

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



NEW SHARON FRANKLIN COUNTY SANDY RIVER BRIDGE OVER SANDY RIVER U.S ROUTE 2 FEDERAL AID PROJECT NO. 2317400 PROJECT LENGTH 0.04 BRIDGE NO. 5724

SPECIFICATIONS

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

TRAFFIC DATA

Current (2020) AADT	8380
Future (2040) AADT	9220
DHV - % of AADT	12
Design Hour Volume	975
Heavy Trucks (% of AADT)	8
Heavy Trucks (% of DHV)	5
Directional Distribution (% of DHV)	53
18 kip Equivalent P 2.0	1332
18 kip Equivalent P 2.5	1269
Design Speed (mph)	40

MATERIALS

Concrete:	
All concrete	Class "LP"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Structural Steel:	
All Material (except as noted)	AASHTO M 270M/M 270 Grade 36
High Strength Bolts	ASTM F3125, Grade 325, Type 3

BASIC DESIGN STRESSES

Concrete	$f'c = 5000$ psi
Reinforcing Steel	$f_y = 60,000$ psi
Structural Steel:	
ASTM A 709, Grade 36	$F_y = 36,000$ psi
ASTM F3125, Grade A325, Type 3	$F_u = 120,000$ psi

LIST OF DRAWINGS

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UTILITIES

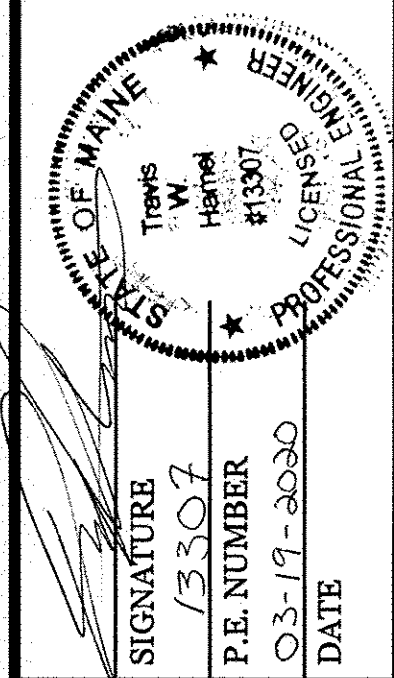
Central Maine Power
Fairpoint
New Sharon Water District
MaineDOT

MAINTENANCE OF TRAFFIC

Maintain one 12'-0" minimum wide lane of alternating two - way traffic using traffic signals.

<u>PROJECT LOCATION</u>	Sandy River Bridge #5724 in New Sharon carrying U.S. Route 2 over the Sandy River, located 0.24 miles west of Rte. 134 (Cape Cod Hill Road) Lat./Long. 44°38'17.61" N 70° 0'53.10" W
<u>PROGRAM AREA</u>	Bridge Program
<u>OUTLINE OF WORK</u>	Wearing surface replacement and Bridge Joint rehabilitation

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED: <i>[Signature]</i>
DATE: 4/10/2020
COMMISSIONER: <i>[Signature]</i>
CHIEF ENGINEER: <i>[Signature]</i>



PROJECT INFORMATION
PROGRAM: Bridge Program
PROJECT MANAGER: Travis Hamill
DESIGNER: C. Libby, Jr.
CONSULTANT: [Blank]
PROJECT RESIDENT: [Blank]
CONTRACTOR: [Blank]
PROJECT COMPLETION DATE: [Blank]

WIN 23174.00
2317400
NEW SHARON SANDY RIVER BRIDGE
TITLE SHEET

SHEET NUMBER
1
OF 5

Date: 3/19/2020
Username: David Shaw
Division: BRIDGE
Filename: \001_Title Sheet.dgn

