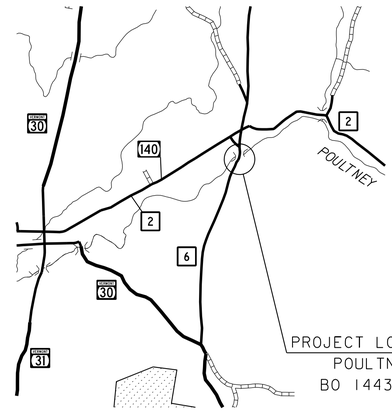
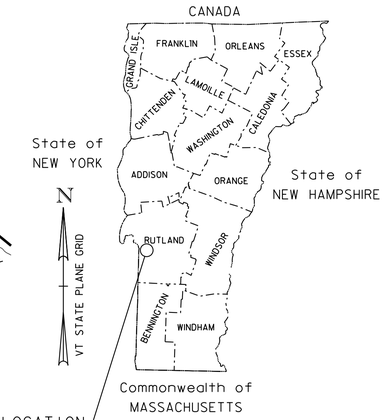
STATE OF VERMONT
AGENCY OF TRANSPORTATION



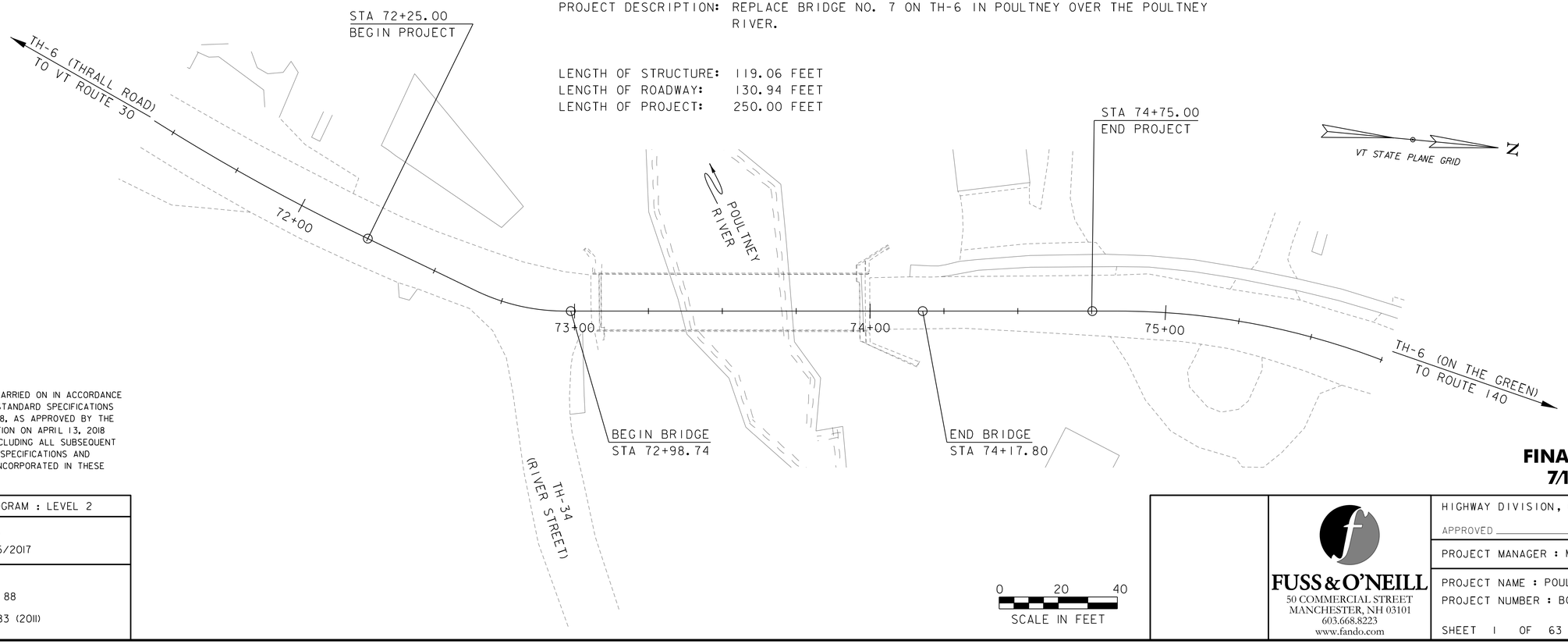


PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF POULTNEY
COUNTY OF RUTLAND
TOWN HIGHWAY 6 (CLASS 2) - BRIDGE NO.7

PROJECT LOCATION: BEGINNING IN THE TOWN OF POULTNEY 60 FEET SOUTH OF THE INTERSECTION OF TH-6 (THRALL ROAD) AND TH-34 (RIVER STREET), APPROXIMATELY 1.37 MILES NORTH OF THE INTERSECTION OF TH-6 AND VT ROUTE 30, AND EXTENDING 250 FEET NORTH TO THE END.

PROJECT DESCRIPTION: REPLACE BRIDGE NO. 7 ON TH-6 IN POULTNEY OVER THE POULTNEY RIVER.

LENGTH OF STRUCTURE: 119.06 FEET
LENGTH OF ROADWAY: 130.94 FEET
LENGTH OF PROJECT: 250.00 FEET



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.

FINAL PLANS
7/14/2021

QUALITY ASSURANCE PROGRAM : LEVEL 2
SURVEYED BY : VTRANS SURVEYED DATE : 10/25/2017
DATUM VERTICAL NAVD 88 HORIZONTAL NAD 83 (2011)

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NH 03101
603.668.8223
www.fando.com

HIGHWAY DIVISION, CHIEF ENGINEER

APPROVED _____ DATE _____

PROJECT MANAGER : MAHENDRA THILLIYAR, P.E.

PROJECT NAME : POULTNEY
PROJECT NUMBER : BO 1443(53)

SHEET 1 OF 63 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE)

Version
LRFD

INDEX OF SHEETS

PLAN SHEETS

STANDARDS LIST

B-5	SLOPE GRADING, EMBANKMENTS, MUCK	06-01-1994
B-71a	STANDARD FOR RESIDENTIAL DRIVES	04-07-2020
C-3A	SIDEWALK RAMPS	04-07-2020
C-10	CURBING	02-11-2008
D-11	STEEL OR IRON GRATES & COVERS (TYPE A)	06-01-1994
D-15	PRECAST REINF CONC. MH-GRATES, CAST IRON GRATE WITH FRAME, TYPE D & E	06-01-1994
E-15	SILT FENCE	04-07-2020
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	08-08-1995
E-191	PAVEMENT MARKING DETAILS	02-01-1999
E-193	PAVEMENT MARKING DETAILS	08-18-1995
G-1D	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	03-10-2017
G-19	GENERIC GRADING PLANS FOR GUARDRAIL END TERMINALS	10-02-2018
J-3	MAIL BOX SUPPORT DETAILS	08-07-1995
S-400	BRIDGE JOINT ASPHALTIC PLUG	04-07-2020
S-500	CONCRETE DETAILS AND NOTES	04-07-2020
S-501	CONCRETE DETAILS AND NOTES	04-07-2020
S-600	STRUCTURAL DETAILS AND NOTES	04-07-2020
S-601	STRUCTURAL STEEL PLATE GIRDER DETAILS AND NOTES	04-07-2020
T-1	TRAFFIC CONTROL GENERAL NOTES	04-25-2016
T-2	TRAFFIC SIGN GENERAL NOTES	04-07-2020
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08-06-2012
T-17	TRAFFIC CONTROL MISCELLANEOUS DETAILS	08-06-2012
T-28	CONSTRUCTION SIGN DETAILS	08-06-2012
T-29	CONSTRUCTION SIGN DETAILS	08-06-2012
T-30	CONSTRUCTION SIGN DETAILS	08-06-2012
T-35	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS	08-06-2012
T-36	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING	08-06-2012
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-2013
T-56	STANDARD SIGN PLACEMENT	10-26-2015

DETAIL SHEETS

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 621.07A	MIDWEST GUARDRAIL SYSTEM (MGS)	1/4/2021
HSD 621.07B	W-BEAM GUARDRAIL COMPONENTS	4/17/2019

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2021	570	90	63	8.7	50
2041	620	95	63	10.9	70

20 year ESAL for flexible pavement from 2021 to 2041 : 140000

40 year ESAL for flexible pavement from 2021 to 2061 : 287000

Design Speed : 25 mph

AS BUILT "REBAR" DETAIL

LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: 12/10/2020

DRAINAGE AREA : 44.5 square miles
CHARACTER OF TERRAIN : Hilly to mountainous, forested with wetlands and open areas
STREAM CHARACTERISTICS : Meandering to sinuous with floodplain access upstream
NATURE OF STREAMBED : gravel, cobbles, exposed ledge

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

43% =	1,600 cfs	2% =	4,400 cfs
10% =	2,800 cfs	1% =	5,200 cfs
4% =	3,700 cfs	0.2% =	7,400 cfs

DATE OF FLOOD OF RECORD : Unknown
ESTIMATED DISCHARGE: Unknown
WATER SURFACE ELEV.: Unknown
NATURAL STREAM VELOCITY : @ 4% AEP = 9.4
ICE CONDITIONS : Unknown
DEBRIS: Moderate
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? No
IS ORDINARY RISE RAPID? Unknown
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
IF YES, DESCRIBE:

WATERSHED STORAGE: 2%
HEADWATERS:
UNIFORM: X
IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Single Span Steel Pony Truss
YEAR BUILT: 1925, Reconstructed in 1968
CLEAR SPAN(NORMAL TO STREAM): 87.5 feet
VERTICAL CLEARANCE ABOVE STREAMBED: 42.1 feet
WATERWAY OF FULL OPENING: 2,743.3 square feet
DISPOSITION OF STRUCTURE: Full replacement
TYPE OF MATERIAL UNDER SUBSTRUCTURE: Exposed ledge

WATER SURFACE ELEVATIONS AT:

43% AEP =	482.6 feet	VELOCITY =	6.8 fps
10% AEP =	485.0 feet	"	8.3 fps
4% AEP =	486.2 feet	"	9.4 fps
2% AEP =	486.9 feet	"	10.3 fps
1% AEP =	487.7 feet	"	11.3 fps

LONG TERM STREAMBED CHANGES: Unknown

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: N/A
RELIEF ELEVATION: N/A
DISCHARGE OVER ROAD @ 1% AEP: N/A

UPSTREAM STRUCTURE

TOWN: Poultney
HIGHWAY # : Private road
CLEAR SPAN: Unknown
YEAR BUILT: Unknown
STRUCTURE TYPE: Unknown
DISTANCE: 1.1 miles
STRUCTURE #: Unknown
CLEAR HEIGHT: Unknown
FULL WATERWAY: Unknown

DOWNSTRUCTURE STRUCTURE

TOWN: Poultney
HIGHWAY # : VT-30
CLEAR SPAN: 70 feet
YEAR BUILT: 1939 (reconstructed in 1968)
STRUCTURE TYPE: 2 span rolled beam
DISTANCE: 1.7 miles
STRUCTURE #: 87
CLEAR HEIGHT: Unknown
FULL WATERWAY: Unknown

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							
POSTING							
OPERATING							
COMMENTS:	TABLE TO BE COMPLETED BY CONTRACTOR'S DESIGNER						

FUSS & O'NEILL

PROPOSED STRUCTURE

STRUCTURE TYPE: Single Span Steel Pony Truss

CLEAR SPAN(NORMAL TO STREAM): 115 feet
VERTICAL CLEARANCE ABOVE STREAMBED: 42 feet
WATERWAY OF FULL OPENING: 2,978.7 square feet

WATER SURFACE ELEVATIONS AT:

43% AEP =	482.6 feet	VELOCITY=	6.8 fps
10% AEP =	485.0 feet	"	8.3 fps
4% AEP =	486.2 feet	"	9.4 fps
2% AEP =	486.9 feet	"	10.3 fps
1% AEP =	487.7 feet	"	11.3 fps

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: N/A
RELIEF ELEVATION: N/A
DISCHARGE OVER ROAD @ 1% AEP: N/A

BRIDGE LOW CHORD ELEVATION: 497.8 feet
FREEBOARD: @ 4% AEP 11.6 feet

SCOUR: Proposed abutment foundations will be spread footings on ledge

REQUIRED CHANNEL PROTECTION: Stone Fill Type IV

PERMIT INFORMATION

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

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: N/A
CLEAR SPAN (NORMAL TO STREAM): N/A
VERTICAL CLEARANCE ABOVE STREAMBED: N/A
WATERWAY AREA OF FULL OPENING: N/A

ADDITIONAL INFORMATION

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN TRAFFIC ON AN OFF SITE DETOUR.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. SIDEWALKS ARE NOT NECESSARY

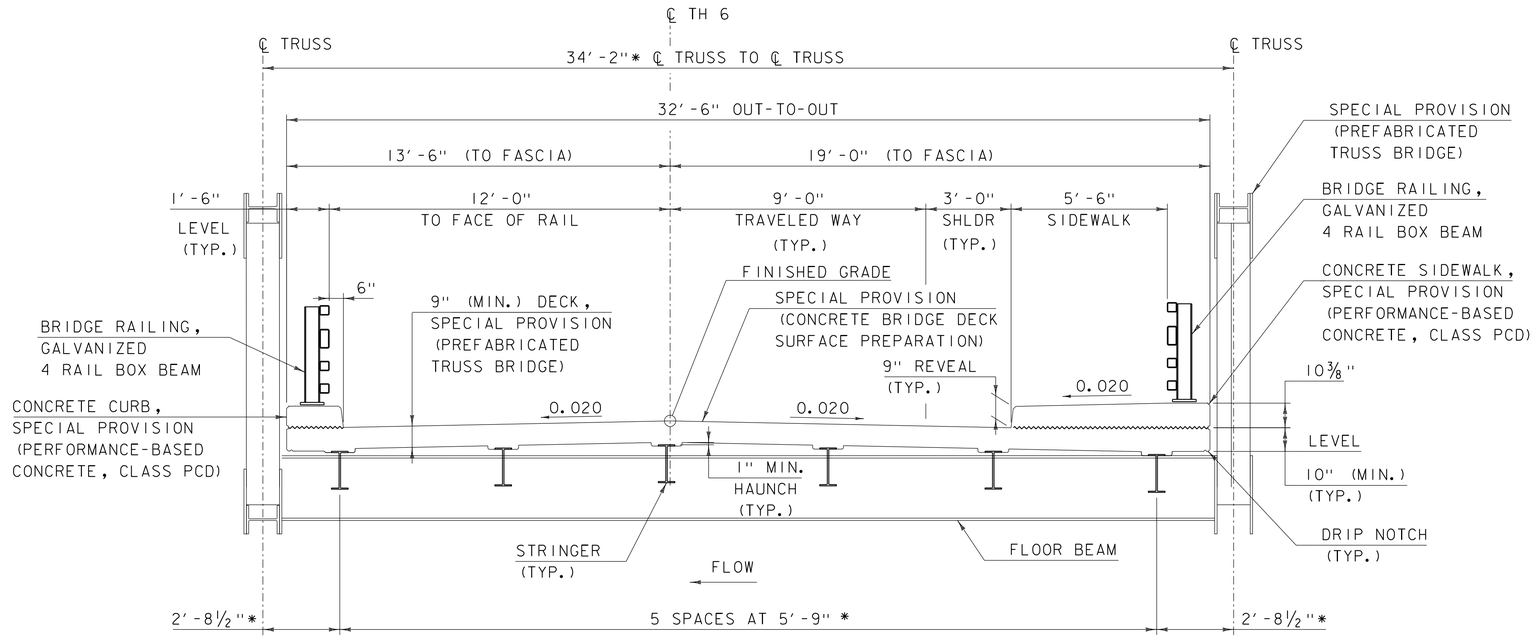
DESIGN VALUES

1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_p:	2.5 INCH
3. DESIGN SPAN	L:	115.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	- - -
5. PRESTRESSING STRAND	f_y:	- - -
6. PRESTRESSED CONCRETE STRENGTH	f'_c:	- - -
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	- - -
8. SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD)	f'_c:	4.0 KSI
9. SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)	f'_c:	3.5 KSI
10. SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS SCC)	f'_c:	4.0 KSI
11. CONCRETE, CLASS C	f'_c:	3.0 KSI
12. REINFORCING STEEL	f_y:	60 KSI
13. STRUCTURAL STEEL AASHTO M270	f_y:	50 KSI
14. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	- - -
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	- - -
16. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	33.0 KSF
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	0.42
18. PILE RESISTANCE FACTOR	ϕ:	- - -
19. LATERAL PILE DEFLECTION	Δ:	- - -
20. BASIC WIND SPEED	V_{3s}:	- - -
21. MINIMUM GROUND SNOW LOAD	p_g:	- - -
22. SEISMIC DATA PGA: 8 %g	S_s:	17 %g
	S_1:	5 %g
23.		
24.		- - -
25.		- - -
26.		- - -

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180pi.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
PRELIMINARY INFORMATION SHEET

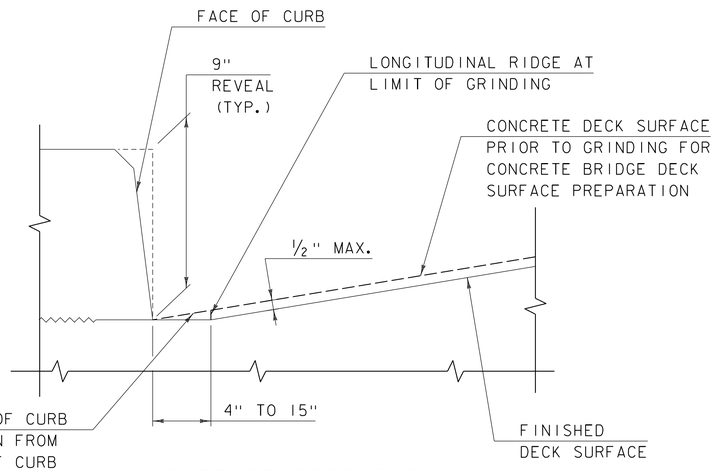
PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 2 OF 63



TYPICAL BRIDGE SECTION

SCALE: 3/8" = 1′-0"

* ASSUMED DIMENSION FOR DESIGN. ACTUAL WIDTH TO BE DETERMINED BY THE CONTRACTOR.



SURFACE PREPARATION AT CURB DETAIL

(LEFT CURB SHOWN, RIGHT CURB SIMILAR)
SCALE: 3" = 1′-0"

NOTE: SEE S-501 FOR DRIP NOTCH DETAIL AND S-600 FOR GIRDER HAUNCH DETAIL.

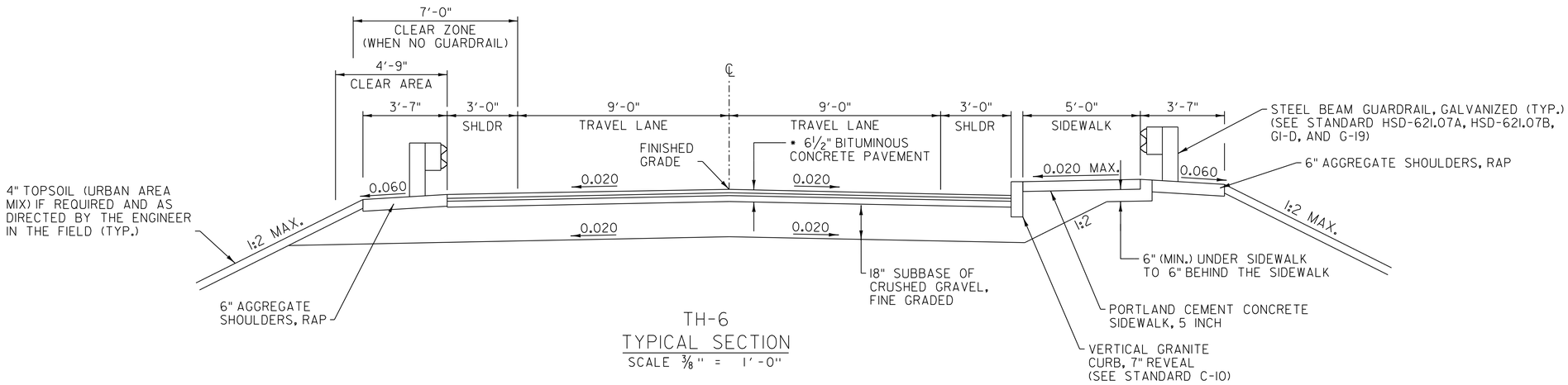
FUSS&O'NEILL

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)

FILE NAME: z16j180sup.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
TYPICAL BRIDGE SECTION	SHEET 3 OF 63

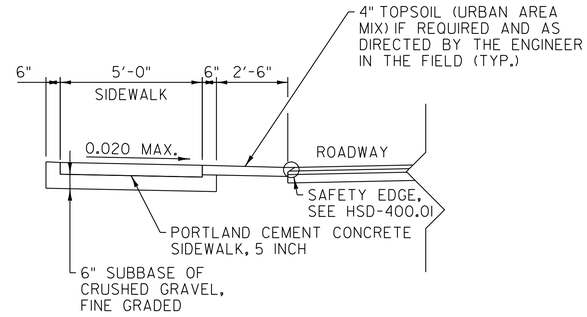
MATERIAL TOLERANCES
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"



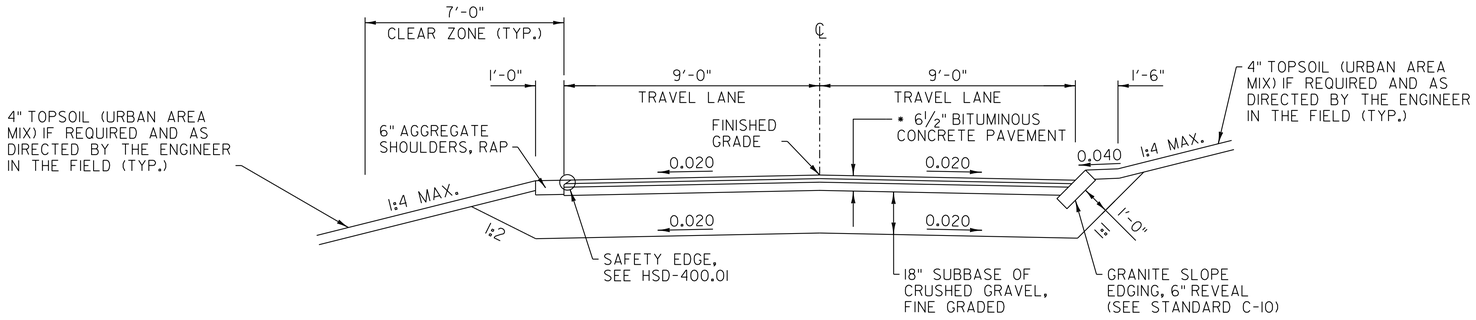
TH-6
TYPICAL SECTION
SCALE 3/8" = 1'-0"

* 1½" SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) (TYPE IVS), OVER
1½" SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) (TYPE IVS), OVER
3½" SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) (TYPE IIS)



SIDEWALK WITH GRASS STRIP
SCALE 3/8" = 1'-0"

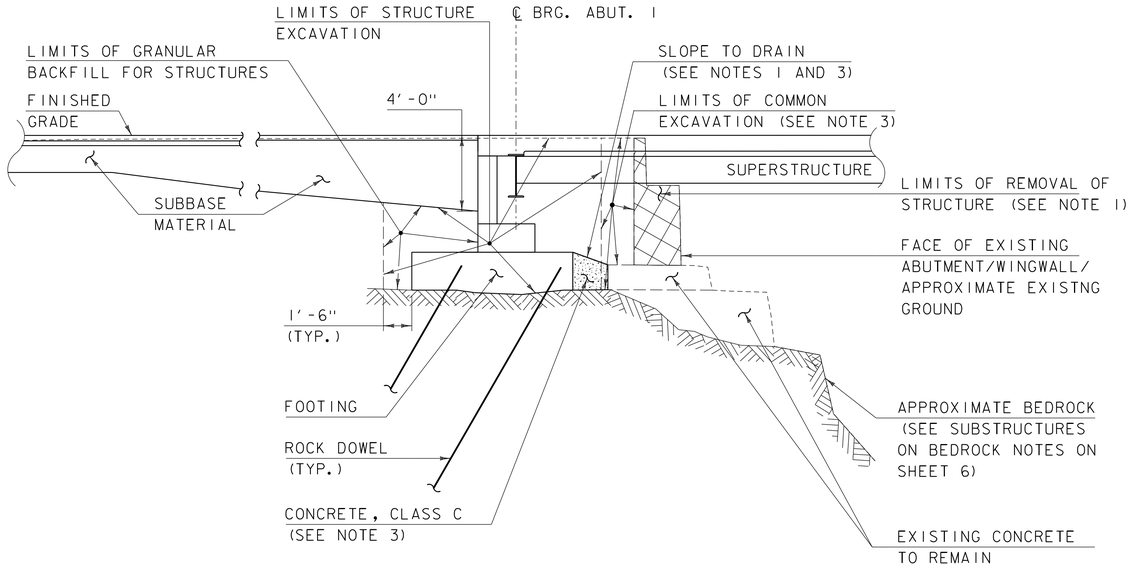
STA. 74+77.5 TO 75+00.0 LT



TH-34 (RIVER STREET)
TYPICAL SECTION
SCALE 3/8" = 1'-0"

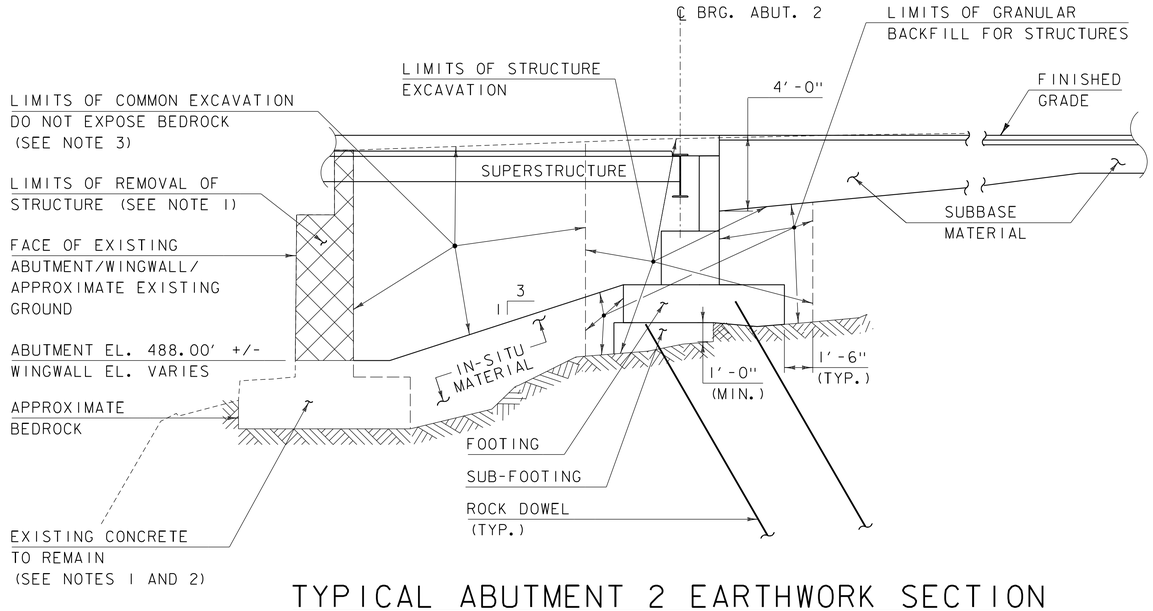
FUSS & O'NEILL

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: 16J180/s16J180typical.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
TYPICAL ROADWAY SECTIONS SHEET	SHEET 4 OF 63



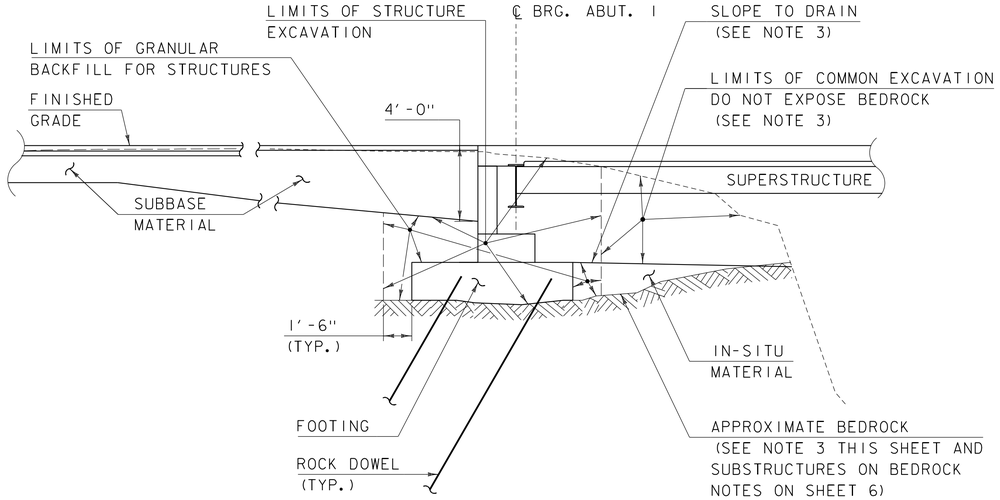
TYPICAL ABUTMENT 1 EARTHWORK SECTION (AT EXISTING ABUTMENT)

NOT TO SCALE



TYPICAL ABUTMENT 2 EARTHWORK SECTION

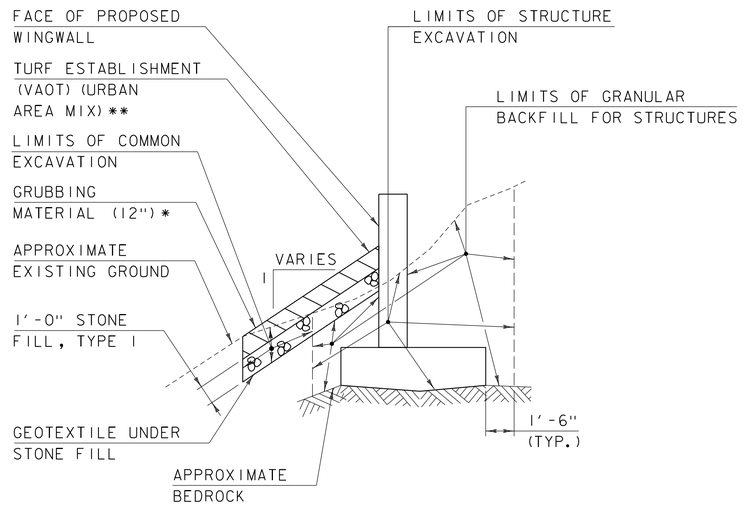
NOT TO SCALE



TYPICAL ABUTMENT 1 EARTHWORK SECTION

NOT TO SCALE

NOTE: EXCAVATE AND PLACE STONE FILL TO DEPTHS SHOWN UNLESS BEDROCK IS ENCOUNTERED ABOVE STONE FILL DEPTH. IN THIS CASE, PLACE STONE FILL TO BEDROCK SURFACE.



TYPICAL WINGWALL EARTHWORK SECTION

NOT TO SCALE

* WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT BOTTOM OF SUBBASE.

** TURF ESTABLISHMENT SHALL BE PLACED IN AREAS NOT DIRECTLY UNDER THE BRIDGE. THE TURF ESTABLISHMENT IN THESE AREAS SHALL FOLLOW THE VAOT URBAN AREA MIX. THE TURF ESTABLISHMENT SHALL INCLUDE ITEM 651.15, "SEED", ITEM 651.18, "FERTILIZER", AND ITEM 651.20, "AGRICULTURAL LIME STONE".

NOTES:

1. IF THE TOP OF THE EXISTING FOOTING IS HIGHER THAN THE TOP OF THE PROPOSED FOOTING, PORTIONS OF THE TOP OF THE EXISTING FOOTING SHALL BE REMOVED TO ACCOMMODATE DRAINAGE FROM THE TOE OF THE PROPOSED FOOTING. ONLY THE PORTIONS NECESSARY TO ACCOMMODATE DRAINAGE SHALL BE REMOVED TO ENSURE THE TOP OF BEDROCK IS NOT EXPOSED.

2. ANY EXPOSED REINFORCEMENT IN THE EXISTING CONCRETE FOOTINGS/STEM TO REMAIN IN PLACE SHALL BE CUT FLUSH TO SURFACE OF THE CONCRETE TO REMAIN.

3. THE CONTRACTOR SHALL NOT DISTURB OR EXCAVATE BEYOND WHAT IS REQUIRED TO CONSTRUCT THE ABUTMENT FOOTINGS/SUB-FOOTINGS AND ACCOMMODATE SURFACE DRAINAGE IN FRONT OF THE ABUTMENT TO PREVENT EXPOSURE OF THE EXISTING BEDROCK. IF BEDROCK IS EXPOSED AND/OR REQUIRED TO BE REMOVED TO ACCOMMODATE DRAINAGE, THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY TO PROVIDE GUIDANCE REGARDING PROTECTION OF THE EXPOSED BEDROCK FROM SEEPAGE THAT WOULD BE DETRIMENTAL TO ROCK SLOPE STABILITY. THE RESIDENT ENGINEER SHALL MAKE A DETERMINATION ON THE FINAL COURSE OF ACTION.

FUSS&O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
TYPICAL EARTHWORK SECTIONS

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT

GENERAL

1. ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2018, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2020, AND ITS LATEST REVISIONS.

2. THE CONTRACTOR SHALL BE MADE AWARE THAT EXISTING UTILITIES ARE WITHIN THE CONSTRUCTION LIMITS OF BRIDGE 7. THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. NO CLAIMS ARE MADE AS TO THE ACCURACY OR COMPLETENESS OF THE UTILITIES SHOWN.

3. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN OF POULTNEY TO SALVAGE THE EXISTING FLASHING BEACONS.

4. ANY REQUIRED SAWCUT OF EXISTING PAVEMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.680, "SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) (TYPE IVS)".

5. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION DRAWINGS IN ACCORDANCE WITH SECTION 105 FOR THE METHODS AND SEQUENCE OF THE DEMOLITION OF THE EXISTING BRIDGE. DRAWINGS SHALL IDENTIFY LOCATIONS OF CRANES AND OTHER LARGE EQUIPMENT, AS WELL AS TRUCK LOADING AND ACCESS POINTS. PAYMENT FOR PREPARATION OF THE DEMOLITION PLAN WILL BE CONSIDERED INCIDENTAL TO ITEM 529.15, "REMOVAL OF STRUCTURE".

EARTHWORK AND RELATED ITEMS

6. ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED FOR THE REMOVAL OF THE EXISTING SUPERSTRUCTURE IN ITS ENTIRETY, THE REMOVAL OF THE EXISTING ABUTMENTS AND WINGWALLS OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION, AND THE REMOVAL OF THE EXISTING STONE RETAINING WALL EXTENDING OFF THE EXISTING SOUTHWEST WINGWALL. THE ABUTMENT AND WINGWALL STEMS OUTSIDE OF THE STRUCTURE EXCAVATION LIMITS SHALL BE REMOVED TO THE LIMITS SHOWN ON THE EARTHWORK SECTIONS. ANY REINFORCING SHALL BE CUT FLUSH TO THE REMAINING FOOTING. ONLY THE PORTION OF THE RETAINING WALL WITHIN THE LIMITS OF PROPOSED STONE FILL, TYPE I SHALL BE REMOVED. THE REMAINING LENGTH OF RETAINING WALL SHALL BE RETAINED.

7. THE LIMITS OF SUBSTRUCTURE REMOVAL SHOWN ARE APPROXIMATE AND SHALL BE BASED ON PROVIDING A SLOPE IN FRONT OF THE PROPOSED ABUTMENTS AND WINGWALLS TO ACCOMMODATE SURFACE DRAINAGE. ACTUAL LIMITS SHALL BE DETERMINED BY THE CONTRACTOR. THE EXISTING ABUTMENT 2 REMOVAL ELEVATION SHOWN ON THE TYPICAL ABUTMENT 2 EARTHWORK SECTION WAS ASSUMED FOR THE DEVELOPMENT OF QUANTITIES.

SUBSTRUCTURES ON BEDROCK

8. THE FOOTING/SUB-FOOTING FOR EACH ABUTMENT AND WINGWALL WILL BE FOUNDED ON BEDROCK AND SHALL BE PLACED ON CLEAN COMPETENT ROCK FREE OF LOOSE ROCK AND DEBRIS.

9. THE BEDROCK SHOWN IN THE PLANS IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS BUT AN EXAMPLE OF HOW THE FOUNDATIONS CAN BE CONSTRUCTED ON BEDROCK. THE CONTRACTOR WILL BE RESPONSIBLE FOR ESTABLISHING ACTUAL ELEVATIONS.

10. UPON COMPLETION OF EXCAVATION FOR SUBSTRUCTURES FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE ENGINEER SHALL NOTIFY THE PROJECT MANAGER AND THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER WILL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE REQUIRED NOMINAL BEARING RESISTANCE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO WHEN THE ANALYSIS WILL BE NEEDED.

11. BEDROCK SHALL BE EXCAVATED DOWN (IF NECESSARY) TO ALLOW FOR THE INDICATED SUB-FOOTING TO BE POURED USING "CONCRETE, CLASS C" TO A MINIMUM THICKNESS OF 1'-0".

SUBSTRUCTURES ON BEDROCK (CONT.)

12. THE SUBSTRUCTURES HAVE BEEN DESIGNED FOR THE FOOTING ELEVATIONS SHOWN ON THE PLANS. THE INTENTION IS TO USE SUB-FOOTINGS OF "CONCRETE, CLASS C" IN AREAS WHERE THE LEDGE IS MORE THAN 2 FOOT BELOW THE DESIGN BOTTOM OF FOOTING ELEVATIONS. AFTER THE BEDROCK HAS BEEN EXPOSED, ADJUSTMENTS TO THE BOTTOM OF FOOTING ELEVATIONS MAY BE NECESSARY TO MINIMIZE THE BEDROCK REMOVE AND/OR REDUCE THE AMOUNT OF SUB-FOOTING CONCRETE. CONTACT THE PROJECT MANAGER FOR POSSIBLE REDESIGN IF THE BEDROCK PROFILES DIFFER FROM THOSE SHOWN ON THE PLANS. NO FURTHER WORK SHALL BE DONE ON THE SUB-FOOTINGS UNTIL A REPLY IS RECEIVED FROM THE PROJECT MANAGER. A TURN-AROUND TIME OF UP TO FIVE BUSINESS DAYS MAY BE EXPECTED.

13. ANY BEDROCK THAT NEEDS TO BE REMOVED, ACCORDING TO THE ENGINEER OR THE GEOTECHNICAL ENGINEER, WILL BE PAID FOR WITH THE CORRESPONDING EXCAVATION ITEM INCLUDED IN THE CONTRACT. OVERBREAK EXCEEDING THE AVERAGE MAXIMUM ALLOWANCE SPECIFIED IN SUBSECTION 204.06(B)(1) WILL BE AT THE CONTRACTOR'S EXPENSE. ALL OVERBREAK SHALL BE REPLACED WITH "CONCRETE, CLASS C" AT THE CONTRACTOR'S EXPENSE.

14. DOWELS SHALL BE DRILLED AND GROUTED INTO THE BEDROCK AS SHOWN ON THE PLANS. THE DOWELS SHALL HAVE A 2-FOOT MINIMUM EMBEDMENT INTO BEDROCK. DRILLING AND GROUTING OF DOWELS SHALL BE PAID FOR UNDER ITEM 507.16, "DRILLING AND GROUTING DOWELS".

15. ANY EXPOSED SUB-FOOTING FACES EXCEEDING 5 FEET IN HEIGHT SHALL BE REINFORCED WITH #5 REINFORCING STEEL BARS SPACED AT 12 INCHES EACH WAY. AN ESTIMATED QUANTITY FOR THESE BARS HAS BEEN INCLUDED IN ITEM 507.11, "REINFORCING STEEL, LEVEL I".

16. A SUB-FOOTING HAS BEEN DETAILED AT THE EAST END OF ABUTMENT 2 BASED ON LIMITED FIELD EXPLORATIONS. AN ESTIMATED QUANTITY FOR THE SUBFOOTING CONCRETE HAS BEEN INCLUDED IN ITEM 541.30, "CONCRETE, CLASS C".

CONCRETE

17. CONCRETE USED FOR THE BRIDGE SIDEWALK AND BRIDGE CURBS SHALL BE SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD) AND SHALL BE PAID FOR UNDER CONTRACT ITEM 900.608. CONCRETE USED FOR ABUTMENTS, WINGWALLS, AND FOOTINGS SHALL BE SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS) AND SHALL BE PAID FOR UNDER CONTRACT ITEM 900.608. CONCRETE USED FOR SUB-FOOTINGS SHALL BE CONCRETE, CLASS C AND SHALL BE PAID FOR UNDER CONTRACT ITEM 541.30.

18. WATER REPELLENT, SILANE, SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.

19. ALL REINFORCING STEEL IN THE DECK, SIDEWALK, CURB, AND ABUTMENT BACKWALL SHALL BE LEVEL II. REINFORCEMENT IN THE ABUTMENTS BELOW THE BEAM SEAT, WINGWALLS, AND FOOTINGS SHALL BE LEVEL I.

20. THE BOND BREAKER BETWEEN THE CAST-IN PLACE CONCRETE DECK AND CONCRETE SUBSTRUCTURE WILL BE CONSIDERED INCIDENTAL TO ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE CLASS PCS)".

PONY TRUSS SUPERSTRUCTURE

21. THE PROJECT SHALL UTILIZE A PREFABRICATED STEEL PONY TRUSS. THE PONY TRUSS SHALL GENERALLY MATCH THE APPEARANCE AND CONFIGURATION OF THE EXISTING PONY TRUSS, AS SHOWN ON THE BRIDGE ELEVATION ON SHEET 30. PAYMENT SHALL BE PAID FOR UNDER ITEM 900.645, "SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE)". SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

22. ALL STEEL SHALL BE GALVANIZED AND TRUSS MEMBERS SHALL BE PAINTED WITH THE COLOR GREEN (CHIP NUMBER 14062 PER SUBSECTION 708.03). COST SHALL BE INCLUDED UNDER ITEM 900.645, "SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE)".

SUBSTRUCTURE DESIGN

23. THE ABUTMENTS WERE DESIGNED ASSUMING THE FOLLOWING UNFACTORED REACTIONS FROM THE SUPERSTRUCTURE AT EACH ABUTMENT:

    VERTICAL DEAD LOAD REACTION = 454 KIPS
    VERTICAL LIVE LOAD REACTION = 239 KIPS

    IF THE ACTUAL UNFACTORED REACTIONS ARE GREATER THAN THE REACTIONS NOTED ABOVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ABUTMENTS AS SHOWN ON THE CONTRACT PLANS CAN ACCOMMODATE THE ADDITIONAL LOAD. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAKING ANY CHANGES REQUIRED TO THE ABUTMENT GEOMETRY, INCLUDING PEDESTAL AND BACKWALL ELEVATIONS, TO ACCOMMODATE THE ACTUAL TRUSS GEOMETRY. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

MISCELLANEOUS

24. THE CONSTRUCTION OF ABUTMENT 1, INCLUDING POSSIBLE BEDROCK REMOVAL AND INSTALLATION OF DRAINAGE STRUCTURES, OCCURS IN CLOSE PROXIMITY TO A HISTORIC STRUCTURE WITH STACKED SLATE FOUNDATION AT THE SOUTHWEST CORNER OF THE BRIDGE. VIBRATION MONITORING SHALL BE REQUIRED AND PAID FOR UNDER ITEM 900.645, "SPECIAL PROVISION (CONSTRUCTION VIBRATION AND CRACK MONITORING)".

25. THE CONTRACTOR SHALL REMOVE THE LOOSE ROCK AND DEBRIS FROM THE PROPERTY AT STA. 73+00 LT. THE LOOSE ROCK IS LOCATED ON A STAIRWAY ACCESS WITH LIMITED ACCESS. REMOVAL WILL REQUIRE THE USE OF HAND EQUIPMENT. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER AND PROPERTY OWNER AS NEEDED TO COMPLETE THIS WORK. REMOVAL SHALL BE PAID FOR UNDER ITEM 203.16, "SOLID ROCK EXCAVATION".

26. SEVERAL WELLS ARE ADJACENT TO THE PROJECT SITE AND WILL REQUIRE VTRANS TO MONITOR THEM DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO ACCOMMODATE WELL MONITORING.

TRAFFIC CONTROL

27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE PLAN SHALL CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. THE PLAN SHALL SPECIFY ALL CONSTRUCTION ACTIVITIES REQUIRING ALTERNATING ONE WAY TRAFFIC, RELATE THOSE ACTIVITIES TO THE CONSTRUCTION SCHEDULE, AND SHOW APPROPRIATE TEMPORARY TRAFFIC CONTROL. ALL COSTS SHALL BE PAID FOR UNDER ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE".

