

BRIDGE DECK OVERLAY
LETTING DATE
7-18-2006
BRFN-169-7(40)--39-46

LEGEND

INTERSTATE ROUTE
FREEWAY OR EXPRESSWAY ROUTE
U.S. NUMBERED ROUTE
STATE NUMBERED ROUTE
COUNTY NUMBERED ROUTE
LOCAL ROAD OR CITY STREET
RAILROAD
CORPORATION LINE
SECTION LINE
CUL DE SAC
SECTION, TOWNSHIP & RANGE NUMBERS 9, T-8IN, R-30W

Iowa Department of Transportation
Highway Division

PLANS OF PROPOSED IMPROVEMENTS ON THE
PRIMARY ROAD SYSTEM
HUMBOLDT COUNTY
BRIDGE DECK OVERLAY

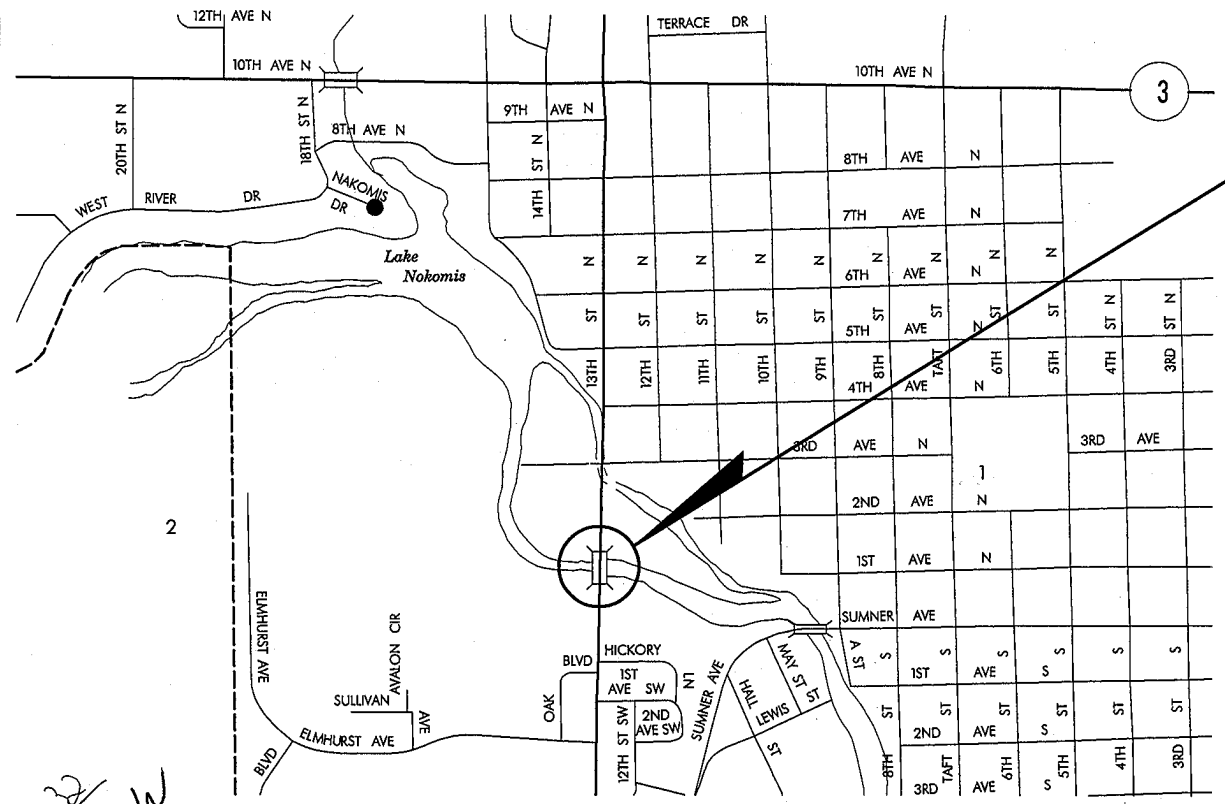
ON US 169 OVER WEST FORK DES MOINES RIVER
IN THE CITY OF HUMBOLDT, 0.6 MI. SOUTH OF IA 3

THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2001, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

VALUE ENGINEERING SAVES. REFER TO THE GENERAL NOTES IN THESE PLANS.

TOTAL SHEETS	
14	
PROJECT NUMBER	
BRFN-169-7(40)--39-46	
R.O.W. PROJECT NUMBER	
PROJECT IDENTIFICATION NUMBER	
05-46-169-010	
INDEX OF SHEETS	
NO.	DESCRIPTION
1	TITLE SHEET
2	BRIDGE ESTIMATE SHEET
2-5	BRIDGE DESIGN NO. 106
6	ESTIMATED ROADWAY QUANTITIES
6-14	ROADWAY SHEETS

T-92N
T-91N



DESIGN NO. 106

STANDARD ROAD PLANS

STANDARD ROAD PLANS ARE LISTED ON SHEET 7

DESIGN DATA URBAN

2003 AADT 7500 V.P.D.

REVISIONS

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
1	JEFF J. PAPE	STRUCTURAL DESIGN
6	STEVEN SCOTT SWEET	ROADWAY DESIGN

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Jeff J. Pape 4/10/06
Jeff J. Pape, P.E. Date

License Number 16531

My license renewal date is December 31, 2006

Pages or sheets covered by this seal:
SHEETS 1 THRU 5 OF 14

HUMBOLDT COUNTY - DESIGN NO. 106

WHKS & CO.

