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PCC PAVEMENT - GRADE AND REPLACE
STP-U-0132(628)--70-77

POLK COUNTY

LETTING DATE
11-17-2026

VALUE ENGINEERING SAVES. REFER TO ARTICLE 1105.13 OF THE SPCIFICATION.

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2. THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONS OF GENERAL PERMIT NO. 2 AND THE STORM WATER POLLUTION PREVENTION PLAN WHICH IS PART OF THESE CONTRACT DOCUMENTS.

REFER TO THE PROPOSAL FORM FOR LIST OF APPLICABLE SPECIFICATIONS.

**REFER TO SHEET C.8 FOR ALL APPLICABLE STANDARD ROAD PLANS.
REFER TO SHEET V.1 FOR ALL APPLICABLE LRFD CULVERT STANDARDS.**

CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT NO. 14. A COPY OF THIS PERMIT IS AVAILABLE FROM THE IOWA DOT WEBSITE (http://www.envpermits.iowadot.gov/). THE U.S.ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VISIT THE SITE WITHOUT PRIOR NOTICE.

ROADWAY IMPROVEMENT PLANS FOR
CITY OF ALTOONA
URBAN ROAD SYSTEM - PCC PAVEMENT - GRADE AND REPLACE
POLK COUNTY, IOWA

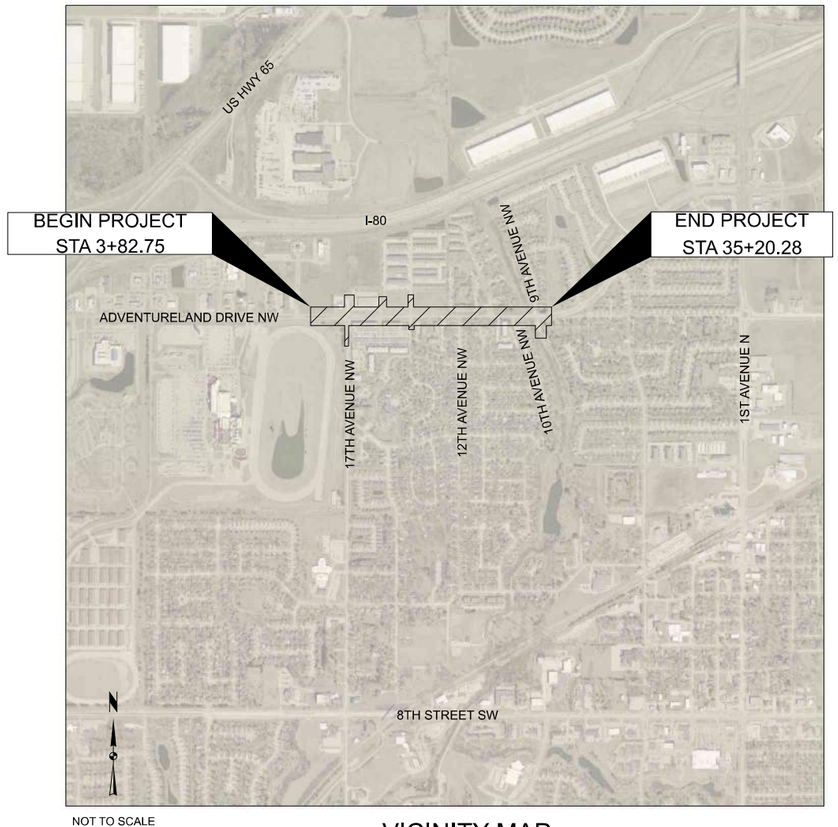
ADVENTURELAND DRIVE NW RECONSTRUCTION
WEST OF 17TH AVENUE NW TO EAST OF 5TH AVENUE NW

STP-U-0132(628)--70-77

	TOTAL
	293
PROJECT IDENTIFICATION NUMBER	
STP-U-0132(628)--70-77	
PROJECT NUMBER	
122.1679.01	

INDEX OF SHEETS

A.1 TITLE SHEET
A.2 LEGEND AND UTILITY CONTACTS
A.3 FUNDING DIVISIONS
B.1-B.16 TYPICAL SECTION AND DETAILS
C.1-C.16 QUANTITIES AND ESTIMATE REFERENCE
D.1-D.6 MAINLINE PLAN AND PROFILE
E.1-E.8 SIDEROAD PLAN AND PROFILE
F.1-F.10 TEMPORARY PAVEMENT
G.1-G.2 SURVEY CONTROL AND REFERENCE INFORMATION
H.1-H.8 RIGHT OF WAY INFORMATION
J.1-J.28 STAGING AND TRAFFIC CONTROL
L.1-L.10 GEOMETRICS AND JOINTING INFORMATION
M.1-M.10 STORM SEWER PLAN AND PROFILE
MSA.1-MSA.2 SANITARY SEWER PLAN AND PROFILE
MWM.1-MWM.17 WATER MAIN PLAN AND PROFILE
N.1-N.8 TRAFFIC SIGNAL INFORMATION
P.1-P.7 SIGNING AND LIGHTING INFORMATION
PM.1-PM.9 PAVEMENT MARKING INFORMATION
R.1-R.10 EROSION CONTROL PLAN SHEETS
S.1-S.23 SIDEWALK LAYOUT DETAILS & COMPLIANCE SHEET
T.1-T.11 EARTHWORK TABULATIONS
U.1-U.7 REMOVAL SHEETS
U.8-U.10 LANDSCAPE SHEETS
U.11-U.16 JUT PLAN SHEETS FOR INFORMATION ONLY
V.1-V.3 CULVERT SITUATION PLAN
V.4-V.8 RETAINING WALL PLAN AND PROFILE SHEETS
V.9 RETAINING WALL DETAIL
W.1-W.43 CROSS SECTIONS - MAINLINE
X.1-21 CROSS SECTIONS - SIDEROADS



NOT TO SCALE

VICINITY MAP

DESIGN AADT (2026)	
ADVENTURELAND DR NW	7,200
ESTIMATED TRUCK VOL	3%

DESIGN AADT (2076)	
ADVENTURELAND DR NW	13,100
ESTIMATED TRUCK VOL	3%

MILEAGE SUMMARY — 105-1

Location	Station	Lin. Ft.	Miles
ADVENTURELAND DR NW	Sta. 3+82.75 to Sta. 35+20.28	3,138	0.59

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	LAURA C LAMBERTY	PRIMARY SIGNATURE
A.1	ANDREW J HOUCHIN	TRAFFIC SIGNALS
U.8	TANNER VOLK	LANDSCAPE DESIGN
V.3	STEVEN A KLOCKE	CULVERT
V.9	JORDAN A GUSTAFSON	STRUCTURES

LICENSED PROFESSIONAL ENGINEER — ANDREW J. HOUCHIN — P25711 — IOWA

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.

8-17-26
Andrew J. Houchin, P.E. — Date

License Number P25711
My License Renewal Date is December 31, 2026
Pages or sheets covered by this seal:
N-Sheets

LICENSED PROFESSIONAL ENGINEER — LAURA C. LAMBERTY — P21814 — IOWA

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.

8-17-26
Laura C. Lamberty, P.E. — Date

License Number P21814
My License Renewal Date is December 31, 2026
Pages or sheets covered by this seal:
All sheets except N-Sheets, U.8-U.10, V.3 and V.9

IOWA DOT

ALTOONA

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/18/2026	DOT STP-U-0132(628)--70-77	Project No: 1221679

Sheet A.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TITLE SHEET

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet A.1

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LEGEND

Features

Existing

- Spot Elevation
- Contour Elevation
- Fence (Barbed, Field, Hog)
- Fence (Chain Link)
- Fence (Wood)
- Fence (Silt)
- Tree Line
- Tree Stump
- Deciduous Tree \ Shrub
- Coniferous Tree \ Shrub
- Communication — C(*) —
- Overhead Communication — OC(*) —
- Fiber Optic — FO(*) —
- Underground Electric — E(*) —
- Overhead Electric — OE(*) —
- Gas Main with Size — 4" G(*) —
- High Pressure Gas Main with Size — 4" HPG(*) —
- Water Main with Size — 8" W(*) —
- Sanitary Sewer with Size — 8" S(*) —
- Duct Bank — DUCT(*) —
- Test Hole Location for SUE w/ID — 1
- (*) Denotes the survey quality service level for utilities
- Sanitary Manhole
- Storm Sewer with Size — 12" ST —
- Storm Manhole
- Single Storm Sewer Intake
- Double Storm Sewer Intake
- Fire Hydrant
- Fire Hydrant on Building
- Water Main Valve
- Water Service Valve
- Well
- Utility Pole
- Guy Anchor
- Utility Pole with Light
- Utility Pole with Transformer
- Street Light
- Yard Light
- Electric Box — EB
- Electric Transformer
- Traffic Sign
- Communication Pedestal
- Communication Manhole
- Communication Handhole
- Fiber Optic Manhole
- Fiber Optic Handhole
- Gas Valve
- Gas Manhole
- Gas Apparatus
- Fence Post or Guard Post
- Underground Storage Tank
- Above Ground Storage Tank
- Sign
- Satellite Dish
- Mailbox
- Soil Boring
- Right-of-Way Line — R/W —
- Property Line
- Public Utility Easement Line
- Storm Sewer Easement Line

Proposed

- Spot Elevation
- Major Contour
- Minor Contour
- Construction Limits
- Roadway Alignment
- Roadway Stationing — 100+00
- Fence
- Safety Fence
- Silt Fence
- Filter Sock
- Retaining Wall
- Traffic Sign
- Street Light
- Traffic Signal
- Traffic Cabinet
- Traffic Ped Push Pole
- Fiber Optic
- Overstory Tree
- Understory Tree
- Shrubs
- Edge of Pavement
- Pavement Shading
- Pavement Jointing
- Pavement Sawcut
- Edge of Sidewalk
- Sidewalk Shading
- Sidewalk Ramp Shading
- Sidewalk Landing Shading
- Sidewalk Detectable Warnings
- Water Main
- Water Main Service
- Water Main Valve
- Water Main Reducer
- Water Main Hydrant
- Sanitary Sewer
- Sanitary Sewer Service
- Sanitary Sewer Cleanout
- Sanitary Manhole Type SW-301
- Storm Sewer Pipe
- Storm Sewer Subdrain
- Storm Sewer Service
- Storm Sewer Trenchdrain
- Storm Sewer Subdrain Cleanout
- Storm Sewer Manhole Type SW-401
- Storm Sewer Intake Type SW-505
- Storm Sewer Intake Type SW-506
- Storm Sewer Rip Rap
- Right of Way Aquisition Line
- Right of Way Aquisition Shading
- Temporary Easement Line
- Temporary Easement Shading
- Permanent Easement Line
- Permanent Easement Shading
- Staging - Current Pavement Shading
- Staging - Previous Pavement Shading
- Staging - Existing Pavement Shading
- Staging - Pavement Removals
- Staging - Sidewalk Removals
- Staging - Traffic Sign
- Staging - 42" Channeling Device
- Staging - Drum — X
- Staging - Type III Barricade
- Staging - Safety Closure
- Staging - Traffic Flow Arrows
- Staging - Temporary Barrier Rail

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI / ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551804987.

FO6-FIBER OPTIC	CITY OF ALTOONA RYAN OLDHAM 515-957-5147 ROLDHAM@ALTOONA-IOWA.COM
S1-SANITARY SEWER W1-WATER W2-WATER	CITY OF ALTOONA ANDREW STARR 515-418-5474 LOCATES@ALTOONA-IOWA.COM
C1-COMMUNICATION FO1-FIBER OPTIC	LUMEN - CENTURYLINK AUSTIN FREESEMAN 319-215-0190 AUSTIN.FREESEMAN@LUMEN.COM CARROLL WHEATON 515-229-5156 CARROLL.WHEATON@TDICABLE.COM
FO18-FIBER OPTIC (TO BE ABANDONED)	INTERNET CONSULTING SERVICES JOSH THOMPSON 515-371-3469 JTHOMPSON@ICS-LLC.NET
E1-ELECTRIC OE-OVERHEAD ELECTRIC G1-GAS HPG1-HP GAS	MIDAMERICAN ENERGY DEREK JOHNSON 515-901-8274 DEREK.JOHNSON@MIDAMERICAN.COM
C2-COMMUNICATION FO2-FIBER OPTIC	MEDIACOM COMMUNICATIONS CORP STEVEN CLEARY 845-645-5876 SCLEARY@MEDIACOMCC.COM
FO17-FIBER OPTIC	COMM DATA LINK JEFF BARTSCHER 515-357-9544 JBARTSCHER@COMMDATALINK.COM
FO9-FIBER OPTIC	METRONET MATTHEW MAINS 407-780-2969 MATTHEW.MAINS@METRONET.COM
FO8-FIBER OPTIC	UNITE PRIVATE NETWORKS, LLC MICHAEL DORR 515-468-7884 MICHAEL.DORR@UPNFIBER.COM
FO19-FIBER OPTIC	WELLMARK INC TONY MORRIS TMORRIS@BAKERELECTRIC.COM MATT LINCK 515-376-4490 LICKM@WELLMARK.COM
FO3-FIBER OPTIC	UNITI GROUP INC. FKA WINDSTREAM STEPHEN KNESS 319-538-1985 STEPHEN.KNESS@UNITI.COM
FO4-FIBER OPTIC	AUREON NETWORK SERVICES MATT WEISER 515-830-0497 MATTHEW.WEISER@AUREON.COM
FO20-FIBER OPTIC	BLUEBIRD FIBER DAVID FRAZIER 816-807-1045 DAVID.FRAZIER@BLUEBIRDNETWORK.COM
FO16-FIBER OPTIC	US CELLULAR DAVID SHARP DAVID.SHARP15@T-MOBILE.COM
FO-FIBER OPTIC	ABANDONED BLUEBIRD FIBER DAVID FRAZIER 816-807-1045 DAVID.FRAZIER@BLUEBIRDNETWORK.COM

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/17/2026	Pg:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet A.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

LEGEND AND UTILITY CONTACTS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet A.2

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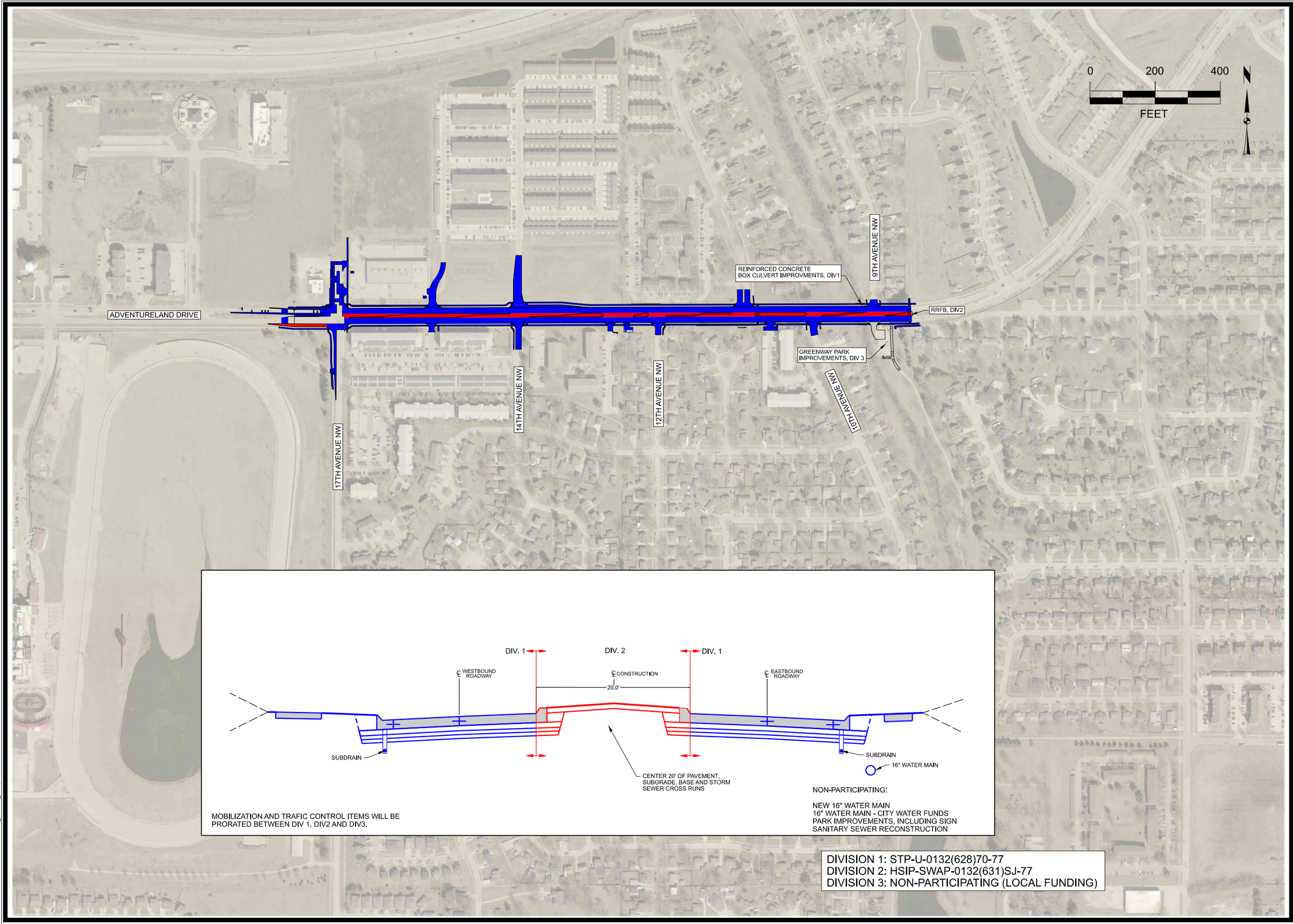

MOBILIZATION AND TRAFIC CONTROL ITEMS WILL BE PRORATED BETWEEN DIV 1, DIV2 AND DIV3.

NON-PARTICIPATING:

NEW 16" WATER MAIN
16" WATER MAIN - CITY WATER FUNDS
PARK IMPROVEMENTS, INCLUDING SIGN
SANITARY SEWER RECONSTRUCTION

DIVISION 1: STP-U-0132(628)70-77
DIVISION 2: HSIP-SWAP-0132(631)SJ-77
DIVISION 3: NON-PARTICIPATING (LOCAL FUNDING)

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	T-R-S:	

DOT STP-U-0132(628)–70-77
Project No: 1221679

Sheet A.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

FUNDING DIVISIONS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet A.3

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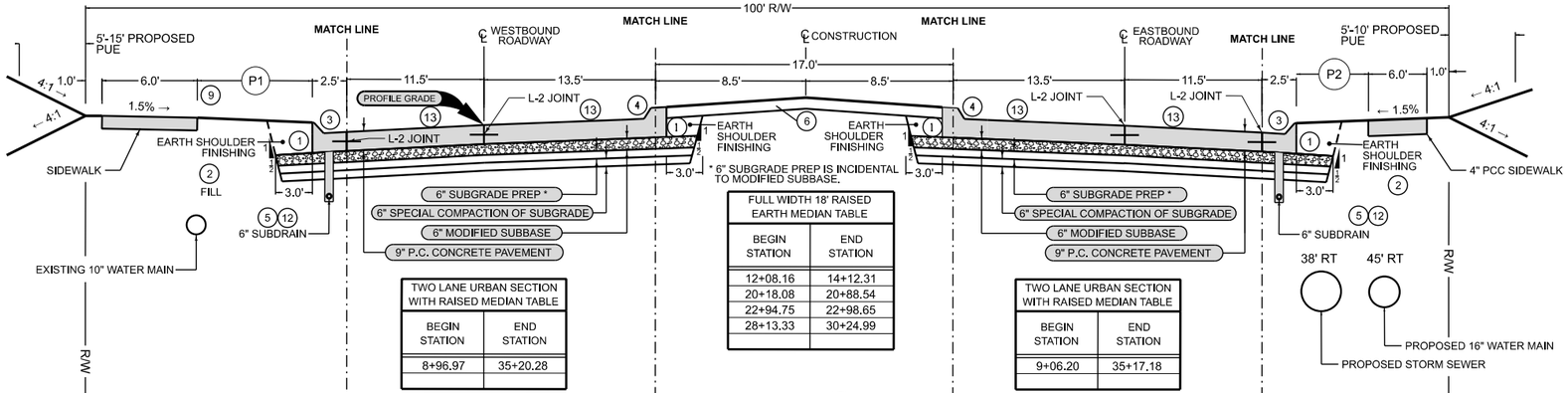
PARKING WIDTH AND SLOPE			
BEGIN STATION	END STATION	(P1) FEET	% SLOPE
9+35.00	9+50.00	8.0'	4.0-8.0
9+50.00	11+58.11	8.0'	8.0
11+58.11	12+08.11	8.0-7.0'	8.0
12+08.11	12+25.00	7.0'	8.0
12+25.00	12+50.00	7.0'	8.0-4.0
12+50.00	12+66.00	7.0'	4.0
13+63.00	15+50.00	7.0'	4.0
15+50.00	15+75.00	7.0'	4.0-8.0
15+75.00	16+52.00	7.0'	8.0
20+28.00	24+25.00	7.0'	4.0-8.0
24+25.00	26+25.00	7.0'	8.0
26+25.00	26+50.00	7.0'	8.0-4.0
26+50.00	26+85.00	7.0'	4.0
28+05.00	28+50.00	7.0'	4.0
28+50.00	28+75.00	7.0'	4.0-8.0
28+75.00	30+50.00	7.0'	8.0
30+50.00	30+75.00	7.0'	8.0-4.0
30+75.00	32+98.00	7.0'	4.0
33+90.00	35+00.00	7.0'	4.0



TWO LANE URBAN SECTION WITH RAISED MEDIAN TABLE	
BEGIN STATION	END STATION
8+96.97	35+20.28

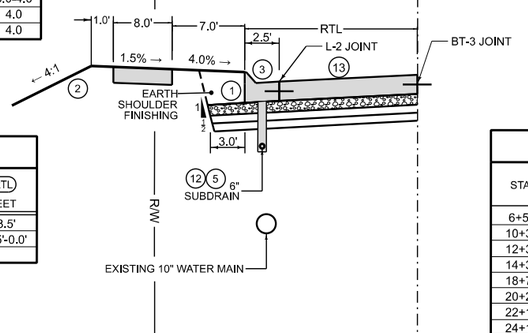
FULL WIDTH 18' RAISED EARTH MEDIAN TABLE	
BEGIN STATION	END STATION
12+08.16	14+12.31
20+18.08	20+88.54
22+94.75	22+98.65
28+13.33	30+24.99

TWO LANE URBAN SECTION WITH RAISED MEDIAN TABLE	
BEGIN STATION	END STATION
9+06.20	35+17.18

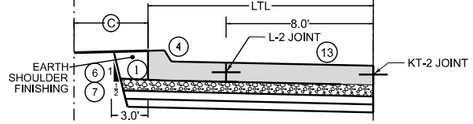
TYP-1

PARKING WIDTH AND SLOPE			
BEGIN STATION	END STATION	(P2) FEET	% SLOPE
9+44.00	9+75.00	7.0'	4.0
9+75.00	10+00.00	7.0'	4.0-8.0
10+00.00	12+50.00	7.0'	8.0
12+50.00	12+75.00	7.0'	8.0-4.0
13+40.00	13+50.00	7.0'	4.0
13+50.00	13+75.00	7.0'	4.0-8.0
13+75.00	14+75.00	7.0'	8.0
14+75.00	15+00.00	7.0'	8.0-4.0
15+00.00	16+75.00	7.0'	4.0
17+56.00	20+99.00	7.0'	4.0
21+62.00	21+75.00	7.0'	4.0
21+75.00	21+93.00	7.0'	4.0-2.0
22+17.00	22+30.00	7.0'	2.0-8.0
22+30.00	23+07.00	7.0'	8.0
23+94.00	28+33.00	7.0'	4.0
28+99.00	30+19.00	7.0'	4.0
31+12.00	32+00.00	7.0'	4.0
32+00.00	32+50.00	7.0'	4.0-(-4.0)
32+50.00	32+65.00	7.0'	-4.0
32+65.00	33+00.00	7.0'	-4.0-+4.0
33+00.00	33+06.00	7.0'	4.0
33+81.00	35+05.00	7.0'	4.0

WESTBOUND RIGHT TURN LANE			
BEGIN STATION	END STATION	(RTL) FEET	
17+57.90	19+07.90	13.5'	
19+07.90	20+27.90	13.5'-0.0'	

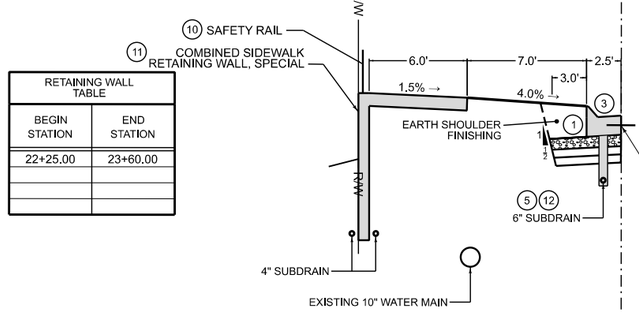


STREETLIGHT LOCATIONS	
STATION	OFFSET
6+50.00	45.00' LT
10+34.00	51.00' LT
12+34.00	51.00' LT
14+34.00	51.00' LT
18+70.00	63.00' LT
20+27.00	51.00' LT
22+17.00	51.00' LT
24+15.00	51.00' LT
26+43.00	51.00' LT
28+57.00	51.00' LT
30+69.00	51.00' LT
32+70.00	51.00' LT
34+70.00	51.00' LT

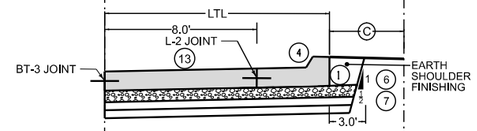


LEFT TURN LANE TABLE FOR EASTBOUND TRAFFIC			
BEGIN STATION	END STATION	(LTL) FEET	(C*) FEET
14+12.31	15+18.46	0-11.0'	17.0'-4.0'
15+18.46	16+68.40	11.0'-12.5'	4.0'-2.0'
25+10.29	25+65.26	0.0'-12.5'	6.0'
25+65.26	26+90.25	12.5'	6.0'
31+76.38	32+31.38	0.0'-11.0'	6.0'
32+31.38	33+06.17	11.0'-12.5'	6.0'-2.0'

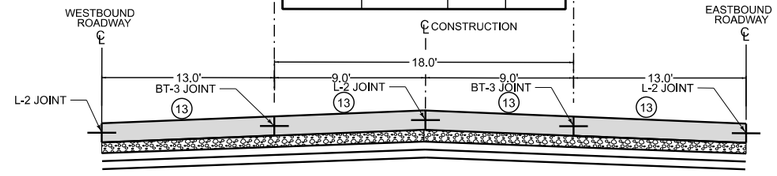
STREETLIGHT LOCATIONS	
STATION	OFFSET
6+50.00	62.50' RT
11+43.00	51.00' RT
13+44.00	51.00' RT
15+44.00	51.00' RT
19+50.00	51.00' RT
21+00.00	51.00' RT
23+05.00	51.00' RT
25+17.00	51.00' RT
27+37.00	41.50' RT
29+51.00	51.00' RT
31+84.00	51.00' RT
33+77.00	41.50' RT

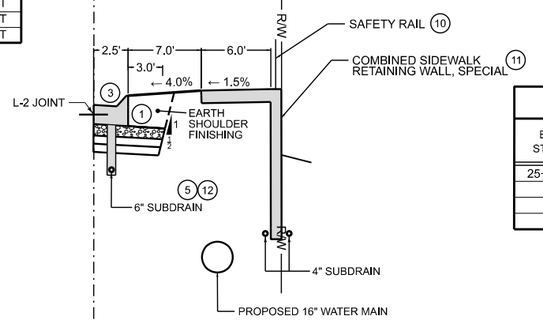


RETAINING WALL TABLE	
BEGIN STATION	END STATION
22+25.00	23+60.00



LEFT TURN LANE TABLE FOR WESTBOUND TRAFFIC			
BEGIN STATION	END STATION	(LTL) FEET	(C*) FEET
9+27.39	10+76.11	13.0'	2.0'-4.8'
10+76.11	12+08.16	13.0'-0.0'	4.8'-17.0'
17+54.44	19+07.74	12.5'	2.0'-4.9'
19+07.74	20+18.03	12.5'-0.0'	4.9'-17.0'
23+89.83	25+10.29	12.5'	6.0'
25+10.29	25+65.26	12.5'-0.0'	6.0'
31+06.00	31+76.03	12.5'	6.0'
31+76.03	32+31.03	12.5'-0.0'	6.0'
33+94.37	34+44.70	15.0'	2.0'-6.0'
34+44.70	35+20.27	12.5'-0.0'	6.0'-17.0'





RETAINING WALL TABLE	
BEGIN STATION	END STATION
25+25.00	28+05.00

NOTES:

1. EXCAVATE AND BACKFILL 3.0'.
2. REFER TO T-SHEET FOR CLASS 10 EXCAVATION CUT AND FILL AREAS.
3. 6" STANDARD CURB, REFER TO STANDARD ROAD PLAN PV-102.
4. 12" WIDE CURB, REFER TO DETAIL MC-1 ON SHEET B.6.
5. LOCATE 6" SUBDRAIN 1.0' INSIDE THE BACK OF CURB. SUBDRAIN MATERIAL SHALL BE CORRUGATED PVC WITH SMOOTH INTERIOR.
6. TOPSOIL BACKFILL, 12".
7. PCC PAVED MEDIAN WHERE MEDIAN IS 4' OR LESS IN WIDTH FROM CURB FACE TO CURB FACE.
8. 6' WIDE SIDEWALK AS SHOWN ON THE PLANS, REFER TO CROSS-SECTIONS FOR GRADING INFORMATION.
9. REFER TO CROSS-SECTIONS FOR PARKING SLOPE INFORMATION.
10. REFER TO B-SHEETS FOR SAFETY RAIL DETAIL.
11. REFER TO V-SHEETS FOR CONCRETE RETAINING WALL WITH SIDEWALK DETAIL.
12. 6" SUBDRAIN.
13. REFER TO L-SHEETS FOR CROSS SLOPE INFORMATION.

NOTE:
MEDIAN STATION RANGES ARE BASED OF MEDIAN NOSE PC/PT LOCATIONS.

ROADWAY INTERSECTION	
BEGIN STATION	END STATION
16+75.50	17+43.00
21+00.50	22+34.50
23+09.50	23+79.00
27+00.50	27+88.50
30+35.00	30+95.00
33+19.50	33+91.50

SEE TAB 100-24 FOR PAVEMENT QUANTITIES.

TYPICAL CROSS SECTION
4-LANE DIVIDED ROADWAY
WITH TURN LANES
ADVENTURELAND DRIVE NW
STA. 8+96.97 - STA. 35+20.28

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/27/2026	Pg:	

Sheet B.1

Project No: 1221679

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TYPICAL CROSS SECTIONS AND DETAILS

ALTOONA, IA

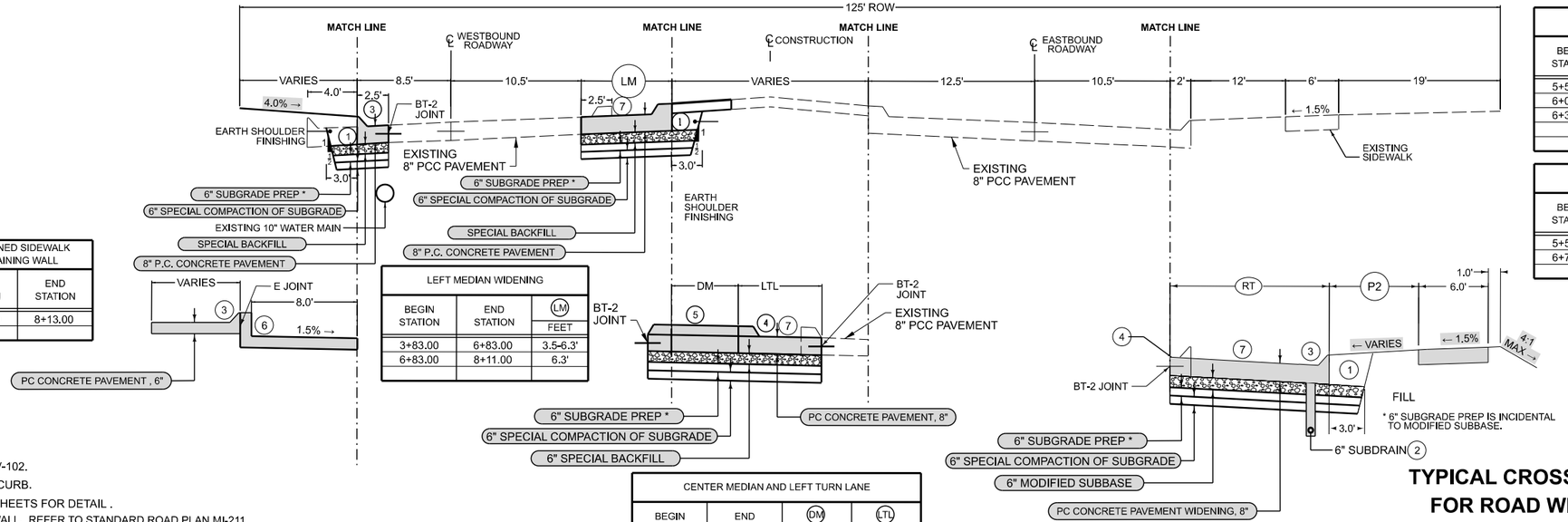
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.1

TYP-2



COMBINED SIDEWALK RETAINING WALL	
BEGIN STATION	END STATION
6+79.00	8+13.00

LEFT MEDIAN WIDENING		
BEGIN STATION	END STATION	(LM) FEET
3+83.00	6+83.00	3.5-6.3'
6+83.00	8+11.00	6.3'

CENTER MEDIAN AND LEFT TURN LANE			
BEGIN STATION	END STATION	(DM) FEET	(LTL) FEET
6+76.00	7+71.00	11.0-4.3'	2.9-5.5'
7+71.00	8+11.00	4.3-3.0'	5.5'

PARKING WIDTH AND SLOPE			
BEGIN STATION	END STATION	(P2) FEET	% SLOPE
5+54.00	6+03.00	12.0-7.0'	4.7-11.0
6+03.00	6+30.00	7.0'	11.0-4.0
6+30.00	8+14.00	7.0'	4.0

RIGHT TURN LANE WIDTH		
BEGIN STATION	END STATION	(RT) FEET
5+54.00	6+74.00	2.0-14.0'
6+74.00	8+14.00	14.0'

1. EXCAVATE AND BACKFILL 3.0'.
2. 6" SUBDRAIN.
3. 6" STANDARD CURB. REFER TO PV-102.
4. SAWCUT AND REMOVE EXISTING CURB.
5. DOWELED MEDIAN, REFER TO B-SHEETS FOR DETAIL .
6. COMBINED SIDEWALK RETAINING WALL. REFER TO STANDARD ROAD PLAN MI-211. REFER TO V-SHEETS FOR PROFILE.
7. REFER TO L-SHEETS FOR CROSS SLOPE INFORMATION.

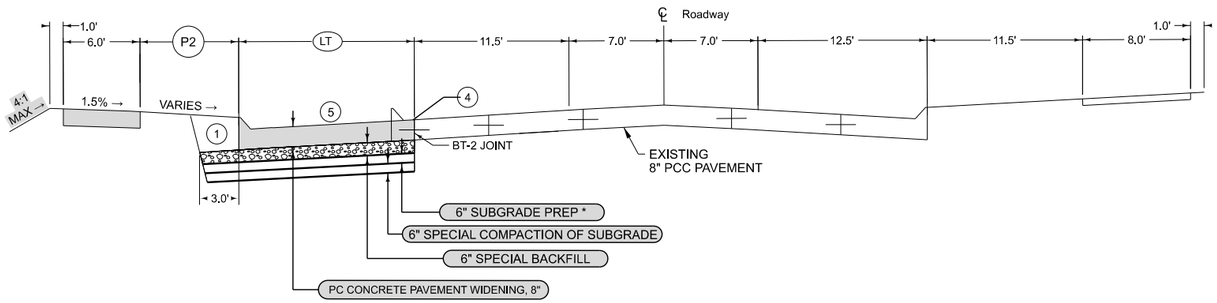
* 6" SUBGRADE PREP IS INCIDENTAL TO MODIFIED SUBBASE.

TYPICAL CROSS SECTION FOR ROAD WIDENING ADVENTURELAND DRIVE NW STA. 3+82.75 - STA. 8+70.14

TYP-3

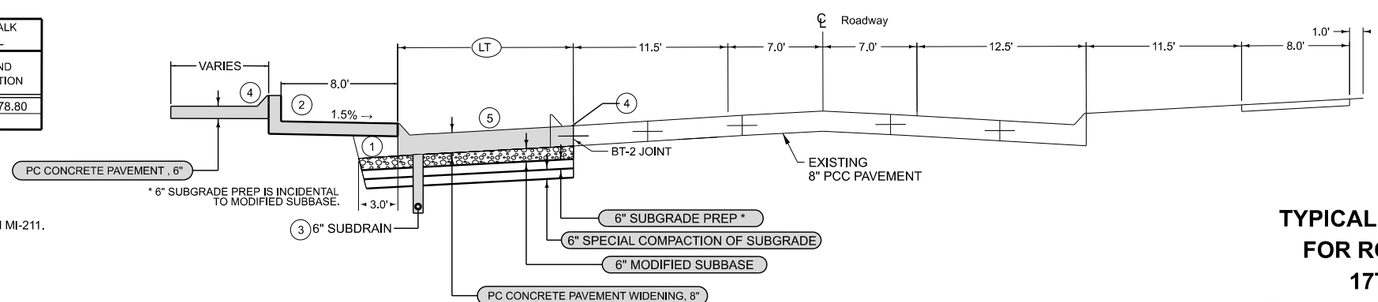
PARKING WIDTH AND SLOPE			
BEGIN STATION	END STATION	(P2) FEET	% SLOPE
102+31.07	103+01.75	7-8	4
103+16.00	103+68.43	8.5-10	4
103+68.43	104+42.66	10	4-8
104+42.66	104+79.97	10-9	8
104+79.97	105+06.04	VAR.	8

RIGHT TURN LANE WIDTH		
BEGIN STATION	END STATION	(LT) FEET
101+81.25	103+51.25	2.5-11.0
103+51.25	104+43.40	11.0
104+43.40	105+33.13	11.0-15.5
105+81.86	106+22.58	28.6-17.0
106+22.58	107+78.80	8.0
107+78.80	108+05.04	8.0-4.0
108+05.04	108+20.04	14.5-12.38



STA. 101+81.25 - STA. 105+33.13

COMBINED SIDEWALK RETAINING WALL	
BEGIN STATION	END STATION
106+10.75	107+78.80



STA. 105+81.86 - STA. 108+20.04

1. EXCAVATE AND BACKFILL 3.0'.
2. COMBINED SIDEWALK RETAINING WALL. REFER TO STANDARD ROAD PLAN MI-211. REFER TO V-SHEETS FOR PROFILE.
3. 6" SUBDRAIN.
4. 6" STANDARD CURB, REFER TO PV-102.
5. REFER TO L-SHEETS FOR CROSS SLOPE INFORMATION.

TYPICAL CROSS SECTION FOR ROAD WIDENING 17TH AVE NW STA. 101+81.25 - STA. 105+33.13 STA. 105+81.86 - STA. 108+20.04

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TYPICAL CROSS SECTIONS AND DETAILS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.2

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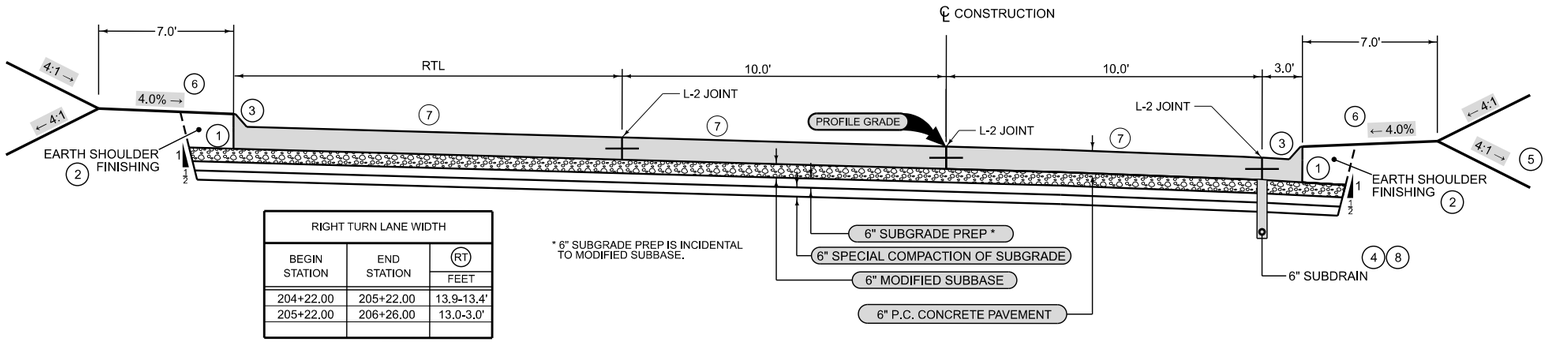
TYP-4



RIGHT TURN LANE WIDTH		
BEGIN STATION	END STATION	(RT) FEET
204+22.00	205+22.00	13.9-13.4'
205+22.00	206+26.00	13.0-3.0'

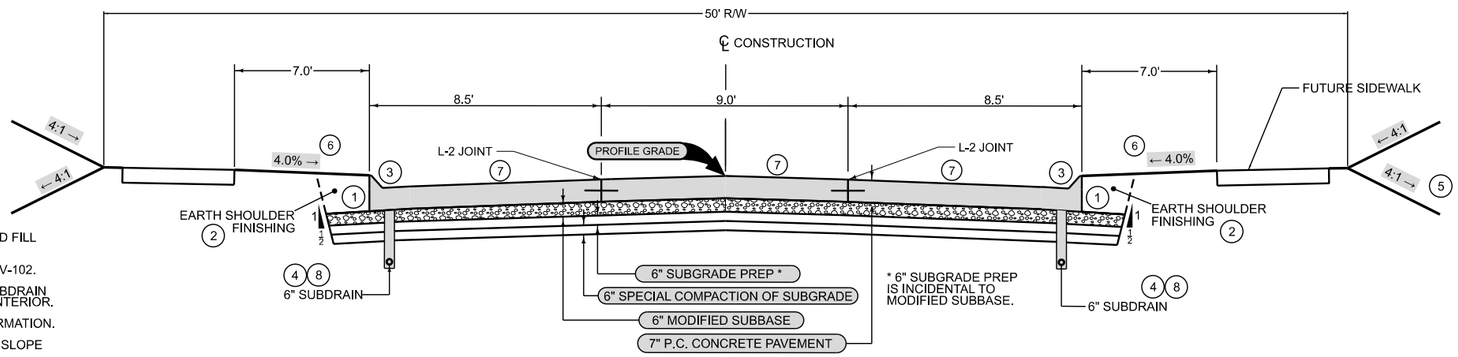
* 6" SUBGRADE PREP IS INCIDENTAL TO MODIFIED SUBBASE.

NOTES:

1. EXCAVATE AND BACKFILL 3.0'.
2. REFER TO T-SHEETS FOR CLASS 10 EXCAVATION CUT AND FILL AREAS.
3. 6" STANDARD CURB, REFER TO STANDARD ROAD PLAN PV-102.
4. NOT USED
6. REFER TO CROSS-SECTIONS FOR PARKING SLOPE INFORMATION.
7. REFER TO L-SHEETS FOR JOINTING LAYOUT AND CROSS SLOPE INFORMATION.
8. 6" SUBDRAIN.

TYPICAL CROSS SECTION
UNDIVIDED PRIVATE ROADWAY
BLUE RIDGE PLACE NW
STA. 203+92.19 - STA. 206+25.89

TYP-5



ROADWAY JOINTING TO MATCH EXISTING ROADWAY

* 6" SUBGRADE PREP IS INCIDENTAL TO MODIFIED SUBBASE.

NOTES:

1. EXCAVATE AND BACKFILL 3.0'.
2. REFER TO T-SHEETS FOR CLASS 10 EXCAVATION CUT AND FILL AREAS.
3. 6" STANDARD CURB, REFER TO STANDARD ROAD PLAN PV-102.
4. LOCATE 6" SUBDRAIN 1.0' INSIDE THE BACK OF CURB. SUBDRAIN MATERIAL SHALL BE CORRUGATED PVC WITH SMOOTH INTERIOR.
6. REFER TO CROSS-SECTIONS FOR PARKING SLOPE INFORMATION.
7. REFER TO L-SHEETS FOR JOINTING LAYOUT AND CROSS SLOPE INFORMATION.
8. 6" SUBDRAIN.

TYPICAL CROSS SECTION
UNDIVIDED ROADWAY
14TH AVENUE NW
STA. 201+99.00 - STA. 203+20.19

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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Project No: 1221679

Sheet B.3

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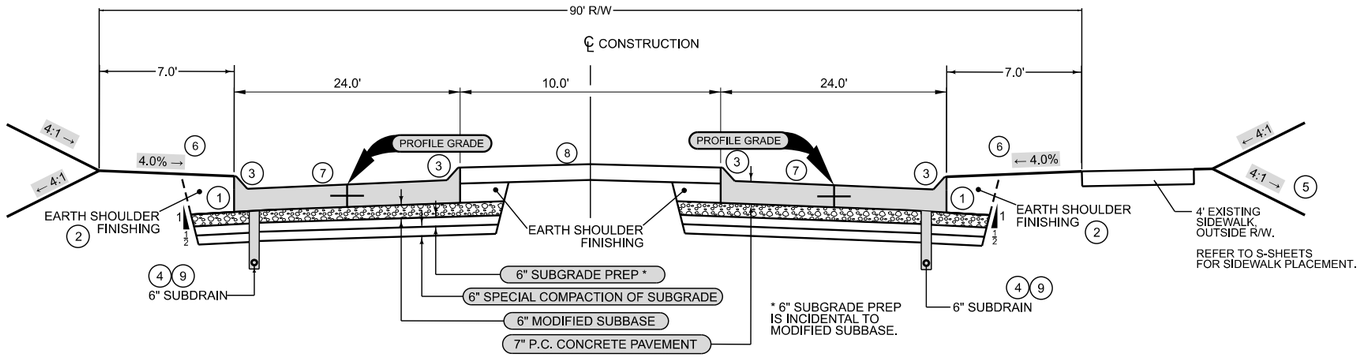
TYP-6

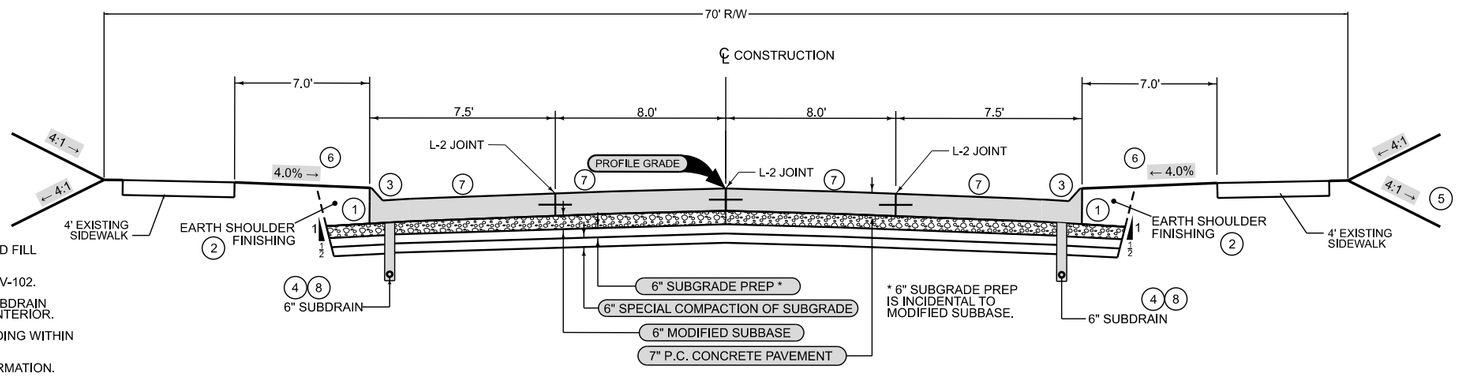


NOTES:

1. EXCAVATE AND BACKFILL 3.0'.
2. REFER TO T-SHEETS FOR CLASS 10 EXCAVATION CUT AND FILL AREAS.
3. 6" STANDARD CURB, REFER TO STANDARD ROAD PLAN PV-102.
4. LOCATE 6" SUBDRAIN 1.0' INSIDE THE BACK OF CURB. SUBDRAIN MATERIAL SHALL BE CORRUGATED PVC WITH SMOOTH INTERIOR.
5. REFER TO CROSS-SECTIONS FOR SHALLOW DITCH GRADING WITHIN RIGHT-OF-WAY.
6. REFER TO CROSS-SECTIONS FOR PARKING SLOPE INFORMATION.
7. REFER TO L-SHEETS FOR JOINTING LAYOUT AND CROSS SLOPE INFORMATION.
8. 12" TOPSOIL PLACEMENT.
9. 6" SUBDRAIN.

TYPICAL CROSS SECTION
DIVIDED ROADWAY
10TH AVENUE NW (NORTH)
STA. 401+44.66 - STA. 401+96.50

TYP-7



NOTES:

1. EXCAVATE AND BACKFILL 3.0'.
2. REFER TO T-SHEETS FOR CLASS 10 EXCAVATION CUT AND FILL AREAS.
3. 6" STANDARD CURB, REFER TO STANDARD ROAD PLAN PV-102.
4. LOCATE 6" SUBDRAIN 1.0' INSIDE THE BACK OF CURB. SUBDRAIN MATERIAL SHALL BE CORRUGATED PVC WITH SMOOTH INTERIOR.
5. REFER TO CROSS-SECTIONS FOR SHALLOW DITCH GRADING WITHIN RIGHT-OF-WAY.
6. REFER TO CROSS-SECTIONS FOR PARKING SLOPE INFORMATION.
7. REFER TO L-SHEETS FOR JOINTING LAYOUT AND CROSS SLOPE INFORMATION.
8. 6" SUBDRAIN.

TYPICAL CROSS SECTION
UNDIVIDED ROADWAY
10TH AVENUE NW (SOUTH)
STA. 501+30.00 - STA. 501+78.05

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

STP-U-0132(628)--70--77

Project No: 1221679

Sheet B.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.4

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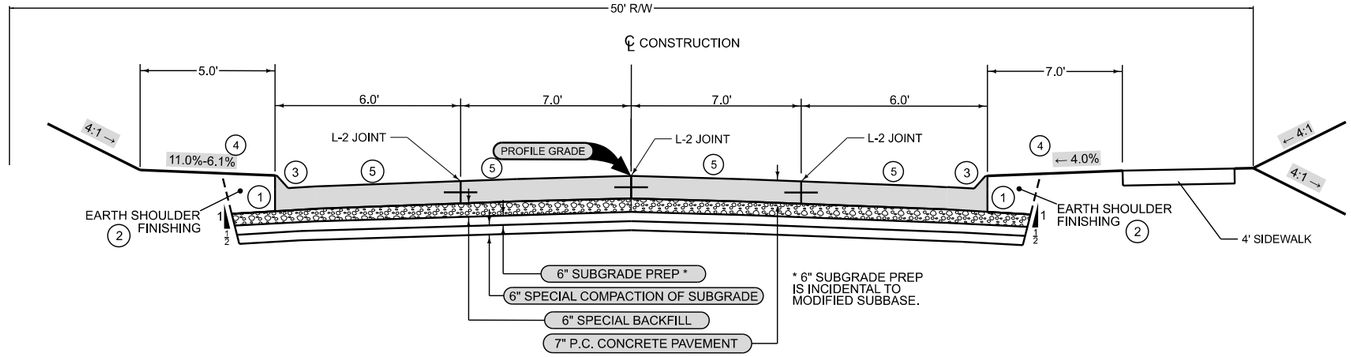
TYP-8



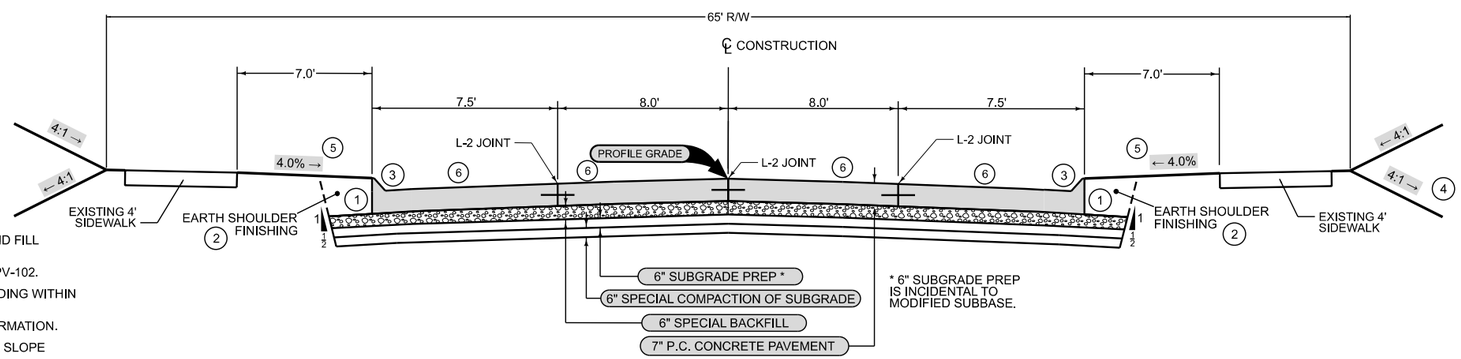
ROADWAY JOINTING TO MATCH EXISTING ROADWAY

NOTES:

1. EXCAVATE AND BACKFILL 3.0'.
2. REFER TO T-SHEETS FOR CLASS 10 EXCAVATION CUT AND FILL AREAS.
3. 6" STANDARD CURB, REFER TO STANDARD ROAD PLAN PV-102.
4. REFER TO CROSS-SECTIONS FOR PARKING SLOPE INFORMATION.
5. REFER TO L-SHEETS FOR JOINTING LAYOUT AND CROSS SLOPE INFORMATION.

TYPICAL CROSS SECTION
UNDIVIDED ROADWAY
12TH AVENUE NW
STA. 301+34.00 - STA. 302+19.98

TYP-9



NOTES:

1. EXCAVATE AND BACKFILL 3.0'.
2. REFER TO T-SHEETS FOR CLASS 10 EXCAVATION CUT AND FILL AREAS.
3. 6" STANDARD CURB, REFER TO STANDARD ROAD PLAN PV-102.
4. REFER TO CROSS-SECTIONS FOR SHALLOW DITCH GRADING WITHIN RIGHT-OF-WAY.
5. REFER TO CROSS-SECTIONS FOR PARKING SLOPE INFORMATION.
6. REFER TO L-SHEETS FOR JOINTING LAYOUT AND CROSS SLOPE INFORMATION.

TYPICAL CROSS SECTION
UNDIVIDED ROADWAY
9TH AVENUE NW
STA. 600+35.99 - STA. 600+65.99

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

STP-U-0132(628)--70--77

Project No: 1221679

Sheet B.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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Project No: 1221679

Sheet B.5

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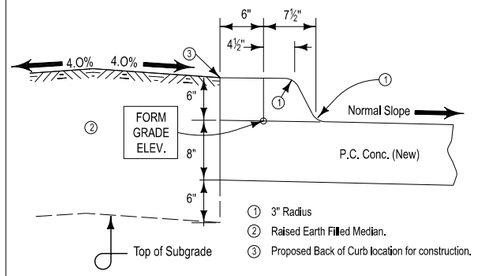
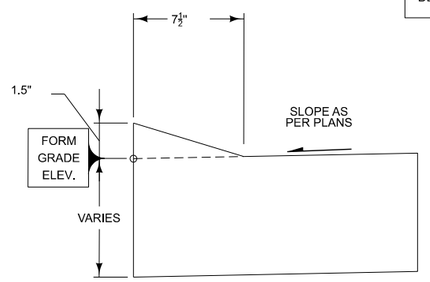
DETAIL 1



MEDIAN CURB (12" WIDE)
ON ADVENTURELAND DR NW

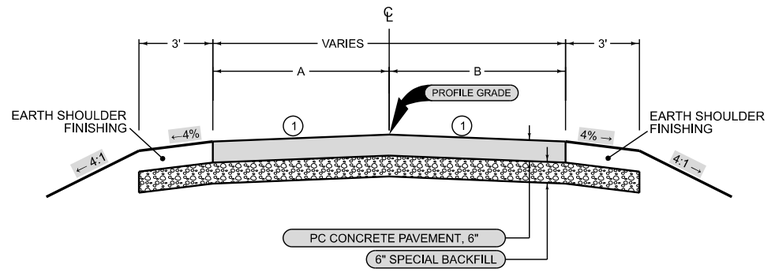
DETAIL 2



DRIVEWAY DROP CURB

DETAIL 3

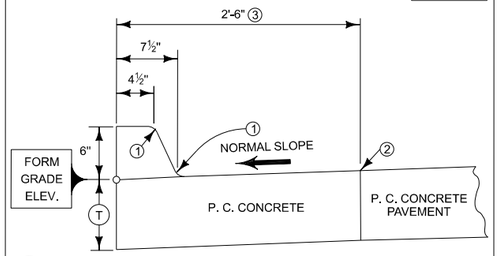
BEGIN STATION	END STATION	(A) FEET	(B) FEET
1001+38	1002+55.31	14-11	14-11



① FOR PAVEMENT CROSS SLOPE AND UNIFORM TRANSITION INFORMATION, REFER TO L SHEETS AND CROSS-SECTIONS

TYPICAL SECTION
ACCESS ROAD

DETAIL 4

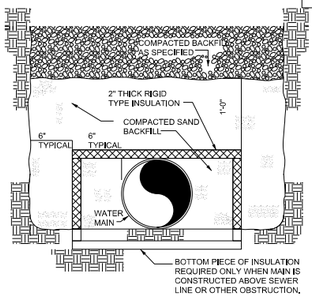


Ⓣ THICKNESS SPECIFIED FOR PAVEMENT

① 3" RADIUS
② L-2 JOINT
③ 3'-0" FOR ALL INTAKE BOX OUTS

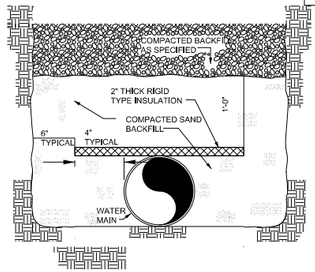
OUTSIDE LANE CURB
(STANDARD CURB - ADJACENT TO P.C.C.)

DETAIL 5



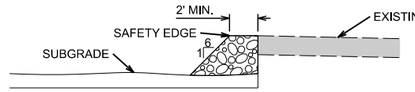
NEW PIPE INSULATION DETAIL
NOT TO SCALE

DETAIL 6



EXISTING PIPE INSULATION DETAIL
NOT TO SCALE

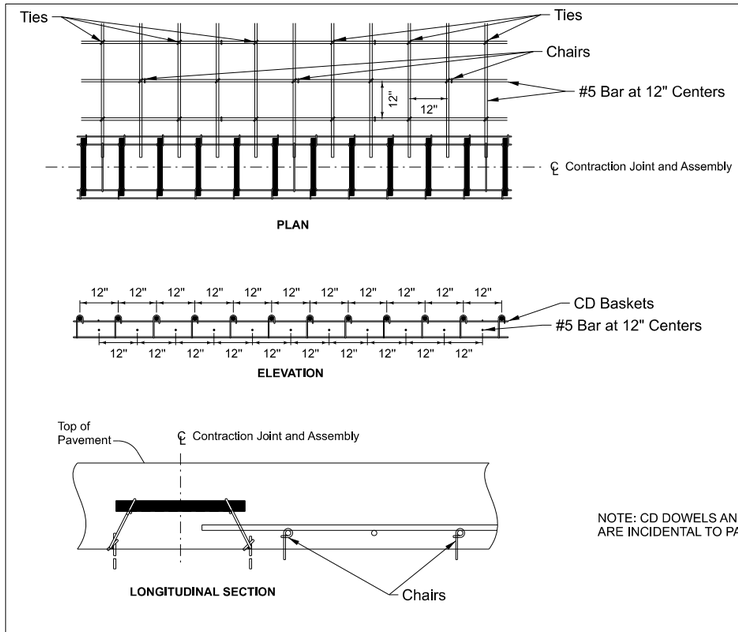
DETAIL 7



NOTES:
- GRANULAR SAFETY EDGING SHALL BE INSTALLED AND MAINTAINED DURING NON-WORKING HOURS AND WHEN TRAFFIC IS WITHIN 1' OF THE PAVEMENT EDGE.
- SAFETY EDGING SHALL BE EITHER MODIFIED SUBBASE OR OTHER GRANULAR MATERIAL APPROVED BY THE ENGINEER.

GRANULAR SAFETY EDGE DETAIL

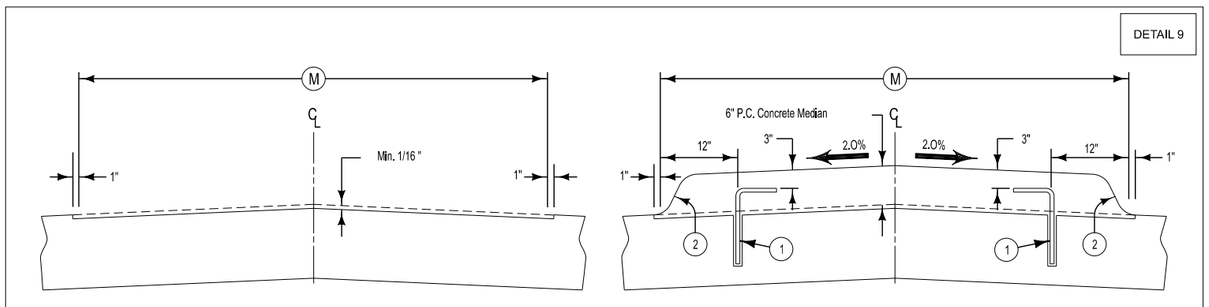
DETAIL 8



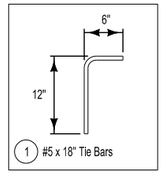
NOTE: CD DOWELS AND BASKETS ARE INCIDENTAL TO PAVEMENT ITEM.

STEEL REINFORCEMENT MAT DETAIL

DETAIL 9



Notes:
1. This section may be appropriately modified in areas specifically designated by the Engineer.
2. Use 'C' joints in the doweled median and match the location of all transverse and longitudinal joints to the joints in the existing pavement.
3. Place tie bars at 24" C-C longitudinal spacing between joints in existing pavement.
4. Drill ¾" holes for tie bars and epoxy to new pavement. See Tabulation 112-5 for additional details. Epoxy material shall be as specified in Materials IM 491.11, appendix C.



② 6" Standard Curb

DOWELED MEDIAN
WITH STANDARD CURB

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

STP-U-0132(628)--70--77

Project No: 1221679

Sheet B.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TYPICAL CROSS SECTIONS AND DETAILS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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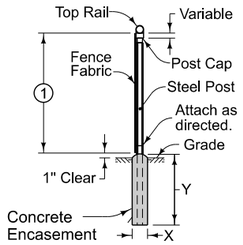
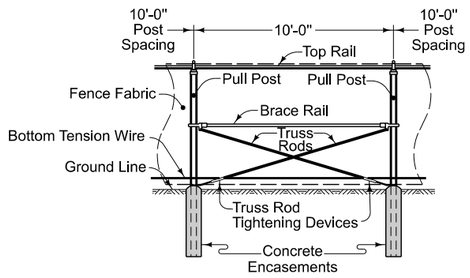
Project No: 1221679

Sheet B.6

DETAIL 10



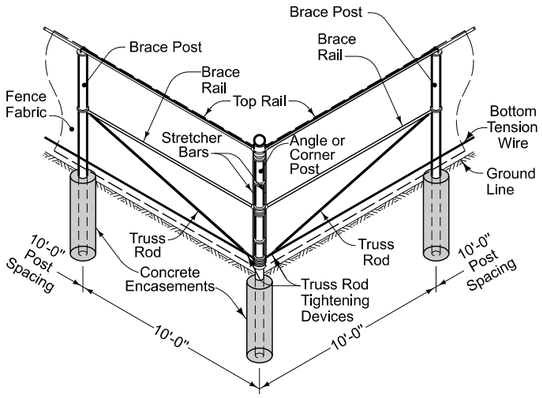
POST INSTALLATION



PULL POST INSTALLATION

Place fence fabric on roadway side of post. For certain curves, stream crossings, or other locations, the Contractor has the option to place fabric on the side of the post away from the roadway.

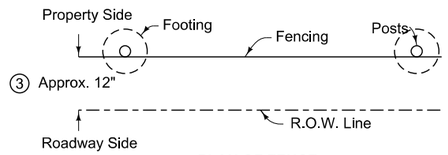
1. Fabric width as specified in the contract documents.
2. For fence heights greater than 8 feet, the depth of the fence post footing is 3 feet plus 3 inches for each 1 foot in height over 8 feet.
3. Install the fence on the roadway side of the right-of-way when specified in the contract documents.



ANGLE OR CORNER POST INSTALLATION

FENCE POST FOOTING DEPTH AND DIAMETER

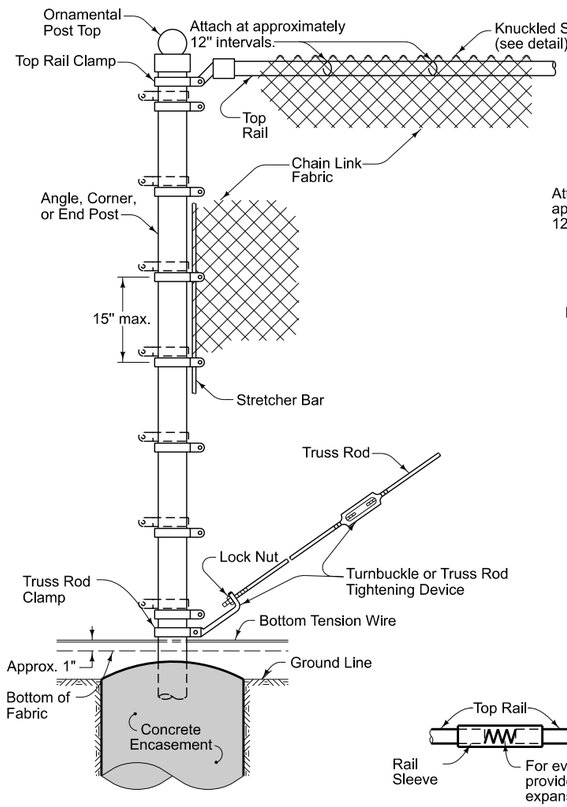
USE IN FENCE	FENCE HEIGHT					
	4'-0" and less		Over 4'-0" to 8'-0"		Over 8'-0"	
	X	Y	X	Y	X	Y
Line and Brace Posts	0'-8"	3'-0"	0'-10"	3'-0"	1'-0"	(2)
Terminal Post*	0'-10"	3'-0"	1'-0"	3'-0"	1'-4"	(2)
*Includes corner, angle, end, and pull posts.						



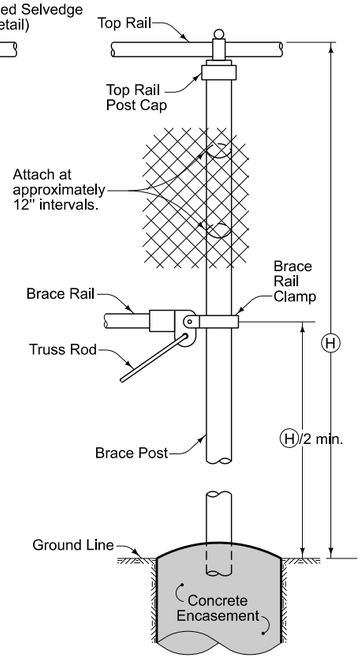
PLAN OF FENCE

POST INSTALLATION DETAIL

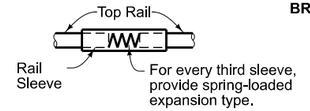
DETAIL 11



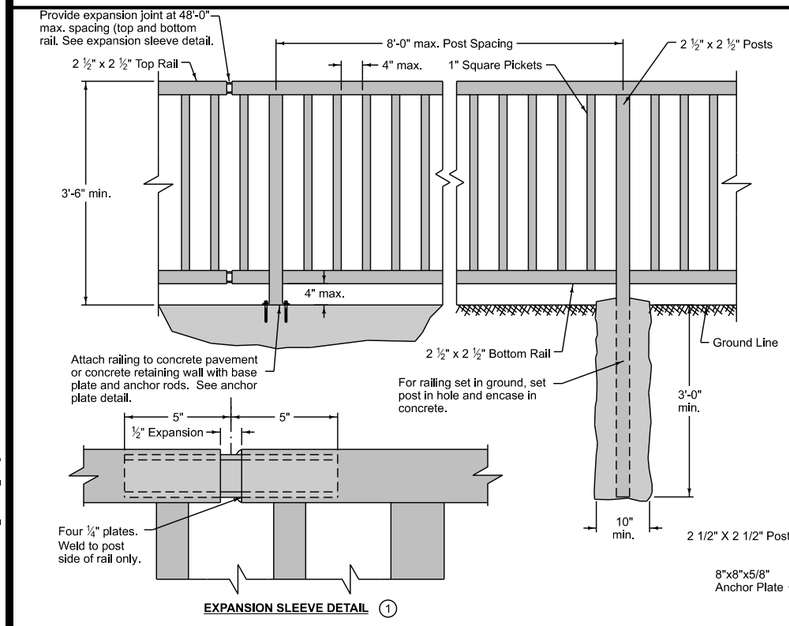
ANGLE, CORNER, OR END POST ASSEMBLY



BRACE POST ASSEMBLY



RAIL SLEEVE

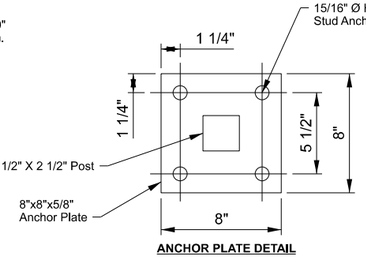


EXPANSION SLEEVE DETAIL (1)

Weld all components with 1/4 inch fillet welds. Grind welds and connections as required to provide a smooth surface, free of burrs.

Field paint safety rail after installation as specified in the contract documents.

(1) Detail shown is for top rail. Expansion joint for bottom rail is similar.



ANCHOR PLATE DETAIL

DETAIL 12

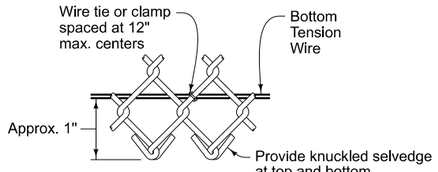
ORNAMENTAL METAL RAILING POWDER COATING NOTES:

After galvanizing, the railing panels, top rails, splice sleeves, posts and base plates shall be prepared for powder coating in accordance with ASTM D 6386, and then powder coated by an approved powder coating shop meeting the requirements listed in Iowa D.O.T. Materials I.M. 566. Preparation for powder coating shall include zinc phosphate pretreatment and preheating of railing components. Preheating temperature shall not exceed 400°f. Powder coating materials shall be compatible with the galvanized coating. Powder coating shall include the use of degassing grade polyester powder and an anti-blistering agent. Minimum coating coverage at railing component corners shall be 3 mils when measured in accordance with ASTM D 2967. Submit proposed preparation methods and product data for all coatings proposed for use to the engineer, for review and approval prior to powder coating. Color shall match federal standard 595c color number 27038 (black). Submit coated color sample to the engineer, for review and approval prior to powder coating. Protect all powder coated railing surfaces from damage during shipping, handling, and installation.

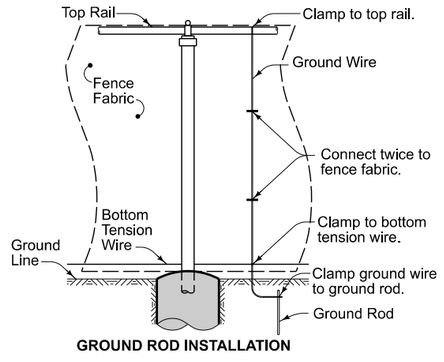
Following railing installation, repair any damage to the powder coated finish in accordance with the coating manufacturer's recommendations. Submit the powder coating manufacturer's written field repair and recoating procedures to the engineer prior to touch-up operations.

Following completion of coating touch-up, the finished surface shall be uniform in color, sheen, texture and hiding across each continuous surface area when viewed in natural daylight at normal viewing angles and from distances not less than 39 inches from surface. Railing components deemed unacceptable by the engineer shall be removed and returned to an approved powder coating shop, and shall be completely stripped of powder coating and recoated in accordance with the contract documents at no additional cost to the project.

ORANMENTAL METAL RAILING AND INSTALLATION



BOTTOM TENSION WIRE AND KNUCKLED SELVEDGE



GROUND ROD INSTALLATION

POST ASSEMBLY DETAIL

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TYPICAL CROSS SECTIONS AND DETAILS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.7

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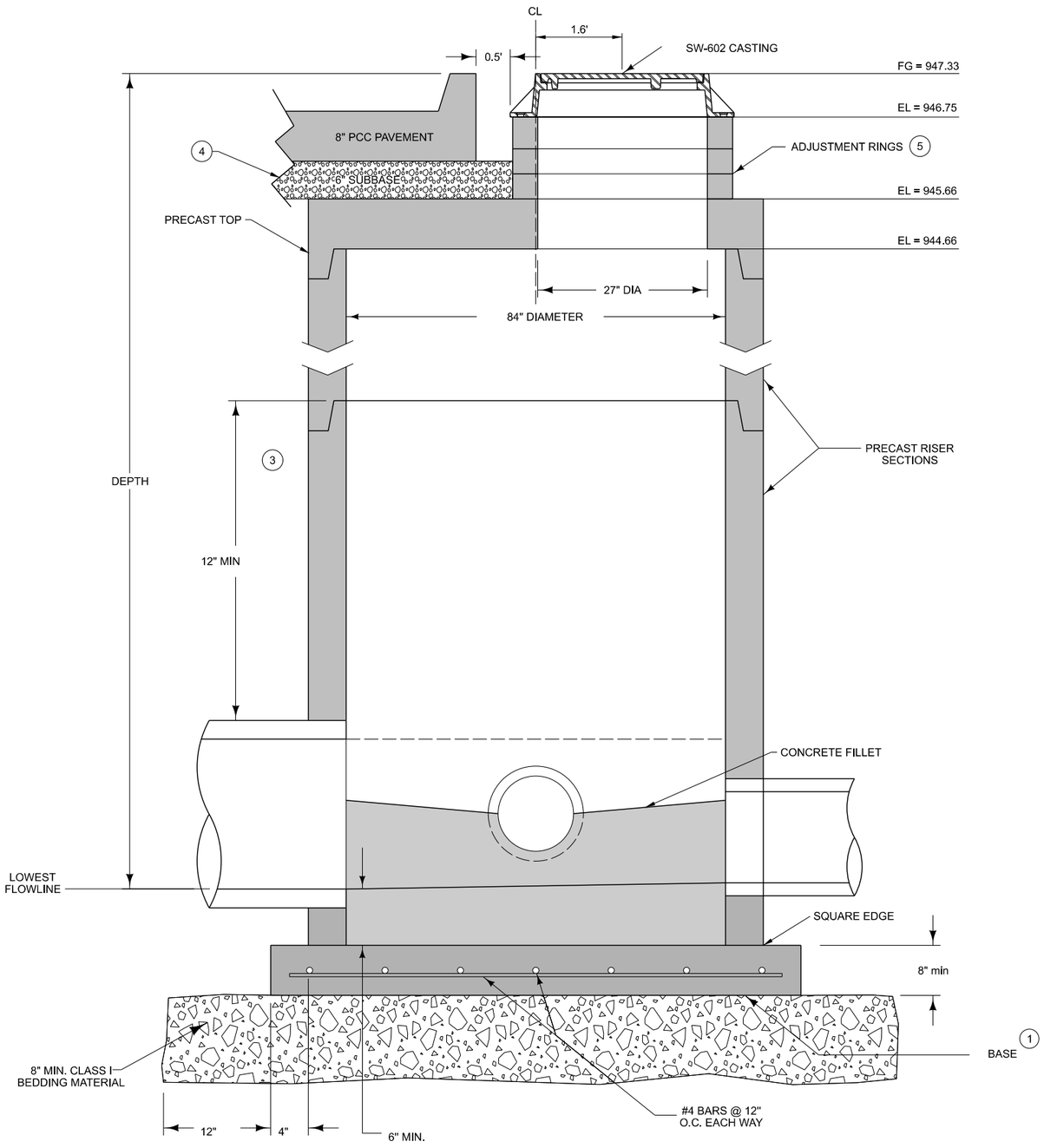

ST-36, SW-401 (84"), SPECIAL MODIFIED
(OFFSET CASTING)

IF MANHOLE DEPTH EXCEEDS 20 FEET, INSTALL STEPS.

1. CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH BOTTOM RISER, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE RISER.
2. FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES OF CONCRETE BETWEEN VERTICAL EDGES OF PIPE OPENINGS.
3. 12 INCH MINIMUM RISER HEIGHT ABOVE ALL PIPE OPENINGS.
4. PROVIDE MINIMUM CLEARNANCE FOR 6" SUBBASE AND 8" PCC PAVEMENT FROM TOP OF LID.
5. PROVIDE MAXIMUM 15" ADJUSTMENT RINGS.

MANHOLE DIAMETER (INCHES)	MAXIMUM PIPE DIAMETER (INCHES) FOR 2 PIPES (2)	
	AT 180° SEPARATION	AT 90° SEPARATION
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

MODIFIED ROAD PLAN

SW-401M

SHEET 1 of 1

CIRCULAR STORM SEWER MANHOLE MODIFIED

STP-U-0132(628)--70-77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TYPICAL CROSS SECTIONS AND DETAILS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.8

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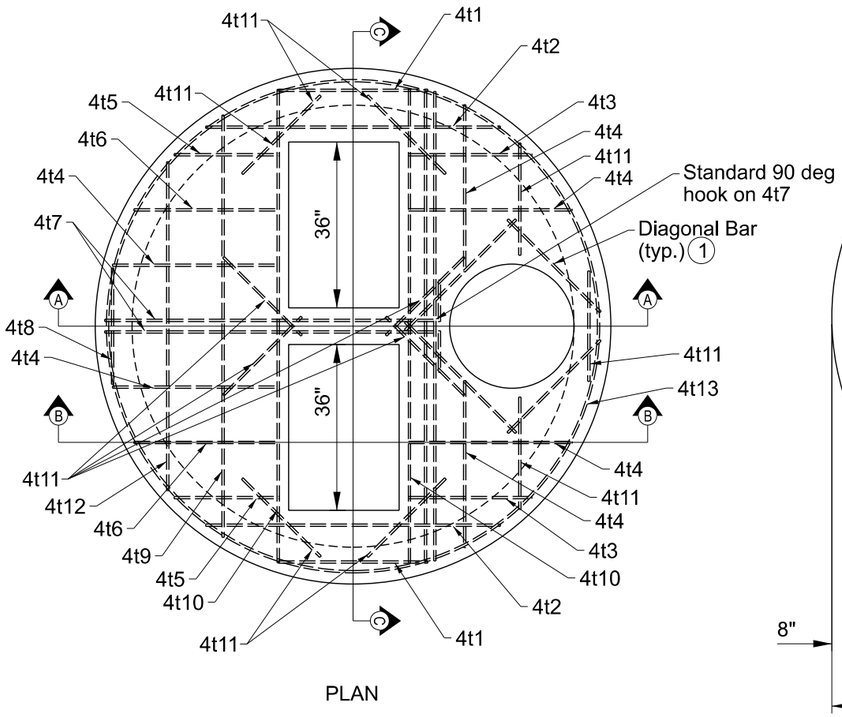
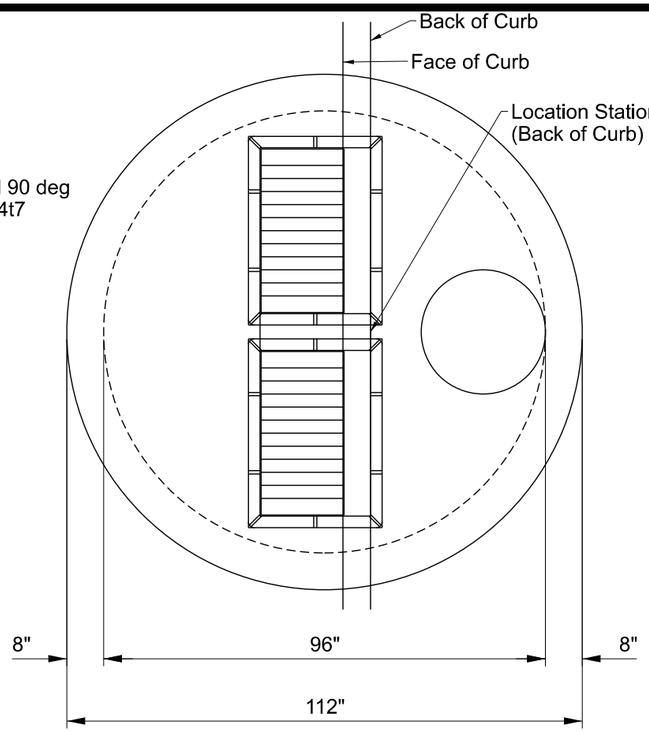


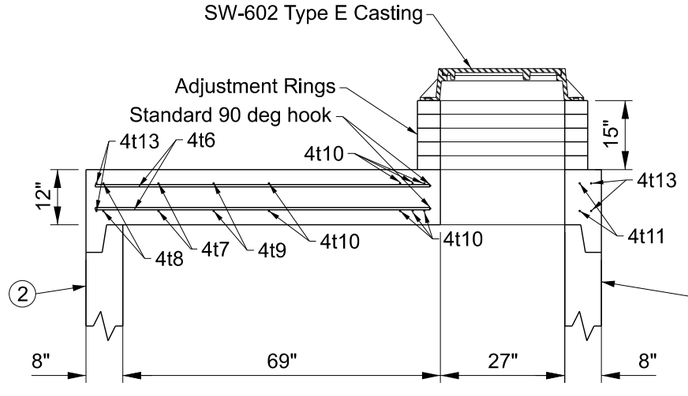
PLAN



REINFORCING BAR LIST						
Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	———	4	2'-9"	12"
4t2	4	Top	———	4	5'-4"	12"
4t3	4	Top	———	4	2'-3"	12"
4t4	8	Top	———	8	3'-0"	12"
4t5	4	Top	———	4	1'-11"	12"
4t6	4	Top	———	4	2'-8"	12"
4t7	4	Top	———	4	6'-8"	12"
4t8	4	Top	———	2	2'-1"	12"
4t9	4	Top	———	2	7'-8"	12"
4t10	4	Top	———	8	8'-6"	12"
4t11	4	Top	———	6	2'-0"	12"
4t12	4	Top	———	2	6'-0"	12"
4t13	4	Top	52" radius	8	8'10"	-----

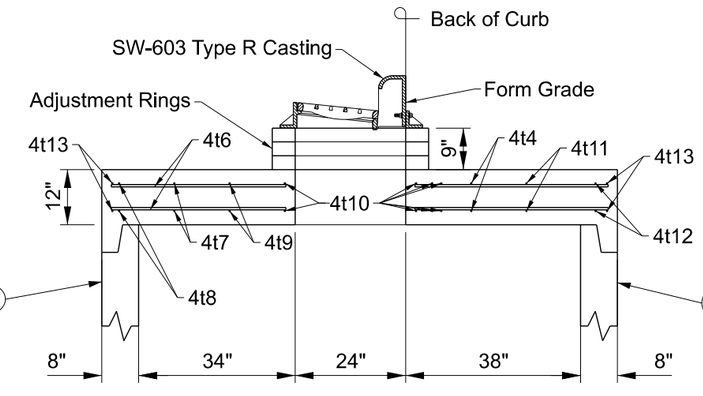
(1) Install 24 #4x2'0" diagonal bars at openings

(2) Reinforcement of wall and bottom to follow Iowa DOT Standard Road Plan SW-401 Detail



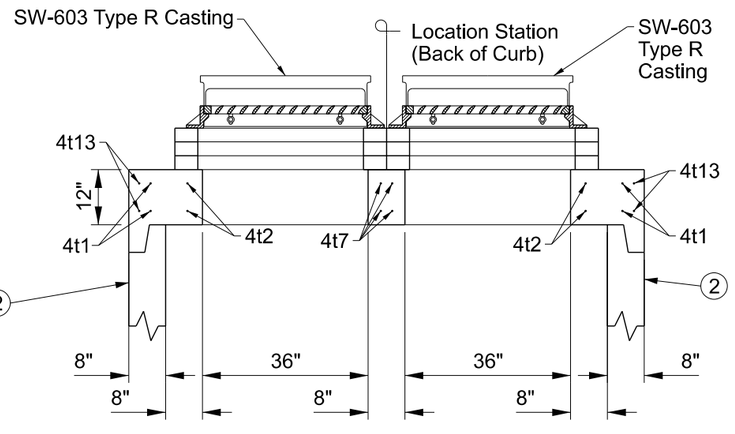
Diagonal bars not shown for clarity

SECTION A-A



Diagonal bars not shown for clarity

SECTION B-B



Diagonal bars not shown for clarity

SECTION C-C

BASE OF INTAKE IS 96" DIA MANHOLE per SW-401 (96")

	MODIFIED ROAD PLAN	SW-502M
		SHEET 1 of 2

DOUBLE GRATE INTAKE WITH MANHOLE

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.9

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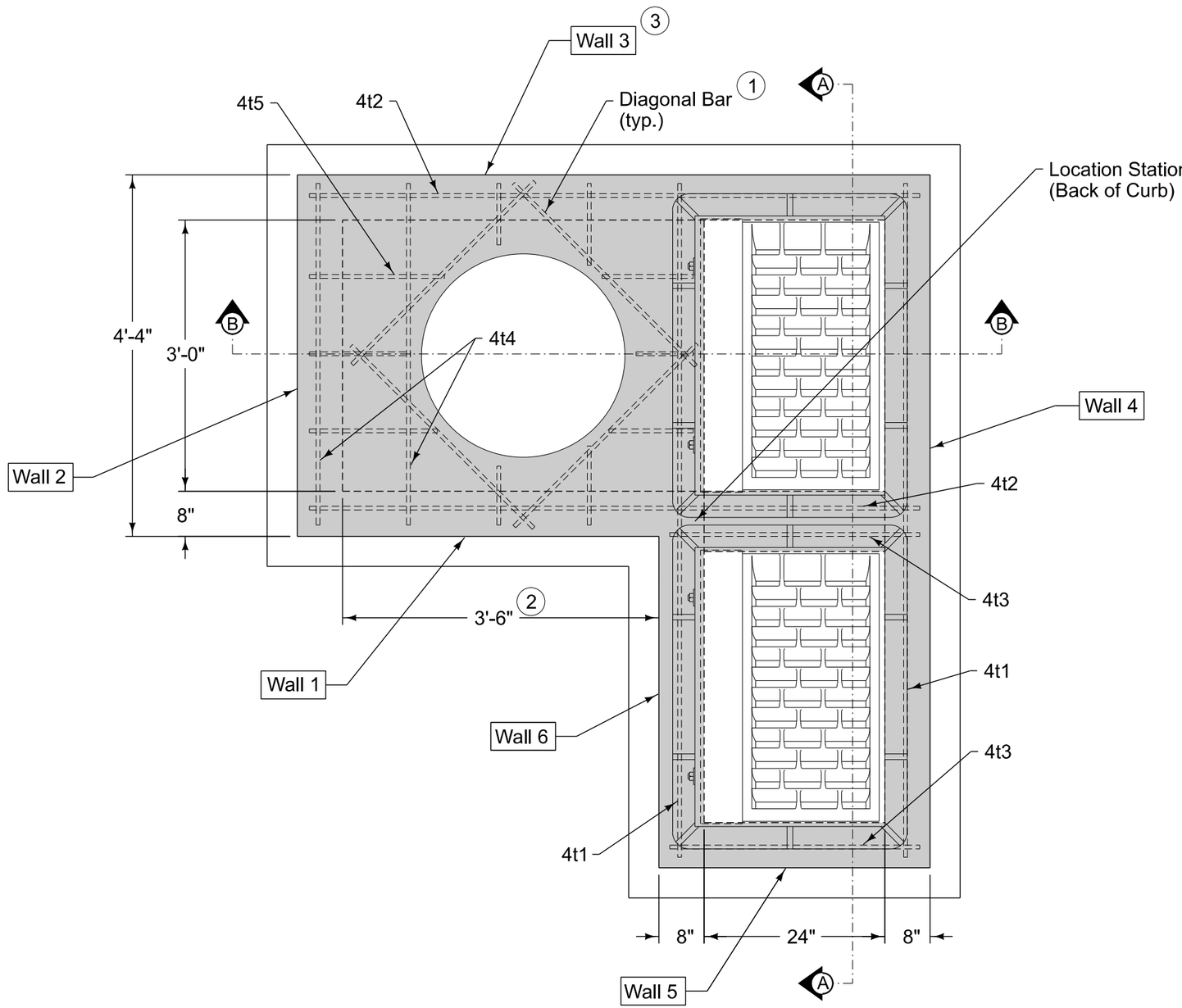

PLAN

Maximum pipe diameters are set based on maximum structure depth of 10 feet-0 inches and the objective of placement of the centerline of the pipe on the centerline of the manhole opening for maintenance purposes.

Refer to SW-514 for boxout details.

(1) Install four #4 diagonal bars at manhole opening and at all pipe openings.

(2) If Wall 1 is widened to 4 feet, the maximum pipe diameter can be increased to 36 inches.

(3) If Wall 1 is widened to 4 feet, the maximum pipe diameter in Wall 3 can be increased to 42 inches.

MAXIMUM PIPE DIAMETERS	
Wall	Max. Dia.
1	30" (2)
2	24"
3	36" (3)
4	42"

MODIFIED ROAD PLAN

SW-506M

SHEET 1 of 2

DOUBLE GRATE INTAKE WITH MANHOLE

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.10

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TYPICAL CROSS SECTIONS AND DETAILS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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Project No: 1221679

Sheet B.10

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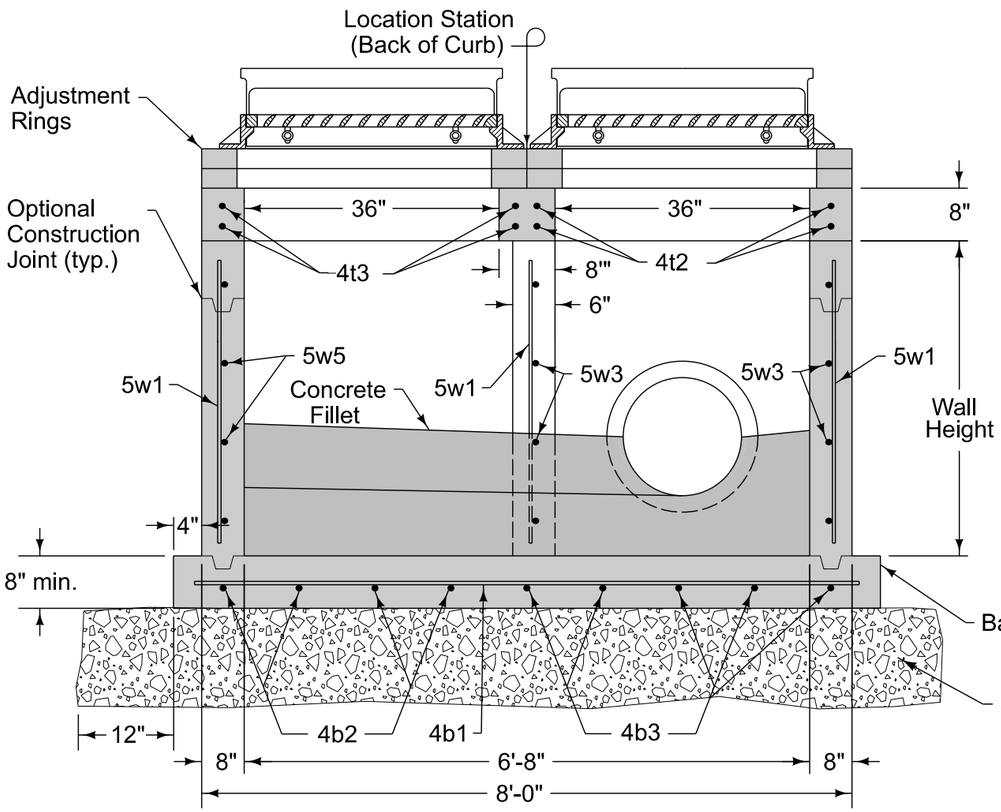
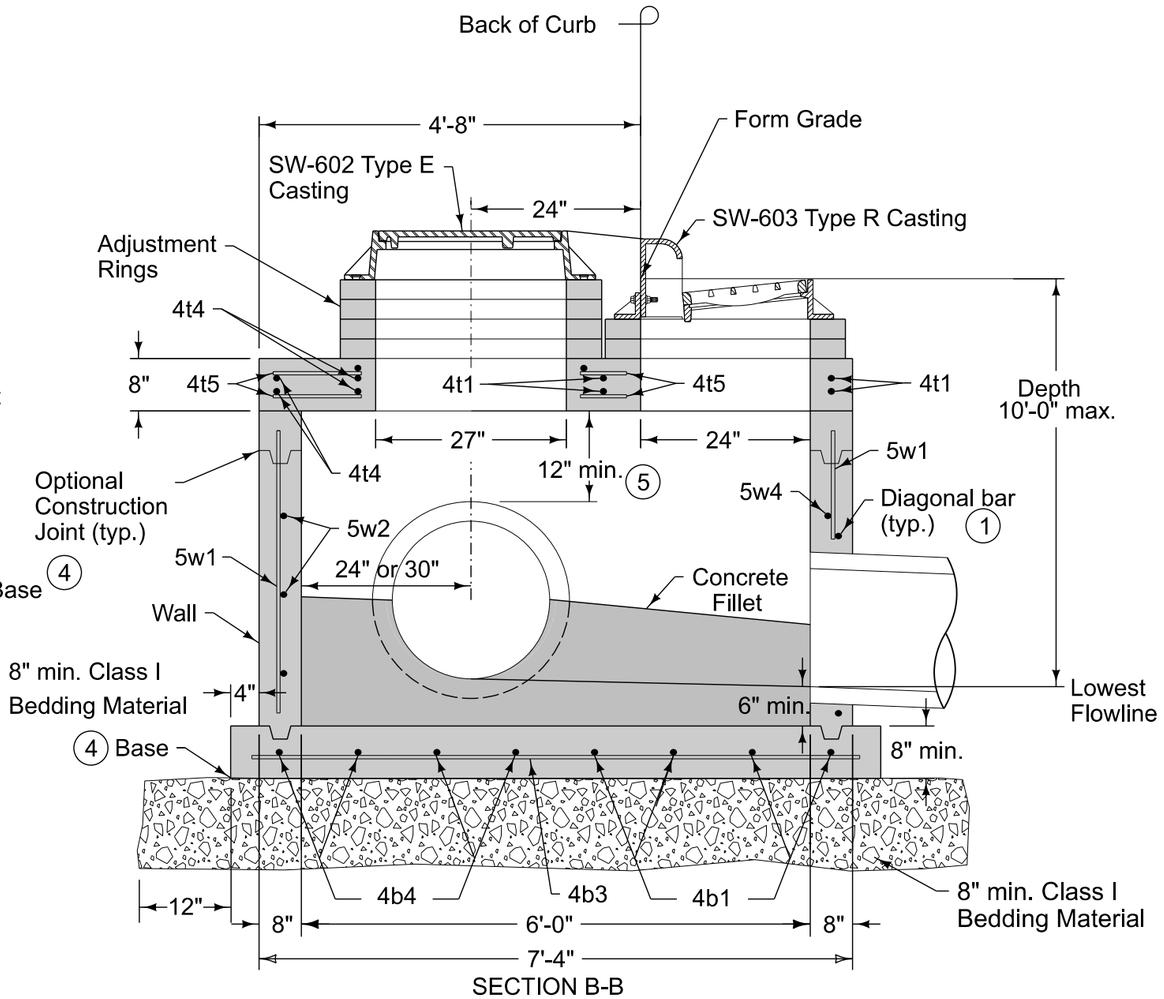


SECTION A-A



SECTION B-B

REINFORCING BAR LIST						
Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	——	4	7'-8"	See Detail
4t2	4	Top	——	4	7'-0"	See Detail
4t3	4	Top	——	4	3'-0"	See Detail
4t4	4	Top	——	8	4'-0"	12"
4t5	4	Top	——	6	4'-6"	12"
4b1	4	Base	——	4	8'-2"	12"
4b2	4	Base	——	4	3'-6"	12"
4b3	4	Base	——	5	7'-6"	12"
4b4	4	Base	——	4	4'-6"	12"
5w1	5	Walls	——	29	Wall Height minus 8"	12"
5w2	5	Wall 2	——	Varies	4'-0"	12"
5w3	5	Walls 1 and 3	——	Varies	7'-0"	12"
5w4	5	Wall 4	——	Varies	7'-8"	12"
5w5	5	Wall 5	——	Varies	3'-0"	12"
5w6	5	Wall 6	——	Varies	4'-2"	12"

(1) Install four #4 diagonal bars at manhole opening and at all pipe openings.

(4) Cast-in-place base shown. If base is precast integral with walls, the footprint of base is not required to extend beyond the outer edge of the walls.

(5) 12 inch minimum wall height above all pipes.

MODIFIED ROAD PLAN

SW-506M

SHEET 2 of 2

DOUBLE GRATE INTAKE WITH MANHOLE

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.11

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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Project No: 1221679

Sheet B.11

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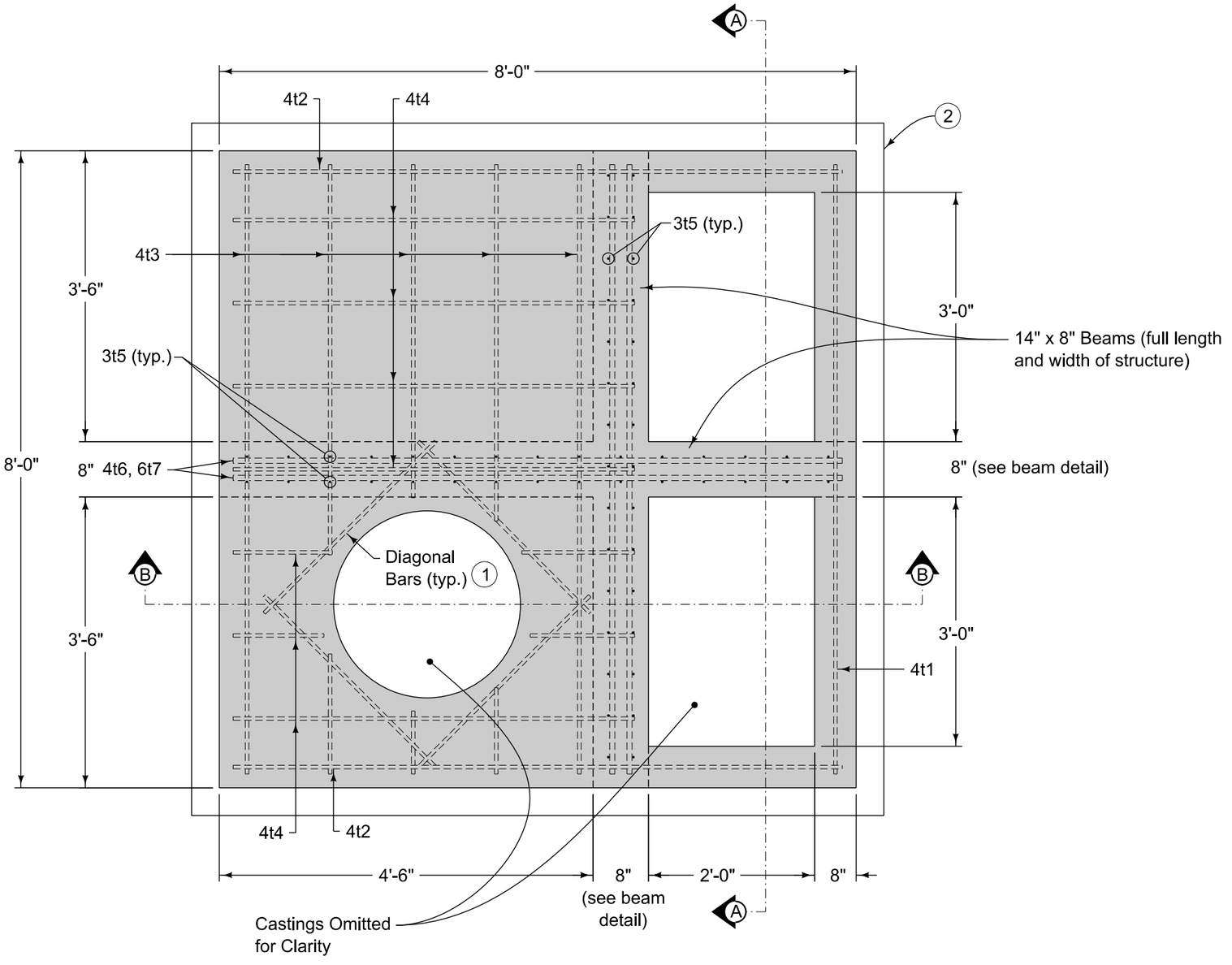

PLAN

Maximum pipe diameters are set based on maximum structure depth of 7 feet-6 inches.

Refer to SW-514 for boxout details.

1. Install four #4 diagonal bars at manhole opening and at all pipe openings.
2. Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.

MAXIMUM PIPE DIAMETERS	
Wall	Max. Dia.
Front/Back	36"
Sides	42"

MODIFIED ROAD PLAN

SW-516M

SHEET 1 of 3

LARGE WELL DOUBLE GRATE INTAKE WITH MANHOLE

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.12

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.12

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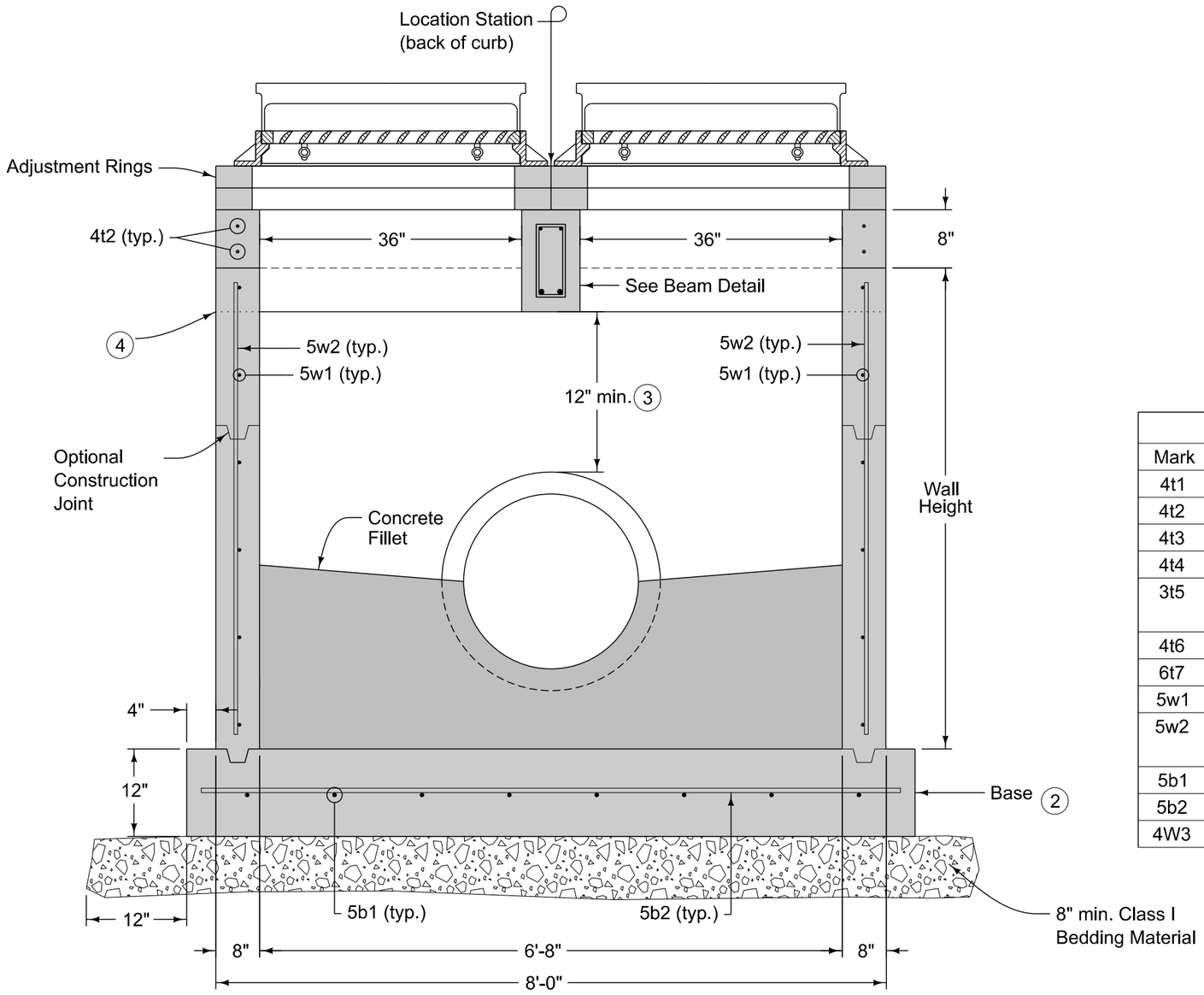

SECTION A-A

1. Install four #4 diagonal bars at manhole opening and at all pipe openings.
2. Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
3. 12 inch minimum wall height above all pipes.
4. Form pockets in the wall to receive integral beams in the top.

REINFORCING BAR LIST

Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	——	2	7'-8"	See Detail
4t2	4	Top	——	4	7'-8"	See Detail
4t3	4	Top	——	10	7'-8"	12"
4t4	4	Top	——	14	4'-6"	12"
3t5	3	Top	▯	30	3'-5"	6"
4t6	4	Top	——	4	7'-8"	See Detail
6t7	6	Top	——	4	7'-8"	See Detail
5w1	5	Walls	——	Varies	7'-8"	12"
5w2	5	Walls	——	32	Wall Height minus 8"	12"
5b1	5	Base	——	9	8'-2"	12"
5b2	5	Base	——	9	8'-2"	12"
4W3	5	Back Wall	——	Varies	7'-8"	12"

MODIFIED ROAD PLAN

SW-516M

SHEET 2 of 3

LARGE WELL DOUBLE GRATE INTAKE WITH MANHOLE

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.13

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

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Project No: 1221679

Sheet B.13

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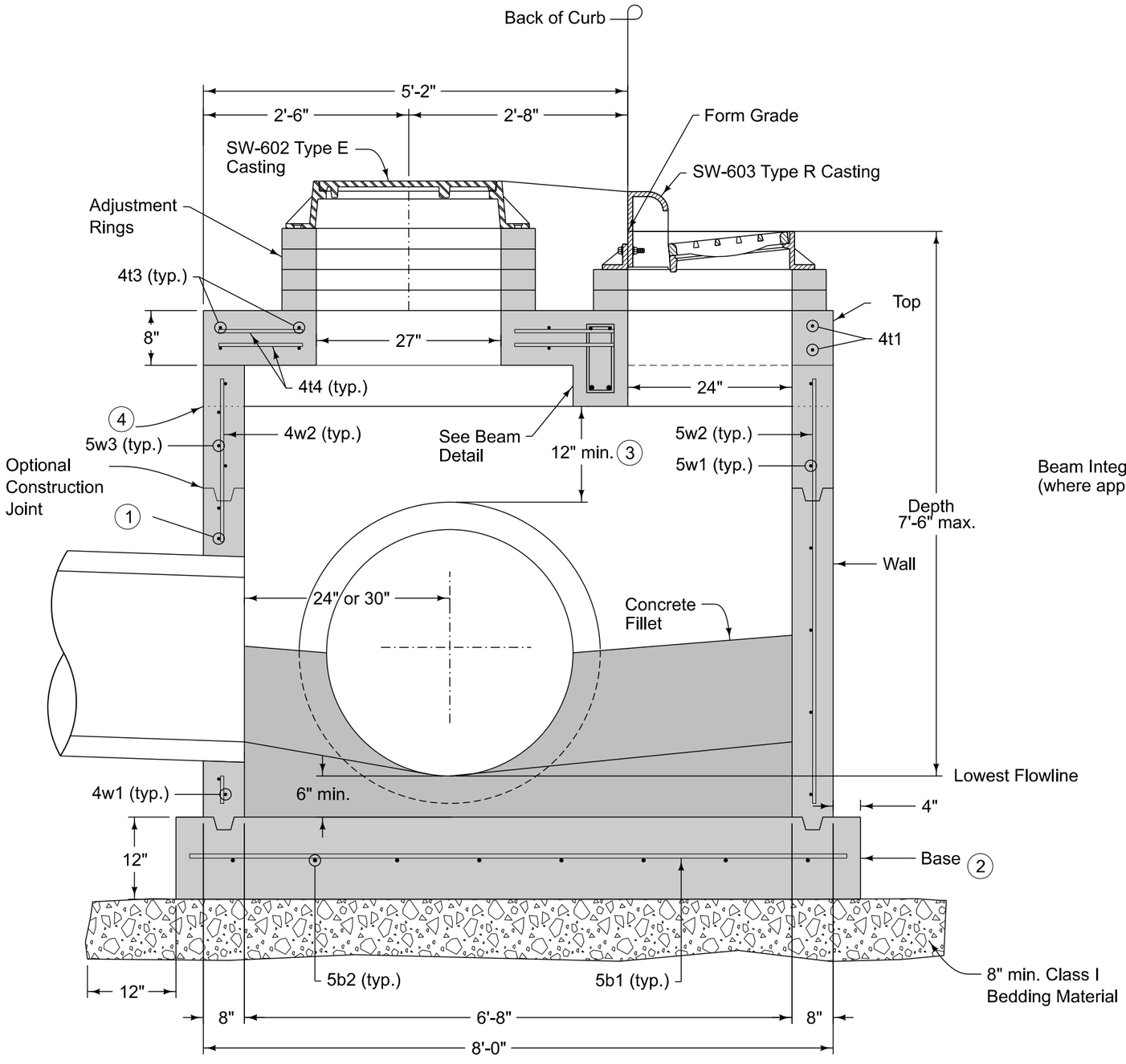
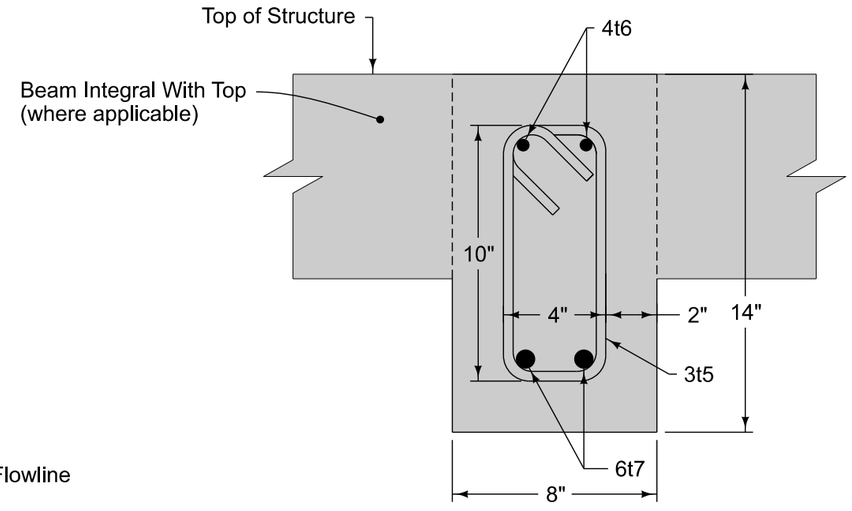


SECTION B-B

1. Install four #4 diagonal bars at manhole opening and at all pipe openings.
2. Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
3. 12 inch minimum wall height above all pipes.
4. Form pockets in the wall to receive integral beams in the top.



BEAM DETAIL

MODIFIED ROAD PLAN

SW-516M

SHEET 3 of 3

LARGE WELL DOUBLE GRATE INTAKE WITH MANHOLE

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.14

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.14

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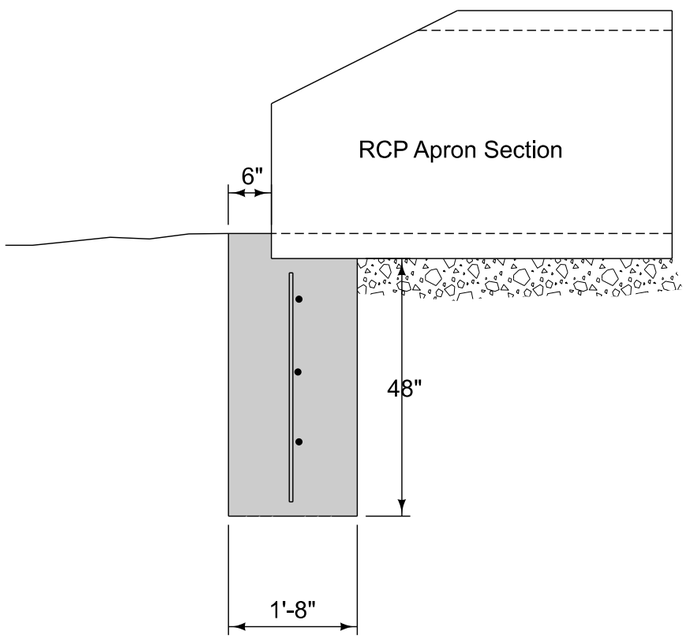
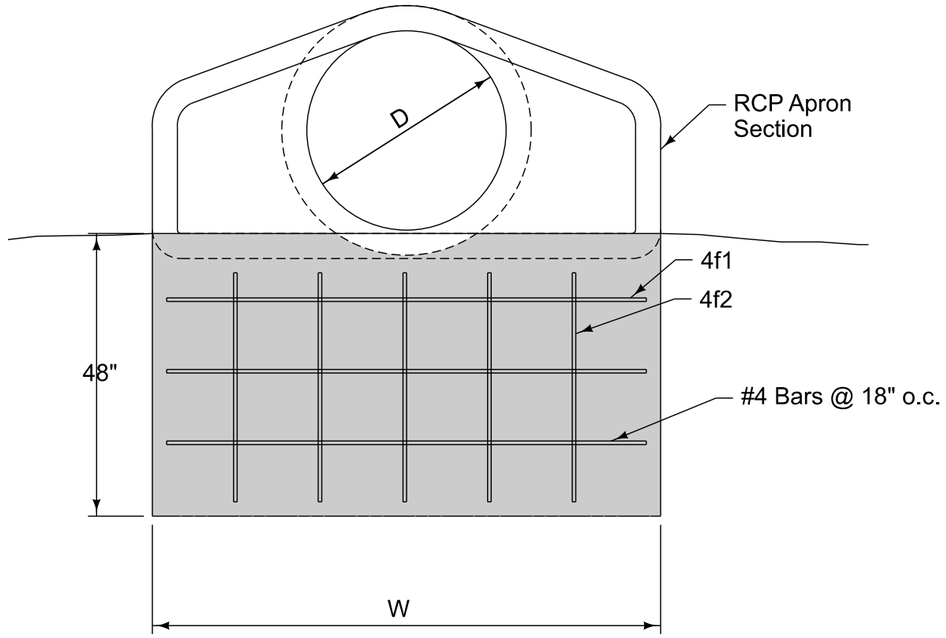


TYPICAL SECTION



ELEVATION

REINFORCING BAR LIST

D	W	Mark	Size	Length	Count
12"	2'-4"	4f1	4	2'-0"	3
		4f2	4	3'-8"	2
15"	2'-10 ½"	4f1	4	2'-6 ½"	3
		4f2	4	3'-8"	2
18"	3'-5"	4f1	4	3'-1"	3
		4f2	4	3'-8"	3
24"	4'-6"	4f1	4	4'-2"	3
		4f2	4	3'-8"	3
30"	5'-7"	4f1	4	5'-3"	3
		4f2	4	3'-8"	4
36"	6'-8"	4f1	4	6'-4"	3
		4f2	4	3'-8"	5
42"	7'-3"	4f1	4	6'-11"	3
		4f2	4	3'-8"	5

D	W	Mark	Size	Length	Count
48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	6
54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	6
60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	7
78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	7
84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	8

RCP APRON SECTION FOOTING

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.15

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.15

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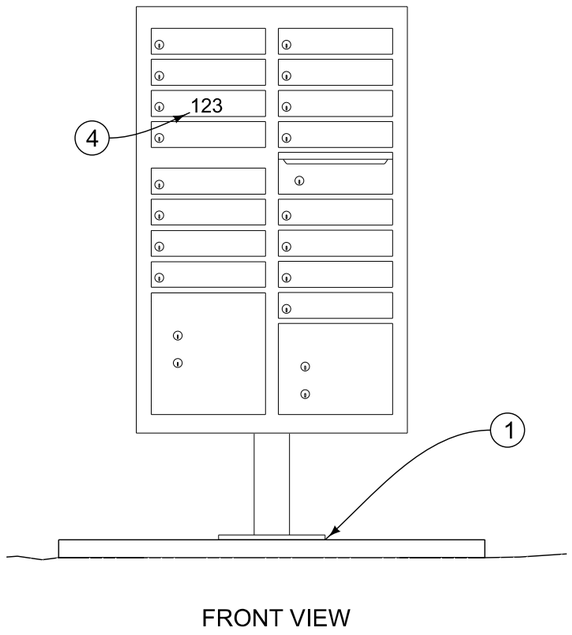
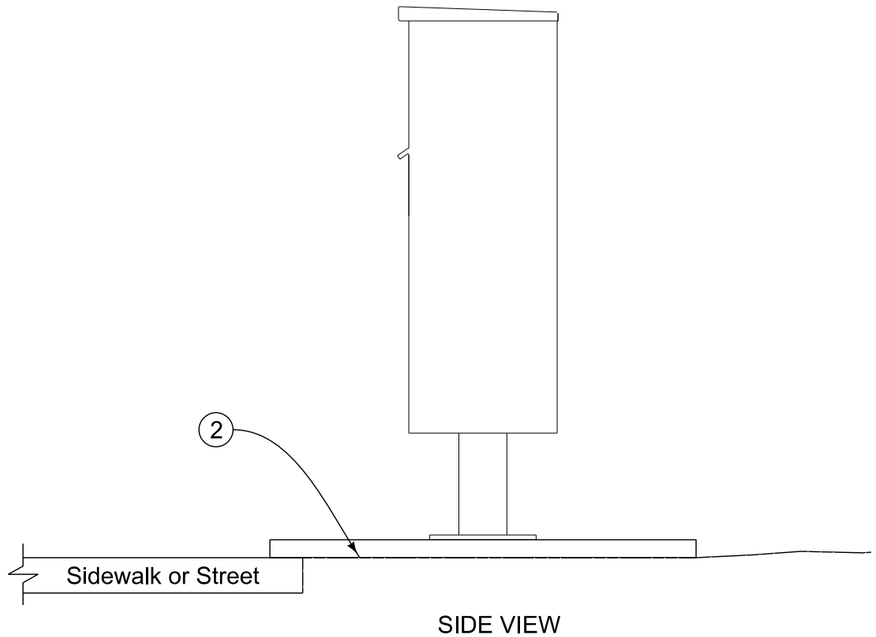


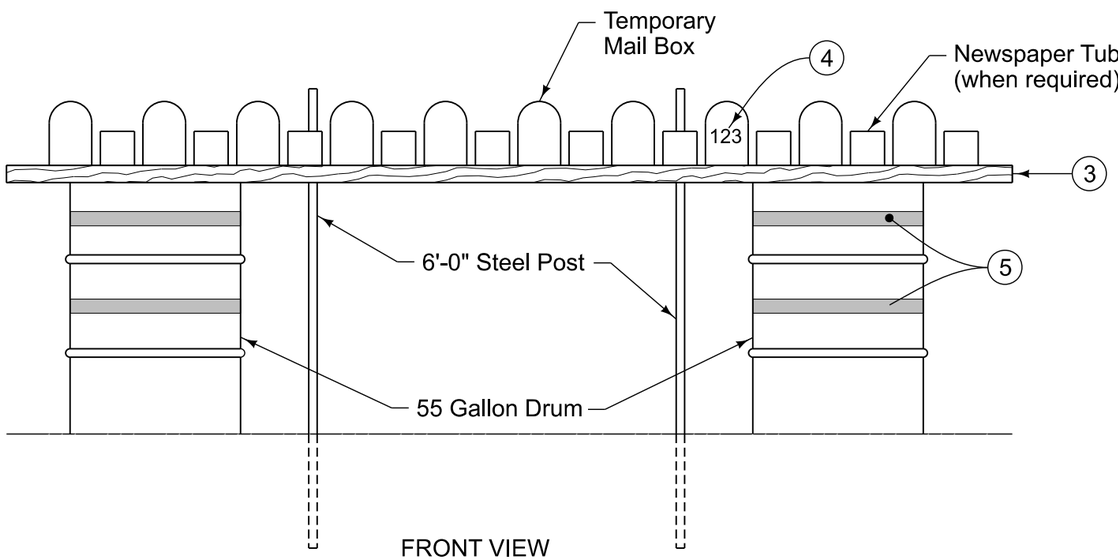
FRONT VIEW



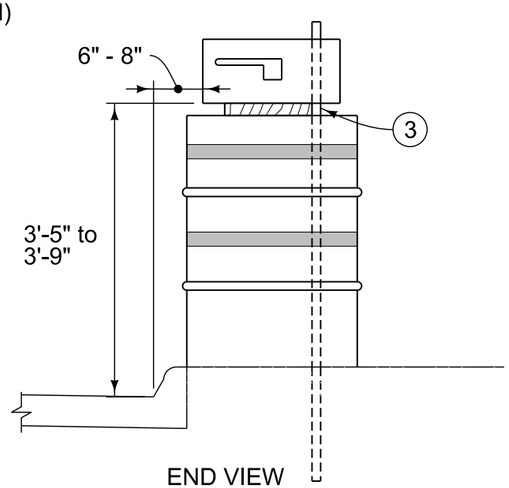
SIDE VIEW

TEMPORARY CLUSTER BOX UNIT

1. Attach cluster box unit to a stable skid or anchor plate.
2. Set cluster box on firm and level ground adjacent to sidewalk or street paving. Provide anchorage as needed to prevent overturning.
3. Provide a 2 inch x 12 inch plank with length as required. Firmly attach mailboxes and newspaper tubes to plank. Secure plank to steel posts for lateral support.
4. Label each mailbox with property address.
5. Attach two bands of 2 inch wide reflectorized tape to each barrel.



