

DUBUQUE GO.
 UNKNOWN PAVEMENT - GRADE AND REPLACE
 HSIPX-052-2(120)--3L-31

LETTING DATE
 1/17/2018



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

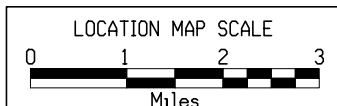
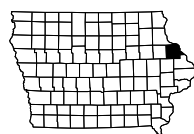
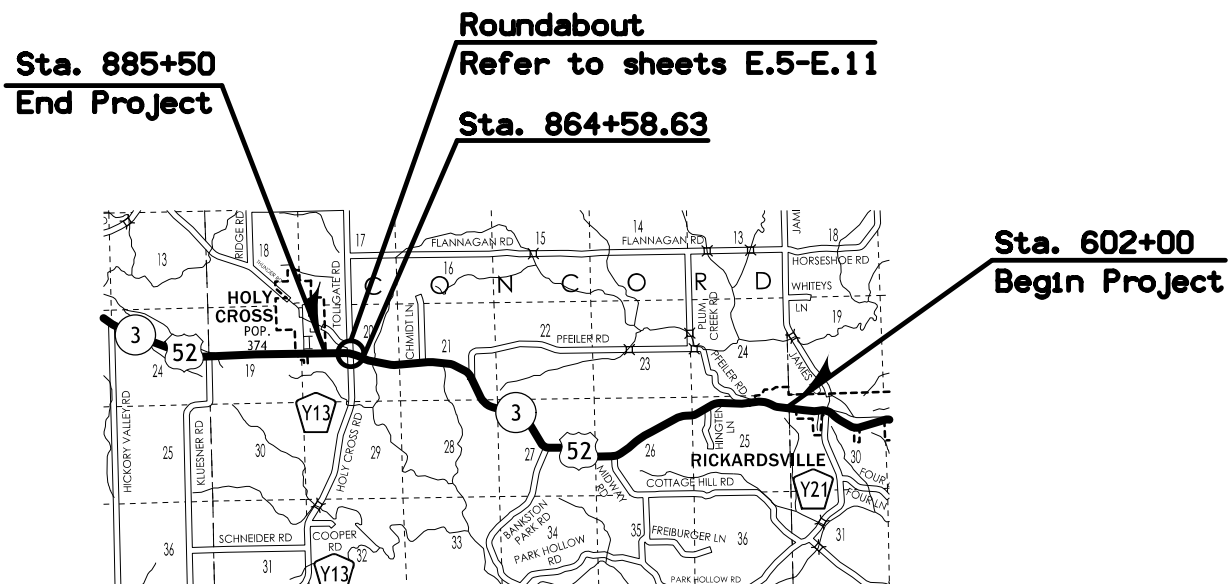
PRIMARY ROAD SYSTEM DUBUQUE COUNTY

UNKNOWN PAVEMENT - GRADE AND REPLACE
 From E. Jct. Pfeiler Rd. N. To Tollgate Rd. (Co. Rd. Y-13)

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



DESIGN DATA RURAL			
2018	AADT	2488	V.P.D.
2038	AADT	2761	V.P.D.
20--	DHV	--	V.P.H.
	TRUCKS	11	%
	Total		
	Design ESALs	--	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1		Primary Signature Block

REVISIONS		TOTAL
		269
PROJECT IDENTIFICATION NUMBER		
10-31-052-020-03		
PROJECT NUMBER		
HSIPX-052-2(120)--3L-31		
R.O.W. PROJECT NUMBER		
STPN-052-2(123)--2J-31		

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 5	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1 - 2	Access Points Tabulation
C.2	Geodetic Markers Tabulation
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 10	U.S. 52
E Sheets	Side Road Plan and Profile Sheets
* E.1	Pfeiler Road East Jct & Hingtgen Lane
* E.2	Midway Road
* E.3	Bankston Park Road & Pfeiler Road West Jct
* E.4	Schmitt Lane
* E.5	Maple Road
* E.6 - 12	Roundabout - Holy Cross Road & US 52 Intersection
G Sheets	Survey Sheets
G.1	Reference Ties and Bench Marks
G.2	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
* J.2	Detour Plan
L Sheets	Geometric, Staking and Jointing Sheets
L.1 - 23	Geometric & Staking Details - US 52 and Side Roads
L.24 - 28	Edge Profiles - US 52 and Side Roads
L.29 - 46	Jointing Details - US 52 and Side Roads
W Sheets	Mainline Cross Sections
W.1 - 160	Mainline Cross Sections
X Sheets	Side Road Cross Sections
X.1 - 99	Side Road & Roundabout Cross Sections
	* Color Plan Sheets

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature _____ Date _____

Printed or Typed Name _____

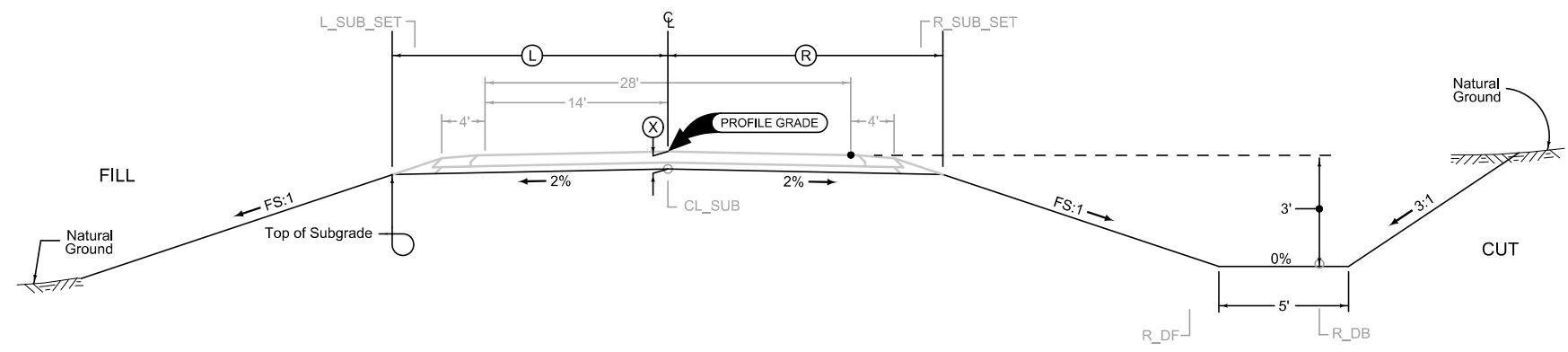
My license renewal date is December 31, 20 ____

Pages or sheets covered by this seal: _____

LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	(L)	(R)	(X)	FS
		Feet	Feet	Inches	
US 52	601+50.0 864+58.63	25.5	25.5	21.5	4:1

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

See plan & profile sheets and cross sections for additional details of ditches and backslopes.



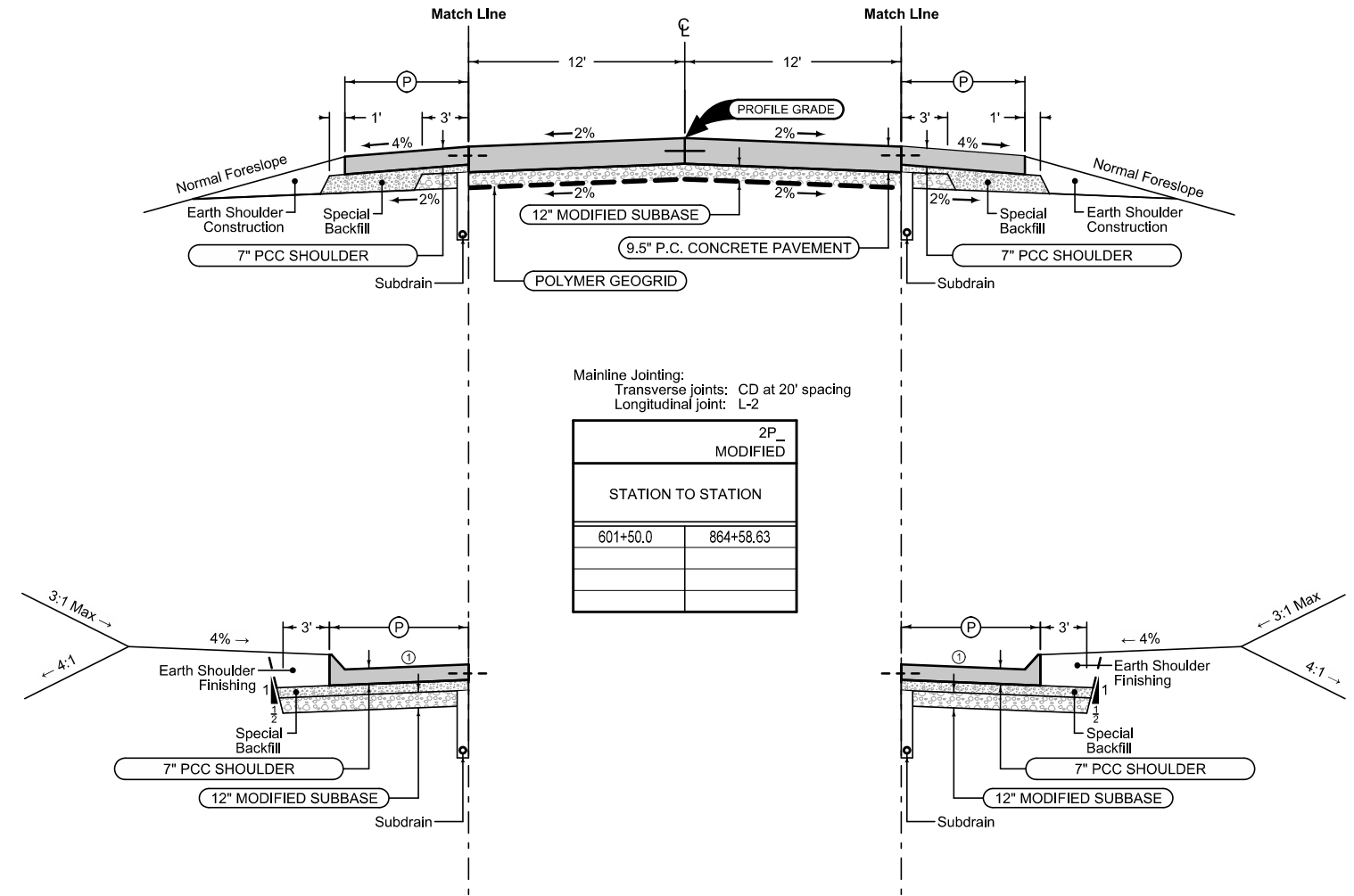
2 LANE GRADING

Paved Shoulder Alternates

STATION TO STATION		(P)	2_G_ Modified
		Feet	
601+50.0	640+85.0	6	
650+50.0	656+00.0	6	
658+50.0	714+60.0	6	
718+62.0	751+00.0	6	
756+26.9	788+94.9	6	
792+18.0	864+58.6	6	

Paved Shoulder Alternates

STATION TO STATION		(P)	2_G_ Modified
		Feet	
601+50.0	640+71.2	6	
643+45.9	697+40.0	6	
706+90.0	739+72.0	6	
745+50.0	754+00.0	6	
757+50.0	823+50.0	6	
828+00.0	864+58.6	6	



STATION TO STATION		(P)	2P_ MODIFIED
		Feet	
601+50.0	864+58.63		

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: KT-2
Transverse: C at 20' spacing

STATION TO STATION		(P)	Curb Type	2_Curb_ 04-19-11
		Feet	See PV-102	
640+85.0	650+50.0	7	6" Sloped	
656+00.0	658+50.0	7	6" Sloped	
714+60.0	718+62.0	7	6" Sloped	
751+00.0	756+26.9	7	6" Sloped	
788+94.9	792+18.0	7	6" Sloped	

① 4% Cross Slope

Curbed Shoulder

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

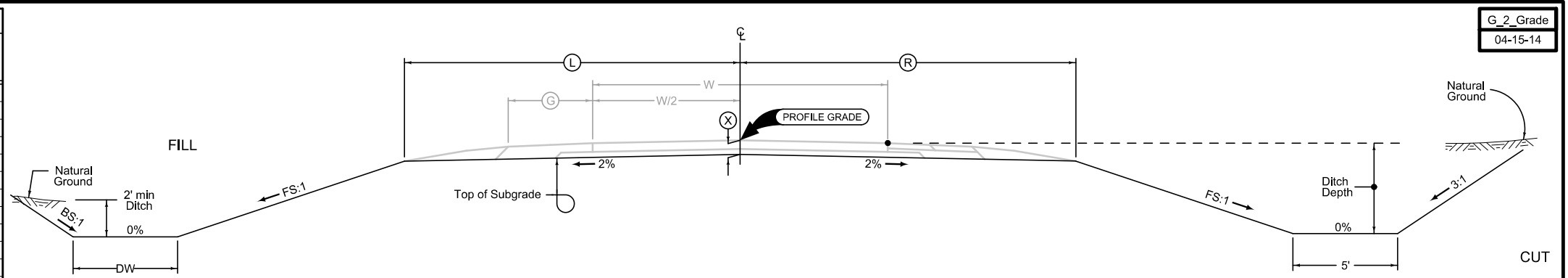
Single pour: L-2
Staged: KT-2
Transverse: C at 20' spacing

STATION TO STATION		(P)	Curb Type	2_Curb_ 04-19-11
		Feet	See PV-102	
640+71.2	643+45.9	7	6" Sloped	
697+40.0	706+90.0	7	6" Sloped	
739+72.0	745+50.0	7	6" Sloped	
754+00.0	757+50.0	7	6" Sloped	
823+50.0	828+00.0	7	6" Sloped	

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

US 52

LOCATION		DIMENSIONS						
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	FS	BS	DW	
Pfeiler Road East	12622+11.54 12622+76.00	--	--	21.5	4	3	0	
Hingtgen Lane	11644+55.00 11646+09.78	**	**	21.5	3	3	5	
Midway Road	10702+62.0 10704+53.3	22.6	22.6	21.5	3	3	5	
Bankston Park Road	9741+45.00 9742+47.08	22.6	22.6	21.5	4	3	5	
Pfeiler Road West	8803+89.00 8804+55.31	--	--	21.5	4	3	5	
Schmitt Lane	7832+12.14 7832+54.00	--	--	21.5	4	3	5	
Maple Road	446882+44.9 446883+25.0	--	--	21.5	4	3	5	
** See Cross Sections								



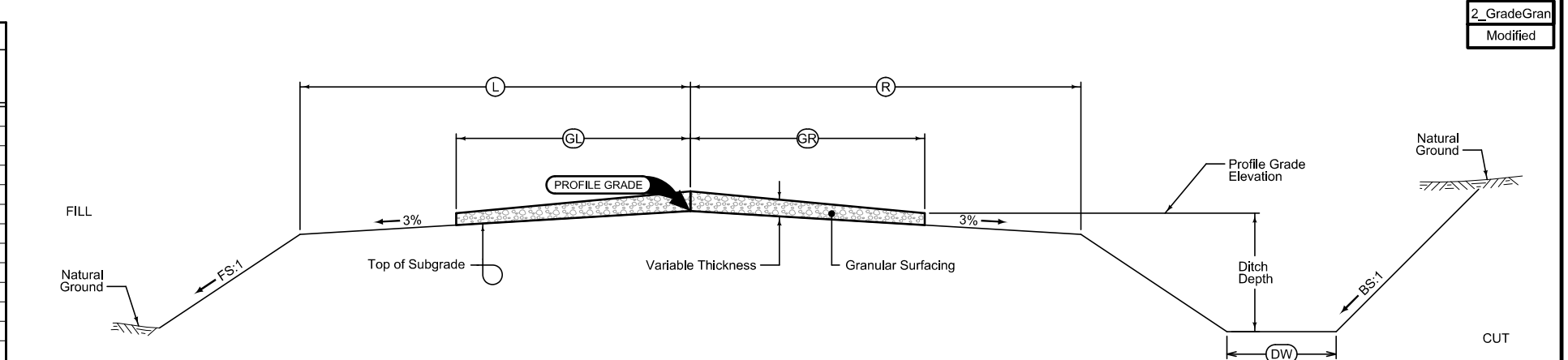
G_2_Grade
04-15-14

2 LANE GRADING

Normal section shown may be modified appropriately in areas of super-elevated 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								Quantities	
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	GL Feet	GR Feet	FS	BS	DW Feet	Length Mile	Granular Surfacing Tons	
Pfeiler Road East	12622+76.0 12623+15.00	14-10	14-10	14-10	14-10	**	**	5**	--	--	
Hingtgen Lane	11642+25.00 11644+75.00	8	8	8	8	3	3	5**	--	--	
Midway Road	10701+65.0 10702+52.0	13	13	13	13	3	3	5**	--	--	
Midway Road	11644+25.00 11644+55.00	13-15	13-15	13-15	13-15	3	3	5**	--	--	
Pfeiler Road West	8804+52.0 8806+50.0	12	12	12	12	4	3	5**	--	--	
Schmitt Lane	7832+60.0 7836+50.0	15	15	15	15	4	3	5**	--	--	
Schmitt Lane	7836+50.0 7837+00.00	15-10	15-10	15-10	15-10	4	3	5**	--	--	
** See Cross Sections											



2_GradeGran
Modified

GRADING AND GRANULAR SURFACING

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

See plan & profile sheets and cross sections for additional details of ditches and backslopes.

Place Granular Surfacing as follows:
Grade-Pave design application rate is 2330 tons per mile.

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

PAVED COUNTY ROADS

Granular Shoulder

2_G_SR_ 10-19-10			
STATION TO STATION			(G) Feet
Pfeiler Road E	12622+51.6	12622+76.0	2
Hingtgen Lane	11644+75.0	11644+95.0	0-2
Hingtgen Lane	11644+95.0	11645+60.4	2
Hingtgen Lane	11645+60.4	11645+75.5	0
Midway Road	10702+62.0	10703+91.5	2
Bankston Park Road	9741+00.0	9741+20.0	0-2
Bankston Park Road	9741+20.0	9741+95.0	2
Schmitt Lane	7832+48.1	7832+60.0	0
Maple Road	446882+80.3	446883+25.0	2

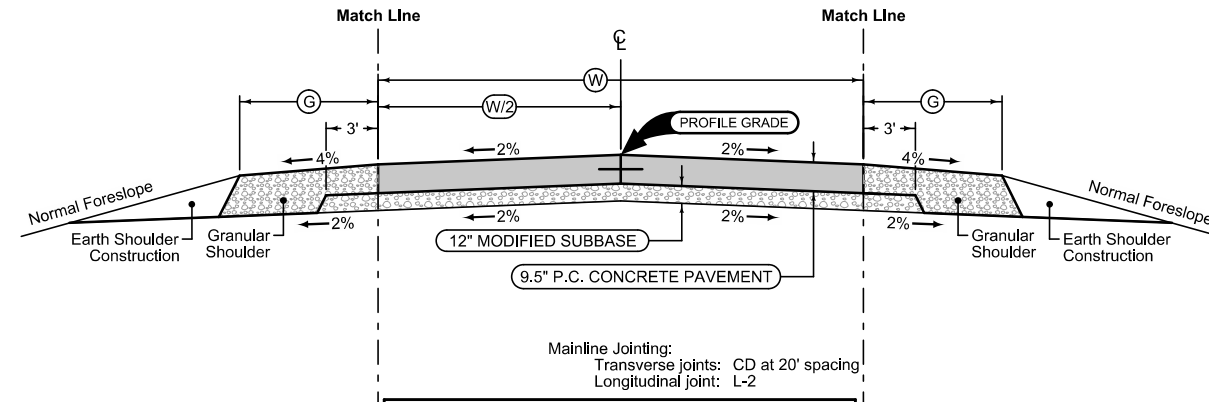
Curbed Shoulder

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

Single pour: L-2
Staged : KT-2
Transverse:C at 20' spacing

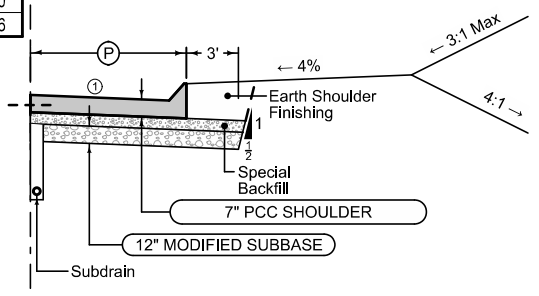
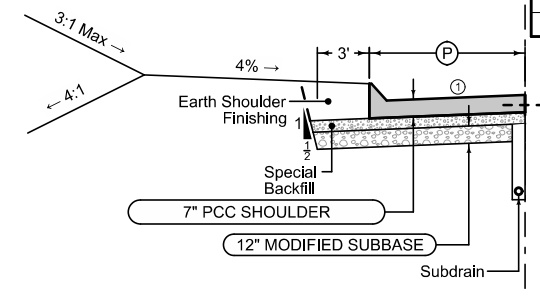
2_Curb_ MODIFIED				
STATION TO STATION			(P) Feet	Curb Type See PV-102
Hingtgen Lane	11645+83.7	11645+88.9	3	6" Sloped

① 4% Cross Slope



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

STATION TO STATION				(W) Feet
Pfeiler Road E	12622+11.5	12622+76.0	24	
Hingtgen Lane	11644+75.0	11645+60.4	16	
Hingtgen Lane	11645+60.4	11644+75.5	20	
Hingtgen Lane	11645+75.5	11646+23.0	14	
Midway Road	10702+62.0	10704+53.3	26	
Bankston Park Road	9741+00.0	9742+49.1	24	
Pfeiler Road W	8803+87.0	8804+52.0	24	
Schmitt Lane	7832+10.1	7832+60.0	30	
Maple Road	446882+44.9	446883+25.0	26	



① 4% Cross Slope

Granular Shoulder

2_G_SR_ 10-19-10			
STATION TO STATION			(G) Feet
Pfeiler Road E	12622+29.7	12622+76.0	2
Hingtgen Lane	11644+75.0	11644+95.0	0-2
Hingtgen Lane	11644+95.0	11645+60.4	2
Hingtgen Lane	11645+60.4	11645+75.5	0
Midway Road	10702+62.0	10704+16.8	2
Bankston Park Road	9741+00.0	9742+15.0	0
Bankston Park Road	9741+15.0	9742+17.6	0-0.7
Pfeiler Road W	8804+44.0	8804+52.0	1.7-0
Schmitt Lane	7832+47.1	7832+60.0	0
Maple Road	446883+16.9	446883+25.0	2

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 : KT-2
Transverse:C at 20' spacing

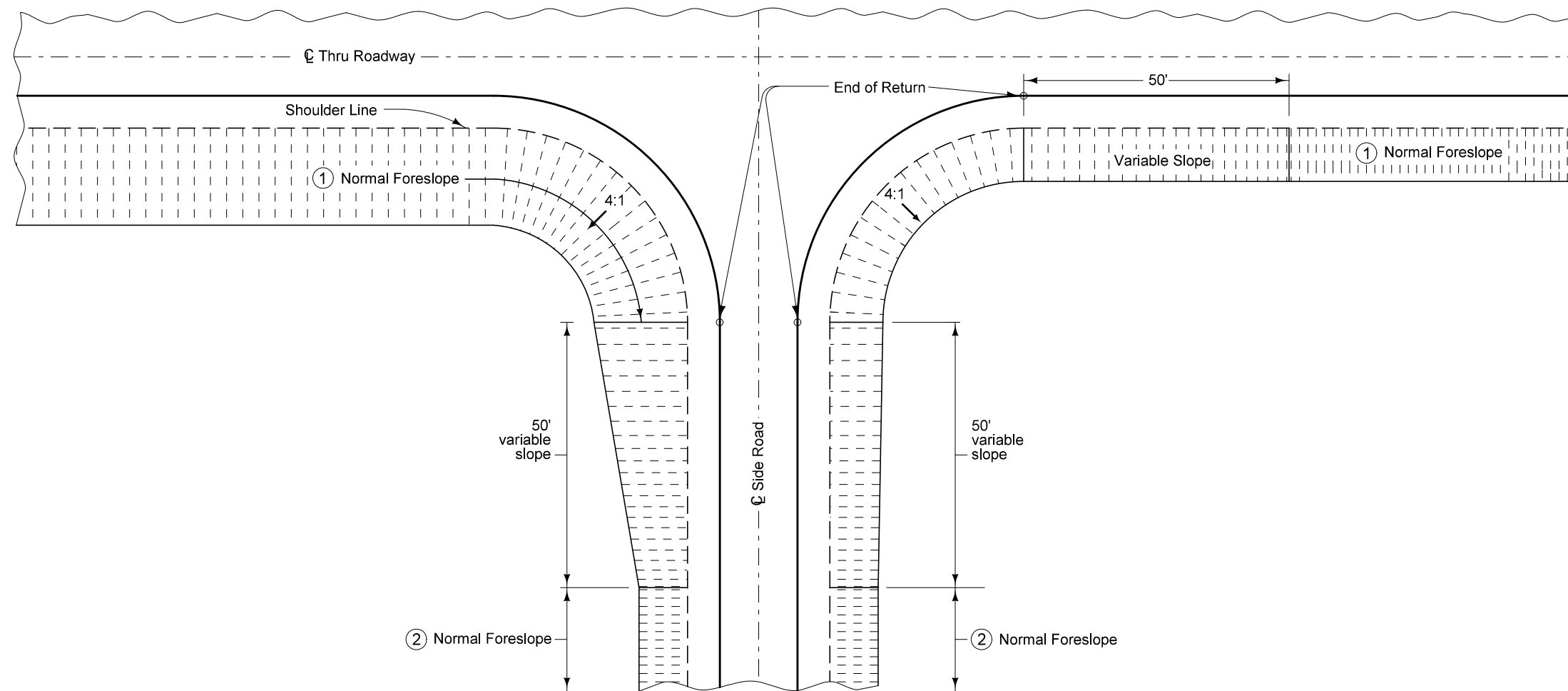
2_Curb_ MODIFIED				
STATION TO STATION			(P) Feet	Curb Type See PV-102
Hingtgen Lane	11645+75.5	11645+80.4	3	6" Sloped

① 4% Cross Slope

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

PAVED COUNTY ROADS

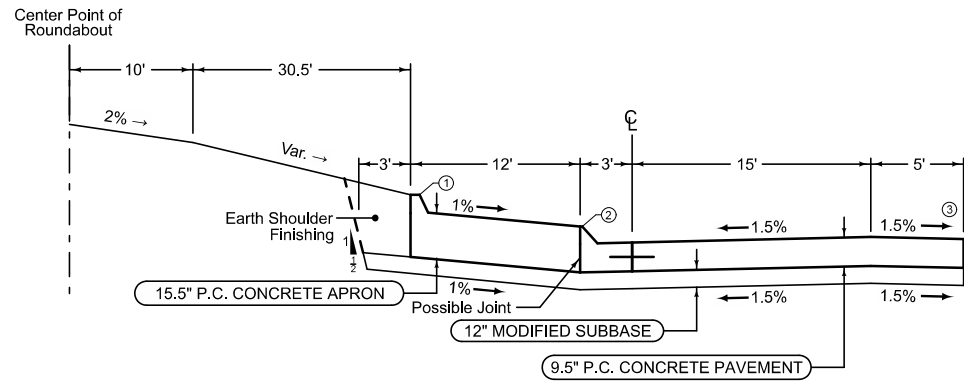
- ① 4:1 foreslope.
- ② Refer to X sheets for foreslopes at each side road.



NORMAL FORESLOPES

SIDE ROAD GRADING

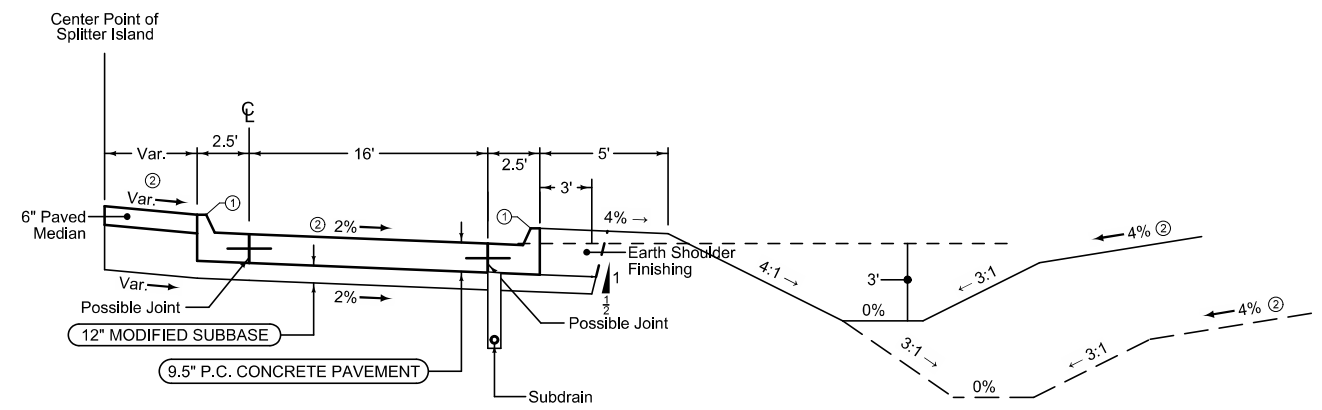
RA-1



- ① 6" Standard Curb
- ② 4" Sloped Curb
- ③ See 'L' Sheets and Cross Sections for more information

Circle Lane + Apron

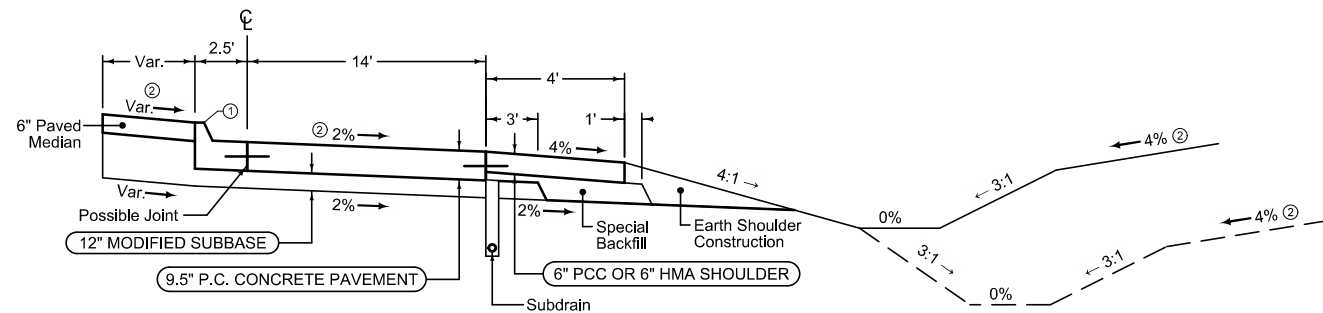
RA-2



- ① 6" Standard Curb
- ② See 'L' Sheets and Cross Sections for more information

Curbed Approach Lane + Splitter Island

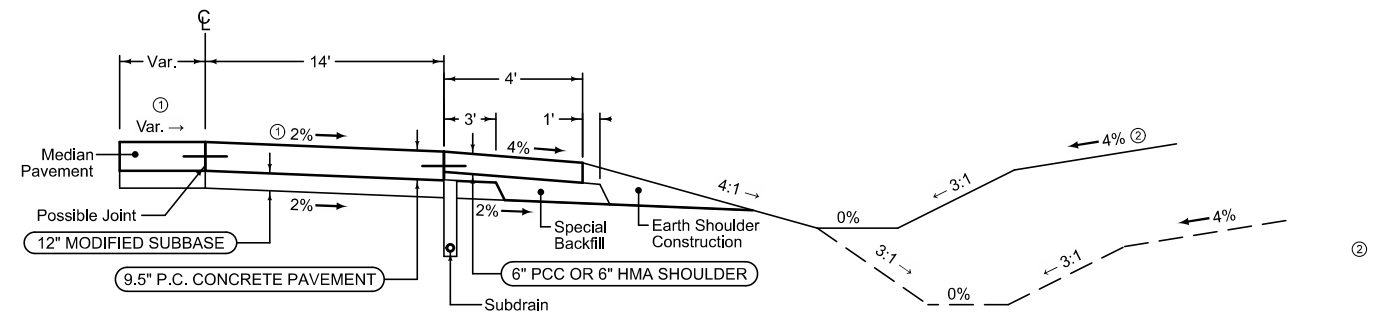
RA-3



- ① 6" Standard Curb
- ② See 'L' Sheets and Cross Sections for more information

Paved Shoulder Approach Lane + Splitter Island

RA-4



- ① See 'L' Sheets and Cross Sections for more information

Paved Shoulder Approach Lane

Roundabout Typical Sections

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.

- ① Refer to MI-210
- ② Refer to EW-501.
- ③ Refer to EW-501 or EW-502.

*Predetermined for access point not constructed with this project.

Location		Type	Length of Opening ①			W	① PR	② SR	Pipe Culvert ③					Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks
Station	Side	A, B, C, Safety Ramp, or Predetermined*	Case	1 1/2" Dropped Curb	3" Dropped Curb	FT	FT	FT	H	Size	Pipe Length	Lt.	Rt.	No.	HMA	PCC	TON	
			1 or 2	LF	LF				FT	IN	LF	LF	LF		SY	SY		
854+30.00	Rt.	C				30.0	15.0		1.5	18.0	50.1	34.8	27.4	2			57.981	
856+59.50	Lt.	C				20.0		10.0	1.6	18.0	39.1	24.0	15.1	2			18.634	
857+13.00	Lt.	C				20.0		10.0	1.2	18.0	34.3	20.8	13.5	2			16.184	
861+94.00	Lt.	C				30.0		15.0	1.2	24.0	27.6	17.4	22.4	2			126.858	
861+94.00	Rt.	C				30.0		15.0	1.5	18.0	47.3	28.9	30.6	2			30.527	
41882+87.50	Lt.	C				30.0		15.0									119.105	
426875+68.00	Rt.	C				32.0		30.0									41.524	
436875+55.00	Lt.	C				24.0	10.0									60.9	24.410	
9+35.00	Lt.	C				30.0		15.0									22.855	
Totals:				900.7	0.0					Size	Length			Aprons		1062.8	2717.373	
										18.0	1484.4			62				
										18 LC	269.3			12				
										24.0	136.3			6				
Entrances to be closed																		
622+60.00	Lt.																	US 52
626+58.00	Rt.																	US 52
704+82.00	Rt.																	US 52
729+07.50	Rt.																	US 52
731+75.00	Rt.																	US 52
741+29.50	Rt.																	US 52
743+33.00	Lt.																	US 52
746+62.50	Rt.																	US 52
749+03.00	Lt.																	US 52
827+10.00	Lt.																	US 52
857+10.00	Lt.																	US 52
8804+38.00	Lt.																	Pfeiler Road West

GEODETIC MARKERS

Location			Remarks
Station	Offset	Side	
632+75.00	44	Rt.	No Impact
658+45.00	29	Lt.	No Impact
691+05.00	35	Rt.	Reset Marker Location
714+64.00	115	Lt.	No Impact
753+42.00	31	Lt.	Place PVC Pipe over Marker
755+98.00	31	Rt.	No Impact
858+60.00	32	Lt.	Reset Marker Location
874+01.00	126	Rt.	No Impact

SURVEY SYMBOLS

- TLNR Tree Line Right
- FWD Wood Fence
- SIGN **SI Sign**
- TDC Tree Deciduous
- PPB Power Pole Co. 2
- FW Wire Fence
- MH Utility Access (Manhole)
- HDG Hedge Row
- TEV Evergreen Tree
- FCL Chain Link and Security Fence
- GRV Grave
- RET Retaining Walls
- TLNL Tree Line Left
- WEL Well
- TPD Telephone Pedestal
- SHR Shrub
- FLG Flag Poles
- PR Electric Riser Pole
- UB Utility Box
- GP Guard Post (Less Than 4 Posts)
- TFR Tree Fruit
- Tile TIL Tile Line
- EB Electrical Box
- IN Storm Sewer Intake
- BIN Grain Bin
- PPA Power Pole Co. 1
- OUT Tile Outlet
- GDL Guard Rail Steel
- STP Stump
- TR Telephone Riser Pole
- LUM Luminaire
- MM Mile Marker Post
- WHD Water Hydrant
- LP L.P. Tank
- SEP Septic Tank
- PLG Location of General Photo
- WV Water Valve
- INB Storm Sewer Beehive Intake
- BB Billboard
- TV Satellite TV Dish
- AST Above Ground Storage Tank
- SNP Unpaved Shoulder
- ENU Edge Unpaved Entrance & Parking
- ENT Centerline BL of Entrance
- D Centerline Draw or Stream (Down)
- EP Edge of Paved Roads (ML or SR)
- SH Paved Shoulder
- BNK Stream Bank
- DU Centerline Draw or Stream (Up)
- EG Edge of Gravel Road
- RIP Rip-Rap
- CU Back of Curb
- GU Gutter In Front of Curb
- DIK Centerline of Dike or Dam
- TER Terrace
- EW Edge of Water
- WM Wind Mill
- Cell Phone Tower

UTILITY LEGEND

- ALLIANT**
Jason A. Hogan
4902 North Biltmore, Box 77007
Madison, WI 53707-1007
608-458-4871
jasonhogan@alliantenergy.com
- MAQUOKETA VALLEY REC**
Jeremy Richert
109 N Huber Street, Box 370
Anamosa, IA 52205-0370
319-462-3541
jrichert@mvec.com
jlauzon@mvec.com
- ALLIANT (QLD)**
Jason A. Hogan
4902 North Biltmore, Box 77007
Madison, WI 53707-1007
608-458-4871
jasonhogan@alliantenergy.com
- IOWA TELECOM (QLD)**
Terry Burke
107 E Fayette, PO Box 427
Manchester, IA 52057
563-927-2623
dan.hogan@iowatelecom.com
- CITY OF RICKARDSVILLE (QLD)**
Vicky Cleary
20494 St. Joseph's Drive
Rickardsville, IA 52039
563-552-1302
vickycleary@aol.com
- CENTURY LINK (QLD)**
Steven Parker
320 2nd Ave. SW
Rochester, MN 55902
507-285-2335
steven.parker4@qwest.com
ross.larson@qwest.com
- WINDSTREAM (QLD)**
Terry Burke
107 E Fayette, PO Box 427
Manchester, IA 52057
563-927-2623
daniel.hogan@windstream.com
- CITY OF HOLY CROSS (QLD)**
Brian Maiers
938 Church Street, Box 326
Holy Cross, IA 52053
563-870-2475
holycross@yousq.net
- CITY OF RICKARDSVILLE (QLD)**
Vicky Cleary
20494 St. Joseph's Drive
Rickardsville, IA 52039
563-552-1302
vickycleary@aol.com
- CITY OF HOLY CROSS (QLD)**
Brian Maiers
938 Church Street, Box 326
Holy Cross, IA 52053
563-870-2475
holycross@yousq.net

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design	Color No.		
Green	(2)		Existing Topographic Features and Labels	10-31-052-020-03
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation	
Magenta	(5)		Existing Utilities	HSIPX-052-2(120)--3L-31
SHADING	Design	Color No.		
Yellow	(4)		Highlight for Critical Notes or Features	STPN-052-2(123)--2J-31
Red	(3)		Delineates Restricted Areas	
Lavender	(9)		Temporary Pavement Shading	
Gray, Light	(48)		Proposed Pavement Shading	
Gray, Med	(80)		Proposed Granular Shading	
Gray, Dark	(112)		Proposed Grade and Pave Shading	"In conjunction with a paving project"
Brown, Light	(236)		Grading Shading	
Tan	(8)		Proposed Sidewalk Shading	
Blue, Light	(230)		Proposed Sidewalk Landing Shading	
Pink	(11)		Proposed Sidewalk Ramp Shading	

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design	Color No.	
Green	(2)		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

Reference Point

Station Survey Line

Section Corner

Ground Line Intercept

Saw Cut

Guardrail

Trench Drain

HighTension Cable Guardrail

Sheet Pile

Pavement Removal

Clearing & Grubbing Area

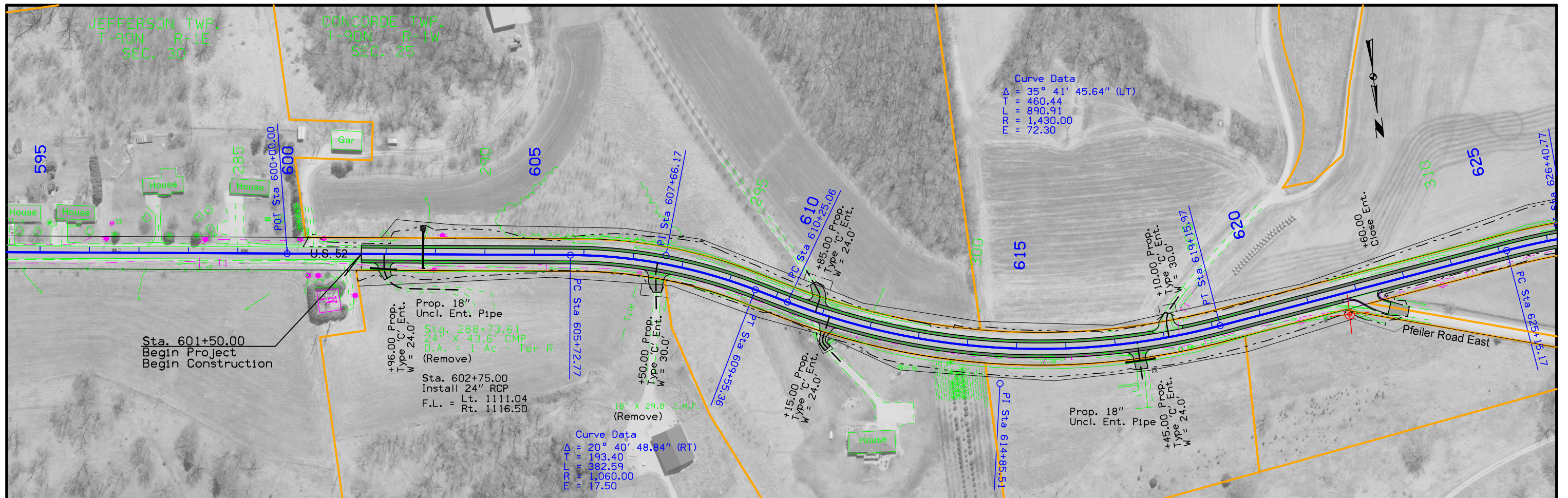
RIGHT-OF-WAY LEGEND

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

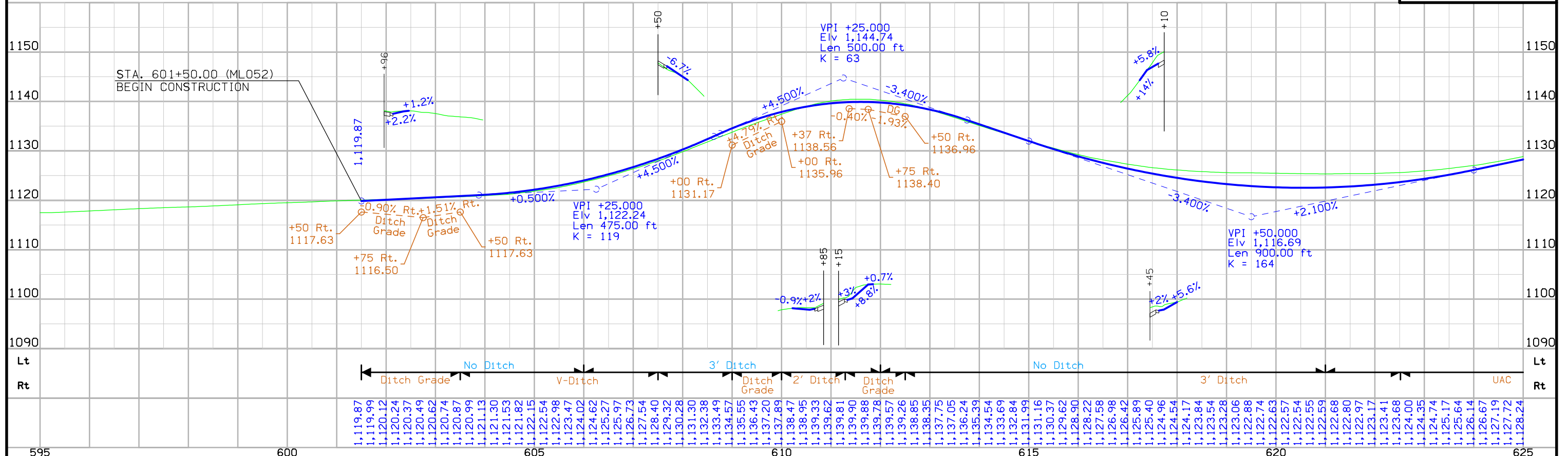
GEODETIC MARKER

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

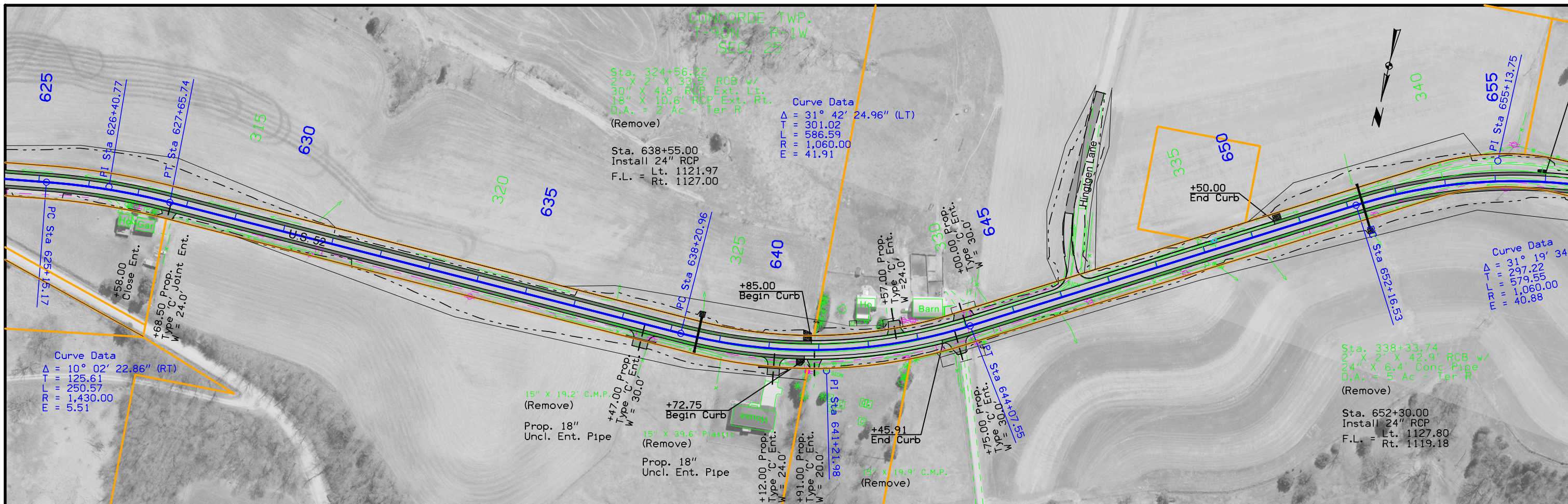
(COVERS SHEET SERIES D, E, F, & K)



