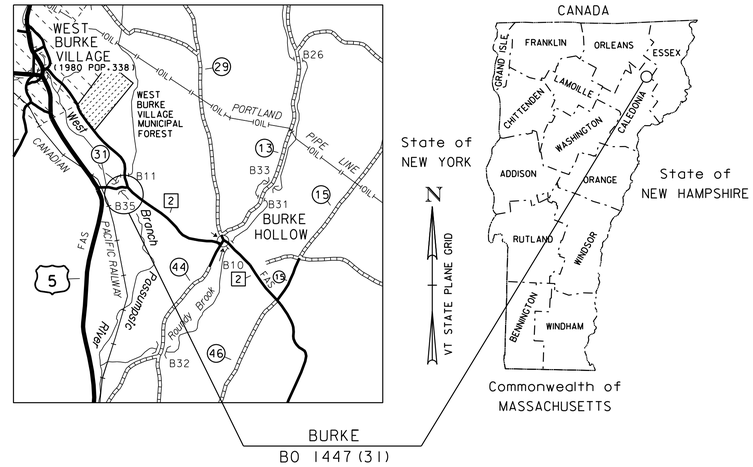
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

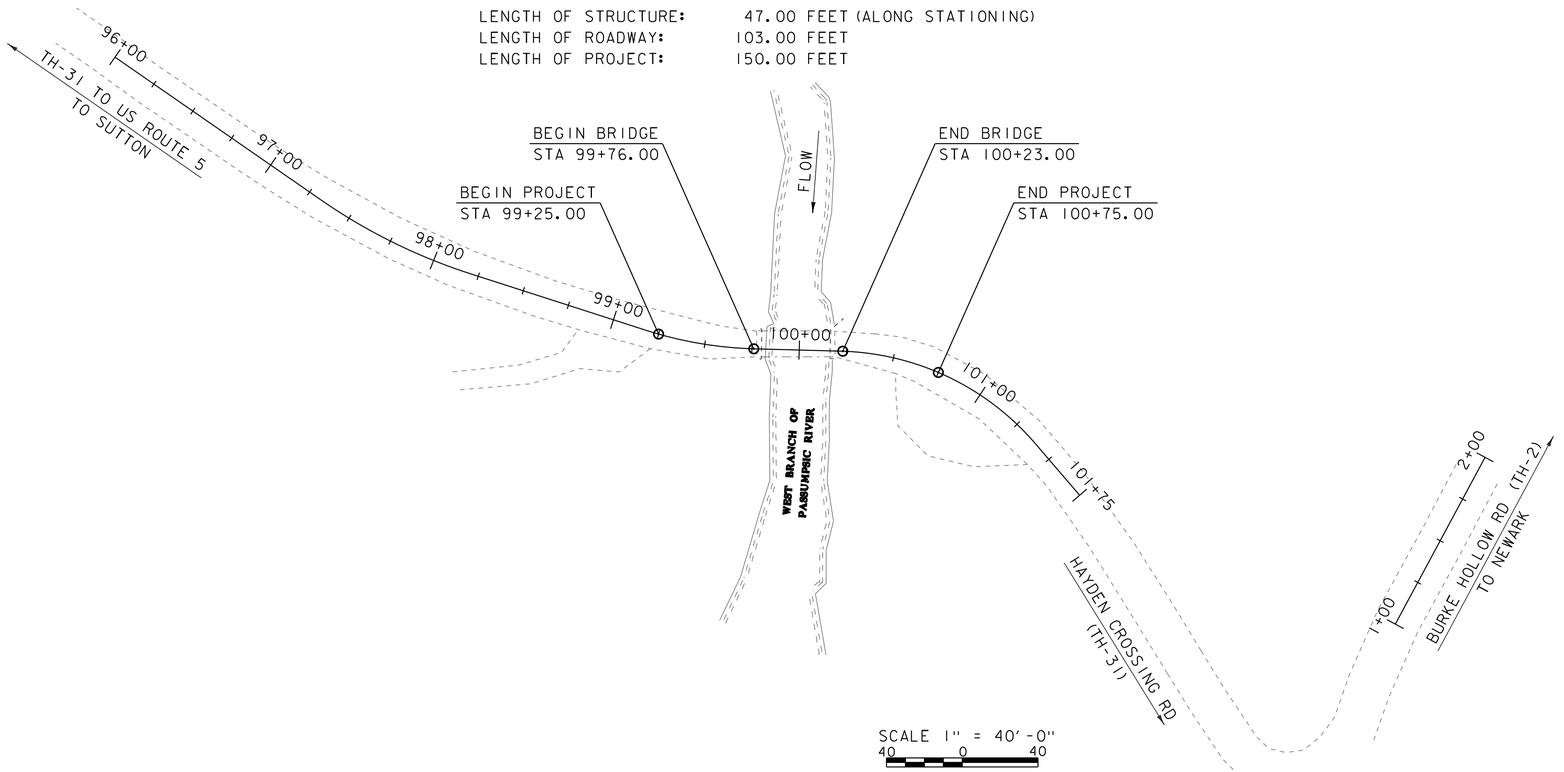
TOWN OF BURKE
COUNTY OF CALEDONIA

ROUTE NO : TOWN HIGHWAY 31 (HAYDEN CROSSING ROAD), CLASS 3 BRIDGE NO : 35

PROJECT LOCATION: LOCATED ON TH 31, BRIDGE 35 OVER THE WEST BRANCH OF THE PASSUMPSIC RIVER, APPROXIMATELY 0.20 MILES EAST OF THE JUNCTION WITH US 5.

PROJECT DESCRIPTION: REPLACEMENT OF THE EXISTING BRIDGE WITH A NEW SIMPLE SPAN BRIDGE ALONG WITH RELATED ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE: 47.00 FEET (ALONG STATIONING)
LENGTH OF ROADWAY: 103.00 FEET
LENGTH OF PROJECT: 150.00 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.

QUALITY ASSURANCE PROGRAM : LEVEL	2
SURVEYED BY :	VTRANS
SURVEYED DATE :	05/2017
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83 (2011)

FINAL PLANS
12-OCT-2020

HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED _____ DATE _____

PROJECT MANAGER : CAROLYN COTA, P.E.

PROJECT NAME : BURKE
PROJECT NUMBER : BO 1447(31)

SHEET 1 OF 39 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE)

Version 2018.12.18.10

LRFD

INDEX OF SHEETS

PLAN SHEETS

DETAIL SHEETS

STANDARDS LIST

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2018	390	75	58	7.7	30
2038	430	80	58	9.7	45

20 year ESAL for flexible pavement from 2018 to 2038 : 82000

40 year ESAL for flexible pavement from 2018 to 2058 : 170000

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: October, 2019

DRAINAGE AREA : 28 sq. mi.
CHARACTER OF TERRAIN : Forest, agriculture, residential, close proximity wetlands
STREAM CHARACTERISTICS : Low gradient meandering corridor with wide floodplains
NATURE OF STREAMBED : Sand, silt, gravel

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

43% =	870 cfs	2% =	2,400 cfs
10% =	1,500 cfs	1% =	2,800 cfs
4% =	2,000 cfs	0.2% =	4,000 cfs

DATE OF FLOOD OF RECORD : Unknown
ESTIMATED DISCHARGE: Unknown
WATER SURFACE ELEV.: Unknown
NATURAL STREAM VELOCITY : @ 4% AEP = 9.2 fps
ICE CONDITIONS : Moderate
DEBRIS: Moderate to heavy
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? No
IS ORDINARY RISE RAPID? No
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? Yes
IF YES, DESCRIBE: Close proximity storage will produce a shallower, more elongated hydrograph with relatively gradual stage changes.

WATERSHED STORAGE: 3%
HEADWATERS:
UNIFORM: X
IMMEDIATELY ABOVE SITE: X

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Rolled steel beam bridge with concrete deck and stone abutments
YEAR BUILT: 1919, reconstructed 1951
CLEAR SPAN(NORMAL TO STREAM): 36 ft. 3 in.
VERTICAL CLEARANCE ABOVE STREAMBED: 6 ft. (approximate)
WATERWAY OF FULL OPENING: 220 sq. ft.
DISPOSITION OF STRUCTURE: Remove and replace
TYPE OF MATERIAL UNDER SUBSTRUCTURE: See borings

WATER SURFACE ELEVATIONS AT:

43% AEP =	845.9 ft. **	VELOCITY =	5.7 fps ***
10% AEP =	847.5 ft.	"	7.7 fps
4% AEP =	849.3 ft.	"	9.1 fps
2% AEP =	850.2 ft.	"	9.8 fps
1% AEP =	851.0 ft.	"	10.2 fps

LONG TERM STREAMBED CHANGES: The channel is incised. The subsequent stage in the channel evolution model is widening.

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: Yes
FREQUENCY: Between the 10% AEP and 4% AEP
RELIEF ELEVATION: 847.3 ft.
DISCHARGE OVER ROAD @ 1% AEP: 450 cfs

UPSTREAM STRUCTURE

TOWN: Burke — DISTANCE: 0.72 mi.
HIGHWAY # : Field Drive — STRUCTURE #: N/A
CLEAR SPAN: Unknown — CLEAR HEIGHT: Unknown
YEAR BUILT: Unknown — FULL WATERWAY: Unknown
STRUCTURE TYPE: Unknown

DOWNSTREAM STRUCTURE

TOWN: Burke — DISTANCE: 1.5 mi.
HIGHWAY # : WACR - Lyndonville — STRUCTURE #: BR-550
CLEAR SPAN: 24 ft. — CLEAR HEIGHT: Unknown
YEAR BUILT: 1912 — FULL WATERWAY: Unknown
STRUCTURE TYPE: Cast-in-place concrete open bottom arch with ballast deck

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	1.94	1.16					
POSTING							
OPERATING	2.52	1.51	2.64	1.39	1.84	1.69	2.12
COMMENTS:							

PROPOSED STRUCTURE

STRUCTURE TYPE: Prestressed Concrete Slab Bridge

CLEAR SPAN(NORMAL TO STREAM): 41.6 feet
VERTICAL CLEARANCE ABOVE STREAMBED: 7 feet (approximate)
WATERWAY OF FULL OPENING: 250 sq. ft.

WATER SURFACE ELEVATIONS AT:

43% AEP =	846.0 ft. **	VELOCITY=	5.3 fps ***
10% AEP =	847.6 ft.	"	7.0 fps
4% AEP =	849.4 ft.	"	7.9 fps
2% AEP =	850.1 ft.	"	9.2 fps
1% AEP =	850.8 ft.	"	9.7 fps

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: Yes
FREQUENCY: Between the 10% AEP and 4% AEP
RELIEF ELEVATION: 847.3 ft.
DISCHARGE OVER ROAD @ 1% AEP: 350 cfs

BRIDGE LOW CHORD ELEVATION: 847.2 ft.
FREEBOARD: @ 4% AEP = -2.2 ft.

SCOUR: 6.8 ft. of scour at the 2% AEP

REQUIRED CHANNEL PROTECTION: Stone Fill, Type III

PERMIT INFORMATION

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

TEMPORARY BRIDGE REQUIREMENTS

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

ADDITIONAL INFORMATION

* - West Branch Passumpsic River
** - Due to limitations with 1D hydraulic modeling, permanent ineffective flow regions have been utilized resulting in conservative water surface elevations.
*** - Largest model velocities within the interior of the structure.

TRAFFIC MAINTENANCE NOTES

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

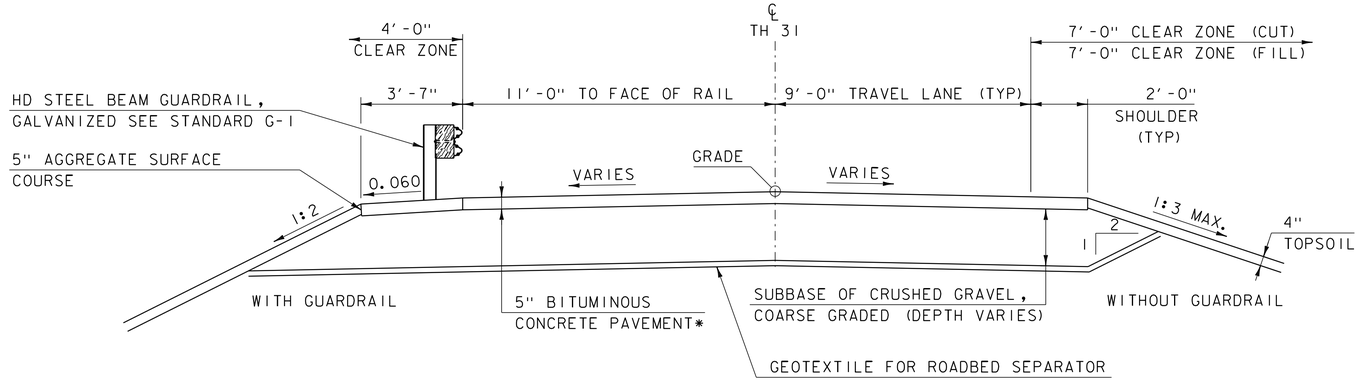
DESIGN VALUES

1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_p:	0.0 INCH
3. DESIGN SPAN	L:	46.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	- - -
5. PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX)	f_y:	270 KSI
6. PRESTRESSED CONCRETE STRENGTH	f'_c:	8.0 KSI
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	5.0 KSI
8. HIGH PERFORMANCE CONCRETE, CLASS PCD	f'_c:	4.0 KSI
9. HIGH PERFORMANCE CONCRETE, CLASS PCS	f'_c:	3.5 KSI
10. CONCRETE HIGH PERFORMANCE, CLASS PSS	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:	- - -
14. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	4.0 KSF
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	- - -
16. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	10.0 KSF
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	- - -
18. PILE RESISTANCE FACTOR	ϕ:	0.65
19. LATERAL PILE DEFLECTION	Δ:	0.23 INCH
20. BASIC WIND SPEED	V_{3s}:	- - -
21. MINIMUM GROUND SNOW LOAD	p_g:	- - -
22. SEISMIC DATA — PGA: - - -	S_s:	- - -
	S_1:	- - -
23.		
24.		- - -
25.		- - -
26.		- - -

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
PRELIMINARY INFORMATION SHEET

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 2 OF 39

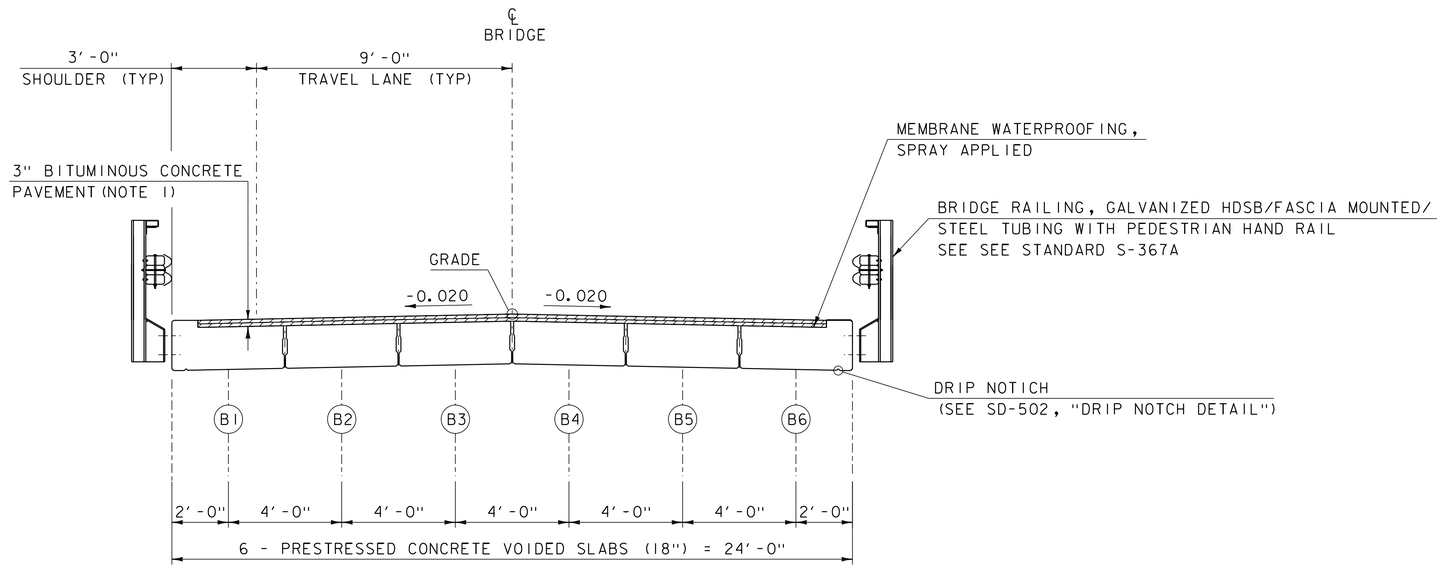


*SPECIAL PROVISION
(BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY):
1½" WEARING COURSE, TYPE IVB
1½" BINDER COURSE, TYPE IVB
2" BASE COURSE, TYPE IIIS

TH 31 TYPICAL SECTION

SCALE ⅜" = 1'-0"

NOTE:
EMULSIFIED ASPHALT SHALL BE APPLIED PER THE APPLICATION RATES IN TABLE 406.12A OF THE STANDARD SPECIFICATIONS.



BRIDGE TYPICAL SECTION - 24' WIDTH

SCALE ⅜" = 1'-0"

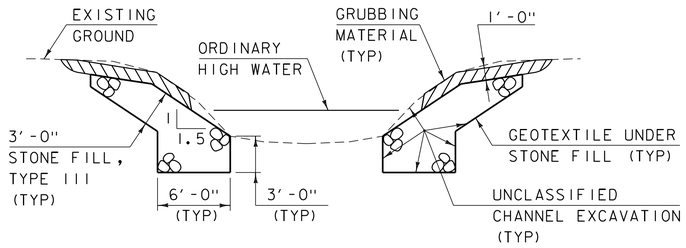
MATERIAL TOLERANCES
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- ¼"
- AGGREGATE SURFACE COURSE	+/- ½"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610typ.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
TYPICAL SECTION SHEETS 1

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON

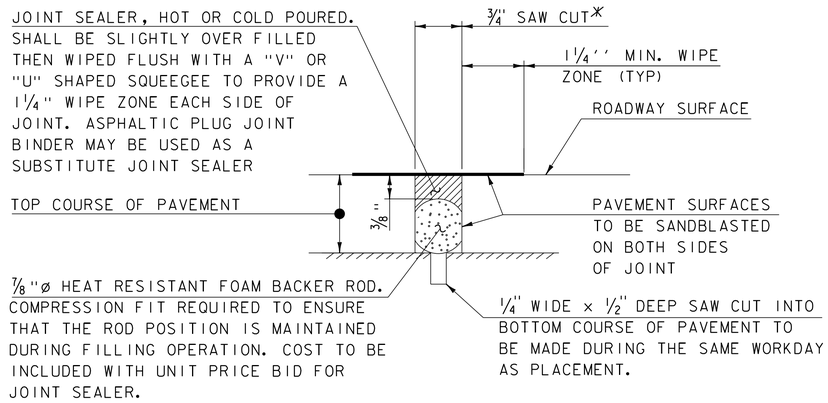


TYPICAL CHANNEL SECTION

(NOT TO SCALE)

1) GRUBBING MATERIAL SHALL BE PLACED UNDERNEATH STRUCTURES WHERE THERE IS MORE THAN 6 FEET VERTICALLY FROM ORDINARY HIGH WATER (OHW) TO THE BOTTOM OF SUPERSTRUCTURE AND MORE THAN 6 FEET HORIZONTALLY FROM OHW LINE TO FRONT FACE OF ABUTMENT. THIS MATERIAL SHALL START JUST ABOVE THE OHW ELEVATION AND TERMINATE 3 FEET HORIZONTALLY FROM THE FRONT FACE OF THE ABUTMENT. THIS MATERIAL SHALL NOT BE PLACED UNDERNEATH DOWNSPOUTS. SEE THE CHANNEL SECTIONS FOR ADDITIONAL DETAILING.

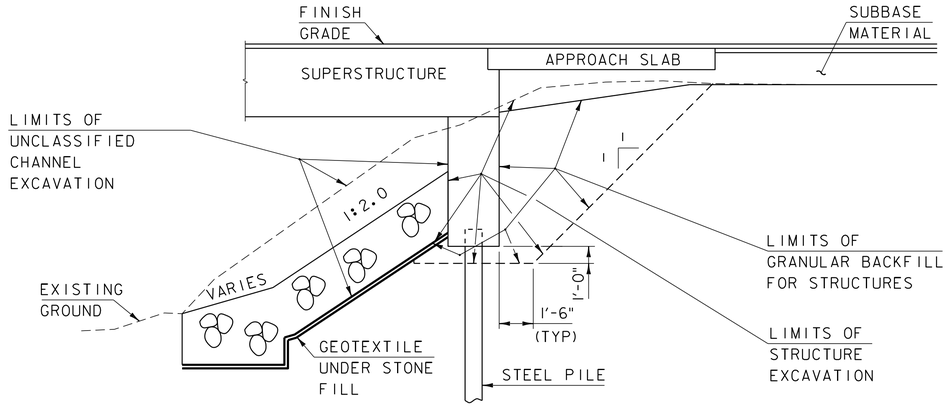
2) WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



SAWED PAVEMENT JOINT DETAIL

(NOT TO SCALE)

*JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.



ABUTMENT EARTHWORK TYPICAL SECTION

NOT TO SCALE

PROJECT NAME: BURKE	
PROJECT NUMBER: BO 1447(31)	
FILE NAME: sl2j610typ.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
TYPICAL SECTION SHEETS 2	SHEET 4 OF 39

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8th EDITION, AND THEIR LATEST REVISIONS.

2. THE CONTRACTOR SHALL PROVIDE A SITE-SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL PLAN IN ACCORDANCE WITH SECTION 653 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. ESTIMATED QUANTITIES FOR EPSC WORK HAVE BEEN INCLUDED IN THE CONTRACT FOR BIDDING PURPOSES. IF THE CONTRACTOR'S EPSC PLAN REQUIRES ITEMS OF WORK THAT ARE NOT INCLUDED IN THE PLANS, THE EXTRA WORK WILL BE PAID FOR AS PART OF ITEM 653.03 MAINTENANCE OF EPSC PLAN.

3. THE AREA(S) OF DISTURBANCE ARE SHOWN ON THE ENVIRONMENTAL IMPACT PLANS, WHICH ARE REFERENCED IN THE SPECIAL PROVISIONS, NOTICE TO BIDDER - OTHER SPECIFICATIONS AND CONTRACT REQUIREMENTS.

4. THE BRIDGE HAS FAILED AND IS NO LONGER OPEN TO TRAFFIC.

EARTHWORK AND RELATED ITEMS

5. THE REMOVAL OF EXISTING STRUCTURE WILL BE PAID UNDER ITEM 529.15, "REMOVAL OF STRUCTURE". THIS WORK SHALL INCLUDE REMOVAL OF THE ENTIRE SUPERSTRUCTURE AND ANY PORTIONS OF THE EXISTING ABUTMENTS THAT FALL OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION.

6. THE "STONE FILL, TYPE III" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW SOLID SLABS ARE SET.

CONCRETE

7. SUBSTRUCTURE CONCRETE AND APPROACH SLABS SHALL BE SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B) AND SHALL BE PAID FOR UNDER ITEM 900.608, "SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B)".

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

9. ALL REINFORCING STEEL IN THE APPROACH SLABS AND PRESTRESSED SOLID SLABS SHALL BE LEVEL I, EPOXY COATED.

PRESTRESSED SOLID SLAB BEAMS

10. THE CONTRACTOR SHALL CONFIRM AT THE TIME OF FABRICATION DRAWING REVIEW THAT THE CALCULATED CAMBER ESTIMATE IS COMPATIBLE WITH THE GRADES AND ELEVATIONS OF THE REST OF THE STRUCTURE.

11. THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN A MINIMUM OF 30 CALENDAR DAYS PRIOR TO ERECTION. UNDER NO CIRCUMSTANCES SHALL THE SUPERSTRUCTURE BE ERECTED PRIOR TO HAVING AN ACCEPTED ERECTION PLAN.

