



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

December 4, 2018
Subject: Piscataqua River Bridge Wearing
Surface Replacement
State WIN: 019270.00
Location: **Kittery & Portsmouth, N.H.**
Amendment No. 1

Dear Sir/Ms.:

Please make the following changes to the Bid Documents:

In the Bid Book:

REMOVE pages 16 – 27, Proposal Schedule of Items, 12 pages, dated 11/20/2018, and **REPLACE** with the attached, revised Proposal Schedule of Items, 12 pages, dated 12/3/2018.

REMOVE pages 73 – 75, SPECIAL PROVISIONS – SECTION 104 – Utilities, 3 pages, dated November 15, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISIONS – SECTION 104 – Utilities, 3 pages, dated November 29, 2018.

REMOVE pages 77 – 81, SPECIAL PROVISIONS – SECTION 105 – GENERAL SCOPE OF WORK – (Limitations of Operations and Penalty), 5 pages, dated November 15, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISIONS – SECTION 105 – GENERAL SCOPE OF WORK – (Limitations of Operations and Penalty), 5 pages, dated November 30, 2018.

ADD the attached SPECIAL PROVISION – SECTION 105 – GENERAL SCOPE OF WORK – (MTA MaineDOT Work Permit), 1 page, dated November 30, 2018.

REMOVE pages 84 – 85, SPECIAL PROVISIONS – SECTION 107 – TIME – (Incentive/Disincentive), 2 pages, dated November 15, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISIONS – SECTION 107 – TIME – (Incentive/Disincentive), 2 pages, dated November 30, 2018.

ADD the attached SPECIAL PROVISION – SECTION 607 – FENCES – (Protective Screening), 1 page, dated November 30, 2018.

REMOVE page 220, SPECIAL PROVISION – SECTION 652 – MAINTENANCE OF TRAFFIC – (Traffic Officers), 1 page, dated September 6, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 652 – MAINTENANCE OF TRAFFIC – (Traffic Officers), 1 page, dated November 30, 2018.



PRINTED ON RECYCLED PAPER

In the Plan Set:

The following sheets are to be **REMOVED** from the existing plan set and then **REPLACED** with the corresponding attached revised sheets:

REMOVE sheet	and REPLACE with sheet
2	2A
3	3A
5	5A
168	168A
178	178A
180	180A
227	227A
228	228A
230	230A

ADD the attached SHEET NUMBER 221A OF 230, PROTECTIVE SCREENING DETAILS.

The following question has been received:

Question: Are there going to be any additional plans or an addendum coming out for the 14,500 FRP Conduit? There are no hanger details on the system.

Response: Please see revised sheets for additional information. The design of hangar details is the responsibility of the Contractor in accordance with the plans and Special Provision 626.

Question: The current specifications require a 100psf shield that rests on top of the lowest beam flange. Will a 100psf shield system suspended below the flange be allowed?

Response: A shield system suspended below the flange is acceptable on the approach spans except for spans over rail lines. On spans over the rail lines and within the truss spans, no falsework may extend below the existing steel structure.

Consider these changes and information prior to submitting your bid on **December 19, 2018**.

Sincerely,



George M. A. Macdougall P.E.
Contracts & Specifications Engineer

12/3/2018

Maine Department of Transportation

Proposal Schedule of Items

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Proposal ID: 019270.00

Project(s): 019270.00

SECTION: 1

NEW HAMPSHIRE APPROACH ROADWAY

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	202.12 REMOVING EXISTING STRUCTURAL CONCRETE	2,540.000 CY	_____	 _____	_____	 _____
0020	202.1211 CONCRETE HAUNCH REMOVAL	32,200.000 LF	_____	 _____	_____	 _____
0030	202.127 REMOVE EXISTING BITUMINOUS PAVEMENT	LUMP SUM	LUMP SUM		_____	 _____
0040	202.1294 REMOVAL OF BRIDGE DRAINAGE SYSTEM	LUMP SUM	LUMP SUM		_____	 _____
0050	202.1295 HYDRO DEMOLITION, PROPERTY OF CONTRACTOR	LUMP SUM	LUMP SUM		_____	 _____
0060	202.13 REMOVING EXISTING RAILINGS (RETAINED BY DEPARTMENT)	7,260.000 LF	_____	 _____	_____	 _____
0070	202.202 REMOVING PAVEMENT SURFACE	76,250.000 SY	_____	 _____	_____	 _____
0080	202.203 PAVEMENT BUTT JOINTS	7,305.000 SY	_____	 _____	_____	 _____
0090	202.205 RUMBLE STRIPS - SHOULDER	16,600.000 LF	_____	 _____	_____	 _____
0100	202.207 RUMBLE STRIPS, FILL	850.000 LF	_____	 _____	_____	 _____
0110	203.20 COMMON EXCAVATION	3,160.000 CY	_____	 _____	_____	 _____
0120	203.24 COMMON BORROW	670.000 CY	_____	 _____	_____	 _____

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Project(s): 019270.00

SECTION: 1

NEW HAMPSHIRE APPROACH ROADWAY

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0130	203.25 GRANULAR BORROW	1,150.000 CY	_____	_____	_____	_____
0140	205.41 RECONSTRUCTION OF EXISTING SHOULDER PLAN QUANTITY	7,000.000 SY	_____	_____	_____	_____
0150	205.51 WIDENING OF EXISTING SHOULDER - PLAN QUANTITY	3,100.000 SY	_____	_____	_____	_____
0160	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	380.000 CY	_____	_____	_____	_____
0170	304.14 AGGREGATE BASE COURSE - TYPE A	260.000 CY	_____	_____	_____	_____
0180	403.207 HOT MIX ASPHALT 19.0 MM HMA	4,050.000 T	_____	_____	_____	_____
0190	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	6,000.000 T	_____	_____	_____	_____
0200	403.2101 9.5 MM POLYMER MODIFIED HMA	5,150.000 T	_____	_____	_____	_____
0210	403.211 HOT MIX ASPHALT (SHIMMING)	1,500.000 T	_____	_____	_____	_____
0220	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	8,850.000 T	_____	_____	_____	_____
0230	409.15 BITUMINOUS TACK COAT - APPLIED	7,850.000 G	_____	_____	_____	_____
0240	461.131 TEMPORARY PAVEMENT	56.000 T	_____	_____	_____	_____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0250	502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES	LUMP SUM	LUMP	SUM	_____	_____
0260	502.705 COMPOSITE BRIDGE DRAIN	LUMP SUM	LUMP	SUM	_____	_____
0270	503.12 REINFORCING STEEL, FABRICATED AND DELIVERED	636,000.000 LB	_____	_____	_____	_____
0280	503.13 REINFORCING STEEL, PLACING	636,000.000 LB	_____	_____	_____	_____
0290	504.709 BRIDGE HARDWARE TRUSS SCREEN PANEL	LUMP SUM	LUMP	SUM	_____	_____
0300	504.811 STRUCTURAL STEEL REPAIR	1,900.000 LB	_____	_____	_____	_____
0330	514.06 CURING BOX FOR CONCRETE CYLINDERS	1.000 EA	_____	_____	_____	_____
0340	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP SUM	LUMP	SUM	_____	_____
0350	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 8 IN.	20,400.000 SF	_____	_____	_____	_____
0360	518.52 REPAIR OF UPWARD FACING SURFACES >= 8 IN.	11.000 CY	_____	_____	_____	_____
0370	518.60 REPAIR OF VERTICAL SURFACES < 8 IN.	1,450.000 SF	_____	_____	_____	_____

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Project(s): 019270.00

SECTION: 1

NEW HAMPSHIRE APPROACH ROADWAY

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0380	518.70 REPAIR OF OVERHEAD SURFACES < 8 IN.	770.000 SF	_____	_____	_____	_____
0390	520.2321 ASPHALTIC CRACK CONTROL JOINT	LUMP SUM	LUMP	SUM	_____	_____
0400	520.245 BRIDGE JOINT MODIFICATION TYPE 5	36.000 EA	_____	_____	_____	_____
0410	520.261 LONGITUDINAL JOINT SEAL	3,200.000 LF	_____	_____	_____	_____
0420	521.32 FABRIC TROUGH FOR FINGER JOINT Approach Piers	4.000 EA	_____	_____	_____	_____
0430	521.32 FABRIC TROUGH FOR FINGER JOINT Approach Spans	14.000 EA	_____	_____	_____	_____
0440	524.40 PROTECTIVE SHIELD	LUMP SUM	LUMP	SUM	_____	_____
0450	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP SUM	LUMP	SUM	_____	_____
0460	526.307 MOVABLE TEMPORARY CONCRETE BARRIER SYSTEM	LUMP SUM	LUMP	SUM	_____	_____
0470	526.312 PERMANENT CONCRETE BARRIER TYPE II	LUMP SUM	LUMP	SUM	_____	_____
0480	526.331 PERMANENT CONCRETE BARRIER TYPE III B	LUMP SUM	LUMP	SUM	_____	_____

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SECTION: 1 NEW HAMPSHIRE APPROACH ROADWAY

Alt Set ID:

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0490	526.36 MEDIAN BARRIER FIXED OBJECT PROTECTION	165.000 LF	_____	_____	_____	_____
0500	526.50 PRECAST CONCRETE BARRIER MEDIAN	4,440.000 LF	_____	_____	_____	_____
0510	527.331 TRUCK MOUNTED ATTENUATOR	2.000 CD	_____	_____	_____	_____
0520	527.341 WORK ZONE CRASH CUSHIONS, TL-3	3.000 UN	_____	_____	_____	_____
0530	530.25 FIBERGLASS REINFORCED POLYMER GRATING	900.000 SF	_____	_____	_____	_____
0540	603.159 12 INCH CULVERT PIPE OPTION III	63.000 LF	_____	_____	_____	_____
0550	604.09 CATCH BASIN TYPE B1	2.000 EA	_____	_____	_____	_____
0560	604.161 ALTERING CATCH BASIN	5.000 EA	_____	_____	_____	_____
0570	604.164 REBUILDING CATCH BASIN	3.000 EA	_____	_____	_____	_____
0580	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	9.000 EA	_____	_____	_____	_____
0590	605.105 8" UNDERDRAIN OUTLET	13.000 LF	_____	_____	_____	_____
0600	606.1301 31" W-BM GR, MID-WAY SPLICE-SGL FACED	3,530.000 LF	_____	_____	_____	_____

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SECTION: 1

NEW HAMPSHIRE APPROACH ROADWAY

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Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0610	606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	3.000 EA	_____	 _____	_____	 _____
0620	606.1723 BRIDGE TRANSITION - TYPE-2 - COLORCOATED	4.000 EA	_____	 _____	_____	 _____
0630	606.1724 GUARDRAIL TRANSITION - TYPE 3	1.000 EA	_____	 _____	_____	 _____
0640	606.277 TERMINAL END - ANCHORED END	2.000 EA	_____	 _____	_____	 _____
0650	606.352 REFLECTORIZED BEAM GUARDRAIL DELINEATORS	100.000 EA	_____	 _____	_____	 _____
0660	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8.000 EA	_____	 _____	_____	 _____
0670	606.356 UNDERDRAIN DELINEATOR POST	2.000 EA	_____	 _____	_____	 _____
0680	606.362 GUARDRAIL ADJUSTED	1,970.000 LF	_____	 _____	_____	 _____
0690	606.363 GUARDRAIL REMOVE AND DISPOSE	8,700.000 LF	_____	 _____	_____	 _____
0700	606.569 REMOVE, MODIFY AND RESET - DOUBLE RAIL	65.000 LF	_____	 _____	_____	 _____
0710	607.17 CHAIN LINK FENCE - 6 FOOT	700.000 LF	_____	 _____	_____	 _____
0720	607.432 PROTECTIVE SCREENING	120.000 LF	_____	 _____	_____	 _____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0730	608.07 PLAIN CONCRETE SIDEWALK	220.000 SY	_____	_____	_____	_____
0740	609.312 SPECIAL CURB TYPE 2	90.000 LF	_____	_____	_____	_____
0750	610.08 PLAIN RIPRAP	1,505.000 CY	_____	_____	_____	_____
0760	615.07 LOAM	630.000 CY	_____	_____	_____	_____
0770	618.14 SEEDING METHOD NUMBER 2	51.000 UN	_____	_____	_____	_____
0780	620.58 EROSION CONTROL GEOTEXTILE	420.000 SY	_____	_____	_____	_____
0790	620.622 CELLULAR CONFINEMENT SYSTEM	610.000 SY	_____	_____	_____	_____
0800	626.222 FRP CONDUIT	14,500.000 LF	_____	_____	_____	_____
0810	627.18 12 " SOLID WHITE PAVEMENT MARKING	3,550.000 LF	_____	_____	_____	_____
0820	627.1801 12" SOLID WHITE RETROFLECTIVE THERMOPLASTIC PAVE MARK	690.000 LF	_____	_____	_____	_____
0830	627.51 6" TEMPORARY PAVEMENT TAPE, YELLOW OR WHITE	6,500.000 LF	_____	_____	_____	_____
0840	627.57 12" REMOVABLE BLACK LINE MASKING TAPE	1,350.000 LF	_____	_____	_____	_____

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NEW HAMPSHIRE APPROACH ROADWAY

Alt Set ID:

Alt Mbr ID:

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0850	627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	83,100.000 LF	_____	_____	_____	_____
0860	627.7441 6" WHITE RETROFLECTIVE THERMOPLASTIC PAVEMENT MARKING	5,650.000 LF	_____	_____	_____	_____
0870	627.77 REMOVING PAVEMENT MARKINGS	130,000.000 SF	_____	_____	_____	_____
0880	627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	400,000.000 LF	_____	_____	_____	_____
0890	627.812 TEMP. BI-DIRECTIONAL WHITE DELINEATORS	36,200.000 EA	_____	_____	_____	_____
0900	627.94 PREFORMED THERMOPLASTIC PAVEMENT MARKING	805.000 SF	_____	_____	_____	_____
0910	627.941 PREFORMED THERMOPLASTIC PAVEMENT MARKING	385.000 SF	_____	_____	_____	_____
0920	629.05 HAND LABOR, STRAIGHT TIME	80.000 HR	_____	_____	_____	_____
0930	631.10 AIR COMPRESSOR (INCLUDING OPERATOR)	10.000 HR	_____	_____	_____	_____
0940	631.11 AIR TOOL (INCLUDING OPERATOR)	10.000 HR	_____	_____	_____	_____
0950	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	30.000 HR	_____	_____	_____	_____

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NEW HAMPSHIRE APPROACH ROADWAY

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0960	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	5.000 HR	_____	_____	_____	_____
0970	634.160 HIGHWAY LIGHTING	LUMP SUM	LUMP SUM	_____	_____	_____
0980	634.210 CONVENTIONAL LIGHT STANDARD	36.000 EA	_____	_____	_____	_____
0990	639.18 FIELD OFFICE TYPE A	1.000 EA	_____	_____	_____	_____
1000	643.71 TRAFFIC SIGNAL MODIFICATION I95 NB/ MARKET ST	LUMP SUM	LUMP SUM	_____	_____	_____
1010	643.71 TRAFFIC SIGNAL MODIFICATION I95 SB/ MARKET ST	LUMP SUM	LUMP SUM	_____	_____	_____
1020	643.71 TRAFFIC SIGNAL MODIFICATION RT 1 BYPASS/ ALBACORE	LUMP SUM	LUMP SUM	_____	_____	_____
1030	643.871 WEIGH-IN-MOTION SYSTEM	LUMP SUM	LUMP SUM	_____	_____	_____
1040	645.103 DEMOUNT GUIDE SIGN	1.000 EA	_____	_____	_____	_____
1050	645.106 DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	3.000 EA	_____	_____	_____	_____
1060	645.113 REINSTALL GUIDE SIGN	1.000 EA	_____	_____	_____	_____

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SECTION: 1

NEW HAMPSHIRE APPROACH ROADWAY

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1070	645.116 REINSTALL REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	3.000 EA	_____	 _____	_____	 _____
1080	645.521 HYBRID TRAVEL TIME SIGN INTEGRATION	LUMP SUM	_____	 LUMP SUM	_____	 _____
1090	645.523 TRAVEL TIME DATA	LUMP SUM	_____	 LUMP SUM	_____	 _____
1100	652.30 FLASHING ARROW BOARD	4.000 EA	_____	 _____	_____	 _____
1110	652.312 TYPE III BARRICADE	20.000 EA	_____	 _____	_____	 _____
1120	652.33 DRUM	600.000 EA	_____	 _____	_____	 _____
1130	652.34 CONE	100.000 EA	_____	 _____	_____	 _____
1140	652.35 CONSTRUCTION SIGNS	3,000.000 SF	_____	 _____	_____	 _____
1150	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP SUM	_____	 LUMP SUM	_____	 _____
1160	652.38 FLAGGER	3,000.000 HR	_____	 _____	_____	 _____
1170	652.381 TRAFFIC OFFICER	640.000 HR	_____	 _____	_____	 _____
1180	652.382 TRAFFIC MONITOR	915.000 CD	_____	 _____	_____	 _____

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Alt Mbr ID:

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1190	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	26.000 EA	_____	_____	_____	_____
1200	652.451 AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	200.000 CD	_____	_____	_____	_____
1210	655.511 EMBEDDED GALVANIC ANODE (FROM MANUFACTURER)	16,160.000 EA	_____	_____	_____	_____
1220	655.513 EMBEDDED CATHODIC PROTECTION SYSTEM	LUMP SUM	LUMP	SUM	_____	_____
1230	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM	LUMP	SUM	_____	_____
1240	659.10 MOBILIZATION	LUMP SUM	LUMP	SUM	_____	_____
Section: 1			Total:		_____	_____

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SECTION: 2 NH APPR SPANS HP MEMBRANE TORCH APPL

Alt Set ID: AL

Alt Mbr ID: 1

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0310	508.1401 HIGH PERFORMANCE WATERPROOFING MEMBRANE, TORCH APPLIED	LUMP SUM		LUMP SUM		
Section: 2			Total:			

SECTION: 3 NH APPR SPANS HP MEMBRANE SPRAY APPL

Alt Set ID: AL

Alt Mbr ID: 2

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0320	508.1402 HIGH PERFORMANCE WATERPROOFING MEMBRANE, SPRAY APPLIED	LUMP SUM		LUMP SUM		
Section: 3			Total:			
			Total Bid:			

SPECIAL PROVISIONS

SECTION 104

Utilities

UTILITY COORDINATION

The contractor has primary responsibility for coordinating their work with utilities after contract award. The contractor shall communicate directly with the utilities regarding any utility work necessary to maintain the contractor's schedule and prevent project construction delays. The contractor shall notify the resident of any issues.

