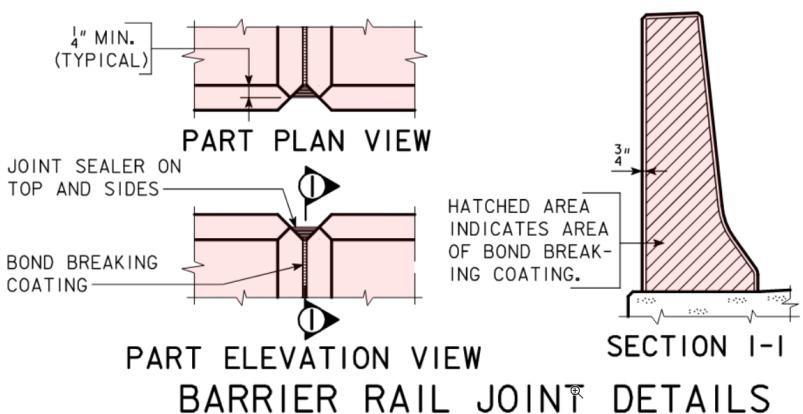


LEVEL OF BARRIER RAIL

NOTE:
● MEASURED ALONG GUTTER LINE.

LEVEL ELEVATION OF BARRIER RAIL



BARRIER RAIL NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE PERMISSIBLE CONSTRUCTION JOINTS ARE TO BE PLACED BETWEEN VERTICAL BARS AT A MINIMUM SPACING OF 20 FEET. CONSTRUCTION JOINT CONTACT SURFACES ARE TO BE COATED WITH AN APPROVED BOND BREAKER. COST OF THE JOINT SEALER AND BOND BREAKER SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.

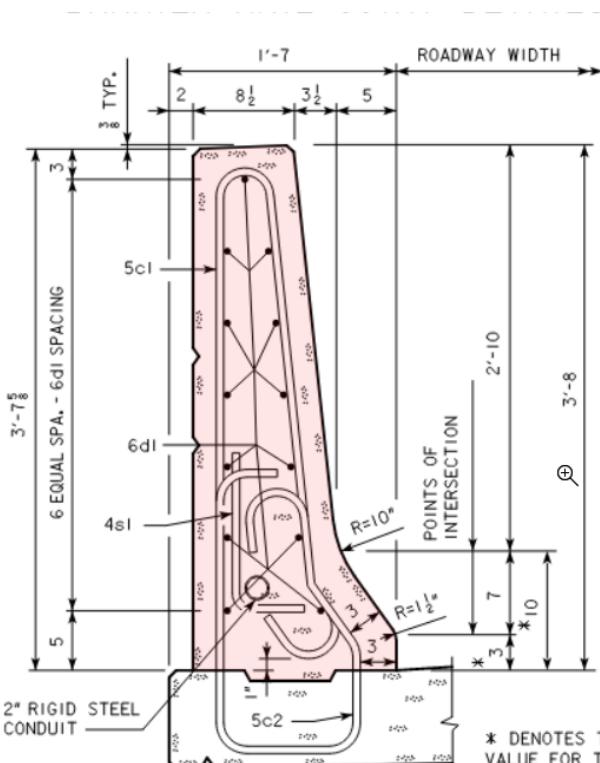
ALL BARRIER RAIL REINFORCING STEEL IS TO BE EITHER EPOXY COATED OR STAINLESS STEEL AS SHOWN. THE STAINLESS STEEL REINFORCING STEEL SHALL BE DEFORMED BAR GRADE 60 MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

DETERMINED BY CONTRACTOR MEETING THE REQUIREMENTS OF MATERIALS AND LABOR.
THE CONCRETE BARRIER RAIL IS TO BE BID ON A LINEAL FOOT BASIS.
THE NUMBER OF LINEAL FEET OF BARRIER RAIL INSTALLED WILL BE PAID
FOR AT THE CONTRACT PRICE PER LINEAL FOOT BASED ON PLAN QUANTITIES.
PRICE BID FOR 3'-8 CONCRETE BARRIER RAILING SHALL BE FULL COMPENSATION
FOR FURNISHING ALL MATERIAL, EXCLUDING REINFORCING STEEL, AND ALL OF
THE EQUIPMENT AND LABOR REQUIRED TO ERECT THE RAIL IN ACCORDANCE
WITH THESE PLANS AND CURRENT SPECIFICATIONS. IF CONDUIT IS REQUIRED
IN THIS PLAN THE RIGID STEEL CONDUIT, JUNCTION BOXES AND FITTINGS
INCLUDING LABOR AND ANY ADDITIONAL WORK TO DO THE INSTALLATION IS
CONSIDERED INCIDENTAL TO THE COST OF THE RAILING.

THE JOINT SEALER SHALL BE LIGHT GRAY NONSAG LATEX CAULKING SEALER
MARKETED FOR OUTDOOR USE. NO TESTING OR CERTIFICATION IS REQUIRED.
TOP OF THE BARRIER RAIL IS TO BE PARALLEL TO THE THEORETICAL C

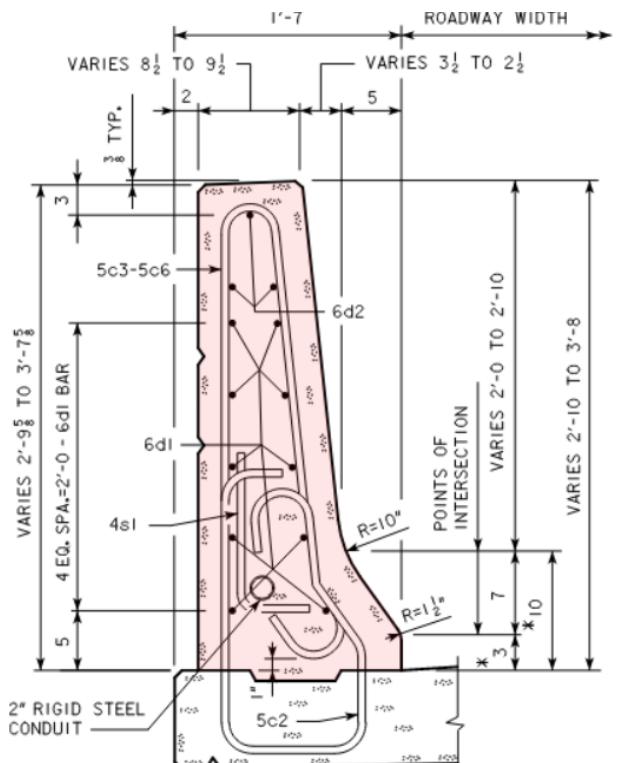
CROSS SECTIONAL AREA OF THE STANDARD SECTION OF THE BARRIER RAIL

CROSS SECTIONAL AREA OF THE STANDARD SECTION OF THE BARRIER RAIL = 3.46 SQUARE FEET EXCEPT THE 4'-0 SLOPED ENDS AT THE END SECTIONS.
THE GALVANIZED STEEL CONDUIT SHALL BE SECURELY TIED AT EVERY 3'-0 INTERSECTION WITH THE 4SI BARS TO AVOID CONTACT WITH THE STAINLESS STEEL REINFORCING.



