

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



TRAFFIC DATA (WIN 021743.00 - PITTSFIELD #5983)

Current (2018) AADT	200
Future (2038) AADT	240
DHV - % of AADT	10
Design Hour Volume	24
Heavy Trucks (% of AADT)	8
Heavy Trucks (% of DHV)	7
Directional Distribution (% of DHV)	60
18 kip Equivalent P 2.0	8
18 kip Equivalent P 2.5	8
Design Speed (mph)	45

TRAFFIC DATA (WIN 021743.00 - ETNA #5961)

Current (2018) AADT	460
Future (2038) AADT	550
DHV - % of AADT	14
Design Hour Volume	77
Heavy Trucks (% of AADT)	7
Heavy Trucks (% of DHV)	7
Directional Distribution (% of DHV)	60
18 kip Equivalent P 2.0	9
18 kip Equivalent P 2.5	8
Design Speed (mph)	45

TRAFFIC DATA (WIN 021674.00 - BANGOR #2771)

Current (2019) AADT	8870
Future (2039) AADT	9760
DHV - % of AADT	10
Design Hour Volume	976
Heavy Trucks (% of AADT)	5
Heavy Trucks (% of DHV)	4
Directional Distribution (% of DHV)	80
18 kip Equivalent P 2.0	224
18 kip Equivalent P 2.5	213
Design Speed (mph)	45

MATERIALS

Concrete:	
All Other	Class "A"
Structural Wearing Surface	Class "LP"
Curbs & Transition Barriers	Class "LP"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Concrete	f 'c = 4000 psi (repairs) & 5000 psi
Reinforcing Steel	f y = 60,000 psi

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities & Construction Notes	2
PITTSFIELD & ETNA WIN 021743.00	
Superstructure Plans Pittsfield	3
Superstructure Plans Etna	4
Superstructure Sections & Details	5
BANGOR WIN 021674.00	
Superstructure Plan, Section & Detail	6

PITTSFIELD & ETNA I-95 NO. 5983 & NO. 5961 OVER I-95 021743.00 PROJECT LENGTH 0.12 mi. (each) BRIDGE NO. 5983 & NO. 5961 BANGOR SIX MILE FALLS BRIDGE OVER KENDUSKEAG STREAM 2167400 PROJECT LENGTH 0.038 mi. BRIDGE NO. 2771

UTILITIES (WIN 021743.00)

Fairpoint Communications (Pittsfield only)

MAINTENANCE OF TRAFFIC (WIN 021743.00)

Close both bridges and detour around.

UTILITIES (WIN 021674.00)

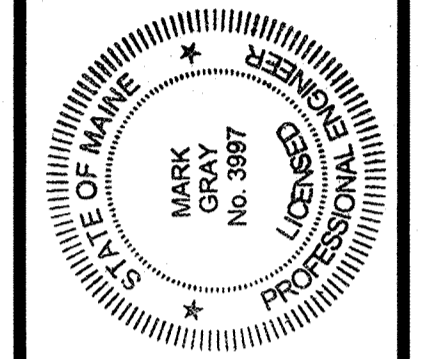
USGS gage
AT&T (Underground)
(Overhead utilities are present but should not impact the work)

MAINTENANCE OF TRAFFIC (WIN 021674.00)

Maintain alternating one-way traffic with flaggers
for staged construction.

<u>PROJECT LOCATION</u>	Snakeroot Road / I95 bridge #5983 in Pittsfield and West Etna Road / I95 bridge #5961 in Etna. Pittsfield #5983 - Lat./Long. 44°44'10.2" N 69°25'56.7" W Etna #5961 - Lat./Long. 44°47'16.5" N 69°9'52.9" W	Six Mile Falls Bridge (#2771) over Kenduskeag Stream. Located 0.1 mile, northwesterly of Route 221. Lat./Long. 44°51'41.9" N 68°49'52.3" W
<u>PROGRAM AREA</u>	Highway Bridges - Traditional	Highway Bridges-Traditional
<u>OUTLINE OF WORK</u>	Bridge Wearing Surface Replacement, deck & curb repair, Approach pavement & backwall repair	Repair of concrete fascia corners & curb - repair cracks in existing concrete wearing surface. Apply protective coating to existing wearing surface & curb tops - pave both approaches.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>	3/2/18
CHIEF ENGINEER: <i>[Signature]</i>	3-2-18



<i>[Signature]</i>
SIGNATURE
ME 3987
P.E. NUMBER
2-28-2018
DATE

PROJECT INFORMATION	
PROGRAM	Bridge Program
PROJECT MANAGER	M. Wight
DESIGNER	M. Gray
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

21743.00 & 2167400 WIN 21743.00 & 21674.00
 PITTSFIELD, ETNA & BANGOR
 NO. 5983, NO. 5961 & NO. 2771
TITLE SHEET

SHEET NUMBER
1
OF 6

Filename: \\00\BRIDGE\WSTA\001_Title.dgn Division: BRIDGE User: armond.j.paradis Date: 2/28/2018

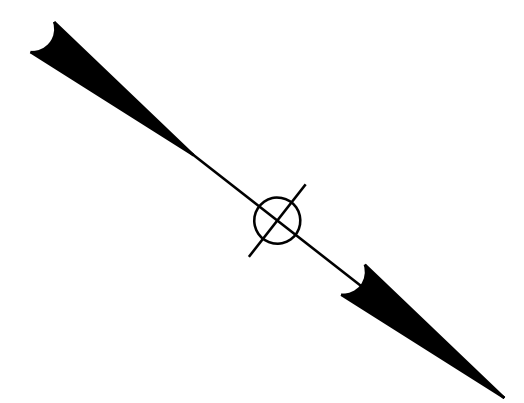
ESTIMATED QUANTITIES							
ITEM NO.	DESCRIPTION	WIN 21743.00			WIN 21674.00		UNIT
		PITTSFIELD QUANTITY	ETNA QUANTITY	TOTAL	BANGOR QUANTITY	TOTAL ALL	
202.202	REMOVING PAVEMENT SURFACE	1529	1084	2613	87	2700	SY
203.20	COMMON EXCAVATION	101	54	155	116	271	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	101	54	155	116	271	CY
403.2081	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT				30	30	T
403.21	HOT MIX ASPHALT 9.5 MM	187	20	207		207	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	28	28	56	38	94	T
409.15	BITUMINOUS TACK COAT - APPLIED	98	8	106	17	123	G
502.29	STRUCTURAL CONCRETE WEARING SURFACE ON BRIDGE			89	89	1	LS
502.701	BRIDGE DRAIN GRATE MODIFICATION		28	28		28	EA
503.12	REINFORCING STEEL, FABRICATED/DELIVERED	50	50	100	200	300	LB
503.13	REINFORCING STEEL, PLACING	75	75	150	300	450	LB
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	1502		1502		1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	0.33	0.33	0.66	0.34	1	EA
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES	10	1110	1120	500	1	LS
518.391	REPAIR GRANITE CURB JOINT AND BED MORTAR	400	300	700		700	LF
518.50	REPAIR OF UPWARD FACING SURFACE - TO RE STEEL	350	250	600	50	650	SF
518.51	REPAIR OF UPWARD FACING SURFACE - BELOW RE STEEL	350	250	600	50	650	SF
518.60	REPAIR OF VERTICAL SURFACES <8"				30	30	SF
518.61	REPAIR OF VERTICAL SURFACES >8"				2	2	CY
518.84	CONCRETE CRACK REPAIR				1400	1400	LF
520.241	BRIDGE JOINT MODIFICATION, TYPE 1		2	2		2	EA
520.243	BRIDGE JOINT MODIFICATION, TYPE 3	2	2	4		4	EA
526.301	TEMPORARY CONCRETE BARRIER, TYPE 1	60	40	120		1	LS
619.14	EROSION CONTROL MIX	3	3	6	3	9	CY
627.51	6" TEMPORARY PAVEMENT TAPE, YELLOW OR WHITE				400	400	LF
627.57	12" REMOVABLE BLACK LINE MASKING TAPE				1000	1000	LF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE				620	620	LF
629.05	HAND LABOR, STRAIGHT TIME	10	10	20	10	30	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	10	10	20	10	30	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	10	10	20	10	30	HR
631.112	WELDING MACHINE (INCLUDING OPERATOR)	10	10	20		20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	10	20	10	30	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	10	20	10	30	HR
631.21	ROAD BROOM (INCLUDING OPERATOR & HAULER)	10	10	20	10	30	HR
639.20	FIELD OFFICE TYPE C	0.33	0.33	0.66	0.34	1	EA
652.312	TYPE III BARRICADE	4	4	8	4	12	EA
652.33	DRUM	10	10	20	20	40	EA
652.34	CONE	20	20	40	20	60	EA
652.35	CONSTRUCTION SIGNS	400	400	800	600	1400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	0.33	0.33	0.66	0.34	1	LS
652.38	FLAGGER	50	50	100	720	820	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN				2	2	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	0.33	0.33	0.66	0.34	1	LS
659.10	MOBILIZATION	0.4	0.4	0.8	0.2	1	LS