ESTIMATED QUANTITIES			
ITEM NO.	LOCATION	QUANTITY	UNIT
202.127	Removing Existing Bituminous Pavement (1,700 SY)	1	LS
202.202	Removing Pavement Surfaces	88	SY
203.20	Common Excavation	10	CY
304.10	Aggregate Subbase Course - Gravel	10	CY
403.2081	12.5 MM Polymer Modified HMA	150	T
403.2131	12.5 MM Polymer Modified HMA Base	60	T
409.15	Bituminous Tack Coat, Applied	45	G
508.14	High Performance Waterproofing Membrane	1	LS
515.21	Protective Coating for Concrete Surface	1	LS
520.232	Expansion Device - Asphaltic Plug Joint	66	LF
520.245	Bridge Joint Modification Type 5 - Gland seal	2	EA
520.245	Bridge Joint Modification Type 5 - Slab Over	2	EA
526.301	Temporary Concrete Barrier (500 LF)	1	LS
527.34	Work Zone Crash Cushions	2	UN
627.733	4" White or Yellow Pavement Marking Lines	1500	LF
627.77	Removing Pavement Markings	70	SF
627.78	Temp 4" Paint Pymt Mark Line W or Y	1650	LF
629.05	Hand Labor, Straight Time	10	HR
631.12	All Purpose Excavator (Including Operator)	10	HR
631.172	Truck - Large (Including Operator)	10	HR
639.19	Field Office, Type B	1	EA
643.72	Temporary Traffic Signal	1	LS
652.312	Type III Barricades	2	EA
652.33	Drum	25	EA
652.34	Cone	25	EA
652.35	Construction Signs	400	SF
652.361	Maintenance of Traffic Control Devices	1	LS
652.38	Flaggers	100	HR
652.41	Portable Changeable Message Sign	2	EA
656.75	Temporary Soil Erosion & Water Pollution Control	1	LS
659.10	Mobilization	1	LS

GENERAL CONSTRUCTION NOTES:

1. The existing bridge plans may be accessed at the following MaineDOT web address:

<http://www.maine.gov/mainedot/contractors/>

2. The plans are reproductions of the original drawings as prepared for construction of the bridge. It is very unlikely that the plans will show any construction field change or any alterations which may have been made to the bridge during its life span.

3. The Contractor is fully responsible for field verifying all dimensions. Dimensions provided herein are based on available plans and may not reflect field changes or alterations made to the bridges.

4. 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, Eliminate 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 Adjustment to Compensation.

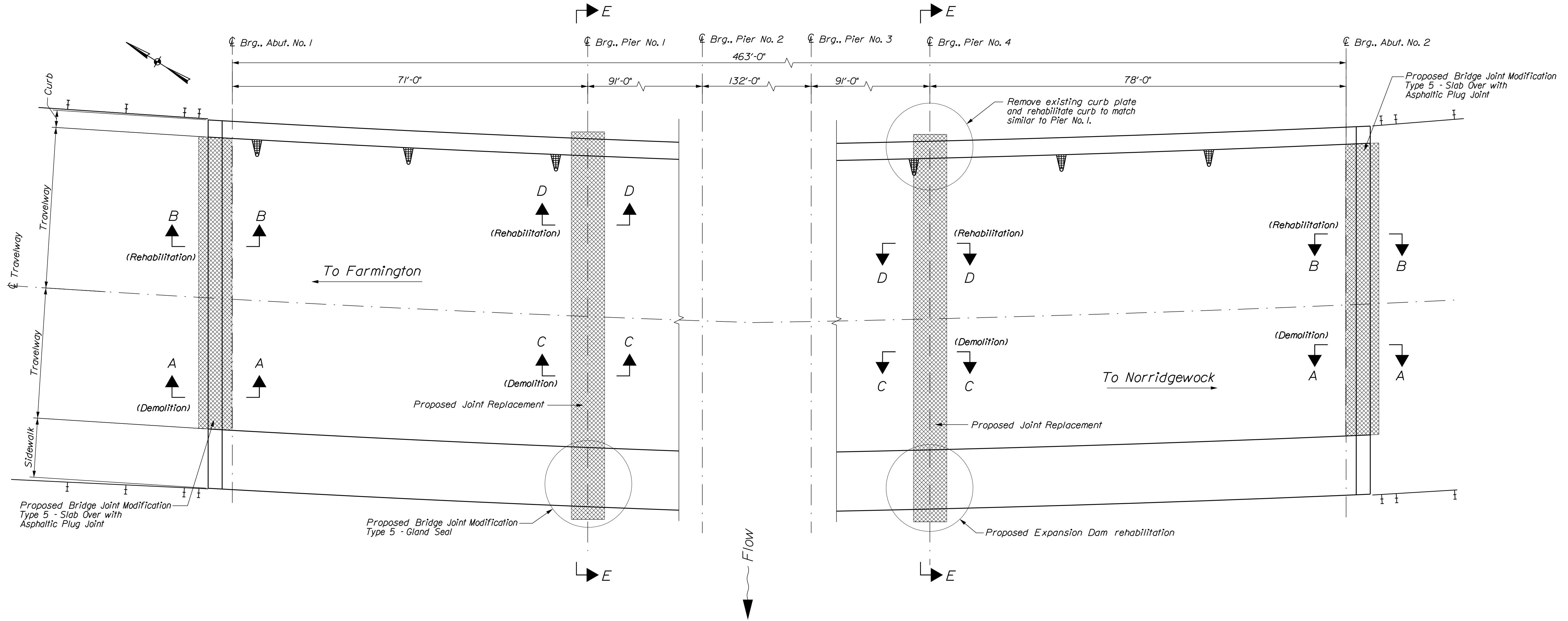
5. The Contractor shall cover all bridge drains during construction to prevent debris from falling into the river below. This work will not be paid for directly, but will be considered incidental to related Contract Items.

