SECTION 404 PERMIT AND CONDITIONS

CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF THE U.S. ARMY CORPS OF ENGINEERS MATIONING PERMIT NO 14 CEM/R-007-P-2020-079, A COPY OF THIS PERMIT IS AVAILUEE FROM THE 10WA DOT MEBSTE (CHEV//emportationee/dispoy) THE US ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VIST THE SITE METHOUT PRIOR MOTION.

## IOWA **DEPARTMENT OF TRANSPORTATION**

**Highway Division** 

PLANS OF PROPOSED IMPROVEMENT ON THE

# SECONDARY ROAD SYSTEM **WOODBURY COUNTY**

**RCB CULVERT NEW** PROJECT NO. L-B(M66)--73-97

The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, series of 2015, plus current Supplemental Specifications and Special Provisions shall apply to construction work on this project.

Plus Current Special Provisions and Supplemental Specifications

On 240th St., Over Stream, from Taylor Ave East 0.8 Miles to Union Ave. on the North Line Section 14, T87N R42W

FHWA STRUCTURE #351420 TOTAL SHEETS - 6

Project Number: L-B(M66)--73-97

INDEX OF SHEETS Description

TITLE SHEET LOCATION PLAN

No.

- estimate of quantities & estimate reference information general, notes
- PROFILE VEN
- SITUATION PLAN

**ROAD STANDARD PLANS** 

The following Standard Plans shall be considered applicable to construction work on the project.					
Identification	Data	idanii/calkm	Date	dertification	Date
E#F-101	10-17-17			i	
EW-402	04-18-17				
TC-252	04-21-20				
·					

### **RCB STANDARD PLANS**

(May be obtained at Woodbury County Engineer Office)					
Standerd	Date Issued	Date Revised	Standard	Data (saued	Date Revised
TWRCE C1-12	APRIL, 2012	07-18	TV# 15-4-12	APRIL, 2012	12-16
THRC8 62-12	APRIL, 2012	12-15	TWH 15-3-12	APRIL 2012	07-16
THRCB 10-8-12	APRIL, 2012		TWH 15-7-12	APRIL, 2012	
TWH 15-1-12	APRIL, 2012	12-16			
TWH 15-2-12	APRIL, 2012	12-15			
TWH 15-3-12	APRIL, 2012		1		

### TRAFFIC CONTROL PLAN

THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. TRAFFIC ROUTES AGUACHIT TO PROPERTES MAL BE MARTAMED AS PROVIDED FOR IN ARTICLE 1107:08 OF THE CURRENT STANDARD SPECKEATIONS: TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFIDEN TO THE "MANUAL OF UNFORM TRAFFIC CONTROL
DENIES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT FOR 781 OF THE