FRONT VIEW



END VIEW

TEMPORARY GROUP MAILBOX

TEMPORARY MAILBOXES

STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet B.16

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TYPICAL CROSS SECTIONS AND DETAILS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet B.16

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ESTIMATED PROJECT QUANTITIES

(UP TO A 5 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Division 1 STBG	Division 2 HSIP	Division 3 NON-PARTICIP	Total	As Built Division 1	As Built Division 2	As Built Division 3
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.2			0.2			
2	2101-0850002	CLEARING AND GRUBBING	UNIT	813.6			813.6			
3	2102-0425070	SPECIAL BACKFILL	TON	1571			1571			
4	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	14760			14760			
5	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	5903			5903			
6	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	360			360			
7	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	3929			3929			
8	2105-8425020	TOPSOIL, STRIP AND STOCKPILE	CY	1375			1375			
9	2107-0425020	COMPACTING BACKFILL ADJACENT TO BRIDGES, CULVERTS OR STRUCTURES	CY	112			112			
10	2107-0875000	COMPACTION WITH MOISTURE AND DENSITY CONTROL	CY	6,817			6817			
11	2109-8225100	SPECIAL COMPACTION OF SUBGRADE	STA	44.1	15.3		59.4			
12	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID	SY	1135	202		1337			
13	2115-0100000	MODIFIED SUBBASE	CY	3367	571		3938			
14	2123-7450020	SHOULDER FINISHING, EARTH	STA	87.4	41.3		128.7			
15	2213-7100400	RELOCATION OF MAIL BOXES	EACH	2			2			
16	2301-1033060	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 6 IN.	SY	716			716			
17	2301-1033070	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 7 IN.	SY	1564			1564			
18	2301-4874106	MEDIAN, DOWELLED P.C. CONCRETE, 6 INCH	SY		120		120			
19	2301-4875006	MEDIAN, P.C. CONCRETE, 6 IN.	SY		214		214			
20	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1			1			
21	2302-1200080	PORTLAND CEMENT CONCRETE PAVEMENT WIDENING, 8 IN.	SY	462	372		834			
22	2304-0101000	TEMPORARY PAVEMENT, 6 IN.	SY	6890			6890			
23	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE	TON	236			236			
24	2401-6745359	REMOVAL OF CONCRETE FOUNDATIONS OF LIGHT POLES	EACH	1			1			
25	2401-6750001	REMOVALS, AS PER PLAN, PARCEL 18	LS	1			1			
26	2401-6750001	REMOVALS, AS PER PLAN, PARCEL 6	LS	1			1			
27	2402-0425040	FLOODED BACKFILL	CY	114			114			
28	2402-0875150	COMPACTION WITH MOISTURE CONTROL (STRUCTURES)	CY	48			48			
29	2402-2720000	EXCAVATION, CLASS 20	CY	907			907			
30	2402-3825025	GRANULAR MATERIAL FOR BLANKET	CY	112			112			
31	2403-0100020	STRUCTURAL CONCRETE (RCB CULVERT)	CY	148			148			
32	2404-7775000	REINFORCING STEEL, RCB CULVERT	LB	24750			24750			
33	2404-7775005	REINFORCING STEEL, EPOXY COATED, PAVEMENT REINFORCEMENT MAT	LB	54982			54982			
34	2414-6460000	ORNAMENTAL METAL RAILING, SAFETY	LF	495			495			
35	2416-0100015	APRONS, CONCRETE, 15 IN. DIA.	EACH	1			1			
36	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.	EACH	1			1			
37	2416-0100048	APRONS, CONCRETE, 48 IN. DIA.	EACH	1			1			
38	2418-0000010	TEMPORARY STREAM DIVERSION	EACH	1			1			
39	2435-0130148	MANHOLE, SANITARY SEWER, SW-301, 48 IN.	EACH			2	2			
40	2435-0140148	MANHOLE, STORM SEWER, SW-401, 48 IN.	EACH	9			9			
41	2435-0140184	MANHOLE, STORM SEWER, SW-401, 84 IN. MODIFIED	EACH	1			1			
42	2435-0250302	INTAKE, SW-503, WELL ONLY	EACH	1			1			
43	2435-0250304	INTAKE, SW-503, TOP ONLY	EACH	1			1			
44	2435-0250500	INTAKE, SW-505	EACH	10			10			
45	2435-0250600	INTAKE, SW-506	EACH	5			5			
46	2435-0250610	INTAKE, SW-506, MODIFIED	EACH	3			3			
47	2435-0250612	INTAKE, SW-506, MODIFIED, WELL ONLY	EACH	1			1			
48	2435-0250614	INTAKE, SW-506, MODIFIED, TOP ONLY	EACH	1			1			
49	2435-0251100	INTAKE, SW-511	EACH	3			3			
50	2435-0251224	INTAKE, SW-512, 24 IN.	EACH	2			2			
51	2435-0251610	INTAKE, SW-516, MODIFIED	EACH	1			1			
52	2435-0600010	MANHOLE ADJUSTMENT, MINOR	EACH	3			3			
53	2435-0600020	MANHOLE ADJUSTMENT, MAJOR	EACH	7			7			
54	2502-8212306	SUBDRAIN, STANDARD, PERFORATED, 6 IN., AS PER PLAN	LF	5810			5810			
55	2502-8212406	SUBDRAIN, STANDARD, NON-PERFORATED, 6 IN., AS PER PLAN	LF	104			104			
56	2502-8221303	SUBDRAIN OUTLET, DR-303	EACH	35			35			
57	2502-8221305	SUBDRAIN OUTLET, DR-305	EACH	4			4			
58	2503-0110008	STORM SEWER GRAVITY MAIN, TRENCHED, 8 IN.	LF	102			102			
59	2503-0114215	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 15 IN.	LF	717			717			
60	2503-0114218	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 18 IN.	LF	1546			1546			
61	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN.	LF	699			699			
62	2503-0114230	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 30 IN.	LF	47			47			
63	2503-0114248	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 48 IN.	LF	173			173			
64	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF	1386			1386			
65	2503-0200136	REMOVE STORM SEWER PIPE GREATER THAN 36 IN.	LF	254			254			
66	2504-0110008	SANITARY SEWER GRAVITY MAIN, TRENCHED, 8 IN.	LF			299	299			
67	2504-0200406	SANITARY SEWER SERVICE STUB, POLYVINYL CHLORIDE PIPE (PVC), 6 IN.	LF			32	32			
68	2504-0240036	REMOVE SANITARY SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF			16	16			
69	2504-0240236	SANITARY SEWER ABANDONMENT, FILL AND PLUG, LESS THAN OR EQUAL TO 36 IN. DIA.	LF			299	299			
70	2507-3250005	ENGINEERING FABRIC	SY	371			371			
71	2507-6800061	REVETMENT, CLASS E	TON	368			368			
72	2510-6745850	REMOVAL OF PAVEMENT, HMA, 6 IN. DEPTH	SY	7454			7454			
73	2510-6745850	REMOVAL OF PAVEMENT, HMA, 8 IN. DEPTH	SY	5289			5289			
74	2510-6745850	REMOVAL OF PAVEMENT, PCC, 7 IN. DEPTH	SY	1648			1648			
75	2510-6745850	REMOVAL OF PAVEMENT, PCC, 8 IN. DEPTH	SY	1503			1503			
76	2510-6750600	REMOVAL OF INTAKES AND UTILITY ACCESSES	EACH	14			14			
77	2511-0300000	REMOVAL OF RECREATIONAL TRAIL, PCC, 6 IN. DEPTH	SY	105			105			
78	2511-0302600	RECREATIONAL TRAIL, PORTLAND CEMENT CONCRETE, 6 IN.	SY	258			258			
79	2511-0310100	SPECIAL COMPACTION OF SUBGRADE FOR RECREATIONAL TRAIL	STA	3			3			
80	2511-6745900	REMOVAL OF SIDEWALK, BRICK W/ PCC PAVER BASE, 9 IN. DEPTH	SY	58			58			
81	2511-6745900	REMOVAL OF SIDEWALK, PCC, 6 IN. DEPTH	SY	1704			1704			
82	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.	SY	3149			3149			
83	2511-7526005	SIDEWALK, P.C. CONCRETE, 5 IN.	SY	76			76			
84	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.	SY	557			557			
85	2511-7528101	DETECTABLE WARNINGS	SF	507	56		563			
86	2512-1725256	CURB AND GUTTER, P.C. CONCRETE, 2.5 FT.	LF	289			289			
87	2512-1750006	CURB AND GUTTER, P.C. CONCRETE, AS PER PLAN	LF	350			350			
88	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.	SY	206			206			
89	2515-2475007	DRIVEWAY, P.C. CONCRETE, 7 IN.	SY	1463			1463			
90	2515-6745600	REMOVAL OF PAVED DRIVEWAY	SY	2103			2103			
91	2516-8625000	COMBINED CONCRETE SIDEWALK AND RETAINING WALL	CY	68			68			
92	2518-0000100	ITS HANDHOLE, 48X30X36	EACH	1			1			
93	2518-0001200	ITS CONDUIT, HDPE, 2 INCH BORED	LF	360			360			
94	2518-0006015	ITS TRACER WIRE	LF	360			360			

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/26/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70--77			Sheet C.1
Project No: 122.1679.01			

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020| www.snyder-associates.com

SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.1

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ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Division 1 STBG	Division 2 HSIP	Division 3 NON-PARTICIP	Total	As Built Division 1	As Built Division 2	As Built Division 3
95	2518-0007012	FIBER OPTIC CABLE, 12 SM DIELECTRIC	LF	470			470			
96	2518-0008300	FIBER OPTIC CABLE, INSTALL ONLY	LF	3560			3560			
97	2518-0008305	FIBER OPTIC CABLE, REMOVE	LF	3560			3560			
98	2518-0008355	CONNECTOR ADAPTOR PANEL, SIX DUPLEX SC	EACH	2			2			
99	2518-0008360	SINGLE PANEL HOUSING	EACH	2			2			
100	2518-0008365	UPC/SC FACTORY TERMINATED FIBER CONNECTOR AND PIGTAILS	EACH	8			8			
101	2518-0008370	FIBER OPTIC SPLICE CLOSURE	EACH	2			2			
102	2518-0008380	FIBER OPTIC SPLICE TRAY, 12	EACH	2			2			
103	2518-0008390	FIBER OPTIC SPLICE TRAY, 72	EACH	2			2			
104	2518-0008395	FIBER OPTIC SPLICE	EACH	150			150			
105	2518-0008400	FIBER OPTIC CABLE ACCEPTANCE TESTING	LS	1			1			
106	2519-3300700	FENCE, TEMPORARY, CHAIN LINK, 6 FT. HEIGHT	LF	80			80			
107	2519-3300700	FENCE, TEMPORARY, PLASTIC, 42 IN. HEIGHT	LF	4020			4020			
108	2519-4200020	REMOVAL AND REINSTALLATION OF FENCE, CHAIN LINK, 4 FT.	LF	53			53			
109	2519-4200020	REMOVAL AND REINSTALLATION OF FENCE, CHAIN LINK, 8 FT.	LF	59			59			
110	2519-4200090	REMOVAL AND REINSTALLATION OF FENCE, VINYL, 6 FT.	LF	72			72			
111	2524-6765010	REMOVE AND REINSTALL SIGN AS PER PLAN	EACH	2			2			
112	2524-6765110	REMOVAL OF TYPE A SIGN	EACH	48			48			
113	2524-9276010	PERFORATED SQUARE STEEL TUBE POSTS	LF	389			389			
114	2524-9276021	PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY SOIL INSTALLATION	EACH	26			26			
115	2524-9276024	PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY CONCRETE INSTALLATION	EACH	22			22			
116	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM	SF	352			352			
117	2524-9325150	INSTALL TYPE A SIGN	EACH	83			83			
118	2525-0000100	TRAFFIC SIGNALIZATION, 14TH AVENUE NW	LS	1			1			
119	2525-0000100	TRAFFIC SIGNALIZATION, 17TH AVENUE NW	LS	1			1			
120	2527-9263143	PAINTED SYMBOLS AND LEGENDS, DURABLE	EACH	15	14		29			
121	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	17.6			17.6			
122	2527-9263190	SYMBOLS AND LEGENDS REMOVED	EACH	8			8			
123	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	7.6			7.6			
124	2527-9263217	PAINTED PAVEMENT MARKINGS, DURABLE	STA	91.1	37.4		128.5			
125	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	231.9			231.9			
126	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	91.1	37.4		128.5			
127	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS	EACH	13	14		27			
128	2528-2518000	SAFETY CLOSURE	EACH	20			20			
129	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	1875			1875			
130	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE	EACH	2			2			
131	2528-8445110	TRAFFIC CONTROL	LS	1			1			
132	2528-8445113	FLAGGERS	EACH	PER PROPOSAL			PER PROPOSAL			
133	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	PER PROPOSAL			PER PROPOSAL			
134	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA, PCC, 9 IN.	SY	298		239	537			
135	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT, PCC, 9 IN.	EACH	23		3	26			
136	2533-4980005	MOBILIZATION	LS	1			1			
137	2549-0041060	BYPASS PUMPING, SANITARY SEWER	LS			1	1			
138	2552-0000300	TRENCH COMPACTION TESTING	LS	1			1			
139	2554-0114008	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 8 IN.	LF	371			371			
140	2554-0114010	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 10 IN.	LF	547			547			
141	2554-0114012	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 12 IN.	LF			83	83			
142	2554-0114016	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 16 IN.	LF			2875	2875			
143	2554-0124016	WATER MAIN, TRENCHLESS, POLYVINYL CHLORIDE PIPE (PVC), 16 IN.	LF			34	34			
144	2554-0203000	FITTINGS BY WEIGHT, DUCTILE IRON	LB	3120		2668	5788			
145	2554-0207000	VALVE, GATE, DIP, 16 IN.	EACH			5	5			
146	2554-0207008	VALVE, GATE, DIP, 8 IN.	EACH	2			2			
147	2554-0207010	VALVE, GATE, DIP, 10 IN.	EACH	3			3			
148	2554-0207012	VALVE, GATE, DIP, 12 IN.	EACH			1	1			
149	2554-0209008	VALVE REMOVAL, 8 IN.	EACH	2			2			
150	2554-0210201	FIRE HYDRANT ASSEMBLY, WM-201	EACH	5			5			
151	2554-0210205	FIRE HYDRANT ASSEMBLY REMOVAL	EACH	4			4			
152	2554-0211008	FLUSHING DEVICE (BLOWOFF), 8 IN.	EACH	4			4			
153	2554-0212040	VALVE BOX ADJUSTMENT, MINOR	EACH	2			2			
154	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS	LS			1	1			
155	2599-9999003	('CUBIC YARDS' ITEM) COMBINED CONCRETE SIDEWALK AND RETAINING WALL, SPECIAL	CY	117			117			
156	2599-9999005	('EACH ITEM') ABANDON WATER SERVICE	EACH	1			1			
157	2599-9999005	('EACH ITEM') RECTANGULAR RAPID FLASHING BEACON SYSTEM	EACH		2		2			
158	2599-9999005	('EACH' ITEM) REMOVE AND RELOCATE BOULDERS, LARGE	EACH	10			10			
159	2599-9999005	('EACH' ITEM) REMOVE AND RELOCATE BOULDERS, SMALL	EACH	17			17			
160	2599-9999005	('EACH' ITEM) REMOVE AND RELOCATE CURB STOP, PER PLAN	EACH	1			1			
161	2599-9999005	('EACH' ITEM) REMOVE AND RELOCATE TRASH RECEPTACLE	EACH			1	1			
162	2599-9999005	('EACH' ITEM) REMOVE CONCRETE WHEEL STOP	EACH	31			31			
163	2599-9999005	('EACH' ITEM) SPECIAL INTAKE	EACH	1			1			
164	2599-9999005	('EACH' ITEM) SUBDRAIN CLEANOUT	EACH	18			18			
165	2599-9999005	('EACH' ITEM) TEMPORARY ADA COMPLIANCE RAMP, PORTABLE	EACH	4			4			
166	2599-9999005	('EACH' ITEM) TEMPORARY PIPE CONNECTION TO EXISTING STRUCTURE	EACH	1			1			
167	2599-9999005	('EACH' ITEM) TEMPORARY PIPE CONNECTION TO PROPOSED STRUCTURE	EACH	1			1			
168	2599-9999005	('EACH' ITEM) VIBRATION MONITORING	EACH	10			10			
169	2599-9999009	('LINEAR FEET' ITEM) GRANULAR SAFETY EDGE	LF	3201			3201			
170	2599-9999009	('LINEAR FEET' ITEM) REMOVAL OF WATER MAIN	LF	936			936			
171	2599-9999009	('LINEAR FEET' ITEM) WATER MAIN INSULATION, EXISTING PIPE	LF			250	250			
172	2599-9999009	('LINEAR FEET' ITEM) WATER MAIN INSULATION, NEW CONSTRUCTION	LF			129	129			
173	2599-9999010	('LUMP SUM' ITEM) IRRIGATION SYSTEM REPAIR	LS	1			1			
174	2599-9999010	('LUMP SUM' ITEM) MAINTENANCE OF POSTAL SERVICE	LS	1			1			
175	2599-9999010	('LUMP SUM' ITEM) MAINTENANCE OF SOLID WASTE COLLECTION	LS	1			1			
176	2599-9999010	('LUMP SUM' ITEM) MONUMENT SIGN, GREENWAY PARK	LS			1	1			
177	2599-9999010	('LUMP SUM' ITEM) REMOVAL AND RELOCATION OF SHED STRUCTURE	LS	1			1			
178	2599-9999014	('SQUARE FEET' ITEM) CONCRETE RETAINING WALL FORM LINER	SF	370			370			
179	2599-9999018	('SQUARE YARDS' ITEM) STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C-SUD, CLASS 3 DURABILITY, 9 IN.	SY	16102	2517		18619			
180	2599-9999018	('SQUARE YARDS' ITEM) TEMPORARY SIDEWALK, GRANULAR	SY	375			375			
181	2599-9999018	('SQUARE YARDS' ITEM) TEMPORARY TRENCH PATCHING, ASPHALT PAVEMENT, 6 IN.	SY	823			823			
182	2601-2633100	MOWING	ACRE	4.2			4.2			
183	2601-2634100	MULCHING	ACRE	2.1			2.1			
184	2601-2634105	MULCHING, BONDED FIBER MATRIX	ACRE	4.3			4.3			
185	2601-2634450	COMPOST	ACRE	3.2			3.2			
186	2601-2636044	SEEDING AND FERTILIZING (URBAN)	ACRE	4.3			4.3			

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Date: 8/27/2026	Scale: 1" = NTS
Technician: KSB			Field Bk: Pg:

DOT STP-U-0132(628)--70-77
Project No: 122.1679.01

Sheet C.2

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020| www.snyder-associates.com

SNYDER
&ASSOCIATES

Project No: 122.1679.01

Sheet C.2

ESTIMATED PROJECT QUANTITIES

(UP TO A 5 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Division 1 STBG	Division 2 HSIP	Division 3 NON-PARTICIP	Total	As Built Division 1	As Built Division 2	As Built Division 3
187	2601-2638352	SLOPE PROTECTION, WOOD EXCELSIOR MAT	SQ	38			38			
188	2601-2642120	STABILIZING CROP - SEEDING AND FERTILIZING (URBAN)	ACRE	2.1			2.1			
189	2601-2643412	TURF REINFORCEMENT MAT, TYPE 2	SQ	5			5			
190	2602-0000020	SILT FENCE	LF	506			506			
191	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	987			987			
192	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	987			987			
193	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	987			987			
194	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE, EC-303	LF	1600			1600			
195	2602-0000309	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 9 IN. DIA.	LF	7920			7920			
196	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	7920			7920			
197	2602-0000400	TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY	EACH	35			35			
198	2602-0000410	MAINTENANCE OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY	EACH	35			35			
199	2602-0000420	REMOVAL OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY	EACH	35			35			
200	2602-0000530	GRATE INTAKE SEDIMENT FILTER BAG, EC-604	EACH	49			49			
201	2602-0000540	MAINTENANCE OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	98			98			
202	2602-0000550	REMOVAL OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	49			49			
203	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	8			8			
204	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	6			6			

101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2101-0850001	**CLEARING AND GRUBBING (ACRE)**
2	2101-0850002	**CLEARING AND GRUBBING (UNIT)**
		Refer to U-Sheets for locations and Tab 110-17 in C-Sheets for quantities. Tree trimming and removal of small shrubs
		is incidental to this item. Locations and extent of tree trimming and shrub removals shall be agreed upon by the City
		prior to trimming and removal activities. Placement of topsoil material meeting Iowa DOT Section 4170 to backfill areas
		where roots or stumps were removed shall be incidental to this item.
		-
		Tree falling must occur between October 1st and March 31st due to bat habitat preservation. Any clearing and
		grubbing occurring prior to March 31st, 2027 will not be counted towards project working day requirements.
		-
		All wood material generated as a result of Clearing and Grubbing must be disposed of according to Iowa Department of
		Agriculture and Land Stewardship Emerald Ash Borer Quarantine order. For more information see
		www.iowatreepests.com.
-	-	-
3	2102-0425070	**SPECIAL BACKFILL (TON)**
		Refer to B-Sheets for Typical Sections. Refer to D- E- and F-Sheets for locations and layouts. Refer to Tabs 100-05,
		100-24, 100-24 MOD for details and information. Refer to B- and F- Sheets for material depths. A density of 140 pcf was
		used in estimating quantities. 6" Subgrade preparation is incidental to this item for the temporary pavement.
-	-	-
4	2102-2710070	**EXCAVATION, CLASS 10, ROADWAY AND BORROW (CY)**
5	2102-2710090	**EXCAVATION, CLASS 10, WASTE (CY)**
		Refer to T-Sheets for quantities and summary. Refer to J-sheets for staging information. Refer to D- and E- Sheets
		for layouts and ditch grades. Refer to F-Sheets for temporary pavement and ditch grades. Refer to W- and X-Sheets
		for cross sections.
		-
		Contractor shall assure themselves of quantities. Item is plan quantity. No additional measurement will be made. All
		quantities are template quantity. 30% shrink factor is assumed. An electronic surface model will be provided to the
		Contractor for their use in preparing bids and construction of the work. No payment for overhaul will be made.
		Contractor shall coordinate with Engineer for stockpile locations. Additional erosion control needed for stockpile
		locations including silt fence, restoration, and seeding shall be incidental to this bid item.
		-
		Total adjusted cut is 14,760 CY. Total Class 10 Waste is 5,903 CY. Stage 1 requires 500 CY of borrow.
-	-	-
6	2104-2710020	**EXCAVATION, CLASS 10, CHANNEL (CY)**
		Refer to V-Sheets for quantities, summary, and details.
-	-	-
7	2105-8425015	**TOPSOIL, STRIP, SALVAGE AND SPREAD (CY)**
8	2105-8425020	**TOPSOIL, STRIP AND STOCKPILE (CY)**
		Refer to T-Sheets for quantities and summary. Refer to W- and X-Sheets for cross sections. Bid quantity assumes 6
		inches of topsoil stripping and 6 inches of topsoil placement within the grading limits. Topsoil quantities include 5,303
		CY of topsoil strip, 3,929 CY of adjusted topsoil placement, and 1,375 CY of topsoil waste. A 40% shrink factor is
		assumed for placed material. Spread item is to be used in conjunction with Compost item.
-	-	-
9	2107-0425020	**COMPACTING BACKFILL ADJACENT TO BRIDGES, CULVERTS OR STRUCTURES (CY)**
		Refer to V-Sheets for quantities and tabulations. Refer to Iowa DOT Standard Road Plan DR-111 for box culvert
		backfill details.
-	-	-
10	2107-0875000	**COMPACTION WITH MOISTURE AND DENSITY CONTROL (CY)**
		Refer to T-Sheets for quantities and summary. Bid quantity is cumulative for all subgrade and fill volumes within the
		project.
-	-	-
11	2109-8225100	**SPECIAL COMPACTION OF SUBGRADE (STA)**
		Refer Tab 100-24 for locations and quantities. Special compaction of subgrade is to be a depth of 6 inches for all
		roadway areas including 3 feet beyond the edge of pavement.
-	-	-
12	2113-0001100	**SUBGRADE STABILIZATION MATERIAL, POLYMER GRID (SY)**
		Item is for use at the direction of the Engineer where unstable subgrade conditions exist. Quantity is based on 5% of
		roadway subbase area.
		-
		Material shall be per DOT Article 4196.01-5 and Table 4196.01-5b for Triaxial Polymer Grid.
-	-	-
13	2115-0100000	**MODIFIED SUBBASE (CY)**
		Refer Tab 100-24 for locations and quantities. Refer to B-Sheet typical sections for subbase depths.
-	-	-
14	2123-7450020	**SHOULDER FINISHING, EARTH (STA)**
		Refer T-Sheets for quantities. Refer to B-Sheets for typical sections. Bid quantity includes all lengths for all curb
		constructed with the project, excluding driveway curb and Curb and Gutter, Per Plan.
-	-	-

101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
15	2213-7100400	**RELOCATION OF MAIL BOXES (EACH)**
		Refer to U-Sheets for locations. Refer to B-Sheets for details.
		-
		Mailboxes shall be extra large size, 13.5" W x 12" H x16.5" L minimum, approved by the USPS, labeled with the
		delivery adddress with preformed adhesive numbers.
		-
		Method of measurement: Method of measurement shall be per each mailbox relocated. Newspaper receptacles shall
		not be measured for payment.
		-
		Basis of Payment: Payment of the unit price per mailbox relocated shall be full compensation for all work including: all
		labor, equipment, materials, and incidentals required for the removal and temporary storage of mailbox and newspaper
		receptacles, removal of concrete footings, if necessary, construction of new mailbox post and mounting system;
		excavation and backfill, furnishing, mounting, and labeling of new USPS standard mailbox, disposal of waste materials
		and installation of salvaged newspaper receptacle.
-	-	-
16	2301-1033060	**STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 6 IN. (SY)**
17	2301-1033070	**STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 7 IN. (SY)**
		Refer Tab 100-24 for locations and quantities. Refer to B-Sheet typical sections. Refer to L-Sheets for jointing layouts
		and details. Refer to J-Sheets for pavement construction and staging information. Refer to Iowa DOT Standard Road
		Plans PV-101, PV-102, and PV-103 for jointing, curbs, and manhole boxout details.
		-
		Smoothness incentives and disincentives are not in effect.
		-
		C-mix in accordance with Proportion Table 1 of Iowa DOT IM 529 will be required for all slip-form and hand-finished
		roadway pavement.
		-
		Certified Plant Inspection is required.
-	-	-
18	2301-4874106	**MEDIAN, DOWELLED P.C. CONCRETE, 6 INCH (SY)**
19	2301-4875006	**MEDIAN, P.C. CONCRETE, 6 IN. (SY)**
		Refer to Tab 112-05 for locations and quantities. Refer to B-Sheet typicals and details. Refer to L-Sheets for staking
		information. Refer to J-Sheets for staging information. Modified subbase quantity for paved medians is measured and
		paid as part of the modified subbase item. Refer to Iowa DOT Standard Road Plans PV-20 and PV-104 for raised
		islands and ramped median nose details.
		-
		'L' bar location for doweled median may be adjusted by Engineer to eliminate conflicts with pavement joints.
		-
		Certified Plant Inspection is required.
-	-	-
20	2301-6911722	**PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES (LS)**
		This item is for the Contractor to provide qualified, independent, third-party lab testing including: slump and air content
		tests per Section 2301.02, B 3, and 2301.02 B 4; coring per Section 2301.04, A; and smoothness by profilograph per
		Section 2316.
		-
		Certified Plant Inspection is required.
-	-	-
21	2302-1200080	**PORTLAND CEMENT CONCRETE PAVEMENT WIDENING, 8 IN. (SY)**
		Refer Tab 100-24 for locations and quantities. Refer to B-Sheet typical sections for subbase depths. Refer to L-Sheets
		for jointing layouts and details. Refer to J-Sheets for pavement construction and staging information. Refer to Iowa
		DOT Standard Road Plans PV-101, PV-102, PV-103, PV-105, and PV-121 for jointing, curbs, manhole boxout, PCC
		pavement widening, and jointing PCC pavement widening details.
		-
		A C-SUD or C-SUDHW mix in accordance with Proportion Table 3 of Iowa DOT IM 529 will be required for all slip-form
		and hand-finished roadway pavement.
		-
		Certified Plant Inspection is required.
-	-	-

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/26/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70-77			
Project No: 122.1679.01			Sheet C.3

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020| www.snyder-associates.com

SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.3

V:\Projects\2022\122.1679.01\Design\C-Sheets_Final_Plan_Print_Cross_Section\PrintSheets

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
22	**2304-0101000**	**TEMPORARY PAVEMENT, 6 IN. (SY)**
		Refer to Tab 100-24 MOD for quantities and locations. Refer to F-Sheets for locations and information. Refer to J-Sheets for locations and staging information. Contractor may use 6" HMA or PCC Pavement. Refer to Typical typical sections.
		Sections in the F sheets. Crossover pavement and temporary driveways are also constructed under this item.
		-
		No adjustments to unit pricing will be made as a result of material, equipment, or labor costs incurred as a result of pavement material selection.
		-
		Certified Plant Inspection is required. Class B compaction is acceptable.
		-
		Method of measurement: Shall be by the square yard of temporary pavement constructed per plan. Temporary trench patch shall not be measured for payment. Overbuild will not be measured for payment. Removals are measured and paid separately.
		-
		Basis of Payment: Payment of temporary pavement item shall be full compensation for all subgrade preparation, pavement placement and compaction, including all labor, materials, equipment and incidentals necessary for hauling, spreading, placing, and compacting.
-	-	-
23	**2315-8275025**	**SURFACING, DRIVEWAY, CLASS A CRUSHED STONE (TON)**
		Refer to Tab 102-03 for quantities. Item is for temporary driveways/accesses for parcels without an alternate paved access during driveway construction.
-	-	-
24	**2401-6745359**	**REMOVAL OF CONCRETE FOUNDATIONS OF LIGHT POLES (EACH)**
		Refer to U-Sheets for quantities and locations. Foundations are assumed to be constructed in accordance with DOT Standard Road Plan LI-201.
		-
		Refer to J-Sheets for Utility Coordination requirements.
		-
		Method of Measurement: Shall be per each light pole foundation removed.
		-
		Basis of Payment: Payment for each foundation removed and measured for payment shall be considered full compensation for all labor, materials, equipment and incidentals required to cut abandoned conduit and conductor, remove the foundation completely, protect adjacent utilities, dispose of waste and debris, and backfill the excavation.
-	-	-
25	**2401-6750001**	**REMOVALS, AS PER PLAN, PARCEL 18 (LS)**
		Refer to U-Sheets for locations and layouts for monument sign removal and removal of existing remnant landscaping edging feature. Monument pedestal is approximately 2' wide x 8.5' long. Remenant landscape edging is approximately 8' wide x 15' long. Item includes removal of sign, sign structure, and masonry structure base, concrete foundation, and remnant landscaping edging features. Contractor is responsible for dispoal of debris offsite. Resulting excavations shall be backfilled with suitable soil material.
		-
		Construction shall be in accordance with DOT Article 2401.
-	-	-
26	**2401-6750001**	**REMOVALS, AS PER PLAN, PARCEL 6 (LS)**
		Refer to U-Sheets for locations and layouts
		-
		Item includes demolition, removal, and disposal of 14'x 20' shelter structure in its entirety including above ground roof structure, concrete slab foundation, and post foundations, if present. Excavations resulting from foundation removal shall be backfilled with suitable soil material, compacted, topsoil dressed, seeded, fertilized, and mulched.
		-
		Construction shall be in accordance with DOT Article 2401.
-	-	-
27	**2402-0425040**	**FLOODED BACKFILL (CY)**
28	**2402-0875150**	**COMPACTION WITH MOISTURE CONTROL (STRUCTURES) (CY)**
29	**2402-2720000**	**EXCAVATION, CLASS 20 (CY)**
30	**2402-3825025**	**GRANULAR MATERIAL FOR BLANKET (CY)**
		Refer to V-Sheets for quantities and tabulations. Refer to Iowa DOT Standard Road Plan DR-111 for box culvert backfill details.
-	-	-
31	**2403-0100020**	**STRUCTURAL CONCRETE (RCB CULVERT) (CY)**
		Refer to V-Sheets for quantities and tabulations. Refer to Iowa DOT RCB 10-5-20 for all details regarding culvert construction and Iowa DOT PWH 0-1-20 through PWH 0-5-20 for all details regarding headwall construction. Subdrain and porous backfill are incidental to this item.
-	-	-
32	**2404-7775000**	**REINFORCING STEEL, RCB CULVERT (LB)**
		Refer to V-Sheets for quantities and tabulations.
-	-	-
33	**2404-7775005**	**REINFORCING STEEL, EPOXY COATED, PAVEMENT REINFORCEMENT MAT (LB)**
		Refer to Sheet B.6 Detail 8 and the L-sheets for layouts and locations. Refer to Tab SA-L1 for information and quantities. This item is for additional roadway pavement reinforcement per plan. This item does not include measurement for tie bars, dowel bars, or other reinforcement required by the jointing plan or the dowelled median.
		-
		Reinforcement shall be epoxy coated per Iowa DOT Section 4151.
-	-	-
34	**2414-6460000**	**ORNAMENTAL METAL RAILING, SAFETY (LF)**
		Refer to B-Sheets for details and V-Sheets for locations and quantities. Item includes mounting plate. Railing shall be powder coated with black paint.
		-
		Method of measurement: Shall be per linear foot of Ornamental Metal Rail, Safety installed per plan as measured along the center line of the rail, at the top rail.
		-
		Basis of Payment: Shall be considered full compensation for shop drawings, fabrication, installation, fastening, powder coating, complete and per plan.
-	-	-
35	**2416-0100015**	**APRONS, CONCRETE, 15 IN. DIA. (EACH)**
36	**2416-0100030**	**APRONS, CONCRETE, 30 IN. DIA. (EACH)**
37	**2416-0100048**	**APRONS, CONCRETE, 48 IN. DIA. (EACH)**
		Refer to M-Sheets for information, location, and tabulations. Refer to Iowa DOT Standard Road Plan DR-121 and DR-201 for connected pipe joints and concrete apron details. Connection shall be type Type 2 or 3 connection with the last 3 sections including the apron tied.
		-
		Footings are required for Aprons 24" and larger and are incidental to the item. Refer to Detail for RCP Apron Section
		Footing in the B-Sheets. Concrete footing shall comply with the requirements in Iowa DOT Sections 2402, 2403 and 2404
-	-	-

101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
38	**2418-0000010**	**TEMPORARY STREAM DIVERSION (EACH)**
		Item is for the temporary diversion of any water flowing through the creek bed during removal of the existing 60" RCP culvert and construction of the proposed reinforced concrete box culvert until it can be opened. Stream diversion item shall also apply to utility construction in the area.
-	-	-
39	**2435-0130148**	**MANHOLE, SANITARY SEWER, SW-301, 48 IN. (EACH)**
		Refer to Tabulation 104-5BMOD in the MSA-Sheets for locations and quantities. Refer to Iowa DOT Standard Road Plans SW-301 and SW-601 for circular sanitary sewer manhole and castings for santiary sewer manhole details.
		Manhole castings within pavement shall be Type B. Expanded polypropylene (EPP) adjustment rings are required.
		External chimney seals are required.
-	-	-
40	**2435-0140148**	**MANHOLE, STORM SEWER, SW-401, 48 IN. (EACH)**
41	**2435-0140184**	**MANHOLE, STORM SEWER, SW-401, 84 IN. MODIFIED (EACH)**
42	**2435-0250302**	**INTAKE, SW-503, WELL ONLY (EACH)**
43	**2435-0250304**	**INTAKE, SW-503, TOP ONLY (EACH)**
44	**2435-0250500**	**INTAKE, SW-505 (EACH)**
45	**2435-0250600**	**INTAKE, SW-506 (EACH)**
46	**2435-0250610**	**INTAKE, SW-506, MODIFIED (EACH)**
47	**2435-0250612**	**INTAKE, SW-506, MODIFIED, WELL ONLY (EACH)**
48	**2435-0250614**	**INTAKE, SW-506, MODIFIED, TOP ONLY (EACH)**
49	**2435-0251100**	**INTAKE, SW-511 (EACH)**
50	**2435-0251224**	**INTAKE, SW-512, 24 IN. (EACH)**
51	**2435-0251610**	**INTAKE, SW-516, MODIFIED (EACH)**
		Refer to Tabulation 104-5B in the M-Sheets for locations and quantities. Refer to Iowa DOT Standard Road Plans SW-401, SW-503, SW-505, SW-506, SW-511, SW-512, and SW-516 for manhole and intake information. Refer to Iowa DOT Standard Road Plans SW-602, SW-603, and SW-604 for boxout and casting information for manholes and intakes. Refer to B-Sheets for modified structure details.
		-
		Type F castings using height adjustment mechanism are required for all manholes in pavement unless otherwise noted in the tabulation. Type E castings will be allowed outside of pavement. Expanded polypropylene (EPP) adjustment rings are required. Item includes sloped adjustment rings as necessary and bid sealant material will be required with EPP adjustment ring installation. The maximum height of adjustment rings allowed for manhole castings is 12 inches unless otherwise specified. Manholes shall be equipped with steps. Trench shoring and dewatering (if needed) shall be incidental to these bid items.
		-
		Refer to J- and R-Sheets for intakes built Well Only and Top Only for staging and interim drainage purposes.
-	-	-
52	**2435-0600010**	**MANHOLE ADJUSTMENT, MINOR (EACH)**
53	**2435-0600020**	**MANHOLE ADJUSTMENT, MAJOR (EACH)**
		Refer to Tabulation 104-10. External Chimney seals are required for sanitary sewer manholes. For major manhole adjustments, some manholes are noted in the tabulation to require cone rotation to eliminate fixture conflicts with the proposed pavement curb line. Cone rotation is incidental to the item.
		-
		Expanded polypropylene (EPP) adjustment rings are required.
-	-	-
54	**2502-8212306**	**SUBDRAIN, STANDARD, PERFORATED, 6 IN., AS PER PLAN (LF)**
55	**2502-8212406**	**SUBDRAIN, STANDARD, NON-PERFORATED, 6 IN., AS PER PLAN (LF)**
56	**2502-8221303**	**SUBDRAIN OUTLET, DR-303 (EACH)**
57	**2502-8221305**	**SUBDRAIN OUTLET, DR-305 (EACH)**
		Refer to Tabulation 104-5C and 104-05C MOD in the M-Sheets for locations and quantities. Refer to B-sheets for typicals. Refer to Standard Road Plan DR-303, type 12 for placement information and details. Use corrugated exterior, smooth interior, PVC. Subdrain outlets are to be PVC. Comply with ASTM F 949, minimum pipe stiffness, 46 psi. Use PVC plastic complying with ASTM D 1784, Cell Classification 12454. Use integral bell-and-spigot type rubber gasket joints complying with ASTM D 3212 and ASTM F 477. Engineering fabric will not be required.
		-
		Video inspection of subdrain shall be conducted according to Section 2504.03, L and is considered incidental to this bid item.
-	-	-
58	**2503-0110008**	**STORM SEWER GRAVITY MAIN, TRENCHED, 8 IN. (LF)**
59	**2503-0114215**	**STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 15 IN. (LF)**
60	**2503-0114218**	**STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 18 IN. (LF)**
61	**2503-0114224**	**STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN. (LF)**
62	**2503-0114230**	**STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 30 IN. (LF)**
63	**2503-0114248**	**STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 48 IN. (LF)**
		Refer to Tabulation 104-5B in the M-Sheets for locations and quantities. Refer to M-Sheets for locations and details. Trench bedding shall comply with Standard Road Plan SW-101. Use bedding Class R-2 for all RCP storm sewer per Standard Road Plan SW-102. Refer to Standard Road Plan DR-601 for RCP storm sewer details. Connection to existing pipes shall be considered incidental to these bid items. See Standard Road Plans DR-121 and DR-122 for details. Trench shoring and dewatering (if needed) shall be incidental to these bid items. Compaction testing is required for all storm sewer backfill.
		-
		Gasketed RCP must be used where shown and gaskets are incidental to the pipe item.
		8-Inch Storm Sewer is for temporary installation only.
		-
		Video inspection of storm sewer shall be conducted according to Section 2504.03 L and is considered incidental to this bid item.
-	-	-
64	**2503-0200036**	**REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN. (LF)**
65	**2503-0200136**	**REMOVE STORM SEWER PIPE GREATER THAN 36 IN. (LF)**
		Refer to Tabulation 110-14 in the C-Sheets for quantities. Refer to M-Sheets for locations and details. All material shall become property of the Contractor to dispose of offsite. Removal of aprons are incidental to the item and measured for payment in the length of pipe removed.
-	-	-
66	**2504-0110008**	**SANITARY SEWER GRAVITY MAIN, TRENCHED, 8 IN. (LF)**
		Refer to Tabulation 104-5BMOD in the MSA-Sheets for locations and information. Refer to MSA-Sheets for layouts.
		Intent of replacement is to eliminate the sag located at the downstream point of connection.
		-
		Materials shall be Solid Wall Polyvinyl Chloride in accordance with DOT Article 4149.02 Paragraph A.1.
		Bedding shall be F-3 bedding per Iowa DOT Standard Road Plan SW-103.
		-
		Pressure testing of the main will be required. Plugging the service line will be necessary and is incidental to this bid item. Contractor shall coordinate with the Property Owner and tenants at Parcel 2 for service interruption during testing.
		-
		Refer to J-Sheets for staging requirements.
-	-	-

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/19/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70-77			
Project No: 122.1679.01			Sheet C.4

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
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SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.4

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ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
67	2504-0200406	**SANITARY SEWER SERVICE STUB, POLYVINYL CHLORIDE PIPE (PVC), 6 IN. (LF)**
		Refer to Tabulation 104-5BMOD in the MSA-Sheets for locations and information. Refer to MSA-Sheets for layouts.
		Connection to the main and wye are incidental to this item. Refer to Iowa DOT Standard Road Plan SW-201 for details.
		-
		Materials shall be Solid Wall Polyvinyl Chloride in accordance with DOT Article 4149.02 Paragraph D.3.
		Bedding shall be F-3 bedding per Iowa DOT Standard Road Plan SW-103.
		-
		Refer to J-Sheets for staging requirements. Contractor shall locate and expose the existing sewer service and confirm
		locations and elevations prior to disruption of service or construction of new gravity main. Potholing of the service line
		is incidental to this item.
-	-	-
68	2504-0240036	**REMOVE SANITARY SEWER PIPE LESS THAN OR EQUAL TO 36 IN. (LF)**
		Refer to Tabulation 110-14 in the C-Sheets for locations and information. Refer to MSA-Sheets for locations and
		layouts.
-	-	-
69	2504-0240236	**SANITARY SEWER ABANDONMENT, FILL AND PLUG, LESS THAN OR EQUAL TO 36 IN. DIA. (LF)**
		Refer to Tabulation 110-14 in the C-Sheets for locations and information. Refer to MSA-Sheets for locations and
		layouts.
-	-	-
70	2507-3250005	**ENGINEERING FABRIC (SY)**
71	2507-6800061	**REVETMENT, CLASS E (TON)**
		Refer to V-Sheets for quantities and tabulations.
-	-	-
72	2510-6745850	**REMOVAL OF PAVEMENT, HMA, 6 IN. DEPTH (SY)**
73	2510-6745850	**REMOVAL OF PAVEMENT, HMA, 8 IN. DEPTH (SY)**
74	2510-6745850	**REMOVAL OF PAVEMENT, PCC, 7 IN. DEPTH (SY)**
75	2510-6745850	**REMOVAL OF PAVEMENT, PCC, 8 IN. DEPTH (SY)**
		Refer to Tab 110-01 for quantities and information. Saw cutting is incidental to this item. Refer to J-Sheets for staging
		requirements.
-	-	-
76	2510-6750600	**REMOVAL OF INTAKES AND UTILITY ACCESSES (EACH)**
		Refer to M- and MSA-Sheets for locations. Refer to Tabulation 110-15 for information. Refer to J-Sheets for staging
		requirements.
-	-	-
77	2511-0300000	**REMOVAL OF RECREATIONAL TRAIL, PCC, 6 IN. DEPTH (SY)**
		Refer to U-Sheets and Tab 110-05 for locations and information. Refer to U-Sheets for locations and layouts. Refer to
		J-Sheets for staging requirements.
-	-	-
78	2511-0302600	**RECREATIONAL TRAIL, PORTLAND CEMENT CONCRETE, 6 IN. (SY)**
79	2511-0310100	**SPECIAL COMPACTION OF SUBGRADE FOR RECREATIONAL TRAIL (STA)**
		Refer to S-Sheets for locations and layouts. Refer to Tab 113-01A for locations, quantities, and information. Refer to
		Tab 113-10 for compliance and information. The minimum thickness for special compaction of subgrade shall be 6
		inches and to a width of 1 foot beyond the edge of trail.
		-
		Certified plant inspection is required for this item.
-	-	-
80	2511-6745900	**REMOVAL OF SIDEWALK, BRICK W/ PCC PAVER BASE, 9 IN. DEPTH (SY)**
81	2511-6745900	**REMOVAL OF SIDEWALK, PCC, 6 IN. DEPTH (SY)**
		Refer to U-Sheets and Tab 110-05 for locations and information. Refer to U-Sheets for locations and layouts. Refer to
		J-Sheets for staging requirements. Brick Pavers are assumed to have a 6" PCC paver base with asphalt setting bed.
-	-	-
82	2511-7526004	**SIDEWALK, P.C. CONCRETE, 4 IN. (SY)**
83	2511-7526005	**SIDEWALK, P.C. CONCRETE, 5 IN. (SY)**
84	2511-7526006	**SIDEWALK, P.C. CONCRETE, 6 IN. (SY)**
		Refer to S-Sheets for locations and layouts. Refer to Tab 113-01A for locations, quantities, and information. Refer to
		Tab 113-10 for compliance and information. The minimum thickness is 4 inches for 4 foot and 6 foot wide sidewalk.
		The minimum thickness is 5 inches for 8 foot wide sidewalk. All ramps and turning spaces shall be 6 inches thick
		minimum.
		-
		All ramps and landings adjacent to roadway pavement shall be constructed in compliance with Iowa DOT Standard
		Road Plan MI-220.
		-
		Certified plant inspection is required for this item.
-	-	-
85	2511-7528101	**DETECTABLE WARNINGS (SF)**
		Refer to S-Sheets for locations and layouts. Refer to Tab 113-01A for locations, quantities and information. All
		detectable warnings shall be yellow in color. Refer to Iowa DOT Standard Road Plan MI-220 for details.
-	-	-
86	2512-1725256	**CURB AND GUTTER, P.C. CONCRETE, 2.5 FT. (LF)**
		Refer to Tab 100-05. Refer to D- and E-Sheets for locations and layouts. Refer to L-Sheets for information and
		geometrics.
		-
87	2512-1750006	**CURB AND GUTTER, P.C. CONCRETE, AS PER PLAN (LF)**
		Refer to D- and E-Sheets for locations and layout. Refer to B-Sheets for typical section. Gutter width varies. Curb
		shall be 6" standard vertical curb per Iowa DOT Standard Road Plan PV-102. Thickness of PCC pavement is 6".
		Installation of an "E" joint at back of curb is incidental to this item.
		-
		Refer to J-Sheets for staging requirements.
-	-	-
88	2515-2475006	**DRIVEWAY, P.C. CONCRETE, 6 IN. (SY)**
89	2515-2475007	**DRIVEWAY, P.C. CONCRETE, 7 IN. (SY)**
		Refer to Tabulation 102-03 for information. Refer to L-Sheets for information and layouts. Refer to J-Sheets for staging
		requirements.
-	-	-
90	2515-6745600	**REMOVAL OF PAVED DRIVEWAY (SY)**
		Refer to Tabulation 110-08 for information. Refer to U-Sheets for locations and layouts. Refer to J-Sheets for staging
		requirements.
-	-	-
91	2516-8625000	**COMBINED CONCRETE SIDEWALK AND RETAINING WALL (CY)**
		Refer to V-Sheets for locations and layout information.
		-
		Adjustment of valves and curb stops within the sidewalk portion of the combined concrete sidewalk and retaining wall
		shall be incidental to this bid item. Refer to Iowa DOT Standard Road Plan MI-221 for details.
-	-	-

101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
92	2518-0000100	**ITS HANDHOLE, 48X30X36 (EACH)**
93	2518-0001200	**ITS CONDUIT, HDPE, 2 INCH BORED (LF)**
94	2518-0006015	**ITS TRACER WIRE (LF)**
95	2518-0007012	**FIBER OPTIC CABLE, 12 SM DIELECTRIC (LF)**
96	2518-0008300	**FIBER OPTIC CABLE, INSTALL ONLY (LF)**
97	2518-0008305	**FIBER OPTIC CABLE, REMOVE (LF)**
98	2518-0008355	**CONNECTOR ADAPTOR PANEL, SIX DUPLEX SC (EACH)**
99	2518-0008360	**SINGLE PANEL HOUSING (EACH)**
100	2518-0008365	**UPC/SC FACTORY TERMINATED FIBER CONNECTOR AND PIGTAILS (EACH)**
101	2518-0008370	**FIBER OPTIC SPLICE CLOSURE (EACH)**
102	2518-0008380	**FIBER OPTIC SPLICE TRAY, 12 (EACH)**
103	2518-0008390	**FIBER OPTIC SPLICE TRAY, 72 (EACH)**
104	2518-0008395	**FIBER OPTIC SPLICE (EACH)**
105	2518-0008400	**FIBER OPTIC CABLE ACCEPTANCE TESTING (LS)**
		Refer to Developmental Specification for Intelligent Transportation Systems. Refer to N-Sheets for locations and
		details.
		-
106	2519-3300700	**FENCE, TEMPORARY, CHAIN LINK, 6 FT. HEIGHT (LF)**
		Refer to J-Sheets for locations. Refer to Tab 100-07 for information. Temporary mounting with temporary posts or T
		supports and sandbagging is required. Item is for property owner security requirements. Temporary fence shall be
		installed in the location as approved by the Engineer.
		-
		Method of Measurement: Per linear foot of fence installed as measured along the centerline of fence at the ground
		line. Fence reset at the Contractor's convenience shall not be measured for payment.
		-
		Basis of Payment: Payment shall be considered full compensation for furnishing, installing, maintaining, resetting to
		accommodate Contractor operations, and removing fence.
		-
107	2519-3300700	**FENCE, TEMPORARY, PLASTIC, 42 IN. HEIGHT (LF)**
		Refer to J-Sheets for required locations. Temporary mounting with 6' metal T-posts at 8' maximum spacing. Fence
		shall be affixed to the T-posts in at least two locations. Maintenance of fence is incidental to the item.
		Item is to be used at the direction of the Engineer at locations at the back of easement to protect the public.
		Fence shall be removed at the end of the project or at the completion of work operations in that area.
		-
		Refer to Tab 100-07 for possible locations.
		Method of Measurement: Per linear foot of fence installed as measured along the centerline of fence at the ground
		line. Fence reset at the Contractor's convenience shall not be measured for payment.
		-
		Basis of Payment: Payment shall be considered full compensation for furnishing, installing, maintaining, resetting to
		accommodate Contractor operations, and removing fence.
-	-	-
108	2519-4200020	**REMOVAL AND REINSTALLATION OF FENCE, CHAIN LINK, 4 FT. (LF)**
109	2519-4200020	**REMOVAL AND REINSTALLATION OF FENCE, CHAIN LINK, 8 FT. (LF)**
110	2519-4200090	**REMOVAL AND REINSTALLATION OF FENCE, VINYL, 6 FT. (LF)**
		Item is for the removal and reinstallation of chain link fence including two corner posts per installation location. Refer to
		Tab 100-07 for information. Refer to U-Sheets for locations. Refer to J-Sheets for staging requirements. Removal and
		replacement of concrete footings if necessary shall be incidental to this bid item.
-	-	-
111	2524-6765010	**REMOVE AND REINSTALL SIGN AS PER PLAN (EACH)**
		Refer to U-Sheets for information. Refer to Tabulation 190-62 for information. Refer to J-Sheets for staging
		requirements. Refer to PM-Sheets for reinstallation locations and mounting details.
		-
		Method of Measurement: Per each sign removed and reinstalled, regardless of size or method of mounting.
		New slip bases and posts will be measured separately for payment.
		-
		Basis of Payment: Payment shall be considered full compensation for removing signs, posts, slipbases, disposing of
		materials, storage of sign, and reinstallation. New hardware is incidental to this item.
-	-	-
112	2524-6765110	**REMOVAL OF TYPE A SIGN (EACH)**
		Refer to U-Sheets for information. Refer to Tabulation 190-62 for information. Refer to J-Sheets for staging
		requirements.
		-
		Method of Measurement: Per each sign removed, regardless of size or method of mounting.
		-
		Basis of Payment: Payment shall be considered full compensation for removing signs, posts, slipbases, and disposing
		of materials.
-	-	-
113	2524-9276010	**PERFORATED SQUARE STEEL TUBE POSTS (LF)**
114	2524-9276021	**PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY SOIL INSTALLATION (EACH)**
115	2524-9276024	**PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY CONCRETE INSTALLATION (EACH)**
116	2524-9325001	**TYPE A SIGNS, SHEET ALUMINUM (SF)**
		Refer to P-Sheets for information. Refer to Tabulations 190-51 and 190-66 for information.
		-
		Locations shall comply with Iowa DOT Standard Road Plan SI-101. Refer to Iowa DOT Standard Road Plan SI-114 and
		SI-119 for posts and mounting bracket information. Refer to Iowa DOT Standard Road Plan SI-131 and SI-133 for
		installation information. This bid item includes all work needed to stake location, install steel tube post anchors and
		footings, posts, and install sign.
-	-	-
117	2524-9325150	**INSTALL TYPE A SIGN (EACH)**
		Refer to P-Sheets for information. Refer to Tabulations 190-51 and 190-66 for information.
		-
		Locations shall comply with Iowa DOT Standard Road Plan SI-101. Refer to Iowa DOT Standard Road Plan SI-114 and
		SI-119 for posts and mounting bracket information. Refer to Iowa DOT Standard Road Plan SI-131 and SI-133 for
		installation information. This bid item includes all work needed to stake location, install steel tube post anchors and
		footings, posts, and install sign.
		-
		Method of Measurement: Each Type A Sign installed.
		-
		Basis of Payment: Payment will be at the contract unit price per each Type A sign installed.
-	-	-
118	2525-0000100	**TRAFFIC SIGNALIZATION, 14TH AVENUE NW (LS)**
119	2525-0000100	**TRAFFIC SIGNALIZATION, 17TH AVENUE NW (LS)**
		Section 2525 and Section 4189 of the Iowa DOT Standard Specifications shall apply. Refer to N-Sheets for locations
		and details.
-	-	-

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/19/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70--77			
Project No: 122.1679.01			Sheet C.5

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.5

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ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
120	2527-9263143	PAINTED SYMBOLS AND LEGENDS, DURABLE (EACH)
121	2527-9263181	PAVEMENT MARKINGS REMOVED (STA)
122	2527-9263190	SYMBOLS AND LEGENDS REMOVED (EACH)
123	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED (STA)
124	2527-9263217	PAINTED PAVEMENT MARKINGS, DURABLE (STA)
125	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE (STA)
126	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS (STA)
127	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS (EACH)
		Refer to Tabulations 108-22 and 108-29 in the PM-Sheets for permanent pavment marking layouts and J-Sheets for temporary pavement marking layouts. Removals are tabulated only. Refer to Iowa DOT Standard Road Plans PM-110, PM-111, PM-561, and PM-562 for details. All temporary pavement markings shall be removable tape unless specified otherwise. All permanent pavement markings shall be durable with grooves cut. All removal on permanent pavement must be water-blasted. No grinding will be allowed on permanent pavement.
		-
		Refer to J-Sheets for staging requirements.
-	-	-
128	2528-2518000	SAFETY CLOSURE (EACH)
		Refer to Tab 108-13A for information and quantities. Refer to the J-Sheets for locations and details.
-	-	-
129	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE (LF)
130	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE (EACH)
131	2528-8445110	TRAFFIC CONTROL (LS)
		Refer to J-Sheets for traffic control plan, staging, and signage information. Additional traffic control devices or signs needed for paving operations shall be incidental to this item. Refer to Iowa DOT Standard Road Plans TC-202, TC-213, TC-251, TC-252, TC-418, TC-419, and TC-421 for lane closure, paving operations, and route closure details.
		-
		All pedestrian detours shall comply with Standard Road Plan TC-601.
-	-	-
132	2528-8445113	FLAGGERS (EACH)
		Per Proposal. Refer to J-Sheets for information and details.
-	-	-
133	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS) (CDAY)
		Refer to J-Sheets for locations, messages, and duration of installation.
-	-	-
134	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA, PCC, 9 IN. (SY)
135	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT, PCC, 9 IN. (EACH)
		Refer to Tabulation 102-6C for information. Refer to D- and E-Sheets for locations and layouts. Patch shall comply with Iowa DOT Standard Road Plan PR-103 for full depth patch with dowels. Existing jointing shall be re-established. Nominal pavement thickness shall be 9 inches. Four (4) foot minimum width of patch is required.
-	-	-
136	2533-4980005	MOBILIZATION (LS)
		Item includes all handbills, notifications, and coordination for schedule updates with the City of Altoona and the Engineer for the purposes of public notification through flyers, web communications, and social media channels.
-	-	-
137	2549-0041060	BYPASS PUMPING, SANITARY SEWER (LS)
		Item is for bypass pumping for sanitary sewer reconstruction as shown on the MSA-Sheets. Item shall comply with Iowa DOT 2549.03 Paragraphs A.1 and A.4.
-	-	-
138	2552-0000300	TRENCH COMPACTION TESTING (LS)
		Refer to M-, MWM- and MSA-Sheets for locations and layouts. Refer to J- Sheets for staging requirements. Coordinate tests with Engineer for locations and witnessing of tests.
-	-	-
139	2554-0114008	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 8 IN. (LF)
140	2554-0114010	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 10 IN. (LF)
141	2554-0114012	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 12 IN. (LF)
142	2554-0114016	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 16 IN. (LF)
143	2554-0124016	WATER MAIN, TRENCHLESS, POLYVINYL CHLORIDE PIPE (PVC), 16 IN. (LF)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM1 for quantity information. Refer to J-Sheets for staging information and requirements. Refer to J-Sheets for valves to isolate water main construction. Water main must comply with Iowa DOT Section 2554. Coordinate with the City of Altoona for closing of valves. Connections to existing main, thrust blocks, and restrained jointing are incidental to this bid item. The Contractor must verify that tracer wire can be traced prior to paving. Class P-2 bedding is required. Testing and disinfection shall be completed prior to final acceptance. Pressure testing shall be completed prior to construction of pavement over the trench.
		-
		Refer to Iowa DOT Standard Road Plans WM-101 and WM-102 for details.
		-
		All 16-inch water main pipe shall be C900. Restrained joints shall be used in locations shown on the MWM-Sheets and in locations where staging and resting requirements require a temporary cap or plug.
		-
		All trenchless installation shall be restrained joint pipe. The Contractor may elect to install the trenchless item with trenched methods, with item measured as trenchless. Trenched installation within the stream crossing area shall provide for stream diversion, removal of unsuitable backfill materials, and backfill of trench to prevent pipe from floating under saturated conditions. Trenched installation shall be at no additional cost to the Agency.
-	-	-
144	2554-0203000	FITTINGS BY WEIGHT, DUCTILE IRON (LB)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM2 for quantity information. MegaLug fittings are required. Restrained jointing at fittings will be required as shown on sheets MWM.9 to MWM.15.
-	-	-
145	2554-0207000	VALVE, GATE, DIP, 16 IN. (EACH)
146	2554-0207008	VALVE, GATE, DIP, 8 IN. (EACH)
147	2554-0207010	VALVE, GATE, DIP, 10 IN. (EACH)
148	2554-0207012	VALVE, GATE, DIP, 12 IN. (EACH)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SW-MWM3 for quantity information. Refer to J-Sheets for staging information and requirements. Valve boxes shall be provided with all necessary extensions to be adjusted to the finished grade.
		-
		All valves not in pavement shall be marked with 6' tall metal tee posts painted blue at the manufacturer's recommendation for minimum embedment.
-	-	-
149	2554-0209008	VALVE REMOVAL, 8 IN. (EACH)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SW-MWM3 for quantity information. Refer to J-Sheets for staging information and requirements.
-	-	-

101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
150	2554-0210201	FIRE HYDRANT ASSEMBLY, WM-201 (EACH)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM3 for quantity information. Refer to J-Sheets for staging information and requirements. Fire hydrants shall meet the following requirements:
		-
		1. Hydrants shall be factory painted red.
		2. Hydrants shall be furnished with one pumper nozzle outlet with a 5-inch Storztype, quick-connect coupling and cap.
		The caps for the 5-inch Storz couplings shall have external wrenching lugs and a chain attached to the fire hydrant shall retain the cap. The 5-inch Storz nozzles are to be factory installed and integral to the hydrant construction. Storz-type nozzles and caps with non-threaded connections are required.
		-
		All fittings, lead lines, including the main line tee and/or reducer, and adjustments to finished grade are incidental to this bid item.
		-
		Installation of tracer wire testing station is incidental to this item. Tracer wire test station shall be used.
-	-	-
151	2554-0210205	FIRE HYDRANT ASSEMBLY REMOVAL (EACH)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM3 for quantity information. All salvaged materials shall be cleaned and delived to City of Altoona Public Works. Refer to Standard Road Plan WM-201.
-	-	-
152	2554-0211008	FLUSHING DEVICE (BLOWOFF), 8 IN. (EACH)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM3 for quantity information. Item is for a temporary blowoff for use in flushing water mains prior to final connection. Item includes removal of the temporary flushing device. The flushing device shall become property of the Contractor and shall be removed from the site.
-	-	-
153	2554-0212040	VALVE BOX ADJUSTMENT, MINOR (EACH)
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM3 for quantity information. Fire hydrants and valve boxes are to be adjusted to finished grade.
-	-	-
154	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS (LS)
		Refer to Tabulation 110-13 for information and salvaged material delivery location.
-	-	-
155	2599-9999003	('CUBIC YARDS' ITEM) COMBINED CONCRETE SIDEWALK AND RETAINING WALL, SPECIAL (CY)
		Item is for the construction of the inverse combined concrete sidewalk and retaining walls. Refer to the B-Sheets for details. Refer to Tab 108-16 for quantities. Construction shall comply with Iowa DOT Section 2516.
		-
		Adjustment of valves and curb stops within the sidewalk portion of the combined concrete sidewalk and retaining wall shall be incidental to this bid item.
		-
		Method of Measurement: Item will be paid out per cubic yard of inverse combined sidewalk concrete and retaining wall installed.
		-
		Basis of Payment: Payment is considered full compensation for excavation and foundation preparation, furnishing and placing concrete and reinforcing steel, joint material, subdrain, porous backfill material, suitable backfill material, finishing disturbed and shoring as necessary.
-	-	-
156	2599-9999005	('EACH ITEM') ABANDON WATER SERVICE (EACH)
		Item is for the abandonment of water service at the main. Contractor shall remove curb stop box, and permanently close water service at the water main. The Contractor shall excavate and fully close the corporation stop, disconnect the service line and seal the service line with a threaded brass plug, cap or stainless steel encapsulation fitting.
		Construction and materials shall be per Iowa DOT 2554 and Article 4150.
		Method of Measurement: Per each Water Service Abandoned per plan requirements.
		Basis of Payment: Payment is full compensation for excavation, backfill, disconnection of service line, sealing service line, and removal of curb stop box.
-	-	-
157	2599-9999005	('EACH ITEM') RECTANGULAR RAPID FLASHING BEACON SYSTEM (EACH)
		Unit price includes two rectangular rapid flashing beacon (RRFB) assemblies and a pole-mounted controller cabinet to control the system. Each RRFB assembly includes signs, flasher, APS push button with sign, solar panel, wireless communication, internal wiring, pedestal pole, and foundation. Section 2525 and Section 4189 of the Iowa DOT Standard Specifications shall apply. Refer to N-Sheets for locations and details.
		-
		Method of measurement: Per fully operational RRFB system installation.
		-
		Basis of payment: For all materials, equipment, and installation of a fully operational RRFB system.
-	-	-
158	2599-9999005	('EACH' ITEM) REMOVE AND RELOCATE BOULDERS, LARGE (EACH)
159	2599-9999005	('EACH' ITEM) REMOVE AND RELOCATE BOULDERS, SMALL (EACH)
		Refer to U-Sheets for locations. Contractor shall satisfy themselves of size of boulder and equipment necessary to move each boulder. Approximate locations of relocation are shown in the U-Sheets and will be adjusted in the field by the Engineer.
		-
		Small boulders are equal to or than smaller than 3.5' in any one dimensions, and may be handled by skid steer.
		Large boulders are larger than 3.5' in any one dimension and may need to be relocated using larger construction equipment. Large boulders do not require loading and transport and may be relocated adjacent to original position.
		-
		Method of Measurement: Item is per each per type of boulder relocated. Boulders smaller than 12" in any one dimension will not be measured for payment and shall be considered incidental to Class 10 Excavation item.
		-
		Basis Payment: Shall be for boulders relocated per plan for each boulder relocated. Payment shall be considered full compensation for all labor, material and equipment necessary to move and re-set landscape boulders including excavation and backfill of resulting excavation or depression. This item applies to all boulders located on public property or within the proposed right-of-way or easement to be relocated per Plan.
-	-	-

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/19/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70-77
Project No: 122.1679.01

Sheet C.6

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020| www.snyder-associates.com

SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.6

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ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
160	**2599-9999005**	**('EACH' ITEM) REMOVE AND RELOCATE CURB STOP, PER PLAN (EACH)**
		Item is for the removal and relocation of the curb stop box. The Contractor shall excavate and remove the curb stop and box, extend 2" diameter copper water service line to location 1' from the ROW line, install new 2" curb stop and box, and reconnect to the private water service. Item includes coordination for water outage. Item includes flushing and chlorination of service as required by DOT Section 2554.
		-
		Construction and materials shall be per Iowa DOT 2554 and Article 4150.
		-
		Method of Measurement: Per each curb stop box removed and relocated.
		-
		Basis of Payment: Payment is full compensation for excavation, backfill, installation of new curb stop and box, and connection to new main.
-	-	-
161	**2599-9999005**	**('EACH' ITEM) REMOVE AND RELOCATE TRASH RECEPTACLE (EACH)**
		Refer to U-Sheets for location. Item includes removal of trash receptacle and bin, storage of trash receptacle, removal of concrete pad. Item includes installation of a 6" thick, 3' square PCC concrete pad with 1/2" diameter hot dipped galvanized anchor bolts set for re-installation of trash receptacle.
		-
		Anchor bolts may be wet-set or drilled and set with a two part epoxy. All construction shall comply with Iowa DOT 2301.
		-
		Method of Measurement shall be per each trash receptacle removed and relocated, per plan.
		-
		Basis of Payment shall be made per each item measured for payment. Payment shall be considered full compensation for all labor, equipment, materials, and incidentals required to remove, store, remove concrete pad; form, place anchor bolts, pour, finish, and cure pad; and reinstall trash receptacle.
-	-	-
162	**2599-9999005**	**('EACH' ITEM) REMOVE CONCRETE WHEEL STOP (EACH)**
		Item is for the removal of existing parking lot concrete wheel stops. All materials shall become property of the Contractor for disposal.
		-
		Method of Measurement: Per each concrete wheel stop removed, per plan.
		-
		Basis of Payment: Payment is full compensation for removal, storage, and reinstallation, including all labor, equipment, materials, and incidentals required to remove and dispose ofconcrete wheel stops.
-	-	-
163	**2599-9999005**	**('EACH' ITEM) SPECIAL INTAKE (EACH)**
		Refer to B-Sheets for details. Refer to M-Sheets and Tab 104-05B for information and layouts. All materials shall comply with Iowa DOT Article 4149.04. - All construction shall comply with Iowa DOT Article 2435.
		-
		Method of Measurement: Per each Intake, Special constructed.
		-
		Basis of Payment: Payment is full compensation for excavation, placing bedding and backfill material, compaction, base, structural concrete, reinforcing steel, precast units, inverts, castings, and adjustment rings.
-	-	-
164	**2599-9999005**	**('EACH' ITEM) SUBDRAIN CLEANOUT (EACH)**
		Item is for the construction of a Type A-1 cleanout per detail in the B-Sheets. Refer to M-Sheets for location and layout information. Refer to Tab 104-05C MOD for quantities and information.
		-
		Subdrain materials and construction shall be per DOT Article 2502. Casting shall be a light duty (HS-20 loading) cast iron casting with lid labeled "Storm" or "Storm C.O.". Diameter of casting shall be 12". Casting shall comply with DOT Article 4149.04 I.
		-
		Method of Measurement: Item shall be for each Type A-1 cleanout installed.
		-
		Basis of Payment: Shall be at the contract unit price per each cleanout measured for payment. Payment shall be considered full compensation for all labor, equipment, and materials necessary for excavation, cleanout construction, subdrain connection including any fittings, castings, and final adjustment to grade as required to construction the items per plan.
-	-	-
165	**2599-9999005**	**('EACH' ITEM) TEMPORARY ADA COMPLIANCE RAMP, PORTABLE (EACH)**
		Item is for the installation of a site built or pre-manufactured portable ADA ramp to implement temporary pedestrian detours as shown in the J-Sheets. Ramps shall be a minimum of 36" in clear width. Ramps shall have a detectable edge on both sides of the ramp. Maximum slope of the ramp shall be 1:12.
		Ramps shall comply with the Americans with Disabilities Act of 1990.
		-
		After staging requirements are satisfied, the ramp shall be removed from the project.
		-
		Method of Measurement: Item shall be for each temporary portable ADA ramp installed.
		-
		Basis of Payment: Shall be at the contract unit price per each temporary ADA portable ramp installed and measured for payment. Payment shall be considered full compensation for all labor, equipment, and materials necessary to procure, install, maintain and remove the ADA ramp.
-	-	-
166	**2599-9999005**	**('EACH' ITEM) TEMPORARY PIPE CONNECTION TO EXISTING STRUCTURE (EACH)**
167	**2599-9999005**	**('EACH' ITEM) TEMPORARY PIPE CONNECTION TO PROPOSED STRUCTURE (EACH)**
		Item is for the construction of a temporary pipe connection to intake structure per plan.
		-
		Gravel bedding shall comply with Iowa DOT Article 4118. Filter fabric shall comply with Article 4196.01-2. Sealant shall comply with butyl material meeting ASTM C 923, silicone watertight sealant meeting the requirements of ASTM C1193.
		-
		All temporary pipe connection materials shall be removed for connection of permanent storm piping.
		-
		Refer to M-Sheets for details.
		-
		Method of Measurement: Measurement shall be made per each temporary pipe connection made, per structure type, per plan.
		-
		Basis of Payment: Payment for each Temporary Pipe Connection measured for payment shall be full compensation for all labor, materials, equipment, and incidentals necessary to construct and remove the temporary pipe connection including excavating, forming, sealing, gravel bedding, backfill and removal of temporary connection per staging requirements.
-	-	-

101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
168	**2599-9999005**	**('EACH' ITEM) VIBRATION MONITORING (EACH)**
		Refer to Special Provisions on Vibration Monitoring for information and requirements.
		-
		Item includes the following properties:
		1206 Adventureland Drive
		806 11th Avenue NW
		809 11th Avenue NW
		813 10th Ave NW
		813 12th Ave NW
		901 9th Ave NW
		922 Breezewood Circle
		924 Breezewood Circle
		926 Breezewood Circle
		928 Breezewood Circle
		-
		The Engineer will provide written consent to enter for properties that choose to participate.
		-
		Method of Measurement: Item shall be measured per each separate address where monitoring is performed until project completion.
		-
		Basis of Payment: Payment for per each location Vibration Monitoring Item shall be per the Special Provision Basis of Payment.
-	-	-
169	**2599-9999009**	**('LINEAR FEET' ITEM) GRANULAR SAFETY EDGE (LF)**
		Item is for the construction of granular safety edge. Refer to B-Sheets for detail. Refer to J-Sheets for locations.
		In cases where an edge drop off exists at the edge of pavement, the Engineer may direct the installation of the granular safety edge where new pavement is being constructed and staged operations require excessive lengths of edge drop off, exceeding 1000 LF. This item is also used at the median edge for pavement boxouts.
		Material shall be modified subbase per Iowa DOT Article 4123 or asphalt millings meeting I.M. 210.
		Construction shall conform with Iowa DOT Article 2128.
		-
		Method of Measurement: Per linear foot of granular safety edge constructed as measured along the edge of pavement.
		-
		Basis of Payment: Linear foot price for Granular Safety Edge includes all labor, equipment, materials and incidentals required to haul, spread, place, compact, maintain and remove granular safety edge.
170	**2599-9999009**	**('LINEAR FEET' ITEM) REMOVAL OF WATER MAIN (LF)**
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM5 for quantity information. Item is for the removal of water main where relocation is occuring. All waste materials are to become property of the Contractor for disposal off-site.
		-
		Method of Measurement: Item shall be per linear foot of water main removed regardless of pipe material or size. Hydrant lead lines shall not be measured for payment as part of this item.
		-
		Basis of Payment: Shall be at the contract unit price per linear foot of water main removed. Payment shall be considered full compensation for excavation, cutting, removal of pipe, and backfilling of trenches.
-	-	-
171	**2599-9999009**	**('LINEAR FEET' ITEM) WATER MAIN INSULATION, EXISTING PIPE**
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM4 for quantity information. Refer to B-Sheet for water main insulation detail. Item is for the insulation of existing water main where water main is believed to be installed less than 5 feet below finished grade.
		-
		Material shall be XPS (Extruded Polystyrene) or EPS (Expanded Polystyrene) rigid foam insulation board of the thickness specified. Multiple sheets of foam insulation board may be used to reach plan thickness.
		-
		Method of Measurement: Item shall be per linear foot of foam board cross-section as measured along the length of the water main.
		-
		Basis of Payment: Shall be for water main insulation in the quantity measured including all labor, materials, and equipment needed for the over excavation, cutting, fitting, placement, and backfill of insulation materials.
-	-	-
172	**2599-9999009**	**('LINEAR FEET' ITEM) WATER MAIN INSULATION, NEW CONSTRUCTION**
		Refer to MWM-Sheets for location and layout information. Refer to Tab SA-MWM4 for quantity information. Refer to B-Sheet for water main insulation detail. Item is for the insulation of new water main is less than 5' from a storm structure.
		-
		Material shall be XPS (Extruded Polystyrene) or EPS (Expanded Polystyrene) rigid foam insulation board of the thickness specified. Multiple sheets of foam insulation board may be used to reach plan thickness.
		-
		Method of Measurement: Item shall be per linear foot of foam board cross-section as measured along the length of the water main.
		-
		Basis of Payment: Shall be for water main insulation in the quantity measured including all labor, materials, and equipment needed for the overexcavation, cutting, fitting, placement, and backfill of insulation materials.
-	-	-
173	**2599-9999010**	**('LUMP SUM' ITEM) IRRIGATION SYSTEM REPAIR (LS)**
		Item is for cutting and capping irrigation system on Parcel 2 where encountered. Refer to U-Sheets for known irrigation head locations.
		-
		Contractor to coordinate with property owner to deactivate sprinkler system as may be necessary.
		-
		Method of Measurement: Item is lump sum. No measurement shall be made.
		-
		Basis of Payment: Lump Sum Payment shall be full compensation for cutting, capping, repairing and restoring full function of irrigation system where encountered.
-	-	-

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/19/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 122.1679.01

Sheet C.7

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
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SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.7

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ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
174	**2599-9999010**	**('LUMP SUM' ITEM) MAINTENANCE OF POSTAL SERVICE (LS)**
		Item is for the maintenance of postal services, including coordinating with USPS, erecting and maintaining curbside mailboxes or cluster mailboxes, if required, by USPS. Refer to B-Sheets for details. Mailboxes shall be USPS compliant.
		-
		Temporary mailbox locations will be required for noted residential deliveries. Refer to J-Sheets for locations, details, quantities and information. Temporary mailbox locations will be required to facilitate safe mail delivery even when actual mailbox locations are not impacted.
		-
		Method of Measurement: Item is lump sum. No measurement shall be made.
		-
		Basis of Payment: Partial payments will be made equal to the percentage of working days used or percentage of the original project sum completed, whichever is greater. When 80% of the working days or original project sum is completed, 100% of the contract price for this item will be paid.
-	-	-
175	**2599-9999010**	**('LUMP SUM' ITEM) MAINTENANCE OF SOLID WASTE COLLECTION (LS)**
		Item is for the maintenance of solid waste collection, including coordinating and maintaining solid waste collection services, establishing alternate collection sites if required, including coordinating with residences for placement of solid waste receptacles by a given date and time, Contractor hauling and dropping solid waste receptacles at established alternate collection site and returning solid waste receptacles to residences before end of collection day.
		-
		Method of Measurement: Item is lump sum. No measurement shall be made.
		-
		Basis of Payment: Partial payments will be made equal to the percentage of working days used or percentage of the original project sum completed, whichever is greater. When 80% of the working days or original project sum is completed, 100% of the contract price for this item will be paid.
-	-	-
176	**2599-9999010**	**('LUMP SUM' ITEM) MONUMENT SIGN, GREENWAY PARK (LS)**
		Refer to U-Sheets for sign details and information. Item is for construction of Park Monument Sign complete.
		-
		Construction of concrete foundation shall be per Iowa DOT 2403.
		-
		Method of Measurement: Item is lump sum. No measurement shall be made.
		-
		Basis of Payment: Payment for item complete shall be full compensation for all labor, equipment, materials necessary to construct sign foundation, including excavation, 12" of subgrade preparation under foundation, forming, reinforcing, pouring, finishing and curing of concrete foundation; preparation of shop drawings, fabrication of sign materials and sign cabinet; construction of stone veneer; concrete cap; acrylic lettering; powder coated aluminum panels, backfill and fine grading at sign foundation. Topsoil and seeding by separate bid item.
-	-	-
177	**2599-9999010**	**('LUMP SUM' ITEM) REMOVAL AND RELOCATION OF SHED STRUCTURE (LS)**
		Item is for the removal and relocation of the shed structure on Parcel 14. Refer to U-Sheets for location and layouts. The item includes temporary bracing of shed to facilitate moving structure, disconnecting anchor bolts from shed foundation, temporary placement of shed structure, removal of shed concrete slab foundation, construction of shed slab foundation, placement of anchor bolts, resetting of shed on foundation, and removal of temporary bracing.
		-
		Existing slab foundation is 8' x 10' and assumed to be 5" thick PCC. Shed is anchored to slab with anchor bolts.
		-
		Proposed shed foundation shall be 8' x 10' 5" thick PCC with drilled 1/2" diameter x 5-1/2" long galvanized wedge anchor bolts, on 4' center, with a minimum three bolts per wall. PCC slab foundation shall be graded level and 6" thick special backfill granular material.
		-
		Proposed shed is a fabricated wood structure. Temporary bracing of walls and opening is assumed to be required to remove the shed structure during the demolition and construction of new shed foundation. Contractor shall remove structure and place in a temporary location on said Parcel 14 during foundation construction. Permanent location shall be at a mininum 2' from the proposed utility easement.
		-
		Special Backfill shall comply with the requirements of DOT Article 4132.
		-
		Contractor shall obtain a building permit from the City of Altoona Building Department and comply with local building code requirements for sheds less than 200 SF. Permit will be issued at no fee.
		-
		PCC slab foundation and anchors shall comply with the requirements of DOT Article 2403. Removal and resetting of structure shall comply with DOT Article 2401.
		-
		Property owner will remove and temporarily store all personal belongings.
		-
		Method of Measurement: Item is lump sum. No measurement shall be made.
		-
		Basis of Payment: Payment for lump sum item shall include all labor, equipment, materials, and incidentals required to brace and remove shed structure; demolish foundation; dispose of concrete materials; grade pad; furnish, haul, place, spread and compact special backfill; form, pour, finish, and cure concrete slab foundation; reset structure; place anchor bolts, and remove temporary bracing, together with City Permit requirements.
-	-	-
178	**2599-9999014**	**('SQUARE FEET' ITEM) CONCRETE RETAINING WALL FORM LINER (SF)**
		Refer to U-Sheets for additional details and estimate reference information. Bid item includes all costs associated with furnishing only. Contractor to provide shop drawings, details, and a 4' x 4' mockup of the formliner of choice for approval by the City and the Engineer. Refer to the V-sheets for retaining wall information.
		-
		Method of Measurement: Square feet of formliner on the façade of the retaining wall.
		-
		Basis of Payment: The Contractor shall be paid the contract unit price per square foot upon completion of all work associated with the textured concret form liners at locations shown on the plans. Item includes all samples and per manufacturer's recommendations, application of form release agent, stripping of all forms, and sealing concrete surfaces.
-	-	-

101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
179	**2599-9999018**	**('SQUARE YARD' ITEM) STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C-SUD, CLASS 3 DURABILITY, 9 IN. (SY)**
		Refer Tab 100-24 for locations and quantities. Refer to B-Sheet typical sections for subbase depths. Refer to L-Sheets for jointing layouts and details. Refer to J-Sheets for pavement construction and staging information. Refer to Iowa DOT Standard Road Plans PV-101, PV-102, and PV-103 for jointing, curbs, and manhole boxout details.
		-
		Construction and materials shall be in accordance with Iowa DOT 2301.
		-
		Smoothness incentives and disincentives are not in effect.
		-
		A C-SUD or C-SUDHW mix in accordance with Proportion Table 3 of Iowa DOT IM 529 will be required for all slip-form and hand-finished roadway pavement.
		-
		Certified Plant Inspection is required.
		-
		Method of Measurement: Square yards in accordance with Iowa DOT 2301.04.
		-
		Basis of Payment: Shall be in accordance with Iowa DOT 2301.05 for Portland Cement Concrete Pavement of the type specified.
-	-	-
180	**2599-9999018**	**('SQUARE YARDS' ITEM) TEMPORARY SIDEWALK, GRANULAR (SY)**
		Item is for the construction of granular pedestrian detours as shown in the J-Sheets. Granular sidewalk shall be minimum 4" in thickness and shall be composed of Class A Crushed Stone.
		-
		Materials shall comply with Iowa DOT Section 4120.04 for Class A Crushed Stone. Construction shall comply with DOT Article 2312.
		-
		Method of Measurement: Item shall be per square yard of temporary sidewalk installed.
		-
		Basis of Payment: Shall be for temporary granular sidewalk in the quantity measured including all labor, materials, and equipment needed for the excavation, installation, and removal of temporary granular sidewalk to be paid upon removal.
-	-	-
181	**2599-9999018**	**('SQUARE YARDS' ITEM) TEMPORARY TRENCH PATCHING, ASPHALT PAVEMENT, 6 IN. (SY)**
		Item is for the construction of temporary ashpalt patches over trenched utilities during construction. Refer to Tab 102-6C for locations and quantities.
		-
		Construction and materials shall be in accordance with Iowa DOT 2529. Class II compaction will be used.
		-
		Method of Measurement: Item shall be per square yard of temporary ashpalt patching installed.
		-
		Basis of Payment: Payment shall be consider full compensation for the removal of old pavement, restoring the subgrade or subbase, furnishing and placing the patching material including the asphalt binder, tack coat, curing, and placing backfill in the disturbed area.
-	-	-
182	**2601-2633100**	**MOWING (ACRE)**
		Item shall be per DOT Article 2601.03 J. Item is for use at the direction of the Engineer, where permanent seeding has been established but areas have not been accepted for maintenance. Areas are assumed to be mowed twice per year, after seeding is established.
-	-	-
183	**2601-2634100**	**MULCHING (ACRE)**
		Refer to R-Sheets for SWPPP information. Item is to be used in conjunction with temporary seeding or temporary stabilization of areas.
-	-	-
184	**2601-2634105**	**MULCHING, BONDED FIBER MATRIX (ACRE)**
		Refer to R-Sheets for SWPPP information. Item is to be used for final seeding of all disturbed areas where construction has been completed. Permanent seeding must be completed during the seeding windows March 1st to May 31st and August 10th to September 30th during each construction season.
-	-	-
185	**2601-2634450**	**COMPOST (ACRE)**
		Item is for the use as a top dress application. The Contractor shall incorporate compost materials in areas of topsoil placement at the rate of 2" depth. Verify areas of inclusion with the Engineer prior to placement.
-	-	-
186	**2601-2636044**	**SEEDING AND FERTILIZING (URBAN) (ACRE)**
		Refer to R-Sheets for SWPPP information. Item is to be used for final seeding of all disturbed areas where construction has been completed. Permanent seeding must be completed during the seeding windows March 1st to May 31st and August 10th to September 30th during each construction season.
-	-	-
187	**2601-2638352**	**SLOPE PROTECTION, WOOD EXCELSIOR MAT (SQ)**
		Refer to R-Sheets for locations and layouts. Refer to Tabulation 100-22 for information and quantities.
		-
		Mat shall be a biodegradable mat per Article 4169.10 C,3 with no plastic or polypropylene netting.
-	-	-
188	**2601-2642120**	**STABILIZING CROP - SEEDING AND FERTILIZING (URBAN) (ACRE)**
		Refer to R-Sheets for SWPPP information. Item is to be used in conjunction with temporary seeding or temporary stabilization of areas.
-	-	-
189	**2601-2643412**	**TURF REINFORCEMENT MAT, TYPE 2 (SQ)**
		Refer to R-Sheets for locations and layouts. Refer to Tabulation 100-22 for information and quantities.
-	-	-
190	**2602-0000020**	**SILT FENCE (LF)**
191	**2602-0000030**	**SILT FENCE FOR DITCH CHECKS (LF)**
192	**2602-0000071**	**REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS (LF)**
193	**2602-0000101**	**MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK (LF)**
		Refer to R-Sheets for locations and layout information. Refer to Tab 100-17 and Tab 100-19 for information and quantities. Item includes estimated locations for placement of silt fence to prevent erosion near the culvert backslope and in temporary ditches during Stages 1 and 5. Item includes an additional 50% quantity in accordance with Chapter 10 of the Iowa DOT Design Manual.
-	-	-
194	**2602-0000150**	**STABILIZED CONSTRUCTION ENTRANCE, EC-303 (LF)**
		Refer to J-Sheets for staging information. Contractor to determine quantities. Two locations per major stage are included in the quantities. Refer to Iowa DOT Standard Road Plan EC-303 for details.
-	-	-

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/27/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 122.1679.01

Sheet C.8

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER
&ASSOCIATES

Project No: 122.1679.01

Sheet C.8

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101-06

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
195	2602-0000309	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 9 IN. DIA. (LF)
196	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE (LF)
		Refer to R-Sheets for locations and layout information. Refer to Tab 100-19 in the R-Sheets for information and quantities. Refer to Iowa DOT Standard Road Plan EC-204 for details. Item includes an additional 10% quantity in accordance with the Chapter 10 of the Iowa DOT Design Manual.
-	-	-
197	2602-0000400	TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY (EACH)
198	2602-0000410	MAINTENANCE OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY (EACH)
199	2602-0000420	REMOVAL OF TEMPORARY INTAKE OR MANHOLE COVER ASSEMBLY (EACH)
		Refer to R-Sheets for locations and layout information. Refer to Tab 100-11 for quantities. Item is for the installation, maintenance, and removal of a temporary cover on top of all intakes and manholes to prevent debris accumulation during construction of subgrade and paving operations. Refer to Iowa DOT SRP EC-603 for details.
		Perimeter sediment control per EC-603 is required.
		-
		Maintenance of device shall be per Iowa DOT 2602, when depth of sediment accumulation reaches two inches.
		-
		Method of Measurement: Removal will be paid per each temporary intake or manhole cover assembly installed, removed, or maintained regardless of type. Perimeter sediment control shall be measured and paid by separate bid item.
		-
		Basis of Payment: Per each Temporary Intake of Manhole Cover Assembly installed, maintained or removed. Removal includes disposal of materials off site.
-	-	-
200	2602-0000530	GRATE INTAKE SEDIMENT FILTER BAG, EC-604 (EACH)
201	2602-0000540	MAINTENANCE OF GRATE INTAKE SEDIMENT FILTER BAG (EACH)
202	2602-0000550	REMOVAL OF GRATE INTAKE SEDIMENT FILTER BAG (EACH)
		Refer to R-Sheets for locations and layout information. Refer to Tab 100-37 for quantities. Item is for the placement, maintenance, and removal of grate intake sediment filters in each intake following paving operations. Refer to EC-604 for details.
		-
		Maintenance of device shall be per Iowa DOT 2602, when depth of sediment accumulation reaches two inches.
		Method of Measurement: Removal will be paid per each grate intake sediment filter bag installed, maintained or removed, by type. Double grated intakes are measured per each grate.
		-
		Basis of Payment: Per each Grate Intake Sediment Filter Bag installed, maintained or removed, measured for payment. Item includes all labor, materials, and equipment necessary to install, maintain and dispose of sediment and debris, and remove at the end of the project.
-	-	-
203	2602-0010010	MOBILIZATIONS, EROSION CONTROL (EACH)
		Item is for the mobilization of erosion control items estimated at once per Stage not including Stages 4 and 8.
-	-	-
204	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL (EACH)
		Item is for the mobilization of erosion control items estimated at once per Stage not including Stages 4 and 8.
-	-	-

111-25
12/16/2025

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100-07
1/13/2023

FENCING

* Bid Item

Station	Offset	Station	Offset	Side	Fence Type	Fence Feature	Height (FT)	Quantity (EA) *	Length (LF) *	Remarks
102+43.00	33.6	103+01.00	35.5	Left	Decorative Vinyl		6.5		72.0	Remove & Reinstall Vinyl, 8' panels
27+14.00	60	27+52.00	60	Right	Chain Link		4.0		53.0	Remove and Reinstall
34+88.00	51.5	35+52.00	51	Right	Chain Link		8.0		59.0	Remove & Reinstall, 10' panels, 2 corner
33+94	70	33+94	220	RT	TEMP ORANGE SAFETY		3.5		150.0	TEMPORARY SAFETY FENCE STAGE 1
34+04	70	33+94	220	RT	TEMP ORANGE SAFETY		3.5		150.0	
6+70.0	50	8+33.7	66.1	LT	TEMP ORANGE SAFETY		3.5		165.0	PARCEL 1 SET WITH BARRELS
104+93.0	60	103+50.0	44	LT	TEMP ORANGE SAFETY		3.5		143.0	PARCEL 21 PED DETOUR
5+60.0	60	8+07.0	60	RT	TEMP ORANGE SAFETY		3.5		147.0	PARCEL 21 PED DETOUR
21+86	55	27+00.0	55	LT	TEMP ORANGE SAFETY		3.5		514.0	PARCEL 5,6,7
17+50.0	67	23+13	60	RT	TEMP ORANGE SAFETY		3.5		563.0	PARCEL 17-18
23+92.0	55	30+25.0	60	RT	TEMP ORANGE SAFETY		3.5		633.0	PARCEL 13-16
31+02.0	66	32+35.0	66	RT	TEMP ORANGE SAFETY		3.5		234.0	PARCEL 12
27+94.0	65	32+50.0	70	LT	TEMP ORANGE SAFETY		3.5		456.0	PARCEL 8, 9
106+29.0	52	108+34.0	52	RT	TEMP ORANGE SAFETY		3.5		205.0	PARCEL 1 SET WITH BARRELS
106+40.0	50	109+35.0	50	RT	TEMP ORANGE SAFETY		3.5		295.0	PARCEL 2
					TEMP ORANGE SAFETY		3.5		365.0	10% FOR STAGING RESETS

100-05
10/27/2023

CURB AND GUTTER

Refer to PV-102

Line No.	Station From	Station To	Side	Length	Width	Width 2.0	Width 2.5	Width 3.0	Width 3.5	Width 4.0	Width 4.5	Width 6.5	Width 5.5	Modified Subbase	Special Backfill	Remarks
	5+60.74	7+95.00	Left	234.26	2.5		234.26								45.1	8" THICK
	12+85.60	13+39.60	Right	54	2.5		54								10.4	8" THICK
	21+40.03	21+61.79	Right	33.46	2	33.46										7" THICK PER PLAN
	6+84.05	8+00.12	Left	116.07	2	116.07										7" THICK PER PLAN
	8+00.12	8+03.66	Left	5.03	5.58								5.03			7" THICK PER PLAN
	8+03.66	8+20.79	Left	17.13	4.03					17.13						7" THICK PER PLAN
	8+20.79	8+20.78	Left	6.42	2	6.42										7" THICK PER PLAN
	8+20.78	8+34.82	Left	14.04	2	14.04										7" THICK PER PLAN
	8+34.82	8+37.60	Left	6.23	2	6.23										7" THICK PER PLAN
	106+27.19	106+36.01	Left	8.1	6.5							8.1				7" THICK PER PLAN
	106+36.01	106+95.00	Left	59.5	6.5							59.5				7" THICK PER PLAN
	106+95.00	107+00.00	Left	5	6.5							5				7" THICK PER PLAN
	107+00.00	107+78.26	Left	79	2	79										7" THICK PER PLAN

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/19/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70-77			
Project No: 122.1679.01		Sheet C.9	

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

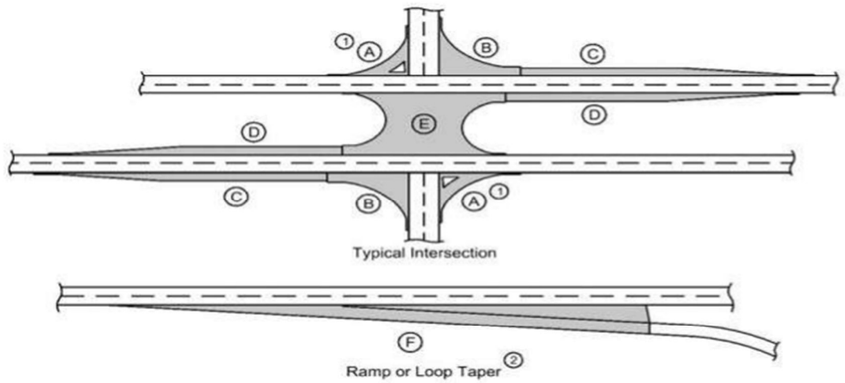
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020| www.snyder-associates.com

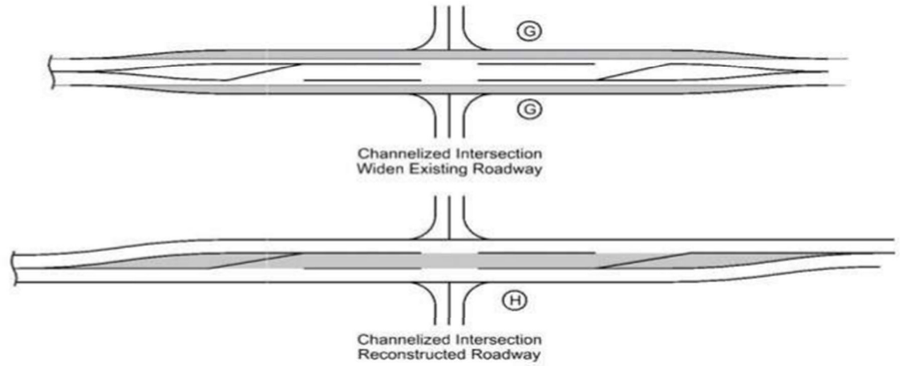
SNYDER
&ASSOCIATES

Project No: 122.1679.01

Sheet C.9

PCC PAVEMENT





(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY) (3)	Area B (SY) (3)	Area C (SY) (3)	Area D (SY) (3)	Area E (SY) (3)	Area F(2) (SY) (3)	Area G (SY) (3)	Area H (SY) (3)	Area by Thickness - Thickness(IN)	Area by Thickness - Area (SY)	Special Backfill (TON)	Modified Subbase (CY)	Granular Subbase (SY)	Remarks
ADVENTURELAND DRIVE	BOTH	3+82.77	8+41.58	VAR.	458.81	461.7				461.7					8.0	461.7	176.2			DIVISION 1; WIDENING
ADVENTURELAND DRIVE	WB	7+95.00	8+70.20	VAR.	75.2	162.4									9.0	162.4	55.2			DIVISION 1
ADVENTURELAND DRIVE	EB	5+53.98	8+70.35	VAR.	316.37	371.5			371.5						8.0	371.5		99.7		DIVISION 2; WIDENING
17TH AVENUE NW	SB	101+81.25	104+92.90	VAR.	311.65	317.9			317.9						8.0	317.9	132.8			DIVISION 1; WIDENING
17TH AVENUE NW	NB	106+01.68	106+48.80	VAR.	47.12	87.8	87.8								8.0	87.8	32.9			DIVISION 1
17TH AVENUE NW	SB	106+48.80	108+20.04	VAR.	171.24	156.0			156.0						8.0	156.0		35.5		DIVISION 1
17TH AVENUE NW	NB	106+01.71	106+48.79	VAR.	47.08	74.9		74.9							8.0	74.9	30.4			DIVISION 1
ADVENTURELAND DRIVE	EB	9+06.38	35+17.18	VAR.	2610.8	7907.4									9.0	7907.4		1516.1		DIVISION 1
ADVENTURELAND DRIVE	WB	8+97.05	35+15.05	VAR.	2618	7878.8									9.0	7878.8		1470.2		DIVISION 1
ADVENTURELAND DRIVE	WB	8+96.96	12+08.14	VAR.	311.18	363.0				363.0					9.0	363.0		73.4		DIVISION 2
ADVENTURELAND DRIVE	EB	14+14.00	16+75.00	VAR.	261	302.0				302.0					9.0	302.0		64.4		DIVISION 2
ADVENTURELAND DRIVE	BOTH	16+75.00	17+51.05	VAR.	76.05	143.4					143.4				9.0	143.4		23.9		DIVISION 2
14TH AVENUE NW	BOTH	201+99.00	203+20.28	VAR.	121.28	333.2									7.0	333.2	124.0			DIVISION 1
14TH AVENUE NW	SB	202+89.79	203+22.34	VAR.	32.55	36.1		36.1							7.0	36.1	16.1			DIVISION 1
14TH AVENUE NW	NB	202+89.79	203+22.89	VAR.	33.1	41.8	41.8								7.0	41.8	18.8			DIVISION 1
BLUE RIDGE PLACE	SB	203+89.38	204+17.64	VAR.	28.26	33.0	33.0								8.0	33.0		7.7		DIVISION 1
BLUE RIDGE PLACE	NB	203+92.49	204+42.99	VAR.	50.5	119.0		119.0							8.0	119.0		23.6		DIVISION 1
BLUE RIDGE PLACE	BOTH	203+92.49	204+42.51	VAR.	50.02	193.3									8.0	193.3		33.6		DIVISION 1
BLUE RIDGE PLACE	BOTH	204+42.51	206+32.18	VAR.	189.67	508.9									6.0	508.9	183.8			DIVISION 1
BLUE RIDGE PLACE	BOTH	204+42.51	206+32.18	VAR.	189.67	207.1			207.1						6.0	207.1	85.3			DIVISION 1
ADVENTURELAND DRIVE	WB	17+72.00	20+27.44	VAR.	255.44	268.9			268.9						9.0	268.9		59.0		DIVISION 1
ADVENTURELAND DRIVE	WB	17+51.05	19+81.50	VAR.	230.45	292.0									9.0	292.0		61.2		DIVISION 2
ADVENTURELAND DRIVE	BOTH	20+99.13	21+51.63	VAR.	52.5	125.2					125.2				9.0	125.2		20.9		DIVISION 2
ADVENTURELAND DRIVE	WB	21+51.63	22+94.70	VAR.	143.07	208.2				208.2					9.0	208.2		38.4		DIVISION 2
ADVENTURELAND DRIVE	BOTH	22+94.70	23+79.00	VAR.	84.3	147.7					147.7				9.0	147.7		26.3		DIVISION 2
12TH AVENUE NW	BOTH	301+63.50	302+19.98	VAR.	56.48	156.1									7.0	156.1	54.7			DIVISION 1
12TH AVENUE NW	SB	301+89.73	302+22.33	VAR.	32.6	33.4		33.4							7.0	33.4	16.6			DIVISION 1
12TH AVENUE NW	NB	301+89.73	302+22.65	VAR.	32.92	28.8	28.8								7.0	28.8	13.8			DIVISION 1
ADVENTURELAND DRIVE	WB	23+78.40	25+65.31	VAR.	186.91	207.6				207.6					9.0	207.6		44.9		DIVISION 2
ADVENTURELAND DRIVE	EB	25+10.18	26+95.50	VAR.	185.32	201.4				201.4					9.0	201.4		43.9		DIVISION 2
ADVENTURELAND DRIVE	BOTH	26+95.50	28+05.33	VAR.	109.83	200.1					200.1				9.0	200.1		34.6		DIVISION 2
10TH AVENUE NW	SB	401+29.45	401+61.66	VAR.	32.21	31.8	31.8								7.0	31.8		7.8		DIVISION 1
10TH AVENUE NW	NB	401+28.98	401+61.66	VAR.	32.68	32.3		32.3							7.0	32.3		8.0		DIVISION 1
10TH AVENUE NW	BOTH	401+31.66	402+10.00	VAR.	78.34	429.1									7.0	429.1		83.7		DIVISION 1
ADVENTURELAND DRIVE	BOTH	30+25.00	31+00.71	VAR.	75.71	136.3									9.0	136.3		23.9		DIVISION 2
10TH AVENUE NW	SB	501+55.89	501+93.55	VAR.	37.66	33.8		33.8							7.0	33.8		51.1		DIVISION 1
10TH AVENUE NW	NB	501+55.89	501+94.14	VAR.	38.25	37.2	37.2								7.0	37.2		53.2		DIVISION 1
10TH AVENUE NW	BOTH	501+30.00	501+55.89	VAR.	25.89	89.2									7.0	89.2	33.5			DIVISION 1
10TH AVENUE NW	BOTH	501+55.89	501+94.05	VAR.	38.16	101.7									7.0	101.7		16.9		DIVISION 1
ADVENTURELAND DRIVE	WB	31+00.71	32+31.08	VAR.	130.37	134.1				134.1					9.0	134.1		30.0		DIVISION 2
ADVENTURELAND DRIVE	EB	31+76.33	33+22.00	VAR.	145.67	175.3				175.3					9.0	175.3		36.3		DIVISION 2
ADVENTURELAND DRIVE	BOTH	33+22.00	33+92.00	VAR.	70	130.3					130.3				9.0	130.3		21.7		DIVISION 2
9TH AVENUE NW	SB	600+33.35	600+65.89	VAR.	32.54	33.8	33.8								7.0	33.8	15.5			DIVISION 1
9TH AVENUE NW	NB	600+33.60	600+65.89	VAR.	32.29	58.3		58.3							7.0	58.3	18.4			DIVISION 1
9TH AVENUE NW	BOTH	600+36.05	600+65.89	VAR.	29.84	86.8									7.0	86.8	27.3			DIVISION 1
ADVENTURELAND DRIVE	WB	33+92.00	35+15.05	VAR.	123.05	122.0				122.0					9.0	122.0		27.1		DIVISION 2

THICKNESS (IN)	TOTALS:			
9	2889	0	571	DIVISION 2
9	16102	56	3046	DIVISION 1
7	1564	339	221	DIVISION 1
6	716	270	0	DIVISION 1

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/27/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70-77			
Project No: 122.1679.01		Sheet C.10	

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

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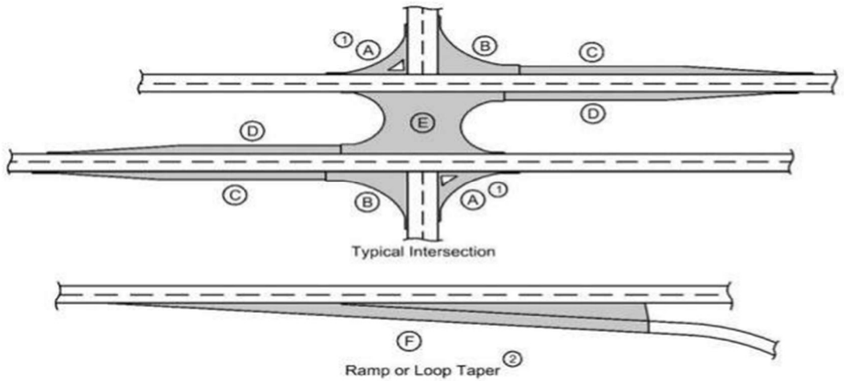
SNYDER & ASSOCIATES

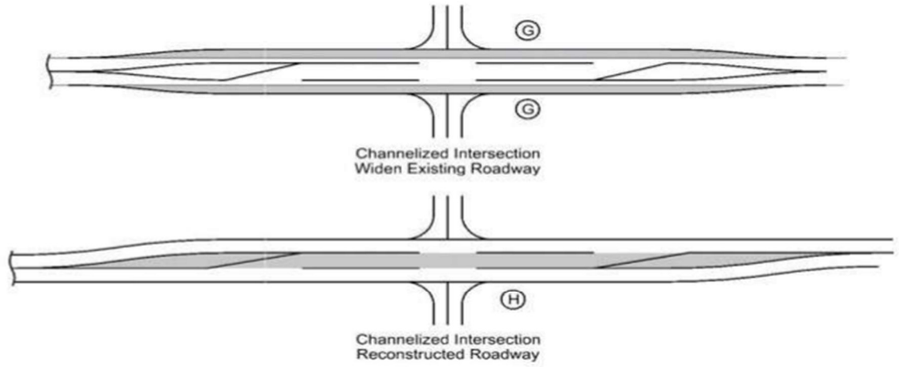
Project No: 122.1679.01

Sheet C.10

100-24MOD

TEMPORARY PAVEMENT





(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY) (3)	Area B (SY) (3)	Area C (SY) (3)	Area D (SY) (3)	Area E (SY) (3)	Area F(2) (SY) (3)	Area G (SY) (3)	Area H (SY) (3)	Area by Thickness - Thickness(IN)	Area by Thickness - Area (SY)	Special Backfill (TON)	Modified Subbase (CY)	Granular Subbase (SY)	Remarks
ADVENTURELAND DRIVE	WB	18+77.44	31+62.00	4'-27'	1284.56	2905.0							2905.0		6.0	2905.0	915.1			STAGE 1
ADVENTURELAND DRIVE	WB	31+22.05	31+62.00	8.5	39.95	37.7								37.7	6.0	37.7	11.9			STAGE 1 CENTER CONFORM
ADVENTURELAND DRIVE	EB	18+40.74	20+88.50	4-27.5'	247.76	712.3							712.3		6.0	712.3	314.3			STAGE 2
ADVENTURELAND DRIVE	EB	20+25.00	20+88.50	8.5	63.50	60.0								60.0	6.0	60.0	18.9			STAGE 2 CENTER CONFORM
ADVENTURELAND DRIVE	EB	21+42.15	21+95.03	VAR.	52.88	224.3						224.3			6.0	224.3	70.7			STAGE 2 PARCEL 17/18 ACCESS
ADVENTURELAND DRIVE	WB	18+78.00	20+88.50	25	210.50	584.7							584.7		6.0	584.7	187.9			STAGE 3
ADVENTURELAND DRIVE	WB	20+27.23	20+88.50	11	61.27	74.9								74.9	6.0	74.9	23.6			STAGE 3 CENTER CONFORM
ADVENTURELAND DRIVE	BOTH	26+95.50	27+46.00	17	50.5	95.1								95.1	6.0	95.1	29.9			STAGE 3 CROSSOVER
ADVENTURELAND DRIVE	EB	10+40.27	20+88.50	4-25	1048.23	1885.4							1885.4		6.0	1885.4	597.4			STAGE 5
ADVENTURELAND DRIVE	WB	12+69.46	13+56.07	VAR.	86.61	156.0						156.0			6.0	156.0	49.1			STAGE 5 PARCEL 2/3 ACCESS
ADVENTURELAND DRIVE	WB	16+84.79	17+32.53	VAR.	47.74	52.4						52.4			6.0	52.4	16.5			STAGE 5 BLUE RIDGE PLACE ACCESS
ADVENTURELAND DRIVE	EB	12+85.60	13+39.60	17	54	102.0								102.0	6.0	102.0	32.1			STAGE 7 CROSSOVER
NOTE: AREAS IN AREA H ARE CROSSOVER PAVEMENT.														TOTAL		6889.9	2267.4			
NOTE: 6" SUBGRADE PREPARATION IS INCIDENTAL TO SPECIAL BACKFILL																				

102-03
10/15/2024

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of Unclassified Pipe calculated is based on using Corrugated Metal 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.

Line No.	Station	Side	Access Type	Descriptor	Case	Curb	Width	PR	SR	Pipe	Culvert	Pipe	Pipe	Culvert	Driveway	Driveway	Driveway	Remarks
	108+02.37	Left	B		2	37	31								PCC	50.2	18	7" PCC
	106+82.93	Right	B		1	69	25	24							PCC	111.3	24	7" PCC
	103+13.21	Left	C		2	30	23								PCC	39.9	13	6" PCC
	13+14.25	Left	B		1	96	31	30							PCC	435.0	56	7" PCC
	13+07.60	Right	B		1	64	24	20							PCC	133.2	44	7" PCC
	21+30.38	Right	C		1	62.5	22.5	20							PCC	129.6	28	7" PCC
	22+05.00	Right	C		2	31	24								PCC	166.1	19	6" PCC
	28+65.77	Right	B		1	65	25	20							PCC	202.0	34	7" PCC
	33+44.50	Right	B		1	74	24	25							PCC	401.2		7" PCC
																TOTALS:		
															6" PCC	206		
															7" PCC	1463		
															TEMP GRANULAR		236	

104-10
4/16/2024

ADJUSTMENT OF FIXTURES

Line No.	Location	Side	Distance	Type of Fixture	Adjustment
1.0	7+71.85	Left	38.00	SW-301	-0.29', MAJOR ROTATE CONE 90 DEG CCW TO MOVE CASTING FROM WALL
2.0	23+51.05	Right	11.06	SW-301	MINOR, 970.94, 0.64'
3.0	4+62.00	Left	36.67	SW-301	MINOR, 958.06, 0.00'
4.0	23+71.89	Right	51.22	SW-401	MINOR, 970.27, -0.25'
5.0	32+48.13	Right	52.80	SW-301	MAJOR, 944.10, 1.82'
6.0	33+80.58	Left	37.57	SW-301	MAJOR, 946.17, 0.39' ROTATE CONE AWAY FROM CURB LINE
7.0	34+82.02	Left	34.57	SW-301	MAJOR, 947.00, -0.30, ROTATE CONE 90 DEG CCW AWAY FROM CURB LINE
8.0	8+30.38	Right	41.30	SW-401	MAJOR, 981.05, -0.50'
9.0	105+01.10	Left	31.59	SW-401	MAJOR, 979.89, -0.78'
10.0	20286.08	Left	21.74	SW-401	MAJOR, 978.14, -0.49'

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1"= NTS	
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70-77	Project No: 122.1679.01	Sheet C.11	

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT
ALTOONA, IOWA
QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020| www.snyder-associates.com

SNYDER &ASSOCIATES

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102-6C
04-04-24

FULL DEPTH PATCHES

Line No.	Count	Station	Reference Location Sign	Lane	Length (FT)	Width (FT)	Patch Thickness (IN)	Patch Repair or Finish	PCC Patch Type	PCC (SF)	PCC Patch Quantity (SY)	HMA Patches (SY)	Composite HMA (TON)	Subbase Patches (PR-140) (SY)	Subbase Patch with 'EF' Joint (PR-101) (SY)	Patch Subdrain PR-101 or PR-140 (No.)	'CD' Joints (No.)	'CT' Joints (No.)	'EF' Joints PR-101 (No.)	Anchor Lugs Removal (No.)	Remarks
1		4+33.50		WB RT	4	9.6	9	Finish	PCC With Dowels (PR-103)	38	4.2						0				
2		4+78.00		WB LT	4	10.5	9	Finish	PCC With Dowels (PR-103)	42	4.7						0				
3		5+25.00		WB LT	4	10.5	9	Finish	PCC With Dowels (PR-103)	42	4.7						0				
4		5+40.00		WB LT	4	10.5	9	Finish	PCC With Dowels (PR-103)	42	4.7						0				
5		5+53.00		WB LT	4	10.5	9	Finish	PCC With Dowels (PR-103)	42	4.7						0				
6		6+16.00		EB	30	VAR	9	Finish	PCC With Dowels (PR-103)	918	102.0						1				FINISHED AFTER STAGE 5
7		6+16.00		WB	30	VAR	9	Finish	PCC With Dowels (PR-103)	852	94.7						1				FINISHED AFTER STAGE 5
8		6+74.11		WB RT	4	5.4	9	Finish	PCC With Dowels (PR-103)	22	2.4						0				
9		7+63.00		WB	4	16.2	9	Finish	PCC With Dowels (PR-103)	65	7.2						0				
10		7+80.00		WB LT	4	11.2	9	Finish	PCC With Dowels (PR-103)	45	5.0						0				
11		105+05.89		NB	27	VAR	6	Finish	PCC With Dowels (PR-103)	375	41.7						0				FINISHED AFTER STAGE 5
12		106+33.68		SB	15.1	22.1	7	Finish	PCC With Dowels (PR-103)	333	37.0						0				
13		106+69.37		SB LT	106	12.7	7	Finish	PCC With Dowels (PR-103)	1325	147.2						7				
14		107+23.42		SB RT	30	10.1	7	Finish	PCC With Dowels (PR-103)	305	33.9						1				
15		108+05.05		Both	15	25.5	7	Finish	PCC With Dowels (PR-103)	383	42.6						0				
16		12+51.03		Both	VAR	VAR	6					131.1					0				STAGE 1
17		14+47.87		Both	VAR	VAR	6					25.8					0				STAGE 1
18		202+50.00		NB	153	VAR	6					218.3					0				STAGE 1
19		17+57.36		Both	15	31.8	6					53.0					0				STAGE 1
20		2000+62.64		Both	15	22.5	6					37.6					0				STAGE 1
21		23+20.18		Both	15	VAR	6					53.2					0				STAGE 1
22		302+10.46		Both	15	26.9	6					43.9					0				STAGE 1
23		26+73.39		Both	15	22.8	6					38.4					0				STAGE 1
24		4000+60.77		Both	18.5	24.8	6					51.3					0				STAGE 1
25		30+08.62		Both	10	23.5	6					26.0					0				STAGE 1
26		501+61.59		Both	VAR	VAR	6					144.2					0				STAGE 1

105-04
10/21/2025

STANDARDS

Number	Date	Title
BA-401	4/20/2021	Temporary Barrier Rail (Precast Concrete)
DR-111	4/17/2018	Box Culvert (Backfill)
DR-121	4/18/2023	Connected Pipe Joints
DR-201	10/17/2023	Concrete Aprons
DR-303	10/17/2017	Subdrains (Longitudinal)
DR-305	4/19/2022	Subdrain Outlets (Standard Subdrain, Pressure Release and Special)
EC-103	4/21/2015	Wood Excelsior Mat for Slope Protection
EC-104	4/17/2018	Turf Reinforced Mat (TRM)
EC-201	4/20/2021	Silt Fence
EC-204	10/19/2021	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-303	10/19/2021	Stabilized Construction Entrance
EC-603	10/17/2023	Erosion Control for Intake or Manhole Well
EC-604	10/17/2023	Grate Intake Sediment Filter Bag
EW-402	4/18/2017	Temporary Stream Diversion
LI-101	10/21/2014	Light Pole Location
LI-103	10/21/2025	Conduit and Precast Handholes
LI-152	10/21/2014	Control Cabinet (Pad-Mounted)
LI-211	10/20/2015	Slip-Base for Light Poles
MI-102	10/20/2015	Chain Link Fence Construction
MI-210	10/21/2025	PCC Driveways and Alleys
MI-220	4/15/2025	Detectable Warnings and Pedestrian Ramp
MI-221	10/21/2025	Combined Retaining Wall - Sidewalk
PM-110	10/15/2024	Line Types
PM-111	4/21/2020	Symbols and Legends
PM-115	10/20/2026	Grooving for Line Types
PM-116	4/16/2024	Grooving for Symbols and Legends
PR-103	10/21/2025	Full Depth Patch with Dowels
PV-101	10/20/2026	Joints
PV-102	10/21/2025	PCC Curb Details
PV-103	10/21/2025	Manhole Boxouts in PCC Pavement
PV-104	10/21/2025	Ramped Median Nose
PV-105	10/21/2014	PCC Pavement Widening
SI-101	4/19/2016	Locations - Type 'A' Signs
SI-131	10/18/2016	Installation - Type 'A' Signs
SW-102	10/21/2025	Rigid Gravity Pipe Trench Bedding
SW-103	10/21/2025	Flexible Gravity Trench Bedding
SW-104	10/21/2025	Pressure Pipe Trench Bedding
SW-201	10/21/2025	Sanitary Sewer Service Stub
SW-301	10/21/2025	Circular Sanitary Sewer Manhole
SW-401	10/21/2025	Circular Storm Sewer Manhole
SW-503	10/21/2025	Single Grate Intake with Manhole
SW-505	10/21/2025	Double Grate Intake
SW-506	10/21/2025	Double Grate Intake with Manhole
SW-511	10/21/2025	Rectangular Area Intake
SW-512	10/21/2025	Circular Area Intake
SW-514	10/21/2025	Boxouts for Grate Intakes
SW-516	10/21/2025	Large Well Double Grate Intake with Manhole
SW-601	10/21/2025	Castings for Sanitary Sewer Manholes
SW-602	10/21/2025	Castings for Storm Sewer Manholes
SW-603	10/21/2025	Castings for Grate Intakes
SW-604	10/21/2025	Castings for Area Intakes
TC-202	4/18/2023	Work Within 15 ft of Traveled Way
TC-211	10/15/2019	Lane Closure on Low Volume Roadway
TC-213	4/18/2023	Lane Closure with Flaggers
TC-233	10/17/2017	Pavement Marking Operations Two-Lane
TC-251	4/18/2023	Temporary Road Closure
TC-252	10/20/2026	Routes Closed to Traffic
TC-418	4/18/2023	Lane Closure on Divided Highway
TC-419	4/18/2023	Lane Closure on Undivided Highway
TC-421	10/21/2025	Lane Closure with TBR
TS-102	10/21/2025	Traffic Signal Pole Foundation
WM-101	10/20/2026	Thrust Blocks
WM-102	10/21/2025	Tracer System
WM-201	10/21/2025	Fire Hydrant Assembly

SA-L1

STEEL REINFORCMENT MAT

Road Identification	To Station	Side	Length	Transverse Bars (#5)	Average Width	Weight	Comments
		LT/RT	LF		LF	LB	
ADVENTURELAND DRIVE	6+54.50	RT	15.0	15	11.3	336	
ADVENTURELAND DRIVE	8+54.76	RT	30.0	30	27.7	2054	
ADVENTURELAND DRIVE	8+70.35	RT	15.6	15	40.2	1236	
ADVENTURELAND DRIVE	9+06.32	RT	36.0	35	27.3	1978	
ADVENTURELAND DRIVE	8+20.34	LT	14.7	14	10.8	301	
ADVENTURELAND DRIVE	8+41.53	LT	21.2	21	15.1	711	
17TH AVENUE NW	106+33.80	LT	32.2	32	14.1	1083	
17TH AVENUE NW	106+48.80	LT	15.0	15	8.0	239	
ADVENTURELAND DRIVE	12+66.51	LT	15.0	15	27.5	832	
ADVENTURELAND DRIVE	12+66.51	RT	15.0	15	27.5	877	
ADVENTURELAND DRIVE	14+57.50	LT	15.0	15	27.5	832	
ADVENTURELAND DRIVE	14+57.50	RT	15.0	15	31.1	949	
14TH AVENUE NW	204+10.00	RT	25.1	25	20.5	1035	
14TH AVENUE NW	204+28.51	RT	18.5	18	11.0	444	
14TH AVENUE NW	204+42.99	RT	14.5	14	3.9	94	
ADVENTURELAND DRIVE	17+57.90	LT	17.6	17	14.9	561	
ADVENTURELAND DRIVE	17+72.00	LT	14.1	14	84.0	2412	
ADVENTURELAND DRIVE	23+64.00	RT	26.0	26	13.5	699	
ADVENTURELAND DRIVE	23+38.00	RT	28.3	28	10.2	778	
ADVENTURELAND DRIVE	23+64.00	RT	26.0	26	13.0	659	
ADVENTURELAND DRIVE	23+93.74	RT	29.7	29	10.2	814	
ADVENTURELAND DRIVE	26+85.50	LT	15.0	15	27.5	832	
ADVENTURELAND DRIVE	26+85.50	RT	15.0	15	38.5	1170	
10TH AVENUE NW	401+97.00	LT	12.0	12	24.0	571	
10TH AVENUE NW	401+97.00	RT	12.0	12	24.0	571	
ADVENTURELAND DRIVE	30+20.56	LT	15.0	15	27.5	832	
ADVENTURELAND DRIVE	30+20.56	RT	15.0	15	27.5	832	
ADVENTURELAND DRIVE	30+45.34	RT	24.8	24	9.8	666	
ADVENTURELAND DRIVE	30+87.29	RT	41.9	41	13.0	1055	
ADVENTURELAND DRIVE	31+11.96	RT	24.7	24	9.6	632	
ADVENTURELAND DRIVE	33+12.00	LT	161.0	161	72.0	23894	
ADVENTURELAND DRIVE	33+92.00	LT	25.0	24	5.2	297	
ADVENTURELAND DRIVE	34+07.00	LT	15.0	15	72.0	2194	
ADVENTURELAND DRIVE	34+20.00	RT	13.0	13	14.0	354	
ADVENTURELAND DRIVE	34+88.96	RT	30.0	29	14.0	809	
ADVENTURELAND DRIVE	34+89.07	LT	15.1	15	14.0	410	
DEAD END JOINTS				50		939	3 EACH #5 X 6'
						54982	

108-33
8/15/2022

TEMPORARY BARRIER RAIL

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

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

Line No.	No.	Station From	Station To	Length (FT)	Barrier Rail Type	Anchored*	Modular Glare Screen System	Remarks
1.0	1	22+25.13	31+88.46	912.5	Concrete BA-401	Yes		STAGE 2
2.0	2	11+87.13	20+99.88	962.5	Concrete BA-401	Yes		STAGE 6

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Date: 8/18/2026	
Technician: KSB			

Scale: 1" = NTS
Field Bk: Pg:
DOT STP-U-0132(628)--70--77
Project No: 122.1679.01
Sheet C.12

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT
ALTOONA, IOWA
QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
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SNYDER &ASSOCIATES

Project No: 122.1679.01
Sheet C.12

108-16MOD
8/19/2022

COMBINED CONCRETE SIDEWALK AND RETAINING WALL

Line No.	Station From	Station To	Side	Retaining Wall Type	Retaining Wall Height 1 (FT)	Retaining Wall Height 2 (FT)	Retaining Wall Thickness (FT)	Formliner Area (SF)	Sidewalk Width 1 (FT)	Sidewalk Width 2 (FT)	Sidewalk Thickness (FT)	Sidewalk Concrete (CY)	Footing Concrete (CY)	Type 'A' Wall 4w1 bars Count	Type 'A' Wall 4w1 bars (LF)	Type 'A' Wall 4w2 bars Count	Type 'A' Wall 4w2 bars (LF)	SPECIAL Wall 4w3 bars Count	SPECIAL Wall 4w3 bars (LF)	SPECIAL Wall 4w4 bars Count	SPECIAL Wall 4w4 bars (LF)	Retaining Wall Concrete (CY)	Sidewalk & Footing Concrete (CY)	Porous Backfill (CY)	Reinforcing Steel (LB)
1	800+00.00	800+12.08	Left	A	0.83	1.5	0.5	14.1	8.6	8	0.5	2		3	36.1	11	35..6					0.3	2	0.3	48
2	800+12.00	800+16.00	Left	A	1.5	1.5	0.5	6.0	8	8	0.5	0.6		3	11.7	4	14.3					0.1	0.6	0.1	18
3	800+16.00	800+21.00	Left	A	1.5	1.75	0.5	8.2	8	8	0.5	0.8		3	15	5	18.7					0.2	0.8	0.1	23
4	800+21.00	800+40.40	Left	A	1.75	1.65	0.5	33.0	8	8	0.5	3.1		3	58.2	17	64.3					0.6	3.1	0.5	82
5	800+40.40	800+66.00	Left	A	1.65	1.25	0.5	37.2	8	8	0.5	6.8		3	76.8	22	77.7					0.7	6.8	0.6	103
6	800+66.00	801+50.00	Left	A	1.25	1.1	0.5	98.7	8	8	0.5	13.2		3	252	72	247.2					2.1	13.2	2.1	333
7	801+50.00	801+56.00	Left	A	1.1	1.15	0.5	6.8	8	9.2	0.5	1		3	18	6	19.1					0.1	1	0.1	25
8	801+56.00	801+60.83	Left	A	1.15	1.35	0.5	6.1	9.2	9.5	0.5	0.6		3	14.5	5	16.7					0.1	0.9	0.1	21
9	801+60.83	801+68.71	Left	A	1.35	1.25	0.5	10.3	9.5	17.1	0.5	2		3	23.6	7	24					0.2	2	0.2	32
10	801+68.71	801+81.61	Left	A	1.25	1	0.5	14.6	17.1	9.8	0.5	3.3		3	38.7	12	38.8					0.3	3.3	0.3	52
11	801+81.61	801+82.87	Left	A	1	1	0.5	1.3	9.8	10.1	0.5	0.2		3	3.8	2	6.2					0.1	0.2	0.1	7
12	801+82.87	801+87.87	Left	A	1	1.3	0.5	5.8	10.1	10.8	0.5	1		3	15	5	16.2					0.1	1	0.1	21
13	801+87.87	801+92.42	Left	A	1.3	1.25	0.5	5.9	10.8	10.5	0.5	0.9		3	13.6	4	13.5					0.1	0.9	0.1	18
14	801+92.42	802+00.47	Left	A	1.25	0.85	0.5	8.5	10.5	8	0.5	1.5		3	24.2	7	21.9					0.2	1.5	0.2	31
15	802+00.47	802+08.45	Left	A	0.85	0.9	0.5	7.0	8	8	0.5	1.3		3	23.9	7	20.2					0.1	1.3	0.2	29
16	802+08.45	802+30.47	Left	A	0.9	0.9	0.5	19.9	8	8	0.5	3.5		3	66.1	19	56.7					0.4	3.5	0.5	82
17	802+30.47	803+25.66	Left	A	0.9	0.65	0.5	73.8	8	8	0.5	15		3	285.6	82	236.4					1.4	15	2.4	349
18	803+25.66	803+47.89	Left	A	0.65	0.5	0.5	12.8	8	8	0.5	3.5		3	66.7	20	53.7					0.2	3.5	0.5	80
19	22+25.00	22+45.00	Left	SPECIAL	5.5	8	0.5		6	6	0.5	2.2	0.6	20	135	9	180	20	118.3	5	28.8	2.5	2.8	0.5	482
20	22+45.00	23+39.72	Left	SPECIAL	8	6.8	0.5		6	6	0.5	10.5	2.9	95	703	9	852.5	95	562.1	24	138	13	13.4	2.3	2353
21	23+39.72	23+60.00	Left	SPECIAL	6.8	5.5	0.5		6	6	0.5	2.3	0.6	21	129.2	8	162.2	20	118.3	6	34.5	2.3	2.9	0.5	464
22	25+25.00	25+50.00	Right	SPECIAL	5.5	7.8	0.5		6	6	0.5	2.8	0.8	25	166.3	9	225	25	148	7	40.3	3.1	3.6	0.6	605
23	25+50.00	27+75.00	Right	SPECIAL	7.8	7.9	0.5		6	6	0.5	25	6.9	225	1766.3	10	2250	225	1331.3	57	327.8	32.7	31.9	5.6	5920
24	27+75.00	28+05.00	Right	SPECIAL	7.9	5.5	0.5		6	6	0.5	3.3	0.9	30	201	9	270	30	177.5	8	46	3.7	4.2	0.7	725
	RAILING (LF):	**415**				FORMLINER AREA:		**370.0**													Type A	**7.3**	**60.6**	**8.5**	**1354**
																					SPECIAL	**57.3**	**58.8**	**10.2**	**10549**

1. RETAINING WALLS DESIGNATED AS SPECIAL ARE COMBINED SIDEWALK AND RETAINING WALLS, SPECIAL. COMBINED SIDEWALK AND RETAINING WALLS, SPECIAL USE #5 REBAR. REFER TO V-SHEETS FOR INFORMATION AND DETAILS.
2. TYPE A RETAINING WALL WILL USE TEXTURED FORMLINER ON ROADWAY FACE.
3. SPECIAL RETAINING WALLS WILL HAVE ORNAMENTAL SAFETY RAILING MOUNTED ALONG THE BACK OF SIDEWALK. REFER TO V-SHEETS FOR DETAILS.

108-13A
3/27/2025

SAFETY CLOSURES

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
30+71.89	1		STAGE 1
600+68.99	1		STAGE 1
39+58.95	1		STAGE 1
20+83.50	1		STAGE 2
301+60.50	1		STAGE 2
4000+35.95	1		STAGE 2
500+84.90	1		STAGE 2
32+66.00	1		STAGE 2
20+50.60	1		STAGE 3
402+23.87	1		STAGE 3
402+24.34	1		STAGE 3
32+66.00	1		STAGE 3
2+79.93	1		STAGE 5
900+25.48	1		STAGE 6
201+79.84	1		STAGE 6
20+99.88	1		STAGE 6
207+35.40	1		STAGE 7
1001+16.87	1		STAGE 7
1003+76.19	1		STAGE 7
21+24.79	1		STAGE 7

110-05
8/15/2022

SIDEWALK REMOVAL

*Not a Bid Item.

Line No.	Station To	Area (SY)	Saw Cut* (LF)	Remarks
1	27+94.10	25.8	4.0	STAGE 1
2	30+48.99	20.1	4.0	STAGE 1
3	32+27.90	67.9	4.0	STAGE 1
4	600+66.80	17.8	4.0	STAGE 1
5	35+39.69	127.9	10.0	STAGE 1
6	35+50.00	109.8	4.0	STAGE 1
7	302+23.61	25.8	4.0	STAGE 2A
8	4000+60.80	13.4	6.0	STAGE 2A
9	8+64.60	362	12.0	STAGE 5
10	12+92.90	254.1	15.0	STAGE 5
11	12+96.15	163.4	12.0	STAGE 5
12	16+87.62	299.5	10.0	STAGE 6
13	10+40.00	120.2	10.0	STAGE 7
14	107+98.99	46.1	8.0	STAGE 7
15	109+38.36	50.1	4.0	STAGE 7
16	701+05.83	104.6	22.0	STAGE 1; SHARED USE PATH

110-08
8/15/2022

REMOVAL OF CONCRETE DRIVES

* Not a Bid Item.

Line No.	Area (SY)	Saw Cut* (LF)	Remarks
1	353.1	46	STAGE 1
2	274.2	60.0	STAGE 2A
3	190.6	114.0	STAGE 2C
4	42.7	16.0	STAGE 2D
5	47.1	30.0	YEAR 1
6	80.8	47.0	YEAR 1
7	15.9	24.0	STAGE 5
8	720.5	25	STAGE 5
9	170.2	48	STAGE 6
10	113.6	25.0	STAGE 7
11	93.7	25.0	STAGE 7

110-01
4/5/2024

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5.

Line No.	Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
1	26+69.39	28+21.36		7" PCC	309.6	214	STAGE 1
2	31+57.00	35+17.18		8" HMA	1,640.5	81	STAGE 1
3	600+23.37	600+66.13		7" PCC	178.8	31	STAGE 1
4	5000+00.00	5000+99.73	Both	6" HMA	351.4	88	STAGE 1
5	34+37.82	34+87.00		6" HMA	58.4	60	STAGE 1
6	22+20.50	31+57.00	Right	8" HMA	1,218.2	964	STAGE 2A
7	21+51.63	22+20.50	Right	8" HMA	92.2	95	STAGE 2B
8	20+88.51	21+51.63	Right	8" HMA	73.8	75	STAGE 2C
9	301+63.48	302+44.69	Both	7" PCC	269.7	26	STAGE 2A
10	501+30.00	502+16.20	Both	7" PCC	345. 1	31	STAGE 2A
11	20+83.50	31+62.00	Left	8" HMA	1,363.2	16	STAGE 3
12	401+35.26	402+10.00	Both	7" PCC	410.9	48	STAGE 3
13	5+61.31	8+70.20	Left	8" PCC	213.5	645	YEAR 1
14	106+12.00	106+70.57	Left	7" PCC	26.0	62	YEAR 1
15	107+44.43	108+20.43	Left	7" PCC	31.0	89	YEAR 1
16	6+90.76	8+50.66	Left	6" HMA	206.4	272	YEAR 1
17	104+93.25	105+33.13	Both	7" PCC	199.6	182	STAGE 5
18	7+66.60	8+41.54	Both	8" PCC	213.5	645	YEAR 1
19	8+97.09	12+56.85	Left	8" PCC	1,019.2	109	STAGE 7
20	12+66.87	13+02.96	Left	8" PCC	43.4		STAGE 7
21	12+66.85	14+39.06	Left	8" HMA	222.3		STAGE 7
22	14+39.06	14+47.90	Left	8" PCC	13.4		STAGE 7
23	14+55.90	17+57.38	Left	8" HMA	372.3		STAGE 7
24	17+72.40	20+24.47	Left	8" HMA	306.1		STAGE 7
25	106+02.21	107+17.15	Right	7" PCC	208.1	129	STAGE 7
26	107+74.98	108+21.37	Right	7" PCC	14.2	50	STAGE 7
27	204+00.25	206+32.18	Both	6" PCC	670.8	26	STAGE 7
28	18+77.44	20+88.50	Left	6" HMA	340.6		TEMP PAVEMENT
29	20+88.50	31+22.00	Left	6" HMA	2,761.8		TEMP PAVEMENT
30	18+40.74	20+88.50	Right	6" HMA	517.4		TEMP PAVEMENT
31	21+42.15	21+95.03	Right	6" HMA	271.2		TEMP PAVEMENT
32	18+77.44	20+88.50	Left	6" HMA	425.3		TEMP PAVEMENT
33	26+95.50	27+94.33	Left	6" HMA	186.4		TEMP PAVEMENT
34	10+40.27	20+57.44	Right	6" HMA	2,074.8		TEMP PAVEMENT
35	12+85.60	13+39.60	Right	6" HMA	77.8		TEMP PAVEMENT
36	16+39.51	17+57.90	Right	6" HMA	182.4		TEMP PAVEMENT
				6" PCC	671		
				7" PCC	1648		
				6" HMA	7454		
				8" HMA	5289		
				8" PCC	1503		

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/18/2026	Field Bk:	
DOT STP-U-0132(629)--70--77		Pg:	
Project No: 122.1679.01		Sheet C.13	

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020| www.snyder-associates.com

SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.13

110-14

SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL

* Not a bid item

Location/Description	Sanitary or Storm Sewer	Abandonment, Plug Only or Abandonment, Plug and Fill or Removal	Length of Pipe ≤ 36 inch diameter	Length of Pipe > 36 inch diameter	Fill Material* Flowable Mortar or CLSM	Remarks
			LF	LF	CY	
17TH AVENUE NW: 106+30.96 TO 109+31.04	SANITARY	ABANDONMENT, PLUG AND FILL	299		CLSM	
ADVENTURELAND DRIVE: 6+06.617 TO 6+55.00	STORM	REMOVAL	48			
17TH AVENUE NW: 105+92.28 TO 106+05.67	STORM	REMOVAL	14			
ADVENTURELAND DRIVE: 12+90.00 TO 13+24.00	STORM	REMOVAL	34			INCLUDES 2 APRONS
ADVENTURELAND DRIVE: 12+29.30 TO 12+64.72	STORM	REMOVAL	37			
ADVENTURELAND DRIVE: 12+66.46 TO 15+04.92	STORM	REMOVAL	258			
ADVENTURELAND DRIVE: 15+04.92 TO 16+57.92	STORM	REMOVAL	152			
ADVENTURELAND DRIVE: 16+57.92 TO 16+60.70	STORM	REMOVAL	3			
ADVENTURELAND DRIVE: 12+90.38 TO 13+24.09	STORM	REMOVAL	34			
ADVENTURELAND DRIVE 14+47.00 LT	STORM	REMOVAL	11			TEMPORARY 8"
ADVENTURELAND DRIVE: 15+06.66 TO 15+08.01	STORM	REMOVAL	54			CROSSRUN WITH ONE APRON
ADVENTURELAND DRIVE: 15+06.28 TO 15+07.39	STORM	REMOVAL	10			APRON
ADVENTURELAND DRIVE 17+63.00 TO 18+50.00	STORM	REMOVAL	86			TEMPORARY 8"
ADVENTURELAND DRIVE 23+16.45 TO 23+87.53	STORM	REMOVAL	71			
ADVENTURELAND DRIVE: 26+72.46 TO 27+10.83	STORM	REMOVAL	47			
ADVENTURELAND DRIVE: 26+79.00 TO 27+10.83	STORM	REMOVAL	31			
ADVENTURELAND DRIVE: 27+11.83 TO 27+16.04	STORM	REMOVAL	5			
ADVENTURELAND DRIVE: 27+17.04 TO 27+71.69	STORM	REMOVAL	54			TEMPORARY
ADVENTURELAND DRIVE: 27+71.69 TO 28+05.91	STORM	REMOVAL	39			
ADVENTURELAND DRIVE 27+71.69 TO 28+50.00	STORM	REMOVAL	77			TEMPORARY
10TH AVENUE NW: 401+48.86 TO 402+10.52	STORM	REMOVAL	62			
10TH AVENUE NW: 401+48.86 TO 402+14.79	STORM	REMOVAL	5			
10TH AVENUE NW: 401+48.86 TO 402+16.24	STORM	REMOVAL	6			
ADVENTURELAND DRIVE: 28+28.79 TO 29+02.61	STORM	REMOVAL	74			
ADVENTURELAND DRIVE: 30+32.08 TO 30+97.48	STORM	REMOVAL	66			
ADVENTURELAND DRIVE: 32+96.48 TO 33+87.71	STORM	REMOVAL	92			
ADVENTURELAND DRIVE: 33+21.08 TO 33+92.29	STORM	REMOVAL		84		
ADVENTURELAND DRIVE: 33+93.80 TO 34+73.41	STORM	REMOVAL		80		
ADVENTURELAND DRIVE: 34+72.47 TO 34+73.42	STORM	REMOVAL	16			
ADVENTURELAND DRIVE: 33+92.94 TO 33+00.08	STORM	REMOVAL		90		
		TOTAL REMOVAL	1386	254		

106-03

REMOVAL OF INTAKES AND UTILITY ACCESSES

No.	Location/Description	Type	Remarks
1	6+05.88	Intakes	SW-509
2	8+31.50	Intakes	SW-509
3	9+26.93	Utilities	SW-301
4	12+31.33	Intakes	SW-501
5	12+65.47	Utilities	SW-401
6	15+06.56	Utilities	SW-401
7	16+58.04	Utilities	SW-401
8	27+16.45	Intakes	SW-501
9	27+73.06	Intakes	SW-501
10	33+88.71	Intakes	SW-511
11	33+93.01	Utilities	SW-401
12	34+73.49	Intakes	SW-505
13	34+74.41	Utilities	SW-401
14	27+06.32	Utilities	SW-401

112-05
8/15/2022

CONCRETE MEDIANS

Line No.	Station From	Station To	Type	Area* (SY)	Modified Subbase (CY)	Special Backfill (CY)	Remarks
1.0	6+76.08	8+12.13	Median Dowelled PCC 6"	78.0			
2.0	9+26.42	10+76.08	Median PCC 6"	52.1			
3.0	15+89.00	16+69.99	Median PCC 6"	26.9			
4.0	17+55.51	19+06.50	Median PCC 6"	64.8			
5.0	20+88.50	20+97.00	Median PCC 6"	12.7			
6.0	22+37.01	22+39.41	Median PCC 6"	1.4			
7.0	22+98.65	23+07.15	Median Dowelled PCC 6"	12.7			
8.0	23+86.83	23+93.74	Median PCC 6"	4.2			
9.0	26+85.49	26+93.25	Median PCC 6"	4.8			
10.0	27+96.50	28+13.33	Median PCC 6"	28.4			
11.0	30+25.00	30+33.50	Median PCC 6"	12.7			
12.0	31+03.00	31+11.96	Median PCC 6"	5.6			
13.0	32+66.00	33+06.95	Median Dowelled PCC 6"	13.9			
14.0	33+93.72	34+33.00	Median Dowelled PCC 6"	15.2			
			Median Dowelled PCC 6"	120			
			Median PCC 6"	214			

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70--77			Sheet C.14
Project No: 122.1679.01			

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

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SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet C.14

110-17

CLEARING AND GRUBBING

Station From	Station To	Direction of Travel	Work and Material Type	3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>42"-48"	>48"-60"	>60"-72"	>72"	Other Materials Length (FT)	Other Materials Width (FT)	Estimated Units	Estimated Area (Acres)	Estimated Herbicide Application (EA)	Remarks
104+00.71	104+01.71	EB	Trees - Clearing and Grubbing							1									29			
202+28.12	202+29.12	NB	Trees - Clearing and Grubbing							1									29			
21+05.00	21+06.00	EB	Trees - Clearing and Grubbing								1								50			
21+90.00	21+91.00	EB	Trees - Clearing and Grubbing	3															4.8			
21+90.00	21+91.00	WB	Trees - Clearing and Grubbing	1															1.6			
22+23.00	22+24.00	WB	Trees - Clearing and Grubbing				1												9.4			
22+26.00	22+27.00	EB	Trees - Clearing and Grubbing								1								50			
22+37.00	22+38.00	WB	Trees - Clearing and Grubbing						1										22			
22+52.00	22+53.00	EB	Trees - Clearing and Grubbing		1														3.9			
22+82.00	22+83.00	WB	Trees - Clearing and Grubbing							1									29			
22+83.00	22+84.00	EB	Trees - Clearing and Grubbing			1													6.7			
23+69.00	23+70.00	WB	Trees - Clearing and Grubbing							1									29			
23+74.00	24+50.00	EB	Hedge Rows - Clearing														76		22.8			
23+89.00	23+98.00	WB	Trees - Clearing and Grubbing					3	1										62.5			
24+14.00	24+20.00	WB	Trees - Clearing and Grubbing			2													13.4			
24+17.00	24+18.00	EB	Trees - Clearing and Grubbing						1										22			
24+57.05	24+59.00	EB	Trees - Clearing and Grubbing									1							0			
24+80.00	24+81.00	EB	Trees - Clearing and Grubbing							1									29			
24+97.00	24+98.00	EB	Trees - Clearing and Grubbing		1														3.9			
25+01.00	25+02.00	EB	Trees - Clearing and Grubbing	2															3.2			
25+07.00	25+08.00	EB	Trees - Clearing and Grubbing	2															3.2			
25+09.00	25+10.00	WB	Trees - Clearing and Grubbing			1													6.7			
25+21.00	25+22.00	EB	Trees - Clearing and Grubbing							1									29			MULTIPLE 12IN
25+23.00	24+24.00	EB	Trees - Clearing and Grubbing		1	2													17.3			
25+26.00	25+27.00	WB	Trees - Clearing and Grubbing						1										22			
25+29.00	25+30.00	EB	Trees - Clearing and Grubbing		1														3.9			
25+43.00	25+44.00	EB	Trees - Clearing and Grubbing		1														3.9			
25+46.00	25+47.00	EB	Trees - Clearing and Grubbing	1															1.6			
25+55.00	25+56.00	EB	Trees - Clearing and Grubbing				1												9.4			
25+61.00	25+62.00	EB	Trees - Clearing and Grubbing			1													6.7			
25+71.00	25+72.00	EB	Trees - Clearing and Grubbing			1													6.7			
25+83.00	25+84.00	EB	Trees - Clearing and Grubbing		1														3.9			
25+98.00	25+99.00	EB	Trees - Clearing and Grubbing							1									29			
26+82.00	26+83.00	EB	Trees - Clearing and Grubbing			1													6.7			
26+84.00	26+85.00	EB	Trees - Clearing and Grubbing	1															1.6			
26+94.00	26+95.00	EB	Trees - Clearing and Grubbing			1													6.7			
27+06.00	27+07.00	EB	Trees - Clearing and Grubbing			1													6.7			
27+17.00	27+18.00	EB	Trees - Clearing and Grubbing			1													6.7			
27+30.00	27+31.00	EB	Trees - Clearing and Grubbing			1													6.7			
27+43.00	27+44.00	EB	Trees - Clearing and Grubbing			1													6.7			
401+66.00	401+67.00	NB	Trees - Clearing and Grubbing						1										22			
401+87.00	401+88.00	NB	Trees - Clearing and Grubbing					1											13.5			
27+97.00	27+98.00	EB	Trees - Clearing and Grubbing							1									29			MULTIPLE 10IN
28+04.00	28+05.00	EB	Trees - Clearing and Grubbing		1														3.9			
28+28.00	28+29.00	EB	Trees - Clearing and Grubbing							1									29			MULTIPLE 10IN
28+29.00	28+30.00	EB	Trees - Clearing and Grubbing							1									29			MULTIPLE 10IN
28+83.00	28+84.00	EB	Trees - Clearing and Grubbing		1														3.9			
28+97.00	28+98.00	EB	Trees - Clearing and Grubbing	1															1.6			
29+08.00	29+09.00	EB	Trees - Clearing and Grubbing					1											13.5			
29+24.00	29+25.00	EB	Trees - Clearing and Grubbing	1															1.6			
34+25.00	34+26.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+36.00	34+37.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+48.00	34+49.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+58.00	34+59.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+65.00	34+66.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+72.00	34+73.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+80.00	34+81.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+88.00	34+89.00	WB	Trees - Clearing and Grubbing			1													6.7			
34+53.00	34+69.00	EB	Trees - Clearing and Grubbing			1													6.7			
32+57.00	33+00.00	WB	Trees - Clearing and Grubbing																	0.05		
32+65.00	33+50.00	EB	Trees - Clearing and Grubbing																	0.1		
																		TOTAL	813.6	0.15		

102-6C
04-04-24

INCIDENTAL ITEMS

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

Line No.	Incidental Item	Unit	Quantity	Incidental to Item Code	Incidental to Item	Remarks
1	6" SUBGRADE PREPARATION	SY	75+10.00	2102-0425070	SPECIAL BACKFILL	TEMPORARY PAVEMENT AREAS 2'
2	APRON FOOTING	EACH	+01.00	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.	Refer to B Sheets for Detail
3	APRON FOOTING	EACH	+01.00	2416-0100048	APRONS, CONCRETE, 48 IN. DIA.	Refer to B Sheets for Detail
4	VALVE BOX ADJUSTMENT	EACH	+03.00	2599-9999018	('SQUARE YARD' ITEM) STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PA	VALVE IN PAVEMENT
5	VALVE BOX ADJUSTMENT	EACH	+05.00	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.	
6	REMOVE VALVE CASTING	EACH	+02.00	2599-9999018	('SQUARE YARD' ITEM) STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PA	
7	ADJUST CURB STOP TO GRADE	EACH	+02.00	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.	
8	ADJUST CURB STOP TO GRADE	EACH	+01.00	2516-8625000	COMBINED CONCRETE SIDEWALK AND RETAINING WALL	
9	POROUS BACKFILL	CY	+17.00	2403-0100020	STRUCTURAL CONCRETE (RCB CULVERT)	
10	6" SUBDRAIN	LF	2+34.00	2403-0100020	STRUCTURAL CONCRETE (RCB CULVERT)	
11	SW-211 CONCRETE COLLAR	EACH	+01.00	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 20	
12	REMOVE GPS POST	EACH	+01.00	2101-0850002	CLEARING AND GRUBBING	

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70-77			Sheet C.15
Project No: 122.1679.01			

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
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SNYDER & ASSOCIATES

Project No: 122.1679.01

Sheet C.15

113-01A

SIDEWALKS

See MI-220 and S Sheets

Line No.	Road Identification	Station From	Station To	Side	A (FT)	B (FT)	S %	Sidewalk Thickness (IN)	Sidewalk Length (FT)	Sidewalk Width (FT)	Remarks
1	ADVENTURELAND DRIVE	6+03.64	8+16.98	Right	7	6	1.5	4	217	6	
2	ADVENTURELAND DRIVE	8+16.98	8+44.65	Right				6	VAR.	6	
3	ADVENTURELAND DRIVE	6+47.58	6+62.59	Left				6	16	VAR.	
4	17TH AVENUE NW	102+31.31	103+01.75	Left	7	6	1.5	4	71	6	
5	17TH AVENUE NW	103+24.73	105+00.04	Left	7	6	1.5	4	179	6	
6	17TH AVENUE NW	104+92.44	105+06.44	Right	8	4	1.5	6	6	6	
7	17TH AVENUE NW	106+25.78	106+69.04	Right	14	6	1.5	4	44	6	
8	17TH AVENUE NW	106+93.08	107+98.98	Right	14	6	1.5	4	106	6	
9	17TH AVENUE NW	107+78.95	107+87.48	Left				6	9	VAR.	
10	17TH AVENUE NW	108+22.98	109+38.36	Right	14	6	1.5	4	116	6	
11	ADVENTURELAND DRIVE	9+06.57	9+23.55	Left				6	VAR.	6	
12	ADVENTURELAND DRIVE	9+08.90	9+25.67	Right				6	VAR.	6	
13	ADVENTURELAND DRIVE	9+22.41	12+78.26	Right	7	6	1.5	4	360	6	
14	ADVENTURELAND DRIVE	9+23.55	12+73.58	Left	7	6	1.5	4	353	6	
15	ADVENTURELAND DRIVE	12+78.26	12+94.68	Right	7	6	1.5	6	17	6	
16	ADVENTURELAND DRIVE	12+73.58	12+91.86	Left	7	6	1.5	6	18	6	
17	ADVENTURELAND DRIVE	13+20.53	13+42.41	Right	7	6	1.5	6	22	6	
18	ADVENTURELAND DRIVE	13+34.48	13+51.39	Left	7	6	1.5	6	17	6	
19	PARCEL 19/20	900+28.85	900+52.15	Right	17	6	1.5	4	24	6	
20	ADVENTURELAND DRIVE	13+51.37	16+69.67	Left	7	6	1.5	4	322	6	
21	ADVENTURELAND DRIVE	13+42.41	16+72.28	Right	7	6	1.5	4	330	6	
22	ADVENTURELAND DRIVE	16+71.31	16+84.82	Left			1.5	6	VAR.	6	
23	ADVENTURELAND DRIVE	16+69.67	16+90.39	Right			1.5	6	VAR.	6	
24	14TH AVENUE NW	201+99.00	203+06.86	Left	7	4	1.5	4	112	6	
25	ADVENTURELAND DRIVE	17+25.64	17+49.60	Right			1.5	6	VAR.	6	
26	ADVENTURELAND DRIVE	17+32.53	17+49.60	Left			1.5	6	VAR.	6	
27	ADVENTURELAND DRIVE	17+49.60	22+25.00	Left	7	6	1.5	4	476	6	
28	ADVENTURELAND DRIVE	17+49.60	21+02.33	Right	7	6	1.5	4	353	6	
29	ADVENTURELAND DRIVE	21+02.33	21+18.21	Right	7	6	1.5	6	16	6	
30	ADVENTURELAND DRIVE	21+42.55	21+58.41	Right	7	6	1.5	6	16	6	
31	ADVENTURELAND DRIVE	21+58.41	21+93.15	Right	7	6	1.5	4	35	6	
32	ADVENTURELAND DRIVE	22+17.18	23+00.01	Right	7	6	1.5	4	83	6	
33	ADVENTURELAND DRIVE	23+00.01	23+33.12	Right	7	6	1.5	6	33	6	
34	ADVENTURELAND DRIVE	23+60.00	26+83.77	Left	7	6	1.5	4	324	6	
35	ADVENTURELAND DRIVE	23+68.37	23+86.48	Right	7	6	1.5	6	18	6	
36	12TH AVENUE NW	301+63.50	302+07.16	Right	7	6	1.5	4	14	6	
37	ADVENTURELAND DRIVE	23+86.48	25+25.00	Right	7	6	1.5	4	139	6	
38	ADVENTURELAND DRIVE	26+83.78	27+10.89	Left	7	6	1.5	6	27	6	
39	ADVENTURELAND DRIVE	27+78.14	28+12.25	Left	7	6	1.5	6	34	6	
40	10TH AVENUE NW	401+63.35	401+82.00	Right	7	6	1.5	4	20	4	
41	ADVENTURELAND DRIVE	28+05.00	28+52.35	Right	7	6	1.5	6	47	6	
42	ADVENTURELAND DRIVE	28+06.33	28+12.33			6		6	17	6	
43	ADVENTURELAND DRIVE	28+12.25	32+59.85	Left	7	6	1.5	4	448	6	
44	ADVENTURELAND DRIVE	28+79.19	29+01.27	Right	7	6	1.5	6	22	6	
45	PARCEL 13	4000+38.95	4000+64.05	Right			1.5	4	26	6	
46	ADVENTURELAND DRIVE	29+01.27	30+19.34	Right	7	6	1.5	4	119	6	
47	ADVENTURELAND DRIVE	30+19.34	30+46.00	Right	7	6	1.5	6	26	6	
48	10TH AVENUE NW	501+57.26	501+65.52	Left	7	6	1.5	4	9	4	
49	ADVENTURELAND DRIVE	30+86.64	31+04.35	Right	7	6	1.5	6	18	6	
50	10TH AVENUE NW	501+54.18	501+63.72	Right	7	6	1.5	4	8	4	
51	ADVENTURELAND DRIVE	31+04.35	32+72.75	Right	7	6	1.5	4	169	6	
52	ADVENTURELAND DRIVE	32+59.85	33+23.76	Left	7	6	1.5	6	63	6	
53	ADVENTURELAND DRIVE	32+72.75	33+29.03	Right	7	6	1.5	6	57	6	
54	9TH AVENUE NW	600+48.83	600+66.77	Left	7	6	1.5	4	19	4	
55	ADVENTURELAND DRIVE	33+62.63	33+92.12	Left	7	6	1.5	6	29	6	
56	ADVENTURELAND DRIVE	33+58.15	33+84.26	Right	7	6	1.5	6	26	6	
57	9TH AVENUE NW	600+39.14	600+62.97	Right	7	6	1.5	4	15	4	
58	ADVENTURELAND DRIVE	33+92.12	34+97.10	Left	7	6	1.5	4	105	6	
59	ADVENTURELAND DRIVE	33+84.26	34+18.40	Right	7	6	1.5	4	35	6	
60	TRAIL	700+25.00	702+56.19	Right		10	1.5	6	231	6	RECREATIONAL TRAIL
61	TRAIL	700+97.65	701+06.34	Left		10	1.5	6	11	6	
62	TRAIL	700+92.22	700+98.05	Left		10	1.5	6	31	4	
63	ADVENTURELAND DRIVE	34+28.31	35+05.51	Right	5	6	1.5	5	78	8	
64	ADVENTURELAND DRIVE	34+97.11	35+18.13	Left			1.5	6	20	8	
65	ADVENTURELAND DRIVE	35+03.70	35+12.25	Left			1.5	6	7	8	
66	ADVENTURELAND DRIVE	35+17.94	35+40.03	Left	7	6	1.5	4	21	6	
67	ADVENTURELAND DRIVE	35+04.42	35+14.08	Right	5	6	1.5	6	8	8	
68	ADVENTURELAND DRIVE	35+13.28	35+50.00	Right	7	6	1.5	4	39	6	
69	ADVENTURELAND DRIVE	3504.03	3512.55					6			

110_13
8/15/22

DELIVERY AND STOCKPILING

Line No.	Item Description	Quantity	Quantity Units	Delivery Location	Contact Name	Contact Number	Remarks
	FIRE HYDRANT ASSEMBLY	4	EACH	901 17TH AVE SW, ALTOONA	JEFF HAND	515-967-4464	

MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: JWH | Scale: 1"= NTS
Technician: KSB | Date: 8/18/2026 | Field Bk: | Pg:
DOT STP-U-0132(628)--70-77
Project No: 122.1679.01

Sheet C.16

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

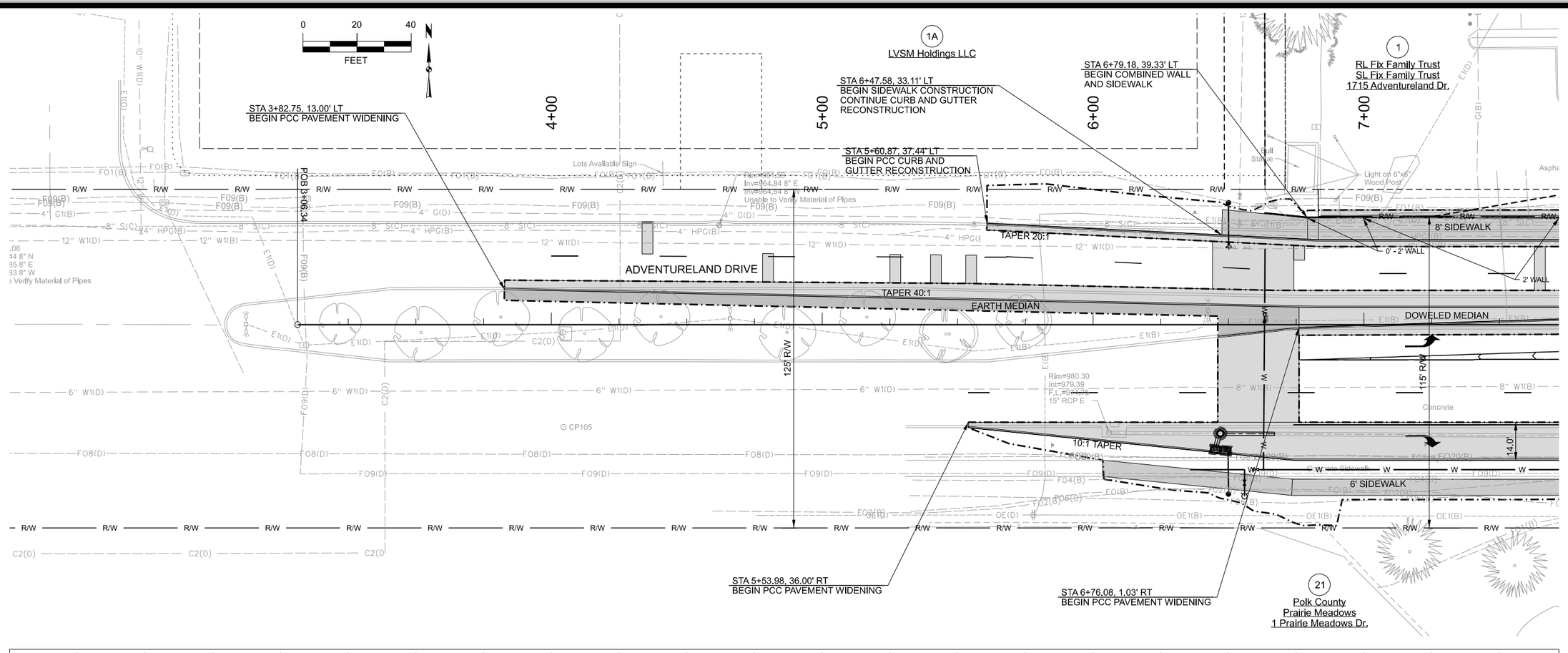
QUANTITIES AND GENERAL INFORMATION

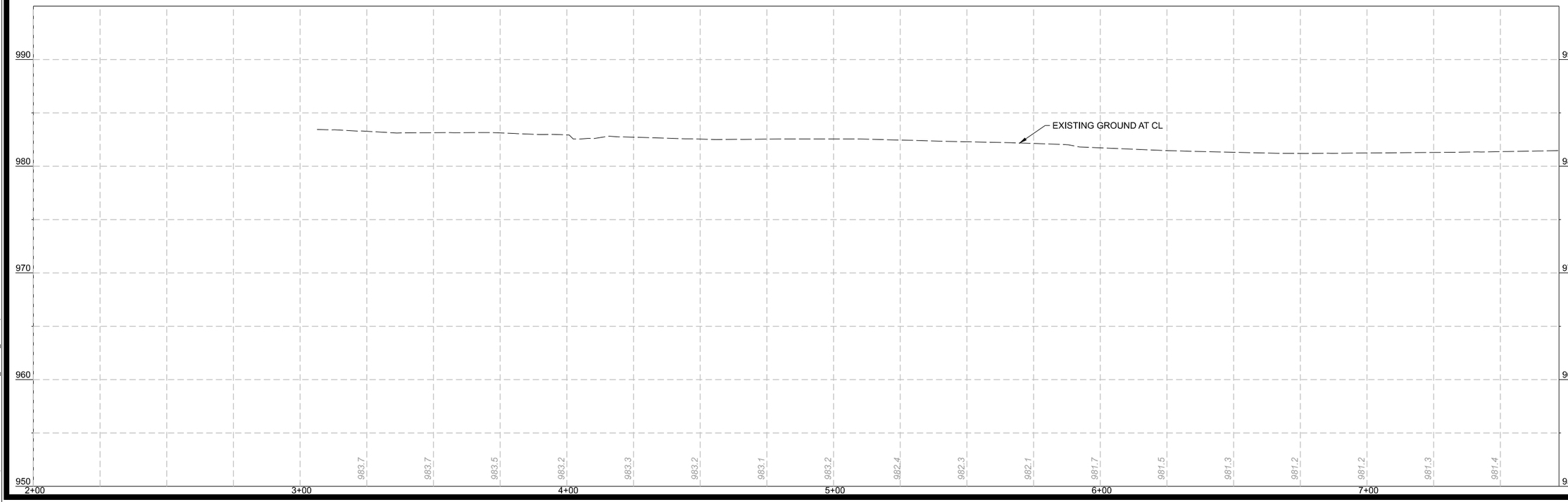
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER
&ASSOCIATES

