

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 3	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 3	US 59
G Sheets	Survey Sheets
G.1 - 3	Reference Ties and Bench Marks
G.4	Alignment Coordinates
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
J.2	Detour Route
W Sheets	Mainline Cross Sections
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 3	Mainline Cross Sections
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

OSCEOLA COUNTY

RCB CULVERT REPLACEMENT

Approx. 0.9 mi N of County Road A22

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	
17	
PROJECT IDENTIFICATION NUMBER	
24-72-059-020	
PROJECT NUMBER	
STPN-059-9(021)--2J-72	
R.O.W. PROJECT NUMBER	

DESIGN DATA RURAL			
2027	AADT	1000	V.P.D.
2047	AADT	1100	V.P.D.
20	- DHV	-	V.P.H.
TRUCKS		36	%
Total			
Design ESALs		-	

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

PRELIMINARY PLANS

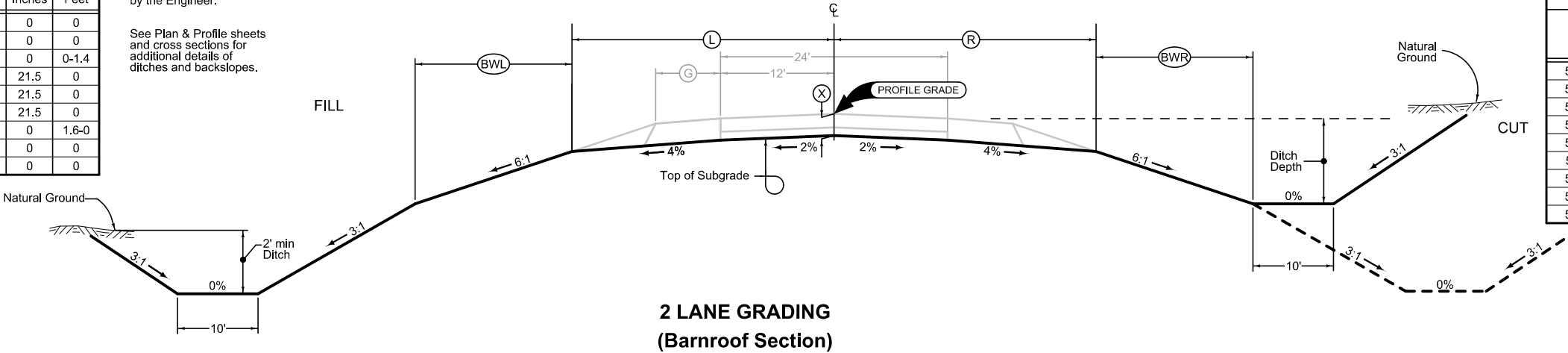
Subject to change by final design.

D3 PLAN - Date: 05/09/2025

LOCATION		DIMENSIONS		
STATION TO STATION		Ⓐ Feet	ⓧ Inches	ⒷⓌ Feet
577+00.00	577+05.22	19.7	0	0
577+05.22	577+19.80	19.7-21.9	0	0
577+19.80	577+25.00	21.9-27.1	0	0-1.4
577+25.00	577+27.42	27.1-27.5	21.5	0
577+27.42	577+83.08	27.5	21.5	0
577+83.08	577+85.00	27.5-27.2	21.5	0
577+85.00	577+91.87	27.2-21.8	0	1.6-0
577+91.87	578+05.68	21.8-19.2	0	0
578+05.68	578+10.00	19.2	0	0