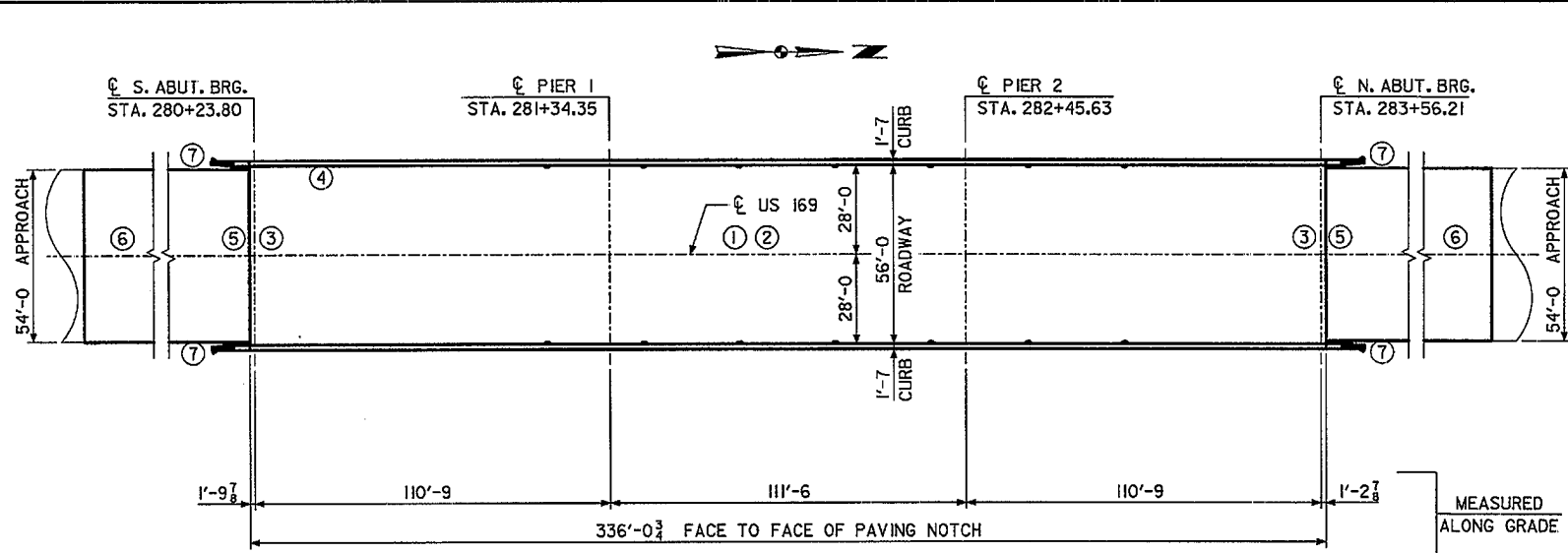
ENGINEERS PLANNERS LAND SURVEYORS

MASON CITY, IA CLIVE, IA AMES, IA ROCHESTER, MN

LOCATION MAP
PART OF CITY OF HUMBOLDT

PROJECT DIRECTORY NAME: 4616901005

4/17/2006
L:\Dep't\6400-05\Humboldt\106\46169040.brg 4601065001



ESTIMATED BRIDGE QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUANTITY
1	2401-6750001	REMOVALS, AS PER PLAN	LS	1.000	
2	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY	2.300	
3	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	293.000	
4	2413-0698071	BRIDGE FLOOR OVERLAY	SY	2091.000	
5	2413-0698072	BRIDGE FLOOR REPAIR, CLASS A	SY	941.000	
6	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	1875.000	
7	2533-4980005	MOBILIZATION	LS	1.000	

ESTIMATE REFERENCE INFORMATION:

DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.

ITEM NO.	DESCRIPTION
4	INCLUDES COST OF FURNISHING AND PLACING CONCRETE SEALER. DOES NOT INCLUDE OVERLAY ON APPROACHES.
6	ALL TEMPORARY BARRIER RAIL SHALL BE NOMINAL 12'-6 LONG CONCRETE UNITS.

GENERAL NOTES:

THIS DESIGN IS FOR REPAIRS TO A 333'-0 x 56'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE ON US 169 OVER THE WEST FORK DES MOINES RIVER IN HUMBOLDT COUNTY. COPIES OF THE ORIGINAL PLANS WILL BE MADE AVAILABLE TO THE CONTRACTOR. CONTACT THE OFFICE OF CONTRACTS - HIGHWAY DIVISION - IOWA D.O.T. - AMES. REPAIR SHALL CONSIST OF:

- BRIDGE FLOOR REPAIR, CLASS 'A'
- BRIDGE FLOOR OVERLAY
- REMOVING EXISTING AND INSTALLING NEW CF JOINTS
- REMOVING AND REPLACING 25 FEET OF BARRIER RAIL
- REPLACING PORTION OF APPROACH PAVEMENT
- OVERLAYING REMAINDER OF APPROACH PAVEMENT
- REPLACING THE GUARDRAIL

ALL DIMENSIONS AND DETAILS SHOWN ON THESE PLANS PERTINENT TO NEW CONSTRUCTION IN RELATION TO EXISTING PORTIONS OF THE STRUCTURE SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE STARTING CONSTRUCTION.

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 STARTING DATE.

NO PRELIMINARY FLOOR SURVEY IS SHOWN. PLAN QUANTITY FOR "CLASS A BRIDGE FLOOR REPAIR" IS ESTIMATED AT 45% OF THE TOTAL FLOOR AREA. THE PLAN QUANTITY IS BASED ON HAND SOUNDINGS AND OBSERVATION. ACTUAL SPALLED AND HOLLOW AREAS AS DETERMINED BY THE ENGINEER SHALL BE REPAIRED.

PRESENT FLOOR THICKNESS IS ABOUT 8 INCHES. THE CONTRACTOR SHALL EXERCISE CARE IN REMOVING CONCRETE IN ORDER TO PREVENT UNNECESSARY UNBONDING OF REINFORCING STEEL.

SURFACE RAISE, AS SHOWN ON THE PLANS, SHALL BE CONSIDERED A MINIMUM. IN ORDER TO LIMIT THE ADDITIONAL DEAD LOAD, SURFACE RAISE SHALL BE RESTRICTED TO A MAXIMUM OF 1/2 INCH MORE THAN SHOWN ON THE PLANS. PROFILE MAY BE ADJUSTED TO THE EXTENT POSSIBLE WITHIN THESE LIMITS.

