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

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

February 11, 2010
Subject: **Boothbay**
State Pin No: 012630.00
Amendment No. 3

Dear Sir/Ms:

Make the following changes to the Bid Documents:

In the Bid Book (page 1), "NOTICE TO CONTRACTORS", **CHANGE** the Bid Opening date from "February 17, 2010" to read "February **24**, 2010". Make this change in pen and ink.

In the Bid Book (pages 4 thru 11), **REMOVE** the "SCHEDULE OF ITEMS", 8 pages dated 100126 and **REPLACE** with the attached new "SCHEDULE OF ITEMS", 8 pages dated 100210.

In the Bid Book (page 74), **REMOVE** "SPECIAL PROVISION, SECTION 502, STRUCTURAL CONCRETE, (QC/QA Acceptance Methods)", 1 page dated July 2, 2009 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 502, STRUCTURAL CONCRETE, (QC/QA Acceptance Methods)", 1 page also dated July 2.

In the Plans, make to following **CHANGES**;

REMOVE SHEET NUMBER 2 OF 51 and **REPLACE** with the attached new SHEET NUMBER 2 OF 51
REMOVE SHEET NUMBER 29 OF 51 and **REPLACE** with the attached new SHEET NUMBER 29 OF 51
REMOVE SHEET NUMBER 40 OF 51 and **REPLACE** with the attached new SHEET NUMBER 40 OF 51
ADD the attached SHEET NUMBER 50A OF 51

NOTES: Plan sheets will be FedExed or Mailed to those who purchased plans.

The following questions have been received:

Question: Is the Contractor allowed to fasten a form to the cantilevered fascia deck form to form the vertical fascia of the deck?

Response: To form the fascia of the deck, for past HC Beam projects the contractor has used beam hangers and standard overhang brackets, which can be connected to the top flanges preferably with inserts into the vertical web and arch and/or tied to the embedded shear connectors. The cantilever brackets can bear against the sides of the beams as long

as a buffer such as a piece of plywood is used. No holes will be allowed to be drilled in the side of the web or flange of the beam.

Question: Could you confirm the rebar quantity, it appears to be too low unless some of it is incidental to a pay item.

Response: The rebar quantity has been adjusted. Please see the bid amendment and new schedule of items.

Question: Can Construction Requirements Section 504.05, Rock Anchors be clarified? Remarks per section are below:

504.05a – Can a percussion drill be used?

504.05b – Can a permanent interior steel casing be centered within the pile, then percussion drill holes through interior casing?

504.05e – Can PVC sleeve be changed to permanent interior steel casing?

504.05f – Change to reflect the following? Rock anchors shall be centered in drill hole and interior steel casing with centralizers. Grout volume will be sufficient to return neat grout to the top of the interior sleeve once the anchor is placed.

504.05h – Can this section be deleted? Casing would not be retracted which could damage the corrosion protection and central location within the casing and pile.

504.05i – Can PVC sleeve be changed to permanent interior steel casing?

504.05n – Wording used “Tensioning and Testing” are used. Can sentence two be replaced with the following; “At no time can the pile compression load exceed 90 tons, except during testing/lock off loading, at which the pile compression load shall not exceed 1.5 time the design load or .80 times the G.U.T.S., whichever is smaller.”

If Permanent interior steel casing is used, is concrete acceptable to fill annular space between Pile & Casing?

504.06b(1) – Change max test load to 0.80 G.U.T.S., G.U.T.S. of Williams catalog 1-3/8’ 150 KSI Bar is specified is 237 kips, max test load is .80x237=189.6kips. Design load specified is 160kips, Loading to a max 1.185 time the design load.

Response:
504.05a – Rock anchor drilling equipment may include percussion rock drills that provide a drill hole meeting the project specifications.

504.05d – The steel drill casing may be left as a permanent feature. The dimensions and material of the steel drill casing is subject to approval of shop drawings.

504.05e – If an approved steel drill casing is left as a permanent interior steel casing, it may replace the 5-inch dia. schedule 40 PVC Sleeve.

504.05f – Use of centralizers in the interior steel casing is subject to approval of the shop drawings.

504.05i – If the steel drill casing is left as a permanent interior steel casing, it may replace the 5-inch dia. schedule 40 PVC Sleeve.

504.05n –Second sentence of Section 504.05n will be changed **to**: "At no time shall the pile compressive load exceed 90 tons, except during testing or lock off loading, at which time the pile compressive load shall not exceed 1.5 times the anchor design load or 0.80 times the Guaranteed Ultimate Tensile Strength (GUTS) of the anchor, whichever is smaller. "

If approved interior steel casing is used in lieu of the 5-inch dia. PVC sleeve, the annular space shall be filled with Class A concrete per the contract documents.

504.06b(1) –504.06b(1) will be replaced with: **"**The maximum load test shall be 1.5 times the design load shown on the plans or 0.80 times the Guaranteed Ultimate Tensile Strength (GUTS) of the anchor, whichever is smaller."

Question: App Slab Rebar – per Std Detail - Plain or Epoxy? Incidental to item 502.31?

Response: Approach slab rebar is per standard detail and may be plain bars. Payment for the reinforcing steel fabrication, delivery, and installation is to be considered incidental to the approach slab item.

Question: Deck Rebar – Plain or Epoxy? – Incidental to item 502.25?

Response: Deck reinforcing steel shall be epoxy coated. Payment for deck reinforcing steel fabrication, delivery and installation shall be considered incidental to item number 502.25 Structural Concrete Superstructure Slab

Question: PC Trans Barrier – Plain or Epoxy? Incidental to item 526.34?

Response: Reinforcing steel for the Permanent Concrete Transition Barrier item number 526.34 is to be epoxy coated and is considered incidental to item number 526.34 as per standard specification.

Question: Curb Rebar – Plain or Epoxy? Incidental to item 502.49?

Response: Curb Reinforcing shall be epoxy coated and payment for curb reinforcing steel fabrication, delivery and installation shall be made under item 503.14 & 503.15 as appropriate

Question: Pile Cages – is clearance to pile casing 3”? Can hoops be used in lieu of spirals? If so lap lgth? Incidental to item 501.70?

Response: Clear Cover to reinforcing steel in Pile cages shall be 2" Hoops may be used in lieu of spirals. Lap length for hoops is n/a they should be terminated with a 135 degree standard hook around the longitudinal reinforcement.

Question: Abut & Pier cap only rebar in 503.14/15?

Response: See adjusted Quantities, curb reinforcing is to be paid for under items 503.14 & 503.15 as well.

Question: 2-HCB are already concreted – need length and location of #6 dowels and if they will be drill and grout or concrete inserts?

Response: HCB already concreted will require the use of Dayton Superior DB S/CA Bar Lock couplers for the #6 bars. Couplers should be provided epoxy coated, #6 bars projecting from the beams will need to be adjusted to the proper length prior to coupling the reinforcing steel, additional diaphragm reinforcing will need to be field modified to fit as required. Payment for Bar Lock couplers shall be considered incidental to the reinforcing steel.

Question: Support Bolsters for deck – do they require tips?

Response: Support Bolsters used shall meet all the requirements of the standard specifications, section 503.06. Chairs may be plastic tipped, epoxy coated, plastic coated, or plastic

Question: Define side bars shown in pier cap x section – not shown pier cap reinf.?