THE CONTRACTOR SHALL PLAN AND CONDUCT WORK ACCORDINGLY.

MEETING

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications **is** required.

Temporary utility adjustments are **not** anticipated.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective utility companies. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

Any/all adjustments are to be made by the respective utility/railroad unless otherwise specified herein.

Utility working days are Monday through Friday. Times are estimated on the basis of a single crew for each utility. Any times and dates mentioned are **estimates only** and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractor shall have no claim against the Department if they are exceeded.

AERIAL

There are communication and power lines that cross and parallel the work zone. These lines do not appear to be a construction issue and no temporary adjustments are proposed. The Contractor is encouraged to visit the site and review these lines to determine construction methods. If the contractor feels any of these overhead lines need to be moved, the Contractor will be responsible for coordination and cost related to any move. All Utilities will need two weeks advance notice, by the contractor, so they may schedule their crews if temporary work is needed.

SUBSURFACE

No subsurface utility conflicts are anticipated within the scope of work planned for this project. Should any arise the utility must be contacted as soon as possible. Any manhole covers that are within the work zone, that need to be adjusted, will be done by the respective utility. Those utilities may request pricing, outside the contract, to make those adjustments. All utilities will need at least 2 weeks advance notice before adjustments are needed.

On the Kittery side, southbound, there is a Weight In Motion device placed within the pavement and behind the existing rail. Because of the shoulder widening in that area this device will need to be moved and reinstalled. The Contact for this item is Charlotte Allran at 441-3058.

NH and Maine DOT's may have underground conduits running in the shoulder of the existing approaches for site lighting. If after the Digsafe process these lines conflict with proposed work, the Contractor shall immediately contact the Resident for guidance on how to proceed.

UNDER BRIDGE

Any utility conduits or pipes suspended under the bridge deck will need to be protected during construction. Contractor cannot attach their staging to any of these facilities. Some of these conduits run underground to the base of bridge piers and then up the pier to the underneath of the bridge. If there is any work to these piers, the Contractor will need to work with the utility not to damage the conduits. **The Contractor is encouraged to visit all the sites, prior to bid, to determine their location.** Any cost related to the protection of these conduits will be considered incidental to the mobilization items.

Fairpoint has a duct system that is under the bridge and needs to be protected. No work to this conduit system or its supports is required unless requested by Fairpoint. Any work to Fairpoint's facilities will need to be negotiated between the utility and the contractor and executed outside of the MaineDOT contract. Contact for Fairpoint is David Kestner at 603-433-2119.

CMP and MaineDOT have power conduits under the bridge that needs to be protected unless they are part of the project. Contact for CMP is Wayne Brown at 242-0673.

Comcast has a 4-fiber lines under the bridge under the catwalk that need to be protected. No work to this conduit system or its supports is required unless requested by Comcast. Any work to Comcast facilities will need to be negotiated between the utility and the contractor and executed outside of the MaineDOT contract. The contact for Comcast is Mike Collins at 603-6795695 ex 1037.

RAILROAD

Pan Am Railways (Springfield Terminal Railroad) crosses under the bridge, on the Portsmouth side in two locations. The contractor may place staging, suspended from under the bridge, that will shield the rails from any construction fouling the tracks. This will be done with flagger protection provided in the PRTS document. Once the staging is in place, no personnel, materials or machine can access the work zone, from railroad property, including crane use over the railroad property. The **Maine DOT** has a PRTS and flagger agreement with **Pan Am Railways** to work under the bridge, over the rails, for a **limited period of time** with Railroad flagger supervision. If the Contractor chooses to use more man days of flagger protection, the contractor shall be responsible for the cost of the flaggers. The Contractor should take notice of the PRTS document that is within the Special Provision, for work requirements, clearances, flagger time and insurance requirements. The Contractor should pay special attention to the allotted flagger man days in the PRTS document. As stated in the document, the flagger man days over the stated amount will be the responsibility of the Contractor to pay. The Contractor, at pre-utility meeting, shall have a detailed plan for their bridge suspended staging and their proposed shielding method to submit to Pan Am for approval. This language applies to the main line and side track, located within the project limits. The contact for Pan Am is Shawn Higgins at (978)663-1127.

UTILITY LOCATION MARKINGS

The Contractor will be responsible for maintaining the buried utility location markings following the initial locating by the appropriate utility or their designated representative.

**SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Limitations of Operations and Penalty)**

The Limitations of Operations are as follows:

1. The Contractor shall complete the bridge phasing work as shown on the construction phasing plans. Modifications to the bridge phasing work or associated traffic control will not be permitted unless noted herein or approved by the Resident.
2. The following widths shall apply unless otherwise noted:
 - a. When one lane remains open, that open lane shall be a minimum of 12 feet with two 2-foot shoulders (16-foot clear roadway).
 - b. When two adjacent lanes remain open, the two open lanes shall each be a minimum of 11 feet with 1.5-foot shoulders (25-foot clear roadway).
 - c. When three adjacent lanes remain open, the three open lanes shall each be a minimum of 11 feet with 1.5-foot shoulders (36-foot clear roadway).
3. The Contractor is advised that portions of the work may require relocation of the Movable Temporary Concrete Barrier (MTCB). The Contractor shall provide steel plating or other means acceptable to the Resident to support the MTCB and properly span it over open holes, depressions, or newly placed concrete in the deck.
4. The Contractor shall maintain a minimum roadway width of 42 feet Northbound (a minimum section of a 1.5-foot median shoulder, three (3) 11-foot lanes of traffic, and a 7.5-foot outside shoulder) from the beginning of the project until November 30, 2019, or until the Woodbury Avenue Bridge over U.S. Route 1 Bypass is opened to two lanes of traffic, whichever comes first.
5. The Contractor shall maintain a minimum of three (3) lanes of traffic during the following periods, termed the "Peak Traffic Periods":
 - a. The Friday 10 days before Memorial Day to June 15:
 - i. Northbound: Fridays and Saturdays
 - ii. Southbound: Saturdays, Sundays, and Memorial Day
 - b. June 16 to the day after Labor Day: both Northbound and Southbound
 - c. Two days after Labor Day to the day after Columbus Day
 - i. Northbound: Fridays and Saturdays
 - ii. Southbound: Saturdays, Sundays, and Columbus Day
 - d. Two days after Columbus Day to the Tuesday before Thanksgiving
 - i. Southbound: Sundays and Veteran's Day
 - e. Wednesday before Thanksgiving through the Sunday after, both Northbound and Southbound

6. The Contractor shall maintain a minimum of two (2) lanes of traffic in each direction at all other times, except as allowed below.
7. During the times listed in Notes 5 and 6 above, temporary lane closures will be allowed as noted below.

Peak Traffic Periods				
Day of Week	Start time for maintaining a minimum of two (2) lanes of traffic	Start time for maintaining a minimum of one (1) lane of traffic	End time for maintaining a minimum of one (1) lane of traffic	End time for maintaining a minimum of two (2) lanes of traffic
Weekday Nights (Monday through Thursday) (NB)	9:00 PM	11:00 PM	5:00 AM	7:00 AM
Weekday Nights (Monday through Thursday) (SB)	7:00 PM	10:00 PM	4:00 AM	5:00 AM
Friday Nights (NB)	10:00 PM	Not Allowed	NA	7:00 AM
Friday Nights (SB)	8:00 PM	10:00 PM	6:00 AM	7:00 AM
Sunday Nights (NB)	7:00 PM	10:00 PM	5:00 AM	7:00 AM
Sunday Nights (SB)	11:00 PM	Not Allowed	NA	5:00 AM

Non-Peak Traffic Periods		
Day of Week	Start time for maintaining a minimum of one (1) lane of traffic	End time for maintaining a minimum of one (1) lane of traffic
Weekday Nights (Monday through Thursday) (NB)	10:00 PM	6:00 AM
Weekday Nights (Monday through Thursday) (SB)	8:00 PM	5:00 AM
Friday Nights (NB)	10:00 PM	7:00 AM
Friday Nights (SB)	9:00 PM	6:00 AM
Sunday Nights (NB)	9:00 PM	6:00 AM
Sunday Nights (SB)	10:00 PM	5:00 AM

8. The Contractor shall not have any temporary lane closures on Holidays.
9. The Contractor shall not have any temporary lane closures, except for emergency repairs, during the weekends of Memorial Day, Labor Day, and Columbus Day, beginning at 6:00 am the Friday before through the Tuesday after at 8:00 pm.

10. The Contractor shall not have any temporary lane closures, except for emergency repairs, during the following timeframes:
 - a. July 3, 2019, beginning at 6:00 am through July 5, 2019 at 8:00 pm
 - b. July 2, 2020, beginning at 6:00 am through July 6, 2020 at 8:00 pm
 - c. July 2, 2021, beginning at 6:00 am through July 6, 2021 at 8:00 pm
 - d. December 24, 2019, beginning at 6:00 am through December 26, 2019 at 8:00 pm
 - e. December 24, 2020, beginning at 6:00 am through December 27, 2020 at 8:00 pm
11. The Contractor shall not have any temporary lane closures, except for emergency repairs, during the weeks of Thanksgiving beginning at 5:00 am the Wednesday before through the Sunday after at 10:00 pm.
12. Temporary lane closures, if used, shall be one spatially continuous closure.
13. The Resident may approve short term complete stoppages, up to 5 minutes, during nighttime work windows. Said stoppages will require proper advanced notification, signage and State Trooper Detail. Nighttime short-term complete stoppages will only be allowed when necessary for mobilizing construction materials and equipment.
14. The Permitted Work Days are Monday through Saturday. For the purposes of Permitted Work Days, Sundays are defined as 9:00 p.m. Saturday evening until 7:00 p.m. Sunday evening. The working hours shall start Sunday at 7:00 p.m. and run through Saturday at 9:00 p.m. Work can occur behind temporary concrete barrier in work zones at all times except Sundays and Holidays.
15. The Contractor shall be assessed a penalty at the rate of Ten Thousand U.S. Dollars (\$10,000) per every 15 minutes for each lane that is closed beyond the times allowed. The fee shall be assessed the full amount starting 1 minute beyond the allowed times above and added cumulatively every 15 minutes thereafter.
16. The Contractor may utilize multiple bridge repair crews and multiple milling/paving crews, as long as applicable sections of the specifications are met and the Resident is given a minimum of 72 hours' notice.
17. Deliveries between 6:00 am and 8:00 pm to work zones protected by barrier will be permitted only if there is no infringement upon mainline traffic and is approved by the Resident.
18. Traffic will be allowed to travel on milled surfaces on the mainline. After 7 calendar days, any milled areas not covered that are in need of extra repair or maintenance shall be repaired to the satisfaction of the Resident. All work, equipment and materials required to make repairs shall be at the Contractor's expense. Failure to adequately maintain milled areas will also result in violation of Special Provision 652. Lanes will need to be matched up each shift. Uneven lanes will not be permitted. The Contractor shall plan and conduct their work accordingly.
19. All temporary pavement ramps for transitioning to milled surfaces and for transitioning from bridge joints to the base pavement on bridge decks (bridges where surface paving will be completed with highway paving work) shall be tapered at 20 ft. horizontally for every 1 inch vertical change.

20. The Contractor shall not have Interstate through-traffic lanes closer than five (5) feet to the existing aluminum bridge railing.
21. The Contractor is responsible for snow removal within the project limits in accordance with Section 105.4.3 of the MaineDOT Standard Specifications. However, the Agency maintenance forces will assume responsibility to plow snow from the open travel lanes and from shoulders that are not adjacent to temporary barrier or other work-related obstructions (such as drums) within the project limits. The Contractor shall remove snow from shoulders adjacent to temporary barrier or other work-related obstructions (such as drums) and from all portions of the roadway that are closed to traffic as soon as practicable, regardless of winter suspensions.
22. The Contractor shall allow safe access, as determined by the Resident, for emergency vehicle use of all ramps temporarily closed during construction. This access shall include snow removal vehicles.
23. The Contractor shall not have any temporary lane closures (as defined in Note 7), except for emergency repairs, if a storm is anticipated during the temporary lane closure duration. The Resident will make the final decision if a forecasted storm warrants this prohibition, in coordination with MaineDOT, NHDOT, and Maine Turnpike Authority maintenance forces. For every night in which temporary lane closures are so prohibited, the Contractor will receive an extension of 12 hours on the Contract Substantially Complete Date. No extension will be made for this prohibition to the Contract Completion Date.
24. Prior to winter maintenance season (beginning November 1), the Contractor shall arrange a review of this project with MaineDOT's Region 1 (207-885-7000), NHDOT's Bureau of Traffic (Julie Mathews, 603-271-8011), NHDOT's Bureau of Turnpikes (Dix Bailey 603-396-5054), the Maine Turnpike Authority (John Cannell, Director of Highway & Equipment Maintenance, 207-482-8127), the Town of Kittery, and the City of Portsmouth to ensure the roadway is acceptable for winter maintenance.
25. The Contractor shall notify the New Hampshire Traffic Management Center (NHTMC) within 10 minutes of installing the first advanced warning sign for a lane closure or lane blocking event, regardless of the prior approved construction phasing. The Contractor shall also notify the NHTMC within 10 minutes of removal of the last advanced warning sign.

The Resident may approve any refinements to the traffic control plan as appropriate. An additional notification with specific information on the pending change shall be provided to the Resident at least 48 hours in advance of the proposed traffic control change. This work will be subsidiary to Item 652.361 – Maintenance of Traffic Control Devices. No changes in traffic control will be allowed without completing all advanced notification requirements.

The Contractor shall communicate all lane altering events to:

NHTMC Operations Supervisor
Tel. (603-271-6862)

In addition, the Contractor shall notify and provide information regarding traffic control operations to the area emergency services noted below (subsidiary to Item 652.361 – Maintenance of Traffic Control Devices). Particularly this includes instances such as ramp

closures, resetting of granite curb on ramps, and other operations that may block traffic flow temporarily through the work zone:

Emergency Service Contacts:

- a. City of Portsmouth Fire Department (603-427-1515)
- b. Town of Kittery Fire Department (207-439-2262)
- c. New Hampshire State Police Dispatch (603-223-4381)
- d. Maine Turnpike TMC (for Maine State Police & MTA dispatch) (207-871-7701)

**SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(MTA MaineDOT Work Permit)**

The Contractor shall conduct his work in accordance with the MTA MaineDOT Work Permit included in this Contract named “AGREEMENT REGARDING ENTRY AND WORK IN MAINE TURNPIKE AUTHORITY LAND BY MAINE DEPARTMENT OF TRANSPORTATION AND IT’S CONTRACTORS”. This document is modified herein as noted:

All references to insurance minimums shall be raised to five million dollars (\$5,000,000).

SPECIAL PROVISION
SECTION 107
TIME
(Incentive/Disincentive)

1. Contract Substantially Complete is defined as follows:
 - a. Median and fascia barrier work is complete including transition barriers, guard rail installations and all attachments, and installation of the longitudinal joint seal.
 - b. All deck repair work is complete and the first course of pavement on the bridge is completely installed with temporary pavement markings.
 - c. All new bridge joints are installed including the permanent joint seal and existing bridge joints modified as required including the troughs and downspouts.
 - d. Bridge drains and downspouts are completely installed.
 - e. Truss hole screening and box strut caps are completely installed.
 - f. Approach work is complete except for milling, overlay, and final striping.
 - g. All temporary concrete traffic barriers have been completely removed from the roadway including the Barrier Transfer Machine.
 - h. Temporary striping is installed in the final striping configuration.
2. The Contract Substantially Complete Date is October 1, 2021.
3. The Contractor will receive an incentive of Seven Thousand U.S. Dollars (\$7,000) per day upon early acceptance of Contract Substantially Complete for each full Calendar Day prior to the Contract Substantially Complete Date specified above. The maximum incentive is Nine Hundred Forty-Five Thousand U.S. Dollars (\$945,000).
4. The Contractor shall pay a disincentive of Five Thousand Five Hundred U.S. Dollars (\$5,500) per Day for each Calendar Day after the specified Contract Substantially Complete date that Contract Substantially Complete is not accepted.
5. The Contractor will receive an incentive of One Hundred Thousand U.S. Dollars (\$100,000) should Contract Substantially Complete be accepted by 6:00 am Friday, May 21, 2021. (**NO EXCUSES** will be entertained for missing this time.)
6. The Contractor will receive an incentive of One Hundred Thousand U.S. Dollars (\$100,000) should Physical Work Complete be accepted within Calendar Year 2021.
7. The Contractor shall pay a disincentive of Seven Thousand U.S. Dollars (\$7,000) per Day for each Calendar Day after May 20, 2022 that Physical Work Complete is not accepted. (**NO EXCUSES** will be entertained for altering this date.)
8. Except for times that the Contractor is required to maintain three lanes of traffic in the northbound direction as defined in Special Provision Section 105, the Contractor will receive an incentive of Seven Thousand U.S. Dollars (\$7,000) for each Friday that three (3) lanes of traffic in the northbound direction is maintained from 12:00 pm to 10:00 pm.

9. Additionally, except for times that the Contractor is required to maintain three lanes of traffic in the northbound direction as defined in Special Provision Section 105, the Contractor will receive an incentive of Seven Thousand U.S. Dollars (\$7,000) for each of the following ranges of dates that three (3) lanes of traffic in the northbound direction are maintained from 6:00 am to 10:00 pm for every day in each range of dates:
 - a. Each weekend (Friday and Saturday) in April, May, October and November
 - b. December 24, 2019 to December 28, 2019 (Tuesday to Saturday of Christmas Week)
 - c. December 31, 2019 to January 4, 2020 (Tuesday to Saturday of New Year's Week)
 - d. President's Day weekends (Friday and Saturday before) of 2020 and 2021
 - e. December 24, 2020 to December 27, 2020 (Thursday to Sunday of Christmas Week)
 - f. December 31, 2020 to January 3, 2021 (Thursday to Sunday of New Year's Week)
10. Except for times that the Contractor is required to maintain three lanes of traffic in the southbound direction as defined in Special Provision Section 105, the Contractor will receive an incentive of Seven Thousand U.S. Dollars (\$7,000) for each Sunday that three (3) lanes of traffic in the southbound direction are maintained from 8:00 am to 10:00 pm beginning the first weekend in April 2019.
11. Additionally, except for times that the Contractor is required to maintain three lanes of traffic in the southbound direction as defined in Special Provision Section 105, the Contractor will receive an incentive of Seven Thousand U.S. Dollars (\$7,000) for each of the following ranges of dates that three (3) lanes of traffic in the southbound direction are maintained from 6:00 am to 10:00 pm for every day in the range of dates:
 - a. Each Sunday in April and May
 - b. December 24, 2019 to December 29, 2019 (Tuesday to Sunday of Christmas Week)
 - c. December 31, 2019 to January 5, 2020 (Tuesday to Sunday of New Year's Week)
 - d. President's Day weekends (Sunday and Monday) of 2020 and 2021
 - e. December 24, 2020 to December 27, 2020 (Thursday to Sunday of Christmas Week)
 - f. December 31, 2020 to January 3, 2021 (Thursday to Sunday of New Year's Week)
12. The incentives listed in Notes 8 through 11 above shall stop after the Contract has been accepted as Contract Substantially Complete, or 10 days before Memorial Day 2021, whichever is later.
13. The Contractor shall not have lane closures in the times listed in Notes 8 through 11 after the Contract has been accepted as Contract Substantially Complete.
14. After Contract Substantially Complete is accepted, the Contractor shall pay a fee of \$3500 for each Day that the roadway is reduced to two (2) lanes of traffic within the hours of 6:00 am to 10:00 pm.
15. Additional penalties are noted in Special Provision Section 105 Limitations of Operations.