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

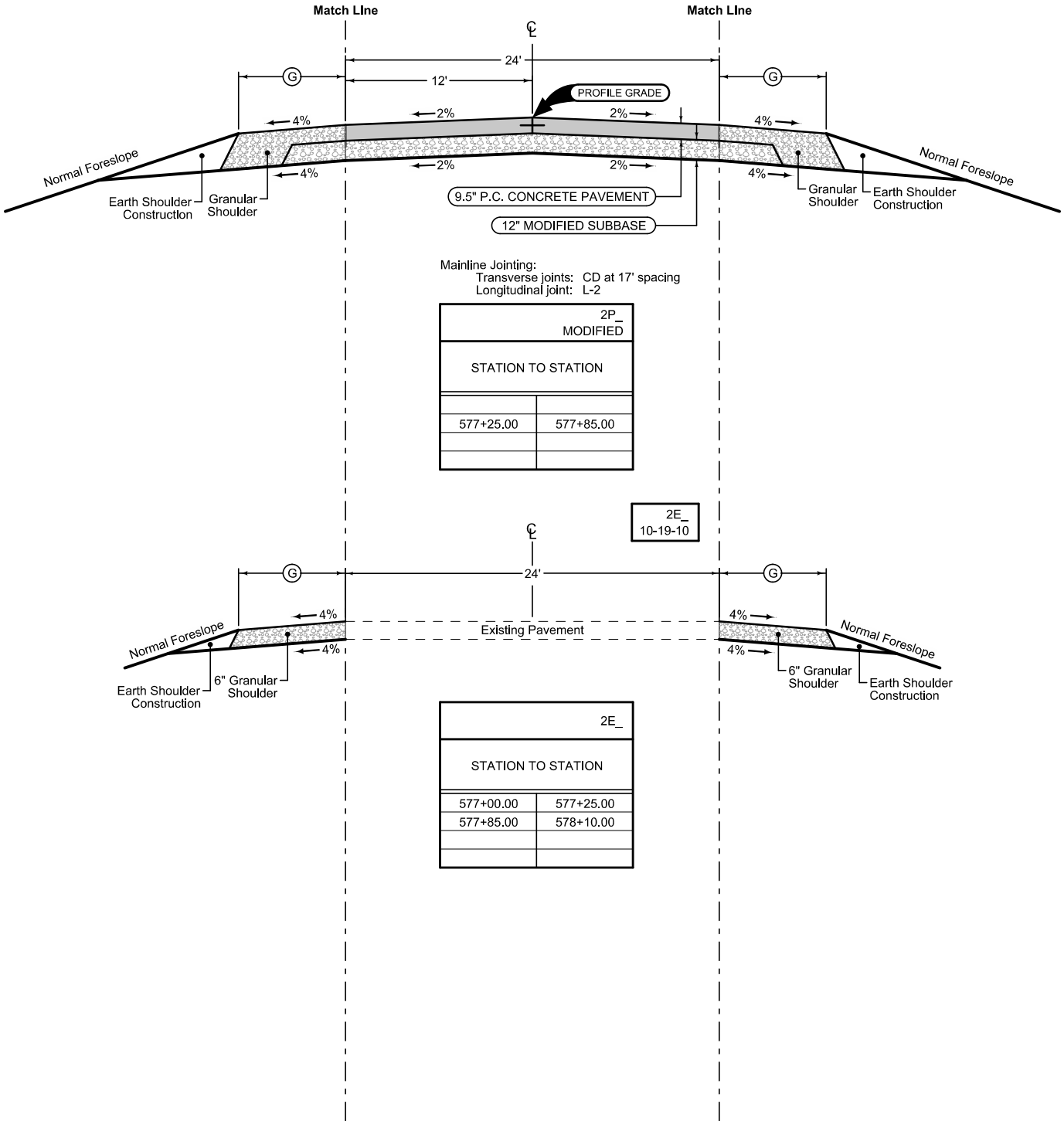


LOCATION		DIMENSIONS		
STATION TO STATION		Ⓐ Feet	ⓧ Inches	ⒷⓌ Feet
577+00.00	577+04.85	19.7	0	0
577+04.85	577+19.65	19.7-22.0	0	0
577+19.65	577+25.00	22.0-27.2	0	0-1.4
577+25.00	577+27.44	27.2-27.5	21.5	0
577+27.44	577+83.11	27.5	21.5	0
577+83.11	577+85.00	27.5-27.2	21.5	0
577+85.00	577+90.65	27.2-22.0	0	1.5-0
577+90.65	578+05.30	22.0-19.1	0	0
578+05.30	578+10.00	19.1	0	0

