CASS COUNTY HMA RESURFACING/CIP RECYCLING
PROJECT NO.: FM-C015(91)--55-15 Letting Date December 15, 2026

PROJECT NUMBER: FM-C015(91)--55-15 (4 TOTAL SHEETS)

IOWA DEPARTMENT OF TRANSPORTATION

HIGHWAY DIVISION

PLANS OF PROPOSED IMPROVEMENT ON THE

FARM TO MARKET SYSTEM

CASS COUNTY

HMA RESURFACING WITH COLD IN PLACE RECYCLING

690TH STREET (ROUTE N-28) BETWEEN IA HIGHWAY #83 AND THE AUDUBON CO. LINE

Refer to the Proposal Form for list of applicable specifications.

Scales: As Noted

PROJECT TRAFFIC CONTROL PLAN

THIS ROAD WILL REMAIN OPEN TO THRU TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO PROPERTY ADJACENT TO CONSTRUCTION WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08, 2012 STANDARD SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING AND PAVEMENT MARKING SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE CHAPTER 130.

OFFICE OF COUNTY ENGINEER (712) 243-2442

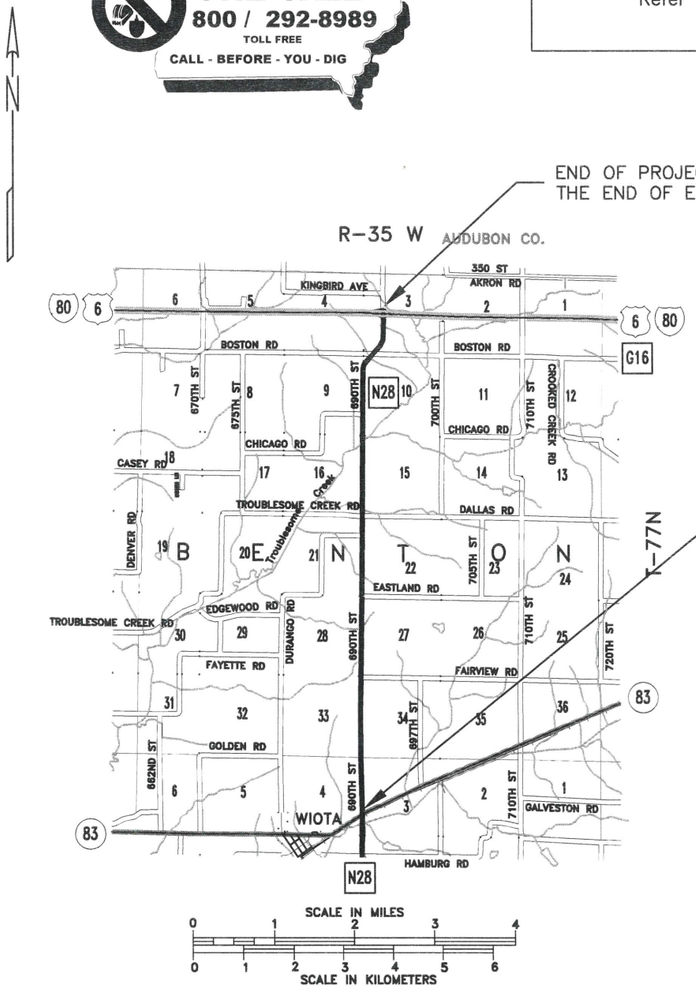
IOWA ONE CALL
800 / 292-8989
TOLL FREE
CALL - BEFORE - YOU - DIG

INDEX OF SHEETS

No.	Description
1	TITLE SHEET
2	TYPICAL SECTION FOR OVERLAY
3	ESTIMATE OF QUANTITIES AND GENERAL NOTES
4	DETAILS AND TABULATIONS

MILEAGE SUMMARY

Div.	Location	Lin.Ft.	Miles
1.	STA. 0+38.00 TO STA. 336+30.00	33,592.00	6.362
	DEDUCT BRIDGE #411 @ STA. 243+10	170.00	0.032
	NET LENGTH OF PROJECT	33,422.00	6.330





