

STATE OF IOWA
STATE HIGHWAY COMMISSION
BRIDGES
ON THE
FARM TO MARKET SYSTEM
CRAWFORD COUNTY

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	SN-827(II)-51-24	1970	1	3

PROJECT NO. SN-827(II) -- 51-24

Design For 100' x 28' Continuous Concrete Slab Bridge
Design For 125' x 28' Continuous Concrete Slab Bridge (15° Skew)

THE IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR CONSTRUCTION WORK, SERIES OF 1964, SHALL APPLY TO WORK ON THIS PROJECT, PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

INDEX OF SHEETS

SHEET NO.	ITEM
1	Title Sheet and Estimate of Quantities
2	Details (Design 970)
3	Details (Design 1070)

MILEAGE SUMMARY

Sta 234+55.0 = 101'-8" = 0.01926 miles
Sta 310+54.0 = 126'-8 3/4" = 0.02400 miles
Total Net Mileage 0.04326 miles

Project No. SN-827(II) -- 51-24		Sta. 234+55.0	
Sec. 11-14		Stockholm Township	
Design No. 970			
100' x 28' Continuous Concrete Slab Bridge			
Estimate of Quantities			
Item	Abutments	Superstructure	Totals
*Structural Concrete	36.2 C.Y.	166.5 C.Y.	202.7 C.Y.
Reinforcing Steel	2,706 Lbs.	38,214 Lbs.	40,920 Lbs.
Handrail, Aluminum		2,047 L.F.	2,047 L.F.
Crested Piles 20 @ 50'	1,000 L.F.		1,000 L.F.
Steel H Pile Furnish 14 @ 50'		700 L.F.	700 L.F.
Type II Drive 14 @ 50'		700 L.F.	700 L.F.
108 P 42 Encase 14 @ 25'		350 L.F.	350 L.F.
Excav. Class 10 Channel			768 C.Y.
Excav. Class 20	55 C.Y.		55 C.Y.
Removal of Existing Structure			Cump Sum

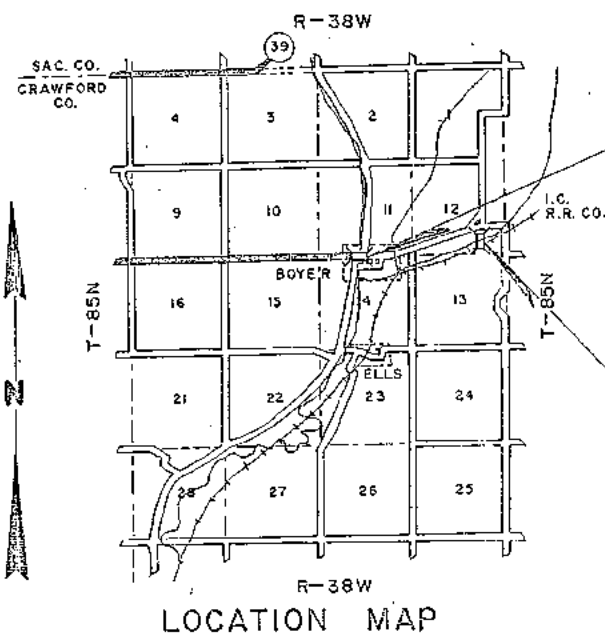
*The Floor and Curbs (166.5 c.y.) plus the wing Posts (0.8 c.y.) are to be Class "D" Concrete.
The Remainder (35.4 c.y.) is to be Class "C" Concrete.

Project No. SN-827(II) -- 51-24		Sta. 310+54.0	
Sec. 12		Stockholm Township	
Design No. 1070			
125' x 28' Continuous Concrete Slab Bridge (15° Skew)			
Estimate of Quantities			
Item	Abutments	Superstructure	Totals
*Structural Concrete	37.8 C.Y.	252.1 C.Y.	289.9 C.Y.
Reinforcing Steel	2,764 Lbs.	57,547 Lbs.	60,311 Lbs.
Handrail, Aluminum		2,547 L.F.	2,547 L.F.
Crested Piles 20 @ 50'	1,000 L.F.		1,000 L.F.
Steel H Pile Furnish 16 @ 50'		800 L.F.	800 L.F.
Type II Drive 16 @ 50'		800 L.F.	800 L.F.
108 P 42 Encase 16 @ 25'		400 L.F.	400 L.F.
Excav. Class 10 Channel			1,923 C.Y.
Excav. Class 20	90 C.Y.		90 C.Y.

*The Floor and Curbs (252.1 c.y.) plus the wing Posts (0.8 c.y.) are to be Class "D" Concrete.
The Remainder (37.0 c.y.) is to be Class "C" Concrete.

Iowa State Highway Commission Standards Required May Be Obtained @ Storeroom		
Standard	Date Issued	Latest Revision
J8-1 and 2	July 1960	5-7-68
J8-4	July 1960	5-7-68
J8-6	July 1960	5-7-68
P10A	June 1959	6-4-69

INRC No. 70-39 (3-10-70)



130140
STA. 234+55.0 @ 100' x 28' CONTINUOUS CONCRETE SLAB BRIDGE
DESIGN NO. 970

130115
STA. 310+54.0 @ 125' x 28' CONTINUOUS CONCRETE SLAB BRIDGE
DESIGN NO. 1070

I HEREBY CERTIFY THESE PLANS WERE PREPARED UNDER MY SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

H. Dale Wright
REG. NO. 5798

DATE Feb 9, 1970

APPROVED	DATE
H. Dale Wright	April 23, 1970
COUNTY ENGINEER	
CHAIRMAN	
BOARD OF SUPERVISORS	

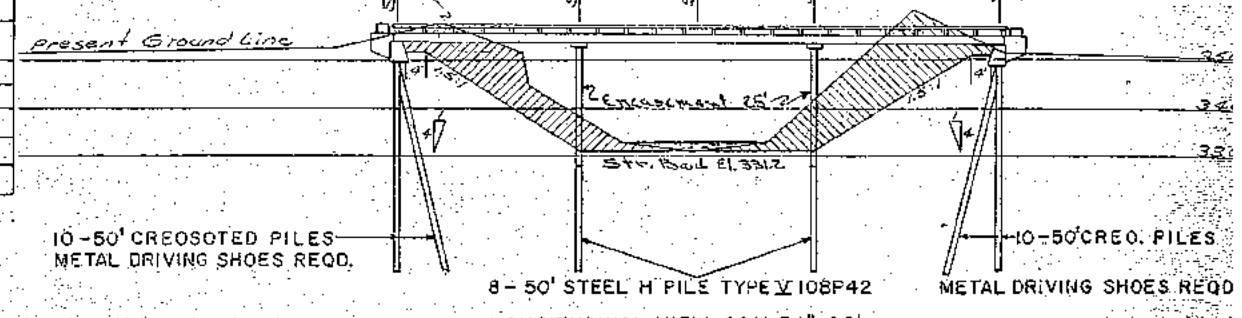
APPROVED	DATE
DEPUTY CHIEF ENGINEER	
IOWA HIGHWAY COMMISSION	
DEPARTMENT OF TRANSPORTATION	
BUREAU OF PUBLIC ROADS	
APPROVED	DATE
DIVISION ENGINEER	

CRAWFORD COUNTY ~ Proj. No. SN-827(II) -- 51-24 ~ Bridges ~ Letting Date: May 26, 1970 / 30/15

T-85N R-38W
IN SEC. 12

NOTE:
EXCAVATE CHANNEL AS SHOWN
IN SHADED AREA.
D.A. = 222 SQ. MILES
H = 22
BEARING REQUIRED
WOOD - 19 TON, NOT TO EXCEED 40
STEEL H PILE 36 TON

ITEM	ABUTMENTS	SUPERSTRUCTURE	TOTALS
*STRUCTURAL CONCRETE	37.8 C.Y.	252.1 C.Y.	289.9 C.Y.
REINFORCING STEEL	2,764 LBS.	57,547 LBS.	60,311 LBS.
HANDRAIL ALUMINUM		254.7 LIN. FT.	254.7 LIN. FT.
CREOSOTED PILES 20 @ 50'	1,000 LIN. FT.		1,000 LIN. FT.
STEEL H PILE FURNISH 16 @ 50'		800 LIN. FT.	800 LIN. FT.
TYPE V DRIVE 16 @ 50'		800 LIN. FT.	800 LIN. FT.
108P42 ENCASE 16 @ 25'		400 LIN. FT.	400 LIN. FT.
EXCAV. CLASS 10 CHANNEL			1,925 C.Y.
EXCAV. CLASS 20	90 C.Y.		90 C.Y.