Response: Side bars shown in section for the pier cap shall be continuous #7 bars as shown at the bottom of the pier cap.

Question: If deck bar is plain, will diaphragms be plain?

Response: No, deck steel is epoxy coated, and diaphragm steel is epoxy coated as well.

Question: Need details on how conduit systems pass through Pier Diaphragms & Abut Back walls.

Response: Conduit pass through details at the diaphragm and backwalls are provided in the attached drawing.

Question: Refer to Special Provision 105 III Special Condition #2 letter dated 12-22-2010 on page 3 “Pile Driving Noise Impacts” appears to limit pile driving to a vibratory hammer only. Is the use of an impact hammer (Diesel or Air) allowed and required? Can either a vibratory hammer or an impact hammer be used at anytime of the year as stated in Section I?

Response: Both a vibratory and an impact hammer can be used at any time of the year per section 105, General Scope of Work (Environmental Requirements).
Per 501.03 and the project specific pile design criteria, pipe piles shall be driven with an approved impact/power hammer to an acceptable penetration resistance and ultimate pile capacity, as determined by the approved wave equation and pile test with signal matching. Per 501.04, when permitted by the Resident, vibratory hammers may be used to initially set a pile to a maximum distance of 20 feet from the required pile tip elevation.

Question: Please refer to pages 26, 27, 28 and 51 of the Plans. How do the conduit ducts go through the abutments and pier caps?

Response: We are correcting the plans to show how this is done. Please see the bid amendment.

Question: For bid items 501.70, 24” & 26” pipe pile, is straight seam and spiral weld acceptable? How deep below pile cut off is vibrating of the rinforcing steel cage required inside the pipe piles?

Response: For pipe pile, only straight seam is acceptable. Concrete within the pipe pile shall be vibrated sufficiently to ensure consolidation around the reinforcing steel cage, which terminates at elevation -25, and slight vibration of the reinforcing steel cage may be considered adequate to consolidate the concrete to that depth.

Question: Are there any approach slabs?

Response: Yes there is an approach slab on Abutment Number 2 only.

Question: Is there a separate bid items for the galvanized bars in the pier caps?

Response: There is no separate pay item for the galvanized bars in the pier caps, payment for coating should be considered incidental to pier cap reinforcing

Question: Is the reinforcing steel in the pipe piles incidental to B.I #70 or to be included in B.I. # 503.14?
Response: Reinforcing steel in the pipe piles is considered incidental to item number 501.70

Question: Can #4 epoxy coated ties spaced @ 4" o.c. be substituted for the #4 epoxy coated spirals in the pie piles?

Response: #4 ties at 4" may be substituted for the #4 spirals in the pipe piles

Question: If mechanical couplers are used with the pipe pile verticals, can sleeve type couplers (ex. Bar-Lock) be used?

Response: Sleeve type couplers such as the Bar Lock Coupler may be used if they meet the requirements of mechanical couplers found in section 503 of the standard specifications can only be used within the pipe piles if the 2" clear cover can be maintained, hoops (if used instead of spirals) may need to have spacing modified accordingly at couplers, spirals confinement reinforcing may need to have pitch adjusted to clear couplers.

Consider these changes and formation prior to submitting your bid on **February 24, 2010**.

Sincerely,

Larry R. Childs

FOR Scott Bickford
Contracts & Specifications Engineer

SCHEDULE OF ITEMS REVISED:

CONTRACT ID: 012630.00 PROJECT(S): 012630.00

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 PROJECT ITEMS					
0010	202.19 REMOVING EXISTING BRIDGE	LUMP	LUMP			
0020	203.20 COMMON EXCAVATION	3000.000 CY				
0030	203.21 ROCK EXCAVATION	90.000 CY				
0040	203.2318 DISPOSAL OF SPECIAL WASTE	100.000 T				
0050	203.24 COMMON BORROW	1400.000 CY				
0060	203.25 GRANULAR BORROW	210.000 CY				
0070	206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	50.000 CY				
0080	206.092 STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	90.000 CY				
0090	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	3810.000 CY				
0100	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	20.000 T				

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	403.210 HOT MIX ASPHALT 9.5 MM	1500.000 T				
0120	409.15 BITUMINOUS TACK COAT - APPLIED	270.000 G				
0130	501.231 DYNAMIC LOADING TEST	7.000 EA				
0140	501.70 STEEL PIPE PILES, DELIVERED 24" DIAMETER	1500.000 LF				
0150	501.70 STEEL PIPE PILES, DELIVERED 26" DIAMETER	1000.000 LF				
0160	501.701 STEEL PIPE PILES, IN PLACE 24" DIAMETER	1500.000 LF				
0170	501.701 STEEL PIPE PILES, IN PLACE 26" DIAMETER	1000.000 LF				
0180	501.803 EXPLORATORY DRILLING	270.000 LF				
0190	501.90 PILE TIPS	40.000 EA				
0200	501.91 PILE SPLICES	40.000 EA				
0210	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP	LUMP			

CONTRACT ID: 012630.00 PROJECT(S): 012630.00

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0220	502.21 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	130.000 CY				
0230	502.22 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (PLACED U NDER WATER)	120.000 CY				
0240	502.239 STRUCTURAL CONCRETE PIERS	LUMP	LUMP			
0250	502.25 STRUCTURAL CONCRETE SUPERSTRUCTURE SLABS	LUMP	LUMP			
0260	502.31 STRUCTURAL CONCRETE APPROACH SLABS	LUMP	LUMP			
0270	502.49 STRUCTURAL CONCRETE CURBS AND SIDEWALK	LUMP	LUMP			
0280	502.56 CONCRETE FILL	50.000 CY				
0290	503.14 EPOXY COATED REINFORCING STEEL, FABRICATED AND DELIVERED	34400.000 LB				
0300	503.15 EPOXY COATED REINFORCING STEEL PLACING	34400.000 LB				
0310	504.905 ROCK ANCHORS	LUMP	LUMP			

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0320	506.9106 FUSION BONDED EPOXY COATING	LUMP	LUMP			
0330	507.0834 WYOMING STEEL BRIDGE RAILING	LUMP	LUMP			
0340	508.14 HIGH PERFORMANCE WATERPROOFING MEMBRANE	LUMP	LUMP			
0350	509.72 COMPOSITE BEAM - INSTALLATION ONLY	LUMP	LUMP			
0360	511.07 COFFERDAM: ABUTMENT NO.2	LUMP	LUMP			
0370	512.081 FRENCH DRAINS	LUMP	LUMP			
0380	514.06 CURING BOX FOR CONCRETE CYLINDERS	1.000 EA				
0390	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP	LUMP			
0400	520.21 EXPANSION DEVICE - GLAND SEAL	1.000 EA				
0410	520.22 EXPANSION DEVICE - COMPRESSION SEAL	1.000 EA				
0420	523.52 BEARING INSTALLATION	128.000 EA				

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0430	523.5402 LAMINATED ELASTOMERIC BEARINGS, EXPANSION	128.000 EA				
0440	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP	LUMP			
0450	526.34 PERMANENT CONCRETE TRANSITION BARRIER	4.000 EA				
0460	606.1721 BRIDGE TRANSITION - TYPE 1	4.000 EA				
0470	606.23 GUARDRAIL TYPE 3C - SINGLE RAIL	725.000 LF				
0480	606.231 GUARDRAIL TYPE 3C - 15 FOOT RADIUS AND LESS	25.000 LF				
0490	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	1.000 EA				
0500	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	16.000 EA				
0510	606.79 GUARDRAIL 350 FLARED TERMINAL	7.000 EA				
0520	609.31 CURB TYPE 3	670.000 LF				
0530	609.34 CURB TYPE 5	185.000 LF				

