

**COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS**  
**PROJECT NUMBER 2012-8**  
**County Road 131 – NW Falling Creek Road**

**NOTICE TO CONTRACTORS**

Notice is hereby given that sealed bids will be received in the Columbia County Manager's office until **11:00 A.M.** on **October 26, 2012**, for Columbia County Project No. **2012-8**. This office is located on the second floor of the Courthouse Annex at 135 Hernando Avenue, Room 203 Lake City FL 32055.

The project consists of improving CR 131 from State Road 25 (US 441) to CR 246, for a distance of 4.8 miles.

Scope of Work will include reworking limerock base with widening, asphaltic concrete pavement (structural and surface), driveway paving, guardrail, pipes, and incidental items.

The Scope of Work also includes the superstructure replacement of Bridge No. 290041. Work includes partial demolition of existing bridge and approach slabs, substructure construction, superstructure construction (beams, deck, and railings), approach slabs, and incidental items.

The Bid Forms and Construction specifications may be obtained from the County's web site at <http://www.columbiacountyfla.com/PurchasingBids.asp>.

All bidders will supply the County with a bid bond for 5% of the total bid amount.

The successful bidder will be required to furnish the County Manager with a performance bond and general liability insurance prior to commencing work.

The Columbia County Commission reserves the right to reject any or all bids and to add to the contract or delete from the contract to stay within their funding capabilities.

Columbia County Board of County Commissioners

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Scarlet Frisina, Chair

**COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS**  
**PROJECT NUMBER 2012-8**  
**County Road 131 – NW Falling Creek Road**

**BID PROPOSAL**

	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
	<b>ROADWAY</b>				
1	Mobilization	LS	1		
2	Maintenance of Traffic	LS	1		
3	Rework Existing Roadway	LF	25400		
4	Limerock Material	CY	6270		
5	Borrow Material	CY	2400		
6	Asphaltic Concrete - SP 12.5 (150 LBS/SY average)	Ton	4650		
7	Asphaltic Concrete - SP 9.5 (110 LBS/SY average)	Ton	3455		
8	Cross Drian Pipe Extensions	LS	1		
9	Shoulder	LS	1		
10	Intersections and Driveways	SY	1920		
11	Guardrail - End Anchorage	EA			
12	Guardrail - Tangent	LF			
13	Guardrail - Flared	LF			
14	Sod	SY	20000		
15	Seed and Mulch	LS	1		
16	Pavement Markings	LS	1		
17	Staked Silt Fence	LF	500		
18	RCP - 24 "	LF	392		
19	RCP - 30"	LF	168		
20	RCP - 54"	LF	168		
21	RCP (Arched) - 36" x 23"	LF	112		
22	Concrete Mitered End Section 24"	EA	16		
23	Concrete Mitered End Section 30"	EA	6		
24	Concrete Mitered End Section 54"	EA	6		
				<b>ROADWAY TOTAL</b>	
	<b>BRIDGE</b>				
110-3	Removal of Existing Structure (Bridge)	LS	1		
400-2-4	Class II Concrete (Superstructure)	CY	93.5		
400-2-5	Class II Concrete (Substructure)	CY	25		
400-2-10	Class II Concrete (Approach Slabs)	CY	21		
400-7	Bridge Deck Grooving	SY	356		
400-147	Composite Neoprene Pads	CF	1.45		
415-1-4	Reinforcing Steel (Superstructure)	LB	26406		
415-1-5	Reinforcing Steel (Substructure)	LB	4012		
415-1-9	Reinforcing Steel (Approach Slabs)	LB	4706		
455-35-5	Piling, Steel (HP 14x73)	LF	514		
458-1-11	Bridge Deck Expansion Joint, New Construction	LF	154.2		
460-2	Structural Steel - New / Widening	LS	1		
530-1	Riprap (Sand-Cement)	CY	8.2		
				<b>BRIDGE TOTAL</b>	
				<b>TOTAL AMOUNT OF BID</b>	

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NOTES:

1. Item 2 includes all elements required for MOT and includes temporary centerline delineation
2. Item 3 includes trenching, limerock placement, mixing, shaping, compacting, finishing, and priming for placement of asphalt
3. Item 4 is estimated at 4 inches (loose measure), but may be increased, decreased, or omitted as directed by Engineer.
4. Item 7 Includes approximately 40 tons placed at the SR 25 (US441) intersection
5. Item 14 includes centerline, edge lines, stop bars at all intersections, and railroad markings. Two applications are required for all final striping
6. ALL INCIDENTAL WORK INCLUDE IN ABOVE ITEMS
7. All unit price and total spaces must be filled in to correlate with each item.
8. Items 18-21 will be decided upon once mixing has taken place. Contractor shall receive approval from Engineer before ordering concrete pipe.
9. Items 18-21 may be increased, decreased, or omitted as directed by Engineer.

THE UNDERSIGNED hereby propose to furnish all materials, labor and supervision for the construction of the subject project including conformance with the construction requirements and specifications for the unit prices on the previous page:

FIRM \_\_\_\_\_

(Seal)

BY \_\_\_\_\_

President

ATTEST \_\_\_\_\_

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**County Road 131 – NW Falling Creek Road**

**General Requirements**

**I. General.**

Project consists of reworking existing roadway with full depth reclamation, asphalt surface widening, for a distance of 4.8 miles. The 20' roadway will be reconstructed to provide a 22 feet wide driving surface. The existing pavement is limerock base and asphaltic concrete. Pavement cores are attached for general information.

**II. Contract Time**

The contract time shall be 180 days from the date of contract execution. Liquidated damages shall be \$300.00 per day. No work is allowed on Saturdays, Sundays, and/or County designated holidays.

**III. Construction and Materials**

All construction methods and materials shall conform to the requirements of the latest edition of the Florida Department of Transportation Design Standards and Florida Department of Transportation Standard Specifications for Road and Bridge Construction

**IV. Roadway Construction Requirements**

Install Silt Fence and/or hay bales as directed by Engineer prior to any earthwork activities.

**Cross Drains**

MP 0.274	3-54" RCP	No work required
MP 0.430	1-24" RCP	Remove 8' (Lt & Rt). Extend 12' (Lt & Rt)
MP 1.318	2-24" RCP	Remove 8' (Lt & Rt). Extend 12' (Lt & Rt)
MP 2.082	2-24" RCP	Remove 8' (Lt & Rt). Extend 12' (Lt & Rt)
MP 2.420	1-30" RCP	Remove 8' (Lt & Rt). Extend 12' (Lt & Rt)
MP 2.813	1-36"x24" BCCSP	No work required
MP 3.338	2-24" BCCSP	No work required
MP 3.911	2-30" RCP	Remove 8' Lt and Extend 12' Lt Remove 12' Lt and Extend 16' Rt
MP 4.582	1-24" RCP	Remove 8' (Lt & Rt). Extend 12' (Lt & Rt)

Payment for cross drains shall be lump sum. At Cross Drain areas, Backfill with borrow material and sod as directed by Engineer. Sod and borrow shall be separate.

Scarify existing shoulders

Excavate trench, 8" depth, sufficient to provide for base 11feet – 3 inch wide from centerline of roadway. (Total of 22 feet – 6 inches)

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Remove pavement in excess of 2 inch graduation window from windrow.

Add ±4 inches of limerock (loose measure) across one lane of existing pavement, mix 12 inch minimum depth (milling machine required) and spread uniformly to provide 11 feet – 3 inch wide base from centerline of roadway. Material sample will be required at 1000 foot intervals to establish proctor for density test. Contractor shall shape and compact mixed materials to obtain 98% density. Two percent (2%) cross slope required. Trenching, mixing, and compaction shall be limited to one day work capability.

Centerline delineation shall be required at all non-working times.

Repeat process for adjacent travel lane.

Provide finished base surface and prime coat.

Place asphaltic concrete (SP 12.5 at 150 pounds per square yard (average)) to provide 22 feet roadway surface.

Paint centerline

Provide 6" thick limerock base and asphaltic concrete surface (150 pounds/SY) for all County intersections and private drives. Intersections are estimated 4 and at 80 SY each. Driveways are estimated at 40 and 40 SY each.

Place borrow material and final dress shoulders. Place 42" wide sod strip (Bahia) along pavement edge. Seed and mulch remainder of disturbed area (estimated at 10' each side)

AFTER bridge construction is complete, place asphaltic surface course (SP 9.5, 110 pounds/SY (average)) to provide 22 foot wide driving surface. Virgin mix is required, and certification will be mandatory from contractor.

Paint centerline, edge lines and stop bars at all paved intersections. Paint items include Railroad symbols at railroad crossing. Two applications are required.

**V. Maintenance of Traffic**

Contractor shall provide Maintenance of Traffic and it shall conform to the requirements of the latest edition of the Florida Department of Transportation Design Standards.

Flagging will be required.

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For roadway construction, one traffic lane may be closed from 8:30 A.M. to 4:30 P.M. only.

For bridge construction, the bridge will be completely closed to public traffic beginning at commencement of demolition and extending through completion of bridge construction. A detour shall be required, utilizing CR 246 (Lassie Black), and coordination and signage shall be the contractor's responsibility.

All signage shall be provided by the contractor.

Centerline delineation will be required during all non-working times.

**VI. Compensation**

Payment shall be made on a monthly basis on work completed with 10% retainage.

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**Purchasing Department – General Instructions to Bidders**

These instructions will bind bidders and conditions herein set forth, except as specifically qualified in special bid and contract terms issued with any individual bid.

1. The following criteria are used in determining low responsible bidder:
  - A. The ability, capacity and skill of bidder to perform required service.
  - B. Whether the bidder can perform service promptly or within specified time.
  - C. The character, integrity, reputation, judgment, experience and efficiency of bidder.
  - D. The performance of previous contracts with Columbia County.
  - E. The suitability of equipment or material or county use.
  - F. The ability of bidder to provide future maintenance
2. Payment Terms are net (30) unless otherwise specified. Favorable terms, discounts, may be offered and will be considered in determining low bids if they are deemed by Purchasing Department to be advantageous to the County.
3. All bids should be tabulated, totaled and checked for accuracy. Unit price will prevail in case of errors.
4. All requested information shall be included in the envelope. All desired information must be included for your bid to receive full consideration.
5. If anything on the bid request is not clear, you should contact the Purchasing Director immediately.
6. A bidders list is available at the Purchasing Office.
7. Quote all prices F.O.B. our warehouse or as specified in bid documents.
8. Each proposal shall be clearly marked on the outside of the envelope including Fed Ex, UPS or other delivery service envelopes, as a sealed bid. The name of the item being bid shall be shown on the outside in full.
9. No responsibility shall attach to any County representative or employee for the premature opening of bids not properly addressed or identified.
10. If only one (1) bid is received, the bid may be rejected and re-advertised or excepted if determined to be in the counties best interest.
11. Bids received late will not be accepted, and the County will not be responsible for late mail delivery.
12. Telephone and facsimile bids will not be acceptable in formal bid openings (sealed bids). Should a bid be misplaced by the County and found later, it will be considered. Any bidder may request and shall receive a receipt showing the day and time any bid is delivered to the appropriate office of the County from the personnel thereof.

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13. Bids requiring bid bonds will not be accepted if bond is not enclosed. Cash or certified check will be accepted in lieu of bond except on construction projects where cost exceeds \$40,000.
14. All bidders must be recognized dealers in the materials or equipment specified and is qualified to advise in their application or use. A bidder at any time requested must satisfy the Purchasing Office and the County Manager that he has the requisite organization, capital, plant, stock ability and experience to satisfactorily execute the contract in accordance with the provisions of the contract in which he is interested.
15. Any alterations, erasures, additions, or admissions of required information or any changes to specifications or bidding schedule are done at the risk of the bidder. Any bid will be rejected that has a substantial variation, that is; a variation that affects price, quantity, and quality or delivery date (when delivery is required by a specific time).
16. When requested, samples will be furnished to the County free of expense, properly marked for identification and accompanied by a list where there is more than one (1) sample. The County reserves the right to mutilate or destroy any sample submitted whenever it may be to the best interest of the County to do so for the purpose of testing.
17. The County will reject any material, supplies or equipment that did not meet the specifications, even though the bidder lists the trade names or names of such material on the bid or price quotation form.
18. The unauthorized use of patented articles is done entirely at the risk of the successful bidder.
19. The ESTIMATED QUANTITY given in the specifications or advertisements is for the purpose of bidding only. The County may purchase more or less than the estimated quantity and the vendor must not assume that such estimated quantity is part of the contract.
20. Only the latest model equipment as evidenced by the manufacture's current published literature will be considered. Obsolete models of equipment not in production will not be acceptable. The equipment shall be composed of new parts and materials. Any unit containing used parts or having seen any service other than the necessary tests will be rejected. In addition to the equipment specifically called for in the specification, all equipment catalogued by the manufacturer as standard or required by the State of Florida shall be furnished with the equipment. Where required by the State of Florida Motor Vehicle Code, vehicles shall be inspected and bear the latest inspection sticker of the Florida Department of Revenue.
21. The successful bidder on motor vehicle equipment shall be required to furnish with delivery of vehicle, certificate of origin and any other appropriate documentation as required by the Florida Motor Vehicle Department.
22. Prospective bidders are required to examine the location of the proposed work or delivery and determine, in their own way, the difficulties, which are likely to be encountered in the prosecution of the same.
23. All materials, equipment and supplies shall be subject to rigid inspection, under the immediate supervision of the Purchasing Department, its designee and /or the department to which they

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are delivered. If defective material, equipment, or supplies are discovered, the contractor, upon being instructed by the Purchasing Department or designee, shall remove, or make good such material, equipment, or supplies without extra compensation. It is expressly understood and agreed that the inspection of materials by the County will in no way lessen the responsibility of the Contractor release him from his obligation to perform and deliver to the County Sound and satisfactory materials, equipment, or supplies. The Contractor agrees to pay the costs of all tests upon defective material, equipment, or supplies or allow the costs to be deducted from any monies due him from the County.

24. Unless otherwise specified by the Purchasing Department all materials, supplies, or equipment quoted herein must be delivered within thirty (30) days from the day of notification or exceptions noted on bid sheets.
25. A contract will not be awarded to any corporation, firm, or individual who is, from any cause, in arrears to the County or who has failed in former contracts with the County to perform work satisfactorily, either to the character of the work, the fulfillment or guarantee, or the time consumed in completing the work.
26. Reasonable grounds for supposing that any bidder is interested in more than one proposal for the same item will be considered sufficient cause for rejection of all proposals in which he is interested.
27. Submitting a proposal when the bidder intends to sublet the contract may be a cause for rejection of bids or cancellation of the contract by the County Manager.
28. Unless otherwise specified the County reserves the right to award each items separately or on a lump sum basis whichever is in the best interest of the County.
29. The County reserves the right to reject any and/or all quotations, to waive any minor discrepancies in the bids for all bidders equally, quotations, or specifications, when deemed to be in the best interest of the County and also to purchase any part, all or none of the materials, supplies, or equipment specified.
30. Failure of the bidder to sign the bid or have the signature of an authorized representative or agent on the bid proposal in the space provided will be cause for rejection of the bid. Signature must be written in ink. Typewritten or printed signatures will not be acceptable.
31. Any bidder may withdraw his bid at any time before the time set for the opening of the bids. No bid may be withdrawn in the thirty- (30) day period after bids are opened.
32. It is mutually understood and agreed that if at any time the Purchasing Department or designee shall be of the opinion that the contract or any part thereof is unnecessarily delayed or that the rate of progress or delivery is unsatisfactory, or that the contractor is willfully violating any of the conditions or covenants of the agreement, or executing the same in bad faith, the Purchasing Department or his designee shall have the power to notify the aforesaid contractor of the nature of the complaint. Notification shall constitute delivery of notice, or letter to address given in the proposal. If after three (3) working days of notification the conditions are not corrected to the satisfaction of the Purchasing Director, he shall thereupon have the power to take whatever action he may deem necessary to complete the work or delivery herein described, or any part thereof, and the expense thereof, so charged, shall be deducted from any paid by the County out of such monies as may become due to the said contractor, under and by virtue of this

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agreement. In case such expense shall exceed the last said sum, then and in that event, the bondsman or the contractor, his executors, administrators, successors, or assigns, shall pay the amounts of such excess to the County on notice made by the Purchasing Department or his designee of the excess due.

33. If the bidder proposes to furnish any item of foreign make or product, he shall write "foreign" together with the name of the originating country opposite such item on a proposal.
34. Any complaint from bidders relative to the invitation to bid or attached specifications shall be made prior to the time of opening bids; otherwise, the bidder waives any such complaint.
35. Contracts may be cancelled by the County with or without cause on thirty- (30) days advance written notice.
36. All contractors submitting bids for road projects in excess of \$150,000 must be pre-qualified with the Florida Department of Transportation in the areas of grading, drainage, flexible pavement, and minor bridges and shall provide proof of such qualification upon request.
37. Any bidder affected adversely by an intended decision with respect to the award of any bid, shall file with the Purchasing Department for Columbia County, a written notice of intent to file a protest not later than seventy-two (72) hours (excluding Saturdays, Sundays and legal holidays), after the posting of the bid tabulation. Protest procedures may be obtained in the Purchasing Department.
38. A person or affiliate who has been placed on the convicted vendor's list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to Columbia County, may not submit a bid on a contract with Columbia County for the construction or repair of a public building or public work, may not submit bids on leases of real property to Columbia County, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with Columbia County, and may not transact business with Columbia County for a period of 36 months from the date of being placed on the convicted vendor list.
39. Vendor/Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to confirm the employment eligibility of;
  - A. all persons employed by the Vendor/Contractor during the term of the Contract to perform employment duties within Florida; and
  - B. all persons, including subcontractors, assigned by the Vendor/Contractor to perform work pursuant to the contract with the County
40. Upon award the contractor shall furnish and maintain in effect through the life of the contract an acceptable surety bond in a sum at LEAST equal to the amount of the contract. The surety shall have a resident agent in the State of Florida and meet all the requirements of the laws of Florida.



# CAL-TECH TESTING, INC.

## ENGINEERING & TESTING LABORATORY

- Engineering
- Geotechnical
- Environmental

P.O. Box 1625 Lake City, FL 32056 • (386) 755-3633 • FAX (386) 752-5456  
 4784 Rosselle Street, Jacksonville, FL 32254 • (904)381-8901

Job No.: 11-00064-01 (Revised 2/14/2011)  
 Date Performed: 2/4/2011

Report Of:	Asphalt Pavement Section Evaluation
Project:	Falling Creek Road, Lake City, FL
Client:	Columbia County Board of County Commissioners
Report To:	Columbia County Board of County Commissioners
Inspectors:	Chad Day / Daryn Wimpy

Core No.	Station	Lane	Offset CL (Ft.)	Pvmnt. Wdth. (Ft.)	Tot. Asph. Thick. (In.)	Base Type/ Thick. (In.)	Stabilized Depth (In.)
1A	5+00	R1	5	NA	2.5	Limerock/7"	7.5"
1B	5+00	R1	9	NA	1.5	Limerock/8"	8.0"
2A	15+00	R1	5	NA	3.25	Limerock/7"	8.0"
2B	15+00	R1	9	NA	1.5	Limerock/7"	8.0"
3A	15+00	L1	5	NA	3	Limerock/7"	7.25"
3B	15+00	L1	9	NA	2.5	Limerock/8"	8.0"
4A	25+00	R1	5	NA	2.5	SSB 6.0"	
4B	25+00	R1	9	NA	1.5	Limerock/6"	7.0"
5A	35+00	R1	5	NA	2.75	SSB 6.0"	
5B	35+00	R1	9	NA	1.5	Limerock/6"	7.5"
6A	45+00	R1	5	NA	2.75	SSB 7.0"	
6B	45+00	R1	9	NA	2.75	SSB 6.0"	
7A	50+00	L1	5	NA	2.0	SSB 6.0"	
7B	50+00	L1	9	NA	3.0	SSB 6.0"	
8A	55+00	R1	5	NA	3.0	SSB 6.0"	
8B	55+00	R1	9	NA	2.75	Limerock/6"	6.5"
9A	65+00	R1	5	NA	3.0	SSB 6.0"	
9B	65+00	R1	9	NA	1.5	Limerock/6"	6.0"
10A	65+00	L1	5	NA	3.0	SSB 6.0"	
10B	65+00	L1	9	NA	2.75	SSB 6.0"	
11A	80+00	R1	5	NA	3.0	SSB 6.0"	
11B	80+00	R1	9	NA	2.0	Limerock/6"	6.5"
12A	95+00	R1	5	NA	2.0	SSB 6.5"	
12B	95+00	R1	9	NA	2.0	Limerock/6"	7.0"
13A	110+00	R1	5	NA	3.0	SSB 6.0"	
13B	110+00	R1	9	NA	2.0	Limerock/6.25"	6.0"
14A	125+00	R1	5	NA	2.5	SSB 6.5"	
14B	125+00	R1	9	NA	2.0	Limerock/8"	6.5"
15A	125+00	L1	5	NA	3.0	SSB 7.0"	
15B	125+00	L1	9	NA	2.0	Limerock/8.25"	6.0"
16A	140+00	R1	5	NA	2.5	SSB 7.0"	
16B	140+00	R1	9	NA	1.5	Limerock/8"	6.25"
17A	150+00	L1	5	NA	3.0	SSB 7.0"	

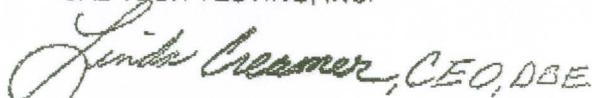
Job No.: 11-00064-01 (Revised 2/14/2011)

Date Performed: 2/4/2011

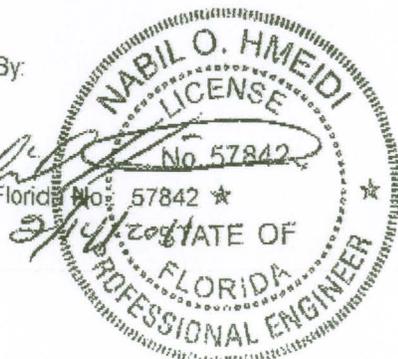
Report Of:	Asphalt Pavement Section Evaluation
Project:	Falling Creek Road, Lake City, FL
Client:	Columbia County Board of County Commissioners
Report To:	Columbia County Board of County Commissioners
Inspectors:	Chad Day / Daryn Wimpy

Core No.	Station	Lane	Offset CL (Ft.)	Pvmnt. Wdth. (Ft.)	Tot. Asphalt. Thick. (In.)	Base Type/ Thick. (In.)	Stabilized Depth (In.)
17B	150+00	L1	9	NA	2.5	Limerock/8.25	7.0"
18A	150+00	R1	5	NA	2.5	SSB 9.0"	
18B	150+00	R1	9	NA	1.75	Limerock/9	7.0"
19A	160+00	L1	5	NA	3.0	SSB 7.5"	
19B	160+00	L1	9	NA	2.0	Limerock/9	7.0"
20A	165+00	R1	5	NA	2.5	SSB 7.0"	
20B	165+00	R1	9	NA	1.75	Limerock/9	7.5"
21A	175+00	L1	5	NA	2.75	SSB 7.5"	
21B	175+00	L1	9	NA	2.0	Limerock/9	7.5"
22A	180+00	R1	5	NA	2.5	SSB 7.0"	
22B	180+00	R1	9	NA	1.75	Limerock/9	7.0"
23A	190+00	L1	5	NA	3.25	SSB 7.0"	
23B	190+00	L1	9	NA	2.75	Limerock/8	7.25"
24A	195+00	R1	5	NA	2.75	SSB 8.25"	
24B	195+00	R1	9	NA	1.75	Limerock/9	7.5"
25A	205+00	L1	5	NA	2.5	SSB 8.0"	
25B	205+00	L1	9	NA	2.0	Limerock/9"	7.0"
26A	210+00	R1	5	NA	3.0	SSB 7.5"	
26B	210+00	R1	9	NA	1.75	Limerock/9	6.75"
27A	220+00	L1	5	NA	2.5	SSB 7.0"	
27B	220+00	L1	9	NA	1.75	Limerock/8	7.0"
28A	225+00	R1	5	NA	2.75	SSB 7.5"	
28B	240+00	R1	9	NA	1.75	Limerock/8	7.5"
29A	240+00	L1	5	NA	3.25	SSB 7.0"	
29B	240+00	L1	9	NA	2.25	Limerock/8	7.75"
30A	255+00	L1	5	NA	2.0	Limerock/7.50	7.5"
30B	255+00	L1	9	NA	2.0	Limerock/8	8.0"

Note: SSB= Stabilized Sub-base

Respectfully Submitted,  
CAL-TECH TESTING, INC.