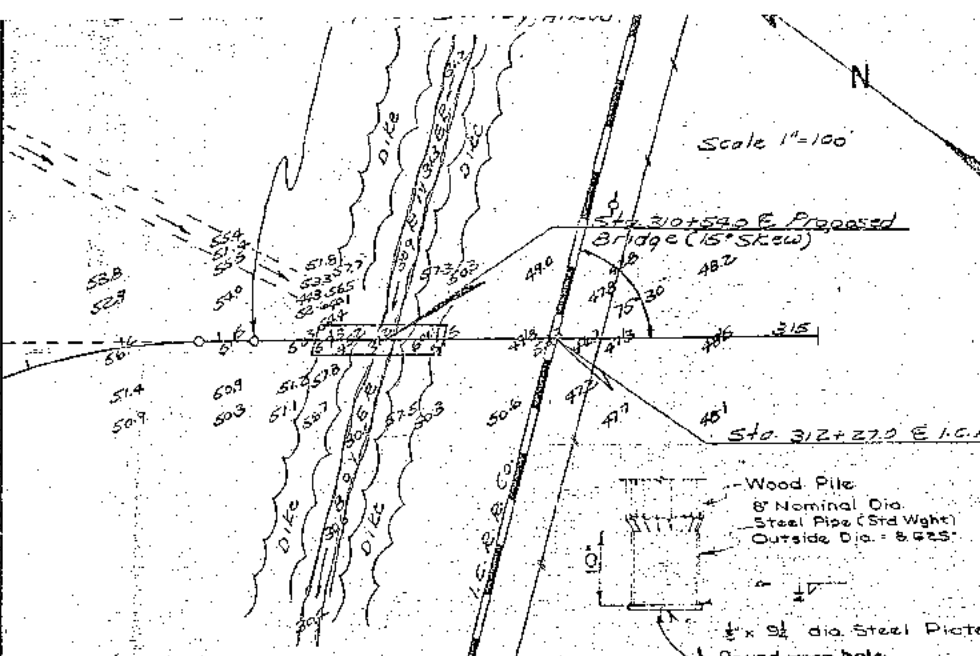


* THE FLOOR AND CURBS (252.1 C.Y.) PLUS THE WING POSTS (0.8 C.Y.) ARE TO BE CLASS "D" CONCRETE.
THE REMAINDER (37.0 C.Y.) IS TO BE CLASS "C" CONCRETE.

The Present 75' X 20' Pony Truss With 20' X 20' I Beam Approach 900' Upstream From Proposed Bridge To Be Removed By Others.

This Bridge Designed 0'-7" Higher Than Grade To Meet Future Paving, Monolithic Pier Caps.

BOTTOM DECK	ELEV. + 354.10	BOTTOM DECK	ELEV. + 353.00
TOP ABUTMENT	ELEV. + 354.07	TOP ABUTMENT	ELEV. + 352.97
ABUT. PILING CUT OFF	ELEV. + 352.07	ABUT. PILING CUT OFF	ELEV. + 350.97
BOTTOM ABUTMENT	ELEV. + 350.07	BOTTOM ABUTMENT	ELEV. + 348.97
NORTH PIER PILING CUT OFF	ELEV. + 353.77	SOUTH PIER PILING CUT OFF	ELEV. + 353.34
BERM	ELEV. + 352.00	BERM	ELEV. + 351.00
BOTTOM ENCASEMENT NORTH PIER	ELEV. + 327.98	BOTTOM ENCASEMENT SOUTH PIER	ELEV. + 327.55



Hydraulic Data

$V = \frac{1.486}{n} R^{2/3} S^{1/2}$
 $= \frac{1.486}{0.32} = 46.44$
 $R^{2/3} = \frac{1028}{875} = 11.75^{2/3} = 5.15$
 $S^{1/2} = .0012^{1/2} = .0348$
 $V = (46.44)(5.15)(.0348) = 8.323$
 $Q = VA$
 $Q = (8.323)(1551.5) = 12,913 \text{ cfs}$
 Design $Q = 12,527 \text{ cfs}$

METAL DRIVING SHOE

NOTE: Metal driving shoes are to be provided for wood pile. Unit price bid per lin. foot for the pile to include cost of all labor and material for metal driving shoe.

F-7680
NORTH ABUTMENT
SURFACE ELEV. + 352.00

18'	STIFF TO FIRM SILTY CLAY
10'	STIFF SILTY SANDY CLAY
16.5'	SAND WITH OCC. CLAY LAYER
10'	GRAVEL OCC. BOULDER
2.5'	BOULDERS
9'	VERY FIRM SANDY GLACIAL CLAY OCC. BOULDER

STA. 309 + 99

F-7681
SOUTH ABUTMENT
SURFACE ELEV. + 351.50

20'	STIFF TO FIRM SILTY CLAY
6'	STIFF SILTY SANDY CLAY
20'	SAND WITH OCC. CLAY LAYER
12.5'	GRAVEL OCC. BOULDER
2.5'	BOULDERS
5'	VERY FIRM SANDY GLACIAL CLAY OCC. BOULDER

STA. 311 + 09

General Notes:

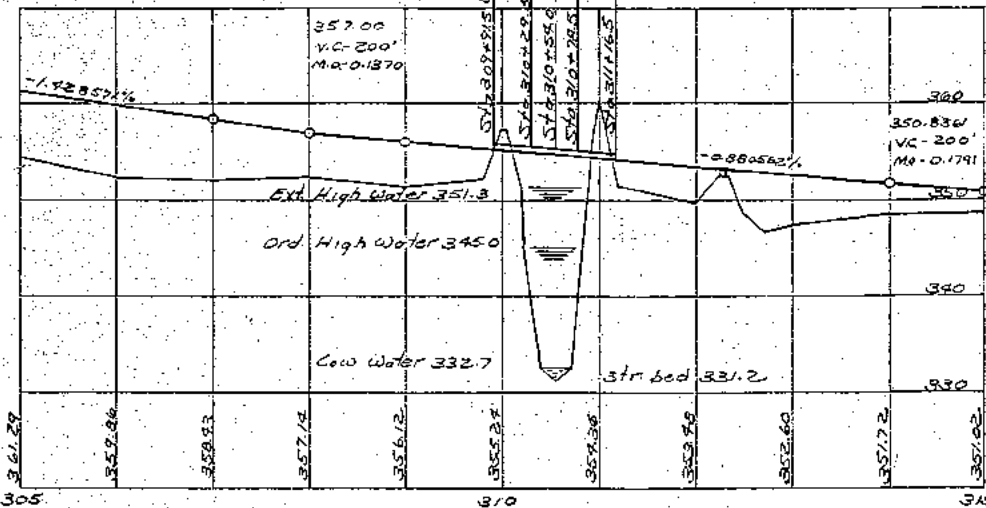
All Reinforcing Bars Shall Be Securely Wired In Place And Adequately Supported On Bar Chairs Before Concrete Is Placed.

Iowa State Highway Commission Standard Specifications Series of 1964 With Current Special Provisions And Supplemental Specifications Shall Apply.