GENERAL CONSTRUCTION NOTES

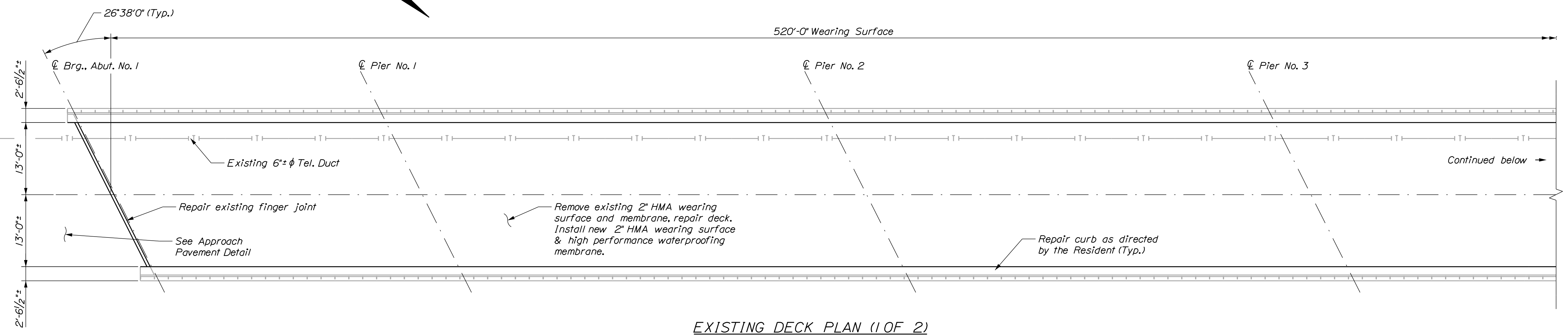
- During construction, the road will be closed to traffic for a time period specified in the Special Provisions.
- Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
- In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.
- Protective Coating for Concrete Surfaces shall be applied to the following areas:

All horizontal surfaces of concrete curbs, and concrete wearing surfaces.
All exposed surfaces of Concrete Transition Barriers.
Concrete wearing surfaces.
- Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>.
- 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.
- The bridge deck evaluation report of the existing bridge may be accessed at the MaineDOT web address. The report contains visual inspection information and deck core data of the bridge. There is no assurance that the information or data is a true representation of the conditions of the entire deck.
- 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:
 - If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.
 - If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.
 - 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.

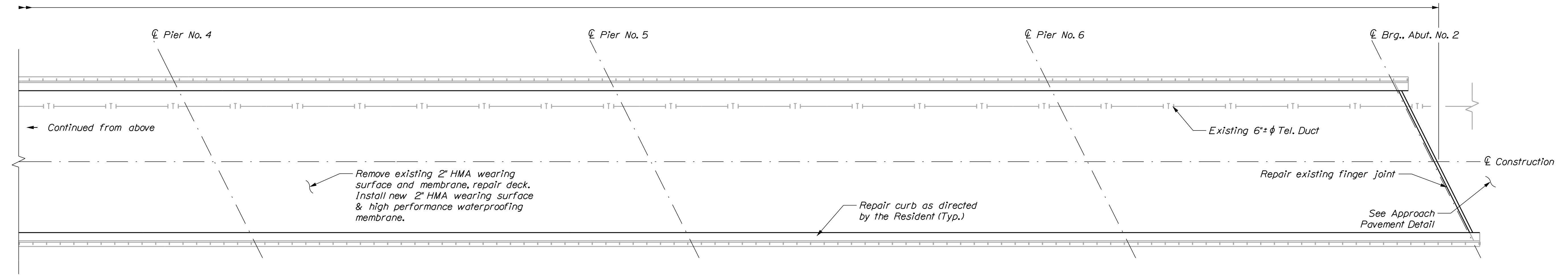
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 21743.00 & 21674.00 WIN BRIDGE NO. 5983, NO. 5961 & NO. 2771 21743.00 & 21674.00 BRIDGE PLANS
NO. 5983, NO. 5961 & NO. 2771 I-95 & KENDUSKEAG STREAM PITTSFIELD, ETNA & BANGOR SOMERSET, PENOBSCOT ESTIMATED QUANTITIES & CONSTRUCTION NOTES
SHEET NUMBER <div style="font-size: 2em; font-weight: bold; margin: 10px 0;">2</div> OF 6