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180notes.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
GENERAL NOTES SHEET

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 6 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	TOTALS GRAND TOTAL	TOTALS FINAL	UNIT	DESCRIPTIONS ITEMS	ITEM NUMBER	ROUND
1				1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-
450		180		630		CY	COMMON EXCAVATION	203.15	11.14
10				10		CY	SOLID ROCK EXCAVATION	203.16	-
1				1		CY	EARTH BORROW	203.30	-
10				10		CY	TRENCH EXCAVATION OF EARTH	204.20	3.2
160				160		CY	TRENCH EXCAVATION OF ROCK	204.21	6.3
1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-
		395		395		CY	STRUCTURE EXCAVATION	204.25	7.7
20		115		135		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	9.5
180				180		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10	12
280				280		CY	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.26	11.6
65				65		TON	AGGREGATE SHOULDERS RAP	402.12	3.4
2				2		CWT	EMULSIFIED ASPHALT	404.65	0.1
130				130		SY	HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES	406.38	5
1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
		9142		9142		LB	REINFORCING STEEL, LEVEL I (BLACK)	507.11	1.3
		6275		6275		LB	REINFORCING STEEL, LEVEL II	507.12	0.8
		21		21		GAL	WATER REPELLENT, SILANE	514.10	1.1
		33		33		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	-
		238		238		LF	BRIDGE RAILING, GALVANIZED 4 RAIL BOX BEAM	525.34	-
		1		1		EACH	REMOVAL OF STRUCTURE (2090 SQ. FT. - EST.)	529.15	-
		15		15		CY	CONCRETE, CLASS C	541.30	EST.
116				116		LF	18" CPEP(SL)	601.2615	-
2				2		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE (4' DIA.)(TYPE D GRATE)	604.20	-
1				1		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE (5' DIA.)(TYPE D GRATE)	604.20	-
1				1		EACH	PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER (4' DIA.)	604.21	-
130				130		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	-
		40		40		CY	STONE FILL, TYPE I	613.10	2.1
5				5		CY	STONE FILL, TYPE II	613.11	-
75				75		LF	GRANITE SLOPE EDGING	616.20	2
100				100		LF	VERTICAL GRANITE CURB	616.21	3
55				55		LF	CAST-IN-PLACE CONCRETE CURB, TYPE B	616.28	1.5
1				1		EACH	REMOVE AND RESET MAILBOX, SINGLE SUPPORT	617.10	-
65				65		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	0.7
30				30		SF	DETECTABLE WARNING SURFACE	618.30	6
1				1		EACH	YIELDING MARKER POSTS	619.17	-
30				30		LF	REMOVAL OF EXISTING FENCE	620.55	3
85				85		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	4
3				3		EACH	ENERGY ABSORPTION ATTENUATOR, TEMPORARY	621.56	-

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		EARTHWORK SUMMARY
619	CY	COMMON EXCAVATION (1.0 x 442)
0	CY	UNCLASSIFIED CHANNEL EXCAVATION (0.25 x 177)
290	CY	STRUCTURE EXCAVATION 0.75 x 387)
5	CY	TRENCH EXCAVATION (0.75 x 7)
914	CY	SUBTOTAL
0	CY	ROUNDING
914	CY	TOTAL
914	CY	TOTAL FILL AVAILABLE
113	CY	TOTAL FILL REQUIRED (98 x 1.15 FILL FACTOR)
0	CY	BORROW
801	CY	WASTE
		SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)
128.4	TON	TYPE IVS
124.0	TON	TYPE IIS
252.4	TON	SUBTOTAL
7.6	TON	ROUNDING
260	TON	TOTAL

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

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180frm.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
QUANTITY SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: A. VOMACKA
CHECKED BY: D. MUNRO
SHEET 7 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
3				3		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-
		4		4		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM	621.73	-
115				115		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	4
220				220		LF	TEMPORARY TRAFFIC BARRIER	621.90	-
150				150		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.
300				300		HR	FLAGGERS	630.15	EST.
			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	-
			3000	3000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.26	-
1				1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-
1				1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.11	-
3				3		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
630				630		LF	4 INCH WHITE LINE, WATERBORNE PAINT	646.201	9
570				570		LF	4 INCH YELLOW LINE, WATERBORNE PAINT	646.2111	10
30				30		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	1.6
8				8		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-
25				25		LF	DURABLE CROSSWALK MARKING, POLYUREA	646.504	3
1250				1250		LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	8
1130				1130		LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	10
80				80		LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	3.8
16				16		EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	-
45				45		LF	TEMPORARY CROSSWALK MARKING, PAINT	646.702	1
390				390		EACH	LINE STRIPING TARGETS	646.76	3
11		150		161		SY	GEOTEXTILE UNDER STONE FILL	649.31	5.4
	10			10		LB	SEED	651.15	2
	30			30		LB	FERTILIZER	651.18	4
	0.15			0.15		TON	AGRICULTURAL LIMESTONE	651.20	0.05
30				30		CY	TOPSOIL	651.35	2.2
		120		120		SY	GRUBBING MATERIAL (12")	651.40	12.6
	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	-
	0.15			0.15		TON	HAY MULCH	653.10	0.05
	3			3		EACH	INLET PROTECTION DEVICE, TYPE II	653.41	-
	150			150		LF	SILT FENCE, TYPE I	653.475	-
	150			150		LF	SILT FENCE, TYPE II	653.476	-
	200			200		LF	BARRIER FENCE	653.50	-
	500			500		LF	PROJECT DEMARCATION FENCE	653.55	-

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

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

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180frm.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
QUANTITY SHEET 2

PLOT DATE: 7/14/2021
DRAWN BY: A. VOMACKA
CHECKED BY: D. MUNRO
SHEET 8 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS
70			
110			
32			
1			
		32	
		110	
		2	
2			
2			
		402	
		1	
		1	
1			
1			
		3270	
260			

TOTALS

GRAND TOTAL	FINAL
70	
110	
32	
1	
32	
110	
2	
2	
2	
402	
1	
1	
1	
1	
3270	
260	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
SF	TRAFFIC SIGN, TYPE A	675.20	3.75
LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	1
EACH	REMOVING SIGNS	675.50	-
EACH	RESETTING SIGNS	675.60	-
CY	SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD)	900.608	0.5
CY	SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)	900.608	0.9
EACH	SPECIAL PROVISION (ROCK DOWEL TESTING)	900.620	-
EACH	SPECIAL PROVISION (REMOVE ELECTRIC POWER METER AND FLASHING BEACON)	900.620	-
EACH	SPECIAL PROVISION (FLASHING BEACON, RAPID RECTANGULAR)	900.620	-
LF	SPECIAL PROVISION (ROCK DOWELING)	900.640	-
LS	SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE)	900.645	-
LS	SPECIAL PROVISION (CONSTRUCTION VIBRATION AND CRACK MONITORING)	900.645	-
LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650	-
LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650	-
SF	SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)	900.670	2.1
TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680	7.6

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

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

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180frm.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
QUANTITY SHEET 3

PLOT DATE: 7/14/2021
DRAWN BY: A. VOMACKA
CHECKED BY: D. MUNRO
SHEET 9 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION

BRIDGE QUANTITY SHEET 1

SUMMARY OF BRIDGE QUANTITIES			TOTALS	DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
ABUTMENT NO.1	ABUTMENT NO.2	SUPER-STRUCTURE	BRIDGE TOTAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
45	135		180	CY	COMMON EXCAVATION	203.15			
190	205		395	CY	STRUCTURE EXCAVATION	204.25			
50	65		115	CY	GRANULAR BACKFILL FOR STRUCTURES	204.30			
3502	5640		9142	LB	REINFORCING STEEL, LEVEL I (BLACK)	507.11			
2012	2280	1983	6275	LB	REINFORCING STEEL, LEVEL II	507.12			
4	4	13	21	GAL	WATER REPELLENT, SILANE	514.10			
		33	33	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10			
		238	238	LF	BRIDGE RAILING, GALVANIZED 4 RAIL BOX BEAM	525.34			
		1	1	EACH	REMOVAL OF STRUCTURE (2090 SQ. FT. - EST.)	529.15			
5	10		15	CY	CONCRETE, CLASS C	541.30			
10	30		40	CY	STONE FILL, TYPE I	613.10			
		4	4	EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM	621.73			
40	110		150	SY	GEOTEXTILE UNDER STONE FILL	649.31			
30	90		120	SY	GRUBBING MATERIAL (12")	651.40			
		32	32	CY	SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD)	900.608			
50	60		110	CY	SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)	900.608			
1	1		2	EACH	SPECIAL PROVISION (ROCK DOWEL TESTING)	900.620			
270	132		402	LF	SPECIAL PROVISION (ROCK DOWELING)	900.640			
		1	1	LS	SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE)	900.645			
		1	1	LS	SPECIAL PROVISION (CONSTRUCTION VIBRATION AND CRACK MONITORING)	900.645			
		3270	3270	SF	SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)	900.670			

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180frm.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
BRIDGE QUANTITY SHEET

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 10 OF 63

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
- Ⓗ 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

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180legend.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
CONVENTIONAL SYMBOLOGY LEGEND SHEET

PLOT DATE: 7/14/2021
DRAWN BY: S. GOODWIN
CHECKED BY: D. MUNRO
SHEET II OF 63

PRIMARY CONTROL

HVCTRL #1
RIVERSIDE GAR
NORTH = 373374.9400
EAST = 1450418.4800
ELEV = 479.6900

GENERAL LOCATION POULTNEY VT.

THE MARK IS SET 5 CM BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT. IT IS 7.5 M NORTH OF AND 0.1 M LOWER THAN THE CENTERLINE OF ROUTE 140, 0.5 M NORTH OF THE NORTH EDGE OF A CONCRETE SIDEWALK, 5.9 M SOUTH-SOUTHWEST OF THE SECOND MOST EASTERLY SAPLING IN A ROW, 7.2 M SOUTH-SOUTHEAST OF THE THIRD MOST EASTERLY SAPLING IN THE ROW, 15.2 M NORTHWEST OF AND ACROSS THE ROAD FROM POLE NO 30 WITH LUMEN AND TRANSFORMER AND 25.5 M EAST OF THE EAST END OF A WOODEN FENCE.

HVCTRL #2
ON THE GREEN
NORTH =374844.8000
EAST = 1453392.1500
ELEV = 510.0200

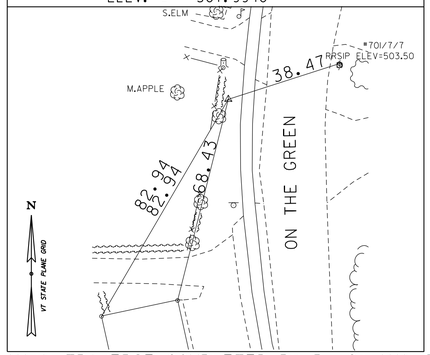
GENERAL LOCATION POULTNEY VT.

THE MARK IS SET 5 CM BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT IN A SMALL GRASS TRIANGLE NORTH OF THE EAST POULTNEY GREEN. IT IS 6.4 M SOUTHWEST OF THE CENTERLINE OF ROUTE 140, 2.3 M NORTH OF THE NORTH EDGE OF PAVEMENT OF THE ROAD PASSING SOUTH OF THE TRIANGLE, 18.0 M SOUTH OF AND ACROSS THE ROAD FROM POLE NO 7/78/78 WITH TRANSFORMER, 5.7 M EAST OF A STOP SIGN AND 15.0 M SOUTHWEST OF AND ACROSS THE ROAD FROM A WELCOME TO POULTNEY (ESTABLISHED 1761) SIGN.

SECONDARY CONTROL

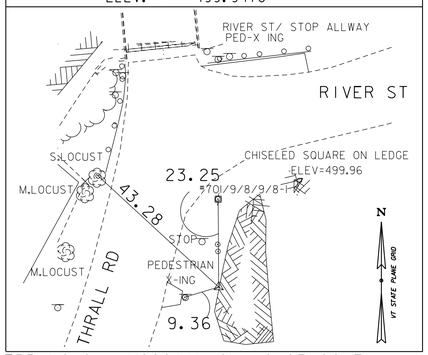
HVCTRL #3

NORTH = 374098.2482
EAST = 1453205.0085
ELEV. = 501.9940



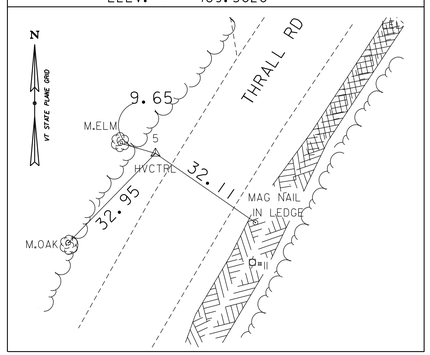
HVCTRL #4

NORTH = 373827.8945
EAST = 1453257.3456
ELEV. = 499.9470



HVCTRL #5

NORTH = 373488.1696
EAST = 1453016.6804
ELEV. = 489.5020



HVCTRL

NORTH =
EAST =
ELEV. =

HVCTRL

NORTH =
EAST =
ELEV. =

MAIN TRAVERSE COMPLETED BY R. GILMAN B.HERRING & H.MCGOWAN ON 10/25/2017

SECONDARY CONTROL

HVCTRL

NORTH =
EAST =
ELEV. =

HVCTRL

NORTH =
EAST =
ELEV. =

HVCTRL

NORTH =
EAST =
ELEV. =

HVCTRL

NORTH =
EAST =
ELEV. =

HVCTRL

NORTH =
EAST =
ELEV. =

DATUM

VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT COMPASS

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

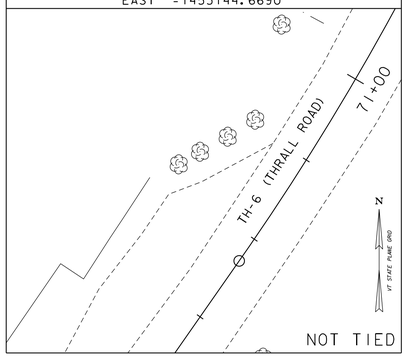
FILE NAME: X16JI80
PROJECT LEADER: N.WARK
DESIGNED BY: VTRANS
TIE SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: H.MCGOWAN
CHECKED BY: L.MACCORMACK
SHEET 12 OF 63

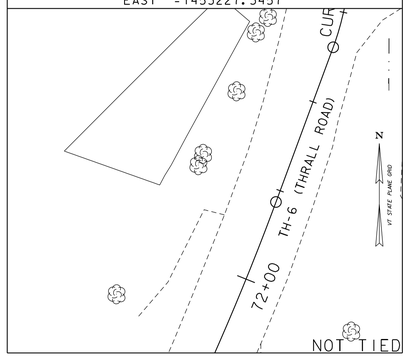
ALIGNMENT TIES

TH-6

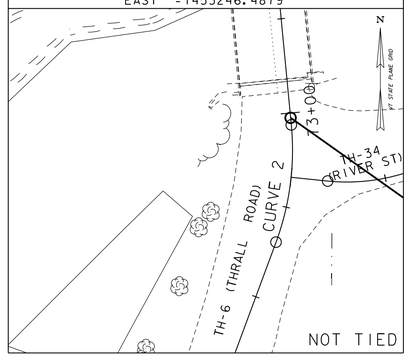
PC 70+43.02
NORTH = 373649.8894
EAST = 1453144.6690



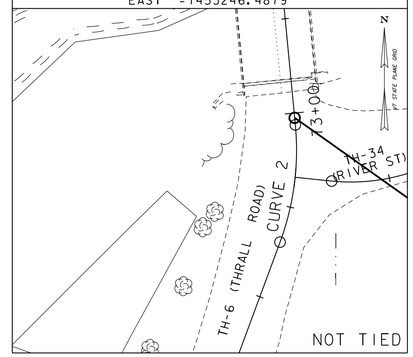
PT 72+21.83
NORTH = 373807.8955
EAST = 1453227.3457



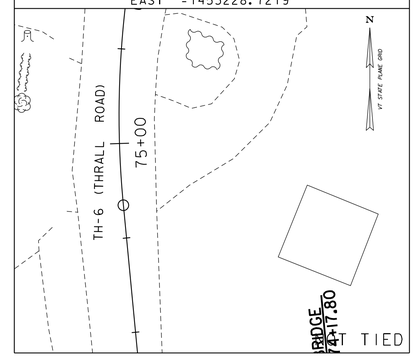
PC 72+65.38
NORTH = 373848.7385
EAST = 1453246.4879



PT 72+96.85
NORTH = 373879.6834
EAST = 1453246.4879



PC 74+83.68
NORTH = 374065.6702
EAST = 1453228.7219



ALIGNMENT TIES

TH-6

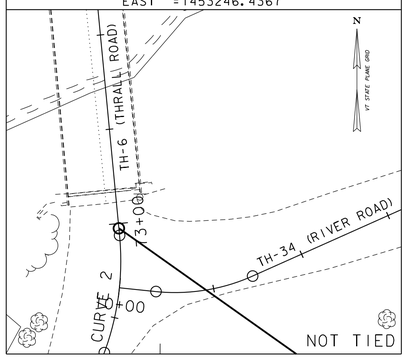
PT 75+78.14
NORTH = 374159.1540
EAST = 1453237.5051

POT 77+00.00
NORTH = 374276.1799
EAST = 1453271.4850

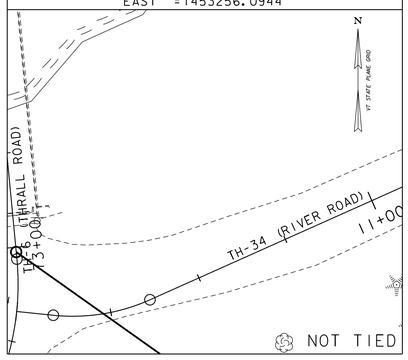
ALIGNMENT TIES

TH-34

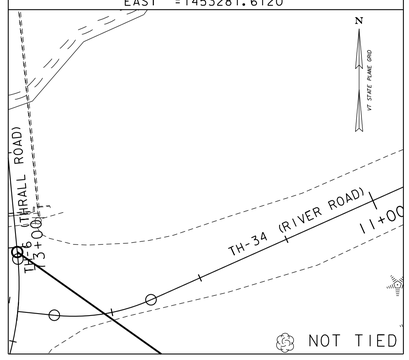
POB 10+00.00
NORTH = 373865.8551
EAST = 1453246.4367



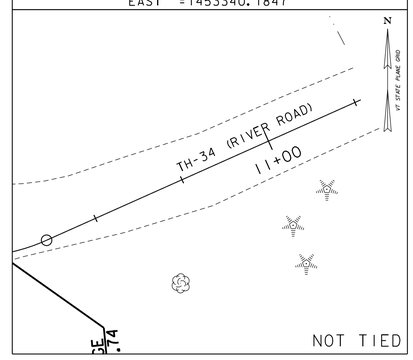
PC 10+09.71
NORTH = 373864.8604
EAST = 1453256.0944



PT 10+35.85
NORTH = 373868.9458
EAST = 1453281.6120



POT 11+00.00
NORTH = 373895.1130
EAST = 1453340.1847



FUSS&O'NEILL

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180ti.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: N. LEMAY
DESIGNED BY: N. LEMAY	CHECKED BY: E. MALONEY
TIE SHEET 2	SHEET 13 OF 63

TH-34 CURVE 1
DELTA = 29°57'12" LT
D = 114°35'30"
R = 50.00'
T = 13.38'
L = 26.14'
E = 1.76'
PC = STA 10+09.71
PI = STA 10+23.80 BK = STA 10+23.08 AH
PT = STA 10+35.85
BRG BK = S84°07'10"E
BRG AH = N65°55'39"E

TH-6 CURVE 1
DELTA = 14°38'10" LT
D = 8°11'06"
R = 700.00'
T = 89.90'
L = 178.82'
E = 5.75'
PC = 70+43.02
PI = 71+32.92 BK = 71+31.93 AH
PT = 72+21.83
BRG BK = N34°56'20"E
BRG AH = N20°18'10"E

TH-6 CURVE 2
DELTA = 25°45'33" LT
D = 81°51'04"
R = 70.00'
T = 16.01'
L = 31.47'
E = 1.81'
PC = 72+65.38
PI = 72+81.39 BK = 72+80.84 AH
PT = 72+96.85

TH-6 CURVE 3
DELTA = 21°38'52" RT
D = 22°55'06"
R = 250.00'
T = 47.80'
L = 94.46'
E = 4.53'
PC = 74+83.68
PI = 75+31.48 BK = 75+30.34 AH
PT = 75+78.14

N
VT STATE PLANE GRID

TH-6 (THRALL ROAD) TO VT ROUTE 30

71+00

CURVE 1

STA 71+75.00
BEGIN APPROACH

STA 72+25.00
BEGIN PROJECT

TH-6 STA 72+83.00 =
TH-34 STA 10+00.00
△ = 90°-00'-00" RT

TH-6 STA 73+57.01 =
CHANNEL STA 1+00.00
△ = 66°-32'-38" RT

POULTNEY RIVER FLOW

2+00

S61°05'14"W

1+00

0+00

72+00

73+00

74+00

75+00

76+00

N05°27'23"W

CURVE 2

CURVE 3

N16°11'29"E

TH-6 (ON THE GREEN) TO ROUTE 140

STA 74+75.00
END PROJECT

STA 75+25.00
END APPROACH

STA 11+00.00
LIMIT OF WORK

TH-34 (RIVER ST.)

10.0'R (TYP.)

65.0'R

50.0'R

12.0'R

7.0'R

10.0'R

11.0' ⌀

11.2'

10.1'

11.0'

+44.2'

+62.9'

11.5'

+97.2'

+01.9'

+21.5

12.9'

9.0'

+30.0

42.8'

9.0'

9.0'

9.2'

9.3'

12.0'

+35.0

10.0'

+82.0

9.9'

10.3'

0 20 40
SCALE IN FEET

FUSS&O'NEILL

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180bdrali.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
ALIGNMENT & PAVEMENT LAYOUT SHEET	SHEET 14 OF 63

VERTICAL GRANITE CURB
10+45.0 LT - 73+01.9 RT
74+19.9 RT - 74+82.0 RT

CAST - IN-PLACE CONCRETE CURB, TYPE B
72+52.7 LT - 72+96.6 LT
74+15.8 LT - 74+26.2 LT

GRANITE SLOPE EDGING
72+44.2 RT - 10+55.0 RT

CONSTRUCT DRIVES
74+51.0 LT (37.0 FT WIDE, PAVED)
75+00.0 RT (18.0 FT WIDE, PAVED)

PORTLAND CEMENT
CONCRETE SIDEWALK, 5 INCH
10+45.0 LT - 73+01.9 RT (INCL. TYPE 1 RAMP)
74+19.9 RT - 74+82.0 RT (INCL. TYPE 1 RAMP)
74+77.5 LT - 75+00.0 LT (INCL. TYPE 2 RAMP)

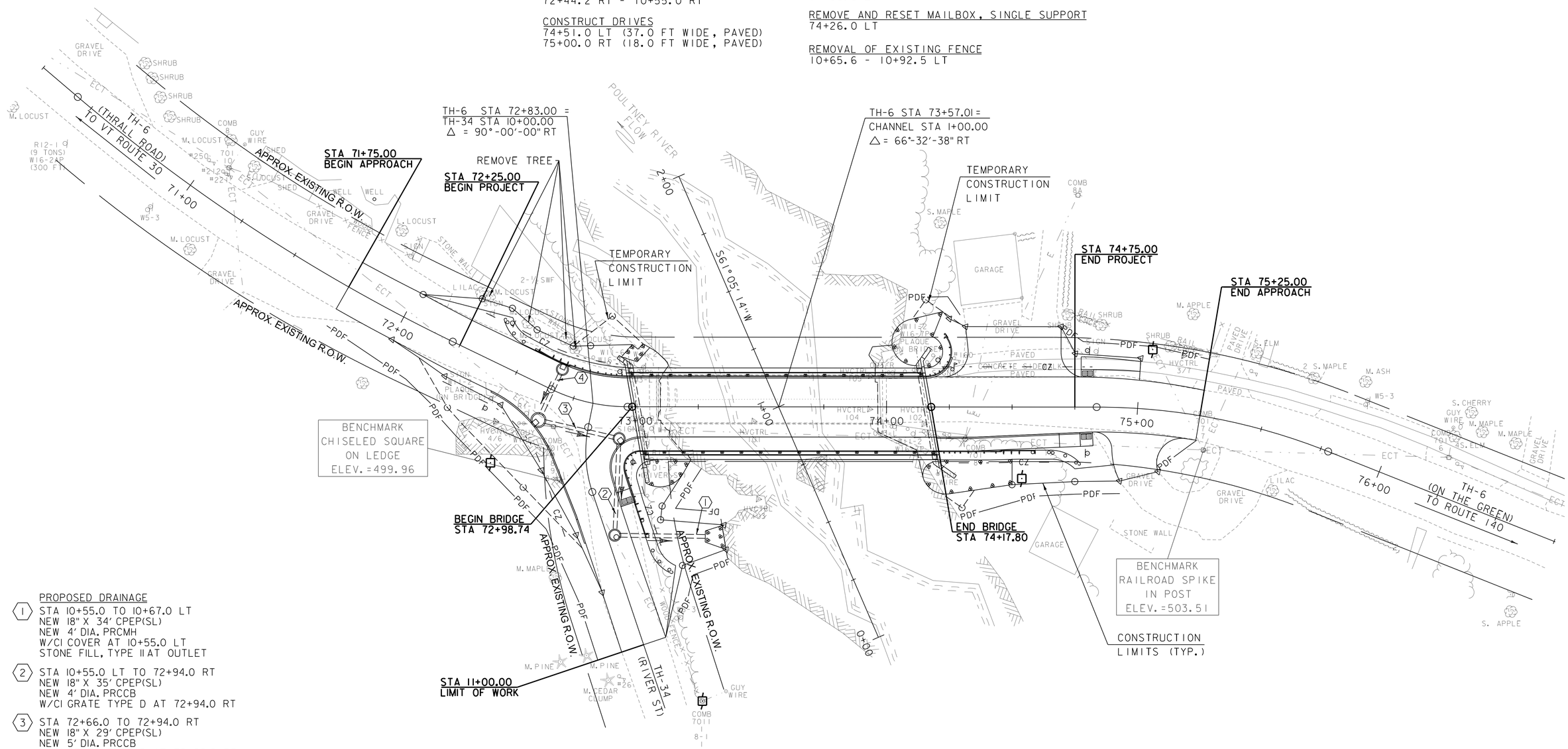
DETECTABLE WARNING SURFACE (DWS)
10+43.5 LT
74+79.5 RT
74+80.0 LT

REMOVE AND RESET MAILBOX, SINGLE SUPPORT
74+26.0 LT

REMOVAL OF EXISTING FENCE
10+65.6 - 10+92.5 LT

STONE FILL, TYPE I
GEOTEXTILE UNDER STONE FILL
72+93.5 - 73+05.7 LT
73+04.0 - 73+22.1 RT
74+02.1 - 74+22.4 LT
74+14.5 - 74+50.0 RT

N
VT STATE PLANE GRID



PROPOSED DRAINAGE

(1) STA 10+55.0 TO 10+67.0 LT
NEW 18" X 34' CPEP(SL)
NEW 4' DIA. PRCMH
W/CI COVER AT 10+55.0 LT
STONE FILL, TYPE II AT OUTLET

(2) STA 10+55.0 LT TO 72+94.0 RT
NEW 18" X 35' CPEP(SL)
NEW 4' DIA. PRCCB
W/CI GRATE TYPE D AT 72+94.0 RT

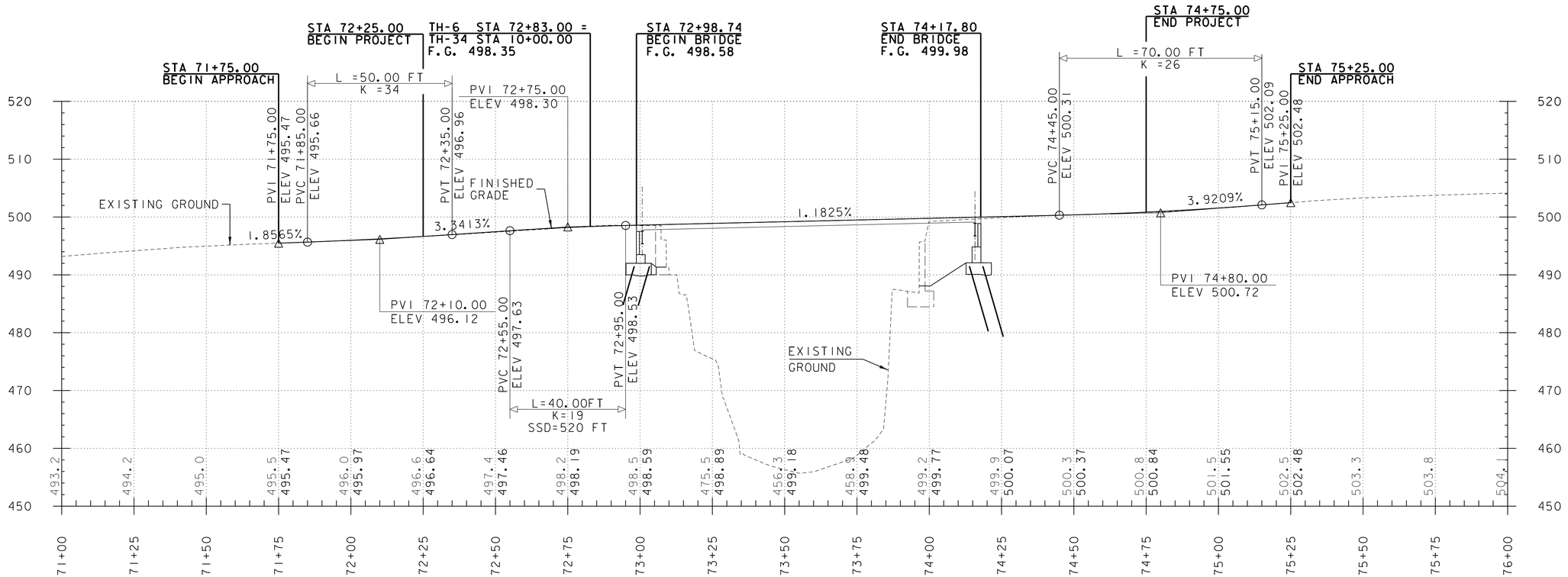
(3) STA 72+66.0 TO 72+94.0 RT
NEW 18" X 29' CPEP(SL)
NEW 5' DIA. PRCCB
W/CI GRATE TYPE D AT 72+66.0 RT

(4) STA 72+66.0 LT TO 72+66.0 RT
NEW 18" X 18' CPEP(SL)
NEW 4' DIA. PRCCB
W/CI GRATE TYPE D AT 72+66.0 LT

0 20 40
SCALE IN FEET

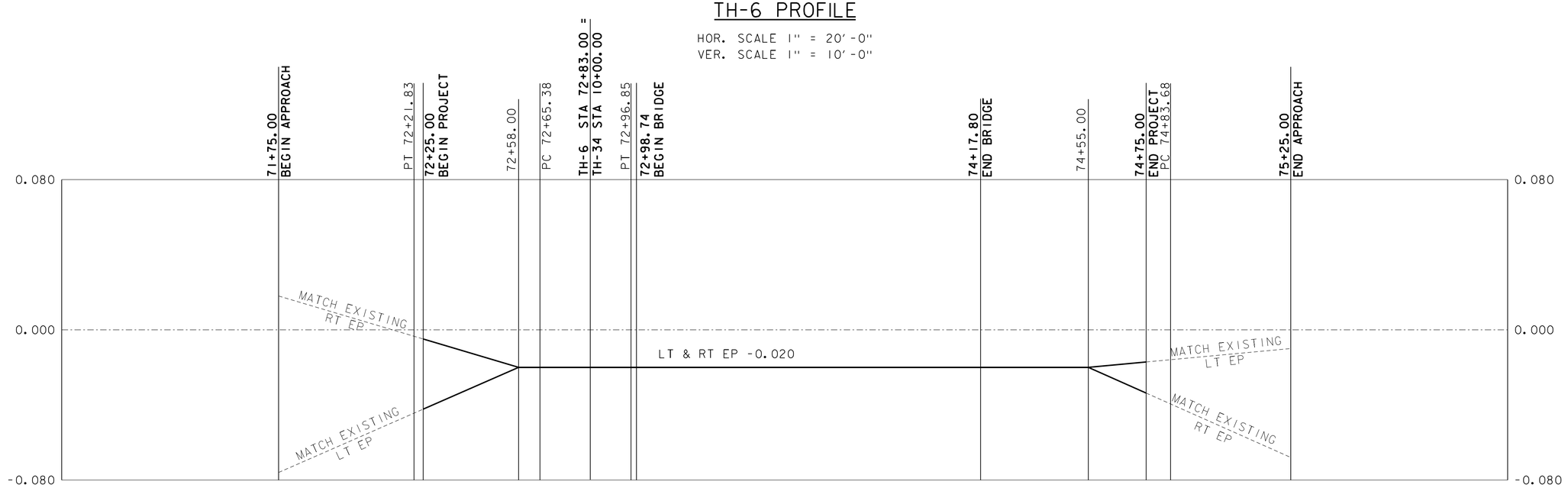
FUSS & O'NEILL

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180bdrnul.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
LAYOUT SHEET	SHEET 15 OF 63



TH-6 PROFILE

HOR. SCALE 1" = 20'-0"
VER. SCALE 1" = 10'-0"



TH-6 BANKING DIAGRAM

THE ELEVATIONS SHOWN TO THE NEAREST TENTH ARE FOR EXISTING GROUND ALONG THE CENTERLINE.

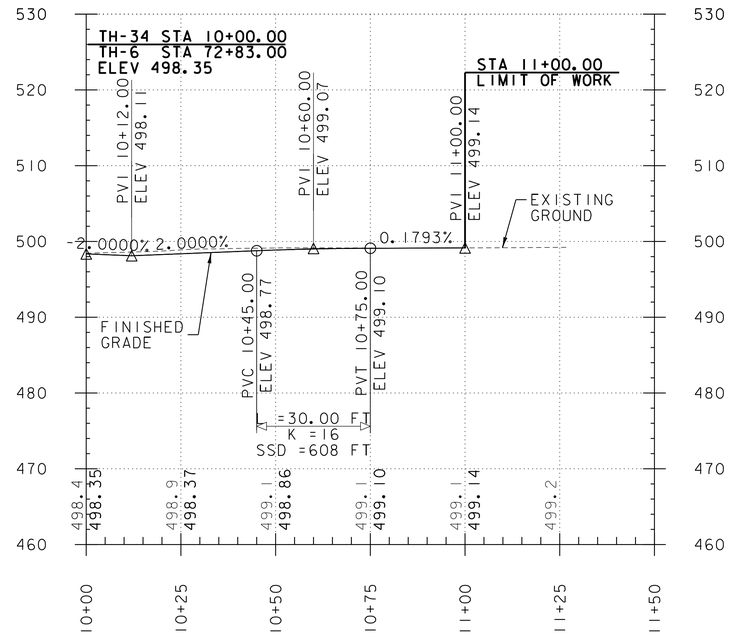
THE ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE FOR THE PROPOSED FINISHED GRADE ALONG THE CENTERLINE.

FUSS&O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

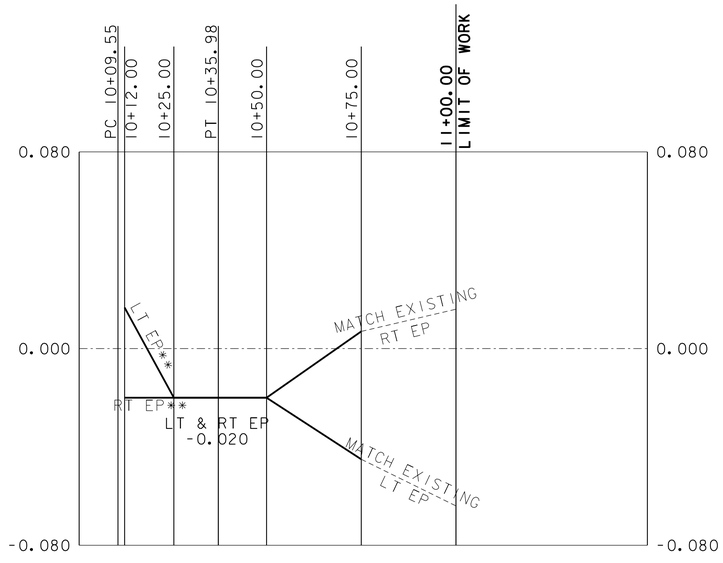
FILE NAME: z16j180profile.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
TH-6 PROFILE AND BANKING DIAGRAM SHEET

PLOT DATE: 7/14/2021
DRAWN BY: S. GOODWIN
CHECKED BY: D. MUNRO
SHEET 16 OF 63



TH-34 (RIVER STREET) PROFILE

HOR. SCALE 1" = 20'-0"
VER. SCALE 1" = 10'-0"



** TRANSITION
TO MATCH INTO TH-6

TH-34 (RIVER STREET) BANKING DIAGRAM

THE ELEVATIONS SHOWN TO THE NEAREST TENTH ARE FOR EXISTING GROUND ALONG THE CENTERLINE.

THE ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE FOR THE PROPOSED FINISHED GRADE ALONG THE CENTERLINE.

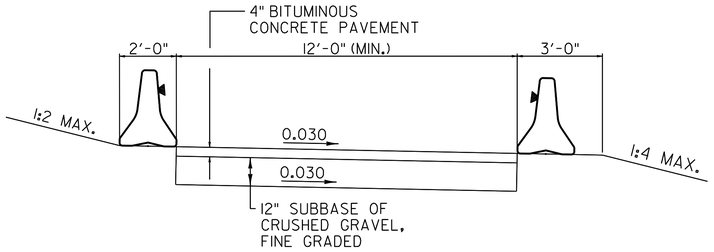
FUSS & O'NEILL

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16j180profile.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
TH-34 PROFILE AND BANKING DIAGRAM SHEET	SHEET 17 OF 63

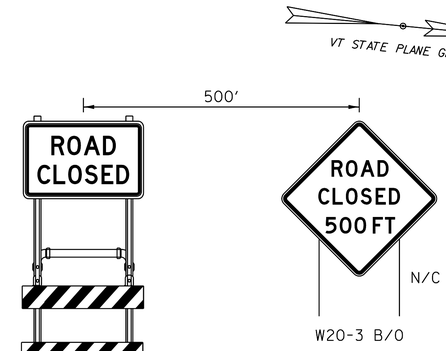
ENERGY ABSORPTION ATTENUATOR, TEMPORARY
10+28 RT
10+77 LT
72+43 RT

TEMPORARY TRAFFIC BARRIER
72+12 LT TO 10+77 LT
72+43 RT TO 10+28 RT
74+31 LT TO 74+55 RT

TEMPORARY 24 INCH STOP BAR, PAINT
71+75 RT (10.1')
11+00 LT (9.3')



TH-34 (RIVER STREET) DETOUR
(ONE-WAY ALTERNATING)
SECTION A-A
NOT TO SCALE



R11-2 B/W SIGN MOUNTED ON TYPE III BARRICADE (MODIFIED)

MOVE MAILBOX TO TEMPORARY LOCATION DURING CONSTRUCTION (COORDINATE LOCATION WITH ENGINEER)

TRAFFIC CONTROL NOTES

1. THE BRIDGE HAS BEEN CLOSED TO TRAFFIC SINCE 2020. THE TOWN OF POULTNEY DESIGNED AND CONSTRUCTED AN OFF SITE DETOUR. THE TOWN WILL BE RESPONSIBLE FOR MAINTAINENCE ASSOCIATED WITH THE OFF SITE DETOUR SIGNAGE FOR THE DURATION OF CONSTRUCTION.

2. THE INTENT OF THE TRAFFIC CONTROL PLAN IS TO PROVIDE A PLAN THAT DEMONSTRATES HOW TO CONSTRUCT THE WORK AND MAINTAIN TRAFFIC FLOW ONTO TH-34 (RIVER STREET). THE CONTRACTOR SHALL PROVIDE ACCESS TO TH-34 (RIVER STREET) AT ALL TIMES.

3. SEPARATE ACCOMMODATIONS FOR PEDESTRIANS ARE NOT REQUIRED DURING CONSTRUCTION.

4. WHEN COARSE MILLED BITUMINOUS PAVEMENT IS OPEN TO TRAFFIC, A MOTORCYCLES USE CAUTION SIGN PER VTRANS STANDARD T-17 SHALL BE PROVIDED.

5. ANY EXCAVATION, EARTH BORROW, SUBBASE MATERIALS, TEMPORARY DRAINAGE CULVERTS, BITUMINOUS CONCRETE PAVEMENT, AND OTHER ITEMS REQUIRED TO CONSTRUCT, INSPECT, MAINTAIN, AND REMOVE THE DETOUR AT TH-34 (RIVER STREET) SHALL BE PAID FOR UNDER ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE".

0 20 40
SCALE IN FEET

LEGEND

N/C	NEW SIGN/CONSTRUCTION ONLY
B/O	BLACK/ORANGE
B/W	BLACK/WHITE
⊠	TYPE III BARRICADE
⊠	TYPE III BARRICADE (MOD.)
═	TEMPORARY TRAFFIC BARRIER
⊗	ENERGY ABSORPTION ATTENUATORS

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180bdrtcp.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: N. LEMAY
TRAFFIC CONTROL PLAN

PLOT DATE: 7/14/2021
DRAWN BY: N. LEMAY
CHECKED BY: E. MALONEY
SHEET 18 OF 63

FUSS & O'NEILL

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAINAGE DETAIL SHEET 1

STATION	STATION	POS.	PIPE ID NUMBER	INLET/OUTLET TYPE		DITCH		PIPE ARCH			PIPE		ALLOWABLE OPTIONS						PIPE ELBOW	ES	PRC CB	PRC MH	DEPTH DI/MH	CONC CLASS B	REINF STEEL	GRATE	CHAN ELEV	FLOW FILL	TRENCH EXCAVATION		COMM EXC	UNC CHAN EXC	STRUCT EXCAV	GRAN BKFILL STRUCT	GRAN BORR	EROS MATT	STONE FILL		MARKER POSTS		GEO UNDER SF		REMARKS
Feet	Feet			INLET	OUTLET	IN	OUT	SPAN in	RISE in	L ft	D in	L ft	PCCSP in	CAAP in	RCP CLASS in	CSP in	CPEP (SL) in	PCCSP (PI) in	no. deg.	ea	dia	dia	ft	cy	lb	type	ea	cy	EARTH cy	ROCK cy	cy	cy	cy	cy	cy	sy	cy	type	LT ea	RT ea	sy		
PROPOSED																																										
10+55.0	10+67.0	LT	1	PRCMH							18	34.0					X				4	7.6			1-COVER			6.8	43.9				5.7			5.0	II	1		10.9		
10+55.0	72+94.0	LT/RT	2	PRCCB	PRCMH						18	35.0					X				4	7.3			1-D				50.7				5.8									
72+66.0	72+94.0	RT	3	PRCCB	PRCCB						18	29.0					X				5	6.4			1-D				37.0				4.8									
72+66.0	72+66.0	LT/RT	4	PRCCB	PRCCB						18	18.0					X				4	5.9			1-D				22.1				3.0									
PROJECT TOTALS											18	116.0					X			1	4'	DIAMH			-			6.8	153.7				19.30				I	1		10.9		
																					6'	DIAMH			-	-										5.0	II					
																				2	4'	DIA				A											III					
																				1	5'	DIA				B											IV					
																					6'	DIA			3	D																
																					7'	DIA				E																
																					8'	DIA			1	COVER STEEL																

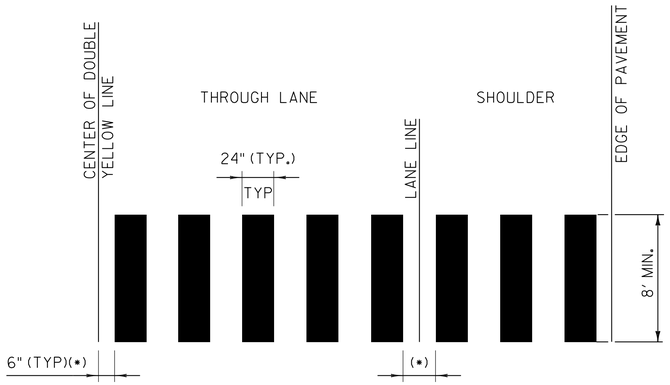
NOTE: DEPTH OF DI OR MH SHOWN IS MEASURED FROM RIM TO SUMP OF STRUCTURE

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16J180frm.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
DRAINAGE DETAIL SHEET

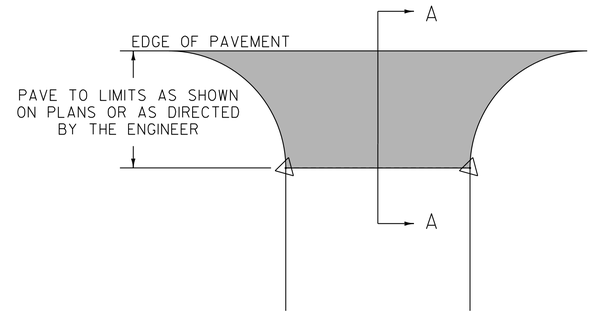
PLOT DATE: 7/14/2021
DRAWN BY: A. VOMACKA
CHECKED BY: D. MUNRO
SHEET 19 OF 63



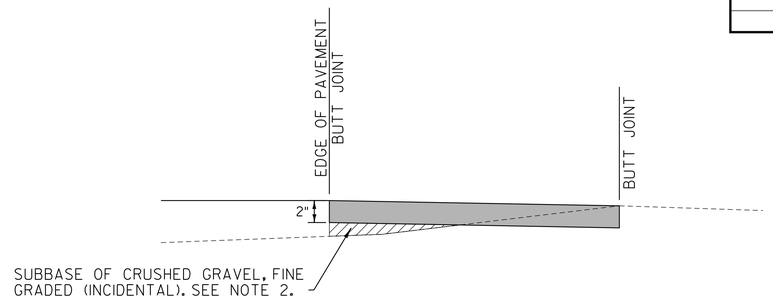
1. THIS DETAIL IS CONFIGURED FOR AN 11 FOOT LANE.
2. MARK LIGHT STRING LINE ON PAVEMENT ACROSS ROADWAY (CURB TO CURB).
3. ESTABLISH THE CENTER LINE OF THE ROADWAY (DOUBLE YELLOW LINE OR LANE LINE).
4. BLOCKS ARE PARALLEL TO THE CENTERLINE (DOUBLE YELLOW LINE OR LANE LINE) (OFFSET BLOCKS VERTICALLY TO ACHIEVE REQUIRED SKEW).
5. ALWAYS START MEASURING FROM THE CENTERLINE OR LANE LINE RIGHT, WITH THE FLOW OF TRAFFIC.
6. PAINTED BLOCKS ARE 24 INCHES (TYPICAL).