MANIENANCE OF SIGHS AND BARRICAGES AS STATED IN ARTIQLE ILUTION SMALL APPLY ON

SCHOOL ON THIS PROJECT SHALL BE THE RESPONSELITY OF THE CONTRACTOR AND SHALL ME IN ACCORDANCE WITH ROAD STANDARD TD-252



2015 AADT 20 V.P.D.

Woodbury County

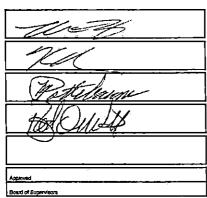
Project Number: L-B(M66)-73-97

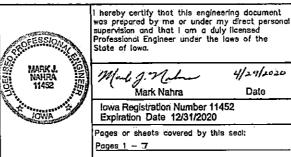
1-800-292-8989

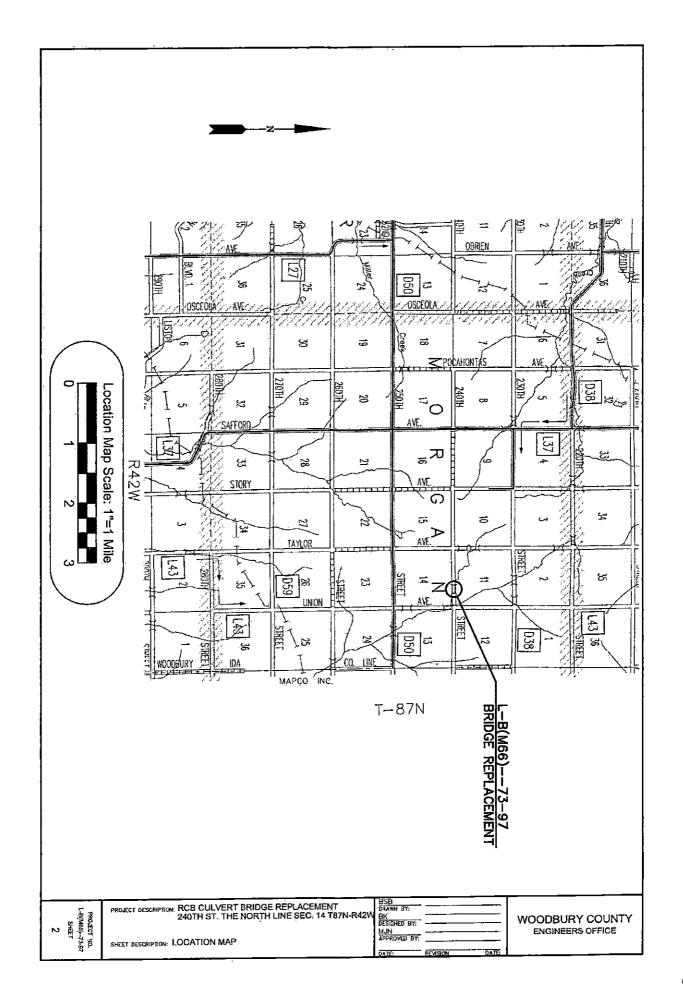
www.iowgonecall.com

Sheet 1

L-B(M66)-73-97







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	ESTIMATED PROJECT QUANTITIES					
ITEM	ITEM CODE	DESCRIPTION	UNITS	TOTALS		
1.	2101-0850001	CLEAR AND GRUB	AC,	0.17		
2.	2102-2710070	CLASS 10 ROADWAY AND BORROW	C.Y.	875		
3.	2104-2712020	CLASS 10 CHANNEL	C.Y.	587		
4.	2312-8250310	GRANULAR SURFACE ON ROAD CRUSHED CONCRETE	TON	222		
5.	2401-6745525	REMOVAL OF EXISTING BRIDGE	ĹŠ.	1		
6.	2402-0425030	GRANULAR BACKFILL	C.Y.	112		
7.	2 <b>402-2720</b> 000	EXCAVATION, CLASS 20	C.Y.	1,748		
8,	24030100020	STRUCTURAL CONCRETE (RCB CULVERT)	C.Y.	240.2		
9,	2404-7775000	REINFORCING STEEL	LB.	34,957		
10.	25076800061	REVETMENT, CLASS E	NOT	180		
11.	2518-0000010	TEMPORARY STREAM DIVERSION	EACH	_ 1		
12.	2518-6910000	SAFETY CLOSURE	EACH	2		
13.	2519-3280000	FENCE, FIELD	L.F.	300		
14,	2519-3300400	FIELD FENCE BRACE PANELS	EACH	4		
15.	2528-8445110	TRAFFIC CONTROL	LS.	í		
16.	2533-4980005	MOBILIZATION	LS.	1"		
17.	2601-2634100	MULCHING	ACRES	0.50		
18.	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRES	0.50		

CONCRETE AND REINFORCING STEEL SUBTOTALS FOR A TWIN 10'x8'x67' RCB CULVERT					
	CONCRETE QUANTITIES, C.Y.				REINFORCING
LOCATION	FLOOR	WALLS	SLAB	TOTAL	STEEL, LBS.
HEADWALLS	62.6	24.2	5.0	91,8	11,922
35' BARREL	30.3	22.1	24.8	77,2	11,984
32' BARREL	27.7	20.2	22.7	70.6	10,957
CONTROL WALL,	· · · · ·			0.6	94
TOTALS	120.5	66.5	52,5	240.2	34,957

ESTIMATE REFERENCE INFORMATION THE DATA BEIOW IS FOR INFORMATIONAL PURPOSE ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.