12. NO HOLES MAY BE DRILLED IN ANY PRECAST ELEMENTS WITHOUT THE APPROVAL OF THE FABRICATOR AND THE AGENCY.

13. ALL LIFTING POINTS IN THE SUPERSTRUCTURE SHALL BE REMOVABLE TO THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SPECIFIED IN THE PLANS. PAYMENT FOR THIS WORK WILL BE INCLUDED IN THE PAYMENT OF ITEM 510.25 "PRESTRESSED CONCRETE SOLID SLABS (18"X48")".

14. ALL RECESSED LIFTING POINTS, ANCHOR BOLTS, AND BLOCK OUTS SHALL BE FILLED WITH A TYPE IV MORTAR PER SUBSECTION 707.03. PAYMENT WILL BE INCLUDED IN THE PAYMENT OF ITEM 510.25 "PRESTRESSED CONCRETE SOLID SLABS (18"X48")".

TRAFFIC CONTROL

15. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, IMPLEMENTATION, AND SUBMITTAL OF A SITE- SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. ALL COSTS WILL BE INCLUDED IN ITEM 641.11 TRAFFIC CONTROL, ALL-INCLUSIVE.

16. TRAFFIC WILL CONTINUE TO USE LOCAL DETOURS DURING CONSTRUCTION.

PILES

17. PILES SHALL BE DRIVEN TO A NOMINAL AXIAL RESISTANCE OF 286 KIPS AND EMBEDDED A MINIMUM OF 22 FEET BELOW THE BOTTOM OF THE PILE CAP. ANY WORK REQUIRED FOR DRIVING SHALL BE PAID FOR UNDER ITEM 504.10 "FURNISHING EQUIPMENT FOR DRIVING PILE".

18. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN-PLACE LENGTHS MAY VARY BASED ON BEDROCK LOCATION.

19. A MINIMUM OF ONE DYNAMIC PILE LOAD TEST SHALL BE PERFORMED PER ABUTMENT.

MISCELLANEOUS

20. ITEM 520.10, "MEMBRANE WATERPROOFING, SPRAY APPLIED" SHALL BE APPLIED TO THE BRIDGE AS PER THE MANUFACTURER'S INSTRUCTIONS AND EXTEND ONTO THE APPROACH SLABS TWO FEET BEYOND THE BEGIN/END OF BRIDGE.

21. PAYMENT FOR ADDITIONAL HANDRAIL, MATERIALS, HARDWARE AND FABRICATION SHALL BE INCIDENTAL TO ITEM 525.44, "BRIDGE RAILING, GALVANIZED HDSB/FASCIA MOUNTED/STEEL TUBING".

22. MAINTAIN ACCESS TO FIELD DRIVE AND AT LEAST ONE DRY HYDRANT AT ALL TIMES.

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610frm.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
PROJECT NOTES	SHEET 5 OF 39

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	TRAINING	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS
1				
521				
			160	
1				
			330	
			260	
125				
455				
25				
8				
1				
			1	
			590	
			2	
			10100	
			10	
			235	
			282	
			10	
			44	
			140	
			44	
			100	
			1	
			170	
120				
85				
4				
4				
110				
200				
				1
				1
				1
				1
				3000
7				
	540			
1				
1				

TOTALS

GRAND TOTAL	FINAL
1	
521	
160	
1	
330	
260	
125	
455	
25	
8	
1	
1	
590	
2	
10100	
10	
235	
282	
10	
44	
140	
44	
100	
1	
170	
120	
85	
4	
4	
110	
200	
1	
1	
1	
1	
3000	
7	
540	
1	
1	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	
CY	COMMON EXCAVATION	203.15	
CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27	
CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	
CY	STRUCTURE EXCAVATION	204.25	
CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	
SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10	
CY	SUBBASE OF CRUSHED GRAVEL, COARSE GRADED	301.25	
TON	AGGREGATE SHOULDERS	402.12	
CWT	EMULSIFIED ASPHALT	404.65	
LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	
LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10	
LF	STEEL PILING, HP 12 X 63	505.155	
EACH	DYNAMIC PILE LOADING TEST	505.45	
LB	REINFORCING STEEL, LEVEL I (EPOXY)	507.11	
LF	DRILLING AND GROUTING DOWELS	507.16	
LF	GROUTING SHEAR KEYS	510.24	
LF	PRESTRESSED CONCRETE SOLID SLABS (18" x 48")	510.25	
GAL	WATER REPELLENT, SILANE	514.10	
LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	
SY	MEMBRANE WATERPROOFING, SPRAY APPLIED	519.10	
LF	JOINT SEALER, HOT POURED	524.11	
LF	BRIDGE RAILING, GALVANIZED HDSB/FASCIA MOUNTED/STEEL TUBING	525.44	
EACH	REMOVAL OF STRUCTURE (650 SF - EST.)	529.15	
CY	STONE FILL, TYPE III	613.12	
LF	REMOVING AND RESETTING FENCE	620.50	
LF	HD STEEL BEAM GUARDRAIL, GALVANIZED	621.21	
EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	
EACH	GUARDRAIL APPROACH SECTION, GALV HD STEEL BEAM	621.737	
LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	
HR	FLAGGERS	630.15	
LS	FIELD OFFICE, ENGINEERS	631.10	
LS	TESTING EQUIPMENT, CONCRETE	631.16	
LS	TESTING EQUIPMENT, BITUMINOUS	631.17	
LS	TESTING EQUIPMENT, GROUT	631.19	
DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.26	
EACH	CPM SCHEDULE	633.10	
HR	EMPLOYEE TRAINEESHIP	634.10	
LS	MOBILIZATION/DEMOBILIZATION	635.11	
LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.11	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		EARTHWORKS SUMMARY
		FILL AVAILABLE
399	CY	COMMON EXCAVATION (570 x .7)
48	CY	UNCLASSIFIED CHANNEL EXCAVATION (160 x 0.3)
51	CY	STRUCTURE EXCAVATION (170 x 0.3)
498	**CY**	**TOTAL FILL AVAILABLE**
		FILL REQUIRED
57.5	CY	FACTORED FILL (50 x 1.15)
0.5	CY	ROUNDING
58	**CY**	**TOTAL FILL REQUIRED**
440	**CY**	**TOTAL WASTE MATERIAL**
		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IIS
83	TON	BASE COURSE
		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE IVB
63	TON	INTERMEDIATE COURSE
73	TON	WEARING COURSE
219	**TON**	**SUPERPAVE BITUMINOUS CONCRETE PAVEMENT**
		(N.A.B.I.) = NOT A BID ITEM

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
QUANTITY SHEET 1

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 6 OF 39

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES							TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	TRAINING	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
710					710		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404				
690					690		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414				
680					680		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11				
			160		160		SY	GEOTEXTILE UNDER STONE FILL	649.31				
		75			75		SY	GEOTEXTILE FOR FILTER CURTAIN	649.61				
		10			10		LB	SEED	651.15				
		10			10		LB	FERTILIZER	651.18				
		0.25			0.25		TON	AGRICULTURAL LIMESTONE	651.20				
		60			60		CY	TOPSOIL	651.35				
			100		100		SY	GRUBBING MATERIAL (12")	651.40				
		1			1		LS	EPSC PLAN	653.01				
		40			40		HR	MONITORING EPSC PLAN	653.02				
		1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.03				
		0.25			0.25		TON	HAY MULCH	653.10				
		250			250		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.20				
		30			30		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35				
		2			2		EACH	FILTER BAG	653.45				
		400			400		LF	SILT FENCE, TYPE II	653.476				
		575			575		LF	BARRIER FENCE	653.50				
		100			100		LF	EROSION LOG	653.60				
1					1		SF	TRAFFIC SIGN, TYPE A	675.20				
35					35		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341				
5					5		EACH	REMOVING SIGNS	675.50				
1					1		EACH	RESETTING SIGNS	675.60				
4					4		EACH	DELINEATOR WITH STEEL POST	676.10				
			90		90		CY	SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B)	900.608				
165					165		LF	SPECIAL PROVISION (BARBED WIRE FENCE)	900.640				
1					1		LS	SPECIAL PROVISION (DRY HYDRANT)	900.645				
1					1		LU	SPECIAL PROVISION (MATERIAL DENSISTY PAY ADJUSTMENT, SMALL QUANTITY)	900.650				
1					1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT (N.A.B.I.)	900.650				
219					219		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680				

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
QUANTITY SHEET 2

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON

STATE OF VERMONT
AGENCY OF TRANSPORTATION

BRIDGE QUANTITY SHEET 1

SUMMARY OF BRIDGE QUANTITIES				TOTALS	DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
SUPER STRUCTURE	APPROACH SLAB #1	APPROACH SLAB #2	ABUTMENT #1	ABUTMENT #2	BRIDGE TOTAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
			78	82	160	CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27			
			157	173	330	CY	STRUCTURE EXCAVATION	204.25			
			137	123	260	CY	GRANULAR BACKFILL FOR STRUCTURES	204.30			
			0.5	0.5	1	LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10			
			295	295	590	LF	STEEL PILING, HP 12 X 63	505.155			
			1	1	2	EACH	DYNAMIC PILE LOADING TEST	505.45			
	1488	1488	3542	3582	10100	LB	REINFORCING STEEL, LEVEL I (EPOXY)	507.11			
			5	5	10	LF	DRILLING AND GROUTING DOWELS	507.16			
235					235	LF	GROUTING SHEAR KEYS	510.24			
282					282	LF	PRESTRESSED CONCRETE SOLID SLABS (18" x 48")	510.25			
5			2	3	10	GAL	WATER REPELLENT, SILANE	514.10			
			22	22	44	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10			
140					140	SY	MEMBRANE WATERPROOFING, SPRAY APPLIED	519.10			
			22	22	44	LF	JOINT SEALER, HOT POURED	524.11			
100					100	LF	BRIDGE RAILING, GALVANIZED HDSB/FASCIA MOUNTED/STEEL TUBING	525.44			
1					1	EACH	REMOVAL OF STRUCTURE (650 SF - EST.)	529.15			
			81	89	170	CY	STONE FILL, TYPE III	613.12			
			81	79	160	SY	GEOTEXTILE UNDER STONE FILL	649.31			
			44	56	100	SY	GRUBBING MATERIAL (12")	651.40			
	15	15	30	30	90	CY	SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B)	900.608			

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610frm.dgn
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DESIGNED BY: D. PETERSON
BRIDGE QUANTITY SHEET

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 8 OF 39

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

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

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

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

COMMON TOPOGRAPHIC POINT SYMBOLS

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

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

PROPOSED GEOMETRY CODES

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

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

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

ABOVE GROUND UTILITIES (AERIAL)

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

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

- CZ — CLEAR ZONE
- PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

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

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

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

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

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

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

ENVIRONMENTAL RESOURCES

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

ARCHEOLOGICAL & HISTORIC

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

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

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

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
CONVENTIONAL SYMBOLOGY LEGEND SHEET

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 9 OF 39

NETWORK CONTROL

HVCTRL #1
PATOINE
NORTH =777156.1020
EAST = 1777564.9800
ELEV. = 905.3800

GENERAL LOCATION, BURKE VT

THE MARK IS SET 1 INCH BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT DRIVEN IN A BERM COMPRISED OF BALLAST AND EARTH. IT IS 36.7 FT WEST OF AND 1.3 FT HIGHER THAN THE CENTERLINE OF US ROUTE 5, 20.3 FT SW OF THE WASHINGTON COUNTY RAILROAD SW RAIL, 16.7 FT NORTH OF THE EASTERLY POST FOR THE WEST BURKE GRAVEL PIT SIGN, 90.2 FT NNW OF THE CENTERLINE OF A GATED GRAVEL DRIVE LEADING TO THE GRAVEL PIT, AND 0.7 FT SW OF A FIBERGLASS WITNESS POST.

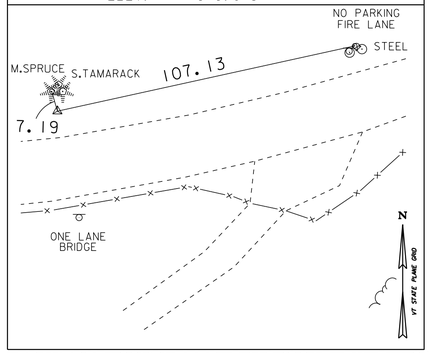
HVCTRL #2
PATOINE AZ MK
NORTH = 776311.5140
EAST = 1778805.7100
ELEV. = 877.8720

GENERAL LOCATION, BURKE VT

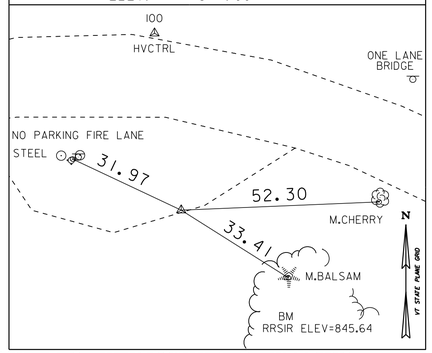
THE MARK IS SET 3 INCHES BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT. IT IS 14.8 FT SOUTH OF AND 0.3 FT HIGHER THAN THE CENTERLINE OF HAYDEN CROSSING ROAD, 49.2 FT NNE OF THE NORTHEAST CORNER OF A 3BAY GARAGE, 54.1 FT SOUTHWEST OF AND ACROSS THE ROAD FROM POLE NO 5/5/48/3, 34.4 FT SOUTH OF AND ACROSS THE ROAD FROM THE EAST POST OF A GATE LEADING TO A HORSE THE PASTURE AND 4.6 FT OF A WOODEN FENCE POST AND A FIBERGLASS WITNESS POST.

LOCAL CONTROL

HVCTRL #3
NORTH = 776339.0630
EAST = 1779066.6237
ELEV. = 848.043



HVCTRL #4
NORTH = 776361.9493
EAST = 1779347.0344
ELEV. = 847.007



*TRAVERSE COMPLETED 5/16/2017 BY R. GILMAN P.C. H.MCGOWAN & B. HERRING

MAINLINE ALIGNMENT

POINT	STATIONING (ft)	NORTHING (ft)	EASTING (ft)	ELEMENT	LENGTH (ft)	WCB (0°00'00") (STRAIGHT)	WCB (0°00'00")	
							(R=STARTING ANGLE)	(R=END ANGLE)
POB	98+25.00	776319.4606	1779076.2100					
PC	99+18.07	776339.0536	1779167.1944	STRAIGHT	93.07	N 77°50'49.95" E		
PT	99+76.43	776359.2373	1779221.7362	R = -205.00	58.35		N 77°50'49.95" E	N 61°32'16.52" E
				STRAIGHT	45.73	N 61°32'16.52" E		
PC	100+22.16	776381.0332	1779264.9426	R = +140.00	116.83		N 61°32'16.52" E	S 70°3901.07" E
PT	101+38.99	776390.0465	1779375.0500	STRAIGHT	36.02	S 70°39'01.07" E		
POE	101+75.00	776378.1134	1779409.0310					

CHANNEL ALIGNMENT

POINT	STATIONING (ft)	NORTHING (ft)	EASTING (ft)	ELEMENT	LENGTH (ft)	WCB (0°00'00") (STRAIGHT)	WCB (0°00'00")	
							(R=STARTING ANGLE)	(R=END ANGLE)
POB	4+00.00	776458.3854	1779194.8031					
				STRAIGHT	200.00	S 28o27'43.48" E		
POE	6+00.00	776282.5588	1779290.1185					

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT COMPASS

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
TIE SHEET

PLOT DATE: 12-OCT-2020
DRAWN BY: C. CYR
CHECKED BY: G. HITCHCOCK
SHEET 10 OF 39

ROBERTS, TIMOTHY

SOIL INFORMATION:
Rumney fine sandy loam,
0 to 3 percent slopes, frequently flooded
K-FACTOR = 0.28
HYDROLOGICAL SOIL GROUP: B/D

STATE OF VERMONT

RIPARIAN BUFFER

N

VT STATE PLANE GRID

SOIL INFORMATION:
Croghan loamy fine sand,
3 to 8 percent slopes
K-FACTOR = 0.17
HYDROLOGICAL SOIL GROUP: A/D

NICHOLSON, NICHOLAS J.

AER E&T

APPROX. EXISTING TOWN R.O.W.

850

97+00

98+00

99+00

100+00

101+00

101+75

840

ELECTRIC FENCE

FIELD DRIVE

SIGN R7-6-3

DRY HYDRANT W

SIGN OM3-L

SIGN OM3-R

SIGN OM2-R

SIGN W5-3

SIGN R7-6-9

DRY HYDRANT

GRAVEL TURNOUT

HVCTRL 3

HVCTRL 4

COMB 6/4/4

WOVEN WIRE FENCE

SIGN W5-5

OHW

P

L

ROBERTS, TIMOTHY

SOIL INFORMATION:
Wonsqueak and Pondicherry mucks,
0 to 2 percent slopes
K-FACTOR = Not Reported
HYDROLOGICAL SOIL GROUP: A/D

RIPARIAN BUFFER

STATE OF VERMONT

WEST BRANCH OF PASSUMPSIC RIVER

FLOW

BENCHMARK
RAIL ROAD SPIKE
IN ROOT
ELEV. =845.64'

BURKE TOWN SCHOOL DISTRICT

SCALE 1" = 20'-0"

20 0 20

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610rsc-bdr.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R.PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
EPSC EXISTING SITE PLAN	SHEET 11 OF 39

DELINEATOR WITH STEEL POST
STA 99+22.0 RT (BLUE)
STA 99+35.0 LT (GREEN)
STA 100+58.0 LT (BLUE)
STA 100+65.0 RT (GREEN)

REMOVING SIGNS
STA 99+25.3 LT (NO PARKING FIRE LANE)
STA 99+70.7 LT (OBJECT MARKER)
STA 99+72.1 RT (OBJECT MARKER)
STA 100+22.5 LT (OBJECT MARKER)
STA 100+23.8 RT (OBJECT MARKER)

RESETTING SIGNS
STA 99+27.1 LT (NO PARKING FIRE LANE)

TRAFFIC SIGNS, TYPE A
STA 99+72.3 RT (BRIDGE 35)
STA 100+27.7 LT (BRIDGE 35)

COARSE-MILLING, BITUMINOUS PAVEMENT
STA 98+25.0 - 98+75.0
STA 101+25.0 - 101+75.0

CONSTRUCT 11 FT. WIDE PAVED APRON
STA 98+70.6 - 99+28.5 RT

SPECIAL PROVISION (DRY HYDRANT)
BEGIN STA 100+12.0 RT (17.5')-
END STA 100+79.0 RT (22.3')
INLET ELEVATION 840.00 FT

4" WHITE LINE (EDGE LINE)
STA 98+25.0 - 101+75.0 LT (350 LF)
STA 98+25.0 - 101+75.0 RT (350 LF)

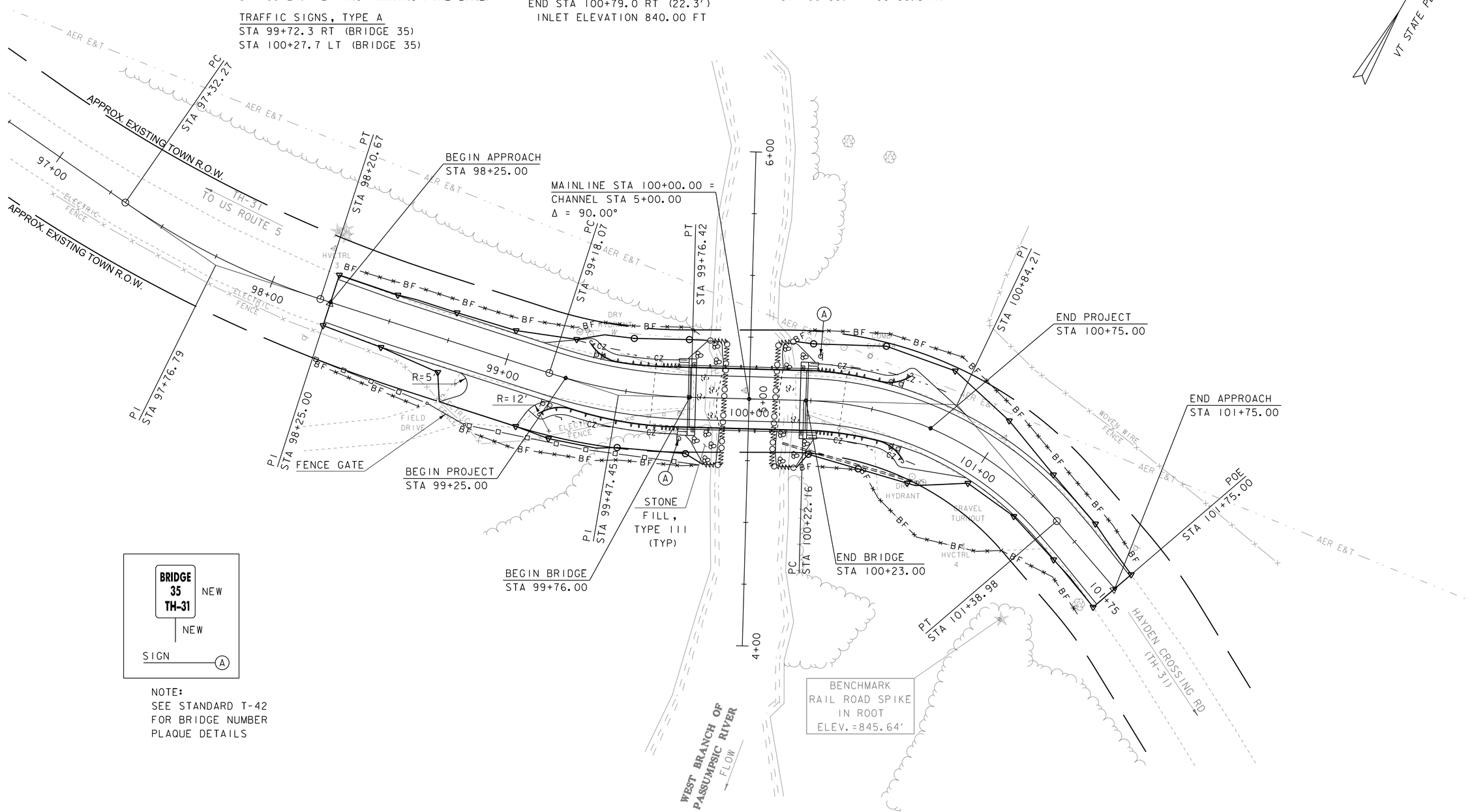
4" YELLOW LINE (DOUBLE CENTERLINE)
STA 98+25.0 - 101+75.0 (350 LF)

SPECIAL PROVISION (BARBED WIRE FENCE)
STA 99+53.4 - 99+80.5 RT

REMOVING AND RESETTING FENCE
STA 98+25.0 - 98+75.0 RT
STA 98+92.3 - 99+53.4 RT

REMOVAL AND DISPOSAL OF GUIDE POSTS
STA 100+23.0 - 100+36.0 LT (3 POSTS)

N
VT STATE PLANE GRID



BRIDGE 35 TH-31 NEW
NEW
SIGN (A)