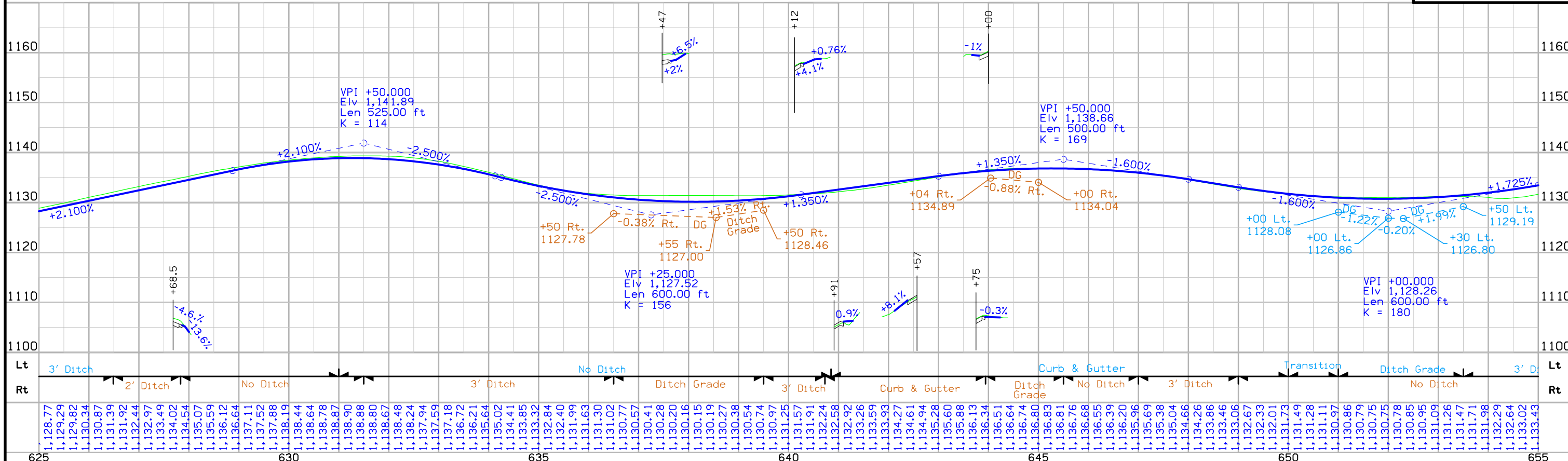
U.S. 52

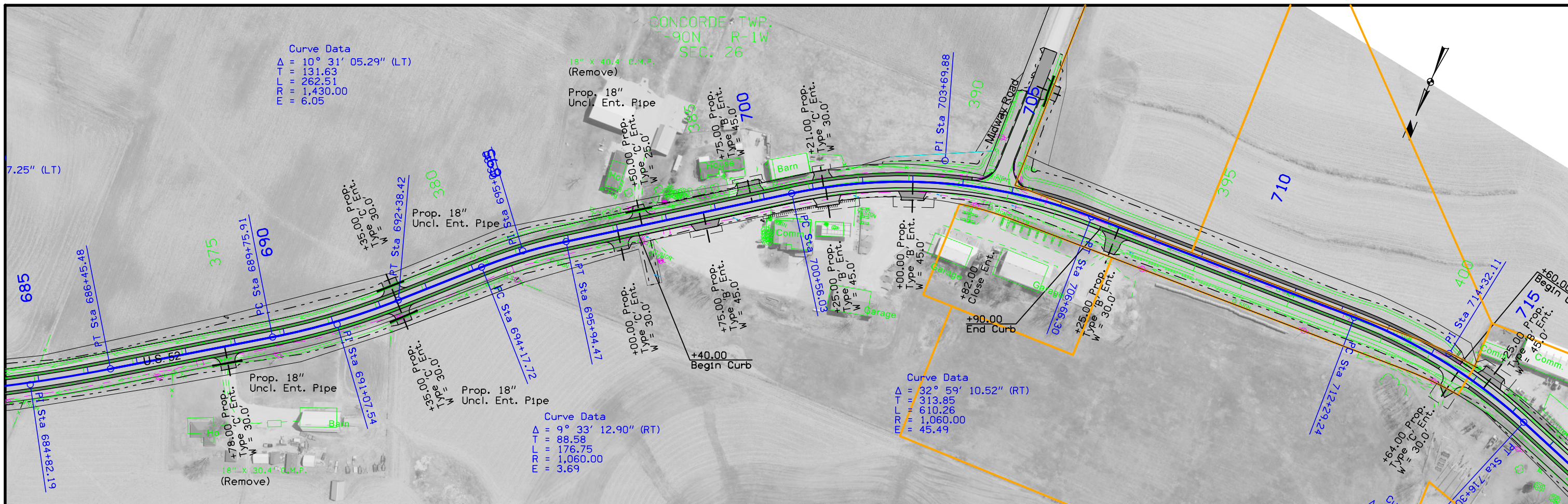


FILE NO.	ENGLISH	DESIGN TEAM	J1a \ Skogerboe	DUBUQUE COUNTY	PROJECT NUMBER	HSIPX-052-2(120)--3L-31	SHEET NUMBER	D.2
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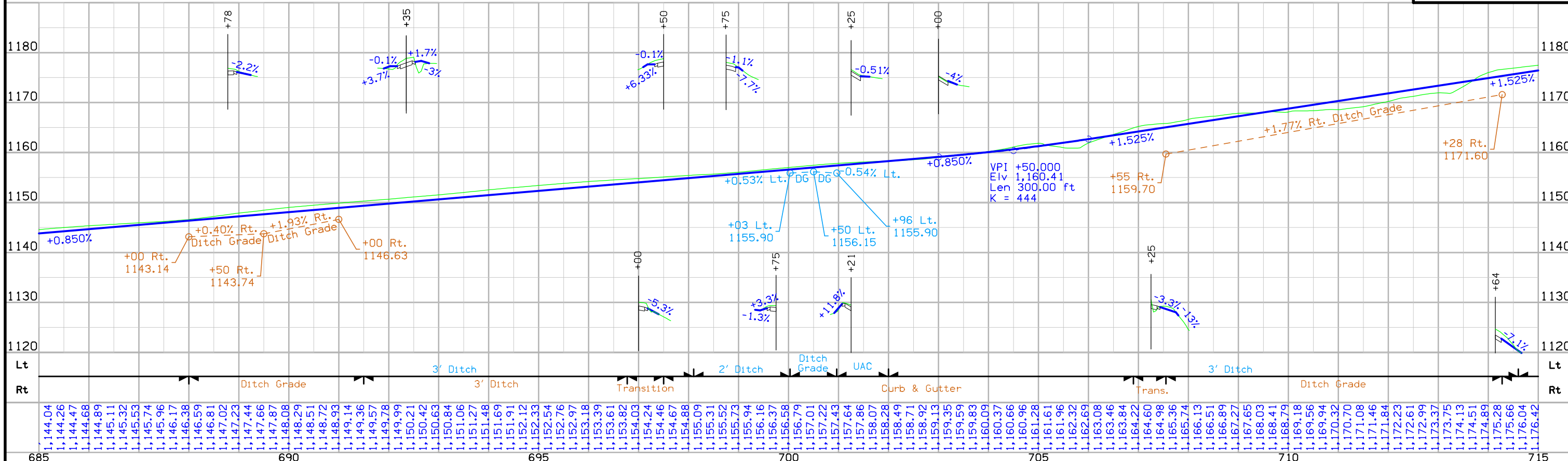


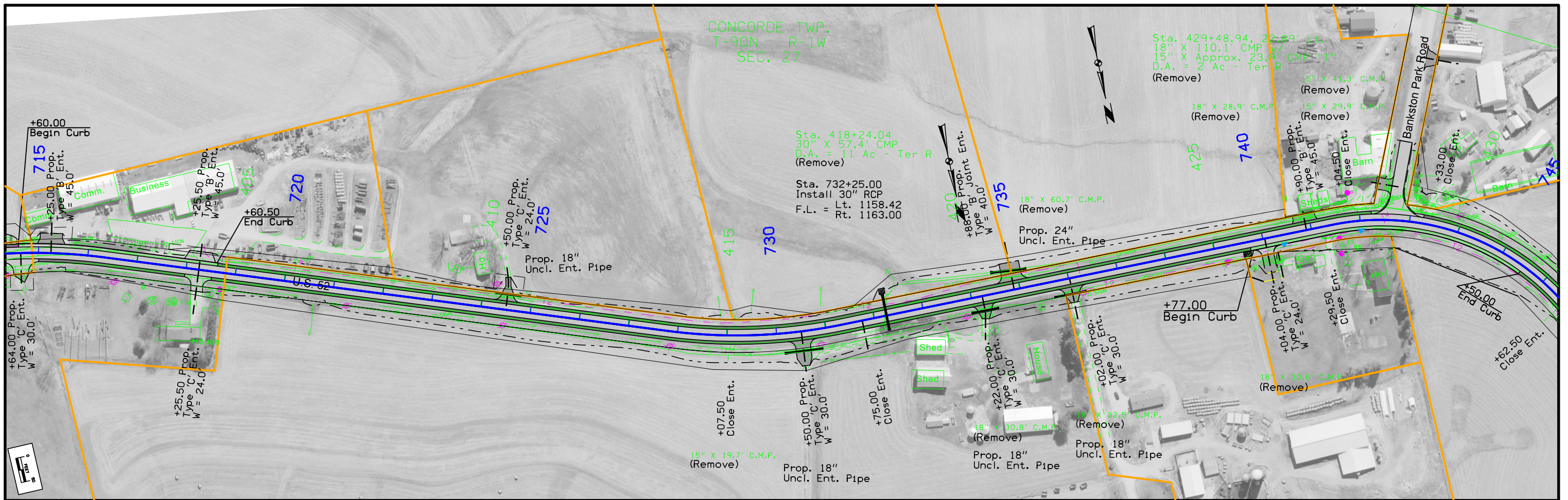
U.S. 52



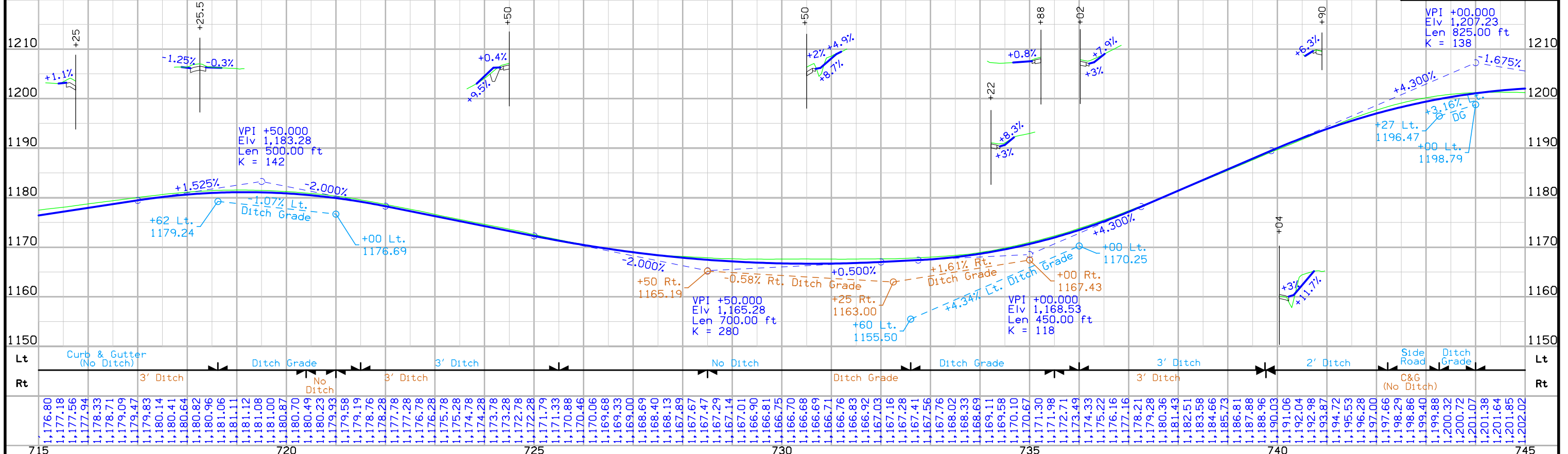


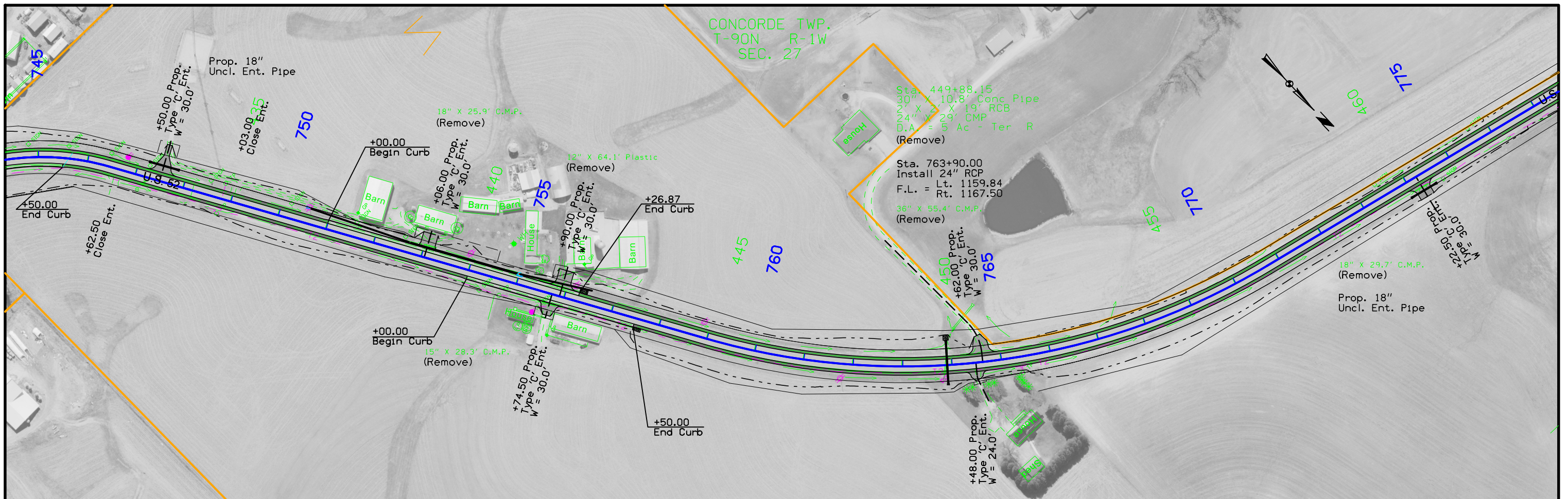
U.S. 52





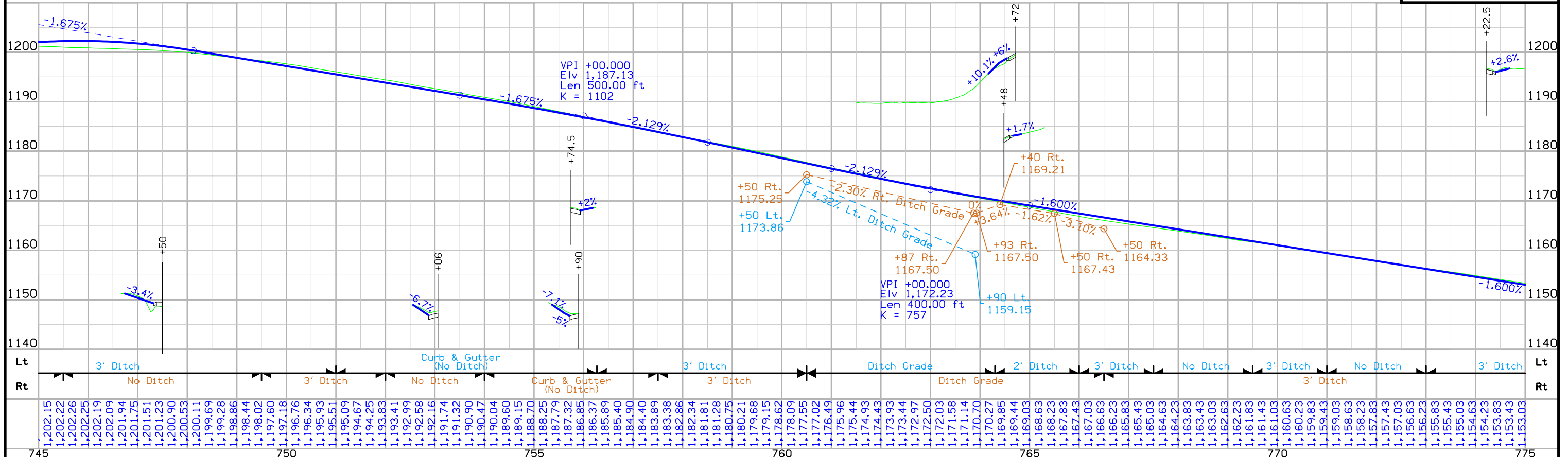
U.S. 52



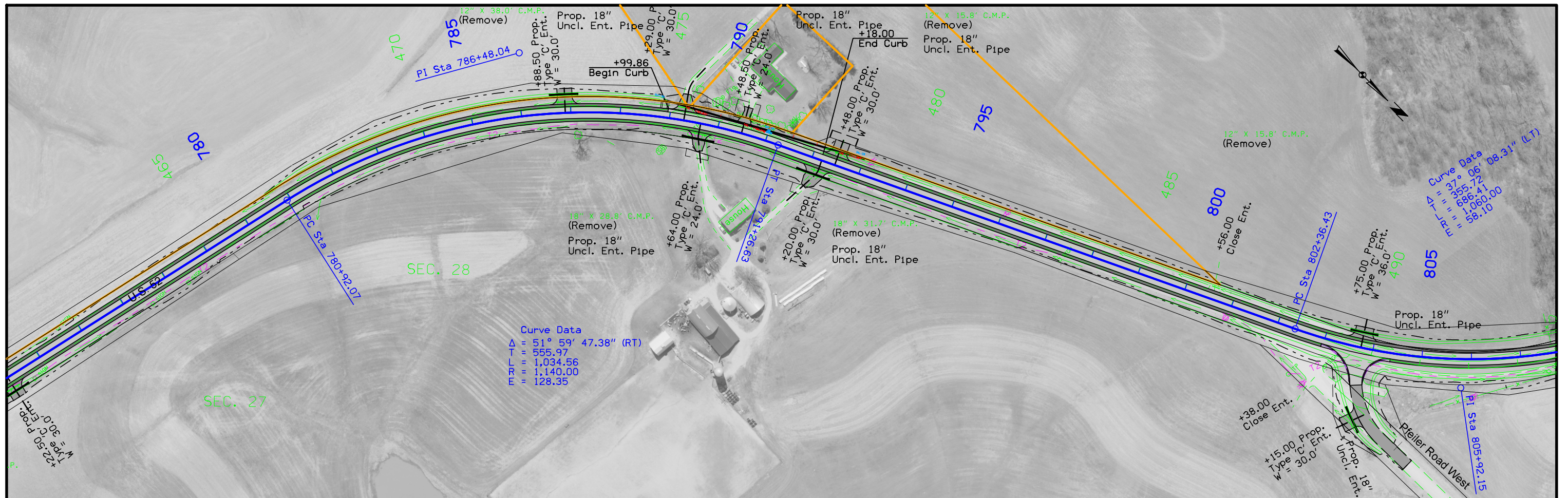


CONCORDE TWP.
T-90N R-1W
SEC. 27

U.S. 52

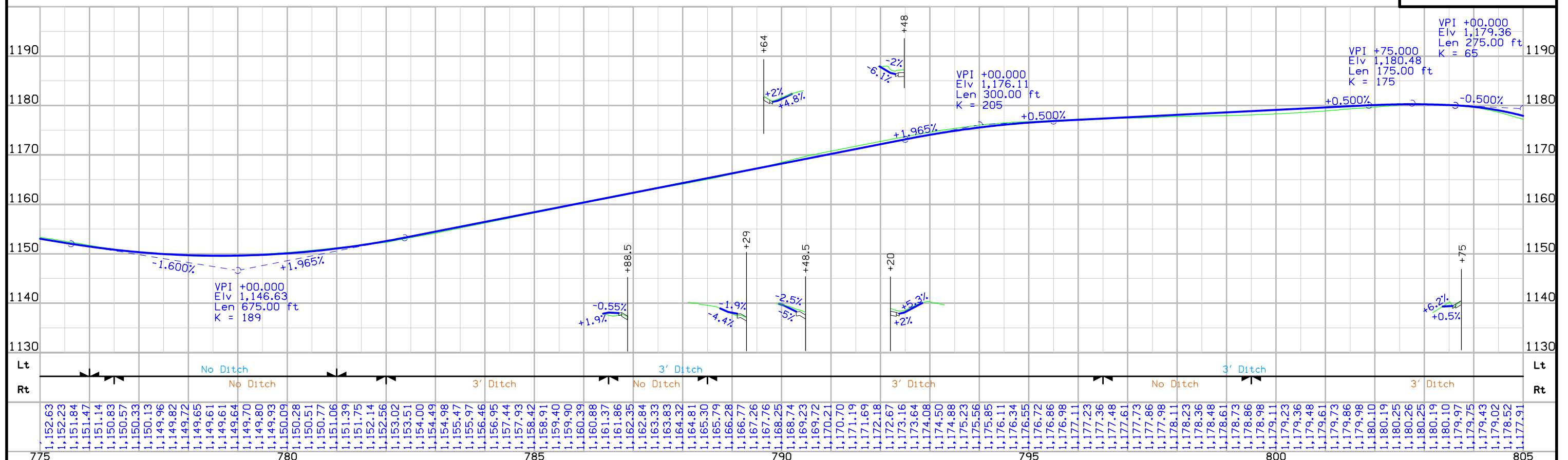


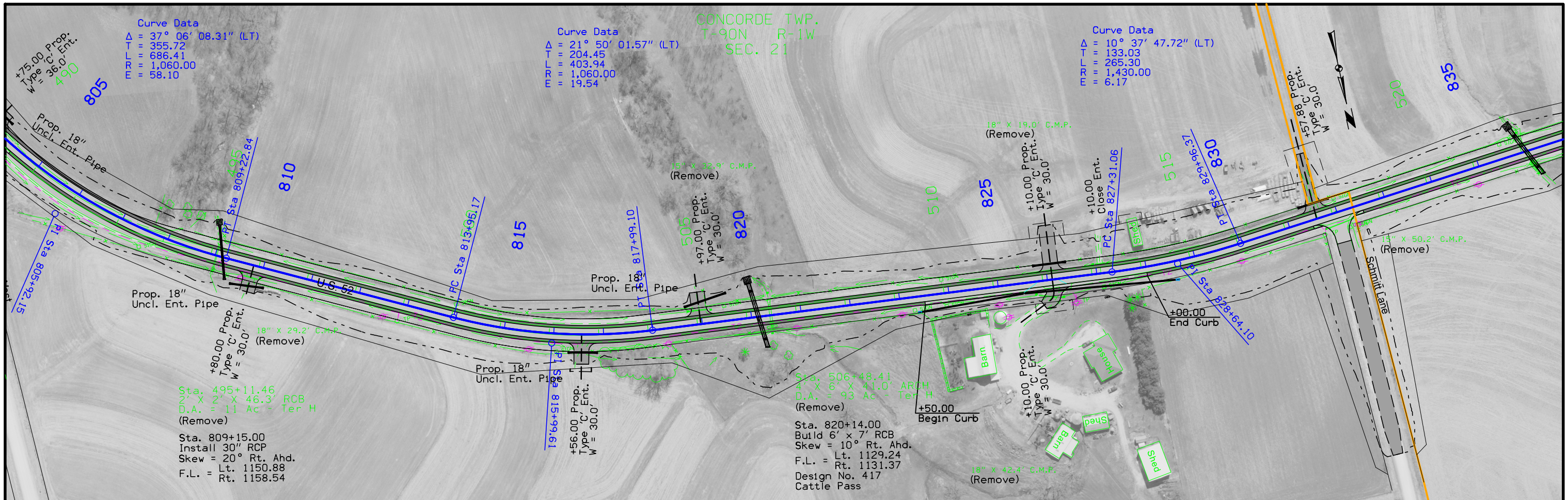
FILE NO.	ENGLISH	DESIGN TEAM	J1a \ Skogerboe	DUBUQUE COUNTY	PROJECT NUMBER	HSIPX-052-2(120)--3L-31	SHEET NUMBER	D.7
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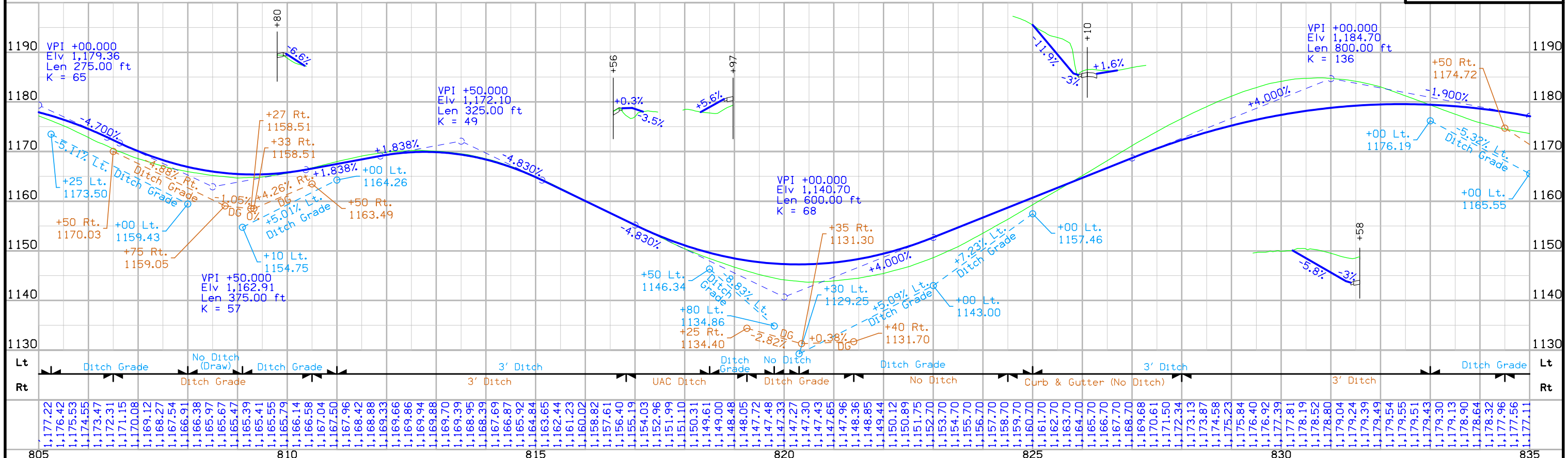
Curve Data
 $\Delta = 51^\circ 59' 47.38''$ (RT)
 $T = 555.97$
 $L = 1,034.56$
 $R = 1,140.00$
 $E = 128.35$

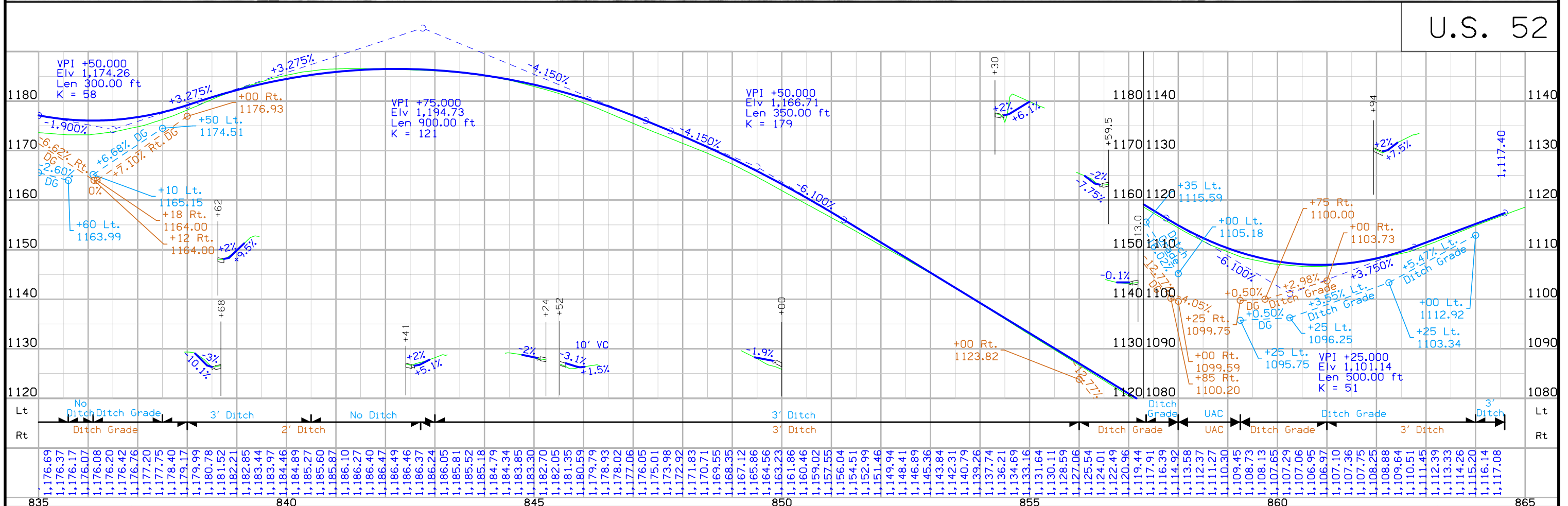
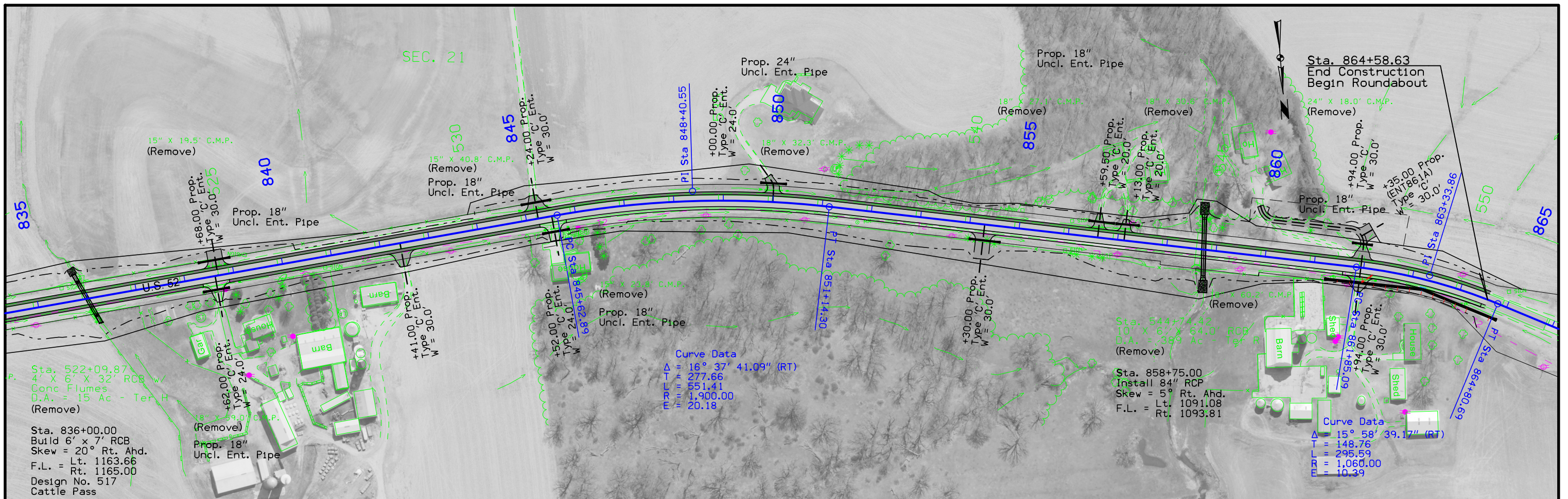
U.S. 52

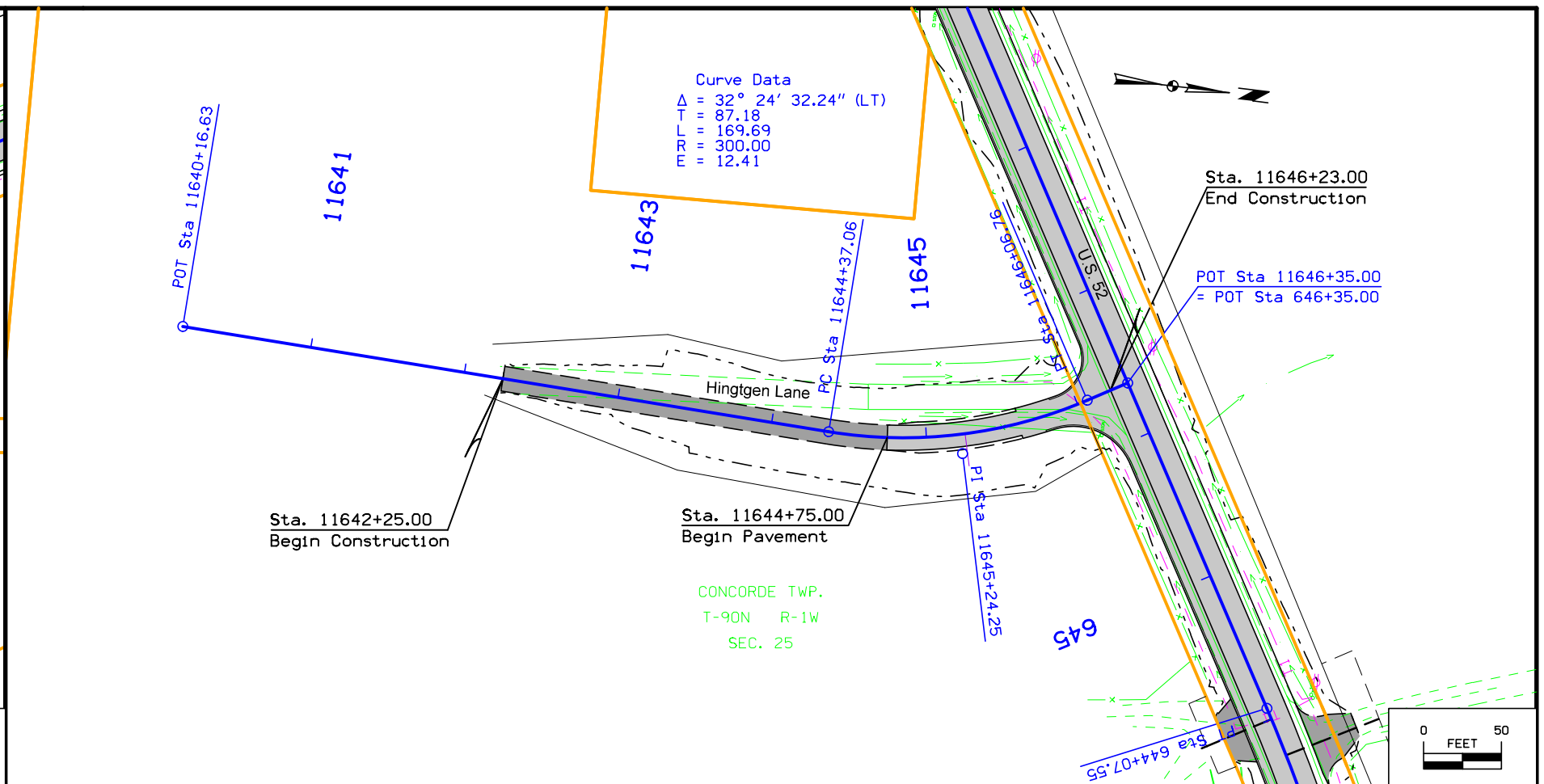
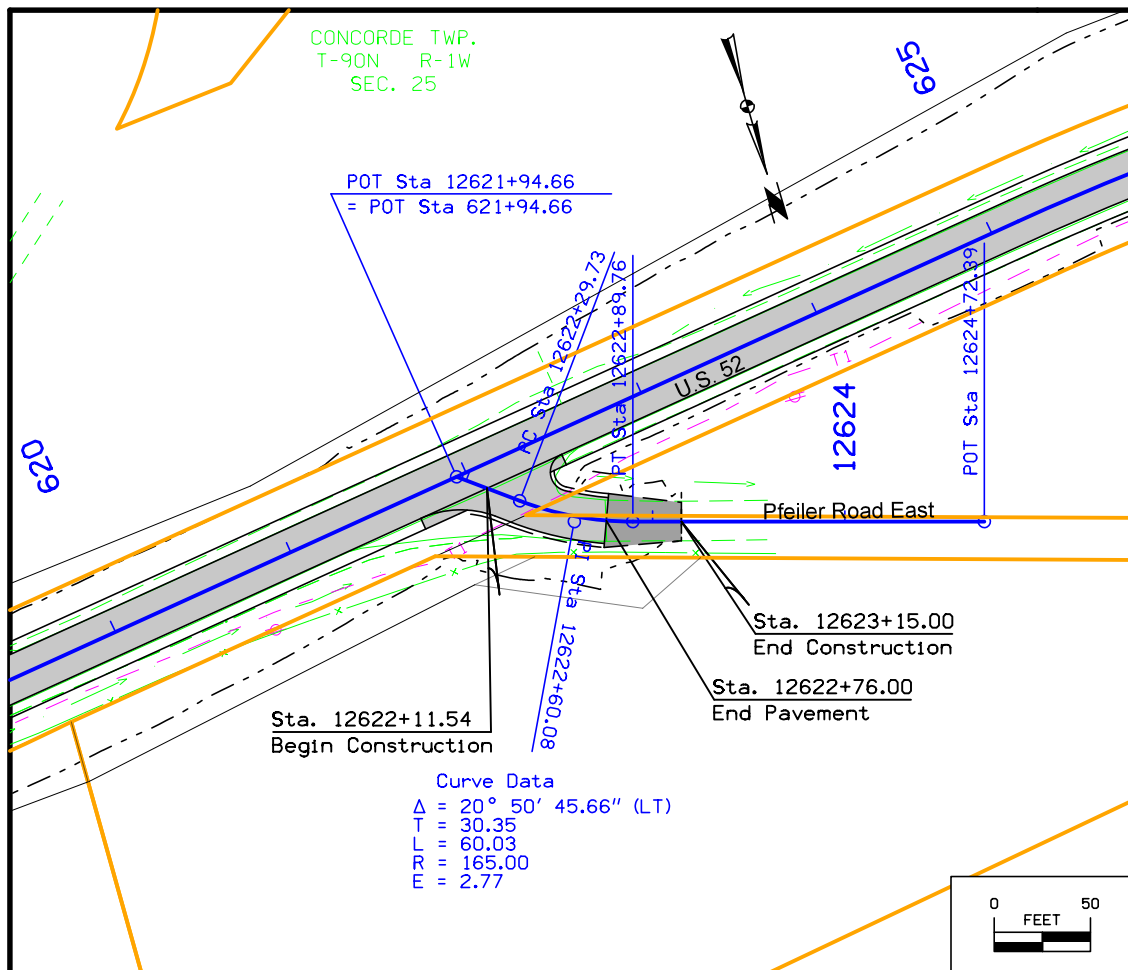




U.S. 52

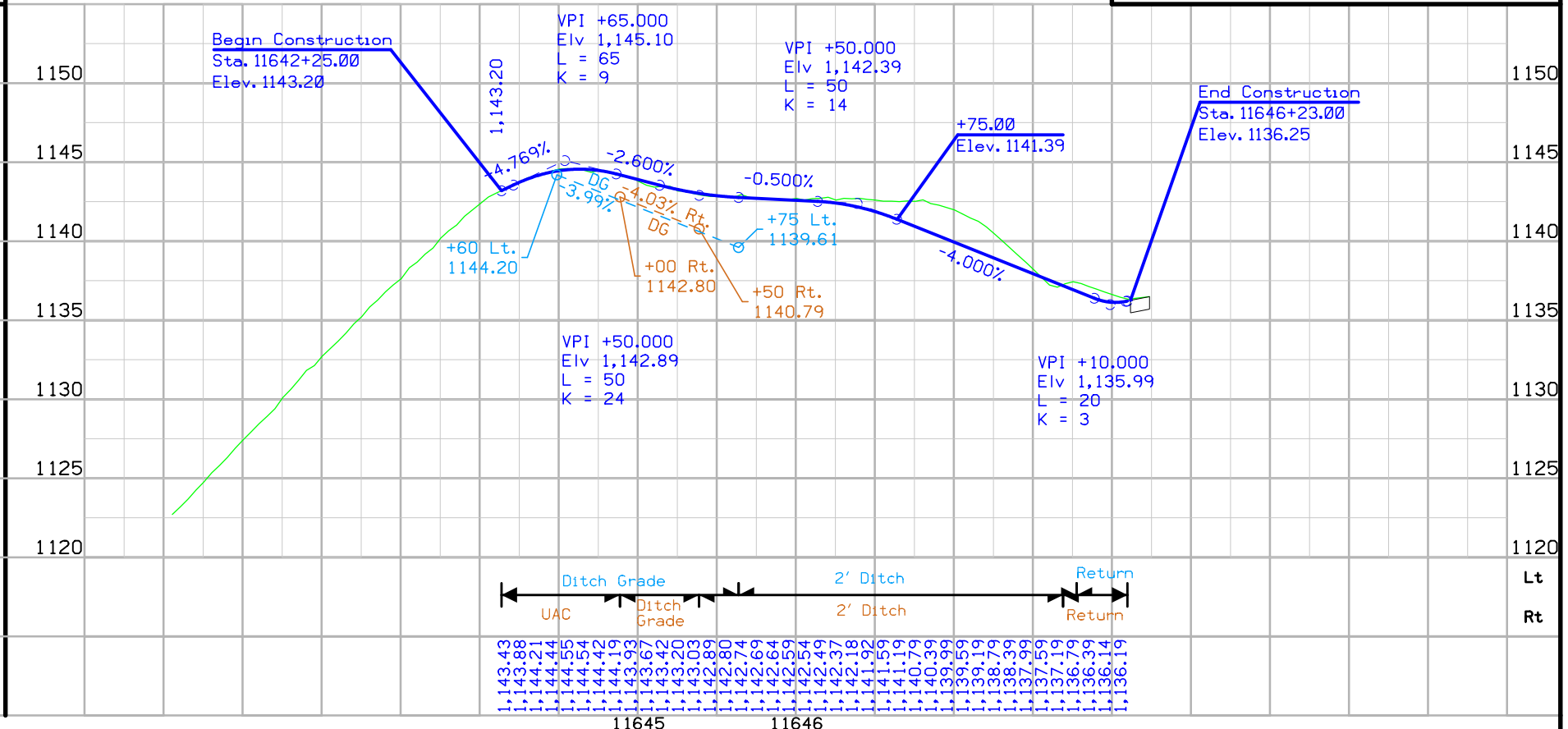
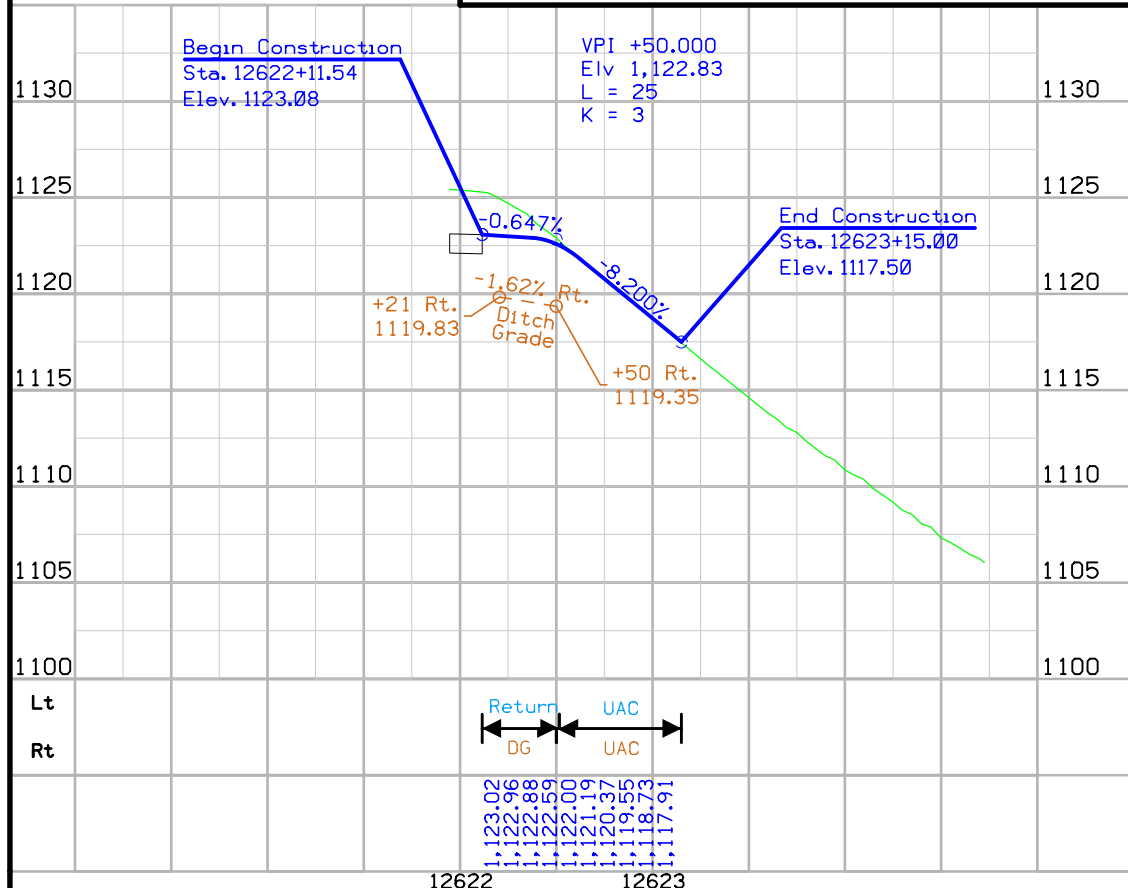