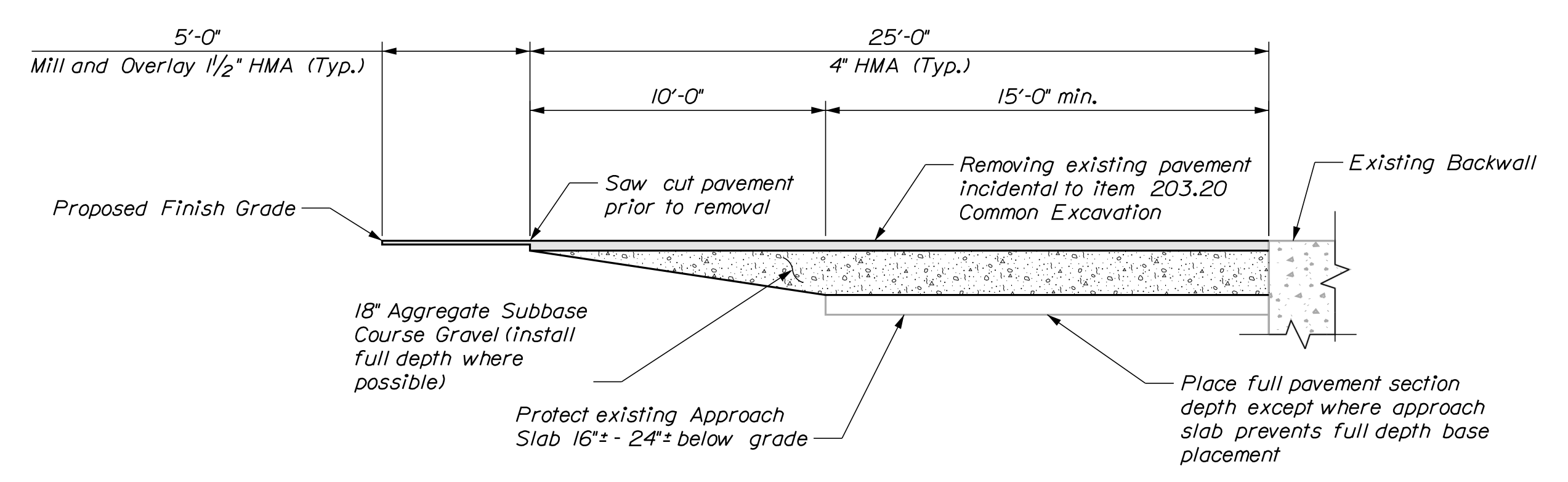
NOTES
 1. Existing Telephone Duct is underground and supported between bridge girders. Depth is likely under existing approach slabs on both abutments - contractor to protect.



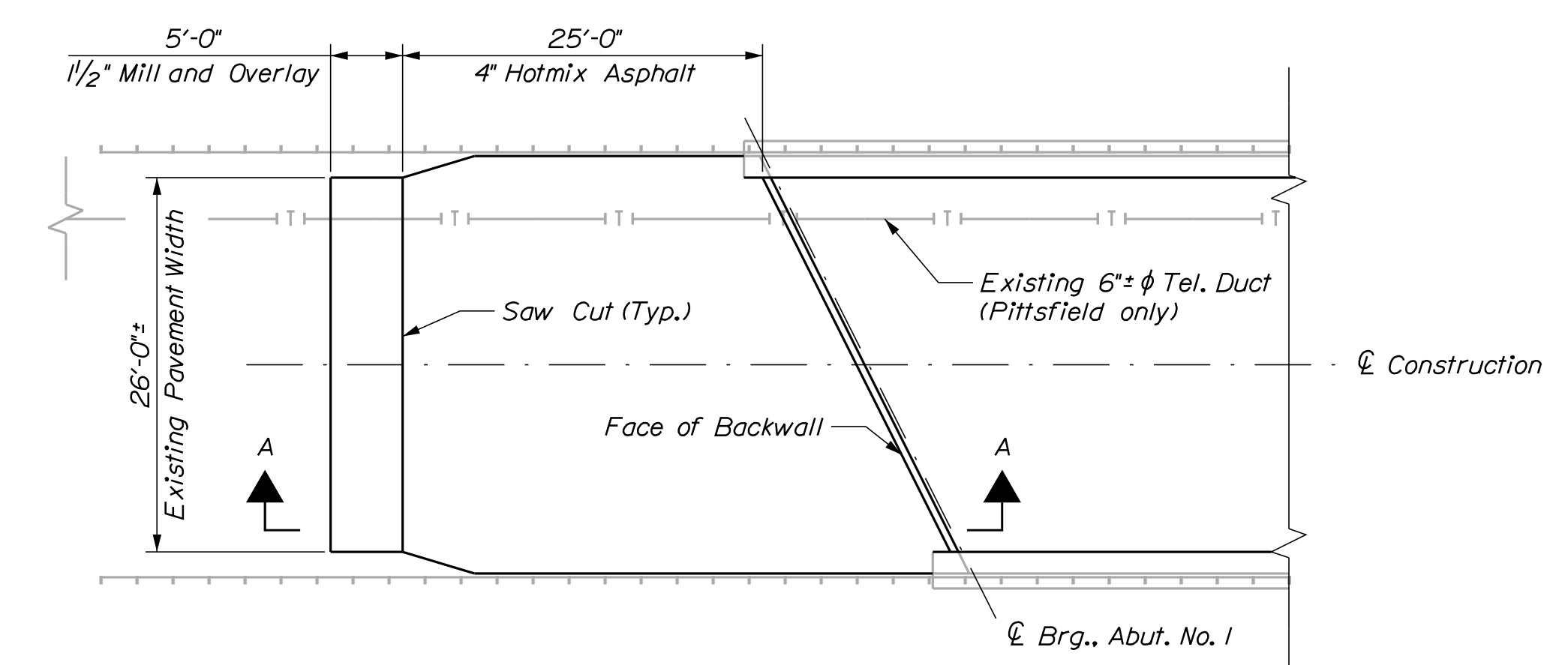
EXISTING DECK PLAN (1 OF 2)
 (PITTSFIELD #5983)



EXISTING DECK PLAN (2 OF 2)
 (PITTSFIELD #5983)

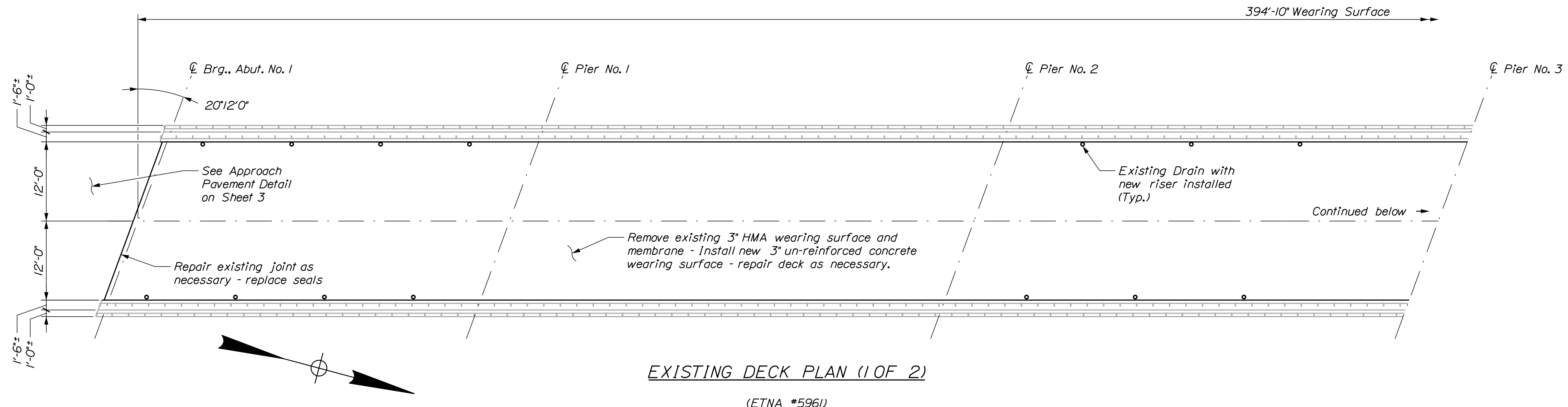


PROPOSED APPROACH SECTION
 (Section A-A)
 (Typ. both ends of both Pittsfield & Etna)