FUTURE 20 YEAR DESIGN
TRAFFIC LEVEL = STANDARD
2035 AADT 390 V.P.D.
WITH 4% TRUCKS

STANDARD ROAD PLANS

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

Number	Date	Title
PM-110	10-15-24	Pavement marking line types
PV-10	10-20-26	Rumble strip panel for intersection approach
TC-1	10-15-19	Work not affecting traffic
TC-212	4-18-23	Spot location lane closure with flaggers
TC-213	4-18-23	Lane closure with flaggers
TC-214	4-18-23	Lane closure with flaggers and pilot car
TC-233	10-17-17	Pavement marking operations

Steve Baier
Mark O'Brien
Bernard Pottinger

CASS County Board of Supervisors
Date : 9-15-26

PROFESSIONAL ENGINEER & PROFESSIONAL LAND SURVEYOR
Trent Wolken
15847
IOWA

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.

Trent Wolken Date 9/17/26

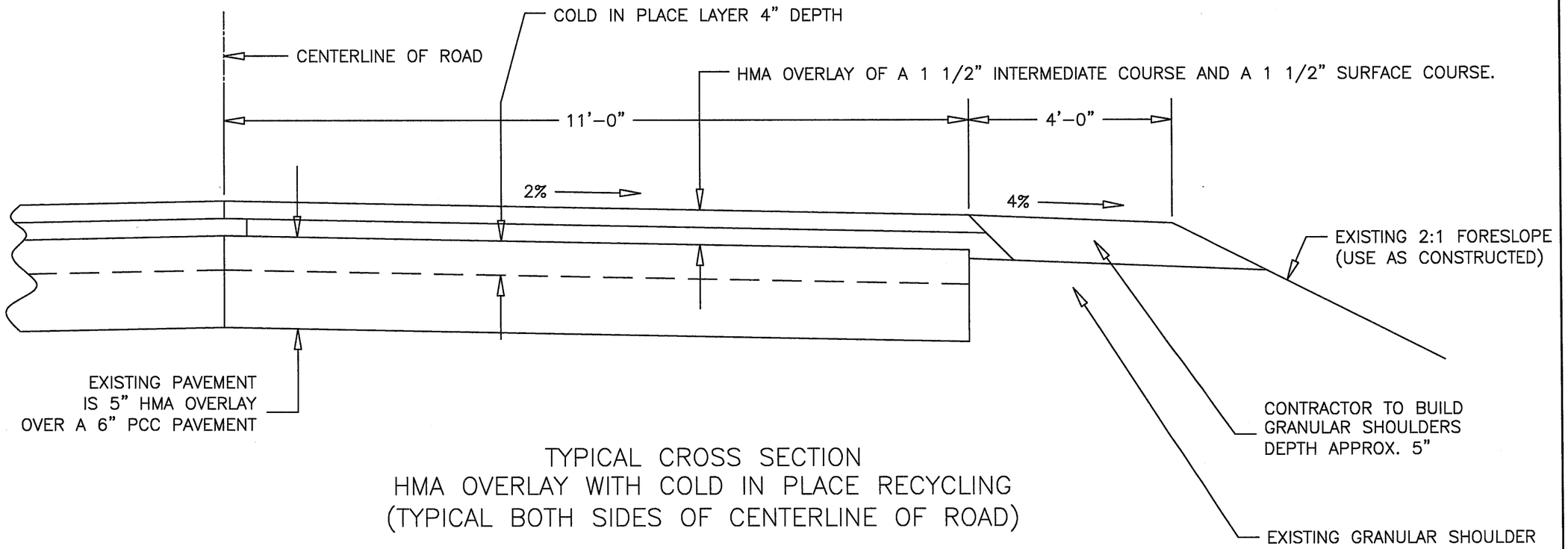
My license renewal date is December 31, 2026

Pages or sheets covered by this seal:

HMA RESURFACING/CIP RECYCLING

PROJECT NO.: FM-C015(91)--55-15

CASS COUNTY



TYPICAL CROSS SECTION
HMA OVERLAY WITH COLD IN PLACE RECYCLING
(TYPICAL BOTH SIDES OF CENTERLINE OF ROAD)