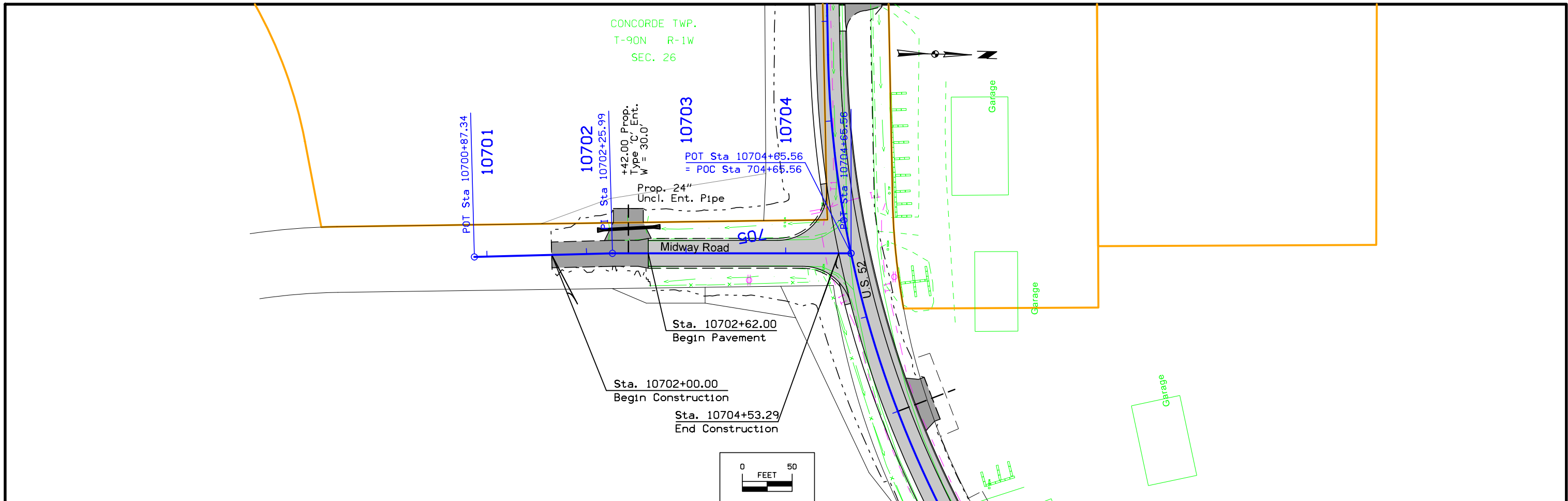




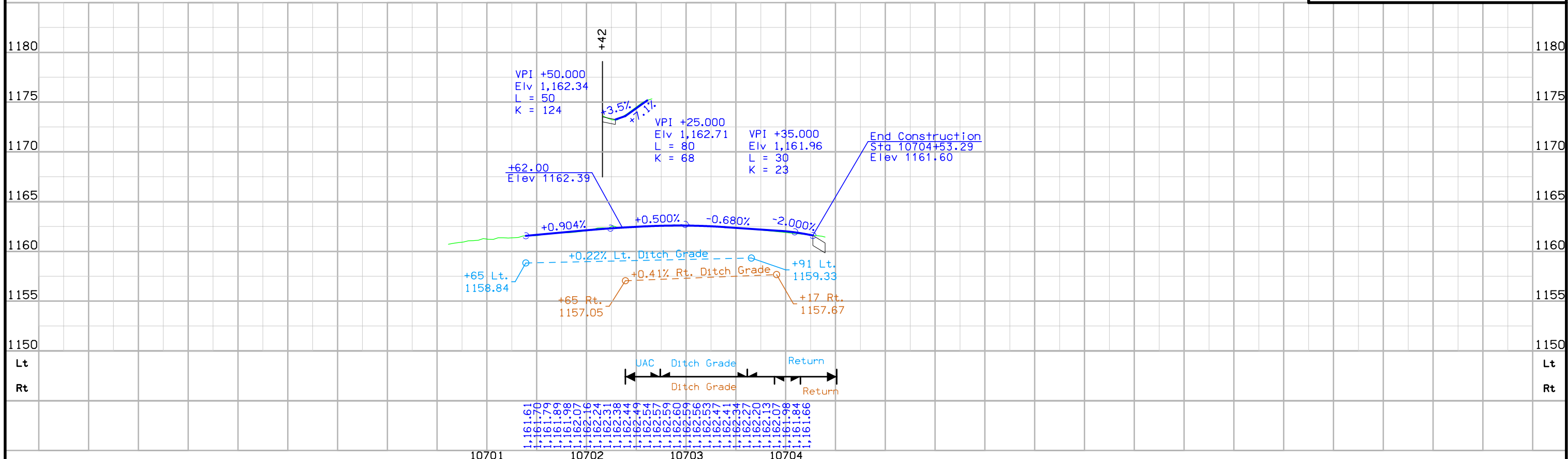
Pfeiler Road East

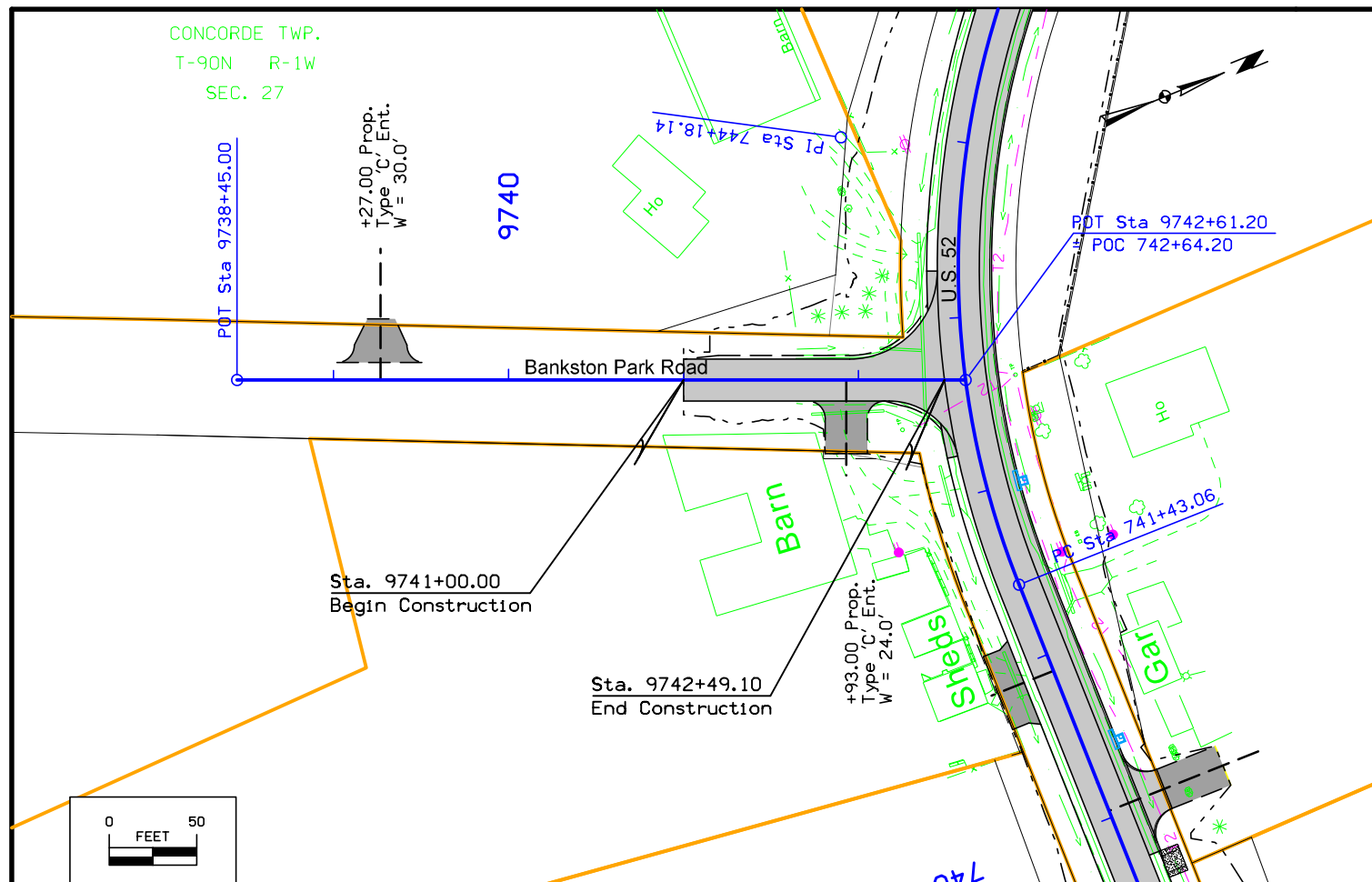
Hingtgen Lane



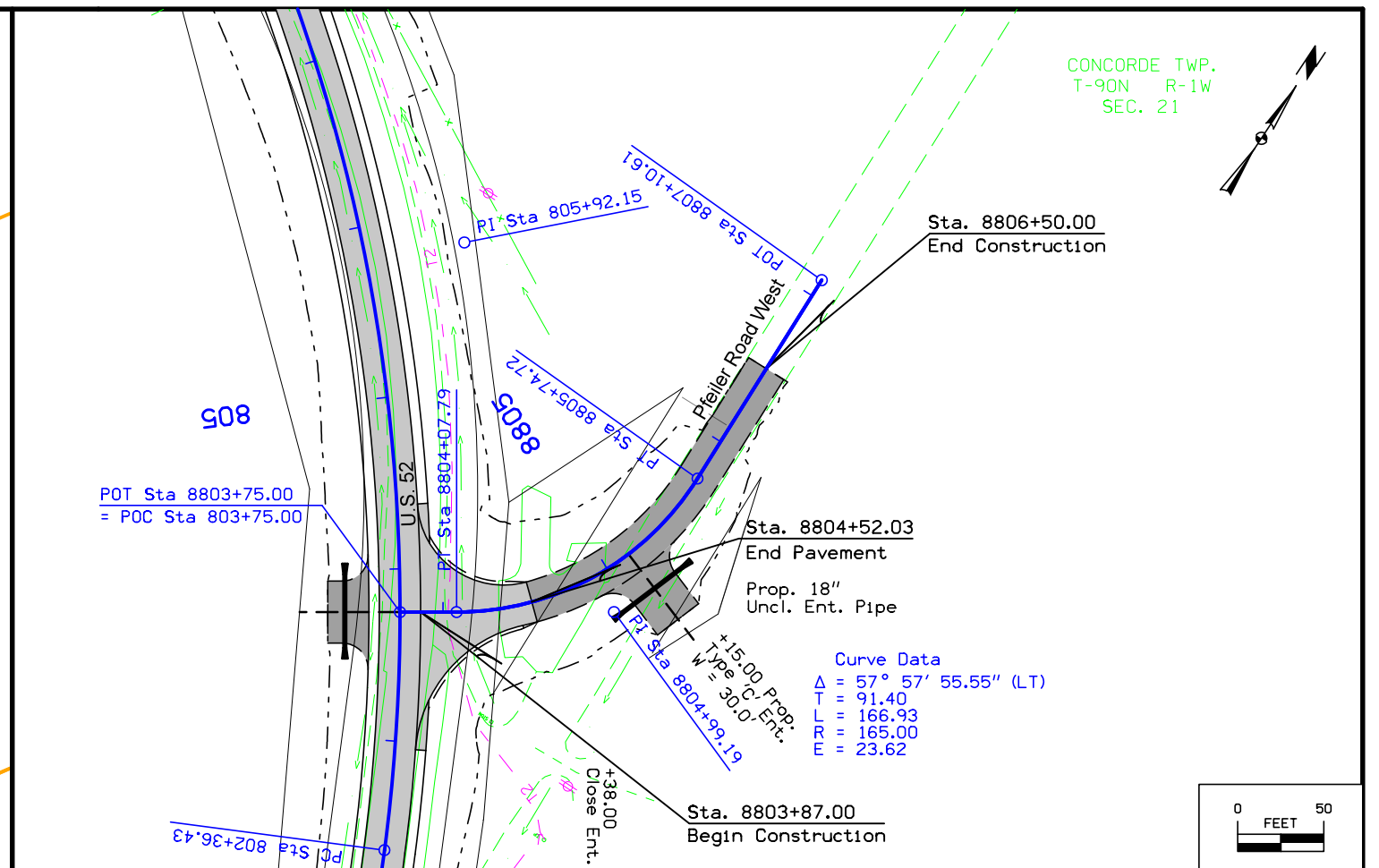
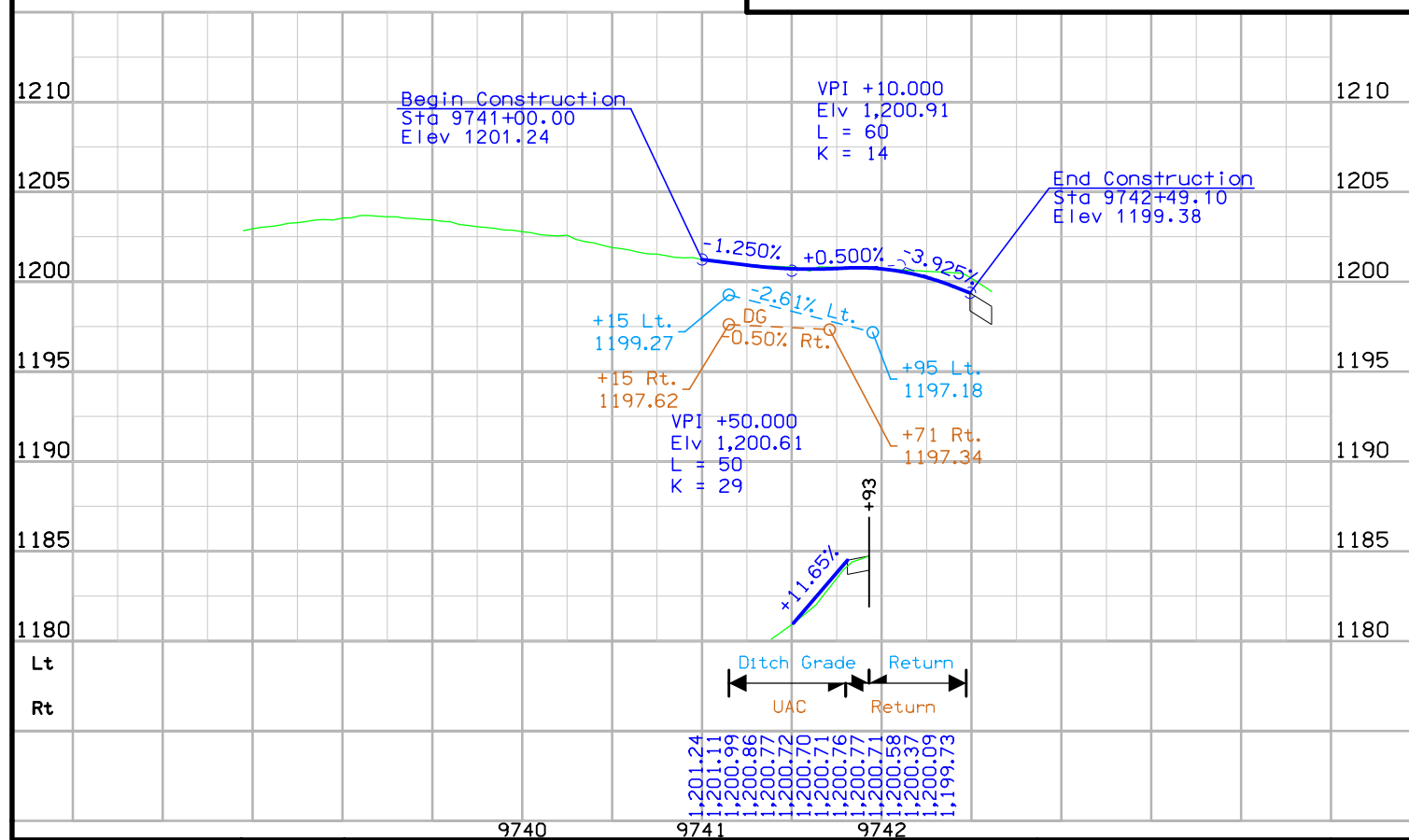


Midway Road

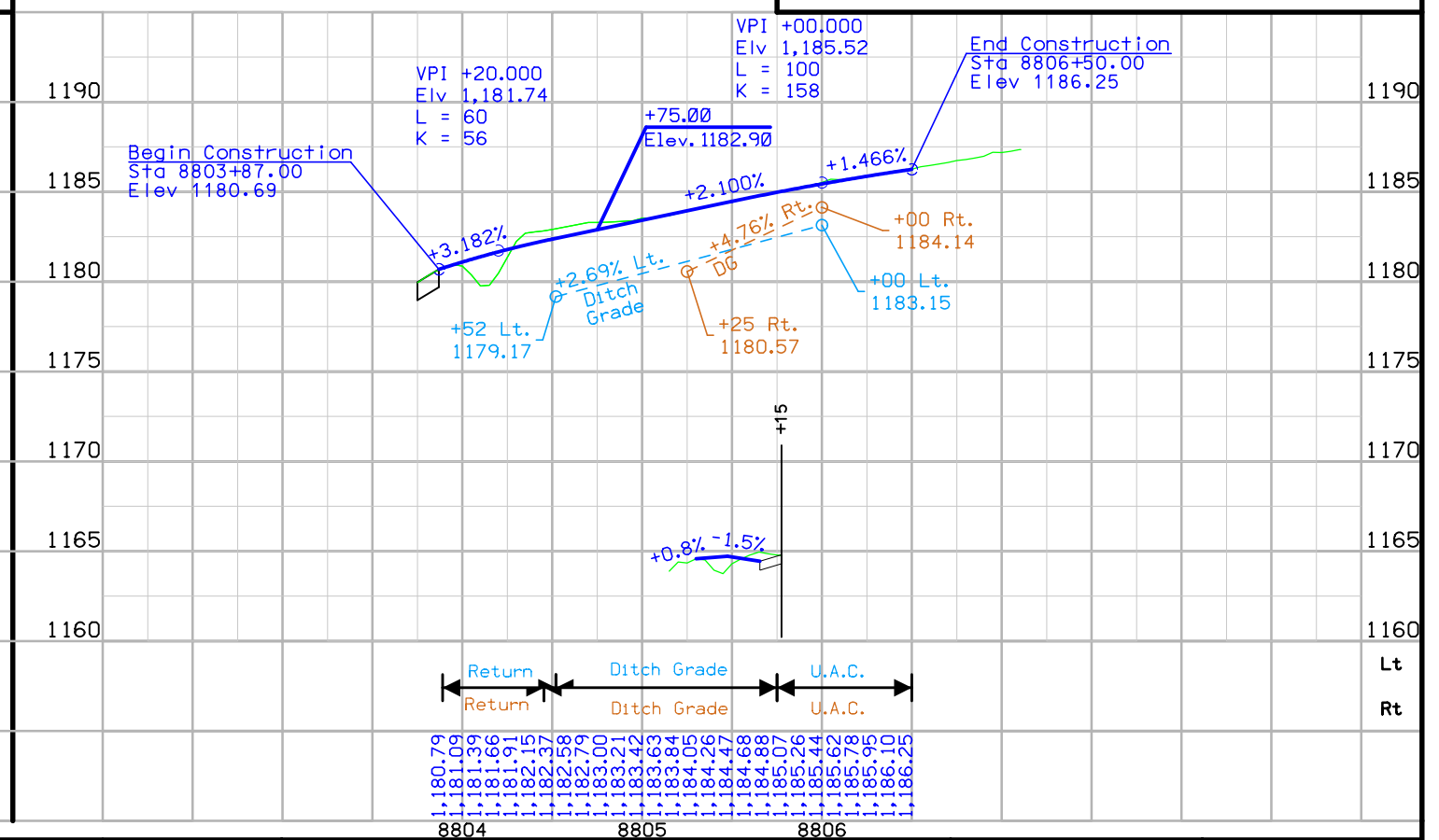


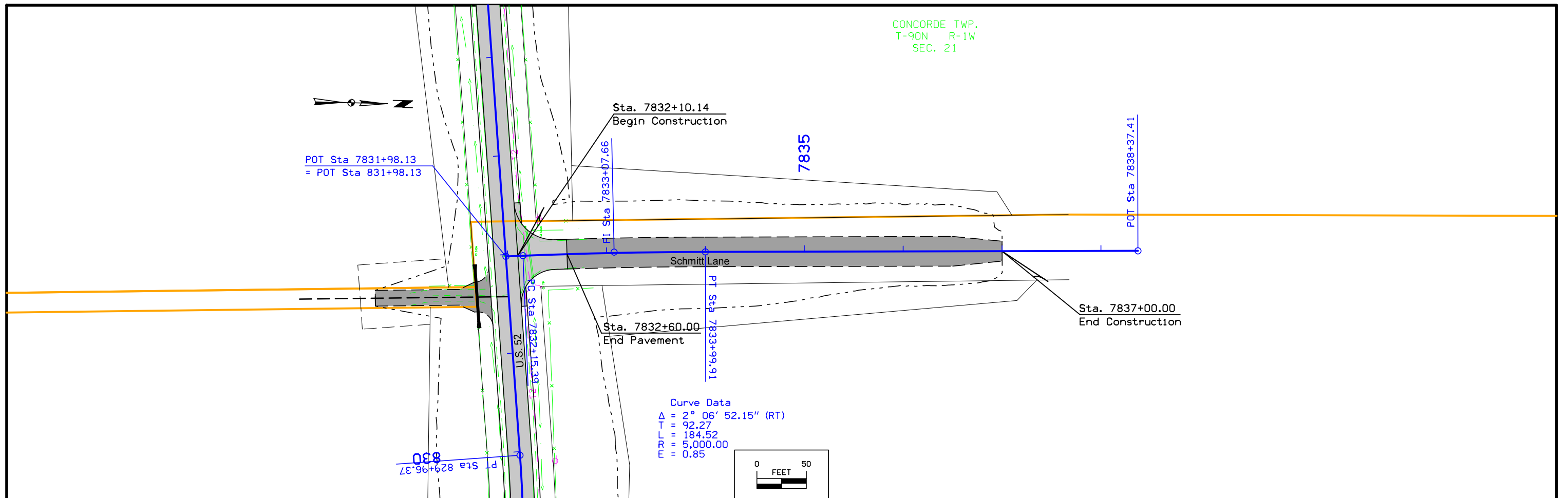


Bankston Park Road

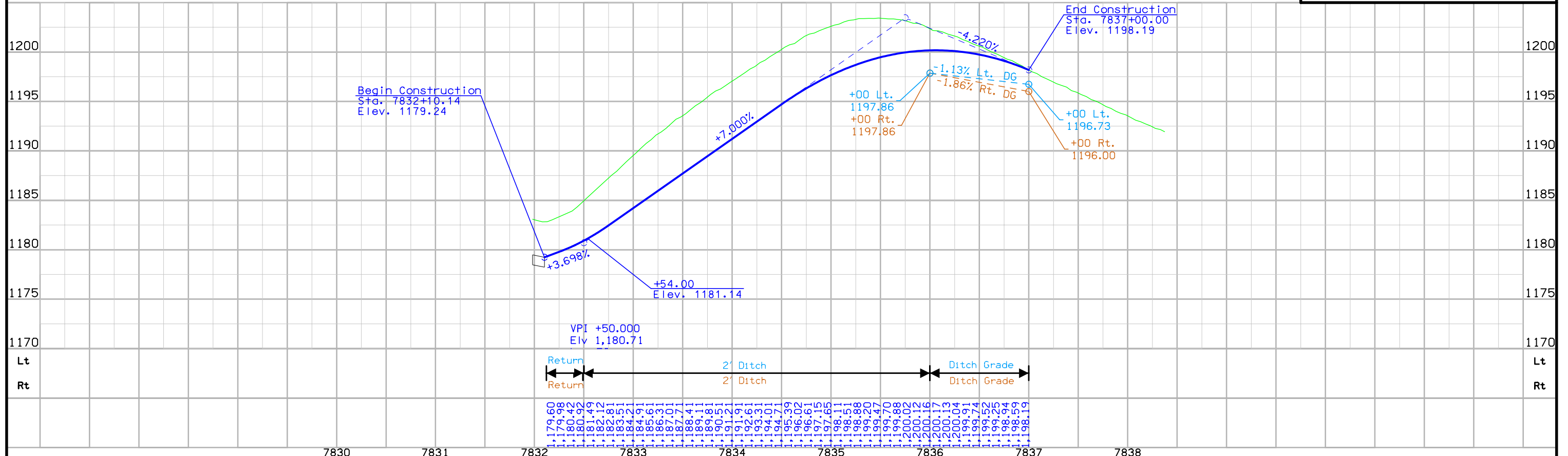


Pfeiler Road West

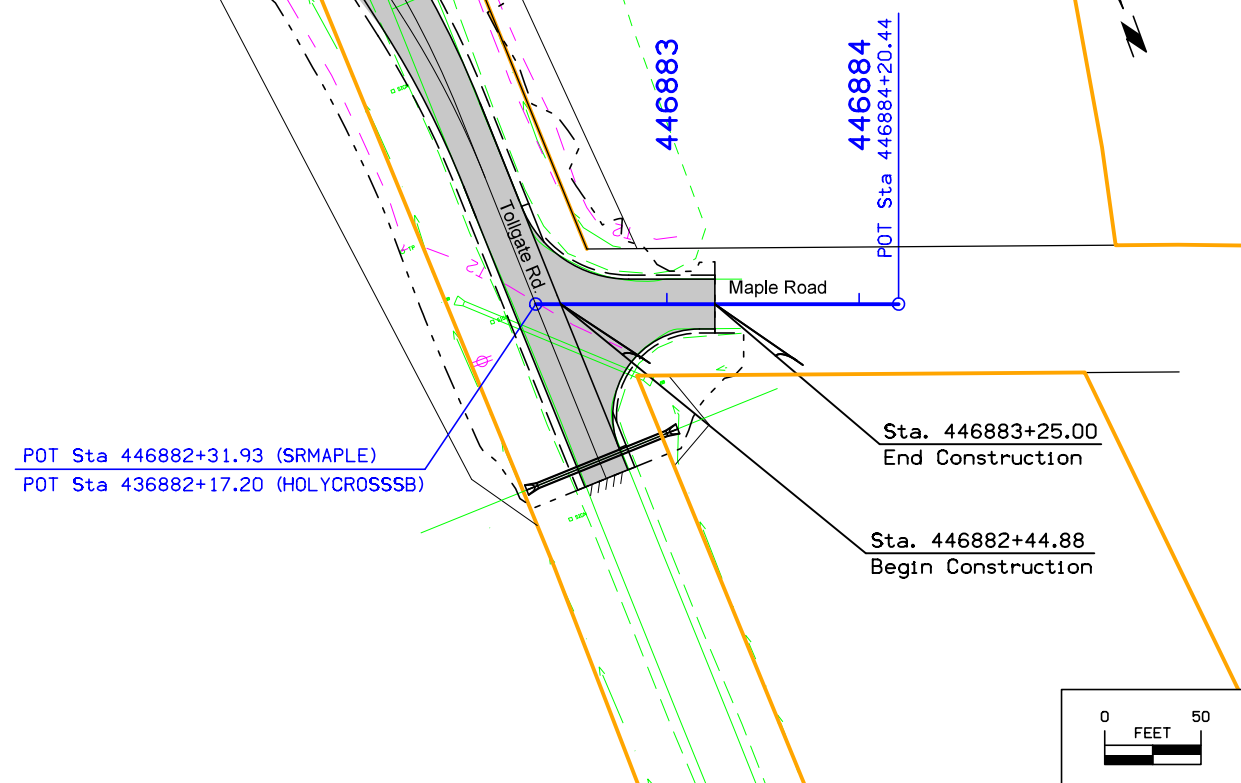




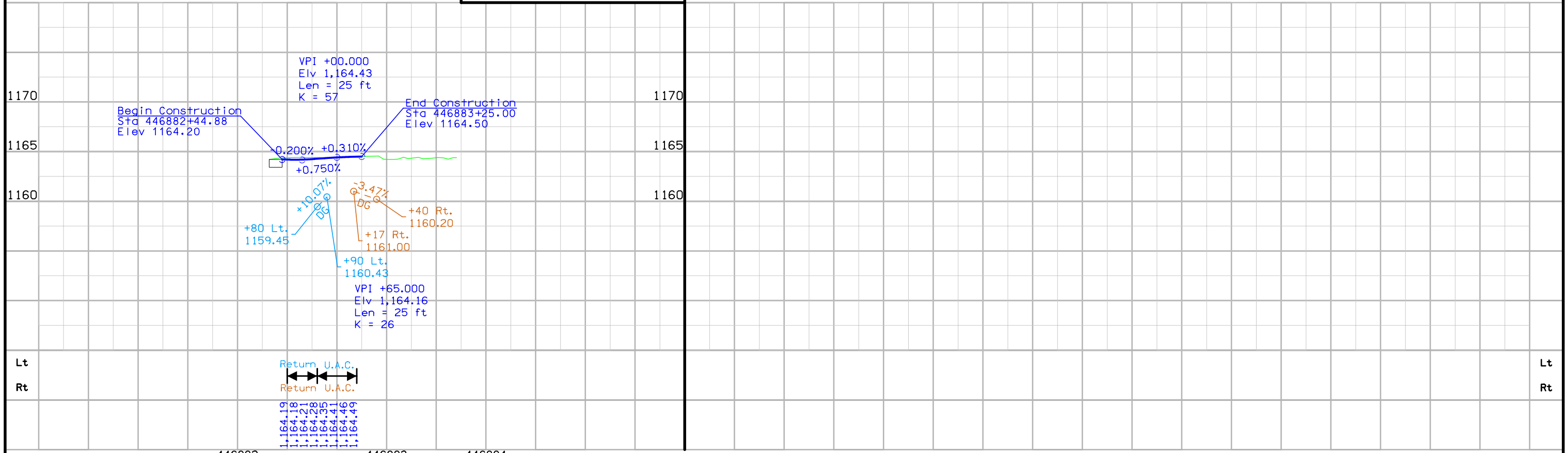
Schmitt Lane

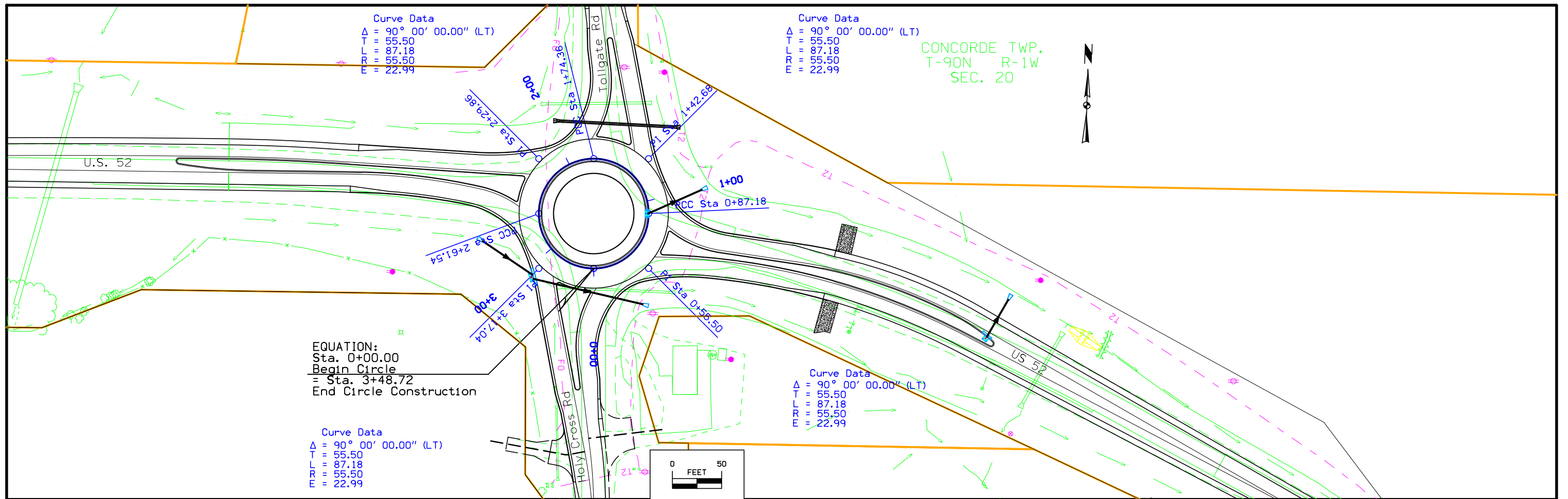


CONCORDE TWP.
T-90N R-1W
SEC. 20

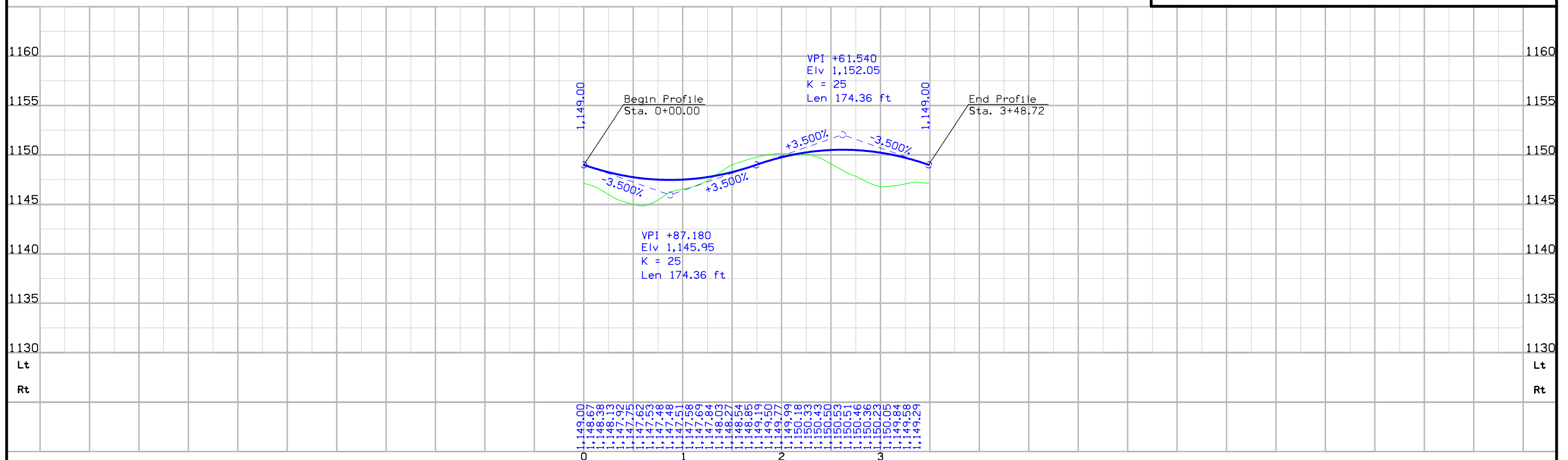


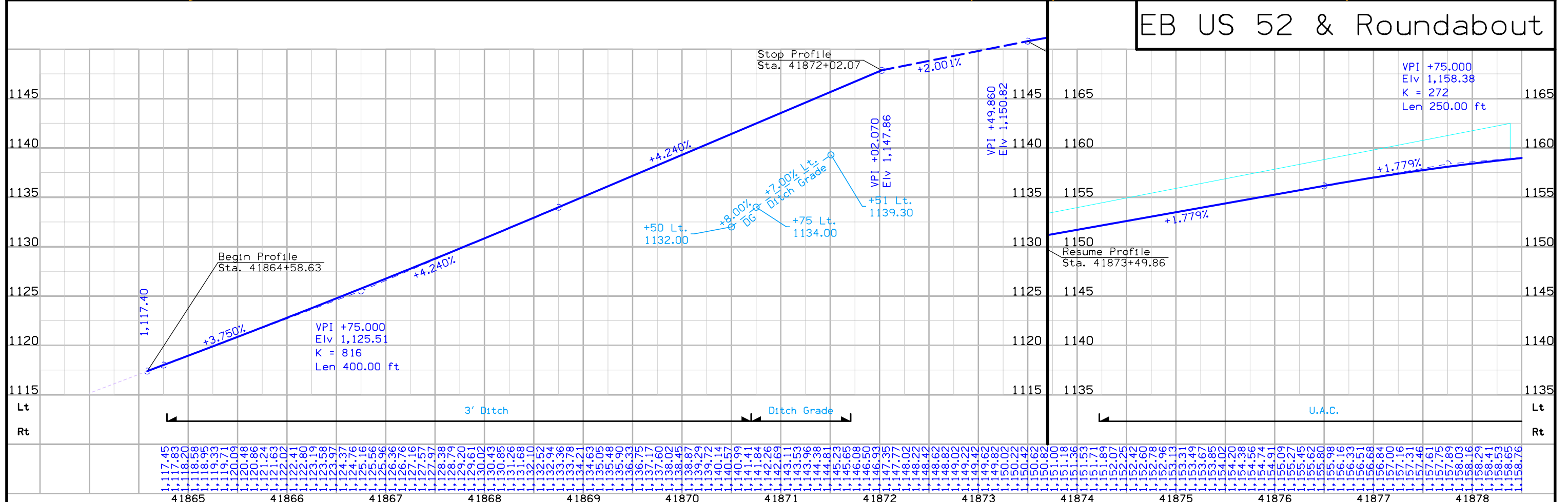
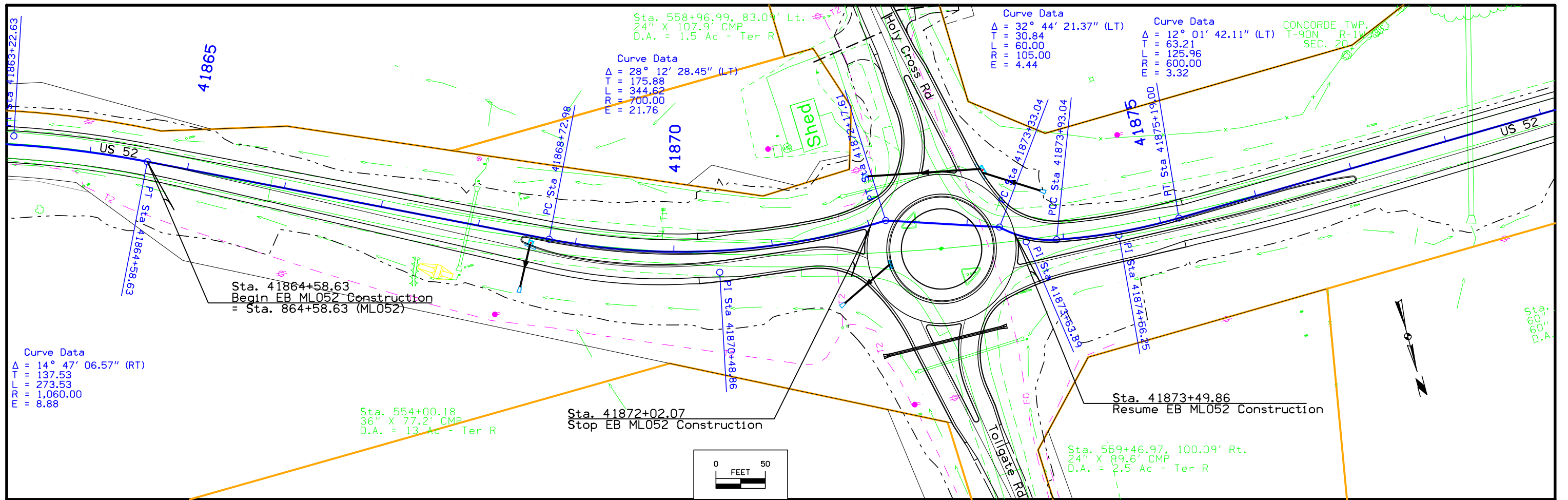
Maple Road