G_2_Grade_BR
Modified

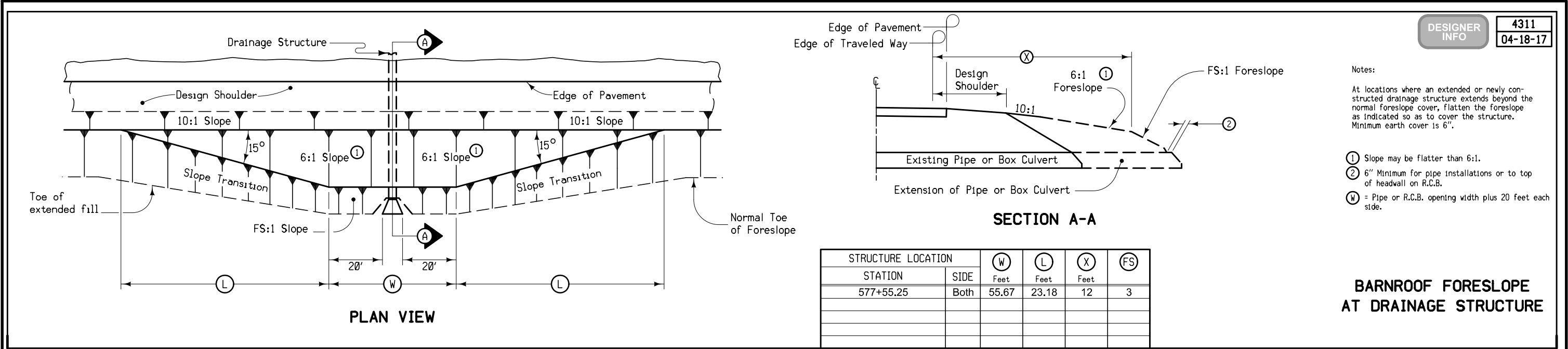
Granular Shoulder		
STATION TO STATION		2_G_ Modified
		Ⓜ Feet
577+25.00	577+85.00	6

Granular Shoulder		
STATION TO STATION		2_G_ Modified
		Ⓜ Feet
577+00.00	577+25.00	6
577+85.00	578+10.00	6

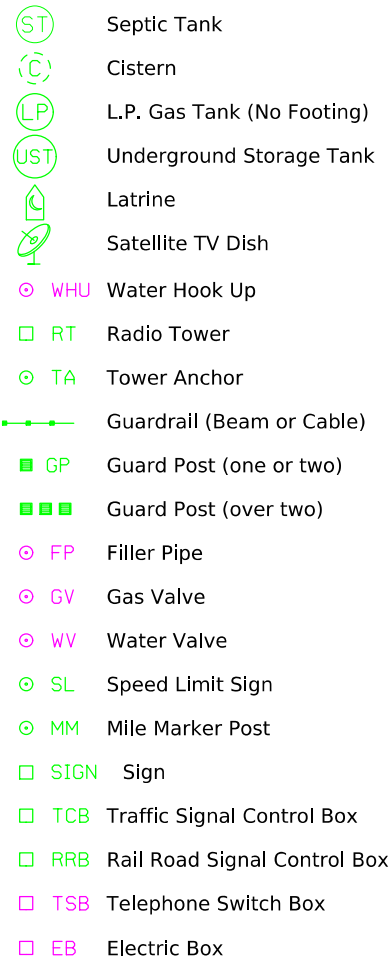


Granular Shoulder		
STATION TO STATION		2_G_ Modified
		Ⓜ Feet
577+25.00	577+85.00	6

Granular Shoulder		
STATION TO STATION		2_G_ Modified
		Ⓜ Feet
577+00.00	577+25.00	6
577+85.00	578+10.00	6

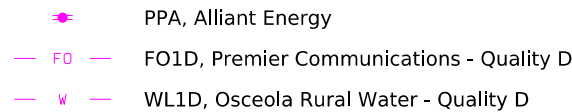


	Interstate Highway Symbol
	U.S. Highway Symbol
	Iowa Highway Symbol
	County Road Highway Symbol
	Evergreen Tree
	Deciduous Tree
	Fruit Tree
	Shrub (Bushes)
	Timber
	Hedge
	Stump
	Swamp
	Rock Outcrop
	Broken Concrete
	Revetment (Rip Rap)
	Cemetery
	Grave
	Cave
	Sink Hole
	Board Fence
	Chain Link or Security 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)