NOTE:
SEE STANDARD T-42
FOR BRIDGE NUMBER
PLAQUE DETAILS

WEST BRANCH OF PASSUMPSIC RIVER
FLOW

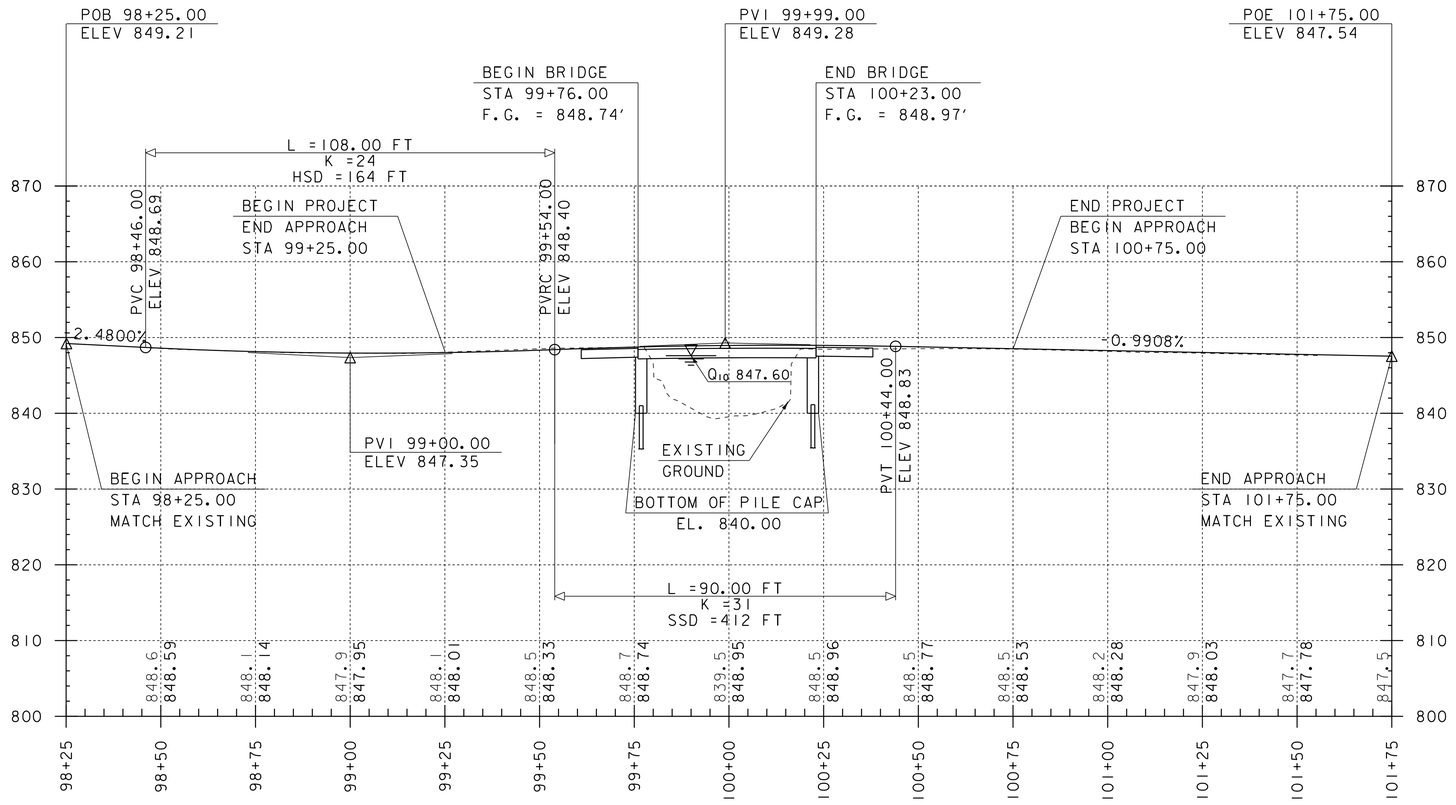
EXISTING BRIDGE INFORMATION
42' SPAN ROLLED THRU BEAM
CAST IN PLACE DECK
BUILT 1919, RECONSTRUCTED 1951
CLOSED 2013
DUE TO FLOORBEAM FAILURES

SCALE 1" = 20'-0"
20 0 20

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610bdr.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
LAYOUT SHEET

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 12 OF 39



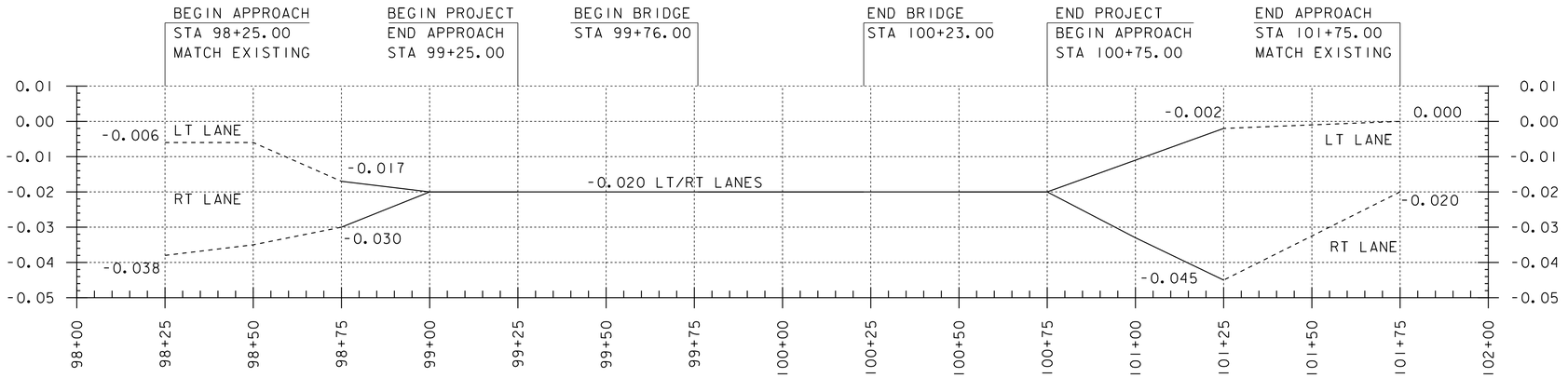
BURKE TH-31 PROFILE

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

NOTE:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄

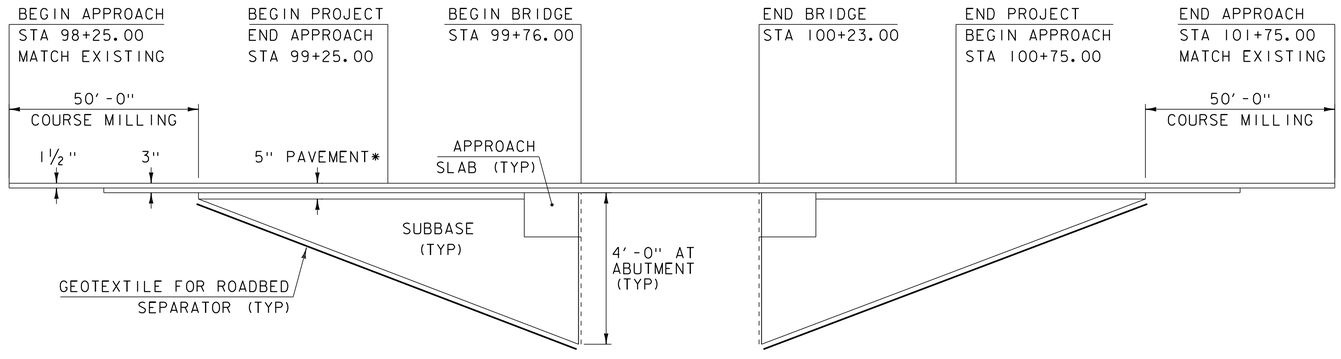
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG ℄

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610profile.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
PROFILE SHEET	SHEET 13 OF 39



BANKING DIAGRAM

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=2.0%

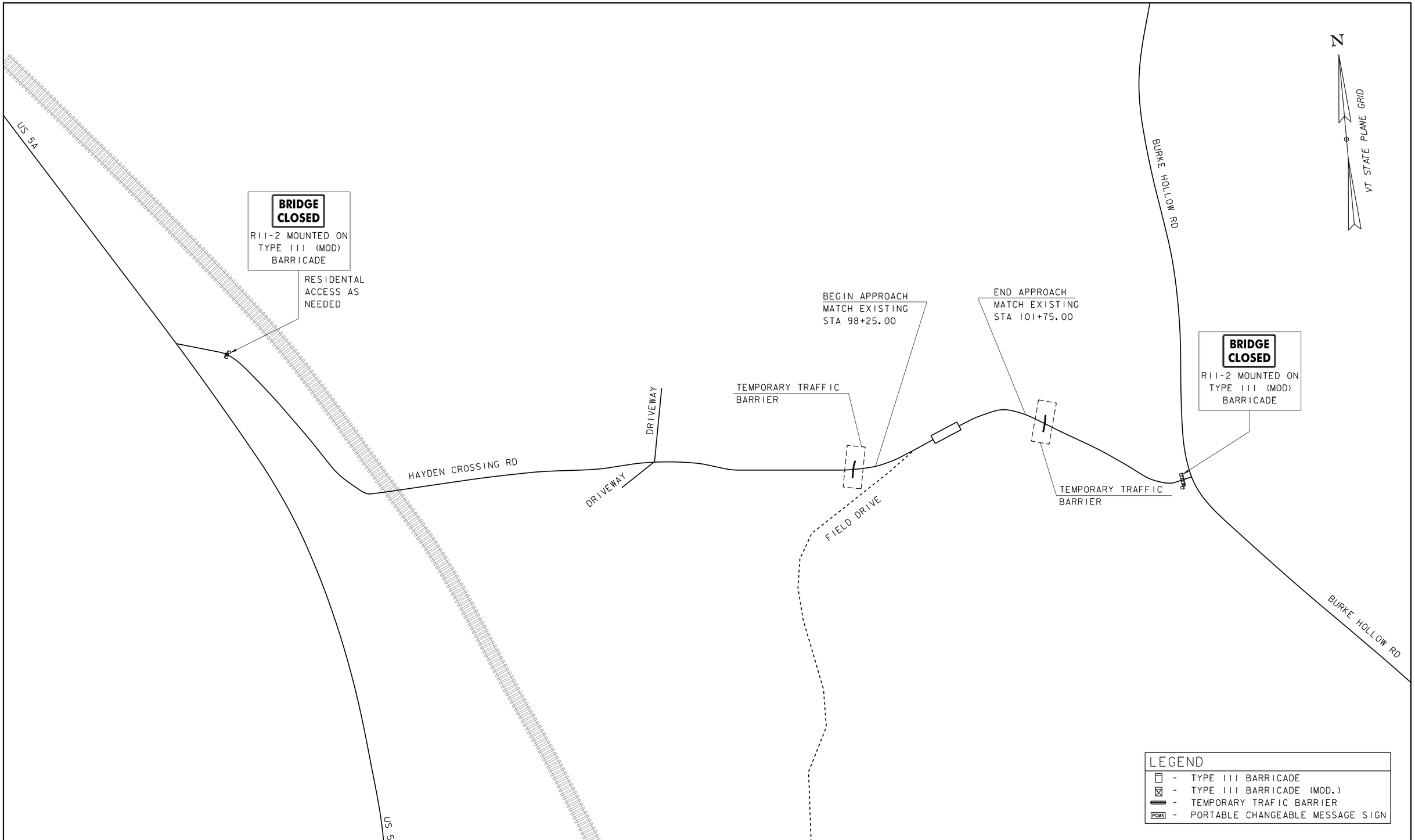


MATERIAL TRANSITION DIAGRAM

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=2'-0"

* PAVEMENT:
(2) 1½" LIFTS OF TYPE IVB
(1) 2" LIFT OF TYPE IIIS

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610profile.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
BANKING & MATERIAL TRANSITION DIAGRAMS	SHEET 14 OF 39



SITE TRAFFIC CONTROL

SCALE 1" = 100'-0"
80 0 80

LEGEND

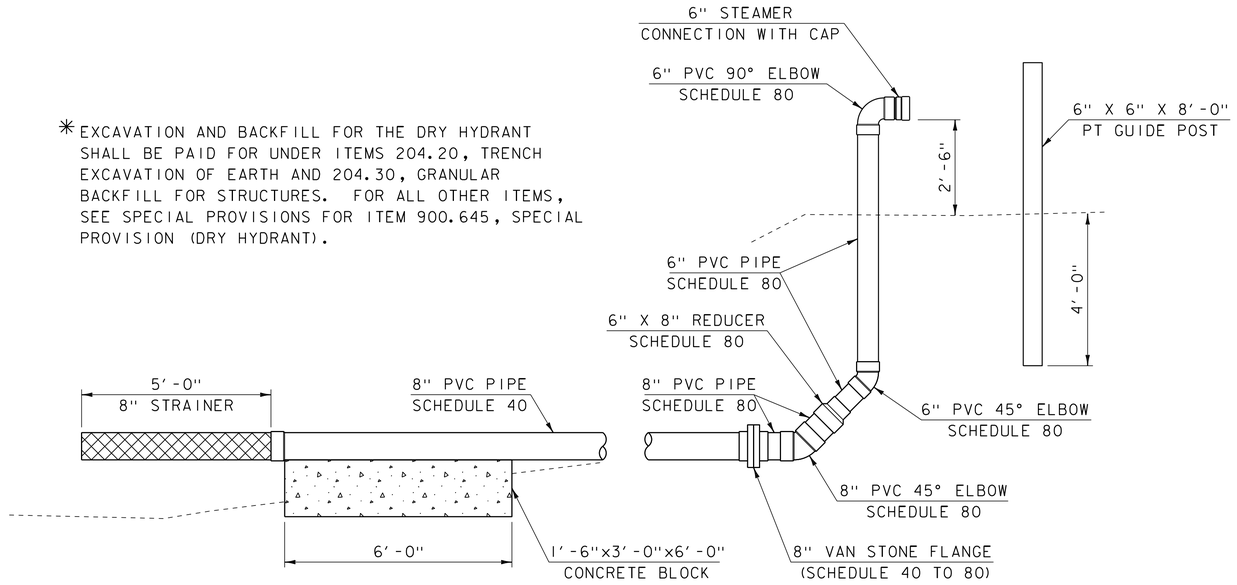
- TYPE III BARRICADE
- TYPE III BARRICADE (MOD.)
- TEMPORARY TRAFIC BARRIER
- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610tcs.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
SITE TRAFFIC CONTROL SHEET

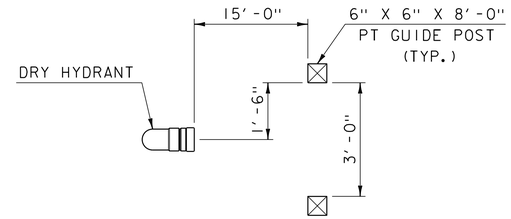
PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 15 OF 39

✳EXCAVATION AND BACKFILL FOR THE DRY HYDRANT SHALL BE PAID FOR UNDER ITEMS 204.20, TRENCH EXCAVATION OF EARTH AND 204.30, GRANULAR BACKFILL FOR STRUCTURES. FOR ALL OTHER ITEMS, SEE SPECIAL PROVISIONS FOR ITEM 900.645, SPECIAL PROVISION (DRY HYDRANT).



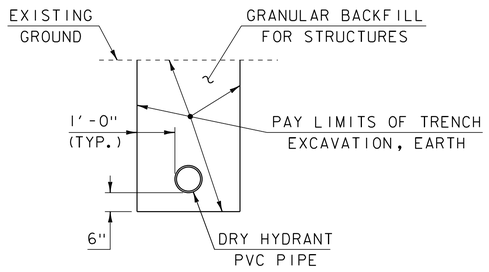
✳DRY HYDRANT ELEVATION

NOT TO SCALE



DRY HYDRANT PLAN

NOT TO SCALE



EARTHWORK LIMITS

NOT TO SCALE

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: s12j610xs.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
DRY HYDRANT DETAILS	SHEET 16 OF 39

N

VT STATE PLANE GRID

AER E&T

APPROX. EXISTING TOWN R.O.W.

97+00

98+00

99+00

100+00

101+00

101+75

NEW GUY TO ANCHOR
STA 100+48.39
61.72' LT

NEW POLE
STA 100+46.10
30.87' LT

DRY HYDRANT

CZ

T

SCALE 1" = 20'-0"
20 0 20

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: s12j610utl.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
UTILITY LAYOUT	SHEET 17 OF 39

REMOVAL AND DISPOSAL OF GUARDRAIL
STA 99+45.1 - 99+77.2 LT
STA 99+53.6 - 99+77.4 RT
STA 100+19.2 - 100+41.4 LT
STA 100+24.0 - 100+50.8 RT

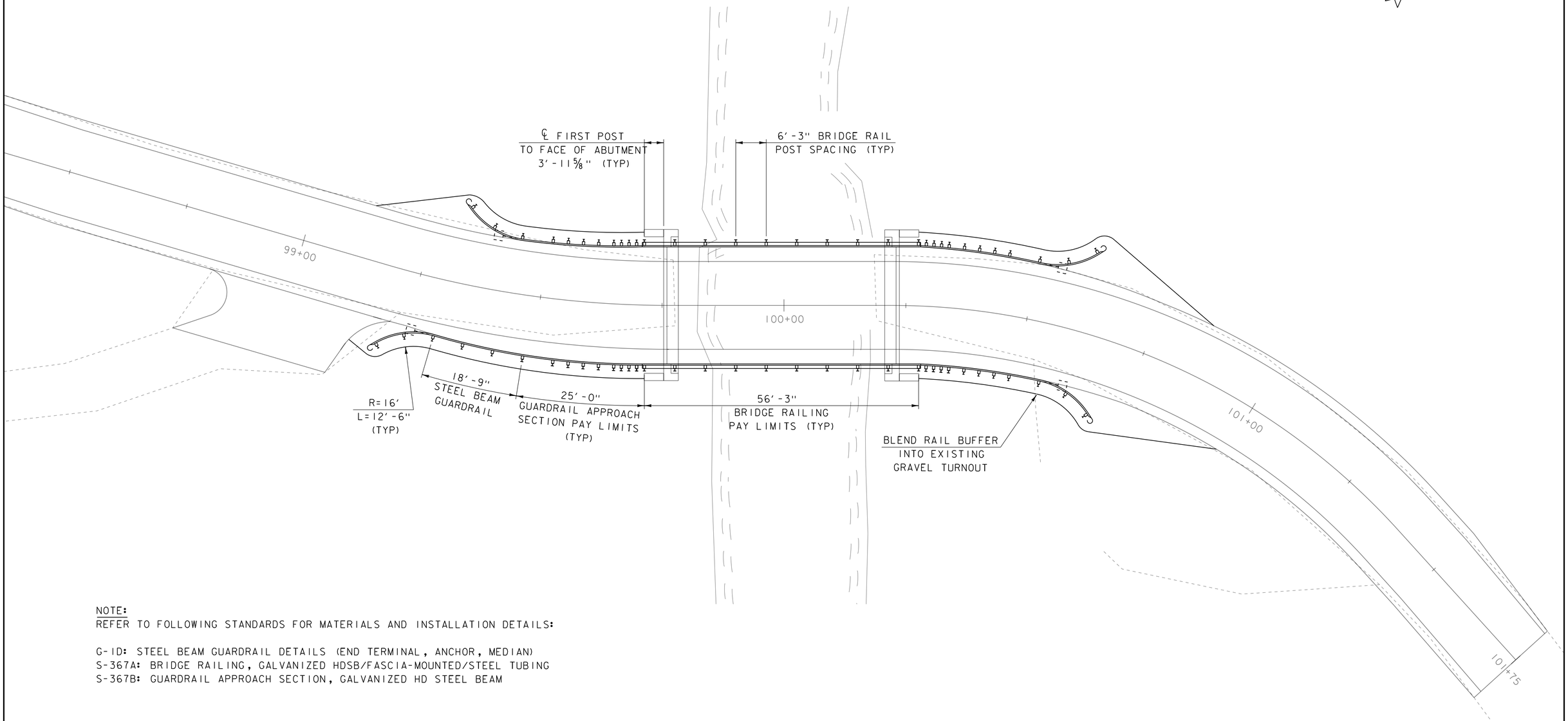
HD STEEL BEAM GUARDRAIL, GALVANIZED
STA 99+19.7 - 99+48.0 RT
STA 99+32.1 - 99+44.5 LT
STA 100+50.2 - 100+60.6 LT
STA 100+55.4 - 100+68.2 RT

ANCHOR FOR STEEL BEAM GUARDRAIL
STA 99+25.7 RT
STA 99+39.3 LT
STA 100+54.7 LT
STA 100+60.8 RT

GUARDRAIL APPROACH SECTION, GALVANIZED HD STEEL BEAM
STA 99+44.5 - 99+71.1 LT
STA 99+48.0 - 99+71.6 RT
STA 100+27.2 - 100+50.2 LT
STA 100+28.1 - 100+55.4 RT

BRIDGE RAILING, GALVANIZED HDSB/FASCIA-MOUNTED/STEEL TUBING W/ HANDRAIL
STA 99+71.1 - 100+27.2 LT
STA 99+71.6 - 100+28.1 RT

N
VT STATE PLANE GRID



NOTE:
REFER TO FOLLOWING STANDARDS FOR MATERIALS AND INSTALLATION DETAILS:

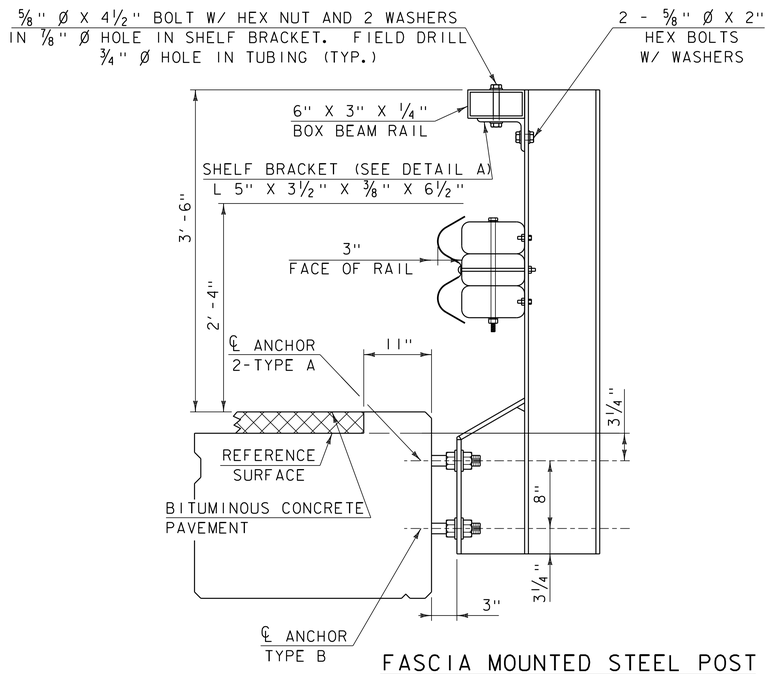
G-1D: STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)
S-367A: BRIDGE RAILING, GALVANIZED HDSB/FASCIA-MOUNTED/STEEL TUBING
S-367B: GUARDRAIL APPROACH SECTION, GALVANIZED HD STEEL BEAM

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

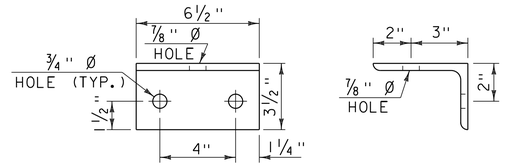
PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610rail.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
RAILING LAYOUT

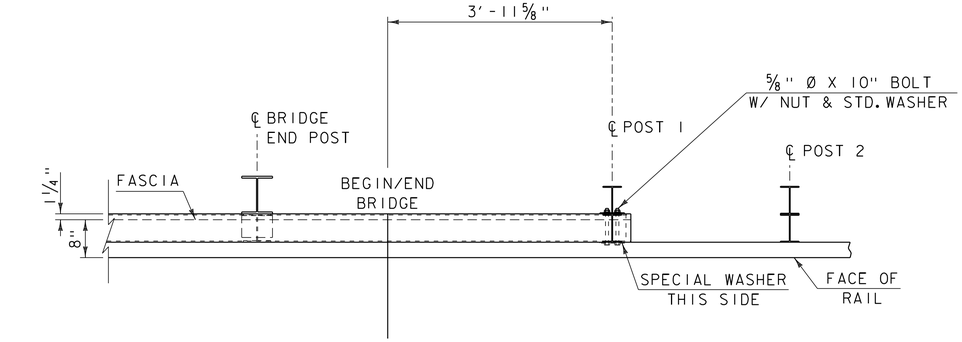
PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 18 OF 39