SPECIAL PROVISION
SECTION 607
FENCES
(Protective Screening)

607.01 Description

The following paragraph is added:

The work shall include the installation of Protective Screening on the bridge to the limits shown on the plans.

607.06 Method of Measurement

The following paragraph is added:

Protective Screening will be measured by the linear foot accepted in place.

607.07 Basis of Payment

The accepted quantities of Protective Screening shall be paid for at the contract unit price per foot of Protective Screening. Payment shall be full compensation for furnishing and installing all materials as shown on the plans including labor, tools, and incidentals required to complete the installation.

Payment will be made under:

Pay Item

Pay Unit

607.432 Protective Screening

Linear Foot

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
(Traffic Officers)

652.4.1 Traffic Officers Add the following:

This work shall adhere to the following situations:

- 1.) When roadway closures are required.
- 2.) When work being done at or around a signalized intersection necessitates that the signal be put on flash or shut off and traffic directed by traffic officers.
- 3.) As directed by the Resident.
- 4.) State Police shall be required for use on the Interstate.
- 5.) Local Police shall be used off the Interstate system.

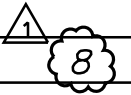
General. The Contractor shall make requests for uniformed police officers a minimum of 7 days in advance. Any changes to previously scheduled requests shall be made a minimum of 48 hours in advance.

Date:11/30/2018

Username:

Division: HIGHWAY

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ESTIMATED QUANTITIES									
ITEM NO.	DESCRIPTION	QUANTITIES							UNIT
		N.H. APPROACH ROADWAY	N.H. APPROACH BRIDGE SPANS	RIVER BRIDGE	MAINE APPROACH BRIDGE SPANS	MTA APPROACH ROADWAY	MAINTENANCE OF TRAFFIC	TOTAL QUANTITY	
202.12	Removing Existing Structural Concrete		880	830	830			2,540	CY
202.121	Concrete Haunch Removal		29600		2600			32,200	LF
202.127	Removing of Existing Bituminous Pavement (50400 SY)		0.43	0.28	0.29			1	LS
202.1294	Bridge Drainage System Removal		0.5	0.5				1	LS
202.1295	Hydra-Demolition, Property of Contractor		1530	1500	1500			4,530	SY
202.13	Removing Existing Railings Retained by Department		1870	2690	2700			7,260	LF
202.202	Removing Pavement Surface	16200	21500	14700	14500	9350		76,250	SY
202.203	Pavement Butt Joints					7305		7,305	SY
202.205	Rumble Strip - Shoulder	3800				12800		16,600	LF
202.207	Rumble Strips, Fill						850	850	LF
203.20	Common Excavation					3160		3,160	CY
203.24	Common Borrow					670		670	CY
203.25	Granular Borrow					1150		1,150	CY
205.41	Reconstruction of Existing Shoulder, Plan Quantity					7000		7,000	SY
205.51	Widening of Existing Shoulder, Plan Quantity					3100		3,100	SY
304.10	Aggregate Subbase Course - Gravel					380		380	CY
304.14	Aggregate Base Course - Type A					260		260	CY
403.2081	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Polymer Modified)					6000		6,000	TON
403.2101	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Polymer Modified)	900	1800	1250	1200			5,150	TON
403.211	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)					1500		1,500	TON
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Course)					4050		4,050	TON
403.2131	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Course, Polymer Modified)		3000	2050	2000	1800		8,850	TON
409.15	Bituminous Tack Coat, Applied	650	1080	740	730	4650		7,850	GAL
461.131	Temporary Pavement						56	56	TON
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (1980 CY)		0.33	0.34	0.33			1	LS
502.705	Composite Bridge Drain (256 EA)		0.17	0.58	0.25			1	LS
503.12	Reinforcing Steel, Fabricated and Delivered		228000	189000	219000			636,000	LB
503.13	Reinforcing Steel, Placing		228000	189000	219000			636,000	LB
504.709	Bridge Hardware, Truss Screen Panel (800 EA)			1				1	LS
504.811	Structural Steel Repair			1900				1,900	LB
514.06	Curing Box for Concrete Cylinders								EA
515.21	Protective Coating for Concrete Surfaces (45950 SY)		0.47	0.15	0.38	0.00		1	LS
518.51	Repair of Upward Facing Surfaces - Below Reinforcing Steel <8 inches		7700	7700	5000			20,400	SF
518.52	Repair of Upward Facing Surfaces ≥ 8 inches		5	3	3			11	CY
518.60	Repair of Vertical Surfaces < 8 inches		600	280	520	50		1,450	SF
518.70	Repair of Overhead Surfaces < 8 inches		320	210	240			770	SF
520.2321	Asphaltic Crack Control Joint (240 LF)		0.58		0.42			1	LS
520.245	Bridge Joint Modifications Type 5			36				36	EA
520.261	Longitudinal Joint Seal		1850		1350			3,200	LF
521.32	Fabric Trough for Finger Joint (Anchor Piers)			4				4	EA
521.32	Fabric Trough for Finger Joint (Approach Spans)							18	EA
524.40	Protective Shielding		0.92		0.08			1	LS
526.301	Temporary Concrete Barrier, Type I (9500 LF)						1	1	LS
526.307	Movable Temporary Concrete Barrier (9700 LF)						1	1	LS
526.312	Permanent Concrete Barrier, Type II Modified (13780 LF)		0.4	0.2	0.4			1	LS
526.331	Permanent Concrete Median Barrier, Type IIIb Modified (1345 LF)			1				1	LS
526.36	Median Barrier Fixed Object Protection					165		165	LF
526.50	Precast Concrete Barrier, Median					4440		4,440	LF
527.331	Truck Mounted Attenuator						2	2	EA
527.341	Work Zone Crash Cushions - TL-3						3	3	UNIT
530.25	FRP Grating			900				900	SF
603.159	12" Culvert Pipe Option III					63		63	LF
604.09	Catch Basin Type B1					2		2	EA
604.26	Catch Basin Type B5					10		10	EA
604.161	Altering Catch Basin					5		5	EA
604.164	Rebuilding Catch Basin					3		3	EA
604.18	Adjusting Manhole or Catch Basin to Grade					9		9	EA
605.105	8 Inch Underdrain Type B					13		13	LF
606.1301	31" W-Beam Guardrail - Mid-Way Splice (Steel Post, 8" Offset Blocks, Single Faced)					3530		3,530	EA
606.1305	31" W-Beam Guardrail Mid-Way Splice Flared Terminal					3		3	EA
606.1723	Bridge Transition - Type III	2				2		4	EA
606.1724	Bridge Transition - Type III, Modified					1		1	EA
606.277	Terminal End - Anchored End					2		2	EA
606.352	Reflectorized Beam Guardrail Delineator						100	100	EA
606.353	Reflectorized Flexible Guardrail Marker					8		8	EA
606.356	Underdrain Delineator Post					2		2	EA
606.362	Guardrail, Adjust					1970		1,970	LF
606.363	Guardrail Remove And Dispose					8700		8,700	LF
606.569	Remove, Modify And Reset, Double Rail					65		65	LF
607.17	Chain Link Fence - 6 foot				700			700	LF
 607.432	Protective Screening		120					120	LF
608.07	Plain Concrete Sidewalk	220						220	SY
609.312	Special Curb, Type 2	30				60		90	LF

TYLIN INTERNATIONAL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AC-IM-1927(000)E
WIN
BRIDGE NOS. 6330
019270.00

PROJ. MANAGER
Leanne Timberlake

CHECKED-REVIEWED
J. Legere
D. Myers
B. Tothaker

DESIGNED-DETAILLED
JUL 5/21/32 & 607.432

REVISIONS
2
3
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DATE
10/18
10/18
11/18

SIGNATURE

P.E. NUMBER

DATE

KITTERY - PORTSMOUTH BRIDGE
OVER PISCATAQUA RIVER
KITTERY-PORTSMOUTH YORK COUNTY
ESTIMATED QUANTITIES
SHEET 1 OF 2

SHEET NUMBER
2A
OF 230

ESTIMATED QUANTITIES		QUANTITIES							UNIT
ITEM NO.	DESCRIPTION	N.H. APPROACH ROADWAY	N.H. APPROACH BRIDGE SPANS	RIVER BRIDGE	MAINE APPROACH BRIDGE SPANS	MTA APPROACH ROADWAY	MAINTENANCE OF TRAFFIC	TOTAL QUANTITY	
610.08	Plain Riprap		55		90	1360		1505	CY
615.07	Loam					630		630	CY
618.14	Seeding Method No. 2					51		51	UNIT
620.58	Erosion Control Geotextile		160		260			420	SY
620.622	Cellular Confinement System					610		610	SY
626.222	FRP Conduit		4800	4900	4800			14,500	LF
627.18	12 Inch Solid White Pavement Marking Line					3550		3,550	LF
627.1801	12" Solid White Retroreflective Thermoplastic Pavement Marking	690						690	LF
627.51	6 Inch Temporary Pavement Tape, Yellow or White						6500	6,500	LF
627.57	12 Inch Removable Black Line Masking Tape						1350	1,350	LF
627.744	6" White or Yellow Painted Pavement Marking Line	7655	12195	9715	11300	42235		83,100	LF
627.7441	6" White Retroreflective Thermoplastic Pavement Marking	5650						5,650	LF
627.77	Removing Existing Pavement Marking						130000	130,000	SF
627.781	Temporary 6" Painted Pavement Marking Line, White or Yellow						400000	400,000	LF
627.812	Temporary Raised Pavement Markers						36200	36,200	EA
627.94	Pavement Marking Tape					805		805	LF
627.941	Pavement Marking Tape - Dotted White Lane Line, 6-inch Width					385		385	LF
629.05	Hand Labor - Straight Time					80		80	HR
631.10	Air Compressor (Including Operator)					10		10	HR
631.11	Air Tool (Including Operator)					10		10	HR
631.12	All Purpose Excavator (Including Operator)					30		30	HR
631.172	Truck, Large (Including Operator)					5		5	HR
634.160	Highway Lighting		0.33	0.34	0.33			1	LS
634.210	Conventional Light Standard		10	12	14			36	EA
639.18	Field Office, Type A		0.25	0.25	0.25	0.25		1	EA
643.71	Traffic Signal Modification: I-95 SB / Market St						1	1	LS
643.71	Traffic Signal Modification: I-95 NB / Market St						1	1	LS
643.71	Traffic Signal Modification: Route 1 Bypass / Albacore						1	1	LS
643.871	Weigh-In-Motion System					1		1	LS
645.103	Demount Guide Sign					1		1	EA
645.106	Demount Regulatory, Warning, Confirmation and Route Marker Assembly Sign					3		3	EA
645.113	Reinstall Guide Sign					1		1	EA
645.116	Reinstall Regulatory, Warning, Confirmation and Route Marker Assembly Signs					3		3	EA
645.521	Travel Time Sign Integration						1	1	LS
645.523	Travel Time Data						1	1	LS
652.30	Flashing Arrow					4		4	EA
652.312	Type III Barricades					20		20	EA
652.33	Drum					600		600	EA
652.34	Cone					100		100	EA
652.35	Construction Signs					3000		3,000	SF
652.361	Maintenance of Traffic Control Devices					1		1	LS
652.38	Flaggers					3000		3,000	HR
652.381	Traffic Officers					640		640	HR
652.382	Traffic Monitor					915		915	CD
652.41	Portable-Changeable Message Sign					26		26	EA
652.451	Automated Trailer Mounted Speed Limit Sign					200		200	CD
655.511	Embedded Galvanic Anode	(16300 LF)	7110	4520	4530			16,160	EA
655.513	Embedded Cathodic Protection System		0.34	0.33	0.33			1	LS
656.75	Temporary Soil Erosion and Water Pollution Control		0.15		0.15	0.70		1	LS
659.10	Mobilization	0.01	0.25	0.24	0.19	0.11	0.20	1	LS

BID ALTERNATE 1									
508.1401	High Performance Waterproofing Membrane, Torch Applied	(50700 SY)	0.42	0.29	0.29			1	LS

BID ALTERNATE 2									
508.1402	High Performance Waterproofing Membrane, Spray Applied	(50700 SY)	0.42	0.29	0.29			1	LS

EARTHWORK COMPUTATIONS

COMMON EXCAVATION FOR ESTIMATE									
Common Excavation (from Cross Sections)							3170		
Grubbing in Fill							211		
Total Common Excavation								3381	
FILL FOR BORROW CALCULATIONS									
Common Fill (from cross sections)							660		
Grubbing in Fill							211		
Pavement Salvage in Fill							0		
Total Fill								871	
ROCK EXCAVATION FOR ESTIMATE									
Rock Excavation (from cross sections)							-		
Rock Excavation (ledge undercuts)							-		
Total Rock Excavation								0	

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS									
(1) Total Common Excavation								3381	
Deductions:									
Grubbing in Cut							496		
Grubbing in Fill							211		
Pavement in Cut							1369		
(2) Total Deductions								2075	
Total Available Common Excavation (1) minus (2)								1306	
Total Available Struct. Excavation (Underdrain only)								0	
Total Available Non-Rock Excavation								1306	
Total Available Rock Excavation								0	

COMPUTATION OF COMMON BORROW FOR ESTIMATE									
(3) Total Fill								871	
Total Available Non-Rock Excav.							1306	x	0.85 = 1110
Total Available Rock Excav.							0	x	1.33 = 0
Total Available Str. Rock Excav.							0	x	1.33 = 0
(4) Total Available Excavation									1110
Total Available Excavation minus Total Fill [(4)-(3)]									239
Total Surplus Material [(2)+(4)-(3)]									2314

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AC-IM-1927(000)E
BRIDGE NOS. 6330
WIN
019270.00

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

DATE
10/18
10/18
11/18

BY
D. Myers
B. Tootleker
JUL-Plain Riprap Moved

SIGNATURE

P.E. NUMBER

DATE

KITTERY - PORTSMOUTH BRIDGE
OVER PISCATAQUA RIVER
KITTERY-PORTSMOUTH YORK COUNTY
ESTIMATED QUANTITIES
SHEET 2 OF 2

SHEET NUMBER
3A
OF 230

GENERAL PROJECT NOTES

- 1. All details shall be in conformance with Maine Department of Transportation (MaineDOT) Standard Details, Highways and Bridges, latest revision and MaineDOT Best Management Practices for Erosion and Sediment Control, latest revision unless otherwise included in these plans.
- 2. For additional details referenced or not shown in these drawings, see the State of Maine, Department of Transportation Standard Details, latest revision.
- 3. For easements, construction limits and right-of-way lines, refer to Right-of-Way Map.
- 4. The Contractor is required to call Dig Safe at 1-888-344-7233 at least 72 hours prior to the start of the work.
- 5. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
- 6. "Undetermined Locations" shall be determined by the Resident.
- 7. 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 Specification Section 109.7, Equitable Adjustments to Compensation.
- 8. A bead of Hot-Applied Rubberized Asphalt Sealer (ASTM D6690, Type IV) shall be applied along barriers after installation of base course and on all surface pavement joints. Payment will be incidental to related contract items.
- 9. Pay Item 527.34I, Work Zone Crash Cushions (TL-3) used to protect the Moveable Temporary Concrete Barrier (MTCB) shall be able to pass through the Barrier Transfer Machine. Differing crash cushion types under this pay item are anticipated for the MTCB and the Temporary Concrete Barrier, Type I.

GENERAL APPROACH NOTES

- 1. The Contractor is responsible for the careful side-staking of existing centerline as per Standard Specification 105.6.2. Side stakes shall be placed safely outside of the construction limits and the NB and SB crown grades shall be transferred to these stakes. These stakes and grades will be used to layout centerline and determine new construction finish grades. All layout, stakes, and grades will be checked and must be acceptable to the Resident.
- 2. The Contractor will place appropriately marked stakes at every 500' for stationing. The Contractor will paint every full station (100') on the existing roadway and will transfer the painted stationing through all intermediate lifts (not surface). Stationing control must be placed before work can commence.
- 3. Portable Changeable Message Signs (PCMS) shall be located in their temporary location as approved by the Resident. The signs shall be in place and functioning properly prior to all appropriate construction phases.
- 4. No separate payment for superintendent or foreman will be made for the supervision of equipment and layout of work being paid for under the equipment rental items.
- 5. All clearing shall be considered incidental to the contract and no separate payment will be made. The actual lines for clearing shall be established in the field by the Contractor and approved by the Resident.
- 6. All joints between existing and proposed hot bituminous pavement shall be butted. Payment will be made under Item 202.203, "Pavement Butt Joints".
- 7. Payment for sawcutting existing pavement will be incidental to related 205 items.
- 8. Payment for removing and regrading existing aggregate subbase will be incidental to related 205 items.
- 9. Any necessary cleaning of existing pavement prior to paving (or milling) shall be incidental to the related paving (or milling) items. This includes killing and removal of all vegetative matter.
- 10. Any base pavement not surfaced before opening to traffic will require temporary pavement markings of paint, both yellow and white edge lines, and broken white lane lines, and will be considered part of Item 627.78.
- 11. Final striping for the project shall be done by the Contractor per the striping layout in the contract documents or as provided by the Department. Payment will be made under appropriate contract items.
- 12. Grind transition tapers at Catch Basins in accordance with Standard Detail 609(05) or as directed by the Resident; payment will be incidental to related contract items.
- 13. Any necessary cutting of existing catch basins to allow for proposed pipe connections will not be paid for separately and will be considered incidental to related 603 or 605 items.
- 14. Existing culverts and catch basins will be cleaned as directed by the Resident; payment will be incidental to related 604 items.
- 15. Existing catch basins which are removed and not reused on the project will become the property of the contractor. Payment will be incidental to related 604 items.
- 16. Flat tops for catch basins are not allowed unless noted on the plans or directed by the Resident.