PART SECTION C-C

* DENOTES THE MAXIMUM
VALUE FOR THIS DIMENSION.
THIS DIMENSION MAY VARY DUE
TO CONSTRUCTION INACCURACIES.



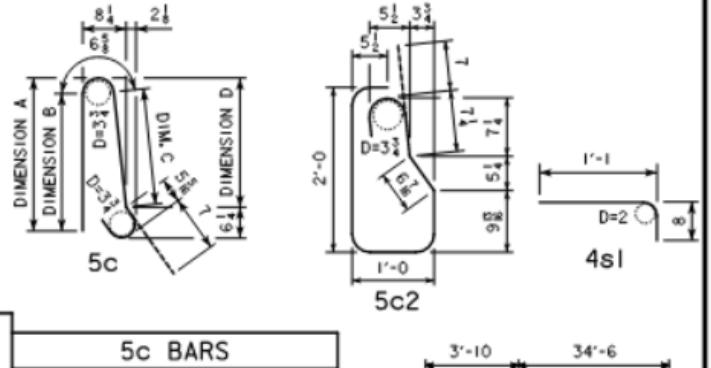
PART SECTION F-F

EPOXY COATED REINF. STEEL

STAINLESS STEEL REINF. STEEL

SECTION	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
STANDARD SECTIONS	5c1	RAIL, VERTICAL	1		7'-5	
	5c2	RAIL, VERTICAL	2		6'-0	
	5c3	RAIL, VERTICAL, SLOPED ENDS	1		7'-3	
	5c4	RAIL, VERTICAL, SLOPED ENDS	1		6'-10	
	5c5	RAIL, VERTICAL, SLOPED ENDS	1		6'-5	
	5c6	RAIL, VERTICAL, SLOPED ENDS	1		6'-0	
6d	6d1	RAIL, LONGITUDINAL	—		38'-4	
	6d2	RAIL, LONGIT., TOP SLOPED ENDS	—		38'-5	

BENT BAR DETAILS



NOTE:
ALL DIMENSIONS ARE OUT TO OUT.

5c BARS

M. A	DIM. B	DIM. C	DIM. D
-3 ₁₆	3'-1 ₁₆	2'-8 ₁	2'-10 ₁
-2 ₈	3'-0	2'-7 ₁	2'-9 ₅
-0 ₁₆	2'-9 ₁₆	2'-4 ₁	2'-6 ₃
-9 ₃	2'-7 ₁₆	2'-2 ₁	2'-4 ₃
-7 ₁₆	2'-4 ₁₆	1'-11 ₁	2'-1 ₁

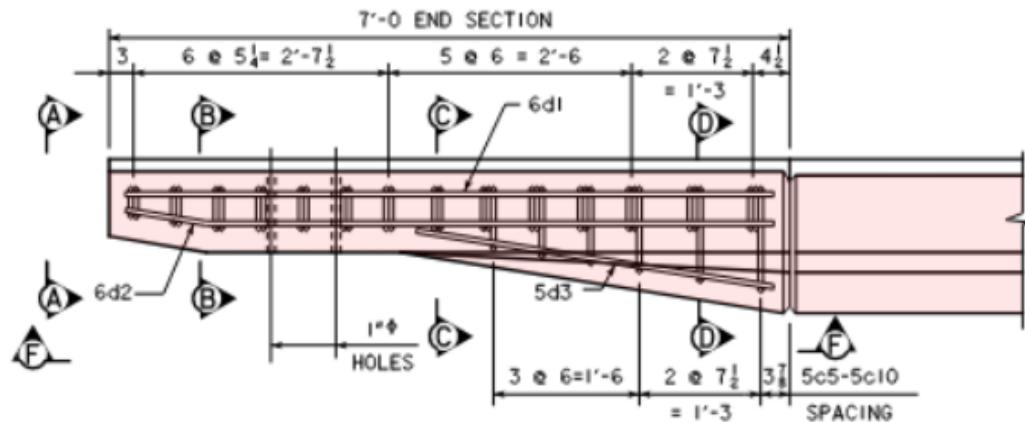
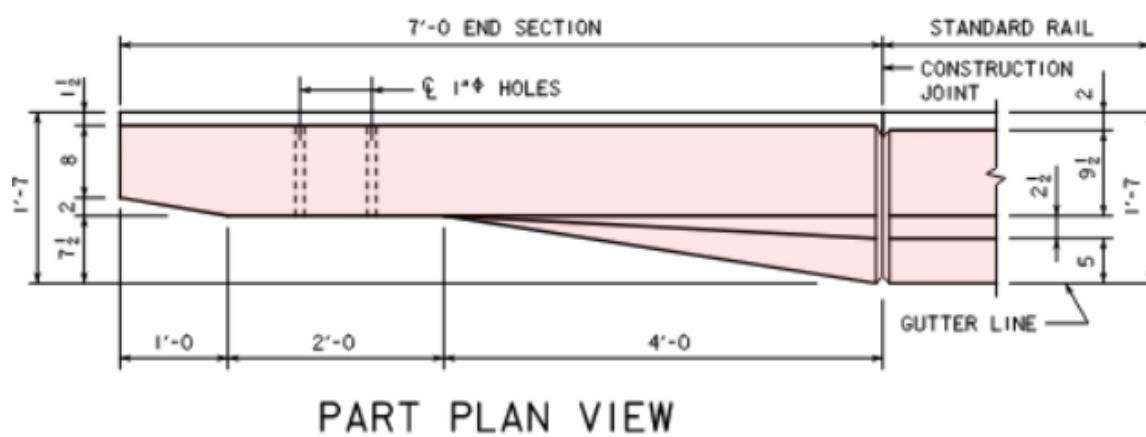
NOTES:

