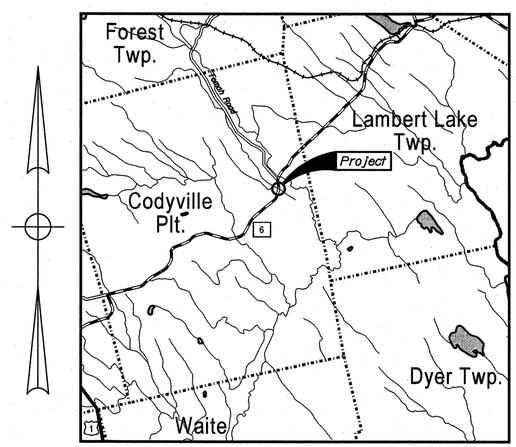
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CODYVILLE PLT
WASHINGTON COUNTY
BEAVER BROOK BRIDGE
OVER
BEAVER BROOK
ROUTE 6
STATE PROJECT NO. 16694.00
PROJECT LENGTH 0.000 mi.
BRIDGE CULVERT REHABILITATION
AND GUARDRAIL UPDATE
BRIDGE NO. 5875

TRAFFIC DATA

Current (2010) AADT	530
Future (2030) AADT	640
DHV - % of AADT	13%
Design Hour Volume	83
Heavy Trucks (% of AADT)	18
Heavy Trucks (% of DHV)	35
Directional Distribution (% of DHV)	51
18 kip Equivalent P 2.0	98
18 kip Equivalent P 2.5	91
Design Speed (mph)	45



LOCATION MAP

2 0 2 4
Scale of Miles

LIST OF DRAWINGS

Title Sheet 1
Estimated Quantities and General Construction Notes 2
General Plan 3
Pipe Details 4
Highway Approach Cross-Sections 5-8
Right of Way Map 9

SCOPE OF WORK

Slipline existing steel pipe with a 9'-0" diameter aluminum pipe
Remove cable guardrail and replace with new type 3C guardrail
Remove beaver dam.

UTILITIES

Eastern Maine Electric Coop., Inc.
Northern New England Telephone Operations, L.L.C.

MAINTENANCE OF TRAFFIC

The roadway will remain open to two-way traffic at all times. It may be reduced to one lane with flaggers during the duration of construction.

PIN 16694.00

16694.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: DATE 1/25/10
CHIEF ENGINEER: DATE 1/27/10

STATE OF MAINE
Michael Harry Wright
8089
LICENSED PROFESSIONAL ENGINEER

Michael Wright
SIGNATURE
8089
P.E. NUMBER
1/26/2010
DATE

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	D. ANDERSON
DESIGNER	M. WIGHT
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

CODYVILLE PLT
BEAVER BROOK BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 9

Filename:\00\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE Username: david.shaw Date:1/26/2010

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	5	CY
203.24	COMMON BORROW	5	CY
205.51	WIDENING OF EXISTING SHOULDER, PLAN QTY.	1420	SY
502.57	ANNULAR SPACE GROUTING	47	CY
509.202	CULVERT SLIPLINING (78 LF)	1	LS
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	825	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	12	EA
606.363	GUARDRAIL REMOVE AND DISPOSE	850	LF
606.753	WIDEN SHOULDER FOR LOW VOLUME END	6	EA
606.78	LOW VOLUME GUARDRAIL END - TYPE 3	6	EA
610.08	PLAIN RIPRAP	210	CY
613.329	EXTENDED USE EROSION CONTROL BLANKETS	235	SY
619.1401	EROSION CONTROL MIX	100	CY
620.58	EROSION CONTROL GEOTEXTILE	300	SY
629.05	HAND LABOR	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.131	SMALL BULLDOZER-GRADER (INCLUDING OPERATOR)	10	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
652.312	TYPE III BARRICADE	12	EA
652.33	DRUM	20	EA
652.34	CONE	12	EA
652.35	CONSTRUCTION SIGNS	105	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	15	CD
652.38	FLAGGER	50	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. The roadway will remain open to two-way traffic at all times. It may be reduced to one lane with flaggers during the duration of construction.

2. For easements, construction limits and right of way lines, refer to Right of Way Map.

3. The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.

4. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

5. Place riprap on sideslopes up to 12 inches above the top of existing pipe.

6. Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. Payment for hand raking will be made under the appropriate Contract items.

7. Place Erosion Control Mix 4 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

8. Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap and along the berm behind the guardrail.

9. Low volume guardrail end treatments shall be installed concurrently with the placement of each section of beam guardrail.

10. Extended-use Erosion Control Blanket shall be constructed after shoulder work is completed, where it is apparent that runoff will cause continual erosion. Payment will be made under the appropriate Contract items.

11. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php.

12. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

13. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:

a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.

b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.

14. All materials and labor needed to reconstruct the gravel shoulders shall be paid for under Item No. 205.51, Widening of Existing Shoulder. Existing material in shoulders shall be inspected and approved by the Resident before additional material is added.

15. All work required to remove the beaver dam will be paid for under Pay Item No. 203.20, Common Excavation. Limits of excavation will be determied by the Resident.

