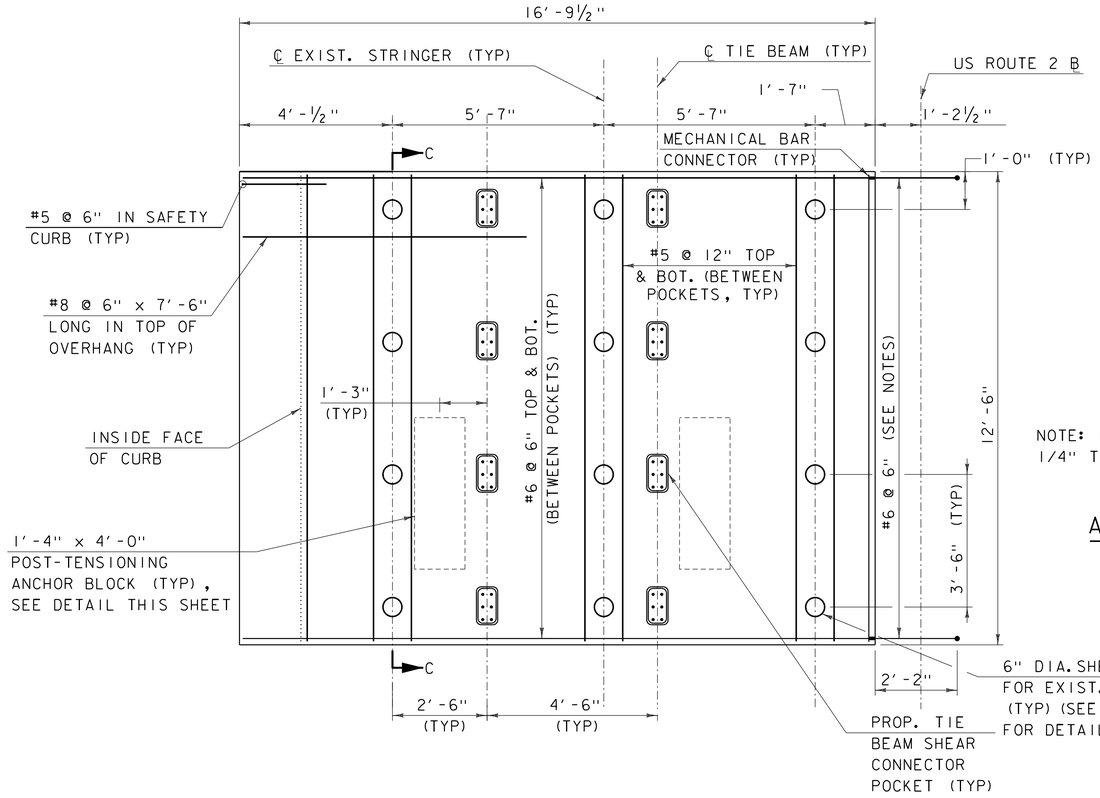
NOTE: SCUPPER ELEMENTS SHOWN TO BE INSTALLED IN PANEL DURING FABRICATION

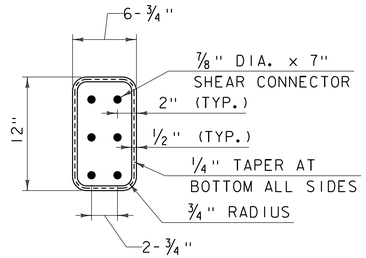
SECTION B-B

SCALE 3" = 1'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: zl3b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: R. STICKLES
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
APPROACH SPAN DECK PANEL DETAILS 2 OF 3	SHEET 61 OF 108

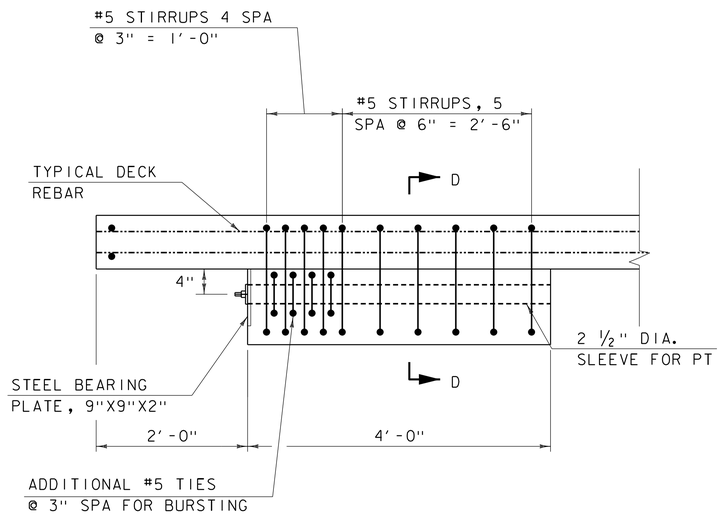




NOTE: PROPOSED SHEAR STUD POCKETS SHALL HAVE A 1/4" TAPER TO AID IN RESISTING PULLOUT FORCES.

APPROACH SPAN PANEL 'C' SHEAR CONNECTOR

SCALE 1½" = 1'-0"



NOTE: CONTRACTOR SHALL VERFIY DIMENSIONS OF JACKS AND JACKING CHAIRS TO BE USED FOR THE PROJECT AND INCLUDE THIS INFORMATION AS PART OF THE PANEL SHOP DRAWING SUBMISSION.

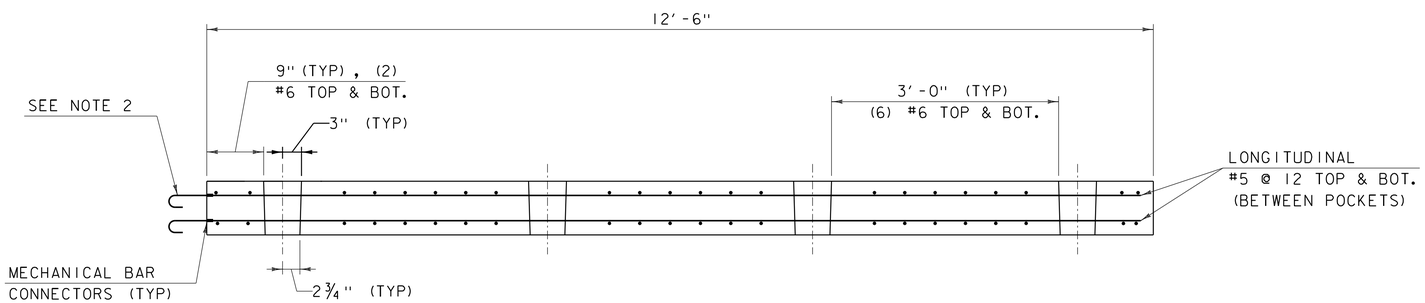
PT ANCHOR BLOCK DETAIL-SIDE VIEW

SCALE 1" = 1'-0"

NOTES:
1. PANEL 'C1' SHOWN, AND PANELS 'C2' THROUGH 'C8' ARE SIMILAR WITH MIRRORED AND/OR OPPOSITE HAND ORIENTATION RELATIVE TO PANEL 'C1' AS SHOWN ON SHEETS 56 AND 57.
2. SEE SHEET 60 FOR APPLICABLE NOTES REGARDING MECHANICAL BAR CONNECTORS AND THE LONGITUDINAL CLOSURE POUR.

APPROACH SPAN PANEL 'C1' DETAILS

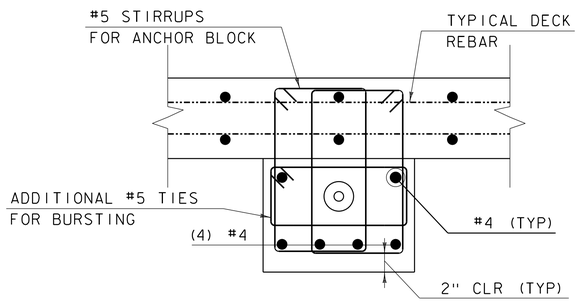
SCALE ½" = 1'-0"



PANEL NOTES:
1. PT ANCHORAGE NOT SHOWN FOR CLARITY.
2. EXTENSION HOOK BARS ONLY WHERE PANEL "C" ABUTS THE CIP FINGER JOINT HEADER.

SECTION C-C

SCALE 1" = 1'-0"

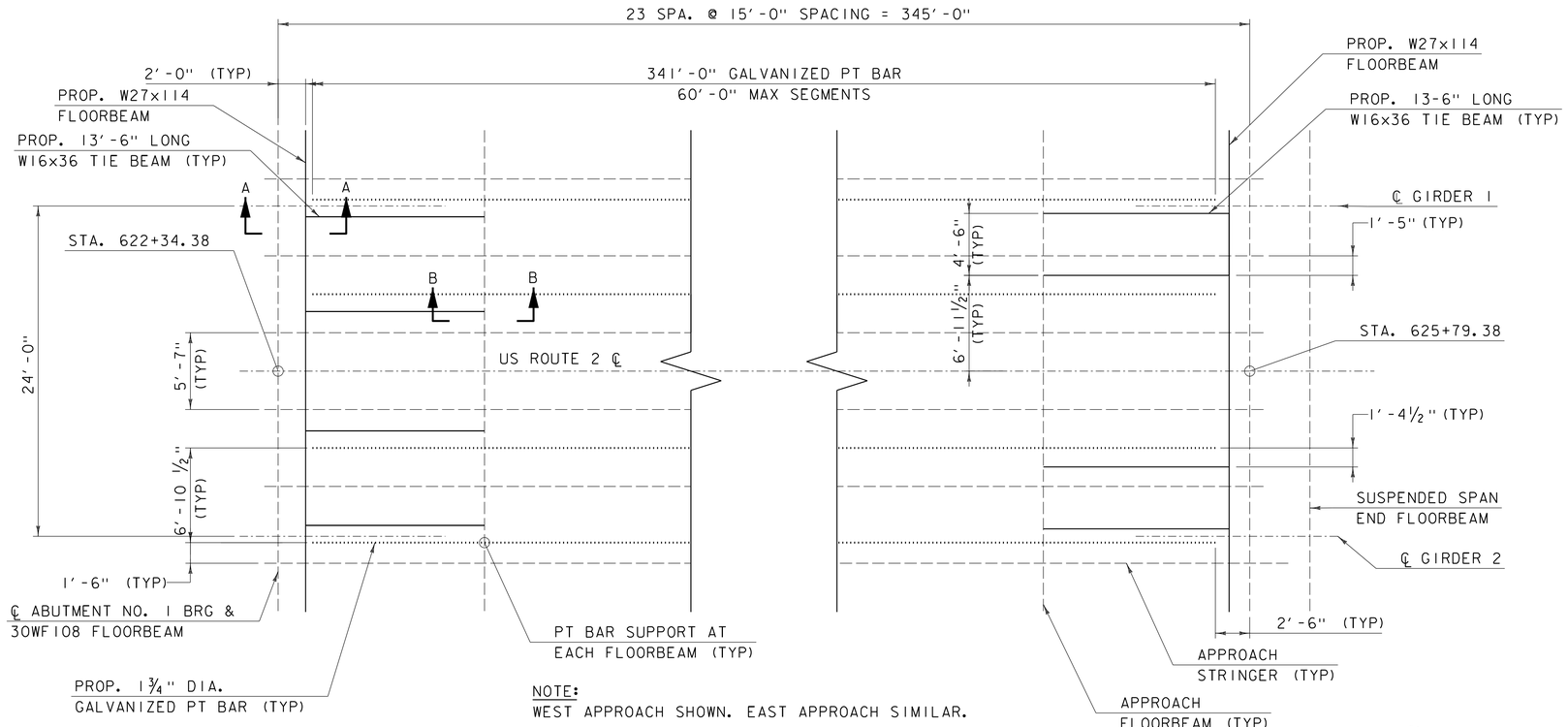


SECTION D-D

SCALE 1½" = 1'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. GORE
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
APPROACH SPAN DECK PANEL DETAILS 3 OF 3	SHEET 62 OF 108



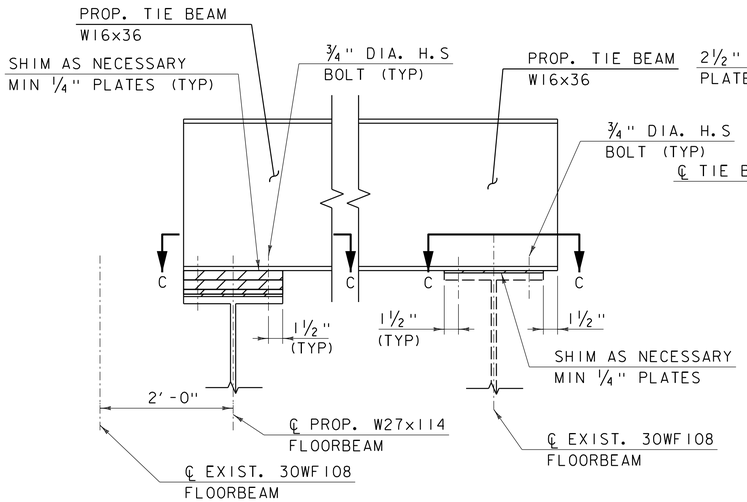
NOTE:
WEST APPROACH SHOWN. EAST APPROACH SIMILAR.

PT BAR & END PANEL FRAMING PLAN

SCALE 3/16" = 1'-0"

PROPOSED FRAMING NOTES:
1. PROPOSED END FLOORBEAM AND TIE BEAMS SHOWN ARE FOR BIDDING PURPOSES ONLY, FINAL SIZING AND DESIGN SHALL BE PERFORMED BY THE ACCELBRIDGE PANEL SYSTEM DESIGNER.

PT BAR NOTES:
1. PROPOSED PT BAR SHALL BE 150 KSI.
2. PT BAR SEGMENTS AND SPLICE COUPLERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A1023/A1023M.
3. PT BARS SHALL BE JACKED TO 250 KIPS AT EACH END FOR FINAL CONDITION.
4. PT BAR SEGMENTS SHALL BE SPLICED WITH COUPLERS EVERY 60'-0" MAXIMUM.
5. EACH END PANEL SHALL BE INSTALLED WITH A 10'-0" LONG SEGMENT OF PT BAR EMBEDDED IN EACH OF THE ANCHOR BLOCKS. THAT EMBEDDED SECTION WILL THEN BE CONNECTED TO THE PRIMARY RUN OF PT BAR THROUGH A SPLICE COUPLER.
6. PRIOR TO JACKING OF THE PT BAR, THE BOLTS AT THE ABUTMENT END PANELS SHALL BE SNUG TIGHT, AND THE BOLTS FOR THE PANELS AT THE SUSPENDED SPAN END SHALL BE FULLY TIGHTENED.
7. PT BARS SHALL BE STRESSED FROM THE ABUTMENT END. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETAIL AND PROVIDE INFORMATION ON THE NECESSARY ITEMS TO PERFORM THE JACKING, INCLUDING JACKS AND JACKING CHAIRS, AS PART OF THE SUBMITTAL REVIEW PROCESS. THE CONTRACTOR SHALL SUBMIT THE JACKING PROCEDURES AND SHOP DRAWINGS EITHER IN CONJUNCTION WITH, OR IN ADVANCE OF THE DECK PANEL SHOP DRAWINGS.

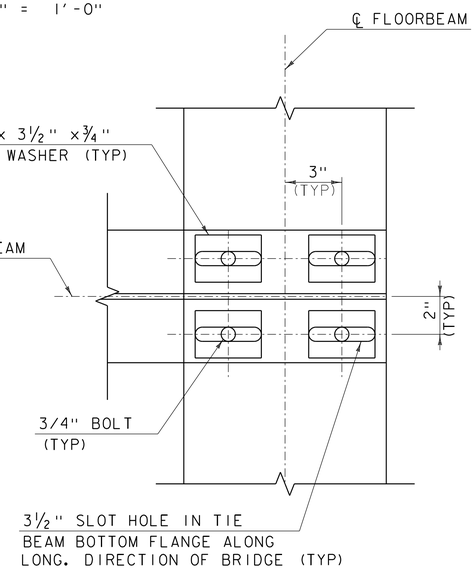


SECTION A-A

SCALE 1 1/2" = 1'-0"

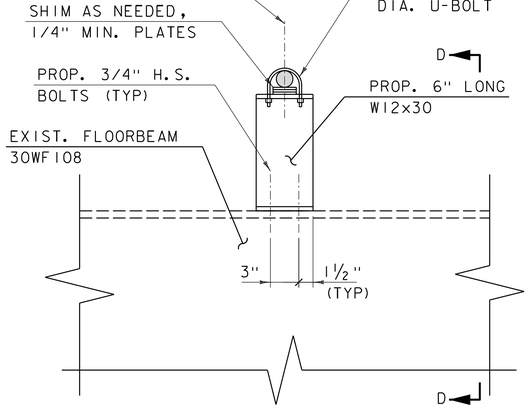
SECTION B-B

SCALE 1 1/2" = 1'-0"



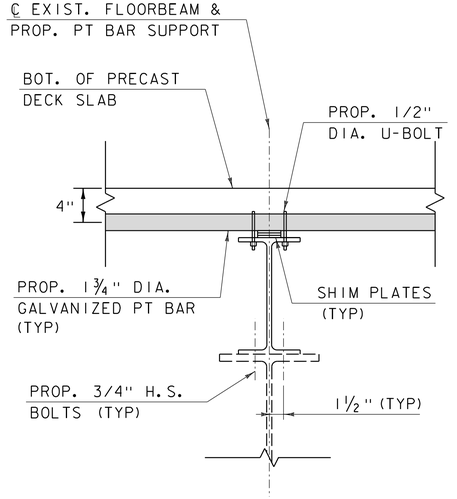
SECTION C-C

SCALE 3" = 1'-0"



PT BAR SUPPORT DETAIL

SCALE 1 1/2" = 1'-0"

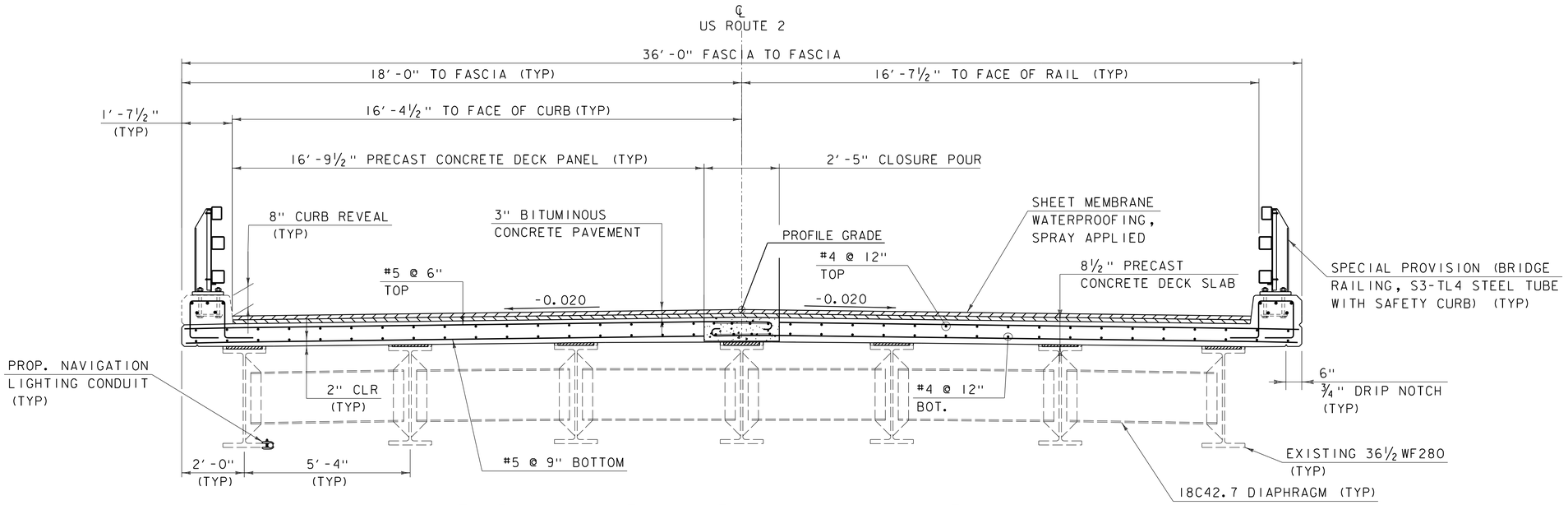


SECTION D-D

SCALE 1 1/2" = 1'-0"

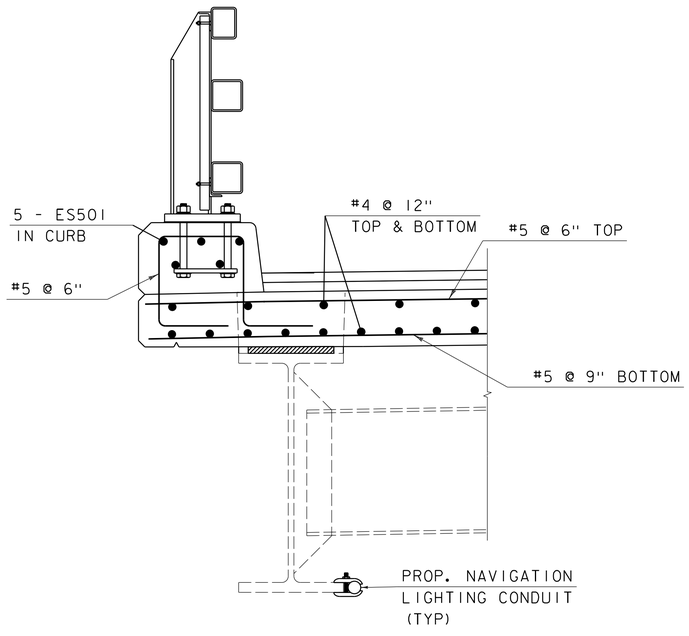
PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. GORE
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
APP SPAN DECK PANEL SUPPORT DET SHT	SHEET 63 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



SUSPENDED SPAN PRECAST DECK SLAB TYPICAL REINFORCING

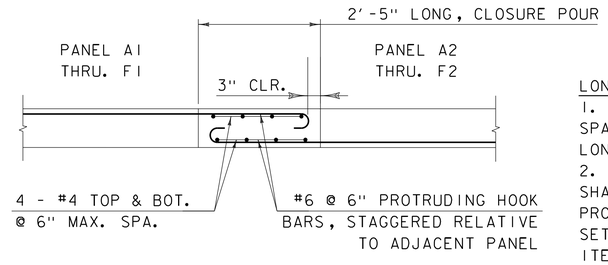
SCALE ½" = 1'-0"



SUSPENDED SPAN TYPICAL OVERHANG REINFORCING

SCALE 1" = 1'-0"

NOTES:
1. SEE SHEET 59 FOR NOTES ON THE PROPOSED BRIDGE RAILING AND THE UTILITY SUPPORTS.



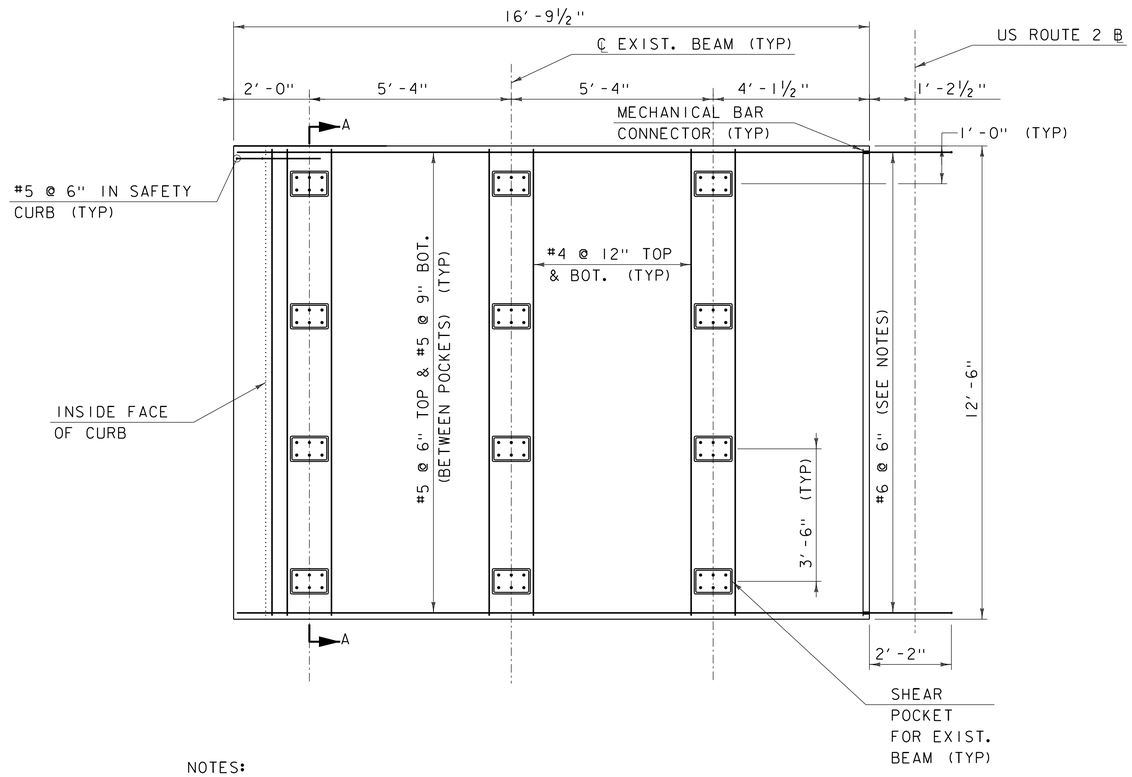
LONGITUDINAL CLOSURE POUR DETAIL

SCALE ¾" = 1'-0"

LONGITUDINAL CLOSURE POUR NOTES:
1. THIS DETAIL APPLIES TO BOTH THE APPROACH SPAN AND SUSPENDED SPAN DECK PANEL LONGITUDINAL CLOSURE POUR.
2. THE LONGITUDINAL CLOSURE POUR MATERIAL SHALL COMPLY WITH ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) AND WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (ACCELBRIDGE PRECAST DECK SYSTEM).
3. CONSTRUCTION JOINTS SHALL BE PLACED AS NEEDED FOR THE CLOSURE POUR AND ALL REINFORCING SHALL BE CONTINUOUS THROUGH JOINTS.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. BARBOSA
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
SUSPENDED SPAN DECK SECTION SHEET	SHEET 64 OF 108

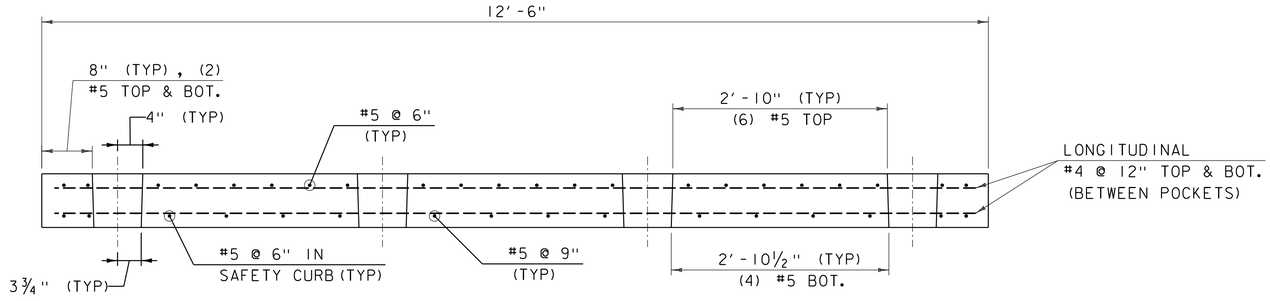


NOTES:

1. PANEL 'D1' SHOWN, AND PANELS 'D2' THROUGH 'D8' ARE SIMILAR WITH MIRRORED AND/OR OPPOSITE HAND ORIENTATION RELATIVE TO PANEL 'D1' AS SHOWN ON SHEET 56.
2. SEE SHEET 60 FOR APPLICABLE NOTES REGARDING MECHANICAL BAR CONNECTORS AND THE LONGITUDINAL CLOSURE POUR.
3. PANELS 'D5' AND 'D6' SHALL HAVE MECHANICAL BAR CONNECTORS INSTALLED FOR THE CONTINUATION OF THE LONGITUDINAL REINFORCEMENT INTO THE JACKING CLOSURE POUR, SIMILAR TO PANEL 'F1' DETAILS ON SHEET 66.

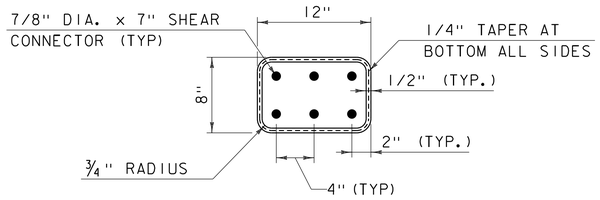
SUSPENDED SPAN PANEL 'D1' DETAILS

SCALE ½" = 1'-0"



SECTION A-A

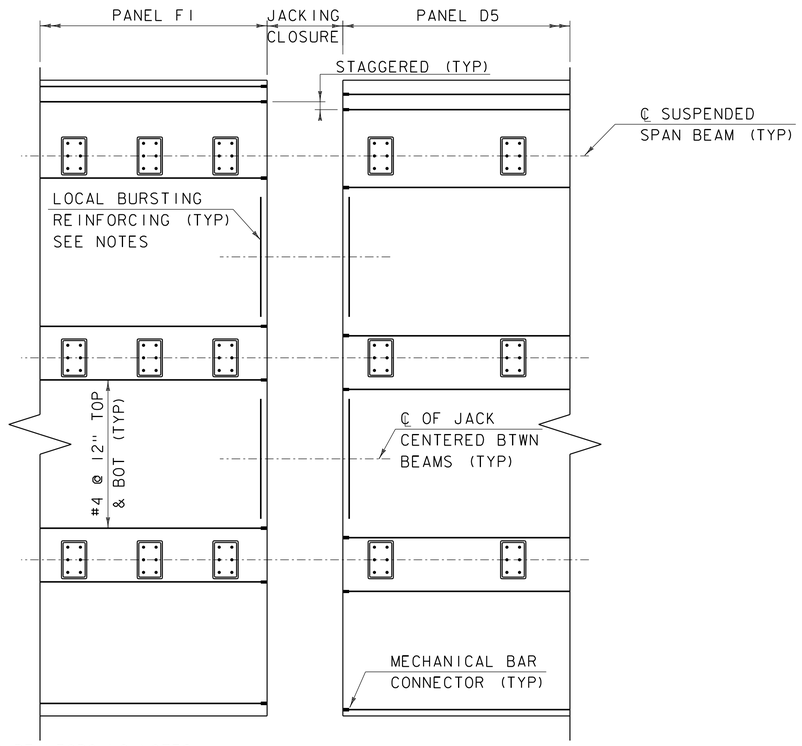
SCALE 1" = 1'-0"



NOTE: PROPOSED SHEAR STUD POCKETS SHALL HAVE A ¼" TAPER TO AID IN RESISTING PULLOUT FORCES.

SUSPENDED SPAN PANEL SHEAR CONNECTOR POCKET DETAIL

SCALE 1½" = 1'-0"



BURSTING REINFORCING NOTES:

1. BURSTING REINFORCEMENT TO BE DETAILED AND PROVIDED BY THE CONTRACTOR AND FABRICATOR.
2. REINFORCING TO BE CENTERED BETWEEN GIRDERS AS SHOWN TO ALIGHN WITH CENTERLINE OF JACKS.
3. ALL BURSTING REINFORCING AND MECHANICAL CONNECTORS SHOWN IN THE DETAIL ABOVE SHALL BE INCIDENTAL TO SPECIAL PROVISION ITEM NO. 900.645 (ACCELBRIDGE PRECAST DECK PANEL SYSTEM).

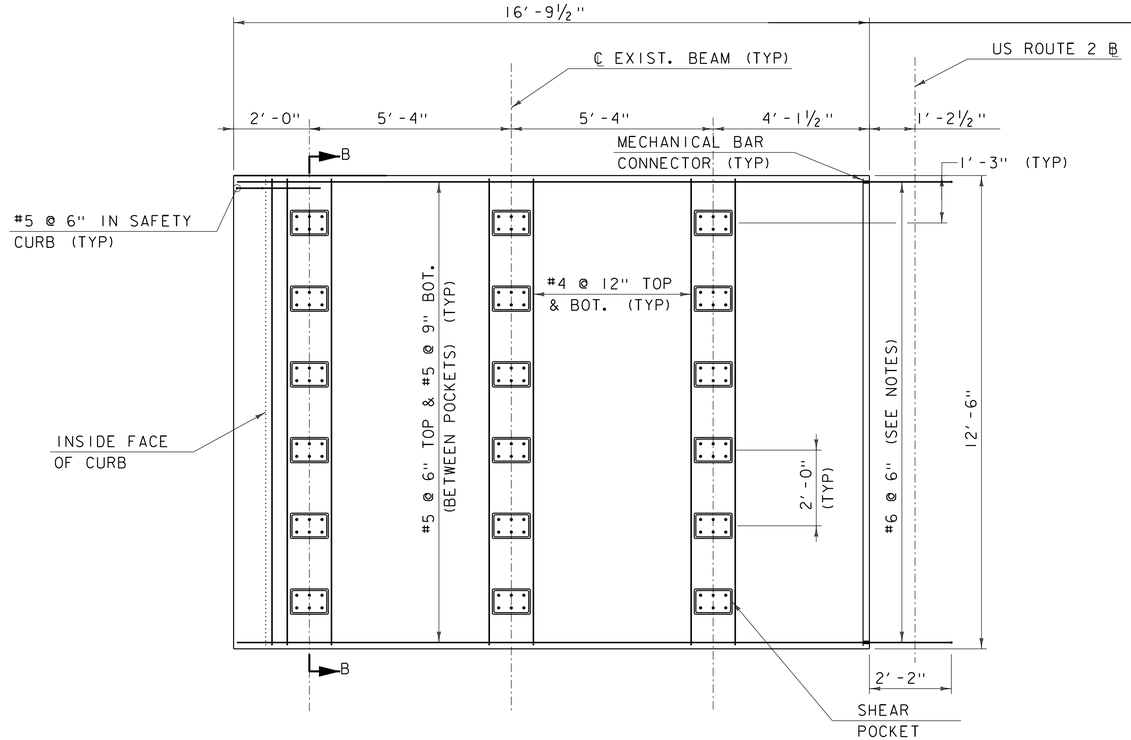
PANEL REINFORCING DETAILS AT JACKING CLOSURE POUR

SCALE ½" = 1'-0"

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264typ2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
PLOT DATE: 2/18/2022
DRAWN BY: A. GORE
CHECKED BY: T. CARD
SUSPENDED SPAN DECK PAN DET SHT 1 OF 2 SHEET 65 OF 108

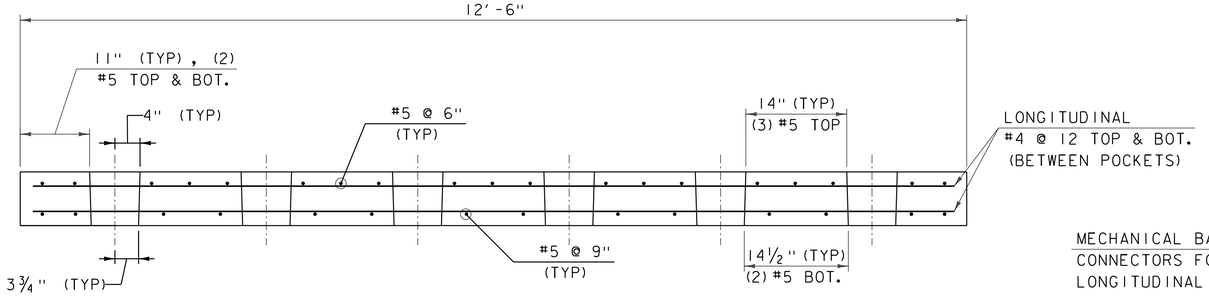
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



NOTES:
1. PANEL 'E1' SHOWN, AND PANELS 'E2' THROUGH 'E4' ARE SIMILAR WITH MIRRORED AND/OR HAND ORIENTATION RELATIVE TO PANEL 'E1' AS SHOWN ON SHEETS 56 AND 57.
2. SEE SHEET 60 FOR APPLICABLE NOTES REGARDING MECHANICAL BAR CONNECTORS AND THE LONGITUDINAL CLOSURE POUR.

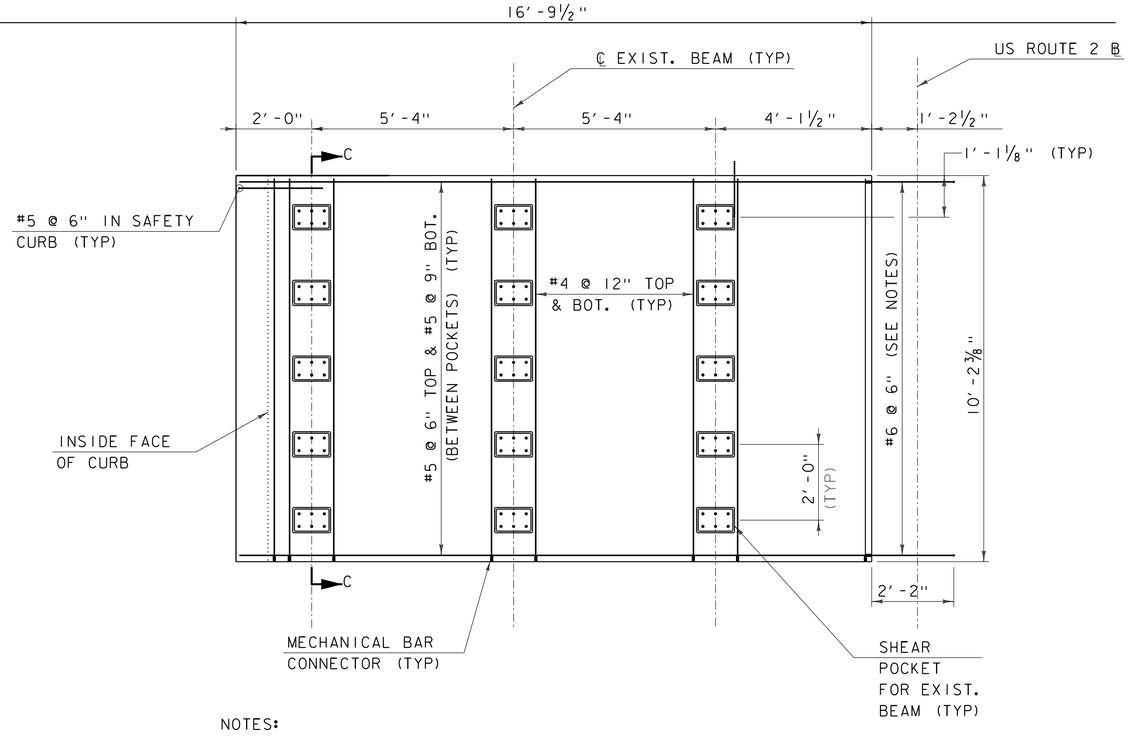
SUSPENDED SPAN PANEL 'E1' DETAILS

SCALE ½" = 1'-0"



SECTION B-B

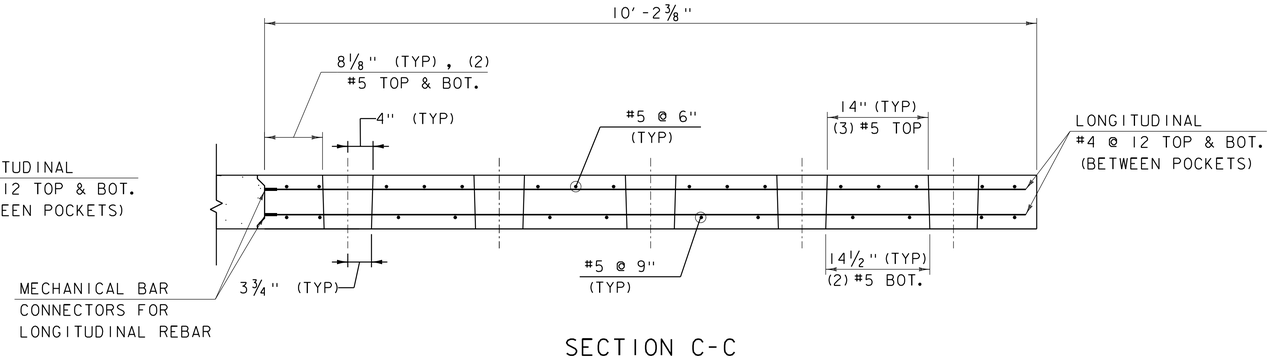
SCALE 1" = 1'-0"



NOTES:
1. PANEL 'F1' SHOWN, AND PANEL 'F2' IS SIMILAR BUT OPPOSITE HAND ORIENTATION AS SHOWN ON SHEET 56.
2. SEE SHEET 60 FOR APPLICABLE NOTES REGARDING MECHANICAL BAR CONNECTORS AND THE LONGITUDINAL CLOSURE POUR.

SUSPENDED SPAN PANEL 'F1' DETAILS

SCALE ½" = 1'-0"

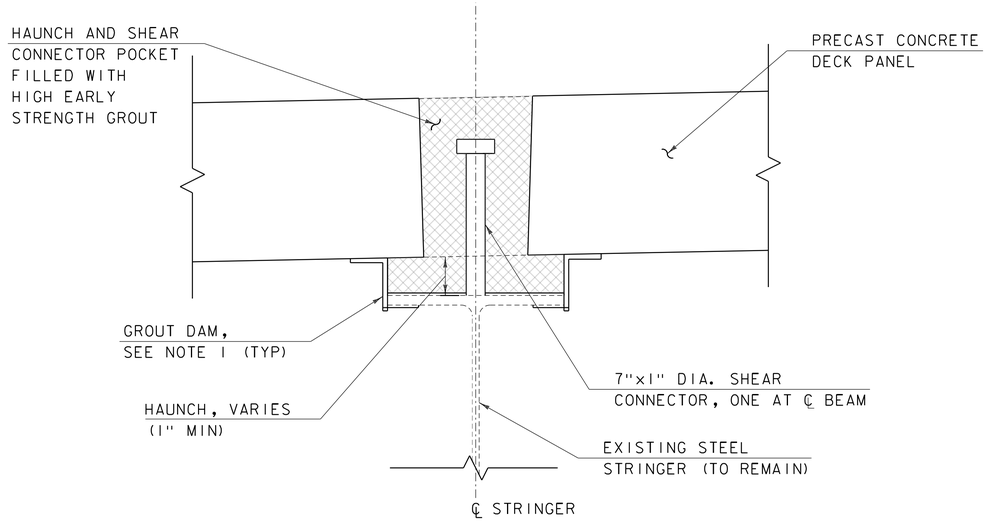


SECTION C-C

SCALE 1" = 1'-0"

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. GORE
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
SUSPENDED SPAN DECK PAN DET SHT 2 OF 2	SHEET 66 OF 108

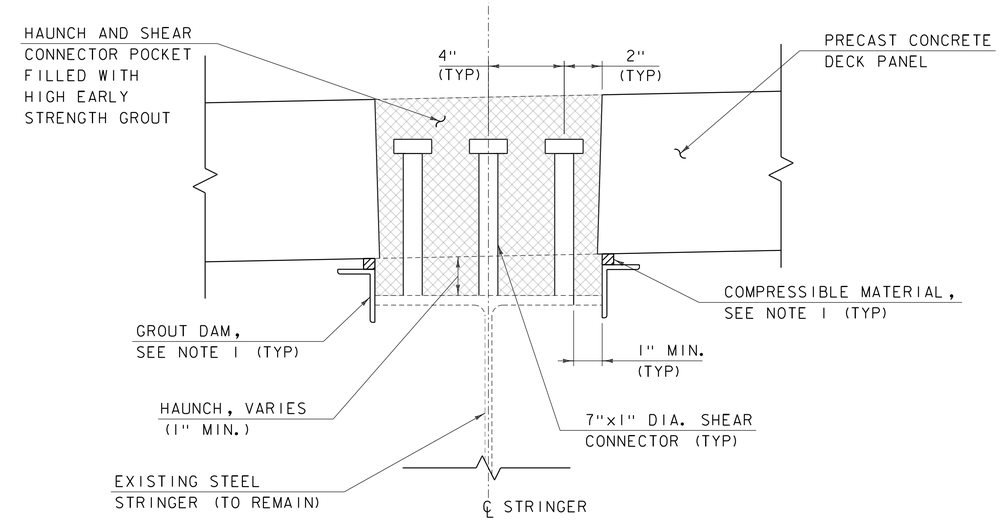
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



NOTE: NON-WELDED DETAIL SHOWN FOR ALL APPROACH SPAN STRINGERS

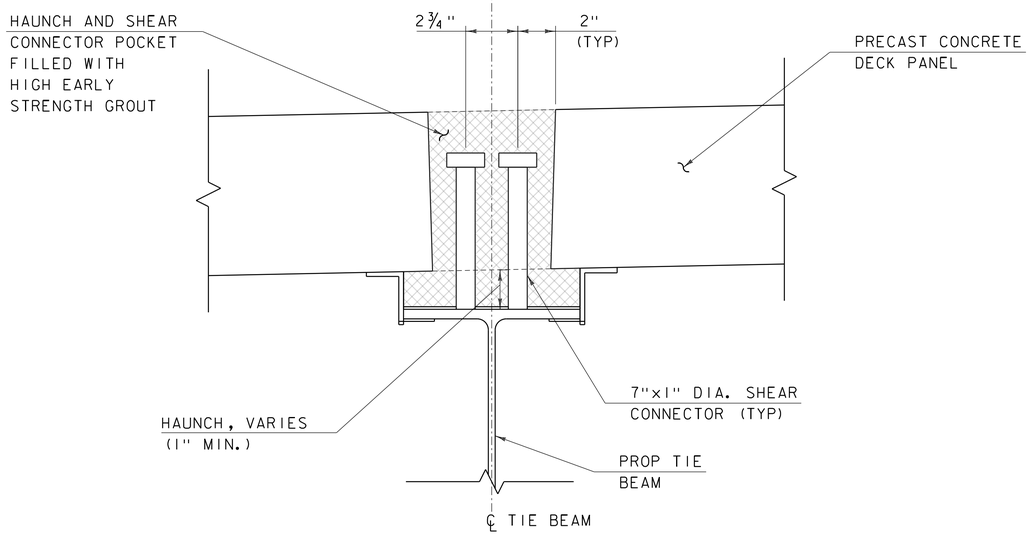
APPROACH SPAN PANEL 'A' & 'B'
HAUNCH AND SHEAR CONNECTOR POCKET SECTION

SCALE 3" = 1'-0"



SUSPENDED SPAN PANEL 'D', 'E' & 'F'
HAUNCH AND SHEAR CONNECTOR POCKET SECTION

SCALE 3" = 1'-0"



NOTES:
1. NON-WELDED DETAIL SHOWN FOR ALL APPROACH SPAN STRINGERS.
2. SEE "APPROACH SPAN PANEL 'A' & 'B' HAUNCH AND SHEAR CONNECTOR POCKET SECTION" FOR DETAIL BETWEEN PANEL 'C' AND EXISTING STRINGER.

APPROACH SPAN PANEL 'C'
HAUNCH AND SHEAR CONNECTOR POCKET SECTION

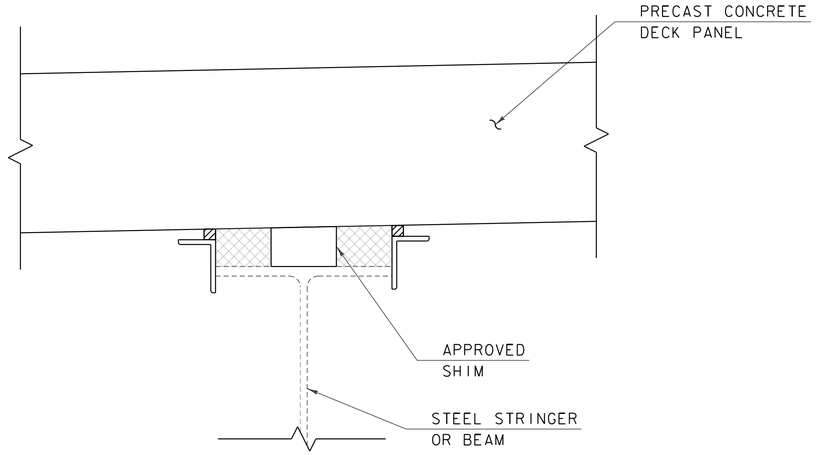
SCALE 3" = 1'-0"

NOTES:
1. THE GROUT DAM AND COMPRESSIBLE MATERIAL SHOWN IS CONCEPTUAL. THE CONTRACTOR SHALL SUBMIT THE PROPOSED SYSTEM TO THE ENGINEER FOR REVIEW.
2. THERE SHALL BE 1" MIN. CLEAR DISTANCE BETWEEN THE EDGE OF FLANGE OR SPLICE PLATE AND SHEAR CONNECTOR.
3. REINFORCING NOT SHOWN FOR CLARITY.
4. TRANSVERSE GROUT DAMS SHALL BE INTRODUCED AT A PRE-DETERMINED INTERVAL TO HELP CONTROL THE WORK. THEY SHALL BE INCLUDED IN THE PANEL MOCK-UP TO DEMONSTRATE THEIR SPACING BASED ON PLACEMENT RATE AND SET UP TIME OF THE GROUT.
5. HAUNCH DETAILS SHOWN ARE CONCEPTUAL. CONTRACTOR'S HAUNCH DETAIL SHALL BE INCLUDED IN THE SHOP DRAWING AND MOCK-UP FOR ITEM 900.645 SPECIAL PROVISION (ACCELBRIDGE DECK PANEL SYSTEM).