1. For the full plan set and additional structure information, see Br2-Concrete Culvert-NC DOT pdf

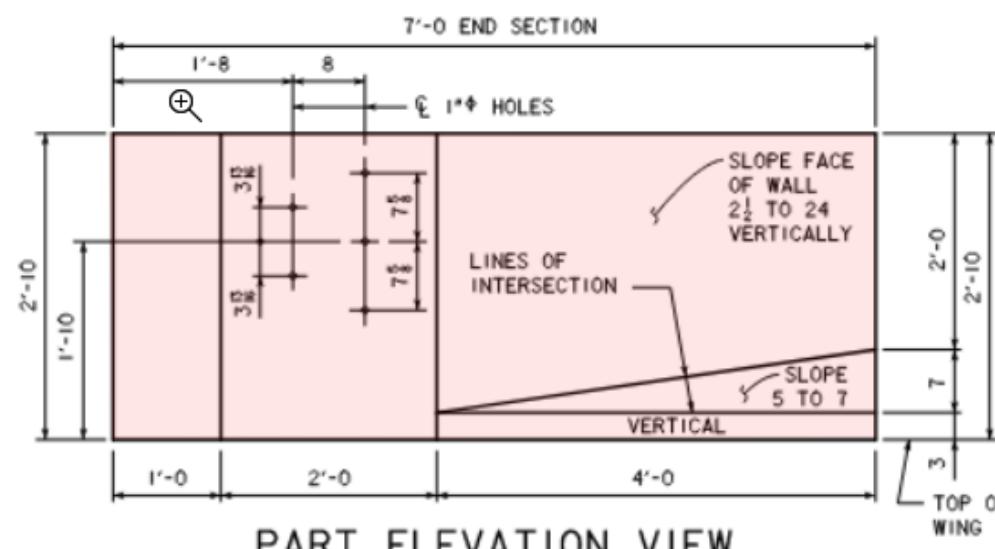
Unit Test Instruction for the Design-to-Construction Data Exchange		
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No.	Date	Issue / Revision Notes
Unit Test Description: Level 1 Barrier Rail 01		
Unit Test / Sheet No. L1-Br01-BarrierRail01 / 01		
Drawn By DHC		Reviewed By GMS





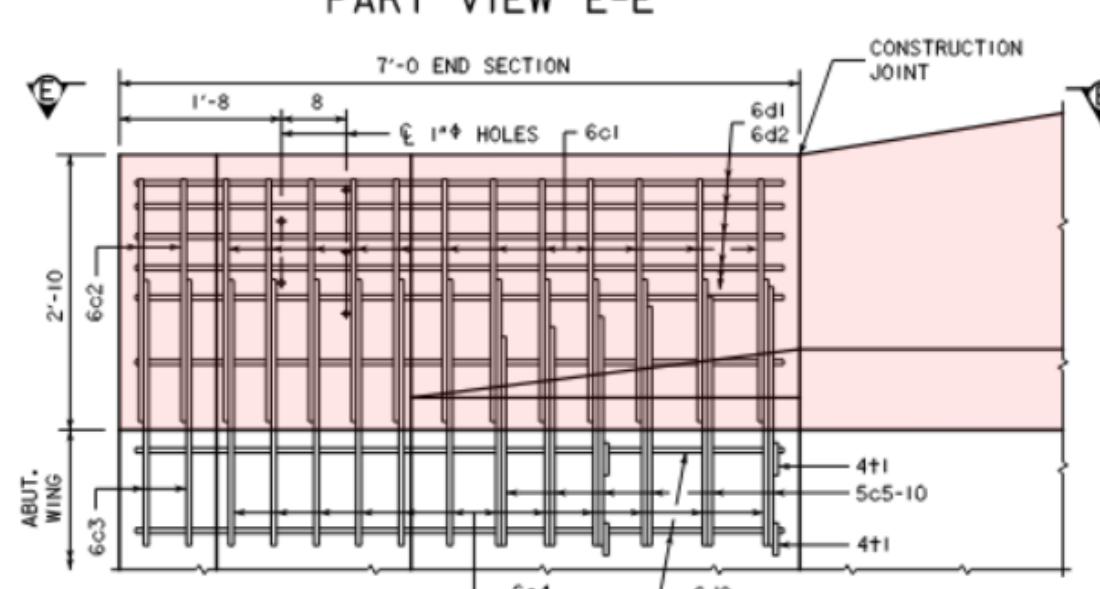


STAINLESS STEEL REINF. STEEL - ONE END SECT.					
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6c1	RAIL, VERTICAL	I		5'-6	
6c2	RAIL, VERTICAL	I		2'-10	
6c3	RAIL, VERTICAL	I		4'-1	
6c4	RAIL, VERTICAL	I		8'-0	
5c5-10	RAIL, VERTICAL	I		VARIES	
6d1	RAIL, HORIZONTAL	—		6'-8	
6d2	RAIL, HORIZONTAL	—		6'-9	
5d3	RAIL, HORIZONTAL	—		3'-9	