(•)7. ADJUST SPACING (12 INCHES-24 INCHES) TO AVOID WHEEL PATHS

BLOCK PATTERN CROSSWALK DETAIL



LOCATION OF DRIVES			
STATION	POSITION	QUANTITY ITEM 406.38 (SY)	REMARKS
74+51	LT	70	
75+00	RT	38	
	TOTAL	**108**	



SECTION A - A

NOTES

1. PAVEMENT THICKNESS SHALL BE 2.0 INCHES.
2. SAWCUTTING, BUTT JOINTS, EMULSION, REMOVAL OF EXISTING SIDEWALK ACROSS DRIVE, AND EXCAVATION NEEDED TO ACHIEVE PROPER DRIVE SLOPES WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.38, "HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES".

LEGEND

ITEM 406.38, "HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES"

DRIVEWAY RECONSTRUCTION DETAIL

FUSS & O'NEILL

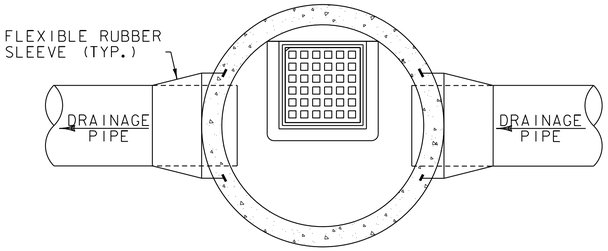
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180frm.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
PROJECT DETAILS SHEET 1

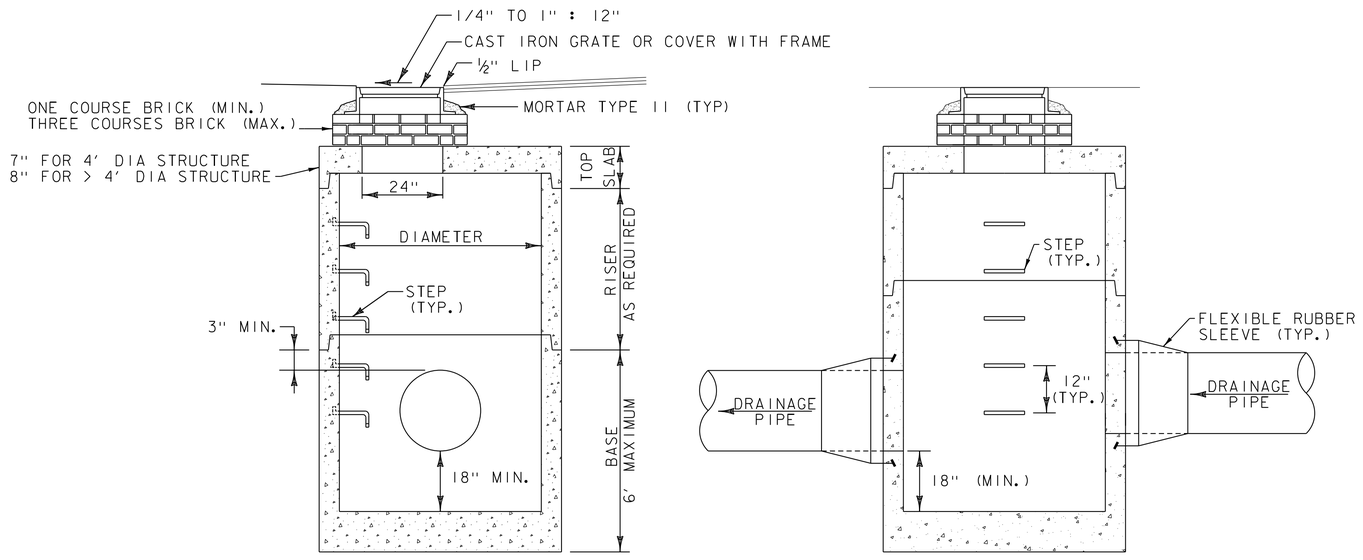
PLOT DATE: 7/14/2021
DRAWN BY: A. VOMACKA
CHECKED BY: D. MUNRO
SHEET 20 OF 63

PRECAST REINFORCED CONCRETE CATCH BASIN NOTES

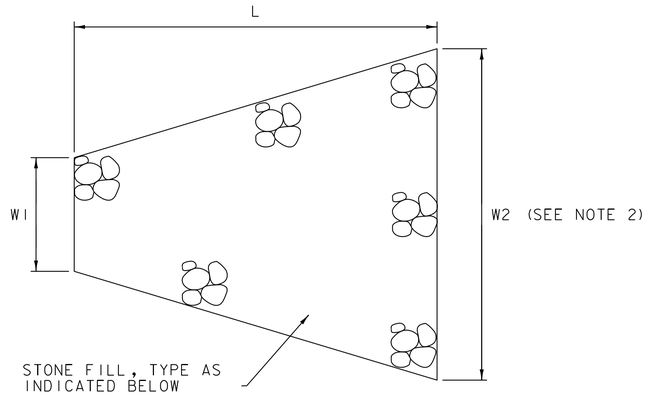
1. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT ONE FOOT HIGH AND AT AN 11 DEGREE ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING A BUTYL RUBBER OR APPROVED EQUAL SEALANT IN THE JOINTS.
2. PROVIDE FLEXIBLE RUBBER SLEEVES CONFORMING TO ASTM C-923, RESILIENT, OF SIZE REQUIRED, FOR EACH PIPE CONNECTING TO STRUCTURE. SLEEVES SHALL BE CAST INTO PRECAST STRUCTURE BY THE MANUFACTURER FOR ALL PIPE PENETRATIONS. PAYMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 604.20, "PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE" OR ITEM 604.21, "PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER".
3. THE CONTRACTOR SHALL VERIFY ALL PIPE INVERTS AND PENETRATION ANGLES PRIOR TO PRECASTING.
4. FACE OF PIPE SHALL NOT PROJECT MORE THAN TWO INCHES OR LESS THAN ONE INCH FROM INSIDE WALL OF STRUCTURE.
5. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF OUTSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN THREE INCHES TO JOINTS.
6. FLAT SLAB TOPS SHALL BE USED FOR ALL CATCH BASINS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. ONE COURSE MINIMUM (3 COURSES MAX) OF BUILDING BRICK CONFORMING TO SUBSECTION 705.01 SHALL BE PLACED ON TOP OF FLAT SLAB TOP PRIOR TO PLACING FRAME TO FACILITATE CHANGING ELEVATION OF CATCH BASINS WHEN REQUIRED. FITTING FRAME TO FINAL GRADE MAY BE DONE WITH BRICK OR PRECAST CONCRETE GRADE RINGS OF APPROPRIATE THICKNESS. ALL BRICKS, MORTAR, AND GRADE RINGS WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST CONCRETE OR ADJUSTMENT PAY ITEMS.
8. PROPOSED OFFSET FROM CENTERLINE TO EACH NEW CATCH BASIN AS SHOWN ON THE PLANS OR CROSS SECTION SHEETS IS MEASURED TO THE CENTER OF THE STRUCTURE. FINAL RIM AND PIPE INVERT ELEVATIONS AT EACH NEW CATCH BASIN ARE SHOWN ON THE CROSS SECTION SHEETS.
9. REFER TO DETAILS ON VTRANS STANDARD SHEETS D-15 FOR TYPE D GRATES AND D-11 FOR CAST IRON COVER.



SINGLE GRATE CATCH BASIN (PLAN)
NOT TO SCALE



TYPICAL PRECAST CATCH BASIN OR MANHOLE
NOT TO SCALE



DRAINAGE NOTE #	DESCRIPTION	L (FT)	W1 (FT)	W2 (FT)	THICKNESS (FT)	STONE FILL TYPE	PLAN AREA (SF)	PLAN AREA (SY)	STONE FILL QTY (CY)
⟨1⟩	PIPE OUTLET	8.4	4.5	9.7	2.3	11	59	6.6	5.0

STONE FILL APRON NOTES

1. GEOTEXTILE SHALL BE INSTALLED BENEATH AND ALONG SIDES OF STONE.
2. STONE SHALL BE ADJUSTED TO MATCH INTO THE EXISTING CHANNEL WIDTH. SEE PLAN SHEETS.

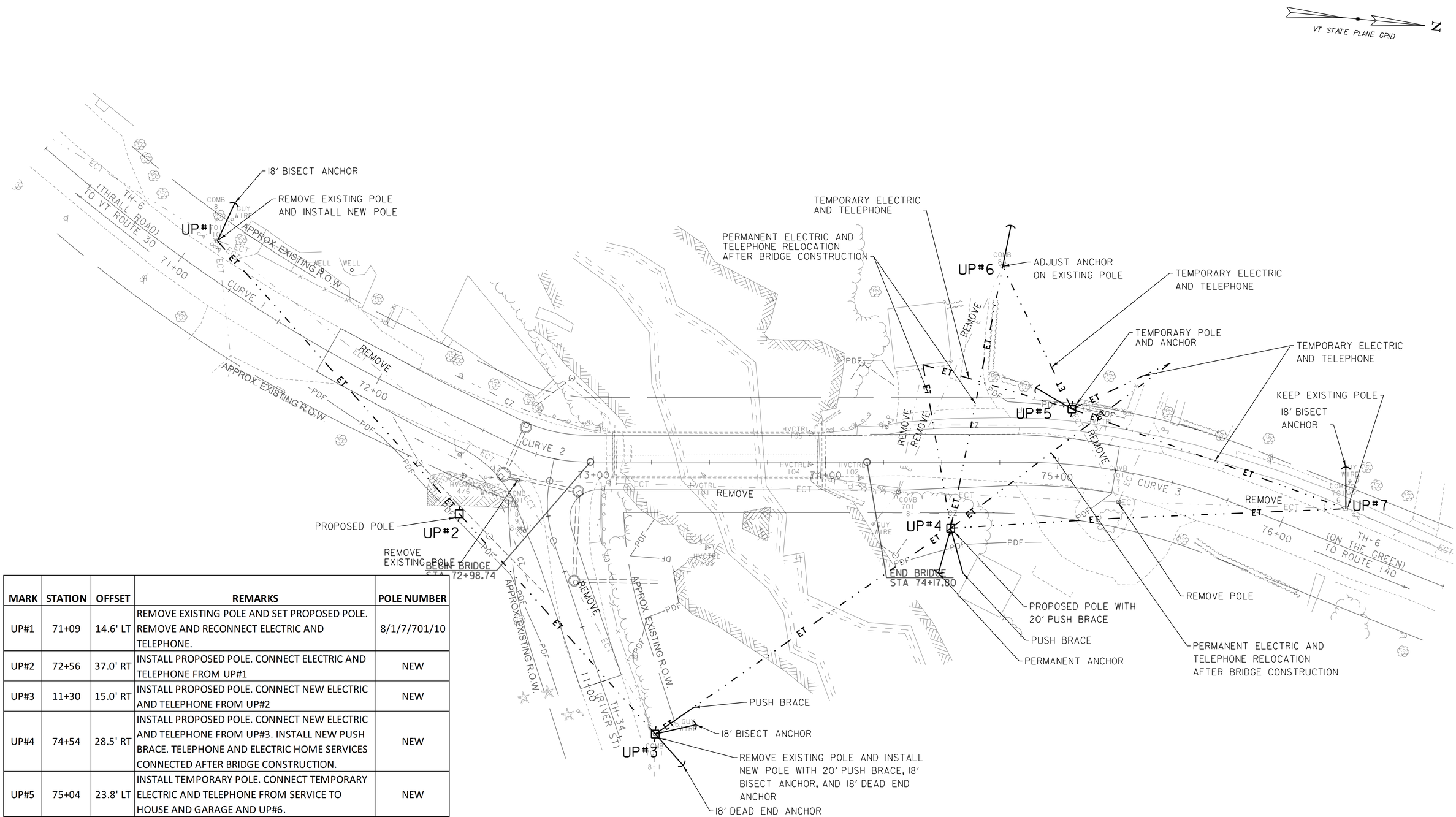
STONE FILL APRON DETAIL
NOT TO SCALE

FUSS&O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180frm.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
PROJECT DETAILS SHEET 2

PLOT DATE: 7/14/2021
DRAWN BY: A. VOMACKA
CHECKED BY: D. MUNRO
SHEET 21 OF 63



MARK	STATION	OFFSET	REMARKS	POLE NUMBER
UP#1	71+09	14.6' LT	REMOVE EXISTING POLE AND SET PROPOSED POLE. REMOVE AND RECONNECT ELECTRIC AND TELEPHONE.	8/1/7/701/10
UP#2	72+56	37.0' RT	INSTALL PROPOSED POLE. CONNECT ELECTRIC AND TELEPHONE FROM UP#1	NEW
UP#3	11+30	15.0' RT	INSTALL PROPOSED POLE. CONNECT NEW ELECTRIC AND TELEPHONE FROM UP#2	NEW
UP#4	74+54	28.5' RT	INSTALL PROPOSED POLE. CONNECT NEW ELECTRIC AND TELEPHONE FROM UP#3. INSTALL NEW PUSH BRACE. TELEPHONE AND ELECTRIC HOME SERVICES CONNECTED AFTER BRIDGE CONSTRUCTION.	NEW
UP#5	75+04	23.8' LT	INSTALL TEMPORARY POLE. CONNECT TEMPORARY ELECTRIC AND TELEPHONE FROM SERVICE TO HOUSE AND GARAGE AND UP#6.	NEW
UP#6	74+76	84.4' LT	ADJUST ANCHOR ON EXISTING POLE	8A
UP#7	76+24	15.6' LT	RETAIN EXISTING UTILITY POLE. REMOVE AND RESET ELECTRIC AND TELEPHONE LINE. INSTALL BISECT ANCHOR. CONNECT ELECTRIC AND TELEPHONE FROM UP#5.	701/6

AERIAL UTILITY RELOCATION TO BE PERFORMED BY OTHERS.

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180bdruty.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
UTILITY RELOCATION SHEET

PLOT DATE: 7/14/2021
DRAWN BY: S. GOODWIN
CHECKED BY: D. MUNRO
SHEET 22 OF 63

TEMPORARY 4 INCH WHITE LINE, PAINT
4 INCH WHITE LINE, WATERBORNE PAINT
71+75 TO 72+45 RT (SOLID)
71+75 TO 74+75 LT (SOLID)
73+04 TO 74+75 RT (SOLID)
74+85 TO 74+25 LT (SOLID)
74+85 TO 74+25 RT (SOLID)

TEMPORARY 4 INCH YELLOW LINE, PAINT
4 INCH YELLOW LINE, WATERBORNE PAINT
71+75 TO 72+45 LT & RT (DOUBLE SOLID)
73+05 TO 74+75 LT & RT (DOUBLE SOLID)
74+85 TO 75+25 LT & RT (DOUBLE SOLID)

TEMPORARY CROSSWALK MARKING, PAINT
DURABLE CROSSWALK MARKING (OPTION BID ITEM)
74+80 LT TO RT

TEMPORARY 24 INCH STOP BAR, PAINT
DURABLE 24 INCH STOP BAR (OPTION BID ITEM)
72+45 RT (8.3')
73+05 LT (8.3')
10+18 LT (11.8')

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL (OPTION BID ITEM)
72+37 RT (STOP)
73+14 LT (STOP)

SPECIAL PROVISION
(FLASHING BEACON, RAPID, RECTANGULAR)
74+80 RT (SOLAR-POWERED)
74+80 LT (SOLAR-POWERED)

SPECIAL PROVISION (REMOVE ELECTRIC
POWER METER AND FLASHING BEACON)
72+45 RT (RETURN TO TOWN)
74+24 LT (RETURN TO TOWN)

REMOVING SIGNS
AS SHOWN - 32

RESETTING SIGNS
AS SHOWN - 1

SETTING SALVAGED POSTS
AS SHOWN - 1

VT STATE PLANE GRID

N

(A) 70+92 RT, 75+85 LT, 10+95 LT
ONE LANE BRIDGE R
R R

(B) 72+31 LT
RET

(C) 72+45 RT, 72+93 LT
STOP N
ALL WAY N
N

(D) 72+40 LT
SNOWMOBILE X-ING RES
RES

(E) 72+96 LT
SNOWMOBILE X-ING R&RES
R&RES

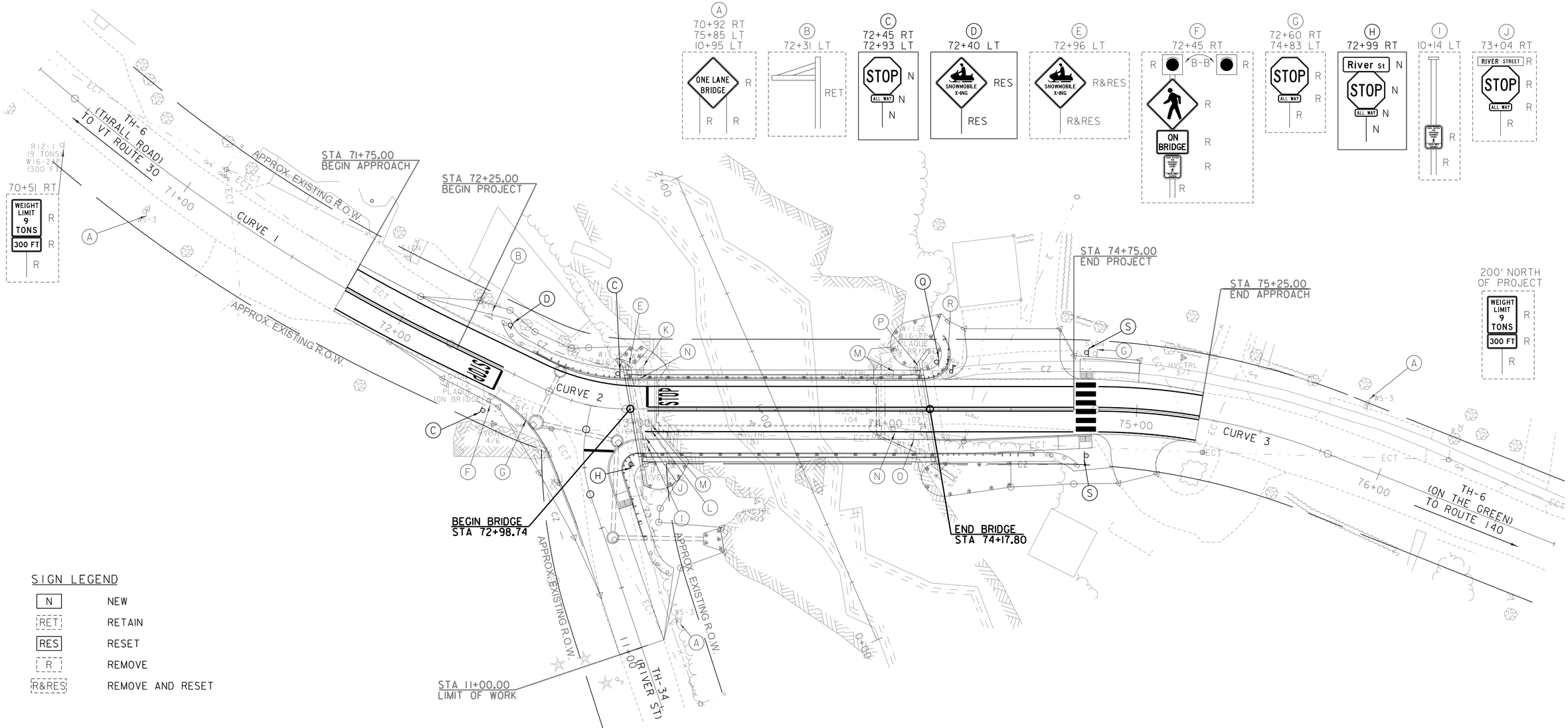
(F) 72+45 RT
R B-B R
ON BRIDGE R
R

(G) 72+60 RT, 74+83 LT
STOP R
ALL WAY R
R

(H) 72+99 RT
River St N
STOP N
ALL WAY N
N

(I) 10+14 LT
R
R

(J) 73+04 RT
RIVER STREET R
STOP R
ALL WAY R
R



SIGN LEGEND

N	NEW
RET	RETAIN
RES	RESET
R	REMOVE
R&RES	REMOVE AND RESET

(K) 73+03 LT
R
R

(L) 74+12 RT
ON BRIDGE R
R R
R

(M) 73+06 RT, 74+02 LT
R
R

(N) 73+02 LT, 74+03 RT
R
R

(O) 74+10 RT
R
R R

(P) 73+04 LT
R
R R

(Q) 74+20 LT
N
N

(R) 74+24 LT
R B-B R
R
R

(S) 74+80 RT, 74+80 LT
B-B
N N N N
N N N N
N N N

0 20 40
SCALE IN FEET

FUSS & O'NEILL

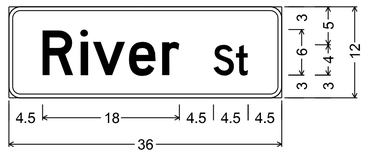
PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180bdrts.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
SIGNING AND PAVEMENT MARKING SHEET	SHEET 23 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET #1

SHSM = FHWA 2004 STANDARD HIGHWAY SIGNS AND MARKINGS BOOK AND THE 2012 SUPPLEMENT TO THE 2004 EDITION

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & RESET SIGNS "A"	"B"	RESET SIGN	RESET TIS	EXIST POST RETAIN	EXIST POST RESET	NEW SIGN POSTS NO. OF POSTS	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 SHSM	DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
TH 6 72+45 RT	STOP	1	30	30	6.25						1		X		X																	RI-1		
	ALL WAY	1	18	6	0.75																											RI-4		
72+40 LT	SNOWMOBILE X-ING						1				1		X		X																			
72+93 LT	STOP	1	30	30	6.25						1		X		X																	RI-1		
	ALL WAY	1	18	6	0.75																											RI-4		
72+99 RT	River St	1	36	12	4.50						1		X		X																	SEE DETAIL THIS SHEET (FOR DOUBLE SIDED SIGNS, AREA FACTORED BY 1.5)			
	STOP	1	30	30	6.25																											RI-1		
	ALL WAY	1	18	6	0.75																											RI-4		
74+20 LT		1	30	30	6.25						1		X		X																	W3-1		
74+78 RT		2	30	30	12.50						1			X	X																FLUORESCENT YELLOW GREEN BACK TO BACK	W11-2		
		2	24	12	4.00																										FLUORESCENT YELLOW GREEN BACK TO BACK	W16-7P		
		1	9	12	0.75																											R10-25		
74+82 LT		2	30	30	12.50						1			X	X																FLUORESCENT YELLOW GREEN BACK TO BACK	W11-2		
		2	24	12	4.00																										FLUORESCENT YELLOW GREEN BACK TO BACK	W16-7P		
		1	9	12	0.75																											R10-25		
	SUBTOTAL TSS SHEET 1				66.25		1						75	34																				
	ROUNDING				3.75									1																				
												FT	FT 75	FT 35		EA	LB	LB	LB		LB	LB	LB	LB									
	SHEET TOTALS				SF 70.00	SF	EA. 1	SF				FT 110					LB			EA.	LB				EA.	EA.	LB						



1.500" Radius, 0.500" Border, White on, Green;
"River", D 2K; "St", D 2K;

NOTE:
1. INSTALL SIGN PERPENDICULAR ON TOP OF STOP SIGN POST WITH 12 INCH BRACKET.

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND VAOT "SIGN POST DESIGN GUIDELINE."

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180tsdet.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
TRAFFIC SIGN SUMMARY SHEET #1

PLOT DATE: 7/14/2021
DRAWN BY: A. VOMACKA
CHECKED BY: D. MUNRO
SHEET 24 OF 63

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

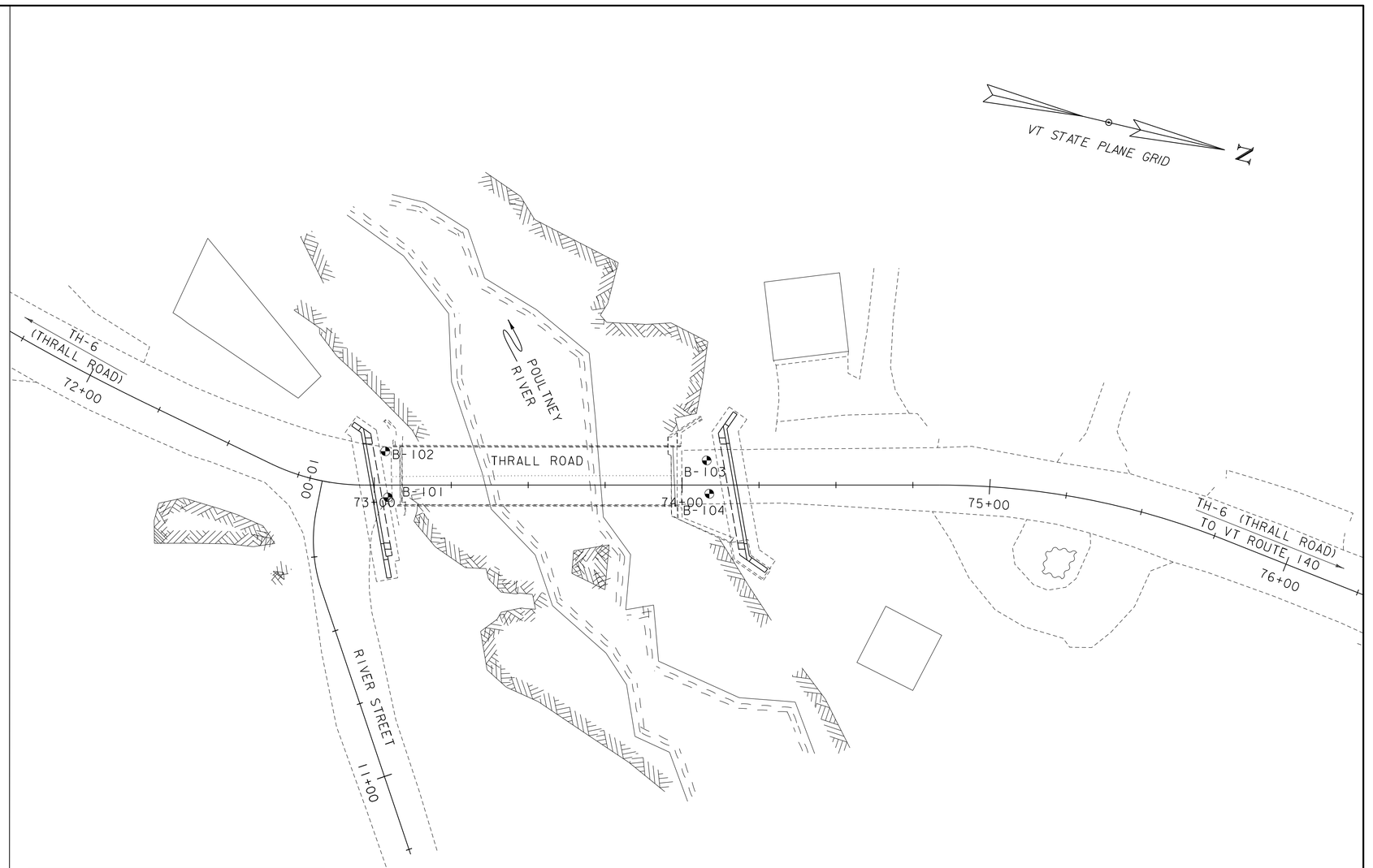
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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		



HOLE NO.	NORTHING	EASTING
B-101	373887.64	1453249.75
B-102	373885.36	1453234.90
B-103	373989.83	1453227.67
B-104	373991.31	1453238.42

BORING PLAN

20 0 10
SCALE IN FEET

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 06/08/20 and 06/12/20 by GZA GeoEnvironmental, 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.

BORING CHART

HOLE NO.	SURV. STATION	OFFSET	GROUND ELEV.	ELEV. TLOB
B-101	73+04	4 RT	498	491
B-102	73+03	11 LT	498	490
B-103	74+08	8 LT	499	491
B-104	74+09	3 RT	499	491

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180boring.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
BORING INFORMATION SHEET

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 25 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-101**
Page No.: 1 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/10/20 Date Finished: 6/11/20
VTSPG NAD83: N 373887.64 ft E 1453249.75 ft
Station: 73+04 Offset: 4 RT
Ground Elevation: 498.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: MOBILE B29 TRUCK	C_E = 1.3	

Groundwater Observations		
Date	Depth (ft)	Notes
06/11/20	13.5	Stab. time = 10 min
06/11/20	16.7	Stab. time = 2.5 hrs
06/12/20	24.1	Stab. time = 19.5 hrs

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 - 0.5 ft, ASPHALT								
		Visual Description, (Modified Burmister), S-1 (0.5-2.5'): Medium dense, brown, fine to coarse SAND, little Gravel, trace Silt (A-1-a), Rec. = 1.0 ft, SAND				12-11-8-6 (19)				
		Field Note:, Roller bit grinding between approximately 2.5 and 5.0 feet below ground surface, SAND								
5		Visual Description, (Modified Burmister), S-2 (5.0-6.5'): Very dense, gray-brown, fine to coarse SAND, little Gravel, trace Silt (A-1-a). Weathered rock in tip of spoon, Rec. = 0.5 ft, SAND				4-5-50/6" (REF)				
BOTTOM OF ABUT. I FOOTING EL. 490.0' APPROX. TLOB		6.5 ft - 7.0 ft, WEATHERED ROCK	C-1	47 (0)	2 3 6	Top of Bedrock @ 7.0 ft				
10		7.0 ft - 10.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to medium-grained, SLATE. Joints are extremely close to very close, high angle, rough to smooth, planar to stepped, discolored to disintegrating, and tight to open.	C-2	90 (70)	2 5 2 3 5					
15		10.0 ft - 15.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to medium-grained, SLATE. Joints are extremely close to moderately close, high angle to vertical, rough to smooth, planar to stepped, discolored to decomposed, and tight to partially open.	C-3	82 (33)	2 2 5 2 4					
20		15.0 ft - 20.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to fine-grained, SLATE. Joints are close to moderately close, moderately dipping to high angle, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.	C-4	77 (43)	2 2 3 4 4					
25		20.0 ft - 25.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to fine-grained, SLATE. Joints are extremely close to close, moderately dipping to high angle, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.	C-5	100 (55)	2 2 3 3 5					
30		25.0 ft - 30.0 ft, Medium, fresh to moderately weathered, blue-gray, aphanitic to medium-grained, SLATE with quartzite intrusions. Joints are extremely close to moderately close, high angle, rough to smooth, planar to stepped, discolored to decomposed, and very tight to open.	C-6	100 (26)	4 5 4 6 4					
35		30.0 ft - 35.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic, SLATE with quartzite intrusions. Joints are close to moderately close, horizontal to high angle, rough to smooth, undulating to stepped, discolored to decomposed, and tight to moderately wide.	C-7	97 (45)	5 4 5 4 6					
		35.0 ft - 40.0 ft, Medium, slightly to moderately weathered, blue-gray to white, aphanitic, SLATE with quartzite intrusions. Joints are close to moderately close, low angle to high angle, rough to smooth, undulating to stepped, discolored to decomposed, and tight to moderately wide.								

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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-101**
Page No.: 2 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/10/20 Date Finished: 6/11/20
VTSPG NAD83: N 373887.64 ft E 1453249.75 ft
Station: 73+04 Offset: 4 RT
Ground Elevation: 498.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: MOBILE B29 TRUCK	C_E = 1.3	

Groundwater Observations		
Date	Depth (ft)	Notes
06/11/20	13.5	Stab. time = 10 min
06/11/20	16.7	Stab. time = 2.5 hrs
06/12/20	24.1	Stab. time = 19.5 hrs

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 %
45		40.0 ft - 45.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to medium-grained, SLATE. Joints are very close to moderately close, low angle to high angle, rough to smooth, undulating to stepped, discolored to decomposed, and tight to open.	C-8	100 (37)	4 3 4 4 5					
		45.0 ft - 47.0 ft, Medium, slightly to moderately weathered, blue-gray to white, aphanitic, SLATE with quartzite intrusions. Joints are close to moderately close, horizontal to high angle, rough to smooth, undulating to stepped, discolored, and tight to open.	C-9	100 (70)	3 4					
50		Hole stopped @ 47.0 ft								
55										
60										
65										
70										
75										

Remarks:
1. Top of weathered bedrock encountered at approximately 6.5 feet below ground surface. Advanced roller bit to approximately 7 feet below ground surface and began coring.
2. Losing approximately 1 tub of drill water every five feet of coring, starting at about 10 feet below ground surface.
3. Core barrel jammed at approximately 10 feet below ground surface.
4. Lost drill water (approx. 1.5 tubs) from approximately 18.5 to 19.5 feet below ground surface.
5. Driller had to refill 350 gal. tank during coring of C-4.
6. Lost all drill water (approx. 350 gal) within 10 minutes while coring C-5.
7. Lost all drill water (approx. 350 gal) within 10 minutes while coring C-8.
8. Bedrock testing completed on C-2 (11.7-12.6 ft.) sample, UCS = 1,457 psi, unit weight = 169.7 pcf.
9. Bedrock testing completed on C-5 (27.3-28.3 ft.) sample, UCS = 2,222 psi, unit weight = 168.6 pcf.

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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180boring.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
BORING LOGS SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 26 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-102**
Page No.: 1 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/11/20 Date Finished: 6/12/20
VTSPG NAD83: N 373885.36 ft E 1453234.90 ft
Station: 73+03 Offset: 11 LT
Ground Elevation: 498.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: MOBILE B29 TRUCK	C_E = 1.3	

Groundwater Observations		
Date	Depth (ft)	Notes
06/12/20	15.4	Stab. time = 5 min
06/15/20	27.5	Stab. time = 3 days

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 - 0.83 ft, ASPHALT								
		Visual Description, (Modified Burmister), S-1 (0.8-2.8'): Medium dense, brown, fine to coarse SAND, little Gravel, trace Silt (A-1-a), Rec. = 1.0 ft, SAND				9-8-4-4 (12)				
		2.83 ft - 5.0 ft, SAND								
5		Visual Description, (Modified Burmister), S-2 (5.0-6.5'): Top 4 inches: Very dense, gray, fine to coarse SAND, little Gravel, trace Silt (A-1-a). Middle 3 inches: Orange-brown, fine to medium SAND, little Silt (A-1-b)., Rec. = 0.92 ft, SAND				4-3-50/6" (REF)				
BOTTOM OF ABUT. I FOOTING EL. 490.0' APPROX. TLOB		6.5 ft - 8.0 ft, WEATHERED ROCK	C-1	100 (8)	4	Top of Bedrock @ 8.0 ft				
10		8.0 ft - 13.0 ft, Medium, slightly to moderately weathered, red-purple to blue-gray, aphanitic, SLATE. Joints are extremely close to very close, high angle to vertical, rough, undulating to stepped, discolored to decomposed, and tight to open.			4 4 4 4					
15		13.0 ft - 18.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic, SLATE. Joints are very close to close, horizontal to high angle, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.	C-2	87 (55)	5 3 5 6 6					
20		18.0 ft - 23.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic, SLATE with quartzite intrusions. Joints are extremely close to close, moderately dipping to high angle, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.	C-3	90 (37)	3 3 3 5 8					
25		23.0 ft - 28.0 ft, Medium, slightly to moderately weathered, blue-gray to white, aphanitic, SLATE with quartzite intrusions. Joints are extremely close to close, moderately dipping to high angle, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.	C-4	100 (43)	2 2 4 3 3					
30		28.0 ft - 33.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic, SLATE. Joints are extremely close to close, moderately dipping to vertical, rough to smooth, planar to stepped, discolored to decomposed, and tight to moderately wide.	C-5	90 (17)	3 2 3 3 6					
35		33.0 ft - 38.0 ft, Medium, slightly to moderately weathered, blue-gray to white, aphanitic, SLATE with quartzite intrusions. Joints are very close to close, horizontal to vertical, rough, undulating to stepped, discolored to decomposed, and tight to moderately wide.	C-6	98 (47)	3 4 3 3 4					
		38.0 ft - 43.0 ft, Medium, slightly to moderately weathered, blue-gray to white, aphanitic, SLATE with quartzite intrusions. Joints are very close to close, horizontal to vertical, rough, undulating to stepped,	C-7	88 (19)	3 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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-102**
Page No.: 2 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/11/20 Date Finished: 6/12/20
VTSPG NAD83: N 373885.36 ft E 1453234.90 ft
Station: 73+03 Offset: 11 LT
Ground Elevation: 498.0 ft

Type: WASH BORE / SS
I.D.: 4 in / 2 in
Hammer Wt: 300 lb. / 140 lb.
Hammer Fall: 24 in. / 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: MOBILE B29 TRUCK C_E = 1.3

Groundwater Observations
06/12/20 | 15.4 | Stab. time = 5 min
06/15/20 | 27.5 | Stab. time = 3 days

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 %
		discolored to decomposed, and tight to moderately wide.			4 3 7					
45		43.0 ft - 46.7 ft, Medium, slightly to moderately weathered, blue-gray to white, aphanitic, SLATE with quartzite intrusions. Joints are very close to close, horizontal to vertical, rough, undulating to stepped, discolored to decomposed, and tight to moderately wide.	C-8	55 (13)	5 4 3 6					
		Hole stopped @ 46.7 ft								

Remarks:
1. Top of weathered bedrock encountered at approximately 6.5 feet below ground surface. Advanced roller bit to approximately 8 feet below ground surface and began coring.
2. Lost drill water (approx. 1/2 tub) at approximately 42 feet below ground surface.
3. Core barrel jammed at approximately 46.7 feet below ground surface. Drilling terminated.
4. Bedrock testing completed on C-2 (14.5-15.4 ft.) sample, UCS = 1,312 psi, unit weight = 171.4 pcf.

50 55 60 65 70 75

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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180boring.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
BORING LOGS SHEET 2

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 27 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-103**
Page No.: 1 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/09/20 Date Finished: 6/09/20
VTSPG NAD83: N 373989.83 ft E 1453227.67 ft
Station: 74+08 Offset: 8 LT
Ground Elevation: 499.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: MOBILE B29 TRUCK	C_E = 1.3	

Groundwater Observations

Date	Depth (ft)	Notes
06/15/20	34.1	Stab. time = 5 days

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 - 0.5 ft, ASPHALT								
		Visual Description, (Modified Burmister), S-1 (0.5-2.5'): Medium dense, brown-gray, fine to coarse SAND, some Gravel, trace Silt (A-1-a), Rec. = 1.0 ft, SAND				7-8-8-6 (16)				
		2.5 ft - 5.0 ft, SAND								
5		Visual Description, (Modified Burmister), S-2 (5.0-6.5'): Very dense, brown, fine to coarse SAND, little Silt, trace Gravel (A-1-b). Weathered rock in tip of spoon, Rec. = 1.08 ft, SAND				5-4-50/6" (REF)				
		6.5 ft - 8.0 ft, WEATHERED ROCK								
BOTTOM OF ABUT. 2 FOOTING EL. 490.0' APPROX. TLOB		8.0 ft - 13.0 ft, Medium, slightly to moderately weathered, red-purple, aphanitic to fine-grained, SLATE. Joints are very close to close, high angle to vertical, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-1	53 (23)	2 3 5 3 3	Top of Bedrock @ 8.0 ft				
10										
15		13.0 ft - 18.0 ft, Medium, slightly to moderately weathered, red-purple, aphanitic to fine-grained, SLATE. Joints are very close to moderately close, high angle to vertical, rough to smooth, planar, discolored to decomposed, and tight to partially open.	C-2	88 (50)	3 2 2 2 3					
20		18.0 ft - 23.0 ft, Medium, slightly to moderately weathered, red-purple, aphanitic to fine-grained, SLATE. Joints are extremely close to close, high angle to vertical, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-3	68 (22)	3 2 2 5 7					
25		23.0 ft - 28.0 ft, Medium, slightly to moderately weathered, red-purple to blue-gray, aphanitic to medium-grained, SLATE. Joints are very close to moderately close, low angle to high angle, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-4	93 (51)	3 3 4 5 6					
30		28.0 ft - 31.0 ft, Medium, slightly to moderately weathered, blue-gray to red-purple, aphanitic to medium-grained, SLATE. Joints are very close to close, high angle, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-5	83 (28)	2 7 10					
35		31.0 ft - 36.0 ft, Medium, fresh to moderately weathered, red-purple to blue-gray, aphanitic to fine-grained, SLATE. Joints are very close to moderately close, high angle, rough to smooth, planar to stepped, fresh to discolored, and tight to open.	C-6	100 (38)	3 3 5 5 7					
		36.0 ft - 41.0 ft, Medium, fresh to moderately weathered, blue-gray, aphanitic to fine-grained, SLATE. Joints are very close to moderately close, high angle, rough to smooth, planar to stepped, fresh to discolored, and tight to partially open.	C-7	100 (86)	2 5 4 6					

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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-103**
Page No.: 2 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/09/20 Date Finished: 6/09/20
VTSPG NAD83: N 373989.83 ft E 1453227.67 ft
Station: 74+08 Offset: 8 LT
Ground Elevation: 499.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: MOBILE B29 TRUCK	C_E = 1.3	

Groundwater Observations

Date	Depth (ft)	Notes
06/15/20	34.1	Stab. time = 5 days

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 %
					9					
45		41.0 ft - 46.0 ft, Medium, fresh to moderately weathered, blue-gray to red-purple, aphanitic to fine-grained, SLATE. Joints are very close to moderately close, high angle, rough to smooth, planar to stepped, fresh to decomposed, and tight to open.	C-8	100 (90)	9 2 3 2 2					
		Hole stopped @ 46.0 ft			4					
50										
55										
60										
65										
70										
75										

Remarks:
1. Top of weathered bedrock encountered at approximately 6.5 feet below ground surface. Advanced roller bit to approximately 8 feet below ground surface and began coring.
2. Core barrel jammed at approximately 31 feet below ground surface.
3. Bedrock testing completed on C-4 (23.8-24.9 ft.) sample, UCS = 400 psi, unit weight = 169.9 pcf.

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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16J180boring.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
BORING LOGS SHEET 3

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 28 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-104**
Page No.: 1 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/08/20 Date Finished: 6/08/20
VTSPG NAD83: N 373991.31 ft E 1453238.42 ft
Station: 74+09 Offset: 3 RT
Ground Elevation: 499.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: MOBILE B29 TRUCK	C_E = 1.3	

Groundwater Observations		
Date	Depth (ft)	Notes
06/08/20	19.5	Stab. time = 10 min
06/09/20	20.2	Stab. time = 15 hrs
06/15/20	28.8	Stab. time = 7 days

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 - 0.5 ft, ASPHALT								
		Visual Description, (Modified Burmister), S-1 (0.5-2.5'): Loose, brown, fine to coarse SAND, trace Gravel, trace Silt (A-1-a), Rec. = 1.42 ft, SAND				6-4-4-8 (8)				
		2.5 ft - 5.0 ft, SAND								
5		Visual Description, (Modified Burmister), S-2 (5.0-7.0'): No recovery. Gravel wash in split spoon, Rec. = 0.0 ft, SAND				4-5-4-5 (9)				
		7.0 ft - 7.5 ft, SAND								
BOTTOM OF ABUT. 2 FOOTING EL. 490.0' APPROX. TLOB		7.5 ft - 8.0 ft, WEATHERED ROCK								
		8.0 ft - 11.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to fine-grained, SLATE. Joints are very close to close, high angle, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-1	67 (11)	4 6 10	Top of Bedrock @ 8.0 ft				
10		11.0 ft - 14.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to fine-grained, SLATE. Joints are extremely close to moderately close, high angle, rough to smooth, planar, discolored, and tight to partially open.	C-2	97 (63)	7 9 10					
		14.0 ft - 19.0 ft, Medium, slightly to moderately weathered, blue-gray, aphanitic to fine-grained, SLATE. Joints are extremely close to moderately close, high angle, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-3	67 (19)	6 5 5 7 4					
15										
20		19.0 ft - 24.0 ft, Medium, slightly to moderately weathered, blue-gray to red-purple, aphanitic to fine-grained, SLATE. Joints are extremely close to moderately close, high angle, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-4	78 (33)	3 2 3 4 5					
25		24.0 ft - 29.0 ft, Medium, slightly to moderately weathered, red-purple, aphanitic to medium-grained, SLATE. Joints are extremely close to very close, high angle to vertical, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.	C-5	82 (7)	2 3 2 9 6					
30		29.0 ft - 34.0 ft, Medium, fresh to moderately weathered, red-purple, aphanitic to fine-grained, SLATE. Joints are extremely close to moderately close, high angle, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-6	92 (78)	5 3 3 4 6					
35		34.0 ft - 39.0 ft, Medium, fresh to moderately weathered, red-purple, aphanitic to fine-grained, SLATE. Joints are extremely close to close, low angle to high angle, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.	C-7	88 (49)	2 3 2 4 6					
		39.0 ft - 43.75 ft, Medium, fresh to moderately weathered,	C-8	100	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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Bridge No. 7 Replacement Project
Poultney BO 1443(53)
Poultney, Vermont

Boring No.: **B-104**
Page No.: 2 of 2
Pin No.: 16J180
Checked By: J. Baron

Boring Crew: B. Raiche (NEBC), M. Murphy (GZA)
Date Started: 6/08/20 Date Finished: 6/08/20
VTSPG NAD83: N 373991.31 ft E 1453238.42 ft
Station: 74+09 Offset: 3 RT
Ground Elevation: 499.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: MOBILE B29 TRUCK	C_E = 1.3	

Groundwater Observations		
Date	Depth (ft)	Notes
06/08/20	19.5	Stab. time = 10 min
06/09/20	20.2	Stab. time = 15 hrs
06/15/20	28.8	Stab. time = 7 days

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 %
		red-purple, aphanitic to fine-grained, SLATE. Joints are extremely close to close, low angle to high angle, rough to smooth, planar to stepped, discolored to decomposed, and tight to open.		(70)	3 3 3 4					
45		43.75 ft - 46.0 ft, Medium, fresh to moderately weathered, red-purple, aphanitic to fine-grained, SLATE. Joints are extremely close to moderately close, low angle to high angle, rough to smooth, planar to undulating, discolored to decomposed, and tight to open.	C-9	100 (86)	5 6					
		Hole stopped @ 46.0 ft								
50										
55										
60										
65										
70										
75										

Remarks:
1. Top of weathered bedrock encountered at approximately 7.5 feet below ground surface. Advanced roller bit to approximately 8 feet below ground surface and began coring.
2. Core barrel jammed at approximately 11 feet below ground surface.
3. Core barrel jammed at approximately 43.75 feet below ground surface.
4. Bedrock testing completed on C-2 (11.4-12.5 ft.) sample, UCS = 507 psi, unit weight = 168.0 pcf.
5. Bedrock testing completed on C-4 (14.4-15.2 ft.) sample, UCS = 426 psi, unit weight = 167.0 pcf.