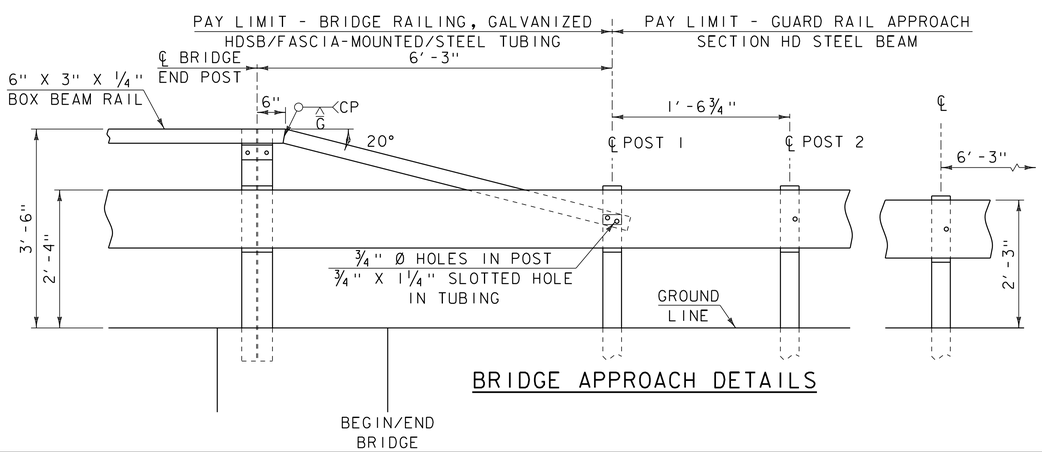


FASCIA MOUNTED STEEL POST WITH BOX BEAM HAND RAIL

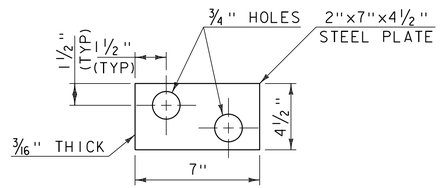


DETAIL A - SHELF BRACKET





BRIDGE APPROACH DETAILS



FIRST POST OFF BRIDGE

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610rail.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
BRIDGE RAIL DETAIL	SHEET 19 OF 39

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

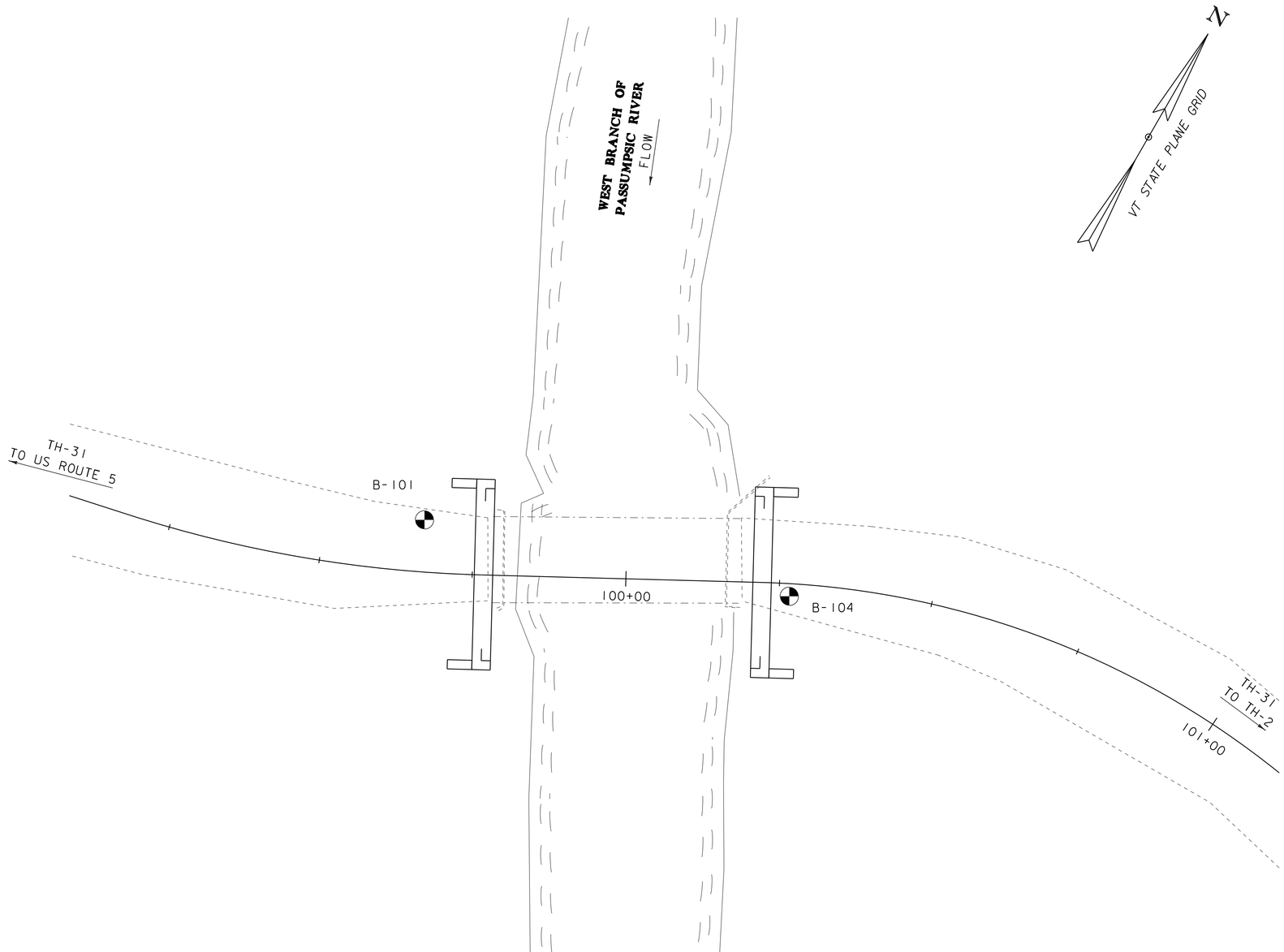
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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
ROD	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		



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

BORING LOCATION PLAN

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 01/16/2019 and 02/07/2019 by the Agency.
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	99+66.59	8.48 L	848.0	779.4
B-104	100+26.71	2.06 R	848.5	778.9

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610bor.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
BORING INFORMATION SHEET

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 20 OF 39

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-101
Page No.: 1 of 2
Pin No.: 12J610
Checked By: SPM

Boring Crew: Emerson, Brochu, Gonyaw
Date Started: 1/29/19 Date Finished: 2/07/19
VTSPG NAD83: N 776362.40 ft E 1779209.30 ft
Station: 99+67 Offset: 8.5 LT
Ground Elevation: 848.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
02/05/19	6.3	W.T. before drilling
02/05/19	0.0	W.T. after drilling
02/06/19	4.9	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft – 0.7 ft								
		Visual Description:, GrSiSa, brn, Moist, Rec. = 1.2 ft				25-14-7-9 (21)				
		Visual Description:, GrSiSa, brn, Moist, Rec. = 0.5 ft				6-8-5-3 (13)				
5		Field Note:, No Recovery, rock in end of sampler				3-2-2-2 (4)				
		A-1-b, GrSa, brn, MTW, Rec. = 0.5 ft, Field Note: NXDC, Cleaned out casing 8.1-9.0 feet				4-3-7-8 (10)	25.4	31.2	54.8	14.0
10		Visual Description:, SiSa, brn, MTW, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 10.4-11.0 feet. Broken rock was within sample				3-5-9-9 (14)				
		Field Note:, No Recovery, NXDC, Cleaned out casing 12.2-13.0 feet				4-8-8-4 (16)				
		Visual Description:, Sa, brn, Moist, Rec. = 0.8 ft, Lab Note: Similar to sample from 15.0-17.0 feet				7-3-4-4 (7)				
15		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft, Field Note: NXDC, Cleaned out casing 16.7-17.0 feet				5-3-4-4 (7)	27.2	2.3	67.5	30.2
		Visual Description:, Sa, brn, Moist, Rec. = 0.9 ft, Lab Note: Similar to sample from 15.0-17.0 feet				4-3-3-3 (6)				
20		Field Note:, No Recovery, NXDC, Cleaned out casing 24.7-25.0 feet				5-4-4-5 (8)				
25		Visual Description:, Sa, brn, Moist, Rec. = 0.2 ft, Field Note: NXDC, Cleaned out casing 29.4-30.0 feet. Rock in end of sampler				3-4-5-5 (9)				
30		Field Note:, No Recovery, rock in end of sampler, NXDC, Cleaned out casing 34.5-35.0 feet				12-6-5-6 (11)				
35		Visual Description:, Sa, brn, Moist, Rec. = 1.0 ft, Lab Note: Similar to sample from 50.0-52.0 feet				5-5-3-4 (8)				
40		Field Note:, No Recovery, rock in end of sampler, NXDC, Cleaned out casing 44.6-45.0 feet				3-3-4-4 (7)				

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE 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.

BOTTOM OF PILE CAP
ABUTMENT 1
ELEV. = 840.00'

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-101
Page No.: 2 of 2
Pin No.: 12J610
Checked By: SPM

Boring Crew: Emerson, Brochu, Gonyaw
Date Started: 1/29/19 Date Finished: 2/07/19
VTSPG NAD83: N 776362.40 ft E 1779209.30 ft
Station: 99+67 Offset: 8.5 LT
Ground Elevation: 848.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
02/05/19	6.3	W.T. before drilling
02/05/19	0.0	W.T. after drilling
02/06/19	4.9	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Description:, Sa, brn, Moist, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing 49.6-50.0 feet. Lab Note: Similar to sample from 50.0-52.0 feet				4-4-5-5 (9)				
50		A-4, SiSa, brn, Moist, Rec. = 1.0 ft, Field Note: NXDC, Cleaned out casing 59.6-60.0 feet				4-4-4-5 (8)	20.7	3.5	55.7	40.8
55										
60		Visual Description:, Sa, brn, Moist, Rec. = 0.5 ft, Lab Note: Similar to sample from 50.0-52.0 feet				15-R@1"				
65										
70		68.6 ft – 73.6 ft, Gray, Interbedded micaceous quartz-rich Meta-Limestone, and gray/dark gray sulfidic slightly calcareous PHYLLITE. Massive quartz vein at 72.4 ft to 72.6 ft. Secondary calcification along joints and gray/green staining with some rusty splotches in phyllitic layers. Moderately hard, Slightly weathered, Fair rock, NXMDC, RMR=57	1 (5 to 30)	88 (66)	3 2 4 3 4	Top of Bedrock @ 68.6 ft				
75		73.6 ft – 78.6 ft, Gray, Interbedded micaceous quartz-rich Meta-Limestone, and gray/dark gray sulfidic slightly calcareous PHYLLITE. Joints have gray/green staining. Moderately hard, Slightly weathered, Good rock, NXMDC, RMR=61	2 (5 to 30)	94 (89)	3 3 4 4 3					
80		Hole stopped @ 78.6 ft								
85		Remarks: Hole collapsed at 11.1 feet. Used bentonite to drill from 25 feet.								

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE 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.

ESTIMATED PILE TIP
ABUTMENT 1
ELEV. = 779.40'

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610bor.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
BORING LOGS 1

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 21 OF 39

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-104
Page No.: 1 of 2
Pin No.: 12j610
Checked By: SPM

Boring Crew: Gonyaw, Brochu, Emerson
Date Started: 1/16/19 Date Finished: 1/25/19
VTSPG NAD83: N 776381.30 ft E 1779266.90 ft
Station: 100+27 Offset: 2.1 RT
Ground Elevation: 848.5 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
01/16/19	6.0	W.T. during drilling
01/25/19	3.6	W.T. before drilling
01/25/19	6.0	W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft – 0.5 ft				8-6-9 (15)				
		Visual Description:, SaGr, brn, Moist, Rec. = 1.0 ft				6-8-9-6 (17)				
		Visual Description:, GrSa, brn, Moist, Rec. = 0.8 ft				4-3-5-6 (8)	27.4	14.6	69.2	16.2
5		A-2-4, Sa, brn, Moist, Rec. = 1.5 ft, Field Note: Wood was within sample				2-3-2-2 (5)				
		Visual Description:, SiSa, brn, Moist, Rec. = 1.2 ft, Field Note: NXDC, Cleaned out casing 7.1-8.0 feet. Wood was within sample. Lab Note: Similar to sample from 4.0-6.0 feet				1-3-9-9 (12)				
		Visual Description:, GrSiSa, brn, Moist, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 9.3-10.0 feet. Wood was within sample				9-7-5-5 (12)				
10		Visual Description:, GrSiSa, brn, MTW, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 11.1-12.0 feet. Wood was within sample				7-12-13-7 (25)				
		Visual Description:, GrSiSa, brn, MTW, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 13.4-14.0 feet				5-6-4-4 (10)				
		Field Note:, No Recovery, rock in end of sampler. NXDC, Cleaned out casing 15.4-16.0 feet				3-1-1-1 (2)				
15		Field Note:, No Recovery				3-1-1-2 (2)				
		Visual Description:, SiSa, brn, MTW, Rec. = 0.9 ft, Lab Note: Similar to sample from 20.0-22.0 feet				3-2-3-2 (5)	19.2	18.6	52.3	29.1
		A-2-4, SiSa, brn, MTW, Rec. = 0.7 ft				4-3-2-5 (5)				
20		Visual Description:, SiSa, brn, MTW, Rec. = 0.7 ft, Lab Note: Similar to sample from 20.0-22.0 feet				4-2-3-4 (5)				
		Visual Description:, GrSa, brn, MTW, Rec. = 0.9 ft				5-4-5-4 (9)				
25		Field Note:, No Recovery, rock in end of sampler, Lab Note: Similar to sample from 40.0-42.0 feet				5-4-4-5 (8)	17.5	24.7	71.2	4.1
		A-1-b, GrSa, brn, MTW, Rec. = 1.0 ft								
30										
35										
40										

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE 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.

BOTTOM OF PILE CAP
ABUTMENT 2
ELEV. = 840.00'

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-104
Page No.: 2 of 2
Pin No.: 12j610
Checked By: SPM

Boring Crew: Gonyaw, Brochu, Emerson
Date Started: 1/16/19 Date Finished: 1/25/19
VTSPG NAD83: N 776381.30 ft E 1779266.90 ft
Station: 100+27 Offset: 2.1 RT
Ground Elevation: 848.5 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
01/16/19	6.0	W.T. during drilling
01/25/19	3.6	W.T. before drilling
01/25/19	6.0	W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Description:, GrSa, brn, MTW, Rec. = 0.7 ft, Lab Note: Similar to sample from 40.0-42.0 feet				7-5-5-8 (10)				
50		Visual Description:, SiSa, brn, MTW, Rec. = 1.2 ft				9-9-10-14 (19)				
55										
60		Visual Description:, GrSa, brn, MTW, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing 67.9-67.6 feet. Broken rock was within sample				44-22-12-12 (34)				
65										
70		69.6 ft – 74.6 ft, Gray, Interbedded micaceous quartz-rich Meta-Limestone, and gray/dark gray sulfidic slightly calcareous PHYLLITE. Massive quartz vein at 73.9 ft to 74.3 ft. Gray/green staining and occasional rust splotches on joints. Moderately hard, Slightly weathered, Fair rock, NXMDC, RMR=53	1 (5 to 20)	98 (90)	4 5 6 4 7	Top of Bedrock @ 69.6 ft				
75		74.6 ft – 79.6 ft, Gray, Micaceous quartz-rich Meta-Limestone, with occasional gray/dark gray sulfidic slightly calcareous PHYLLITE interbeds. Joints are fresh. Moderately hard, Unweathered, Good rock, NXMDC, RMR=61	2 (5 to 20)	96 (83)	6 4 4 3 3					
80		Hole stopped @ 79.6 ft								
85		Remarks: Hole collapsed at 15.5 feet. Used bentonite to drill from 27 feet.								

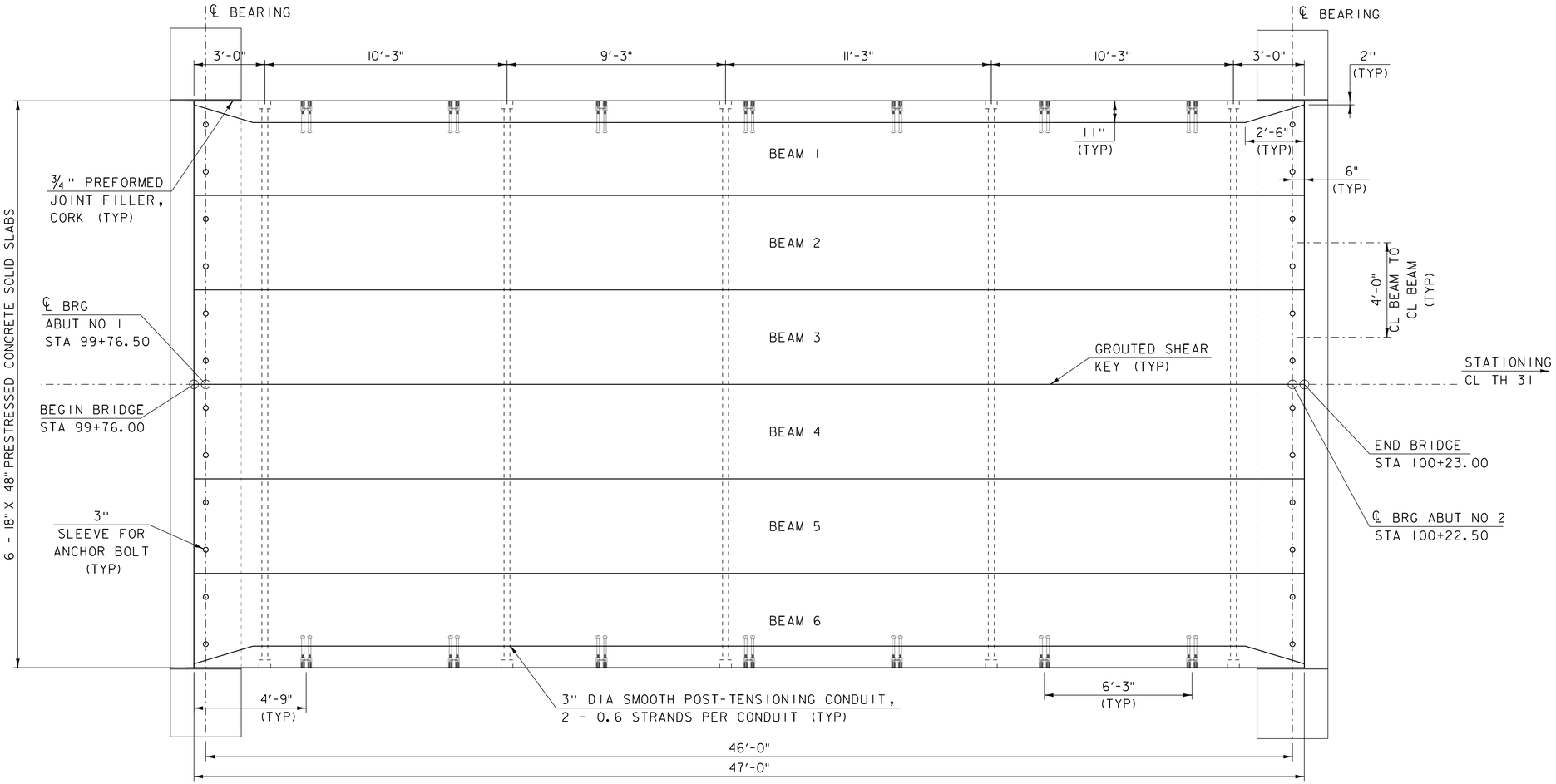
Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

ESTIMATED PILE TIP
ABUTMENT 2
ELEV. = 778.90'

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

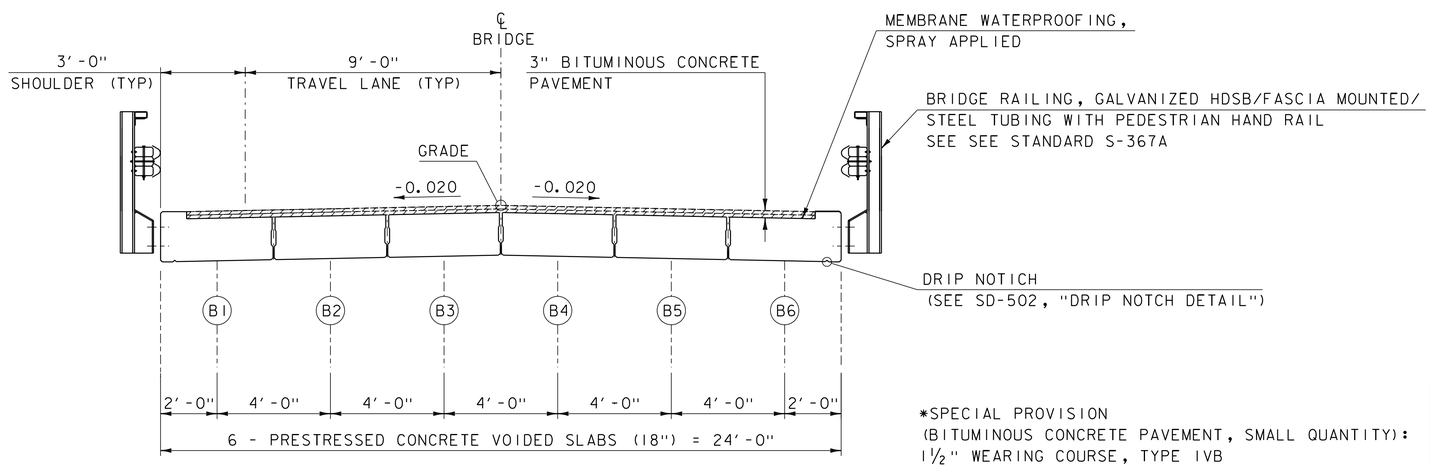
FILE NAME: s12j610bor.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
BORING LOGS 2

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 22 OF 39



FRAMING PLAN

SCALE: ⅜" = 1'-0"



BRIDGE TYPICAL SECTION - 24' WIDTH

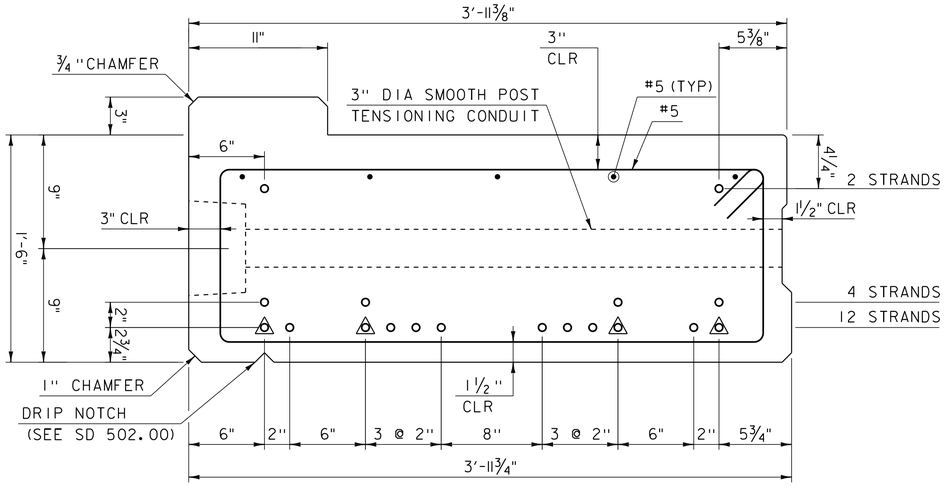
SCALE ⅜" = 1'-0"

*SPECIAL PROVISION
(BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY):
1½" WEARING COURSE, TYPE IVB
1½" BINDER COURSE, TYPE IVB

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

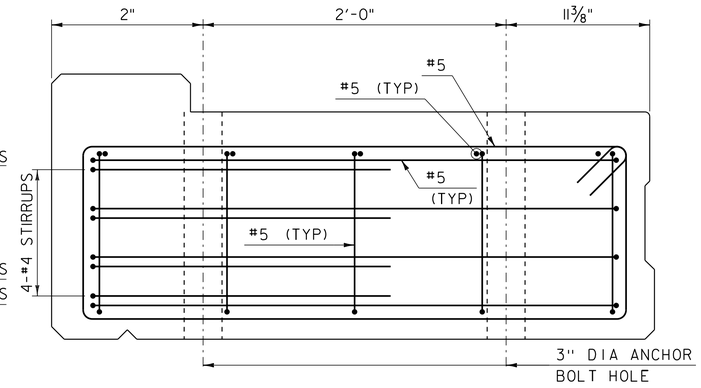
FILE NAME: sl2j610super.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
FRAMING PLAN