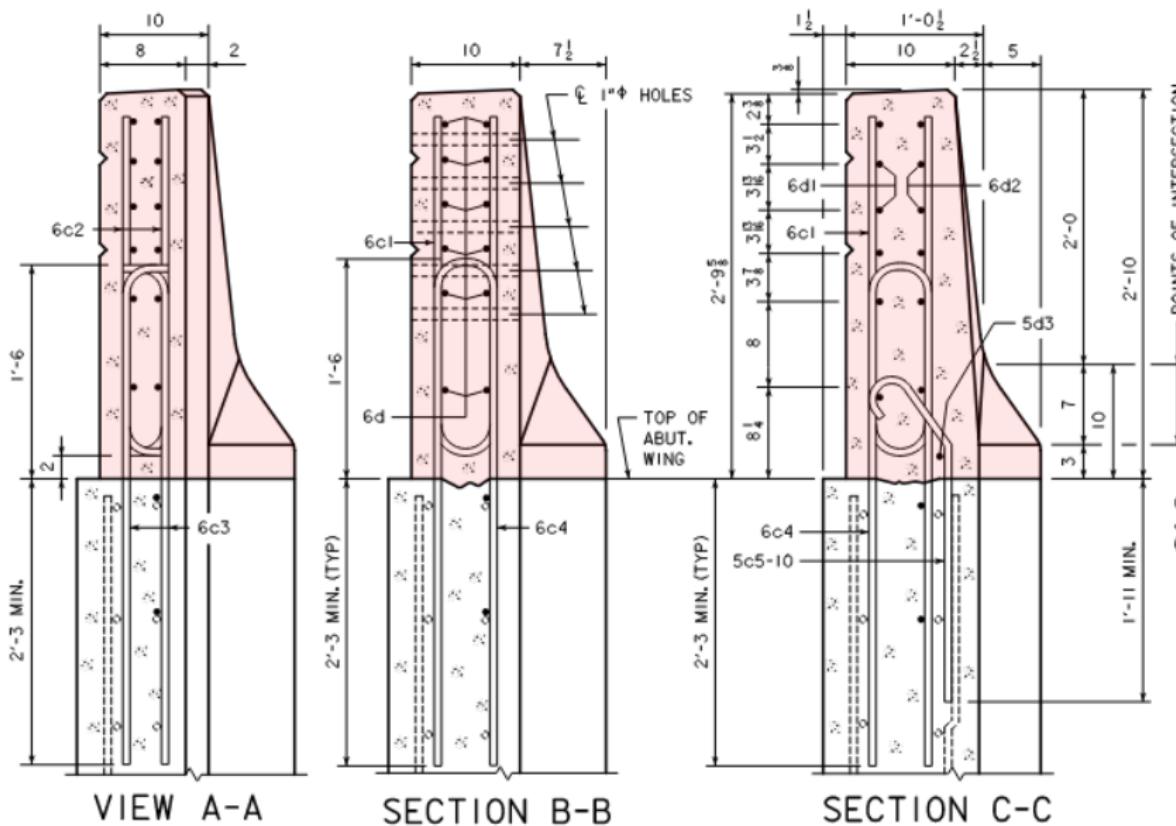


PART ELEVATION VIEW

PROVIDE 5 HOLES FORMED WITH 1 1/4" PLASTIC CONDUIT. COST TO BE INCLUDED IN PRICE BID FOR CONCRETE BARRIER RAILING.



PART VIEW F-F



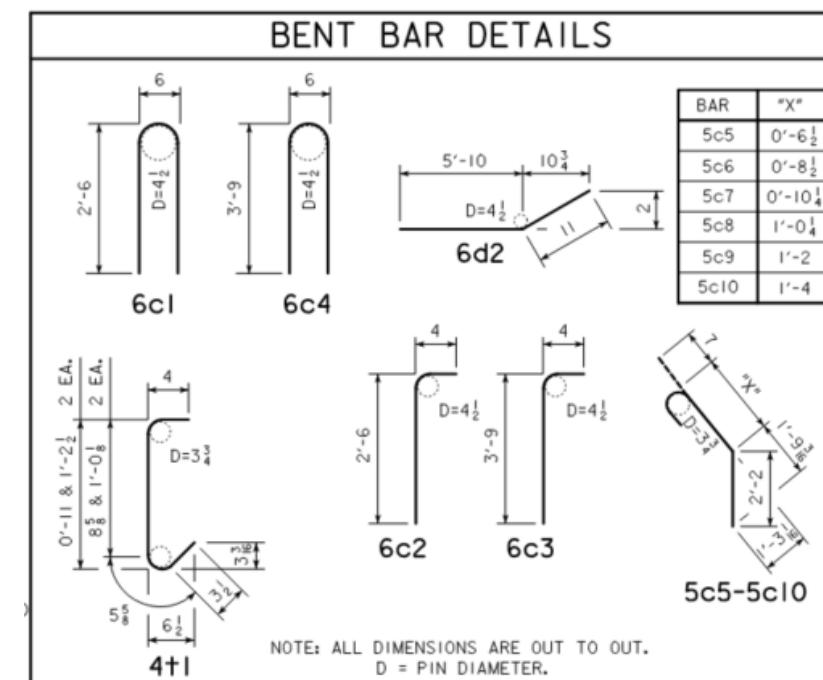
NOTE:
4t1 PLACEMENT- 2 BARS EACH LEVEL OF 6d2 IN WING FOOTING.

NOTE:
CONSTRUCTION JOINT BETWEEN TOP OF WING AND BARRIER RAIL IS ROUGHENED CONCRETE.

NOTE:
THE 10" RADIUS AND 1 1/2" RADIUS ARE TYPICAL AND SHALL BE USED WHEN CONSTRUCTING THE CORNERS FOR VIEW A-A, SECTION B-B, SECTION C-C AND SECTION D-D.

NOTE:
THE 6c4, 6c3, 5c5-10, 2 - 6d2 AND 4t1 BARS ARE TO BE PLACED WITH THE ABUTMENT WING. THE DETAILS FOR PLACEMENT ARE SHOWN ON THE WING ABUTMENT SHEET.

NOTE:
DASHED LINES BELOW THE TOP OF WING ARE THE ABUTMENT WING REINFORCING STEEL. SEE WING ABUTMENT SHEET FOR PLACEMENT.



NOTES:

Epoxy Coated Reinforcing:
Bid Item Number: 2404-7775005
Bid Item Name: Reinforcing Steel, Epoxy Coated
Bid Item Notes:

Stainless Steel Reinforcing:
Bid Item Number: 2404-7775005
Bid Item Name: Reinforcing Steel, Stainless Steel
Bid Item Notes:

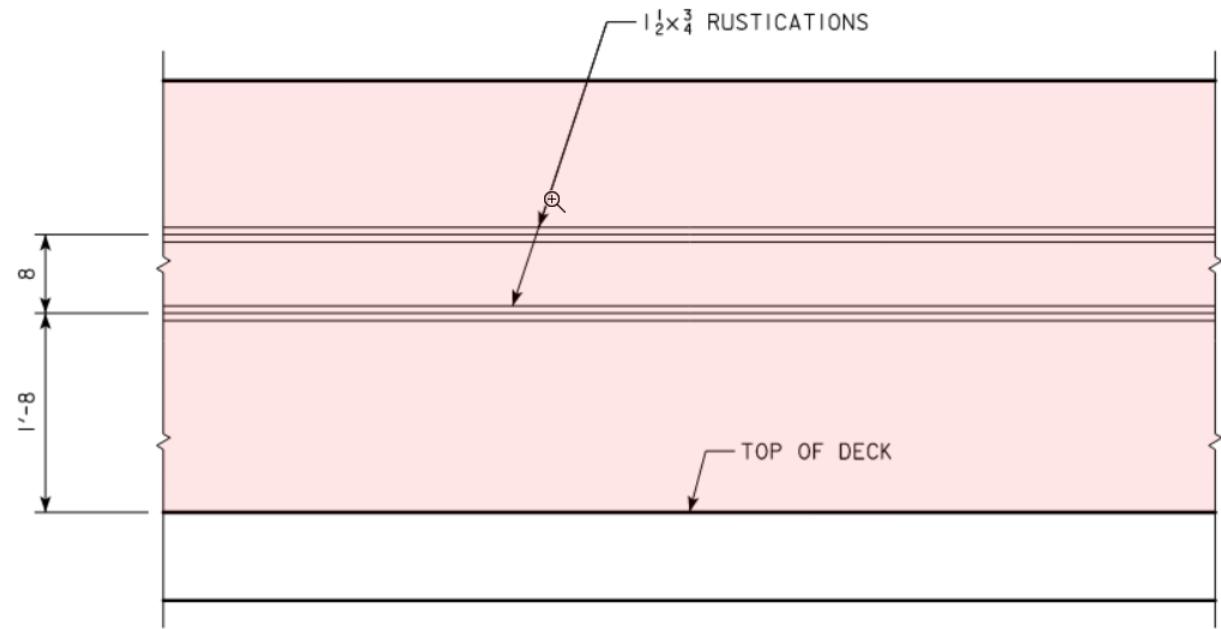
Concrete Elements, Conduit, Junction Boxes:
Bid Item Number: 2414-6424038
Bid Item Name: Concrete Barrier Rail, 3'-8"

