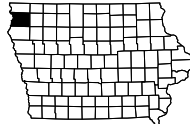


Sioux COUNTY

PCC Pavement - Grade and New
HSIPX-018-1(115)--3L-84

LETTING DATE
Jan 17 2029



INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
A.3 - 11	Design Criteria
B Sheets	Typical Cross Sections and Details
B.1 - 5	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
D.1	Plan & Profile Legend & Symbol Information Sheet
D.2 - 4	US 75/ US 18
E Sheets	Side Road Plan and Profile Sheets
E.1	320th St.
G Sheets	Survey Sheets
G.1	Survey Information
G.2	Control Point Vicinity Map
G.3	Horizontal Control Tab. & Super for All Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
J.2	Detour Route



PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

Sioux COUNTY

PCC Pavement - Grade and New

S Jct US 75 Intersection

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

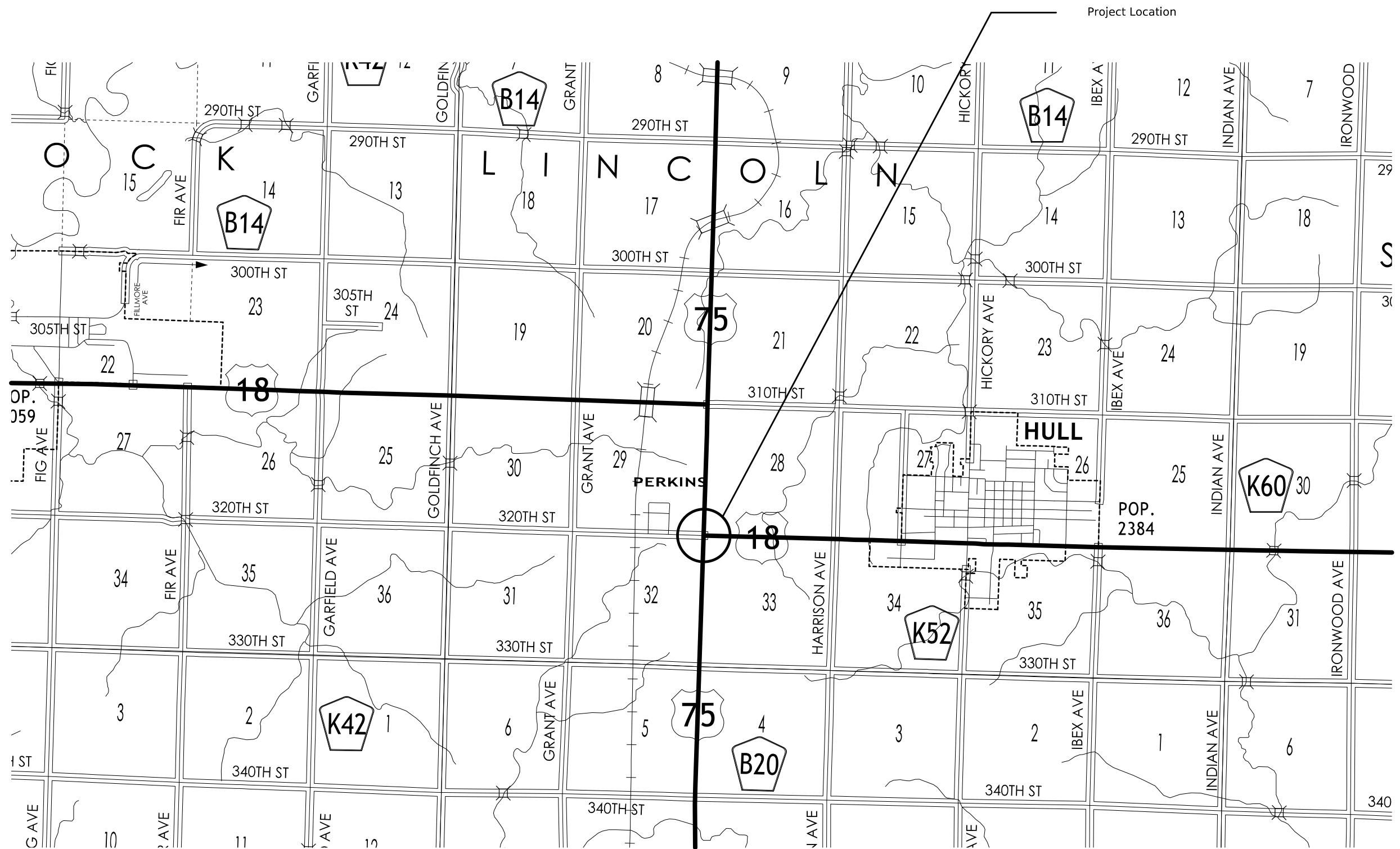
PROJECT IDENTIFICATION NUMBER	TOTAL
	26
26-84-018-070	
PROJECT NUMBER	
HSIPX-018-1(115)--3L-84	
R.O.W. PROJECT NUMBER	
NHSN-018-1(116)--2R-84	
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D3 - Date: 9/18/2026
B2 - Date: 11/20/2026
D5 - Date: 12/11/2026
R1 - Date: 3/12/2027
P9 Date: 5/12/2027
DM5 - Date: 10/3/2028

PRELIMINARY PLANS

Subject to change by final design.

D2 PLAN - Date: 7/9/2026



INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
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INDEX OF SHEETS	
No.	DESCRIPTION

018 / US 75			
HSIPX-018-070		Submittal Date	
HSIPX-018-1(115)--3L-84		Approval Date	
Project 3	Assistant District Engineer		
Project X	or		
Project 3 / US 75	Office Director		
US 75 Intersection			
Pavement - Grade and New			
Project Engineer / Evans			
Rural Two-Lane Highways (Rural Arterials)			
Design	Preferred	Acceptable	Project Values
Maximum superelevation rate (Refer to Section <u>2A-2</u>)	60	50	60
Design lane width (ft)	6%	8%	N/A
Full depth paved width (ft)	12	12	12
Right turn lane (ft)	12	10	N/A
Climbing Lane (ft)	12	12	N/A
Left turn lane (ft)	12	10	N/A
Pavement cross-slope (on tangent sections)	Through lanes	1.5% minimum, 2% maximum	2%
	Auxiliary and turn lanes	3% maximum	N/A
	Crown break at centerline	4% maximum	4%
Shoulder cross-slope (on tangent sections)	4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	4%
Curb type (Refer to Section <u>3C-2</u>)	Design speed = 50 or 55 mph	6-inch sloped	6-inch standard
	Design speed ≥ 60 mph	4-inch sloped	6-inch sloped
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	3:1
	Beyond standard ditch depth and design clear zone	3.5:1	3:1
	Curbed roadways	2%	not steeper than 3:1
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)	3:1	2.5:1	3:1
Transverse Slopes	w/ drainage structures	8:1	6:1
	w/o drainage structures	10:1	6:1
Ditches (Refer to Section <u>3G-1</u>)	Outside ditch (depth x width) (ft)	5 x 10	--
Bridge width—new*	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths	design lane widths + effective shoulder widths
	Bridge length > 200 ft	design lane widths + effective shoulder widths	design lane width + 4' right and left of the design lane widths
Bridge width—existing*		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft. offset left and right
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16
	Over non-primary	16.5 at interchange locations, 15 at all other locations	14
	Over railroad	23.3	23.3
	Sign trusses and pedestrian bridges	17.5	17
Structural Capacity	Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	N/A
Level of Service	B	B	
*FHWA notification via email is required if acceptable critera is not met on the NHS system (No formal design exeption is required)			