16. If beavers are present during the time of construction and/or during beaver dam removal, the Contractor shall contact Maine Department of Inland Fisheries and Wildlife to remove the beavers.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16694.00

PIN 16694.00

BRIDGE NO. 5875

BRIDGE PLANS

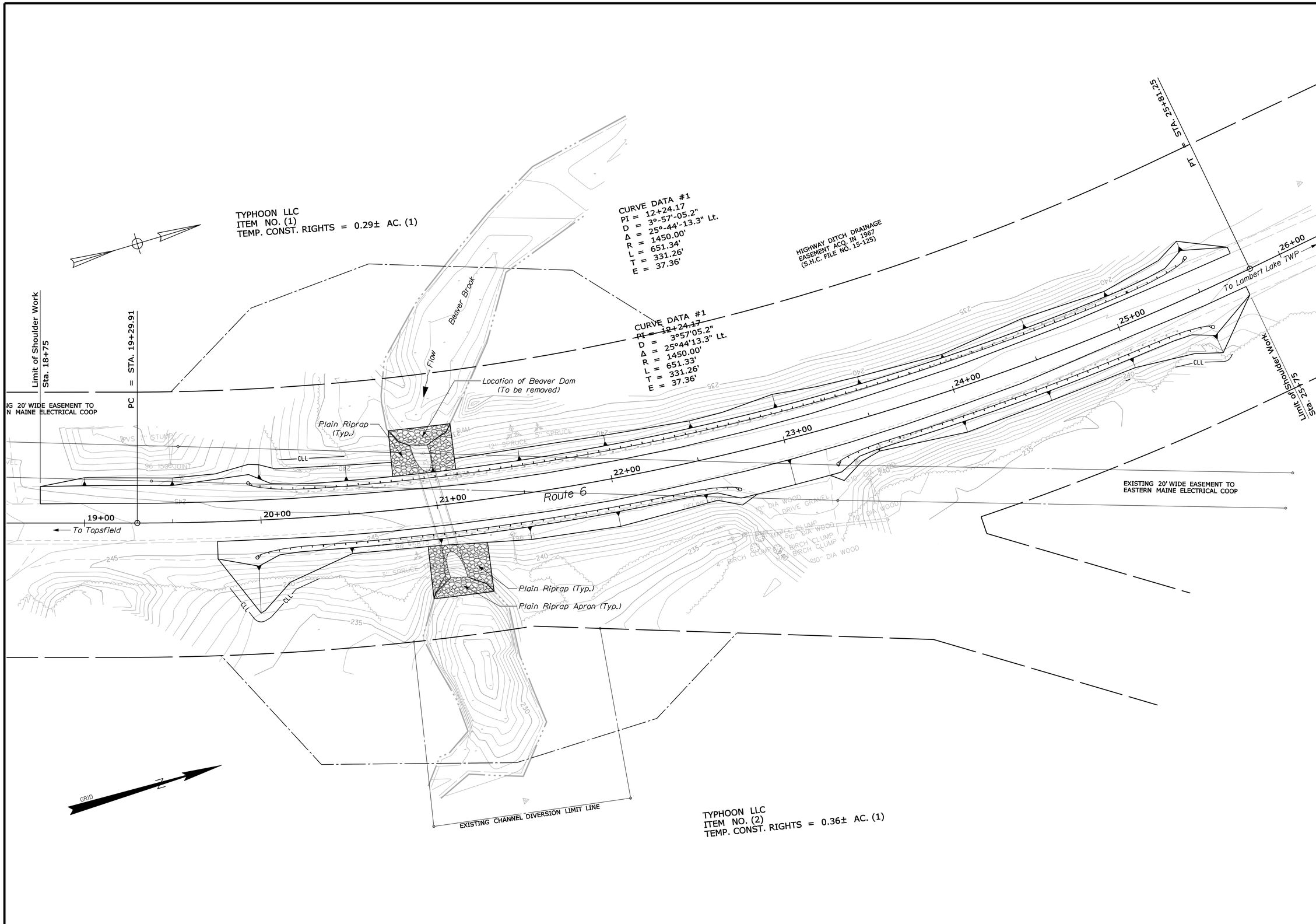
PROJ. MANAGER	D. Anderson	BY	DATE
DESIGN-DETAILED	M. Wight	D. Show	
CHECKED-REVIEWED			SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BEAVER BROOK BRIDGE
BEAVER BROOK
CODYVILLE PLT WASHINGTON COUNTY

ESTIMATED QUANTITIES AND
GENERAL CONSTRUCTION NOTES

SHEET NUMBER
2
OF 9

Filename: ...\BRIDGE\MSTA\002_Estimate.dgn Division: BRIDGE Username: david.show Date:2/10/2010