LOCATION						
STATION	TO STATION	SIDE	LINEAL FEET	WIDTH	DEPTH	SQUARE YARDS
2+50	241+60	LT & RT	23,910	22.0'	4"	58,447
244+60	328+25	LT & RT	8,365	22.0'	4"	20,448
			TOTALS			78,895

COLD IN PLACE RECYCLING DETAILS

PLANS FOR CIP/HMA OVERLAY
CASS COUNTY
690TH STREET (ROUTE N-28)

TYPICAL OVERLAY SECTION

HMA RESURFACING/CIP RECYCLING

PROJECT NO.: FM-C015(91)--55-15

CASS COUNTY

ESTIMATED PROJECT QUANTITIES

NO.	ITEM CODE	ITEM DESCRIPTION	UNIT	QUANTITY
1	2121-7425020	GRANULAR SHOULDERS, TYPE B	TONS	7000.00
2	2214-5145150	PAVEMENT SCARIFICATION	SQ YDS	2946.00
3	2303-1032500	HMA ST INTERMEDIATE COURSE, 1/2" MIX	TON	7200.00
4	2303-1033500	HMA ST SURFACE COURSE, 1/2" MIX	TON	7000.00
5	2303-1258283	ASPHALT BINDER PG 58-28S	TON	850.00
6	2303-6911000	HMA PAVEMENT SAMPLES	LUMP SUM	1.00
7	2303-7000610	PAY ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIX LAB VOIDS	EACH	20000.00
8	2303-7000620	PAY ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIX FIELD VOIDS	EACH	20000.00
9	2303-9091010	RUMBLE STRIP PANEL, (HMA SURFACE)	EACH	2.00
10	2318-1001100	COLD IN PLACE RECYCLED PAVEMENT	SQ YDS	78895.00
11	2318-1001220	ASPHALT STABILIZING AGENT (FOAMED ASPHALT)	TONS	316.00
12	2527-9263209	PAINTED PAVEMENT MARKING, WATERBORNE/SOLVENT	STA.	210.60
13	2528-8445110	TRAFFIC CONTROL	LUMP SUM	1.00
14	2528-8445113	FLAGGERS	EACH	PER PROPOSAL
15	2528-8445115	PILOT CAR	EACH	PER PROPOSAL
16	2533-4980005	MOBILIZATION	LUMP SUM	1.00

ESTIMATE REFERENCE INFORMATION

REF. NO.

1 VIRGIN AGGREGATE SHALL BE CLASS "A" CRUSHED STONE. RAP MAY BE UNIFORMLY BLENDED WITH CRUSHED STONE TO A MAXIMUM RATE OF 50%. INCLUDES TRANSITION FROM HMA WORK TO E.O.P.

2 INCLUDES LOCATIONS AT BEGINNING OF PROJECT (978 SQ YARDS, TO LOWER PROFILE FROM STATION 0+38 to STATION 4+38) AND AT THE END OF THE PROJECT (1968 SQ YARDS OF NOMINAL THICKNESS, FROM STATION 328+25 TO STATION 336+30) AT MILL AND FILL AREA NEAR EOP. REMOVE ALL HMA MATERIAL TO THE UNDERLYING PCC PAVEMENT. SEE GENERAL NOTE ON THIS SHEET AND TABULATION OF SALVAGED MATERIALS ON SHEET #4. THE COST OF LOADING RAP SHALL BE INCIDENTAL TO SCARIFICATION WORK.

3&4 INCLUDES MIX FOR BRIDGE APPROACHES AND IRREGULARITIES AND FILLETS AT SIDE ROADS AND MILL & FILL NEAR EOP. CLASS 1 COMPACTION IS REQUIRED.

5 ESTIMATED TO BE 6% OF THE HMA MIX WEIGHT.

9 THE ENGINEER SHALL COUNT THE NUMBER OF PANELS CONSTRUCTED. THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE FOR EACH PANEL.

10 SEE SHEET 2 FOR DETAILS.

11 ESTIMATED AT 0.004 TONS PER SQUARE YARD OF PAVEMENT.

12 INCLUDES SLW2 STOP BAR AT THE INTERSECTION WITH IOWA HIGHWAY #83 AND 249.08 STATIONS OF 4 INCH NO PASSING LINE AND 65.24 (26094' X 25%) STATIONS OF 4 INCH DASHED CENTERLINE. QUANTITIES WILL BE MEASURED BY THE PROJECT ENGINEER AND ADJUSTED BY THE QUANTITY FACTOR TO A 6 INCH LINE WIDTH.

