

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017 with 2018 Interim Revisions.

TRAFFIC DATA

Current (2019) AADT	6350
Future (2029) AADT	6670
DHV - % of AADT	10%
Design Hour Volume	699
Heavy Trucks (% of AADT)	9%
Heavy Trucks (% of DHV)	5%
Directional Distribution (% of DHV)	58%
18 kip Equivalent P 2.0	318
18 kip Equivalent P 2.5	303
Design Speed (mph)	25

HYDROLOGIC DATA

Drainage Area	1.85 sq mi
Design Discharge (Q50)	237.2 cfs
Check Discharge (Q100)	277.6 cfs
Headwater Elevation (Q1.1)	199.57 ft
Headwater Elevation (Q25)	202.18 ft
Headwater Elevation (Q50)	202.59ft
Headwater Elevation (Q100)	203.07 ft
Discharge Velocity (Q1.1)	4.74fps
Discharge Velocity (Q50)	8.57 fps
Discharge Velocity (Q100)	9.04fps

MATERIALS

Concrete:	
Concrete Jacket Wall	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Concrete	f 'c = 4000 psi
Reinforcing Steel	f y = 60,000 psi

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities and Construction Notes	2
General Plan	3
Profile	4
Culvert Elevation & Reinforcing Steel Schedule	5
Culvert Section	6
Right of Way Map	7

LEWISTON
ANDROSCOGGIN COUNTY
HART BROOK BRIDGE
OVER
HART BROOK
PLEASANT STREET
STATE PROJECT NO. 22322.00
PROJECT LENGTH 0.0331 mi.
BRIDGE NO. 6117

UTILITIES

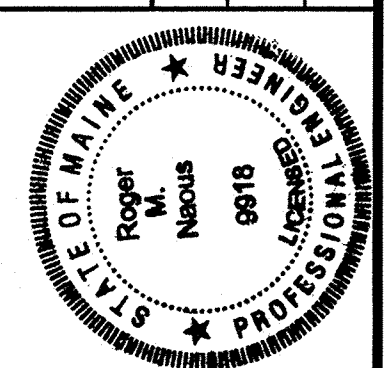
Charter	Oxford Networks
Fairpoint	Central Maine Power
Unitil Gas	Lewiston Water & Sanitation District

MAINTENANCE OF TRAFFIC

Maintain at least two lanes northbound and one lane southbound on Pleasant Street. Temporary closure of a southbound lane will be permitted

PROJECT LOCATION	Hart Brook Bridge no. 6117 carrying Pleasant St. over Hart Brook in Lewiston. Located 0.02 miles south of Alfred A. Plourde Parkway Lat./Long. 44°04'36" N 70°10'48" W
PROGRAM AREA	Highway - Bridge Traditional
OUTLINE OF WORK	Culvert Rehabilitation

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	COMMISSIONER: <i>[Signature]</i> 8-14-17 CHIEF ENGINEER: <i>[Signature]</i> 8-14-17
--	----------	--



<i>[Signature]</i>	SIGNATURE
9918	P.E. NUMBER
AUG 07 2019	DATE

PROJECT INFORMATION	PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
	Bridge	D. Edon	R. Neous				