6. The Contractor shall place pavement markings along the centerline and edge of travel way of the bridge and approaches that were milled and filled. The pavement markings shall match the existing pavement markings in width, color and location.

7. Steel portions of the existing bridge may be coated with a lead based paint system. The Contractor is responsible for the containment, proper management, and disposal of all lead-contaminated hazardous waste generated by their work. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. Payment for this work will not be made separately, but will be considered incidental to related Contract Items.

8. For drilling and anchoring rods and reinforcing bars, the anchoring material shall be chosen from the Departments Qualified Products List. Installation shall be in accordance with the manufacturer's published recommendations. Drilling and anchoring rods and reinforcing bars will be incidental to related Contract Items.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 5724		WIN 23174.00		BRIDGE PLANS	
SANDY RIVER BRIDGE		OVER SANDY RIVER		NEW SHARON		FRANKLIN		ESTIMATED QUANTITIES and GENERAL NOTES	
PROJ. MANAGER	T. Homl	BY	G. Libby	DATE	JAN 2020	SIGNATURE	P.E. NUMBER	DATE	
DESIGN-DETAILED	G. Libby	CHECKED-REVIEWED	T. Homl	DESIGNS-DETAILED		REVISIONS 1		REVISIONS 2	
				REVISIONS 3		REVISIONS 4		FIELD CHANGES	
SHEET NUMBER					2				
OF 5									



