LETTING DATE 12/17/2024

HMA Resurfacing

STP-137-1(021)--2C-68

MONROE COUNTY

INDEX OF SHEETS	
No.	DESCRIPTION
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A.2	Location Map Sheet
B Sheets	**Typical Cross Sections and Details**
B.1 - 9	Typical Cross Sections and Details
C Sheets	**Quantities and General Information**
C.1 - 3	Estimated Project Quantities and Reference Notes
C.4 - 18	Tabulations
CS Sheets	**Soils Tabulations**
CS.1	Soils Tabulations
D Sheets	**Mainline Plan and Profile Sheets**
* D.1 - 12	US 30 Plan Sheets
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control Plan
J.2	511 Travel Restrictions
J.3	Staging Notes
J.4	Coordinated Operations
J.5	Modified TC-217 at MP 0.5 Culvert Repair
R Sheets	**Erosion Control Sheets**
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RC.3	General Notes
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U Sheets	**500 Series, Mod.Stds. and Detail Sheets**
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* U.2	Modified Standard Road Plan PR-202
* U.3	Modified Standard Road Plan PM-420
	* Color Plan Sheets

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

MONROE COUNTY

HMA Resurfacing

IA 5 to Heartland Dr near Eddyville

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

REVISIONS

TOTAL
..
PROJECT IDENTIFICATION NUMBER
23-68-137-010
PROJECT NUMBER
STP-137-1(021)--2C-68
R.O.W. PROJECT NUMBER

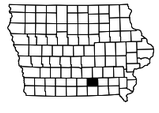
Next Event Dates:
D7 - 10/01/2024

INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	X	Primary Signature Block	X
X	X	X	X

PRELIMINARY PLANS

Subject to change by final design.

DM5 PLAN - Date: 09/20/2024



FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER A.1

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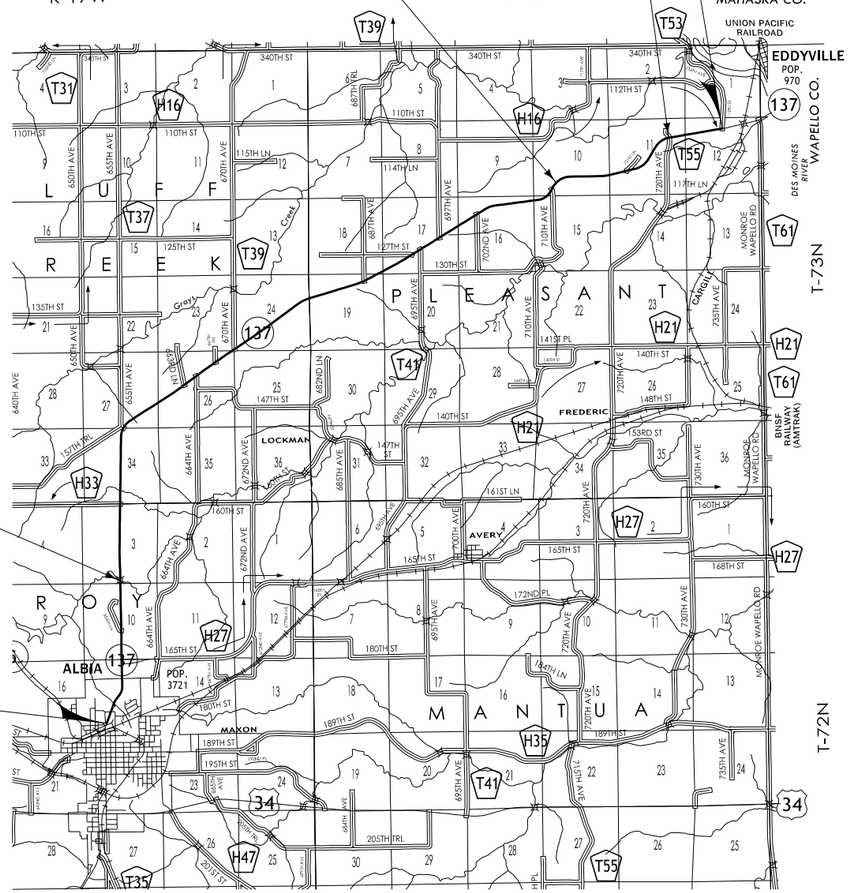
EQUATION
STA 562+73.2 (BK) =
STA 562+40.0 (AH)

EQUATION
STA 655+88.8 (BK) =
STA 655+98.5 (AH)

END PROJECT
STA. 692+41.9
REF. LOC. MP 13.12

FHWA 037481
MAINT. 6802.0S137
TWIN 12' x 12' x 94' RCB CULVERT

BEGIN PROJECT
STA. 3+05
REF. LOC. MP 0.05



LOCATION MAP SCALE
0 1 2 3
Miles

FILE NO.	ENGLISH	DESIGN TEAM **HOLST/BAHR/McNAMARA**	**MONROE** COUNTY	PROJECT NUMBER **STP-137-1(021)--2C-68**	SHEET NUMBER **A.2**

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Combination Shoulder (with 2' Widening)

STATION TO STATION		(P) Feet	(G) Feet	(LBW) Feet	Division	Remarks
3+05	20+50	2	1	2	1	
37+75	51+30	2	1	2	1	
51+30	205+28	2	1	2	2	(5)
221+41	546+75	2	1	2	2	
577+43	646+00	2	1	2	2	
665+87.4	692+41.9	2	1	2	2	

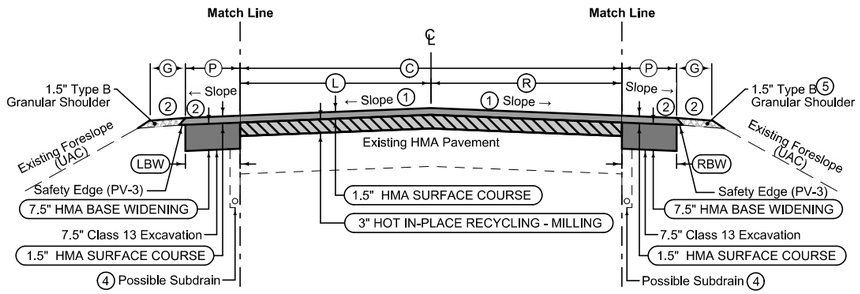
3R_Shldr_C_Overlay_Modified

Equation: STA. 562+73.2 (BK) = STA. 562+40.0 (AH)

Base Widening

STATION TO STATION		(P) Feet	(G) Feet	(LBW) Feet	Division	Remarks
2+22	3+02.5	2	1	2	1	

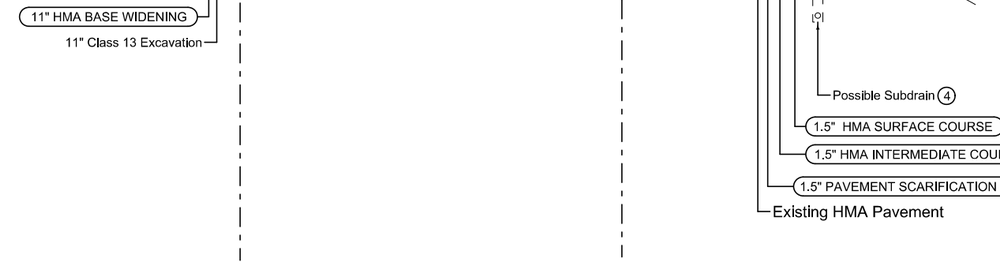
3R_Shldr_C_Overlay_Modified



3R_MillingOverlay_Modified

STATION TO STATION		(C) Feet	(L) Feet	(R) Feet	Division	Remarks
3+05	20+50	24	12	12	1	HIR Begins at 3+05
37+75	51+30	24	12	12	1	
51+30	205+28	24	12	12	2	(5)
221+41	546+75	24	12	12	2	
577+43	646+00	24	12	12	2	
665+87.4	692+41.9	24	12	12	2	

Equation: STA. 562+73.2 (BK) = STA. 562+40.0 (AH)



Combination Shoulder (with 2' Widening)

STATION TO STATION		(P) Feet	(G) Feet	(RBW) Feet	Division	Remarks
3+05	20+50	2	1	2	1	
37+75	51+30	2	1	2	1	
51+30	205+28	2	1	2	2	(5)
221+41	546+75	2	1	2	2	
577+43	646+00	2	1	2	2	
665+87.4	692+41.9	2	1	2	2	

3R_Shldr_C_Overlay_Modified

Equation: STA. 562+73.2 (BK) = STA. 562+40.0 (AH)

Turning Lanes

STATION TO STATION		(TL) Feet	(G) Feet	Division
44+70	45+90	0-12	6	1
45+90	47+50	12	6	1

3R_Shldr_C_Overlay_Modified

① Finished slope shall match existing pavement except the minimum allowable slope is 2.0% and the maximum allowable slope is 3.0%. Section may be modified as directed by the Engineer through areas of special shaping.

② Finished slope of Shoulder shall have a minimum allowable slope of 4% and a maximum allowable slope of 6%. Section may be modified as directed by the Engineer through areas of special shaping.

③ Finished slope of Auxiliary Lanes and Turning Lanes shall have a minimum allowable slope of 3% and a maximum allowable slope of 4%. Section may be modified as directed by the Engineer through areas of special shaping.

④ UAC existing subdrain. All existing subdrain shall remain functional at all times (do not plug or crush).

⑤ Bridge Deck left in place during the 1986 STA. 106+88 12x12x94' Twin RCB installation. Existing HMA overlay thickness may not be sufficient for 3" Hot In-Place Recycling within STA. 106+38 to 107+33. Adjust HIR depth accordingly.

General Notes:

1. Stationing on typical sections does not include gapping for paved sideroads and paved entrances. Refer to Details.
2. See Tab 100-25 for HMA Pavement quantities.
3. See Tab 106-5 for HMA Base Widening quantities.
4. See Tab 112-9 for Granular Shoulder quantities.

IA 137 Mainline Hot In-Place Recycling, HMA Resurfacing, & Base Widening
IA 5 to Approx. 0.3 NE of IA 5 in Albia
664th Ave. to County Road T55
County Road T55 to Heartland Dr.

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER B.1	

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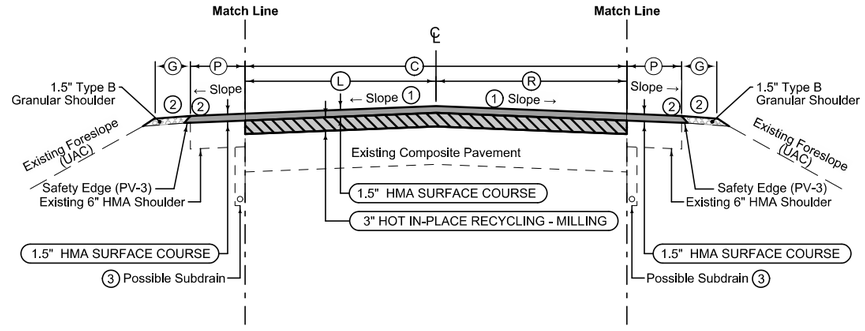
Combination Shoulder

3R_Shldr_C_Overlay_ Modified						
STATION TO STATION		(P) Feet	(G) Feet	(LBW) Feet	Division	Remarks
20+50	37+75	3	0	2	1	



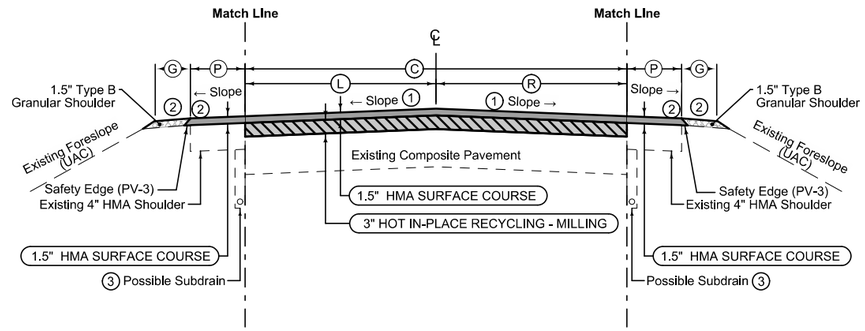
3R_MillingOverlay_ Modified						
STATION TO STATION		(C) Feet	(L) Feet	(R) Feet	Division	Remarks
20+50	37+75	24	12	12	1	

Combination Shoulder

3R_Shldr_C_Overlay_ Modified					
STATION TO STATION		(P) Feet	(G) Feet	(RBW) Feet	Division
20+50	37+75	3	0	2	1

Combination Shoulder

3R_Shldr_C_Overlay_ Modified						
STATION TO STATION		(P) Feet	(G) Feet	(LBW) Feet	Division	Remarks
205+28	221+41	3.33	0	2	2	
546+75	577+43	3.33	0	2	2	



3R_MillingOverlay_ Modified						
STATION TO STATION		(C) Feet	(L) Feet	(R) Feet	Division	Remarks
205+28	221+41	24	12	12	2	
546+75	577+43	24	12	12	2	

Combination Shoulder

3R_Shldr_C_Overlay_ Modified					
STATION TO STATION		(P) Feet	(G) Feet	(RBW) Feet	Division
205+28	221+41	3.33	0	2	2
546+75	577+43	3.33	0	2	2

(1) Finished slope shall match existing pavement except the minimum allowable slope is 2.0% and the maximum allowable slope is 3.0%. Section may be modified as directed by the Engineer through areas of special shaping.

(2) Finished slope of Shoulder shall have a minimum allowable slope of 4% and a maximum allowable slope of 6%. Section may be modified as directed by the Engineer through areas of special shaping.

(3) UAC existing subdrain. All existing subdrain shall remain functional at all times (do not plug or crush).

General Notes:

1. Stationing on typical sections does not include gapping for paved sideroads and paved entrances. Refer to Details.
2. See Tab 100-25 for HMA Pavement quantities.
3. See Tab 106-5 for HMA Base Widening quantities.
4. See Tab 112-9 for Granular Shoulder quantities.

IA 137 Mainline Hot In-Place Recycling & HMA Resurfacing,

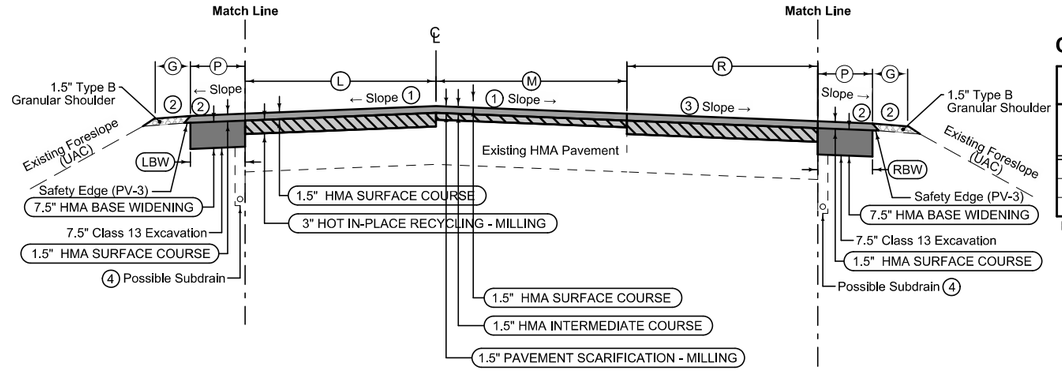
Locations with Existing Paved Shoulder

Combination Shoulder (with 2' Widening)

STATION TO STATION		(P) Feet	(G) Feet	(LBW) Feet	Division	Remarks
646+00	665+87.4	2	1	2	2	

3R_Shldr_C_Overlay_Modified

Equation: STA. 655+88.8 (BK) = STA. 655+98.5 (AH)



STATION TO STATION		(L) Feet	(M) Feet	(R) Feet	Division	Remarks
646+00	652+59.2	12	Varies	12	2	
652+59.2	657+11.1	12	16	12	2	
657+11.1	665+87.4	12	Varies	12	2	

3R_MillingOverlay_Modified

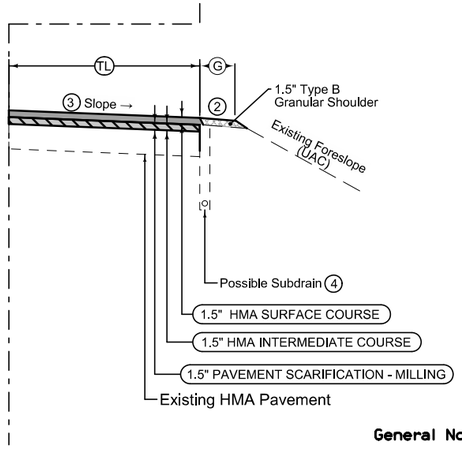
Equation: STA. 655+88.8 (BK) = STA. 655+98.5 (AH)

Combination Shoulder (with 2' Widening)

STATION TO STATION		(P) Feet	(G) Feet	(RBW) Feet	Division	Remarks
646+00	651+39.2	2	1	2	2	

3R_Shldr_C_Overlay_Modified

Equation: STA. 655+88.8 (BK) = STA. 655+98.5 (AH)



Turning Lanes

STATION TO STATION		(TL) Feet	(G) Feet	Division
651+39.2	652+59.2	0-12	x	
652+59.2	654+62.1	12	x	
654+62.1	665+87.4	12	x	

3R_Shldr_C_Overlay_Modified

① Finished slope shall match existing pavement except the minimum allowable slope is 2.0% and the maximum allowable slope is 3.0%. Section may be modified as directed by the Engineer through areas of special shaping.

② Finished slope of Shoulder shall have a minimum allowable slope of 4% and a maximum allowable slope of 6%. Section may be modified as directed by the Engineer through areas of special shaping.

③ Finished slope of Auxiliary Lanes and Turning Lanes shall have a minimum allowable slope of 3% and a maximum allowable slope of 4%. Section may be modified as directed by the Engineer through areas of special shaping.

④ UAC existing subdrain. All existing subdrain shall remain functional at all times (do not plug or crush).

General Notes:

1. Stationing on typical sections does not include gapping for paved sideroads and paved entrances. Refer to Details.
2. See Tab 100-25 for HMA Pavement quantities.
3. See Tab 106-5 for HMA Base Widening quantities.
4. See Tab 112-9 for Granular Shoulder quantities.