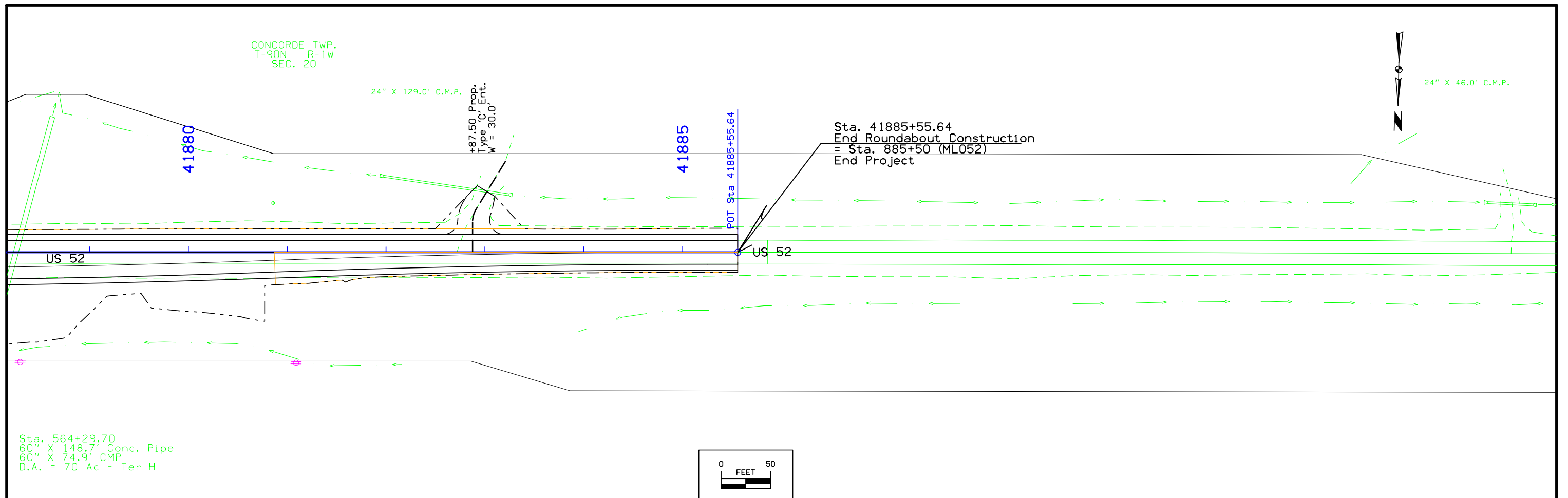




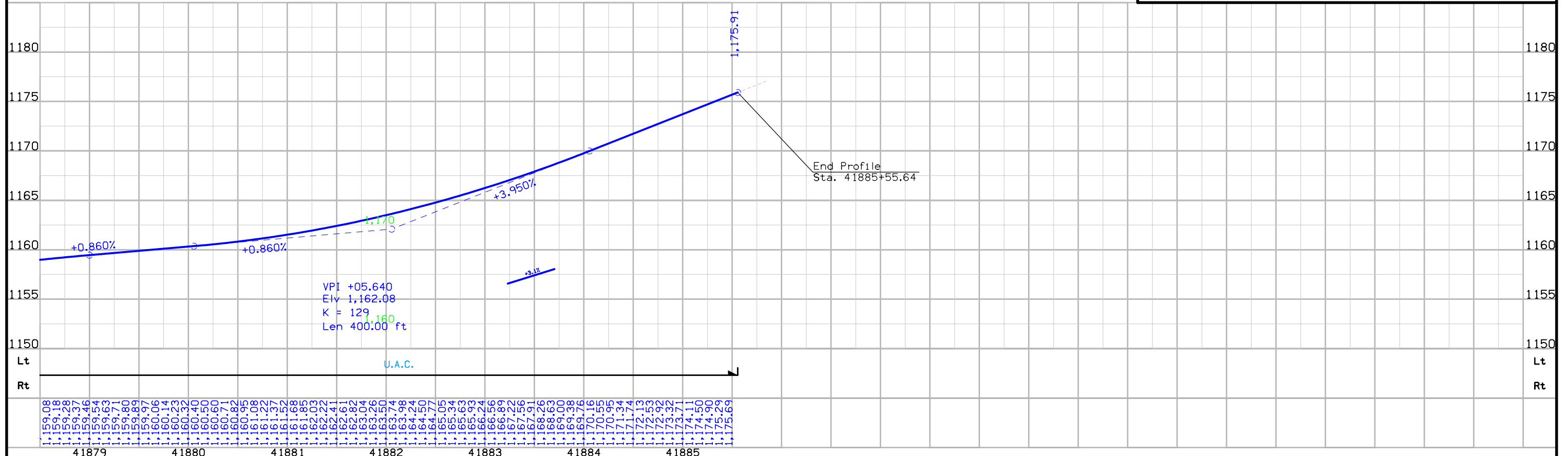
Roundabout Circulator

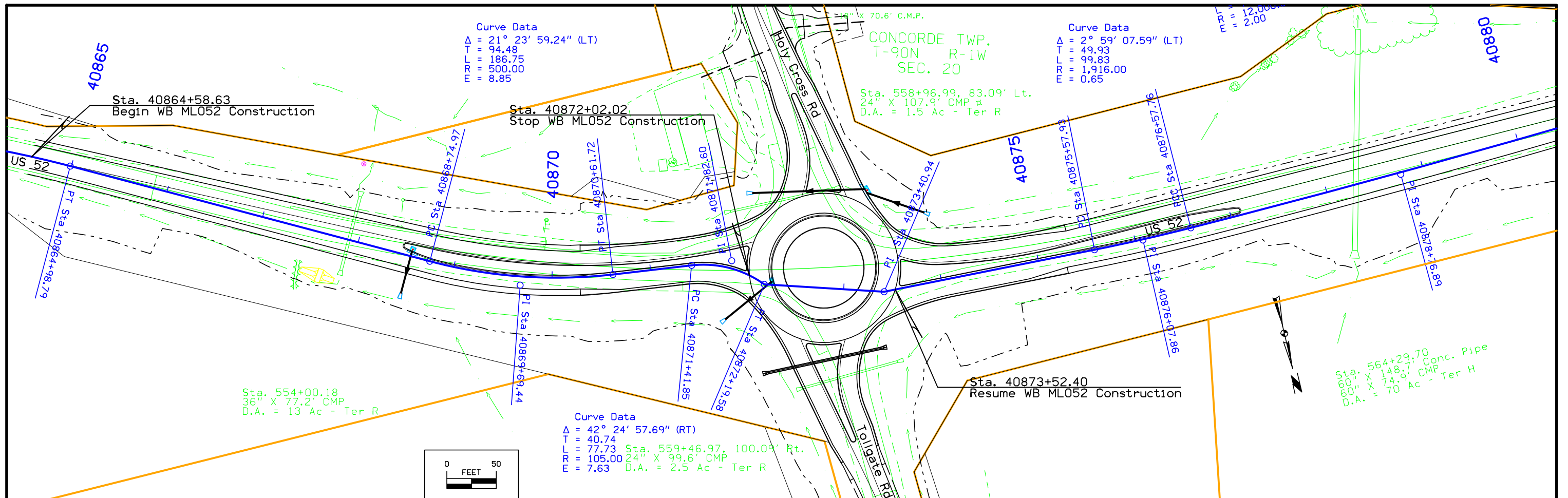




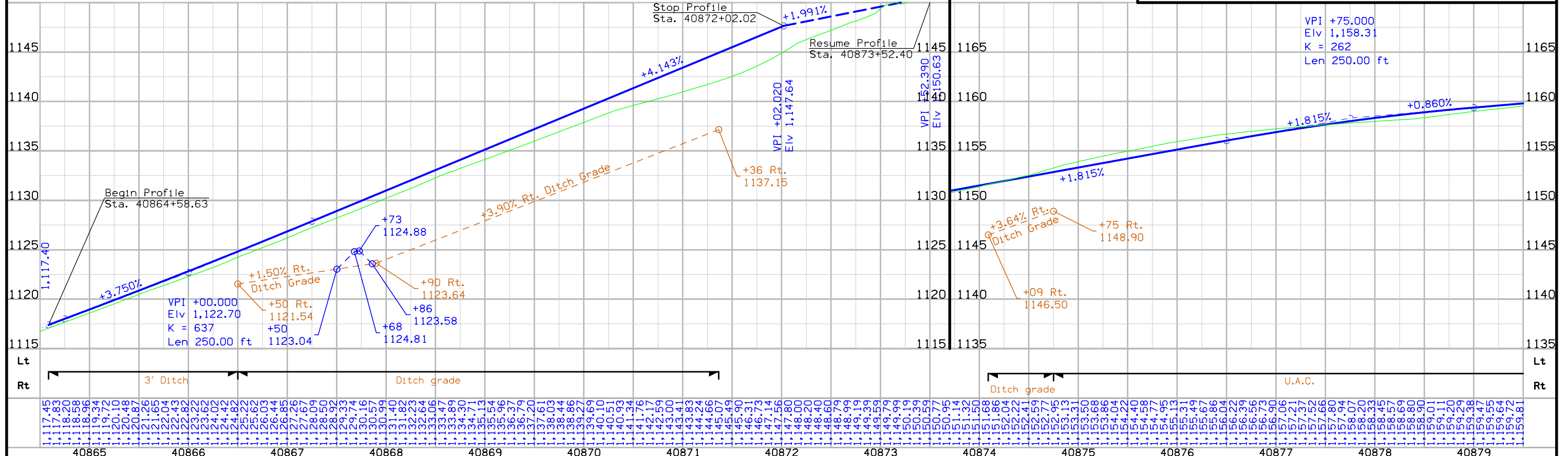


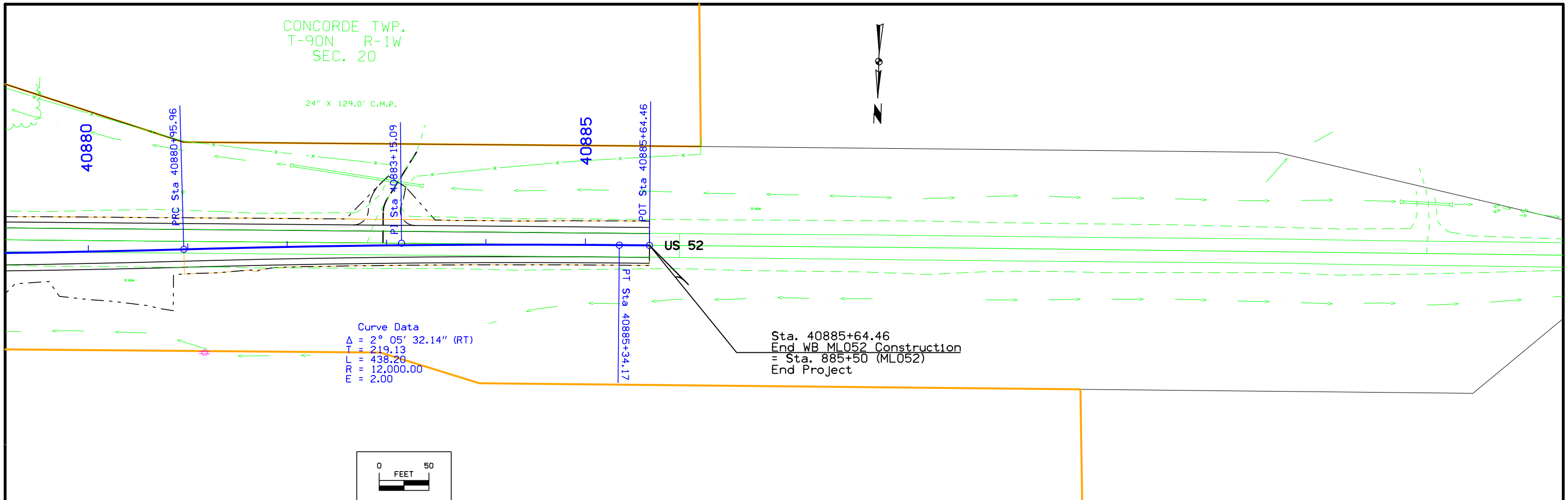
EB US 52 & Roundabout



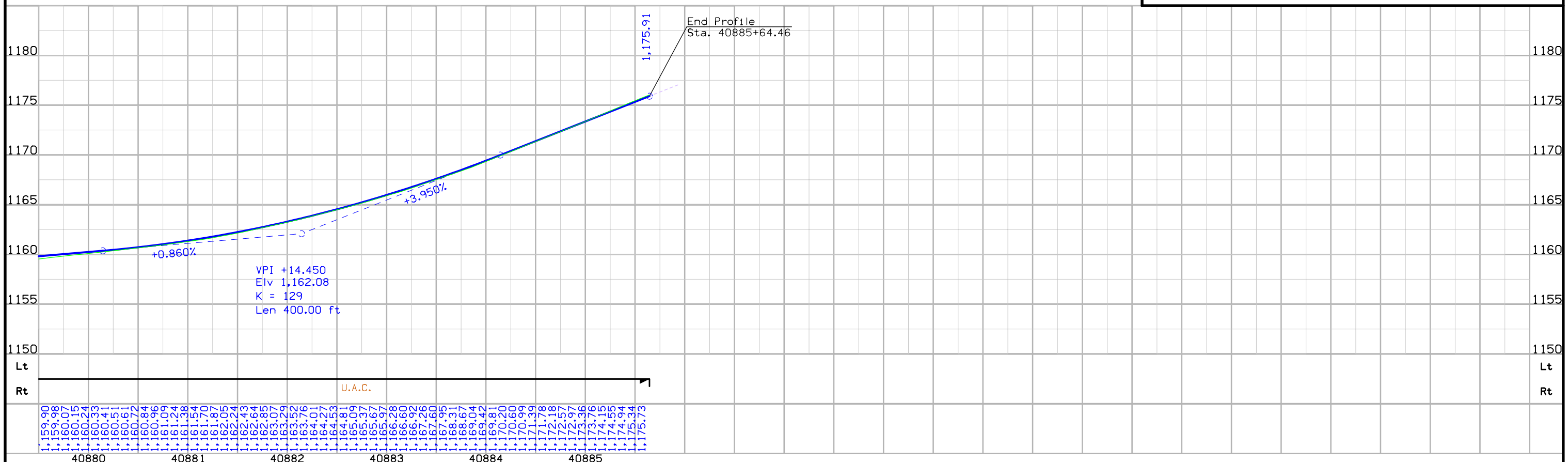


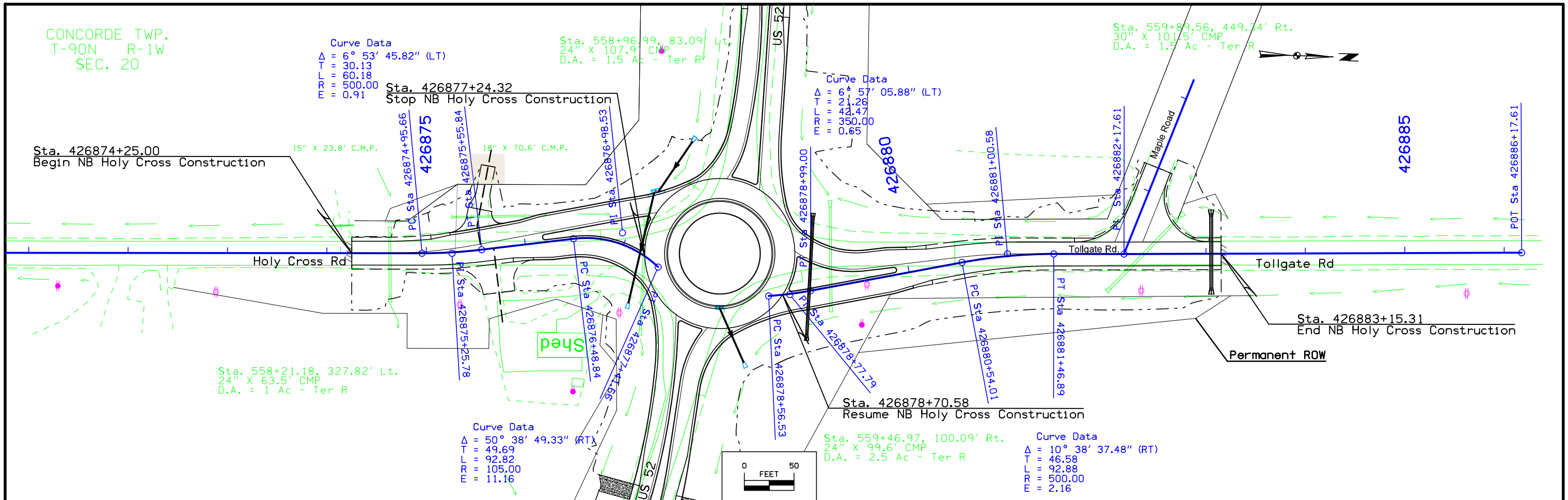
WB US 52 & Roundabout



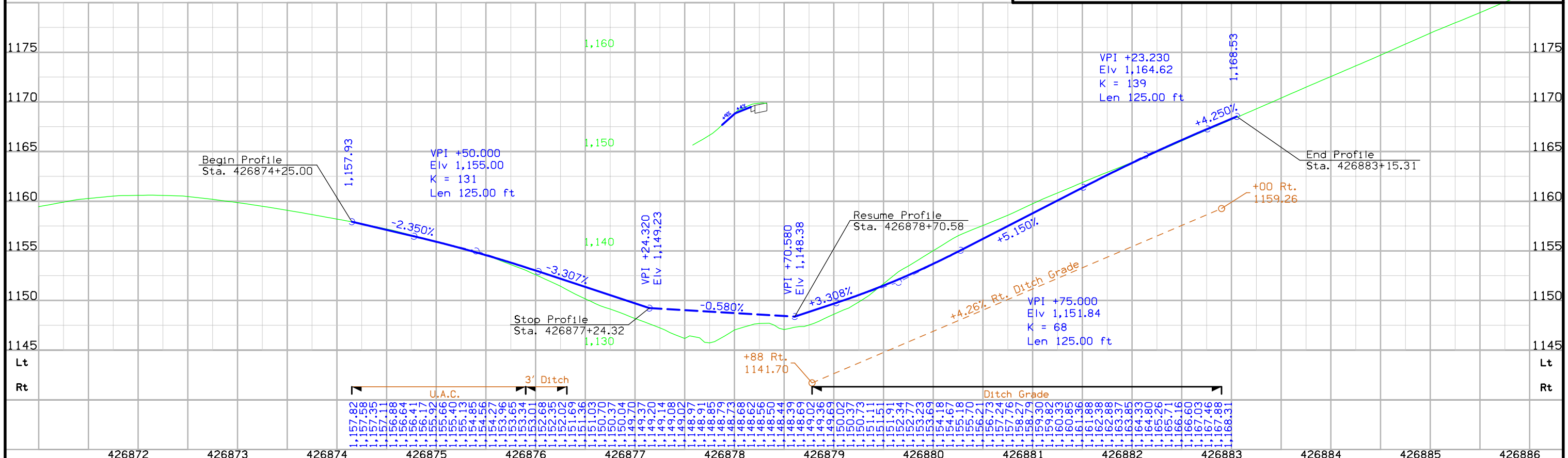


WB US 52 & Roundabout

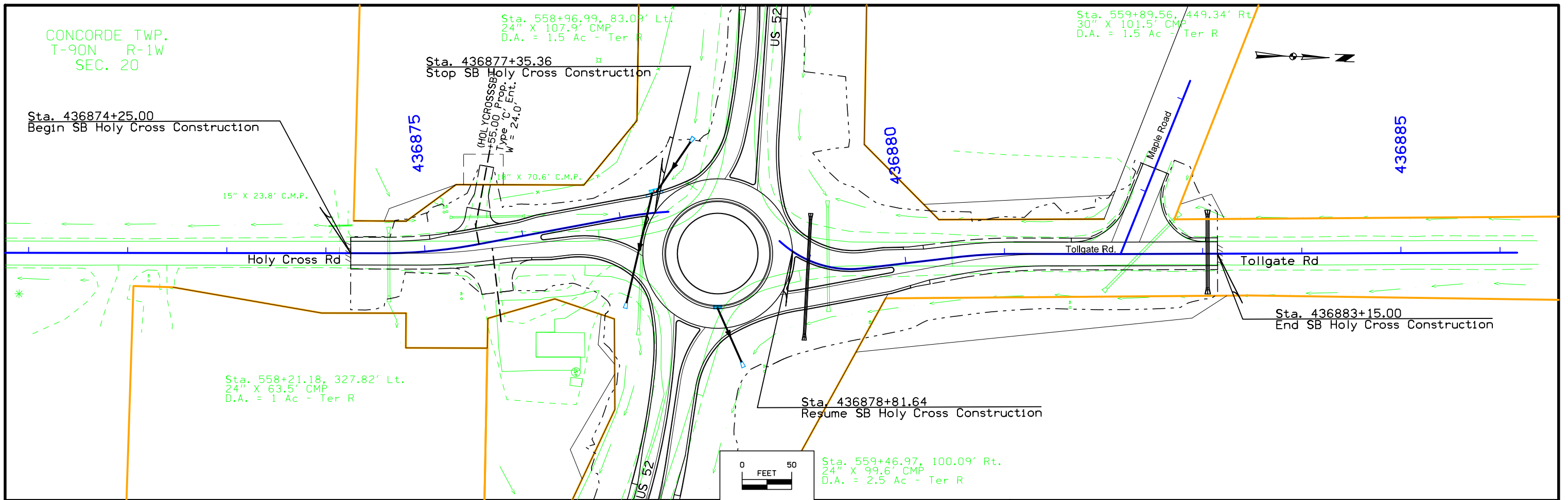




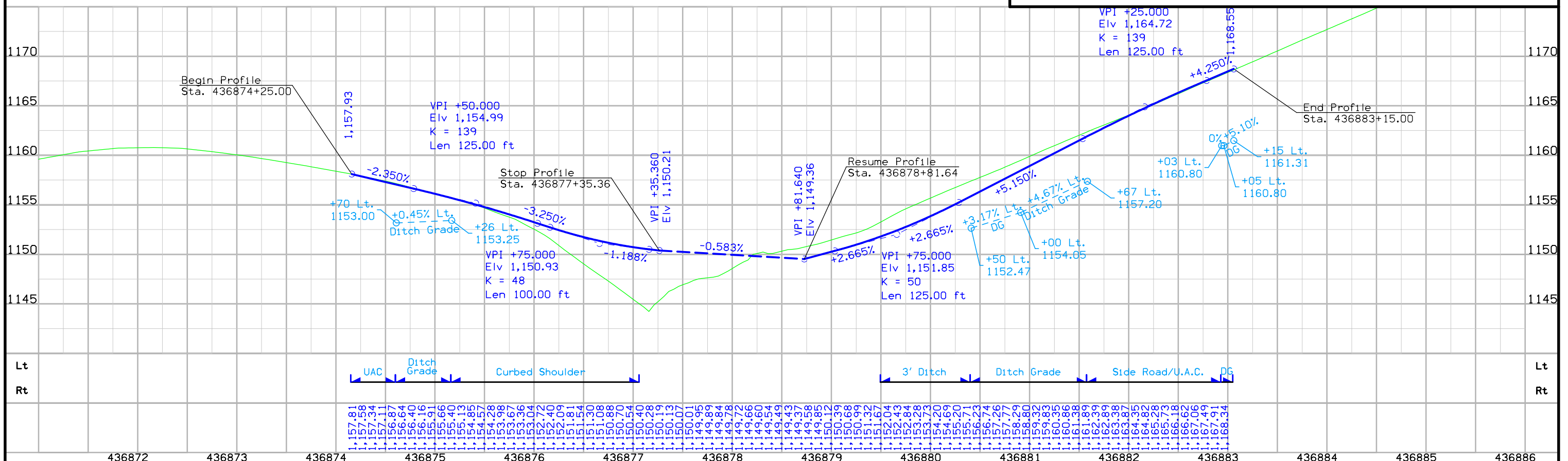
NB Holy Cross Rd & Roundabout



FILE NO.	ENGLISH	DESIGN TEAM	J1a \ Skogerboe	DUBUQUE COUNTY	PROJECT NUMBER	STP-052-2(120)--2C-31	SHEET NUMBER	E.11
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SB Holy Cross Rd & Roundabout



Survey Information

General Information

Measurement units for this survey are US survey feet. This survey is for proposed HMA resurfacing and widening. Project datum and control information is provided by Design Survey Office. This project is a full DTM survey. This survey is for segment 3 of 4 total segments in Project Scheduling as of April 11, 2013.

Geoid 12A was used for GNSS observations on this project.

Vertical Control

Vertical datum for this survey is NAVD 88 relative to National Geodetic Survey marks located throughout the project.

NGS 1st. Order Class I mark designated A178 has a published Elev. Of 1121.97
Survey Elev. = 1121.97

NGS 1st. Order Class I mark designated F178 has a published Elev. Of 1101.50
Survey Elev. = 1101.50

NGS 1st. Order Class I mark designated H178 has a published Elev. Of 1133.84
Survey Elev. = 1133.84

Horizontal Control

A National Geodetic Survey marker was used to transfer NAD 83 (2011) Iowa State Plane North Zone (US Survey Feet.) coordinates to Project Control. Redundant RTK observations were used to verify the published values. The project coordinates are scaled around NGS Pt. A178 at 3687343.14 N, 5619919.96 E, 1121.97 EL. Additional control points were placed throughout the project using a GNSS Base-Rover setup relative to Pt. A178. A minimum of three observations with appropriate time spans between were averaged. The horizontal standard deviation of these observations was less than 0.03 ft. at 95% confidence level (2 sigma).

1/Combined Scale Factor of project=
1.000102260823

Alignment Information

The horizontal alignment for this survey is a retrace of As-built Plans Fed. Aid Project No. 148 (1926 Paving). Survey stationing was equated to the plan PI at STA 549+43.4 and run back and ahead without station equation throughout the survey.

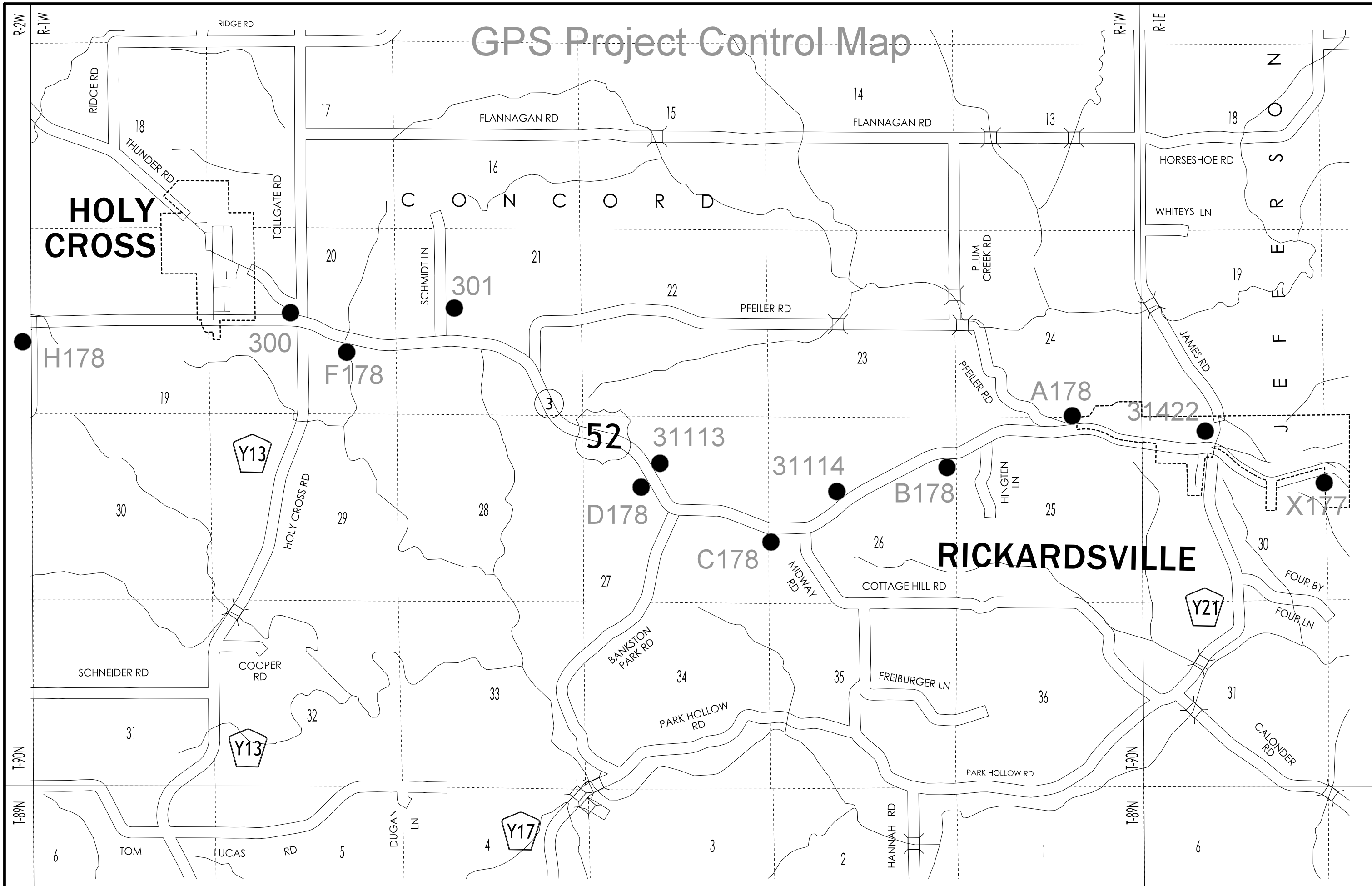
A 1964 Pavement widening plan FN-3-9(2)21-31 was also referenced to develop alignment. The widening plan added at least one curve and apparently modified curve data on some curves. Survey alignment is intended to best fit the existing centerline while keeping survey curve data as close to plan curve data as reasonable. The alignment contains 25 curves and 2 additional PI's. Survey located numerous reference monuments from the 1926 Paving project adjacent to PCs and PTs and used the record offset to centerline wherever possible. Survey also made an effort to use the record tangent length and/or record degree of curve wherever possible.

Survey stationing varies from plan stationing between 0 and four feet between the beginning of the alignment at PC Sta. 255+58.13 and PI Sta.549+43.40. West and ahead of PI Sta.549+43.4 a 1994 Grade & PCC Pave Plan at the intersection of US 52 with County Trunk Y-13 Just East of Holy Cross reconstructed and shortened the 1926 Paving alignment by several feet. Due to the fact Survey stationing is continuous and follows the 1994 reconstruction the stationing at the west end of the alignment is about 10 ft. less than the 1926 Paving plan.

GPS PROJECT CONTROL

Point	North	East	Elevation	Station	Offset	Feature	Description
X177	3686325.817	5627261.395	905.860	Off Chain	Off Chain	CP	FD COAST GEODETIC SURVEY BENCH MARK
31422	3686941.205	5624047.811	1109.387	265+97.31	84.079	CP	FD COAST GEODETIC SURVEY - STATE SURVEY STATION 31 NO. 422 - 6IN X 6IN CONC BASE
A178	3687343.140	5619919.960	1121.970	307+75.26	44.167	CP	FD COAST GEODETIC SURVEY BENCH MARK
B178	3686559.650	5616418.446	1137.980	344+55.07	-27.152	CP	FD US COAST GEODETIC SURVEY BENCH MARK
31114	3685141.318	5613517.042	1150.290	377+13.36	35.348	CP	FD COAST GEODETIC SURVEY - STATE SURVEY STATION 31 NO. 114 - 6IN X 6IN CONC BASE
C178	3684207.773	5611414.565	1177.670	400+74.85	-123.347	CP	FD COAST GEODETIC SURVEY BENCH MARK
D178	3685635.834	5608032.585	1190.940	439+43.61	-31.321	CP	FD COAST GEODETIC SURVEY BENCH MARK
31113	3685887.472	5607954.560	1188.605	441+99.59	30.996	CP	FD COAST GEODETIC SURVEY - STATE SURVEY STATION 31 NO.118 - 6IN X 6IN CONC BASE
301	3689803.299	5601916.345	1202.160	517+67.09	306.336	CP	SET 5/8" REBAR
F178	3689504.974	5599259.196	1101.50	544+70.19	-32.436	CP	FOUND NGS MONUMENT DESIGNATION F178 - PID NJ0373
300	3690124.502	5597819.862	1160.675	560+11.50	126.350	CP	FD ALUMINUM DISK
H178	3689643.411	5590167.017	1133.840	Off Chain	Off Chain	CP	FOUND NGS MONUMENT DESIGNATION H178 - PID NJ0422

GPS Project Control Map

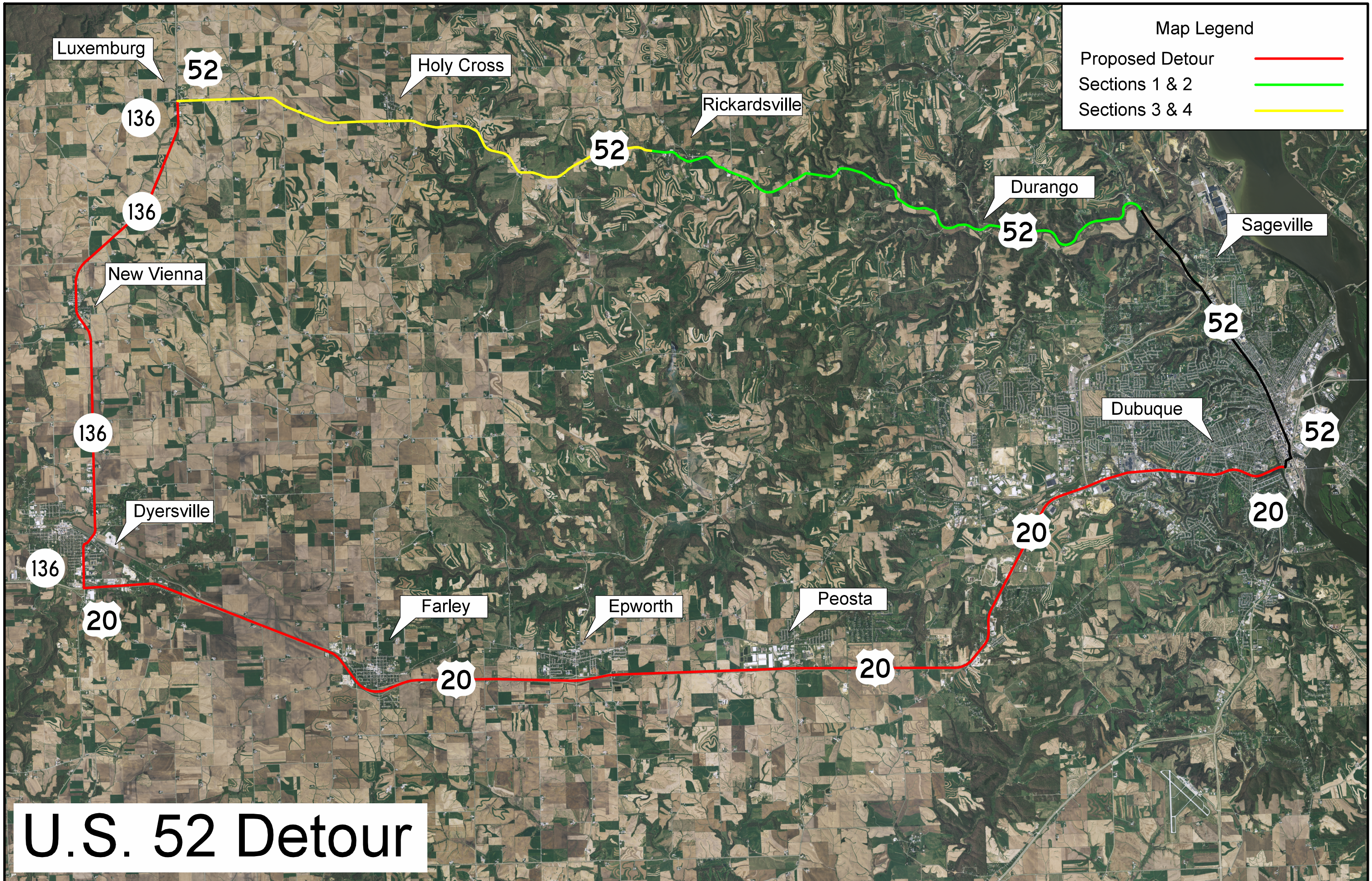


108-23A
08-01-08

TRAFFIC CONTROL PLAN

During construction, U.S. 52 will be closed and traffic will be routed to an off-site detour.

The Contractor will maintain local access to residents.



Map Legend

- Proposed Detour —
- Sections 1 & 2 —
- Sections 3 & 4 —

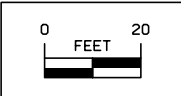
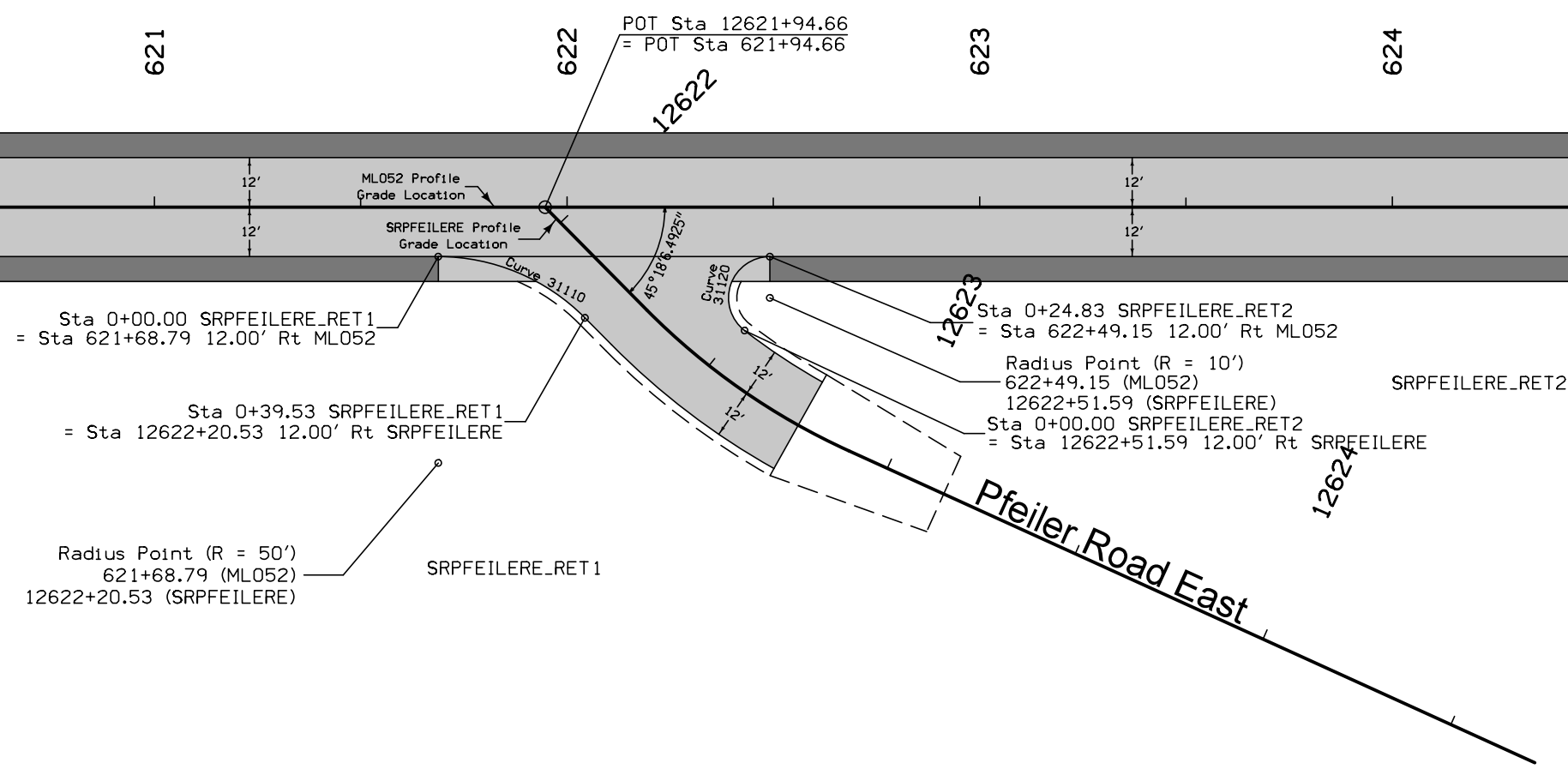
U.S. 52 Detour



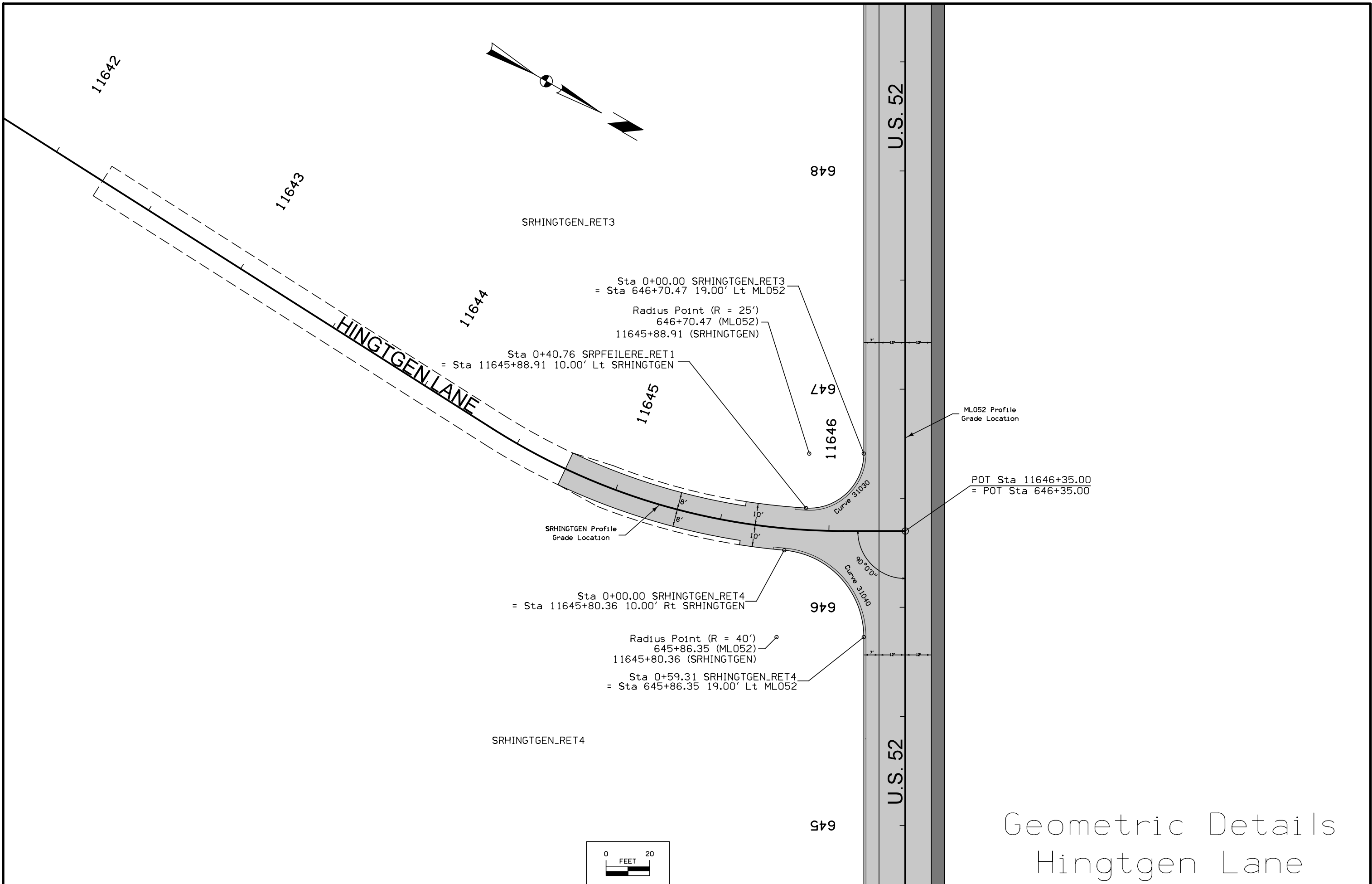
620 621 622 623 624 625

U.S. 52

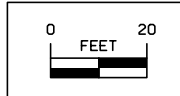
U.S. 52

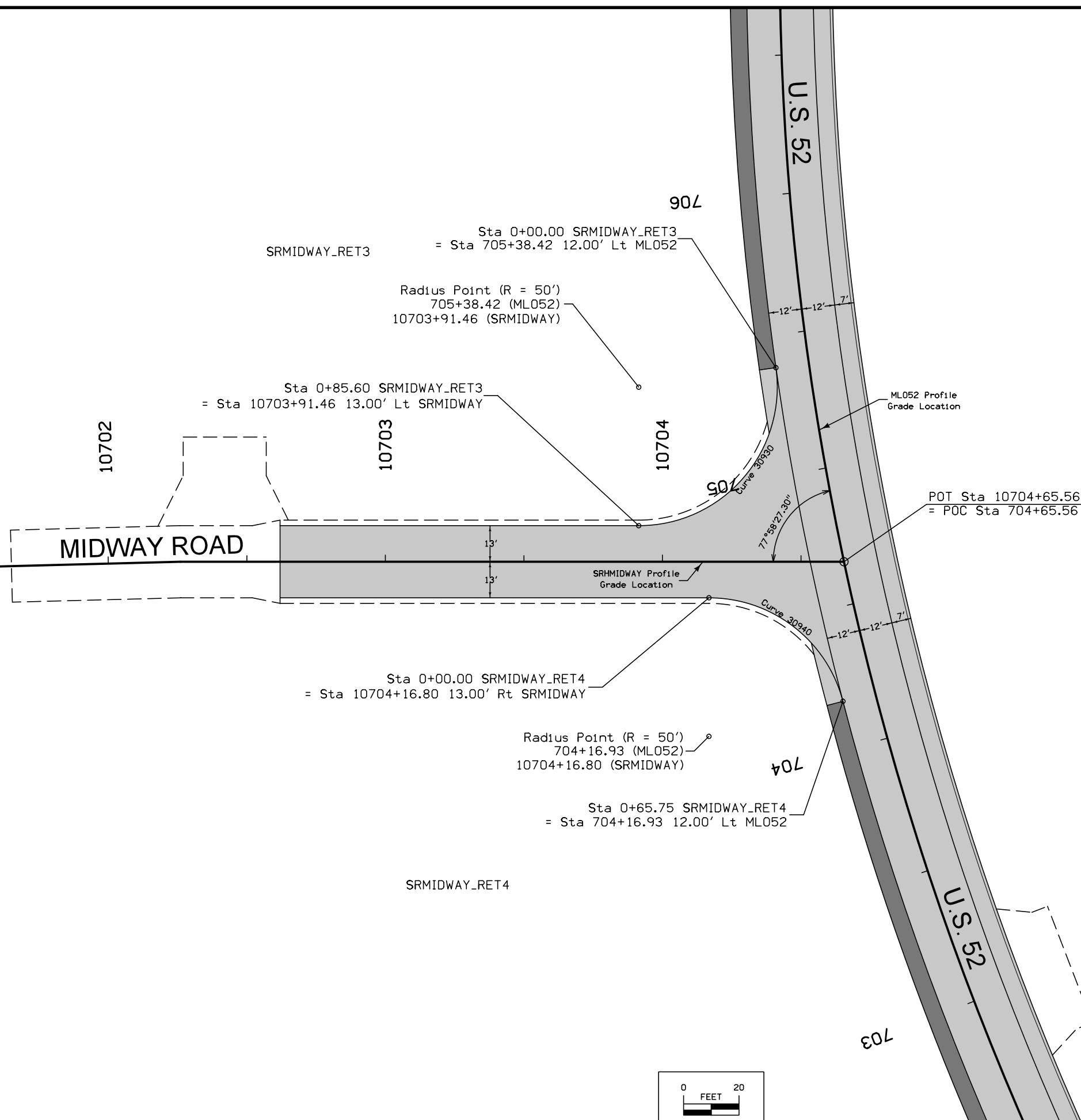
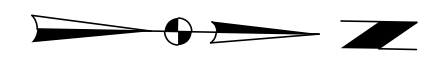


Geometric Details Pfeiler Road East

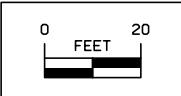


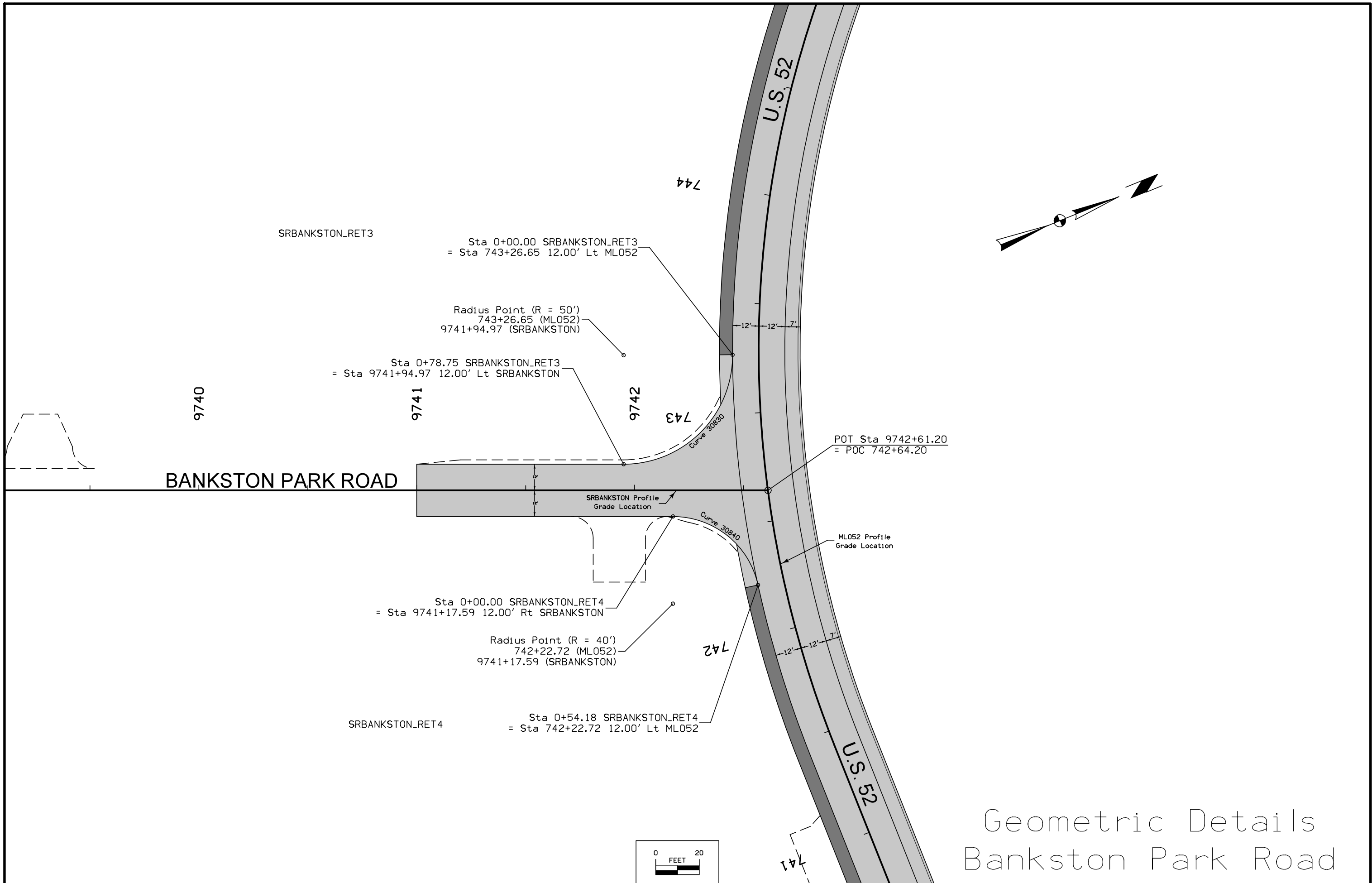
Geometric Details
Hingtgen Lane



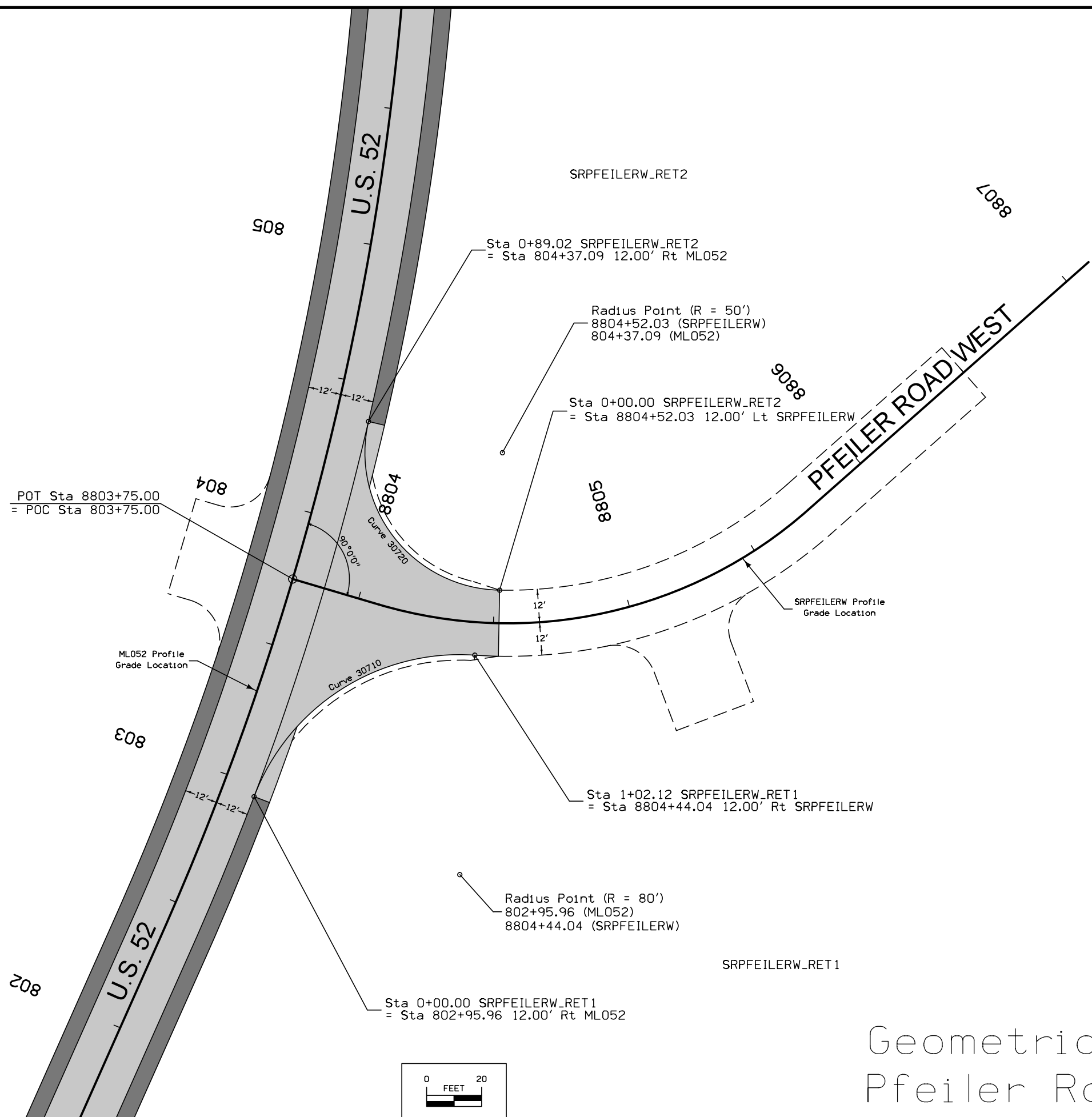
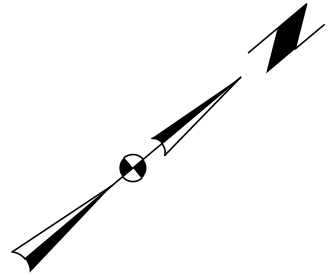