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BEAVER BROOK BRIDGE
BEAVER BROOK
CODYVILLE PLT WASHINGTON COUNTY

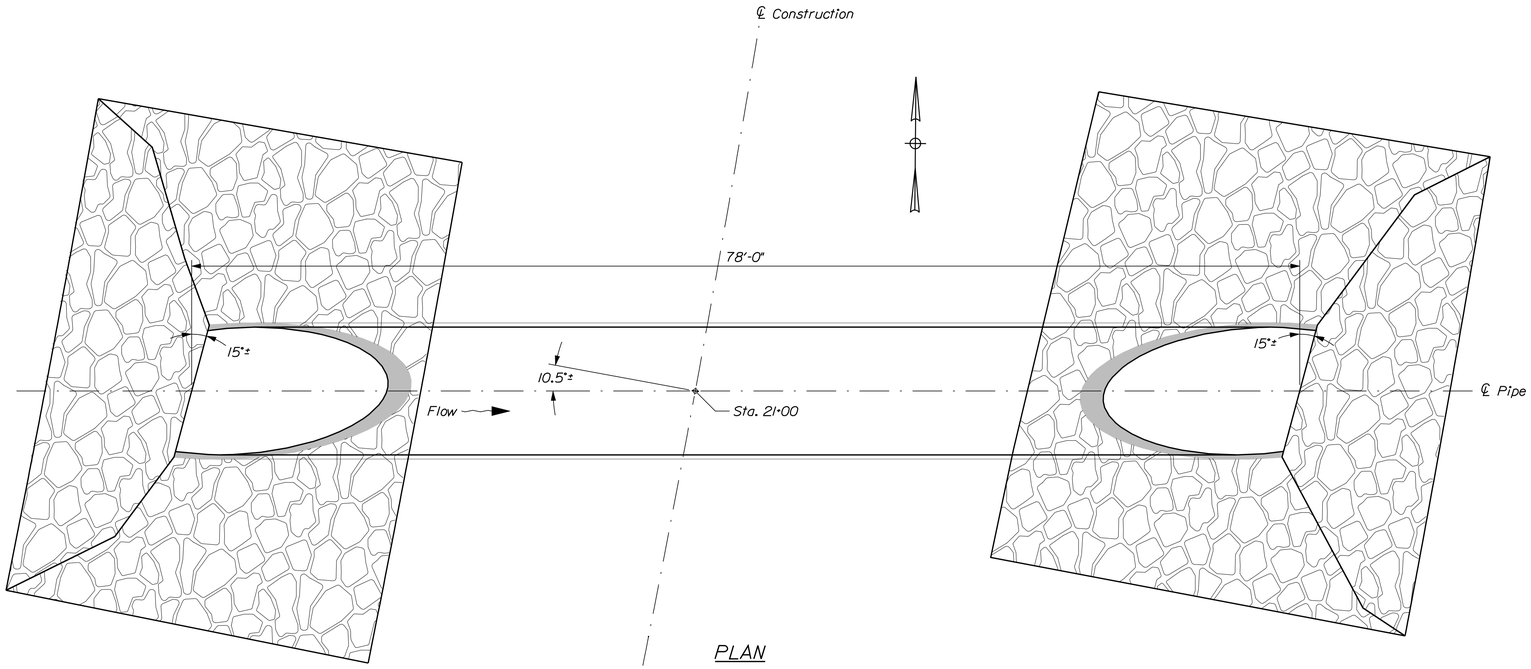
GENERAL PLAN

SHEET NUMBER

3

OF 9

Filename: ...\00\bridge\msta\003_GenPlan.dgn Division: BRIDGE Username: david.show Date:2/3/2010



PLAN

STRUCTURAL PLATE STRUCTURE NOTES

1. One 9'-0" diameter Aluminum Structural Plate Pipe is required. All plates shall be 0.25 inch thick.

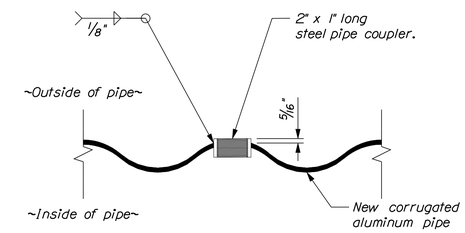
2. Ends shall be cut to match the bevel on the existing pipe.

3. The aluminum structural plate pipe shall be constructed in the dry. The approximate weight of the structure is 10,200 pounds. The Contractor should contact the pipe manufacture for exact weight of pipe before determining the equipment size needed for pipe placement.

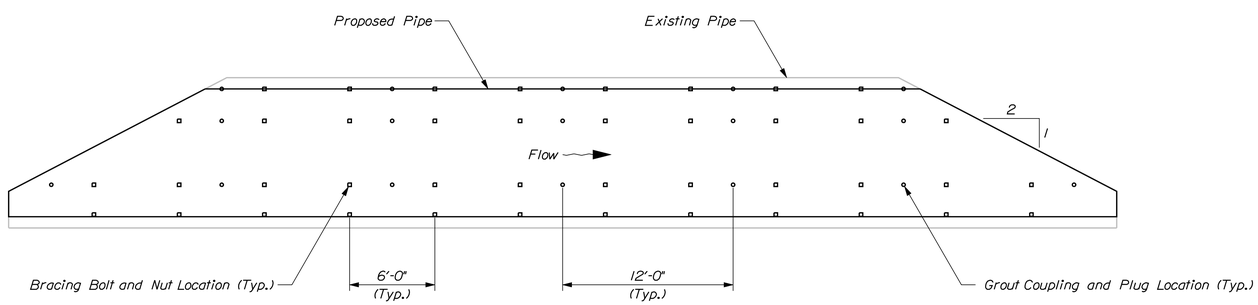
4. Riprap adjacent to the pipe shall be carefully placed so as not to damage the pipe and so that the finished slope will match the ends of the pipe. Any extra labor, material or equipment used will be considered incidental to Item No. 610.08, Plain Riprap. Any damage done to the structure during construction shall be repaired or replaced as determined by the Resident at the Contractor's expense.

5. Place a 24-in. wide strip of Temporary Erosion Control Blanket along the top of the riprap and over the structure, typical at both ends.

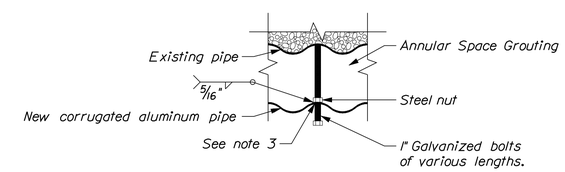
7. For concrete trough, see Standard Details, Section 606, Guardrail Treatment Over Buried Structures. Payment shall be incidental to Pay Item 606.23, Guardrail Type 3C - Single Rail.