- 17. Option III drainage pipes will consist of reinforced concrete pipe or plastic pipe. No corrugated metal pipe will be allowed.
- 18. Any necessary cutting of existing pipes to fit in areas of proposed catch basins will not be paid for separately and will be considered incidental to Item 604.
- 19. No existing drainage shall be abandoned, removed or plugged without prior approval of the Resident.
- 20. Any necessary cutting of existing drainage pipes to attach and extend with new drainage pipe, will not be paid for separately and will be considered incidental to Item 603.
- 21. Backslaping of trenches required to install drainage pipes will not be allowed.
- 22. Inlets and outlets of all culverts shall be riprapped unless otherwise noted on the plans or directed by the Resident.
- 23. Place a 24 inch wide strip of Temporary Erosion Control Blanket along the top of all riprap downspouts. Payment will be incidental to Item 610.08, "Plain Riprap".
- 24. Extended-use Erosion Control Blanket, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion. Payment will be incidental to related Contract items.
- 25. Cellular Confinement System shall be used on all slopes steeper than 2:1 and shall be installed per the special provisions.
- 26. Where deemed necessary by the Resident, unsuitable excess material shall be removed from the edges of shoulders and placed in designated areas or disposed of. Payment will be incidental to related contract items.
- 27. The Contractor shall place suitable existing or other material acceptable to the Resident on all pavement edges to allow a drop off no greater than the surface pavement thickness. The material shall be graded to match existing in-slope or as directed by the Resident before surface is placed. The Contractor will be paid under appropriate equipment rental items. Borrow is not authorized until all acceptable waste material has been utilized. Seed and Mulch will be paid for at the contract unit price.
- 28. Loam has been estimated for disturbed areas. Actual placement of the loam shall be as noted on the plans or designated by the Resident.
- 29. Unless otherwise noted Seeding Method No. 2 shall be utilized on all disturbed areas.
- 30. Loam shall be placed to a nominal depth of 4 inches in all areas unless otherwise noted or directed.
- 31. Any damage to the slopes caused by the Contractor's equipment, personnel, or operation shall be repaired to the satisfaction of the Resident. All work, equipment, and materials required to make repairs will be at the Contractor's expense.
- 32. All waste material not used on the project shall be disposed of off the project in acceptable waste areas reviewed by the Resident. Grading, seeding and mulching of waste areas shall be considered incidental.
- 33. Guardrail which is removed and not reused on the project shall become the property of the Contractor. Payment will be made under Item 606.363, "Guardrail Remove and Dispose".
- 34. Guardrail end treatments shall be installed concurrently with the placement of each section of beam guardrail.
- 35. Holes created by Guardrail removal shall be filled and compacted with approved materials as directed by the Resident. Payment to be considered incidental to the guardrail items.
- 36. Connections for proposed guardrail to existing guardrail will be considered incidental to Item 606.
- 37. Guardrail posts shall be 9'-0" minimum when installed adjacent to side slopes which are steeper than 2:1.
- 38. The Contractor shall remove both Median Barrier Transitions Type I, including connection I-beams, from the terminal end of the existing barrier at the Dennett Road Bridge. The Contractor shall reset one barrier at the terminal end of the proposed median barrier; payment will be made under Item 526.50, "Precast Concrete Barrier, Median". The barrier which is not reused on the project will be delivered to and unloaded at the MTA York maintenance yard or another location, as directed by the Resident; payment will be incidental to Item 526.50, "Precast Concrete Barrier, Median".
- 39. An NCHRP350 compliant FLEAT guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail; no exceptions or substitutions will be considered.

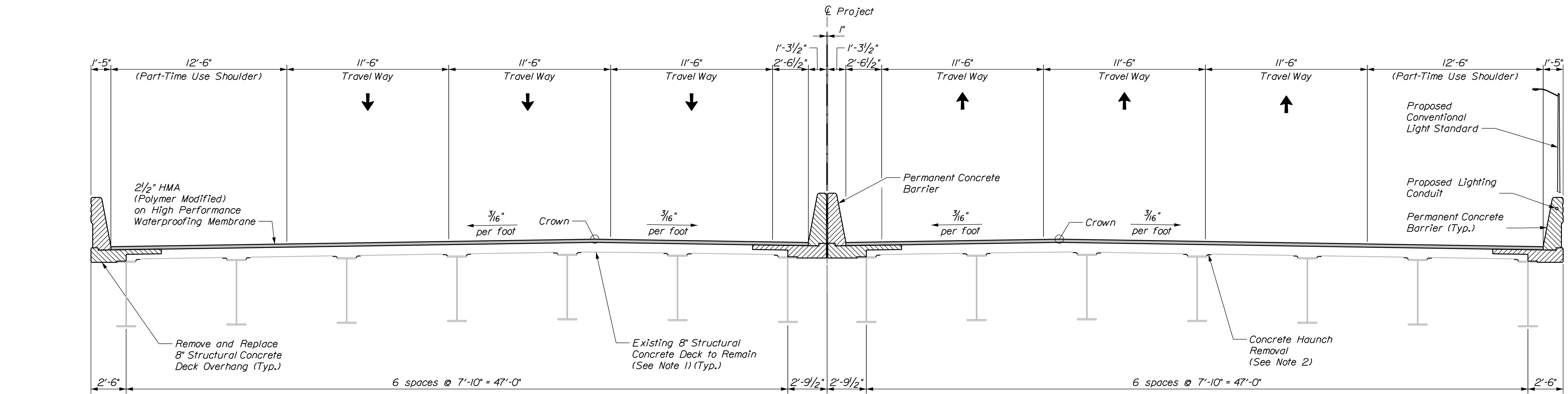
GENERAL BRIDGE NOTES

- 1. Bidders and Contractors may obtain a copy of the existing bridge plans by faxing a Request for Information to the Bid Contact Person. 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.
- 2. Bidders and Contractors may obtain a copy of the bridge deck evaluation report of the existing bridge by faxing a Request for Information to the Bid Contact Person. 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.
- 3. The proposed elevations are based on the NAVD 88 Datum. The as-built bridge plans are based on NGVD 29 Datum.
- 4. All aluminum bridge rail, rail posts, and associated hardware which are to be removed shall be carefully salvaged by the Contractor and will remain the property of the Department. The Contractor shall deliver and unload all salvaged materials to the nearest MaineDOT maintenance lot, as directed by the Resident. Payment will be considered incidental to related contract items.

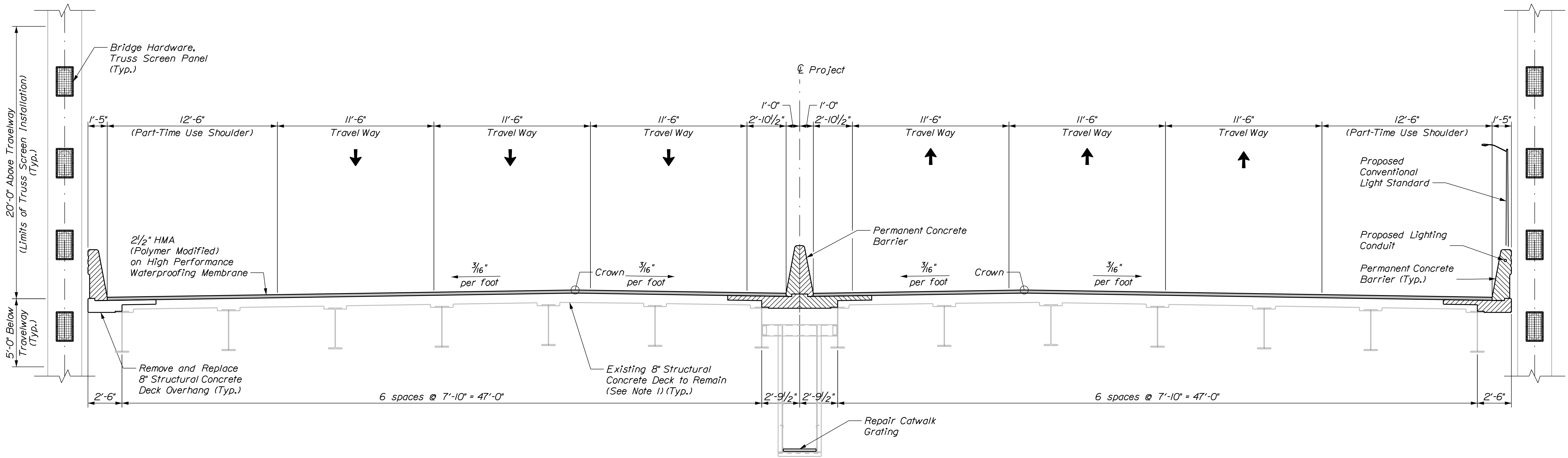
- 5. All LED light heads that are removed shall be carefully salvaged by the Contractor and will remain the property of the NHDOT. The Contractor shall deliver and unload the LED light heads to the NHDOT Bridge Maintenance Facility at 10 Ranger Way, Portsmouth, NH, as directed by the Resident. Payment will be considered incidental to related contract items.
- 6. Slipforming of curbs and barriers will not be permitted.
- 7. All proposed inside and top faces of the bridge fascia barriers and both traffic faces and top face of median barriers shall receive a rubbed finish prior to the application of the Protective Coating for Concrete Surfaces.
- 8. The Contractor shall be responsible for repairing areas of the existing paint system which is damaged by The Contractor's operations, as directed by The Resident.
- 9. The steel portions of the existing bridge are 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 the process of demolishing any portion of the bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. The Contractor is solely responsible for the care, custody and control of any components of the existing bridge, once they have been removed from the structure, unless otherwise noted in the plans. The Contractor is solely responsible for any hazardous waste generated as a result of the storage, recycling, or disposal of the bridge components, including lead-coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment and other costs required to remove and dispose of the existing bridge will be considered incidental to the related pay items.
- 10. Reinforcing steel shall have a clear cover of 2" min., unless otherwise noted.
- 11. Where drilling and anchoring of reinforcing steel is required, the Contractor shall use a material listed on the MaineDOT Prequalified List of Chemical Anchoring Materials. The depth of embedment shall be sufficient to develop 125% of the yield strength of the bar, but shall be no less than the minimum depth of embedment when specified. Where minimum embedment depth has not been specified, bar lengths have been developed based on an assumed embedment depth of 12 inches. The Contractor shall verify the required depth of embedment and adjust the required bar lengths as required.
- 12. Payment for drilling and anchoring of reinforcing steel is incidental to Item 503.13, "Reinforcing Steel, Placing", unless otherwise noted on the plans.
- 12. Concrete repairs, including the associated removals, will be paid under the related 518 items.
- 13. The minimum depth for all concrete patching areas shall be 1 inch behind all bars (longitudinal and transverse) in the reinforcing mat closest to the repair surface.
- 14. Any reinforcing steel required to replace deteriorated existing reinforcement shall be paid for under item 503.12, "Reinforcing Steel, Fabricated and Delivered" and Item 503.13, "Reinforcing Steel, Placing".
- 15. Chamfer all exposed concrete edges 3/4" unless otherwise noted.
- 16. All exposed concrete surfaces shall be coated with a protective coating in accordance with Specification Section 515, after patching is complete and patch materials have cured. Areas to be coated include:
 - a. Permanent Concrete Barrier and Permanent Concrete Median Barrier, to limits shown on plans.
 - b. Exposed concrete headers surrounding expansion/rotation joints and bridge drains in the deck.
 - c. All vertical and horizontal concrete surfaces for all substructure units, which are exposed in the final condition.

Equipment necessary to access areas of substructure units which are to receive protective coating shall be considered incidental to Item 515.20, "Protective Coating for Concrete Surfaces".

KITTELY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTELY-PORTSMOUTH YORK COUNTY	STATE OF MAINE DEPARTMENT OF TRANSPORTATION		AC-IM-1927(000)E		WIN 019270.00	
	PROJ. MANAGER Lennie Timberlake	BY S. Morcan D. Myers	DATE 9/18 9/18	SIGNATURE	P.E. NUMBER	DATE
	DESIGN-DETAILED J.B. Tothholder	CHECKED-REVIEWED N. Baker	DESIGN-DETAILED A	REVISIONS 1	REVISIONS 2	REVISIONS 3
GENERAL NOTES		FIELD CHANGES				
SHEET NUMBER						
5A						
OF 230						



TRANSVERSE APPROACH SECTION
(Maine approach spans shown, similar rehabilitation proposed for NH approach spans)

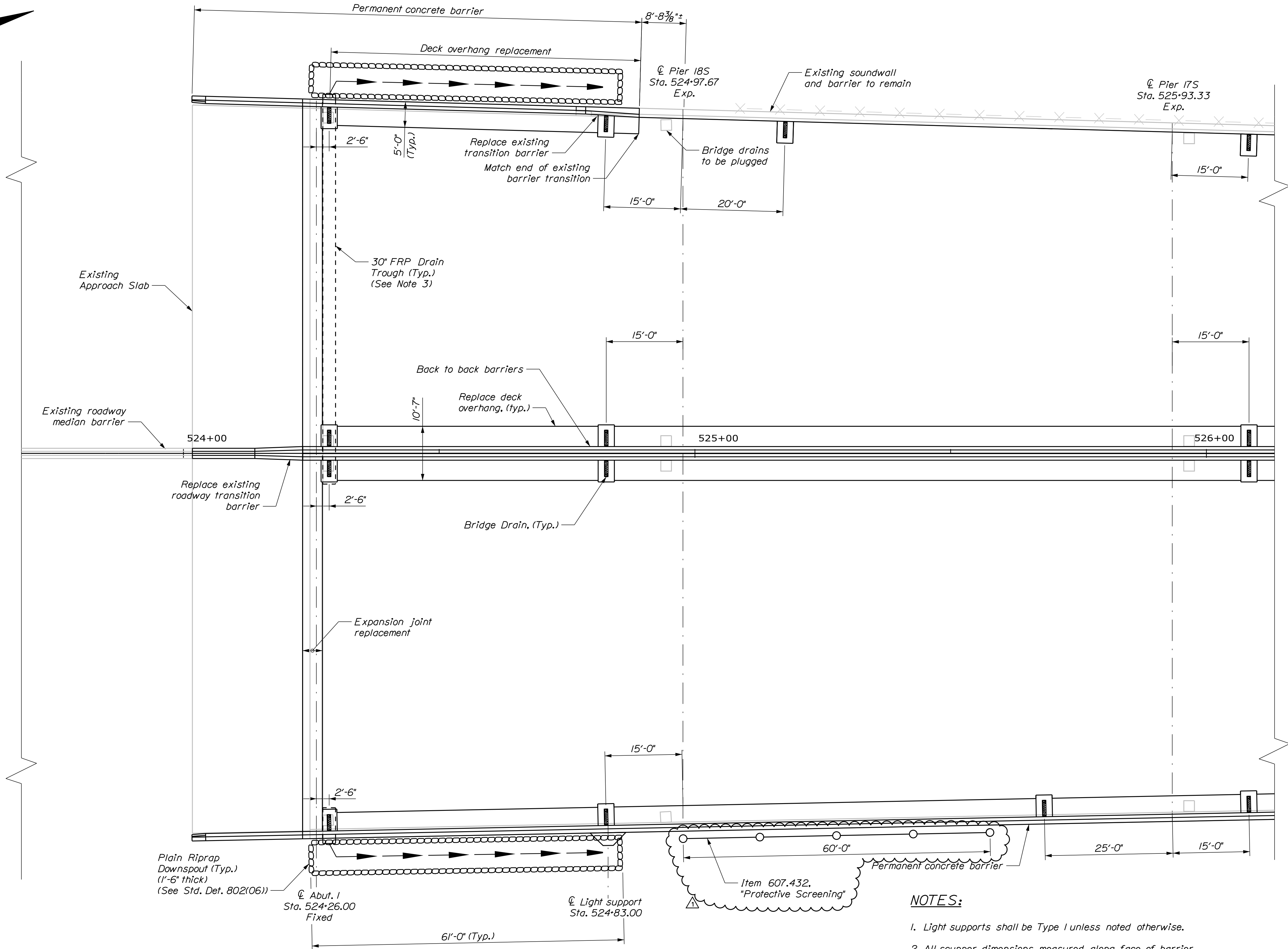
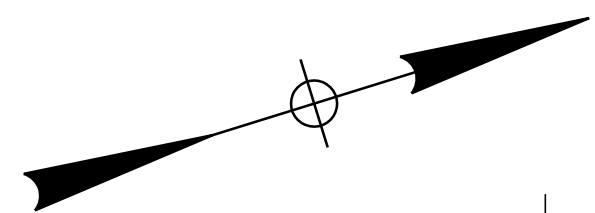


TRANSVERSE TRUSS SECTION

NOTES:

1. Repair all existing concrete deck to remain as directed by the Engineer. Payment will be made under 518 pay items. Galvanic anodes in concrete repairs shall be installed as specified in Special Provision 655 and will be paid for under 655 pay items.
2. See sheet "Concrete Haunch Removal Details" for details and locations where concrete haunches are to be removed.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	AC-IM-1927(000)E		BRIDGE NOS. 6330		WIN 019270.00		BRIDGE PLANS		
	SIGNATURE		P.E. NUMBER		DATE				
	DATE		BY		PROJ. MANAGER				
KITTELY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTELY-PORTSMOUTH YORK COUNTY		DESIGNED BY D. Myers		CHECKED BY S. Moran		DATE 9/18			
BRIDGE TYPICAL SECTIONS		DESIGNED BY JUL Remove ITS Conduit		CHECKED BY D. Myers		DATE 11/18			
SHEET NUMBER		REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4	
168A		FIELD CHANGES							
OF 230									