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS		UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0540	609.35 CURB TYPE 5 - CIRCULAR	50.000	LF				
0550	610.08 PLAIN RIPRAP	220.000	CY				
0560	610.16 HEAVY RIPRAP	840.000	CY				
0570	613.319 EROSION CONTROL BLANKET	500.000	SY				
0580	615.07 LOAM	140.000	CY				
0590	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	22.000	UN				
0600	619.1201 MULCH - PLAN QUANTITY	22.000	UN				
0610	619.1401 EROSION CONTROL MIX	270.000	CY				
0620	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	4800.000	LF				
0630	629.05 HAND LABOR, STRAIGHT TIME	40.000	HR				
0640	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20.000	HR				

CONTRACT ID: 012630.00 PROJECT(S): 012630.00

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0650	631.15 ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	20.000 HR				
0660	631.171 TRUCK - SMALL (INCLUDING OPERATOR)	20.000 HR				
0670	635.31 PREFAB CONCRETE BLOCK GRAVITY WALL	2400.000 SF				
0680	635.40 PRECAST AGGREGATE FILLED CONCRETE BLOCK GRAVITY WALL	2400.000 SF				
0690	639.18 FIELD OFFICE TYPE A	1.000 EA				
0700	652.35 CONSTRUCTION SIGNS	300.000 SF				
0710	652.39 WORK ZONE TRAFFIC CONTROL	LUMP	LUMP			
0720	655.50 CATHODIC PROTECTION SYSTEM	LUMP	LUMP			
0730	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0740	659.10 MOBILIZATION	LUMP	LUMP			
0750	853.16 BOAT RAMP PLANKS	30.000 EA				

CONTRACT ID: 012630.00 PROJECT(S): 012630.00

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0760	890.01 SPECIAL WORK #1 UTILITY CONDUIT	LUMP	LUMP			
	SECTION 0001 TOTAL					
	TOTAL BID					

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(QC/QA Acceptance Methods)

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	501.701	Concrete for Filling Pipe Pile	$300	B
A	502.21	Structural Concrete, Abutments and Retaining Walls	$400	A
S	502.22	Structural Concrete, Abutments and Retaining Wall (Placed Underwater)		C
A	502.239	Structural Concrete Piers	$400	A
A	502.25	Structural Concrete Superstructure Slab	$400	A
A	502.31	Structural Concrete Approach Slabs		C
LP	502.49	Structural Concrete Curbs and Sidewalks	$425	A
LP	526.34	Permanent Concrete Transition Barrier	$425	A
Fill	502.56	Concrete Fill		C
Per Special Provision	509.72	Composite Beam (Compression Reinforcement)		C

P values listed above reflect the price per cubic yard (yd^3) for all pay adjustment purposes.

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	REMOVING EXISTING BRIDGE (250 CY)	1	LS
203.20	COMMON EXCAVATION	3000	CY
203.21	ROCK EXCAVATION	90	CY
203.2318	DISPOSAL OF SPECIAL WASTE	100	T
203.24	COMMON BORROW	1400	CY
203.25	GRANULAR BORROW	210	CY
206.082	STR EA EXC-MAJOR STRUCTURES	50	CY
206.092	STR RK EXC- MAJOR STRUCTURES	90	CY
304.10	AGGR SUBB COURSE - GRAVEL	3810	CY
403.209	HOT MIX ASPHALT 9.5 MM HMA (INCID.)	20	T
403.210	HOT MIX ASPHALT 9.5 MM HMA	1500	T
409.15	BITUMINOUS TACK COAT APPLIED	270	G
501.231	DYNAMIC LOADING TEST	7	EA
501.70	STEEL PIPE PILES-, DELIVERED - 24" DIA	1500	LF
501.70	STEEL PIPE PILES-, DELIVERED - 26" DIA	1000	LF
501.701	STEEL PIPE PILES, IN PLACE - 24" DIA	1500	LF
501.701	STEEL PIPE PILES, IN PLACE - 26" DIA	1000	LF
501.803	EXPLORATORY DRILLING	270	LF
501.90	PILE TIPS	40	EA
501.91	PILE SPLICES	40	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.21	STR CONC ABUT & RET WALL	130	CY
502.22	STR CONC ABUT & RET WALL (PLACED UNDERWATER)	120	CY
502.239	STR CONC PIERS (125 CY)	1	LS
502.25	STR CONC SUPERSTR SLAB (470 CY)	1	LS
502.31	STRUCT. CONC APPROACH SLAB (12 CY)	1	LS
502.49	STRUCT.CONC. CURBS AND SW (65 CY)	1	LS
502.56	CONCRETE FILL	50	CY
503.14	EPOXY COAT REIN STEEL FAB&DEL	34,400	LB
503.15	EPOXY COAT REIN STEEL PLACED	34,400	LB
504.905	ROCK ANCHORS (25 EA)	1	LS
506.9108	FUSION BONDED EPOXY	1	LS
507.0834	WYOMING STEEL BRIDGE RAIL (1090 LF)	1	LS
508.14	HIGH PERFORMANCE MEMBRANE (1740 LF)	1	LS
508.78	COMPOSITE BEAM - INSTALLATION ONLY (64 EA)	1	LS
511.07	COFFERDAM: ABUTMENT NO.2	1	LS
512.081	FRENCH DRAINS (44 LF)	1	LS
514.06	CURING BOX FOR CONC CYL	1	EA
515.21	PROTECTIVE COAT FOR CONC SUR (510 SY)	1	LS
520.21	EXPANSION DEVICE - GLAND SEAL	1	EA
520.22	EXPANSION DEVICE - COMPRESSION SEAL	1	EA
523.52	BEARING INSTALLATION	128	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS,EXPANSION	128	EA
526.301	TEMPORARY CONC BARRIER TYPE I (100 LF)	1	LS
526.34	PERMANANT CONCRETE TRANSITION BARRIER	4	EA
606.1721	BRIDGE TRANSITION - TYPE I	4	EA
606.23	GR TY 3C - SINGLE RAIL	725	LF
606.231	GR TY 3C - 15 FOOT RADIUS AND LESS	25	LF
606.265	TERM END- SGL RAIL- GALV STEEL	1	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	16	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	7	EA
609.31	CURB TYPE 3	670	LF
609.34	CURB TYPE 5	185	LF
609.35	CURB TYPE 5 - CIRCULAR	50	LF
610.08	PLAIN RIPRAP	220	CY
610.16	HEAVY RIPRAP	840	CY
613.319	EROSION CONTROL BLANKET	500	SY
615.07	LOAM	140	CY
618.1401	SEEDING METHOD NUMBER 2 - PLAN QUANTITY	22	UN
619.1201	MULCH - PLAN QUANTITY	22	UN
619.1401	EROSION CONTROL MIX	270	CY
627.733	WH OR YELL PAINT PVMT MARKING LINE	4800	LF
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL-PURPOSE EXC (INC OPERATOR)	20	HR
631.15	ROLLER EARTH BASE CRS (INC OP)	20	HR
631.171	TRUCK-SMALL (INC OPERATOR)	20	HR
635.31	PRECAST CONCRETE BLOCK GRAVITY WALL	2400	SF
635.40	PRECAST AGGREGATE-FILLED CONCRETE BLOCK GRAVITY WALL	2400	SF
639.18	FIELD OFFICE TYPE A	1	EA
652.35	CONSTRUCTION SIGNS	300	SF
652.39	WORK ZONE TRAFFIC CONTROL	1	LS
655.50	CATHODIC PROTECTION SYSTEM	1	LS
656.75	TEMP. SOIL EROS. AND WATER POLL. CONTROL	1	LS
659.10	MOBILIZATION	1	LS
853.16	BOAT RAMP PLANKS	30	EA
890.01	SPECIAL WORK NO. 1	1	LS

