

**BENCHMARK DATA**

BM #1: STA. 2+65.10, ELE. = 1043.27, OFFSET 17.07' LT.  
 BM #2: STA. 4+54.57, ELE. = 1043.16, OFFSET 16.81' LT.

**NOTE:**

ALL EXISTING UTILITIES AND GRADES ARE TO REMAIN. ONLY EXISTING SUPERSTRUCTURE, GUARDRAIL, AND ASPHALT APPROACHES (AS INDICATED ON PLAN AND PROFILE) ARE TO BE REMOVED.

**HYDRAULIC DATA:**

DRAINAGE AREA = 2.01 SQ. MI.

HW<sub>10</sub> = EL. 1038.20  
 Q<sub>10</sub> = 580 CFS  
 V<sub>10</sub> = 5.09 FPS  
 HW<sub>100</sub> = EL. 1039.90  
 Q<sub>100</sub> = 1250 CFS  
 V<sub>100</sub> = 7.58 FPS  
 HW<sub>500</sub> = EL. 1040.70  
 Q<sub>500</sub> = 1840 CFS  
 V<sub>500</sub> = 8.75 FPS

STRUCTURE CLEARS 500 YEAR HIGH WATER ELEVATION. DRAINAGE AREA AND FLOW RATES WERE TAKEN FROM FEMA FIS 39135CV000A. MAXIMUM VELOCITY WILL REMAIN UNCHANGED FROM EXISTING CONDITIONS.

**DESIGN TRAFFIC:**

2019 ADT = 600                      2019 ADTT = N/A  
 2033 ADT = 833                      2033 ADTT = N/A

**LEGEND:**

● BORING LOCATION

**EXISTING STRUCTURE**

TYPE: SINGLE SPAN STEEL BEAM BRIDGE WITH NON-COMPOSITE REINFORCED CONCRETE AND ASPHALT DECK

SPAN: 30'-4"± CLEAR SPAN F/F ABUTMENTS

ROADWAY: 17'-3" PAVED  
 21'-0" F/F RAIL

LOADING: HS20

SKEW: 15° L.F. (REAR)  
 13° L.F. (FORWARD)

APPROACH SLABS: NONE

WEARING SURFACE: ASPHALT

ALIGNMENT: TANGENT

CROWN: VARIES

STRUCTURAL FILE NUMBER: 6842445

DATE BUILT: 1962 AND OLDER

DISPOSITION: SUPERSTRUCTURE TO BE REMOVED AND REPLACED

**PROPOSED STRUCTURE**

TYPE: SIMPLE SPAN PRESTRESSED NON-COMPOSITE CONCRETE BOX BEAM DECK ON EXISTING CONCRETE ABUTMENTS

SPAN: 32'-5 1/4" C/C BEARINGS

ROADWAY: 20'-0" F/F RAIL

LOADING: HL93  
 60 PSF FWS

SKEW: 15° L.F. (REAR)  
 15° L.F. (FORWARD)