Linda M. Creamer  
President - CEO

Reviewed By:

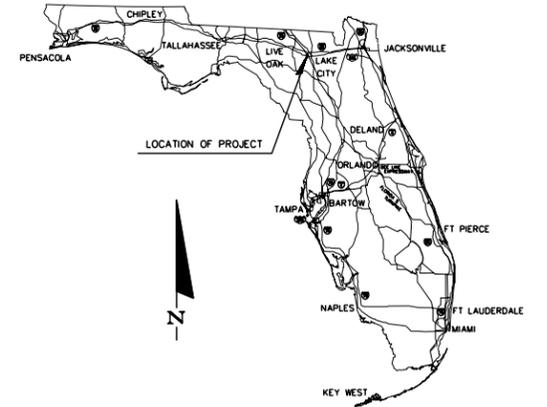
  
 Licensed, Florida No. 57842 ★  
 Date: 3/1/2011


# CR 131 / NW FALLING CREEK RD IMPROVEMENTS

## CONSTRUCTION PLANS

STA 28+59 TO 285+26

FOR:  
Columbia County Engineer  
Chad Williams  
PO Box 1529  
Lake City, FL 32055  
Phone: (386) 758-1005

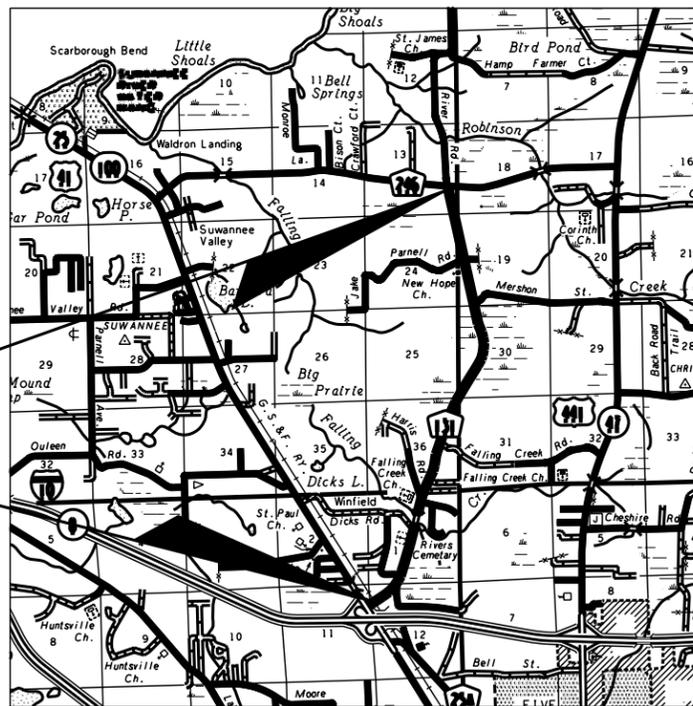


### LEGEND

EXISTING	PROPOSED
CONCRETE MONUMENT FOUND	TELEPHONE POLE
IRON PIPE FOUND	TELEPHONE MANHOLE
ELECTRIC METER	ELECTRIC MANHOLE
ELECTRIC MANHOLE	ELECTRIC METER
LIGHT STANDARD	LIGHT
POWER POLE	STANDARD POWER POLE
SHARED POWER POLE W/ TRANSFORMER	POWER POLE SHARED
SHARED POWER POLE	POWER POLE SHARED W/ TRANSFORMER
TELEPHONE POLE	GAS METER
REDUCER	GAS VALVE
WATER METER	WATER METER
WATER VALVE	WATER VALVE
FIRE HYDRANT	WATER REDUCER
BACKFLOW PREVENTER	WATER TEE
SANITARY SEWER VALVE	WATER 90° BEND
SANITARY MANHOLE	SINGLE WATER SERVICE
STORMWATER MANHOLE	DOUBLE WATER SERVICE
FDOT STORMWATER MANHOLE	FIRE HYDRANT
GROUND CONTOUR	BACKFLOW PREVENTER
D.O.T. MARKER FOUND	SANITARY MANHOLE
GAS METER	SANITARY VALVE
GAS VALVE	SANITARY SINGLE SERVICE
SOIL BORING LOCATION	SANITARY DOUBLE SERVICE
SINGLE POST SIGN	GROUND CONTOUR
BENCH MARK	DITCH BLOCK
SECTION CORNER	STORMWATER MANHOLE
RIGHT OF WAY	FLOW ARROW
PROPERTY LINE	HANDICAP PARKING
	MITERED END
	SIGN
	RIGHT OF WAY

### ABBREVIATIONS

PL	PROPERTY LINE	IP	IRON PIPE
CL	CENTER LINE	MH	MANHOLE
BL	BASE LINE	G	GAS
SAN	SANITARY SEWER	UC	UNDERGROUND CABLE
ST	STORM SEWER	OC	OVERHEAD CABLE
E	ELECTRIC	W	WATER LINE
OHE	OVERHEAD ELECTRIC	HDPE	HIGH-DENSITY POLYETHYLENE
UG	UNDERGROUND ELECTRIC	RCP	REINFORCED CONCRETE PIPE-ROUND
OHT	OVERHEAD TELEPHONE	RCPA	REINFORCED CONCRETE PIPE-ARC
UT	UNDERGROUND TELEPHONE	RCPE	REINFORCED CONCRETE PIPE-ELLIPTICAL
R	RADIUS	CMP	CORRUGATED METAL PIPE-ROUND
CO	CLEANOUT	CMPA	CORRUGATED METAL PIPE-ARC
BM	BENCH MARK	BCCMP	BITUMINOUS COATED CORRUGATED METAL PIPE
IE	INVERT ELEVATION	BCCSP	BITUMINOUS COATED CORRUGATED STEEL PIPE
LF	LINEAR FEET		



LOCATION MAP  
SECTION 2 & 3 TOWNSHIP 3 SOUTH, RANGE 16 EAST  
COLUMBIA COUNTY, FLORIDA



**Donald F. Lee and Associates, Inc.**

SURVEYORS — ENGINEERS

140 Northwest Ridgewood Avenue, Lake City, Florida 32055

Phone: (386) 755-6166 FAX: (386) 755-6167

Surveying Certificate of Authorization # LB 7042

Engineering Certificate of Authorization # 29834

### INDEX OF SHEETS

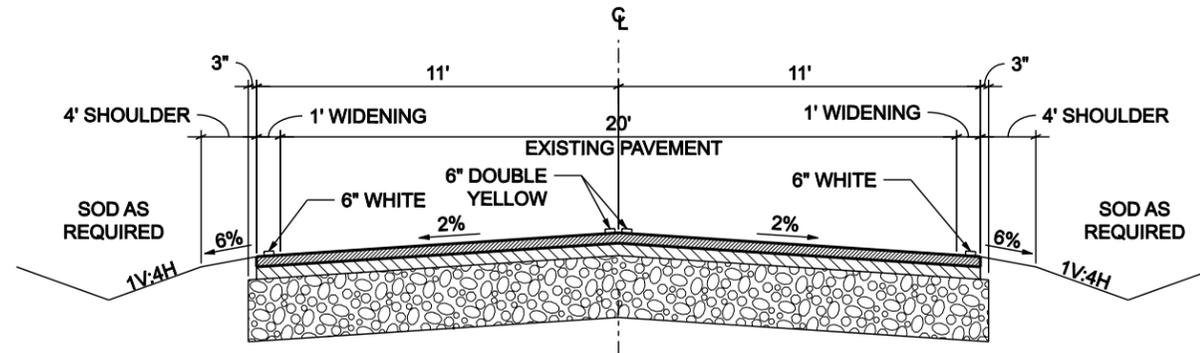
DET1	NOTES AND TYPICAL SECTION
KEY1	KEY SHEET
PP1 - PP2	PLAN & PROFILE SHEET
XSC1-XSC3	CROSS SECTIONS
	APPLICABLE FDOT STANDARDS

COLUMBIA COUNTY PROJECT # 2012-08  
FINANCIAL PROJECT ID: 424328-1-58-01

BRETT A. CREWS, P. E. 65592

-  SP 9.5 @ 110 LBS/SY - VIRGIN MIX
-  SP 12.5 @ 165 LBS/SY
-  MIXED MATERIALS - 12" MIN DEPTH (WIDTH 22'-6")

SOD ALL DISTURBED AREAS  
ALL FINAL STRIPING SHALL BE APPLIED IN TWO APPLICATIONS



STA 28+59 TO STA 84+03: NORFOLK SOUTHERN RW TO BRIDGE  
AND  
STA 85+53 TO STA 285+26: BRIDGE TO CR 246 (NW LASSIE BLACK ST)

REWORK AND WIDENING TYPICAL SECTION  
SEE GENERAL REQUIREMENTS FOR DETAILS

**TYPICAL PAVEMENT SECTION**  
NTS

**GENERAL NOTES**

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE JOB SITE TO INSURE THAT ALL NEW WORK WILL FIT IN THE MANNER INTENDED ON THE PLANS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SUCH DIFFERENCES IMMEDIATELY & PRIOR TO PROCEEDING WITH THE WORK.
2. ALL EXISTING UTILITIES SHALL BE LOCATED PRIOR TO BEGINNING WORK. THIS INCLUDES VERIFYING LOCATION (HORIZONTAL AND VERTICAL) AT ANY CONNECTION POINT OF THE EXISTING UTILITY. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES EXISTING BETWEEN THE CONSTRUCTION PLANS AND ACTUAL FIELD CONDITIONS. EXISTING UTILITIES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY AND SHALL BE VERIFIED IN THE FIELD BY NON-DESTRUCTIVE METHODS.
3. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION SITE AT ALL TIMES IN A SECURE MANNER. ALL OPEN TRENCHES AND EXCAVATED AREAS SHALL BE PROTECTED FROM ACCESS BY THE GENERAL PUBLIC.
4. THE CONTRACTOR SHALL WASTE ALL EXCESS EARTH ON SITE AS DIRECTED BY THE ENGINEER.
5. ALL PROPOSED CONSTRUCTION SHALL CONFORM TO CURRENT FDOT DESIGN STANDARDS AND FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
6. ALL STORM SEWER PIPES SHALL HAVE A MINIMUM COVER OF 6". LIMEROCK BACKFILL SHALL BE USED IF PIPE UNDER PAVEMENT HAS LESS THAN 12" COVER.
7. ALL NEW TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE CURRENT FDOT DESIGN STANDARDS.
8. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH CURRENT FDOT DESIGN STANDARDS. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE COUNTY ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK WITHIN COUNTY RIGHT OF WAY.

**EROSION CONTROL NOTES**

1. CONTRACTORS SHALL ADHERE TO THE EROSION AND SEDIMENT CONTROL REGULATIONS AS SET BY SRWMD AND OTHER GOVERNING AUTHORITIES AND USE (AS A MINIMUM) THE MEASURES DESCRIBED ON THE EROSION CONTROL NOTES AND DETAILS SHEET.
2. ALL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND WATER MANAGEMENT FACILITIES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ADDITIONAL MEASURES AS REQUIRED FOR PROPER EROSION AND SEDIMENT CONTROL. THE CONTRACTOR SHOULD USE BMP'S IN THE FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL TO IMPLEMENT A PLAN THAT WILL WORK AND MEET ACTUAL FIELD CONDITIONS.
4. SEDIMENT AND EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION IS COMPLETE AND UNTIL A PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
5. ALL OPEN DRAINAGE SWALES SHALL BE GRASSED IMMEDIATELY AND RIP RAP SHALL BE PLACED AS REQUIRED TO CONTROL EROSION.
6. SILT FENCES SHALL BE LOCATED ON SITE TO PREVENT SEDIMENT AND EROSION FROM LEAVING PROJECT LIMITS. SILT FENCE SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO WITHIN ONE FOOT OF TOP OF SILT FENCE.
7. DURING CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE, ALL STRUCTURES SHALL BE CLEANED OF ALL DEBRIS AND EXCESS SEDIMENT.
8. ALL DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY TO PREVENT EROSION. SLOPES GREATER THAN 1V:4H SHALL BE STABILIZED WITH SOD. STAPLE SOD SHALL BE USED ON SLOPES GREATER THAN 1V:2H. ALL DISTURBED AREAS NOT SODDED SHALL BE SEEDED WITH A MIXTURE OF LONG-TERM VEGETATION AND QUICK-GROWING SHORT-TERM VEGETATION FOR THE FOLLOWING CONDITIONS: FOR THE MONTHS FROM SEPTEMBER THROUGH MARCH, THE MIX SHALL CONSIST OF 70 POUNDS PER ACRE OF LONG-TERM SEED AND 20 POUNDS PER ACRE OF WINTER RYE. FOR THE MONTHS OF APRIL THROUGH AUGUST, THE MIX SHALL CONSIST OF 70 POUNDS PER ACRE OF LONG-TERM SEED AND 20 POUNDS PER ACRE OF MILLET.
9. ALL STABILIZATION PRACTICES SHALL BE INITIATED AS SOON AS PRACTICABLE IN AREAS OF THE JOB WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY STOPPED, BUT IN NO CASE SHALL THE DISTURBED AREA BE LEFT UNPROTECTED FOR MORE THAN THREE (3) DAYS.
10. LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPS AND EXCESS DIRT REMOVED DAILY.
11. THIS PROJECT SHALL COMPLY WITH ALL APPLICABLE WATER QUALITY STANDARDS.
12. QUALIFIED PERSONNEL SHALL INSPECT THE STOCKPILE AREAS, SILT FENCE, CONSTRUCTION ENTRANCE, AND ALL DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED, AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER A STORM OF 0.5 INCHES OR GREATER. CORRECTIVE ACTIONS SHALL BE TAKEN IMMEDIATELY.
13. CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROLS DURING PROPOSED CONSTRUCTION.

**REVISIONS**

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**Donald F. Lee and Associates, Inc.**  
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Brett A. Crews, P.E. 65592

DRAWN BY:

BC

APPROVED BY:

BC

**FALLING CREEK RD  
IMPROVEMENTS**

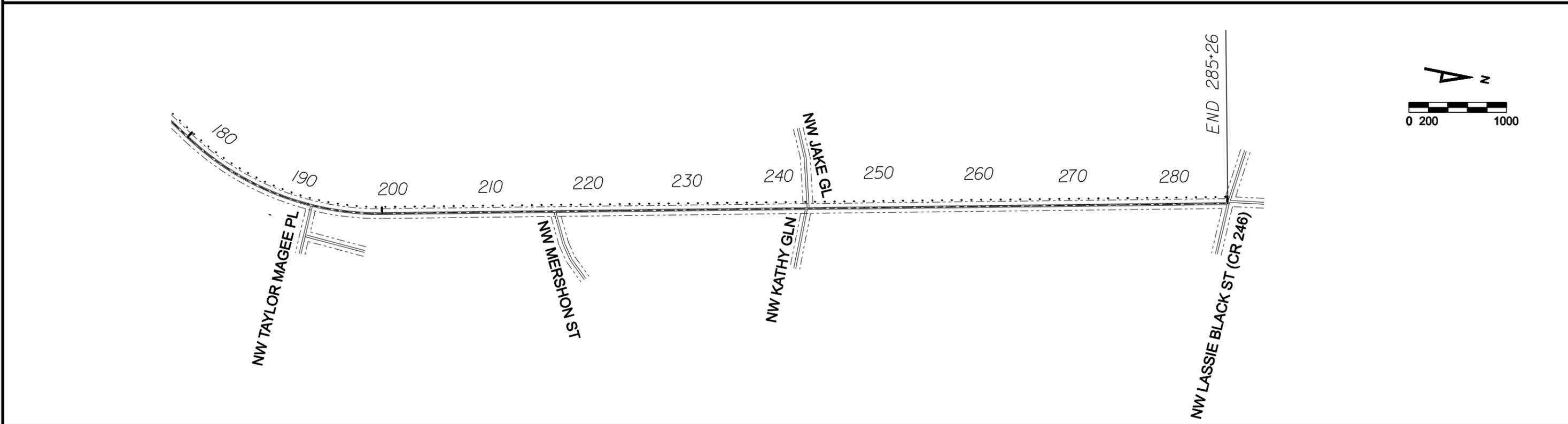
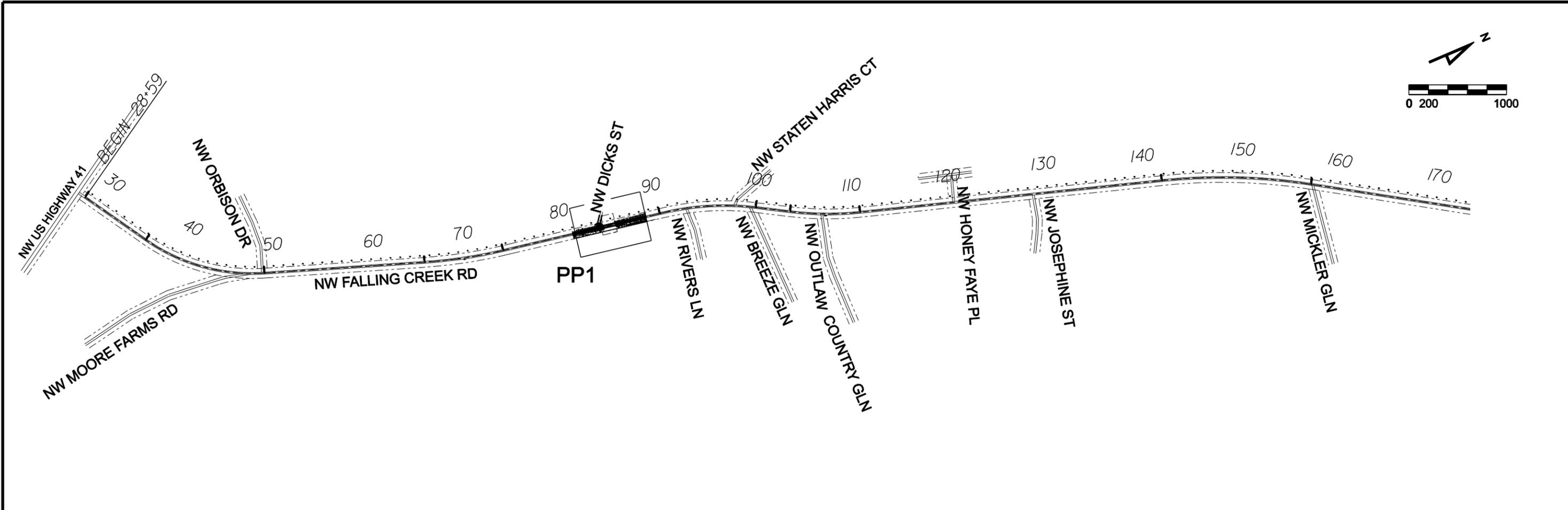
**NOTES AND  
TYPICAL SECTION**

CES PROJECT NO.:

2012-012

SHEET:

DET1

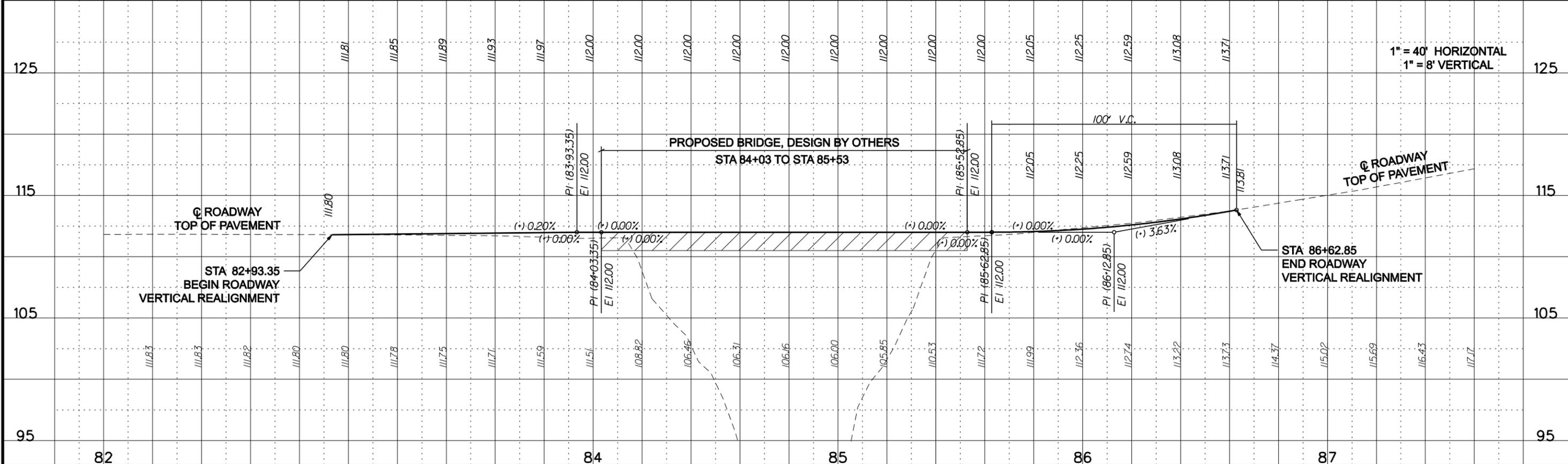
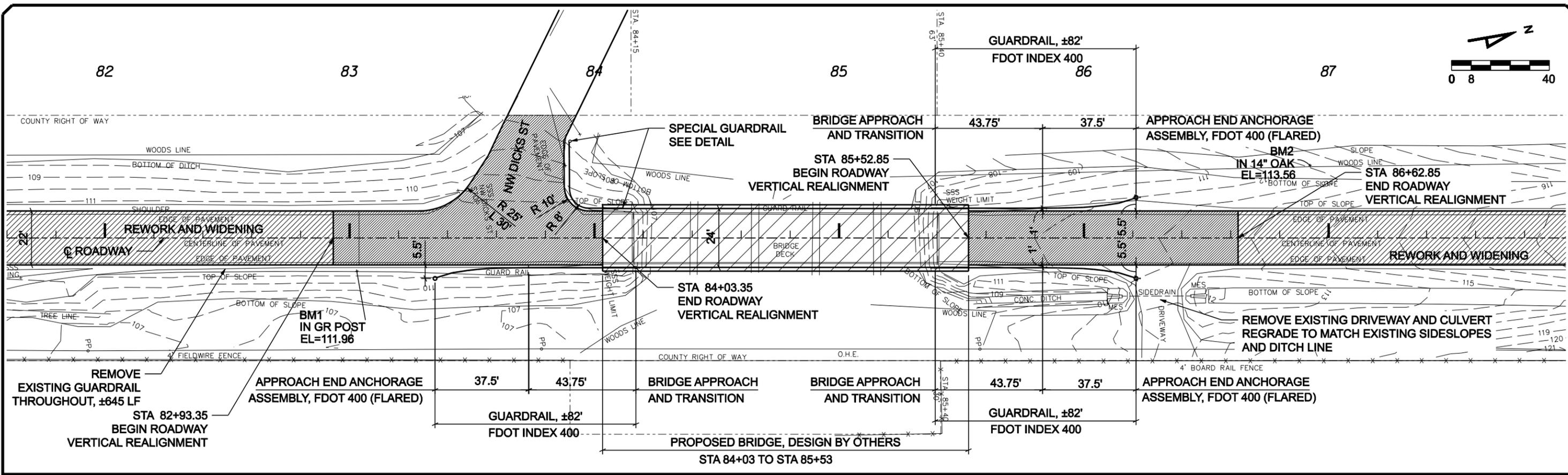


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<b>FALLING CREEK RD IMPROVEMENTS</b>	CES PROJECT NO.:
	2012-012
<b>KEY SHEET</b>	SHEET:
	KEY1