LEWISTON HART BROOK BRIDGE	TITLE SHEET
-------------------------------	-------------

SHEET NUMBER
1
OF 7

WIN 22322.00

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.21	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	8	CY
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	1,350	LB
503.13	REINFORCING STEEL, PLACING	1,350	LB
505.08	SHEAR CONNECTORS (1,002 EA)	1	LS
511.07	COFFERDAM (UPSTREAM)	1	LS
511.07	COFFERDAM (DOWNSTREAM)	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
606.36	GUARDRAIL REMOVED AND RESET	50	LF
615.07	LOAM	11	CY
618.14	SEEDING METHOD NUMBER 2	7	UN
619.12	MULCH	7	UN
619.14	EROSION CONTROL MIX	11	CY
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR INCLUDING OPERATOR	20	HR
631.133	SKID STEER INCLUDING OPERATOR	20	HR
631.172	TRUCK LARGE INCLUDING OPERATOR	20	HR
639.19	FIELD OFFICE TYPE B	1	EA
652.33	DRUM	30	EA
652.34	CONE	60	EA
652.35	CONSTRUCTION SIGNS	200	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (30 CD)	1	LS
652.38	FLAGGERS	100	HR
652.41	PORTABLE-CHANGABLE MESSAGE SIGN	2	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. For easements, construction limits and right of way lines, refer to Right of Way Map.
2. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
3. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>.
4. 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.
5. 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.
6. All clearing shall be approved by the Resident. Payment for clearing will be considered incidental to Contract items.
7. Payment for equipment, labor, and materials to access the work, as well as to re-establish original ground, will be considered incidental to related Contract items.
8. Any guardrail that needs to be removed and reset for access shall be paid for under Item 606.36. Lengths of guardrail to be removed, and reset shall be determined in the field and approved by the Resident
9. Place loam 2 inches deep on all new or reconstructed side slopes or as directed by the Resident.
10. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specifications Section 619, Mulch. Payment will be made under Item No. 619.14, Erosion Control Mix.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