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 23 OF 39



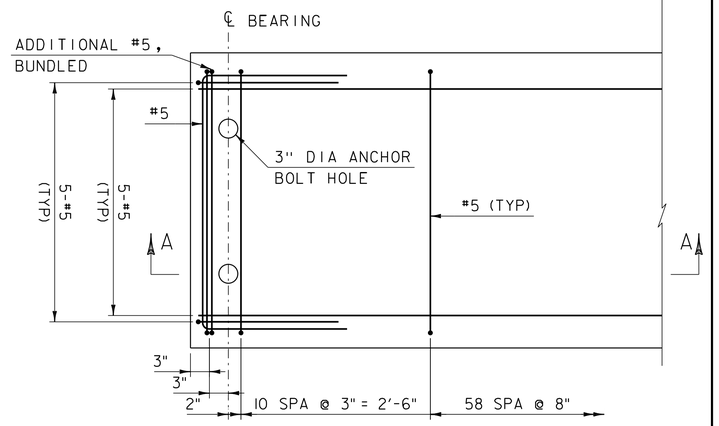
TYPICAL EXTERIOR SECTION

SCALE: 2" = 1'-0"



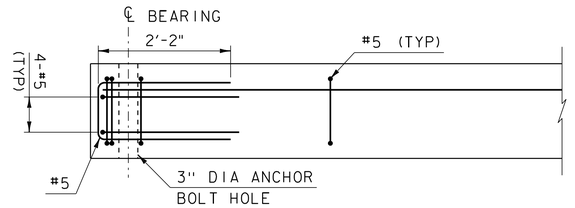
END ELEVATION EXTERIOR BEAM

SCALE: 2" = 1'-0"
(PRESTRESSING STRAND NOT SHOWN FOR CLARITY)



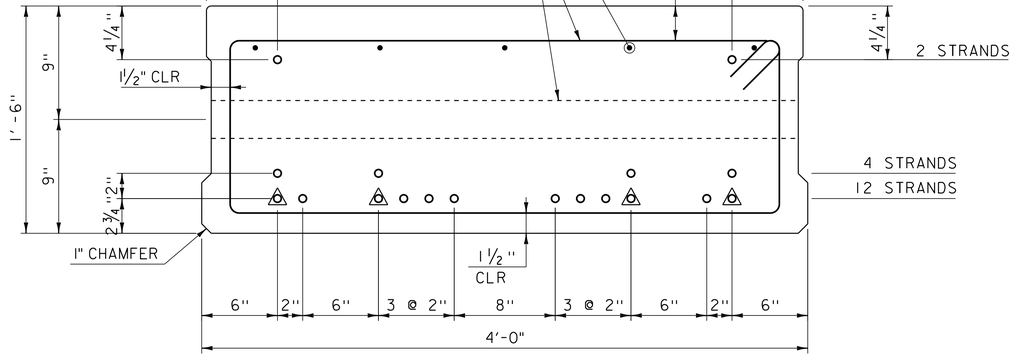
TYPICAL END REINFORCEMENT PLAN

SCALE: 1" = 1'-0"
(PRESTRESSING STRAND NOT SHOWN FOR CLARITY)



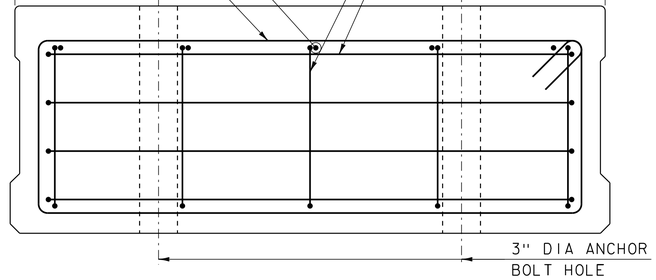
SECTION A-A

SCALE: 1" = 1'-0"
(PRESTRESSING STRAND NOT SHOWN FOR CLARITY)



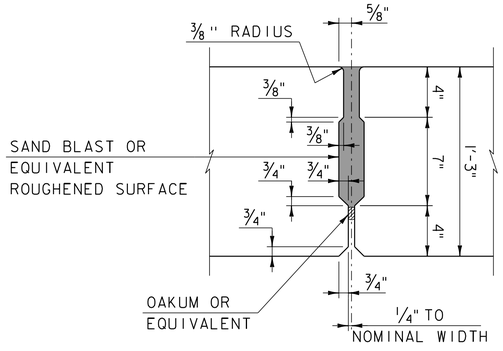
TYPICAL INTERIOR SECTION

SCALE: 2" = 1'-0"



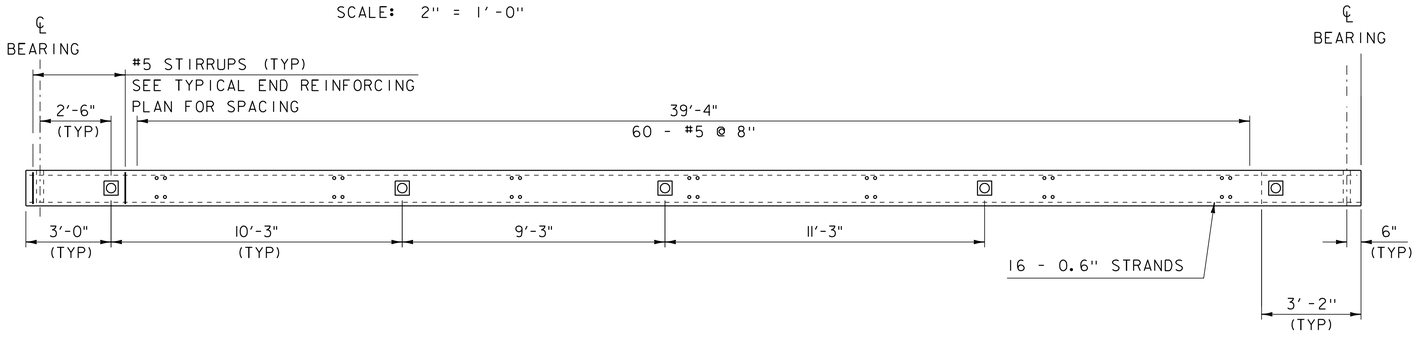
END ELEVATION INTERIOR BEAM

SCALE: 2" = 1'-0"
(PRESTRESSING STRAND NOT SHOWN FOR CLARITY)



SHEAR KEY DETAIL

SCALE: 2" = 1'-0"



PRESTRESS SOLID SLAB ELEVATION

SCALE: 3/16" = 1'-0"

LEGEND

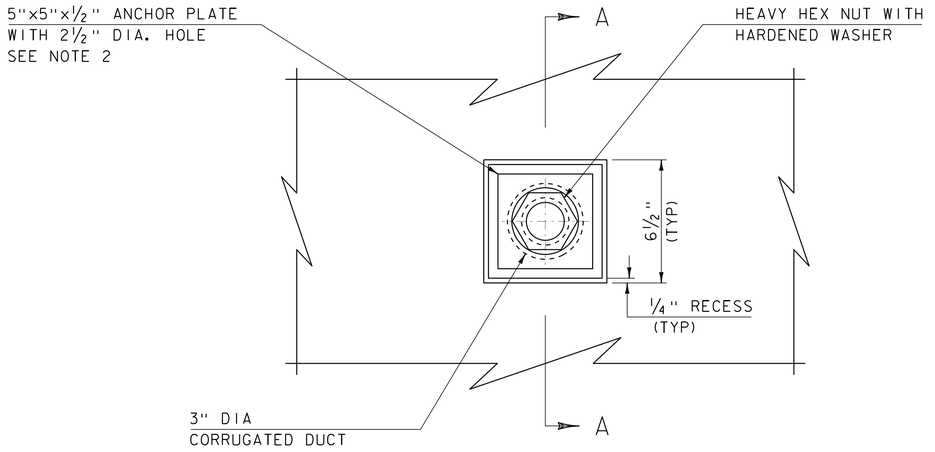
△ DEBONDED 8'-0" EACH END
□ DEBONDED 12'-0" EACH END
○ 0.6" PRESTRESSING STRAND
• REINFORCING STEEL (TYP)

ITEM 510.24, "GROUTING SHEAR KEYS"

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

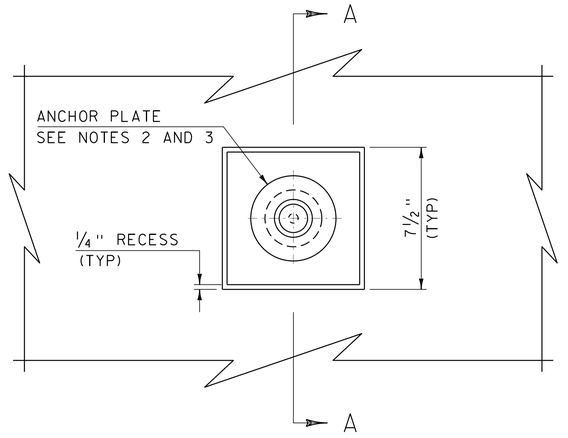
FILE NAME: sl2j610super.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
SUPERSTRUCTURE DETAILS I

PLOT DATE: 12-OCT-2020
DRAWN BY: D.KARABEGOVIC
CHECKED BY: D. PETERSON
SHEET 24 OF 39



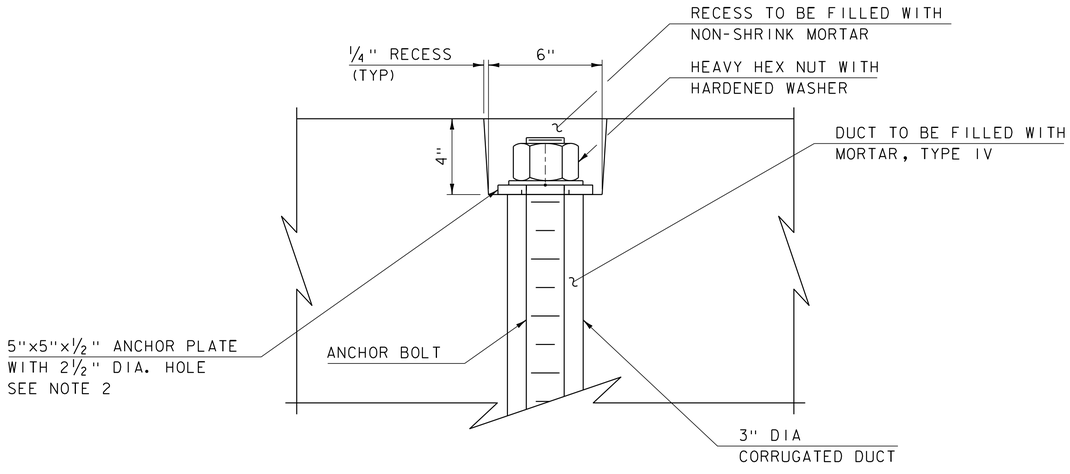
ANCHOR BOLT DETAIL
PLAN

SCALE 3" = 1'-0"



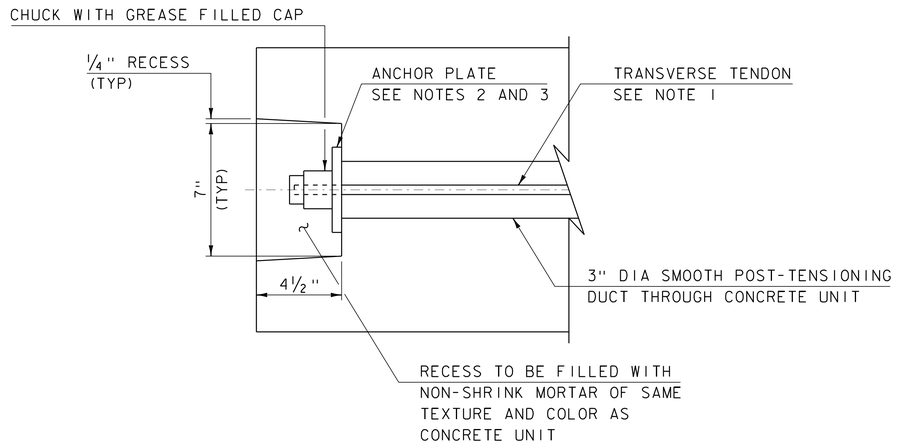
TRANSVERSE POST-TENSIONING DETAIL
ELEVATION

SCALE 3" = 1'-0"



ANCHOR BOLT DETAIL
SECTION A-A

SCALE 3" = 1'-0"



TRANSVERSE POST-TENSIONING DETAIL
SECTION A-A

SCALE 3" = 1'-0"

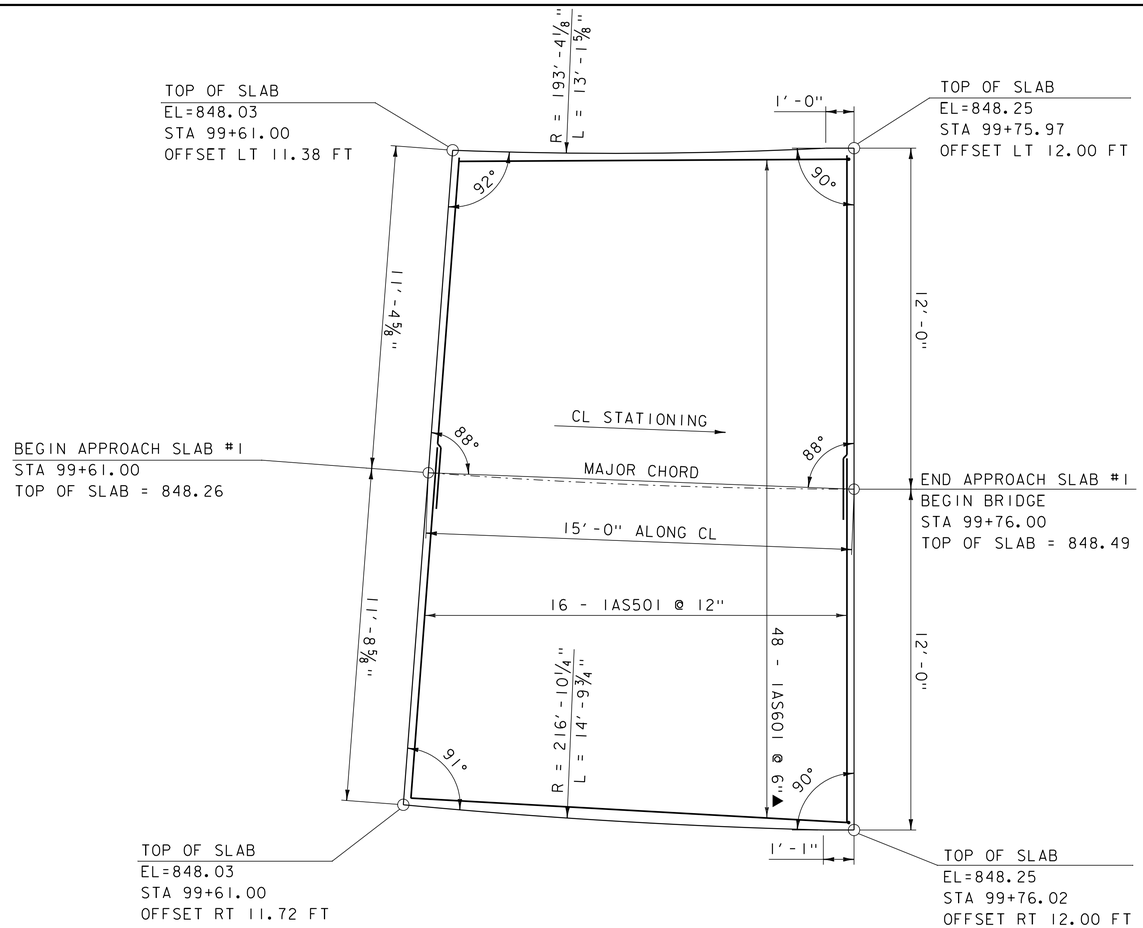
NOTES:

1. TRANSVERSE TENDONS SHALL BE COVERED BY SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITOR GREASE BETWEEN SHEATH AND STRAND) FOR THE LENGTH OF STRAND, EXCEPT AT ANCHORAGE LOCATIONS. EACH STRAND SHALL BE TENSIONED TO 47 KIPS.

2. ANCHOR PLATES SHALL CONFORM TO AASHTO M 270M/M 270, GRADE 345 (GRADE 50) AND BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111M/M 111.

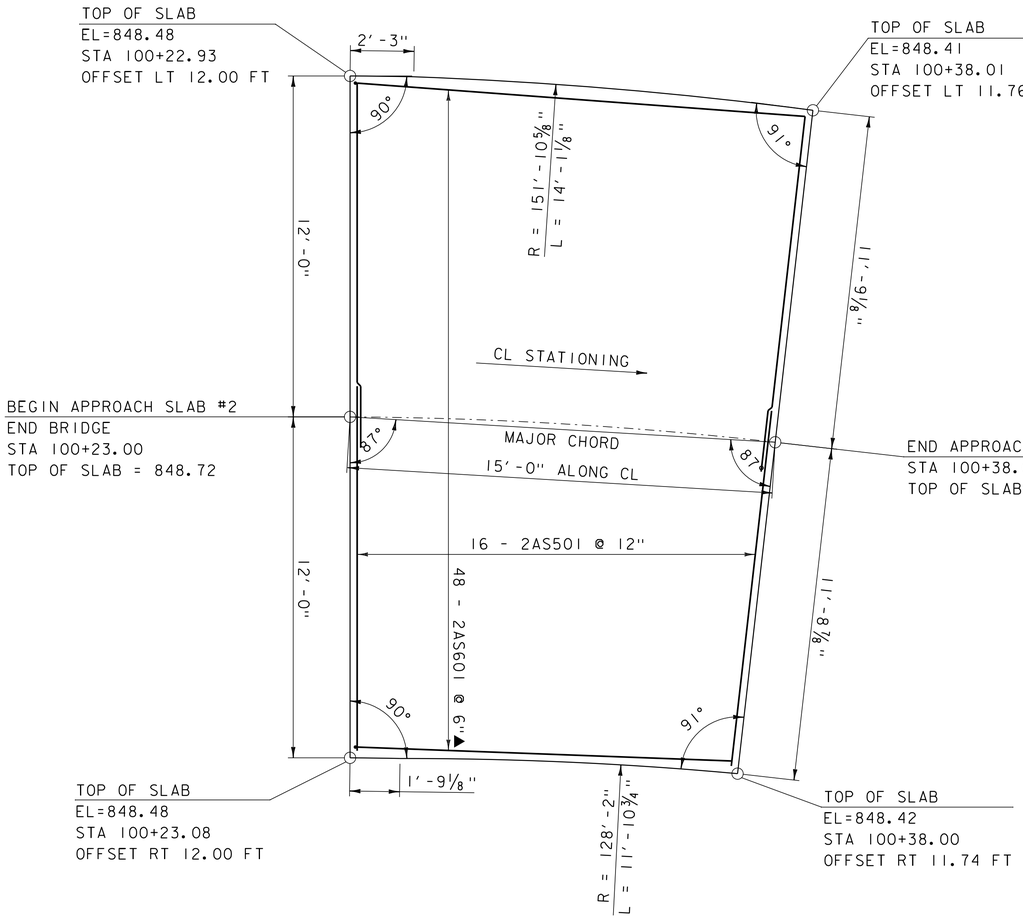
3. ANCHOR PLATES FOR TRANSVERSE POST-TENSIONING ARE TO BE DESIGNED BY THE FABRICATOR FOR THE SPECIFIC POST-TENSIONING SYSTEM USED. DETAILS FOR THE ANCHOR PLATE SHALL BE PROVIDED ON THE FABRICATION DRAWINGS.

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: s12j610super.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
SUPERSTRUCTURE DETAILS 2	SHEET 25 OF 39



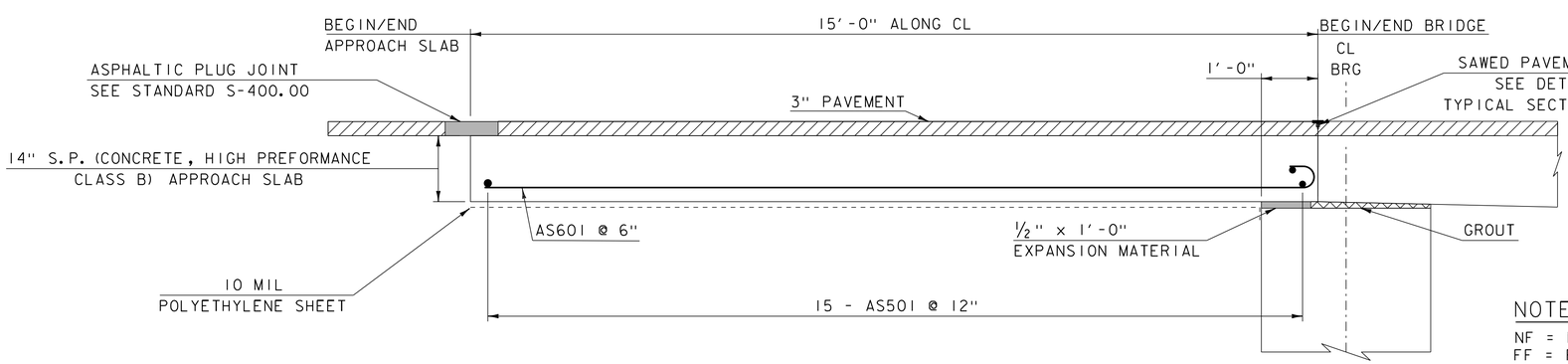
APPROACH SLAB #1 PLAN

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



APPROACH SLAB #2 PLAN

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



APPROACH SLAB 1 TYPICAL SECTION
(APPROACH SLAB 2 SIMILAR)

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

NOTES:

1. COMPACT THE SUBBASE IN THE AREA UNDER THE APPROACH SLAB TO A SMOOTH SURFACE.
2. MATERIAL FOR POLYETHYLENE SHEETING SHALL MEET THE REQUIREMENTS OF SUBSECTION 725.01(c) OF THE STANDARD SPECIFICATIONS. PLACE THE SHEETING ON TOP OF THE FINISHED SUBBASE FOR THE FULL LENGTH OF THE APPROACH SLAB. LAP SHEETING AT LEAST 24 INCHES. PAYMENT INCIDENTAL TO ITEM 900.608 SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS B)
3. PAYMENT FOR BOND BREAKER SHALL BE INCIDENTAL TO ITEM 501.38 HIGH PERFORMANCE CONCRETE, CLASS PCS.