Roadway Design Speed (mph) = 60															
Design Manual Section 1C-1 Last Updated: 04-29-19				Design Criteria for High Speed Roadways											
Design Element			Preferred Criteria						Acceptable Criteria						Project Values
			Design Speed, mph						Design Speed, mph						
			50	55	60	65	70	75	50	55	60	65	70	75	
Stopping sight distance (ft) (Refer to Section 6D-1)			425	495	570	645	730	820	425	495	570	645	730	820	570
Minimum horizontal curve radius (ft) (Refer to Sections 2A-2 and 2A-3)	Method 5 superelevation and side friction distribution	e _{max} = 6%	833	1060	1330	1660	2040	2500	833	1060	1330	1660	2040	2500	1330
		e _{max} = 8%	--	--	--	--	--	--	758	960	1200	1480	1810	2210	
Minimum vertical curve length (ft) (Refer to Section 2B-1)			150	165	180	195	210	225	150	165	180	195	210	225	180
Minimum rate of vertical curvature (K) (Refer to Section 2B-1)	crest vertical curves		84	114	151	193	247	312	84	114	151	193	247	312	151
	sag vertical curves	roadways without fixed source lighting	96	115	136	157	181	206	96	115	136	157	181	206	136
		roadways with fixed-source lighting	96	115	136	157	181	206	54	66	78	91	106	121	136
Minimum gradient (%) (Refer to Section 2B-1)			0.5						0.3% with a curb, 0.0% without a curb						0.5
Maximum gradient (%) (Refer to Section 2B-1)		Urban roadways	4	3					7	6	6	—	—	—	
		Rural roadways							5	5	4	4	4	4	4
		Interstates							5	5	4	4	4	4	4
Clear zone			See "Preferred Clear Zone" table in Section 8A-2						See "Acceptable Clear Zone" table in Section 8A-2						

Roadway	320th St.			
PIN Number	26-84-018-070	Submittal Date		
Project Number	HSIPX-018-1(115)--3L-84		Approval Date	
District	District 3	Assistant District Engineer		
County	SIOUX	or		
Route	US 18 / US 75	Office Director		
Location	S Jct US 75 Intersection			
Work Type	PCC Pavement - Grade and New			
Segment Manager	Miller			
Designer	Cooper / Evans			
Design Manual Section 1C-1 Last Updated: 04-29-19				
Urban Multilane Roadways (Urban Arterials)				
Design Element		Preferred	Acceptable Criteria	Project Values
Design speed (mph)		The anticipated posted speed limit	30	40
Maximum superelevation rate (Refer to Section 2A-2)		4%	8%	N/A
Design lane width (ft)		12	11	11
Full depth paved width (ft)	Outside lane	Design lane width + curb and gutter unit or 12 feet for roadways with shoulders	Match design lane width	
	Inside lane(s)	Design lane width + curb and gutter unit. 12' for roadways without a curb and gutter unit	Match design lane width	
Right turn lane or an auxiliary lane (ft)		12	10	N/A
Left turn lane (ft)	With raised or painted median	12 ft + median	10 ft + median	N/A
	With depressed median	12	10	N/A
Two-way left turn lane (ft)		14	11	N/A
Parking lane width (ft)		10	7	N/A
Pavement cross-slope (on tangent sections)	Through lanes	2%, However, when adjacent lanes slope in the same direction, increase slope by 0.5% per lane up to 3%	1.5% minimum, 3% maximum	2%
	Auxiliary and turn lanes	3%	3% maximum	N/A
	Crown break at centerline	4%	4% maximum	N/A
Shoulder cross-slope (on tangent sections)	Shoulders	4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	4%
	Curb and gutter units	Match pavement cross-slope	6% maximum	N/A
	Parking lanes	1% greater than pavement cross-slope	6% maximum	N/A
Curb type (Refer to Section 3C-2)	Design speed ≤ 45 mph	6-inch standard	any shape	
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	3:1	4:1
	Beyond standard ditch depth and design clear zone	3.5:1	3:1	3:1
	Curbed roadways	2%	not steeper than 3:1	4%
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		3:1	2.5:1	3:1
Transverse Slopes	w/ drainage structures	8:1	6:1	N/A
	w/o drainage structures	10:1	6:1	N/A
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	--	5x10
Median width (ft) (Refer to Section 3E-1)		See Section 3E-1	0	
Bridge width—new*	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths or design lane width + 3 ft each side in curb and gutter section	design lane widths + effective shoulder widths or curb-to-curb width in curb and gutter section**	N/A
	Bridge length > 200 ft	design lane widths + effective shoulder widths or design lane width + 3 ft each side in curb and gutter section	design lane widths + 4 ft offset each side for roadways with shoulders or curb-to-curb width in curb and gutter section**	N/A
Bridge width—existing*		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft left and right of the design widths	N/A
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16	N/A
	Over non-primary	16.5 at interchange locations, 15 at all other locations	14	N/A
	Over railroad	23.3	23.3	N/A
	Sign truss and pedestrian crossings	17.5	17	N/A
Structural Capacity		Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	N/A
Level of Service		C	D	
*FHWA notification via email is required if acceptable criteria is not met on the NHS system (No formal design exception required)				
** If travel lanes are less than 12 ft wide contact the Methods Section for assistance.				

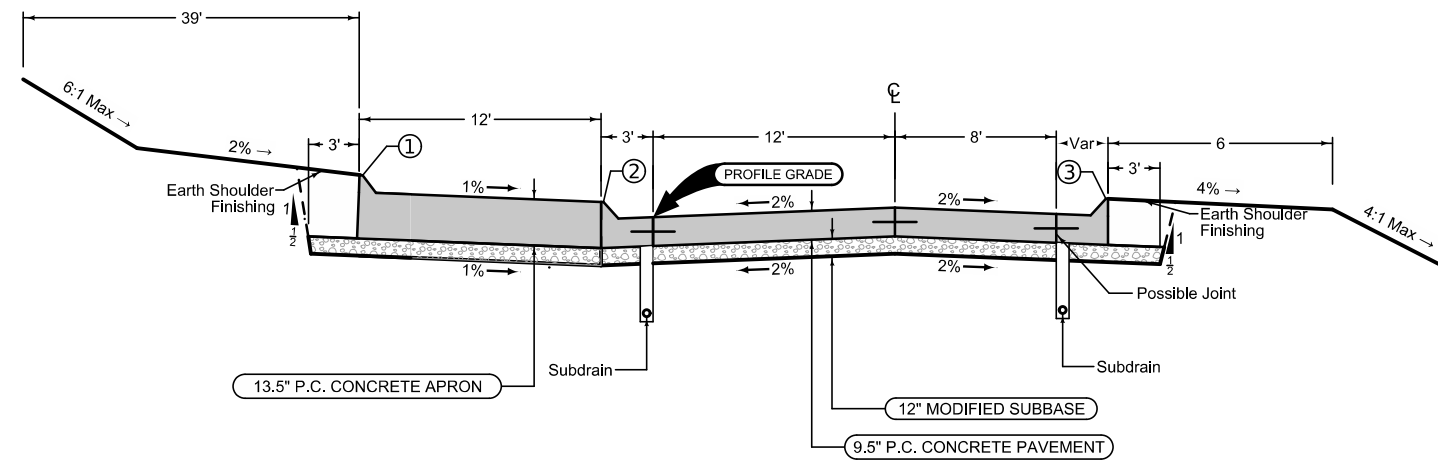
Design year ADT =												
Design Manual Section 1C-1 Last Updated: 04-29-19												
Effective Shoulder Width and Type for Multilane Arterials												
Preferred (Values shown in feet)					Acceptable (Values shown in feet)					Project Values		
		Rural Roadways		Urban Roadways			Rural Roadways		Urban Roadways			
Auxiliary lanes or turn lanes with shoulders		6		6	Auxiliary lanes or turn lanes with shoulders		6		0	N/A		
Turn lanes with curbs		6		See Section 3C-2	Turn lanes with curbs		6		0	N/A		
Expressways	Outside		Median Side		Expressways	Outside		Median Side				
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width		Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width			
Routes where bicycles are to be accommodated		10	10	6	6	Routes where bicycles are to be accommodated		8	4	4	4' Granular	
On roadways approaching urban areas (due to increased bike traffic)		10	10	6	6							
On all curves with a superelevation rate of 7.0% or greater		10	10	6	6	On all other Expressways (Multilane Arterials)		8	0*	4		4
On roadways with design year ADT > 6500 vpd		10	6	6	6							
On all other Expressways (Multilane Arterials)		10	6	6	6							
*Requires safety edge-See Section 3C-6												
Curbs should be located beyond the outer edge of the effective shoulder width in rural areas												
Refer to Section 3C-2 for curb offsets in urban areas												
Notes:												