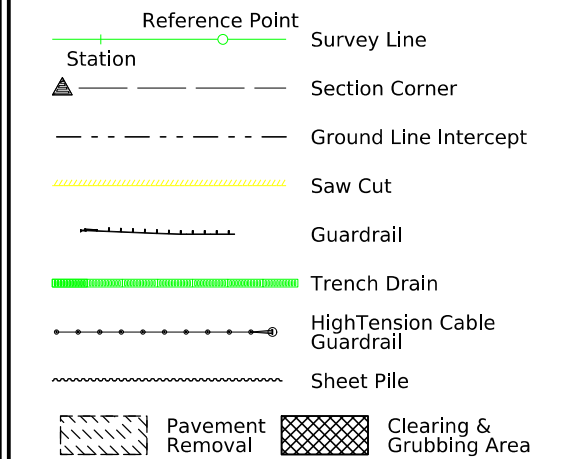
SURVEYED UTILITY OWNER SYMBOLS

Remark Abbreviations	
QLA	Quality Level A Highest guideline quality level
QLD	Quality Level D Lowest guideline quality level



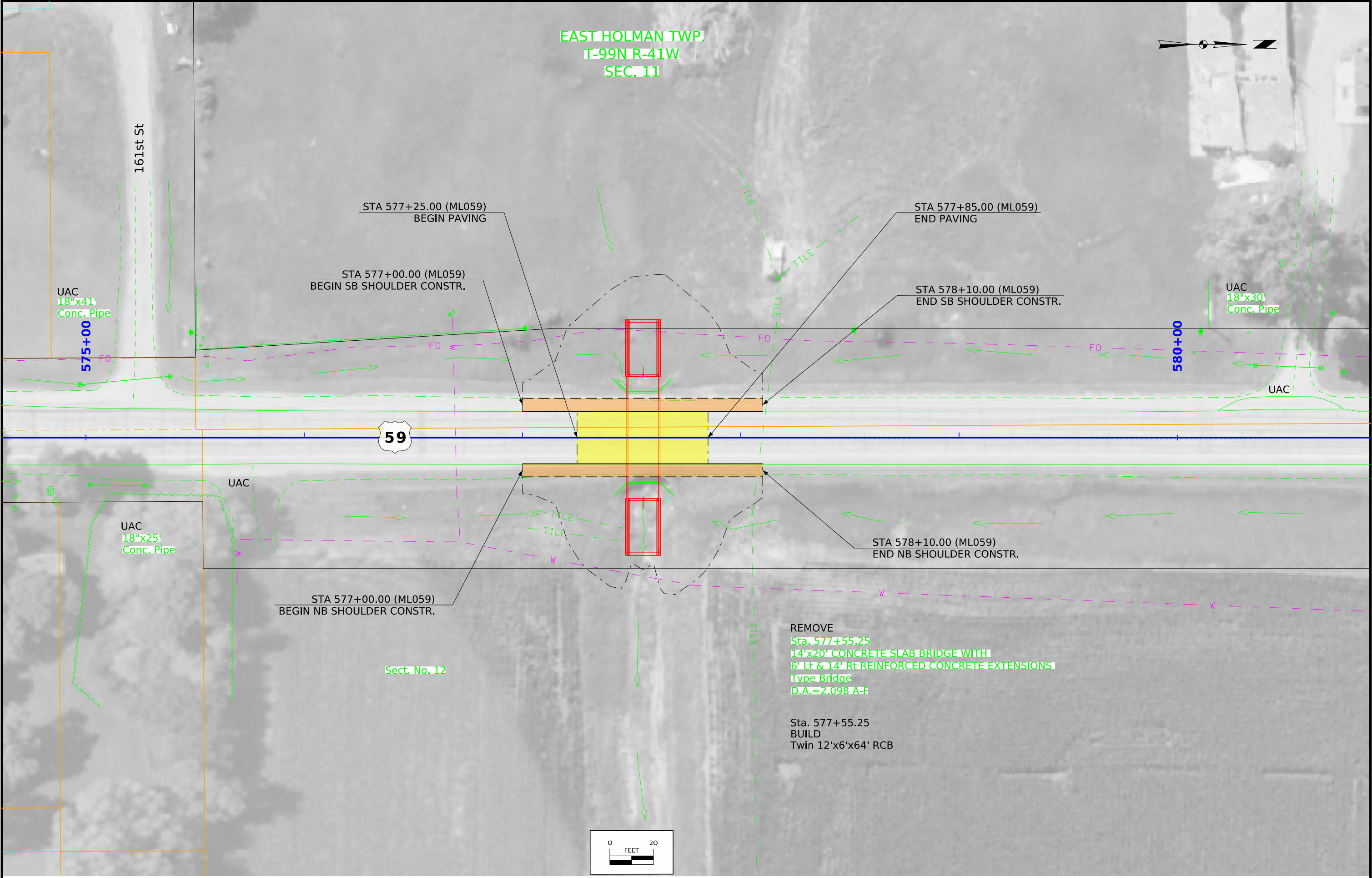
LINEWORK		Design Color No.		
Green	(2)		Existing Topographic Features and Labels	
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation	
Magenta	(5)		Existing Utilities	
SHADING		Design Color No.		Transparency
Pink, Dark	(13)		Temporary Pavement Shading	50%
Yellow	(4)		Proposed 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