HIGH EARLY STRENGTH GROUT, SEE SPECIAL PROVISION (ACCELBRIDGE DECK PANEL SYSTEM) SPECIFICATION

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

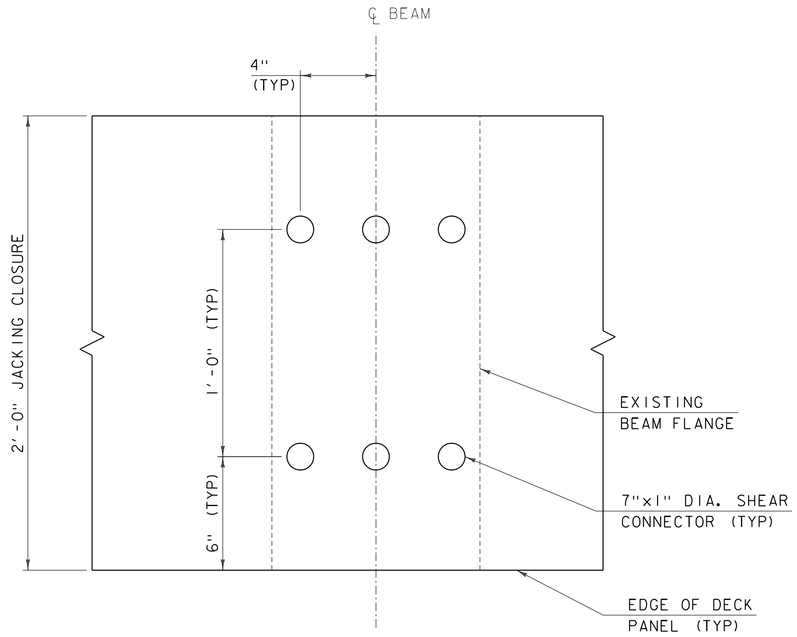
PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: zl3b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. GORE
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
TYP PRECAST PANEL DETAILS SHEET 1 OF 2	SHEET 67 OF 108



LEVELING DEVICE TYPICAL SECTION

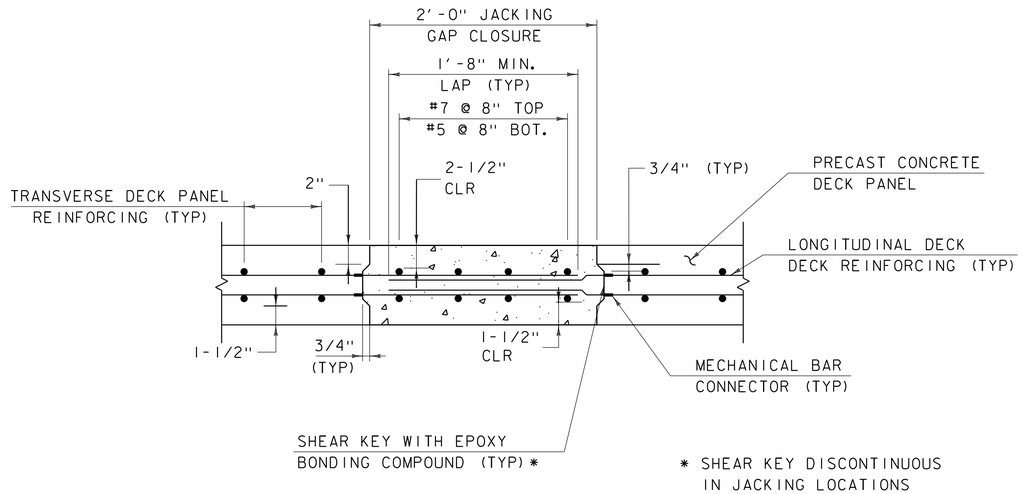
SCALE 3" = 1'-0"

NOTE:
1. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE LEVELING DEVICE BASED ON THE WEIGHT OF THE SLABS AND THE NUMBER OF DEVICES.



SHEAR CONNECTOR PLAN
SUSPENDED SPAN JACKING CLOSURE

NOT TO SCALE



SUSPENDED SPAN
JACKING CLOSURE SECTION

SCALE 3" = 1'-0"

NOTES:
1. THE GROUT DAM AND COMPRESSIBLE MATERIAL SHOWN IS CONCEPTUAL. THE CONTRACTOR SHALL SUBMIT THE PROPOSED SYSTEM TO THE ENGINEER FOR REVIEW.
2. THERE SHALL BE 1" MIN. CLEAR DISTANCE BETWEEN THE EDGE OF FLANGE OR SPLICE PLATE AND SHEAR CONNECTOR.

SPECIAL PROVISIONS (HIGH PERFORMANCE CONCRETE, RAPID SET)

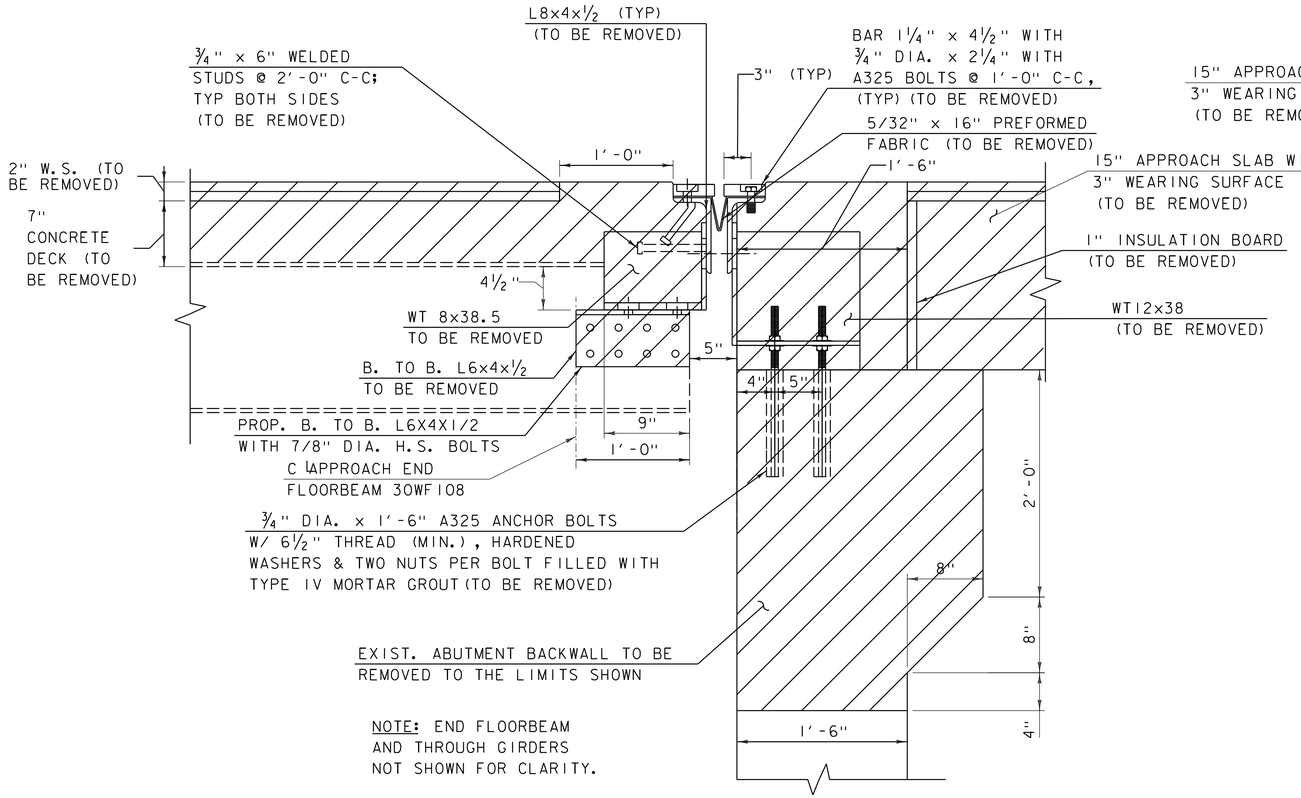
HIGH EARLY STRENGTH GROUT, SEE SPECIAL PROVISIONS (ACCELBRIDGE DECK PANEL SYSTEM) SPECIFICATION

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

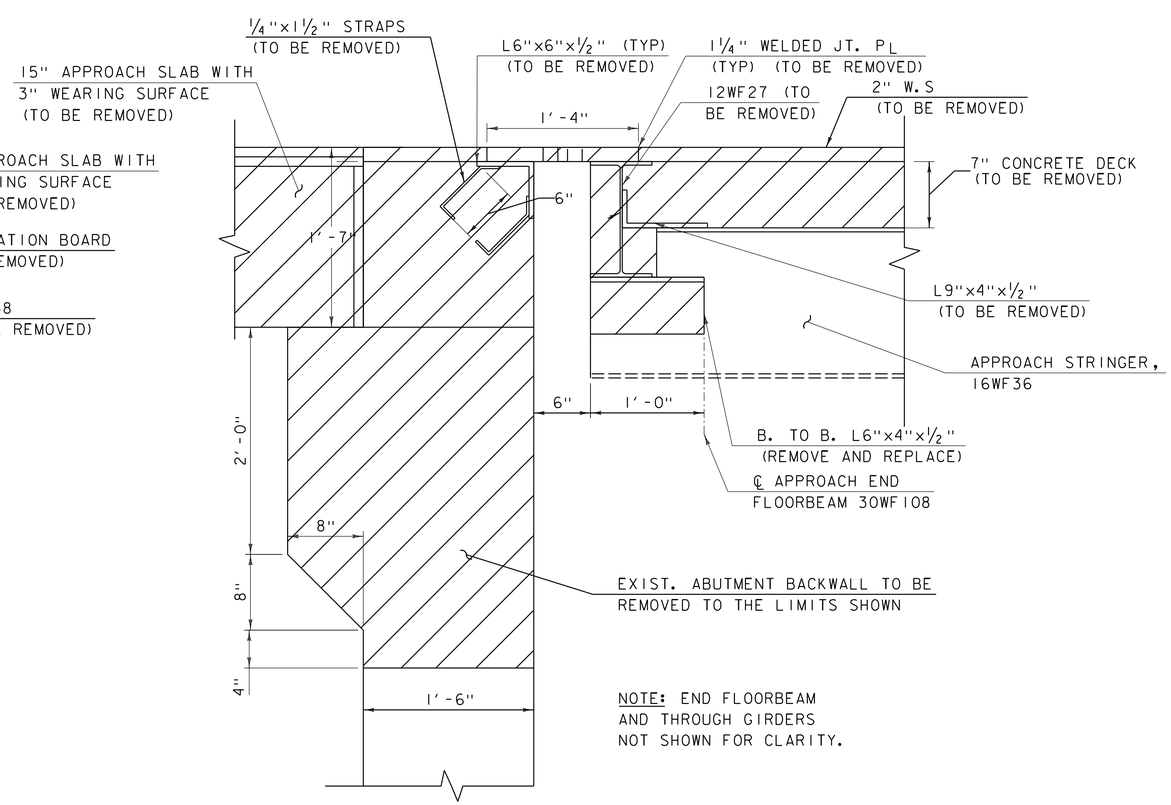
FILE NAME: z13b264typ2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
TYP PRECAST PANEL DETAILS SHT 2 OF 2

PLOT DATE: 2/18/2022
DRAWN BY: A. GORE
CHECKED BY: T. CARD
SHEET 68 OF 108



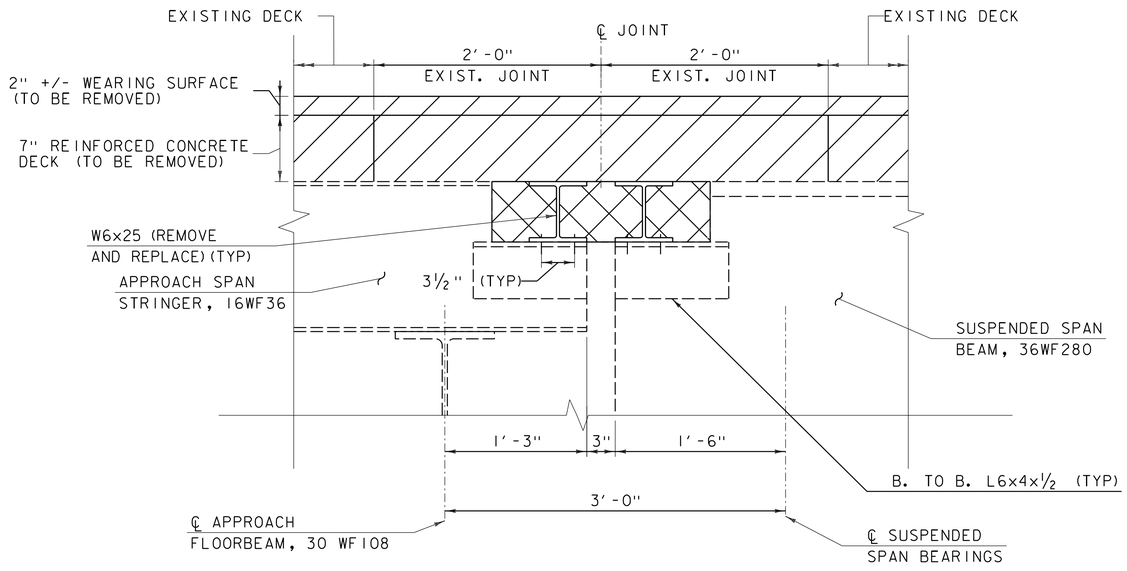
EXISTING EAST ABUTMENT JOINT

SCALE 1½" = 1'-0"



EXISTING WEST ABUTMENT JOINT

SCALE 1½" = 1'-0"



EXISTING SUSPENDED SPAN TYPICAL JOINT

SCALE 1½" = 1'-0"

LIMITS OF DEMOLITION

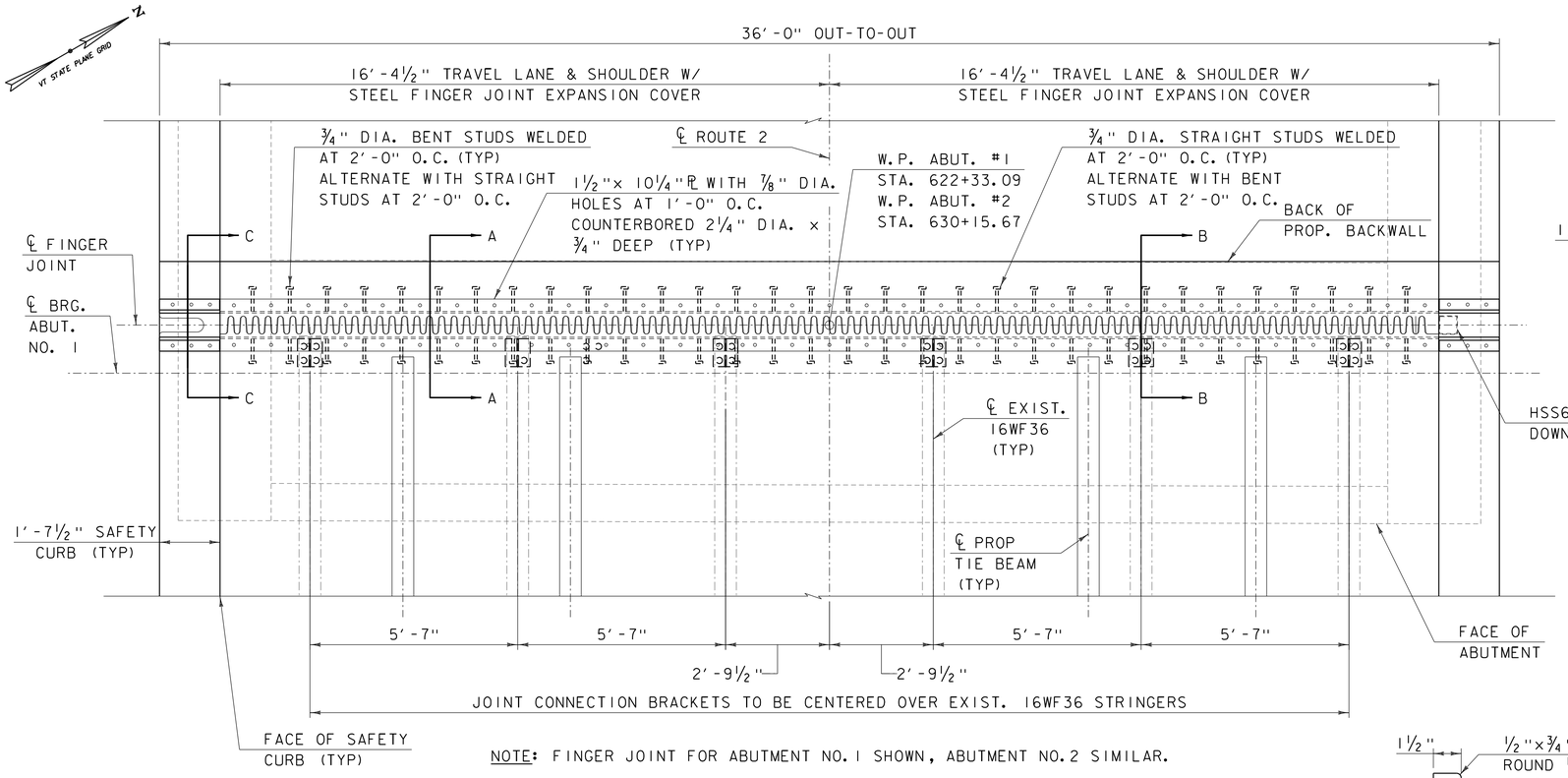
LIMITS OF HAND TOOL DEMOLITION

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL VERIFY AND FIELD MEASURE THE EXISTING JOINTS PRIOR TO STARTING ANY DEMOLITION, AS THE DETAILS SHOWN ARE BASED ON EXISTING PLAN INFORMATION AND NOT THE AS-BUILT CONDITION.
2. DEMOLITION OF THE EXISTING JOINTS SHALL BE PERFORMED AS SHOWN ON THE PLANS FOLLOWING THE SAME LIMITS AS THE DECK DEMOLITION LIMITS SHOWN ON THE STAGING PLANS, AND IN COMPLIANCE WITH THE SPECIFICATIONS.
3. HAND TOOL DEMOLITION AREAS SHALL BE PERFORMED SO THAT THE EXISTING STEEL ELEMENTS IDENTIFIED TO REMAIN WITHIN THESE REGIONS ARE NOT IMPACTED OR DAMAGED IN ANY WAY, AND ARE DEEMED TO BE STRUCTURALLY SUFFICIENT FOR RE-USE.
4. ANY EXISTING STEEL ELEMENTS DAMAGED DURING JOINT DEMOLITION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
5. JOINT DEMOLITION TO BE PAID FOR UNDER ITEM NO. 529.20 PARTIAL REMOVAL OF STRUCTURE.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

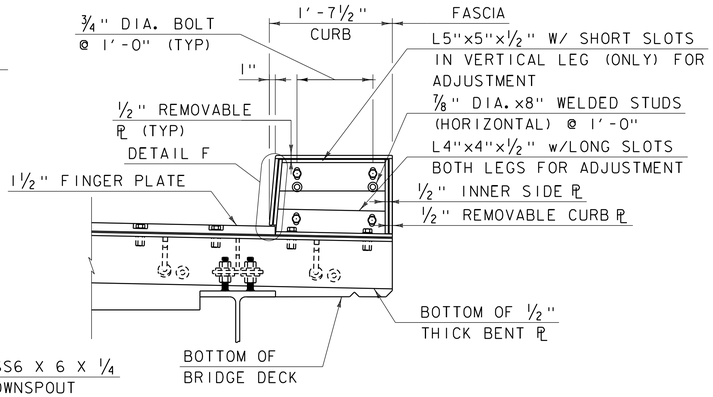
PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. BARBOSA
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
EXISTING JOINT DEMOLITION SHEET	SHEET 69 OF 108



NOTE: FINGER JOINT FOR ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR.

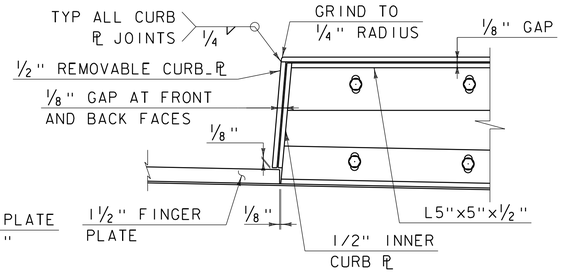
EXPANSION JOINT PLAN DETAIL

SCALE: ½" = 1'-0"



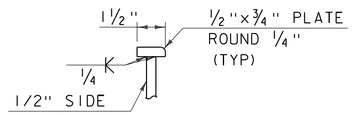
SECTION E-E

SCALE: 1" = 1'-0"



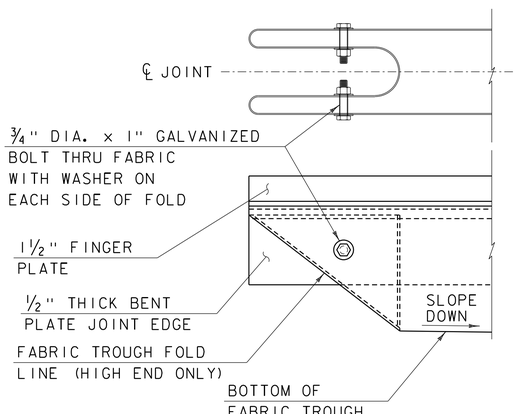
DETAIL F

SCALE: 1½" = 1'-0"



DETAIL D

NOT TO SCALE



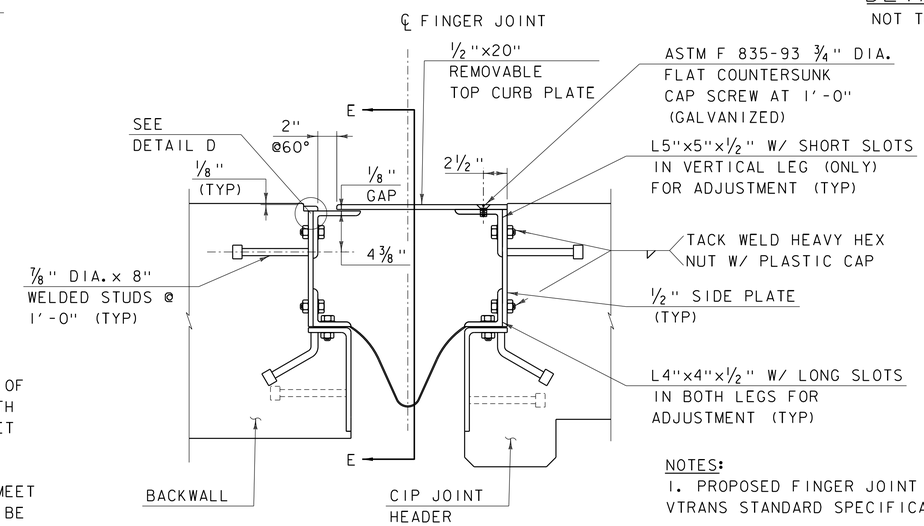
NOTES:

1. TROUGH SHALL BE FOLDED AT THE SOUTH END OF THE BRIDGE FASCIA AND SLOPE 2% TOWARDS NORTH SIDE TO DOWNSPOUT HOPPER LOCATION. SEE SHEET 90 FOR DOWNSPOUT DETAILS.

2. BOLTS, NUTS AND WASHERS FOR FOLD SHALL MEET REQUIRMENTS OF SUBSECTION 714.04 AND SHALL BE GALVANIZED.

FOLDED TROUGH END DETAIL

SCALE: 1½" = 1'-0"



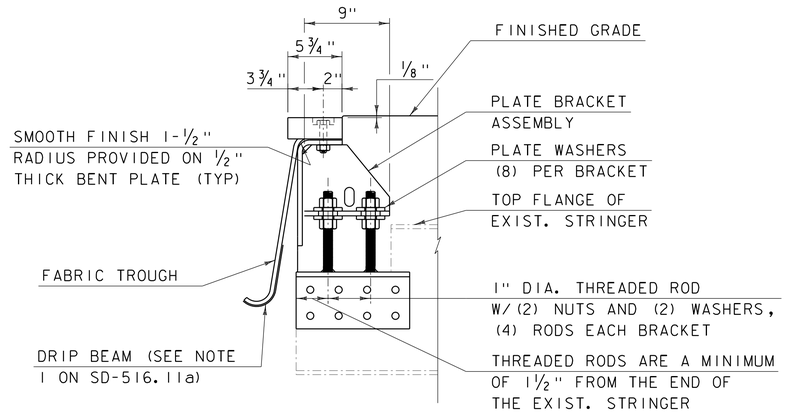
SECTION C-C

SCALE: 1½" = 1'-0"

NOTES:

1. PROPOSED FINGER JOINT SHALL CONFORM WITH VTRANS STANDARD SPECIFICATION SECTION 516.

2. PROPOSED FINGER JOINT DETAILING AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF VTRANS STANDARD DETAILS SD-516.11a AND SD-516.11b UNLESS OTHERWISE REVISED ON THIS SHEET.

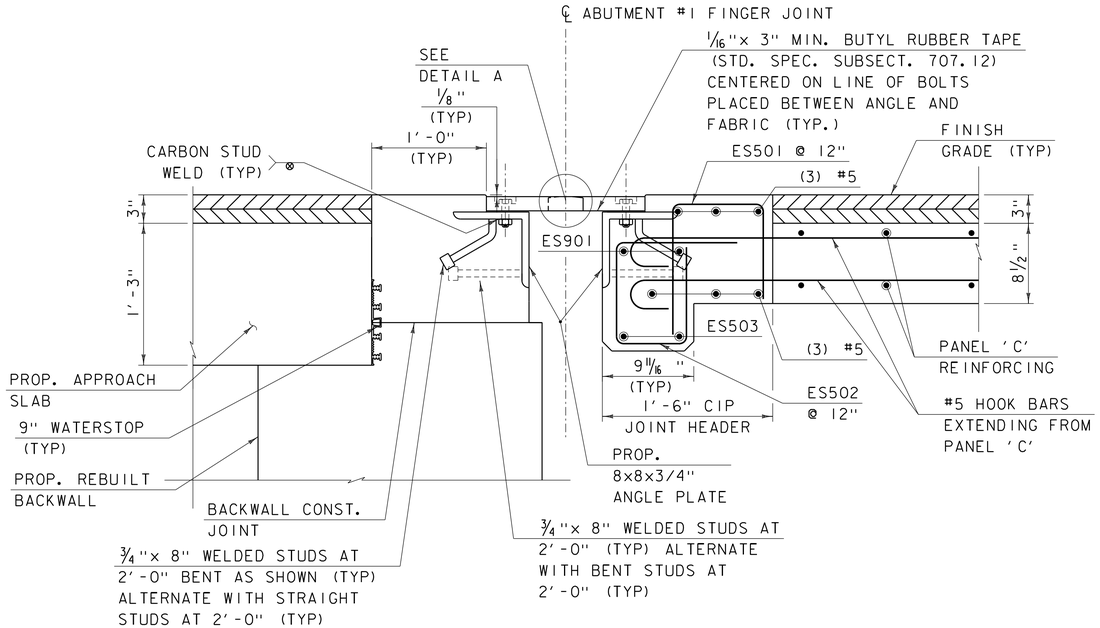


JOINT ASSEMBLY DETAIL

SCALE: 1½" = 1'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

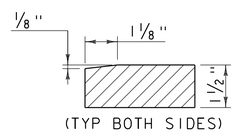
PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264sup.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M.CRUZ	DRAWN BY: A. BARBOSA
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
FINGER JT ASSEMBLY DETAILS - SHT 1 OF 2	SHEET 70 OF 108



NOTE: DRAINAGE TROUGH NOT SHOWN FOR CLARITY.

SECTION A-A
TYPICAL SECTION BETWEEN GIRDERS

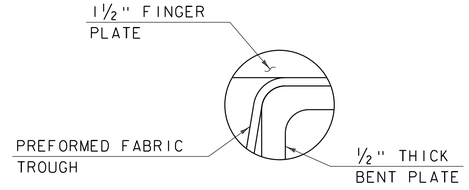
SCALE: 1 1/2"= 1'-0"



(TYP BOTH SIDES)

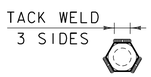
DETAIL A

NOT TO SCALE



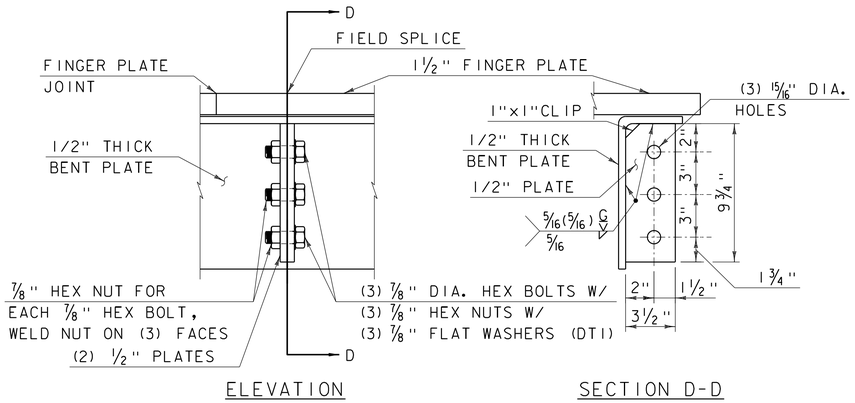
DETAIL B

NOT TO SCALE



WELDED NUT DETAIL

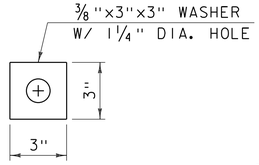
NOT TO SCALE



ELEVATION SECTION D-D

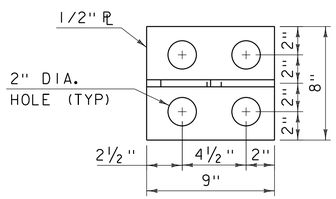
FIELD SPLICE DETAIL

NOT TO SCALE



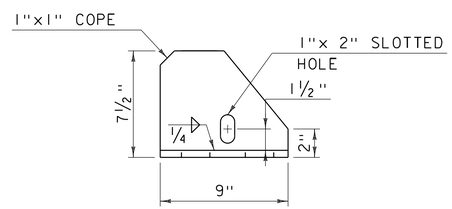
WASHER FOR BRACKET DETAIL

NOT TO SCALE



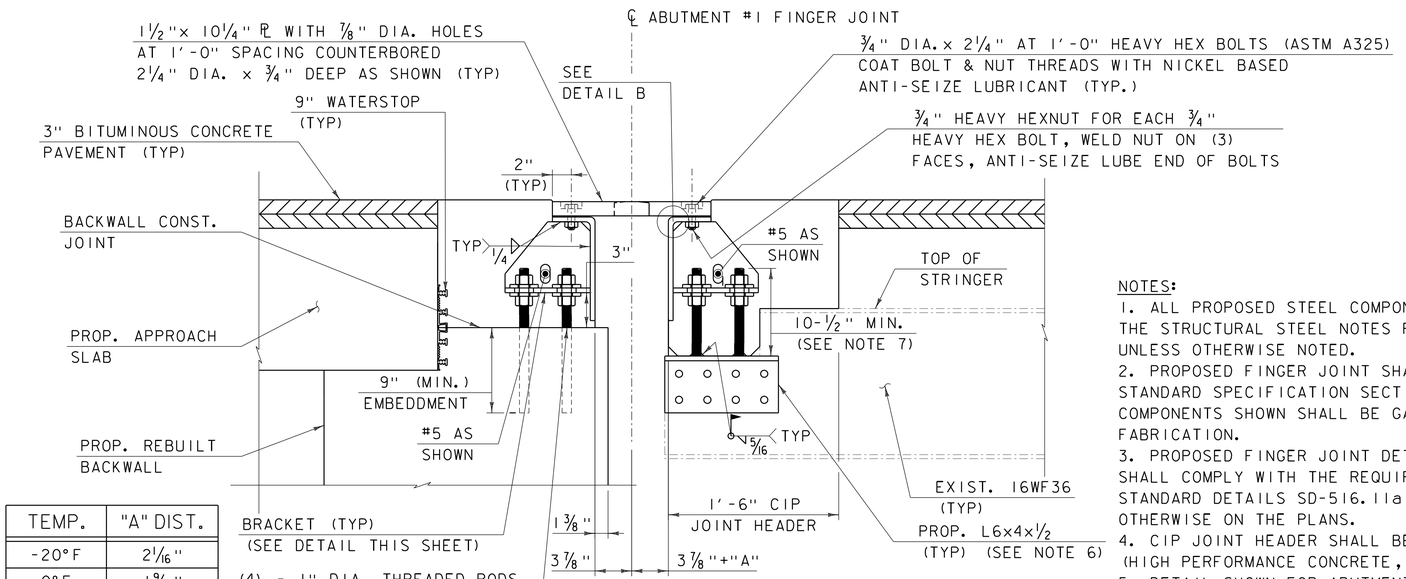
BRACKET PLAN

NOT TO SCALE



BRACKET ELEVATION

NOT TO SCALE



TEMP.	"A" DIST.
-20°F	2 1/16"
0°F	1 9/16"
20°F	1"
40°F	1/2"
60°F	0
80°F	-1/2"
105°F	-1 3/16"

NOTE: DRAINAGE TROUGH NOT SHOWN FOR CLARITY.

SECTION B-B
TYPICAL SECTION AT STRINGERS

SCALE: 1 1/2"= 1'-0"

NOTES:
1. ALL PROPOSED STEEL COMPONENTS SHALL ADHERE TO THE STRUCTURAL STEEL NOTES PROVIDED ON SHEET 10, UNLESS OTHERWISE NOTED.
2. PROPOSED FINGER JOINT SHALL CONFORM WITH VTRANS STANDARD SPECIFICATION SECTION 516 AND ALL STEEL COMPONENTS SHOWN SHALL BE GALVINIZED AFTER FABRICATION.
3. PROPOSED FINGER JOINT DETAILING AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF VTRANS STANDARD DETAILS SD-516.11a AND SD-516.11b UNLESS OTHERWISE ON THE PLANS.
4. CIP JOINT HEADER SHALL BE SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SETTING).
5. DETAIL SHOWN FOR ABUTMENT #1 FINGER JOINT. ABUTMENT #2 FINGER JOINT SIMILAR.
6. PROPOSED ANGLE TO BE FIELD ADJUSTED AS NECESSARY TO MATCH EXISTING HOLES IN EXISTING STRINGER END.
7. PROPOSED ANCHOR ROD TO BE FIELD CUT BASED ON EXISTING CONDITIONS AND PROVIDE MINIMUM 1-1/2" PROTUSION ABOVE TOP ANCHOR BOLT NUT.

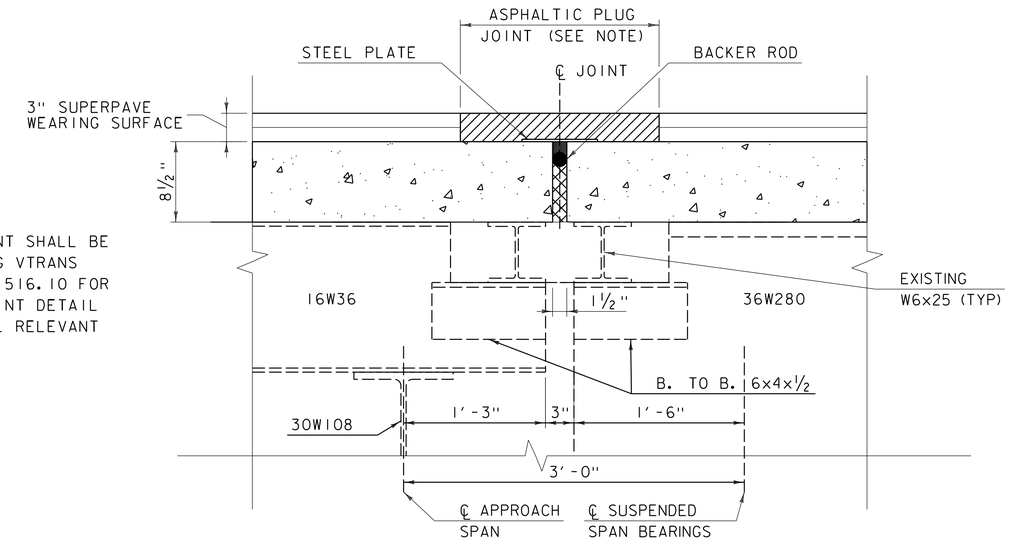
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3b264sup.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
FINGER JT ASSEMBLY DETAILS SHT 2 OF 2

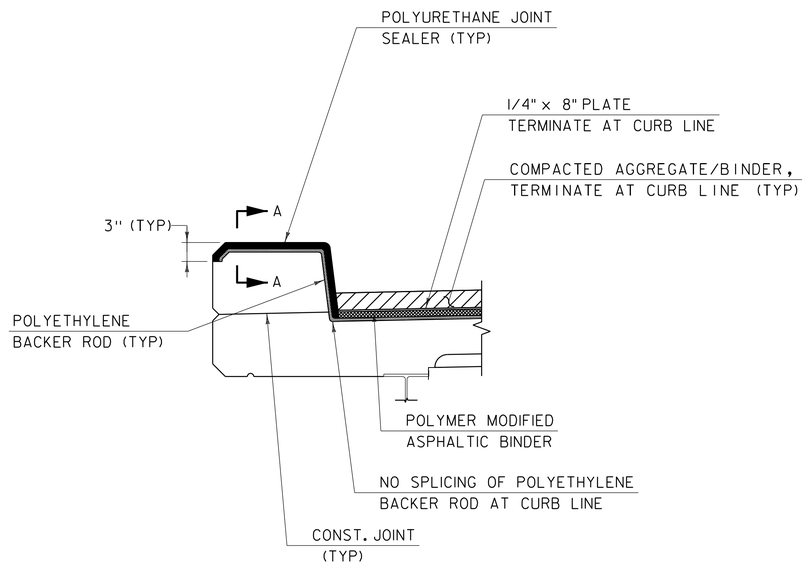
PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: T. CARD
SHEET 71 OF 108

NOTE:
ASPHALTIC PLUG JOINT SHALL BE INSTALLED FOLLOWING VTRANS STANDARD DETAIL SD 516.10 FOR 'ASPHALTIC PLUG JOINT DETAIL "A" - NEW', AND ALL RELEVANT NOTES.



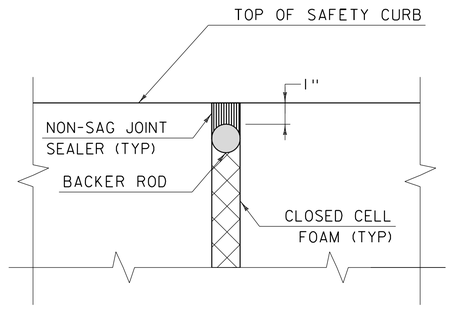
SUSPENDED SPAN PROPOSED ASPHALTIC PLUG JOINT

SCALE 1½" = 1'-0"



ASPHALTIC PLUG JOINT DETAIL AT SAFETY CURB

SCALE 1" = 1'-0"

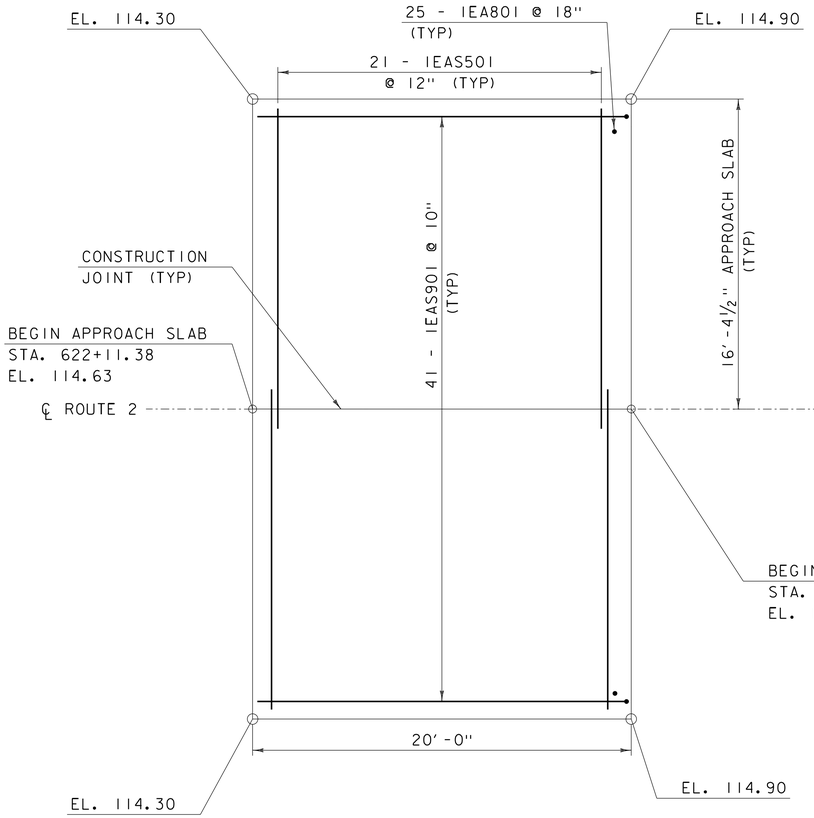


SECTION A-A

SCALE: 3" = 1'-0"

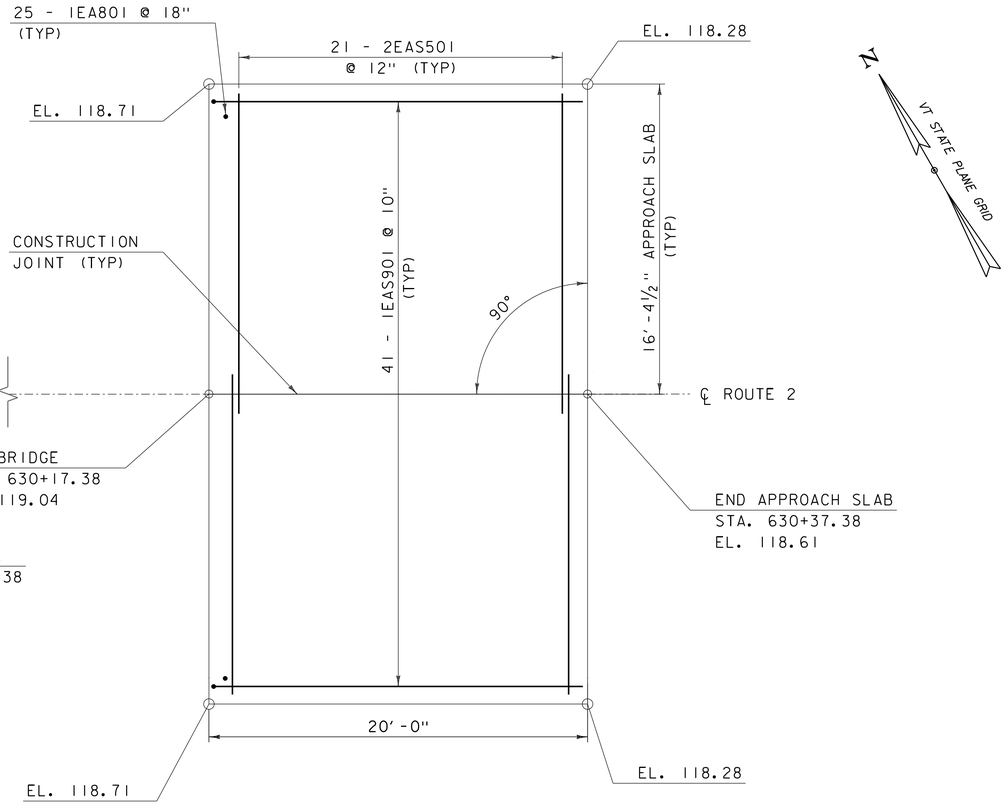
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264typ2.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. BARBOSA
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
SUSPENDED SPAN JOINT ASSEMBLY DETS SHT	SHEET 72 OF 108



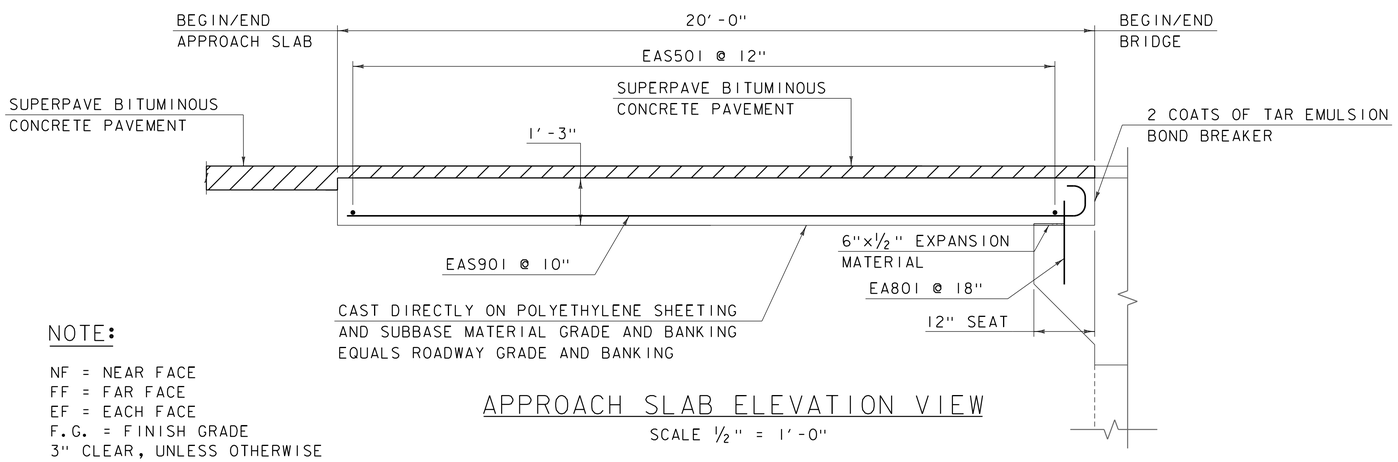
APPROACH SLAB #1 PLAN VIEW

SCALE ¼" = 1'-0"



APPROACH SLAB #2 PLAN VIEW

SCALE ¼" = 1'-0"



APPROACH SLAB ELEVATION VIEW

SCALE ½" = 1'-0"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
F.G. = FINISH GRADE
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-7" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

▨ SUPERPAVE BITUMINOUS CONCRETE PAVEMENT

NOTES:

1. BOND BREAKER AND PREFORMED CORK JOINT FILLER ARE INCIDENTAL TO ITEM 900.608 SPECIAL PROVISION CONCRETE, HIGH PERFORMANCE CLASS B). APPLY AS RECOMMENDED BY MANUFACTURER.

2. COMPACT THE SUBBASE IN AREA UNDER THE APPROACH SLAB TO A SMOOTH SURFACE.

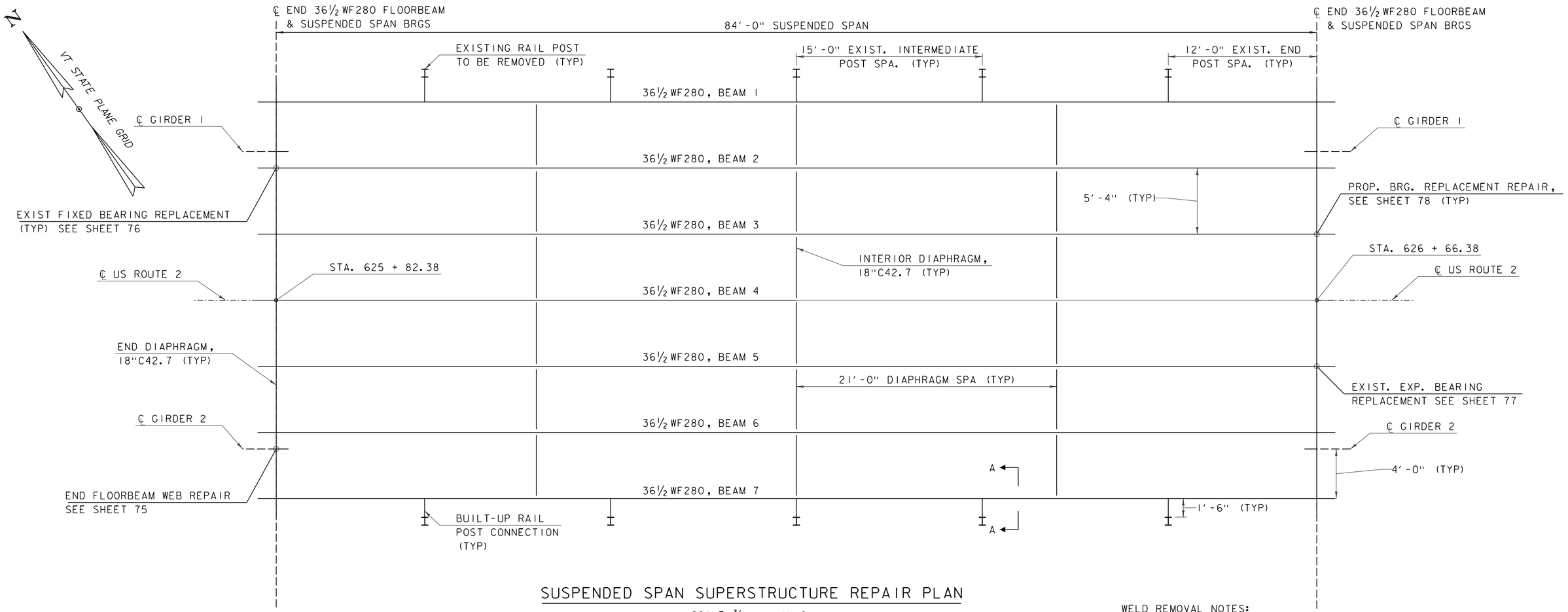
3. MATERIAL FOR POLYETHYLENE SHEETING SHALL MEET THE REQUIREMENTS OF SUBSECTION 725.01 (C) OF THE STANDARD SPECIFICATIONS. THE SHEETING THICKNESS SHALL BE 12 MILS. PLACE THE SHEETING ON TOP OF THE FINISHED SUBBASE FOR THE FULL LENGTH AND WIDTH OF THE APPROACH SLAB, EXCEPT IN THE BRACKET AREA AT THE ABUTMENT. LAP SHEETING AT LEAST 2 FEET. PAYMENT FOR ITEM 900.608 SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B) SHALL INCLUDE THIS SHEETING.