SITUATION PLAN

THE CONTRACTOR WILL HAVE THE OPTION OF CUTTING LONGITUDINAL GROOVES IN THE HARDENED CONCRETE AT THE END OF EACH STAGE OF CONSTRUCTION OR WAITING UNTIL ALL STAGES HAVE BEEN COMPLETED. IF THE CONTRACTOR ELECTS TO DELAY CUTTING OF THE LONGITUDINAL GROOVES UNTIL COMPLETION OF ALL STAGES, THE CONCRETE DECK/OVERLAY SURFACE FOR ANY STAGE OPENED TO TRAFFIC SHALL RECEIVE AN INTERIM COARSE BROOM FINISH DURING PLACEMENT.

WITHIN 30 CALENDAR DAYS FOLLOWING COMPLETION OF THE LAST STAGE OF THE PROJECT, THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH TEMPORARY LANE CLOSURES TO ACCOMPLISH LONGITUDINAL GROOVING FOR ALL STAGES. COST OF THE TEMPORARY LANE CLOSURES IS TO BE INCLUDED IN THE PRICE BID FOR "TRAFFIC CONTROL". THE INTERIM BROOM FINISH WILL NOT BE ALLOWED AS A SURFACE TEXTURE WHEN OPENED TO TRAFFIC OVER A WINTER SEASON. IF THE INTERIM COARSE BROOM TEXTURE IS PRESENT AND THE CONTRACTOR IS NOT IN A POSITION TO FINISH ALL STAGES OF THE PROJECT, LONGITUDINAL GROOVING WILL BE CUT INTO THE HARDENED CONCRETE IN ORDER TO ESTABLISH AN ACCEPTABLE DRIVING SURFACE TEXTURE FOR THE WINTER SEASON.

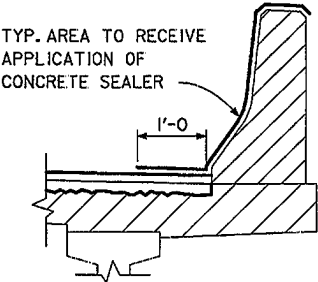
CONCRETE SEALER IS TO BE APPLIED IN ACCORDANCE WITH ARTICLE 2413.09 OF THE SPECIFICATIONS.

CONSTRUCTION SHALL BE DONE IN STAGES WITH AT LEAST ONE LANE TRAFFIC MAINTAINED AT ALL TIMES IN ACCORDANCE WITH 'TRAFFIC CONTROL PLAN' NOTE.

THE PRICE BID FOR 'REMOVALS, AS PER PLAN' SHALL INCLUDE ALL COSTS ASSOCIATED WITH REMOVAL OF 25 FEET OF BARRIER RAIL AND JOINT MATERIAL. REMOVAL OF SCHEDULED ITEMS SHALL BE IN ACCORDANCE WITH SECTION 2401 OF THE SPECIFICATIONS. ANY DAMAGE TO ANY STEEL OR CONCRETE NOT TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIRED AT NO EXTRA COST TO THE STATE. THE DISMANTLED MATERIAL IS TO BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE BY THE CONTRACTOR.

EXISTING REINFORCING BARS THAT ARE EXPOSED BY CONCRETE REMOVAL SHALL BE CLEANED AND CAREFULLY INCORPORATED INTO THE NEW WORK WHERE NOTED OR SHOWN. REINFORCING BARS WHICH ARE DAMAGED OR RENDERED UNSERVICEABLE BY REMOVAL OPERATIONS SHALL BE REPLACED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

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



DETAIL OF CONCRETE SEALER AREA

NOTE:
DO NOT APPLY SEALER TO NEW SECTION OF CONCRETE BARRIER (SEE DES. SHT. 3)

SPECIFICATIONS:

THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2001, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 2002,
CONCRETE IN ACCORDANCE WITH SECTION 8, $f'_c = 3,500$ PSI.
REINFORCING STEEL IN ACCORDANCE WITH SECTION 8, GRADE 60.

DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
196	ORIGINAL DESIGN
106	OVERLAY & REPAIR

LOCATION:

MAINT. NO. 4673.75169
ON US 169
OVER WEST FORK
DES MOINES RIVER
T-91N, R-29W
SECTION 1 & 2
CORINTH TOWNSHIP
HUMBOLDT COUNTY
FWHA # 28871

DESIGN FOR REPAIRS TO A 0° SKEW
333'-0 x 56'-0 PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE
110'-9 END SPANS
111'-6 CENTER SPAN

SITUATION PLAN & QUANTITIES

STA. 281+90.02
HUMBOLDT COUNTY
JULY, 2005

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 4 FILE NO. 30070 DESIGN NO. 106



THE CONTRACTOR IS ENCOURAGED TO TAKE FULL ADVANTAGE OF SPECIFICATION 1105.15 -- VALUE ENGINEERING INCENTIVE PROPOSAL. A PAMPHLET AND CONCEPTUAL PROPOSAL FORM WILL BE AVAILABLE AT THE PRECONSTRUCTION CONFERENCE.

NOTE:
ROADWAY QUANTITIES SHOWN ELSEWHERE IN THESE PLANS.

TRAFFIC CONTROL PLAN:
THE ROADWAY WILL BE OPEN TO THRU TRAFFIC. REFER TO THE TRAFFIC CONTROL PLAN SHOWN ELSEWHERE IN THESE PLANS.

DESIGN TEAM J.D.K. / J.J.P. / D.J.A.