Roadway Design Speed (mph) =				40										
Design Manual Section 1C-1 Last Updated: 05-26-17				Design Criteria for Low Speed Roadways										
Design Element			Preferred Criteria					Acceptable Criteria					Project Values	
			Design Speed, mph					Design Speed, mph						
			25	30	35	40	45	25	30	35	40	45		
Stopping sight distance (ft) (Refer to Section 6D-1)			155	200	250	305	360	155	200	250	305	360	305	
Minimum horizontal curve radius (ft) and superelevation rate (Refer to Sections 2A-2 and 2A-3)	Method 2 superelevation and side friction distribution	e = 4% max	See Table 10 in Section 2A-3					--						
		Method 5 superelevation and side friction distribution	e _{max} = 6%	144	231	340	485	643	144	231	340	485	643	485
			e _{max} = 8%	--	--	--	--	--	134	214	314	444	587	
Minimum vertical curve length (ft) (Refer to Section 2B-1)			75	90	105	120	135	75	90	105	120	135	120	
Minimum rate of vertical curvature (K)	crest vertical curves		12	19	29	44	61	12	19	29	44	61	44	
	sag vertical curves	roadways without fixed-source lighting	26	37	49	64	79	26	37	49	64	79	64	
		roadways with fixed-source lighting	26	37	49	64	79	14	20	27	35	44	64	
Minimum gradient (%)	(Refer to Section 2B-1)		0.5					0.3% with a curb, 0.0% without a curb					0.5	
Maximum gradient (%)	(Refer to Section 2B-1)	Urban roadways	5					—	9	8	8	7	5	
		Rural roadways						—	—	—	6	6	5	
Clear zone			See "Preferred Clear Zone" table in Section 8A-2					See "Acceptable Clear Zone" table in Section 8A-2						

Roadway	US 18 / US 75 / 320th St.			
PIN Number	26-84-018-070	Submittal Date		
Project Number	HSIPX-018-1(115)--3L-84		Approval Date	
District	District 3	Assistant District Engineer		
County	SIOUX	or		
Route	US 18 / US 75	Office Director		
Location	S Jct US 75 Intersection			
Work Type	PCC Pavement - Grade and New			
Segment Manager	Miller			
Designer	Cooper / Evans			
Design Manual Section 1C-1 Last Updated: 04-29-19				
Urban Multilane Roadways (Urban Arterials)				
Design Element		Preferred	Acceptable Criteria	Project Values
Design speed (mph)		The anticipated posted speed limit	30	25
Maximum superelevation rate (Refer to Section 2A-2)		4%	8%	N/A
Design lane width (ft)		12	11	12-20
Full depth paved width (ft)	Outside lane	Design lane width + curb and gutter unit or 12 feet for roadways with shoulders	Match design lane width	
	Inside lane(s)	Design lane width + curb and gutter unit. 12' for roadways without a curb and gutter unit	Match design lane width	
Right turn lane or an auxiliary lane (ft)		12	10	N/A
Left turn lane (ft)	With raised or painted median	12 ft + median	10 ft + median	N/A
	With depressed median	12	10	N/A
Two-way left turn lane (ft)		14	11	N/A
Parking lane width (ft)		10	7	N/A
Pavement cross-slope (on tangent sections)	Through lanes	2%, However, when adjacent lanes slope in the same direction, increase slope by 0.5% per lane up to 3%	1.5% minimum, 3% maximum	2%
	Auxiliary and turn lanes	3%	3% maximum	N/A
	Crown break at centerline	4%	4% maximum	N/A
Shoulder cross-slope (on tangent sections)	Shoulders	4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	N/A
	Curb and gutter units	Match pavement cross-slope	6% maximum	
	Parking lanes	1% greater than pavement cross-slope	6% maximum	N/A
Curb type (Refer to Section 3C-2)	Design speed ≤ 45 mph	6-inch standard	any shape	6-inch standard
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	3:1	
	Beyond standard ditch depth and design clear zone	3.5:1	3:1	
	Curbed roadways	2%	not steeper than 3:1	2%
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		3:1	2.5:1	3:1
Transverse Slopes	w/ drainage structures	8:1	6:1	N/A
	w/o drainage structures	10:1	6:1	N/A
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	--	5x10
Median width (ft) (Refer to Section 3E-1)		See Section 3E-1	0	
Bridge width—new*	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths or design lane width + 3 ft each side in curb and gutter section	design lane widths + effective shoulder widths or curb-to-curb width in curb and gutter section**	N/A
	Bridge length > 200 ft	design lane widths + effective shoulder widths or design lane width + 3 ft each side in curb and gutter section	design lane widths + 4 ft offset each side for roadways with shoulders or curb-to-curb width in curb and gutter section**	N/A
Bridge width—existing*		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft left and right of the design widths	N/A
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16	N/A
	Over non-primary	16.5 at interchange locations, 15 at all other locations	14	N/A
	Over railroad	23.3	23.3	N/A
	Sign truss and pedestrian crossings	17.5	17	N/A
Structural Capacity		Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	N/A
Level of Service		C	D	
*FHWA notification via email is required if acceptable criteria is not met on the NHS system (No formal design exception required)				
** If travel lanes are less than 12 ft wide contact the Methods Section for assistance.				

Design year ADT =												
Design Manual Section 1C-1 Last Updated: 04-29-19												
Effective Shoulder Width and Type for Multilane Arterials												
Preferred (Values shown in feet)					Acceptable (Values shown in feet)					Project Values		
		Rural Roadways		Urban Roadways			Rural Roadways		Urban Roadways			
Auxiliary lanes or turn lanes with shoulders		6		6	Auxiliary lanes or turn lanes with shoulders		6		0	N/A		
Turn lanes with curbs		6		See Section 3C-2	Turn lanes with curbs		6		0	N/A		
Expressways	Outside		Median Side		Expressways	Outside		Median Side				
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width		Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width			
Routes where bicycles are to be accommodated		10	10	6	6	Routes where bicycles are to be accommodated		8	4	4	Curbed	
On roadways approaching urban areas (due to increased bike traffic)		10	10	6	6							
On all curves with a superelevation rate of 7.0% or greater		10	10	6	6	On all other Expressways (Multilane Arterials)		8	0*	4		
On roadways with design year ADT > 6500 vpd		10	6	6	6							
On all other Expressways (Multilane Arterials)		10	6	6	6							
*Requires safety edge-See Section 3C-6 Curbs should be located beyond the outer edge of the effective shoulder width in rural areas Refer to Section 3C-2 for curb offsets in urban areas												
Notes:												

Roadway Design Speed (mph) = 25													
<u>Design Manual Section 1C-1</u> <u>Last Updated: 05-26-17</u>				Design Criteria for Low Speed Roadways									
Design Element			Preferred Criteria					Acceptable Criteria					Project Values
			Design Speed, mph					Design Speed, mph					
			25	30	35	40	45	25	30	35	40	45	
Stopping sight distance (ft) (Refer to Section <u>6D-1</u>)			155	200	250	305	360	155	200	250	305	360	155
Minimum horizontal curve radius (ft) and superelevation rate (Refer to Sections <u>2A-2</u> and <u>2A-3</u>)	Method 2 superelevation and side friction distribution	e = 4% max	See Table 10 in Section <u>2A-3</u>					--					
		Method 5 superelevation and side friction distribution	e _{max} = 6%	144	231	340	485	643	144	231	340	485	643
		Method 5 superelevation and side friction distribution	e _{max} = 8%	--	--	--	--	--	134	214	314	444	587
Minimum vertical curve length (ft) (Refer to Section <u>2B-1</u>)			75	90	105	120	135	75	90	105	120	135	75
Minimum rate of vertical curvature (K)	crest vertical curves		12	19	29	44	61	12	19	29	44	61	12
	sag vertical curves	roadways without fixed-source lighting	26	37	49	64	79	26	37	49	64	79	26
		roadways with fixed-source lighting	26	37	49	64	79	14	20	27	35	44	26
Minimum gradient (%)	(Refer to Section <u>2B-1</u>)		0.5					0.3% with a curb, 0.0% without a curb					
Maximum gradient (%)	(Refer to Section <u>2B-1</u>)	Urban roadways	5					—	9	8	8	7	
		Rural roadways						—	—	—	6	6	
Clear zone			See "Preferred Clear Zone" table in Section <u>8A-2</u>					See "Acceptable Clear Zone" table in Section <u>8A-2</u>					