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264apslab.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. QU
APPROACH SLAB DETAIL SHEET

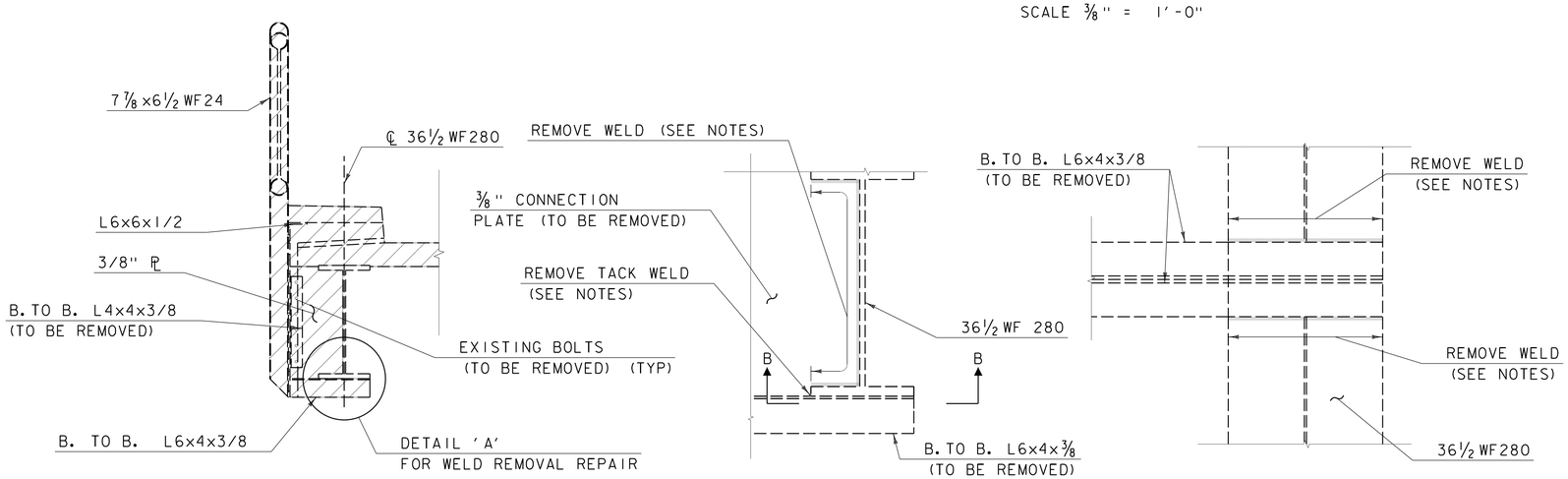
PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 73 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



SUSPENDED SPAN SUPERSTRUCTURE REPAIR PLAN

SCALE ⅜" = 1'-0"



SECTION A-A

SCALE ½" = 1'-0"

DETAIL 'A'

SCALE 1 ½" = 1'-0"

SECTION B-B

SCALE 1 ½" = 1'-0"

WELD REMOVAL NOTES:

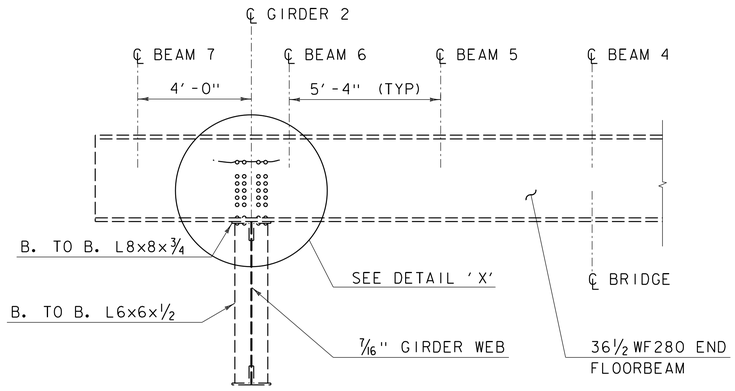
1. AS PER THE SPECIAL PROVISIONS REQUIREMENTS, THE CONTRACTOR SHALL SUBMIT A WELD REMOVAL PROCEDURE TO THE ENGINEER FOR REVIEW AND APPROVAL FOR THIS WORK.
2. ALL STRUCTURAL WELDS AND TACK WELDS LOCATED ON THE SUSPENDED SPAN BOTTOM TENSION FLANGE SHALL BE REMOVED DURING REMOVAL OF THE EXISTING BRIDGE RAILING.
3. WELD REMOVAL SHALL BE DONE BY PERSONS ON THE VTRANS PRE-QUALIFIED WELDER LIST. EACH WELDER SHALL DEMONSTRATE THE WORK TO BE PERFORMED ON A MOCK UP OF SIMILAR FIELD CONDITIONS ON SCRAP METAL FOR THE ENGINEER TO REVIEW, PRIOR TO PERFORMING THE WORK ON THE BRIDGE.
4. WELDS SHALL BE GROUND FLUSH AND SMOOTH IN ACCORDANCE WITH AWS D1.5 AND THE AFFECTED AREA SHALL BE BLENDED INTO THE SURROUNDING SURFACE TO ELIMINATE SHARP NOTCHED, CREVICES, OR CORNERS.
5. ALL WELD REMOVAL TO BE INSPECTED AND APPROVED BY THE ENGINEER.
6. IF THE WELD REMOVAL GOUGES THE EXISTING BOTTOM FLANGE BASE METAL, A WELD REPAIR PROCEDURE SHALL BE SUBMITTED IN ACCORDANCE WITH SECTION 506 OF THE VTRANS 2018 STANDARD CONSTRUCTION SPECIFICATIONS AND INCLUDING NON DESTRUCTIVE TESTING ON THE WELDING REPAIRS AT NO COST TO THE AGENCY.

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3b264typ2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
SS SPAN STRUCT STL REP DET SHT 1OF 2

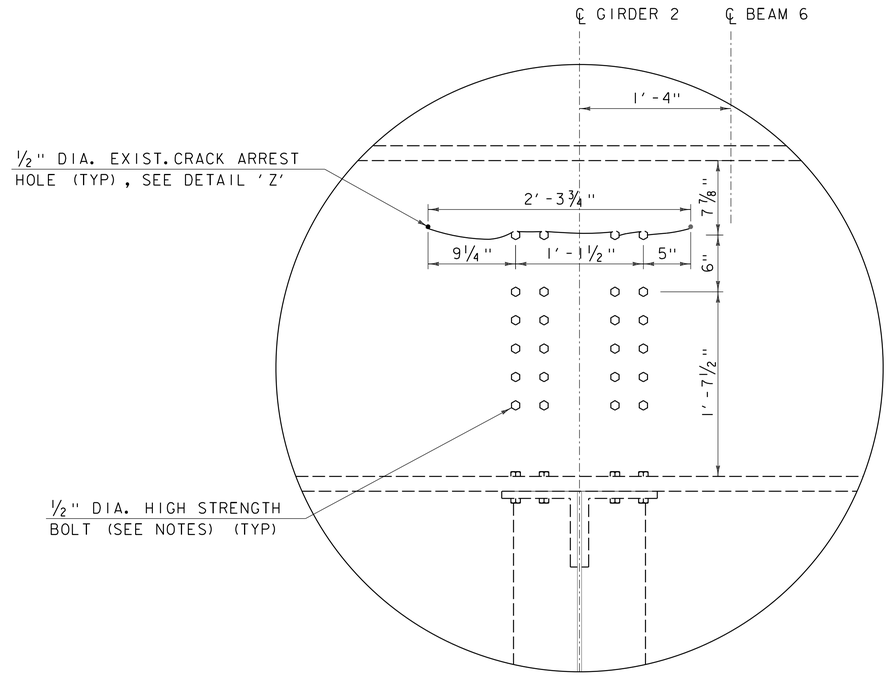
PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: T. CARD
SHEET 74 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



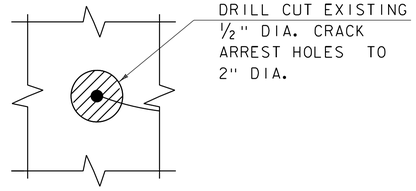
END FLOORBEAM AT GIRDER 1 FIXED END- CRACK REPAIR FRONT ELEVATION

SCALE ⅜" = 1'-0"



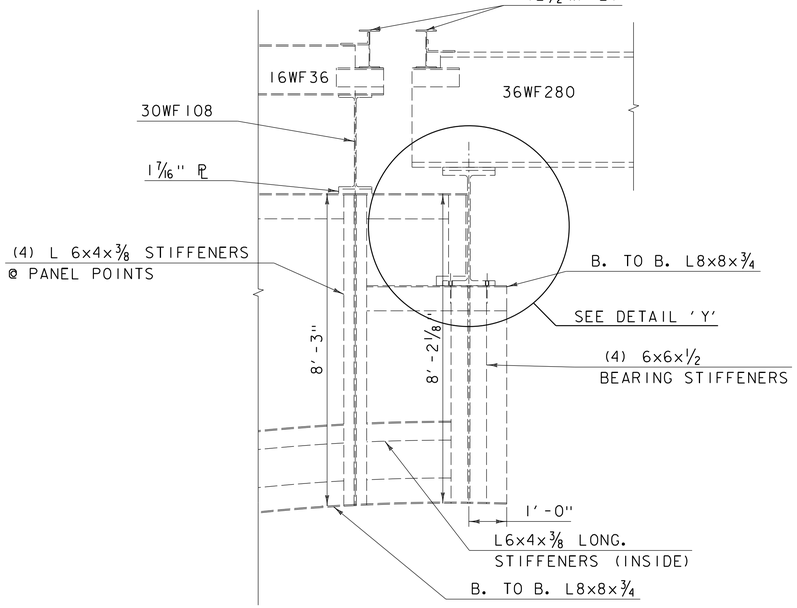
DETAIL 'X' - FLOORBEAM WEB CRACK REPAIR

SCALE 1½" = 1'-0"



DETAIL Z - PROPOSED CRACK ARREST HOLE

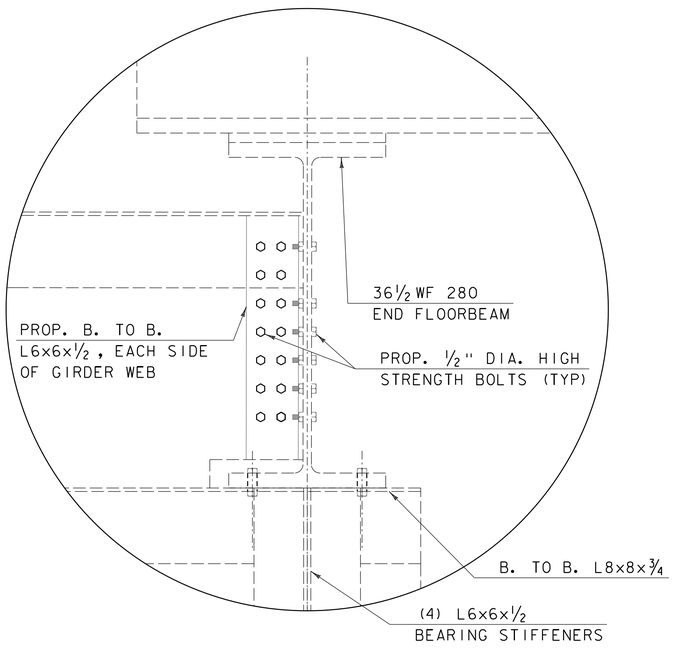
SCALE 2" = 1'-0"



NOTE: DECK AND JOINT NOT SHOWN FOR CLARITY

END FLOORBEAM AT GIRDER 1 FIXED END- CRACK REPAIR SIDE ELEVATION

SCALE ½" = 1'-0"



DETAIL 'Y' - CONNECTION ANGLE REPLACEMENT

SCALE 1½" = 1'-0"

FLOORBEAM WEB CRACK REPAIR NOTES:

1. CONNECTION ANGLES SHALL NOT BE REMOVED PRIOR TO LIVE LOAD BEING REMOVED FROM THE SOUTHERN HALF OF THE END FLOORBEAM BEAM.
2. THE THIRTY-SIX (36) RIVETS AND TWO (2) ANGLES CONNECTING THE WEST END FLOORBEAM WEB TO THE GIRDER 2 WEB SHALL BE REMOVED AS SHOWN, AND WILL BE REPLACED WITH TWO (2) NEW ANGLES AND THIRTY-SIX (36) HIGH STRENGTH BOLTS.
3. THE HIGH STRENGTH BOLTS SHALL BE HAND TIGHT AT INSTALLATION, AND WILL NOT BE FULLY TENSIONED UNTIL THE SUSPENDED SPAN CONCRETE DECK HAS BEEN INSTALLED AND POST-TENSIONED.
4. THE EXISTING CRACK ARREST HOLES CANNOT BE REAMED USING FLAME CUTTING METHODS, AND THE INTERIOR SURFACES SHALL BE SMOOTH AND FREE OF SHARP CORNERS, GOUGES AND IMPERFECTIONS.

RIVET REMOVAL NOTES:

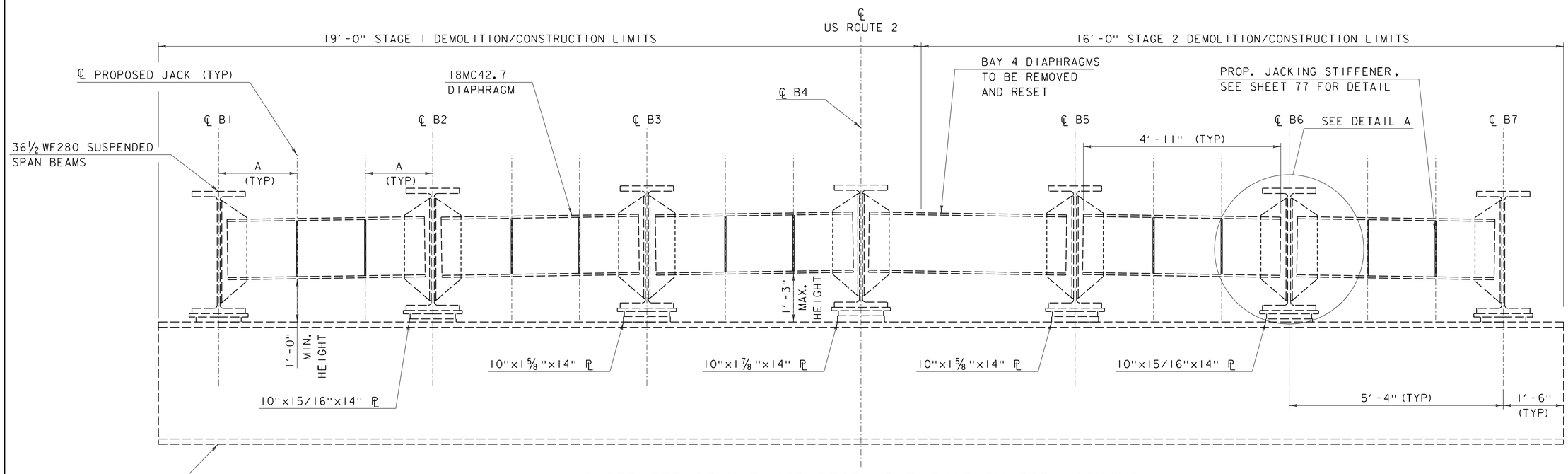
1. RIVET HEAD REMOVAL SHALL UTILIZE A LIGHT CHIPPING HAMMER WITH AN APPROPRIATE ATTACHMENT FOR GRINDING. BURNING WILL NOT BE ALLOWED. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE EXISTING STEEL. IN THE EVENT THE CONTRACTOR DAMAGES THE EXISTING STEEL THAT IS TO REMAIN DURING RIVET REMOVAL OPERATIONS, THE CONTRACTOR SHALL REPLACE, REPAIR, OR REINFORCE THE DAMAGED AREA AS MAY BE REQUIRED TO RESTORE THE AREA TO EXISTING OR BETTER CONDITION PRIOR TO DAMAGE. ANY DAMAGE DONE BY CONTRACTOR OPERATIONS TO EXISTING STEEL THAT IS TO REMAIN, SHALL BE REPAIRED AND TESTED TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE AGENCY.
2. IN LOCATIONS WHERE THERE IS AN EXISTING RIVET, NO MORE THAN ONE (1) RIVET MAY BE REMOVED AT ANY ONE TIME. THE HOLES SHALL BE REAMED TO FULL SIZE, 15/16 INCH DIA., AND A ⅞ INCH DIA. H.S. BOLT INSTALLED. THE REMOVAL OF THE RIVET SHALL BE ACCOMPLISHED BY PUNCHING THE BODY OF THE SHANK OUT. IF THE RIVET CANNOT BE REMOVED IN THIS MANNER IT SHALL BE REMOVED BY DRILLING A 13/16 INCH DIA. HOLE AND REAMING TO FULL SIZE. CUTTING AND BURNING WILL NOT BE ALLOWED.

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264typ2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
SS SPAN STRUCT STL REP DET SHT 2 OF 2

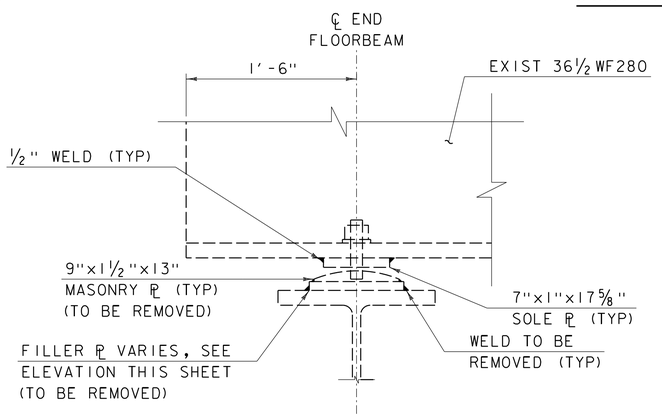
PLOT DATE: 2/18/2022
DRAWN BY: A. BORBOSA
CHECKED BY: T. CARD
SHEET 75 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



SUSPENDED SPAN FIXED BEARING ELEVATION FOR JACKING

EAST ELEVATION
SCALE ¾" = 1'-0"



NOTE: EXISTING WELDS BETWEEN THE FILLER PLATES AND END FLOORBEAM TOP FLANGE SHALL BE REMOVED IN ACCORDANCE WITH WELD REMOVAL NOTES PROVIDED ON SHEET 74, SO THAT THE EXISTING BEARINGS CAN BE REMOVED.

SUSPENDED SPAN EXISTING TYPICAL FIXED BEARING

SCALE 1½" = 1'-0"

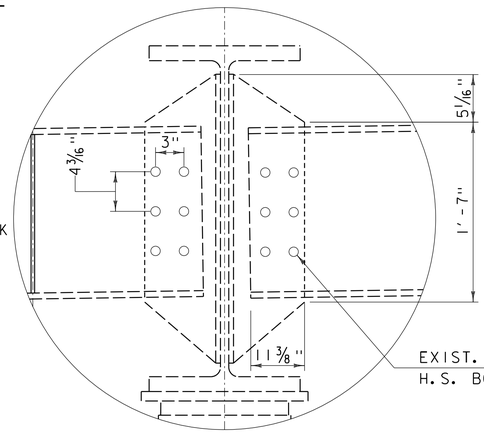
JACKING NOTES:

1. OFFSET "A" SHALL BE 2'-6" MAXIMUM FROM CENTERLINE OF BEARING.
2. EXTERIOR BEAMS THAT WILL HAVE A SINGLE JACK FOR LIFTING, SHALL HAVE A MINIMUM CAPACITY OF 15 TONS. INTERIOR BEAMS THAT UTILIZE ONE JACK ON EACH SIDE SHALL HAVE A MINIMUM CAPACITY OF 7.5 TONS EACH.
3. CONTRACTOR MAY PROPOSE ALTERNATIVE OFFSETS AND JACK CAPACITIES BASED ON THEIR MEANS AND METHODS, AS LONG AS THE ALTERNATIVE PLAN FOLLOWS THE REQUIREMENTS OF SPECIAL PROVISION (JACKING AND REMOVAL OF SUSPENDED SPAN BEARINGS) AND IS APPROVED BY THE ENGINEER.
4. THE EXISTING BEAMS SHALL NOT BE JACKED MORE THAN 2 ½" IN HEIGHT ABOVE THE EXISTING BEAM ELEVATIONS.

JACKING PROCEDURE NOTES:

PRIOR TO JACKING THE BEAMS THE FOLLWING TASKS SHALL BE COMPLETED:

1. REPLACE THE EXISTING RIVETED CONNECTIONS BETWEEN THE END DIAPHRAGMS AND SUSPENDED SPAN BEAMS WITH HIGH STRENGTH BOLTS AS SHOWN IN DETAIL A ON THIS SHEET.
2. INSTALL STIFFNER PLATES ABOVE THE LOCATIONS OF THE PROPOSED JACKS AS SHOWN IN DETAIL B ON SHEET 77.
3. REMOVE AND STORE THE DIAPHRAGMS IN BAY 4, WHICH SHALL BE RESET USING HIGH STRENGTH BOLTS AFTER THE JACKS ARE REMOVED AND THE PROPOSED BEARINGS HAVE BEEN INSTALLED.
4. REMOVE THE EXISTING DECK FOR THE LIMITS OF THE STAGE BEING DEMOLISHED, OR SAW CUT THE FULL LENGTH OF THE EXISTING DECK IN THE SUSPENDED SPAN SO THAT JACKING OF THE BEAMS IS INDEPENDENT OF THE OTHER HALF OF THE STRUCTURE CARRYING TRAFFIC.
5. REMOVE THE WELDS ON THE EXISTING BEARING ASSEMBLY PLATES THAT CONNECT TO THE EXISTING END FLOORBEAM AND SUSPENDED SPAN BEAMS IN ACCORDANCE WITH THE WELD REMOVAL NOTES ON SHEET 74.



DETAIL A

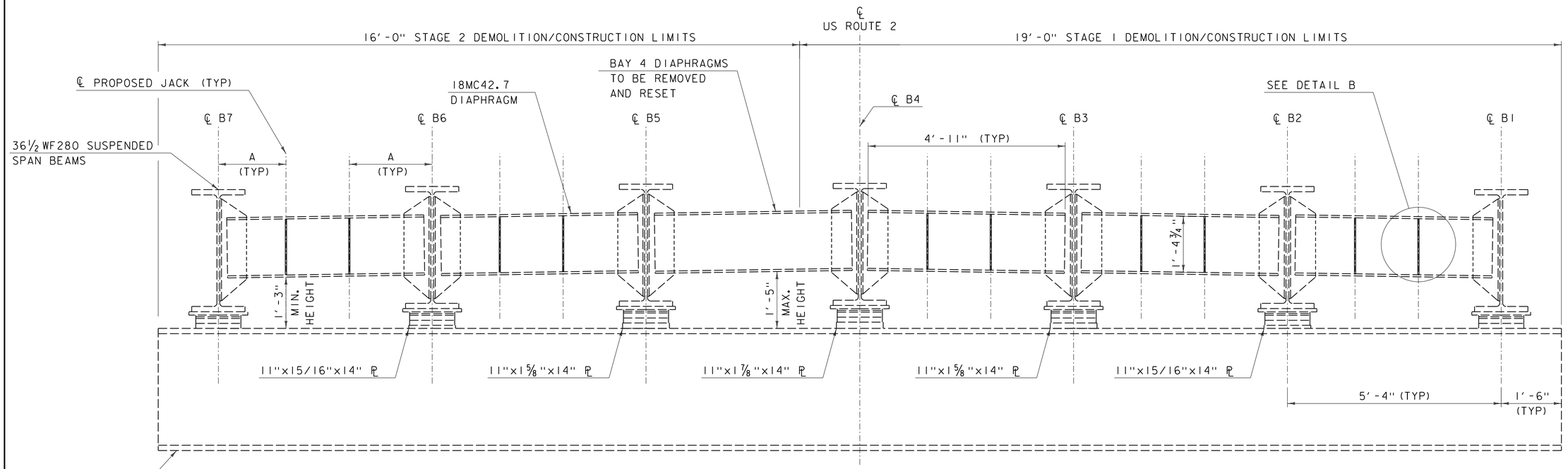
SCALE 1½" = 1'-0"

NOTE:

1. THE WORK ASSOCIATED WITH THE JACKING OF THE EXISITNG SUSPENDED SPAN BEAMS, REMOVAL OF THE EXISITING BEARINGS, AND REMOVING AND RESETTING OF THE BAY 4 DIAPHRAGMS SHALL BE PAID FOR AND DESCRIBED UNDER ITEM NO. 900.6450 SPECIAL PROVISION (JACKING AND REMOVAL OF SUSPENDED SPAN BEARINGS).

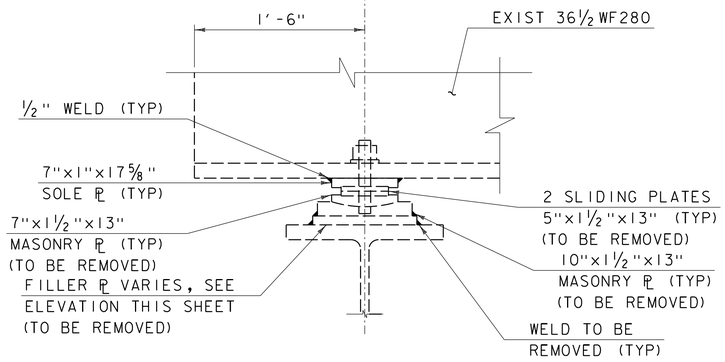
PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: zl3b264jackdet.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. BARBOSA
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
SS BEARING REMOVAL DETS SHEET 1OF 2	SHEET 76 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



SUSPENDED SPAN EXPANSION BEARING ELEVATION FOR JACKING

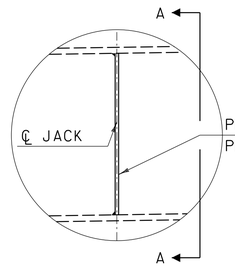
WEST ELEVATION
SCALE ¾" = 1'-0"



NOTE: EXISTING WELDS BETWEEN THE FILLER PLATES AND END FLOORBEAM TOP FLANGE SHALL BE REMOVED IN ACCORDANCE WITH WELD REMOVAL NOTES PROVIDED ON SHEET 74, SO THAT THE EXISTING BEARINGS CAN BE REMOVED.

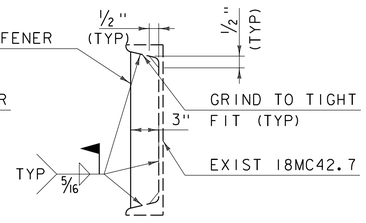
SUSPENDED SPAN EXISTING TYPICAL EXPANSION BEARING

SCALE 1½" = 1'-0"



DETAIL B

SCALE 1½" = 1'-0"



SECTION A-A

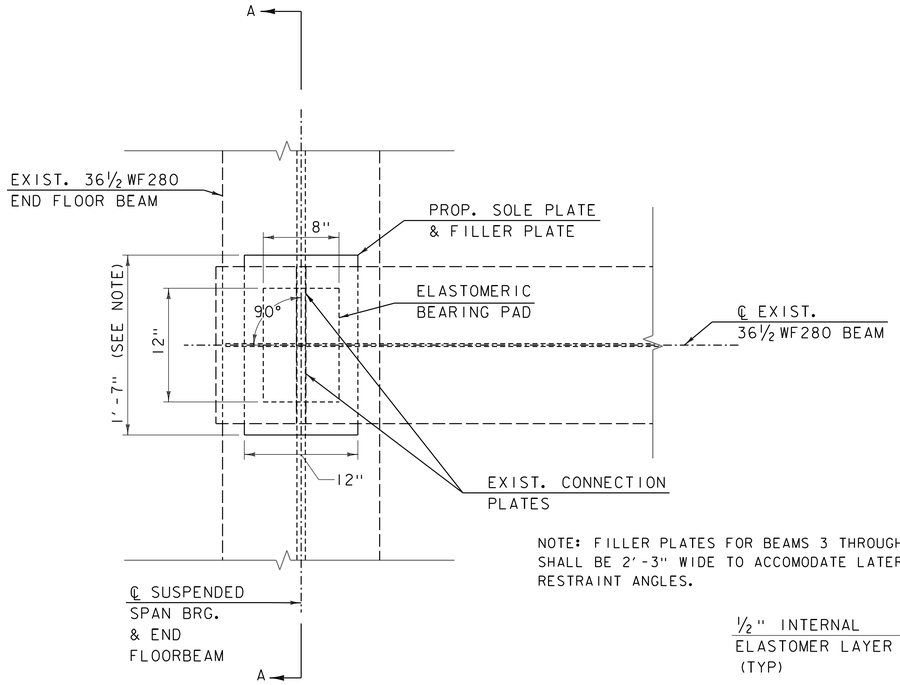
SCALE 1½" = 1'-0"

NOTE:

1. SEE JACKING PROCEDURE NOTES ON SHEET 76.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

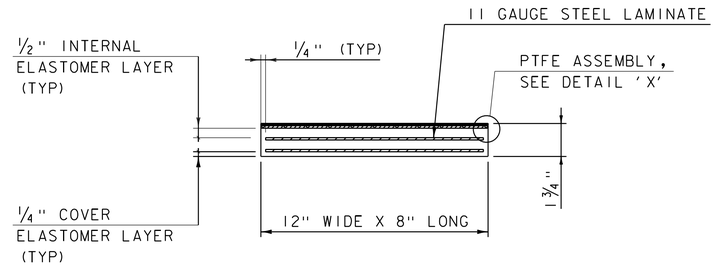
PROJECT NAME: NORTH HERO	
PROJECT NUMBER: BF 028-1(30)	
FILE NAME: z13b264jackdet.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: A. BARBOSA
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
SS BEARING REMOVAL DETS SHEET 2 OF 2	SHEET 77 OF 108



BEARING PLAN

SCALE: 1½" = 1'-0"

NOTE: FILLER PLATES FOR BEAMS 3 THROUGH 5 SHALL BE 2'-3" WIDE TO ACCOMODATE LATERAL RESTRAINT ANGLES.

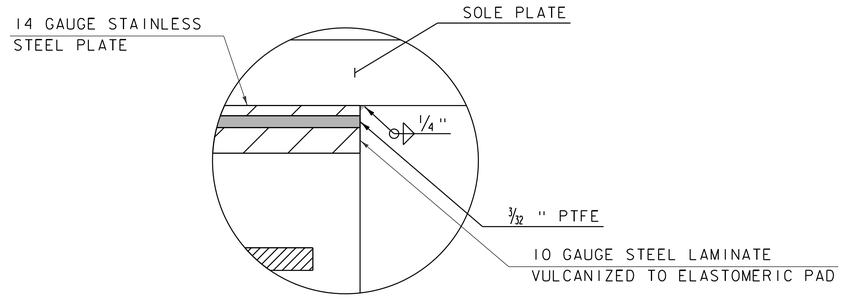


ELASTOMERIC BEARING PAD

SCALE: 3" = 1'-0"

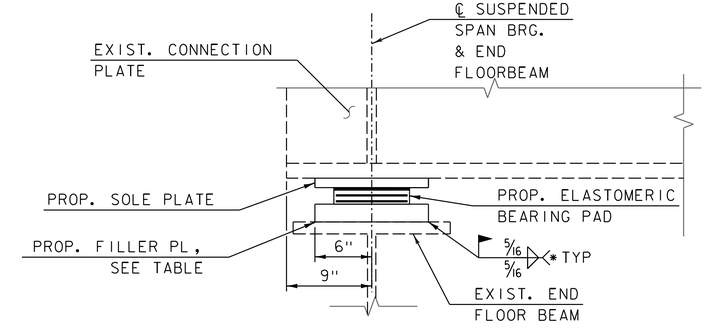
BEARING NOTES:

1. BEARINGS SHALL CONFORM TO THE APPLICABLE SUBSECTIONS OF SECTIONS 531 AND 731.
2. ALL REINFORCEMENT BETWEEN LAYERS OF ELASTOMER SHALL BE STEEL MEETING THE REQUIREMENTS OF SUBSECTION 714.02. ALL INTERNAL STEEL PLATES SHALL BE BLAST CLEANED AND FREE OF COATINGS, RUST AND MILL SCALE. THE PLATES SHALL BE FREE OF SHARP EDGES AND BURRS.
3. STEEL REINFORCED ELASTOMERIC BEARINGS SHALL HAVE A MINIMUM ⅛" EDGE SEAL OF ELASTOMER INTEGRAL WITH BEARING OVER ALL INTERNAL PLATES.
4. THE ELASTOMER WAS DESIGNED WITH A SHEAR MODULUS OF 160 PSI +/- 15%
5. THE CONTRACTOR IS ADVISED TO HAVE A MINIMUM OF 14 GALVANIZED STEEL SHIMS AVAILABLE FOR USE FOR ELEVATION ADJUSTMENTS UPON THE SETTING OF THE SUPERSTRUCTURE UNITS. THE SHIMS SHALL BE FABRICATED ACCORDING TO SECTION 531 AND SHALL BE INCLUDED UNDER ITEM 531.18 "BEARING DEVICE ASSEMBLY, ELASTOMERIC PAD WITH EXTERNAL LOAD PLATES."
6. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND SHALL BE VISIBLE AFTER THE BEARING IS INSTALLED.



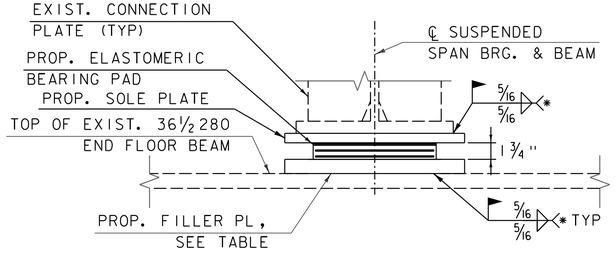
DETAIL X

NOT TO SCALE



BEARING ELEVATION

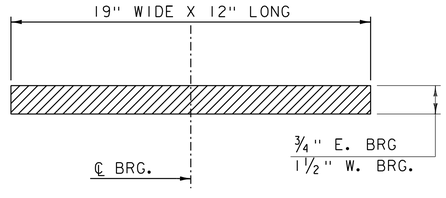
SCALE: 1½" = 1'-0"



(*) - WELDS SHALL TERMINATE ¼" FROM EDGE OF PLATE

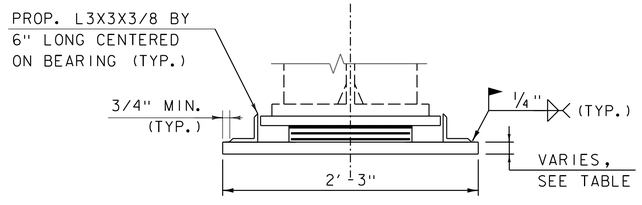
SECTION A-A

SCALE: 1½" = 1'-0"



SOLE PLATE DETAIL

SCALE: 3" = 1'-0"



MASONRY PLATE WITH LATERAL RESTRAINT ANGLES

SCALE: 1½" = 1'-0"

SUSPENDED SPAN BEARING FILLER PLATE TABLE			
E. BRG. BEAM NO.	FILLER PL THICKNESS	W. BRG. BEAM NO.	FILLER PL THICKNESS
1	-	1	¾"
2	15/16"	2	1 1/16"
3	1 5/8"	3	2⅛"
4	1 7/8"	4	2⅛"
5	1 5/8"	5	2⅛"
6	15/16"	6	1 1/16"
7	-	7	¾"

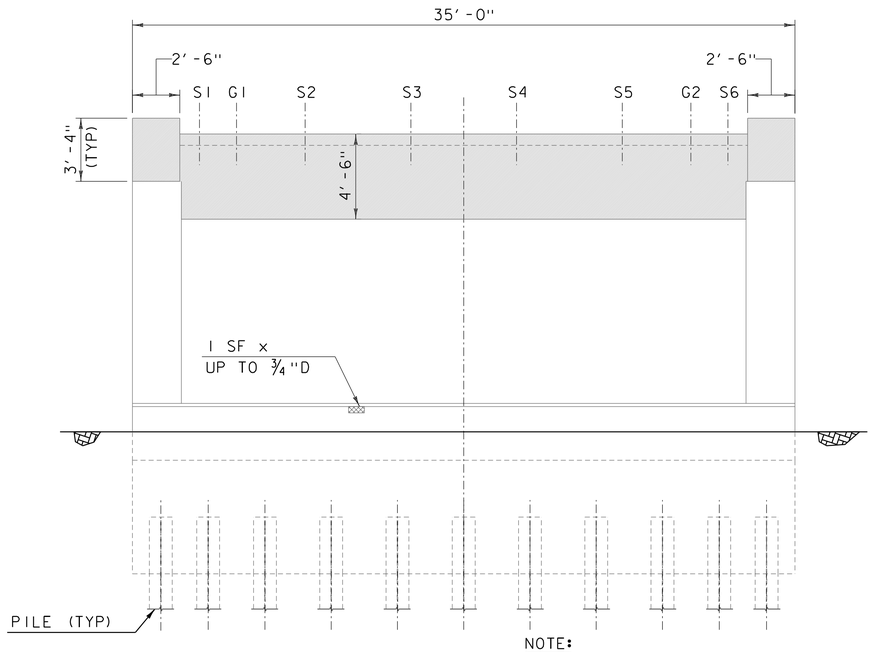
NOTE: FILLER PLATES SHALL HAVE THE SAME LENGTH AND WIDTH DIMENSIONS AS THE SOLE PLATES.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264bearing.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
SUSPENDED SPAN BEARING DETAILS SHEET

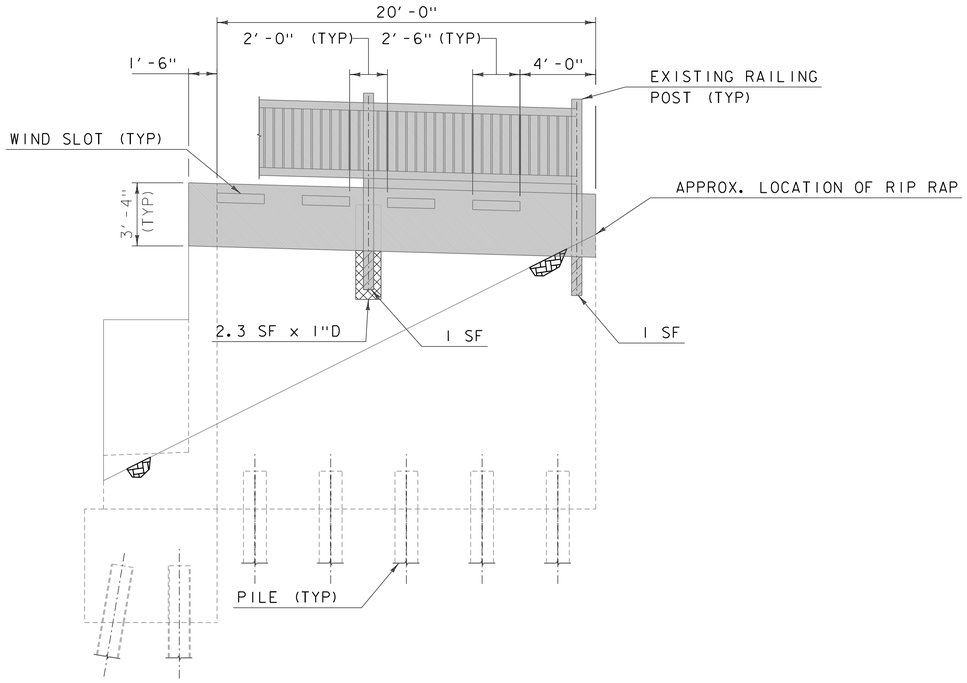
PLOT DATE: 2/18/2022
DRAWN BY: R. STICKLES
CHECKED BY: T. CARD
SHEET 78 OF 108



NOTE:
THERE ARE IMPRESSIONS IN THE ABUTMENT BACKWALL BEHIND GIRDERS UP TO 4" DEEP IN SHAPE OF GIRDER TO BE LEFT AS IS.

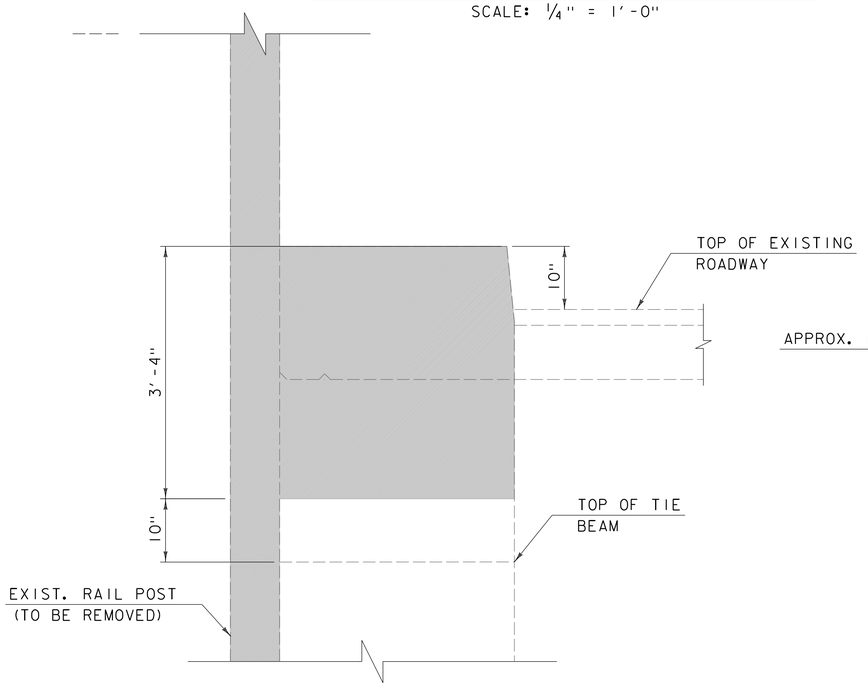
ABUTMENT #1 - EXISTING ELEVATION

SCALE: 1/4" = 1'-0"



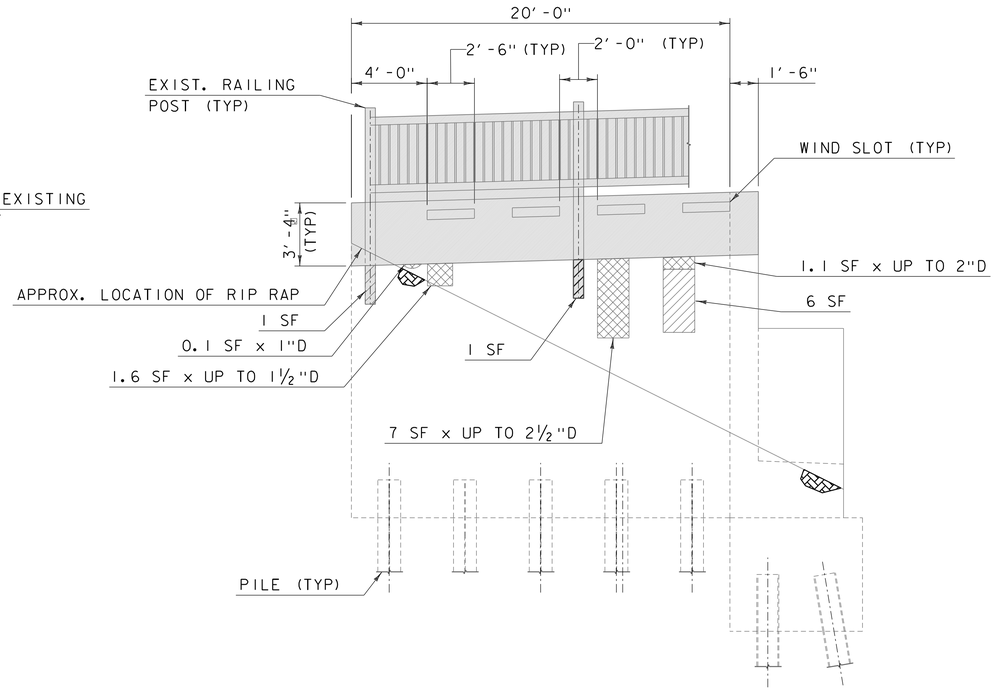
ABUTMENT #1 - EXISTING NW WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"



EXISTING BRIDGE RAILING TYPICAL SECTION AT WINGWALL

SCALE: 1" = 1'-0"



ABUTMENT #1 - EXISTING SW WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"

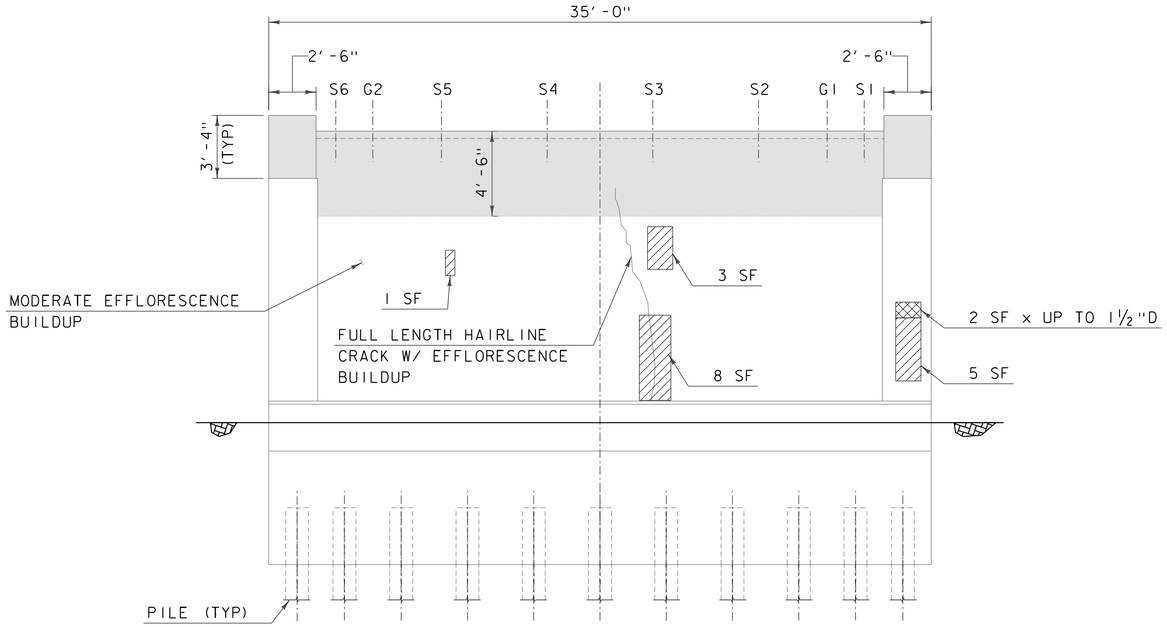
LEGEND

- LIMITS OF REMOVAL
- REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I
- REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II

NOTES:
1. LOCATIONS AND QUANTITIES SHOWN ARE APPROXIMATE AND FOR BIDDING PURPOSES ONLY. ALL REPAIRS SHALL BE FIELD MEASURED AND QUANTIFIED BY THE CONTRACTOR, AND APPROVED BY THE ENGINEER.
2. ALL PROPOSED CONCRETE REPAIRS SHALL BE MADE WITH MATERIALS COMPLIANT WITH SECTION 780 OF THE VTRANS STANDARD SPECIFICATIONS.

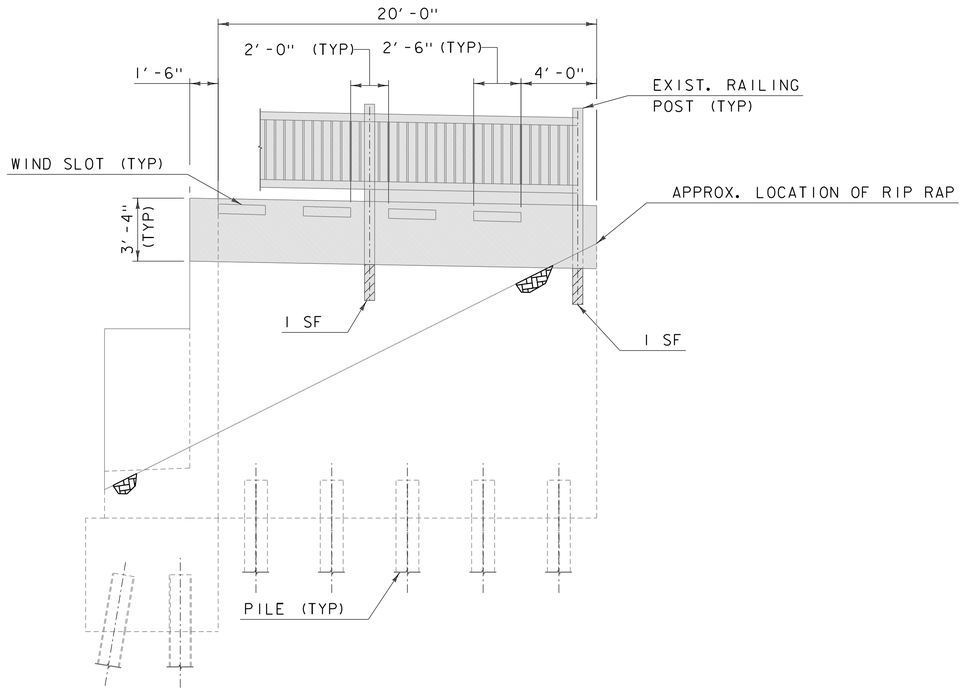
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: z13b264detail.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: R. STICKLES
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
SUB MAPPING & DEMOLITION SHEET 1 OF 2	SHEET 79 OF 108



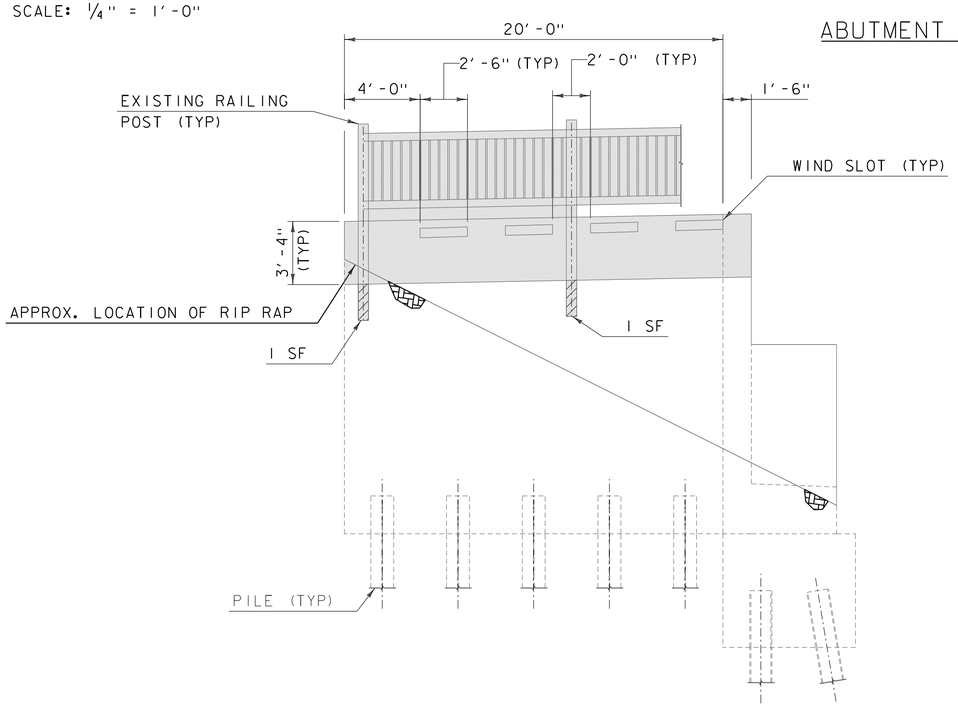
ABUTMENT #2 - EXISTING ELEVATION

SCALE: ¼" = 1'-0"



ABUTMENT #2 - EXISTING NE WINGWALL ELEVATION

SCALE: ¼" = 1'-0"



ABUTMENT #2 - EXISTING SE WINGWALL ELEVATION

SCALE: ¼" = 1'-0"

NOTES:

1. LOCATIONS AND QUANTITIES SHOWN ARE APPROXIMATE AND FOR BIDDING PURPOSES ONLY. ALL REPAIRS SHALL BE FIELD MEASURED AND QUANTIFIED BY THE CONTRACTOR, AND APPROVED BY THE ENGINEER.
2. ALL PROPOSED CONCRETE REPAIRS SHALL BE MADE WITH MATERIALS COMPLIANT WITH SECTION 780 OF THE VTRANS STANDARD SPECIFICATIONS.