HUMBOLDT COUNTY

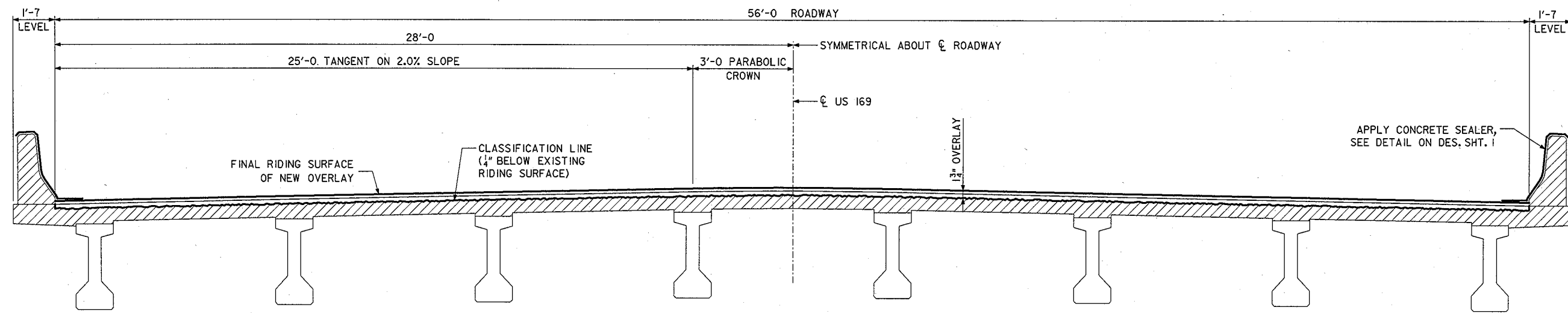
PROJECT NUMBER BRN-169-7(40)--39-46

SHEET NUMBER 2

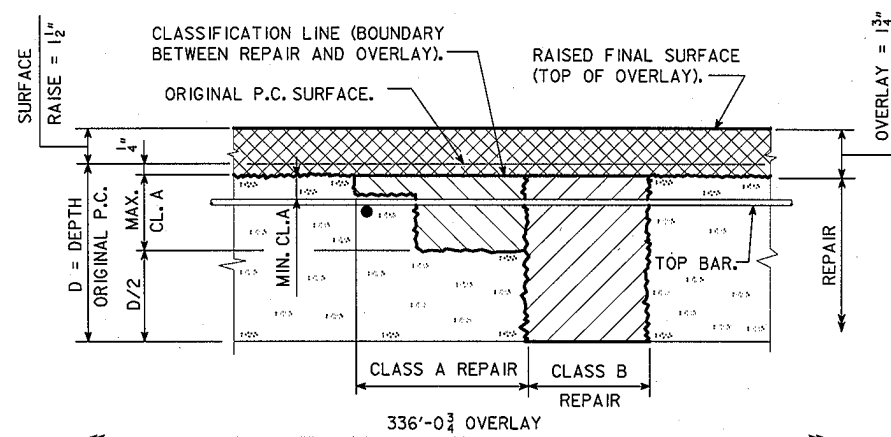
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4/10/2006

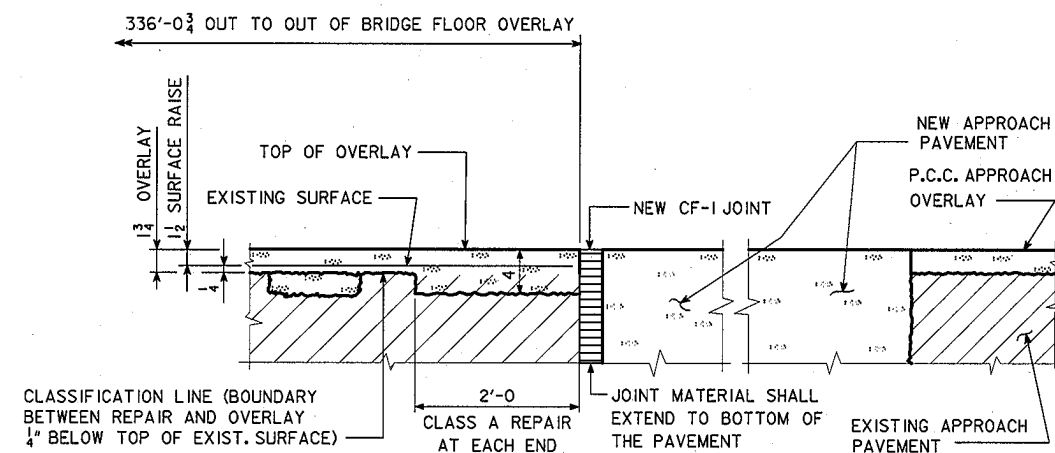
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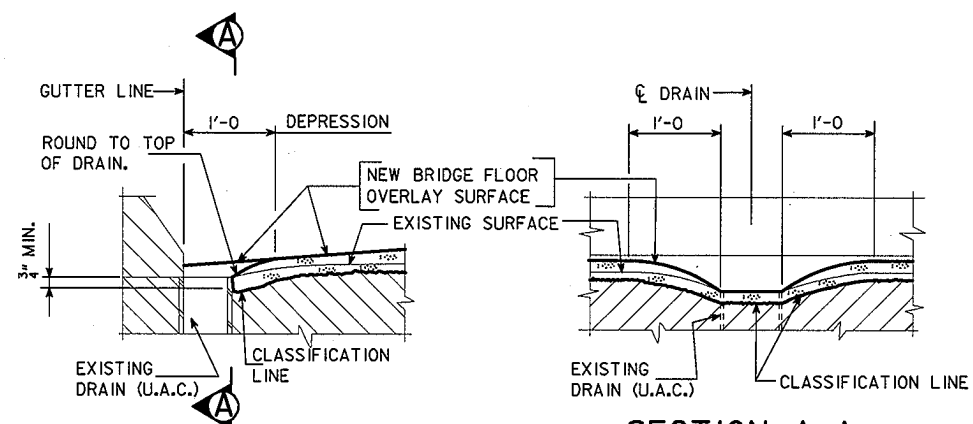
TYPICAL CROSS SECTION



REPAIR AND OVERLAY DEFINITION



PART LONGITUDINAL SECTION ALONG ROADWAY
(BOTH ABUTMENTS)



SECTION A-A
FLOOR REPAIR DETAIL AT DRAIN
(REQUIRED AT 14 LOCATIONS)

WHKS & co.
ENGINEERS PLANNERS LAND SURVEYORS
MASON CITY, IA DUBUQUE, IA AMES, IA ROCKFORD, MN

DESIGN TEAM J.D.K. / J.J.P. / D.J.A.