Project No: 122.1679.01

Sheet C.16





DOT STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet D.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet D.1

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CONTINUE COMBINED SIDEWALK RETAINING WALL CONSTRUCTION

1' WALL

2' - 1' WALL

8' SIDEWALK

6' SIDEWALK

DOWELED MEDIAN

PAVED MEDIAN

EARTH MEDIAN

ADVENTURELAND DRIVE

10:1 TAPER

GRADING LIMITS

17TH AVE NW

80' R/W

115' R/W

100' R/W

8+00 9+00 10+00 11+00 12+00 13+00

STA 7+95.00, 22.72' LT
BEGIN PCC PAVEMENT RECONSTRUCTION
END CURB AND GUTTER RECONSTRUCTION

STA 8+70.20, 12.67' LT
END PCC PAVEMENT RECONSTRUCTION

STA 8+96.97, 0.00' LT
BEGIN PCC PAVEMENT RECONSTRUCTION

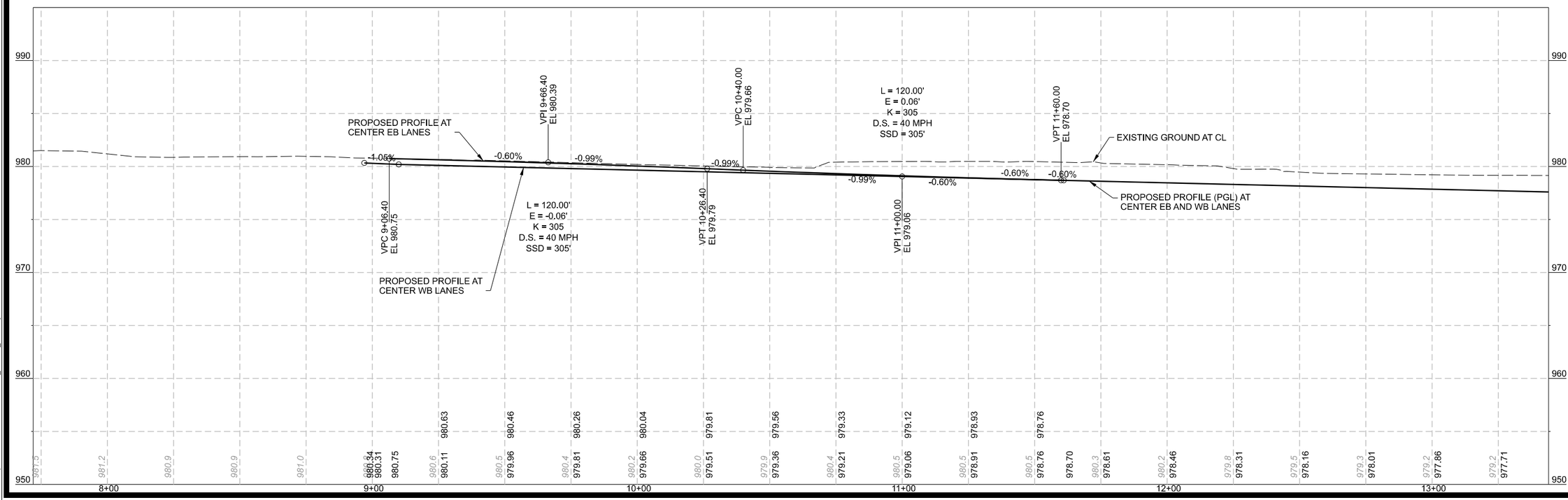
STA 8+70.14, 36.00' RT
END PCC PAVEMENT WIDENING

2
RJB Business Park Condominium
1625 Adventureland Dr.

20
Avenue Living US
Operating LP No. 20

0 20 40
FEET

Prairie Meadows Sign



DOT	STP-U-0132(628)--70-77				
		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
		Technician: KSB	Date: 8/18/2026		

Project No: 1221679

Sheet D.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

PLAN AND PROFILE

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet D.2

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3
Signature Ernst Land Development LLC
1545 Adventureland Dr NW

3A
Avenue Living US Operating LP No. 3

4
Signature Ernst Land Development LLC
1375 Adventureland Dr NW

19
Avenue Living US Operating LP No. 20

18
Adventureland Village Partners LLC
807 14th Ave NW

0 20 40 FEET

14+00 15+00 16+00 17+00 18+00 19+00

GRADING LIMITS

ADVENTURELAND DRIVE

BLUE RIDGE PL NW

14TH AVE NW

6' SIDEWALK

PAVED MEDIAN

EARTH MEDIAN

100' R/W

112' R/W

50' R/W

14.0'
13.5'
12.5'
12.0'
14.0'

Blue Ridge Commons Sign

Adventureland Village Apartments Sign

Altoona Towers Sign

Concrete Block Wall

Concrete Sidewalk

Concrete

Planter

F.L.=972.92
12" RCP S

F.L.=973.95
24" CMP N

F.L.=973.02
24" CMP SE

Rim=977.61
F.L.=970.28 15" RCP W
F.L.=970.18 12" CMP N
F.L.=970.11 18" RCP E

Int=973.11
F.L.=969.21 10" CPP W
F.L.=969.06 10" CPP E
Bottom Well=968.56

Int=972.79
F.L.=967.14 10" CPP E
F.L.=967.39 10" CPP W
Bottom Well=966.48

F.L.=963.84
12" RCP NW

Rim=977.58
F.L.=968.58 18" RCP W
F.L.=968.68 18" RCP E

Int=970.87
F.L.=964.46 10" CPP SE
F.L.=964.36 10" CPP W
Bottom Well=963.36

Rim=978.14
F.L.=968.04 18" RCP NW
F.L.=967.99 18" RCP S

Rim=978.80
Top Nut=978.33

Rim=977.01
Top Nut=976.54

Rim=977.64
Top Nut=977.17

Rim=978.06
Top Nut=977.59

Rim=978.21
Top Nut=977.74

Top of 4" Pipe=972.33

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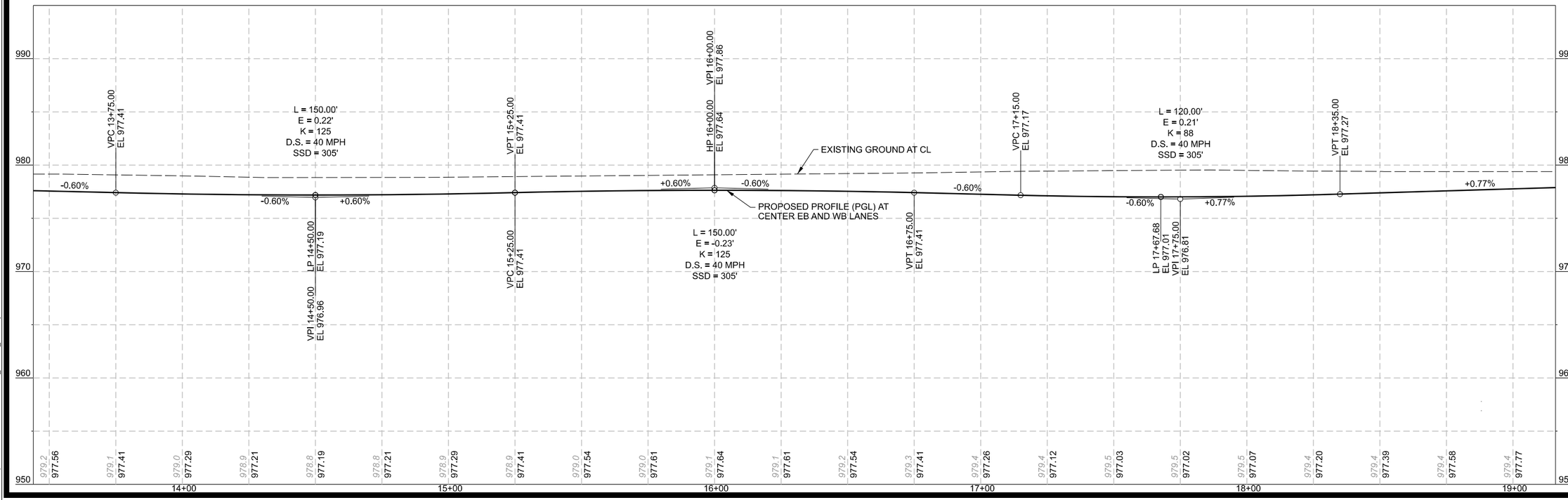
Top of 4" Pipe=972.82

Top of 4" Pipe=972.76

Top of 4" Pipe=973.65



4
Signature Ernst Land Development LLC
1375 Adventureland Dr NW

STA 22+25.00, 49.00' LT
BEGIN CIP RETAINING
WALL, 4' SAFETY RAIL

5
Greenway of Altoona Assoc II
1103 Greenway Ct

10' GAS EASEMENT
BK 5233 PG 345-347

10' ELECTRIC EASEMENT
BK 5233 PG 348-350

5
Greenway of Altoona Assoc II
1103 Greenway Ct

STA 23+60.00, 49.00' LT
END CIP RETAINING
WALL, 4' SAFETY RAIL

20+00 21+00 22+00 23+00 24+00

GRADING LIMITS

6' SIDEWALK

EARTH MEDIAN

100' R/W

14.0'
13.5'
13.0'
14.0'

ADVENTURELAND DRIVE

Concrete

Gravel

Concrete Sidewalk

12TH AVE NW

50' R/W

PROPOSED SIGN LOCATION
4' FROM BACK OF SIDEWALK

GRADING LIMITS

18
Adventureland Village Partners LLC
807 14th Ave NW

17
Michael Kemnitzer
1206 Adventureland Dr.

16
Russell E Boos
Elizabeth J Boos
813 12th Ave NW

0 20 40
FEET

VPI 20+00.00
EL 978.54
HP 20+06.45
EL 978.33

VPI 22+25.00
EL 977.15

EXISTING GROUND AT CL

+0.77% +0.77% -0.62% -0.62% -0.62% -4.89% -4.89%

VPC 19+40.00
EL 978.08

L = 120.00'
E = -0.21'
K = 87
D.S. = 40 MPH
SSD = 305'

VPT 20+60.00
EL 978.17

VPC 20+62.50
EL 978.15

PROPOSED PROFILE (PGL) AT
CENTER EB AND WB LANES

L = 325.00'
E = -1.74'
K = 76
D.S. = 40 MPH
SSD = 305'

VPT 23+87.50
EL 969.20

VPC 24+25.00
EL 967.37

L = 150.00'
E = 0.36'
K = 78

980 970 960 950 940

20+00	21+00	22+00	23+00	24+00
979.4 977.96	978.31	977.83	977.51	977.11	976.62	976.06	975.41	974.68	973.87	972.98	972.00	970.94	969.80	968.59	967.37	966.18	965.08

DOT	STP-U-0132(628)--70-77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet D.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

PLAN AND PROFILE

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet D.4

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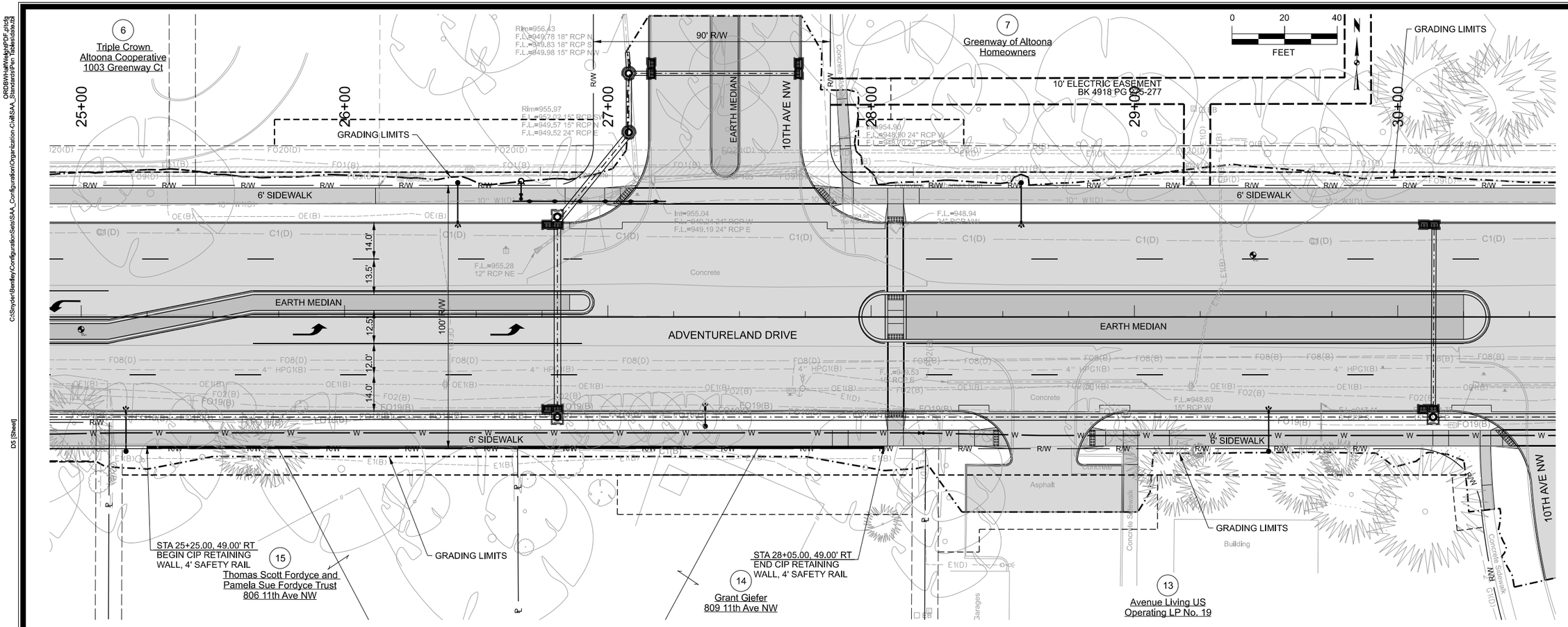

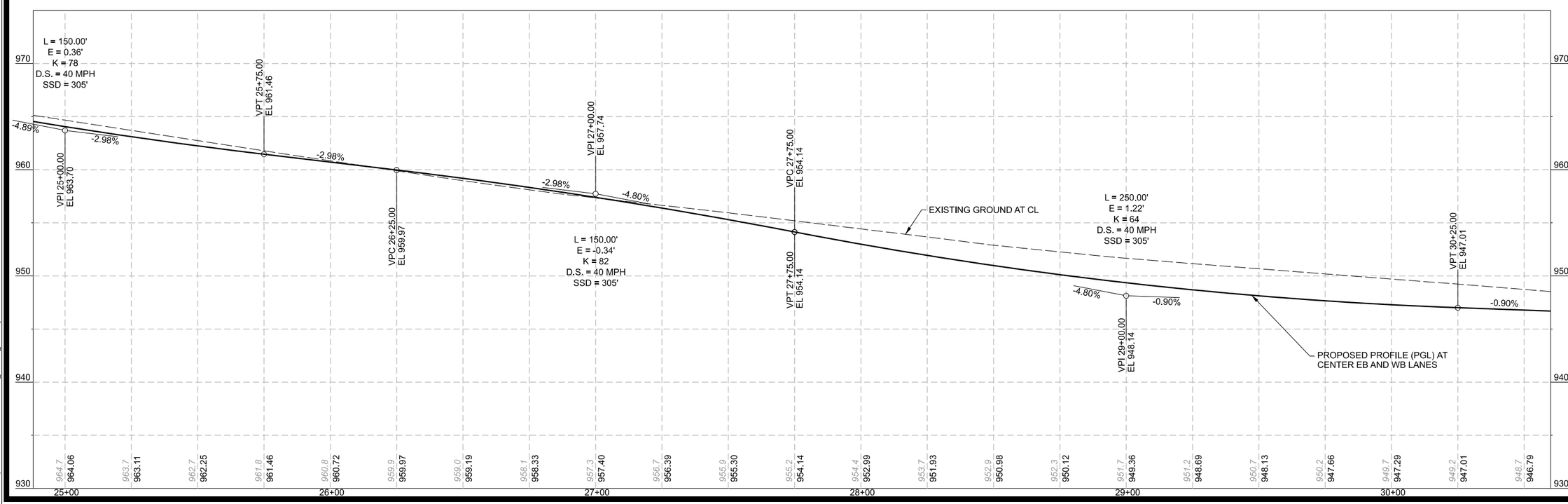

DOT STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet D.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet D.5

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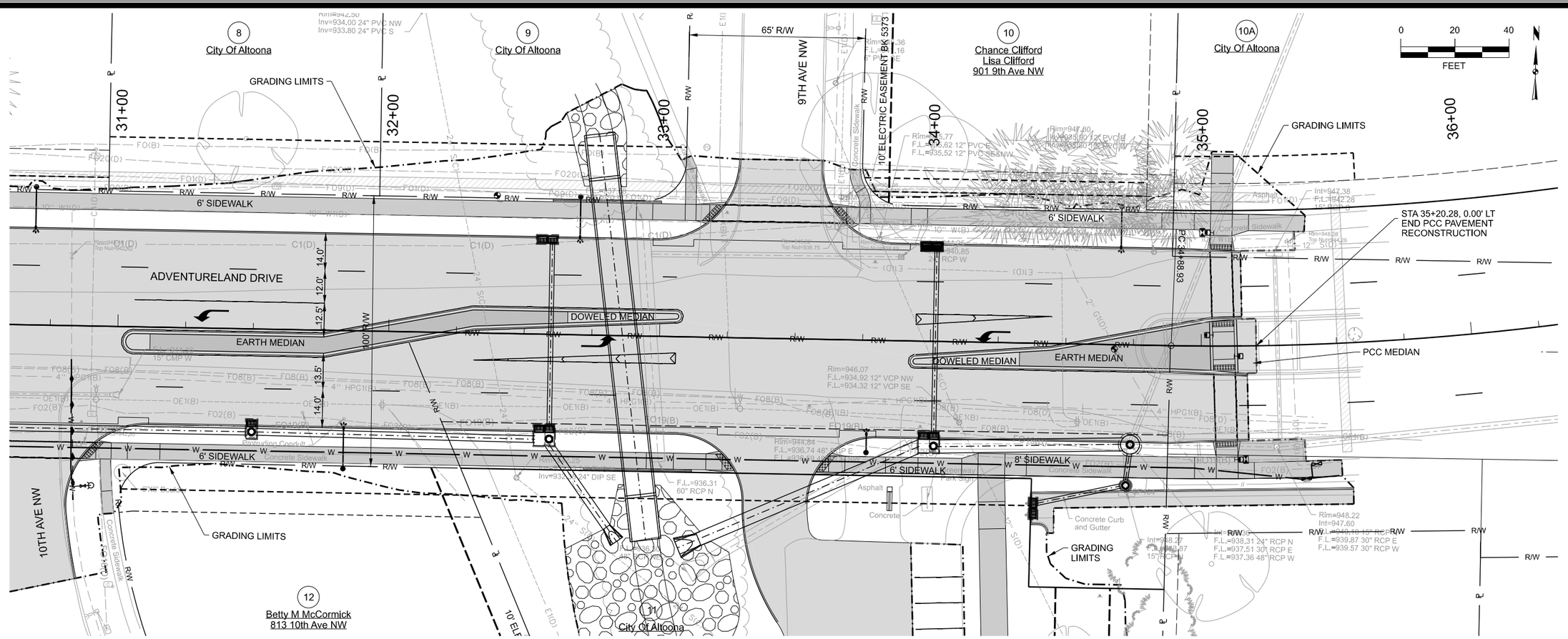

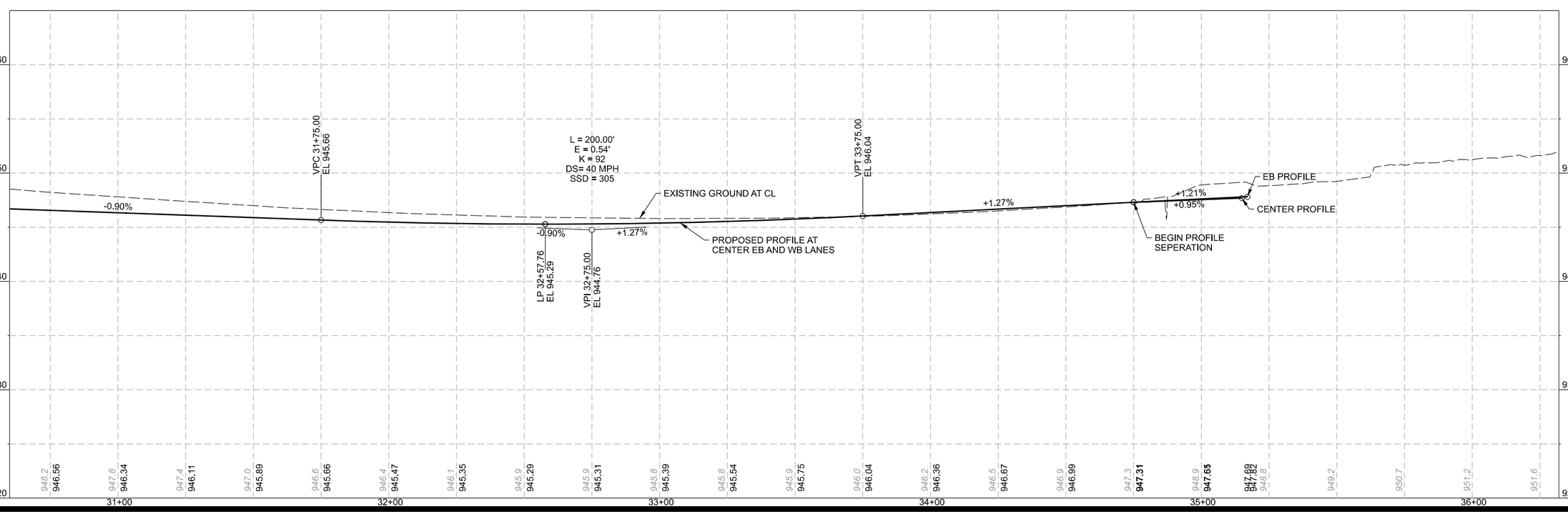

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		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
		Technician: KSB	Date: 8/18/2026		

Project No: 1221679

Sheet D.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet D.6

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FEET

21
Polk County
Prairie Meadows
1 Prairie Meadows Dr.

1
RL Fix Family Trust
SL Fix Family Trust
1715 Adventureland Dr.

101+00 102+00 103+00 104+00 105+00 106+00

GRADING LIMITS

STA 101+81.25, 13.00' LT
BEGIN WIDENING

6' SIDEWALK

8' SIDEWALK

1' WALL

ADVENTURELAND DRIVE

STA 105+33.13, 13.00' LT
END WIDENING

STA 105+81.86, 13.00' LT
BEGIN WIDENING

17TH AVENUE NW

66' ROW

80' ROW

R/W

Prairie Meadows Sign

Concrete Sidewalk

Sign

Concrete

ELECTRIC EASEMENT
BK 13992, PG 00

Pond=981.12
8" RCP CLE FO1(B)

Pond=981.07
Top of Wall=975.19

Pond=981.03
Top of Wall=975.00

Pond=981.07
Top of Wall=975.00

Pond=981.12
8" PVC SW
Invert=967.72
8" DIP E

Extension & Outreach
Entrance Audrey Sign

20
Avenue Living US
Operating LP No. 20

EXISTING GROUND AT CL

990
980
970
960
950

974.0 974.5 974.9 975.4 975.9 976.4 977.0 977.4 977.8 978.3 978.7 978.9 979.2 979.5 979.8 980.1 980.3 980.4 980.9 980.9 980.1 980.3 980.6 980.8

101+00 102+00 103+00 104+00 105+00 106+00

DOT	STP-U-0132(628)--70--77				
MARK	REVISION	DATE	BY		
Engineer: LCL	Checked By: LEJ			Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026				

Project No: 1221679

Sheet E.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

17TH AVENUE NW PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet E.1

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RL Fix Family Trust
SL Fix Family Trust
1715 Adventureland Dr.

1A

LVSM Holdings LLC

2

RJB Business Park Condominium
1625 Adventureland Dr.

107+00 108+00 109+00 110+00 111+00 112+00

0 20 40
FEET

Building

Asphalt

2' - 1' WALL

1' - 0' WALL

STA 107+78.79, 38.00' LT
END COMBINED SIDEWALK
AND RETAINING WALL

STA 108+20.04, 12.50' LT
END WIDENING

R/W

8' SIDEWALK

11'

11'

11'

13'

17TH AVENUE NW

80' ROW

FUTURE SIDEWALK (BY OTHERS)

W(B)

FUTURE ROAD CONSTRUCTION (BY OTHERS)

E1(D)

Concrete

8" S(D)

8" W1(D)

EXISTING GROUND AT CL

990
980
970
960
950

981.0 981.3 981.5 981.7 982.0 982.2 982.4 982.5 982.4 982.4 982.5 982.4 982.5 982.7 982.6 983.1 982.9 982.9 982.9 982.7 983.1 983.0 982.9 983.0

107+00 108+00 109+00 110+00 111+00 112+00

DOT	STP-U-0132(628)--70--77				
		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
		Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet E.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

17TH AVENUE NW PLAN AND PROFILE

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet E.2

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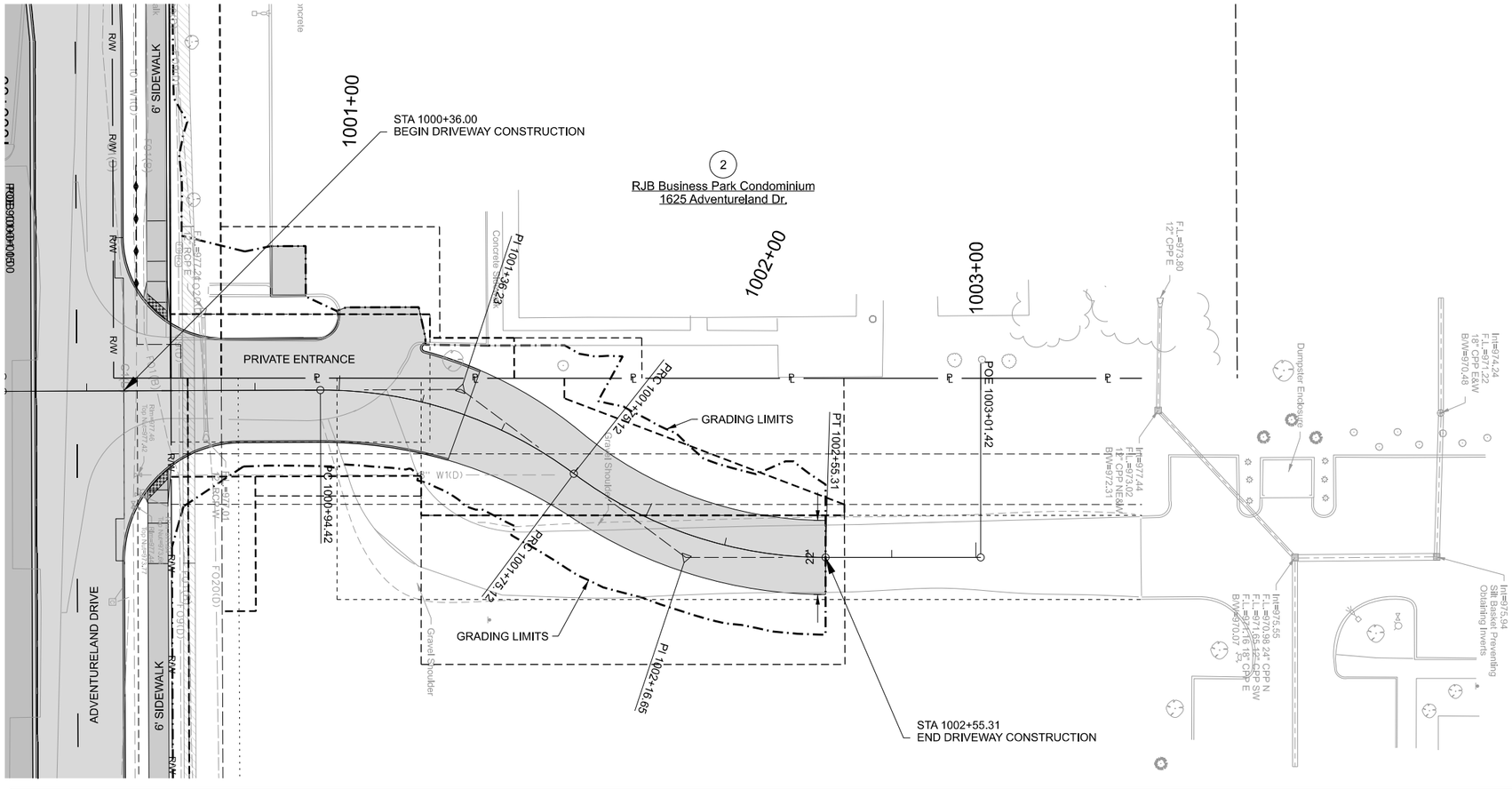

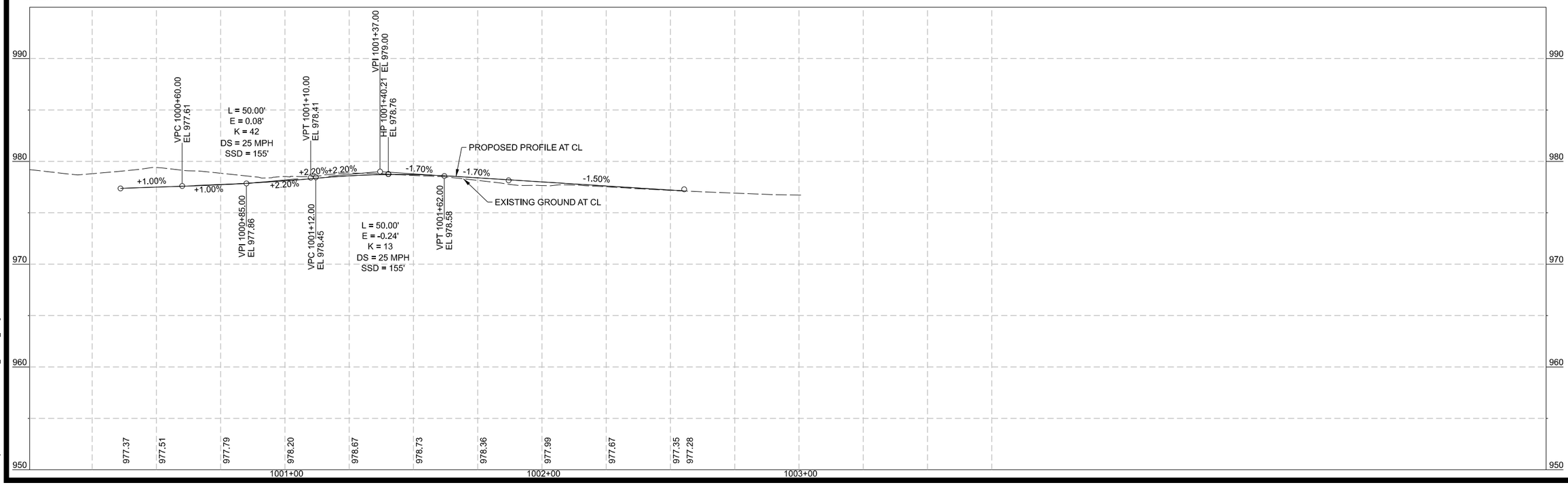

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet E.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TEMP ROAD PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet E.3

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19
Avenue Living US Operating LP No. 20

3
Signature Ernst Land Development LLC
1545 Adventureland Dr NW

18
Adventureland Village Partners LLC
807 14th Ave NW

4
Signature Ernst Land Development LLC
1375 Adventureland Dr NW

0 20 40
FEET

201+00 202+00 203+00 204+00 205+00 206+00

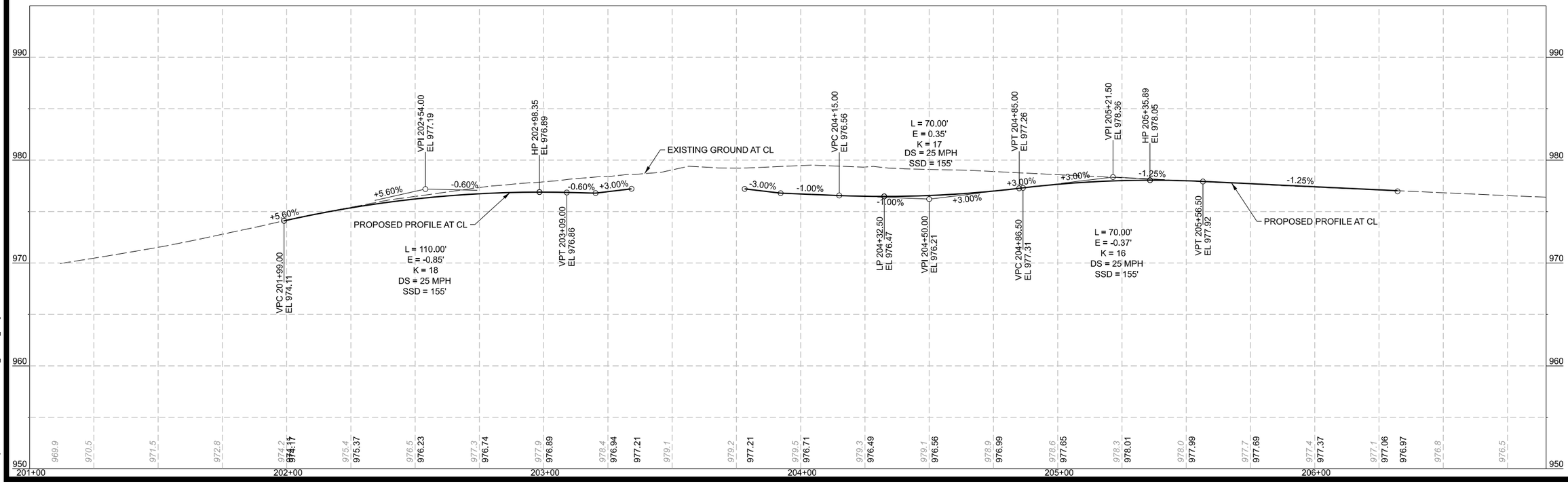
STA 201+99.00
BEGIN CONSTRUCTION

STA 203+20.19
END CONSTRUCTION

STA 203+92.19
BEGIN CONSTRUCTION

STA 206+32.18
END CONSTRUCTION

14TH AVENUE NW
BLUE RIDGE PL NW
ADVENTURELAND DRIVE
50' ROW
26' B/B
39' EASEMENT
30' EASEMENT
6' SIDEWALK
PRIVATE STREET
3A
Avenue Living US Operating LP No. 13
Altoona Town Sign
Concrete Block Wall
Ridge Commons Sign
Rim=979.83 Clean Out
Rim=979.12 Clean Out
Rim=976.72 Invert=974.31 6" Grass N
Rim=979.73 Top Nut=960.33
F.L.=963.84 12" RCP NW
Rim=978.14 F.L.=968.04 18" RCP NW F.L.=967.99 18" RCP S
Rim=977.58 F.L.=964.36 10" CPP W Bottom Weir=963.36 Invert=963.36 24" RCP E



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Engineer: LCL	Checked By: LEJ			Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026				

Project No: 1221679

Sheet E.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

14TH AVENUE NW PLAN AND PROFILE

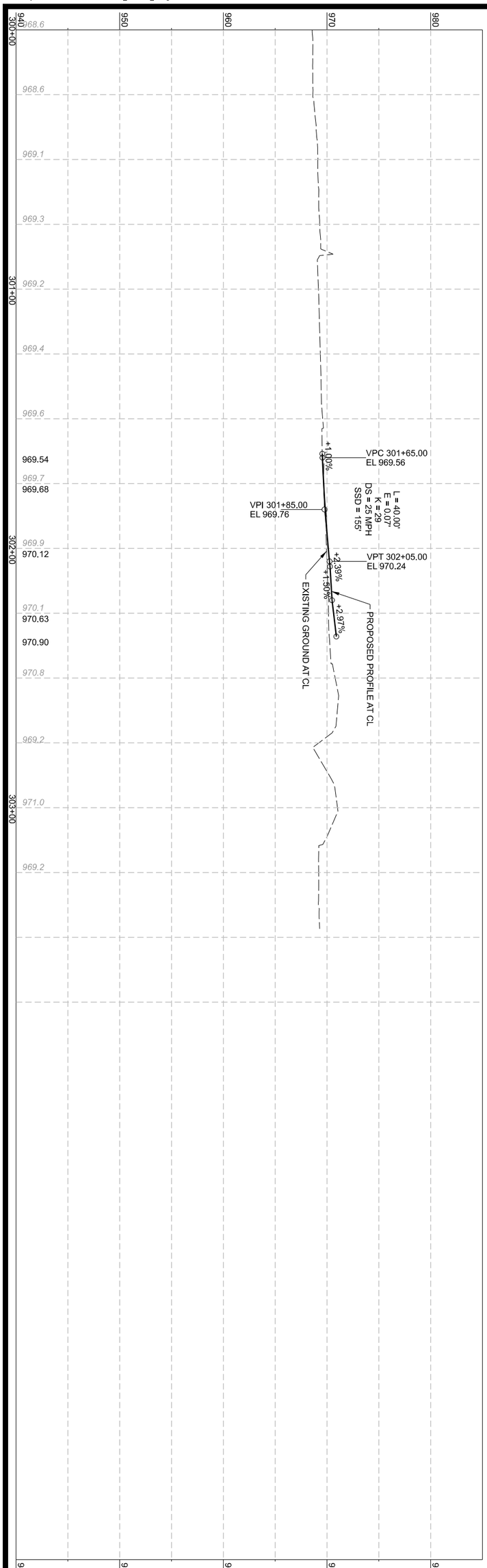
ALTOONA, IA

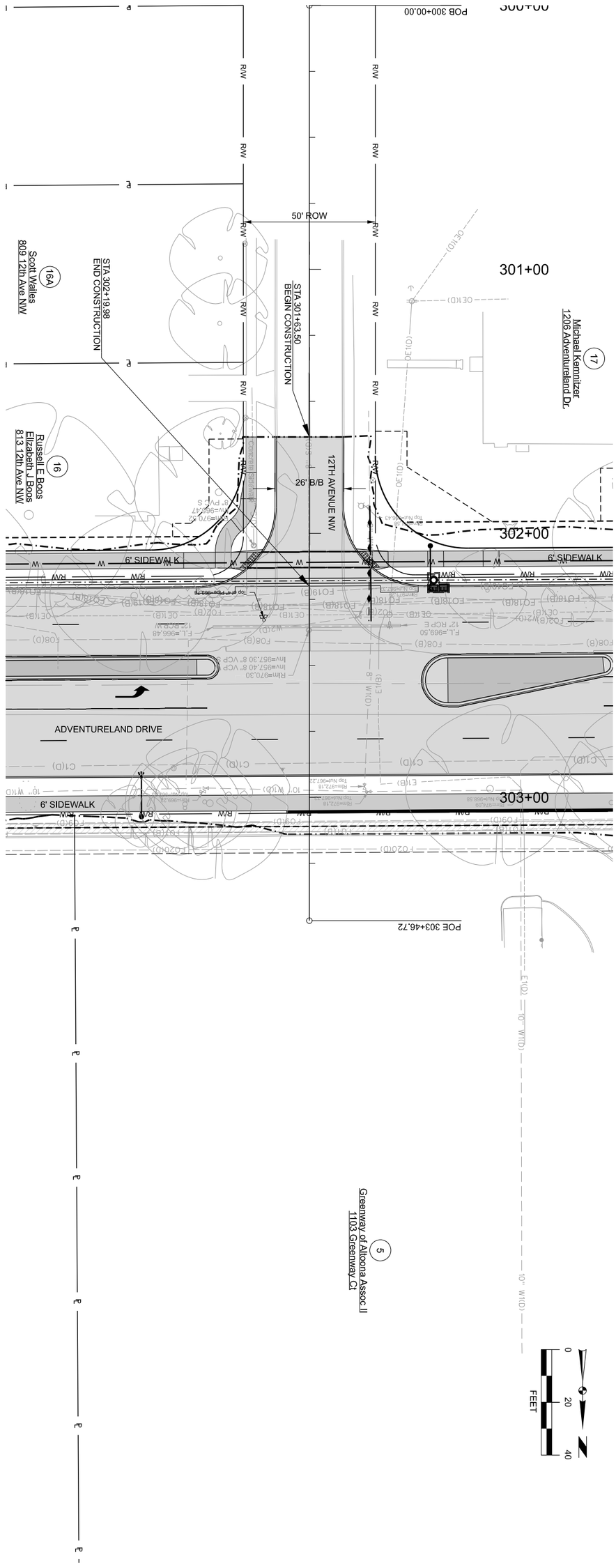
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet E.4





SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

12TH AVENUE NW PLAN AND PROFILE

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

DOT	STP-U-0132(628)--70-77		
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet E.5	

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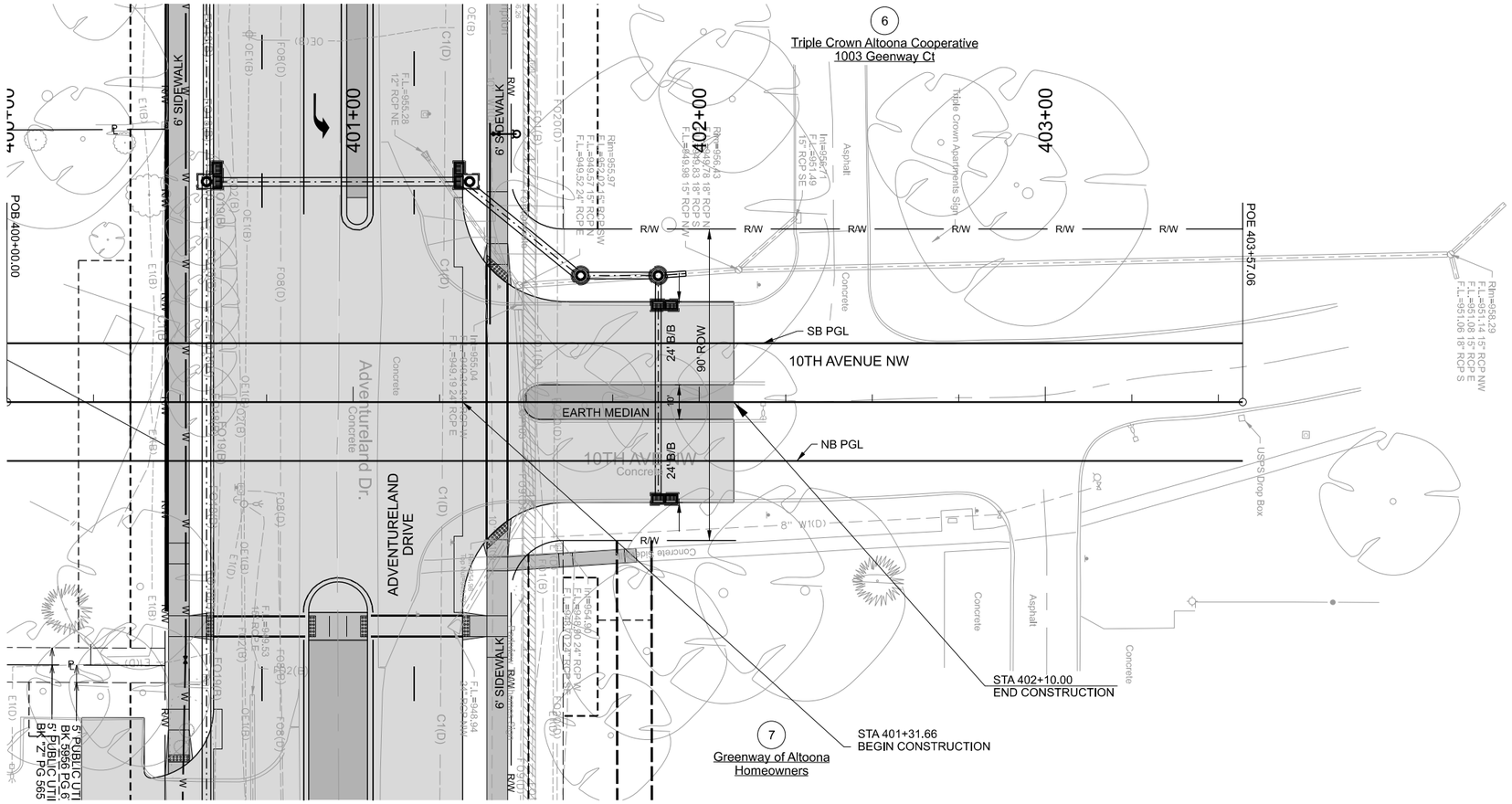

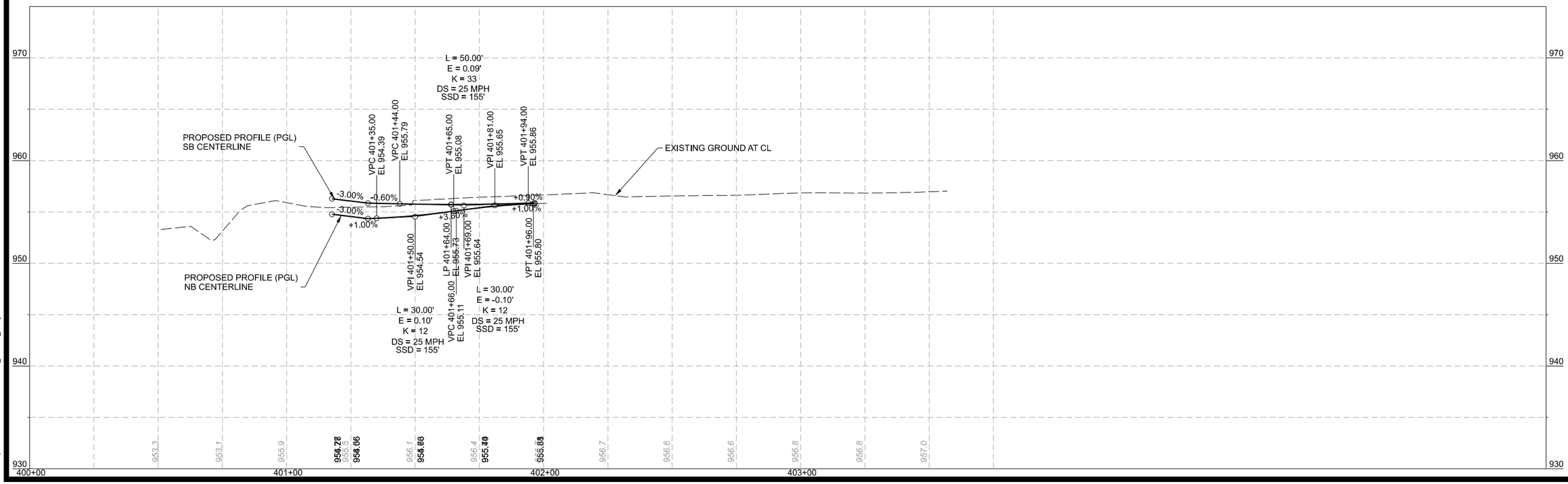

DOT	STP-U-0132(628)--70--77				

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13
Avenue Living US
Operating LP No. 19

7
Greenway of Altoona
Homeowners

8
City Of Altoona

12
Betty M McCormick
813 10th Ave NW

501+00
502+00
503+00

STA 501+30.00
BEGIN CONSTRUCTION

STA 501+91.05
END CONSTRUCTION

PI 501+36.32
R
RW
Concrete Sidewalk

70' ROW

41' B/B

10TH AVENUE NW

6' SIDEWALK

PC 501+88.17
PI 501+36.32
Δ 22°24'45" (RT)
T 48.14'
L 95.06'
R 243.01'

PT 501+83.23

ADVENTURELAND DRIVE

POE 503+23.52

House

EB

6" S(D)
24" S(D)
24" S(C)

Rim=946.69
Inv=936.57 6" Truss W
Inv=934.82 24" Truss N
Inv=934.82 24" Truss SE

0 20 40
FEET

PROPOSED PROFILE AT CL

EXISTING GROUND AT CL

VPI 501+58.00
EL 946.56

HP 501+63.77
EL 946.41

+1.58%

-1.00%

VPC 501+33.00
EL 946.16

L = 50.00'
E = -0.16'
K = 19
DS = 25 MPH
SSD = 155'

VPT 501+83.00
EL 946.31

960
950
940
930
920

945.7 946.0 946.11 946.5 946.36 947.1 946.37 946.23 947.7 948.3 945.0 947.4 947.7

500+00 501+00 502+00 503+00

DOT	STP-U-0132(628)--70--77				
		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
		Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet E.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

10TH AVENUE NW PLAN AND PROFILE

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet E.7

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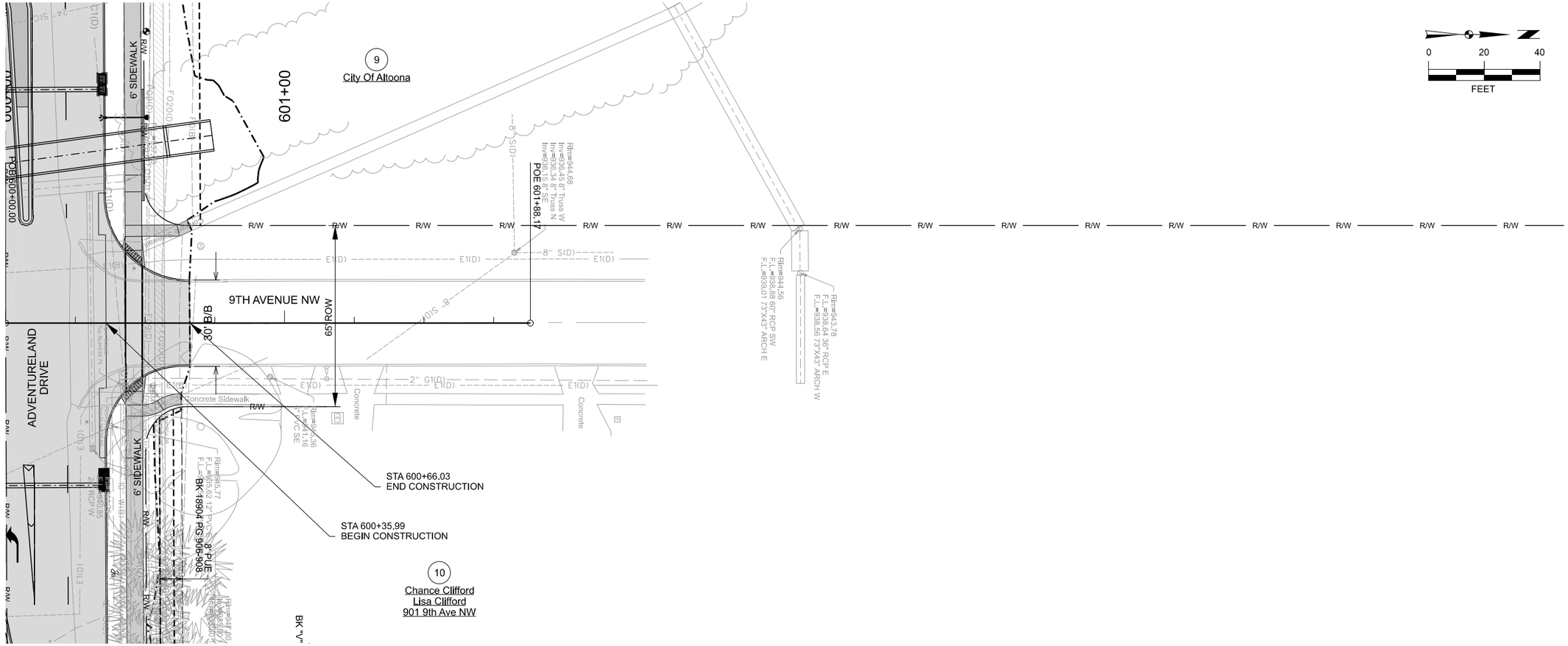

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MARK:	REVISION	DATE:	BY:	
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:	
Technician: KSB	Date: 8/17/2026			

Project No: 1221679

Sheet E.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

9TH AVENUE NW PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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Project No: 1221679

Sheet E.8

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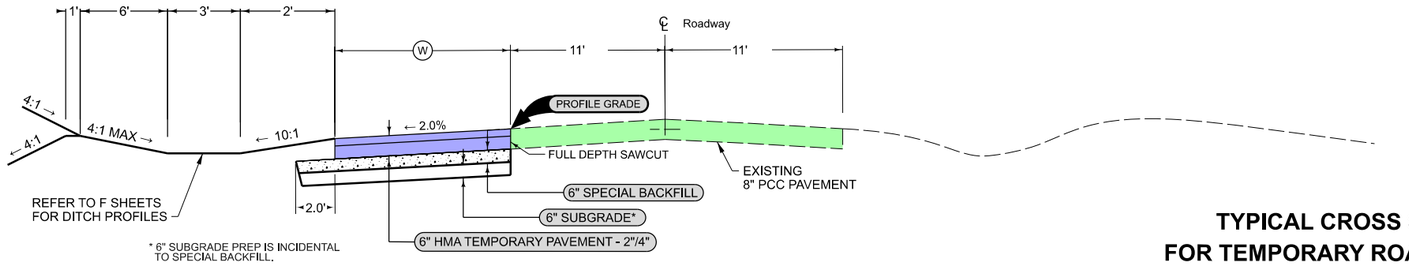
Temporary Pavement Widening				
Stage	Begin Station	End Station	W	Side
1	18+77.44	20+47.96	4.0-21.0	LT
1	20+47.96	31+22.00	21.0	LT
1	31+22.00	31+62.00	21.0-25.0	LT
2	18+40.74	20+60.74	5.5-27.4	RT
2	20+60.74	20+88.50	27.5	RT
3	18+78.00	30+88.50	25.0	LT
5	10+38.34	11+30.54	4.7- 10.5	LT
5	11+30.54	12+71.27	10.5-23	LT
5	12+71.27	18+77.30	23.0	LT

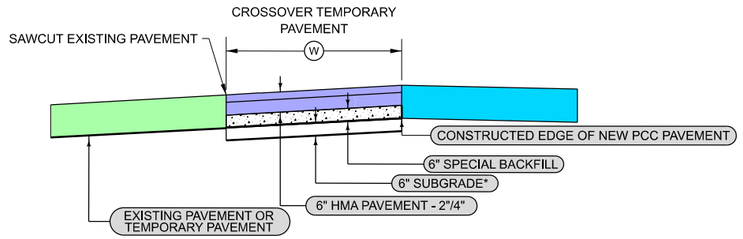


TYPICAL CROSS SECTION FOR TEMPORARY ROAD WIDENING AND TEMPORARY PAVEMENT ADVENTURELAND DRIVE NW 10+39.91 - 31+62.00

NOTES:

1. REFER TO F- SHEETS FOR LOCATIONS, LAYOUTS, AND GEOMETRICS.

Cross over Pavement and Tie-Ins				
Stage	Begin Station	End Station	W	Side
1	27+06.69	27+81.38	8.25'	LT
1	31+22	31+62	11	LT
2	20+25	20+88.5	8.5	LT
2	21+64.39	21+85.76	VAR	RT
3	20+25	20+88.50	11	LT
3	26+95.5	27+46	17	BOTH
5	16+86.77	17+30.48	10-27	LT
6	12+85.60	13+39.60	19.5	BOTH



* 6" SUBGRADE PREP IS INCIDENTAL
TO SPECIAL BACKFILL.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	NTS'
Technician: KSB	Date: 8/18/2026	Sheet	F.1
	DOT STP-U-0132(628)--70--77 Project No: 1221679		

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

DETOUR PAVEMENT

ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD ANKENY, IOWA 50023 515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet F.1

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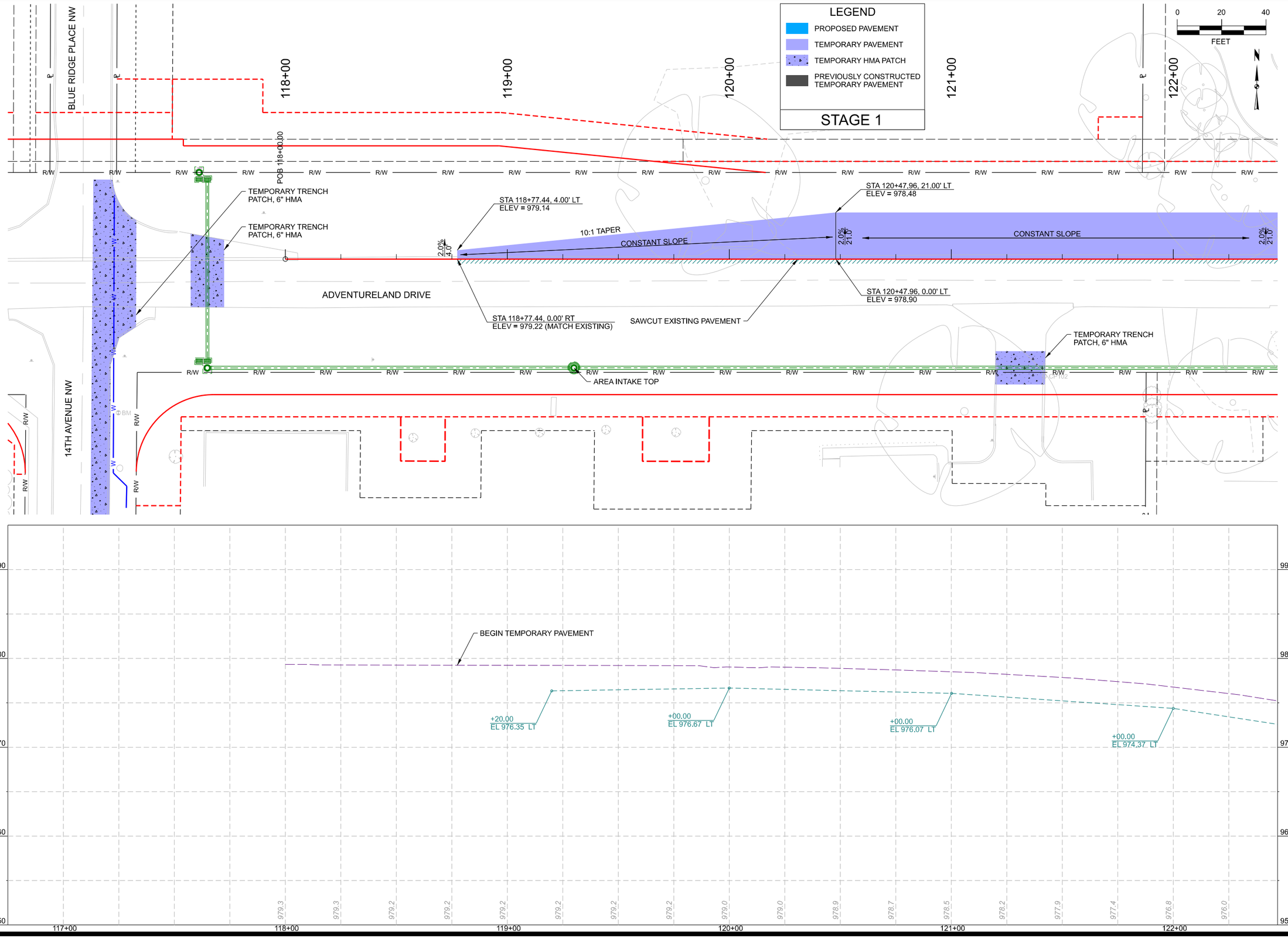

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Engineer: LCL	Checked By: LEJ	20'	T-R-S:
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet F.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

DETOUR PAVEMENT

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet F.2

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LEGEND

- PROPOSED PAVEMENT
- TEMPORARY PAVEMENT
- TEMPORARY HMA PATCH
- PREVIOUSLY CONSTRUCTED TEMPORARY PAVEMENT

STAGE 1

0 20 40 FEET

N

123+00 124+00 125+00 126+00 127+00 128+00

10TH AVENUE NW

12TH AVENUE NW

ADVENTURELAND DRIVE

CONSTANT SLOPE

2.0% 21.0'

TEMPORARY TRENCH PATCH, 6" HMA

TEMPORARY TRENCH PATCH, 6" HMA

TEMPORARY TRENCH PATCH, 6" HMA

SPECIAL SHAPING

8.25'

STA 127+44.75, 28.92' LT
ELEV = 955.50 (M.E.)

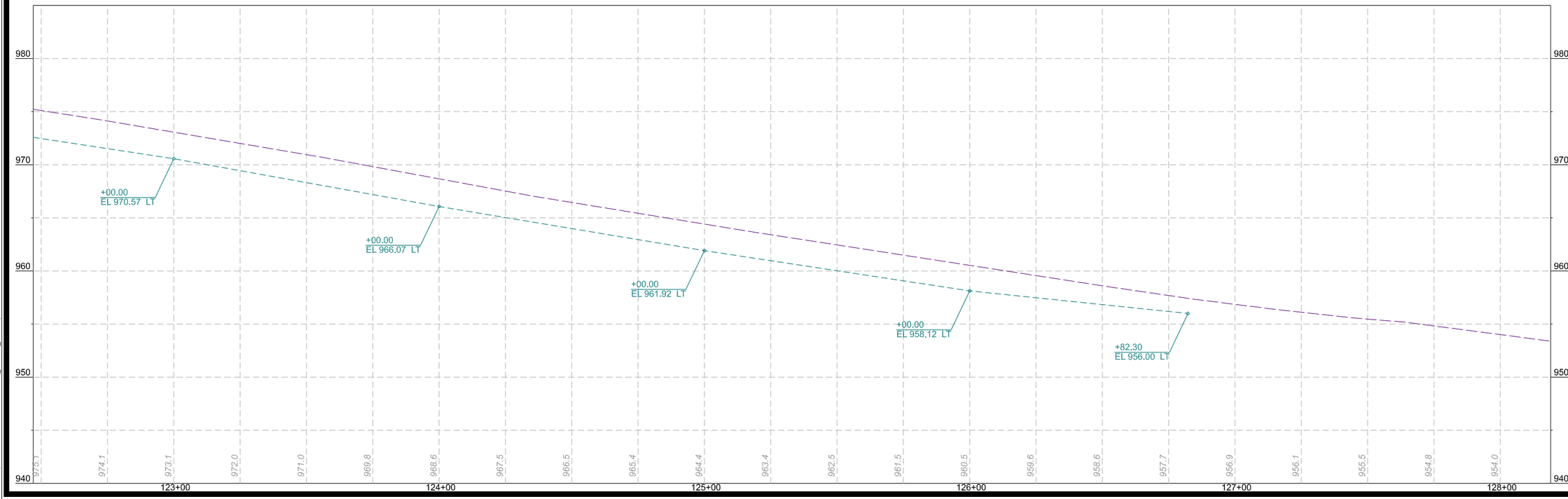
STA 127+14.13, 29.25' LT
ELEV = 955.43 (M.E.)

STA 127+75.37, 28.59' LT
ELEV = 954.76 (M.E.)

STA 127+81.38, 21.00' LT
ELEV = 954.17

STA 127+06.69, 21.00' LT
ELEV = 956.21

R/W



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Technician: KSB	Date: 8/18/2026	T-R-S:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet F.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

DETOUR PAVEMENT

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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Project No: 1221679

Sheet F.3

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Stage 1 - F4 [Sheet]

LEGEND

- PROPOSED PAVEMENT
- TEMPORARY PAVEMENT
- TEMPORARY HMA PATCH
- PREVIOUSLY CONSTRUCTED TEMPORARY PAVEMENT

STAGE 1

0 20 40
FEET

129+00 130+00 131+00 132+00

STA 131+62.00, 25.00' LT
ELEV = 945.36 M.E.

STA 131+62.00, 11.00' LT
ELEV = 946.78

STA 131+62.00, 0.00' LT
ELEV = 946.43 M.E.

POE 132+30.66

STA 131+22.00, 21.00' LT
ELEV = 946.72

STA 131+22.00, 10.93' RT
ELEV = 947.40

STA 131+22.00, 0.00' RT
ELEV = 947.07 M.E.

STA 131+62.05, 10.87' RT
ELEV = 946.16

CONSTANT SLOPE
2.0% 21.0'

UNIFORM TRANSITION
2.0% 21.0' → 3.0% 14.0'

CONSTANT SLOPE
2.0% 11.0'

UNIFORM TRANSITION
2.0% 11.0' → 1.0% 11.0'

SAWCUT EXISTING PAVEMENT

ADVENTURELAND DRIVE

TEMPORARY TRENCH PATCH, 6" HMA

TEMPORARY TRENCH PATCH, 6" HMA

TEMPORARY TRENCH PATCH, 6" HMA

9TH AVENUE NW

10TH AVENUE NW

R/W

℄

BM

970
960
950
940
930

END TEMPORARY PAVEMENT

-2.00%

+50.00
EL 948.30 LT

+50.00
EL 947.60 LT

+62.00
EL 944.44 LT

129+00	130+00	131+00	132+00	133+00
953.2	949.74	947.75	946.75	945.8
952.5	949.24	947.25	946.25	945.6
951.9	948.74	947.0	946.01	
951.4	948.24	946.6	946.2	
950.8	947.8	947.4		
950.2	948.3			
950.00				
949.8				
949.3				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		20'
Technician: KSB	Date: 8/18/2026	T-R-S:	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet F.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

DETOUR PAVEMENT

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet F.4

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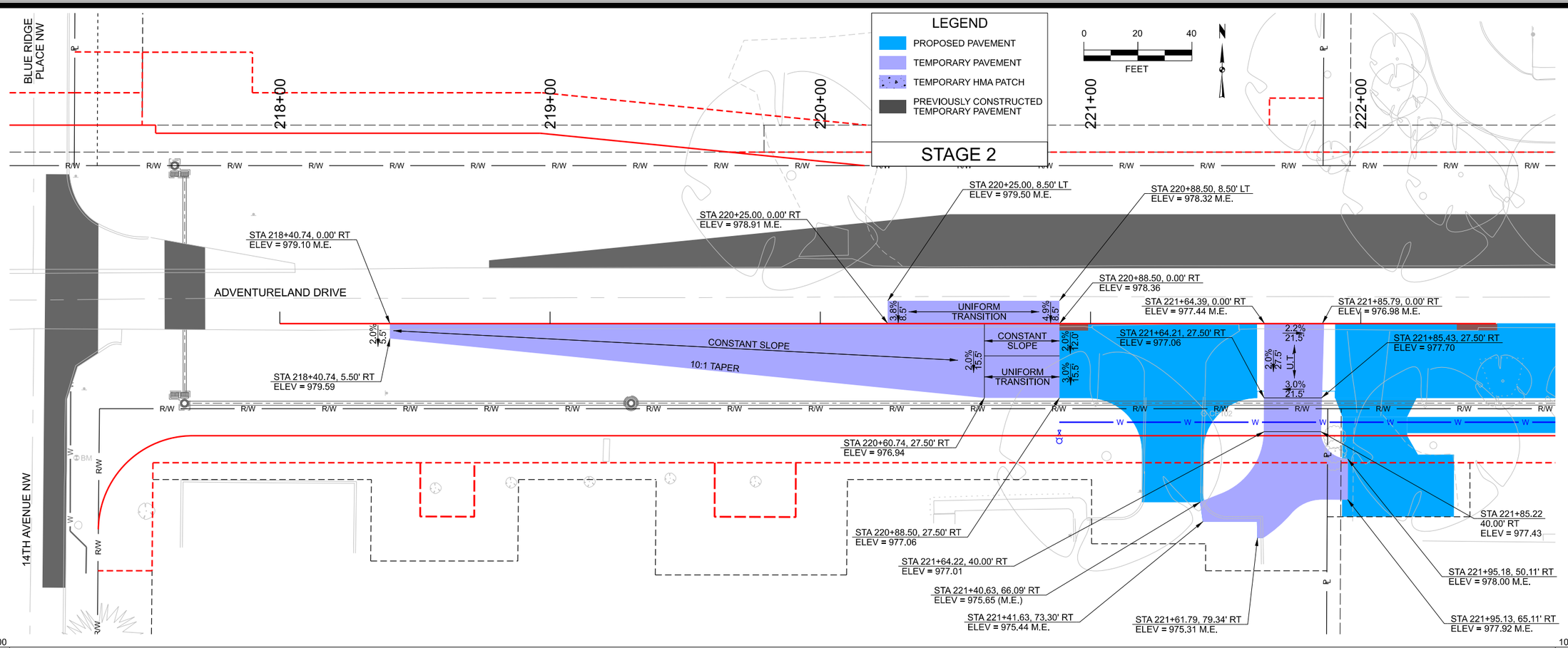

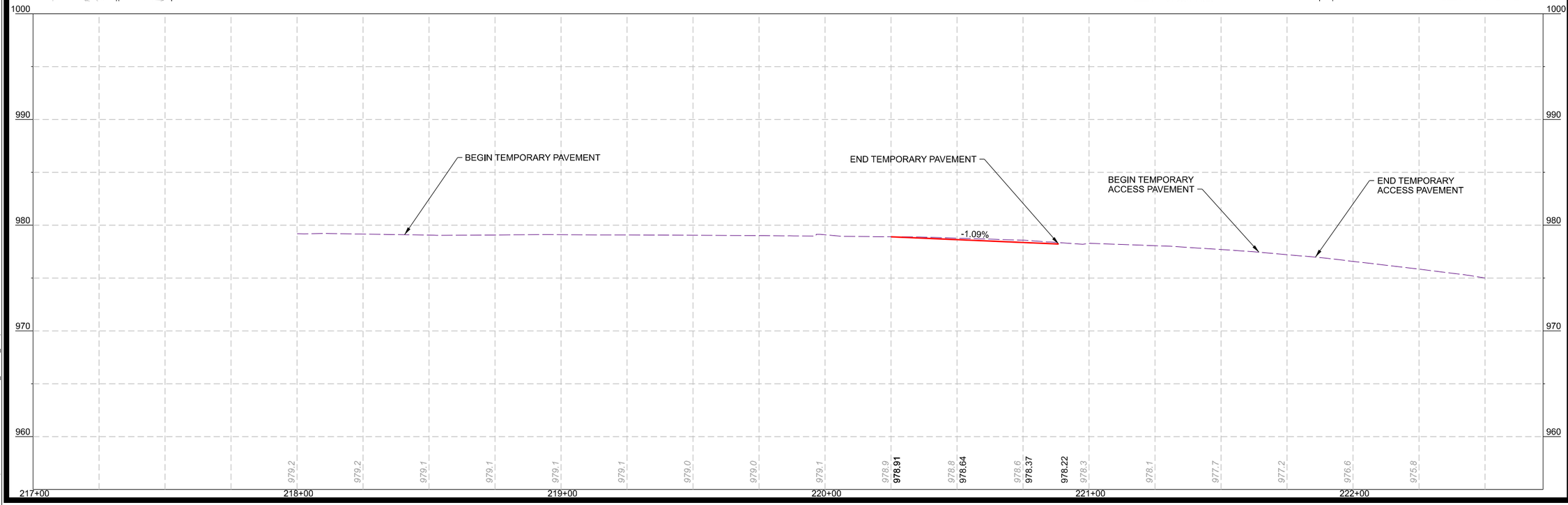

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Technician: KSB	Date: 8/18/2026	T-R-S:	
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	F.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

DETOUR PAVEMENT

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet F.5

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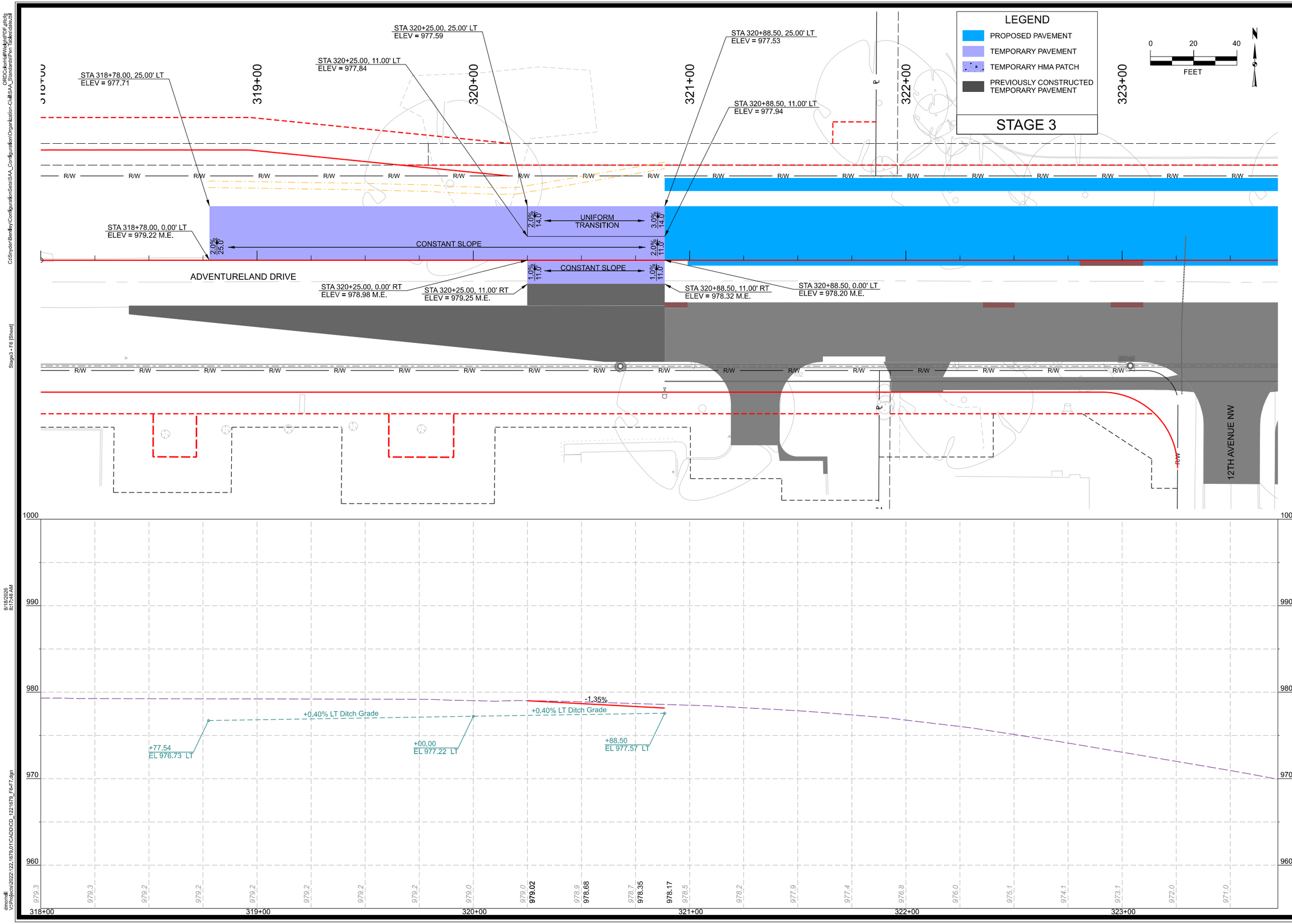

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Technician: KSB	Date: 8/18/2026	T-R-S:	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet F.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

DETOUR PAVEMENT

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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ANKENY, IOWA 50023
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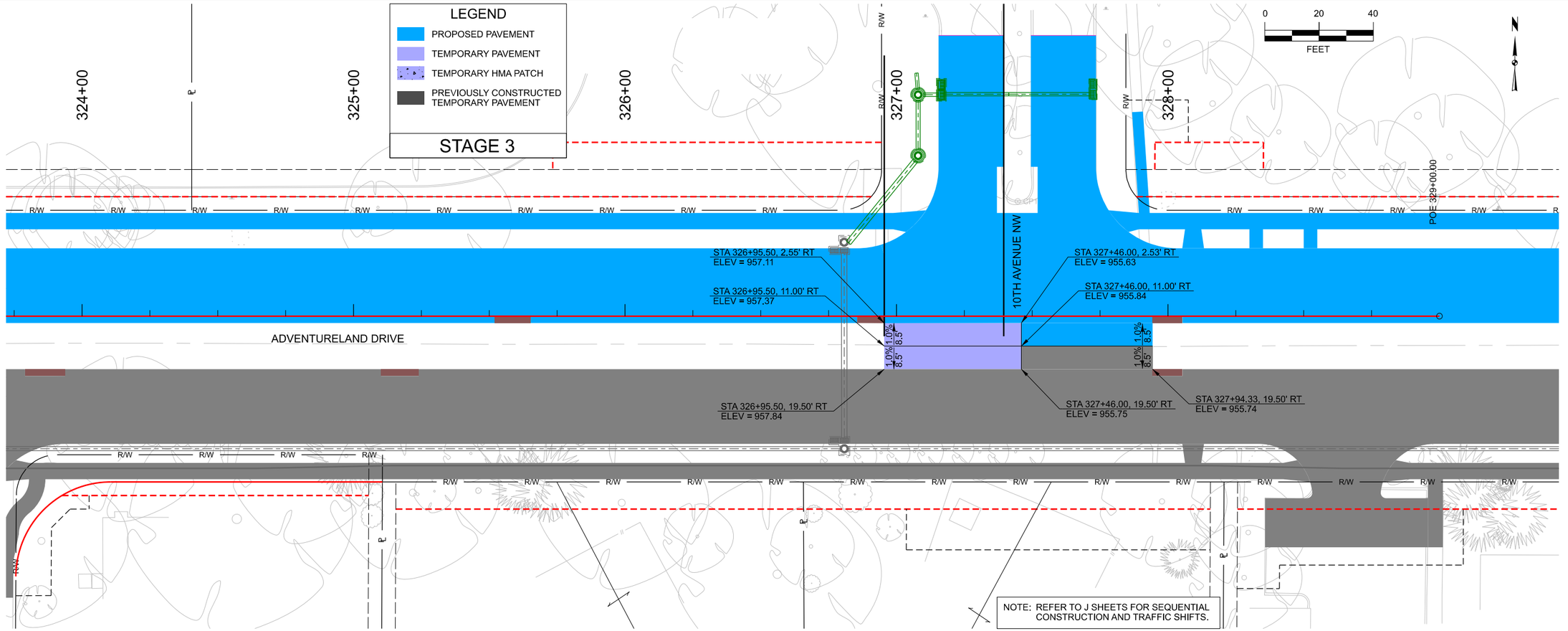
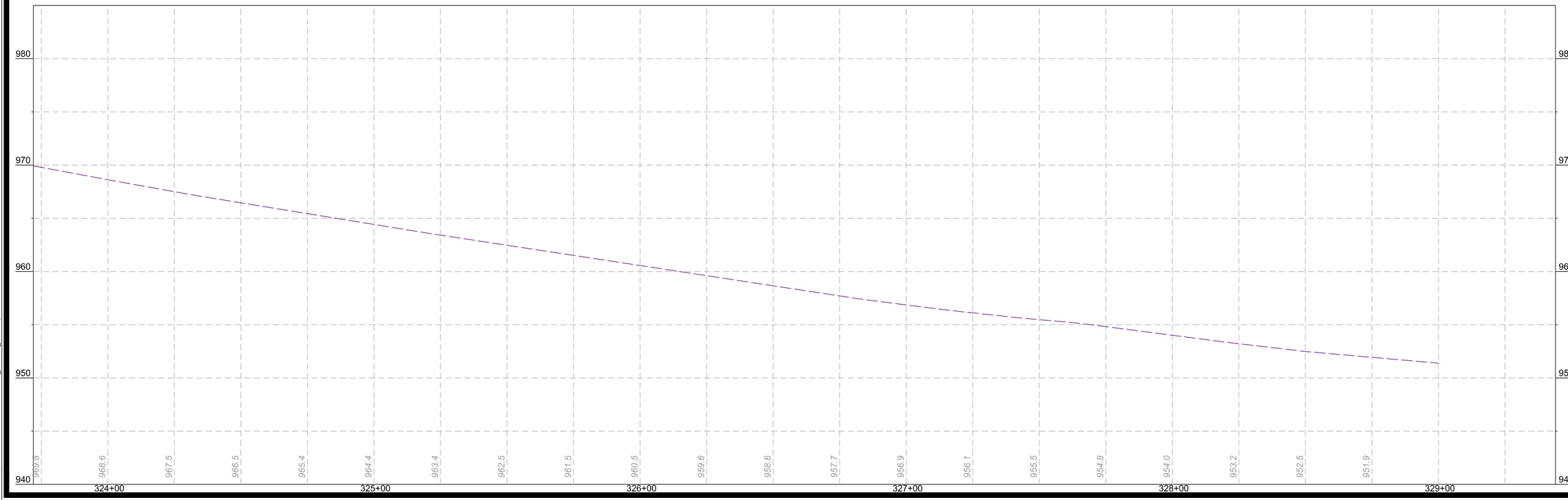
Project No: 1221679

Sheet F.6





MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	20'	
Technician: KSB	Date: 8/18/2026	T-R-S:	
	DOT STP-U-0132(628)--70--77 Project No: 1221679	Sheet	F.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

DETOUR PAVEMENT

SNYDER & ASSOCIATES, INC.
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet F.7

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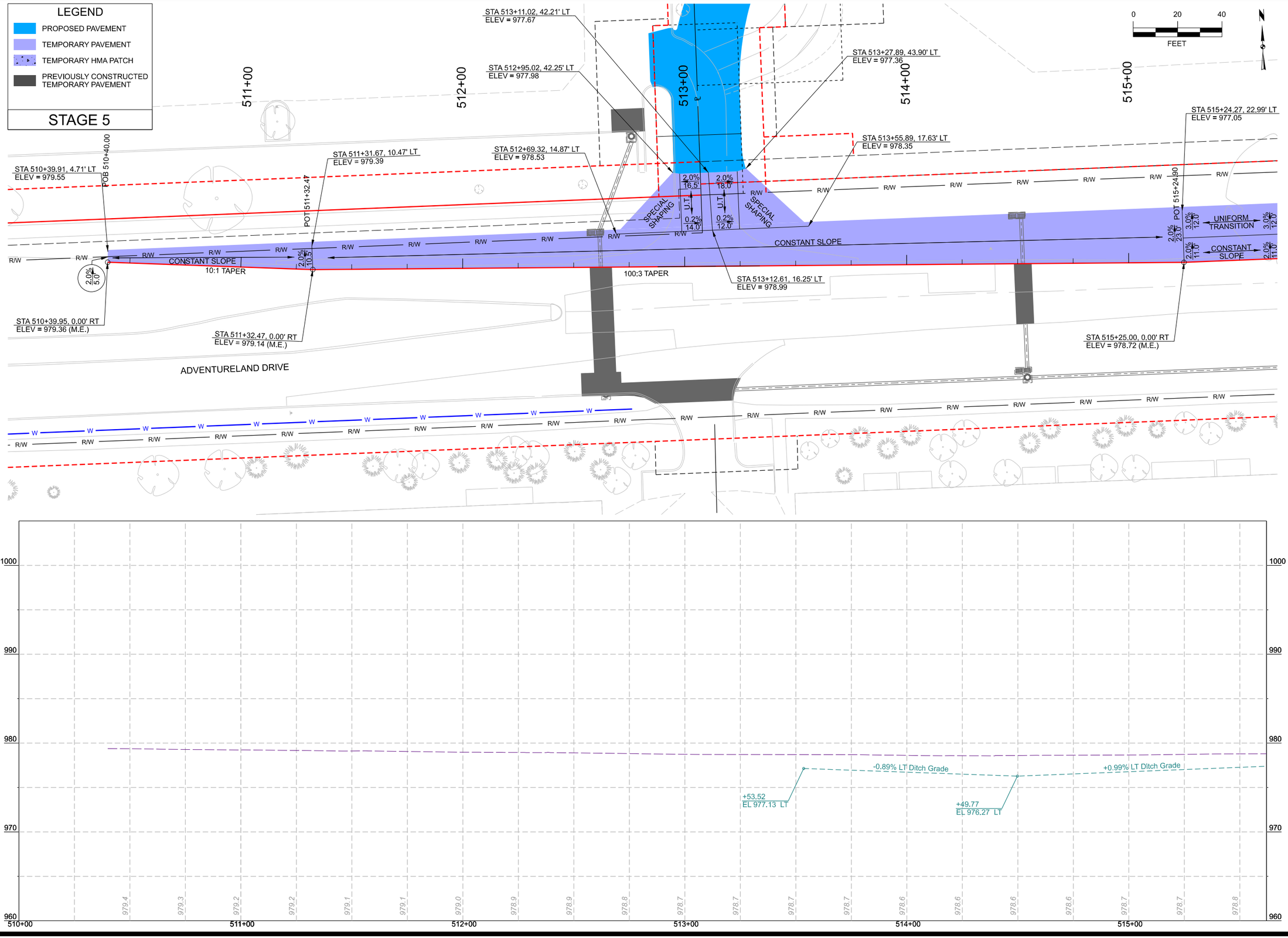

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	20'	T-R-S:
Technician: KSB	Date: 8/18/2026		
	DOT STP-U-0132(628)--70--77 Project No: 1221679	Sheet	F.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

DETOUR PAVEMENT

ALTOONA, IA

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SNYDER & ASSOCIATES

Project No: 1221679

Sheet F.8

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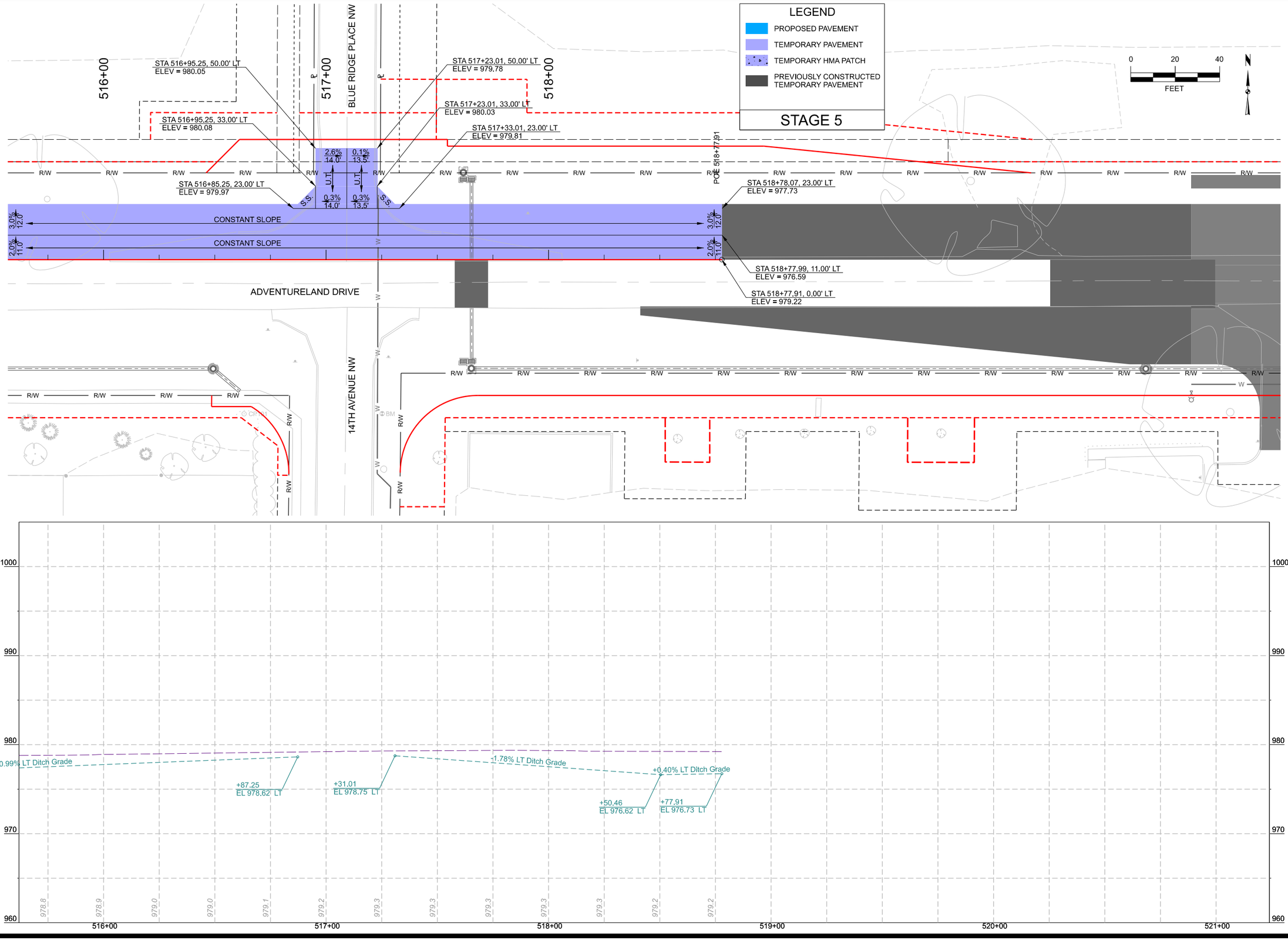

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	20'	
Technician: KSB	Date: 8/18/2026	T-R-S:	
	DOT STP-U-0132(628)--70-77	Sheet	F.9
	Project No: 1221679		

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

DETOUR PAVEMENT

ALTOONA, IA

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Project No: 1221679

Sheet F.9

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Stage7 - F10 [Sheet]

LEGEND

- PROPOSED PAVEMENT
- TEMPORARY PAVEMENT
- TEMPORARY HMA PATCH
- PREVIOUSLY CONSTRUCTED TEMPORARY PAVEMENT

STAGE 7

0 20 40
FEET

9+00 10+00 11+00 12+00 13+00 14+00

CP100

POT 8+83.23

STA 12+85.60, 8.50' LT
ELEV = 979.01

STA 13+39.60, 8.50' LT
ELEV = 978.95

R/W

ADVENTURELAND DRIVE

4.3%
19.5'
UNIFORM TRANSITION
5.7%
19.5'

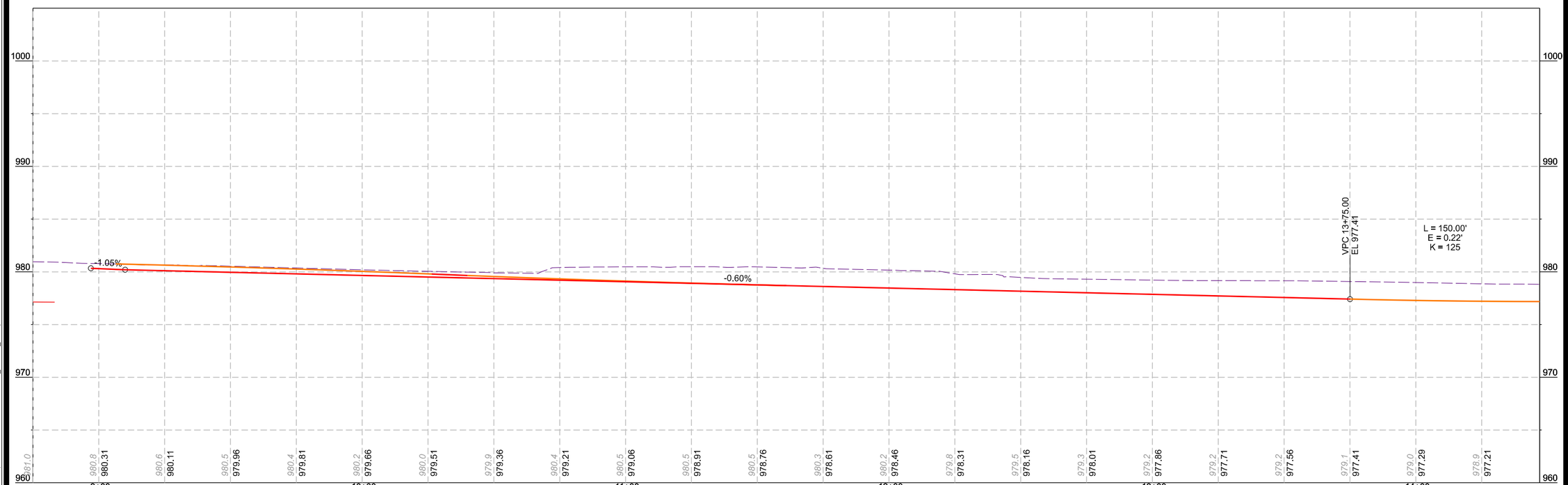
STA 12+85.60, 11.00' RT
ELEV = 978.16
(MATCH NEW CONSTRUCTION)

STA 13+39.60, 11.00' RT
ELEV = 977.84
(MATCH NEW CONSTRUCTION)

W

℄

NOTE: CONSTRUCT TEMPORARY PAVEMENT PRIOR TO EAST PERMANENT PAVEMENT CONSTRUCTION.



MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	20'	T-R-S:
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet F.10

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

DETOUR PAVEMENT

ALTOONA, IA

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SNYDER & ASSOCIATES

Project No: 1221679

Sheet F.10

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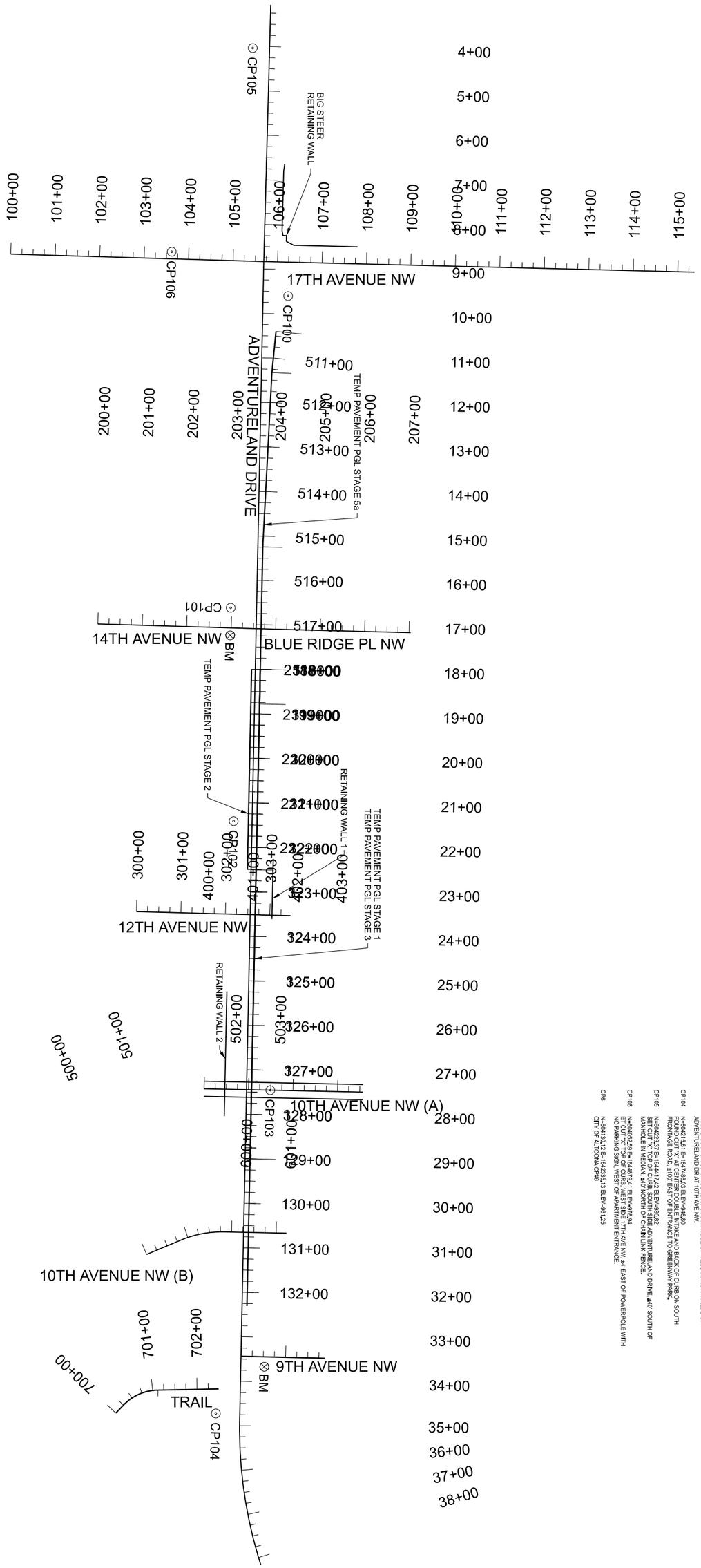

BENCHMARKS

HORIZONTAL DATUM IS NAD83(2011) DATUM OF 1988 (NAVD88 - GEOID12A)
VERTICAL DATUM IS NAVD88(2012) DERIVED FROM GPS OBSERVATIONS AND HOLDING GEOID12A
IA RTN DERIVED - US SURVEY FEET

BM100 N=604205.6 E=1645738.6 ELEV=960.85
CENTER BOLT TOP OF HYDRANT AT SOUTHEAST CORNER OF ADVENTURELAND DR. AND 14TH AVE NW.

BM101 N=604400.5 E=1645378.0 ELEV=948.57
CENTER BOLT TOP OF HYDRANT AT NORTHEAST CORNER OF ADVENTURELAND DR. AND 9TH AVE NW.

CONTROL POINTS

HORIZONTAL DATUM IS NAD83(2011) COORDINATE SYSTEM
NORTH ZONE (FIPSZONE 1401) DERIVED FROM RTN
NAD83(2011)EPOCH:2010.00 RTN DERIVED - US SURVEY FEET

CP100 N=604116.93 E=1646972.51 ELEV=961.36
FOUND 1/2" REBAR WITH YELLOW PLASTIC CAP AT BASE OF SIDEWALK, NORTHEAST CORNER OF ADVENTURELAND DR AND 17TH AVE NW.

CP101 N=604400.70 E=1645575.95 ELEV=977.68
FOUND 1/2" REBAR WITH RED PLASTIC CAP, 4' NORTH OF "ALTOONA TOWERS" SIGN, SOUTHEAST CORNER ADVENTURELAND DR & 14TH AVE NW.

CP102 N=604222.98 E=1646155.12 ELEV=977.21
FOUND 1/2" REBAR WITH YELLOW PLASTIC CAP, NORTH END OF CURB AT EAST ENTRANCE.

CP103 N=604320.24 E=1646872.47 ELEV=956.11
FOUND CUT 'X' TOP OF CURB AT SOUTH NOSE OF MEDIAN, NORTH SIDE OF ADVENTURELAND DR AT 10TH AVE NW.

CP104 N=604215.61 E=1647856.03 ELEV=946.80
FOUND 1/2" REBAR WITH YELLOW CAP, 1.5' NORTH OF FRONTAGE ROAD, 110' EAST OF ENTRANCE TO GREENWAY PARK.

CP105 N=604523.37 E=1644117.42 ELEV=969.82
SET CUT 'X' TOP OF CURB, SOUTH SIDE ADVENTURELAND DRIVE, 49' SOUTH OF MANHOLE IN MEDIAN, 40' NORTH OF CHAIN LINK FENCE.

CP106 N=604052.89 E=1648781.41 ELEV=975.94
FOUND 1/2" REBAR WITH YELLOW CAP, 1.5' WEST OF POWERPOLE WITH NO PARKING SIGN, WEST OF APARTMENT ENTRANCE.

CP6 N=604130.12 E=1642035.10 ELEV=961.25
CITY OF ALTOONA CP#6

DATE OF SURVEY

JANUARY 12, 2023

DOT	STP-U-0132(628)--70-77		
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet G.1	

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SURVEY SHEETS — ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD ANKENY, IOWA 50023 515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 1221679
Sheet G.1

Alignment Name: ADVENTURELAND DRIVE
Alignment Description:
Alignment Style: Alignment\Geom_Baseline

	Station	Northing	Easting
Element: Linear			
START(START)	306.340	604261.382	1644319.357
HPI(HPI)	883.229	604260.087	1644896.245
Tangential Direction:S89.871°E			
Tangential Length: 576.889			
Element: Linear			
HPI(HPI)	883.229	604260.087	1644896.245
PC(PC)	3488.935	604269.722	1647501.933
Tangential Direction:N89.788°E			
Tangential Length: 2605.706			
Element: Circular			
PC (PC)	3488.935	604269.722	1647501.933
HPI (HPI)	3654.323	604270.631	1647667.319
CC (CC)		605269.706	1647496.431
PT (PT)	3816.744	604324.742	1647823.605
Radius: 1000.000			
Delta: 18.782 Left			
Degree of Curvature (Arc):5.730			
Length: 327.809			
Tangent:165.388			
Chord: 326.343			
Middle Ordinate:13.402			
External:13.584			
Back Tangent Direction: N89.685°E			
Back Radial Direction: S0.315°E			
Chord Direction: N80.294°E			
Ahead Radial Direction: S19.097°E			
Ahead Tangent Direction:N70.903°E			

Alignment Name: 17TH AVENUE NW
Alignment Description:
Alignment Style: Alignment\Geom_Baseline

	Station	Northing	Easting
Element: Linear			
START(START)	10000.000	603690.931	1644893.568
HPI (HPI)	10569.162	604260.087	1644896.245
Tangential Direction:N0.269°E			
Tangential Length: 569.162			
Element: Linear			
HPI (HPI)	10569.162	604260.087	1644896.245
END (END)	11537.572	605228.496	1644896.327
Tangential Direction:N0.005°E			
Tangential Length: 968.409			

Alignment Name: Stage1Temp1
Alignment Description:
Alignment Style: Alignment\Geom_Baseline
Station Northing Easting

Element: Linear			
START (START)	11800.000	604274.477	1645812.969
END (END)	13230.662	604279.766	1647243.621
Tangential Direction:	N89.788°E		
Tangential Length: 1430.662			

Alignment Name: Temp_Stage2
Alignment Description:
Alignment Style: Alignment\Geom_Baseline
Station Northing Easting

Element: Linear			
START (START)	21800.000	604254.977	1645813.041
END (END)	22250.000	604256.641	1646263.038
Tangential Direction:	N89.788°E		
Tangential Length: 450.000			

Alignment Name: Temp_Stage3
Alignment Description:
Alignment Style: Alignment\Geom_Baseline
Station Northing Easting

Element: Linear			
START (START)	31811.000	604274.477	1645812.969
END (END)	32911.000	604278.544	1646912.962
Tangential Direction:	N89.788°E		
Tangential Length: 1100.000			

Alignment Name: 14th AVENUE NW
Alignment Description:
Alignment Style: Alignment\Geom_Baseline

	Station	Northing	Easting
Element: Linear			
START(START)	20000.000	603906.953	1645719.681
HPI (HPI)	20394.438	604301.385	1645721.841
Tangential Direction:N0.314°E			
Tangential Length: 394.438			
Element: Linear			
HPI (GeomBLSec)	20394.438	604301.385	1645721.841
END (END)	20703.294	604610.241	1645721.981
Tangential Direction:	N0.026°E		
Tangential Length: 308.857			

Alignment Name: 12th AVENUE NW
Alignment Description:
Alignment Style: Alignment\Geom_Baseline

	Station	Northing	Easting
Element: Linear			
START(START)	30000.000	604009.531	1646363.579
END (END)	30346.725	604356.254	1646364.335
Tangential Direction:N0.125°E			
Tangential Length: 346.725			

Alignment Name: 10th AVENUE NW (A)
Alignment Description:
Alignment Style: Alignment\Geom_Baseline_Secondary

	Station	Northing	Easting
Element: Linear			
START(START)	40000.000	604171.307	1646757.872
END (END)	40357.062	604528.367	1646756.552
Tangential Direction:N0.212°W			
Tangential Length: 357.062			

Alignment Name: Temp_Stage5
Alignment Description:
Alignment Style: Alignment\Geom_Baseline
Station Northing Easting

Element: Linear			
START (START)	51040.000	604291.166	1645052.902
HPI (HPI)	51132.466	604284.507	1645145.128
Tangential Direction:	S85.870°E		
Tangential Length: 92.466			
Element: Linear			
HPI (HPI)	51132.466	604284.507	1645145.128
HPI (HPI)	51524.901	604273.458	1645537.408
Tangential Direction:	S88.387°E		
Tangential Length: 392.436			
Element: Linear			
HPI (HPI)	51524.901	604273.458	1645537.408
END (END)	51877.908	604274.763	1645890.412
Tangential Direction:	N89.788°E		
Tangential Length: 353.006			

Alignment Name: 10th AVENUE NW (B)
Alignment Description:
Alignment Style: Alignment\Geom_Baseline

	Station	Northing	Easting
Element: Linear			
START (START)	50000.000	604051.293	1647133.146
PC (PC)	50088.172	604131.747	1647097.070
Tangential Direction:N24.152°W			
Tangential Length:88.172			
Element: Circular			
PC (PC)	50088.172	604131.747	1647097.070
HPI (HPI)	50136.316	604176.187	1647078.549
CC (CC)	604225.230	1647321.380	
PT (PT)	50183.230	604224.331	1647078.371
Radius:243.010			
Delta:22.413Right			
Degree of Curvature (Arc):23.578			
Length:95.059			
Tangent:48.145			
Chord:94.454			
Middle Ordinate:4.633			
External:4.723			
Back Tangent Direction: N22.624°W			
Back Radial Direction: N67.376°E			
Chord Direction: N11.418°W			
Ahead Radial Direction: N89.788°E			
Ahead Tangent Direction:N0.212°W			
Element: Linear			
PT (PT)	50183.230	604224.331	1647078.371
END (END)	50323.518	604364.618	1647077.853
Tangential Direction:N0.212°W			
Tangential Length:140.288			

Alignment Name: 9th AVENUE NW
Alignment Description:
Alignment Style: Alignment\Geom_Baseline

	Station	Northing	Easting
Element: Linear			
START(START)	60000.000	604269.193	1647356.512
END (END)	60188.171	604457.364	1647356.683
Tangential Direction:N0.052°E			
Tangential Length: 188.171			

Alignment Name: Trail
Alignment Description:
Alignment Style: Alignment\Geom_Baseline
Station Northing Easting

Element: Linear			
START (START)	70000.000	603990.703	1647491.458
PC (PC)	70025.000	604007.554	1647472.991
Tangential Direction:	N47.619°W		
Tangential Length: 25.000			
Element: Circular			
PC (PC)	70025.000	604007.554	1647472.991
HPI (HPI)	70070.792	604038.421	1647439.165
CC (CC)	604088.809	1647547.138	
PT (PT)	70111.784	604084.172	1647437.235
Radius: 110.000			
Delta: 45.203 Right			
Degree of Curvature (Arc): 52.087			
Length: 86.784			
Tangent: 45.792			
Chord: 84.551			
Middle Ordinate: 8.448			
External: 9.151			
Back Tangent Direction: N47.619°W			
Back Radial Direction: N42.381°E			
Chord Direction: N25.017°W			
Ahead Radial Direction: N87.584°E			
Ahead Tangent Direction: N2.416°W			
Element: Linear			
PT (PT)	70111.784	604084.172	1647437.235
END (END)	70248.190	604220.461	1647431.580
Tangential Direction:	N2.376°W		
Tangential Length: 136.406			

Element: Linear
START (START) 80000.000 604300.692 1644684.330
HPI (HPI) 80008.002 604299.878 1644692.290
Tangential Direction: S84.161°E
Tangential Length: 8.002

Element: Linear
HPI (HPI) 80008.002 604299.878 1644692.290
HPI (HPI) 80141.960 604299.578 1644826.248
Tangential Direction: S89.871°E
Tangential Length: 133.959

Element: Linear
HPI (HPI) 80141.960 604299.578 1644826.248
HPI (HPI) 80152.834 604301.686 1644836.915
Tangential Direction: N78.819°E
Tangential Length: 10.873

Element: Linear
HPI (HPI) 80152.834 604301.686 1644836.915
HPI (HPI) 80160.713 604309.566 1644836.916
Tangential Direction: N0.005°E
Tangential Length: 7.880

Element: Linear
HPI (HPI) 80160.713 604309.566 1644836.916
HPI (HPI) 80173.611 604309.537 1644849.814
Tangential Direction: S89.871°E
Tangential Length: 12.898

Element: Linear
HPI (HPI) 80173.611 604309.537 1644849.814
HPI (HPI) 80192.473 604326.407 1644858.251
Tangential Direction: N26.570°E
Tangential Length: 18.862

Element: Linear
HPI (HPI) 80192.473 604326.407 1644858.251
END (END) 80335.789 604469.723 1644858.263
Tangential Direction: N0.005°E
Tangential Length: 143.316

Alignment Name: RETAINING WALL 1
Alignment Description:
Alignment Style: Linear\Walls\Wall_Top
Station Northing Easting

Element: Linear
START (ADVENT) 2225.000 604314.048 1646237.826
END (ADVENT) 2360.000 604314.547 1646372.825
Tangential Direction: N89.788°E
Tangential Length: 135.000

Alignment Name: REATINING WALL 2
Alignment Description:
Alignment Style: Linear\Walls\Wall_Top
Station Northing Easting

Element: Linear
START (ADVENT) 2525.000 604217.158 1646538.186
END (ADVENT) 2805.000 604218.193 1646818.184
Tangential Direction: N89.788°E
Tangential Length: 280.000

DOT STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		

Project No: 1221679 Sheet G.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SURVEY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679
Sheet G.2

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N

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FEET

1A
LVSM Holdings LLC

1
RL Fix Family Trust
SL Fix Family Trust
1715 Adventureland Dr.

21
Polk County
Prairie Meadows
1 Prairie Meadows Dr.

7.5' PUBLIC UTILITY EASEMENT

15' WATER MAIN EASEMENT
BK 10836 PG 55-57

30' INGRESS/EGRESS EASEMENT
BK 16636 PG 799-806

10' PUE
BK 16636 PG 799-806

5' GAS EASEMENT
BK 16636 PG 799-806

20' PUBLIC UTILITY EASEMENT

15' PUE

4+00 5+00 6+00 7+00 8+00 9+00 10+00 107+00 106+00 105+00 104+00

STA 6+48.53
50.00' LT

STA 6+83.16
50.00' LT

STA 6+83.16
40.00' LT

STA 6+71.03
50.00' LT

STA 7+25.87
40.00' LT

STA 7+84.61
50.00' LT

STA 8+13.08
40.00' LT

STA 0+77.48
53.60' RT

STA 8+23.14
42.01' LT

STA 8+23.12
50.01' LT

STA 8+36.27
50.01' LT

STA 8+33.09
65.64' LT

STA 8+43.09
63.72' LT

STA 9+67.55
80.00' LT

STA 9+67.55
65.00' LT

STA 9+56.03
80.00' LT

STA 9+43.53
80.00' LT

STA 9+23.53
80.00' LT

STA 9+23.42
50.00' LT

STA 9+36.95
55.00' LT

STA 9+53.53
50.00' LT

STA 8+41.05
59.61' LT

STA 8+43.12
50.00' LT

STA 8+33.12
50.00' LT

STA 8+50.04
75.00' RT

STA 9+42.78
50.00' RT

STA 9+36.48
60.03' RT

STA 9+31.73
60.00' RT

STA 9+21.70
63.63' RT

STA 9+15.66
67.52' RT

STA 9+15.61
73.51' RT

STA 9+31.39
99.99' RT

STA 9+21.39
99.96' RT

STA 7+93.90
75.00' RT

STA 7+93.94
90.00' RT

STA 8+13.96
75.00' RT

STA 8+38.78
96.96' RT

STA 8+37.42
126.99' RT

STA 8+42.42
126.69' RT

ADVENTURELAND DRIVE

17TH AVENUE NW

6' SIDEWALK EASEMENT

PERMANENT EASEMENTS ARE PUBLIC UTILITY EASEMENTS UNLESS OTHERWISE NOTED.

LEGEND

- PROPOSED ROAD
- PROPOSED SIDEWALK
- R/W — RIGHT OF WAY
- ℄ — PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- FEE TITLE ACQUISITION

PARCEL 21 ACQUISITION INCLUDES CONVERSION OF 33' ROADWAY EASEMENT TO FEE TITLE FOR 17" AVENUE NW FOR THE ENTIRE EASTERN FRONTAGE OF PARCEL 21 EXTENDING APPROXIMATELY 2,556' TO THE SOUTH

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet H.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

RIGHT OF WAY SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet H.1

8/17/2026
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ORD\ColorHalfWeightPDF.ctb
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LEGEND

- PROPOSED ROAD
- PROPOSED SIDEWALK
- RIGHT OF WAY
- PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- FEE TITLE ACQUISITION

PERMANENT EASEMENTS ARE PUBLIC UTILITY EASEMENTS UNLESS OTHERWISE NOTED.

0 20 40
FEET

N

STA 13+09.13
250.00' LT

STA 13+46.63
250.00' LT

STA 13+08.88
190.00' LT

STA 12+96.88
190.00' LT

STA 13+14.74
166.92' LT

STA 13+08.79
166.92' LT

STA 13+08.71
152.05' LT

STA 12+96.73
152.05' LT

STA 12+96.64
130.00' LT

STA 12+63.64
130.00' LT

STA 12+96.62
127.05' LT

STA 13+08.62
127.00' LT

STA 13+08.37
65.00' LT

STA 12+63.37
65.00' LT

STA 13+94.13
250.00' LT

STA 13+49.85
250.00' LT

STA 13+27.62
126.92' LT

STA 13+27.61
124.29' LT

STA 13+43.61
124.22' LT

STA 13+49.34
124.20' LT

15' WATER MAIN EASEMENT
BK 18058 PG 543-554

25' ACCESS EASEMENT
BK 18058 PG 543-554

STA 13+93.61
124.02' LT

STA 13+27.61
99.29' LT

STA 13+37.61
99.29' LT

STA 13+37.61
75.00' LT

STA 13+37.61
65.00' LT

STA 13+37.61
55.00' LT

STA 13+77.61
75.00' LT

STA 13+77.61
65.00' LT

38' INGRESS/EGRESS EASEMENT
BK 7898 PG 806

10+00 11+00 12+00 13+00 14+00 15+00

(2) RJB Business Park Condominium
1625 Adventureland Dr.

(3) Signature Ernst Land Development LLC
1545 Adventureland Dr NW

47.50' ACCESS, WATER MAIN
BK 18058

15' PUBLIC UTILITY EASEMENT

PUBLIC UTILITY EASEMENT
BK 16955 PG 312-314

5' PUBLIC UTILITY EASEMENT

STA 13+08.31
50.00' LT

STA 13+08.37
55.00' LT

STA 13+27.31
50.00' LT

STA 13+37.61
50.00' LT

ADVENTURELAND DRIVE

STA 13+10.33
50.00' RT

10' PUBLIC UTILITY EASEMENT

ELECTRIC EASEMENT
BK 15192 PG 637-639

5' SIDEWALK EASEMENT
BK 15502 PG 253-257

5' PUBLIC STORM SEWER EASEMENT
BK 15502 PG 253-257

STA 12+83.18
60.00' RT

STA 12+82.95
75.00' RT

STA 13+09.95
75.00' RT

ACCESS, INGRESS/EGRESS & PARKING EASEMENT (UNPRINTABLE - ENCOMPASSES ALL LOTS 1 & 2)
BK 15502 PG 258

STA 13+47.19
60.00' RT

STA 13+46.96
75.00' RT

STA 13+10.18
60.00' RT

(20) Avenue Living US Operating LP No. 20

(19) Avenue Living US Operating LP No. 20

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/17/2026	Pg:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet H.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

RIGHT OF WAY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet H.2

8/17/2026
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User:
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LEGEND

- PROPOSED ROAD
- PROPOSED SIDEWALK
- RIGHT OF WAY
- PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- FEE TITLE ACQUISITION

0 20 40
FEET

N

PERMANENT EASEMENTS ARE PUBLIC UTILITY EASEMENTS UNLESS OTHERWISE NOTED.

BLUE RIDGE PL NW

14TH AVENUE NW

ADVENTURELAND DRIVE

16+00

17+00

18+00

19+00

20+00

21+00

STA 16+96.79 234.25' LT
STA 16+85.26 129.00' LT
STA 16+94.00 77.01' LT
STA 16+87.50 77.01' LT
STA 16+77.50 77.01' LT
6' SIDEWALK EASEMENT BK 18058 PG 543-554
STA 16+77.45 65.01' LT
10' PUE BK 18058 PG 543-554
STA 16+59.10 81.98' LT
STA 16+20.66 77.13' LT
STA 16+60.61 65.01' LT
STA 16+15.67 82.14' LT
STA 16+50.61 55.01' LT
SANITARY & EASEMENT PG 543-554
STA 16+45.61 50.01' LT
STA 16+15.61 65.01' LT
STA 16+20.61 65.01' LT
STA 16+87.45 65.01' LT
STA 16+93.95 65.01' LT
STA 16+93.89 50.01' LT
STA 16+83.11 49.99' RT
STA 16+48.11 49.99' RT
STA 16+48.07 54.99' RT
STA 16+61.36 59.99' RT
STA 16+65.82 54.99' RT
STA 16+77.90 72.67' RT
STA 16+77.78 85.86' RT
STA 16+82.78 85.87' RT
STA 16+82.11 158.99' RT
STA 16+77.11 158.99' RT

3A
Avenue Living US Operating LP No. 33

STA 17+24.08 77.01' LT
STA 17+32.55 92.08' LT
STA 17+24.03 65.01' LT
STA 17+49.15 92.01' LT
STA 17+49.08 77.01' LT
STA 17+49.06 70.01' LT
STA 17+54.04 65.01' LT
STA 17+54.02 62.01' LT
STA 17+32.44 65.01' LT
STA 17+23.97 50.01' LT
STA 17+33.21 39.99' RT
STA 17+67.80 49.99' RT
STA 17+53.02 59.99' RT
STA 17+52.97 66.23' RT
STA 17+52.66 99.99' RT
STA 17+32.80 84.67' RT
STA 17+32.66 99.99' RT
STA 17+32.11 159.99' RT
STA 17+52.11 159.99' RT

STORMWATER & WATER MAIN EASEMENT

STA 17+89.84 92.01' LT
STA 17+89.79 77.01' LT
10' PUE BK 16759 PG 734-736
12' PUBLIC UTILITY EASEMENT

4
Signature Ernst Land Development LLC
1375 Adventureland Dr NW

5' GAS EASEMENT BK 18058 PG 543-554

STA 18+97.06 77.01' LT
STA 18+96.31 62.01' LT
STA 18+51.95 59.99' RT
STA 18+71.95 59.99' RT
STA 18+33.82 66.23' RT
STA 18+51.92 79.95' RT
STA 18+33.30 96.94' RT
STA 18+88.27 66.23' RT
STA 18+71.92 79.98' RT
STA 18+88.00 96.40' RT
STA 19+38.90 101.57' RT
STA 19+39.23 66.23' RT
STA 19+60.84 79.98' RT
STA 19+60.91 59.99' RT

18
Adventureland Village Partners LLC
807 14th Ave NW

MID AMERICAN EASEMENT

10' PUE BK 16759 PG 731-733

STA 19+66.32 55.01' LT
STA 20+17.06 65.01' LT
STA 20+16.36 50.01' LT
STA 19+90.91 59.99' RT
STA 20+10.01 66.23' RT
STA 19+90.84 80.09' RT
STA 20+09.69 101.57' RT
10' PUBLIC UTILITY EASEMENT
5' PUBLIC UTILITY EASEMENT

STA 21+86.16 75.01' LT
STA 21+86.10 65.01' LT
10' GAS EASEMENT BK 8840 PG 960
10' PUBLIC UTILITY EASEMENT BK U PG 500
STA 21+66.16 75.01' LT
10' WATER MAIN EASEMENT BK 17416 PG 285-288
STA 21+66.10 65.01' LT
STA 21+86.08 60.01' LT
STA 21+86.05 55.01' LT
STA 21+86.02 50.01' LT
STA 21+87.74 39.99' RT
STA 21+87.70 49.99' RT
STA 21+92.70 49.99' RT
STA 21+87.66 59.99' RT
STA 21+92.66 59.99' RT
STA 21+00.34 66.23' RT
STA 21+00.34 89.99' RT
STA 21+42.54 89.99' RT
STA 21+42.50 99.99' RT
STA 21+87.58 79.99' RT
STA 21+87.52 99.99' RT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk.:	Pgs:
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet H.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

RIGHT OF WAY SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet H.3

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kcle
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FEET

10TH AVENEUE NW

5 Greenway of Altoona Assoc II
1103 Greenway Ct

10' GAS EASEMENT
BK 15233 PG 345-347

10' ELECTRIC EASEMENT
BK 15233 PG 348-350

10' ELECTRIC EASEMENT
BK 5134 PG 112

22+00 23+00 24+00 25+00 26+00 27+00 28+00

10' ELECTRIC EASEMENT
BK 4918 PG 221

6 Triple Crown
Altoona Cooperative
1003 Greenway Ct

10' PUE
BK 16759 PG 754-756

10' PUE
BK 16759 PG 728-730

10' ELECTRIC
EASEMENT
BK 4918 PG 221

STA 24+40.38
65.00' LT

STA 24+40.38
55.00' LT

STA 24+40.38
50.00' LT

STA 25+73.37
75.00' LT

STA 25+73.37
65.00' LT

10' PUBLIC UTILITY EASEMENT

5' PUBLIC UTILITY EASEMENT

STA 26+94.51
75.00' LT

STA 26+94.51
65.00' LT

STA 26+90.70
55.00' LT

STA 26+79.51
50.00' LT

STA 27+84.51
90.53' LT

STA 27+95.22
74.99' LT

STA 27+95.19
64.99' LT

STA 27+88.33
55.00' LT

STA 27+99.51
50.00' LT

ADVENTURELAND DRIVE

STA 22+40.38
60.00' RT

STA 23+10.81
40.00' RT

STA 23+25.81
55.09' RT

STA 22+90.63
50.00' RT

STA 23+92.60
55.00' RT

STA 23+90.81
40.00' RT

STA 24+10.63
50.00' RT

STA 25+05.64
50.00' RT

STA 25+10.64
50.00' RT

STA 25+10.69
40.00' RT

STA 25+15.64
50.00' RT

STA 23+75.81
54.91' RT

12TH AVENUE NW

5' PUBLIC UTILITY EASEMENT

STA 24+02.56
55.00' RT

STA 24+02.57
59.97' RT

STA 23+95.61
60.00' RT

STA 23+88.74
66.88' RT

STA 23+88.59
91.88' RT

STA 25+05.61
55.00' RT

STA 25+15.59
60.00' RT

5' PUBLIC UTILITY EASEMENT
BK "Z" PG 565

10' PUBLIC UTILITY EASEMENT

STA 26+65.70
50.00' RT

STA 26+65.65
60.00' RT

STA 27+03.66
60.00' RT

STA 27+03.62
75.00' RT

STA 22+81.65
60.00' RT

STA 23+15.08
60.00' RT

STA 23+13.65
80.95' RT

STA 23+13.58
94.45' RT

STA 23+25.63
85.21' RT

STA 23+25.58
94.47' RT

5' PUBLIC UTILITY EASEMENT
BK "Q" PG 512

STA 22+40.38
80.00' RT

STA 23+75.59
91.90' RT

STA 23+75.63
84.79' RT

17 Michael Kemnitzer
1206 Adventureland Dr.

16 Russell E Boos
Elizabeth J Boos
813 12th Ave NW

16A Scott Wailes
809 12th Ave NW

15 Thomas Scott Fordyce and
Pamela Sue Fordyce Trust
806 11th Ave NW

14 Grant Giefer
809 11th Ave NW

PERMANENT EASEMENTS ARE PUBLIC UTILITY EASEMENTS UNLESS OTHERWISE NOTED.

LEGEND
- PROPOSED ROAD
- PROPOSED SIDEWALK
- RIGHT OF WAY
- PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- FEE TITLE ACQUISITION

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/17/2026	Pg:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet H.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

RIGHT OF WAY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet H.4

8/17/2026
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N

0 20 40
FEET

7
Greenway of Altoona Homeowners

8
City Of Altoona

9
City Of Altoona

STA 28+07.51
90.58' LT

STA 28+07.51
74.99' LT

STA 28+35.18
75.00' LT

STA 28+35.19
65.00' LT

10' ELECTRIC EASEMENT
BK 4918 PG 275-277

29+00

30+00

31+00

32+00

33+00

34+00

STA 30+95.75
70.00' LT

STA 30+95.75
65.00' LT

STA 30+95.75
55.00' LT

10' PUE
BK 16759 PG 751-753

STA 31+95.75
70.00' LT

STA 33+08.81
70.00' LT

STA 33+08.81
65.00' LT

9TH AVENUE NW

STA 33+73.95
63.00' LT

10' ELECTRIC EASEMENT BK 5373 PG 790

BK 18904

5' PUBLIC UTILITY EASEMENT

5' PUBLIC UTILITY EASEMENT

20' PUBLIC UTILITY EASEMENT

STA 33+74.67
60.00' LT

STA 30+95.75
50.00' LT

ADVENTURELAND DRIVE

STA 31+95.75
50.00' LT

STA 33+77.63
55.00' LT

STA 32+93.81
50.00' LT

STA 33+88.81
50.00' LT

STA 28+15.66
50.00' RT

STA 28+15.61
60.00' RT

STA 28+25.66
50.00' RT

STA 28+20.66
50.00' RT

STA 28+25.61
60.00' RT

STA 30+06.82
50.00' RT

STA 32+20.09
33.00' RT

STA 32+16.55
50.00' RT

10' PUBLIC UTILITY EASEMENT

10' PUBLIC UTILITY EASEMENT

10' PUBLIC UTILITY EASEMENT

5' PUBLIC UTILITY EASEMENT
BK 5956 PG 67

5' PUBLIC UTILITY EASEMENT
BK "Z" PG 565

STA 28+41.10
80.61' RT

STA 28+41.07
89.31' RT

STA 28+15.53
75.00' RT

STA 28+25.45
89.25' RT

STA 29+08.78
60.00' RT

STA 29+08.76
80.64' RT

13
Avenue Living US Operating LP No. 19

STA 30+20.66
60.00' RT

STA 30+26.82
60.00' RT

STA 30+22.64
81.17' RT

STA 30+32.56
79.87' RT

10TH AVENUE NW

STA 31+02.23
60.00' RT

STA 31+16.37
50.00' RT

STA 31+06.66
68.05' RT

STA 31+01.69
68.64' RT

STA 32+20.88
60.00' RT

STA 32+35.26
68.05' RT

12
Betty M McCormick
813 10th Ave NW

10' PUBLIC UTILITY EASEMENT
BK "U" PG 297

10' ELECTRIC EASEMENT
BK 4885 PG 318

STA 32+27.45
50.00' RT

STA 32+31.78
60.00' RT

11
City Of Altoona

PERMANENT EASEMENTS ARE PUBLIC UTILITY EASEMENTS UNLESS OTHERWISE NOTED.

LEGEND

- PROPOSED ROAD
- PROPOSED SIDEWALK
- RIGHT OF WAY
- PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- FEE TITLE ACQUISITION

TEMPORARY CONSTRUCTION EASEMENT NOT DISPLAYED ON CITY OWNED PARCELS. CONSTRUCTION LIMITS WILL BE SET.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/17/2026	Pg:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet H.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

RIGHT OF WAY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet H.5

8/17/2026
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luser

N

0 20 40
FEET

10 Chance Clifford
Lisa Clifford
901 9th Ave NW

10 Chance Clifford
Lisa Clifford
901 9th Ave NW

10A City Of Altoona

10' PUE
BK "V" PG 371

8' PUE
PG 906-908

10' PUBLIC UTILITY EASEMENT

STA 34+78.91
60.00' LT

STA 34+78.91
55.00' LT

STA 34+89.12
70.00' LT

STA 34+89.05
60.00' LT

STA 35+59.99
70.00' LT

STA 35+59.99
60.00' LT

10' PUE
BK 19236 PG 147-150

PI 36+54.32
Δ 18°46'55" (LT)
T 165.39'
L 327.81'
R 1000.00'

10' PUE
BK 10753 PG 53-59

SEWER EASEMENT
0753 PG 53-59
PUE GAS MAIN ONLY
BK 10753 PG 53-59

10' LANDSCAPE EASEMENT
BK 11958 PG 956-957

8' PUE
BK 10753 PG 53-59

7' SIDEWALK EASEMENT
BK 10753 PG 53-59

30' SANITARY SEWER
EASEMENT
BK 9155 PG 662-672

POB 38+00.00
38+16.74

STA 34+78.89
50.00' LT

STA 34+88.89
50.00' LT

STA 34+38.25
50.00' RT

STA 34+38.16
60.00' RT

STA 34+88.38
33.00' RT

STA 34+37.92
90.00' RT

STA 34+88.09
69.40' RT

STA 34+47.90
90.00' RT

STA 34+87.88
90.00' RT

MID AMERICAN
EASEMENT

5' PUBLIC UTILITY EASEMENT
BK "R" PG 203

STA 34+67.97
90.00' RT

STA 34+67.90
120.00' RT

STA 34+47.90
120.00' RT

5' PUBLIC UTILITY EASEMENT
BK "P" PG 175

5' PUBLIC UTILITY EASEMENT
BK "R" PG 203

35+00
36+00
37+00
38+00

R/W
℄

TEMPORARY CONSTRUCTION EASEMENT
NOT DISPLAYED ON CITY OWNED PARCELS.
CONSTRUCTION LIMITS WILL BE SET.

PERMANENT EASEMENTS ARE
PUBLIC UTILITY EASEMENTS
UNLESS OTHERWISE NOTED.

LEGEND

- PROPOSED ROAD
- PROPOSED SIDEWALK
- R/W RIGHT OF WAY
- ℄ PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- FEE TITLE ACQUISITION

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	H.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

RIGHT OF WAY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet H.6

ORD\ColorMatWeightPSF.pltcfg
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21
Polk County
Prairie Meadows
1 Prarie Meadows Dr.

PARCEL 21 ACQUISITION INCLUDES CONVERSION OF 33' ROADWAY EASEMENT TO FEE TITLE FOR 17' AVENUE NW FOR THE ENTIRE EASTERN FRONTAGE OF PARCEL 21 EXTENDING APPROXIMATELY 2,556' TO THE SOUTH

1
SL Fix Family Trust
RL Fix Family Trust
1715 Adventureland Dr.

20
Avenue Living US
Operating LP No. 20

ADVENTURELAND DRIVE

17TH AVENUE NW

6' SIDEWALK EASEMENT

20' PUBLIC UTILITY EASEMENT

ELECTRIC EASEMENT
BK 15392 PG 637-639

101+00 102+00 103+00 104+00 105+00 106+00 107+00
7+00 8+00 9+00 10+00

0 20 40
FEET

STA 102+27.24 43.00' LT
STA 102+27.51 38.00' LT
STA 102+27.77 33.00' LT
STA 103+67.96 50.50' LT
STA 103+68.10 45.50' LT
STA 103+68.23 40.50' LT
STA 104+41.75 50.50' LT
STA 104+42.06 45.50' LT
STA 104+42.37 40.50' LT
STA 104+79.06 55.16' LT
STA 104+79.08 50.13' LT
STA 104+72.09 44.22' LT
STA 104+93.94 89.14' LT
STA 104+93.99 69.08' LT
STA 104+78.94 89.07' LT
STA 104+94.08 33.00' LT
STA 104+95.93 33.00' RT
STA 105+01.91 33.00' RT
POT 8+83.23
STA 106+09.31 70.06' LT
STA 106+11.30 60.00' LT
STA 106+19.30 60.00' LT
STA 106+19.27 50.00' LT
STA 106+34.91 50.00' LT
STA 106+32.97 40.00' LT
STA 106+09.27 50.00' LT
STA 106+19.25 40.00' LT
STA 106+19.28 46.85' LT
STA 106+49.43 40.00' RT
STA 106+19.31 40.00' RT
STA 102+88.51 33.00' RT
STA 103+54.07 39.00' RT
STA 104+69.53 39.00' RT
STA 104+69.58 49.00' RT
STA 105+05.86 39.00' RT
STA 105+09.57 49.00' RT
STA 105+19.66 59.97' RT
STA 106+49.39 60.00' RT
STA 106+49.39 72.50' RT
STA 106+49.48 84.02' RT
STA 106+34.48 84.08' RT
STA 106+19.43 70.11' RT

PERMANENT EASEMENTS ARE PUBLIC UTILITY EASEMENTS UNLESS OTHERWISE NOTED.

LEGEND
- PROPOSED ROAD
- PROPOSED SIDEWALK
- R/W – RIGHT OF WAY
- ℄ – PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- FEE TITLE ACQUISITION

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/17/2026	Pg:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet H.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

RIGHT OF WAY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet H.7

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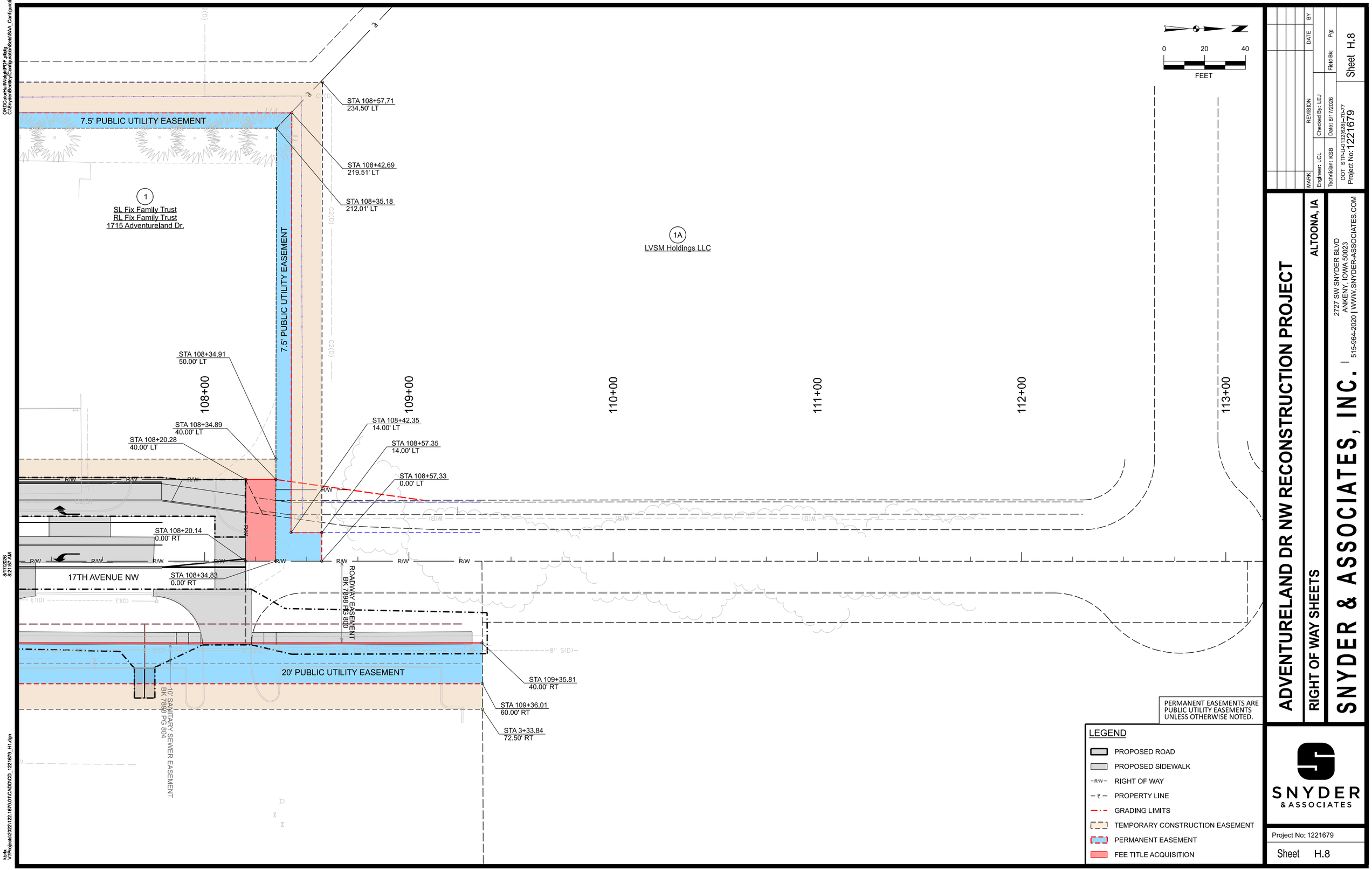

PERMANENT EASEMENTS ARE PUBLIC UTILITY EASEMENTS UNLESS OTHERWISE NOTED.

LEGEND

- PROPOSED ROAD
- PROPOSED SIDEWALK
- RIGHT OF WAY
- PROPERTY LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
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Sheet H.8

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Sheet H.8

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STAGING NOTES

GENERAL STAGING NOTES

1. CONTRACTOR SHALL FILL ALL OPEN TRENCHES BEFORE LEAVING SITE FOR THE DAY OR PRIOR TO 6 P.M.
2. CONTRACTOR SHALL PROVIDE ACCESS TO EMERGENCY SERVICES AT ALL TIMES.
3. CONTRACTOR SHALL PROVIDE NOTICE TO RESIDENCES A MINIMUM OF 72-HOURS PRIOR TO IMPACTS TO DRIVEWAYS WITH DOOR HANGERS. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT A MINIMUM BETWEEN THE HOURS OF 4 PM TO 9 AM. WITH EXCEPTION DURING CONCRETE PAVING OPERATIONS AND CURING OF CONCRETE CURB AND GUTTER AND DRIVEWAYS.
4. CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC AT ALL TIMES DURING CONSTRUCTION OF UNDERGROUND FACILITIES, CURB AND GUTTER, AND DRIVEWAYS UNLESS DETAILED OTHERWISE IN THE FOLLOWING STAGING SHEETS. THE USE OF TEMPORARY GRANULAR MATERIALS MAY BE USED TO PROVIDE ACCESS.
5. CONTRACTOR SHALL PROVIDE NOTICE TO RESIDENCES A MINIMUM OF 72-HOURS PRIOR TO IMPACTS TO WATER SERVICE WITH BY DOOR HANGERS
6. CLEARING AND GRUBBING SHALL BE COMPLETED AT THE START OF THE PROJECT. FALLING OF TREES LARGER THAN 4" DIAMETER SHALL OCCUR BETWEEN OCTOBER 1 AND MARCH 31.
7. REFER TO UTILITY COORDINATION NOTES IN THESE J SHEETS FOR CONTRACTOR COORDINATION ITEMS.
8. REFER TO POSTAL SERVICE MAINTENANCE OF SERVICE PLAN FOR TEMPORARY MAILBOX LOCATIONS.
9. REFER TO PROPERTY OWNER ACCOMMODATION PLAN FOR SPECIAL COORDINATION REQUIREMENTS.
10. REFER TO PROPERTY ACCESS PLAN FOR PLANNED MAINTENANCE OF ACCESS.