LEGEND

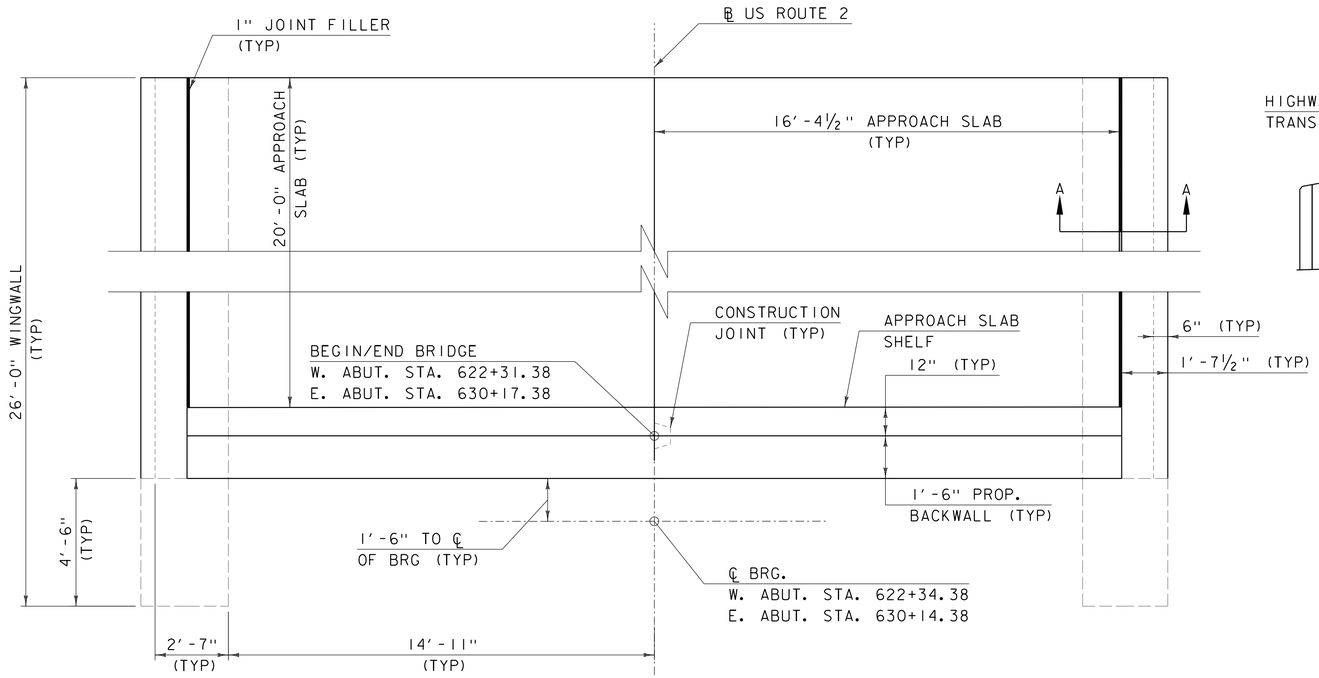
- LIMITS OF REMOVAL
- REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I
- REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3b264detail.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
SUB MAPPING & DEMOLITION SHEET 2 OF 2

PLOT DATE: 2/18/2022
DRAWN BY: R. STICKLES
CHECKED BY: T. CARD
SHEET 80 OF 108

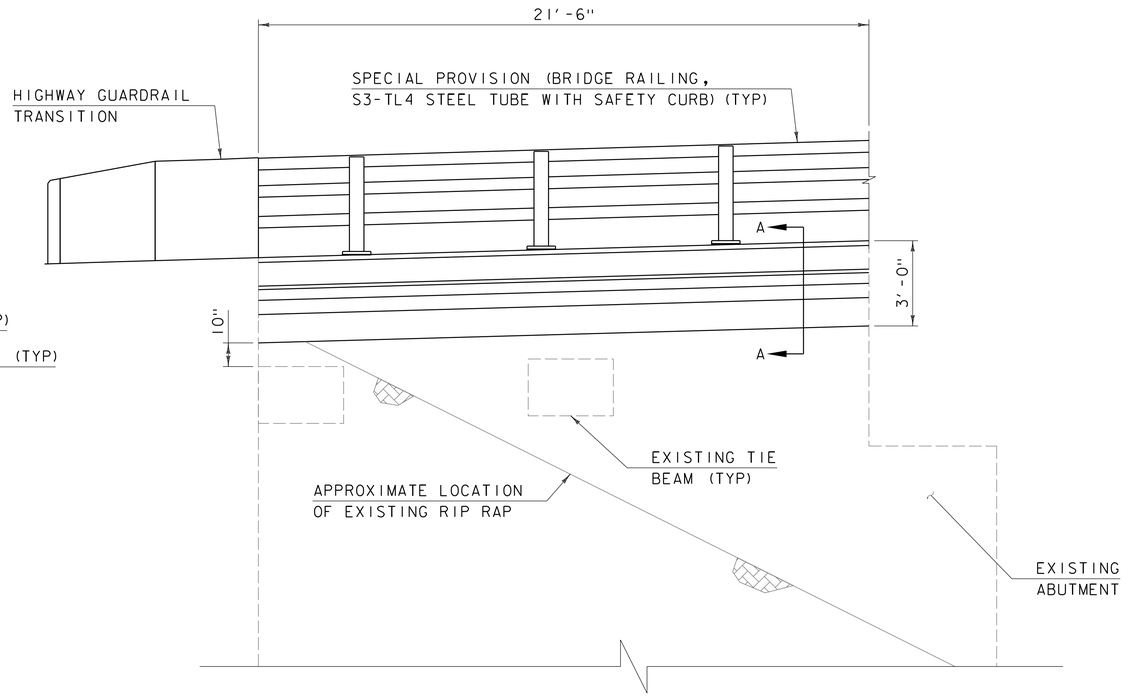


NOTE:

EXISTING ABUTMENT BRIDGE SEAT AND FOUNDATION NOT SHOWN FOR CLARITY.

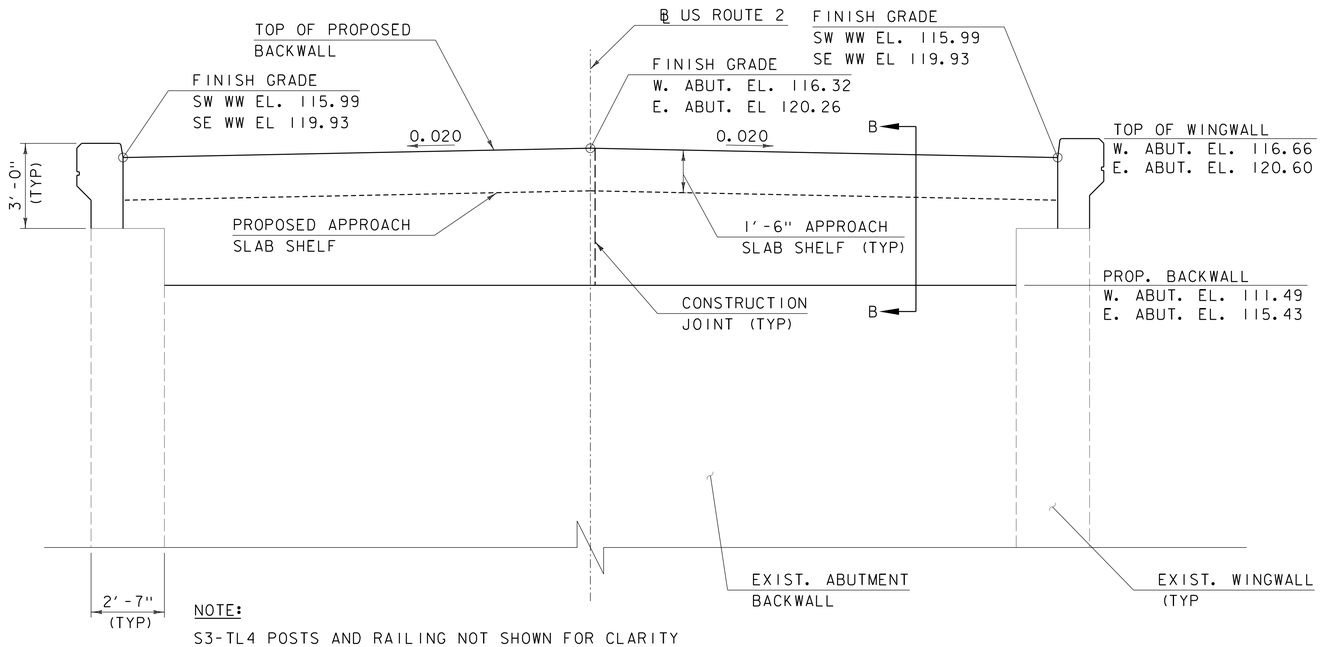
TYPICAL ABUTMENT ELEVATION

SCALE: ⅜" = 1'-0"



TYPICAL ELEVATION AT WINGWALL

SCALE: ⅜" = 1'-0"



NOTE:

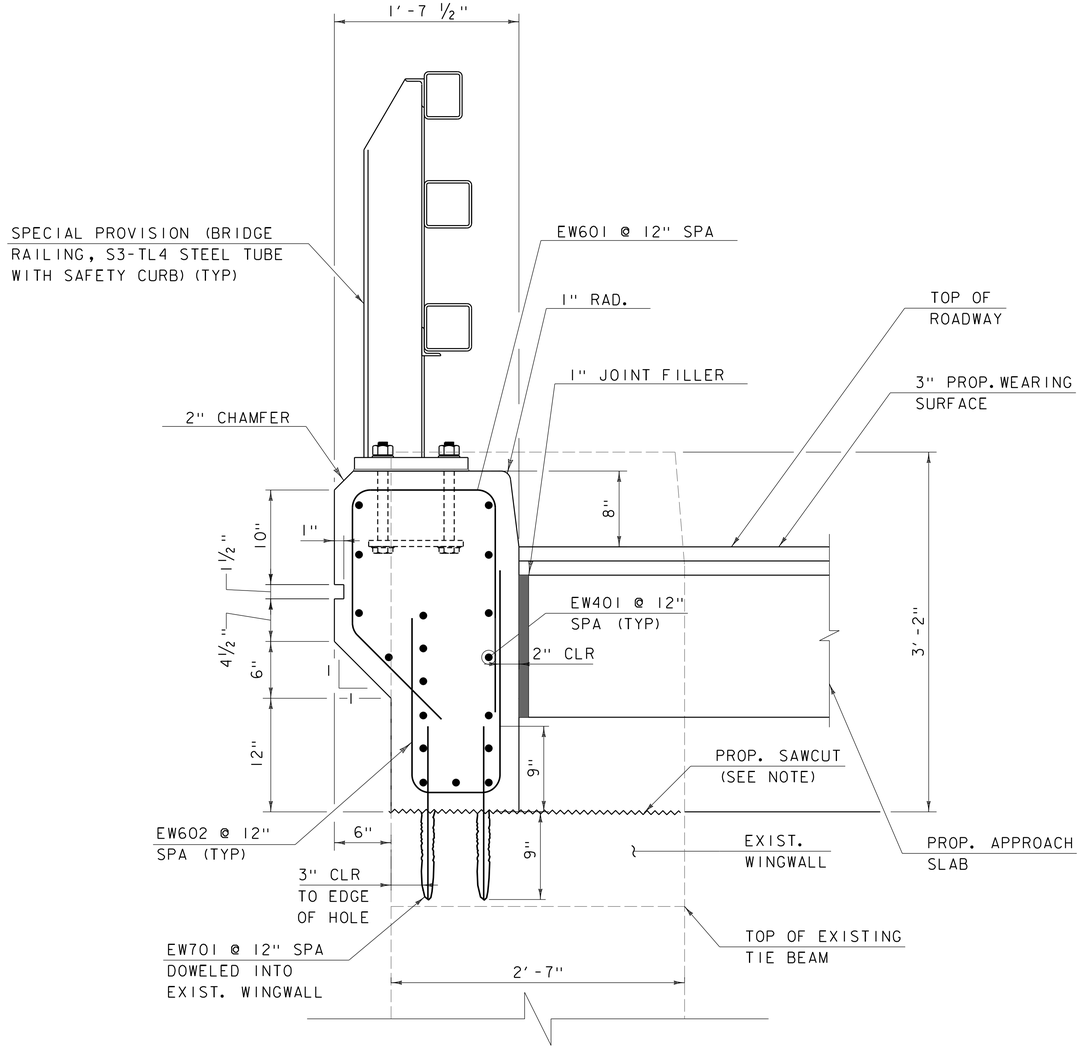
S3-TL4 POSTS AND RAILING NOT SHOWN FOR CLARITY

TYPICAL ABUTMENT ELEVATION

SCALE: ⅜" = 1'-0"

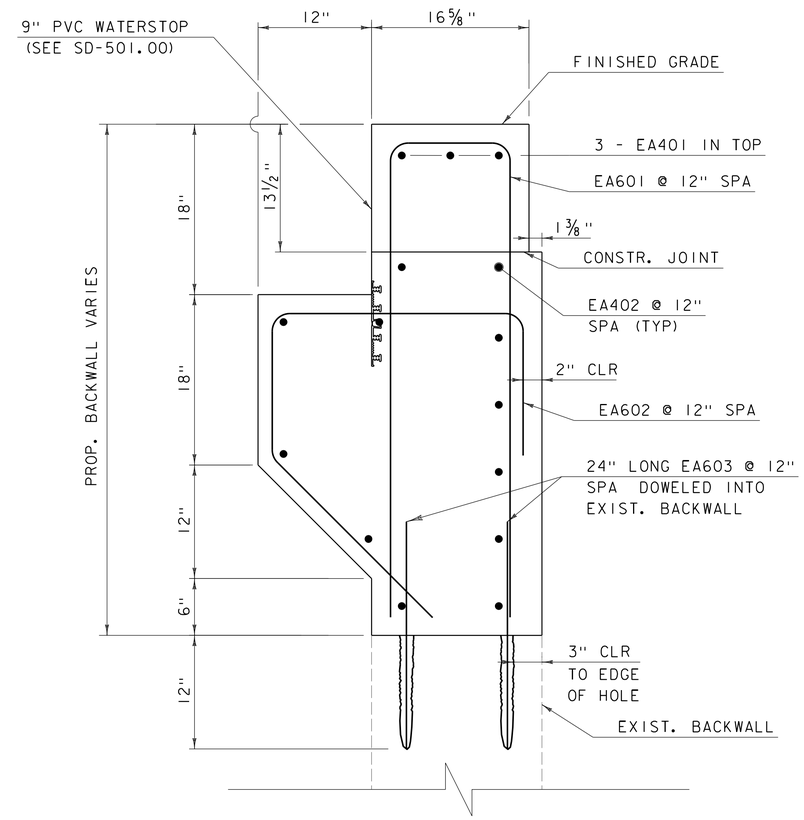
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)
FILE NAME: zl3b264detail.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: R. STICKLES
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
ABUTMENT & WINGWALL PLAN & ELEV SHEET	SHEET 81 OF 108



SECTION A-A

SCALE: 1½" = 1'-0"



NOTE:
PROPOSED APPROACH SLAB AND FINGER JOINT ANCHORAGE NOT SHOWN FOR CLARITY.

SECTION B-B

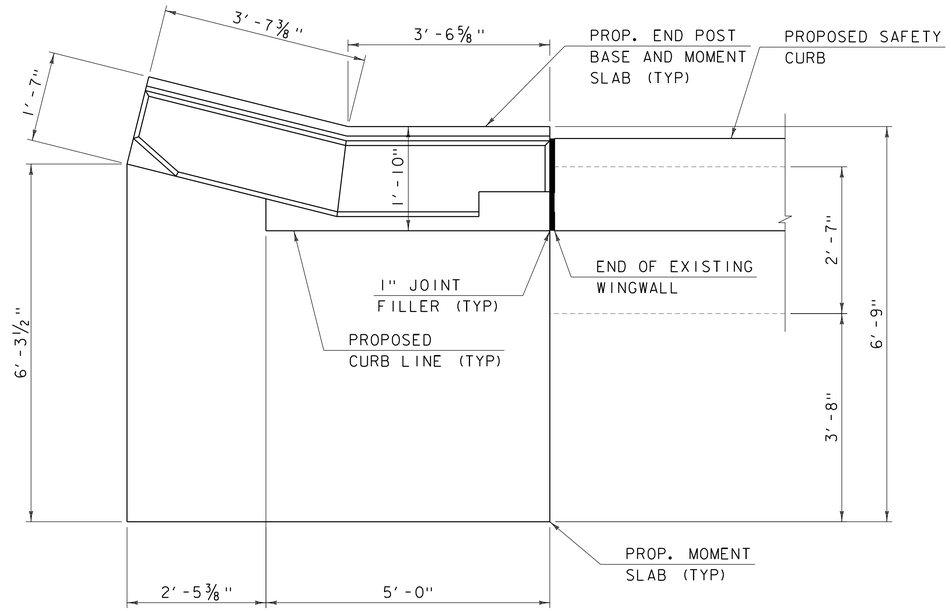
SCALE: 1½" = 1'-0"

NOTE:
ALL EXISTING WINGWALLS AND BACKWALLS MUST BE SAWCUT TO PROVIDE A LEVEL SURFACE FOR INSTALLING DOWELS AND REBUILDING FOR THE LIMITS SHOWN.

PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)

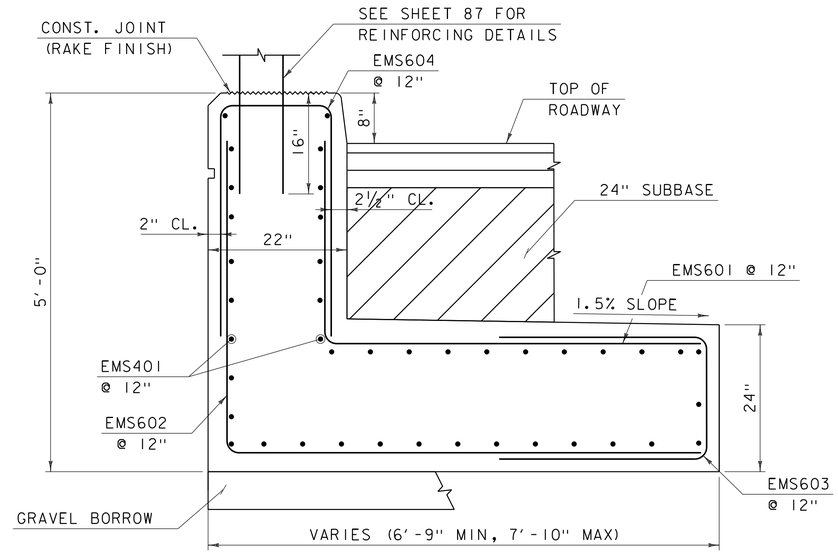
FILE NAME: z13b264detail.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: R. STICKLES
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
ABUTMENT AND WINGWALL DETAILS SHEET	SHEET 82 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



S3-TL4 HIGHWAY GUARDRAIL TRANSITION
END POST BASE & MOMENT SLAB

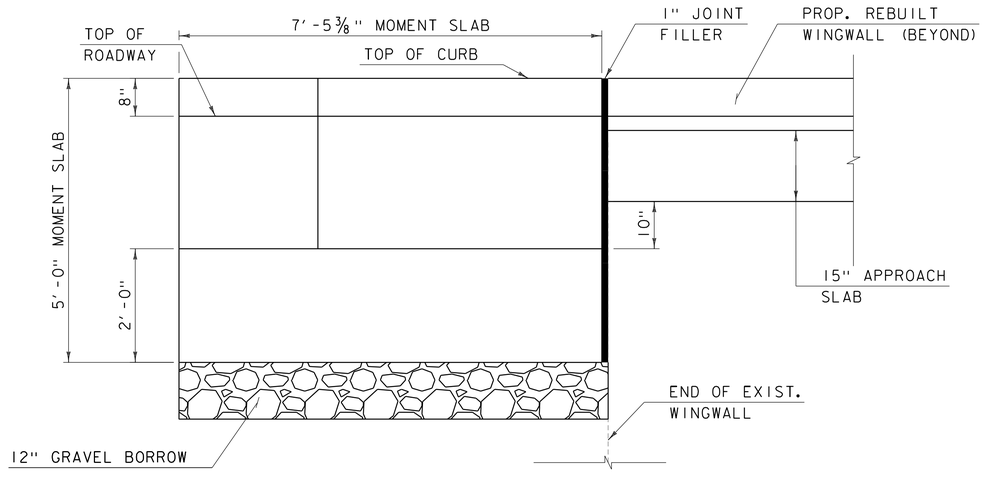
SCALE: 3/4" = 1'-0"



NOTE:
HIGHWAY GUARDRAIL TRANSITION NOT SHOWN FOR CLARITY.

TYPICAL REINFORCING SECTION

SCALE: 1" = 1'-0"



NOTE:
S3-TL4 RAILING AND END POSTS NOT SHOWN FOR CLARITY.

TYPICAL MOMENT SLAB ELEVATION

SCALE: 3/4" = 1'-0"

MOMENT SLAB NOTES:

1. PROPOSED MOMENT SLAB MATERIAL AND INSTALLATION SHALL ADHERE TO THE REQUIREMENTS OF SECTION 501.
2. ALL CONCRETE FOR THE MOMENT SLAB SHALL BE ITEM 900.608 SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B).
3. CONCRETE END POST SHALL BE PAID SEPARATELY UNDER SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET).

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264momslab.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
MOMENT SLAB LAYOUT & DETAILS SHEET

PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: T. CARD
SHEET 83 OF 108

STATE OF VERMONT
AGENCY OF TRANSPORTATION

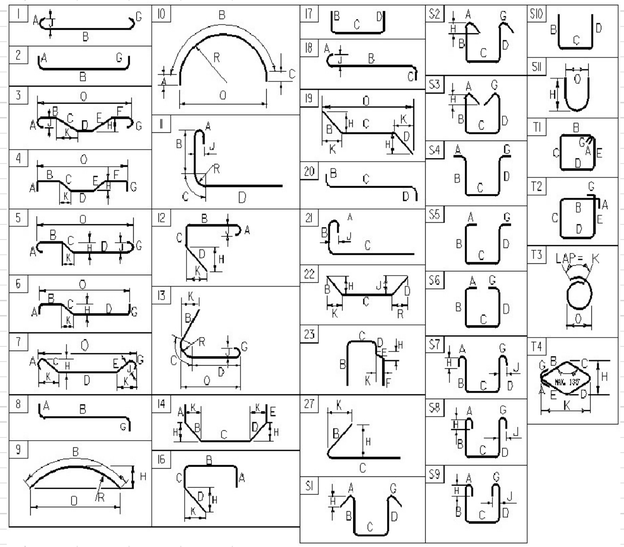
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
APPROACH SLAB #1																	
	42	5	17'- 2"	1EAS501	STR												
	25	8	2'- 3"	1EAS801	STR												
	44	9	20'- 9"	1EAS901	1	1'- 7"	19'- 2"							0'- 10"			
	4	4	19'- 8"	1EAS401	STR												
	21	4	3'- 11"	1EAS402	S10		0'- 11	2'- 1"	0'- 11"								
APPROACH SLAB #2																	
	42	5	17'- 2"	2EAS501	STR												
	25	8	2'- 3"	2EAS801	STR												
	44	9	20'- 9"	2EAS901	1	1'- 7"	19'- 2"							0'- 10"			
	4	4	19'- 8"	2EAS401	STR												
	21	4	3'- 11"	2EAS402	S10		0'- 11	2'- 1"	0'- 11"								
SW MOMENT SLAB																	
	18	4	4'- 8"	1EMS401	STR												
	5	6	7'- 8"	1EMS601	17		2'- 8"	5'- 0"									
	5	6	10'- 5"	1EMS602	17		4'- 2"	6'- 3"									
	5	6	7'- 1"	1EMS603	S10		2'- 9"	1'- 7"	2'- 9"								
	5	6	7'- 8"	1EMS604	S10		3'- 1"	1'- 6"	3'- 1"								
NW MOMENT SLAB																	
	18	4	4'- 8"	1EMS401	STR												
	5	6	7'- 8"	1EMS601	17		2'- 8"	5'- 0"									
	5	6	10'- 5"	1EMS602	17		4'- 2"	6'- 3"									
	5	6	7'- 1"	1EMS603	S10		2'- 9"	1'- 7"	2'- 9"								
	5	6	7'- 8"	1EMS604	S10		3'- 1"	1'- 6"	3'- 1"								
SE MOMENT SLAB																	
	18	4	4'- 8"	2EMS401	STR												
	5	6	7'- 8"	2EMS601	17		2'- 8"	5'- 0"									
	5	6	10'- 5"	2EMS602	17		4'- 2"	6'- 3"									
	5	6	7'- 1"	2EMS603	S10		2'- 9"	1'- 7"	2'- 9"								
	5	6	7'- 8"	2EMS604	S10		3'- 1"	1'- 6"	3'- 1"								
NE MOMENT SLAB																	
	18	4	4'- 8"	2EMS401	STR												
	5	6	7'- 8"	2EMS601	17		2'- 8"	5'- 0"									
	5	6	10'- 5"	2EMS602	17		4'- 2"	6'- 3"									
	5	6	7'- 1"	2EMS603	S10		2'- 9"	1'- 7"	2'- 9"								
	5	6	7'- 8"	2EMS604	S10		3'- 1"	1'- 6"	3'- 1"								
SW END POST																	
	4	5	7'- 2"	1EEP501	17		2'- 2"	0'- 5"	4'- 7"								
	4	5	8'- 4"	1EEP502	23		4'- 9"	0'- 4"		0'- 9"	2'- 6"		0'- 8"		0'- 5"		
	4	5	5'- 5"	1EEP503	6	0'- 9"	2'- 3"	2'- 5"							2'- 4"		
	2	5	8'- 6"	1EEP504	17		4'- 0"	0'- 6"	4'- 0"								
	9	5	8'- 10"	1EEP505	17		4'- 0"	0'- 10"	4'- 0"								
	1	5	8'- 7"	1EEP506	17		4'- 0"	0'- 7"	4'- 0"								
NW END POST																	
	4	5	7'- 2"	1EEP501	17		2'- 2"	0'- 5"	4'- 7"								
	4	5	8'- 4"	1EEP502	23		4'- 9"	0'- 4"		0'- 9"	2'- 6"		0'- 8"		0'- 5"		
	4	5	5'- 5"	1EEP503	6	0'- 9"	2'- 3"	2'- 5"							2'- 4"		
	2	5	8'- 6"	1EEP504	17		4'- 0"	0'- 6"	4'- 0"								
	9	5	8'- 10"	1EEP505	17		4'- 0"	0'- 10"	4'- 0"								
	1	5	8'- 7"	1EEP506	17		4'- 0"	0'- 7"	4'- 0"								
SE END POST																	
	4	5	7'- 2"	2EEP501	17		2'- 2"	0'- 5"	4'- 7"								
	4	5	8'- 4"	2EEP502	23		4'- 9"	0'- 4"		0'- 9"	2'- 6"		0'- 8"		0'- 5"		
	4	5	5'- 5"	2EEP503	6	0'- 9"	2'- 3"	2'- 5"							2'- 4"		
	2	5	8'- 6"	2EEP504	17		4'- 0"	0'- 6"	4'- 0"								
	9	5	8'- 10"	2EEP505	17		4'- 0"	0'- 10"	4'- 0"								
	1	5	8'- 7"	2EEP506	17		4'- 0"	0'- 7"	4'- 0"								
SW WINGWALL EXTENSION																	
	8	4	21'- 2"	1EW401	STR												
	22	6	5'- 4"	1EW601	16	1'- 11"	1'- 0"	1'- 3"	1'- 2"				0'- 10"		0'- 9"		
	44	6	4'- 2"	1EW602	S10		1'- 11"	0'- 9"	1'- 6"								
	22	7	1'- 6"	1EW701	STR												

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
NW WINGWALL EXTENSION																	
	8	4	21'- 2"	1EW401	STR												
	22	6	5'- 4"	1EW601	16	1'- 11"	1'- 0"	1'- 3"	1'- 2"				0'- 10"		0'- 9"		
	44	6	4'- 2"	1EW602	S10		1'- 11"	0'- 9"	1'- 6"								
	22	7	1'- 6"	1EW701	STR												
SE WINGWALL EXTENSION																	
	8	4	21'- 2"	2EW401	STR												
	22	6	5'- 4"	2EW601	16	1'- 11"	1'- 0"	1'- 3"	1'- 2"				0'- 10"		0'- 9"		
	44	6	4'- 2"	2EW602	S10		1'- 11"	0'- 9"	1'- 6"								
	22	7	1'- 6"	2EW701	STR												
NE WINGWALL EXTENSION																	
	8	4	21'- 2"	2EW401	STR												
	22	6	5'- 4"	2EW601	16	1'- 11"	1'- 0"	1'- 3"	1'- 2"				0'- 10"		0'- 9"		
	44	6	4'- 2"	2EW602	S10		1'- 11"	0'- 9"	1'- 6"								
	22	7	1'- 6"	2EW701	STR												
ABUTMENT #1 BACKWALL EXTENSION																	
	3	4	29'- 8"	1EA401	STR												
	9	4	29'- 8"	1EA402	STR												
	30	6	9'- 3"	1EA601	S10		4'- 2"	1'- 11"	4'- 2"								
	30	6	6'- 9"	1EA602	16	1'- 4"	2'- 2"	1'- 3"	2'- 0"				1'- 6"		1'- 5"		
	60	6	2'- 0"	1EA603	STR												
ABUTMENT #2 BACKWALL EXTENSION																	
	3	4	29'- 8"	2EA401	STR												
	9	4	29'- 8"	2EA402	STR												
	30	6	9'- 3"	2EA601	S10		4'- 2"	1'- 11"	4'- 2"								
	30	6	6'- 9"	2EA602	16	1'- 4"	2'- 2"	1'- 3"	2'- 0"				1'- 6"		1'- 5"		
	60	6	2'- 0"	2EA603	STR												
ABUTMENT #1 CIP JOINT HEADER																	
	37	5	2'- 10"	1ES501	S10		0'- 10"	0'- 10"	1'- 2"								
	37	5	3'- 6"	1ES502	S6	1'- 1"	0'- 11"	0'- 8"	0'- 10"								
	2		35'- 8"	1ES503	STR												
	2		35'- 8"	1ES901	STR												
ABUTMENT #2 CIP JOINT HEADER																	
	37	5	2'- 10"	2ES501	S10		0'- 10"	0'- 10"	1'- 2"								
	37	5	3'- 6"	2ES502	S6	1'- 1"	0'- 11"	0'- 8"	0'- 10"								
	2		35'- 8"	2ES503	STR												
	2		35'- 8"	2ES901	STR												

~ NOTES ~

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-SI). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS, AND OTHER STANDARD PRACTICE, SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
5. "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
8. ▲ DENOTES BARS TO BE CUT IN FIELD.
9. ✳ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
10. △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
11. E IN BAR MARK PREFIX DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION DIAMETER INCHES	AREA INCHES^2	PERIMETER INCHES
#3	0.376	0.375	0.11	1.178
#4	0.668	0.500	0.20	1.571
#5	1.043	0.625	0.31	1.963
#6	1.502	0.750	0.44	2.356
#7	2.044	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.142
#9	3.400	1.128	1.00	3.544

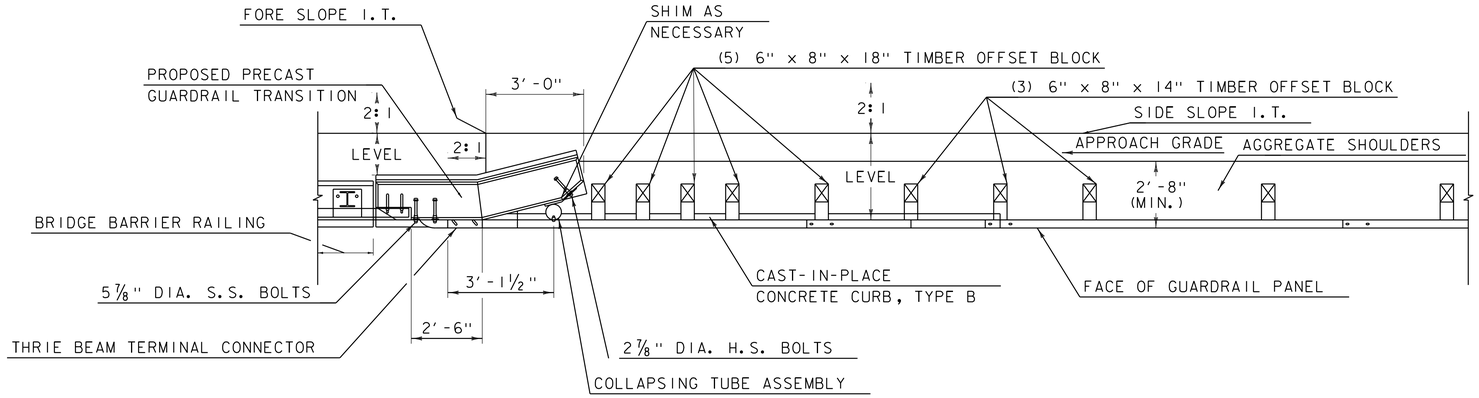
NOTE: REINFORCING FOR CAST-IN-PLACE CONCRETE ONLY THAT IS NOT INCIDENTAL TO THE ACCEL BRIDGE PRECAST DECK PANEL SYSTEM.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

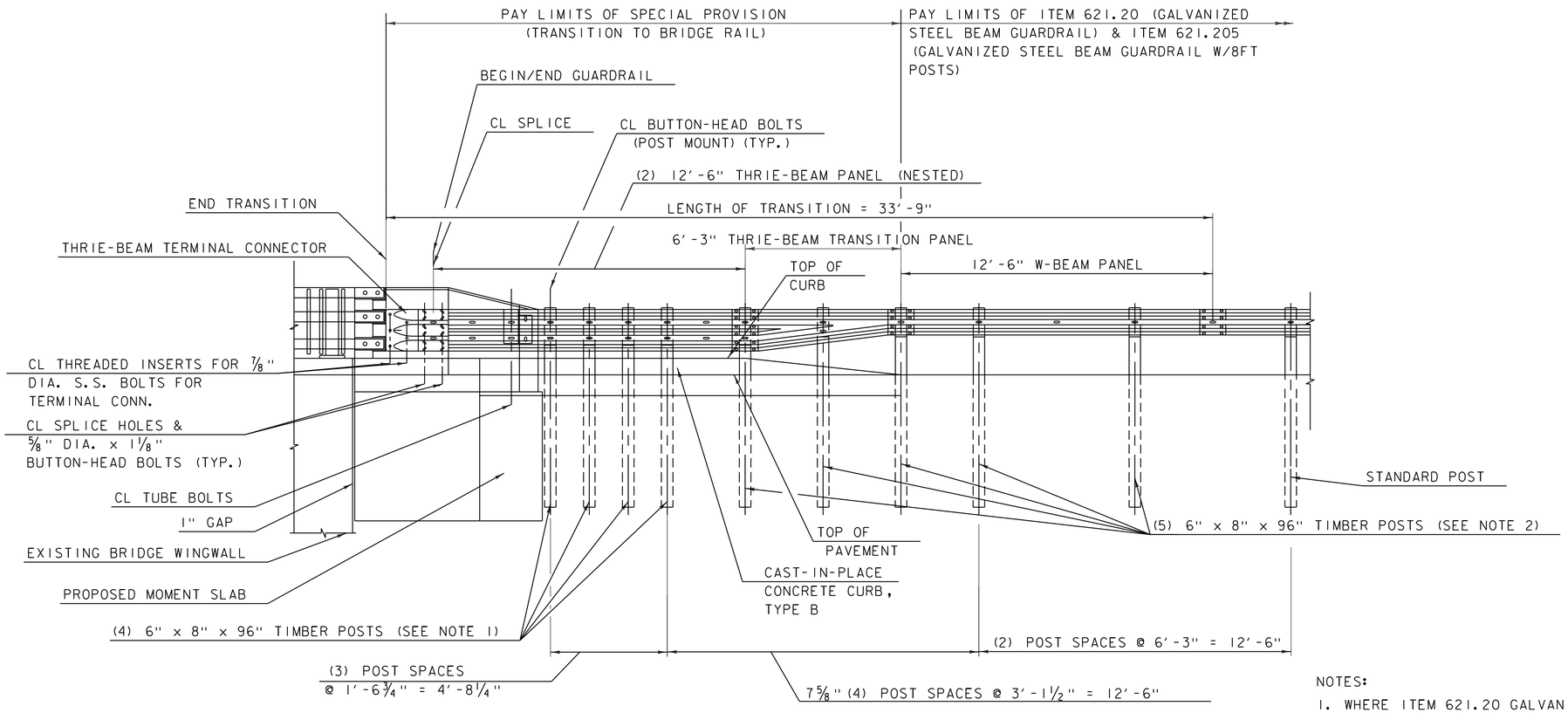
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z78d347rss2
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
REINFORCING STEEL SCHEDULE

PLOT DATE: 2/18/2022
DRAWN BY: A. BARBOSA
CHECKED BY: T. CARD



PLAN



ELEVATION

SPECIAL PROVISION (TRANSITION TO BRIDGE RAIL) DETAIL

NOT TO SCALE

NOTES:

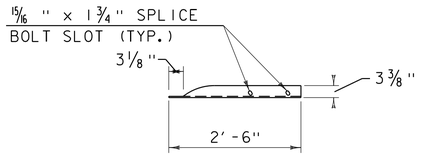
1. WHERE ITEM 621.20 GALVANIZED, STEEL BEAM GUARDRAIL IS THE APPROACH GUARDRAIL AS SPECIFIED ON THE PLANS, A POST HEIGHT OF 72" SHALL BE USED.
2. WHERE ITEM 621.205 STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS IS THE APPROACH GUARDRAIL AS SPECIFIED ON THE PLANS, A POST HEIGHT OF 96" SHALL BE USED.

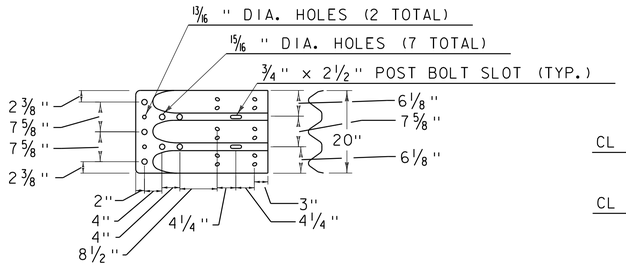
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264typ.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
TRANSITION TO BRIDGE RAIL DETAIL SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 85 OF 108

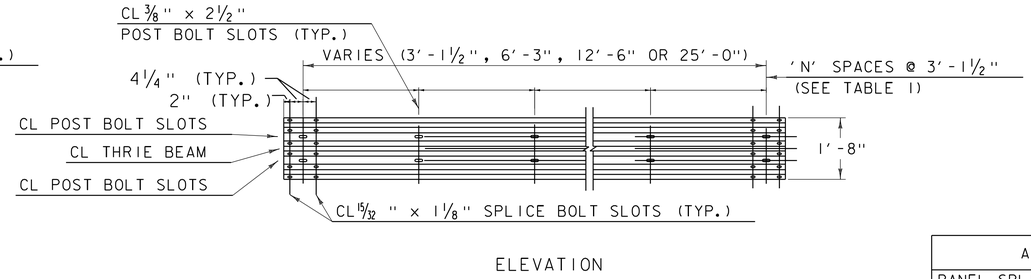
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS





TERMINAL CONNECTOR

NOT TO SCALE



THRIE-BEAM PANEL DETAIL

NOT TO SCALE

NOTES:

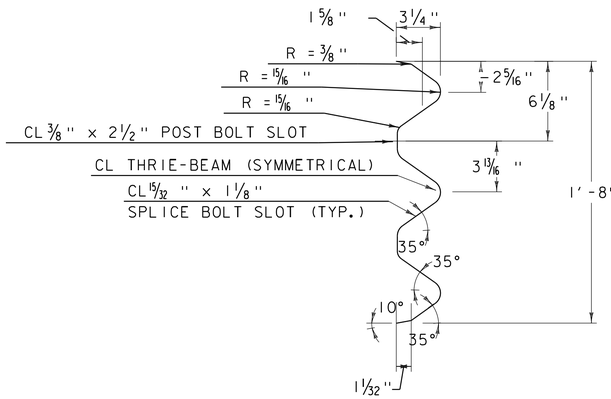
1. INSTALL BUTTON-HEAD BOLTS FOR POST MOUNTS AND SPLICES, AS REQUIRED. BOLT LENGTHS SHALL CONFORM TO TABLE 2 UNLESS OTHERWISE INDICATED. PLACE WASHERS UNDER NUTS; WASHERS ARE OPTIONAL AGAINST STEEL FLANGES. DO NOT PLACE WASHERS BETWEEN BOLT HEADS AND PANELS UNLESS OTHERWISE INDICATED.

TABLE 1: PANEL SUMMARY

PANEL TYPE	NUMBER OF SPACES 'N'	GUAGE
12'-6" THRIE-BEAM	4	12
25'-0" THRIE BEAM	8	12
THRIE-BEAM TRANS.	2	10

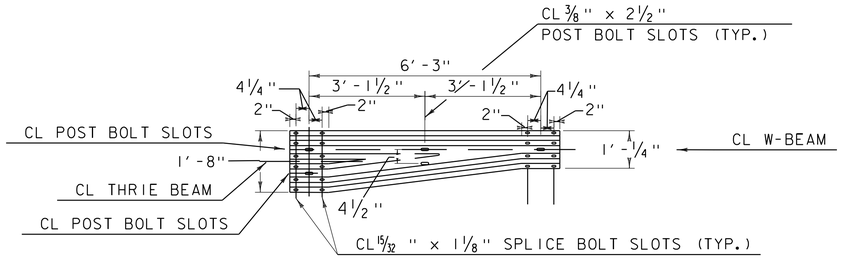
TABLE 2: 5/8" BUTTON-HEAD BOLT LENGTHS

APPLICATION(S)	LENGTH 'L'	MIN. THREAD LENGTH
PANEL SPLICE	1 1/4"	FULL LENGTH
STEEL POST MOUNT - SINGLE FACED	10"	4"
TIMBER POST MOUNT - SINGLE FACED	18"	4"
STEEL POST MOUNT - DOUBLE FACED	10"	4"
TERMINAL CONNECTOR SPLICE	2"	FULL LENGTH



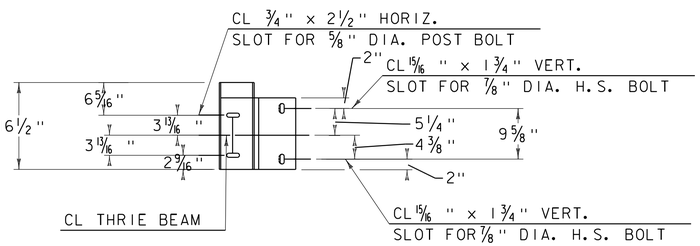
THRIE-BEAM PANEL SECTION

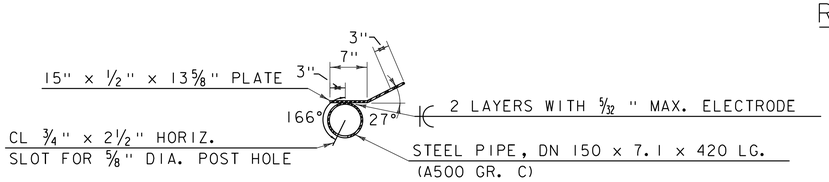
NOT TO SCALE



THRIE-BEAM TRANSITION PANEL DETAIL

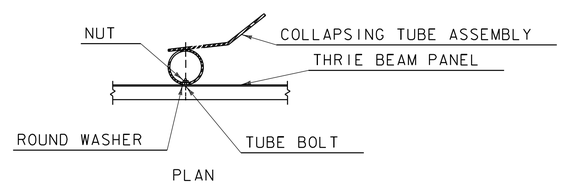
NOT TO SCALE





COLLAPSING TUBE ASSEMBLY

NOT TO SCALE



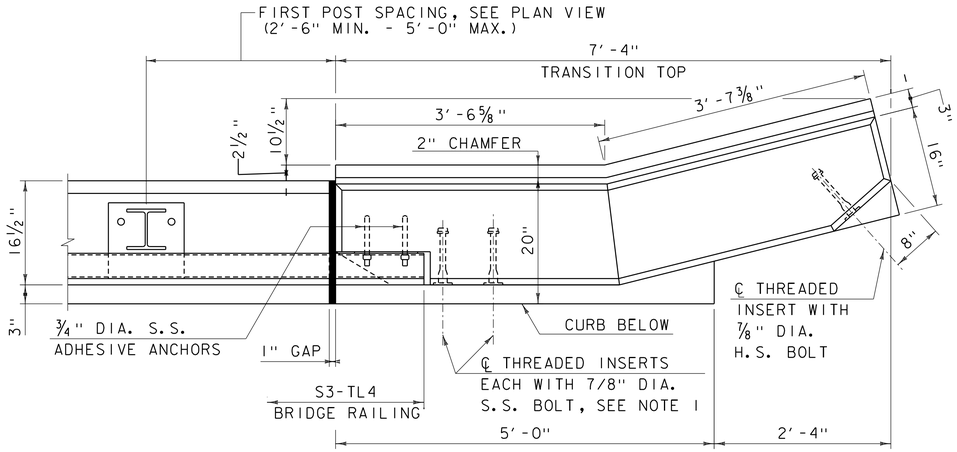
RAIL/TUBE CONNECTION

NOT TO SCALE

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

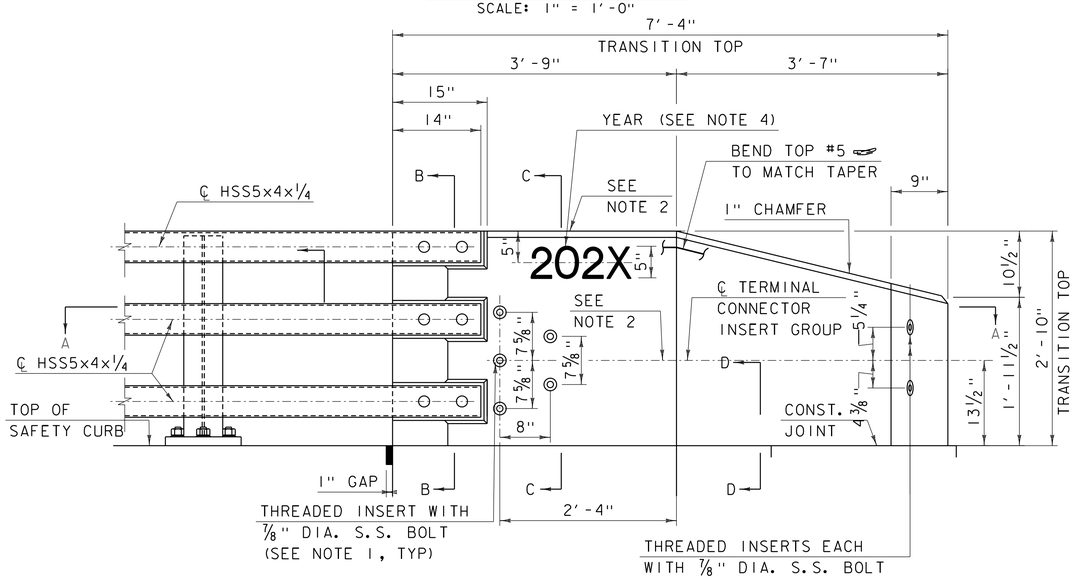
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264typ.dgn — PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ — DRAWN BY: S. SACCO
DESIGNED BY: T. BIGELOW — CHECKED BY: T. BIGELOW
TRANSITION TO BRIDGE RAIL DETAIL SHEET 2 — SHEET 86 OF 108



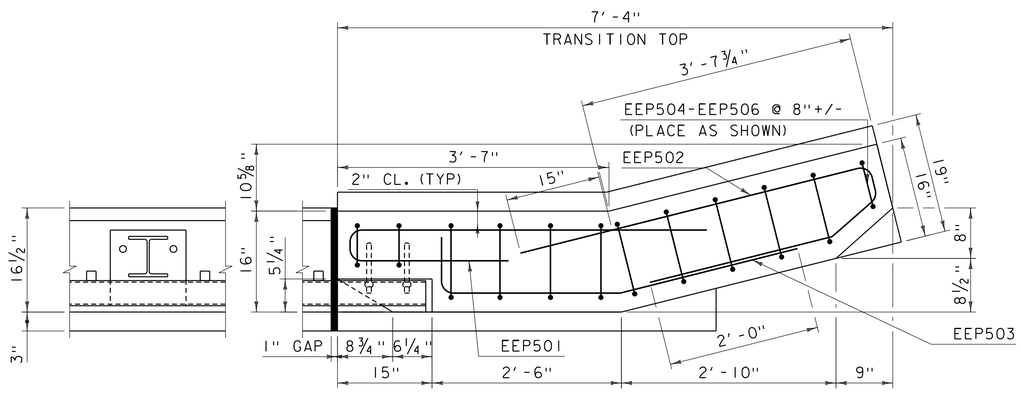
PLAN AT SAFETY CURB

SCALE: 1" = 1'-0"



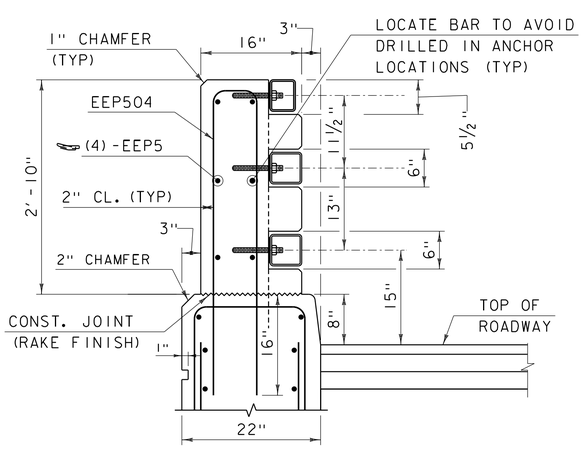
ELEVATION AT SAFETY CURB

SCALE: 1" = 1'-0"



SECTION A-A

SCALE: 1" = 1'-0"

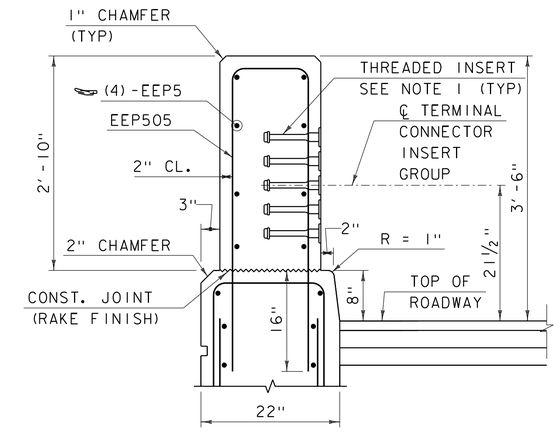


SECTION B-B AT SAFETY CURB

SCALE: 1" = 1'-0"

NOTE:

SEE SHEET 83 FOR MOMENT SLAB DETAILS.