Bridge Sign Assembly Note:

This Bridge Will Require Bridge Sign Assemblies (Furnished And Placed By Others) In Accordance With Section 2c-5 of I.S.H.C. "Manual On Uniform Traffic Control Devices" Dated January 1963.

General Notes:
Iowa State Highway Comm. Standard Design J8-12 (Revised 5-7-68), J8-4 Revised 5-7-68 and J8-6 (Revised 5-7-68) Standard P10A (Revised 6-4-69) shall Apply To This Bridge.



LOCATION
IN SEC. 12 STOCKHOLM TWP.
OVER BOYER RIVER

DESIGN FOR (15° SKEW)
125' X 28' CONTINUOUS CONCRETE SLAB BRIDGE
ALUMINUM HANDRAILS
STUB ABUTMENTS & CONCRETE PILE BENTS
STA. 310 + 54.0 PROJ. NO. SN-827(II) -- 51-24
CRAWFORD COUNTY, IOWA

130115

BRIDGE DECK OVERLAY

CRAWFORD COUNTY

LETTING DATE
01-19-05

BHS-C024(61)--63-24

TRAFFIC CONTROL PLAN

THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT STANDARD SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 781 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.

DRAWING APPROVAL

ALL SHOP DRAWINGS THAT REQUIRE APPROVAL SHALL BE APPROVED BY SUNDQUIST ENGINEERING, P.C.

ADDRESS: 120 SOUTH MAIN, P.O. BOX 220 DENISON, IOWA 51442-0220
TELEPHONE: (712)263-8115

THESE SHOP DRAWINGS SHALL NOT BE SENT TO IOWA D.O.T. OFFICE OF BRIDGE DESIGN.



Iowa Department of Transportation Highway Division

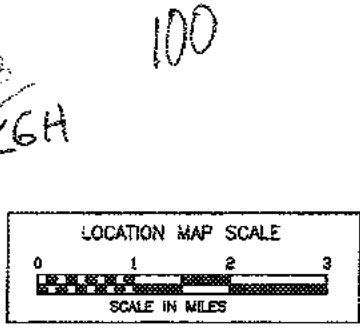
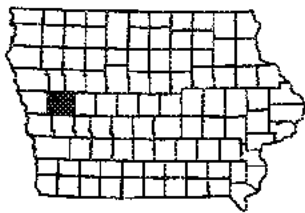
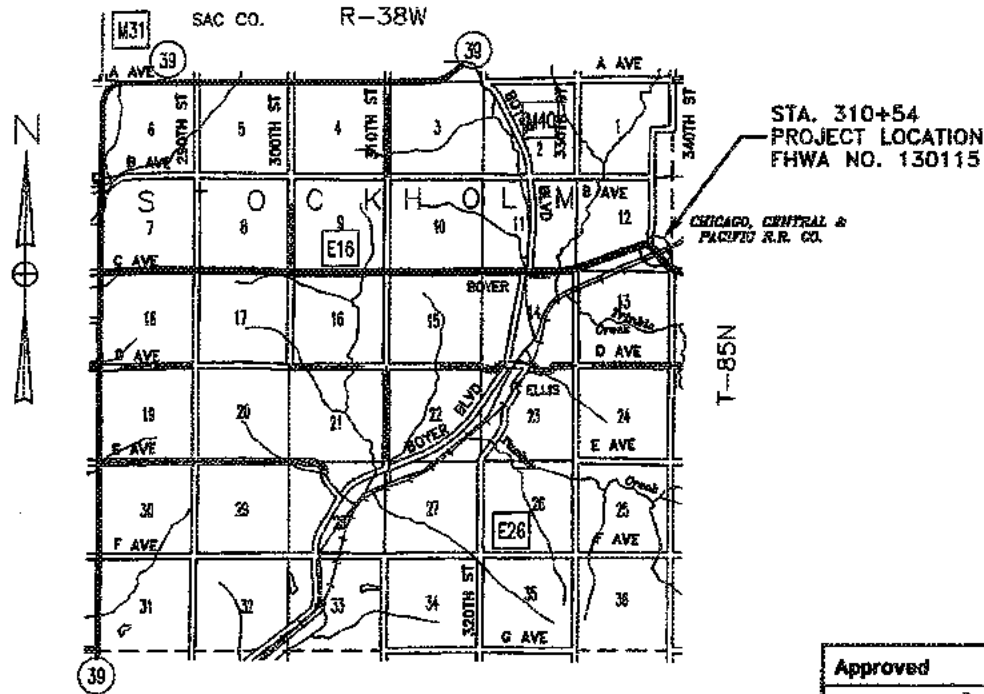
PLANS OF PROPOSED IMPROVEMENTS ON THE

FARM-TO-MARKET SYSTEM CRAWFORD COUNTY

PROJECT NO. BHS-C024(61)--63-24 BRIDGE DECK OVERLAY ON COUNTY HIGHWAY E-16 OVER BOYER RIVER

SCALES: AS NOTED

The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, Series 2001, plus the applicable General Supplemental Specifications, Developmental Specifications, Supplemental Specifications and Special Provisions, shall apply to construction work on this project.



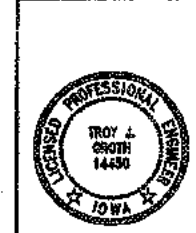
SUNDQUIST ENGINEERING, P.C.
CONSULTING ENGINEERS
HIGHWAYS • MUNICIPAL • MAPPING • SURVEYING
120 S. MAIN, P.O. BOX 220, DENISON, IOWA 51442-0220
PHONE: (712)263-8115 FAX: (712)263-2181

Approved
Mark England
Steve Homan
G. Dean Hargis
Robert Johnson
John P. Lawler
BOARD OF SUPERVISORS

Approved
[Signature]
CRAWFORD COUNTY ENGINEER
DATE 10/19/04

Iowa Department of Transportation
Highway Division
Accepted for Letting
[Signature] 10/29/04
DISTRICT 3 LOCAL SYSTEMS ENGINEER DATE

04-30-02	101-4
DESIGN DATA RURAL	
2000 AADT	390 V.P.D.
2020 AADT	X V.P.D.
201X DHV	X V.P.H.
TRUCKS	X %
TOTAL DESIGN ESALs	



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.
[Signature] 10/19/04
TROY J. GROTH, P.E. #14450 DATE
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2005.
PAGES OR SHEETS COVERED BY THIS SEAL:
ALL SHEETS

TOTAL SHEETS	5
PROJECT NUMBER	BHS-C024(61)--63-24
R.O.W. PROJECT NUMBER	
PROJECT IDENTIFICATION NUMBER	

INDEX OF SHEETS	
NO.	DESCRIPTION
A1	TITLE SHEET
B1	ESTIMATE SHEET, GENERAL NOTES AND ESTIMATE REFERENCE INFORMATION
C1-2	TABULATIONS, TYPICALS
V1	BRIDGE SITUATION PLAN

MILEAGE SUMMARY		
LOCATION	LIN. FT.	MILES
BRIDGE AT STA. 310+54	126.73	0.024

STANDARD ROAD PLANS					
The following Standard Road Plans shall be considered applicable to construction work on this project.					
NUMBER	DATE	NUMBER	DATE	NUMBER	DATE
RE-2B	04-03-01	RE-27B	10-19-04	RE-68	10-19-04
RE-7	04-15-03	RE-47	10-19-04	RE-76	10-21-03
RE-12A	10-19-04	RE-48A	10-19-04	RG-6	10-02-01
RE-12B	10-19-04	RE-64B	10-19-04	RS-27	10-28-97
RE-12C	10-19-04				

GENERAL NOTES

THIS DESIGN IS FOR REPAIRS TO THE EXISTING 125'-0" X 28' CONTINUOUS CONCRETE SLAB BRIDGE ON COUNTY HIGHWAY E-16 OVER BOYER RIVER. COPIES OF THE ORIGINAL DESIGN AND REPAIR PLANS WILL BE MADE AVAILABLE TO THE CONTRACTOR. CONTACT THE OFFICE OF CONTRACTS - PROJECT DEVELOPMENT DIVISION - IOWA D.O.T. - AMES.