YEAR 1

YEAR 1 FLOATING WORK

YEAR 1 FLOATING A

1. DEPICTIONS IN STAGE 1, 2 AND 3 ARE FOR TRAFFIC CONTROL CLARITY ONLY. WORK SHALL OCCUR IN DEPICTED SEQUENCE BUT MAY OCCUR AT ANY TIME IN YEAR ONE.
2. INSTALL TRAFFIC DEVICES FOR TRAFFIC SHIFT TO OUTSIDE LANES FROM SHRINERS PARKWAY TO 17TH AVENUE NW.
3. CONSTRUCT NORTH MEDIAN CURB REMOVAL, NEW CURB AND MEDIAN PAVE-THROUGH FROM STA 3+82 TO 8+41.

YEAR 1 FLOATING B

1. INSTALL TRAFFIC CONTROL DEVICES, TEMPORARY PAVEMENT MARKINGS, TRAFFIC CONTROL SIGNAGE, AND BARRIERS FOR HEAD TO HEAD TRAFFIC SOUTH LANES.
2. COMPLETE 16" WATER MAIN TIE-IN AND CROSSING OF ADVENTURELAND DRIVE. A MINIMUM OF ONE LANE OF WESTBOUND TRAFFIC SHALL BE OPEN TO TRAFFIC AT ALL TIMES. TRENCH AREAS WITHIN OR NEAR THE ROADWAY SHALL BE FILLED IN PRIOR TO LEAVING THE WORK SITE.
3. REMOVE EXISTING PAVEMENT ALONG ADVENTURELAND DRIVE NORTH CURB LINE TO APPROXIMATELY STATION 107+00.00.
4. COORDINATE FOR LUMEN HANDHOLE RELOCATION AND MID AMERICAN GAS MAIN RELOCATION. SEE UTILITY NOTES.
5. CONSTRUCT WATER MAIN AND STORM SEWER.
6. CONSTRUCT SIGNAL EQUIPMENT THIS CORNER.
7. CONSTRUCT COMBINED SIDEWALK AND RETAINING WALL TO STATION 8+50.
8. REFER TO PROPERTY OWNER ACCOMMODATION PLAN FOR PARCEL 1 REQUIREMENTS. TIME RESTRICTIONS APPLY.
9. CONSTRUCT REMAINING COMBINED SIDEWALK AND RETAINING WALL AND CURB AND GUTTER, PER PLAN.

YEAR 1 FLOATING C

1. CLOSE SB LANE ON 17TH. CLOSE NORTH PARCEL 1 DRIVEWAY. SOUTH DRIVEWAY TO REMAIN OPEN.
2. CONSTRUCT COMBINED SIDEWALK AND RETAINING WALL, CURB AND GUTTER PER PLAN, AND DRIVEWAY PAVEMENT LEAVING SOUTH DRIVE OPEN FOR LOCATION APPROXIMATELY 107+00 TO NORTH LIMIT LT SIDE.
3. REFER TO PROPERTY OWNER ACCOMMODATION PLAN FOR PARCEL 1 REQUIREMENTS. TIME RESTRICTIONS APPLY.
4. MAINTAIN TRAFFIC TO PARCEL 2 AND PARCEL 1 WITH LANE CLOSURE LOW VOLUME ROAD, TC-211.
4. AFTER NORTH DRIVEWAY IS OPEN TO TRAFFIC, CONSTRUCT COMBINED SIDEWALK AND RETAINING WALL, STORM SEWER, AND CURB AND GUTTER PER PLAN, FOR LOCATION APPROXIMATELY 107+00 TO SOUTH.

STAGE 1

1. INSTALL TRAFFIC CONTROL DEVICES, BARRIERS, AND DETOUR SIGNAGE.
2. REMOVE EXISITNG ROADWAY PAVEMENT IN FULL RECONSTRUCTION AREAS.
3. REMOVE VINYL FENCING.
4. INSTALL GRANULAR SIDEWALK DETOUR AND TEMPORARY PEDESTRIAN RAMPS.
5. REMOVE EXISTING SIDEWALK AND TRAIL, BUT PROVIDE A TEMPORARY GRANULAR SIDEWALK TO EXISTING TRAIL.
6. INSTALL TEMPORARY STREAM DIVERSION.
7. INSTALL 16" WATER MAIN FROM EAST LIMITS TO HYDRANT TEE AT STATION 20+88.44 OR TO STATION 31+50.00, MINIMUM WESTERLY LIMIT.
8. CONSTRUCT CAST IN PLACE CULVERT.
9. INSTALL STORM SEWER AND WATER MAIN CROSSINGS WITH ROADWAY CLOSURE.
10. CONSTRUCT LONGITUDINAL STORM SEWER TO AT LEAST STATION 26+75.00, BUT CONTRACTOR CAN COMPLETE ALL LONGITUDINAL STORM SEWER EAST OF 17TH AVENUE IN THIS STAGE. COMPLETION OF LONGITUDINAL STORM SEWER MAY BE FINISHED DURING STAGE 2.
12. CONSTRUCT TEMPORARY PAVEMENT PATCHING OVER UTILITY CROSSINGS.
13. CONSTRUCT PERMANENT PAVEMENT, SIDEWALK, AND TRAIL FROM EAST LIMITS TO STATION 31+62.00.
14. GRADE DITCHES ON NORTH SIDE OF ADVENTURELAND DRIVE ALONG THE TEMPORARY PAVEMENT LIMITS AND ON THE SOUTH SIDE NEAR SOUTH LEG OF 10TH STREET NW. INSTALL TEMPORARY STORM SEWER CONNECTIONS AND OUTLETS NEAR NORTH LEG OF 10TH AVENUE NW. INSTALL EC-603 FOR INTAKES ST-24, ST-27, AND ST-27A
15. CONSTRUCT TEMPORARY PAVEMENT ON NORTH SIDE OF ADVENTURELAND DRIVE FOR USE IN STAGE 2.
16. INSTALL TEMPORARY PAVEMENT MARKINGS.

STAGE 2A

1. INSTALL TRAFFIC CONTROL DEVICES, BARRIERS, AND TRAFFIC CONTROL SIGNAGE.
2. REMOVE SOUTH HALF OF EXISITNG PAVEMENT ON ADVENTURELAND, SIDE STREETS, AND DRIVEWAYS BETWEEN STATIONS 22+20.50 AND 31+62.00
3. INSTALL 16" WATER MAIN TO HYDRANT TEE AT STATION 20+88.44 AND CAP WEST END OF TEE IF NOT COMPLETED IN STAGE 1. ROADWAY PAVEMENT REMOVED FOR UTILITY CROSSINGS SHALL BE REPLACED WITH TEMPORARY PAVEMENT.
4. INSTALL REMAINING LONGITUDINAL STORM EAST OF 17TH AVENUE NOT COMPLETED IN STAGE 1. ROADWAY PAVEMENT REMOVED FOR UTILITY CROSSINGS SHALL BE REPLCED WITH TEMPORARY PAVEMENT.
5. GRADE PAVEMENT FROM WEST TO EAST TO MAINTAIN DRAINAGE.
6. CONSTRUCTION PROPOSED PAVEMENT ON ADVENTURELAND AND SOUTH SIDE STREETS BETWEEN STATIONS 22+35.50 AND 31+62.00
7. LONGITUDINAL SIDEWALK ON THE SOUTH SIDE OF ADVENTURELAND DRIVE AND SOUTH SIDE STREETS BETWEEN STATIONS 22+20.50 AND 31+62.00 MAY BE COMPLETED IN THIS STAGE OR IN STAGES 2B, 2C, OR 2D.
8. COORDINATE WITH MID AMERICAN ENERGY FOR SOUTH SIDE STREET LIGHTING INSTALLATION.

STAGE 2B

1. REMOVE PARKING LOT CURB ON PARCEL 18 AND CONSTRUCT TEMPORARY DRIVEWAY ACCESS FOR PARCELS 17 AND 18.

STAGE 2C

1. REMOVE EXISING PAVEMENT ON ADVENTURELAND AND PARCEL 18 DRIVEWAY BETWEEN STATIONS 20+88.50 AND 21+51.63
2. CONSTRUCT PROPOSED PAVEMENT ON ADVENTURELAND AND PARCEL 18 DRIVEWAY AND PARCEL 17 DRIVEWAY.
3. CONSTRUCT TEMPORARY PAVEMENT ON ADVENTURELAND FROM STATION 18+40.74 TO STATION 20+88.50. THIS TEMPORARY PAVEMENT CAN BE COMPLETED IN STAGE 2D.

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STAGING NOTES

STAGE 2D

1. REMOVE EXISTING AND TEMPORARY ACCESS PAVEMENT ON ADVENTURELAND AND PARCEL 17 DRIVEWAY BETWEEN STATIONS 21+51.63 AND 22+20.50
2. CONSTRUCT REMAINING PROPOSED PAVEMENT ON ADVENTURELAND, PARCEL 17 DRIVEWAY, AND PARCEL 18 PARKING LOT RESTORATION 22+35.50.

STAGE 3A

1. INSTALL TRAFFIC CONTROL DEVICES, TEMPORARY PAVEMENT MARKINGS, BARRIERS, AND TRAFFIC CONTROL SIGNAGE
2. REMOVE EXISITNG AND TEMPORARY PAVEMENT ON ADVENTURELAND BETWEEN STATIONS 20+83.50 AND 26+95.50, BETWEEN STATIONS 27+39.50 AND 31+62.00, AND 10TH AVENUE EAST OF THE MEDIAN. CONSTRUCT TEMPORARY PAVEMENT 18+50 TO 21+00.
3. CONSTRUCT TEMPORARY CROSS OVER PAVEMENT BETWEEN STATION 26+95.50 AND 27+39.50
4. CONSTRUCT STORM SEWER ON EAST HALF OF 10TH AVENUE AND PLATE END OF PIPE AND TOP OF INTAKE UNTIL REMAINING STORM SEWER ON THE WEST SIDE OF 10TH AVENUE IS CONSTRUCTED.
5. CONSTRUCT PROPOSED PAVEMENT ON ADVENTURELAND BETWEEN STATIONS 20+83.50 AND 26+85.50 AND BETWEEN STATIONS 27+49.50 AND 31+62.00
6. CONSTRUCT TEMPORARY CROSS OVER PAVEMENT BETWEEN STATIONS 27+39.50 AND 27+94.33

STAGE 3B

1. INSTALL TRAFFIC CONTROL DEVICES, BARRIERS, AND TRAFFIC CONTROL SIGNAGE
2. REMOVE EXISITNG AND TEMPORARY PAVEMENT ON ADVENTURELAND DRIVE BETWEEN STATIONS 26+95.50 AND 27+39.50 AND 10TH AVENUE NW WEST OF THE MEDIAN
3. COMPLETE WEST HALF OF STORM SEWER AT 10TH AVENUE NW
4. CONSTRUCT PROPOSED PAVEMENT ON ADVENTURELAND BETWEEN STATIONS 26+85.50 AND 27+49.50 AND WEST HALF OF 10TH AVENUE NW
5. CONSTRUCT TEMPORARY CROSS OVER PAVEMENT BETWEEN STATIONS 26+95.50 AND 27+39.50
6. CONSTRUCT SIDEWALK ON NORTH SIDE OF ADVENTURELAND DRIVE BETWEEN STATIONS 20+88.50 AND 31+62.00
7. CONSTRUCT ADDITIONAL TEMPORARY PAVEMENT ON TAPER SECTION TO MATCH INTO PROPOSED PAVEMENT
8. COORDINATE WITH MID AMERICAN ENERGY FOR NORTH SIDE STREET LIGHTING INSTALLATION.

STAGE 4

1. INSTALL TRAFFIC CONTROL DEVICES AND SIGNAGE
2. REMOVE REMAINING EXISITNG AND TEMPORARY PAVEMENT IN THE MEDIAN
3. CONSTRUCT LEFT-TURN LANE AND MEDIAN PAVEMENT
4. INSTALL TEMPORARY AND PERMANENT PAVEMENT MARKINGS

STAGE 4B: OVERWINTER YEAR 1 TO YEAR 2

1. CONSTRUCT OVERWINTER TRAFFIC CONTROL PLAN.
2. MAINTAIN EROSION CONTROL MEASURES AND TRAFFIC CONTROL THROUGH WINTER.

STAGE 5

1. INSTALL TRAFFIC CONTROL DEVICES, TEMPOARY PAVEMENT MARKINGS, BARRIERS, TRAFFIC CONTROL SIGNAGE, AND TEMPORARY GRANULAR SIDEWALK
2. COMPLETE THE TEMPORARY WIDENING AND WEST ACCESS ROAD TO BLUE RIDGE PLACE AS LONG AS ONE ACCESS TO PARCEL 3A BLUE RIDGE PLACE APARTMENTS REMAINS OPEN AT ANY ONE TIME.
3. CONSTRUCT PAVEMENT REMOVALS AT 17TH AVENUE NW (SOUTH LEG) AND ADVENTURELAND DRIVE EASTBOUND 5+53 TO 8+60.
4. CONSTRUCT 16" WATER MAIN. CLOSE 17TH AVENUE NW TO CONSTRUCT WATER MAIN ACROSS 17TH AVENUE NW. CLOSURE SHALL ONLY LAST FOR 5 CALENDAR DAYS. A MINIMUM OF 2 LANES, ONE IN EACH DIRECTION, SHALL BE OPEN TO TRAFFIC FOLLOWING THE CLOSURE.
5. CONSTRUCT PEDESTRIAN DETOUR. COORDINATE FOR FENCE RELOCATION AT PARCEL 21.
6. REMOVE EXISTING SIDEWALK ON THE SOUTH SIDE OF ADVENTURELAND DRIVE FROM 17TH AVENUE NW TO ALTOONA TOWERS TO CONSTRUCT WATER MAIN.
7. CONSTRUCT 16" WATER MAIN ACROSS ADVENTURELAND DRIVE FROM THE SOUTH SIDE TO THE MEDIAN AND CONNECT TO YEAR 1 EXTENSION. USING HEAD TO HEAD TRAFFIC SHIFT WITH TRAFFIC IN NORTH LANES.
8. CONSTRUCT PROPOSED EASTBOUND AND SOUTHBOUND PAVEMENT AT 17TH AVENUE NW AND ADVENTURELAND DRIVE.

STAGE 6

1. INSTALL TRAFFIC CONTROL DEVICES, TEMPORARY PAVEMENT MARKINGS, BARRIERS, AND TRAFFIC CONTROL SIGNAGE
2. REMOVE SOUTH HALF OF EXISTING PAVEMENT ON ADVENTURELAND DRIVE, SIDE STREETS, AND DRIVEWAYS BETWEEN STATIONS 9+06.00 AND 20+88.50
3. INSTALL REMAINING 16" WATER MAIN.
4. CONSTRUCT PROPOSED PAVEMENT ON ADVENTURELAND BETWEEN STATION 9+06.00 AND 20+88.50
5. COORDINATE WITH UTILITIES FOR HANDHOLE ADJUSTMENTS SW QUADRANT
6. COORDINATE WITH MIDAMERICAN ENERGY FOR STREET LIGHT INSTALLATION.

STAGE 7

1. INSTALL TRAFFIC CONTROL DEVICES, TEMPORARY PAVEMENT MARKINGS, BARRIERS, AND TRAFFIC CONTROL SIGNAGE
2. REMOVE NORTH HALF OF EXISTING PAVEMENT ON ADVENTURELAND DRIVE, SIDE STREETS, AND DRIVEWAYS BETWEEN STATIONS 8+97.00 AND 20+88.50, BUT MAINTAIN AT LEAST ONE ENTRANCE TO BLUE RIDGE APARTMENTS WITH TEMPORARY PAVEMENT CROSSINGS
3. CONSTRUCT WATER MAIN AND STORM SEWER
4. INSTALL TEMPORARY SANITARY MANAGEMENT FOR PARCEL 2
5. REMOVE SOUTH DRIVEWAY ENTRANCE OFF OF 17TH AVENUE FOR PARCEL 2
6. INSTALL SANITARY SEWER PAST SANITARY SERVICE FOR PARCEL 2
7. REINSTALL SOUTH DRIVEWAY ENTRACE TO PARCEL 2
8. REMOVE NORTH DRIVEWAY ENTRACE OFF OF 17TH AVENUE FOR PARCEL 2
9. RESUME SANITARY SEWER CONSTRUCTION TO FINAL MANHOLE AND SEWER STUB
10. REINSTALL NORTH DRIVEWAY ENTRACE TO PARCEL 2
11. COMPLETE REMAINING ROADWAY PAVEMENT ON 17TH AVENUE. MAINTAIN ONE ACCESS FROM 17TH AVENUE NW TO PARCEL 2.
12. CONSTRUCT PROPOSED ROADWAY PAVEMENT ALONG ADVENTURELAND DRIVE WHILE MAINTAINING AT LEAST ONE ENTRANCE TO BLUE RIDGE PLACE APARTMENTS.
13. COORDINATE WITH MIDAMERICAN ENERGY FOR STREET LIGHT INSTALLATION.

STAGE 8

1. INSTALL TRAFFIC CONTROL DEVICES, BARRIERS, AND TRAFFIC CONTROL SIGNAGE
2. REMOVE ANY REMAINING EXISITNG PAVEMENT
3. COMPLETE PROPOSED MEDIAN AND TURN LANE PAVEMENT

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Project No: 122.1679.01

Sheet J.1

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

TRAFFIC CONTROL AND STAGING

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
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515-964-2020| www.snyder-associates.com

SNYDER &ASSOCIATES

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TRAFFIC CONTROL

1. REFER TO REMAINING J-SHEETS FOR SPECIAL LAYOUTS FOR CONSTRUCTION STAGING.

2. THE CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL OPERATIONS WITH OTHER PROJECTS IN THE AREA

3. TRAFFIC CONTROL ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIHGWAYS AS ADOPTED BY THE IOWA DEPARTMENT OFTRANSPORTATION AND 751 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.

4. INGRESS AND EGRESS FROM THE WORK AREA WILL BE ALLOWED ONLY AT LOCATIONS SPECIFIED IN THE CONTRACT DOCUMENTS OR AS APPROVED BY THE ENGINEER. ALL TRUCK HAULING MATERIAL TO AND FROM THE WORK AREA SHALL DISPLAY A 16-INCH X 48-INCH RETRO-REFLECTIVE SIGN WITH THE LEGEND 'DO NOT FOLLOW INTO THE WORK AREA'. THE SIGN SHALL BE ORANGE WITH BLACK LETTERING (4-INCH HEIGHT) AND BE COMPRISED OF TYPE VII SHEETING.

5. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, CLEANED, AND REMOVED BY THE CONTRACTOR. THE CONTRACTOR SHALL CHECK TRAFFIC CONTROL DEVICES AND REPAIR OR REPLACE DAMAGED DEVICES PROMPTLY.

6. WHERE POSSIBLE, ALL POST MOUNTED SIGNS SHALL BE PLACED AT LEAST 2-FEET CLEAR BEYOND THE CURB OR EDGE OF THE SHOULDER.

7. THE LOCATION FOR STORAGE OF EQUIPMENT BY THE CONTRACTOR SHALL BE AS APPROVED BY THE ENGINEER IN CHARGE OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING A SAFE STORAGE AREA FOR EQUIPMENT AND MATERIALS USED ON THE PROJECT. REFER TO PROJECT SPECIAL PROVISIONS FOR ADDITIONAL LOCATIONS FOR STORAGE OF MATERIALS AND EQUIPMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF LOCATION FOR STORAGE OF EQUIPMENT AND MATERIALS.

8. PROPOSED SIGN SPACING MAY BE MODIFIED AS APPROVED BY THE ENGINEER TO MEET EXISTING FIELD CONDITIONS OR PREVENT OBSTRUCTION OF THE MOTORIST'S VIEW OF PERMANENT SIGNING.

9. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE FOR THE TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE ENGINEER.

10. THE CONTRACTOR SHALL PROVIDE, PRIOR TO THE START OF CONSTRUCTION, THE NAME AND 24-HOUR PHONE NUMBER OF THE CONTRACTOR'S REPRESENTATIVE IN CHARGE OF THE TRAFFIC CONTROL. ALL ADDITIONAL STANDARD TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, CONES, ETC., THAT ARE REQUIRED SHALL BE DELIVERED AND INSTALLED AT THE PROJECT SIDE WITH FOUR (4) HOURS OF NOTIFICATION, INCLUDING WEEKENDS.

11. PROPOSED CHANGES IN THE TRAFFIC CONTROL PLAN SHALL BE REVIEWED WITH THE ENGINEER AT LEAST 48-HOURS PRIOR TO CHANGES BEING MADE IN THE FIELD.

12. THE CONTRACTOR SHALL COMMUNICATE TRAFFIC CONTROL CHANGES DETAILED IN THESE PLANS AND DETOUR ROUTES WITH PROPERTY OWNERS ALONG THE PROJECT CORRIDOR AT LEAST ONE WEEK PRIOR TO CHANGES.

13. THE CONTRACTOR SHALL COORDINATE POSTAL SERVICE AND TEMPORARY CLUSTER MAILBOX LOCATIONS WITH THE POST OFFICE PRIOR TO BEGINNING CONSTRUCTION. REFER TO MAINTENANCE OF POSTAL SERVICE PLAN IN THESE J-SHEETS.

14. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GARBAGE AND RECYCLING COLLECTION SERVICE WITH LOCAL PROVIDERS. THIS SHALL INCLUDE MOVING WASTE RECEPTACLES TO A DESIGNATED LOCATION OUTSIDE THE CORRIDOR FOR COLLECTION AND RETURNING THE RECEPTACLES TO THE OWNER'S DRIVEWAY UPON COLLECTION.

15. THE CONTRACTOR SHALL MAINTAIN TRAFFIC THROUGHOUT THE PROJECT CORRIDOR AS FOLLOWS:

A. THE CONTRACTOR SHALL MAINTAIN ACCESS WITH MINIMUM ONE 11' LANE OF TRAFFIC EACH DIRECTION THROUGH THE CORRIDOR DURING EACH STAGE FOLLOWING STAGE 1, EXCEPT AS DETAILED IN 15B AND 15C.

B. CONTRACTOR SHALL IMPLEMENT IOWA DOT STANDARD ROAD PLAN TC-213 DURING TEMPORARY WIDENING PAVING AND GRADING OPERATIONS DURING STAGES 1 AND 5. DURING NON WORKING HOURS THE CONTRACTOR SHALL MOVE CHANNELIZING DEVICES TO THE NORTH EDGE OF THE ROADWAY AND INSTALL A W8-9A 'SHOULDER DROP-OFF' SIGN PER IOWA DOT STANDARD ROAD PLAN TC-202.

C. DURING STORM SEWER AND WATER MAIN CROSSINGS OF ADVENTURELAND DRIVE AND SIDE STREETS IN STAGE 1, THE CONTRACTOR SHALL IMPLEMENT IOWA DOT STANDARD ROAD PLAN TC-252 SITUATION 1 (URBAN). ONLY ONE CROSSING OF ADVENTURELAND DRIVE MAY BE COMPLETED AT A TIME.

D. THE CONTRACTOR SHALL COMMUNICATE LANE CLOSURES, DRIVEWAY CLOSURES, DESIGNATED PARKING AREAS, CHANGES IN TRAFFIC PATTERNS AND TEMPORARY DETOURS TO THE RESIDENTS THROUGH DOOR HANGERS, HANDBILLS AND RESIDENT CONTACT 72 HOURS IN ADVANCE OF ACTIVITY.

E. THE CONTRACTOR SHALL CONCLUDE ALL CONSTRUCTION IN AND AROUND THE TEMPORARY CONSTRUCTION EASEMENT FOR PARCEL 1 INCLUDING FILLING ANY OPEN TRENCHES AND INSTALLING SAFETY DEVICES PRIOR TO 3 P.M. DAILY.

F. EMERGENCY SERVICES ACCESS SHALL BE MAINTAINED AT ALL TIMES.

16. THE CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS DURING NON-WORK HOURS EXCEPT DURING CURB AND GUTTER CONSTRUCTION, DRIVEWAY CONSTRUCTION, AND MATURITY CURE PERIOD. DRIVEWAYS AND CURB AND GUTTER MAY BE OPENED TO RESIDENTIAL ACCESS ONCE CONCRETE REACHES A MINIMUM MATURITY OF 2,500 PSI.

108-15B MOD

PROPERTY OWNER ACCOMMODATIONS

PARCEL 1
1. A MINIMUM OF TWO ACCESS POINTS SHALL REMAIN OPEN AT ALL TIMES.
2. FOR ALL WORK ON SITE, ACTIVE WORK OPERATION HOURS ARE 6 AM - 3 PM.
3. AT THE END OF THE WORK SHIFT AND BY 3 PM EACH DAY, ALL ONSITE TRAFFIC CONTROL DEVICES SHALL BE SET AT THE PHYSICAL WORK LIMITS OR TO OPEN AS MUCH AREA FOR PARKING AS POSSIBLE.
4. CONTRACTOR SHALL PROTECT THE BIG STEER MONUMENT SIGN AND RELATED LANDSCAPING, LIGHTING, AND IMPROVEMENTS.

PARCEL 2
1. CONTRACTOR TO CUT CAP AND RESTORE IRRIGATION SYSTEMS ENCOUNTERED IN GRADING. PROPERTY OWNER TO MARK IRRIGATION SYSTEM PRIOR TO WORK IN THIS AREA.

PARCEL 12
1. COORDINATE WITH PROPERTY OWNER FOR LOCATION OF BOULDER RELOCATION WITHIN TCE.

PARCEL 14
1. CONTRACTOR TO REMOVE AND RELOCATE SHED PRIOR TO RETAINING WALL CONSTRUCTION. CONTRACTOR TO COORDINATE WITH OWNER 14 CALENDAR DAYS IN ADVANCE FOR OWNER TO REMOVE AND STORE PERSONAL BELONGINGS.

PARCEL 15
1. CONTRACTOR TO REMOVE TWO DECIDOUS TREES OUTSIDE OF TCE LIMITS PER RIGHT OF ENTRY AGREEMENT. COORDINATE WITH PROPERTY OWNER 14 CALENDAR DAYS IN ADVANCE FOR ENTRY.

PARCEL 16
1. CONTRACTOR SHALL NOT STORE EQUIPMENT AND MATERIALS IN THE TEMPORARY CONSTRUCTION EASEMENT OR PUBLIC UTILITY EASEMENTS DURING THE COURSE OF CONSTRUCTION. EQUIPMENT AND UNINSTALLED MATERIALS ARE PERMITTED ONLY DURING ACTIVE CONSTRUCTION OPERATIONS.
2. CONTRACTOR TO REMOVE TREE OUTSIDE TEMPORARY CONSTRUCTION EASEMENT PER RIGHT OF ENTRY AGREEMENT. CONTRACTOR SHALL COORDINATE FOR PROPERTY ENTRY 14 CALENDAR DAYS IN ADVANCE.
3. CONTRACTOR SHALL KEEP ALL EQUIPMENT AND CONSTRUCTION OPERATIONS GREATER THAN 5' FROM THE EXISTING HOUSE.

PARCEL 17
1. CONTRACTOR TO COORDINATE WITH OWNER 14 DAYS IN ADVANCE OF DRIVEWAY CLOSURE FOR RECONSTRUCTION.
2. PROPERTY OWNER TO SALVAGE ITEMS IN THE ACQUISITION AREAS PRIOR TO MARCH 31, 2027.

PARCEL 21
1. COORDINATE FOR MAINTENANCE DRIVEWAY CLOSURE WITH DURATIONS LIMITED TO 21 DAYS.
2. MAINTAIN SECURE PERIMETER FENCE AT ALL TIMES.

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Sheet J.2

UTILITY COORDINATION NOTES

CITY OF ALTOONA: FO6 FIBEROPTIC, W1 WATER, W2 WATER, S1 SANITARY

CITY FIBEROPTIC TO BE RELOCATED TO JUT PER PLAN REFER TO N-SHEETS. FOR WATER RELOCATIONS AND REMOVALS REFER TO MWM-SHEETS. FOR SANITARY RELOCATION AND MAJOR MANHOLE ADJUSTMENTS REFER TO MSA-SHEETS AND U-SHEETS.
SPOT FIBER CONDUIT RELOCATION IS REQUIRED PRIOR TO CABLE RELOCATIONS REFER TO MWM- SHEETS AND N-SHEETS. STATION 6+55 RT.

LUMEN C1 COMMUNICATION FO1 FIBER OPTIC

FIBER OPTIC TO BE PROTECTED IN PLACE BY THE CONTRACTOR OUTSIDE OF THE FOLLOWING EXCEPTIONS TO BE PERFORMED BY LUMEN:

HANDHOLE RELOCATIONS AT 17TH AVE NW, BLUE RIDGE PLACE, AND 9TH AVE NW. PEDESTAL REMOVALS AT 17TH AVE NW, WEST OF 12TH AVE NW, AND WEST OF 10TH AVE NW.
PEDESTAL RELOCATION WEST OF 14TH AVE NW. CONTRACTOR TO COORDINATE SPOT FIBER CONDUIT RELOCATIONS TO OCCUR IN PROXIMITY TO STORM STRUCTURES.
HANDHOLE ON NW CORNER OF ADVENTURELAND AT 17TH AVE NW TO BE RELOCATED IN YEAR 2 AND SET TO PROPOSED SIDEWALK GRADE PRIOR TO POURING COMBINED SIDEWALK/RETAINING WALL.

CONTRACTOR TO PROVIDE 2 WEEKS NOTIFICATION AND 2 CALENDAR DAYS FOR HANDHOLE RELOCATIONS AT 17TH AVE NW NW QUADRANT AND AT 9TH AVENUE NW NE QUADRANT.

PEDESTAL REMOVALS AND HANDHOLE RELOCATION AT 9TH AVE NW TO OCCUR PRIOR TO YEAR 1 CONSTRUCTION.

MIDAMERICAN ENERGY E1 UNDERGROUND ELECTRIC; OE OVERHEAD ELECTRIC; G1 GAS; HPG1 HP GAS; STREET LIGHTING

AERIAL ELECTRIC TO BE UNDERGROUNDED FROM EXISTING POLES PRIOR TO YEAR 1. EXISTING POLES ARE TO REMAIN IN PLACE FOR LIGHTING ALONG THE CORRIDOR UNTIL REMOVAL IS NECESSARY TO CONTINUE CONSTRUCTION EFFORTS. CONTRACTOR TO PROVIDE ADVANCE NOTICE ON EXPECTE COMPLETION OF ROADWAY AND SIDEWALK PAVEMENT TO COORDINATE INSTALLATION OF LIGHT POLES FOR BOTH YEAR 1 AND YEAR 2 CONSTRUCTION. POLE REMOVAL BY MIDAMERICAN

GAS RELOCATION BETWEEN 17TH AVE NW AND 14TH AVE NW TO OCCUR TO REMOVE CONFLICTS WITH PROPOSED STORM AND SHIFT REGULATOR STATION AT STA 21+85.00.
PROVIDE 2 WEEKS NOTIFICATION FOR WORK AREA BEING READY AT 17TH AVENUE CROSSING AND ALLOW 10 DAYS FOR GAS MAIN RELOCATION.

MEDIACOM C2 COMMUNICATION; FO2 FIBER OPTIC

MEDIACOM FIBER TO BE RELOCATED TO JUT PER PLAN. REFER TO U-SHEETS. CONTRACTOR TO COORDINATE ADJUSTMENTS TO FINAL GRADE.

AUREON NETWORK SERVICES FO4 FIBER OPTIC

AUREON FIBER OPTIC TO BE PROTECTED IN PLACE. SPOT RELOCATIONS DURING JUT PROJECT. DURING CONSTRUCTION OF SANITARY SEWER, CONTRACTOR TO COORDINATE PROTECTION EFFORTS WITH AUREON.
HANDHOLE RELOCATIONS AND ADJUSTMENTS AT 17TH AVENUE NW/ADVENTURELAND DRIVE NW SE QUADRANT TO BE COORDINATED BY CONTRACTOR WITH UTILITY.

BLUEBIRD FIBER OPTIC FO20: FIBEROPTIC

BLUEBIRD FIBER OPTIC IS PRIMARILY LOCATED ON THE NORTH SIDE OF ADVENTURELAND DRIVE FROM 17TH AVE NW TO 10TH AVE NW, INSTALLED IN CONDUIT AT A DEPTH EXCEEDING 6'. HANDHOLE AND SPOT RELOCATION AT BLUE RIDGE PLACE WILL BE COMPLETED PRIOR TO YEAR 2.

COMM DATA LINK FO17 FIBEROPTIC

FIBER OPTIC TO BE PROTECTED IN PLACE OUTSIDE OF SPOT RELOCATIONS. CONTRACTOR TO COORDINATE RELOCATION REQUIRED FOR WATER MAIN CONSTRUCTION ALONG 14TH AVE NW.

METRONET FO9 FIBER OPTIC

METRONET FIBER TO BE RELOCATED TO JUT PER PLAN. REFER TO U-SHEETS. CONTRACTOR TO COORDINATE ADJUSTMENTS TO FINAL GRADE.
HANDHOLE RELOCATIONS AND ADJUSTMENTS AT 17TH AVENUE NW/ADVENTURELAND DRIVE NW SE QUADRANT TO BE COORDINATED BY CONTRACTOR WITH UTILITY.

SEGRA F08 FIBER OPTIC

SEGRA FIBER TO BE RELOCATED TO JUT PER PLAN. REFER TO U-SHEETS. CONTRACTOR TO COORDINATE ADJUSTMENTS TO FINAL GRADE.
HANDHOLE RELOCATIONS AND ADJUSTMENTS AT 17TH AVENUE NW/ADVENTURELAND DRIVE NW SE QUADRANT TO BE COORDINATED BY CONTRACTOR WITH UTILITY.

WELLMARK FO19 FIBER OPTIC

WELLMARK FIBER TO BE RELOCATED TO JUT PER PLAN. REFER TO U-SHEETS. CONTRACTOR TO COORDINATE ADJUSTMENTS TO FINAL GRADE.

HANDHOLE RELOCATIONS AND ADJUSTMENTS AT 17TH AVENUE NW/ADVENTURELAND DRIVE NW SE QUADRANT TO BE COORDINATED BY CONTRACTOR WITH UTILITY.

UNITI GROUP (FKA WINDSTREAM) FO3 FIBER OPTIC

UNITI FIBER TO BE RELOCATED TO JUT PER PLAN. REFER TO U-SHEETS. CONTRACTOR TO COORDINATE ADJUSTMENTS TO FINAL GRADE.
HANDHOLE RELOCATIONS AND ADJUSTMENTS AT 17TH AVENUE NW/ADVENTURELAND DRIVE NW SE QUADRANT TO BE COORDINATED BY CONTRACTOR WITH UTILITY.

US CELLULAR CRAN (CO LOCATED ON MIDAMERICAN STREET LIGHT)

CRAN TO BE RELOCATED TO ANOTHER POLE PRIOR TO APRIL 1, 2027 OUTSIDE OF CORRIDOR.

INTERNET CONSULTING SERVICES FO18 FIBER OPTIC (TO BE ABANDONED)
REFER TO U-SHEETS. THIS UTILITY WILL BE ABANDONED THROUG H THE CORRIDOR AND FACILITIES REMOVED IN YEAR 1.

PREVIOUSLY ABANDONED FO FIBER OPTIC
UNDESIGNATED FIBER OPTIC FACILITIES HAVE BEEN PREVIOUSLY ABANDONED.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: JWH	Scale: 1" = NTS	
Technician: KSB	Date: 8/16/2026	Field Bk:	Pg:
DOT STP-U-0132(628)--70-77			
Project No: 122.1679.01			Sheet J.3

ADVENTURELAND DRIVE NW RECONSTRUCTION PROJECT

ALTOONA, IOWA

TRAFFIC CONTROL AND STAGING

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
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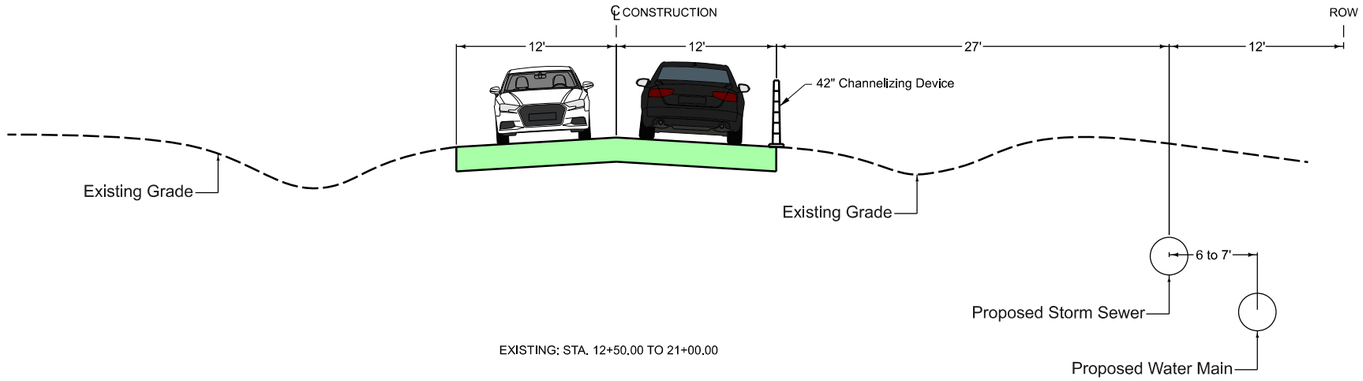
SNYDER &ASSOCIATES

Project No: 122.1679.01

Sheet J.3

EXISTING TYPICAL SECTION

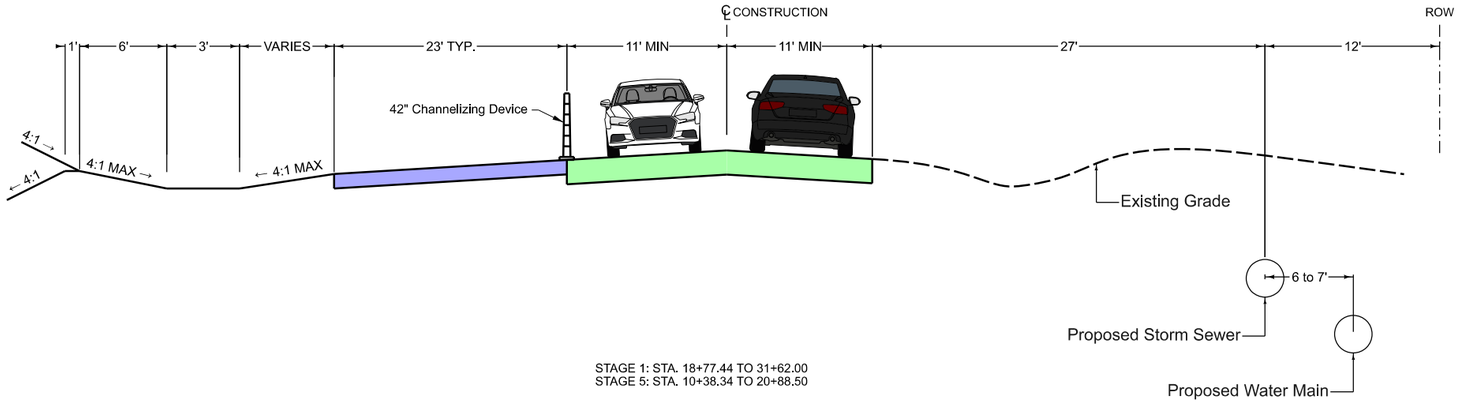
TYP-1



EXISTING: STA. 12+50.00 TO 21+00.00

TEMPORARY PAVEMENT CONSTRUCTION STAGE 1 AND STAGE 5

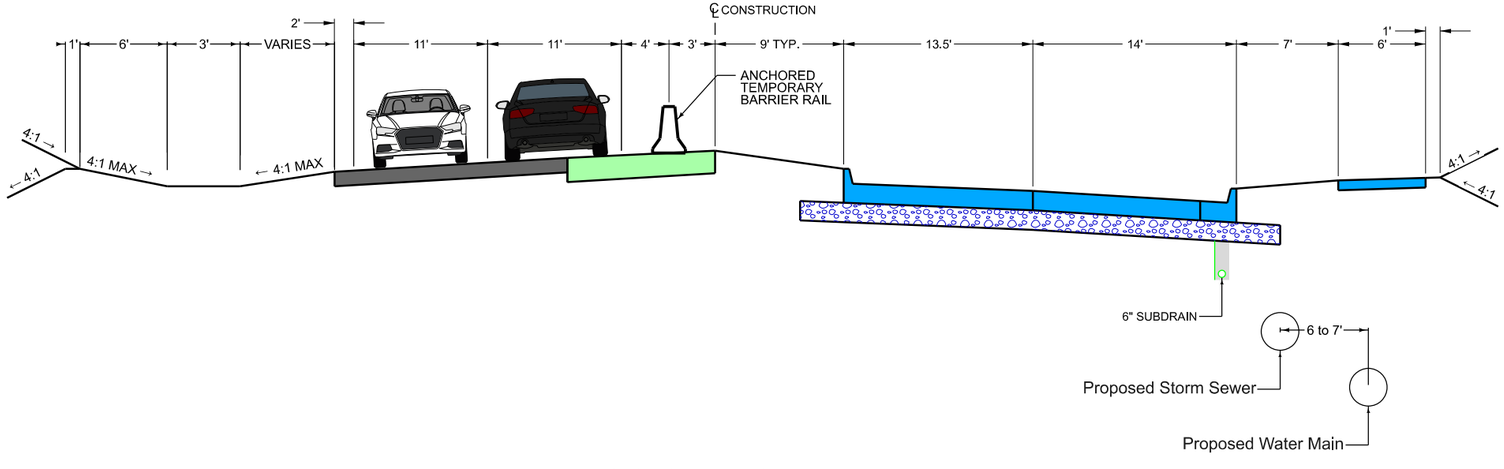
TYP-2



STAGE 1: STA. 18+77.44 TO 31+62.00
STAGE 5: STA. 10+38.34 TO 20+88.50

SOUTHBOUND LANE CONSTRUCTION STAGE 2 AND STAGE 6

TYP-3



STAGE 2: STA. 20+88.50 TO 31+62.00
STAGE 6: STA. 9+06.41 TO 20+88.50

LEGEND:
- EXISTING PAVEMENT
- TEMPORARY PAVEMENT
- CURRENTLY CONSTRUCTED PAVEMENT
- PREVIOUSLY CONSTRUCTED PAVEMENT

STAGING TYPICALS

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS'
Technician: KSB	Date: 8/17/2026	T-R-S:	
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	J.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet J.4

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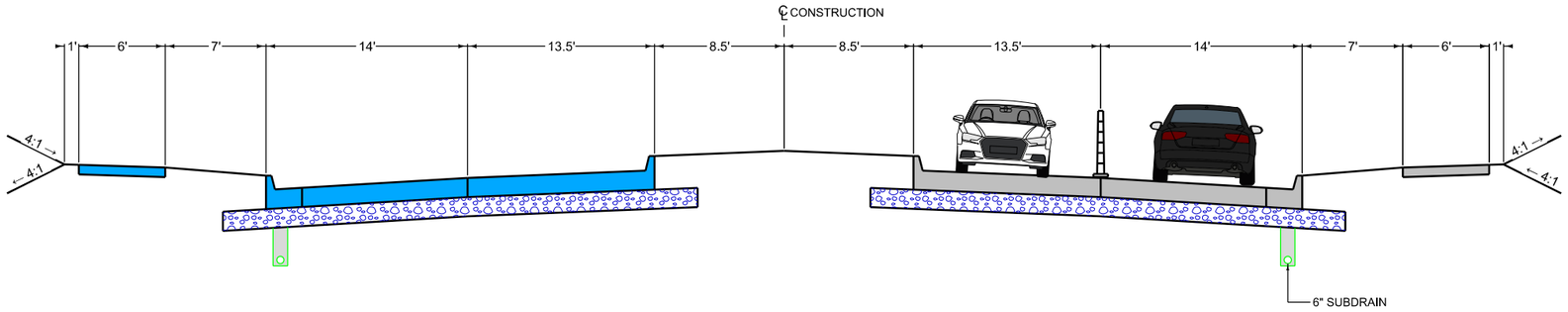
NORTHBOUND LANE CONSTRUCTION
STAGE 3 AND STAGE 7

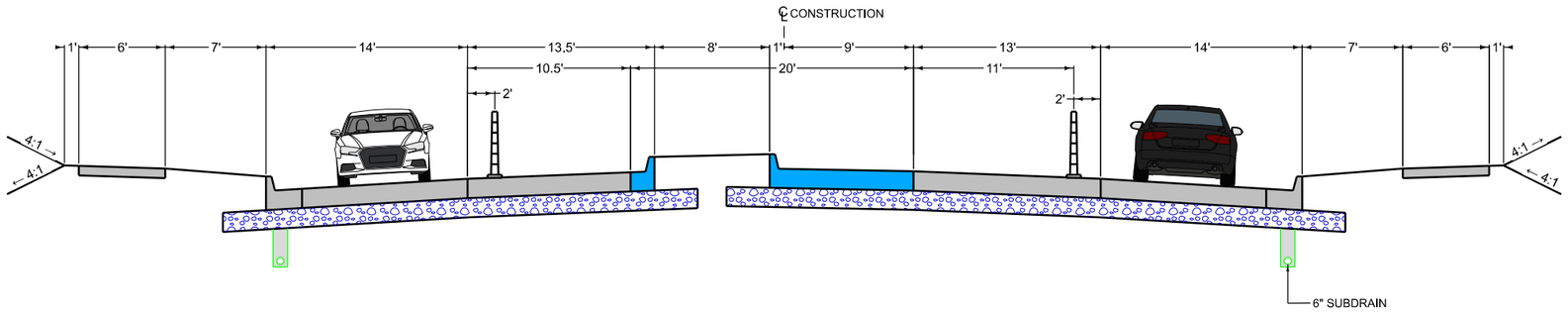
TYP-4



STAGE 3: STA. 20+88.50 TO 31+62.00
STAGE 7: STA, 8+97.00 TO 20+88.50

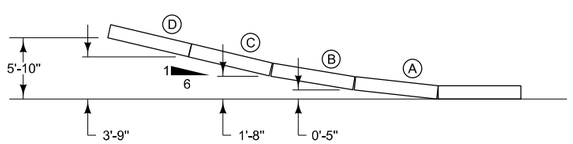
CENTER TURN LANE CONSTRUCTION
STAGE 4 AND STAGE 8

TYP-5



STAGE 4: STA. 20+88.50 TO 35+15.00
STAGE 8: STA. 8+97.00 TO 20+88.50

BA-401



BARRIER OFFSETS FOR FLARE SECTIONS

STAGING TYPICALS

LEGEND:
- EXISTING PAVEMENT
- TEMPORARY PAVEMENT
- CURRENTLY CONSTRUCTED PAVEMENT
- PREVIOUSLY CONSTRUCTED PAVEMENT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	NTS	
Technician: KSB	Date: 8/17/2026	T-R-S:	
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet J.5	

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TRAFFIC CONTROL AND STAGING

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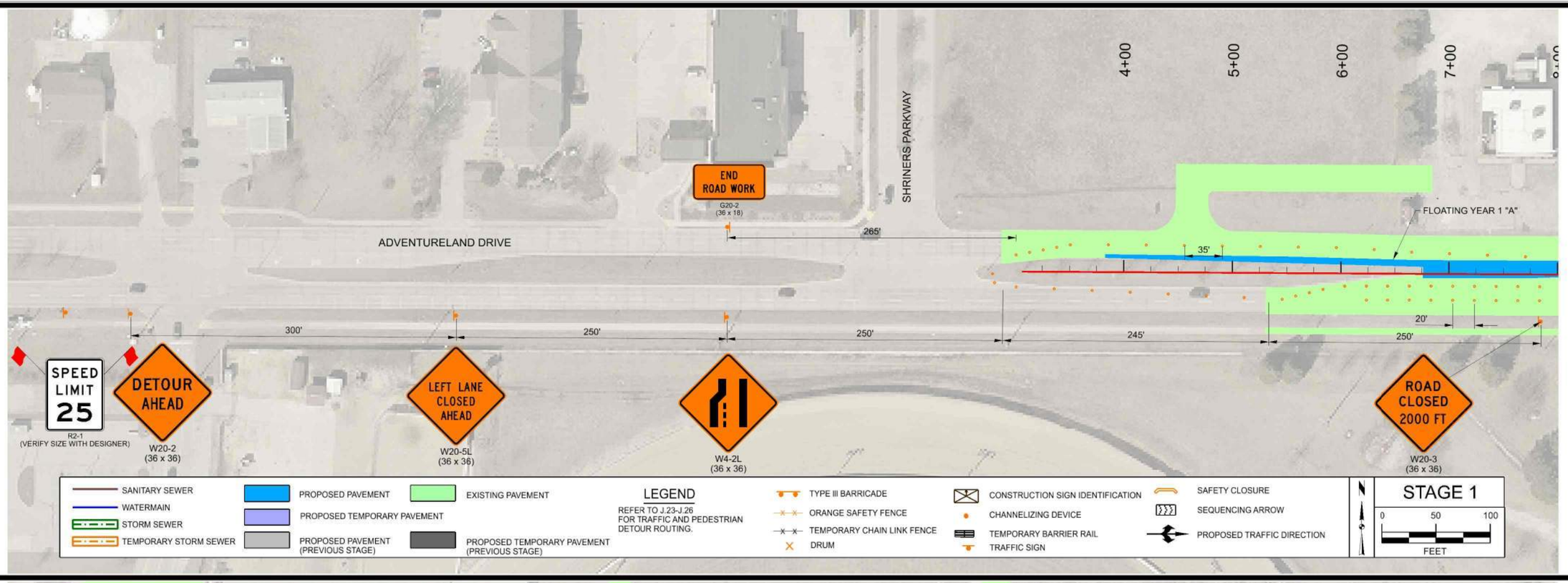
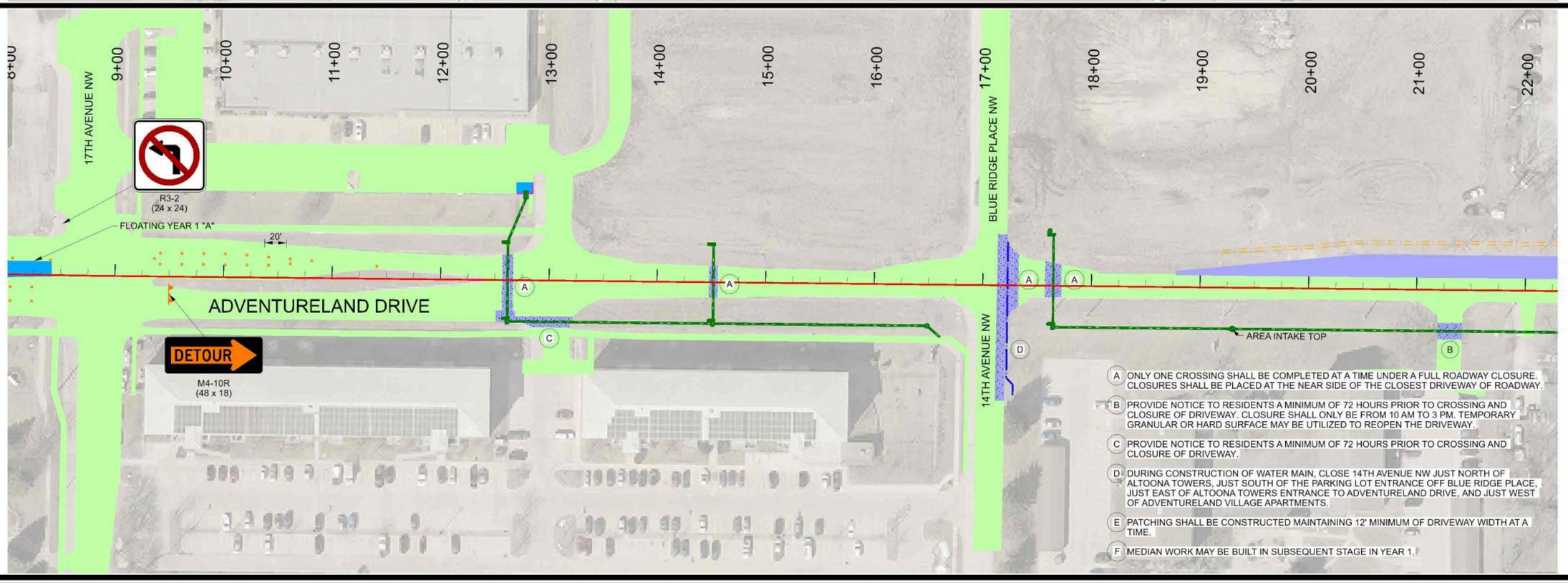
Sheet J.5





ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC CONTROL AND STAGING

ALTOONA, IA

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		
Project No:	DOT STP-U-0132(628)--70-77 12221679	Sheet	J.6

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Sheet J.6

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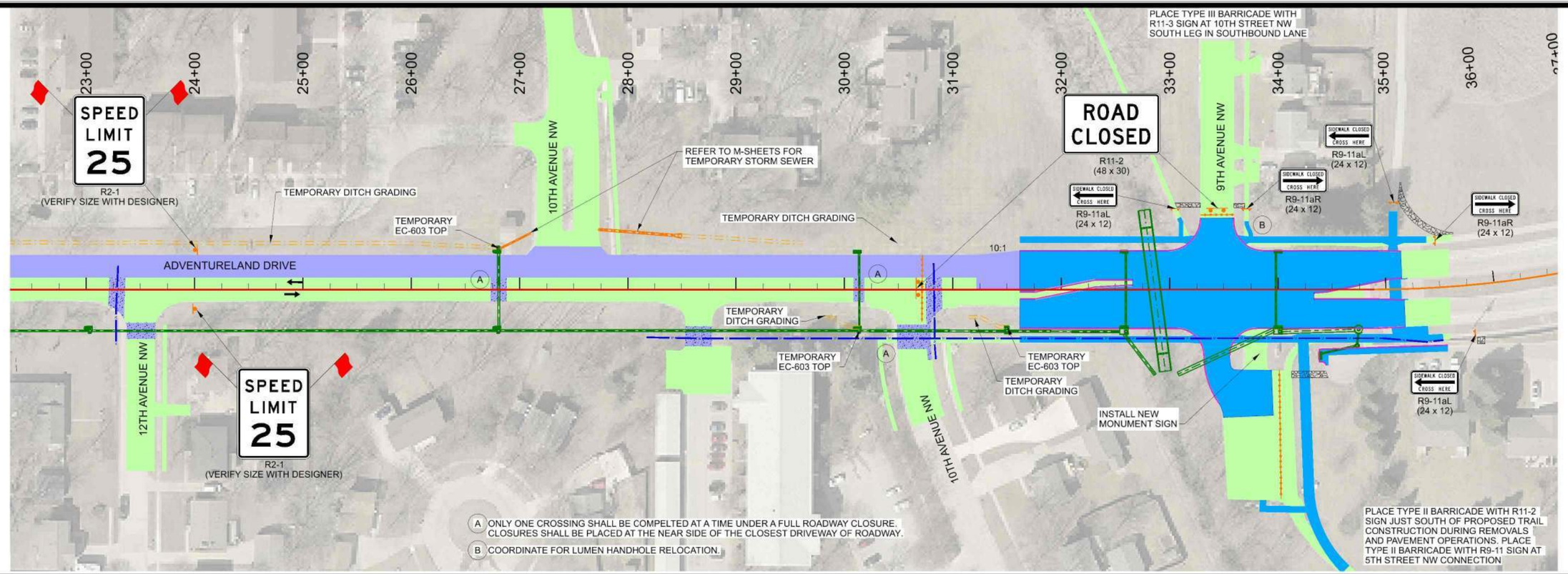

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		
	DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet J.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet J.7

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A COMPLETE WATER MAIN TIE-IN AND CROSSING TO MEDIAN. COMPLETE PAVEMENT REMOVAL AT 17TH AVE NW AND ADVENTURELAND DRIVE. COORDINATE FOR LUMEN HANDHOLE RELOCATION AND MID-AMERICAN GAS MAIN RELOCATION. COMPLETE WATER MAIN AND STORM SEWER RELOCATION.

B COMPLETE ADVENTURELAND DRIVE CURB AND GUTTER, COMBINED SIDEWALK AND RETAINING WALL, AND CURB AND GUTTER, PER PLAN. SIGNAL FOUNDATIONS AND HANDHOLES SHALL BE INSTALLED IN THIS STAGE.

C WORK FOR ITEMS A AND B MAY BE COMPLETED AT ANY TIME IN YEAR 1, STAGES 1 THROUGH 4, BUT MUST REMAIN IN SEQUENCE WITH OTHER WORK SHOWN ON 17TH AVENUE NW AND ADVENTURELAND DRIVE.

SHRINERS PARKWAY

4+00 5+00 6+00 7+00 8+00 9+00 10+00

17TH AVENUE NW

ADVENTURELAND DRIVE

SPEED LIMIT 25
R2-1 (24 x 30)

SPEED LIMIT 35
R2-1 (24 x 30)

END ROAD WORK
G20-2 (36 x 18)

CW1-4L (36 x 36)

W6-3 (36 x 36)

ONLY
R3-8b (32 x 30)

LEGEND

REFER TO J.23-J.26 FOR TRAFFIC AND PEDESTRIAN DETOUR ROUTING.

- SANITARY SEWER
- WATERMAIN
- STORM SEWER
- TEMPORARY STORM SEWER
- PROPOSED PAVEMENT
- PROPOSED TEMPORARY PAVEMENT
- PROPOSED PAVEMENT (PREVIOUS STAGE)
- EXISTING PAVEMENT
- PROPOSED TEMPORARY PAVEMENT (PREVIOUS STAGE)
- TYPE III BARRICADE
- ORANGE SAFETY FENCE
- TEMPORARY CHAIN LINK FENCE
- DRUM
- CONSTRUCTION SIGN IDENTIFICATION
- CHANNELIZING DEVICE
- TEMPORARY BARRIER RAIL
- TRAFFIC SIGN
- SAFETY CLOSURE
- SEQUENCING ARROW
- PROPOSED TRAFFIC DIRECTION

STAGE 2

0 50 100 FEET

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

BLUE RIDGE PLACE NW

END ROAD WORK
G20-2 (36 x 18)

ADVENTURELAND DRIVE

250' 250'

ROAD WORK AHEAD
CW20-1 (36 x 36)

SPEED LIMIT 25
R2-1 (24 x 30)

14TH AVENUE NW

CW1-4R (36 x 36)

CW1-4L (36 x 36)

REFER TO DETAIL BA-401 SHEET J.4

SAFETY EDGE

20'

TEMPORARY AREA INTAKE TOP

STAGE 2A STAGE 2C STAGE 2B STAGE 2D STAGE 2C STAGE 2A

SAFETY EDGE

ROAD CLOSED
R11-2 (48 x 30)

12TH AVENUE NW

D STAGE 2D INCLUDES PERMANENT PAVEMENT IN THE ROADWAY AND RESTORATION OF PARCEL 18 PARKING LOT, AND REMOVAL OF STAGE 2B TEMP PAVEMENT.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg
Technician: KSB	Date: 8/17/2026	DOT STP-U-0132(628)--70-77	Project No: 1221679

Sheet J.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

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Project No: 1221679

Sheet J.8

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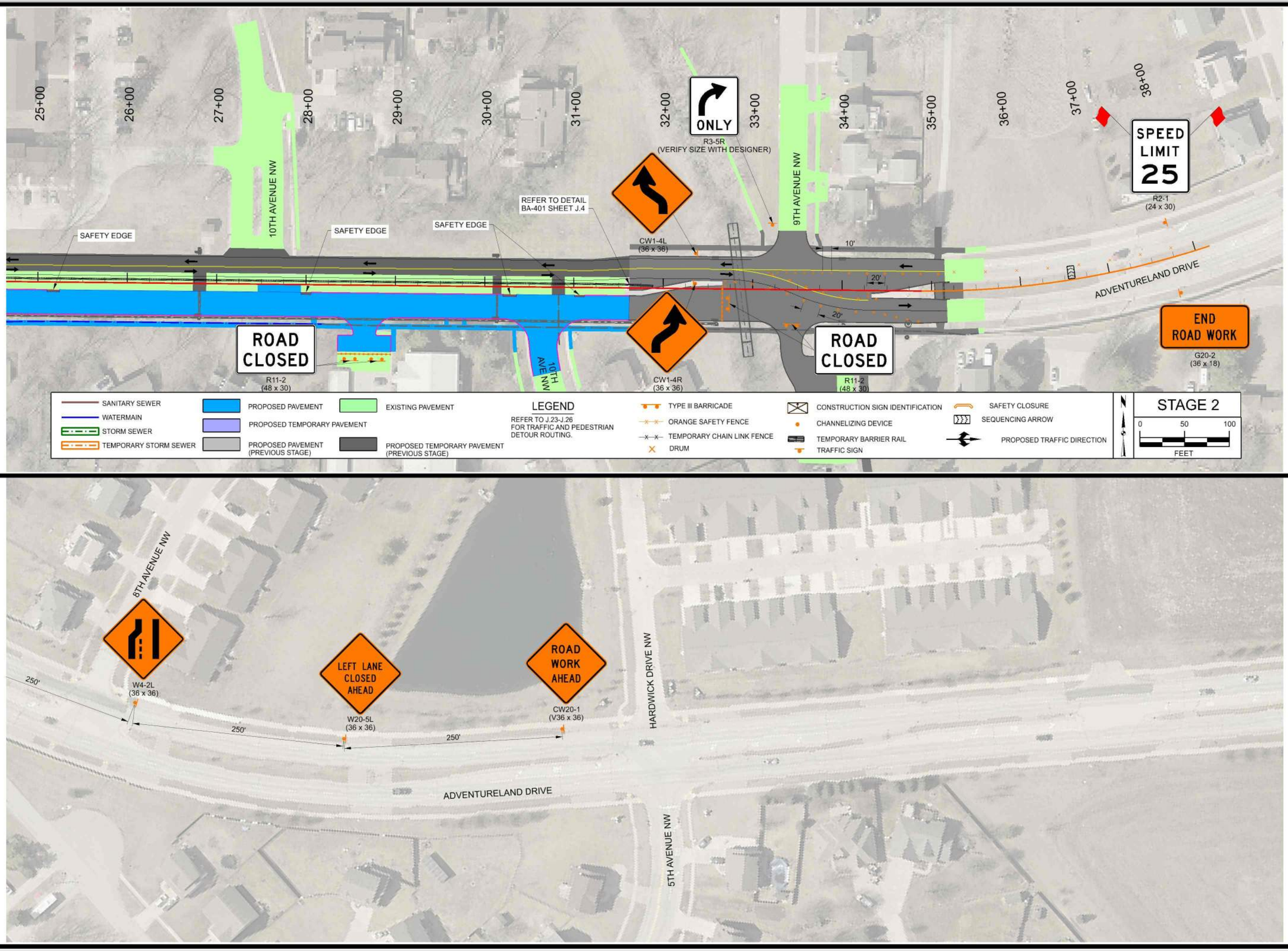

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/18/2026		
DOT: STP-U-0132(628)--70-77 Project No: 1221679			Sheet J.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet J.9

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A COMPLETE DRIVEWAY APRON, AND COMBINED SIDEWALK RETAINING WALL LEAVING SOUTH AND WEST DRIVEWAYS OPEN. CLOSE ROAD TO TRAFFIC.

B COMPLETE COMBINED SIDEWALK RETAINING WALL AND CURB AND GUTTER PER PLAN WITH LANE CLOSURE, SELF REGULATING.

C THIS WORK MAY BE CONSTRUCTED AT ANY TIME IN YEAR 1, IN SEQUENCE WITH WORK IN THIS AREA CONSTRUCTED.

SHRINERS PARKWAY

4+00 5+00 6+00 7+00 8+00 9+00 10+00

17TH AVENUE NW

ADVENTURELAND DRIVE

SANITARY SEWER
WATERMAIN
STORM SEWER
TEMPORARY STORM SEWER
PROPOSED PAVEMENT
PROPOSED TEMPORARY PAVEMENT
PROPOSED PAVEMENT (PREVIOUS STAGE)
EXISTING PAVEMENT
PROPOSED TEMPORARY PAVEMENT (PREVIOUS STAGE)

LEGEND

REFER TO J.23-J.26 FOR TRAFFIC AND PEDESTRIAN DETOUR ROUTING.

TYPE III BARRICADE
ORANGE SAFETY FENCE
TEMPORARY CHAIN LINK FENCE
DRUM
CONSTRUCTION SIGN IDENTIFICATION
CHANNELIZING DEVICE
TEMPORARY BARRIER RAIL
TRAFFIC SIGN
SAFETY CLOSURE
SEQUENCING ARROW
PROPOSED TRAFFIC DIRECTION

STAGE 3

0 50 100
FEET

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

BLUE RIDGE PLACE NW

END ROAD WORK
G20-2
(36 x 18)

ADVENTURELAND DRIVE

250' 250'

ROAD WORK AHEAD
CW20-1
(36 x 36)

SPEED LIMIT 25
R2-1
(24 x 30)

14TH AVENUE NW

CW1-4R
(36 x 36)

CW1-4L
(36 x 36)

SAFETY EDGE

12TH AVENUE NW

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg
Technician: KSB	Date: 8/17/2026	DOT STP-U-0132(628)--70-77	Sheet J.10
		Project No: 1221679	

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet J.10

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INSTALL W20-1 SIGN AT SUNBURST LANE FOR SOUTHBOUND LANES AND G20-2 SIGN FOR NORTHBOUND LANES

25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00

10TH AVENUE NW

9TH AVENUE NW

W6-3 (36 x 36)

W6-3 (36 x 36)

R3-1 (24 x 24)

SPEED LIMIT 25

R2-1 (24 x 30)

250'

SAFETY EDGE

SAFETY EDGE

STAGE 3A

STAGE 3B

STAGE 3B

STAGE 3A

SAFETY EDGE

SAFETY EDGE

ADVENTURELAND DRIVE

10TH AVENUE NW

END ROAD WORK

G20-2 (VERIFY SIZE WITH DESIGNER)

A ONLY INSTALL W6-3 SIGN FOR SIDE OF MEDIAN THAT IS OPEN TO TRAFFIC

B ONLY INSTALL SAFETY FENCE FOR SIDE OF MEDIAN THAT IS UNDER CONSTRUCTION

SANITARY SEWER
WATERMAIN
STORM SEWER
TEMPORARY STORM SEWER

PROPOSED PAVEMENT
PROPOSED TEMPORARY PAVEMENT
PROPOSED PAVEMENT (PREVIOUS STAGE)

EXISTING PAVEMENT
PROPOSED TEMPORARY PAVEMENT (PREVIOUS STAGE)

LEGEND

REFER TO J.23-J.26 FOR TRAFFIC AND PEDESTRIAN DETOUR ROUTING.

TYPE III BARRICADE
ORANGE SAFETY FENCE
TEMPORARY CHAIN LINK FENCE
DRUM

CONSTRUCTION SIGN IDENTIFICATION
CHANNELIZING DEVICE
TEMPORARY BARRIER RAIL
TRAFFIC SIGN

SAFETY CLOSURE
SEQUENCING ARROW
PROPOSED TRAFFIC DIRECTION

STAGE 3

0 50 100

FEET

38+00

8TH AVENUE NW

250'

W4-2R (36 x 36)

250'

RIGHT LANE CLOSED AHEAD

W20-5R (36 x 36)

250'

ROAD WORK AHEAD

CW20-1 (36 x 36)

HARDWICK DRIVE NW

ADVENTURELAND DRIVE

5TH AVENUE NW

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	J.11

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC CONTROL AND STAGING

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Project No: 1221679

Sheet J.11

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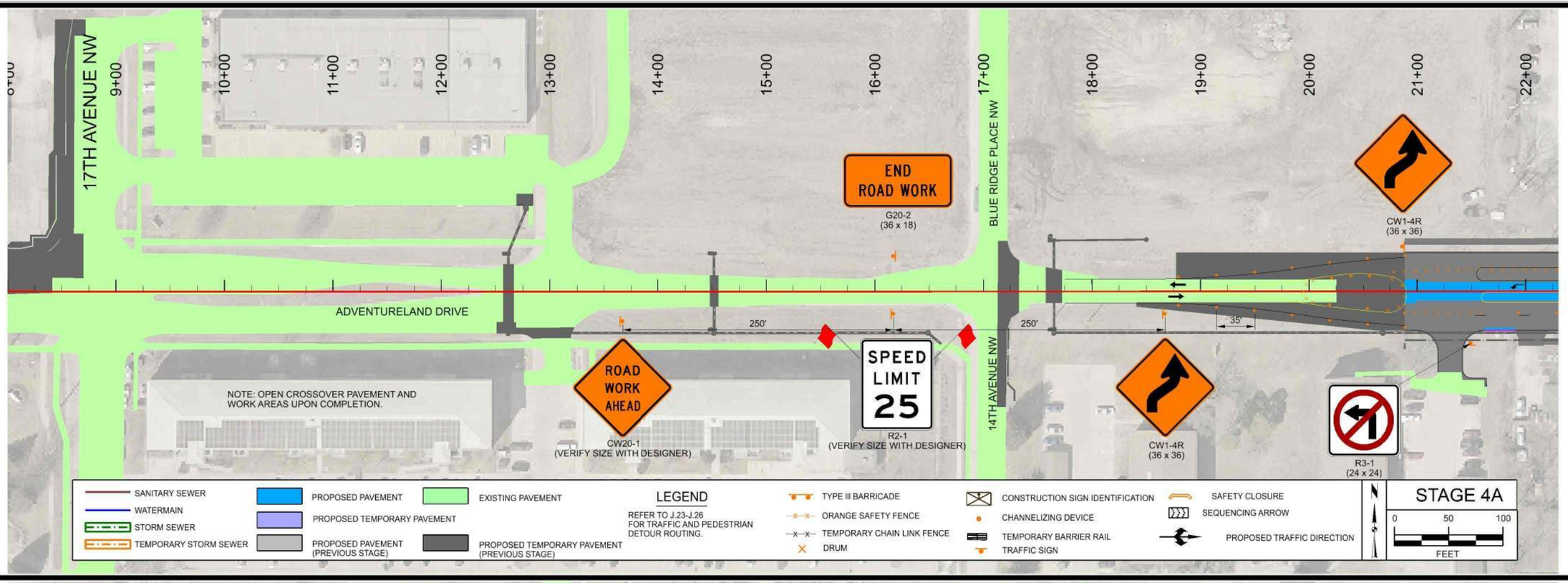

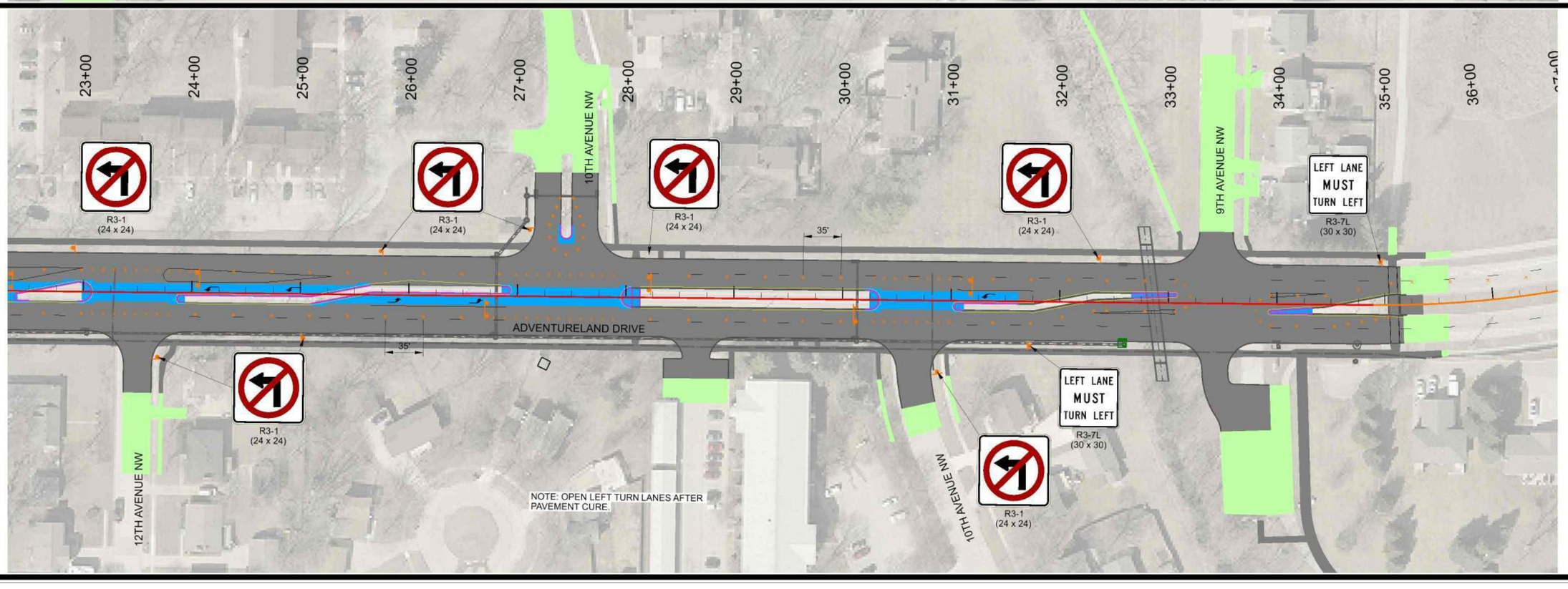

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Engineer: LCL	Checked By: LEJ	Field Bk:	Pg
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet J.12

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC CONTROL AND STAGING

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Sheet J.12

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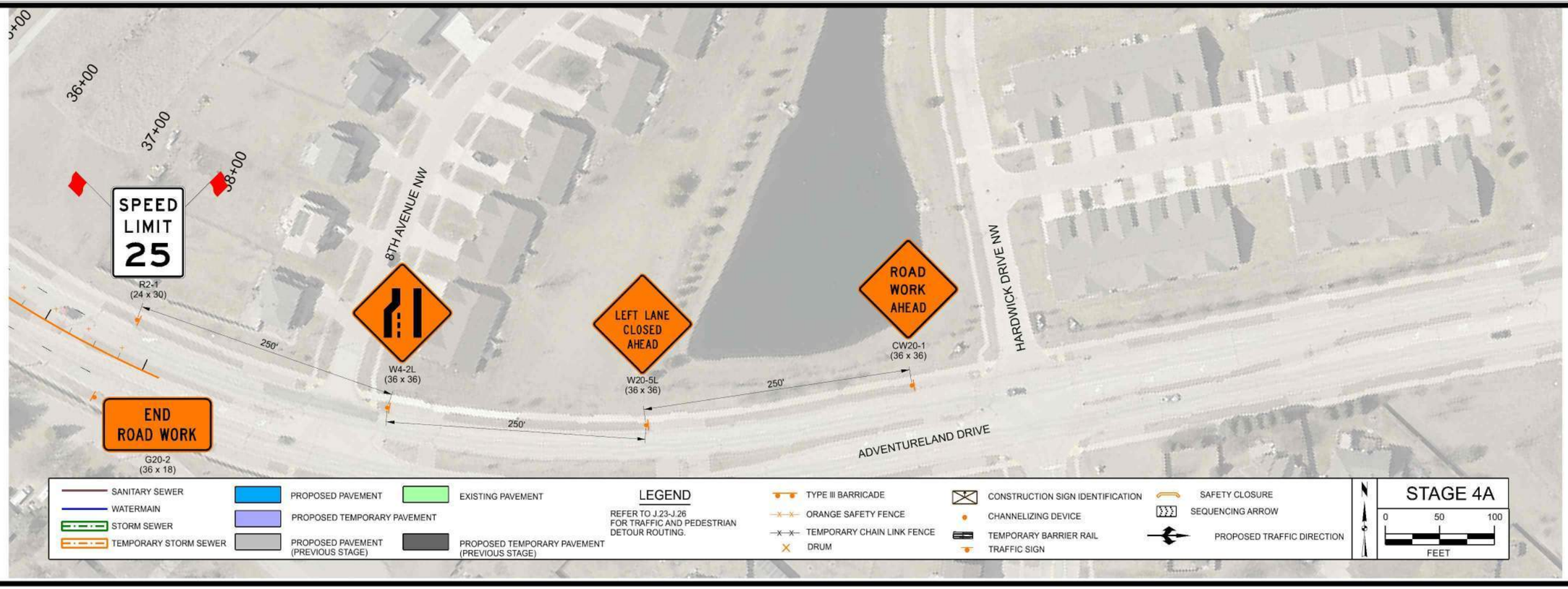

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TRAFFIC CONTROL AND STAGING

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	J.13

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Sheet J.13

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026	STP-U-0132(628)--70-77	Sheet J.14
		Project No: 1221679	

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Sheet J.14

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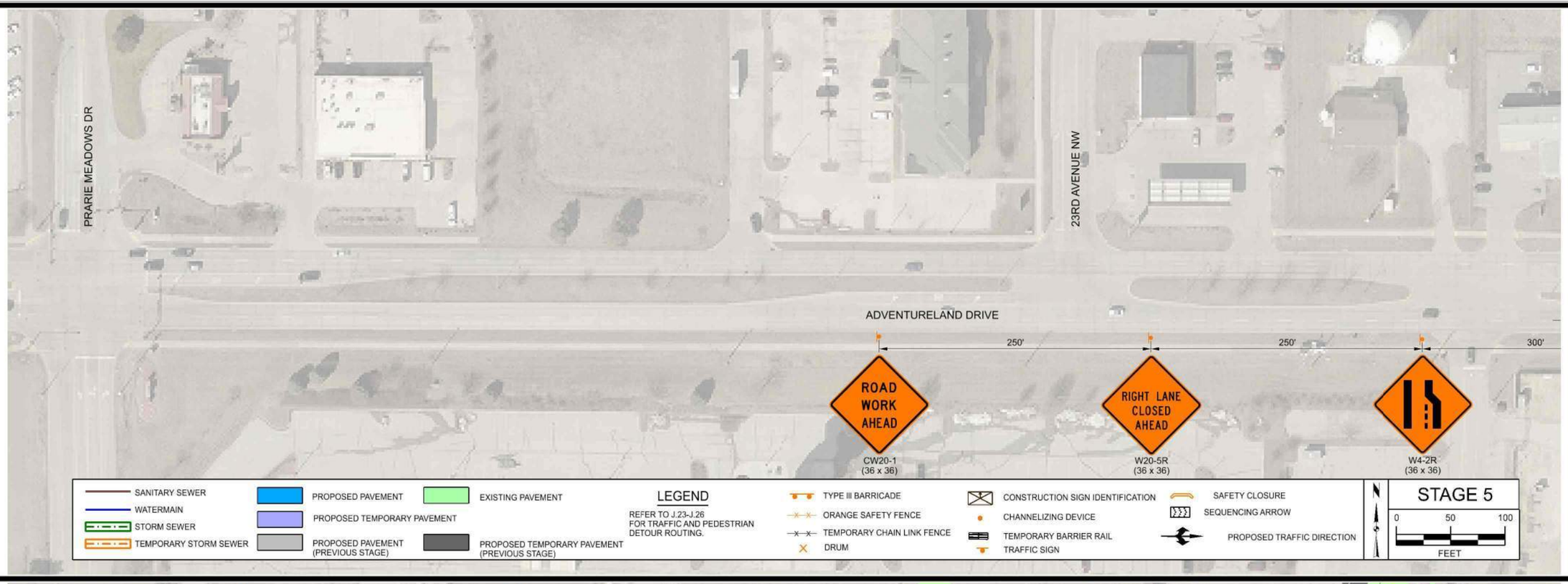

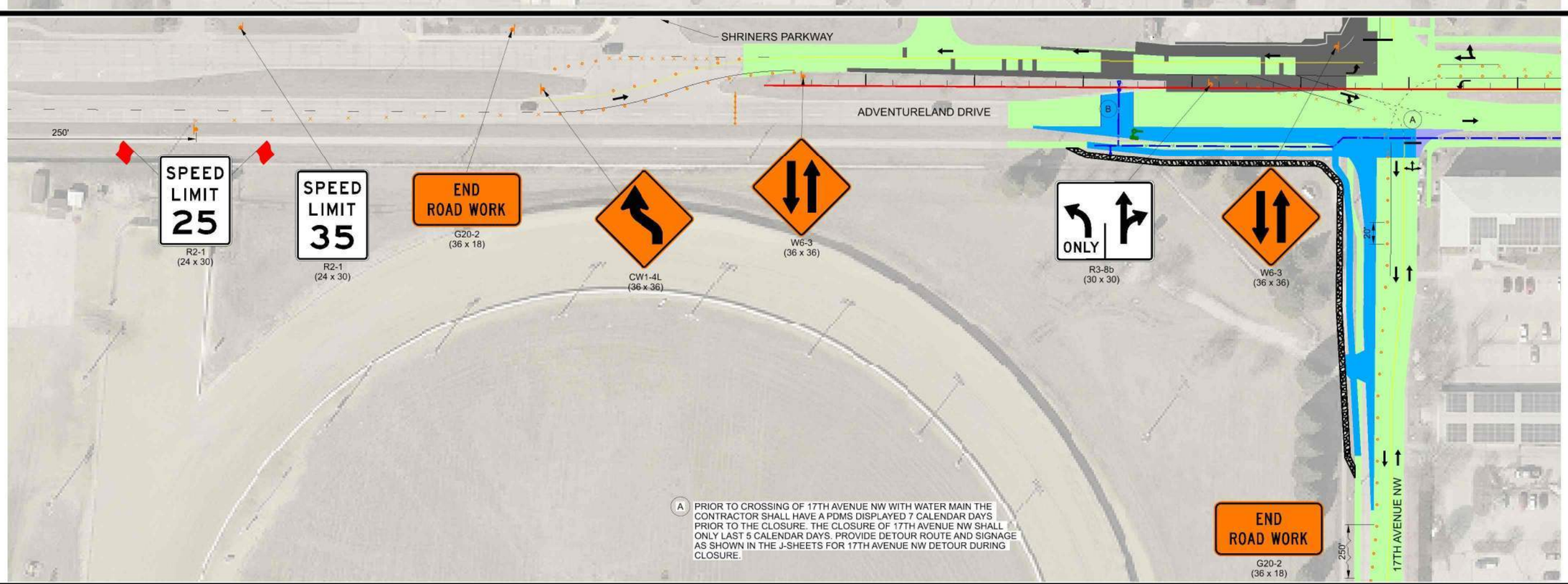

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg
Technician: KSB	Date: 8/17/2026	DOT STP-U-0132(628)--70-77 Project No: 1221679	Sheet J.15

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Sheet J.15

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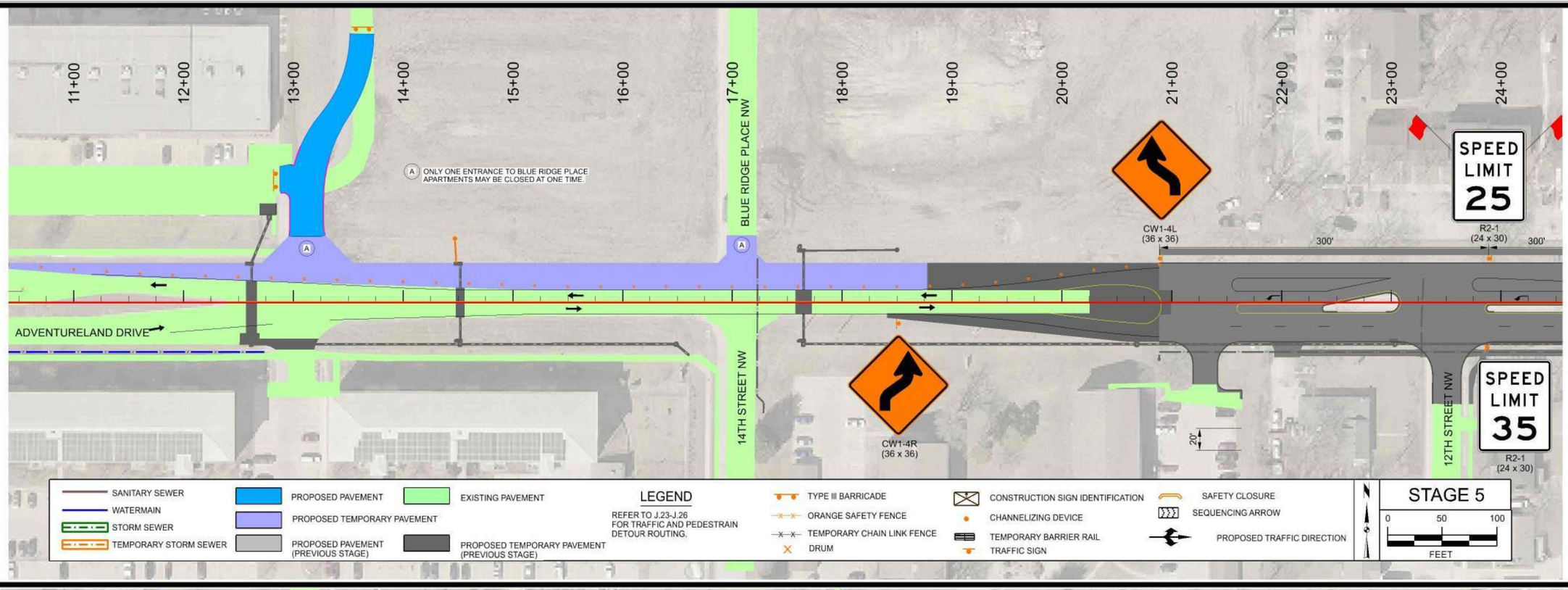

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Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679			Sheet J.16

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Sheet J.16

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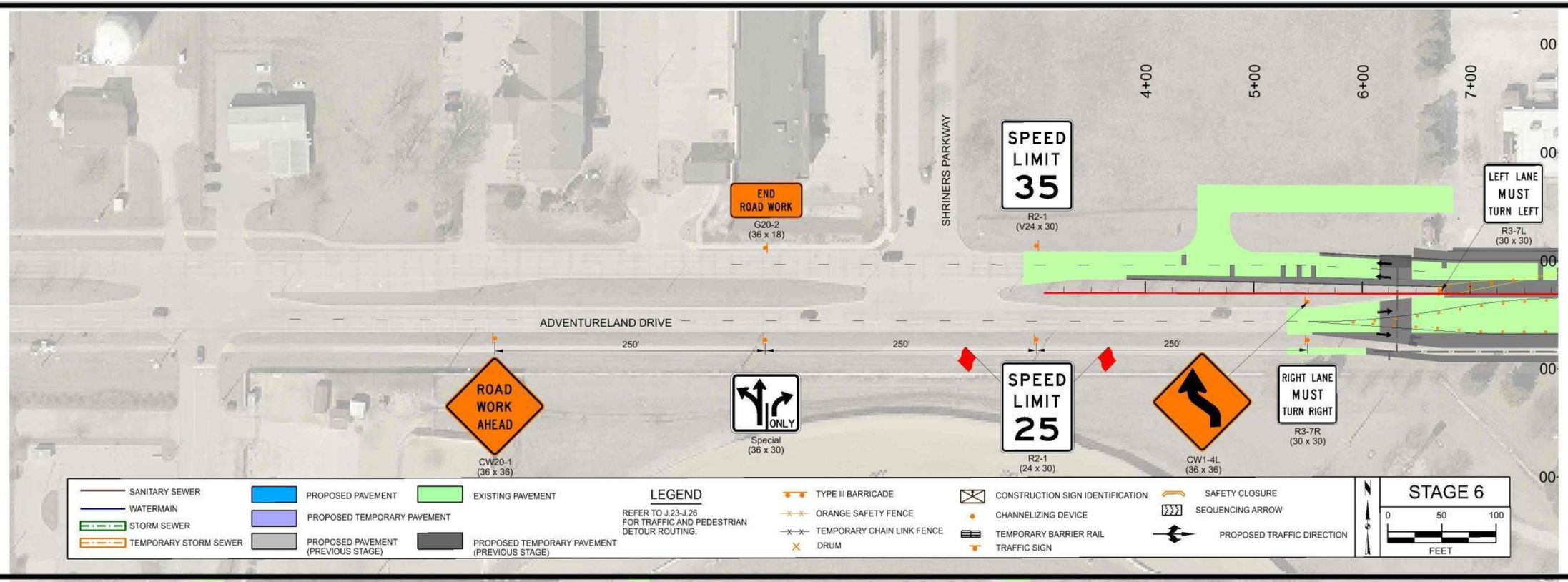

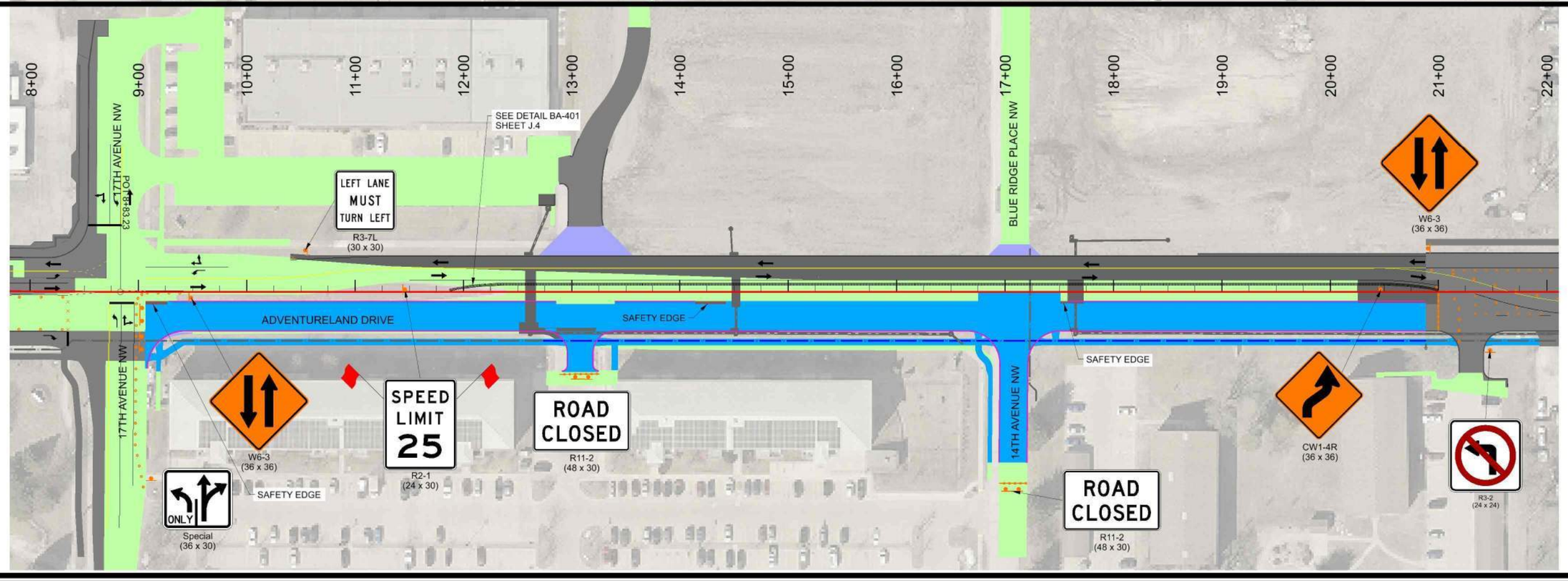

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg
Technician: KSB	Date: 8/17/2026		

DOT: STP-U-0132(628)--70-77
Project No: 1221679

Sheet J.17

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Sheet J.17

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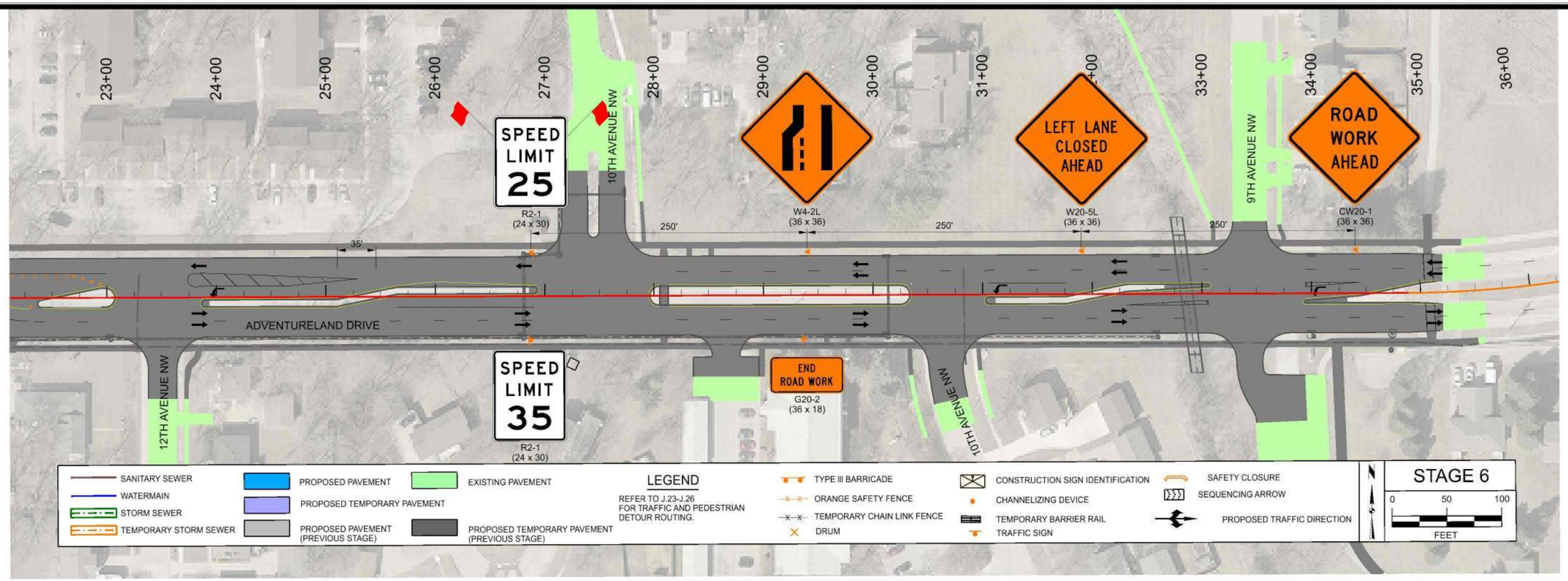

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Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
DOT #STP-U-0132(628)--70-77 Project No: 1221679		Sheet	J.18

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Sheet J.18

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SANITARY SEWER
WATERMAIN
STORM SEWER
TEMPORARY STORM SEWER
PROPOSED PAVEMENT
PROPOSED TEMPORARY PAVEMENT
PROPOSED PAVEMENT (PREVIOUS STAGE)
EXISTING PAVEMENT
PROPOSED TEMPORARY PAVEMENT (PREVIOUS STAGE)

LEGEND

REFER TO J.23-J.26 FOR TRAFFIC AND PEDESTRIAN DETOUR ROUTING.

TYPE III BARRICADE
ORANGE SAFETY FENCE
TEMPORARY CHAIN LINK FENCE
DRUM
CONSTRUCTION SIGN IDENTIFICATION
CHANNELIZING DEVICE
TEMPORARY BARRIER RAIL
TRAFFIC SIGN
SAFETY CLOSURE
SEQUENCING ARROW
PROPOSED TRAFFIC DIRECTION

STAGE 7
0 50 100
FEET

4+00 5+00 6+00 7+00 8+00

SHRINERS PARKWAY

SPEED LIMIT 35
R2-1
(V24 x 30)

END ROAD WORK
G20-2
(36 x 18)

ADVENTURELAND DRIVE

250' 250' 250'

20'

ROAD WORK AHEAD
CW20-1
(36 x 36)

ONLY ONLY ONLY
R3-8b
(48 x 30)

SPEED LIMIT 25
R2-1
(24 x 30)

LEFT LANE MUST TURN LEFT
R3-7L
(30 x 30)

RIGHT LANE MUST TURN RIGHT
R3-7R
(30 x 30)

9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00

17TH AVENUE NW

ROAD CLOSED
R11-2
(48 x 30)

CW1-4R
36X36"

ROAD CLOSED
R11-2
(48 x 30)

BLUE RIDGE PLACE NW

ADVENTURELAND DRIVE

14TH AVENUE NW

W6-3
(36 x 36)

SPEED LIMIT 25
R2-1
(24 x 30)

W6-3
(36 x 36)

A PLACE SAFETY FENCE FOR SECTION OF BLUE RIDGE APARTMENETS ENTRANCE THAT IS CURRENTLY BEING CONSTRUCTED. ONLY ONE ENTRANCE TO BLUE RIDGE APARTMENTS CAN BE CLOSED AT A TIME. BLUE RIDGE PLACE SHALL BE CONSTRUCED FIRST. WEST PORTION SHALL BE CONSTRUCTED SECOND.

B PLACE TYPE III BARRICADE WITH R11-2 AND M4-10 SIGN WITH SAFETY CLOSURE ON THE SOUTH LEG OF THE BLUE RIDGE APARTMENTS PARKING LOT AND DRIVEWAY T-INTERSECTION FOR THE SECTION OF ROADWAY THAT IS BEING CONSTRUCTED. ONLY ONE ENTRANCE TO BLUE RIDGE APARTMENTS CAN BE CLOSED AT A TIME.

C ONLY ONE WEST ENTRANCE TO PARCEL 2 CAN BE CLOSED AT A TIME. PLACE SAFETY FENCE ON THE EAST SIDE OF THE CLOSURE AND DRUMS AT 10' SAPCINGS ON THE WEST SIDE OF THE CLOSURE.

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Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	J.19

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Sheet J.19

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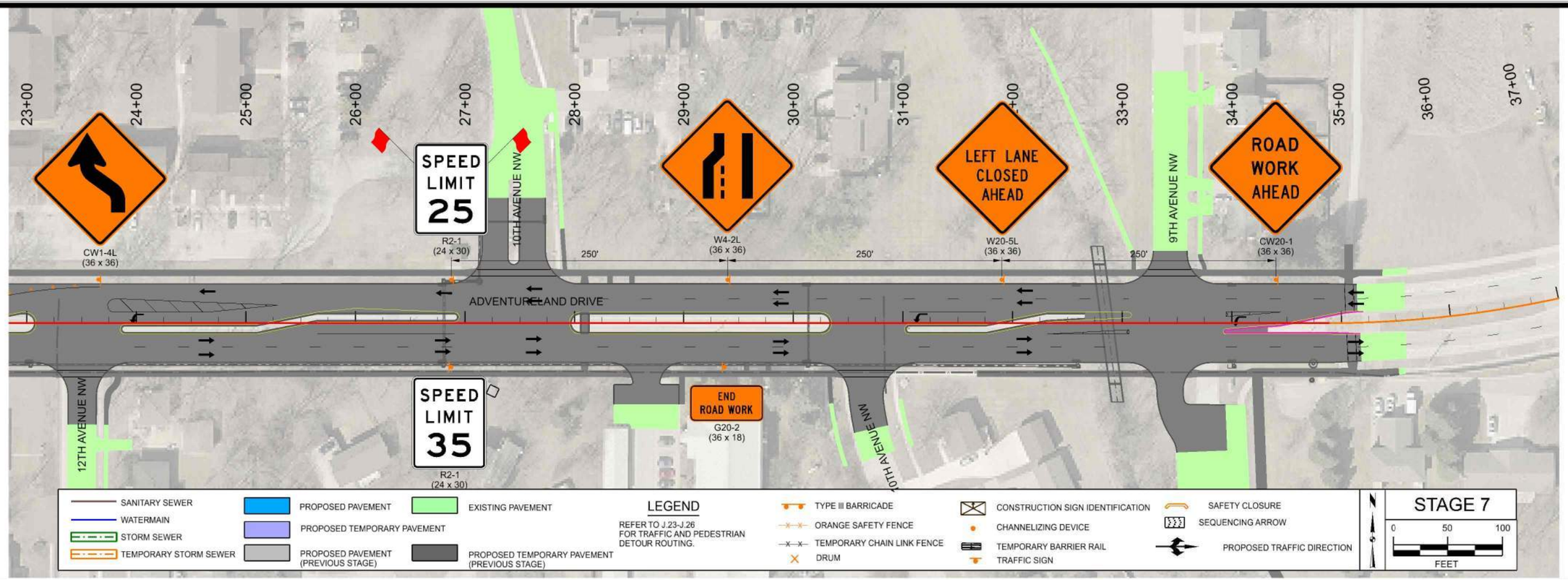

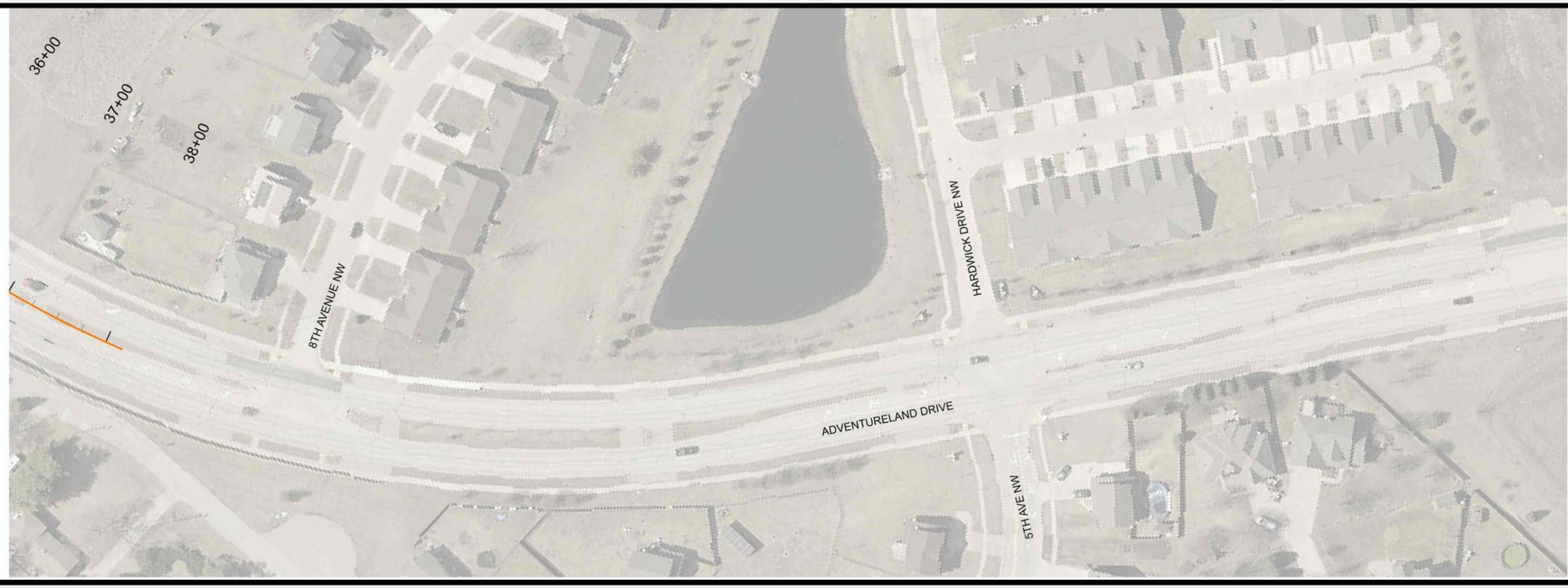

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S.
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679			Sheet J.20

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Sheet J.20

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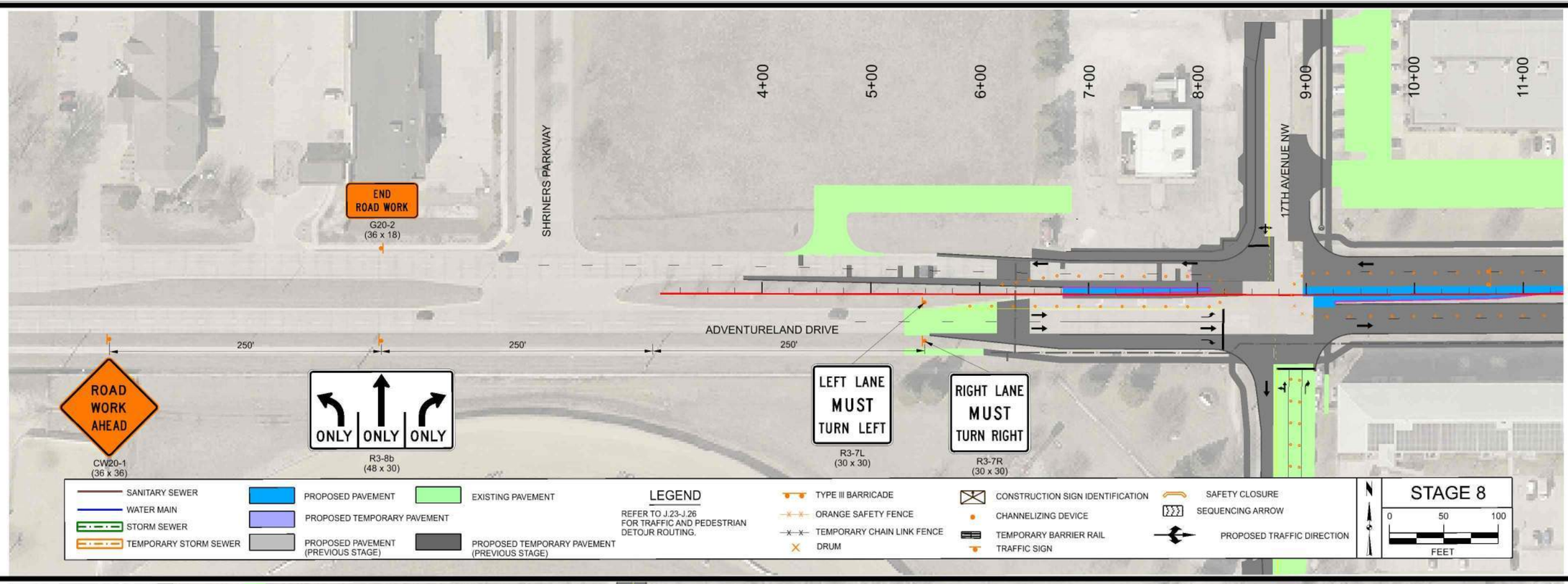

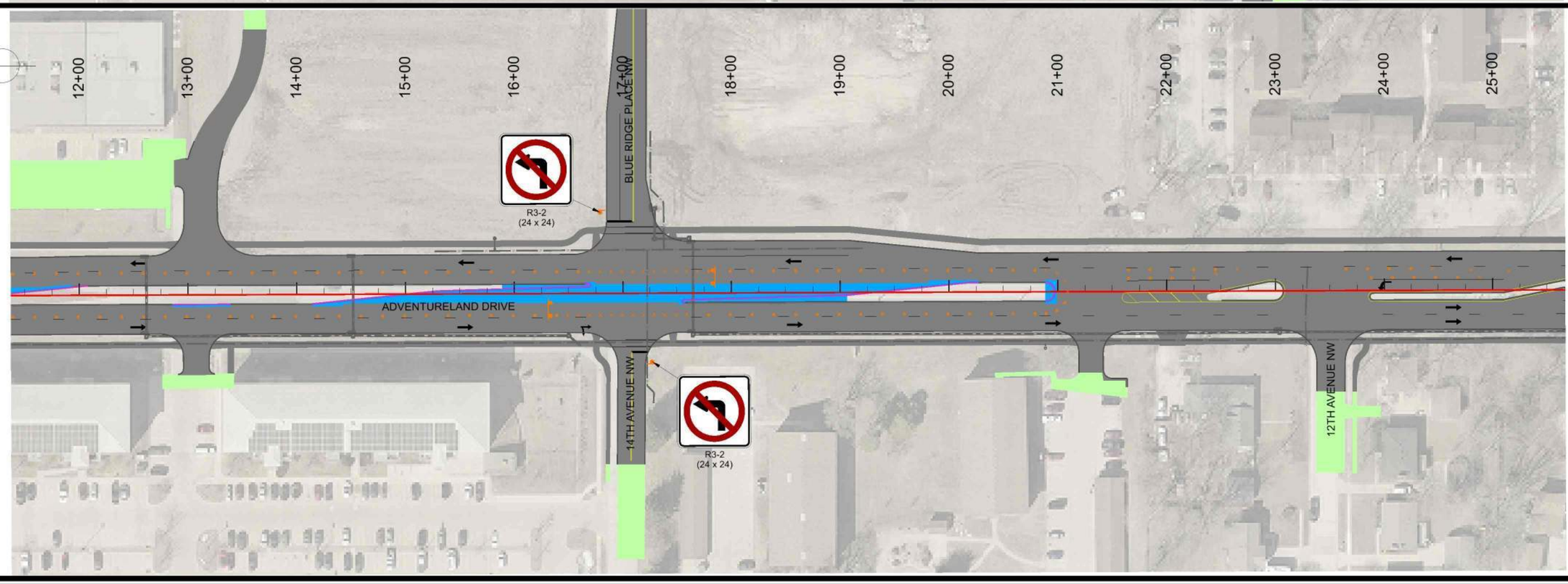

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg
Technician: KSB	Date: 8/17/2026		

DOT: STP-U-0132(628)--70-77
Project No: 12221679

Sheet J.21

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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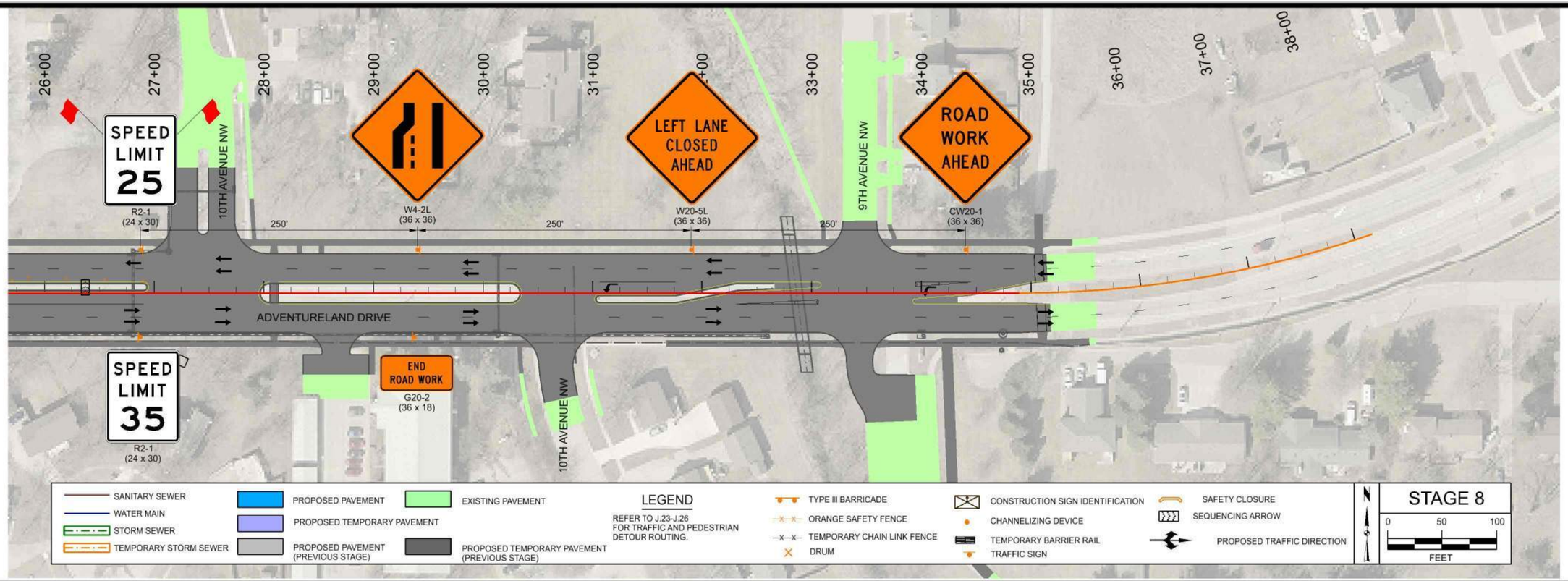
Sheet J.21



ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TRAFFIC CONTROL AND STAGING

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet J.22	

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Sheet J.22

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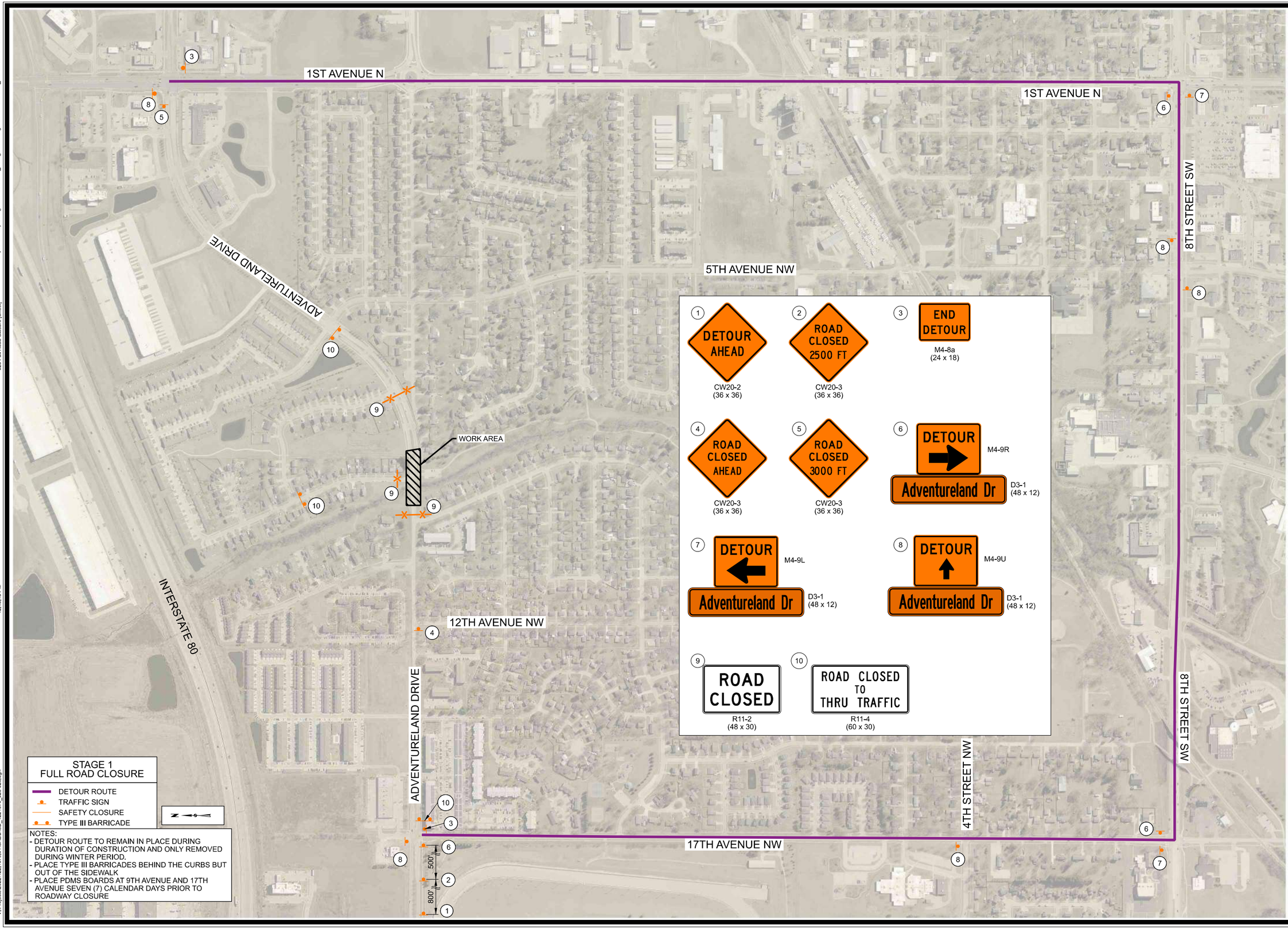

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		300'
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet J.23

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet J.23

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8/17/2026 12:15:13 PM
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STAGE 5A
17TH ST NW CLOSURE

- DETOUR ROUTE
- TRAFFIC SIGN
- SAFETY CLOSURE
- TYPE III BARRICADE

NOTES:
- PLACE TYPE III BARRICADES BEHIND THE CURBS BUT OUT OF THE SIDEWALK
- PLACE PDMS BOARDS AT 17TH AND ADVENTURELAND DRIVE SEVEN (7) CALENDAR DAYS PRIOR TO ROADWAY CLOSURE

INTERSTATE 80
ADVENTURELAND DRIVE
1ST AVENUE NW
12TH AVENUE NW
17TH AVENUE NW
4TH STREET NW
5TH AVENUE NW
4TH STREET SW
8TH STREET SW

500' 800'

1. DETOUR AHEAD — CW20-2 (36 x 36)
2. 17TH AVE NW CLOSED AT ADVENTURELAND DR FOLLOW DETOUR — SPECIAL (72 x 30)
3. END DETOUR — M4-8a (24 x 18)
4. ROAD CLOSED AHEAD — CW20-3 (36 x 36)
5. ROAD CLOSED 5000 FT — CW20-3 (36 x 36)
6. DETOUR → 17th Ave NW — M4-9R, D3-1 (42 x 12)
7. DETOUR ← 17th Ave NW — M4-9L, D3-1 (42 x 12)
8. DETOUR ↑ 17th Ave NW — M4-9U, D3-1 (42 x 12)
9. ROAD CLOSED — R11-2 (48 x 30)
10. ROAD CLOSED ¼ MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 (60 x 30)
11. DETOUR → Adventureland Dr — M4-9R, D3-1 (48 x 12)
12. DETOUR ← Adventureland Dr — M4-9L, D3-1 (48 x 12)
13. DETOUR ↑ Adventureland Dr — M4-9U, D3-1 (48 x 12)

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		300'
Technician: KSB	Date: 8/17/2026	T-R-S:	

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Sheet J.24

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Sheet J.24

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STAGE 1
PEDESTRIAN DETOUR ROUTE

- PEDESTRIAN DETOUR ROUTE
- TRAFFIC SIGN
- SAFETY CLOSURE
- TYPE II BARRICADE
- TEMPORARY RAMP
- TEMPORARY GRANULAR SURFACING

1 M4-9bL (30 x 24)

2 M4-9bR (30 x 24)

3 W11-2 (36 x 36)

W16-7PL (21 x 15)

8TH AVE NW

9TH ST NW

ADVENTURELAND DR

10TH ST NW

9TH AVE NW

10TH AVE NW

TEMPORARY RAMP

43 SY TEMPORARY SIDEWALK, GRANULAR

7 SY TEMPORARY SIDEWALK, GRANULAR

TEMPORARY RAMP

22 SY TEMPORARY SIDEWALK, GRANULAR 2 APPLICATIONS

7 SY TEMPORARY SIDEWALK, GRANULAR

TEMPORARY RAMP

10 SY TEMPORARY SIDEWALK, GRANULAR

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		50'
Technician: KSB	Date: 8/17/2026	T-R-S:	

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Project No: 1221679

Sheet J.25

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Sheet J.25

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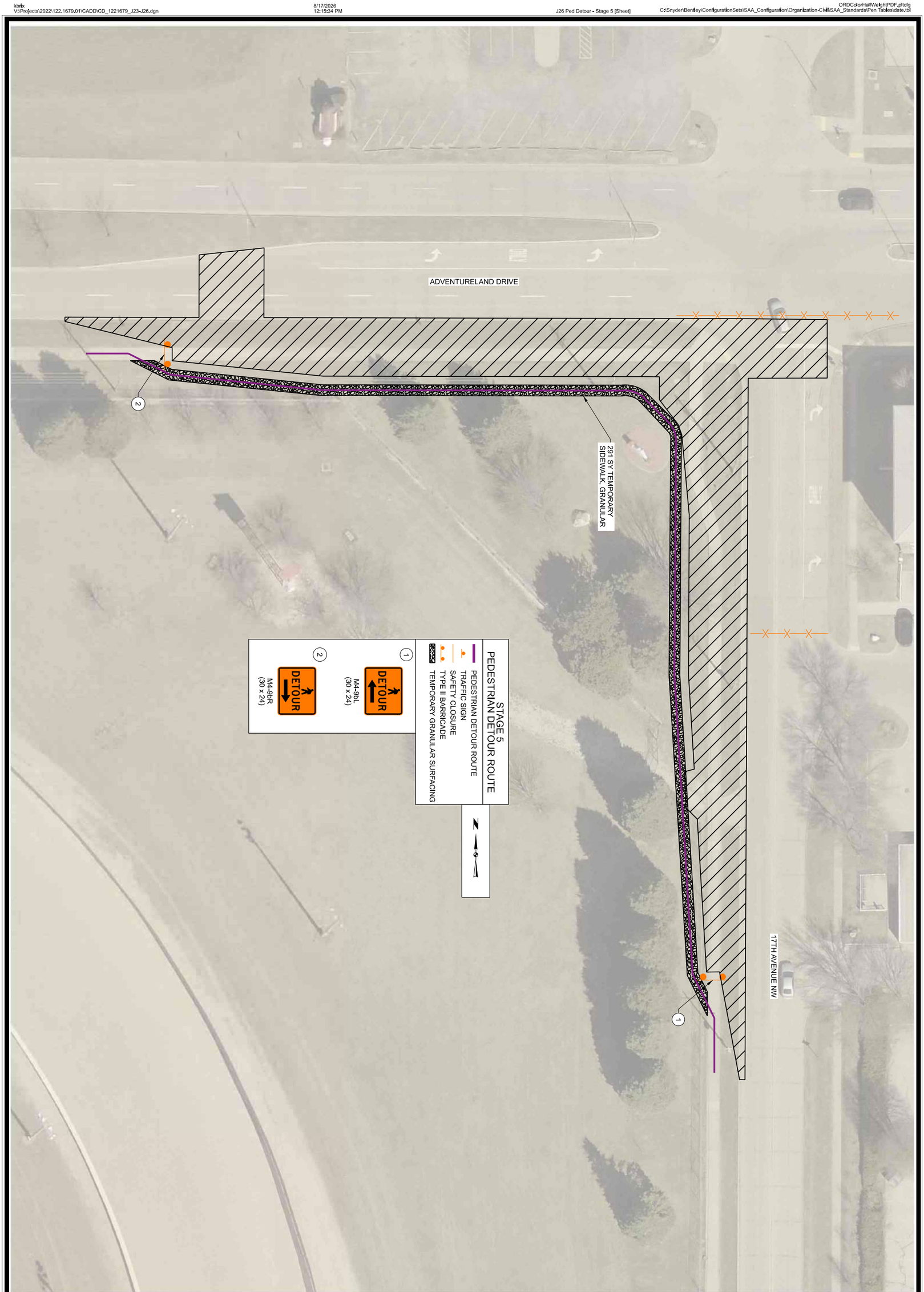

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MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ | 50'
Technician: KSB | Date: 8/17/2026 | T-R-S:
DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet J.26

Sheet J.26
Project No: 1221679

CLOSE VALVE EAST OF TEE FOR 17TH AVE 10" RECONSTRUCTION IN STAGE 5B; CLOSE VALVE NORTH, WEST, AND EASTOF TEE FOR 12" CONNECTION IN STAGE 5B

CLOSE VALVE NORTH AND EAST OF TEE FOR 10" RECONSTRUCTION IN STAGE 1

CLOSE VALVE EAST OF TEE DURING 14TH AVE 8" RECONSTRUCTION

CLOSE VALVE DURING 14TH AVE 8" RECONSTRUCTION

CLOSE VALVE WEST OF TEE DURING 10TH AVE NORTH 10" RECONSTRUCTION

CLOSE VALVE EAST AND NORTH OF TEE DURING 10TH AVE NORTH 10" RECONSTRUCTION

CLOSE VALVE SOUTH OF TEE FOR 10TH AVENUE SOUTH 8" RECONSTRUCTION IN STAGE 1

CLOSE VALVE WEST AND SOUTH OF TEE FOR 17TH AVE 10" RECONSTRUCTION IN STAGE 5B

CLOSE VALVE EAST OF TEE FOR 10" RECONSTRUCTION IN STAGE 1

INSTALL INSERTION VALVE FOR 14TH AVE 8" RECONSTRUCTION

CLOSE VALVE DURING 14TH AVE 8" RECONSTRUCTION

CLOSE VALVE SOUTH OF TEE FOR 12TH AVE 8" RECONSTRUCTION IN STAGE 1

CLOSE VALVE DURING 16" CONNECTION IN STAGE 1

CLOSE VALVE DURING 16" CONNECTION IN STAGE 1

CLOSE VALVE NORTH OF TEE FOR 12TH AVE 8" RECONSTRUCTION IN STAGE 1

CLOSE VALVE NORTHOF TEE FOR 10TH AVENUE SOUTH 8" RECONSTRUCTION IN STAGE 1

GENERAL NOTES:

1. THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS AND THE CITY APPROXIMATELY 7 DAYS PRIOR TO ANY OUTAGE AND AGAIN 72 HOURS PRIOR TO THE OUTAGE.

2. THE CONTRACTOR SHALL CONSTRUCT WATER MAIN SUCH THAT ANY OUTAGES ARE TO BE NO LONGER THAN 4 HOURS FOR OUTAGE AREAS CONTAINING MORE THAN 10 UNITS OR HOMES AND NO LONGER THAN 6 HOURS FOR OUTAGE AREAS WITH LESS THAN 10 UNITS OR HOMES. OUTAGES ARE NOT TO OCCUR ON FRIDAYS EXCEPT WITH EXPRESS PERMISSION FROM THE CITY OF ALTOONA.

3. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES. VALVES MAY ONLY BE OPERATED BY THE CITY OF ALTOONA PUBLIC WORKS. THE CONTRACTOR SHALL PROVIDE THE CITY 3 BUSINESS NOTICE FOR OPERATION OF VALVES.

OUTAGE AREAS:

10TH AVENUE SOUTH 8" RECONSTRUCTION (RED):
TEMPORARY LOSS OF SERVICE FOR 78 UNITS & 10 SINGLE FAMILY HOMES

10TH AVENUE NORTH 8" RECONSTRUCTION (PURPLE):
TEMPORARY LOSS OF SERVICE FOR 28 UNITS

12TH AVENUE 8" RECONSTRUCTION (GREEN):
TEMPORARY LOSS OF SERVICE FOR 16 SINGLE FAMILY HOMES

14TH AVENUE 8" RECONSTRUCTION:
NO TEMPORARY LOSS OF SERVICE

17TH AVENUE 10" RECONSTRUCTION:
NO TEMPORARY LOSS OF SERVICE

16" WEST CONNECTION:
NO TEMPORARY LOSS OF SERVICE

16" EAST CONNECTION (BLUE):
TEMPORARY LOSS OF SERVICE FOR 3 SINGLE FAMILY HOMES

16" WATER MAIN FILLING FOR TESTING AND FLUSHING MAY ONLY OCCUR OUTSIDE OF JUNE-JULY-AUGUST MONTHS EXCEPT BY SPECIAL PERMISSION OF WATER DEPARTMENT.

LEGEND:
- EXISTING WATER
- PROPOSED WATER
- EAST 16" WATER OUTAGE AREA
- 10TH AVE S 8" WATER OUTAGE AREA
- 10TH AVE N 8" WATER OUTAGE AREA
- 12TH AVE 8" WATER OUTAGE AREA

N

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FEET

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	200'	
Technician: KSB	Date: 8/17/2026	T-R-S:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet J.27

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC CONTROL AND STAGING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet J.27

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LEGEND:

EXISTING MAIL BOX LOCATION

MB TEMPORARY MAIL BOX LOCATION

9TH AVENUE: NO CHANGE

10TH/12TH AVENUE: YEAR 1 STAGE 2

17TH AVENUE: YEAR 2

N

MB

2 UNITS:
CONTRACTOR TO
CONFIRM ADDRESSES

ADVENTURELAND DRIVE

10TH AVENUE NW

9TH AVENUE NW

17TH AVENUE NW

14TH AVENUE NW

12TH AVENUE NW

10TH AVENUE NW

7TH STREET NW

MB

13 UNITS:
1206 ADVENTURELAND DRIVE
704, 705, 708, 709, 712, 713, 800, 801
804, 805, 809, 813 12TH AVENUE NW

MB

2 UNITS:
809 10TH AVENUE NW
813 10TH AVENUE NW

MAINTENANCE OF POSTAL SERVICE

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet J.28	

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC CONTROL AND STAGING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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Project No: 1221679

Sheet J.28

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FEET

4+00 5+00 6+00 7+00 8+00

THE BIG STEER PARKING LOT POINTS			
NO.	STATION	OFFSET	ELEVATION
1	6+84.05	42.33' LT	982.93 M.E.
2	8+00.13	42.33' LT	981.62 M.E.
3	8+03.66	45.91' LT	981.62 M.E.
4	8+20.80	46.02' LT	981.51 M.E.
5	8+20.78	52.35' LT	981.48 M.E.
6	8+34.83	52.35' LT	981.38 M.E.

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
1-1	1/4	4+32.21	39.98' LT	981.83
	1/2	4+40.32	45.40' LT	982.04
	3/4	4+45.74	53.51' LT	982.25
1-2	1/4	4+79.55	53.47' LT	981.94
	1/2	4+84.97	45.36' LT	981.72
	3/4	4+93.08	39.94' LT	981.49
1-3	1/4	4+78.03	71.99' LT	982.45
	1/2	4+79.11	73.61' LT	982.56
	3/4	4+80.73	74.69' LT	982.67
1-4	1/4	8+31.50	34.00' LT	980.24
	1/2	8+42.86	41.61' LT	980.17
	3/4	8+50.44	52.99' LT	980.10
1-5	1/4	8+28.42	52.60' RT	980.05
	1/2	8+40.76	60.05' RT	979.84
	3/4	8+49.65	71.38' RT	979.63

C.S. = CONSTANT SLOPE
H.P. = HIGH POINT
L.P. = LOW POINT
M.E. = MATCH EXISTING
S.S. = SPECIAL SHAPING
U.T. = UNIFORM TRANSITION

REFER TO G SHEET FOR CURVE DATA INFORMATION.

ALL ELEVATIONS SHOWN ARE FORM GRADE ELEVATIONS UNLESS NOTED OTHERWISE.

STA 5+60.87, 37.45' LT
ELEV=981.07 M.E.
STA 5+60.74, 34.95' LT
ELEV=981.13 M.E.
20:1 TAPER
STA 3+82.77, 16.43' LT
ELEV=982.41 M.E.
3.4'
2.0%
STA 3+82.70, 13.00' LT
ELEV=982.48 M.E.
CONSTANT 2% SLOPE
45:1 TAPER
STA 6+84.05, 39.83' LT
ELEV=982.64
STA 6+83.16, 31.33' LT
ELEV=980.69
STA 6+83.10, 28.83' LT
ELEV=980.77 M.E.
STA 6+67.60, 12.67' LT
ELEV=981.29 M.E.
STA 6+76.08, 6.98' LT
ELEV=981.36
BEGIN 6" DOWELED MEDIAN
STA 7+95.00, 12.67' LT
ELEV=980.72 M.E.
STA 8+53.09, 66.41' LT
ELEV=980.03
STA 8+51.50, 55.91' LT
ELEV=980.14
END 1/4" LIP CURB
STA 8+18.09, 31.33' LT
ELEV=980.16
STA 8+08.08, 43.00' LT
INTAKE FG=980.15
STA 7+95.00, 28.83' LT
ELEV=980.35 M.E.
17TH AVENUE NW
3/4
S.S.
1/2
1/4
2" LIP CURB
CURVE 1-4
35' RADIUS
STA 8+28.98, 33.07' LT
ELEV=980.24
BEGIN 1/4" LIP CURB
CONSTANT 2% SLOPE
30:1 TAPER
STA 6+82.89, 6.83' LT
ELEV=981.33
STA 6+76.08, 1.53' RT
ELEV=980.60 M.E.
BEGIN 6" DOWELED MEDIAN
STA 6+76.03, 3.89' RT
ELEV=980.58 M.E.
STA 7+70.85, 3.56' RT
ELEV=980.99 M.E.
STA 8+10.63, 6.83' LT
ELEV=980.78
END 6" DOWELED MEDIAN
STA 8+10.64, 2.83' LT
ELEV=980.84
END 6" DOWELED MEDIAN
STA 8+41.58, 1.09' RT
ELEV=980.93 M.E.
STA 8+41.55, 12.67' LT
ELEV=980.66 M.E.
STA 8+70.20, 12.67' LT
ELEV=980.73 M.E.
ADVENTURELAND DRIVE
STA 5+53.98, 36.00' RT
ELEV=979.86 M.E.
U.T.
30'
2'
3.5%
5'
3.0%
STA 5+53.98, 38.00' RT
ELEV=979.79 M.E.
CONSTANT 3% SLOPE
10:1 TAPER
14'
3.0%
CONSTANT 3% SLOPE
16'
1.5%
C.S.
11'
3.0%
STA 6+73.98, 50.00' RT
ELEV=979.49
STA 8+14.25, 50.00' RT
ELEV=980.14
CURVE 1-5
40' RADIUS
U.T.
16.1'
2.0%
STA 8+53.95, 85.14' RT
ELEV=979.54
8:1
TAPER

ALL MEDIAN NOSES ARE RAMPED MEDIAN NOSES, 6" STANDARD PER PV-104 UNLESS OTHERWISE NOTED.

ALL TRANSVERSE ROADWAY JOINTS ARE CD TYPE UNLESS NOTED OTHERWISE.

ALL LONGITUDINAL ROADWAY JOINTS ARE L-2 OR BT-3 UNLESS NOTED OTHERWISE.

MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

LEGEND
REBAR MAT

FULL DEPTH PCC PATCHES
3.4' RD
9.3' BT-3
15' BT-3
3.8' CD
4.7' CD
15' BT-3
2.5' RD
11.3' BT-3
2.5' CD
15' BT-3
6' CD
15' BT-3
6" STD CURB AND GUTTER; 8" PCC
PCC CURB AND GUTTER PER PLAN
8" PCC WIDENING
DOWELED MEDIAN
FULL DEPTH PCC PATCH
ADVENTURELAND DRIVE
17TH AVENUE NW
2' RD
2.9' RD

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klohk
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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/27/2026		
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	L.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet L.1

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L2 [Sheet]

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
2-1	1/4	9+08.99	52.17' LT	980.03
	1/2	9+16.80	43.03' LT	979.85
	3/4	9+27.25	37.07' LT	979.67
2-2	1/4	12+77.99	38.28' LT	977.66
	1/2	12+87.73	44.79' LT	977.69
	3/4	12+94.23	54.52' LT	977.81
2-3	1/4	13+30.18	57.61' LT	977.32
	1/2	13+37.76	46.25' LT	977.21
	3/4	13+49.12	38.66' LT	977.14
2-4	1/4	9+11.00	57.28' RT	980.00
	1/2	9+18.61	46.08' RT	980.08
	3/4	9+29.91	38.62' RT	980.16

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
2-5	1/4	12+83.26	37.52' RT	977.55
	1/2	12+89.75	41.86' RT	977.80
	3/4	12+94.08	48.35' RT	977.91
2-6	1/4	13+21.13	48.35' RT	977.74
	1/2	13+25.46	41.86' RT	977.60
	3/4	13+31.95	37.52' RT	977.24
2-7	1/2	12+94.16	71.43' RT	977.96
2-8	1/2	13+21.05	71.03' RT	977.68

C.S. = CONSTANT SLOPE
H.P. = HIGH POINT
L.P. = LOW POINT
M.E. = MATCH EXISTING
S.S. = SPECIAL SHAPING
U.T. = UNIFORM TRANSITION

REFER TO G SHEET FOR CURVE DATA INFORMATION.

ALL ELEVATIONS SHOWN ARE FORM GRADE ELEVATIONS UNLESS NOTED OTHERWISE.

ALL TRANSVERSE ROADWAY JOINTS ARE CD TYPE UNLESS NOTED OTHERWISE.

ALL LONGITUDINAL ROADWAY JOINTS ARE L-2 OR BT-3 UNLESS NOTED OTHERWISE.

MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

ALL MEDIAN NOSES ARE RAMPED MEDIAN NOSES, 6" STANDARD PER PV-104 UNLESS OTHERWISE NOTED.

LEGEND
REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/27/2026		
	DOT STP-U-0132(628)--70--77		
	Project No: 1221679	Sheet	L.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet L.2

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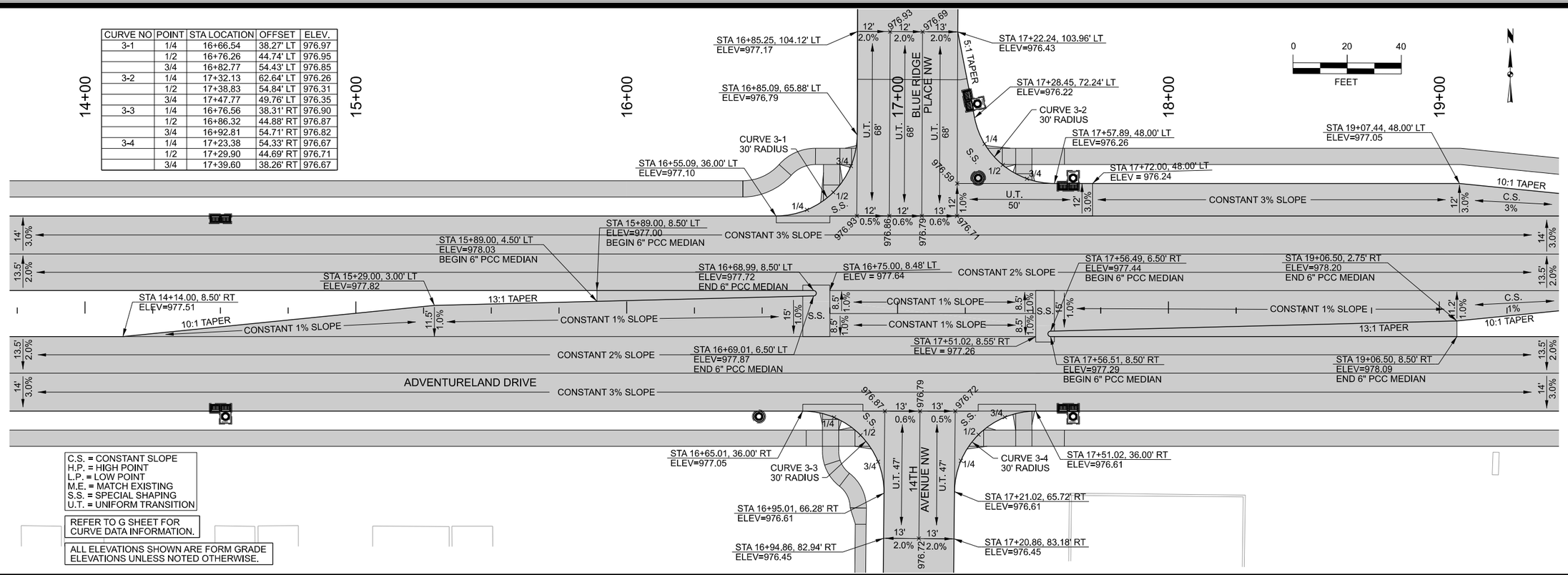
CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
3-1	1/4	16+66.54	38.27' LT	976.97
	1/2	16+76.26	44.74' LT	976.95
	3/4	16+82.77	54.43' LT	976.85
3-2	1/4	17+32.13	62.64' LT	976.26
	1/2	17+38.83	54.84' LT	976.31
	3/4	17+47.77	49.76' LT	976.35
3-3	1/4	16+76.56	38.31' RT	976.90
	1/2	16+86.32	44.88' RT	976.87
	3/4	16+92.81	54.71' RT	976.82
3-4	1/4	17+23.38	54.33' RT	976.67
	1/2	17+29.90	44.69' RT	976.71
	3/4	17+39.60	38.26' RT	976.67



C.S. = CONSTANT SLOPE
H.P. = HIGH POINT
L.P. = LOW POINT
M.E. = MATCH EXISTING
S.S. = SPECIAL SHAPING
U.T. = UNIFORM TRANSITION

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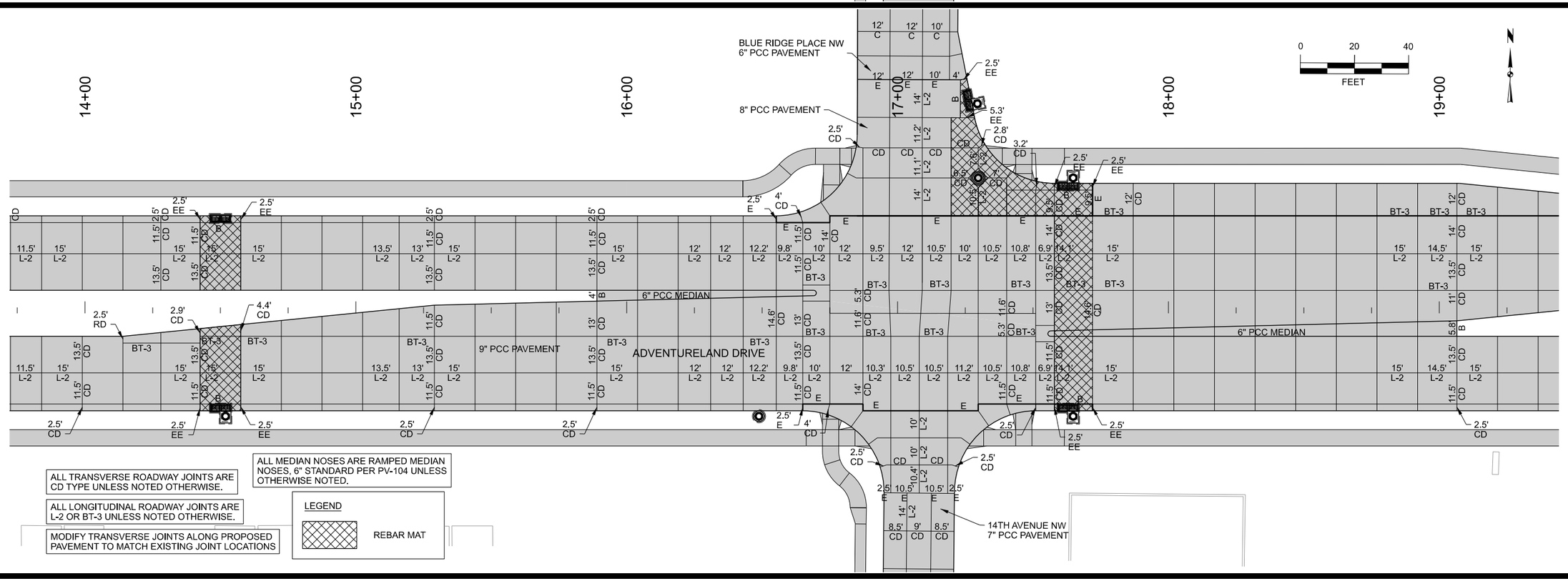
ALL ELEVATIONS SHOWN ARE FORM GRADE ELEVATIONS UNLESS NOTED OTHERWISE.