- THIS ITEM INCLUDES REMOVAL OF TREES AND WOODY PLANTS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL HAVE WRITTEN PERMISSION BEFORE BURNING GRUBBED MATERIALS ON PRIVATE PROPERTY. NO BURNING OF GRUBBED MATERIALS ON INSIDE PROJECT LIMITS ALLOWED.
- 2. CONTRACTOR SHALL OBTAIN SPECIFIED QUANTITY OF CLASS 10 MATERIAL FROM CONTRACTOR SUPPLIED BORROW, MATERIAL SHALL BE FREE FROM FOREIGN MATERIAL AND HAVE ADEQUATE MOISTURE TO ALLOW COMPACTION AT THE CONTRACTOR'S EXPENSE IF NECESSARY TO COMPLETE COMPACTION, RODOWAY PORTION OF FILL CALCULATIONS INCLUDE A 40% SHRINKAGE FACTOR. B75 C.Y. (FILL+40%)-508 C.Y. CUT = 367 C.Y. CONTRACTORS BODPOW

#### ESTIMATE REFERENCE INFORMATION

- GRANULAR SURFACING SHALL BE COMPACTED WITH SMOOTH DRUM ROLLER IN TWO (2) — 3" LIFTS.
- 5. BID ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE EXISTING SINGLE SPAN STEEL STRINGER. THE STRUCTURE IS 25' LONG, 17.6' WIDE. BRIDGE CONSISTS OF A TIMBER PLANK DECK WITH STEEL STRINGERS. SUBSTRUCTURE CONSISTS OF TIMBER PILES. ALL SUBSTRUCTURE ITEMS. SHALL BE REMOVED TO A MINIMUM OF 2'-O' BELOW FINISHED GROUND. BRIDGE DECK PLANK AND STEEL I-BEAMS SHALL BE SALVAGED AND STOCK PILED ON SITE AND STALL REMAINT HE PROPERTY OF WOODBURY COUNTY. REMAINING BRIDGE ITEMS THAT ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE ACCORDING TO APPLICABLE FEDERAL, STATE, AND LOCAL REGIL ALTONS.
- 6. GRANULAR BACKFILL SHALL BE PLACED UNDER THE REINFORCED BOX CULVERT 12° DEEP. THE MATERIAL SHALL BE COMPACTED TO THE SATISFACTION OF THE COUNTY ENGINEER. MATERIAL SHALL MEET THE SPECIFICATIONS OF GRADATION 14 AS SET FORTH BY THE 10WA DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SERIES 2015.
- 7. THIS BID ITEM INCLUDES ALL MATERIAL EXCAVATED FOR THE PLACEMENT OF THE PROPOSED ROADWAY CULVERT. EXCAVATED MATERIAL MAY BE USED AS ROADWAY BORROW IF DEEMED SUITABLE BY THE ENGINEER.
- 8. AGGREGATE SHALL BE CLASS 2 DURABILITY. ITEMIZED CONCRETE PLACEMENT QUANTITIES ARE INDICATED BELOW THE ESTIMATED PROJECT QUANTITIES. CONCRETE SHALL BE CLASS "C-4".
- 11.TEMPORARY STREAM DIVERSION SHALL BE BY PUMPING, NO DIVERSION OF THE CHANNEL WILL BE ALLOWED. CONTRACTOR SHALL SIZE PUMPS TO ALLOW UPSTREAM AREA TO BE DEWATERED.
- 12. THIS BID ITEM SHALL INCLUDE PROVIDING, INSTALLING, MAINTAINING AND REMOVING SAFETY CLOSURES ACCORDING TO IDOT STANDARD SPECIFICATIONS.
- 13. THIS ITEM SHALL BE FULL COMPENSATION FOR PLACEMENT OF NEW 4 STRAND BARB WIRE FENCE, NEW FENCE SHALL BE INSTALLED ALTERNATING BETWEEN STEEL AND WOOD FENCE POSTS, FENCE TO BE INSTALLED BETWEEN STA, 9+00 AND STA, 10+00.
- THIS ITEM SHALL BE FULL COMPENSATION FOR CONSTRUCTION SIGNING ADJACENT TO ROADWAY.
- 15. THIS ITEM SHALL INCLUDE ALL TRANSPORTATION COSTS ASSOCIATED WITH THE MOVEMENT BY THE CONTRACTOR AND THEIR EQUIPMENT.
- MULCHING IS INTENDED TO COVER SEEDING ON RECONSTRUCTED SLOPES AND DITCHES.
- 17. PERMANENT SEEDING SHALL MEET THE REQUIREMENTS SET FORTH IN 100T 2015 ENGLISH STANDARD SPECIFICATIONS AND APPLICABLE SUPPLEMENTAL SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER ALL AREAS TO BE SEEDED PRIOR TO COMMENCING ANY WORK ON THIS ITEM, IF SEEDING IS PROPOSED BY HYDRO SEEDING IN PLACE OF MECHANICALLY APPLIED SEED THE WORK (HYDROSEED) SHALL BE DONE AT CONTRACT PRICE AS BID.