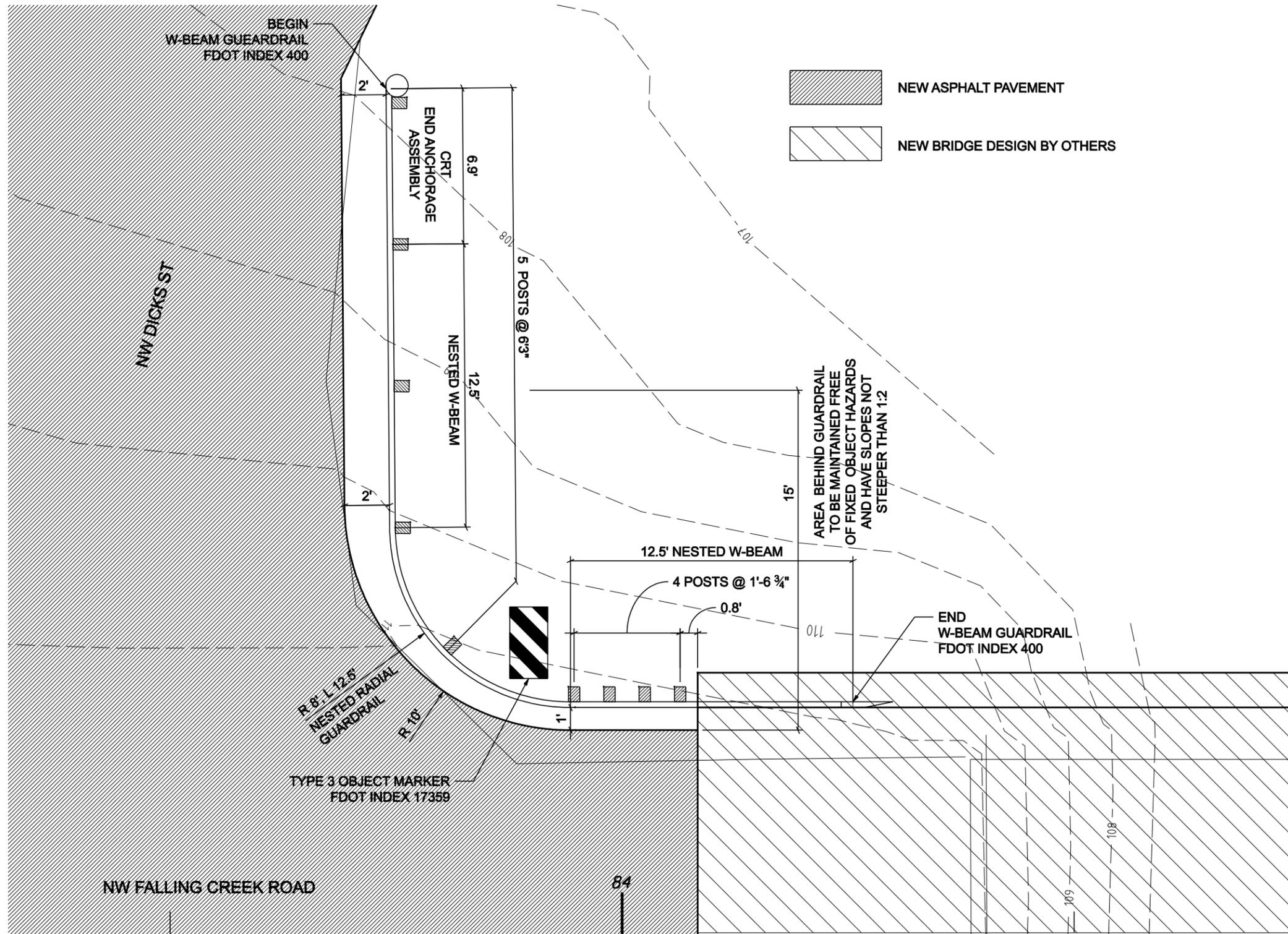
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**FALLING CREEK RD IMPROVEMENTS**  
**PLAN / PROFILE SHEET**

CES PROJECT NO.:  
**2012-012**  
 SHEET:  
**PP1**



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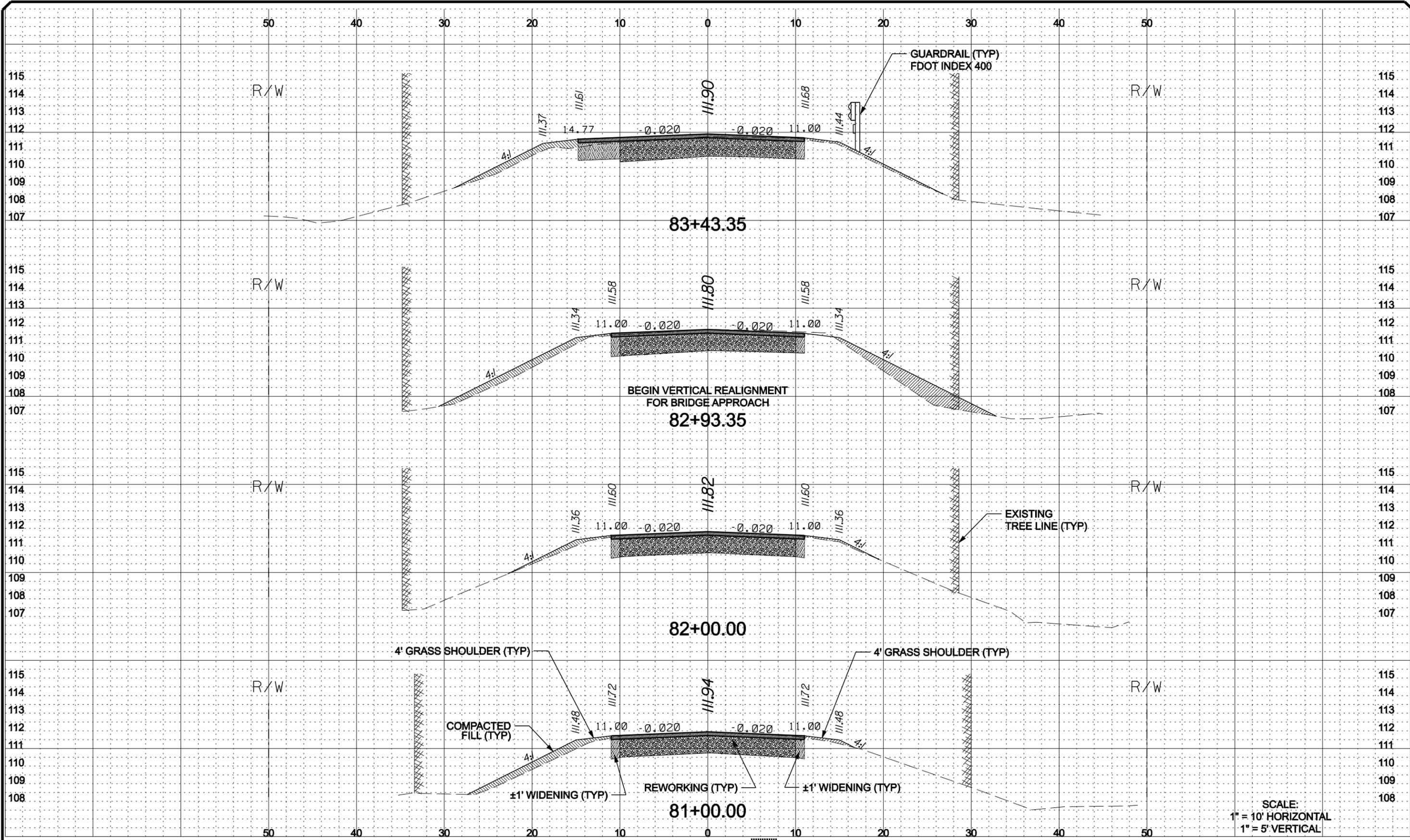
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**BC**  
 Brett A. Crews, P.E. 65592

CES PROJECT NO.:  
**2012-012**

**FALLING CREEK RD IMPROVEMENTS**

**SPECIAL GUARDRAIL DETAIL**

SHEET:  
**PP2**



SCALE:  
1" = 10' HORIZONTAL  
1" = 5' VERTICAL

REVISIONS					
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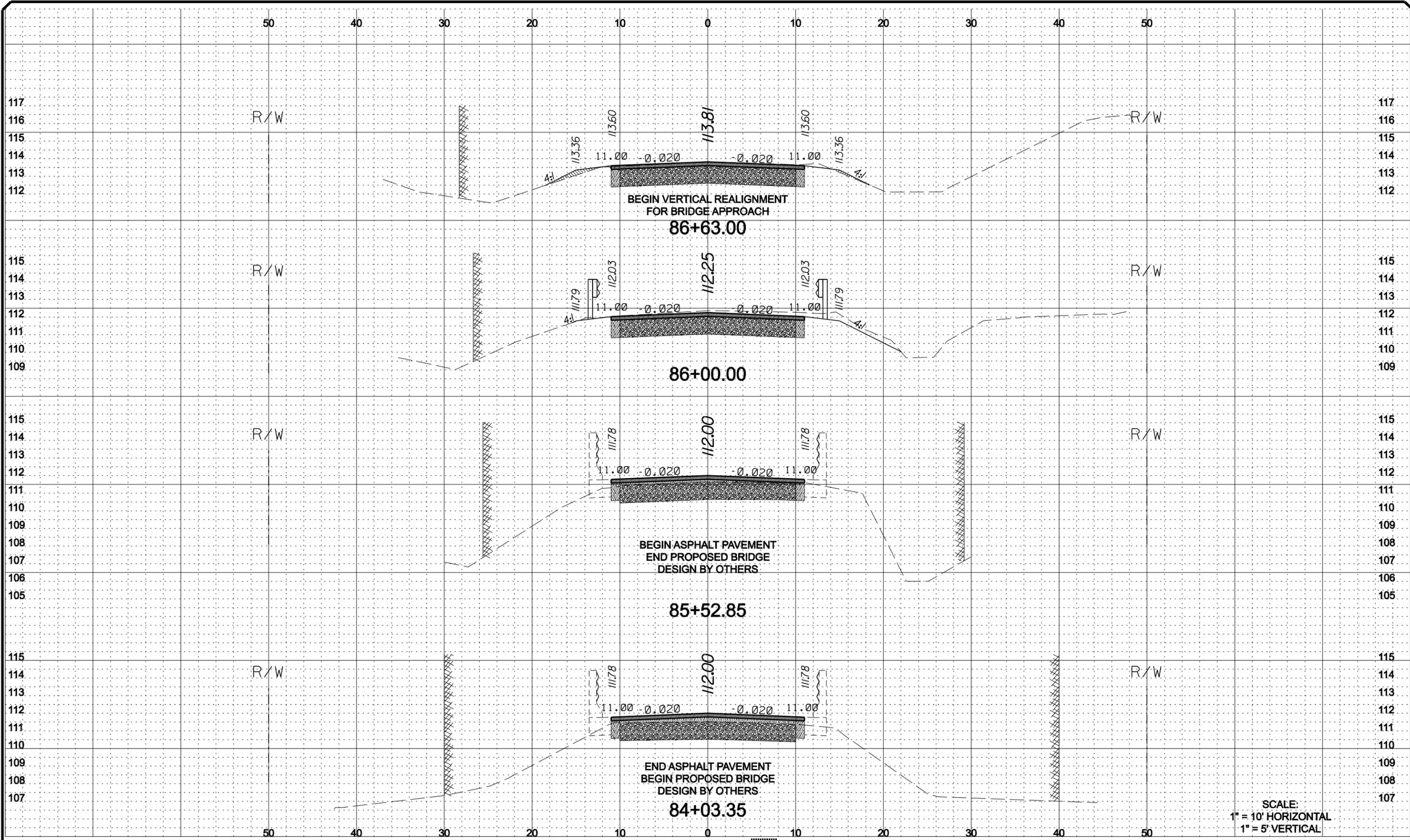
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APPROVED BY:  
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**FALLING CREEK RD IMPROVEMENTS**  
**CROSS SECTIONS**

CES PROJECT NO.:  
2012-012  
SHEET:  
XSC1



SCALE:  
1" = 10' HORIZONTAL  
1" = 5' VERTICAL

REVISIONS					
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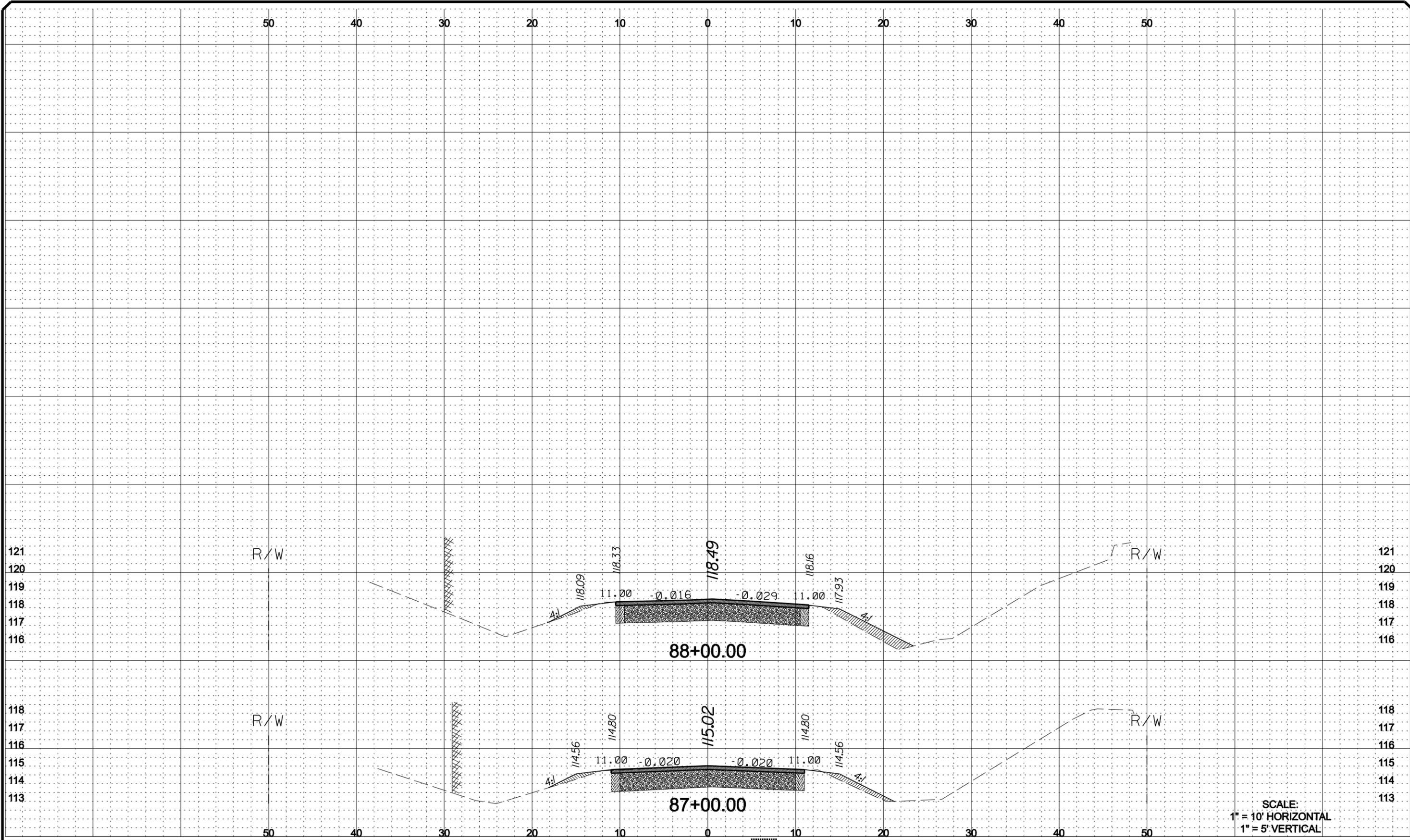
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APPROVED BY:  
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**FALLING CREEK RD IMPROVEMENTS**  
**CROSS SECTIONS**

CES PROJECT NO.:  
2012-012  
SHEET:  
XSC2



SCALE:  
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REVISIONS					
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**FALLING CREEK RD IMPROVEMENTS**  
**CROSS SECTIONS**

CES PROJECT NO.:  
2012-012  
SHEET:  
XSC3

# COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

## SUPERSTRUCTURE REPLACEMENT

### CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

#### APRIL 2012

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- 1 Coversheet & Index of Drawings
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- 8 End Bent - Details
- 9 Modifications to Intermediate Bent Nos. 2 & 5
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- 11 Intermediate Bent 3 - Details
- 12 Modifications to Intermediate Bent No. 4
- 13 Framing Plan
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- 15 Superstructure Sections & Details
- 16 Superstructure Details
- 17 Girder Details (1)
- 18 Girder Details (2)
- 19 Bearings
- 20 Approach Slabs
- 21 Reinforcing Bar List

**GOVERNING STANDARDS AND SPECIFICATIONS:**  
 Florida Department of Transportation Design Standards Dated 2013 and  
 Standard Specifications for Road and Bridge Construction (2013 Edition)  
 as amended by Contract Documents

**SHOP DRAWINGS:**  
 Submit Shop Drawings to  
 Chad Williams, P.E.  
 Columbia County Engineer  
 P.O. Box 1529  
 Lake City, FL 32056-1529  
 chad.williams@columbiacountyfl.com

**REVISION HISTORY**

DATE	SHEETS
10/03/12	1 & 2

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS	MDF Project No.	ENGINEER OF RECORD M. DAVID FINLEY, P.E. - FL PE NO. 40119 M. DAVID FINLEY, PE, PA <i>Specialty Structural Engineering</i> <small>2008 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025 CERTIFICATE OF AUTHORIZATION NO. 25972</small>	BOARD OF COUNTY COMMISSIONERS COLUMBIA COUNTY, FL	COVERSHEET & INDEX OF DRAWINGS	Sheet No: 1
	Revised FDOT Specifications & Design Standards Date, Added Revision History, Revised Shop Drawing submittal note	2011-08:D  APRIL 2012			SUPERSTRUCTURE REPLACEMENT CR 131 OVER FALLING CREEK - BRIDGE NO. 290041	
			<small>D:\Projects\2011-08 CC Falling Creek Bridge\Drawings\Coversheet.dgn</small>	<small>10/3/2012 11:40:15 AM</small>		

**GENERAL NOTES**

**DESIGN SPECIFICATIONS:**

- Florida Department of Transportation "Structures Manual", January 2011
- American Association of State Highway and Transportation Officials' AASHTO LRFD Bridge Design Specifications (2010) with Interim Revisions through 2011.

**BRIDGE DESIGN METHOD:**

Load and Resistance Factor Design (LRFD)

**DESIGN LIVE LOAD:**

HL-93

**DESIGN DEAD LOADS:**

Reinforced Concrete: 150 pcf  
 Structural Steel: 490 pcf  
 Traffic Railings (Design Standard 420): 420 plf  
 Future Wearing Surface (FWS): 15 plf

**DESIGN WIND LOAD:**

In accordance with Design Specifications

**BEAM DESIGN LOADS:**

	Interior Beam	Exterior Beam
Live Load Distribution Factor (Moment):		
Spans 1 & 5	0.646	0.568
Spans 2, 3, & 4	0.668	0.568
Live Load Distribution Factor (Shear):	0.767	0.767
Traffic Railing (plf):	0.210	0.420
SIP Metal Forms (plf):	135	68

**TEMPERATURE:**

Mean: 70 degrees Fahrenheit  
 High: 110 degrees Fahrenheit  
 Low: 30 degrees Fahrenheit  
 Range: 80 degrees Fahrenheit  
 Coefficient of Thermal Expansion: 0.000006 per degree Fahrenheit

**CONCRETE CLASS:**

CONCRETE CLASS:	MINIMUM 28-DAY COMPRESSIVE STRENGTH	LOCATION
II (Bridge Deck)	4500 psi	Bridge Deck, Approach Slab
II	3400 psi	End Bents & Traffic Railing

**CONCRETE NOTES:**

- Concrete shall conform to section 346 of the Standard Specifications.
- Provide 3/4" chamfers on all exposed concrete surfaces unless otherwise noted.
- Construction joints shall be permitted only at the locations shown on the plans. No other construction joints shall be permitted without written approval of the Engineer.
- Unless otherwise noted, provide 2" cover on superstructure elements and 3" for substructure elements.

**REINFORCING STEEL:**

All reinforcing steel shall be ASTM A-615/A-615M Grade 60.

**CONCRETE SURFACE FINISH:**

Provide a "Class 5 Applied Finish Coating" in accordance with Standard Specifications section 400-15.2.6 on the following surfaces:  
 End Bents  
 Traffic Railings

**ENVIRONMENTAL CLASS**

Superstructure: Slightly Aggressive  
 Substructure: Slightly Aggressive (Concrete)  
 Moderately Aggressive (Steel Piling)

**STRUCTURAL STEEL:**

- Beams: ASTM A709, Grade 50
- Piles: ASTM A36
- Channels & Angles: ASTM A36
- Plates & Bars: ASTM A36
- Bolts: ASTM A325, Type 1
- Threaded Rods (Including Anchor Rods): ASTM F1554, Grade 55
- Washers for Anchor Rods: ASTM F436, Type 1
- Nuts for Anchor Rods: ASTM A563 Grade A Heavy Hex
- Weld Metal: E70XX
- Anchor Rods and Nuts & Washers for Anchor Rods shall be galvanized per ASTM F2329.

**PILING:**

- Piling shall be HP 14x73 H-Piles
- See "Foundation Layout" drawing for pile installation data

**STAY-IN-PLACE (SIP) METAL FORMS**

- The design includes an allowance of 20 psf over the projected area of the metal forms for the weight of the Stay-in-Place metal forms and the weight of the concrete in the form flutes.
- Stay-in-Place forms are not permitted in the deck overhangs.

**BEARINGS:**

Composite Neoprene Bearing Pads shall be furnished and installed by the Contractor.

**STATIONING, DIMENSIONS, & ELEVATIONS:**

- The stationing, dimensions, and elevations are from a Field Survey conducted by Donald Lee & Associates in November 2011.
- All elevations are referenced to <NGVD '29 NAVD '88>.
- Dimensions are in English Units (feet and inches).

**VERIFICATION OF EXISTING CONDITIONS:**

These plans have been prepared based upon the existing plans made available by the FDDT and the November 2011 Field Survey performed by Donald Lee & Associates. Contractor shall verify all dimensions and elevations prior to commencing construction. Deviations from the information shown in these plans shall be promptly reported to the Engineer for resolution. Affected portions of the work shall not commence and/or continue until such deviations are resolved.

**EXISTING BRIDGE PLANS:**

The existing bridge plans made available by FDDT are included in this plans set.

**SCREEDING DECK SLABS:**

The riding surface of the bridge deck shall be screeded to the Finish Grade Elevations shown which already include allowance for permanent camber.

**MAINTENANCE OF TRAFFIC:**

- The bridge shall be closed to traffic during all phases of construction.
- See Bid Documents & Roadway Plans for Maintenance of Traffic requirements.

**SILT BARRIERS:**

Silt barriers shall be in place during all demolition and pile driving activities.

**EXISTING BRIDGE:**

Contractor is advised that the existing bridge is currently posted. Contractor is responsible for verifying the adequacy of the existing bridge prior to transporting equipment across the bridge and/or placing equipment and/or materials on the bridge.

**REMOVED MATERIALS:**

Contractor shall take ownership of the all removed materials and shall dispose of the materials in accordance with the specifications.

Contractor shall assume that the existing bridge has lead-based paint and shall comply with all appropriate regulations and implement all appropriate measures.

**PAINTING**

Paint all new steel in accordance with the specifications.  
 Repair coating on all existing surfaces damaged by contractor's operations.

**BEAM BRACING:**

Contractor shall be responsible for determining the need for, and implementing as needed, bracing of the steel beams during beam erection and deck construction.