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.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

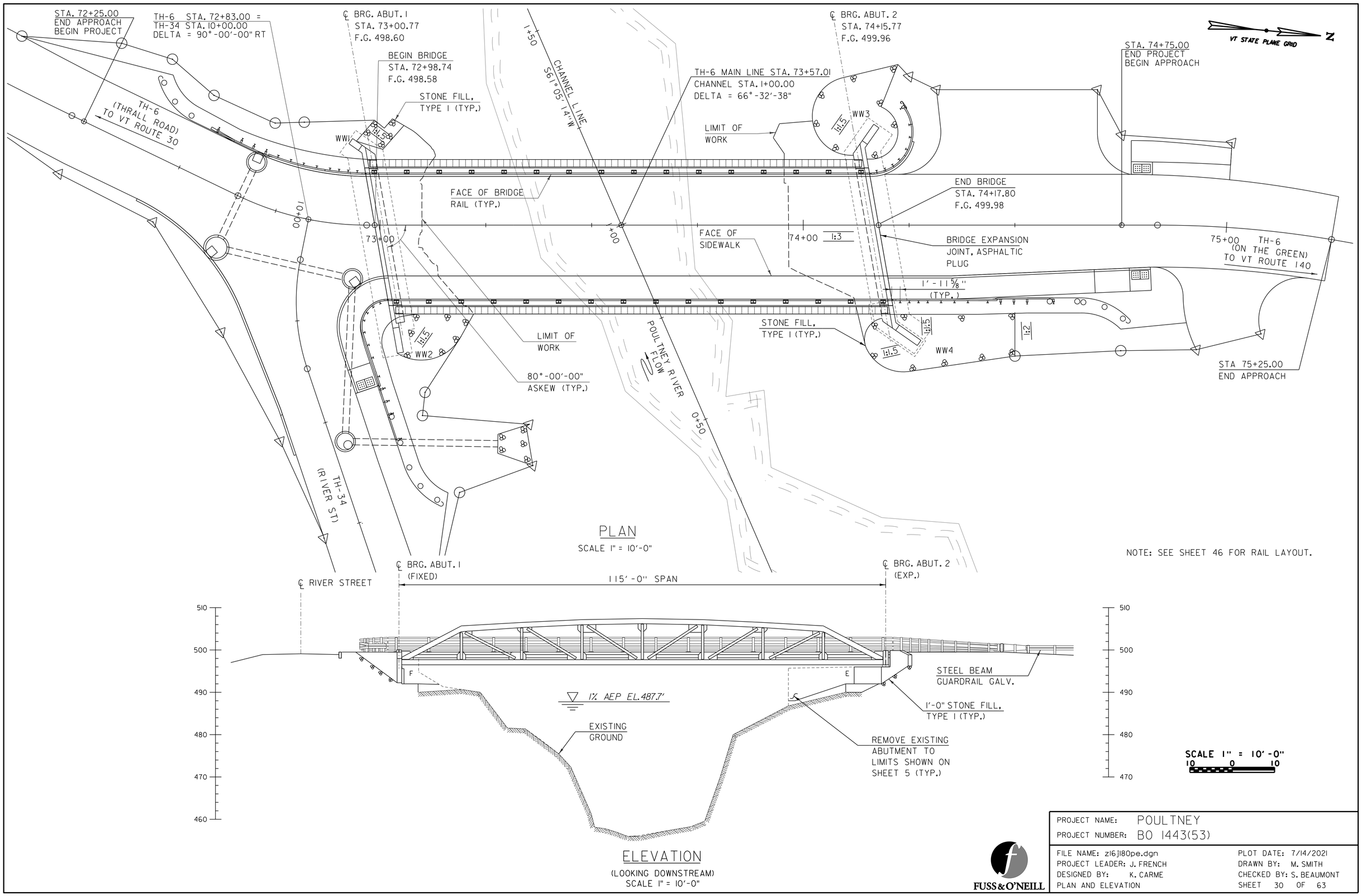
BORING LOG 04.0190389.28 VTRANS POULTNEY BO 1443(53).GPJ VERMONT AOT.GDT 10/8/20

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16J180boring.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
BORING LOGS SHEET 4

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 29 OF 63



PLAN

SCALE 1" = 10'-0"

NOTE: SEE SHEET 46 FOR RAIL LAYOUT.

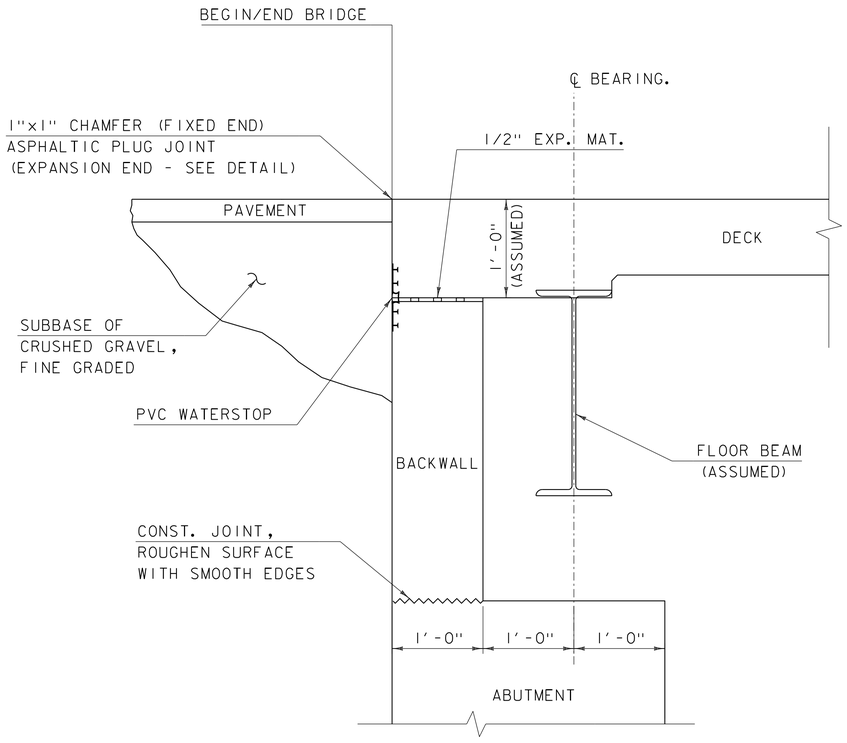
ELEVATION

(LOOKING DOWNSTREAM)
SCALE 1" = 10'-0"

SCALE 1" = 10'-0"
10 0 10

FUSS&O'NEILL

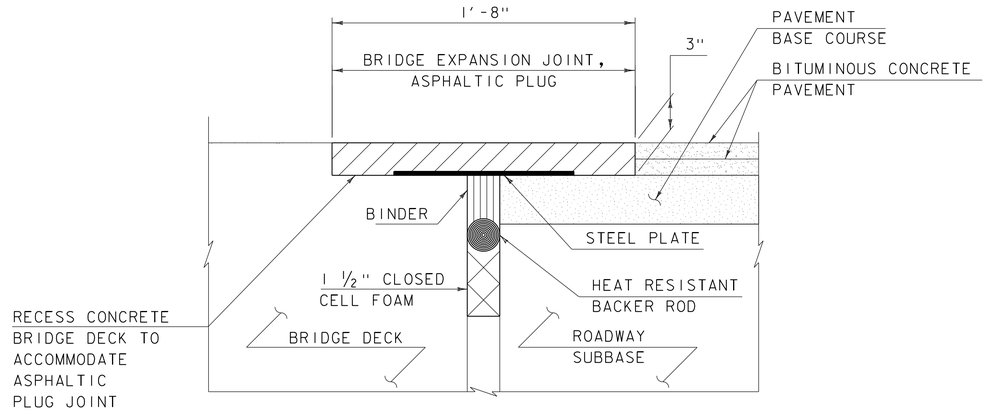
PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME:	z16j180pe.dgn
PROJECT LEADER:	J. FRENCH
DESIGNED BY:	K. CARME
PLAN AND ELEVATION	
PLOT DATE:	7/14/2021
DRAWN BY:	M. SMITH
CHECKED BY:	S. BEAUMONT
SHEET	30 OF 63



DECK END SECTION

(NOT TO SCALE)

NOTE: PONY TRUSS SUPERSTRUCTURE CONFIGURATION AND DECK END HAUNCH THICKNESS ARE ASSUMED AND WERE USED TO DETERMINE ABUTMENT GEOMETRY AS SHOWN ON THE PLANS. ABUTMENT GEOMETRY SHALL BE VERIFIED BY THE CONTRACTOR BASED ON ACTUAL PONY TRUSS SUPERSTRUCTURE CONFIGURATION. SEE PONY TRUSS SUPERSTRUCTURE NOTES ON SHEET 6.



ASPHALTIC PLUG-TYPE JOINT DETAIL

(NOT TO SCALE)

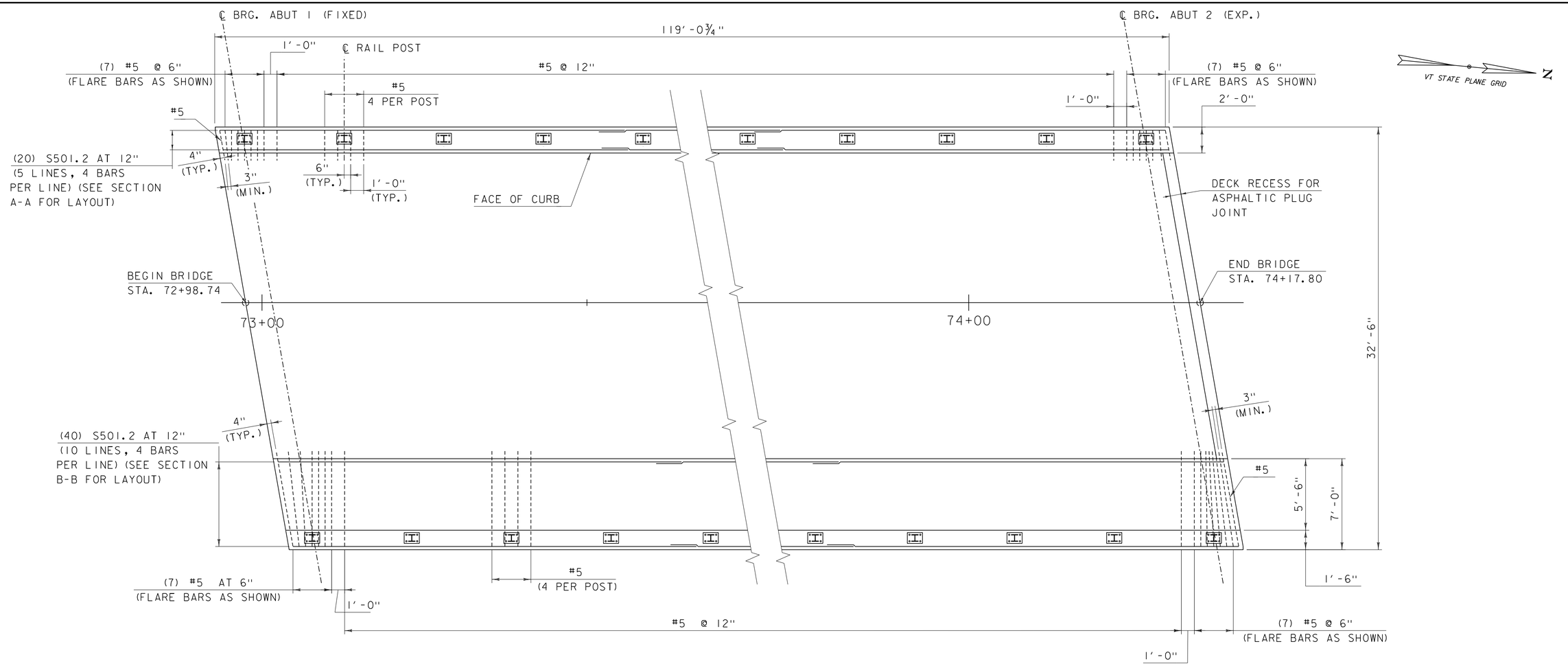
NOTE: SEE STANDARD S-400 FOR ADDITIONAL INFORMATION.

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

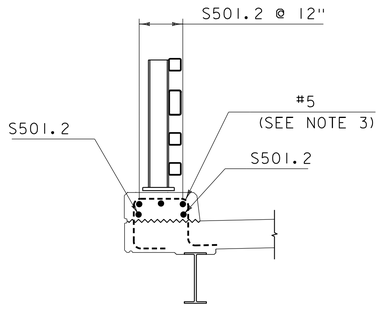
FILE NAME: z16j180sup.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
JOINT DETAILS

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 31 OF 63



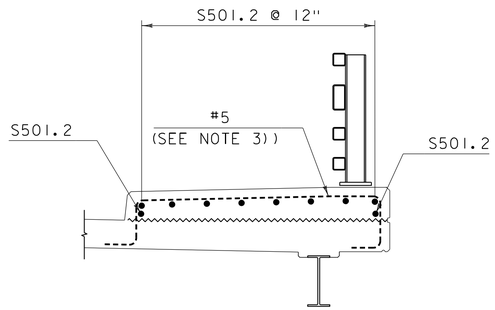
SIDEWALK AND CURB REINFORCEMENT

SCALE: ¼" = 1'-0"



SECTION A-A

SCALE: ½" = 1'-0"



SECTION B-B

SCALE: ½" = 1'-0"

NOTES:

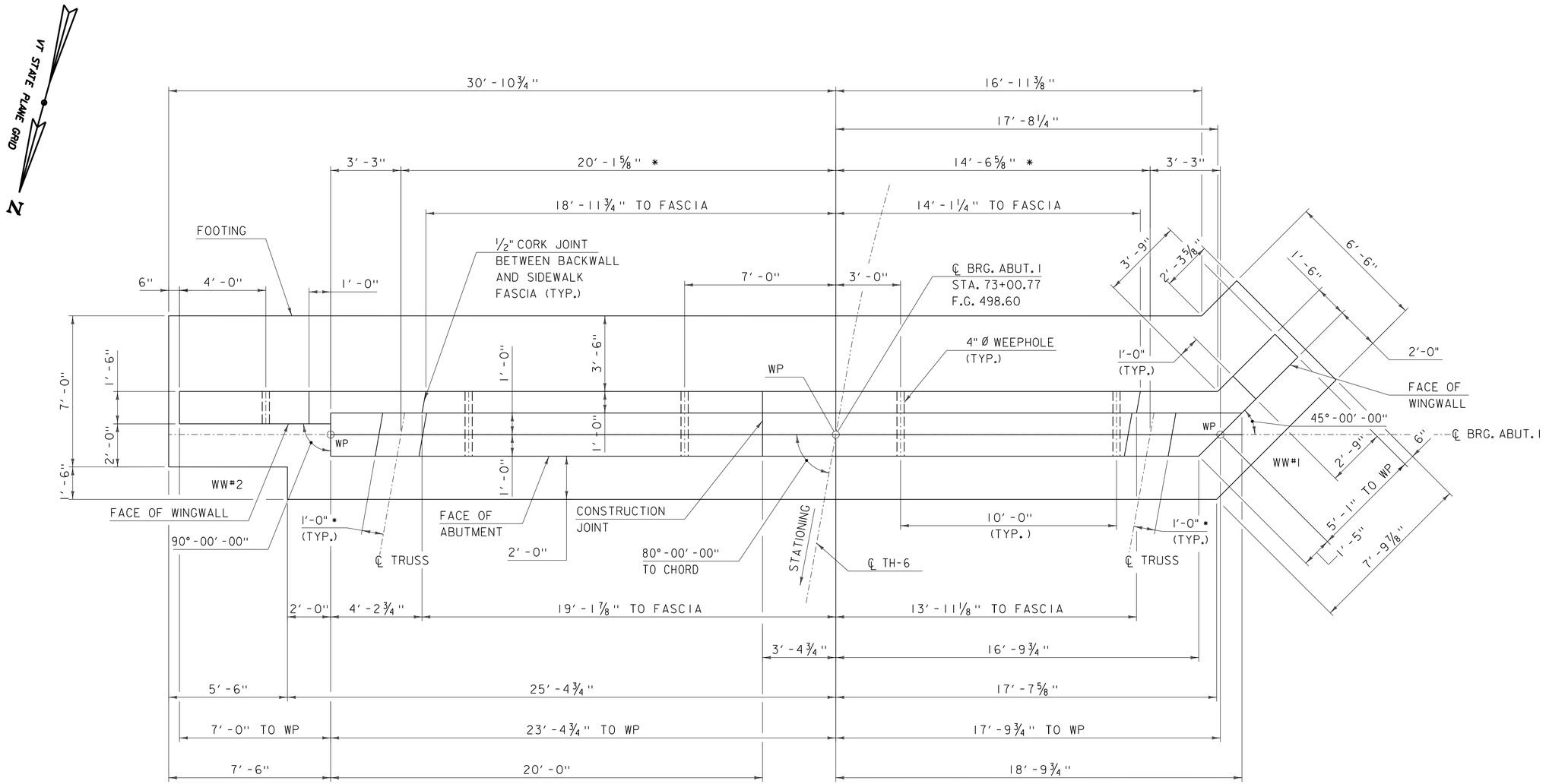
1. 3" CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS.
2. HORIZONTAL LAPS ARE 2'-0" MINIMUM, UNLESS OTHERWISE SPECIFIED ON PLANS.
3. BENT CURB AND SIDEWALK BARS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. ACTUAL BAR QUANTITIES AND LAYOUT SHALL BE DETERMINED BY THE CONTRACTOR AND SHALL BE PAID FOR UNDER ITEM 900.645, "SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE)".

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180sup.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
SIDEWALK REINFORCEMENT

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 32 OF 63



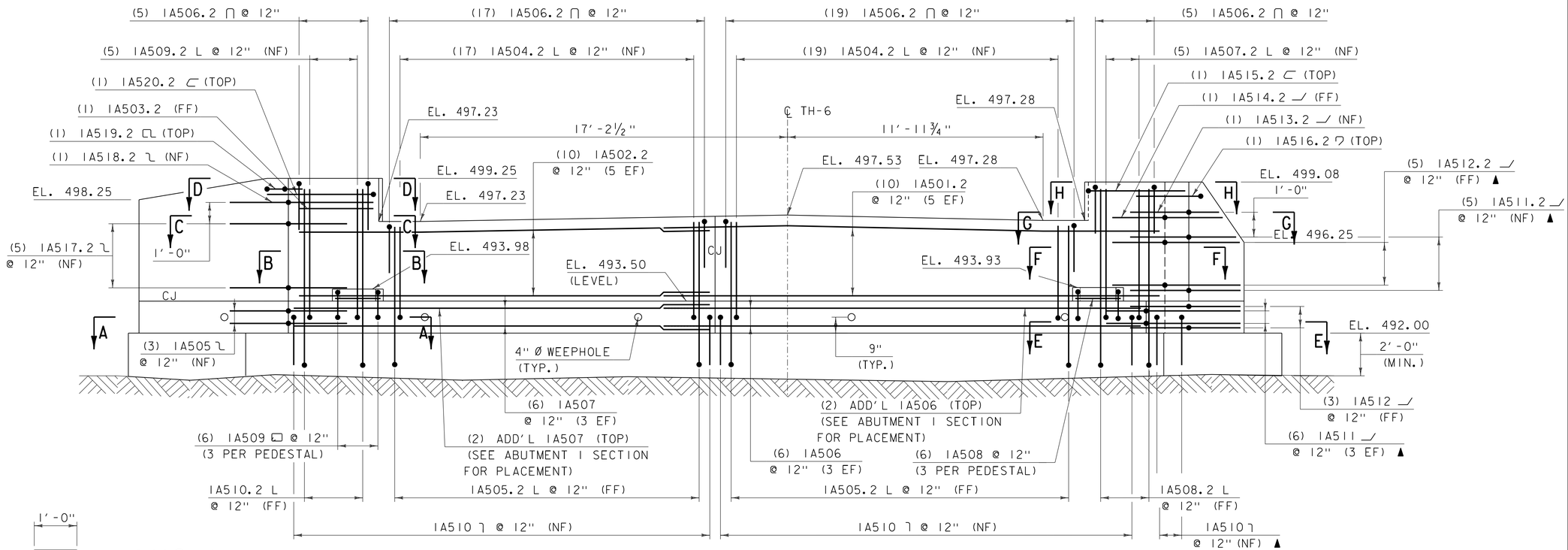
ABUTMENT 1 PLAN

SCALE: 3/8" = 1'-0"

* TRUSS CENTERLINE LOCATIONS AND BEARING PEDESTAL GEOMETRY ARE ASSUMED DIMENSIONS. THE CONTRACTOR SHALL MODIFY DIMENSIONS AS NEEDED TO ACCOMMODATE ACTUAL PONY TRUSS SUPERSTRUCTURE CONGFIGURATION. SEE PONY TRUSS SUPERSTRUCTURE NOTES ON SHEET 6.

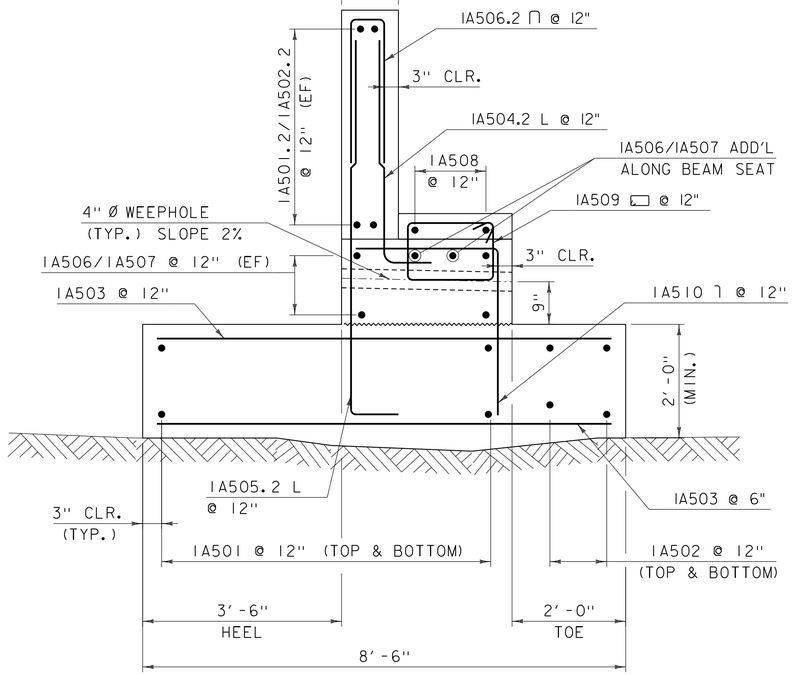
FUSS&O'NEILL

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16j180sub.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
ABUTMENT 1 PLAN	SHEET 33 OF 63



ABUTMENT 1 ELEVATION

SCALE: ⅜" = 1'-0"



ABUTMENT 1 SECTION

SCALE: ¾" = 1'-0"

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT
CJ = CONSTRUCTION JOINT

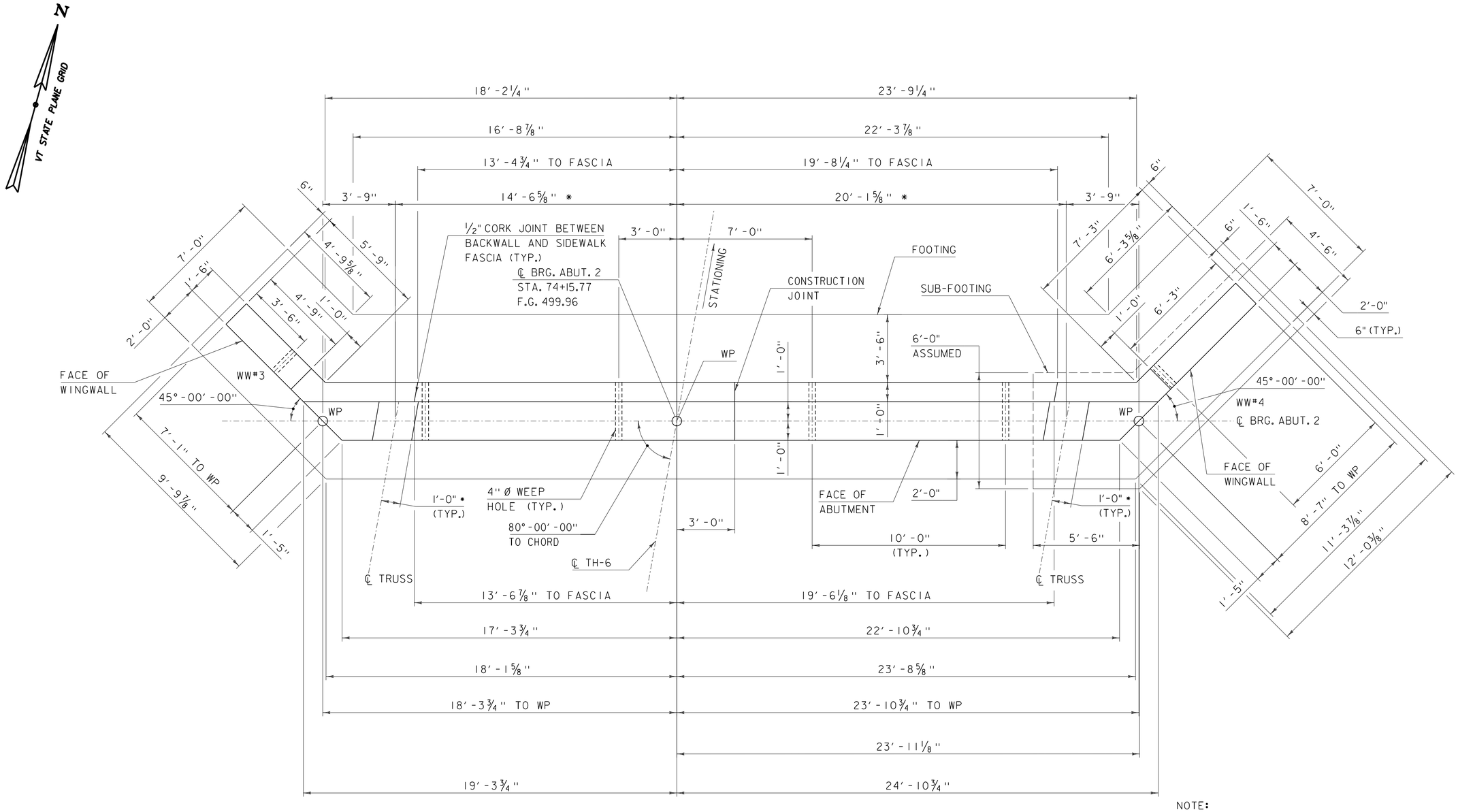
1. 3" CLEAR IN FOOTING AND 2" CLEAR ABOVE FOOTING UNLESS OTHERWISE SPECIFIED ON PLANS.
2. VERTICAL LAPS ARE 2'-2" MINIMUM, HORIZONTAL LAPS ARE 2'-9", UNLESS OTHERWISE SPECIFIED ON PLANS.
3. SEE SHEET 40 FOR CORNER SECTIONS AND SHEET 42 FOR FOOTING REINFORCING PLAN FOR FOOTING BAR QUANTITY.
4. BEDROCK SHOWN IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS, BUT AN EXAMPLE OF HOW THE FOOTING/SUB-FOOTING CAN BE CONSTRUCTED UPON BEDROCK.
5. BACKWALL DIMENSIONS ARE GIVEN AT FACE OF BACKWALL.
6. PEDESTAL AND BACKWALL ELEVATIONS SHOWN ARE ASSUMED. THE CONTRACTOR SHALL ADJUST ELEVATIONS AS NECESSARY TO ACCOMMODATE ACTUAL SUPERSTRUCTURE CONFIGURATION.

FUSS&O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
ABUTMENT 1 ELEVATION AND SECTION

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 34 OF 63



ABUTMENT 2 PLAN

SCALE: ⅜″ = 1′-0″

* TRUSS CENTERLINE LOCATIONS AND BEARING PEDESTAL GEOMETRY ARE ASSUMED DIMENSIONS. THE CONTRACTOR SHALL MODIFY DIMENSIONS AS NEEDED TO ACCOMMODATE ACTUAL PONY TRUSS SUPERSTRUCTURE CONGFIGURATION. SEE PONY TRUSS SUPERSTRUCTURE NOTES ON SHEET 6.

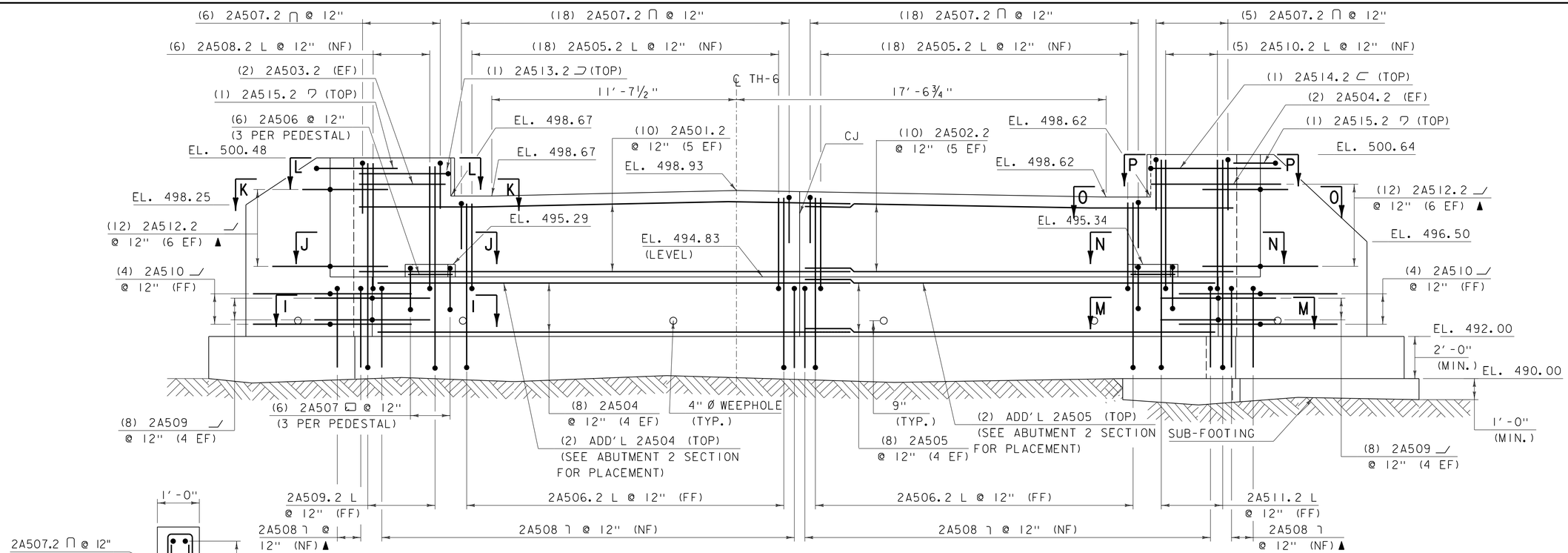
NOTE:
SUB-FOOTING DIMENSIONS SHOWN ARE APPROXIMATE. ACTUAL SUB-FOOTING GEOMETRY (IF APPLICABLE) SHALL BE DETERMINED IN THE FIELD ONCE BEDROCK HAS BEEN EXPOSED.

FUSS&O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

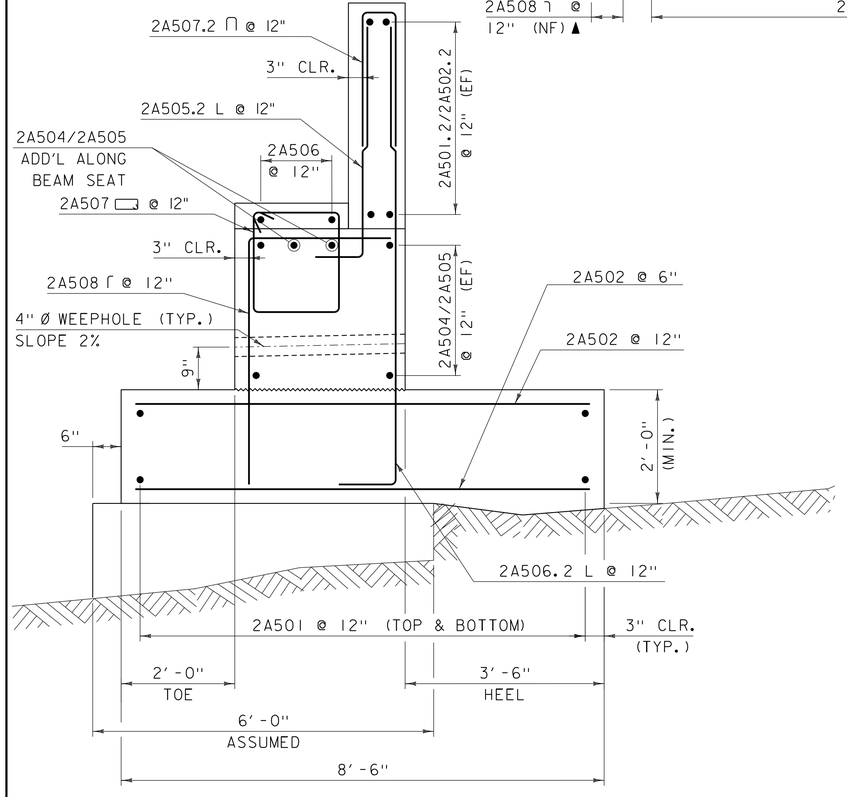
FILE NAME: z16j180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
ABUTMENT 2 PLAN

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 35 OF 63



ABUTMENT 2 ELEVATION

SCALE: ⅜" = 1'-0"



ABUTMENT 2 SECTION

SCALE: ¾" = 1'-0"

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT
CJ = CONSTRUCTION JOINT

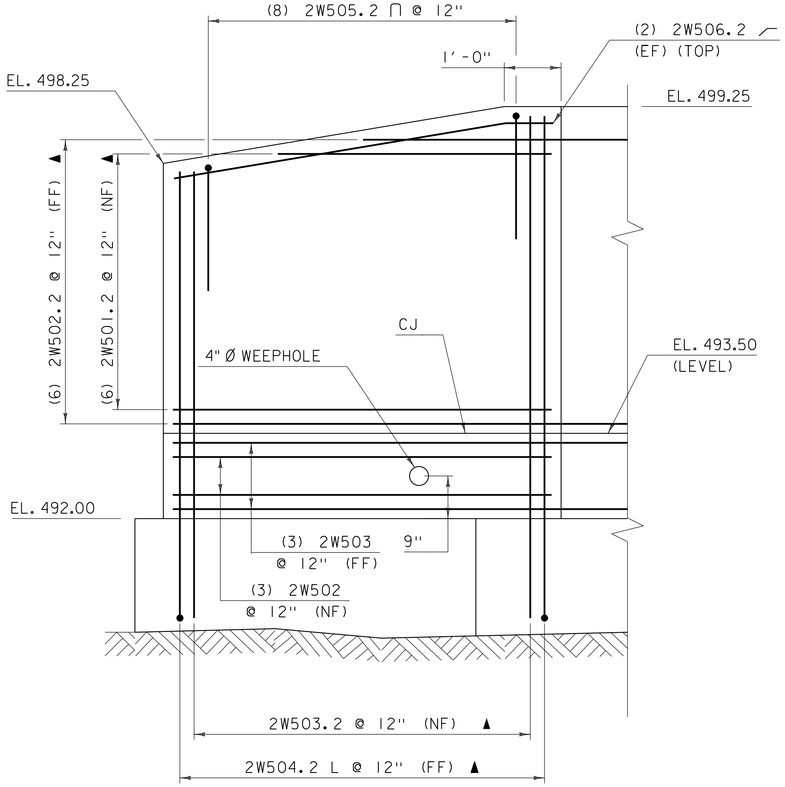
1. 3" CLEAR IN FOOTING AND 2" CLEAR ABOVE FOOTING UNLESS OTHERWISE SPECIFIED ON PLANS.
2. VERTICAL LAPS ARE 2'-2" MINIMUM, HORIZONTAL LAPS ARE 2'-9", UNLESS OTHERWISE SPECIFIED ON PLANS.
3. SEE SHEET 41 FOR CORNER SECTIONS AND SHEET 43 FOR FOOTING REINFORCING PLAN FOR FOOTING BAR QUANTITY.
4. BEDROCK SHOWN IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS, BUT AN EXAMPLE OF HOW THE FOOTING/SUB-FOOTING CAN BE CONSTRUCTED UPON BEDROCK.
5. BACKWALL DIMENSIONS ARE GIVEN AT FACE OF BACKWALL.
6. PEDESTAL AND BACKWALL ELEVATIONS SHOWN ARE ASSUMED. THE CONTRACTOR SHALL ADJUST ELEVATIONS AS NECESSARY TO ACCOMMODATE ACTUAL SUPERSTRUCTURE CONFIGURATION.

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16J180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
ABUTMENT 2 ELEVATION AND SECTION

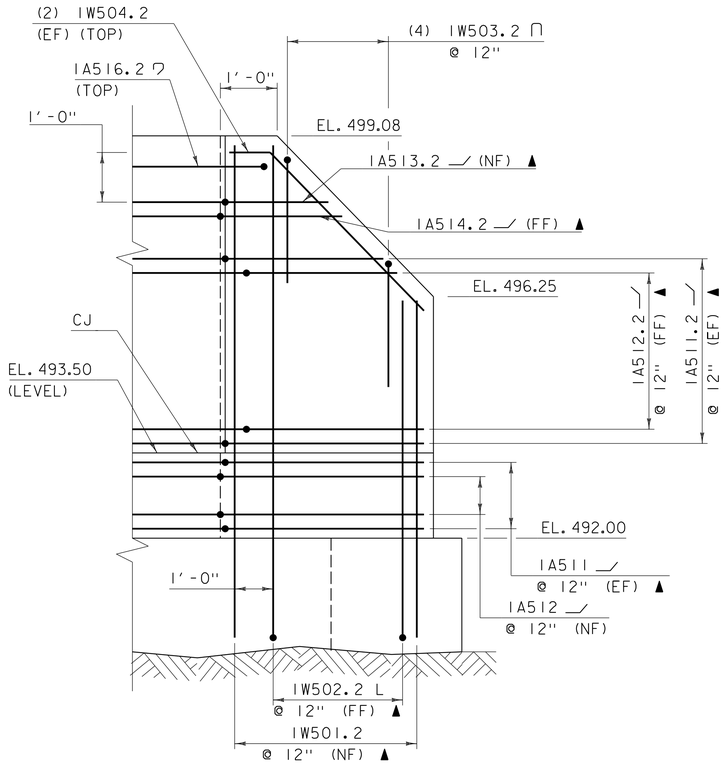
PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 36 OF 63

FUSS&O'NEILL



WINGWALL 2 ELEVATION

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



WINGWALL 1 ELEVATION

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

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT
CJ = CONSTRUCTION JOINT

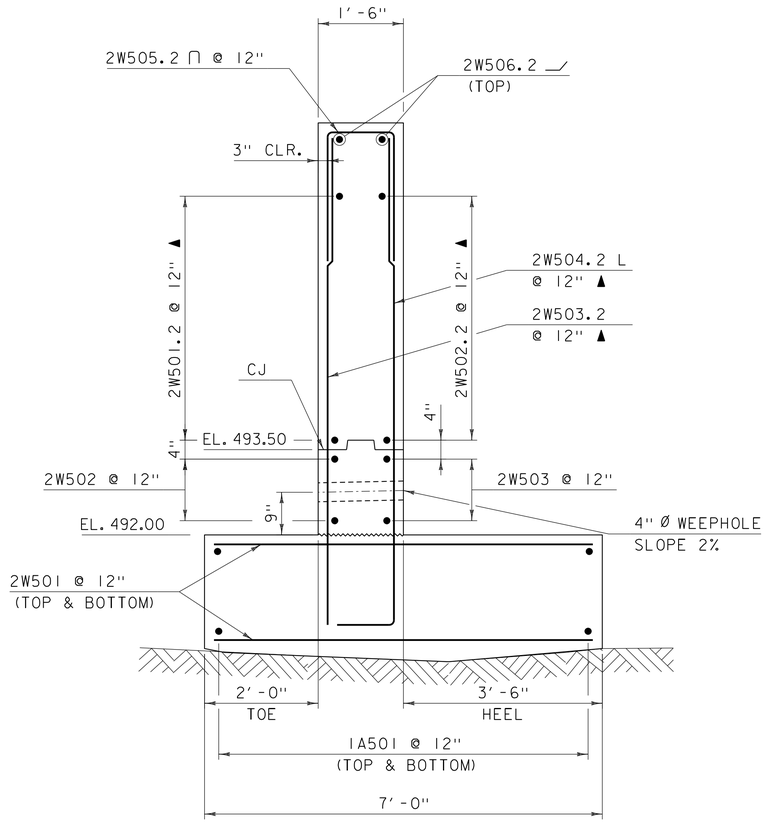
1. 3" CLEAR IN FOOTING AND 2" CLEAR ABOVE FOOTING UNLESS OTHERWISE SPECIFIED ON PLANS.
2. VERTICAL LAPS ARE 2'-2" MINIMUM, HORIZONTAL LAPS ARE 2'-9", UNLESS OTHERWISE SPECIFIED ON PLANS.
3. SEE SHEET 34 FOR ABUTMENT 1 ELEVATION, SHEET 38 FOR WINGWALL SECTIONS, SHEET 40 FOR CORNER SECTIONS, AND SHEET 42 FOR FOOTING REINFORCING PLAN AND FOOTING BAR QUANTITY.
4. BEDROCK SHOWN IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS, BUT AN EXAMPLE OF HOW THE FOOTING/SUB-FOOTING CAN BE CONSTRUCTED UPON BEDROCK.