APPROACH SLABS: NONE

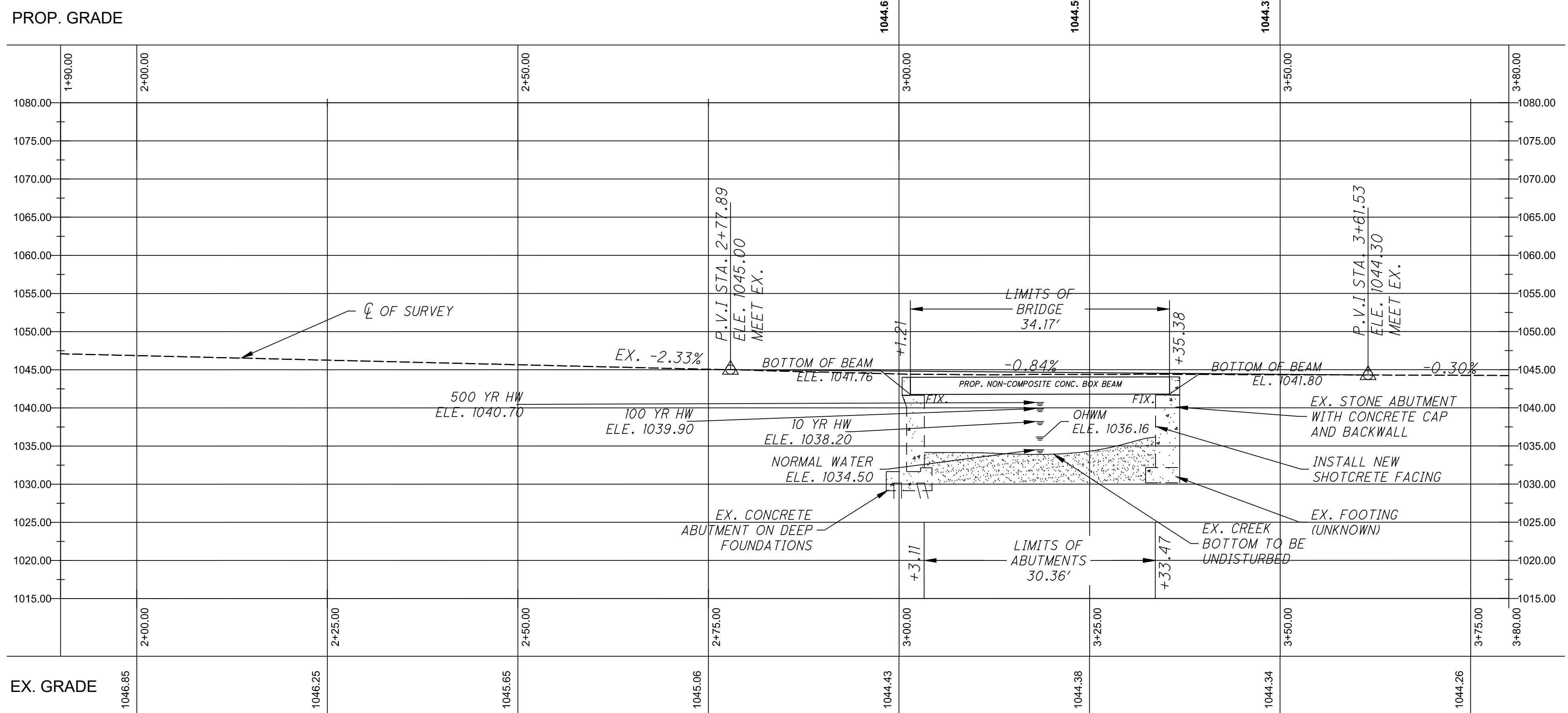
WEARING SURFACE: ASPHALT (3" MIN.)

ALIGNMENT: TANGENT

CROWN: 0.0156 FT/FT

STRUCTURAL FILE NUMBER: 6842446

COORDINATES: LATITUDE    N 39° 51' 36"  
 LONGITUDE                      W 84° 47' 22"



**PROFILE AT  $\epsilon$  OF SURVEY**

04/09/21 10:28am TAB: SITE PLAN 6 NEW PARSE/NEW PARSE, VILLAGE OF SPRING ST. BRIDGE REPLACEMENT - PROPOSED DRAWINGS (07/18/21 SP\_011.DWG)