**ABBREVIATIONS:**

- C.I.P. - Cast-in-Place
- E.B. - End Bent
- F.F. - Far Face
- FFBW - Front Face of Back Wall
- I.B. - Intermediate Bent
- MDT - Maintenance of Traffic
- N.F. - Near Face
- S.I.P. - Stay-in-Place
- PEJM - Premoulded Expansion Joint Material

See Design Standard 001 for Standard Abbreviations

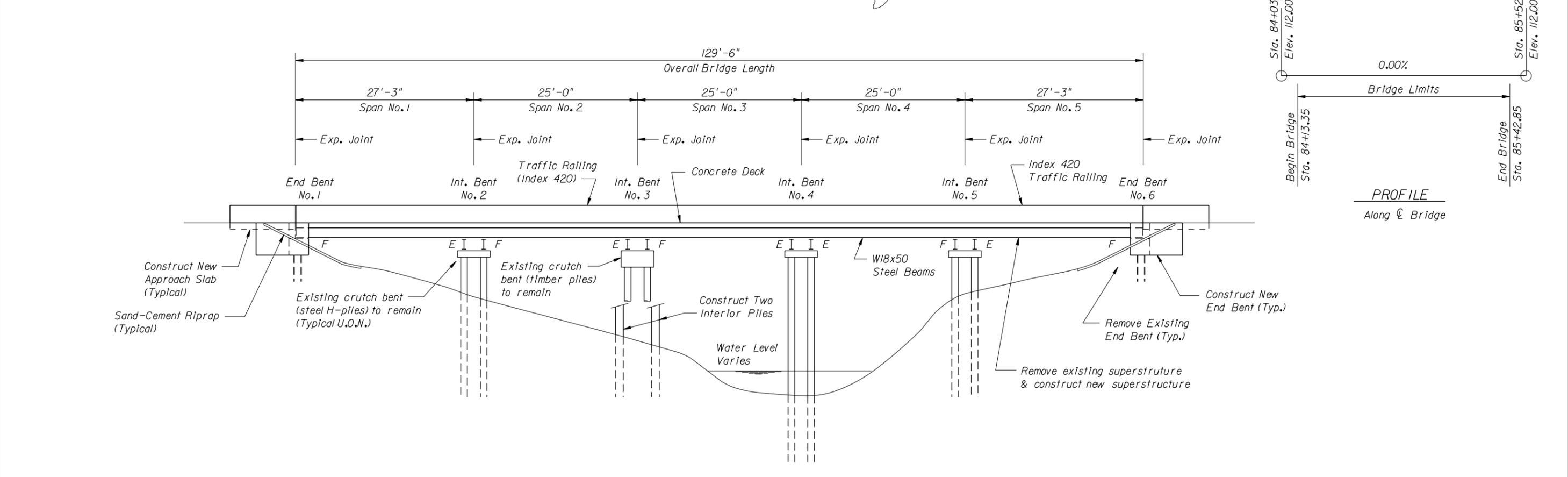
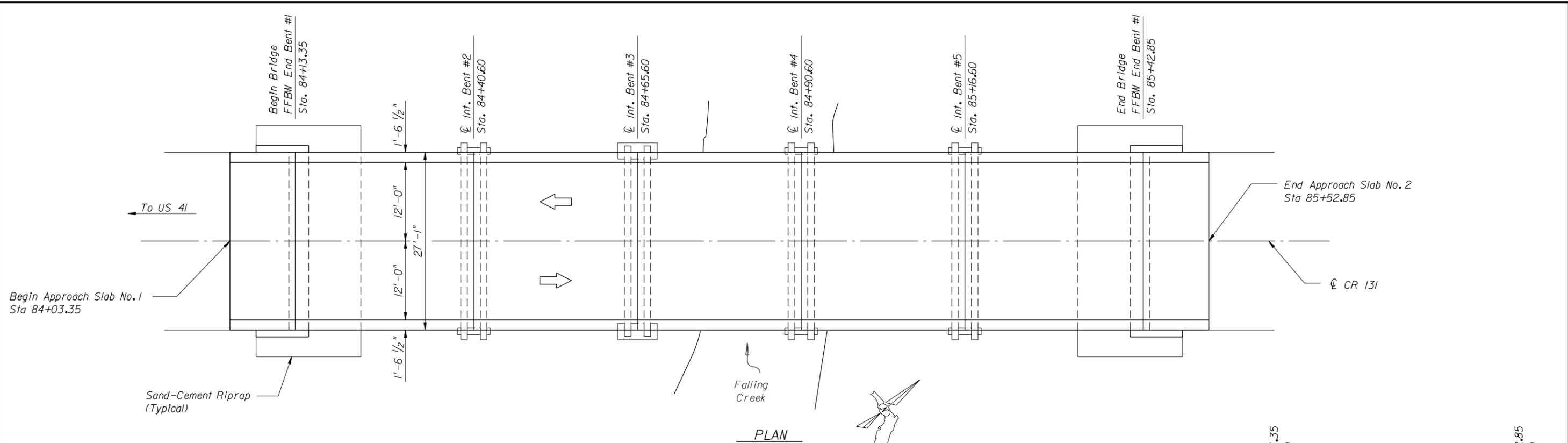
**STRUCTURES PAY ITEM NOTES**

- Payment for incidental items not specifically covered in the individual Pay Items shall be included in the Contract Unit Price for the various Pay Items.
- The cost of removing the indicated portions of the bridge and approach slabs shall be included in the Lump Sum Bid Price for Pay Item 110-3.
- Pay Item 400-2-4 includes all costs for material and labor required to complete the installation of the 4" diameter scuppers.
- Pay Item 460-2 includes all costs for beam bracing.

**BID SET**

Bridge No. 290041

DATE	RELEASES / REVISIONS	MOF Project No.	ENGINEER OF RECORD	<b>BOARD OF COUNTY COMMISSIONERS</b> <b>COLUMBIA COUNTY, FL</b>	<b>NOTES</b>	Sheet No:
10/03/12	Revised MOT note, Added Beam Bracing note, Added Pay Item Notes	<b>2011-08:D</b>	<b>M. DAVID FINLEY, P.E. - FL PE NO. 40119</b> <b>M. DAVID FINLEY, PE, PA</b> <i>Specialty Structural Engineering</i> 2088 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025 CERTIFICATE OF AUTHORIZATION NO. 28972			2
		<b>APRIL 2012</b>				
		D:\Projects\2011-08 CC Falling Creek Bridge\Drawings\Notes.dgn	10/3/2012 11:39:28 AM	<b>CR 131 OVER FALLING CREEK - BRIDGE NO. 290041</b>		



**BID SET**

DATE	RELEASES / REVISIONS

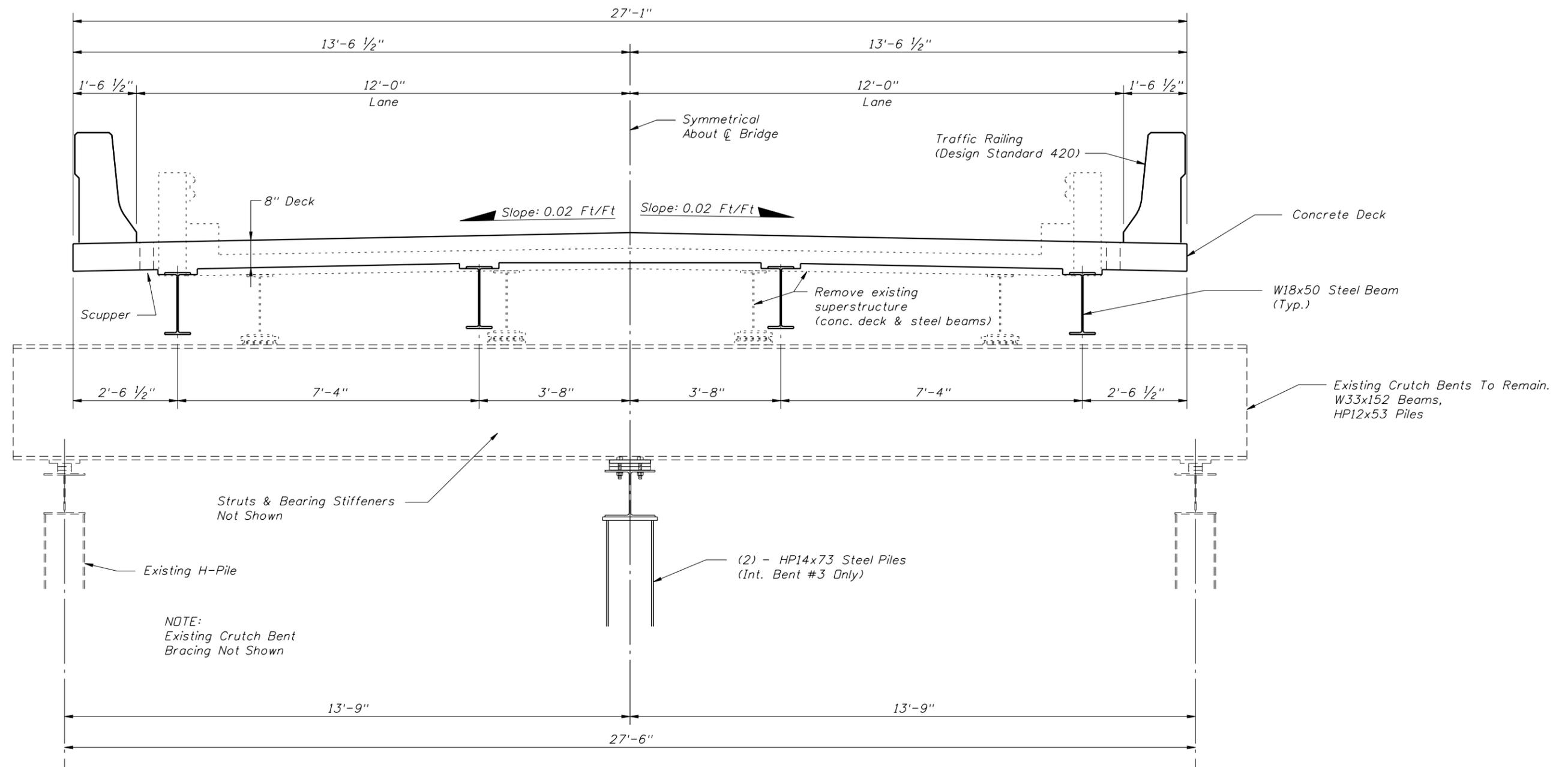
MDF Project No.  
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 APRIL 2012  
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ENGINEER OF RECORD  
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**M. DAVID FINLEY, PE, PA**  
 Specialty Structural Engineering  
 2008 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025  
 CERTIFICATE OF AUTHORIZATION NO. 28972

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**COLUMBIA COUNTY, FL**

**GENERAL PLAN & ELEVATION**  
**SUPERSTRUCTURE REPLACEMENT**  
**CR 131 OVER FALLING CREEK - BRIDGE NO. 290041**

Bridge No. 290041  
 Sheet No:  
**3**



TYPICAL SECTION THRU SUPERSTRUCTURE  
 INTERMEDIATE BENTS 2, 4, & 5 SHOWN  
 INTERMEDIATE BENT SIMILAR

**BID SET**

Bridge No. 290041

DATE	RELEASES / REVISIONS

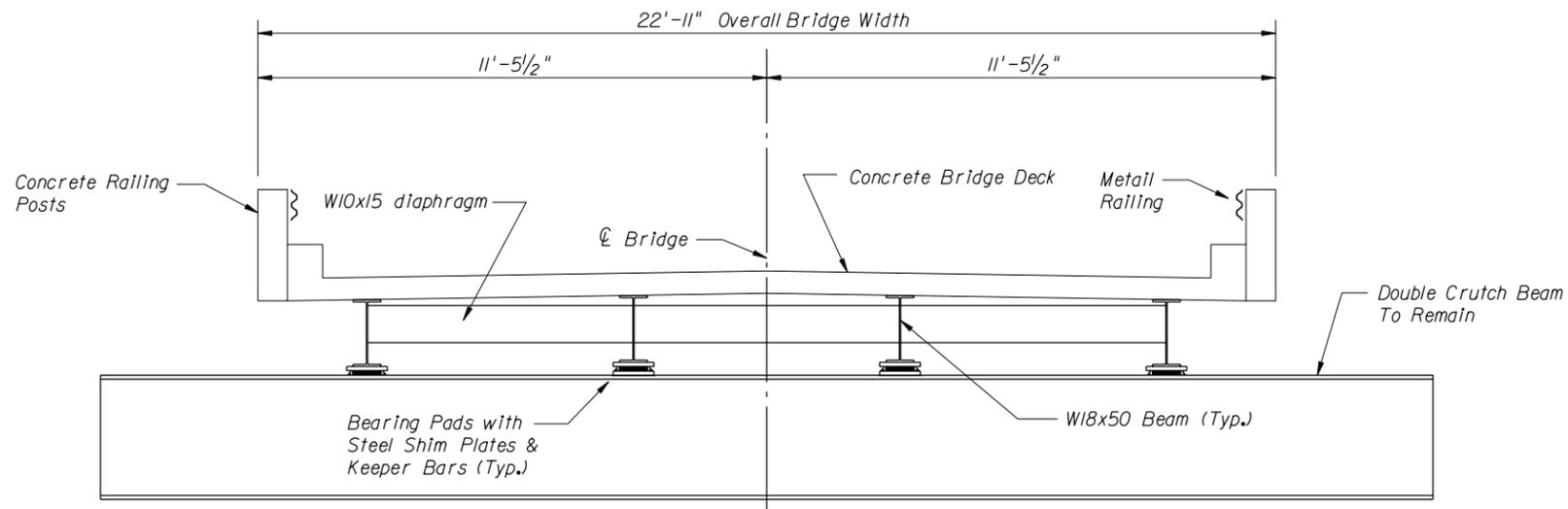
MDP Project No. <b>2011-08:D</b>
<b>APRIL 2012</b>

ENGINEER OF RECORD  
**M. DAVID FINLEY, P.E. - FL PE NO. 40119**  
**M. DAVID FINLEY, PE, PA**  
*Specialty Structural Engineering*  
 2088 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025  
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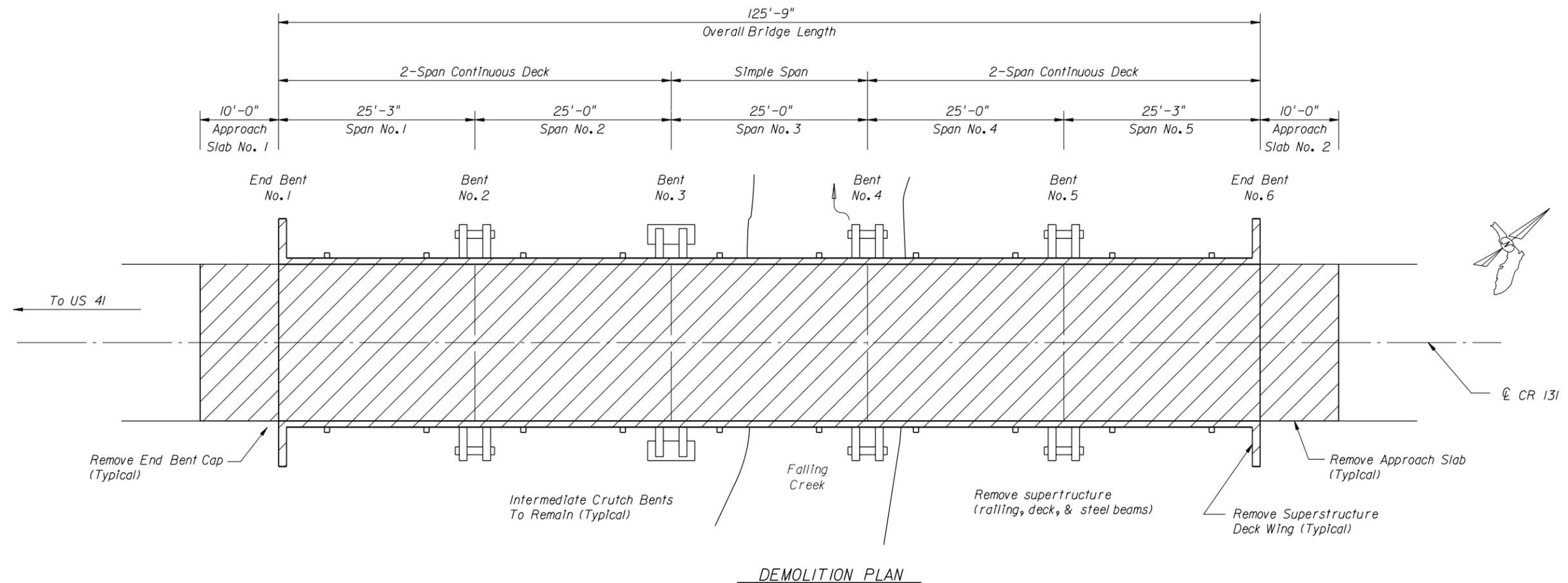
TYPICAL SECTION  
 SUPERSTRUCTURE REPLACEMENT  
 CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

Sheet No:  
 4



NOTE:  
Crutch Bent Pile Cap & Piles  
and Crutch Bent Bracing Not Shown

TYPICAL SECTION - EXISTING BRIDGE



DEMOLITION PLAN

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

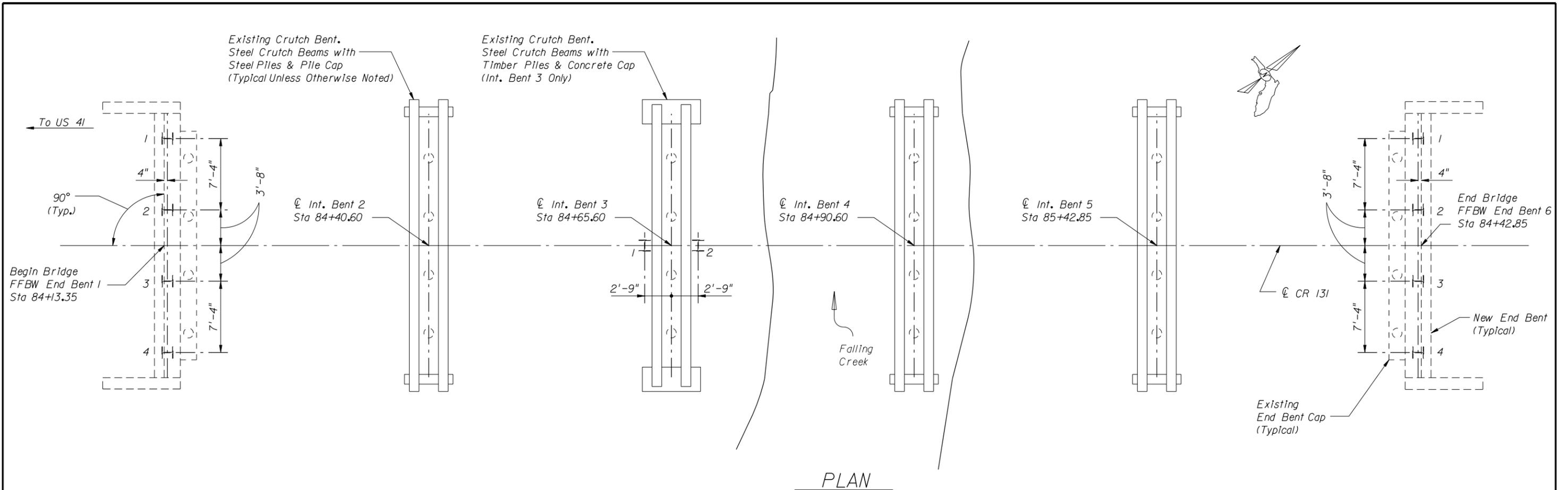
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**DEMOLITION**  
**SUPERSTRUCTURE REPLACEMENT**  
**CR 131 OVER FALLING CREEK - BRIDGE NO. 290041**

Sheet No:  
**5**



**LEGEND**

- New HPI4x73 Steel H-Pile
- Existing Timber Pile

**PILE DATA TABLE**

SUBSTRUCTURE UNIT	PILE SIZE	INSTALLATION CRITERIA			DESIGN CRITERIA				
		REQUIRED DRIVING RESISTANCE (TONS)	MINIMUM TIP ELEVATION (FEET)	FACTORED DESIGN LOAD (TONS)	DOWNDRAG (TONS)	TOTAL SCOUR RESISTANCE (TONS)	NET SCOUR RESISTANCE (TONS)	LONG TERM SCOUR ELEVATION (FEET)	Ø
End Bent No. 1	HP 14x73	85	N/A	55	--	--	--	--	0.65
Intermediate Bent No. 3	HP 14x73	108	N/A	70	--	--	--	--	0.65
End Bent No. 6	HP 14x73	85	N/A	55	--	--	--	--	0.65

**NOTES**

1. Existing Piles at End Bents shall be extracted or cut-off per specifications.
2. Existing Crutch Bent Piles at Intermediate Bents (Steel H-Piles and Timber Piles) to remain.
3. Existing Timber Piles from original Intermediate Bents at IB 2, 3, 4, & 5 are cut-off at or near the ground elevation.

**PILE DATA TABLE NOTES**

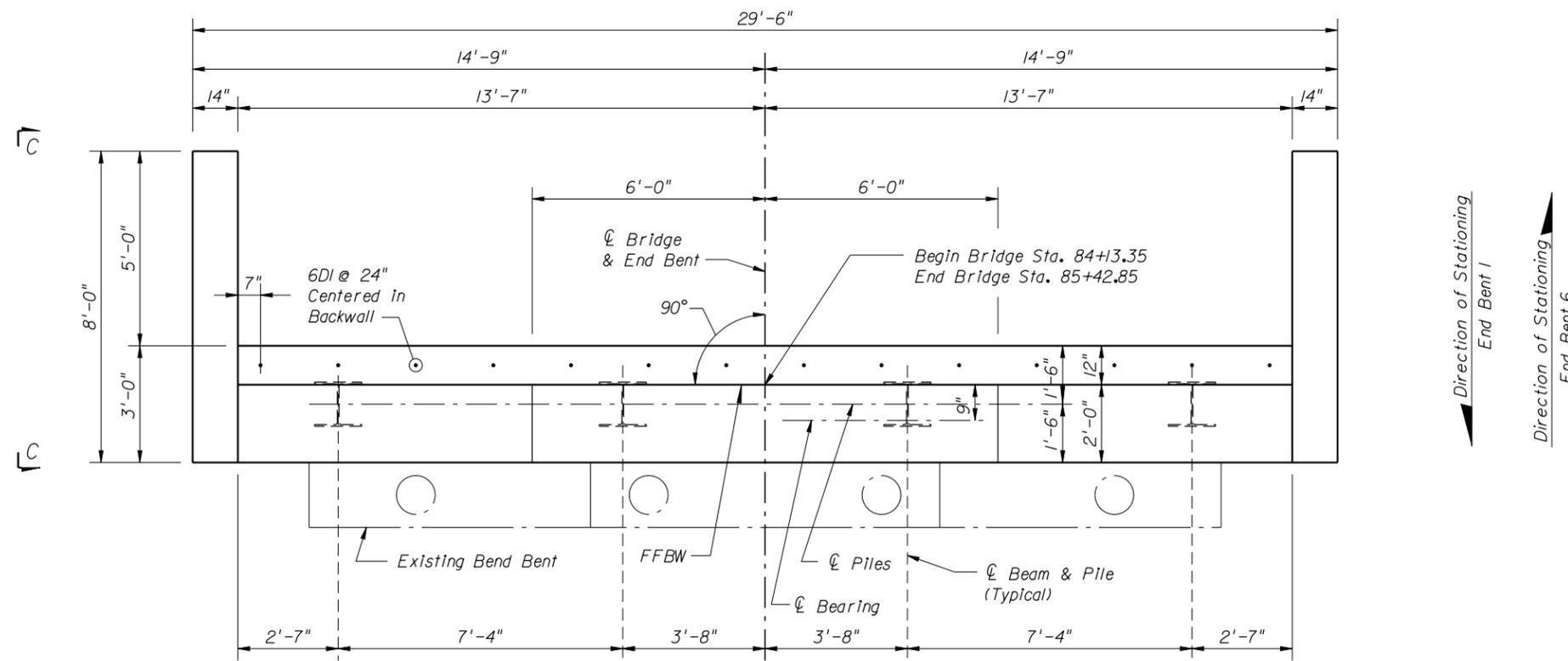
1. Required Driving Resistance = (Factored Design Load + Net Scour + Downdrag) / Ø
2. No Required Minimum Tip Elevation. Install Piles to Practical Refusal, but penetration shall not be less than the Minimum Penetration Requirements of Specification Article 455-5.8.
3. No Test Piles are required.
4. A Dynamic Test Load shall be performed on One Pile at Each Substructure (3 Total).