WOODBURY COUNTY ENGINEERS OFFICE

958 BK SKI BY 00580460 BY MAIN MAIN AFROYGO BY

or DESCRIPTION. BRIDGE REPLACEMENT

N LINE SEC. 14-87-42 MORGAN TOWNSHIP
DESCRIPTION ESTIMATE OF QUANTITIES AND
GENERAL INFORMATION

PROJECT NO. L-B(M66)-73-97 SHEET

3

CONTRACTOR IS TO USE CARE IN WORKING AROUND AND OVER ALL TILE LINES. BREAKS IN THE TILE. LINES DUE TO THE CONTRACTOR'S CARELESSNESS ARE TO BE REPLACED AT HIS EXPENSE WITHOUT COST TO WOODBURY COUNTY. ANY TILE LINES BROKEN OR DISTURBED BY CUT LINES WILL BE REPLACED AS DIRECTED BY THE BRIGINEER IN CHARGE OF CONSTRUCTION AT WOODBURY COUNTY'S EXPENSE.

A UTILITY ONE CALL (1-800-292-8989) WILL BE MADE BY THE CONTRACTOR WITHIN 30 DAYS OF RECEIVING A SIGNED CONTRACT AND NO LESS"THEN 10 WORKING DAYS BEFORE BEGINNING THE PROJECT, THE CONTRACTOR WILL NOTIFY THE WOODBURY COUNTY ENGINEER'S OFFICE WITH THE ONE CALL UTILITY MEETING TIME.

CONTRACTOR IS RESPONSIBLE FOR CLEANING UP AREAS OF THE PROJECT AS WORK PROGRESSES. ALL RUBBISH, EXCESS MATERIALS, EQUIPMENT, DEBRIS, AND GRUBBED MATERIALS SHALL BE CLEANED UP AND REMOVED FROM THE WORK AREAS PRIOR TO ACCEPTANCE OF THE PROJECT.

#### DESIGN\_STRESSES

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 2015. REINFORCING STEEL IN ACCORDANCE WITH SECTION 8, GRADE 60. CONCRETE IN ACCORDANCE WITH SECTION 8, fc = 3,500 psi.

#### **SPECIFICATIONS**

DESIGN: A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 2015, AND ALL CURRENT REVISIONS.

CONSTRUCTION: JOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDES CONSTRUCTION, SERIES OF 2015, PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

#### SCHEDULE OF OPERATION

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER, PRIOR TO THE PRECONSTRUCTION CONFERENCE, A WRITTEN SCHEDULE FOR PERFORMANCE OF THE WORK HEMS. THE SCHEDULE SHALL BE IN THE FORM OF A BAR GRAPH OR CHART SHOWING STARTING AND COMPLETION DATES FOR THE HEMS. THE CONTRACTOR SHALL THEN MAKE EVERY EFFORT TO CONFORM TO THE ACCEPTED SCHEDULE

#### CULVERT GENERAL NOTES

DESIGNED FOR A FILL HEIGHT OF 8'.