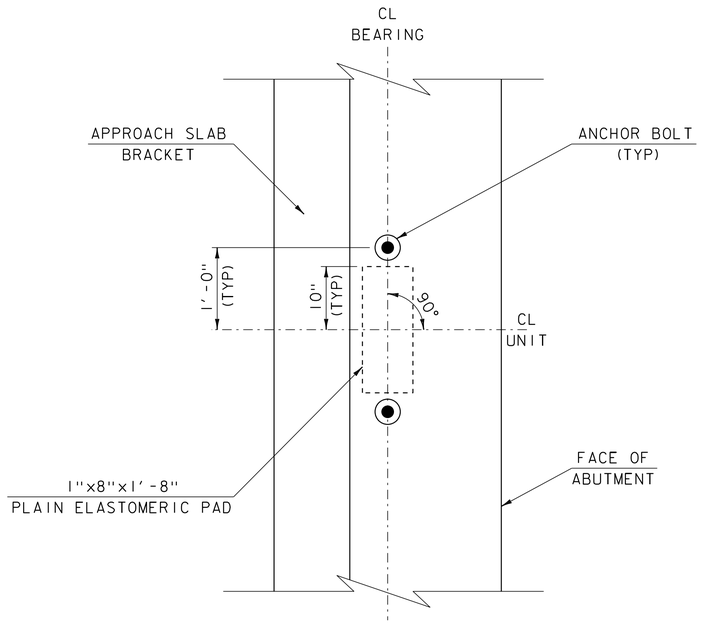
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610super.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
APPROACH SLAB DETAILS

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 26 OF 39



BEARING LAYOUT

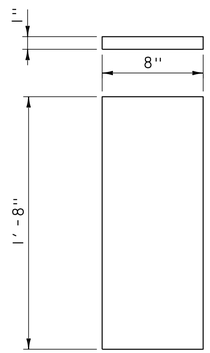
SCALE 1"=1'-0"

BEARING NOTES:

1. BEARINGS SHALL CONFORM TO THE APPLICABLE SUBSECTIONS OF SECTIONS 531 AND 731.

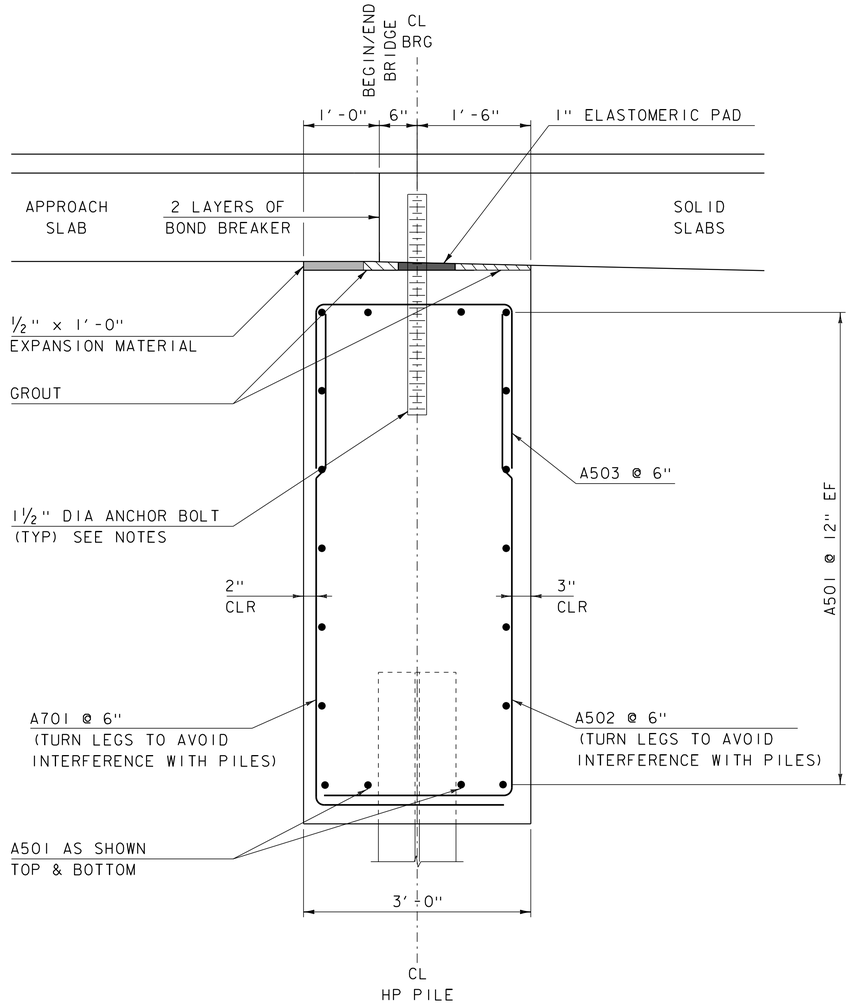
2. THE ELASTOMER WAS DESIGNED WITH A SHEAR MODULUS OF 110 PSI +/- 15%.

3. THE CONTRACTOR IS ADVISED TO HAVE A MINIMUM OF 12 - 1/4"x8"x1'-8" GALVANIZED STEEL SHIMS AVAILABLE FOR USE FOR ELEVATION ADJUSTMENTS UPON THE SETTING OF THE SUPERSTRUCTURE UNITS. THE SHIMS SHALL BE FABRICATED ACCORDING TO SECTION 531 AND SHALL BE INCLUDED UNDER ITEM 531.16, "BEARING DEVICE ASSEMBLY, PLAIN ELASTOMERIC PAD".



BEARING DETAIL

SCALE 2"=1'-0"



ABUTMENT TYPICAL REINFORCING

SCALE 1"=1'-0"

NOTES:

1. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 105, GALVANIZED, AND SHALL MEET THE REQUIREMENTS OF SUBSECTION 714.08.

2. ANCHOR BOLTS SHALL BE INCIDENTAL TO ITEM 900.640, "SPECIAL PROVISION (PRESTRESSED CONCRETE SOLID SLABS) (18" X 48")".

3. APPROACH SLABS SHALL BE INSTALLED FLUSH WITH END OF SOLIDS SLABS.

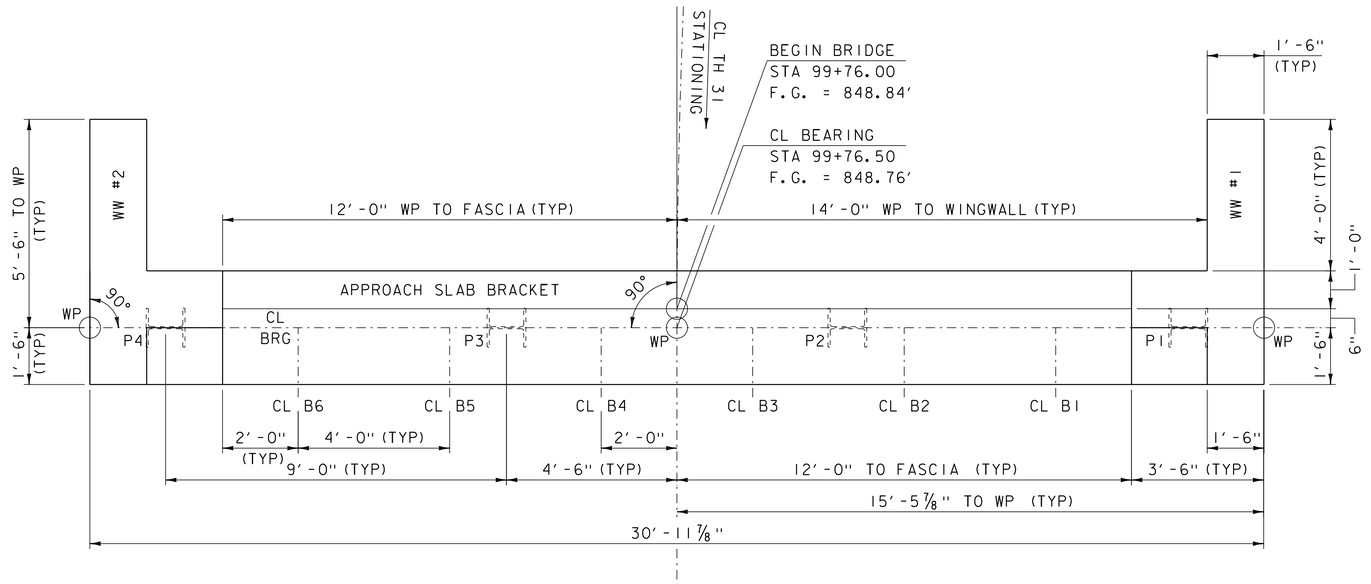
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

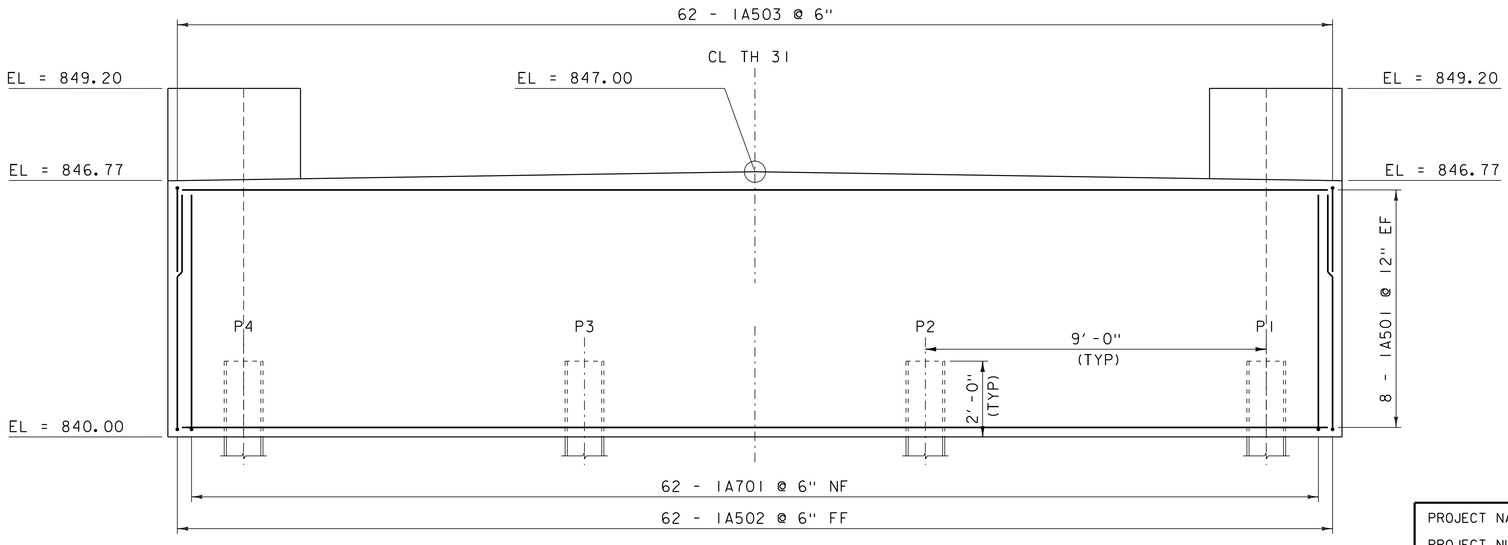
FILE NAME: sl2j610subst.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
ABUTMENT TYPICAL

PLOT DATE: 12-OCT-2020
DRAWN BY: D.KARABEGOVIC
CHECKED BY: D. PETERSON
SHEET 27 OF 39



ABUTMENT #1 PLAN

SCALE 1/2"=1'-0"



ABUTMENT #1 ELEVATION

SCALE 1/2"=1'-0"

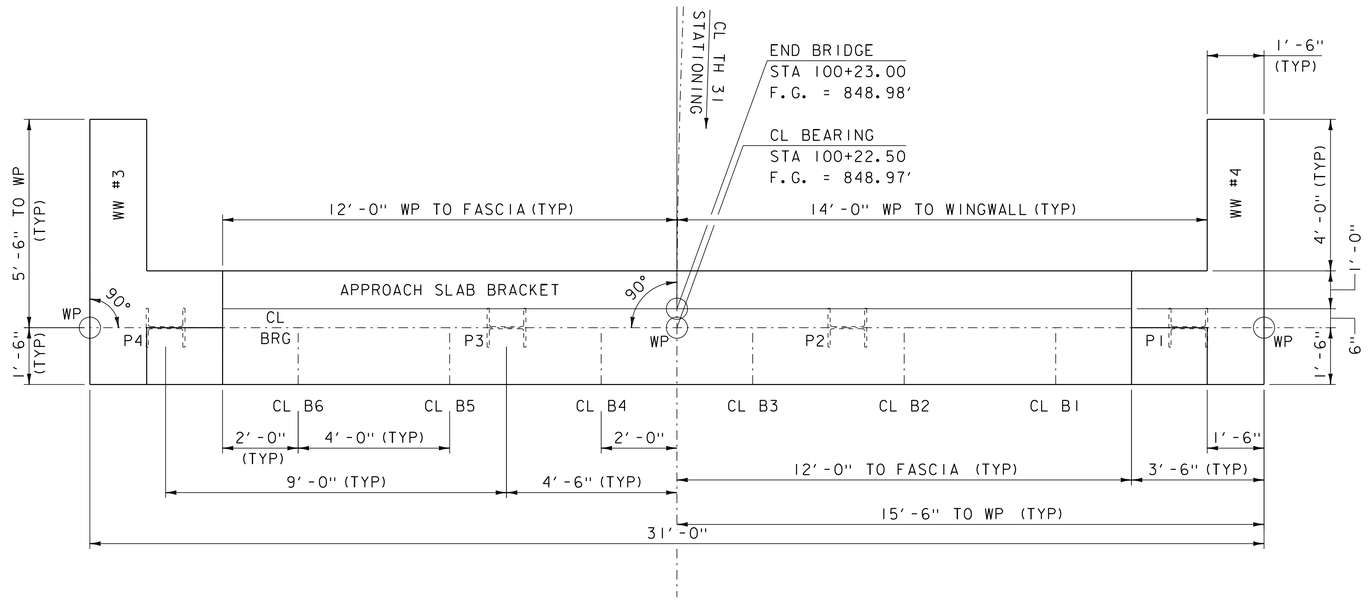
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

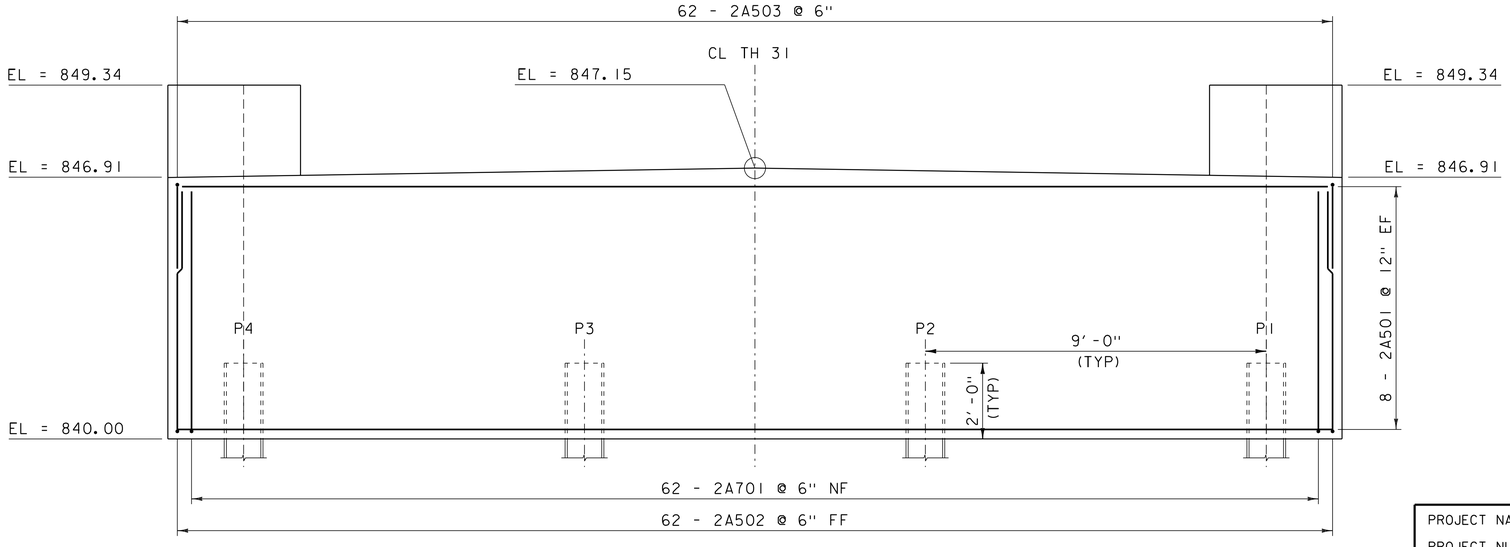
FILE NAME: sl2j610subst.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
ABUTMENT #1

PLOT DATE: 12-OCT-2020
DRAWN BY: D.KARABEGOVIC
CHECKED BY: D. PETERSON
SHEET 28 OF 39



ABUTMENT #2 PLAN

SCALE 1/2"=1'-0"



ABUTMENT #2 ELEVATION

SCALE 1/2"=1'-0"

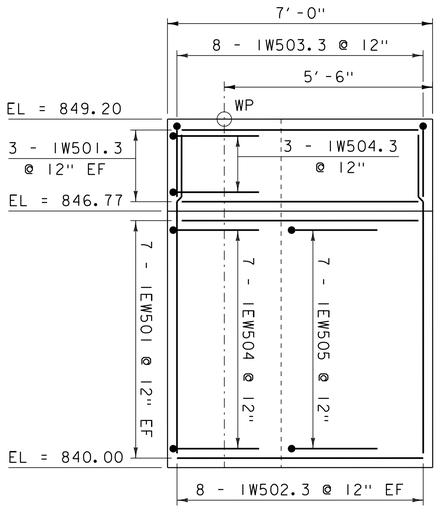
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

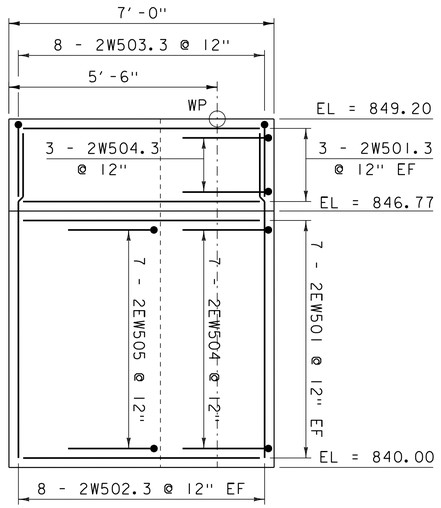
FILE NAME: sl2j610subst.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
ABUTMENT #2

PLOT DATE: 12-OCT-2020
DRAWN BY: D.KARABEGOVIC
CHECKED BY: D. PETERSON
SHEET 29 OF 39



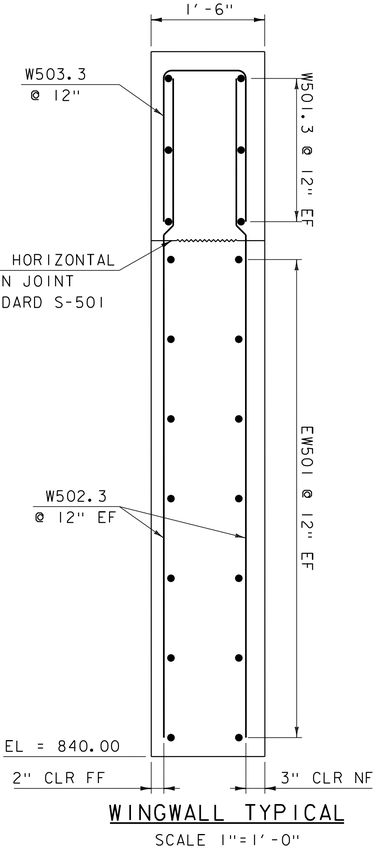
WINGWALL #1

SCALE ½"=1'-0"



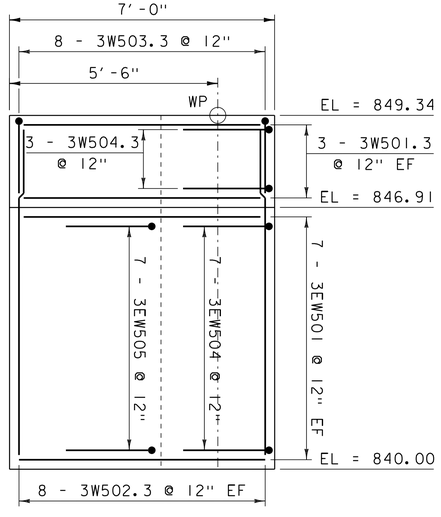
WINGWALL #2

SCALE ½"=1'-0"



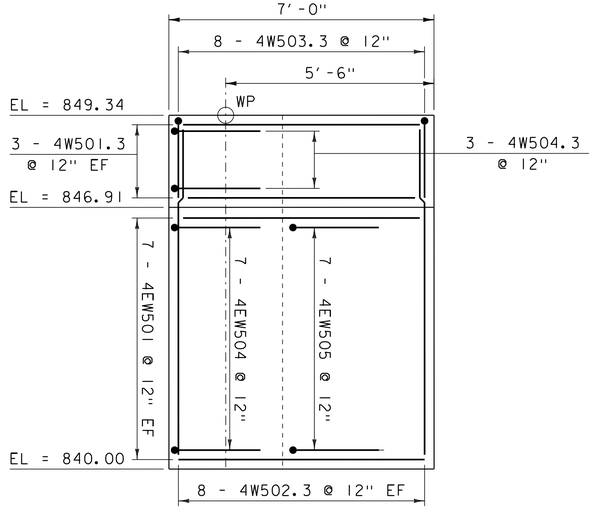
WINGWALL TYPICAL

SCALE 1"=1'-0"



WINGWALL #3

SCALE ½"=1'-0"



WINGWALL #4

SCALE ½"=1'-0"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610subst.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
WINGWALLS

PLOT DATE: 12-OCT-2020
DRAWN BY: D.KARABEGOVIC
CHECKED BY: D. PETERSON
SHEET 30 OF 39

STATE OF VERMONT
AGENCY OF TRANSPORTATION

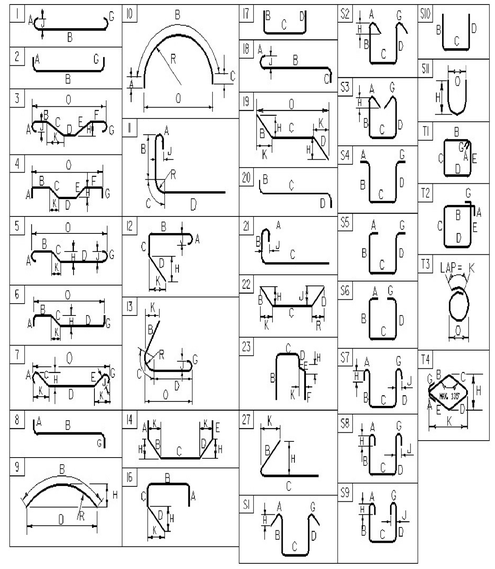
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
APPROACH SLAB #1																	
✳ ▲	33	5	12'- 10"	1AS501	STR	12'- 10"											
✳ ▲	49	6	15'- 6"	1AS601	1	1'- 0"	14'- 6"					---		0'- 8"			
APPROACH SLAB #2																	
▲	32	5	12'- 10"	2AS501	STR	12'- 10"											
▲	48	6	15'- 6"	2AS601	1	1'- 0"	14'- 6"					---		0'- 8"			
ABUTMENT #1																	
✳	21	5	29'- 6"	1A501	STR	29'- 6"											
▲	62	5	9'- 1"	1A502	17		2'- 7"	6'- 6"	---								
	62	5	6'- 11"	1A503	S10		2'- 2"	2'- 7"	2'- 2"								
✳ ▲	63	7	9'- 1"	1A701	17		2'- 7"	6'- 6"	---								
ABUTMENT #2																	
	20	5	29'- 6"	2A501	STR	29'- 6"											
▲	62	5	9'- 3"	2A502	17		2'- 7"	6'- 8"	---								
	62	5	6'- 11"	2A503	S10		2'- 2"	2'- 7"	2'- 2"								
▲	62	7	9'- 3"	2A701	17		2'- 7"	6'- 8"	---								
WINGWALL #1																	
△	16	5	6'- 6"	1EW501	STR	6'- 6"											
	7	5	4'- 4"	1EW504	17		2'- 2"	2'- 2"	---								
	7	5	4'- 11"	1EW505	S10		2'- 2"	0'- 7"	2'- 2"								
△	8	5	6'- 6"	1W501.3	STR	6'- 6"											
	16	5	8'- 8"	1W502.3	STR	8'- 8"											
	8	5	5'- 5"	1W503.3	S10		2'- 2"	1'- 1"	2'- 2"								
	3	5	4'- 4"	1W504.3	17		2'- 2"	2'- 2"	---								
WINGWALL #2																	
	14	5	6'- 6"	2EW501	STR	6'- 6"											
	7	5	4'- 4"	2EW504	17		2'- 2"	2'- 2"	---								
	7	5	4'- 11"	2EW505	S10		2'- 2"	0'- 7"	2'- 2"								
	6	5	6'- 6"	2W501.3	STR	6'- 6"											
	16	5	8'- 8"	2W502.3	STR	8'- 8"											
	8	5	5'- 5"	2W503.3	S10		2'- 2"	1'- 1"	2'- 2"								
	3	5	4'- 4"	2W504.3	17		2'- 2"	2'- 2"	---								
WINGWALL #3																	
	14	5	6'- 6"	3EW501	STR	6'- 6"											
	7	5	4'- 4"	3EW504	17		2'- 2"	2'- 2"	---								
	7	5	4'- 11"	3EW505	S10		2'- 2"	0'- 7"	2'- 2"								
	6	5	6'- 6"	3W501.3	STR	6'- 6"											
	16	5	8'- 10"	3W502.3	STR	8'- 10"											
	8	5	5'- 5"	3W503.3	S10		2'- 2"	1'- 1"	2'- 2"								
	3	5	4'- 4"	3W504.3	17		2'- 2"	2'- 2"	---								
WINGWALL #4																	
	14	5	6'- 6"	4EW501	STR	6'- 6"											
	7	5	4'- 4"	4EW504	17		2'- 2"	2'- 2"	---								
	7	5	4'- 11"	4EW505	S10		2'- 2"	0'- 7"	2'- 2"								
	6	5	6'- 6"	4W501.3	STR	6'- 6"											
	16	5	8'- 10"	4W502.3	STR	8'- 10"											
	8	5	5'- 5"	4W503.3	S10		2'- 2"	1'- 1"	2'- 2"								
	3	5	4'- 4"	4W504.3	17		2'- 2"	2'- 2"	---								