022322.00

WIN
022322.00

BRIDGE NO. 617
BRIDGE PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

D. EATON
R. NAQUIS
G. GUSTAFSON

BY
J. LEAVITT
MRP

DATE
10/2018
07/2019

SIGNATURE

P.E. NUMBER

DATE

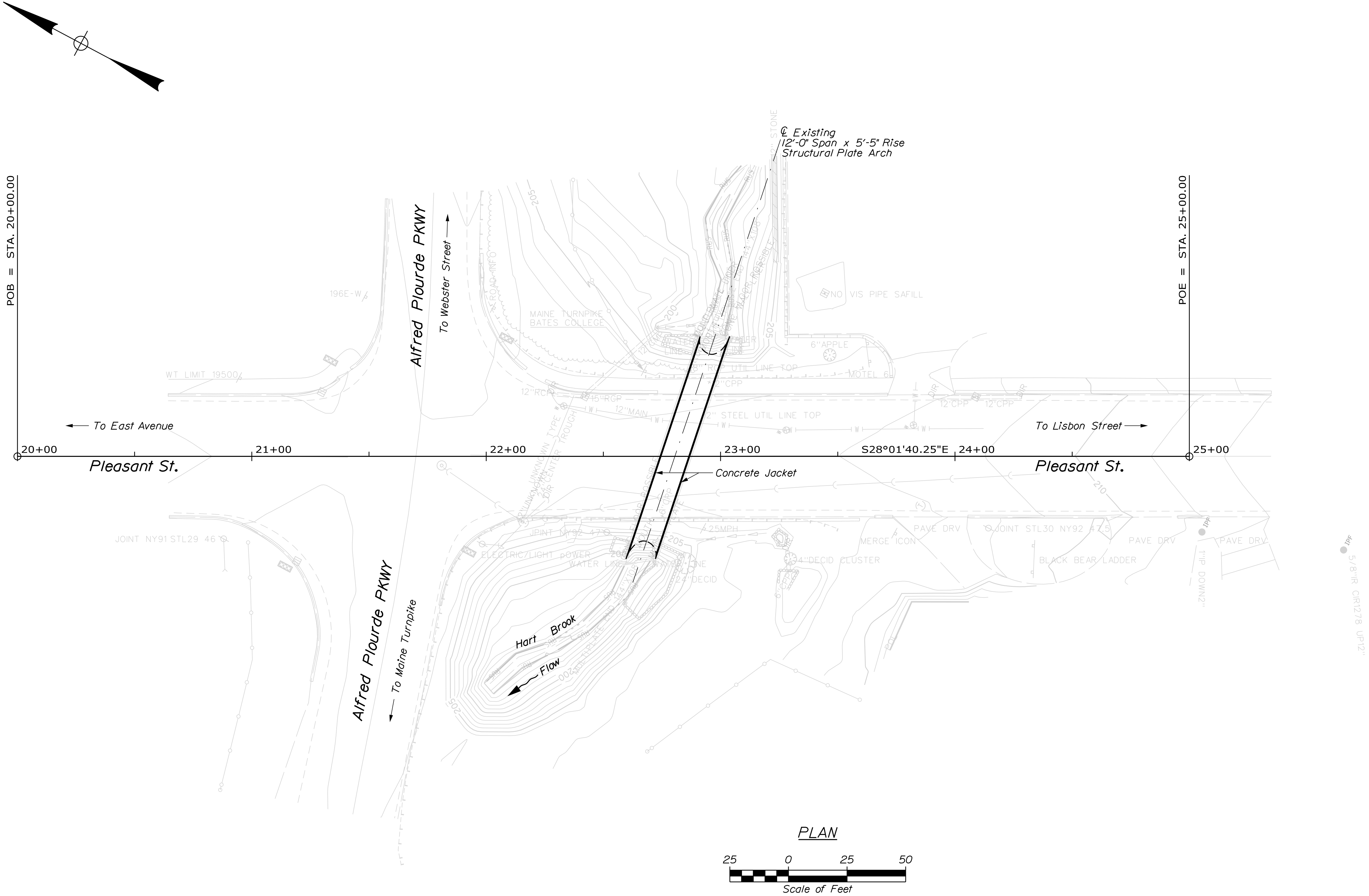
HART BROOK BRIDGE
HART BROOK
LEWISTON ANDROSCOGGIN COUNTY

ESTIMATED QUANTITIES AND
GENERAL CONSTRUCTION NOTES

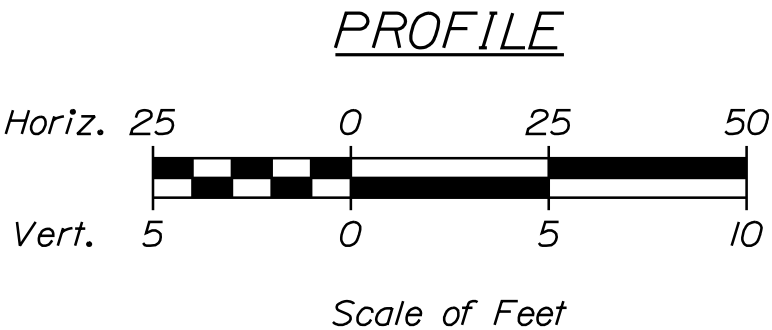
SHEET NUMBER

2

OF 7

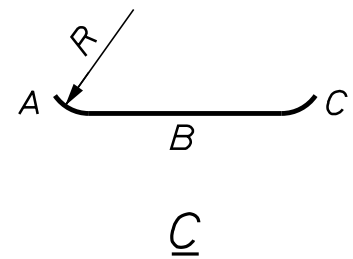


STATE OF MAINE DEPARTMENT OF TRANSPORTATION		HART BROOK BRIDGE HART BROOK LEWISTON ANDROSCOGGIN COUNTY GENERAL PLANS				SHEET NUMBER	
						3	
						OF 7	
22322.00							
WIN 22322.00							
BRIDGE NO. 6117							
BRIDGE PLANS							