THE REINFORCEMENT SUPPLIED FOR THIS STRUCTURE SHALL BE GRADE 60 REINFORCING STEEL IN ACCORDANGE WITH THE STANDARD SPECIFICATIONS,

METAL BAR CHAIRS SPACED AT NOT OVER 3'-0" C-C IN EITHER DIRECTION ARE TO BE USED TO SUPPORT ALL SLAB AND FLOOR STEEL AS OUTLINED IN THE STANDARD SPECIFICATIONS (ARTICLE 2404.07),

THE CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR EDGE OR END OF REINFORCING BAR SHALL BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

ALL REINFORCING STEEL SHALL BE SECURELY WIRED IN PLACE BEFORE THE CONCRETE IS POURED (ARTICLE 2404.06).

FLOOR OF BARREL SHALL BE FINISHED SMOOTH, SIDE OF FOOTING SHALL BE FORMED TO INSURE CORRECT LINE AND GRADE.

ALL EXPOSED CORNERS 90 DEGREES OR SHARPER SHALL BE FILLETED WITH A 3/4" DRESSED AND BEVELED STRIP.

THE PERMISSIBLE CONSTRUCTION JOINT AT THE TOP OF THE WALLS MAY BE LOWERED.

232-8

# EROSION CONTROL (DISTURBED AREAS)

ENSURE THE TOP 6 INCHES OF THE DISTURBED AREAS ARE FREE OF ROCK AND DEBRIS" AND ARE SUITABLE FOR THE ESTABLISHMENT OF VEGETATION, SUBJECT TO THE ENGINEER'S APPROVAL.

# EROSION CONTROL (RURAL SEEDING)

FOLLOWING THE COMPLETION OF WORK; PLACE SEED, FERTILIZER, AND MULCH ON THE PORTION OF THE AREA LYING WITHIN THE COUNTY RIGHT OF WAY AS FOLLOWS:

#### SEEDING:

PERMANENT SEEDING FOR RURAL AREA AS PER THE IDOT CURRENT SPECIFICATIONS. FERTILIZER:

17 LBS. OF 13-13-13 (OR EQUIVALENT) COMMERCIAL FERTILIZER PER 1000 SQ. FT.

#### MULCH:

70 LBS. OF DRY CEREAL STRAW PER 1000 SQ. FT. CONSOLIDATE ALL MULCH INTO THE SOIL USING A MULCH STABILIZER.

PRÉPARING THE SEEDBED AND FURNISHING AND APPLYING SEED, FERTILIZER, AND MULCH IS INCIDENTAL TO MOBILIZATION. NO EXTRA COMPENSATION WILL BE ALLOWED.

271-9 09-27-94

### DEMOLITION

#### (BRIDGE REMOVAL)

NO SCRAPE SAMPLE WAS TAKEN FROM THIS BRIDGE TO GET AN INDICATION OF THE EXISTENCE OF THE LEVEL OF TOTAL CHROMIUM AND TOTAL LEAD DUE TO A LACK OF PAINTED SUBSTRATE. THE BIDDER SHOULD NOT RELY ON THE DEPARTMENT'S TESTING AND ANALYSIS FOR ANY PURPOSE OTHER THAN AS AN INDICATION OF THE EXISTENCE OF THESE TWO TOXIC CONSTITUENTS. AN ASBESTOS INSPECTION WAS CONDUCTED AND THE RESULTS WERE NEGRATIVE.

WOODBURY COUNTY ENGINEERS OFFICE

18 CD 67.

ORGT OESCRIPDOW BRIDGE REPLACEMENT N LINE SEC. 14-87-42 MORGAN TOWNSHIP

PROJECT NO. L-B(M66)--73-97 SHEET

4