GENERAL CONSTRUCTION NOTES

1. All Utility Facilities shall be adjusted by the respective Utilities unless otherwise noted.
2. For Easements, Construction Limits, and Right-Of-Way lines, refer to Right of Way Map.
3. Place a 2' wide strip of Temporary Erosion Control Blanket on the side slopes along the top of the Riprap, behind the Wingwalls and Headwalls.
4. All Embankment Material, except as otherwise shown, placed below Elevation 6.00, shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
5. The Clearing Limits as shown on the plans are approximate. The exact limits shall be established in the field by the Resident. Payment for clearing will be incidental to related Contract items.
6. Place Loam 2" deep on slopes between Station 4+00 and Station 20+00. unless noted otherwise
7. Do not excavate for Aggregate Subbase Course where Existing Material is suitable as determined by the Resident.
8. 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" or less thick will be made under appropriate Equipment rental items.
9. Stones which cannot be rolled or compacted into the surface of the Shoulder shall be removed by Hand Raking. Payment for Hand Raking will be considered incidental to Item 304.10, Aggregate Subbase Course - Gravel.
10. Guardrail 350 Flared Terminals shall be installed concurrently with the placement of each section of Beam Guardrail.
11. 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 made under appropriate Contract items.
12. Protective Coating for Concrete Surfaces shall be applied to the following areas:
    All exposed Surfaces of Concrete Curbs,
    Fascia down to Drip Notch,
    All exposed Surfaces of Concrete Transition Barriers,
    Top of Abutment Backwalls and to 1' below the top of Backwalls on the back side.
13. With the approval of the Resident, Erosion Control Mix may be substituted in those areas normally receiving Loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specification 619, Mulch. Payment will be made under Item 619.1401 Erosion Control Mix.
14. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php.
15. 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.
16. The project geotechnical report titled: Geotechnical Design for the Replacement of Knickerbocker Bridge over Back River, Boothbay, Maine; MaineDOT Soils Report No. 2008-02, February2008. may be accessed at the MaineDOT web address.
17. Geotechnical Information furnished or referred to in this plan set is for the Bidder's and Contractor's use. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the time of construction. The Department shall not be responsible for the Bidder's and Contractor's interpretations of, or conclusions drawn from, the Geotechnical Information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between boring locations.
18. Existing boulders surrounding boat launches and parking areas shall be salvaged and reset around parking areas once final paving is complete. Boulders shall be placed at a maximum 4 feet between boulders. Only boulders measuring approx 3 feet or more in diameter shall be used. Handling and setting of boulders shall be considered incidental to related contract items. No seperate payment shall be made.
19. After new roadway is open, remove existing pavement from discontinued roadway. Payment shall be made under Item No. 203.20, Common Excavation. Discontinued roadway shall recieve 2" of Loam and Seed as directed by the Resident.

GENERAL CONSTRUCTION NOTES - CONT'D

20. The existing bridge shall be removed by and become the property of the Contractor. The existing bridge is constructed of timber treated with creosote, pentachlorophenol and/or CCA. 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 treated timber and lead-contaminated hazardous waster generated by the demolition of existing bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. Once the existing bridge is removed, the Contractor is solely responsible for the care, custody and control of the components of the existing bridge and any hazardous waste generated as a result of the storage, recycling or disposal of the bridge components, including treated timber. The Contractor shall dispose of all components in accordance with all applicable local, state, and federal regulations. Payment for all labor, materials, equipment and other costs required to remove and dispose of the existing bridge will be considered incidental to the bridge removal pay item.
21. The existing bridge shall be removed in its entirety except existing timber piles between Station 13+16 to Sta. 15+00 shall be removed to a point 2' below streambed.
22. A 4" ϕ above-ground seasonal waterline is in-place through the limits of the project. The Contractor shall take care to not damage waterline during the construction of the project. Work will be performed on the waterline by it's owner and is to be coordinated with the contractor. The existing seasonal waterline shall remain in use until the new seasonal waterline has been activated.
23. Existing guard rail to be removed including all components and bridge transitions shall remain the property of the Department and shall be removed, loaded, transported and unloaded at the MDOT Maintenance Lot on Route 17 in Washington. All costs associated with the work described above shall be incidental to related contract items. Contact either Steve Baker, Crew Supervisor 2 @ 845-3087 / 462-9068 or Mark Sawyer, Crew Supervisor I@ 845-3087 / 592-2148 a minimum of 24 hours in advance of delivery.
24. Approach slab rebar is per standard detail and may be plain bars. Payment for the reinforcing steel fabrication, delivery, and installation is to be considered incidental to Item No. 502.31, Structural Concrete Approach Slab.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1263(000)X

PIN 12630.00

BRIDGE NO. 2438

BRIDGE PLANS

PROJ. MANAGER	NDB	BY	DATE
DESIGN-DETAILED	ETC	BJN	FEB 2008
CHECKED-REVIEWED		------	------
DESIGN2-DETAILED2	WED	------	------
DESIGN3-DETAILED3	ED2	------	------
REVISIONS 1	ED3	2/1/2010	------
REVISIONS 2		2/3/2010	------
REVISIONS 3		------	------
REVISIONS 4		------	------
FIELD CHANGES		------	------

SIGNATURE

P.E. NUMBER

DATE

KNICKERBOCKER BRIDGE
BACK RIVER
BOOTHBAY LINCOLN COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 51

NOTES FOR PIER NOS. 1, 4-7

PIER DESIGN CRITERIA

1. Critical AASHTO Load Combination - Strength III

2. Buoyancy: Water level assumed at EL. 6.17

3. Stream flow: Velocity of 8.4 fps skewed at 5° to longitudinal centerline of pier.

4. Wind: 0.070 ksf (factored for Strength III).

PIPE PILE NOTES

1. Pipe Pile material shall be ASTM A252 Grade 3 (Fy = 45 ksi) and meet the requirements of Special Provsion Section 711

2. Piles marked with an arrow shall be battered as shown.

3. Piles shall not be out of position shown by more than 2 inches in any direction.

4. Maximum calculated factored axial pile loads: 250 kips Strength III.

5. Estimates of pile lengths are determined from available soils information with no allowance for uncertain bedrock profile:

Pier No. 1:	3 ~ 24" ϕ x 5/8" @	40'
	2 ~ 24" ϕ x 5/8" @	40'
Pier No. 4.	3 ~ 24" ϕ x 5/8" @	50'
	2 ~ 24" ϕ x 5/8" @	50'
Pier No. 5:	3 ~ 24" ϕ x 5/8" @	50'
	2 ~ 24" ϕ x 5/8" @	55'
Pier No. 6:	3 ~ 24" ϕ x 5/8" @	50'
	2 ~ 24" ϕ x 5/8" @	50'
Pier No. 7:	3 ~ 24" ϕ x 5/8" @	35'
	2 ~ 24" ϕ x 5/8" @	35'

6 Provisions must be made in order lengths to account for an additional six (6) feet for piles to be subject to dynamic pile testing.