Bid Item Notes: INCLUDES MATERIAL AND LABOR ASSOCIATED WITH PROVIDING AND INSTALLING THE RIGID STEEL CONDUIT, JUNCTION BOXES, AND FITTINGS. INCLUDES 462 LF. OF 2" DIAMETER RIGID STEEL CONDUIT. IF PLACEMENT OF CONCRETE IS DONE BY THE SLIPFORMING METHOD, CLASS BR CONCRETE IS REQUIRED. CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. PRICE BID FOR THIS ITEM SHALL INCLUDE THE COST OF CAST-IN-PLACE FORMS IF REQUIRED FOR PLACEMENT OF THE CONCRETE.

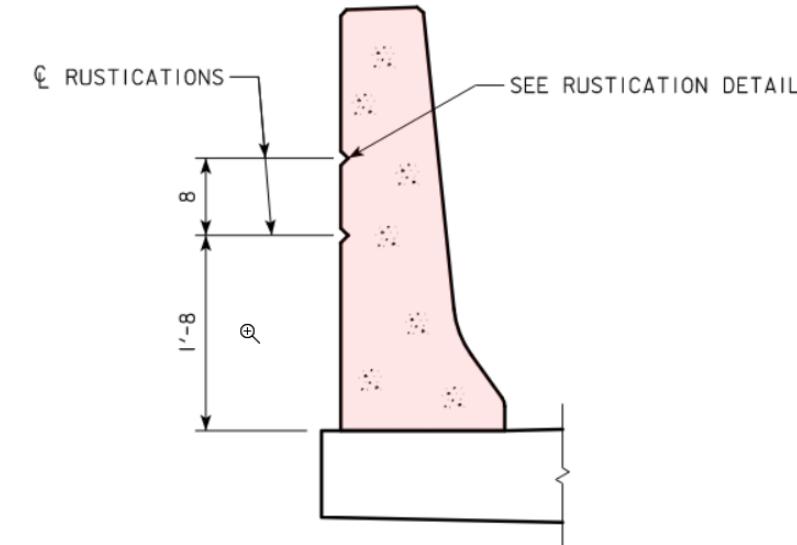
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DHC	GMS	

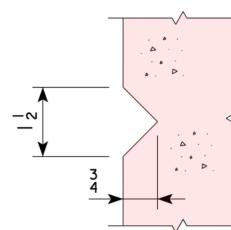




PART OUTSIDE ELEVATION OF
STANDARD BARRIER RAIL



PART SECTION THROUGH
STANDARD BARRIER RAIL



RUSTICATION DETAIL

NOTES:
1.

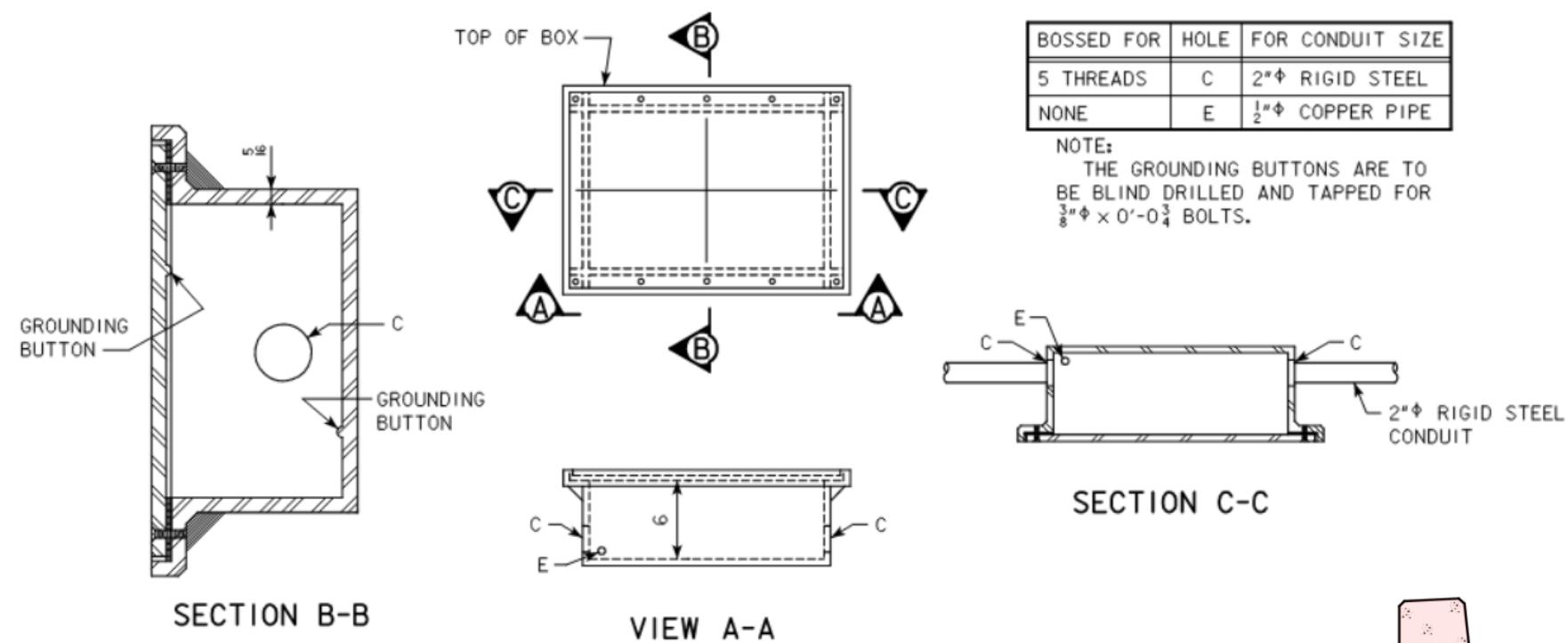
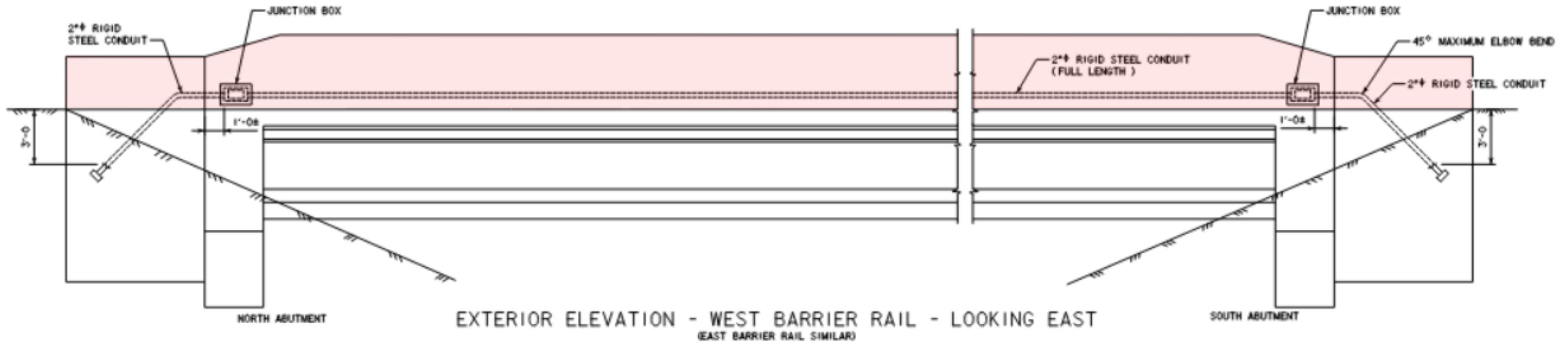
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Level 1 Barrier Rail 01		
Drawn By	Reviewed By	
DHC	GMS	