IA 137 Mainline Hot In-Place Recycling, HMA Resurfacing, & Base Widening

IA 137 and T55 Intersection

7148-M1
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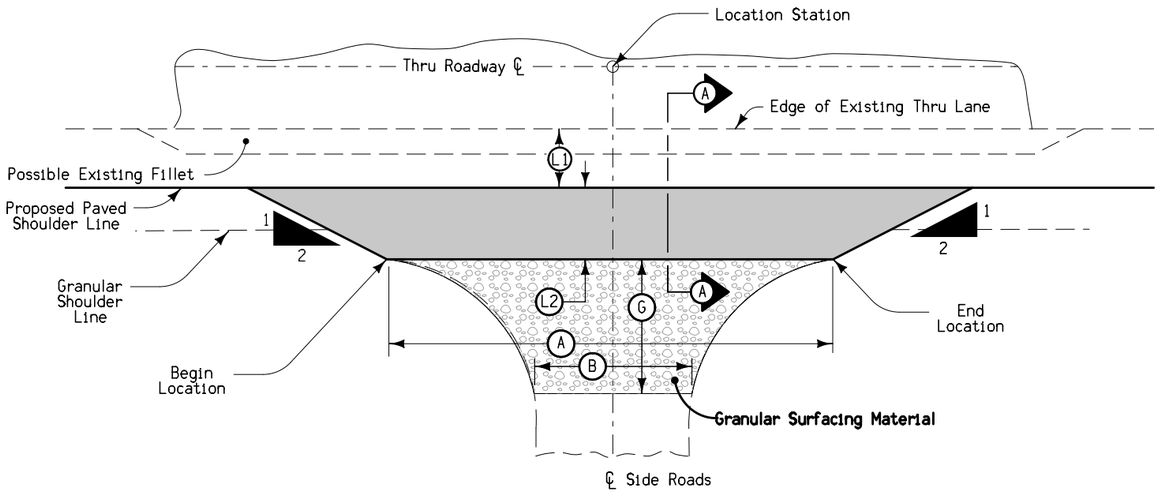
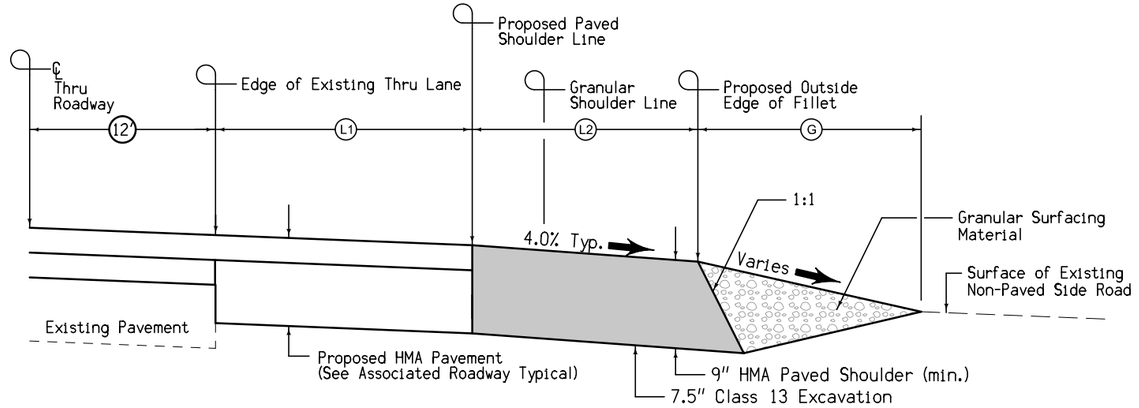
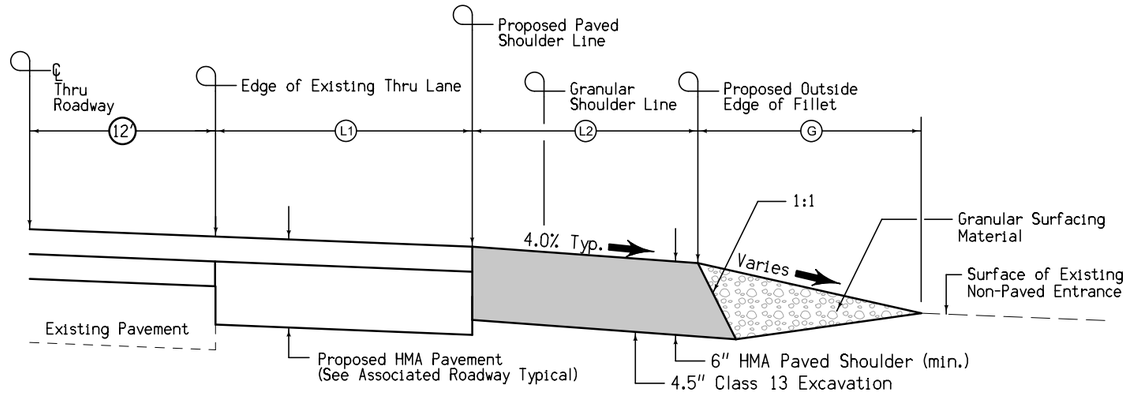


PLAN



SECTION A-A for Side Roads



SECTION A-A for Entrances

	NON-PAVED ENTRANCES	SIDE	A	B	L1	L2	G	Class 13 Excavation, Waste	Paved Sholder, Hot Mix Asphalt Mixture, 6"	Granular Surfacing on Road, Class A (140 lbs/cf)	FUNDING DIVISION
	COUNT		FT	FT	FT	FT	FT	CY	SY	TONS	
URBAN ENTRANCES	**11**		**58 AVG.**	**58 AVG.**	**3 AVG.**	**1 AVG.**	**4 AVG.**	**17.7**	**103.3**	**44.800**	**1**
RURAL ENTRANCES	**120**		**61 AVG.**	**62 AVG.**	**2 AVG.**	**2 AVG.**	**4 AVG.**	**281.4**	**1671.7**	**511.000**	**2**

GENERAL NOTES:

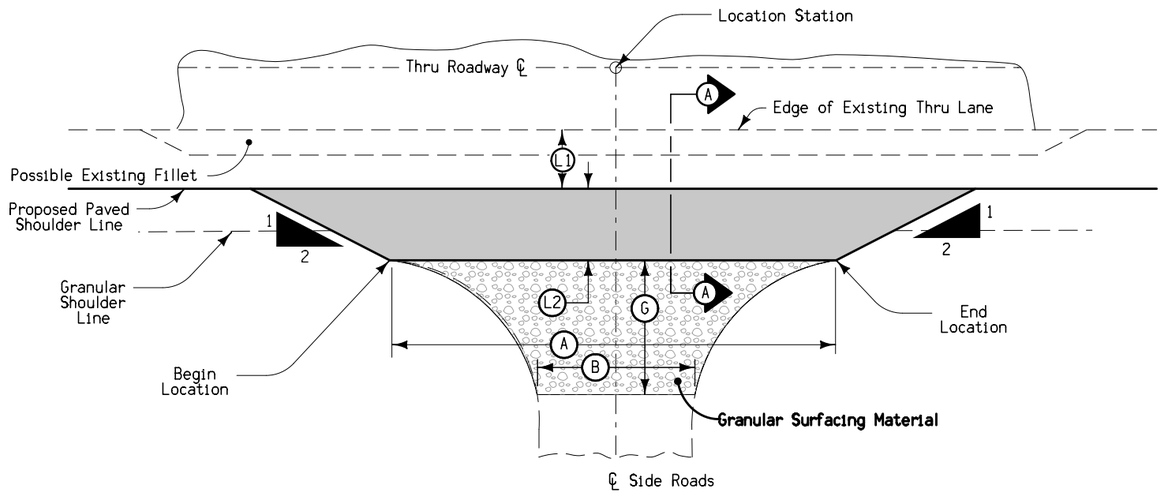
1. Refer to Tab 100-25 (HMA Pavement) and 106-5 (Base Widening) on the C Sheets for HMA Pavement, Widening, and Excavation Quantities associated with Dimension (L1).
2. On Skewed Side Roads: Dimension G is measured from the Middle of Dimension A to Dimension B along a line parallel with the "normal" Centerline of the Side Road. The Middle of Dimension A does not necessarily correlate with the Location Station. Use "Begin Station", "End Station", and the Length of Dimension A to find the Middle of Dimension A.

FILLET FOR NON-PAVED SIDE ROADS AND ENTRANCES (EXISTING PAVED FILLET LESS THAN OR EQUAL TO PROPOSED PAVED SHOULDER LINE) (Sheet 1 of 2)

SIDE ROAD NON-PAVED	SIDE	A	B	L1	L2	G	Class 13 Excavation for Fillet Removal	Paved Sholder, Hot Mix Asphalt Mixture, 8"	Granular Surfacing on Road, Class A (140 lbs/cf)	FUNDING DIVISION
		FT	FT	FT	FT	FT	CY	SY	TONS	
654th LN	LT	70	43	2	8	15	19.2	81.4	16.9	2
663rd LN	LT	43	30	2	8	15	13.2	51.6	11.8	2
664th AVE	RT	71	43	2	8	15	19.4	82.3	16.9	2
667th LN	LT	55	32	2	8	15	15.8	63.2	12.6	2
670th LN	LT	58	41	2	8	15	16.5	69.8	16.1	2
687th AVE	LT	41	26	2	8	15	12.7	48.0	10.2	2
127th ST	LT	59	27	2	8	15	16.7	64.5	10.6	2
695th AVE	RT	102	56	2	8	15	26.3	115.6	22.1	2
697th AVE	LT	72	39	2	8	15	19.6	81.4	15.4	2
702nd Ave	RT	51	24	2	8	15	14.9	56.0	9.5	2
710th AVE	RT	120	67	3	7	15	26.5	119.4	26.4	2
721st LN	LT	53	39	2	8	15	15.4	64.5	15.4	2
721st LN	LT	22	15	2	8	15	8.5	26.3	5.9	2
TOTALS:							**224.7**	**924.0**	**189.8**	**2**

FILLET FOR NON-PAVED SIDE ROADS AND ENTRANCES
(EXISTING PAVED FILLET LESS THAN OR EQUAL TO PROPOSED PAVED SHOULDER LINE)
(Sheet 2 of 2)

7148-M2
MODIFIED



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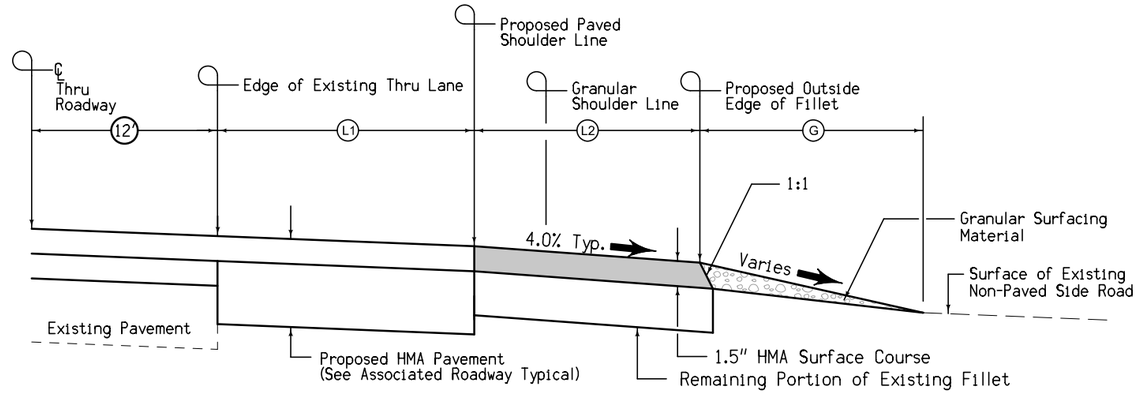


SECTION A-A for Side Roads

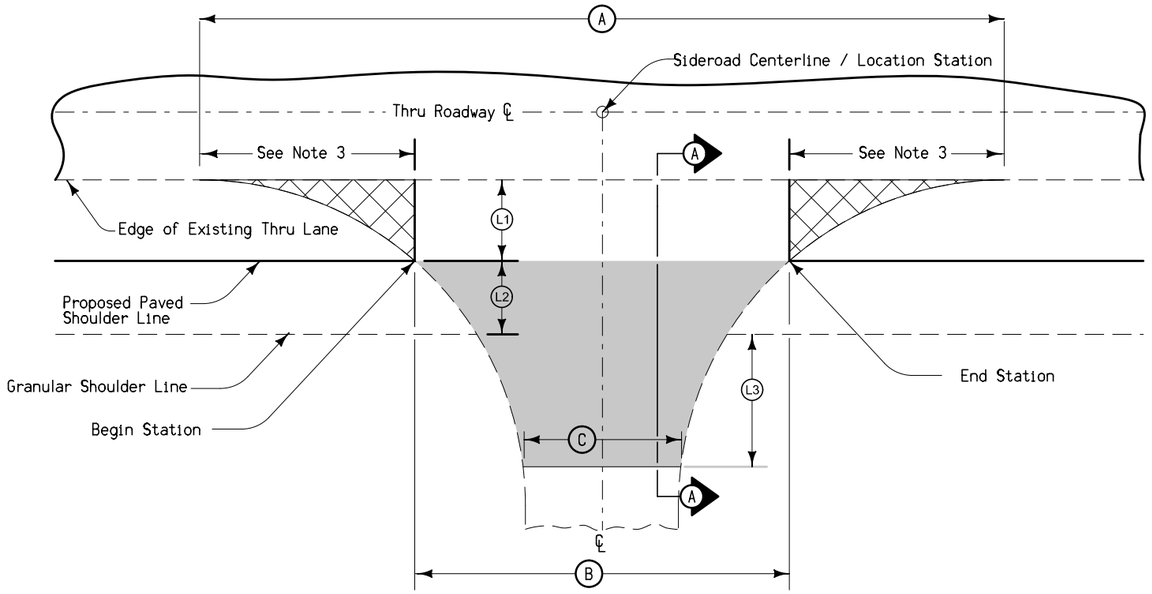
SIDE ROAD NON-PAVED	SIDE	A	B	L1	L2	G	FUNDING DIVISION
		FT	FT	FT	FT	FT	
157th Trail / 655th A	LT	80	48	3.3	6.7	15	2

GENERAL NOTES:

1. Refer to Tab 100-25 (HMA Pavement) and 106-5 (Base Widening) on the C Sheets for HMA Pavement, Widening, and Excavation Quantities associated with Dimension (L1).
2. On Skewed Side Roads: Dimension G is measured from the Middle of Dimension A to Dimension B along a line parallel with the "normal" Centerline of the Side Road. The Middle of Dimension A does not necessarily correlate with the Location Station. Use "Begin Station", "End Station", and the Length of Dimension A to find the Middle of Dimension A.

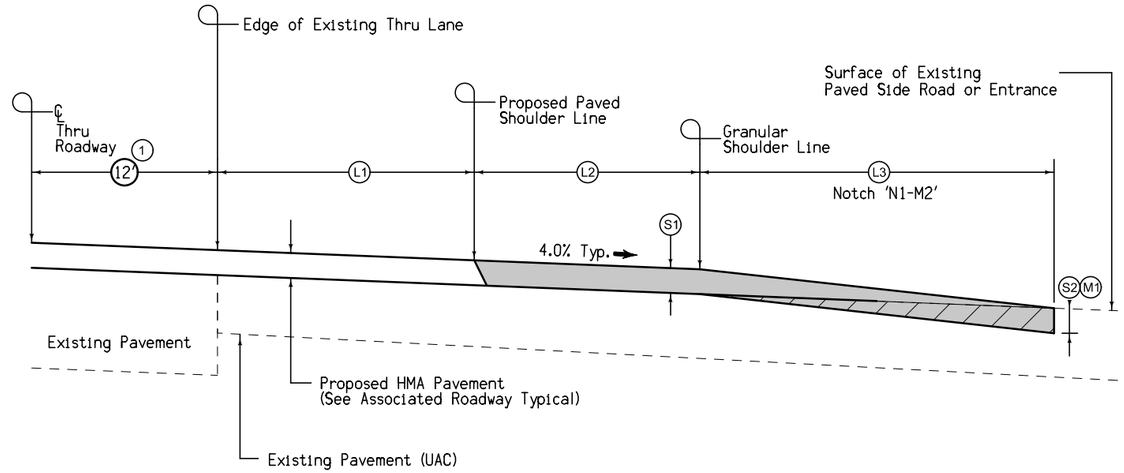
FILLET FOR NON-PAVED SIDE ROADS
(EXISTING PAVED FILLET GREATER THAN PROPOSED PAVED SHOULDER LINE)

7149-M
Modified



PLAN

Notch Type 'N1-M2'



SECTION A-A

Ⓢ HMA Surface Course
Ⓜ Pavement Scarification

SIDE ROAD PAVED Location	Side	Location Station	Ex. Surface Material	A FT	B FT	C FT	L1 FT	L2 FT	L3 FT	FUNDING DIVISION	REMARKS
G Ave. E	LT	12+00	HMA	77	60	35	2	1	11	1	
G Ave. E	RT	12+00	HMA	87	83	45	2	1	11	1	
644th Ave.	RT	38+13	HMA	76	56	37	2	1	7	1	
165th ST / H27	RT	48+40	PCC	138	120	98	2	1	16	1	Notch at PCC Joint.
160th ST / H33	LT	159+83	HMA	172	172	123	2	1	12	2	
613+75	LT	613+75	HMA	122	110	58	2	1	12	2	
720th AVE / T55	RT	655+50	PCC	202	202	158	2	1	12	2	Notch at PCC Joint.

GENERAL NOTES:

1. Refer to Tab 100-25 and 102-16 on the C Sheets for HMA Pavement and Scarification Quantities associated with Dimension L1, L2, and L3. Quantities for Dimension L1 are separated from Quantities associated with Dimensions L2 and L3.
2. Refer to Tab 108-22 on the C Sheets for STOP LINE (SLW2) pavement markings for Side Road locations listed on this Detail.
3. The existing sideroad/entrance pavement outside the limits of Dimension B shall be removed and included in the cost of Class 13 Excavation. Class 13 Excavation and Base Widening (Tab 106-5) shall NOT occur within the limits of Dimension B.
4. If a Dimension is not provided, then it isn't necessary for the construction of tne respective treatment.
5. Dimensions are approximate and shall match existing.

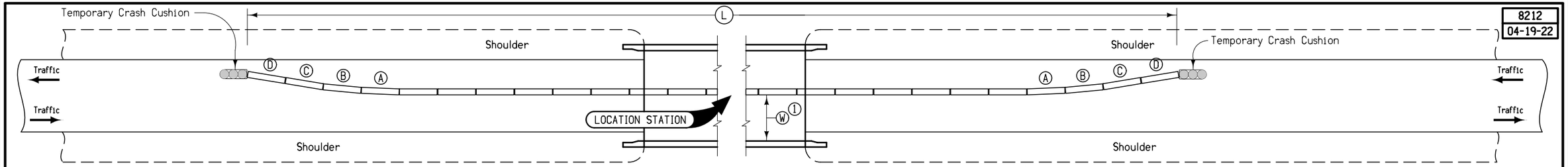
① Dimension from centerline to outside Edge of Turn Lane at Fir Avenue is 24'.