Geometric Details
Midway Road

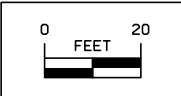


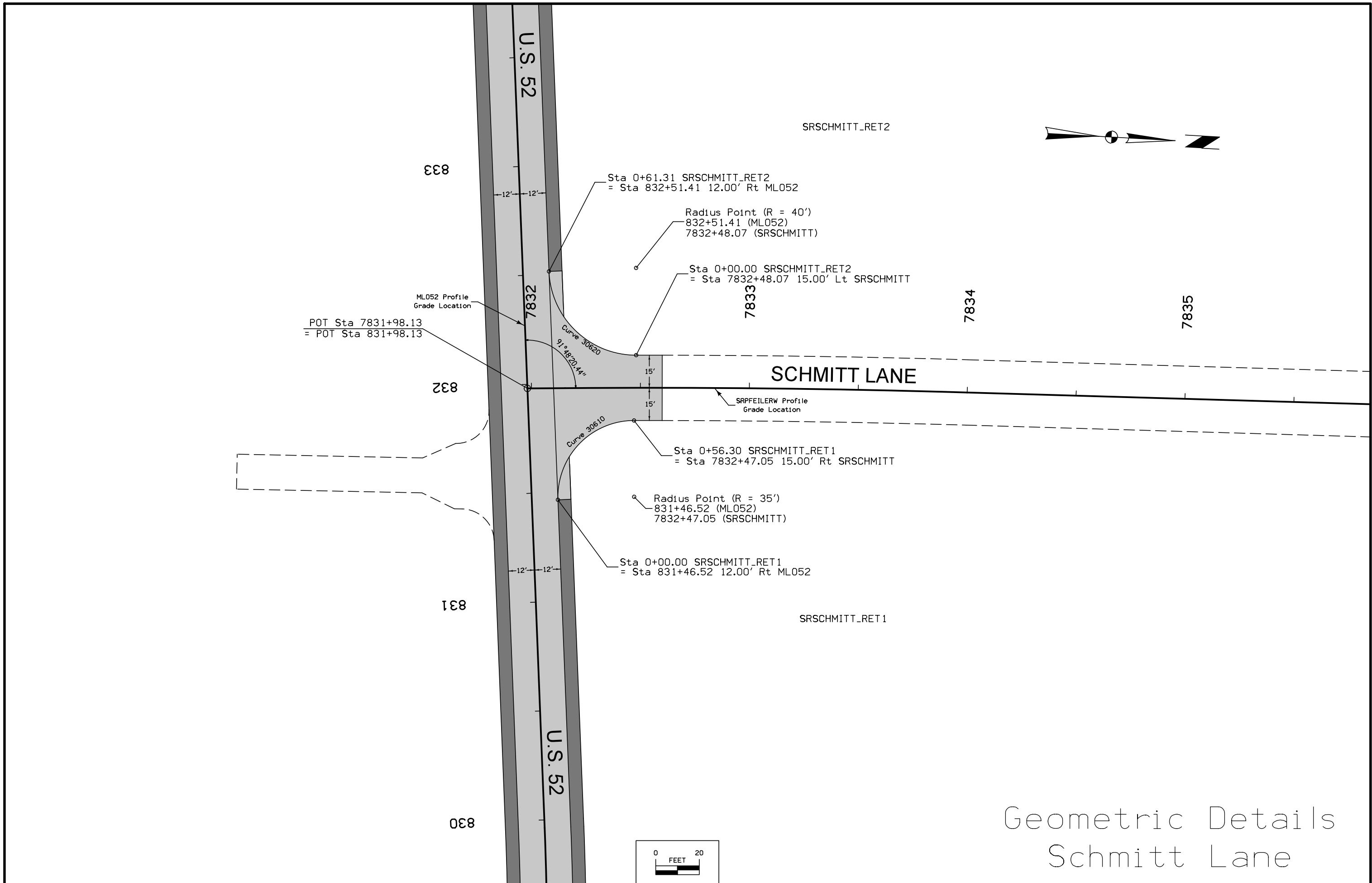


Geometric Details
Bankston Park Road

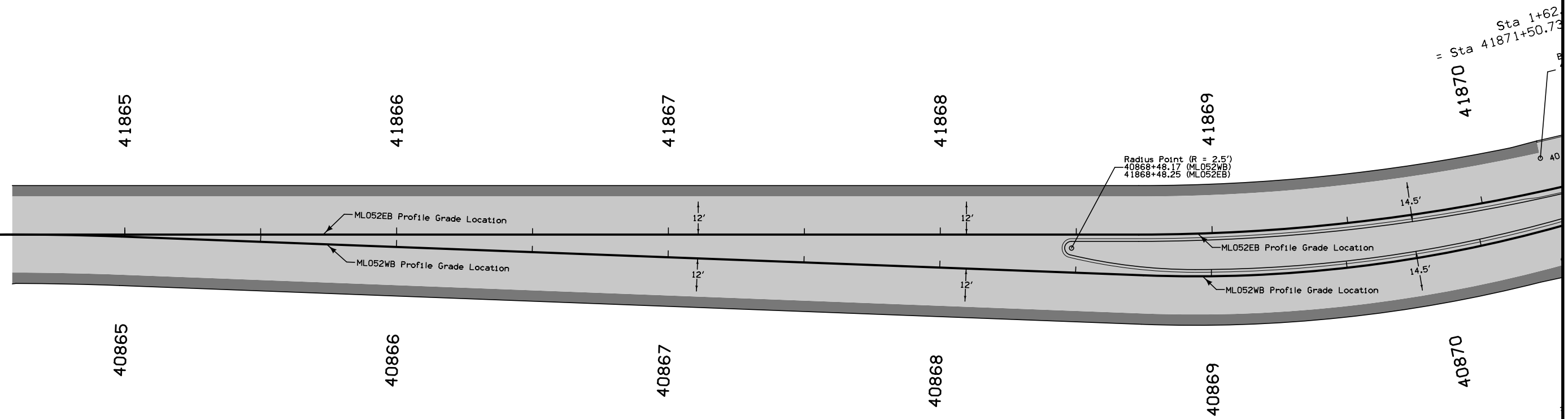
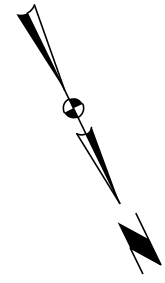


Geometric Details Pfeiler Road West

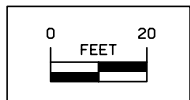


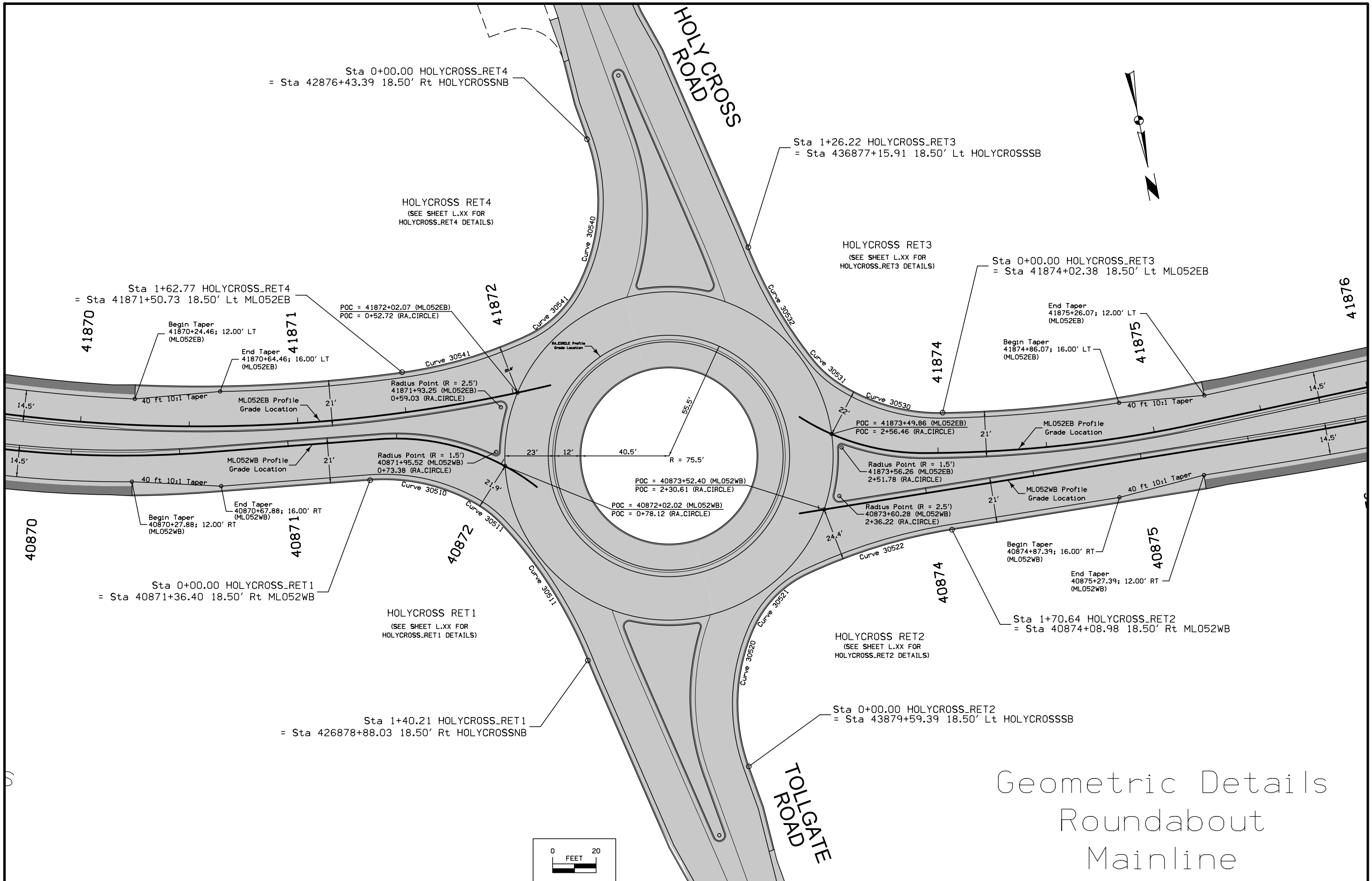


Geometric Details
Schmitt Lane



Geometric Details Roundabout Mainline





Geometric Details Roundabout Mainline



41876

41877

41878

41879

41880

41881

40876

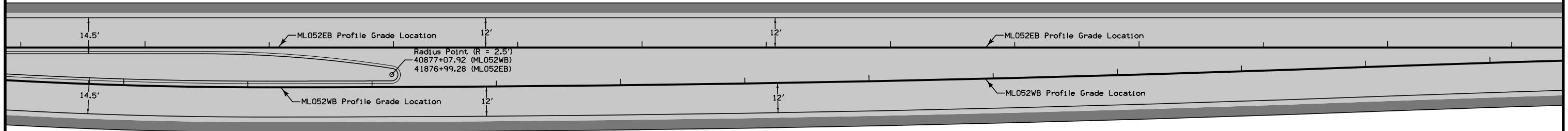
40877

40878

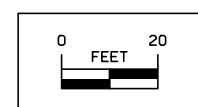
40879

40880

40881



Geometric Details
 Roundabout
 Mainline



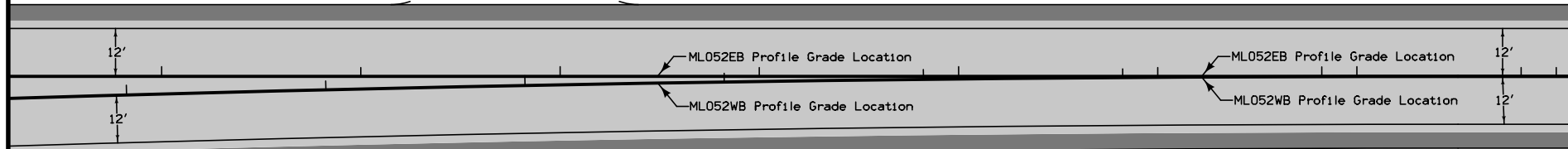


41882

41883

41884

41885

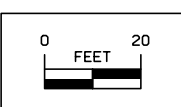


40882

40883

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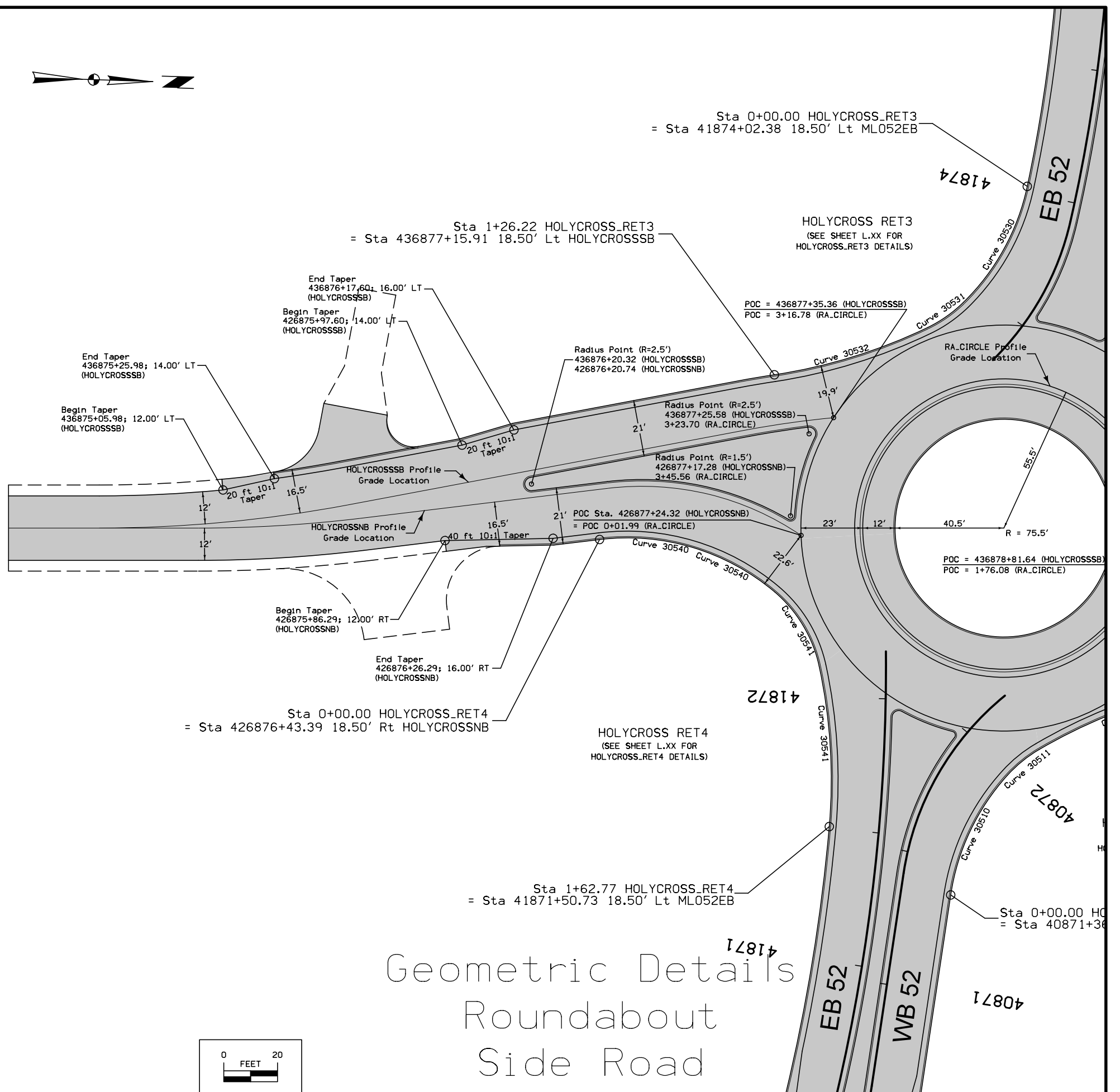
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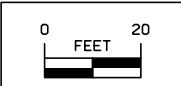
Geometric Details Roundabout Mainline

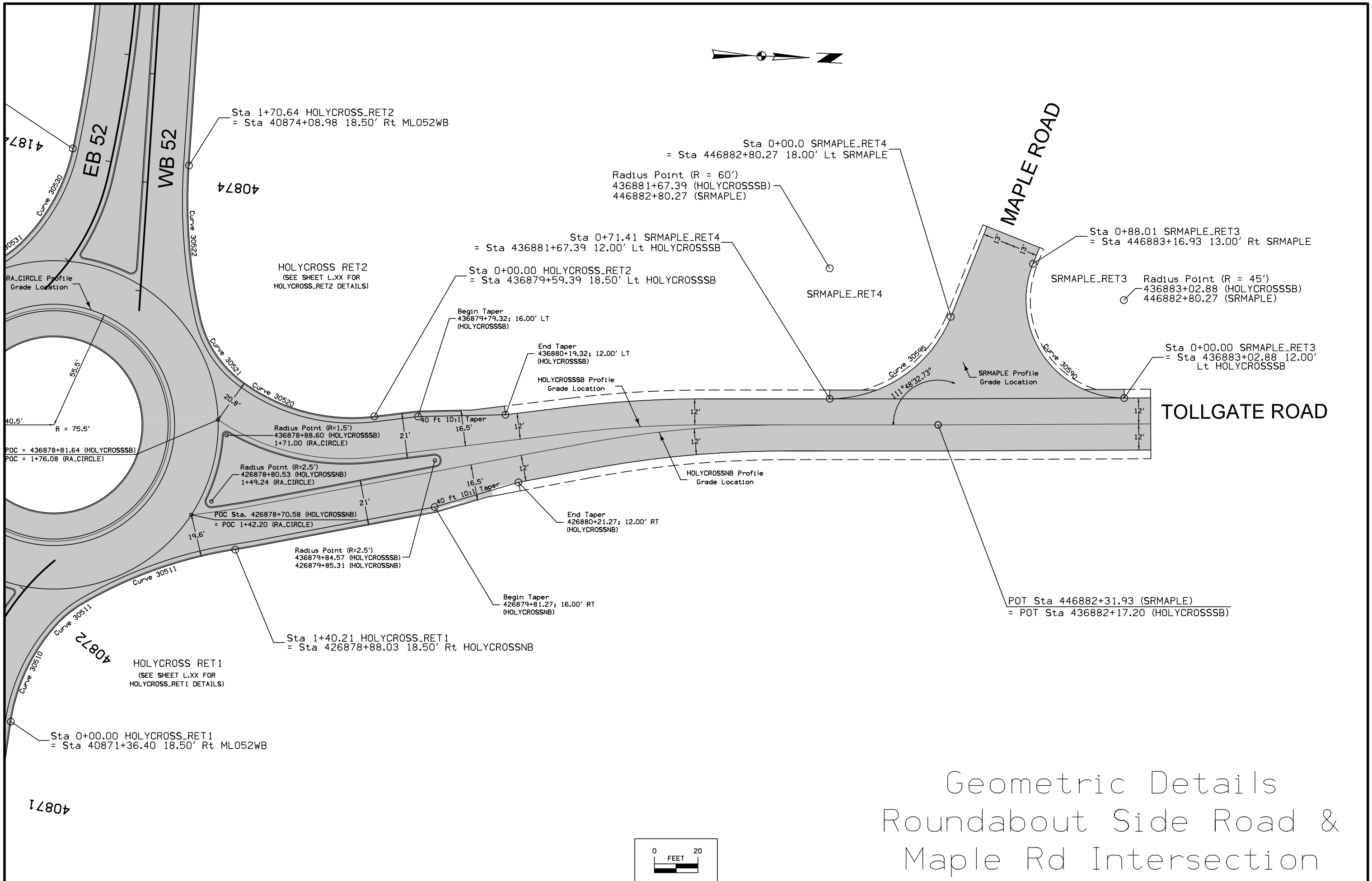


HOLY CROSS ROAD

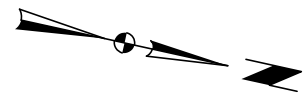


Geometric Details
Roundabout
Side Road





Geometric Details Roundabout Side Road & Maple Rd Intersection



HOLY CROSS ROAD

EB 52
WB 52

40875

40874

426874

426875

426876

426877

426879

426880

= Sta 41874+02.38 18.50' Lt ML052EB
Sta 0+00.00 HOLYCROSS_RET3

Sta 0+50.00 HOLYCROSS_RET3
= Sta 2+71.40 29.77' Rt RA_CIRCLE

Radius Point (R = 85')
Curve 30530
= Sta 41874+02.38 103.50' Lt ML052EB

Curve 30531
Radius Point (R = 50')
= Sta 41873+56.37 72.16' Lt ML052EB

Sta 0+66.22 HOLYCROSS_RET3
= Sta 2+81.64 24.33' Rt RA_CIRCLE

Radius Point (R = 200')
Curve 30532
= Sta 41875+32.58 155.14' Lt ML052EB
(Point Not Located on Sheet)

Sta 1+26.22 HOLYCROSS_RET3
= Sta 436877+15.91 18.50' Lt HOLYCROSS_SB

Sta 1+70.64 HOLYCROSS_RET3
= Sta 40874+08.98 18.50'

Sta 1+00.64 HOLYCROSS_RET3
= Sta 42+09.69'

Radius Point (R = 200')
Curve 30522
= Sta 40873+53.7'

Radius Point (R = 200')
Curve 30521
= Sta 40873+53.7'

Sta 0+65.00 HOLYCROSS_RET3
= Sta 1+87.24 32.97' Rt RA_CIRCLE

Sta 0+00.00 HOLYCROSS_RET4
= Sta 426876+43.39 18.50' Rt HOLYCROSS_NB

Sta 0+70.00 HOLYCROSS_RET4
= Sta 0+15.10 32.99' Rt RA_CIRCLE

Radius Point (R = 200')
Curve 30542
= Sta 41871+50.73 218.50' Lt ML052EB

Radius Point (R = 50')
Curve 30541
= Sta 41872+00.31 73.63' Lt ML052EB

Radius Point (R = 85')
Curve 30540
= Sta 41871+68.96 95.20' Lt ML052EB

Sta 1+02.77 HOLYCROSS_RET4
= Sta 0+35.65 30.29' Rt RA_CIRCLE

Sta 1+62.77 HOLYCROSS_RET4
= Sta 41871+50.73 18.50' Lt ML052EB

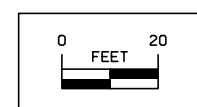
Radius Point (R = 200')
Curve 30512
= Sta 40870+44.76 168.89' Rt ML052WB
(Point Not Located on Sheet)

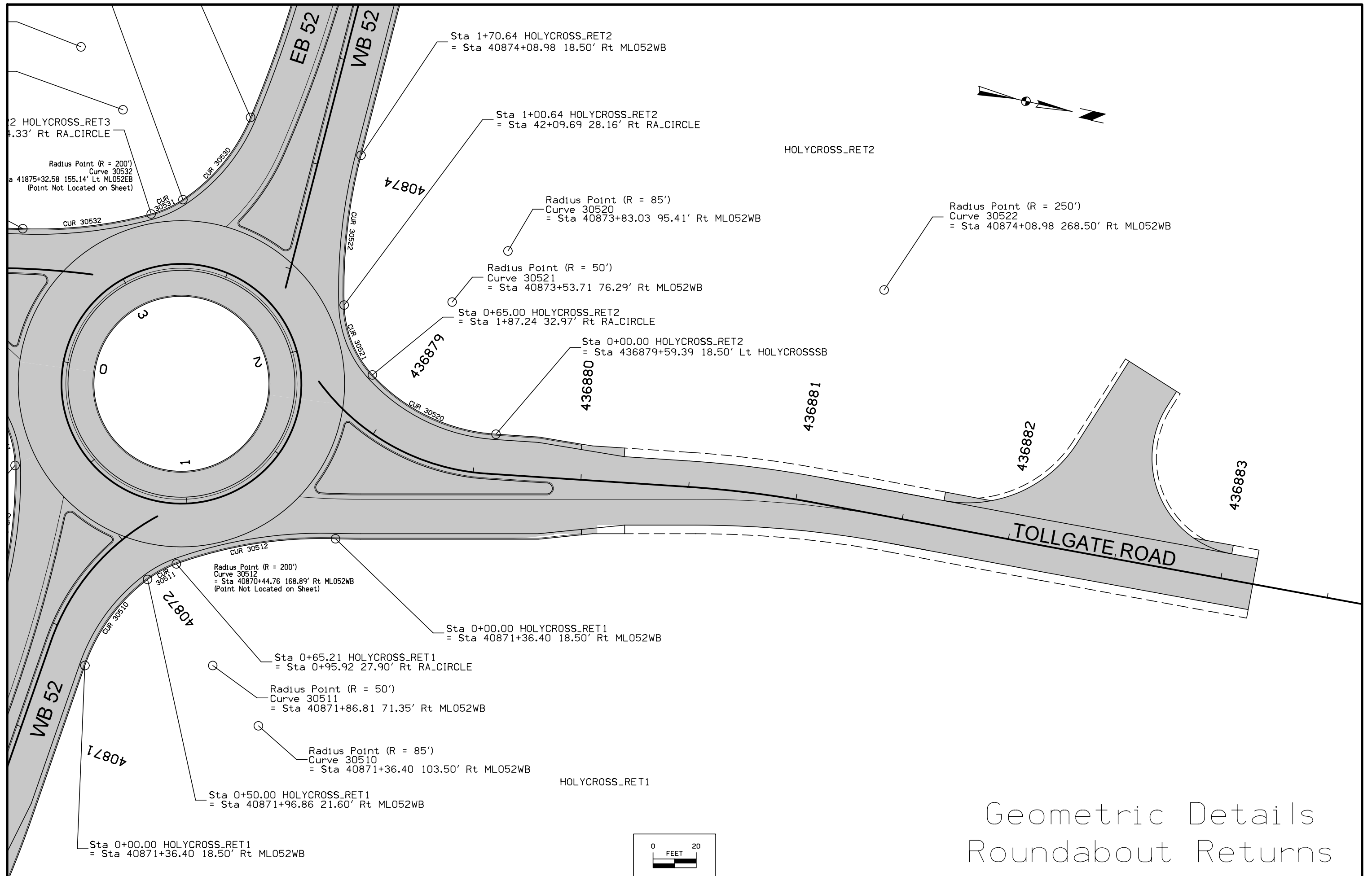
Sta 0+65.21 HOLYCROSS_RET1
= Sta 0+95.92 27.90' Rt RA_CIRCLE

Radius Point (R = 50')
Curve 30511
= Sta 40871+86.81 71.35' Rt ML052WB

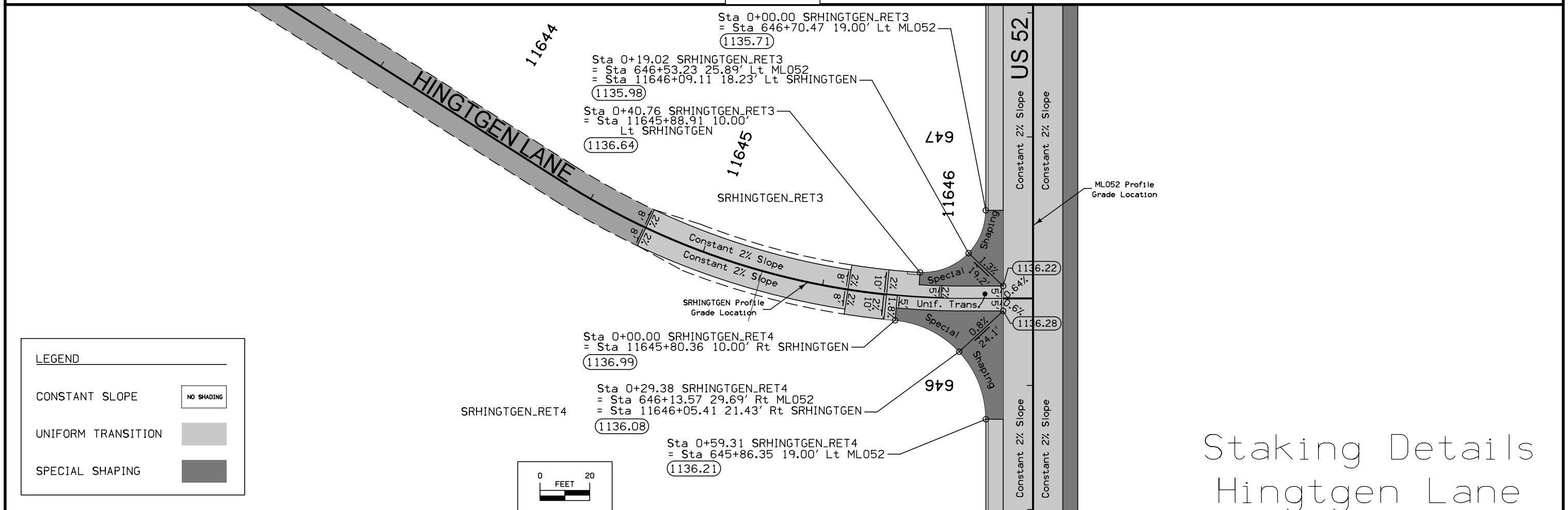
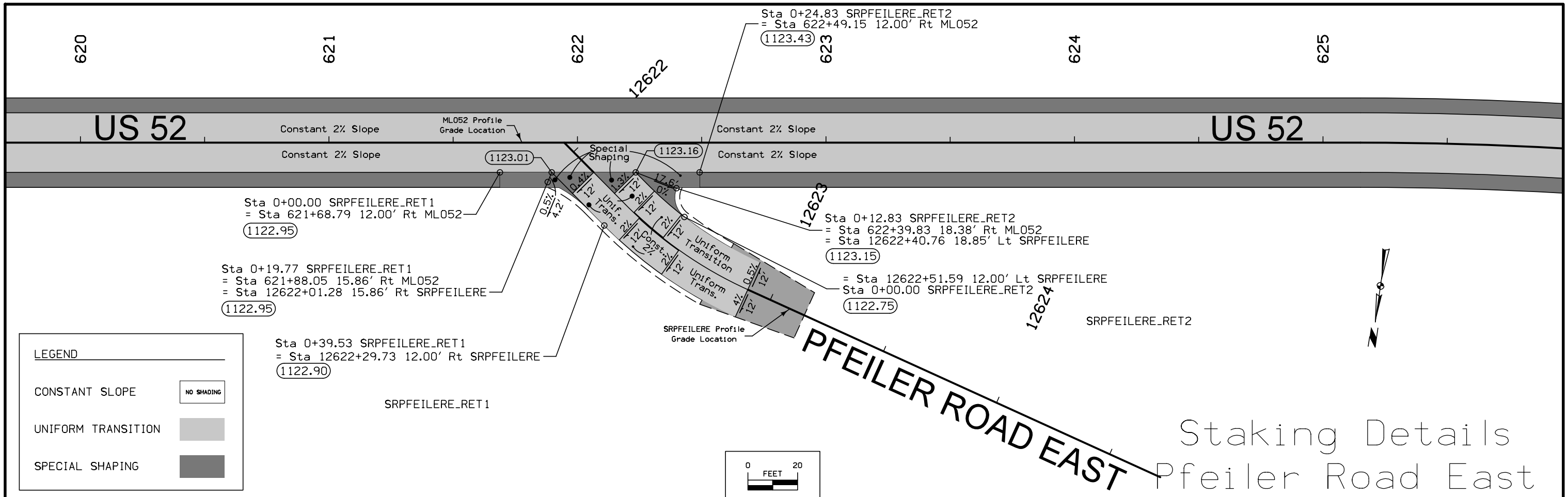
Sta 0+00.00 HOLYCROSS_RET1
= Sta 40871+36.40 18.50'

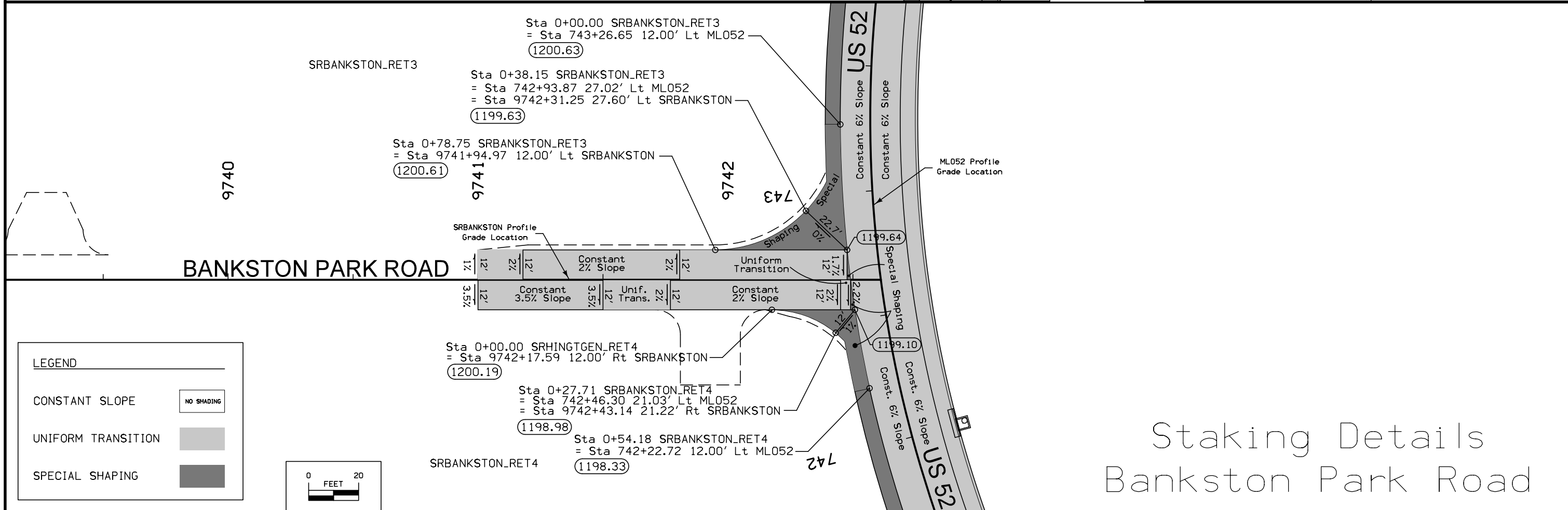
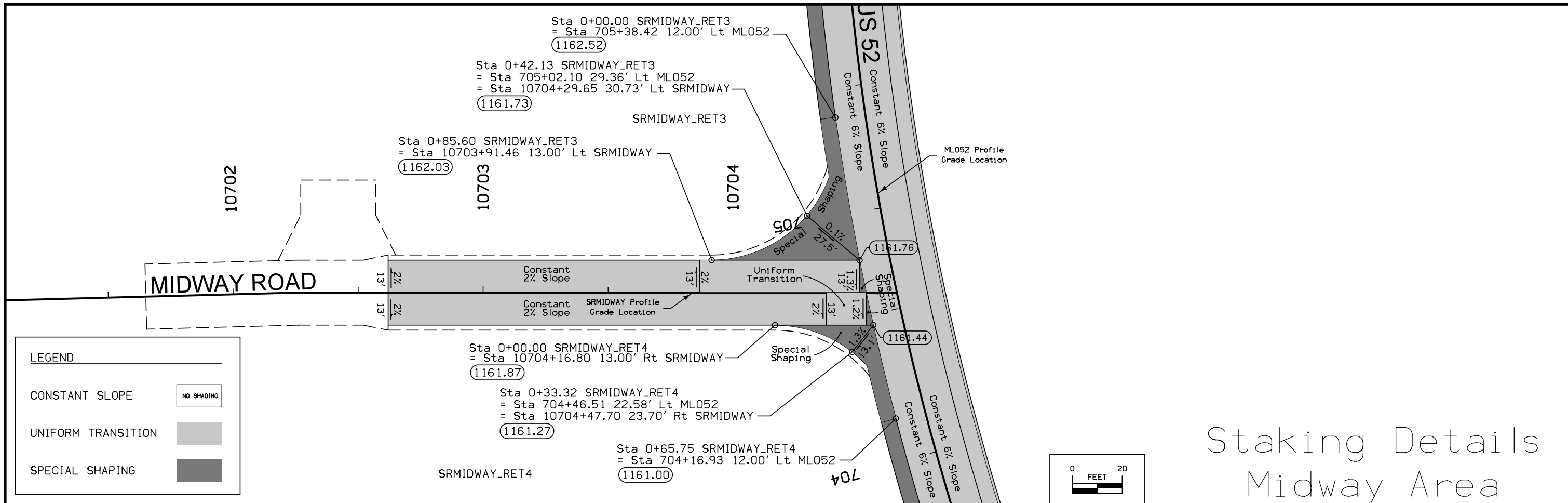
Geometric Details Roundabout Returns

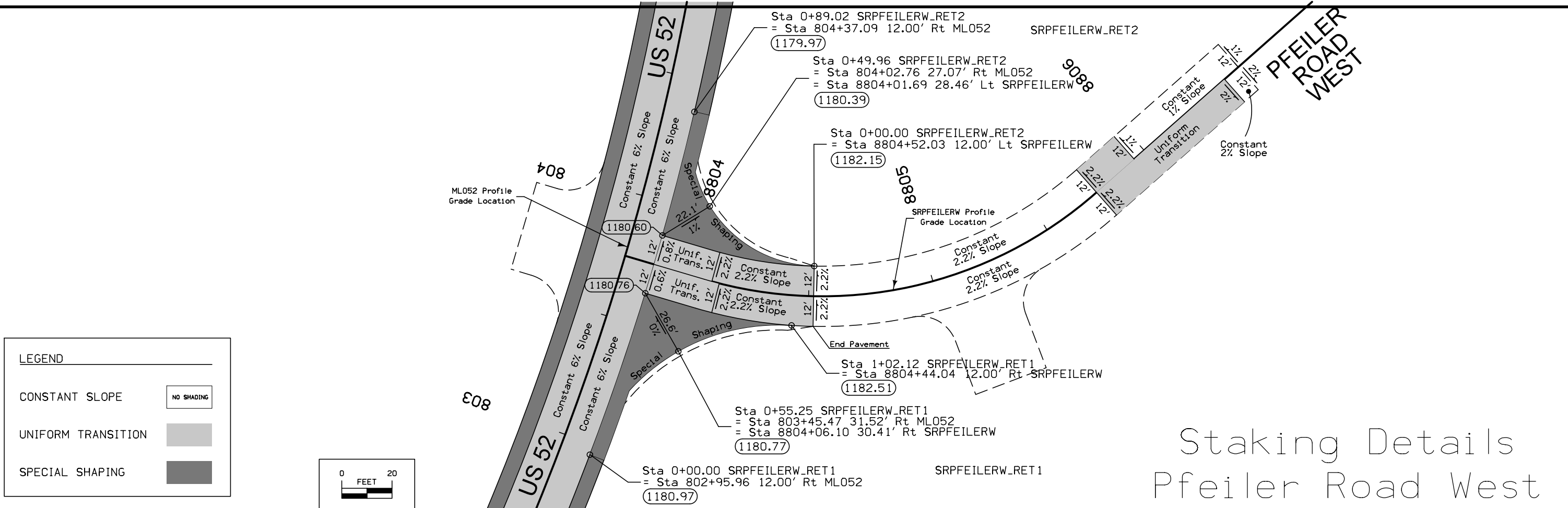




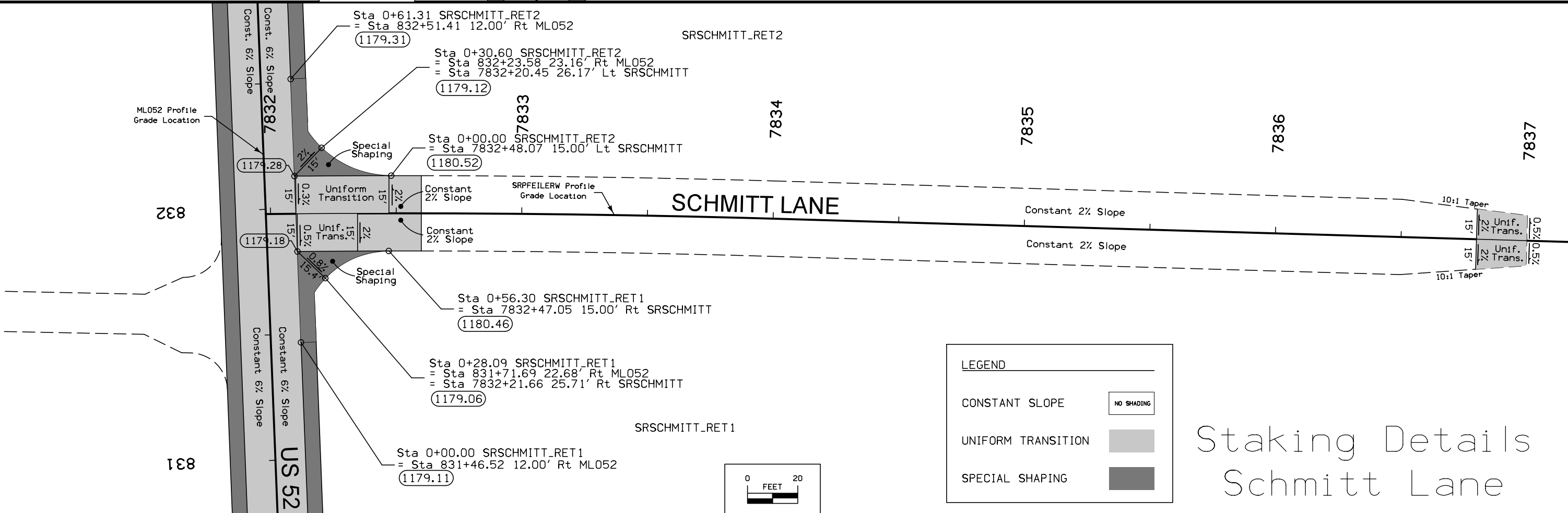
Geometric Details Roundabout Returns



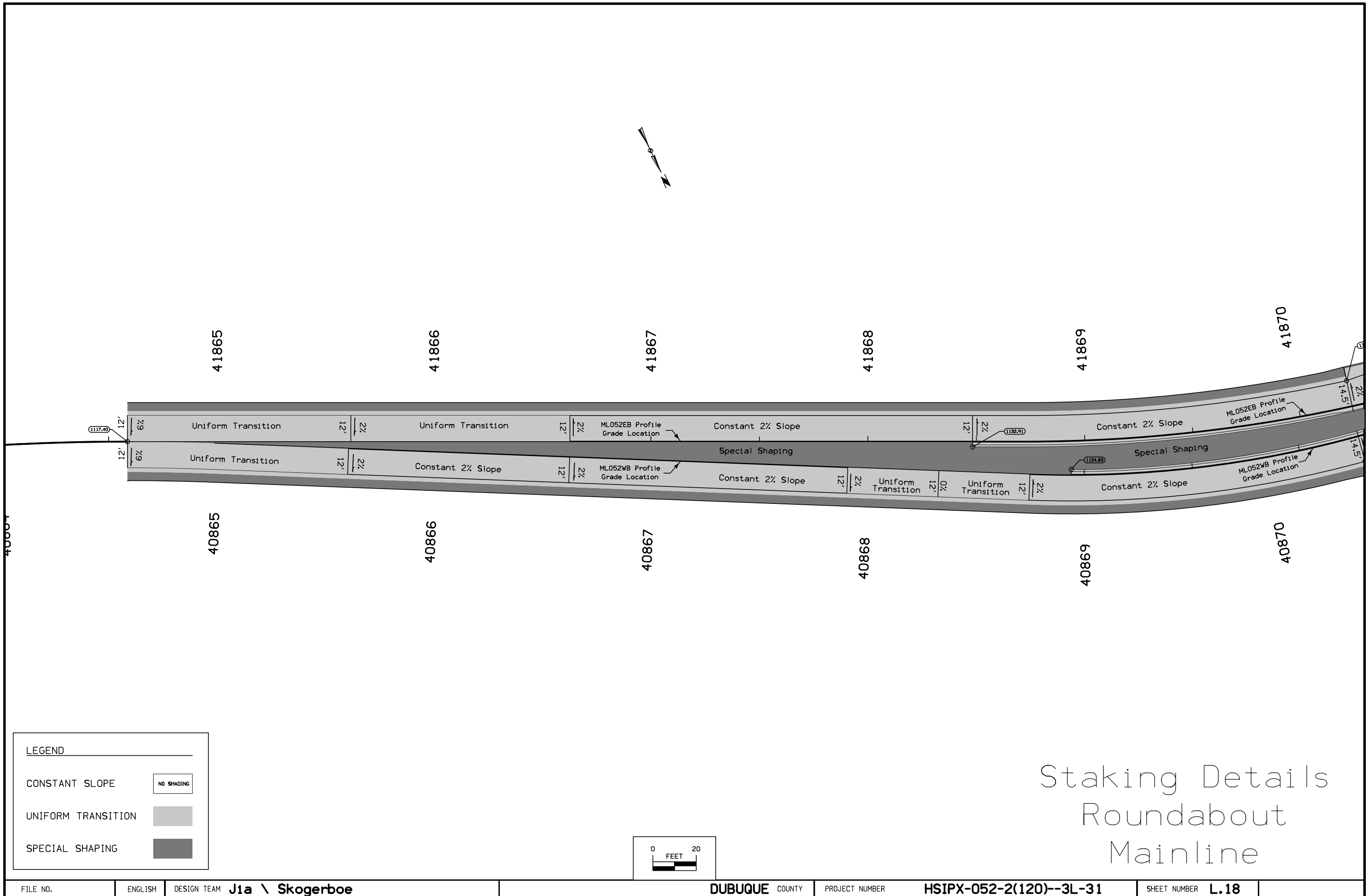




Staking Details
Pfeiler Road West

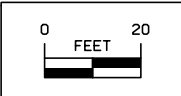


Staking Details
Schmitt Lane

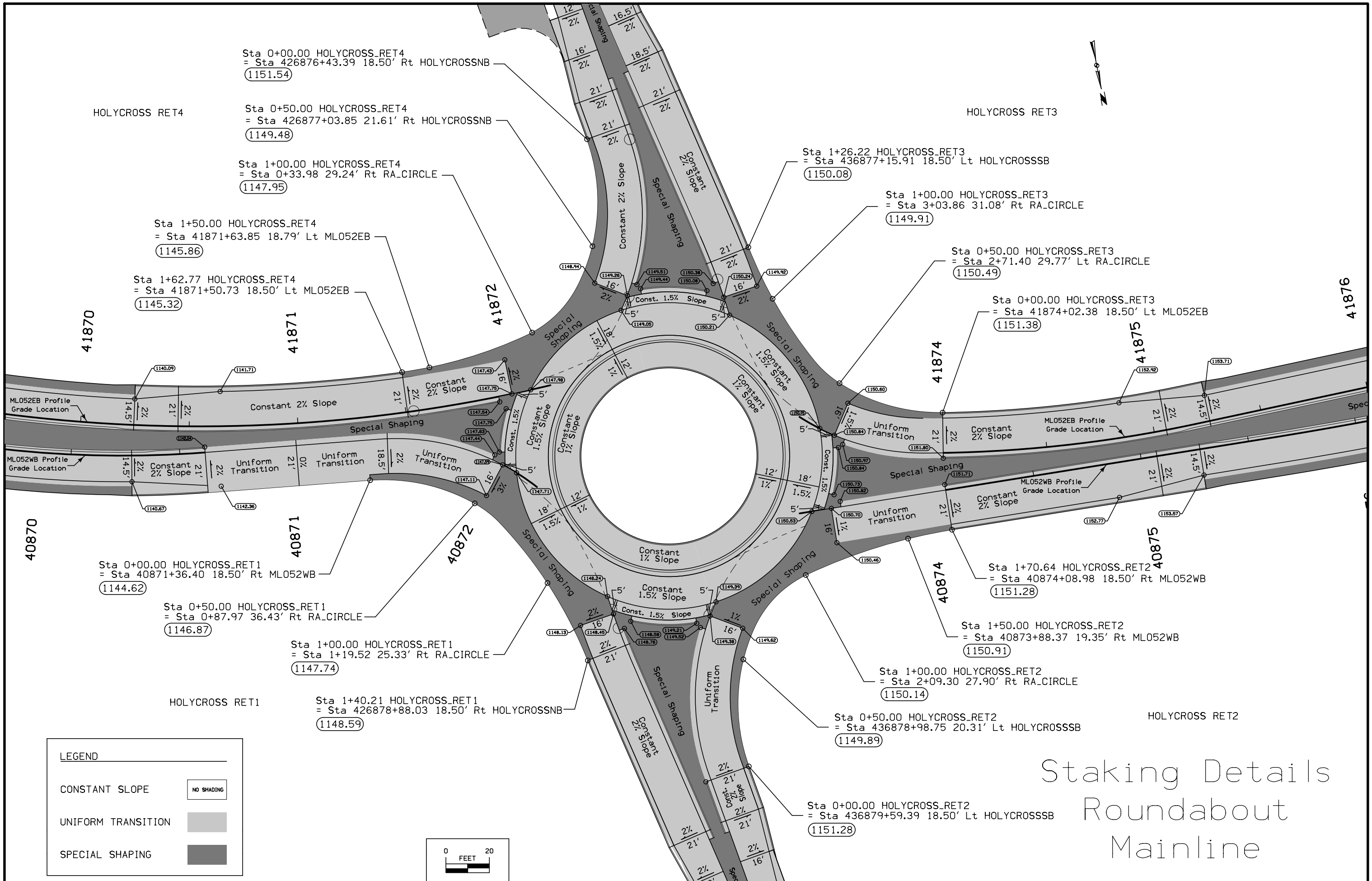


LEGEND

CONSTANT SLOPE	NO SHADING
UNIFORM TRANSITION	[Light Gray Box]
SPECIAL SHAPING	[Dark Gray Box]