REPAIR SHALL CONSIST OF:

1. BRIDGE FLOOR REPAIR, CLASS "A"
2. BRIDGE FLOOR OVERLAY
3. INSTALLATION OF HMA LEVELING COURSES AT EACH APPROACH
4. INSTALLATION OF GUARDRAIL AT WEST APPROACH

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.

BRIDGE FLOOR OVERLAY SHALL CONSIST OF REMOVING THE FLOOR CONCRETE TO A DEPTH OF 1/4" BELOW THE EXISTING SURFACE, EXCEPT AT DRAINS AND ELSEWHERE AS NOTED. TRANSPORTING THE CONCRETE REMOVED FROM THE PROJECT, AND OVERLAYING WITH 1 3/4" OF PCC.

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

CONTRACTOR SHALL NOTIFY ONE-CALL (1-800-292-8989) FOR UTILITY LOCATES PRIOR TO COMMENCING WORK.

PRESENT FLOOR THICKNESS IS ABOUT 18 5/8 INCHES. THE CONTRACTOR SHALL EXERCISE CARE IN ORDER TO PREVENT UNNECESSARY REMOVAL OF CONCRETE BELOW THE TOP OF THE TOP LAYER OF REINFORCING. THE ENERGY OF HAND TOOLS SHALL BE RESTRICTED NEAR THE BOTTOM OF THE DESIGNATED CLASS A REPAIR AREAS IN ORDER TO PREVENT UNBONDING OF REINFORCING. NO CONCRETE SHALL BE REMOVED BELOW THE TOP OF THE TOP LONGITUDINAL REINFORCING WITHOUT PRIOR PERMISSION FROM THE COUNTY ENGINEER.

SURFACE RAISE, AS SHOWN ON THE PLANS, SHALL BE A MINIMUM. IN ORDER TO LIMIT THE ADDITIONAL DEAD LOAD SURFACE RAISE SHALL BE RESTRICTED TO A MAXIMUM OF 1/4" MORE THAN SHOWN ON THE PLANS. PROFILE MAY BE ADJUSTED TO THE EXTENT POSSIBLE WITHIN THESE LIMITS.

PLAN QUANTITY OF FLOOR REPAIR IS BASED ON THE "PLOT OF BRIDGE DECK DELAMINATIONS" AS SHOWN IN THESE PLANS. ACTUAL SPALLED AND HOLLOW AREAS, AS DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION SHALL BE REPAIRED.

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.

213-7

UNLESS OTHERWISE DIRECTED OR AUTHORIZED, ALL HOT MIX ASPHALT AND OTHER BITUMINOUS MATERIALS WHICH ARE NOT SPECIFICALLY ADDRESSED OR DESCRIBED IN THE CONTRACT DOCUMENTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

THE CONTRACTOR, IN ACCORDANCE WITH CURRENT RULES AND REGULATIONS OF THE IOWA DEPARTMENT OF NATURAL RESOURCES, MAY:

1. WITH THE APPROVAL OF THE ENGINEER, BLEND OR OTHERWISE PROCESS THE MATERIAL FOR USE WITH SHOULDER OR SPECIAL BACKFILL AGGREGATE, FOR USE ON THE PROJECT.
2. WITH THE APPROVAL OF THE ENGINEER, PLACE WITH MATERIAL IN AREAS DESIGNATED BY THE ENGINEER AS SOIL AGGREGATE SUBBASE WITHOUT EXTRA CHARGE.
3. REMOVE THE MATERIAL FROM THE PROJECT AND STOCKPILE FOR THE CONTRACTOR'S FUTURE USE.

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 COUNTY ENGINEER.

ESTIMATE REFERENCE INFORMATION

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

2303-0000100 HOT MIX ASPHALT MIXTURE, COMMERCIAL MIX (INCLUDES ASPHALT BINDER), AS PER PLAN

CONTRACTOR SHALL PLACE TYPICAL ASPHALT LEVELING COURSES AT BRIDGE APPROACH SECTIONS AS NOTED AND SHOWN ON STANDARD ROAD PLAN RG-8. SHOULDER MATERIAL FOR AREAS AFFECTED BY LEVELING COURSES WILL BE PROVIDED AND PLACED BY COUNTY.

2413-0698071 BRIDGE FLOOR OVERLAY INCLUDES COST OF FURNISHING AND PLACING CONCRETE SEALER.

2413-0698072 BRIDGE FLOOR REPAIR, CLASS A CONCRETE SHALL BE PLACED MONOLITHICALLY WITH CONCRETE FOR BRIDGE FLOOR OVERLAY.

CARE SHALL BE EXERCISED TO PREVENT DAMAGING EXISTING REINFORCING STEEL DURING CONCRETE REMOVAL AND ALL OTHER OPERATIONS. CARE SHALL ALSO BE EXERCISED DURING ANY SAW CUTTING TO ENSURE DEPTH OF SAW CUT DOES NOT EXCEED THAT WHICH IS NECESSARY TO REMOVE UNSOUND CONCRETE.

2505-4008200 INSTALLATION OF GUARDRAIL REFER TO TABULATION ON DRAWING SHEET C2.

ESTIMATED PROJECT QUANTITIES

100-1A

07-15-97

ITEM NUMBER	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUAN.
1	2303-0000100	HOT MIX ASPHALT MIXTURE, COMMERCIAL MIX (INCLUDES ASPHALT BINDER), AS PER PLAN	TON	15.4	
2	2413-0698071	BRIDGE FLOOR OVERLAY	SY	394.27	
3	2413-0698072	BRIDGE FLOOR REPAIR, CLASS A	SY	30.86	
4	2505-4008200	INSTALLATION OF GUARDRAIL	LF	187.5	
5	2505-4021272	GUARDRAIL END ANCHORAGE, BEAM, RE-27E	EACH	2	
6	2505-4021762	GUARDRAIL TERMINAL, BEAM, FLARED, RE-76	EACH	2	
7	2518-8910000	SAFETY CLOSURE	EACH	2	
8	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	11.07	
9	2528-8445110	TRAFFIC CONTROL	LS	1	
10	2533-4980005	MOBILIZATION	LS	1	

ESTIMATED PROJECT QUANTITIES AND GENERAL INFORMATION
FHWA NO. 130115

REV:

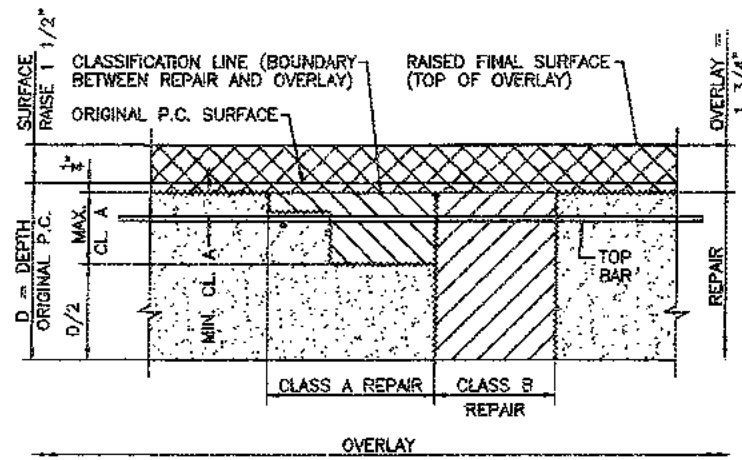
SUNDQUIST ENGINEERING, P.C.
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HIGHWAYS • MUNICIPAL • MAPPING • SURVEYING
120 S. MAIN, P.O. BOX 220, DENISON, IOWA 51442
PHONE: (712)263-8118 FAX: (712)263-2181