BIM FOR BRIDGES AND STRUCTURES TFP-5(372)

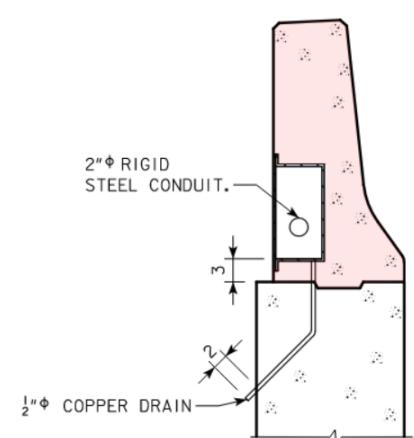
HDR

jō consulting

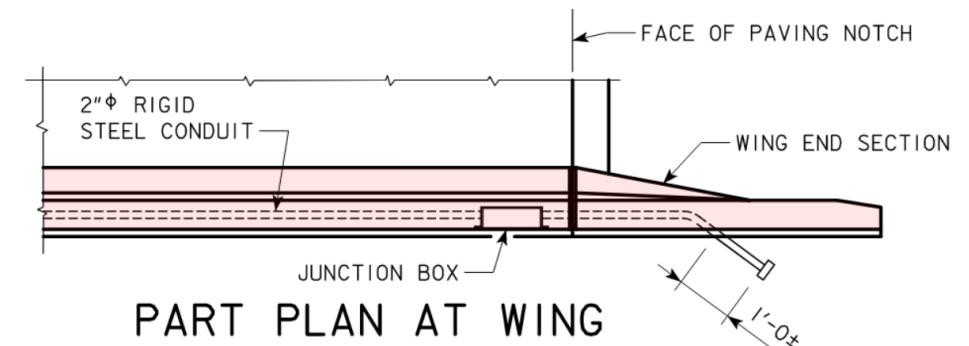
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LI-104 JUNCTION BOX
WATERTIGHT, CAST IRON - FLUSH MOUNT



SECTION THRU JUNCTION BOX



PART PLAN AT WING

NOTES:

- 1.

Unit Test Instruction for the
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Drawn By DHC	Reviewed By GMS	L1-Br01-BarrierRail01 / 04



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SPECIFICATIONS:

DESIGN:

AASHTO LRFD 8TH ED, SERIES OF 2017, EXCEPT AS NOTED IN THE CURRENT IOWA BRIDGE DESIGN MANUAL.

CONSTRUCTION:

IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS, INCLUDING THE FOLLOWING SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT:

- "DEVELOPMENTAL SPECIFICATIONS FOR HIGH PERFORMANCE CONCRETE FOR STRUCTURES",
- "DEVELOPMENTAL SPECIFICATIONS FOR MAINTENANCE WORK ON RAILROAD RIGHT-OF-WAY (UNION PACIFIC RAILROAD)",
- "SPECIAL PROVISIONS FOR E-BUILDER".

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH ED, SERIES OF 2017, EXCEPT AS NOTED IN THE CURRENT IOWA BRIDGE DESIGN MANUAL.

- REINFORCING STEEL IN ACCORDANCE WITH AASHTO LRFD SECTION 5, GRADE 60 FOR EPOXY COATED AND NON-COATED, AND GRADE 60 OR 75 FOR STAINLESS.
- CONCRETE IN ACCORDANCE WITH LRFD AASHTO SECTION 5, $f'_c = 4.0$ KSI, EXCEPT PRESTRESSED BEAM CONCRETE AS NOTED.
- PRESTRESSED CONCRETE BEAMS, SEE DESIGN SHEET 19.
- STRUCTURAL STEEL IN ACCORDANCE WITH AASHTO LRFD SECTION 6, ASTM A709 GRADE 50 (AASHTO M270 GRADE 50), EXCEPT AS NOTED.

GENERAL NOTES:

THIS BRIDGE IS DESIGNED FOR HL-93 LOADING, PLUS 20 LBS. PER SQUARE FOOT OF ROADWAY FOR FUTURE WEARING SURFACE.

THE CITY AND UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE BRIDGE CONTRACTOR OF THE CONSTRUCTION STARTING DATE.

THE BRIDGE CONTRACTOR SHALL WORK IN SUCH A MANNER THAT EQUIPMENT AND MATERIALS SHALL NOT BE ALLOWED TO INTERFERE WITH TRAIN TRAFFIC OR BE ALLOWED TO FALL ON THE RAILROAD TRACKS. INTERFERENCE ABOVE THE RAILROAD TRACK AREA SHALL BE COORDINATED WITH THE RAILROAD.

FAINT LINES ON PLANS INDICATE THE EXISTING STRUCTURE.

EXCAVATION QUANTITIES FOR THE PIERS ARE BASED ON THE ASSUMPTION THAT ABUTMENT FILLS ARE IN PLACE PRIOR TO STARTING CONSTRUCTION OF THE PIERS.

IT SHALL BE THE BRIDGE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SITES FOR EXCESS EXCAVATED MATERIAL. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES.

THE BRIDGE CONTRACTOR SHALL PREBORE HOLES FOR ABUTMENT PILES. HOLES SHALL BE BORED TO THE ELEVATIONS SHOWN ON THE "LONGITUDINAL SECTION ALONG B RAMP B" ON DESIGN SHEET 4. PILES SHALL BE DRIVEN THROUGH THE HOLES TO AT LEAST THE SPECIFIED DESIGN BEARING.