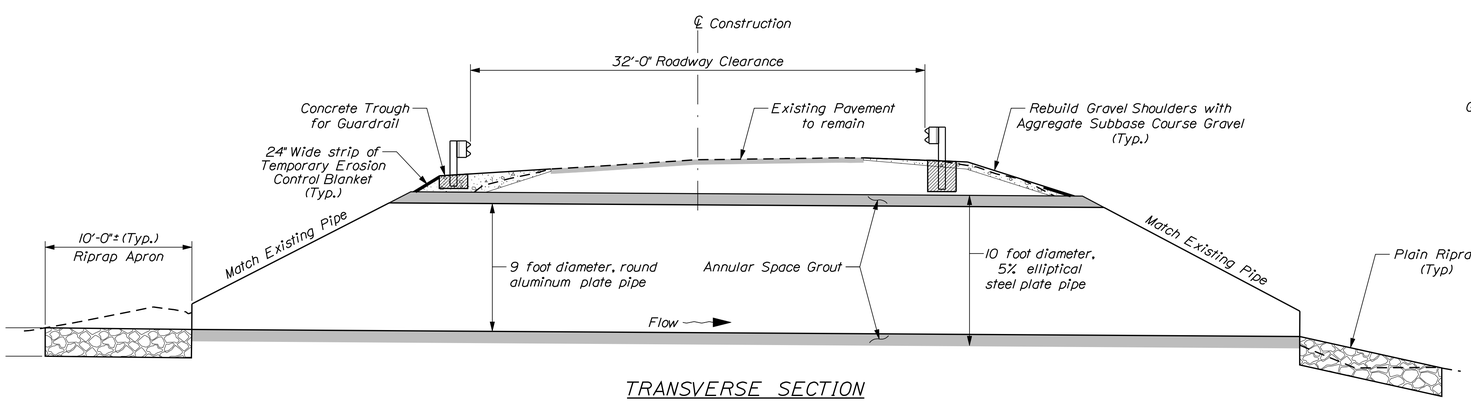
GROUT NIPPLE DETAIL



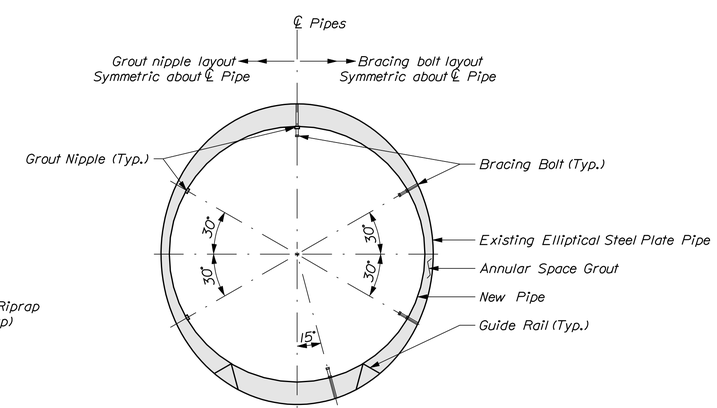
GROUT NIPPLE AND BRACING BOLT LAYOUT



BRACING BOLT DETAIL



TRANSVERSE SECTION



SECTION

STATE OF MAINE
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16694.00

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BRIDGE NO. 5875

BRIDGE PLANS

PROJ. MANAGER	D. Anderson	BY	DATE
DESIGN-DETAILED	M. Wight	D. Show	
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SIGNATURE

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DATE

BEAVER BROOK BRIDGE
BEAVER BROOK
CODYVILLE PLT WASHINGTON COUNTY

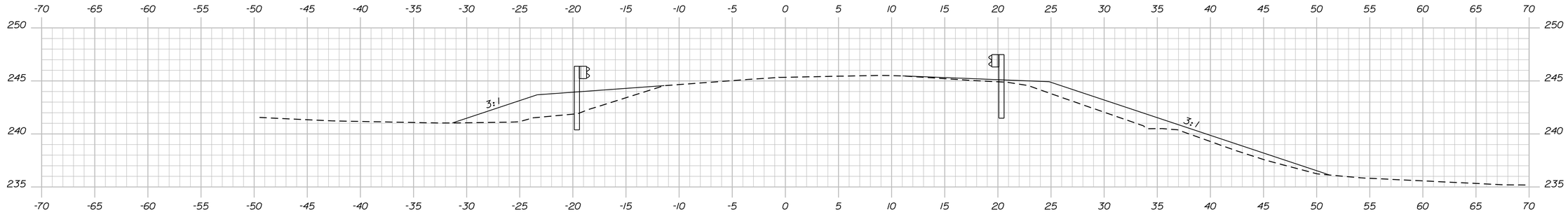
PIPE DETAILS

SHEET NUMBER

4

OF 9

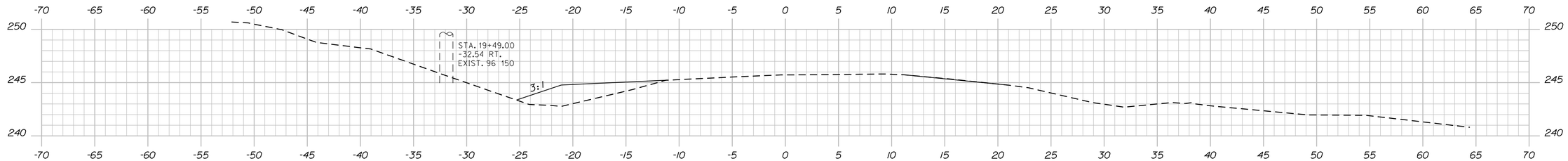
Filename: ...\00\bridge\msta\004_Pipe.dgn Division: BRIDGE Username: david.show Date:2/3/2010



Sta. 19+94.1±, 20.0 Ft. Lt. to Sta. 20+31.8±, 16.0 Ft. Lt.
Install a Low Volume Guardrail End - Type 3
Sta. 20+31.8±, 16.0 Ft. Lt. to Sta. 25+12.1±, 16.0 Ft. Lt.
Install 475.0 L.F. Guardrail Type 3

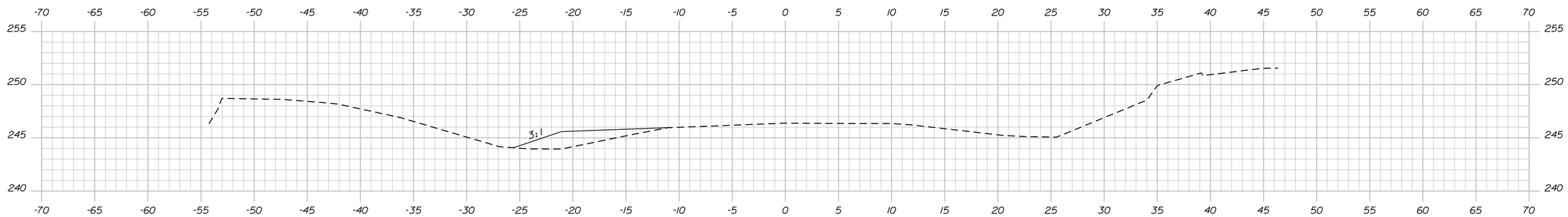
20+00.00

Sta. 19+97.6±, 20.0 Ft. Rt. to Sta. 20+34.2±, 16.0 Ft. Rt.
Install a Low Volume Guardrail End - Type 3
Sta. 20+34.2±, 16.0 Ft. Rt. to Sta. 22+32.0±, 16.0 Ft. Rt.
Install 200 L.F. Guardrail Type 3