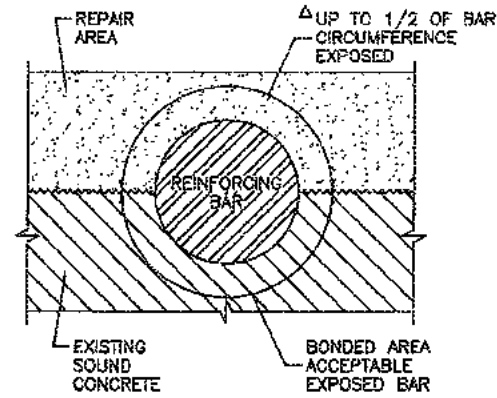
SE PROJECT NO.: 04404D DATE: 08/04 DRAWN BY: TKK REVIEWED BY: SAS APPROVED BY: T.JG

DESIGN NO. . FILE NO. . CRAWFORD COUNTY PROJECT NO. BHS-C024(61)-63-24

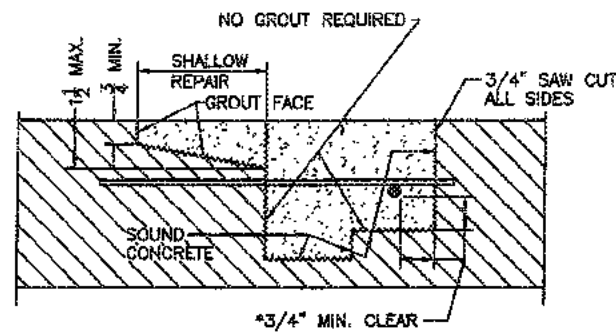
SHEET BI



REPAIR AND OVERLAY DEFINITION

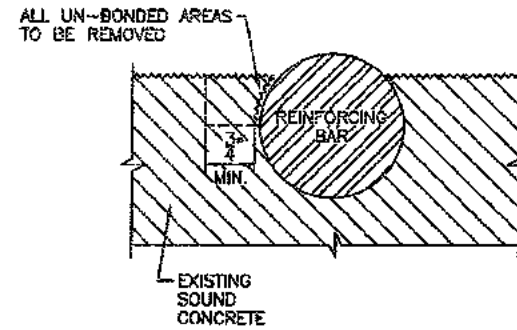


IF MORE THAN 1/2 OF THE REBAR IS EXPOSED IT SHALL BE TREATED AS AN UN-BONDED REBAR.



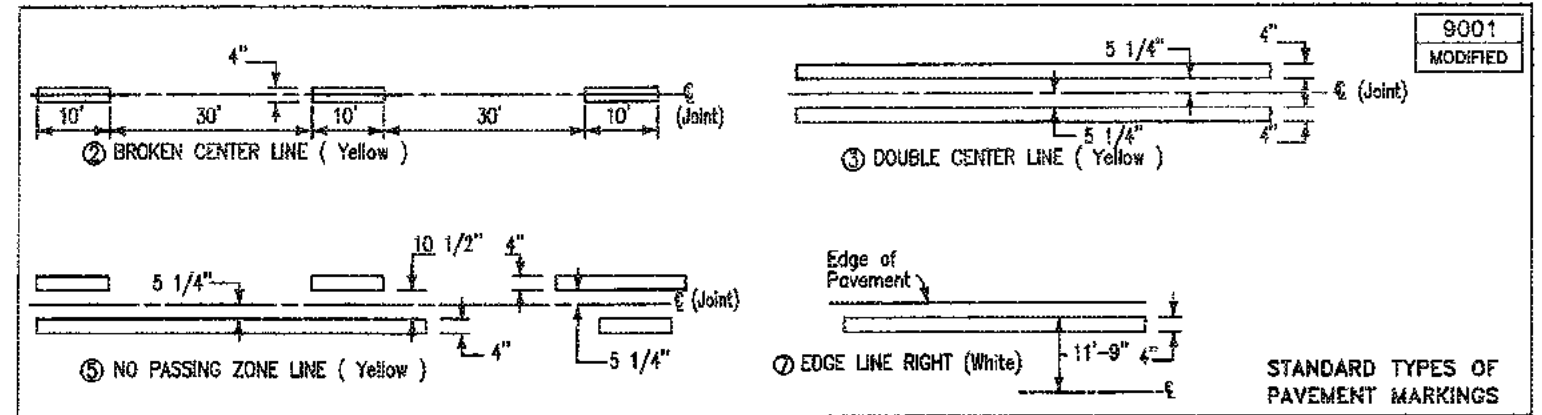
REPAIR DEFINITION

*INDICATES CLEARANCE FOR AN UN-BONDED REBAR



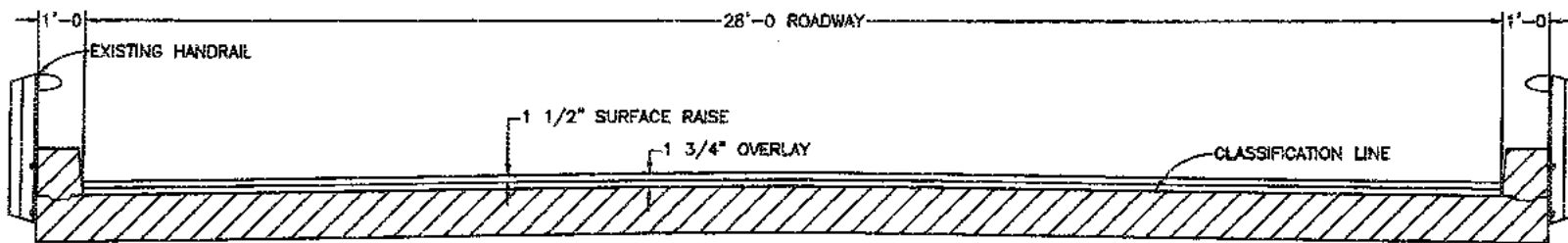
CONCRETE REMOVAL ADJACENT TO REINFORCING

TABULATION OF PAVEMENT MARKINGS							108-22 MODIFIED
② Broken Center Line (Yellow) ③ Double Center Line (Yellow) ⑤ No-Passing Zone Line (Yellow) ⑦ Edge Line Right (White)							
ROAD IDENTIFICATION	LOCATION		LENGTH (In Stations)				REMARKS
	STATION TO STATION	SIDE L R	②	③	⑤	⑦	
	309+15.64 - 311+92.36			2.767		5.534	
	LENGTH SUBTOTALS			2.767		5.534	
	QUANTITY FACTORS			.25	2	1	
	TOTALS			5.534		5.534	



TABULATION OF RESURFACING RUNOUTS					106-3 10-28-02	
MILEPOST		LOCATION		TYPE	LENGTH (Lin. Ft.)	REMARKS
From	To	From	To			
		309+15.84	309+90.84		75	
		311+17.36	311+92.36		75	

TABULATION OF SAFETY CLOSURES				108-13A 10-28-97
Refer to Section 2516 of the St'd. Specifications				
STATION	CLOSURE TYPE		REMARKS	
	Road Qty.	Hazard Qty.		
308+60	1	-	WEST END	
312+50	1	-	EAST END	



TYPICAL CROSS SECTION

TABLATIONS, TYPICALS
FHWA NO. 130115

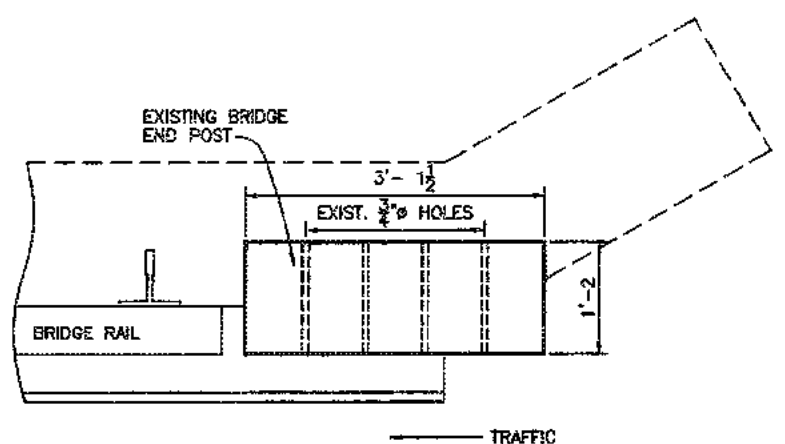
TABULATION OF STEEL BEAM GUARDRAIL AT BRIDGE END POST, CONCRETE BARRIER AND RAILROAD SIGNALS

