

INDEX OF SHEETS	
No.	DESCRIPTION
<b>A Sheets</b>	<b>Title Sheets</b>
A.1	Title Sheet
A.2	Location Map Sheet
<b>C Sheets</b>	<b>Quantities and General Information</b>
C.1	Estimated Project Quantities and Reference Notes
C.2 - 6	Project Description, Standard Road Plans, General Notes, and Tabulations
<b>J Sheets</b>	<b>Traffic Control and Staging Sheets</b>
J.1 - 3	Traffic Control Plan



PLANS OF PROPOSED IMPROVEMENT ON THE  
PRIMARY ROAD SYSTEM  
CASS COUNTY  
PCC Joint and Crack Filling  
Montgomery Co Line to US 6

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



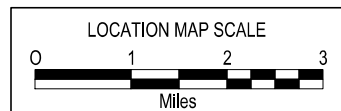
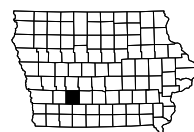
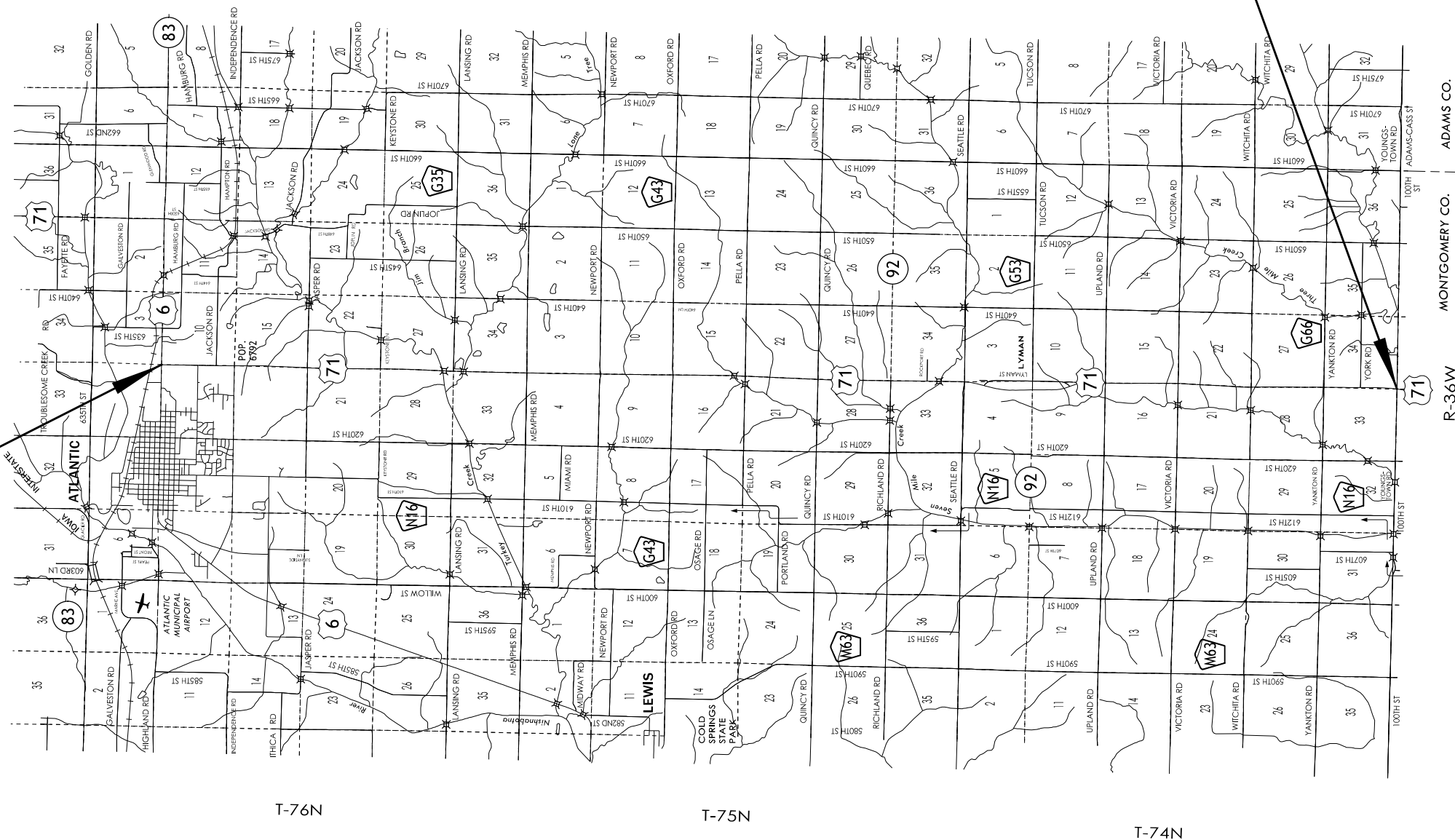
DESIGN DATA RURAL			
2024	AADT	2,590	V.P.D.
20 --	AADT	-	V.P.D.
20 --	DHV	-	V.P.H.
	TRUCKS	15.91	%
	Total		
	Design ESALs	-	