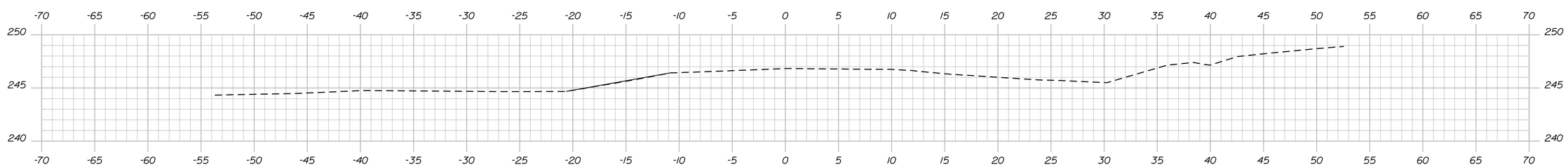


19+50.00

Sta. 19+75, Begin reconstructing shoulder

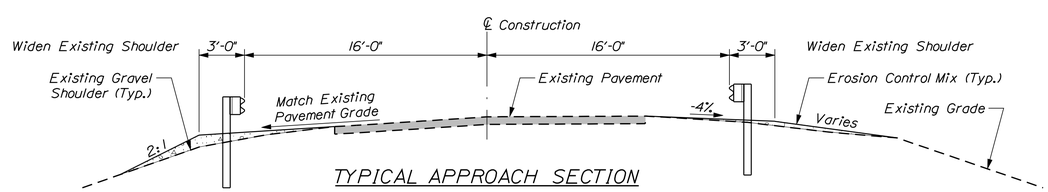


19+00.00



Sta. 18+75, Begin reconstructing shoulder

18+75.00



TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16694.00

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BRIDGE PLANS

BRIDGE NO. 5875

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DESIGN-DETAILED	M. Wight	
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DESIGN3-DETAILED3	-----	-----
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SIGNATURE

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BEAVER BROOK BRIDGE
BEAVER BROOK
CODYVILLE PLT WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER

5

OF 9

Filename: ...\msta\005_XSECT_18+75-20+00.dgn Division: BRIDGE Username: david.show Date:2/3/2010

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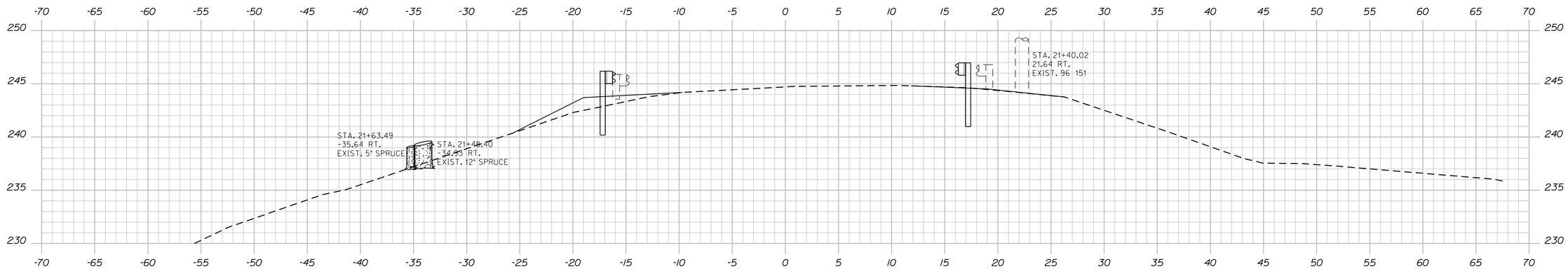
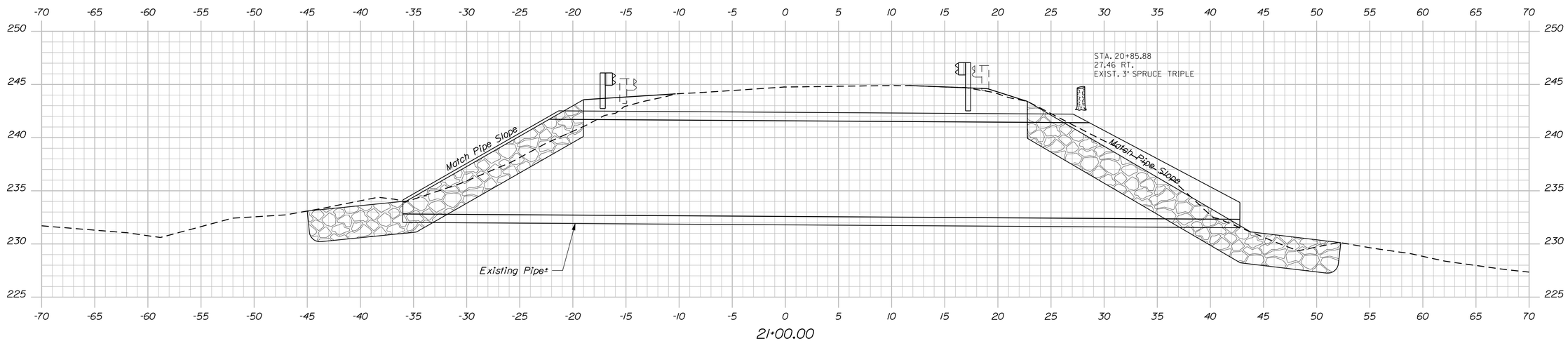
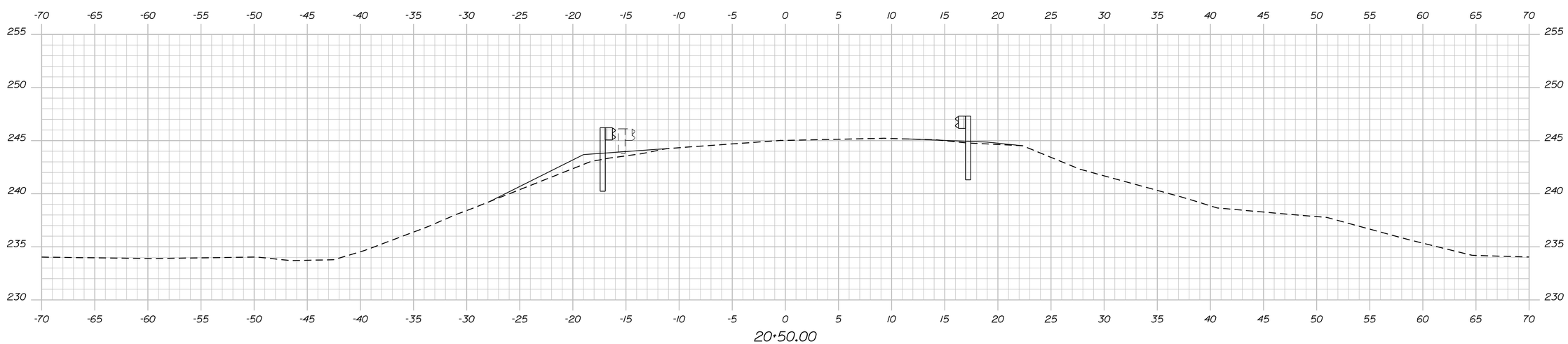