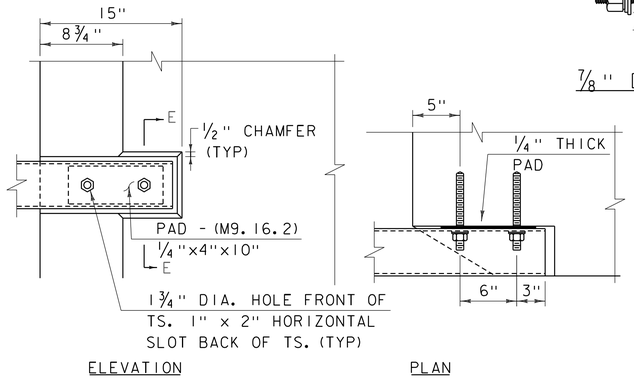


SECTION C-C AT SAFETY CURB

SCALE: 1" = 1'-0"

NOTE:

SEE SHEET 83 FOR MOMENT SLAB DETAILS.



RAIL ATTACHMENT

SCALE: 1 1/2" = 1'-0"

NOTES:

1. THREADED INSERTS SHALL BE PREQUALIFIED BY THE MANUFACTURER AS BEING CAPABLE OF DEVELOPING A NOMINAL SHEAR RESISTANCE OF 20 KIPS PER 7/8" DIAMETER S.S. BOLT. S.S. BOLTS SHALL BE 7/8" DIAMETER x 1 1/2" LONG FULLY THREADED AISI TYPE 304N STAINLESS STEEL. INSERTS FOR 7/8" S.S. BOLTS SHALL BE GALVANIZED AND CAST INTO THE TRANSITION.

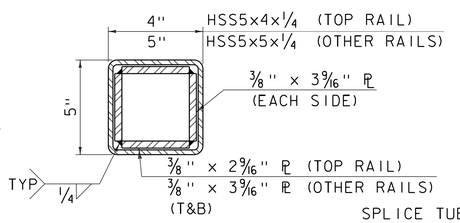
2. FOR AN APPROACH GRADE UP TO 3%, THE TRANSITION MAY BE CAST SQUARE AND SET PLUMB WITH THE MINIMUM EMBEDMENT DEPTH SHOWN. THE TERMINAL CONNECTOR INSERT GROUP SHALL BE SQUARE TO THE POST.

3. FOR AN APPROACH GRADE IN EXCESS OF 3%, THE TRANSITION TOP AND THE TOP OF CURB SHALL FOLLOW THE APPROACH GRADE. THE HEIGHT OF THE TRANSITION TOP SHALL VARY PROVIDED THAT THE MINIMUM DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE MET. THE BOTTOM OF THE TRANSITION BASE SHALL BE SET LEVEL WITH THE MINIMUM EMBEDMENT DEPTH SHOWN. THE TERMINAL CONNECTOR INSERT GROUP SHALL BE SLOPED TO FOLLOW THE APPROACH GRADE.

4. USE THE CONTRACT COMPLETION YEAR FOR THE PROJECT. USE THIS YEAR FOR ALL GUARDRAIL TRANSITIONS.

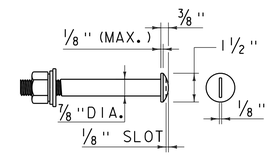
5. ALL CONCRETE FOR THE CONCRETE END POST SHALL BE PAID FOR UNDER ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET). MOMENT SLAB BASE SHALL BE PAID FOR SEPARATELY.

6. ALL STEEL HARDWARE EMBEDDED AND ATTACHED TO THE CONCRETE END POST SHOWN ON THIS SHEET SHALL BE INCIDENTAL TO SPECIAL PROVISION (BRIDGE RAILING, S3-TL4 STEEL TUBE WITH SAFETY CURB) AND SPECIAL PROVISION (TRANSITION TO BRIDGE RAIL).



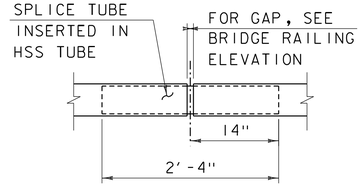
SPLICE TUBE DETIALS

SCALE: 3" = 1'-0"



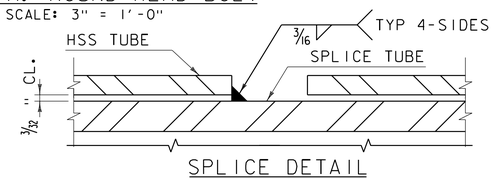
7/8" DIA. ROUND HEAD BOLT

SCALE: 3" = 1'-0"



TYPICAL SPLICE

SCALE: 1" = 1'-0"



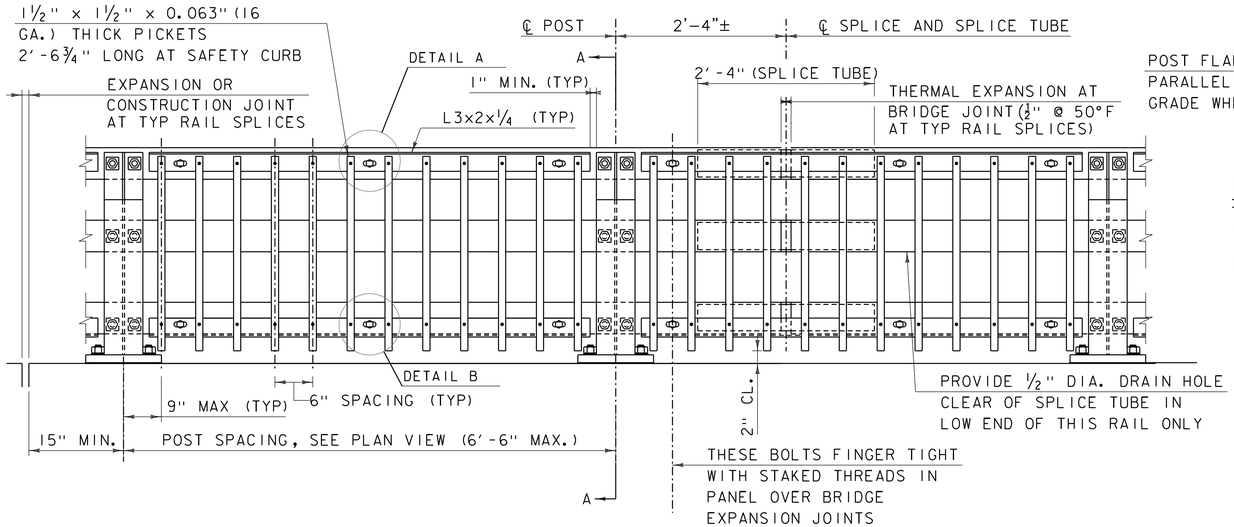
SPLICE DETAIL

FULL SIZE

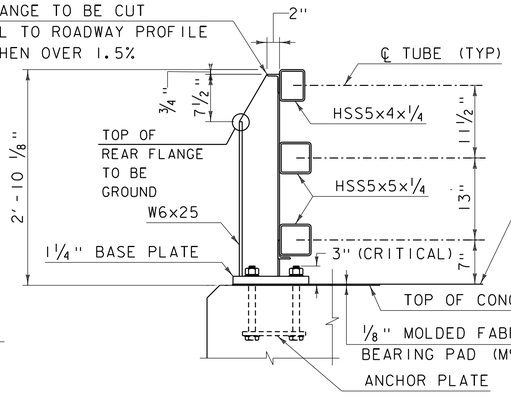
PROJECT NAME:	NORTH HERO
PROJECT NUMBER:	BF 028-1(30)

FILE NAME: z13b264raildet.dgn	PLOT DATE: 2/18/2022
PROJECT LEADER: M. CRUZ	DRAWN BY: R. STICKLES
DESIGNED BY: S. BIBINSKI	CHECKED BY: T. CARD
S3-TL4 BRIDGE RAILING DET SHEET 1OF 2	SHEET 87 OF 108

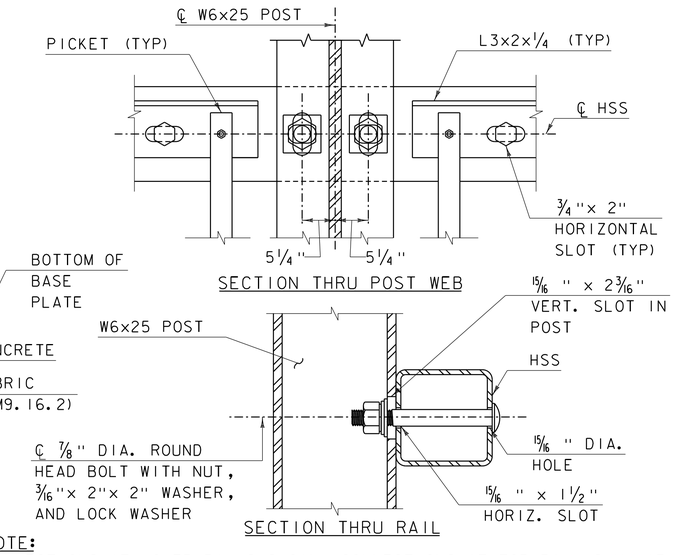
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



BRIDGE RAILING ELEVATION
SCALE: 1" = 1'-0"

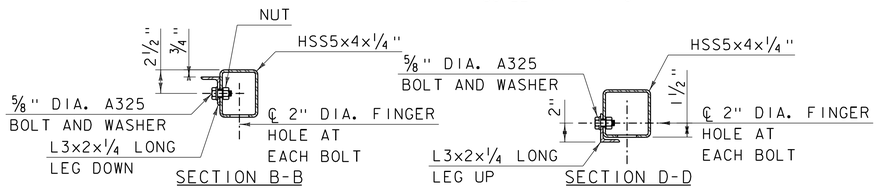


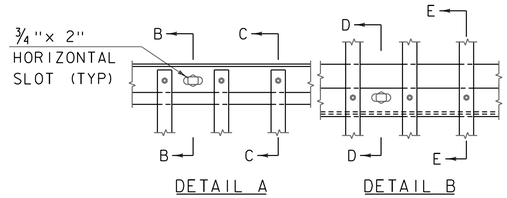
SECTION A-A
SCALE: 1" = 1'-0"



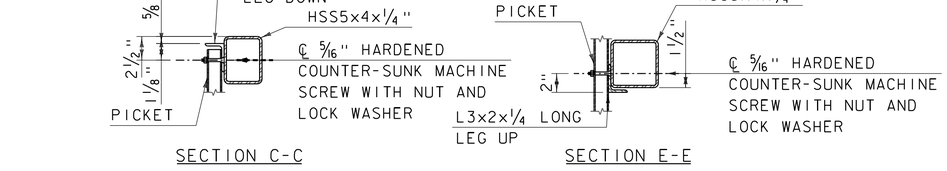
NOTE:
CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

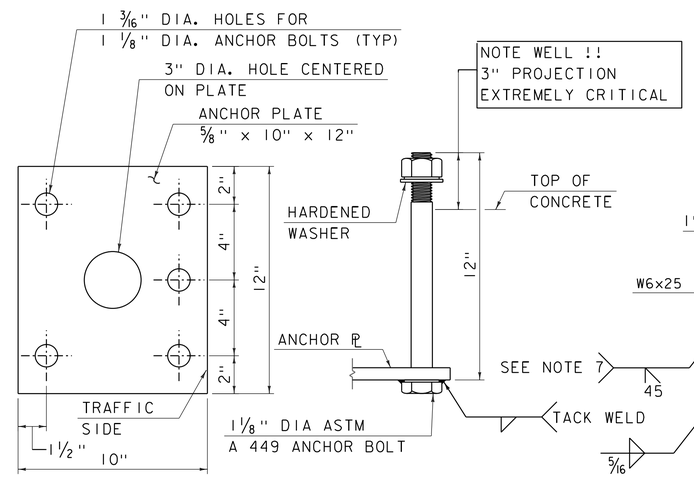
TYPICAL RAIL TO POST CONNECTIONS
SCALE: 3" = 1'-0"





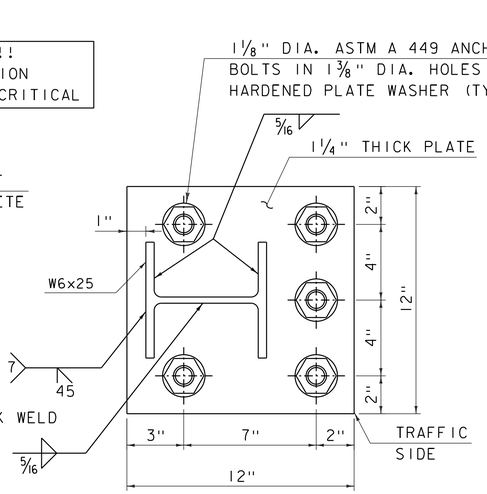
TYPICAL PICKET TO RAIL DETAILS
SCALE: 1½" = 1'-0"



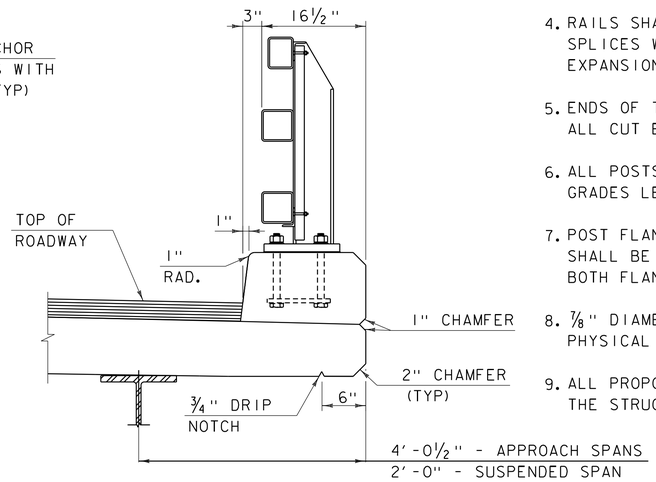


ANCHOR PLATE
SCALE: 3" = 1'-0"

ANCHOR BOLT
SCALE: 3" = 1'-0"



BASE PLATE
SCALE: 3" = 1'-0"



SECTION THRU SAFETY CURB
SCALE: 1" = 1'-0"

NOTES:

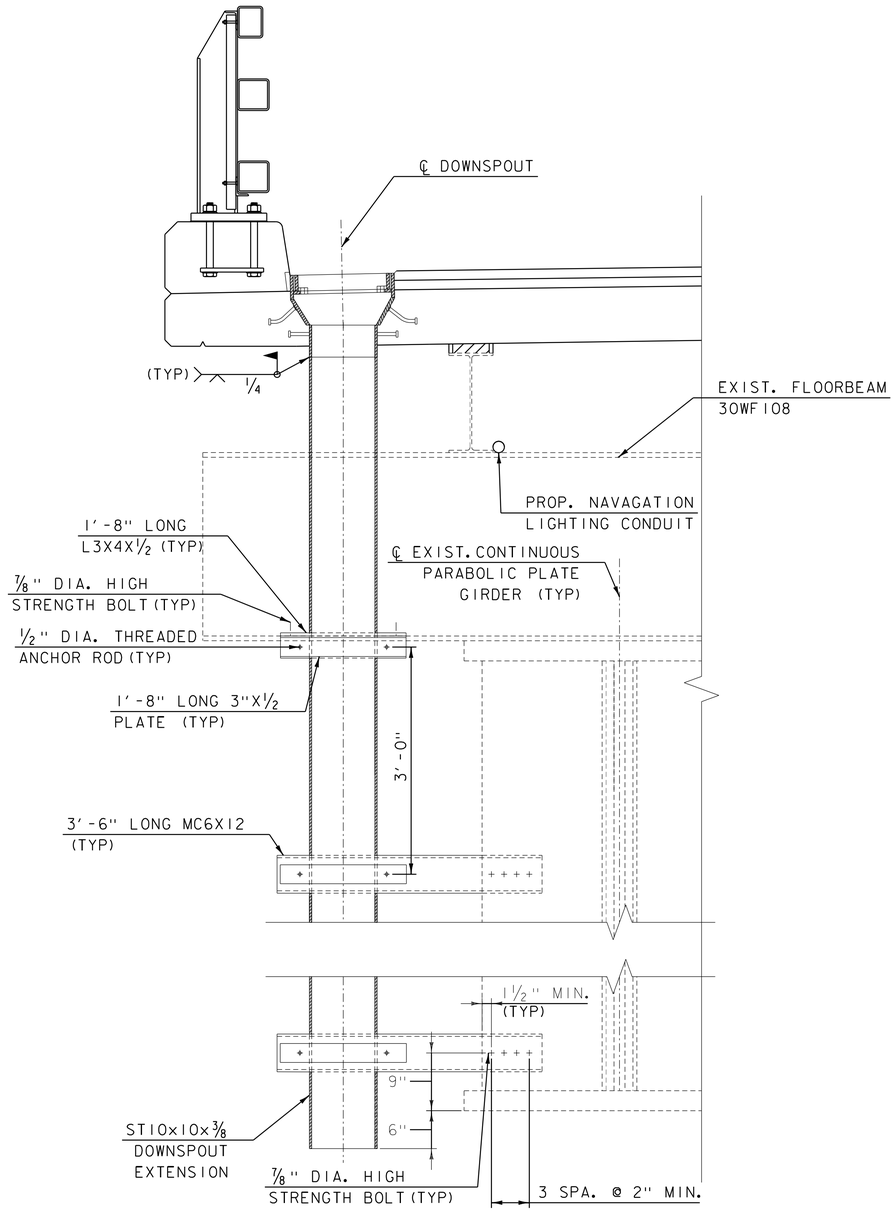
1. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING (HSS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 500 WITH A CERTIFIED Fy = 50 KSI MINIMUM. THE MINIMUM HORIZONTAL BENDING RADII OF THE HSS TUBING SHALL BE 8 FEET. PICKET CARRIER ANGLES, ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 36. PICKET TUBING SHALL CONFORM TO ASTM A 513 WITH Fy = 36 KSI MIN. OR A 500 GRADE B.
2. ALL STEEL (EXCEPT THE ⅝" ANCHOR PLATE AND FASTENERS) SHALL BE GALVANIZED AND POWDER COATED DARK BRONZE (FEDERAL STD. 595B COLOR NO. 10045). ANCHOR PLATE SHALL BE GALVANIZED ONLY. HEADS OF ⅞" DIAMETER ROUND HEAD BOLTS SHALL BE PAINTED TO MATCH RAIL.
3. ANCHOR BOLTS SHALL BE SET WITH TEMPLATES. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN AFTER STEEL IS IN PLACE.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF FOUR (4) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN THE PANELS OVER EXPANSION JOINT.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. ALL POSTS TO BE PLUMB WHEN PROFILE GRADE EXCEEDS 1.5%. FOR PROFILE GRADES LESS THAN 1.5%, POSTS SHALL BE SET PERPENDICULAR TO GRADE.
7. POST FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING. WELD SHALL BE BACK-GOUGED ON BACK SIDE EXCEPT AT WEB. WELD IS THE SAME ON BOTH FLANGES.
8. ⅞" DIAMETER ROUND HEAD BOLTS SHALL CONFORM TO THE CHEMICAL AND PHYSICAL REQUIREMENTS OF AASHTO M 164.
9. ALL PROPOSED STEEL COMPONENTS SHALL ADHERE TO THE REQUIREMENTS UNDER THE STRUCTURAL NOTES ON SHEET 10 UNLESS OTHERWISE NOTED.

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264raildet.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
S3-TL4 BRIDGE RAILING DET SHEET 2 OF 2

PLOT DATE: 2/18/2022
DRAWN BY: R. STICKLES
CHECKED BY: T. CARD
SHEET 88 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

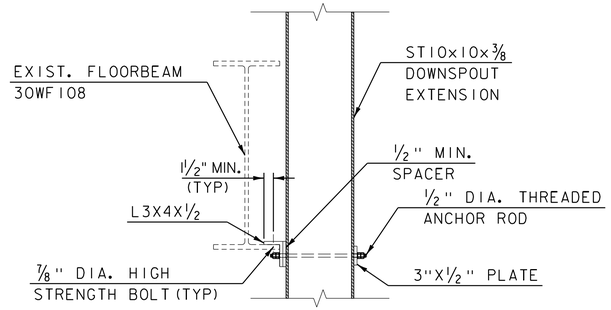


SECTION AT SAFETY CURB

NOTES:
1. ALL STEEL PLATES SHALL BE AASHTO M 270 GRADE 36 AND SQUARE TUBE SHALL BE ASTM A 500 GRADE A OR B.
2. ALL WELDS SHALL BE CONTINUOUS. ALL JOINTS SHALL BE WELDED USING TWO- SIDED 1/4" FILLET WELDS OR 1/4" PJP WELDS WITH A BACKING SEAL WELD, AS APPLICABLE.
3. ALL STEEL TO BE HOT-DIP GALVANIZED. 10" SQUARE TUBE TO BE GALVANIZED AND PAINTED TO MATCH COLOR OF THE STEEL GIRDERS.

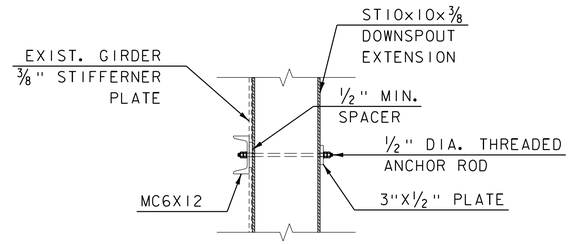
SCUPPER SECTIONS

1" = 1'-0"



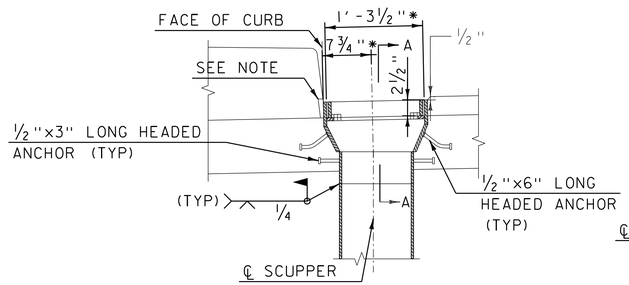
DOWNSPOUT ATTACHMENT DETAIL AT FLOORBEAM

1" = 1'-0"

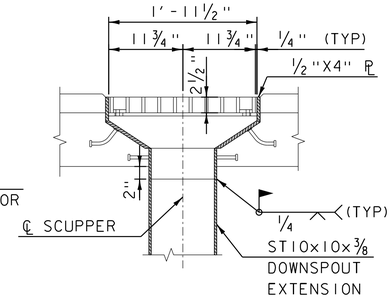


DOWNSPOUT ATTACHMENT DETAIL AT GIRDER STIFFENER

1" = 1'-0"

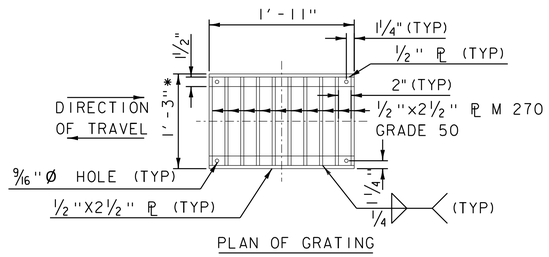


SECTION

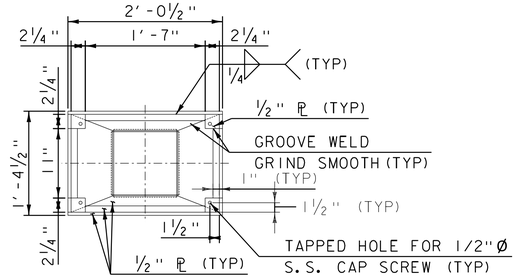


SECTION A-A

NOTES:
1. OMIT POCKET AT SCUPPER. FILL AREA WITH JOINT SEALER.



PLAN OF GRATING



PLAN
GRATING REMOVED

NOTE:
1. SCUPPER GRATING AND DOWNSPOUT EXTENSION TO BE INSTALLED IN THE FIELD. ALL OTHER COMPONENTS TO BE INSTALLED INTO THE PANEL AT THE PRECAST PANEL FABRICATION FACILITY.

SCUPPER DETAILS

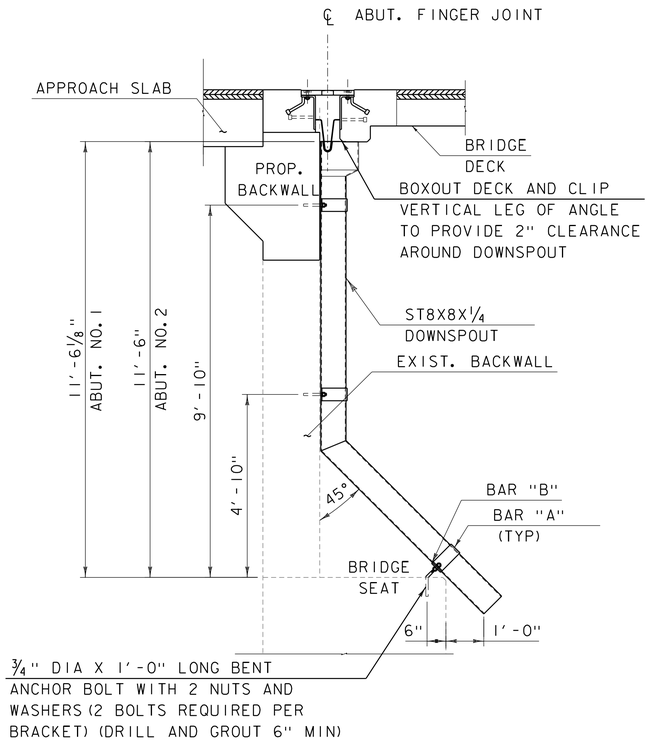
1" = 1'-0"

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264det2.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
SCUPPER DETAIL & SECTION SHEET

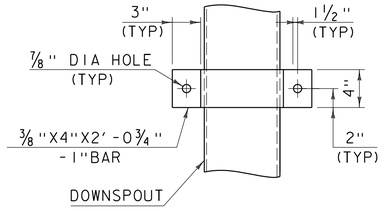
PLOT DATE: 2/18/2022
DRAWN BY: A. BARABOSA
CHECKED BY: T. CARD
SHEET 89 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



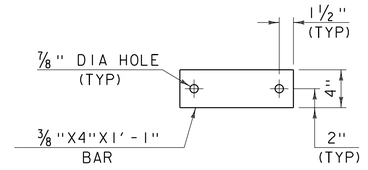
DOWNSPOUT ELEVATION

SCALE: 1/2" = 1'-0"



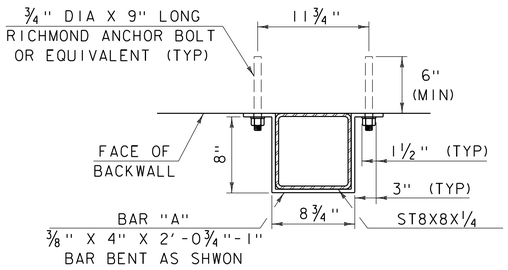
ELEVATION OF BAR "A"

SCALE: 1 1/2" = 1'-0"



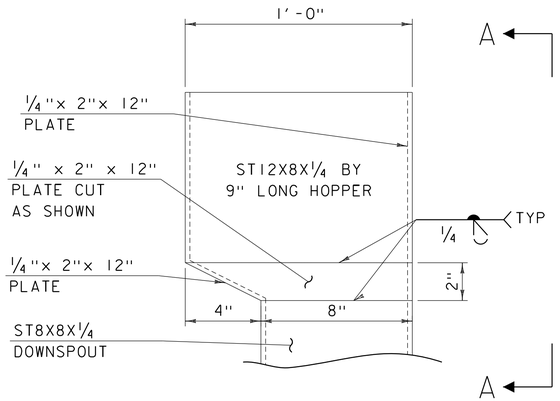
ELEVATION OF BAR "B"

SCALE: 1 1/2" = 1'-0"



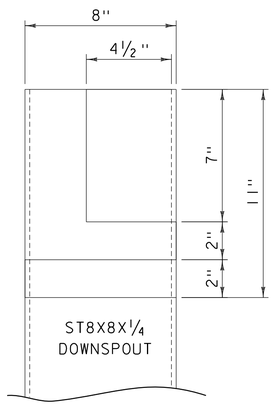
DETAIL FOR ATTACHING DOWNSPOUT TO BACKWALL PLAN VIEW

SCALE: 1 1/2" = 1'-0"



HOPPER DETAIL

SCALE: 3" = 1'-0"



VIEW A-A

SCALE: 3" = 1'-0"

DOWNSPOUT NOTES:

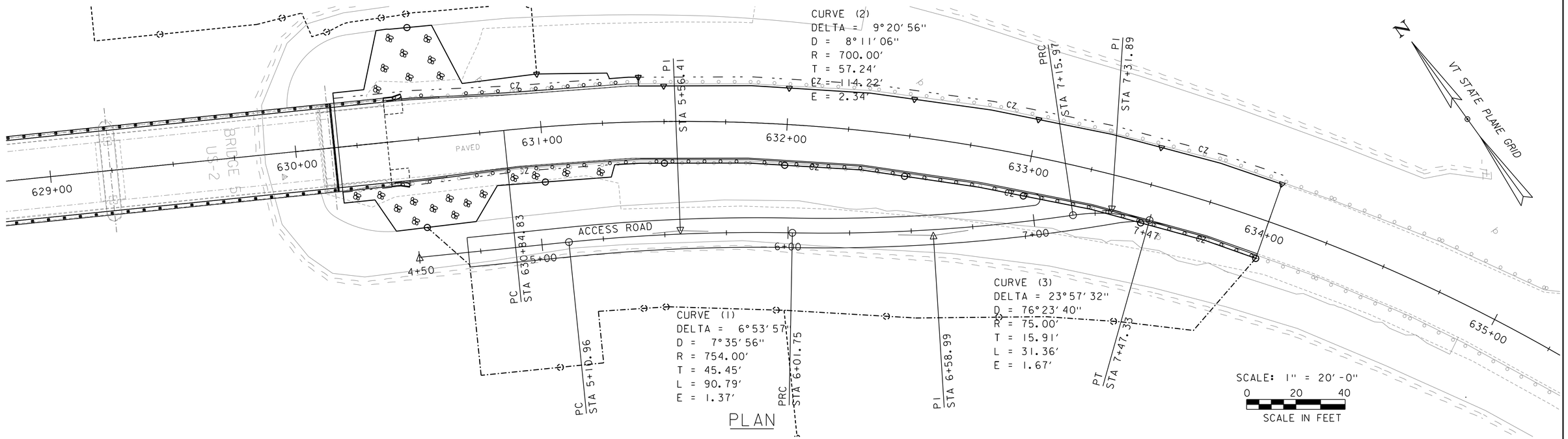
1. ALL HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A-500 GR. 8.
2. ALL PLATES, BARS, AND ANGLES SHALL CONFORM TO AASHTO M270M/M270 GR. 36.
3. DOWNSPOUTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111M/M111 AFTER FABRICATION.
4. ALL BOLTS AND RELATED HARDWARE SHALL BE ASTM A-307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-153 AASHTO M232I.
5. ANY PLACE WHERE THE GALVANIZED HAS BEEN REMOVED FROM THE DOWNSPOUT EITHER BY CUTTING, BURNING, WELDING, PLACING, OR ANY OTHER MEANS, IT SHALL BE REPAIRED IN ACCORDANCE WITH SUBSECTION 726.08.
6. THE DOWNSPOUT AND RELATED HARDWARE FOR EACH SHALL BE PAID FOR UNDER THE ITEM 506.55 "STRUCTURAL STEEL, PLATE GIRDER".
7. ALL REQUIRED WELDS FOR DOWNSPOUT SHALL BE DETAILED ON FABRICATION DRAWINGS WHICH SHALL ALSO INCLUDE ALL APPLICABLE WELDING PROCEDURES.
8. AFTER ALL PAVING AND CONCRETE OPERATIONS THE DOWNSPOUT SHALL BE CLEANED OF ALL CONTAMINATION BY FLUSHING.
9. DETAILS SHOWN ARE TYPICAL FOR DOWNSPOUTS ON THE NORTH SIDE OF THE BRIDGE AT EACH ABUTMENT.

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

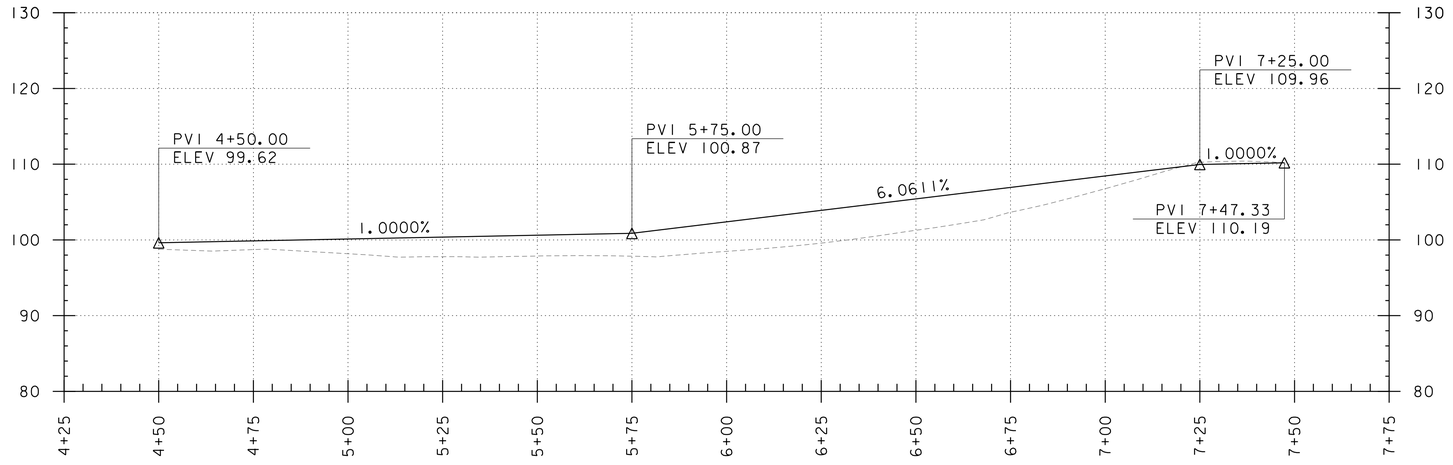
FILE NAME: z13b264downspoutdet.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: S. BIBINSKI
DOWNSPOUT DETAILS SHEET

PLOT DATE: 2/18/2022
DRAWN BY: S. BIBINSKI
CHECKED BY: T. CARD
SHEET 90 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



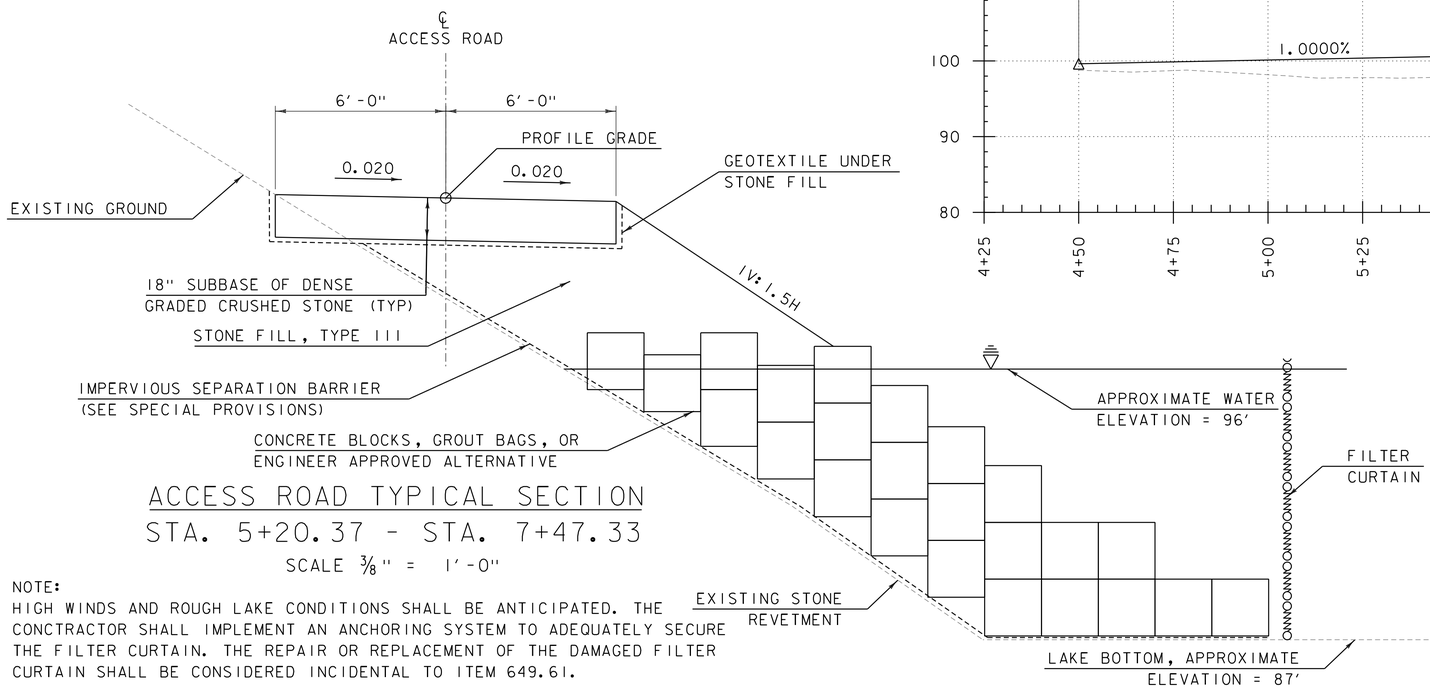
PLAN



ACCESS ROAD PROFILE

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 10'-0"

NOTE:
ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.



ACCESS ROAD TYPICAL SECTION
STA. 5+20.37 - STA. 7+47.33

SCALE 3/8" = 1'-0"

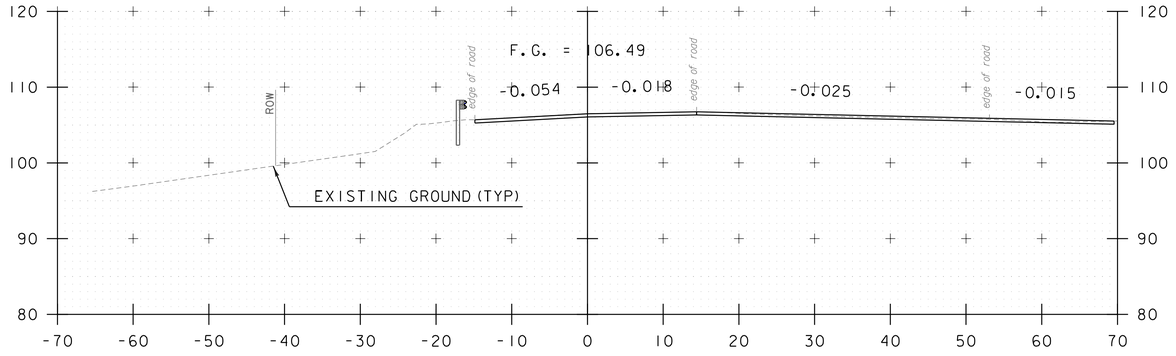
NOTE:
HIGH WINDS AND ROUGH LAKE CONDITIONS SHALL BE ANTICIPATED. THE CONCTRACTOR SHALL IMPLEMENT AN ANCHORING SYSTEM TO ADEQUATELY SECURE THE FILTER CURTAIN. THE REPAIR OR REPLACEMENT OF THE DAMAGED FILTER CURTAIN SHALL BE CONSIDERED INCIDENTAL TO ITEM 649.61.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

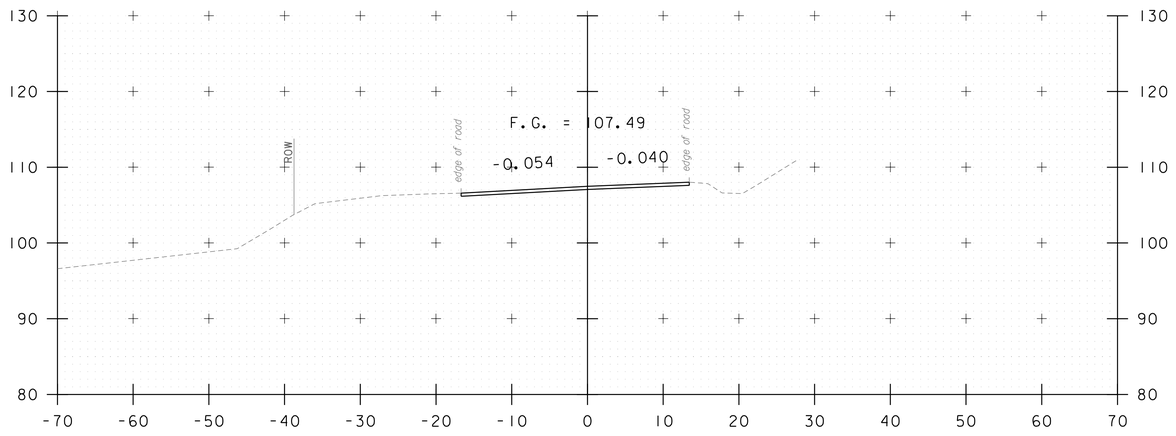
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: zl3b264typ.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ACCESS ROAD SHEET

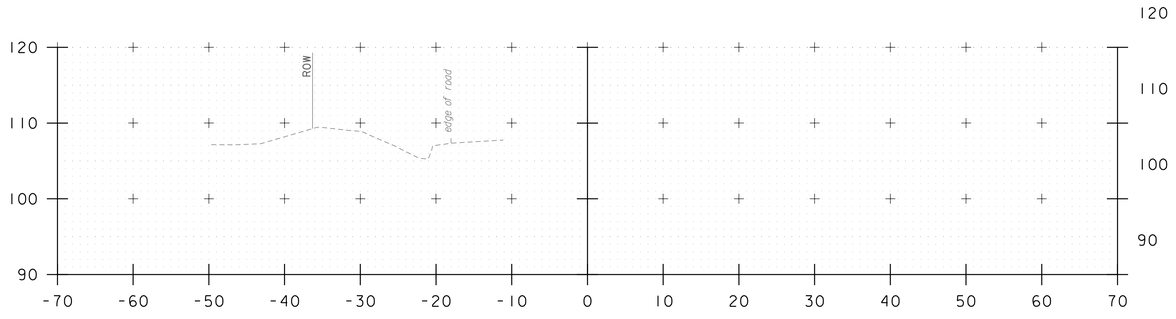
PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 91 OF 108



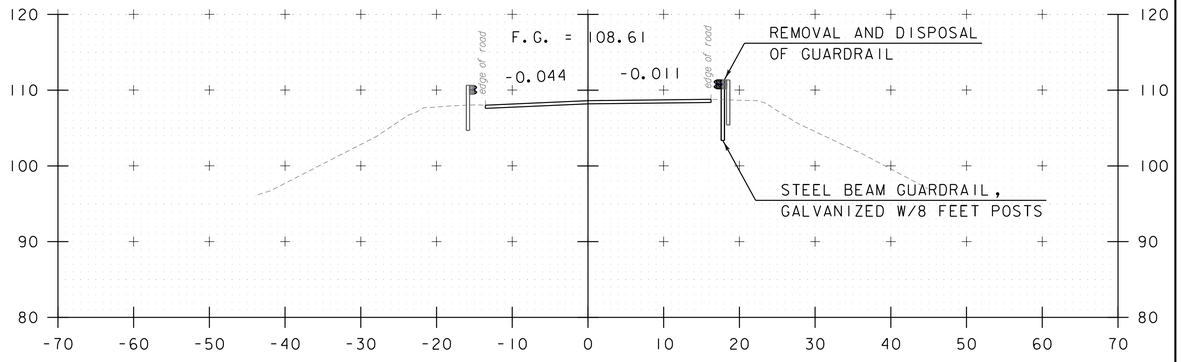
618+50



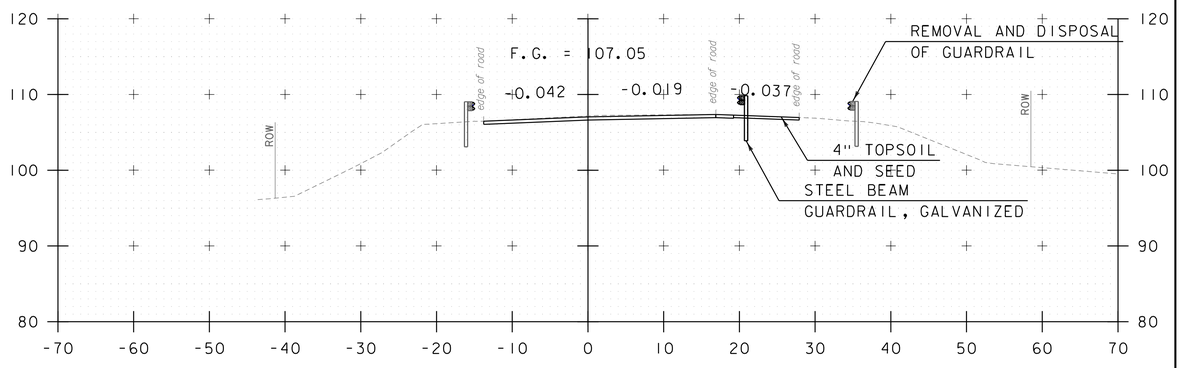
618+00
BEGIN APPROACH



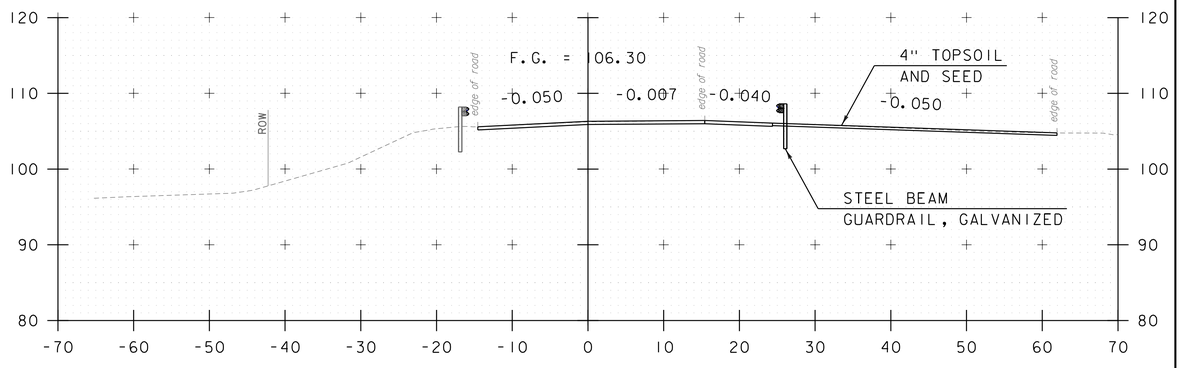
617+50



620+00



619+50



619+00

STA. 617+50 TO STA. 620+00

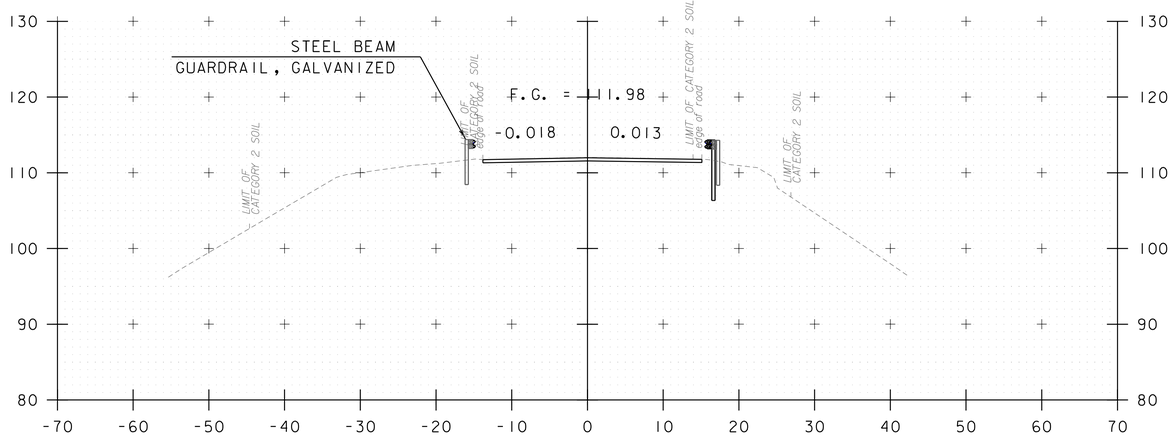
HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

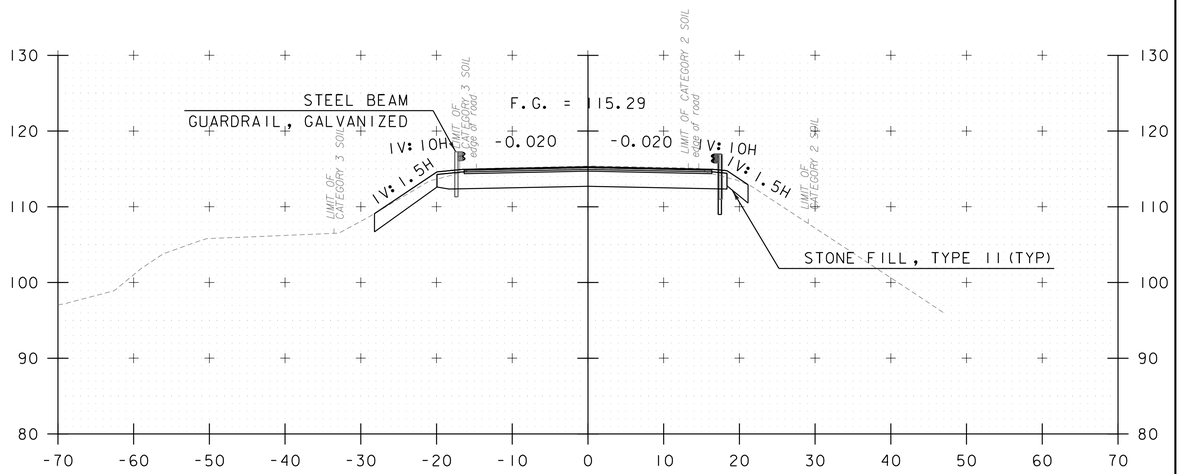
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 92 OF 108

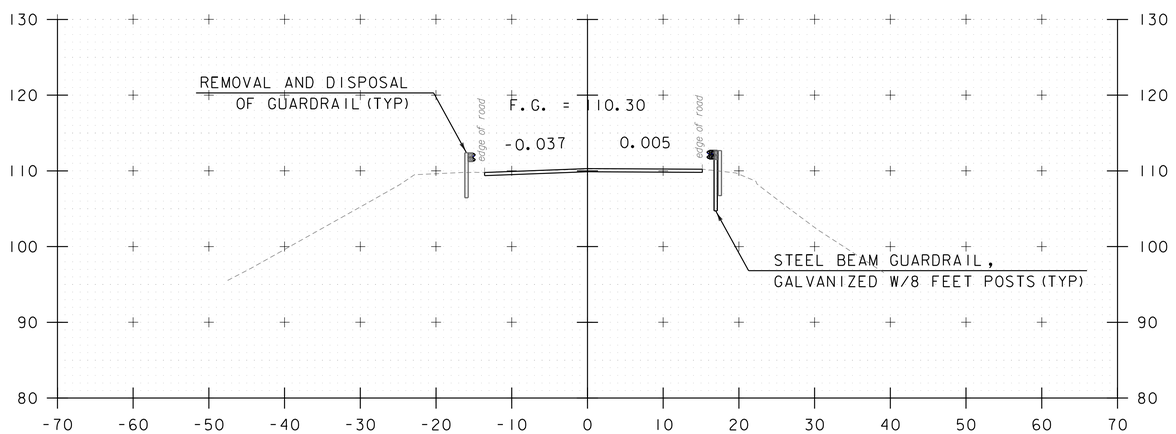


621+00

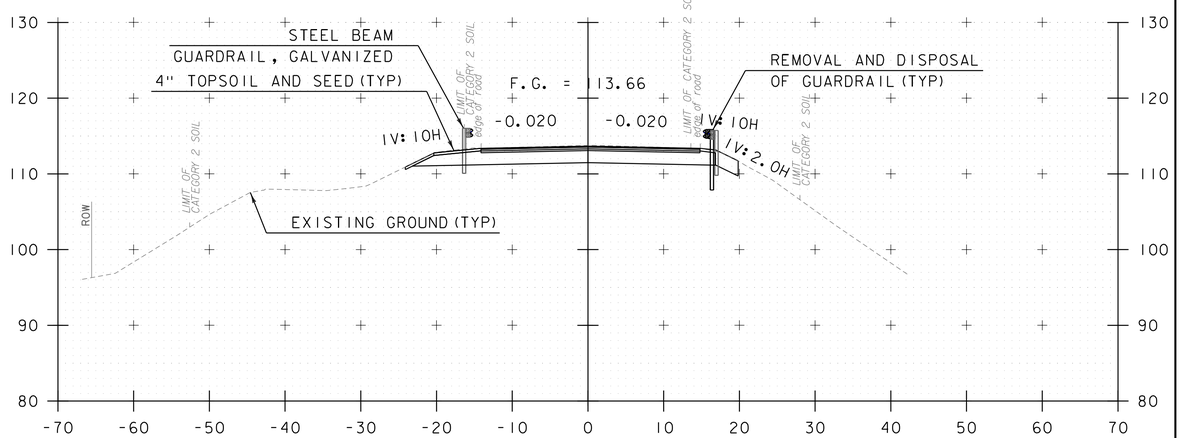


622+00

621+60 BEGIN PROJECT



620+50



621+50

STA. 620+50 TO STA. 622+00

HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

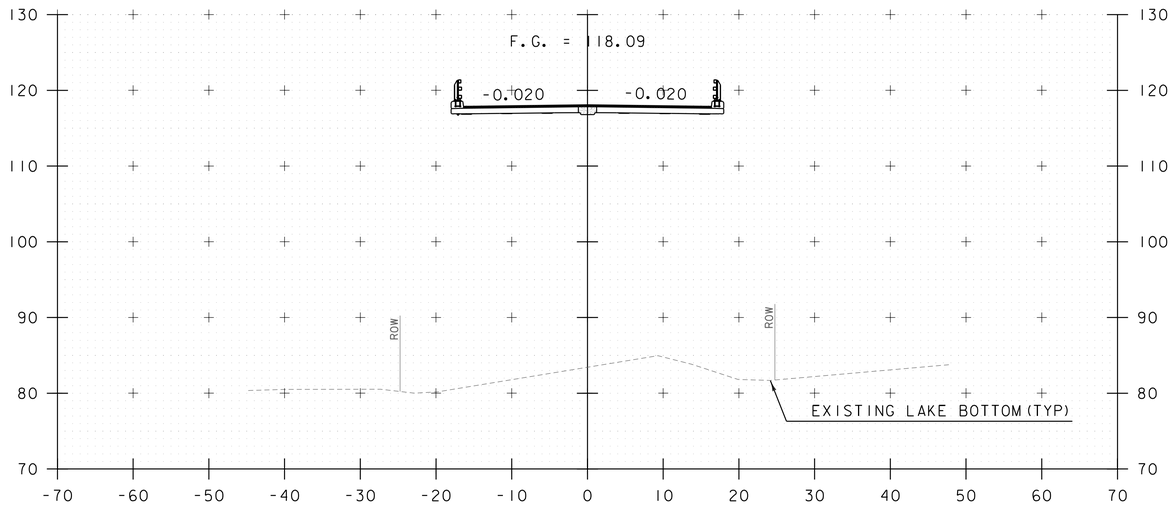
NOTE: LIMITS OF CATEGORY 2 AND CATEGORY 3 SOILS ARE SHOWN PER THE SOIL MANAGEMENT PLAN. SEE SOIL MANAGEMENT PLAN FOR ADDITIONAL INFORMATION.