**SCOUR**

This project is a repair project that provides only limited improvements to the substructure.

No scour study was performed for this project.

**BID SET**

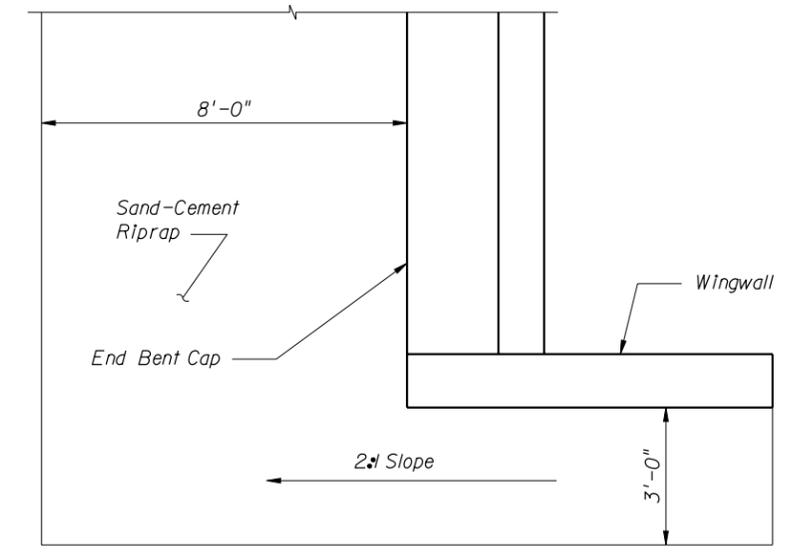


PLAN VIEW

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Class II Concrete (Substructure)	CY	12.5
Reinforcing Steel (Substructure)	LB	2006
HP 14x73 Steel H-Piles	LF	**

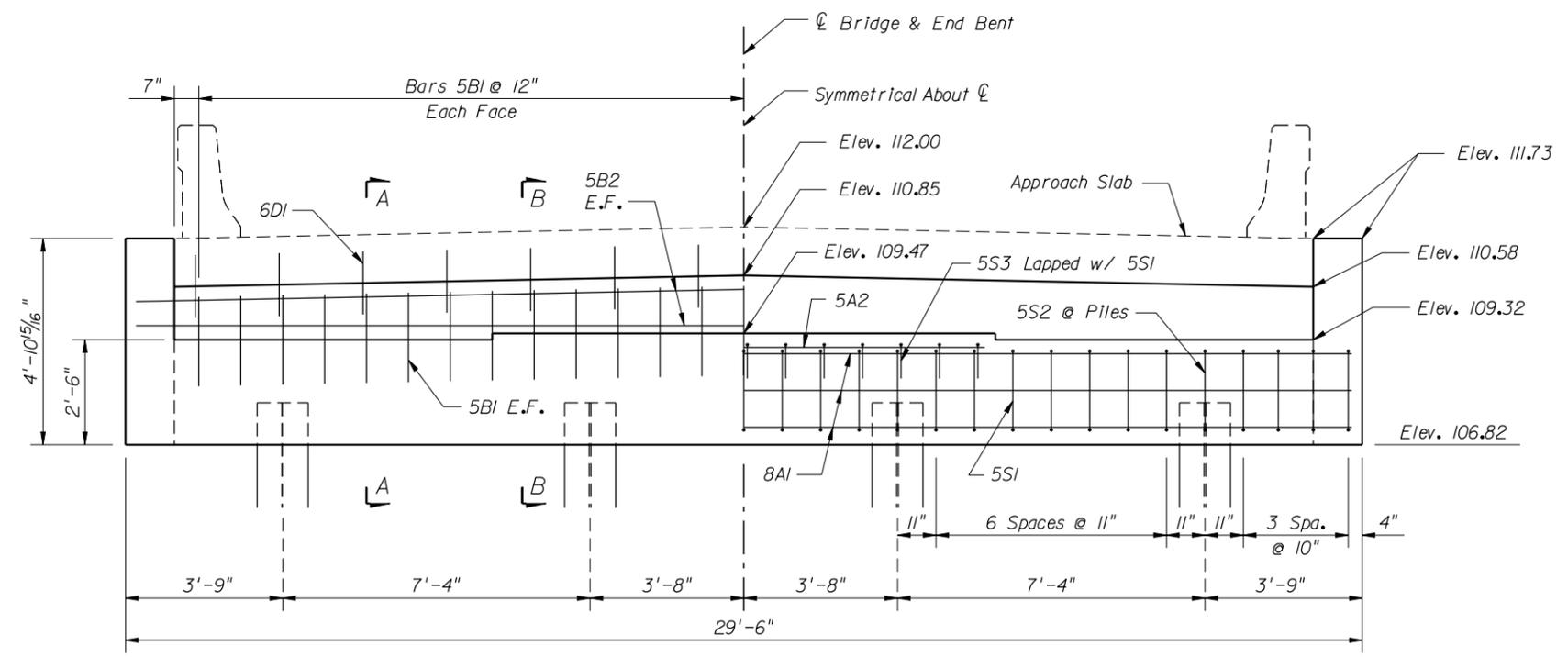
\*\* See Summary of Bridge Pay Items

Note: Quantities are for one (1) End Bent. Two (2) End Bents are Required.



SLOPE PROTECTION DETAIL

Bridge Superstructure Not Shown



ELEVATION VIEW

BACKWALL REINFORCING SHOWN

CAP REINFORCING SHOWN

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

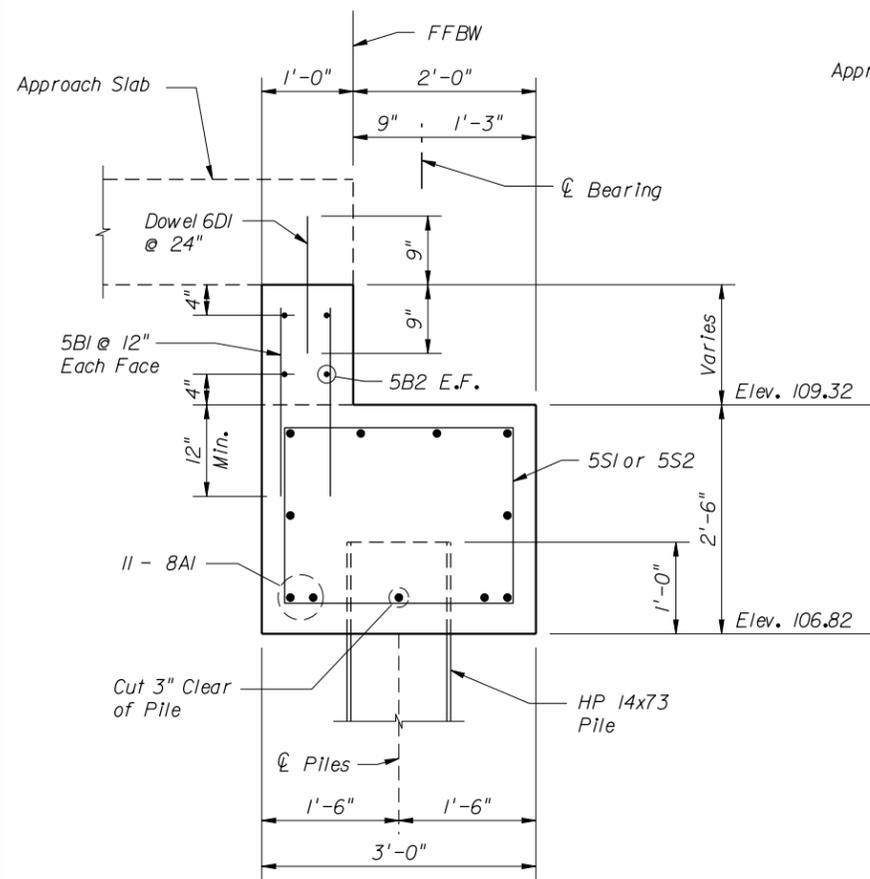
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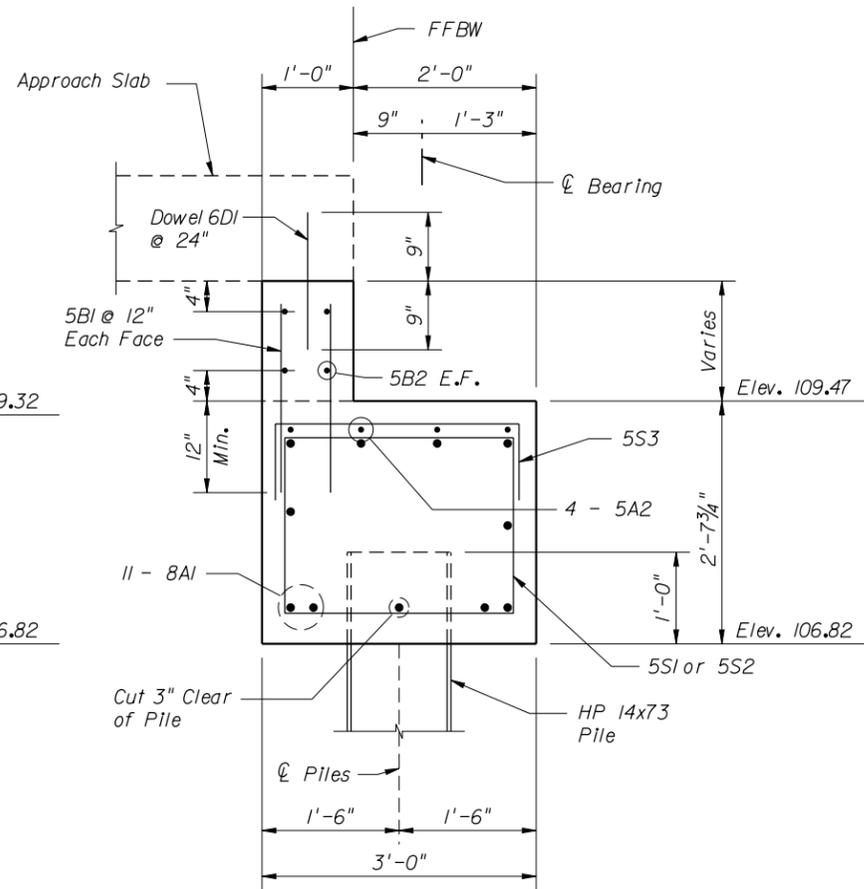
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**END BENTS - PLAN & ELEVATION**  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

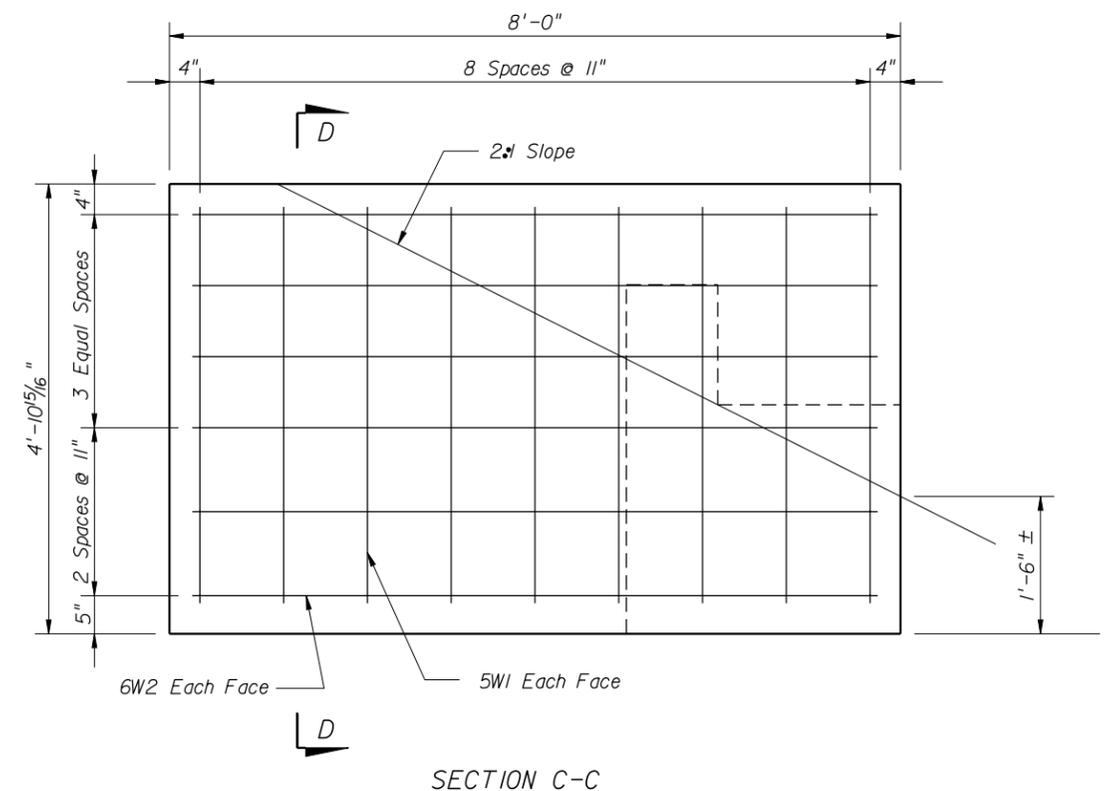
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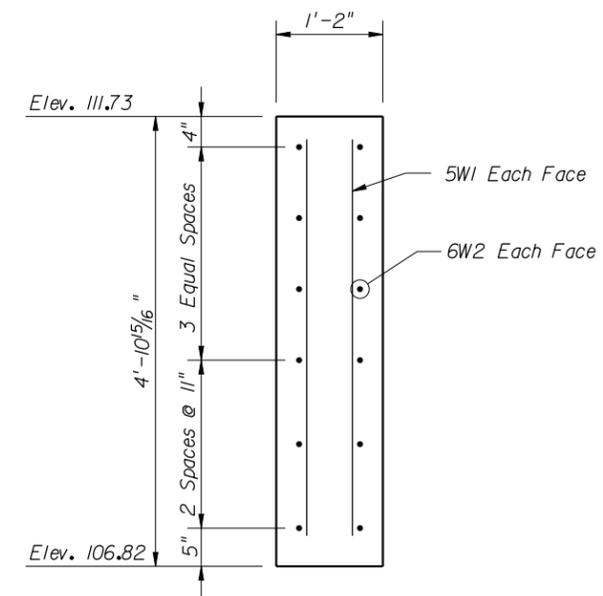
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

MDP Project No. <b>2011-08:D</b>
<b>APRIL 2012</b>

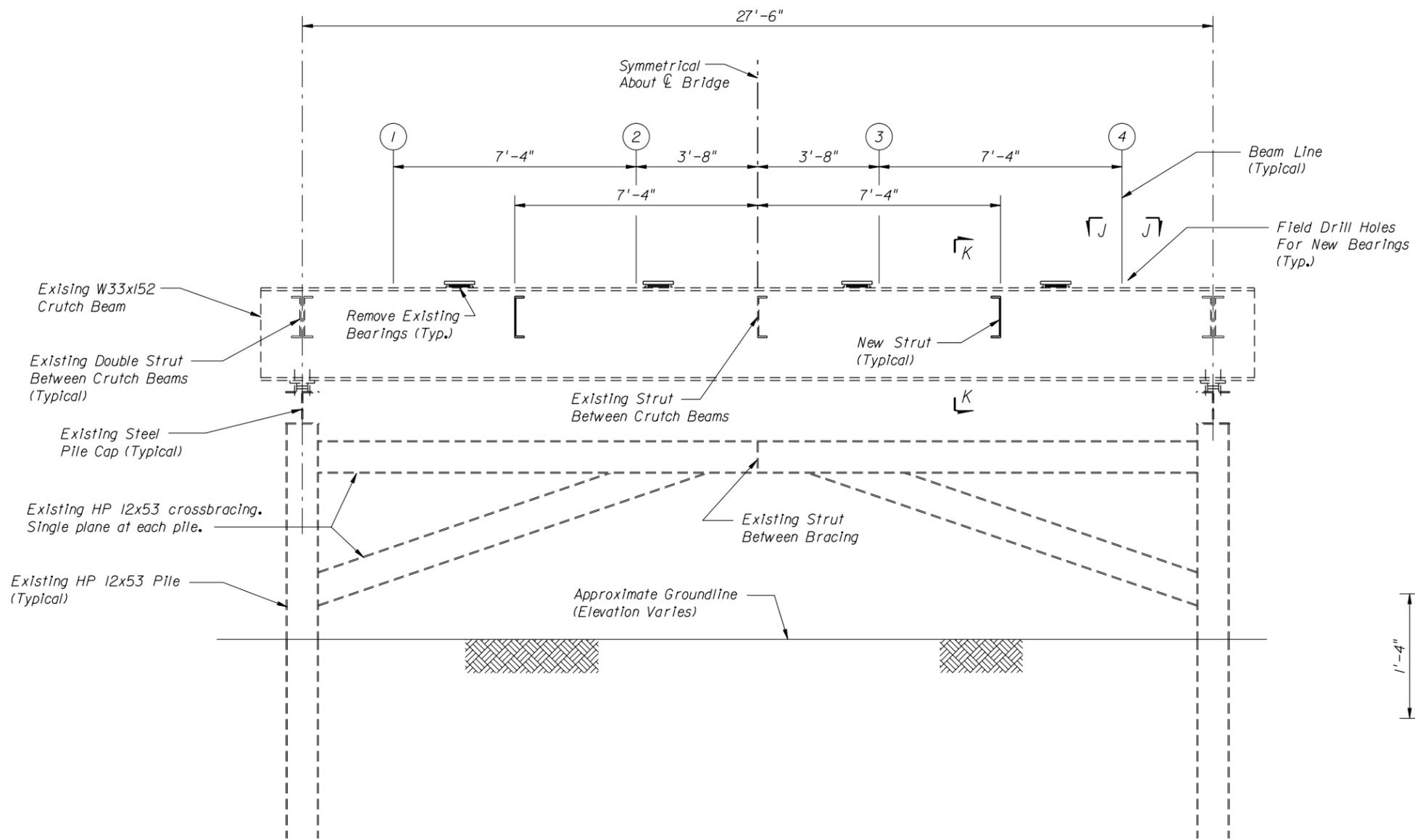
ENGINEER OF RECORD <b>M. DAVID FINLEY, P.E. - FL PE NO. 40119</b> <b>M. DAVID FINLEY, PE, PA</b> Specialty Structural Engineering 2088 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025 CERTIFICATE OF AUTHORIZATION NO. 28972
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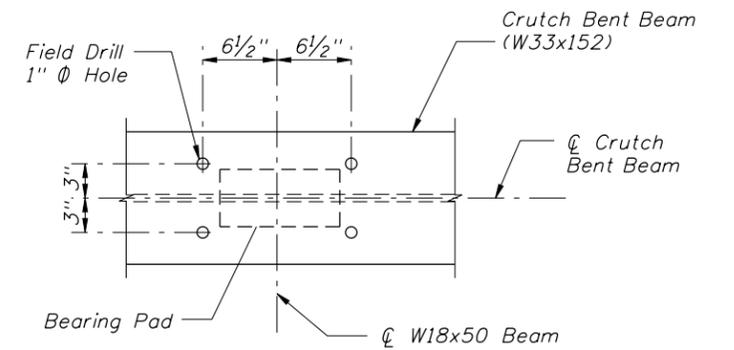
**END BENTS - DETAILS**  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

Sheet No:

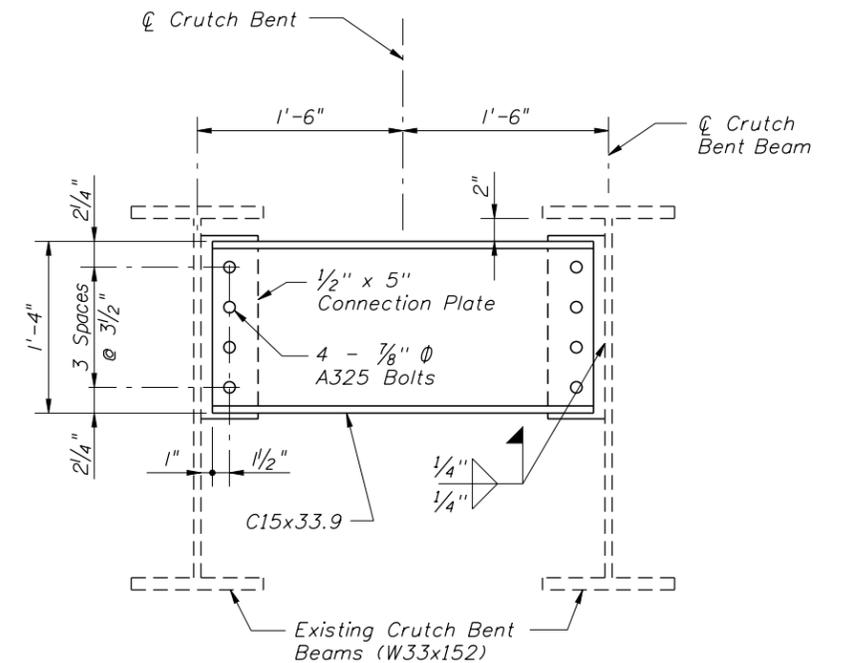
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ELEVATION VIEW - CRUTCH BENT NOS. 2 & 5



SECTION J-J



SECTION K-K

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

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2011-08:D  
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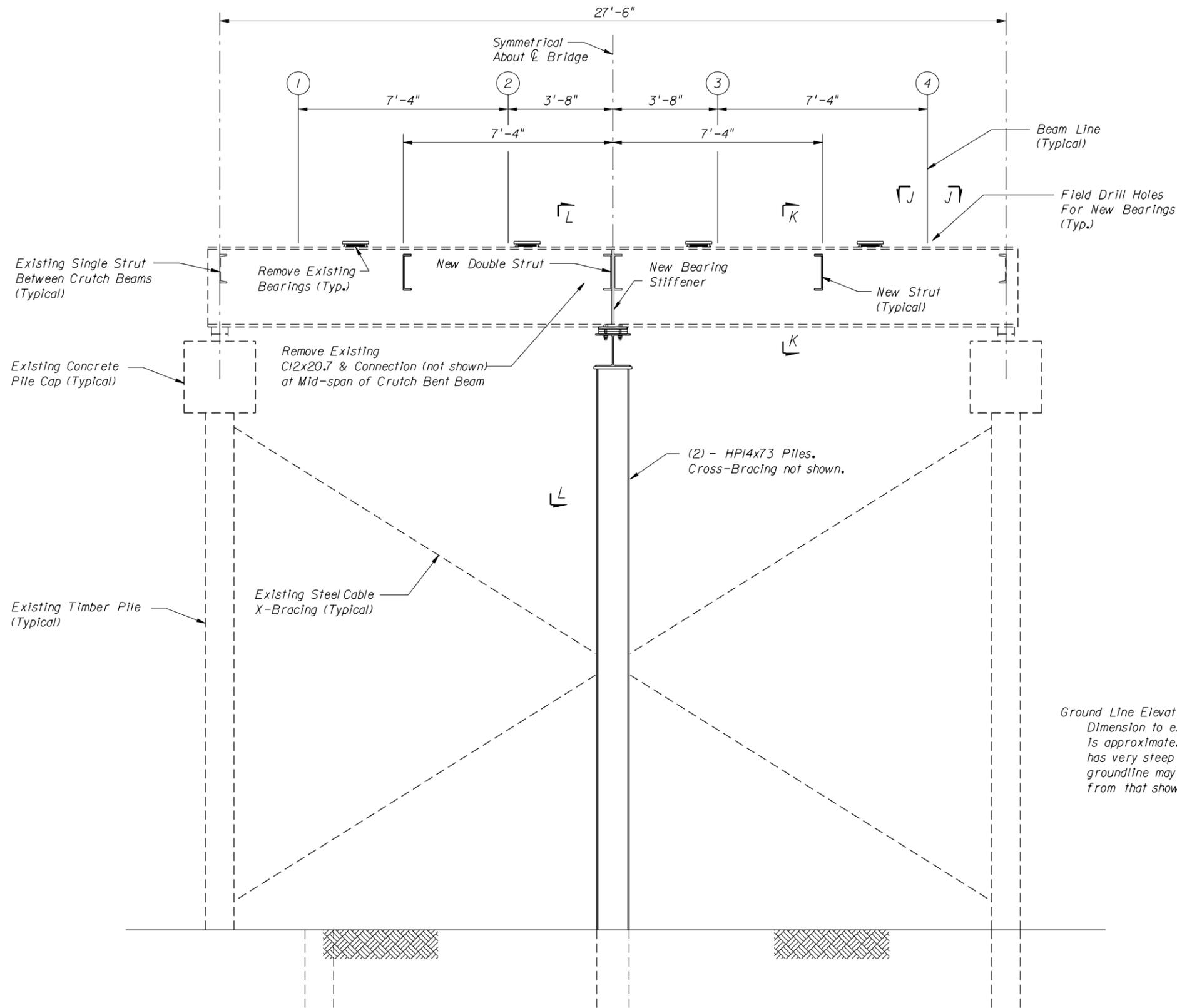
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Specialty Structural Engineering  
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MODIFICATIONS TO INTERMEDIATE BENTS NOS. 2 & 5  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

Sheet No:  
9

NOTE:  
 See Sheet 9 for Sections J-J & K-K.  
 See Sheet 11 for Section L-L.