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O

~ 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

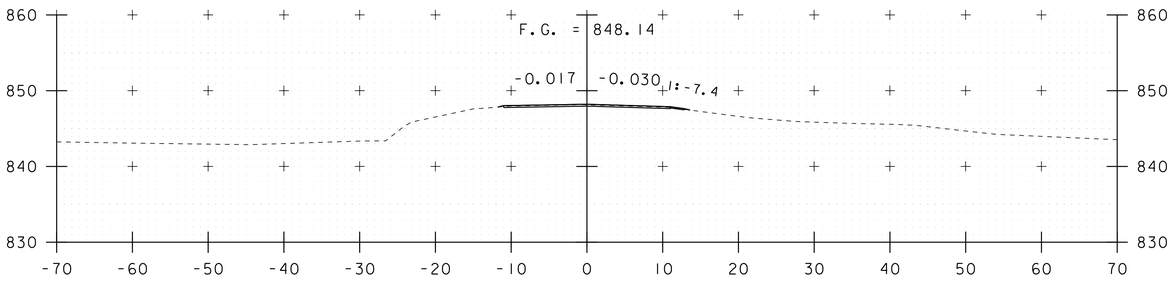
~ REINFORCING STEEL CORROSION RESISTANCE LEVEL ~

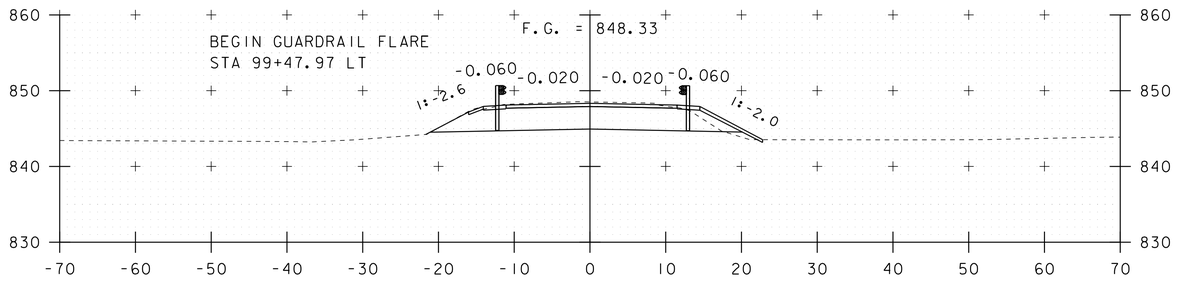
THE REINFORCING STEEL MARKS IN THIS SCHEDULE INDICATE THE REQUIRED BAR CORROSION RESISTANCE LEVEL. CORROSION RESISTANCE LEVEL IS DENOTED WITH A .2 FOR LEVEL TWO SUFFIX OR .3 FOR LEVEL THREE SUFFIX, .1 FOR LEVEL ONE IS TO BE OMITTED. THE BAR MATERIAL TYPE AND BAR STEEL GRADE PROVIDED FOR EACH CORROSION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

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

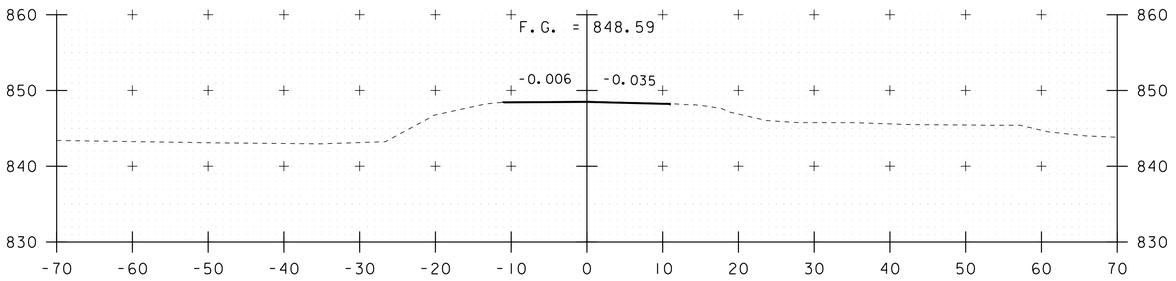
FILE NAME: s12j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
REINFORCING STEEL SCHEDULE

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 31 OF 39

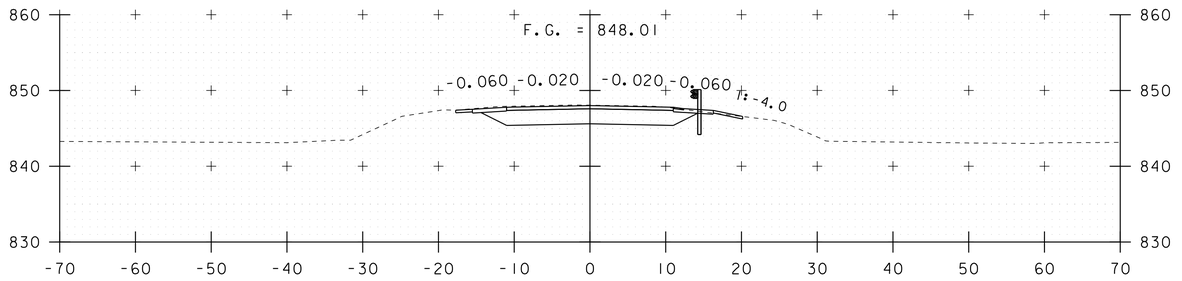




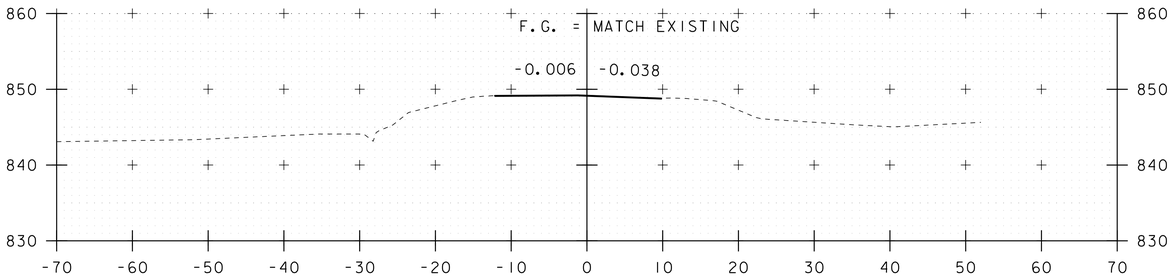
98+75



99+50

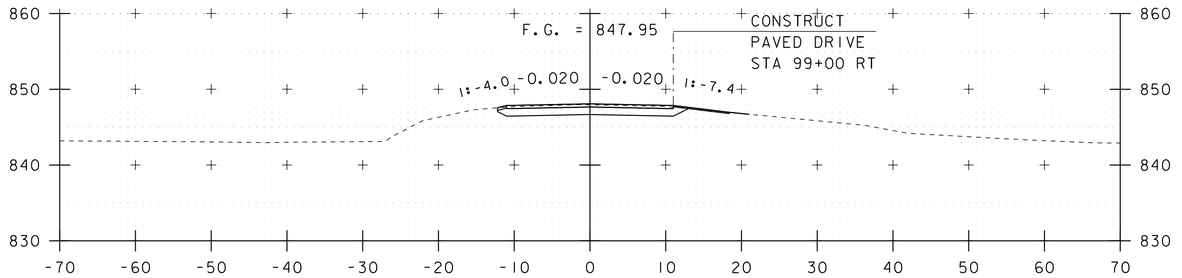


98+50



98+25
BEGIN APPROACH

99+25
BEGIN PROJECT



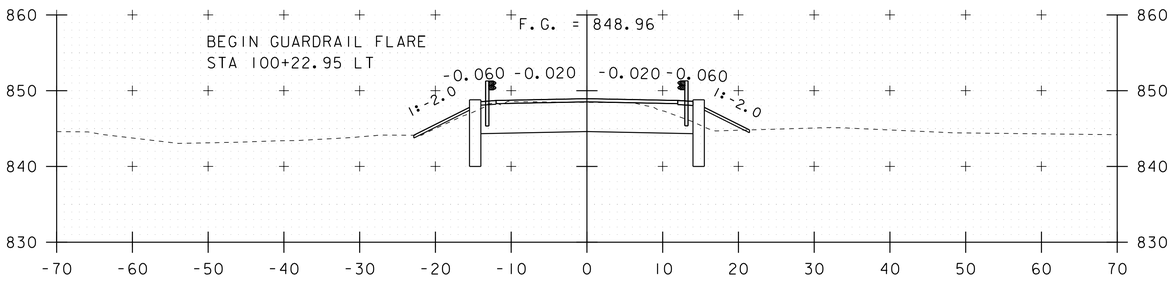
99+00

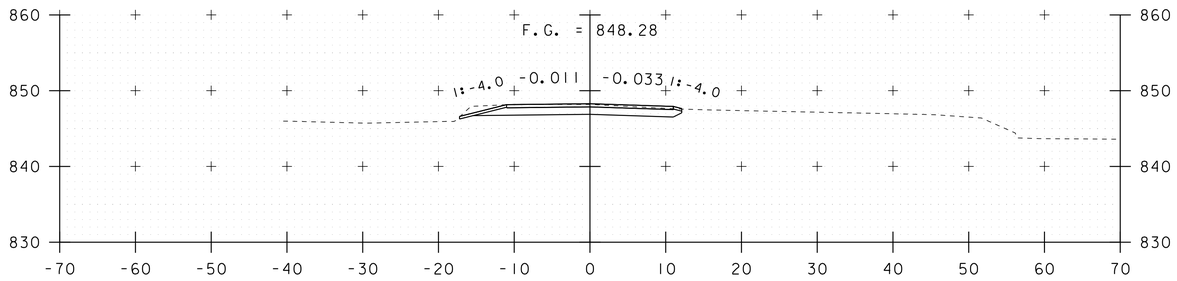
STA. 98+25 TO STA. 98+25

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610xs.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
ROADWAY CROSS SECTIONS 1

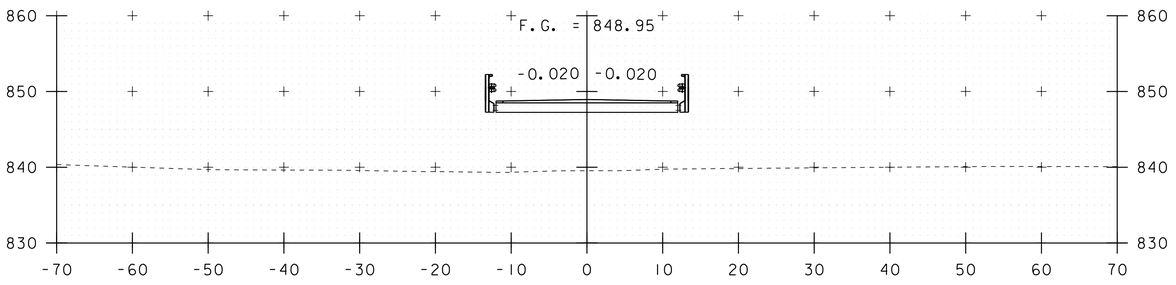
PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 32 OF 39



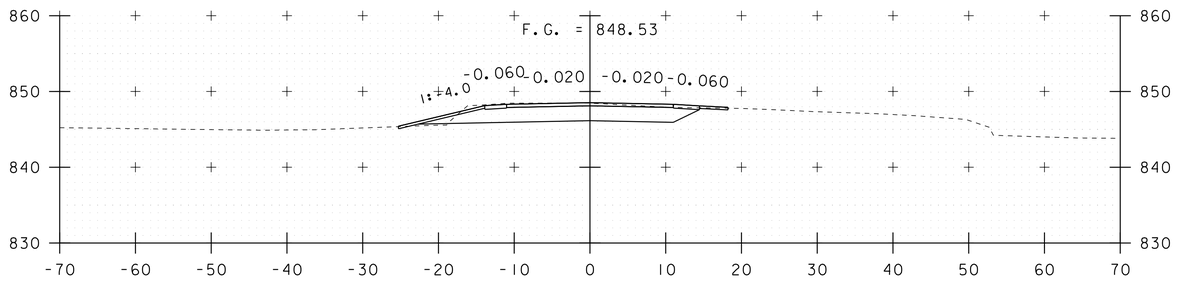


STA 100+23.00
END BRIDGE

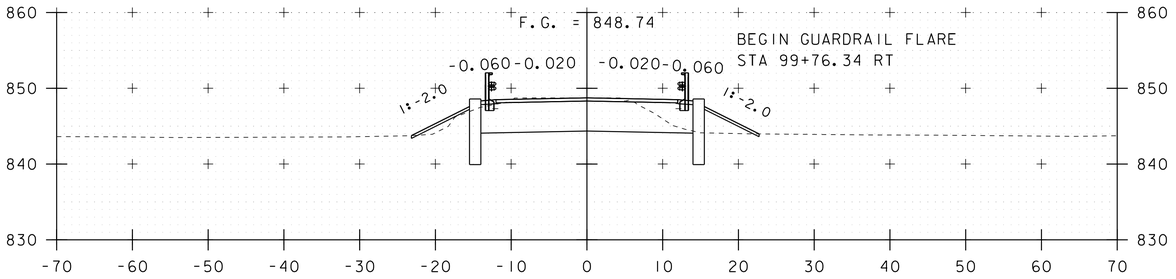
100+25



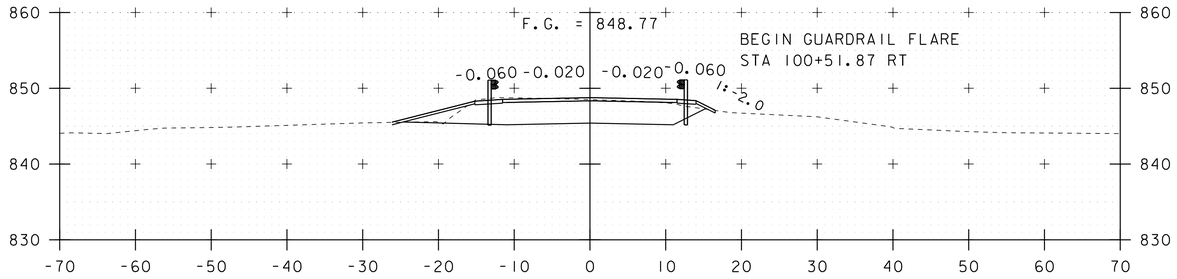
101+00



100+00



100+75
END PROJECT



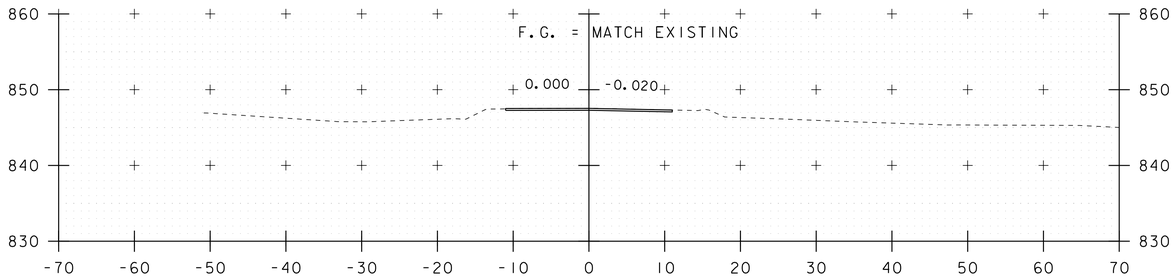
STA 99+76.00
BEGIN BRIDGE

99+75

100+50

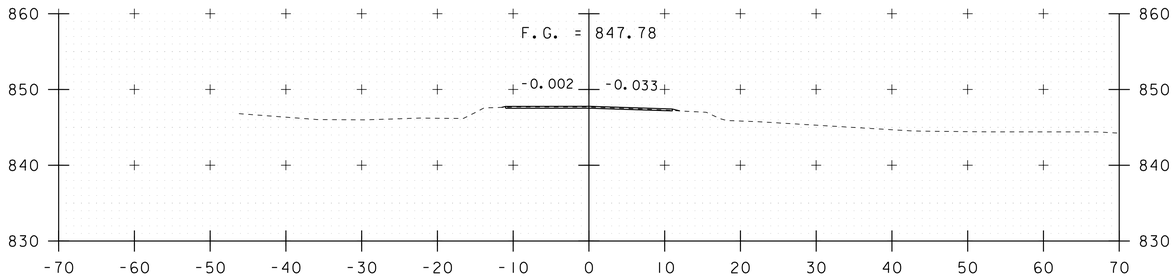
STA. 99+75 TO STA. 101+00

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610xs.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
ROADWAY CROSS SECTIONS 2	SHEET 33 OF 39

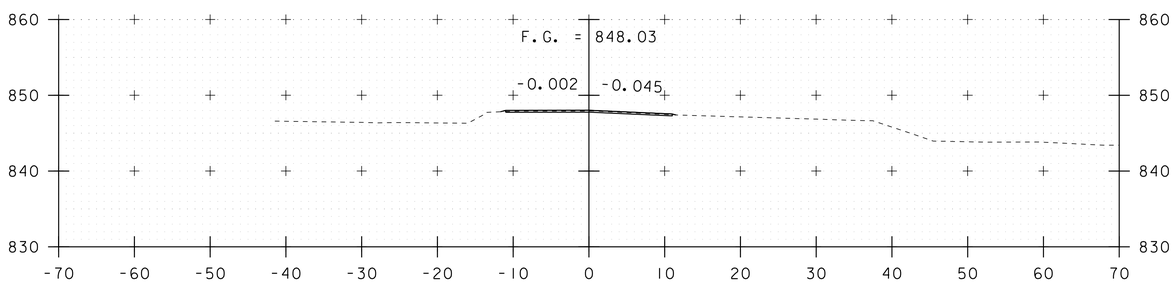


101+75

END APPROACH



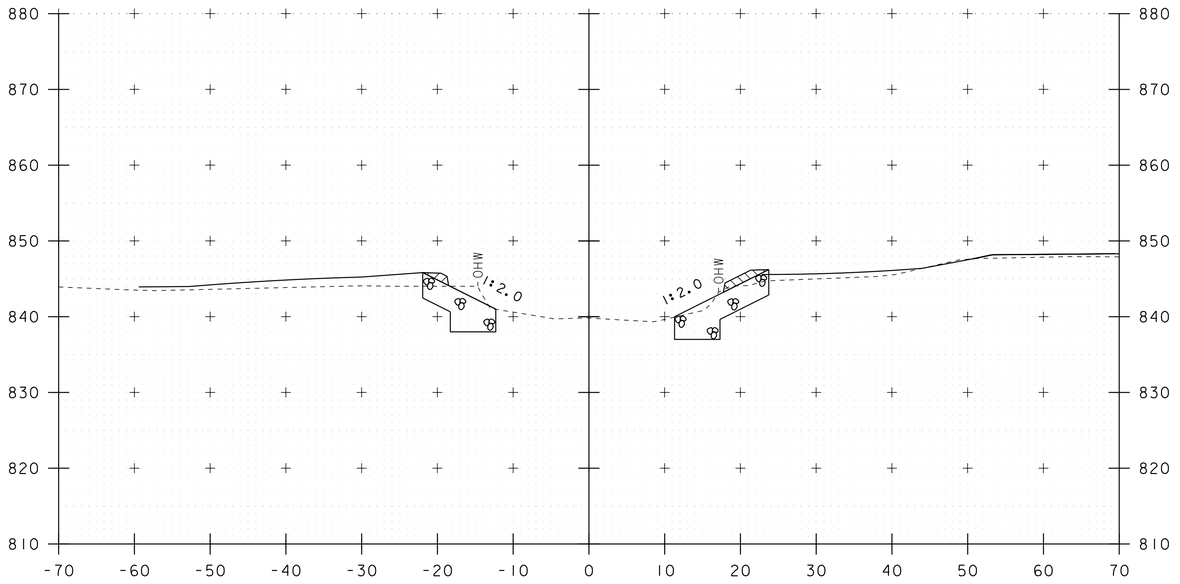
101+50



101+25

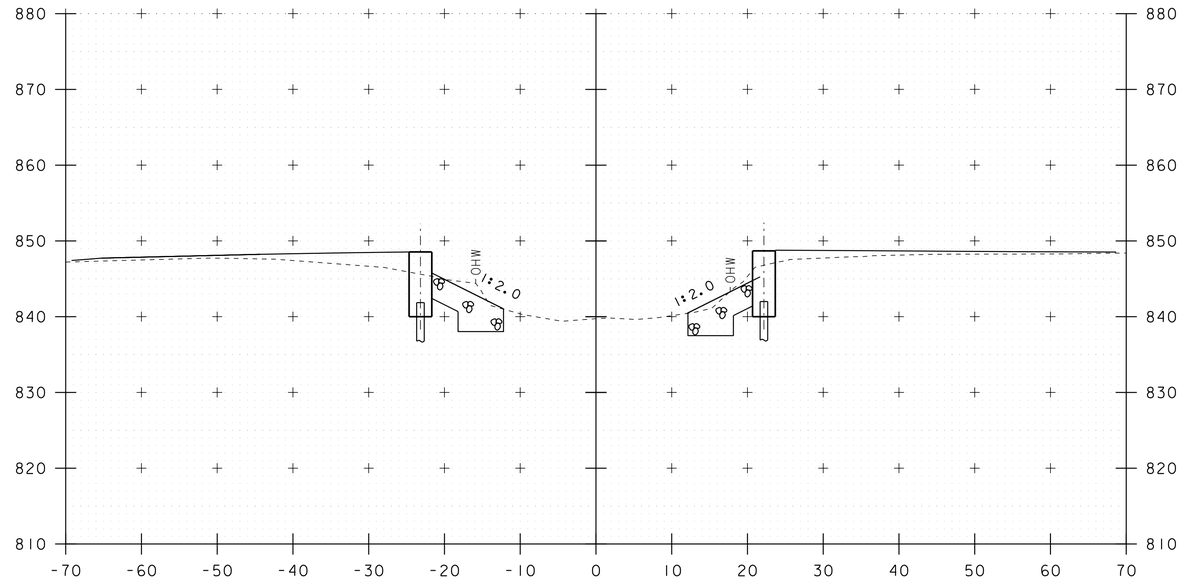
STA. 101+25 TO STA. 101+75

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: s12j610xs.dgn	PLOT DATE: 12-OCT-2020
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
ROADWAY CROSS SECTIONS 3	SHEET 34 OF 39



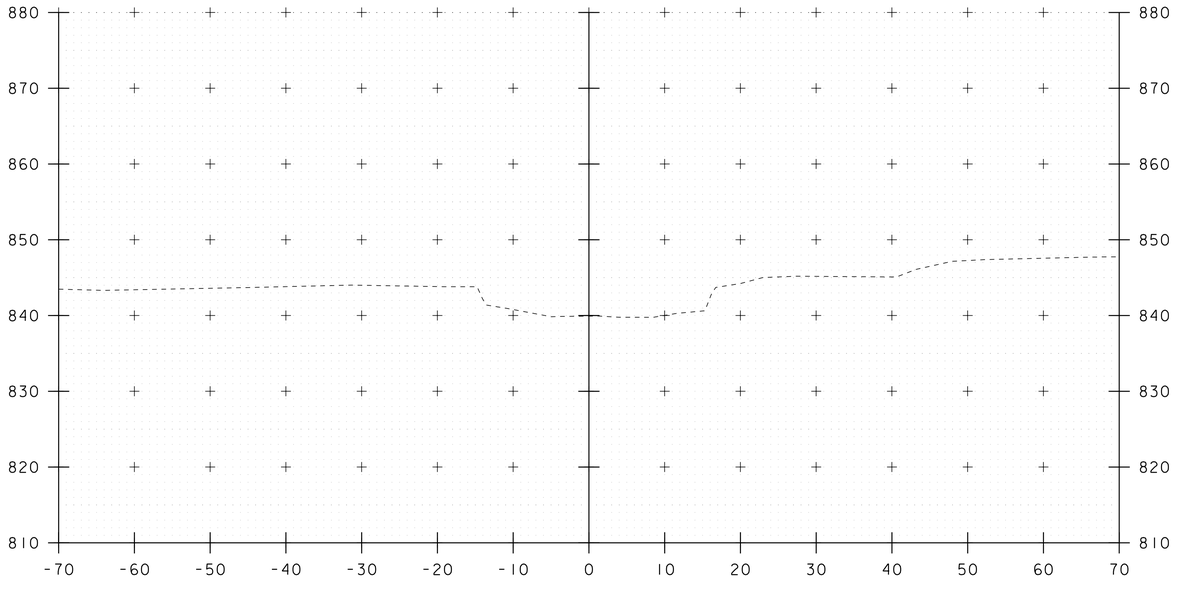
STA 4+73.00 BEGIN ITEMS LEFT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL