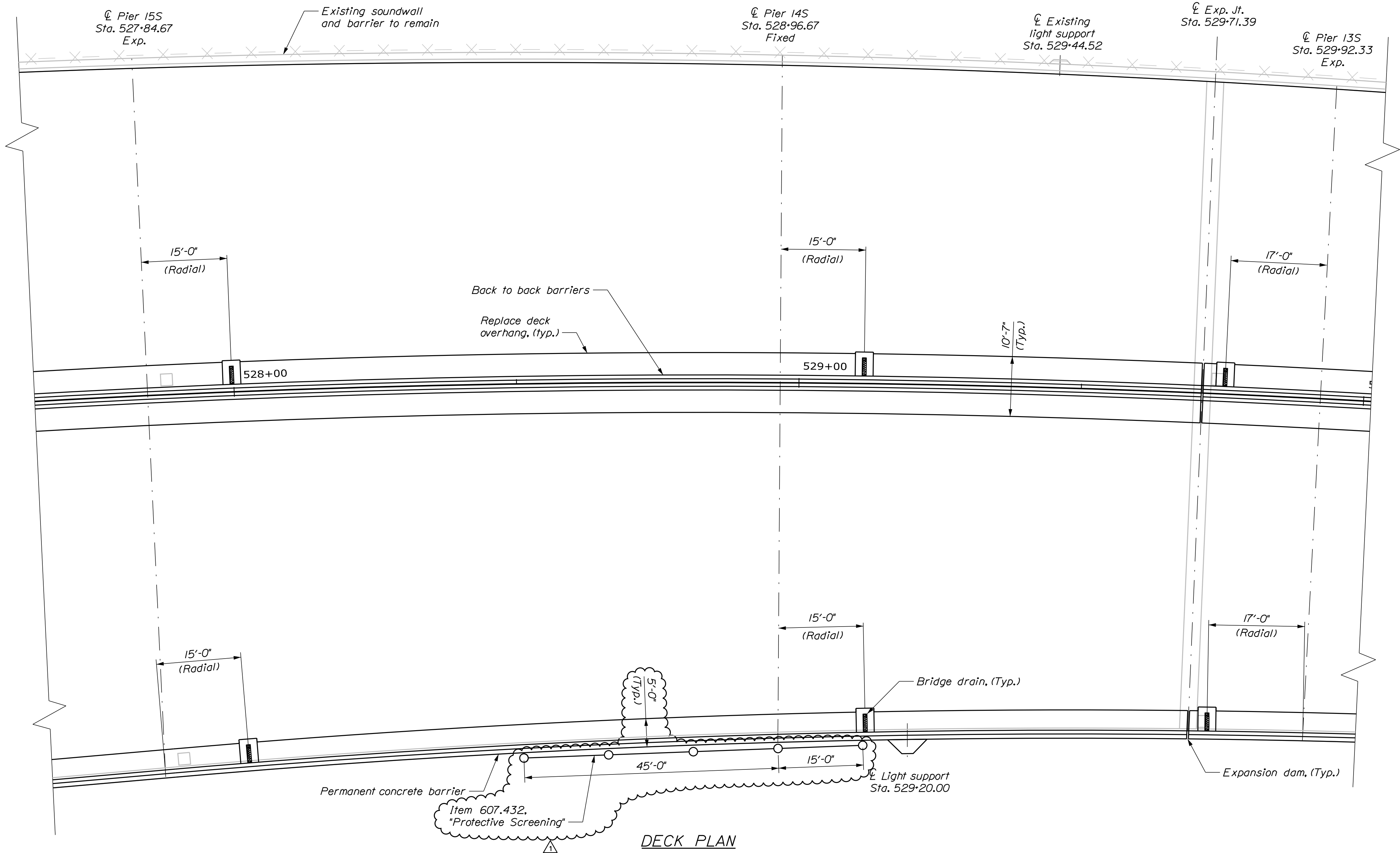
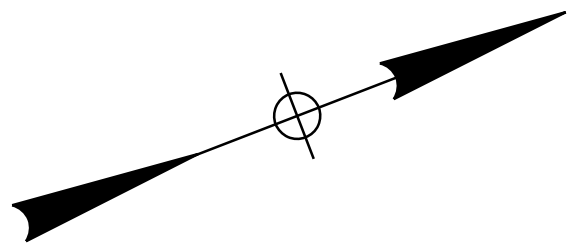


DECK PLAN

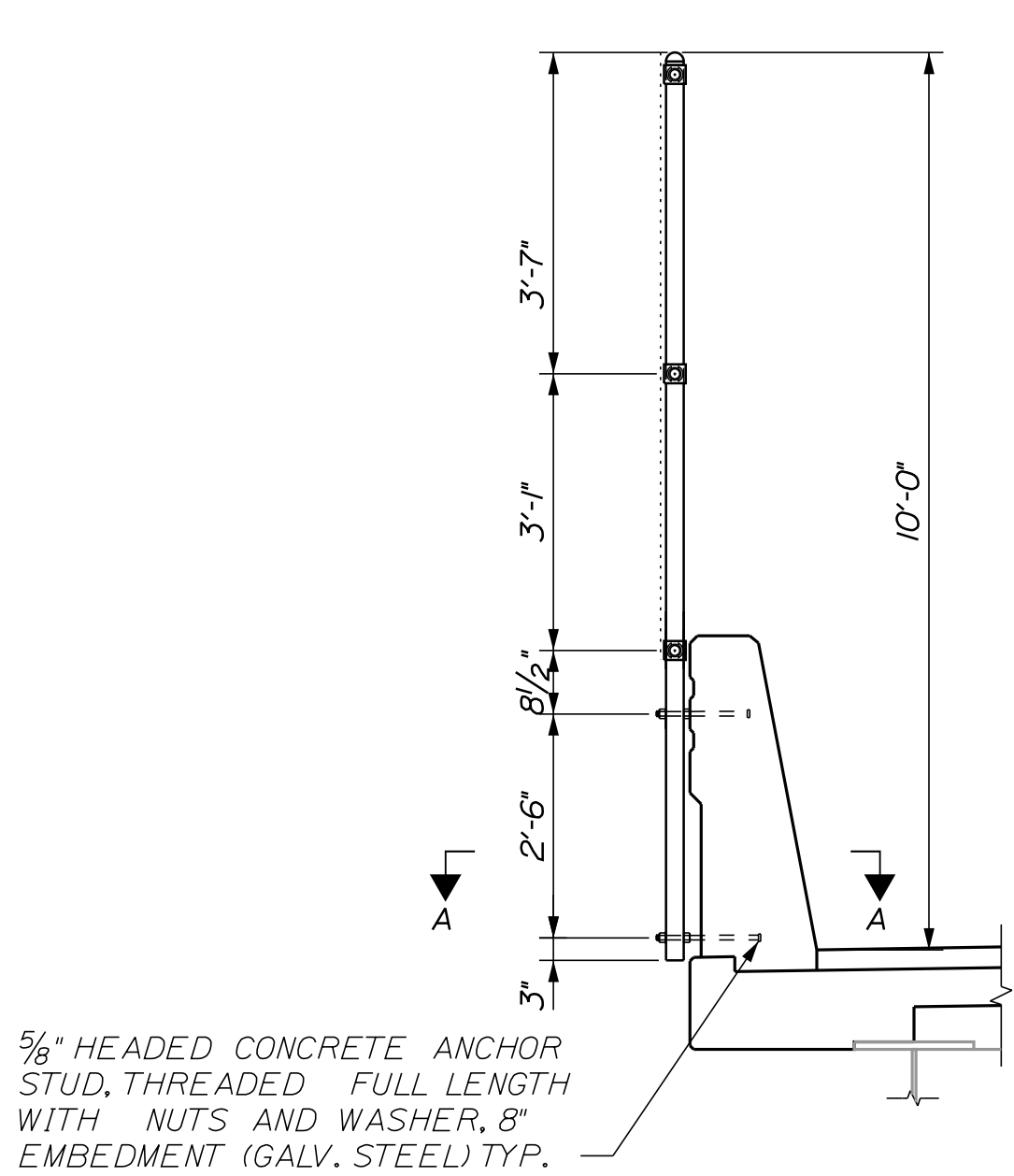
NOTES:

- Light supports shall be Type I unless noted otherwise.
- All scupper dimensions measured along face of barrier.
- 30" FRP Drain Troughs shall be incidental to Item 502.705, "Composite Bridge Drains"
- Existing bridge drains to be plugged (adjacent to the existing soundwall and barrier) shall be cut down to the height of the existing concrete deck and filled with concrete to create a smooth surface for membrane and pavement to cover. Cost shall be incidental to related contract items. Removal of closed drainage system below drains is paid for under Item 202.1294, "Bridge Drainage System Removal".
- Proposed hot mix asphalt pavement shall be tapered down from the full proposed 2 1/2" thickness down to 1/8" above the finger joint plates over the 35 feet on each side of each finger joint. Cost shall be incidental to related contract items.

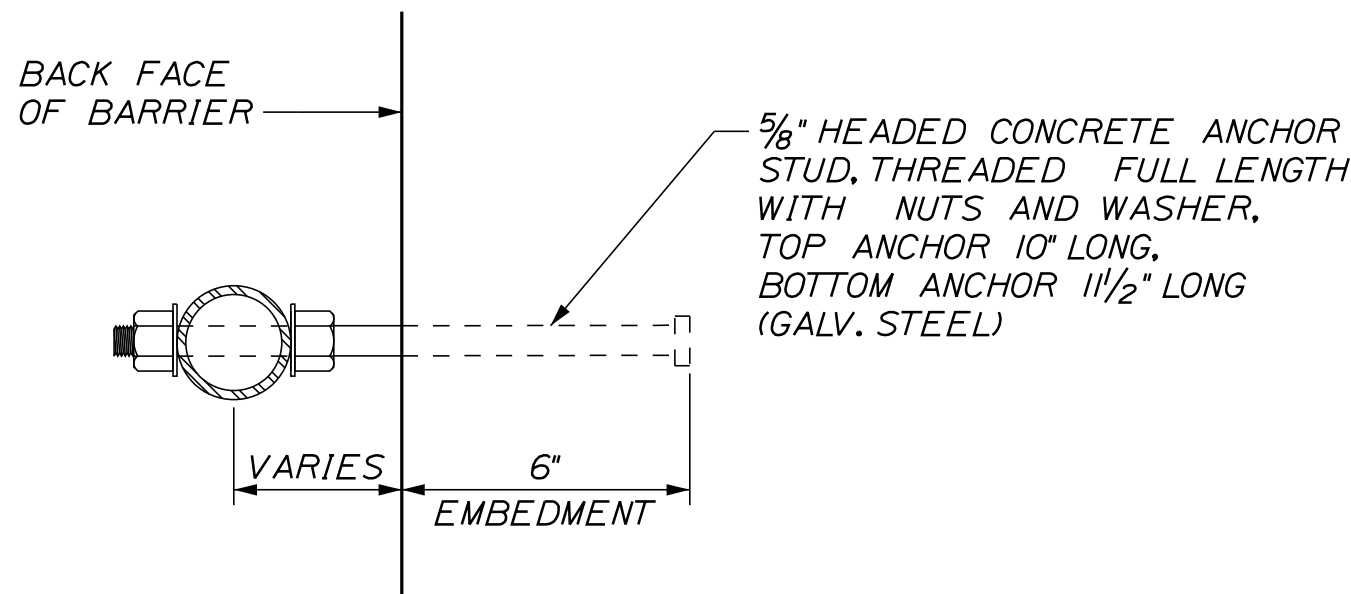
STATE OF MAINE DEPARTMENT OF TRANSPORTATION AC-IM-1927(000)E	KITTERY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTERY-PORTSMOUTH YORK COUNTY		SHEET NUMBER 178A	
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	BRIDGE NOS. 6330 WIN 019270.00		BRIDGE PLANS	



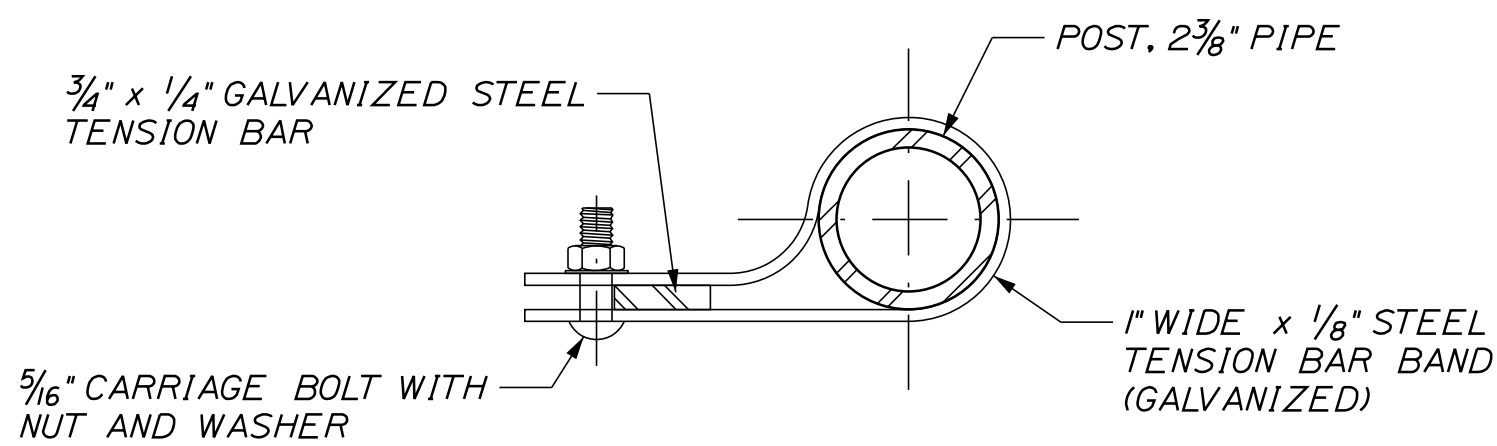
KITTERY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTERY-PORTSMOUTH YORK COUNTY		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
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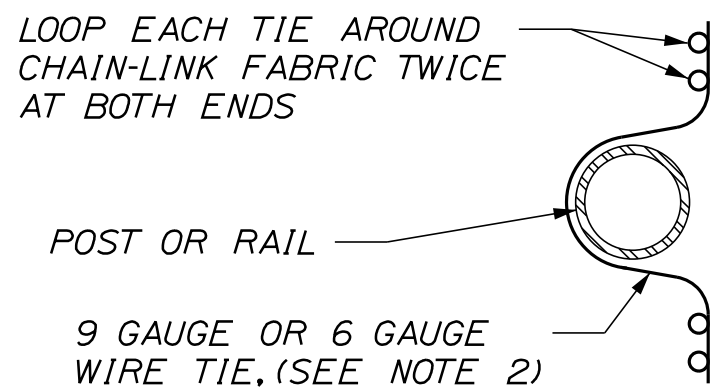
POST MOUNTING DETAIL ON BARRIER
SCALE: 1/2" = 1'-0"



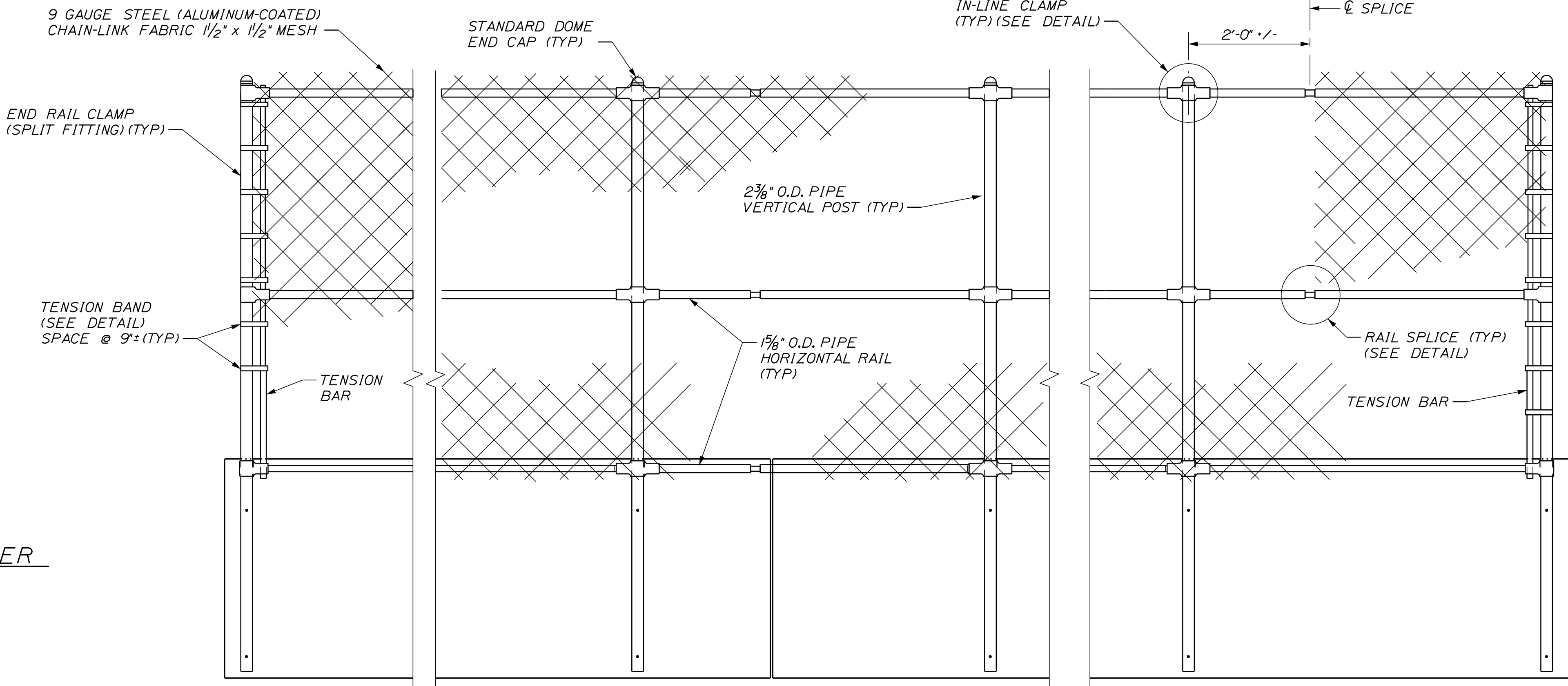
SECTION A-A
SCALE: 3" = 1'-0"