Ground Line Elevation Note:  
 Dimension to existing ground line is approximate. The existing terrain has very steep slopes and the actual groundline may vary several feet from that shown.

ELEVATION VIEW - CRUTCH BENT NO. 3

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

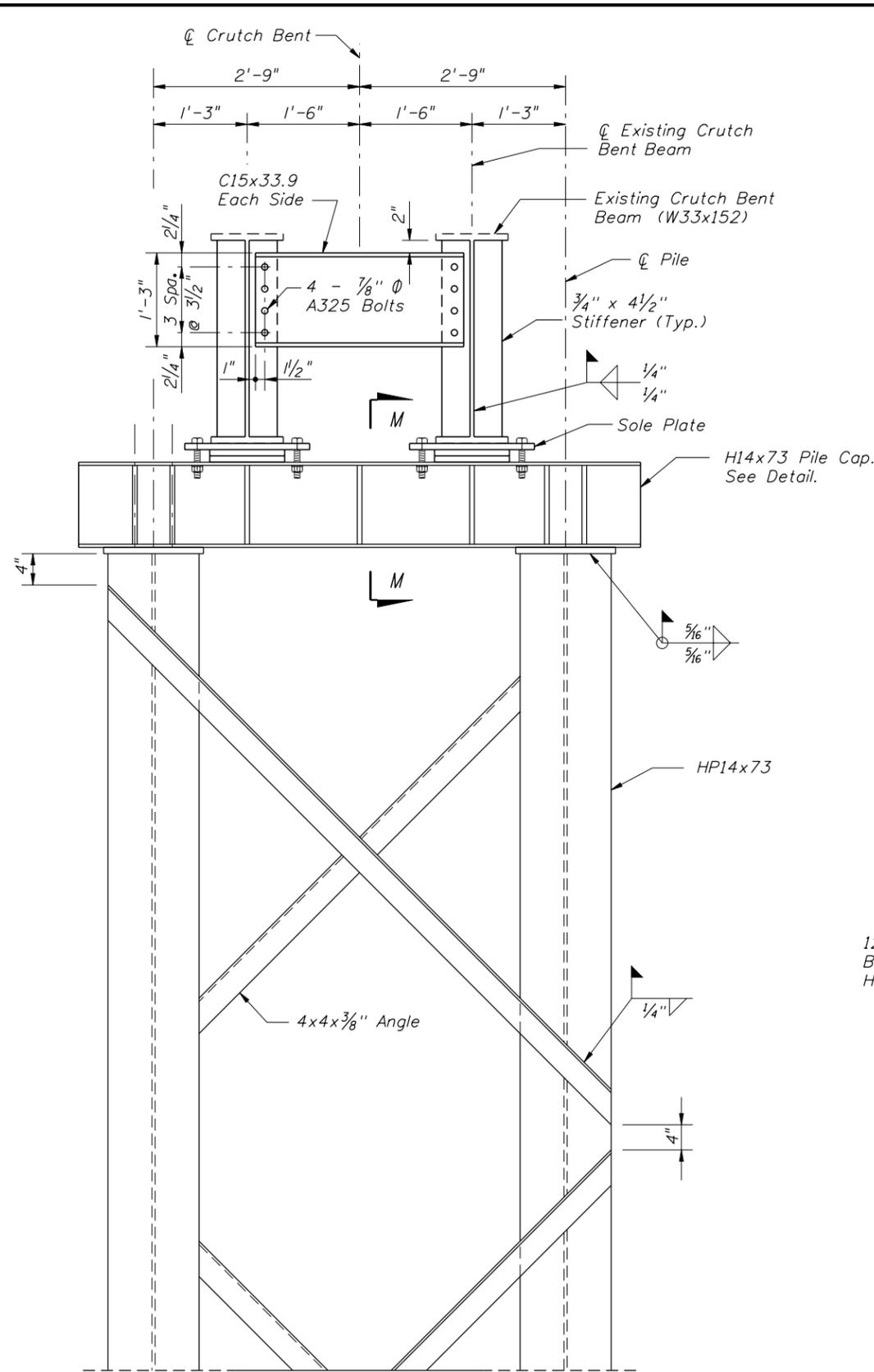
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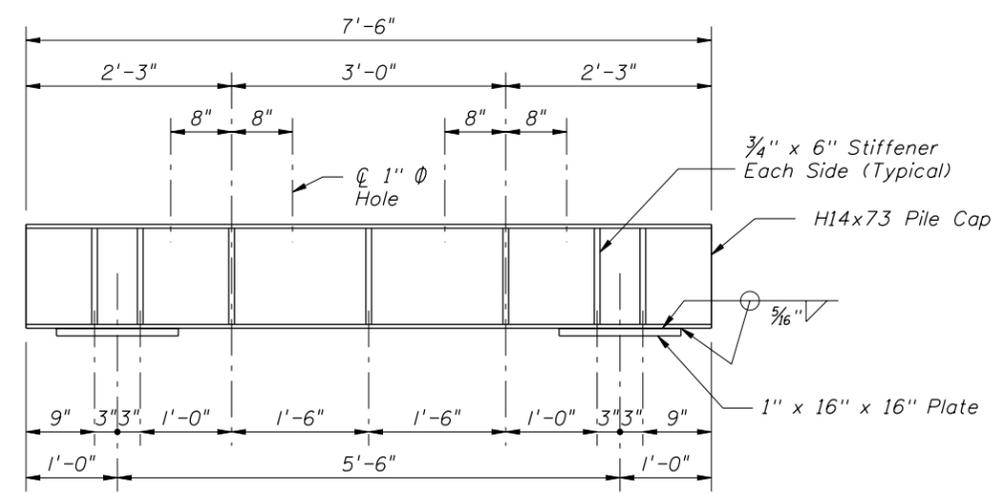
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MODIFICATIONS TO INTERMEDIATE BENT NO. 3
SUPERSTRUCTURE REPLACEMENT CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

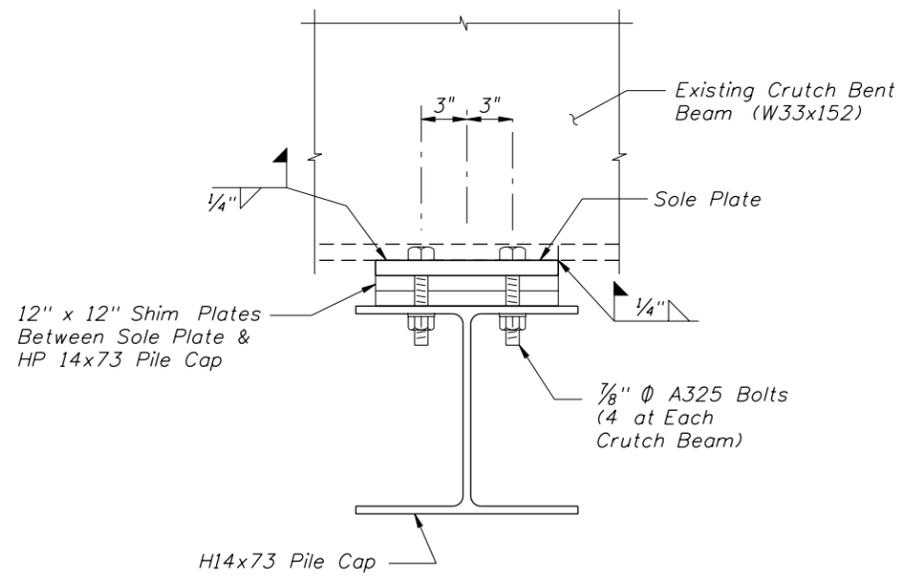
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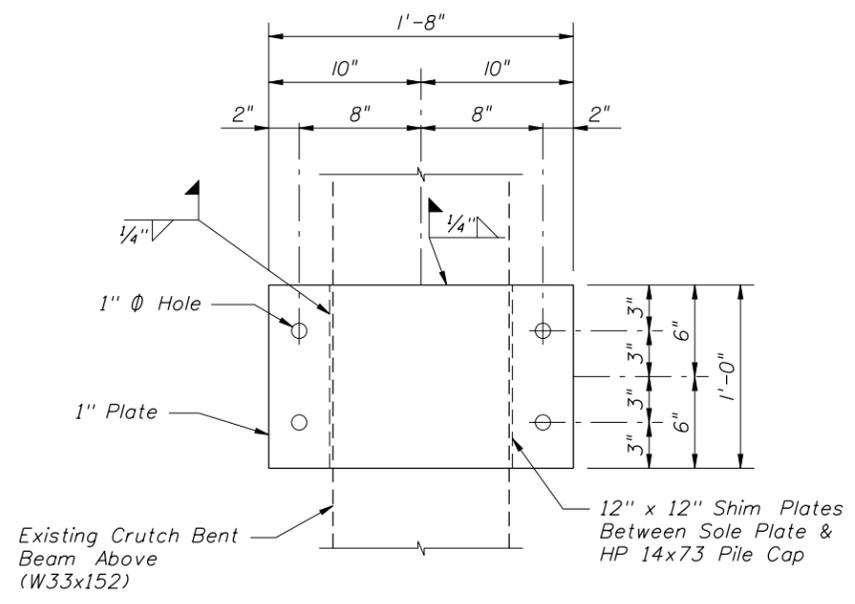
SECTION L-L



HP 14x73 PILE CAP



SECTION M-M



SOLE PLATE DETAIL

SHIM PLATE NOTES

1. H14x73 Pile Cap shall be placed not less than 1/2" and not more than 1" below the bottom of the existing crutch bent beams.
2. Place Shim Plates to tight fit as approved by the Engineer. Contractor shall anticipate that jacking will be required.
3. Multiple shim plates are permitted, but minimum shim plate thickness shall not be less than 3/8" unless approved by the Engineer.
4. Where multiple shim plates are provided, tack weld shim plates together after installation.

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

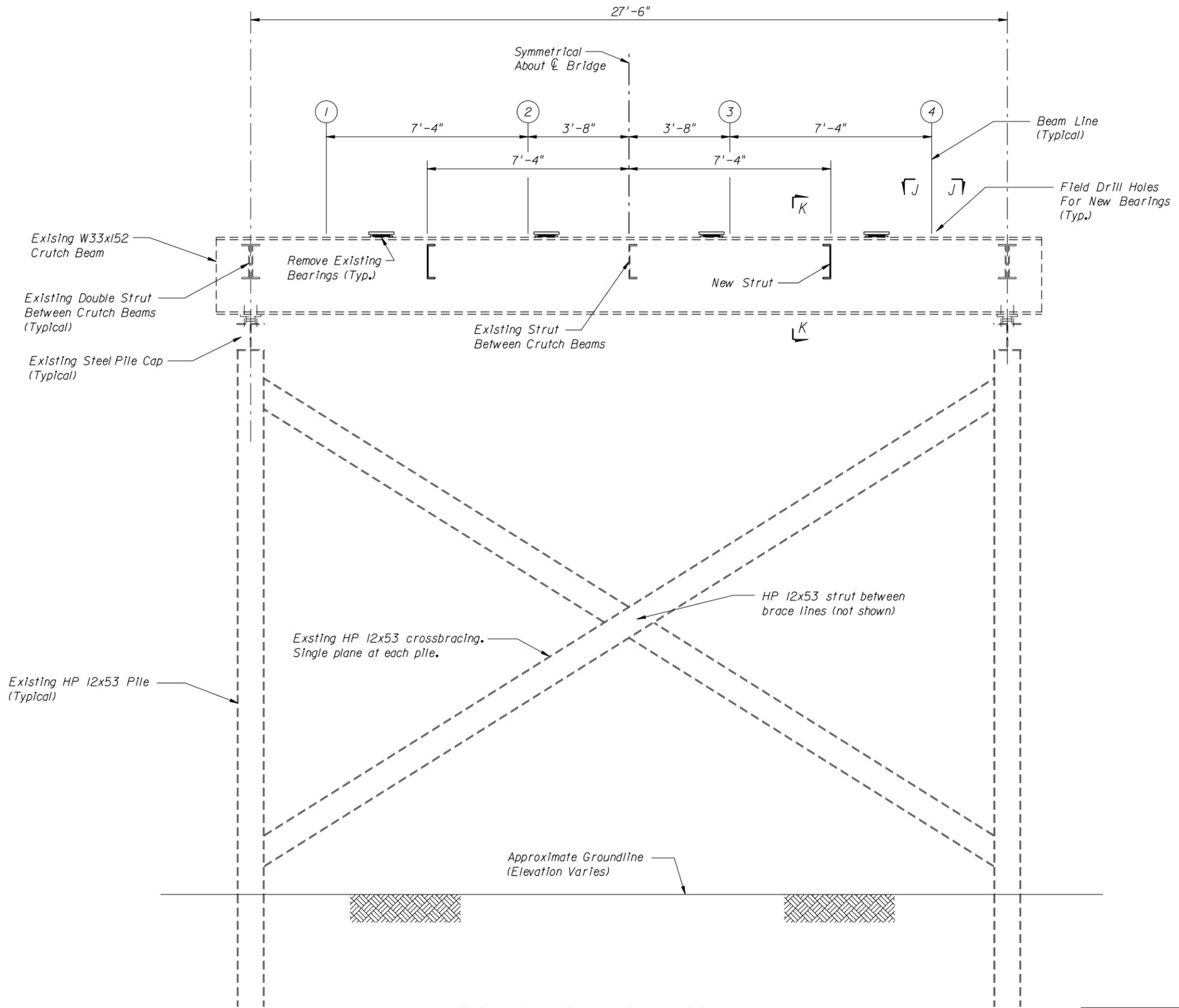
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INTERMEDIATE BENT NO. 3 DETAILS  
  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

Sheet No:  
  
1:1



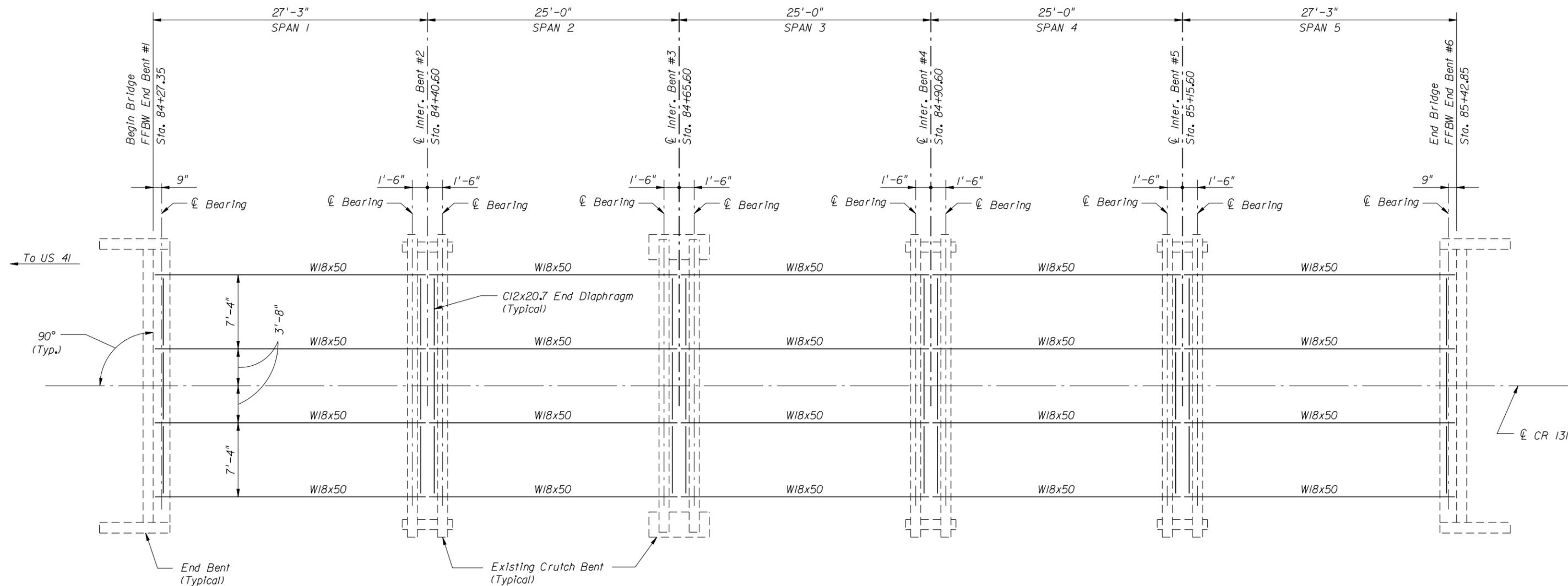
NOTE:  
See Sheet 9 for Sections J-J & K-K.

ELEVATION VIEW - CRUTCH BENT NO. 4

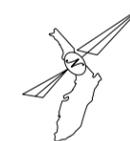
**BID SET**

Bridge No. 290041

DATE	RELEASES / REVISIONS	MDP Project No. <b>2011-08:D</b>	ENGINEER OF RECORD <b>M. DAVID FINLEY, P.E. - FL PE NO. 40119</b> <b>M. DAVID FINLEY, PE, PA</b> <i>Specialty Structural Engineering</i> 2088 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025 CERTIFICATE OF AUTHORIZATION NO. 28972	<b>BOARD OF COUNTY COMMISSIONERS</b> <b>COLUMBIA COUNTY, FL</b>	<b>MODIFICATIONS TO INTERMEDIATE BENT NO. 4</b>	Sheet No:
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FRAMING PLAN



BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

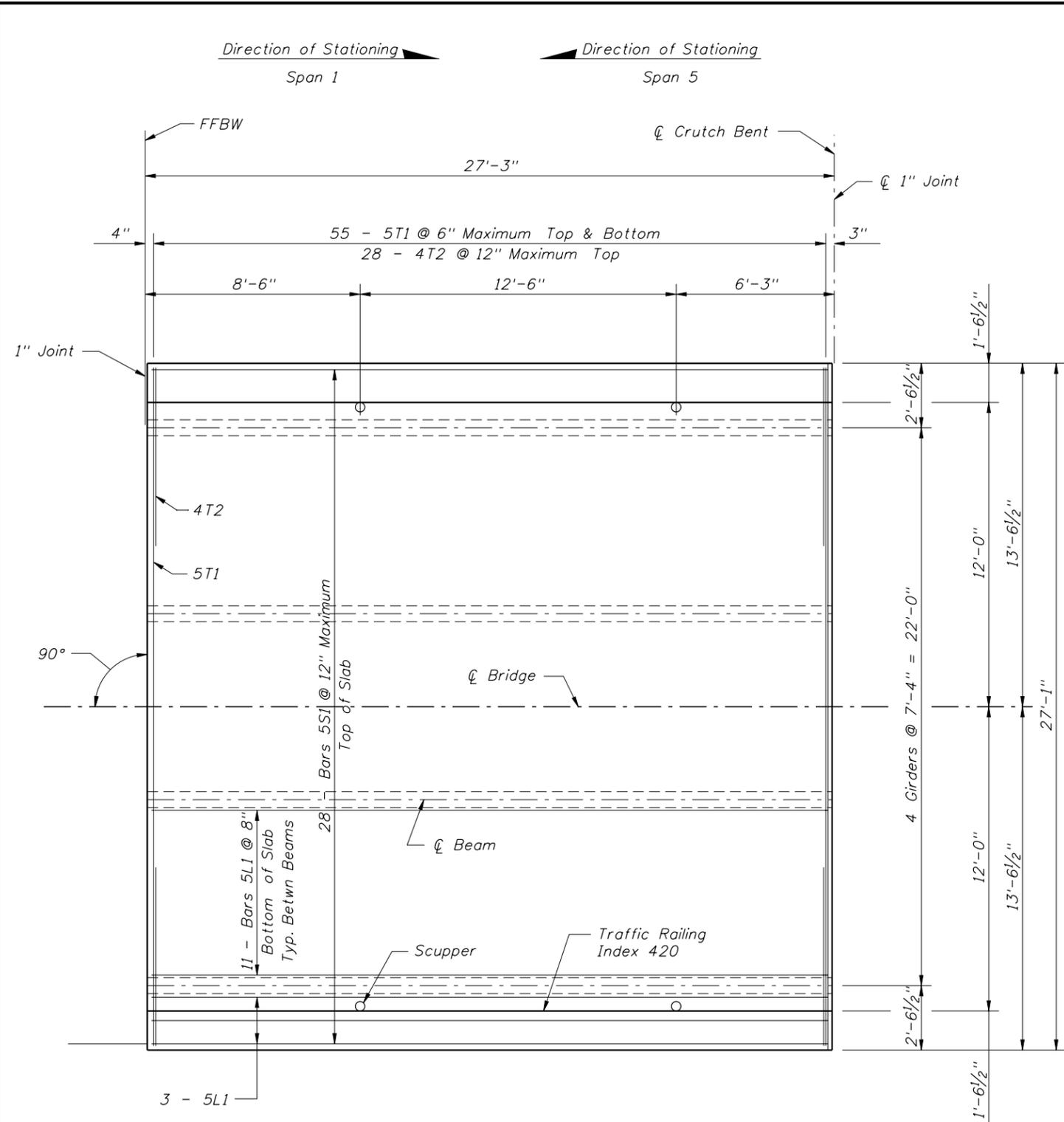
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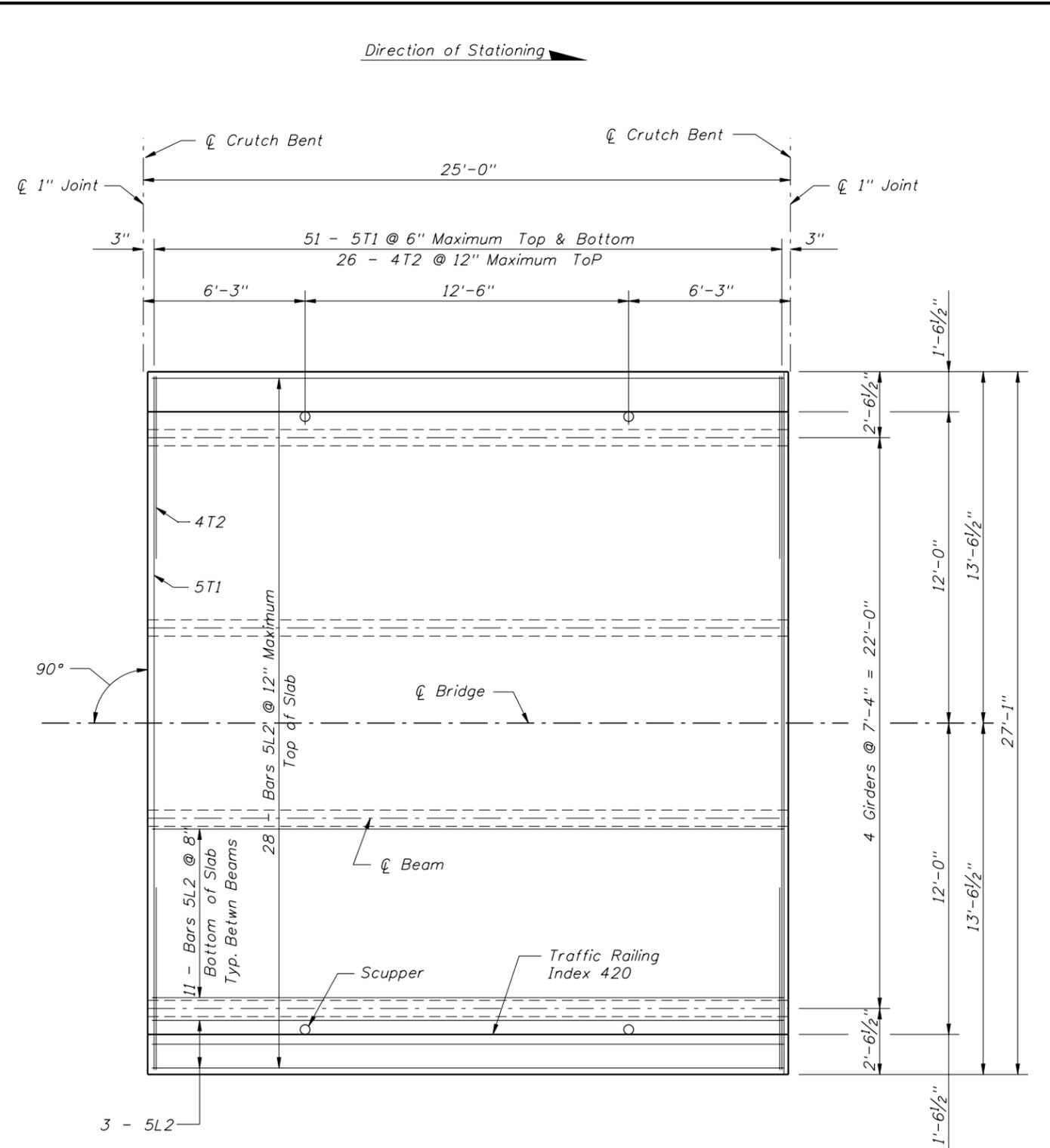
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FRAMING PLAN  
 SUPERSTRUCTURE REPLACEMENT  
 CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