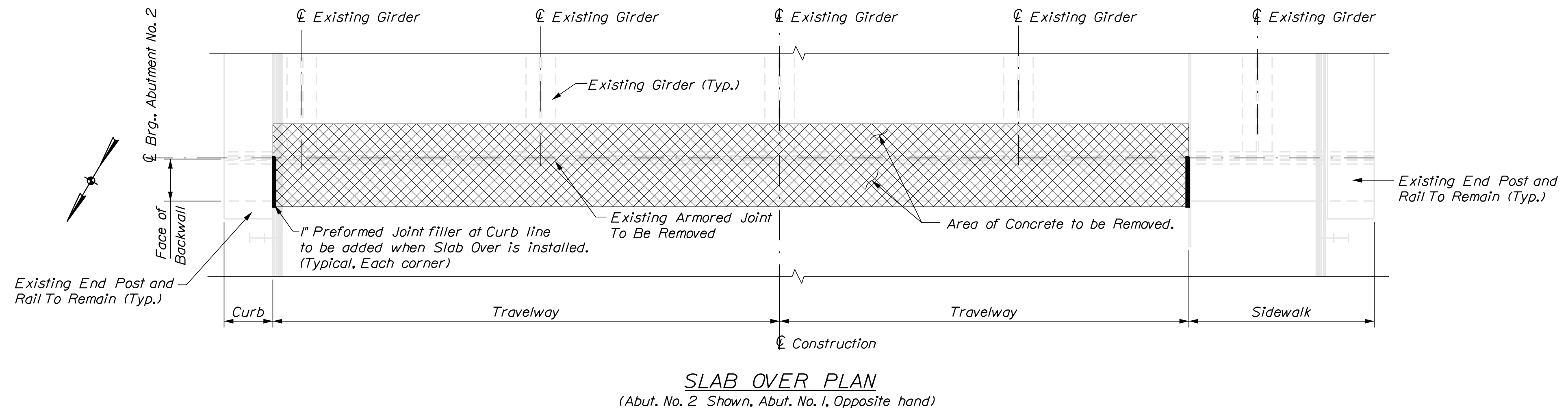
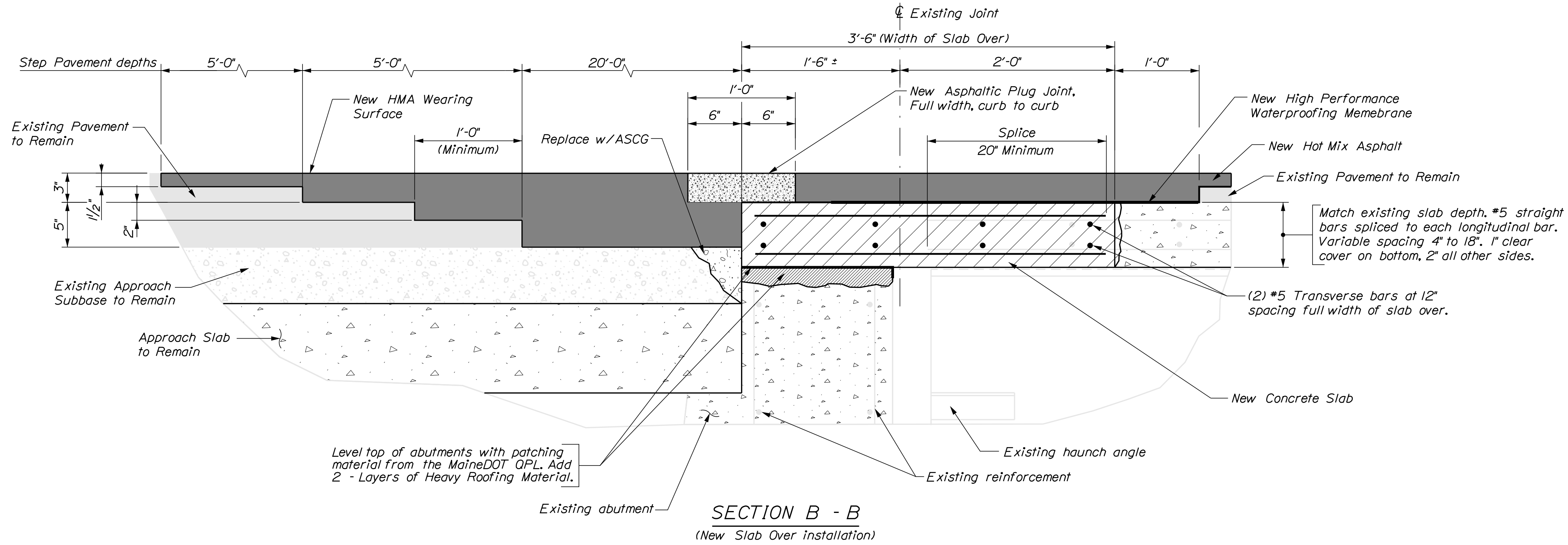