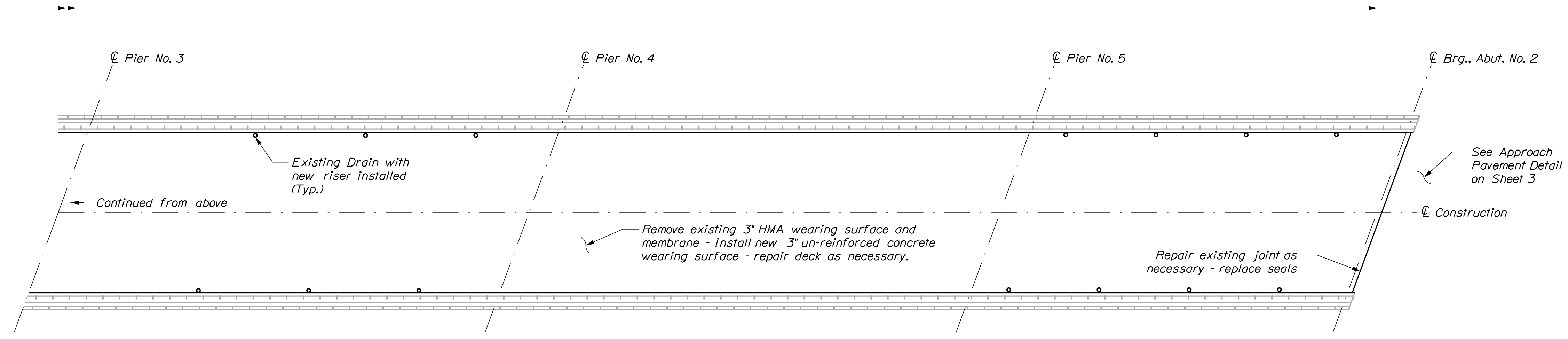


APPROACH PAVEMENT DETAIL
 (Typ. both ends of both Pittsfield & Etna)

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 5983, NO. 5961 & NO. 2771		BRIDGE PLANS	
		21743.00 & 21674.00		WIN		21743.00 & 21674.00	
PROJ. MANAGER	M. WIGHT	BY	DATE	DESIGN-DETAILED	DATE	CHECKED-REVIEWED	DATE
		A. PARADIS	FEB 2018	M. GRAY	FEB 2018	R. MYERS	FEB 2018
DESIGNS DETAILED				REVISIONS 1		REVISIONS 2	
REVISIONS 3				REVISIONS 3		REVISIONS 4	
REVISIONS 4				FIELD CHANGES			
NO. 5983, NO. 5961 & NO. 2771 I-95 & KENDUSKEAG STREAM PITTSFIELD, ETNA & BANGOR SOMERSET, PENOBSCOT				SIGNATURE			
SUPERSTRUCTURE PLANS PITTSFIELD				P.E. NUMBER			
SHEET NUMBER				DATE			
3							
OF 6							

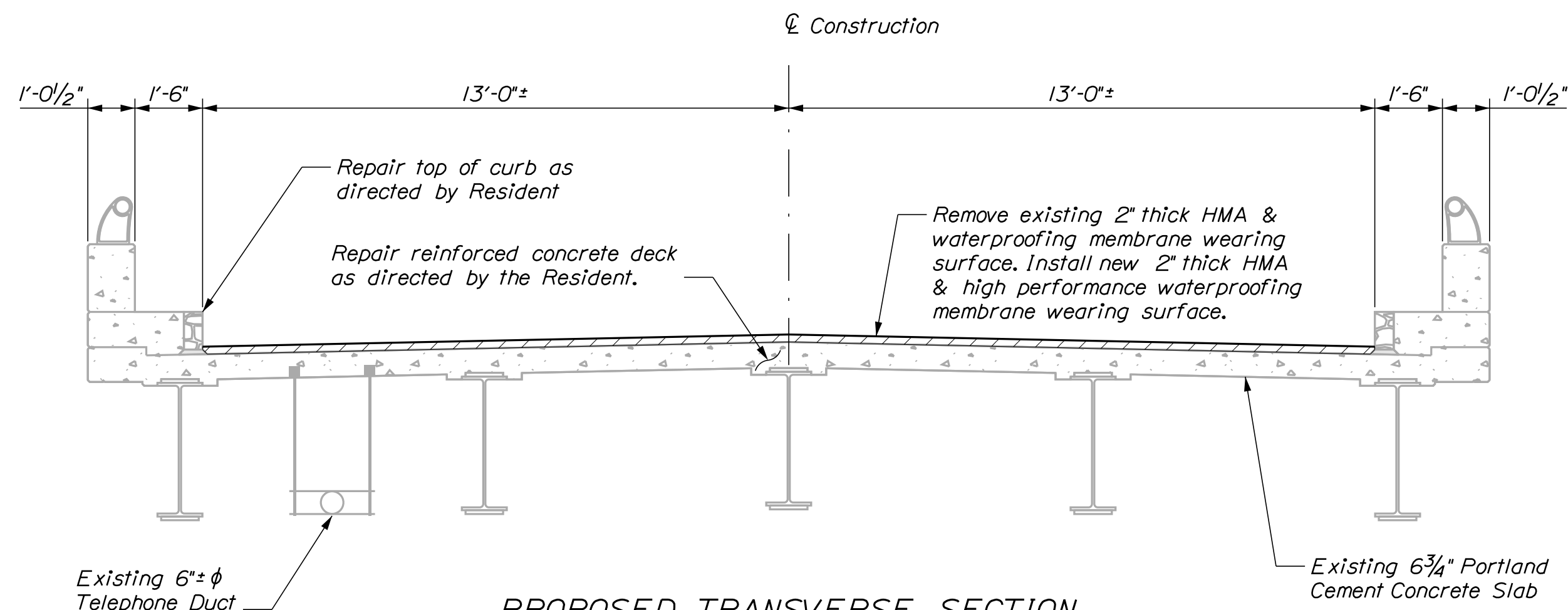


EXISTING DECK PLAN (1 OF 2)
(ETNA #5961)