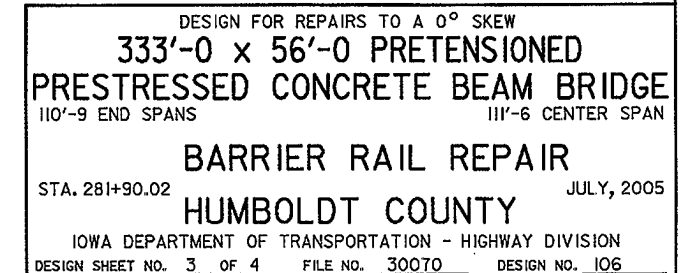
HUMBOLDT COUNTY

PROJECT NUMBER BRFN-169-7(40)--39-46

SHEET NUMBER 3

DESIGN FOR REPAIRS TO A 0° SKEW
**333'-0 x 56'-0 PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE**
110'-9 END SPANS 111'-6 CENTER SPAN
DECK REPAIR DETAILS
STA. 281+90.02 HUMBOLDT COUNTY JULY, 2005
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 2 OF 4 FILE NO. 30070 DESIGN NO. 106

XXXXXXXXXXSYSTEMTIME XXXXXXXXUSERNAME XXGNSPEC



100-0A
10-28-97

100-4A
10-29-02

DESIGN NO. 106
FILE NO. 30070

[illegible]

10-29-02 213-1

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. These areas shall not impact wetlands or "Waters Of The U.S." No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

01-20-84 221-4

In order to avoid any unnecessary surface breaks or premature spalling, the contractor is cautioned to exercise extreme care when performing any of the necessary saw cutting operations for the proposed pavement removal.

10-31-95 251-4

The centerline pavement marking shall always be placed on one side of the roadway except where a "No Passing Zone" line is used, at which point it is placed on the opposite side of the roadway. The centerline shall be placed on the same side of the roadway as to match existing markings near the project.

10-18-05 262-6
This project is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

SEED MIXTURE:	Seeding Rate: 4 lbs per 1000 sq. ft.	
	Bluegrass, KY	70%
	Fescue, Creeping Red	20%
	Ryegrass, Perennial (Fineleaf-Derby Manhattan or equivalent)	10%

FERTILIZER:
17 lbs. of 13-13-13 (or equivalent) chemically combined commercial fertilizer per 1000 sq. ft.

MULCH:
70 lbs. of dry cereal straw per 1000 sq. ft. All mulch to be consolidated into the soil with a mulch stabilizer.

The preparation of the seedbed, furnishing and application of seed, fertilizing, and mulching shall be considered incidental to work on this project and no extra compensation will be allowed.

01-20-84 232-5

The contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service area(s) will be subject to the approval of the resident engineer.

06-07-94 232-8
The top six (6) inches of the disturbed areas shall be free of rock and debris and shall be suitable for the establishment of vegetation, subject to the approval of the Engineer.

10-28-97 232-10
The contractor is expected to have materials, equipment, and labor available on a daily basis to install and maintain erosion control features on the project. This may involve seeding, silt fence, rock ditch checks, silt basins, or silt dikes.

06-22-84 251-2

The contractor is hereby notified that removal of any existing traffic markers, warning devices or guardrail barriers shall be scheduled subject to the approval of the Engineer. The contractor may be required to place temporary warning devices at certain locations where replacement features are not installed the same day during which any such removals take place.

04-18-06 223-26

Transverse grooving or tining in the plastic concrete of the bridge deck, bridge floor overlay, or bridge approach section will not be allowed. Longitudinal grooves shall be cut into the hardened concrete surfaces using a mechanical cutting device. Longitudinal grooving shall be done after any surface correction grinding is complete and before traffic is allowed on the surface except as noted for staged construction. Each groove shall be $1/8$ inch $\pm$ $1/64$ inch in width, $1/8$ inch $+1/32$ inch or $-1/16$ inch in depth, and the grooves shall be uniformly spaced at $3/4$ inch intervals measured from center of groove to center of groove. Longitudinal grooving shall terminate approximately 6 inches from any bridge joints or expansion joints. On the bridge deck and on curbed areas of the approach pavement, grooving shall terminate approximately 2 feet from the gutter line. On areas of the approach pavement without curbs, grooving shall terminate approximately 6 inches inside the edge of the traveled way.

The quantity of longitudinal grooving in concrete, in square yards, will be the quantity shown in the contract documents. The contractor will be paid the contract unit price for longitudinal grooving in concrete per square yard.

108-23
04-04-89

- 1 Traffic will be maintained on US 169 at all times.
- 2 Traffic control on this project shall be in accordance with Standard Road Plans and Detail Sheets contained in the plans. For additional complementary information, refer to Part 6 of the Manual on Uniform Traffic Control Devices and to the current Standard Specifications.
- 3 The contractor shall coordinate traffic control with other projects in the area.
- 4 All traffic control devices shall be furnished, erected, maintained, and removed by the contractor.
- 5 Where possible, all post-mounted signs shall be placed at least 2 feet beyond the curb or edge of shoulder.
- 6 The location for storage of equipment by the contractor during nonworking hours shall be as approved by the engineer in charge of construction.
- 7 The engineer may require modifications to the pavement marking details shown. Conflicting permanent edge lines, centerlines, or lane lines shall be removed. As applicable, permanent edge lines, centerlines, and lane lines shall be placed before the roadway is returned to normal traffic. The current Standard Specifications and Supplemental Specifications shall apply.
- 8 Proposed sign spacing may be modified as approved by the engineer to meet existing field conditions or to prevent obstruction of the motorist's view of permanent signing.
- 9 Permanent signing that conveys a message contrary to the message of the temporary signing and not applicable to the working conditions shall be covered by the contractor when directed by the engineer.
- 10 Proposed changes in the traffic control plan shall be approved by the Resident Construction Engineer before changes are made.
- 11 Contractor to maintain access to individual homes and businesses at all times.