ALL TRANSVERSE ROADWAY JOINTS ARE CD TYPE UNLESS NOTED OTHERWISE.

ALL LONGITUDINAL ROADWAY JOINTS ARE L-2 OR BT-3 UNLESS NOTED OTHERWISE.

MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

ALL MEDIAN NOSES ARE RAMPED MEDIAN NOSES, 6" STANDARD PER PV-104 UNLESS OTHERWISE NOTED.

LEGEND

REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/27/2026		
	DOT STP-U-0132(628)--70--77		
	Project No: 1221679	Sheet	L.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet L.3

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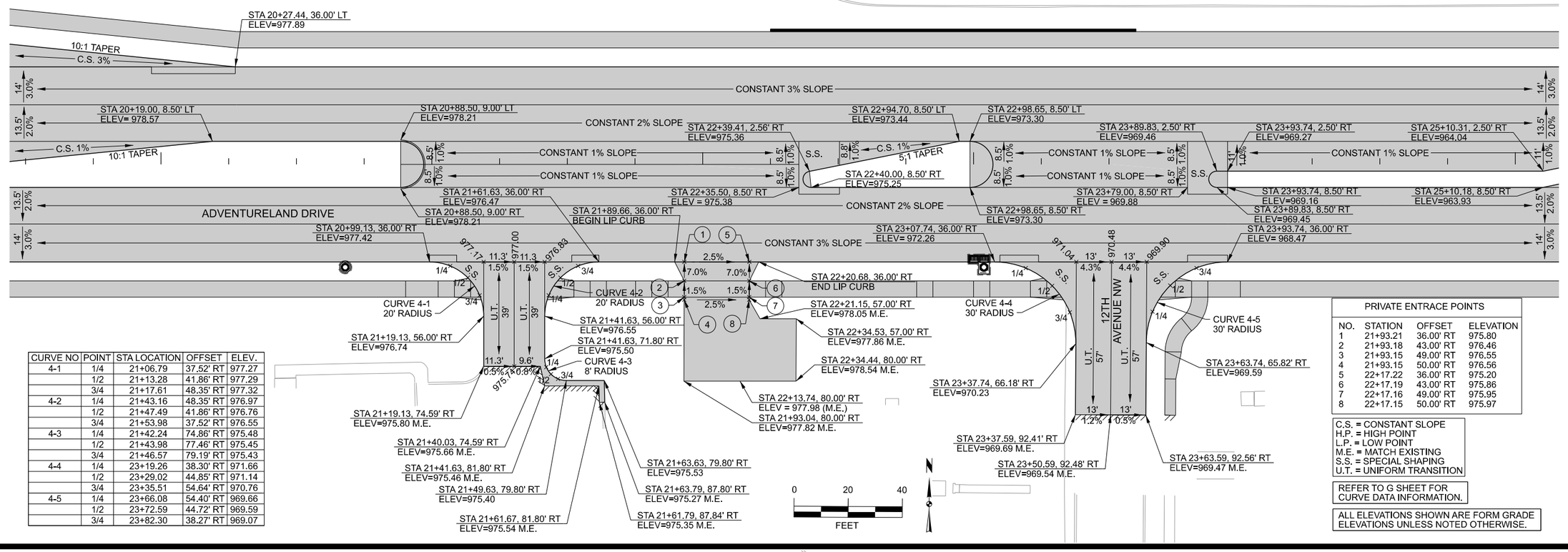


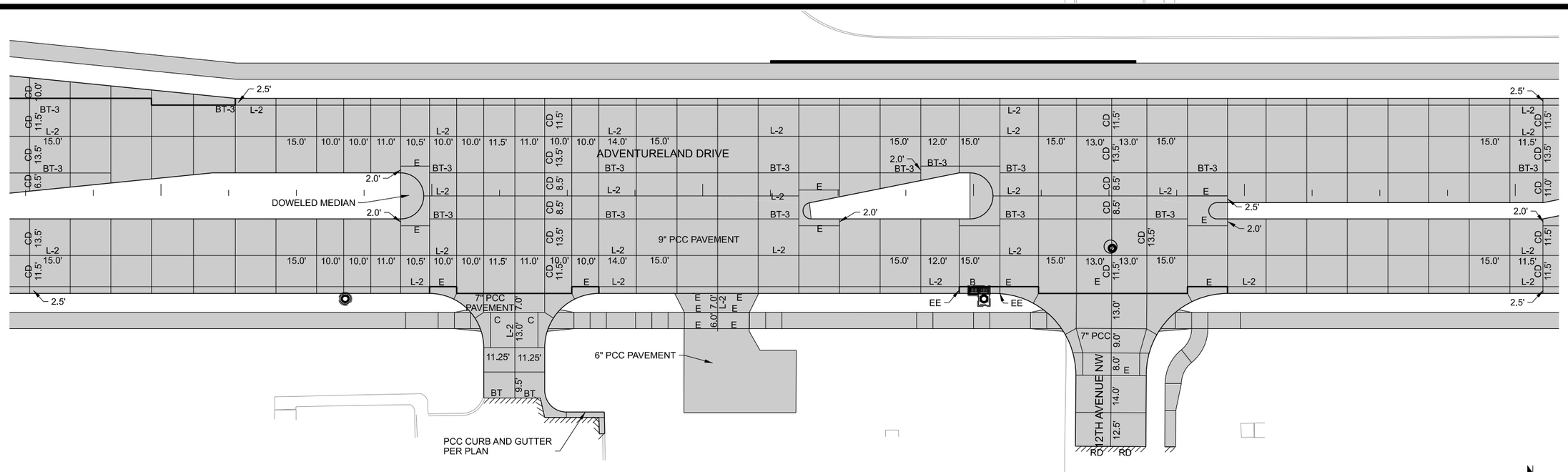
CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
4-1	1/4	21+06.79	37.52' RT	977.27
	1/2	21+13.28	41.86' RT	977.29
	3/4	21+17.61	48.35' RT	977.32
4-2	1/4	21+43.16	48.35' RT	976.97
	1/2	21+47.49	41.86' RT	976.76
	3/4	21+53.98	37.52' RT	976.55
4-3	1/4	21+42.24	74.86' RT	975.48
	1/2	21+43.98	77.46' RT	975.45
	3/4	21+46.57	79.19' RT	975.43
4-4	1/4	23+19.26	38.30' RT	971.66
	1/2	23+29.02	44.85' RT	971.14
	3/4	23+35.51	54.64' RT	970.76
4-5	1/4	23+66.08	54.40' RT	969.66
	1/2	23+72.59	44.72' RT	969.59
	3/4	23+82.30	38.27' RT	969.07

PRIVATE ENTRACE POINTS			
NO.	STATION	OFFSET	ELEVATION
1	21+93.21	36.00' RT	975.80
2	21+93.18	43.00' RT	976.46
3	21+93.15	49.00' RT	976.55
4	21+93.15	50.00' RT	976.56
5	22+17.22	36.00' RT	975.20
6	22+17.19	43.00' RT	975.86
7	22+17.16	49.00' RT	975.95
8	22+17.15	50.00' RT	975.97

C.S. = CONSTANT SLOPE
H.P. = HIGH POINT
L.P. = LOW POINT
M.E. = MATCH EXISTING
S.S. = SPECIAL SHAPING
U.T. = UNIFORM TRANSITION

REFER TO G SHEET FOR CURVE DATA INFORMATION.

ALL ELEVATIONS SHOWN ARE FORM GRADE ELEVATIONS UNLESS NOTED OTHERWISE.



ALL TRANSVERSE ROADWAY JOINTS ARE CD TYPE UNLESS NOTED OTHERWISE.

ALL LONGITUDINAL ROADWAY JOINTS ARE L-2 OR BT-3 UNLESS NOTED OTHERWISE.

MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

ALL MEDIAN NOSES ARE RAMPED MEDIAN NOSES, 6" STANDARD PER PV-104 UNLESS OTHERWISE NOTED.

LEGEND

REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/27/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	L.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet L.4

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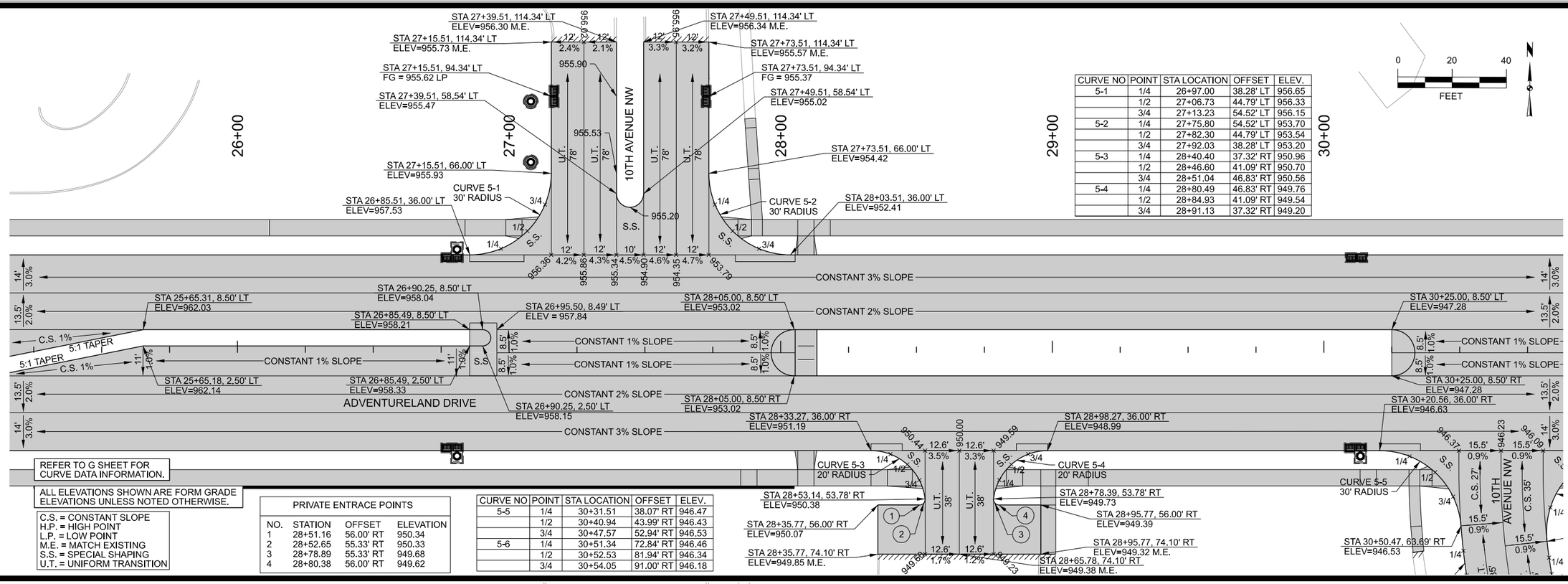
L5 [Sheet]



CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
5-1	1/4	26+97.00	38.28' LT	956.65
	1/2	27+06.73	44.79' LT	956.33
	3/4	27+13.23	54.52' LT	956.15
5-2	1/4	27+75.80	54.52' LT	953.70
	1/2	27+82.30	44.79' LT	953.54
	3/4	27+92.03	38.28' LT	953.20
5-3	1/4	28+40.40	37.32' RT	950.96
	1/2	28+46.60	41.09' RT	950.70
	3/4	28+51.04	46.83' RT	950.56
5-4	1/4	28+80.49	46.83' RT	949.76
	1/2	28+84.93	41.09' RT	949.54
	3/4	28+91.13	37.32' RT	949.20

REFER TO G SHEET FOR CURVE DATA INFORMATION.

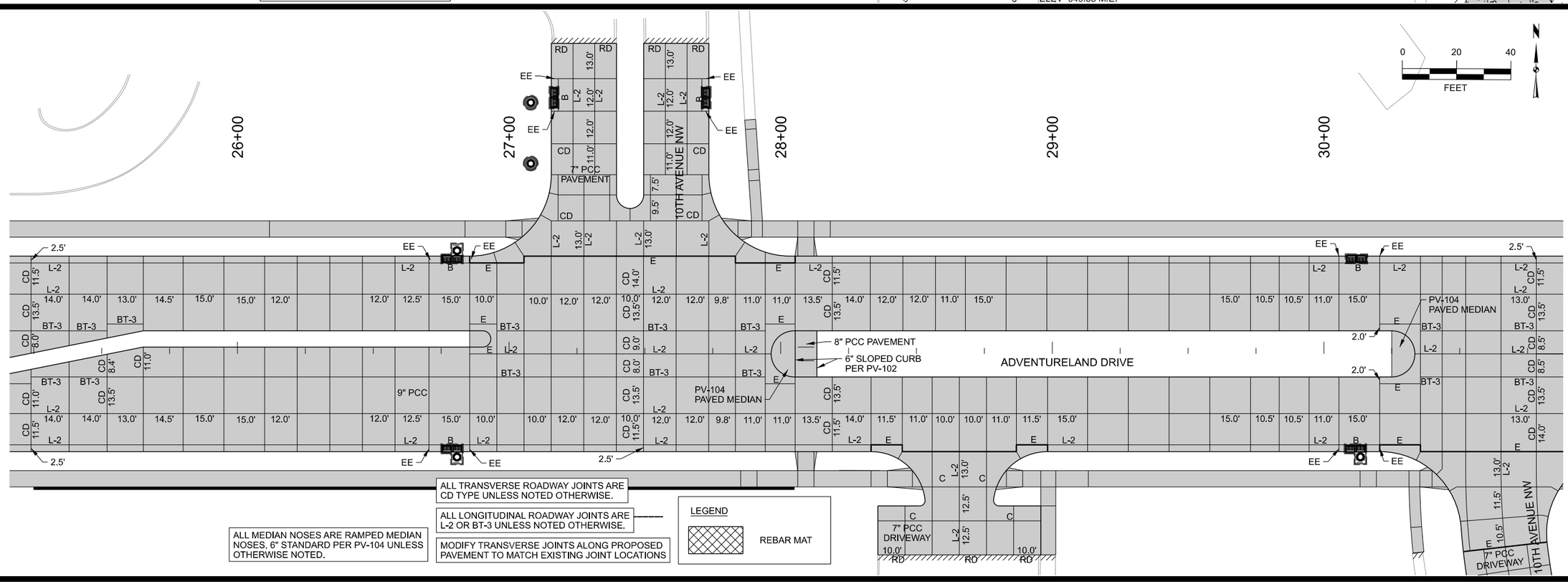
ALL ELEVATIONS SHOWN ARE FORM GRADE ELEVATIONS UNLESS NOTED OTHERWISE.

C.S. = CONSTANT SLOPE
H.P. = HIGH POINT
L.P. = LOW POINT
M.E. = MATCH EXISTING
S.S. = SPECIAL SHAPING
U.T. = UNIFORM TRANSITION

PRIVATE ENTRACE POINTS

NO.	STATION	OFFSET	ELEVATION
1	28+51.16	56.00' RT	950.34
2	28+52.65	55.33' RT	950.33
3	28+78.89	55.33' RT	949.68
4	28+80.38	56.00' RT	949.62

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
5-5	1/4	30+31.51	38.07' RT	946.47
	1/2	30+40.94	43.99' RT	946.43
	3/4	30+47.57	52.94' RT	946.53
5-6	1/4	30+51.34	72.84' RT	946.46
	1/2	30+52.53	81.94' RT	946.34
	3/4	30+54.05	91.00' RT	946.18



ALL TRANSVERSE ROADWAY JOINTS ARE CD TYPE UNLESS NOTED OTHERWISE.

ALL LONGITUDINAL ROADWAY JOINTS ARE L-2 OR BT-3 UNLESS NOTED OTHERWISE.

MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

ALL MEDIAN NOSES ARE RAMPED MEDIAN NOSES, 6" STANDARD PER PV-104 UNLESS OTHERWISE NOTED.

LEGEND

REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/27/2026		
DOT STP-U-0132(628)--70-77			
Project No: 1221679			Sheet L.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet L.5

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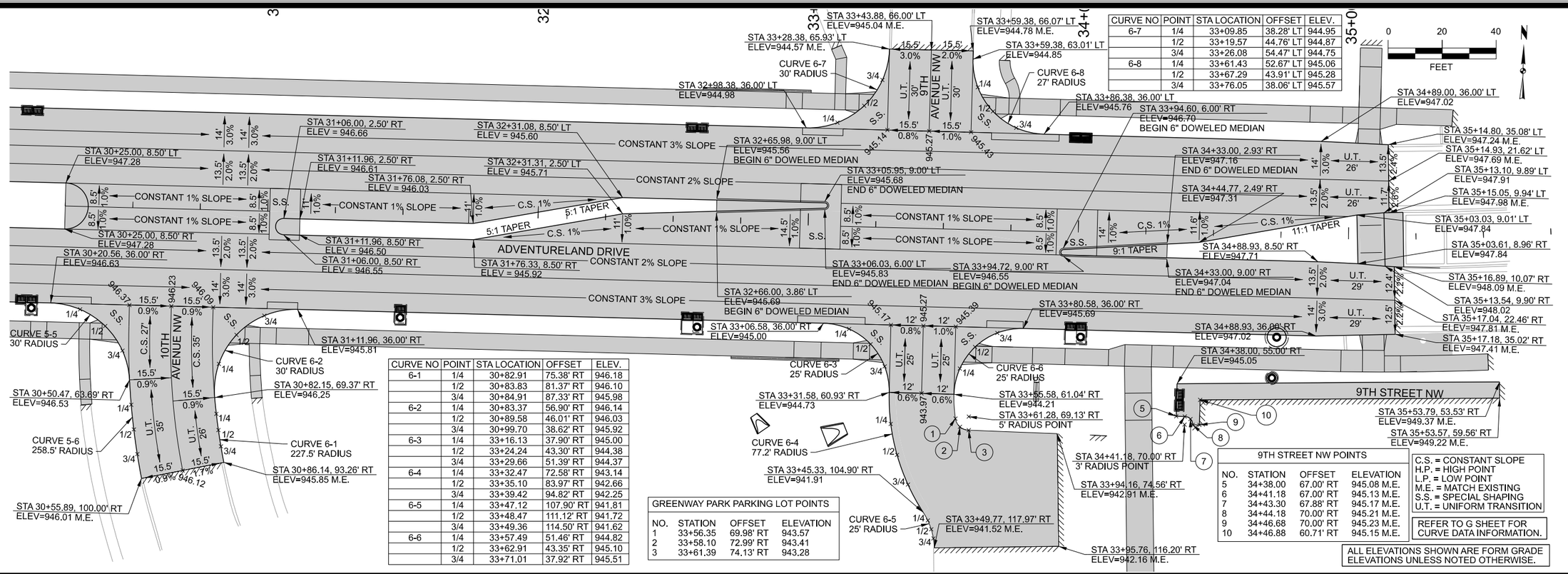

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
6-1	1/4	30+82.91	75.38' RT	946.18
	1/2	30+83.83	81.37' RT	946.10
	3/4	30+84.91	87.33' RT	945.98
6-2	1/4	30+83.37	56.90' RT	946.14
	1/2	30+89.58	46.01' RT	946.03
	3/4	30+99.70	38.62' RT	945.92
6-3	1/4	33+16.13	37.90' RT	945.00
	1/2	33+24.24	43.30' RT	944.38
	3/4	33+29.66	51.39' RT	944.37
6-4	1/4	33+32.47	72.58' RT	943.14
	1/2	33+35.10	83.97' RT	942.66
	3/4	33+39.42	94.82' RT	942.25
6-5	1/4	33+47.12	107.90' RT	941.81
	1/2	33+48.47	111.12' RT	941.72
	3/4	33+49.36	114.50' RT	941.62
6-6	1/4	33+57.49	51.46' RT	944.82
	1/2	33+62.91	43.35' RT	945.10
	3/4	33+71.01	37.92' RT	945.51

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
6-7	1/4	33+09.85	38.28' LT	944.95
	1/2	33+19.57	44.76' LT	944.87
	3/4	33+26.08	54.47' LT	944.75
6-8	1/4	33+61.43	52.67' LT	945.06
	1/2	33+67.29	43.91' LT	945.28
	3/4	33+76.05	38.06' LT	945.57

GREENWAY PARK PARKING LOT POINTS			
NO.	STATION	OFFSET	ELEVATION
1	33+56.35	69.98' RT	943.57
2	33+58.10	72.99' RT	943.41
3	33+61.39	74.13' RT	943.28

9TH STREET NW POINTS			
NO.	STATION	OFFSET	ELEVATION
5	34+38.00	67.00' RT	945.08 M.E.
6	34+41.18	67.00' RT	945.13 M.E.
7	34+43.30	67.88' RT	945.17 M.E.
8	34+44.18	70.00' RT	945.21 M.E.
9	34+46.68	70.00' RT	945.23 M.E.
10	34+46.88	60.71' RT	945.15 M.E.

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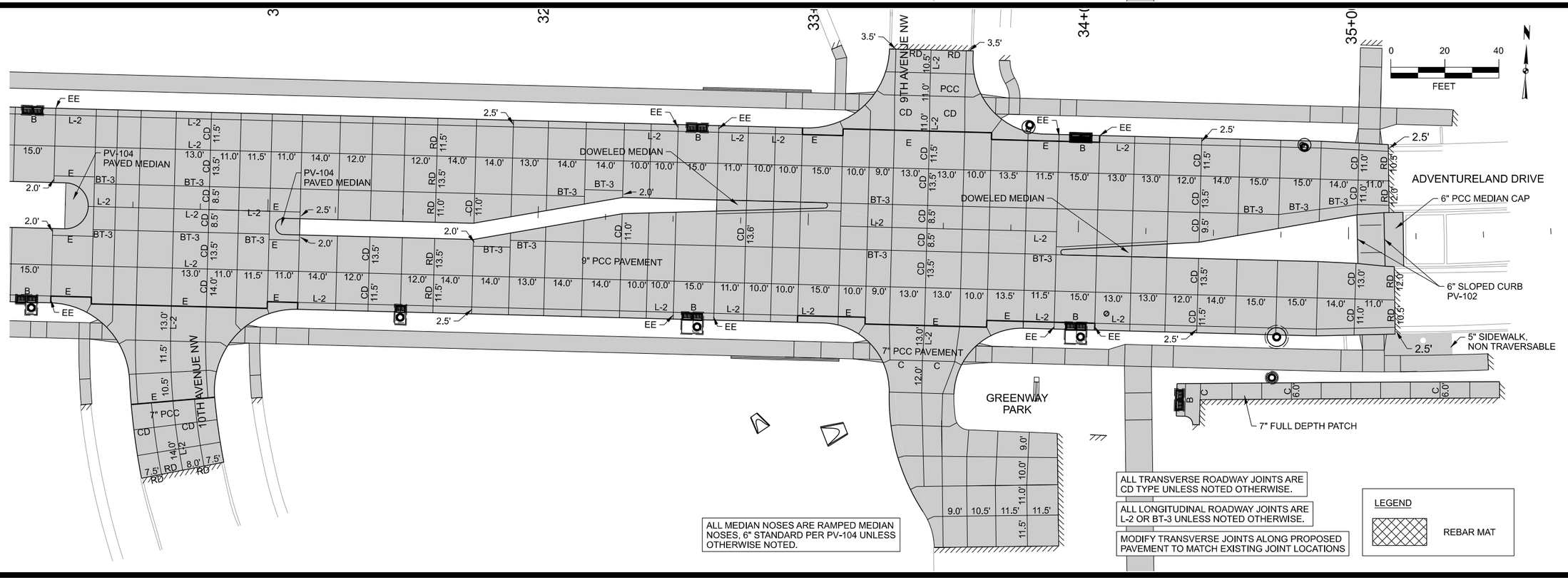

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MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

LEGEND

REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/27/2026		
	DOT STP-U-0132(628)--70-77		
	Project No: 1221679		Sheet L.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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Project No: 1221679

Sheet L.6

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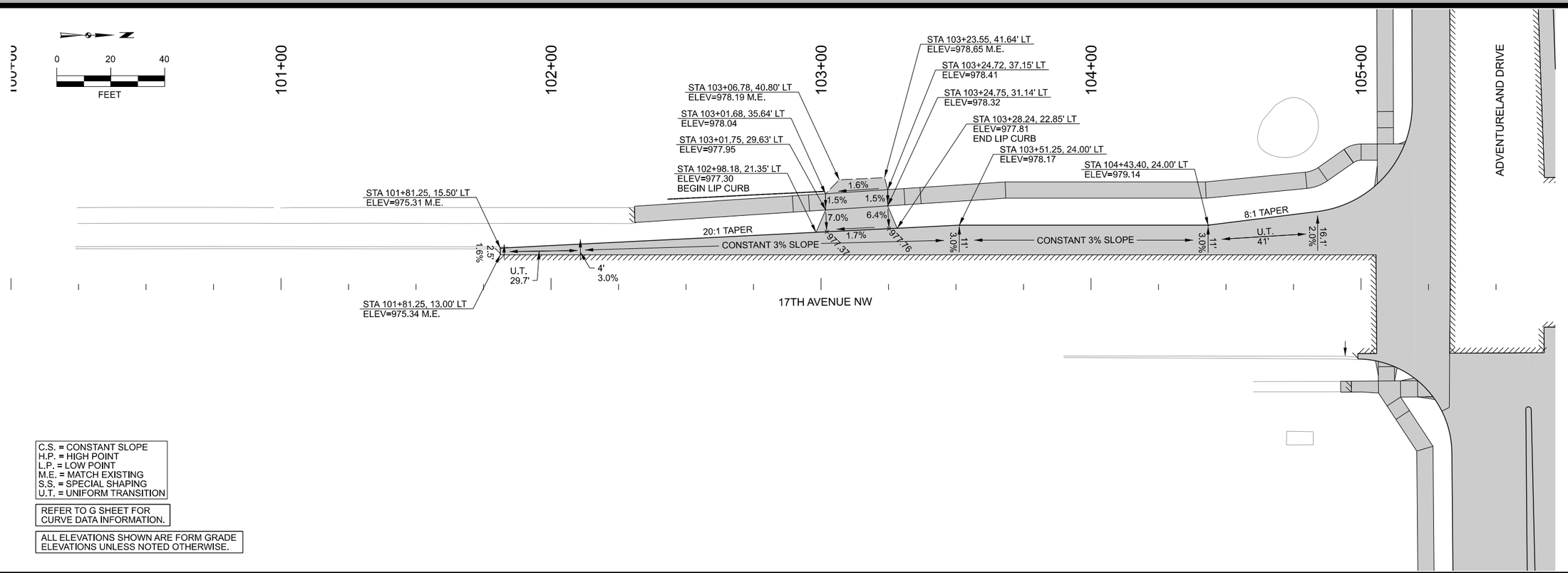

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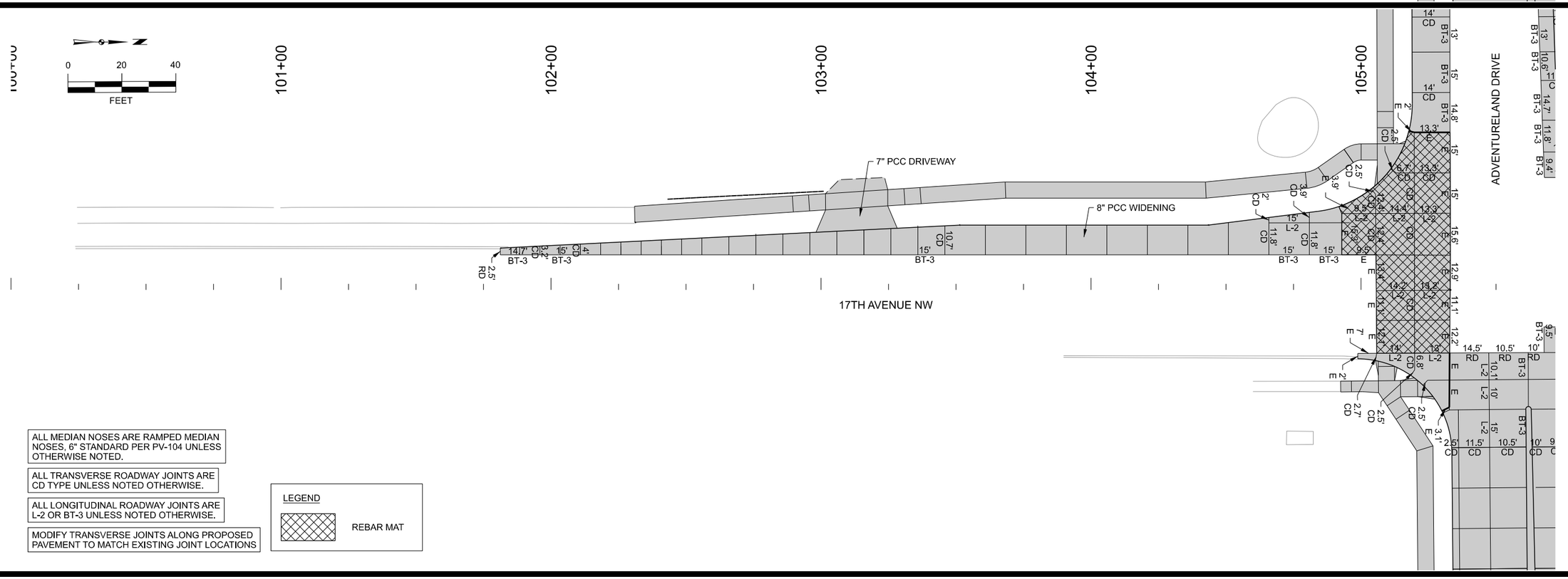

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LEGEND

REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/27/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	L.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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GEOMETRIC, STAKING AND JOINTING

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Project No: 1221679

Sheet L.7

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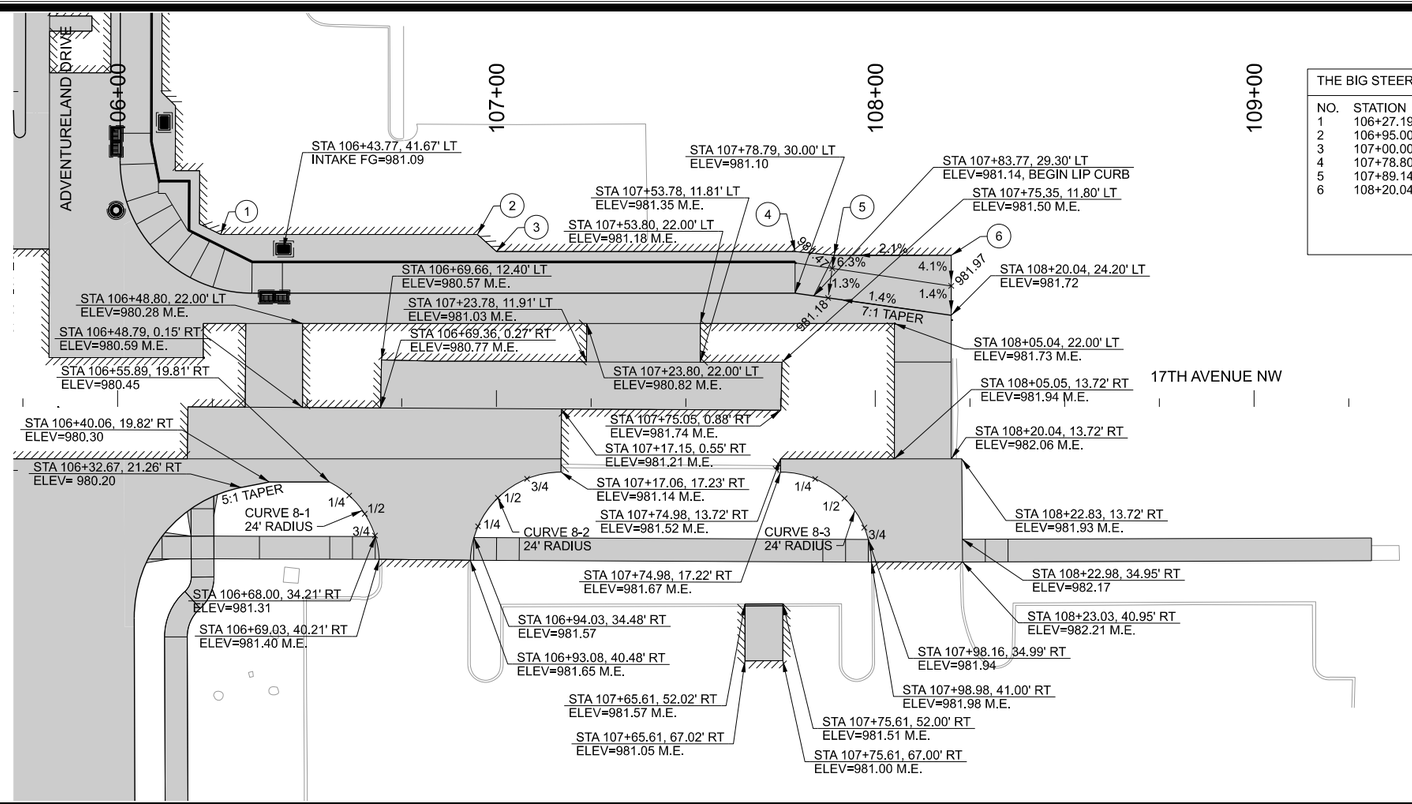

THE BIG STEER PARKING LOT POINTS			
NO.	STATION	OFFSET	ELEVATION
1	106+27.19	45.50' LT	981.27 M.E.
2	106+95.00	45.50' LT	981.61 M.E.
3	107+00.00	41.00' LT	981.48 M.E.
4	107+78.80	41.00' LT	981.60 M.E.
5	107+89.14	40.00' LT	981.69 M.E.
6	108+20.04	40.00' LT	982.33 M.E.

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
8-1	1/4	106+61.12	23.40' RT	980.72
	1/2	106+65.23	28.23' RT	981.01
	3/4	106+67.93	33.96' RT	981.31
8-2	1/4	106+95.11	31.53' RT	981.46
	1/2	107+00.36	24.00' RT	981.12
	3/4	107+08.05	18.98' RT	980.97
8-3	1/4	107+84.11	19.03' RT	981.63
	1/2	107+91.87	24.17' RT	981.78
	3/4	107+97.09	31.88' RT	982.00

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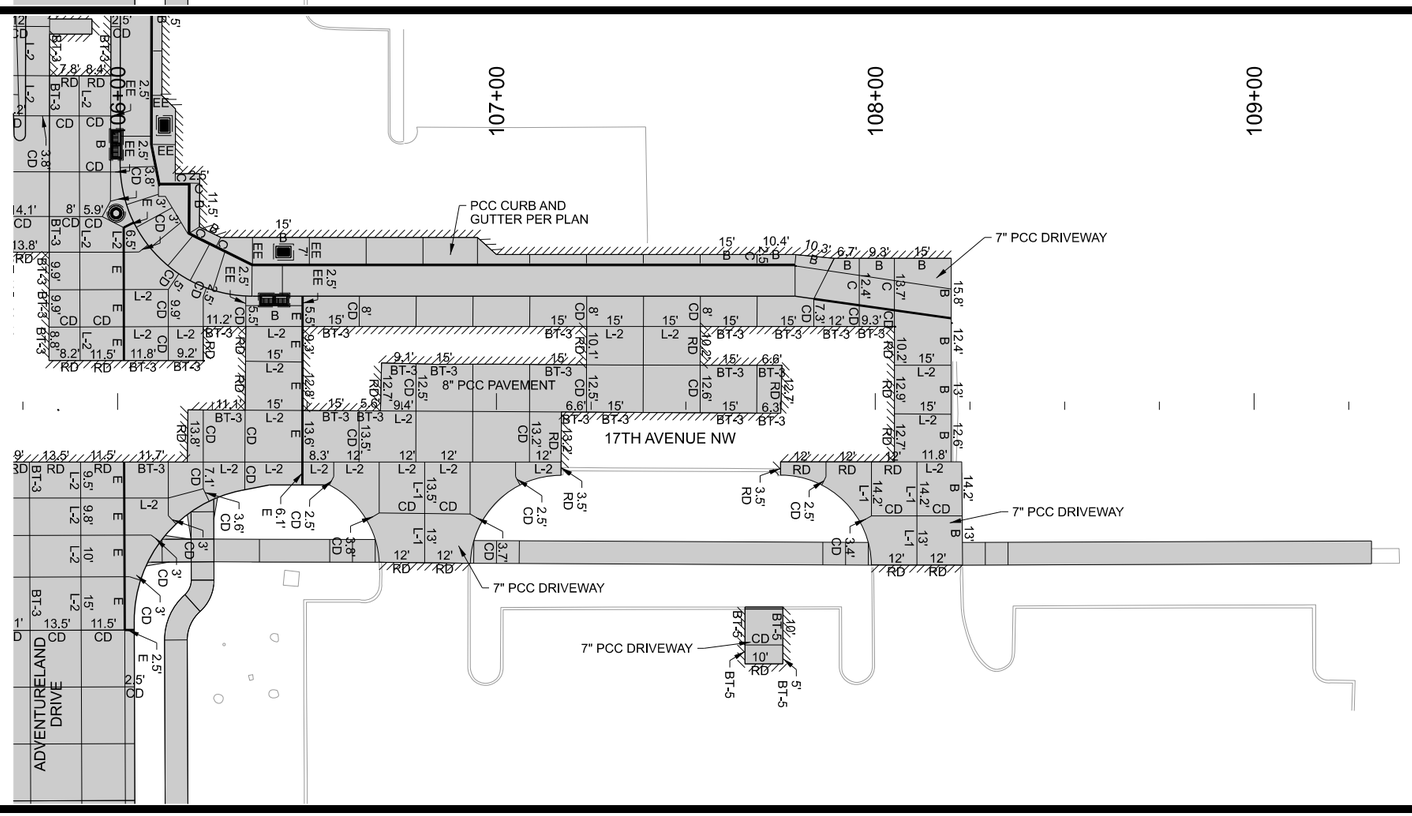

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MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

LEGEND

REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/27/2026		
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	L.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet L.8

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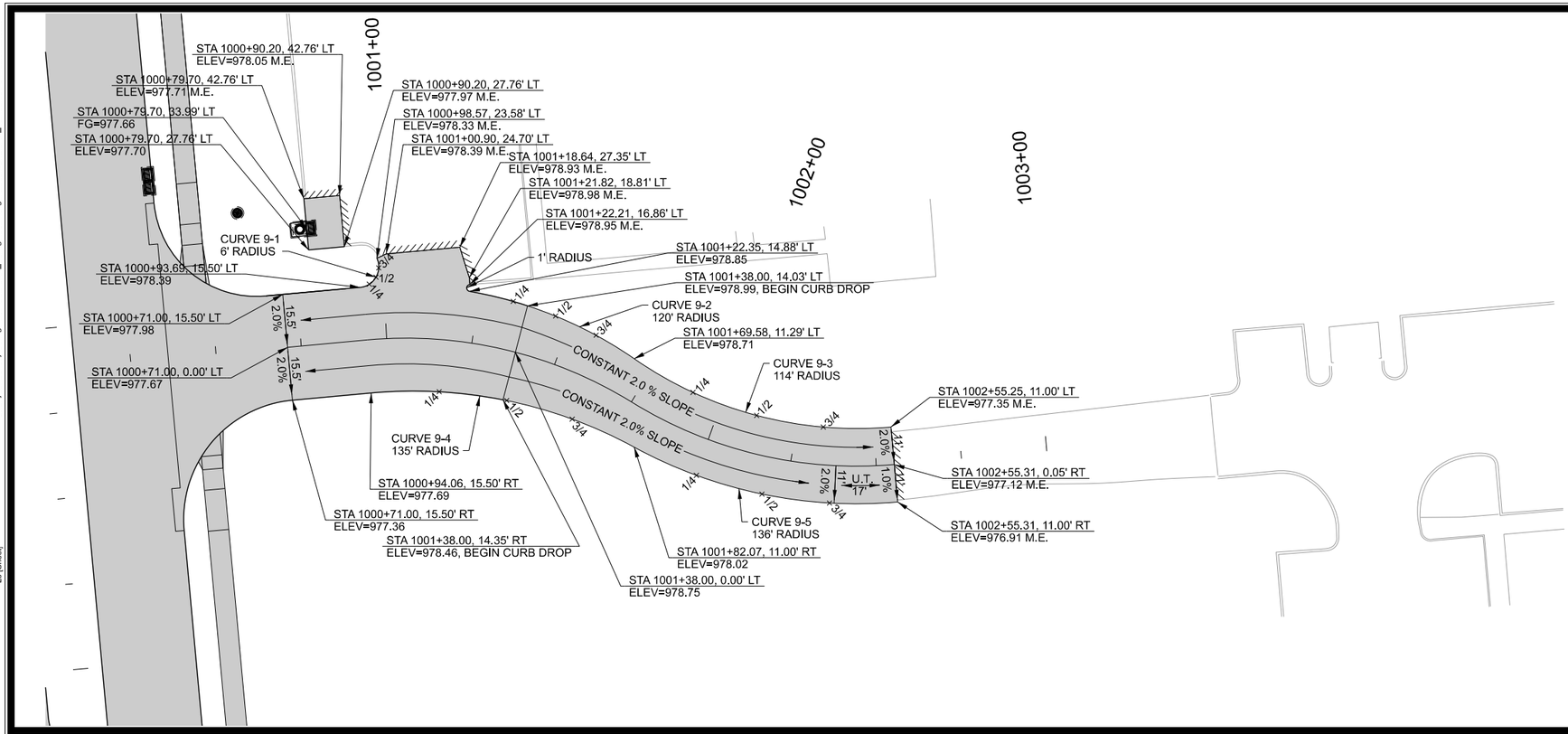

CURVE NO	POINT	STA LOCATION	OFFSET	ELEV.
9-1	1/4	1000+96.22	16.19' LT	978.45
	1/2	1000+98.06	18.10' LT	978.42
	3/4	1000+98.89	20.77' LT	978.38
9-2	1/4	1001+34.07	14.28' LT	978.97
	1/2	1001+45.84	13.47' LT	978.99
	3/4	1001+57.67	12.48' LT	978.90
9-3	1/4	1001+90.20	11.00' LT	978.38
	1/2	1002+11.90	11.00' LT	978.04
	3/4	1002+33.60	11.00' LT	977.69
9-4	1/4	1001+16.72	15.22' RT	978.14
	1/2	1001+39.28	14.28' RT	978.43
	3/4	1001+61.54	12.69' RT	978.35
9-5	1/4	1002+00.38	11.00' RT	977.78
	1/2	1002+18.69	11.00' RT	977.49
	3/4	1002+37.00	11.00' RT	977.20

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MODIFY TRANSVERSE JOINTS ALONG PROPOSED PAVEMENT TO MATCH EXISTING JOINT LOCATIONS

LEGEND

REBAR MAT

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/27/2026		
DOT STP-U-0132(628)--70-77			
Project No: 1221679		Sheet	L.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

GEOMETRIC, STAKING AND JOINTING

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet L.9

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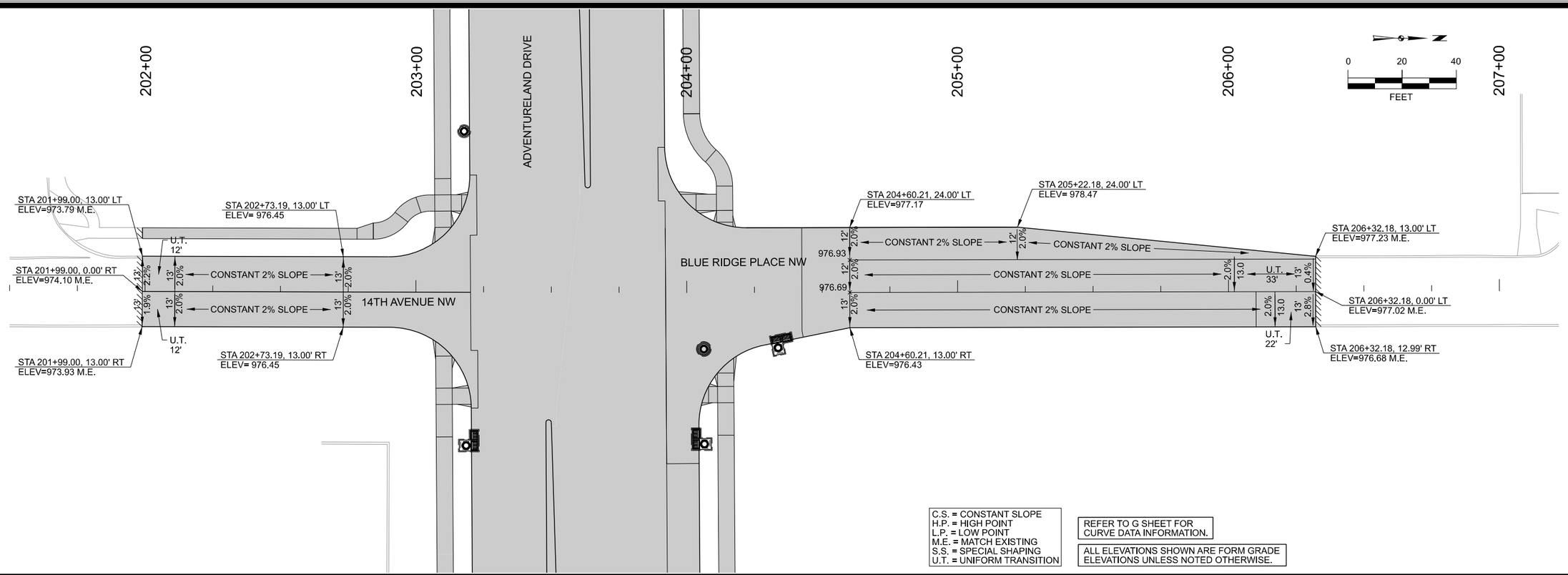

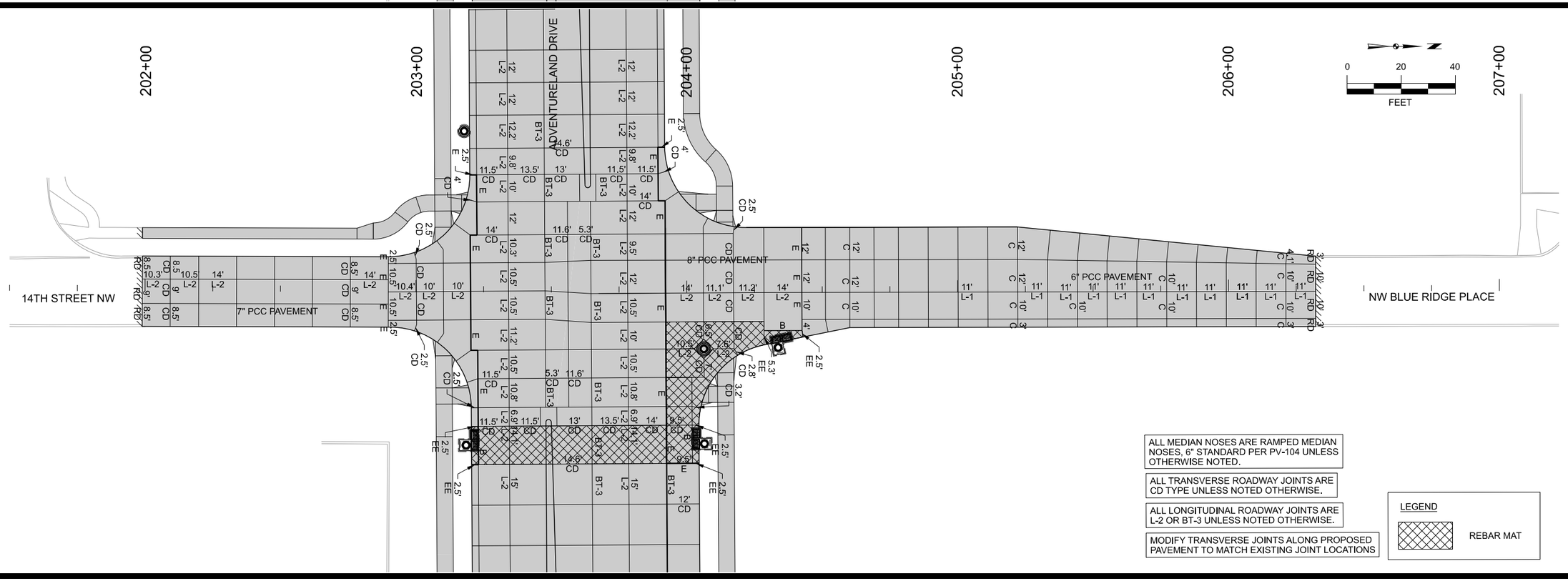

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/27/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	L.10

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GEOMETRIC, STAKING AND JOINTING

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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Project No: 1221679

Sheet L.10

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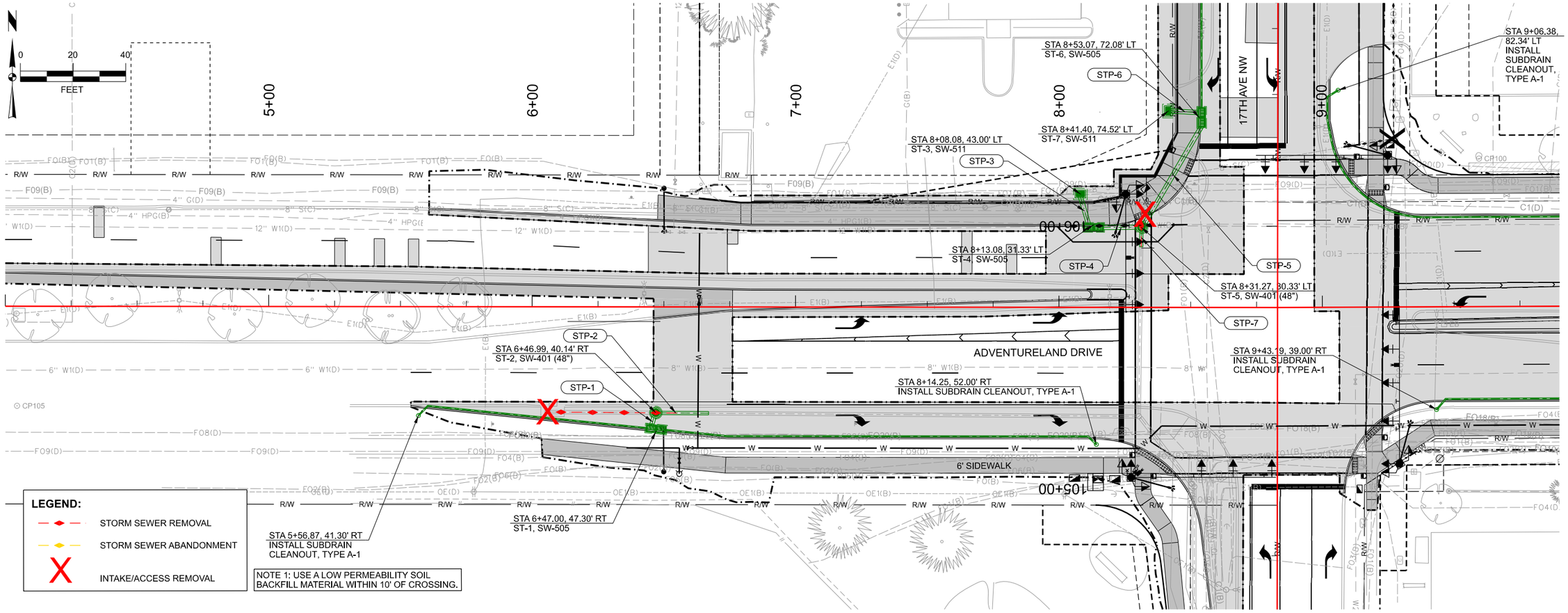

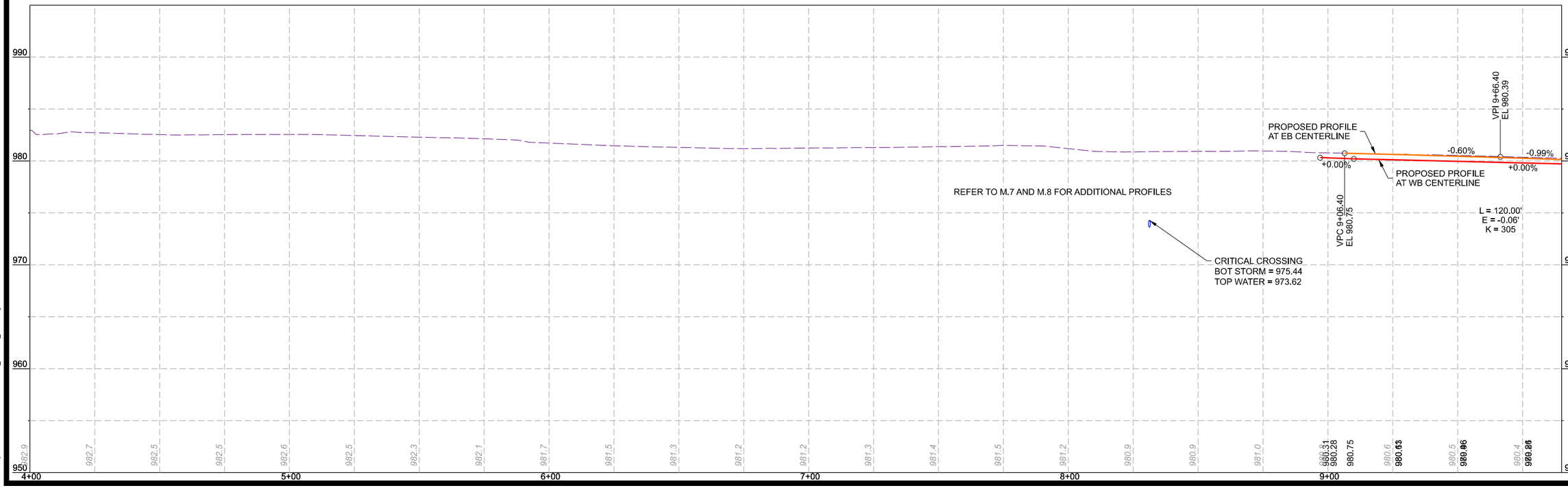

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet M.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet M.1

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STA 12+71.62, 60.01' LT
ST-8A, SW-512 (24")

STA 12+78.02, 79.70' LT
ST-8, SW-503

STP-8

STA 12+59.99, 36.00' LT
ST-9, SW-505

STP-9

REMOVAL OF CONCRETE APRON

STA 14+47.64, 46.80' LT
ST-102, SW-512 (24")
FG= 976.29
WELL= 972.29

TEMPORARY 9.5' LF 8" PVC 1.0%

STP-11

STP-103

STA 14+50.00, 36.00' LT
ST-11, SW-505

10+00 11+00 12+00 13+00 14+00 15+00

0 20 40
FEET

6' SIDEWALK

ADVENTURELAND DRIVE

EARTH MEDIAN

REMOVAL OF CONCRETE APRON

STP-10

STA 12+60.00, 36.00' RT
ST-10, SW-506

STA 14+50.05, 36.00' RT
ST-12, SW-506

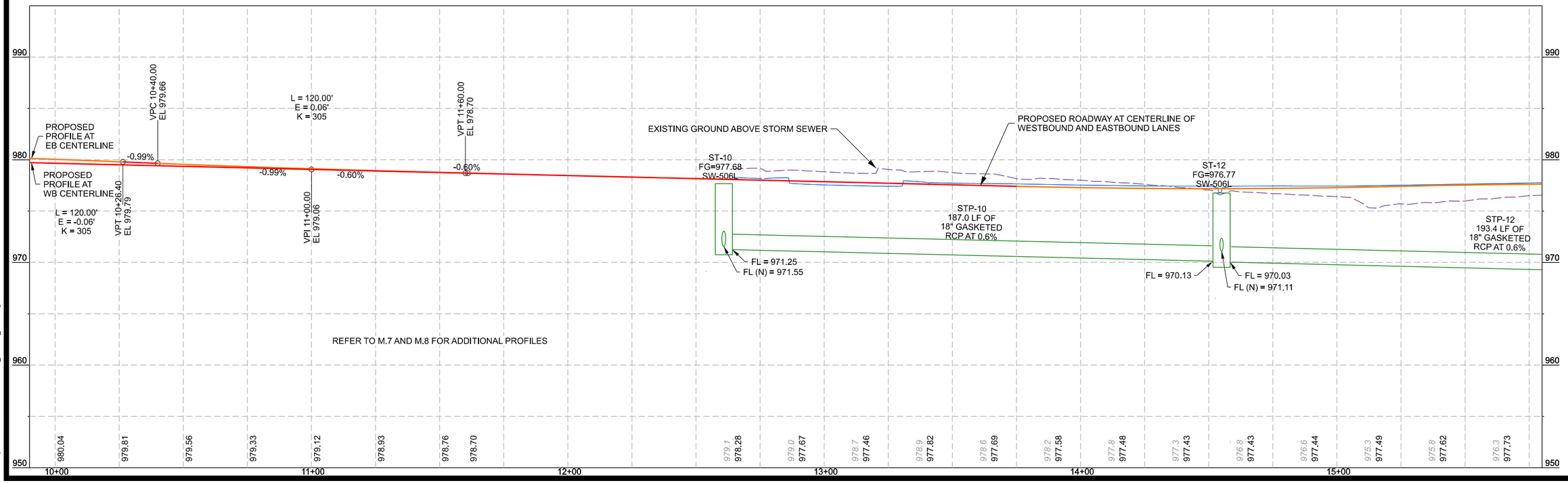
REMOVAL OF CONCRETE APRON

STP-12

LEGEND:

- STORM SEWER REMOVAL
- STORM SEWER ABANDONMENT
- X — INTAKE/ACCESS REMOVAL

NOTE 1: USE A LOW PERMEABILITY SOIL BACKFILL MATERIAL WITHIN 10' OF CROSSING.



REFER TO M.7 AND M.8 FOR ADDITIONAL PROFILES

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet M.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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Project No: 1221679

Sheet M.2

STA 17+27.16, 78.84' LT
ST-14, SW-506

STP-14

STA 17+29.76, 50.00' LT
ST-15, SW-401 (48")

STA 17+63.00, 48.00' LT
ST-16, SW-506

STP-15

STP-16

STP-102

STA 16+58.58, 38.63' LT
INSTALL SUBDRAIN
CLEANOUT, TYPE A-1

STA 18+50.00, 47.77' LT
ST-101, SW-512 (24")
FG=977.55
WELL= 973.10

16+00 17+00 18+00 19+00 20+00 21+00

BLUE RIDGE PL. NW

0 20 40
FEET

TEMPORARY 82 LF 8" PVC @ 1.0%

6' SIDEWALK

EARTH MEDIAN

ADVENTURELAND DRIVE

6' SIDEWALK

STA 16+48.82, 38.00' RT
ST-13, SW-401 (48")

STP-13

14TH AVE NW

STA 17+63.00, 36.00' RT
ST-17, SW-506L

STP-17

STA 16+65.01, 38.00' RT
INSTALL SUBDRAIN
CLEANOUT, TYPE A-1

STA 20+68.01, 38.00' RT
ST-18, SW-401 (48")

STP-18

LEGEND:

STORM SEWER REMOVAL

STORM SEWER ABANDONMENT

INTAKE/ACCESS REMOVAL

NOTE 1: USE A LOW PERMEABILITY SOIL BACKFILL MATERIAL WITHIN 10' OF CROSSING.

EXISTING GROUND ABOVE STORM SEWER

ST-13
FG=977.35
SW-401 (48")

STP-13
12 LF OF
18" GASKETED
RCP AT 1.0%

* SW-211 PC-2
CONCRETE COLLAR
CONNECTION

FL = 968.86

FL = 968.50

FL = 968.62

ST-17
FG=976.61
SW-506L

FL (N) = 970.12

FL = 970.02

EXISTING GROUND ABOVE STORM SEWER

PROPOSED ROADWAY AT CENTERLINE OF
WESTBOUND AND EASTBOUND LANES

STP-22
299.7 LF OF
18" GASKETED
RCP AT 0.6%

ST-18
FG=978.65
SW-401 (48")

CRITICAL CROSSING
BOT WATER = 971.27
TOP STORM = 969.65

FL = 968.22

FL = 968.02

990 980 970 960 950

	16+00	17+00	18+00	19+00	20+00	21+00
	976.7 977.79	977.0 977.79	977.5 977.75	976.6 977.17	976.8 977.21	976.8 977.31
	976.6 977.48	976.5 977.67	976.5 977.86	976.1 978.05	975.1 978.25	974.9 978.40
	976.0 978.48	976.4 978.48	976.7 978.42	976.9 978.28	977.0 978.08	977.1 977.31
	976.8 977.00	977.1 976.96				

REFER TO M.7 AND M.8 FOR ADDITIONAL PROFILES

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet M.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet M.3

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22+00 | 23+00 | 24+00 | 25+00 | 26+00 | 27+00

10' ELECTRIC EASEMENT BK 5233, PG 348-350

STA 24+17.06, 50.42' LT
INSTALL SUBDRAIN CLEANOUT, TYPE A-1

ADVENTURELAND DRIVE

EARTH MEDIAN | EARTH MEDIAN

6' SIDEWALK | 6' SIDEWALK | 6' SIDEWALK

12TH AVE NW | 10TH AVE NW

STA 27+15.51, 94.34' LT
ST-22, SW-505

STA 27+41.51, 112.44' LT
INSTALL SUBDRAIN CLEANOUT, TYPE A-1

STA 27+07.97, 92.50' LT
ST-20, SW-401 (48")

STA 27+07.97, 70.10' LT
ST-23, SW-401 (48")

STA 26+79.00, 36.00' LT
ST-24, SW-506

TEMPORARY

REMOVAL OF CONCRETE APRON

STA 26+94.53, 39.48' LT
INSTALL STUBDRAIN CLEANOUT TYPE A-1

STA 23+02.00, 36.00' RT
ST-19, SW-506L

STA 23+69.24, 54.66' RT
INSTALL SUBDRAIN CLEANOUT, TYPE A-1

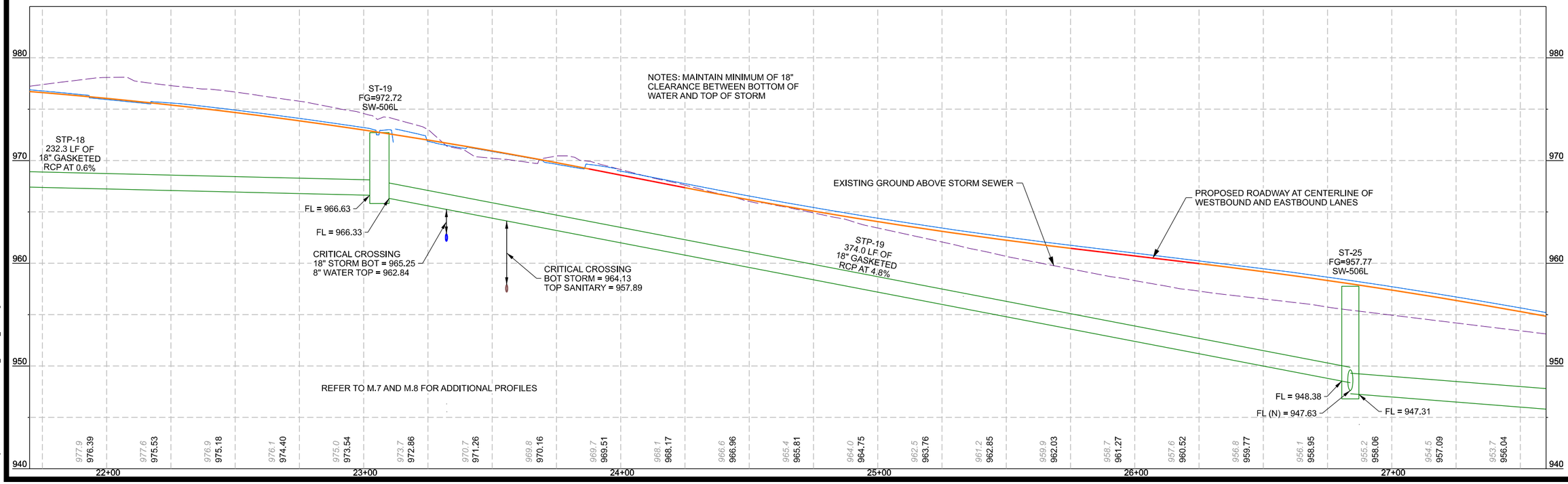
STA 26+79.04, 36.01' RT
ST-25, SW-506L

0 20 40
FEET

LEGEND:

- STORM SEWER REMOVAL
- STORM SEWER ABANDONMENT
- X — INTAKE/ACCESS REMOVAL

NOTE 1: USE A LOW PERMEABILITY SOIL BACKFILL MATERIAL WITHIN 10' OF CROSSING.



MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026	NTS	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet M.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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Project No: 1221679

Sheet M.4

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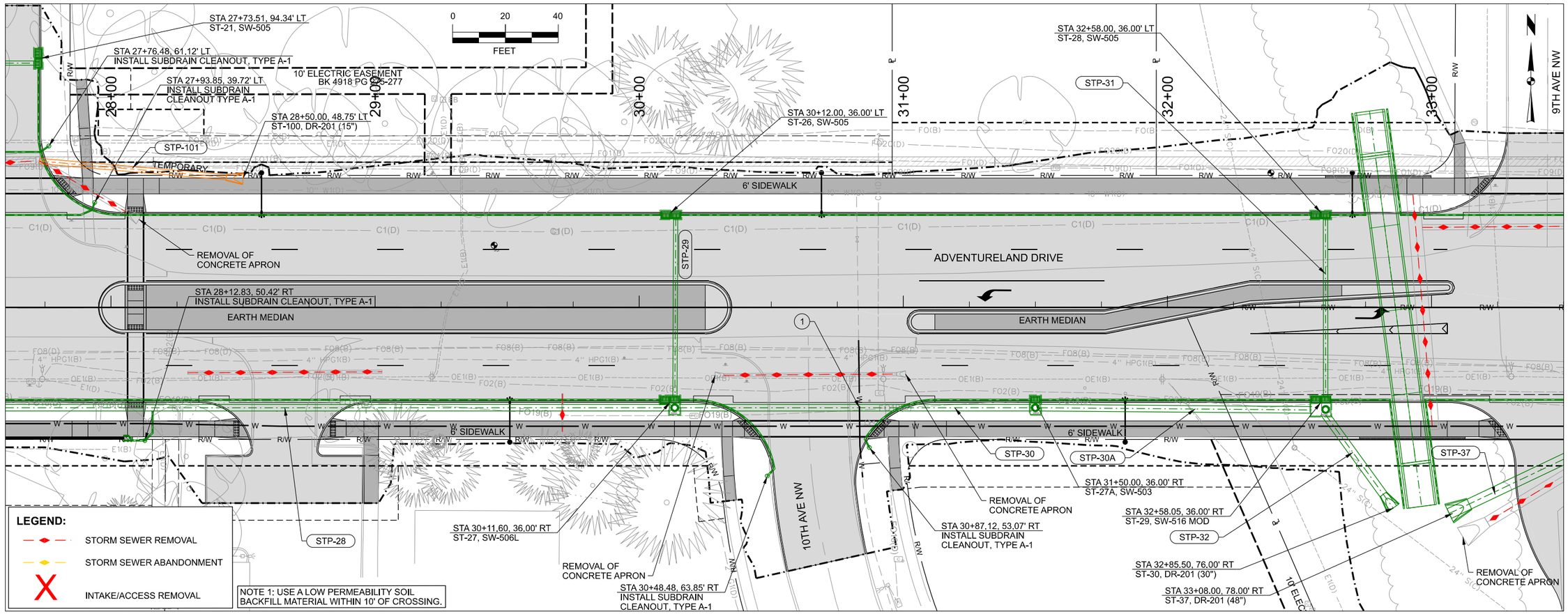

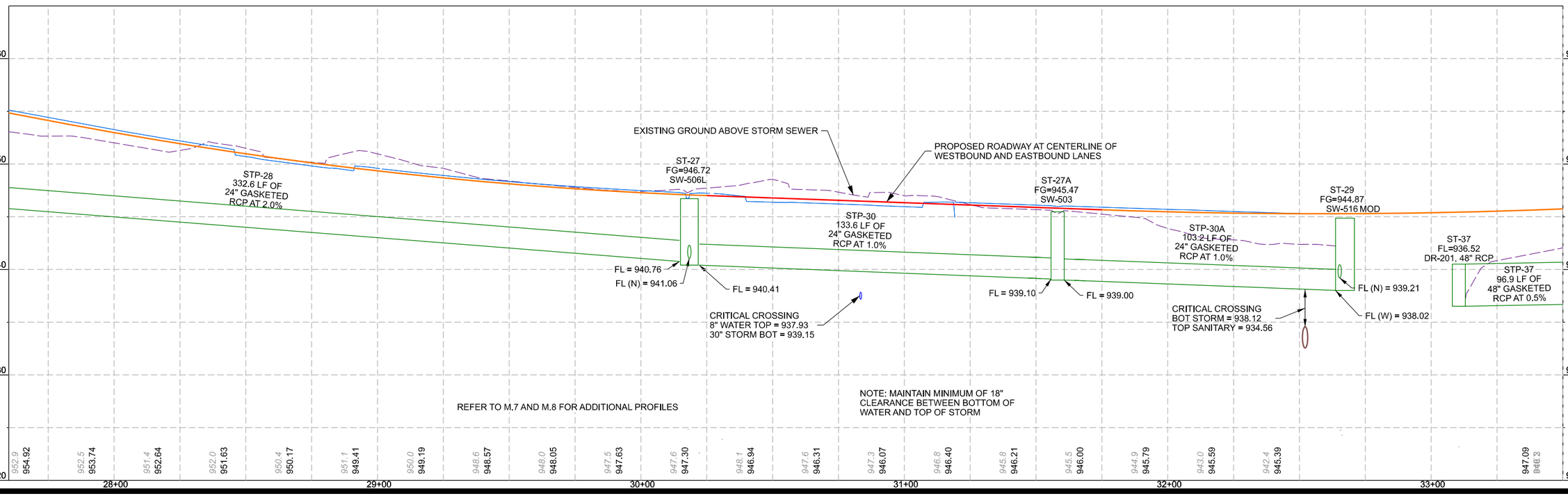

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026	NTS	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet M.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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Project No: 1221679

Sheet M.5

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STA 33+61.38, 66.08' LT
INSTALL SUBDRAIN CLEANOUT, TYPE A-1

STA 34+00.00, 34.00' LT
ST-31, SW-505

STP-33

10' ELECTRIC EASEMENT BK 5

34+00

35+00

36+00

37+00

STA 35+14.78, 37.08' LT
INSTALL SUBDRAIN CLEANOUT, TYPE A-1

PI 36+54.32
Δ 18°46'55" (LT)
T 165.39'
L 327.81'
R 1000.00'

POT 38+16.74

0 20 40
FEET

6' SIDEWALK

9TH AVE NW

ADVENTURELAND DRIVE

EARTH MEDIAN

STP-36

8' SIDEWALK

STA 35+17.20, 37.05' RT
INSTALL SUBDRAIN CLEANOUT, TYPE A-1

STA 34+74.40, 36.80' RT
ST-36, SW-401 (SPECIAL)

STP-35

STA 34+73.00, 51.90' RT
ST-35, SW-401 (84")

STP-34

STA 34+38.01, 61.01' RT
ST-34, SW-505

STA 34+00.00, 36.00' RT
ST-33, INTAKE SPECIAL

STP-37

NOTE 1: USE A LOW PERMEABILITY SOIL BACKFILL MATERIAL WITHIN 10' OF CROSSING.

LEGEND:

- STORM SEWER REMOVAL
- STORM SEWER ABANDONMENT
- X INTAKE/ACCESS REMOVAL

REFER TO M.7 AND M.8 FOR ADDITIONAL PROFILES

PROPOSED ROADWAY AT CENTERLINE OF WESTBOUND AND EASTBOUND LANES

EXISTING GROUND ABOVE STORM SEWER

ST-33
FG=945.94
SW-516

ST-36
FG=947.33
SW-401 (84")

FL (N) = 940.24

FL (S) = 939.53

FL (N) = 939.66

FL (E) = 937.51

FL (W) = 937.35

STP-37
96.9 LF OF
48" GASKETED
RCP AT 0.5%

STP-36
67.6 LF OF
48" GASKETED
RCP AT 0.5%

CRITICAL CROSSING
BOT STORM = 937.06
TOP SANITARY = 935.28

FL (E) = 937.01

FL (W) = 936.98

CRITICAL CROSSING
BOT STORM = 936.91
TOP WATER = 934.81

960
950
940
930
920

946.44 945.0
946.66 943.8
944.41 942.7
943.87 941.5
936.30 937.7

34+00 35+00 36+00 37+00 38+00 39+00

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026	NTS	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet M.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet M.6

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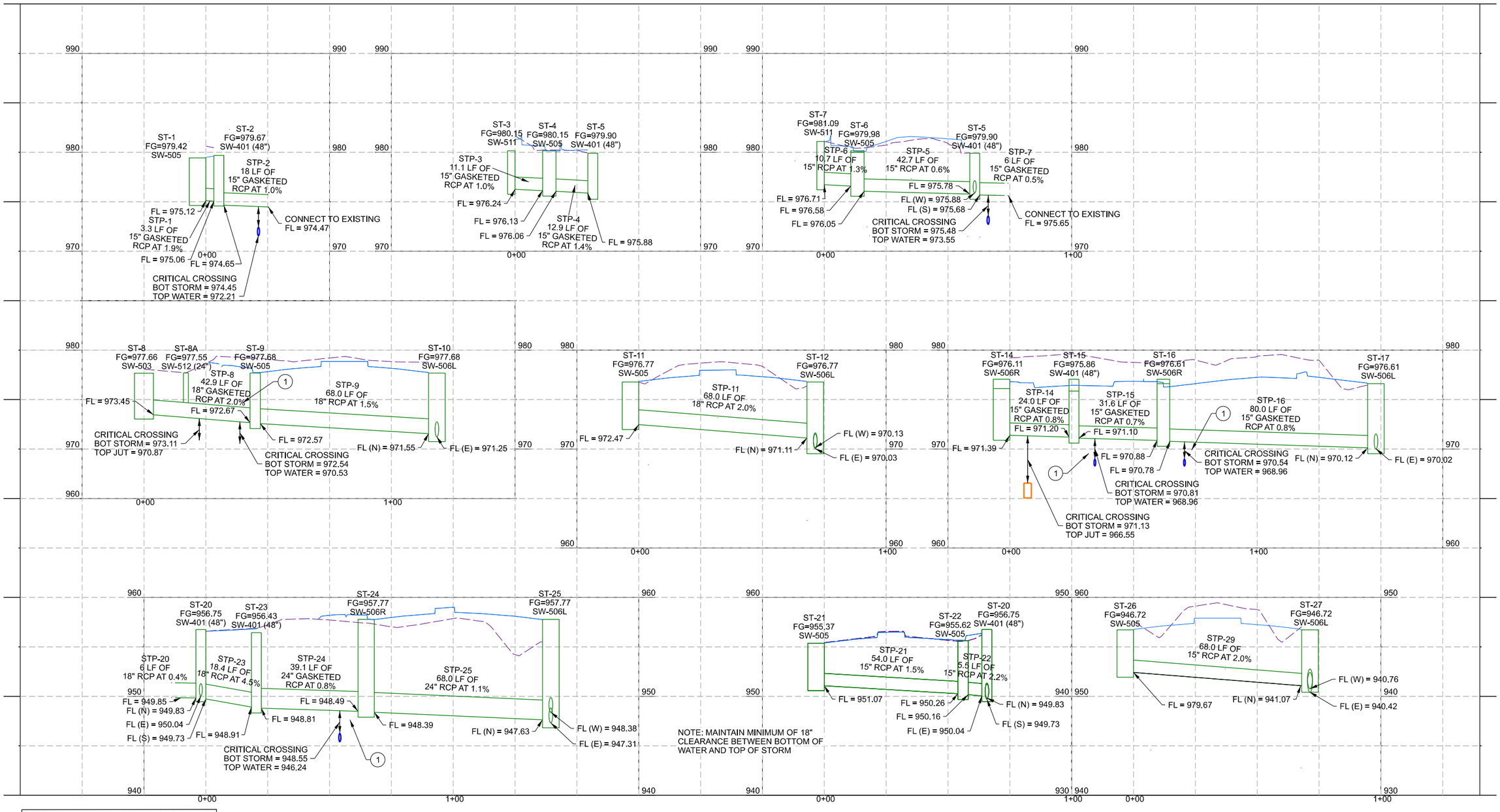

NOTE 1: USE A LOW PERMEABILITY SOIL BACKFILL MATERIAL WITHIN 10' OF CROSSING.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet M.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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Project No: 1221679

Sheet M.7

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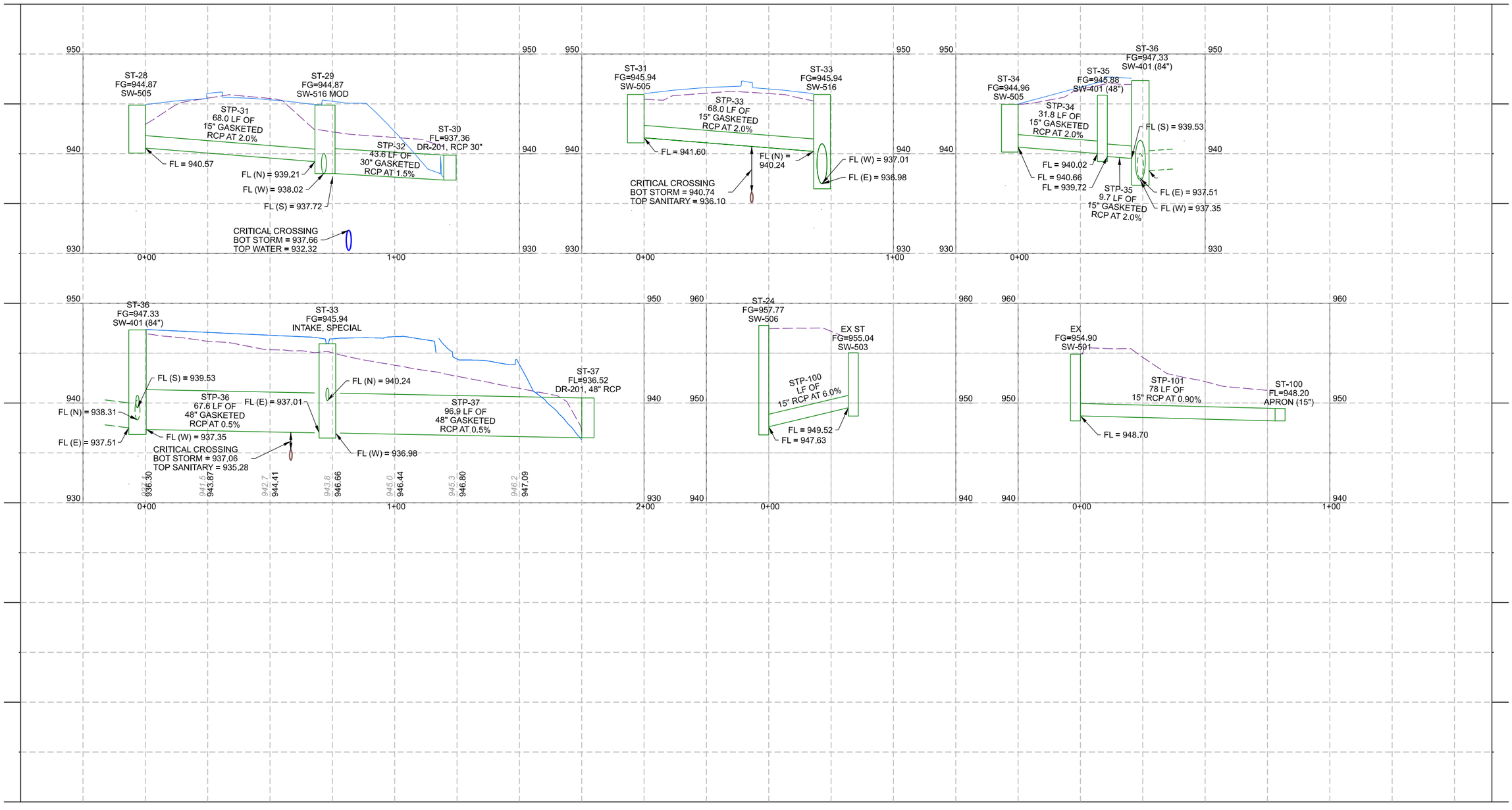

NOTE 1: USE A LOW PERMEABILITY SOIL BACKFILL MATERIAL WITHIN 10' OF CROSSING.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet M.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

STORM SEWER

SNYDER & ASSOCIATES, INC.
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Project No: 1221679

Sheet M.8

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STORM SEWER

INTAKES AND UTILITY ACCESSES							PIPES												
							Design length, slope, and flowlines are calculated from inside wall to inside wall along the centerline of pipe. An additional 2 ft length is added to each side of the design length to account for estimated length to center of structures, unless end connect to an apron.												
No.	Location Station and Offset	Type or Standard Road Plan	Form Grade	Bottom Well	Other	Notes	Line Number	Intake/Utility Access No.		Material Type	Pipe Size	Bid Length	Design Length	Slope	Inlet Elevation	Outlet Elevation	Other Elevation	Pipe Profile Sheet No.	Notes
			Elev.	Elev.	Elev.			From	To		IN	FT	FT	%					
ST-1	6+47.00, 47.30' RT	SW-505	979.42	974.62			STP-1	ST-1	ST-2	2000D	15	8	4	1.90	975.12	975.06		M.7	GASKETED JOINTS
ST-2	6+47.00, 40.14' RT	SW-401 (48")	979.67	974.15			STP-2	ST-2	EX	2000D	15	5	3	1.00	974.65	974.47		M.7	GASKETED JOINTS
ST-3	8+08.00, 43.00' LT	SW-511	980.15	975.74			STP-3	ST-3	ST-4	2000D	15	16	12	0.99	976.24	976.13		M.7	GASKETED JOINTS
ST-4	8+13.00, 31.33' LT	SW-505	980.15	975.56			STP-4	ST-4	ST-5	2000D	15	17	13	1.40	976.06	975.88		M.7	GASKETED JOINTS
ST-5	8+31.27, 30.33' LT	SW-401 (48")	979.90	975.18			STP-5	ST-6	ST-5	2000D	15	47	43	0.63	976.05	975.78		M.7	GASKETED JOINTS
ST-6	8+53.00, 72.08' LT	SW-505	979.98	975.55			STP-6	ST-7	ST-6	2000D	15	15	11	1.21	976.71	976.58		M.7	
ST-7	8+41.40, 74.52' LT	SW-511	981.09	976.21			STP-7	ST-5	EX	2000D	15	8	6	0.50	975.68	975.65		M.7	GASKETED JOINTS
ST-8	12+78.02, 79.70' LT	SW-503	977.66	973.03			STP-8	ST-8	ST-9	2000D	18	47	43	2.00	973.45	972.67		M.7	GASKETED JOINTS
ST-8A	12+71.62, 60.01' LT	SW-512 (24")	977.55			RCP TEE SW-604 3B	STP-9	ST-9	ST-10	2000D	18	72	68	1.50	972.57	971.55		M.7	GASKETED JOINTS
ST-9	12+60.00, 36.00' LT	SW-505	977.68	972.07			STP-10	ST-10	ST-12	2000D	18	191	187	0.60	971.25	970.13		M.2	GASKETED JOINTS
ST-10	12+60.00, 36.00' RT	SW-506	977.68	970.75			STP-11	ST-11	ST-12	2000D	18	72	68	1.94	972.47	971.11		M.7	GASKETED JOINTS
ST-11	14+50.00, 36.00' LT	SW-505	976.77	971.97			STP-12	ST-12	ST-13	2000D	18	198	194	0.59	970.03	968.86		M.2/M.3	GASKETED JOINTS
ST-12	14+50.00, 36.00' RT	SW-506 MOD	976.77	969.53			STP-13	ST-13	EX	2000D	18	16	12	1.00	971.39	971.20		M.3	GASKETED JOINTS
ST-13	16+48.82, 38.00' RT	SW-401 (48")	977.35	968.16			STP-14	ST-14	ST-15	2000D	15	28	24	0.66	971.39	971.20		M.7	GASKETED JOINTS
ST-14	17+27.16, 78.84' LT	SW-506	976.11	970.89			STP-15	ST-15	ST-16	2000D	15	36	32	0.70	971.10	970.88		M.7	GASKETED JOINTS
ST-15	17+29.76, 50.00' LT	SW-401 (48")	975.86	970.60			STP-16	ST-16	ST-17	2000D	15	84	80	0.83	970.78	970.12		M.7	GASKETED JOINTS
ST-16	17+63.00, 48.00' LT	SW-506	976.61	970.28			STP-17	ST-17	ST-18	2000D	18	304	300	0.60	970.02	968.22		M.4	GASKETED JOINTS
ST-17	17+63.00, 36.00' RT	SW-506 MOD	976.61	969.52			STP-18	ST-18	ST-19	2000D	18	237	233	0.60	968.02	966.63		M.4	GASKETED JOINTS
ST-18	20+68.00, 38.00' RT	SW-401 (48")	978.65	967.52			STP-19	ST-19	ST-25	2000D	18	378	374	4.80	966.33	948.38		M.4	GASKETED JOINTS
ST-19	23+02.00, 36.00' RT	SW-506	972.72	965.83			STP-20	EX	ST-20	2000D	18	8	6	0.40	949.85	949.83		M.7	
ST-20	27+06.36, 115.57' LT	SW-401 (48")	956.75	949.23			STP-21	ST-21	ST-22	2000D	15	58	54	1.50	951.07	950.26		M.7	GASKETED JOINTS
ST-21	27+73.52, 94.34' LT	SW-505	955.37	950.57			STP-22	ST-22	ST-20	2000D	15	10	6	2.18	950.16	950.04		M.3	GASKETED JOINTS
ST-22	27+07.97, 92.51' LT	SW-401 (48")	955.62	949.66			STP-23	ST-20	ST-23	2000D	18	23	19	4.46	949.73	948.91		M.7	
ST-23	27+07.97, 70.10' LT	SW-401 (48")	956.43	948.31			STP-24	ST-24	ST-23	2000D	24	44	40	0.82	948.81	948.49		M.7	GASKETED JOINTS
ST-24	26+79.00, 36.00' LT	SW-506 MOD	957.77	947.89		NOTE 1 956.14	STP-25	ST-24	ST-25	2000D	24	72	68	1.12	948.39	947.63		M.7	GASKETED JOINTS
ST-25	26+79.00, 36.00' RT	SW-506 MOD	957.77	946.81			STP-28	ST-25	ST-27	2000D	24	337	333	1.97	947.31	940.76		M.5	GASKETED JOINTS
ST-26	30+12.00, 36.00' LT	SW-505	946.72	941.92			STP-29	ST-26	ST-27	2000D	15	72	68	2.00	979.67	941.07		M.7	GASKETED JOINTS
ST-27	30+11.60, 36.00' RT	SW-506	946.72	939.92		NOTE 2 946.33	STP-30	ST-27	ST-27A	2000D	24	138	134	1.00	940.41	939.10		M.5	GASKETED JOINTS
ST-27A	31+50.00, 36.00' RT	SW-503	945.47	938.50		NOTE 1 944.10	STP-30A	ST-27A	ST-29	2000D	24	108	104	1.00	939.00	938.02		M.5	GASKETED JOINTS
ST-28	32+58.00, 36.00' LT	SW-505	944.87	940.07			STP-31	ST-28	ST-29	2000D	15	72	68	2.00	940.57	939.21		M.8	GASKETED JOINTS
ST-29	32+58.00, 36.00' RT	SW-516 MOD	944.87	937.22			STP-32	ST-29	ST-30	2000D	30	47	45	0.81	937.72	937.36		M.8	GASKETED JOINTS
ST-30	32+85.50, 76.00' RT	DR-201 (30") - Type 1	937.36				STP-33	ST-31	ST-33	2000D	15	72	68	2.00	941.60	940.24		M.8	GASKETED JOINTS
ST-31	34+00.00, 36.00' LT	SW-505	945.94	941.10			STP-34	ST-34	ST-35	2000D	15	36	32	2.01	940.66	940.02		M.8	GASKETED JOINTS
ST-33	34+00.00, 36.00' RT	INTAKE, SPECIAL	945.94	936.48			STP-35	ST-35	ST-36	2000D	15	14	10	1.96	939.72	939.53		M.8	GASKETED JOINTS
ST-34	34+38.00, 61.00' RT	SW-505	944.96	940.16			STP-36	ST-36	ST-33	2000D	48	72	68	0.50	937.35	937.01		M.8	GASKETED JOINTS
ST-35	34+73.00, 51.90' RT	SW-401 (48")	945.88	939.22			STP-37	ST-33	ST-37	2000D	48	101	97	0.47	936.98	936.52		M.8	GASKETED JOINTS
ST-36	34+74.40, 36.80' RT	SW-401 (84") MOD	947.33	936.85		SPECIAL INTAKE TOP	STP-100	EX	ST-24	2000D	15	37	33	6.00	949.52	947.63		M.8	
ST-37	33+08.00, 78.00' RT	DR-201 (48") - Type 1	936.52				STP-101	EX	ST-100	2000D	15	82	78	0.90	948.70	948.20		M.8	TEMPORARY/GASKET
ST-100	28+50.00, 48.75' LT	DR-201 (15") - Type 1	948.20			TEMPORARY	STP-102	ST-101	ST-16	PVC	8	87	83	1.00	973.60	972.78		M.8	TEMPORARY/GASKET
ST-101	18+50.00, 47.65' LT	SW-512 (24")	976.62	973.10		TEMP SW-604 3B	STP-103	ST-11	ST-102	PVC	8	15	11	1.00	972.79	972.57		N/A	TEMPORARY
ST-102	14+47.33, 46.8' LT	SW-512 (24")	976.29	972.79		TEMP SW-604 3B													
											TOTALS:								
	TOTALS:			Notes:							8	102	PVC						
	SW-505	10		1	Intake is Top Only/Well Only with Temp Cover.						15	717	RCP	2000D					
	SW-401 (48")	9		2	Refer to interim grades when fabricating structure.						18	1546	RCP	2000D					
	SW-511	2			See interim grade for staged installation.						24	699	RCP	2000D					
	SW-503	2									30	47	RCP	2000D					
	SW-506	5									48	173	RCP	2000D					
	SW-516 MOD	1																	
	DR-201 (30") - Type 1	1																	
	SW-401 (84") MOD	1																	
	DR-201 (48") - Type 1	1																	
	DR-201 (15") - Type 1	1																	
	SW-512 (24")	3																	
	SW-506 MOD	4																	
	INTAKE, SPECIAL	1																	

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	NTS
Technician: KSB	Date: 8/18/2026	Sheet	M.9
	DOT STP-U-0132(628)--70--77 Project No: 1221679		

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

STORM SEWER

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet M.9

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104-05C

LIST OF SUBDRAIN WORK

Location			Pipe			Aprons		Outlets				Connected Pipe Joints*		Trench Drain	Granular Material	Porous Backfill*	Class "A" Crushed Stone*	Remarks
No.	Station to Station		Type of Installation	Concrete, C.M.P., or Plastic	Dia.	Length	DR-201	DR-203	DR-303	DR-305		DR-306	DR-121			Blanket			
			DR-301, DR-302, DR-303		IN	LF	No.	No.	No.	Type	No.	No.	Type	No.	LF	CY	CY	CY	
1	5+56.87	6+43.69	DR-303 Type 12	Plastic	6	89			1								6		RT DR-303 OUTLET
2	6+50.71	8+14.25	DR-303 Type 12	Plastic	6	165			1								11		RT DR-303 OUTLET
3	106+44.73	108+33.12	DR-303 Type 12	Plastic	6	191			1								12		LT DR-303 OUTLET
4	9+06.38	12+56.57	DR-303 Type 12	Plastic	6	389			1								24		LT DR-303 OUTLET
5	9+43.19	12+56.49	DR-303 Type 12	Plastic	6	316			1								20		RT DR-303 OUTLET
6	12+63.42	14+46.58	DR-303 Type 12	Plastic	6	184			2								12		LT DR-303 OUTLET
7	12+63.51	14+46.54	DR-303 Type 12	Plastic	6	184			2								12		RT DR-303 OUTLET
8	14+53.43	16+58.58	DR-303 Type 12	Plastic	6	207			1								13		LT DR-303 OUTLET
9	14+53.56	16+65.02	DR-303 Type 12	Plastic	6	213			1								14		RT DR-303 OUTLET
10	17+26.85	17+59.49	DR-303 Type 12	Plastic	6	48			2								3		LT DR-303 OUTLET
11	17+66.51	26+75.49	DR-303 Type 12	Plastic	6	910			2								57		RT DR-303 OUTLET
12	17+66.51	22+98.48	DR-303 Type 12	Plastic	6	532			2								33		LT DR-303 OUTLET
13	23+05.52	26+75.49	DR-303 Type 12	Plastic	6	370			2								23		LT DR-303 OUTLET
14	26+82.51	27+16.52	DR-303 Type 12	Plastic	6	77			2								5		LT DR-303 OUTLET
15	26+82.51	30+08.09	DR-303 Type 12	Plastic	6	326			2								21		LT DR-303 OUTLET
16	26+94.53	27+93.85	DR-303 Type 12	Plastic	6	104			0								6		OUTLET TO SUBDRAIN
17	27+72.51	30+08.57	DR-303 Type 12	Plastic	6	279			2								18		DR-303 OUTLET
18	30+15.54	32+54.57	DR-303 Type 12	Plastic	6	239			2								15		DR-303 OUTLET
19	30+15.11	30+48.48	DR-303 Type 12	Plastic	6	53			1								4		DR-303 OUTLET
20	30+87.12	32+54.54	DR-303 Type 12	Plastic	6	178			1								11		DR-303 OUTLET
21	32+61.54	32+76.65	DR-303 Type 12	Plastic	6	16			1	A	1						1		DR-303 OUTLET
22	32+61.54	32+85.86	DR-303 Type 12	Plastic	6	25			1	A	1						2		DR-303 OUTLET
23	32+86.73	33+96.56	DR-303 Type 12	Plastic	6	110			1	A	1						6		DR-305 OUTLET
24	32+95.94	33+96.56	DR-303 Type 12	Plastic	6	101			1	A	1						5		DR-303 OUTLET
25	32+39.00	35+14.78	DR-303 Type 12	Plastic	6	112			1								7		DR-303 OUTLET
26	34+03.71	35+17.20	DR-303 Type 12	Plastic	6	120			1								8		DR-303 OUTLET
27	23+59.75	24+20.98	DR-301 Type 2	Plastic	6	79			0								0		OUTLET TO SUBDRAIN; NON-PERFORATED
28	28+04.75	28+15.75	DR-301 Type 2	Plastic	6	25			1								0		DR-303 OUTLET; NON-PERFORATED
29	401+54.53	402+08.10	DR-303 Type 12	Plastic	6	92			0										OUTLET TO SUBDRAIN
30	401+54.53	27+93.84	DR-303 Type 12	Plastic	6	92			0										Center
31	401+54.53	27+93.84	DR-303 Type 12	Plastic	6	88													
				TOTALS:															
				6", PERFORATED		5810		DR-303	35						POROUS BACKFILL		343		
				6", NON-PERFORATED		104		DR-305			4								

104-05C MODIFIED

SUBDRAIN CLEANOUTS

Location				Remarks
No.	Station	Offset	Type of Installation	
			Type A-1, A-2, B	
1	5+56.87	46.30' RT	Type A-1	
2	8+14.25	52.00' RT	Type A-1	
3	9+06.38	82.34' LT	Type A-1	
4	9+43.19	39.00' RT	Type A-1	
5	16+58.58	38.63' LT	Type A-1	
6	16+65.01	38.00' RT	Type A-1	
7	23+69.24	54.66' RT	Type A-1	
8	24+17.06	50.42' LT	Type A-1	
9	26+94.53	39.48' LT	Type A-1	
10	27+41.51	112.44' RT	Type A-1	
11	27+76.48	61.12' RT	Type A-1	
12	27+93.85	39.72' LT	Type A-1	
13	28+12.53	50.42' RT	Type A-1	
14	30+48.48	63.85' RT	Type A-1	
15	30+87.12	53.07' RT	Type A-1	
16	35+14.78	38.08' LT	Type A-1	
17	35+17.20	37.05' RT	Type A-1	
18	108+33.12	24.95' LT	Type A-1	

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/18/2026		NTS

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet M.10

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

STORM SEWER

ALTOONA, IA

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Sheet M.10

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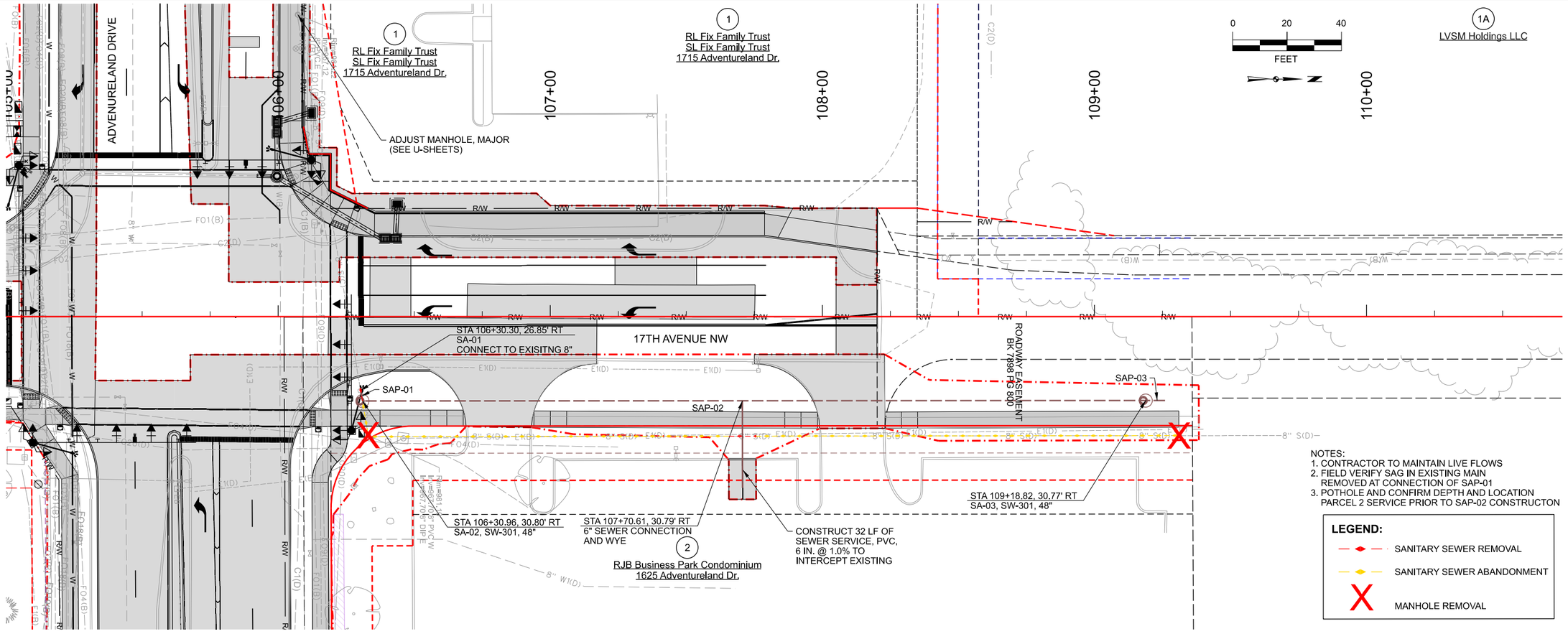

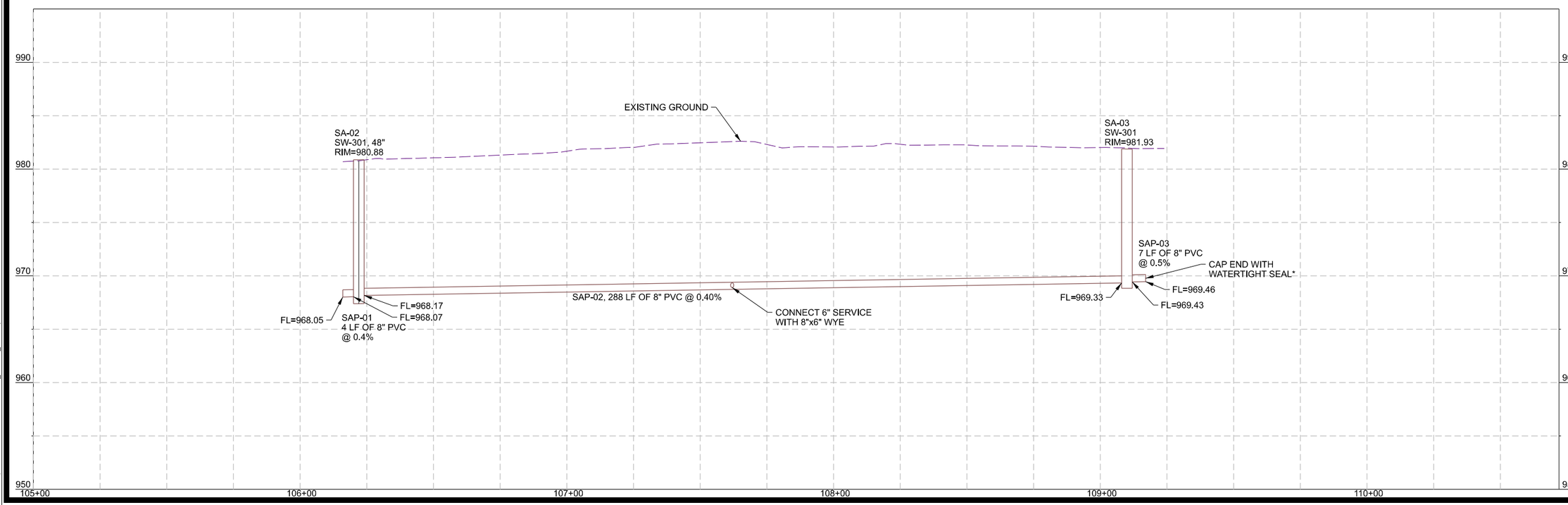

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/17/2026	Pg:	

STP-U-0132(628)--70-77

Project No: 1221679

Sheet MSA.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SANITARY SEWER PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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Sheet MSA.1

104-05B MODIFIED

SANITARY SEWER

UTILITY ACCESSES							PIPES												
							Design length, slope, and flowlines are calculated from inside wall to inside wall along the centerline of pipe. An additional 2 ft length is added to each side of the design length to account for estimated length to center of structures, unless end connect to an apron.												
No.	Location Station and Offset	Type or Standard Road Plan	FL OUT	FL IN	Rim	Notes	Line Number	Intake/Utility Access No.		Material Type	Pipe Size	Bid Length	Design Length	Slope	Inlet Elevation	Outlet Elevation	Other Elevation	Pipe Profile Sheet No.	Notes
			Elev.	Elev.	Elev.			From	To		IN	FT	FT	%					
SA-01	106+30.30, 26.85' RT	CONNECTION	967.89	968.14	980.88	SEE ERI	SAP-01	EX	SA-02	PVC	8	4	6	0.50	967.89	967.87		MSA.1	MATCH EX. TO ELIMINATE SAG
							SAP-02	SA-02	SA-03	PVC	8	288	292	0.40	968.14	969.29		MSA.1	
SA-02	106+30.96, 30.80' RT	SW-301 (48")	967.89	968.14	980.88		SAP-03	SA-03	CAP	PVC	8	7	9	0.50	969.39	939.43		MSA.1	CAP IS INCIDENTAL
-	107+70.61, 30.79' RT	8" X 6" WYE		968.70		6" SERVICE	SERVICE	SAP-02	PCL 2	PVC	6	32	32	1.00				-	6" SERVICE
SA-03	109+18.85, 30.77' RT	SW-301 (48")	969.29	969.39	981.93														
		SW-301 (48")	2	EACH						PVC	8"	299	LF	SANITARY SEWER MAIN, TRENCHED					
		CONNECTION	1	EACH		(INCIDENTAL)				PVC	6"	32	LF	SANITARY SEWER SERVICE, TRENCHED					
		8" X 6" WYE	1	EACH		(INCIDENTAL)													

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	MSA.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Project No: 1221679

Sheet MSA.2

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STA 8+05.28, 24.82' LT
INSTALL HORIZONTAL
45 DEGREE BEND

ADJUST TO GRADE*

STA 7+99.26, 30.67' LT
INSTALL HORIZONTAL
45 DEGREE BEND

STA 7+94.25, 30.60' LT
BEGIN 10" TRENCHED WATER MAIN

ADJUST TO GRADE*

ADJUST VALVE
TO GRADE*

ADJUST VALVE
TO GRADE*

STA 8+48.76, 31.41' LT
CONNECT TO EXISTING;
END 10" TRENCHED WATER MAIN

STA 8+43.76, 31.33' LT
INSTALL HORIZONTAL
45 DEGREE BEND

STA 8+37.51, 24.90' LT
INSTALL HORIZONTAL
45 DEGREE BEND

REMOVE
VALVE
CASTING*

REMOVE VALVE
CASTING*

ADJUST VALVE
TO GRADE*

REFER TO MWM.9 - MWM.14

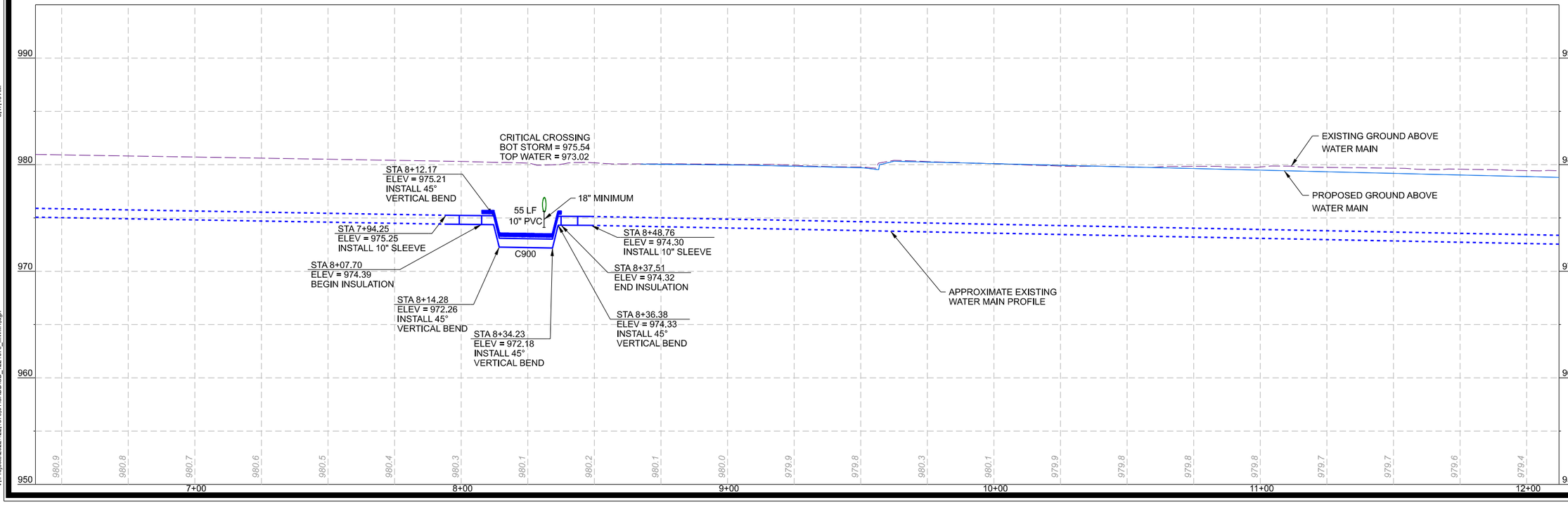
17TH AVENUE NW

ADVENTURELAND DRIVE

7+00 8+00 9+00 10+00 11+00 12+00

0 20 40
FEET

NOTES
* INCIDENTAL TO WORK



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		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pgs:
		Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet MWM.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

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Project No: 1221679

Sheet MWM.1

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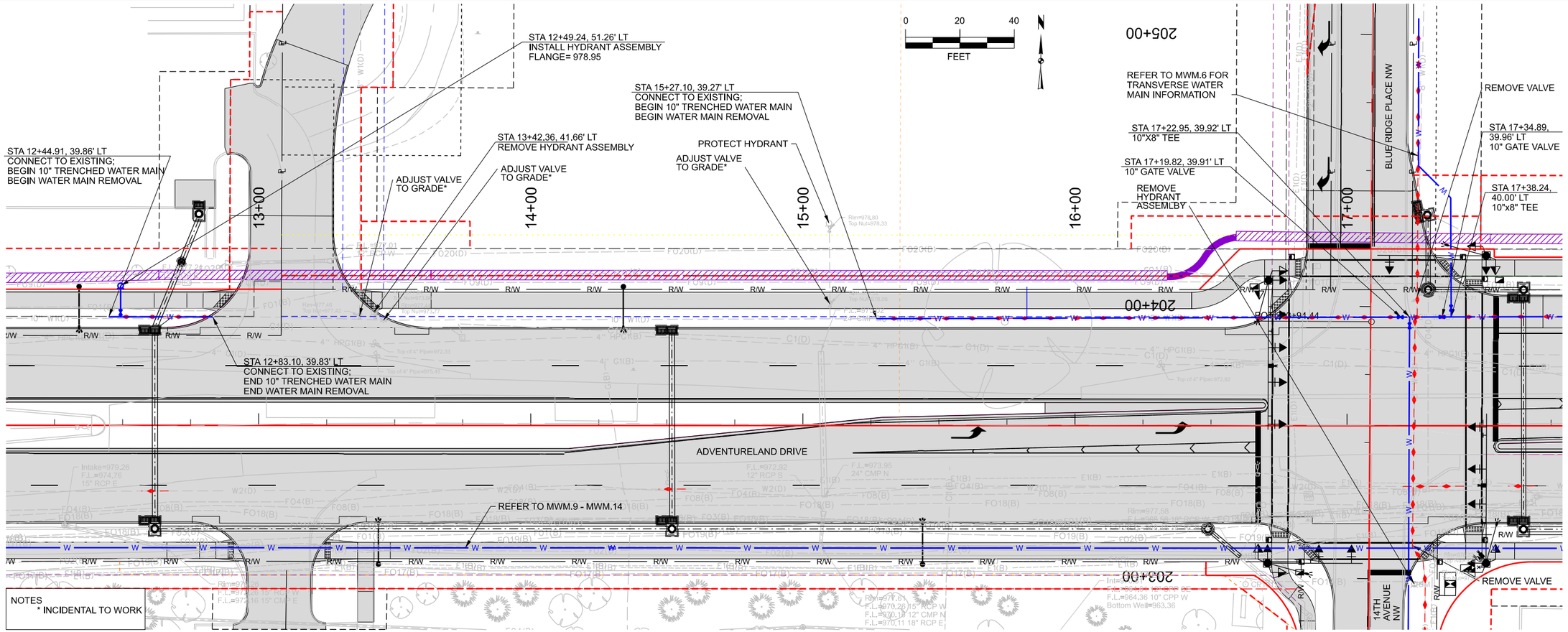

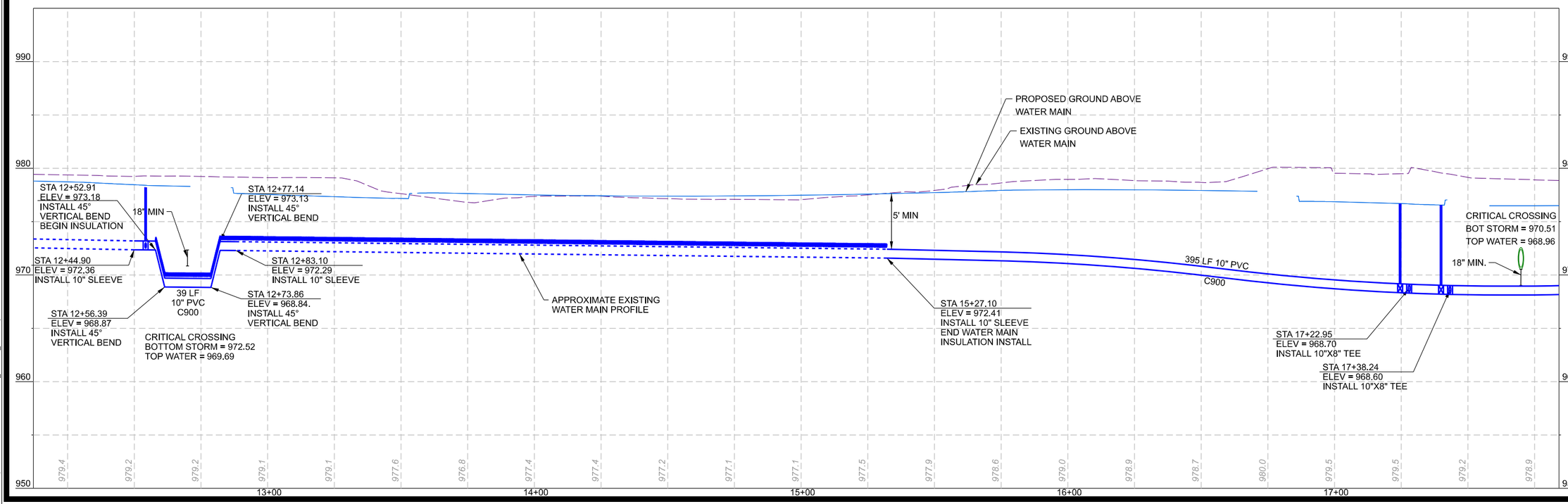

BY			
DATE			
REVISION			
MARK			
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

STP-U-0132(628)--70-77

Project No: 1221679

Sheet MWM.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

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Project No: 1221679

Sheet MWM.2

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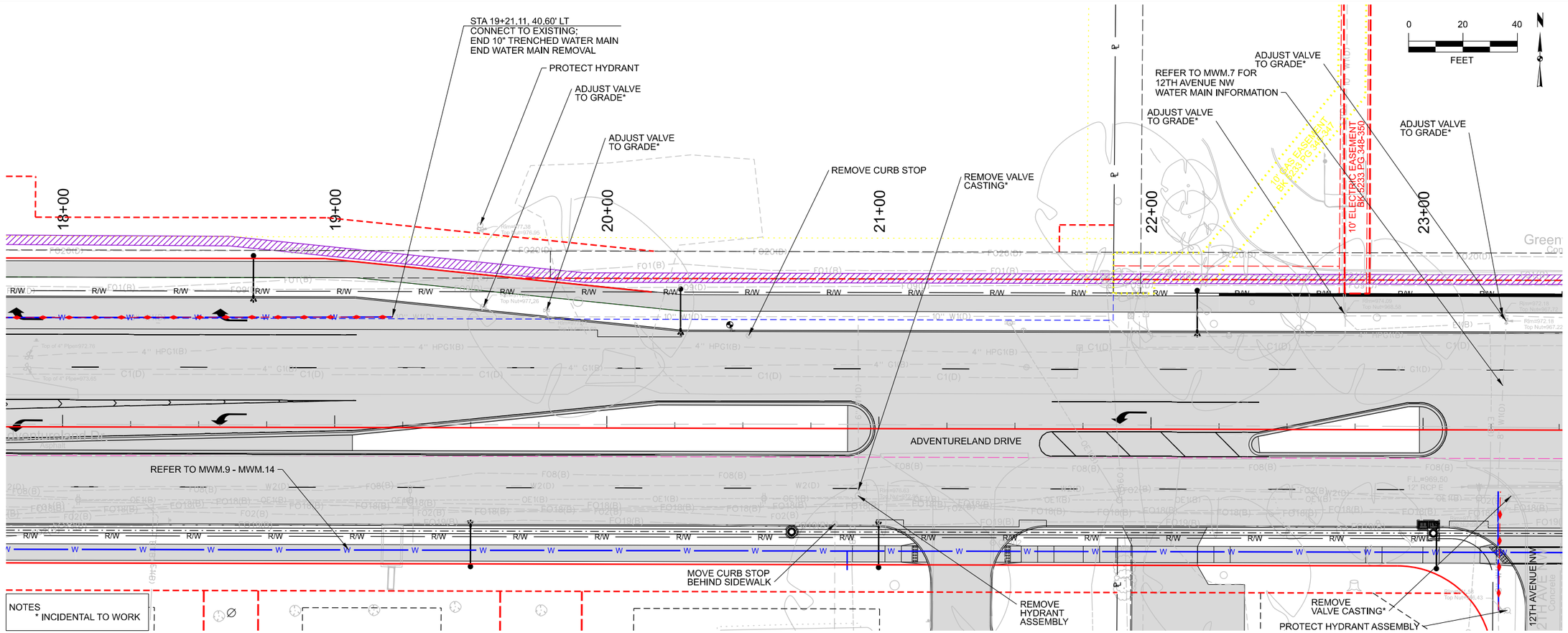
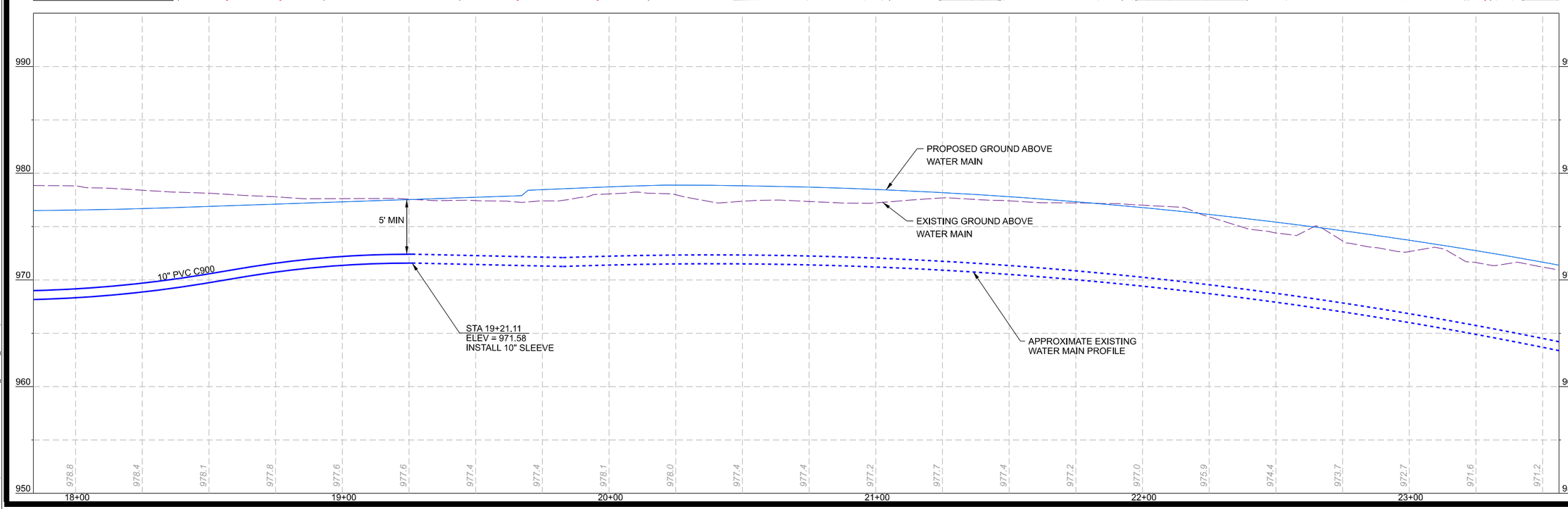

STA 19+21.11, 40.60' LT
CONNECT TO EXISTING:
END 10" TRENCHED WATER MAIN
END WATER MAIN REMOVAL
PROTECT HYDRANT
ADJUST VALVE TO GRADE*
ADJUST VALVE TO GRADE*
REMOVE CURB STOP
REMOVE VALVE CASTING*
ADJUST VALVE TO GRADE*
REFER TO MWM.7 FOR 12TH AVENUE NW WATER MAIN INFORMATION
ADJUST VALVE TO GRADE*
ADJUST VALVE TO GRADE*
10' ELECTRIC EASEMENT BK 6233 PG 348-350
10' ELECTRIC EASEMENT BK 6233 PG 348-350
18+00
19+00
20+00
21+00
22+00
23+00
0
20
40
FEET
ADVENTURELAND DRIVE
REFER TO MWM.9 - MWM.14
MOVE CURB STOP BEHIND SIDEWALK
REMOVE HYDRANT ASSEMBLY
REMOVE VALVE CASTING*
PROTECT HYDRANT ASSEMBLY
12TH AVENUE NW
NOTES
* INCIDENTAL TO WORK


990
980
970
960
950
PROPOSED GROUND ABOVE WATER MAIN
EXISTING GROUND ABOVE WATER MAIN
5' MIN
10" PVC C900
STA 19+21.11
ELEV = 971.58
INSTALL 10" SLEEVE
APPROXIMATE EXISTING WATER MAIN PROFILE
978.8
978.4
978.1
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977.6
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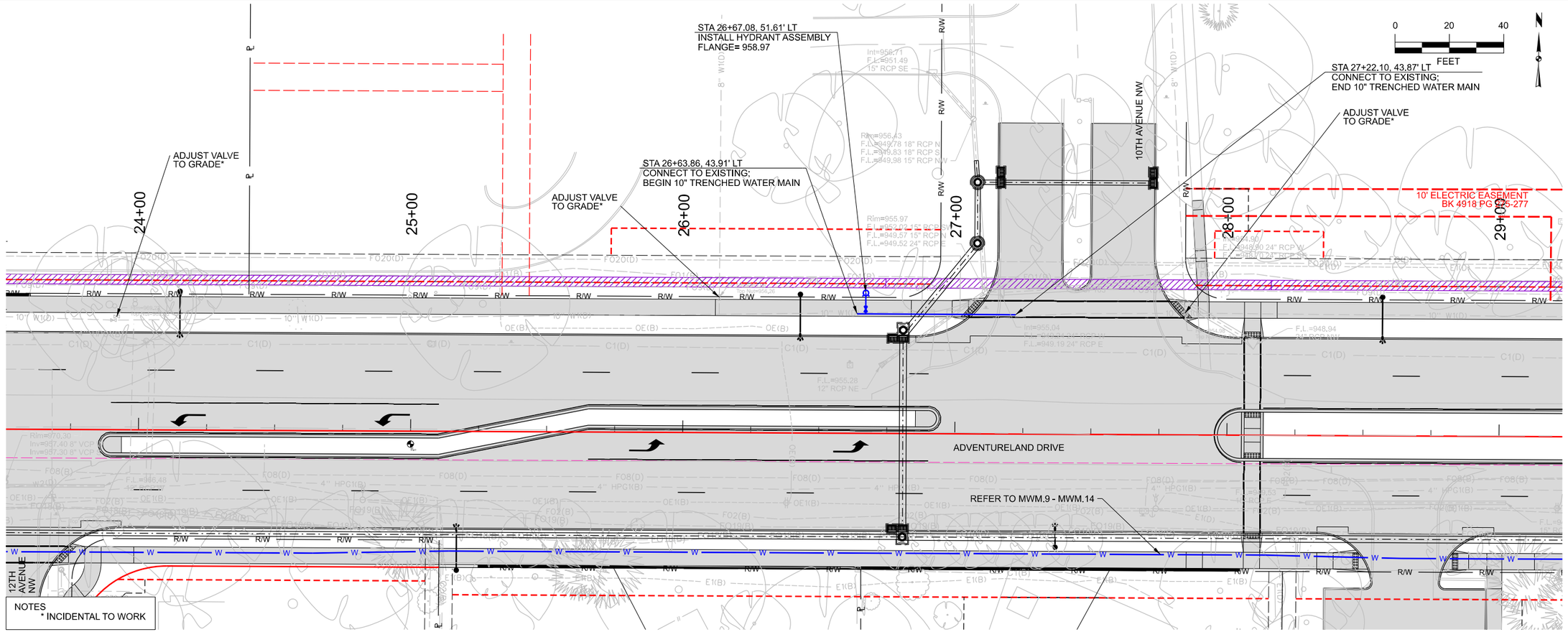

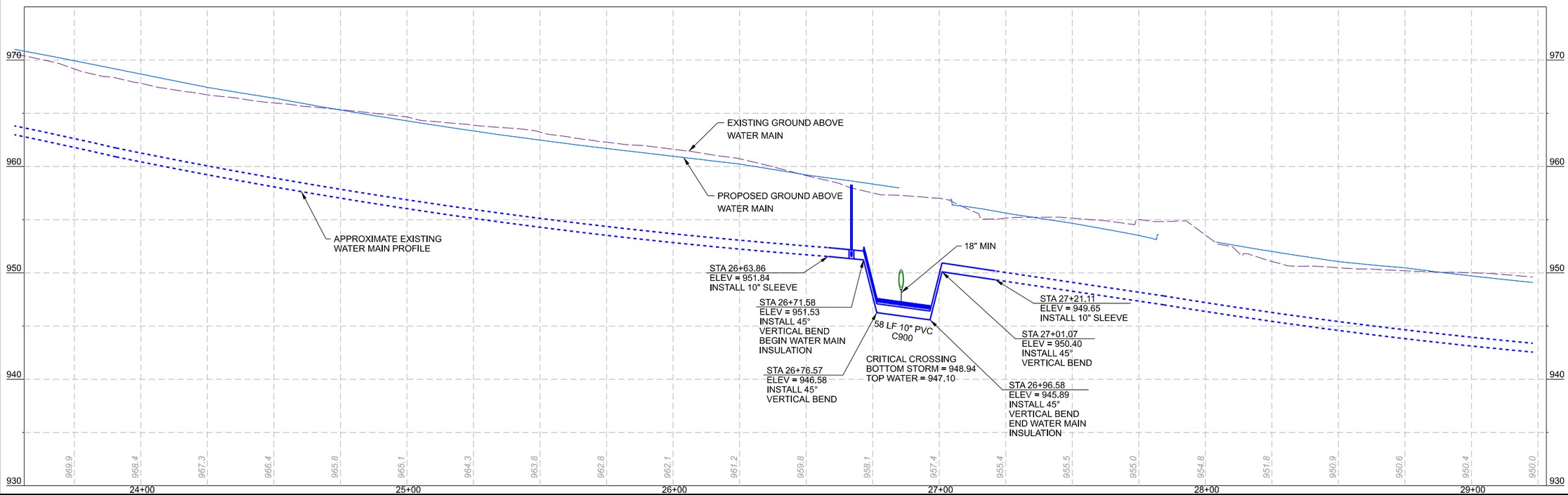

DOT	STP-U-0132(628)--70-77				
		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
		Technician: KSB	Date: 8/17/2026		

Sheet MWM.4

Project No: 1221679

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

WATER MAIN PLAN AND PROFILE SHEETS

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ANKENY, IOWA 50023
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Project No: 1221679

Sheet MWM.4

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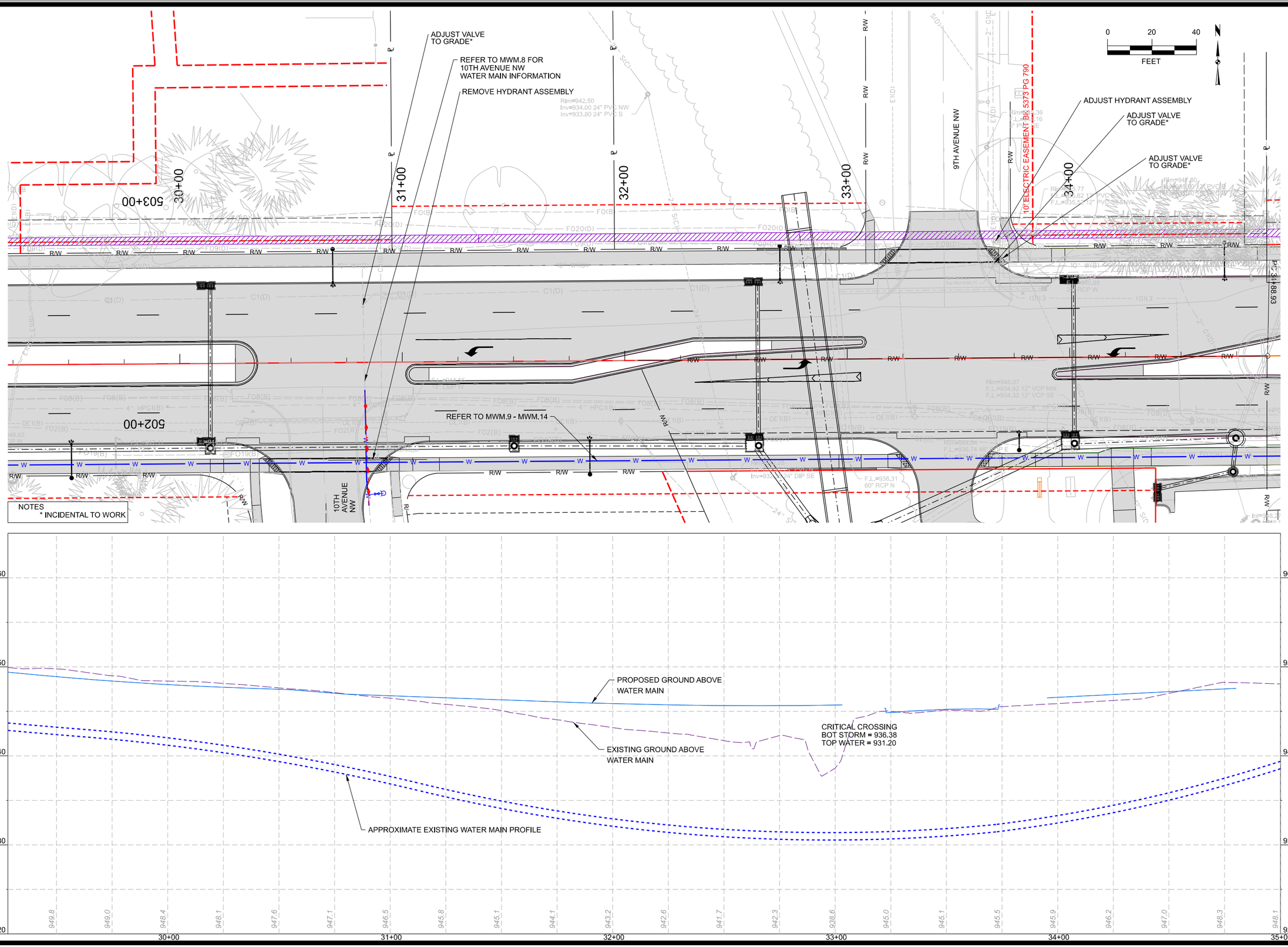

DOT STP-U-0132(628)--70-77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet MWM.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

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Project No: 1221679

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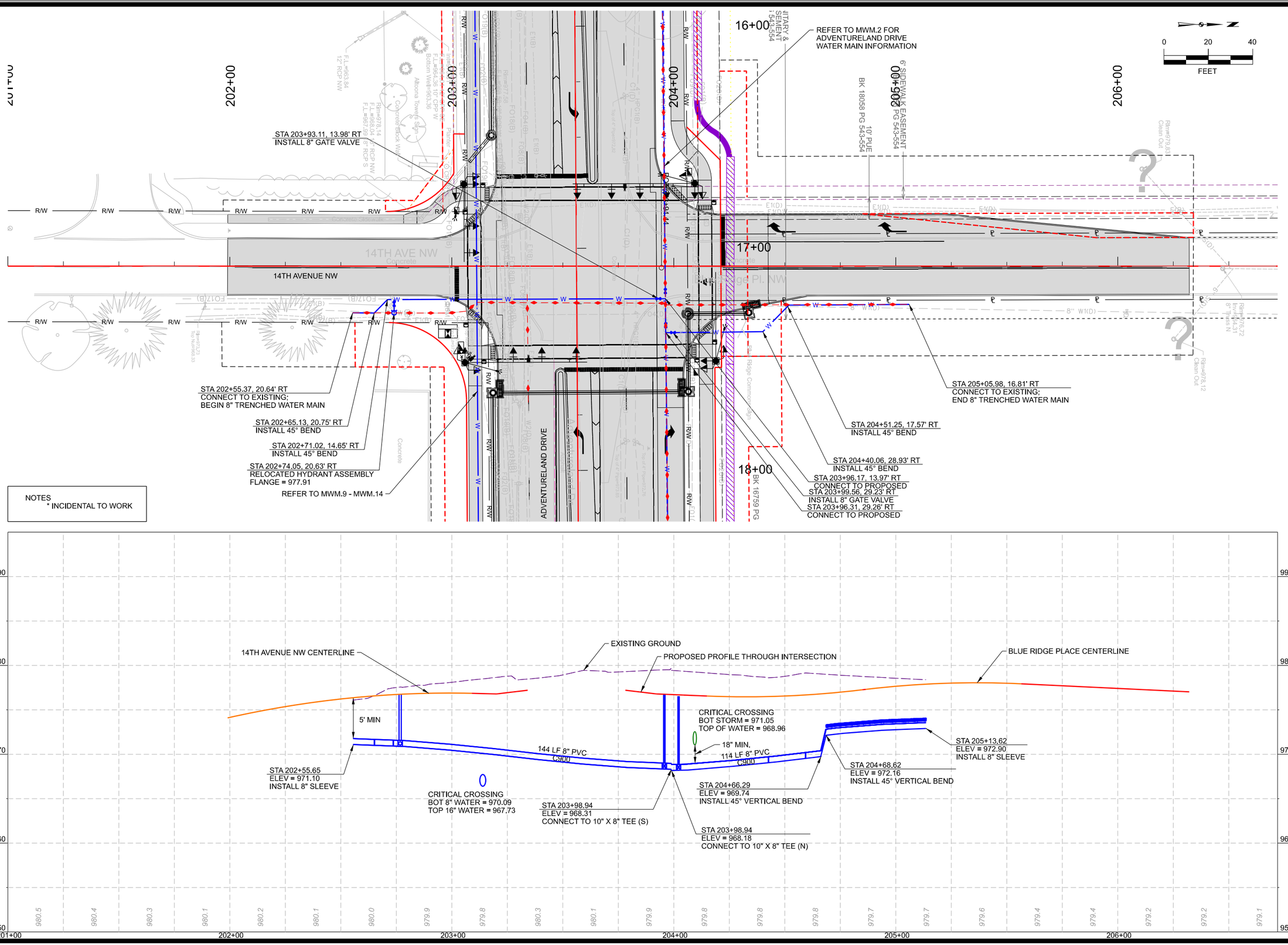

NOTES
* INCIDENTAL TO WORK

DOT STP-U-0132(68)--70-77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		Field Bk:
Technician: KSB	Date: 8/17/2026		Pg:

Project No: 1221679

Sheet MWM.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

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Project No: 1221679

Sheet MWM.6

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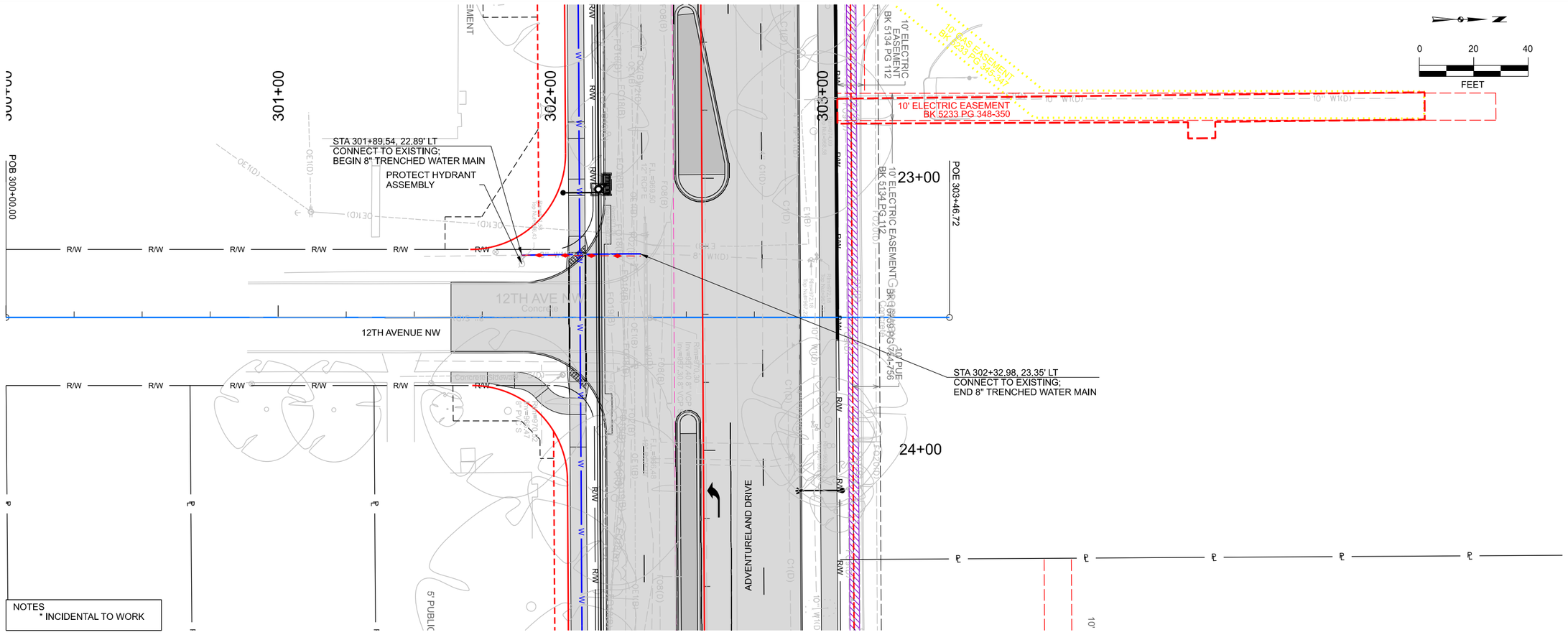

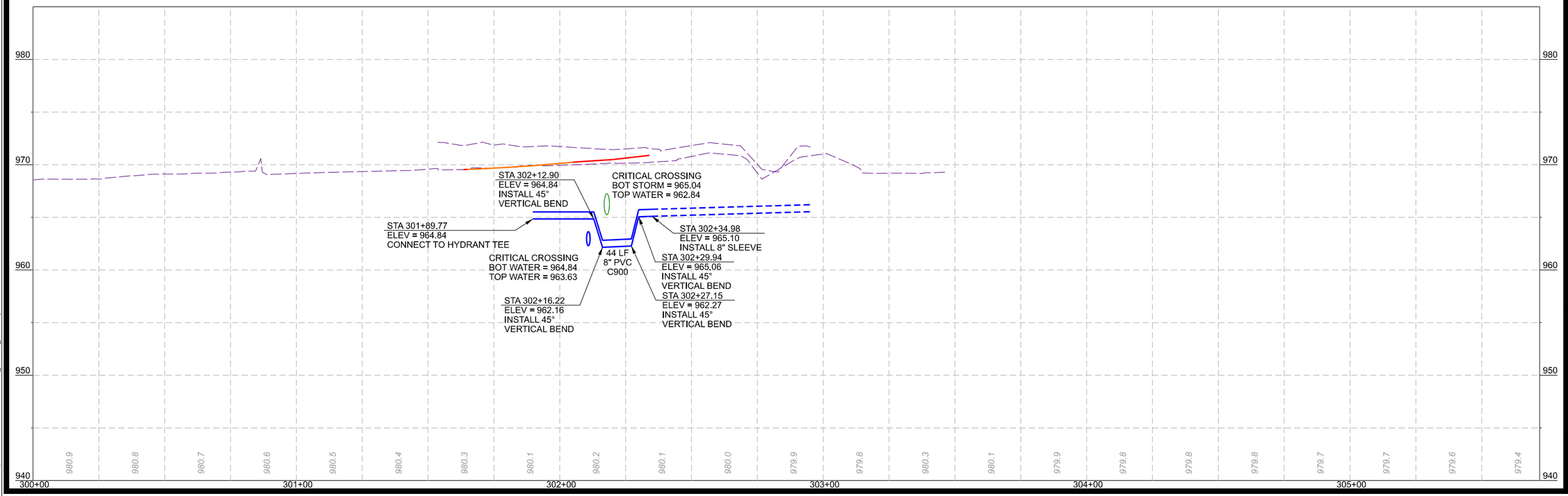

DOT	STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY	
Engineer: LCL	Checked By: LEJ		Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026			

Project No: 1221679

Sheet MWM.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

WATER MAIN PLAN AND PROFILE SHEETS

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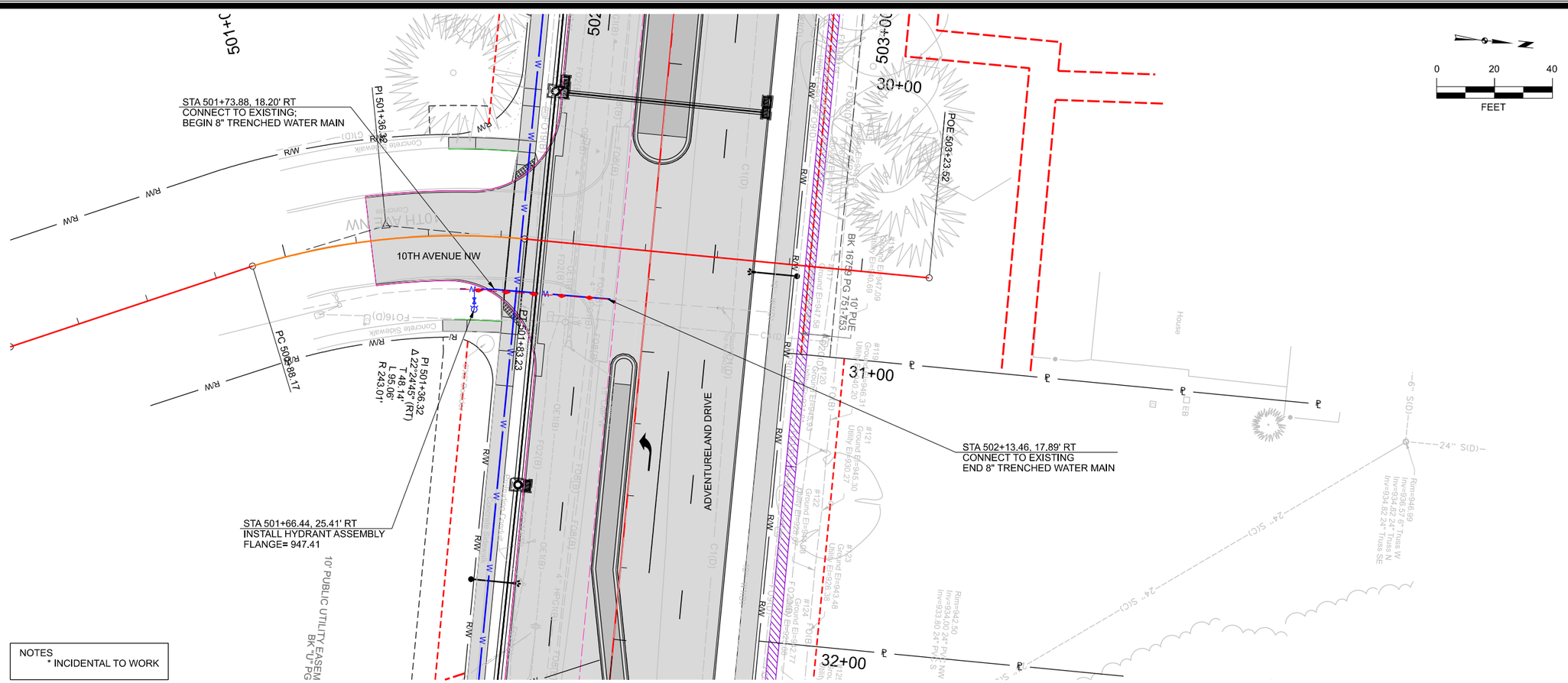
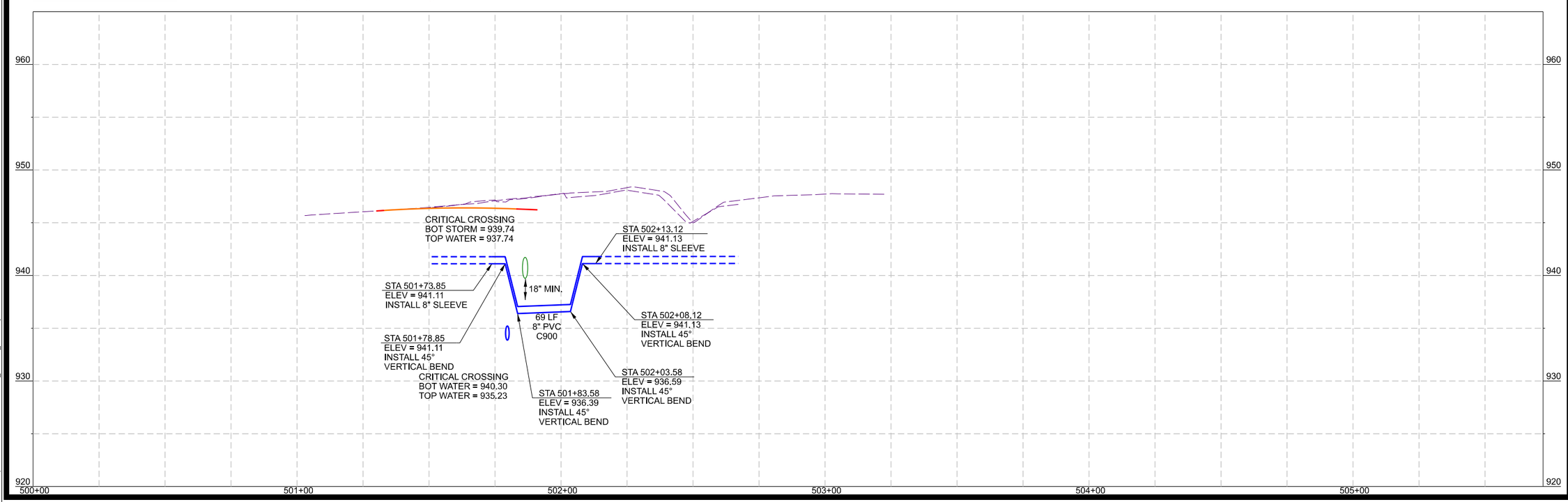
Project No: 1221679

Sheet MWM.7





DOT	STP-U-0132(68)--70-77			
MARK	REVISION	DATE	BY	
Engineer: LCL	Checked By: LEJ		Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026			

Project No: 1221679

Sheet MWM.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet MWM.8

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15' WATER MAIN EASEMENT
BK 10836 PG 55-57

STA 6+63.51, 28.00' LT
CUT IN 12"x12" TEE
2 - 12" SLEEVES

STA 6+60.10, 53.50' RT
16" GATE VALVE

STA 6+63.33, 2.48' LT
12" GATE VALVE

STA 6+62.92, 53.50' RT
16"x12" TEE

STA 8+30.53, 53.47' RT
16" 45° BEND

STA 8+39.00, 45.00' RT
16" 45° BEND

STA 6+35.91, 53.50' RT
BEGIN 16" WATER MAIN
INSTALL 16" CAP

STA 6+55.92, 63.31' RT
HYDRANT ASSEMBLY
FLANGE= 980.81

ELECTRIC EASEMENT
BK 15192 PG 637-639

17TH AVE NW

Adventureland Dr.