See Transverse Section on Pipe Details Sheet



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BEAVER BROOK BRIDGE
BEAVER BROOK
CODYVILLE PLT WASHINGTON COUNTY

CROSS SECTIONS

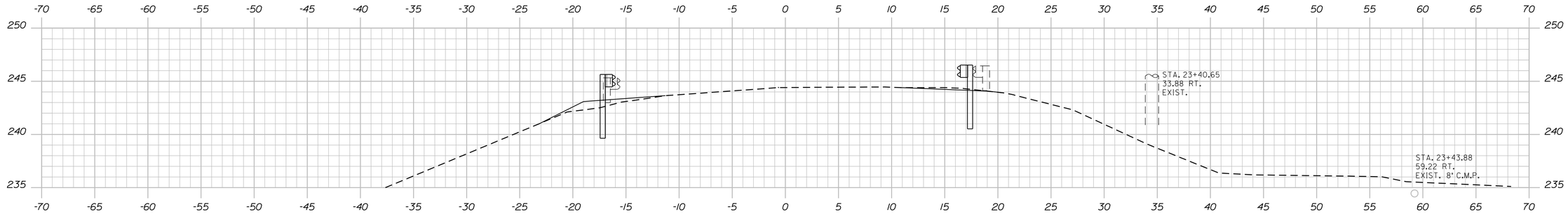
SHEET NUMBER

6

OF 9

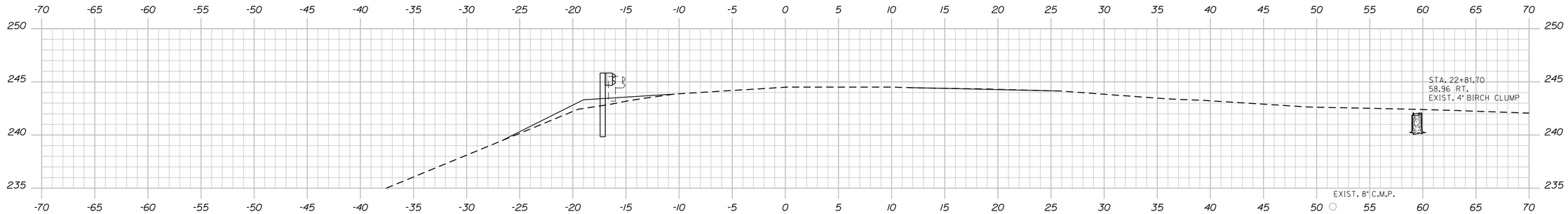
Filename: ...\msta\006_XSECT_20+50-21+50.dgn Division: BRIDGE Username: david.show Date:2/3/2010

Sta. 20+50.00 to Sta. 21+50.00



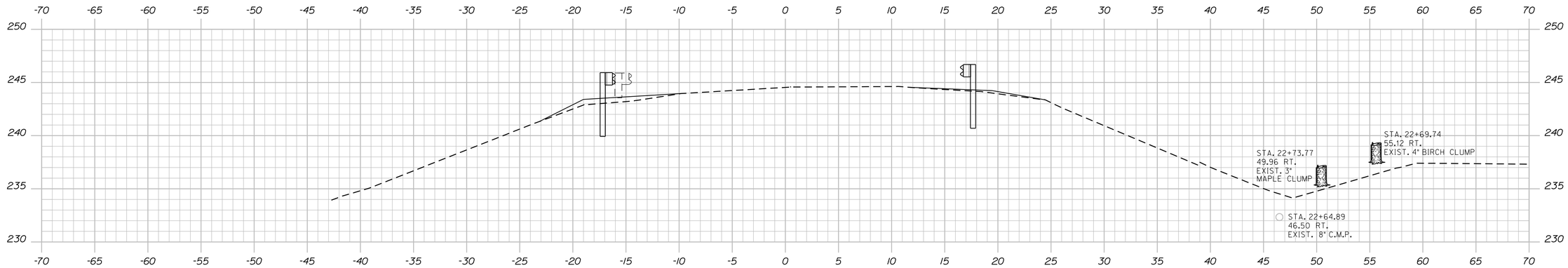
23+50.00

Sta. 23+63.1±, 16.0 Ft. Rt. to Sta. 25+11.5±, 16.0 Ft. Rt.,
Install 150 L.F. Guardrail Type 3