- ① 6" Standard Curb
- ② 4" Sloped Curb
- ③ 6" Sloped Curb

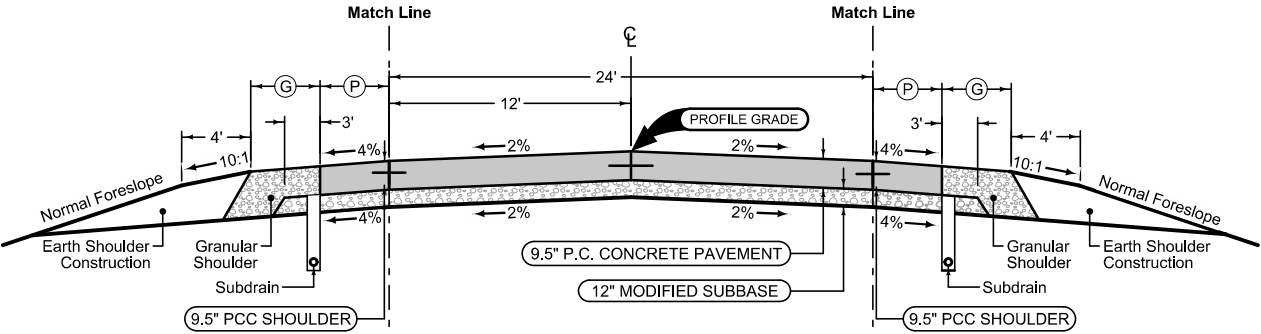
STATION TO STATION		
ROAD IDENTIFICATION	STATION TO STATION	
Inner ICD		

Roundabout

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8



Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

2P_04-21-20	
STATION TO STATION	

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

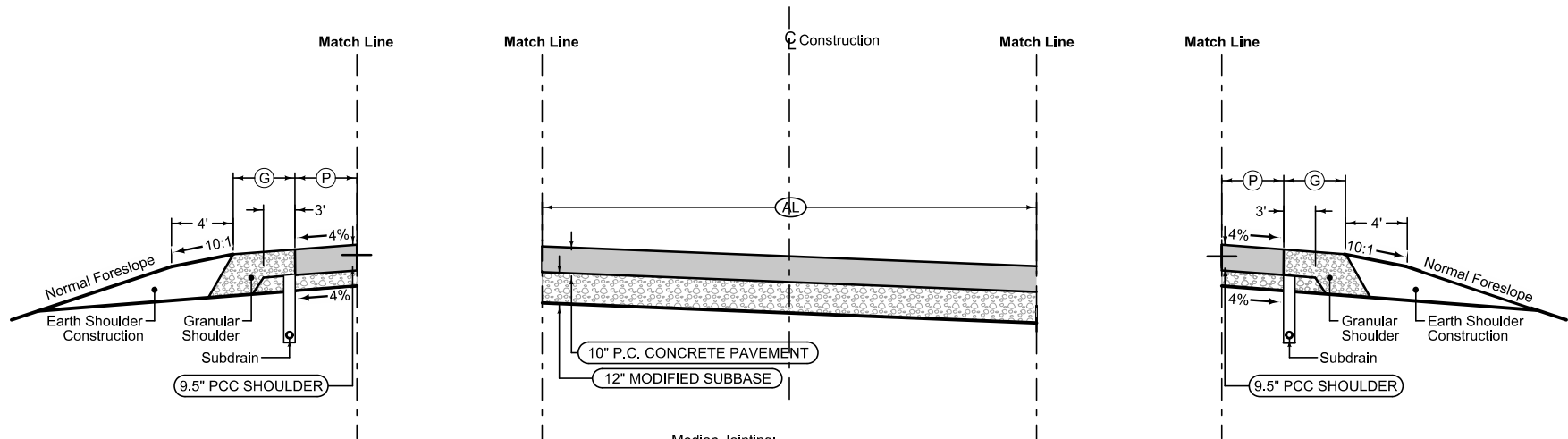
2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8

U.S. 18

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8
		4	8



Median Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

1LP_04-20-21	
BEGIN STATION	END STATION

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

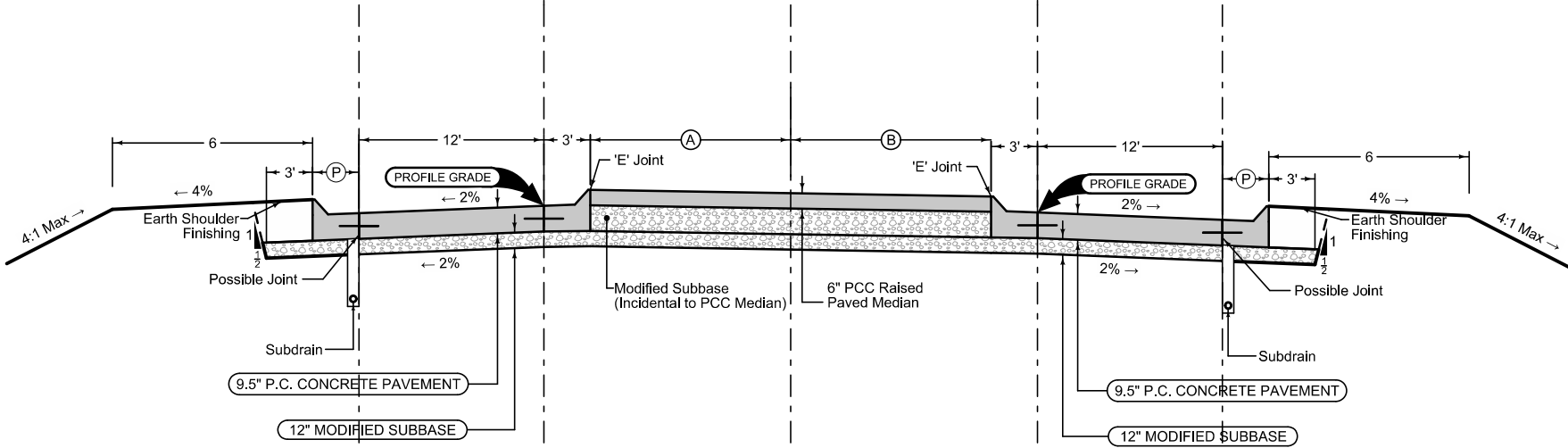
2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8
		4	8

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

Single pour: L-2
Staged : BT-2
Transverse: C at 17' spacing

2_Curb_04-15-25			
STATION TO STATION		(P) Feet	Curb Type See PV-102
			6" Sloped
			6" Sloped



Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION

4DP_Raised_Out_04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
		Vari.	Vari.
		Vari.	Vari.

Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

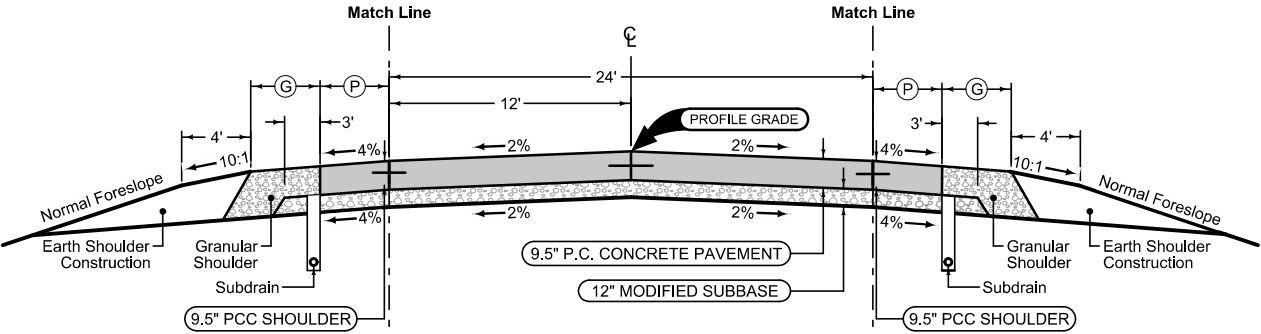
Single pour: L-2
Staged : BT-2
Transverse: C at 17' spacing