HMA RUNOUT FOR PAVED SIDE ROADS OR PAVED ENTRANCES ADJACENT TO AREAS WITH PROPOSED ROADWAY PROFILE ELEVATION RISE

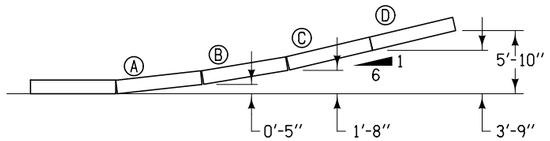
(Sheet 1 of 2)

ENTRANCE PAVED Location	Side	Location Station	Ex. Surface Material	A FT	B FT	C FT	L1 FT	L2 FT	L3 FT	FUNDING DIVISION	REMARKS
Entrance	RT	7+56	PCC	61	49	35	2	1	18	1	Notch at PCC Joint.
Entrance	RT	20+00	PCC	113	113	Vari.	3	0	Vari.	1	Notch at PCC Joint.
Entrance	LT	22+50	HMA	48	48	28	3	0	15	1	
Entrance	LT	35+62	PCC	28	28	22	3	0	7	1	Notch 5' from ROW.
Entrance	LT	36+40	HMA/Gran.	30	25	21	3	0	7	1	Notch 5' from ROW.
Entrance	LT	45+60	HMA	20	20	12	2	1	7	1	Notch 5' from ROW.
Entrance	LT	48+35	PCC	36	36	30	2	1	7	1	Notch 5' from ROW.
Entrance	LT	103+50	PCC	54	40	20	2	1	12	2	Notch at PCC Joint.
Entrance	RT	126+50	PCC	36	34	12	2	1	12	2	Notch at PCC Joint.
Entrance	RT	397+07	PCC	66	66	22	2	1	13	2	Notch at PCC Joint.

HMA RUNOUT FOR
PAVED SIDE ROADS OR PAVED ENTRANCES
ADJACENT TO AREAS WITH PROPOSED ROADWAY PROFILE ELEVATION RISE
(Sheet 2 of 2)



1 Where W is less than 15'-6", install restricted width signing as per Standard Road Plan TC-81.



BARRIER OFFSETS FOR FLARE SECTIONS

Station	Side	AA	WL	TA	L	Anchored	W 1	Remarks
		Feet	Feet	Feet	Feet	X	Ft-Inches	
27+20	LT	25	23	50	198	X	14-10.8	

TEMPORARY CONCRETE BARRIER LAYOUT for Two-Way Traffic

8212
04-19-22

FILE NO.	ENGLISH	DESIGN TEAM **HOLST/BAHR/McNAMARA**	**MONROE** COUNTY	PROJECT NUMBER **STP-137-1(021)--2C-68**	SHEET NUMBER **B.9**	

8:27:30 AM 9/20/2024 wmcnama pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_B01.dgn

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway - DIVISION 1 : Iowa DOT and Federal Participation (URBAN)

Roadway - DIVISION 2 : Iowa DOT and Federal Participation (RURAL)

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Roadway - DIVISION 1	Roadway - DIVISION 2	Total	
1	2101-0850001	CLEARING AND GRUBBING	ACRE		9.3	9.3	Refer to Tab. 110-17 on C Sheets.
2	2101-0850002	CLEARING AND GRUBBING	UNIT		888.1	888.1	
3	2102-2625000	EMBANKMENT-IN-PLACE	CY		100	100	Refer to Tab. 3R-CULV on C Sheets. Class 13 Material may be used as EMBANKMENT-IN-PLACE. Item is for repair to the North Return of 127th ST with IA 137.
4	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	17.7	224.7	242.4	Includes 224.7 CY for Side Roads from Detail 7148-M1 on B Sheets. Refer to Detail 7148-M1 on B Sheets.
5	2105-8425005	TOPSOIL, FURNISH AND SPREAD	CY		18	18	Refer to Tab. 3R-CULV on C Sheets.
6	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	73.92	1,243.109	1,317.029	Refer to Tab. 112-9 on C Sheets. Tabulation includes 20% contingency for irregularities. Refer to Tab. 112-9 on C Sheets. Tabulation includes 20% contingency for irregularities.
7	2125-2225050	RESHAPING DITCHES	STA		20	20	Refer to Tab. 3R-CULV on C Sheets.
8	2212-5070310	PATCHES, FULL-DEPTH REPAIR	SY	30.7		30.7	Refer to Tab. 102-6C on C Sheets.
9	2212-5070330	PATCHES BY COUNT (REPAIR)	EACH	1		1	
10	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	307.7	5,731.8	6,039.5	Refer to Tab. 106-5 on C Sheets.
11	2213-8201075	BASE WIDENING, 7.5 IN. HOT MIX ASPHALT MIXTURE	SY	1,377.8	27,512.5	28,890.3	Refer to Tab. 106-5 on C Sheets.
12	2213-8201110	BASE WIDENING, 11 IN. HOT MIX ASPHALT MIXTURE	SY	67.5		67.5	

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Roadway - DIVISION 1	Roadway - DIVISION 2	Total	
13	2214-5145150	PAVEMENT SCARIFICATION	SY	1,309.3	3,330.7	4,640	Includes 2518.8 SY from Tab. 100-25. Includes 811.9 SY from Tab. 102-16. Includes 293.3 SY from Tab. 100-25 on C Sheets. Includes 1016.0 SY from Tab. 102-16 on C Sheets.
14	2303-1042500	HOT MIX ASPHALT HIGH TRAFFIC, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	25.48	218.71	244.19	Refer to Tab. 100-25 on C Sheets. Tabulation includes 5% contingency for irregularities. Refer to Tab. 110-25 on C Sheets. Tabulation includes 5% contingency for irregularities.
15	2303-1043504	HOT MIX ASPHALT HIGH TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, FRICTION L-4	TON	1,403.75	17,589.28	18,993.03	
16	2303-1258284	ASPHALT BINDER, PG 58-28H, HIGH TRAFFIC	TON	85.84	1,068.64	1,154.48	
17	2402-0425040	FLOODED BACKFILL	CY		25	25	Refer to Tab. 3R-CULV on C Sheets.
18	2416-0100018	APRONS, CONCRETE, 18 IN. DIA.	EACH		1	1	
19	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH		26	26	Refer to Tab. 3R-CULV on C Sheets.
20	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.	EACH		6	6	Refer to Tab. 3R-CULV on C Sheets.
21	2416-0101036	REMOVE AND REINSTALL CONCRETE PIPE APRONS LESS THAN OR EQUAL TO 36 IN.	EACH		3	3	
22	2416-1541036	REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL TO 36 IN.	LF		144	144	
23	2502-8212304	SUBDRAIN, STANDARD, PERFORATED, 4 IN., AS PER PLAN	LF	69,115		69,115	
24	2502-8221305	SUBDRAIN OUTLET, DR-305	EACH	138		138	
25	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED	EACH	2	4	6	Refer to Tab. 108-29 on C Sheets.
26	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	1.23		1.23	Refer to Tab. 108-22 on C Sheets.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Roadway - DIVISION 1	Roadway - DIVISION 2	Total	
27	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	383.05	4,271.12	4,654.17	Refer to Tab. 108-22 on C Sheets. Item includes quantities for applications of Pavement Markings to temporary driving surfaces and the final driving surface. One additional application has been added for Pavement Markings placed after grooving and centerline rumble strip installation. Refer to Tab. 108-22 on C Sheets. Item includes quantities for applications of Pavement Markings to temporary driving surfaces and the final driving surface. One additional application has been added for Pavement Markings placed after grooving and centerline rumble strip installation.
28	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	133.97	933.61	1,067.58	Refer to Tab. 108-22 on C Sheets. Quantity for grooves was generated using the same line type factors used for the final application of pavement markings on this project. The grooves shall have a minimum width of 8" to accommodate future placement of pavement markings (by others) that are scheduled to be 2" wider than the markings scheduled for placement on this project. Grooves shall not be installed where Centerline Rumble Strips are scheduled to be installed.
29	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	198		198	Refer to Tab. 108-33 on C Sheets.
30	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EACH	1		1	Refer to Tab. 108-28 on C Sheets.
31	2528-8445110	TRAFFIC CONTROL	LS	1		1	Refer to Traffic Control Plan on J Sheets.
32	2528-8445113	FLAGGERS	EACH	0		0	See Proposal.
33	2528-8445115	PILOT CARS	EACH	0		0	
34	2529-8174010	SUBBASE (PATCHES)	SY	30.7		30.7	Refer to Tab. 102-6C on C Sheets.
35	2533-4980005	MOBILIZATION	LS	0		0	- -
36	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA		1,156.36	1,156.36	Refer to Tab. 112-10 on C Sheets.
37	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL		1,252.9	1,252.9	
38	2548-0000310	MILLED CENTERLINE RUMBLE STRIPS, HMA SURFACE	STA		595.03	595.03	
39	2551-0000110	TEMP CRASH CUSHION	EACH	2		2	Refer to Tab. 108-30 on C Sheets.
40	2599-9999018	('SQUARE YARDS' ITEM) HOT IN-PLACE RECYCLED ASPHALT PAVEMENT	SY	12,866.7	170,827.7	183,694.4	Refer to Tab. 100-25 on C Sheets. Refer to Special Provisions for Hot In-Place Recycling for additional information.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Roadway - DIVISION 1	Roadway - DIVISION 2	Total	
41	2599-9999020	('TONS' ITEM) ASPHALT REJUVENATING AGENT	TON	29.612	393.155	422.767	

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
BA-401	04-20-21	Temporary Barrier Rail (Precast Concrete)
BA-500	04-20-21	Temporary Crash Cushions Sand Barrel
DR-101	04-18-17	Pipe Culvert (Bedding and Backfill)
DR-103	04-21-15	Pipe Culvert (Installation Details)
DR-104	04-19-16	Depth of Cover Tables for Concrete and Corrugated Pipe
DR-201	10-17-23	Concrete Aprons
DR-303	10-17-17	Subdrains (Longitudinal)
DR-306	10-17-23	Precast Concrete Headwall for Subdrain Outlets
DR-621	04-18-17	Pipe Extension
EW-401	10-20-15	Temporary Stream Crossing, Causeway, or Equipment Pad
EW-503	10-20-15	Side Road Grading
PM-110	10-15-24	Line Types
PM-111	04-21-20	Symbols and Legends
PM-115	10-15-24	Grooving for Line Types
PM-120	10-15-24	Stop Lines and Islands
PM-210	10-15-24	Separation in Two-Lane Roadway
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
PM-522	10-15-24	Two-Lane Roadway with Left Turn Lanes
PR-140	04-21-15	Subbase Patches
PV-3	10-15-24	Safety Edge
PV-12	04-16-24	Milled Shoulder Rumble Strips
PV-13	04-16-24	Milled Centerline Rumble Strips
PV-301	04-21-20	Superelevation Details Two Lane Roadway
SI-881	04-16-19	Special Signs for Workzones
SI-882	10-18-16	Special Signs for Restricted Width Traffic Control Zones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-81	04-18-23	Restricted Width Signing (Less Than 15.5 Feet)
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-217	04-18-23	Lane Closure with Signals and TBR
TC-232	10-21-14	Shoulder Rumble Strip Operations
TC-233	10-17-17	Pavement Marking Operations Two-Lane
TC-251	04-18-23	Temporary Road Closure
TC-252	04-21-20	Routes Closed to Traffic
TC-282	10-15-19	Uneven Lanes

111-25
10-18-11

INDEX OF TABULATIONS

Tabulation	Tabulation Title	Sheet No.
C Sheets		
100-25	HMA PAVEMENT	C.10 - C.12
100-26	INCIDENTAL ITEMS	C.5
100-27	EXISTING POSTED SPEED LIMIT	C.5
102-5	EXISTING PAVEMENT	C.5
102-6C	FULL-DEPTH PATCHES	C.8
102-16	NOTCHES AND RUNOUTS FOR RESURFACING	C.9
105-4	STANDARD ROAD PLANS	C.4
106-5	AREAS FOR PAVEMENT OR BASE WIDENING	C.13
108-22	PAVEMENT MARKING LINE TYPES	C.16 - C.17
108-28	TEMPORARY TRAFFIC SIGNALS	C.7
108-29	PAVEMENT MARKING SYMBOLS AND LEGENDS	C.18
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108-33	TEMPORARY BARRIER RAIL	C.7
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111-25	INDEX OF TABULATIONS	C.4
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112-10	MILLED RUMBLE STRIPS	C.15
3R-CULV	DRAINAGE STRUCTURE REPAIR WORK	C.8

262-6
10-18-05

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.

100-26
10-15-13

INCIDENTAL ITEMS

Special or unique items where method of measurement / basis of payment is not indicated in the specifications or other contract documents.

No.	Incidental Item	Unit	Quantity	Incidental To		Remarks
				Item Code	Item	
	DIVISION 1 - URBAN					
1	Hydro Cleaning / Culvert Cleaning	CY	167	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT	Note 1
NOTE 1: See Tab. 3R-CULV, Note 2 on C Sheets for Culvert Cleaning.						

100-27
MODIFIED

EXISTING POSTED SPEED LIMIT

Road Identification	Begin Station	End Station	Existing Posted Speed Limit			Remarks
			35 or less	40 - 45	over 45	
IA 137	**3+05.00**	**49+40.00**		**x**		
	49+40.00	562+73.20			x	
Equation STA 562+73.2 (BK) = STA 562+40.0 (AH)						
	562+40.00	655+88.80			x	
Equation STA 655+88.8 (BK) = STA 655+98.5 (AH)						
	655+98.50	680+00.00			x	
	680+00.00	692+41.90		x		

102-5
04-18-17

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth IN	Type	Depth IN	Type	Depth IN	Type	Depth IN	Source	Type	Durability Class	Type	
	68	IA-137	1	0	0.72	2013		MP-137-5(701)0--76-68	MSS												
	68	IA-137	1	0	0.72	1993		NA	AAC	2	BAC	2			MIL	1.5					
	68	IA-137	1	0	0.72	1966		NA	BAC	3.5											
	68	IA-137	1	0	0.72	1954		NA	RSB	5											
	68	IA-137	1	0.72	13.66	2013		MP-137-5(701)0--76-68	MSS												
	68	IA-137	1	0.72	13.66	1993		STP-137-1(13)--2C-68	AAC	2	BAC	2			MIL	1.5	DURHAM	C.LST.			
	68	IA-137	1	0.72	13.66	1966		FN-359	BAC	0.5	TBB	4					NEW SHARON	C.LST.			
	68	IA-137	1	0.72	13.66	1955		FN-359*<1>	AAC	2.5	RSB	5					LANGSTRATT	C.LST.			

CLEARING AND GRUBBING

Location		Work and Material Type	Trees, Stumps, and Logs and Down Timber Material Diameters												All Other Materials		Estimated Quantities			Remarks
Station to Station or Ref. Loc. Sign to Ref. Loc. Sign or Description	Direction of Travel		3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>42"-48"	>48"-60"	>60"-72"	>72"	Length	Width	Units	Area	Herbicide Application	
																FT	FT				
1.3844-1.5437	SB	Trees - Clearing and Grubbing																	0.6		1593'X15'
1.5894-1.9196	SB	Trees - Clearing and Grubbing																	1.1		3302'X15'
1.8228-1.8970	NB	Trees - Clearing and Grubbing																	0.3		742'X20'
2.0088-2.0188	SB	Trees - Clearing and Grubbing																	0.1		100'X20'
2.7915-2.8371	SB	Trees - Clearing and Grubbing																	0.2		456'X20'
3.2880-3.3562	SB	Trees - Clearing and Grubbing																	0.3		682'X20'
4.0700-4.1660	SB	Trees - Clearing and Grubbing																	0.3		960'X15'
10.0586-10.1427	NB	Trees - Clearing and Grubbing																	0.6		841'X30'
10.1073-10.1427	SB	Trees - Clearing and Grubbing																	0.2		361'X20'
10.6612-10.7288	SB	Trees - Clearing and Grubbing																	0.3		676'X20'
10.6900-10.8024	NB	Trees - Clearing and Grubbing																	0.5		1124'x20'
10.8200-10.8410	SB	Trees - Clearing and Grubbing																	0.2		210'x40'
11.6632-11.8705	NB	Trees - Clearing and Grubbing																	1.0		2073'x20'
11.7110-11.8705	SB	Trees - Clearing and Grubbing																	0.7		1598'x20'
12.7212-12.9257	SB	Trees - Clearing and Grubbing																	0.9		2045'x20'
.0710-.1569	SB	Logs and Down Timber - Clearing																	2.0		859X100
3.319	SB	Trees - Clearing and Grubbing		2						4								207.8			
5.2695	SB	Trees - Clearing and Grubbing								4								200.0			
6.5694	NB	Trees - Clearing and Grubbing						5		1								160.0			
7.4425	NB	Trees - Clearing and Grubbing	6															9.6			
7.6253	NB	Trees - Clearing and Grubbing										1						120.0			
7.665	NB	Trees - Clearing and Grubbing		4														15.6			
9.9712	NB	Trees - Clearing and Grubbing		8			1											44.7			
10.4028	NB	Trees - Clearing and Grubbing	4		1													13.1			
10.4322	NB	Trees - Clearing and Grubbing	12	2														27.0			
10.4761	NB	Trees - Clearing and Grubbing	3															4.8			
10.7704	SB	Trees - Clearing and Grubbing		5														19.5			
11.1214	NB	Trees - Clearing and Grubbing						3										66.0			
DIVISION 2 - RURAL TOTALS:																		**888.1**	**9.3**		

108-33
10-15-19

TEMPORARY BARRIER RAIL

Possible Standard: BA-401 Possible Detail: 560-7

* Not a bid item. Anchorage requirements are based on TBR locations shown in the plans. TBR alignments that vary from what is shown in the plans may result in additional TBR sections requiring anchorage.