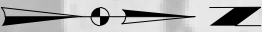


	Proposed Right-of-Way Symbol
	Proposed Right-of-Way Line
	Existing Right of Way
	Existing and Proposed Right-of-Way
	Easement and Existing Right-of-Way
	Easement (Temporary) Symbol
	Easement (Temporary) Line
	Easement
C/A	Access Control
	Property Line Symbol
	Property Line

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



EAST HOLMAN TWP.
T-99N R-41W
SEC. 11



UAC
18"x41'
Conc. Pipe

UAC
18"x30'
Conc. Pipe

UAC
18"x25'
Conc. Pipe

STA 577+25.00 (ML059)
BEGIN PAVING

STA 577+85.00 (ML059)
END PAVING

STA 577+00.00 (ML059)
BEGIN SB SHOULDER CONSTR.

STA 578+10.00 (ML059)
END SB SHOULDER CONSTR.

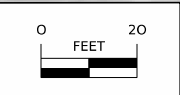
STA 577+00.00 (ML059)
BEGIN NB SHOULDER CONSTR.

STA 578+10.00 (ML059)
END NB SHOULDER CONSTR.

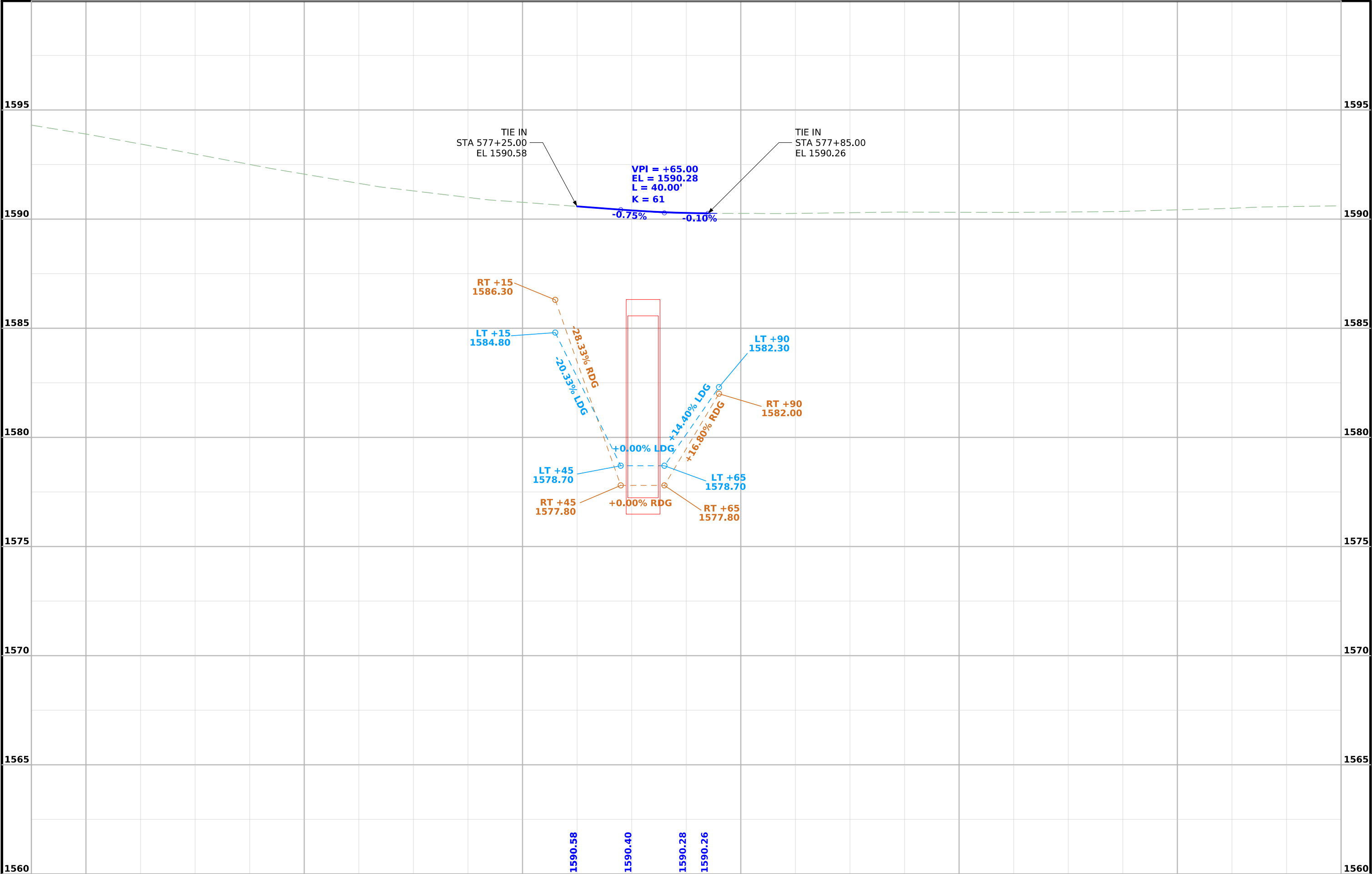
REMOVE
Sta. 577+55.25
14'x20' CONCRETE SLAB BRIDGE WITH
6' Lt & 14' RE REINFORCED CONCRETE EXTENSIONS
Type Bridge
D.A.=2,098 A-F