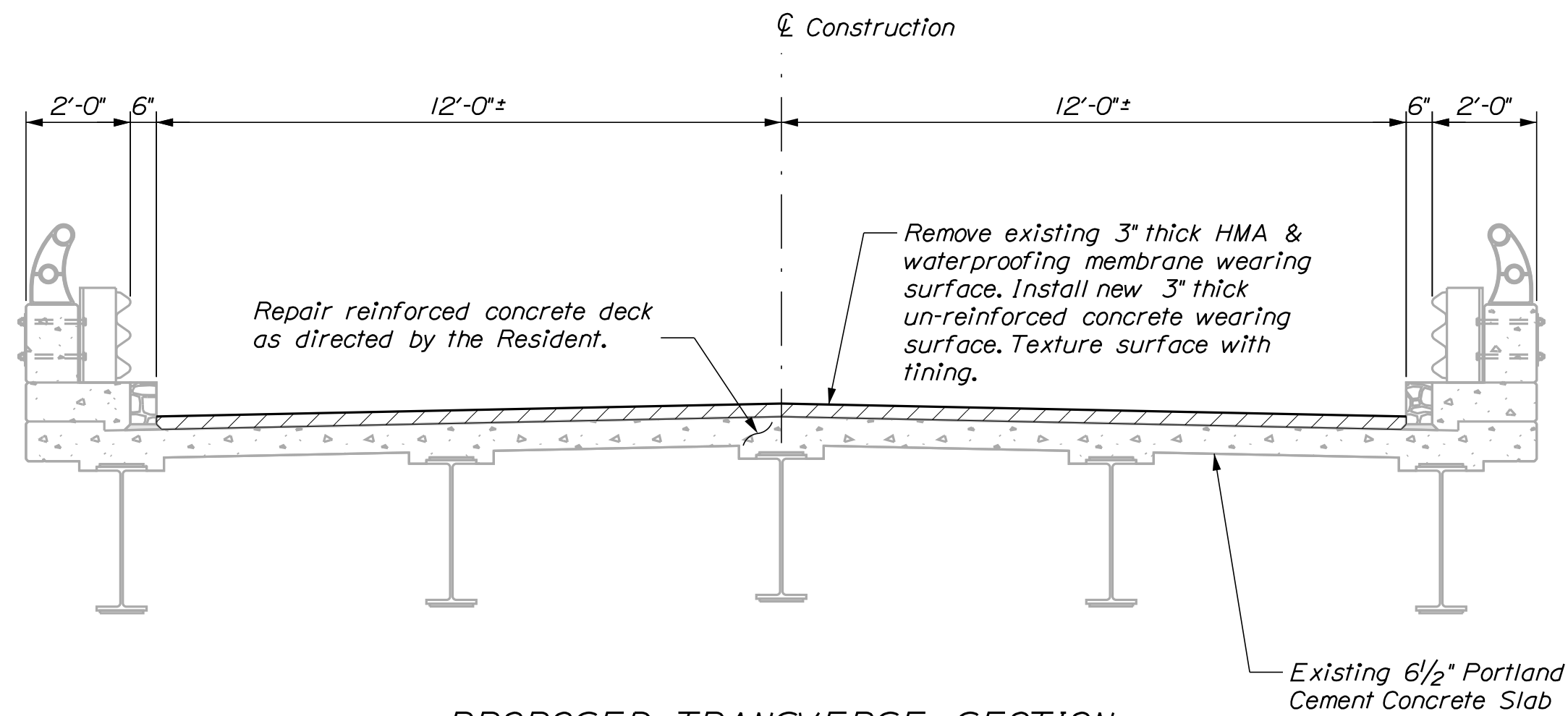


EXISTING DECK PLAN (2 OF 2)
(ETNA #5961)

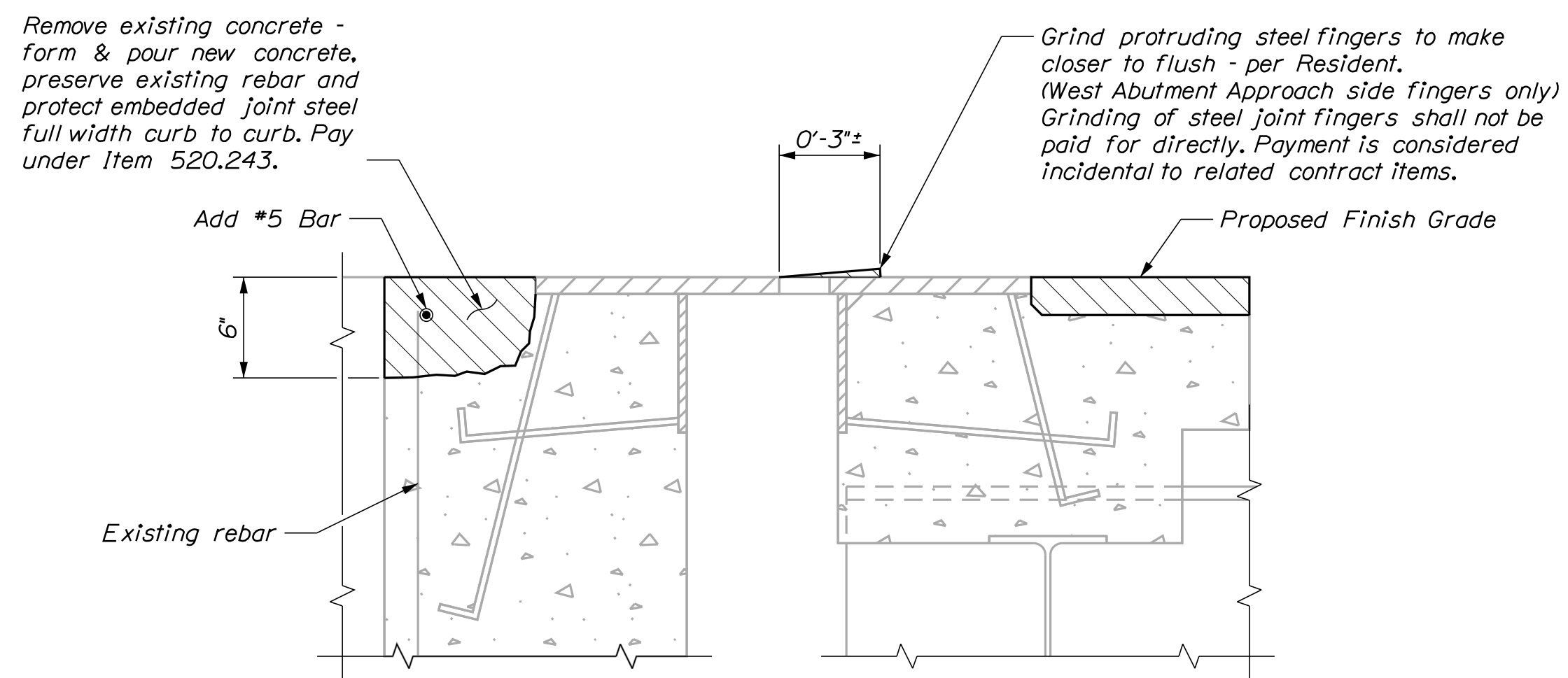
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		21743.00 & 21674.00	
NO. 5983, NO. 5961 & NO. 2771		I-95 & KENDUSKEAG STREAM		PITTSFIELD, ETNA & BANGOR SOMERSET, PENOBSCOT	
SUPERSTRUCTURE PLANS		ETNA		BRIDGE NO. 5983, NO. 5961 & NO. 2771 21743.00 & 21674.00 WIN	
SHEET NUMBER		4		OF 6	
PROJ. MANAGER	M. WIGHT	BY	DATE	SIGNATURE	DATE
DESIGN-DETAILED	M. GRAY	A. PARADIS	FEB 2018		
CHECKED-REVIEWED	R. MYERS	M. WIGHT	FEB 2018		
DESIGN-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					