2_Curb_04-15-25			
STATION TO STATION		(P) Feet	Curb Type See PV-102
			6" Sloped
			6" Sloped

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8



Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

2P_04-21-20	
STATION TO STATION	

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

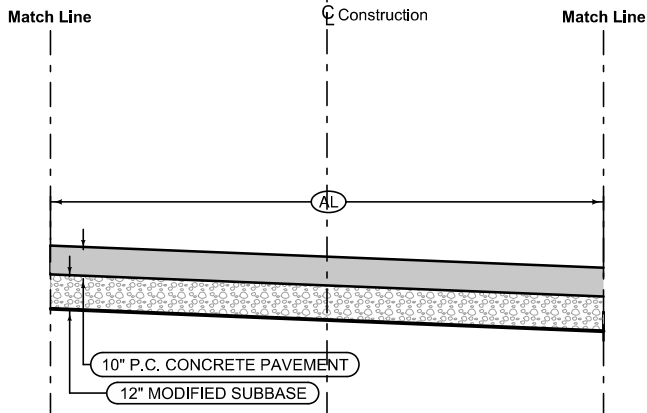
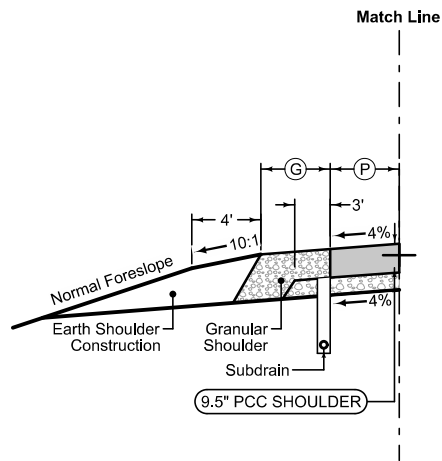
2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8

U.S. 75

Full Depth PCC Combination Shoulder

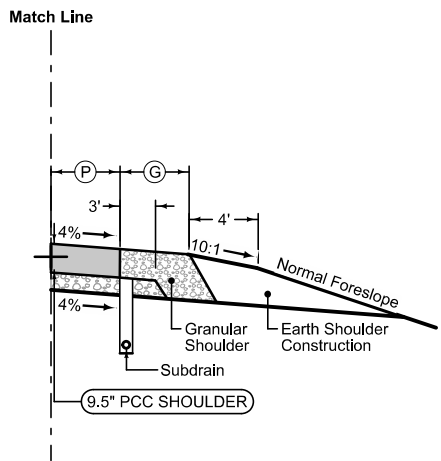
Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8



Median Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

1LP_04-20-21	
BEGIN STATION	END STATION



Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

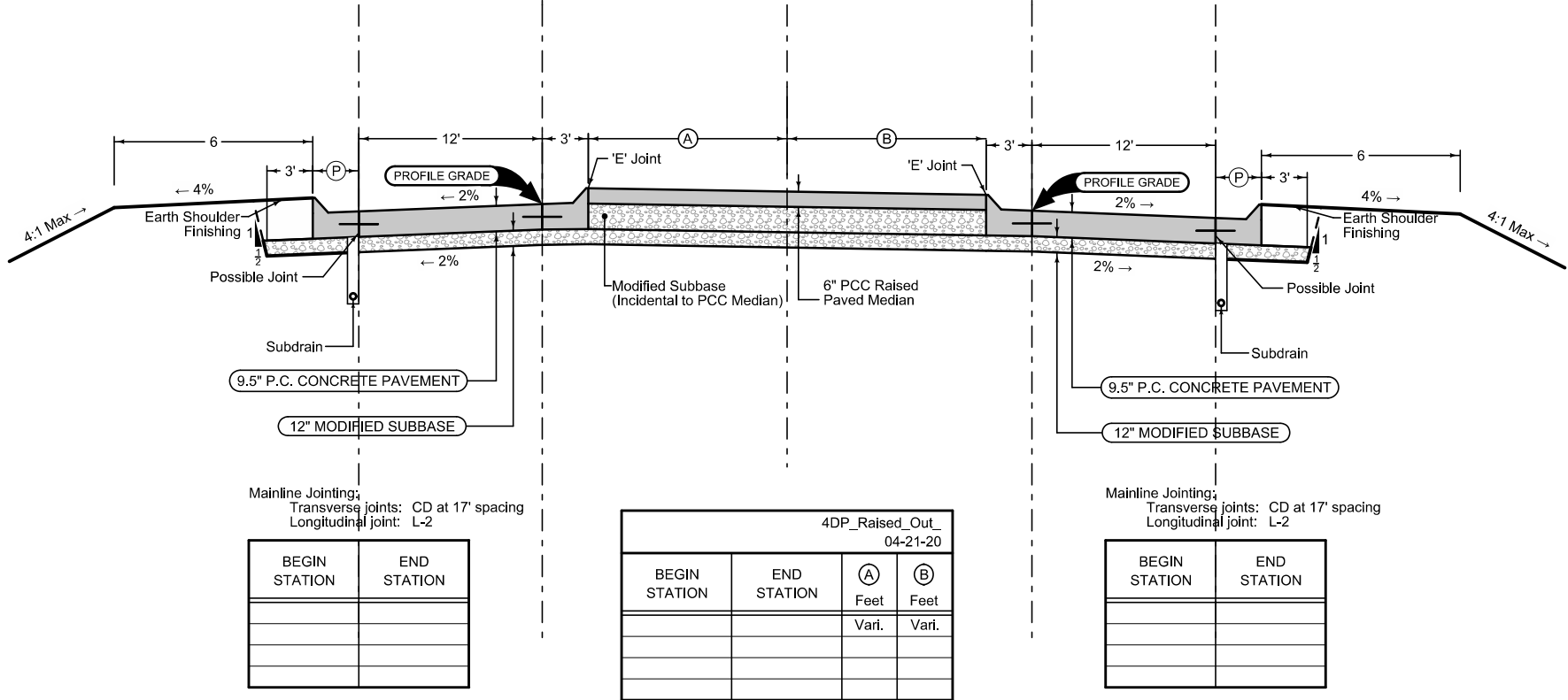
2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
		4	8

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

Single pour: L-2
Staged: BT-2
Transverse: C at 17' spacing

2_Curb_04-15-25			
STATION TO STATION		(P) Feet	Curb Type See PV-102
			6" Sloped



Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION

4DP_Raised_Out_04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
		Vari.	Vari.

Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

Single pour: L-2
Staged: BT-2
Transverse: C at 17' spacing

2_Curb_04-15-25			
STATION TO STATION		(P) Feet	Curb Type See PV-102
			6" Sloped

U.S. 75

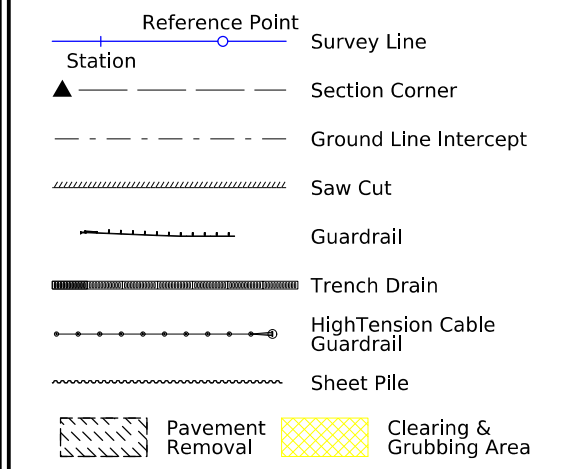
	Interstate Highway Symbol
	U.S. Highway Symbol
	Iowa Highway Symbol
	County Road Highway Symbol
	Evergreen Tree
	Deciduous Tree
	Fruit Tree
	Shrub (Bushes)
	Timber
	Hedge
	Stump
	Swamp
	Rock Outcrop
	Broken Concrete
	Revetment (Rip Rap)
	Cemetery
	Grave
	Cave
	Sink Hole
	Board Fence
	Chain Link or Security Fence
	Wire Fence
	Terrace
	Earth Dam or Dike (Existing)
	Tile Outlet
	Edge of Water
	Existing Drainage
	Right of Way Rail or Lot Corner
	Concrete Monument
	Well
	Windmill
	Beehive Intake
	Existing Intake
	Existing Utility Access (Manhole)
	Fire Hydrant
	Water Hydrant (Rural)