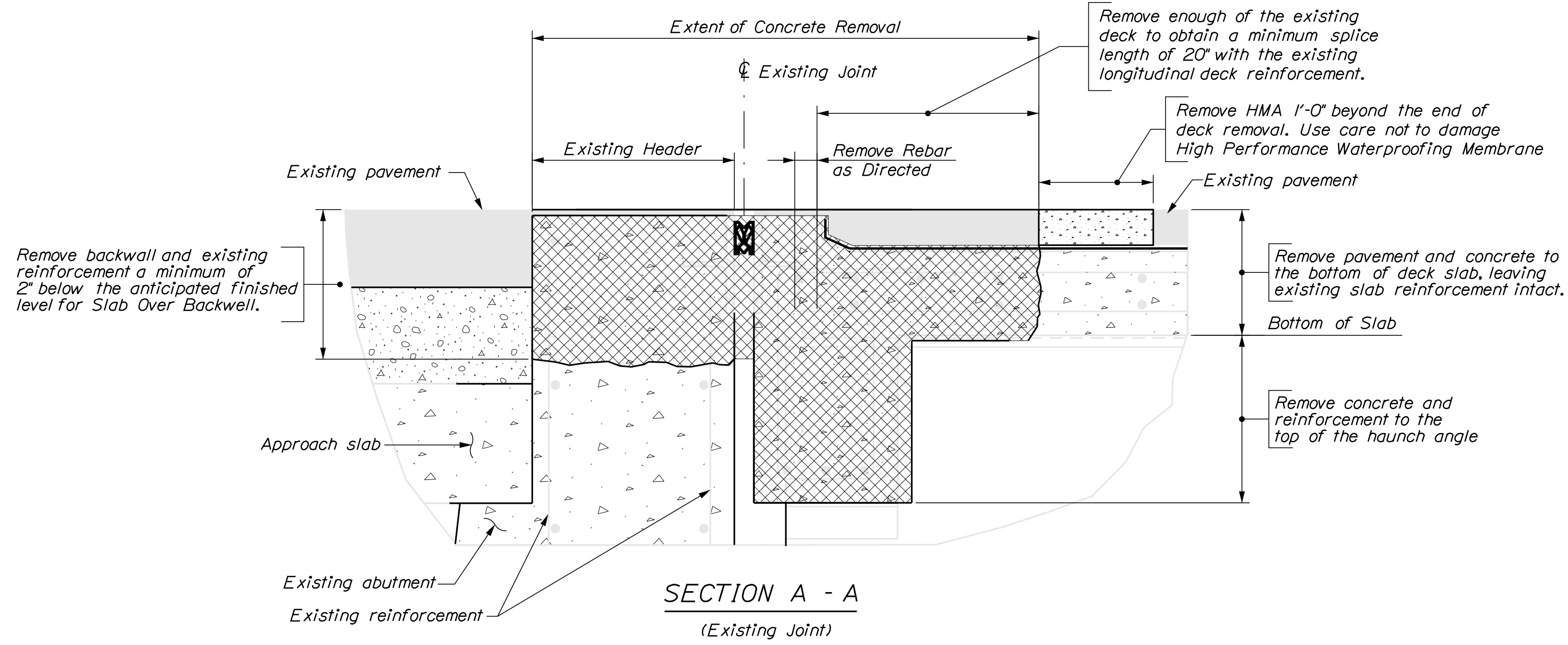
PLAN VIEW with PROPOSED WORK AREAS