REVISIONS	
	TOTAL 11
PROJECT IDENTIFICATION NUMBER	
26-15-071-020	
PROJECT NUMBER	
MP-071-4(702)42--76-15	
R.O.W. PROJECT NUMBER	

ROADWAY DESIGN	
	<p>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.</p> <p>Signature: <u>Travis R. Malone</u> Date: <u>04-01-2026</u></p> <p>Printed or Typed Name: <u>Travis R. Malone</u></p> <p>My license renewal date is December 31, 2026</p>
Pages or sheets covered by this seal: <u>ALL</u>	

END CONSTRUCTION  
MILEPOST 59.09

BEGIN CONSTRUCTION  
MILEPOST 42.112



ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
1	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	2,453	
2	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Traffic Control Plan on sheet J.1.
3	2528-8445113	FLAGGERS	EACH	0	See Proposal.
4	2528-8445115	PILOT CARS	EACH	0	
5	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	0	
6	2533-4980005	MOBILIZATION	LS	1	
7	2542-1006001	CRACK AND JOINT CLEANING AND FILLING (PCC PAVEMENT)	MILE	18.8	
8	2542-1007000	SEALER MATERIAL (PCC PAVEMENT)	LB	39,888.13	Quantity is estimated for 314,635.2 linear feet of centerline, shoulder joints and cracks. Quantity estimated for 1/2"wide x 1/2"deep joints, 231 cu. in. per gallon at 9.6 pounds per gallon. Includes 5% for irregulates.
9	2544-1001100	CLEANING AND FILLING CRACKS (PAVEMENT MAINTENANCE)	MILE	1	
10	2544-1003000	FILLER MATERIAL (MAINTENANCE)	GAL	512.82	Estimated at 0.035 gal/LF. The Contractor shall use CRS-2P filler material.

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8/15/22

PROJECT DESCRIPTION

PCC Joint and Crack filling from Montgomery County line (MP 42.112) to US 6 (MP 59.09) in Atlantic. Four lane section from US 6 to just S of E 14th St is HMA.