	Septic Tank
	Cistern
	L.P. Gas Tank (No Footing)
	Underground Storage Tank
	Latrine
	Satellite TV Dish
	Water Hook Up
	Radio Tower
	Tower Anchor
	Guardrail (Beam or Cable)
	Guard Post (one or two)
	Guard Post (over two)
	Filler Pipe
	Gas Valve
	Water Valve
	Speed Limit Sign
	Mile Marker Post
	Sign
	Traffic Signal Control Box
	Rail Road Signal Control Box
	Telephone Switch Box
	Electric Box

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities

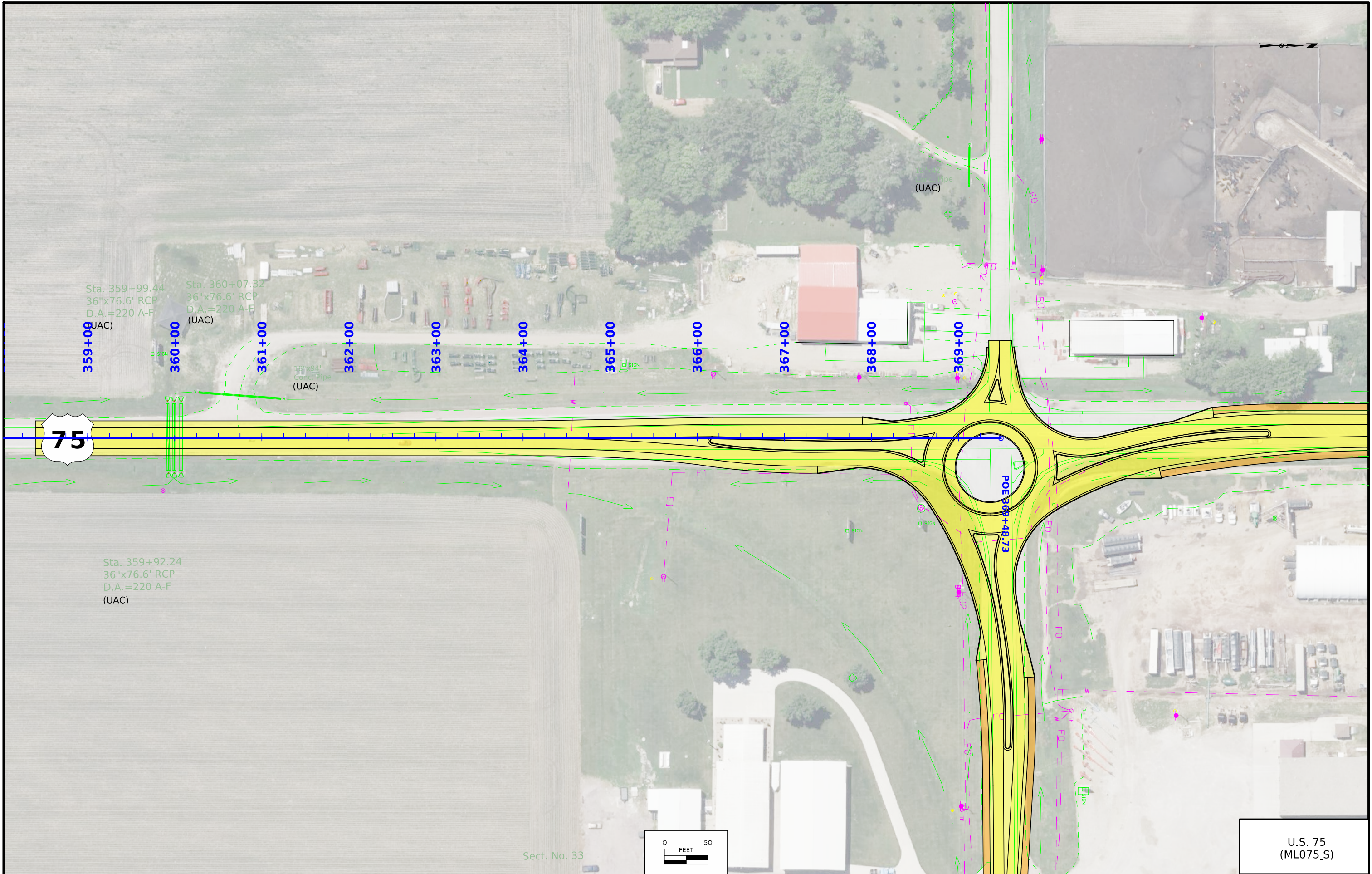
SHADING	Design Color No.	Transparency
Pink, Dark	(13)	Temporary Pavement Shading 50%
Yellow	(4)	Proposed Pavement Shading 50%
Orange	(6)	Proposed Granular Shading 50%
Orange	(70)	Proposed Shoulder Granular Shading 50%
Yellow	(68)	Proposed Shoulder Paved Full Depth Shading 50%
Yellow	(132)	Proposed Shoulder Paved Partial Depth Shading 50%
Brown, Light	(236)	Grading Shading 50%
Orange, Light	(134)	Proposed Granular Entrance Shading 50%
Yellow	(220)	Proposed Paved Entrance Shading 50%
Tan	(8)	Proposed Sidewalk Shading 50%
Blue, Light	(230)	Proposed Sidewalk Landing Shading 50%
Pink	(11)	Proposed Sidewalk Ramp Shading 50%
Red	(3)	Proposed Structure Shading 50%
Red	(3)	Delineates Restricted Areas 0%

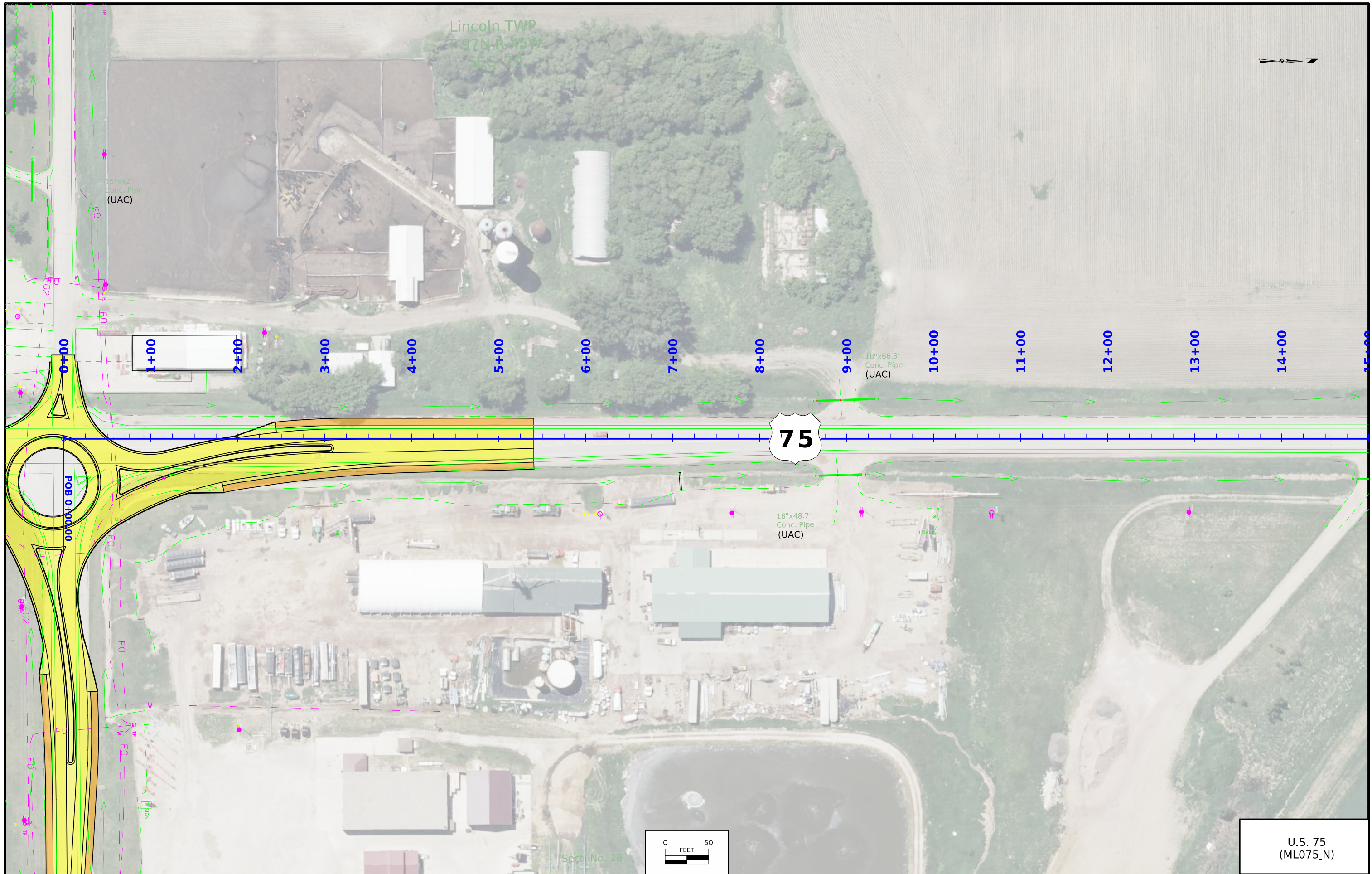
LINEWORK	Design Color No.	
Green	(10)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right