108-8A
MODIFIED

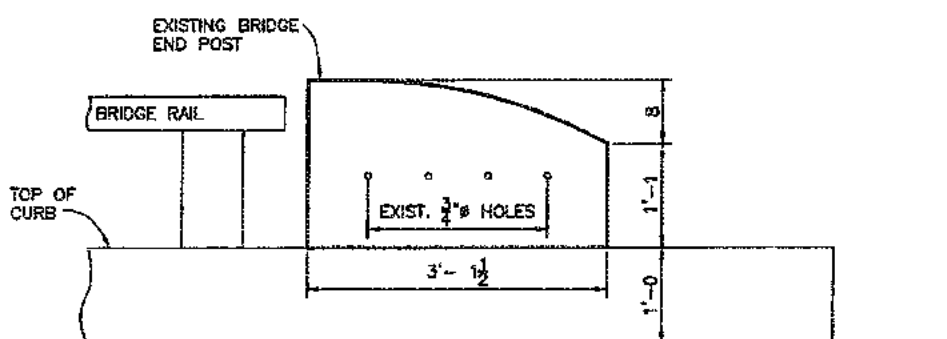
Refer to Standard Road Plans RE-48A-B, RE-63, RE-64A(1), RE-64A(2) and RE-65B

NO.	LOCATION			STANDARD ROAD PLAN	LAYOUT LENGTHS										MATERIALS REQUIRED					DELINEATORS AND OBJECT MARKERS				BID ITEMS					REMARKS
	DIRECTION OF TRAFFIC	END	SIDE		STATION	L2	STS (18.75')	VT1	VF	VT2	ET (37.5')	STS		W' BEAM (VT1+VF+VT2+ET)	Posts 6"x 8"x 7' with 6"x8" Spacer Blocks (6 or 7)	Posts 6"x 8"x 6' with 6"x8" Spacer Blocks	CRT Posts 6"x 8"x 6' with 6"x8" Spacer Blocks (5)	Delineator	Object Marker			Installation of Guardrail (STS+VT1+VF+VT2+ET)	Anchorage and Terminal Systems						
												Thrie Beam (25.0')	Transition Section (6.25')						Type	Single White 0-1W	Type 2 OM2-3W		Type 3 OM-3L OM-3R		RE-27B	RE-69A	RE-69B	RE-69C		RE-76
1	EB	A	-	310+54	RE-64B	-	18.75	0	37.5	0	37.5	25.0	6.25	75.0	7	7	5	1	7	3	---	1	93.75	1	-	-	-	1	
2	WB	T	-	310+54	RE-64B	-	18.75	0	37.5	0	37.5	25.0	6.25	75.0	7	7	5	1	---	3	1	---	93.75	1	-	-	-	1	

- ① Lane(s) to which the obstacle is adjacent.
- ② Applies to Standard Road Plan RE-83 only.
- ③ Includes (1) special 12.5' section of 'W' Beam, see RE-76.
- ④ (6) 6"x8"x7' posts required when RE-63 or RE-69C is specified.
- ⑤ The last two posts of the RE-76 Terminal section are included as part of that bid item.



PLAN

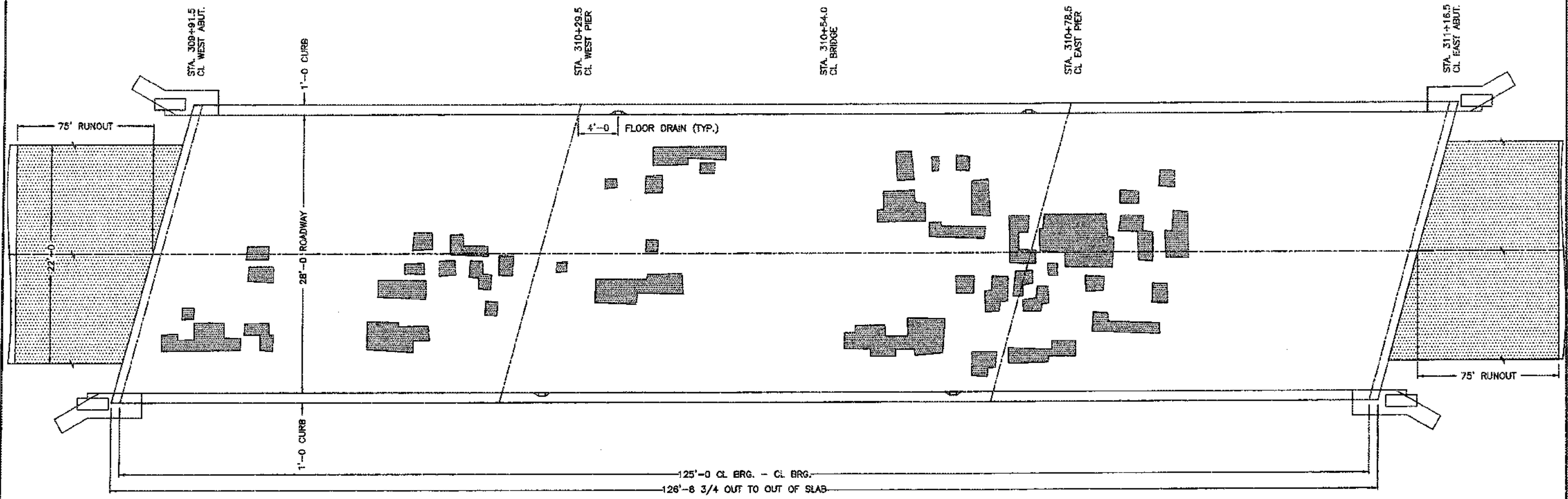
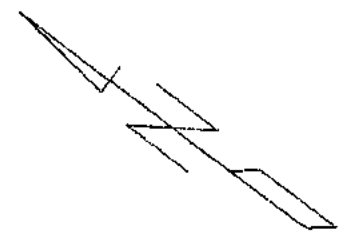


ELEVATION

EXISTING BRIDGE END POST



TABULATIONS, TYPICALS
FHWA NO. 130115



PLOT OF BRIDGE
DECK DELAMINATIONS

 BRIDGE FLOOR REPAIR, CLASS A



SITUATION PLAN
 125'-0 x 28' CONTINUOUS CONCRETE SLAB BRIDGE
 ALUMINUM HANDRAILS
 STUB ABUTMENTS AND CONCRETE PILE BENTS
 STA. 310+54, 15' SKEW L.A.
 CRAWFORD COUNTY
 FHWA NO. 130115

For bidding information, see Preparation of Proposals in the Standard Specifications for Highway and Bridge Construction.