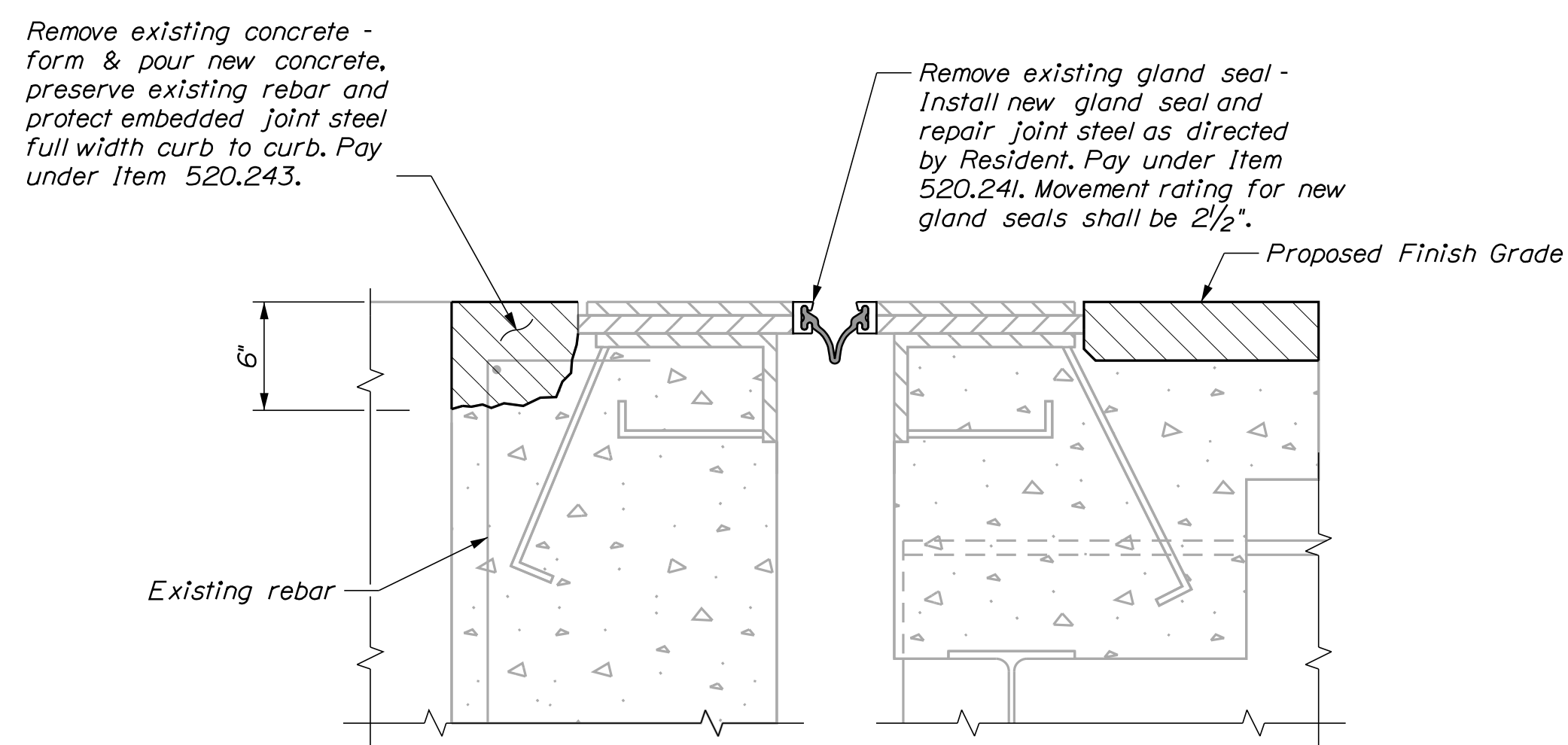
PROPOSED TRANSVERSE SECTION
(PITTSFIELD #5983)



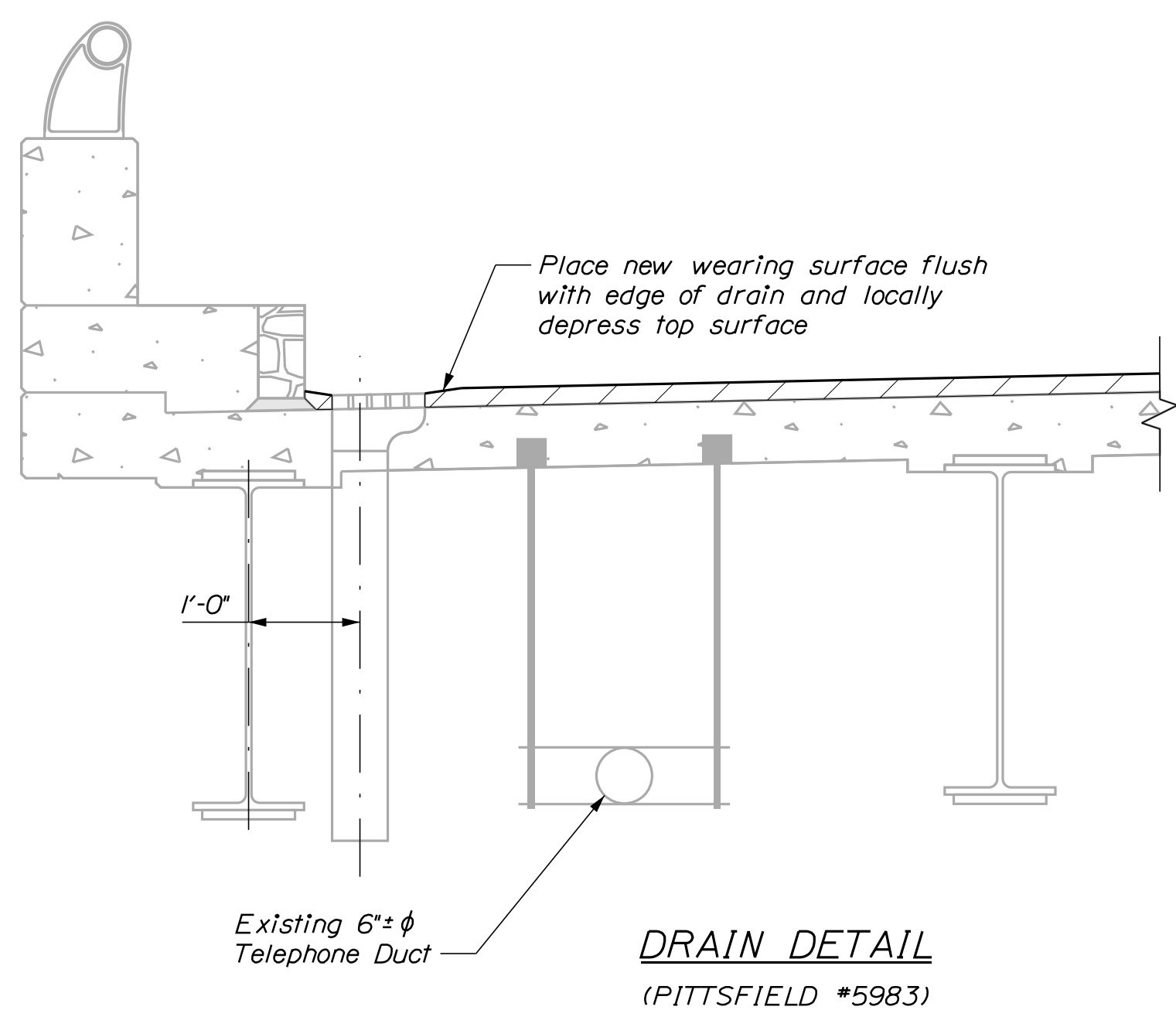
PROPOSED TRANSVERSE SECTION
(ETNA #5961)