Sheet No:  
 13



PLAN - END SPANS  
Span 1 Shown  
Span 5 Opposite Hand



PLAN - INTERIOR SPANS

BID SET

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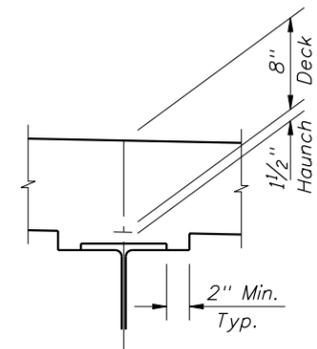
**SUPERSTRUCTURE PLAN**  
**SUPERSTRUCTURE REPLACEMENT**  
**CR 131 OVER FALLING CREEK - BRIDGE NO. 290041**

Bridge No. 290041  
Sheet No:  
14

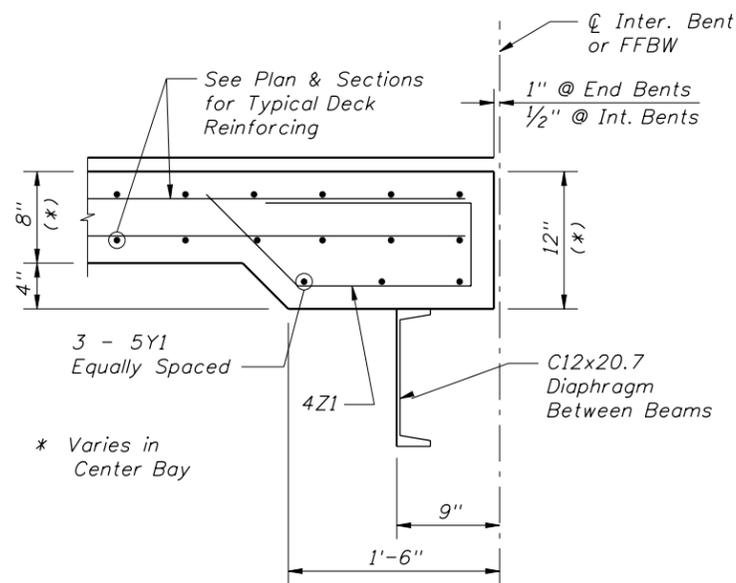
POURED EXPANSION JOINT DATA TABLE  
INDEX NO. 21110

LOCATION	DIM. "A" @ 70°F	TOTAL DESIGN MOVEMENT	DIM. "A" ADJUSTMENT PER 10°F
End Bent 1	1"	0.08"	0.01"
Int. Bent 2	1"	0.15"	0.02"
Int. Bent 3	1"	0.14"	0.02"
Int. Bent 4	1"	0.14"	0.02"
Int. Bent 5	1"	0.15"	0.02"
End Bent 6	1"	0.08"	0.01"

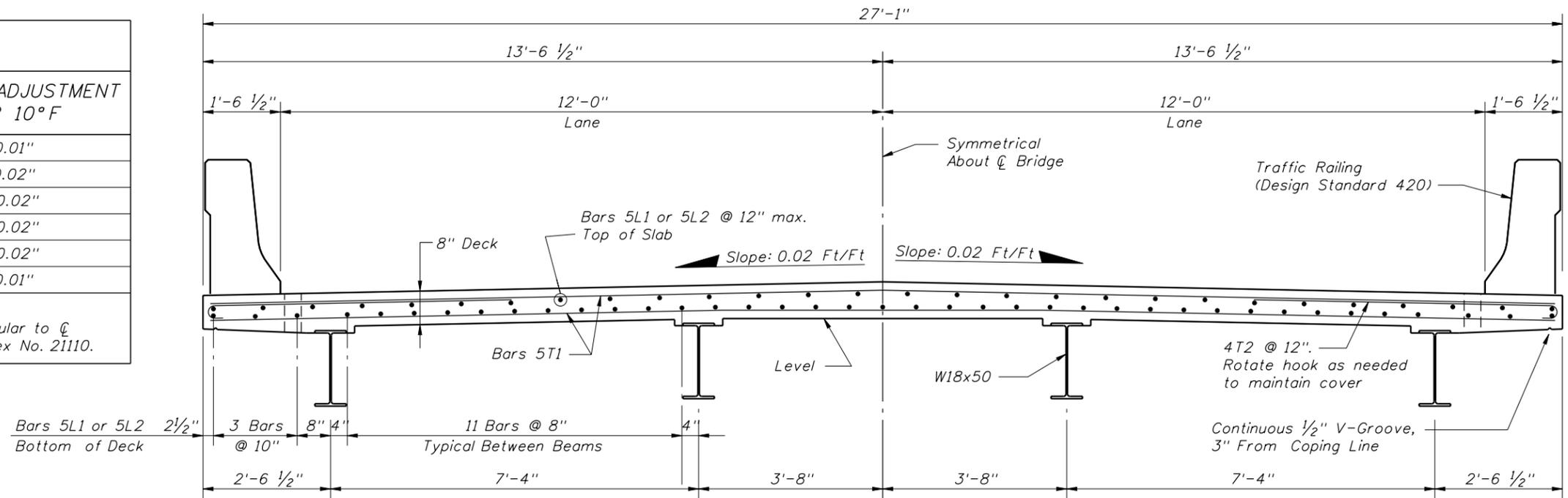
NOTE:  
Dim. "A" adjustment per 10°F shown is measured perpendicular to  $\bar{C}$  Expansion Joint. Work this table with Design Standards Index No. 21110.



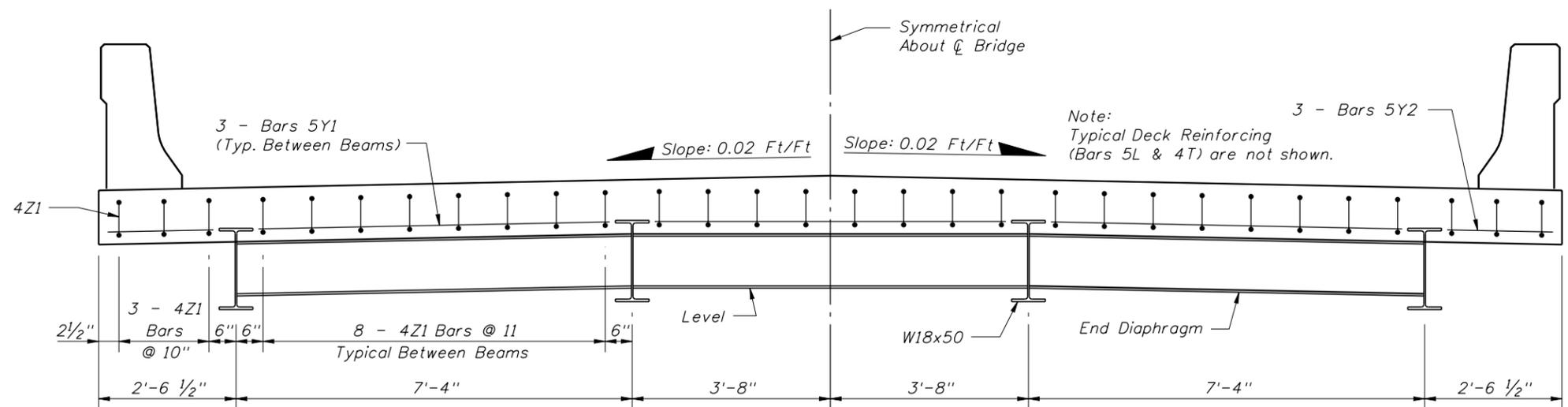
HAUNCH DETAIL



THICKENED END



SECTION THRU SUPERSTRUCTURE



END VIEW - END DIAPHRAGMS

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

MOF Project No.  
**2011-08:D**  
**APRIL 2012**

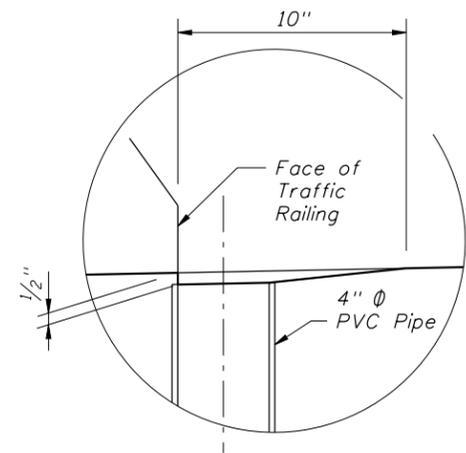
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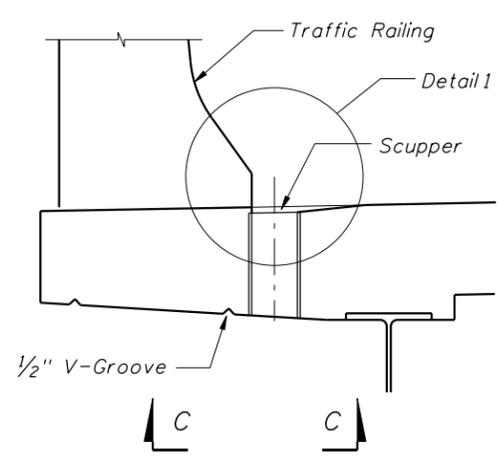
**SUPERSTRUCTURE SECTION & DETAILS**  
**SUPERSTRUCTURE REPLACEMENT**  
**CR 131 OVER FALLING CREEK - BRIDGE NO. 290041**

Sheet No:

15

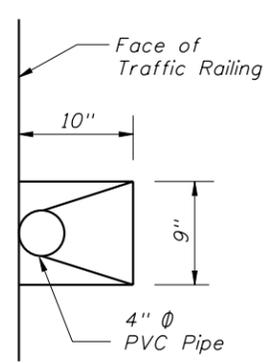


Detail 1

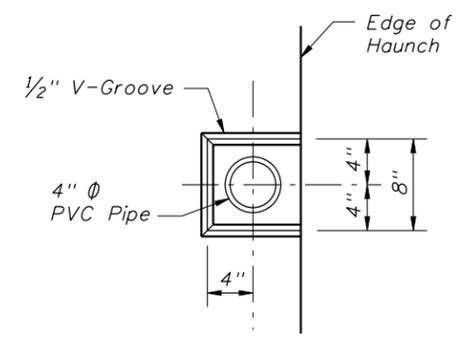


Section

Note:  
Scuppers shall be  
4" Ø Schedule 40 PVC pipe



Plan View



View C-C

SCUPPER DETAILS

ESTIMATED QUANTITIES

ITEM	UNIT	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	TOTAL
Class II Concrete (Superstructure)	CY	19.58	18.07	18.07	18.07	19.58	93.37
Reinforcing Steel (Superstructure)	LB	5523	5120	5120	5120	5523	26406
Concrete Traffic Railing, Bridge (32" F-Shape)	LF	54.5	50	50	50	54.5	259
Bridge Deck Grooving	SY	73	67	67	67	73	347

BID SET

Bridge No. 290041

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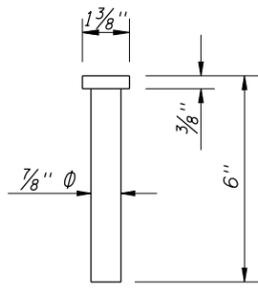
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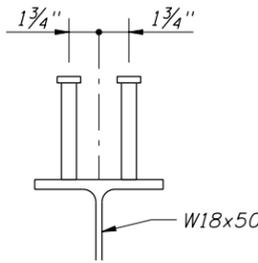
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SUPERSTRUCTURE DETAILS  
  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

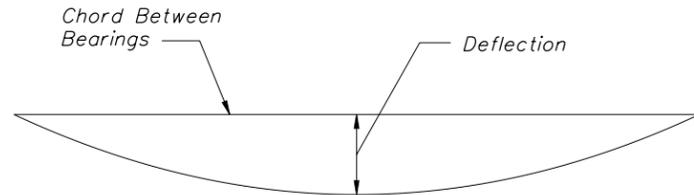
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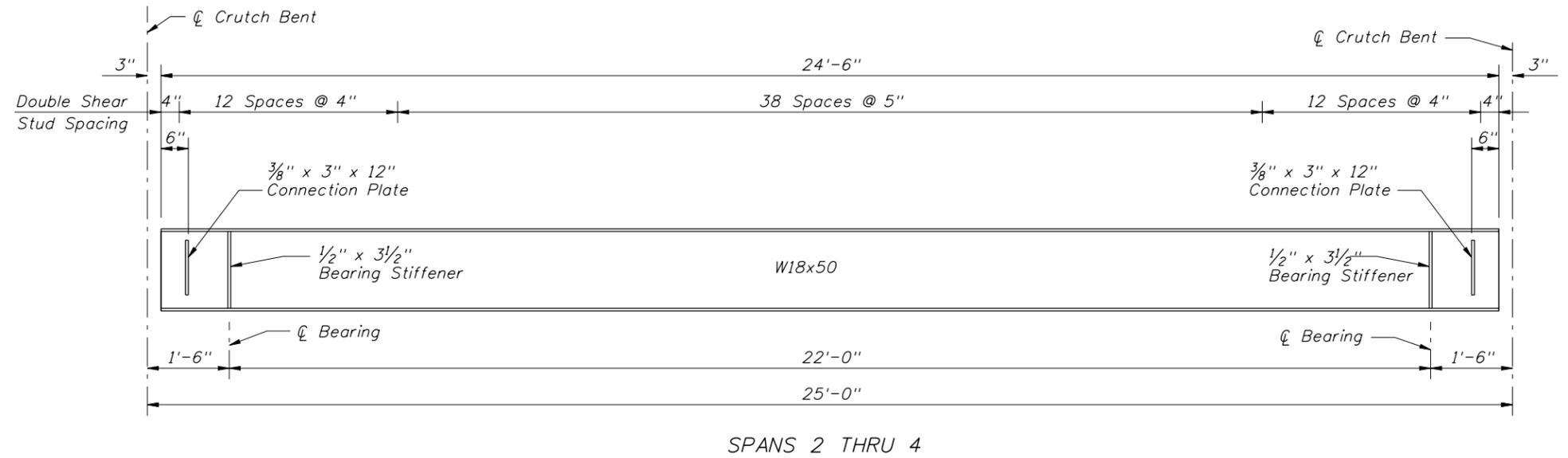
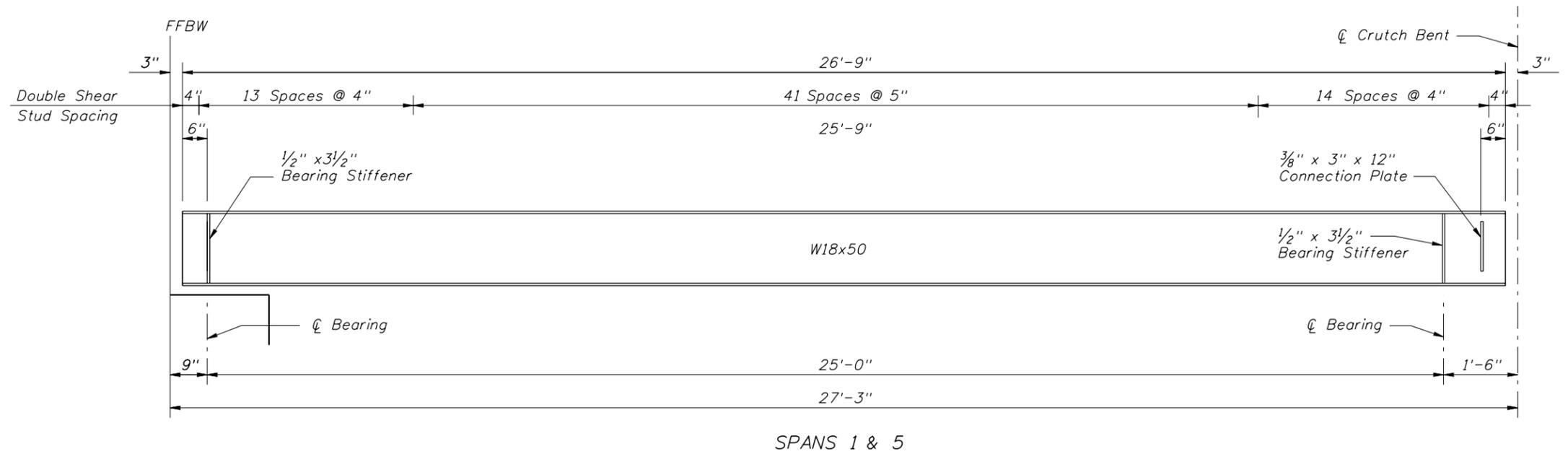
SHEAR STUD DETAIL



DOUBLE SHEAR CONNECTOR DETAIL



DEFLECTION DIAGRAM



NOTE:  
Omit connection plates on exterior face of exterior girders

CAMBER TABLE

ITEM	SPANS 1 & 5						SPANS 2, 3, & 4					
	Interior Girders			Exterior Girders			Interior Girders			Exterior Girders		
	0.3 L	0.5 L	0.7 L	0.3 L	0.5 L	0.7 L	0.3 L	0.5 L	0.7 L	0.3 L	0.5 L	0.7 L
Steel Self-Weight	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Concrete Slab (includes SIP forms)	0.26	0.32	0.26	0.21	0.26	0.21	0.16	0.19	0.16	0.13	0.16	0.13
Composite Dead Load	0.02	0.02	0.02	0.04	0.04	0.04	0.01	0.01	0.01	0.02	0.03	0.02
Total Deflection	0.30	0.36	0.30	0.27	0.32	0.27	0.18	0.21	0.18	0.16	0.20	0.16
Vertical Curve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Required Camber	0.30	0.36	0.30	0.27	0.32	0.27	0.18	0.21	0.18	0.16	0.20	0.16

Note: All values are in inches

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

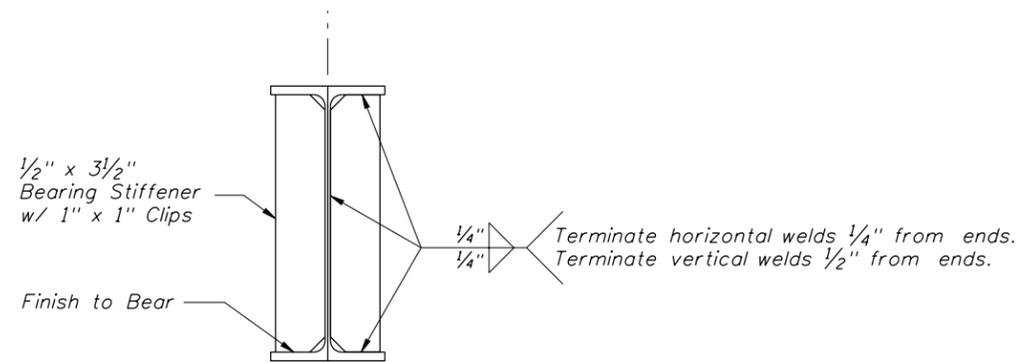
MOF Project No. <b>2011-08:D</b>
<b>APRIL 2012</b>

ENGINEER OF RECORD <b>M. DAVID FINLEY, P.E. - FL PE NO. 40119</b> <b>M. DAVID FINLEY, PE, PA</b> Specialty Structural Engineering 2088 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025 CERTIFICATE OF AUTHORIZATION NO. 28972
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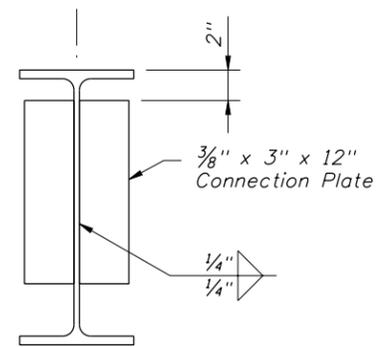
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**COLUMBIA COUNTY, FL**

**GIRDER DETAILS (1)**  
**SUPERSTRUCTURE REPLACEMENT**  
**CR 131 OVER FALLING CREEK - BRIDGE NO. 290041**

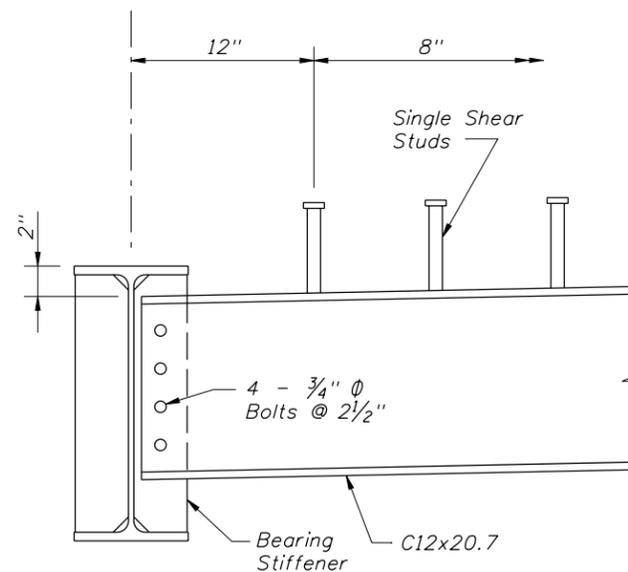
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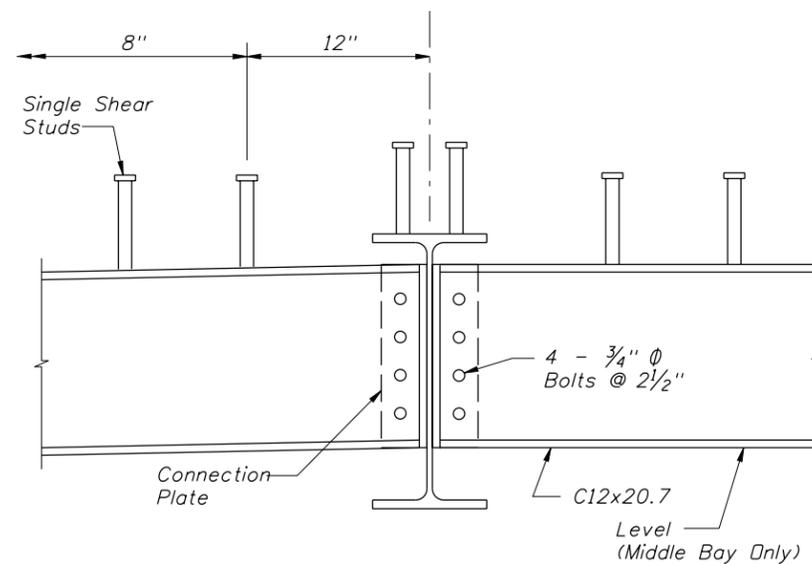
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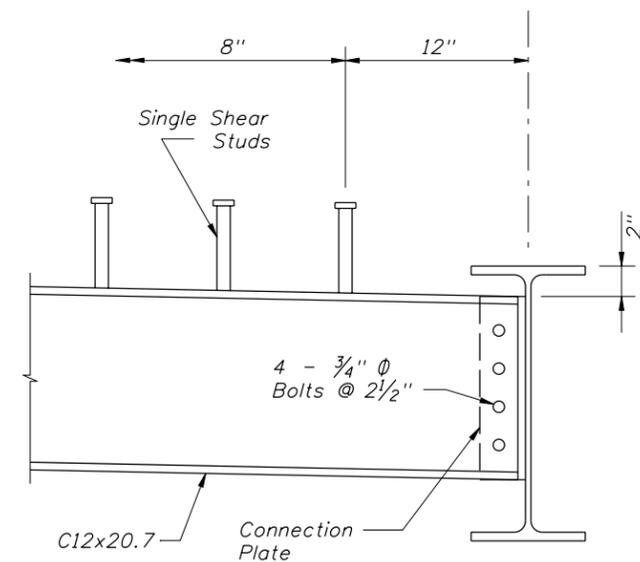
DIAPHRAGM CONNECTION PLATE