4+80

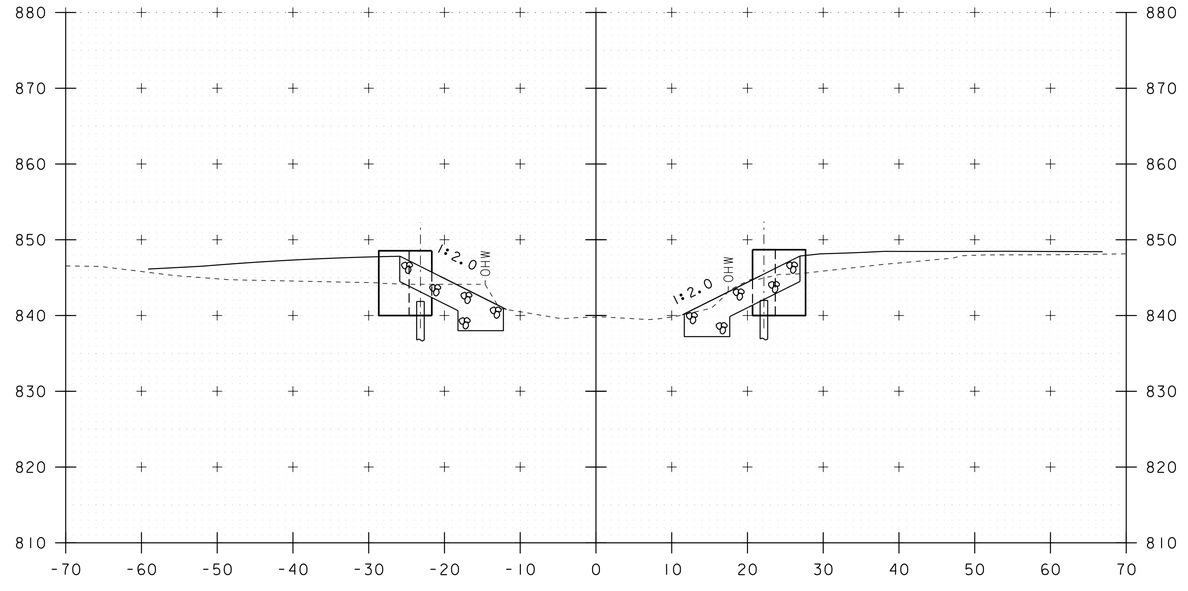


STA 4+73.00 BEGIN ITEMS RIGHT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL

4+90



4+70



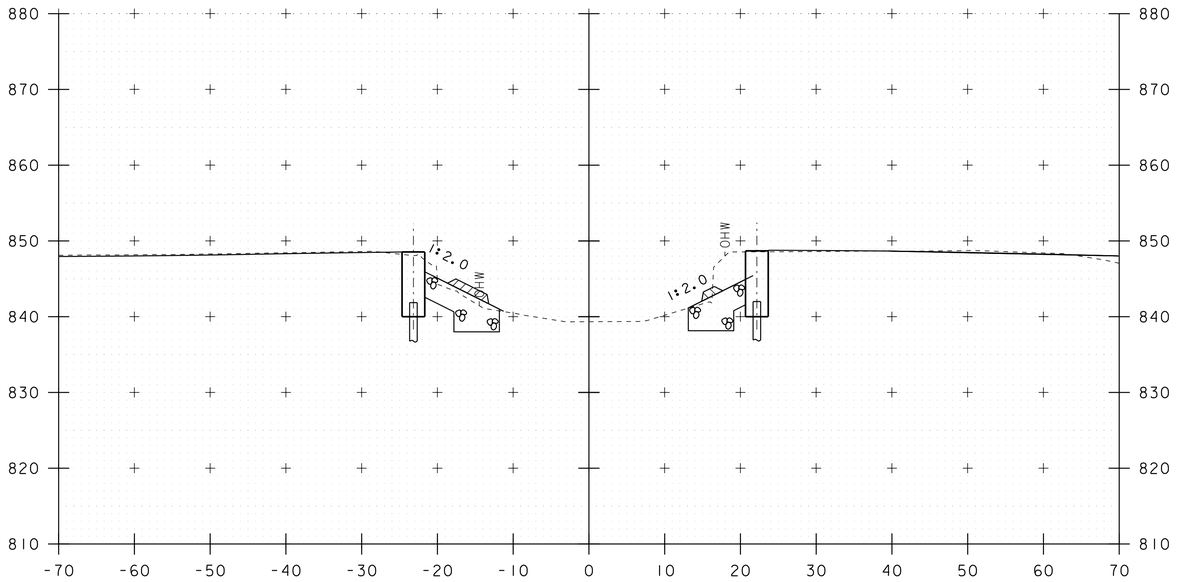
4+85

STA. 4+70 TO STA. 4+90

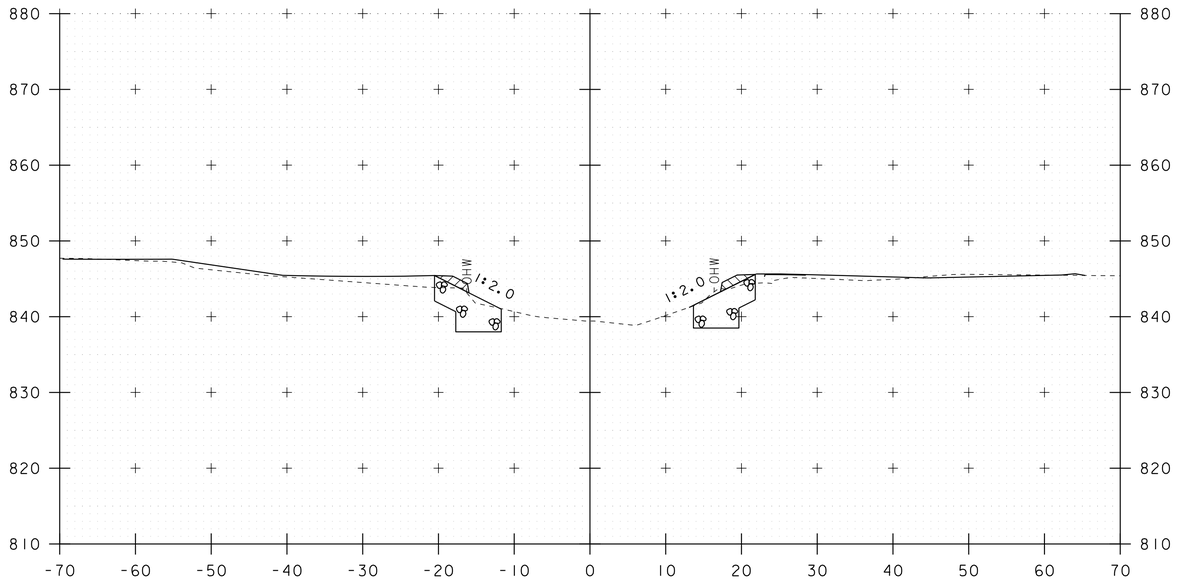
PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610xs.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
CHANNEL CROSS SECTIONS 1

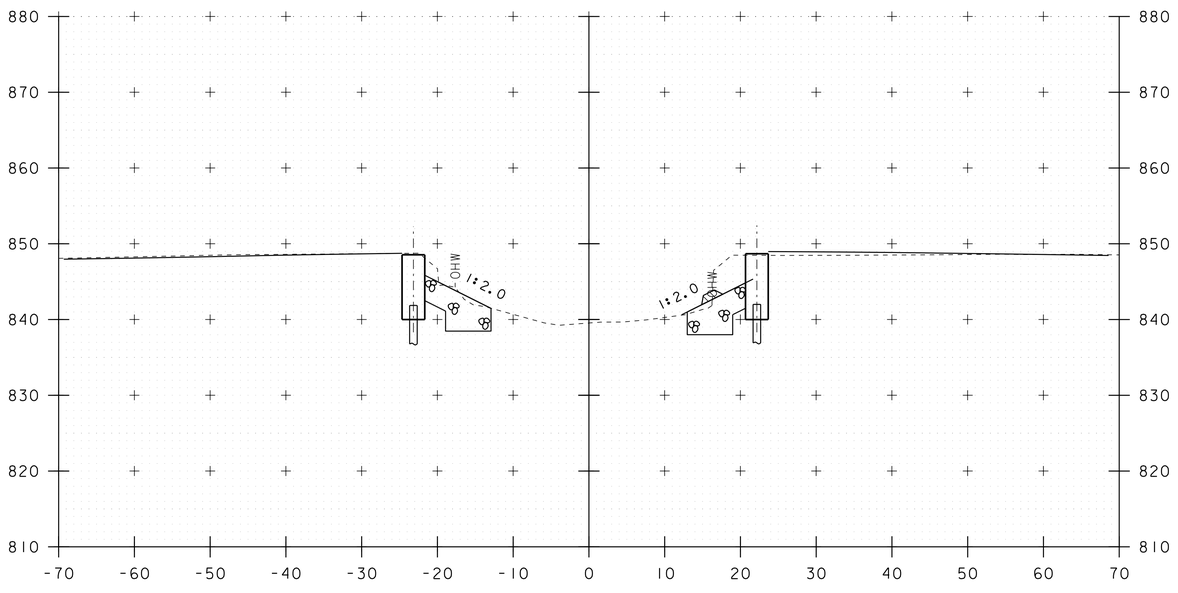
PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 35 OF 39



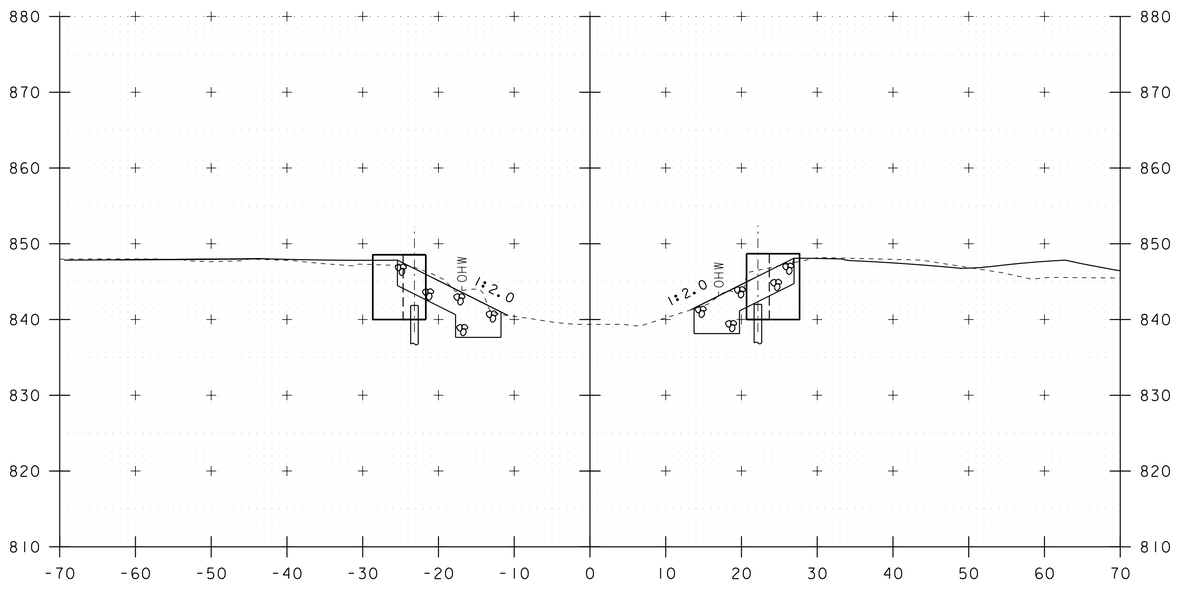
5+10



5+20



5+00



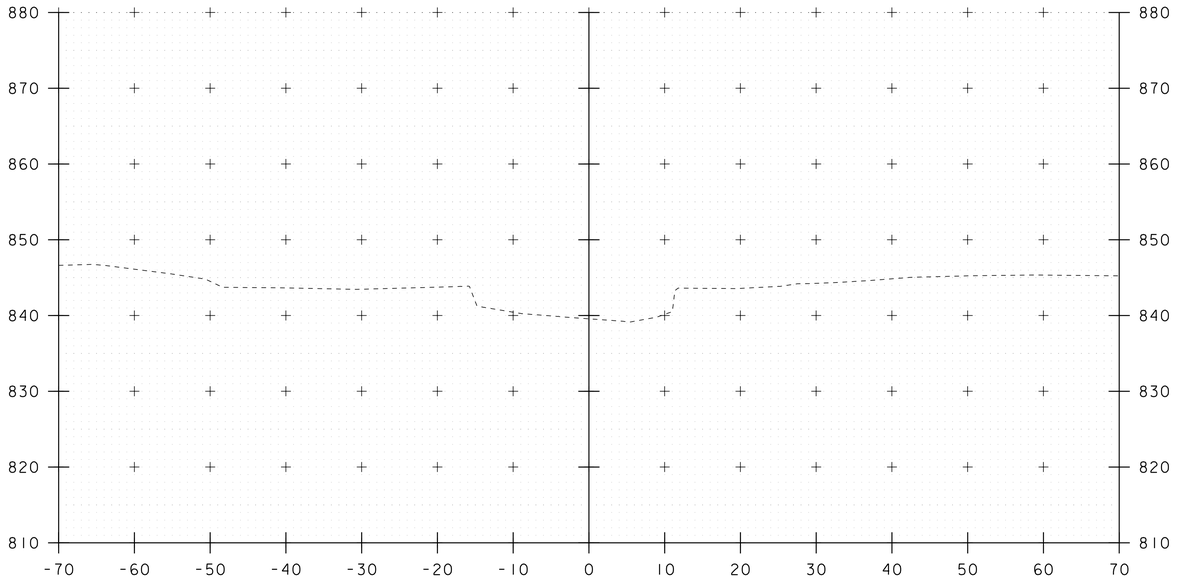
5+15

STA. 5+00 TO STA. 5+20

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610xs.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
CHANNEL CROSS SECTIONS 2

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 36 OF 39



STA 5+23.00 END ITEMS LEFT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL

5+30

STA 5+23.00 END ITEMS RIGHT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL

STA. 5+30 TO STA. 5+30

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610xs.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
CHANNEL CROSS SECTIONS 3

PLOT DATE: 12-OCT-2020
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 37 OF 39

REMOVING SIGNS
STA 99+25.3 LT (NO PARKING FIRE LANE)
STA 99+70.7 LT (OBJECT MARKER)
STA 99+72.1 RT (OBJECT MARKER)
STA 100+22.5 LT (OBJECT MARKER)
STA 100+23.8 RT (OBJECT MARKER)

RESETTING SIGNS
STA 99+27.1 LT (NO PARKING FIRE LANE)

TRAFFIC SIGNS, TYPE A
STA 99+72.3 RT (BRIDGE 35)
STA 100+27.7 LT (BRIDGE 35)

COARSE-MILLING, BITUMINOUS PAVEMENT
STA 98+25.0 - 98+75.0
STA 101+25.0 - 101+75.0

CONSTRUCT 11 FT. WIDE PAVED APRON
STA 98+70.6 - 99+28.5 RT

4" WHITE LINE (EDGE LINE)
STA 98+25.0 - 101+75.0 LT (350 LF)
STA 98+25.0 - 101+75.0 RT (350 LF)

4" YELLOW LINE (DOUBLE CENTERLINE)
STA 98+25.0 - 101+75.0 (350 LF)

SPECIAL PROVISION (ELECTRIC FENCE)
STA 99+53.4 - 99+80.4 RT

REMOVING AND RESETTING FENCE (ELECTRIC)
STA 98+25.0 - 98+74.2 RT
STA 98+92.3 - 99+53.4 RT

REMOVAL AND DISPOSAL OF GUIDE POSTS
STA 100+23.0 - 100+36.0 LT (3 POSTS)

SPECIAL PROVISION (FENCE GATE)
STA 98+74.2 - 98+92.3 RT

VT STATE PLANE GRID

BEGIN R.O.W. PROJECT
BURKE BO 1447(31)
STA. TH-31 95+87.03, 38.80' LT

95+87.03
38.80' LT

95+88.25
33.95' LT

TIELINE
49.50'
N04°43'47"E

95+00

96+00

97+00

98+00

99+00

100+00

101+00

6+00

4+00

2+00

1+00

0+00

1

ROBERTS, TIMOTHY

AER E&T

113.87'
S84°59'06"E

EXISTING UTILITY EASEMENT

10.00'

10.00'

EXISTING UTILITY EASEMENT

UE(P)
15.00'

APPROX. EXISTING TOWN R.O.W.

L=172.36'
R=575.25'

TH-31
TO US ROUTE 5

113.62'
S84°59'06"E

APPROX. EXISTING TOWN R.O.W.

L=187.19'
R=624.75'

ELECTRIC FENCE

N=776351.70
E=1779108.36
STA. 98+63.22, 24.75' LT

46.32'
N77°50'50"E

L=56.00'
R=180.25'

CONST(T)

41.71'
N60°02'51"E

L=71.38'
R=229.75'

99+79.00
22.15' RT

46.32'
N77°50'50"E

N=776303.31
E=1779118.78
STA. 98+63.22, 24.75' RT

R=5'

INSTALL(T)

REMOVE & RESET(T)

SR(T)

CONST(T)

INSTALL(T)

SR(T)

99+79.00
28.00' RT

99+85±
28.00' RT

OH(P)

A B C D E

A-B 5.85', S28°25'33"E
B-C 6.26', N61°32'17"E
D-E 5.45', N61°32'17"E
E-F 6.73', N27°18'00"W

99+85±
67.11' LT

99+85±
53.11' LT

100+13±
57.57' LT

100+11±
48.62' LT

100+48.23
45.61' LT

I&M(P)

NEW GUY TO ANCHOR
STA 100+48.39
61.72' LT

NEW POLE
STA 100+46.10
30.87' LT

CONST(T)

41.71'
N60°02'51"E

L=99.17'
R=164.75'

100+25.00
21.27' RT

100+25.00
28.00' RT

100+17±
28.00' RT

REMOVE & RESET(T)

CONST(T)

L=99.17'
R=175.25'

31.75'
S70°39'01"E

31.75'
S70°39'01"E

L=28.11'
R=175.25'

40.00'
S61°27'40"E

40.00'
S61°27'40"E

49.50'
N28°32'20"E

TIELINE

N=776357.78
E=1779392.22
STA. 101+65.88, 24.75' RT

BENCHMARK
RAIL ROAD SPIKE
IN ROOT
ELEV. =845.64'

STATE OF VERMONT

WEST BRANCH OF PASSUMPSIC RIVER
FLOW

1

ROBERTS, TIMOTHY

STATE OF VERMONT

2

NICHOLSON, NICHOLAS J.

3

BURKE TOWN SCHOOL DISTRICT

N=776404.49
E=1779408.62
STA. 101+65.88, 24.75' LT

END R.O.W. PROJECT
BURKE BO 1447(31)
STA. TH-2 1+64.13, 24.75' LT

UE(P)
15.00'

EXISTING UTILITY EASEMENT

EXISTING UTILITY EASEMENT

15.00'

15.00'

TH-2 1+64.13
24.75' LT

TH-2 1+62.75
24.75' LT

69.26'
N01°43'23"W

APPROX. EXISTING TOWN R.O.W.

N11°43'23"W

L=30.76'
R=600.00'

STA 2+00.00
POB

STA 1+00.00
POB

AER E&T

BURKE HOLLOW RD
(TH-2)

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE STATE OF VERMONT'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

FOR R.O.W. USE ONLY

SCALE 1" = 30'-0"
30 0 30

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: r12j6101ay.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
R.O.W. LAYOUT SHEET 1 OF 1

PLOT DATE: 12-OCT-2020
DRAWN BY: A. EGIZI
CHECKED BY: A. PROULX
SHEET 38 OF 39

STATE OF VERMONT
AGENCY OF TRANSPORTATION

RIGHT - OF - WAY DETAIL SHEET

TABLE OF PROPERTY ACQUISITION

PARCEL NO.	PROPERTY OWNER	ROW LAYOUT NO.	BEGINNING STATION	ENDING STATION	TAKE	REMAINDER	RIGHT			RECORDING DATA					REMARKS
					AREA±	AREA±	TYPE	T / P	AREA ±	TITLE	DATE	TOWN / CITY	BOOK	PAGE	
1	ROBERTS, TIMOTHY	1	TH-31 95+87.03 LT	TH-31 99+85± LT			UTILITY	P	3,308 SF						
			TH-31 98+25 RT	TH-31 98+79 RT			CONSTRUCTION	T	152 SF						INCL. BF
			TH-31 98+25 RT	TH-31 98+74 RT			REMOVE & RESET	T							ELECTRIC FENCE
			TH-31 98+74 RT	TH-31 98+92 RT			INSTALL	T							FENCE GATE
			TH-31 98+92 RT	TH-31 99+53 RT			REMOVE & RESET	T							ELECTRIC FENCE
			TH-31 99+53 RT	TH-31 99+80 RT			INSTALL	T							ELECTRIC FENCE
			TH-31 98+88 RT	TH-31 99+79.00 RT			CONSTRUCTION	T	522 SF						INCL. BF
			TH-31 99+12 RT	TH-31 99+49 RT			SLOPE	T	32 SF						INCL. EC
			TH-31 99+35 LT	TH-31 99+77 LT			CONSTRUCTION	T	26 SF						INCL. BF
			TH-31 99+67 RT	TH-31 99+79.00 RT			SLOPE	T	10 SF						INCL. EC
			TH-31 99+79.00 RT	TH-31 99+85± RT			CHANNEL	P	37 SF						INCL. STONE FILL & TEMP. FILTER CURTAIN
2	NICHOLSON, NICHOLAS J.	1	TH-31 100+11± LT	TH-2 1+64.13 LT			UTILITY	P	2,077 SF						
			TH-31 100+24 LT	TH-31 100+88 LT			CONSTRUCTION	T	201 SF						INCL. BF
			TH-31 100+48 RT	TH-31 100+51 RT			INSTALL & MAINTAIN	P							GUYWIRE & ANCHOR
3	BURKE TOWN SCHOOL DISTRICT	1	TH-31 100+17± RT	TH-31 100+25.00 RT			CHANNEL	P	52 SF						INCL. STONE FILL & TEMP. FILTER CURTAIN
			TH-31 100+25.00 RT	TH-31 101+32 RT			CONSTRUCTION	T	782 SF						INCL. BF
			TH-31 100+25.00 RT	TH-31 100+81 RT			SLOPE	T	97 SF						INCL. EC
			TH-31 100+31 RT	TH-31 100+76 RT			REMOVE & RESET	T							DRY HYDRANT & WATER LINE
4	LYNDONVILLE ELECTRIC DEPARTMENT		TH-31 95+87.03 LT	TH-2 1+64.13 LT											UTILITY
5	CONSOLIDATED COMMUNICATIONS OF VERMONT COMPANY, LLC		TH-31 95+87.03 LT	TH-2 1+64.13 LT											UTILITY

TABLE OF REVISIONS

REVISION NO.	ROW SET SHEET #	DESCRIPTION	DATE

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: r12j610detail.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: A. EGIZI
R.O.W. DETAIL SHEET 1

PLOT DATE: 12-OCT-2020
DRAWN BY: M. TROTTIER
CHECKED BY: A. PROULX
SHEET 39 OF 39