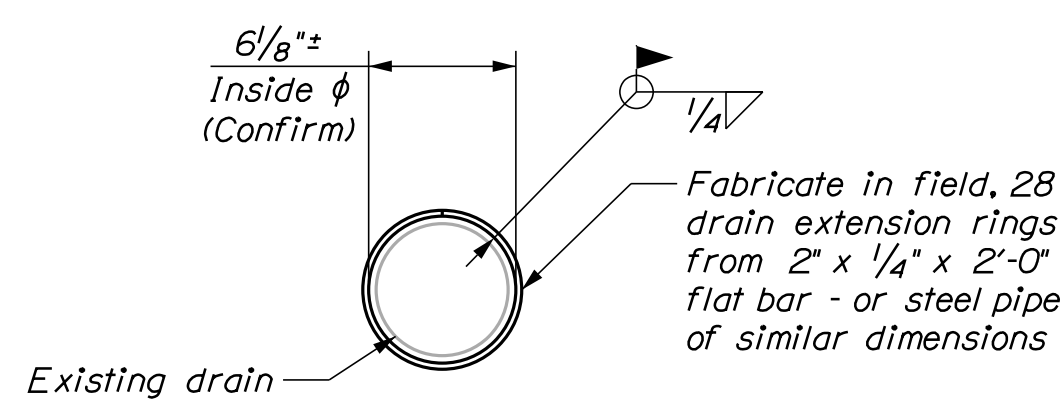
TYPICAL ABUTMENT FINGER JOINT DETAIL
(PITTSFIELD #5983)
(Typ. both Abutments)



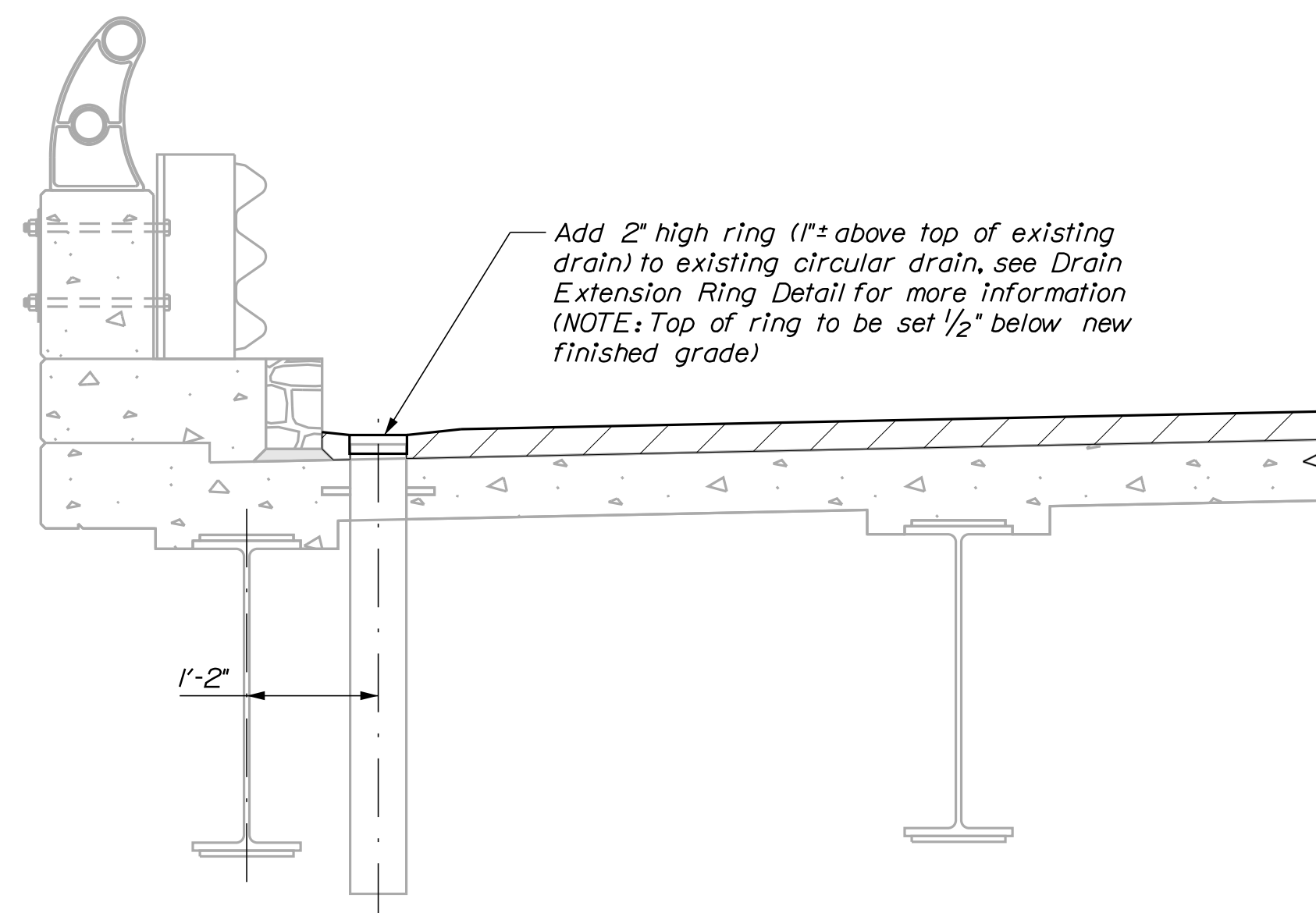
TYPICAL ABUTMENT JOINT SEAL DETAIL
(ETNA #5961)
(Typ. both Abutments)



DRAIN DETAIL
(PITTSFIELD #5983)



DRAIN EXTENSION RING DETAIL
(ETNA #5961)



DRAIN DETAIL
(ETNA #5961)

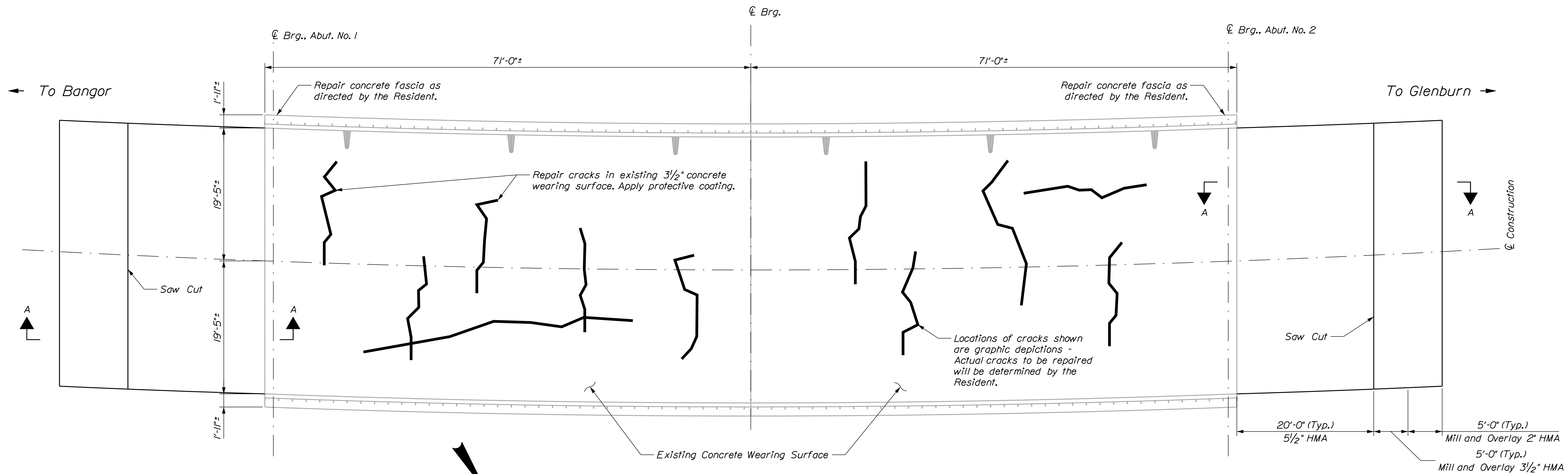
Filename: ... \005_Superstructure_Sections_Details.dgn Revision: BRIDGE Username: armand.i.paradis Date: 2/28/2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
21743.00 & 21674.00
BRIDGE NO. 5983,
NO. 5961 & NO. 2771
WIN
21743.00 & 21674.00
BRIDGE PLANS