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

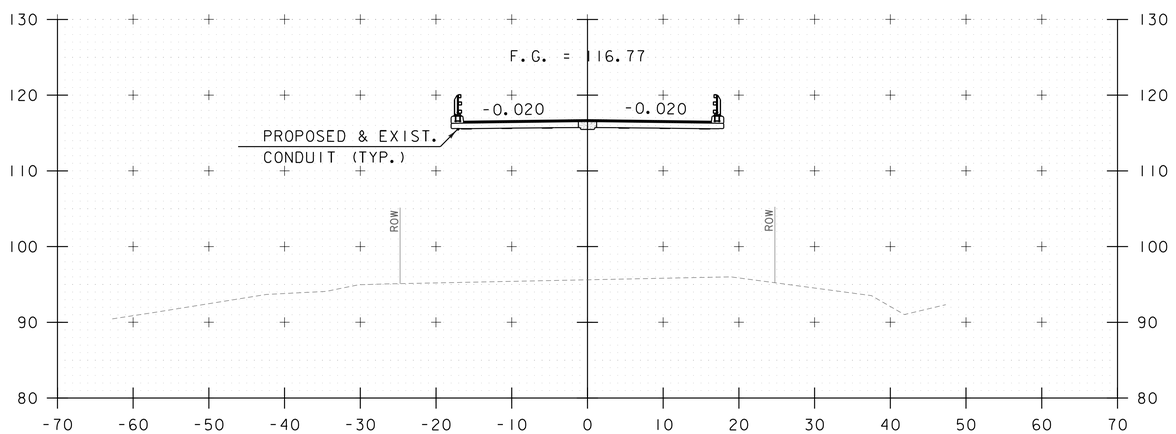
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW



623+00



622+50

622+31.38 STOP ROADWAY

BEGIN BRIDGE

623+50

HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

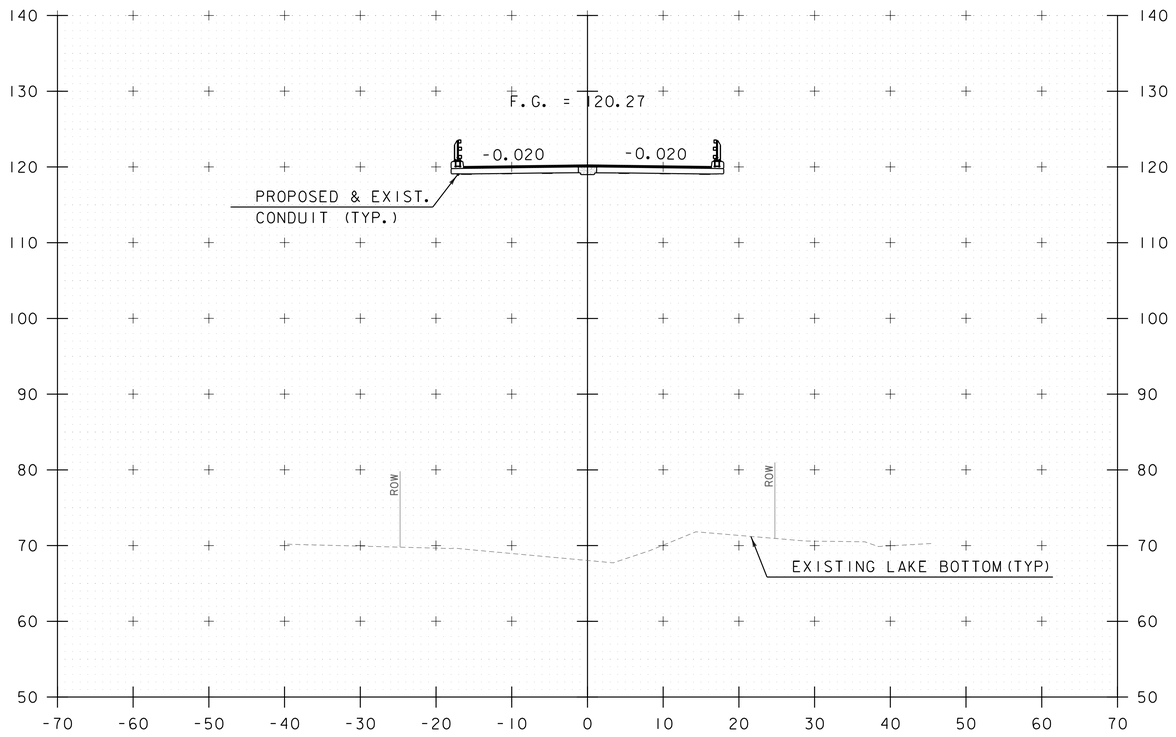
STA. 622+50 TO STA. 623+50

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

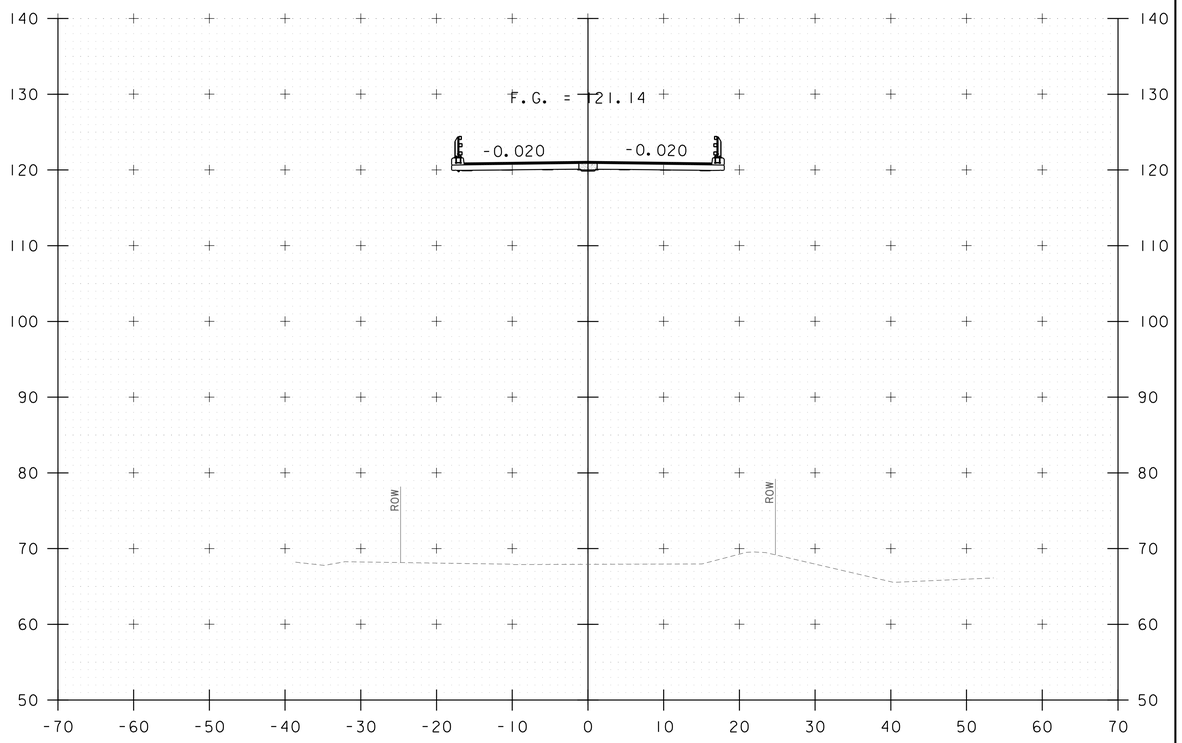
FILE NAME: zl3b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 3

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 94 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



624+00



624+50

STA. 624+00 TO STA. 624+50

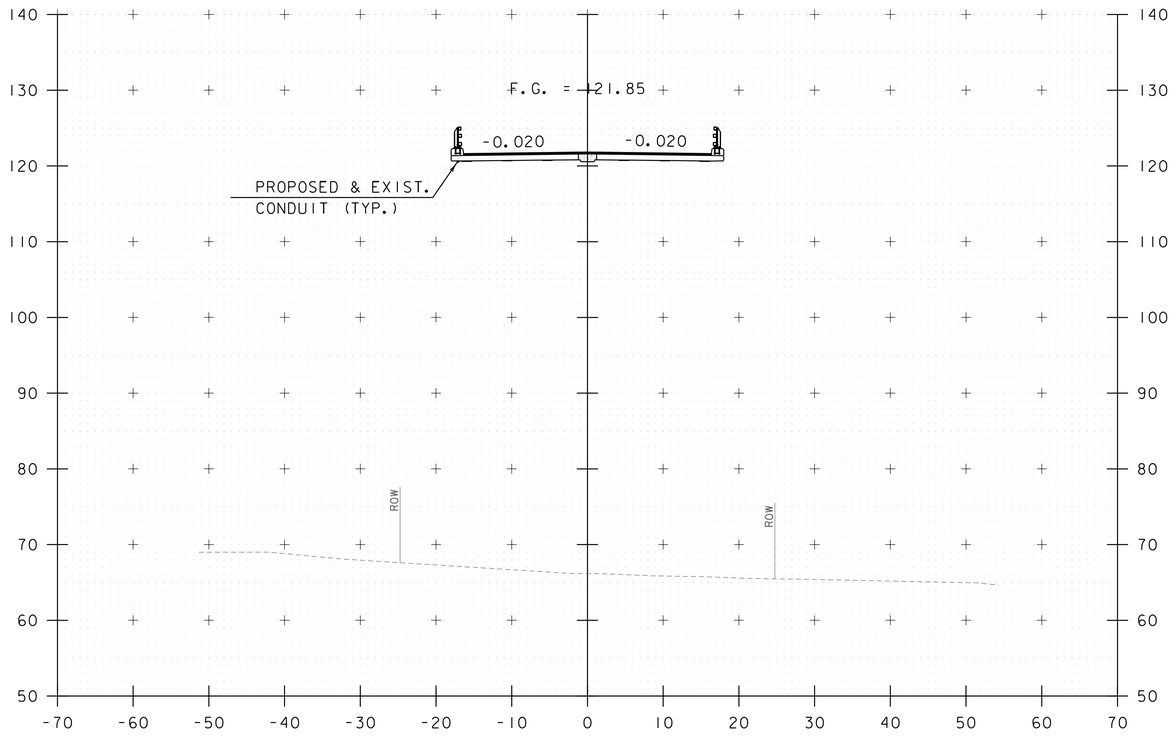
HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

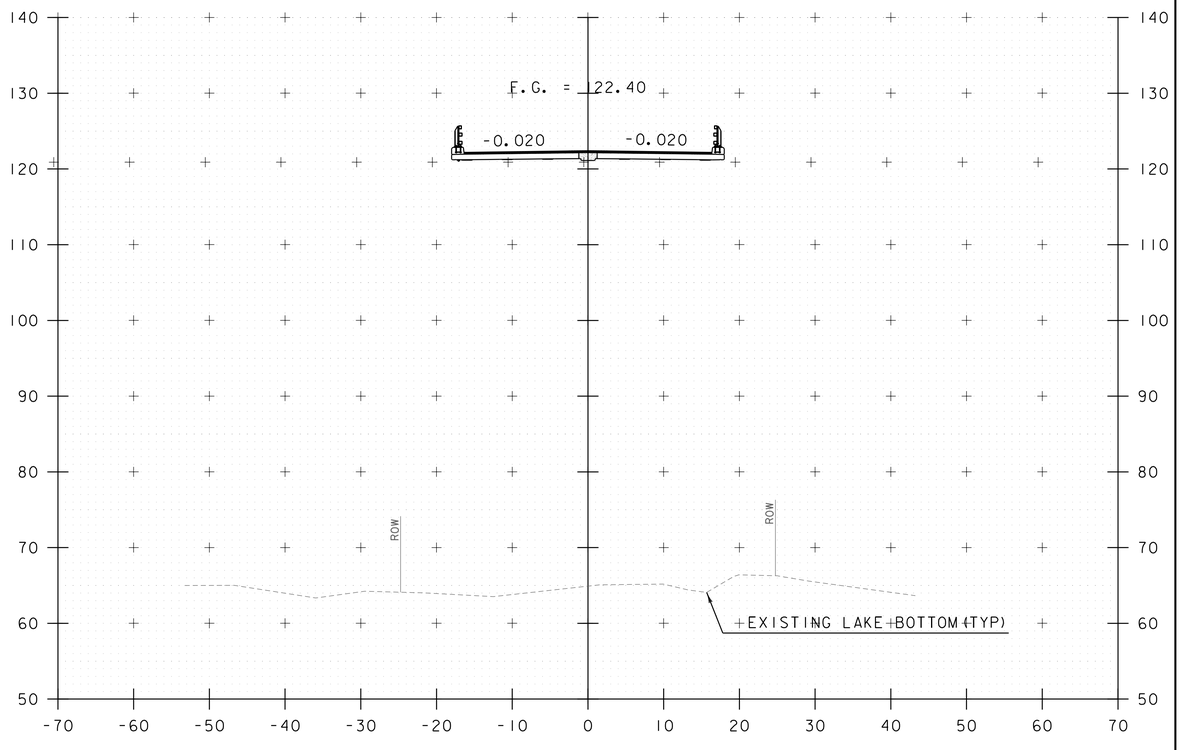
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 4

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 95 OF 108



625+00



625+50

STA. 625+00 TO STA. 625+50

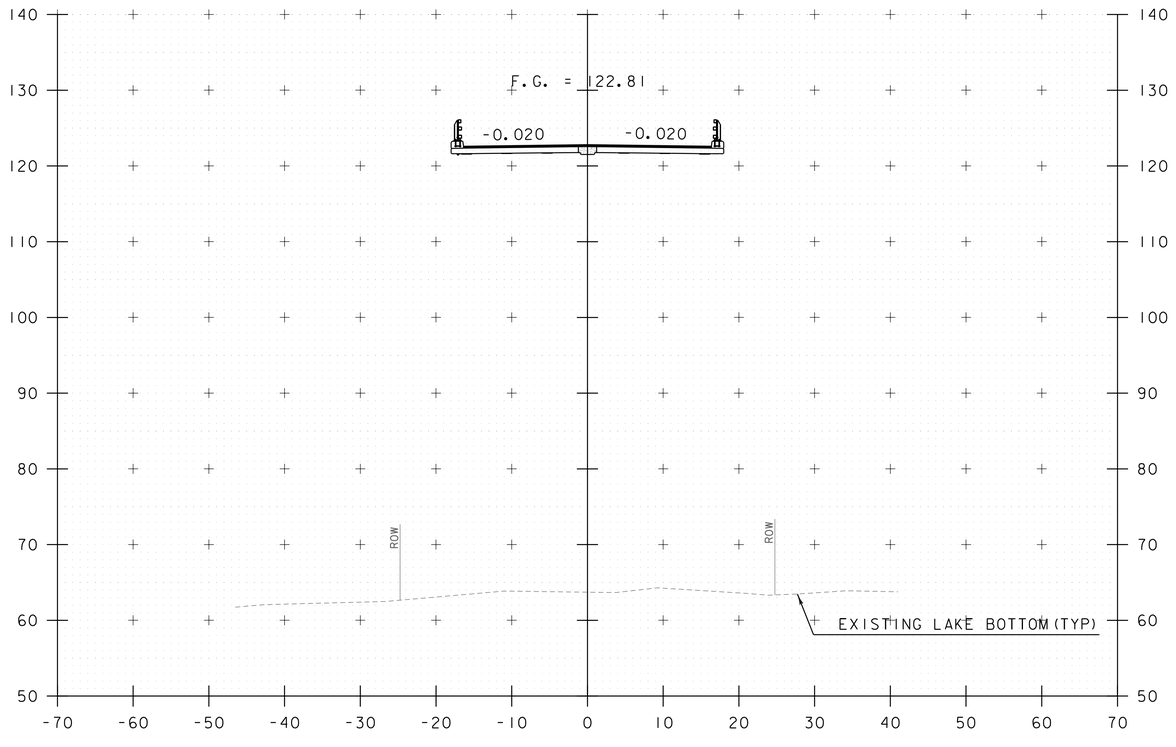
HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

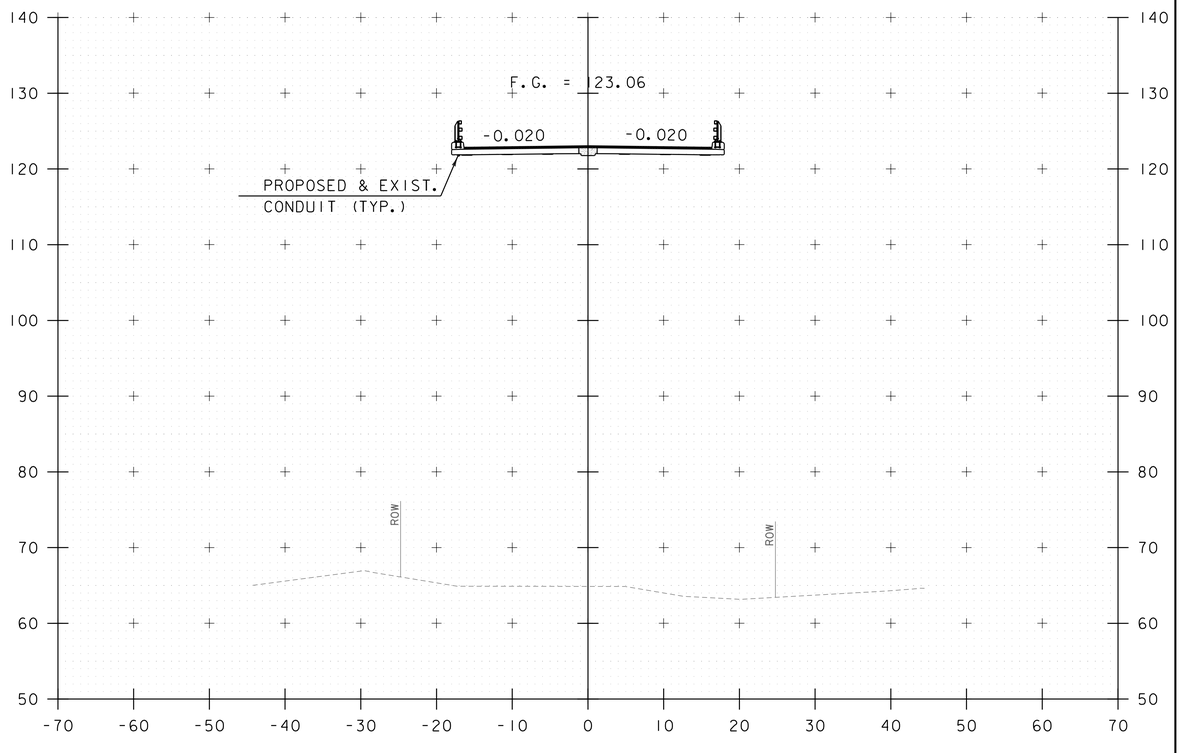
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 5

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 96 OF 108



626+00



626+50

STA. 626+00 TO STA. 626+50

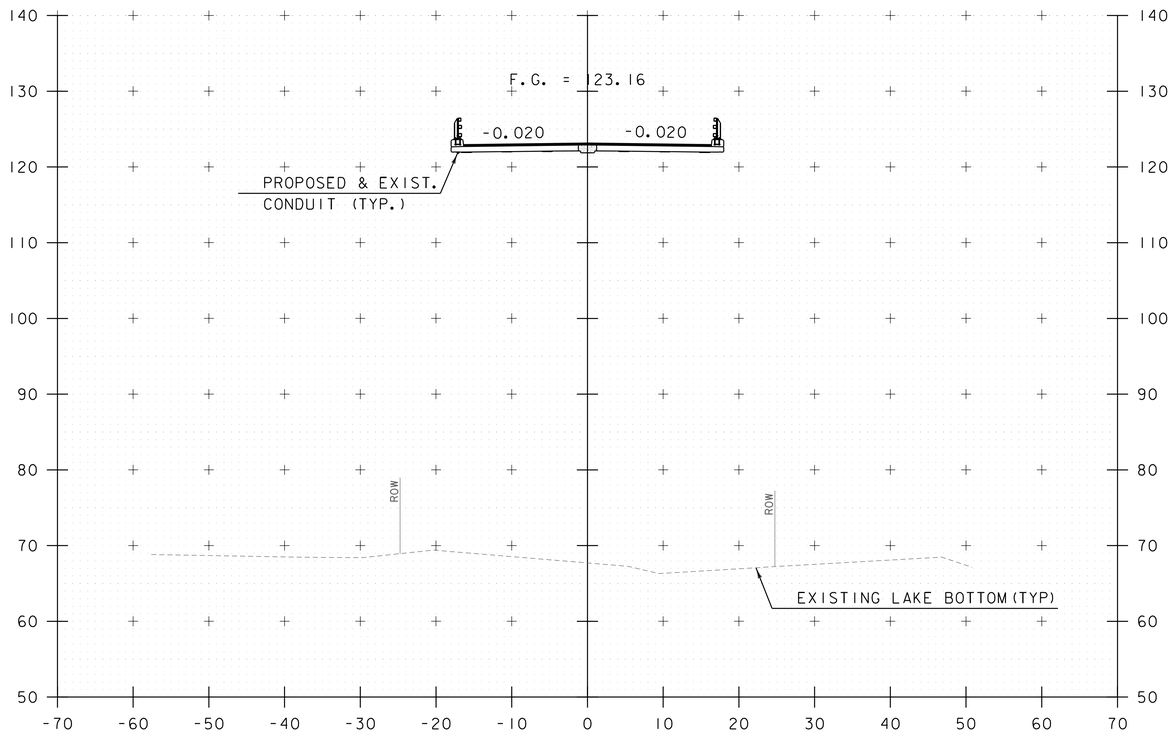
HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 6

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 97 OF 108



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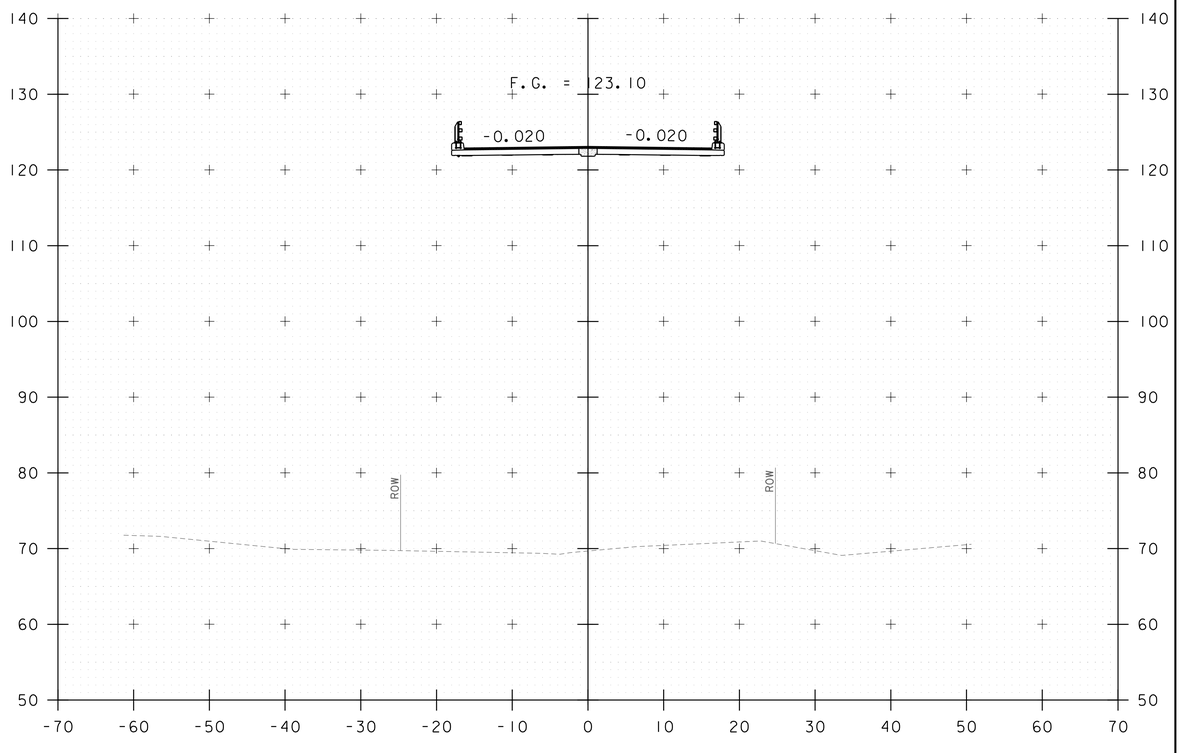


627+50

STA. 627+00 TO STA. 627+50

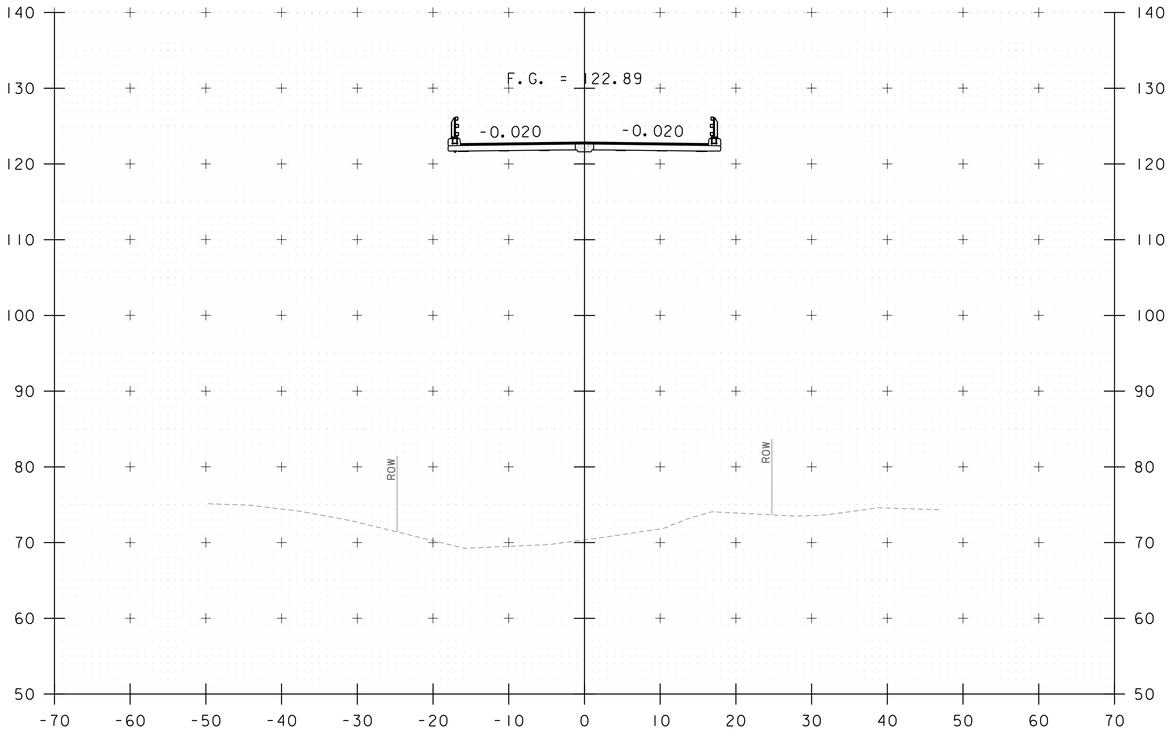
HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 7

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 98 OF 108



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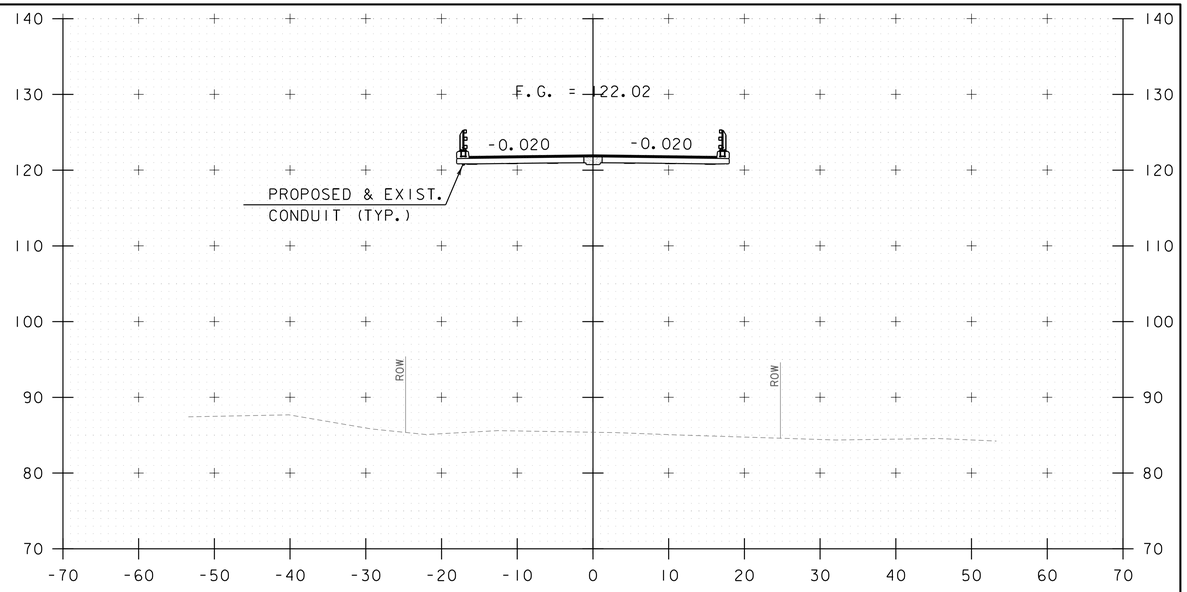
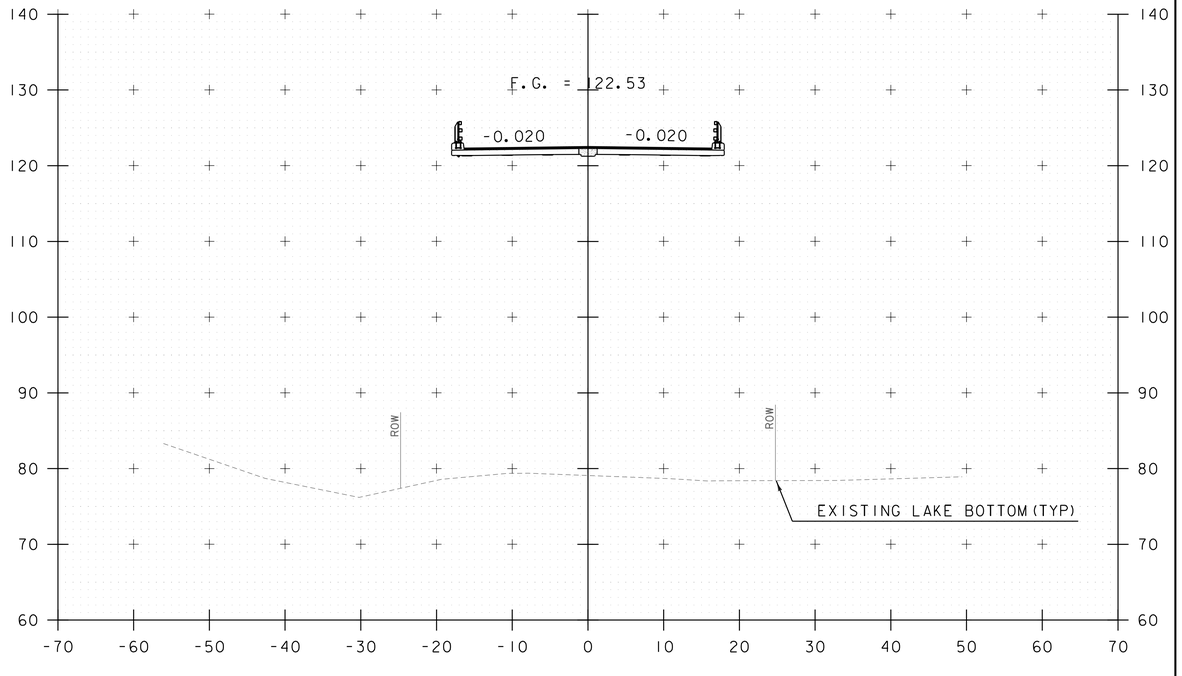


629+00



628+50

HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

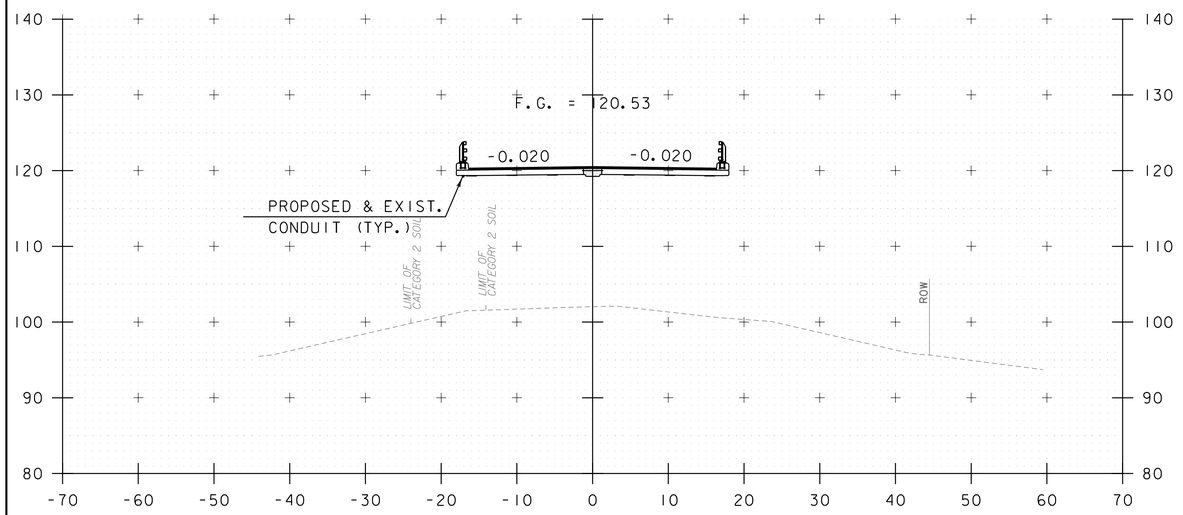
STA. 628+00 TO STA. 629+00

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

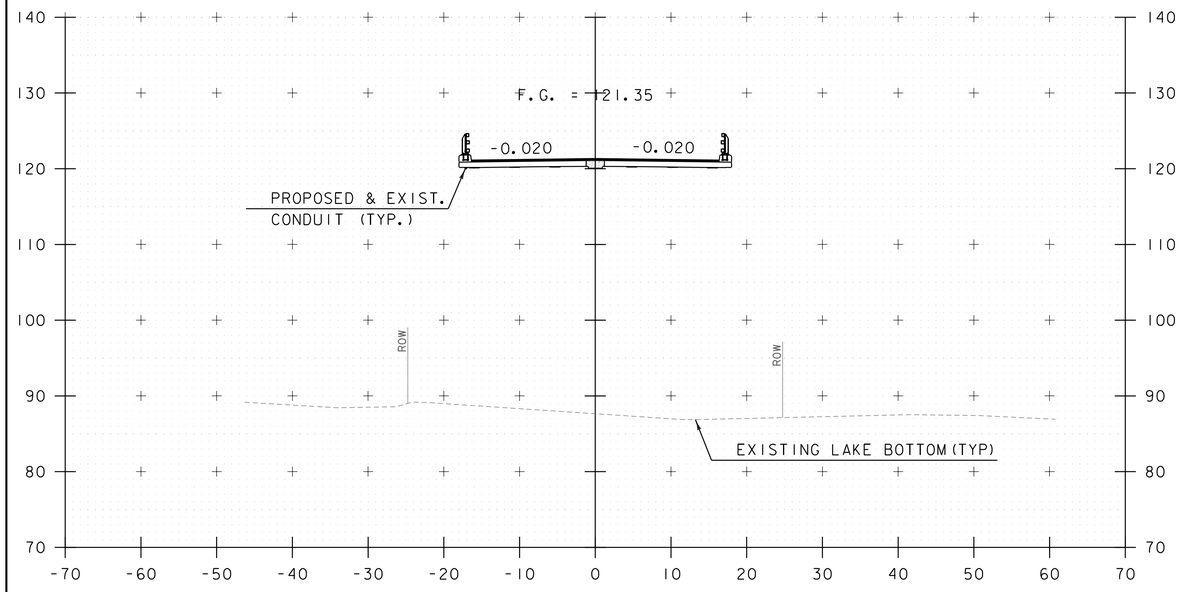
FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 8

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 99 OF 108

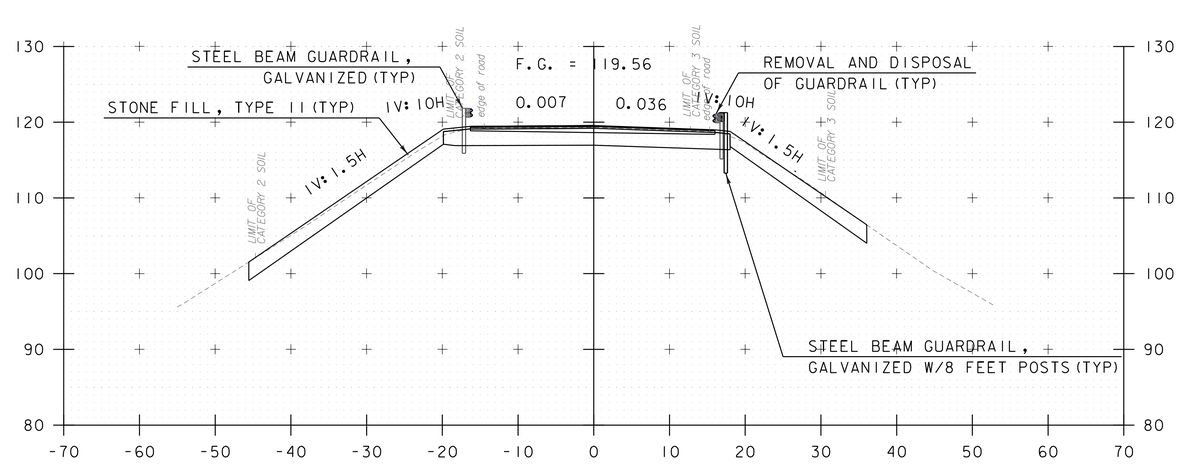
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



630+00



629+50



630+50

630+17.38 END BRIDGE

RESUME ROADWAY

NOTE: LIMITS OF CATEGORY 2 AND CATEGORY 3 SOILS ARE SHOWN PER THE SOIL MANAGEMENT PLAN.
SEE SOIL MANAGEMENT PLAN FOR ADDITIONAL INFORMATION.

HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

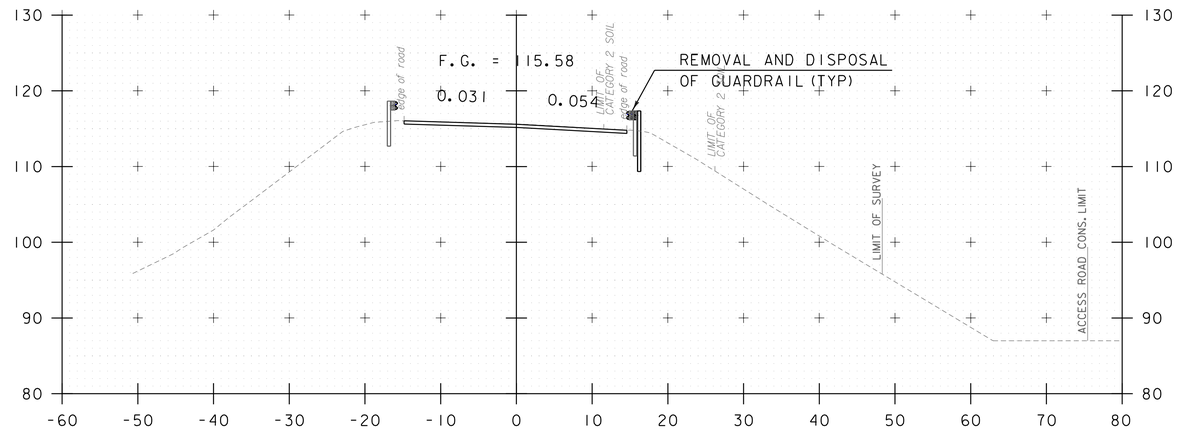
STA. 629+50 TO STA. 631+00

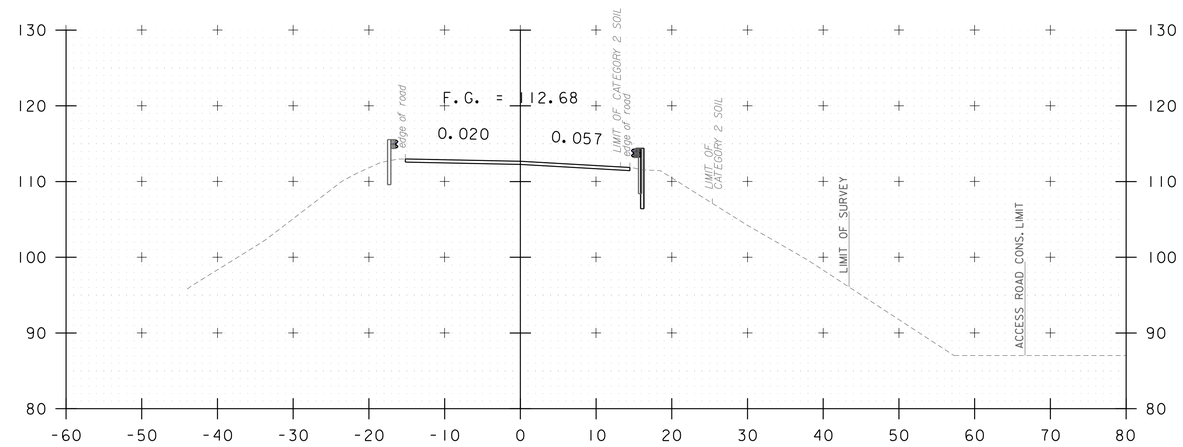
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 9

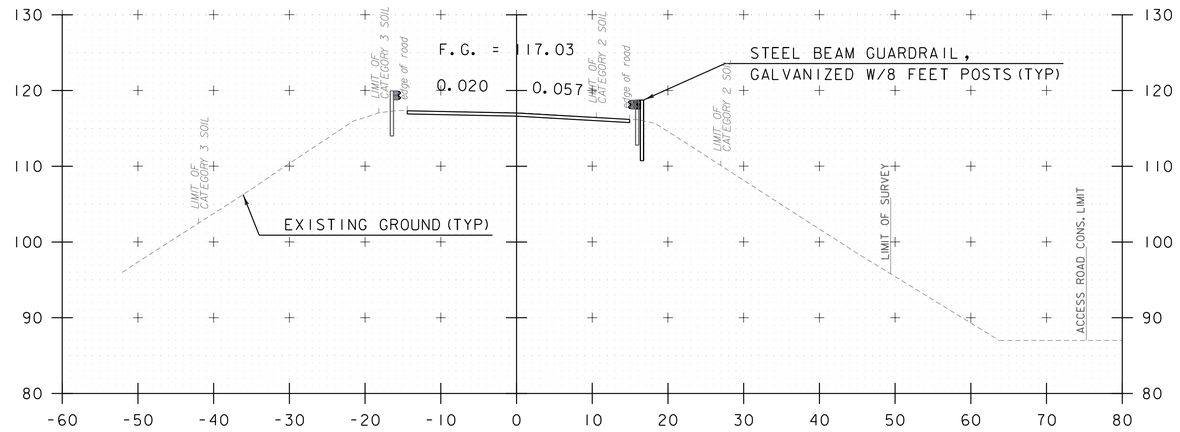
PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 100 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

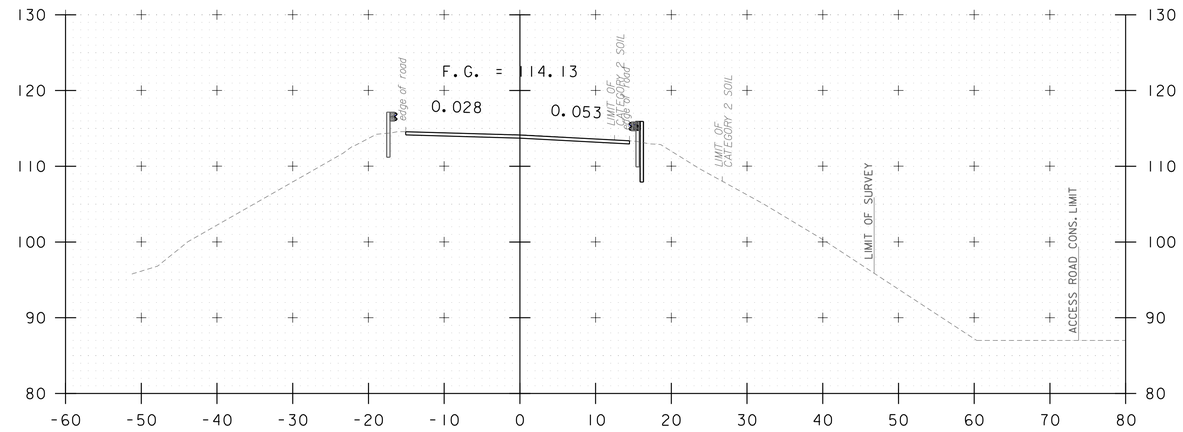




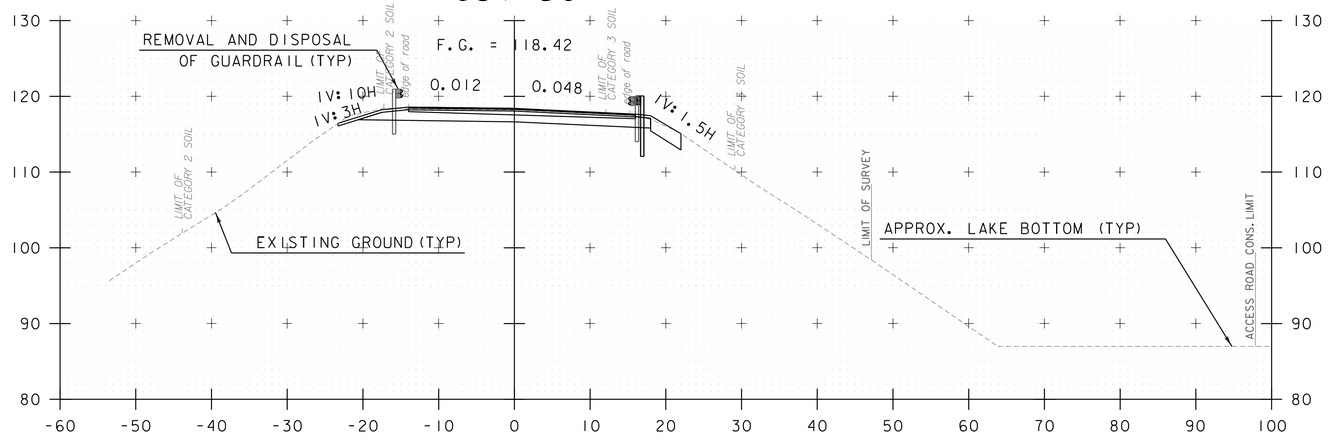
632+00



633+00



631+50



631+00

630+80 END PROJECT

632+50

HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

NOTE: LIMITS OF CATEGORY 2 AND CATEGORY 3 SOILS ARE SHOWN PER THE SOIL MANAGEMENT PLAN. SEE SOIL MANAGEMENT PLAN FOR ADDITIONAL INFORMATION.