102\_05  
9/29/23

EXISTING PAVEMENT																					
Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
1.0	Cass	US 71	NB	42.13	52.47	2007		NHSN-071-3(42)--2R-15	PCC	8.0					MIL	3.0					
2.0	Cass	US 71	NB	42.13	52.47	2007	W	NHSN-071-3(42)--2R-15	PCC	8.0	HMA	9.0									
3.0	Cass	US 71	NB	42.13	52.47	1981		FR-71-3(26)--2G-15	RAC	2.0							Atlantic	C.Lst.			
4.0	Cass	US 71	NB	42.13	52.47	1972		F-71-3(8)--20-15*<1>	BAC	2.5	ATB	7.0	SLS	6.0			Lyman	C.Lst.			
5.0	Cass	US 71	NB	52.47	54.85	2000		NHSX-71-3(34)--3H-15	PCC	9.0	GSB	11.0	SBF	6.0			Moore Quarr	C.Lst.	I		
6.0	Cass	US 71	NB	54.85	55.25	2007	W	NHSN-071-3(42)--2R-15	PCC	8.0	HMA	9.0									
7.0	Cass	US 71	NB	54.85	55.25	2007		NHSN-071-3(42)--2R-15	PCC	8.0					MIL	3.0					
8.0	Cass	US 71	NB	54.85	55.25	1981		FR-71-3(26)--2G-15	RAC	2.0							Atlantic	C.Lst.			
9.0	Cass	US 71	NB	54.85	55.25	1972		F-71-3(8)--20-15*<1>	BAC	2.5	ATB	7.0	SLS	6.0			Lyman	C.Lst.			
10.0	Cass	US 71	NB	55.25	58.56	2000		NHSX-71-3(34)--3H-15	PCC	9.0	GSB	11.0	SBF	6.0			Moore Quarr	C.Lst.	I		
11.0	Cass	US 71	NB	58.56	59.12	2017	S	NHSX-071-3(56)--3H-15	HMA	2.0					MIL	2.0					
12.0	Cass	US 71	NB	58.56	59.12	1990		?	AAC	3.0											Unknown AC Overlay
13.0	Cass	US 71	NB	58.56	59.12	1971		U-71-3(6)--40-15	PCC	9.0							Menlo-Schild	C.Lst.			

DIST. 4 01-03-20					
CRACK FILL					
MilePost to MilePost		Side	LF	Gallons	Remarks
42.112	55.09	Both	247893	3219.40	CL & Edge joints (PCC)
55.09	58.598	Both	56808	737.80	CL & Edge joints (PCC)
58.6	59.09	Both	5658	198.03	Transverse HMA
58.6	59.09	Both	8994	314.79	Longitudinal HMA
				0.00	
				0.00	
				0.00	
				0.00	

- Notes:
- 1) Roadway from MP 58.60 to MP 59.09 is 4-lane HMA.
  - 2) Transverse joints in PCC sections have adequate joint filler in place. Fill not necessary.
  - 3) PCC joints shown in tab from MP 42.112 to MP 58.598 are centerline and edge lines between shoulders and includes longitudinal joints at climbing lanes.

<div>105_04 10/21/25</div> <div>STANDARDS</div> <div>The following Standards apply to construction work on this project.</div>		
Number	Date	Title
PM-110	10-15-24	Line Types
PM-221	10-15-24	Climbing Lane
PM-420	10-15-24	Two-Lane Roadway with no Turn Lanes (One-Way Stop Condition)
PM-520	10-15-24	Two-Lane Roadway with no Turn Lanes (Two-Way Stop Condition)
PM-521	10-15-24	Two-Lane Roadway with Right Turn Lanes
PR-110	10-21-14	PCC Crack and Joint Cleaning and Filling
SI-881	04-16-19	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-213	04-18-23	Lane Closure with Flaggers
TC-214	04-18-23	Lane Closure with Flaggers for use with Pilot Car
TC-231	04-18-23	Slow Moving Vehicle Operating in the Traffic Lane
TC-402	04-18-23	Work Within 15 ft of Traveled Way
TC-418	04-18-23	Lane Closure on Divided Highway

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11/25/25

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.

\*BCY4 - Place on the same side of the roadway to match existing markings near the project.

\*\*NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.