No.	Station to Station		Length	(Select One) Concrete BA-401	(Select One) Steel 560-7	Anchored* (Y/N)	Modular Glare Screen System (Y/N)	Remarks
			LF					
1	26+19.00	28+45.00	198.0	X		Yes	No	IA 137 Culvert Repair MP 0.5
	DIVISION 1 - URBAN TOTALS:		**198.0**					

108-30
04-16-13

CRASH CUSHIONS

* Bid Item
(1) Lane(s) to which the installation is adjacent.
(2) Complete this section when using the Temporary Crash Cushion bid item and Earthwork is needed for Sand Barrel placement. Refer to BA-500

No.	(1) Direction of Traffic	Location Station	Side	Obstacle Width	Crash Cushion (Select One)* Temporary	Temporary Redirective	Temporary Severe Use	Permanent	Permanent Severe Use	Sand Barrel Details (2) V Length	W Length	X Length	Y Length	Z Length	Earthwork* Excavation Class 10	Embankment in Place	Spare Parts Kit (Select One)* Permanent	Permanent Severe Use	Obstacle Description	Remarks
				FT						FT	FT	FT	FT	FT	CY	CY	EACH	EACH		
1	NB	26+20.00	M	1.88	X						24.25	5.25	3.25	12.00					End of TBR	
2	SB	28+46.00	M	1.88	X						24.25	5.25	3.25	12.00					End of TBR	
	DIVISION 1 - URBAN TOTALS:				**2**															

108-28
08-01-08

TEMPORARY TRAFFIC SIGNALS

No.	Location Station	Type: One Lane Traffic	Type: Haul Road	Type: Intersection	Remarks
1	25+04.00	x			IA 137
	29+62.00	x			IA 137
1	**DIVISION 1 - URBAN TOTALS**				

110-2
04-16-13

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
DIVISION 1 - URBAN		
IA 137, MP 0.5	Roadway Pipe LT., 30" RCP x 16 ft	See Tab. 3R-CULV for additional information.
DIVISION 1 - URBAN TOTAL	**16**	**LF (REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.)**

DRAINAGE STRUCTURE REPAIR WORK

* Not a bid item
(1) UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe

No.	Location	Size	Kind Of Pipe (1)	Length New Const.		Connected Pipe Joint* (DR-121)	Type 'C' Connections* (DR-122)		New Apron		Flow Line Elevations		Remove and Reinstall Pipe Culvert				Remove and Reinstall Apron				Class 20 Excavation (Culvert Cleaning) [Note (2)]		Embankment In-Place		Flooded Backfill [see NOTE (3)]		Topsoil, Furnish and Spread		Reshaping Ditch		Remarks [see Note (1)]
													Linear Feet				Each														
													Left Side		Right Side		Left Side		Right Side												
		IN		Lin. Ft. Lt.	Rt.	Type	TYPE	No.	Each Lt.	Rt.	Lt.	Rt.	≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	CY Lt.	Rt.	CY Lt.	Rt.	CY Lt.	Rt.	CY Lt.	Rt.	STA Lt.	Rt.	
DIVISION 2 - RURAL																															
1	0.5	30	RCP	12		3.0			1														48		25						
3	2.2021	24	RCP			3.0			1	1					8																
4	2.525	2x2	box																											1.00	reshape ditch for drainage
5	3.319	24	RCP			3.0			1	1			8																		
6	3.748	24	RCP						1	1																					
7	4.085	24	RCP							1																					
8	4.143																													1.00	reshape ditch
9	4.646	24	RCP						1	1																					
10	4.885	24	RCP							1																				1.00	
11	5.515	2x3	BOX																		5	5							1.00	1.00	Hydro clean
12	5.546	24	RCP							1											11	11							1.00	1.00	Hydro clean
13	5.7401	24	RCP						1	1											13	13							1.00	1.00	Hydro clean
14	5.986	24	RCP						1	1											11	11							1.00	1.00	Hydro clean
15	7.01	24	RCP			3.0			1	1			8																		
16	7.138	24	RCP						1												13	13							1.00	1.00	Hydro clean
17	7.418	30	RCP			3.0				1					8																
18	7.609	24	RCP						1	1											11	11							1.00	1.00	Hydro clean
19	7.838	24	RCP			3.0				1							1														
20	8.406	30	RCP			3.0							16		8																
21	8.52	18	RCP		20		C-4	1		1														62				18			Work shall maintain positive drainage. NOTE (4)
22	9.029	30	RCP			3.0			1	1			8								20	20							1.00	1.00	Hydro clean
23	9.459	24	RCP			3.0			1	1			8																		
24	10.103	24	RCP			3.0				1			8				1													3.00	
25	10.701	36	RCP			3.0							8				1														
26	11.44	30	RCP						1																						
27	12.693	24	RCP			3.0			1	1			8		16																
28	13.035	30	RCP			3.0				1			16		16																
DIVISION 2 - RURAL TOTALS												**RCP**	**144**	**0**			**3**	**0**			**167**		**110**		**25**		**18**		**20.00**		
	ROADWAY	**18**	**RCP**	**20**					**1**	**RCP**																					
	ROADWAY	**24**	**RCP**	**0**					**26**	**RCP**																					
	ROADWAY	**30**	**RCP**	**12**					**6**	**RCP**																					
	ROADWAY	**36**	**RCP**	**0**					**0**	**RCP**																					

(1) Work shall not impact the roadway nor Right-of-Way
(2) The interior of the culvert is to be flushed clean with water. Class 20 Exc. for Cleaning is approximated to equal the volume of the culvert that is partly or wholly plugged. The method of flushing of the culvert will be considered incidental to Class 20 Exc., see Tab. 100-26.
(3) Flooded Backfill consists of floodable backfill and porous backill bedding. Refer to DR-401.
(4) Connect 18" RCP to Existing 12" CMP.

FULL-DEPTH PATCHES

Possible Standards: PR-101, PR-102, PR-103, PR-104, PR-105, and PR-140.

Location				Dimension			PCC Patches				HMA Patches	Composite HMA	Subbase Patches	Subbase Patch w/ 'EF' Joint	Patch Subdrain	'CD' Joints	'CT' Joints	'EF' Joints	Anchor Lugs Removal	Remarks
Count	Station	Reference Location Sign	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C	Ramp with Dowels										
							PR-103	PR-102	PR-104	PR-105			PR-140	PR-101	PR-101 or PR-140			PR-101		
			L, R, or B	FT	FT	IN	SY	SY	SY	SY	SY	TON	SY	SY	No.	No.	No.	No.	No.	
1	27+20.00	MP 0.5	L	23.0	12.0	9.5					30.7		30.7		1					Culvert Repair Patch, Refer to Tab. 3R-CULV.
1	**DIVISION 1 - URBAN TOTALS**										**30.7**		**30.7**		**1**					

NOTCHES AND RUNOUTS FOR RESURFACING

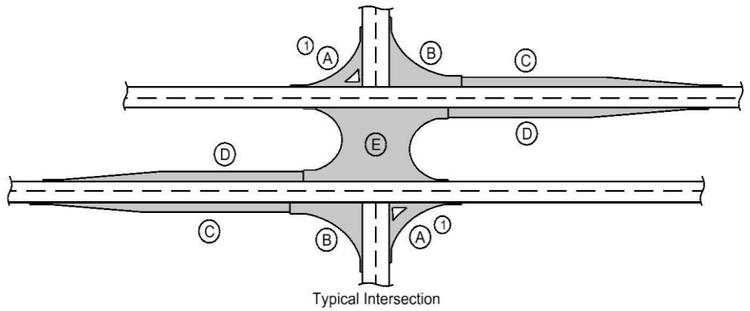
Refer to MODIFIED STANDARD ROAD PLANS PR-201 and PR-202 (ON U SHEETS)

(1) Bid item. Refer to 100-25 for remaining values.

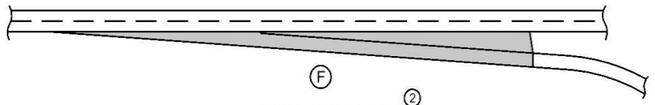
Location	Location Station	Direction of Traffic	Type of Notch or Runout	S1 IN	S2 IN	I1 IN	I2 IN	Z1 IN	Z2 IN	L IN	M1 IN	M2 IN	Pavement Scarification (1) TONS	Pavement Scarification (1) SY	Remarks
DIVISION 1 - URBAN															
IA 137		NB and SB	Type 'N1-M1'	1.5	1.5			3.0		75.0	1.5			233.4	Includes Shoulder
Paved Side Roads and Paved Entrances associated with Road Design Detail 7149-M on B Sheets:															
G Ave. E	12+00.00	SB	Type 'N1-M2'	1.5	1.5					11.0	1.5			64.0	
G Ave. E	12+00.00	NB	Type 'N1-M2'	1.5	1.5					11.0	1.5			86.0	
644th Ave.	38+13.00	NB	Type 'N1-M2'	1.5	1.5					7.0	1.5			42.0	
165th ST / H27	48+40.00	NB	Type 'N1-M2'	1.5	1.5					16.0	1.5			221.0	
Entrance	7+56.00	NB	Type 'N1-M2'	1.5	1.5					18.0	1.5			78.4	Notch at PCC Joint.
Entrance	20+00.00	NB	Type 'N1-M2'	1.5	1.5					Vari.	1.5			147.3	Notch at PCC Joint.
Entrance	22+50.00	SB	Type 'N1-M2'	1.5	1.5					15.0	1.5			59.0	
Entrance	35+62.00	SB	Type 'N1-M2'	1.5	1.5					7.0	1.5			21.8	Notch 5 feet from ROW.
Entrance	36+40.00	SB	Type 'N1-M2'	1.5	1.5					7.0	1.5			19.5	Notch 5 feet from ROW.
Entrance	45+60.00	SB	Type 'N1-M2'	1.5	1.5					7.0	1.5			15.6	Notch 5 feet from ROW.
Entrance	48+35.00	SB	Type 'N1-M2'	1.5	1.5					7.0	1.5			28.0	Notch 5 feet from ROW.
TOTALS (DIVISION 1 - URBAN)														**1016.0**	**DIVISION 1 - URBAN**
DIVISION 2 - RURAL															
IA 137	692+14.90	NB and SB	Type 'N1-M1'	1.5	1.5			3.0		75.0	1.5			233.4	Includes Shoulder
Paved Side Roads and Paved Entrances associated with Road Design Detail 7149-M on B Sheets:															
160th ST / H33	159+83.00	SB	Type 'N1-M2'	1.5	1.5					12.0	1.5			132.0	
61375	613+75.00	SB	Type 'N1-M2'	1.5	1.5					12.0	1.5			75.0	
720th AVE / T55	655+50.00	NB	Type 'N1-M2'	1.5	1.5					12.0	1.5			260.0	
Entrance	103+50.00	SB	Type 'N1-M2'	1.5	1.5					12.0	1.5			35.2	Notch at PCC Joint.
Entrance	126+50.00	NB	Type 'N1-M2'	1.5	1.5					12.0	1.5			30.7	Notch at PCC Joint.
Entrance	397+07.00	NB	Type 'N1-M2'	1.5	1.5					13.0	1.5			45.6	Notch at PCC Joint.
TOTALS (DIVISION 2 - RURAL)														**811.9**	**DIVISION 2 - RURAL**

Notes:
(1) Refer to Modified Standard Road Plan PR-202 (Notches for Resurfacing) on U Sheets.

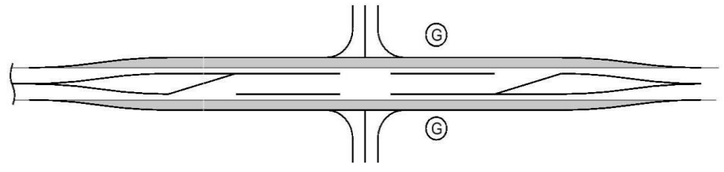
HMA PAVEMENT



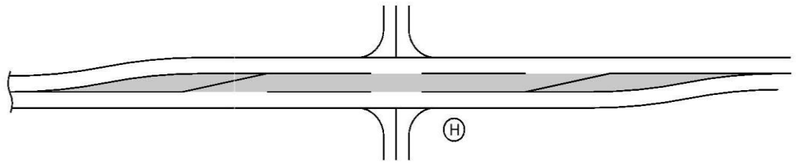
Typical Intersection



Ramp or Loop Taper (2)



Channelized Intersection
Widen Existing Roadway



Channelized Intersection
Reconstructed Roadway

(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.

(2) Refer to PV-410, PV-411, PV-412, and PV-414.

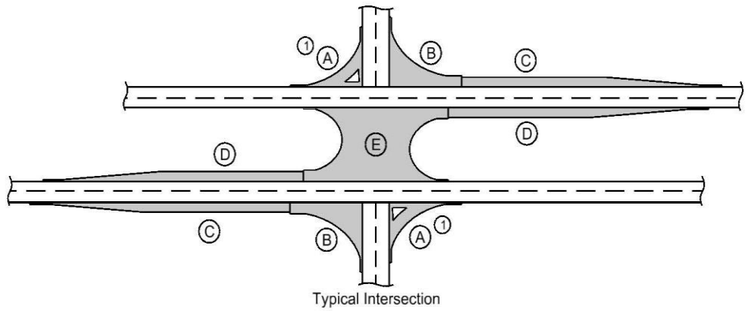
(3) Quantity includes Pavement Header.

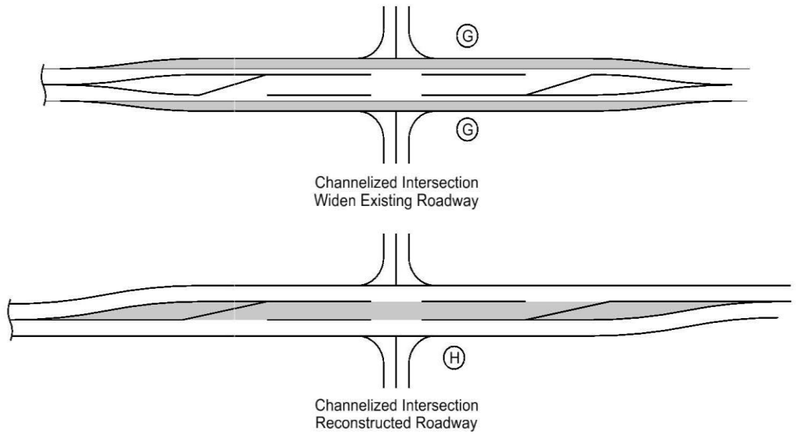
Calculations assume a Surface Course unit weight (lbs/cf) of 147, an Intermediate Course unit weight (lbs/cf) of 147, and a HMA Millings unit weight (lbs/cf) of 145

Location				Mainline			Area (3)								Bid Items: Hot Mix Asphalt Pavement				Bid Items: Binder						Remarks
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A (1)	B	C	D	E	F (2)	G	H	Surface Course, High Traffic, 1/2 in. Mix, Friction L-4		Intermediate, High Traffic, 1/2 in. Mix		Surface PG 58-28H 6% / Ton HMA	Intermediate PG 58-28H 6% / Ton HMA	Hot In-Place Recycling	Asphalt Rejuvenating Agent 0.175 GAL/SY/IN HIR	Pavement Scarification (HMA Millings)		
				FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	TONS	SY	TONS	TONS	SY	
DIVISION 1 - URBAN																									
IA 137 (Traveled Way)	BOTH	2+30.00	3+05.00	24.0	75.0	200.0									16.540	200.0			1.000						
IA 137 (Traveled Way)	BOTH	3+05.00	51+30.00	24.0	4825.0	12866.7									1063.920	12866.7			63.840		12866.7	28.202			
IA 137 (Shoulder)	NB	3+05.00	20+50.00	2.0	1745.0	387.8									32.070	387.8			1.930						
IA 137 (Shoulder)	NB	20+50.00	37+75.00	2.0	1725.0	383.3									31.700	383.3			1.910						
IA 137 (Shoulder)	NB	37+75.00	51+30.00	2.0	1355.0	301.1									24.900	301.1			1.500						
IA 137 (Safety Edge)	NB	3+05.00	51+30.00	0.2	4825.0	124.9									10.330	124.9			0.620						
IA 137 (H27 RT TL)	NB	44+70.00	45+90.00	0-12	120.0	80.0									6.620	80.0	6.620	80.0	0.400	0.400				80.0	
IA 137 (H27 RT TL)	NB	45+90.00	47+50.00	12.0	160.0	213.3									17.640	213.3	17.640	213.3	1.060	1.060				213.3	
IA 137 (Shoulder)	SB	3+05.00	20+50.00	2.0	1745.0	387.8									32.070	387.8			1.930						
IA 137 (Shoulder)	SB	20+50.00	37+75.00	2.0	1725.0	383.3									31.700	383.3			1.910						
IA 137 (Shoulder)	SB	37+75.00	51+30.00	2.0	1355.0	301.1									24.900	301.1			1.500						
IA 137 (Safety Edge)	SB	3+05.00	51+30.00	0.2	4825.0	124.9									10.330	124.9			0.620						
G AVE E	LT	12+00.00	Det. 7149-M								64.0				5.300	64.0			0.320						(1)
G AVE E	RT	12+00.00	Det. 7149-M								86.0				7.120	86.0			0.430						(1)
644th AVE	RT	38+13.00	Det. 7149-M								42.0				3.480	42.0			0.210						(1)
165th ST / H27	RT	48+40.00	Det. 7149-M								221.0				18.280	221.0			1.100						(1)
Entrance	RT	7+56.00	Det. 7149-M								79.0				6.532	79.0			0.392						(1)
Entrance	RT	20+00.00	Det. 7149-M								148.0				12.238	148.0			0.734						(1)
Entrance	LT	22+50.00	Det. 7149-M								59.0				4.879	59.0			0.293						(1)
Entrance	LT	35+62.00	Det. 7149-M								22.0				1.819	22.0			0.109						(1)
Entrance	LT	36+40.00	Det. 7149-M								20.0				1.654	20.0			0.099						(1)
Entrance	LT	45+60.00	Det. 7149-M								16.0				1.323	16.0			0.079						(1)
Entrance	LT	48+35.00	Det. 7149-M								28.0				2.315	28.0			0.139						(1)
			SUBTOTAL												1367.660	16539.3	24.260	293.3	82.126	1.460	12866.7	28.202		293.3	
			5% CONTINGENCY												68.390		1.220		4.110	0.080		1.410			
			DIVISION 1 - URBAN TOTALS												**1436.050**	**16539.3**	**25.480**	**293.3**	**86.236**	**1.540**	**12866.7**	**29.612**		**293.3**	
DIVISION 2 - RURAL																									
IA 137 (Traveled Way)	BOTH	51+30.00	562+73.20	24.0	51143.2	136381.9									11277.080	136381.9			676.630		136381.9	298.932			

FILE NO.	ENGLISH	DESIGN TEAM HOLST\BAHR\MCNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER C.10

HMA PAVEMENT





(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.

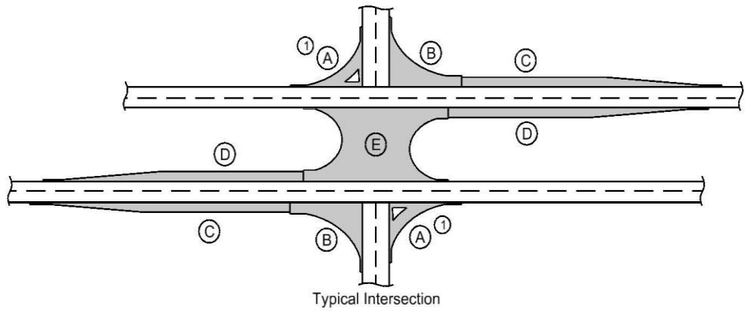
(2) Refer to PV-410, PV-411, PV-412, and PV-414.

(3) Quantity includes Pavement Header.