FUSS&O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

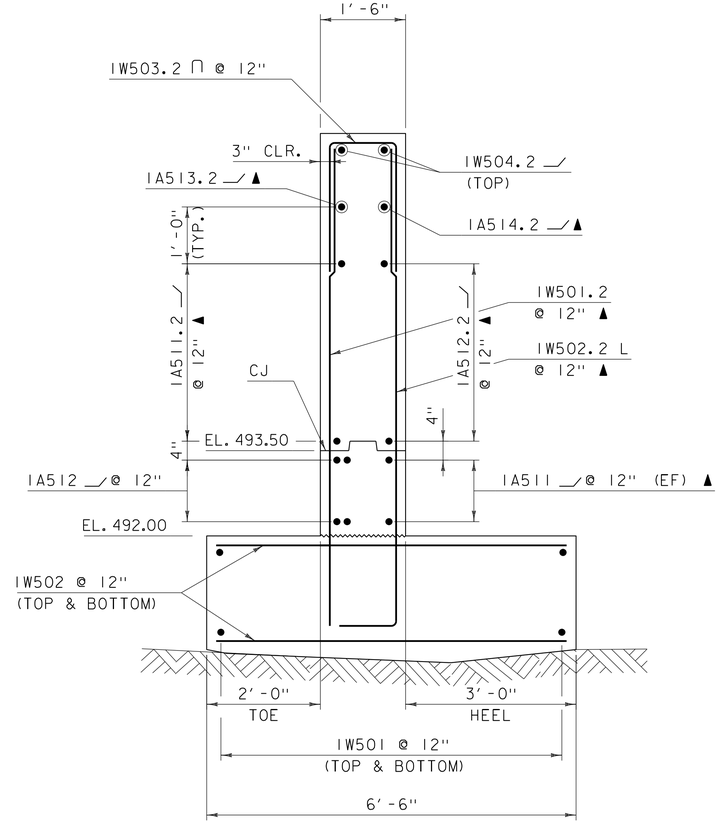
FILE NAME: z16j180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
WINGWALL DETAILS SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 37 OF 63



WINGWALL 2 SECTION

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



WINGWALL 1 SECTION

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

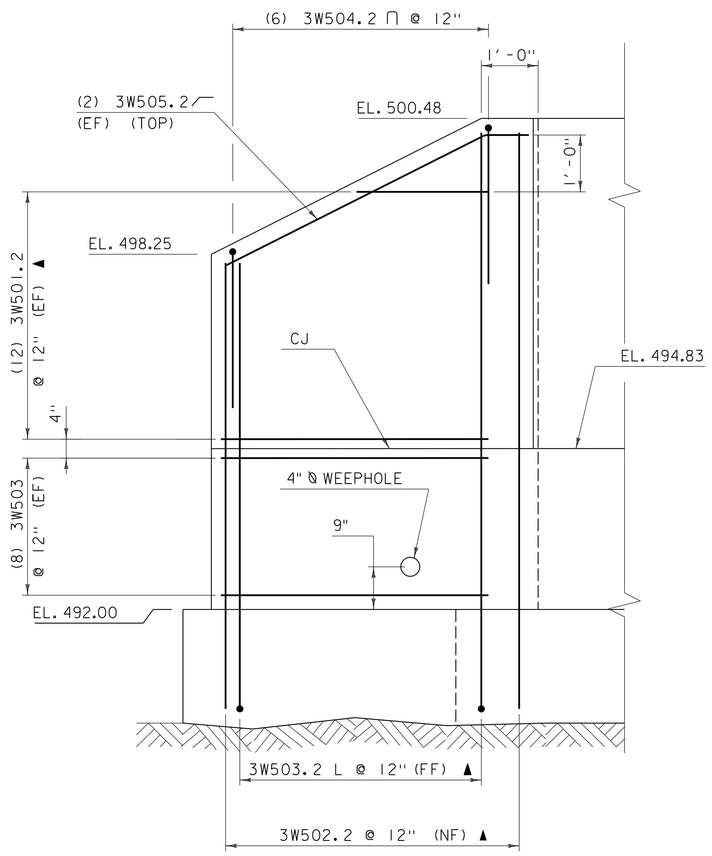
NOTES:

▲ = FIELD CUT
CJ = CONSTRUCTION JOINT

1. 3" CLEAR IN FOOTING AND 2" CLEAR ABOVE FOOTING UNLESS OTHERWISE SPECIFIED ON PLANS.
2. VERTICAL LAPS ARE 2'-2" MINIMUM, HORIZONTAL LAPS ARE 2'-9", UNLESS OTHERWISE SPECIFIED ON PLANS.
3. SEE SHEET 37 FOR WINGWALL ELEVATIONS, SHEET 40 FOR CORNER SECTIONS, AND SHEET 42 FOR FOOTING REINFORCING PLAN FOR FOOTING BAR QUANTITY.
4. BEDROCK SHOWN IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS, BUT AN EXAMPLE OF HOW THE FOOTING/SUB-FOOTING CAN BE CONSTRUCTED UPON BEDROCK.

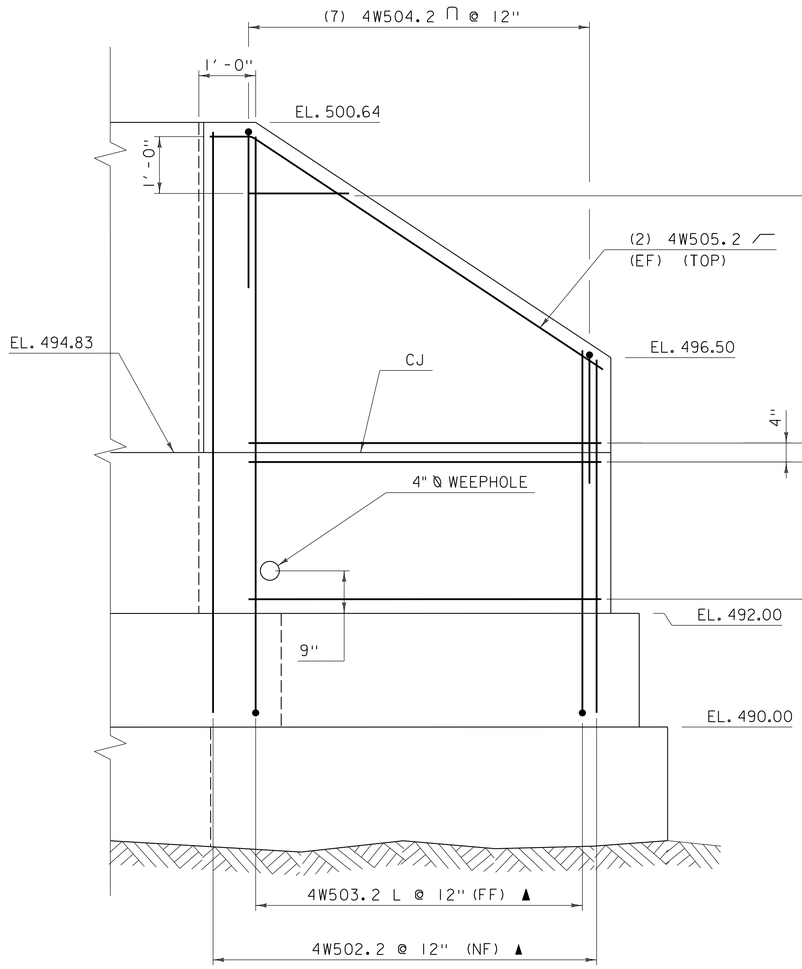
FUSS&O'NEILL

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16J180sub.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
WINGWALL DETAILS SHEET 2	SHEET 38 OF 63



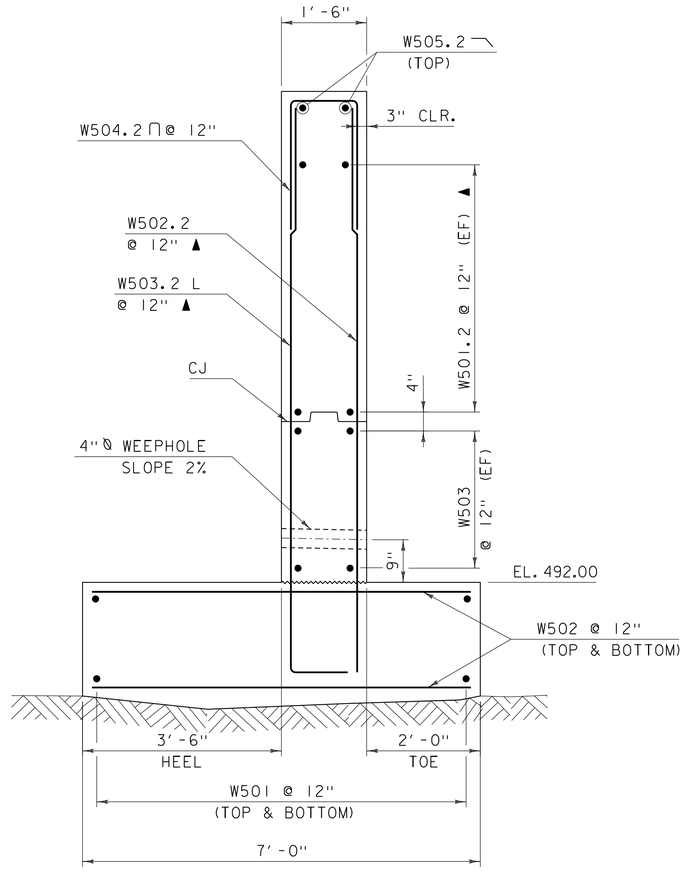
WINGWALL 3 ELEVATION

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



WINGWALL 4 ELEVATION

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



WINGWALL 3 AND 4 SECTION

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

NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT
CJ = CONSTRUCTION JOINT

1. 3" CLEAR IN FOOTING AND 2" CLEAR ABOVE FOOTING UNLESS OTHERWISE SPECIFIED ON PLANS.

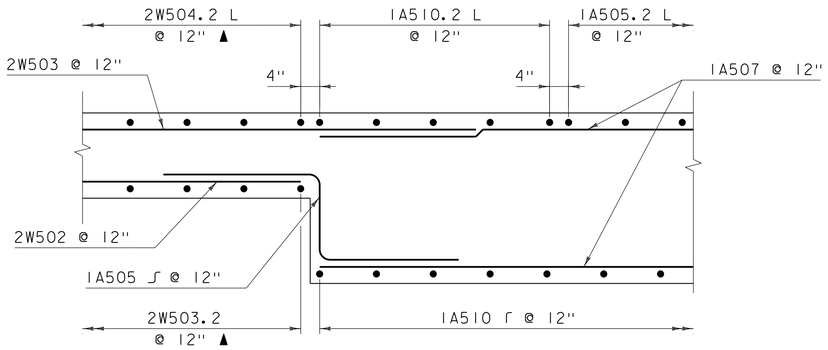
2. VERTICAL LAPS ARE 2'-2" MINIMUM, HORIZONTAL LAPS ARE 2'-9", UNLESS OTHERWISE SPECIFIED ON PLANS.

3. SEE SHEET 36 FOR ABUTMENT 2 ELEVATION, SHEET 41 FOR CORNER SECTIONS, AND SHEET 43 FOR FOOTING REINFORCING PLAN FOR FOOTING BAR QUANTITY.

4. BEDROCK SHOWN IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS, BUT AN EXAMPLE OF HOW THE FOOTING/SUB-FOOTING CAN BE CONSTRUCTED UPON BEDROCK.

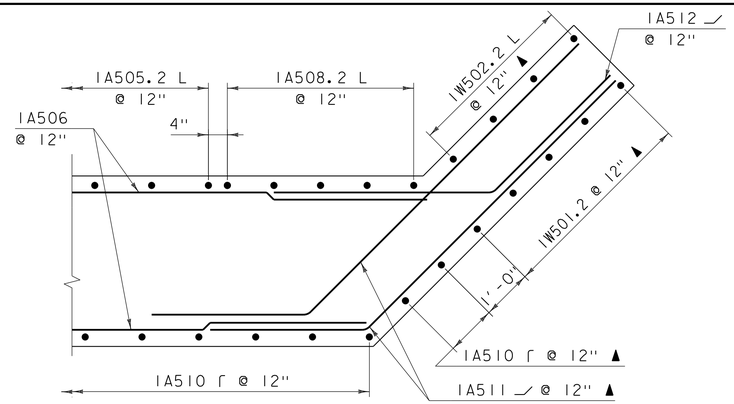
FUSS&O'NEILL

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16j180sub.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
WINGWALL DETAILS SHEET 3	SHEET 39 OF 63



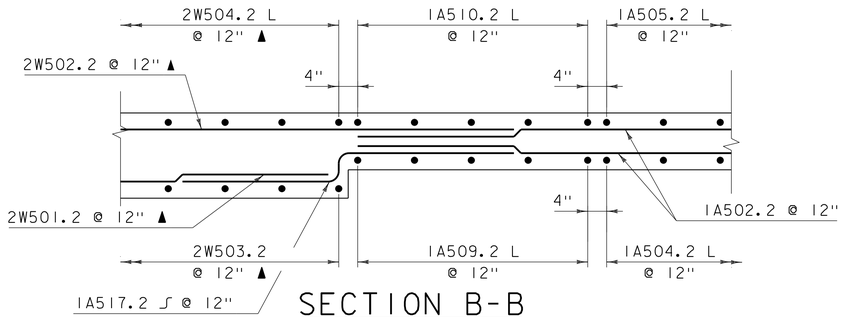
SECTION A-A

(BELOW BEAM SEAT)
SCALE: 3/4" = 1'-0"



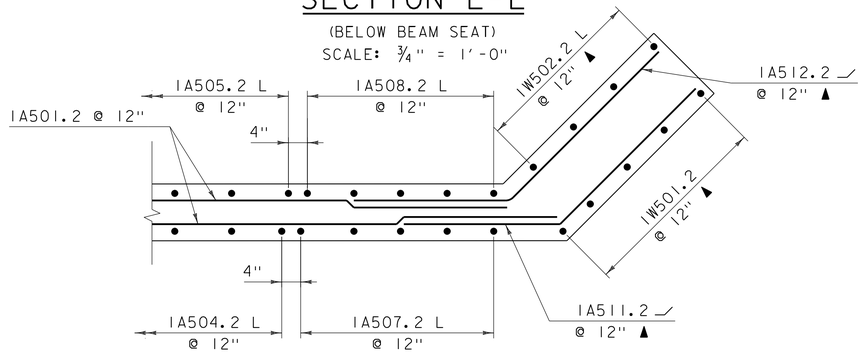
SECTION E-E

(BELOW BEAM SEAT)
SCALE: 3/4" = 1'-0"



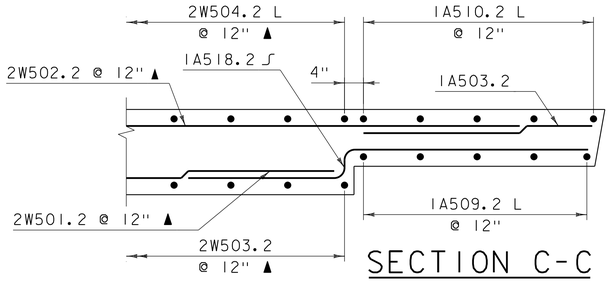
SECTION B-B

(ABOVE BEAM SEAT)
SCALE: 3/4" = 1'-0"



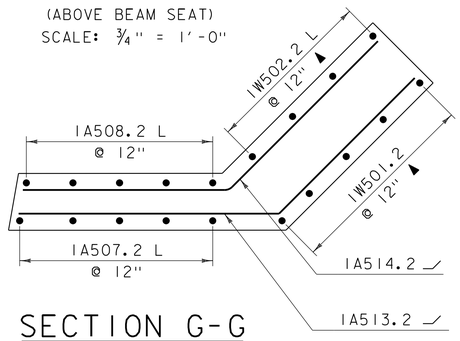
SECTION F-F

(ABOVE BEAM SEAT)
SCALE: 3/4" = 1'-0"



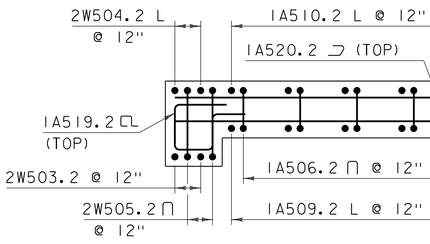
SECTION C-C

(ABOVE BACKWALL)
SCALE: 3/4" = 1'-0"



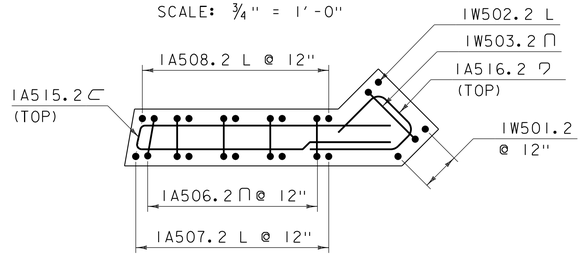
SECTION G-G

(ABOVE BACKWALL)
SCALE: 3/4" = 1'-0"



SECTION D-D

(TOP OF CORNER)
SCALE: 3/4" = 1'-0"



SECTION H-H

(TOP OF CORNER)
SCALE: 3/4" = 1'-0"

NOTES:

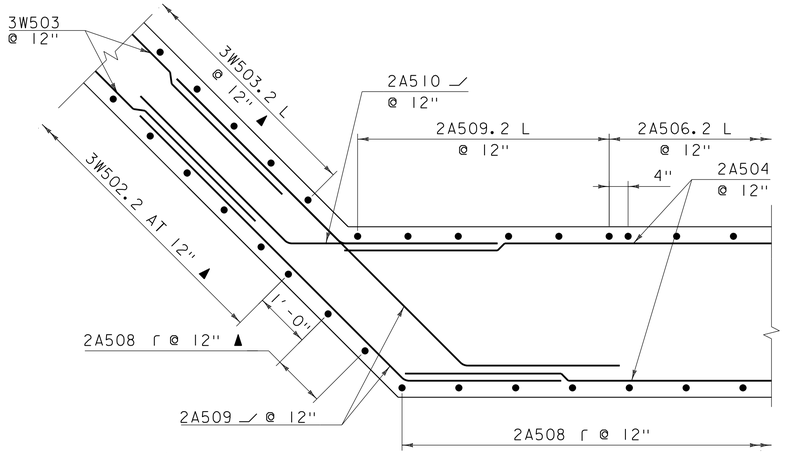
1. VERTICAL LAPS ARE 2'-2" MINIMUM, HORIZONTAL LAPS ARE 2'-9", UNLESS OTHERWISE SPECIFIED ON PLANS.
2. SEE SHEET 34 FOR ABUTMENT 1 ELEVATION AND SECTION LOCATIONS AND SHEET 37 FOR WINGWALL ELEVATIONS.

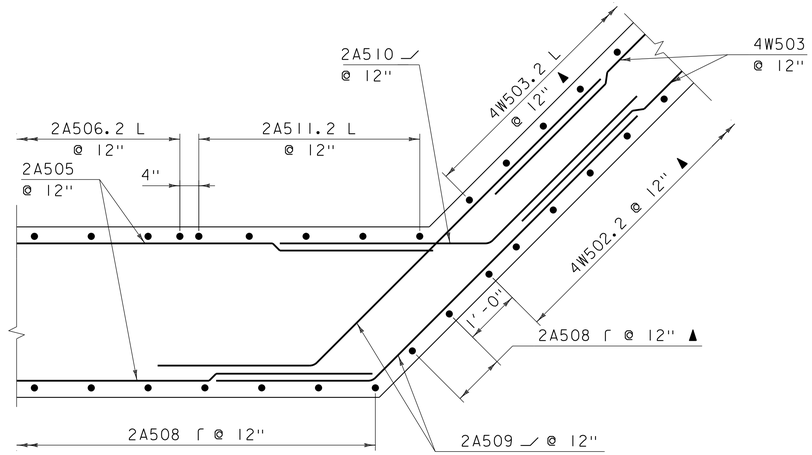
FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
CORNER DETAILS SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 40 OF 63

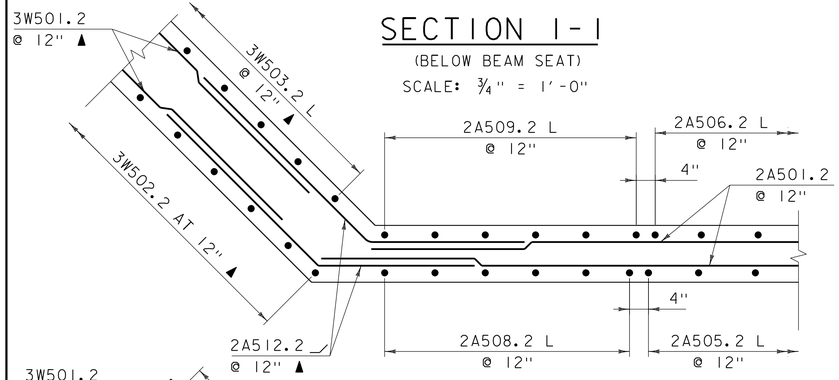




SECTION I-I

(BELOW BEAM SEAT)

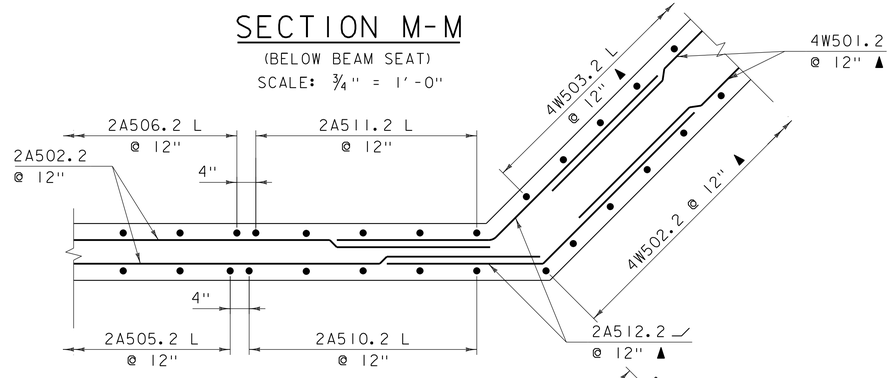
SCALE: 3/4" = 1'-0"



SECTION M-M

(BELOW BEAM SEAT)

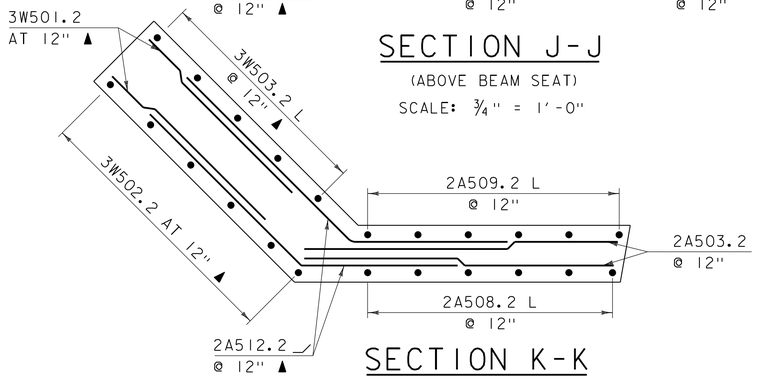
SCALE: 3/4" = 1'-0"



SECTION J-J

(ABOVE BEAM SEAT)

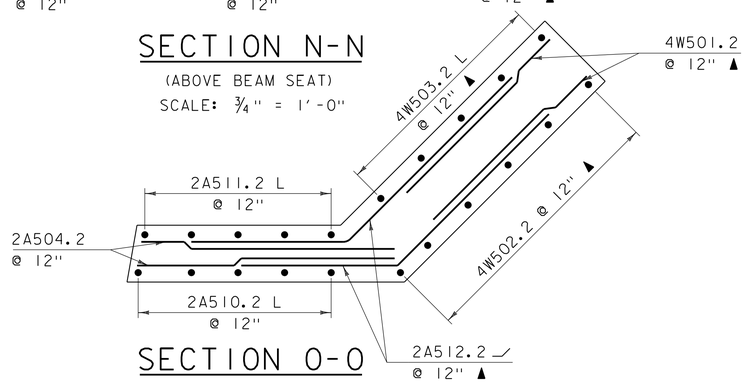
SCALE: 3/4" = 1'-0"



SECTION N-N

(ABOVE BEAM SEAT)

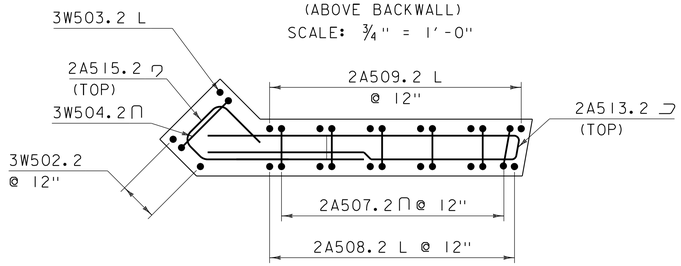
SCALE: 3/4" = 1'-0"



SECTION K-K

(ABOVE BACKWALL)

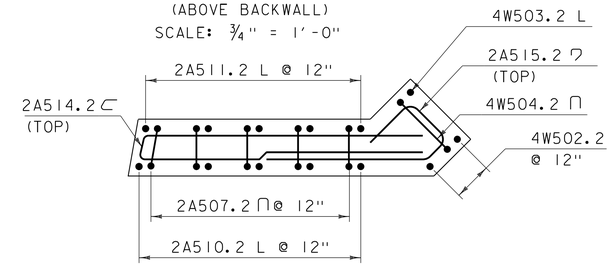
SCALE: 3/4" = 1'-0"



SECTION O-O

(ABOVE BACKWALL)

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



SECTION L-L

(TOP OF CORNER)

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

SECTION P-P

(TOP OF CORNER)

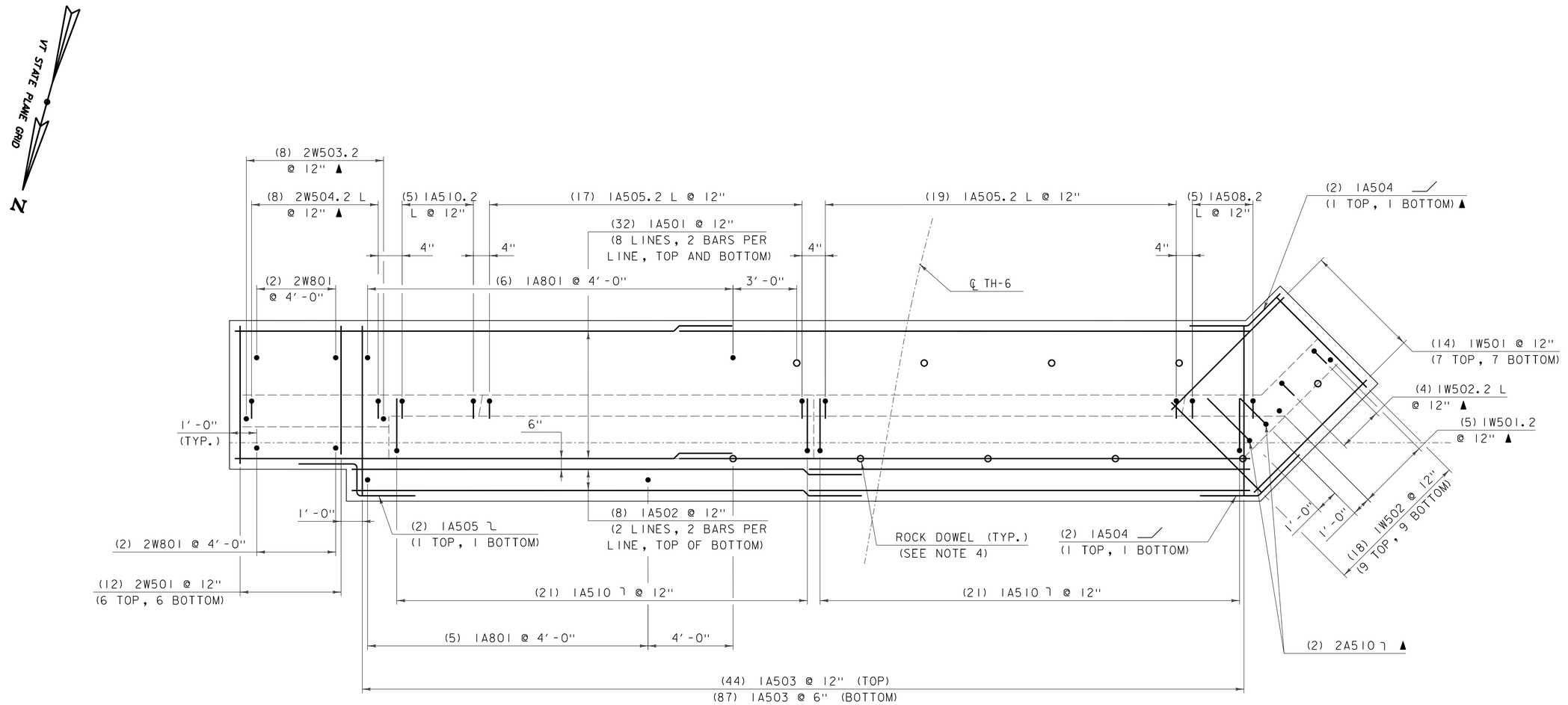
SCALE: 3/4" = 1'-0"

NOTES:

1. VERTICAL LAPS ARE 2'-2" MINIMUM, HORIZONTAL LAPS ARE 2'-9", UNLESS OTHERWISE SPECIFIED ON PLANS.
2. SEE SHEET 36 FOR ABUTMENT 2 ELEVATION AND SECTION LOCATIONS AND SHEET 39 FOR WINGWALL ELEVATIONS.

FUSS&O'NEILL

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16j180sub.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
CORNER DETAILS SHEET 2	SHEET 41 OF 63



ABUTMENT 1 FOOTING REINFORCEMENT PLAN

SCALE: 3/8" = 1'-0"

NOTES:

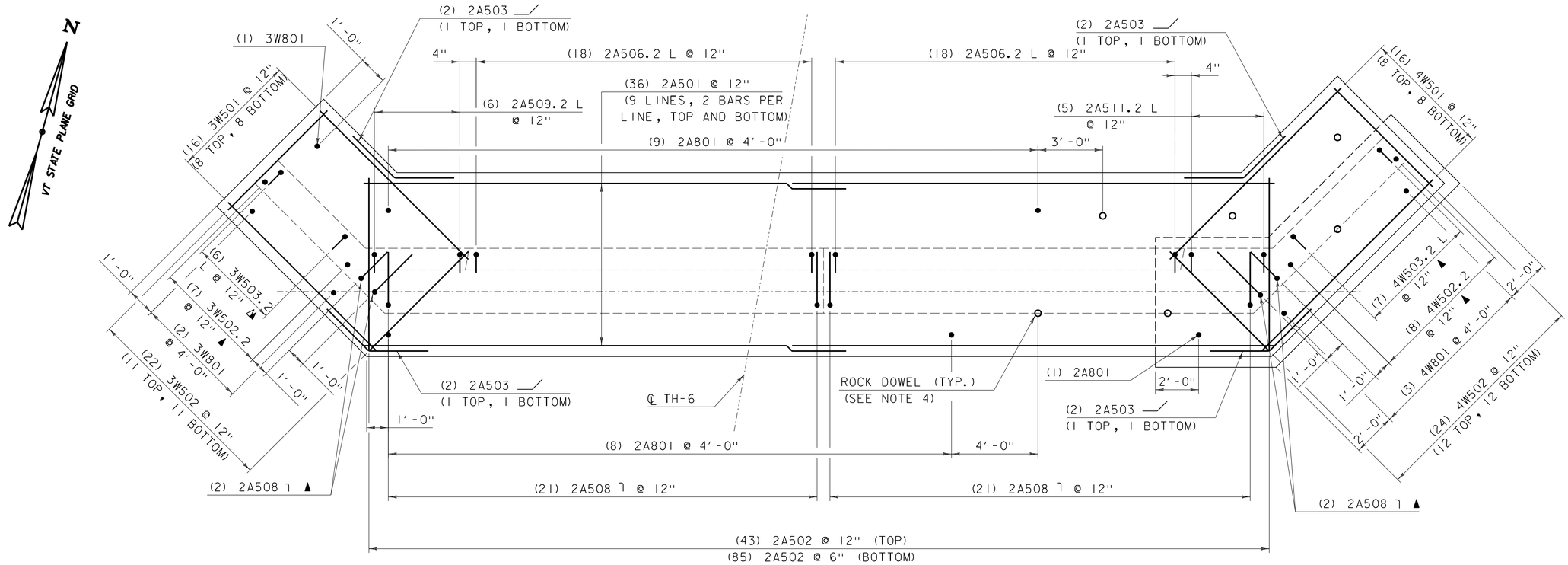
1. 3" CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS.
2. 2'-9" BAR LAP UNLESS OTHERWISE SPECIFIED ON PLANS.
3. SUB-FOOTING DIMENSIONS ARE APPROXIMATE. ACTUAL SUB-FOOTING GEOMETRY (IF APPLICABLE) SHALL BE DETERMINED IN THE FIELD ONCE BEDROCK HAS BEEN EXPOSED.
4. SEE SHEET 44 FOR ROCK DOWEL PLACEMENT AND QUANTITY.

FUSS&O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

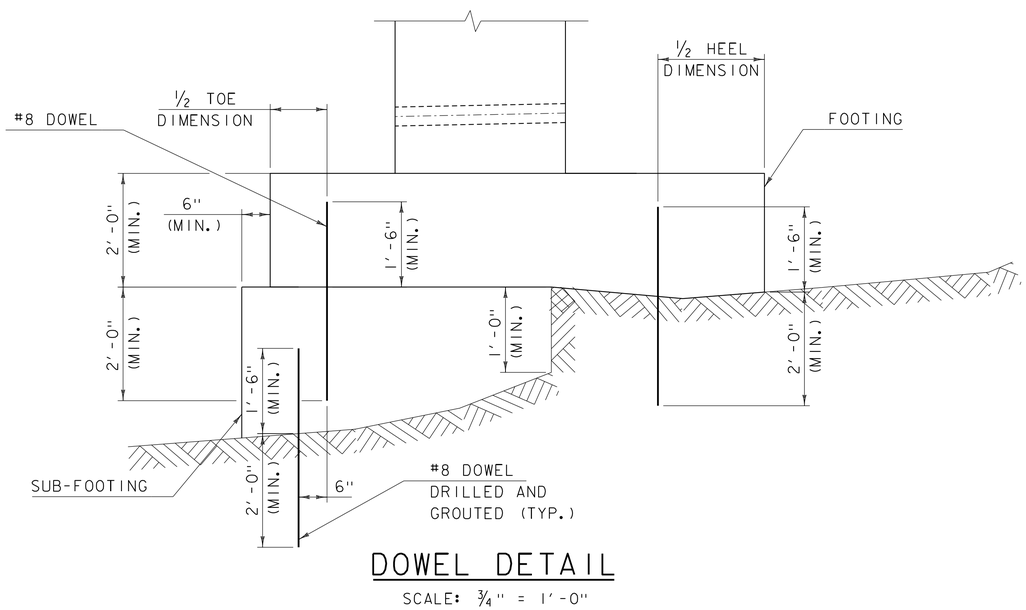
FILE NAME: z16j180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
ABUTMENT 1 FOOTING DETAILS

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 42 OF 63



ABUTMENT 2 FOOTING REINFORCEMENT PLAN

SCALE: 3/8" = 1'-0"



DOWEL DETAIL

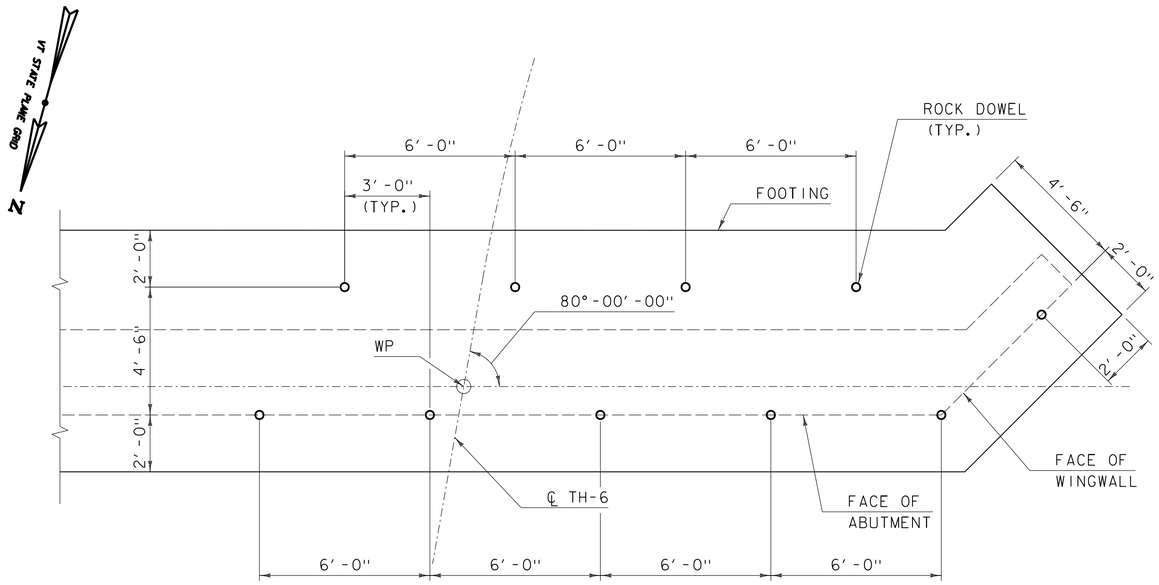
SCALE: 3/4" = 1'-0"

NOTES:

1. 3" CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS.
2. 2'-9" BAR LAP UNLESS OTHERWISE SPECIFIED ON PLANS.
3. SUB-FOOTING DIMENSIONS SHOWN ARE APPROXIMATE. ACTUAL SUB-FOOTING GEOMETRY (IF APPLICABLE) SHALL BE DETERMINED IN THE FIELD ONCE BEDROCK HAS BEEN EXPOSED.
4. SEE SHEET 44 FOR ROCK DOWEL PLACEMENT AND GEOMETRY.

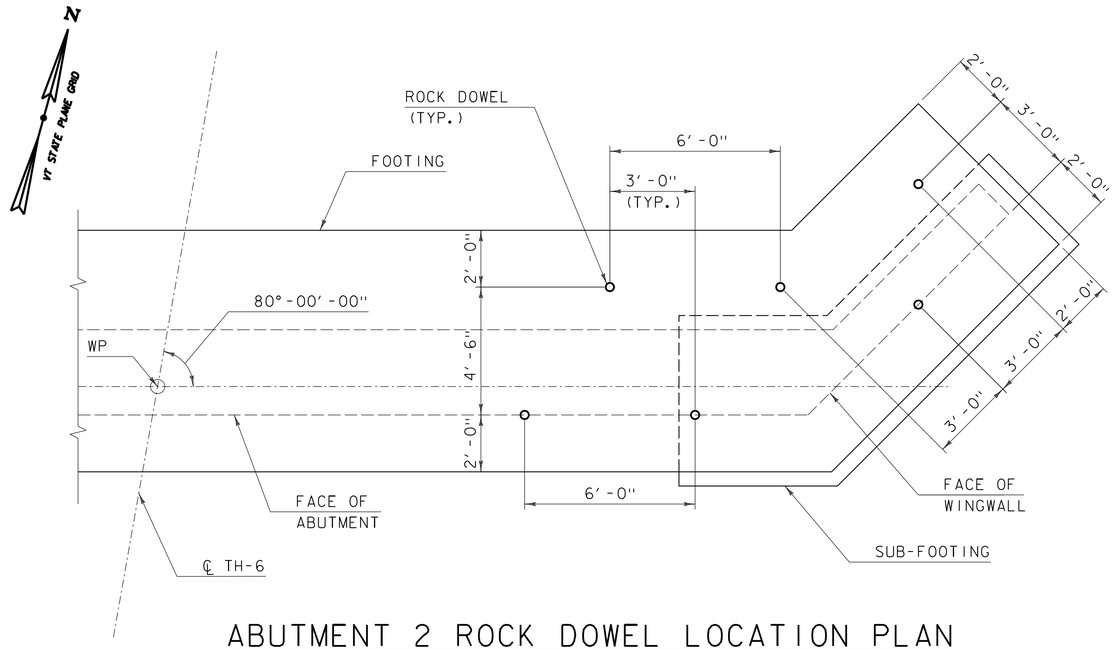
FUSS&O'NEILL

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16j180sub.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
ABUTMENT 2 FOOTING DETAILS	SHEET 43 OF 63



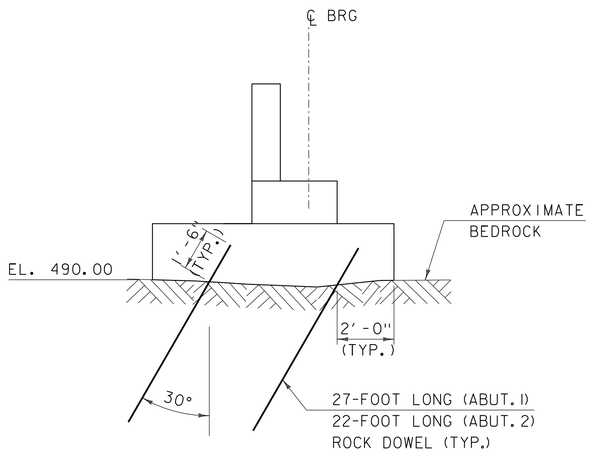
ABUTMENT 1 ROCK DOWEL LOCATION PLAN

SCALE: 3/8" = 1'-0"



ABUTMENT 2 ROCK DOWEL LOCATION PLAN

SCALE: 3/8" = 1'-0"



TYPICAL ABUTMENT DOWEL LOCATION SECTION

SCALE: 3/8" = 1'-0"

ROCK FOUNDATION TREATMENT NOTES

1. DOWEL LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL DOWEL LOCATIONS SHALL BE SELECTED BY A GEOTECHNICAL ENGINEER IN THE FIELD. ALL DOWELS SHALL BE INSTALLED AT AN INCLINATION OF APPROXIMATELY 30 DEGREES (AZIMUTH OF 60 DEGREES), WITH A BEARING APPROXIMATELY NORMAL TO THE ABUTMENT CENTERLINE OF BEARING.

2. 3.5-INCH DIAMETER HOLES SHALL BE DRILLED INTO THE BEDROCK. HOLES SHALL BE OVER-DRILLED 1 FOOT BELOW THE BOTTOM OF THE BARS, OR PVC CAPS SHALL BE PROVIDED ON THE BOTTOM OF THE BARS. THE DOWELS SHALL NOT EXTEND ABOVE THE BEDROCK SUBGRADE.

3. ROCK DOWELS SHALL BE NO. 11 GALVANIZED 75 KSI DEFORMED BAR OR APPROVED EQUAL. PVC CENTRALIZERS SHALL BE PLACED ON THE BAR AT A TYPICAL SPACING OF 10 FEET ON CENTER (MINIMUM TWO CENTRALIZERS PER DOWEL). SOCKS SHALL BE PLACED OVER THE BARS IN THE DOWEL HOLES TO LIMIT GROUT PERMEATION INTO OPEN JOINTS WITHIN THE SLOPE.

4. ROCK DOWELS SHALL BE GROUTED USING NEAT CEMENT GROUT WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI. GROUTING SHALL BE PERFORMED USING TREMIE METHODS AND SHALL CONTINUE UNTIL GROUT RETURN IS OBSERVED EXITING THE HOLE. ROCK DOWEL HOLES SHALL BE CHECKED FOR SETTLEMENT AT LEAST 24 HOURS AFTER GROUTING AND TOPPED OFF WITH GROUT UP TO THE TOP OF THE HOLE PRIOR TO PLACEMENT OF FOOTING CONCRETE. GROUT CUBES SHOULD BE COLLECTED EACH DAY DURING GROUTING. THREE SETS OF THREE 2-INCH BY 2-INCH CUBES SHALL BE COLLECTED EACH DAY FOR CONFIRMATORY TESTING.

5. A MINIMUM OF TWO (2) PROOF TESTS SHALL BE CONDUCTED ON PRODUCTION DOWELS, ONE AT EACH ABUTMENT. THE PROOF TEST DOWELS SHALL BE INSTALLED WITH A GREASED SLEEVE OVER THE UPPER 15 FEET AND 10 FEET OF THE DOWELS AT ABUTMENTS 1 AND 2, RESPECTIVELY, TO SERVE AS A BOND BREAKER AND ALLOW TRANSFER OF TENSION TO THE LOWER 10 FEET OF THE DOWEL BELOW A THEORETICAL SLIP SURFACE. THE DESIGN TENSILE LOAD (DL) FOR THE TESTS SHALL BE 61 KIPS. THE TESTS SHALL BE EXECUTED AND EVALUATED IN ACCORDANCE WITH THE PROCEDURES AND ACCEPTANCE CRITERIA PRESENTED IN THE POST-TENSIONING INSTITUTE'S "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS," LATEST EDITION.