ABUTMENT PILES SHALL NOT BE DRIVEN FOR A MINIMUM OF 75 DAYS FOLLOWING COMPLETION OF APPROACH FILLS. THE TIME PERIOD BETWEEN COMPLETION OF FILLS AND DRIVING PILES MAY BE CHANGED AS ORDERED BY THE ENGINEER BASED UPON REVIEW OF SETTLEMENT PLATES.

THE APPROACH FILLS AS SHOWN ARE TO BE DONE AS PART OF THE TIED PROJECT IM-035-3(194)87--13-77 AND ARE TO BE IN PLACE BEFORE ABUTMENT PILES ARE DRIVEN. THE BRIDGE CONTRACTOR IS TO LEVEL OFF AND SHAPE THE BERMS TO THE ELEVATIONS AND DIMENSIONS SHOWN. DRESSING OF SLOPES OUTSIDE THE BRIDGE AREA NOT DISTURBED BY THE BRIDGE CONTRACTOR SHALL BE PAID FOR AS EXTRA WORK.

CONCRETE BARRIER RAILS PLACED USING THE SLIPFORM METHOD WILL REQUIRE THE USED OF A CLASS BR CONCRETE IN ACCORDANCE WITH ARTICLE 2513.03, A, 2 OF THE STANDARD SPECIFICATIONS. CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED FOR CONCRETE BARRIER RAILS (CAST-IN-PLACE OR SLIPFORMED METHOD).

ALL REINFORCING IS TO BE SECURELY WIRED IN PLACE BEFORE CONCRETE IS POURED.

ALL EXPOSED CONCRETE CORNERS, 90 DEGREES OR SHARPER TO BE FILLETED WITH A $\frac{3}{8}$ " DRESSED AND BEVELED STRIP, UNLESS NOTED OTHERWISE.

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5al is $\frac{5}{8}$ inch diameter bar). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ENGLISH SIZE	3	4	5	6	7	8	9	10	11
BAR DESIGNATION	10	13	16	19	22	25	29	32	36

ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.

KEYWAY DIMENSIONS SHOWN ON THE PLANS ARE BASED ON NOMINAL DIMENSIONS UNLESS STATED OTHERWISE. IN ADDITION, THE BEVEL USED ON THE KEYWAY SHALL BE LIMITED TO A MAXIMUM OF 10 DEGREES FROM VERTICAL.

DURING CONSTRUCTION OF THIS PROJECT THE BRIDGE CONTRACTOR WILL BE REQUIRED TO COORDINATE OPERATIONS WITH THOSE OF OTHER CONTRACTORS WORKING WITHIN THE SAME AREA. OTHER WORK IN PROGRESS DURING THE SAME PERIOD OF TIME IS SHOWN ON SHEET J-1 OF THESE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING STABILITY OF PRESTRESSED CONCRETE BEAMS DURING ERECTION AND CONSTRUCTION UP THROUGH THE CONCRETE BRIDGE DECK REACHING ITS FULL 28-DAY STRENGTH. THE CONTRACTOR SHALL PROVIDE SUFFICIENT TEMPORARY ANCHOR BRACING AT BEAM ENDS AND TEMPORARY INTERMEDIATE BRACING AS NEEDED TO ENSURE PRESTRESSED BEAM STABILITY. PARTIALLY OR FULLY INSTALLED PERMANENT BRACING AS SHOWN IN THESE DESIGN PLANS SHALL NOT BE ASSUMED SUFFICIENT TO BRACE PRESTRESSED BEAMS DURING ERECTION AND CONSTRUCTION. TEMPORARY BRACING SHALL NOT BE WELDED TO PRESTRESSED BEAM STIRRUPS.

LONGITUDINAL GROOVING SHOWN ELSEWHERE IN THESE PLANS.

SHOP DRAWING SUBMITTALS

SHOP DRAWINGS SHALL BE SUBMITTED FOR THE FOLLOWING ITEMS SHOWN IN THE TABLE BELOW. (NOTE ADDITIONAL SHOP DRAWINGS MAY BE REQUIRED IN ACCORDANCE WITH ARTICLE 1105.03 OF THE STANDARD SPECIFICATIONS.)

SUBMITTAL REQUIREMENTS FOR SHOP DRAWINGS SHOULD BE IN ACCORDANCE WITH 1105.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION OF THE IOWA DEPARTMENT OF TRANSPORTATION.

SHOP DRAWINGS SHALL BE SUBMITTED WITH THE FOLLOWING NAMING CONVENTION:
(Paren)_County_DesignNumber_Submittal Description.pdf
Example: (70)_Polk_Design2218_SteelDiaphragms.pdf

I STEEL DIAPHRAGMS

BRIDGE DECK DIMENSIONS TABLE

ITEM	UNITS	QUANTITY
1 DECK LENGTH	L.F.	217.0
2 MINIMUM DECK WIDTH	L.F.	31.2
3 MAXIMUM DECK WIDTH	L.F.	31.2
4 DECK AREA	S.F.	6,763

- I. DECK LENGTH IS MEASURED FROM FACE-TO-FACE OF PAVING NOTCHES ALONG THE BRIDGE BASELINE.
- 2, 3. DECK WIDTHS ARE MEASURED FROM OUT-TO-OUT OF DECK PERPENDICULAR TO THE BRIDGE BASELINE.
4. DECK AREA IS TO BE BASED ON THE FACE-TO-FACE PAVING NOTCH DISTANCE AND OUT-TO-OUT DECK DIMENSIONS.

FORMS FOR PIER CAPS ON PIER NOS. 1 AND 2 MAY BE REMOVED WITH THE APPROVAL OF THE ENGINEER WHEN THE FOLLOWING TWO CONDITIONS HAVE BEEN MET:

- PIER CAP CONCRETE HAS BEEN IN PLACE FOR A MINIMUM OF 2 CALENDAR DAYS EXCLUDING DAYS THAT THE CONCRETE SURFACE IS SUBJECT TO TEMPERATURES AT OR BELOW 40°F AND
- THE PIER CAP CONCRETE STRENGTH IS AT LEAST 2.50 KSI.

CONCRETE STRENGTH SHALL BE VERIFIED BY FLEXURAL STRENGTH ACCORDING TO MATERIALS I.M. 316 WITH A MINIMUM FLEXURAL STRENGTH OF 0.343 KSI OR BY THE MATURITY METHOD ACCORDING TO MATERIALS I.M. 383. CURING OF PIER CAP CONCRETE SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PIER CAP CONCRETE SHALL ATTAIN A MINIMUM CONCRETE STRENGTH OF 4.00 KSI BEFORE BEING SUBJECT TO EXTERIOR LOADS. PIER CAP CONCRETE SHALL BE SUBJECT TO EXTERIOR LOADS IN ACCORDANCE WITH ARTICLE 2403.03, N, OF THE STANDARD SPECIFICATIONS.