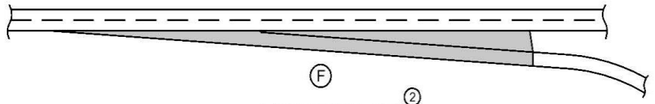
Calculations assume a Surface Course unit weight (lbs/cf) of 147, an Intermediate Course unit weight (lbs/cf) of 147, and a HMA Millings unit weight (lbs/cf) of 145

Location			Mainline			Area (3)								Bid Items: Hot Mix Asphalt Pavement				Bid Items: Binder						Remarks
Road Identification	Direction of Travel	Station to Station	Width	Length	Area	A (1)	B	C	D	E	F (2)	G	H	Surface Course, High Traffic, 1/2 in. Mix, Friction L-4		Intermediate, High Traffic, 1/2 in. Mix		Surface PG 58-28H 6% / Ton HMA	Intermediate PG 58-28H 6% / Ton HMA	Hot In-Place Recycling	Asphalt Rejuvenating Agent 0.175 GAL/SY/IN HIR	Pavement Scarification (HMA Millings)		
			FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	TONS	SY	TONS	TONS	SY	
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)																								
IA 137 (Traveled Way)	BOTH	562+40.00 646+00.00	24.0	8360.0	22293.3									1843.380	22293.3			110.610		22293.3	48.864			
IA 137 (Traveled Way)	BOTH	646+00.00 655+88.80	24.0	988.8	2636.8									218.040	2636.8			13.090		2636.8	5.780			
Equation Station 655+88.8 (BK) = Station 655+98.5 (AH)																								
IA 137 (Traveled Way)	BOTH	655+98.50 691+66.90	24.0	3568.4	9515.7									786.840	9515.7			47.220		9515.7	20.857			
IA 137 (Traveled Way)	BOTH	691+66.90 692+41.90	24.0	75.0	200.0									16.540	200.0			1.000						
IA 137 (Shoulder)	NB	51+30.00 562+73.20	2.0	51143.2	11365.2									939.760	11365.2			56.390						
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)																								
IA 137 (Shoulder)	NB	562+40.00 646+00.00	2.0	8360.0	1857.8									153.620	1857.8			9.220						
IA 137 (Shoulder)	NB	646+00.00 655+88.80	2.0	988.8	219.7									18.170	219.7			1.100						
Equation Station 655+88.8 (BK) = Station 655+98.5 (AH)																								
IA 137 (Shoulder)	NB	655+98.50 691+66.90	2.0	3568.4	793.0									65.570	793.0			3.940						
IA 137 (Shoulder)	NB	691+66.90 692+41.90	2.0	75.0	16.7									1.380	16.7			0.090						
IA 137 (Safety Edge)	NB	51+30.00 562+73.20	0.2	51143.2	1324.0									109.490	1324.0			6.570						
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)																								
IA 137 (Safety Edge)	NB	562+40.00 646+00.00	0.2	8360.0	216.4									17.900	216.4			1.080						
IA 137 (Safety Edge)	NB	646+00.00 655+88.80	0.2	988.8	25.6									2.120	25.6			0.130						
Equation Station 655+88.8 (BK) = Station 655+98.5 (AH)																								
IA 137 (Safety Edge)	NB	655+98.50 691+66.90	0.2	3568.4	92.4									7.640	92.4			0.460						
IA 137 (Safety Edge)	NB	691+66.90 692+41.90	0.2	75.0	1.9									0.170	1.9			0.020						
IA 137 (T55 RT TL)	MED	646+00.00 652+59.20	0-16	659.2	586.0									48.460	586.0	48.460	586.0	2.910	2.908				586.0	
IA 137 (T55 RT TL)	MED	652+59.20 657+11.10	16.0	451.9	803.4									66.430	803.4	66.430	803.4	3.990	3.986				803.4	
IA 137 (T55 RT TL)	MED	657+11.10 665+87.40	16-0	876.3	778.9									64.410	778.9	64.410	778.9	3.870	3.865				778.9	
IA 137 (T55 RT TL)	NB	651+39.20 652+59.20	0-12	120.0	80.0									6.620	80.0	6.620	80.0	0.400	0.397				80.0	
IA 137 (T55 RT TL)	NB	652+59.20 654+62.10	12.0	202.9	270.5									22.370	270.5	22.370	270.5	1.350	1.342				270.5	
IA 137 (Shoulder)	SB	51+30.00 562+73.20	2.0	51143.2	11365.2									939.760	11365.2			56.390						
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)																								
IA 137 (Shoulder)	SB	562+40.00 646+00.00	2.0	8360.0	1857.8									153.620	1857.8			9.220						
IA 137 (Shoulder)	SB	646+00.00 655+88.80	2.0	988.8	219.7									18.170	219.7			1.100						
Equation Station 655+88.8 (BK) = Station 655+98.5 (AH)																								
IA 137 (Shoulder)	SB	655+98.50 691+66.90	2.0	3568.4	793.0									65.570	793.0			3.940						
IA 137 (Shoulder)	SB	691+66.90 692+41.90	2.0	75.0	16.7									1.380	16.7			0.090						
IA 137 (Safety Edge)	SB	51+30.00 562+73.20	0.2	51143.2	1324.0									109.490	1324.0			6.570						
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)																								
IA 137 (Safety Edge)	SB	562+40.00 646+00.00	0.2	8360.0	216.4									17.900	216.4			1.080						
IA 137 (Safety Edge)	SB	646+00.00 655+88.80	0.2	988.8	25.6									2.120	25.6			0.130						

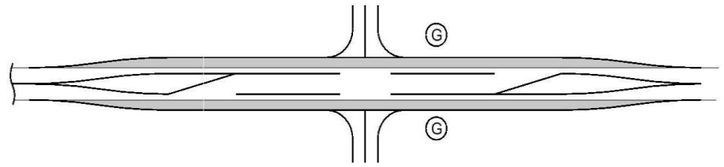
HMA PAVEMENT



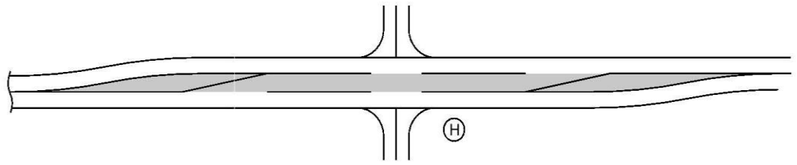
Typical Intersection



Ramp or Loop Taper (2)



Channelized Intersection
Widen Existing Roadway



Channelized Intersection
Reconstructed Roadway

(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.

(2) Refer to PV-410, PV-411, PV-412, and PV-414.

(3) Quantity includes Pavement Header.

Calculations assume a Surface Course unit weight (lbs/cf) of 147, an Intermediate Course unit weight (lbs/cf) of 147, and a HMA Millings unit weight (lbs/cf) of 145

Location				Mainline			Area (3)								Bid Items: Hot Mix Asphalt Pavement				Bid Items: Binder						Remarks
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A (1)	B	C	D	E	F (2)	G	H	Surface Course, High Traffic, 1/2 in. Mix, Friction L-4		Intermediate, High Traffic, 1/2 in. Mix		Surface PG 58-28H 6% / Ton HMA	Intermediate PG 58-28H 6% / Ton HMA	Hot In-Place Recycling	Asphalt Rejuvenating Agent 0.175 GAL/SY/IN HIR	Pavement Scarification (HMA Millings)		
				FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	TONS	SY	TONS	TONS	SY	
Equation Station 655+88.8 (BK) = Station 655+98.5 (AH)																									
IA 137 (Safety Edge)	SB	655+98.50	691+66.90	0.2	3568.4	92.4									7.640	92.4			0.460						
IA 137 (Safety Edge)	SB	691+66.90	692+41.90	0.2	75.0	1.9									0.170	1.9			0.020						
166th ST / H33	LT	159+83.00	Det. 7149-M								132.0				10.920	132.0			0.660						(1)
157th Trail/655th AVE	LT	213+20.00	Det. 7148-M2								71.2				5.890	71.2			0.360						(2)
613+75	LT	613+75.00	Det. 7149-M								75.0				6.210	75.0			0.380						(1)
720th AVE / T55	RT	655+50.00	Det. 7149-M								260.0				21.500	260.0			1.290						(1)
Entrance	LT	103+50.00	Det. 7149-M								36.0				2.977	36.0			0.179						(1)
Entrance	RT	126+50.00	Det. 7149-M								31.0				2.563	31.0			0.154						(1)
Entrance	RT	397+07.00	Det. 7149-M								46.0				3.804	46.0			0.228						(1)
			SUBTOTAL												17035.674	206023.1	208.290	2518.8	1022.321	12.497	170827.7	374.433		2518.8	
			5% CONTINGENCY												851.790		10.420		51.120	0.630		18.722			
			DIVISION 2 - RURAL TOTALS												**17887.464**	**206023.1**	**218.710**	**2518.8**	**1073.441**	**13.127**	**170827.7**	**393.155**		**2518.8**	

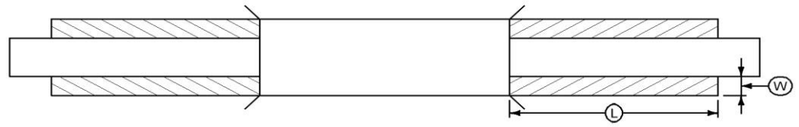
NOTES:

(1) See Road Design Detail 7149-M (HMA Runout for Paved Side Roads or Paved Entrances Adjacent to Areas With Proposed Roadway Profile Elevation Rise) on B Sheets for more information. Quantity for Surface Course and Base Widening already included with shoulders.

(2) See Road Design Detail 7148-M2 (Fillet for Non-Paved Side Roads and Entrances) on B Sheets for more information. Quantity for Surface Course and Base Widening already included with shoulders.

AREAS FOR PAVEMENT OR BASE WIDENING

Refer to Standard Road Plans PV-105 or PV-203



(1) Bid Item
(2) Estimated for two applications to achieve lifts and one application of 0.10 Gal/SY adjacent to existing pavement. Priming of subgrade or finished base is not required.
145, a Special Backfill unit weight (lbs/cf) of 140, and a Tack Coat unit weight (gal/sy) of 0.05.

Station to Station		Side	Pavement Type	(L) Length	(W) Width	(T) Thickness	HMA Base Widening (1)	HMA Base Widening (1)	PCC Base Widening (1)	PCC Pavement Widening (1)	Tack Coat		Tack Coat (2)	Asphalt Binder (1)	Class 13 Excavation, Widening (1)	Special Backfill (1)	Remarks
											Lifts	Vertical Edge					
				FT	FT	IN	TONS	SY	SY	SY	GAL	GAL	GAL	TONS	CY	TONS	
DIVISION 1 - URBAN																	**NOTE (1)**
2+22.00	3+02.50	SB	HMA	80.50	Vari.	11.0		67.5			6.75	0.82	7.57		20.6		NOTE (2)
3+05.00	20+50.00	NB	HMA	1745.00	2.0	7.5		387.8			38.78	12.12	50.90		80.8		
37+75.00	51+30.00	NB	HMA	1355.00	2.0	7.5		301.1			30.11	9.41	39.52		62.7		
3+05.00	20+50.00	SB	HMA	1745.00	2.0	7.5		387.8			38.78	12.12	50.90		80.8		
37+75.00	51+30.00	SB	HMA	1355.00	2.0	7.5		301.1			30.11	9.41	39.52		62.7		
DIVISION 1 - URBAN TOTAL							**7.5" THICK**	**1377.8**					**188.40**		**307.7**		**NOTE (1)**
							11" THICK	**67.5**									
DIVISION 2 - RURAL																	**NOTE (1)**
51+30.00	205+28.00	NB	HMA	15398.00	2.0	7.5		3421.8			342.18	106.93	449.11		712.9		
221+41.00	546+75.00	NB	HMA	32534.00	2.0	7.5		7229.8			722.98	225.93	948.91		1506.2		
Equation: Station 562+73.2 (BK) = Station 562+40.0 (AH)																	
577+43.00	651+39.20	NB	HMA	7396.20	2.0	7.5		1643.6			164.36	51.36	215.72		342.4		
Equation: Station 655+88.8 (BK) = Station 655+98.5 (AH)																	
656+50.00	692+41.90	NB	HMA	3591.90	2.0	7.5		798.2			79.82	24.94	104.76		166.3		
51+30.00	205+28.00	SB	HMA	15398.00	2.0	7.5		3421.8			342.18	106.93	449.11		712.9		
221+41.00	546+75.00	SB	HMA	32534.00	2.0	7.5		7229.8			722.98	225.93	948.91		1506.2		
Equation: Station 562+73.2 (BK) = Station 562+40.0 (AH)																	
577+43.00	655+88.80	SB	HMA	7845.80	2.0	7.5		1743.5			174.35	54.48	228.84		363.2		
Equation: Station 655+88.8 (BK) = Station 655+98.5 (AH)																	
655+98.50	692+41.90	SB	HMA	3643.40	5.0	7.5		2024.1			202.41	25.30	227.71		421.7		
DIVISION 2 - RURAL TOTAL							**7.5" THICK**	**27512.5**					**3573.07**		**5731.8**		**NOTE (1)**

NOTES:
NOTE (1): Class 13 Excavation and Base Widening shall not occur within the limits of Dimension B on Details 7149-M (HMA Runout for Paved Sideroads or Paved Entrances) on B Sheets.
NOTE (2): Refer to U Sheets for additional information regarding the intersection of IA 137 with IA 5.

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) See Typ. 7156, 7157, or 7158.
(3) Bid Item.
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(5) Bid Item. Typ. 7156, 7157, or 7158.
(6) Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 147, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Location				Quantities																				
Road Identification	(1) Direction Of Traffic	Station to Station		Side	(P) Width	(P_{SG}) Width	(G) Width	(L) Length	Class 13 (4) Excavation	Hot Mix Asphalt		Binder	Paved Shoulder	9" Paved Shoulder at Guardrail	Reinforced Paved Shoulder	Special Backfill				Subbase	Granular Shoulder		Earth Shoulder Construction Alternates			Remarks
																HMA Alternate		PCC Alternate					STA (3)	HMA	PCC	
					FT	FT (2)	FT	FT	CY (3)	TON	TON/STA	TONS	SY (3)	SY (5)	SY (3)	TON (3)	TON/STA	TON (3)	TON/STA	CY (3)	TON (3)	TON/STA		CY (6)	CY (6)	
DIVISION 1 - URBAN																										
IA 137	NB	3+05.00	20+50.00	RT			1.0	1745.0													15.269	0.875				
IA 137	NB	37+75.00	44+70.00	RT			1.0	695.0													6.081	0.875				
IA 137	NB	44+70.00	47+50.00	RT			4.0	280.0													9.800	3.500				
IA 137	NB	47+50.00	51+30.00	RT			1.0	380.0													3.325	0.875				
IA 137	SB	3+05.00	20+50.00	LT			1.0	1745.0													15.269	0.875				
IA 137	SB	37+75.00	51+30.00	LT			1.0	1355.0													11.856	0.875				
SUBTOTAL																					**61.600**					
20% CONTINGENCY FOR GRANULAR SHOULDER																					**12.320**					
DIVISION 1 - URBAN TOTALS																					**73.920**					
DIVISION 2 - RURAL																										
IA 137	NB	51+30.00	205+28.00	RT			1.0	15398.0													134.733	0.875				
IA 137	NB	221+41.00	546+75.00	RT			1.0	32534.0													284.673	0.875				
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)																										
IA 137	NB	577+43.00	651+39.20	RT			1.0	7396.2													64.717	0.875				
Equation Station 655+88.8 (BK) = Station 655+98.5 (AH)																										
IA 137	NB	656+00.00	692+41.90	RT			1.0	3641.9													31.867	0.875				
IA 137	SB	51+30.00	205+28.00	LT			1.0	15398.0													134.733	0.875				
IA 137	SB	221+41.00	546+75.00	LT			1.0	32534.0													284.673	0.875				
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)																										
IA 137	SB	577+43.00	655+88.80	LT			1.0	7845.8													68.651	0.875				
Equation Station 655+88.8 (BK) = Station 655+98.5 (AH)																										
IA 137	SB	655+98.50	692+41.90	LT			1.0	3643.4													31.880	0.875				
SUBTOTAL																					**1035.924**					
20% CONTINGENCY FOR GRANULAR SHOULDER																					**207.185**					
DIVISION 2 - RURAL TOTALS																					**1243.109**					

MILLED RUMBLE STRIPS

See PV-12 and PV-13

* Calculated at 18" width for Shoulder.