\*\*\*MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17

CBW6: Crosswalk Bar (White) @ 10.00

CLW6: Crosswalk Line (White) @ 2.00

DLW4: Dotted Line (White) @ 0.22

ELW6: Edge Line Right (White) @ 1.00

MNY6: Median Nose (Yellow) @ 1.00

RLY4: Ramp Edge Line Left (Yellow) @ 0.67

SPW4: Sloped Curb 4" (White) @ 2.16

STY6: Standard Curb 6" (Yellow) @ 2.03

BCY6: Broken Centerline (Yellow) @ 0.25

CHW8: Channelizing Line (White) @ 1.33

DCY4: Double Centerline (Yellow) @ 1.34

DLW6: Dotted Line (White) @ 0.33

ELY4: Edge Line Left (Yellow) @ 0.67

NPY4: No Passing Zone Line (Yellow) @ 0.84

RLY6: Ramp Edge Line Left (Yellow) @ 1.00

SPW6: Sloped Curb 6" (White) @ 2.28

YLW2: Yield Line (White) @ 1.15

BLC6: Broken Line Contrast (White/Black) @ 0.50

CHW10: Channelizing Line (White) @ 1.67

DCY6: Double Centerline (Yellow) @ 2.00

DLY4: Dotted Line (Yellow) @ 0.22

ELY6: Edge Line Left (Yellow) @ 1.00

NPY6: No Passing Zone Line (Yellow) @ 1.25

SLW2: Stop Line (White) @ 4.00

SPY4: Sloped Curb 4" (Yellow) @ 2.16

BLW4: Broken Lane Line (White) @ 0.17

CHY8: Channelizing Line (Yellow) @ 1.33

DDY4: Double Dotted Line (Yellow) @ 0.44

DLY6: Dotted Line (Yellow) @ 0.33

LDW8: Lane Drop (White) @ 0.33

RLW4: Ramp Edge Line Right (White) @ 0.67

SLW4: Solid Lane Line (White) @ 0.67

SPY6: Sloped Curb 6" (Yellow) @ 2.28

BLW6: Broken Lane Line (White) @ 0.25

CHY10: Channelizing Line (Yellow) @ 1.67

DDY6: Double Dotted Line (Yellow) @ 0.67

ELW4: Edge Line Right (White) @ 0.67

LDW10: Lane Drop (White) @ 0.42

RLW6: Ramp Edge Line Right (White) @ 1.00

SLW6: Solid Lane Line (White) @ 1.00

STW6: Standard Curb 6" (Yellow) @ 2.03

Line No.	Road ID	Begin Ref. Location Sign	End Ref. Location Sign	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY6 Factored (STA)	BLW6 Factored (STA)	DCY6 Factored (STA)	ELW6 Factored (STA)	NPY6** Factored (STA)	SLW6 Factored (STA)	Remarks
1.0	US 71	42.112	59.09	All	Waterborne/Solvent Paint	X	X	X	No		146.28	32.73	232.60	1792.88	242.56	5.95	
Total:											146.28	32.73	232.6	1792.88	242.56	5.95	

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9/28/22

UTILITIES (NOT A POINT 25 PROJECT)

This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.



TRAFFIC CONTROL PLAN		108_23A 8/15/22
Through traffic will be maintained on the project at all times. Traffic control on this project shall be in accordance with the TC series of the Standard Road Plans on Tabulation 105-4. Refer to the current Standard Specifications for additional information. The contractor shall coordinate traffic control with other projects in the area. PDMS shall be utilized for advance notification of work anywhere within the project site. Each of the 3 primary route approach directions shall be notified by PDMS message of potential delays and advised to seek alternate routes starting 7 days prior to any work occurring which would impact traffic flow in the project area. PDMS messages shall be coordinated with the RCE and the Iowa DOT TMC office.		

511 TRAVEL RESTRICTIONS												108_25 3/28/24
Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Projected As Built Measurement	Remarks
1.0	US 71	2-Lane	Cass	MP 42.112 to MP 59.09		Traffic Control Device		Horizontal				Includes 4-lane section S of US 6

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10/14/22

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
None Provided	