- Proposed Right-of-Way Symbol
- Proposed Right-of-Way Line
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary) Symbol
- Easement (Temporary) Line
- Easement
- Access Control
- Property Line Symbol
- Property Line

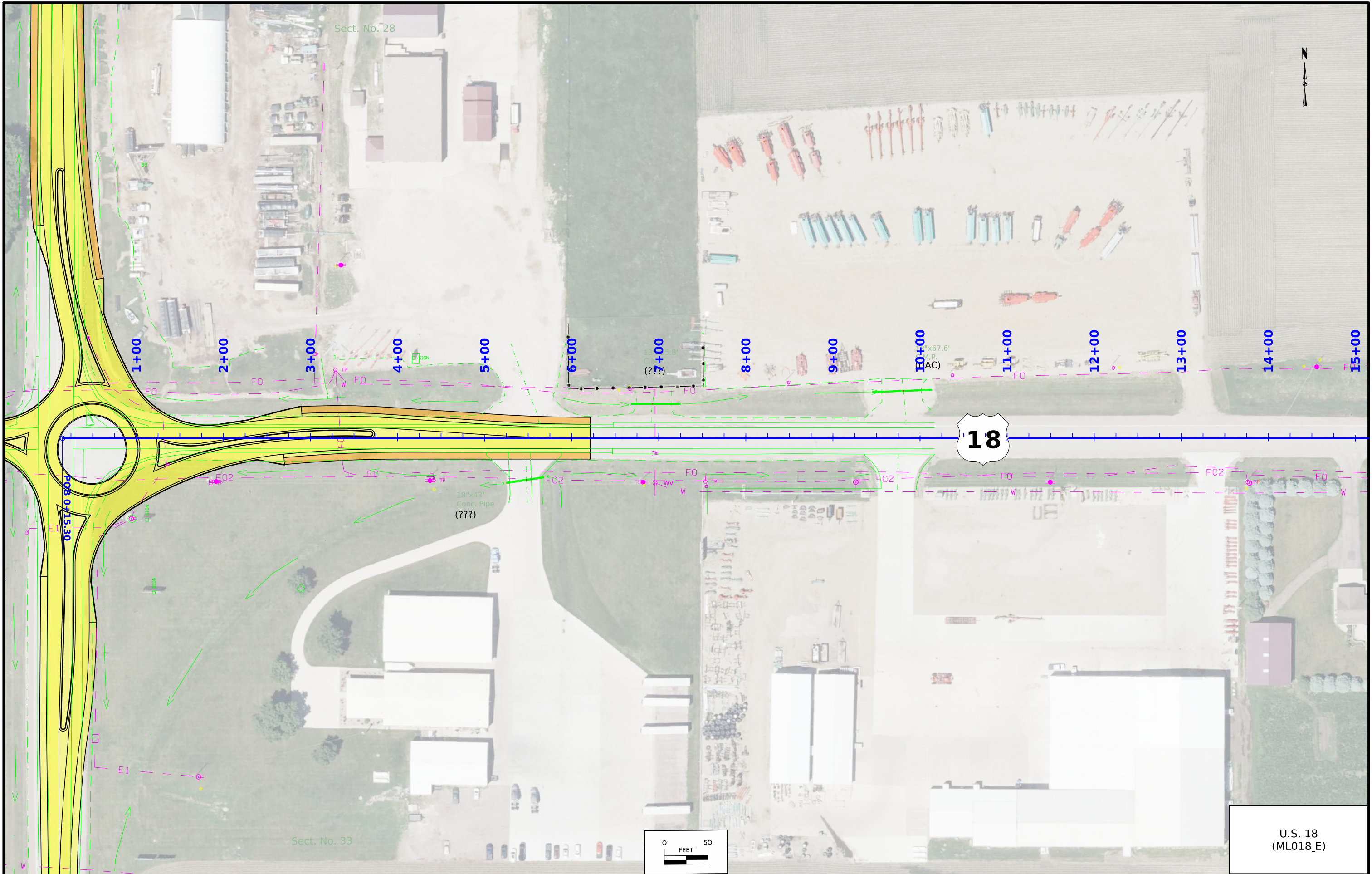
(COVERS SHEET SERIES D, E, F, & K)