GENERAL NOTES:

PAVEMENT SCARIFICATION IS INTENDED TO REMOVE THE EXISTING ASPHALT SURFACE LIFT AT HIGHWAY #83 AND THE EXISTING HMA PAVEMENT AT I-80 TO THE UNDERLYING PCC SURFACE. SEE DETAIL 7308 FOR LOCATIONS. THE SCARIFIED MATERIAL SHALL BE LOADED ON CASS COUNTY TRUCKS AND SALVAGED AND STOCKPILED FOR USE BY CASS COUNTY. RAP MATERIAL SHALL BE SUITABLE FOR USE AS GRANULAR SHOULDER MATERIAL.

HMA FILLETS AT ENTRANCES ARE NOT REQUIRED. HMA RUNOUTS ARE REQUIRED AT BRIDGE APPROACHES

PAVEMENT SMOOTHNESS PER SECTION 2316 IS NOT REQUIRED.

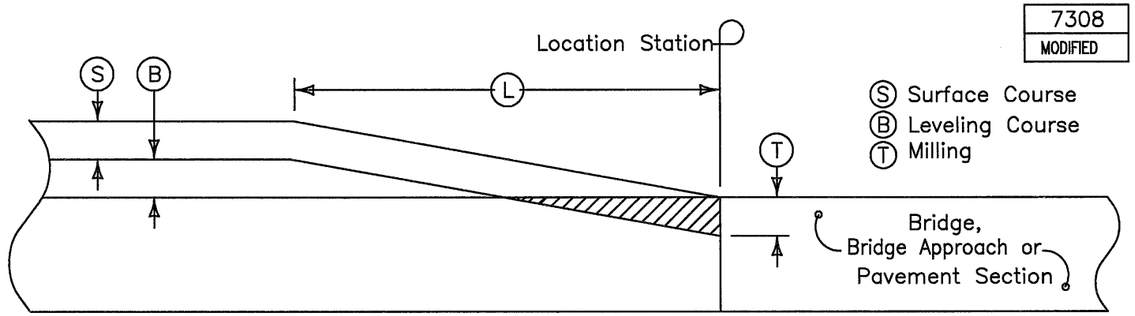
PLANS FOR HMA OVERLAY
CASS COUNTY
ROUTE N-28

ESTIMATED QUANTITIES
AND
GENERAL NOTES

HMA RESURFACING/CIP RECYCLING

PROJECT NO.: FM-C015(91)--55-15

CASS COUNTY



7308
MODIFIED

Ⓢ Surface Course
Ⓑ Leveling Course
Ⓣ Milling

Location Station	Ⓛ Feet	Ⓢ Inches	Ⓑ Inches	Ⓣ Inches
0+38	400	1.5	1.5	3.0

*** See Item Reference notes.

SURFACE NOTCH FOR RESURFACING

PAVEMENT SCARIFICATION DETAILS

HAULING AND STOCKPILING BY COUNTY

SALVAGED MATERIALS

110-13
MODIFIED

LINE NO.	ITEM DESCRIPTION	QUANTITY	QUANTITY UNITS	DELIVERY LOCATION	CONTACT NAME	CONTACT NUMBER
2	RECYCLED HMA PAVEMENT	400.00	TONS	District #1 Cass Co. Shed Near Anita, IA	MARK KNUDSEN	712-249-1705

RUMBLE STRIP LOCATIONS

NO.	STATION	SIDE	NO.	STATION	SIDE
1	7+37	LT			
2	11+00	LT			

RUMBLE STRIP DETAILS

Rumble Strip Panel Notes:

Method of measurement: The Engineer will count each location where a rumble strip panel is constructed in accordance with the plans.

Basis of Payment: The Contractor will be paid the contract unit price for each rumble strip panel location.

PLANS FOR CIP/HMA OVERLAY
CASS COUNTY
690TH STREET (ROUTE N-28)

DETAILS AND TABULATIONS