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*****
*                               Bid Order No.: 006                               *
* Proposal ID No.: 24-C024-061      Letting Date: January 19, 2005      *
*                                       10:00 A.M.                               *
*   Type of Work: BRIDGE DECK OVERLAY                                         *
*   Primary County: CRAWFORD      Design: ENGLISH                             *
*   DBE Goal: None                2001 Std Spec                               *
*   Pre-Qual Group: BRIDGE DECK OVERLAY                                       *
*
* Contracting Authority: BOARD OF SUPERVISORS OF CRAWFORD COUNTY             *
*   Proposal Guaranty: $ 12,500.00                                           *
*****
    
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This Proposal Includes The Following Project(s):

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-----
Project: BHS-C024(61)--63-24      County: CRAWFORD
Work Type: BRIDGE DECK OVERLAY    Plans: Yes
Route: E16                        Design: ENGLISH
Location: STOCKHOLM TWP. SEC.12, APPROX. .80 EAST
AND .90MI. SOUTH OF NW SEC. CORNER.
Road System: FARM TO MARKET ROAD
Length: 0.00 Miles
Federal Aid - Predetermined Wages Are In Effect
    
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-----
Project: BHS-C024(72)--63-24      County: CRAWFORD
Work Type: BRIDGE DECK OVERLAY    Plans: Yes
Route: E59                        Design: ENGLISH
Location: 1ST BRIDGE WEST OF BUCK GROVE.
Road System: FARM TO MARKET ROAD
Length: 0.00 Miles
Federal Aid - Predetermined Wages Are In Effect
    
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Project: BHS-C024(73)--63-24      County: CRAWFORD
Work Type: BRIDGE DECK OVERLAY    Plans: Yes
Route: M55                        Design: ENGLISH
Location: 1 MILE SOUTH OF VAIL.
Road System: FARM TO MARKET ROAD
Length: 0.00 Miles
Federal Aid - Predetermined Wages Are In Effect
    
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Project: FM-C024(74)--55-24      County: CRAWFORD
Work Type: BRIDGE DECK OVERLAY    Plans: Yes
Route: E16                        Design: ENGLISH
Location: EAST EDGE OF BOYER OVER WHEELER CREEK
Road System: FARM TO MARKET ROAD
Length: 0.00 Miles
Non-Federal Aid - Predetermined Wages Are In Effect
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```


Bid Order No.: 006

Proposal ID No.: 24-C024-061

Letting Date: January 19, 2005
10:00 A.M.

Type of Work: BRIDGE DECK OVERLAY

Project: FM-C024(75)--55-24	County: CRAWFORD
Work Type: BRIDGE DECK OVERLAY	Plans: Yes
Route: E59	Design: ENGLISH
Location: 2ND BRIDGE WEST OF BUCK GROVE	
Road System: FARM TO MARKET ROAD	
Length: 0.00 Miles	
Non-Federal Aid - Predetermined Wages Are In Effect	

PROPOSAL DETAILS

Page: 3

Proposal ID No.:	24-C024-061	Bid Order No.:	006
Primary Work Type:	BRIDGE DECK OVERLAY	Letting Date:	January 19, 2005 10:00 A.M.

Site Number	Contract Period/ Site Description	Working Days	Liquidated Damages
CONTRACT	LATE START DATE: 04/18/05	75	\$ 350.00
01	LATE START DATE: 04/18/05 SEE SITE NUMBER 01 DESCRIPTION BELOW.	30	\$ 350.00

PROPOSAL NOTES

*** SITE NUMBER 01***

ALL WORK SHALL BE COMPLETED AND OPEN TO TRAFFIC ON PROJECTS BHS-C024(72)--63-24 AND FM-C024(75)--55-24 PRIOR TO ANY WORK STARTING ON THE OTHER THREE PROJECTS.

THE REASON FOR THIS IS THAT THE TWO DECK REPAIR PROJECTS ARE LOCATED ON COUNTY ROAD E59 WHICH IS SCHEDULED FOR A HMA OVERLAY IN THE SUMMER OF 2005.

PROPOSAL SCHEDULE OF PRICES

Page: 1

Proposal ID No.: 24-C024-061
 Primary Work Type: BRIDGE DECK OVERLAY
 Primary County: CRAWFORD

Bid Order No.: 006
 Letting Date: January 19, 2005
 10:00 A.M.

UNIT BIDS MUST BE TYPED OR SHOWN IN INK OR THE BID WILL BE REJECTED.

Line No	Item Number Item Description	Item Quantity and Unit	Unit Price		Bid Amount	
			Dollars	Cts	Dollars	Cts
Section 0001 ITEMS FOR A 125'-0 X 28' CCS BRIDGE DECK OVERLAY						
BHS-C024(61)--63-24						
0010	2303-0000100 HOT MIX ASPHALT MIXTURE, COMMERCIAL MIX (INCLUDES ASPHALT BINDER), AS PER PLAN	15.400 TON				
0020	2413-0698071 BRIDGE FLOOR OVERLAY	394.270 SY				
0030	2413-0698072 BRIDGE FLOOR REPAIR, CLASS A	30.860 SY				
0040	2505-4008200 INSTALLATION OF GUARDRAIL	187.500 LF				
0050	2505-4021272 GUARDRAIL, END ANCHORAGE, BEAM, RE-27B	2.000 EACH				
0060	2505-4021762 GUARDRAIL TERMINAL, BEAM, FLARED, RE-76	2.000 EACH				
0070	2518-6910000 SAFETY CLOSURE	2.000 EACH				
0080	2527-9263109 PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	11.070 STA				
0090	2528-8445110 TRAFFIC CONTROL	LUMP	LUMP			

PROPOSAL SCHEDULE OF PRICES

Proposal ID No.: 24-C024-061
 Primary Work Type: BRIDGE DECK OVERLAY
 Primary County: CRAWFORD

Bid Order No.: 006
 Letting Date: January 19, 2005
 10:00 A.M.

UNIT BIDS MUST BE TYPED OR SHOWN IN INK OR THE BID WILL BE REJECTED.

Line No	Item Number Item Description	Item Quantity and Unit	Unit Price		Bid Amount	
			Dollars	Cts	Dollars	Cts
0100	2533-4980005 MOBILIZATION	LUMP	LUMP			
SECTION 0001 TOTAL						
Section 0002 ITEMS FOR A 125'-0 X 28' CCS BRIDGE DECK OVERLAY BHS-C024(72)--63-24						
0110	2303-0000100 HOT MIX ASPHALT MIXTURE, COMMERCIAL MIX (INCLUDES ASPHALT BINDER), AS PER PLAN	TON	10.300			
0120	2413-0698071 BRIDGE FLOOR OVERLAY	SY	395.110			
0130	2413-0698072 BRIDGE FLOOR REPAIR, CLASS A	SY	6.960			
0140	2518-6910000 SAFETY CLOSURE	EACH	2.000			
0150	2527-9263109 PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	7.880			
0160	2528-8445110 TRAFFIC CONTROL	LUMP	LUMP			
0170	2533-4980005 MOBILIZATION	LUMP	LUMP			
SECTION 0002 TOTAL						

Section 0003 ITEMS FOR A 67'-6 X 24' PPCB BRIDGE DECK OVERLAY
 BHS-C024(73)--63-24

PROPOSAL SCHEDULE OF PRICES

Proposal ID No.: 24-C024-061
 Primary Work Type: BRIDGE DECK OVERLAY
 Primary County: CRAWFORD

Bid Order No.: 006
 Letting Date: January 19, 2005
 10:00 A.M.

UNIT BIDS MUST BE TYPED OR SHOWN IN INK OR THE BID WILL BE REJECTED.

Line No	Item Number Item Description	Item Quantity and Unit	Unit Price		Bid Amount	
			Dollars	Cts	Dollars	Cts
0180	2303-0000100 HOT MIX ASPHALT MIXTURE, COMMERCIAL MIX (INCLUDES ASPHALT BINDER), AS PER PLAN	15.400 TON	.	.	.	.
0190	2413-0698071 BRIDGE FLOOR OVERLAY	185.330 SY	.	.	.	.
0200	2413-0698072 BRIDGE FLOOR REPAIR, CLASS A	25.680 SY	.	.	.	.
0210	2518-6910000 SAFETY CLOSURE	2.000 EACH	.	.	.	.
0220	2527-9263109 PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	8.780 STA	.	.	.	.
0230	2528-8445110 TRAFFIC CONTROL	LUMP	LUMP	.	.	.
0240	2533-4980005 MOBILIZATION	LUMP	LUMP	.	.	.
	SECTION 0003 TOTAL					
Section 0004 ITEMS FOR A 75'-0 X 28' CCS BRIDGE DECK OVERLAY						
FM-C024(74) --55-24						
0250	2303-0000100 HOT MIX ASPHALT MIXTURE, COMMERCIAL MIX (INCLUDES ASPHALT BINDER), AS PER PLAN	15.400 TON	.	.	.	.