JOINT MODIFICATION NOTES

1. The existing concrete shall be removed so as not to damage existing vertical and horizontal steel in the headers or the longitudinal and transverse reinforcing steel in the superstructure. Any damaged reinforcing steel shall be replaced at the Contractor's expense.
2. Existing reinforcing steel to remain shall be cleaned as directed by the Resident prior to placing new concrete.
3. Reinforcing steel shall have a minimum 2" of cover unless otherwise noted.
4. Protective coating for concrete surfaces shall be applied to all exposed surfaces of new concrete.
5. All reinforcing steel and mechanical splices shall be considered incidental to related Contract Items.
6. Concrete joint headers shall be finished so that the approach side of the header is at the same level or 1/8" higher than the departure side. Under no circumstances shall the departing side be higher than the approach side.

PROJ. MANAGER	T. Homl	BY	DATE
DESIGN DETAILED	G. Libby	G. Libby	JAN 2020
CHECKED/REVIEWED	T. Homl	T. Homl	
DESIGN DETAILED			
REVISIONS			
REVISIONS			
REVISIONS			
REVISIONS			
FIELD CHANGES			

SANDY RIVER BRIDGE
OVER SANDY RIVER
NEW SHARON
FRANKLIN
PROPOSED WORK AREAS &
REHABILITATION PLANS



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2317400
BRIDGE NO. 5724
WIN 23174.00
BRIDGE PLANS

PROJ. MANAGER	T. Homl	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN DETAILED	G. Libby	G. Libby	JAN 2020			
CHECKED/REVIEWED	T. Homl	T. Homl				
DESIGN DETAILED						
REVISIONS						
REVISIONS						
REVISIONS						
REVISIONS						
FIELD CHANGES						