7. Pipe pile and rock anchor installation shall be in accordance with Standard Specification 501, Special Provision 501 and Special Provision 504 - Rock Anchors."

8. All Piles shall be driven open ended and fitted with an approved ast steel pile driving shoe conforming to the strength requirements of ASTM A148, Grade 90-60 and Special Provision 711.

9. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal analyses shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system. The stopping criteria shall include the blows per inch and the number of 1-in. intervals at which pile installation may be terminated. The cost of performing the wave equation analysis will be considered incidental to Item No. 501.92, Pile Driving Equipment Mobilization.

10. The Contractor shall perform (1) dynamic load test at each pier to confirm the nominal resistance of the pile. The required nominal resistance for the pile is the maximum factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. Each dynamic load test will be performed on the first production pile driven at each pier location in accordance with Standard Specification 501.

11. Piles shall be driven to sound bedrock and cleaned of soil, or other debris. If cleaning operations disturb bearing material or indicate the pile is not on bedrock, the pile shall be redriven to the criteria established by the dynamic load test, as directed by the Resident. After cleaning pile and redriving if required and before drilling for rock anchors, a grout plug shall be tremied two feet into the bottom of the pipe pile. Grout shall reach 2,000 PSI minimum compressive strength before drilling for rock anchors commences. Costs for the grout plug and re-driving pile shall be incidental to related Contract items.

12. Due to the presence of sloping bedrock at the site, pile walking during driving is possible. Costs for removing and re-driving pile that are out of position shall be incidental to related contract items.

13. Embedment of piles in pier cap may vary +/- three inches from the dimension shown and the actual embedment length will be used in the measurement for payment.

14. The contractor shall be required to support all pipe pile laterally in their final positions until the superstructure is complete and in place. Payment for this work shall be considered incidental to related contract items. No additional payment will be made.

PIPE PILE NOTES, (Cont'd)

1 15. Pipe piles shall be coated with Fusion Bonded Epoxy (FBE) down to Elevation -30.00' in accordance with Section 506 of the contract documents. The piles shall be colored gray so as to match the concrete. Prior to coating, a color chip shall be supplied by the fabricator for final color selection and approval by the Resident. After driving piles, FBE shall be removed down to the bottom of the pier cap elevation to ensure an adequate bond between the pipe pile and concrete, as approved by the Resident.

16. The Contractor shall drill one cased washboring at the centerline of each Pier, to determine bedrock elevation and bedrock rock properties for the determination of pile order lengths, in accordance with Special Provision Section 501 - Exploratory Drilling. Each boring will be terminated with a 5' bedrockcore.

17. Pipe piles shall be driven to the required nominal resistance on or within bedrock.

18. All pipe piles shall be filled with Class A concrete. Concrete for filling pipe piles and reinforcing steel within pipe piles shall be considered incidental to Pay Item 501.701 - Steel Pipe Piles, in place.

19. Pipe Piles marked with an arrow(⟶) in the individual pier plans shall be battered 6v:1h in the direction(s) shown

ROCK ANCHOR NOTES

1. The rock anchors shall have a 1 3/8" nominal threadbar diameter with a minimum bonded length as shown.

2. Rock anchor design, testing, and installation shall be in accordance with the Post - Tensioning Manual, 6th edition. Rock anchors shall be locked off at 20 kips.

3. Rock anchors shall be solid threaded bar meeting ASTM A722M, Type II, with a minimum yield strength of 150 ksi.

4. Grout for rock anchor installation shall have a non - shrink additive, a maximum water / cement ratio of 0.45 by weight and a minimum unconfined compressive strength of 4.0 ksi at time of testing.

5. No torch cutting of threadbar is permitted. All anchor rods shall be saw cut in accordance with the manufacturer's recommendations.

6. The Contractor may be required to grout and re-drill areas of poor quality rock to stabilize hole for anchor installation.

7. Plastic sheathing and sleeves shall be polyvinyl chloride. Corrugated sheathing shall have a minimum tensile and compressive strength of 7000 psi. Sleeves shall be shedule 40 PVC plastic pipe conforming to ASTM D1785.

8. A grout plug shall be placed at the bottom of the pile prior to drilling for the anchor rod.

9. Rock anchors shall have double corrosion protection.

10. The design load for the rock anchors is 160 kips.

PIER NOTES

1. Reinforcing steel shall have a minimum concrete cover of 3 inches unless otherwise noted.

2. All reinforcing steel placed in pier caps or in pipe piles shall be epoxy coated unless otherwise noted.

1 3. Payment for coating on galvanized bars shall not be paid for directly, but shall be considered incidental to reinforcing steel pay items.

NOTES FOR PIER NOS. 2&3

PIER DESIGN CRITERIA (Pier No. 2)

1. Critical AASHTO Load Combination - Strength III

2. Buoyancy: Water level assumed at EL. 6.17

3. Stream flow: Velocity of 8.4 fps skewed at 5° to longitudinal centerline of pier.

4. Wind: 0.070 ksf (factored for Strength III).

PIER DESIGN CRITERIA (Pier No. 3)

1. Critical AASHTO Load Combination - Strength III

2. Buoyancy: Water level assumed at EL. 6.17

3. Stream flow: Velocity of 8.4 fps skewed at 5° to longitudinal centerline of pier.

4. Wind: 0.070 ksf (factored for Strength III).

PIPE PILE NOTES

1. Pipe Pile material shall be ASTM A252 Grade 3 (Fy = 45 ksi) and meet the requirements of Special Provsion Section 711

2. Piles marked with an arrow shall be battered as shown.

3. Piles shall not be out of position shown by more than 2 inches in any direction.

4. Maximum calculated factored axial pile loads: 240 kips (Pier No. 2), & 200 kips (Pier No. 3)

5. Estimates of pile lengths are determined from available soils information with no allowance for uncertain bedrock profile:

Pier No. 2:	3 ~ 26" ϕ x 5/8" @	80'
	2 ~ 26" ϕ x 5/8" @	80'
Pier No. 3:	6 ~ 26" ϕ x 5/8" @	95'
	4 ~ 26" ϕ x 5/8" @	95'

6 Provisions must be made in order lengths to account for an additional six (6) feet for piles to be subject to dynamic pile testing.

7. Piles shall be fitted with a closed-ended conical pile tip that meets the requirements of Special Provision 711.

8. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal analyses shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system. The stopping criteria shall include the blows per inch and the number of 1-in. intervals at which pile installation may be terminated. The cost of performing the wave equation analysis will be considered incidental to Item No. 501.92, Pile Driving Equipment Mobilization.

9. The Contractor shall perform (1) dynamic load test at each pier to confirm the nominal resistance of the pile. The required nominal resistance for the pile is the maximum factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. Each dynamic load test will be performed on the first production pile driven at each pier location in accordance with Standard Specification 501.