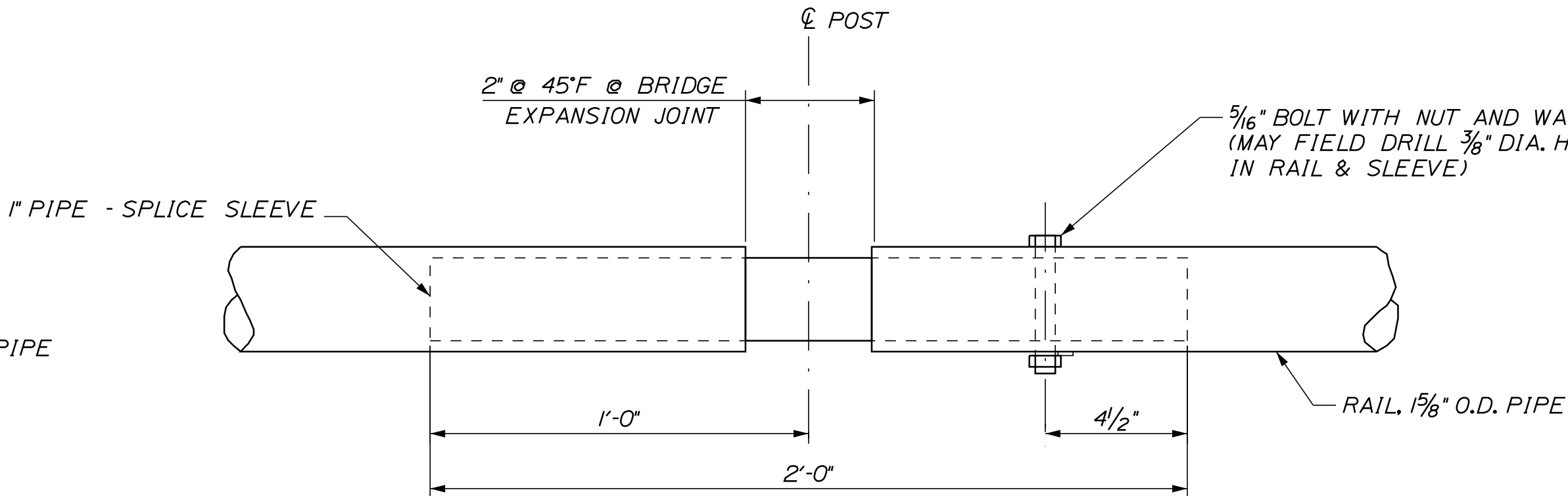
TENSION BAND DETAIL
1" = 1'-0"



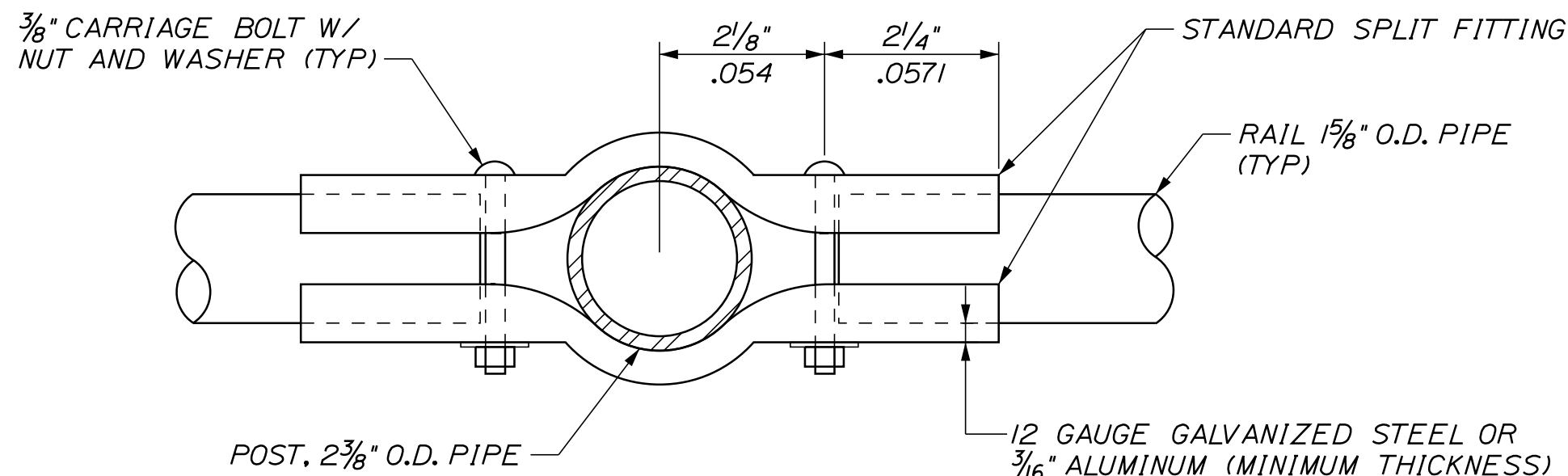
DOUBLE PIGTAILED TIE - ALTERNATE
NOT TO SCALE



FASCIA BARRIER BACK SIDE ELEVATION
SCALE: 3/4" = 1'-0"



RAIL SPLICE DETAIL
SCALE: 3" = 1'-0"

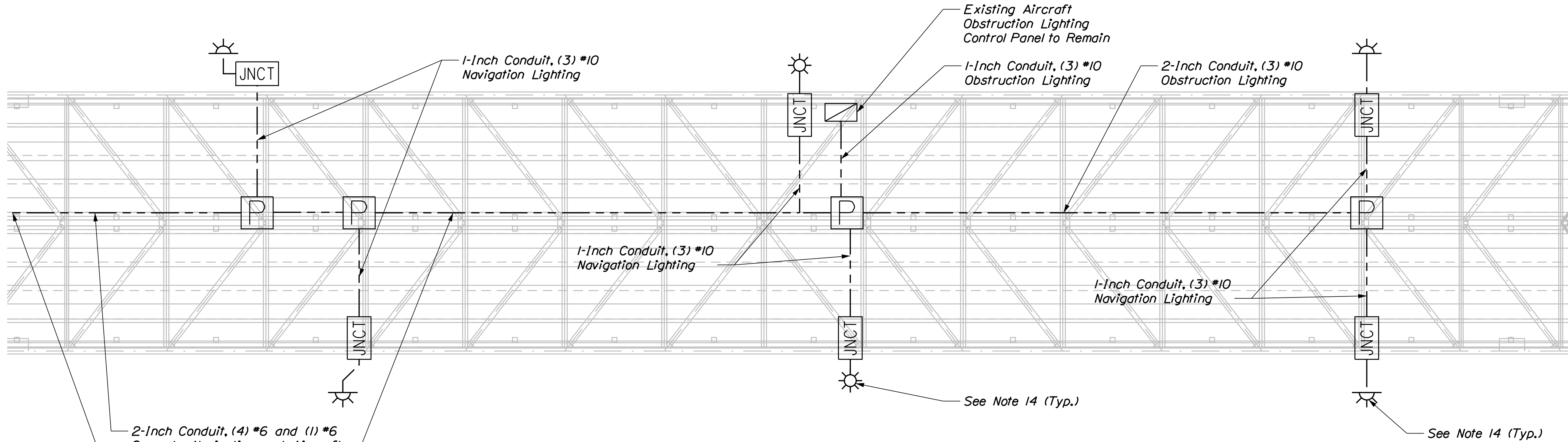
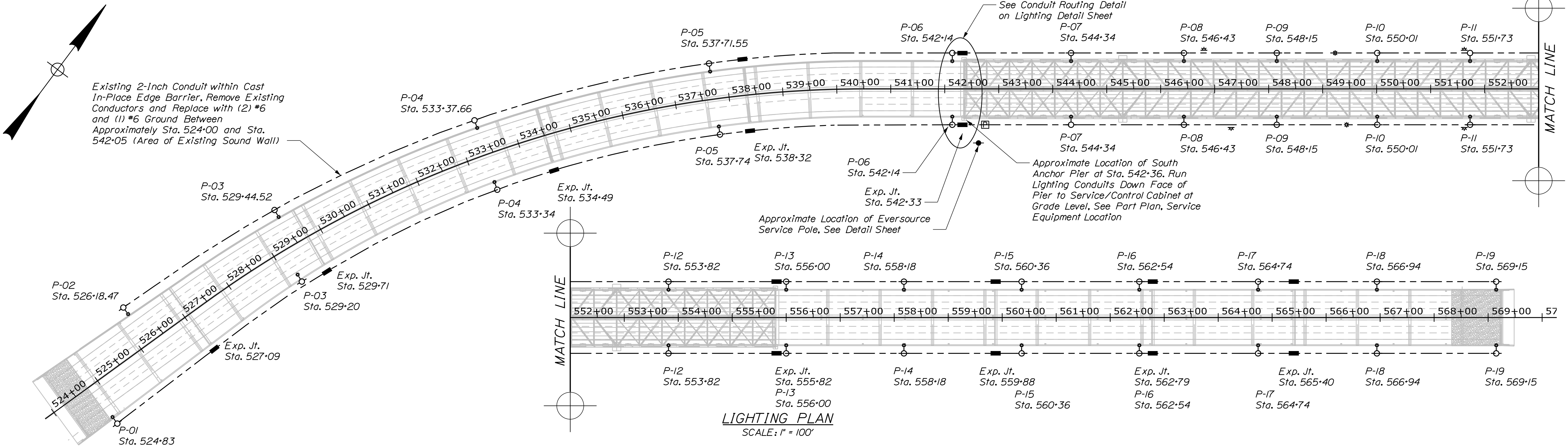


IN-LINE CLAMP DETAIL
SCALE: 6" = 1'-0"

GENERAL NOTES:

1. CHAIN-LINK FABRIC SHALL BE 9 GAUGE STEEL, ALUMINUM-COATED CONFORMING TO ASHTO M 181, TYPE II (ASTM A 491). CHAIN-LINK FABRIC SHALL BE KNUCKLED ON TOP AND BOTTOM. THE SIZE OF WIRE MESH (FABRIC) SHALL BE 1".
2. WIRE TIES SHALL BE STANDARD ROUND 9 GAUGE ALUMINUM-COATED STEEL OR 6 GAUGE ALUMINUM ALLOY CONFORMING TO ASTM F 626. ALL TIES SHALL BE WRAPPED AROUND CHAIN-LINK FABRIC TWICE (DOUBLE PIGTAILED) AT BOTH ENDS. SPACE TIES @ 6' O.C. TO BOTTOM RAIL AND @ 12' O.C. TO ALL POSTS AND OTHER RAILS.
3. POSTS AND RAIL PIPES SHALL BE HOT-DIP GALVANIZED STEEL CONFORMING TO AASHTO M 181, GRADE 1 (ASTM F 1083). ALL PIPES SHALL BE SCHEDULE 40, STANDARD WEIGHT.
4. TENSION BARS, BAR BANDS, IN-LINE CLAMPS AND END RAIL CLAMPS SHALL BE STEEL. STEEL COMPONENTS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M III (ASTM A 123) OR AASHTO M 232 (ASTM A 153) AS APPLICABLE. ALL BAR BANDS SHALL HAVE A BEVELED EDGE.
5. ALL BOLTS AND NUTS SHALL BE STEEL CONFORMING TO ASTM A 307 AND ASTM A 563 GRADE A RESPECTIVELY. WASHERS SHALL BE HARDENED STEEL COMMERCIAL TYPE A PLAIN AND SHALL MEET THE DIMENSIONAL REQUIREMENTS OF ANSI B18.22. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M III (ASTM A 123) OR AASHTO M 232 (ASTM A 153) AS APPLICABLE.
6. RAIL SPLICES SHALL BE PROVIDED AT PIER LOCATIONS.

PROJ. MANAGER	LEADER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	DSM	11/8	RPK	11/8			
CHECKED-REVIEWED	CPT	11/8	CPT	11/8			
DESIGN-DETAILED							
DESIGN-DETAILED	DSM - Added New Sheet	11/8					
REVISIONS 2							
REVISIONS 3							
REVISIONS 4							
FIELD CHANGES							



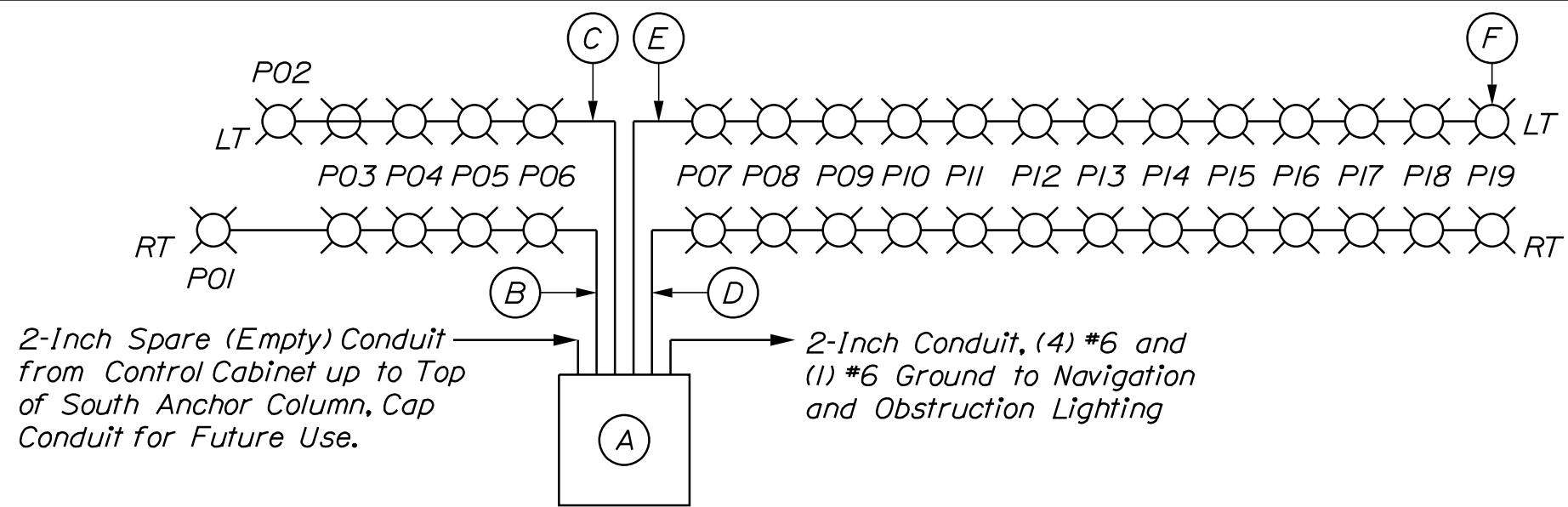
- LEGEND**
- Channel Center Light, 360° Green
 - Channel Margin Light, 180° Red
 - Roadway Lighting Pole and Luminaire
 - Aircraft Obstruction Lighting Control Panel
 - Pull Box 12"x12"x8" DEEP, NEMA 4X
 - Splice Box 8"x8"x6" DEEP, NEMA 4X
 - Lighting Control Panel
 - 2-Inch Conduit unless Indicated Otherwise
 - Conduit Down
 - OZ Gedney Type AX-8 Conduit Expansion Fitting to Accomodate Movement at Expansion Joint Locations. See Deck Drawings for Locations of Expansion Joints

GENERAL LIGHTING NOTES:

- In general, the scope of work will include the installation of a complete roadway lighting system; navigation lighting system; and providing a new power supply circuit to the existing aircraft obstruction lighting controller. Light standards will be paid for under Item 634.210, "Conventional Light Standard". The remainder of the lighting system as described herein, including (but not limited to) demolition and new conduit and installation, will be paid for under Item 634.160, Highway Lighting.
- Work includes for example, (but not limited to) electric service; conduit; expansion/deflection provisions; conductors; pull boxes; handholes (where required) lighting standards and arms; luminaires; controls; and required miscellaneous/incidental materials all in general conformance with the work indicated in Specifications and on plans, details, notes and schedules.
- All materials and workmanship shall conform to the current edition of the National Electrical Code (NFPA-70); Maine Department of Transportation (MaineDOT) Specifications for Miscellaneous Construction, Section 634 - Highway Lighting and Standard Details for Division 600 Miscellaneous Construction; New Hampshire Department of Transportation (NHDOT) Standards; Utility Company Standards and Federal Highway Administration (FHWA) Guidelines, unless noted otherwise.
- Prior to the starting of construction work at grade level in the area of the existing Eversource electric service and riser pole the Contractor shall contact Dig Safe to locate all existing underground utilities within the work area and take all necessary precautions for protection of these utilities.

- The Contractor will coordinate this work with all other Contractors and Utility Companies working on this project. Coordination with Eversource shall include maintaining the operation of the existing 480 volt service for temporary lighting utilizing existing in-place poles and luminaires while at the same time providing new 120-240 volt single phase service to accommodate new lighting system.
- Installation of all underground conduit will comply with MaineDOT Standard Detail 626 (07). Where conduits are required to pass over drainage lines or other obstructions, and the specified burial depth is not possible, the Contractor shall provide concrete protection of conduit in accordance with NEC Table 300.5.
- At each pole hand hole provide a two-pole fuse holder with two 5 ampere, 250 volt fuses to isolate a faulty luminaire from the respective lighting circuit. Fuse holder shall be Bussman Hey series with insulating boots. Provide sufficient length slack conductor at each hand hole to allow withdrawing fuseholders two feet from face of hand hole.
- Anchor bolts shall be hot dip galvanized, diameter and length as recommended and supplied by pole Manufacturer.
- The Contractor shall field verify the proposed electric service equipment location to avoid any unknown sub-surface utilities, natural and built site features such as but not limited to drainage structures, swales and such features that would interfere with the proper installation of equipment foundation. The Contractor shall visit the site prior to bidding to ensure that he is fully aware of the site conditions that may affect his means and methods of construction.
- The Contractor is advised and cautioned that existing Eversource energized overhead conductors cross the south approach roadway near the work area. Any work or movement of construction equipment within the proximity of this area must comply with all Eversource regulations for work within such area.
- The lighting system design basis is on American Electric Lighting luminaires with catalog numbers as indicated on the drawings. Luminaires represent the standard NHDOT roadway luminaire. Any proposed substitution of luminaires require approval by the NHDOT.
- In general, all exposed conduit, fittings and pull boxes on the bridge structure shall be Type FRP with the exception of conduits and boxes required to support luminaires such as navigation lighting fixtures which shall be PVC coated rigid steel with PVC coated fittings. Conduit cast in-place into concrete shall be PVC with PVC coated rigid conduit installed where conduit exits the concrete. Conduits at service riser pole and where run on the surface of anchor pier column shall be rigid steel.
- All conductors shall be copper with Type XHHW insulation. Provide an equipment grounding conductor with green colored insulation in all conduits. Grounding conductor size shall be equal to other circuit conductors in the respective conduit.
- Navigation lighting shall be B&B Roadway Model CM (Channel Margin) and Model CC (Center Channel) with medium base I20V; 100,000 hour LED lamp in a color to match lens.
- For method of attachment of conduit to walkway handrail see original construction as-builts drawings.