Sta. 577+55.25
BUILD
Twin 12'x6'x64' RCB

Sect. No. 12



FILE NO.	ENGLISH	DESIGN TEAM	Flattery\Bell\Ofilanda	OSCEOLA COUNTY	PROJECT NUMBER	STPN-059-9(021)--2J-72	SHEET NUMBER	D.2
9:04:52 AM	5/8/2025	joilan	pw:\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7205902024\Design\STPN-059-9(021)--2J-72_RCB Culvert Replacement - Single Box\CADD_Files\Sheet_Files\SHT_D02_72059021Z01.dgn					



Survey Information

SURVEY INDEX

County: Osceola
PIN: 24-72-059-020
Project Number: STPN-059-9(021)--2J-72
Location: Approx 0.9 mi n of Co Rd A22
Type of Work: Culvert-Unspecified
Project Directory: 7205902024

Survey Personnel

Daniel Duncan – Survey Party Chief

Date(s) of Survey

Begin Date 05/20/2024
End Date 06/05/2024

General Information

This survey is for US Hwy 59 Box Culvert on the North end of the Town of Allendorf.
This project is a Full Field DTM survey.

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.

A base setup on 720592104 was used to establish final control values on point 720592099.

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: 2018u3

Alignment Information

The horizontal alignment for U.S. Hwy 59 this survey is a retrace of As-built Plan No.
FA-734-A PCC PAVE GRADING. Survey stationing was equated to the plan PI at Sta.
555+84.0 and carried ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PI Sta. 555+84.0. As-built Plan Project No. FA-734-A PCC PAVE GRADING
Survey PI Sta. 555+84.0

PI Sta. 602+65.75. As-built Plans Project No. FA-734-A PCC PAVE GRADING
Survey PI Sta. 602+66.59