TYPE - BENDING DIAGRAMS



All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

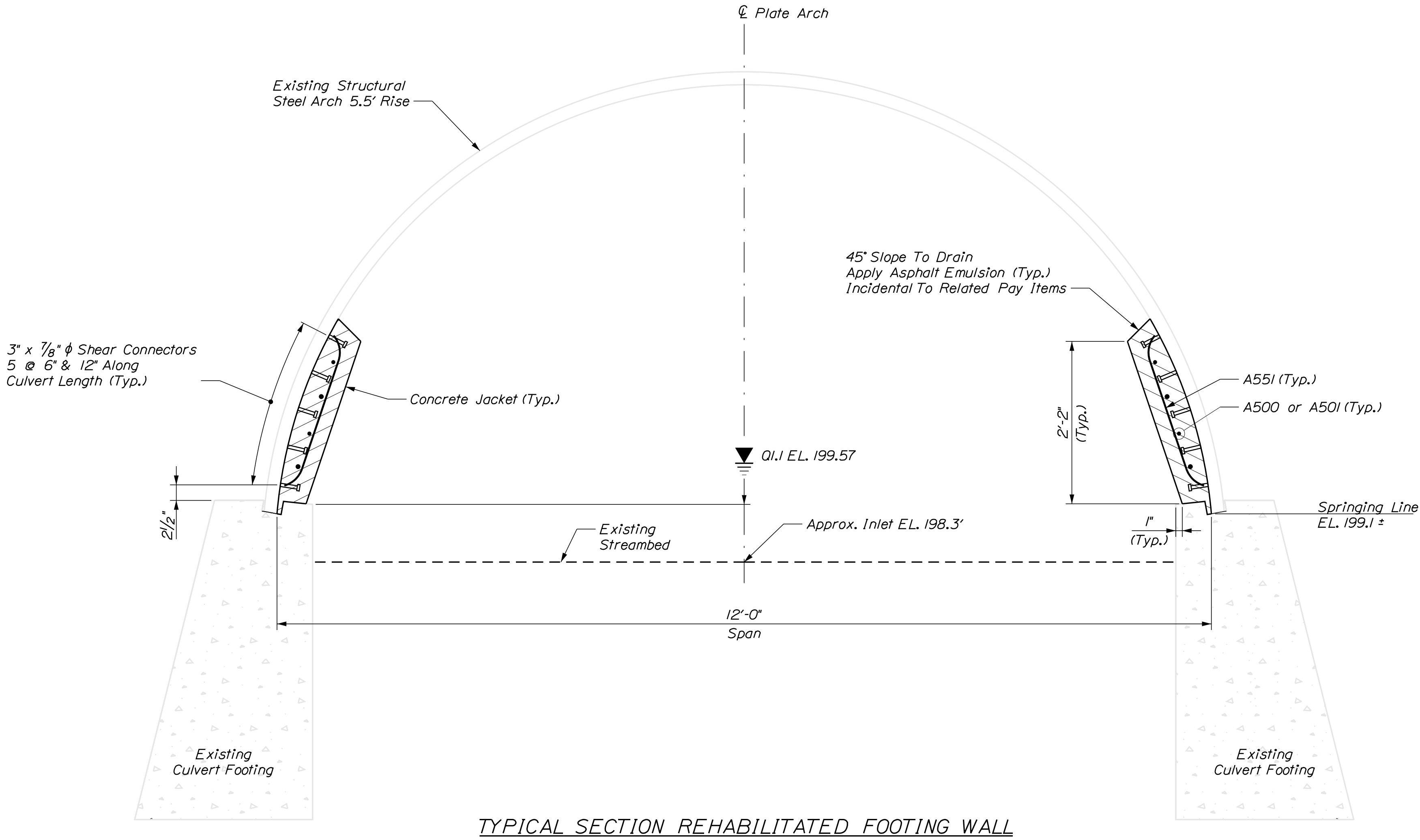
Reinforcing Bar: ASTM A 615/A 615M, Grade 60

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

Mark "A502" = bar size #5
 Mark "P805" = bar size #8
 Mark "S650" = bar size #6

2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case will be based on crank bars as scheduled on the plans.



NOTE:
All Reinforcing And Shear Connectors Shall Have A Minimum
2 Inches Of Cover Unless Otherwise Noted On Plans.

STATE OF MAINE										DEPARTMENT OF TRANSPORTATION									
22322.00										22322.00									
WIN										BRIDGE NO. 6117									
22322.00										BRIDGE PLANS									

HART BROOK BRIDGE										HART BROOK										LEWISTON										ANDROSCOGGIN COUNTY										CULVERT SECTION										SHEET NUMBER									
6										OF 7																																																	

Date:8/1/2019

Username: Mark Poulin

Division: BRIDGE

Filename: ... \00\ROW\MSTA001_RWP\PLAN1.dgn