Exterior Girder At End Bent



Interior Girder At Intermediate Bent



Exterior Girder At Intermediate Bent

DIAPHRAGM DETAIL

**BID SET**

Bridge No. 290041

DATE	RELEASES / REVISIONS

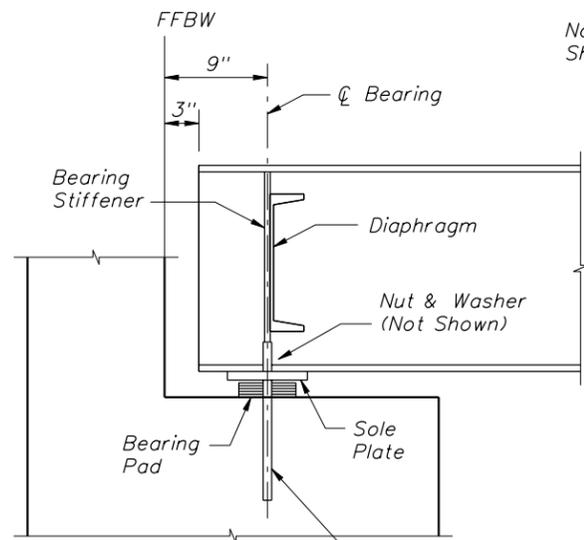
MDP Project No. <b>2011-08:D</b>
<b>APRIL 2012</b>

ENGINEER OF RECORD  
**M. DAVID FINLEY, P.E. - FL PE NO. 40119**  
**M. DAVID FINLEY, PE, PA**  
*Specialty Structural Engineering*  
2088 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025  
CERTIFICATE OF AUTHORIZATION NO. 25972

**BOARD OF COUNTY COMMISSIONERS**  
**COLUMBIA COUNTY, FL**

**GIRDER DETAILS (2)**  
 SUPERSTRUCTURE REPLACEMENT  
 CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

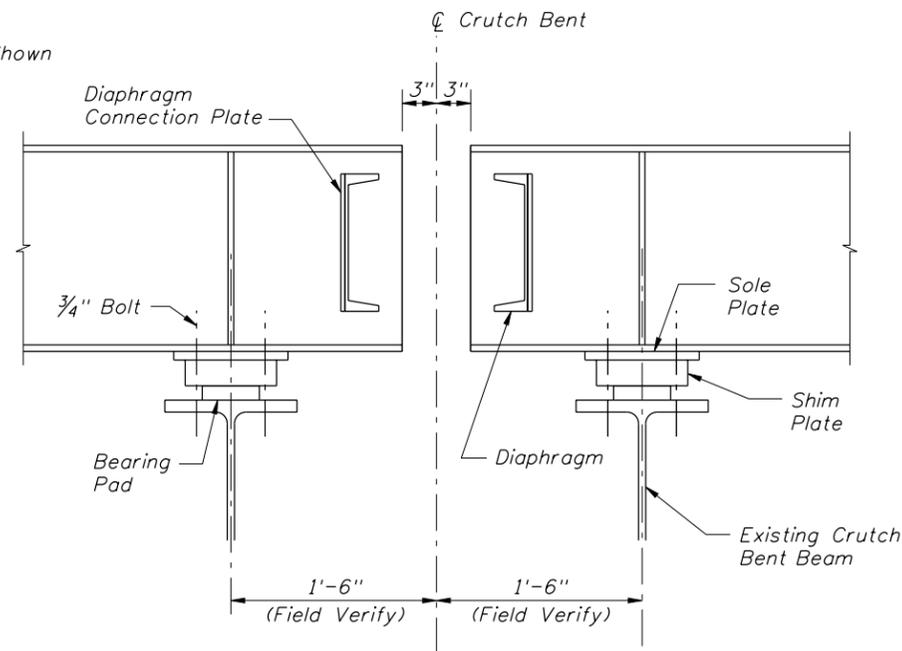
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 18



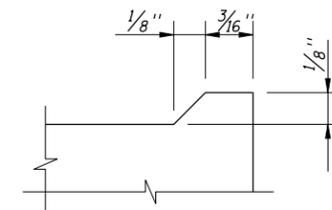
3/4" Ø Anchor Rod w/  
double nuts at bottom.  
10" embedment measured  
to top of double nuts.

SECTION AT END BENT

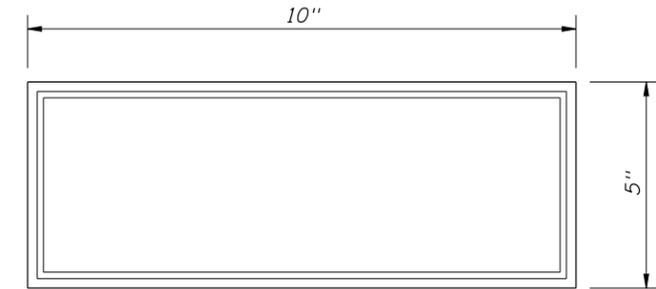
Note:  
Shear Studs Not Shown



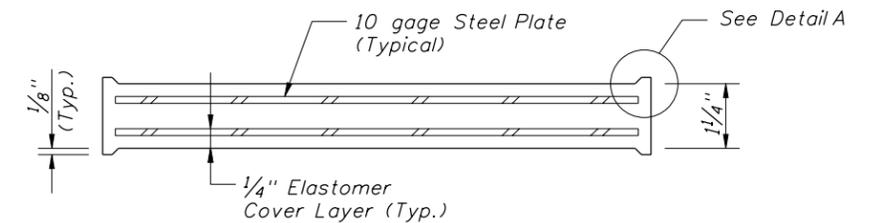
SECTION AT CRUTCH BENT



DETAIL A



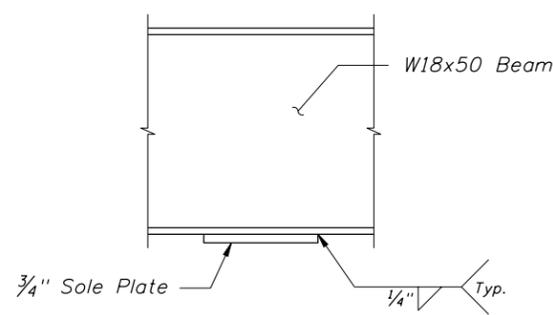
PLAN



TYPICAL SECTION  
BEARING PAD

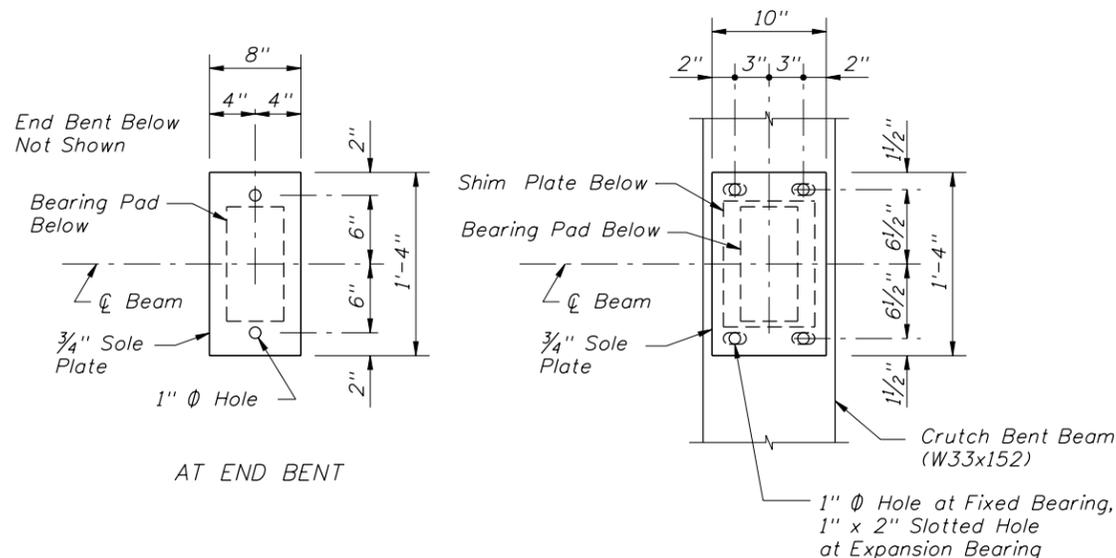
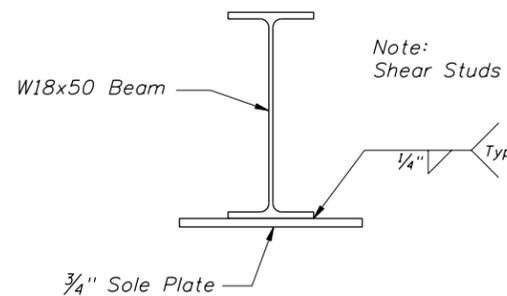
- NOTES:
- Neoprene shall have a minimum shear modulus of 110 psi.
  - Steel plates in bearing pads shall conform to ASTM A1011, Grade 36, Type 1.

Note:  
Shear Studs Not Shown



SOLE PLATE ATTACHMENT

Note:  
Shear Studs Not Shown



SOLE PLATE

AT CRUTCH BENT

AT END BENT

SUBSTRUCTURE UNIT		ESTIMATED SHIM PLATE THICKNESS (INCHES)			
		BEAM NUMBER			
		1	2	3	4
Intermediate Bent #2	Back	0.85	2.59	2.50	0.56
	Ahead	0.50	2.28	2.21	0.31
Intermediate Bent #3	Back	0.95	2.68	2.64	0.85
	Ahead	0.94	2.63	2.57	0.74
Intermediate Bent #4	Back	0.31	2.21	2.28	0.50
	Ahead	0.22	2.22	2.39	0.70
Intermediate Bent #5	Back	0.74	2.52	2.45	0.55
	Ahead	0.61	2.35	2.26	0.32

- NOTES:
- Shim plates shall be 8" x 11" x required thickness.
  - Verify required shim thickness with field measurements.
  - Shim plates may be provided in multiple plies tack welded together. Minimum ply thickness = 1/4"
  - After installation, weld shim plates to sole plate.

BID SET

Bridge No. 290041

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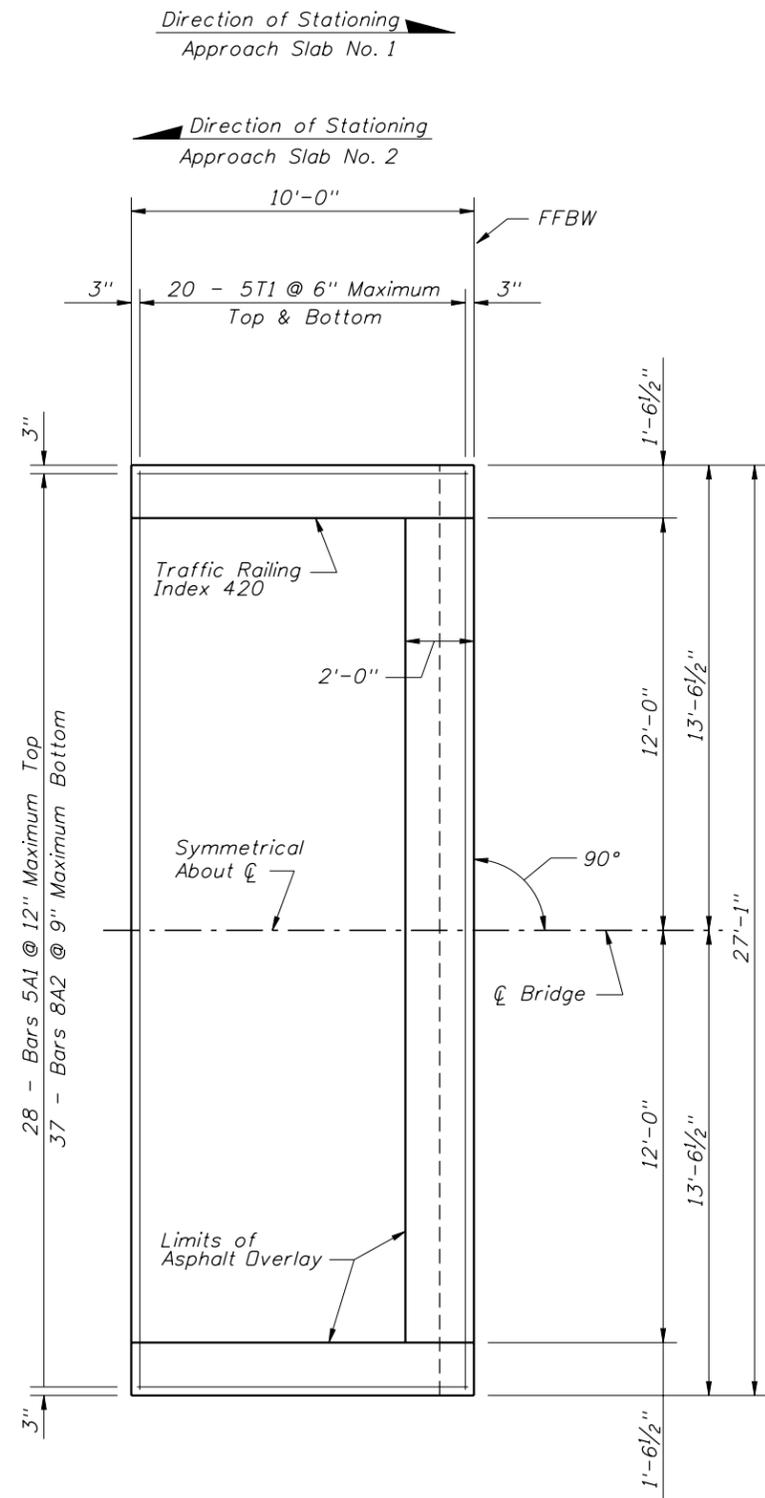
MOF Project No. <b>2011-08:D</b>
<b>APRIL 2012</b>

ENGINEER OF RECORD <b>M. DAVID FINLEY, P.E. - FL PE NO. 40119</b> <b>M. DAVID FINLEY, PE, PA</b> Specialty Structural Engineering 2088 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025 CERTIFICATE OF AUTHORIZATION NO. 28972
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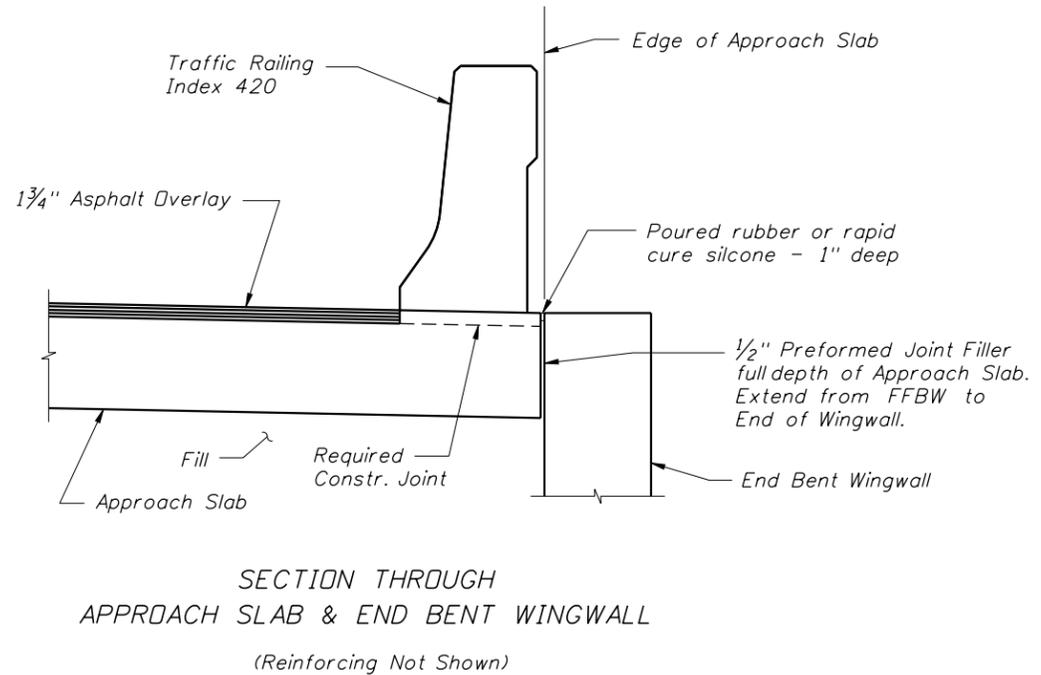
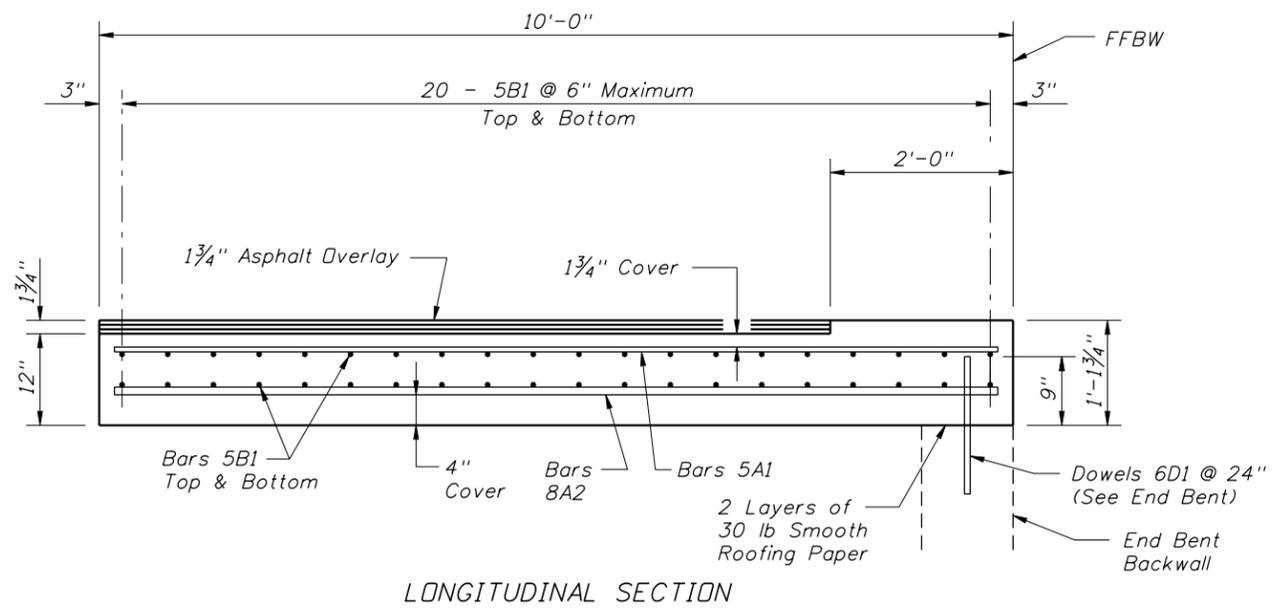
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**COLUMBIA COUNTY, FL**

**BEARINGS**  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

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PLAN - APPROACH SLAB



APPROACH SLAB ESTIMATED QUANTITIES		
LOCATION	REINFORCING STEEL (Lbs.)	CLASS II CONCRETE (C.Y.)
Approach Slab No. 1	2353	10.5
Approach Slab No. 2	2353	10.5

Quantities shown are for one Approach Slab. Quantities do not include Traffic Railing. For Traffic Railing, see Bid Item List.

BID SET

Bridge No. 290041

DATE	RELEASES / REVISIONS

MDF Project No. <b>2011-08:D</b> APRIL 2012	ENGINEER OF RECORD <b>M. DAVID FINLEY, P.E.</b> - FL PE NO. 40119 <b>M. DAVID FINLEY, PE, PA</b> <i>Specialty Structural Engineering</i> <small>2008 SW MAIN BOULEVARD - SUITE 111 LAKE CITY, FL 32025          CERTIFICATE OF AUTHORIZATION NO. 28972</small>
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COLUMBIA COUNTY, FL

APPROACH SLABS  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

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MARK	LENGTH	NO	TYP	STY	B	C	D	E	F	H	J	K	N	Ø															
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG		
LOCATION															END BENTS 1 & 6										NO. REQUIRED = 2				
8	A1	29- 0		11	1			29- 0																					
5	A2	11- 6		4	1			11- 6																					
5	B1	2- 3		54	1			2- 3																					
5	B2	29- 0		4	1			29- 0																					
6	D1	1- 6		14	1			1- 6																					
5	S1	9-10		29	4	4	4	1-11	2- 6																				
5	S2	7- 0		4	5			1-11	2- 6	0- 4	0- 4																		
5	S3	4- 6		13	11			2- 6	1- 0	1- 0																			
5	W1	4- 6		36	1			4- 6																					
6	W2	7- 6		24	1			7- 6																					
LOCATION															SUPERSTRUCTURE - SPANS 1 & 5										NO. REQUIRED = 2				
5	L1	26- 9		67	1			26- 9																					
5	T1	26- 9		110	1			26- 9																					
4	T2	6- 6		56	17	1		6- 0																					
5	Y1	6- 5		18	1			6- 5																					
6	Y2	1-11		12	1			1-11																					
4	Z1	4- 8		60	25			0-11	1- 3	0-11	0- 7 1/4	1- 6																	
LOCATION															SUPERSTRUCTURE - SPANS 2, 3, & 4										NO. REQUIRED = 3				
5	L2	24- 7		67	1			24- 7																					
5	T1	26- 9		102	1			26- 9																					
4	T2	6- 6		52	17	1		6- 0																					
5	Y1	6- 5		18	1			6- 5																					
5	Y2	1-11		12	1			1-11																					
4	Z1	4- 8		60	25			0-11	1- 3	0-11	0- 7 1/4	1- 6																	
LOCATION															APPROACH SLABS 1 & 2										NO. REQUIRED = 2				
5	A1	9- 8		28	1			9- 8																					
8	A2	9- 8		37	1			9- 8																					
5	B1	26- 9		40	1			26- 9																					
END OF LIST																													

**BID SET**

Bridge No. 290041

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MOF Project No.  
**2011-08:D**  
  
APRIL 2012

ENGINEER OF RECORD  
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**REINFORCING BAR LIST**  
  
SUPERSTRUCTURE REPLACEMENT  
CR 131 OVER FALLING CREEK - BRIDGE NO. 290041

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