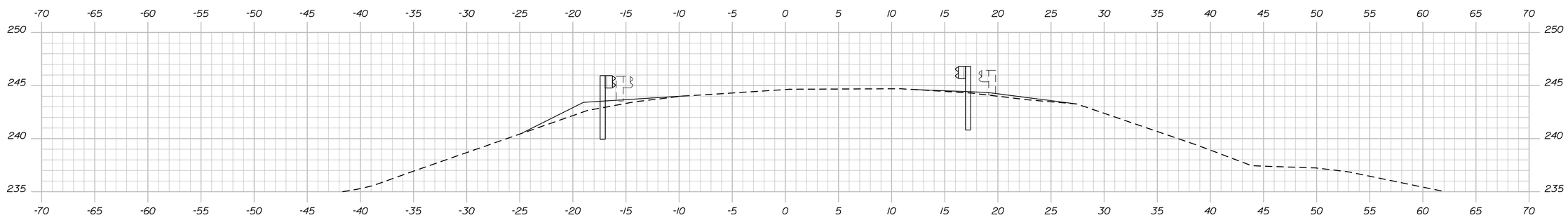


23+00.00

Sta. 23+26.2±, 20 Ft. Rt. to Sta. 23+63.1±, 16.0 Ft. Rt.
Install a Low Volume Guardrail End - Type 3



22+50.00



22+00.00

Sta. 22+32.0±, 16.0 Ft. Rt. to Sta. 22+68.9±, 20.0 Ft. Rt.
Install a Low Volume Guardrail End - Type 3

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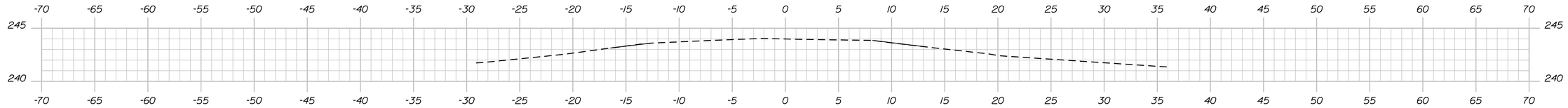
BEAVER BROOK BRIDGE
BEAVER BROOK
CODYVILLE PLT WASHINGTON COUNTY

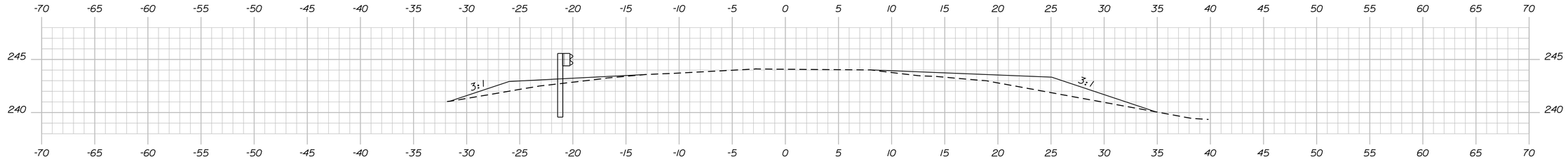
CROSS SECTIONS

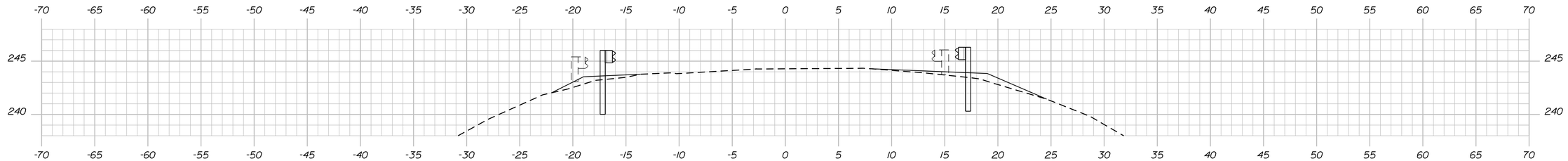
SHEET NUMBER
7
OF 9

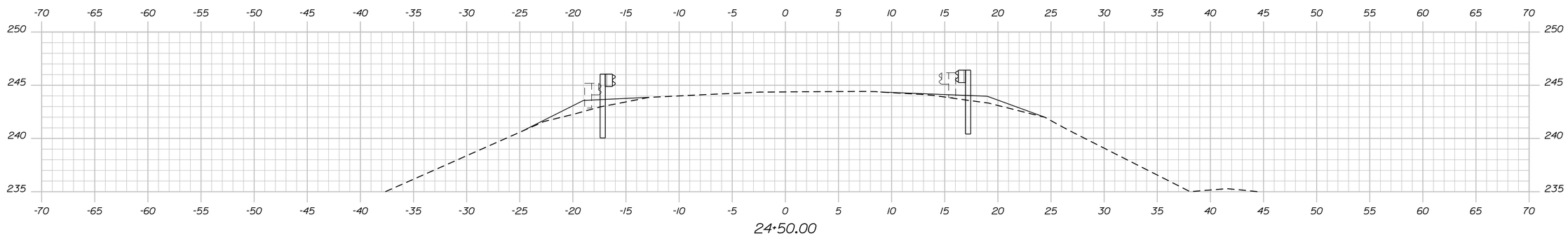
Filename: ...\msta\007_XSECT_22+00-23+50.dgn Division: BRIDGE Username: david.show Date:2/3/2010