108-26
08-30-88

Contractor shall stage construction to minimize inconvenience to traffic, maximize use and preservation of existing pavement, and improve coordination among projects within the corridor.

Situations may arise which preclude adhering to the original construction sequence or which, in the opinion of the Contractor, would readily lend themselves to more efficient staging operations. Should the Contractor desire to deviate from the original plan, an alternate plan shall be submitted to the Engineer for review and approval.

The Contractor will have the option of cutting longitudinal grooves in the hardened concrete at the end of each stage of construction or waiting until all stages have been completed. If the Contractor elects to delay cutting of the longitudinal grooves until completion of all stages, the concrete deck/overlay surface for any stage opened to traffic shall receive an interim broom finish during placement.

Within 30 calendar days following completion of the last stage of the project, the Contractor will be required to establish temporary road closures to accomplish longitudinal grooving for all stages. Cost of the temporary closures is to be included in the price bid for "Traffic Control". The interim coarse broom finish will not be allowed as a surface texture when opened to traffic over a winter season. If the interim coarse broom texture is present and the Contractor is not in a position to finish all of the stages of the project, longitudinal grooving will be cut into the hardened concrete in order to establish an acceptable driving surface texture for the winter season.

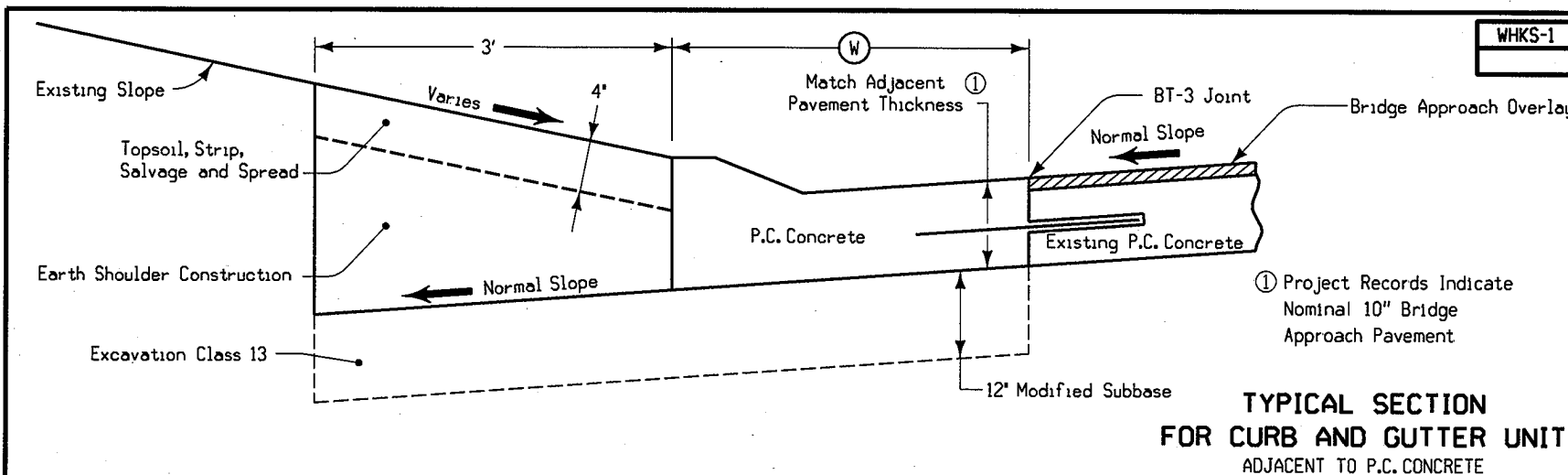
105-4
12-03-98

The following Standard Road Plans shall be considered applicable to construction work on this project.

NUMBER	DATE	NUMBER	DATE	NUMBER	DATE
RC-17	04-18-06	RH-50	04-19-05	RL-14A(1)	04-19-05
		RH-51	04-20-04	RL-14A(2)	10-18-05
RE-28	04-03-01	RH-52	10-18-05		
RE-12A	10-19-04			RS-26B	10-28-97
RE-12B	10-19-04	RK-17	10-02-01	RS-61	10-27-98
RE-12C	10-19-04			RS-62	01-12-99
RE-47	10-19-04				
RE-48A	10-19-04				
RE-64A	04-19-05				
RE-68	10-19-04				
RE-69C	04-19-05				
RE-71(1)	04-19-05				
RE-71(2)	04-19-05				
RE-72	10-18-05				
RE-76	04-19-05				