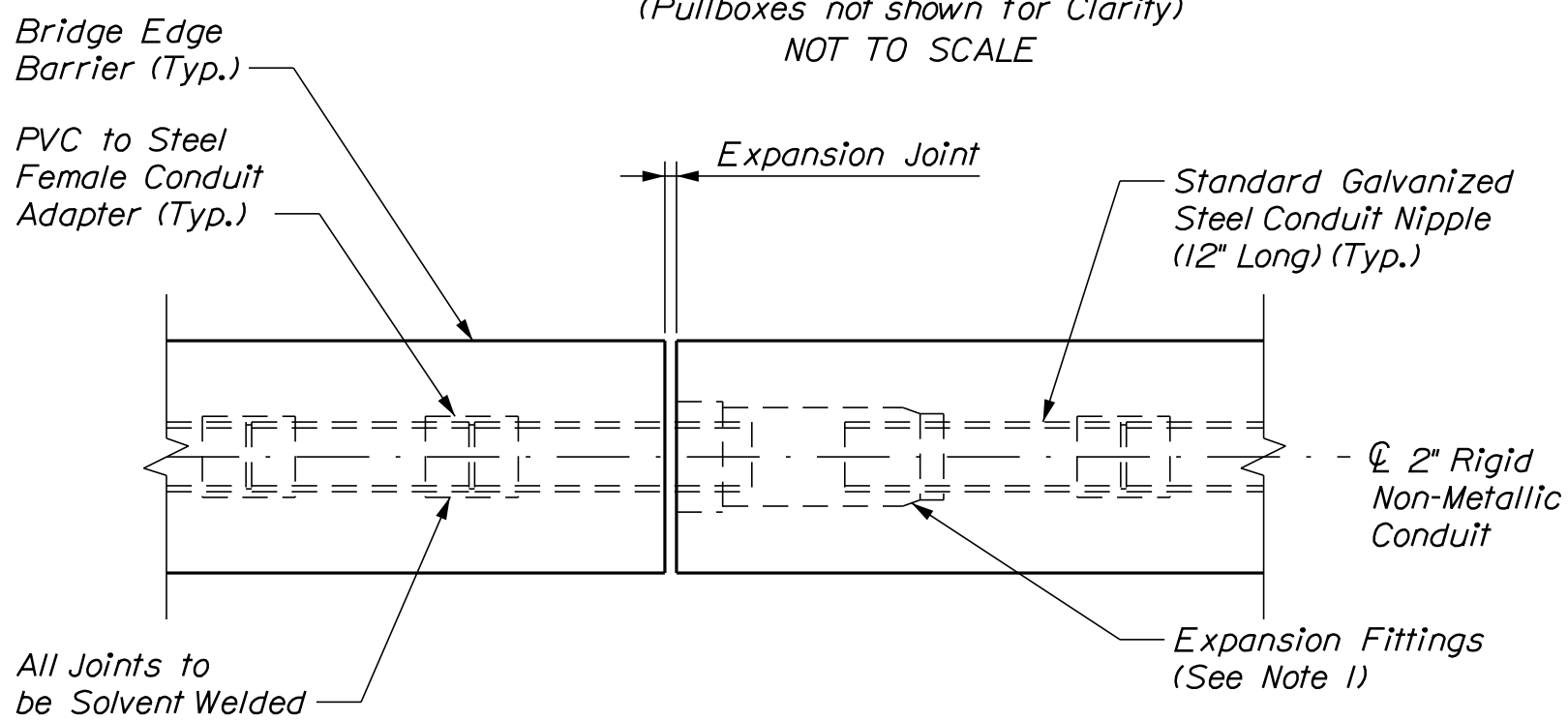
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		AC-IM-1927(000)E		BRIDGE NOS. 6330 WIN 019270.00		BRIDGE PLANS	
KITTELY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTELY-PORTSMOUTH YORK COUNTY		ROADWAY LIGHTING PLAN		SHEET NUMBER 227A		OF 230	
PROJ. MANAGER Leanne Timberlake	CHECKED-REVIEWED C. Anderson C. Joyner	DESIGNED-DETAILED JUL - Edt. Note 1	REVISIONS 2 3 4	DATE 10/18 10/18 11/18	SIGNATURE P.E. NUMBER DATE		FIELD CHANGES



- (A) Roadway Lighting Service/Control Cabinet (See Detail) Located at Grade Adjacent to South Anchor Pier. See Part Plan
- (B) 2-Inch Conduit, (2) #6 & (1) #6 Ground Roadway Lighting, Cir. No. 9 Southeast Segment
- (C) 2-Inch Conduit, (2) #6 & (1) #6 Ground Roadway Lighting, Cir. No. 7 Southwest Segment
- (D) 2-Inch Conduit, (2) #2 & (1) #2 Ground Roadway Lighting, Cir. No. 10 Northeast Segment
- (E) 2-Inch Conduit, (2) #2 & (1) #2 Ground Roadway Lighting, Cir. No. 8 Northwest Segment
- (F) Roadway Luminaire, American Electric Lighting Cat. No. ATB0-30BLEDE5-MVOLT-R3-4K-BL-SH mounted at 40 feet above roadway surface on a nominal 40-Foot roundtapered aluminum pole with a 6-foot arm and transformer base with access panel. Apply spin to luminaire such that center of luminaire light beam strikes roadway surface at 90 degrees.

ROADWAY LIGHTING WIRING DETAIL

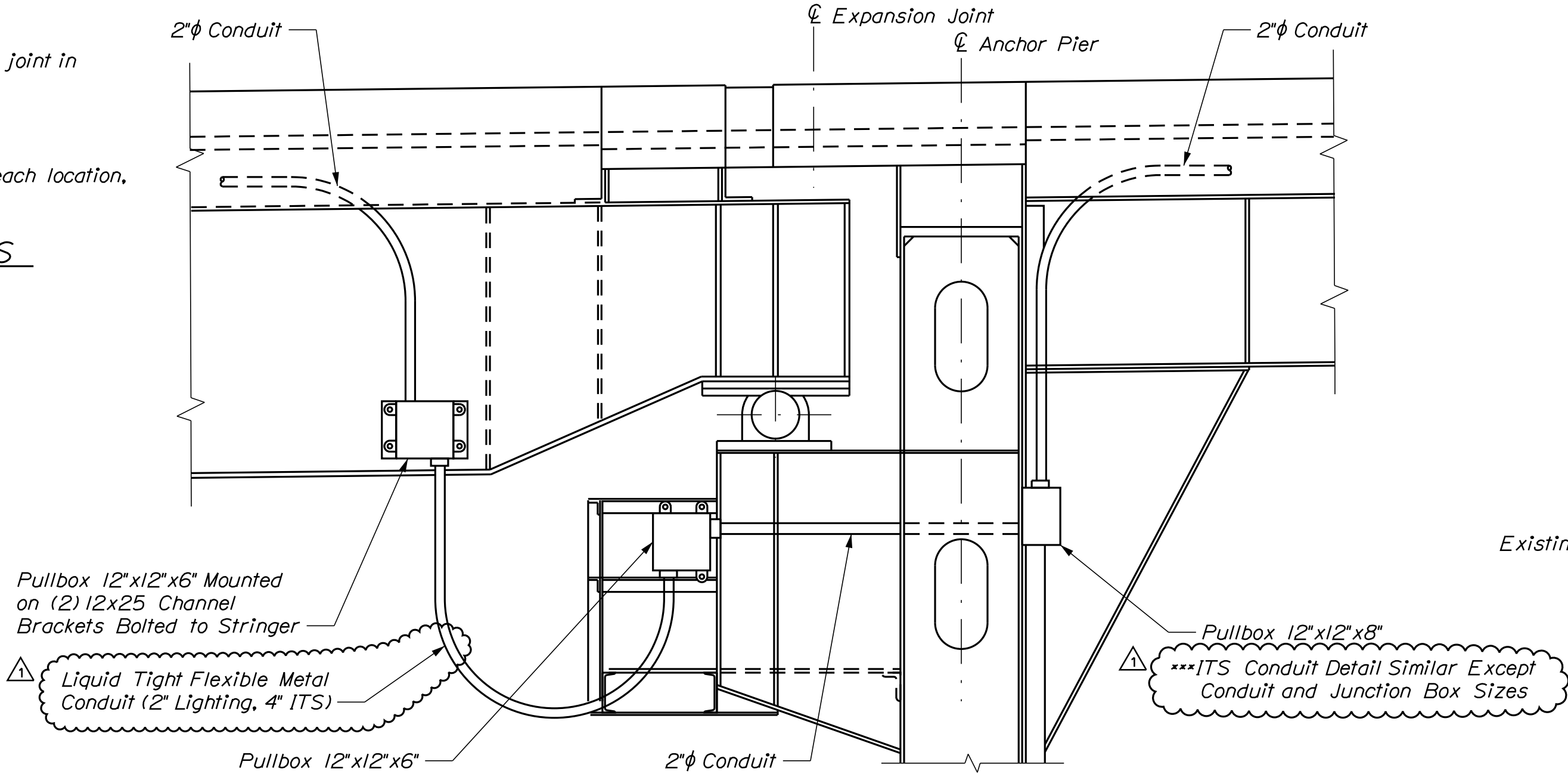
(Pullboxes not shown for Clarity)
NOT TO SCALE



- Notes:
- Expansion fittings for use with rigid galvanized steel conduit shall consist of a malleable iron head and steel sleeve which shall be hot-dipped galvanized and assembled with a watertight packing gland, an insulated bushing and pressure ring and gasket. The fitting shall provide, unless otherwise noted on the plans, 8" of movement for steel finger joints. Expansion fitting shall be OZ Gedney Type AX-8 or approved equal.
 - No bonding jumper cable is required.
 - Place expansion joint in conduit at every finger expansion joint in bridge deck.
 - Fittings to be PVC, except for expansion joint.
 - Provide expansion fitting for lighting and ITS conduit at each location, see Roadway Lighting Plan.

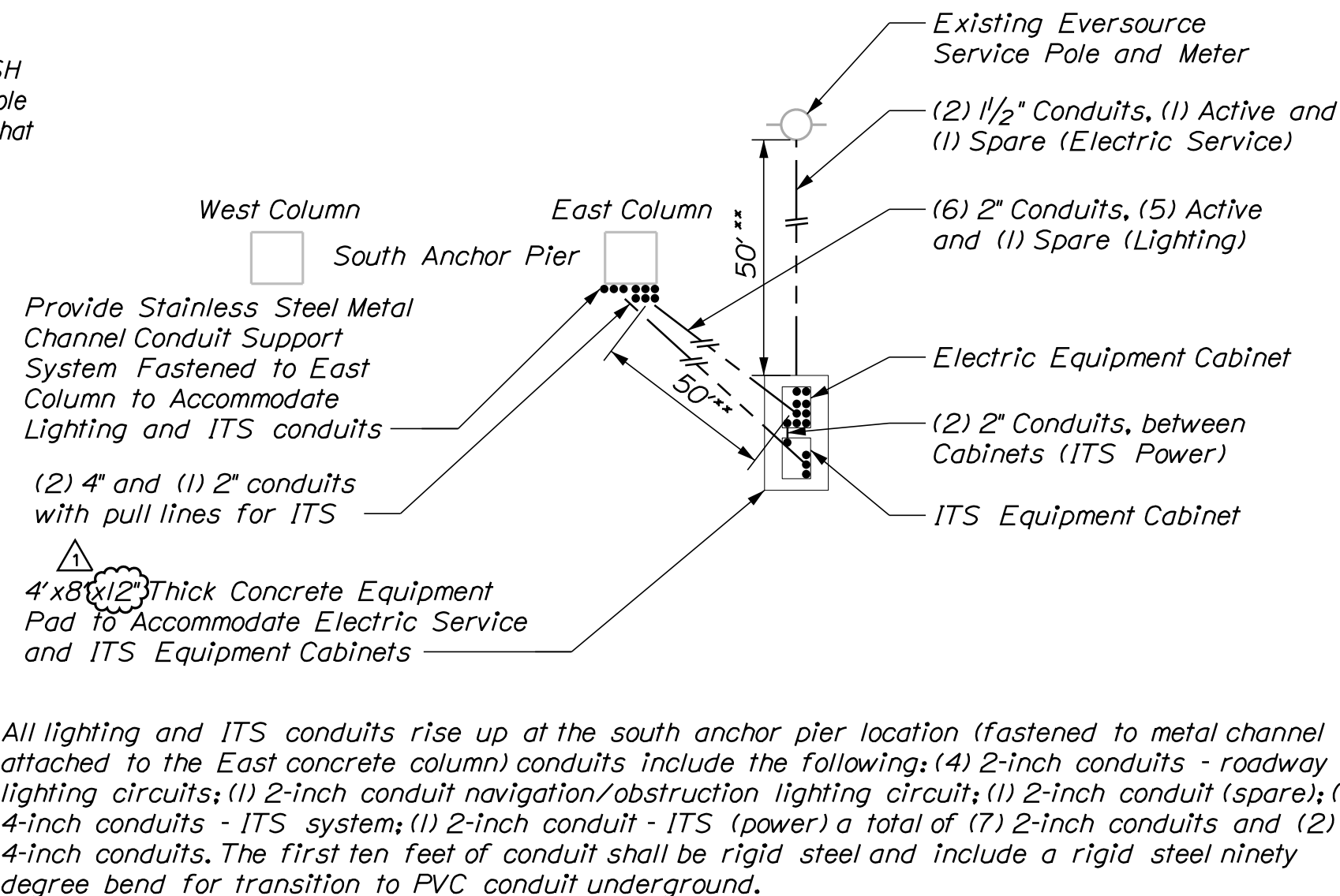
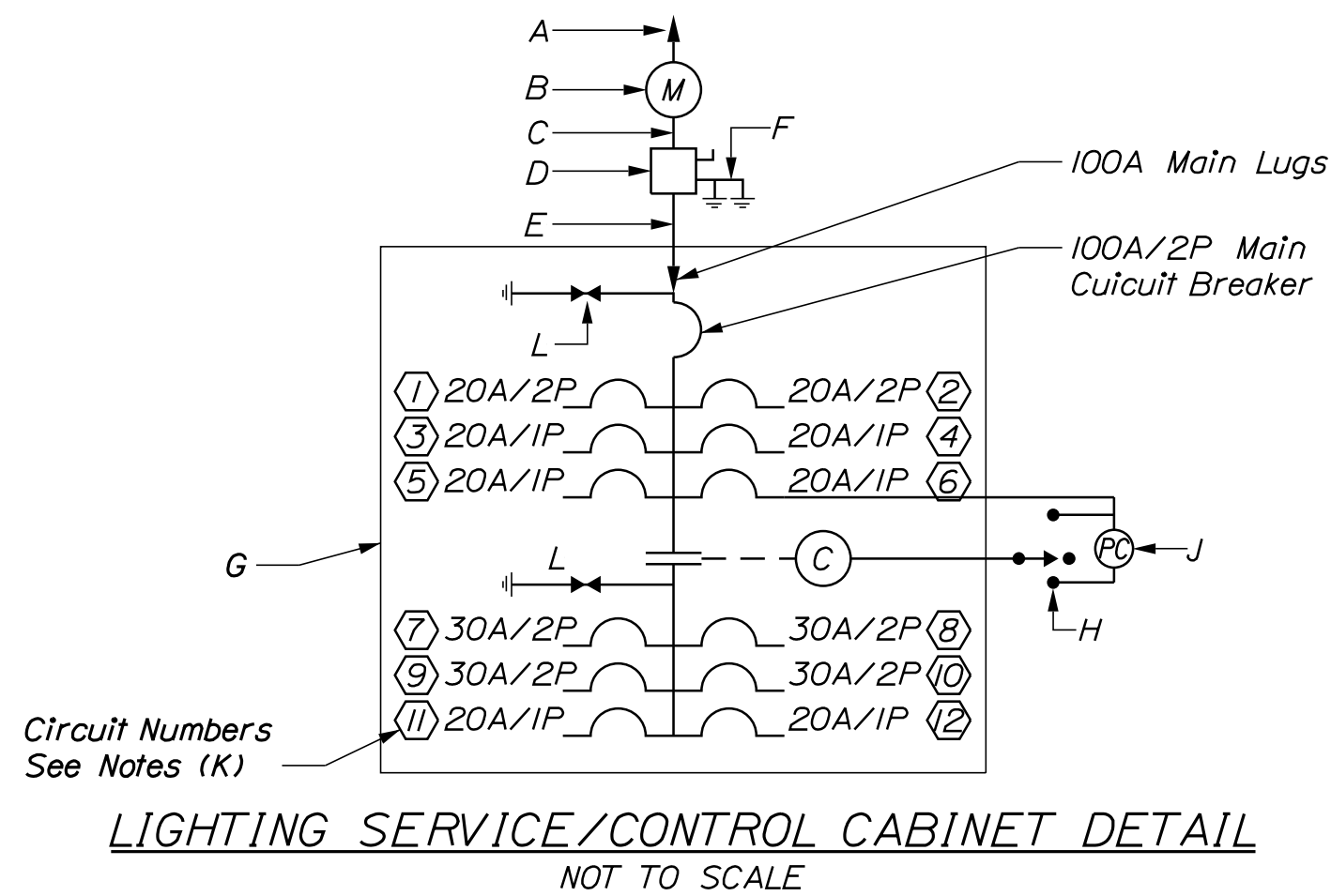
EXPANSION JOINTS FOR CONDUITS IN BRIDGE EDGE BARRIER