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: 2018u3

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: 2018u3

Point Name	Northing	Easting	Elevation	Code-Description
72REDWOOD01	9677147.63	11390225.91	1606.37	CP SET FENO MONUMENT 0.5 MI NORTH OF A22 AND REDWOOD AVE INTERSECTION
72SILVER01	9678807.66	11400819.09	1602.48	CP SET FENO MONUMENT 0.2 MI SOUTH OF 160TH STREET AND SILVER AVE INTERSECTION
720592099	9679753.48	11395573.19	1587.73	CP FND 4X4 CM WITH DIMPLE IN SE CORNER OF US 59 AND 160TH STREET INTERSECTION
720592104	9681785.29	11395566.52	1602.02	CP SET FENO MONUMENT 0.4 MI NORTH OF US 59 AND 160TH STREET INTERSECTION
Y20	9674646.02	11379292.98	1551.72	CP FND NGS SECOND ORDER CLASS 0 BENCHMARK AS DESCRIBED IN GOOD CONDITION

ALIGNMENT COORDINATES																	101-16 10-20-09		
Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS		End Curve			End Spiral			
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
1	ML059	555+84.000 R1	9677148.57	11395511.94															
1	ML059	602+66.593 R1	9681831.16	11395516.79															

108-23A
08-01-08

TRAFFIC CONTROL PLAN

US 59 will be closed to thru traffic during construction.

US 59 shall be maintained via offsite detour. Detour will be signed and maintenance shall be done by contractor. See J.2 for detour.

111-01
04-17-12

COORDINATED OPERATIONS

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

Project	Type of Work
None Provided	

												108-25 10-21-14
511 TRAVEL RESTRICTIONS												
Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			No Travel Restrictions Expected									



LEGEND	
DETOUR ROUTE	

CROSS SECTION VIEW COLOR LEGEND			
Design Color No.	Feature	Design Color No.	Feature
Aggregate		Grading	
(64)	Choke Stone	(8)	Behind Curb Cut
(42)	Engineering Fabric	(6)	Granular
(8)	Flooded Backfill	(13)	Granular Back Fill
(92)	Macadam Stone	(48)	Rock Undercut
(20)	Modified	(8)	Shoulder Earth Fill
(12)	Plowing Shaping	(2)	Side Slopes
(14)	Porous Backfill	(226)	Side Slopes Dressing
(8)	Revetment Class A	Substrata	
(6)	Revetment Class B	(128)	Boulder
(62)	Revetment Class C	(209)	Boulder Removed
(188)	Revetment Class D	(48)	Broken Weathered
(28)	Revetment Class E	(210)	Broken Weathered Removed
(12)	Shoulder Special Backfill	(3)	Core Out
(12)	Special Backfill	(115)	Core Out Remove Only
(20)	Subbase	(195)	Core Out Remove and Replace
(20)	Subbase Lower	(203)	Existing Pavement
(20)	Subbase Upper	(184)	Existing Pavement Remove Only
(118)	Subgrade Treatment	(200)	Existing Pavement Remove and Replace
Asphalt		(6)	Loam
(207)	HMA Base Course	(211)	Loam Removed
(207)	HMA Interim Course	(80)	Rock
(207)	HMA Surface Course	(212)	Rock Removed
Bridge		(4)	Select Sand
(0)	Bridge	(214)	Select Sand Removed
Concrete		(3)	Shale
(0)	Barrier Concrete	(215)	Shale Removed
(0)	Barrier Concrete Footing	(10)	Topsoil
(0)	Curb Gutter	(2)	Topsoil Remove Only
(48)	Flowable Mortar	(4)	Topsoil Remove and Replace
(0)	Median Concrete	Unsuitable / Waste	
(0)	PCC Pavement	(3)	Unsuitable Type A
(0)	Sidewalk	(216)	Unsuitable Type A Removed
Existing		(13)	Unsuitable Type B
(0)	Existing Pavement	(217)	Unsuitable Type B Removed
Shoulder		(11)	Unsuitable Type C
(209)	Shoulder HMA	(218)	Unsuitable Type C Removed
(0)	Shoulder PCC	(3)	Waste
(6)	Shoulder Granular	(219)	Waste Removed
Structural			
(112)	Noise Wall		
(112)	Noise Wall Footing		
(112)	Retaining Wall Back		
(112)	Retaining Wall Back Excavate		
(112)	Retaining Wall Face		
(112)	Retaining Wall Front Excavate		
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		

NOTES:

Text

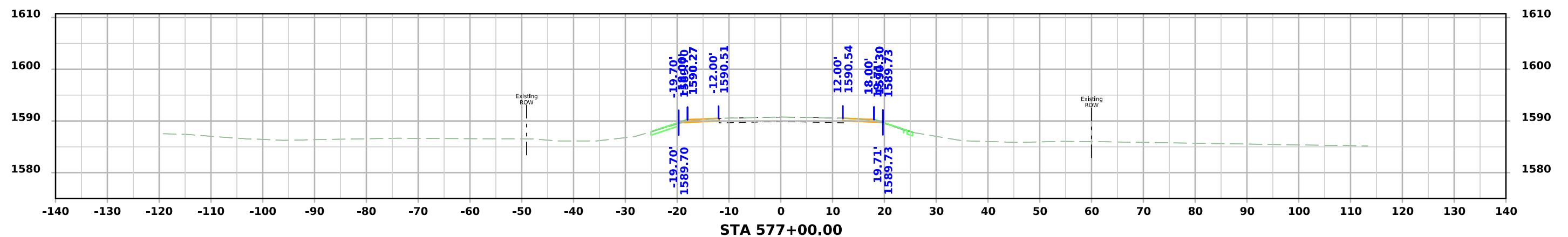
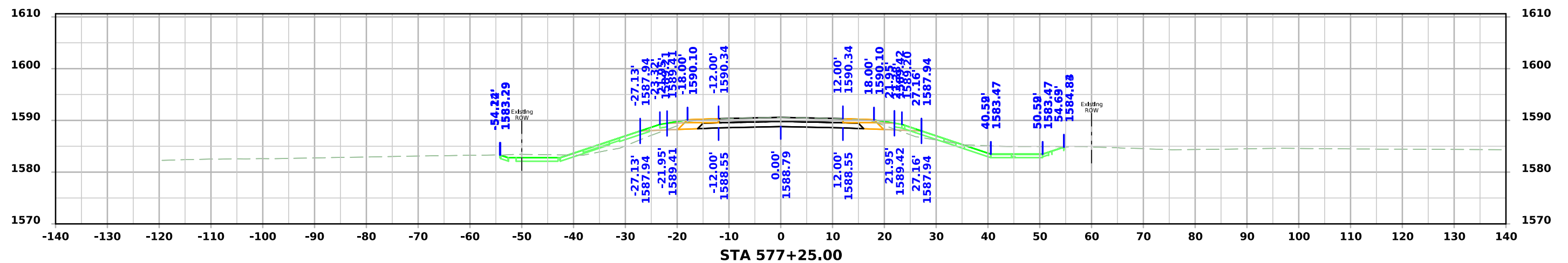
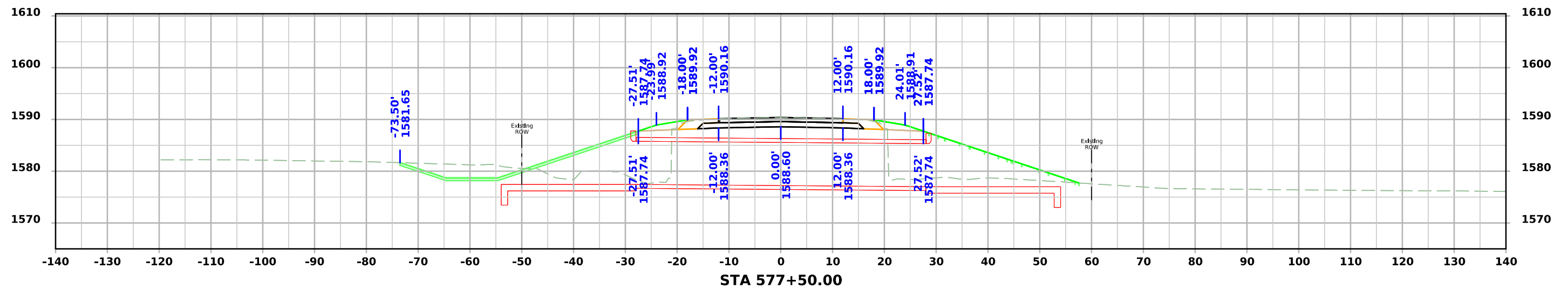
NOTES:

Text

CROSS SECTIONS
LEGEND AND INFORMATION SHEET

(COVERS SHEET SERIES W, X, Y, & Z)

US 59



US 59