Location													
Road Identification	Station to Station		Shoulder Pavement Type	Rumble Strip Type (Centerline, Rt or Lt Shoulder)	(L)	Installation Length		Fog Seal* (Milled Rumble Strip)	Effective Shoulder Width			Remarks
						PCC	HMA	Shoulder	PCC Paved	HMA Paved	Granular\ Earth	
					IN	STA	STA	GAL	FT	FT	FT	
DIVISION 2 - RURAL												
IA 137	51+30.00	562+73.20	HMA	Centerline			511.43	0.0				
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)												
IA 137	562+40.00	646+00.00	HMA	Centerline			83.60	0.0				
IA 137 (Northbound)	124+67.67	602+40.00	HMA	Right Shoulder	12"		477.72	517.6		2.0	1.0	
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)												
IA 137 (Northbound)	562+40.00	646+00.00	HMA	Right Shoulder	12"		83.60	90.6		2.0	1.0	
IA 137 (Southbound)	51+30.00	562+73.20	HMA	Left Shoulder	12"		511.43	554.1		2.0	1.0	
Equation Station 562+73.2 (BK) = Station 562+40.0 (AH)												
IA 137 (Southbound)	562+40.00	646+00.00	HMA	Left Shoulder	12"		83.60	90.6		2.0	1.0	
DIVISION 2 - RURAL TOTALS				**Totals**		**PCC**	**HMA**	**Fog Seal**				
				HMA Shoulders			**1156.36**	**1252.9**				
				PCC Shoulders		**0.00**						
				PCC or HMA Shoulders		**0.00**	**0.00**	**0.0**				
				HMA Centerlines			**595.03**					
				PCC Centerlines		**0.00**						
				PCC or HMA Centerlines		**0.00**	**0.00**					

PAVEMENT MARKING LINE TYPES

See PM-110

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY4 - Factor of 0.67 as value includes number of 4-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17 | DCY4: Double Centerline (Yellow) @ 1.34 | NPY4: No Passing Zone Line (Yellow) @ 0.84 | BLW4: Broken Lane Line (White) @ 0.17 | ELW4: Edge Line Right (White) @ 0.67
SLW4: Solid Lane Line (White) @ 0.67 | CHY8: Channelizing Line (Yellow) @ 1.33 | CHW8: Channelizing Line (White) @ 1.33 | SLW2: Stop Line (White) @ 4.00 | #N/A
#N/A | #N/A | #N/A

Location							Length by Line Type (Unfactored)															Remarks
Road ID	Station to Station	Dir. of Travel	Marking Type	Side			BCY4*	DCY4	NPY4**	BLW4	ELW4	SLW4	CHY8	CHW8	SLW2				Applications	TOTAL	Grooves Cut	
				L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	#	STA	STA	
DIVISION 1 - URBAN																						
IA 137	2+16.88	3+02.60	SB	Waterborne/Solvent Paint	x									2.68					1.00	2.68	2.68	Painted Channelized Shoulder
IA 137	3+05.00	51+35.00	NB	Waterborne/Solvent Paint			x				48.30								3.00	144.90	48.30	
IA 137	2+12.96		SB	Waterborne/Solvent Paint	x										0.22				1.00	0.22	0.22	Stop Bar on IA 137 SB
IA 137	1+38.00	2+30.00	BOTH	Removal of Paint		x			0.92										1.00	0.92		Remove for Final Placement
IA 137	1+58.01	2+40.50		Waterborne/Solvent Paint		x							3.10						1.00	3.10	3.10	Painted Channelized Island
IA 137	2+40.50	3+05.00	BOTH	Waterborne/Solvent Paint		x			0.65										1.00	0.65	0.65	
IA 137	3+05.00	10+10.00	BOTH	Waterborne/Solvent Paint		x			7.05										3.00	21.15	7.05	
IA 137	10+10.00	13+45.00	BOTH	Waterborne/Solvent Paint			x			3.35									3.00	10.05	3.35	
IA 137	13+45.00	42+60.00	BOTH	Waterborne/Solvent Paint		x			29.15										3.00	87.45	29.15	
IA 137	42+60.00	51+35.00	BOTH	Waterborne/Solvent Paint	x					8.75									3.00	26.25	8.75	
IA 137	3+05.00	51+35.00	SB	Waterborne/Solvent Paint	x						48.30								3.00	144.90	48.30	
IA 137	44+90.00	47+10.00	NB	Waterborne/Solvent Paint			x					2.20							3.00	6.60	2.20	RT Turn Lane
DIVISION 2 - RURAL																						
IA 137	51+35.00	562+73.20	NB	Waterborne/Solvent Paint			x				511.38								3.00	1534.15	511.38	
Equation: Station 562+73.2 (BK) = Station 562+40.0 (AH)																						
IA 137	562+40.00	655+88.80	NB	Waterborne/Solvent Paint			x				93.49								3.00	280.46	93.49	
Equation: Station 655+88.8 (BK) = Station 655+98.5 (AH)																						
IA 137	655+98.50	692+41.90	NB	Waterborne/Solvent Paint			x				36.43								3.00	109.30	36.43	
IA 137	51+35.00	57+10.00	BOTH	Waterborne/Solvent Paint		x		5.75											3.00	17.25		
IA 137	57+10.00	67+51.00	BOTH	Waterborne/Solvent Paint			x			10.41									3.00	31.23		
IA 137	67+51.00	75+90.00	BOTH	Waterborne/Solvent Paint		x			8.39										3.00	25.17		
IA 137	75+90.00	83+58.00	BOTH	Waterborne/Solvent Paint	x					7.68									3.00	23.04		
IA 137	83+58.00	86+05.00	BOTH	Waterborne/Solvent Paint		x			2.47										3.00	7.41		
IA 137	86+05.00	93+00.00	BOTH	Waterborne/Solvent Paint			x			6.95									3.00	20.85		
IA 137	93+00.00	95+35.00	BOTH	Waterborne/Solvent Paint		x			2.35										3.00	7.05		
IA 137	95+35.00	105+63.00	BOTH	Waterborne/Solvent Paint	x					10.28									3.00	30.84		
IA 137	105+63.00	106+15.00	BOTH	Waterborne/Solvent Paint		x			0.52										3.00	1.56		
IA 137	106+15.00	116+00.00	BOTH	Waterborne/Solvent Paint			x			9.85									3.00	29.55		
IA 137	116+00.00	139+15.00	BOTH	Waterborne/Solvent Paint		x			23.15										3.00	69.45		
IA 137	139+15.00	149+28.00	BOTH	Waterborne/Solvent Paint	x					10.13									3.00	30.39		
IA 137	149+28.00	150+07.00	BOTH	Waterborne/Solvent Paint		x		0.79											3.00	2.37		
IA 137	150+07.00	159+15.00	BOTH	Waterborne/Solvent Paint			x			9.08									3.00	27.24		
IA 137	159+15.00	160+70.00	BOTH	Waterborne/Solvent Paint		x			1.55										3.00	4.65		
IA 137	159+82.00		SB	Waterborne/Solvent Paint			x								0.40				1.00	0.40	0.40	Stop Bar on 160 ST/H33 EB
IA 137	160+70.00	171+25.00	BOTH	Waterborne/Solvent Paint	x					10.55									3.00	31.65		
IA 137	171+25.00	174+50.00	BOTH	Waterborne/Solvent Paint		x		3.25											3.00	9.75		
IA 137	174+50.00	185+03.00	BOTH	Waterborne/Solvent Paint			x			10.53									3.00	31.59		
IA 137	185+03.00	194+93.00	BOTH	Waterborne/Solvent Paint	x					9.90									3.00	29.70		
IA 137	194+93.00	199+85.00	BOTH	Waterborne/Solvent Paint		x		4.92											3.00	14.76		
IA 137	199+85.00	211+67.00	BOTH	Waterborne/Solvent Paint			x			11.82									3.00	35.46		
IA 137	211+67.00	215+05.00	BOTH	Waterborne/Solvent Paint		x			3.38										3.00	10.14		
IA 137	215+05.00	223+85.00	BOTH	Waterborne/Solvent Paint	x					8.80									3.00	26.40		
IA 137	223+85.00	226+63.00	BOTH	Waterborne/Solvent Paint		x			2.78										3.00	8.34		
IA 137	226+63.00	231+73.00	BOTH	Waterborne/Solvent Paint			x			5.10									3.00	15.30		
IA 137	231+73.00	232+67.00	BOTH	Waterborne/Solvent Paint		x		0.94											3.00	2.82		
IA 137	232+67.00	241+07.00	BOTH	Waterborne/Solvent Paint	x					8.40									3.00	25.20		
IA 137	241+07.00	269+50.00	BOTH	Waterborne/Solvent Paint		x		28.43											3.00	85.29		
IA 137	269+50.00	275+68.00	BOTH	Waterborne/Solvent Paint			x			6.18									3.00	18.54		
IA 137	275+68.00	278+15.00	BOTH	Waterborne/Solvent Paint		x		2.47											3.00	7.41		
IA 137	278+15.00	284+60.00	BOTH	Waterborne/Solvent Paint	x					6.45									3.00	19.35		
IA 137	284+60.00	289+65.00	BOTH	Waterborne/Solvent Paint		x		5.05											3.00	15.15		
IA 137	289+65.00	299+00.00	BOTH	Waterborne/Solvent Paint			x			9.35									3.00	28.05		
IA 137	299+00.00	306+30.00	BOTH	Waterborne/Solvent Paint		x			7.30										3.00	21.90		
IA 137	306+30.00	316+72.00	BOTH	Waterborne/Solvent Paint	x					10.42									3.00	31.26		
IA 137	316+72.00	317+30.00	BOTH	Waterborne/Solvent Paint		x			0.58										3.00	1.74		
IA 137	317+30.00	326+40.00	BOTH	Waterborne/Solvent Paint			x			9.10									3.00	27.30		
IA 137	326+40.00	334+05.00	BOTH	Waterborne/Solvent Paint		x			7.65										3.00	22.95		
IA 137	334+05.00	344+12.00	BOTH	Waterborne/Solvent Paint	x					10.07									3.00	30.21		
IA 137	344+12.00	357+65.00	BOTH	Waterborne/Solvent Paint		x		13.53											3.00	40.59		
IA 137	357+65.00	365+92.00	BOTH	Waterborne/Solvent Paint			x			8.27									3.00	24.81		
IA 137	365+92.00	368+35.00	BOTH	Waterborne/Solvent Paint		x		2.43											3.00	7.29		
IA 137	368+35.00	375+10.00	BOTH	Waterborne/Solvent Paint	x					6.75									3.00	20.25		

PAVEMENT MARKING LINE TYPES

See PM-110

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY4 - Factor of 0.67 as value includes number of 4-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17 | DCY4: Double Centerline (Yellow) @ 1.34 | NPY4: No Passing Zone Line (Yellow) @ 0.84 | BLW4: Broken Lane Line (White) @ 0.17 | ELW4: Edge Line Right (White) @ 0.67
SLW4: Solid Lane Line (White) @ 0.67 | CHY8: Channelizing Line (Yellow) @ 1.33 | CHW8: Channelizing Line (White) @ 1.33 | SLW2: Stop Line (White) @ 4.00
#N/A | #N/A | #N/A

Location								Length by Line Type (Unfactored)														
Road ID	Station to Station		Dir. of Travel	Marking Type	Side			BCY4*	DCY4	NPY4**	BLW4	ELW4	SLW4	CHY8	CHW8	SLW2				Applications	TOTAL	Grooves Cut	Remarks
					L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	#	STA	STA	
IA 137	375+10.00	376+88.00	BOTH	Waterborne/Solvent Paint		x			1.78											3.00	5.34		
IA 137	376+88.00	381+80.00	BOTH	Waterborne/Solvent Paint			x			4.92										3.00	14.76		
IA 137	381+80.00	388+50.00	BOTH	Waterborne/Solvent Paint	x					6.70										3.00	20.10		
IA 137	388+50.00	389+50.00	BOTH	Waterborne/Solvent Paint		x		1.00												3.00	3.00		
IA 137	389+50.00	395+65.00	BOTH	Waterborne/Solvent Paint			x			6.15										3.00	18.45		
IA 137	395+65.00	398+30.00	BOTH	Waterborne/Solvent Paint		x		2.65												3.00	7.95		
IA 137	398+30.00	404+60.00	BOTH	Waterborne/Solvent Paint	x					6.30										3.00	18.90		
IA 137	404+60.00	459+15.00	BOTH	Waterborne/Solvent Paint		x		54.55												3.00	163.65		
IA 137	459+15.00	467+70.00	BOTH	Waterborne/Solvent Paint			x			8.55										3.00	25.65		
IA 137	467+70.00	468+28.00	BOTH	Waterborne/Solvent Paint		x		0.58												3.00	1.74		
IA 137	468+28.00	477+08.00	BOTH	Waterborne/Solvent Paint	x					8.80										3.00	26.40		
IA 137	477+08.00	485+15.00	BOTH	Waterborne/Solvent Paint		x		8.07												3.00	24.21		
IA 137	485+15.00	493+80.00	BOTH	Waterborne/Solvent Paint			x			8.65										3.00	25.95		
IA 137	493+80.00	495+15.00	BOTH	Waterborne/Solvent Paint		x		1.35												3.00	4.05		
IA 137	495+15.00	503+30.00	BOTH	Waterborne/Solvent Paint	x					8.15										3.00	24.45		
IA 137	503+30.00	505+42.00	BOTH	Waterborne/Solvent Paint		x			2.12											3.00	6.36		
IA 137	505+42.00	517+00.00	BOTH	Waterborne/Solvent Paint			x			11.58										3.00	34.74		
IA 137	517+00.00	520+78.00	BOTH	Waterborne/Solvent Paint		x			3.78											3.00	11.34		
IA 137	520+78.00	529+50.00	BOTH	Waterborne/Solvent Paint	x					8.72										3.00	26.16		
IA 137	529+50.00	534+80.00	BOTH	Waterborne/Solvent Paint		x		5.30												3.00	15.90		
IA 137	534+80.00	545+00.00	BOTH	Waterborne/Solvent Paint			x			10.20										3.00	30.60		
IA 137	545+00.00	562+73.20	BOTH	Waterborne/Solvent Paint		x			17.73											3.00	53.20		
Equation: Station 562+73.2 (BK) = Station 562+40.0 (AH)																							
IA 137	562+40.00	579+28.00	BOTH	Waterborne/Solvent Paint		x			16.88											3.00	50.64		
IA 137	579+28.00	592+25.00	BOTH	Waterborne/Solvent Paint	x					12.97										3.00	38.91		
IA 137	592+25.00	603+00.00	BOTH	Waterborne/Solvent Paint			x			10.75										3.00	32.25		
IA 137	603+00.00	646+00.00	BOTH	Waterborne/Solvent Paint		x			43.00											3.00	129.00		
IA 137	646+00.00	655+00.00	BOTH	Waterborne/Solvent Paint		x								30.23						3.00	90.69	30.23	Painted Channelized Island
IA 137	655+90.10	665+87.30	BOTH	Waterborne/Solvent Paint		x								24.21						3.00	72.63	24.21	Painted Channelized Island
IA 137	653+36.00	655+25.00	NB	Waterborne/Solvent Paint			x						1.89							3.00	5.67	1.89	Right Turn Lane
IA 137	655+90.10	657+45.10	SB	Waterborne/Solvent Paint	x								1.55							3.00	4.65	1.55	Left Turn Lane
IA 137	655+50.00		NB	Waterborne/Solvent Paint			x									0.56				1.00	0.56	0.56	Stop Bar on 720 Ave/T55 NB
IA 137	665+87.30	666+57.00	BOTH	Waterborne/Solvent Paint		x			0.70											3.00	2.09		
IA 137	666+57.00	674+10.00	BOTH	Waterborne/Solvent Paint			x			7.53										3.00	22.59		
IA 137	674+10.00	686+00.00	BOTH	Waterborne/Solvent Paint		x		11.90												3.00	35.70		
IA 137	686+00.00	692+41.90	BOTH	Waterborne/Solvent Paint	x					6.42										3.00	19.26		
IA 137	51+35.00	562+73.20	SB	Waterborne/Solvent Paint	x							511.38								3.00	1534.15	511.38	
Equation: Station 562+73.2 (BK) = Station 562+40.0 (AH)																							
IA 137	562+40.00	655+88.80	SB	Waterborne/Solvent Paint	x							93.49								3.00	280.46	93.49	
Equation: Station 655+88.8 (BK) = Station 655+98.5 (AH)																							
IA 137	655+98.50	692+41.90	SB	Waterborne/Solvent Paint	x							36.43								3.00	109.30	36.43	
				DIVISION 1 - URBAN																			
				Factored Total: Waterborne/Solvent Paint				-	146.39	30.49	-	193.20	4.40	4.12	3.56	0.88	-	-	-	-	-	-	Includes Temp+Final Applics.
				Factored Total: Grooves Cut for Pavement Markings				-	49.37	10.16	-	64.40	1.47	4.12	3.56	0.88	-	-	-	-	-	-	
				Factored Total: Removal of Paint				-	1.23	-	-	-	-	-	-	-	-	-	-	-	-	-	
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based							383.05												DIVISION 1: IDOT URBAN
				Bid Quantity: Grooves Cut for Pavement Markings							133.97												DIVISION 1: IDOT URBAN
				Bid Quantity: Removal of Paint							1.23												DIVISION 1: IDOT URBAN
				DIVISION 2 - RURAL																			
				Factored Total: Waterborne/Solvent Paint				78.01	587.36	812.60	-	2565.22	6.88	217.22	-	3.84	-	-	-	-	-	-	Includes Temp+Final Applics.
				Factored Total: Grooves Cut for Pavement Markings				-	-	-	-	855.07	2.29	72.41	-	3.84	-	-	-	-	-	-	
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based							4271.12												DIVISION 2: IDOT RURAL
				Bid Quantity: Grooves Cut for Pavement Markings							933.61												DIVISION 2: IDOT RURAL

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Road Identification	Location: Station	Location: Side	STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	RRCW	BLSW	WCSW	WPSB	SCLW	XNGW	STPW	AHDW	ONLW	BIKW	LANW	XITW	Groove Cuts EACH	Remarks
DIVISION 1 - IDOT URBAN																										
IA 137 / H27	46+10.00	R		1																						
IA 137 / H27	46+85.00	R		1																						
TOTALS (DIVISION 1 - IDOT URBAN)				**2**	**2527-9263137 PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED**																					
DIVISION 2 - IDOT RURAL																										
IA 137 / T55	654+30.00	R		1																						
IA 137 / T55	655+05.00	R		1																						
IA 137 / T55	656+15.10	M			1																					
IA 137 / T55	656+90.10	M			1																					
TOTALS (DIVISION 2 - IDOT RURAL)				**4**	**2527-9263137 PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED**																					

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.1	

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65+00
70+00
654th LN
75+00
IA 137
80+00
85+00
90+00

0 100
FEET

95+00
100+00
105+00
STA. 106+88
UAC
FHWA #037481
MAINT #6802.0S137
12x12x94' TWIN RCB SKEW 30° LT AHD
REF. LOC. 2.02
IA 137 over Miller Creek
IA 137
110+00
115+00
120+00

0 100
FEET

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FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.2	

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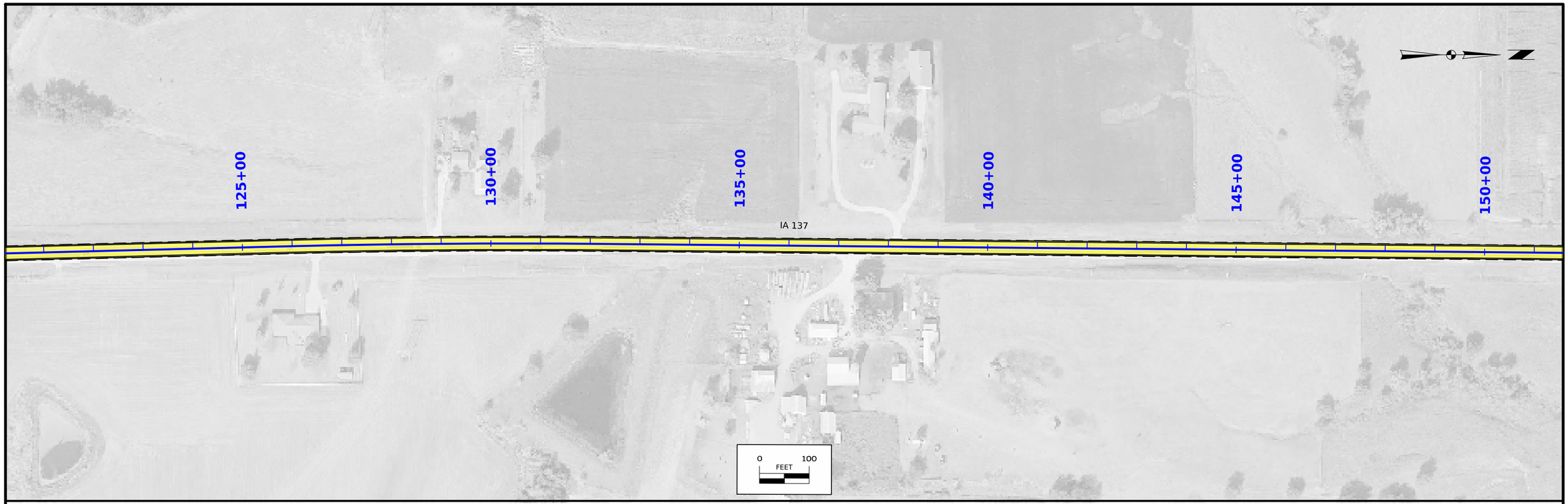