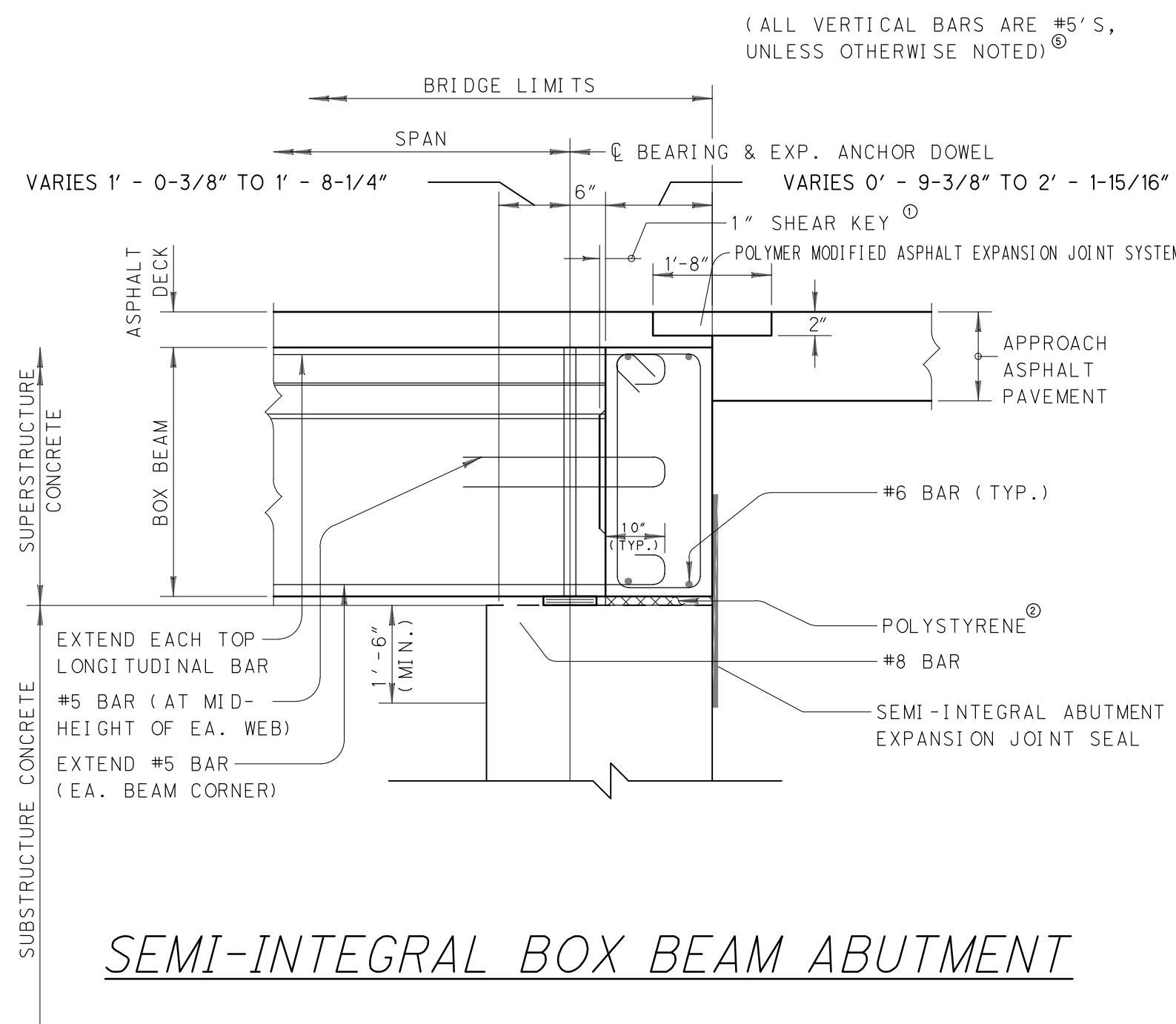


PARTICIPATION		ESTIMATED QUANTITIES					DESIGNED: DAR DATE: 09/21/20	CHECKED: JLM DATE: 09/21/20		
01/BRF/BR		ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	SUPER.	GEN.	A.P.P.
83		202	23500	83	SY	WEARING COURSE REMOVED		83		
80		202	38500	80	FT	BRIDGE RAILING REMOVED			80	
LS		202	11203	LS	-	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LS			2/7
8		407	20000	8	GAL	NON-TRACKING TACK COAT		8		
3		441	50000	3	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22		3		
4		441	50300	4	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)		4		
LS		503	21300	LS	-	UNCLASSIFIED EXCAVATION	LS			
461		509	10000	461	LB	EPOXY COATED REINFORCING STEEL	461			
7		511	21521	7	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN	7			
21		512	10100	21	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		21		
77		512	33010	77	SY	TYPE 3 WATERPROOFING		77		
5		515	10070	5	EACH	PRESTRESSED CONC. NON-COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, (B27-48, 33'-11½")		5		
42		516	14020	42	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	42			
10		516	41100	10	EACH	1/8" PREFORMED BEARING PAD		10		
20		516	43100	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE), (8" x 8" x 1.42")		20		6/7
75		517	70000	75	FT	RAILING (TWIN STEEL TUBE)			75	
68		SPECIAL	51822300	68	FT	STEEL DRIP STRIP		68		5/7
98		520	10000	98	SF	PNEUMATICALLY PLACED CONCRETE SHOTCRETE	98			
12		846	00110	12	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM		12		