PROJ. MANAGER	BY	DATE	SIGNATURE
DESIGN-DETAILED M. GRAY	A. PARADIS	FEB 2018	
CHECKED-REVIEWED R. MYERS	M. WIGHT	FEB 2018	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

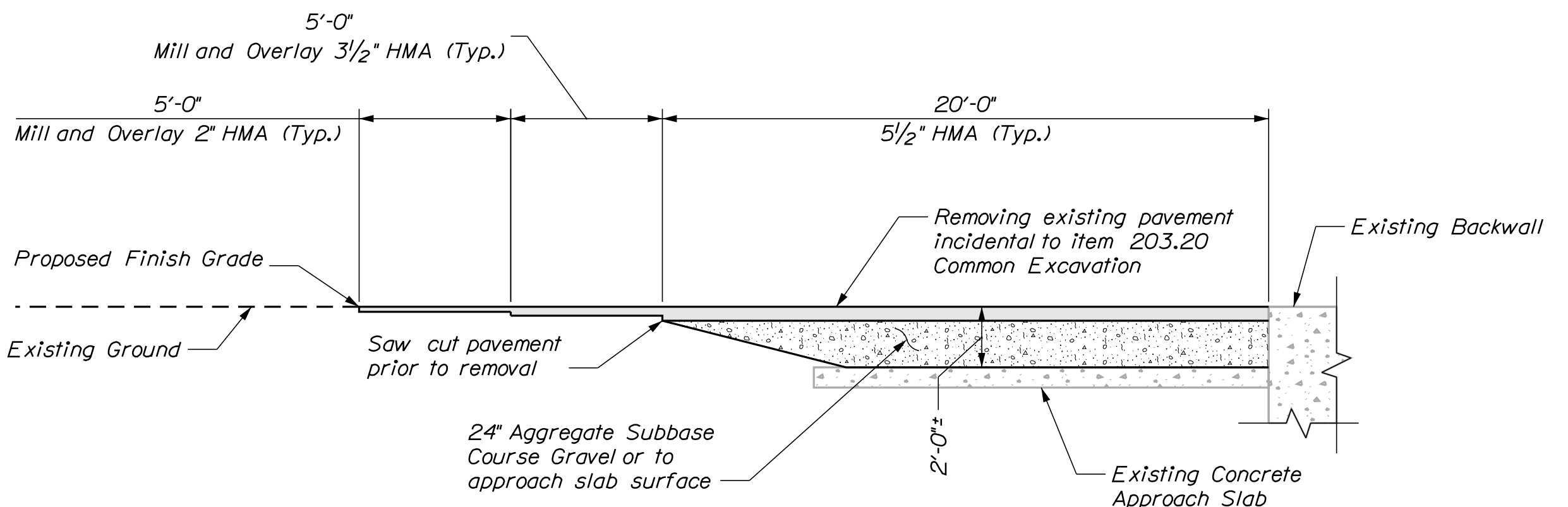
NO. 5983, NO. 5961 & NO. 2771
I-95 & KENDUSKEAG STREAM
PITTSFIELD, ETNA & BANGOR SOMERSET, PENOBSCOT
SUPERSTRUCTURE SECTIONS & DETAILS

SHEET NUMBER
5
OF 6



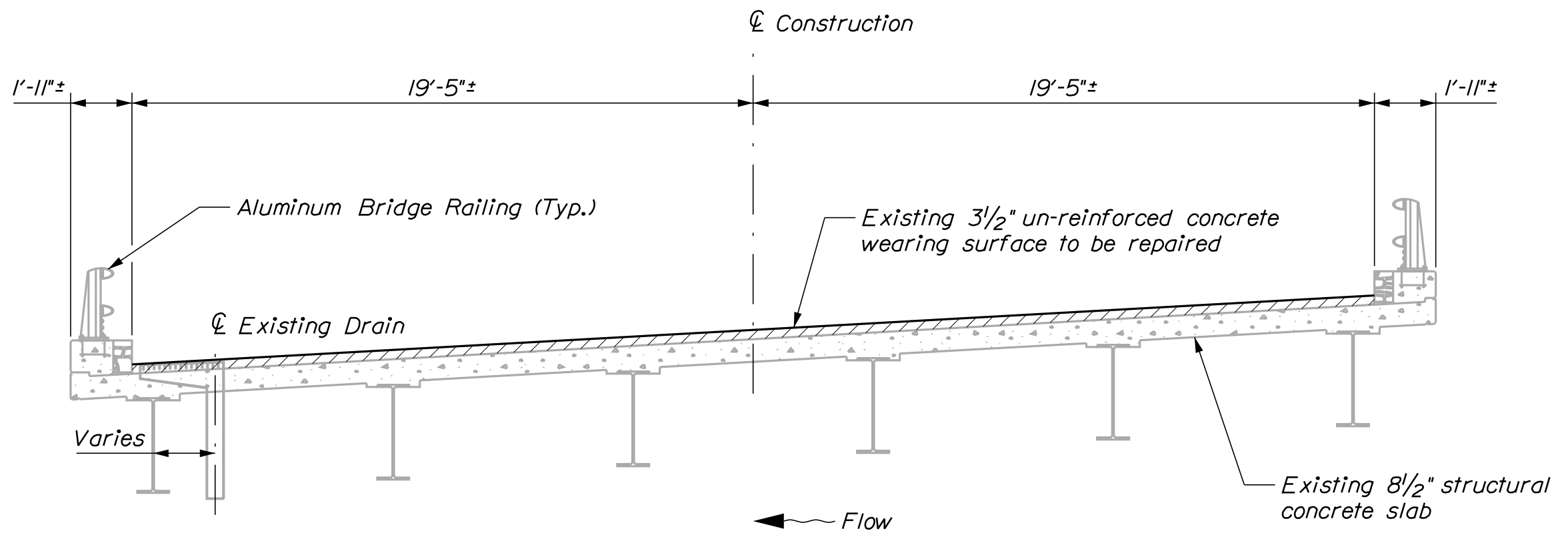
NOTE: Underground fiber optic telephone conduit exists near abutments, contractor to mark and protect.

EXISTING DECK PLAN



PROPOSED APPROACH SECTION

(Section A-A)



EXISTING TRANSVERSE SECTION

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		21743.00 & 21674.00	
NO. 5983, NO. 5961 & NO. 2771		BRIDGE NO. 5983, NO. 5961 & NO. 2771	
PITTSFIELD, ETNA & BANGOR		SOMERSET, PENOBSCOT	
SUPERSTRUCTURE PLAN, SECTION & DETAIL			
SHEET NUMBER			
6			
OF 6			

PROJ. MANAGER	BY	DATE
DESIGN DETAILED: M. GRAY	M. WIGHT	FEB 2018
CHECKED-REVIEWED: R. MYERS	M. WIGHT	FEB 2018
DESIGNS DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE	P.E. NUMBER	DATE