NOT TO SCALE



TYPICAL DETAIL FOR ALL LIGHTING CONDUIT CROSSING EXPANSION JOINT AT ANCHOR PIERS

NOT TO SCALE



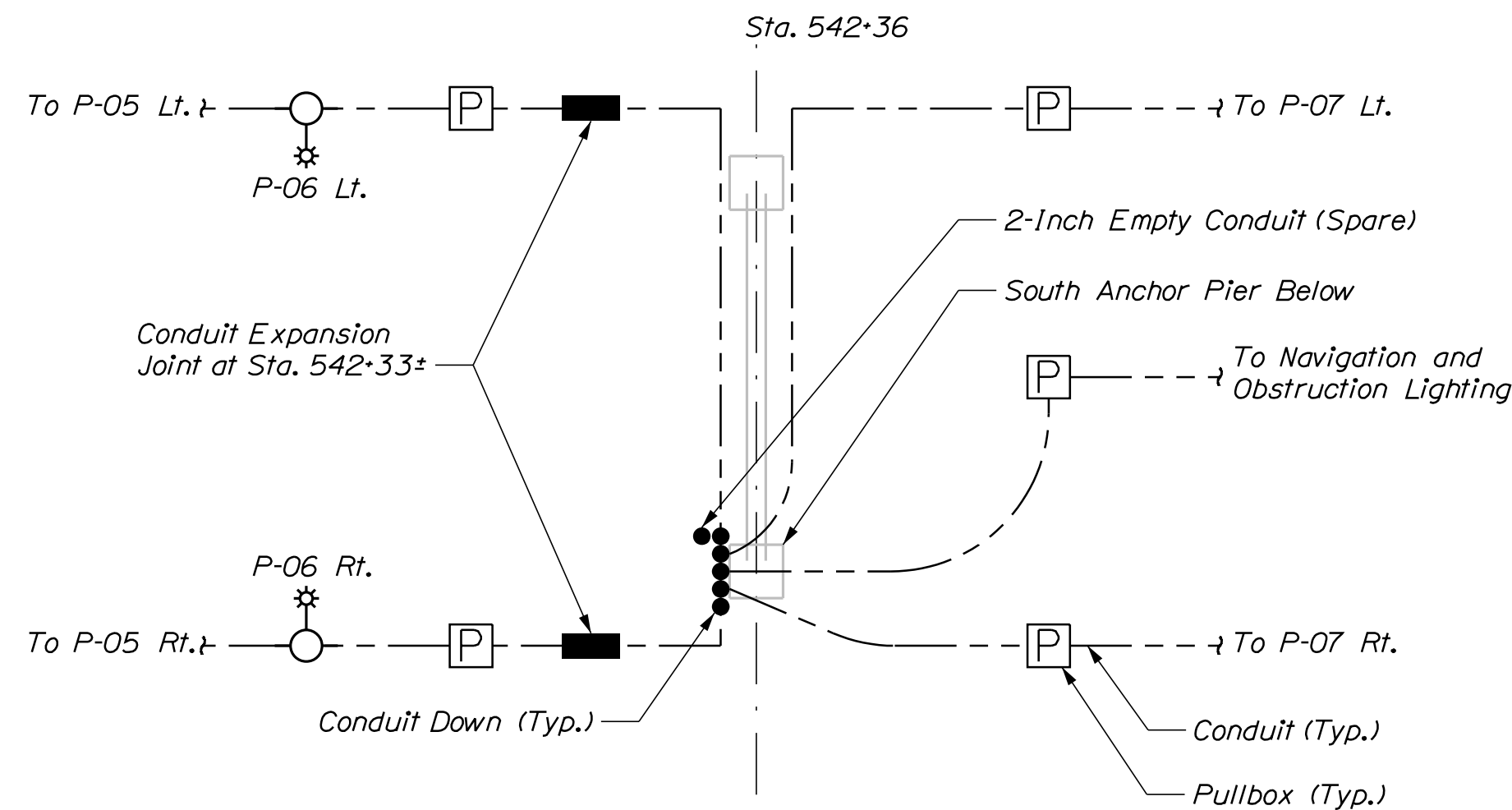
PART PLAN ELECTRIC SERVICE AND ITS EQUIPMENT

NOT TO SCALE

LIGHTING SERVICE/CONTROL CABINET NOTES:

- A. 1-1/2 inch rigid conduit, (3) #2 XHHW CU, run up Eversource riser pole and leave slack conductor as directed by Utility Company.
- B. Eversource 240 volt meter mounted on riser pole, provide meter socket per Utility Company standards.
- C. 1-1/2 inch rigid conduit, (3) #2 XHHW CU.
- D. 100A/3p fused switch in NEMA 4x enclosure with (2) 100A Class RK-5 fuses and padlock keyed to NHDOT requirements.
- E. 1-1/2 inch rigid conduit, (3) #2 XHHW CU. Run underground to service / control cabinet.
- F. Two 3/4-inch x 10 ft ground rods with top of rod set at 1 ft below grade and #4 bare cu conductor, space rods twenty ft apart and connect to neutral at service switch. Provide thermofusion weld connections to ground rods.
- G. Panelboard, 120-240 volt single phase split-bus with: 100a/2p main circuit breaker; (2) 20a/2p branch circuit breakers; (4) 20a/1p branch circuit breakers; 100a/2p mechanically held lighting contactor with 2-wire control interface; (4) 30a/2p branch circuit breakers; (2) 20A/IP circuit breakers and dead front all enclosed in a NEMA 4x free-standing pad-mounted enclosure with internally mounted on-off-automatic selector switch; photocell control mounted adjacent to acrylic window. Provide enclosure heater and thermostat as recommended by enclosure manufacturer to prevent condensation within enclosure. Panelboard similar to squared Type NQ with bolt-on circuit breakers.

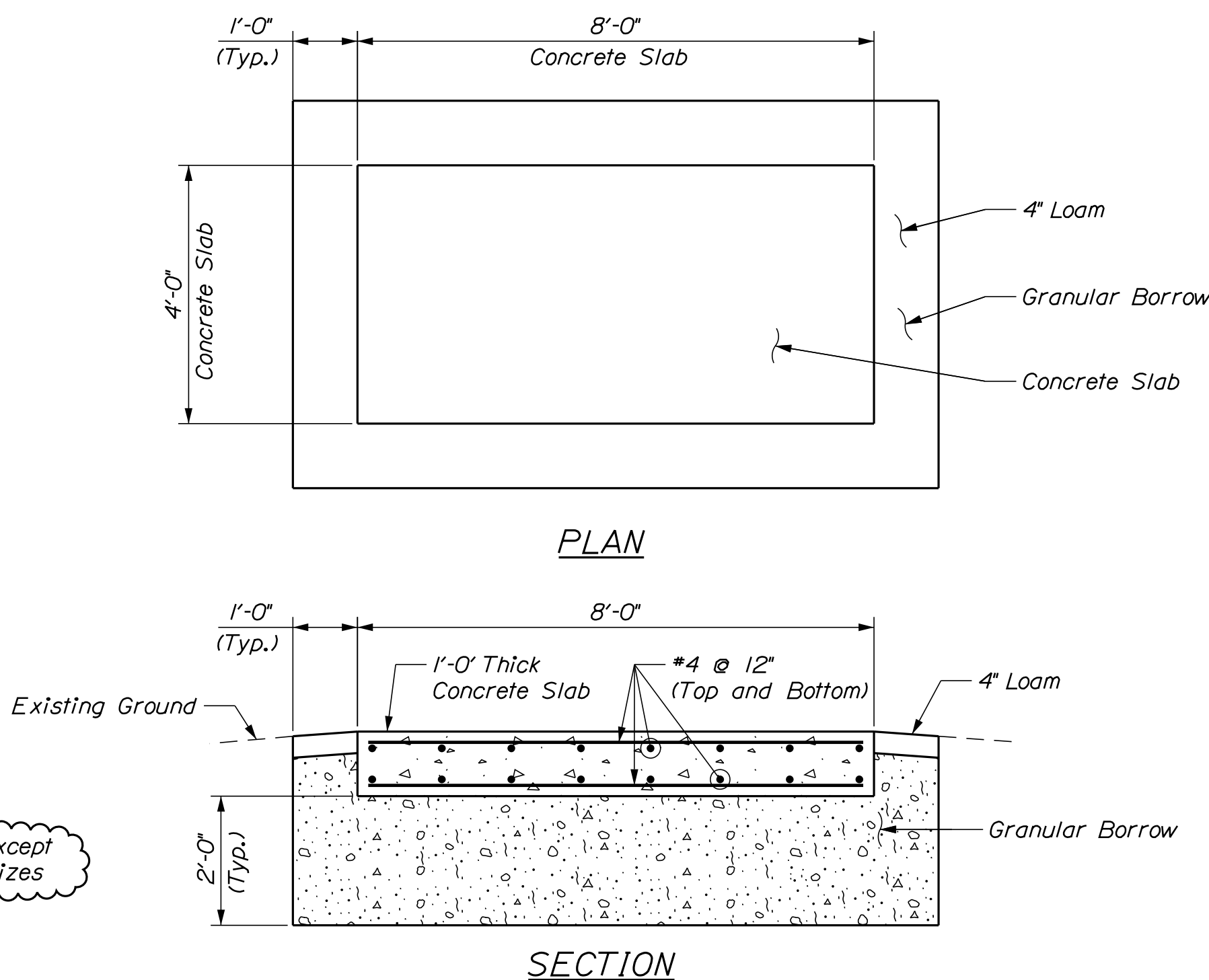
- H. "On-Off-Automatic" selector switch located inside of enclosure.
- J. Photoelectric control, 120 volt located inside of control enclosure. Provide a 1/4 inch thick acrylic window adjacent to PC control and arrange in such a way that PC can sense ambient light level.
- K. Branch circuit directory:
- ① ITS Power
 - ② Spare
 - ③ ITS Power
 - ④ A/C Obstruction Lighting
 - ⑤ ITS Power
 - ⑥ Control Circuit
 - ⑦ Roadway Lighting SW
 - ⑧ Roadway Lighting NW
 - ⑨ Roadway Lighting SE
 - ⑩ Roadway Lighting NE
 - ⑪ Spare
 - ⑫ Navigation Lighting
- L. Surge arrestor, Delta LA 302 for 125-250 volt single phase 3-wire service.



LIGHTING CONDUIT ROUTING AT SOUTH ANCHOR PIER

NOT TO SCALE

(For method of accommodating expansion at anchor pier locations see detail on this sheet)

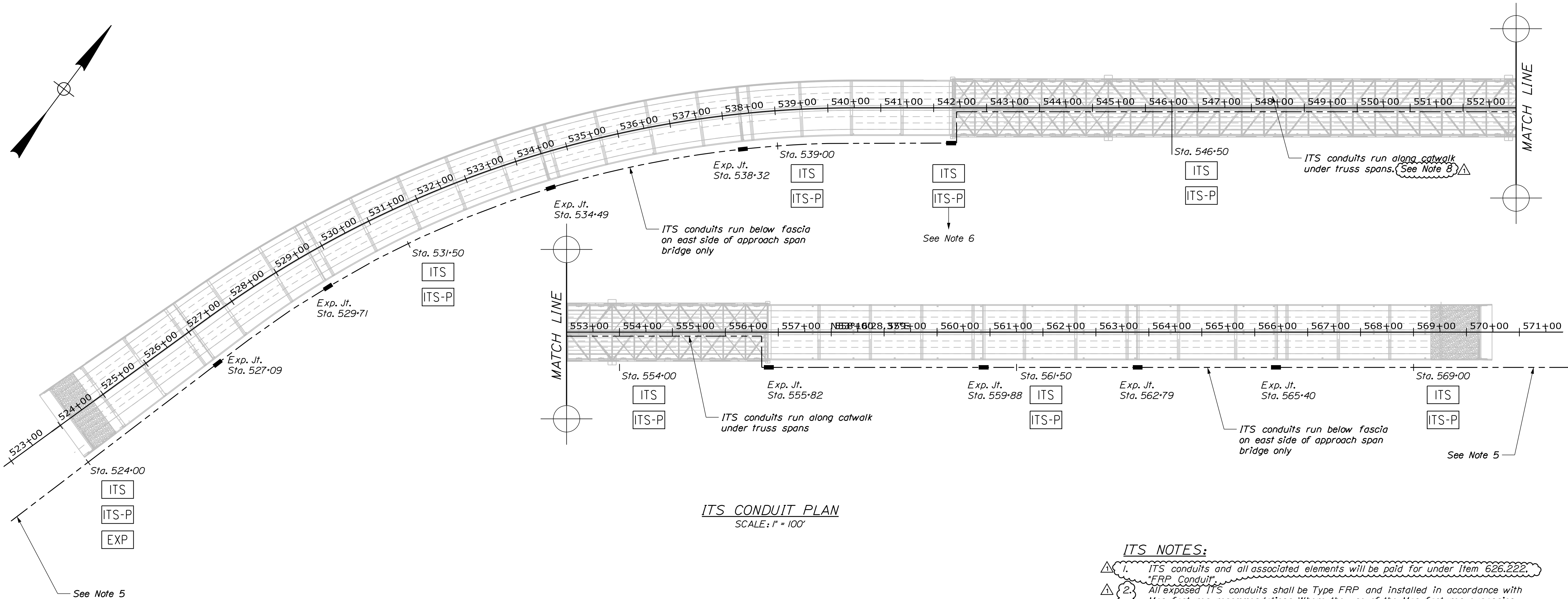


CONCRETE SLAB DETAIL

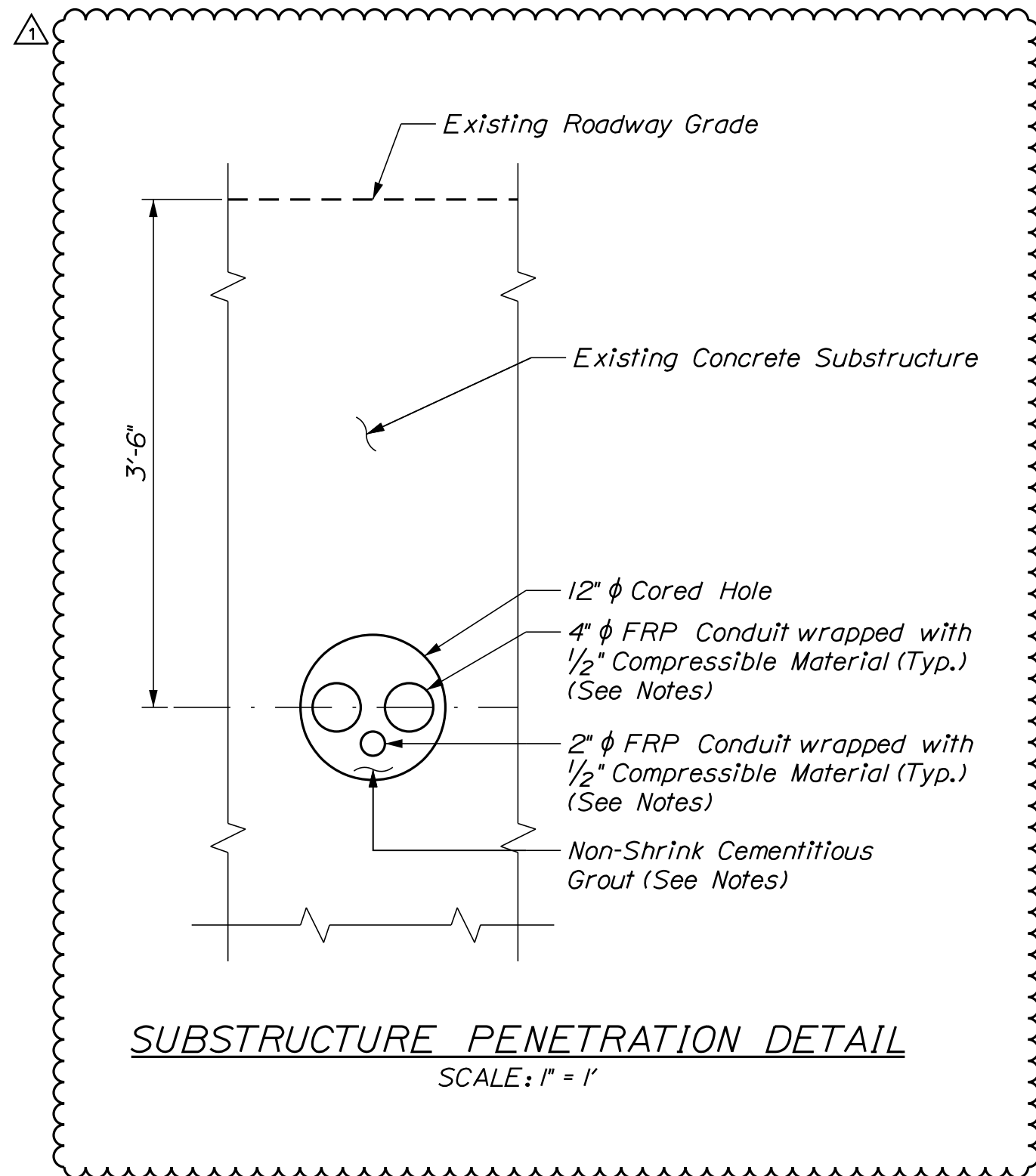
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TYLIN INTERNATIONAL

KITTELY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTELY-PORTSMOUTH YORK COUNTY			PROJ. MANAGER Leanne Timberlake		BY		DATE			
LIGHTING DETAILS			DESIGN-Detailed	C. Anderson	S. Morgan		10/18			
			CHECKED-REVIEWED	C. Loyer	D. Myers		10/18			
			DESIGN2-Detailed2							
			DESIGN3-Detailed3							
			REVISIONS/Δ	JUL - Text Edits		10/18				
			REVISIONS 2							
			REVISIONS 3							
			REVISIONS 4							
			FIELD CHANGES					DATE		
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ITS CONDUIT PLAN
SCALE: 1" = 100'



SUBSTRUCTURE PENETRATION DETAIL
SCALE: 1" = 1'

ITS NOTES:

- ITS conduits and all associated elements will be paid for under Item 626.222, "FRP Conduit".
- All exposed ITS conduits shall be Type FRP and installed in accordance with Manufactures recommendations. Where the use of the Manufactures expansion joints will not accommodate the expected expansion movement the use of sections of liquidtight flexible metal conduit will be allowed as approved by the Resident Engineer.
- All fasteners and hardware for the attachment of conduits and pull boxes shall be Type 316 Stainless Steel.
- The exact locations of pull boxes shall be adjusted in the field to eliminate any interference with structural members and allow proper access and to open the doors a minimum of ninety degrees.
- All ITS conduits shall contain a pull line for future installation of ITS wiring.
- ITS conduits shall exit the pull box at the abutment and run underground via an expansion joint to a point five feet beyond the point of concrete embedment and terminate with a conduit cap at 30" below grade. Mark the conduit end with a length of rebar extending two feet above grade. The point of conduit termination shall not be below any pavement and be orientated in such a way as to be easily extended under a future contract.
- ITS conduits (2) 4" & (1) 2" run down anchor pier column to ITS equipment cabinet at grade level see lighting detail sheet for additional information.
- Provide a conduit and pull box support system as manufactured by conduit manufacturer, consisting of FRP channels with 316 stainless steel hardware. Arrange support system such as to locate conduits and pull boxes in close proximity to catwalk system, to allow safe access to conduits and pull boxes from catwalk.
- Contractor shall make conduit weather and animal tight.
- A minimum of 1' clear cover shall be provided around all FRP conduits at substructure penetrations.
- Non-shrink cementitious grout shall be from the MaineDOT Qualified Products List for Grout Products. A bonding agent from the MaineDOT Qualified Products List for Concrete Bonding Agents shall be used on all interfaces between existing and fresh concrete.
- Payment for all materials, labor, and equipment shall not be made directly, but shall be considered incidental to related contract items.

ITS LEGEND:

- ITS ITS pull box, 24"x24"x8", NEMA 4X, 14 gauge Type 316 Stainless Steel with continuous hinged cover, and door clamps.
- ITS-P ITS power pull box, 12"x12"x8", NEMA 4X, 14 gauge Type 316 stainless steel with continuous hinged cover, and door clamps.
- ITS conduits (2) 4" signal & (1) 2" Power, Type FRP, mounted on FRP channels with Type 316 stainless steel hardware below concrete fascia on east side of bridge and along catwalk under truss spans.
- Expansion fitting as recommended by conduit Manufacturer. Provide one in each ITS and power conduit at each deck expansion joint location and at intervals not exceeding conduit Manufacturers recommendations. Refer to lighting drawings for expansion joint locations.
- EXP Expansion Fitting. See note above.