10. Due to the presence of sloping bedrock at the site, pile walking during driving is possible. Costs for removing and re-driving pile that are out of position shall be incidental to related contract items

11. Embedment of piles in pier cap may vary +/- three inches from the dimension shown and the actual embedment length will be used in the measurement for payment.

12. The contractor shall be required to support all pipe pile laterally in their final positions until the superstructure is complete and in place. Payment for this work shall be considered incidental to related contract items. No additional payment will be made.

13. Pipe Piles marked with an arrow(⟶) in the individual pier plans shall be battered 6v:1h in the direction(s) shown.

PIPE PILE NOTES (Cont'd)

1 14. Pipe piles shall be coated with Fusion Bonded Epoxy (FBE) down to Elevation -30.00' in accordance with Section 506 of the contract documents. The piles shall be colored gray so as to match the concrete. Prior to coating, a color chip shall be supplied by the fabricator for final color selection and approval by the Resident. After driving piles, FBE shall be removed down to the bottom of the pier cap elevation to ensure an adequate bond between the pipe pile and concrete, as approved by the Resident.

15. The Contractor shall drill one cased washboring at the centerline of each Pier, to determine bedrock elevation for the determination of pile order lengths, in accordance with Special Provision Section 501 - Exploratory Drilling. Each boring will be terminated with a 5' bedrock core.

16. Pipe piles shall be driven to the required nominal resistance on or within bedrock.

1 17. All pipe piles shall be filled with Class A concrete. Concrete for filling pipe piles and reinforcing steel within pipe piles shall be considered incidental to Pay Item 501.701 - Steel Pipe Piles, in place.

PIER NOTES

1. Reinforcing steel shall have a minimum concrete cover of 3 inches unless otherwise noted.

2. All reinforcing steel placed in pier caps or in pipe piles shall be epoxy coated unless otherwise noted.

1 3. Payment for coating on galvanized bars shall not be paid for directly, but shall be considered incidental to reinforcing steel pay items.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1263(000)X

PIN 12630.00

BRIDGE PLANS

BRIDGE NO. 2438

PROJ. MANAGER	NDB		
DESIGN-DETAILED	ETC	BJN	FEB 2008
CHECKED-REVIEWED	---	------	------
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	2/3/2010	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

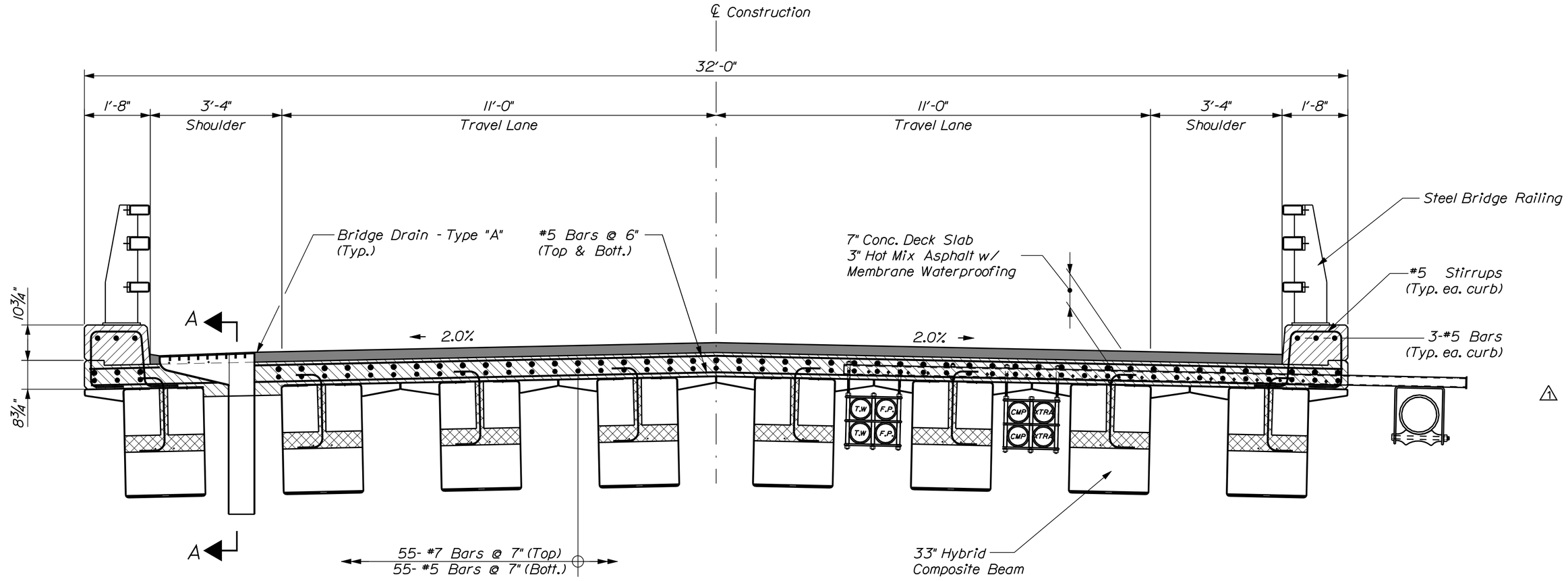
KNICKERBOCKER BRIDGE
BACK RIVER
BOOTHBAY LINCOLN COUNTY

PIER NOTES

SHEET NUMBER

29

OF 51



SUPERSTRUCTURE SECTION

Flood Ebb

TOP OF SLAB ELEVATIONS

Location	Abut No. 1	·10'	·20'	·30'	·40'	·50'	Pier No. 1	·10'	·20'	·30'	·40'	·50'	·60'	Pier No. 2	
TOS Elev.	11.69	11.82	11.97	12.14	12.33	12.54	12.76	12.87	13.00	13.16	13.34	13.54	13.77	14.01	
Location	Pier No. 2	·10'	·20'	·30'	·40'	·50'	·60'	Pier No. 3	·10'	·20'	·30'	·40'	·50'	·60'	Pier No. 4
TOS Elev.	14.01	14.13	14.26	14.41	14.59	14.79	15.01	15.22	15.27	15.33	15.39	15.46	15.52	15.60	15.67
Location	Pier No. 4	·10'	·20'	·30'	·40'	·50'	·60'	Pier No. 5	·10'	·20'	·30'	·40'	·50'	·60'	Pier No. 6
TOS Elev.	15.67	15.59	15.51	15.43	15.35	15.28	15.22	15.17	14.98	14.82	14.68	14.56	14.46	14.39	14.34
Location	Pier No. 6	·10'	·20'	·30'	·40'	·50'	·60'	Pier No. 7	·10'	·20'	·30'	·40'	·50'	Abut. No. 2	
TOS Elev.	14.34	14.16	13.99	13.85	13.73	13.64	13.57	13.51	13.35	13.21	13.08	12.97	12.88	12.80	

SUPERSTRUCTURE NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.

2. All reinforcing steel in the superstructure shall be epoxy coated.

3. Reinforcing Steel in the superstructure shall not be paid for directly, but shall be considered incidental to Item No. 502.25 - Structural Concrete Superstructure Slab.

4. Adjust reinforcing steel to fit around the bridge drains in a manner approved by the Resident. Do not cut transverse reinforcing bars.

5. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.