Prairie Meadows Sign

0 20 40
FEET

N

6+00 7+00 8+00 9+00 10+00 11+00

EXISTING GRADE
ABOVE WATER MAIN

PROPOSED GRADE
ABOVE WATER MAIN

5.5' MIN DEPTH

24 LF 16" PVC
C900

INSTALL 115 LF OF RESTRAINED JOINTS

CRITICAL CROSSING
BOT STORM = 974.02
TOP WATER = 972.02

CRITICAL CROSSING
BOT WATER = 974.68
TOP WATER = 972.02

18" MIN

INSTALL 54 LF OF
RESTRAINED JOINTS

774 LF OF 16" PVC
C900

990
980
970
960
950

981.0 981.1 981.2 981.3 981.4 981.5 981.6 981.6 981.3 980.5 980.4 980.3 980.9 980.8 980.6 980.5 980.4 980.3 980.2 980.0

6+00 7+00 8+00 9+00 10+00 11+00

DOT STP-U-0132(628)--70-77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet MWM.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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Sheet MWM.9

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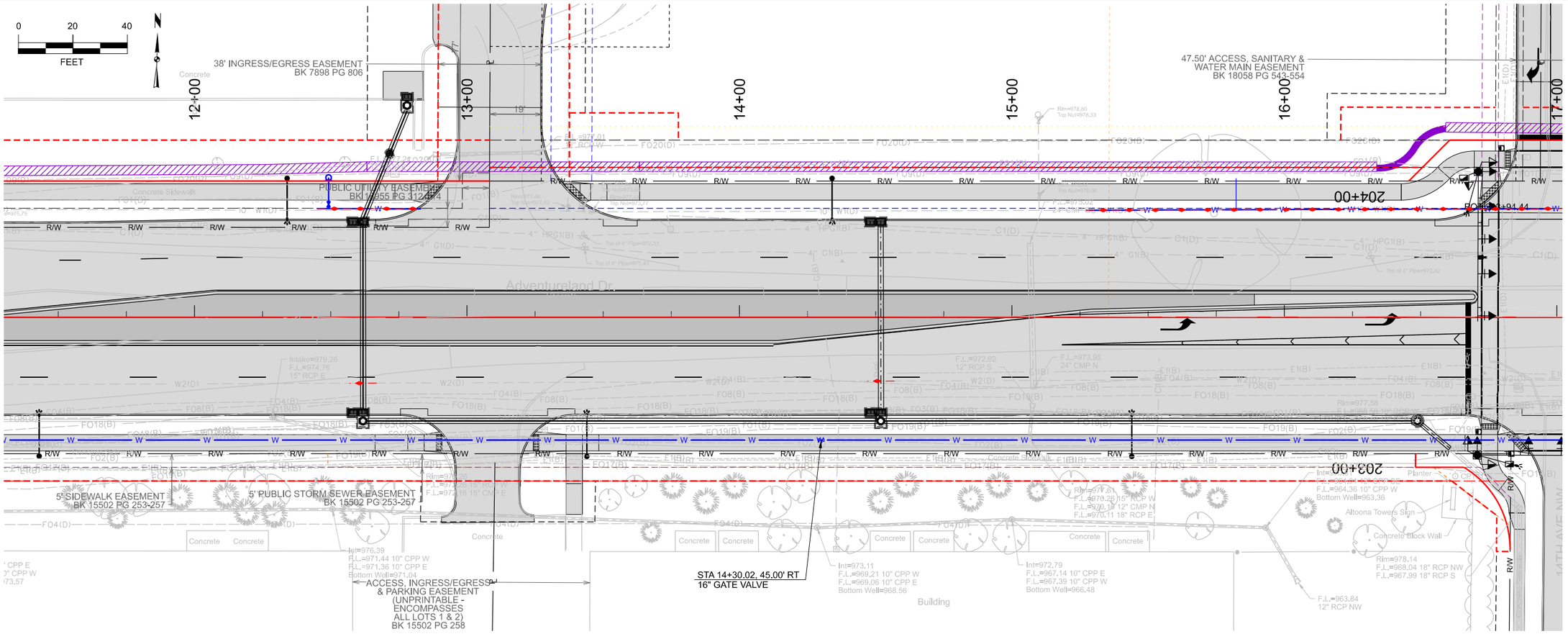

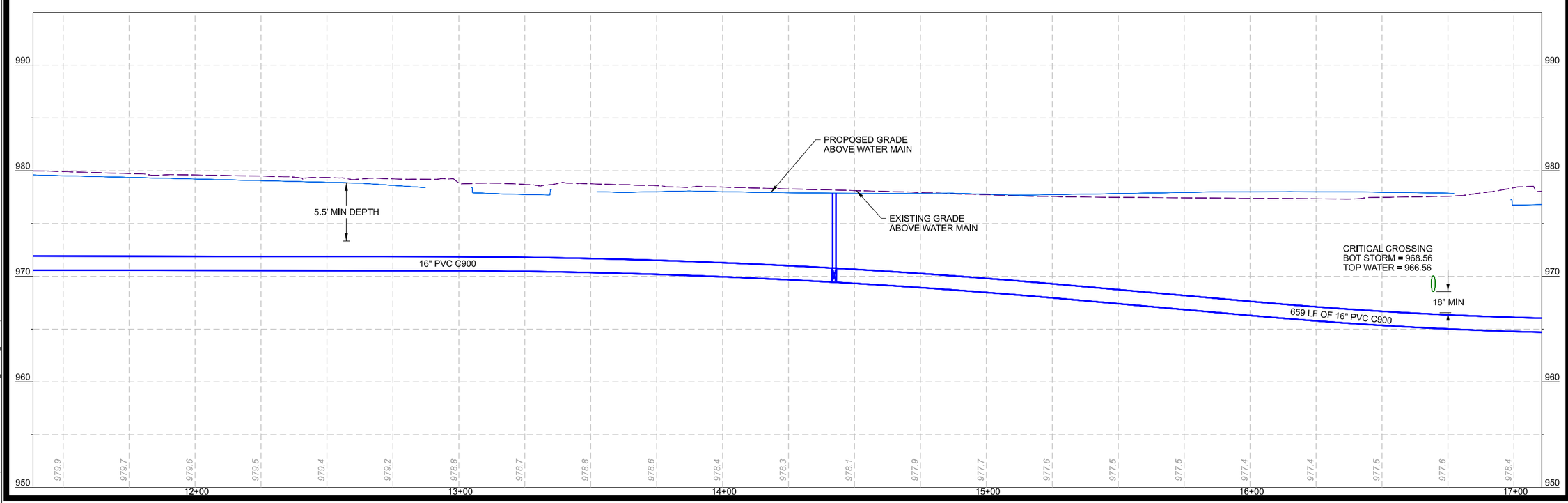

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STP-U-0132(628)--70-77	Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
	Technician: KSB	Date: 8/17/2026		

Sheet MWM.10

Project No: 1221679

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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ANKENY, IOWA 50023
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Project No: 1221679

Sheet MWM.10

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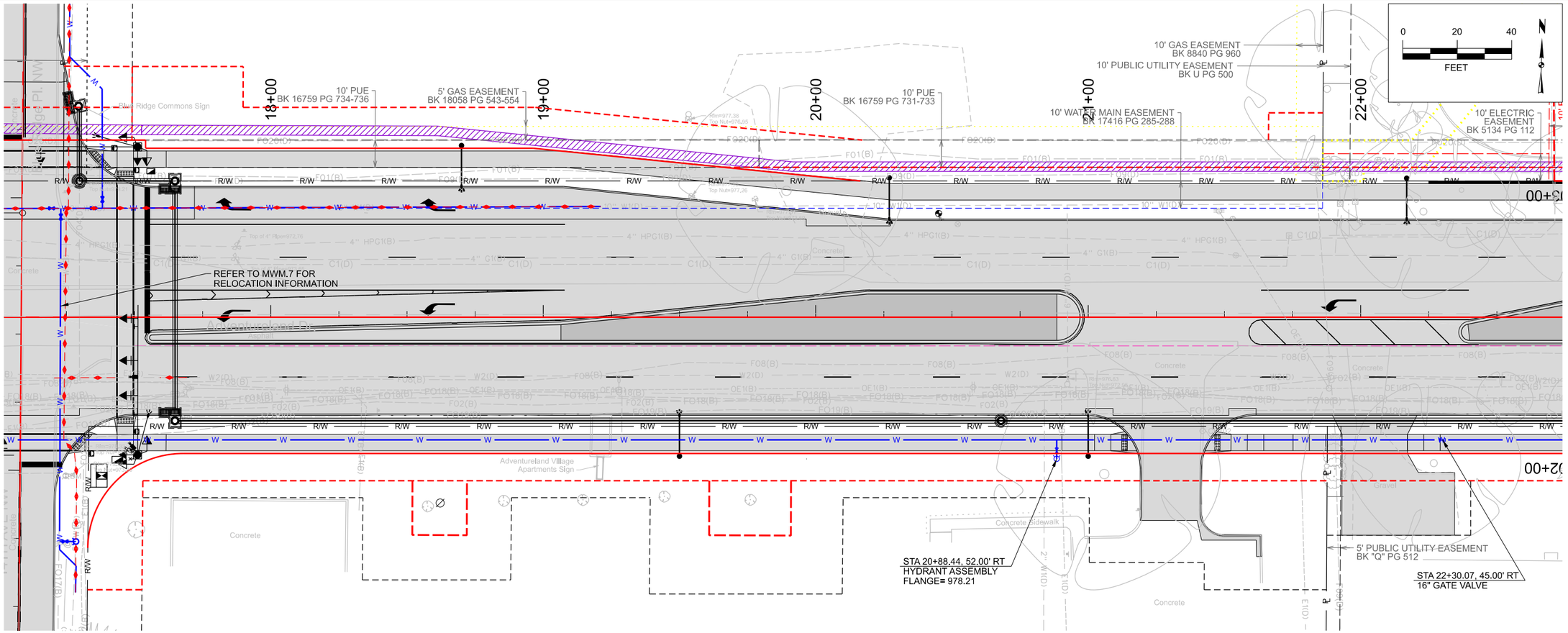

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		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
		Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet MWM.11

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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Project No: 1221679

Sheet MWM.11

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FEET

10' ELECTRIC EASEMENT BK 5134 PG 112
10' PUE BK 16759 PG 754-756
10' ELECTRIC EASEMENT BK 4918 PG 221
10' PUE BK 16759 PG 728-730

REFER TO MWM.7 FOR RELOCATION INFORMATION

STA 24+64.24, 45.00' RT
START PIPE DEFLECTION

5' PUBLIC UTILITY EASEMENT BK "Q" PG 512

5' PUBLIC UTILITY EASEMENT BK "Z" PG 565

STA 25+14.23, 44.00' RT
END PIPE DEFLECTION

STA 28+14.23, 44.00' RT
START PIPE DEFLECTION

STA 28+19.00, 44.10' RT
INSTALL 16" GATE VALVE

Adventureland Dr.

12TH AVE NW

980
970
960
950
940

23+00 24+00 25+00 26+00 27+00 28+00

975.6 974.0 970.7 969.7 970.0 968.6 966.9 965.6 964.0 962.5 961.1 959.7 958.6 957.6 956.8 956.0 955.1 954.3 953.5 952.7 952.1 951.1 951.4

CRITICAL CROSSING
BOT WATER = 965.91
TOP WATER = 963.64

INSTALL 372 LF
RESTRAINED JOINTS

CRITICAL CROSSING
BOT WATER = 961.36
TOP SAN = 957.70

5.5' MIN DEPTH

PROPOSED GRADE
ABOVE WATER MAIN

EXISTING GRADE
ABOVE WATER MAIN

589 LF OF 16" PVC C900

INSTALL 230 LF
RESTRAINED JOINTS

DOT	STP-U-0132(628)--70-77				
		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	
		Technician: KSB	Date: 8/17/2026	Pg:	

Project No: 1221679 Sheet MWM.12

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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Project No: 1221679
Sheet MWM.12

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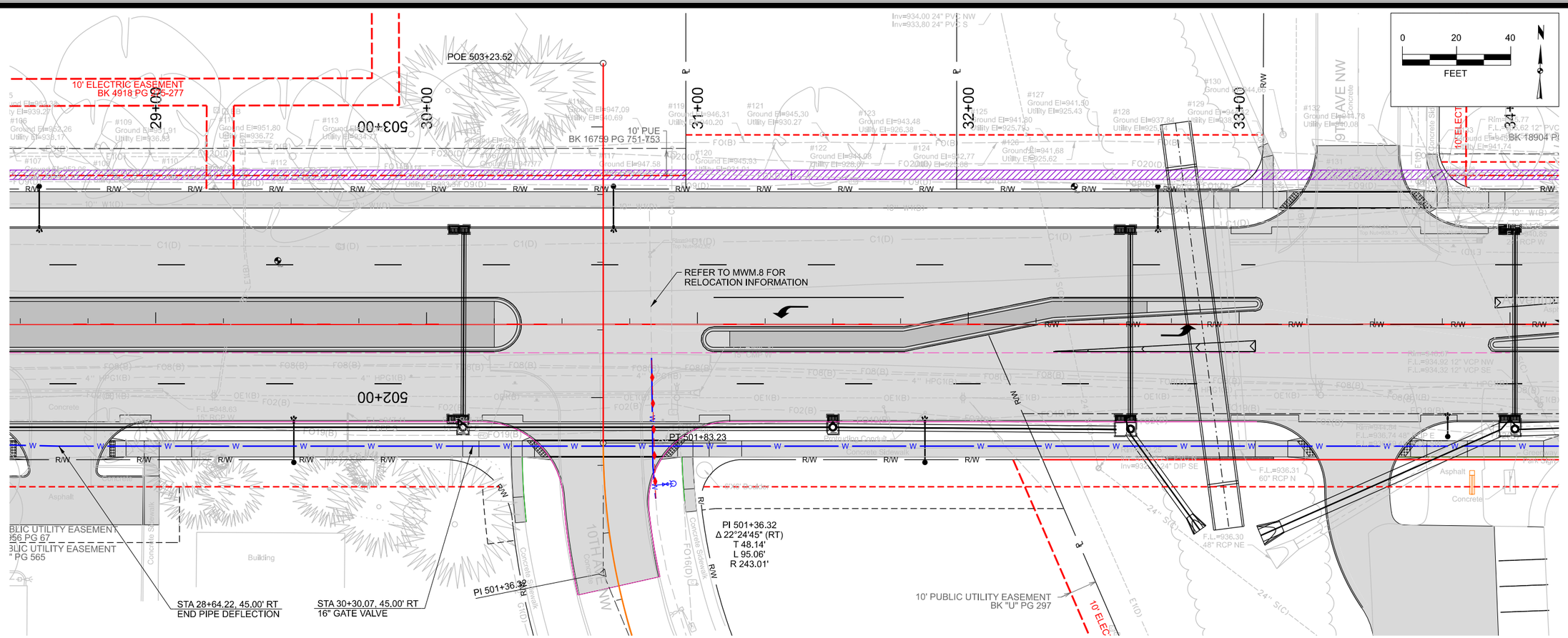

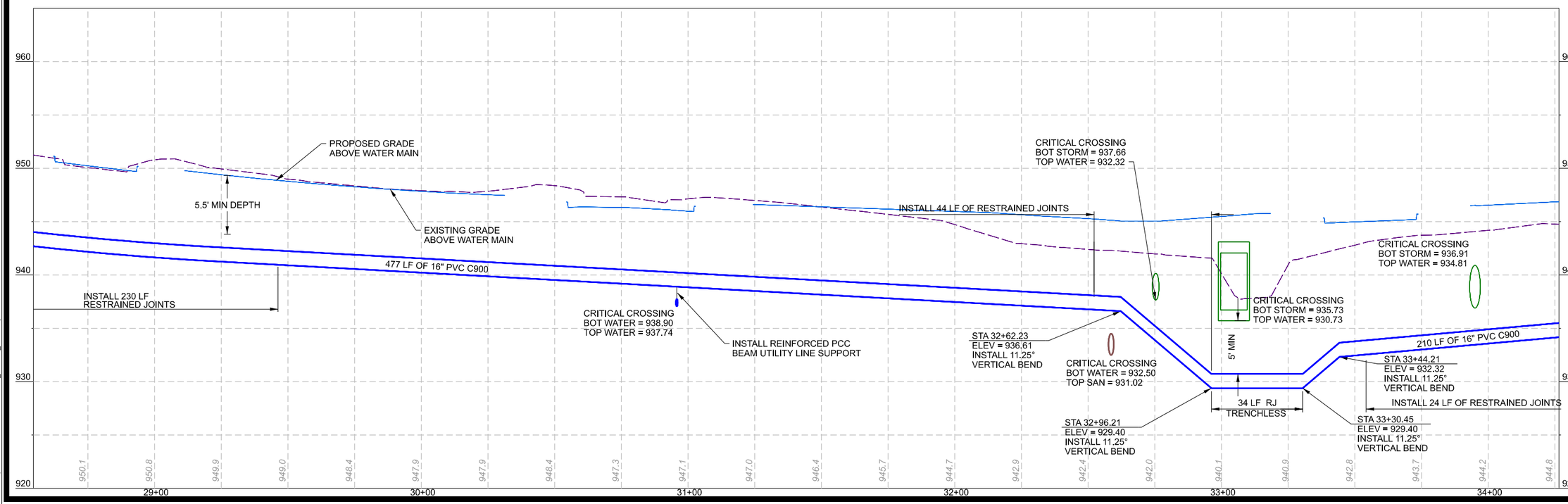

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		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:	
		Technician: KSB	Date: 8/17/2026			

Project No: 1221679

Sheet MWM.13

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

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Project No: 1221679

Sheet MWM.13

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MWM14 [Sheet]

10' PUE
BK "V" PG 371

8' PUE
908-908

10' PUE
BK 19236 PG 147-150

BK 9155 PG 662-672

PI 36+54.32
Δ 18°46'55" (LT)
T 165.39'
L 327.81'
R 1000.00'

PI 38+16.74

35+00
36+00
37+00

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FEET

STA 35+37.58, 49.46' RT
16" GATE VALVE

STA 35+39.19, 44.26' RT
10"x10" TEE

STA 35+41.12, 44.14' RT
10" GATE VALVE

5 LF 10" PVC C900

STA 35+39.49, 49.34' RT
10"x16" TEE

STA 35+50.24
BEGIN 16" WATER MAIN
INSTALL 16" PLUG

STA 35+35.42, 49.61' RT
16" 11.25° BEND

STA 34+97.20, 45.05' RT
16" 11.25° BEND

5' PUBLIC UTILITY EASEMENT
BK "R" PG 203

5' PUBLIC UTILITY EASEMENT
BK "P" PG 175

5' PUBLIC UTILITY EASEMENT
BK "R" PG 203

Rim=951.98
F.L.=943.18
30" RCP W&E

Rim=948.22
Int=947.60

Concrete Curb and Gutter

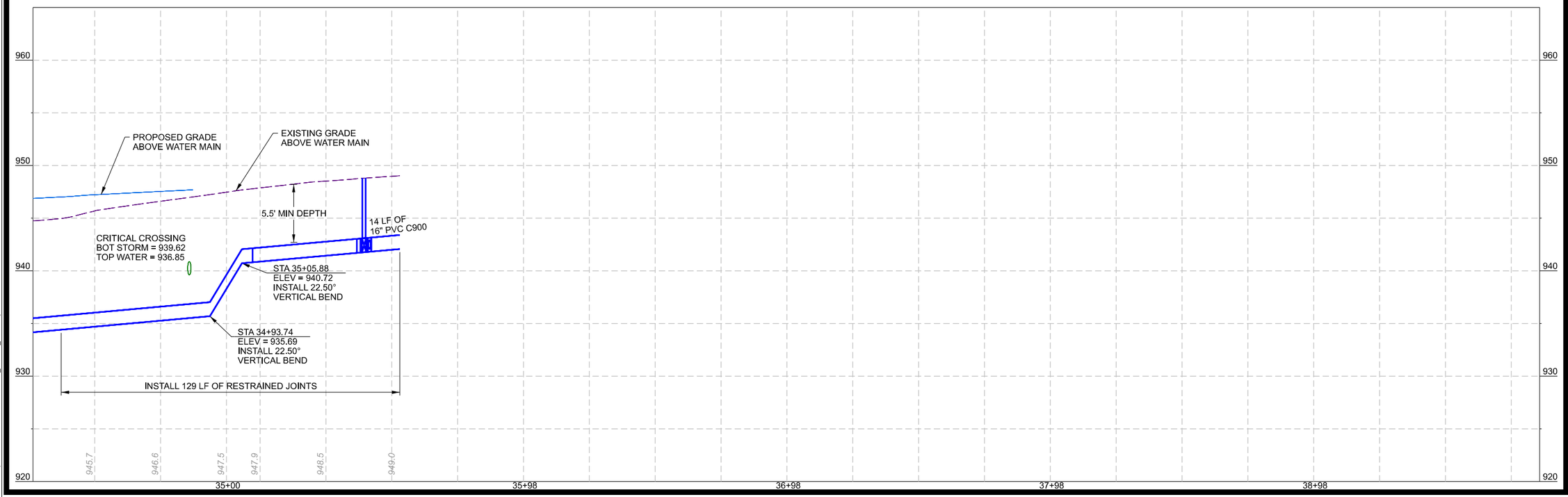
Concrete Sidewalk

5TH ST NW

Concrete

F.L.=939.87 30" RCP N
F.L.=939.87 30" RCP E
F.L.=939.57 30" RCP W

F.L.=937.31 24" RCP N
F.L.=937.51 30" RCP E
F.L.=937.28 48" RCP W



DOT	STP-U-0132(628)--70-77				
		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pgs:
		Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet MWM.14

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

WATER MAIN PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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Project No: 1221679

Sheet MWM.14

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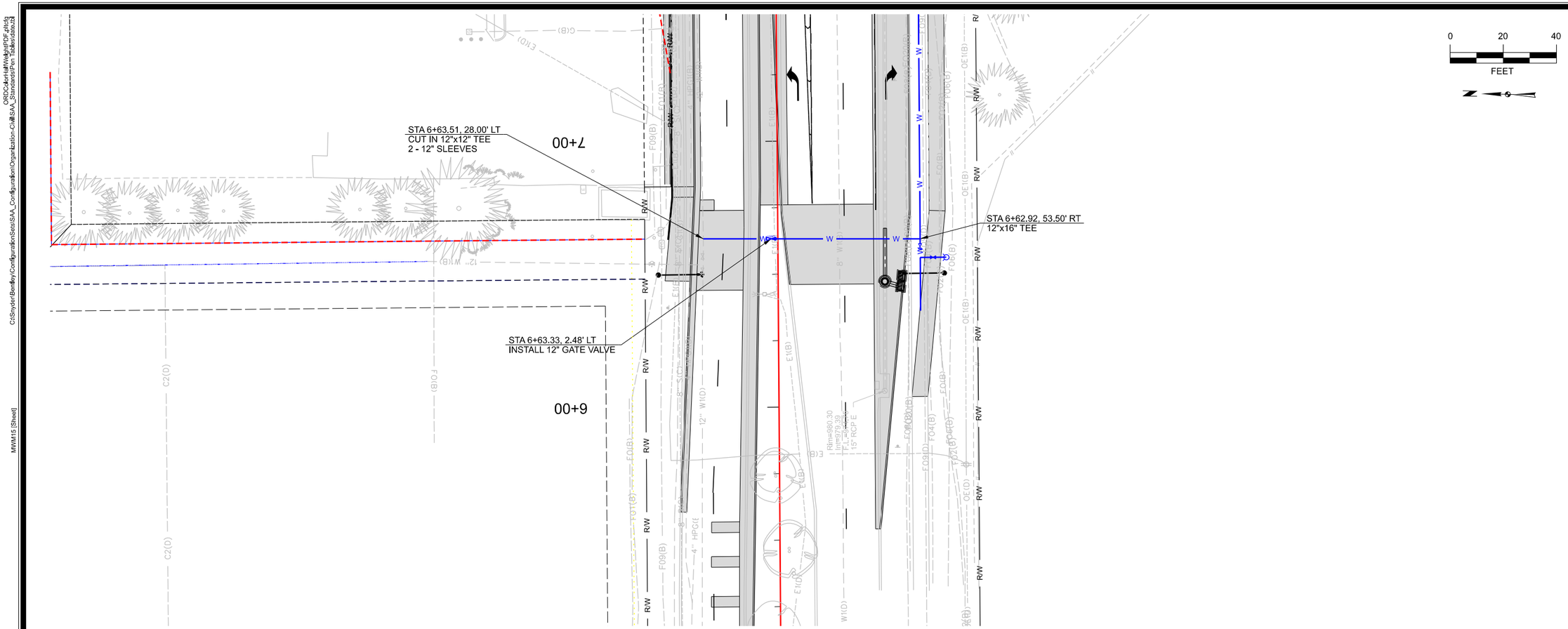

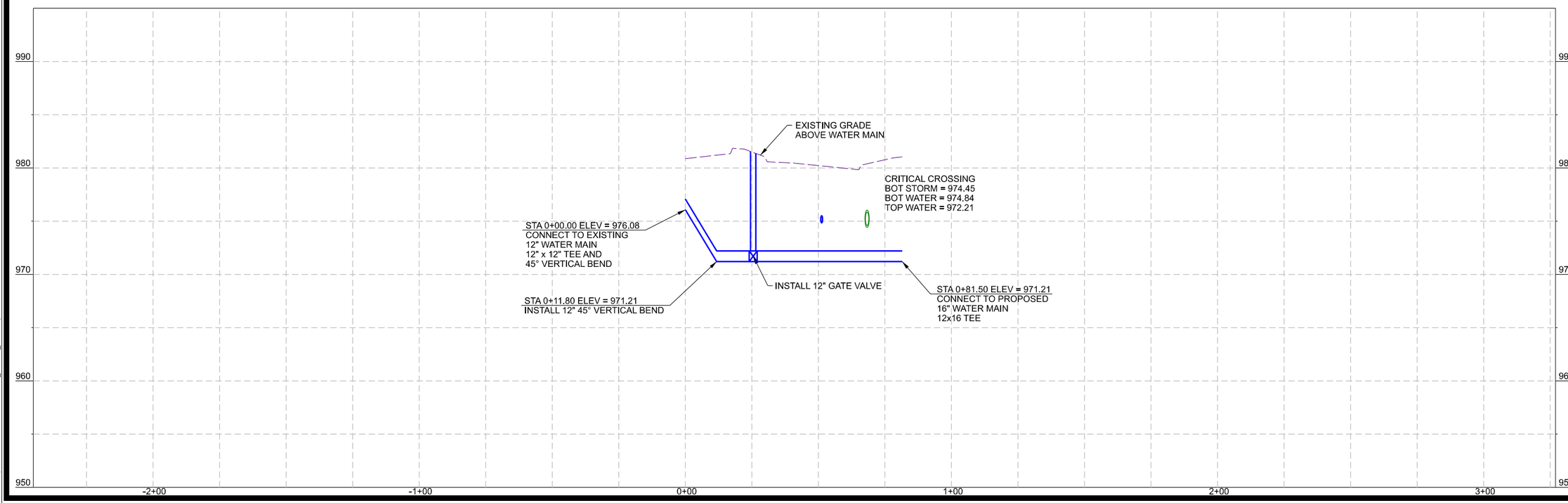

DOT STP-U-0132(628)--70-77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet MWM.15

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

WATER MAIN PLAN AND PROFILE SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet MWM.15

SA-MWM1

WATER MAIN

Road Identification	To Station	Side	Length	Material	Comments
		LT/RT	LF		
Adventureland Drive	8+48.76	LT	55	10" PVC	
Adventureland Drive	12+83.10	LT	39	10" PVC	
Adventureland Drive	19+21.11	LT	395	10" PVC	
14th Avenue NW	205+13.62	RT	258	8" PVC	
12th Avenue NW	302+32.98	LT	44	8" PVC	
Adventureland Drive	27+21.11	LT	58	10" PVC	
S 10th Avenue NW	502+13.11	RT	69	8" PVC	
Adventureland Drive	6+60.10	RT	24	16" PVC	
Adventureland Drive	14+30.02	RT	774	16" PVC	
Adventureland Drive	20+88.44	RT	659	16" PVC	
Adventureland Drive	22+30.07	RT	142	16" PVC	
Adventureland Drive	28+18.23	RT	589	16" PVC	
Adventureland Drive	32+96.21	RT	478	16" PVC	
Adventureland Drive	33+40.45	RT	34	16" PVC RJ	TRENCHLESS
Adventureland Drive	35+35.42	RT	195	16" PVC	
Adventureland Drive	35+50.24	RT	14	16" PVC	
Adventureland Drive	6+63.51	RT	83	12" PVC	
Adventureland Drive	35+39.49	RT	5	10" PVC	
			TOTAL		
		8" PVC	371		
		10" PVC	547		
		12" PVC	83		
		16" PVC	2,875		
		16" PVC RJ	34		TRENCHLESS

SA-MWM3

WATER MAIN VALVES, FITTINGS, AND APPURTENANCES

Road Identification	Station	Offset	Side	Type	Comments
			LT/RT		
ADVENTURELAND DRIVE	6+63.33	2.48'	LT	INSTALL 12" VALVE	
ADVENTURELAND DRIVE			LT	VALVE ADJUSTMENT, N/A	IN PAVING, INCIDENTAL
ADVENTURELAND DRIVE			LT	VALVE ADJUSTMENT, N/A	IN PAVING, INCIDENTAL
17TH AVENUE NW	105+98.61	26.46'	LT	VALVE ADJUSTMENT, 0.10' UP	INCIDENTAL
17TH AVENUE NW	106+00.78	23.33'	LT	VALVE ADJUSTMENT, 0.25' DOWN	INCIDENTAL
ADVENTURELAND DRIVE	9+12.35	28.27'	RT	REMOVE VALVE CASTING	INCIDENTAL
ADVENTURELAND DRIVE	9+16.15	25.55'	RT	REMOVE VALVE CASTING	INCIDENTAL
ADVENTURELAND DRIVE	12+49.24	51.23'	LT	INSTALL HYDRANT ASSEMBLY	FLANGE = 978.95
ADVENTURELAND DRIVE	13+37.05	40.15'	LT	VALVE ADJUSTMENT, 0.24' DOWN	INCIDENTAL
ADVENTURELAND DRIVE	13+42.36	41.66'	LT	REMOVE HYDRANT ASSEMBLY	
ADVENTURELAND DRIVE	13+45.86	38.66'	LT	VALVE ADJUSTMENT, 0.28' DOWN	INCIDENTAL
ADVENTURELAND DRIVE	15+09.71	44.75'	LT	VALVE ADJUSTMENT, 0.17' DOWN	INCIDENTAL
ADVENTURELAND DRIVE	17+19.82	39.91'	LT	INSTALL 10" VALVE	
ADVENTURELAND DRIVE	17+38.24	40.00'	LT	INSTALL 10" VALVE	
14TH AVENUE NW	202+74.75	20.65'	RT	INSTALL HYDRANT ASSEMBLY	FLANGE = 977.91
14TH AVENUE NW	202+98.17	16.61'	RT	REMOVE HYDRANT ASSEMBLY	
14TH AVENUE NW	203+12.28	18.83'	RT	REMOVE 8" VALVE	
14TH AVENUE NW	204+03.91	16.69'	RT	REMOVE 8" VALVE	
ADVENTURELAND DRIVE	19+54.50	44.19'	LT	VALVE ADJUSTMENT, 0.77' UP	INCIDENTAL
ADVENTURELAND DRIVE	19+77.75	43.14'	LT	VALVE ADJUSTMENT, 0.79' UP	INCIDENTAL
ADVENTURELAND DRIVE	20+52.16	34.14'	LT	ABANDON WATER SERVICE	
ADVENTURELAND DRIVE	20+83.95	34.98'	RT	REMOVE AND RELOCATE CURB STOP	
ADVENTURELAND DRIVE	20+92.32	24.62'	RT	REMOVE HYDRANT ASSEMBLY	
ADVENTURELAND DRIVE	20+92.51	22.62'	RT	REMOVE VALVE CASTING	INCIDENTAL
ADVENTURELAND DRIVE	22+71.32	42.74'	LT	VALVE ADJUSTMENT, 0.25' UP	INCIDENTAL
ADVENTURELAND DRIVE	23+29.05	41.88'	LT	VALVE ADJUSTMENT, 0.03' DOWN	INCIDENTAL
ADVENTURELAND DRIVE	23+30.46	40.05'	LT	VALVE ADJUSTMENT, 0.16' DOWN	INCIDENTAL
ADVENTURELAND DRIVE	23+32.45	24.18'	RT	REMOVE VALVE CASTING	INCIDENTAL
12TH AVENUE NW	301+89.63	19.61'	LT	HYDRANT ADJUSTMENT, 0.02' DOWN	
ADVENTURELAND DRIVE	23+90.61	40.28'	LT	VALVE ADJUSTMENT, 0.07' UP	INCIDENTAL
ADVENTURELAND DRIVE	26+13.29	49.67'	LT	VALVE ADJUSTMENT, 0.92' DOWN	
ADVENTURELAND DRIVE	26+67.08	51.61'	lt	INSTALL HYDRANT ASSEMBLY	FLANGE = 958.97
ADVENTURELAND DRIVE	27+84.32	44.64'	LT	VALVE ADJUSTMENT, 0.96' DOWN	
ADVENTURELAND DRIVE	30+82.62	25.60'	LT	VALVE ADJUSTMENT, 0.89' UP	
10TH AVENUE NW	501+66.44	25.41'	RT	INSTALL HYDRANT ASSEMBLY	FLANGE = 947.41
10TH AVENUE NW	501+83.47	21.27'	RT	REMOVE HYDRANT ASSEMBLY	
9TH AVENUE NW	600+42.47	22.67'	RT	VALVE ADJUSTMENT, RESET IN NEW PAVEMENT	
9TH AVENUE NW	600+44.43	26.24'	RT	VALVE ADJUSTMENT, 0.38' UP	INCIDENTAL
9TH AVENUE NW	600+52.66	23.34'	RT	HYDRANT ADJUSTMENT, 0.55' UP	
ADVENTURELAND DRIVE	6+55.92	63.45'	RT	INSTALL HYDRANT ASSEMBLY	FLANGE = 980.81
ADVENTURELAND DRIVE	20+88.44	52.00'	RT	INSTALL HYDRANT ASSEMBLY	FLANGE = 978.21
14TH AVENUE NW	203+93.11	13.96'	RT	INSTALL 8" VALVE	
14TH AVENUE NW	203+99.56	29.23'	RT	INSTALL 8" VALVE	
ADVENTURELAND DRIVE	6+60.10	53.50'	RT	INSTALL 16" VALVE	
ADVENTURELAND DRIVE	14+30.02	45.00'	RT	INSTALL 16" VALVE	
ADVENTURELAND DRIVE	22+30.07	45.00'	RT	INSTALL 16" VALVE	
ADVENTURELAND DRIVE	30+30.07	45.00'	RT	INSTALL 16" VALVE	
ADVENTURELAND DRIVE	35+37.58	49.46'	RT	INSTALL 16" VALVE	
ADVENTURELAND DRIVE	35+41.12	44.14'	RT	INSTALL 10" VALVE	
		TOTALS:			
	VALVE ADJUSTMENT	18		INCIDENTAL	
	VALVE ADJUSTMENT	2		FOR PAYMENT	
	REMOVE VALVE CASTING	4		INCIDENTAL	
	REMOVE HYDRANT ASSEMBLY	4			
	INSTALL HYDRANT ASSEMBLY	6			
	INSTALL 10" VALVE	3			
	REMOVE 8" VALVE	2			
	REMOVE AND RELOCATE CURB STOP	1			
	HYDRANT ADJUSTMENT	2			
	INSTALL 8" VALVE	2			
	INSTALL 16" VALVE	5			
	INSTALL 12" VALVE	1			
	ABANDON WATER SERVICE	1			

SA-MWM2

WATER MAIN FITTINGS

Road Identification	Station	Offset	Side	Type	Comments
			LT/RT		
ADVENTURELAND DRIVE	7+94.25	30.60'	LT	10" SLEEVE	DIV 1
ADVENTURELAND DRIVE	7+99.26	30.67'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+05.28	24.82'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+12.17	24.84'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+14.28	24.84'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+34.23	24.88'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+36.38	24.89'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+37.51	24.90'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+43.76	31.33'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	8+48.76	31.41'	LT	10" SLEEVE	DIV 1
ADVENTURELAND DRIVE	12+44.91	39.83'	LT	10" SLEEVE	DIV 1
ADVENTURELAND DRIVE	12+52.91	39.83'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	12+56.39	39.83'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	12+73.86	39.83'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	12+77.14	39.83'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	12+83.10	39.83'	LT	10" SLEEVE	DIV 1
ADVENTURELAND DRIVE	15+27.10	39.27'	LT	10" SLEEVE	DIV 1
ADVENTURELAND DRIVE	17+22.95	39.92'	LT	10" X 8" TEE	DIV 1
ADVENTURELAND DRIVE	17+38.24	39.96'	LT	10" X 8" TEE	DIV 1
ADVENTURELAND DRIVE	19+21.11	40.60'	LT	10" SLEEVE	DIV 1
ADVENTURELAND DRIVE	26+63.86	43.91'	LT	10" SLEEVE	DIV 1
ADVENTURELAND DRIVE	26+71.58	43.89'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	26+76.57	43.89'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	26+96.58	43.88'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	27+01.07	43.87'	LT	10" 45° BEND	DIV 1
ADVENTURELAND DRIVE	27+21.11	43.86'	LT	10" SLEEVE	DIV 1
14TH STREET NW	202+55.65	20.64'	RT	8" SLEEVE	DIV 1
14TH STREET NW	202+65.13	20.75'	RT	8" 45° BEND	DIV 1
14TH STREET NW	202+71.02	14.65'	RT	8" 45° BEND	DIV 1
14TH STREET NW	204+40.06	28.93'	RT	8" 45° BEND	DIV 1
14TH STREET NW	204+51.25	17.57'	RT	8" 45° BEND	DIV 1
14TH STREET NW	204+66.29	16.81'	RT	8" 45° BEND	DIV 1
14TH STREET NW	204+68.62	16.81'	RT	8" 45° BEND	DIV 1
14TH STREET NW	205+13.62	16.81'	RT	8" SLEEVE	DIV 1
12TH STREET NW	302+08.37	23.15'	LT	8" SLEEVE	DIV 1
12TH STREET NW	302+13.43	23.22'	LT	8" 45° BEND	DIV 1
12TH STREET NW	302+16.22	23.25'	LT	8" 45° BEND	DIV 1
12TH STREET NW	302+27.15	23.36'	LT	8" 45° BEND	DIV 1
12TH STREET NW	302+29.94	23.36'	LT	8" 45° BEND	DIV 1
12TH STREET NW	302+34.98	23.34'	LT	8" SLEEVE	DIV 1
10TH STREET NW	501+78.85	18.28'	RT	8" 45° BEND	DIV 1
10TH STREET NW	501+83.58	18.23'	RT	8" 45° BEND	DIV 1
10TH STREET NW	502+03.58	18.00'	RT	8" 45° BEND	DIV 1
10TH STREET NW	502+08.11	17.92'	RT	8" 45° BEND	DIV 1
10TH STREET NW	502+13.11	17.83'	RT	8" SLEEVE	DIV 1
ADVENTURELAND DRIVE	6+35.91	53.50'	RT	16" CAP	DIV 2
ADVENTURELAND DRIVE	6+62.92	53.50'	RT	16" X 12" TEE	DIV 2
ADVENTURELAND DRIVE	8+30.53	53.47'	RT	16" 45° BEND	DIV 2
ADVENTURELAND DRIVE	8+39.00	45.00'	RT	16" 45° BEND	DIV 2
ADVENTURELAND DRIVE	32+62.23	45.00'	RT	16" 11.25° BEND	DIV 2
ADVENTURELAND DRIVE	32+96.21	45.00'	RT	16" 11.25° BEND	DIV 2
ADVENTURELAND DRIVE	33+30.45	45.00'	RT	16" 11.25° BEND	DIV 2
ADVENTURELAND DRIVE	33+44.21	45.00'	RT	16" 11.25° BEND	DIV 2
ADVENTURELAND DRIVE	34+97.20	45.05'	RT	16" 11.25° BEND	DIV 2
ADVENTURELAND DRIVE	35+35.42	49.61'	RT	16" 22.5° BEND	DIV 2
ADVENTURELAND DRIVE	34+78.00	45.00'	RT	16" 11.25° BEND	DIV 2
ADVENTURELAND DRIVE	35+35.19	44.26'	RT	10" X 10" TEE	DIV 2
ADVENTURELAND DRIVE	35+39.49	49.34'	RT	16" X 10" TEE	DIV 2
ADVENTURELAND DRIVE	35+50.24	48.71'	RT	16" PLUG	DIV 2
ADVENTURELAND DRIVE	6+63.51	28.54'	LT	12" X 12" TEE	DIV 2
ADVENTURELAND DRIVE	6+32.96	28.54'	LT	12" 45° BEND	DIV 2
ADVENTURELAND DRIVE	6+32.92	22.63'	LT	12" 45° BEND	DIV 2
		TOTAL:	WEIGHT:		
	10" SLEEVE	8	496		
	10" 45° BEND	16	1504		
	10" X 8" TEE	2	204		
	8" SLEEVE	5	230		
	8" 45° BEND	14	686		
	16" CAP	1	92		
	16" X 12" TEE	1	281		
	16" 45° BEND	2	404		
	16" 11.25° BEND	6	966		
	16" 22.5° BEND	1	181		
	10" X 10" TEE	1	117		
	16" X 10" TEE	1	265		
	16" PLUG	1	95		
	12" X 12" TEE	1	156		
	12" 45° BEND	1	111		
	TOTAL		5788		
	DIV 1		3120		
	DIV 2		2668		

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	NTS	
Technician: KSB	Date: 8/18/2026	T-R-S:	
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	MWM.16

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

WATER MAIN

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet MWM.16

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SA-MWM4

WATER MAIN INSULATION

Road Identification	To Station	Side	Length	Existing/ Proposed	Comments
		LT/RT	LF		
ADVENTURELAND DRIVE	8+37.51	LT	33	PROPOSED	
ADVENTURELAND DRIVE	12+77.14	LT	25	PROPOSED	
ADVENTURELAND DRIVE	15+27.10	LT	250	EXISTING	
ADVENTURELAND DRIVE	26+96.58	LT	25	PROPOSED	
14TH AVENUE NW	205+13.62	RT	46	PROPOSED	

SA-MWM5

WATER MAIN REMOVAL

Road Identification	To Station	Side	Length	Material	Comments
		LT/RT	LF		
ADVENTURELAND DRIVE	8+48.76	LT	55	10" PVC	
ADVENTURELAND DRIVE	12+83.10	LT	39	10" PVC	
ADVENTURELAND DRIVE	12+66.90	RT	10	8" PVC	
ADVENTURELAND DRIVE	14+56.95	RT	10	8" PVC	
ADVENTURELAND DRIVE	19+21.11	LT	395	10" PVC	
14TH AVENUE NW	203+96.19	RT	141	8" PVC	
14TH AVENUE NW	205+05.98	RT	110	8" PVC	
ADVENTURELAND DRIVE	17+42.92	RT	23	8" PVC	
ADVENTURELAND DRIVE	17+69.26	RT	10	8" PVC	
12TH AVENUE NW	302+32.98	LT	44	8" PVC	
ADVENTURELAND DRIVE	27+22.10	LT	59	10" PVC	
10TH AVENUE NW	502+13.46	RT	40	8" PVC	

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	NTS	
Technician: KSB	Date: 8/18/2026	T-R-S:	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet MWM.17

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

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Project No: 1221679

Sheet MWM.17

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ESTIMATE OF TRAFFIC SIGNAL QUANTITIES

ITEM	DESCRIPTION	UNITS	17th Ave NW	14th Ave NW	TOTAL
CONTROLLER AND CABINET	8-PHASE ATC CONTROLLER, CABINET, HIGH VOLTAGE, 12" RISER, AND ACCESSORIES	LS	1	1	2
	UNINTERRUPTABLE POWER SUPPLY (BATTERY BACK-UP)	LS	1	1	2
	EMERGENCY VEHICLE PREEMPTION INTERFACE CARD AND RACK	LS	1	1	2
	TRAFFIC MONITORING CAMERA SYSTEM	LS	1	1	2
DETECTION	VIDEO DETECTION SYSTEM WITH PROCESSOR AND ACCESSORIES	LS	1	1	2
	APS PEDESTRIAN PUSHBUTTON WITH SIGN	EACH	8	8	16
	EMERGENCY VEHICLE PREEMPTION DETECTOR (GPS)	EACH	1	1	2
TRAFFIC SIGNAL HEADS	12" <R,<Y,<FY,<G W/ RETROREFLECTIVE BACKPLATE, MAST-ARM MOUNTED*	EACH	4	2	6
	12" R,Y,G W/ RETROREFLECTIVE BACKPLATE, MAST-ARM MOUNTED*	EACH	6	7	13
	12" R,Y,G, SIDE-OF-POLE MOUNTED*	EACH	1	3	4
	12" R,Y,G,Y>,G> W/ RETROREFLECTIVE BACKPLATE, MAST-ARM MOUNTED*	EACH	3	1	4
	12" R,Y,G,Y>,G>, SIDE-OF-POLE MOUNTED*	EACH	3	1	4
	16" PEDESTRIAN HEAD, HAND/PERSON, COUNTDOWN SIDE-OF-POLE MOUNTED	EACH	8	8	16
POWER SUPPLY	POWER SUPPLY	EACH	1	1	2
HANDHOLES	TYPE III - 24" x 36" PRE-CAST POLYMER-CONCRETE HANDHOLE	EACH	3	3	6
	TYPE IV - 30" x 48" PRE-CAST POLYMER-CONCRETE HANDHOLE	EACH	1	1	2
WIRE AND CABLE	SIGNAL CABLE - 16c #14 AWG	LIN FT	580	490	1,070
	SIGNAL CABLE - 7c #14 AWG	LIN FT	220	70	290
	SIGNAL CABLE - 5c #14 AWG	LIN FT	880	790	1,670
	SIGNAL CABLE - 2c #14 AWG	LIN FT	1,290	1,090	2,380
	EMERGENCY VEHICLE PREEMPTION CABLE	LIN FT	80	80	160
	VIDEO DETECTION CABLE	LIN FT	480	420	900
	TRAFFIC MONITORING CABLE	LIN FT	80	80	160
	LUMINAIRE CABLE - 1c #8 AWG	LIN FT	880	760	1,640
	LUMINAIRE CABLE - 1c #10 AWG	LIN FT	570	570	1,140
	POWER CABLE - 1c #6 BARE	LIN FT	300	290	590
	GROUND WIRE - 1c #6 BARE	LIN FT	540	510	1,050
	TRACER WIRE - 1c #10	LIN FT	540	510	1,050
	PULL TAPE	LIN FT	540	510	1,050
CONDUIT	2" PVC/HDPE, TRENCHED/BORED	LIN FT	280	260	540
	3" PVC/HDPE, TRENCHED/BORED	LIN FT	430	370	800
CONCRETE FOOTINGS	SIGNAL CONTROLLER CABINET FOOTING	EACH	1	1	2
	POLE FOOTING, 2' DIA x 4' DEPTH	EACH	7	7	14
	POLE FOOTING, 3' DIA x 12' DEPTH	EACH		1	1
	POLE FOOTING, 3' DIA x 14' DEPTH	EACH	1	1	2
	POLE FOOTING, 3' DIA x 16' DEPTH	EACH	2	2	4
	POLE FOOTING, 3' DIA x 18' DEPTH	EACH	1		1
TRAFFIC SIGNAL POLES	STEEL COMBINATION SIGNAL/LIGHTING - 35' MAST ARM (PAINTED BLACK)	EACH		1	1
	STEEL COMBINATION SIGNAL/LIGHTING - 40' MAST ARM (PAINTED BLACK)	EACH		1	1
	STEEL COMBINATION SIGNAL/LIGHTING - 45' MAST ARM (PAINTED BLACK)	EACH	1		1
	STEEL COMBINATION SIGNAL/LIGHTING - 50' MAST ARM (PAINTED BLACK)	EACH	1		1
	STEEL COMBINATION SIGNAL/LIGHTING - 55' MAST ARM (PAINTED BLACK)	EACH	1	2	3
	STEEL COMBINATION SIGNAL/LIGHTING - 60' MAST ARM (PAINTED BLACK)	EACH	1		1
	ALUMINUM PEDESTAL POLE - HEIGHT 5' (PAINTED BLACK)	EACH	7	7	14
LUMINAIRE	LUMINAIRE FIXTURE	EACH	4	4	8
	CONNECTOR - Y-1, UNFUSED	EACH	6	6	12
	CONNECTOR - L-1, FUSED	EACH	8	8	16
MISC.	STREET NAME SIGN - 90" x 18", MAST-ARM MOUNTED	EACH	2	2	4
	STREET NAME SIGN - 108" x 18", MAST-ARM MOUNTED	EACH	2	2	4
	TRAFFIC SIGN - R3-5L, 30" x 36", MAST-ARM MOUNTED	EACH	4	2	6
	TRAFFIC SIGN - R3-5R, 30" x 36", MAST-ARM MOUNTED	EACH	3	2	5
	WIND DAMPENING DEVICE (PER MANUFACTURER SPECIFICATIONS)	EACH	4	4	8

* - RED SIGNAL INDICATIONS SHALL HAVE HEATED VISORS MANUFACTURED BY EAGLE.

GENERAL NOTES:

1. ALL QUANTITIES SHOWN IN THE TRAFFIC SIGNAL PLANS ARE FOR INFORMATIONAL AND ESTIMATING PURPOSES ONLY. THE CONTRACTOR'S LUMP SUM BID SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO PROVIDE COMPLETE AND FUNCTIONAL TRAFFIC SIGNAL INSTALLATIONS IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
2. PROVIDE TRAFFIC CONTROL DEVICES (INCLUDING THOSE REQUIRED TO FACILITATE CONSTRUCTION OF TRAFFIC SIGNALS) IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR THE STREETS AND HIGHWAYS, AS ADOPTED BY THE IOWA DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.
3. TRAFFIC SIGNALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST IOWA DOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THE PLANS FOR TRAFFIC SIGNALS.
4. THE CONTRACTOR SHALL HAVE AN EMPLOYEE ON SITE WITH A LEVEL II INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) TRAFFIC SIGNAL TECHNICIAN CERTIFICATION.
5. THE CONTRACTOR SHALL FURNISH A SCHEDULE OF UNIT PRICES FOR ESTIMATED TRAFFIC SIGNAL QUANTITIES. PAYMENT WILL BE BASED ON PLAN QUANTITIES. QUANTITIES WILL NOT BE FIELD MEASURED.
6. ROADWAY GEOMETRICS REPRESENT PROPOSED FEATURES.
7. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION ON THE PROJECT TO ESTABLISH LOCATIONS.
8. SECONDARY SERVICE LOCATION IS APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING POWER SERVICE LOCATIONS WITH POWER SERVICE PROVIDER PRIOR TO CONDUIT/CIRCUIT INSTALLATION.
9. ELECTRICAL SERVICE SHALL BE 120 V SINGLE-PHASE. SIGNALS AND COMBINATION LIGHTING SHALL BE METERED TOGETHER. LIGHTING SHALL BE ON SEPARATE 20 AMPERE BREAKER. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. SIGNAL CABINET ADDRESSES WILL BE PROVIDED.
10. THE PLAN LOCATIONS OF ALL HANDHOLES ARE APPROXIMATE ONLY AND ARE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE ENGINEER. OBTAIN ENGINEER'S APPROVAL PRIOR TO PLACING HANDHOLES AND CONSTRUCTING FOOTINGS.
11. PROVIDE STRUCTURAL CONCRETE TESTING (2 CYLINDERS, 7-DAY AND 28-DAY, FOR EACH BATCH) IN ACCORDANCE WITH ASTM C39 AS POURED FOR POLE FOOTINGS.
12. PROVIDE TWO WEEK NOTICE TO THE CITY OF ALTOONA AND ENGINEER PRIOR TO PLACING TRAFFIC SIGNALS INTO OPERATION. IMPLEMENT PDMS FIVE (5) DAYS PRIOR TO SIGNAL TURN-ON AND TWO (2) DAYS FOLLOWING ON ADVENTURELAND DR APPROACHES. PDMS MESSAGES TO BE COORDINATED WITH CITY AND ENGINEER.
13. INSTALL ONE SIGNAL CABLE FROM EACH SIGNAL HEAD TO THE BASE OF THE POLE. A 7-CONDUCTOR CABLE SHALL BE USED IN THE POLE FOR ALL 5-SECTION VEHICLE HEADS AND A 5-CONDUCTOR CABLE SHALL BE USED IN THE POLE FOR ALL 3- AND 4-SECTION VEHICULAR HEADS AND PEDESTRIAN SIGNAL HEADS. ALL SIGNAL CABLE SHALL BE #14 AWG UNLESS OTHERWISE NOTED ON THE PLANS.
14. INSTALL A #6 AWG BARE COPPER GROUND WIRE BETWEEN THE SIGNAL FOOTINGS AND THE CONTROLLER CABINET GROUND RODS TO FORM A CONTINUOUSLY GROUNDED SYSTEM.
15. ALL CONDUIT SHALL BE RIGID PVC CONDUIT OR DIRECTIONAL BORED HDPE CONDUIT.
16. ALL SUPPLIERS SHALL CONFIRM THEIR EQUIPMENT IS FUNCTIONING AND COMMUNICATING NORMALLY WITH OTHER CABINET EQUIPMENT.
17. MAST ARMS AND POLES SHALL BE DESIGNED TO SUPPORT TRAFFIC SIGNALS, SIGNS, AND EQUIPMENT SHOWN IN THE PLANS. POLES WITH MAST ARMS OF 60 FOOT OR LESS SHALL BE TRANSFORMER BASE STYLE UNLESS OTHERWISE APPROVED BY THE ENGINEER. MAST ARMS, POLE UPRIGHTS, AND PEDESTAL POLES SHALL BE PAINTED BLACK.
18. UNLESS OTHERWISE DIRECTED, TRAFFIC SIGNAL HEADS ON MAST ARMS ARE TO BE ALIGNED OVER THE CENTER OF INTERSECTION APPROACH OR DEPARTURE LANES. APPROXIMATE LOCATIONS ARE AS SHOWN IN THE TRAFFIC SIGNAL POLE DATA TABLE. CONTRACTOR SHALL FIELD VERIFY SIGNAL HEAD LOCATIONS.
19. ALL SIGNAL INDICATIONS SHALL BE LED IN ACCORDANCE WITH MOST RECENT ITE SPECIFICATIONS. SIGNAL HEADS SHALL HAVE BLACK FACES, VISORS, AND RETROREFLECTIVE BACKPLATES (WHERE INDICATED). SIGNAL HEAD BODIES SHALL BE YELLOW. RED SIGNAL INDICATIONS SHALL HAVE HEATED VISORS MANUFACTURED BY EAGLE.
20. TRAFFIC SIGNAL MOUNTING BRACKETS SHALL UTILIZE STAINLESS STEEL BANDING FOR SIDE OF POLE MOUNTING AND GALVANIZED STEEL CABLE FOR MAST ARM MOUNTING.
21. STREET NAME SIGNS SHALL HAVE WHITE TEXT ON GREEN BACKGROUNDS WITH HIGHWAY SERIES C 12" FONT.
22. LUMINAIRES SHALL BE LED, 18,000 LUMENS (+/- 5%), 100 LUMENS/WATT MINIMUM EFFICACY, 4000 K COLOR TEMPERATURE, TYPE III DISTRIBUTION, MEDIUM, B3-U0-G3, L70> 70,000 HOURS WITH AT LEAST 5-YEAR WARRANTY, BLACK FINISH AND INDIVIDUAL PHOTOCELL CONTROL.
23. INSTALL TWO (2) 1-CONDUCTOR #10 CABLES FROM THE LUMINAIRE HEAD TO THE BASE OF THE POLE. FURNISH AND INSTALL FUSED CONNECTORS AT THE POLE BASE. FURNISH AND INSTALL UNFUSED Y CONNECTORS IN THE ADJACENT HANDHOLE WHERE APPLICABLE.
24. CABLES FOR EVP, VIDEO DETECTION, AND TRAFFIC MONITORING CAMERAS SHALL BE PER EQUIPMENT MANUFACTURER RECOMMENDATIONS WITH NO SPLICES.
25. FURNISH AND INSTALL RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEMS AS SHOWN ON N.6. EACH SYSTEM CONSISTS OF TWO RRFB ASSEMBLIES AND A POLE-MOUNTED CONTROLLER CABINET TO CONTROL THE SYSTEM. EACH RRFB ASSEMBLY INCLUDES SIGNS, FLASHER, APS PUSH BUTTON WITH SIGN, SOLAR PANEL, WIRELESS COMMUNICATION, INTERNAL WIRING, PEDESTAL POLE, AND FOUNDATION. UPON ACTIVATION, EACH SYSTEM SHALL FLASH FOR 20 SECONDS.
26. REROUTE EXISTING CITY OF ALTOONA FIBER OPTIC CABLE INTO NEW JOINT UTILITY TRENCH (JUT) CONDUIT AND PROVIDE CONNECTIONS TO NEW TRAFFIC SIGNAL CABINETS AT 17TH AVE NW AND 14TH AVE NW AS DESCRIBED ON N.3 AND N.5.
27. PROVIDE COILS OF FIBER CABLE OF 60 FEET IN ANY EXISTING HANDHOLES ALONG THE NEW JUT ROUTE, 75 FEET IN ANY TYPE IV HANDHOLES, AND 30 FEET WITHIN TRAFFIC SIGNAL CABINETS. REFER TO U-SHEETS FOR JUT DETAILS.
28. PROVIDE NEW (OR PROECT EXISTING) TAGS ON ALL FIBER OPTIC CABLE IDENTIFYING THE OWNER AND DIRECTION OF THE CABLE. TAGS SHALL CLEARLY IDENTIFY WHERE EACH INDIVIDUAL CABLE RUN ORIGINATED AND WHRE IT ENDS.
29. FOR NEW 12-CT SM FIBER OPTIC CABLE, PROVIDE ON-REEL AND POST-INSTALLATION FIBER OPTIC CABLE TESTING IN ACCORDANCE WITH IOWA DOT DEVELOPMENTAL SPECIFICATIONS DS-23074. FOR REROUTED 144-CT SM FIBER OPTIC CABLE, PROVIDE FIELD TESTING PRIOR TO AND FOLLOWING RELOCATION.

IOWA DOT STANDARD ROAD PLANS

NUMBER	DATE	IDENTIFICATION
LI-103	10-21-25	Conduit and Precast Handholes
TS-102	10-21-25	Traffic Signal Pole Foundation

TRAFFIC SIGNAL LEGEND

EXISTING	PROPOSED	
		TRAFFIC SIGNAL
		TRAFFIC SIGNAL WITH BACKPLATE
		PEDESTRIAN SIGNAL
	(XX)	MAST ARM SUSPENDED TRAFFIC SIGNAL (XX = LENGTH OF MAST ARM)
		PEDESTAL POLE
		TRAFFIC SIGNAL HEAD NUMBER
		POLE NUMBER
		STREET LIGHT ON SIGNAL POLE
		CONDUIT TRENCHED, PUSHED, JACKED, OR BORED
		HANDHOLE
		HANDHOLE NUMBER

EXISTING	PROPOSED	
		CONTROLLER CABINET WITH FOOTING
		SECONDARY SERVICE POINT
	XX	DETECTION ZONE (XX = NUMBER DESIGNATION)
		VEHICLE DETECTION UNIT
		TRAFFIC MONITORING CAMERA
		EMERGENCY VEHICLE DETECTOR
		POLE MOUNTED SIGN

TRAFFIC SIGNAL EQUIPMENT

EQUIPMENT	MANUFACTURER	MODEL NO.
CABINET	McCAIN	350i ATC CABINET
CONTROLLER	McCAIN	ATC FLeX-DB37 WITH ETHERNET PORTS
VEHICLE DETECTION SYSTEM	CUBIC	GRIDSMART SYSTEM, FE3 FISHEYE CAMERA, AC3 ADVANCE CAMERAS (WHERE SHOWN), AND GS3 PROCESSOR
TRAFFIC MONITORING CAMERA	AVIGILON	H5A MULTISENSOR CAMERA
PEDESTRIAN PUSHBUTTONS	POLARA	iNS SERIES (APS COMPLIANT), 2-WIRE
FIBER OPTIC HOUSING		SINGLE PANEL HOUSING
FIBER OPTIC PANEL		CONNECTOR ADAPTOR PANEL, SIX DUPLEX SC
EMERGENCY VEHICLE PREEMPTION		
INTERSECTION RADIO/GPS	OPTICOM	GTT 3100
PHASE SELECTOR	OPTICOM	GTT 764
INTERFACE PANEL	OPTICOM	GTT 768
CARD RACK ASSEMBLY	OPTICOM	GTT 760
CABLE	OPTICOM	GTT 1070
UNINTERRUPTIBLE POWER SUPPLY	CLARY	SP-1250LE
HEATED VISORS	EAGLE	EAGLE DEFENDER (FOR RED INDICATIONS ONLY)
ABOVE EQUIPMENT IS INCLUDED IN OR INCIDENTAL TO ITEMS SHOWN IN THE ESTIMATE OF TRAFFIC SIGNAL QUANITITIES		

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet N.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT
ALTOONA, IA

GENERAL NOTES AND QUANTITIES

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Sheet N.1

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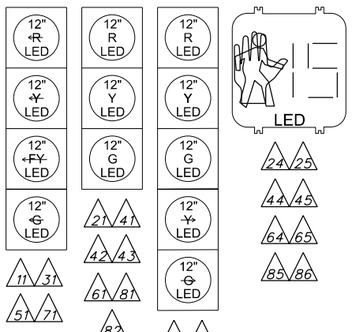
TRAFFIC SIGNAL FACES



NOTES:

1) SEE N.3 FOR LOCATIONS OF ADVANCE DETECTION ZONES.
2) INSTALL POLE FOOTING AND HANDHOLE PRIOR TO SIDEWALK TO ALLOW FOR ADDITIONAL SIDEWALK REINFORCEMENT TO BE INSTALLED SURROUNDING IT FOR COMBINATION SIDEWALK/RETAINING WALL.
3) ANTICIPATED POWER SOURCE LOCATION IS THE EXISTING TRANSFORMER IN THE SOUTHEAST CORNER. COORDINATE POWER SOURCE LOCATION AND CONNECTION WITH MIDAMERICAN ENERGY (DEREK JOHNSON, 515-901-8274).
4) INTERCEPT EXISTING CITY FIBER OPTIC CONDUIT WITH TYPE IV HANDHOLE. SEE N.3 FOR FIBER OPTIC CONNECTION NOTES.

TRAFFIC SIGNS

R3-5L 30" x 36" (A) (4 EACH)

R3-5R 30" x 36" (B) (3 EACH)

STREET NAME SIGNS

108" x 18" (C) (2 EACH)

90" x 18" (D) (2 EACH)

0 10 20 FEET

17TH AVENUE NW

ADVENTURELAND DRIVE

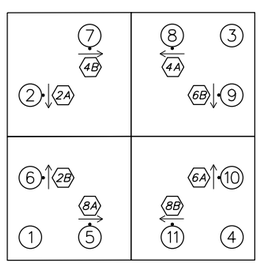
NOTE 1

NOTE 2

NOTE 3

NOTE 4

PUSHBUTTON LAYOUT



PEDESTRIAN SIGNS

R10-3EL 9" x 15" (4 EACH)

R10-3ER 9" x 15" (4 EACH)

POLE, HANDHOLE, AND CABINET LOCATIONS

POLE NO.	STATION	OFFSET	RT/LT	ELEVATION	COMMENTS
1	8+27.48	64.50	RT	MATCH SIDEWALK	
2	8+25.30	42.97	LT	MATCH SIDEWALK	
3	9+25.05	57.59	LT	MATCH SIDEWALK	
4	9+28.98	59.51	RT	MATCH SIDEWALK	
5	8+35.98	64.00	RT	MATCH SIDEWALK	5' PEDESTAL POLE
6	8+27.97	56.00	RT	MATCH SIDEWALK	5' PEDESTAL POLE
7	8+42.99	59.77	LT	MATCH SIDEWALK	5' PEDESTAL POLE
8	9+13.34	57.09	LT	MATCH SIDEWALK	5' PEDESTAL POLE
9	9+24.55	45.41	LT	MATCH SIDEWALK	5' PEDESTAL POLE
10	9+23.41	49.47	RT	MATCH SIDEWALK	5' PEDESTAL POLE
11	9+15.41	64.00	RT	MATCH SIDEWALK	5' PEDESTAL POLE
HANDHOLE NO.	STATION	OFFSET	RT/LT	ELEVATION	COMMENTS
1	8+21.32	65.02	RT	MATCH FINISHED GRADE	TYPE IV "TRAFFIC SIGNAL"
2	8+32.78	45.07	LT	MATCH SIDEWALK	TYPE III "TRAFFIC SIGNAL"
3	9+26.04	61.32	LT	MATCH FINISHED GRADE	TYPE III "TRAFFIC SIGNAL"
4	9+13.80	68.98	RT	MATCH FINISHED GRADE	TYPE III "TRAFFIC SIGNAL"
5	8+06.01	64.78	RT	MATCH FINISHED GRADE	TYPE IV "ALTOONA FIBER"
CABINET	9+14.98	65.25	RT	PER DETAIL	

DOT STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: AJH	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Sheet N.2

Project No: 1221679

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC SIGNAL LAYOUT - NW 17TH ST

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet N.2

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DETECTOR SUMMARY

UNIT NUMBER	DETECTION ZONE	ZONE LIMITS (DISTANCE FROM STOP LINE)	PHASE CALLED	PHASE EXTENDED	DETECTOR INPUT ASSIGNMENT	COMMENTS
V1	11	0'-40'	1	1,6	1	FISHEYE CAMERA
	12	50'-70'	1	1,6	9	
	61	0'-40'	6	6	6	
	62	0'-40'	6	6	14	
	63	170'-210'	6	6	22	
	31	0'-40'	3	3,8	3	
	32	50'-70'	3	3,8	11	
	81	0'-40'	8	8	8	
	82	0'-40'	8	8	16	
	83	0'-40'	8	8	24	
	51	0'-40'	5	2,5	5	
	52	50'-70'	5	2,5	13	
	21	0'-40'	2	2	2	
	22	0'-40'	2	2	10	
	71	0'-40'	7	4,7	7	
	72	50'-70'	7	4,7	15	
	41	0'-40'	4	4	4	
	42	0'-40'	4	4	12	
V2	43	170'-210'	4	4	20	
	44	170'-210'	4	4	28	
V3	84	170'-210'	8	8	32	
	85	170'-210'	8	8	40	
2A,2B			2			PEDESTRIAN PB
4A,4B			4			PEDESTRIAN PB
6A,6B			6			PEDESTRIAN PB
8A,8B			8			PEDESTRIAN PB

DETECTION NOTES:

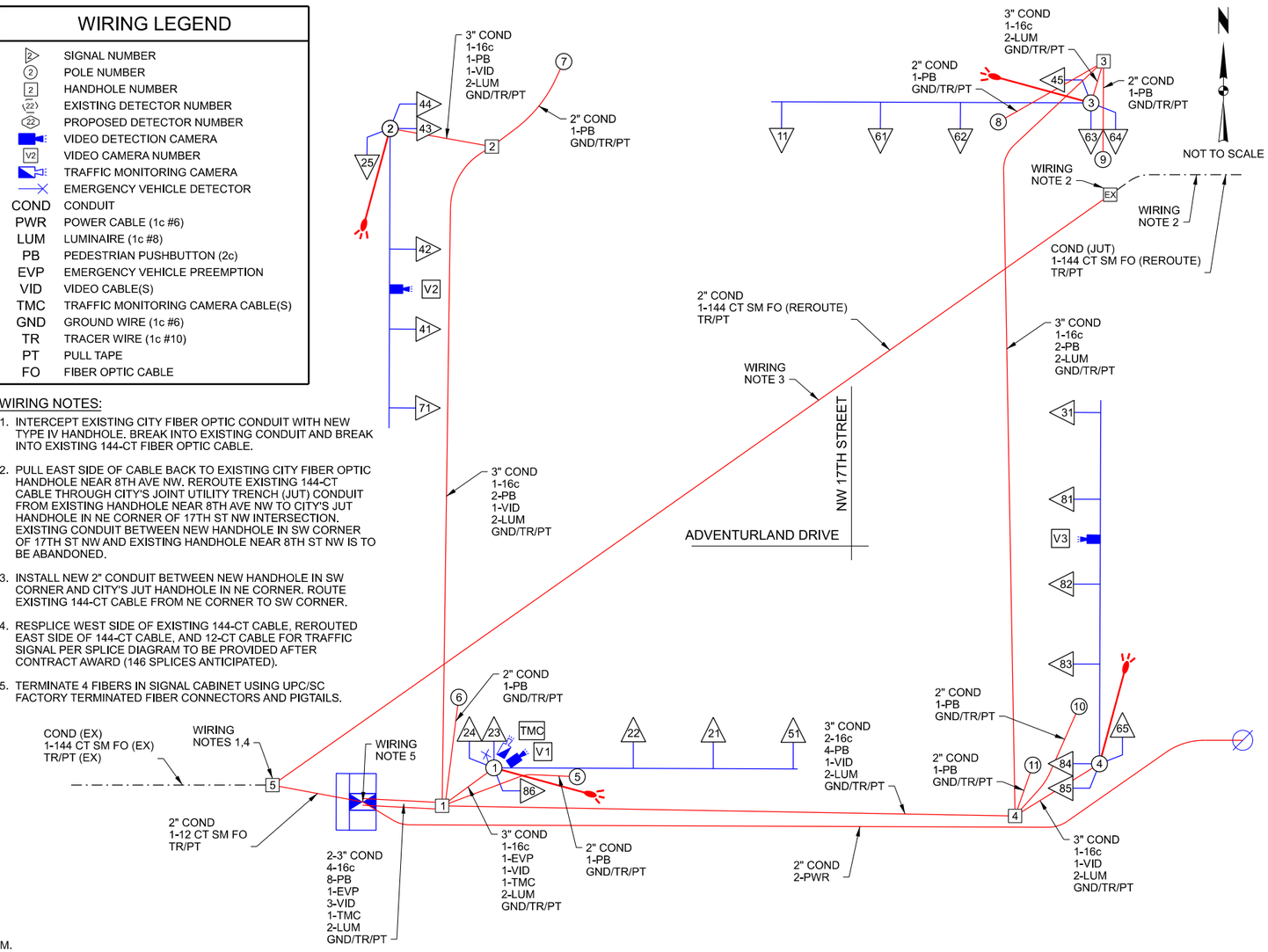
1. ZONE LIMITS ARE FOR DETECTION LIMITS ONLY. ACTUAL DETECTION AREAS FOR EACH ZONE WILL BE DETERMINED IN THE FIELD.

WIRING LEGEND

▷2	SIGNAL NUMBER
(2)	POLE NUMBER
[2]	HANDHOLE NUMBER
(22)	EXISTING DETECTOR NUMBER
22	PROPOSED DETECTOR NUMBER
	VIDEO DETECTION CAMERA
V2	VIDEO CAMERA NUMBER
	TRAFFIC MONITORING CAMERA
	EMERGENCY VEHICLE DETECTOR
COND	CONDUIT
PWR	POWER CABLE (1c #6)
LUM	LUMINAIRE (1c #8)
PB	PEDESTRIAN PUSHBUTTON (2c)
EVP	EMERGENCY VEHICLE PREEMPTION
VID	VIDEO CABLE(S)
TMC	TRAFFIC MONITORING CAMERA CABLE(S)
GND	GROUND WIRE (1c #6)
TR	TRACER WIRE (1c #10)
PT	PULL TAPE
FO	FIBER OPTIC CABLE

WIRING NOTES:

1. INTERCEPT EXISTING CITY FIBER OPTIC CONDUIT WITH NEW TYPE IV HANDHOLE. BREAK INTO EXISTING CONDUIT AND BREAK INTO EXISTING 144-CT FIBER OPTIC CABLE.
2. PULL EAST SIDE OF CABLE BACK TO EXISTING CITY FIBER OPTIC HANDHOLE NEAR 8TH AVE NW. REROUTE EXISTING 144-CT CABLE THROUGH CITY'S JOINT UTILITY TRENCH (JUT) CONDUIT FROM EXISTING HANDHOLE NEAR 8TH AVE NW TO CITY'S JUT HANDHOLE IN NE CORNER OF 17TH ST NW INTERSECTION. EXISTING CONDUIT BETWEEN NEW HANDHOLE IN SW CORNER OF 17TH ST NW AND EXISTING HANDHOLE NEAR 8TH ST NW IS TO BE ABANDONED.
3. INSTALL NEW 2" CONDUIT BETWEEN NEW HANDHOLE IN SW CORNER AND CITY'S JUT HANDHOLE IN NE CORNER. ROUTE EXISTING 144-CT CABLE FROM NE CORNER TO SW CORNER.
4. RESPLICE WEST SIDE OF EXISTING 144-CT CABLE, REROUTED EAST SIDE OF 144-CT CABLE, AND 12-CT CABLE FOR TRAFFIC SIGNAL PER SPLICE DIAGRAM TO BE PROVIDED AFTER CONTRACT AWARD (146 SPLICES ANTICIPATED).
5. TERMINATE 4 FIBERS IN SIGNAL CABINET USING UPC/SC FACTORY TERMINATED FIBER CONNECTORS AND PIGTAILS.



INITIAL RECOMMENDED TIMING (SECONDS)

PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN	5	10	5	15	5	10	5	15
PASSAGE	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MAXIMUM I	20	30	20	50	20	30	20	50
MAXIMUM II								
YELLOW CHANGE	3.3	4.1	3.3	4.1	3.3	4.1	3.3	4.1
RED CLEARANCE	2.2	1.4	2.5	1.7	2.2	1.4	2.5	1.7
WALK		7		7		7		7
PEDESTRIAN CLEARANCE		22		15		22		15

NOTES:

(1) LOCATION REPRESENTS APPROXIMATE LINEAR DISTANCE FROM POLE MEASURED OUTWARD TO END OF ARM.

(2) ORIENTATION OF LUMINAIRE ARM REPRESENTS A CLOCKWISE ANGLE MEASURED FROM THE CENTERLINE OF THE MAST ARM.

(3) POLES SHALL BE DESIGNED TO SUPPORT LOADS SHOWN AND SHALL BE MANUFACTURED WITH A ONE-PIECE VERTICAL POLE.

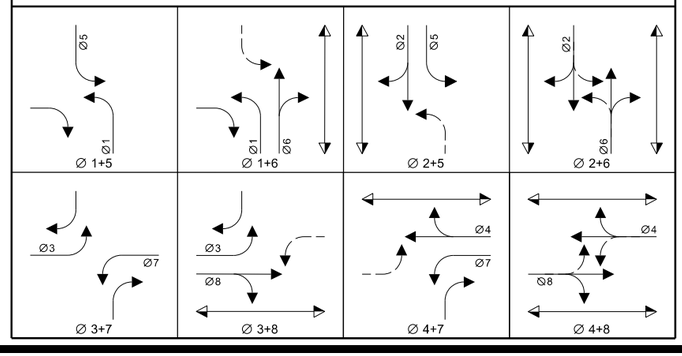
(4) UNLESS OTHERWISE DIRECTED, TRAFFIC SIGNAL HEADS ON MAST ARMS ARE TO BE ALIGNED OVER THE CENTER OF INTERSECTION APPROACH LEFT TURN AND DEPARTURE THROUGH LANES. APPROXIMATE LOCATIONS ARE AS SHOWN IN THE TRAFFIC SIGNAL POLE DATA TABLE. CONTRACTOR SHALL FIELD VERIFY SIGNAL HEAD LOCATIONS.

(5) FORM TOP OF FOOTING SQUARE AND LEVEL WITH ADJACENT SIDEWALK.

TRAFFIC SIGNAL POLE DATA

POLE NO.	POLE TYPE	MAST ARM LENGTH/ PEDESTAL HEIGHT (ft.)	TRAFFIC SIGNAL (1) HEADS		(1) TRAFFIC SIGNS		(1) VIDEO CAMERAS		(2) LUMINAIRE ARM			FOOTING DIMENSIONS		MISCELLANEOUS	TOTAL QUANTITY
			QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	SPREAD (ft.)	MOUNTING HEIGHT (ft.)	ORIENTATION (degrees)	DIA. (ft.)	DEPTH (ft.)		
1	COMBINATION SIGNAL/LIGHTING	55	3	53,38,26	3	50,23,16			15	40	0	3	16	(3)(4)(5)	1
2	COMBINATION SIGNAL/LIGHTING	45	3	42,30,18	2	39,12	1	24	15	40	0	3	14	(3)(4)(5)	1
3	COMBINATION SIGNAL/LIGHTING	50	3	46,32,20	3	43,17,10			15	40	0	3	16	(3)(4)(5)	1
4	COMBINATION SIGNAL/LIGHTING	60	4	56,43,30,16	3	53,23,13	1	39	15	40	0	3	18	(3)(4)(5)	1
5-11	PEDESTAL	5										2	4	(5)	7

TRAFFIC PHASING SEQUENCE



MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	N.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

WIRING DIAGRAM - NW 17TH STREET

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet N.3

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TRAFFIC SIGNAL FACES

NOTES:

1) SEE N.3 FOR LOCATIONS OF ADVANCE DETECTION ZONES.
2) POWER SOURCE LOCATION WILL BE A NEW TRANSFORMER SET BY MIDAMERICAN ENERGY. ANTICIPATED LOCATION IS ON THE SOUTH SIDE OF ADVENTURELAND DR APPROXIMATELY 140' EAST OF 14TH AVE NW.. COORDINATE POWER SOURCE LOCATION AND CONNECTION WITH MIDAMERICAN ENERGY (DEREK JOHNSON, 515-901-8274).

TRAFFIC SIGNS

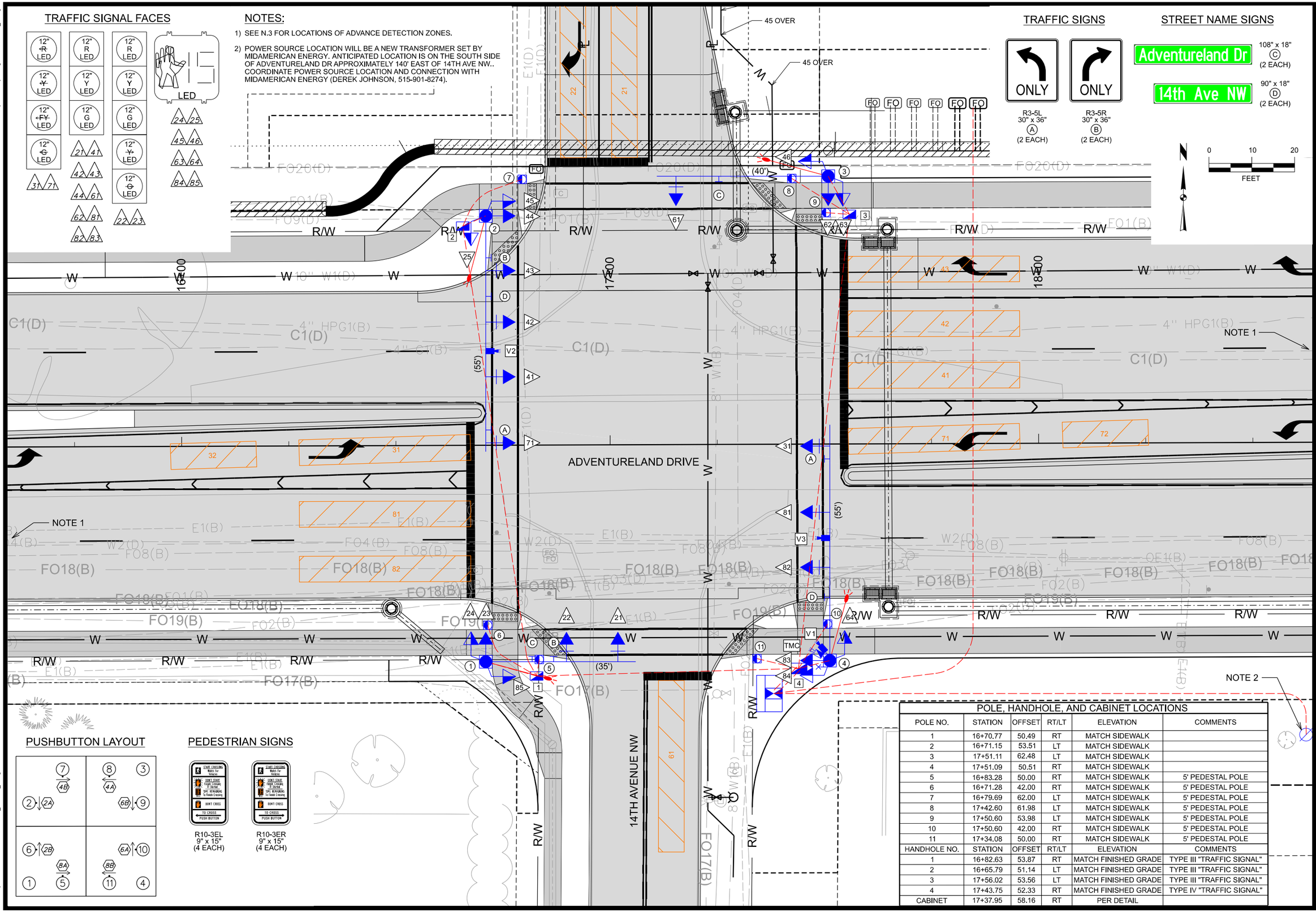
R3-5L
30" x 36"
(A)
(2 EACH)

R3-5R
30" x 36"
(B)
(2 EACH)

STREET NAME SIGNS

108" x 18"
(C)
(2 EACH)

90" x 18"
(D)
(2 EACH)



PUSHBUTTON LAYOUT

PEDESTRIAN SIGNS

R10-3EL
9" x 15"
(4 EACH)

R10-3ER
9" x 15"
(4 EACH)

POLE, HANDHOLE, AND CABINET LOCATIONS

POLE NO.	STATION	OFFSET	RT/LT	ELEVATION	COMMENTS
1	16+70.77	50.49	RT	MATCH SIDEWALK	
2	16+71.15	53.51	LT	MATCH SIDEWALK	
3	17+51.11	62.48	LT	MATCH SIDEWALK	
4	17+51.09	50.51	RT	MATCH SIDEWALK	
5	16+83.28	50.00	RT	MATCH SIDEWALK	5' PEDESTAL POLE
6	16+71.28	42.00	RT	MATCH SIDEWALK	5' PEDESTAL POLE
7	16+79.69	62.00	LT	MATCH SIDEWALK	5' PEDESTAL POLE
8	17+42.60	61.98	LT	MATCH SIDEWALK	5' PEDESTAL POLE
9	17+50.60	53.98	LT	MATCH SIDEWALK	5' PEDESTAL POLE
10	17+50.60	42.00	RT	MATCH SIDEWALK	5' PEDESTAL POLE
11	17+34.08	50.00	RT	MATCH SIDEWALK	5' PEDESTAL POLE
HANDHOLE NO.	STATION	OFFSET	RT/LT	ELEVATION	COMMENTS
1	16+82.63	53.87	RT	MATCH FINISHED GRADE	TYPE III "TRAFFIC SIGNAL"
2	16+65.79	51.14	LT	MATCH FINISHED GRADE	TYPE III "TRAFFIC SIGNAL"
3	17+56.02	53.56	LT	MATCH FINISHED GRADE	TYPE III "TRAFFIC SIGNAL"
4	17+43.75	52.33	RT	MATCH FINISHED GRADE	TYPE IV "TRAFFIC SIGNAL"
CABINET	17+37.95	58.16	RT	PER DETAIL	

DOT STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: AJH	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Sheet N.4

Project No: 1221679

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC SIGNAL LAYOUT - NW 14TH ST

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet N.4

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DETECTOR SUMMARY

UNIT NUMBER	DETECTION ZONE	ZONE LIMITS (DISTANCE FROM STOP LINE)	PHASE CALLED	PHASE EXTENDED	DETECTOR INPUT ASSIGNMENT	COMMENTS
V1	21	0'-40'	2	2	2	FISHEYE CAMERA
	22	0'-40'	2	2	10	
	61	0'-40'	6	6	6	
	31	0'-40'	3	3,8	3	
	32	50'-70'	3	3,8	11	
	81	0'-40'	8	8	8	
	82	0'-40'	8	8	16	
	71	0'-40'	7	4,7	7	
	72	50'-70'	7	4,7	15	
	41	0'-40'	4	4	4	
	42	0'-40'	4	4	12	
	43	0'-40'	4	4	20	
V2	44	170'-210'	4	4	20	
	45	170'-210'	4	4	28	
V3	83	170'-210'	8	8	32	
	84	170'-210'	8	8	40	
2A,2B			2			PEDESTRIAN PB
4A,4B			4			PEDESTRIAN PB
6A,6B			6			PEDESTRIAN PB
8A,8B			8			PEDESTRIAN PB

WIRING LEGEND

▽3	SIGNAL NUMBER
(2)	POLE NUMBER
[2]	HANDHOLE NUMBER
▽22	EXISTING DETECTOR NUMBER
(22)	PROPOSED DETECTOR NUMBER
	VIDEO DETECTION CAMERA
V2	VIDEO CAMERA NUMBER
	TRAFFIC MONITORING CAMERA
	EMERGENCY VEHICLE DETECTOR
COND	CONDUIT
PWR	POWER CABLE (1c #6)
LUM	LUMINAIRE (1c #8)
PB	PEDESTRIAN PUSHBUTTON (2c)
EVP	EMERGENCY VEHICLE PREEMPTION
VID	VIDEO CABLE(S)
TMC	TRAFFIC MONITORING CAMERA CABLE(S)
GND	GROUND WIRE (1c #6)
TR	TRACER WIRE (1c #10)
PT	PULL TAPE
FO	FIBER OPTIC CABLE

DETECTION NOTES:

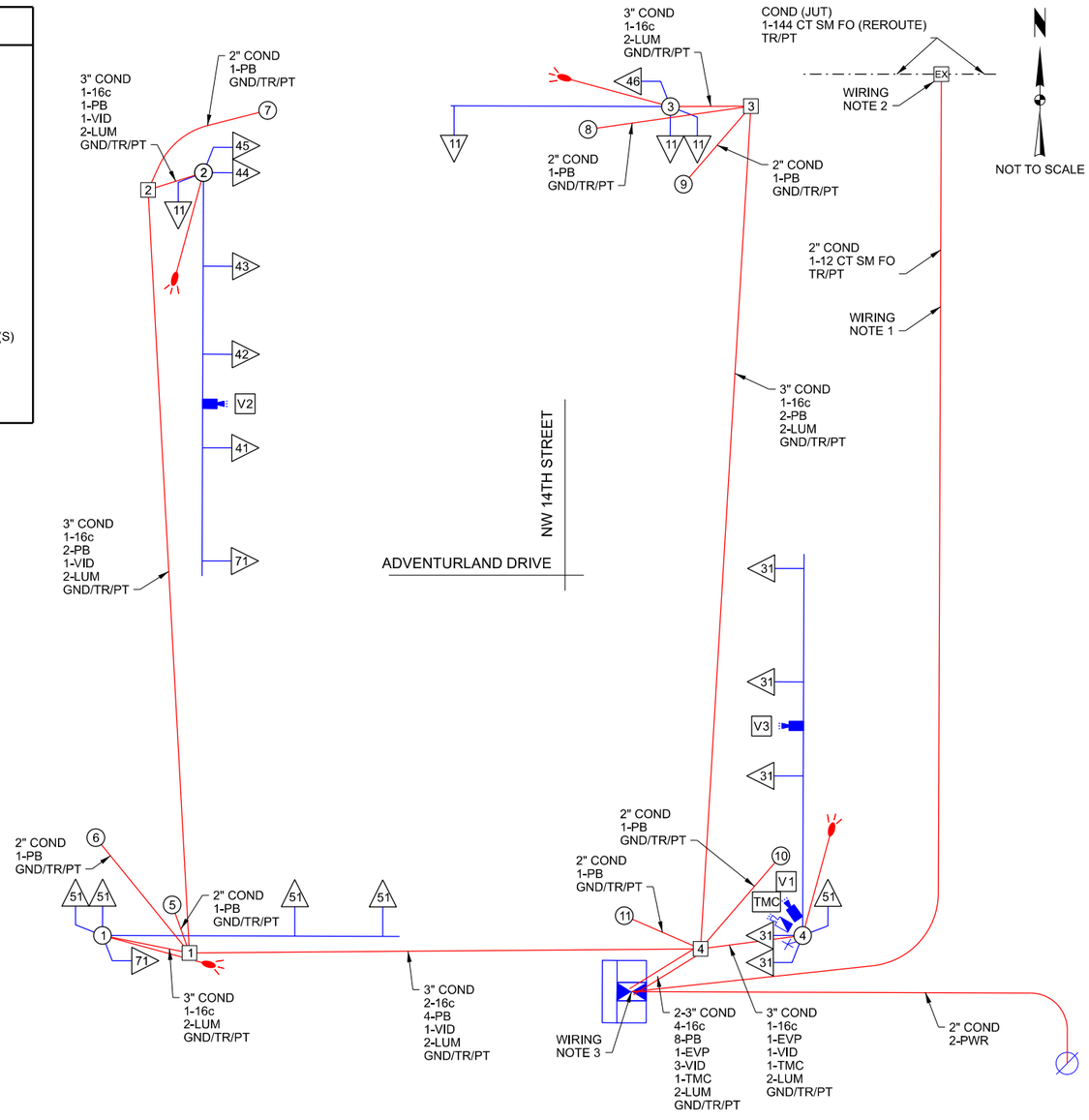
1. ZONE LIMITS ARE FOR DETECTION LIMITS ONLY. ACTUAL DETECTION AREAS FOR EACH ZONE WILL BE DETERMINED IN THE FIELD.

WIRING NOTES:

1. INSTALL NEW 2" CONDUIT BETWEEN SIGNAL CABINET AND CITY'S JUT HANDHOLE IN NE CORNER AND PULL 12-CT CABLE BETWEEN THEM.
2. SPLICE 12-CT CABLE FOR TRAFFIC SIGNAL FROM RELOCATED 144-CT CABLE IN JUT HANDHOLE PER SPLICE DIAGRAM TO BE PROVIDED AFTER CONTRACT AWARD (4 SPLICES ANTICIPATED).
3. TERMINATE 4 FIBERS IN SIGNAL CABINET USING UPC/SC FACTORY TERMINATED FIBER CONNECTORS AND PIGTAILS.

INITIAL RECOMMENDED TIMING (SECONDS)

PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN		10	5	15		10	5	15
PASSAGE		2.0	2.0	2.0		2.0	2.0	2.0
MAXIMUM I		30	20	50		30	20	50
MAXIMUM II								
YELLOW CHANGE		3.4	3.3	4.1		3.4	3.3	4.1
RED CLEARANCE		1.7	2.2	1.4		1.7	2.2	1.4
WALK		7		7		7		7
PEDESTRIAN CLEARANCE		22		10		22		10



NOTES:

① LOCATION REPRESENTS APPROXIMATE LINEAR DISTANCE FROM POLE MEASURED OUTWARD TO END OF ARM.

② ORIENTATION OF LUMINAIRE ARM REPRESENTS A CLOCKWISE ANGLE MEASURED FROM THE CENTERLINE OF THE MAST ARM.

③ POLES SHALL BE DESIGNED TO SUPPORT LOADS SHOWN AND SHALL BE MANUFACTURED WITH A ONE-PIECE VERTICAL POLE.

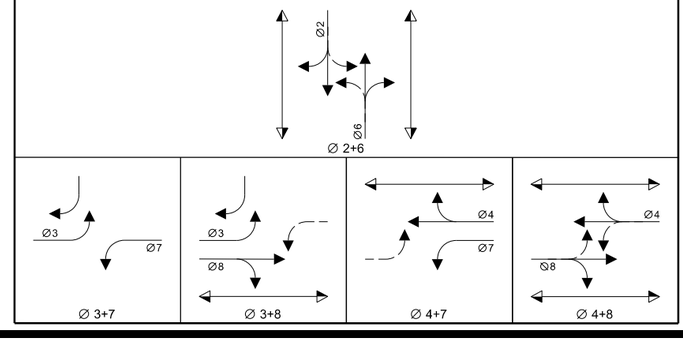
④ UNLESS OTHERWISE DIRECTED, TRAFFIC SIGNAL HEADS ON MAST ARMS ARE TO BE ALIGNED OVER THE CENTER OF INTERSECTION APPROACH LEFT TURN AND DEPARTURE THROUGH LANES. APPROXIMATE LOCATIONS ARE AS SHOWN IN THE TRAFFIC SIGNAL POLE DATA TABLE. CONTRACTOR SHALL FIELD VERIFY SIGNAL HEAD LOCATIONS.

⑤ FORM TOP OF FOOTING SQUARE AND LEVEL WITH ADJACENT SIDEWALK.

TRAFFIC SIGNAL POLE DATA

POLE NO.	POLE TYPE	MAST ARM LENGTH/ PEDESTAL HEIGHT (ft.)	① TRAFFIC SIGNAL HEADS		① TRAFFIC SIGNS		① VIDEO CAMERAS		② LUMINAIRE ARM			FOOTING DIMENSIONS		MISCELLANEOUS	TOTAL QUANTITY
			QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	SPREAD (ft.)	MOUNTING HEIGHT (ft.)	ORIENTATION (degrees)	DIA. (ft.)	DEPTH (ft.)		
1	COMBINATION SIGNAL/LIGHTING	35	2	31,19	2	16,11			15	40	0	3	12	③④⑤	1
2	COMBINATION SIGNAL/LIGHTING	55	4	53,37,25,13	3	50,19,10	1	31	15	40	0	3	16	③④⑤	1
3	COMBINATION SIGNAL/LIGHTING	40	1	35	1	25			15	40	0	3	14	③④⑤	1
4	COMBINATION SIGNAL/LIGHTING	55	3	50,34,22	2	47,15	1	28	15	40	0	3	16	③④⑤	1
5-11	PEDESTAL	5										2	4	⑤	7

TRAFFIC PHASING SEQUENCE



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Engineer: LCL		Checked By: LEJ	T-R-S:
Technician: KSB		Date: 8/17/2026	Sheet N.5
		DOT STP-U-0132(628)--70--77	
		Project No: 1221679	

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

WIRING DIAGRAM - NW 14TH STREET

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet N.5

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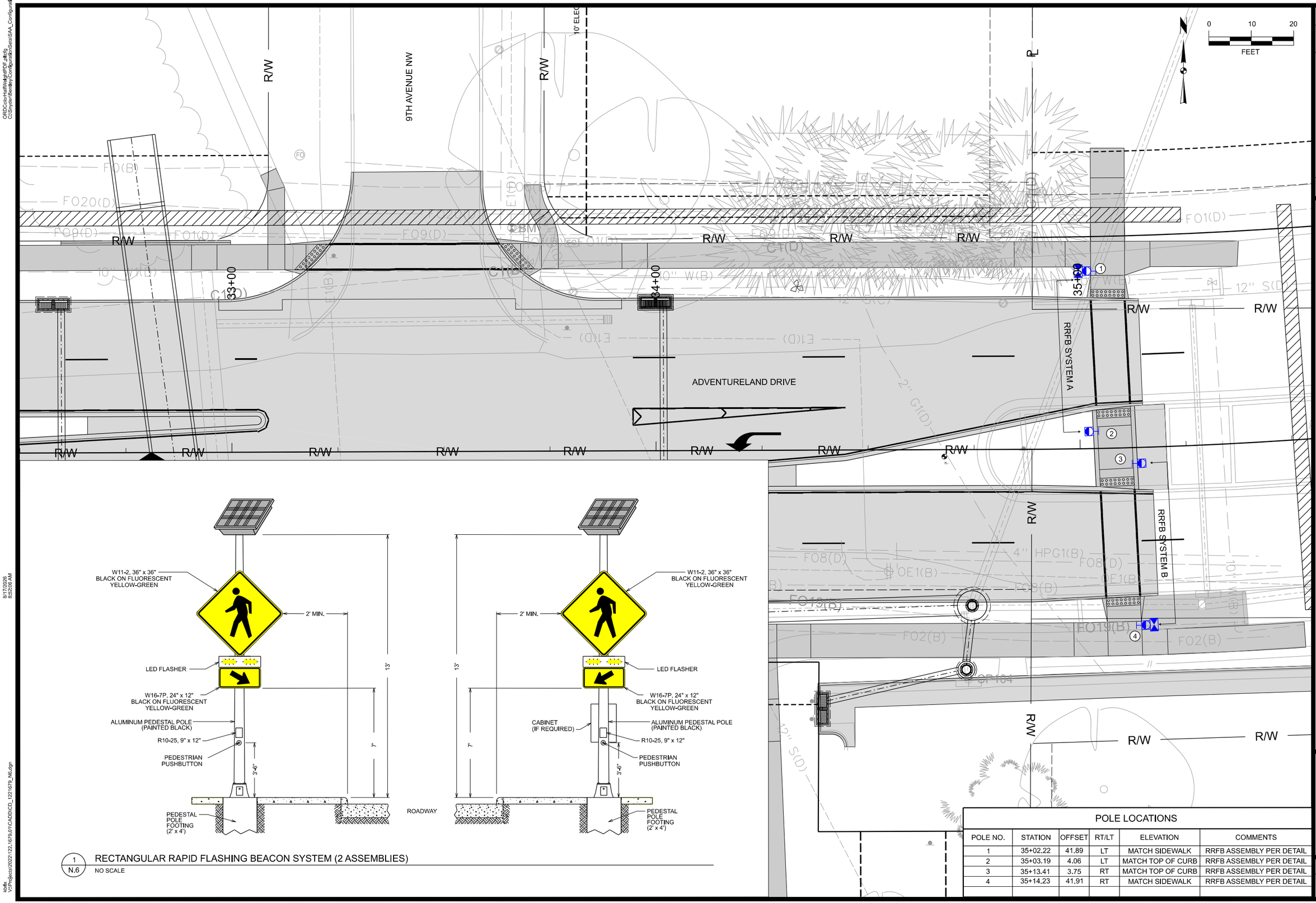

1 N.6 RECTANGULAR RAPID FLASHING BEACON SYSTEM (2 ASSEMBLIES)

NO SCALE

POLE LOCATIONS					
POLE NO.	STATION	OFFSET	RT/LT	ELEVATION	COMMENTS
1	35+02.22	41.89	LT	MATCH SIDEWALK	RRFB ASSEMBLY PER DETAIL
2	35+03.19	4.06	LT	MATCH TOP OF CURB	RRFB ASSEMBLY PER DETAIL
3	35+13.41	3.75	RT	MATCH TOP OF CURB	RRFB ASSEMBLY PER DETAIL
4	35+14.23	41.91	RT	MATCH SIDEWALK	RRFB ASSEMBLY PER DETAIL

MARK	REVISION	DATE	BY
Engineer: AJH	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pgs:

DOT STP-U-0132(629)--70-77

Project No: 1221679

Sheet N.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

TRAFFIC SIGNAL SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet N.6

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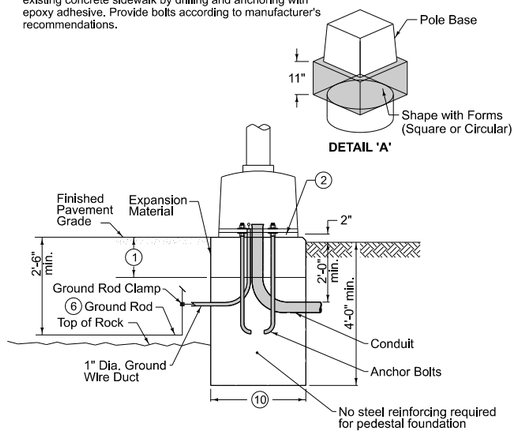
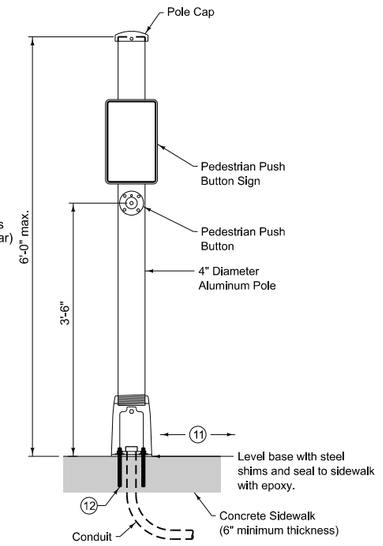
1. Shape top 11 inches with forms. See Detail 'A'.
2. Install rodent guard or non-shrink grout with weep hole.
6. When in contact with rock, place ground rods as specified in National Electrical Code, current edition, adjacent to foundation or in adjacent handhole.
10. 12 to 24 Inch diameter as shown in contract documents.
11. Provide 4 foot accessible path adjacent to push button pole.
12. Install four anchor bolts, washers, and nuts in new or existing concrete sidewalk by drilling and anchoring with epoxy adhesive. Provide bolts according to manufacturer's recommendations.

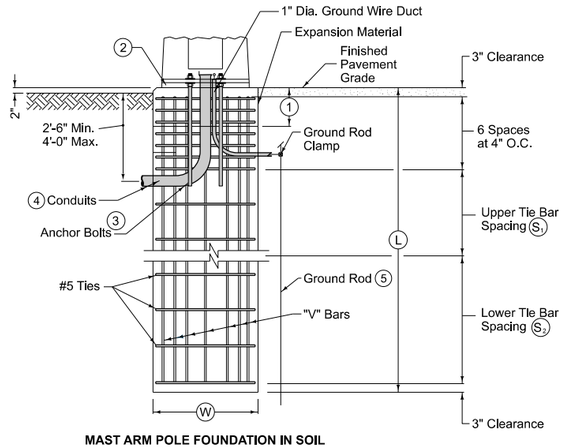


PEDESTAL POLE FOUNDATION IN SOIL OR ROCK

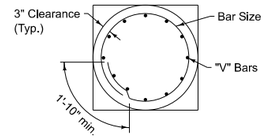


ALTERNATE PUSH BUTTON POLE SIDEWALK MOUNTING

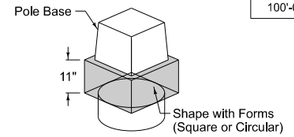
1 N.7 PEDESTAL POLE FOUNDATION (TS-102, PAGE 4)
NO SCALE



MAST ARM POLE FOUNDATION IN SOIL
TYPE A FOUNDATION



PLAN VIEW



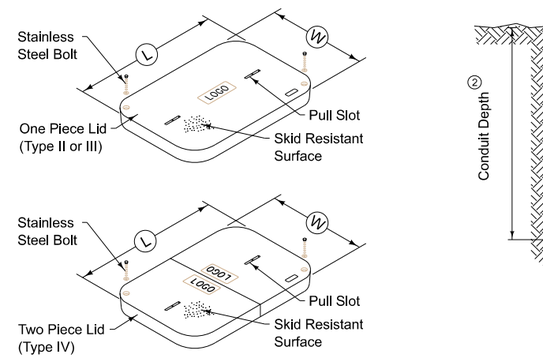
DETAIL 'A'

The Type A Foundation is the normally required foundation construction. Where rock is encountered, the Engineer may approve the use of the Type B or C Foundation. Prior to installing a foundation in rock, obtain a subsurface investigation certified by a geotechnical engineer licensed in the State of Iowa.

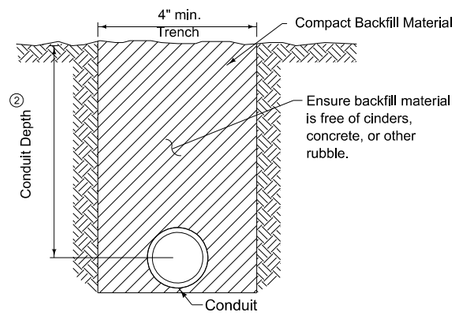
1. Shape top 11 inches with forms. See Detail 'A'.
2. Install rodent guard or non-shrink grout with weep hole.
3. Furnish nut, nut and plate, or nut and anchor bolt assembly ring plate on embedded end.
4. Provide conduits as per plans.
5. Install ground rod adjacent to foundation or in adjacent handhole.

Max. Mast Arm Length	Foundation		"V" Bars			Tie Bars				
	(W)	(L)	Count	Size	Length	Count	Upper Spacing		Lower Spacing	
							# Spaces	(S_1)	# Spaces	(S_2)
35'-0"	3'-0"	12'-0"	12	#8	11'-6"	17	9	12"	N/A	N/A
45'-0"	3'-0"	14'-0"	12	#8	13'-6"	19	11	12"	N/A	N/A
55'-0"	3'-0"	16'-0"	12	#8	15'-6"	25	12	8"	5	12"
60'-0"	3'-0"	18'-0"	13	#8	17'-6"	28	15	8"	5	12"
70'-0"	3'-6"	18'-0"	12	#10	17'-6"	28	15	8"	5	12"
80'-0"	3'-6"	21'-0"	14	#10	20'-6"	40	28	6"	4	12"
90'-0"	4'-0"	22'-0"	16	#10	21'-6"	42	24	6"	10	8"
100'-0"	4'-0"	24'-0"	18	#10	23'-6"	47	32	6"	7	8"

2 N.7 MAST ARM POLE FOUNDATION (TS-102, PAGE 1)
NO SCALE



PRECAST CONCRETE COMPOSITE HANDHOLE

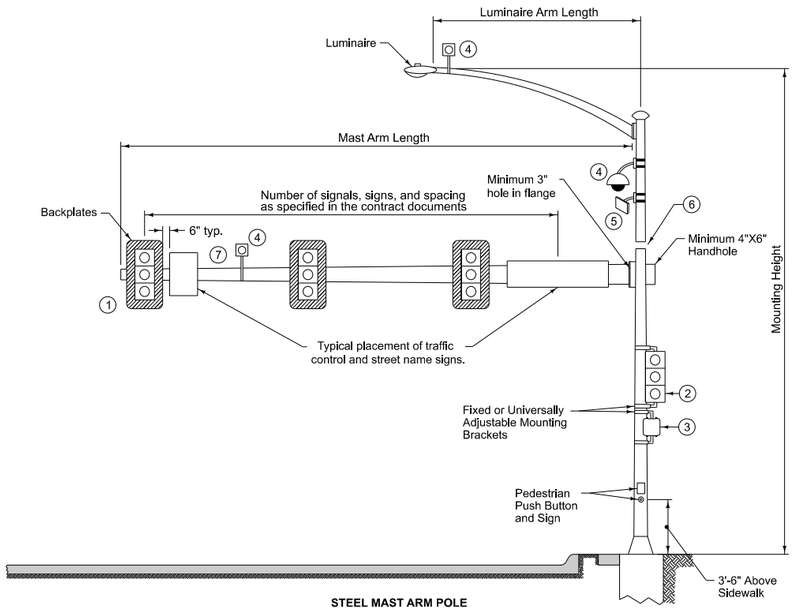


CONDUIT IN TRENCH

HANDHOLE DIMENSIONS TABLE (NOMINAL)			
TYPE	(L)	(W)	(D)
II	30"	17"	24"
III	36"	24"	30"
IV	48"	30"	36"

1. Potential conduit entry through bottom of handhole.
2. For conduit behind curb, place 24 to 48 inches below top of curb. For conduit under roadway, place 30 to 60 inches below the gutterline.

3 N.7 CONDUIT AND PRECAST HANDHOLES (LI-103)
NO SCALE



STEEL MAST ARM POLE

1. Ensure the top of the signal housing is no more than 25.6 feet above the pavement. Ensure the bottom of the signal housing and related attachments are at least 15 feet above the pavement.
2. Ensure the bottom of the signal housing (including brackets) that is not located over a roadway is a minimum of 10 feet and a maximum of 19 feet above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.
3. Mount pedestrian signal heads with the bottom of the signal housing (including brackets) no less than 7 feet or more than 10 feet above the sidewalk level. Position and adjust heads to provide maximum visibility at the beginning of the controlled crosswalk.
4. Possible video camera location.
5. Possible EVP detector.
6. Pole cap if no luminaire extension.
7. Install wind vibration dampening device on mast arms greater than 60 feet in length. Locaton and mounting method as specified by manufacturer.

4 N.7 MAST ARM POLE DETAILS
NO SCALE

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
	DOT STP-U-0132(628)--70--77		
	Project No: 1221679	Sheet	N.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TRAFFIC SIGNAL DETAILS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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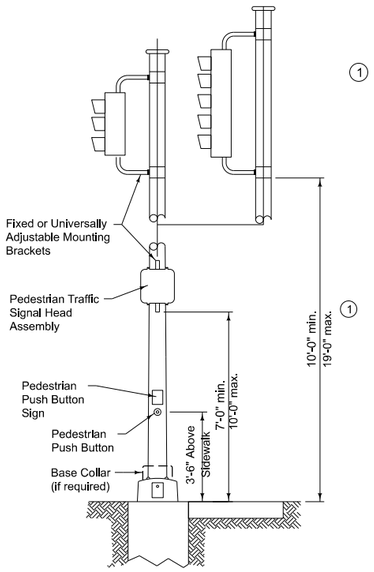
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

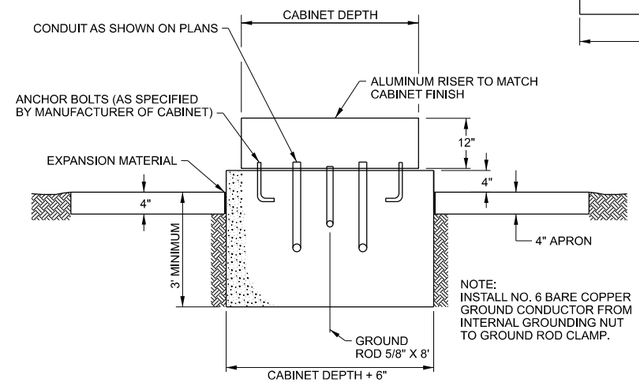
Project No: 1221679

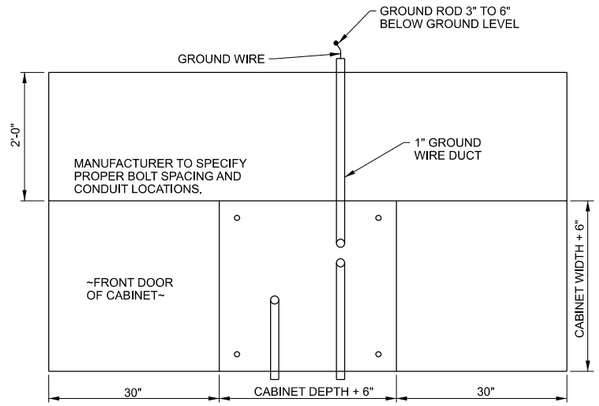
Sheet N.7

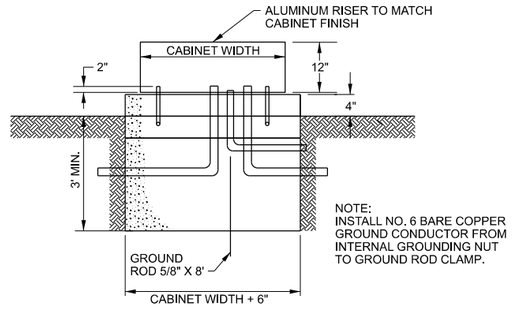


1 For signal head visibility and possible pedestrian head installation.

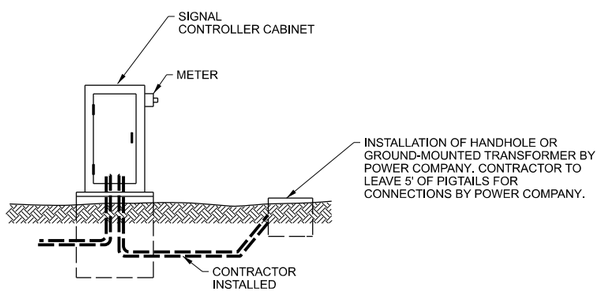
1 N.8 PEDESTAL POLE DETAILS
NO SCALE



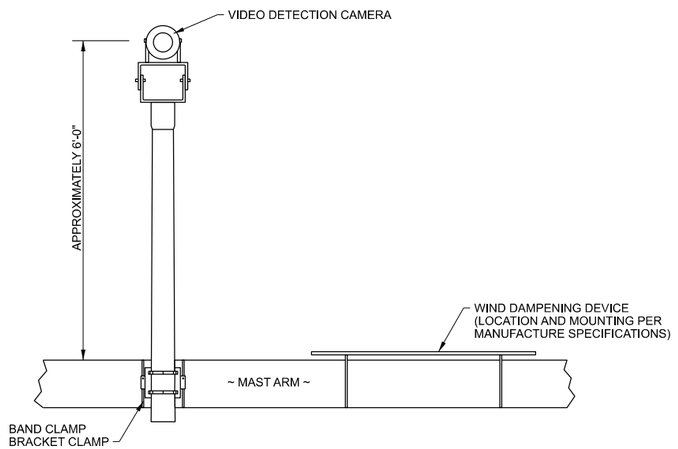




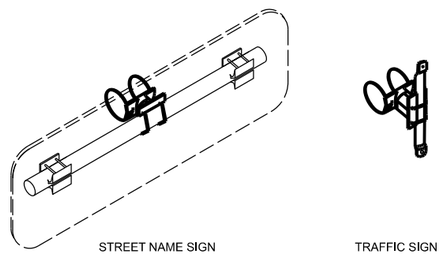
2 N.8 CONTROLLER CABINET FOUNDATION
NO SCALE



3 N.8 UNDERGROUND SECONDARY SERVICE
NO SCALE



4 N.8 VIDEO DETECTION CAMERA MOUNTING ON TRAFFIC SIGNAL MAST ARM
NO SCALE



5 N.8 MAST ARM SIGN BRACKET
NO SCALE

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet N.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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TRAFFIC SIGNAL DETAILS

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SNYDER & ASSOCIATES

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Sheet N.8

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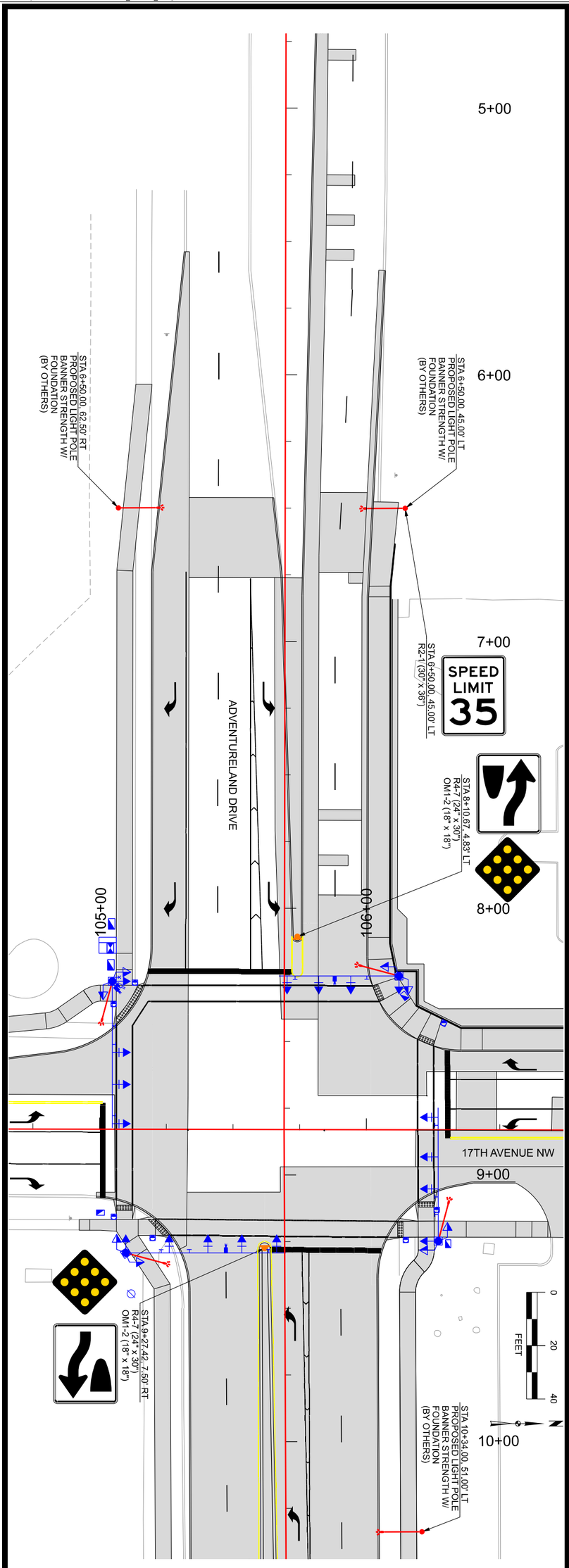

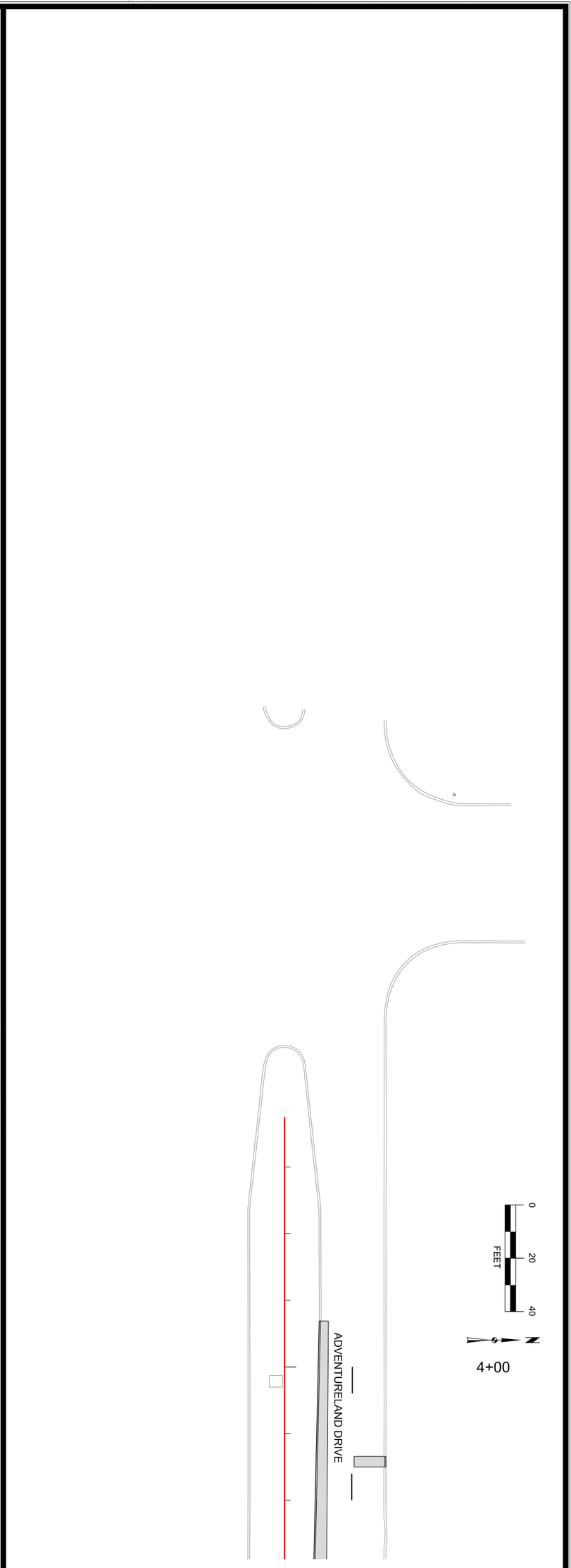

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIGN AND LIGHTING LAYOUT SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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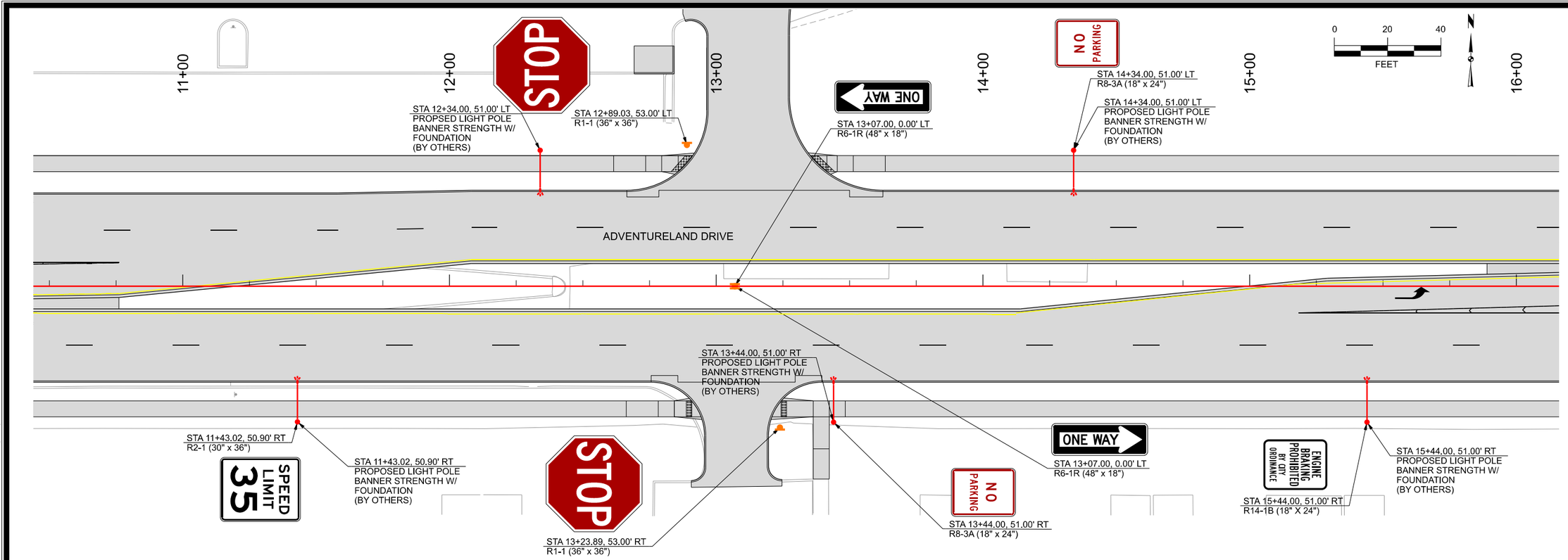
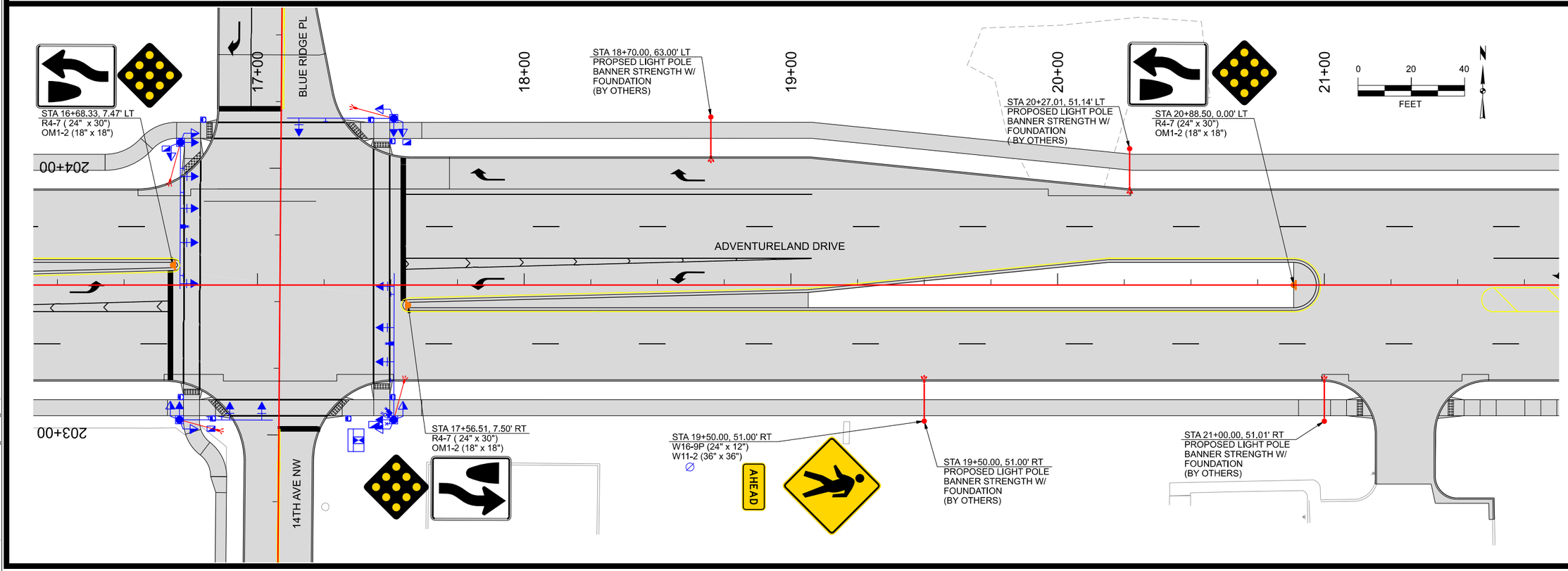
MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ | NTS'
Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77
Project No: 1221679
Sheet P.1

Project No: 1221679
Sheet P.1





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Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026	NTS	

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Project No: 1221679

Sheet P.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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SNYDER & ASSOCIATES

Project No: 1221679

Sheet P.2

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22+00 23+00 24+00 25+00 26+00 27+00

0 20 40 FEET

N

STA 22+16.89, 51.00' LT
PROPOSED LIGHT POLE
(BY OTHERS)

STA 22+98.65, 0.00' RT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 24+15.00, 50.99' LT
PROPOSED LIGHT POLE
(BY OTHERS)

STA 26+43.00, 51.00' LT
PROPOSED LIGHT POLE
(BY OTHERS)

10th Ave NW

STOP

Adventureland Dr

STA 27+05.51, 54.00' LT
R1-1 (36" x 36")
D3-1 (x2)

10TH AVE NW

ADVENTURELAND DRIVE

STA 27+44.51, 58.54' LT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 22+39.70, 5.53' RT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 23+05.00, 50.99' RT
PROPOSED LIGHT POLE
(BY OTHERS)

12TH AVENUE NW

Adventureland Dr

12th Ave NW

STOP

STA 23+89.83, 5.50' RT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 23+71.23, 53.00' RT
R1-1 (36" x 36")
D3-1 (x2)

STA 25+17.00, 51.00' RT
PROPOSED LIGHT POLE
(BY OTHERS)

STA 26+90.25, 5.50' LT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 27+37.00, 41.50' RT
PROPOSED LIGHT POLE
(BY OTHERS)

28+00 29+00 30+00 31+00 32+00 33+00

0 20 40 FEET

N

STA 28+16.25, 40.00' LT
W11-2 (36" x 36")
W16-7PL (24" x 12")

NO PARKING

STA 28+57.00, 51.00' LT
R8-3A (18" x 24")

STA 28+57.00, 51.00' LT
PROPOSED LIGHT POLE
(BY OTHERS)

STA 30+25.00, 0.00' LT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 30+69.02, 51.00' LT
PROPOSED LIGHT POLE
(BY OTHERS)

SPEED LIMIT 35

STA 30+69.02, 51.00' LT
R2-1 (30" x 36")

AHEAD

Little Fourmile Creek

STA 33+18.38, 54.51' LT
R1-1 (36" x 36")
D3-1 (x2)

STOP

9th Ave NW

Adventureland Dr

STA 31+94.59, 39.65' LT
W11-2 (36" x 36")
W16-9P (24" x 12")

STA 32+75.00, 39.50' LT
I-3 (42" x 18")

STA 32+70.00, 51.00' LT
PROPOSED LIGHT POLE
(BY OTHERS)

ADVENTURELAND DRIVE

STA 32+86.06, 39.50' RT
I-3 (42" x 18")

STA 33+05.95, 7.98' LT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 28+02.25, 40.00' RT
W11-2 (36" x 36")
W16-7P (24" x 12")

STA 30+89.44, 53.00' RT
R1-1 (36" x 36")
D3-1 (x2)

STA 31+83.99, 51.00' RT
PROPOSED LIGHT POLE
(BY OTHERS)

STA 31+83.99, 51.00' RT
W16-9P (24" x 12")
W11-15 (36" x 36")

STA 28+65.00, 0.00' LT
R6-1 (48" x 18")

ONE WAY

STA 29+51.00, 51.00' RT
PROPOSED LIGHT POLE
(BY OTHERS)

NO PARKING

STA 28+03.00, 0.00' RT
R4-7 (24" x 30")
OM1-2 (18" x 18")

STA 29+51.00, 51.00' RT
R8-3A (18" x 24")

10TH AVE NW

STOP

10th Ave NW

Adventureland Dr

STA 31+06.00, 5.50' RT
R4-7 (24" x 30")
OM1-2 (18" x 18")

AHEAD

Little Fourmile Creek

0

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026	NTS	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet P.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIGN AND LIGHTING LAYOUT SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet P.3

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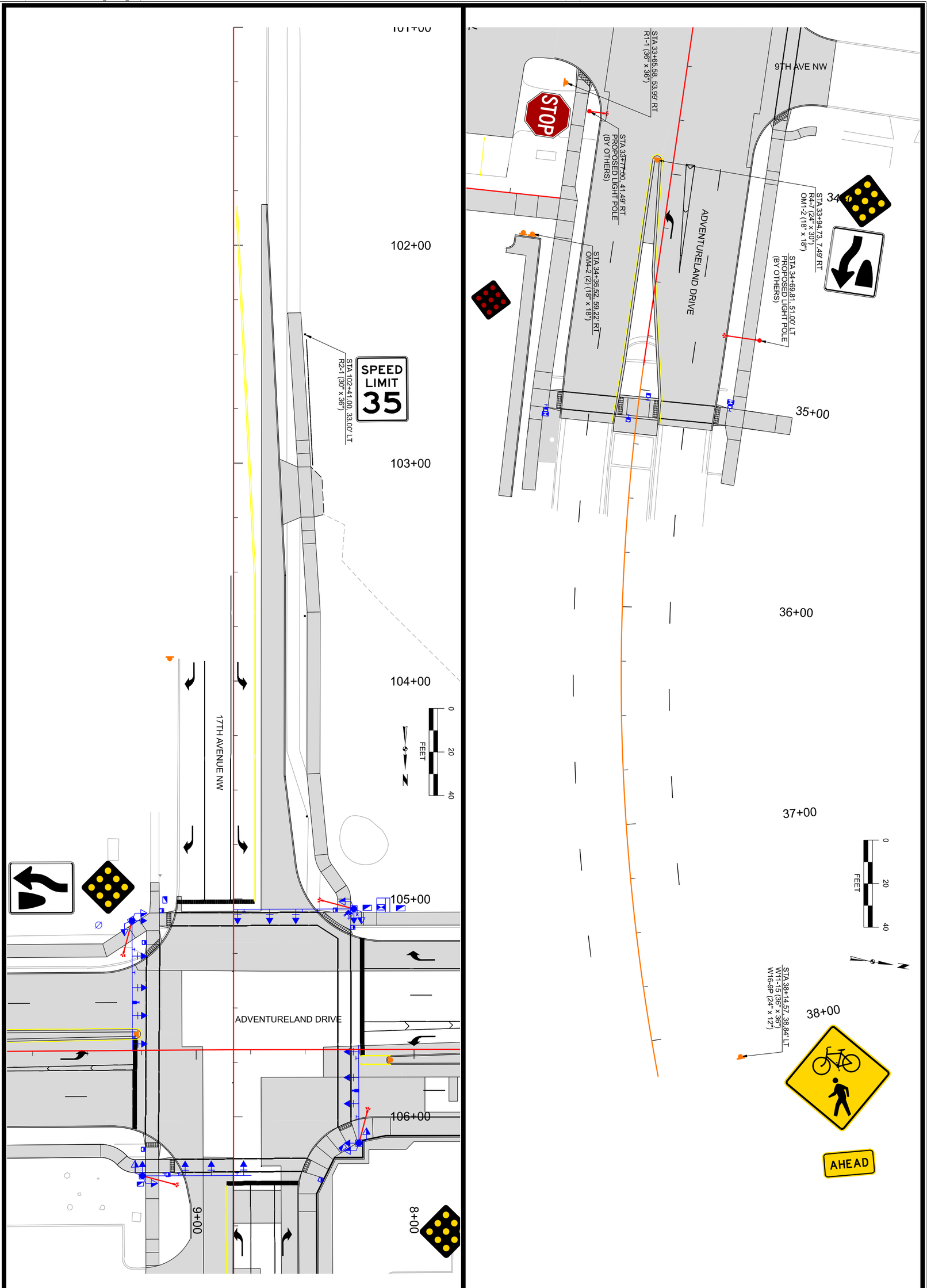

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIGN AND LIGHTING LAYOUT SHEETS

ALTOONA, IA

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MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ | NTS
Technician: KSB | Date: 8/17/2026 | T-R-S:
DOT STP-U-0132(628)--70--77
Project No: 1221679 | Sheet P.4

Sheet P.4
Project No: 1221679

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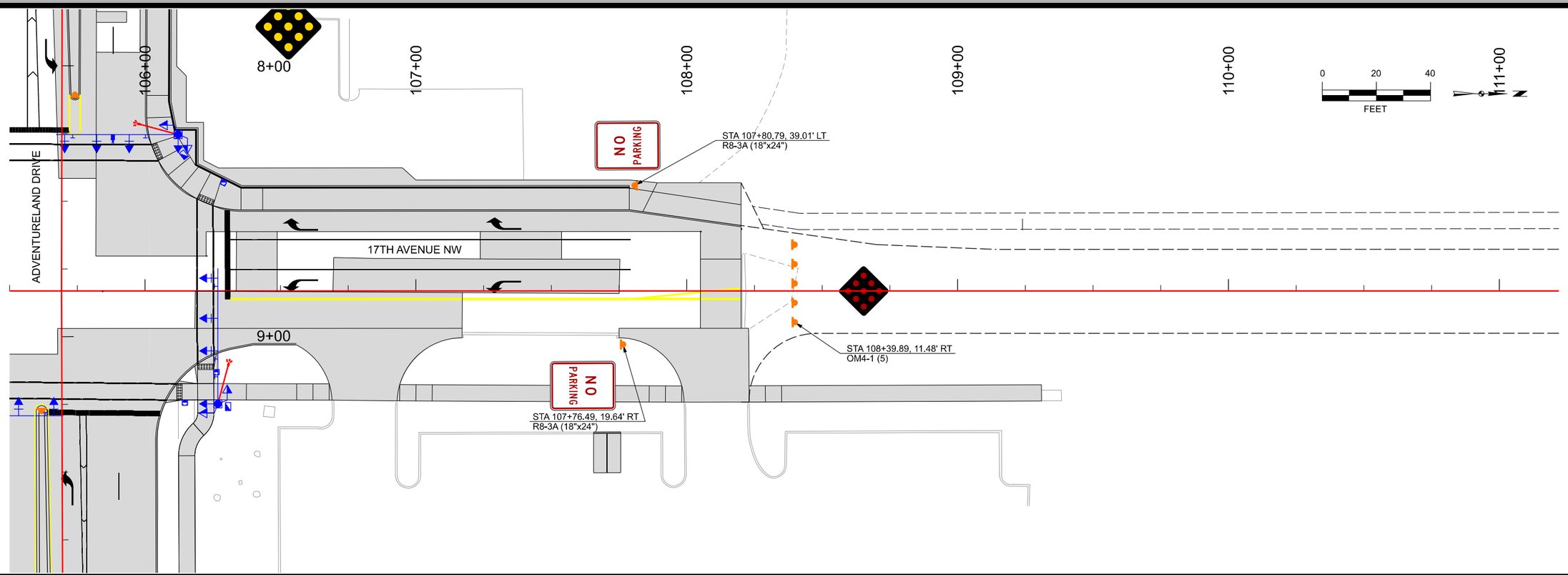

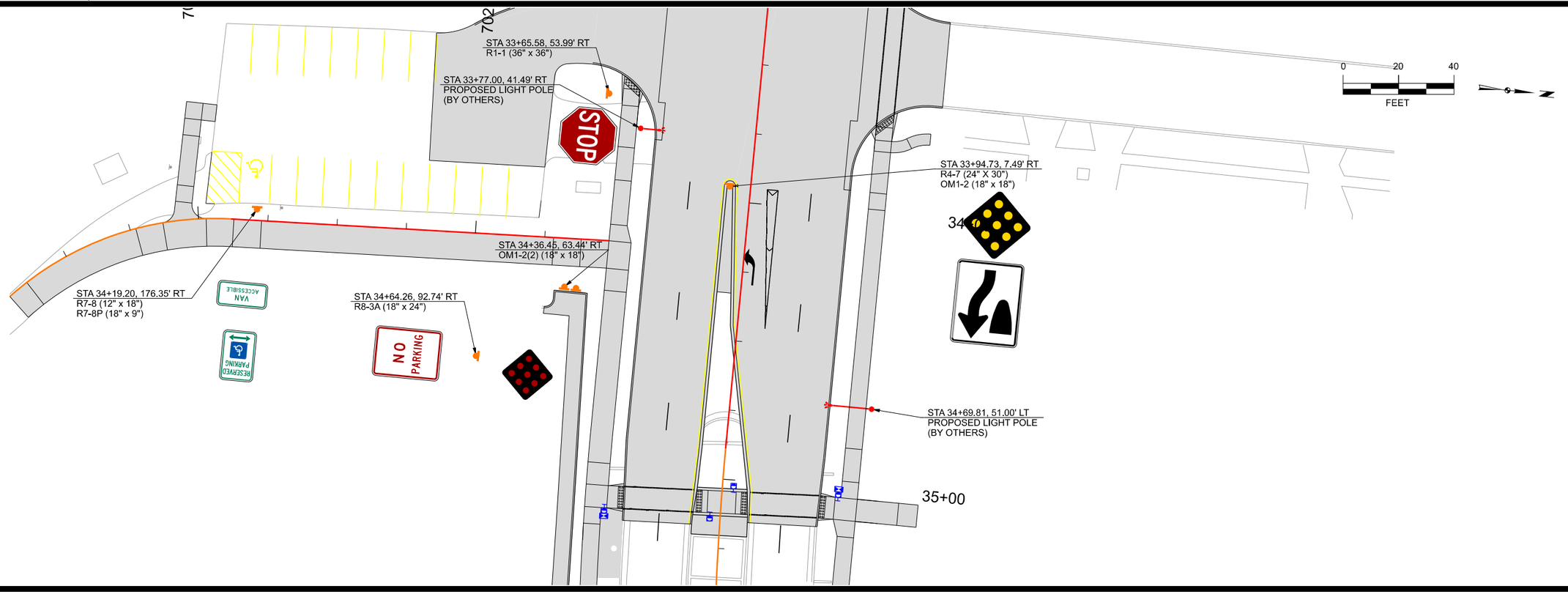

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/17/2026	T-R-S:	
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	P.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIGN AND LIGHTING LAYOUT SHEETS

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Project No: 1221679

Sheet P.5

MATERIALS FOR TYPE 'A' SIGNS

TYPE A SIGNING TYPICALS	SIGN NUMBER	DIR OF TRAVEL	SIGN LOCATION STATION	WOOD POSTS NO. OF POSTS	WOOD POSTS 4 x 6 LEG 1 FT	WOOD POSTS 4 x 6 LEG 2 FT	PERFORATED SQUARE STEEL TUBE LEG 1 FT	LEG 2 FT	LEG 3 FT	ANCHOR CONC	ANCHOR SOIL	ANCHOR SLIPBASE	Steel Rect. Tube NO. OF POSTS	POST LENGTH FT	ANCHORS EACH	TYPE A SIGN MOUNTING BRACKETS ONE POST BRACKET	TWO POST	AUXILIARY	H	F	F1	INSTALLATION TYPE	DIM 'X' FT	SEE SIGNING NOTES	REMARKS
	R2-1	WB	6+50.00, 45.00' LT													1						1	1.5	A	PR LIGHT POLE; 35 MPH
	R4-7	WB	8+10.67, 4.83' LT				11			1						1						3	3.5		
	OM1-2	WB	8+10.67, 4.83' LT													1		1				3	3.5		AUXILLARY
	R4-7	EB	9+27.42, 7.50' RT				11			1						1						3	3.5		
	OM1-2	EB	9+27.42, 7.50' RT							1						1		1				3	3.5		AUXILLARY
	R2-1	EB	11+43.02, 50.90' RT								1					1						1	16	A	PR LIGHT POLE; 35 MPH
	R1-1	NB	12+89.03, 53,00'LT				10				1					1						1	18		
	R6-1	NB	13+07.00, 0.00' LT				8.5				1					1						3	3.5		
	R6-1	SB	13+07.00, 0.00' LT													1		1				3	3.5		AUXILLARY
	R1-1	SB	13+23.89, 53.00'RT				10				1					1						1	18		
	R8-3A	EB	13+44.00, 51.00' RT																			1	16	A	PROPOSED LIGHT POLE
	R8-3A	WB	14+34.00, 51.00' LT																			1	16	A	PROPOSED LIGHT POLE
	R14-1B	EB	15+44.00, 51.00' RT													1						1	16	A	PROPOSED LIGHT POLE
	R4-7	WB	16+68.33, 7.47' LT				11			1						1						3	3.5		
	OM1-2	WB	16+68.33, 7.47' LT													1		1				3	3.5		AUXILLARY
	R4-7	EB	17+56.51, 7.50' RT				11			1						1						3	3.5		
	OM1-2	EB	17+56.51, 7.50' RT													1		1				3	3.5		AUXILLARY
	W16-9P	EB	19+50.00, 51.00' RT													1						1	16	A	PROPOSED LIGHT POLE
	W11-2	EB	19+50.00, 51.00' RT													1						1	16	A	PROPOSED LIGHT POLE
	R4-7	WB	20+88.50, 0.00' LT				11			1						1						3	3.5		
	OM1-2	WB	20+88.50, 0.00' LT													1		1				3	3.5		AUXILLARY
	R4-7	EB	22+39.70, 5.53' RT				11			1						1						3	3.5		
	OM1-2	EB	22+39.70, 5.53' RT													1		1				3	3.5		AUXILLARY
	R4-7	WB	22+98.65, 0.00'RT				11			1						1						3	3		
	OM1-2	WB	22+98.65, 0.00'RT													1		1				3	3		AUXILLARY
	R1-1	SB	23+71.23, 53.00' RT				10				1					1						1	18		
	D3-1	EB/WB	23+71.23, 53.00' RT															1				1	18		12TH AVE NW
	D3-1	NB/WB	23+71.23, 53.00' RT															1				1	18		ADVENTURELAND DR
	R4-7	EB	23+89.83, 5.50' RT				11			1						1						3	3.5		
	OM1-2	EB	23+89.83, 5.50' RT													1		1				3	3.5		AUXILLARY
	R4-7	WB	26+90.25, 5.50' LT				11			1						1						3	3.5		
	OM1-2	WB	26+90.25, 5.50' LT													1		1				3	3.5		AUXILLARY
	R1-1	NB	27+05.51, 54.00'LT				10				1					1						1	19		
	D3-1	EB/WB	27+05.51, 54.00'LT															1				1	19		10TH AVE NW
	D3-1	NB/WB	27+05.51, 54.00'LT															1				1	19		ADVENTURELAND DR
	R4-7	SB	27+44.51, 58.54'LT				11			1						1						3	3.5		
	OM1-2	SB	27+44.51, 58.54'LT													1		1				3	3.5		AUXILLARY
	W11-2	EB	28+02.25, 40.00' RT				11				1					1						1	5		
	W16-7P	EB	28+02.25, 40.00' RT													1		1				1	5		AUXILLARY
	R4-7	EB	28+03.00, 0.00' RT				11			1						1						3	3.5		
	OM1-2	EB	28+03.00, 0.00' RT													1		1				3	3.5		AUXILLARY
	W11-2	WB	28+16.25, 40.00' LT				11				1					1						1	5		
	W16-7P	WB	28+16.25, 40.00' LT													1		1				1	5		AUXILLARY
	R8-3A		28+57.00, 51.00' LT																			1	16	A	PROPOSED LIGHT POLE
	R6-1	NB	28+65.00, 0.00' LT				8				1					1						3	3.5		
	R8-3A		29+51.00, 51.00' RT																			1	16	A	PROPOSED LIGHT POLE
	R4-7	WB	30+25.00, 0.00' LT				11			1						1						3	3.5		
	OM1-2	WB	30+25.00, 0.00' LT													1		1				3	3.5		AUXILLARY
	R2-1	WB	30+69.02, 51.00' LT													1						1	16	A	PR LIGHT POLE; 35 MPH
	R1-1	NB	30+89.44, 53.00' RT				10				1					1						1	18		
	D3-1	EB/WB	30+89.44, 53.00' RT															1				1	18		10TH AVE NW
	D3-1	NB/WB	30+89.44, 53.00' RT															1				1	18		ADVENTURELAND DR
	R4-7	EB	31+06.00, 5.50' RT				11			1						1						3	3.5		
	OM1-2	EB	31+06.00, 5.50' RT							1						1		1				3	3.5		AUXILLARY
	W16-9P	EB	31+83.99, 51.00' RT													1						1	16	A	PROPOSED LIGHT POLE
	W11-15	EB	31+83.99, 51.00' RT													1						1	16	A	PROPOSED LIGHT POLE
	W11-2	WB	31+94.59, 39.65' LT				11				1					1						1	4.65		
	W16-9P	WB	31+94.59, 39.65' LT								1					1		1				1	4.65		AUXILLARY
	R4-7	EB	33+05.95, 7.98' LT				11			1						1						3	3.5		
	OM1-2	EB	33+05.95, 7.98' LT							1						1		1				3	3.5		AUXILLARY
	R1-1	SB	33+18.38, 54.51' LT				10				1					1						1	19.5		
	D3-1	EB/WB	30+89.44, 53.00' RT															1				1	18		9TH AVE NW
	D3-1	NB/WB	30+89.44, 53.00' RT															1				1	18		ADVENTURELAND DR
	R1-1	SB	33+65.58, 53.99'RT				10				1					1						1	19		
	R4-7	EB	33+94.73, 7.49' RT				11			1						1						3	3.5		
	OM1-2	EB	33+94.73, 7.49' RT							1						1		1				3	3.5		AUXILLARY
	OM1-1	WB	34+36.52, 59.22' RT				5.5				1					1		1				1	1.5		AUXILLARY
	OM1-1	WB	34+36.52, 59.22' RT				5.5				1					1						1	1.5		
	W11-15	WB	38+14.57, 38.84' LT				11			1						1						1	4		
	W16-9P	WB	38+14.57, 38.84' LT													1		1				1	4		AUXILLARY
	R2-1	SB	102+41.00, 33.00' LT				11			1						1						1	1.5		35 MPH
	R8-3A	SB	107+80.79, 39.01' LT				14			1						1									
	R8-3A	NB	107+76.49, 19.64' RT															1							
	OM4-2	NB	108+39.89, 0.00' RT				5.5				1					1						1	1.5		
	OM4-2	NB	108+39.89, 0.00' RT				5.5				1					1						1	1.5		
	OM4-2	NB	108+39.89, 0.00' RT				5.5				1					1						1	1.5		

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	20'	T-R-S:
Technician: KSB	Date: 8/26/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet P.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIGN AND LIGHTING LAYOUT SHEETS

SNYDER & ASSOCIATES, INC.
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet P.6

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MATERIALS FOR TYPE 'A' SIGNS

TYPE A SIGNING TYPICALS	SIGN NUMBER	DIR OF TRAVEL	SIGN LOCATION STATION	WOOD POSTS NO. OF POSTS	WOOD POSTS 4 x 6 LEG 1 FT	WOOD POSTS 4 x 6 LEG 2 FT	PERFORATED SQUARE STEEL TUBE LEG 1 FT	LEG 2 FT	LEG 3 FT	ANCHOR CONC	ANCHOR SOIL	ANCHOR SLIPBASE	Steel Rect. Tube NO. OF POSTS	POST LENGTH FT	ANCHORS EACH	TYPE A SIGN MOUNTING BRACKETS ONE POST BRACKET	TWO POST	AUXILIARY	H	F	F1	INSTALLATION TYPE	DIM 'X' FT	SEE SIGNING NOTES	REMARKS
	OM4-2	NB	108+39.89, 0.00' RT				5.5				1					1						1	1.5		
	OM4-2	NB	108+39.89, 0.00' RT				5.5				1					1						1	1.5		
	R7-8	EB	34+19.20, 176.35' RT				9.25				1					1						1	4		
	R7-8P	EB	34+19.20, 176.35' RT								1							1				1	4		AUXILLARY
	R8-3A	SB	34+64.26, 92.74' RT				9				1					1						1	1.5		
	OM1-2	WB	34+36.46, 63.44' RT				5.5				1					1						1	1.5		
	OM1-2	WB	34+36.46, 63.44' RT				5.5				1					1						1	1.5		

TOTALS:

Signing Note A: Use banded clamps for installation on standard light pole.