DATE	4-8-21
REVIEWED	MJB
STRUCTURE FILE NUMBER	6842446
DRAWN	DAR
REVISION	
DESIGNED	JLM
CHECKED	CMB

ESTIMATED QUANTITIES  
 BRIDGE NO. PRE-SPRING STREET BRIDGE  
 OVER ROCKY FORK CREEK

PRE SPRING ST BRIDGE  
 REPLACEMENT  
 PID NO. 107136



SEMI-INTEGRAL BOX BEAM ABUTMENT

NOTES FOR SEMI-INTEGRAL BOX-BEAM ABUTMENT DETAILS:

1. PROVIDE A 1" DEEP SHEAR KEY CENTERED IN THE BEAM END. THE SHEAR KEY HEIGHT SHALL BE ONE-HALF OF THE BOX BEAM HEIGHT AND THE WIDTH SHALL BE 26" FOR 3'-0" BOXES AND 38" FOR 4'-0" BOXES.

2. WHEN DIMENSIONING THE TOTAL THICKNESS OF THE POLYSTYRENE, DESIGNERS SHOULD CONSIDER THAT THE MATERIAL IS AVAILABLE IN THE FOLLOWING THICKNESS: 3/4", 1", 1-1/2", 2", 2-1/2" AND 3". POLYSTYRENE SHALL BE PAID FOR UNDER ITEM 511 - CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN. INCLUDE THE FOLLOWING NOTE IN THE STRUCTURE GENERAL NOTES: CONCRETE, AS PER PLAN.

ITEM 511 - CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN: FURNISH MATERIALS MEETING THE REQUIREMENTS OF ASTM C578 TYPE IV. NEATLY CUT MATERIAL AS NECESSARY TO ALLOW FOR PROPER INSTALLATION. JOINTS AT ABUTTING PIECES SHALL BE SEALED WITH DUCT TAPE. ALLOWABLE TOLERANCE FOR THE TOTAL THICKNESS OF THE MATERIAL SHALL BE -0", +1/2". DO NOT PLACE MORE THAN TWO LAYERS OF POLYSTYRENE TO ACHIEVE TOTAL THICKNESS.

3. THE ASSUMED ORIENTATION OF THIS CROSS-SECTION IS PERPENDICULAR TO THE CENTERLINE OF ABUTMENT BEARINGS.

4. PLACE ALL VERTICAL BARS NORMAL TO THE CENTERLINE OF ABUTMENT BEARINGS.

EX. CONCRETE BACKWALL TO BE REMOVED (SEE SEMI-INTEGRAL BOX BEAM ABUTMENT DETAILS)

REINFORCED CONCRETE ABUTMENT PER 1962 PLANS

EX. REINFORCED CONCRETE FOOTING ON PILES

EX. REAR ABUTMENT

EX. CONCRETE BACKWALL TO BE REMOVED (SEE SEMI-INTEGRAL BOX BEAM ABUTMENT DETAILS), FIELD VERIFY DIMENSIONS

EX. CONCRETE ABUTMENT CAP

EX. STONE ABUTMENT WITH SHOTCRETE FINISH; EX. SHOTCRETE TO BE REPLACED

EX. FOOTING MATERIAL AND DIMENSIONS UNKNOWN.

EX. FORWARD ABUTMENT

DESIGNED	JLM	CHECKED	CMB
DRAWN	DAR	REVISED	
REVIEWED	MJB	STRUCTURE FILE NUMBER	6842446
DATE	4-7-21		

ABUTMENT DETAILS  
BRIDGE NO. PRE-SPRING STREET BRIDGE  
OVER ROCKY FORK CREEK

PRE SPRING ST BRIDGE  
REPLACEMENT  
PID NO. 107136