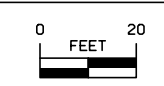


Staking Details
Roundabout
Mainline



Staking Details Roundabout Mainline

LEGEND	
CONSTANT SLOPE	NO SHADING
UNIFORM TRANSITION	[Light Gray Box]
SPECIAL SHAPING	[Dark Gray Box]



41876

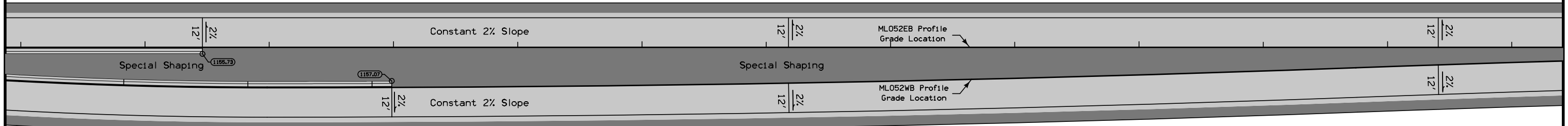
41877

41878

41879

41880

41881



40876

40877

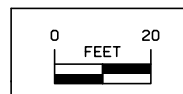
40878

40879

40880

40881

LEGEND	
CONSTANT SLOPE	NO SHADING
UNIFORM TRANSITION	[Light Gray Box]
SPECIAL SHAPING	[Dark Gray Box]



Staking Details Roundabout Mainline

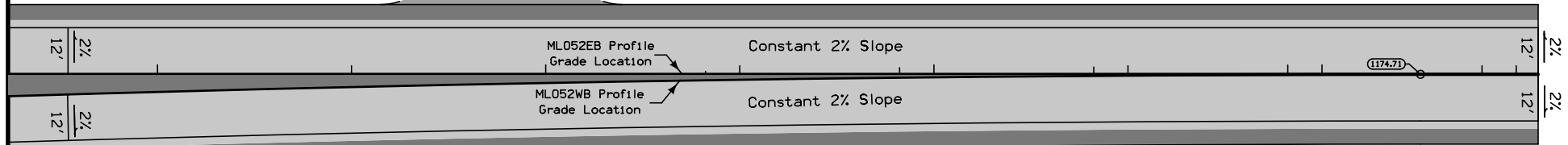


41882

41883

41884

41885



40882

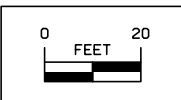
40883

40884

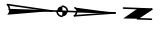
40885

LEGEND

- CONSTANT SLOPE NO SHADING
- UNIFORM TRANSITION
- SPECIAL SHAPING





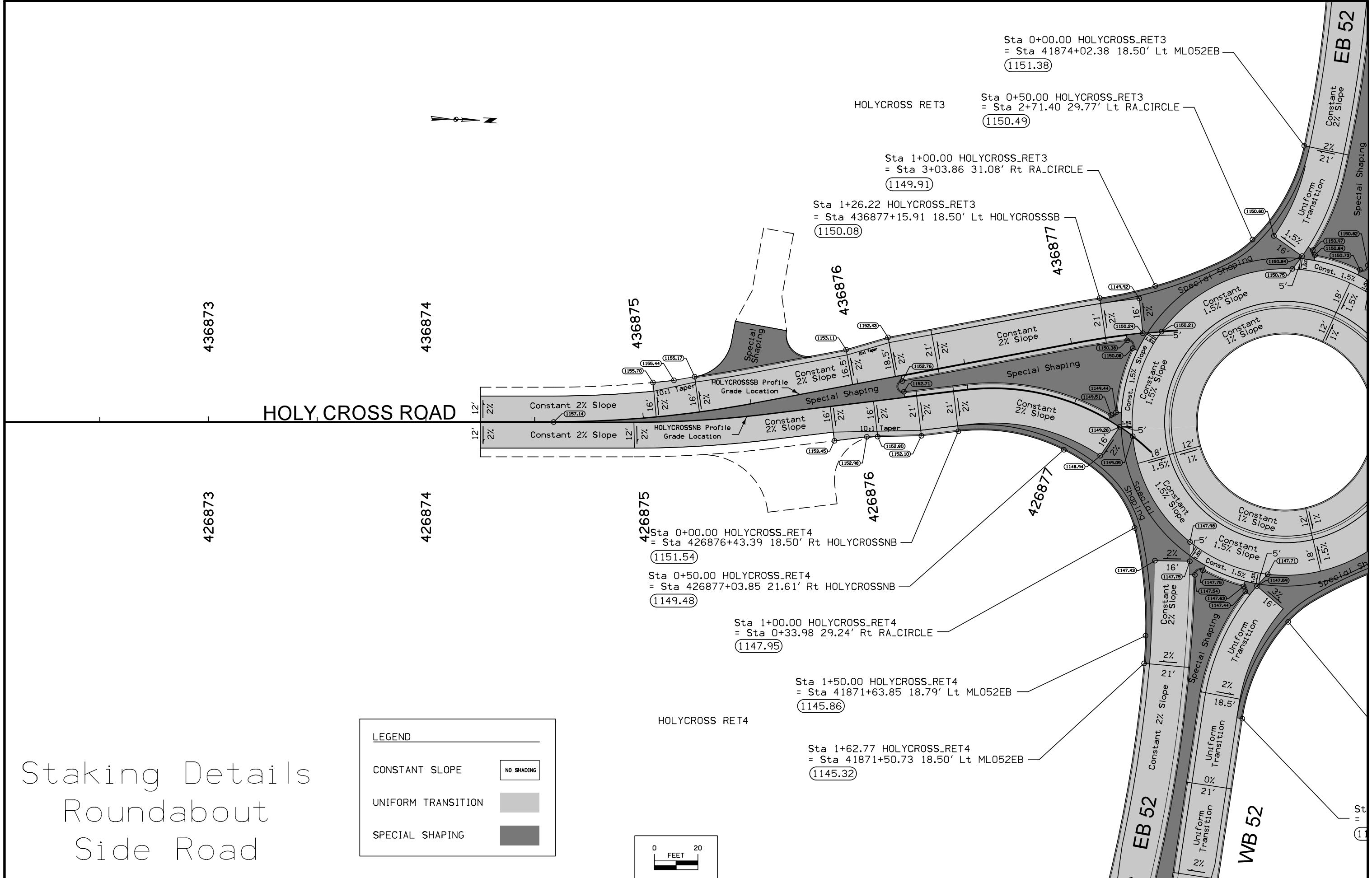
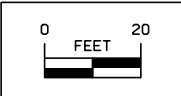
Staking Details
Roundabout
Mainline

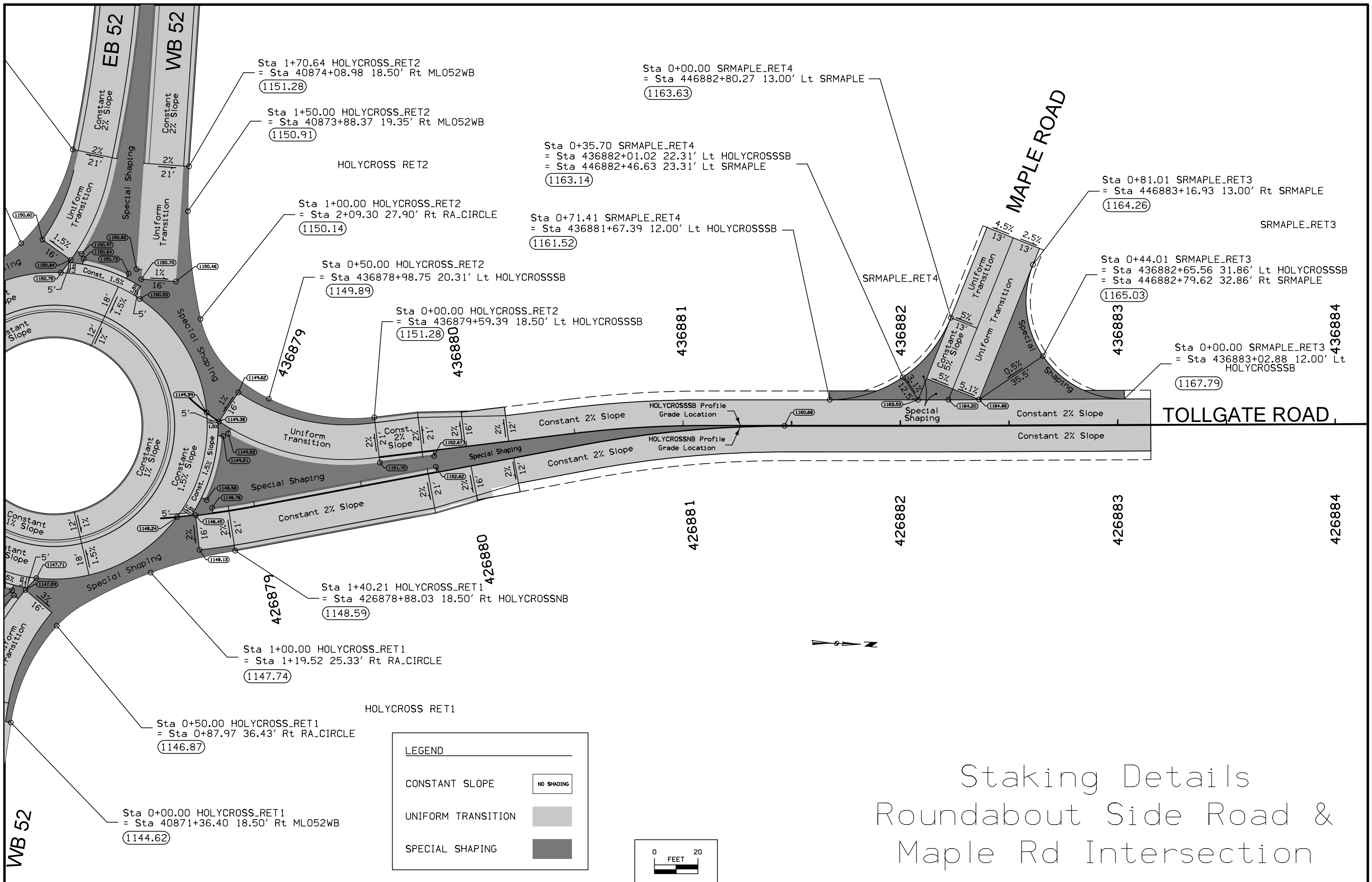


HOLY CROSS ROAD

Staking Details Roundabout Side Road

LEGEND	
CONSTANT SLOPE	NO SHADING
UNIFORM TRANSITION	
SPECIAL SHAPING	





Sta 1+70.64 HOLYCROSS_RET2
= Sta 40874+08.98 18.50' Rt ML052WB
(1151.28)

Sta 1+50.00 HOLYCROSS_RET2
= Sta 40873+88.37 19.35' Rt ML052WB
(1150.91)

Sta 1+00.00 HOLYCROSS_RET2
= Sta 2+09.30 27.90' Rt RA_CIRCLE
(1150.14)

Sta 0+50.00 HOLYCROSS_RET2
= Sta 436878+98.75 20.31' Lt HOLYCROSSSB
(1149.89)

Sta 0+00.00 HOLYCROSS_RET2
= Sta 436879+59.39 18.50' Lt HOLYCROSSSB
(1151.28)

436879

436880

Sta 0+00.00 SRMAPLE_RET4
= Sta 446882+80.27 13.00' Lt SRMAPLE
(1163.63)

Sta 0+35.70 SRMAPLE_RET4
= Sta 436882+01.02 22.31' Lt HOLYCROSSSB
= Sta 446882+46.63 23.31' Lt SRMAPLE
(1163.14)

Sta 0+71.41 SRMAPLE_RET4
= Sta 436881+67.39 12.00' Lt HOLYCROSSSB
(1161.52)

SRMAPLE_RET4

436882

Sta 0+81.01 SRMAPLE_RET3
= Sta 446883+16.93 13.00' Rt SRMAPLE
(1164.26)

SRMAPLE_RET3

Sta 0+44.01 SRMAPLE_RET3
= Sta 436882+65.56 31.86' Lt HOLYCROSSSB
= Sta 446882+79.62 32.86' Rt SRMAPLE
(1165.03)

436883

Sta 0+00.00 SRMAPLE_RET3
= Sta 436883+02.88 12.00' Lt HOLYCROSSSB
(1167.79)

436884

Sta 1+40.21 HOLYCROSS_RET1
= Sta 426878+88.03 18.50' Rt HOLYCROSSNB
(1148.59)

426879

426880

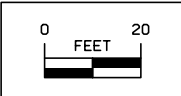
Sta 1+00.00 HOLYCROSS_RET1
= Sta 1+19.52 25.33' Rt RA_CIRCLE
(1147.74)

HOLYCROSS_RET1

Sta 0+50.00 HOLYCROSS_RET1
= Sta 0+87.97 36.43' Rt RA_CIRCLE
(1146.87)

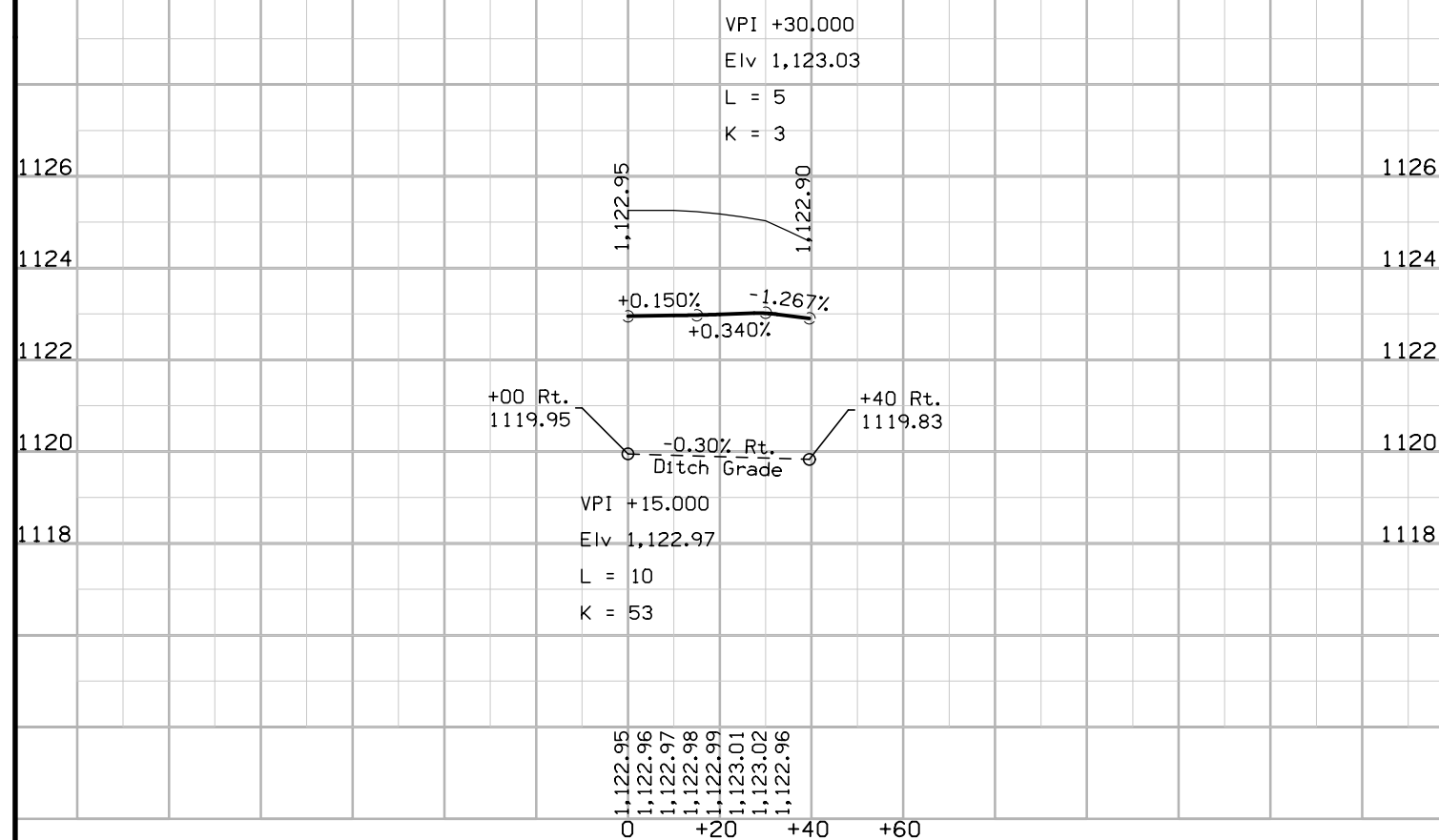
Sta 0+00.00 HOLYCROSS_RET1
= Sta 40871+36.40 18.50' Rt ML052WB
(1144.62)

LEGEND	
CONSTANT SLOPE	NO SHADING
UNIFORM TRANSITION	[Light Gray Shading]
SPECIAL SHAPING	[Dark Gray Shading]

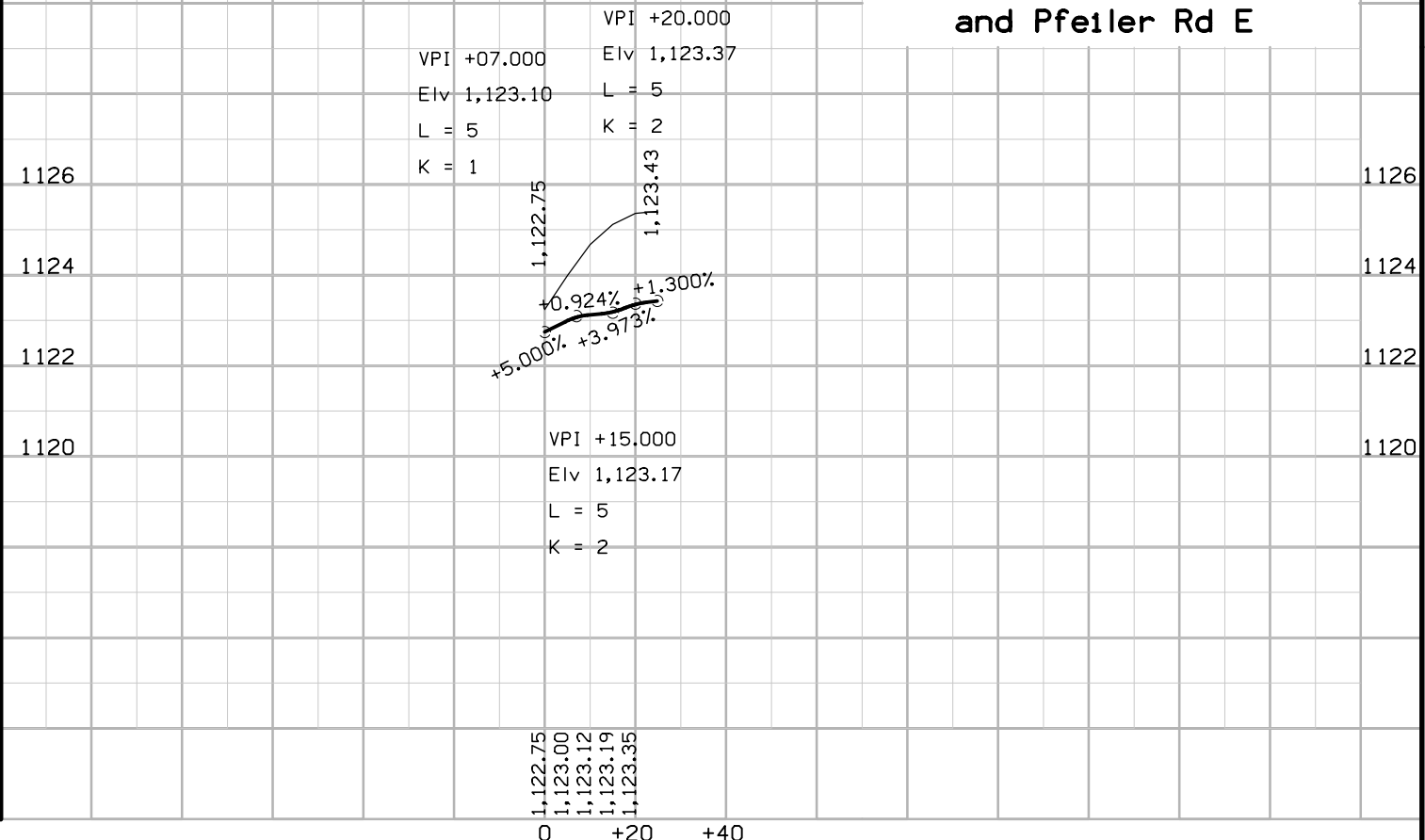


Staking Details Roundabout Side Road & Maple Rd Intersection

SRPFEILERE_RET1

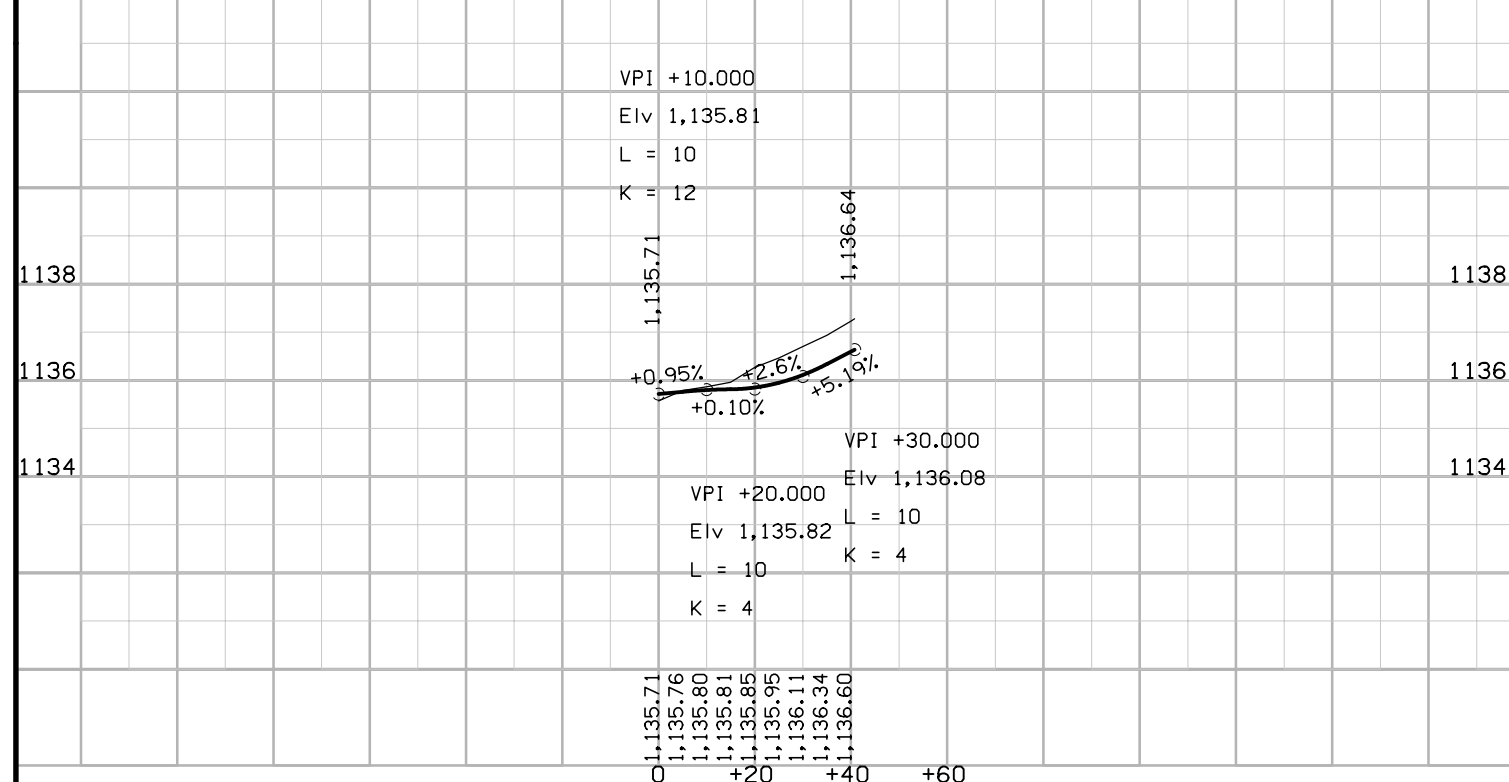


SRPFEILERE_RET2

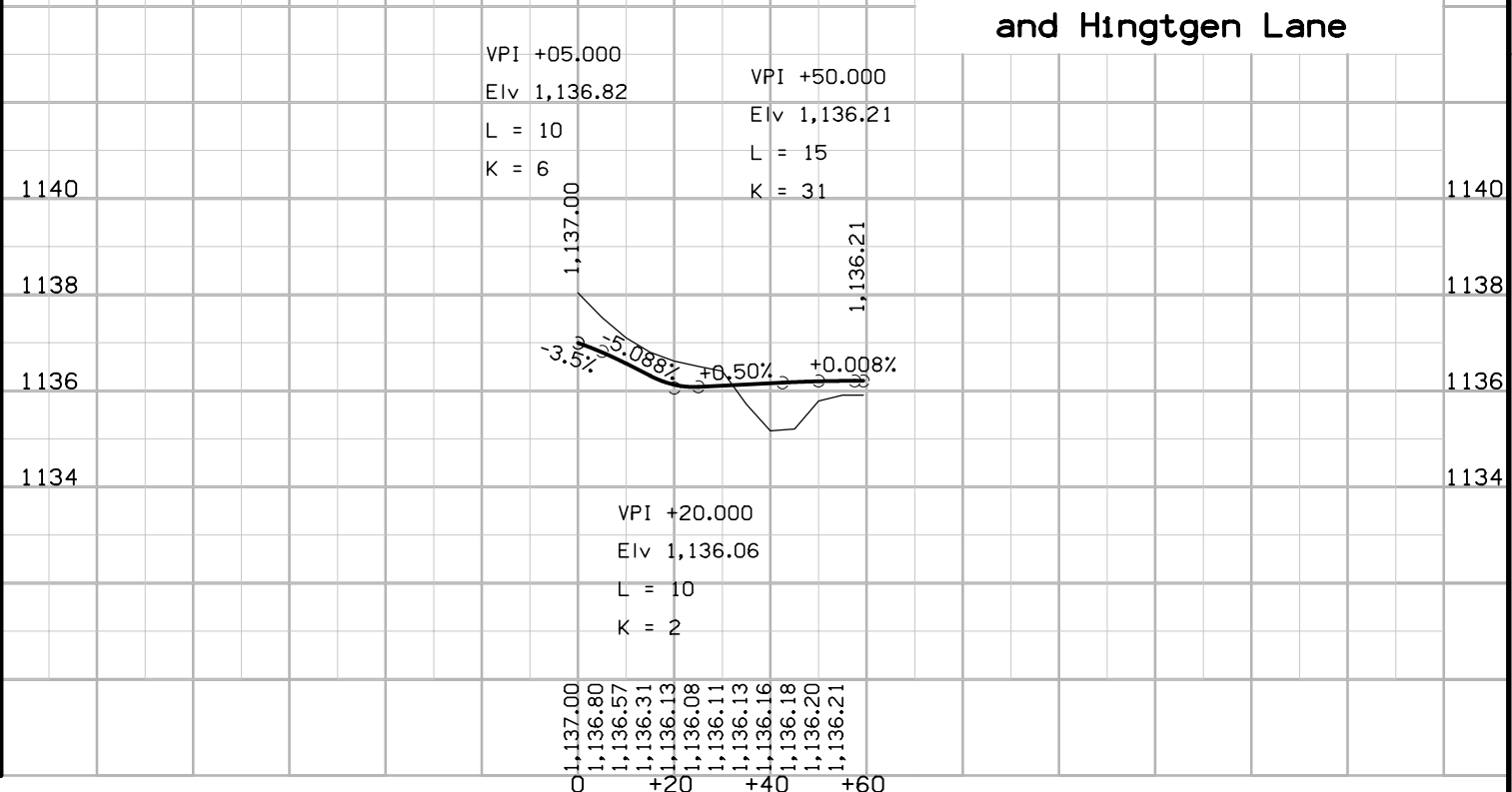


Edge Returns Profiles
Intersection of US 52/IA 3
and Pfeiler Rd E

SRHINGTGEN_RET3



SRHINGTGEN_RET4

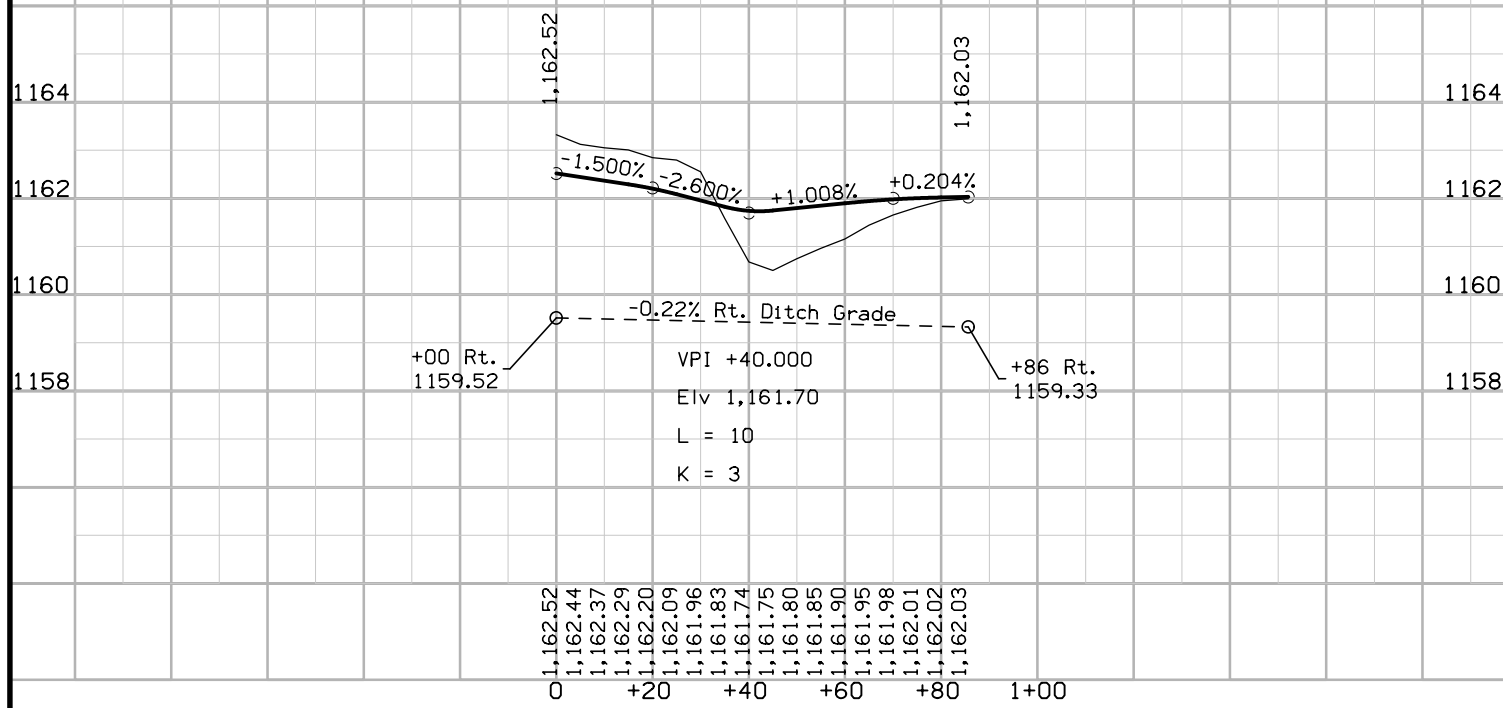


Edge Returns Profiles
Intersection of US 52/IA 3
and Hingtgen Lane

SRMIDWAY_RET3

VPI +20.000
 Elv 1,162.22
 L = 10
 K = 9

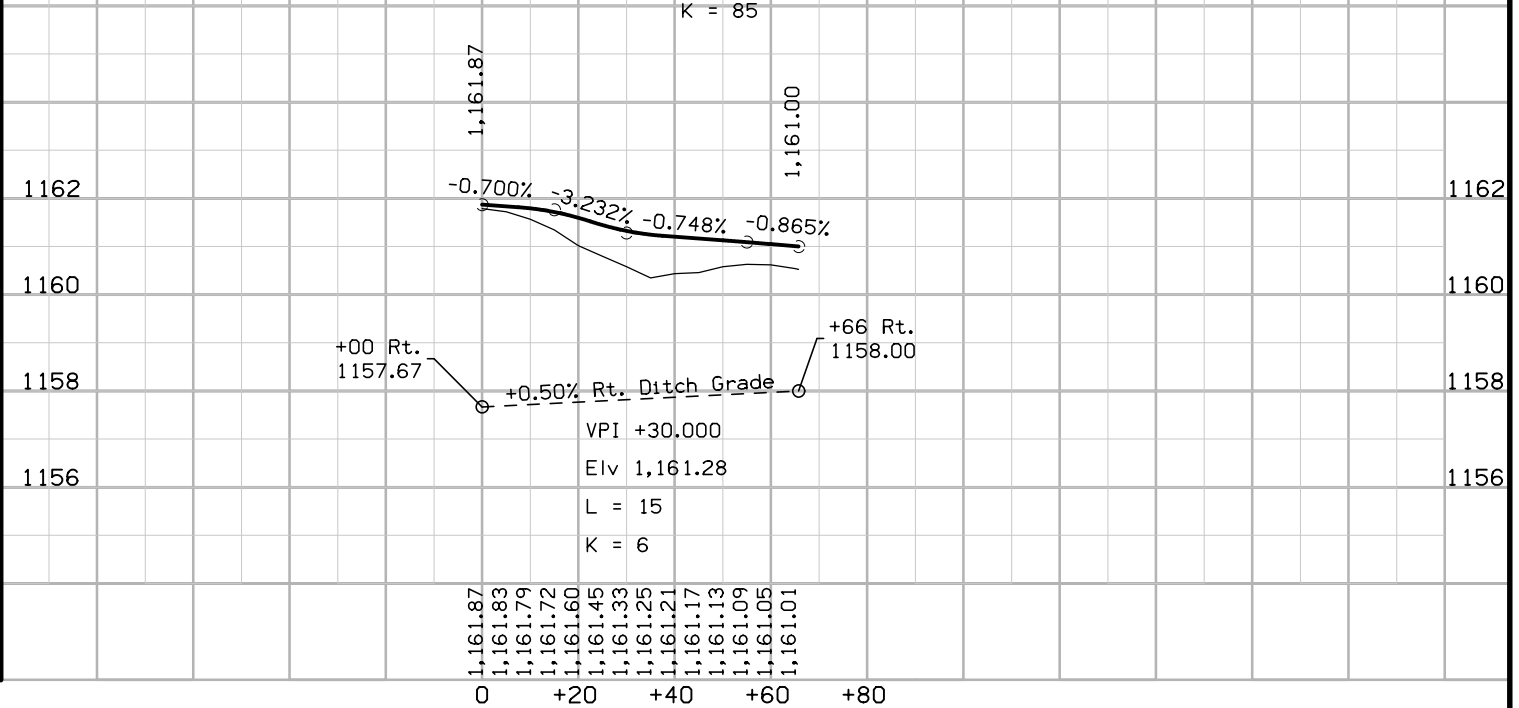
VPI +70.000
 Elv 1,162.00
 L = 20
 K = 25



SRMIDWAY_RET4

VPI +15.000
 Elv 1,161.76
 L = 15
 K = 6

VPI +55.000
 Elv 1,161.09
 L = 10
 K = 85



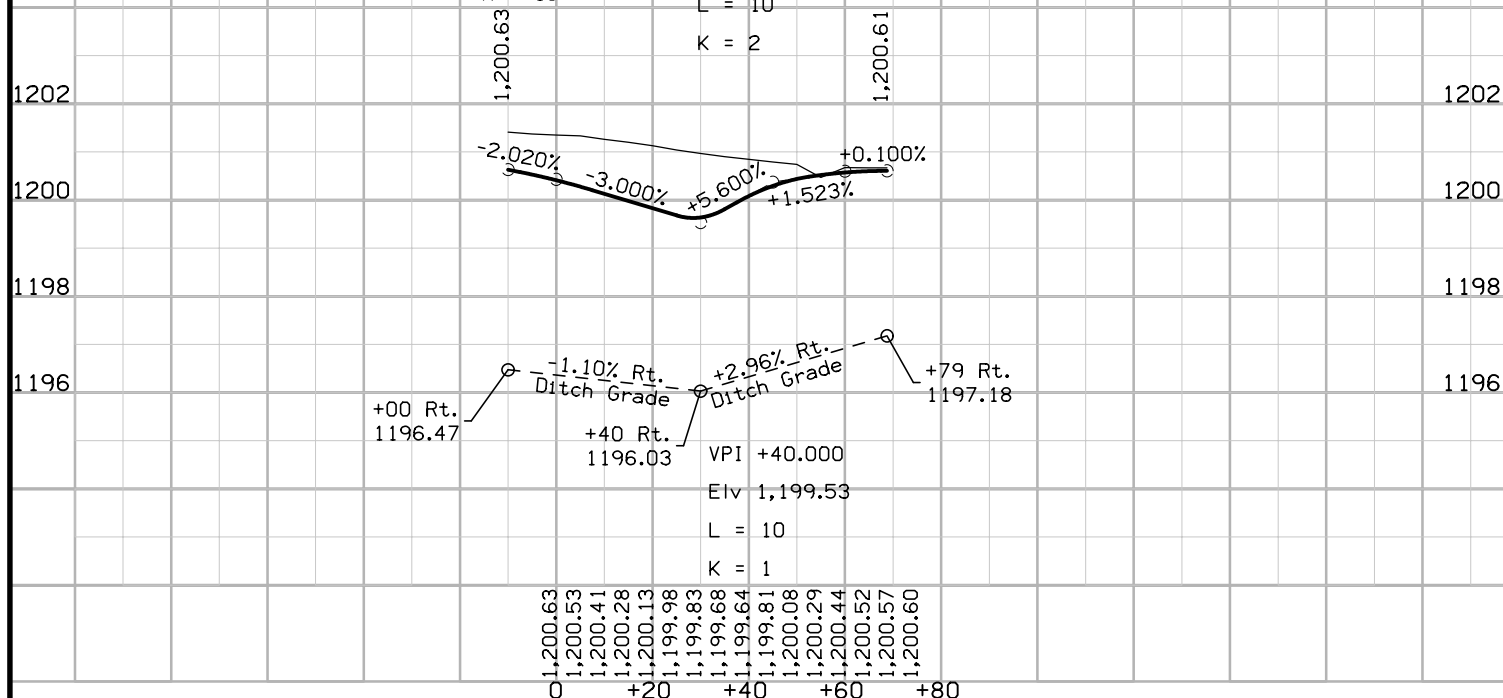
**Edge Returns Profiles
 Intersection of US 52/IA 3
 and Midway Road**

SRBANKSTON_RET3

VPI +10.000
 Elv 1,200.43
 L = 15
 K = 15

VPI +55.000
 Elv 1,200.37
 L = 10
 K = 2

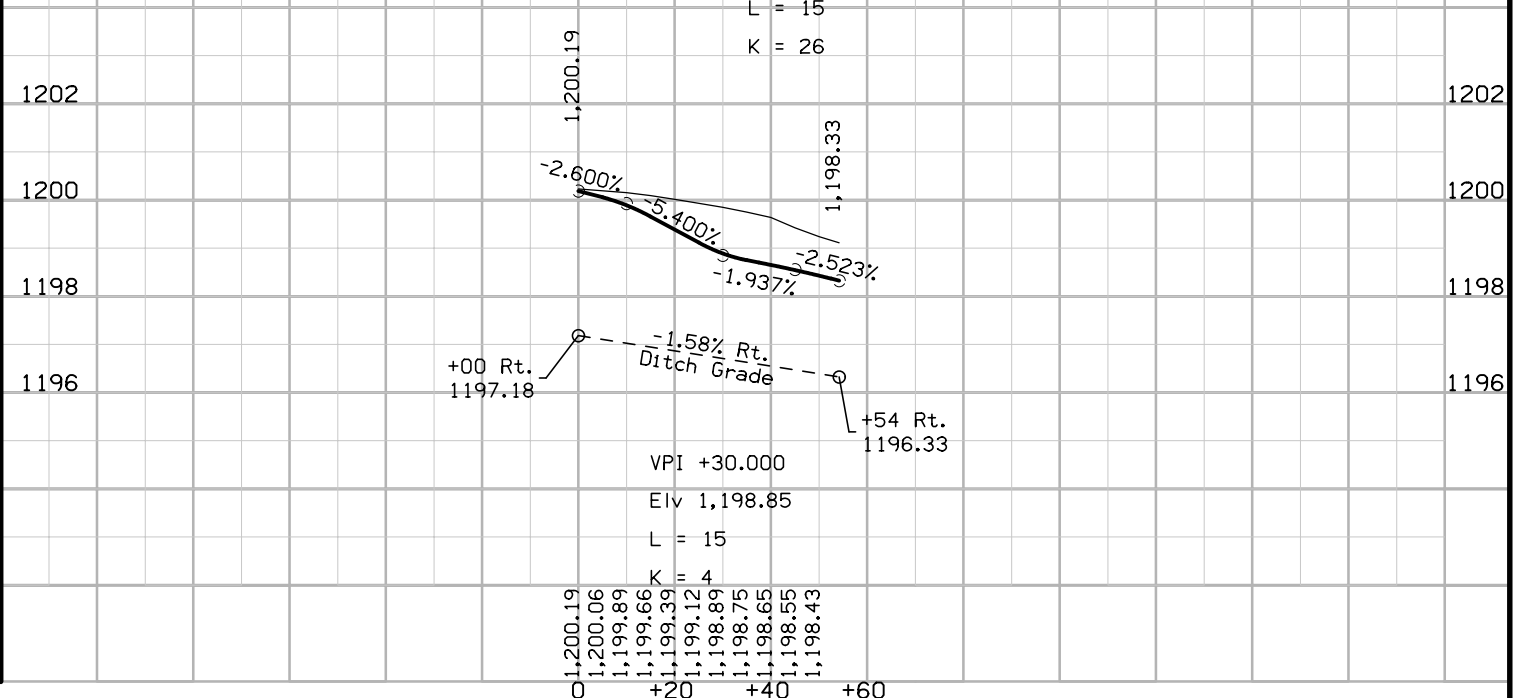
VPI +70.000
 Elv 1,200.60
 L = 10
 K = 9