R2-1	4	W11-2	4
R4-7	15	D3-1	8
OM1-2	17	W16-7P	2
R1-1	7	W11-15	2
R6-1	3	OM1-1	2
R8-3A	7	OM4-2	5
R14-1B	1	R7-8	1
W16-9P	4	R7-8P	1

EXISTING SIGNS TO BE REMOVED

SIGN NUMBER OR DESCRIPTION	LOCATION STATION	DIRECTION OF TRAVEL	TYPE 'A' SIGN ASSEMBLY EACH	TYPE 'B' SIGN ASSEMBLY EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'A' EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'B' EACH	CONCRETE FOUNDATION EACH	SUPPORT STRUCTURE & FOUNDATION EACH	APPLICABLE SIGNING NOTES	REMARKS
R1-1	33+24.15	SB	1							
R2-1	6+37.63	WB	1							
W4-2	5+85.10	EB	1							
R5-1	5+85.10	EB	1							
I-8	7+22.96	EB	1							
R1-1	8+51.42	SB	1							
D3-1	9+15.65	WB	1							17TH AVE NW
D3-1	9+15.65	WB	1							ADVENTURELAND DR
R1-1	9+12.16	NB	1							
W4-4P	9+12.16	EB	1							
W6-2	9+65.67	EB	1							
R3-7R	11+19.91	EB	1							
OM1-2	12+33.28	WB	1							
R4-7	12+33.28	WB	1							
CUSTOM	14+50.28	EB	1							ENGINE BRAKE
CUSTOM	16+73.45	EB	1							DART
D3-1	16+85.64	SB	1							14TH AVE NW
D3-1	16+85.64	SB	1							ADVENTURELAND DR
R1-1	17+27.61	NB	1							
R1-1	16+93.39	SB	1							
D3-1	17+24.50	NB	1							NW BLUE RIDGE PL
CUSTOM	18+00.00	WB	1							DART
W2-2	20+57.44	EB	1							
R2-1	23+20.59	EB	1							
R1-1	23+69.90	NB	1							
D3-1	23+69.90	NB	1							12TH AVE NW
D3-1	23+69.90	NB	1							ADVENTURELAND DR
R1-1	27+11.23	SB	1							
D3-1	27+85.05	NB	1							10TH AVE NW
D3-1	27+85.05	NB	1							ADVENTURELAND DR
CUSTOM	28+05.98	WB	1							DART
W14-3	29+94.34	EB	1							
CUSTOM	30+32.64	EB	1							DART
D3-1	30+40.70	SB	1							10TH AVE NW
D3-1	30+40.70	SB	1							ADVENTURELAND DR
R1-1	30+87.20	NB	1							
W6-1	31+98.07	EB	1							
R2-1	33+55.79	EB	1							
I-3	32+86.06	EB	1							
I-3	33+09.40	WB	1		1					LITTLE FOURMILE CRE
R1-1	33+24.15	SB	1							
D3-1	33+24.15	SB	1							ADVENTURELAND DR
D3-1	33+24.15	SB	1							9TH AVE NW
CUSTOM	33+55.85	EB	1							BIKE PED
R1-1	33+96.81	NB	1							
CUSTOM	33+79.12	WB	1							BIKE PED
R4-7	34+86.65	EB	1							
OM1-2	34+86.65	EB	1							

EXISTING SIGNS TO BE REINSTALLED

SIGN DESCRIPTION	DIRECTION OF TRAVEL	LOCATION STATION	NUMBER OF POSTS	SQUARE TUBE STEEL POSTS	WOOD POSTS 4" x 4" LF	WOOD POSTS 4" x 6" LF	INSTALLATION TYPE	INSTALLATION DIM 'X'	SEE SIGNING NOTES
LITTLE FOURMILE CREEK	WB	32+70.00, 39.65' LT	1	1			1	4.65	
LITTLE FOURMILE CREEK	EB	32+86.06, 39.50' RT	1	1			1	4.50	

SUMMARY OF TYPE 'A' SIGNS

Sign Number	Quantity EACH	Size IN	Total Sign Area SF
R2-1	4	30" x 36"	30.00
R4-7	15	24" x 30"	75.00
OM1-2	17	18" x 18"	38.25
R1-1	7	36" x 36"	63.00
R6-1	3	48" x 18"	18.00
R8-3A	7	18" x 24"	21.00
R14-1B	1	18" x 24"	3.00
W16-9P	4	24" x 12"	8.00
W11-2	4	36" x 36"	36.00
D3-1 (ADVENT)	4	45" x 8"	10.00
D3-1 (10TH)	2	36" x 8"	4.00
D3-1 (12TH)	1	36" x 8"	2.00
D3-1 (9TH)	1	33" x 8"	1.83
W16-7P	2	24" x 12"	4.00
W11-15	2	36" x 36"	18.00
OM1-1	2	18" x 18"	4.50
OM4-2	5	18" x 18"	11.25
R7-8	1	12" x 18"	1.50
R7-8P	1	16" x 9"	2.11

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	20'	
Technician: KSB	Date: 8/26/2026	T-R-S:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet P.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIGN AND LIGHTING LAYOUT SHEETS

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Sheet P.7

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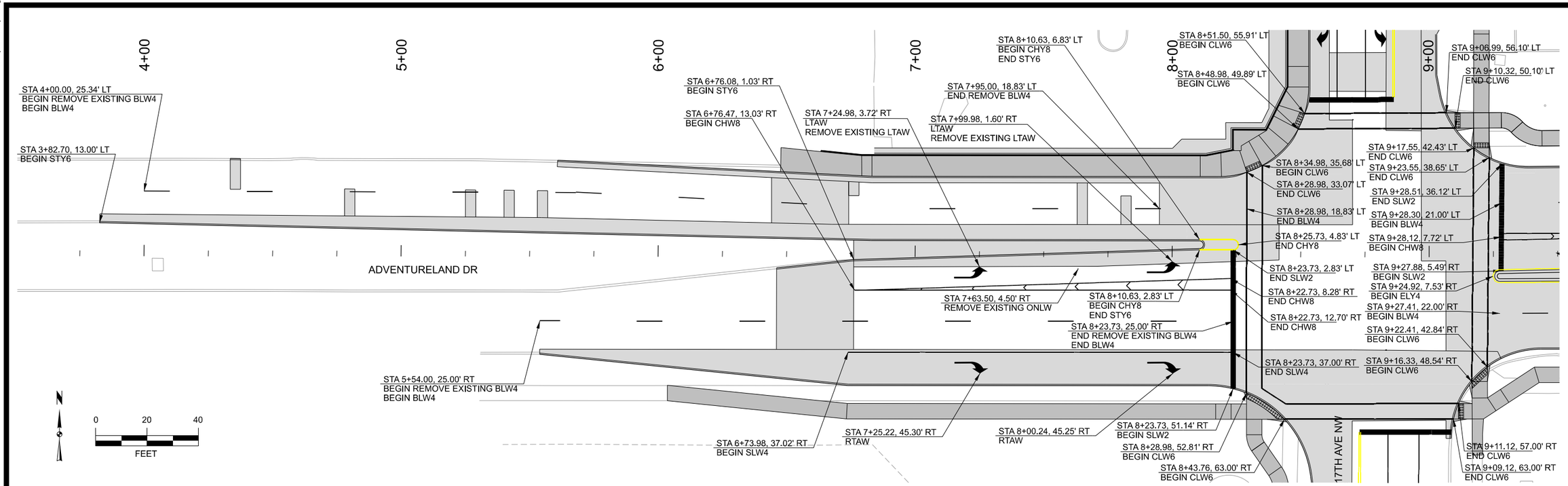

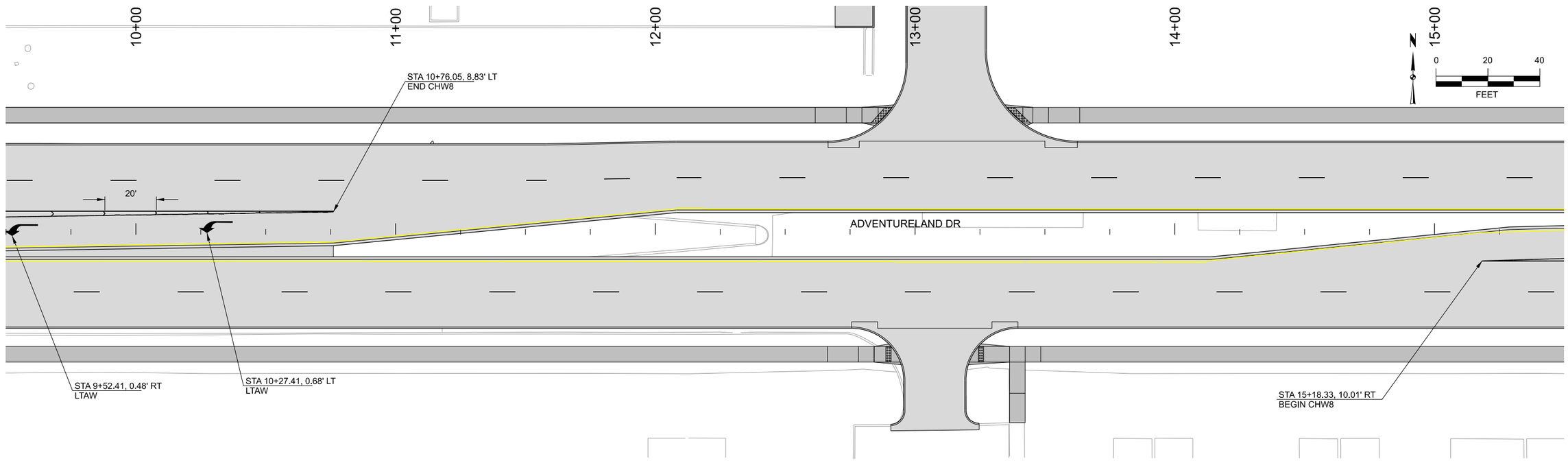

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Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026	NTS	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet PM.1

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ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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PAVEMENT MARKING LAYOUT

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Sheet PM.1

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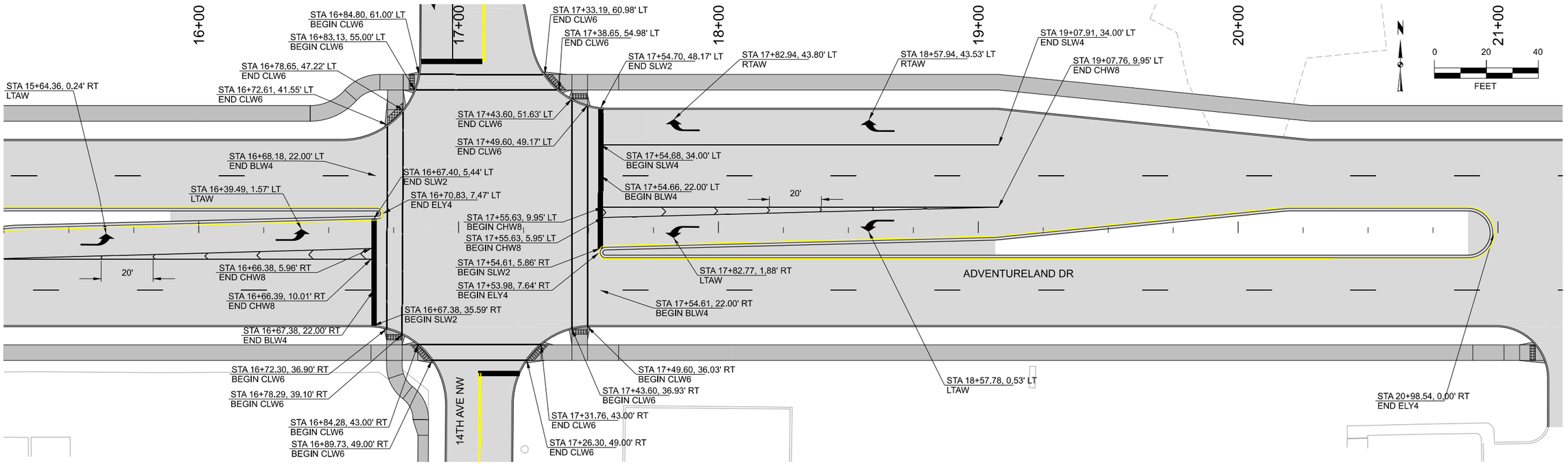

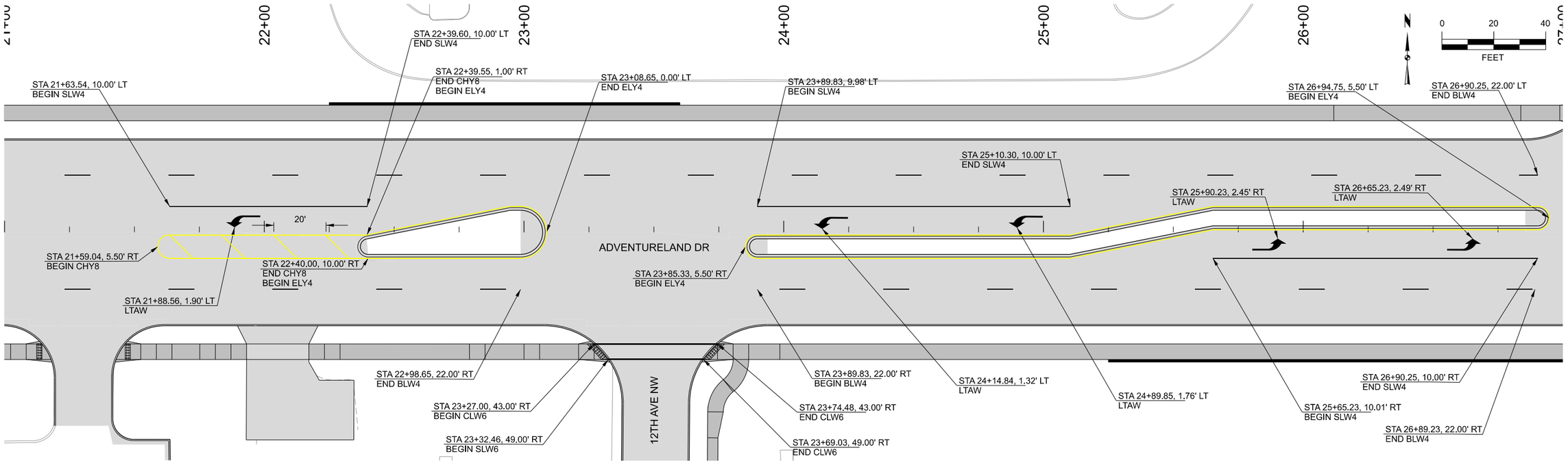

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Technician: KSB	Date: 8/17/2026	Pg:	NTS

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Project No: 1221679

Sheet PM.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet PM.2

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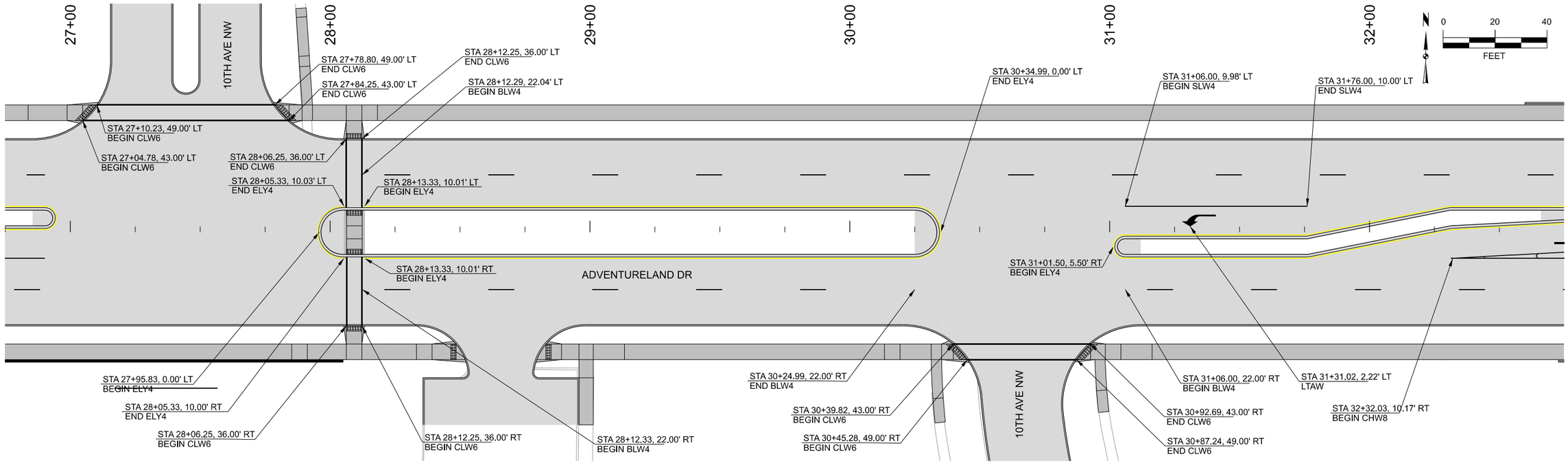

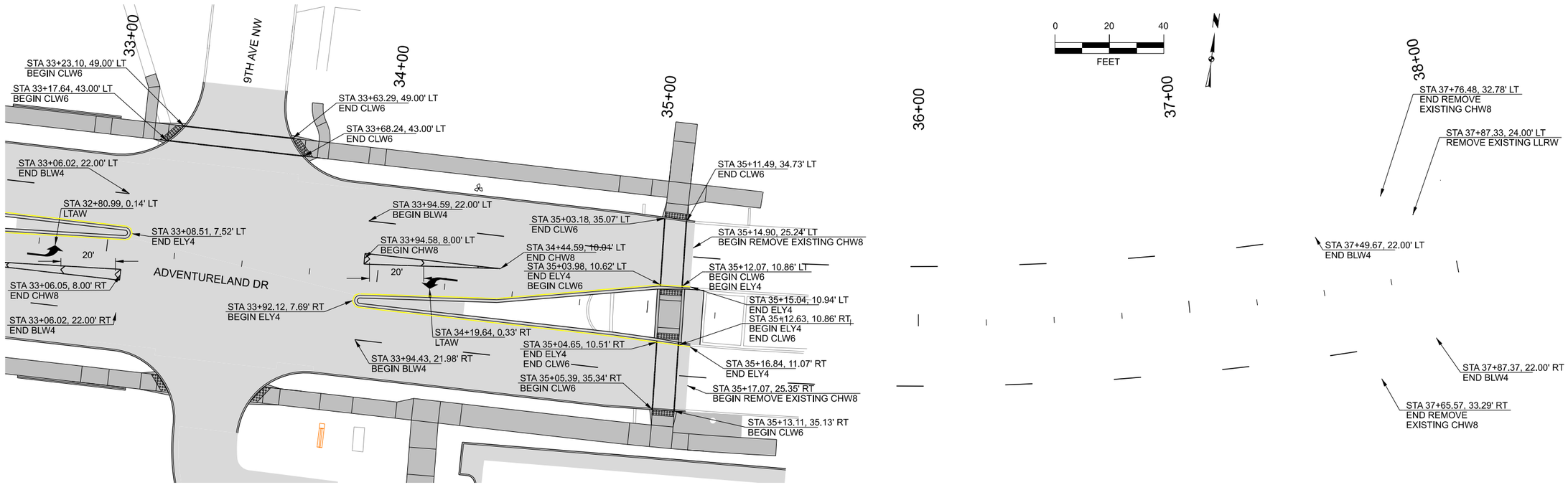

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/17/2026	Pg:	NTS

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet PM.3

DOT

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet PM.3

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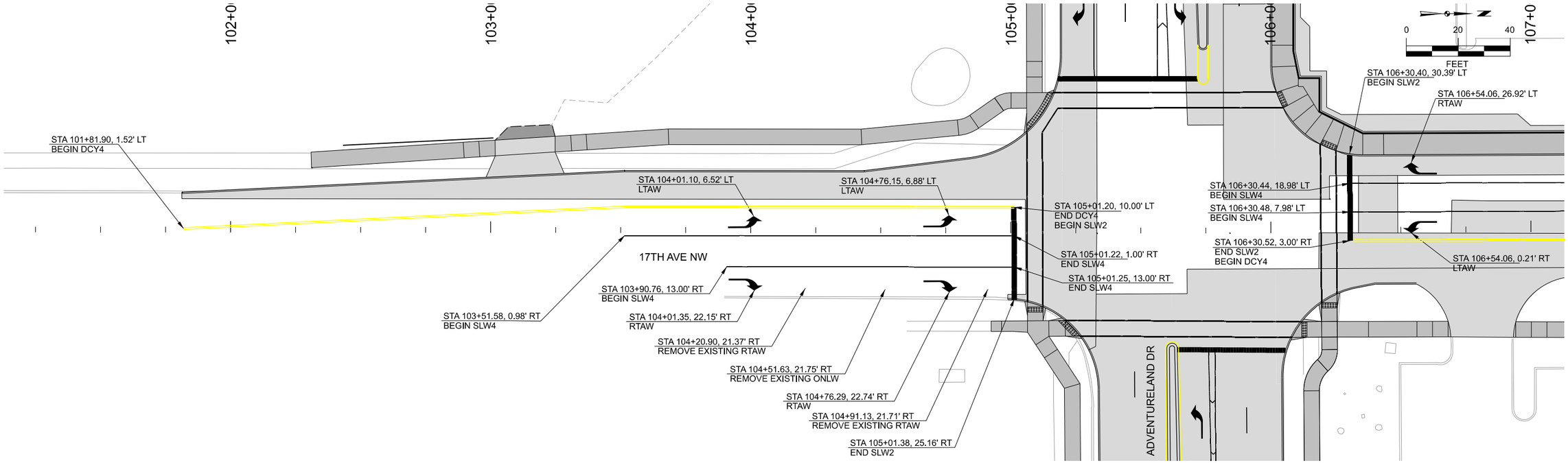

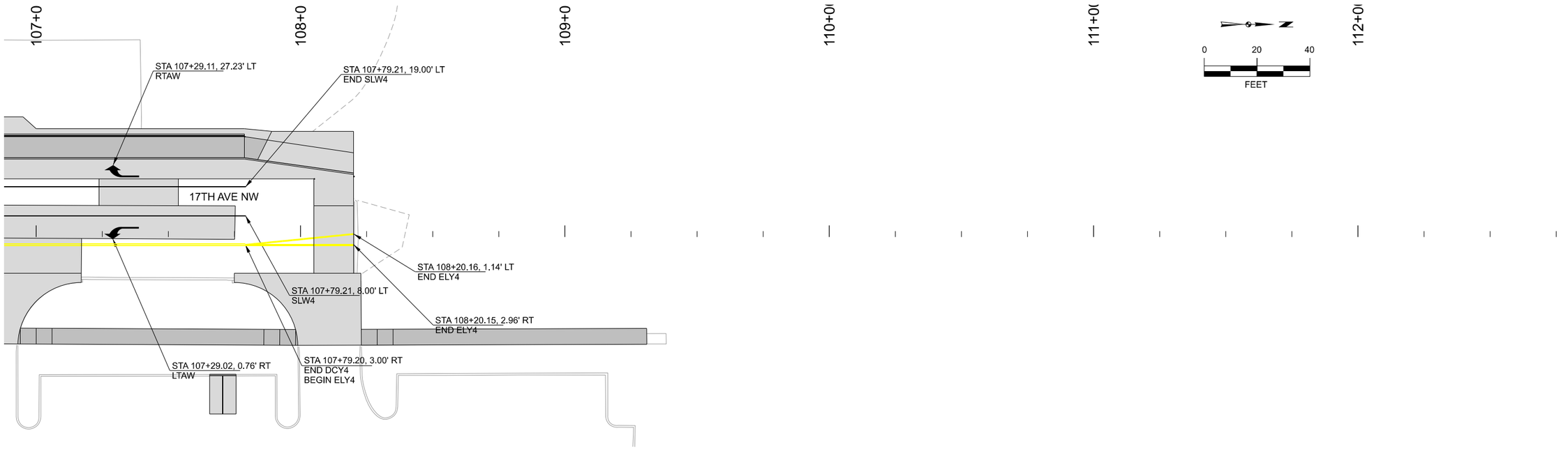

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	Engineer: LCL	Checked By: LEJ		Field Bk.:	Pg:
	Technician: KSB	Date: 8/17/2026		NTS	
	DOT STP-U-0132(628)--70-77				
	Project No: 1221679				Sheet PM.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

PAVEMENT MARKING LAYOUT

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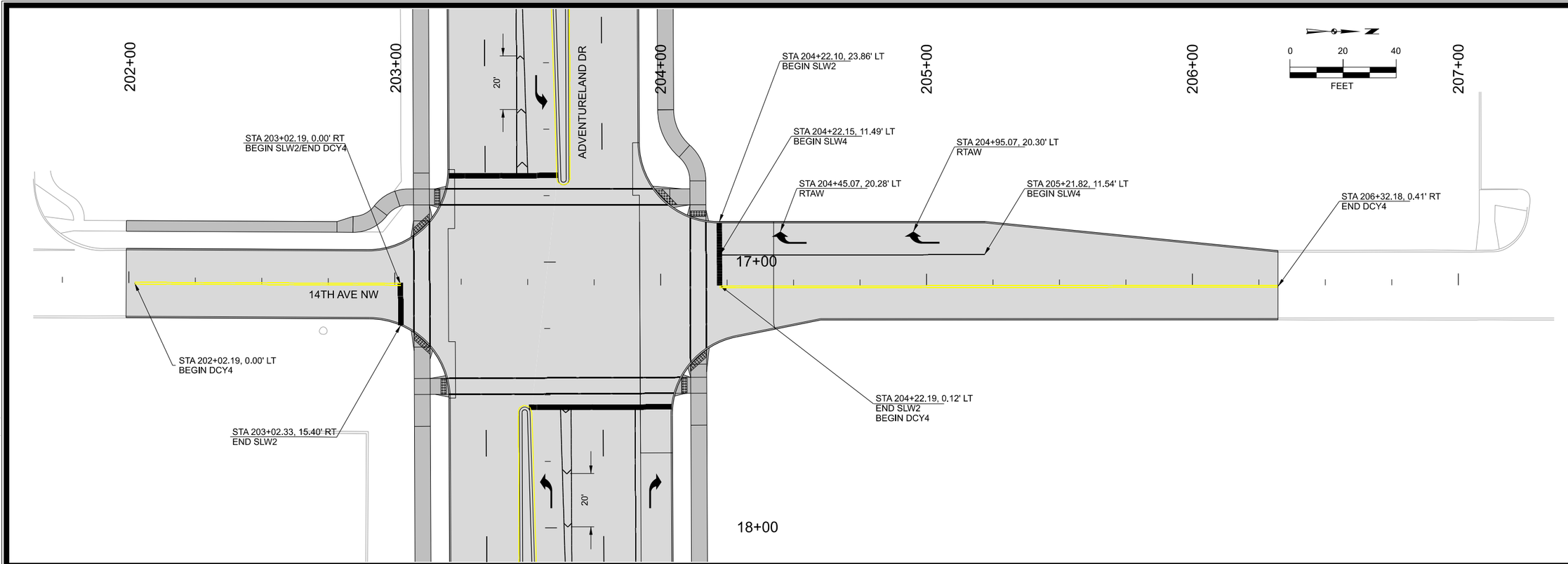

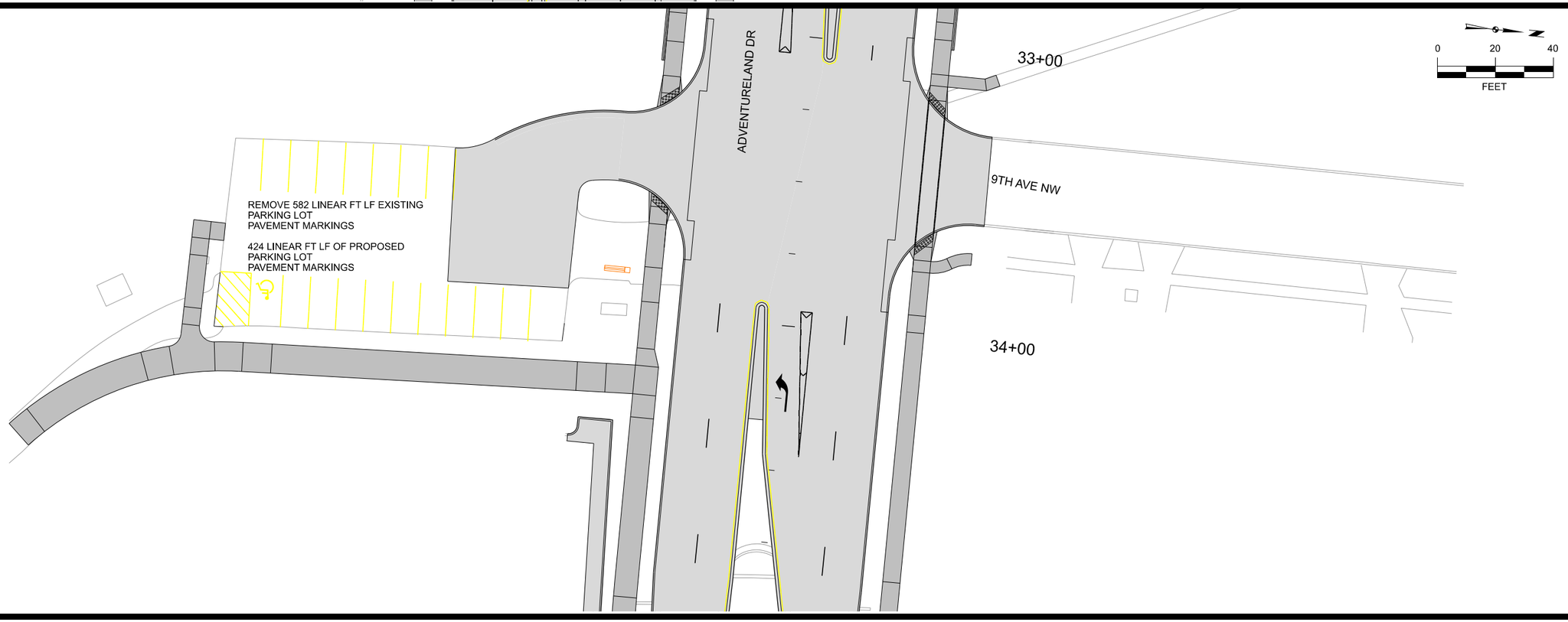

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet PM.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

PAVEMENT MARKING LAYOUT

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Sheet PM.5

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PAVEMENT MARKING LINE TYPES

ELW4: Edge Line Right (White) @ 0.67
ELY4: Edge Line Left (Yellow) @ 0.67
BLW4: Broken Lane Line (White) @ 0.17
CHY8: Channelizing Line (Yellow) @ 1.33
CHW8: Channelizing Line (White) @ 1.33
SLW2: Stop Line (White) @ 4
DCY4: Double Centerline (Yellow) @ 1.33
SLW4: Solid Lane Line (White) @ 0.67
DLW4: Dotted Line (White) @ 0.17
STY6: Standard 6" Curb (Yellow) @ 2.033
CLW6: Crosswalk Line (White) @ 2
DLY4: Dotted Line (Yellow) @ 0.17

Road ID	Location: Station to Station		Length (STA)	Dir. of Travel	Marking Type	Side: L	C	R	Length by Line Type (Unfactored): ELW4 STA	ELY4 STA	BLW4 STA	CHY8 STA	CHW8 STA	SLW2 STA	DCY4 STA	SLW4 STA	DLW4 STA	STY6 STA	CLW6 STA	DLY4 STA				Remarks
ADVENT	3+82.70	8+10.63	4.28	WB	Durable Paint	X												4.28						
	4+00.00	7+95.00	3.95	WB	Removal of Paint		X				3.95													
	4+00.00	8+28.98	4.29	WB	Durable Paint		X				4.29													
	5+54.00	8+23.73	2.70	EB	Removal of Paint		X				2.70													
	5+54.00	8+23.73	2.70	EB	Durable Paint		X				2.70													
	6+73.98	8+23.73	1.50	EB	Durable Paint	X											1.50							
	6+76.08	8+10.63	1.35	EB	Durable Paint	X													1.35					
	6+76.47	8+22.73	1.46	EB	Durable Paint								1.46											
	8+10.63	8+25.73	0.15		Durable Paint							0.15												
	8+23.73	8+23.73	0.54	EB	Durable Paint									0.54										
	8+28.98	8+28.98	0.86		Durable Paint														0.86					
	8+34.98	9+11.12	1.65		Durable Paint														1.65					
	8+43.76	9+09.12	0.65		Durable Paint														0.65					
	8+48.98	9+10.32	0.61		Durable Paint														0.61					
	8+51.50	9+06.99	0.55		Durable Paint														0.55					
	9+16.33	9+17.55	0.91		Durable Paint														0.91					
	9+22.41	9+23.55	0.82		Durable Paint														0.82					
	9+24.92	16+70.83	7.46	EB	Durable Paint	X				7.46														DIVISION 2
	9+24.92	16+70.83	7.46	WB	Durable Paint	X				7.46														DIVISION 2
	9+27.41	16+67.38	7.40	EB	Durable Paint		X				7.40													
	9+27.88	9+28.51	0.42	WB	Durable Paint									0.42										
	9+28.12	10+76.05	1.48	WB	Durable Paint								1.48											DIVISION 2
	9+28.30	16+68.18	7.40	WB	Durable Paint		X				7.40													
	15+18.33	16+66.39	1.48	EB	Durable Paint								1.48											DIVISION 2
	16+67.38	16+67.40	0.42	EB	Durable Paint									0.42										
	16+72.30	16+72.61	0.78		Durable Paint														0.78					
	16+78.29	16+78.65	0.86		Durable Paint														0.86					
	16+83.13	17+38.65	0.56		Durable Paint														0.56					
	16+84.28	17+31.76	0.47		Durable Paint														0.47					
	16+84.80	17+33.19	0.48		Durable Paint														0.48					
	16+89.73	17+26.30	0.37		Durable Paint														0.37					
	17+43.60	17+43.60	0.88		Durable Paint														0.88					
	17+49.60	17+49.60	0.85		Durable Paint														0.85					
	17+53.98	20+98.54	3.45		Durable Paint					3.45														DIVISION 2
	17+53.98	20+98.54	3.45		Durable Paint					3.45														DIVISION 2
	17+54.61	17+54.70	0.54	WB	Durable Paint									0.54										
	17+55.63	19+07.76	1.52	WB	Durable Paint								1.52											DIVISION 2
	17+54.61	22+98.65	5.44	EB	Durable Paint		X				5.44													
	17+54.66	26+90.25	9.36	WB	Durable Paint		X				9.36													
	17+54.68	19+07.91	1.53	WB	Durable Paint			X									1.53							
	21+59.04	22+40.00	0.81		Durable Paint							0.81												DIVISION 2
	21+63.54	22+39.60	0.76	WB	Durable Paint			X									0.76							DIVISION 2
	22+40.00	23+08.65	0.69	EB	Durable Paint	X				0.69														DIVISION 2
	22+40.00	23+08.65	0.69	WB	Durable Paint	X				0.69														DIVISION 2
	23+27.00	23+74.48	0.47		Durable Paint															0.47				
	23+32.46	23+69.03	0.37		Durable Paint															0.37				
	23+85.33	26+94.75	3.09	EB	Durable Paint	X				3.09														DIVISION 2
	23+85.33	26+94.75	3.09	WB	Durable Paint	X				3.09														DIVISION 2
	23+89.83	26+89.23	2.99	EB	Durable Paint		X				2.99													
	23+89.83	25+10.30	1.20	WB	Durable Paint			X									1.20							DIVISION 2
	25+65.23	26+90.25	1.25	EB	Durable Paint			X									1.25							DIVISION 2
	27+04.78	27+84.25	0.79		Durable Paint															0.79				
	27+10.23	27+78.80	0.69		Durable Paint															0.69				
	27+95.83	28+05.33	0.10	EB	Durable Paint	X				0.10														DIVISION 2
	27+95.83	28+05.33	0.10	WB	Durable Paint	X				0.10														DIVISION 2
	28+06.25	28+06.25	0.27	EB	Durable Paint															0.27				
	28+06.25	28+06.25	0.27	WB	Durable Paint															0.27				
	28+12.25	28+12.25	0.27	EB	Durable Paint															0.27				
	28+12.25	28+12.29	0.27	WB	Durable Paint															0.27				
	28+12.29	30+34.99	2.23	EB	Durable Paint	X				2.23														DIVISION 2
	28+12.33	30+34.99	2.23	WB	Durable Paint	X				2.23														DIVISION 2
	28+12.33	30+24.99	2.13	EB	Durable Paint		X				2.13													
	28+12.33	33+06.02	4.94	WB	Durable Paint		X				4.94													
	30+39.82	30+92.69	0.53		Durable Paint															0.53				
	30+45.28	30+87.24	0.42		Durable Paint															0.42				
	31+01.50	33+08.51	2.07	EB	Durable Paint	X				2.07														DIVISION 2
	31+01.50	33+08.51	2.07	WB	Durable Paint	X				2.07														DIVISION 2
	31+06.00	33+06.02	2.00	EB	Durable Paint		X				2.00													
	31+06.00	31+76.00	0.70	WB	Durable Paint			X									0.70							DIVISION 2
	32+32.03	33+06.05	0.74	EB	Durable Paint								0.74											DIVISION 2
	33+17.64	33+68.24	0.51		Durable Paint															0.51				
	33+23.10	33+63.29	0.40		Durable Paint															0.40				
	33+92.12	35+04.65	1.13	EB	Durable Paint	X				1.13														DIVISION 2
	33+92.12	35+03.98	1.12	WB	Durable Paint	X				1.12														DIVISION 2
	33+94.43	37+87.37	3.93	EB	Durable Paint		X				3.93													
	33+94.58	34+44.59	0.50	WB	Durable Paint								0.50											DIVISION 2
	33+94.59	37+49.67	3.55	WB	Durable Paint		X				3.55													
	35+03.98	35+03.18	0.25		Durable Paint															0.25				
	35+05.39	35+04.65	0.26		Durable Paint															0.26				
	35+12.07	35+11.49	0.25		Durable Paint															0.25				
	35+12.07	35+15.04	0.03	WB	Durable Paint					0.03														DIVISION 2
	35+12.63	35+19.64	0.07	EB	Durable Paint	X				0.07														DIVISION 2
	35+13.11	35+12.63	0.26		Durable Paint															0.26				
	35+14.90	37+65.57	2.51	EB	Removal of Paint								2.51											
	35+17.07	37+76.48	2.59	WB	Removal of Paint								2.59											
			0.00																					
17TH AVE	101+81.90	105+01.20	3.19		Durable Paint		X									3.19								
	103+51.58	105+01.22	1.50	NB	Durable Paint												1.50							
	103+90.76	105+01.25	1.10	NB	Durable Paint												1.10							
	105+01.20	105+01.38	0.36		Durable Paint									0.36										
	106+30.40	106+30.52	0.33		Durable Paint									0.33										
	106+30.44	107+79.21	1.49	SB	Durable Paint			X									1.49							
	106+30.48	107+79.21	1.49	SB	Durable Paint			X									1.49							

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/18/2026		T-R-S:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet PM.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

PAVEMENT MARKING SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet PM.6

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PAVEMENT MARKING LINE TYPES

ELW4: Edge Line Right (White) @ 0.67
ELY4: Edge Line Left (Yellow) @ 0.67
BLW4: Broken Lane Line (White) @ 0.17
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Location									Length by Line Type (Unfactored)															Remarks
Road ID	Station to Station		Length (STA)	Dir. of Travel	Marking Type	Side			ELW4	ELY4	BLW4	CHY8	CHW8	SLW2	DCY4	SLW4	DLW4	STY6	CLW6	DLY4				
						L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
	106+30.52	107+79.20	1.49		Durable Paint		X								1.49									
	107+79.20	108+20.16	0.41	SB	Durable Paint	X																		
	107+79.20	108+20.15	0.41	NB	Durable Paint	X																		
			0.00																					
14TH AVE	202+02.19	203+02.19	1.00		Durable Paint		X								1.00									
	203+02.19	203+02.33	0.16		Durable Paint									0.16										
	204+22.10	204+22.19	0.24		Durable Paint									0.24										
	204+22.15	205+21.82	1.00	SB	Durable Paint			X								1.00								
	204+22.19	206+32.18	2.10		Durable Paint		X								2.10									
			0.00																					
PARKING			4.24		Durable Paint					4.24														
			5.82		Removal of Paint					5.82														
			0.00																					
STAGE 2	1+01.75	2+06.19	1.04	WB	Wet Retroreflective Tape			X								1.04								
	1+01.75	3+34.90	2.33	WB	Wet Retroreflective Tape	X				2.33														
	1+57.01	3+34.90	1.78	EB	Wet Retroreflective Tape	X				1.78														
	2+06.19	2+77.75	0.72	WB	Wet Retroreflective Tape			X									0.72							
	2+77.75	3+34.90	0.57	WB	Wet Retroreflective Tape			X								0.57								
	3+34.90	8+42.42	5.08		Wet Retroreflective Tape										5.08									
	6+76.08	8+73.53	1.97	EB	Wet Retroreflective Tape			X								1.97								
	7+42.42	8+42.42	1.00	WB	Wet Retroreflective Tape		X									1.00								
	8+73.53	9+27.50	0.54	EB	Wet Retroreflective Tape		X										0.54							
	9+27.50	9+82.82	0.55	EB	Wet Retroreflective Tape		X									0.55								
	9+27.50	10+53.50	1.26	EB	Wet Retroreflective Tape		X									1.26								
	106+14.48	106+14.52	0.11		Wet Retroreflective Tape		X							0.11										
	106+14.48	107+39.47	1.25		Wet Retroreflective Tape										1.25									
	106+14.48	107+39.47	1.25	SB	Wet Retroreflective Tape			X								1.25								
	11+16.13	12+91.22	1.75		Wet Retroreflective Tape																			
	11+87.77	12+81.18	0.93		Wet Retroreflective Tape																			
	17+75.00	32+98.38	15.23	WB	Wet Retroreflective Tape			X	15.23															
	17+75.00	32+66.00	14.91		Wet Retroreflective Tape		X								14.91									
	17+75.00	35+17.04	17.42	EB	Wet Retroreflective Tape			X	17.42															
	32+66.00	34+29.19	1.63	EB	Wet Retroreflective Tape	X				1.63														
	32+66.00	35+14.93	2.49	WB	Wet Retroreflective Tape	X				2.49														
			0.00																					
STAGE 3	17+75.00	20+88.50	3.14	WB	Wet Retroreflective Tape			X	3.14															
	17+75.00	31+90.00	14.15		Wet Retroreflective Tape		X								14.15									
	17+75.00	21+09.13	3.34	EB	Wet Retroreflective Tape			X	3.34															
	31+76.32	32+88.84	1.13		Wet Retroreflective Tape			X	1.13															
	31+90.00	35+03.06	3.13	WB	Wet Retroreflective Tape	X				3.13														
	31+90.00	35+17.04	3.27	EB	Wet Retroreflective Tape	X				3.27														
	32+88.84	34+07.62	1.19	WB	Wet Retroreflective Tape			X									1.19							
	34+07.62	34+82.41	0.75	WB	Wet Retroreflective Tape			X	0.75															
STAGE 4	17+75.00	20+88.50	3.14	EB	Wet Retroreflective Tape			X	3.14															
	17+75.00	20+88.50	3.14	WB	Wet Retroreflective Tape			X	3.14															
	18+45.85	20+90.56	2.45	EB	Wet Retroreflective Tape	X				2.45														
	18+45.85	20+90.56	2.45	WB	Wet Retroreflective Tape	X				2.45														
	21+54.27	22+99.60	1.45	WB	Wet Retroreflective Tape		X						1.45											
	23+73.76	25+29.17	1.55	WB	Wet Retroreflective Tape		X						1.55											
	25+65.15	26+90.00	1.25	WB	Wet Retroreflective Tape	X				1.25														
STAGE 4B	17+75.00	20+88.50	3.14	EB	Waterborne/Solvent			X	3.14															
	17+75.00	20+88.50	3.14	WB	Waterborne/Solvent			X	3.14															
	18+45.85	20+98.75	2.53	EB	Waterborne/Solvent	X				2.53														
	18+45.85	20+98.75	2.53	WB	Waterborne/Solvent	X				2.53														
STAGE 5	1+03.06	3+36.36	2.33	EB	Wet Retroreflective Tape	X				2.33														
	1+03.06	3+34.30	2.31	EB	Wet Retroreflective Tape			X	2.31															
	3+36.36	8+57.24	5.21	WB	Wet Retroreflective Tape		X								5.21									
	6+76.08	8+58.15	1.82	WB	Wet Retroreflective Tape			X	1.82															
	7+95.56	8+57.24	0.62	EB	Wet Retroreflective Tape		X									0.62								
	7+95.56	8+61.56	0.66	EB	Wet Retroreflective Tape		X									0.66								
	8+61.56	8+95.43	0.34	NB	Wet Retroreflective Tape	X											0.34							
	8+64.63	9+30.57	0.66	EB	Wet Retroreflective Tape	X															0.66			
	8+64.63	8+84.90	0.20	SB	Wet Retroreflective Tape	X											0.20							
	8+83.43	9+33.47	0.50	SB	Wet Retroreflective Tape			X									0.50							
	100+93.17	105+19.72	4.27		Wet Retroreflective Tape										4.27									
	103+96.51	105+19.72	1.23	SB	Wet Retroreflective Tape			X	1.23															
	105+19.72	105+19.80	0.16		Wet Retroreflective Tape									0.16										
	105+19.72	106+14.51	0.95	NB	Wet Retroreflective Tape	X															0.95			
	106+14.51	106+14.63	0.28		Wet Retroreflective Tape									0.28										
	106+14.51	107+39.47	1.25		Wet Retroreflective Tape										1.25									
	106+14.51	107+39.47	1.25	SB	Wet Retroreflective Tape		X									1.25								
	9+27.48	9+82.82	0.55	EB	Wet Retroreflective Tape		X									0.55								
	9+33.47	10+53.50	1.20	EB	Wet Retroreflective Tape		X									1.20								
	11+16.13	20+88.50	9.72	WB	Wet Retroreflective Tape			X	9.72															
	11+87.77	12+81.18	0.93	EB	Wet Retroreflective Tape			X	0.93															
	12+51.67	18+45.85	5.94		Wet Retroreflective Tape		X								5.94									
	13+33.04	20+88.50	7.55	EB	Wet Retroreflective Tape			X	7.55															
	18+45.85	20+90.56	2.45	EB	Wet Retroreflective Tape	X				2.45														
	18+45.85	20+90.56	2.45	WB	Wet Retroreflective Tape	X				2.45														
	21+54.28	22+99.60	1.45	WB	Wet Retroreflective Tape		X									1.45								
	21+54.28	22+99.60	1.45	WB	Wet Retroreflective Tape		X									1.45								
	23+73.78	25+29.17	1.55	WB	Wet Retroreflective Tape		X									1.55								
	23+73.78	25+29.17	1.55	WB	Wet Retroreflective Tape		X									1.55								
	25+65.16	26+90.25	1.25	WB	Wet Retroreflective Tape	X				1.25														
			0.00																					
STAGE 6	5+50.00	8+35.00	2.85	SB	Wet Retroreflective Tape	X										2.85								
	5+50.00	8+35.00	2.85	EB	Wet Retroreflective Tape			X								2.85								
	6+64.16	7+80.00	1.16	EB	Wet Retroreflective Tape	X				1.16														
	6+76.02	7+80.00	1.04	WB	Wet Retroreflective Tape			X		1.04														
	7+80.00	8+35.00	0.55		Wet Retroreflective Tape		X								0.55									

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/18/2026		T-R-S:
DOT STP-U-0132(628)--70--77 Project No: 1221679			Sheet PM.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT
ALTOONA, IA
PAVEMENT MARKING SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679
Sheet PM.7

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PAVEMENT MARKING LINE TYPES

ELW4: Edge Line Right (White) @ 0.67
ELY4: Edge Line Left (Yellow) @ 0.67
BLW4: Broken Lane Line (White) @ 0.17
CHY8: Channelizing Line (Yellow) @ 1.33
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STY6: Standard 6" Curb (Yellow) @ 2.033
CLW6: Crosswalk Line (White) @ 2
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Road ID	Location: Station to Station		Length (STA)	Dir. of Travel	Marking Type	Side: L	Side: C	Side: R	Length by Line Type (Unfactored): ELW4 STA	ELY4 STA	BLW4 STA	CHY8 STA	CHW8 STA	SLW2 STA	DCY4 STA	SLW4 STA	DLW4 STA	STY6 STA	CLW6 STA	DLY4 STA	STA	STA	STA	Remarks
	7+80.00	8+35.00	0.55	NB	Wet Retroreflective Tape			X								0.55								
	8+35.00	9+06.46	0.71	EB	Wet Retroreflective Tape			X									0.71								
	8+35.00	8+73.04	0.48	WB	Wet Retroreflective Tape	X															0.48				
	8+35.00	8+84.58	0.63	WB	Wet Retroreflective Tape	X															0.63				
	8+73.20	9+06.41	0.45	EB	Wet Retroreflective Tape	X															0.45				
	103+51.58	105+59.27	2.08		Wet Retroreflective Tape		X								2.08										
	103+51.58	105+59.27	2.08	NB	Wet Retroreflective Tape	X										2.08									
	103+90.76	105+59.27	1.69	NB	Wet Retroreflective Tape			X								1.69									
	106+30.51	106+30.51	0.32		Wet Retroreflective Tape									0.32											
	106+30.51	107+05.45	0.75		Wet Retroreflective Tape		X								0.75										
	106+30.51	107+05.45	0.75	SB	Wet Retroreflective Tape	X										0.75									
	9+06.46	9+82.82	0.76	EB	Wet Retroreflective Tape			X	0.76																
	9+06.46	20+40.00	11.34		Wet Retroreflective Tape		X								11.34										
	10+40.13	20+88.50	10.48	WB	Wet Retroreflective Tape			X	10.48																
	11+50.00	20+98.66	9.49	EB	Wet Retroreflective Tape			X	9.49																
	20+40.00	20+88.50	0.49	WB	Wet Retroreflective Tape	X				0.49															
	20+40.00	22+28.86	1.89	EB	Wet Retroreflective Tape	X				1.89															
	20+88.50	22+99.60	2.11	WB	Wet Retroreflective Tape	X			2.11																
	21+34.13	22+28.10	0.94	EB	Wet Retroreflective Tape			X	0.94																
			0.00																						
STAGE 7	5+66.42	8+23.73	2.57	EB	Wet Retroreflective Tape	X				2.57															
	6+73.73	8+23.73	1.50	EB	Wet Retroreflective Tape			X								1.50									
	6+73.73	8+23.73	1.50	SB	Wet Retroreflective Tape	X										1.50									
	6+76.08	8+19.10	1.43	WB	Wet Retroreflective Tape	X				1.43															
	7+09.35	8+20.37	1.11	WB	Wet Retroreflective Tape			X	1.11																
	8+19.10	9+27.70	1.09	WB	Wet Retroreflective Tape			X									1.09								
	8+20.37	9+27.70	1.07	WB	Wet Retroreflective Tape		X														1.07				
	8+23.73	8+23.73	0.39		Wet Retroreflective Tape									0.39											
	8+23.73	8+65.63	0.85	NB	Wet Retroreflective Tape	X															0.85				
	105+01.20	106+14.44	1.13	NB	Wet Retroreflective Tape	X															1.13				
	106+14.44	106+14.44	0.20		Wet Retroreflective Tape									0.20											
	106+14.44	107+78.80	1.64		Wet Retroreflective Tape		X								1.64										
	9+27.70	9+27.70	0.12		Wet Retroreflective Tape																				
	9+27.70	20+88.50	11.61		Wet Retroreflective Tape		X								11.61										
	20+88.50	23+66.46	2.78	WB	Wet Retroreflective Tape	X			2.78																
	20+88.50	22+39.55	1.51	WB	Wet Retroreflective Tape			X		1.51															
																								TOTALS:	
					Division 1 Durable Unfactored Subtotal:				0.00	6.47	53.99	0.15	1.46	3.01	7.78	9.60	0.00	5.62	17.59	0.00				
					Division 1 Durable Factored Subtotal:				0.00	4.33	9.18	0.20	1.95	12.04	10.35	6.43	0.00	11.44	35.18	0.00	91.09			
					Division 1 Grooves Cut:				0.00	4.33	9.18	0.20	1.95	12.04	10.35	6.43	0.00	11.44	35.18	0.00	91.09			
					Division 1 Durable Removals:				0.00	5.82	6.65	0.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.57			
																								TOTALS:	
					Division 2 Durable Unfactored Subtotal:				0.00	38.27	2.13	0.81	5.72	0.00	0.00	3.92	0.00	0.00	0.00	0.00				
					Division 2 Durable Factored Subtotal:				0.00	25.64	0.36	1.08	7.61	0.00	0.00	2.62	0.00	0.00	0.00	0.00	37.31			
					Division 2 Grooves Cut:				0.00	25.64	0.36	1.08	7.61	0.00	0.00	2.62	0.00	0.00	0.00	0.00	37.31			
																								TOTALS:	
					Wet Retroreflective Tape Unfactored Subtotal:				98.53	39.34	0.00	0.00	3.01	1.46	80.01	31.71	5.29	0.00	0.00	6.22				
					Wet Retroreflective Tape Factored Subtotal:				66.01	26.36	0.00	0.00	4.00	5.84	106.42	21.25	0.90	0.00	0.00	1.06	231.83			
																								TOTALS:	
					Waterborne/Solvent Unfactored Subtotal:				6.27	5.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
					Waterborne/Solvent Factored Subtotal:				4.20	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.59			

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 8/18/2026		T-R-S:
	DOT STP-U-0132(628)--70--77 Project No: 12221679		Sheet PM.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

PAVEMENT MARKING SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet PM.8

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PAVEMENT MARKING SYMBOLS AND LEGENDS

Road Identification	Location: Station	Location: Side	STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	RRCW	BLSW	WCSW	WPSB	SCLW	XNGW	STPW	AHDW	ONLW	BIKW	LANW	XITW	Groove Cuts: EACH	Remarks
ADVENT	7+24.98	RT			1																				1	
	7+24.98	RT			1																					REMOVE EXISTING
	7+25.22	RT		1																	1					REMOVE EXISTING
	7+63.50	RT																			1					REMOVE EXISTING
	7+99.98	RT			1																				1	
	7+99.98	RT			1																					REMOVE EXISTING
	8+00.24	RT		1																					1	
	9+52.41	RT			1																				1	DIVISION 2
	10+27.41	LT			1																				1	DIVISION 2
	15+64.36	RT			1																				1	DIVISION 2
	16+39.49	LT			1																				1	DIVISION 2
	17+82.77	RT			1																				1	DIVISION 2
	17+82.94	LT		1																					1	
	18+57.78	LT			1																				1	DIVISION 2
	18+57.94	LT		1																					1	
	21+88.56	LT			1																				1	DIVISION 2
	24+14.84	LT			1																				1	DIVISION 2
	24+89.85	LT			1																				1	DIVISION 2
	25+90.23	RT			1																				1	DIVISION 2
	26+65.23	RT			1																				1	DIVISION 2
	31+31.02	LT			1																				1	DIVISION 2
	32+80.99	RT			1																				1	DIVISION 2
	34+19.64	RT			1																				1	DIVISION 2
	37+87.33	LT									1															REMOVE EXISTING
17TH AVENUE NW	104+01.10	LT			1																				1	
	104+01.35	RT		1																					1	
	104+20.90	RT		1																						REMOVE EXISTING
	104+51.63	RT																			1					REMOVE EXISTING
	104+76.15	RT			1																				1	
	104+76.29	RT		1																					1	
	104+91.13	RT		1																						REMOVE EXISTING
	106+54.06	LT		1																					1	
	106+54.06	RT			1																				1	
	107+29.02	RT			1																				1	
	107+29.11	LT		1																					1	
14TH AVENUE NW	204+45.07	LT		1																						
	204+95.07	LT		1																						

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	NTS	
Technician: KSB	Date: 8/18/2026	T-R-S:	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet PM.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

PAVEMENT MARKING SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet PM.9

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POLLUTION PREVENTION PLAN

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).

This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed during construction, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The Contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.

B. Contractor:
1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.
3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.
4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).
5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2.
6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.
8. Submits amended PPP site map according to Section 2602 of the Standard Specifications.

C. Subcontractors:
1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Implement good housekeeping practices according to Paragraph III, C, 2.

D. RCE/Project Engineer:
1. Is Project Storm Water Manager.
2. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
3. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
4. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
5. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.
6. Is familiar with the Project PPP and storm water site map.
7. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
8. Is signature authority on Notice of Discontinuation.
9. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).
10. Makes information to determine permit compliance available to the DNR upon their request.

E. Inspector:
1. Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.
2. Makes information to determine permit compliance available to the DNR upon their request.
3. Conducts joint required inspections of the site with the contractor/subcontractor.
4. Completes an inspection report after each inspection.
5. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of a Roadway Project.
B. This PPP covers approximately 10.6 acres with an estimated 10.6 acres being disturbed. The portion of the PPP covered by this contract has 10.6 acres disturbed.
C. The PPP is located in an area of Nicolett Loam, Webster Urban Land Complex, Clarion-Urban land complex soil association. The estimated weighted average runoff coefficient number for this PPP after completion will be 94.
D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
1. Drainage Patterns – Plan and Profile sheets and Situation plans.
2. Proposed Slopes – Cross Sections.
3. Areas of Soil Disturbance – Construction limits shown on Plan and Profile sheets.
4. Location of Structural Controls – Tabulations in C sheets.
5. Locations of Non-structural Controls – Tabulations in C sheets.
6. Locations of Stabilization Practices – Generally within construction limits shown on Plan and Profile sheets.
7. Surface Waters (including wetlands) – Project Location Map and Plan and Profile sheets.
8. Locations where Storm Water is Discharged – Plan and Profile sheets.
E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map.
F. Runoff from this work will flow into Little Fourmile Creek.

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POLLUTION PREVENTION PLAN

III. CONTROLS

A. The Contractor's ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.
B. Preserve vegetation in areas not needed for construction.
C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices
1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
a) Permanently ceased on any portion of the site, or
b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
4) Permanent and Temporary Stabilization practices to be used for this project are located in the Estimated Project Quantities (100-1C) and Estimate Reference Information (100-4A) located in the C sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets.
5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-1C) and Estimate Reference Information (100-4A) located in the C sheets. Additional information may be found in Tabulations in the C and T sheets or is referenced in Section 2105 of Standard Specifications.

b. Structural Practices
1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
2) Structural practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found in the B sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C sheets.

c. Storm Water Management
Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the Estimated Project Quantities (100-1C) and Estimate Reference Information (100-4A) located in the C sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS
Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive applicable laws, rules or regulations shall apply.
a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state.
f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
g. Concrete Grooving/Grinding Slurry – Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.
j. Dewatering – Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

3. APPROVED STATE OR LOCAL PLANS
During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES
The Contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	NTS	
Technician: KSB	Date: 8/17/2026	T-R-S:	
	DOT STP-U-0132(628)--70--77 Project No: 1221679	Sheet	R.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT
ALTOONA, IA
EROSION CONTROL PLAN SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679
Sheet R.1

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POLLUTION PREVENTION PLAN

V. INSPECTION REQUIREMENTS

A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:

1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water site inspection reports in the amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

A. Base PPP - Initial Pollution Prevention Plan.

B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.

C. Fieldbook Entries – This contains the inspector’s daily diary and bid item postings.

D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).

E. Signature Authority - Representative authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

John E. Dostart

Printed or Typed Name

Signature

Laura C. Lamberty

Printed or Typed Name

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	NTS
Technician: KSB	Date: 7/31/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet R.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EROSION CONTROL PLAN SHEETS

SNYDER & ASSOCIATES, INC.
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515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet R.2

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Prairie Meadows
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17TH AVENUE NW

ADVENTURELAND DRIVE

R/W

85 LF FILTER SOCK

85 LF FILTER SOCK

200 LF FILTER SOCK

189 LF FILTER SOCK

LEGEND:
- GRADING LIMITS
- TYPE I SEEDING AREA
- TYPE II SEEDING AREA
- TEMPORARY SEEDING AREA
- WETLAND SEEDING AREA
- RIP RAP
- RECP TYPE 2C
- SILT FENCE
- FILTER SOCK
- INLET PROTECTION DEVICE
- PROPOSED CONTOURS
- EXISTING CONTOURS

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/17/2026	T-R-S:	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet R.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

Erosion Control Plan Sheets

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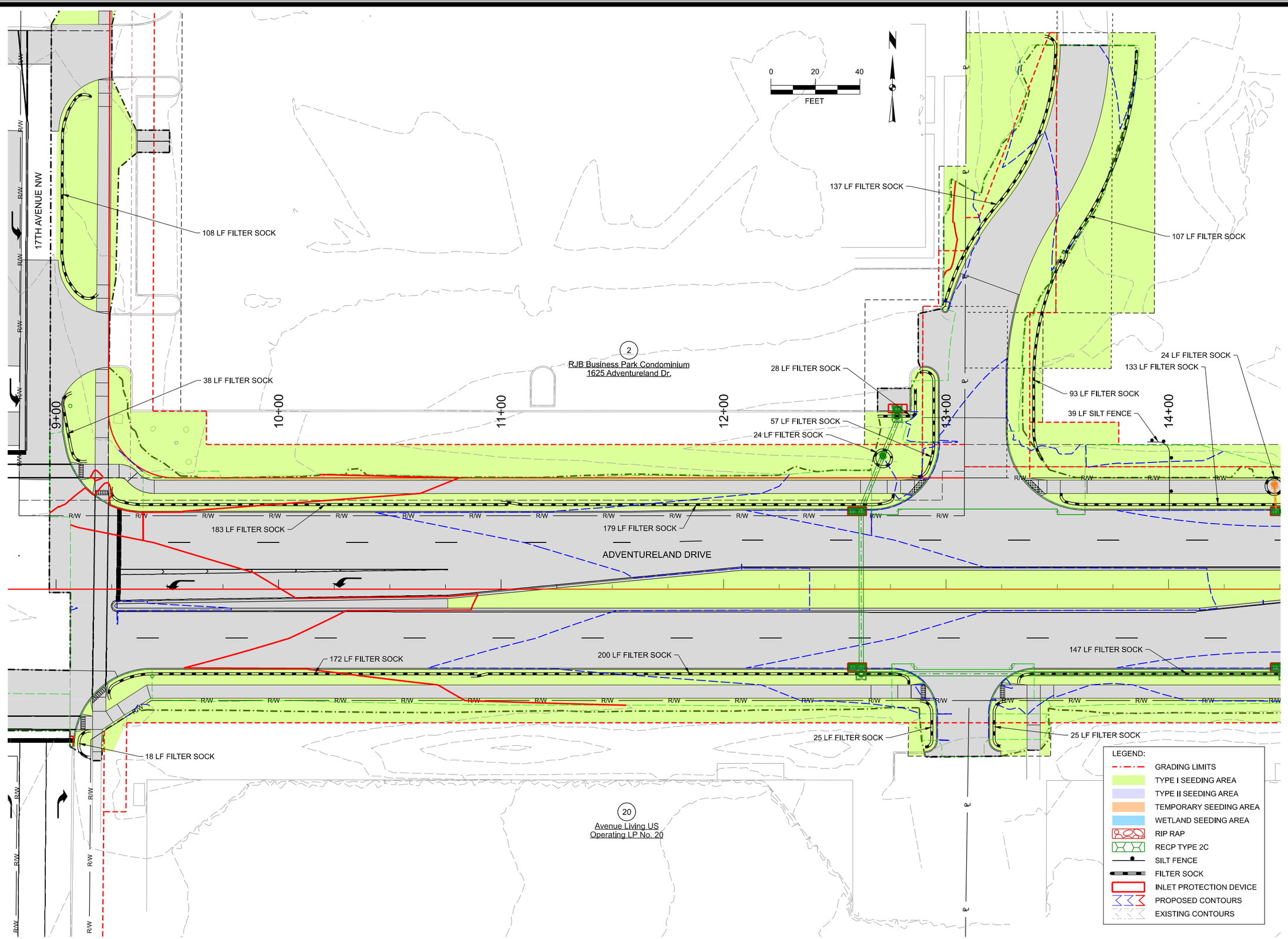
SNYDER & ASSOCIATES

Project No: 1221679

Sheet R.3



MARK	REVISION	DATE	BY
		-	

Engineer: LCL | Checked By: LEJ | T-R-S:
Technician: KSB | Date: 8/18/2026
DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet R.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

Erosion Control Plan Sheets

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Sheet R.4

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LEGEND:
- GRADING LIMITS
- TYPE I SEEDING AREA
- TYPE II SEEDING AREA
- TEMPORARY SEEDING AREA
- WETLAND SEEDING AREA
- RIP RAP
- RECP TYPE 2C
- SILT FENCE
- FILTER SOCK
- INLET PROTECTION DEVICE
- PROPOSED CONTOURS
- EXISTING CONTOURS

0 20 40
FEET

112 LF FILTER SOCK
112 LF FILTER SOCK
109 LF FILTER SOCK
109 LF FILTER SOCK
112 LF FILTER SOCK
200 LF FILTER SOCK
200 LF FILTER SOCK
22 LF SILT FENCE
112 LF FILTER SOCK
18 LF SILT FENCE
24 LF FILTER SOCK
200 LF FILTER SOCK
27 LF FILTER SOCK
200 LF FILTER SOCK
27 LF FILTER SOCK
200 LF FILTER SOCK
96 LF FILTER SOCK
116 LF FILTER SOCK
120 LF FILTER SOCK

3 Signature Ernst Land Development LLC
1545 Adventureland Dr NW

3A Avenue Living US Operating LP No. 13

4 Signature Ernst Land Development LLC
1375 Adventureland Dr NW

4 Signature Ernst Land Development LLC
1375 Adventureland Dr NW

15+00 16+00 17+00 18+00 19+00 20+00

ADVENTURELAND DRIVE

14TH AVENUE NW

19 Avenue Living US Operating LP No. 20

18 Adventureland Village Partners LLC
807 14th Ave NW

18 Adventureland Village Partners LLC
807 14th Ave NW

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/18/2026	T-R-S:	
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	R.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

Erosion Control Plan Sheets

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Project No: 1221679

Sheet R.5

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N

5 Greenway of Altoona Assoc II
1103 Greenway Ct

5 Greenway of Altoona Assoc II
1103 Greenway Ct

6 Triple Crown
Altoona Cooperative
1003 Greenway Ct

21+00 22+00 23+00 24+00 25+00

19 LF SILT FENCE
21 LF SILT FENCE
22 LF SILT FENCE
107 LF FILTER SOCK
18 LF SILT FENCE
19 LF SILT FENCE
21 LF SILT FENCE
22 LF SILT FENCE
200 LF FILTER SOCK
22 LF SILT FENCE
25 LF SILT FENCE
25 LF SILT FENCE
200 LF FILTER SOCK
29 LF SILT FENCE
25 LF SILT FENCE

90 LF FILTER SOCK
200 LF FILTER SOCK
200 LF FILTER SOCK
200 LF FILTER SOCK

ADVENTURELAND DRIVE

141 LF FILTER SOCK
43 LF FILTER SOCK
141 LF FILTER SOCK
32 LF FILTER SOCK
32 LF FILTER SOCK
104 LF FILTER SOCK
48 LF FILTER SOCK
12TH AVENUE NW
35 LF FILTER SOCK
69 LF FILTER SOCK
48 LF FILTER SOCK
200 LF FILTER SOCK
200 LF FILTER SOCK

17 Michael Kemnitzer
1206 Adventureland Dr.

16 Russell E Boos
Elizabeth J Boos
813 12th Ave NW

16A Scott Wailes
809 12th Ave NW

15 Thomas Scott Fordyce ar
Pamela Sue Fordyce Tru
806 11th Ave NW

LEGEND:
- GRADING LIMITS
- TYPE I SEEDING AREA
- TYPE II SEEDING AREA
- TEMPORARY SEEDING AREA
- WETLAND SEEDING AREA
- RIP RAP
- RECP TYPE 2C
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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/17/2026	T-R-S:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet R.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

Erosion Control Plan Sheets

ALTOONA, IA

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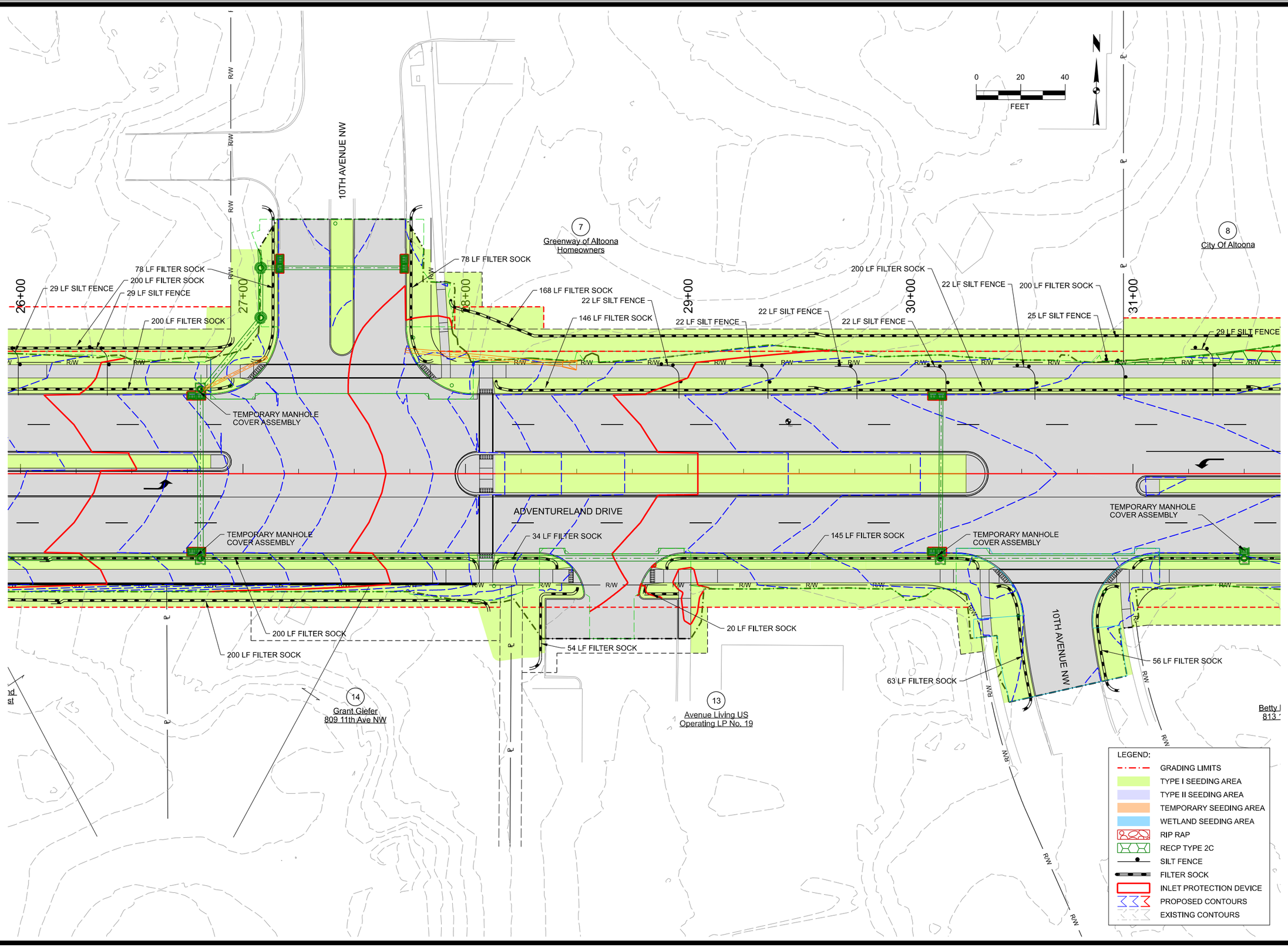
Project No: 1221679

Sheet R.6



MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/18/2026	T-R-S:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet R.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

Erosion Control Plan Sheets

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Project No: 1221679

Sheet R.7

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25 LF SILT FENCE
23 LF SILT FENCE
9
City Of Altoona
26 LF SILT FENCE
29 LF FILTER SOCK
10
Chance Clifford
Lisa Clifford
901 9th Ave NW
29 LF FILTER SOCK
10A
City Of Altoona
9TH AVENUE NW
32+00
33+00
34+00
35+00
36+00
37+00
0 20 40
FEET
PI 36+54.32
Δ 18°46'55" (LT)
T 165.39'
L 327.81'
R 1000.00'
166 LF FILTER SOCK
131 LF FILTER SOCK
ADVENTURELAND DRIVE
175 LF FILTER SOCK
138 LF FILTER SOCK
107 LF SILT FENCE
56 LF FILTER SOCK
111 LF FILTER SOCK
89 LF SILT FENCE
2
IcCormick
Ave NW
31
City Of Altoona
TRM, TYPE 2
4.5 SQ
93 LF FILTER SOCK
127 LF FILTER SOCK

LEGEND:
- GRADING LIMITS
- TYPE I SEEDING AREA
- TYPE II SEEDING AREA
- TEMPORARY SEEDING AREA
- WETLAND SEEDING AREA
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- RECP TYPE 2C
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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/17/2026	T-R-S:	
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	R.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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Sheet R.8

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100-11
4/16/2024

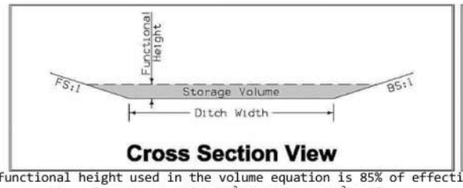
EROSION CONTROL FOR INTAKE OR MANHOLE WELL

Possible Standard Road Plan : EC-603

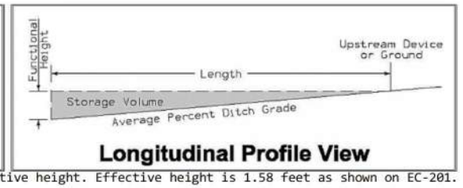
Location Station	Side	Cover Assembly Type	Quantity (EA)	Remarks
6+47.00	RT	1	1	
6+47.00	RT	1	1	
8+08.00	LT	1	1	
8+13.00	LT	1	1	
8+31.27	LT	1	1	
8+53.00	LT	1	1	
8+41.40	LT	1	1	
12+78.02	LT	1	1	
12+60.00	LT	1	1	
12+60.00	RT	1	1	
14+50.00	LT	1	1	
14+50.00	RT	1	1	
16+48.82	RT	1	1	
17+27.16	LT	1	1	
17+29.76	LT	1	1	
17+63.00	LT	1	1	
17+63.00	RT	1	1	
20+68.00	RT	1	1	
23+02.00	RT	1	1	
27+06.36	LT	1	1	
27+73.52	LT	1	1	
27+07.97	LT	1	1	
27+07.97	LT	1	1	
26+79.00	LT	1	1	
26+79.00	RT	1	1	
30+12.00	LT	1	1	
30+11.60	RT	1	1	
31+50.00	RT	1	1	
32+58.00	LT	1	1	
32+58.00	RT	1	1	
34+00.00	LT	1	1	
34+00.00	RT	1	1	
34+38.00	RT	1	1	
34+73.00	RT	1	1	
34+74.40	RT	1	1	
18+50.00	LT	1	1	
14+47.33	LT	1	1	
12+71.78	LT	1	1	

100-18

SILT FENCES FOR DITCH CHECKS



Cross Section View



Longitudinal Profile View

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H²*FS+DW*H+0.5*H²*BS)]

Basin No.	Type	Location Station	Location Side	Bid Items Installation	Bid Items Maintenance	Bid Items Removal	Stormwater Storage Volume Summary Foreslope	Backslope	Ditch Width	Avg.% Slope Ditch Grade	Volume*	Remarks
				LF	LF	LF	FS:1	BS:1	FT		CF	
1		14+04.38	Left	39	39	39	6	10	30	1	4240.8	STAGE 5
1		16+05.50	Left	23	23	23	6	4	13	0.5	4170.6	STAGE 5
2		19+18.08	Left	18	18	18	6	7.5	10	0.5	4032	STAGE 5
2		20+73.08	Left	20	20	20	6	4	9	0.5	3324.82	STAGE 5
3		21+59.02	Left	21	21	21	6	4	16.5	4	623.6	STAGE 1
3		21+99.02	Left	22	22	22	6	4	19	4	690.8	STAGE 1
3		22+39.02	Left	19	19	19	6	4	13	4	529.6	STAGE 1
3		22+79.02	Left	20	20	20	6	4	13	4	529.6	STAGE 1
3		23+19.02	Left	21	21	21	6	4	14	4	556.4	STAGE 1
3		23+59.02	Left	23	23	23	6	4	17	4	637	STAGE 1
3		23+99.02	Left	23	23	23	6	4	16	4	610.2	STAGE 1
3		24+39.02	Left	26	26	26	6	4	20	4	717.6	STAGE 1
3		24+79.02	Left	26	26	26	6	4	20	4	717.6	STAGE 1
3		25+19.02	Left	26	26	26	6	4	22	4	771.2	STAGE 1
3		25+59.02	Left	29	29	29	6	4	21	4	744.4	STAGE 1
3		25+99.02	Left	29	29	29	6	4	23	4	798.2	STAGE 1
3		26+39.02	Left	29	29	29	6	4	21	4	744.4	STAGE 1
4		28+95.95	Left	23	23	23	6	4	14	4	556.4	STAGE 1
4		29+35.95	Left	23	23	23	6	4	17	4	637	STAGE 1
4		29+75.95	Left	23	23	23	6	4	15	4	583.2	STAGE 1
4		30+15.95	Left	23	23	23	6	4	16	4	610.2	STAGE 1
4		30+55.95	Left	23	23	23	6	4	15	4	583.2	STAGE 1
4		30+95.95	Left	26	26	26	6	4	20	4	717.6	STAGE 1
4		31+35.95	Left	29	29	29	6	4	24	4	825	STAGE 1
4		31+75.95	Left	25	25	25	4		16	4	0	STAGE 1
4		32+15.95	Left	23	23	23	4		16	4	0	STAGE 1
4		32+55.95	Left	26	26	26	4		16	4	0	STAGE 1
		SUBTOTAL		658	658	658						
		ADD 50% 10C-1		329	329	329						
		TOTAL		987	987	987						

100-37
4/16/2024

GRATE INTAKE SEDIMENT FILTER BAG

Possible Standard Road Plan : EC-604

Location Station	Side	Installation (Each)	Maintenance (Each)	Removal (Each)	Remarks
6+47.00	RT	2	4	2	
8+08.00	LT	2	4	2	
8+13.00	LT	2	4	2	
8+53.00	LT	2	4	2	
8+41.40	LT	2	4	2	
12+78.02	LT	1	2	1	
12+60.00	LT	2	4	2	
12+60.00	RT	2	4	2	
14+50.00	LT	2	4	2	
14+50.00	RT	2	4	2	
17+27.16	LT	2	4	2	
17+63.00	LT	2	4	2	
17+63.00	RT	2	4	2	
23+02.00	RT	2	4	2	
27+73.52	LT	2	4	2	
26+79.00	LT	2	4	2	
26+79.00	RT	2	4	2	
30+12.00	LT	2	4	2	
30+11.60	RT	2	4	2	
31+50.00	RT	2	4	2	
32+58.00	LT	2	4	2	
32+58.00	RT	2	4	2	
34+00.00	LT	2	4	2	
34+00.00	RT	2	4	2	
34+38.00	RT	2	4	2	
	SUM	49	98	49	

100_17
8/15/2022

TABULATION OF SILT FENCES

Refer to EC-201

Station From	Station To	Side	Length (FT)	Remarks
31+82.20	32+88.00	RT	108	STAGE 1
700+50.82	702+40.78	LT	246	STAGE 1
			152	ADD 50% PER DOT 10C-1
	TOTAL		506	

100-22

ROLLED EROSION CONTROL

Location Road Identification	Begin Station	End Station	Side	L	W	Turf Reinforcement Mat (TRM) (EC-104) Type 1	Type 2	Type 3	Type 4	Slope Protection (EC-103)	Special Ditch Control (EC-101)	Remarks
				FT	FT	Squares	Squares	Squares	Squares	Squares	Squares	
ADVENTURELAND DRIVE	31+68.14	32+87.70	Right	120	VAR.					14		
ADVENTURELAND DRIVE	30+91.70	32+73.17	Left	181	VAR.					19		
ADVENTURELAND DRIVE	33+15.30	33+49.67	Right	35	13					5		PARKING LOT DRAINAGE TO CHANNEL

109-09

ROCK EROSION CONTROL

Refer to EC-301 and Detail 507-8

Line No.	Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	Rock Erosion Control Type	Engineering Fabric (SY)	Class E Revetment (TON)	Erosion Stone (TON)	Remarks
1.0	ADVENTURELAND DRIVE	32+64.21	32+86.79	Left	15	20	Type 4 - Rock Splash Basin	46	45		
2.0	ADVENTURELAND DRIVE	32+66.46	33+31.41	Right	45	60	Type 4 - Rock Splash Basin	329	326		

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	NTS	
Technician: KSB	Date: 8/18/2026	T-R-S:	
	DOT STP-U-0132(628)--70-77 Project No: 1221679	Sheet	R.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EROSION CONTROL PLAN SHEETS

SNYDER & ASSOCIATES, INC.
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ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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Project No: 1221679

Sheet R.9

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PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES

Location			Perimeter and Slope Length of Installation			Ditch Check Length of Installation		Remarks
Begin Station	End Station	Side	9 inch Dia	12 inch Dia	20 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	LF	LF	
31+00.17	32+72.02	LT	175					STAGE 1
31+50.87	33+11.90	RT	166					STAGE 1
33+71.85	35+04.10	LT	138					STAGE 1
33+74.17	35+02.17	RT	131					STAGE 1
600+50.88	600+70.81	LT	29					STAGE 1
600+51.09	600+71.14	RT	29					STAGE 1
33+65.09	34+19.27	RT	111					STAGE 1
34+36.00	34+89.28	RT	56					STAGE 1
19+68.30	21+06.60	RT	142					STAGE 2
21+53.32	21+91.36	RT	43					STAGE 2
22+18.57	23+17.41	RT	105					STAGE 2
23+83.99	28+05.42	RT	436					STAGE 2
28+13.00	28+40.99	RT	34					STAGE 2
28+90.67	30+30.23	RT	146					STAGE 2
2000+28.94	2000+57.99	LT	36					STAGE 2
2000+31.17	2000+57.90	RT	33					STAGE 2
301+51.72	302+04.93	LT	63					STAGE 2
301+51.53	302+05.28	RT	63					STAGE 2
4000+25.50	4000+62.05	LT	54					STAGE 2
4000+59.32	4000+63.27	RT	20					STAGE 2
501+25.55	501+76.79	LT	64					STAGE 2
501+24.40	501+75.09	RT	57					STAGE 2
20+17.68	26+94.96	LT	691					STAGE 3
401+46.71	402+15.55	LT	78					STAGE 3
401+46.59	402+15.55	RT	79					STAGE 3
27+91.69	31+54.22	LT	368					STAGE 3
5+49.17	8+25.83	RT	286					STAGE 5
101+79.93	103+00.12	LT	127					STAGE 5
103+26.30	105+03.73	LT	190					STAGE 5
1000+51.01	1000+96.88	LT	58					STAGE 5
1000+51.21	1002+57.99	RT	219					STAGE 5
1001+23.26	1002+59.47	LT	138					STAGE 5
9+24.43	12+83.17	RT	372					STAGE 6
900+30.24	900+50.98	LT	26					STAGE 6
900+30.64	900+50.82	RT	26					STAGE 6
13+32.72	16+71.47	RT	347					STAGE 6
201+97.11	203+05.19	LT	117					STAGE 6
201+94.79	203+05.66	RT	120					STAGE 6
17+50.16	19+71.31	RT	228					STAGE 6
106+26.81	106+57.45	RT	38					STAGE 7
107+02.03	107+90.54	RT	109					STAGE 7
9+25.02	12+76.19	LT	362					STAGE 7
12+69.24	12+86.25	LT	29					STAGE 7
13+51.83	16+70.69	LT	333					STAGE 7
204+17.82	206+30.41	LT	222					STAGE 7
204+19.16	206+30.67	RT	225					STAGE 7
17+50.41	20+20.45	LT	277					STAGE 7
			7196					
ADDITION PER DOT 10-C-1 10%			720					
	TOTAL		7920	ROUNDED PER DESIGN MANUAL				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	NTS
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet R.10

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EROSION CONTROL PLAN SHEETS

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Project No: 1221679

Sheet R.10

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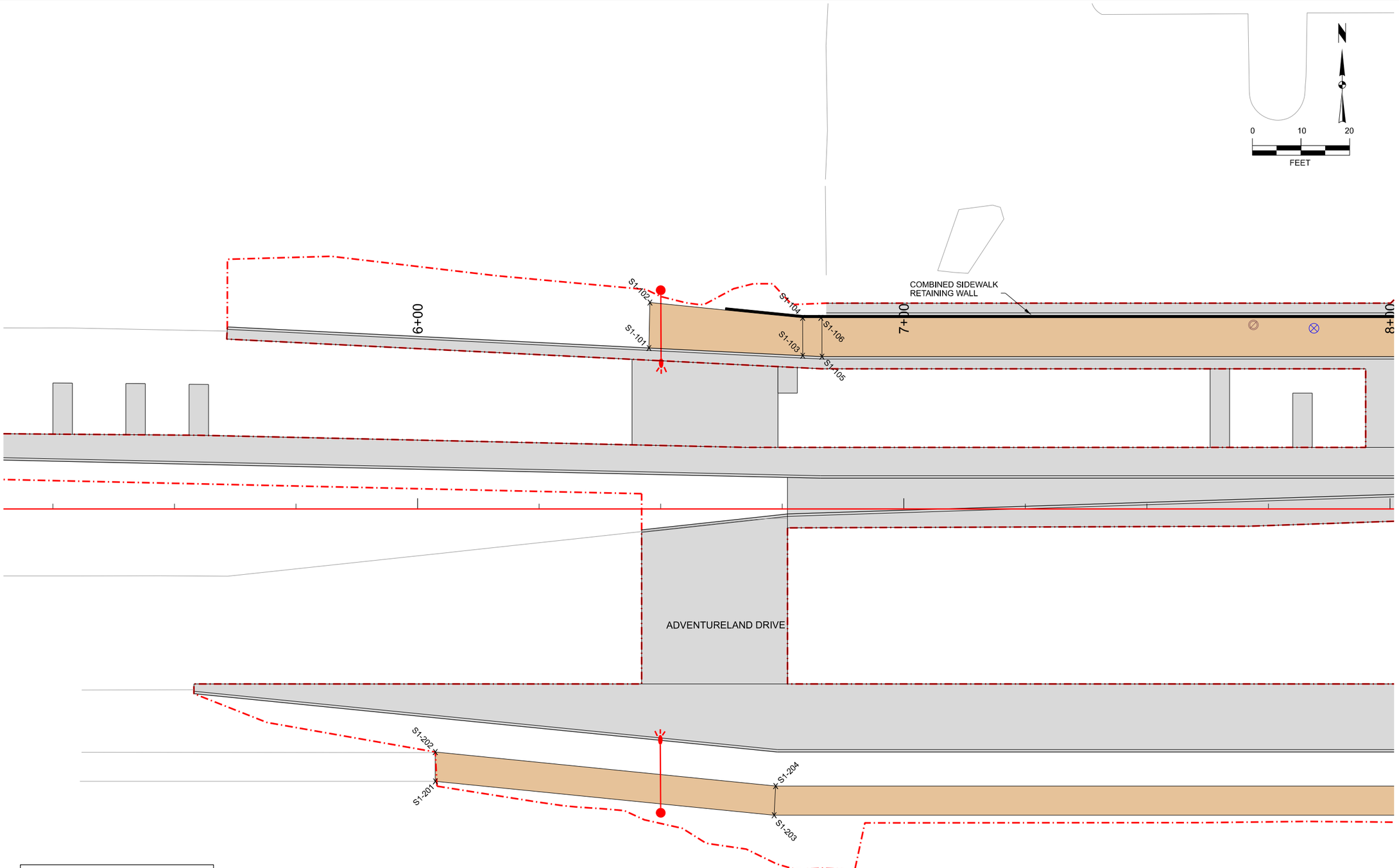

LEGEND

- SIDEWALK
- LANDING AREA
- RAMP
- DETECTABLE WARNING

NOTES:

ALL 6' WIDE OR NARROWER SIDEWALK SHALL BE 4" DEPTH

ALL SIDEWALK WIDER THAN 6' SHALL BE 5" DEPTH

ALL LANDING AND RAMP AREAS SHALL BE 6" DEPTH

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

T-R-S:

Sheet S.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
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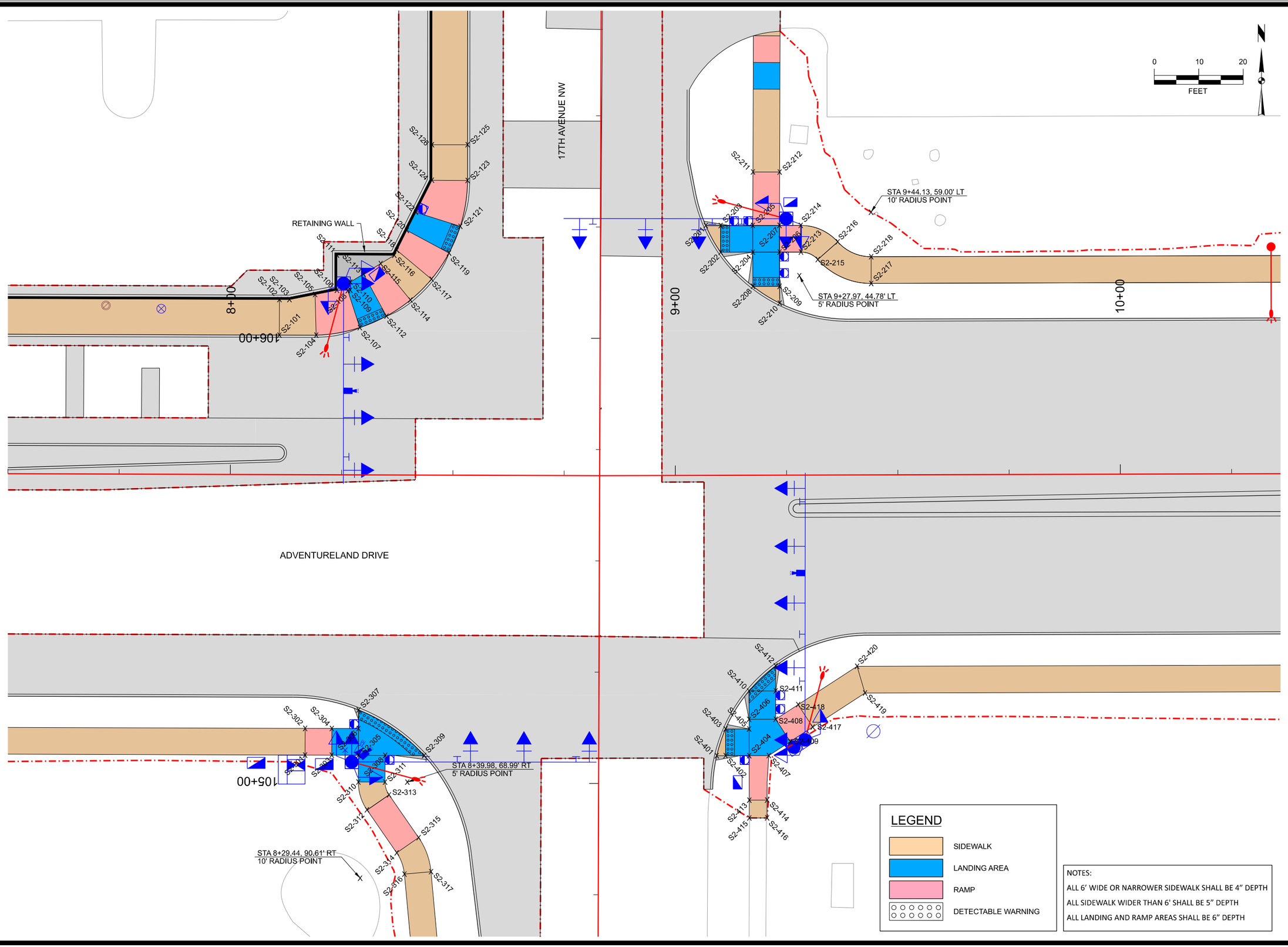
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.1



MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet S.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

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Project No: 1221679

Sheet S.2

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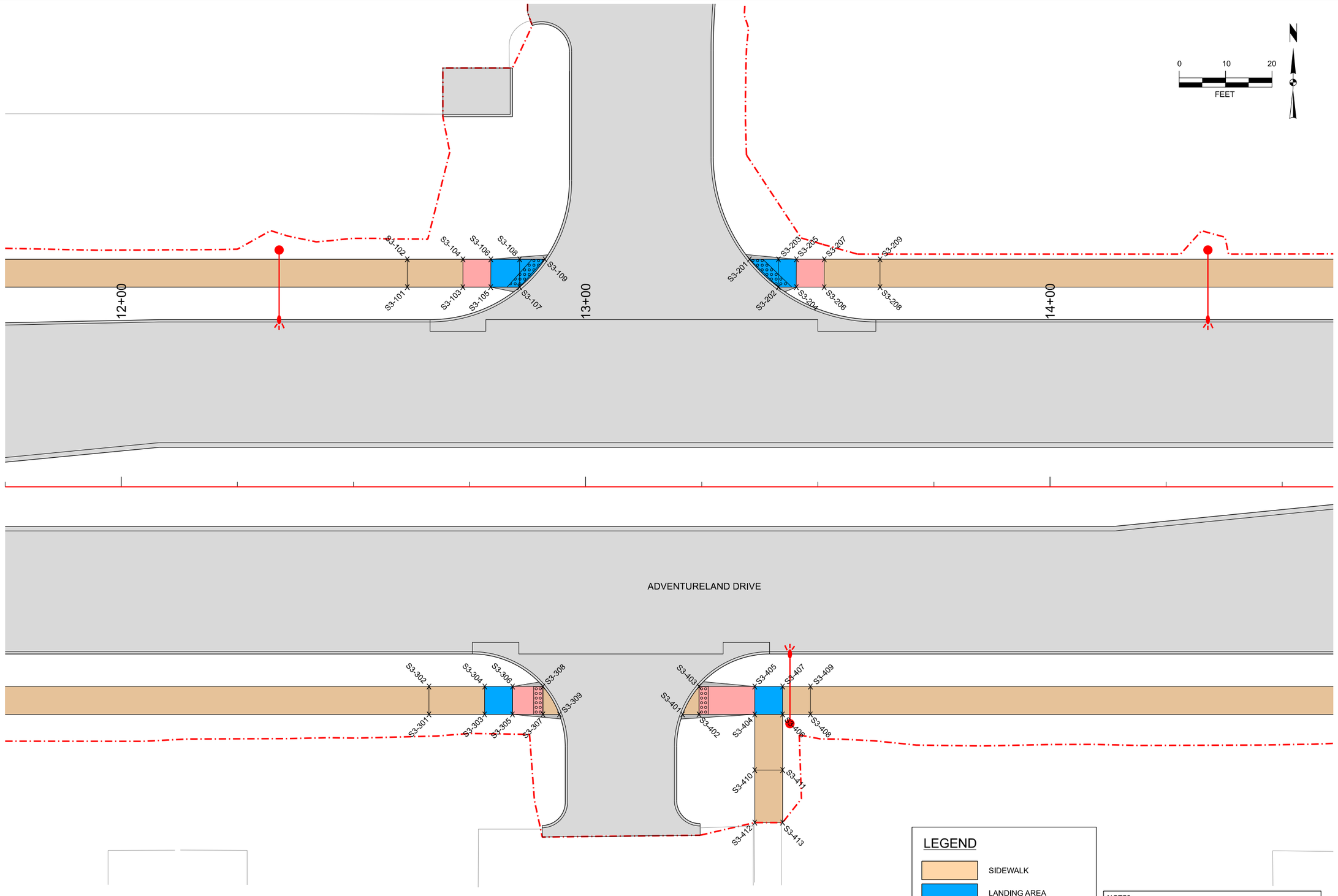

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Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	S.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

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Sheet S.3

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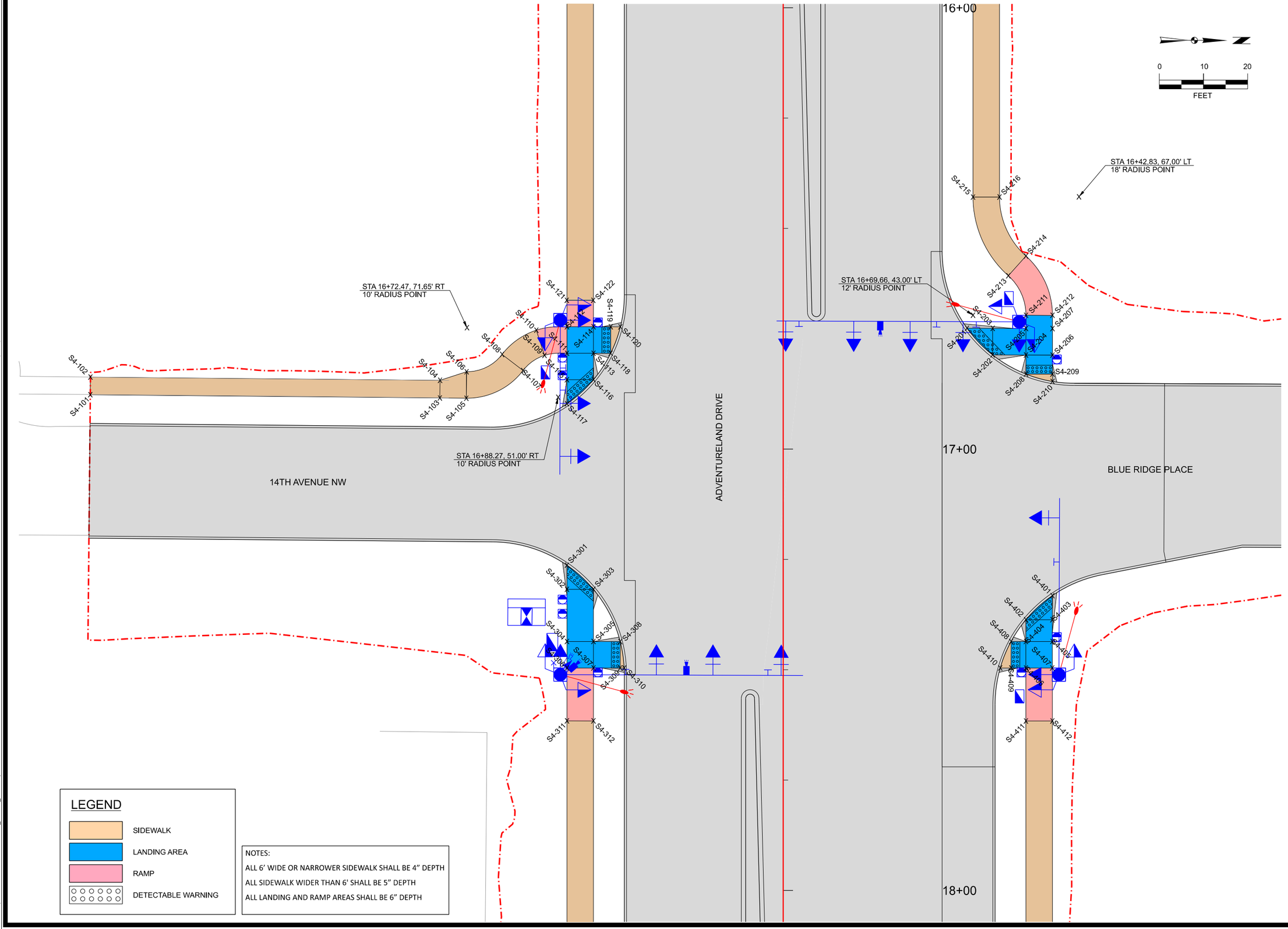

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

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ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIDEWALK SHEETS

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Project No: 1221679

Sheet S.4

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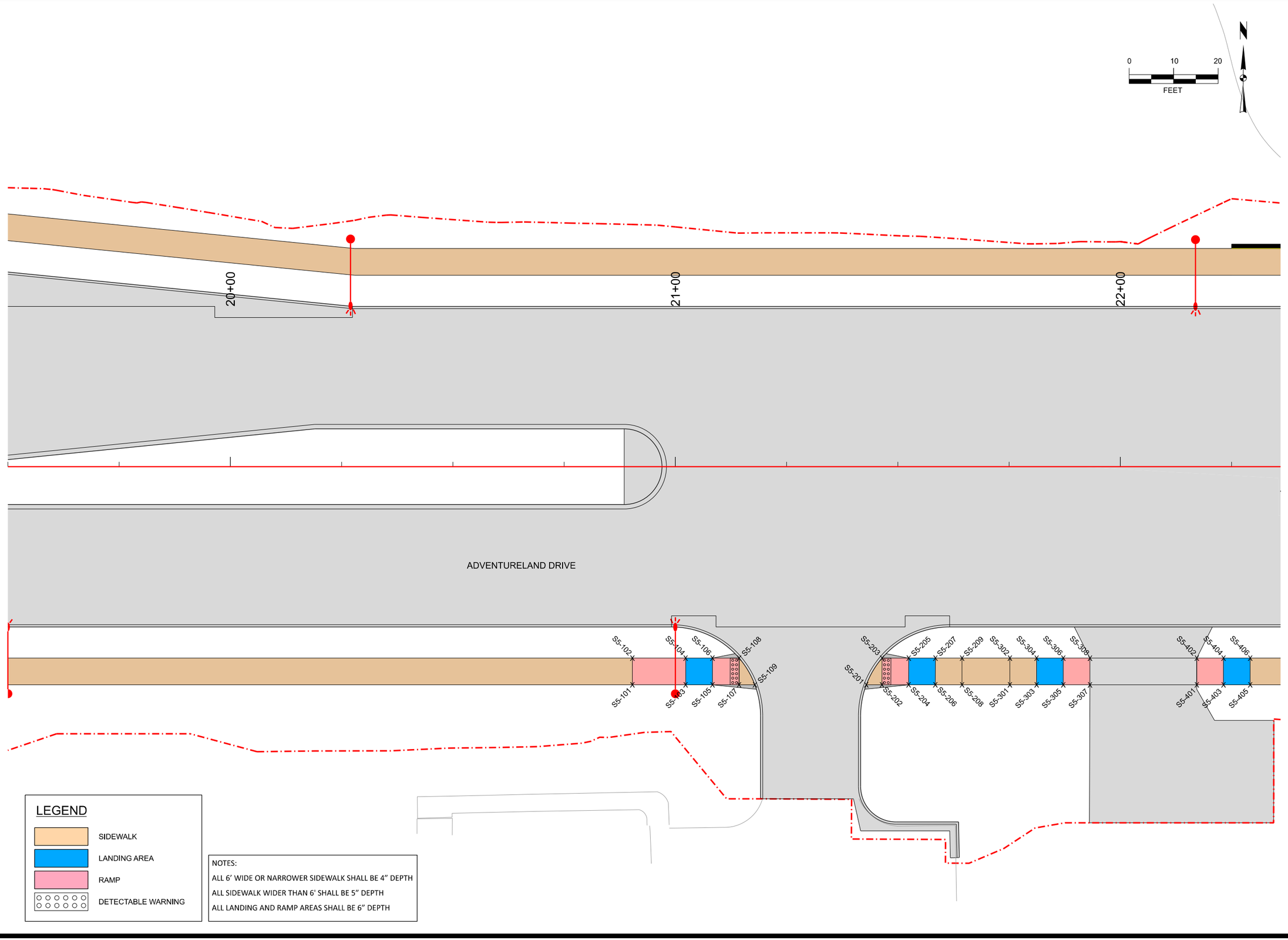

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIDEWALK SHEETS

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Project No: 1221679

Sheet S.5

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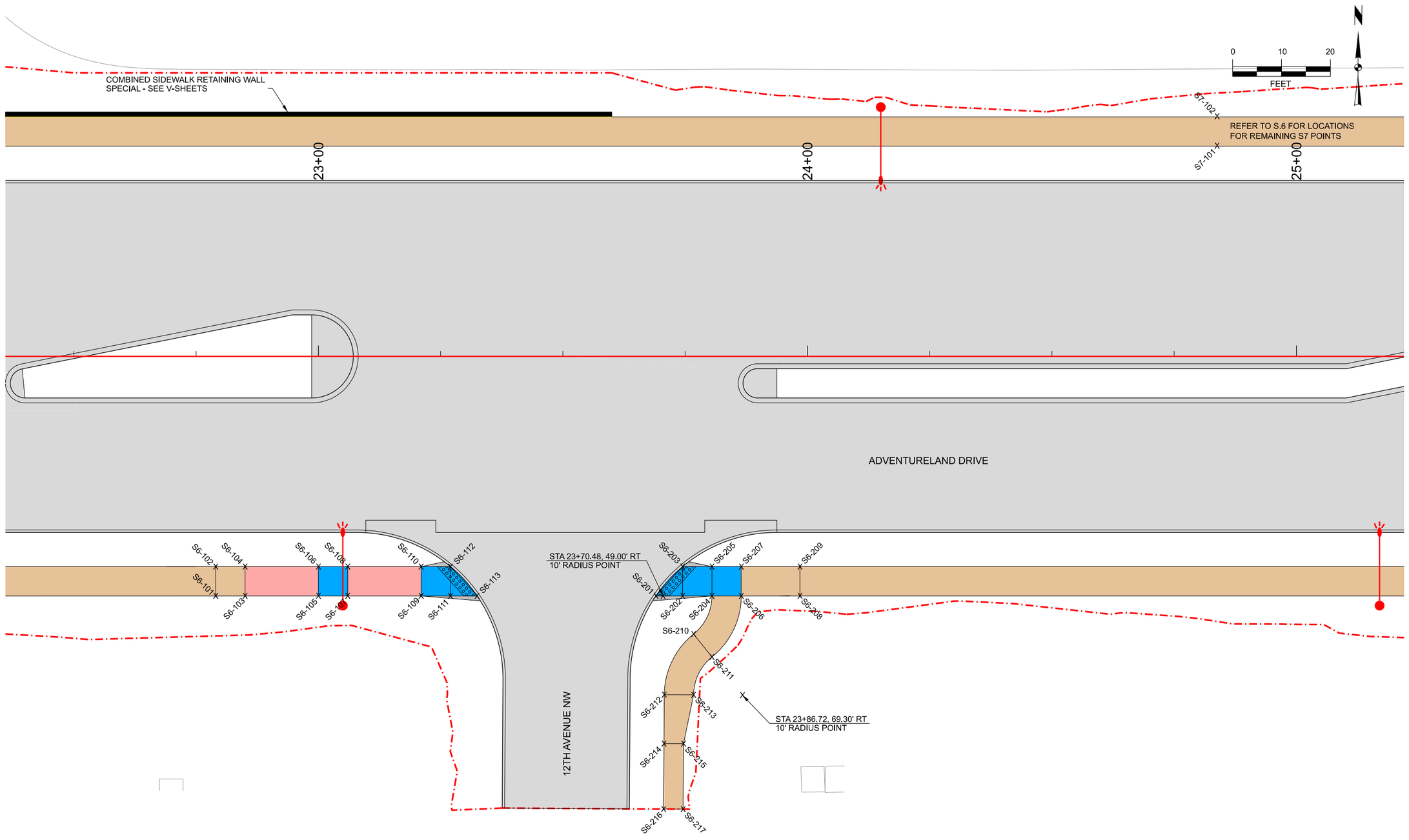

LEGEND

- SIDEWALK
- LANDING AREA
- RAMP
- DETECTABLE WARNING

NOTES:

ALL 6' WIDE OR NARROWER SIDEWALK SHALL BE 4" DEPTH

ALL SIDEWALK WIDER THAN 6' SHALL BE 5" DEPTH

ALL LANDING AND RAMP AREAS SHALL BE 6" DEPTH

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

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Project No: 1221679

Sheet S.6

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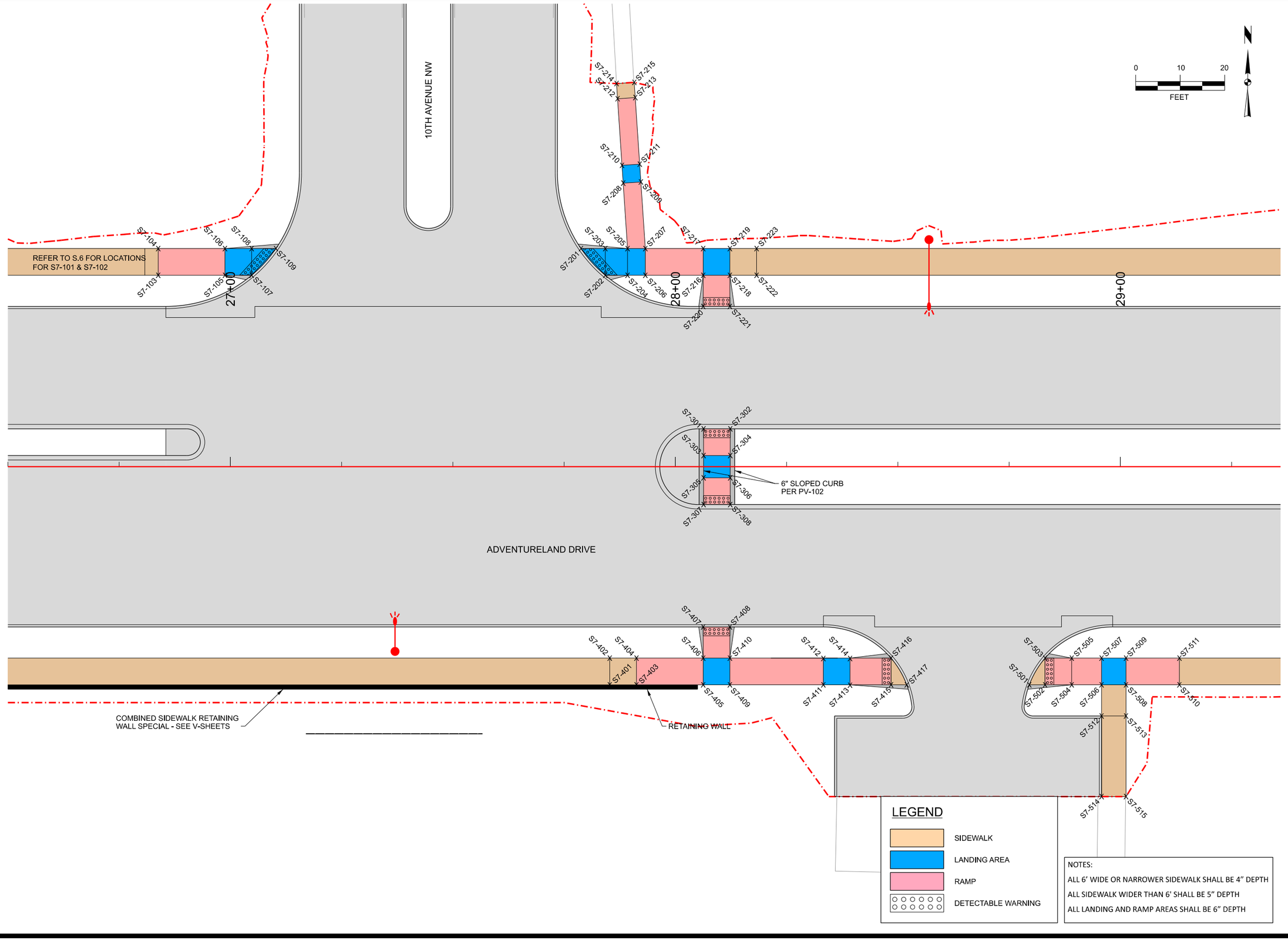

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Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		
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ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

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Sheet S.7

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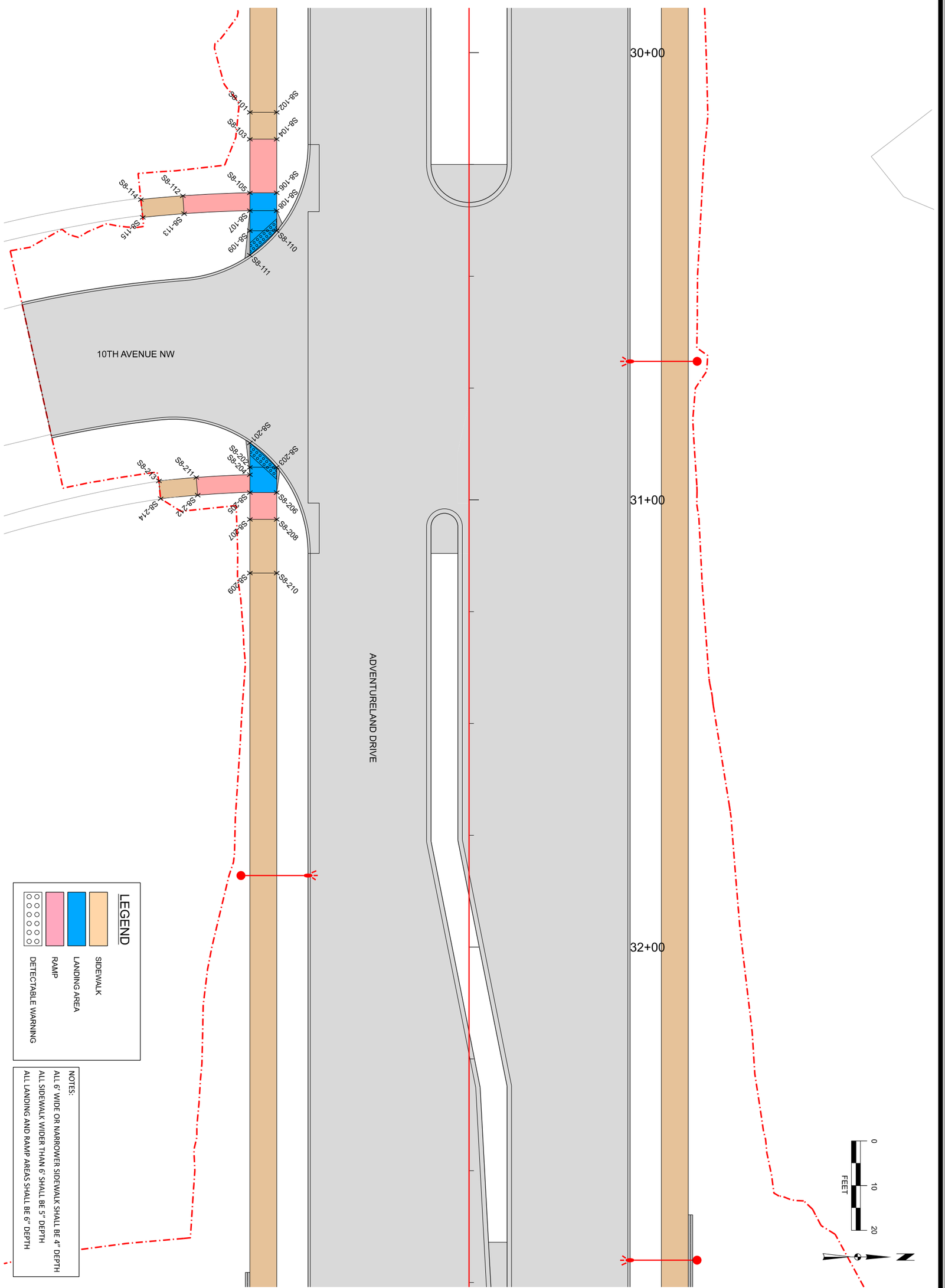

Sheet S.8

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIDEWALK SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
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MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77

Project No: 1221679

Sheet S.8

9TH AVENUE NW

ADVENTURELAND DRIVE

33+00

34+00

35+00

702+00

STA 33+63.12, 49.00' LT
10' RADIUS POINT

STA 33+85.12, 62.86' LT
12' RADIUS POINT

6" SLOPED CURB
PER PV-102

6" PCC MEDIAN CAP

0 10 20
FEET

N

S9-101 S9-102 S9-103 S9-104 S9-105 S9-106 S9-107 S9-108 S9-109 S9-110 S9-111 S9-112 S9-113 S9-114 S9-115

S9-201 S9-202 S9-203 S9-204 S9-205 S9-206 S9-207 S9-208 S9-209 S9-210 S9-211 S9-212 S9-213 S9-214 S9-215

S9-301 S9-302 S9-303 S9-304 S9-305 S9-306 S9-307 S9-308 S9-309 S9-310 S9-311 S9-312 S9-313 S9-314 S9-315 S9-316 S9-317 S9-318 S9-319

S9-401 S9-402 S9-403 S9-404 S9-405 S9-406 S9-407 S9-408

S9-501 S9-502 S9-503 S9-504 S9-505 S9-506 S9-507 S9-508 S9-509

S9-601 S9-602 S9-603 S9-604 S9-605 S9-606 S9-607 S9-608 S9-609

S9-701 S9-702 S9-703 S9-704 S9-705 S9-706 S9-707 S9-708 S9-709 S9-710 S9-711 S9-712

S9-801 S9-802 S9-803 S9-804 S9-805 S9-806 S9-807 S9-808 S9-809 S9-810 S9-811 S9-812 S9-813

LEGEND

- SIDEWALK
- LANDING AREA
- RAMP
- DETECTABLE WARNING

NOTES:
ALL 6' WIDE OR NARROWER SIDEWALK SHALL BE 4" DEPTH
ALL SIDEWALK WIDER THAN 6' SHALL BE 5" DEPTH
ALL LANDING AND RAMP AREAS SHALL BE 6" DEPTH

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIDEWALK SHEETS

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Project No: 1221679

Sheet S.9

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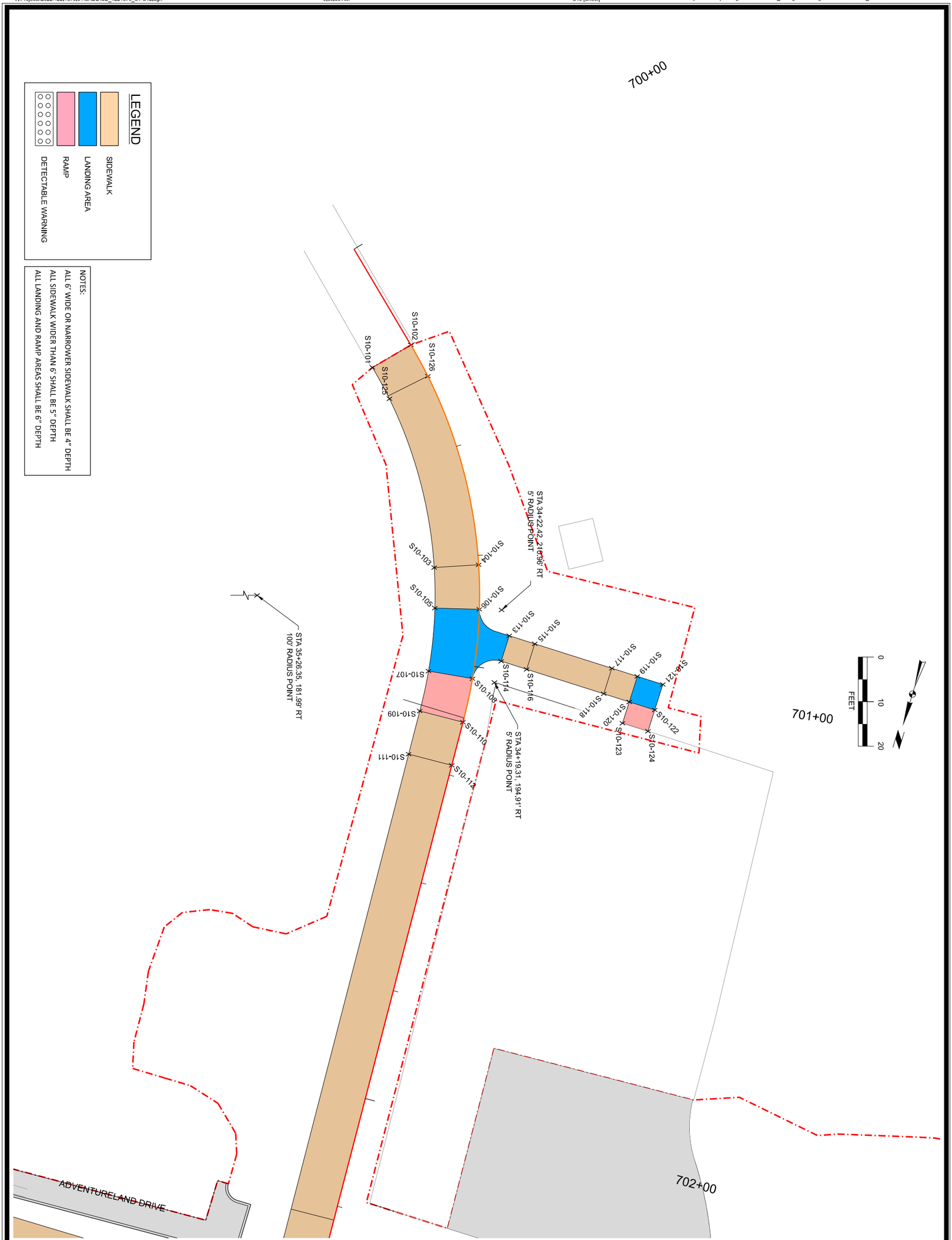

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIDEWALK SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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ANKENY, IOWA 50023
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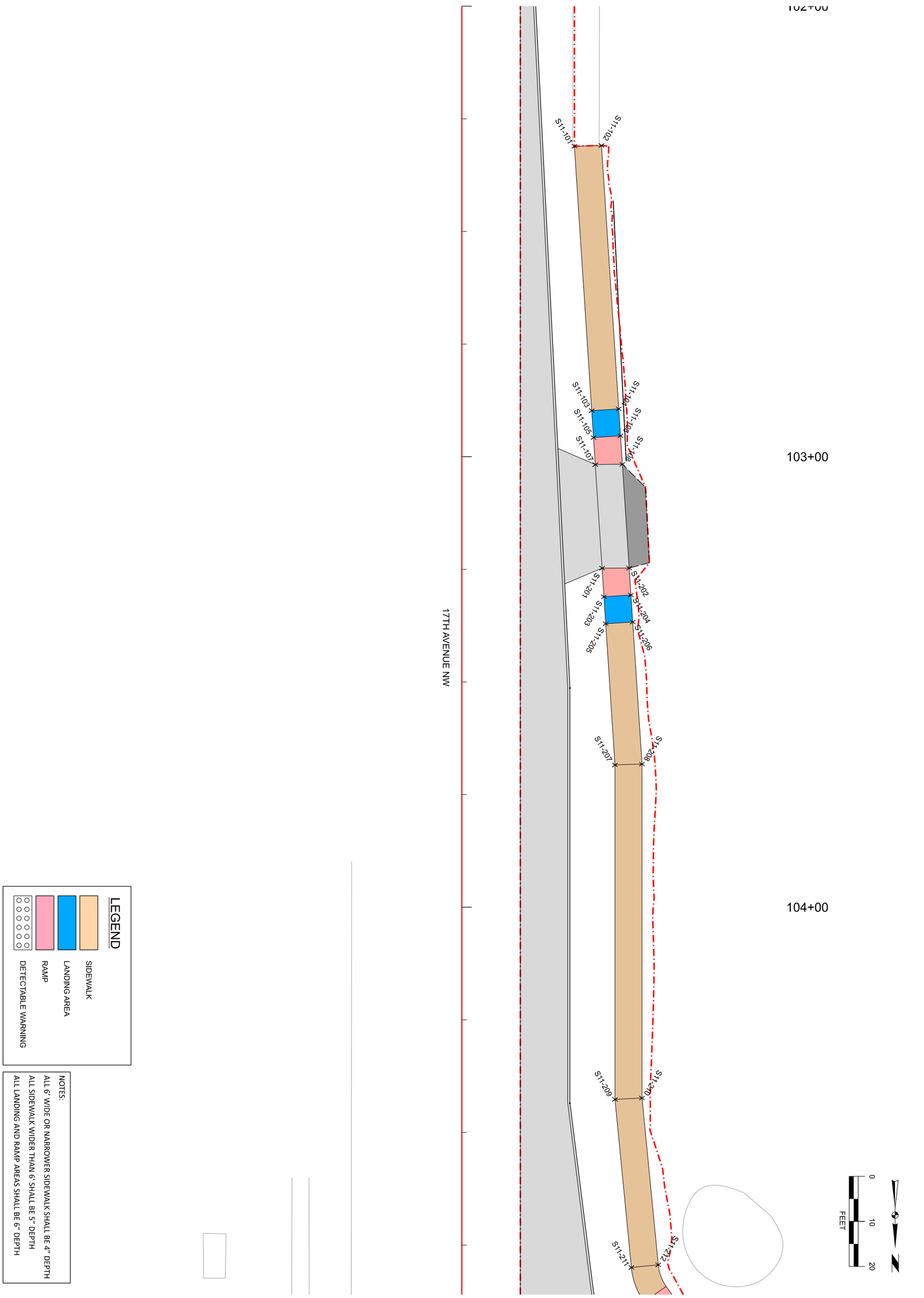
MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ
Technician: KSB | Date: 8/17/2026 | T-R-S:
DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet S.10

Sheet S.10
Project No: 1221679



Sheet S.11

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

SIDEWALK SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70-77

Project No: 1221679

Sheet S.11

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108+00

109+00

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COMBINED SIDEWALK RETAINING WALL