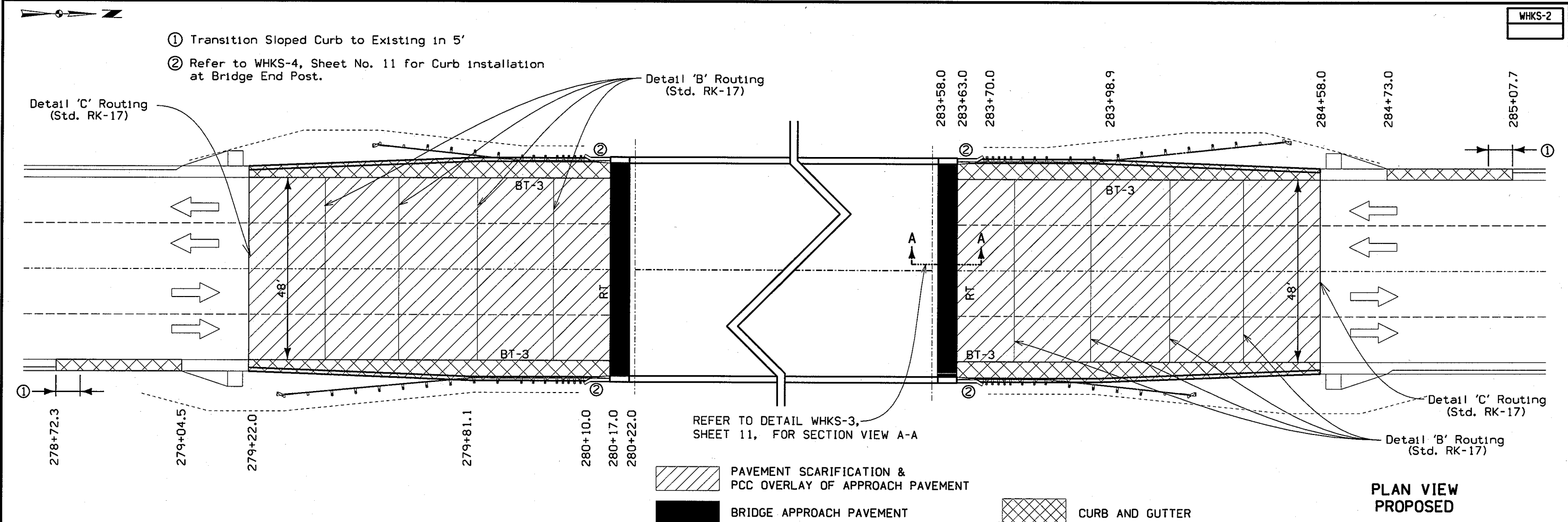
Where public utility fixtures are shown as existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the owners of those utilities prior to the beginning of any construction. The contractor shall afford access to these facilities for necessary modification of services. Underground facilities, structures and utilities have been plotted from available surveys and records, and therefore their locations must be considered approximate only. It is possible there may be others, the existence of which is presently not known or shown. It is the contractor's responsibility to determine their existence and exact location and to avoid damage thereto. No claims for additional compensation will be allowed to the contractor for any interference or delay caused by such work.

DESIGN NO. 106
FILE NO. 30070



STATION TO STATION	SIDE	W Feet	LENGTH Feet	EXCAV. CL. 13 CY	MODIFIED SUBBASE CY	EARTH SHOULDER CONSTRUCTION STA	TOPSOIL, STRIP & SPREAD CY	REMARKS
South Bridge Approach								
278+72.3	279+04.5	RT	3.0	32.2	7.2	7.2	0.32	1.7
279+22.0	279+81.1	LT	Trans.	59.1	15.8	15.8	0.59	3.1
279+22.0	279+81.1	RT	Trans.	59.1	15.8	15.8	0.59	3.1
279+81.1	280+10.0	LT	5.33	28.9	9.0	9.0	0.29	1.6
279+81.1	280+10.0	RT	5.33	28.9	9.0	9.0	0.29	1.6
280+10.0	280+17.0	LT	4.2	7.0	1.1	1.1	-	Adjacent to Endpost
280+10.0	280+17.0	RT	4.2	7.0	1.1	1.1	-	Adjacent to Endpost
North Bridge Approach								
283+63.0	283+70.0	LT	4.2	7.0	1.1	1.1	-	Adjacent to Endpost
283+63.0	283+70.0	RT	4.2	7.0	1.1	1.1	-	Adjacent to Endpost
283+70.0	283+98.9	LT	5.33	28.9	9.0	9.0	0.29	1.6
283+70.0	283+98.9	RT	5.33	28.9	9.0	9.0	0.29	1.6
283+98.9	284+58.0	LT	Trans.	59.1	15.8	15.8	0.59	3.1
283+98.9	284+58.0	RT	Trans.	59.1	15.8	15.8	0.59	3.1
284+73.0	285+07.7	LT	3.0	34.7	7.7	7.7	0.35	1.8