AT THE CONTRACTORS OPTION TRANSPARENT STAY-IN-PLACE DECK FORMS MAY BE USED FOR THIS PROJECT. THE STAY-IN-PLACE FORMS SHALL HAVE A MINIMUM AVERAGE TRANSPARENCY OF 70%. ALL STRUCTURAL STEEL MEMBERS USED IN THE FORM ASSEMBLY (INCLUDING COLD-FORMED AND ROLLED) SHALL BE CORROSION PROTECTED. THE FORM ASSEMBLY SHALL HAVE A MAXIMUM UNIT WEIGHT OF 3.5 PSF OVER THE FULL FORM PANEL AREA. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR THE ENGINEER'S REVIEW. THE TRANSPARENT STAY-IN-PLACE FORM MATERIAL AND INSTALLATION COST SHALL BE INCLUDED IN THE PAY ITEM FOR STRUCTURAL CONCRETE (BRIDGE), WITH NO ADDITIONAL COST TO THE STATE.

GENERAL NOTES FOR CONCRETE RUSTICATION:

STRIPS AND PANELS USED AS INSERTS WITHIN CONCRETE FORMS TO CREATE THE RUSTICATION FEATURES MAY BE MADE OF WOOD, STEEL, PLASTIC OR OTHER NONPOROUS MATERIAL CAPABLE OF WITHSTANDING ANTICIPATED CONCRETE POUR PRESSURES WITHOUT PHYSICAL DEFECTS. WOOD INSERTS, IF USED, SHALL BE FREE OF WARP, TWIST, CHECKS OR CRACKS, AND SHALL BE PRESOAKED PRIOR TO PLACEMENT OF CONCRETE IN THE FORMS.

RUSTICATION INSERTS SHALL EASILY ATTACH TO FORMS AND SHALL NOT ALLOW LEAKAGE OF CONCRETE BETWEEN THE FORM AND THE INSERT. WHEN STEEL FORMS ARE USED, RUSTICATION STRIPS MAY BE RIGIDLY ATTACHED TO THE INSIDE SURFACES OF THE FORMS. WHEN STEEL FORMS ARE NOT USED, RUSTICATION STRIPS AND OTHER INSERTS FOR SMALL RECESSES ON EXPOSED CONCRETE SURFACES SHALL BE FASTENED TO THE FORMS IN A MANNER THAT WILL PERMIT THEM TO REMAIN IN PLACE WHEN THE FORMS ARE REMOVED. LEAVE INSERTS IN PLACE UNTIL THEY CAN BE REMOVED WITHOUT DAMAGE TO THE SURROUNDING CONCRETE.

THE INSERTS SHALL BE DESIGNED TO FORM SURFACES AND FEATURES CONFORMING TO THE DESIGN INTENT INCLUDING THE SHAPE, LINES, DEPTHS AND DIMENSIONS SHOWN IN THE PLANS. CREATE INSERTS USING A MINIMUM NUMBER OF SPLICE JOINTS IN THEIR LENGTH. SPLICES, IF USED, SHALL BE TIGHTLY JOINED SO AS NOT TO ALLOW GAPS OR LEAKS, AND SHALL NOT CREATE ANY CHANGE IN ALIGNMENT OR SHAPE OF THE RUSTICATION FEATURE. DO NOT LOCATE FORM TIES WITHIN CONCRETE RUSTICATIONS.

FOR RUSTICATION FEATURES FOLLOWING THE PERIMETER OF ROUNDED SURFACES, IT MAY BE NECESSARY TO USE MULTIPLE LAYERS OF INSERT MATERIAL IN ORDER TO ACHIEVE THE RADIUS CURVE. THIS IS ACCEPTABLE, PROVIDED THAT THE FINAL SHAPE, LINE, DEPTH, AND DIMENSION OF THE FEATURES ARE MAINTAINED IN THE FINAL RESULT.

DURING LOADING OF FORMS WITH CONCRETE, TAKE EXTRA CARE TO ENSURE PROPER CONSOLIDATION OF CONCRETE AROUND ALL RUSTICATION INSERTS TO PRESERVE THE SHAPE, LINE AND DEPTH OF ALL INTENDED FEATURES IN THE FINAL CONCRETE SURFACE. FOLLOWING REMOVAL OF FORMS, REPAIR ALL DEFECTS TO ACHIEVE THE RUSTICATION FEATURES AS SPECIFIED IN THE PLANS. PATCH Voids, HONEYCOMB AREAS, ETC., IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. IF SURFACES WILL NOT RECEIVE A COLORED SEALER COATING, ADD WHITE CEMENT TO THE PATCHING MORTAR TO LIGHTEN IT IN ORDER TO MATCH OR BE SLIGHTLY LIGHTER THAN SURROUNDING CONCRETE WHEN DRY. COMPLETED SURFACE SHALL BE FREE FROM BLEMISHES, SURFACE VOIDS AND CONSPICUOUS FORM MARKS TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL CORRECT ANY SURFACE DEFECTS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.

ALL COSTS ASSOCIATED WITH CONCRETE RUSTICATION ARE TO BE INCLUDED IN THE BID ITEM "HIGH PERFORMANCE STRUCTURAL CONCRETE".

ALL PLAN DIMENSIONS ARE HORIZONTAL UNLESS NOTED OTHERWISE.

THE TIED ROAD PLANS, PROJECT NO. IM-035-3(194)87--13-77 CONTAIN THE POLLUTION PREVENTION PLAN.

TRAFFIC CONTROL PLAN:

THE STRUCTURE IS BEING CONSTRUCTED ON A RELOCATION AND THE ROAD WILL NOT BE OPEN TO TRAFFIC UNTIL AFTER COMPLETION OF CONSTRUCTION. SEE TIED PROJECT IM-035-3(194)87--13-77 FOR THE TRAFFIC CONTROL PLAN.

NO CONSTRUCTION ACTIVITY IS ALLOWED IN THE AREA SOUTH OF THE EXISTING UPRR TRACK UNTIL AFTER JANUARY 1ST, 2023. THIS INCLUDES GRADING AND ANY WORK RELATED TO THE CONSTRUCTION OF THE SOUTH ABUTMENT AND PIER NO. 2.

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DHC	MJY	

BIM FOR BRIDGES AND STRUCTURES TPF-5(372)

HDR **jō** consulting

L1-Br01-BarrierRail01 / 05