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180sub.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
ROCK FOUNDATION TREATMENT DETAILS

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 44 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION

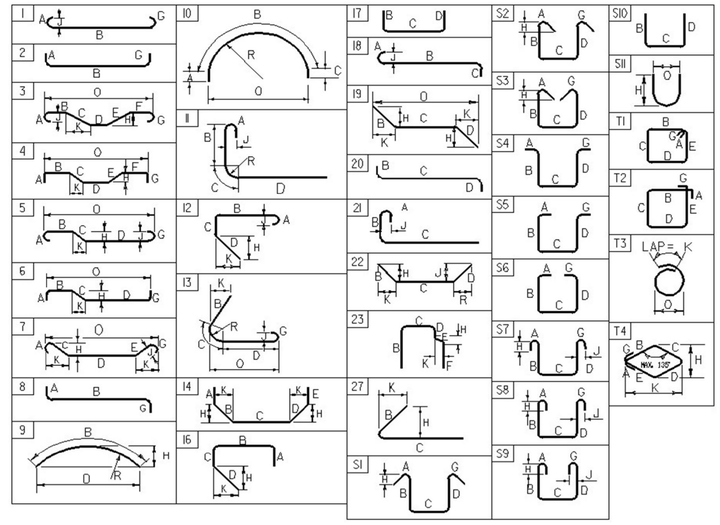
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	DECK																
✳	61	5	31'- 2"	S501.2	STR	31'- 2"											
	ABUTMENT #1																
	32	5	25'- 5"	1A501	STR	25'- 5"											
✳	9	5	22'- 8"	1A502	STR	22'- 8"											
	131	5	8'- 0"	1A503	STR	8'- 0"											
	8	5	25'- 0"	1A506	STR	25'- 0"											
	8	5	19'- 8"	1A507	STR	19'- 8"											
	6	5	1'- 7"	1A508	STR	1'- 7"											
✳	12	8	3'- 6"	1A801	STR	3'- 6"											
▲	4	5	5'- 6"	1A504	22		2'- 9"	2'- 9"	---				1'- 11"	---	1'- 11"	---	
	5	5	7'- 0"	1A505	20		2'- 9"	1'- 6"	2'- 9"								
	6	5	5'- 10"	1A509	T1	0'- 4"	1'- 7"	1'- 0"	1'- 7"	1'- 0"		0'- 4"					
▲	44	5	5'- 7"	1A510	17		2'- 7"	3'- 0"	---								
✳ ▲	7	5	10'- 2"	1A511	22		---	2'- 9"	7'- 5"				---	5'- 3"	---	5'- 3"	
	3	5	7'- 0"	1A512	22		---	4'- 6"	2'- 6"				---	1'- 9"	---	1'- 9"	
✳	11	5	25'- 0"	1A501.2	STR	25'- 0"											
	10	5	19'- 8"	1A502.2	STR	19'- 8"											
	1	5	4'- 1"	1A503.2	STR	4'- 1"											
✳	37	5	4'- 7"	1A504.2	17		---	3'- 9"	0'- 10"								
	36	5	7'- 7"	1A505.2	17		---	6'- 9"	0'- 10"								
	46	5	5'- 7"	1A506.2	17		2'- 6"	0'- 7"	2'- 6"								
	5	5	6'- 6"	1A507.2	17		---	5'- 8"	0'- 10"								
	5	5	9'- 5"	1A508.2	17		---	8'- 7"	0'- 10"								
	5	5	6'- 8"	1A509.2	17		---	5'- 10"	0'- 10"								
	5	5	9'- 7"	1A510.2	17		---	8'- 9"	0'- 10"								
▲	5	5	6'- 1"	1A511.2	22		---	2'- 9"	3'- 4"				---	2'- 4"	---	2'- 4"	
▲	5	5	6'- 2"	1A512.2	22		---	2'- 9"	3'- 5"				---	2'- 5"	---	2'- 5"	
	1	5	7'- 0"	1A513.2	22		---	4'- 6"	2'- 6"				---	1'- 9"	---	1'- 9"	
	1	5	5'- 9"	1A514.2	22		---	3'- 3"	2'- 6"				---	1'- 9"	---	1'- 9"	
	1	5	9'- 6"	1A515.2	14	4'- 4"	---	---	0'- 7"	4'- 7"			0'- 1"		0'- 7"		
	1	5	5'- 10"	1A516.2	16	1'- 5"	1'- 1"	0'- 7"	2'- 9"				1'- 11"		1'- 11"		
✳	6	5	6'- 0"	1A517.2	20		2'- 9"	0'- 6"	2'- 9"								
	1	5	7'- 6"	1A518.2	20		2'- 9"	0'- 6"	4'- 3"								
	1	5	3'- 10"	1A519.2	S5	0'- 10"	1'- 1"	0'- 7"	0'- 6"			0'- 10"					
	1	5	10'- 7"	1A520.2	14	5'- 1"	---	---	0'- 7"	4'- 11"			0'- 1"		0'- 8"		
	WINGWALL #1																
✳	15	5	7'- 4"	1W501	STR	7'- 4"											
	18	5	6'- 0"	1W502	STR	6'- 0"											
▲	5	5	8'- 7"	1W501.2	STR	8'- 7"											
✳ ▲	5	5	9'- 5"	1W502.2	17		---	8'- 7"	0'- 10"								
	4	5	6'- 7"	1W503.2	17		2'- 9"	1'- 1"	2'- 9"								
	2	5	4'- 5"	1W504.2	22		3'- 7"	0'- 10"	---				2'- 6"	---	2'- 7"	---	
	WINGWALL #2																
	12	5	6'- 6"	2W501	STR	6'- 6"											
✳	4	5	6'- 8"	2W502	STR	6'- 8"											
	3	5	9'- 9"	2W503	STR	9'- 9"											
	4	8	3'- 6"	2W801	STR	3'- 6"											
▲	6	5	6'- 7"	2W501.2	STR	6'- 7"											
✳ ▲	7	5	9'- 9"	2W502.2	STR	9'- 9"											
▲	8	5	8'- 9"	2W503.2	STR	8'- 9"											
▲	8	5	9'- 7"	2W504.2	17		---	8'- 9"	0'- 10"								
	8	5	6'- 7"	2W505.2	17		2'- 9"	1'- 1"	2'- 9"								
	2	5	6'- 7"	2W506.2	22		5'- 9"	0'- 10"	---				0'- 10"	---	5'- 8"	---	

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	ABUTMENT #2																
	36	5	22'- 1"	2A501	STR	22'- 1"											
	128	5	8'- 0"	2A502	STR	8'- 0"											
	10	5	24'- 0"	2A504	STR	24'- 0"											
	10	5	20'- 5"	2A505	STR	20'- 5"											
✳	7	5	1'- 7"	2A506	STR	1'- 7"											
✳	19	8	3'- 6"	2A801	STR	3'- 6"											
	8	5	5'- 6"	2A503	22		2'- 9"	2'- 9"	---				1'- 11"	---	1'- 11"	---	
	6	5	7'- 4"	2A507	T1	0'- 4"	1'- 7"	1'- 9"	1'- 7"	1'- 9"		0'- 4"					
✳ ▲	47	5	6'- 11"	2A508	17		2'- 7"	4'- 4"	---								
	16	5	10'- 4"	2A509	22		---	2'- 9"	7'- 7"				---	5'- 4"	---	5'- 4"	
	8	5	7'- 4"	2A510	22		---	4'- 6"	2'- 10"				---	2'- 0"	---	2'- 0"	
✳	11	5	25'- 1"	2A501.2	STR	25'- 1"											
	10	5	21'- 7"	2A502.2	STR	21'- 7"											
	2	5	5'- 5"	2A503.2	STR	5'- 5"											
	2	5	5'- 1"	2A504.2	STR	5'- 1"											
	36	5	4'- 8"	2A505.2	17		---	3'- 10"	0'- 10"								
	36	5	9'- 0"	2A506.2	17		---	8'- 2"	0'- 10"								
	47	5	5'- 7"	2A507.2	17		2'- 6"	0'- 7"	2'- 6"								
✳	7	5	6'- 6"	2A508.2	17		---	5'- 8"	0'- 10"								
	6	5	10'- 10"	2A509.2	17		---	10'- 0"	0'- 10"								
	5	5	6'- 8"	2A510.2	17		---	5'- 10"	0'- 10"								
	5	5	11'- 0"	2A511.2	17		---	10'- 2"	0'- 10"								
▲	24	5	6'- 6"	2A512.2	22		---	2'- 9"	3'- 9"				---	2'- 8"	---	2'- 8"	
	1	5	11'- 7"	2A513.2	14	5'- 6"	---	---	0'- 7"	5'- 6"			0'- 1"		0'- 7"		
	1	5	10'- 7"	2A514.2	14	4'- 11"	---	---	0'- 7"	5'- 1"			0'- 1"		0'- 7"		
	2	5	5'- 10"	2A515.2	16	1'- 5"	1'- 1"	0'- 7"	2'- 9"				1'- 11"		1'- 11"		
	WINGWALL #3																
	16	5	9'- 4"	3W501	STR	9'- 4"											
✳	23	5	6'- 6"	3W502	STR	6'- 6"											
	8	5	4'- 7"	3W503	STR	4'- 7"											
	3	8	3'- 6"	3W801	STR	3'- 6"											
▲	12	5	4'- 7"	3W501.2	STR	4'- 7"											
▲	7	5	10'- 0"	3W502.2	STR	10'- 0"											
▲	6	5	10'- 10"	3W503.2	17		---	10'- 0"	0'- 10"								
✳	7	5	6'- 7"	3W504.2	22		2'- 9"	1'- 1"	2'- 9"								
	2	5	5'- 10"	3W505.2	22		5'- 0"	0'- 10"	---				1'- 11"	---	4'- 7"	---	
	WINGWALL #4																
✳	17	5	10'- 10"	4W501	STR	10'- 10"											
	24	5	6'- 6"	4W502	STR	6'- 6"											
	8	5	6'- 1"	4W503	STR	6'- 1"											
✳	4	8	3'- 6"	4W801	STR	3'- 6"											
▲	12	5	4'- 7"	4W501.2	STR	4'- 7"											
▲	8	5	10'- 2"	4W502.2	STR	10'- 2"											
▲	7	5	11'- 0"	4W503.2	17		---	10'- 2"	0'- 10"								
✳	8	5	6'- 7"	4W504.2	17		2'- 9"	1'- 1"	2'- 9"								
	2	5	8'- 0"	4W505.2	22		7'- 2"	0'- 10"	---				3'- 10"	---	6'- 1"	---	

~ 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
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

~ REINFORCING STEEL CORROSION RESISTANCE LEVEL ~

THE REINFORCING STEEL MARKS IN THIS SCHEDULE INDICATE THE REQUIRED BAR CORROSION RESISTANCE LEVEL. CORROSION RESISTANCE LEVEL IS DENOTED WITH A .2 FOR LEVEL TWO SUFFIX OR .3 FOR LEVEL THREE SUFFIX. .1 FOR LEVEL ONE IS TO BE OMITTED. THE BAR MATERIAL TYPE AND BAR STEEL GRADE PROVIDED FOR EACH CORROSION LEVEL WILL BE RECORDED ON THE PLAN SET PI SHEET FOR AS-BUILT RECORD PLAN ARCHIVES.

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180schedule.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
REINFORCING STEEL SCHEDULE

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 45 OF 63

REMOVAL AND DISPOSAL OF GUARDRAIL
10+44.6 - 73+02.7 RT
72+70.2 - 73+05.3 LT
74+00.2 - 74+19.6 LT
74+00.5 - 74+32.2 RT

STEEL BEAM GUARDRAIL, GALVANIZED
10+52.3 - 10+76.7 LT (INCL. 2' END SECTION)
72+36.5 - 72+59.2 LT (INCL. 2' END SECTION)
74+52.9 - 74+77.3 RT (INCL. 2' END SECTION)

ANCHOR FOR STEEL BEAM RAIL
10+76.7 LT
72+59.2 LT
74+77.3 RT

GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM
72+59.2 LT - 72+96.6 LT
10+52.3 LT - 73+01.8 RT
74+15.9 LT - 74+26.3 LT
74+20.9 RT - 74+52.9 RT

BRIDGE RAILING, GALVANIZED 4 RAIL BOX BEAM
72+96.6 LT - 74+15.9 LT
73+01.8 RT - 74+20.9 RT

VT STATE PLANE GRID
N

25'-0" (PLUS 2'-0" FOR GI-D) STEEL BEAM GUARDRAIL, GALVANIZED

℄ BRG. ABUT. 1 (FIXED)

32'-0" PAY LIMIT FOR GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM

℄ BRG. ABUT. 2 (EXP.)

25'-9" PAY LIMIT FOR GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL

119'-0¾" (TYP.)
PAY LIMITS FOR BRIDGE RAILING, GALVANIZED 4 RAIL BOX BEAM

ROUNDED "W" BEAM END SECTION SEE STANDARD G-ID (INCIDENTAL TO ITEM 621.73)

R = 10'-0"

TH-6 (THRALL ROAD) TO VT ROUTE 30

TH-6 (ON THE GREEN) TO VT ROUTE 140

TH-6

10+00

73+00

74+00

FACE OF SIDEWALK

SEE INSERT "A"

R = 6'-4"

32'-0" PAY LIMIT FOR GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM

25'-0" (PLUS 2'-0" FOR GI-D) STEEL BEAM GUARDRAIL, GALVANIZED

TH-34 (RIVER ST)

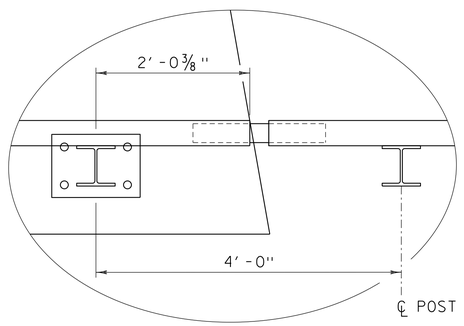
11+00

POST SPACING AT 7'-8" (TYP.)

32'-0" PAY LIMIT FOR GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM

25'-0" (PLUS 2'-0" FOR GI-D) STEEL BEAM GUARDRAIL, GALVANIZED

RAIL LAYOUT
SCALE 1/8" = 1'-0"



INSERT "A"
(NORTHEAST CORNER SHOWN, OTHERS SIMILAR)
NOT TO SCALE

SCALE 1" = 10'-0"
10 0 10

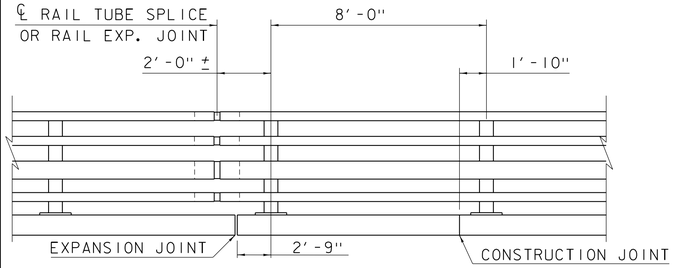
NOTES:
1. ALL DIMENSIONS MEASURED ALONG FACE OF RAIL.
2. SEE BRIDGE AND APPROACH RAIL DETAILS ON SHEETS 47 THROUGH 49.
3. SEE STANDARD G-1bM AND HIGHWAY SAFETY DETAILS HSD-621.07A, HSD-621.07B, HSD-621.07D, AND HSD-621.07E.

FUSS & O'NEILL

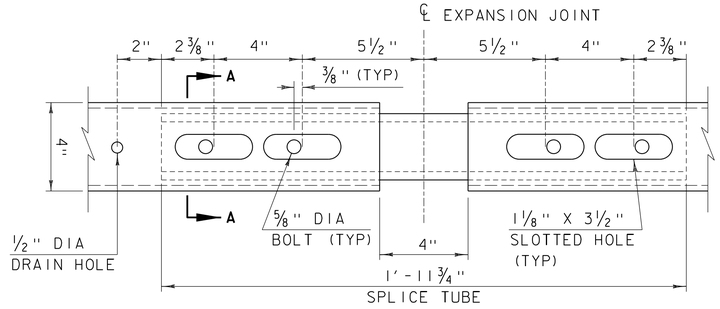
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180rail.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
RAIL LAYOUT PLAN

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 46 OF 63

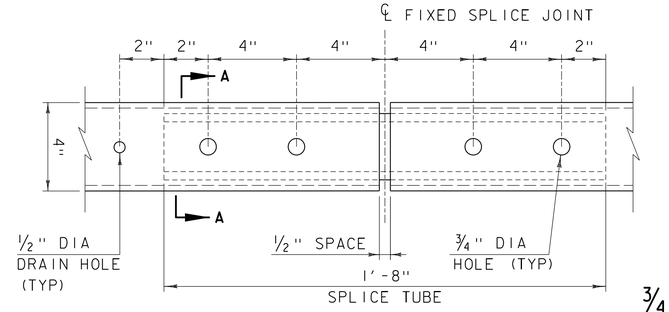


BRIDGE RAILING ELEVATION



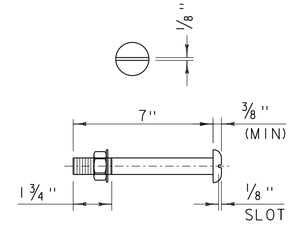
EXPANSION JOINT DETAIL

(BOTTOM VIEW)



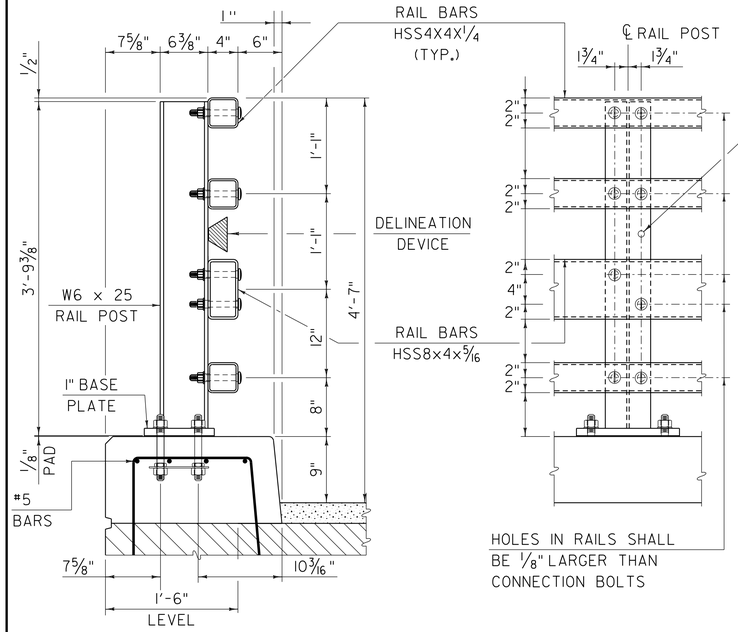
FIXED SPLICE JOINT DETAIL

(BOTTOM VIEW)



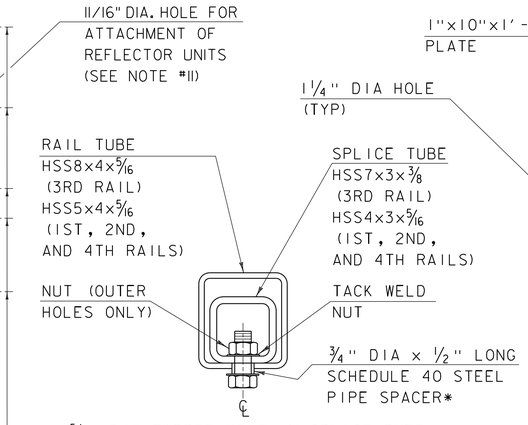
3/4" DIA A449 (TYPE 1) ROUND HEAD BOLT

(WITH WASHER AND PREVAILING TORQUE TYPE LOCK NUT) (SEE NOTE #8) ONLY FULL DIAMETER BODY BOLTS WILL BE ALLOWED.



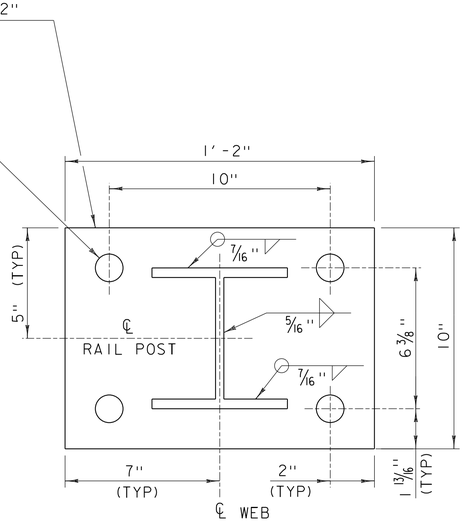
TYPICAL SECTION

ELEVATION

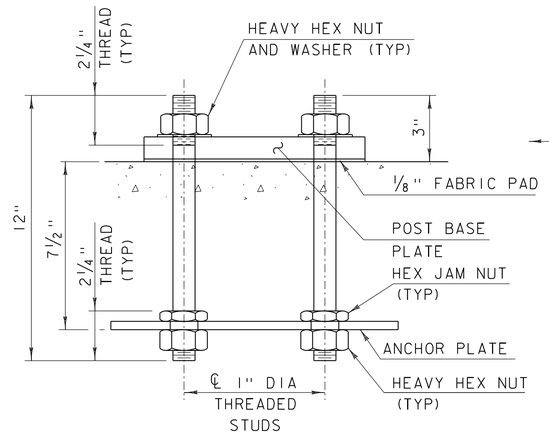


A-A RAIL TUBE SPLICE AND RAIL EXPANSION JOINT SECTION

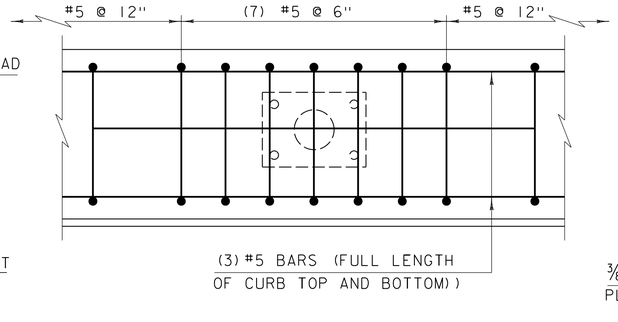
*EXPANSION JOINT **SPLICE



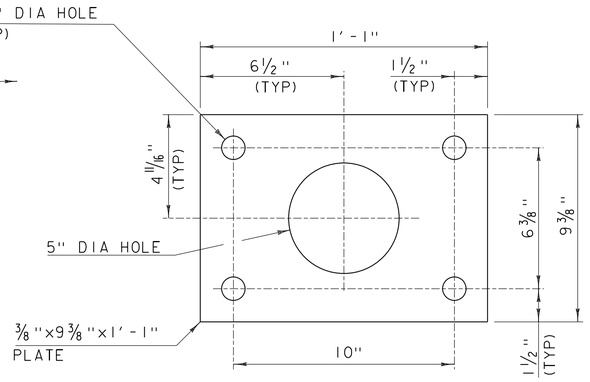
POST BASE PLATE



RAIL POST ANCHORAGE



CURB REINFORCING PLAN



ANCHOR PLATE

NOTES:

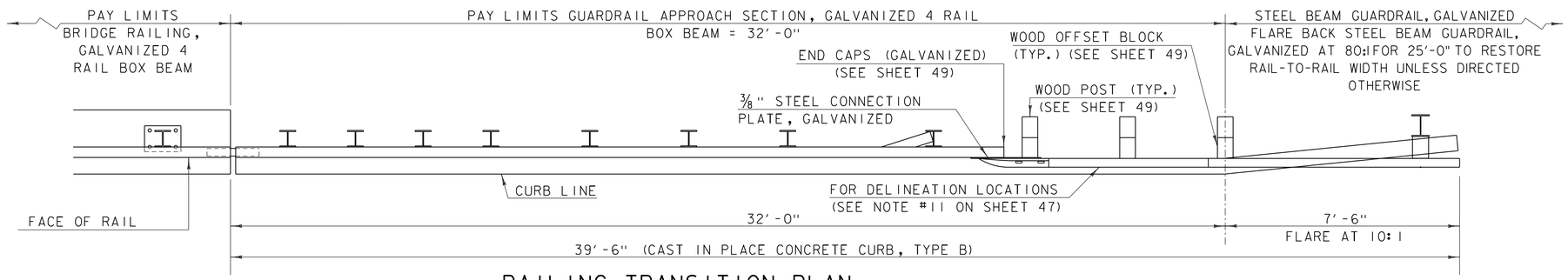
1. ALL WORK AND MATERIALS SHALL CONFORM TO SECTION 525.
2. PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
3. ALL POSTS SHALL BE SET NORMAL TO GRADE.
4. SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO BRIDGE RAIL POSTS AND PREFERABLY TO AT LEAST FOUR POSTS.
5. RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING THE END OF AN INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPERSTRUCTURE EXPANSION JOINTS. EXPANSION JOINT WIDTH SHALL BE 4" AT 68°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
6. HOLES IN RAILS FOR RAIL TUBE ATTACHMENT MAY BE FIELD-DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
7. RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.
8. RAIL TUBES SHALL BE ATTACHED USING 3/4" FULL DIAMETER BODY ASTM A 449 (TYPE 1) ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE TUBE. HOLES IN POSTS SHALL BE 1/16" LARGER THAN THE BOLT SIZE.
9. ANY BENDING OF RAIL SHALL BE DONE AT A FABRICATION PLANT ACCORDING TO A PROCEDURE PROVIDED BY THE FABRICATOR.
10. THE MINIMUM DISTANCE FROM THE POST TO AN EXPANSION JOINT SHALL BE DETERMINED BY THE MINIMUM EDGE DISTANCE OF 5" FROM ANY ANCHOR STUD TO THE END OF THE SLAB, OR TO THE EXPANSION JOINT RECESS POUR, IF ONE IS USED.
11. SEE STANDARD DRAWING G-1 FOR DETAILS OF DELINEATORS. A DELINEATOR SHALL BE INSTALLED AT 30 FOOT SPACING OR THE NEAREST POST. WHITE IS TO BE INSTALLED ON THE DRIVER'S RIGHT. FOR ONE WAY BRIDGES, YELLOW IS TO BE INSTALLED ON THE DRIVER'S LEFT. PAYMENT SHALL BE INCIDENTAL TO OTHER ITEMS.

FUSS & O'NEILL

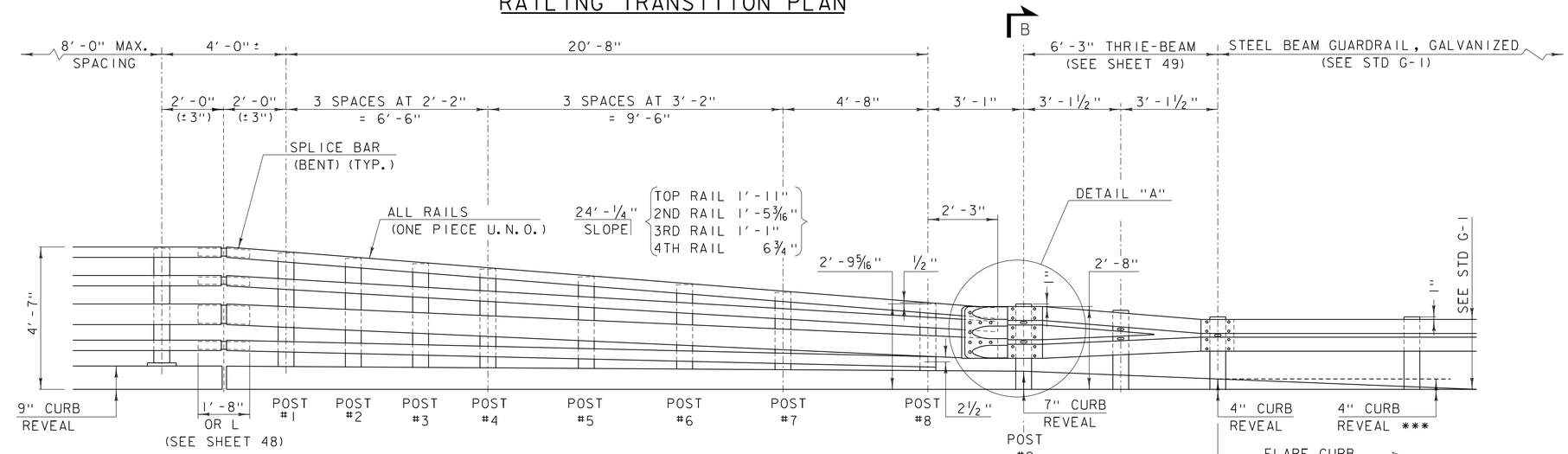
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z161180rail.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
RAIL DETAILS SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 47 OF 63



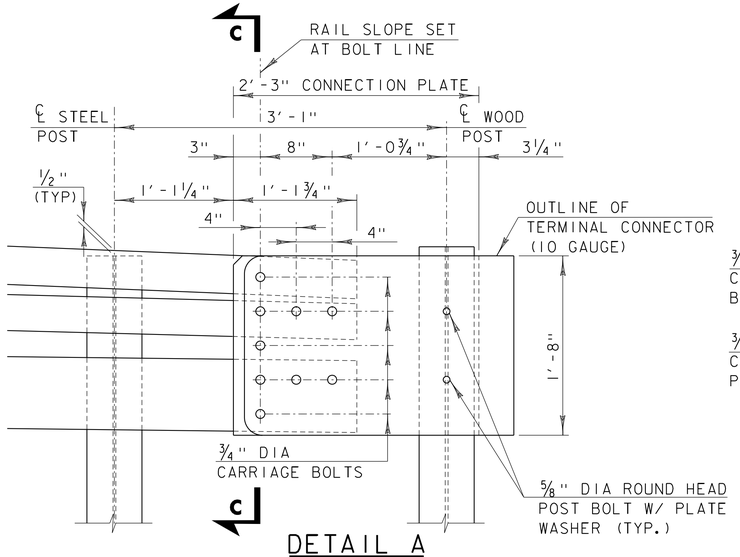
RAILING TRANSITION PLAN



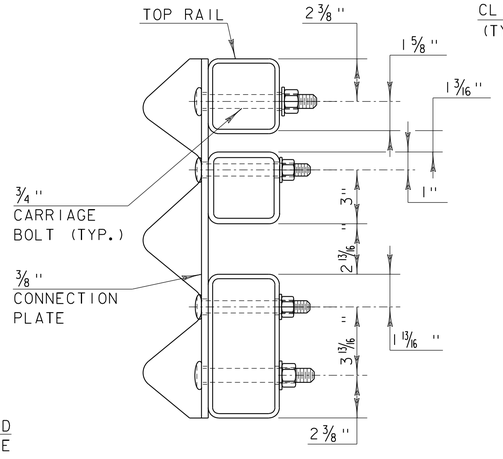
RAILING TRANSITION ELEVATION

NOTES:

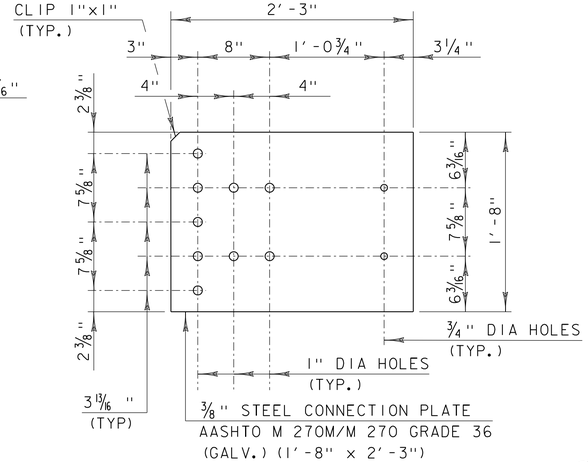
1. PAYMENT FOR GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM SHALL INCLUDE THE TERMINAL CONNECTOR, CONNECTION PLATE, RAIL, POSTS, BLOCKS AND ATTACHMENT HARDWARE.
2. ALL APPROACH RAIL SPLICES SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW.
3. TUBE AND STEEL POST MATERIALS, DIMENSION SIZES AND NOTES SHALL BE THE SAME AS THOSE OF THE BRIDGE RAIL, UNLESS OTHERWISE NOTED.
4. APPROACH RAIL BOLTS SHALL BE ASTM A307 GRADE A AND NUTS SHALL BE AASHTO M291 (ASTM A563 GRADE A OR BETTER) (GALVANIZED). WASHERS SHALL BE ASTM F844.
5. WELD SPLICE BARS TO FIT BEND. USE COMPLETE PENETRATION WELD (B-U2a).
6. THE CONCRETE CURB WILL BE PAID FOR AS ITEM 616.28, "CAST-IN-PLACE CONCRETE CURB, TYPE B."



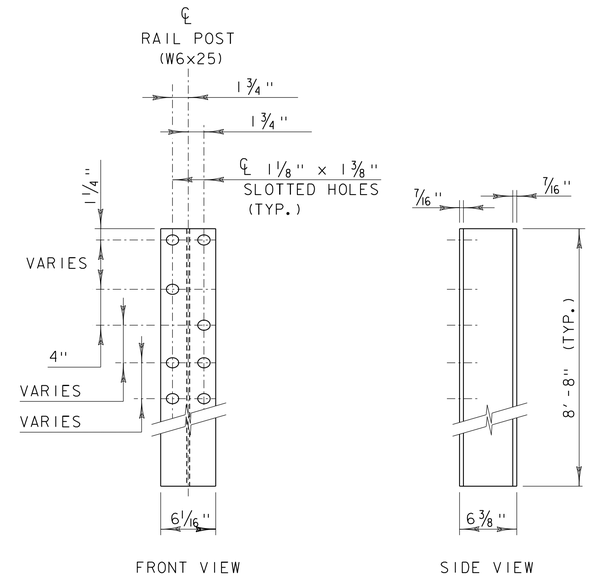
DETAIL A



SECTION C-C CONNECTION PLATE



CONNECTION PLATE



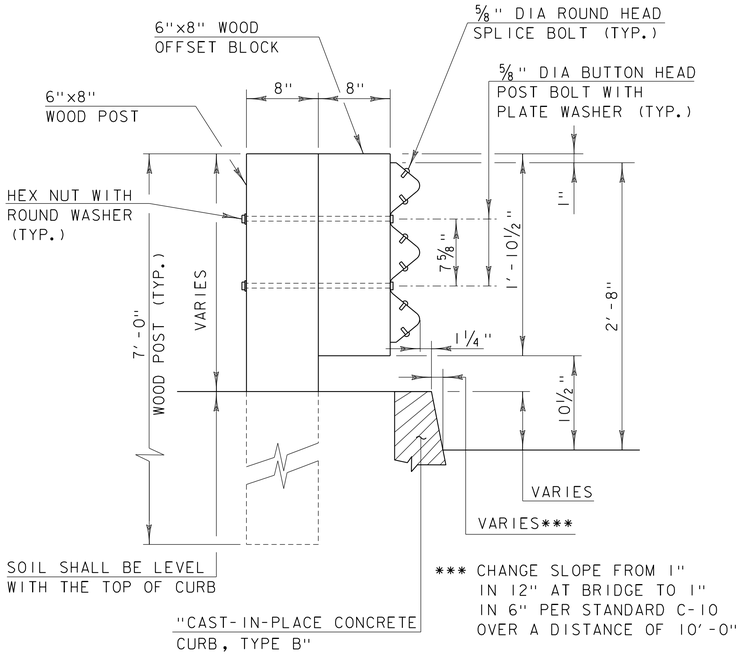
RAIL POST SECTION (POSTS 1-8)

ALL DETAILS NOT TO SCALE

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)

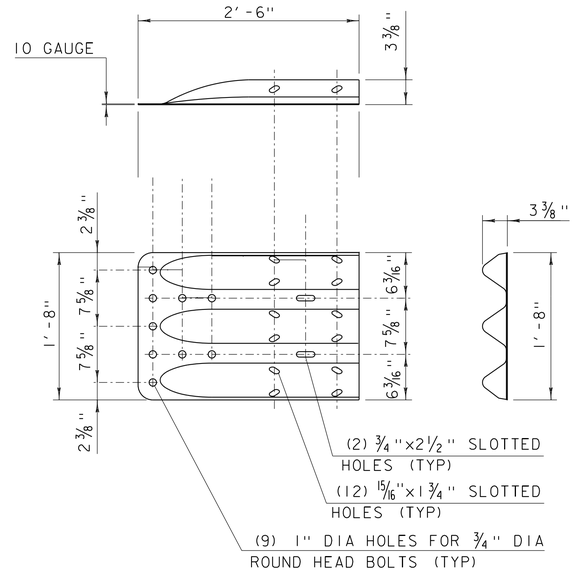
FUSS & O'NEILL

FILE NAME: z16j180rail.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
RAIL DETAILS SHEET 2	SHEET 48 OF 63



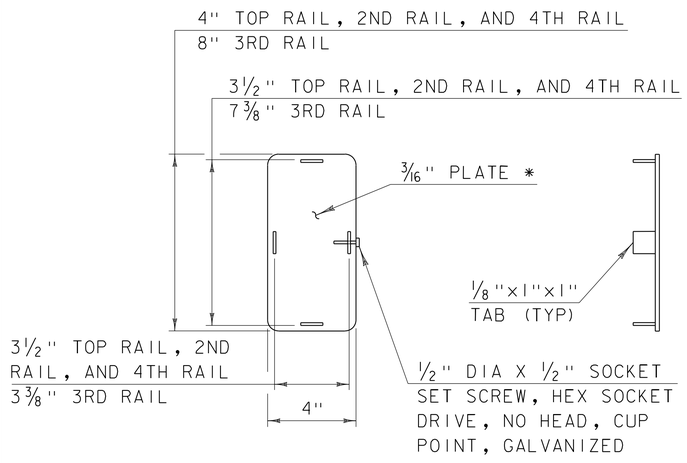
SECTION B-B (THRIE BEAM GUARDRAIL ASSEMBLY)

(SEE SHEET 49)



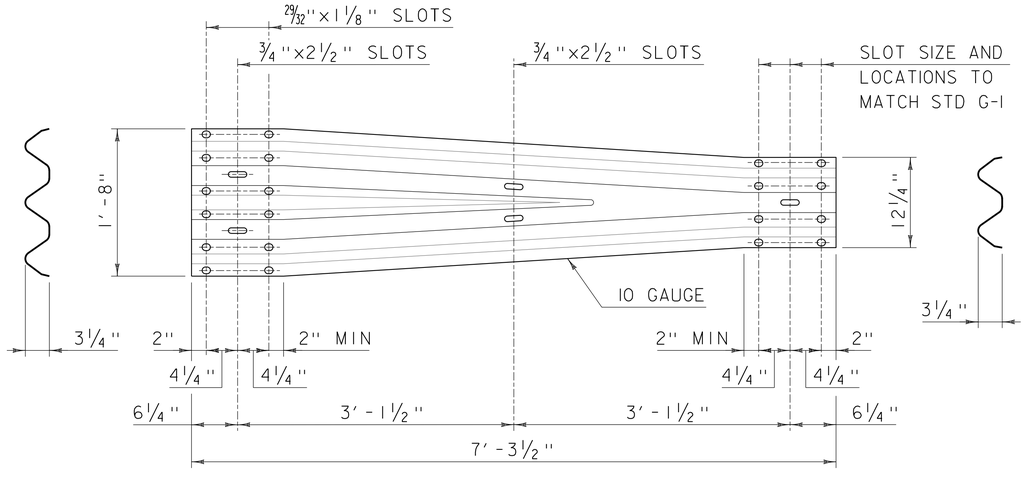
THRIE-BEAM TERMINAL CONNECTOR

(ARTBA RTE01b)



END CAP DETAIL

* ROUND CORNERS 1#2" RADIUS (TYP)



THRIE-BEAM TO STANDARD STEEL BEAM TRANSITION SECTION

(ARTBA RWT01a-b)

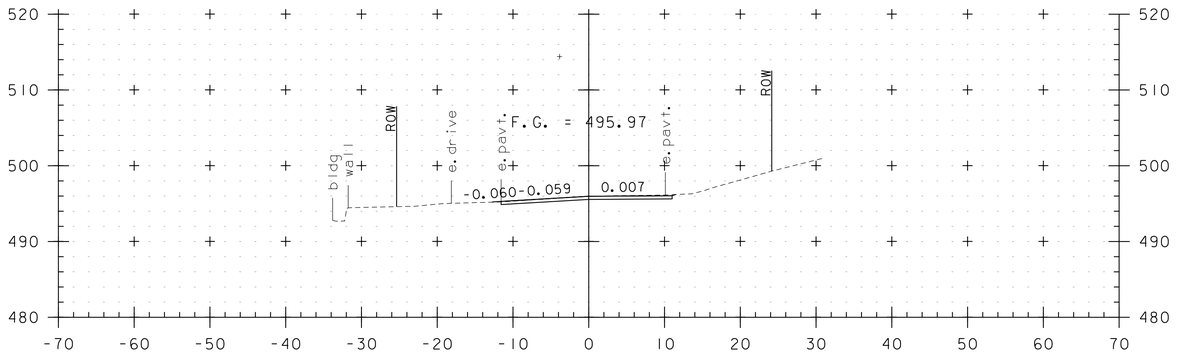
ALL DETAILS NOT TO SCALE

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

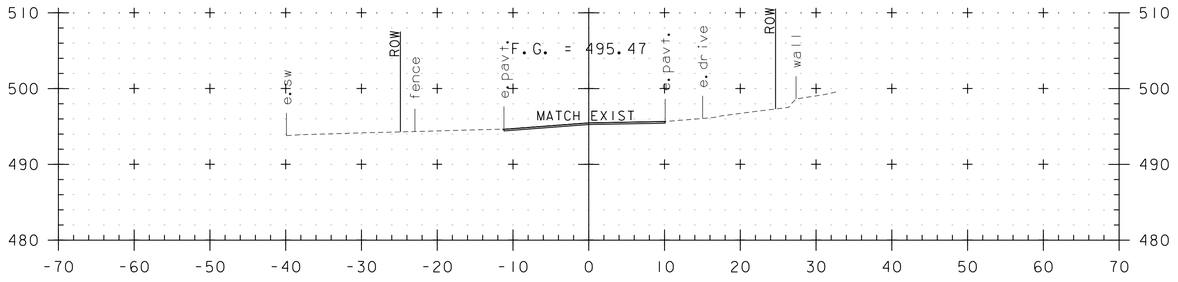
FUSS&O'NEILL

FILE NAME: z16j180rail.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
RAIL DETAILS SHEET 3

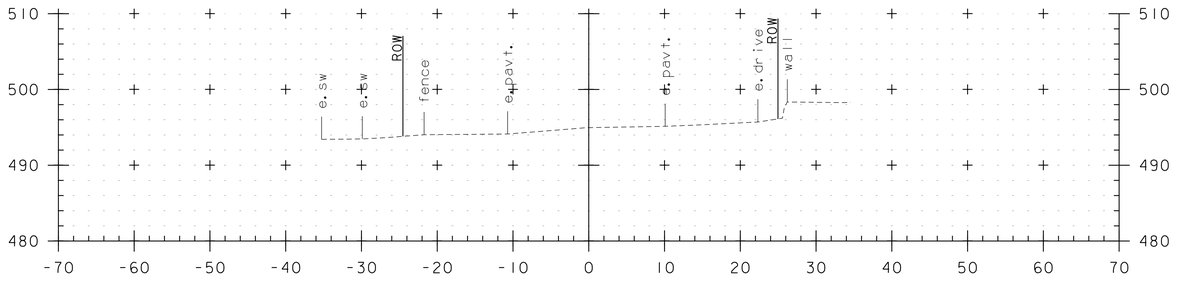
PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT