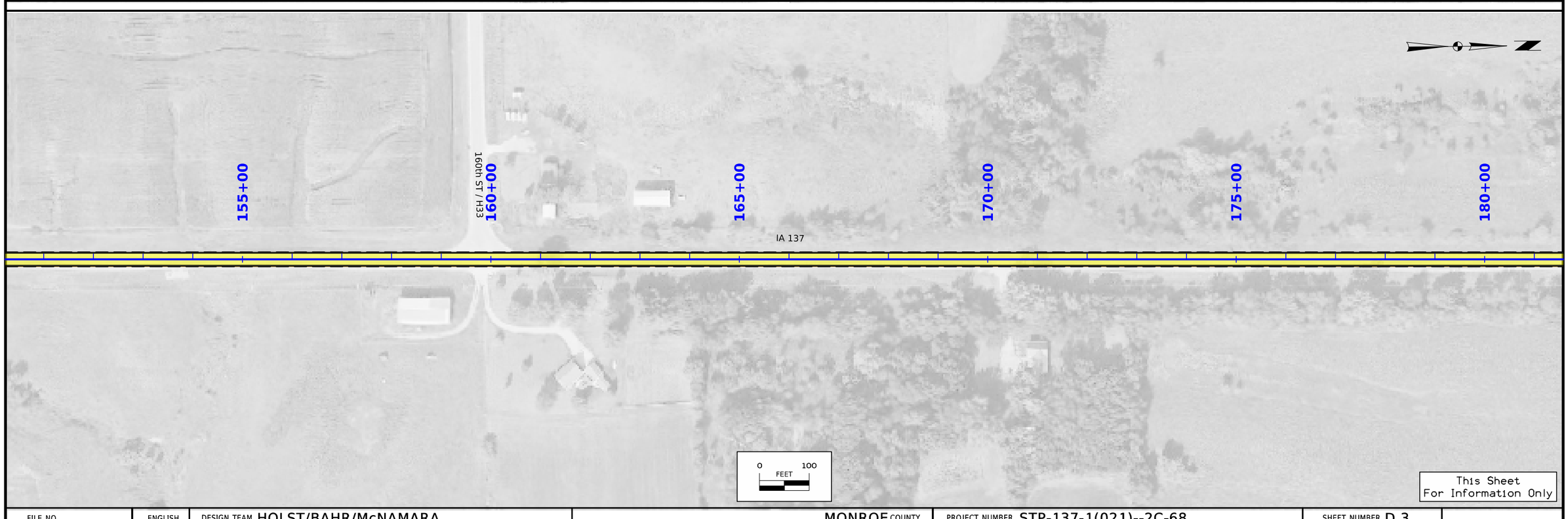

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For Information Only

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.3	

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185+00

190+00

195+00

200+00

205+00

210+00

IA 137

0 100
FEET

655th AVE

215+00

220+00

225+00

230+00

235+00

240+00

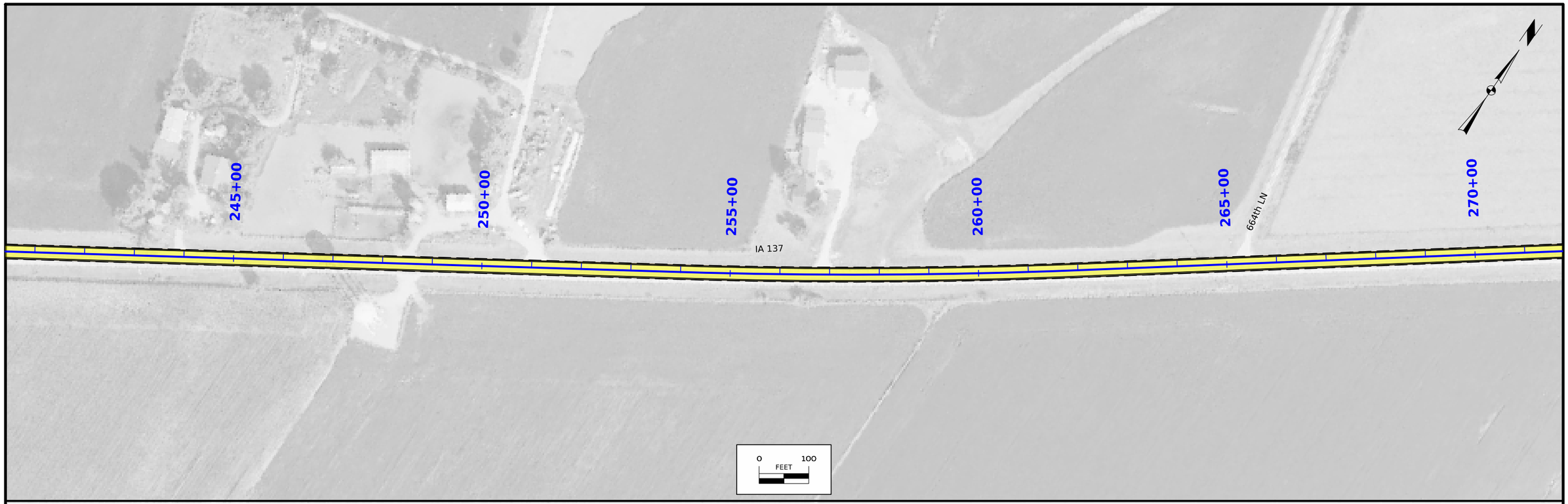
IA 137

0 100
FEET

This Sheet
For Information Only

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.4	

8:08:38 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn



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For Information Only

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.5	

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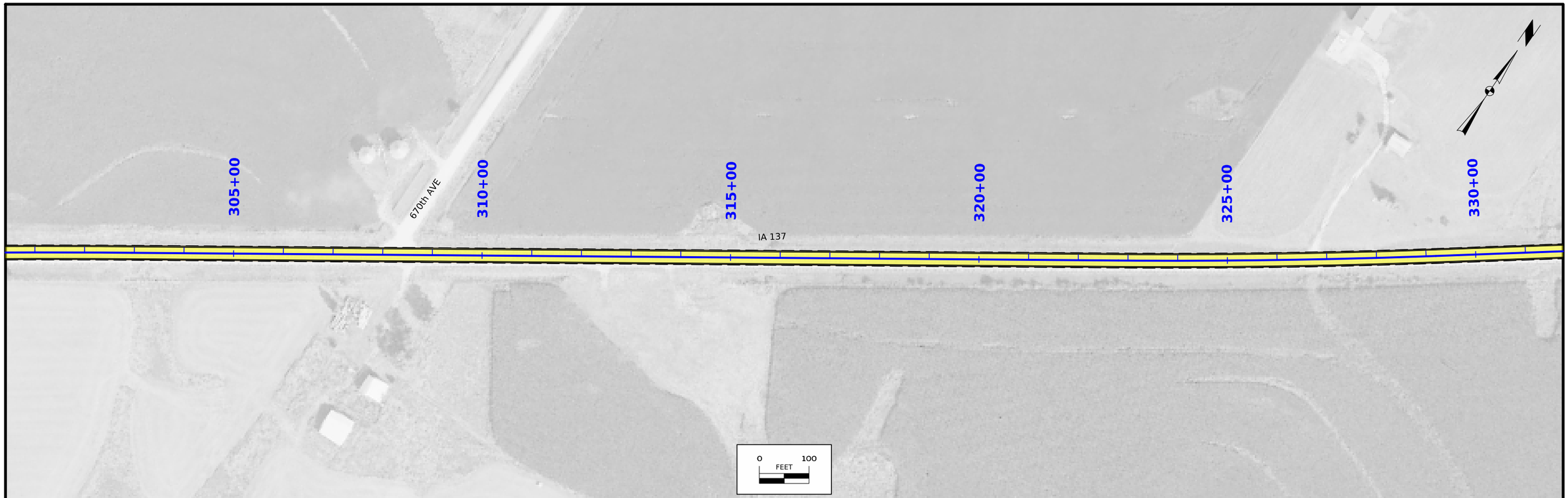

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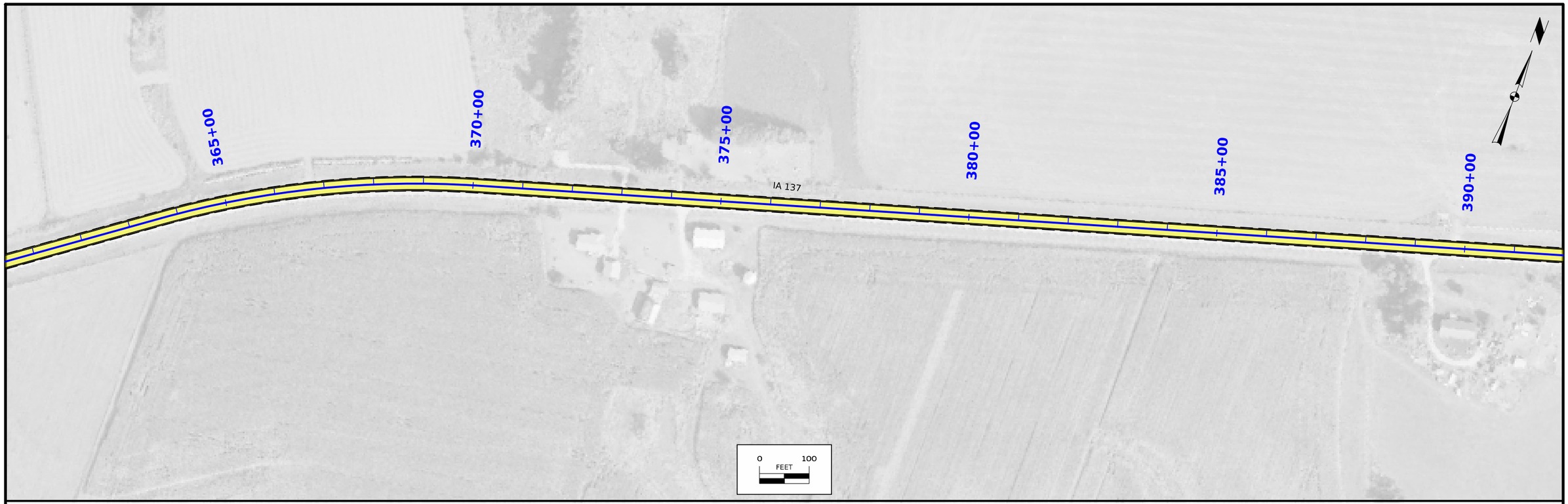
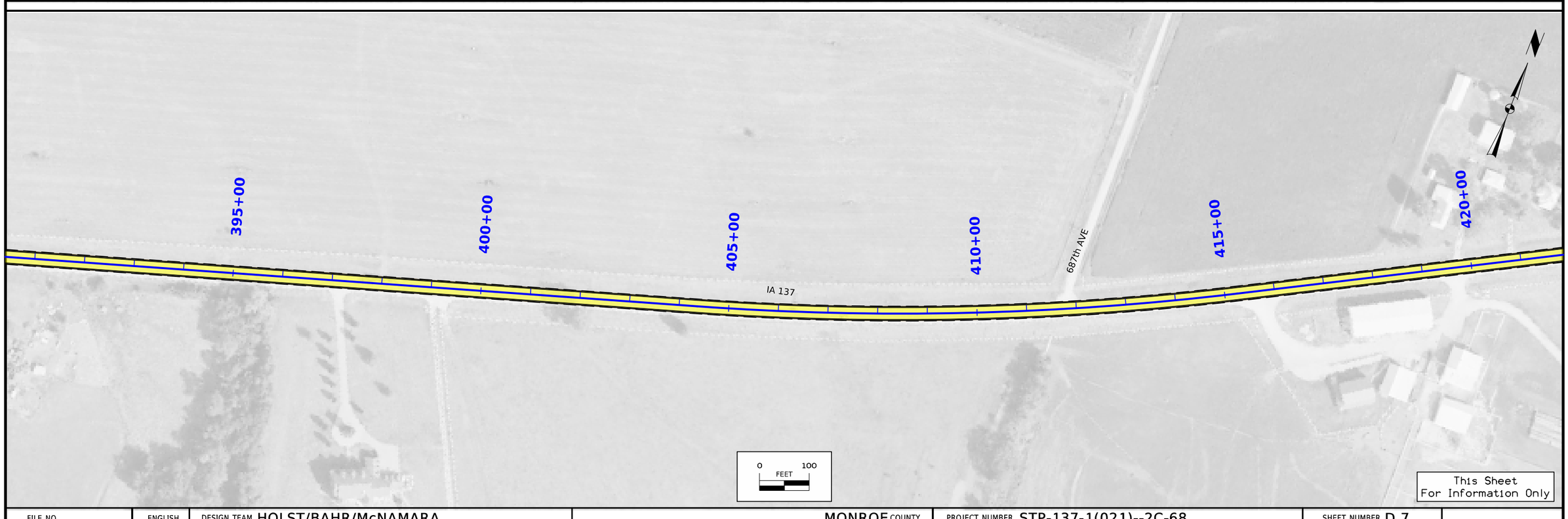
For Information Only

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.6

8:09:38 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn





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8:10:21 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn

425+00
430+00
435+00
440+00
445+00
450+00
127th ST
IA 137
0 100
FEET

455+00
460+00
465+00
470+00
475+00
480+00
697th AVE
695th AVE
IA 137
0 100
FEET

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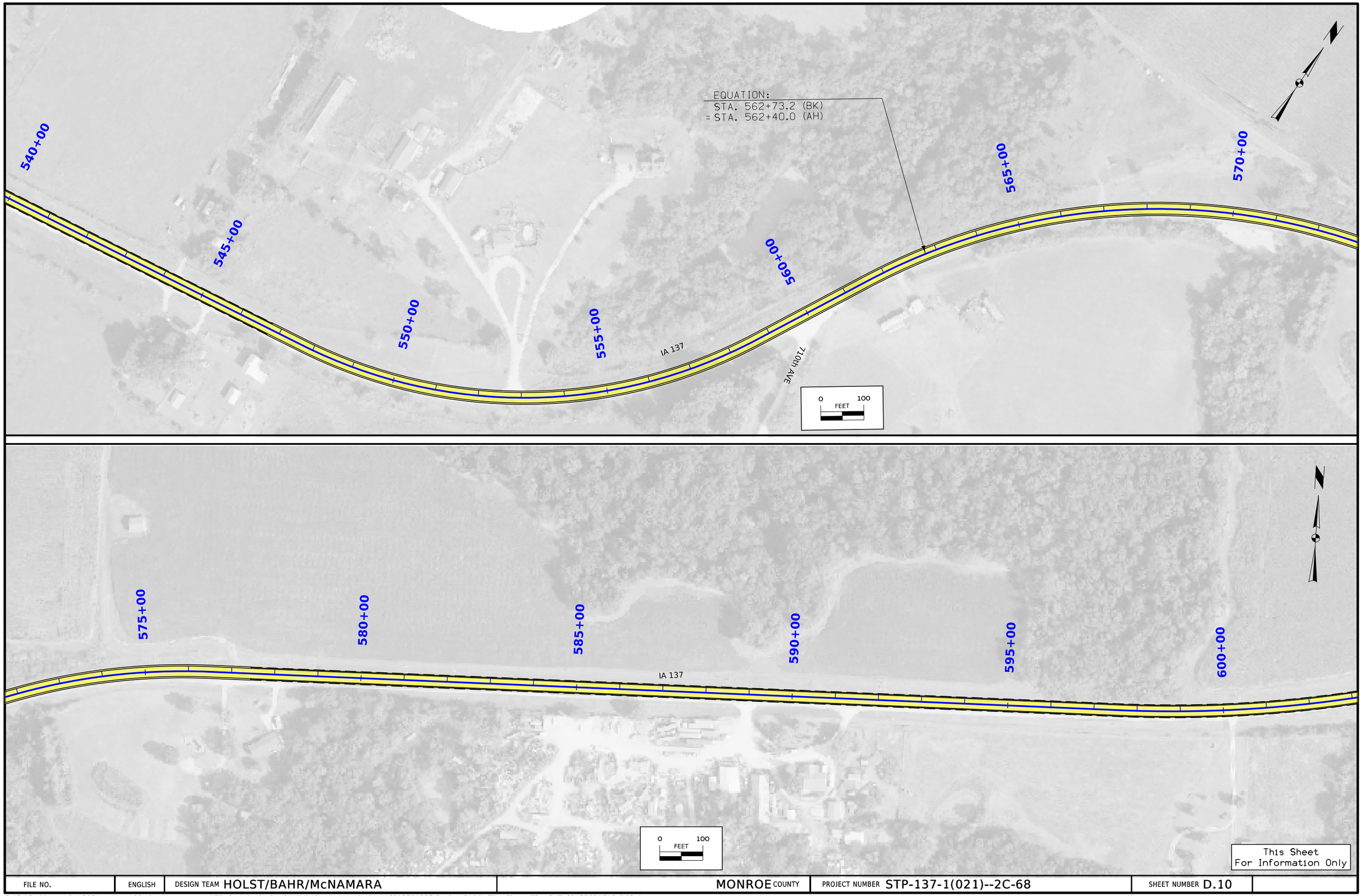
For Information Only

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.8	

8:10:30 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.9	

8:11:24 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn



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For Information Only

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.10	

8:12:17 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn

605+00
610+00
615+00
620+00
625+00
630+00
IA 137
721st LN
0 100
FEET
635+00
640+00
645+00
650+00
655+00
660+00
665+00
EQUATION:
STA. 655+88.8 (BK)
= STA. 655+98.5 (AH)
720th AVE / T55
0 100
FEET
This Sheet
For Information Only

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.11	

8:13:22 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER D.12	

8:14:06 AM 9/4/2024 kjackso pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Design\CADD_Files\Sheet_Files\SHT_68137021Z12_D02.dgn

108_23A
8/15/22

TRAFFIC CONTROL PLAN

1. Through traffic on IA 137 shall be maintained at all times.

2. Access to all properties shall be maintained at all times.

9/17/2024 12:06:48 PM
William.mcnamara@iowadot.us

108_26A
8/15/22

STAGING NOTES

Suggested Sequence of Construction:

1. Clearing and Grubbing, Culvert Repair, and Patching.
2. Longitudinal Subdrain Installation (See General Note A).
3. Hot In-Place Recycling (HIR).
4. Class 13 Excavation.
5. HMA Base Widening.
6. HMA Resurfacing.
7. Granular Shoulder Placement.
8. Grooving for Pavement Markings.
9. Rumble Strips.