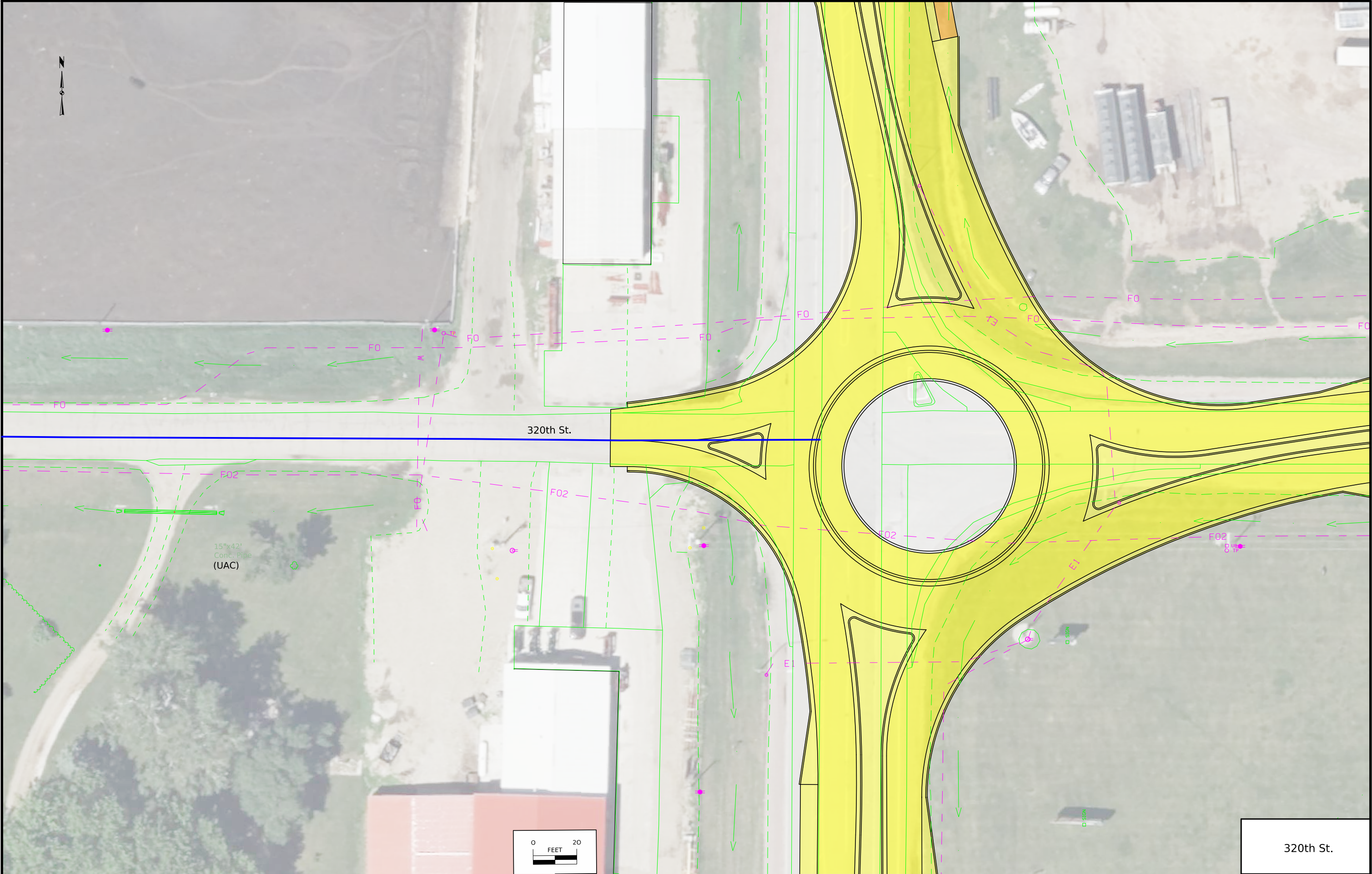




FILE NO. --	ENGLISH	DESIGN TEAM Miller \ Cooper \ Evans	Sioux COUNTY	PROJECT NUMBER HSIPX-018-1(115)--3L-84	SHEET NUMBER D.3
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1:40:07 PM 7/9/2026 bhobson pw:\NTP\wint1.dot.int.lan:PWMain\Documents\Projects\8401807026\Design\CADD_Files\Sheet_Files\D03_ML_75_N_84018115_SHT.dgn





Survey Information

SURVEY INDEX

County : Sioux
Project Code : 26-84-018-070
Phase Number : HSIPX-018-1(115)--3L-84
Location : S Jct US 75 Intersection
Work Code : 1033-Unknown Pavement - Grade and New
Project Directory : 8401807026
Project Manager : Shane Tymkowicz

Survey Personnel

Dan Duncan – Survey Party Chief

Date(s) of Survey

Begin Date 03/17/2026
End Date 05/13/2026

General Information

This survey is for the Junctions of US75 South and US18 East proposed intersection improvements.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the PrelimSurvey project directory.

Project Control

Coordinates were determined for primary project control points by conducting concurrent six-hour static observations. Post processing is constrained to nearby Iowa Real Time Network reference stations. For additional details of the control survey, contact the Preliminary Survey department.

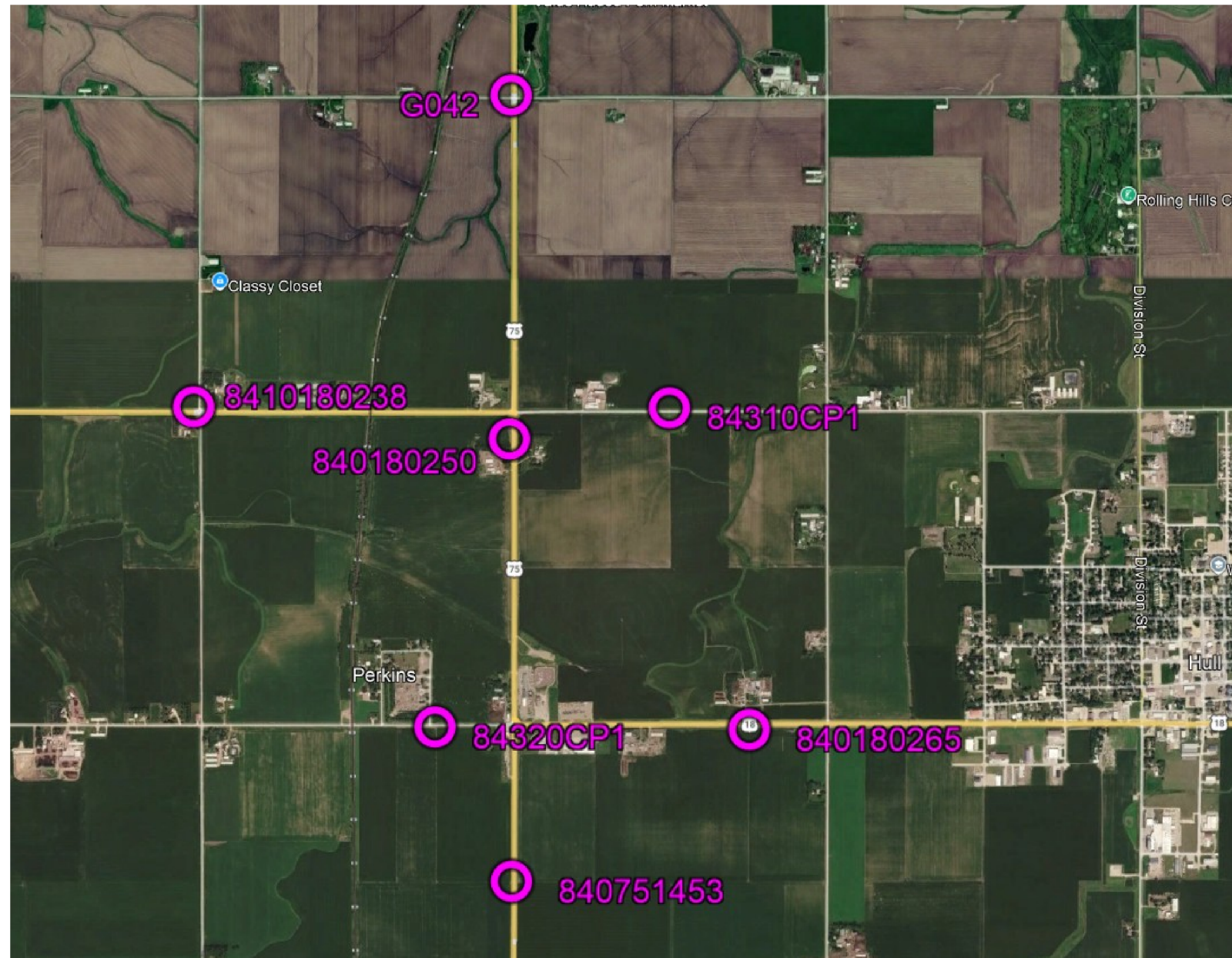
PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 01
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u2

Alignment Information

The horizontal alignments for US75 and US18 were provided by the District 2 Land Surveyor.

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 01 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u2

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 01 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u2

Point Name	Northing	Easting	Elevation	Code-Description
840180250	9600967.68	11252637.37	1455.42	CP FOUND IA DOT ROW RAIL SET DIMPLE IN BALL
840751453	9593524.08	11252584.67	1465.29	CP FOUND IA DOT ROW RAIL SET DIMPLE IN BALL
84310CP1	9601462.74	11255327.68	1437.68	CP SET FENO MONUMENT 2IN DEEP
840180238	9601567.84	11247299.46	1442.45	CP FOUND IA DOT ROW RAIL SET DIMPLE IN BALL
840180265	9596021.92	11256627.98	1460.78	CP FOUND IA DOT ROW RAIL SET DIMPLE IN WEB
G042	9606766.46	11252722.07	1392.23	CP FOUND 4X4 CONC MONUMENT AS DESCRIBED
84320CP1	9596127.95	11251328.01	1457.13	CP SET FENO MONUMENT 2IN DEEP

108_23A
8/15/22

TRAFFIC CONTROL PLAN

US 18 and US 75 traffic will be maintained at all times via an off-site detour. Refer to J.2 for Detour Route.

Sioux County Projects

● 2028
● 2029

— Detour Route 2028
— Detour Route 2029

NHSX-018-1(113)--3L-84
Roundabout
Detoured - Route TBD
Letting 01/19/2028
Year Constructed 2028

HSIPX-018-1(115)--3L-84
Roundabout
Detoured-See Colored Route
Letting 1/17/2029
Year Constructed 2029