PROPOSAL SCHEDULE OF PRICES

Proposal ID No.: 24-C024-061
 Primary Work Type: BRIDGE DECK OVERLAY
 Primary County: CRAWFORD

Bid Order No.: 006
 Letting Date: January 19, 2005
 10:00 A.M.

UNIT BIDS MUST BE TYPED OR SHOWN IN INK OR THE BID WILL BE REJECTED.

Line No	Item Number Item Description	Item Quantity and Unit	Unit Price		Bid Amount	
			Dollars	Cts	Dollars	Cts
0260	2413-0698071 BRIDGE FLOOR OVERLAY	239.560 SY				
0270	2413-0698072 BRIDGE FLOOR REPAIR, CLASS A	25.150 SY				
0280	2413-0698073 BRIDGE FLOOR REPAIR, CLASS B	5.700 SY				
0290	2426-6772016 CONCRETE REPAIR	12.500 SF				
0300	2505-4008200 INSTALLATION OF GUARDRAIL	375.000 LF				
0310	2505-4021272 GUARDRAIL, END ANCHORAGE, BEAM, RE-27B	4.000 EACH				
0320	2505-4021762 GUARDRAIL TERMINAL, BEAM, FLARED, RE-76	4.000 EACH				
0330	2518-6910000 SAFETY CLOSURE	2.000 EACH				
0340	2527-9263109 PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	9.080 STA				
0350	2528-8445110 TRAFFIC CONTROL	LUMP	LUMP			

PROPOSAL SCHEDULE OF PRICES

Proposal ID No.: 24-C024-061
 Primary Work Type: BRIDGE DECK OVERLAY
 Primary County: CRAWFORD

Bid Order No.: 006
 Letting Date: January 19, 2005
 10:00 A.M.

UNIT BIDS MUST BE TYPED OR SHOWN IN INK OR THE BID WILL BE REJECTED.

Line No	Item Number Item Description	Item Quantity and Unit	Unit Price		Bid Amount	
			Dollars	Cts	Dollars	Cts
0360	2533-4980005 MOBILIZATION	LUMP	LUMP			
	SECTION 0004 TOTAL					
Section 0005 ITEMS FOR A 100'-0 X 28 CCS BRIDGE DECK OVERLAY						
FM-C024 (75) --55-24						
0370	2303-0000100 HOT MIX ASPHALT MIXTURE, COMMERCIAL MIX (INCLUDES ASPHALT BINDER), AS PER PLAN	TON	10.300			
0380	2413-0698071 BRIDGE FLOOR OVERLAY	SY	317.330			
0390	2413-0698072 BRIDGE FLOOR REPAIR, CLASS A	SY	27.200			
0400	2413-0698073 BRIDGE FLOOR REPAIR, CLASS B	SY	11.800			
0410	2426-6772016 CONCRETE REPAIR	SF	27.700			
0420	2518-6910000 SAFETY CLOSURE	EACH	2.000			
0430	2527-9263109 PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	6.880			

PROPOSAL SCHEDULE OF PRICES

Proposal ID No.: 24-C024-061
 Primary Work Type: BRIDGE DECK OVERLAY
 Primary County: CRAWFORD

Bid Order No.: 006
 Letting Date: January 19, 2005
 10:00 A.M.

UNIT BIDS MUST BE TYPED OR SHOWN IN INK OR THE BID WILL BE REJECTED.

Line No	Item Number Item Description	Item Quantity and Unit	Unit Price		Bid Amount	
			Dollars	Cts	Dollars	Cts
0440	2528-8445110 TRAFFIC CONTROL	LUMP	LUMP			
0450	2533-4980005 MOBILIZATION	LUMP	LUMP			
	SECTION 0005 TOTAL					
	TOTAL BID					

PROPOSAL ADDENDUM INFORMATION

Page: 7

Proposal ID No.:	24-C024-061	Bid Order No.:	006
		Letting Date:	January 19, 2005
Primary Work Type:	BRIDGE DECK OVERLAY		10:00 A.M.
Primary County:	CRAWFORD		

When this proposal is used for bidding purposes and submitted with the proper Bidding Document, any and all items on separate documents added to this proposal by addendum must be also be included.

Only the bid proposal holders receive addendums issued for this proposal and responsibility for notifying any potential subcontractors or suppliers remains with the bid proposal holder.

PROPOSAL SPECIAL PROVISIONS LIST

Page: 1

Proposal ID No.: 24-C024-061
Primary Work Type: BRIDGE DECK OVERLAY
Primary County: CRAWFORD

Bid Order No.: 006
Letting Date: January 19, 2005
10:00 A.M.

Note	Description
DBE--2005	STATE OF IOWA 2005 DIRECTORY OF CERTIFIED DBE'S
FHWA-1273.02	REQUIRED CONTRACT PROVISIONS - FEDERAL-AID CONSTRUCTION
GS-01007	GENERAL SUPPLEMENTAL SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION
IA03-1.1A	HIGHWAY WAGE RATES: IA030001 STATEWIDE (EXCEPT SCOTT COUNTY)
500.01	WINTER FREE TIME WILL NOT BE PERMITTED

PROPOSAL SPECIAL PROVISIONS TEXT

Page: 1

Proposal ID No.: 24-C024-061
Primary Work Type: BRIDGE DECK OVERLAY
Primary County: CRAWFORD

Bid Order No.: 006
Letting Date: January 19, 2005
10:00 A.M.

Note Description

DBE--2005 January 19, 2005
STATE OF IOWA 2005 DIRECTORY OF CERTIFIED DISADVANTAGED BUSINESS
ENTERPRISES

FHWA-1273.02 March 10, 1994
REQUIRED CONTRACT PROVISIONS - FEDERAL-AID CONSTRUCTION CONTRACTS
(EXCLUSIVE OF APPALACHIAN CONTRACTS)

GS-01007 October 19, 2004
GENERAL SUPPLEMENTAL SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION

IA03-1.1A February 13, 2004
PREDETERMINED WAGE RATE - GENERAL DECISION NUMBER IA030001
FOR HEAVY AND HIGHWAY CONSTRUCTION -- STATEWIDE (EXCEPT SCOTT COUNTY)
. NOTE: THE CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS AND
. IS RESPONSIBLE FOR IDENTIFYING WHICH ZONE(S), AS DEFINED
. IN THE PREDETERMINED WAGE RATE SPECIFICATION, APPLY TO
. THE WORK ON THE CONTRACT.

*** ADDITIONAL REQUIREMENT ***

THE PRIME CONTRACTOR SHALL SUBMIT CERTIFIED PAYROLLS FOR ITSELF AND EACH
APPROVED SUBCONTRACTOR WEEKLY TO THE PROJECT ENGINEER. THE CONTRACTOR
MAY USE THE IOWA D.O.T. CERTIFIED PAYROLL FORM OR OTHER APPROVED FORM.
THE CONTRACTOR SHALL LIST THE CRAFT FOR EACH EMPLOYEE COVERED BY THE
PREDETERMINED WAGE RATES. THE PRIME CONTRACTOR SHALL SIGN EACH OF THE
SUBCONTRACTOR'S PAYROLLS TO ACKNOWLEDGE THE SUBMITTAL OF THE CERTIFIED
PAYROLL.

500.01

*** WINTER WORK ***

THE FREE TIME ALLOWED BETWEEN NOVEMBER 15 AND APRIL 1 WILL NOT BE
PERMITTED ON THIS PROJECT. THE CONTRACTOR SHALL WORK DURING THE WINTER
ON ALL WORKING DAYS AS DEFINED IN 1101.03 'WORKING DAYS'.