General Notes:

A. Contractor's Option: Longitudinal Subdrain may be installed after Class 13
   Excavation for Widening operations if scheduling/timing allows.
   This option improves the likelihood that the subdrain trench aggregate is kept clean.
B. Pavement Markings shall be placed on each drivable surface as construction progresses.
   Pavement Markings shall be replaced within 48 hours of Centerline Rumble Strip Installation.

William.mcnamara@iowadot.us

COORDINATED OPERATIONS

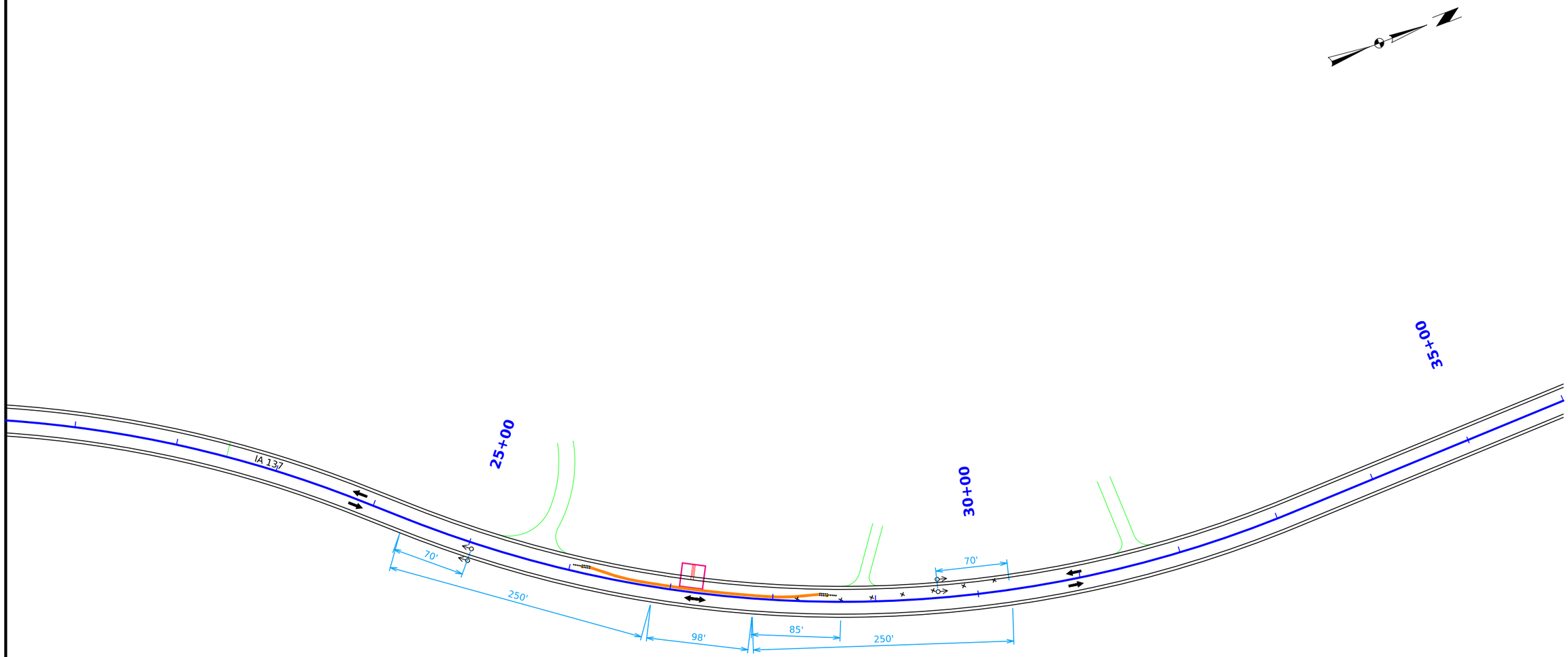
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
None Anticipated	

511 TRAVEL RESTRICTIONS

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	Construction Measurement as Signed	Projected As Built Measurement	Remarks
1.0	IA 137	2-Lane	Monroe	IA 5 to Heartland Dr near Eddyville		Traffic Control Device		Horizontal	N/A	12'	11'	N/A	(1)

(1) Restriction is during Culvert Repairs, Heater Scarification Operations, and Resurfacing.



MP 0.5 Culvert Repair
Traffic Control

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER J.5	

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LANDSCAPE DESIGN

STATE OF IOWA
Rachel
A. Harris
LA000775
PROFESSIONAL LANDSCAPE ARCHITECT

I hereby certify that the portion of this technical submission identified below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed professional landscape architect under the laws of the state of Iowa.

Signature

09-30-2024
Date

Rachel A. Harris
Printed or Typed Name

My license renewal date is June 30, 2026

PRELIMINARY

Pages or sheets covered by this seal: RC.1 - RC.3

FILE NO.	ENGLISH	DESIGN TEAM Harris/Pohlen/McDonald	Monroe COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER RC.1	

10:00:02 AM 8/23/2024 npohlen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\6813701023\Roadside\68137021_Sign_RC01.dgn

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Item no.	Item Code	Item	Unit	Quantities Estimated Roadside Items	Estimate Reference Notes
1	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	2,000	Refer to Standard Road Plan EC-204. Item is included for temporary perimeter sediment control, inlet protection, and water velocity reduction on slopes or ditches at locations to be determined during construction. Verify specific locations with the Engineer prior to beginning placement.
2	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	2,000	Refer to Standard Road Plan EC-204. Item is included for temporary perimeter sediment control, inlet protection, and water velocity reduction on slopes or ditches at locations to be determined during construction. Verify specific locations with the Engineer prior to beginning placement. Item may be used in addition to, or as a direct replacement for "Perimeter and Slope Sediment Control Device, 12 in. dia." upon Engineer approval.
3	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	4,000	

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-502	04-21-15	Seeding in Rural Areas

281-3
10-17-17

STORM WATER BEST MANAGEMENT PRACTICES

When the following best management practices are used, they are intended to account for disturbed areas where storage volume cannot be provided: Perimeter and Slope Sediment Control Devices and Seeding.

232-11
10-19-21

EROSION CONTROL (STABILIZING CROP SEEDING)

Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

If outside of permanent seeding dates in Section 2601 of the Standard Specifications, or if required by a storm water permit, place stabilizing crop, fertilizer, and mulch on the disturbed area as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,1 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are incidental to mobilization and will will not be paid for separately.

232-3A
10-19-21

EROSION CONTROL (RURAL SEEDING)

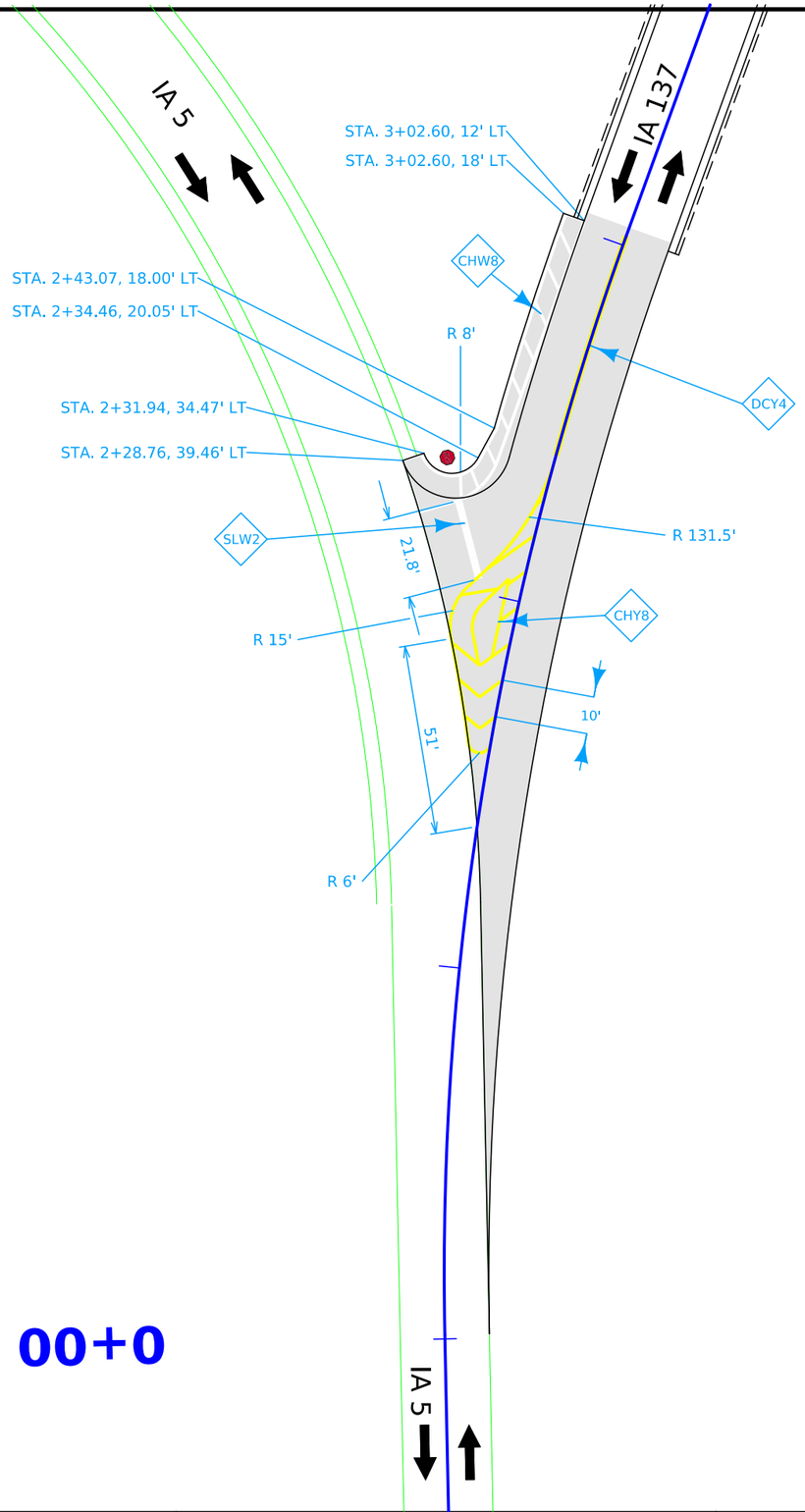
Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,3 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are all incidental to mobilization and will not be paid for separately.



00+0

Pavement Markings
for IA 137 SB to IA 5 SB
and IA 5 NB to IA 137 NB

FILE NO.	ENGLISH	DESIGN TEAM HOLST/BAHR/McNAMARA	MONROE COUNTY	PROJECT NUMBER STP-137-1(021)--2C-68	SHEET NUMBER U.1	

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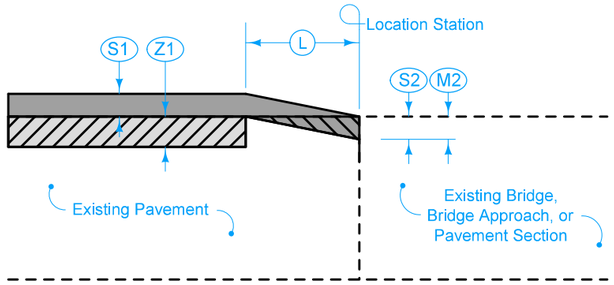
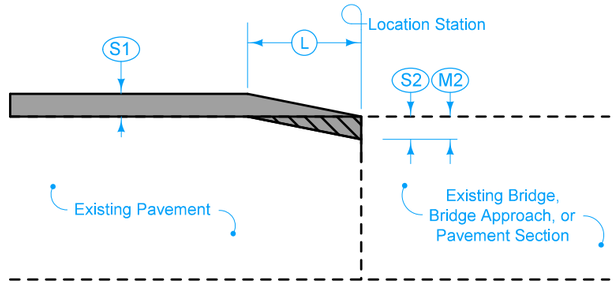


TYPE 'N1-M1'
SURFACE NOTCH - HOT IN-PLACE RECYCLING
RUNOUT FOR SINGLE COURSE RESURFACING

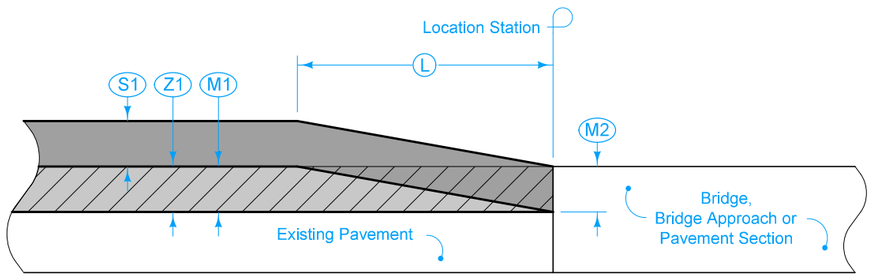


TYPE 'N1-M2'
SURFACE NOTCH
RUNOUT FOR SINGLE COURSE RESURFACING

S# HMA Surface Course
I# HMA Intermediate Course
Z# HOT In-Place Recycling
L Runout Length
M# Milling

Posted Speed Limit (mph)	Runout Ratio (ft per inch)
Over 40	50
20 to 40	25
Under 20	10*

* Based on turning maneuvers at side roads and intersections.



TYPE 'N5-M1'
SURFACE NOTCH - INTERMEDIATE
RUNOUT FOR RESURFACING OF MILLED AREAS

Tabulations:
100-25
102-16

MODIFIED
STANDARD ROAD PLAN

REVISION
NEW 7-02-2021

PR-202
SHEET 1 of 1

REVISIONS: Created notch 'N5-M1'
Removed notches not applicable to this project.

NOTCHES FOR RESURFACING (WITH OR WITHOUT RUNOUT)

FILE NO.	ENGLISH	DESIGN TEAM **HOLST/BAHR/McNAMARA**	**MONROE** COUNTY	PROJECT NUMBER **STP-137-1(021)--2C-68**	SHEET NUMBER **U.2**

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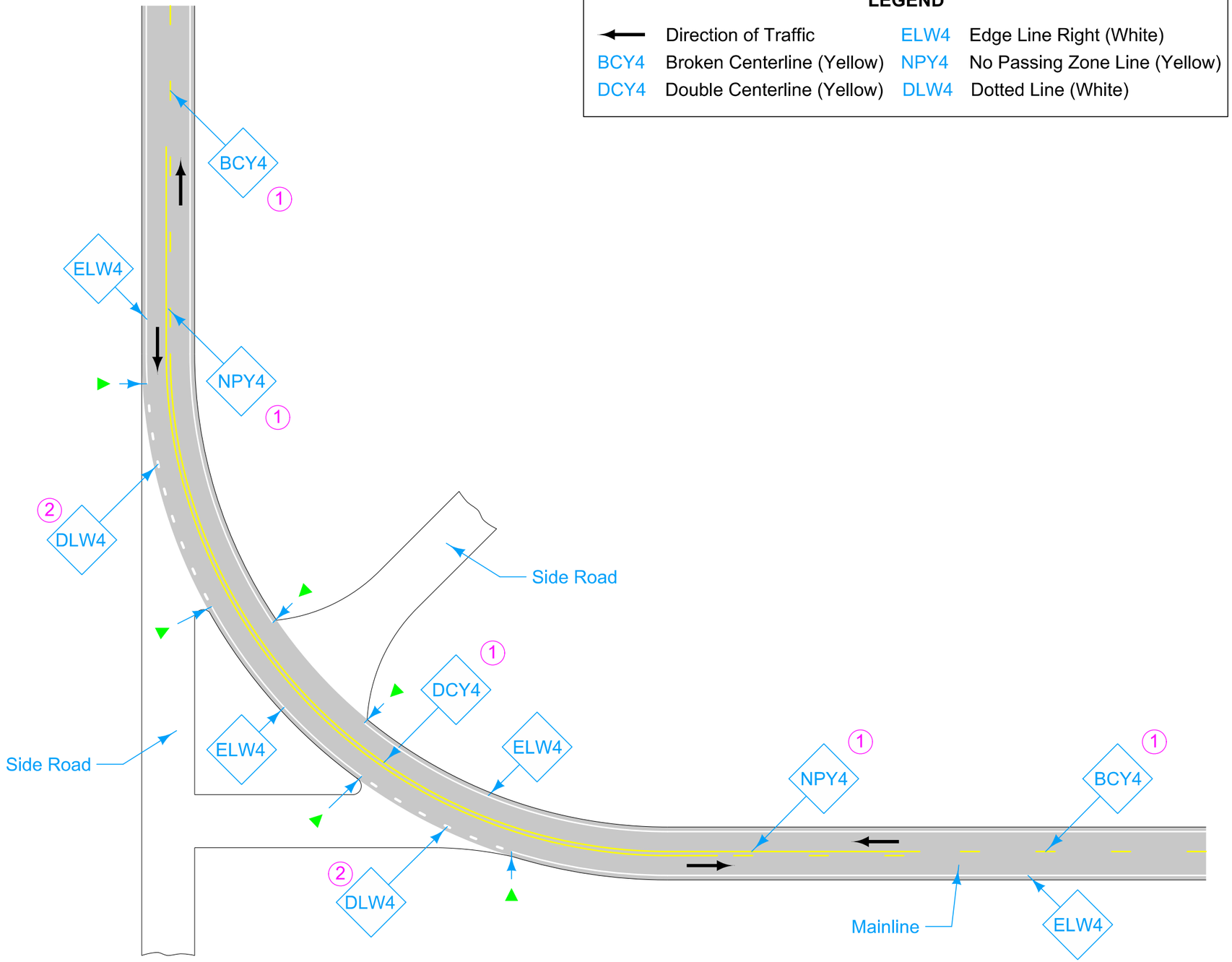

LEGEND

←	Direction of Traffic	ELW4	Edge Line Right (White)
BCY4	Broken Centerline (Yellow)	NPY4	No Passing Zone Line (Yellow)
DCY4	Double Centerline (Yellow)	DLW4	Dotted Line (White)

Roadways may or may not have edge lines. When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ▲s). When the stop controlled roadway has edge lines but the free flow roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.

For line information, see PM-110.

(1) Broken Centerline changes to No Passing Zone Line or Double Centerline if required by sight distance.

(2) DLW4 Pavement Markings applies to both Wye Intersection and Tee Intersection geometry on the outside of the mainline curve.

Possible Contract Item:
Pavement Marking Line Items

Possible Tabulation:
108-22

REVISION	
New	7-21-22

STANDARD ROAD PLAN

PM-420

SHEET 1 of 1

MODIFICATIONS: Added curved Mainline scenario.
Added DLW4 Pavement Markings for Sideroad Intersections on the Outside of a curved Mainline.

TWO-LANE ROADWAY WITH NO TURN LANES (ONE-WAY STOP CONDITION OFF OF A CURVED MAINLINE)

FILE NO.	ENGLISH	DESIGN TEAM **HOLST/BAHR/McNAMARA**	**MONROE** COUNTY	PROJECT NUMBER **STP-137-1(021)--2C-68**	SHEET NUMBER **U.3**

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