SRBANKSTON_RET4

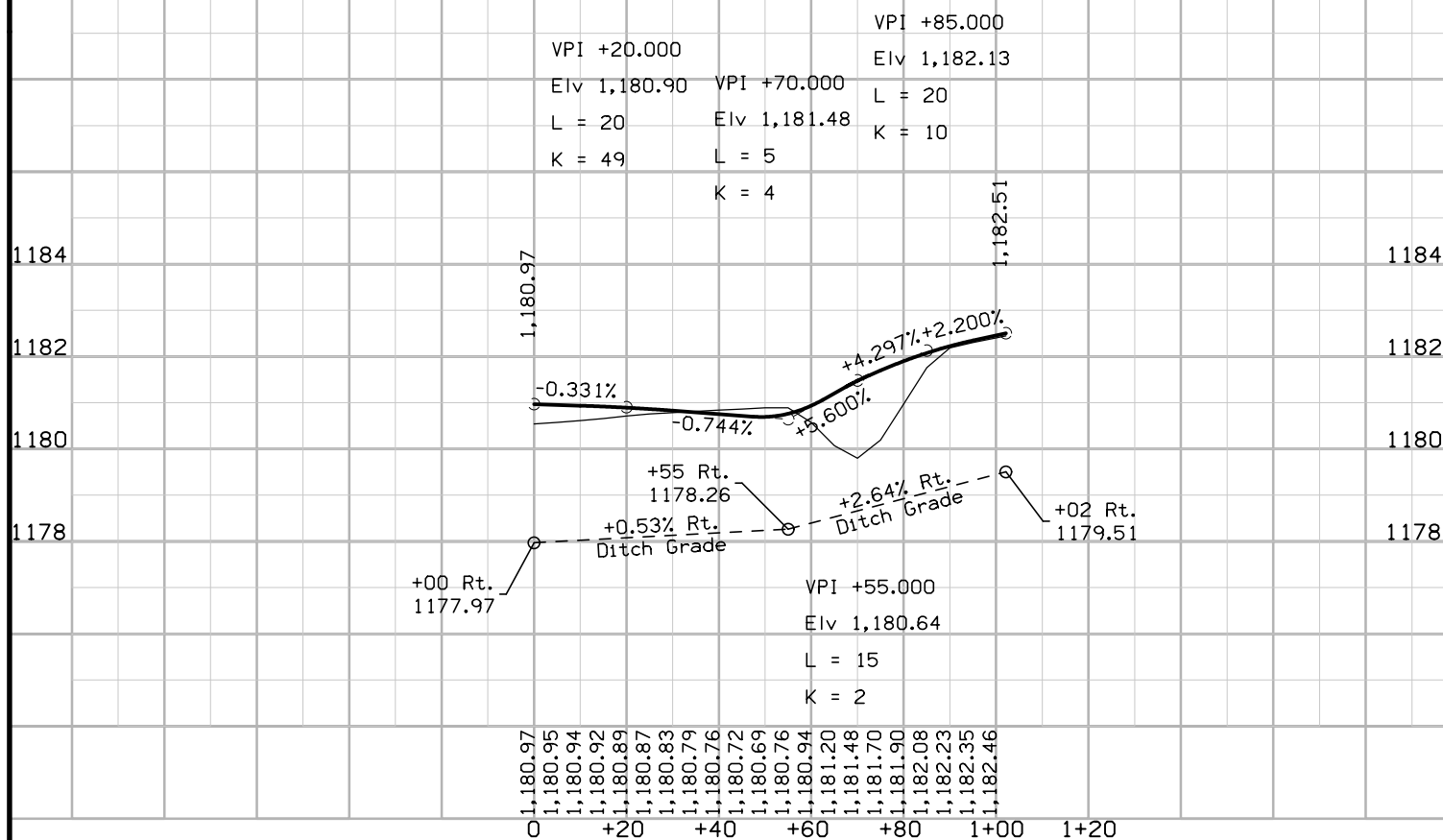
VPI +10.000
 Elv 1,199.93
 L = 15
 K = 5

VPI +45.000
 Elv 1,198.56
 L = 15
 K = 26

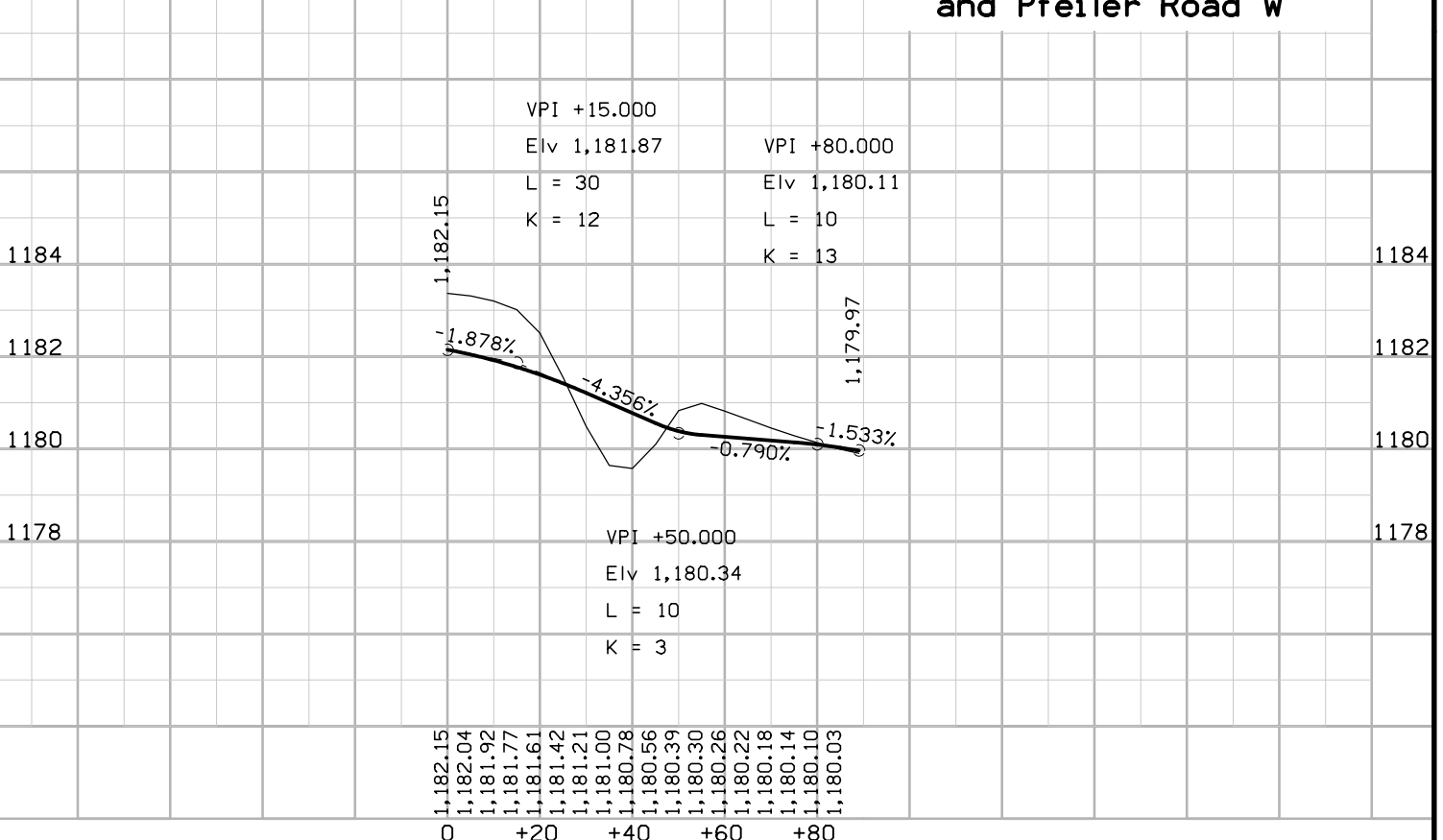


**Edge Returns Profiles
 Intersection of US 52/IA 3
 and Bankston Park Road**

SRPFEILERW_RET1

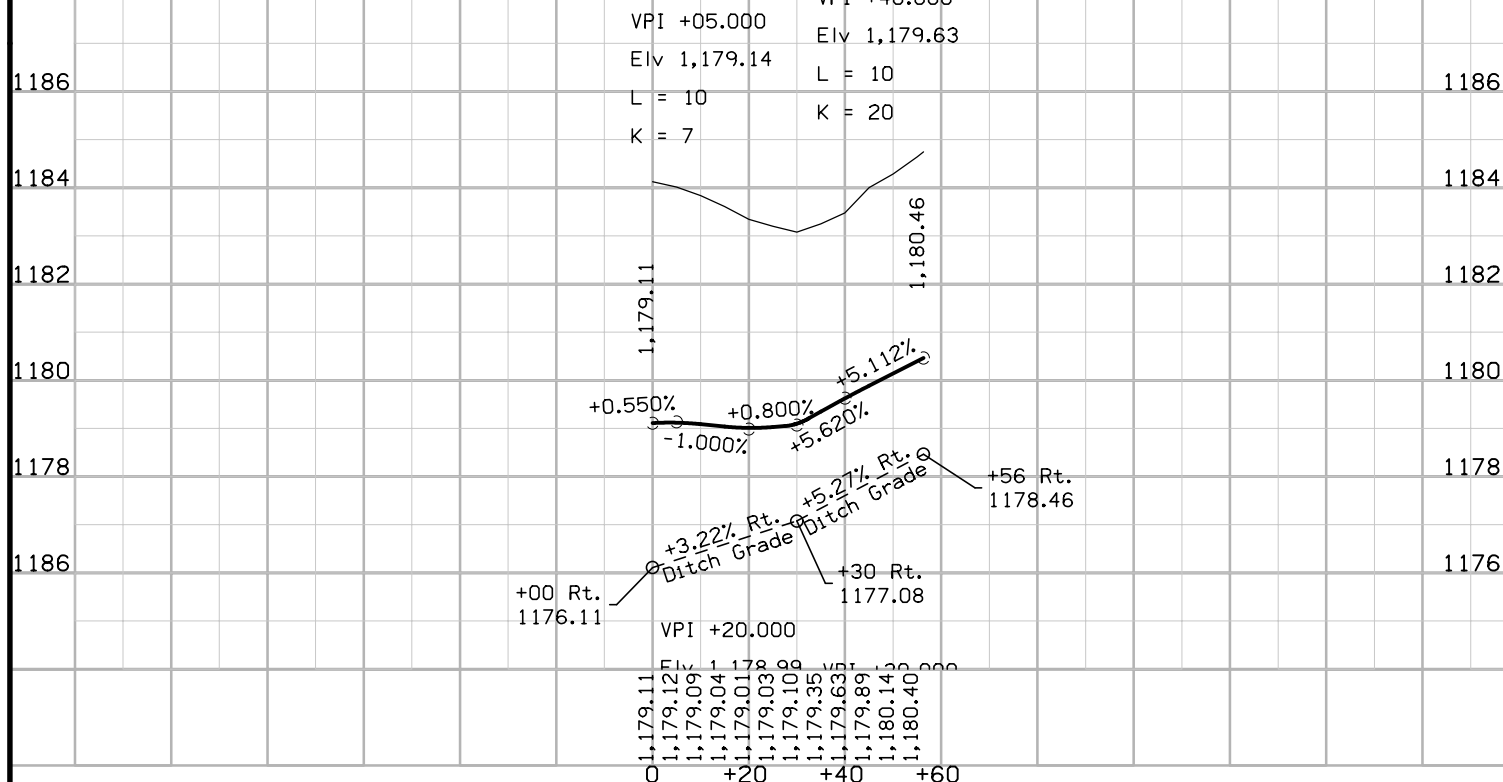


SRPFEILERW_RET2

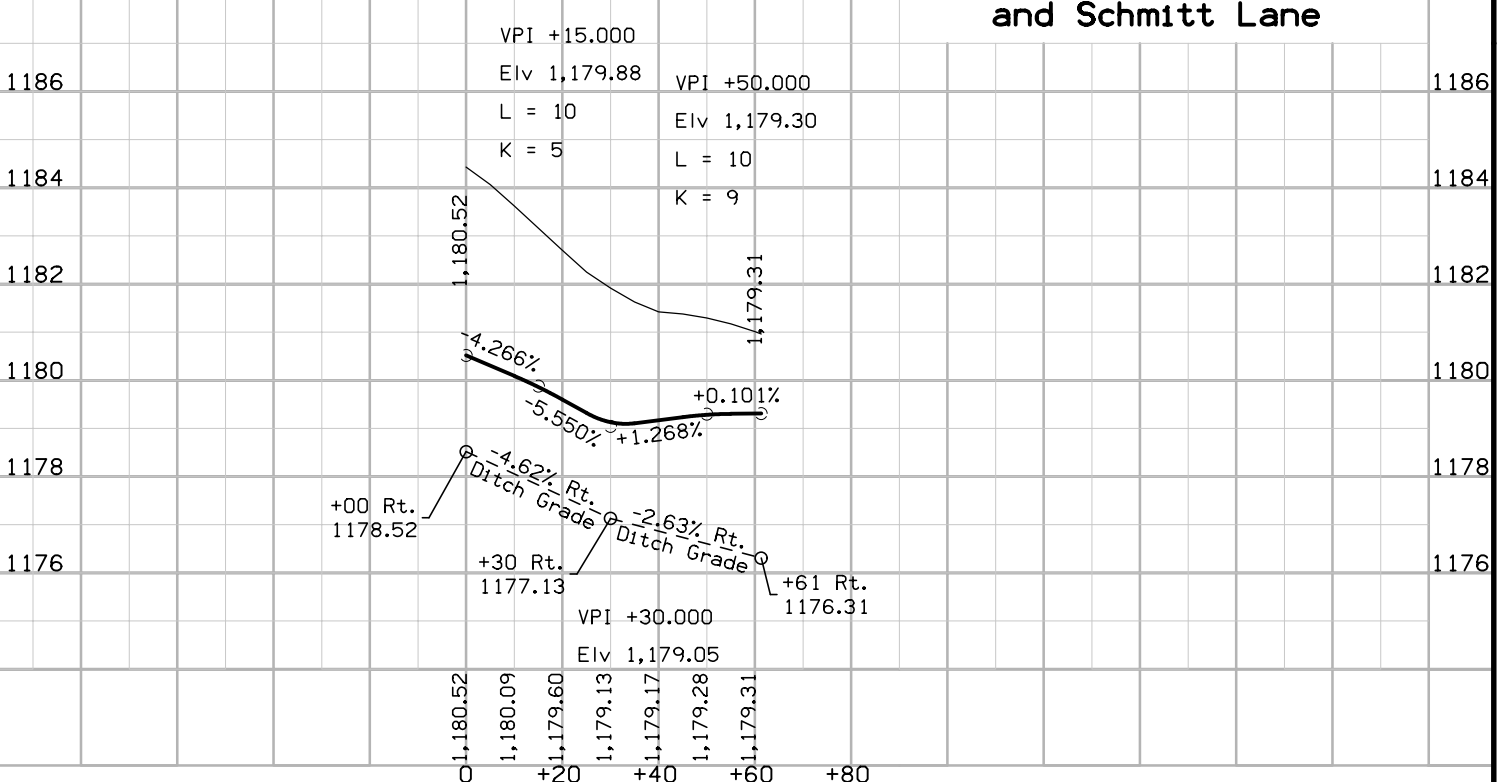


**Edge Returns Profiles
Intersection of US 52/IA 3
and Pfeiler Road W**

SRSCHMITT_RET1

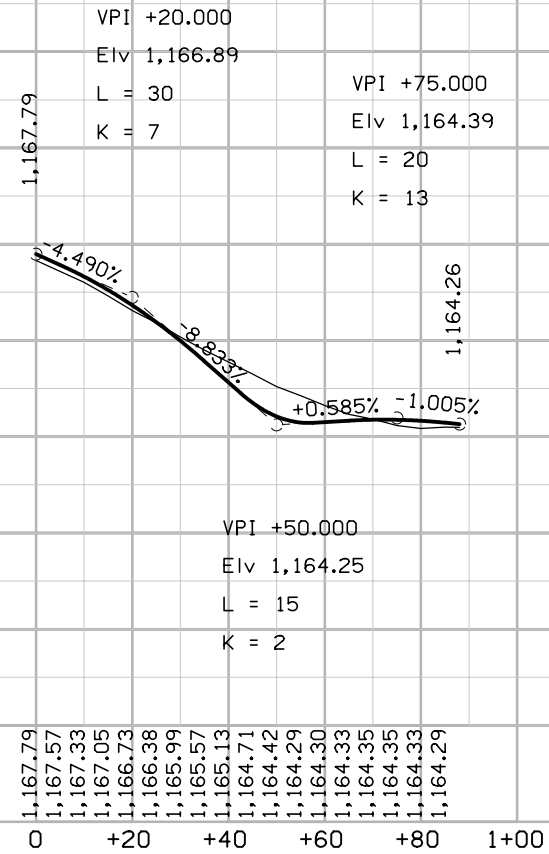


SRSCHMITT_RET2

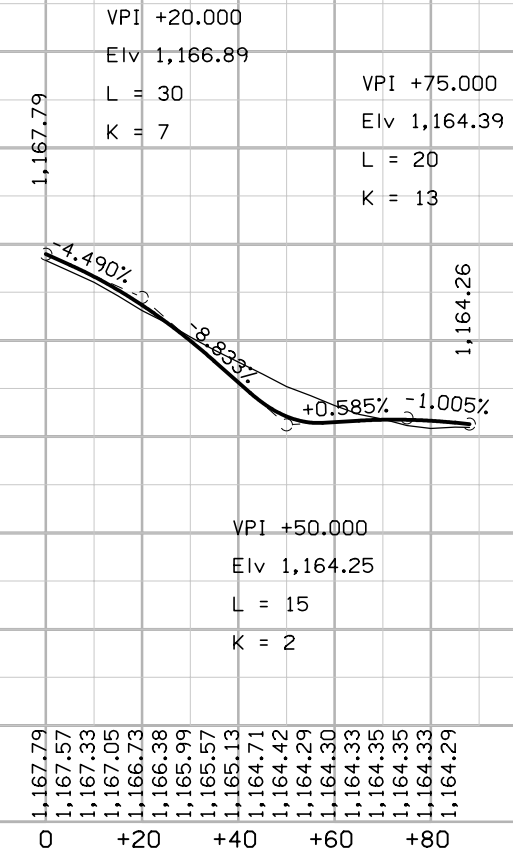


**Edge Returns Profiles
Intersection of US 52/IA 3
and Schmitt Lane**

SRMAPLE_RET3



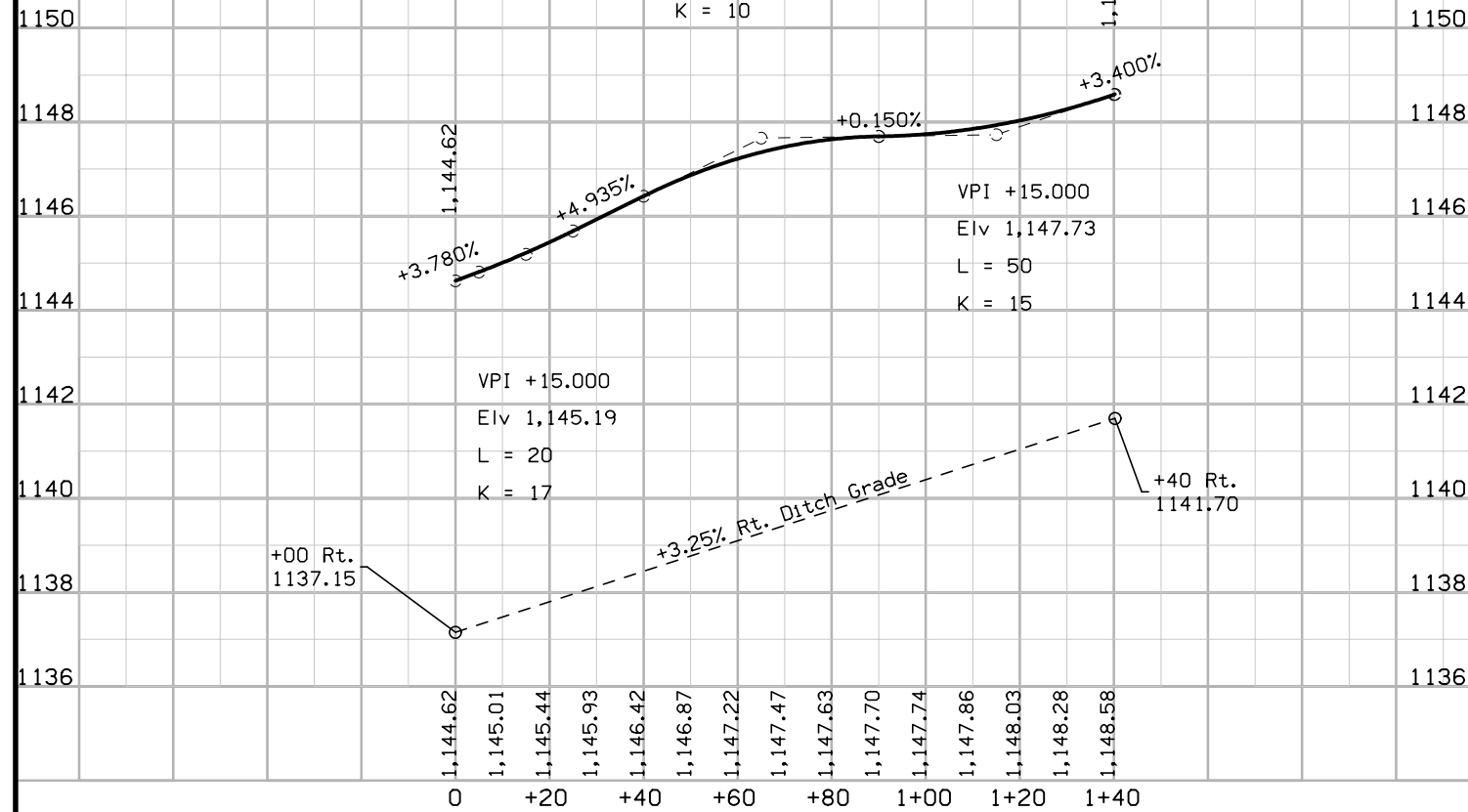
SRMAPLE_RET4



Edge Returns Profiles
Intersection of Tollgate
Road and Maple Rd

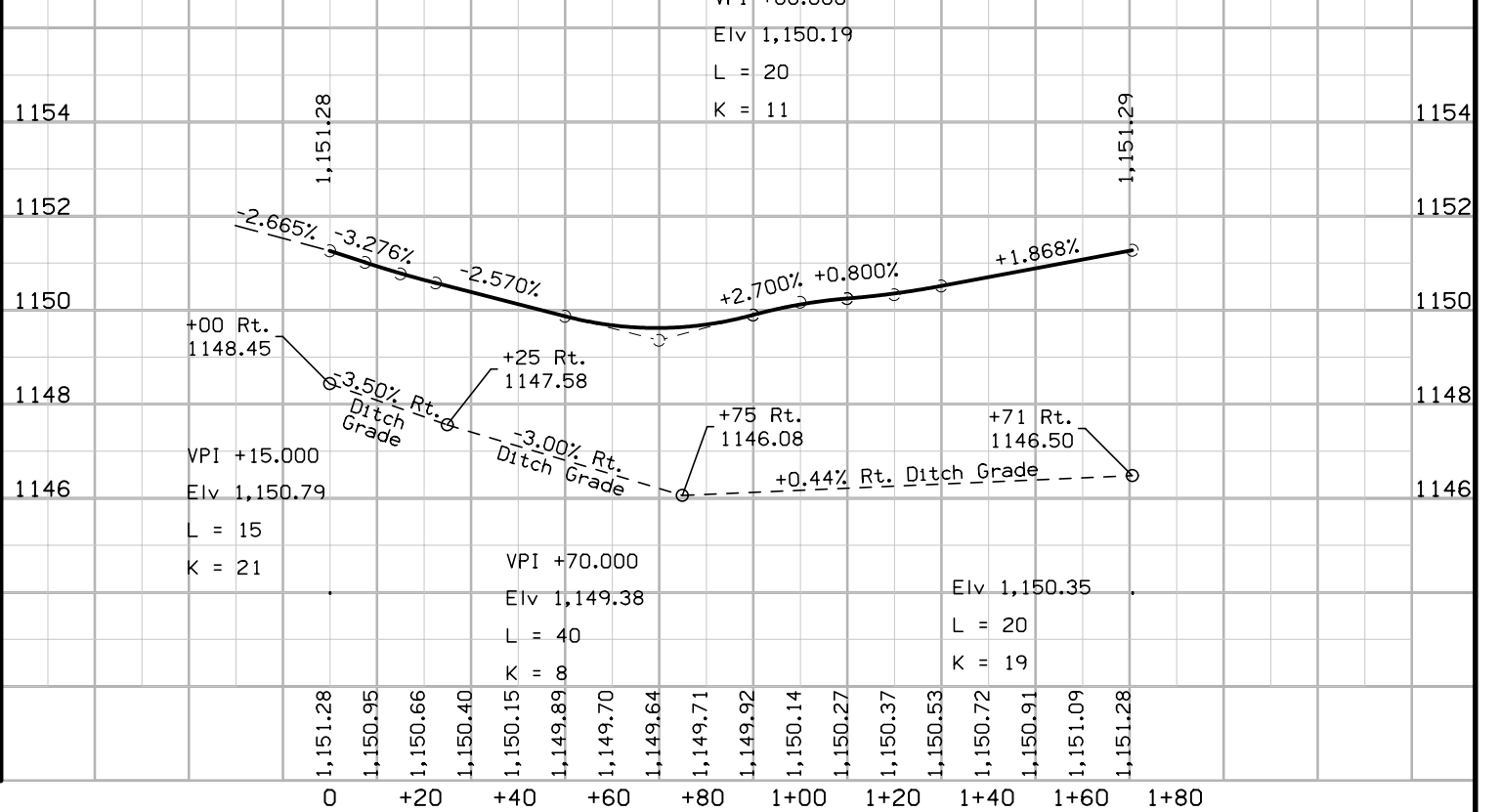
HOLYCROSS_RET1

VPI +65.000
Elv 1,147.66
L = 50
K = 10



HOLYCROSS_RET2

VPI +00.000
Elv 1,150.19
L = 20
K = 11

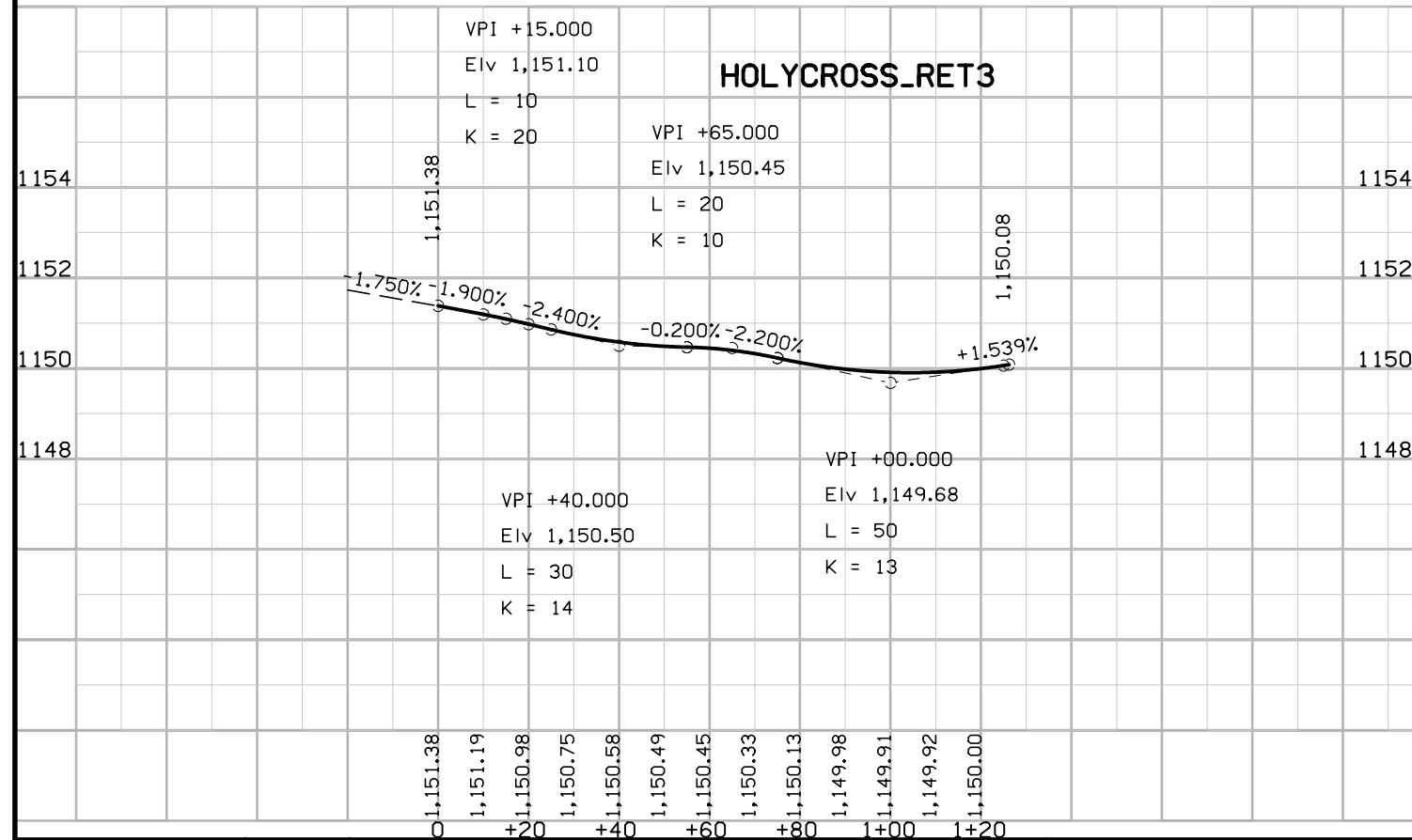


Edge Returns Profiles Roundabout Intersection US 52 and Holy Cross Rd

HOLYCROSS_RET3

VPI +15.000
Elv 1,151.10
L = 10
K = 20

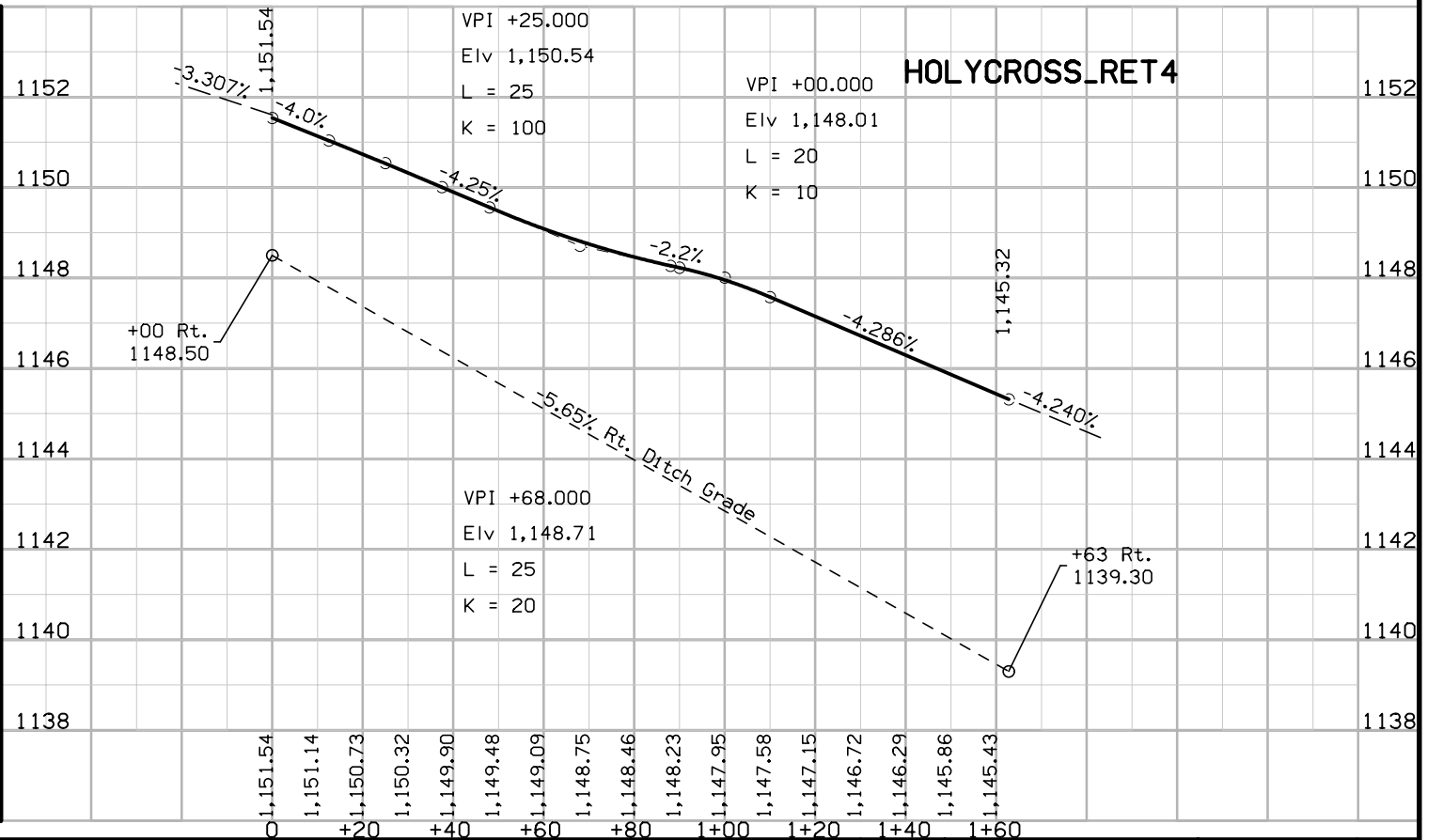
VPI +65.000
Elv 1,150.45
L = 20
K = 10



HOLYCROSS_RET4

VPI +25.000
Elv 1,150.54
L = 25
K = 100

VPI +00.000
Elv 1,148.01
L = 20
K = 10



620

621

622

623

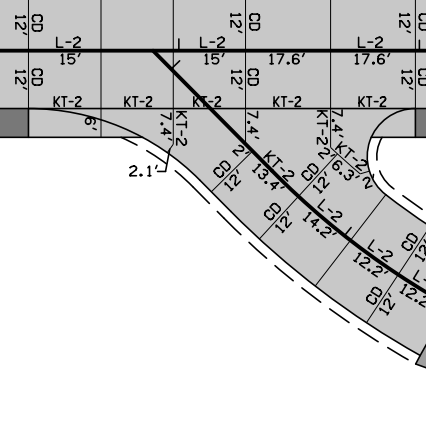
624

625



U.S. 52

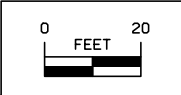
U.S. 52



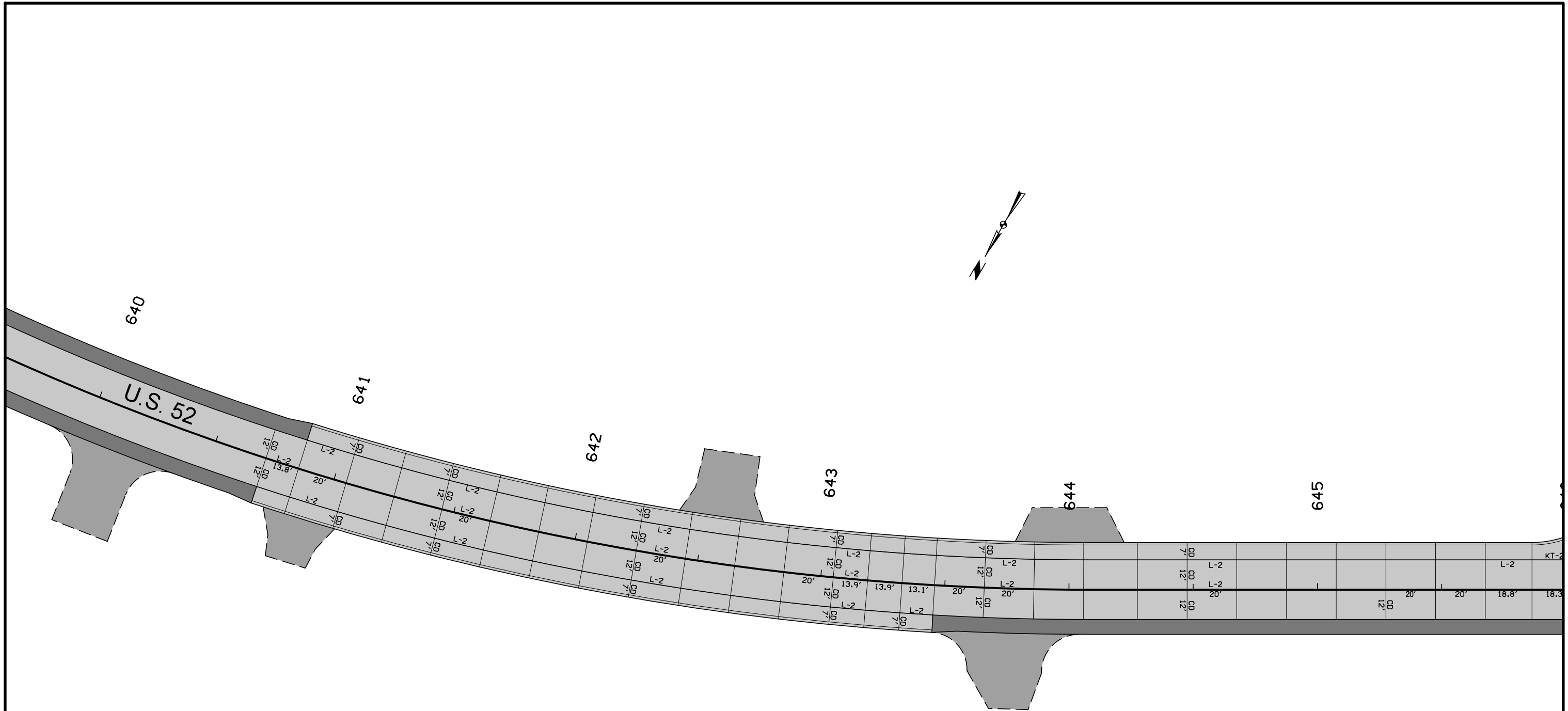
12623

12624

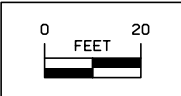
Pfeiler Road East

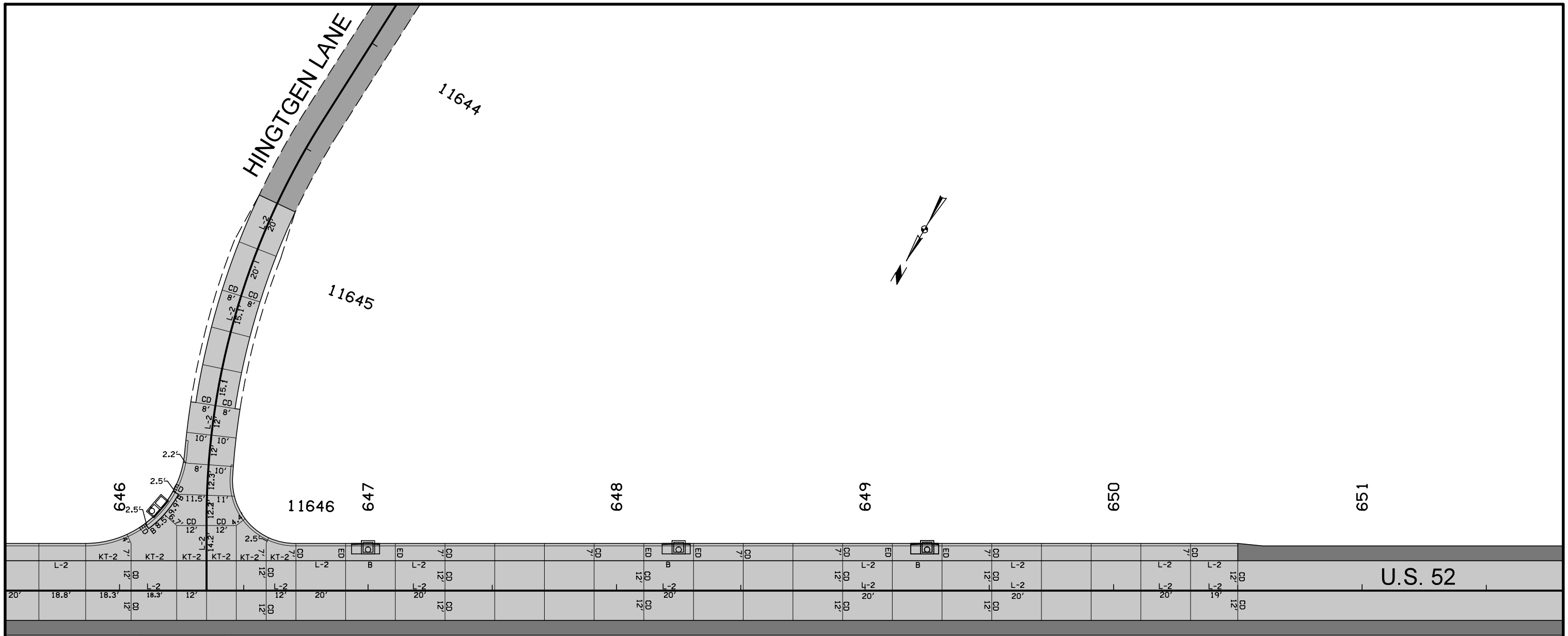


Jointing Details
Pfeiler Road East

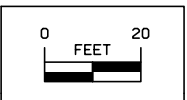


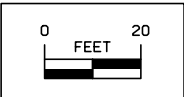
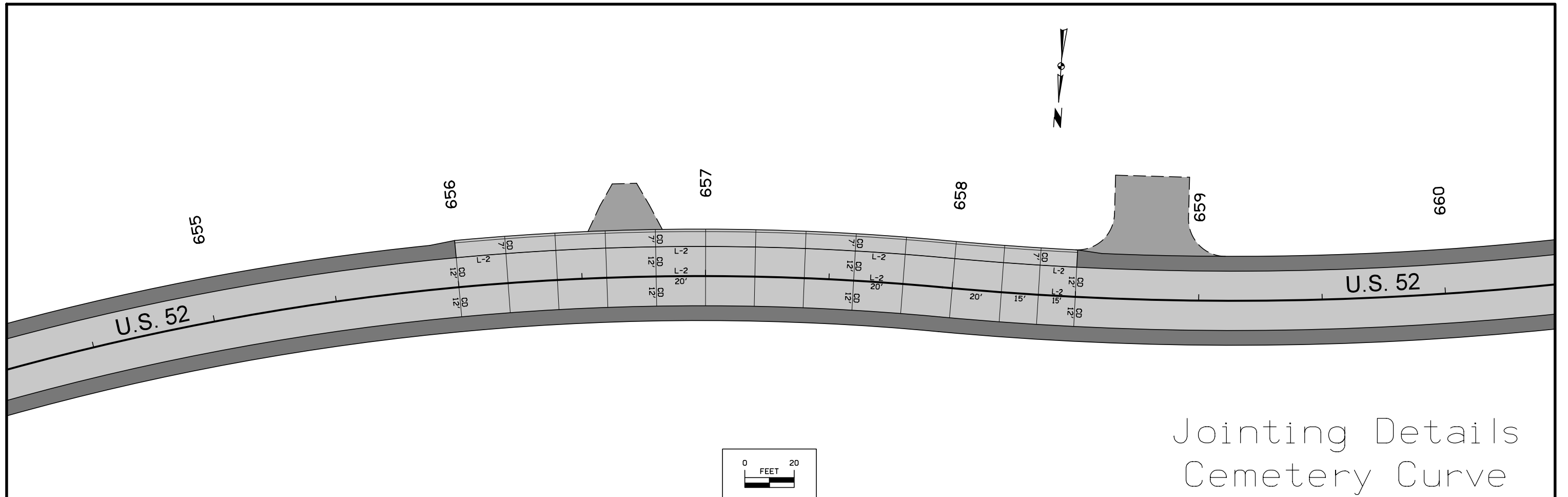
Jointing Details
Hingtgen Lane