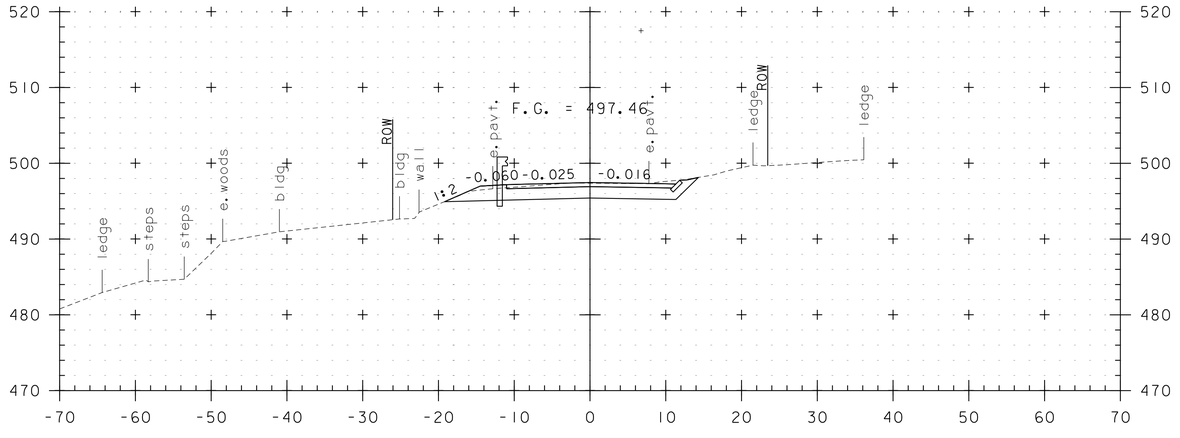
72+00



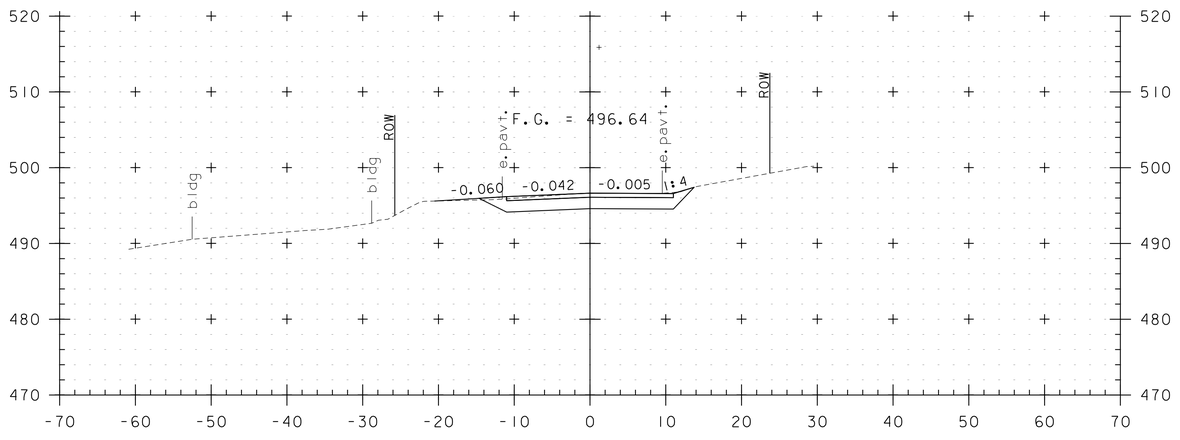
71+75
BEGIN APPROACH



71+50



72+50



72+25
BEGIN PROJECT

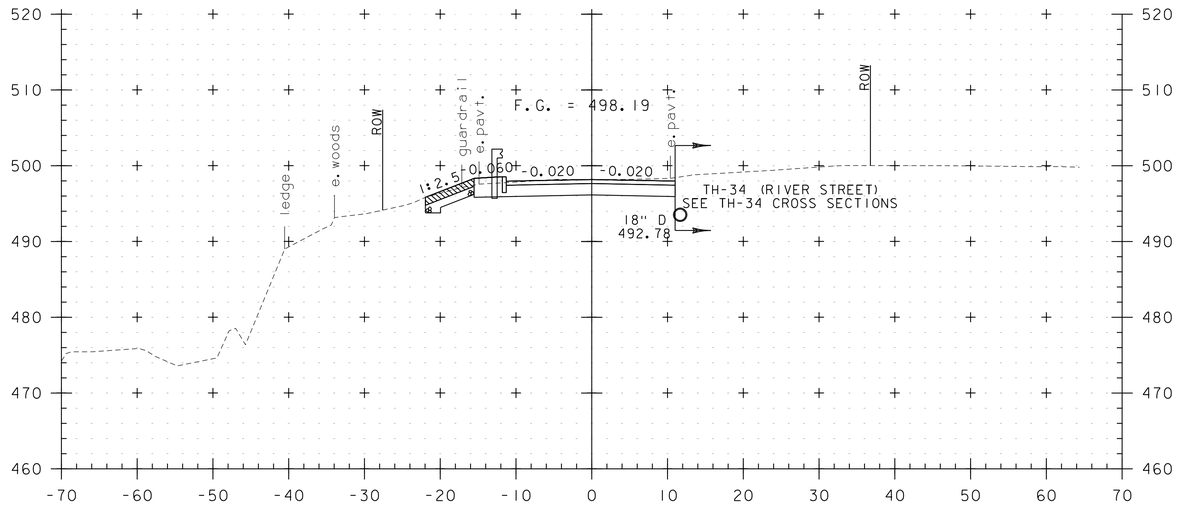
STA. 71+50 TO STA. 72+50

FUSS & O'NEILL

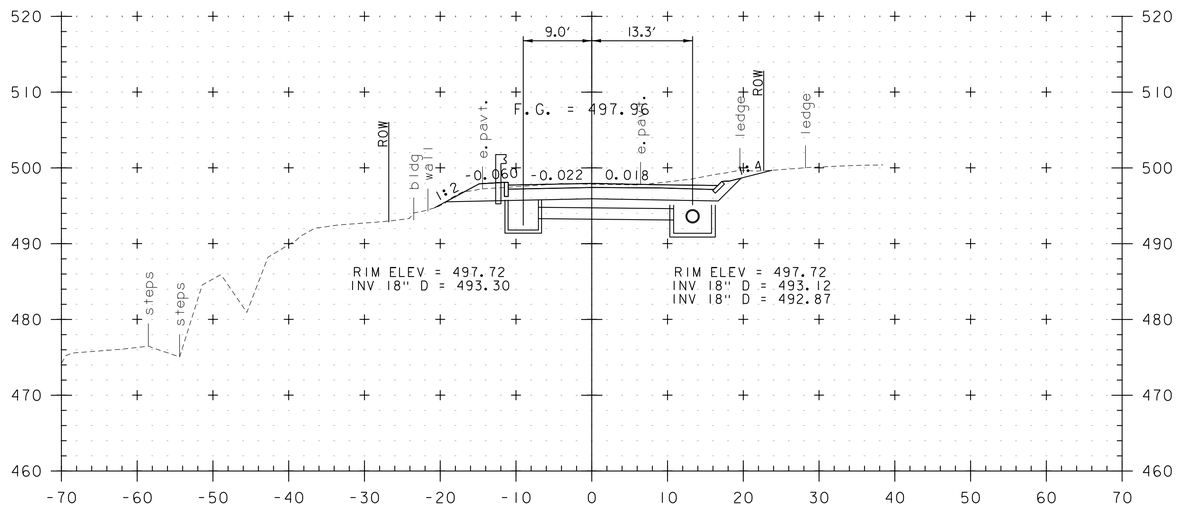
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180xs.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
TH-6 CROSS SECTIONS SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: S. GOODWIN
CHECKED BY: D. MUNRO
SHEET 50 OF 63



72+75

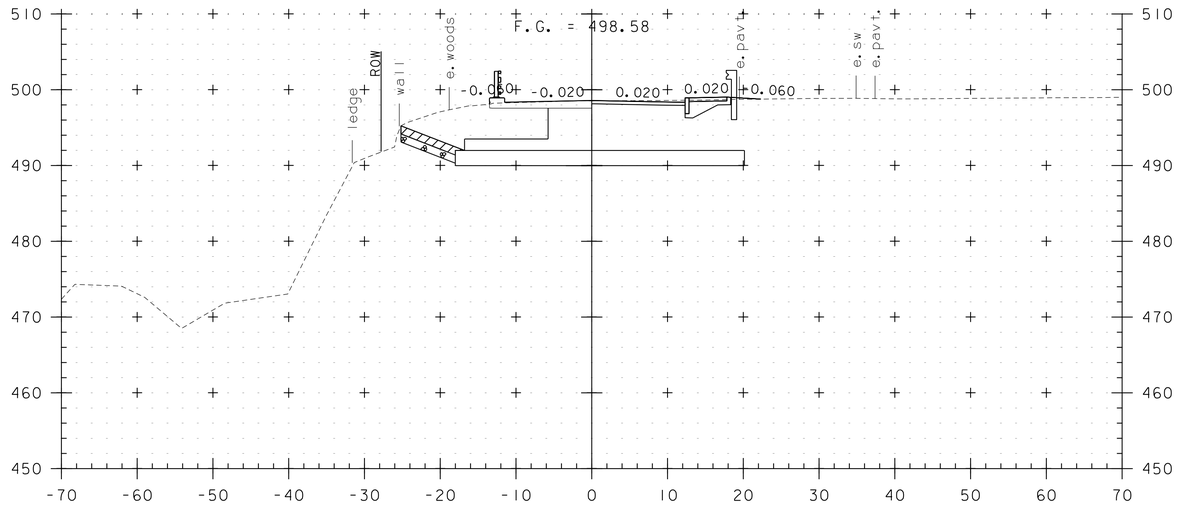


72+66

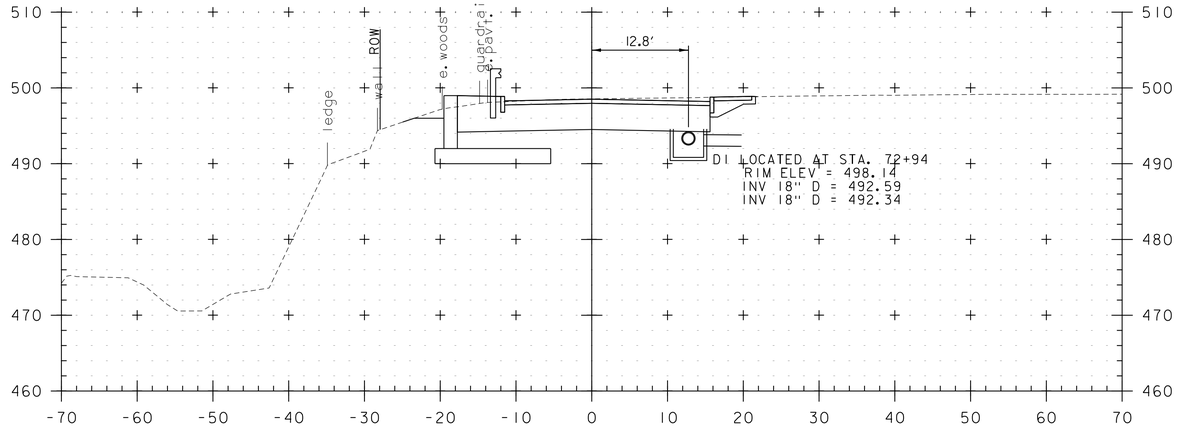
STA. 72+66 TO STA. 72+75

FUSS&O'NEILL

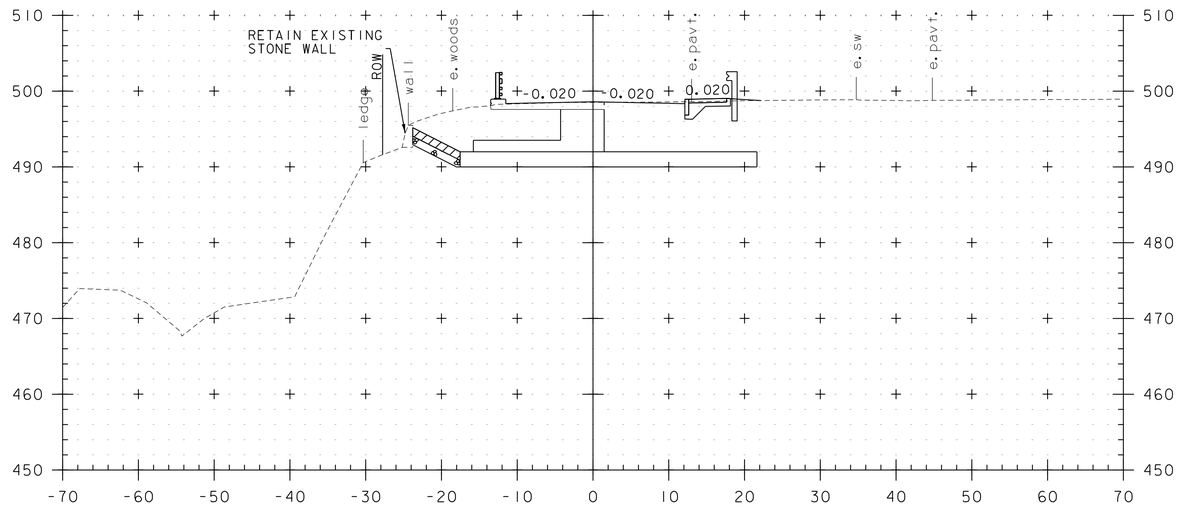
PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180xs.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
TH-6 CROSS SECTIONS SHEET 2	SHEET 51 OF 63



72+99
BEGIN BRIDGE



72+94

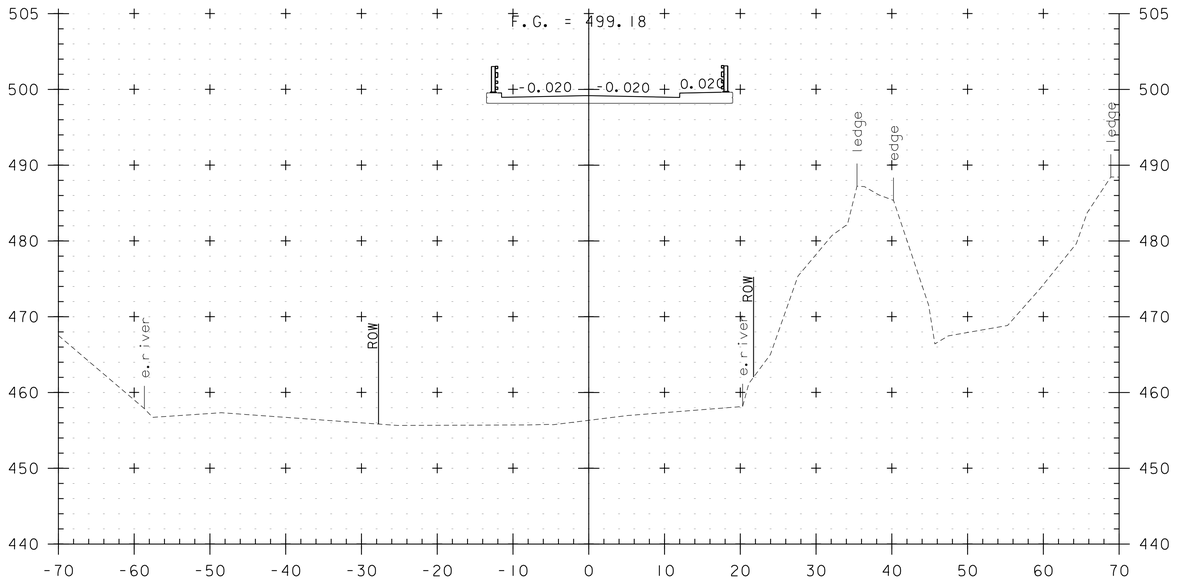


73+00

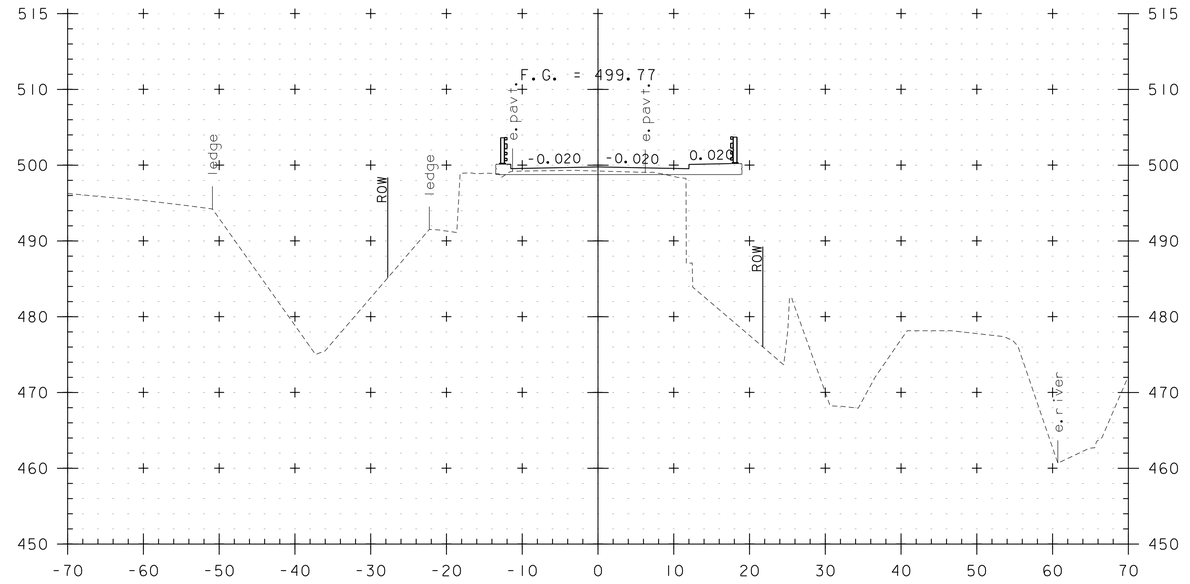
STA. 72+94 TO STA. 73+00

FUSS&O'NEILL

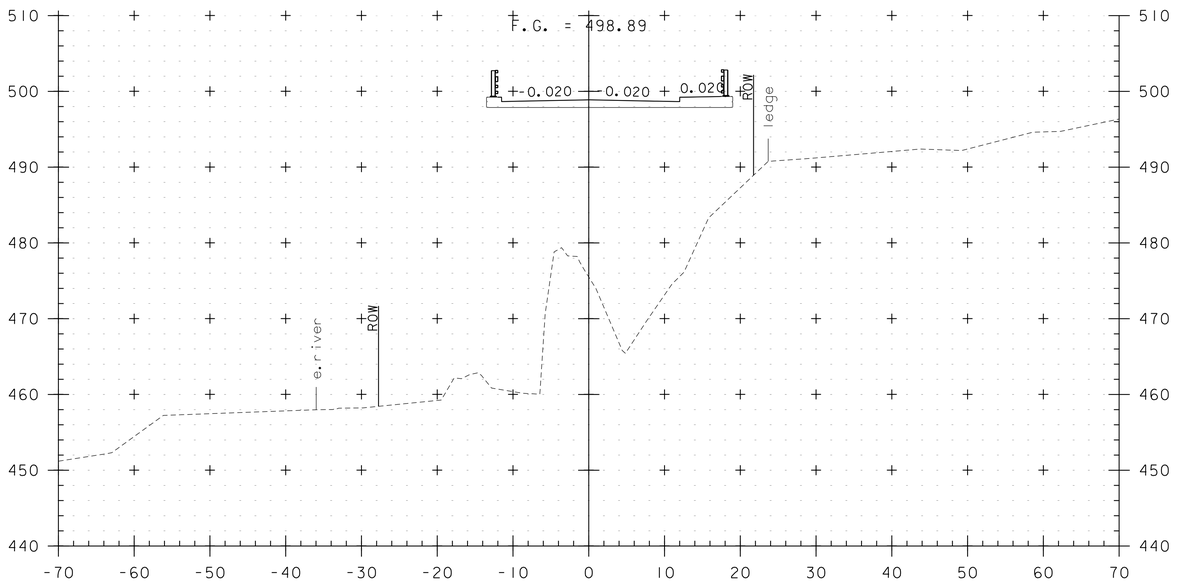
PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180xs.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
TH-6 CROSS SECTIONS SHEET 3	SHEET 52 OF 63



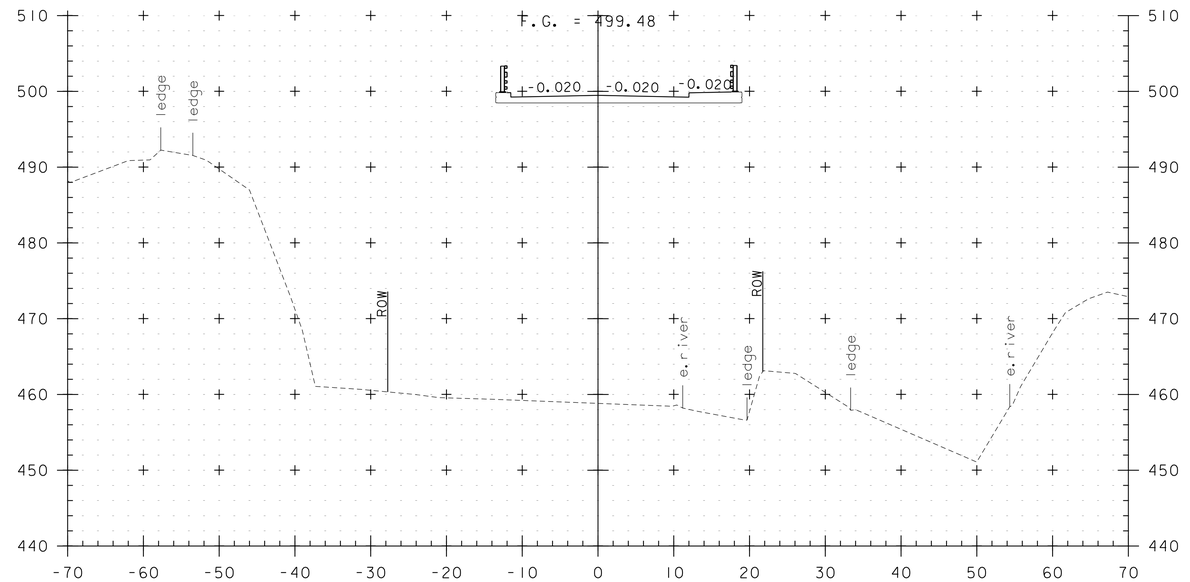
73+50



74+00



73+25

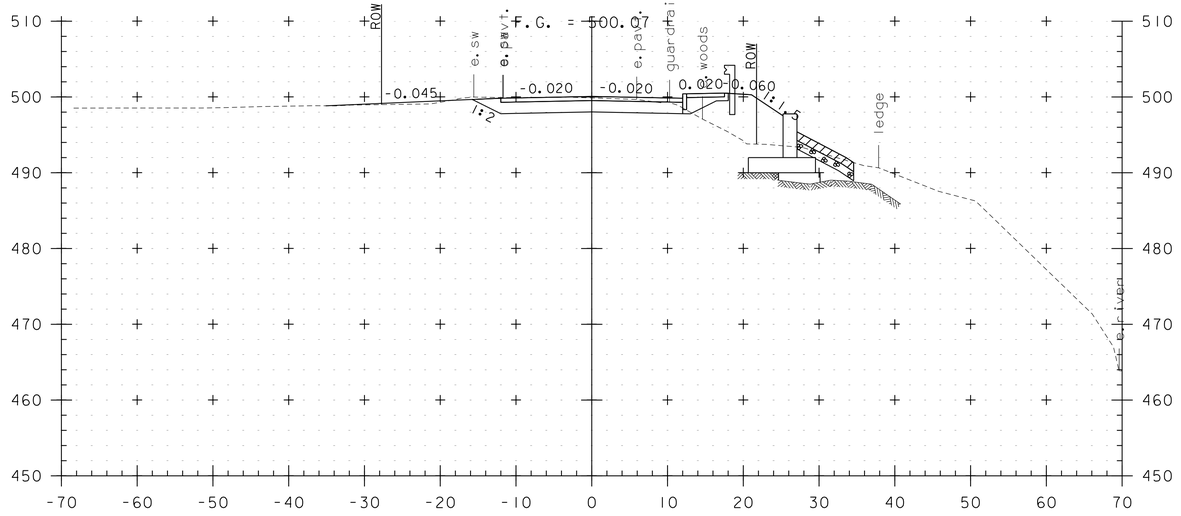


73+75

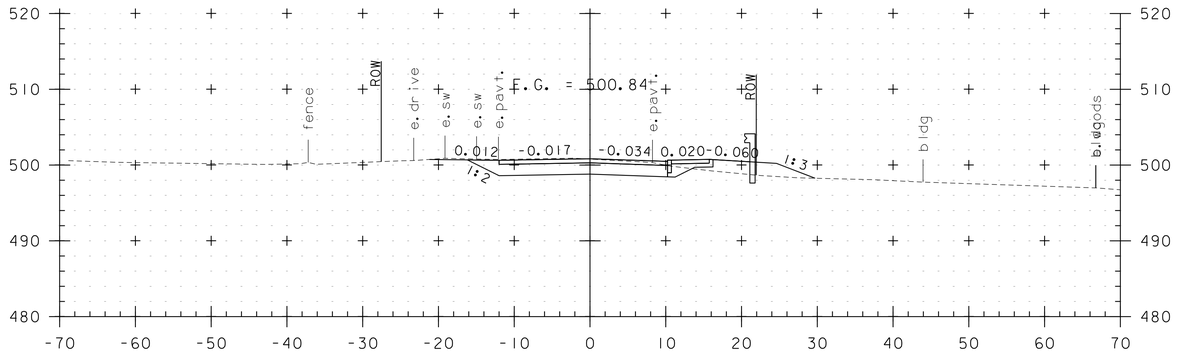
STA. 73+25 TO STA. 74+00

FUSS&O'NEILL

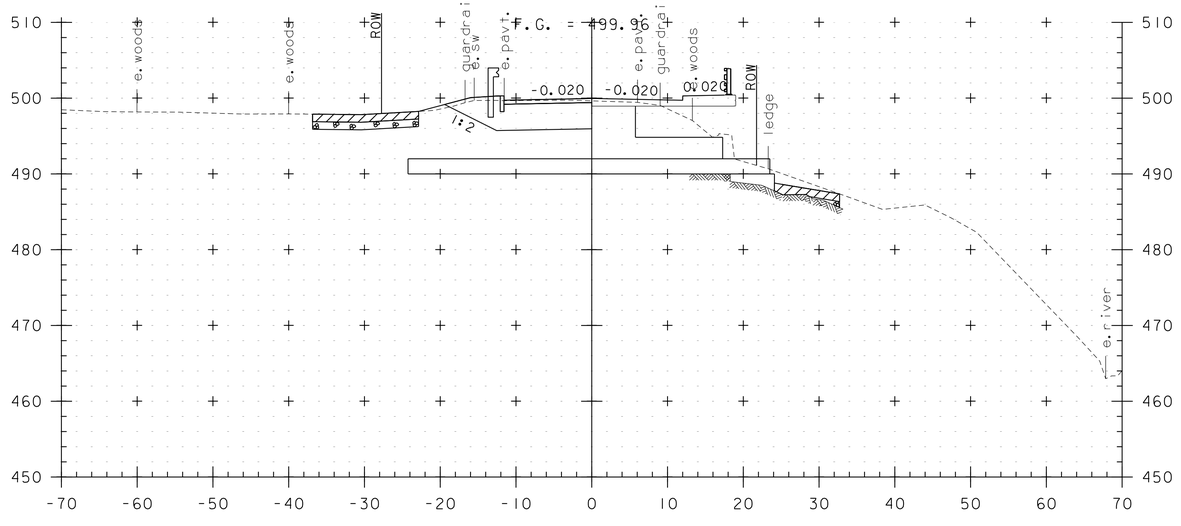
PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16j180xs.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
TH-6 CROSS SECTIONS SHEET 4	SHEET 53 OF 63



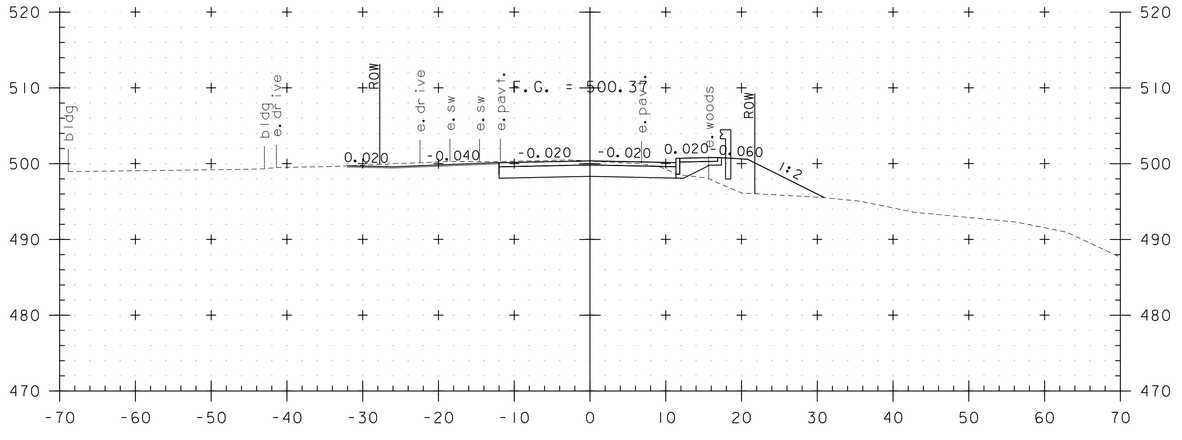
74+25



74+75



74+18
END BRIDGE

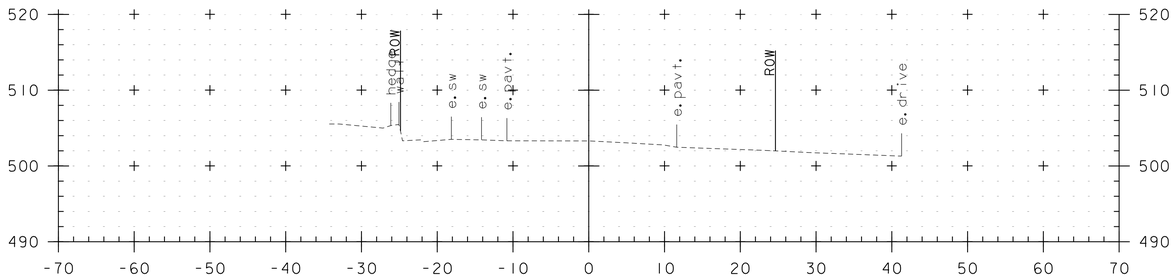


74+50
DRIVE LT

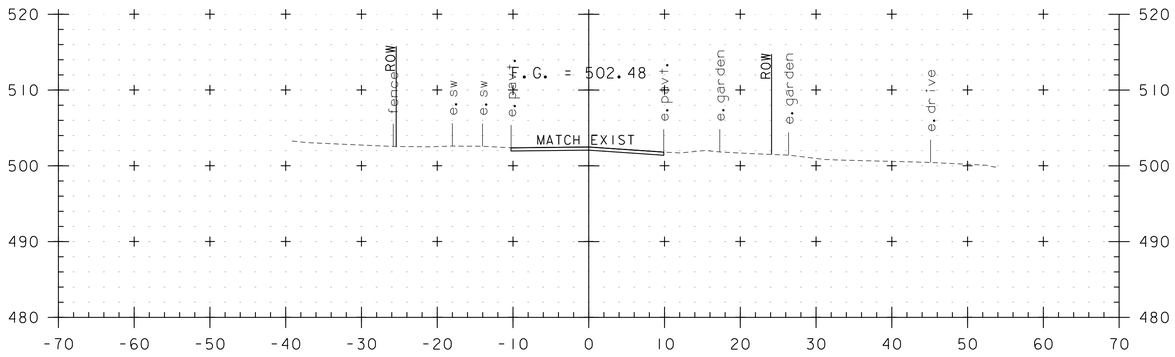
STA. 74+18 TO STA. 74+75

FUSS&O'NEILL

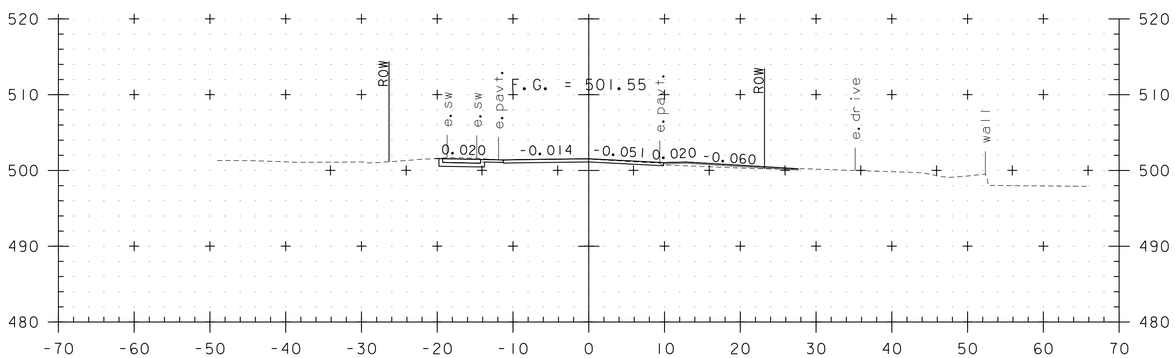
PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180xs.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
TH-6 CROSS SECTIONS SHEET 5	SHEET 54 OF 63



75+50



75+25
END APPROACH



75+00
DRIVE RT

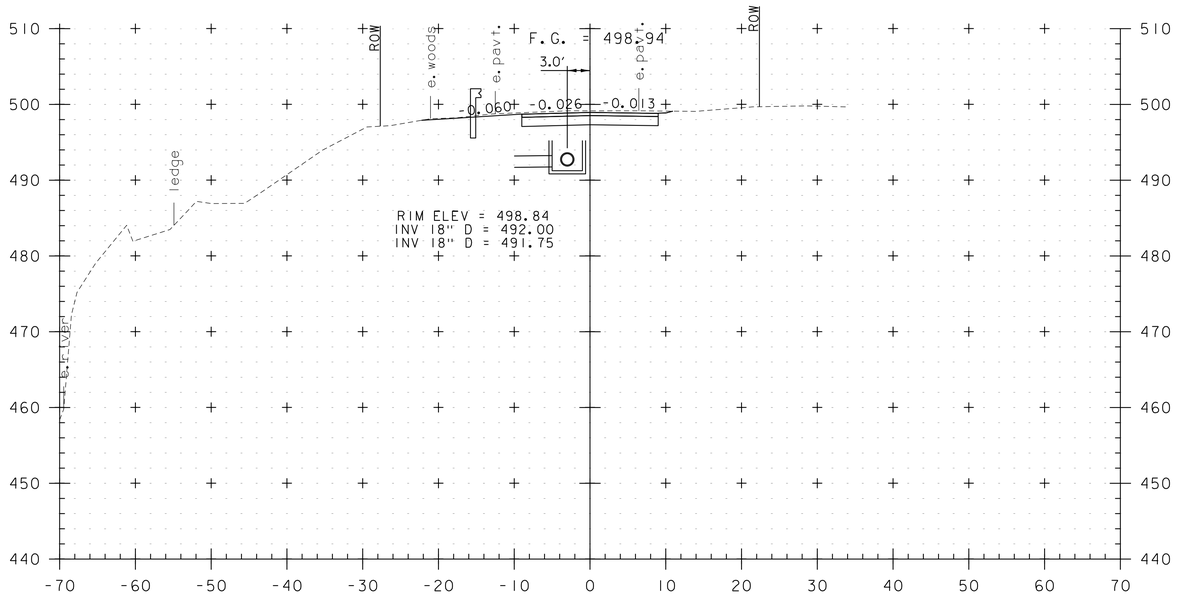
STA. 75+00 TO STA. 75+50

FUSS & O'NEILL

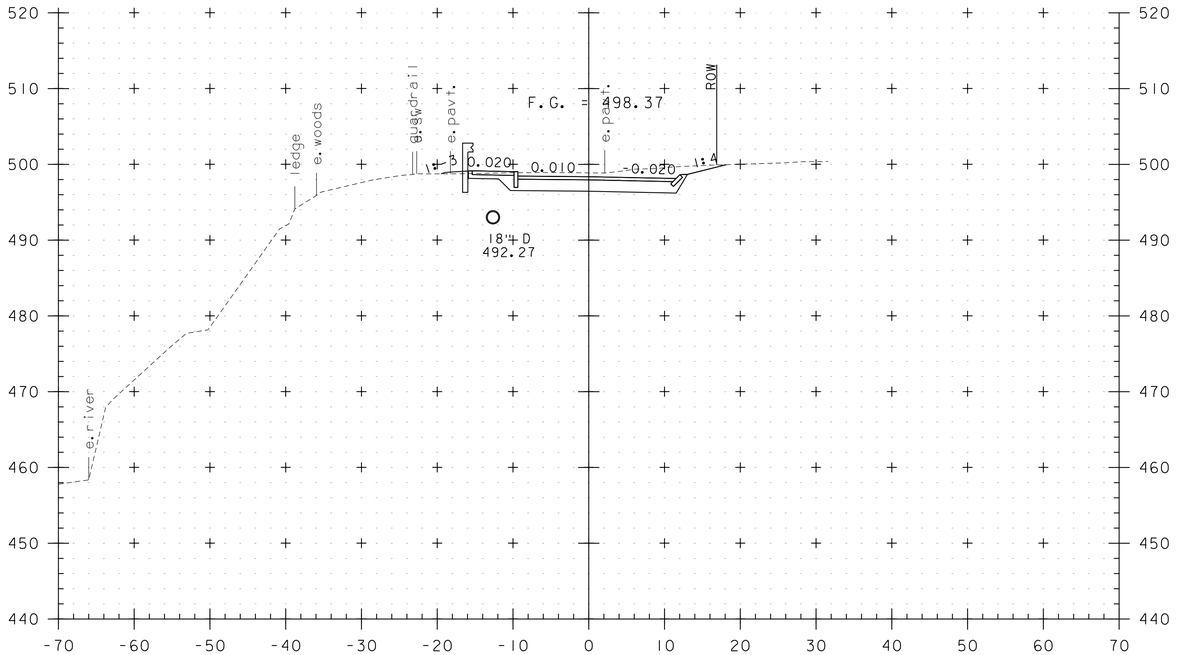
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180xs.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
TH-6 CROSS SECTIONS SHEET 6

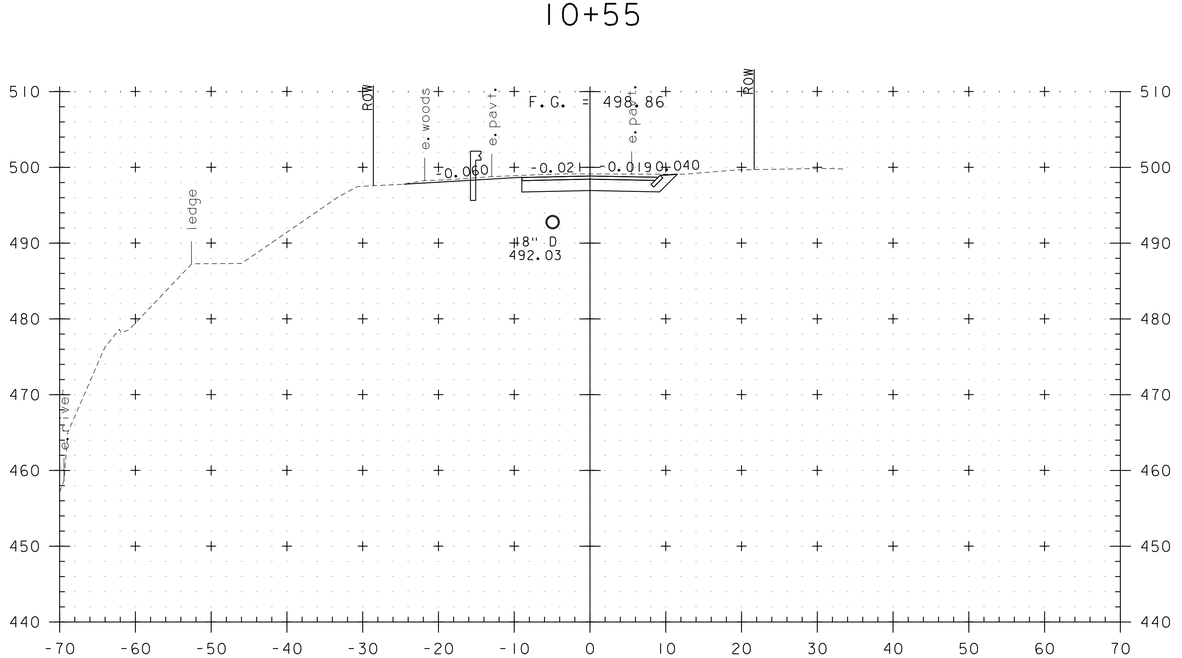
PLOT DATE: 7/14/2021
DRAWN BY: S. GOODWIN
CHECKED BY: D. MUNRO
SHEET 55 OF 63



10+55



10+25



10+50

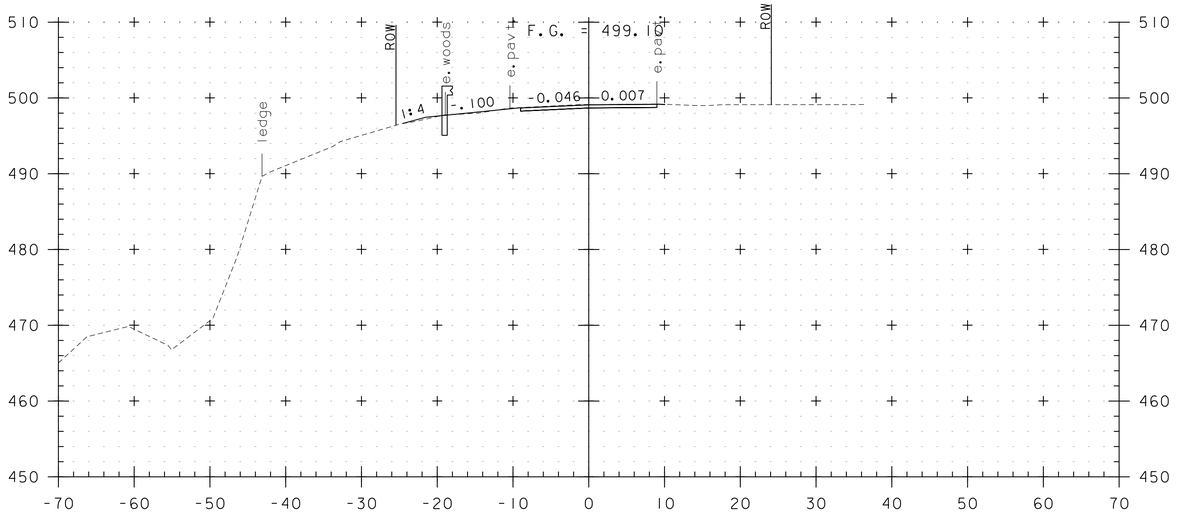
STA. 10+25 TO STA. 10+55

FUSS & O'NEILL

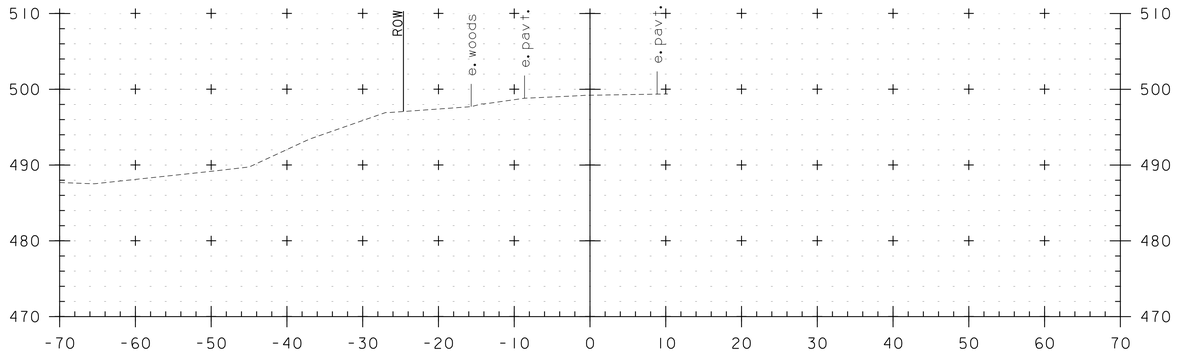
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180xs.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
TH-34 CROSS SECTIONS SHEET 1

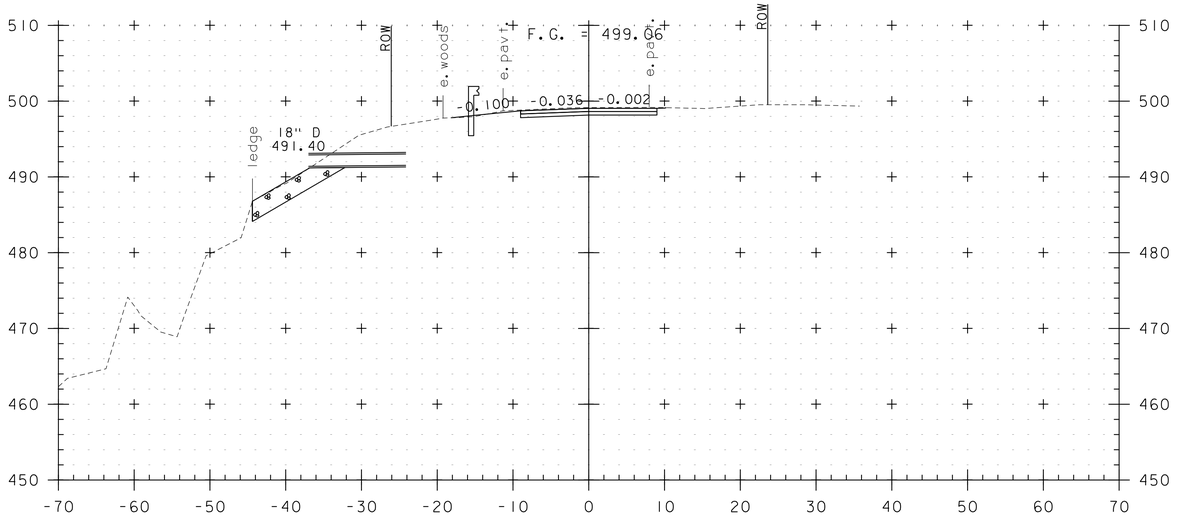
PLOT DATE: 7/14/2021
DRAWN BY: S. GOODWIN
CHECKED BY: D. MUNRO
SHEET 56 OF 63



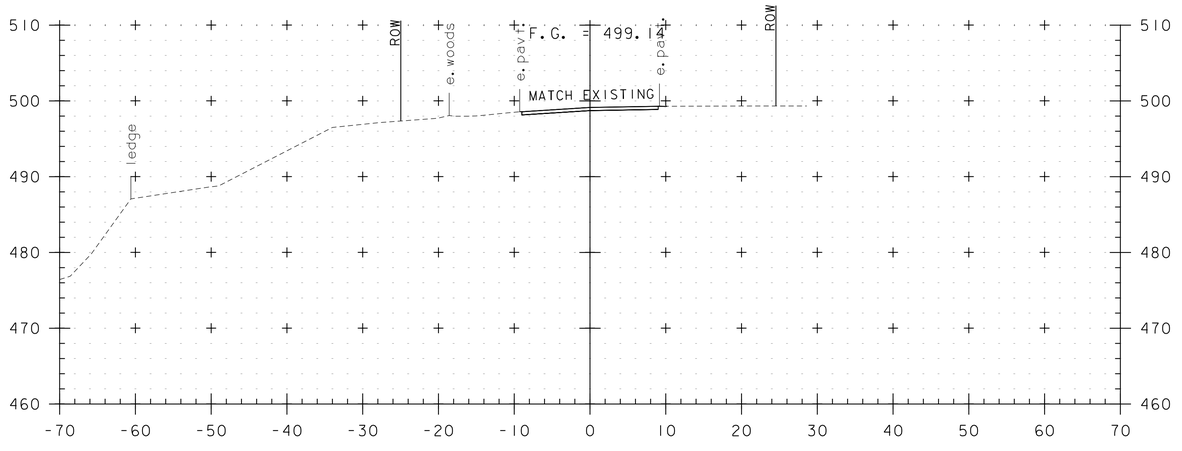
10+75



11+25



10+67



11+00

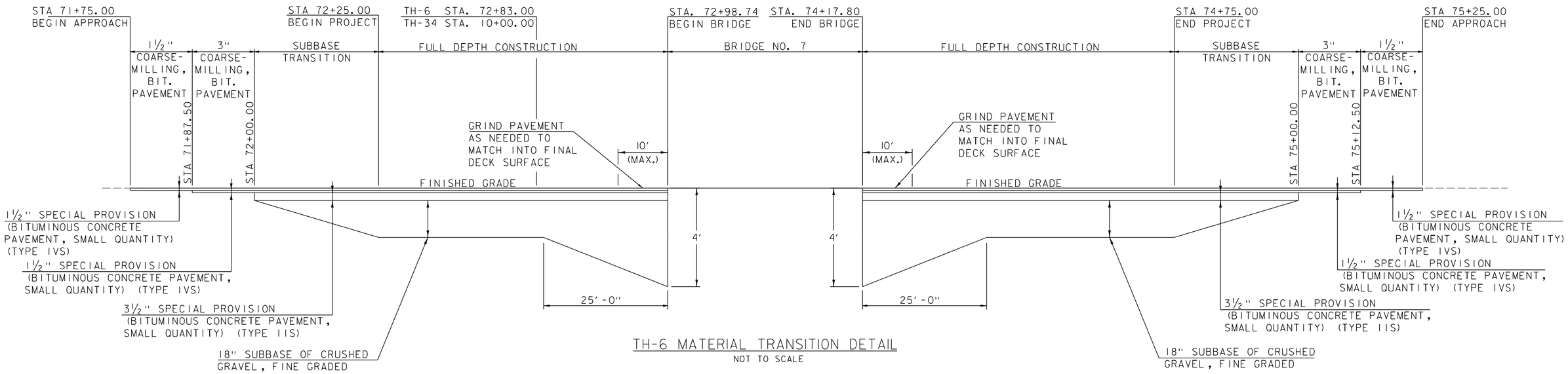
STA. 10+67 TO STA. 11+25

FUSS&O'NEILL

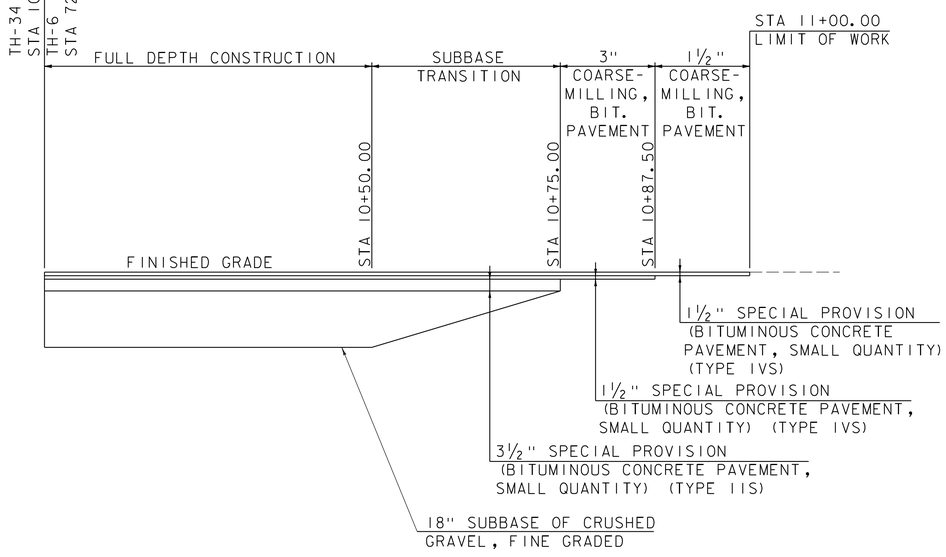
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180xs.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: E. MALONEY
TH-34 CROSS SECTIONS SHEET 2