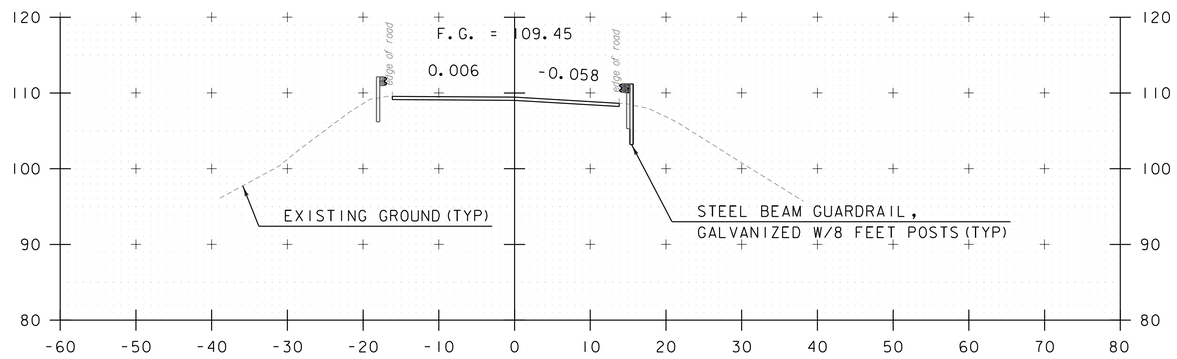
STA. 631+50 TO STA. 633+00

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

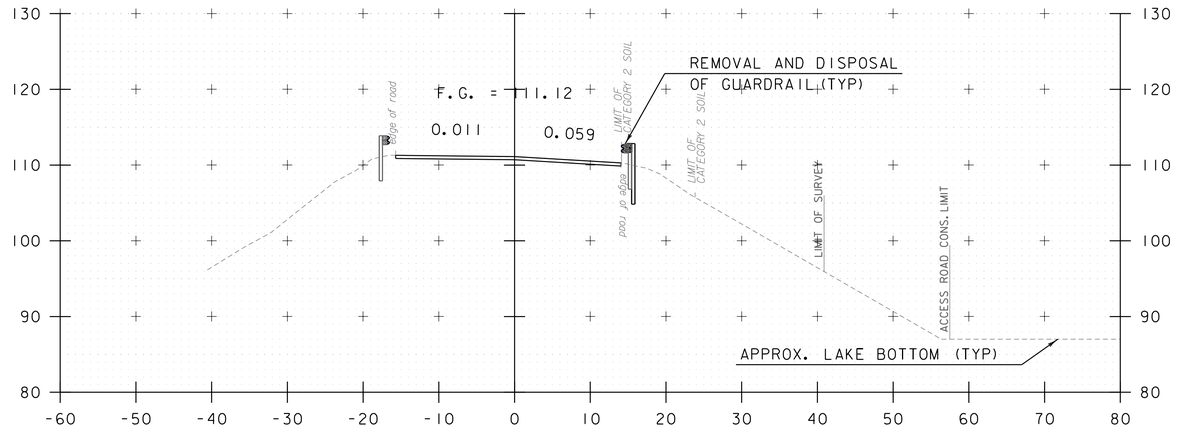
FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET 10

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 101 OF 108

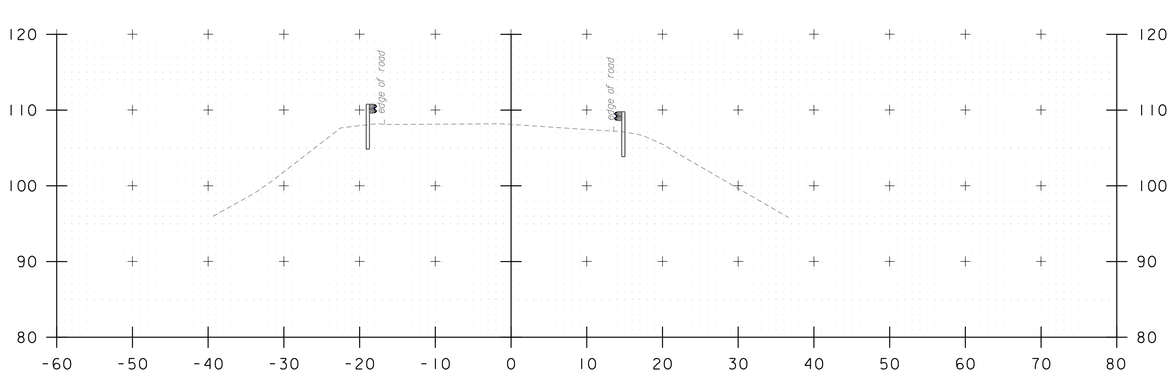
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



634+00
END APPROACH



633+50



634+50

HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: 1" = 10'-0"

NOTE: LIMITS OF CATEGORY 2 AND CATEGORY 3 SOILS ARE SHOWN PER THE SOIL MANAGEMENT PLAN. SEE SOIL MANAGEMENT PLAN FOR ADDITIONAL INFORMATION.

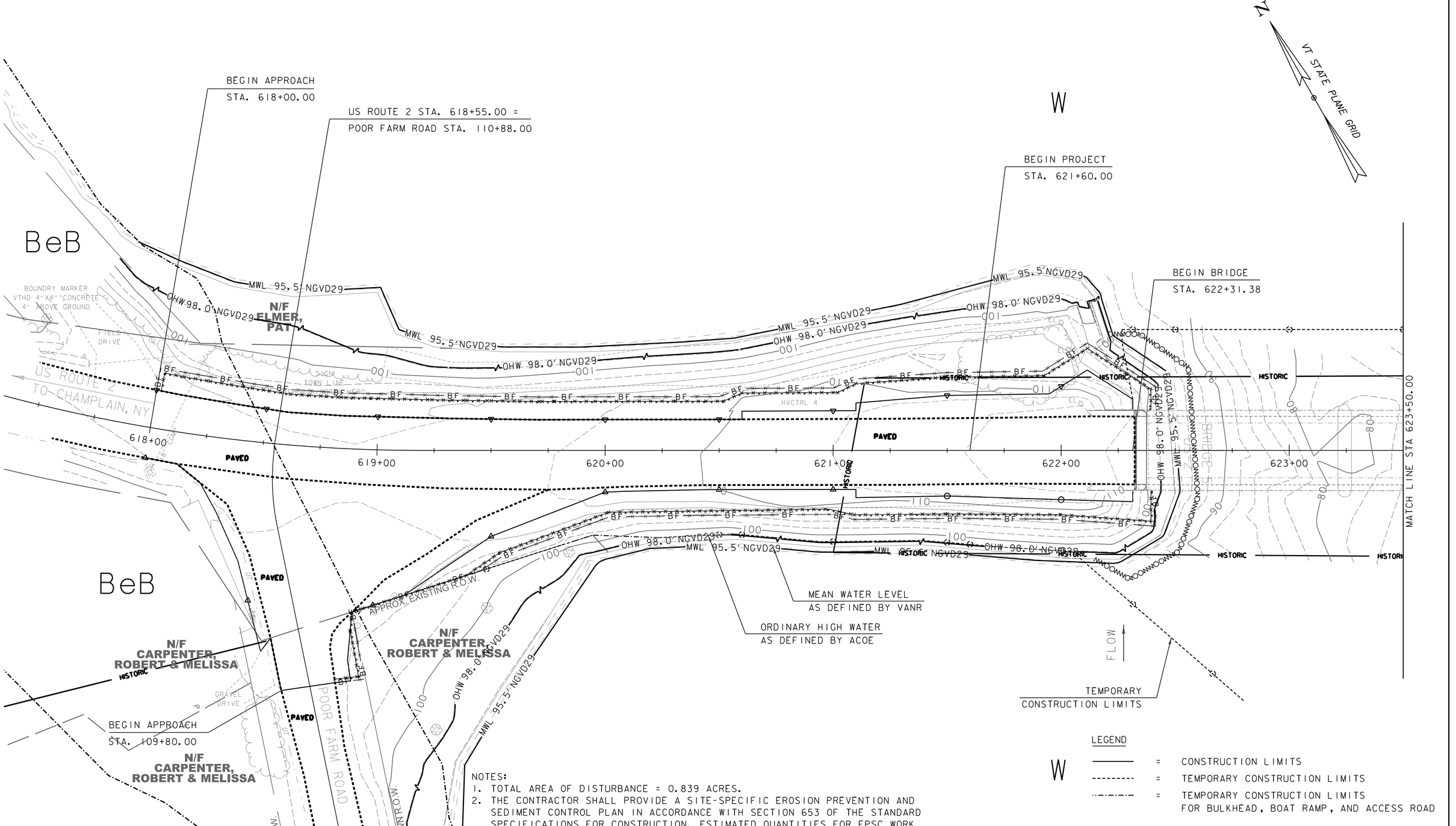
STA. 633+50 TO STA. 634+50

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264xs.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
ROADWAY CROSS SECTIONS SHEET II

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 102 OF 108

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS



SOIL LEGEND

	SOIL DESIGNATION	HYDROLOGIC SOIL GROUP CLASSIFICATION	SOIL ERODIBILITY COEFFICIENTS (K)
BeB	= BENSON ROCKY SILT LOAM, 3 TO 8 PERCENT SLOPES	D	0.32
W	= WATER	N/A	N/A

NOTES:

1. TOTAL AREA OF DISTURBANCE = 0.839 ACRES.
2. THE CONTRACTOR SHALL PROVIDE A SITE-SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL PLAN IN ACCORDANCE WITH SECTION 653 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. ESTIMATED QUANTITIES FOR EPSC WORK HAVE BEEN INCLUDED IN THE CONTRACT FOR BIDDING PURPOSES. IF THE CONTRACTOR'S EPSC PLAN REQUIRED ITEMS OF WORK THAT ARE NOT INCLUDED IN THE PLANS IT SHALL BE PAID FOR AS PART OF ITEM 653.03 MAINTENANCE OF EPSC PLAN.
3. OHW IS SHOWN AT NGVD29 ELEVATION 98.0 WHICH IS EQUAL TO NAVD88 ELEVATION 97.6.
4. MWL IS SHOWN AT NGVD29 ELEVATION 95.5 WHICH IS EQUAL TO NAVD88 ELEVATION 95.1.

LEGEND

W
- ——— = CONSTRUCTION LIMITS
- - - - - - = TEMPORARY CONSTRUCTION LIMITS
- ·—·—· = TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

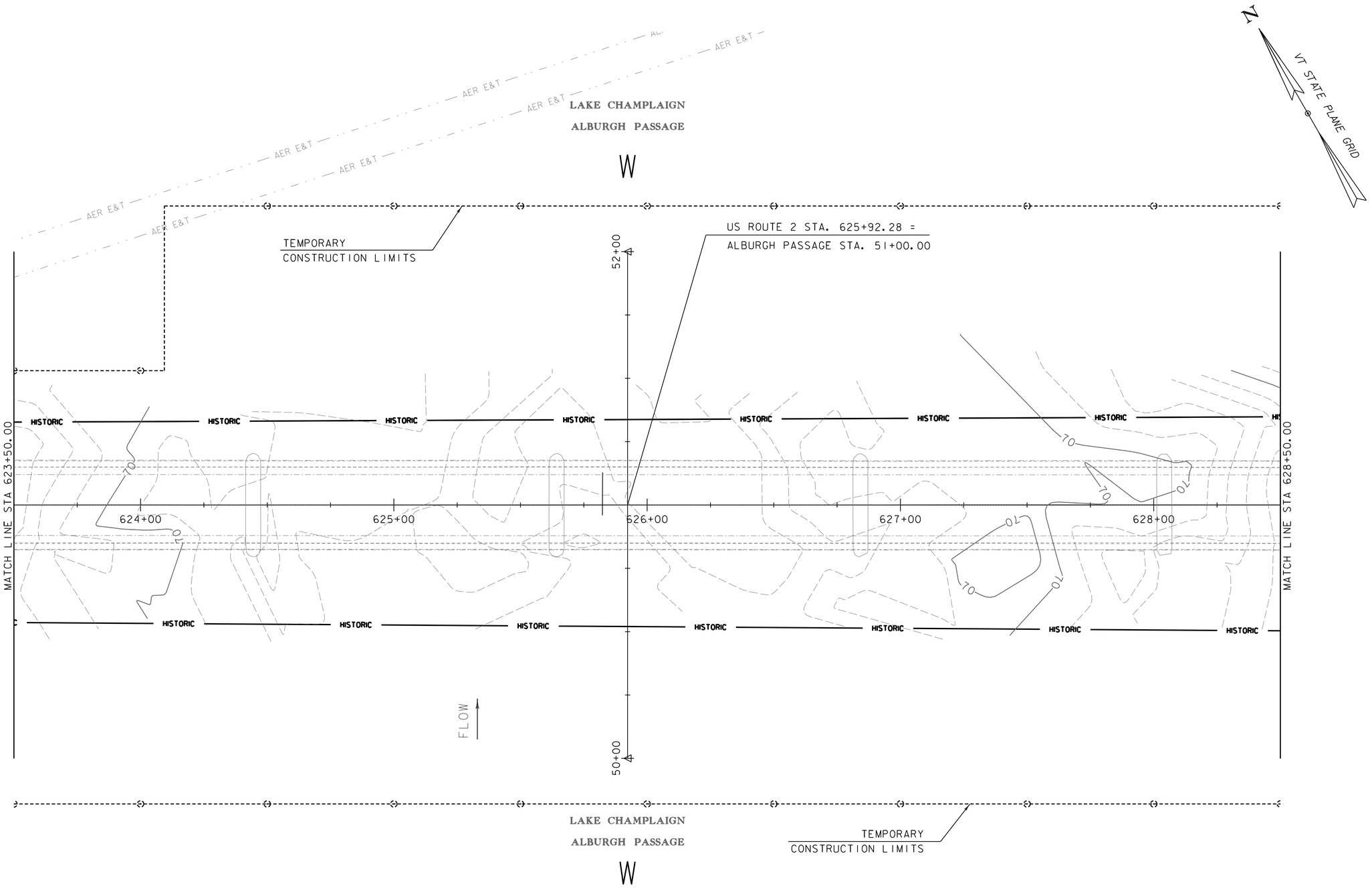
SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264eroex.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
EPSC EXISTING CONDITIONS PLAN SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 103 OF 108



LEGEND

———	=	CONSTRUCTION LIMITS
- - - - - -	=	TEMPORARY CONSTRUCTION LIMITS
·-·-·-·-	=	TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

SOIL LEGEND

SOIL DESIGNATION	HYDROLOGIC SOIL GROUP CLASSIFICATION	SOIL ERODIBILITY COEFFICIENTS (K)
W = WATER	N/A	N/A

NOTES:
1. OHW IS SHOWN AT NGVD29 ELEVATION 98.0 WHICH IS EQUAL TO NAVD88 ELEVATION 97.6.
2. MWL IS SHOWN AT NGVD29 ELEVATION 95.5 WHICH IS EQUAL TO NAVD88 ELEVATION 95.1.

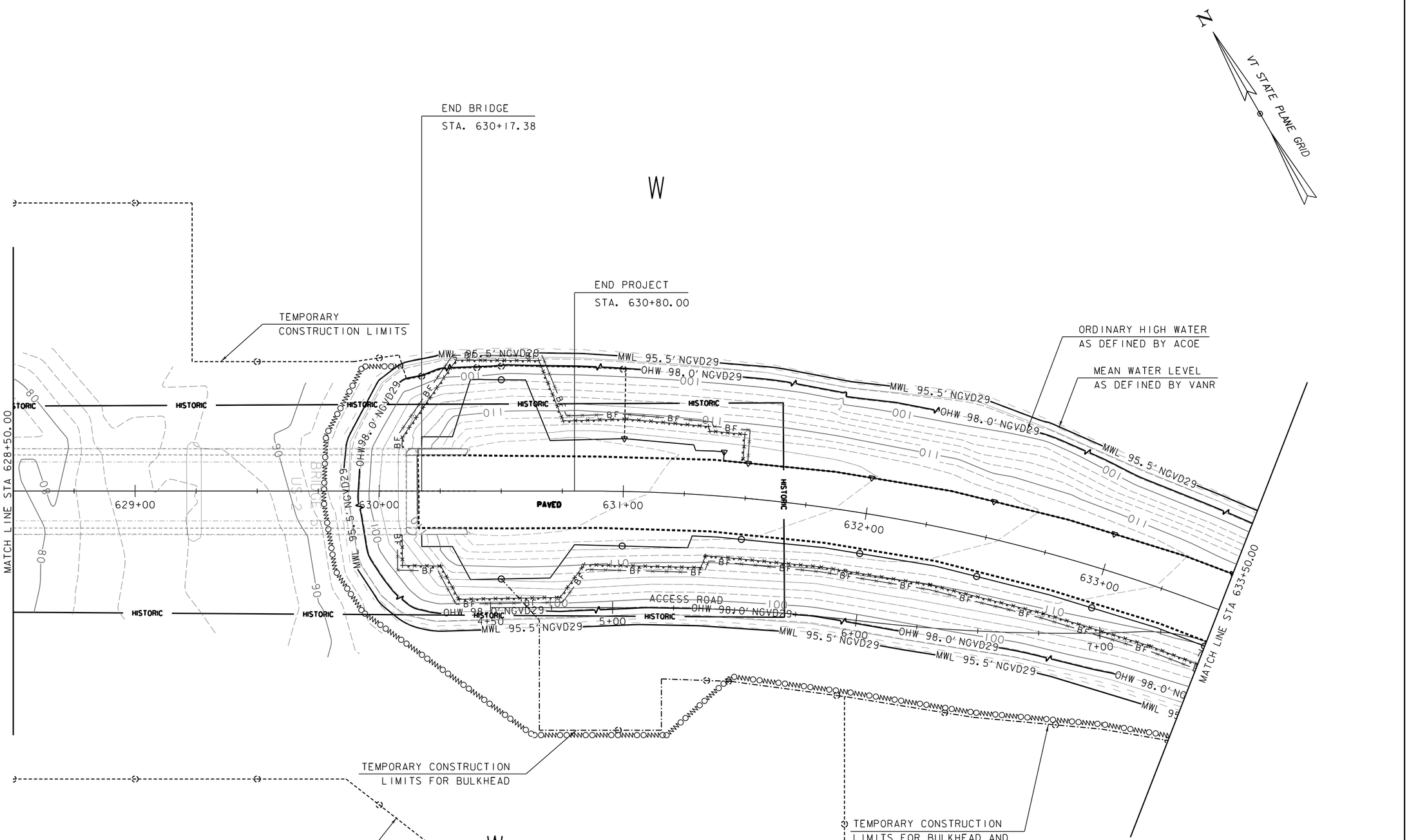
SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264eroex.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
EPSC EXISTING CONDITIONS PLAN SHEET 2

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 104 OF 108



LEGEND

———	=	CONSTRUCTION LIMITS
- - - - - - - -	=	TEMPORARY CONSTRUCTION LIMITS
·—·—·—·—·	=	TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

SOIL LEGEND

SOIL DESIGNATION	HYDROLOGIC SOIL GROUP CLASSIFICATION	SOIL ERODIBILITY COEFFICIENTS (K)
W = WATER	N/A	N/A

NOTES:
1. OHW IS SHOWN AT NGVD29 ELEVATION 98.0 WHICH IS EQUAL TO NAVD88 ELEVATION 97.6.
2. MWL IS SHOWN AT NGVD29 ELEVATION 95.5 WHICH IS EQUAL TO NAVD88 ELEVATION 95.1.

SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264eroex.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
EPSC EXISTING CONDITIONS PLAN SHEET 3

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 105 OF 108

N/F
MACDONALD, PETER

N/F
MACDONALD, PETER

N/F
MACDONALD, PETER

N/F
MACDONALD, PETER

N/F
KEYWORTH REAL ESTATE
HOLDINGS, LLC

N/F
BARSALOW, CHARLES M.

N/F
BARSALOW, CHARLES I

NaB

BeC

W

W

NaB

VT STATE PLANE GRID

BOUNDRY MARKER
VTHD 4"X4" CONCRETE
BROKEN OFF FLUSH

BRIDGE ROAD
TO NORTH HERO

US ROUTE 2
TO GRAND ISLE

APPROX. EXISTING R.O.W.

APPROX. EXISTING R.O.W.

AER E&T

GRAVEL
DRIVE

PAVED

18" RCP

18" CCMP

HISTORIC

ARCH

HDWL

APPROX. LOW WATER TIE LINE

OHW 98.0'NGVD29

MWL 95.5'NGVD29

MEAN WATER LEVEL
AS DEFINED BY VANR

ORDINARY HIGH WATER
AS DEFINED BY ACOE

MATCH LINE STA 633+50.00

634+00

635+00

636+00

637+00

638+00

639+00

END APPROACH
STA. 634+00.00

STA 747+13

TEMPORARY CONSTRUCTION
LIMITS FOR BULKHEAD AND
ACCESS ROAD

NOTES:
1. OHW IS SHOWN AT NGVD29 ELEVATION 98.0 WHICH IS EQUAL TO NAVD88 ELEVATION 97.6.
2. MWL IS SHOWN AT NGVD29 ELEVATION 95.5 WHICH IS EQUAL TO NAVD88 ELEVATION 95.1.

SOIL LEGEND

SOIL DESIGNATION	HYDROLOGIC SOIL GROUP CLASSIFICATION	SOIL ERODIBILITY COEFFICIENTS (K)
BeC = BENSON ROCKY SILT LOAM, 8 TO 15 PERCENT SLOPES	D	0.32
NaB = NEILS SILT LOAM, 3 TO 8 PERCENT SLOPES	A	0.37
W = WATER	N/A	N/A

LEGEND

——— = CONSTRUCTION LIMITS

--------- = TEMPORARY CONSTRUCTION LIMITS

-·-·-·- = TEMPORARY CONSTRUCTION LIMITS FOR BULKHEAD, BOAT RAMP, AND ACCESS ROAD

SCALE: 1" = 20'-0"
0 20 40
SCALE IN FEET

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

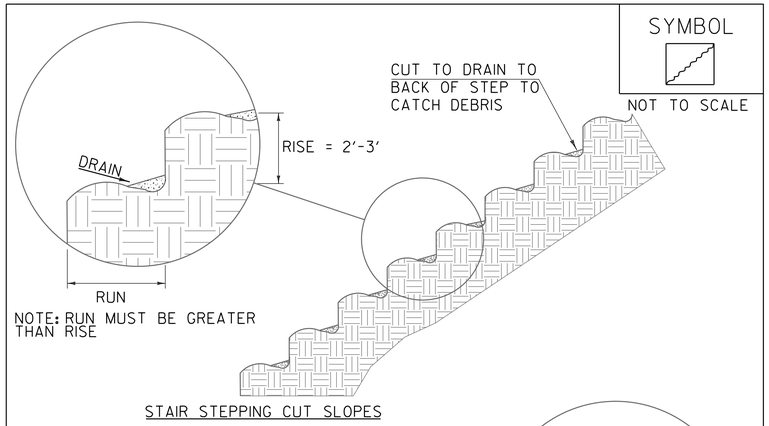
PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264eroex.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
EPSC EXISTING CONDITIONS PLAN SHEET 4

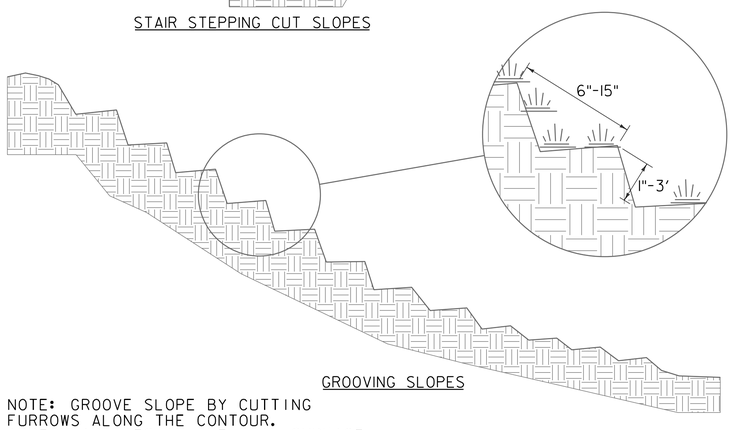
PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 106 OF 108

SYMBOL

NOT TO SCALE



STAIR STEPPING CUT SLOPES



GROOVING SLOPES

NOTE: GROOVE SLOPE BY CUTTING FURROWS ALONG THE CONTOUR. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND RETAIN LIME, FERTILIZER AND SEED.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SURFACE ROUGHENING

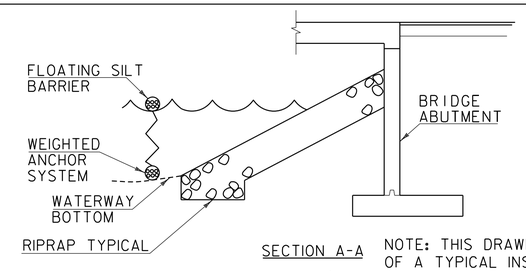
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF

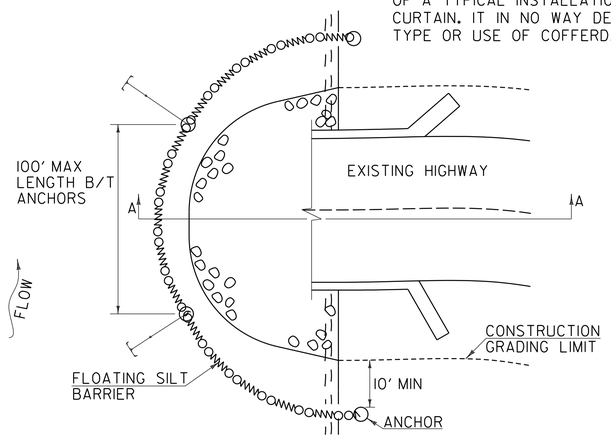
SYMBOL

NOT TO SCALE



SECTION A-A

NOTE: THIS DRAWING IS A DEPICTION OF A TYPICAL INSTALLATION OF FILTER CURTAIN. IT IN NO WAY DEFINES THE TYPE OR USE OF COFFERDAM IF USED.



CONSTRUCTION SPECIFICATIONS

1. FILTER CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY, OR IN A WATERWAY WITH STREAM VELOCITIES GREATER THAN 1.5 FEET/SECOND.
2. MAXIMUM 100' LENGTH BETWEEN ANCHORS.
3. LAST SECTION SHALL TERMINATE A MINIMUM OF 10' BEYOND LIMIT OF DISTURBANCE.
4. THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE WHICH ALLOWS THE CURTAIN TO CONFORM TO THE BOTTOM OF THE WATERWAY.
5. THE CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE MINIMIZING THE ESCAPE OF SEDIMENTS INTO WATERWAY.

FILTER CURTAIN

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 FOR GEOTEXTILE FOR FILTER CURTAIN (PAY ITEM 649.61).

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF
SEPTEMBER 4, 2009	WHF

VAOT LOW GROW/FINE FESCUE MIX						
	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
38%	57	95	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	43.5	72.5	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	22.5	37.5	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	22.5	37.5	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	4.5	7.5	INERTS			
100%	150	250				

VAOT RURAL AREA MIX						
	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
37.5%	22.5	45	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	22.5	45	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	3	6	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	9	18	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	60	120				

GENERAL AMENDMENT GUIDANCE		
FERTILIZER	LIME	
10/20/10	AG LIME	PELLITIZED
500 LBS/AC	2 TONS/AC	1 TONS/AC

CONSTRUCTION GUIDANCE

1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.
2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.
7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.15)

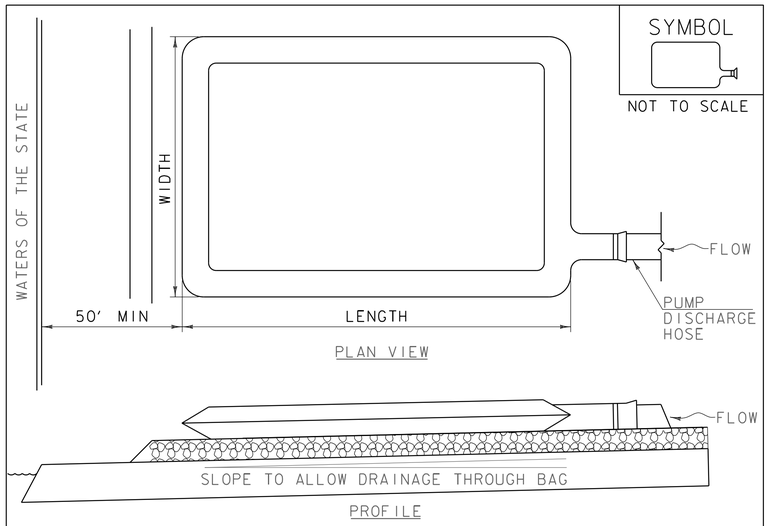
REVISIONS	
JANUARY 12, 2015	WHF

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264erodet.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
EPSC DETAIL SHEET 1

PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 107 OF 108



CONSTRUCTION SPECIFICATIONS

1. THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS.
2. FILTER BAGS SHALL BE INSTALLED ON A VEGETATED SLOPE GRADED TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.
3. FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.
4. FILTER BAGS SHALL BE LOCATED A MINIMUM OF 50' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.
6. A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.
7. FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.

FILTER BAG

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR FILTER BAG (PAY ITEM 653.45) AND AS SPECIFIED IN THE CONTRACT.

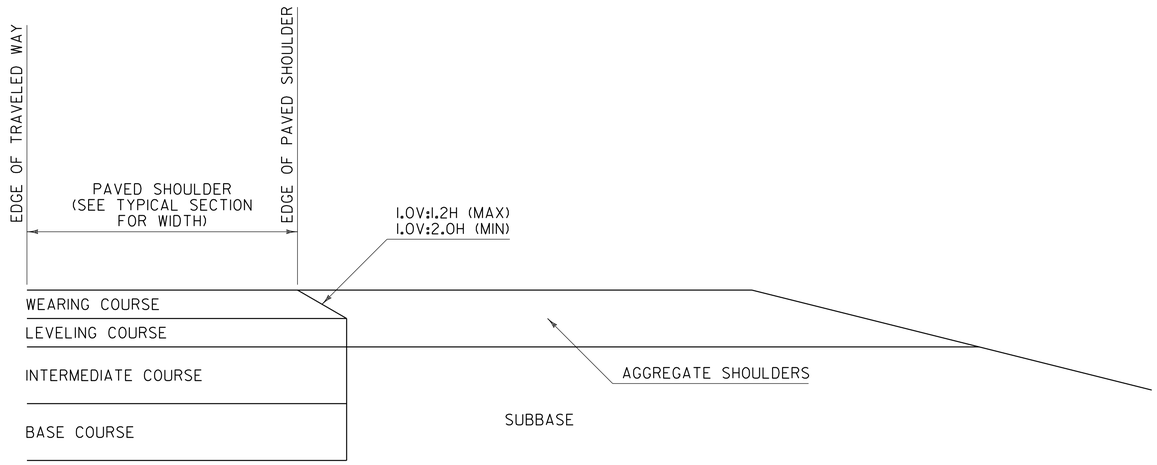
REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

PROJECT NAME: NORTH HERO
PROJECT NUMBER: BF 028-1(30)

FILE NAME: z13b264erodet.dgn
PROJECT LEADER: M. CRUZ
DESIGNED BY: T. BIGELOW
EPSC DETAIL SHEET 2

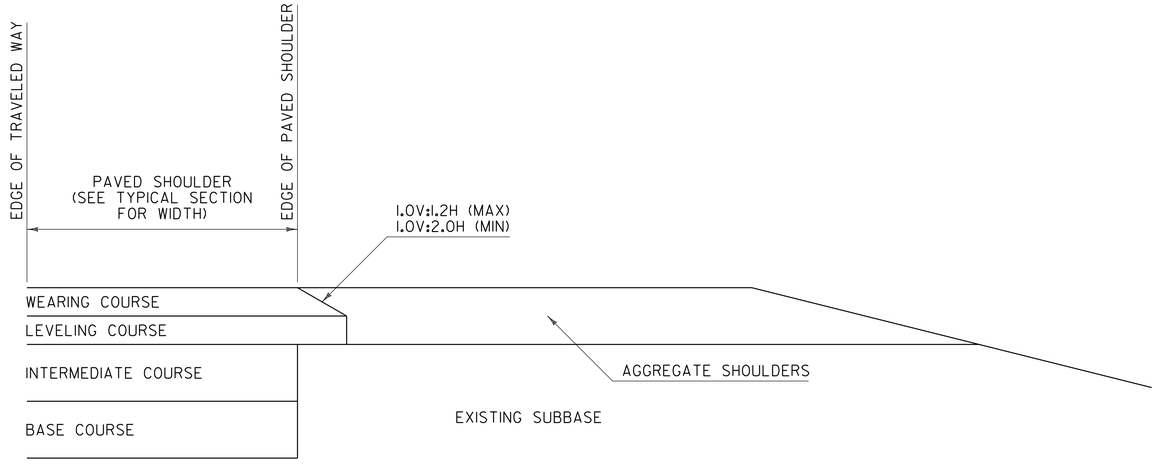
PLOT DATE: 2/18/2022
DRAWN BY: S. SACCO
CHECKED BY: T. BIGELOW
SHEET 108 OF 108



SAFETY EDGE DETAIL
FOR PAVING BELOW WEARING COURSE

NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN PAVING EXTENDS BELOW THE WEARING COURSE.
2. PRIOR TO PLACEMENT OF THE LEVELING AND/OR WEARING COURSE, THE SUBBASE LOCATED BENEATH THE AGGREGATE SHOULDERS SHALL BE PREPARED FLUSH WITH THE BOTTOM OF THE LEVELING COURSE.
3. BASE COURSE LIMITS MAY VARY, SEE TYPICAL SECTIONS FOR WIDTH.



SAFETY EDGE DETAIL
FOR PAVING WEARING COURSE ONLY

NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN ONLY THE LEVELING AND/OR WEARING COURSE IS TO BE PLACED.
2. PAVEMENT COURSES MAY VARY, SEE TYPICAL SECTIONS FOR ACTUAL PAVEMENT COURSES REQUIRED.

SAFETY EDGE WIDTH BASED ON WEARING COURSE THICKNESS AND A 1V:1.6H SLOPE	
WEARING COURSE THICKNESS (INCHES)	NOMINAL SAFETY EDGE WIDTH (INCHES)
1.25	2.000
1.50	2.375
1.75	2.750
2.00	3.125
2.25	3.500
2.50	4.000

GENERAL NOTES:

1. PLACEMENT OF THE WEARING COURSE SHALL INCLUDE THE SAFETY EDGE, UNLESS THE FOLLOWING APPLIES:
   - A. THE ADJACENT SLOPE IS STEEPER THAN THE SAFETY EDGE.
   - B. THE EDGE OF PAVEMENT BEING PLACED ABUTS BOUND MATERIAL.
   - C. VEHICLES ARE RESTRICTED FROM LEAVING THE PAVED SURFACE (EXAMPLE: GUARDRAIL).
2. THE SAFETY EDGE SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE SLOPE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE SAFETY EDGE SHALL NOT BE CONSIDERED PART OF THE PAVED SHOULDER.
4. THIS WORK SHALL BE INCIDENTAL TO THE RESPECTIVE BITUMINOUS CONCRETE PAVEMENT ITEM.

REV.	DATE	DESCRIPTION
0	MAR. 29, 2016	ORIGINAL APPROVAL
1	JAN. 5, 2018	ANNOTATION CORRECTIONS

OTHER DETAILS REQUIRED: NONE

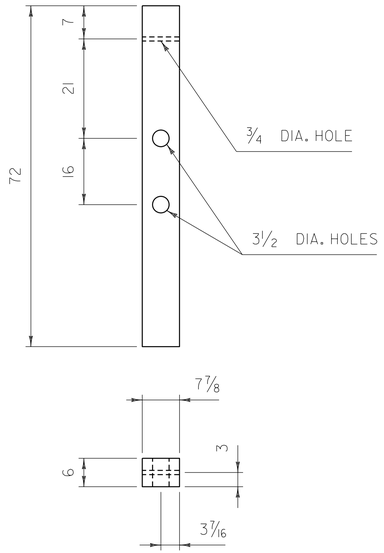
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

SAFETY EDGE DETAILS

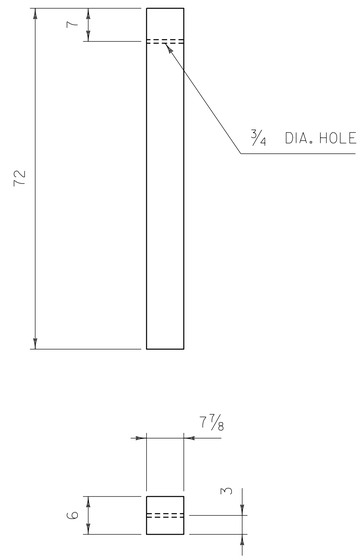
VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

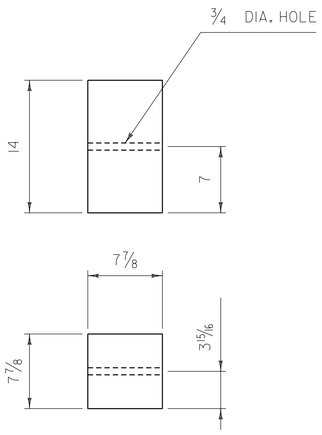
HSD-400.01



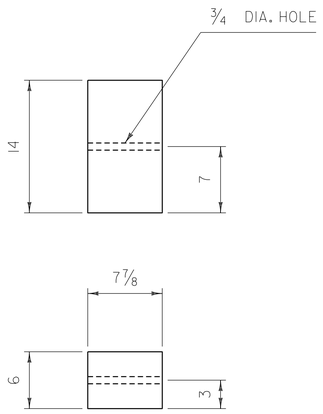
CONTROLLED RELEASING TERMINAL (CRT) TIMBER POST (PDE09)



TIMBER GUARDRAIL POST (PDE07)



TRANSITION SPACER BLOCKOUTS (PDB07)



W-BEAM TIMBER BLOCKOUT (PDB01)

GENERAL NOTES:

1. ALL MATERIAL DESIGNATIONS ARE AS IDENTIFIED IN ''A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE'' AS PUBLISHED BY THE ''AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS'' (AASHTO), ASSOCIATED GENERAL CONTRACTORS OF AMERICA (AGC) AND THE AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION (ARTBA).
2. CRT TIMBER POSTS SHALL BE INSTALLED SO THAT THE CENTER OF THE TOP 3 1/2 INCH HOLE IS AT GROUND LEVEL.
3. ALL TIMBER SHALL RECEIVE A PRESERVATION TREATMENT IN ACCORDANCE WITH AASHTO M133 AFTER ALL HOLES ARE DRILLED AND END CUTS ARE MADE.
4. ALL DIMENSIONS IN INCHES.

REV.	DATE	DESCRIPTION
0	JUN. 9, 2015	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: NONE

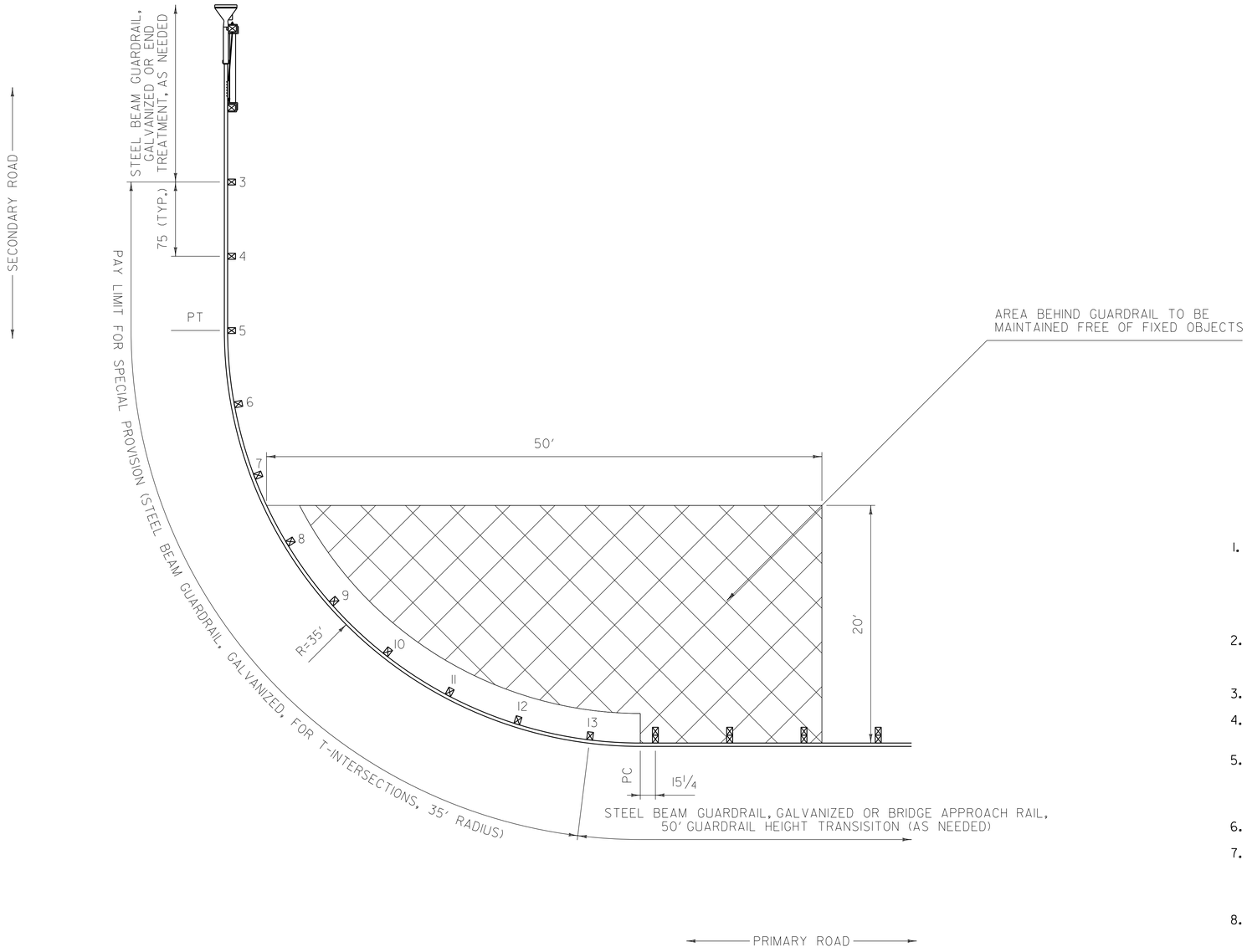
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

POST AND BLOCKOUT DETAILS FOR STEEL BEAM GUARDRAIL, GALVANIZED

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.01



GENERAL NOTES:

1. ALL MATERIAL DESIGNATIONS ARE AS IDENTIFIED IN ''A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE'' AS PUBLISHED BY THE ''AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS'' (AASHTO), ASSOCIATED GENERAL CONTRACTORS OF AMERICA (AGC) AND THE AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION (ARTBA).
2. GUARDRAIL WITHIN THE PAY LIMITS OF SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS) SHALL BE INSTALLED AT A HEIGHT OF 27 INCHES TO THE TOP OF RAIL.
3. POSTS 3 THROUGH 13 SHALL BE CRT TIMBER POSTS, PDE09.
4. POSTS 3 THROUGH 13 SHALL HAVE GUARDRAIL BOLTS AND RECESSED NUTS, FBB03.
5. ALL GUARDRAIL PANELS WITHIN THE PAY LIMITS FOR SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS) SHALL BE W-BEAM GUARDRAIL, RWM02A AND SHALL BE SHOP BENT, WHERE APPLICABLE.
6. END TREATMENT SHOWN FOR REFERENCE ONLY.
7. WHEN STANDARD DRAWING G-ID IS USED FOR AN END TREATMENT ON THE SECONDARY ROAD IT SHALL BEGIN A MINIMUM OF 75 INCHES BEYOND THE PAY LIMITS FOR SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS).
8. BASED ON DETAILS IN FHWA'S TECHNICAL ADVISORY T 5040.32, APRIL 13, 1992 (FOR REFERENCE ONLY).
9. PAYMENT SHALL BE MADE UNDER SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS).
10. GUARDRAIL SHALL BE LAPPED IN THE DIRECTION OF THE NEAREST TRAVEL LANE.
11. ALL DIMENSIONS IN INCHES, UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
0	JUN. 9, 2015	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD 621.01

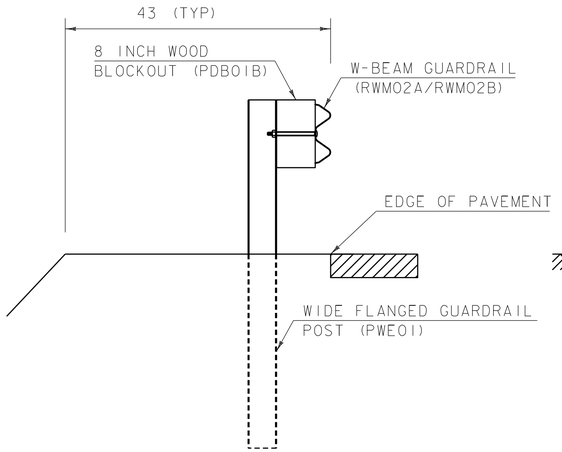
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS

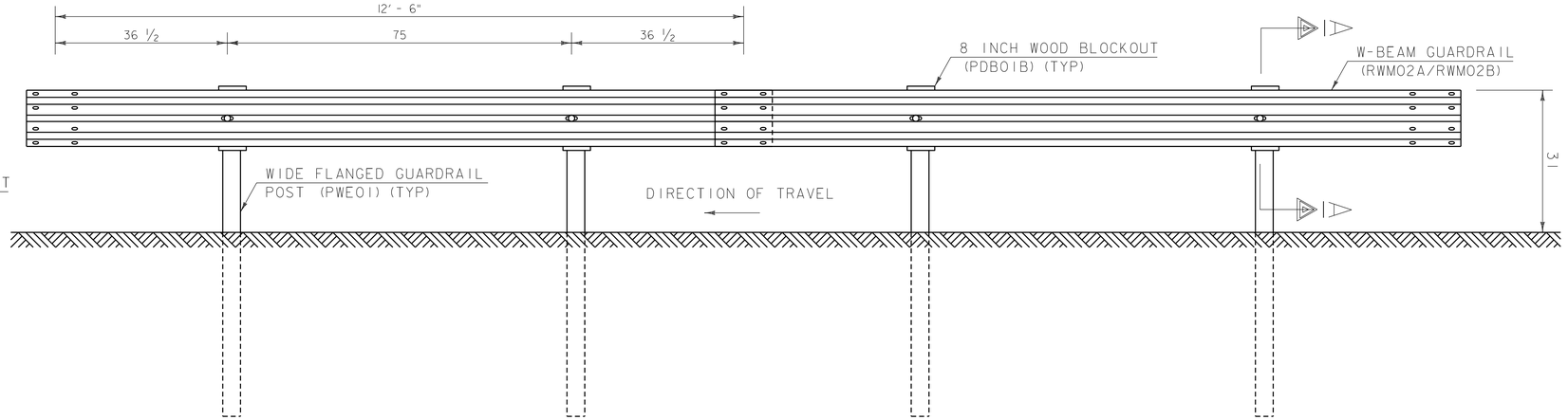
VTrans Working to Get You There — VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

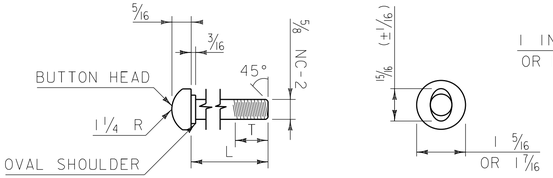
HSD-621.05



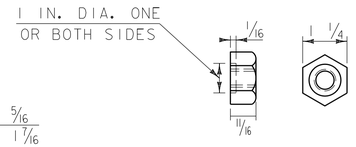
TYPICAL GUARDRAIL DETAIL
SECTION A-A



GUARDRAIL ELEVATION

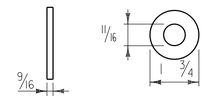


GUARDRAIL BOLT



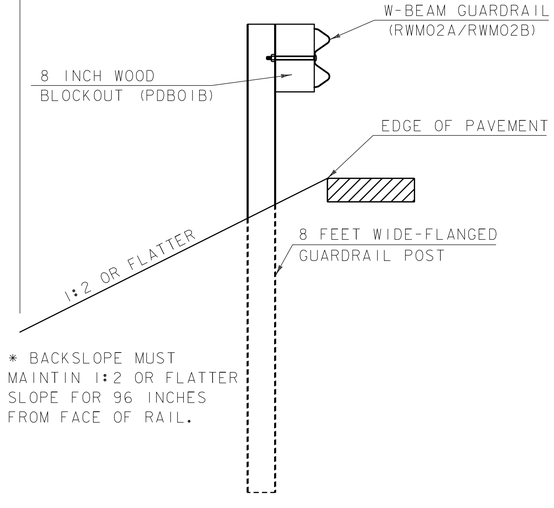
RECESSED NUT FOR GUARDRAIL BOLT

NOTE: WASHER IS USED UNDER RECESSED NUT WHERE GUARDRAIL BOLT IS USED WITH WOOD POSTS.