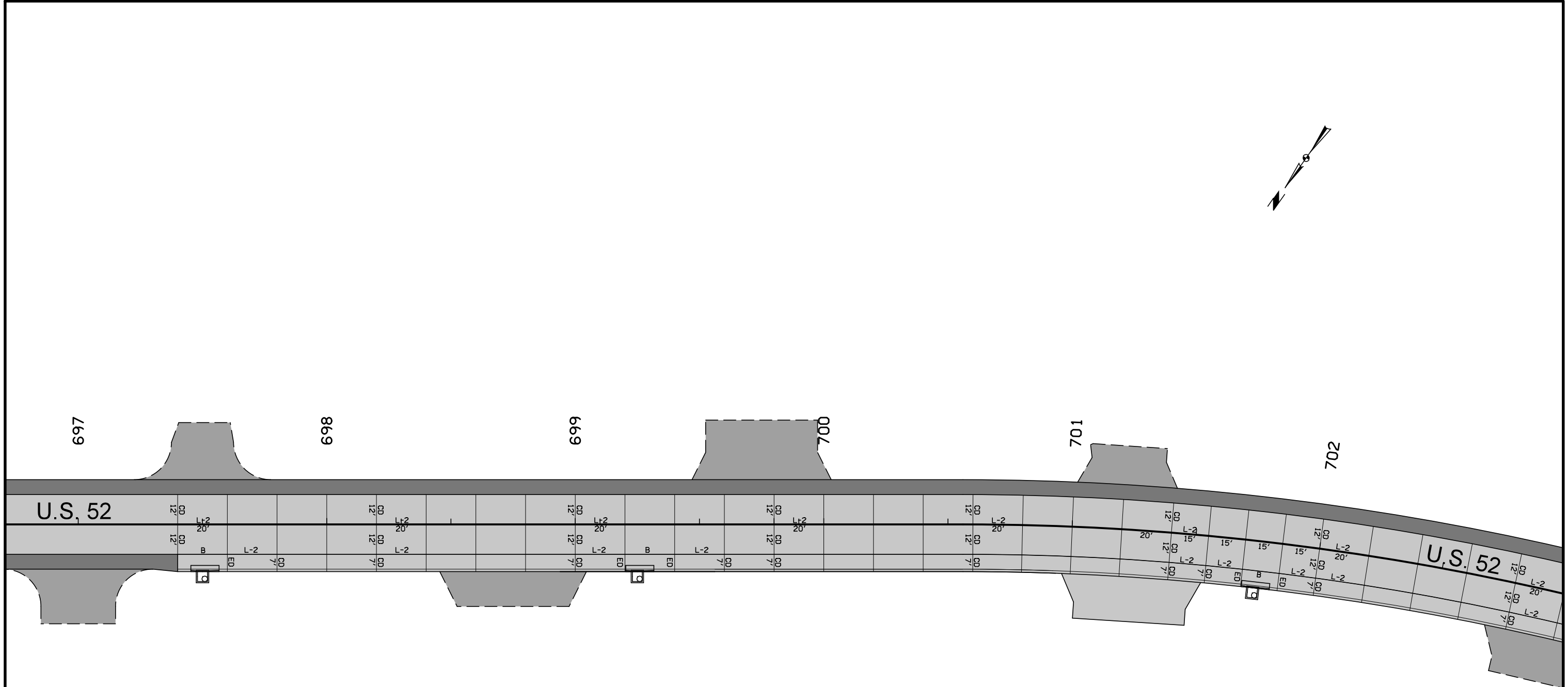
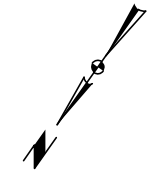


Jointing Details
Hingtgen Lane

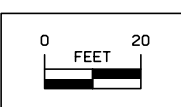


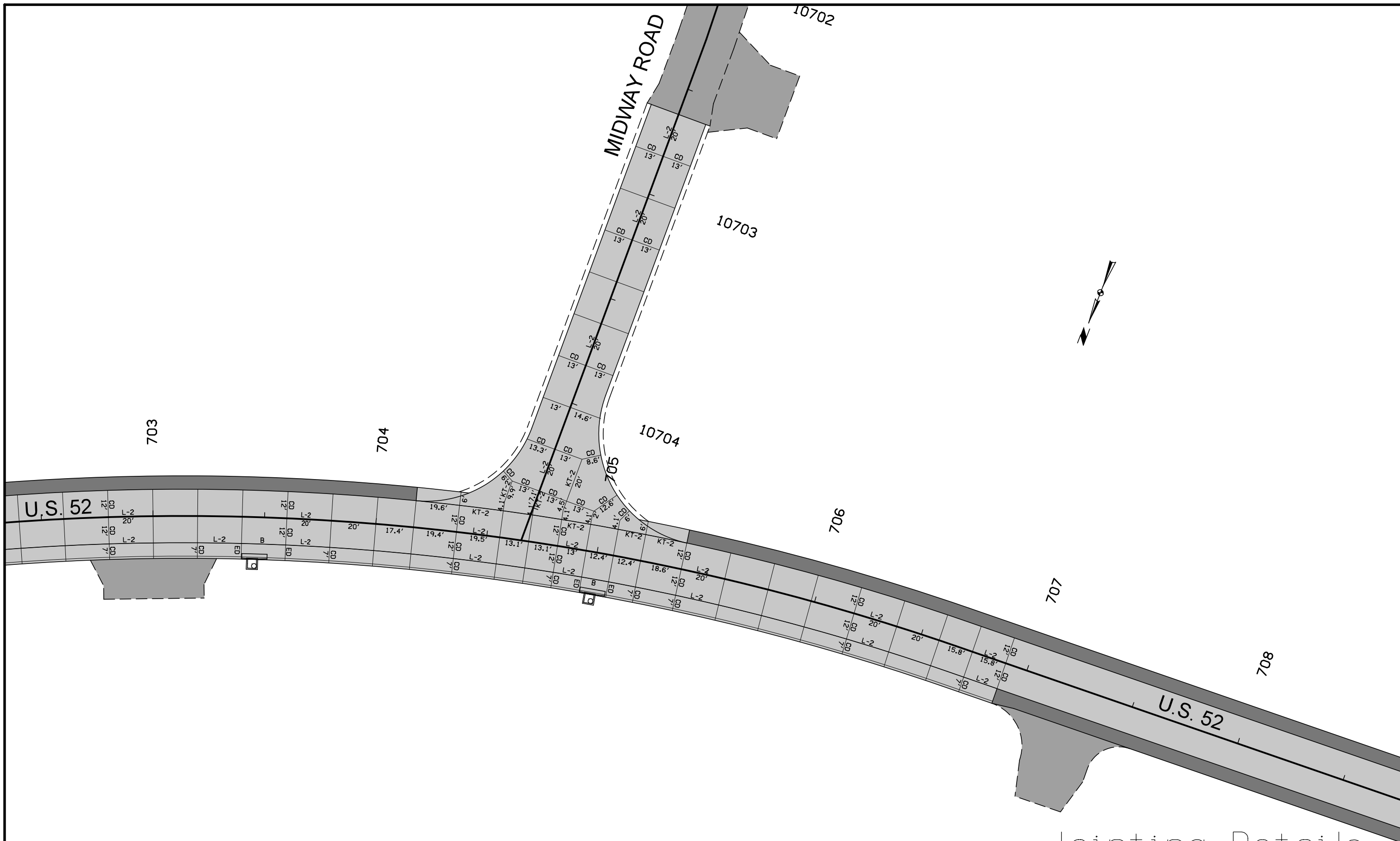


Jointing Details
Cemetery Curve

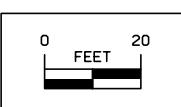


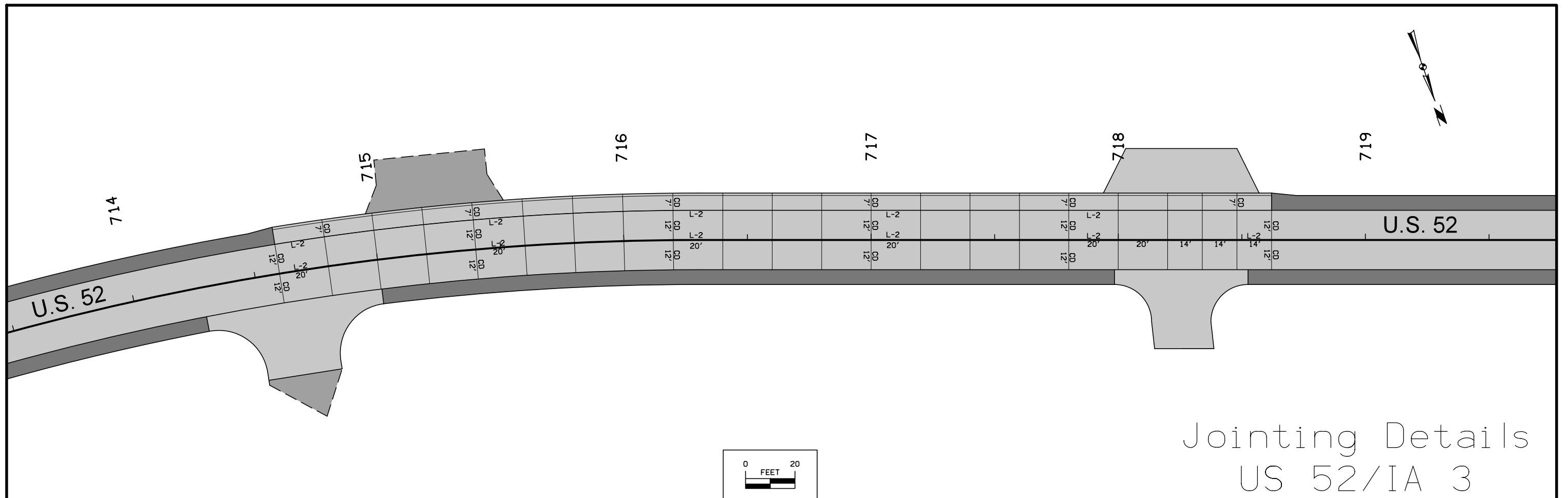
Jointing Details
Midway Area

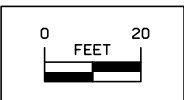
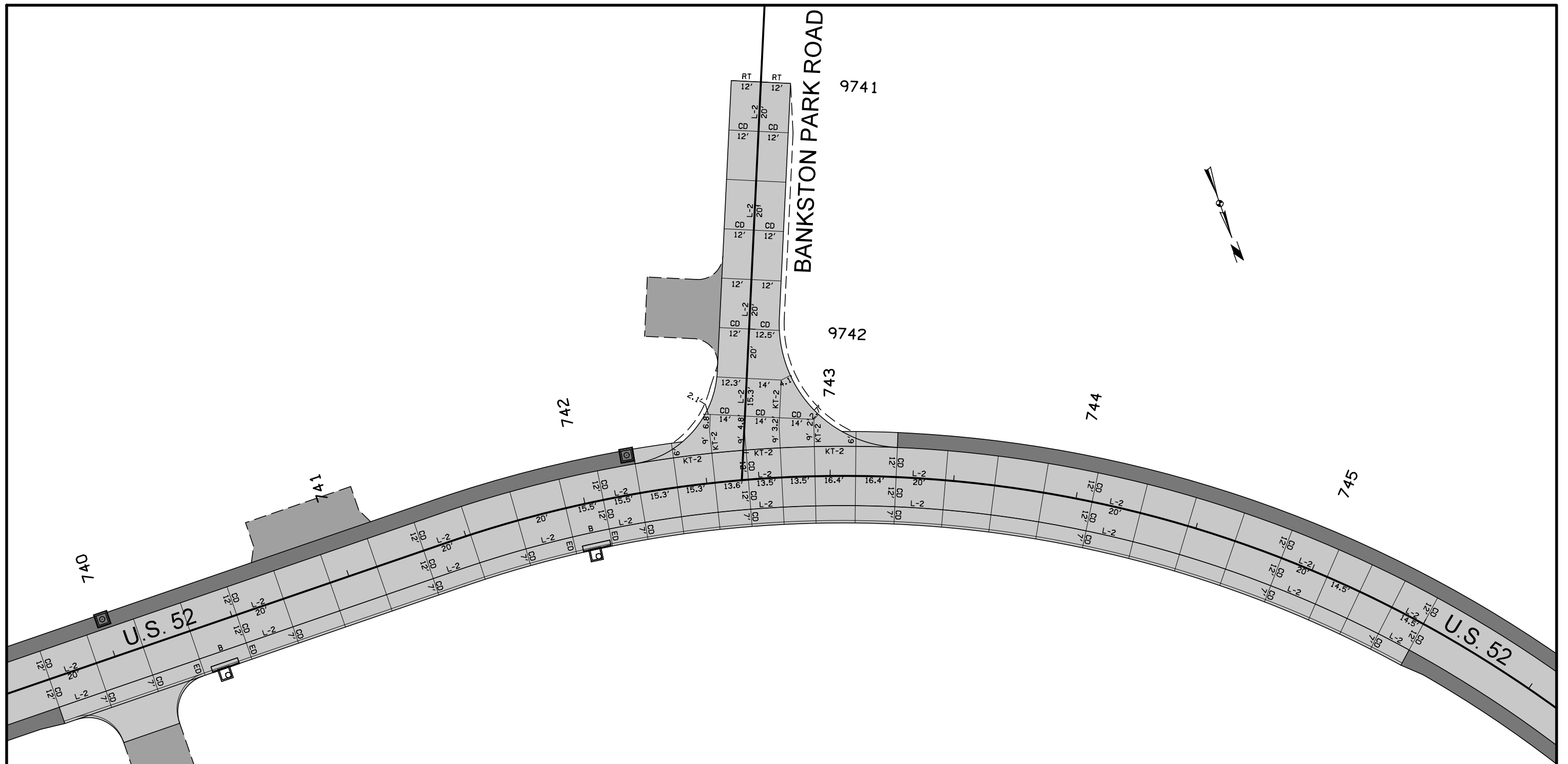




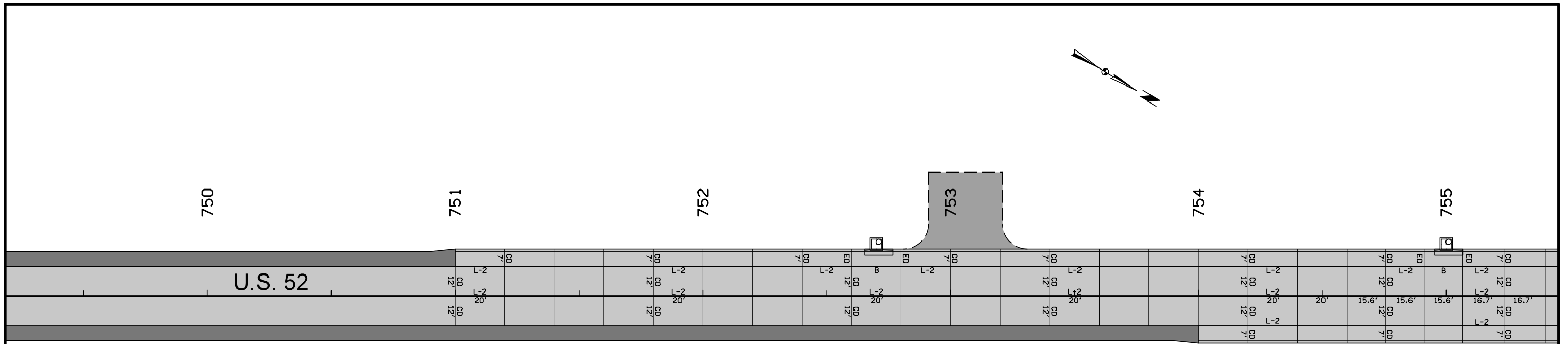
Jointing Details
Midway Area



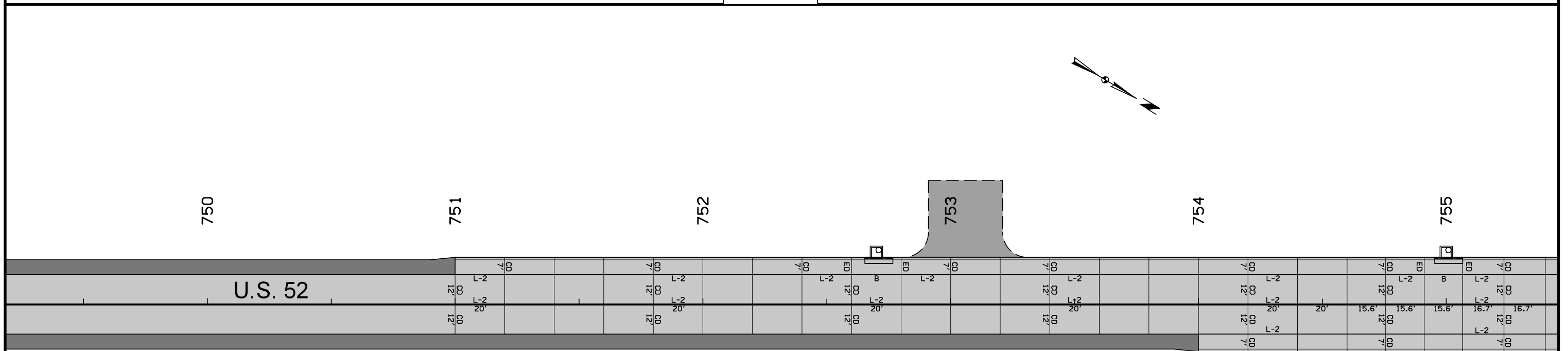




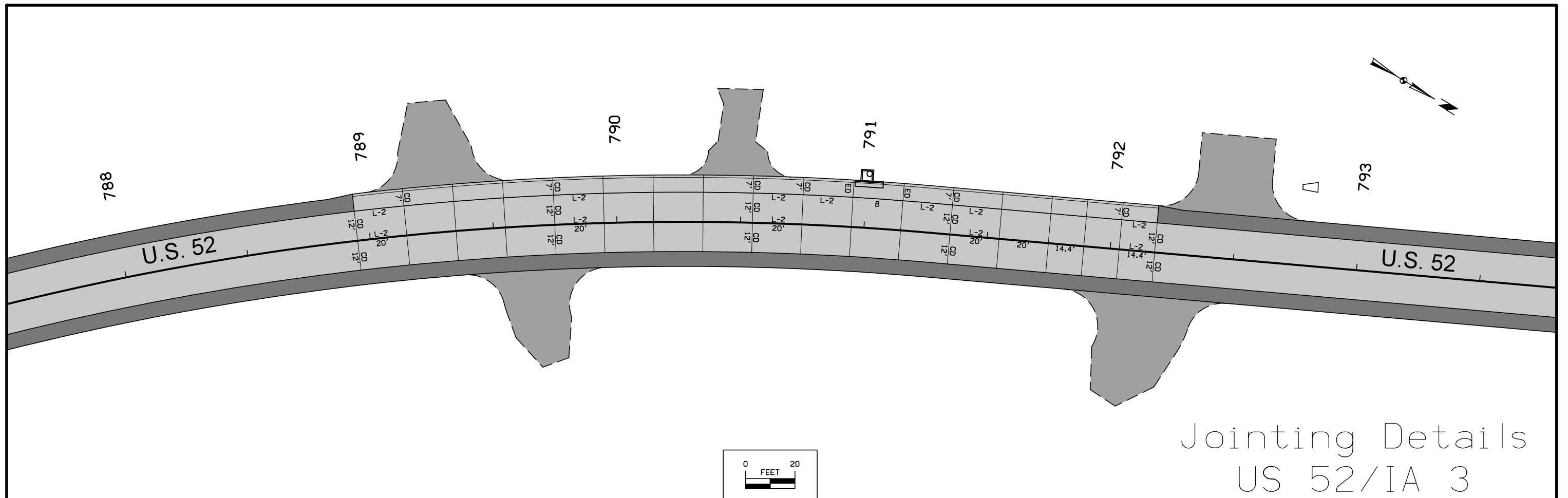
Jointing Details
Bankston Park Road



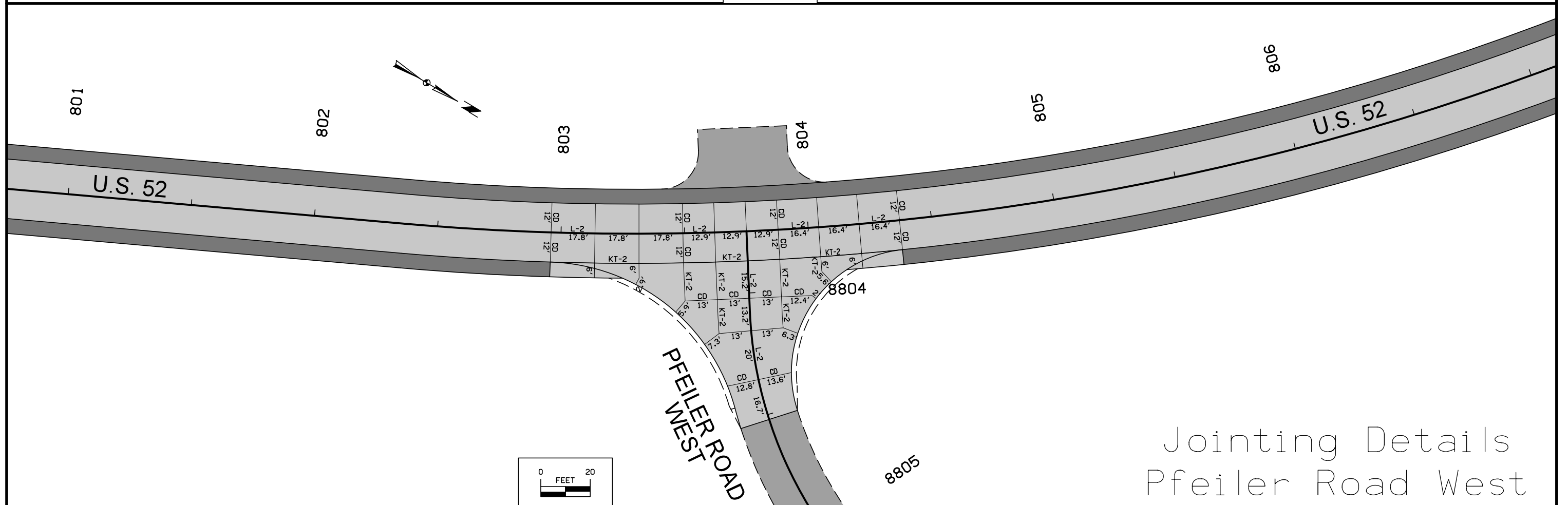
Jointing Details
US 52/IA 3



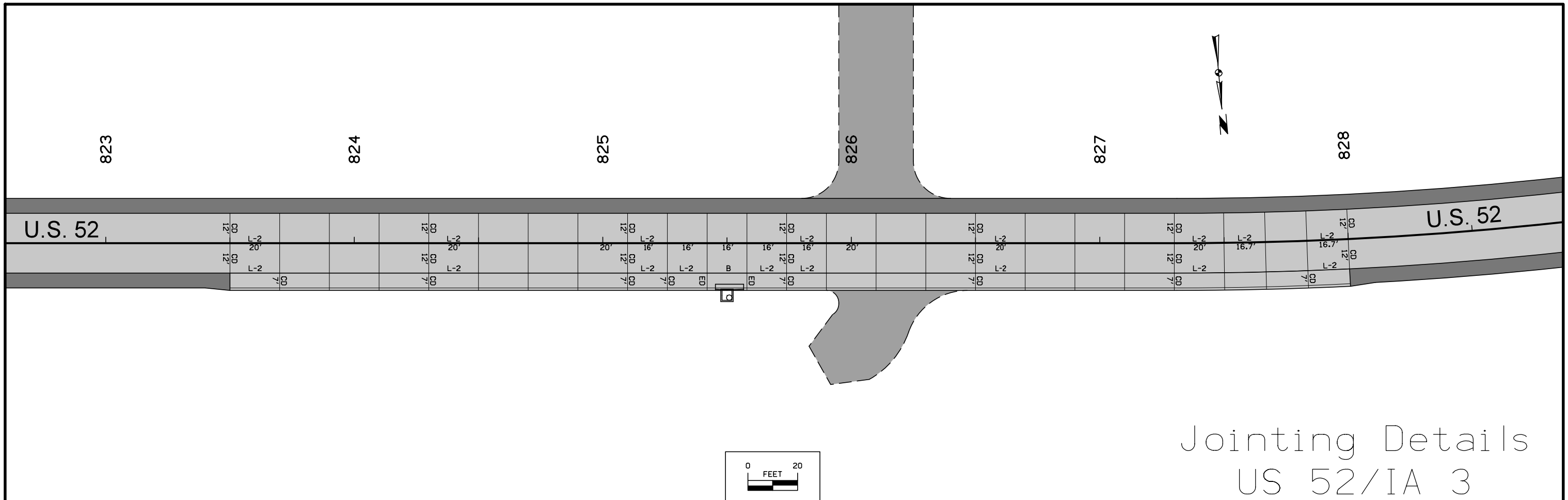
Jointing Details
US 52/IA 3



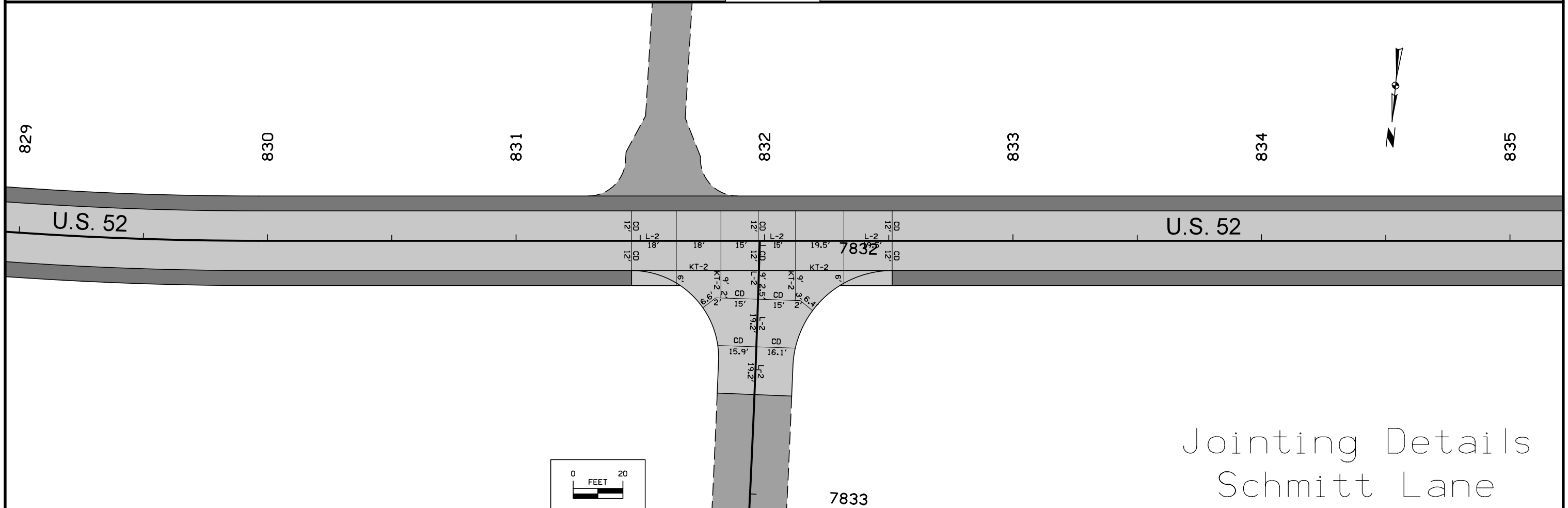
Jointing Details
US 52/IA 3



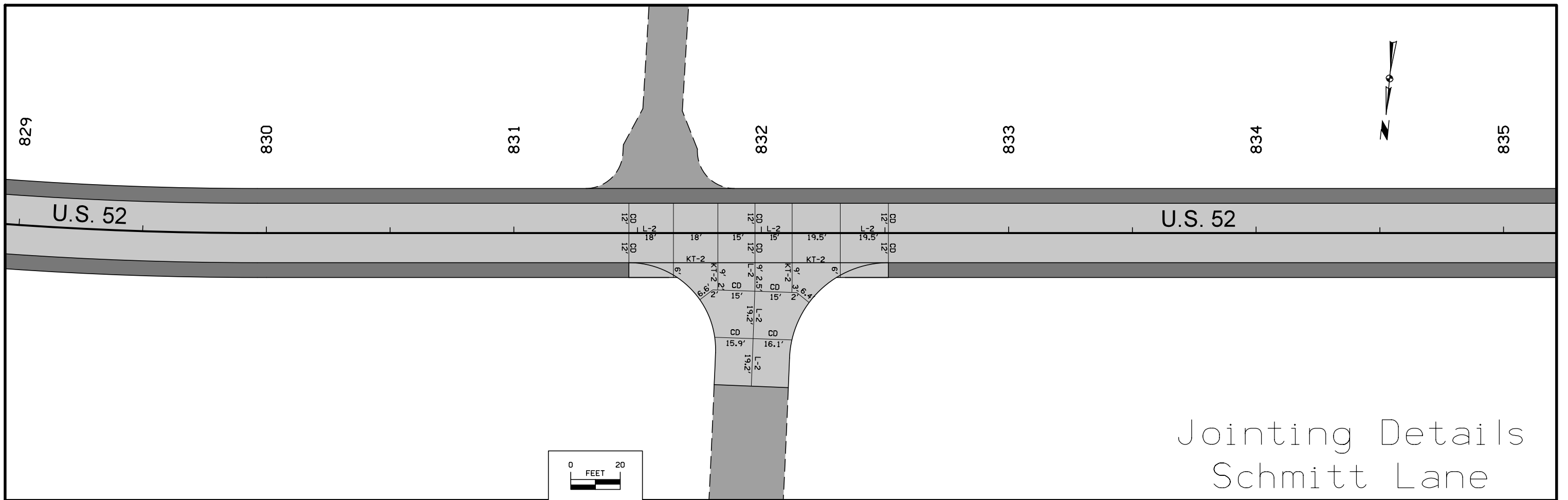
Jointing Details
Pfeiler Road West



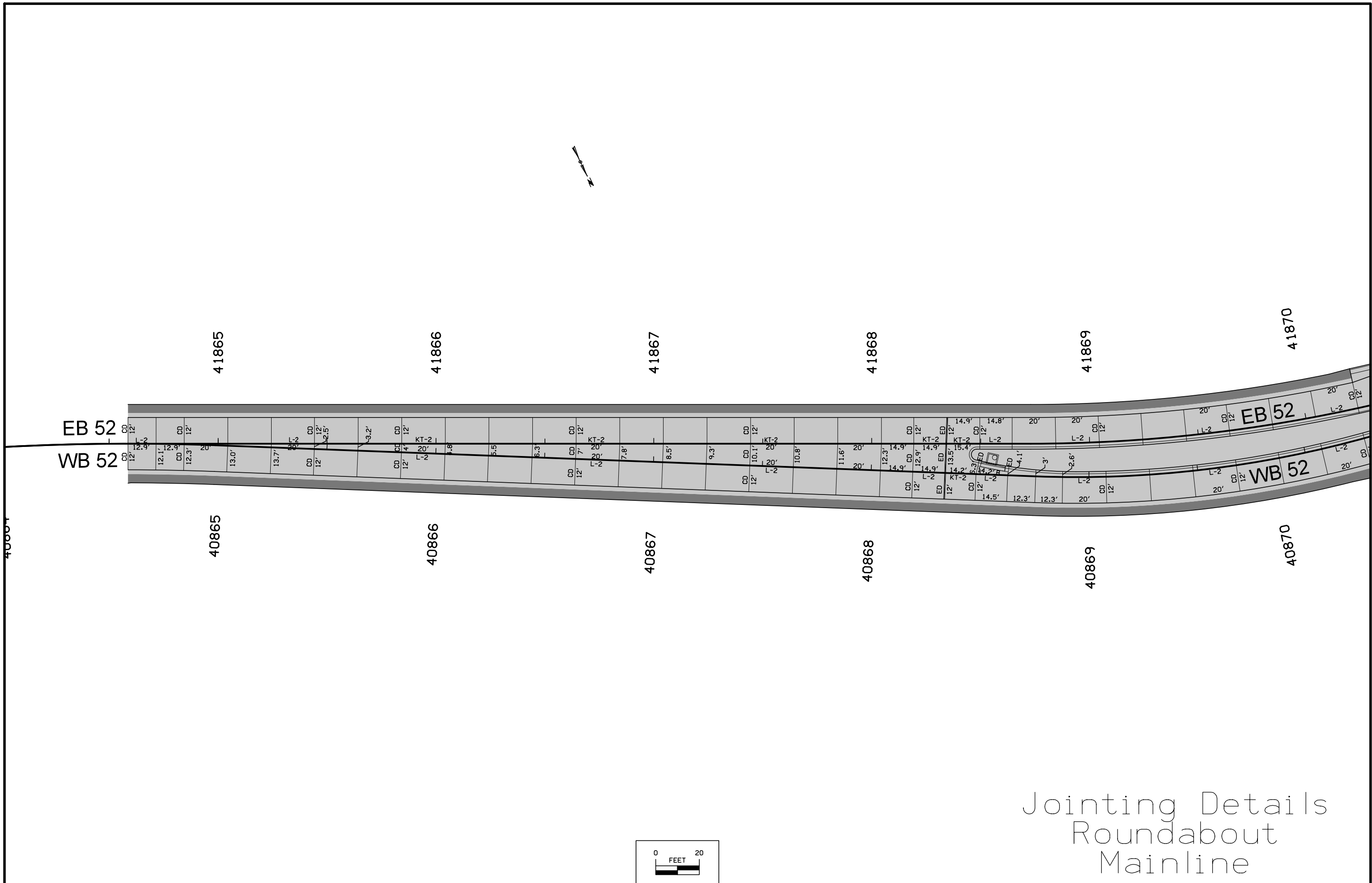
Jointing Details
US 52/IA 3



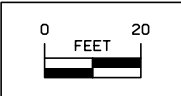
Jointing Details
Schmitt Lane

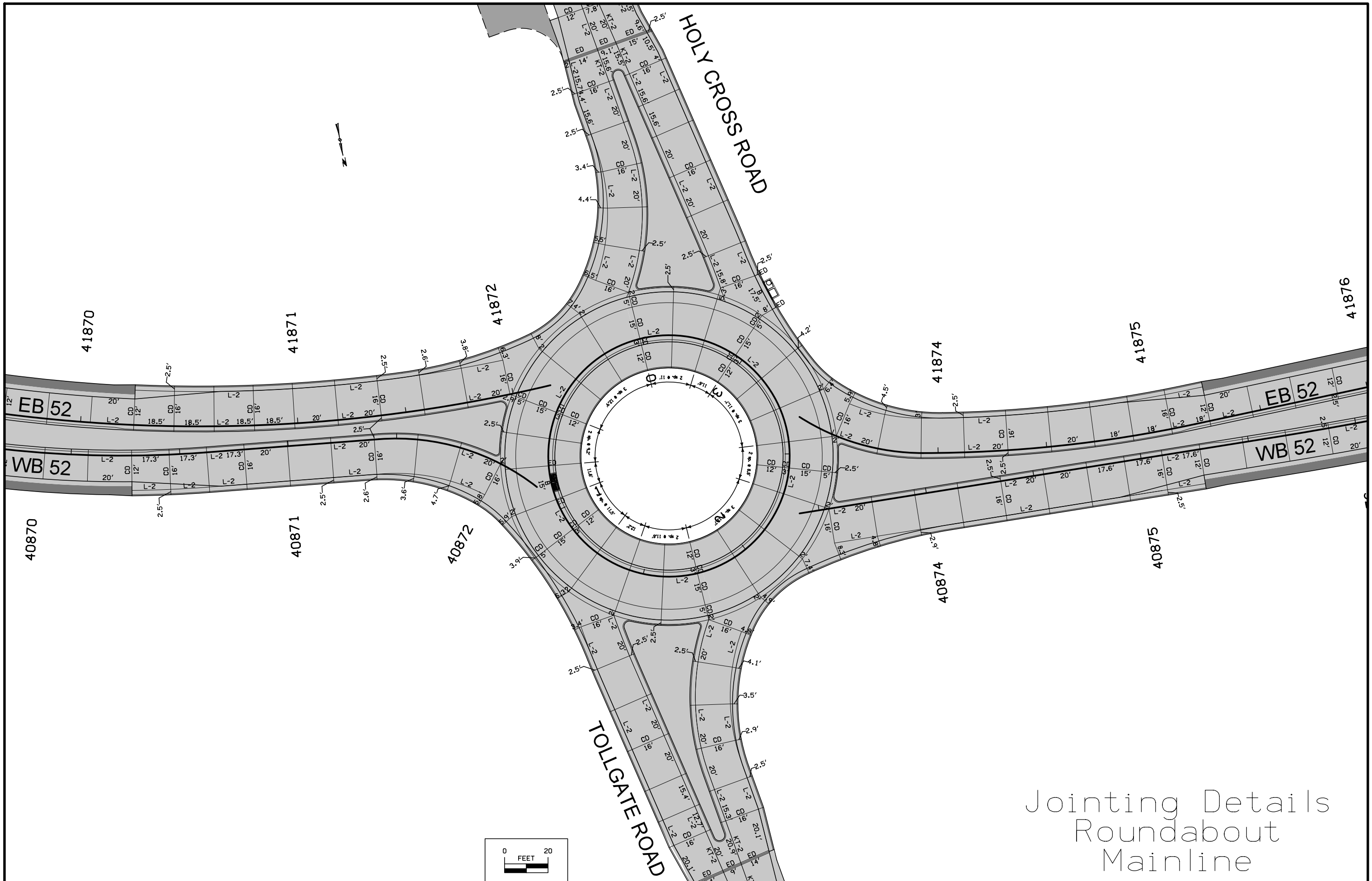


Jointing Details
Schmitt Lane



Jointing Details
Roundabout
Mainline





Jointing Details
Roundabout
Mainline



41876

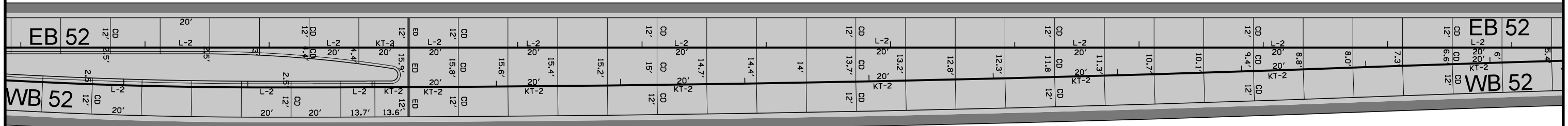
41877

41878

41879

41880

41881



40876

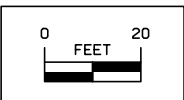
40877

40878

40879

40880

40881



Jointing Details
Roundabout
Mainline



41882

41883

41884

41885

EB 52	CD	12'	L-2	20'	3.1'	2.1'	2.4'	L-2	20'	12'	CD	12'	L-2	20'	12.8'	12.6'	12.4'	L-2	20'	12.3'	12.2'	12.1'	L-2	20'	14.8'	14.8'	12'	RT
WB 52	CD	12'	K-2	12'	12'	13.7'	13.3'	20'	13.1'	12'	CD	12'	CD	12'	12.8'	12.6'	12.4'	20'	12.3'	12.2'	12.1'	20'	14.8'	14.8'	12'	RT		

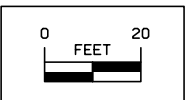
EB 52
WB 52

40882

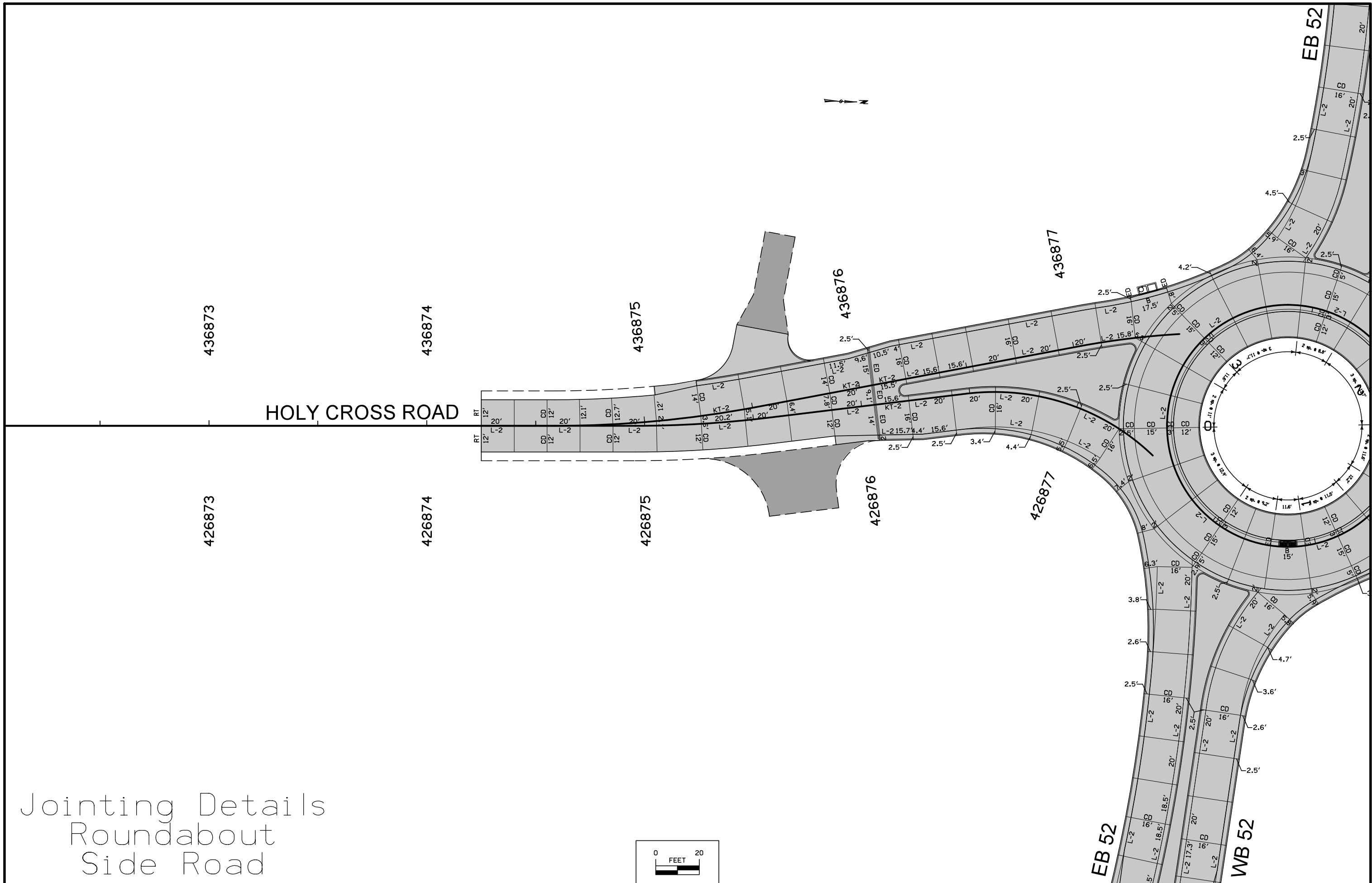
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40884

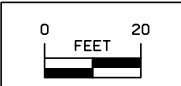
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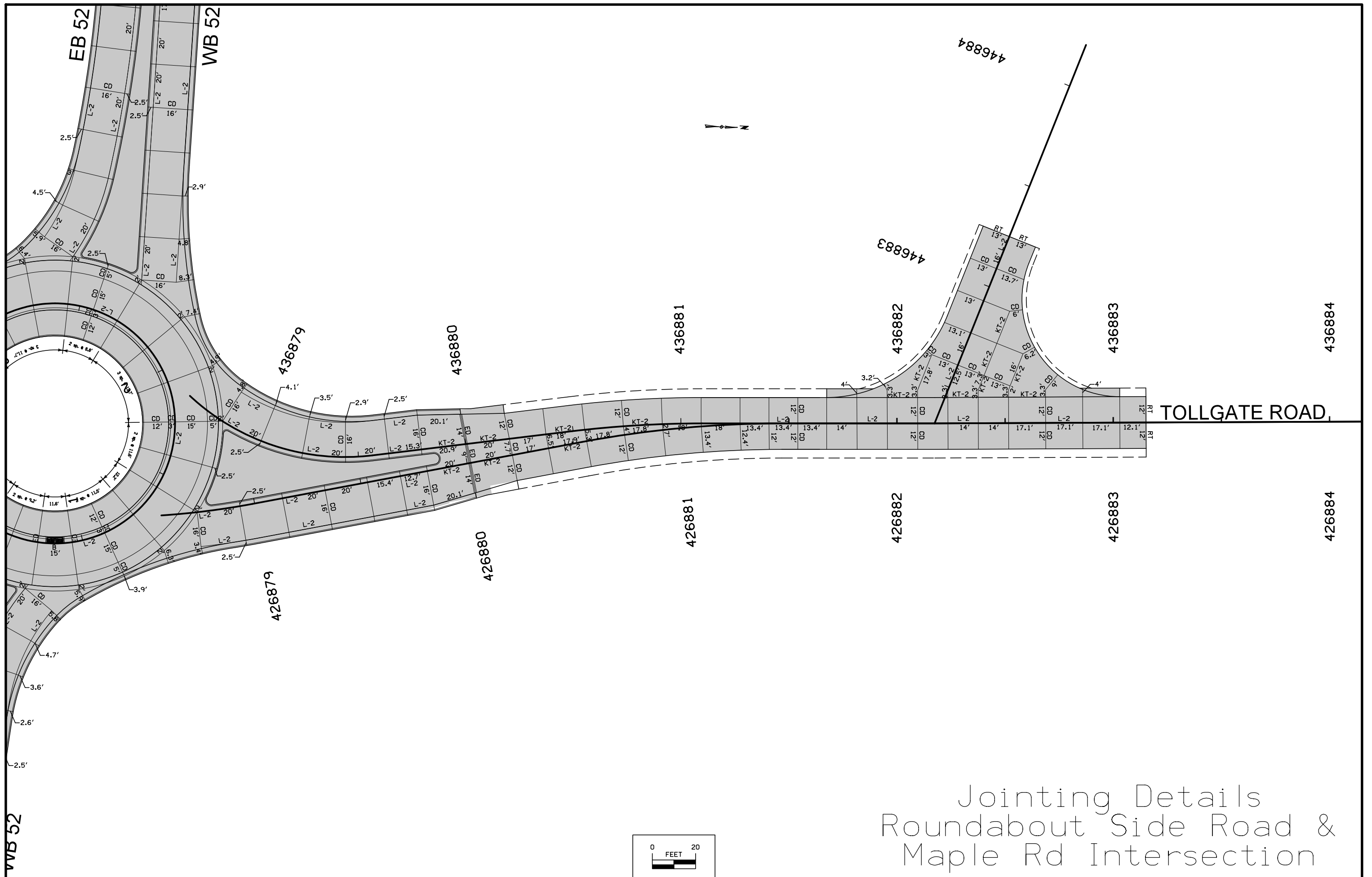


Jointing Details
Roundabout
Mainline



Jointing Details
Roundabout
Side Road





Jointing Details
 Roundabout Side Road &
 Maple Rd Intersection