6. Unless the superstructure slab concrete is placed in one continuous operation, the initial placement shall begin at a simply supported end of the deck slab and shall terminate 20' either side of the centerline of Piers 3, 4, or 5. The Contractor is allowed no more than two placements to complete the entire superstructure slab, but may select which of these locations to terminate the initial concrete placement sequence. The second placement shall proceed from the end of the previous placement, terminate at the remainig end of the deck slab Concrete in a placement shall be kept plastic one complete span behind the span being placed. A minimum of 5 days shall elapse between successive partial placements. The superstructure slab concrete placement sequence shall be approved by the Resident.

7. The seal(s) to be furnished shall have minimum Movement Rating(s) as follows:

   Abutment No. 1 = 1.6 inch
   Abutment No. 2 = 3.0 inch

8. The Resident shall approve the seals prior to fabrication of the Expansion Device.

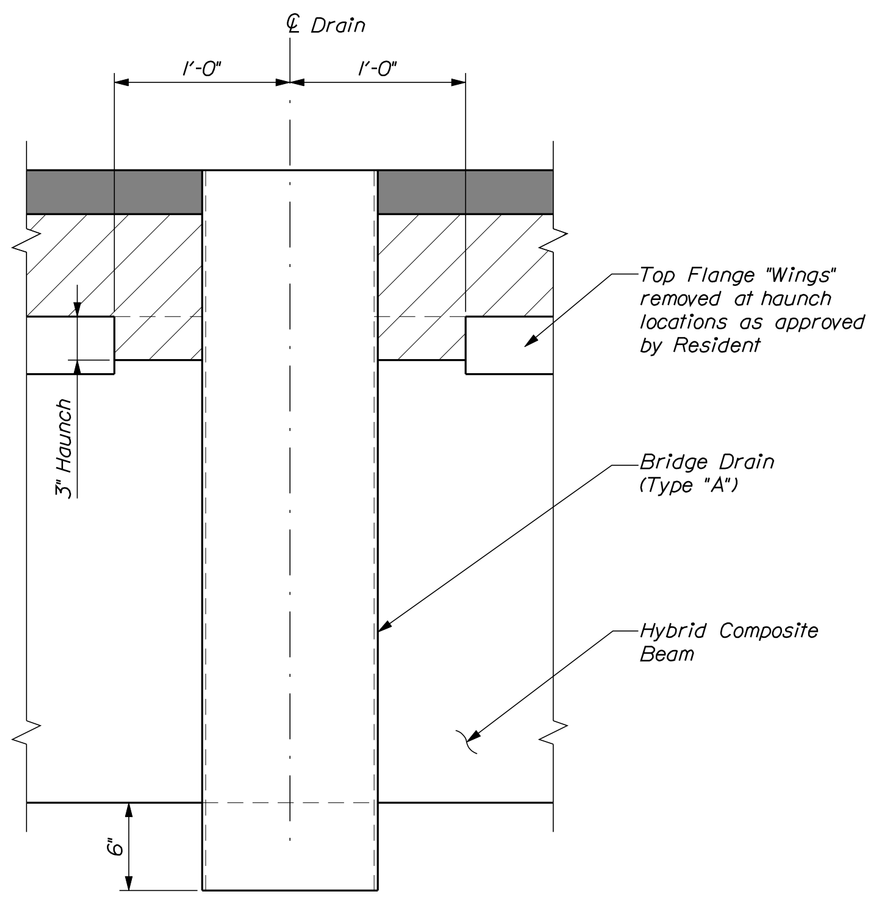
9. Provide 3 additional stirrups in the curbs at each Transition Barrier location.

10. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the curb concrete.

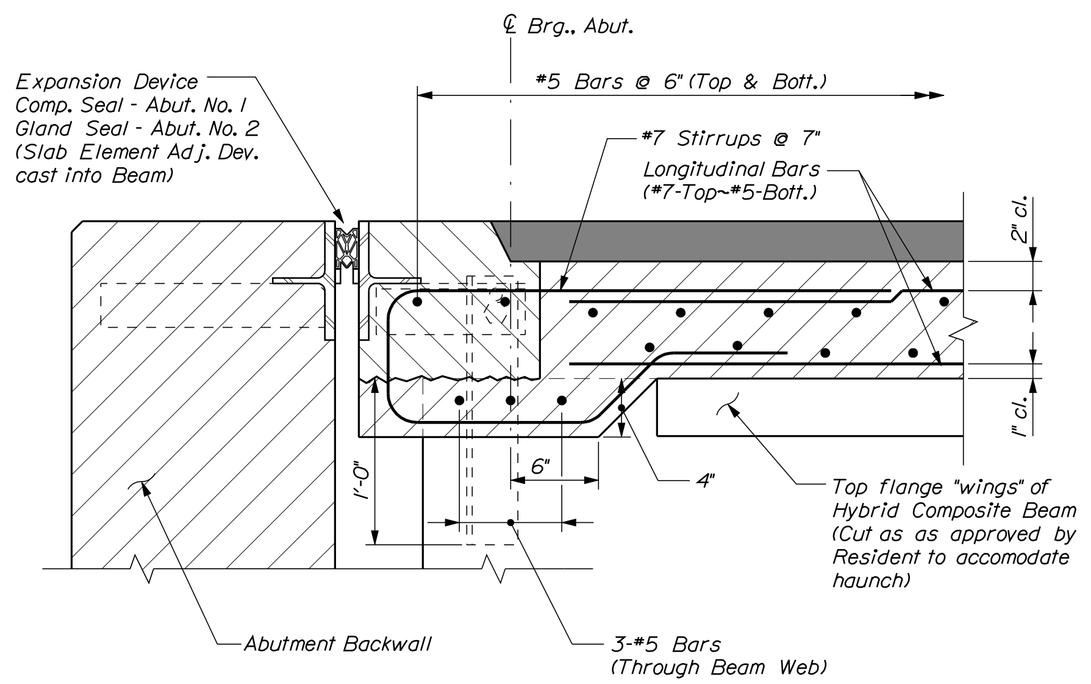
11. Contractor shall not cut top flange "wings" to accomodate bridge drains and haunch until concrete has reached a minimum compressive strength of 4,000 psi.

12. After Hybrid Composite Beams have been erected and compression reinforcment has reached a compressive strength of 4,200 PSI, the Contractor shall survey the Top of Beam elevations at intervals indicated in the 'Top of Slab Elevations" Table. The Top of Beam elevations shall be submitted to the Resident before setting screed rails.

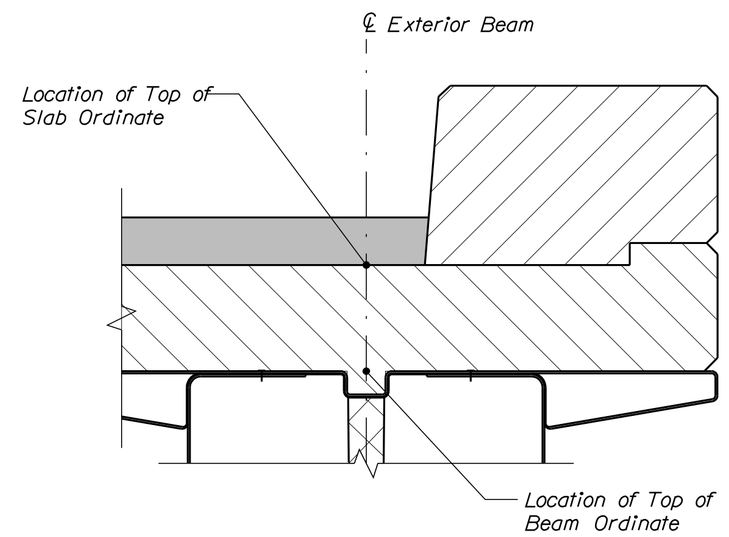
13. Top of Curb elevations shall be set at 10' intervals based on bridge finish grade profile. The Contractor shall submit curb elevations one week prior to placing curb.