SANDY RIVER BRIDGE
OVER SANDY RIVER
NEW SHARON
FRANKLIN
SLAB OVER JOINT
MODIFICATION DETAILS

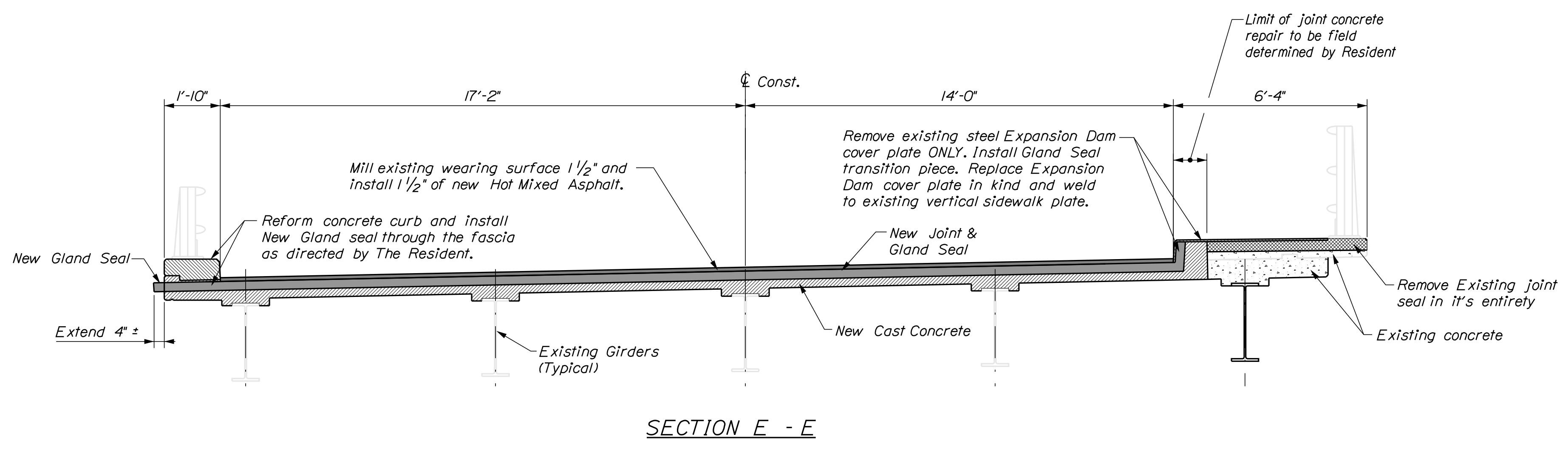
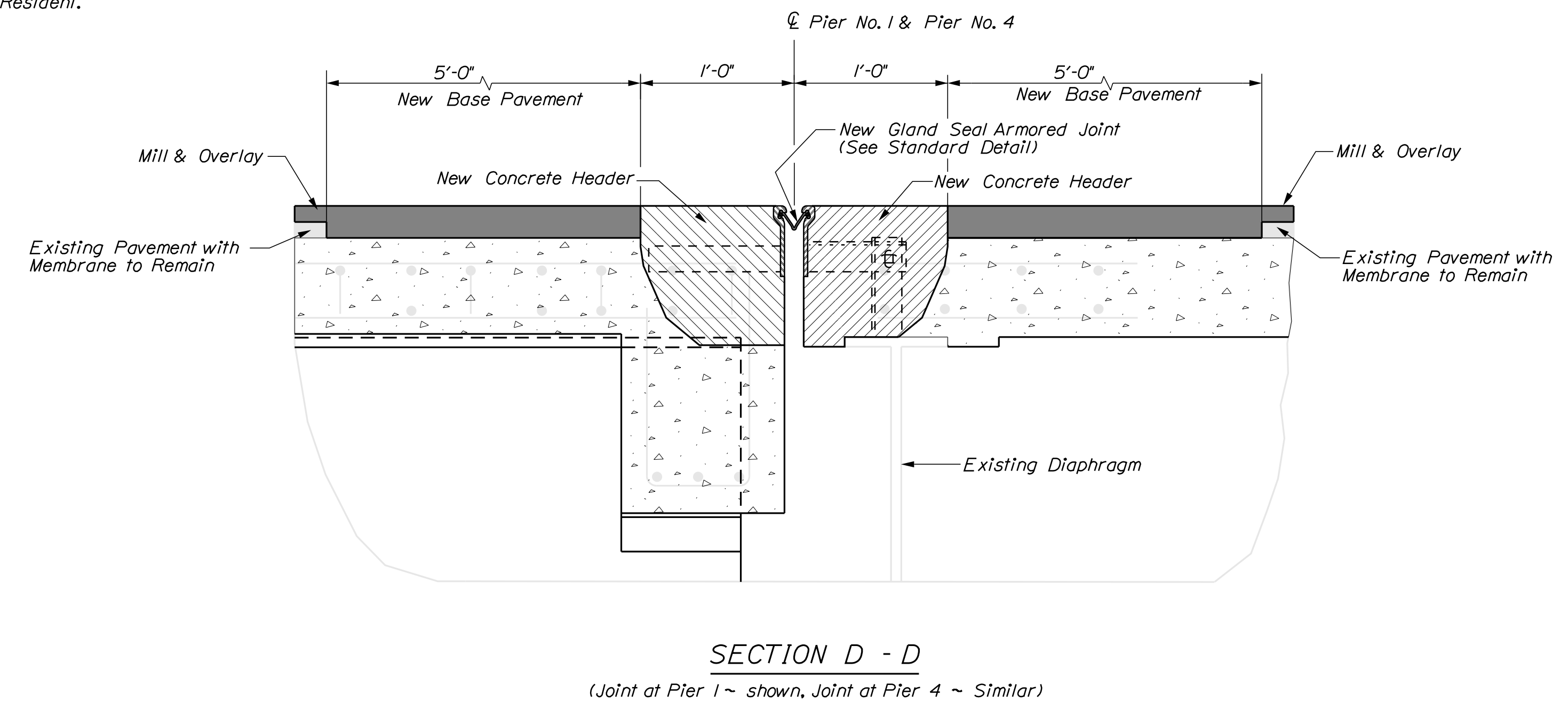
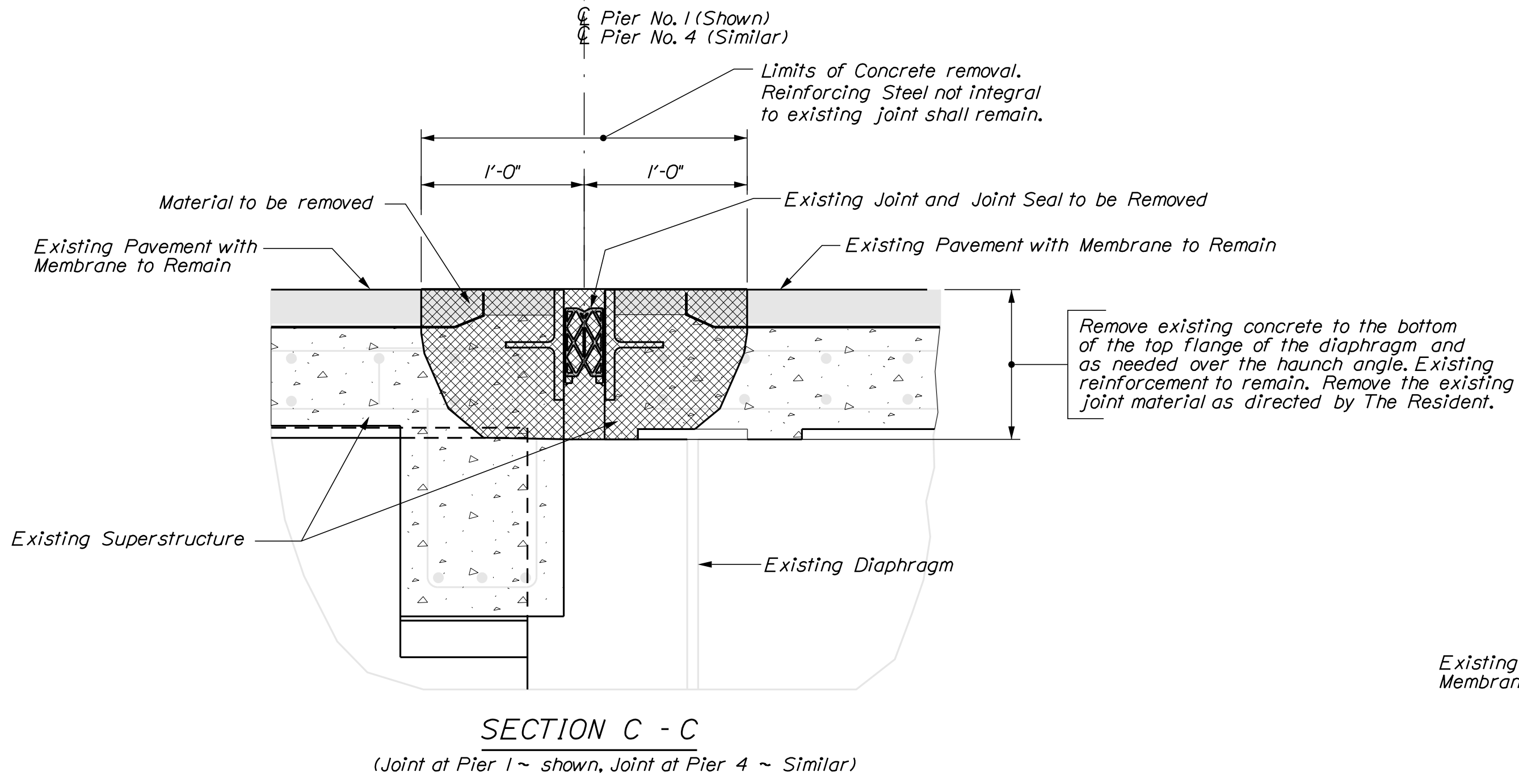
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OF 5

Date: 3/26/2020

Username: Richard.Mayer

Division: BRIDGE

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2317400
BRIDGE NO. 5724 WIN 23174.00
BRIDGE PLANS

PROJ. MANAGER	T. Homl	BY	DATE
DESIGN DETAILED	G. Libby	G. Libby	JAN 2020
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DESIGN DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SANDY RIVER BRIDGE
OVER SANDY RIVER
NEW SHARON
FRANKLIN
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MODIFICATION DETAILS

SHEET NUMBER
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