Quantity includes 40% shrinkage

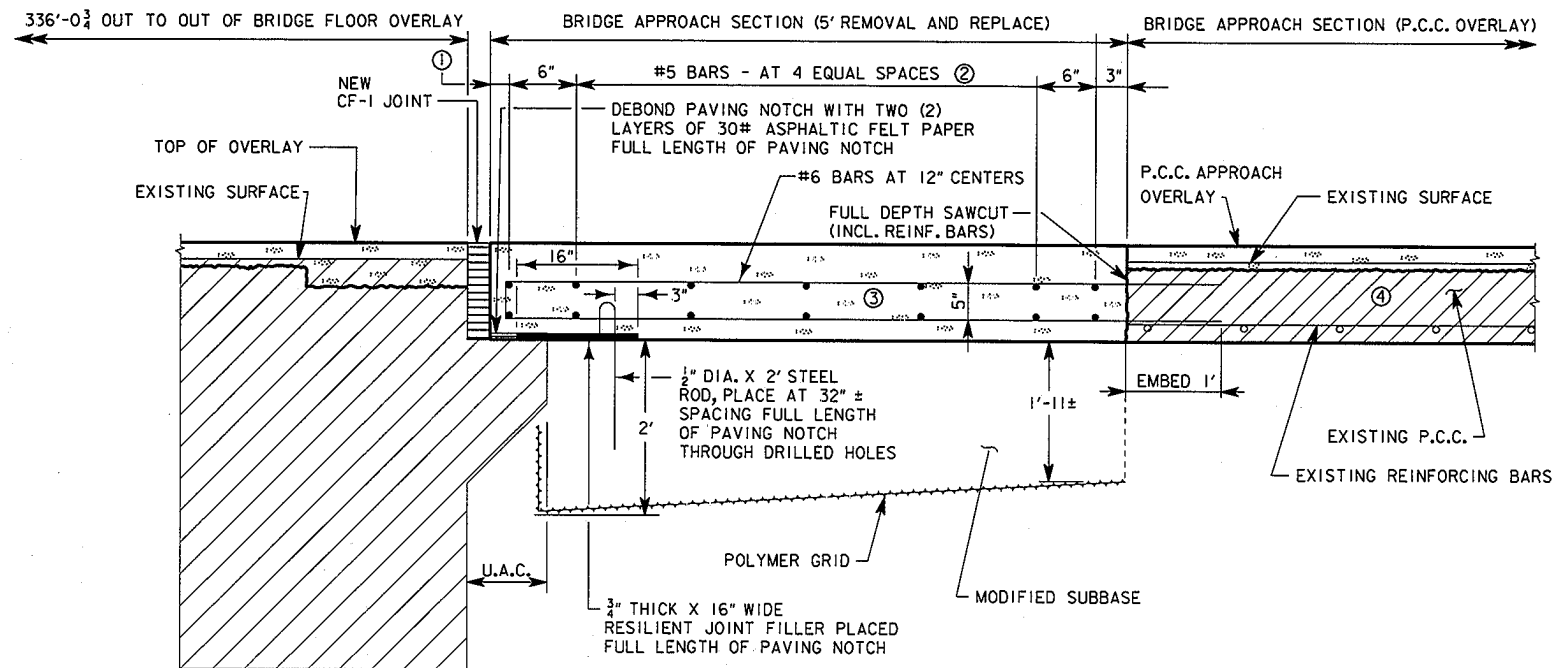


TABULATION OF BRIDGE APPROACH SECTION OVERLAY											
Refer to the RK-17 Standard Road Plan.											
Location		BAS PAVEMENT SCARIFICATION *				BRIDGE FLOOR REPAIR CLASS 'A'		BRIDGE FLOOR OVERLAY			Remarks
Bridge Station	End	Length	Depth	Non-Reinf. Pavement Area	Reinforced Pavement Area	Detail 'B' Routing Area	Detail 'C' Routing Area	Length	Non-Reinf. Pavement Area	Reinforced Pavement Area	
		Feet	Inches	Sq. Yds.	Sq. Yds.	Sq. Yds.	Sq. Yds.	Feet	Sq. Yds.	Sq. Yds.	
281+90.02	SOUTH	95	0.25	426.7	80	100	11.6	95	426.7	80.0	
281+90.02	NORTH	95	0.25	426.7	80	100	11.6	95	426.7	80.0	

DESIGN NO. 106
FILE NO. 30070

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WHKS-3

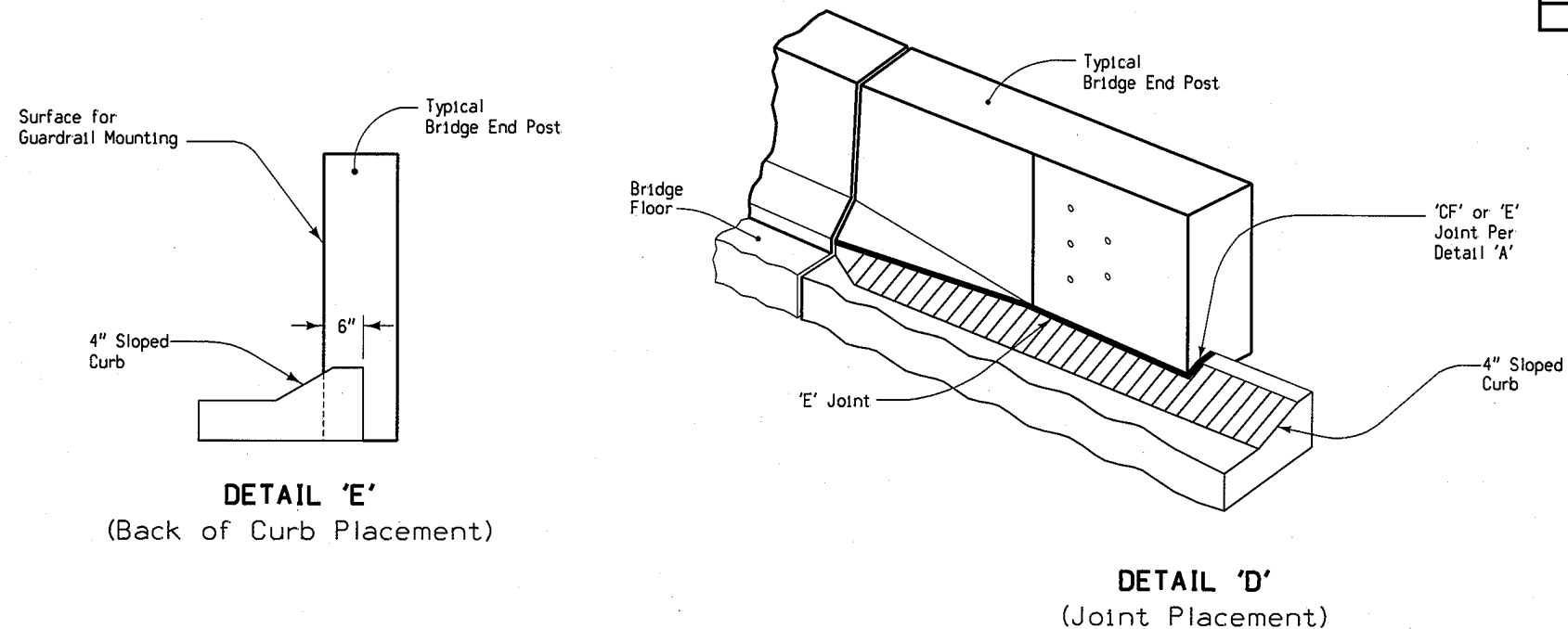


- NOTES:
- ① 2" MIN. TO 2 1/2" MAX. CLEAR TO BENT BAR.
 - ② ALL TRANSVERSE BARS ARE #5.
 - ③ PAVEMENT DEPTH = 11.5" NOMINAL
 - ④ EXISTING BRIDGE APPROACH PAVEMENT BASED ON RK-19A - RK-19D, DATED 1992

SECTION A-A, LONGITUDINAL SECTION ALONG BRIDGE APPROACH
(BOTH ABUTMENTS)

REFER TO DETAIL WHKS-2, SHEET 10, FOR LOCATION OF SECTION A-A

WHKS-4



DESIGN NO. 106
FILE NO. 30070

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04/11/2006 03:34:07 PM

DESIGN TEAM

WHKS & CO.

ENGLISH

IOWA DOT * OFFICE OF DESIGN

HUMBOLDT

COUNTY

PROJECT NUMBER

BRFN-169-7(40)--39-46

SHEET NUMBER

11

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