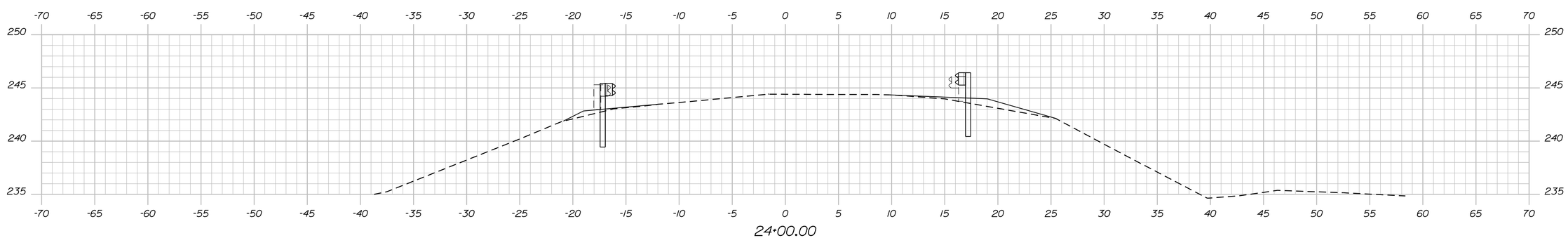
Sta. 22+00.00 to Sta. 23+50.00











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BEAVER BROOK
CODYVILLE PLT WASHINGTON COUNTY

CROSS SECTIONS

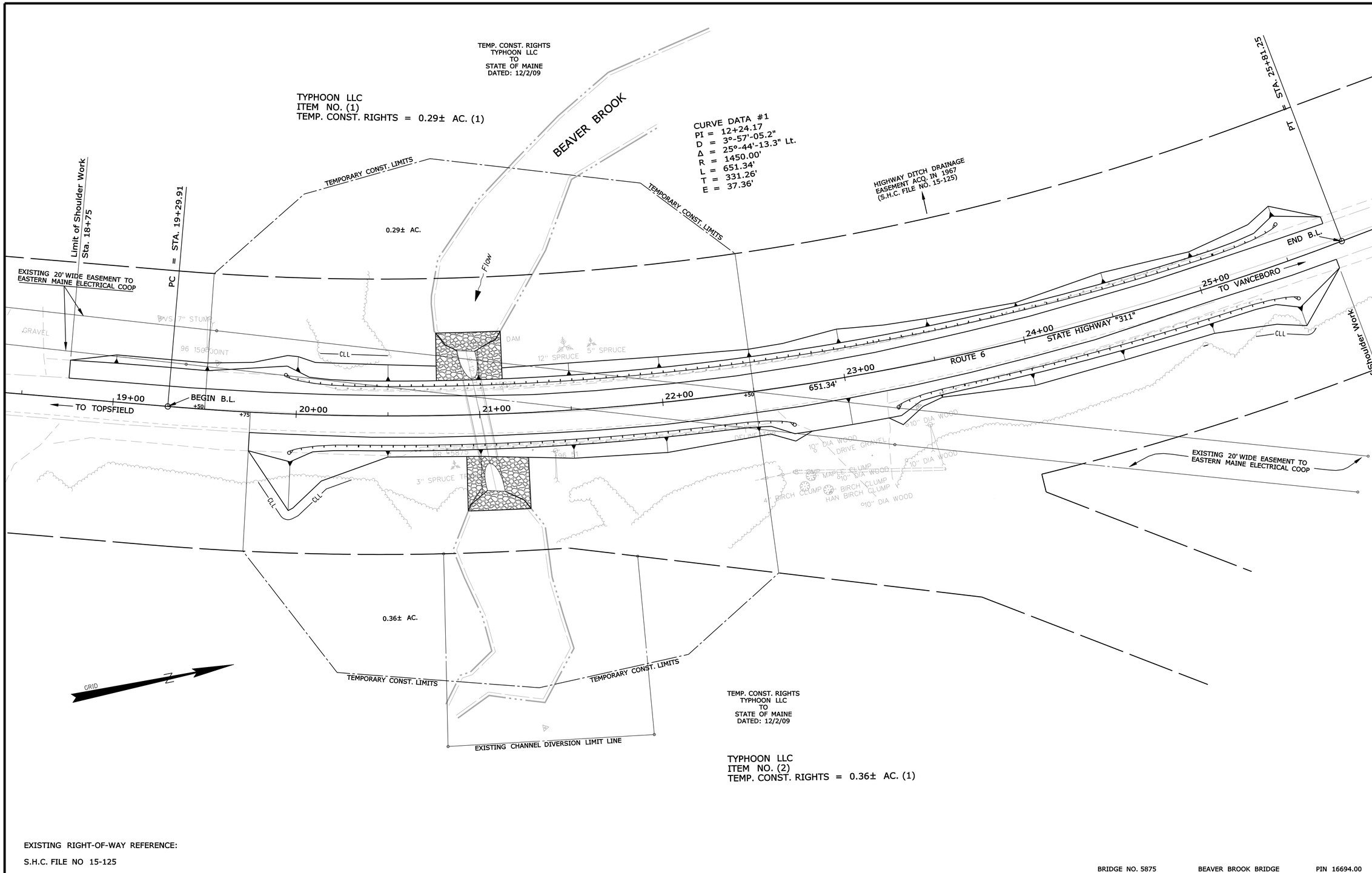
SHEET NUMBER

8

OF 9

Sta. 24+00.00 to Sta. 25+75.00

Filename: ...\msta\008_XSECT_24+00-25+75.dgn Division: BRIDGE Username: david.show Date:2/3/2010



EXISTING RIGHT-OF-WAY REFERENCE:

S.H.C. FILE NO 15-125

BRIDGE NO. 5875 BEAVER BROOK BRIDGE PIN 16694.00

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID A. COLE
COMMISSIONER
KENNETH L. SWEENEY
(ACTING) CHIEF ENGINEER

DATE

STATE HIGHWAY "311"
ROUTE 6
CODYVILLE PLT. WASHINGTON COUNTY
STATE PROJECT NO. 16694.00

OCTOBER 2009 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 15-XXX
SCALE 1" = 25' | SHEET 1 OF 1

SYMBOLS

- IP or IPF (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- BM (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE
- WELL (WELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE PL
- LIMITS OF WROUGHT PORTION (L.O.W.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	PNS	
PROP. LINES	PNS	
AREAS	PNS	DWB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
CODYVILLE PLT.
RIGHT OF WAY MAP

SHEET NUMBER
9
OF 9

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: BRIDGE Username: david.show Date:2/3/2010