PLOT DATE: 7/14/2021
DRAWN BY: S. GOODWIN
CHECKED BY: D. MUNRO
SHEET 57 OF 63



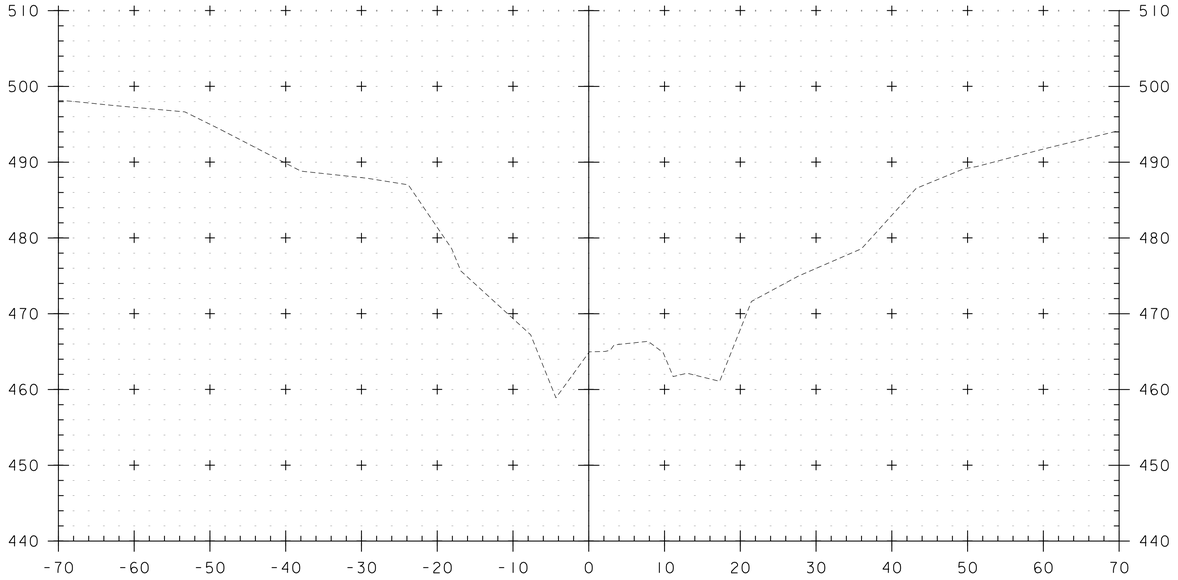
TH-6 MATERIAL TRANSITION DETAIL
NOT TO SCALE



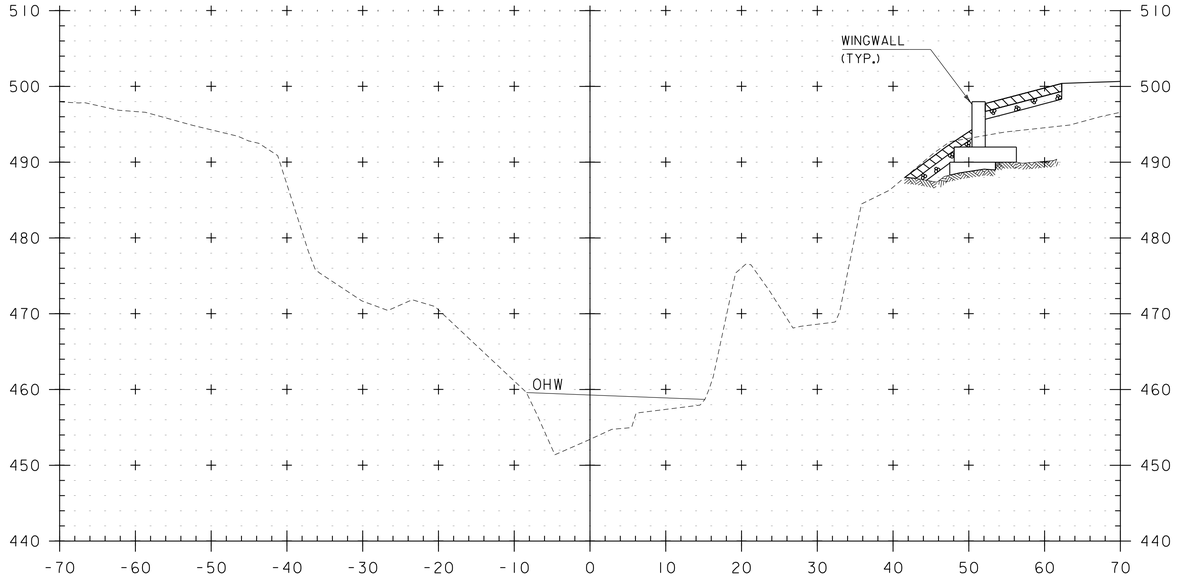
TH-34 MATERIAL TRANSITION DETAIL
NOT TO SCALE

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z16j180frm.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: A. VOMACKA
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
MATERIAL TRANSITION DETAILS	SHEET 58 OF 63

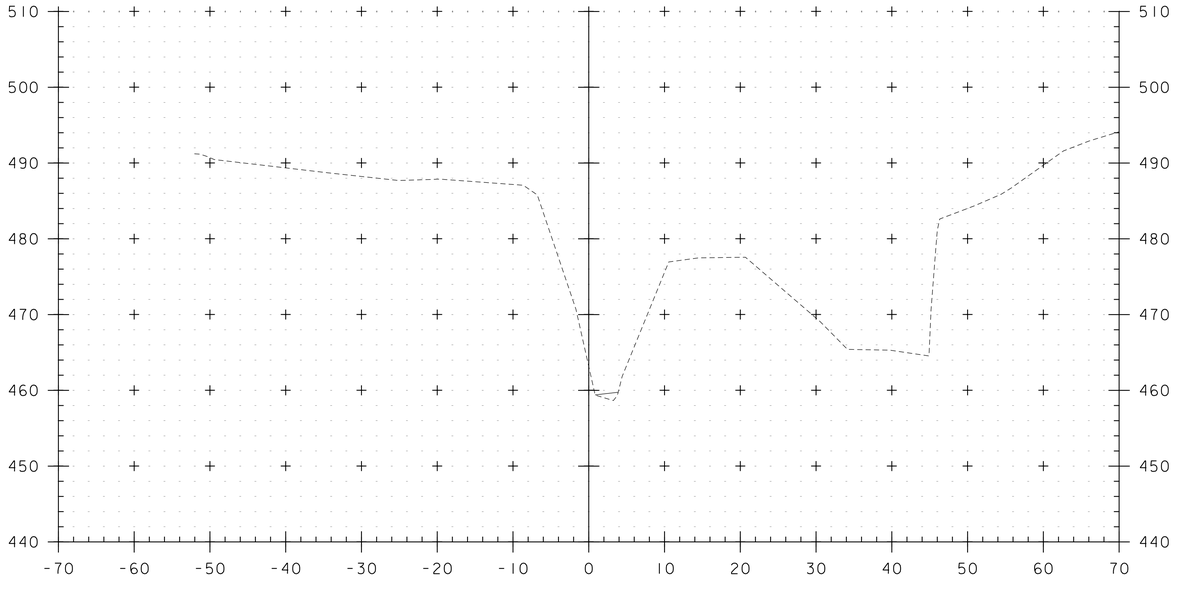
FUSS & O'NEILL



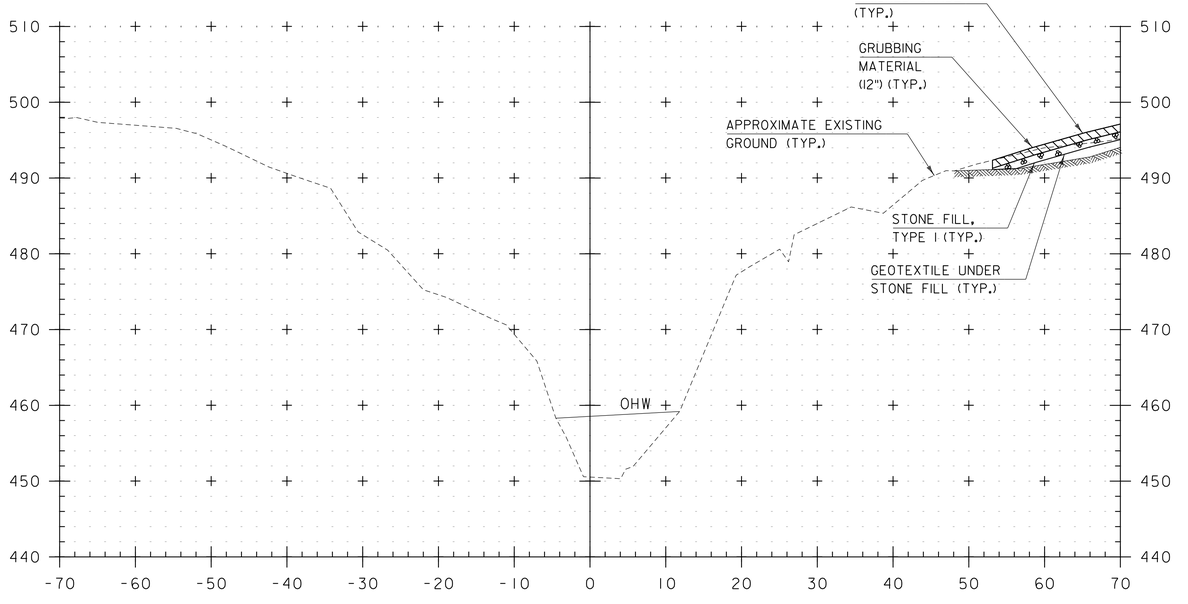
0+25



0+50



0+00



0+40

STA. 0+35 RT
BEGIN COMMON EXCAVATION
BEGIN GEOTEXTILE UNDER STONE FILL
BEGIN STONE FILL, TYPE I
BEGIN GRUBBING MATERIAL (12")

SCALE 1" = 10'-0"
10 0 10

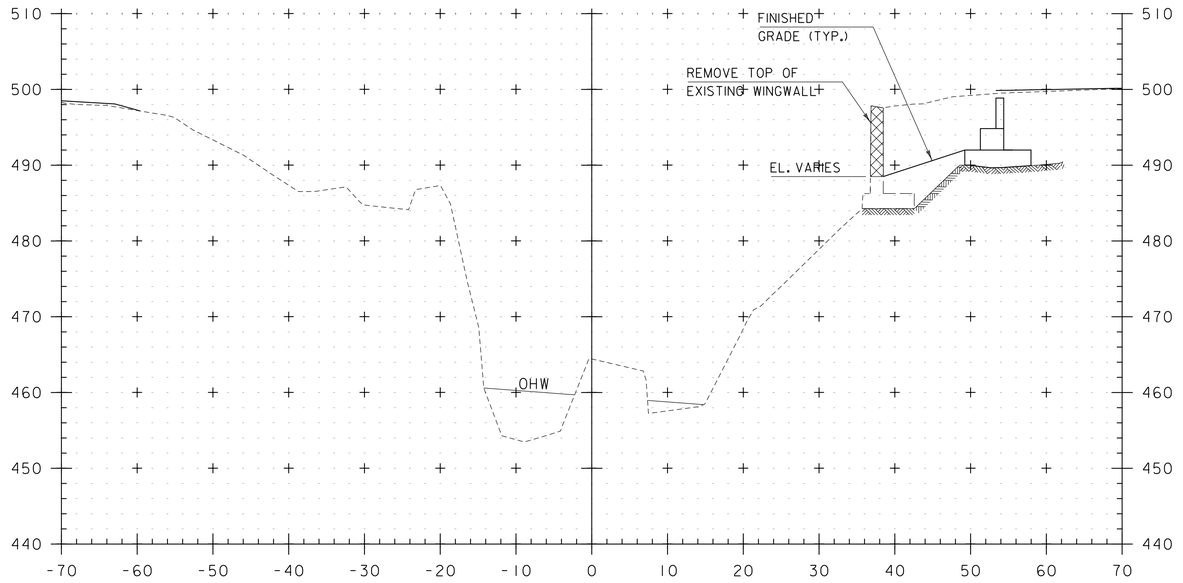
STA. 0+00 TO STA. 0+50

FUSS & O'NEILL

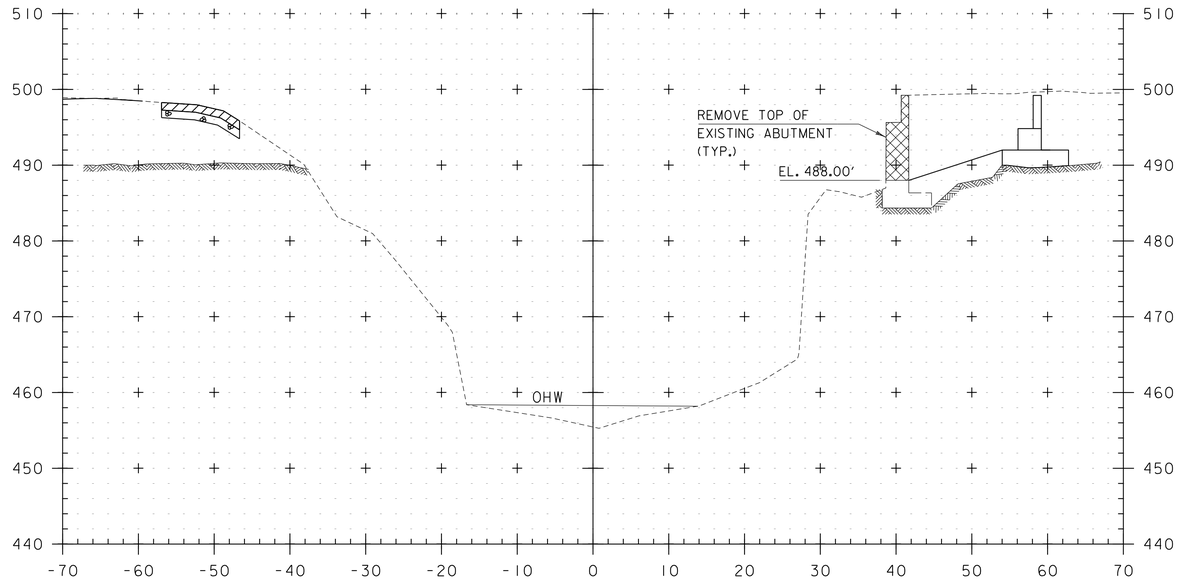
PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: z16j180xs-channel.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
CHANNEL CROSS SECTIONS SHEET 1

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 59 OF 63

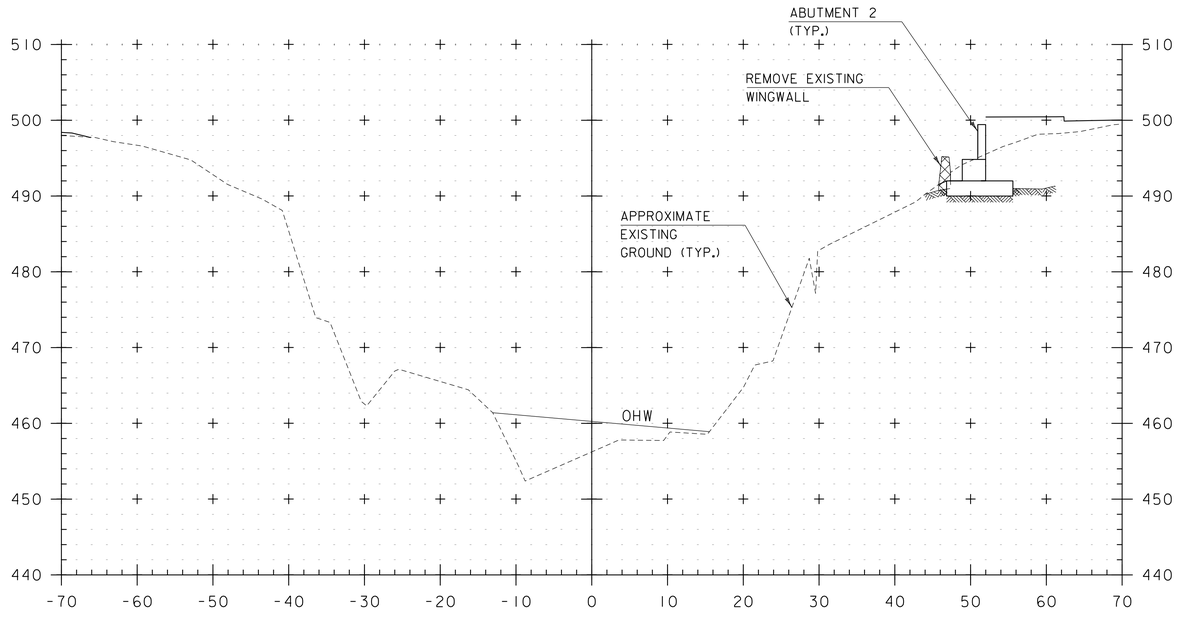


0+70



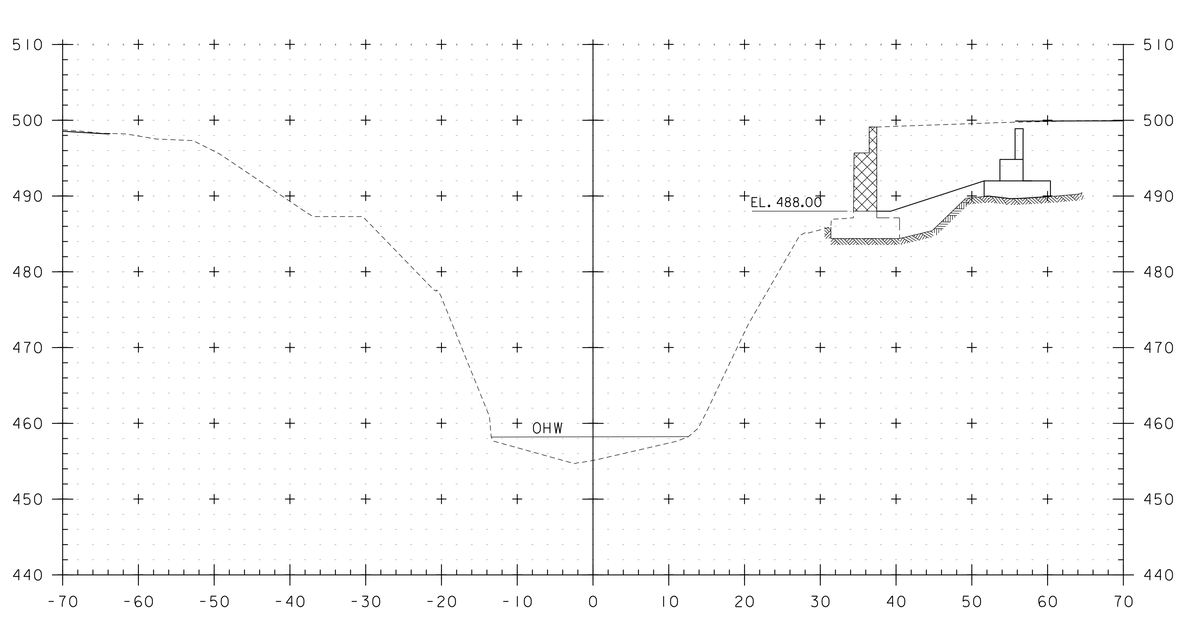
0+90

STA. 0+89 LT
BEGIN COMMON EXCAVATION
BEGIN GEOTEXTILE UNDER STONE FILL
BEGIN STONE FILL, TYPE I
BEGIN GRUBBING MATERIAL (12")



0+60

STA. 0+55 RT
STOP GEOTEXTILE UNDER STONE FILL
STOP STONE FILL, TYPE I
STOP GRUBBING MATERIAL (12")



0+80

SCALE 1" = 10'-0"
10 0 10

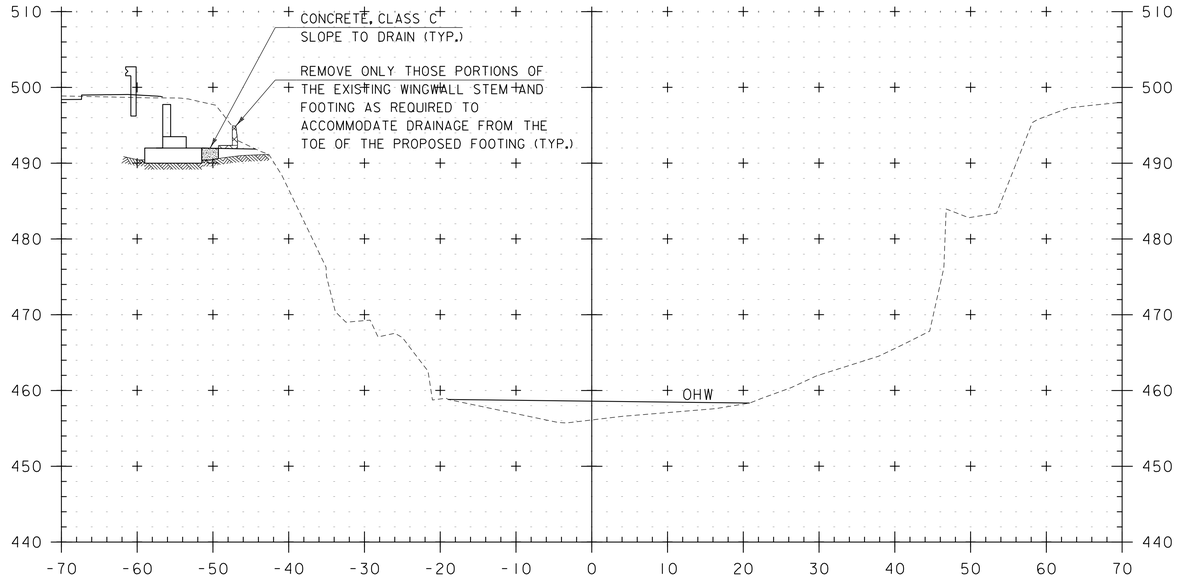
STA. 0+60 TO STA. 0+90

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

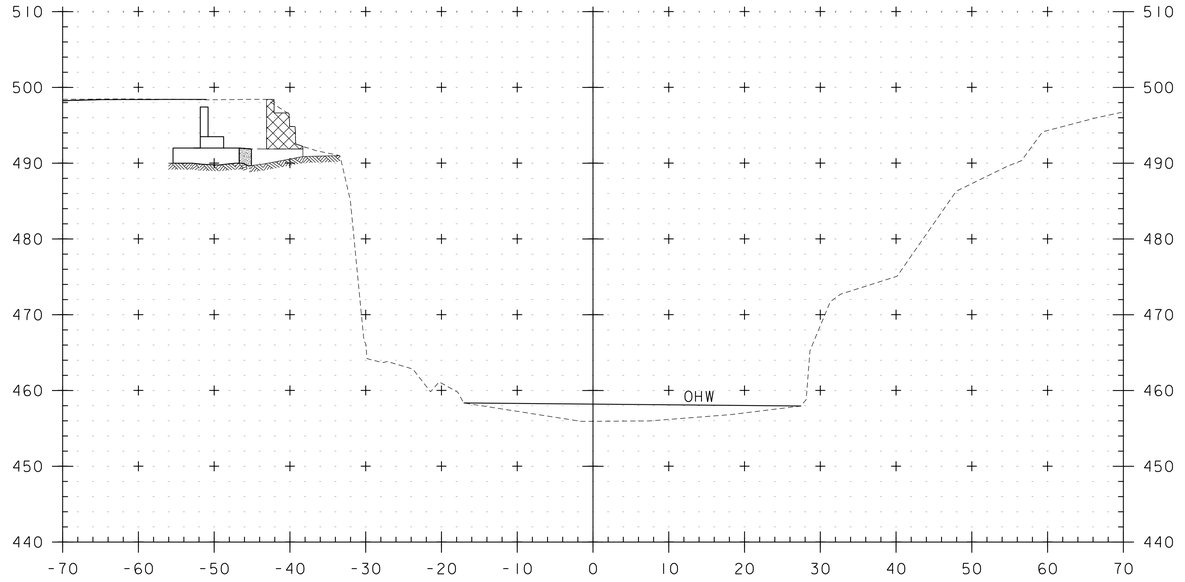
FILE NAME: z16j180xs-channel.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
CHANNEL CROSS SECTIONS SHEET 2

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 60 OF 63



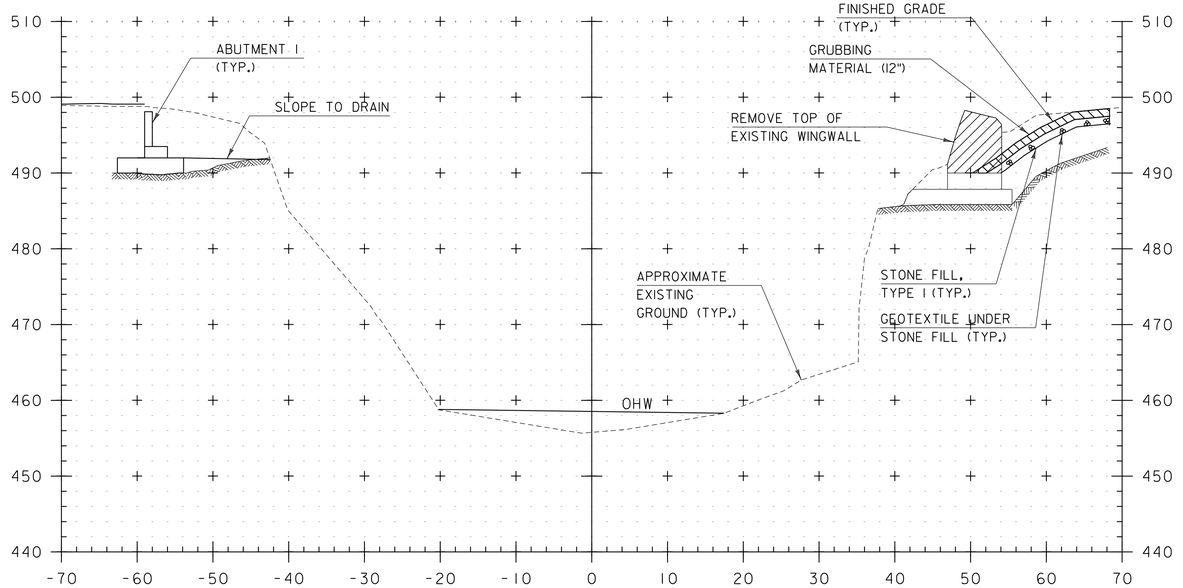
STA. 1+10 LT
BEGIN CONCRETE, CLASS C

1+10



STA. 1+12 RT
END COMMON EXCAVATION
END GEOTEXTILE UNDER STONE FILL
END STONE FILL, TYPE I
END GRUBBING MATERIAL (12")

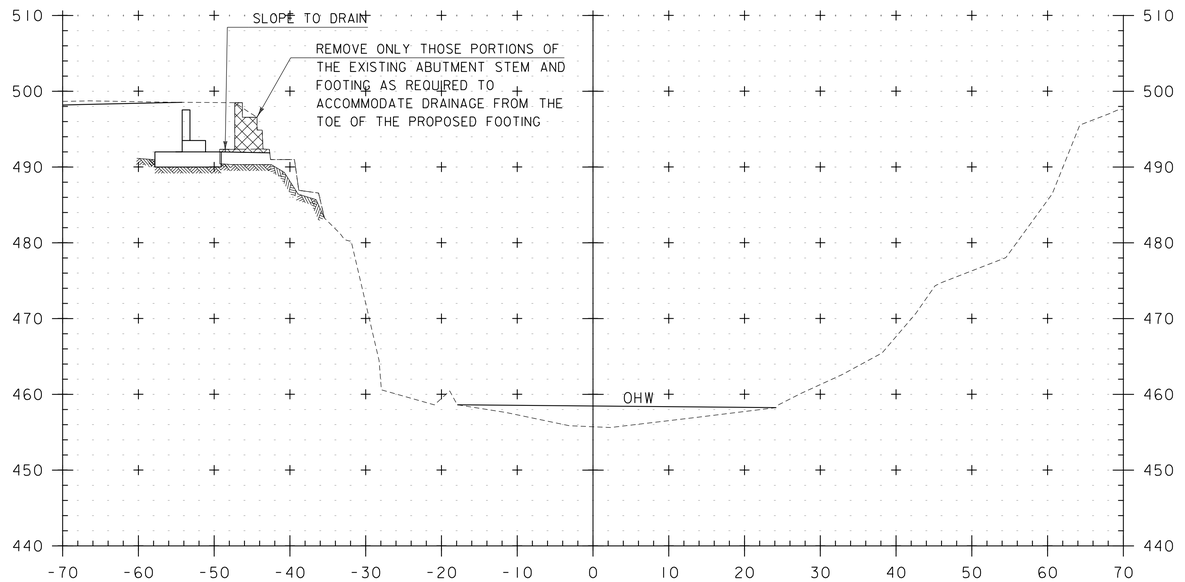
1+30



STA. 1+00 LT
STOP GEOTEXTILE UNDER STONE FILL
STOP STONE FILL, TYPE I
STOP GRUBBING MATERIAL (12")

1+00

STA. 0+94 RT
RESUME GEOTEXTILE UNDER STONE FILL
RESUME STONE FILL, TYPE I
RESUME GRUBBING MATERIAL (12")



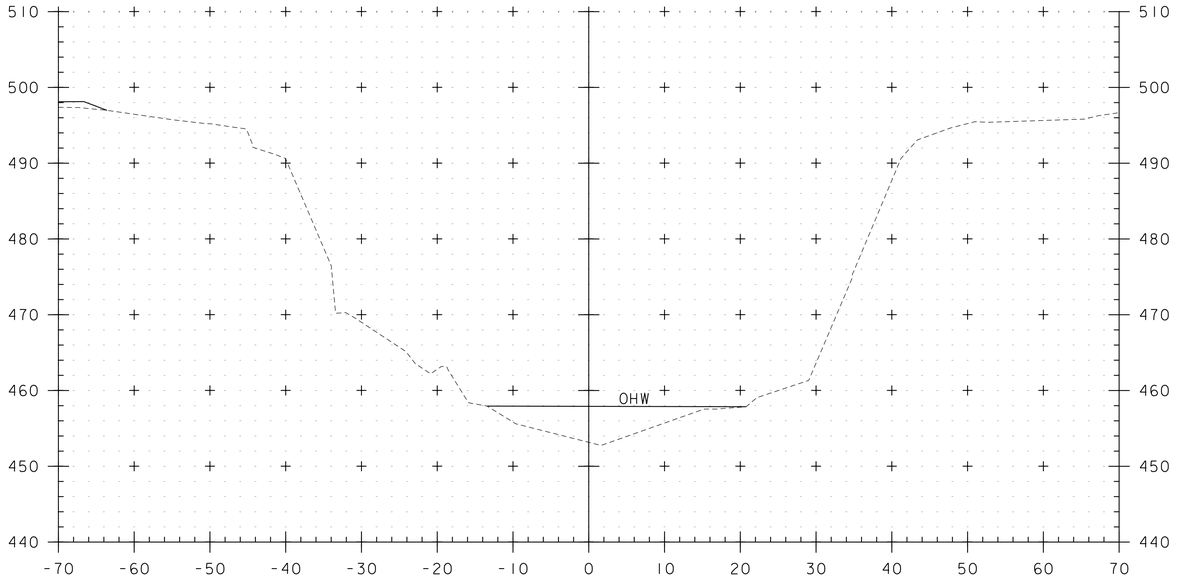
1+20

SCALE 1" = 10'-0"
10 0 10

STA. 1+00 TO STA. 1+30

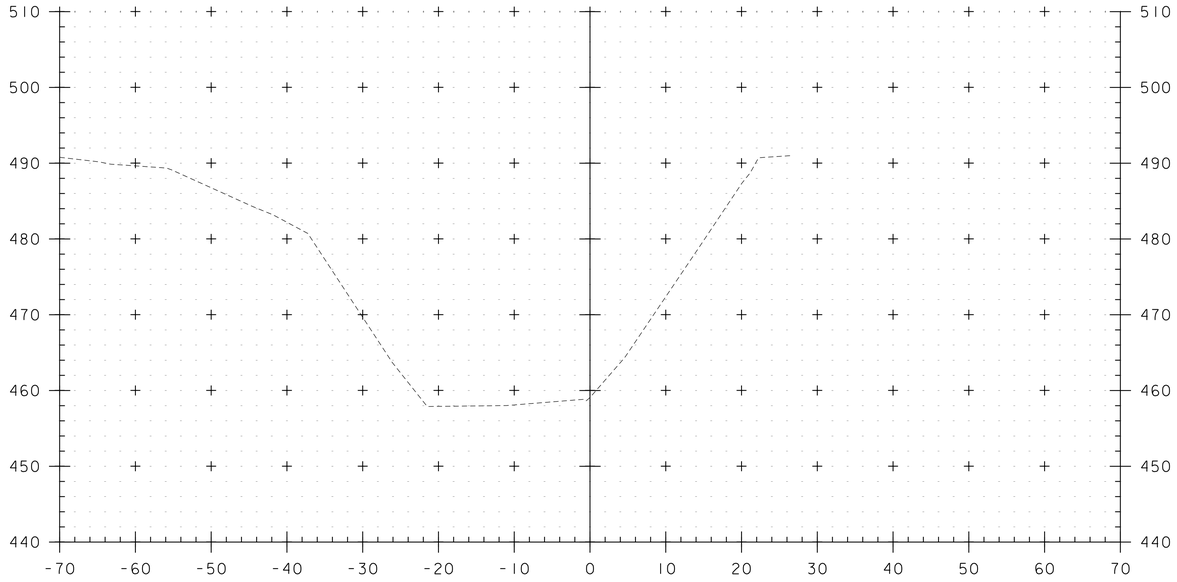
FUSS & O'NEILL

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BO 1443(53)	
FILE NAME: z16j180xs-channel.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: M. SMITH
DESIGNED BY: K. CARME	CHECKED BY: S. BEAUMONT
CHANNEL CROSS SECTIONS SHEET 3	SHEET 61 OF 63

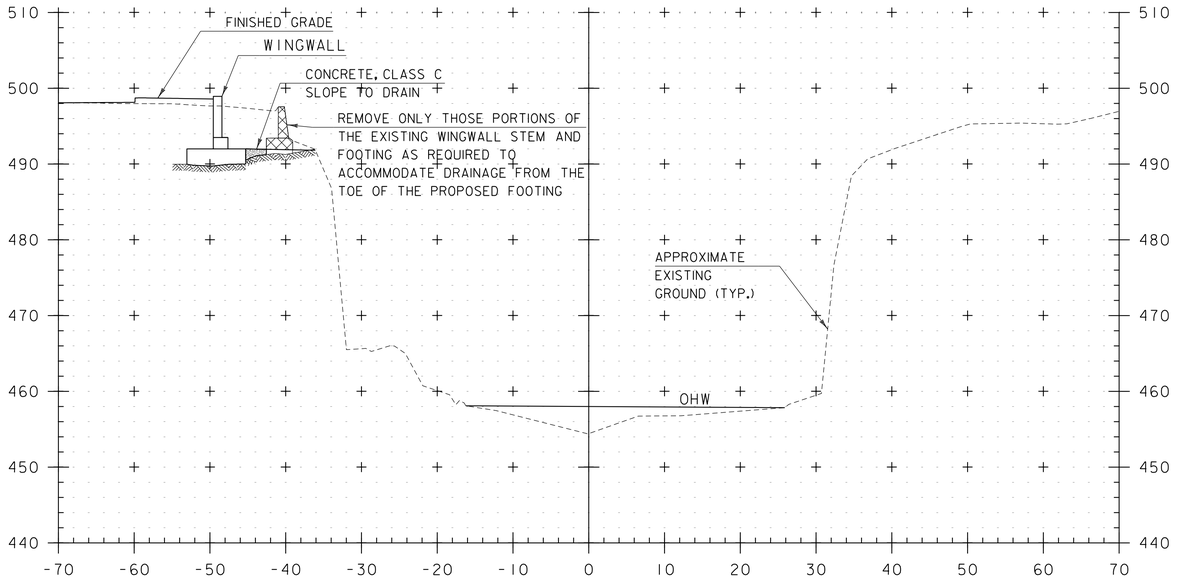


STA. 1+47 LT
END COMMON EXCAVATION
END GEOTEXTILE UNDER STONE FILL
END STONE FILL, TYPE I
END GRUBBING MATERIAL (12")

1+50



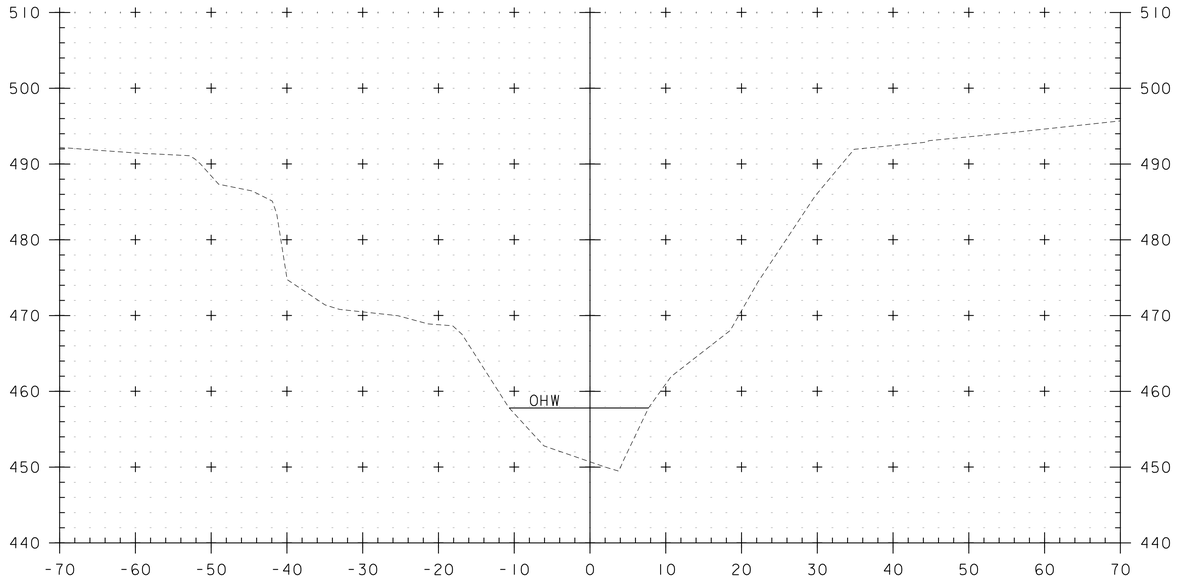
2+00



STA. 1+39 LT
RESUME GEOTEXTILE UNDER STONE FILL
RESUME STONE FILL, TYPE I
RESUME GRUBBING MATERIAL (12")

STA. 1+40 LT
END CONCRETE, CLASS C

1+40



1+75

SCALE 1" = 10'-0"
10 0 10

STA. 1+40 TO STA. 2+00

FUSS & O'NEILL

PROJECT NAME: POULTNEY
PROJECT NUMBER: BO 1443(53)

FILE NAME: zl6j180xs-channel.dgn
PROJECT LEADER: J. FRENCH
DESIGNED BY: K. CARME
CHANNEL CROSS SECTIONS SHEET 4

PLOT DATE: 7/14/2021
DRAWN BY: M. SMITH
CHECKED BY: S. BEAUMONT
SHEET 62 OF 63

SOIL INFORMATION:
TEEL SILT LOAM
K = 0.6,
HYDROLOGIC SOIL GROUP: B/D

SOIL INFORMATION:
WARWICK-QUONSET COMPLEX
K = 2.0,
HYDROLOGIC SOIL GROUP: A

SOIL INFORMATION:
WARWICK-QUONSET COMPLEX
K = 2.0,
HYDROLOGIC SOIL GROUP: A

N

VT STATE PLANE GRID

N/F RAGONNET, KIMBERLY

N/F RAGONNET, KIMBERLY

N/F PROVIN, EARLE & LAURIE

N/F HOWE, CHRISTOPHER H.

N/F HANLEY, MARIE S.; WESCOTT, JAMES EDWARD;

N/F HANLEY, MARIE S.; WESCOTT, JAMES EDWARD; NICHOLS, LESLIE W.; VAN BUREN, MARCIE W.; WESCOTT, HAROLD W., III; HALEY, CARMENA W.

N/F PAUZE E. FRANCIS, JR.

N/F TAYLOR, JONATHAN

N/F MORRILL HOUSE, LLC

N/F WILLIAMS, JOEL W. & JANE B.

POULTNEY RIVER
FLOW

TH-6
(THRALL ROAD)
TO VT ROUTE 30

TH-6
(ON THE GREEN)
TO ROUTE 140

TH-34
(RIVER ST)

EXISTING TOWN R.O.W.

CURVE 1

CURVE 2

CURVE 3

71+00

72+00

73+00

74+00

75+00

76+00

BEGIN BRIDGE
STA 72+98.74

END BRIDGE
STA 74+17.80

11+00

ECT

WELL

GRAVEL DRIVE

WOOD FENCE

GUY WIRE

COMB 8

COMB 8A

COMB 701 8

COMB 7011 8-1

HVCTRL 101

HVCTRL 102

HVCTRL 103

HVCTRL 104

HVCTRL 4/6 WIRE

#250

#242

#228

#160

#26

RAIL FENCE

PAVED DRIVE

MAILBOX

GUY WIRE COMBO 7001

0 20 40
SCALE IN FEET

FUSS & O'NEILL

PROJECT NAME:	POULTNEY
PROJECT NUMBER:	BO 1443(53)
FILE NAME: z161180bdreroex.dgn	PLOT DATE: 7/14/2021
PROJECT LEADER: J. FRENCH	DRAWN BY: S. GOODWIN
DESIGNED BY: E. MALONEY	CHECKED BY: D. MUNRO
EPSC EXISTING SITE PLAN	SHEET 63 OF 63