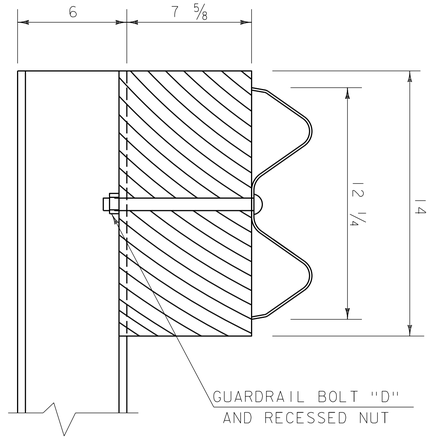


WASHER FOR 5/8" BOLTS
ARTBA F-13-73

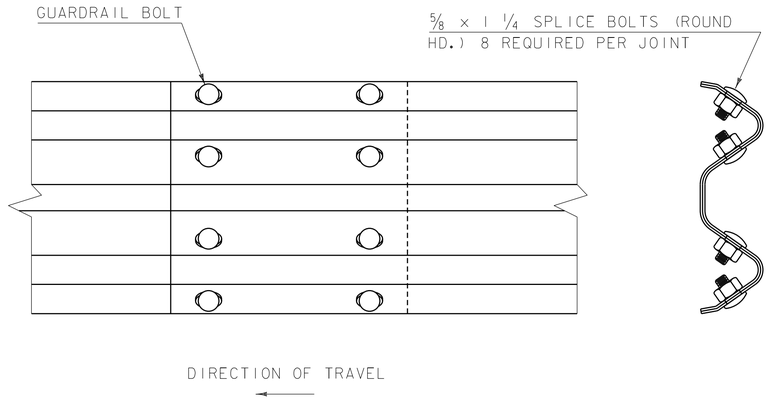
GUARDRAIL BOLTS				FASTENER USED IN	
BOLT DES.	ARTBA REF. NO.	L	T (MIN.)	STEEL POSTS	WOOD POSTS
"A"	F-3[1 1/4]-76	1 1/4"	1"	X	X
"C"	F-3[9 1/2]-76	9 1/2"	1 3/4"	X	
"D"	F-3[18]-76	18"	2 1/2"		X
"F"	F-3[25]-76	25"	2"		X



8 FEET POSTS GUARDRAIL DETAIL
SECTION A-A



POST ATTATCHMENT DETAIL



SPLICE DETAIL

GENERAL NOTES

1. DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
2. MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
3. WHEN W-BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED ON THE PLANS, WIDE FLANGED GUARDRAIL POST (PWE01) SHALL BE INCREASED FROM 72 INCHES TO 96 INCHES, SEE DETAIL HSD-621.07B.
4. THE DYNAMIC DEFLECTION DISTANCE OF 57 INCHES FOR W BEAM GUARDRAIL SHALL BE MAINTAINED CLEAR OF OBSTACLES, TO BE MEASURED FROM THE BACK OF POST.
5. FOR TEST LEVEL 3 APPLICATIONS, AS APPROVED IN THE FEDERAL HIGHWAY ADMINISTRATION'S ELIGIBILITY LETTER, HSST/B-240, DATED NOVEMBER 8, 2012.
6. ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

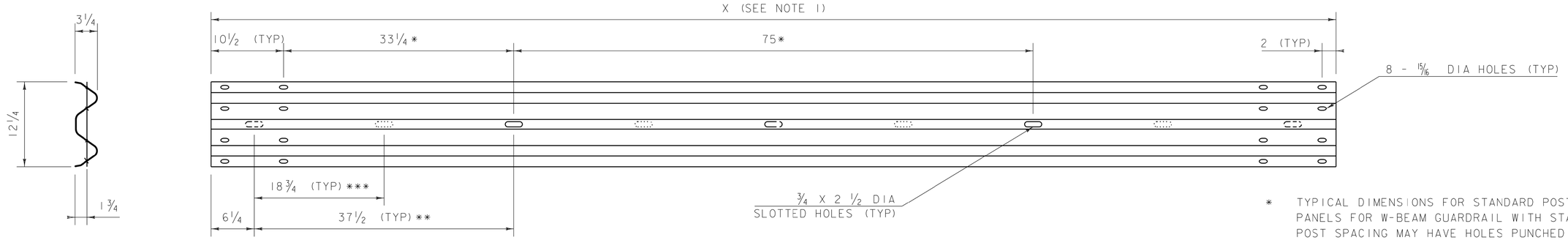
REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
1	JAN. 4, 2021	CORRECTED REFERENCE IN NOTE 3

OTHER DETAILS REQUIRED: 621.07B
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS)

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL
HSD-621.07A



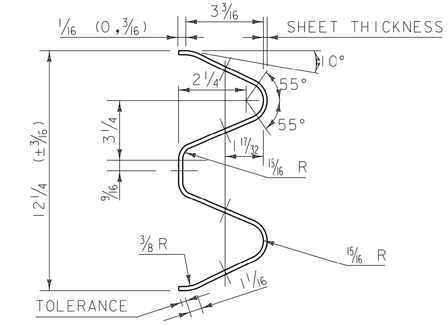
1. TANGENT W-BEAM RAIL LENGTHS SHALL BE 13'-6 1/2" OR 26'-1/2", UNLESS OTHERWISE SPECIFIED.
2. W-BEAM THICKNESS SHALL BE 1/8" FOR STANDARD W-BEAM GUARDRAIL (RWM02A) AND 5/64" FOR HEAVY DUTY GUARDRAIL (RWM02B).

* TYPICAL DIMENSIONS FOR STANDARD POST SPACING. PANELS FOR W-BEAM GUARDRAIL WITH STANDARD POST SPACING MAY HAVE HOLES PUNCHED AT ONE-HALF POST SPACING FOR INVENTORY PURPOSES.
** TYPICAL DIMENSION FOR ONE-HALF POST SPACING.
*** TYPICAL DIMENSION FOR ONE-QUARTER POST SPACING.

W-BEAM GUARDRAIL (RWM02A/ RWM02B)

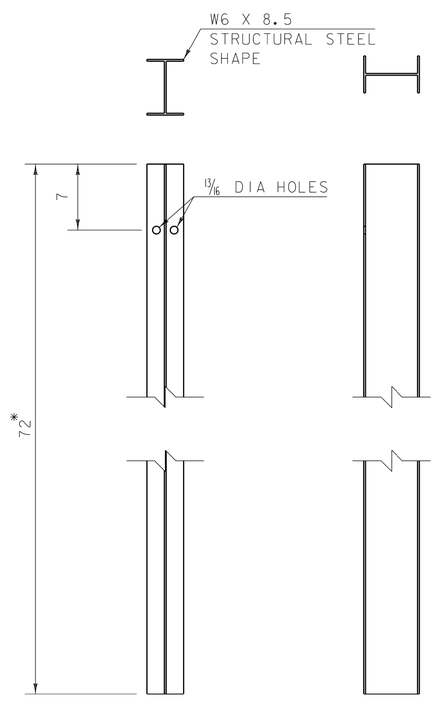
NOTES:

1. BLOCKS SHALL BE MADE OF TIMBER WITH A STRESS GRADE OF 1200 PSI OR MORE. TESTING SHALL BE IN ACCORDANCE WITH WEST COAST LUMBER INSPECTION BUREAU, SOUTHERN PINE INSPECTION BUREAU OR OTHER APPROPRIATE ASSOCIATION. TIMBER FOR BLOCKS SHALL BE ROUGH SAWN (UNPLANED) WITH DIMENSIONS INDICATED. THE SIZE TOLERANCE OF ROUGH SAWN BLOCKS IN THE DIRECTION OF THE BOLT HOLES SHALL BE NOT MORE THAN +/- 1/4".
2. SUPPLY WOOD BLOCKS PER AASHTO M 168.
3. TREAT WITH PRESERVATIVE PER AASHTO M 133.
4. BLOCKOUTS MAY ALSO BE MADE OF APPROVED ALTERNATIVE MATERIAL.



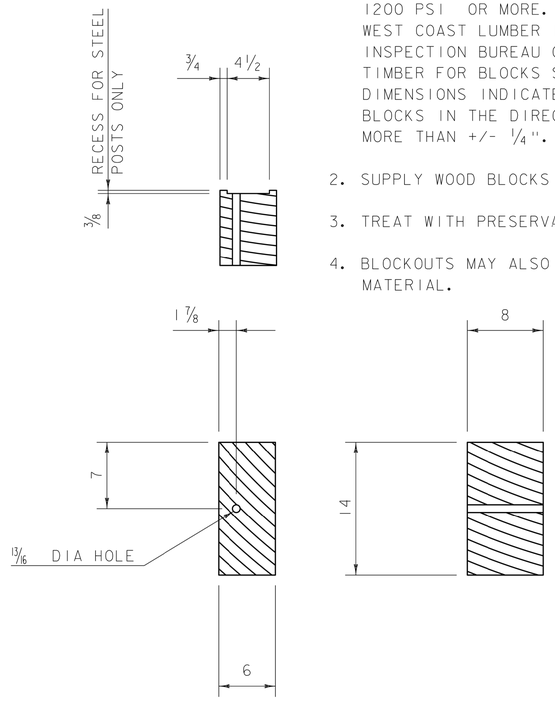
ARTBA RE-3(2@6'-3"=12'-6" CLASS A, TYPE 1)-73

TYPICAL GUARDRAIL SECTION



WIDE FLANGED GUARDRAIL POST (PWE01)

* POST LENGTH SHALL BE INCREASED TO 96 INCHES WHEN W BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED.



8 INCH WOOD BLOCKOUT (PDB01B)

GENERAL NOTES

1. DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
2. MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
3. ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: NONE

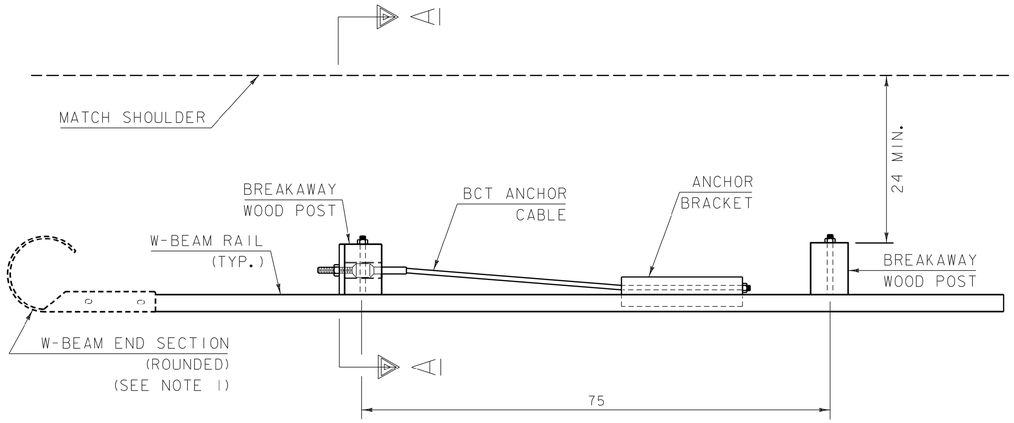
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

W-BEAM GUARDRAIL COMPONENTS

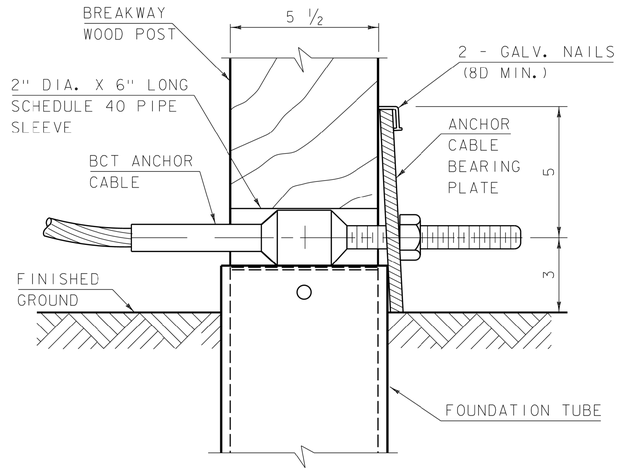
VTrans Working to Get You There — VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.07B

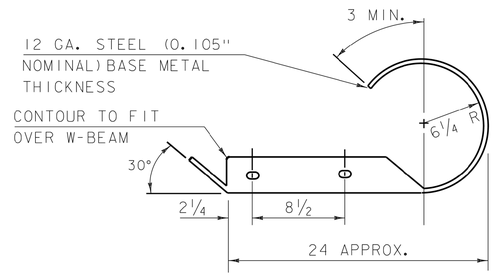


PLAN VIEW

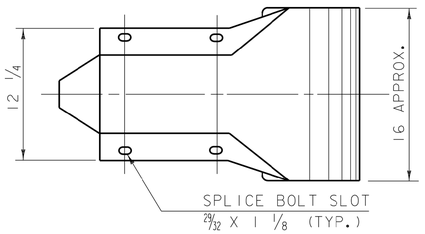


DETAIL A

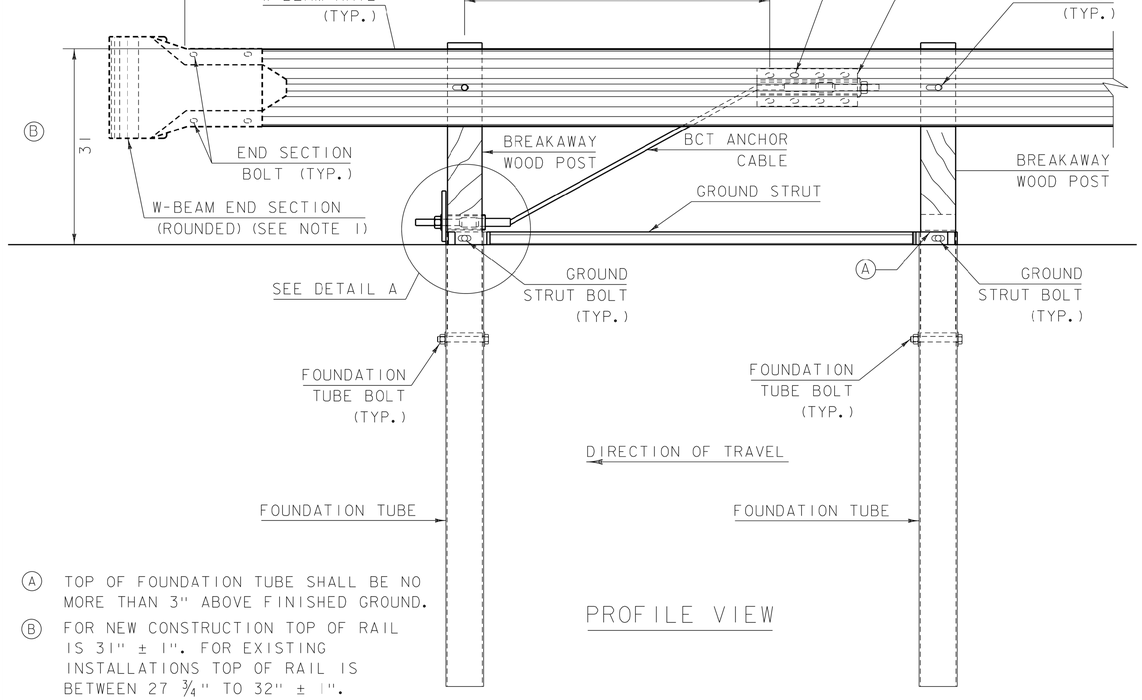
POST NO. 1
GROUND STRUT NOT SHOWN FOR CLARITY.



PLAN VIEW



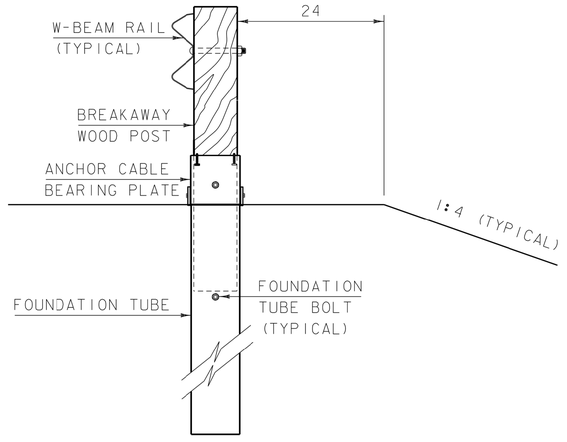
PROFILE VIEW
W-BEAM END SECTION (ROUNDED)



Ⓐ TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

Ⓑ FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1". FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27 ¾" TO 32" ± 1".

PROFILE VIEW



SECTION A-A

GENERAL NOTES

1. WHEN AN ANCHOR IS USED IN THE MIDDLE OF A GUARDRAIL RUN A STANDARD W-BEAM MID-SPLICE CONNECTION SHALL BE UTILIZED.
2. END SECTION SHALL ONLY BE INSTALLED AS TRAILING END ON ONE-WAY TRAFFIC ROADS.
3. W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.
4. END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.
5. FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.
6. ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.
7. W-BEAM END SECTION (ROUNDED) AND W-BEAM RAIL SHALL BE PAID FOR UNDER ITEM 621.20 STEEL BEAM GUARDRAIL GALVANIZED. ALL OTHER COMPONENTS SHALL BE PAID FOR UNDER ITEM 621.60 ANCHOR FOR STEEL BEAM RAIL.
8. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD-621.07D, HSD-621.07E

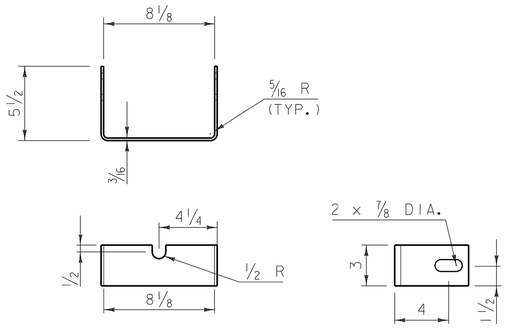
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR

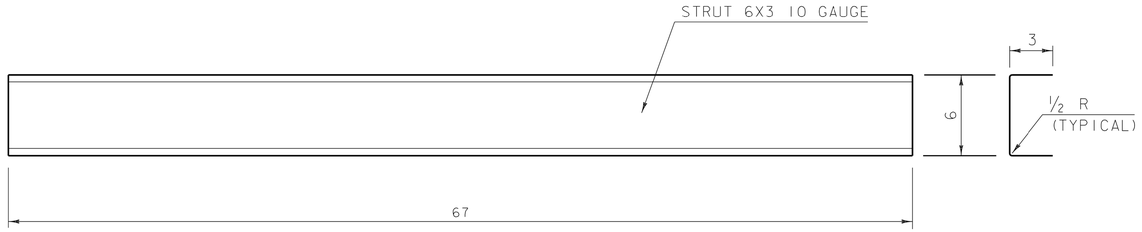
VTrans Working to Get You There — VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

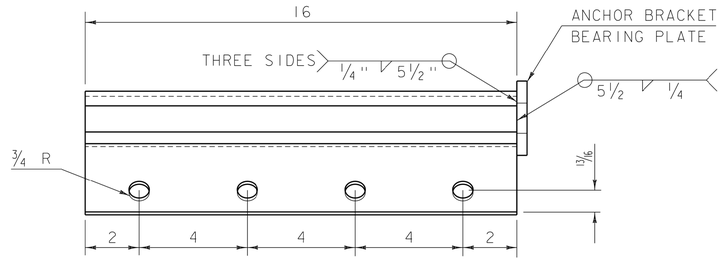
HSD-621.07C

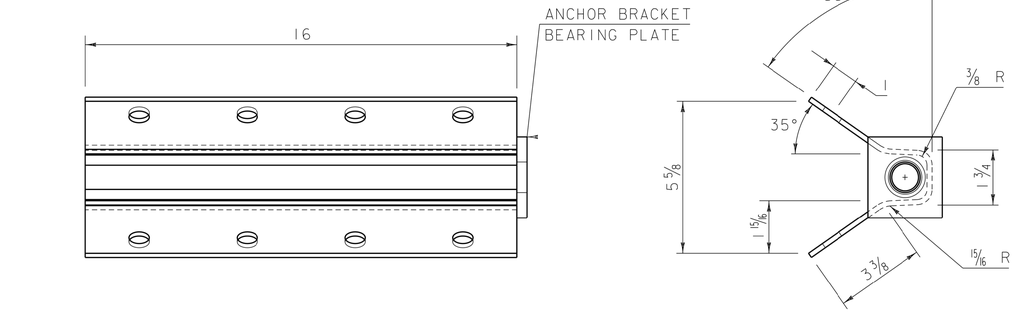


YOKE DETAIL

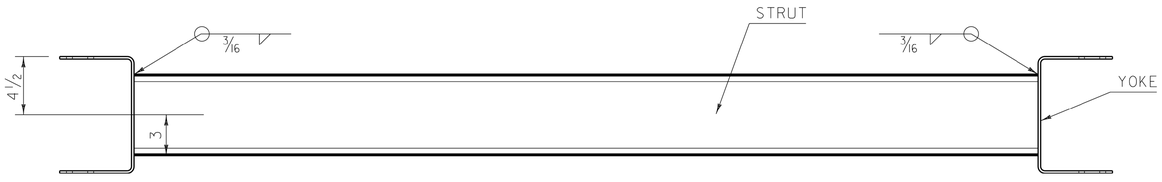


STRUT DETAIL

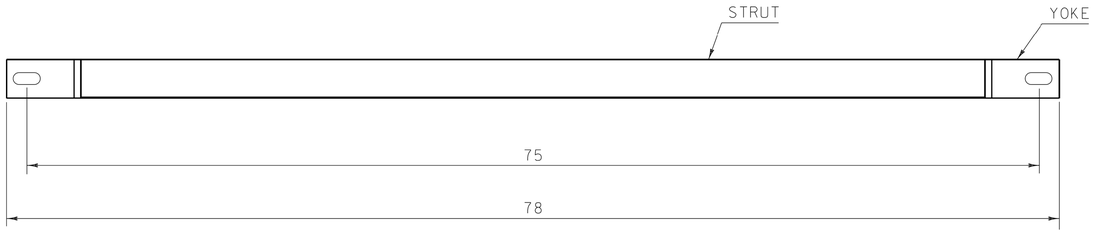




ANCHOR BRACKET

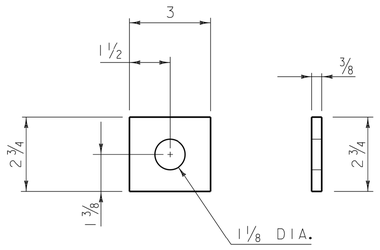


PLAN VIEW



PROFILE VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET
BEARING PLATE

GENERAL NOTES

1. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD-621.07C, HSD-621.07E

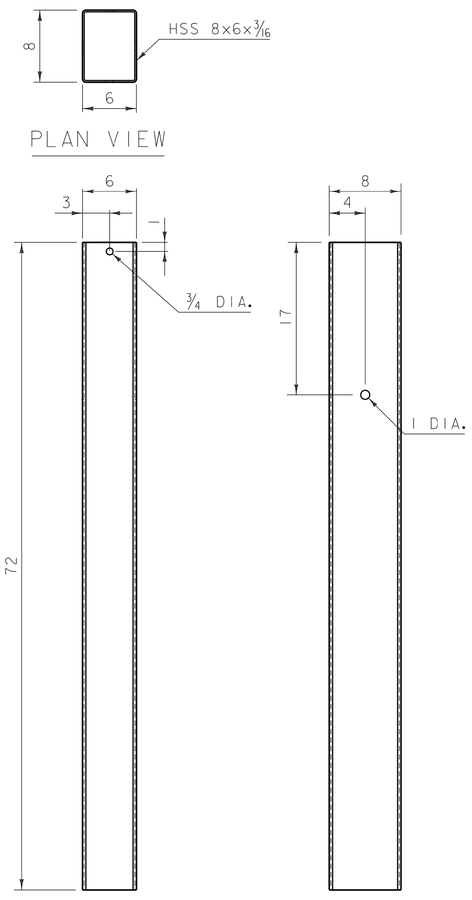
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS

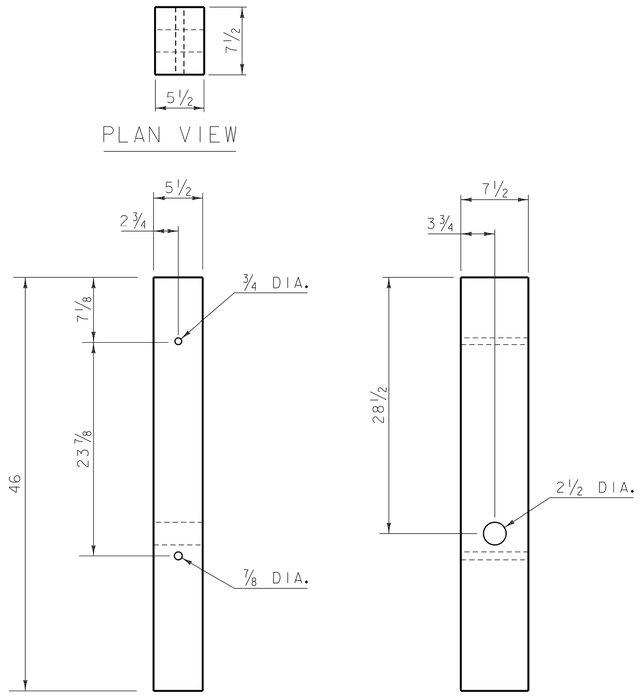
VTrans Working to Get You There VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

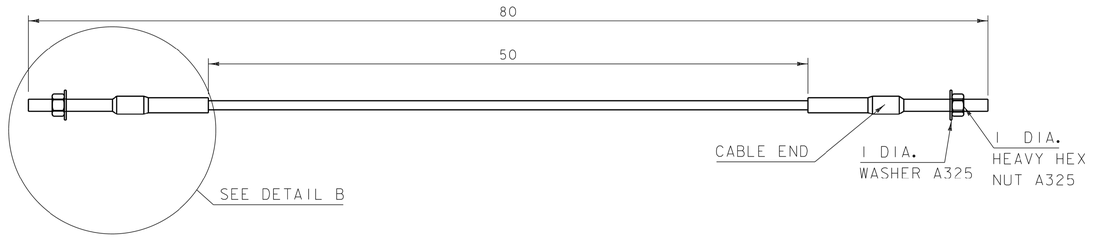
HSD-621.07D



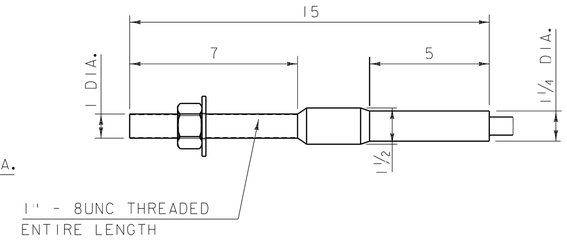
FOUNDATION TUBE



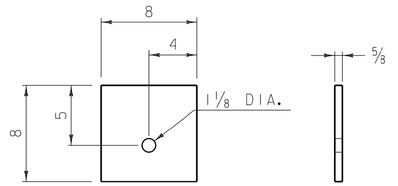
BREAKAWAY WOOD POST



BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

GENERAL NOTES

1. BCT ANCHOR CABLE IS A 3/4" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED.
2. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123.
3. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5.
4. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB.
5. WIRE ROPE IS TO BE TAUT.
6. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD-621.07C, HSD-621.07D

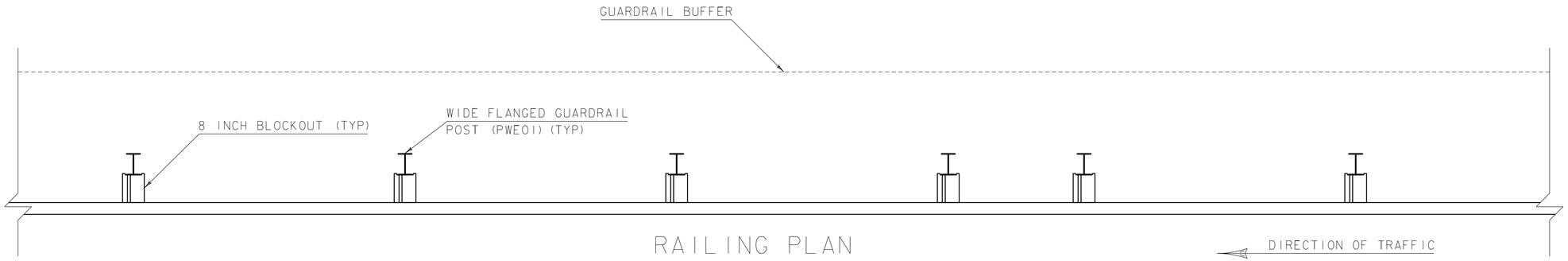
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

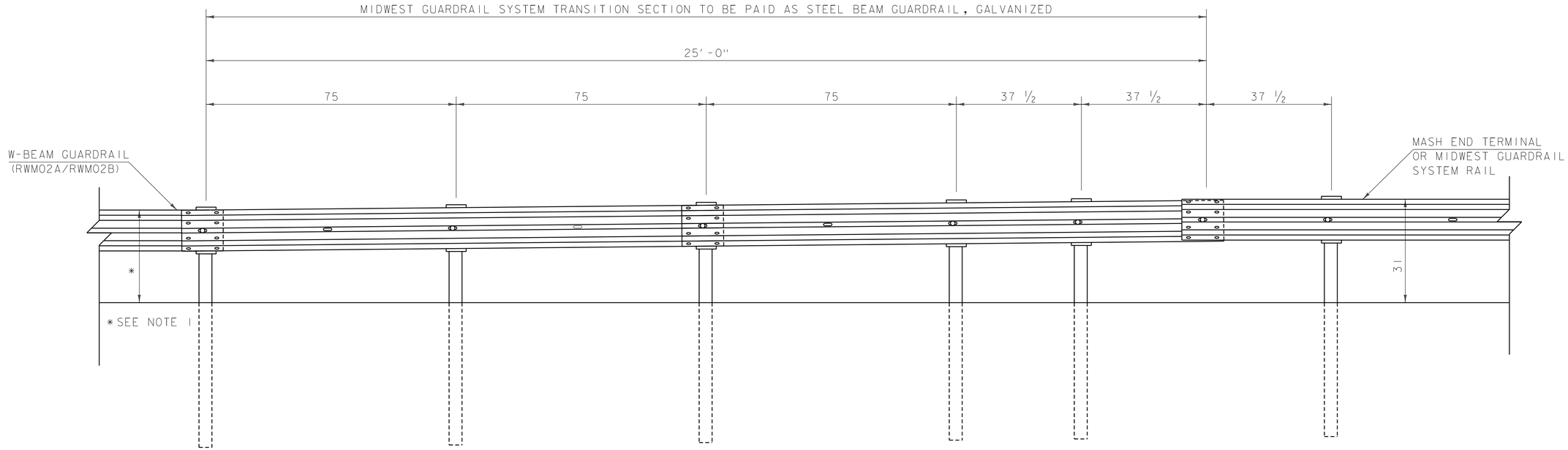
HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.07E



RAILING PLAN

DIRECTION OF TRAFFIC



RAILING ELEVATION

GENERAL NOTES

1. THE HEIGHT OF RAIL AT THE END OF THIS TRANSITION SHALL MATCH THE DESIGN FOR THE APPLICABLE GUARDRAIL SYSTEM.
2. TRANSITIONS FROM 31 INCH HIGH MIDWEST GUARDRAIL SYSTEM TO OTHER RAIL SYSTEMS SHALL BE ACCOMPLISHED WITH 2 STANDARD 12½ FOOT SECTIONS OF W-BEAM RAIL.
3. POSTS, BLOCKOUTS AND SPLICES SHALL BE IN ACCORDANCE WITH DETAILS HSD-621.07A AND HSD-621.07B AND LOCATED AS SHOWN IN THE DETAILS ABOVE.
4. STANDARD 6 FOOT POSTS SHALL BE USED UNLESS OTHERWISE NOTED ON PLANS.
5. END TERMINAL SHALL BE A VTRANS APPROVED PRODUCT MEETING MASH TESTING CRITERIA. ANY TERMINAL USED SHALL BE FROM THE VTRANS APPROVED PRODUCTS LIST.
6. ALL MEASURMENTS ARE IN INCHES UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
1	JAN. 4, 2021	CORRECTED NOTE 3 REFERENCES

OTHER DETAILS REQUIRED: HSD-621.07A, HSD-621.07B

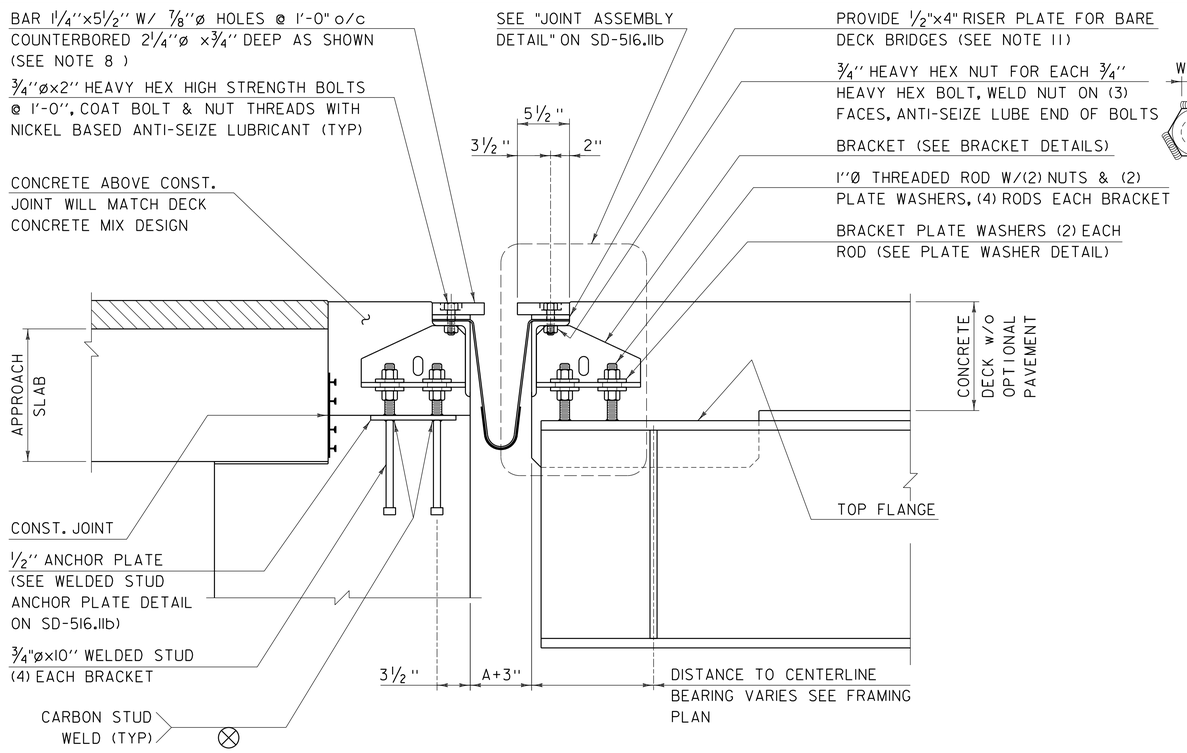
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

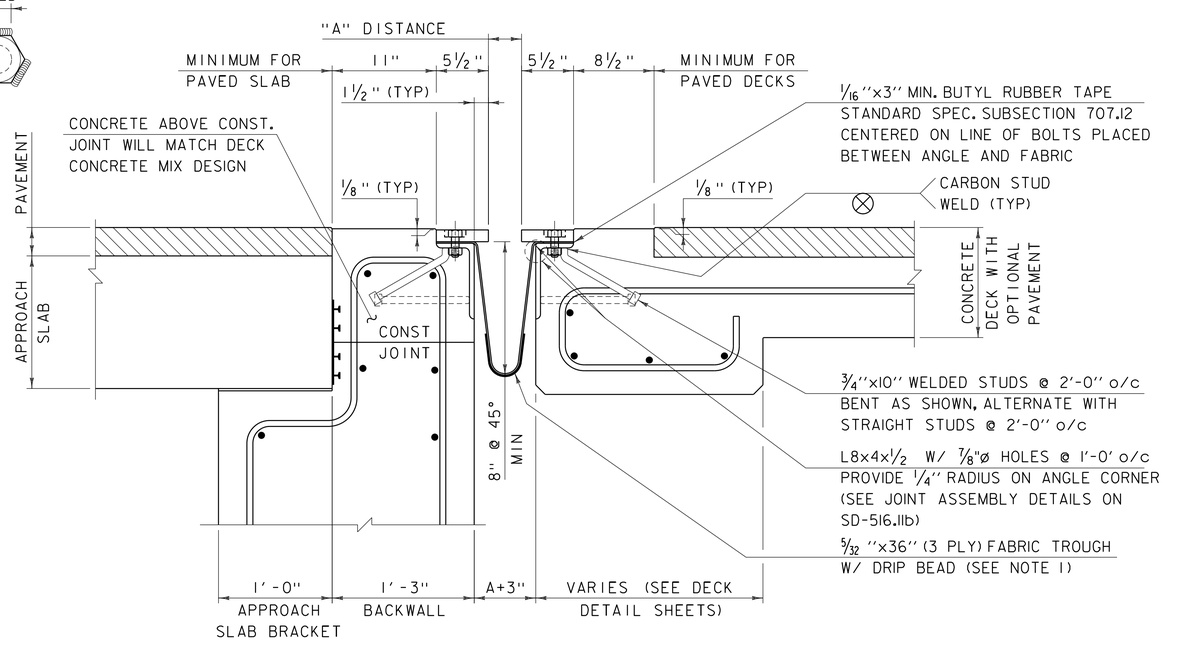
HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.07F



TYPICAL SECTION AT GIRDERS

SCALE 1½" = 1'-0"



TYPICAL SECTION BETWEEN GIRDERS

SCALE 1½" = 1'-0"

NOTES FOR ITEM 516.11 "BRIDGE EXPANSION JOINT, VERMONT"

1. FABRIC TROUGH SHALL BE THOROUGHLY CLEANED AND FLUSHED AFTER PAVING OPERATION. A DRIP BEAD OF 1/4"x7" STRIP OF PREFORMED FABRIC MATERIAL SHALL BE CEMENTED TO THE BOTTOM OF THE FABRIC TROUGH USING AN ADHESIVE APPROVED BY THE MANUFACTURER. THE DRIP BEAD SHALL BE APPLIED 1" FROM THE DOWNSPOUT END OF THE TROUGH. PREFORMED FABRIC MATERIAL SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.

2. THE EXPANSION DEVICE SHALL BE COVERED TO PROTECT THE FINISH DURING PLACING OF BRIDGE DECK CONCRETE.

3. SEE "JOINT GAP DIMENSION TABLE" FOR DISTANCE "A" VALUES IN TEMPERATURE RANGE PROVIDED.

4. JOINT BRACKET LENGTH "X" VARIES DEPENDENT ON THE BRIDGE SKEW ANGLE. THE BRACKET MUST BE LOCATED SUCH THAT THE THREADED RODS ARE NOT LESS THAN 1½" FROM GIRDERS END OR FLANGE SIDES.

5. ALL STEEL COMPONENTS SHALL BE GALVANIZED OR METALIZED AND MEET THE REQUIREMENTS OF SUBSECTION 516.02. PRIOR TO GALVANIZING OR METALIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC., SHALL BE GROUND TO A 1/16" INCH RADIUS. THREADED RODS SHALL CONFORM TO THE REQUIREMENTS OF 714.04. THE "WELDED STUD ANCHOR PLATE" AND WELDED STUDS MAY BE SUPPLIED WITHOUT GALVANIZING OR METALIZING.

6. THE 4"x8"x1/2" ANGLES MAY BE FURNISHED AS ONE CONTINUOUS PIECE OR SPLICED AS SHOWN IN THE FIELD SPLICE DETAIL WHEN SPECIFIED. THE 1¼"x5 ½" BARS EACH SIDE OF THE JOINT SHALL BE PROVIDED IN TWO EQUAL LENGTHS.

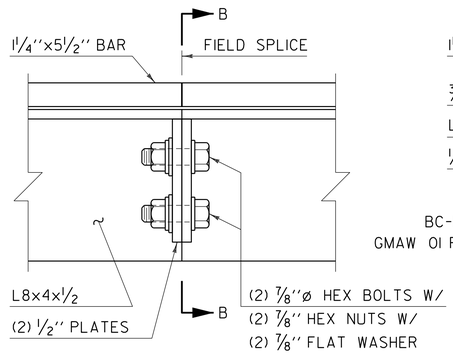
7. PROJECTING THREADS OF THE 3/4" Ø BOLTS IN THE JOINT SHALL BE GREASED BY THE CONTRACTOR PRIOR TO PLACING ADJACENT CONCRETE. THIS WILL FACILITATE BOLT REMOVAL IF REQUIRED IN THE FUTURE.

8. FILL COUNTERBORED HOLES WITH HOT POURED JOINT SEALER (STD. SPEC. 707.04) AFTER BOLT INSTALLATION. PAYMENT FOR THE WORK SHALL BE INCIDENTAL TO ITEM 516.11 "BRIDGE EXPANSION JOINT, VERMONT".

9. THE EXPANSION JOINT, INCLUDING THE FABRIC TROUGH, SHALL BE SHOP ASSEMBLED AND SHIPPED AS ONE UNIT. IF THE EXPANSION JOINT HAS A FIELD SPLICE SPECIFIED, THE FABRIC TROUGH SHALL BE SHIPPED WITH ONE UNIT AND ASSEMBLED WITH THE SECOND UNIT PRIOR TO CONCRETE PLACEMENT.

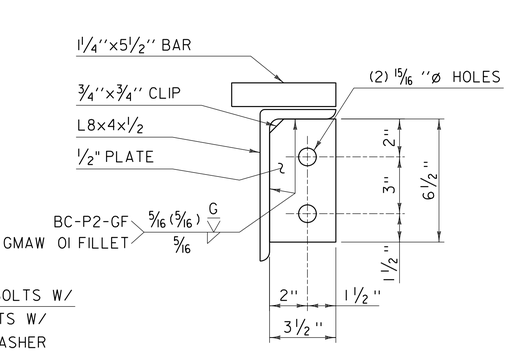
10. TEMPORARY SHIPPING ATTACHMENTS SHALL BE ATTACHED BY BOLTING; WELDING WILL NOT BE PERMITTED.

11. BARE DECK "RISER PLATE" AS SHOWN IN "TYPICAL SECTION AT GIRDERS" DRAWING SHALL BE INCLUDED ON BRIDGES WITH BARE CONCRETE DECK SPECIFIED. RISER PLATES SHALL BE INCLUDED FOR BOTH SIDES AND MATCH THE LENGTHS OF THE 1¼"x5½" BARS. THE RISER PLATE CAN BE REMOVED IF THE DECK IS MILLED IN THE FUTURE.



FIELD SPLICE DETAIL

SPLICE ONLY WHEN SPECIFIED ON PLANS.



SECTION "B-B"

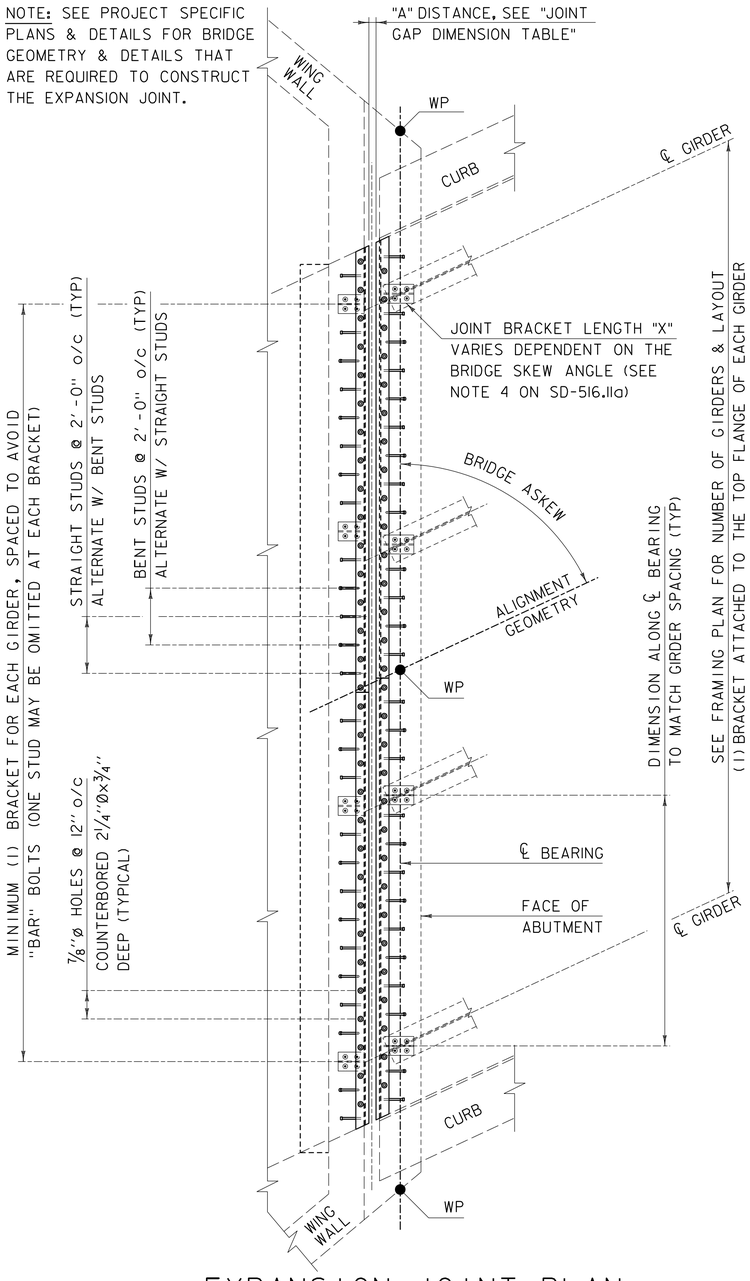
REVISIONS	
FEBRUARY 24, 2011	APPROVED FOR USE BY VAOT STRUCTURES SECTION

BRIDGE EXPANSION JOINT, VERMONT

VERMONT AGENCY OF TRANSPORTATION
STRUCTURES SECTION

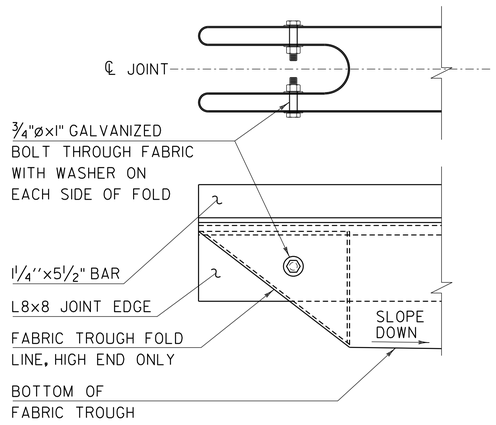
STRUCTURES DETAIL

SD-516.11a



EXPANSION JOINT PLAN

SCALE 3/8" = 1'-0"



FOLDED TROUGH END DETAIL

SCALE 1 1/2" = 1'-0"

1. TROUGH SHALL BE FOLDED AT HIGH ENDS. TROUGH SHALL SLOPE AT MIN 2% DOWN TOWARD THE NEAREST DRAINAGE SPOUT HOPPER LOCATION.
2. BOLTS, NUTS AND WASHERS FOR FOLD SHALL MEET REQUIREMENTS OF SUBSECTION 714.04 AND SHALL BE GALVANIZED.

JOINT GAP DIMENSION TABLE

Temp (°F)	"A" Distance (in) Expansion Length (ft)				
	100 - 120	>120 - 140	>140 - 160	>160 - 180	>180 - 200
0	1 5/8	1 13/16	1 7/8	1 15/16	2 1/8
15	1 1/2	1 5/8	1 11/16	1 3/4	1 7/8
30	1 5/16	1 1/2	1 1/2	1 1/2	1 5/8
45	1 3/16	1 5/16	1 5/16	1 5/16	1 7/16
60	1 1/16	1 1/8	1 1/8	1 1/16	1 3/16
75	15/16	1	15/16	7/8	15/16
90	3/4	13/16	3/4	11/16	11/16
105	5/8	11/16	9/16	7/16	1/2

1) Expansion Length: Length of span, from Expansion Joint to nearest Fixed Bearing.
2) "A" Distance: measured distance during joint placement.
3) Temp: Approximate temperature of steel during joint placement.

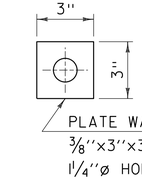
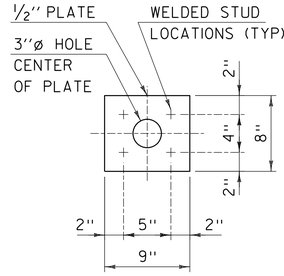


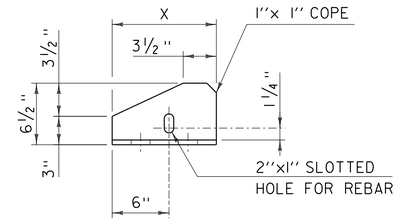
PLATE WASHER DETAIL

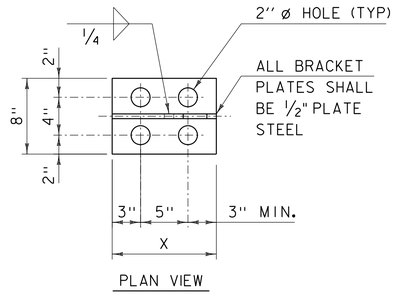
SCALE 3" = 1'-0"



WELDED STUD ANCHOR PLATE DETAIL

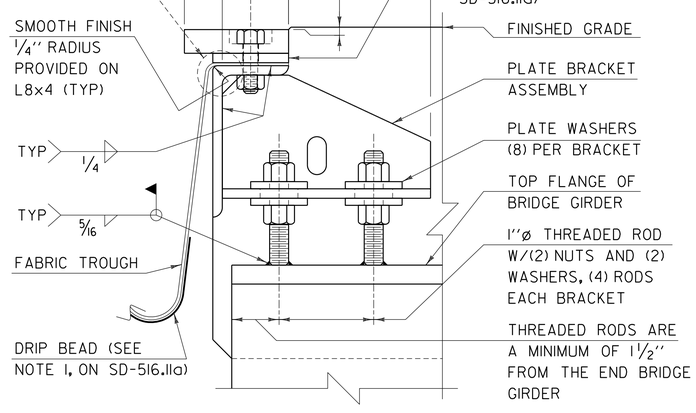
SCALE 1 1/2" = 1'-0"





BRACKET DETAILS

SCALE 1 1/2" = 1'-0"



JOINT ASSEMBLY DETAIL

SCALE 3" = 1'-0"

REVISIONS	
FEBRUARY 24, 2011	APPROVED FOR USE BY VAOT STRUCTURES SECTION

BRIDGE EXPANSION JOINT, VERMONT

VERMONT AGENCY OF TRANSPORTATION ★ STRUCTURES - SECTION ★

STRUCTURES DETAIL

SD-516.11b