SECTION A-A



SLAB HAUNCH SECTION



TOP OF SLAB ORDINATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1263(000)X

PIN 12630.00

BRIDGE NO. 2438

BRIDGE PLANS

NO	BY	DATE
1	BJN	FEB 2008
2	------	------
3	------	------
4	------	2/9/2010
5	------	------
6	------	------
7	------	------

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	NO
DESIGN-DETAILED	ETC
CHECKED-REVIEWED	
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

KNICKERBOCKER BRIDGE
BACK RIVER
BOOTHBAY LINCOLN COUNTY

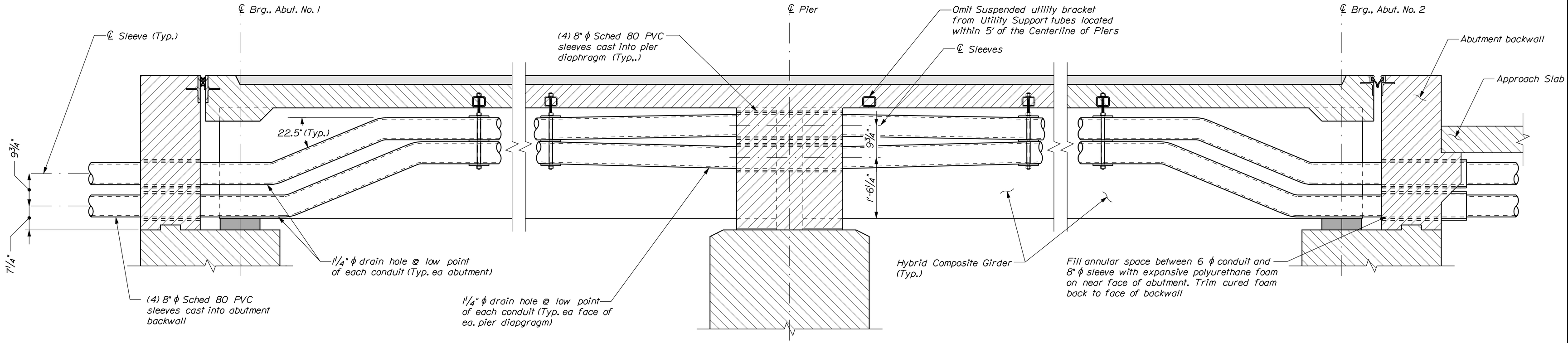
SUPERSTRUCURE DETAILS

SHEET NUMBER

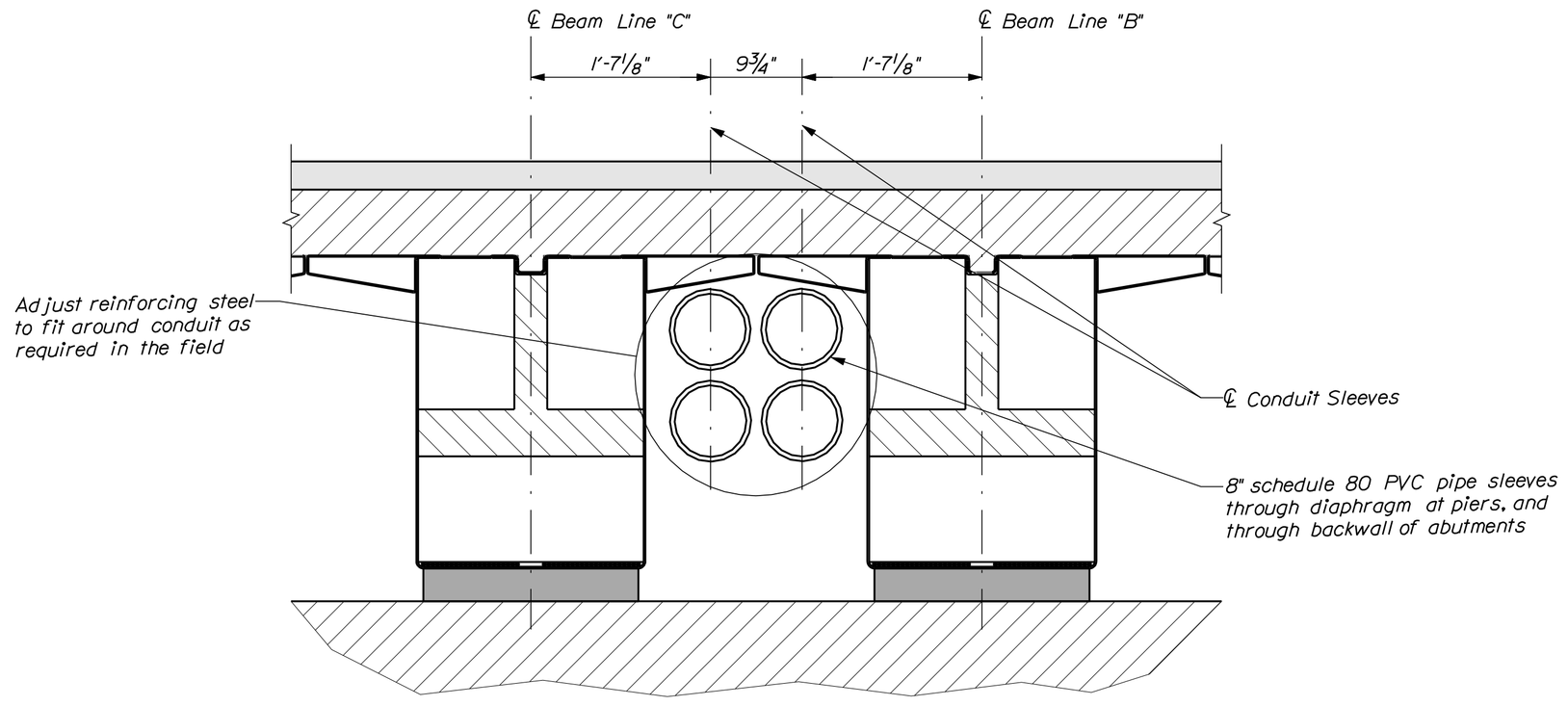
40

OF 51

Filename: ...\040_Superstructure_Det_1.dgn Division: BRIDGE Username: brian.j.nichols Date:2/10/2010



LONGITUDINAL CONDUIT SECTION



CONDUIT SLEEVE SECTION

Bay between Beam Lines "B" & "C" Shown
Bay between Beam Lines "C" & "D" Similar

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1263(000)X

PIN 12630.00

BRIDGE NO. 2438

BRIDGE PLANS

	NOB	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	ETC	BJN	FEB 2008
CHECKED-REVIEWED		------	------
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

KNICKERBOCKER BRIDGE
BACK RIVER
BOOTHBAY LINCOLN COUNTY

UTILITY DETAILS

SHEET NUMBER

50A

OF 51

Username: brian.j.nichols Date:2/10/2010
Division: BRIDGE
Filename: ...\msta\050A_Utilities2.dgn