S12-102 S12-104 S12-106
S12-101 S12-103 S12-105

17TH AVENUE NW

S12-202 S12-204 S12-206
S12-201 S12-203 S12-205 S12-207

S12-302 S12-304 S12-306
S12-301 S12-303 S12-305 S12-307

S12-402 S12-404 S12-406
S12-401 S12-403 S12-405 S12-407

S12-502 S12-504 S12-506 S12-508
S12-501 S12-503 S12-505 S12-507

LEGEND

- SIDEWALK
- LANDING AREA
- RAMP
- DETECTABLE WARNING

NOTES:
ALL 6' WIDE OR NARROWER SIDEWALK SHALL BE 4" DEPTH
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Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.12

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

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Sheet S.12

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S1-101	S1-102	Sidewalk Cross Slope	6	9.37	0.14	1.5%	0.5% to 2%				COMBINED SIDEWALK RETAINING WALL	S1-101	6+47.58	-33.11	981.30
S1-101	S1-103	Sidewalk Running Slope	6	31.66	-0.10	-0.3%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S1-102	6+47.77	-42.48	981.44
S1-102	S1-104	Sidewalk Running Slope	6	31.57	-0.12	-0.4%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S1-103	6+79.20	-31.53	981.20
S1-103	S1-104	Sidewalk Cross Slope	6	7.80	0.12	1.5%	0.5% to 2%				COMBINED SIDEWALK RETAINING WALL	S1-104	6+79.19	-39.33	981.32
S1-103	S1-105	Sidewalk Running Slope	6	3.96	-0.01	-0.3%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S1-105	6+83.16	-31.33	981.19
S1-104	S1-106	Sidewalk Running Slope	6	3.97	-0.01	-0.3%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S1-106	6+83.16	-39.33	981.31
S1-105	S1-106	Sidewalk Cross Slope	6	8.00	0.12	1.5%	0.5% to 2%				COMBINED SIDEWALK RETAINING WALL				
S1-201	S1-202	Match Existing Cross Slope	4	6.03	-0.15	-2.5%	Match Existing				COMBINED SIDEWALK RETAINING WALL	S1-201	6+03.64	56.03	980.97
S1-201	S1-203	Sidewalk Running Slope	4	70.04	-0.22	-0.3%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S1-202	6+04.18	50.06	980.82
S1-202	S1-204	Sidewalk Running Slope	4	70.35	-0.16	-0.2%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S1-203	6+73.33	63.00	980.75
S1-203	S1-204	Sidewalk Cross Slope	4	6.01	-0.09	-1.5%	0.5% to 2%				COMBINED SIDEWALK RETAINING WALL	S1-204	6+73.63	57.00	980.66
S2-101	S2-102	Sidewalk Cross Slope	6	8.00	0.09	1.1%	0.5% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-101	8+10.90	-31.33	980.72
S2-101	S2-104	Sidewalk Running Slope	6	8.29	-0.06	-0.7%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S2-102	8+10.90	-39.33	980.81
S2-102	S2-103	Sidewalk Running Slope	6	2.24	-0.02	-0.9%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S2-103	8+13.14	-39.33	980.79
S2-103	S2-105	Sidewalk Running Slope	6	5.87	-0.04	-0.7%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S2-104	8+19.19	-31.35	980.66
S2-104	S2-105	Ramp Cross Slope	6	9.14	0.09	1.0%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-105	8+18.90	-40.49	980.75
S2-104	S2-107	Ramp Running Slope	6	9.97	-0.42	-4.2%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL	S2-106	8+23.81	-41.47	980.56
S2-105	S2-106	Ramp Running Slope	6	5.00	-0.19	-3.8%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL	S2-107	8+28.98	-33.07	980.24
S2-106	S2-108	Ramp Running Slope	6	2.42	-0.17	-7.0%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL	S2-108	8+26.23	-41.47	980.39
S2-107	S2-108	Landing/Turning Space	6	8.84	0.15	1.7%	0.1% to 2%	Yes			COMBINED SIDEWALK RETAINING WALL	S2-109	8+26.81	-41.47	980.40
S2-107	S2-112	Crosswalk Cross Slope - Yield Condition	6	6.55	-0.04	-0.6%	0% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-110	8+26.80	-43.30	980.38
S2-108	S2-109	Landing/Turning Space	6	0.58	0.01	1.7%	0.1% to 2%	Yes			COMBINED SIDEWALK RETAINING WALL	S2-111	8+23.79	-49.35	980.80
S2-109	S2-110	Landing/Turning Space	6	1.83	-0.02	-1.1%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-112	8+34.98	-35.68	980.20
S2-110	S2-113	Landing/Turning Space	6	3.49	0.01	0.3%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-113	8+29.78	-45.12	980.39
S2-112	S2-113	Landing/Turning Space	6	10.78	0.19	1.8%	0.1% to 2%	Yes			COMBINED SIDEWALK RETAINING WALL	S2-114	8+40.33	-39.31	980.36
S2-112	S2-114	Sidewalk Running Slope	6	6.48	0.16	2.5%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S2-115	8+33.62	-47.47	980.52
S2-113	S2-115	Ramp Running Slope	6	4.50	0.13	2.9%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL	S2-116	8+36.69	-49.35	980.57
S2-114	S2-115	Ramp Cross Slope	6	10.56	0.16	1.5%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-117	8+45.05	-44.02	980.40
S2-114	S2-117	Sidewalk Running Slope	6	6.68	0.04	0.6%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S2-118	8+37.25	-50.48	980.55
S2-115	S2-116	Sidewalk Running Slope	6	3.60	0.05	1.4%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S2-119	8+48.98	-49.89	980.21
S2-116	S2-118	Sidewalk Running Slope	6	1.26	-0.02	-1.6%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S2-120	8+39.48	-54.95	980.31
S2-117	S2-118	Ramp Cross Slope	6	10.13	0.15	1.5%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-121	8+51.50	-55.91	980.13
S2-117	S2-119	Ramp Running Slope	6	7.08	-0.19	-2.7%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL	S2-122	8+41.50	-59.03	980.28
S2-118	S2-120	Ramp Running Slope	6	5.00	-0.24	-4.8%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL	S2-123	8+53.09	-66.21	980.56
S2-119	S2-120	Landing/Turning Space	6	10.77	0.10	0.9%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-124	8+45.09	-66.23	980.68
S2-119	S2-121	Crosswalk Cross Slope - Yield Condition	6	6.53	-0.08	-1.2%	0% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-125	8+53.07	-74.23	980.49
S2-120	S2-122	Landing/Turning Space	6	4.55	-0.03	-0.7%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S2-126	8+45.07	-74.21	980.63
S2-121	S2-122	Landing/Turning Space	6	10.47	0.15	1.4%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL				
S2-121	S2-123	Ramp Running Slope	6	10.46	0.43	4.1%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL				
S2-122	S2-124	Ramp Running Slope	6	8.05	0.40	5.0%	0.5% to 8.3%				COMBINED SIDEWALK RETAINING WALL				
S2-123	S2-124	Ramp Cross Slope	6	8.00	0.12	1.5%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL				
S2-123	S2-125	Sidewalk Running Slope	6	8.02	-0.07	-0.9%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL				
S2-124	S2-126	Sidewalk Running Slope	6	7.98	-0.05	-0.6%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL				
S2-125	S2-126	Sidewalk Cross Slope	6	8.00	0.14	1.8%	0.5% to 2%	Yes			COMBINED SIDEWALK RETAINING WALL				
S2-201	S2-202	Crosswalk Cross Slope - Yield Condition	6	6.87	-0.08	-1.2%	0% to 2%					S2-201	9+06.99	-56.10	980.11
S2-201	S2-203	Sidewalk Running Slope	6	3.33	0.02	0.6%	0.5% to 5%					S2-202	9+10.32	-50.10	980.03
S2-202	S2-203	Landing/Turning Space	6	6.00	0.10	1.7%	0.1% to 2%	Yes				S2-203	9+10.32	-56.10	980.13
S2-202	S2-204	Landing/Turning Space	6	7.23	-0.09	-1.2%	0.1% to 2%					S2-204	9+17.55	-50.10	979.94
S2-203	S2-205	Landing/Turning Space	6	7.23	-0.10	-1.4%	0.1% to 2%					S2-205	9+17.55	-56.10	980.03
S2-204	S2-205	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-206	9+23.55	-50.10	980.03
S2-204	S2-206	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-207	9+23.55	-56.10	980.12
S2-204	S2-208	Landing/Turning Space	6	7.67	-0.11	-1.4%	0.1% to 2%					S2-208	9+17.55	-42.43	979.83
S2-205	S2-207	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-209	9+23.55	-42.43	979.92
S2-205	S2-211	Ramp Running Slope	4	12.00	0.69	5.8%	0.5% to 8.3%					S2-210	9+23.55	-38.65	979.77
S2-206	S2-207	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S2-211	9+17.62	-68.13	980.72
S2-206	S2-209	Landing/Turning Space	4	7.67	-0.11	-1.4%	0.1% to 2%					S2-212	9+23.62	-68.09	980.81
S2-206	S2-213	Ramp Running Slope	4	4.80	0.19	4.0%	0.5% to 8.3%					S2-213	9+28.35	-50.10	980.22
S2-207	S2-212	Ramp Running Slope	4	12.00	0.69	5.8%	0.5% to 8.3%					S2-214	9+28.33	-56.10	980.31
S2-207	S2-214	Ramp Running Slope	4	4.78	0.19	4.0%	0.5% to 8.3%					S2-215	9+32.14	-48.41	980.38
S2-208	S2-209	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-216	9+36.64	-52.38	980.47
S2-208	S2-210	Crosswalk Cross Slope - Yield Condition	6	7.10	-0.06	-0.8%	0% to 2%					S2-217	9+44.13	-43.00	980.59
S2-209	S2-210	Sidewalk Running Slope	6	3.78	-0.15	-4.0%	0.5% to 5%					S2-218	9+44.13	-49.00	980.68
S2-211	S2-212	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%								
S2-213	S2-214	Ramp Cross Slope	4	6.00	0.09	1.5%	0.1% to 2%								
S2-213	S2-215	Sidewalk Running Slope	4	4.28	0.16	3.7%	0.5% to 5%								
S2-214	S2-216	Sidewalk Running Slope	4	9.38	0.16	1.7%	0.5% to 5%								
S2-215	S2-216	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								
S2-215	S2-217	Sidewalk Running Slope	4	13.56	0.21	1.5%	0.5% to 5%								
S2-216	S2-218	Sidewalk Running Slope	4	8.47	0.21	2.5%	0.5% to 5%								
S2-217	S2-218	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		0'
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.13

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.13

C:\Snyder\Bentley\Configuration\Sheet\SAA_Configuration\Organization-Civil\SAA_SheetSetup.dgn [Sheet]
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113-10
04-18-17

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S2-301	S2-302	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%					S2-301	8+16.98	63.00	980.60
S2-301	S2-303	Ramp Running Slope	6	6.00	-0.46	-7.7%	0.5% to 8.3%	Yes				S2-302	8+16.98	57.00	980.51
S2-302	S2-304	Ramp Running Slope	6	6.00	-0.41	-6.8%	0.5% to 8.3%					S2-303	8+22.98	63.00	980.14
S2-303	S2-304	Landing/Turning Space	6	6.00	-0.04	-0.7%	0.1% to 2%					S2-304	8+22.98	57.00	980.10
S2-303	S2-305	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S2-305	8+28.98	63.00	980.05
S2-304	S2-306	Landing/Turning Space	6	6.00	0.04	0.7%	0.1% to 2%					S2-306	8+28.98	57.00	980.14
S2-305	S2-306	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-307	8+28.98	52.81	980.08
S2-305	S2-308	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S2-308	8+34.98	63.00	979.96
S2-305	S2-310	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-309	8+43.76	63.00	979.83
S2-306	S2-307	Landing/Turning Space	6	4.19	-0.06	-1.4%	0.1% to 2%					S2-310	8+28.98	69.00	980.14
S2-307	S2-309	Crosswalk Cross Slope - Yield Condition	6	18.11	-0.25	-1.4%	0% to 2%					S2-311	8+34.98	69.00	980.05
S2-308	S2-309	Landing/Turning Space	6	8.78	-0.13	-1.5%	0.1% to 2%					S2-312	8+30.93	75.25	980.25
S2-308	S2-311	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-313	8+35.86	71.83	980.16
S2-310	S2-311	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S2-314	8+37.65	84.89	980.59
S2-310	S2-312	Sidewalk Running Slope	4	6.65	0.11	1.7%	0.5% to 5%					S2-315	8+42.57	81.46	980.50
S2-311	S2-313	Sidewalk Running Slope	4	3.01	0.11	3.7%	0.5% to 5%								
S2-312	S2-313	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								
S2-312	S2-314	Ramp Running Slope	6	11.76	0.34	2.9%	0.5% to 8.3%								
S2-313	S2-315	Ramp Running Slope	6	11.74	0.34	2.9%	0.5% to 8.3%								
S2-314	S2-315	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%								
S2-401	S2-402	Sidewalk Running Slope	6	2.00	0.09	4.5%	0.5% to 5%	Yes				S2-401	9+09.12	63.00	979.98
S2-401	S2-403	Crosswalk Cross Slope - Yield Condition	6	6.33	0.06	0.9%	0% to 2%					S2-402	9+11.12	63.00	980.07
S2-402	S2-403	Landing/Turning Space	6	6.00	-0.03	-0.5%	0.1% to 2%					S2-403	9+11.12	57.00	980.04
S2-402	S2-404	Landing/Turning Space	6	5.29	0.09	1.7%	0.1% to 2%	Yes				S2-404	9+16.41	63.00	980.16
S2-403	S2-405	Landing/Turning Space	6	5.29	0.09	1.7%	0.1% to 2%	Yes				S2-405	9+16.41	57.00	980.13
S2-404	S2-405	Landing/Turning Space	6	6.00	-0.03	-0.5%	0.1% to 2%					S2-406	9+16.41	54.83	980.12
S2-404	S2-407	Landing/Turning Space	6	4.41	0.06	1.4%	0.1% to 2%					S2-407	9+20.82	63.00	980.22
S2-404	S2-413	Ramp Running Slope	4	10.00	0.44	4.4%	0.5% to 8.3%					S2-408	9+22.41	54.83	980.21
S2-405	S2-406	Landing/Turning Space	6	2.17	-0.01	-0.5%	0.1% to 2%					S2-409	9+25.67	59.87	980.30
S2-406	S2-408	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S2-410	9+16.41	48.47	980.10
S2-406	S2-410	Landing/Turning Space	6	6.36	-0.02	-0.3%	0.1% to 2%					S2-411	9+22.41	48.47	980.17
S2-407	S2-409	Landing/Turning Space	6	5.77	0.08	1.4%	0.1% to 2%					S2-412	9+22.41	42.84	980.15
S2-407	S2-414	Ramp Running Slope	4	10.01	0.44	4.4%	0.5% to 8.3%					S2-413	9+16.41	73.00	980.60
S2-408	S2-409	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S2-414	9+20.41	73.00	980.66
S2-408	S2-411	Landing/Turning Space	4	6.36	-0.04	-0.6%	0.1% to 2%					S2-415	9+16.41	77.00	980.70
S2-408	S2-418	Ramp Running Slope	4	6.00	0.09	1.5%	0.5% to 8.3%					S2-416	9+20.41	77.00	980.74
S2-409	S2-417	Ramp Running Slope	4	6.00	0.09	1.5%	0.5% to 8.3%					S2-417	9+30.71	56.61	980.39
S2-410	S2-411	Landing/Turning Space	6	6.00	0.07	1.2%	0.1% to 2%					S2-418	9+27.45	51.58	980.30
S2-410	S2-412	Crosswalk Cross Slope - Yield Condition	6	8.25	0.05	0.6%	0% to 2%					S2-419	9+42.49	49.00	980.96
S2-411	S2-412	Landing/Turning Space	6	5.63	-0.02	-0.4%	0.1% to 2%					S2-420	9+40.72	43.00	980.87
S2-413	S2-414	Ramp Cross Slope	4	4.00	0.06	1.5%	0.1% to 2%								
S2-413	S2-415	Sidewalk Running Slope	4	4.00	0.10	2.5%	0.5% to 5%								
S2-414	S2-416	Sidewalk Running Slope	4	4.00	0.08	2.0%	0.5% to 5%								
S2-415	S2-416	Match Existing Cross Slope	4	4.00	0.04	1.0%	Match Existing								
S2-417	S2-418	Ramp Cross Slope	4	6.00	-0.09	-1.5%	0.1% to 2%								
S2-417	S2-419	Sidewalk Running Slope	4	14.03	0.57	4.1%	0.5% to 5%	Yes							
S2-418	S2-420	Sidewalk Running Slope	4	15.80	0.57	3.6%	0.5% to 5%								
S2-419	S2-420	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								
S3-101	S3-102	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%					S3-101	12+61.58	-43.00	978.45
S3-101	S3-103	Sidewalk Running Slope	4	12.00	-0.24	-2.0%	0.5% to 5%					S3-102	12+61.58	-49.00	978.54
S3-102	S3-104	Sidewalk Running Slope	4	12.00	-0.24	-2.0%	0.5% to 5%					S3-103	12+73.58	-43.00	978.21
S3-103	S3-104	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%					S3-104	12+73.58	-49.00	978.30
S3-103	S3-105	Ramp Running Slope	6	6.00	-0.40	-6.7%	0.5% to 8.3%					S3-105	12+79.56	-43.00	977.81
S3-104	S3-106	Ramp Running Slope	6	6.00	-0.40	-6.7%	0.5% to 8.3%					S3-106	12+79.58	-49.00	977.90
S3-105	S3-106	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S3-107	12+85.77	-43.00	977.72
S3-105	S3-107	Landing/Turning Space	6	6.22	-0.09	-1.4%	0.1% to 2%					S3-108	12+85.77	-49.00	977.81
S3-106	S3-108	Landing/Turning Space	6	6.19	-0.09	-1.5%	0.1% to 2%					S3-109	12+91.23	-49.00	977.79
S3-107	S3-108	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%								
S3-107	S3-109	Crosswalk Cross Slope - No Yield Condition	6	8.14	0.07	0.9%	0% to 5%								
S3-108	S3-109	Landing/Turning Space	6	5.46	-0.02	-0.4%	0.1% to 2%								
S3-201	S3-202	Crosswalk Cross Slope - Yield Condition	6	8.67	-0.05	-0.6%	0% to 2%					S3-201	13+35.29	-49.00	977.28
S3-201	S3-203	Landing/Turning Space	6	6.22	0.04	0.6%	0.1% to 2%					S3-202	13+41.51	-43.00	977.23
S3-202	S3-203	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S3-203	13+41.51	-49.00	977.32
S3-202	S3-204	Landing/Turning Space	6	3.86	0.05	1.3%	0.1% to 2%					S3-204	13+45.37	-43.00	977.28
S3-203	S3-205	Landing/Turning Space	6	3.88	0.05	1.3%	0.1% to 2%					S3-205	13+45.39	-48.98	977.37
S3-204	S3-205	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S3-206	13+51.37	-43.00	977.63
S3-204	S3-206	Ramp Running Slope	6	6.00	0.35	5.8%	0.5% to 8.3%					S3-207	13+51.39	-49.00	977.72
S3-205	S3-207	Ramp Running Slope	6	6.00	0.35	5.8%	0.5% to 8.3%					S3-208	13+63.38	-49.00	977.84
S3-206	S3-207	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%					S3-209	13+63.38	-43.00	977.93
S3-206	S3-208	Sidewalk Running Slope	4	12.00	0.21	1.8%	0.5% to 5%								
S3-207	S3-209	Sidewalk Running Slope	4	12.00	0.21	1.8%	0.5% to 5%								
S3-208	S3-209	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	0"	
Technician: KSB	Date: 8/18/2026	Field Bk:	Pgs:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.14

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.14

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S3-301	S3-302	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%					S3-301	12+66.26	49.00	978.61
S3-301	S3-303	Sidewalk Running Slope	4	12.00	-0.39	-3.3%	0.5% to 5%					S3-302	12+66.26	43.00	978.52
S3-302	S3-304	Sidewalk Running Slope	4	12.00	-0.39	-3.3%	0.5% to 5%					S3-303	12+78.26	49.00	978.22
S3-303	S3-304	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S3-304	12+78.26	43.00	978.13
S3-303	S3-305	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S3-305	12+84.26	49.00	978.13
S3-304	S3-306	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S3-306	12+84.26	43.02	978.04
S3-305	S3-306	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S3-307	12+90.80	49.00	977.97
S3-305	S3-307	Sidewalk Running Slope	6	6.54	-0.16	-2.4%	0.5% to 5%					S3-308	12+90.80	43.00	977.86
S3-306	S3-308	Ramp Running Slope	6	6.54	-0.18	-2.8%	0.5% to 8.3%					S3-309	12+94.34	49.00	977.95
S3-307	S3-308	Ramp Cross Slope	6	6.00	-0.11	-1.8%	0.1% to 2%	Yes							
S3-307	S3-309	Sidewalk Running Slope	6	3.54	-0.02	-0.6%	0.5% to 5%								
S3-308	S3-309	Crosswalk Cross Slope - Yield Condition	6	7.00	0.09	1.3%	0% to 2%								
S3-401	S3-402	Sidewalk Running Slope	6	3.54	-0.03	-0.8%	0.5% to 5%					S3-401	13+20.87	49.00	977.78
S3-401	S3-403	Crosswalk Cross Slope - Yield Condition	6	7.00	-0.11	-1.6%	0% to 2%					S3-402	13+24.41	49.00	977.75
S3-402	S3-403	Ramp Cross Slope	6	6.00	-0.08	-1.3%	0.1% to 2%					S3-403	13+24.41	43.00	977.67
S3-402	S3-404	Ramp Running Slope	6	12.00	0.13	1.1%	0.5% to 8.3%					S3-404	13+36.41	49.00	977.88
S3-403	S3-405	Ramp Running Slope	6	12.00	0.12	1.0%	0.5% to 8.3%					S3-405	13+36.41	43.00	977.79
S3-404	S3-405	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S3-406	13+42.41	49.00	977.97
S3-404	S3-406	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S3-407	13+42.41	43.00	977.88
S3-404	S3-410	Sidewalk Running Slope	4	12.00	0.19	1.6%	0.5% to 5%					S3-408	13+48.41	49.00	978.02
S3-405	S3-407	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S3-409	13+48.41	43.00	977.93
S3-406	S3-407	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S3-410	13+36.41	61.00	978.07
S3-406	S3-408	Sidewalk Running Slope	4	6.00	0.05	0.8%	0.5% to 5%					S3-411	13+42.41	61.00	978.13
S3-406	S3-411	Sidewalk Running Slope	4	12.00	0.16	1.3%	0.5% to 5%					S3-412	13+36.41	72.30	977.99
S3-407	S3-409	Sidewalk Running Slope	4	6.00	0.05	0.8%	0.5% to 5%					S3-413	13+42.41	72.30	977.95
S3-408	S3-409	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								
S3-410	S3-411	Sidewalk Cross Slope	4	6.00	0.06	1.0%	0.5% to 2%								
S3-410	S3-412	Sidewalk Running Slope	4	11.30	-0.08	-0.7%	0.5% to 5%								
S3-411	S3-413	Sidewalk Running Slope	4	11.30	-0.18	-1.6%	0.5% to 5%								
S3-412	S3-413	Match Existing Cross Slope	4	6.00	-0.04	-0.7%	Match Existing								
S4-101	S4-102	Match Existing Cross Slope	4	4.00	0.04	1.0%	Match Existing					S4-101	16+87.68	157.01	974.51
S4-101	S4-103	Sidewalk Running Slope	4	79.21	3.02	3.8%	0.5% to 5%					S4-102	16+83.69	156.97	974.55
S4-102	S4-104	Sidewalk Running Slope	4	79.24	3.04	3.8%	0.5% to 5%					S4-103	16+88.41	77.80	977.53
S4-103	S4-104	Sidewalk Cross Slope	4	4.00	0.06	1.5%	0.5% to 2%					S4-104	16+84.42	77.76	977.59
S4-103	S4-105	Sidewalk Running Slope	4	6.00	0.06	1.0%	0.5% to 5%					S4-105	16+88.47	71.80	977.59
S4-104	S4-106	Sidewalk Running Slope	4	6.33	0.10	1.6%	0.5% to 5%					S4-106	16+82.47	71.74	977.69
S4-105	S4-106	Sidewalk Cross Slope	4	6.00	0.10	1.7%	0.5% to 2%	Yes				S4-107	16+82.19	58.94	977.34
S4-105	S4-107	Sidewalk Running Slope	4	14.83	-0.25	-1.7%	0.5% to 5%					S4-108	16+78.55	63.71	977.43
S4-106	S4-108	Sidewalk Running Slope	4	9.27	-0.26	-2.8%	0.5% to 5%					S4-109	16+78.76	54.09	977.23
S4-107	S4-108	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%					S4-110	16+73.05	55.94	977.32
S4-107	S4-109	Sidewalk Running Slope	4	6.04	-0.11	-1.8%	0.5% to 5%					S4-111	16+78.28	49.00	977.06
S4-108	S4-110	Sidewalk Running Slope	4	9.66	-0.11	-1.1%	0.5% to 5%					S4-112	16+72.28	49.00	977.15
S4-109	S4-110	Ramp Cross Slope	4	6.00	0.09	1.5%	0.1% to 2%					S4-113	16+78.28	43.00	977.00
S4-109	S4-111	Ramp Running Slope	4	5.14	-0.17	-3.3%	0.5% to 8.3%					S4-114	16+72.28	43.00	977.09
S4-110	S4-112	Ramp Running Slope	4	7.02	-0.17	-2.4%	0.5% to 8.3%					S4-115	16+84.28	49.00	976.97
S4-111	S4-112	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S4-116	16+84.28	43.00	976.91
S4-111	S4-113	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%					S4-117	16+89.73	49.00	976.89
S4-111	S4-115	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S4-118	16+78.29	39.10	976.94
S4-112	S4-114	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%					S4-119	16+72.29	39.08	977.03
S4-112	S4-121	Ramp Running Slope	4	12.00	0.77	6.4%	0.5% to 8.3%					S4-120	16+72.30	36.90	977.00
S4-113	S4-114	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S4-121	16+66.28	49.00	977.92
S4-113	S4-116	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S4-122	16+66.28	43.00	977.83
S4-113	S4-118	Landing/Turning Space	6	3.90	-0.06	-1.5%	0.1% to 2%								
S4-114	S4-119	Landing/Turning Space	6	3.93	-0.06	-1.5%	0.1% to 2%								
S4-114	S4-122	Ramp Running Slope	4	12.00	0.74	6.2%	0.5% to 8.3%								
S4-115	S4-116	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%								
S4-115	S4-117	Landing/Turning Space	6	5.46	-0.08	-1.5%	0.1% to 2%								
S4-116	S4-117	Crosswalk Cross Slope - Yield Condition	6	8.14	-0.02	-0.2%	0% to 2%								
S4-118	S4-119	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%								
S4-118	S4-120	Crosswalk Cross Slope - Yield Condition	6	6.40	0.06	0.9%	0% to 2%								
S4-119	S4-120	Sidewalk Running Slope	6	2.18	-0.03	-1.4%	0.5% to 5%								
S4-121	S4-122	Ramp Cross Slope	4	6.00	-0.09	-1.5%	0.1% to 2%								
S4-201	S4-202	Crosswalk Cross Slope - Yield Condition	6	8.39	-0.03	-0.4%	0% to 2%					S4-201	16+72.61	-41.65	977.00
S4-201	S4-203	Landing/Turning Space	6	5.81	0.06	1.0%	0.1% to 2%					S4-202	16+78.65	-47.43	976.97
S4-202	S4-203	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S4-203	16+72.63	-47.46	977.06
S4-202	S4-204	Landing/Turning Space	6	7.57	-0.07	-0.9%	0.1% to 2%					S4-204	16+78.67	-55.00	976.90
S4-203	S4-205	Landing/Turning Space	6	7.55	-0.07	-0.9%	0.1% to 2%					S4-205	16+72.66	-55.00	976.99
S4-204	S4-205	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S4-206	16+78.71	-61.00	976.95
S4-204	S4-206	Landing/Turning Space	6	6.00	0.05	0.8%	0.1% to 2%					S4-207	16+72.68	-61.00	977.04
S4-204	S4-208	Landing/Turning Space	6	4.32	-0.01	-0.2%	0.1% to 2%					S4-208	16+83.00	-55.00	976.89
S4-205	S4-207	Landing/Turning Space	6	6.00	0.05	0.8%	0.1% to 2%					S4-209	16+83.00	-61.00	976.91
S4-205	S4-211	Landing/Turning Space	4	3.00	0.04	1.3%	0.1% to 2%					S4-210	16+84.67	-61.00	976.85
S4-206	S4-207	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S4-211	16+69.66	-55.01	977.03

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	0'	Pgs:
Technician: KSB	Date: 8/18/2026	Field Bk:	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.15

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.15

C:\Snyder\Bentley\Configuration\Sheet\SAA_Configuration\Organization-Civil\SAA_Standard Sheet Plot Table.ctb
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8/18/2026 12:10:42 PM
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V:\Projects\2022\122.1679.01\CADD\CD_1221679_S13-S23.dgn

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S4-206	S4-209	Landing/Turning Space	6	4.29	-0.04	-0.9%	0.1% to 2%								
S4-207	S4-212	Landing/Turning Space	4	3.02	0.04	1.3%	0.1% to 2%								
S4-208	S4-209	Landing/Turning Space	6	6.00	0.02	0.3%	0.1% to 2%								
S4-208	S4-210	Crosswalk Cross Slope - Yield Condition	6	6.24	-0.04	-0.6%	0% to 2%								
S4-209	S4-210	Sidewalk Running Slope	6	1.67	-0.06	-3.6%	0.5% to 5%								
S4-211	S4-212	Landing/Turning Space	4	6.00	0.05	0.8%	0.1% to 2%								
S4-211	S4-213	Ramp Running Slope	4	10.09	0.67	6.6%	0.5% to 8.3%								
S4-212	S4-214	Ramp Running Slope	4	15.14	0.71	4.7%	0.5% to 8.3%								
S4-213	S4-214	Ramp Cross Slope	4	6.00	0.09	1.5%	0.1% to 2%								
S4-213	S4-215	Sidewalk Running Slope	4	20.19	0.50	2.5%	0.5% to 5%								
S4-214	S4-216	Sidewalk Running Slope	4	15.14	0.50	3.3%	0.5% to 5%								
S4-215	S4-216	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								
S4-301	S4-302	Landing/Turning Space	6	5.46	0.05	0.9%	0.1% to 2%					S4-301	17+26.30	49.00	976.74
S4-301	S4-303	Crosswalk Cross Slope - Yield Condition	6	8.14	0.02	0.2%	0% to 2%					S4-302	17+31.76	49.00	976.79
S4-302	S4-303	Landing/Turning Space	6	6.00	-0.03	-0.5%	0.1% to 2%					S4-303	17+31.76	43.00	976.76
S4-302	S4-304	Landing/Turning Space	6	11.84	0.03	0.3%	0.1% to 2%					S4-304	17+43.60	49.00	976.82
S4-303	S4-305	Landing/Turning Space	6	11.84	-0.03	-0.3%	0.1% to 2%					S4-305	17+43.60	43.00	976.73
S4-304	S4-305	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S4-306	17+49.60	49.00	976.87
S4-304	S4-306	Landing/Turning Space	6	6.00	0.05	0.8%	0.1% to 2%					S4-307	17+49.60	43.00	976.78
S4-305	S4-307	Landing/Turning Space	6	6.00	0.05	0.8%	0.1% to 2%					S4-308	17+43.60	36.93	976.67
S4-305	S4-308	Landing/Turning Space	6	6.07	-0.06	-1.0%	0.1% to 2%					S4-309	17+49.60	36.95	976.68
S4-306	S4-307	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S4-310	17+49.60	36.03	976.64
S4-306	S4-311	Ramp Running Slope	4	12.00	0.60	5.0%	0.5% to 8.3%					S4-311	17+61.58	49.00	977.47
S4-307	S4-309	Landing/Turning Space	6	6.05	-0.10	-1.7%	0.1% to 2%	Yes				S4-312	17+61.60	43.00	977.38
S4-307	S4-312	Ramp Running Slope	4	12.00	0.60	5.0%	0.5% to 8.3%								
S4-308	S4-309	Landing/Turning Space	6	6.00	0.01	0.2%	0.1% to 2%								
S4-308	S4-310	Crosswalk Cross Slope - Yield Condition	6	6.08	-0.03	-0.5%	0% to 2%								
S4-309	S4-310	Sidewalk Running Slope	6	0.92	-0.04	-4.3%	0.5% to 5%	Yes							
S4-311	S4-312	Ramp Cross Slope	4	6.00	-0.09	-1.5%	0.1% to 2%								
S4-401	S4-402	Crosswalk Cross Slope - Yield Condition	6	8.11	0.04	0.5%	0% to 2%					S4-401	17+33.19	-61.00	976.31
S4-401	S4-403	Landing/Turning Space	6	5.47	0.08	1.5%	0.1% to 2%					S4-402	17+38.66	-55.00	976.35
S4-402	S4-403	Landing/Turning Space	6	6.00	0.04	0.7%	0.1% to 2%					S4-403	17+38.66	-61.00	976.39
S4-402	S4-404	Landing/Turning Space	6	4.97	0.07	1.4%	0.1% to 2%					S4-404	17+43.60	-55.00	976.42
S4-403	S4-405	Landing/Turning Space	6	4.94	0.07	1.4%	0.1% to 2%					S4-405	17+43.60	-61.00	976.46
S4-404	S4-405	Landing/Turning Space	6	6.00	0.04	0.7%	0.1% to 2%					S4-406	17+49.60	-55.00	976.49
S4-404	S4-406	Landing/Turning Space	6	6.00	0.07	1.2%	0.1% to 2%					S4-407	17+49.60	-61.00	976.55
S4-404	S4-408	Landing/Turning Space	6	3.35	-0.05	-1.5%	0.1% to 2%					S4-408	17+43.60	-51.63	976.37
S4-405	S4-407	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S4-409	17+49.60	-51.63	976.45
S4-406	S4-407	Landing/Turning Space	6	6.00	0.06	1.0%	0.1% to 2%					S4-410	17+49.60	-49.17	976.36
S4-406	S4-409	Landing/Turning Space	6	3.38	-0.04	-1.2%	0.1% to 2%					S4-411	17+61.60	-55.00	977.02
S4-406	S4-411	Ramp Running Slope	4	12.00	0.53	4.4%	0.5% to 8.3%					S4-412	17+61.60	-61.00	977.11
S4-407	S4-412	Ramp Running Slope	4	12.00	0.56	4.7%	0.5% to 8.3%								
S4-408	S4-409	Landing/Turning Space	6	6.00	0.08	1.3%	0.1% to 2%								
S4-408	S4-410	Crosswalk Cross Slope - Yield Condition	6	6.50	-0.01	-0.2%	0% to 2%								
S4-409	S4-410	Sidewalk Running Slope	6	2.46	-0.09	-3.7%	0.5% to 5%								
S4-411	S4-412	Ramp Cross Slope	4	6.00	0.09	1.5%	0.1% to 2%								
S5-101	S5-102	Ramp Cross Slope	4	6.00	-0.09	-1.5%	0.1% to 2%					S5-101	20+90.33	49.00	978.37
S5-101	S5-103	Ramp Running Slope	4	12.00	-0.58	-4.8%	0.5% to 8.3%					S5-102	20+90.33	43.00	978.28
S5-102	S5-104	Ramp Running Slope	4	12.00	-0.58	-4.8%	0.5% to 8.3%					S5-103	21+02.33	49.00	977.79
S5-103	S5-104	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-104	21+02.33	43.00	977.70
S5-103	S5-105	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-105	21+08.33	49.00	977.70
S5-104	S5-106	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-106	21+08.33	43.00	977.61
S5-105	S5-106	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-107	21+14.33	49.00	977.42
S5-105	S5-107	Ramp Running Slope	6	6.00	-0.28	-4.7%	0.5% to 8.3%					S5-108	21+14.33	43.00	977.33
S5-106	S5-108	Ramp Running Slope	6	6.00	-0.28	-4.7%	0.5% to 8.3%					S5-109	21+17.87	49.00	977.31
S5-107	S5-108	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%								
S5-107	S5-109	Sidewalk Running Slope	6	3.54	-0.11	-3.1%	0.5% to 5%								
S5-108	S5-109	Crosswalk Cross Slope - No Yield Condition	6	7.00	-0.02	-0.3%	0% to 5%								
S5-201	S5-202	Sidewalk Running Slope	6	3.54	-0.09	-2.5%	0.5% to 5%					S5-201	21+42.90	49.00	977.02
S5-201	S5-203	Crosswalk Cross Slope - No Yield Condition	6	7.00	-0.18	-2.6%	0% to 5%					S5-202	21+46.41	49.00	976.93
S5-202	S5-203	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-203	21+46.44	43.00	976.84
S5-202	S5-204	Ramp Running Slope	6	5.98	0.07	1.2%	0.5% to 8.3%					S5-204	21+52.41	49.00	977.00
S5-203	S5-205	Ramp Running Slope	6	6.00	0.07	1.2%	0.5% to 8.3%					S5-205	21+52.44	43.00	976.91
S5-204	S5-205	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-206	21+58.41	49.00	977.09
S5-204	S5-206	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S5-207	21+58.44	43.00	977.00
S5-205	S5-207	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S5-208	21+64.42	49.00	977.28
S5-206	S5-207	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-209	21+64.42	43.00	977.19
S5-206	S5-208	Sidewalk Running Slope	4	6.00	0.19	3.2%	0.5% to 5%								
S5-207	S5-209	Sidewalk Running Slope	4	6.00	0.19	3.2%	0.5% to 5%								
S5-208	S5-209	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	0"	
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet S.16

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.16

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S5-301	S5-302	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%					S5-301	21+75.18	49.00	977.06
S5-301	S5-303	Sidewalk Running Slope	4	6.00	-0.12	-2.0%	0.5% to 5%					S5-302	21+75.18	43.00	976.97
S5-302	S5-304	Sidewalk Running Slope	4	6.00	-0.12	-2.0%	0.5% to 5%					S5-303	21+81.18	49.00	976.94
S5-303	S5-304	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-304	21+81.18	43.00	976.85
S5-303	S5-305	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-305	21+87.18	49.00	976.85
S5-304	S5-306	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-306	21+87.18	43.00	976.76
S5-305	S5-306	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-307	21+93.18	49.00	976.46
S5-305	S5-307	Ramp Running Slope	6	6.00	-0.39	-6.5%	0.5% to 8.3%					S5-308	21+93.18	43.00	976.55
S5-306	S5-307	Ramp Running Slope	6	6.00	-0.30	-5.0%	0.5% to 8.3%								
S5-307	S5-308	Crosswalk Cross Slope - No Yield Condition	6	6.00	0.09	1.5%	0% to 5%								
S5-401	S5-402	Crosswalk Cross Slope - No Yield Condition	6	6.00	-0.09	-1.5%	0% to 5%					S5-401	22+17.18	49.00	975.95
S5-401	S5-403	Ramp Running Slope	6	6.00	0.14	2.3%	0.5% to 8.3%					S5-402	22+17.18	43.00	975.86
S5-402	S5-404	Ramp Running Slope	6	6.00	0.14	2.3%	0.5% to 8.3%					S5-403	22+23.18	49.00	976.09
S5-403	S5-404	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-404	22+23.18	43.00	976.00
S5-403	S5-405	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-405	22+29.18	49.00	976.00
S5-404	S5-406	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S5-406	22+29.18	43.00	975.91
S5-405	S5-406	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%								
S6-101	S6-102	Sidewalk Cross Slope	4	6.00	-0.07	-1.2%	0.5% to 2%					S6-101	22+79.01	49.00	974.44
S6-101	S6-103	Sidewalk Running Slope	4	6.00	-0.24	-4.0%	0.5% to 5%					S6-102	22+79.01	43.00	974.37
S6-102	S6-104	Sidewalk Running Slope	4	6.00	-0.26	-4.3%	0.5% to 5%	Yes				S6-103	22+85.01	49.00	974.20
S6-103	S6-104	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-104	22+85.01	43.00	974.11
S6-104	S6-106	Ramp Running Slope	6	15.00	-1.72	-11.5%	0.5% to 8.3%					S6-105	23+00.01	49.00	972.48
S6-103	S6-105	Ramp Running Slope	6	15.00	-1.72	-11.5%	0.5% to 8.3%					S6-106	23+00.01	43.00	972.39
S6-105	S6-106	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-107	23+06.00	49.00	972.39
S6-105	S6-107	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-108	23+06.00	43.00	972.30
S6-106	S6-108	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-109	23+21.00	43.00	971.25
S6-107	S6-109	Ramp Running Slope	6	15.00	-1.13	-7.5%	0.5% to 8.3%	Yes				S6-110	23+21.00	49.00	971.20
S6-107	S6-108	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-111	23+27.00	49.00	971.17
S6-108	S6-110	Ramp Running Slope	6	15.00	-1.10	-7.3%	0.5% to 8.3%					S6-112	23+27.00	43.00	971.23
S6-109	S6-110	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%					S6-113	23+32.46	49.00	971.09
S6-109	S6-111	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%								
S6-111	S6-112	Landing/Turning Space	6	6.00	0.06	1.0%	0.1% to 2%								
S6-111	S6-113	Landing/Turning Space	6	5.46	-0.08	-1.5%	0.1% to 2%								
S6-112	S6-113	Crosswalk Cross Slope - Yield Condition	6	8.14	-0.14	-1.7%	0% to 2%								
S6-201	S6-202	Landing/Turning Space	6	5.46	-0.06	-1.1%	0.1% to 2%					S6-201	23+69.03	49.00	969.69
S6-201	S6-203	Crosswalk Cross Slope - Yield Condition	6	8.14	-0.15	-1.8%	0% to 2%					S6-202	23+74.48	49.00	969.63
S6-202	S6-203	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-203	23+74.48	43.00	969.54
S6-202	S6-204	Landing/Turning Space	6	6.00	0.07	1.2%	0.1% to 2%					S6-204	23+80.48	49.00	969.70
S6-203	S6-205	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S6-205	23+80.48	43.00	969.63
S6-204	S6-205	Landing/Turning Space	6	6.00	-0.07	-1.2%	0.1% to 2%					S6-206	23+86.48	49.00	969.63
S6-204	S6-206	Landing/Turning Space	6	6.00	-0.07	-1.2%	0.1% to 2%					S6-207	23+86.48	43.00	969.54
S6-205	S6-207	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-208	23+98.48	49.00	969.11
S6-206	S6-207	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S6-209	23+98.48	43.00	969.02
S6-206	S6-208	Sidewalk Running Slope	4	12.00	-0.52	-4.3%	0.5% to 5%	Yes				S6-210	23+76.73	56.81	969.41
S6-207	S6-209	Sidewalk Running Slope	4	12.00	-0.52	-4.3%	0.5% to 5%	Yes				S6-211	23+80.48	61.49	969.50
S6-208	S6-209	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%					S6-212	23+70.73	69.21	969.74
S6-210	S6-204	Sidewalk Running Slope	4	8.96	0.29	3.2%	0.5% to 5%					S6-213	23+76.73	69.24	969.83
S6-210	S6-212	Sidewalk Running Slope	4	14.24	0.33	2.3%	0.5% to 5%					S6-214	23+70.67	79.21	969.97
S6-210	S6-211	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%					S6-215	23+74.67	79.23	970.03
S6-211	S6-206	Sidewalk Running Slope	4	14.34	0.13	0.9%	0.5% to 5%					S6-216	23+70.59	92.60	970.28
S6-211	S6-213	Sidewalk Running Slope	4	8.90	0.33	3.7%	0.5% to 5%					S6-217	23+74.59	92.62	970.24
S6-212	S6-213	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								
S6-212	S6-214	Sidewalk Running Slope	4	10.00	0.23	2.3%	0.5% to 5%								
S6-213	S6-215	Sidewalk Running Slope	4	10.20	0.20	2.0%	0.5% to 5%								
S6-214	S6-215	Sidewalk Cross Slope	4	4.00	0.06	1.5%	0.5% to 2%								
S6-214	S6-216	Sidewalk Running Slope	4	13.39	0.31	2.3%	0.5% to 5%								
S6-215	S6-217	Sidewalk Running Slope	4	13.39	0.21	1.6%	0.5% to 5%								
S6-216	S6-217	Match Existing Cross Slope	4	4.00	-0.04	-1.0%	Match Existing								
S7-101	S7-102	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%					S7-101	26+11.78	-43.00	961.01
S7-101	S7-103	Sidewalk Running Slope	4	72.00	-3.54	-4.9%	0.5% to 5%	Yes				S7-102	26+11.78	-49.00	961.10
S7-102	S7-104	Sidewalk Running Slope	4	72.00	-3.54	-4.9%	0.5% to 5%	Yes				S7-103	26+83.78	-43.00	957.47
S7-103	S7-104	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%					S7-104	26+83.78	-49.00	957.56
S7-103	S7-105	Ramp Running Slope	6	15.00	-1.08	-7.2%	0.5% to 8.3%					S7-105	26+98.78	-43.00	956.39
S7-104	S7-106	Ramp Running Slope	6	15.00	-1.10	-7.3%	0.5% to 8.3%					S7-106	26+98.78	-49.00	956.45
S7-105	S7-106	Landing/Turning Space	6	6.00	0.07	1.2%	0.1% to 2%					S7-107	27+04.78	-43.00	956.43
S7-105	S7-107	Landing/Turning Space	6	6.00	0.04	0.7%	0.1% to 2%					S7-108	27+04.78	-49.00	956.37
S7-106	S7-108	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-109	27+10.23	-49.00	956.28
S7-107	S7-108	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%								
S7-107	S7-109	Crosswalk Cross Slope - Yield Condition	6	8.14	-0.15	-1.8%	0% to 2%								
S7-108	S7-109	Landing/Turning Space	6	5.46	-0.09	-1.6%	0.1% to 2%	Yes							

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		0'
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet S.17

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.17

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
				FT	FT	%	Pos. or Neg.		%			Point	Station	Offset	Elevation
S7-201	S7-202	Crosswalk Cross Slope - Yield Condition	6	8.14	-0.15	-1.8%	0% to 2%					S7-201	27+78.80	-49.00	953.65
S7-201	S7-203	Landing/Turning Space	6	5.46	-0.08	-1.5%	0.1% to 2%					S7-202	27+84.25	-43.00	953.50
S7-202	S7-203	Landing/Turning Space	6	6.00	0.07	1.2%	0.1% to 2%					S7-203	27+84.25	-49.00	953.57
S7-202	S7-204	Landing/Turning Space	6	5.00	0.07	1.4%	0.1% to 2%					S7-204	27+89.25	-43.00	953.57
S7-203	S7-205	Landing/Turning Space	6	5.00	0.07	1.4%	0.1% to 2%					S7-205	27+89.25	-49.00	953.64
S7-204	S7-205	Landing/Turning Space	6	6.00	0.07	1.2%	0.1% to 2%					S7-206	27+93.25	-43.00	953.62
S7-204	S7-206	Landing/Turning Space	6	4.00	0.05	1.3%	0.1% to 2%					S7-207	27+93.25	-49.00	953.68
S7-205	S7-207	Landing/Turning Space	6	4.00	0.04	1.0%	0.1% to 2%					S7-208	27+88.27	-64.00	954.70
S7-205	S7-208	Ramp Running Slope	6	14.73	1.06	7.2%	0.5% to 8.3%					S7-209	27+92.26	-64.00	954.76
S7-206	S7-207	Landing/Turning Space	6	6.00	0.06	1.0%	0.1% to 2%					S7-210	27+88.01	-68.00	954.76
S7-206	S7-216	Ramp Running Slope	6	13.00	-0.93	-7.2%	0.5% to 8.3%					S7-211	27+91.99	-68.00	954.82
S7-207	S7-209	Ramp Running Slope	6	15.00	1.08	7.2%	0.5% to 8.3%					S7-212	27+87.01	-82.66	955.87
S7-207	S7-217	Ramp Running Slope	6	13.00	-0.90	-6.9%	0.5% to 8.3%					S7-213	27+90.99	-82.93	955.89
S7-208	S7-209	Landing/Turning Space	6	3.99	0.06	1.5%	0.1% to 2%					S7-214	27+86.78	-86.07	955.99
S7-208	S7-210	Landing/Turning Space	6	4.00	0.06	1.5%	0.1% to 2%					S7-215	27+90.76	-86.34	956.02
S7-209	S7-211	Landing/Turning Space	6	4.00	0.06	1.5%	0.1% to 2%					S7-216	28+06.25	-43.00	952.69
S7-210	S7-211	Landing/Turning Space	6	3.99	0.06	1.5%	0.1% to 2%					S7-217	28+06.25	-49.00	952.78
S7-210	S7-212	Ramp Running Slope	4	15.00	1.11	7.4%	0.5% to 8.3%	Yes				S7-218	28+12.25	-43.00	952.62
S7-211	S7-213	Ramp Running Slope	4	15.00	1.07	7.1%	0.5% to 8.3%					S7-219	28+12.25	-49.00	952.71
S7-212	S7-213	Ramp Cross Slope	4	3.99	0.02	0.5%	0.1% to 2%					S7-220	28+12.25	-36.00	952.31
S7-212	S7-214	Sidewalk Running Slope	4	3.42	0.12	3.5%	0.5% to 5%					S7-221	28+06.25	-36.00	952.06
S7-213	S7-215	Sidewalk Running Slope	4	3.42	0.13	3.8%	0.5% to 5%					S7-222	28+18.25	-43.00	952.57
S7-214	S7-215	Match Existing Cross Slope	4	4.00	0.03	0.8%	Match Existing					S7-223	28+18.25	-49.00	952.66
S7-216	S7-217	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%								
S7-216	S7-218	Landing/Turning Space	6	6.00	-0.07	-1.2%	0.1% to 2%								
S7-216	S7-220	Ramp Running Slope	6	7.00	-0.38	-5.4%	0.5% to 8.3%								
S7-217	S7-219	Landing/Turning Space	6	6.00	-0.07	-1.2%	0.1% to 2%								
S7-218	S7-219	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%								
S7-218	S7-221	Ramp Running Slope	6	7.00	-0.56	-8.0%	0.5% to 8.3%	Yes							
S7-218	S7-222	Sidewalk Running Slope	4	6.00	-0.05	-0.8%	0.5% to 5%								
S7-219	S7-223	Sidewalk Running Slope	4	6.00	-0.05	-0.8%	0.5% to 5%								
S7-220	S7-221	Crosswalk Cross Slope - No Yield Condition	6	6.00	-0.25	-4.2%	0% to 5%								
S7-222	S7-223	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								
S7-301	S7-302	Crosswalk Cross Slope - No Yield Condition	6	6.00	-0.26	-4.3%	0% to 5%					S7-301	28+06.33	-8.50	952.96
S7-301	S7-303	Ramp Running Slope	6	6.00	0.07	1.2%	0.5% to 8.3%					S7-302	28+12.33	-8.50	952.70
S7-302	S7-304	Ramp Running Slope	6	6.00	0.24	4.0%	0.5% to 8.3%					S7-303	28+06.33	-2.50	953.03
S7-303	S7-304	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-304	28+12.33	-2.50	952.94
S7-303	S7-305	Landing/Turning Space	6	5.00	-0.02	-0.4%	0.1% to 2%					S7-305	28+06.33	2.50	953.01
S7-304	S7-306	Landing/Turning Space	6	5.00	-0.02	-0.4%	0.1% to 2%					S7-306	28+12.33	2.50	952.92
S7-305	S7-306	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-307	28+06.33	8.50	952.96
S7-305	S7-307	Ramp Running Slope	6	6.00	-0.05	-0.8%	0.5% to 8.3%					S7-308	28+12.33	8.50	952.70
S7-306	S7-308	Ramp Running Slope	6	6.00	-0.22	-3.7%	0.5% to 8.3%								
S7-307	S7-308	Crosswalk Cross Slope - No Yield Condition	6	6.00	-0.26	-4.3%	0% to 5%								
S7-401	S7-402	Sidewalk Cross Slope	8	6.00	-0.09	-1.5%	0.5% to 2%				COMBINED SIDEWALK RETAINING WALL	S7-401	27+85.25	49.00	954.10
S7-401	S7-403	Sidewalk Running Slope	8	6.00	-0.24	-4.0%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S7-402	27+85.25	43.00	954.01
S7-402	S7-404	Sidewalk Running Slope	8	6.00	-0.24	-4.0%	0.5% to 5%				COMBINED SIDEWALK RETAINING WALL	S7-403	27+91.25	49.00	953.86
S7-403	S7-404	Ramp Cross Slope	8	6.00	-0.09	-1.5%	0.1% to 2%				COMBINED SIDEWALK RETAINING WALL	S7-404	27+91.25	43.00	953.77
S7-403	S7-405	Ramp Running Slope	8	15.00	-1.11	-7.4%	0.5% to 8.3%	Yes			COMBINED SIDEWALK RETAINING WALL	S7-405	28+06.25	49.00	952.75
S7-404	S7-406	Ramp Running Slope	8	15.00	-1.11	-7.4%	0.5% to 8.3%	Yes			COMBINED SIDEWALK RETAINING WALL	S7-406	28+06.25	43.00	952.66
S7-405	S7-406	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-407	28+06.25	36.00	952.31
S7-405	S7-409	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-408	28+12.25	36.00	952.06
S7-406	S7-407	Ramp Running Slope	6	7.00	-0.35	-5.0%	0.5% to 8.3%					S7-409	28+12.25	49.00	952.66
S7-406	S7-410	Landing/Turning Space	6	7.00	-0.09	-1.3%	0.1% to 2%					S7-410	28+12.25	43.00	952.57
S7-407	S7-408	Crosswalk Cross Slope - No Yield Condition	6	6.00	-0.25	-4.2%	0% to 5%					S7-411	28+33.25	49.00	951.36
S7-408	S7-410	Ramp Running Slope	6	7.00	0.51	7.3%	0.5% to 8.3%					S7-412	28+33.25	43.00	951.27
S7-409	S7-410	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-413	28+39.25	49.00	951.27
S7-409	S7-411	Ramp Running Slope	6	21.00	-1.30	-6.2%	0.5% to 8.3%					S7-414	28+39.25	43.00	951.18
S7-410	S7-412	Ramp Running Slope	6	21.00	-1.30	-6.2%	0.5% to 8.3%					S7-415	28+48.47	49.00	950.62
S7-411	S7-412	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-416	28+48.47	43.00	950.71
S7-411	S7-413	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-417	28+52.00	49.00	950.58
S7-412	S7-414	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%								
S7-413	S7-414	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%								
S7-413	S7-415	Ramp Running Slope	6	9.21	-0.65	-7.1%	0.5% to 8.3%								
S7-414	S7-416	Ramp Running Slope	6	9.21	-0.47	-5.1%	0.5% to 8.3%								
S7-415	S7-416	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%								
S7-415	S7-417	Sidewalk Running Slope	6	3.54	-0.04	-1.1%	0.5% to 5%								
S7-416	S7-417	Crosswalk Cross Slope - No Yield Condition	6	7.00	-0.13	-1.9%	0% to 5%								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	0"	
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.18

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.18

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S7-501	S7-502	Sidewalk Running Slope	6	3.54	-0.04	-1.1%	0.5% to 5%					S7-501	28+79.53	49.00	949.79
S7-501	S7-503	Crosswalk Cross Slope - Yield Condition	6	7.00	-0.13	-1.9%	0% to 2%					S7-502	28+83.07	49.00	949.75
S7-502	S7-503	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-503	28+83.07	43.00	949.66
S7-502	S7-504	Ramp Running Slope	6	6.00	0.11	1.8%	0.5% to 8.3%					S7-504	28+89.07	49.00	949.86
S7-503	S7-505	Ramp Running Slope	6	6.00	0.11	1.8%	0.5% to 8.3%					S7-505	28+89.07	43.00	949.77
S7-504	S7-505	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-506	28+95.77	49.00	950.09
S7-504	S7-506	Ramp Running Slope	6	6.70	0.23	3.4%	0.5% to 8.3%					S7-507	28+95.77	43.00	950.00
S7-505	S7-507	Ramp Running Slope	6	6.70	0.23	3.4%	0.5% to 8.3%					S7-508	29+01.27	49.00	950.18
S7-506	S7-507	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-509	29+01.27	43.00	950.09
S7-506	S7-508	Landing/Turning Space	6	5.50	0.09	1.6%	0.1% to 2%	Yes				S7-510	29+13.27	49.00	949.44
S7-506	S7-512	Sidewalk Running Slope	4	7.00	0.21	3.0%	0.5% to 5%					S7-511	29+13.27	43.00	949.35
S7-507	S7-509	Landing/Turning Space	6	5.50	0.09	1.6%	0.1% to 2%	Yes				S7-512	28+95.77	56.00	950.30
S7-508	S7-509	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S7-513	29+01.27	56.00	950.38
S7-508	S7-510	Ramp Running Slope	4	12.00	-0.74	-6.2%	0.5% to 8.3%					S7-514	28+95.77	74.10	949.69
S7-508	S7-513	Sidewalk Running Slope	4	7.00	0.20	2.9%	0.5% to 5%					S7-515	29+01.27	74.10	949.80
S7-509	S7-511	Ramp Running Slope	4	12.00	-0.74	-6.2%	0.5% to 8.3%								
S7-510	S7-511	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								
S7-512	S7-513	Sidewalk Cross Slope	4	5.50	0.08	1.5%	0.5% to 2%								
S7-512	S7-514	Sidewalk Running Slope	4	18.10	-0.61	-3.4%	0.5% to 5%								
S7-513	S7-515	Sidewalk Running Slope	4	18.10	-0.58	-3.2%	0.5% to 5%								
S7-514	S7-515	Match Existing Cross Slope	4	5.50	0.11	2.0%	Match Existing								
S8-101	S8-102	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%					S8-101	30+13.34	49.00	947.58
S8-101	S8-103	Ramp Running Slope	4	6.00	-0.06	-1.0%	0.5% to 8.3%					S8-102	30+13.34	43.00	947.49
S8-102	S8-104	Ramp Running Slope	4	6.00	-0.06	-1.0%	0.5% to 8.3%					S8-103	30+19.34	49.00	947.52
S8-103	S8-104	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%					S8-104	30+19.34	43.00	947.43
S8-103	S8-105	Ramp Running Slope	6	12.00	-0.81	-6.8%	0.5% to 8.3%					S8-105	30+31.34	49.00	946.71
S8-104	S8-106	Ramp Running Slope	6	12.00	-0.79	-6.6%	0.5% to 8.3%					S8-106	30+31.34	43.00	946.64
S8-105	S8-106	Landing/Turning Space	6	6.00	-0.07	-1.2%	0.1% to 2%					S8-107	30+35.34	49.00	946.65
S8-105	S8-107	Landing/Turning Space	6	4.00	-0.06	-1.5%	0.1% to 2%					S8-108	30+35.34	43.00	946.58
S8-105	S8-112	Ramp Running Slope	6	15.00	0.75	5.0%	0.5% to 8.3%					S8-109	30+39.82	49.00	946.60
S8-106	S8-108	Landing/Turning Space	6	4.48	-0.07	-1.6%	0.1% to 2%					S8-110	30+39.82	43.00	946.51
S8-107	S8-108	Landing/Turning Space	6	6.00	-0.07	-1.2%	0.1% to 2%					S8-111	30+45.28	49.00	946.55
S8-107	S8-109	Landing/Turning Space	6	4.48	-0.05	-1.1%	0.1% to 2%					S8-112	30+32.00	64.00	947.46
S8-107	S8-113	Ramp Running Slope	6	14.72	0.75	5.1%	0.5% to 8.3%					S8-113	30+35.99	63.70	947.40
S8-108	S8-110	Landing/Turning Space	6	4.48	-0.07	-1.6%	0.1% to 2%	Yes				S8-114	30+32.84	73.37	947.82
S8-109	S8-110	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S8-115	30+36.81	72.95	947.72
S8-109	S8-111	Landing/Turning Space	6	5.46	-0.05	-0.9%	0.1% to 2%								
S8-110	S8-111	Crosswalk Cross Slope - Yield Condition	6	8.14	0.04	0.5%	0% to 2%								
S8-112	S8-113	Ramp Cross Slope	6	4.00	-0.06	-1.5%	0.1% to 2%								
S8-112	S8-114	Sidewalk Running Slope	4	9.42	0.36	3.8%	0.5% to 5%								
S8-113	S8-115	Sidewalk Running Slope	4	9.28	0.32	3.4%	0.5% to 5%								
S8-114	S8-115	Match Existing Cross Slope	4	4.00	-0.10	-2.5%	Match Existing								
S8-201	S8-202	Landing/Turning Space	6	5.46	-0.03	-0.5%	0.1% to 2%					S8-201	30+87.24	49.00	946.20
S8-201	S8-203	Crosswalk Cross Slope - Yield Condition	6	8.14	-0.12	-1.5%	0% to 2%					S8-202	30+92.70	49.00	946.17
S8-202	S8-203	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S8-203	30+92.70	43.00	946.08
S8-202	S8-204	Landing/Turning Space	6	1.65	0.02	1.2%	0.1% to 2%					S8-204	30+94.35	49.00	946.19
S8-203	S8-206	Landing/Turning Space	6	5.66	0.09	1.6%	0.1% to 2%	Yes				S8-205	30+98.27	49.00	946.25
S8-204	S8-205	Landing/Turning Space	6	4.00	0.06	1.5%	0.1% to 2%					S8-206	30+98.35	43.00	946.17
S8-204	S8-211	Ramp Running Slope	6	12.00	0.61	5.1%	0.5% to 8.3%					S8-207	31+04.35	49.00	946.52
S8-205	S8-206	Landing/Turning Space	6	6.00	-0.08	-1.3%	0.1% to 2%					S8-208	31+04.35	43.00	946.43
S8-205	S8-207	Ramp Running Slope	6	6.00	0.27	4.5%	0.5% to 8.3%					S8-209	31+16.35	49.00	946.64
S8-205	S8-212	Ramp Running Slope	6	11.69	0.61	5.2%	0.5% to 8.3%					S8-210	31+16.35	43.00	946.55
S8-206	S8-208	Ramp Running Slope	6	6.00	0.26	4.3%	0.5% to 8.3%					S8-211	30+94.98	61.00	946.80
S8-207	S8-208	Ramp Running Slope	6	6.00	-0.09	-1.5%	0.5% to 8.3%					S8-212	30+98.93	60.67	946.86
S8-207	S8-209	Sidewalk Running Slope	4	12.00	0.12	1.0%	0.5% to 5%					S8-213	30+95.74	69.34	947.13
S8-208	S8-210	Sidewalk Running Slope	4	12.00	0.12	1.0%	0.5% to 5%					S8-214	30+99.72	68.95	947.20
S8-209	S8-210	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								
S8-211	S8-212	Ramp Cross Slope	6	3.97	0.06	1.5%	0.1% to 2%								
S8-211	S8-213	Sidewalk Running Slope	4	8.40	0.33	3.9%	0.5% to 5%								
S8-212	S8-214	Sidewalk Running Slope	4	8.32	0.34	4.1%	0.5% to 5%	Yes							
S8-213	S8-214	Match Existing Cross Slope	4	4.00	0.07	1.8%	Match Existing								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		0"
Technician: KSB	Date: 8/18/2026		Field Bk: Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.19

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.19

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S9-101	S9-102	Sidewalk Cross Slope	6	6.00	0.09	1.5%	0.5% to 2%					S9-101	32+90.64	-43.00	945.71
S9-101	S9-103	Sidewalk Running Slope	6	6.00	-0.06	-1.0%	0.5% to 5%					S9-102	32+90.64	-49.00	945.80
S9-102	S9-104	Sidewalk Running Slope	6	6.00	-0.06	-1.0%	0.5% to 5%					S9-103	32+96.64	-43.00	945.65
S9-103	S9-104	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%					S9-104	32+96.64	-49.00	945.74
S9-103	S9-105	Ramp Running Slope	6	12.00	-0.68	-5.7%	0.5% to 8.3%					S9-105	33+08.64	-43.00	944.97
S9-104	S9-106	Ramp Running Slope	6	12.00	-0.68	-5.7%	0.5% to 8.3%					S9-106	33+08.64	-49.00	945.06
S9-105	S9-106	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S9-107	33+12.64	-43.00	944.91
S9-105	S9-107	Landing/Turning Space	6	4.00	-0.06	-1.5%	0.1% to 2%					S9-108	33+12.64	-49.00	945.00
S9-106	S9-108	Landing/Turning Space	6	4.00	-0.06	-1.5%	0.1% to 2%					S9-109	33+17.64	-43.00	944.93
S9-106	S9-112	Sidewalk Running Slope	4	12.62	-0.51	-4.0%	0.5% to 5%					S9-110	33+17.64	-49.00	944.96
S9-107	S9-108	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S9-111	33+23.10	-49.00	944.87
S9-107	S9-109	Landing/Turning Space	6	5.00	0.02	0.4%	0.1% to 2%					S9-112	33+08.64	-61.62	944.55
S9-108	S9-110	Landing/Turning Space	6	5.00	-0.04	-0.8%	0.1% to 2%					S9-113	33+12.64	-62.50	944.61
S9-108	S9-113	Sidewalk Running Slope	4	13.50	-0.39	-2.9%	0.5% to 5%					S9-114	33+06.97	-65.25	944.40
S9-109	S9-110	Landing/Turning Space	6	6.00	0.03	0.5%	0.1% to 2%					S9-115	33+10.60	-66.93	944.56
S9-109	S9-111	Crosswalk Cross Slope - Yield Condition	6	8.14	-0.06	-0.7%	0% to 2%								
S9-110	S9-111	Landing/Turning Space	6	5.46	-0.09	-1.6%	0.1% to 2%	Yes							
S9-112	S9-113	Sidewalk Cross Slope	4	4.10	0.06	1.5%	0.5% to 2%								
S9-112	S9-114	Sidewalk Running Slope	4	4.00	-0.15	-3.8%	0.5% to 5%								
S9-113	S9-115	Sidewalk Running Slope	4	4.88	-0.05	-1.0%	0.5% to 5%								
S9-114	S9-115	Match Existing Cross Slope	4	4.00	0.16	4.0%	Match Existing								
S9-201	S9-202	Crosswalk Cross Slope - Yield Condition	6	7.80	0.12	1.5%	0% to 2%					S9-201	33+63.29	-49.00	945.22
S9-201	S9-203	Landing/Turning Space	6	4.95	0.09	1.8%	0.1% to 2%	Yes				S9-202	33+68.24	-43.00	945.34
S9-202	S9-203	Landing/Turning Space	6	6.00	-0.03	-0.5%	0.1% to 2%					S9-203	33+68.24	-49.00	945.31
S9-202	S9-204	Landing/Turning Space	6	4.88	0.03	0.6%	0.1% to 2%					S9-204	33+73.12	-43.00	945.37
S9-203	S9-205	Landing/Turning Space	6	4.88	0.08	1.6%	0.1% to 2%	Yes				S9-205	33+73.12	-49.00	945.39
S9-204	S9-205	Landing/Turning Space	6	6.00	0.02	0.3%	0.1% to 2%					S9-206	33+77.12	-43.00	945.42
S9-204	S9-206	Landing/Turning Space	6	4.00	0.05	1.3%	0.1% to 2%					S9-207	33+77.12	-49.00	945.45
S9-205	S9-207	Landing/Turning Space	6	4.00	0.06	1.5%	0.1% to 2%					S9-208	33+92.12	-43.00	946.45
S9-205	S9-212	Sidewalk Running Slope	4	5.62	0.15	2.7%	0.5% to 5%					S9-209	33+92.12	-49.00	946.54
S9-206	S9-207	Landing/Turning Space	6	6.00	0.03	0.5%	0.1% to 2%					S9-210	33+98.12	-43.00	946.69
S9-206	S9-208	Ramp Running Slope	6	15.00	1.03	6.9%	0.5% to 8.3%					S9-211	33+98.12	-49.00	946.78
S9-207	S9-209	Ramp Running Slope	6	15.00	1.09	7.3%	0.5% to 8.3%					S9-212	33+71.58	-54.33	945.54
S9-207	S9-213	Sidewalk Running Slope	4	7.87	0.15	1.9%	0.5% to 5%					S9-213	33+74.97	-56.46	945.60
S9-208	S9-209	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%					S9-214	33+69.12	-62.86	945.47
S9-208	S9-210	Sidewalk Running Slope	4	6.00	0.24	4.0%	0.5% to 5%					S9-215	33+73.12	-62.86	945.69
S9-209	S9-211	Sidewalk Running Slope	4	6.00	0.24	4.0%	0.5% to 5%								
S9-210	S9-211	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								
S9-212	S9-213	Sidewalk Cross Slope	4	4.00	0.06	1.5%	0.5% to 2%								
S9-212	S9-214	Sidewalk Running Slope	4	8.99	-0.07	-0.8%	0.5% to 5%								
S9-213	S9-215	Sidewalk Running Slope	4	6.75	0.09	1.3%	0.5% to 5%								
S9-214	S9-215	Match Existing Cross Slope	4	4.00	0.22	5.5%	Match Existing								
S9-301	S9-302	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%					S9-301	34+84.62	-43.00	947.76
S9-301	S9-303	Sidewalk Running Slope	4	12.00	0.13	1.1%	0.5% to 5%					S9-302	34+84.62	-49.00	947.85
S9-302	S9-304	Sidewalk Running Slope	4	12.00	0.13	1.1%	0.5% to 5%					S9-303	34+97.05	-43.00	947.89
S9-303	S9-304	Ramp Cross Slope	6	6.00	0.09	1.5%	0.1% to 2%					S9-304	34+97.11	-49.00	947.98
S9-303	S9-309	Ramp Running Slope	6	6.00	-0.27	-4.5%	0.5% to 8.3%					S9-305	35+03.19	-35.57	947.19
S9-304	S9-310	Ramp Running Slope	6	6.00	-0.27	-4.5%	0.5% to 8.3%					S9-306	35+11.48	-35.23	947.28
S9-305	S9-306	Crosswalk Cross Slope - Yield Condition	6	8.00	0.09	1.1%	0% to 2%					S9-307	35+03.28	-40.88	947.59
S9-305	S9-307	Ramp Running Slope	6	5.30	0.40	7.5%	0.5% to 8.3%	Yes				S9-308	35+11.62	-40.71	947.71
S9-306	S9-308	Ramp Running Slope	6	5.48	0.43	7.8%	0.5% to 8.3%	Yes				S9-309	35+03.32	-42.88	947.62
S9-307	S9-308	Landing/Turning Space	6	8.00	0.12	1.5%	0.1% to 2%					S9-310	35+03.42	-48.88	947.71
S9-307	S9-309	Landing/Turning Space	6	2.00	0.03	1.5%	0.1% to 2%					S9-311	35+11.83	-48.71	947.83
S9-308	S9-311	Landing/Turning Space	6	8.00	0.12	1.5%	0.1% to 2%					S9-312	35+17.94	-42.55	947.98
S9-308	S9-312	Ramp Running Slope	6	6.33	0.27	4.3%	0.5% to 8.3%					S9-313	35+18.13	-48.55	948.03
S9-309	S9-310	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S9-314	35+39.36	-41.70	948.61
S9-310	S9-311	Landing/Turning Space	6	8.00	0.12	1.5%	0.1% to 2%					S9-315	35+40.03	-47.67	948.79
S9-310	S9-316	Ramp Running Slope	6	15.00	2.40	16.0%	0.5% to 8.3%					S9-316	35+03.68	-63.87	950.11
S9-311	S9-313	Ramp Running Slope	6	6.00	0.20	3.3%	0.5% to 8.3%					S9-317	35+12.22	-63.71	950.19
S9-311	S9-317	Ramp Running Slope	6	15.00	2.36	15.7%	0.5% to 8.3%					S9-318	35+03.80	-70.87	950.45
S9-312	S9-313	Ramp Cross Slope	6	6.00	0.05	0.8%	0.1% to 2%					S9-319	35+12.41	-70.71	950.51
S9-312	S9-314	Sidewalk Running Slope	4	20.54	0.63	3.1%	0.5% to 5%								
S9-313	S9-315	Sidewalk Running Slope	4	20.87	0.76	3.6%	0.5% to 5%								
S9-314	S9-315	Match Existing Cross Slope	4	6.01	0.18	3.0%	Match Existing								
S9-316	S9-317	Ramp Cross Slope	6	8.00	0.08	1.0%	0.1% to 2%								
S9-316	S9-318	Sidewalk Running Slope	5	7.00	0.34	4.9%	0.5% to 5%	Yes							
S9-317	S9-319	Sidewalk Running Slope	5	7.00	0.32	4.6%	0.5% to 5%	Yes							
S9-318	S9-319	Match Existing Cross Slope	5	8.00	0.06	0.8%	Match Existing								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		0'
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet S.20

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.20

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S9-401	S9-402	Crosswalk Cross Slope - Yield Condition	6	8.02	0.07	0.9%	0% to 2%					S9-401	35+04.03	-9.10	947.82
S9-401	S9-403	Ramp Running Slope	6	3.98	0.05	1.3%	0.5% to 8.3%					S9-402	35+12.09	-9.81	947.89
S9-402	S9-404	Ramp Running Slope	6	4.46	0.10	2.2%	0.5% to 8.3%					S9-403	35+04.16	-5.13	947.87
S9-403	S9-404	Landing/Turning Space	6	8.00	0.12	1.5%	0.1% to 2%					S9-404	35+12.20	-5.35	947.99
S9-403	S9-405	Landing/Turning Space	6	10.14	0.10	1.0%	0.1% to 2%					S9-405	35+04.48	5.01	947.97
S9-404	S9-406	Landing/Turning Space	6	10.14	0.10	1.0%	0.1% to 2%					S9-406	35+12.43	4.79	948.09
S9-405	S9-406	Landing/Turning Space	6	8.00	0.12	1.5%	0.1% to 2%					S9-407	35+04.60	9.05	947.83
S9-405	S9-407	Ramp Running Slope	6	4.05	-0.14	-3.5%	0.5% to 8.3%					S9-408	35+12.55	9.81	947.90
S9-406	S9-408	Ramp Running Slope	6	5.02	-0.19	-3.8%	0.5% to 8.3%								
S9-407	S9-408	Crosswalk Cross Slope - Yield Condition	6	8.06	0.07	0.9%	0% to 2%								
S9-501	S9-502	Sidewalk Cross Slope	6	6.00	0.04	0.7%	0.5% to 2%					S9-501	32+95.93	49.00	945.71
S9-501	S9-503	Sidewalk Running Slope	6	6.00	-0.18	-3.0%	0.5% to 5%					S9-502	32+95.93	43.00	945.75
S9-502	S9-504	Sidewalk Running Slope	6	6.00	-0.29	-4.8%	0.5% to 5%	Yes				S9-503	33+05.93	49.00	945.53
S9-503	S9-504	Ramp Cross Slope	6	6.00	-0.07	-1.2%	0.1% to 2%					S9-504	33+05.93	43.00	945.46
S9-503	S9-505	Ramp Running Slope	6	12.00	-0.96	-8.0%	0.5% to 8.3%	Yes				S9-505	33+17.93	49.00	944.57
S9-504	S9-506	Ramp Running Slope	6	12.00	-0.93	-7.8%	0.5% to 8.3%	Yes				S9-506	33+17.93	43.00	944.53
S9-505	S9-506	Landing/Turning Space	6	6.00	-0.04	-0.7%	0.1% to 2%					S9-507	33+23.93	49.00	944.48
S9-505	S9-507	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S9-508	33+23.93	43.00	944.44
S9-506	S9-508	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S9-509	33+28.51	49.00	944.41
S9-507	S9-508	Landing/Turning Space	6	6.00	-0.04	-0.7%	0.1% to 2%								
S9-507	S9-509	Landing/Turning Space	6	4.58	-0.07	-1.5%	0.1% to 2%								
S9-508	S9-509	Crosswalk Cross Slope - No Yield Condition	6	7.58	-0.03	-0.4%	0% to 5%								
S9-601	S9-602	Landing/Turning Space	6	4.59	0.04	0.9%	0.1% to 2%					S9-601	33+58.67	49.00	945.03
S9-601	S9-603	Crosswalk Cross Slope - No Yield Condition	6	7.58	0.11	1.5%	0% to 5%					S9-602	33+63.26	49.00	945.07
S9-602	S9-603	Landing/Turning Space	6	6.00	0.07	1.2%	0.1% to 2%					S9-603	33+63.26	43.00	945.14
S9-602	S9-604	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S9-604	33+69.26	49.00	945.16
S9-603	S9-605	Landing/Turning Space	6	6.00	-0.07	-1.2%	0.1% to 2%					S9-605	33+69.26	43.00	945.07
S9-604	S9-605	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%					S9-606	33+84.26	49.00	946.25
S9-604	S9-606	Ramp Running Slope	6	15.00	1.09	7.3%	0.5% to 8.3%					S9-607	33+84.26	43.00	946.16
S9-605	S9-607	Ramp Running Slope	6	15.00	1.09	7.3%	0.5% to 8.3%					S9-608	33+96.26	49.00	946.69
S9-606	S9-607	Ramp Cross Slope	6	6.00	-0.09	-1.5%	0.1% to 2%					S9-609	33+96.26	43.00	946.60
S9-606	S9-608	Sidewalk Running Slope	4	12.00	0.44	3.7%	0.5% to 5%								
S9-607	S9-609	Sidewalk Running Slope	4	12.00	0.44	3.7%	0.5% to 5%								
S9-608	S9-609	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								
S9-701	S9-702	Sidewalk Cross Slope	4	5.98	-0.09	-1.5%	0.5% to 2%					S9-701	34+12.40	49.00	946.96
S9-701	S9-703	Sidewalk Running Slope	4	6.00	-0.05	-0.8%	0.5% to 5%					S9-702	34+12.40	43.00	946.87
S9-702	S9-704	Sidewalk Running Slope	4	6.33	-0.05	-0.8%	0.5% to 5%					S9-703	34+18.40	49.00	946.91
S9-703	S9-704	Landing/Turning Space	6	8.00	-0.09	-1.1%	0.1% to 2%					S9-704	34+18.40	41.00	946.82
S9-703	S9-705	Landing/Turning Space	6	9.91	0.15	1.5%	0.1% to 2%					S9-705	34+28.31	49.00	947.06
S9-703	S9-709	Ramp Running Slope	6	10.01	-0.70	-7.0%	0.5% to 8.3%					S9-706	34+28.31	41.00	946.97
S9-704	S9-706	Landing/Turning Space	6	9.91	0.15	1.5%	0.1% to 2%					S9-707	34+36.31	41.00	947.22
S9-705	S9-706	Landing/Turning Space	6	8.00	-0.09	-1.1%	0.1% to 2%					S9-708	34+36.31	49.00	947.10
S9-705	S9-707	Sidewalk Running Slope	5	8.00	0.16	2.0%	0.5% to 5%					S9-709	34+18.78	59.00	946.21
S9-705	S9-710	Ramp Running Slope	6	9.63	-0.70	-7.3%	0.5% to 8.3%					S9-710	34+28.68	58.62	946.36
S9-706	S9-708	Sidewalk Running Slope	5	8.00	0.13	1.6%	0.5% to 5%					S9-711	34+19.16	68.99	945.81
S9-707	S9-708	Sidewalk Cross Slope	5	8.00	-0.12	-1.5%	0.5% to 2%					S9-712	34+29.07	68.61	945.96
S9-709	S9-710	Ramp Cross Slope	6	9.91	0.15	1.5%	0.1% to 2%								
S9-709	S9-711	Sidewalk Running Slope	5	10.00	-0.40	-4.0%	0.5% to 5%								
S9-710	S9-712	Sidewalk Running Slope	5	10.00	-0.40	-4.0%	0.5% to 5%								
S9-711	S9-712	Sidewalk Cross Slope	5	9.92	0.15	1.5%	0.5% to 2%								
S9-801	S9-802	Sidewalk Cross Slope	5	8.00	-0.09	-1.1%	0.5% to 2%					S9-801	34+97.90	49.00	947.93
S9-801	S9-803	Sidewalk Running Slope	5	8.03	-0.24	-3.0%	0.5% to 5%					S9-802	34+97.90	41.00	947.84
S9-802	S9-804	Sidewalk Running Slope	5	7.97	-0.24	-3.0%	0.5% to 5%					S9-803	35+05.55	49.00	947.69
S9-803	S9-804	Landing/Turning Space	6	8.00	-0.09	-1.1%	0.1% to 2%					S9-804	35+05.55	41.00	947.60
S9-803	S9-805	Landing/Turning Space	6	8.11	0.09	1.1%	0.1% to 2%					S9-805	35+13.28	49.00	947.78
S9-804	S9-807	Landing/Turning Space	6	8.00	0.09	1.1%	0.1% to 2%					S9-806	35+13.28	43.00	947.72
S9-804	S9-808	Ramp Running Slope	6	5.66	-0.38	-6.7%	0.5% to 8.3%					S9-807	3513.239	41	947.69
S9-805	S9-806	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%					S9-808	35+05.39	35.34	947.22
S9-805	S9-810	Sidewalk Running Slope	4	6.01	0.12	2.0%	0.5% to 5%					S9-809	35+13.11	35.13	947.30
S9-806	S9-807	Landing/Turning Space	6	2.00	-0.03	-1.5%	0.1% to 2%					S9-810	35+19.01	49.00	947.90
S9-806	S9-811	Sidewalk Running Slope	4	5.98	0.09	1.5%	0.5% to 5%					S9-811	35+19.01	43.00	947.81
S9-807	S9-809	Ramp Running Slope	6	5.87	-0.39	-6.6%	0.5% to 8.3%					S9-812	35+50.00	49.00	949.03
S9-808	S9-809	Crosswalk Cross Slope - Yield Condition	6	7.83	0.08	1.0%	0% to 2%					S9-813	35+50.00	43.00	948.91
S9-810	S9-811	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								
S9-810	S9-812	Sidewalk Running Slope	4	32.51	1.13	3.5%	0.5% to 5%								
S9-811	S9-813	Sidewalk Running Slope	4	32.32	1.10	3.4%	0.5% to 5%								
S9-812	S9-813	Match Existing Cross Slope	4	6.00	-0.12	-2.0%	Match Existing								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		0"
Technician: KSB	Date: 8/18/2026		Field Bk:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.21

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.21

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S10-101	S10-102	Match Existing Cross Slope	5	10.00	-0.20	-2.0%	Match Existing					S10-101	700+24.96	10.00	941.80
S10-101	S10-125	Sidewalk Running Slope	5	8.00	-0.07	-0.9%	0.5% to 5%					S10-102	700+25.00	0.00	941.60
S10-103	S10-104	Sidewalk Cross Slope	5	10.00	-0.15	-1.5%	0.5% to 2%					S10-103	700+77.10	10.00	942.02
S10-103	S10-105	Sidewalk Running Slope	5	9.09	0.06	0.7%	0.5% to 5%					S10-104	700+77.10	0.00	941.87
S10-103	S10-125	Sidewalk Running Slope	5	40.12	-0.29	-0.7%	0.5% to 5%					S10-105	700+87.10	10.00	942.08
S10-104	S10-106	Sidewalk Running Slope	5	10.00	0.06	0.6%	0.5% to 5%					S10-106	700+87.10	0.00	941.93
S10-104	S10-126	Sidewalk Running Slope	5	42.91	-0.25	-0.6%	0.5% to 5%					S10-107	701+02.75	10.00	942.33
S10-105	S10-106	Landing/Turning Space	6	10.00	-0.15	-1.5%	0.1% to 2%					S10-108	701+02.75	0.00	942.20
S10-105	S10-107	Landing/Turning Space	6	14.23	0.25	1.8%	0.1% to 2%	Yes				S10-109	701+12.76	10.00	943.00
S10-106	S10-108	Landing/Turning Space	6	15.65	0.27	1.7%	0.1% to 2%	Yes				S10-110	701+12.76	0.00	942.90
S10-106	S10-113	Landing/Turning Space	6	9.83	0.15	1.5%	0.1% to 2%					S10-111	701+22.76	10.00	943.38
S10-107	S10-108	Landing/Turning Space	6	10.00	-0.13	-1.3%	0.1% to 2%					S10-112	701+22.76	0.00	943.28
S10-107	S10-109	Ramp Running Slope	6	9.18	0.67	7.3%	0.5% to 8.3%					S10-113	700+92.49	-7.00	942.08
S10-108	S10-110	Ramp Running Slope	6	10.00	0.70	7.0%	0.5% to 8.3%					S10-114	700+98.05	-5.79	942.17
S10-108	S10-114	Landing/Turning Space	6	8.54	-0.03	-0.4%	0.1% to 2%					S10-115	700+93.71	-12.85	942.02
S10-109	S10-110	Ramp Cross Slope	6	10.00	-0.10	-1.0%	0.1% to 2%					S10-116	700+99.01	-11.69	941.93
S10-109	S10-111	Sidewalk Running Slope	5	10.00	0.38	3.8%	0.5% to 5%					S10-117	700+96.79	-30.64	941.30
S10-110	S10-112	Sidewalk Running Slope	5	10.00	0.38	3.8%	0.5% to 5%					S10-118	701+01.44	-29.62	941.21
S10-111	S10-112	Sidewalk Cross Slope	5	10.00	-0.10	-1.0%	0.5% to 2%					S10-119	700+97.65	-36.53	941.06
S10-113	S10-114	Landing/Turning Space	6	6.00	0.09	1.5%	0.1% to 2%					S10-120	701+02.11	-35.56	940.97
S10-113	S10-115	Sidewalk Running Slope	5	6.00	-0.06	-1.0%	0.5% to 5%					S10-121	700+98.43	-42.44	941.00
S10-114	S10-116	Sidewalk Running Slope	5	6.00	-0.24	-4.0%	0.5% to 5%					S10-122	701+02.72	-41.50	940.91
S10-115	S10-116	Sidewalk Cross Slope	5	6.00	-0.09	-1.5%	0.5% to 2%					S10-123	701+05.88	-34.93	941.17
S10-115	S10-117	Sidewalk Running Slope	5	18.16	-0.72	-4.0%	0.5% to 5%					S10-124	701+06.34	-40.90	941.23
S10-116	S10-118	Sidewalk Running Slope	5	18.16	-0.72	-4.0%	0.5% to 5%					S10-125	700+32.96	10.00	941.73
S10-117	S10-118	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%					S10-126	700+33.00	0.00	941.62
S10-117	S10-119	Sidewalk Running Slope	4	6.00	-0.24	-4.0%	0.5% to 5%								
S10-118	S10-120	Sidewalk Running Slope	4	6.00	-0.24	-4.0%	0.5% to 5%								
S10-119	S10-120	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%								
S10-119	S10-121	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%								
S10-120	S10-122	Landing/Turning Space	6	6.00	-0.06	-1.0%	0.1% to 2%								
S10-120	S10-123	Ramp Running Slope	6	5.03	0.20	4.0%	0.5% to 8.3%								
S10-121	S10-122	Landing/Turning Space	6	6.00	-0.09	-1.5%	0.1% to 2%								
S10-122	S10-124	Ramp Running Slope	6	5.01	0.32	6.4%	0.5% to 8.3%								
S10-123	S10-124	Match Existing Cross Slope	6	6.00	0.06	1.0%	Match Existing								
S10-125	S10-126	Sidewalk Cross Slope	6	10.00	-0.11	-1.1%	0.5% to 2%								
S11-101	S11-102	Match Existing Cross Slope	4	6.00	-0.15	-2.5%	Match Existing					S11-101	102+31.07	-25.00	976.88
S11-101	S11-103	Sidewalk Running Slope	4	58.83	1.09	1.9%	0.5% to 5%					S11-102	102+30.92	-31.00	976.73
S11-102	S11-104	Sidewalk Running Slope	4	58.58	1.33	2.3%	0.5% to 5%					S11-103	102+89.77	-28.84	977.97
S11-103	S11-104	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%					S11-104	102+89.38	-34.83	978.06
S11-103	S11-105	Landing/Turning Space	4	6.00	0.04	0.7%	0.1% to 2%					S11-105	102+95.76	-29.24	978.01
S11-104	S11-105	Landing/Turning Space	4	6.00	-0.05	-0.8%	0.1% to 2%					S11-106	102+95.37	-35.22	978.10
S11-104	S11-106	Landing/Turning Space	4	6.00	0.04	0.7%	0.1% to 2%					S11-107	103+01.75	-29.63	977.95
S11-105	S11-106	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S11-108	103+01.68	-35.64	978.04
S11-105	S11-107	Ramp Running Slope	4	6.00	-0.06	-1.0%	0.5% to 8.3%								
S11-106	S11-108	Ramp Running Slope	4	6.32	-0.06	-0.9%	0.5% to 8.3%								
S11-107	S11-108	Crosswalk Cross Slope - No Yield Condition	4	6.00	0.09	1.5%	0% to 5%								
S11-201	S11-202	Crosswalk Cross Slope - No Yield Condition	4	6.07	0.09	1.5%	0% to 5%					S11-201	103+24.75	-31.14	978.32
S11-201	S11-203	Ramp Running Slope	4	6.37	0.30	4.7%	0.5% to 8.3%					S11-202	103+24.72	-37.15	978.41
S11-202	S11-204	Ramp Running Slope	4	6.01	0.30	5.0%	0.5% to 8.3%					S11-203	103+31.10	-31.55	978.62
S11-203	S11-204	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S11-204	103+30.71	-37.54	978.71
S11-203	S11-205	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S11-205	103+37.09	-31.95	978.71
S11-204	S11-206	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S11-206	103+36.69	-37.93	978.80
S11-205	S11-206	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S11-207	103+68.43	-34.00	979.34
S11-205	S11-207	Sidewalk Running Slope	4	31.41	0.63	2.0%	0.5% to 5%					S11-208	103+68.23	-40.00	979.43
S11-206	S11-208	Sidewalk Running Slope	4	31.61	0.63	2.0%	0.5% to 5%					S11-209	104+42.67	-34.00	980.28
S11-207	S11-208	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%					S11-210	104+42.37	-40.00	980.37
S11-207	S11-209	Sidewalk Running Slope	4	74.24	0.94	1.3%	0.5% to 5%					S11-211	104+79.98	-37.64	980.70
S11-208	S11-210	Sidewalk Running Slope	4	74.14	0.94	1.3%	0.5% to 5%					S11-212	104+79.39	-43.61	980.79
S11-209	S11-210	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								
S11-209	S11-211	Sidewalk Running Slope	4	37.49	0.42	1.1%	0.5% to 5%								
S11-210	S11-212	Sidewalk Running Slope	4	37.20	0.42	1.1%	0.5% to 5%								
S11-211	S11-212	Sidewalk Cross Slope	4	6.00	0.09	1.5%	0.5% to 2%								
S12-101	S12-102	Sidewalk Cross Slope	6	8.00	0.12	1.5%	0.5% to 2%					S12-101	107+78.80	-30.00	981.60
S12-101	S12-103	Sidewalk Running Slope	6	5.03	-0.24	-4.8%	0.5% to 5%	Yes				S12-102	107+78.80	-38.00	981.72
S12-102	S12-104	Sidewalk Running Slope	6	8.78	-0.25	-2.8%	0.5% to 5%					S12-103	107+83.77	-29.30	981.36
S12-103	S12-104	Sidewalk Cross Slope	6	8.29	0.11	1.3%	0.5% to 2%					S12-104	107+87.48	-36.72	981.47
S12-105	S12-106	Sidewalk Cross Slope	6	7.71	0.11	1.4%	0.5% to 2%					S12-105	108+20.04	-24.20	981.89
												S12-106	108+20.04	-31.91	982.00

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	0"	
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.22

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.22

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
												Point	Station	Offset	Elevation
				FT	FT	%	Pos. or Neg.		%						
S12-201	S12-202	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-201	106+55.99	40.18	981.61
S12-201	S12-203	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-202	106+56.01	34.18	981.52
S12-202	S12-204	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-203	106+61.99	40.19	981.52
S12-203	S12-204	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-204	106+62.01	34.19	981.43
S12-203	S12-205	Ramp Running Slope	4	6.00	-0.11	-1.8%	0.5% to 8.3%					S12-205	106+67.99	40.21	981.41
S12-204	S12-206	Ramp Running Slope	4	6.00	-0.12	-2.0%	0.5% to 8.3%					S12-206	106+68.01	34.21	981.31
S12-205	S12-206	Ramp Cross Slope	4	6.00	-0.10	-1.7%	0.1% to 2%	Yes				S12-207	106+69.04	40.21	981.40
S12-205	S12-207	Sidewalk Running Slope	4	1.04	-0.01	-1.0%	0.5% to 5%								
S12-206	S12-207	Crosswalk Cross Slope - No Yield Condition	4	6.11	0.09	1.5%	0% to 5%								
S12-301	S12-302	Crosswalk Cross Slope - No Yield Condition	4	6.09	-0.08	-1.3%	0% to 5%					S12-301	106+93.08	40.48	981.65
S12-301	S12-303	Sidewalk Running Slope	4	0.93	0.01	1.1%	0.5% to 5%					S12-302	106+94.03	34.49	981.57
S12-302	S12-303	Ramp Cross Slope	4	6.00	0.09	1.5%	0.1% to 2%					S12-303	106+94.00	40.49	981.66
S12-302	S12-304	Ramp Running Slope	4	6.00	0.43	7.2%	0.5% to 8.3%					S12-304	107+00.03	34.51	982.00
S12-303	S12-305	Ramp Running Slope	4	6.00	0.43	7.2%	0.5% to 8.3%					S12-305	107+00.00	40.51	982.09
S12-304	S12-305	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S12-306	107+06.03	34.54	982.09
S12-304	S12-306	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S12-307	107+06.00	40.54	982.18
S12-305	S12-307	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%								
S12-306	S12-307	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%								
S12-401	S12-402	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-401	107+86.13	40.94	982.53
S12-401	S12-403	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-402	107+86.16	34.94	982.44
S12-402	S12-404	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-403	107+92.13	40.97	982.44
S12-403	S12-404	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-404	107+92.16	34.97	982.35
S12-403	S12-405	Ramp Running Slope	4	6.00	-0.44	-7.3%	0.5% to 8.3%					S12-405	107+98.13	40.99	982.00
S12-404	S12-406	Ramp Running Slope	4	6.00	-0.41	-6.8%	0.5% to 8.3%					S12-406	107+98.16	34.99	981.94
S12-405	S12-406	Ramp Cross Slope	4	6.00	-0.06	-1.0%	0.1% to 2%					S12-407	107+98.98	41.00	981.98
S12-405	S12-407	Sidewalk Running Slope	4	0.85	-0.02	-2.4%	0.5% to 5%								
S12-406	S12-407	Crosswalk Cross Slope - No Yield Condition	4	6.08	0.04	0.7%	0% to 5%								
S12-501	S12-502	Crosswalk Cross Slope - No Yield Condition	4	6.00	-0.04	-0.7%	0% to 5%					S12-501	108+23.03	40.95	982.21
S12-501	S12-503	Ramp Running Slope	4	6.00	0.41	6.8%	0.5% to 8.3%					S12-502	108+22.98	34.95	982.17
S12-502	S12-504	Ramp Running Slope	4	6.00	0.36	6.0%	0.5% to 8.3%					S12-503	108+29.01	34.93	982.62
S12-503	S12-504	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-504	108+29.03	40.93	982.53
S12-503	S12-505	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S12-505	108+35.03	40.91	982.71
S12-504	S12-506	Landing/Turning Space	4	6.00	0.09	1.5%	0.1% to 2%					S12-506	108+35.01	34.91	982.62
S12-505	S12-506	Landing/Turning Space	4	6.00	-0.09	-1.5%	0.1% to 2%					S12-507	109+30.99	40.60	982.02
S12-505	S12-507	Sidewalk Running Slope	4	96.00	-0.69	-0.7%	0.5% to 5%					S12-508	109+30.96	34.60	981.93
S12-506	S12-508	Sidewalk Running Slope	4	96.00	-0.69	-0.7%	0.5% to 5%								
S12-507	S12-508	Sidewalk Cross Slope	4	6.00	-0.09	-1.5%	0.5% to 2%								

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		0"
Technician: KSB	Date: 8/18/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet S.23

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

SIDEWALK SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet S.23

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TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
8-21-15

Station	Cut				Fill									Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink		Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 1																					
3+75.00	6	1		6	0	1	0	0		1	2	4		0	2	2	-2				
4+00.00	9	2		9	0	2	0	0		2	3	6		0	2	3	-3				
4+25.00	9	2		9	0	2	0	0		2	3	6		1	2	3	-3				
4+50.00	9	2		9	0	2	0	0		2	3	7		1	3	4	-3				
4+75.00	10	1		10	0	2	0	0		2	3	7		1	2	3	-2				
5+00.00	10	1		10	0	2	0	0		2	3	8		1	2	3	-2				
5+25.00	10	1		10	0	2	0	0		2	3	7		1	3	4	-2				
5+50.00	11	2		11	0	2	0	0		2	3	8		1	2	3	-2				
5+75.00	11	1		11	0	2	0	0		2	3	8		2	3	4	-2				
6+00.00	11	1		11	0	2	0	0		2	3	8		2	4	5	-4				
6+25.00	10	1		10	0	2	0	0		2	3	7		2	4	6	-4				
6+50.00	10	1		10	0	2	0	0		2	3	7		2	5	7	-5				
6+75.00	13	3		13	0	0	0	0		0	0	13		5	0	0	5				
7+00.00	14	3		14	0	0	0	0		0	0	14		5	0	0	5				
7+25.00	15	3		15	0	0	0	0		0	0	15		5	0	0	5				
7+50.00	14	3		14	0	0	0	0		0	0	14		5	0	0	5				
7+75.00	13	3		13	0	0	0	0		0	0	13		4	0	0	4				
8+00.00	5	4		5	0	0	0	0		0	0	5		3	0	0	3				
8+25.00	0	5		0	0	0	0	0		0	0	0		0	0	0	0				
8+50.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
12+25.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
12+50.00	0	16		0	0	0	0	0		0	0	0		0	0	0	0				
12+75.00	0	5		0	0	0	0	0		0	0	0		0	0	0	0				
13+00.00	0	4		0	0	0	0	0		0	0	0		0	0	0	0				
13+25.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
13+50.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
13+75.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
14+00.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
14+25.00	0	1		0	0	0	0	0		0	0	0		0	0	0	0				
14+50.00	0	4		0	0	0	0	0		0	0	0		0	0	0	0				
14+75.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
15+00.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
15+25.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
15+50.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
15+75.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
16+00.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
16+25.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
16+50.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
16+75.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
17+00.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
17+25.00	0	33		0	0	0	0	0		0	0	0		0	0	0	0				
17+50.00	0				0	0	0	0		0	0	0		0	0	0	0				
17+75.00	0	10		0	0	0	0	0		0	0	0		0	0	0	0				
18+00.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
18+25.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
18+50.00	0				0	0	0	0		0	0	0		0	0	0	0				
18+75.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
19+00.00	0	1		0	5	0	5	0		10	13	-13		6	4	6	0				
19+25.00	1	1		1	11	0	7	0		18	24	-23		9	4	6	4				
19+50.00	5				15	0	7	0		22	29	-24		12	8	12	1				
19+75.00	4	1		4	15	0	8	0		23	30	-26		13	8	11	2				
20+00.00	8	2		8	5	0	5	0		11	14	-6		12	8	11	2				
20+25.00	12	4		12	0	0	3	0		4	5	7		12	8	11	1				
20+50.00	6				17	0	10	0		27	35	-30		16	7	10	5				
20+75.00	8	1		8	18	0	10	0		29	38	-30		16	8	11	6				
21+00.00	7	1		7	20	0	10	0		30	39	-32		16	8	11	6				
21+25.00	14	3		14	15	0	9	0		24	32	-17		17	8	12	5				
21+50.00	19	7		19	10	0	9	0		19	24	-5		18	9	12	5				
21+75.00	22	1		22	12	0	9	0		21	27	-4		18	9	13	5				
22+00.00	27	1		27	6	0	8	0		14	18	9		18	9	13	5				
22+25.00	25	1		25	5	0	7	0		12	16	9		17	8	12	5				
22+50.00	16	1		16	12	0	8	0		21	27	-11		16	7	10	6				
22+75.00	22	1		22	18	0	8	0		26	34	-13		16	8	11	6				
23+00.00	17	1		17	18	0	8	0		26	34	-17		16	7	10	6				
23+25.00	21	3		21	17	0	8	0		26	33	-13		17	8	11	6				
23+50.00	23	12		23	18	0	9	0		27	35	-12		17	8	11	6				
23+75.00	24	5		24	18	0	9	0		27	36	-12		17	8	11	6				
24+00.00	18	1		18	19	0	10	0		29	38	-20		17	8	11	6				
Subtotals:	490	174	0	490	275	24	169	3	0	472	614	-124		360	195	274	86				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet T.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.1

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
24+00.00	17	1		17	21	0	10	0		31	40	-23			17	8	11	6				
24+25.00	19	1		19	20	0	10	0		30	39	-20			17	8	12	6				
24+50.00	25	1		25	21	0	10	0		30	39	-14			18	9	12	6				
24+75.00	31	1		31	20	0	9	0		29	38	-7			19	9	13	6				
25+00.00	34	1		34	17	0	9	0		26	34	0			19	9	13	5				
25+25.00	40	0		40	13	0	8	0		22	28	12			19	10	13	5				
25+50.00	40	0		40	10	0	8	0		18	24	16			19	9	13	6				
25+75.00	44	0		44	8	0	8	0		15	20	24			19	9	13	6				
26+00.00	43	0		43	5	0	7	0		12	16	27			19	9	13	6				
26+25.00	32	0		32	5	0	7	0		12	15	16			17	8	11	6				
26+50.00	18	2		18	6	0	7	0		13	17	1			16	7	9	6				
26+75.00	4	12		4	0	0	1	2		4	5	-1			6	2	3	4				
27+00.00	0	11		0	0	0	0	4		4	5	-5			1	0	0	1				
27+25.00	0	11		0	0	0	0	2		2	2	-2			0	0	0	0				
27+50.00	1	11		1	0	0	0	0		0	1	1			0	0	0	0				
27+75.00	4	8		4	0	0	0	0		0	0	4			2	0	0	2				
28+00.00	1	3		1	28	0	12	0		41	53	-52			19	12	17	2				
28+25.00	0	1		0	46	0	19	0		66	85	-85			22	13	19	4				
28+50.00	34	7		34	35	0	12	0		47	61	-27			23	14	19	4				
28+75.00	30	2		30	34	0	11	0		45	59	-29			22	13	18	4				
29+00.00	26	1		26	29	0	11	0		40	53	-26			21	12	17	4				
29+25.00	21	1		21	26	0	10	0		36	47	-26			20	11	15	5				
29+50.00	15	1		15	25	0	10	0		36	46	-31			18	9	13	6				
29+75.00	10	0		10	24	0	10	0		35	45	-35			17	8	11	6				
30+00.00	11	5		11	23	0	10	0		33	43	-32			17	8	11	6				
30+25.00	10	1		10	22	0	10	0		31	41	-31			17	8	11	6				
30+50.00	10	13		10	20	0	10	0		30	39	-30			17	7	10	6				
30+75.00	9	15		9	18	0	10	0		28	36	-27			18	9	13	5				
31+00.00	9	2		9	15	0	10	0		25	33	-24			20	11	15	5				
31+25.00	7	7		7	14	0	10	0		24	31	-24			21	11	16	5				
31+50.00	26	12		26	24	4	18	1		46	60	-34			29	13	18	10				
31+75.00	44	18		44	53	8	26	1		89	116	-72			37	17	24	13				
32+00.00	40	19		40	88	8	31	1		128	167	-127			40	20	28	11				
32+25.00	37	19		37	107	5	33	0		146	190	-153			42	20	28	14				
32+50.00	108	20		108	123	9	27	0		159	207	-99			44	30	41	3				
32+75.00	882	21		882	86	85	9	0		180	234	648			63	51	71	-8				
33+00.00	216	26		216	96	15	19	0		129	168	48			58	41	58	0				
33+25.00	50	45		50	45	0	32	0		78	101	-51			46	18	25	21				
33+50.00	48	56		48	7	0	9	2		19	25	23			23	3	5	18				
33+75.00	39	45		39	14	3	5	2		25	33	7			20	8	11	9				
34+00.00	21	27		21	20	5	10	1		35	46	-25			29	9	13	16				
34+25.00	27	29		27	16	5	31	3		54	71	-44			26	13	18	8				
34+50.00	42	31		42	16	8	4	4	92	124	161	-119			21	25	35	-14				
34+75.00	58	31		58	1	8	3	2		15	19	39			20	16	23	-2				
35+00.00	40	19		40	0	5	0	0		5	6	34			10	11	15	-5				
35+25.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
35+50.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
35+75.00										0	0	0										
Stage 1 Totals:	2,717	708	0	2,717	1,478	195	679	32	92	2,474	3,217	-500			1,347	735	1,028	319				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet T.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES

2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.2

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 2																						
3+75.00	7	0		7	0	1	0	0		1	2	5			0	2	2	-2				
4+00.00	11	0		11	0	2	0	0		2	3	8			0	2	3	-3				
4+25.00	11	0		11	0	2	0	0		2	3	9			0	2	3	-3				
4+50.00	12	0		12	0	2	0	0		2	3	9			0	3	4	-4				
4+75.00	12	0		12	0	2	0	0		2	3	10			0	2	3	-3				
5+00.00	13	0		13	0	2	0	0		2	3	10			0	2	3	-3				
5+25.00	13	0		13	0	2	0	0		2	3	10			0	3	4	-4				
5+50.00	36	0		36	0	7	0	0		7	9	27			0	11	15	-15				
5+75.00	50	0		50	0	9	0	0		9	11	38			0	15	22	-22				
6+00.00	54	0		54	0	9	0	0		9	12	42			0	15	21	-21				
6+25.00	56	0		56	0	9	0	0		9	12	44			0	13	19	-19				
6+50.00	63	0		63	0	9	0	0		9	12	50			0	11	15	-15				
6+75.00	74	0		74	0	7	0	0		7	9	65			0	6	8	-8				
7+00.00	75	0		75	0	7	0	0		7	9	66			0	4	6	-6				
7+25.00	75	0		75	0	7	0	0		7	9	66			0	4	5	-5				
7+50.00	75	0		75	0	7	0	0		7	9	66			0	4	5	-5				
7+75.00	77	0		77	0	7	0	0		7	9	68			0	4	5	-5				
8+00.00	63	0		63	0	5	0	0		5	7	56			0	2	3	-3				
8+25.00	67	0		67	0	2	0	0		2	2	65			0	0	0	0				
8+50.00	55	0		55	0	1	0	0		1	1	54			0	0	0	0				
8+75.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
18+00.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
18+25.00	0	0		0	2	0	2	0		5	6	-6			3	2	3	0				
18+50.00	0	1		0	11	0	7	0		18	24	-24			9	6	8	1				
18+75.00	0	1		0	17	0	8	0		26	34	-34			10	6	8	2				
19+00.00	0	1		0	27	0	10	0		37	48	-48			12	6	8	4				
19+25.00	0	1		0	40	0	12	0		53	69	-69			14	7	10	4				
19+50.00	0	1		0	48	0	14	0		62	80	-80			16	8	11	5				
19+75.00	0	1		0	45	0	13	0		58	75	-75			15	6	8	7				
20+00.00	0	1		0	41	0	13	0		54	70	-70			15	5	6	9				
20+25.00	0	5		0	35	0	14	0		49	64	-64			16	4	5	10				
20+50.00	0	5		0	27	0	14	0		42	54	-54			16	3	4	11				
20+75.00	2	12		2	14	1	12	0		27	35	-34			23	4	6	17				
21+00.00	16	30		16	3	1	5	0		9	12	4			26	6	9	17				
21+25.00	31	43		31	0	1	1	0		3	4	27			17	4	5	12				
21+50.00	12	22	37	50	0	0	1	0		1	1	49			28	2	3	24				
21+75.00	67	23	37	104	0	2	0	0		2	2	102			29	4	5	24				
22+00.00	89	26		89	0	1	0	0		1	2	87			30	2	3	27				
22+25.00	62	22		62	0	3	0	0		3	3	58			35	7	10	24				
22+50.00	57	21		57	0	3	0	0		3	4	53			35	8	11	24				
22+75.00	60	21		60	0	2	1	0		3	4	56			34	9	12	22				
23+00.00	50	22		50	1	1	2	0		3	4	45			31	7	10	21				
23+25.00	23	47		23	0	2	1	0		4	5	18			24	6	9	15				
23+50.00	46	48		46	0	2	0	0		2	2	43			22	6	9	13				
23+75.00	28	22		28	1	1	2	0		4	5	23			30	6	8	22				
24+00.00	14	22		14	2	2	5	0		9	12	2			29	5	7	22				
24+25.00	10	21		10	3	2	8	0		13	17	-7			28	4	6	22				
24+50.00	9	21		9	6	2	11	0		19	24	-15			29	5	7	22				
24+75.00	7	22		7	12	2	12	0		27	35	-28			31	6	8	23				
25+00.00	4	22		4	23	2	14	0		40	51	-47			32	7	10	23				
25+25.00	3	22		3	31	2	16	0		50	65	-62			32	6	8	23				
25+50.00	2	22		2	42	2	17	0		61	79	-77			30	5	7	23				
25+75.00	1	21		1	52	2	17	0		72	93	-92			30	5	7	23				
26+00.00	1	21		1	60	2	17	0		79	103	-103			30	5	7	23				
26+25.00	0	22		0	65	2	18	0		85	110	-110			29	5	7	22				
26+50.00	0	22		0	65	2	18	0		86	111	-111			28	5	7	22				
26+75.00	0	22		0	61	2	18	0		81	105	-105			29	5	7	22				
27+00.00	1	39		1	53	2	16	0		72	94	-93			34	5	7	28				
27+25.00	4	52		4	42	2	14	0		58	75	-71			27	5	7	20				
27+50.00	7	63		7	28	2	13	0		43	56	-49			18	5	7	12				
27+75.00	17	22		17	15	2	7	0		24	31	-14			41	6	9	33				
28+00.00	22	22		22	11	2	8	0		20	27	-5			30	6	9	21				
28+25.00	46	23		46	0	1	2	0		3	4	42			27	6	8	19				
28+50.00	56	47		56	0	0	0	0		0	0	56			11	0	0	10				
28+75.00	72	27		72	0	0	0	0		0	0	72			24	0	0	24				
29+00.00	53	22		53	0	2	0	0		2	3	50			29	4	6	23				
29+25.00	37	22		37	0	2	1	0		3	4	33			30	4	6	24				
29+50.00																						
Subtotals:	1,805	975	75	1,880	885	162	363	2	0	1,413	1,837	43			1,115	330	462	653				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	T.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.3

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
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Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
29+50.00	33	22		33	0	2	1	0		4	5	28			29	4	6	23				
29+75.00	32	22		32	0	2	2	0		5	6	25			29	5	7	22				
30+00.00	39	22		39	0	2	2	0		4	5	33			29	5	7	21				
30+25.00	96	28		96	0	1	2	0		3	3	92			33	14	19	14				
30+50.00	100	67		100	0	2	0	0		2	3	97			10	2	3	8				
30+75.00	85	37		85	0	2	2	0		3	5	80			28	10	14	14				
31+00.00	30	24		30	1	1	3	0		5	6	23			25	5	7	18				
31+25.00	18	24		18	2	2	5	0		9	12	5			24	4	5	19				
31+50.00	8	12		8	1	1	3	0		5	7	2			12	2	3	9				
31+75.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
Stage 2																						
Totals:	2,244	1,233	75	2,319	889	179	384	3	0	1,454	1,890	429			1,335	382	534	802				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet T.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES, INC.

2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.4

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill									Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink		Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 3																					
8+25.00	38	0		38	0	1	0	0		1	2	36		0	0	0	0				
8+50.00	157	0		157	0	13	0	0		13	17	140		0	0	0	0				
8+75.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
18+50.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
18+75.00	4	2		4	14	0	10	0		24	31	-27		14	6	9	6				
19+00.00	4	4		4	15	0	9	0		24	32	-28		15	6	9	6				
19+25.00	2	5		2	16	0	8	0		24	32	-29		13	6	8	5				
19+50.00	1	6		1	13	0	7	0		20	26	-25		11	6	8	4				
19+75.00	3	7		3	9	0	6	0		15	20	-17		10	6	8	2				
20+00.00	2	8		2	6	0	5	0		12	15	-13		9	5	8	1				
20+25.00	3	15		3	5	0	5	0		10	13	-11		8	5	8	0				
20+50.00	8	16		8	4	0	5	0		10	13	-5		9	7	10	-1				
20+75.00	20	13		20	8	1	6	0		15	19	1		10	7	10	0				
21+00.00	30	11		30	13	2	6	0		20	27	3		9	4	6	3				
21+25.00	30	11		30	14	2	5	0		21	28	3		9	4	6	3				
21+50.00	31	11		31	14	2	5	0		21	27	4		9	4	5	3				
21+75.00	36	11		36	12	2	6	0		20	26	10		9	4	6	3				
22+00.00	34	11		34	13	2	6	0		21	28	6		10	5	7	3				
22+25.00	31	11		31	16	2	6	0		24	31	0		13	8	11	2				
22+50.00	27	11		27	17	2	5	0		24	31	-4		12	7	10	2				
22+75.00	22	10		22	18	2	5	0		25	33	-11		12	7	10	2				
23+00.00	19	11		19	18	2	5	0		26	34	-15		12	7	10	2				
23+25.00	17	11		17	19	2	5	0		26	34	-18		12	7	10	2				
23+50.00	16	11		16	19	2	6	0		28	36	-21		11	6	9	3				
23+75.00	16	11		16	19	2	7	0		28	36	-21		10	5	7	3				
24+00.00	18	11		18	17	2	6	0		25	32	-15		9	4	6	3				
24+25.00	21	11		21	16	2	5	0		23	30	-10		9	4	6	3				
24+50.00	24	11		24	16	3	5	0		24	31	-6		9	5	7	3				
24+75.00	26	11		26	16	3	5	0		23	31	-4		10	6	8	2				
25+00.00	26	11		26	16	3	5	0		23	30	-5		11	6	9	2				
25+25.00	24	11		24	17	3	5	0		24	31	-7		11	6	9	2				
25+50.00	21	10		21	18	3	5	0		25	33	-12		10	5	7	2				
25+75.00	14	11		14	19	3	6	0		28	36	-22		10	5	8	2				
26+00.00	9	11		9	18	3	6	0		27	34	-26		10	5	8	2				
26+25.00	5	11		5	12	2	6	0		20	26	-21		10	5	7	3				
26+50.00	1	11		1	8	2	5	0		15	20	-19		9	4	6	3				
26+75.00	8	12		8	2	1	3	2		7	9	-1		9	4	6	3				
27+00.00	25	37		25	0	4	2	6		12	15	10		16	11	15	1				
27+25.00	65	51		65	0	0	0	1		1	2	63		11	0	0	11				
27+50.00	103	62		103	0	2	0	0		2	2	101		2	1	2	0				
27+75.00	99	21		99	0	2	0	0		3	3	96		21	15	21	0				
28+00.00	56	11		56	0	2	0	0		2	3	54		9	4	6	3				
28+25.00	61	11		61	0	2	0	0		2	3	58		9	4	6	3				
28+50.00	62	11		62	18	2	5	0		25	33	29		9	4	6	3				
28+75.00	70	11		70	16	3	6	0		25	32	38		9	5	7	3				
29+00.00	74	11		74	11	3	7	0		20	27	47		11	6	8	2				
29+25.00	75	11		75	5	3	5	0		13	17	59		12	7	10	2				
29+50.00	77	11		77	3	3	4	0		10	13	64		11	6	9	2				
29+75.00	74	11		74	3	3	4	0		9	12	62		10	5	7	3				
30+00.00	69	11		69	3	3	4	0		9	12	58		10	5	7	3				
30+25.00	61	11		61	3	3	4	0		9	12	49		9	5	6	3				
30+50.00	53	11		53	4	2	4	0		10	13	40		9	4	6	3				
30+75.00	46	11		46	6	2	5	0		13	18	28		9	4	5	3				
31+00.00	39	11		39	8	2	6	0		16	21	18		9	5	6	3				
31+25.00	32	12		32	9	2	7	0		18	23	9		9	5	8	2				
31+50.00	13	6		13	4	1	4	0		9	12	1		5	3	4	0				
31+75.00	0	0		0	0	0	0	0		0	0	0		0	0	0	0				
Stage 3 Totals:	1,899	676	0	1,899	548	114	255	10	0	927	1,205	695		534	287	402	132				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet T.5

ALTOONA, IA

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES

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Project No: 1221679

Sheet T.5

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 4																						
20+75.00	8	5		8	0	0	0	0		0	0	8			0	0	0	0				
21+00.00	14	9		14	0	0	0	0		0	0	14			0	0	0	0				
21+25.00	14	9		14	0	0	0	0		0	0	14			0	0	0	0				
21+50.00	14	9		14	0	0	0	0		0	0	14			0	0	0	0				
21+75.00	16	9		16	0	0	0	0		0	0	16			0	0	0	0				
22+00.00	16	9		16	0	0	0	0		0	0	16			0	0	0	0				
22+25.00	16	10		16	0	2	0	0		2	2	14			0	1	2	-2				
22+50.00	11	9		11	0	4	0	1		5	6	5			0	5	7	-7				
22+75.00	9	11		9	0	4	0	3		6	8	1			0	7	9	-9				
23+00.00	13	10		13	0	0	0	0		0	0	13			0	0	0	0				
23+25.00	11	9		11	0	0	0	0		0	0	11			0	0	0	0				
23+50.00	11	9		11	0	0	0	0		0	0	11			0	0	0	0				
23+75.00	13	10		13	0	2	0	0		2	2	11			0	1	2	-2				
24+00.00	14	9		14	0	4	0	0		4	5	9			0	3	4	-4				
24+25.00	14	9		14	0	4	0	0		4	5	10			0	3	4	-4				
24+50.00	15	9		15	0	4	0	0		4	5	10			0	3	4	-4				
24+75.00	16	9		16	0	4	0	0		4	5	11			0	3	4	-4				
25+00.00	16	10		16	0	4	0	0		4	5	11			0	3	4	-4				
25+25.00	13	9		13	0	4	0	0		4	5	8			0	3	4	-4				
25+50.00	14	10		14	0	4	0	0		4	5	9			0	3	4	-4				
25+75.00	12	9		12	0	4	0	0		4	5	7			0	3	4	-4				
26+00.00	11	9		11	0	4	0	0		4	5	6			0	3	4	-4				
26+25.00	9	9		9	0	4	0	0		4	5	4			0	3	4	-4				
26+50.00	9	9		9	0	4	0	0		4	5	4			0	3	4	-4				
26+75.00	10	9		10	0	2	0	0		2	3	7			0	2	2	-2				
27+00.00	11	8		11	0	0	0	0		0	0	11			0	0	0	0				
27+25.00	19	10		19	0	0	0	0		0	0	19			2	0	0	2				
27+50.00	18	9		18	0	0	0	0		0	0	18			0	0	0	0				
27+75.00	21	10		21	0	0	0	0		0	0	21			0	0	0	0				
28+00.00	15	12		15	0	3	0	0		3	4	11			0	6	9	-9				
28+25.00	15	9		15	0	4	0	0		4	5	10			0	8	11	-11				
28+50.00	16	9		16	0	4	0	0		4	5	11			0	8	11	-11				
28+75.00	18	9		18	0	4	0	0		4	5	13			0	8	11	-11				
29+00.00	19	9		19	0	4	0	0		4	5	15			0	8	11	-11				
29+25.00	20	9		20	0	4	0	0		4	5	15			0	8	11	-11				
29+50.00	20	9		20	0	4	0	0		4	5	15			0	8	11	-11				
29+75.00	20	9		20	0	4	0	0		4	5	15			0	8	11	-11				
30+00.00	19	10		19	0	4	0	0		4	5	14			0	8	11	-11				
30+25.00	27	10		27	0	0	0	0		0	0	27			0	0	0	0				
30+50.00	23	9		23	0	0	0	0		0	0	23			0	0	0	0				
30+75.00	21	9		21	0	0	0	0		0	0	21			0	0	0	0				
31+00.00	22	10		22	0	3	0	0		3	4	18			0	2	3	-3				
31+25.00	20	9		20	0	4	0	0		4	5	15			0	3	4	-4				
31+50.00	13	6		13	0	4	0	0		4	5	8			0	3	4	-4				
31+75.00	7	3		7	0	4	0	0		4	5	2			0	3	4	-4				
32+00.00	7	3		7	0	4	0	0		4	5	2			0	3	4	-4				
32+25.00	6	3		6	0	1	0	0		1	1	5			0	1	1	-1				
32+50.00	6	3		6	0	0	0	0		0	0	6			0	0	0	0				
32+75.00	6	3		6	0	0	0	0		0	0	6			0	0	0	0				
33+00.00	1	1		1	0	0	0	0		0	0	1			0	0	0	0				
33+25.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
33+50.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
33+75.00	0	1		0	0	0	0	0		0	0	0			0	0	0	0				
34+00.00	0	3		0	0	0	0	0		0	0	0			0	0	0	0				
34+25.00	0	1		0	0	0	0	0		0	0	0			0	0	0	0				
34+50.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
34+75.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
35+00.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
35+25.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
35+50.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
35+75.00											0	0										
Stage 4 Totals:	709	427	0	709	0	106	0	4	0	110	142	567			3	130	182	-180				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	T.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES, INC.
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.6

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 5																						
5+50.00	9	1		9	0	2	0	0		2	3	6			5	4	5	-1				
5+75.00	16	1		16	0	2	0	0		2	3	13			6	5	6	0				
6+00.00	19	3		19	0	3	0	0		3	3	15			6	4	6	1				
6+25.00	22	3		22	0	3	0	0		3	4	18			8	4	6	2				
6+50.00	27	3		27	0	3	1	0		3	4	23			9	4	6	4				
6+75.00	30	3		30	0	3	1	0		3	4	26			10	4	6	4				
7+00.00	30	3		30	0	3	0	0		3	4	26			10	4	6	4				
7+25.00	30	3		30	0	3	0	0		3	3	27			9	4	5	4				
7+50.00	31	3		31	0	2	0	0		3	3	28			9	4	5	4				
7+75.00	31	3		31	0	2	0	0		3	3	28			9	4	5	4				
8+00.00	33	3		33	0	1	0	0		1	2	32			10	4	6	4				
8+25.00	62	9		62	0	0	10	0		10	13	48			40	18	25	15				
8+50.00	277	47		277	0	30	0	0		31	40	237			68	41	57	11				
8+75.00	13	0		13	0	0	0	0		0	0	13			0	0	0	0				
9+00.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
9+25.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
9+50.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
9+75.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
10+00.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
10+25.00	5	1		5	0	0	0	0		0	0	5			4	4	6	-2				
10+50.00	16	3		16	0	0	0	0		0	0	16			12	12	16	-5				
10+75.00	20	3		20	0	0	0	0		0	0	19			13	12	17	-4				
11+00.00	22	3		22	0	0	0	0		0	0	22			14	12	17	-3				
11+25.00	23	4		23	0	0	0	0		0	0	22			14	12	17	-3				
11+50.00	22	4		22	0	0	0	0		0	0	22			14	12	17	-3				
11+75.00	21	4		21	0	0	0	0		0	0	21			13	11	16	-3				
12+00.00	20	4		20	0	0	0	0		0	0	20			13	11	15	-2				
12+25.00	19	4		19	0	0	0	0		0	0	19			13	10	15	-2				
12+50.00	22	4		22	0	0	0	0		0	0	22			12	11	15	-3				
12+75.00	36	15		36	0	1	0	0		2	2	33			15	14	19	-5				
13+00.00	108	35		108	0	0	1	0		1	1	107			34	14	20	15				
13+25.00	58	13		58	0	4	2	0		6	8	50			64	37	52	12				
13+50.00	39	40		39	2	1	5	0		8	11	29			20	24	34	-14				
13+75.00	7	1		7	5	0	7	0		13	16	-10			22	13	19	3				
14+00.00	7	1		7	5	0	8	0		13	17	-10			16	7	9	7				
14+25.00	8	1		8	8	0	9	0		17	22	-14			17	7	10	7				
14+50.00	7	1		7	13	0	10	0		23	30	-23			17	7	10	7				
14+75.00	4	1		4	19	0	11	0		30	39	-34			17	7	9	8				
15+00.00	4	1		4	23	0	11	0		35	45	-41			17	6	8	8				
15+25.00	4	1		4	14	0	11	0		25	33	-29			16	5	7	9				
15+50.00	8	1		8	13	0	9	0		22	29	-22			17	6	8	9				
15+75.00	11	0		11	7	0	7	0		14	19	-8			16	5	7	9				
16+00.00	10	2		10	4	0	5	0		9	11	-2			14	5	6	8				
16+25.00	5	4		5	1	0	3	0		4	5	0			11	4	5	6				
16+50.00	14	5		14	0	0	0	0		0	0	14			10	4	6	4				
16+75.00	17	10		17	0	0	0	0		0	0	17			4	2	3	1				
17+00.00	9	18		9	0	0	0	0		0	0	9			0	0	0	0				
17+25.00	13	6		13	0	0	0	0		0	0	13			7	3	4	3				
17+50.00	5	4		5	0	0	2	0		3	4	2			11	4	6	5				
17+75.00	7	2		7	1	0	6	0		7	9	-2			14	5	8	7				
18+00.00	8	1		8	5	0	9	0		14	19	-11			18	7	9	8				
18+25.00	9	0		9	15	0	11	0		26	34	-25			19	7	10	8				
18+50.00	7	1		7	20	0	12	0		32	42	-34			19	8	11	8				
18+75.00	0	0		0	2	0	1	0		3	4	-3			2	1	1	1				
19+00.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
Stage 5 Totals:	1,224	279	0	1,224	159	63	154	4	0	378	492	733			738	413	578	160				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	T.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

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Project No: 1221679

Sheet T.7

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 6																						
9+00.00	27	20		27	0	0	0	0		0	0	27			2	3	4	-1				
9+25.00	27	19		27	0	1	0	0		1	1	26			3	5	7	-4				
9+50.00	26	17		26	0	2	1	0		3	4	22			4	4	5	-1				
9+75.00	29	16		29	0	2	1	0		3	4	25			4	4	5	-1				
10+00.00	31	15		31	0	3	1	0		4	5	27			4	4	5	-1				
10+25.00	34	15		34	0	3	0	0		3	4	30			4	4	6	-2				
10+50.00	35	15		35	0	3	0	0		3	3	32			4	4	6	-2				
10+75.00	38	15		38	0	3	0	0		3	3	34			4	5	6	-2				
11+00.00	39	15		39	0	3	0	0		3	3	36			4	5	7	-2				
11+25.00	39	16		39	0	3	0	0		3	3	36			4	5	7	-2				
11+50.00	36	17		36	0	3	0	0		3	3	33			4	5	7	-2				
11+75.00	36	18		36	0	3	0	0		3	3	32			4	5	7	-2				
12+00.00	36	18		36	0	3	0	0		3	3	33			4	5	7	-2				
12+25.00	36	18		36	0	3	0	0		3	4	32			4	5	7	-3				
12+50.00	51	16		51	0	2	0	0		2	3	47			4	5	7	-3				
12+75.00	42	19		42	0	0	0	0		0	0	42			4	0	0	4				
13+00.00	46	23		46	0	0	0	0		0	0	46			3	0	0	3				
13+25.00	53	9		53	0	1	0	0		1	1	52			16	2	2	14				
13+50.00	60	6		60	0	2	0	0		2	3	57			14	5	7	8				
13+75.00	49	6		49	0	3	0	0		3	3	45			15	5	6	9				
14+00.00	42	5		42	0	3	0	0		3	3	38			15	4	6	9				
14+25.00	32	5		32	0	3	0	0		3	3	29			16	4	6	9				
14+50.00	23	4		23	0	3	4	0		6	8	15			16	4	6	10				
14+75.00	17	4		17	4	2	8	0		14	18	-1			16	4	6	10				
15+00.00	13	4		13	18	2	11	0		31	40	-27			16	4	5	11				
15+25.00	11	4		11	14	2	12	0		28	37	-26			17	4	6	11				
15+50.00	11	4		11	8	2	11	1		23	30	-19			17	5	6	10				
15+75.00	11	3		11	4	2	9	1		16	21	-10			17	5	7	10				
16+00.00	15	3		15	3	2	4	1		11	14	2			17	5	7	10				
16+25.00	28	3		28	1	2	3	1		8	10	18			17	5	6	10				
16+50.00	43	3		43	0	1	2	0		4	5	38			18	5	7	11				
16+75.00	139	33		139	0	8	0	0		9	11	128			29	18	25	4				
17+00.00	187	73		187	0	7	1	0		8	11	176			10	8	11	-2				
17+25.00	94	9		94	15	0	26	0		41	54	40			55	35	50	5				
17+50.00	24	1		24	6	2	8	0		16	21	3			22	7	10	12				
17+75.00	21	1		21	12	2	11	0		26	34	-12			24	10	13	11				
18+00.00	19	1		19	15	2	12	0		30	39	-21			25	10	14	10				
18+25.00	18	2		18	25	2	5	0		32	41	-23			6	12	17	-11				
18+50.00	23	4		23	58	2	21	0		81	106	-83			22	25	36	-14				
18+75.00	24	5		24	26	2	3	0		32	41	-17			4	10	14	-10				
19+00.00	25	6		25	23	2	13	0		39	50	-25			18	9	12	6				
19+25.00	25	7		25	47	2	4	0		53	69	-44			5	13	18	-13				
19+50.00	24	8		24	126	2	26	0		154	200	-176			28	32	45	-16				
19+75.00	24	9		24	108	2	26	0		136	177	-153			27	30	42	-16				
20+00.00	25	11		25	37	2	2	0		42	54	-29			3	11	16	-12				
20+25.00	25	12		25	25	2	10	0		38	49	-24			13	9	13	0				
20+50.00	24	13		24	22	2	10	0		34	44	-20			12	9	13	-1				
20+75.00	11	7		11	8	1	5	0		13	17	-7			11	4	6	4				
21+00.00	0	0		0	0	0	0	0		0	0	0			8	0	0	8				
Stage 6 Totals:	1,748	558	0	1,748	605	111	252	6	0	973	1,265	484			615	380	532	84				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	T.8

ALTOONA, IA

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES

2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.8

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 7																						
8+75.00	2	38		2	0	0	0	0		0	0	2			0	0	0	0				
9+00.00	36	64		36	0	0	0	0		0	0	36			95	4	6	89				
9+25.00	25	17		25	0	1	0	0		1	1	23			7	6	9	-2				
9+50.00	20	17		20	0	3	0	0		3	4	16			5	5	7	-2				
9+75.00	20	17		20	0	3	1	1		4	5	15			5	4	6	-2				
10+00.00	20	16		20	0	3	1	1		4	6	15			6	5	7	-1				
10+25.00	22	15		22	2	3	4	1		9	12	10			7	5	7	0				
10+50.00	22	14		22	5	3	6	0		13	17	5			8	5	7	1				
10+75.00	25	14		25	5	3	6	0		13	16	8			8	4	6	2				
11+00.00	27	14		27	4	3	5	0		12	16	11			8	4	6	2				
11+25.00	30	14		30	4	3	5	0		12	16	14			8	4	6	2				
11+50.00	33	13		33	4	3	6	0		12	15	17			8	5	6	1				
11+75.00	33	13		33	3	3	5	0		11	14	19			8	4	6	2				
12+00.00	35	13		35	2	3	5	0		9	12	23			8	4	6	2				
12+25.00	38	13		38	1	2	5	0		8	10	28			8	5	7	2				
12+50.00	40	13		40	0	2	2	0		4	5	35			9	4	5	4				
12+75.00	63	27		63	0	0	0	0		0	0	63			13	0	0	13				
13+00.00	85	35		85	0	0	0	0		0	0	85			0	0	0	0				
13+25.00	61	27		61	0	0	0	0		0	0	61			7	0	0	7				
13+50.00	51	13		51	1	1	5	0		7	9	42			14	5	7	7				
13+75.00	53	12		53	2	2	8	0		13	17	37			14	10	15	0				
14+00.00	54	12		54	3	2	7	0		12	16	38			14	10	14	0				
14+25.00	54	12		54	5	2	5	0		12	15	39			11	8	11	1				
14+50.00	55	12		55	4	2	4	0		11	14	41			8	4	5	2				
14+75.00	54	12		54	3	2	4	0		9	12	42			8	4	5	2				
15+00.00	52	12		52	2	2	3	0		8	10	42			8	4	5	2				
15+25.00	50	12		50	1	2	3	0		7	9	41			8	4	6	2				
15+50.00	49	12		49	1	2	3	0		6	8	41			8	4	6	2				
15+75.00	49	12		49	0	3	2	0		5	7	42			8	5	6	2				
16+00.00	53	12		53	0	3	1	0		4	5	48			8	5	6	2				
16+25.00	57	12		57	0	3	0	0		3	3	54			8	5	6	2				
16+50.00	99	12		99	0	0	0	0		0	1	98			16	11	15	1				
16+75.00	395	36		395	0	16	13	0		29	38	357			88	47	66	22				
17+00.00	450	131		450	0	10	0	0		10	14	436			11	8	11	0				
17+25.00	232	17		232	9	6	24	0		39	51	180			66	52	73	-7				
17+50.00	130	12		130	0	2	0	0		2	2	128			15	6	8	7				
17+75.00	120	12		120	0	2	0	0		2	3	117			15	5	7	7				
18+00.00	108	12		108	0	2	0	0		2	3	105			14	5	7	7				
18+25.00	90	12		90	0	2	0	0		2	3	87			14	4	6	8				
18+50.00	77	12		77	0	2	1	0		3	4	73			14	4	6	8				
18+75.00	69	13		69	0	2	3	0		5	7	61			13	4	6	7				
19+00.00	61	13		61	1	2	5	0		8	10	51			13	5	7	6				
19+25.00	52	13		52	3	2	6	0		11	14	38			12	5	7	5				
19+50.00	45	13		45	6	2	6	0		15	19	26			11	6	8	4				
19+75.00	36	12		36	5	2	6	0		14	18	18			10	5	7	3				
20+00.00	31	12		31	5	2	5	0		13	17	14			8	5	6	2				
20+25.00	30	13		30	8	2	7	0		17	22	8			9	6	8	0				
20+50.00	23	13		23	6	2	6	0		15	19	4			8	5	8	1				
20+75.00	11	7		11	3	1	3	0		7	10	1			4	3	4	0				
21+00.00	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
Stage 7 Totals:	3,328	901	0	3,328	100	124	182	3	0	408	530	2,798			674	323	452	223				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	T.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.9

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Stage 8																						
9+00.00	8	8		8	0	0	0	0		0	0	8			0	0	0	0				
9+25.00	13	7		13	0	0	0	0		0	0	13			2	0	0	2				
9+50.00	16	5		16	0	0	0	0		0	0	16			3	0	0	3				
9+75.00	16	5		16	0	0	0	0		0	0	16			3	0	0	3				
10+00.00	16	5		16	0	0	0	0		0	0	16			3	0	0	3				
10+25.00	16	5		16	0	0	0	0		0	0	16			3	0	0	3				
10+50.00	18	5		18	0	0	0	0		0	0	18			3	0	0	3				
10+75.00	21	3		21	0	1	0	0		1	1	20			5	1	1	4				
11+00.00	22	1		22	0	4	0	0		4	5	17			7	4	5	2				
11+25.00	18	0		18	0	4	0	0		4	5	13			7	5	7	1				
11+50.00	17	0		17	0	4	0	0		4	5	12			7	6	8	-1				
11+75.00	19	1		19	0	4	0	0		4	5	14			7	7	10	-3				
12+00.00	15	3		15	0	4	0	0		4	5	10			5	8	11	-6				
12+25.00	12	7		12	0	4	0	0		4	5	7			2	8	11	-9				
12+50.00	9	9		9	0	4	0	0		4	5	4			0	8	11	-11				
12+75.00	12	9		12	0	4	0	0		4	5	8			0	8	11	-11				
13+00.00	13	9		13	0	4	0	0		4	5	8			0	8	11	-11				
13+25.00	13	9		13	0	4	0	0		4	5	8			0	8	11	-11				
13+50.00	13	9		13	0	4	0	0		4	5	8			0	8	11	-11				
13+75.00	13	9		13	0	4	0	0		4	5	8			0	8	11	-11				
14+00.00	14	9		14	0	4	0	0		4	5	9			0	8	11	-11				
14+25.00	15	9		15	0	4	0	0		4	5	11			0	7	9	-9				
14+50.00	15	9		15	0	4	0	0		4	5	10			0	6	8	-8				
14+75.00	17	9		17	0	4	0	0		4	5	12			0	4	6	-6				
15+00.00	19	9		19	0	4	0	0		4	5	14			0	3	4	-4				
15+25.00	20	9		20	0	0	0	0		0	0	20			0	0	0	0				
15+50.00	19	9		19	0	0	0	0		0	0	19			0	0	0	0				
15+75.00	19	9		19	0	0	0	0		0	0	19			0	0	0	0				
16+00.00	20	9		20	0	0	0	0		0	0	20			0	0	0	0				
16+25.00	20	9		20	0	0	0	0		0	0	20			0	0	0	0				
16+50.00	20	9		20	0	0	0	0		0	0	20			0	0	0	0				
16+75.00	24	10		24	0	0	0	0		0	0	24			0	0	0	0				
17+00.00	22	9		22	0	0	0	0		0	0	22			0	0	0	0				
17+25.00	24	9		24	0	0	0	0		0	0	24			0	0	0	0				
17+50.00	25	9		25	0	0	0	0		0	0	25			0	0	0	0				
17+75.00	28	9		28	0	0	0	0		0	0	28			0	0	0	0				
18+00.00	28	9		28	0	0	0	0		0	0	28			0	0	0	0				
18+25.00	27	9		27	0	0	0	0		0	0	27			0	0	0	0				
18+50.00	25	9		25	0	0	0	0		0	0	25			0	0	0	0				
18+75.00	23	9		23	0	0	0	0		0	0	23			0	0	0	0				
19+00.00	22	9		22	0	0	0	0		0	0	22			0	0	0	0				
19+25.00	20	9		20	0	2	0	0		2	3	17			0	2	3	-3				
19+50.00	16	9		16	0	4	0	0		4	5	11			0	4	6	-6				
19+75.00	13	9		13	0	4	0	0		4	5	8			0	5	7	-7				
20+00.00	11	10		11	0	4	0	0		4	5	6			0	6	9	-9				
20+25.00	8	11		8	0	4	0	0		4	5	3			0	8	11	-11				
20+50.00	6	9		6	0	4	0	0		4	5	1			0	8	11	-11				
20+75.00	6	9		6	0	4	0	1		4	6	1			0	8	11	-11				
21+00.00	8	10		8	0	2	0	0		2	3	5			0	4	6	-6				
Stage 8 Totals:	0	0		0	0	0	0	0		0	0	0			0	0	0	0				
	816	372	0	816	0	92	0	2	0	93	120	697			57	158	221	-165				

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70--77 Project No: 1221679		Sheet	T.10

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES, INC.
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515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.10

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
R4-21-15

Station	Cut				Fill										Topsoil							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Class 10 Unadjusted Volume	Template Pavement Removal Volume	Manually Calculated Cut Adjustments (+/- Cut)	Total Cut Adjusted	Total Fill Unadjusted Volume	Plowing & Shaping Undercut (+ Fill)	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink			Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink				
Summary:																						
Stage 1	2,717	708	0	2,717	1,478	195	679	32	92	2,474	3,217	-500			1,347	735	1,028	319				
Stage 2	2,244	1,233	75	2,319	889	179	384	3	0	1,454	1,890	429			1,335	382	534	802				
Stage 3	1,899	676	0	1,899	548	114	255	10	0	927	1,205	695			534	287	402	132				
Stage 4	709	427	0	709	0	106	0	4	0	110	142	567			3	130	182	-180				
Stage 5	1,224	279	0	1,224	159	63	154	4	0	378	492	733			738	413	578	160				
Stage 6	1,748	558	0	1,748	605	111	252	6	0	973	1,265	484			615	380	532	84				
Stage 7	3,328	901	0	3,328	100	124	182	3	0	408	530	2,798			674	323	452	223				
Stage 8	816	372	0	816	0	92	0	2	0	93	120	697			57	158	221	-165				
Year 1 Totals:	7,569	3,044	75	7,644	2,915	594	1,318	49	92	4,965	6,454	1,191			3,219	1,534	2,146	1,073				
Year 2 Totals:	7,116	2,110	0	7,116	864	390	588	15	0	1,852	2,407	4,712			2,084	1,274	1,783	302				
Project Totals:	14,685	5,154	75	14,760	3,779	984	1,906	64	92	6,817	8,861	5,903			5,303	2,808	3,929	1,375				

Excavation, Class 10, Roadway & Borrow
14,760
[4]

Excavation, Class 10, Waste
5,903
[12]

Topsoil, Strip, Salvage, and Spread
3,929
[17]

Topsoil, Strip and Stockpile
1,375
[18]

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	T.11

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

EARTHWORK QUANTITY SHEETS

SNYDER & ASSOCIATES

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD ANKENY, IOWA 50023 515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet T.11

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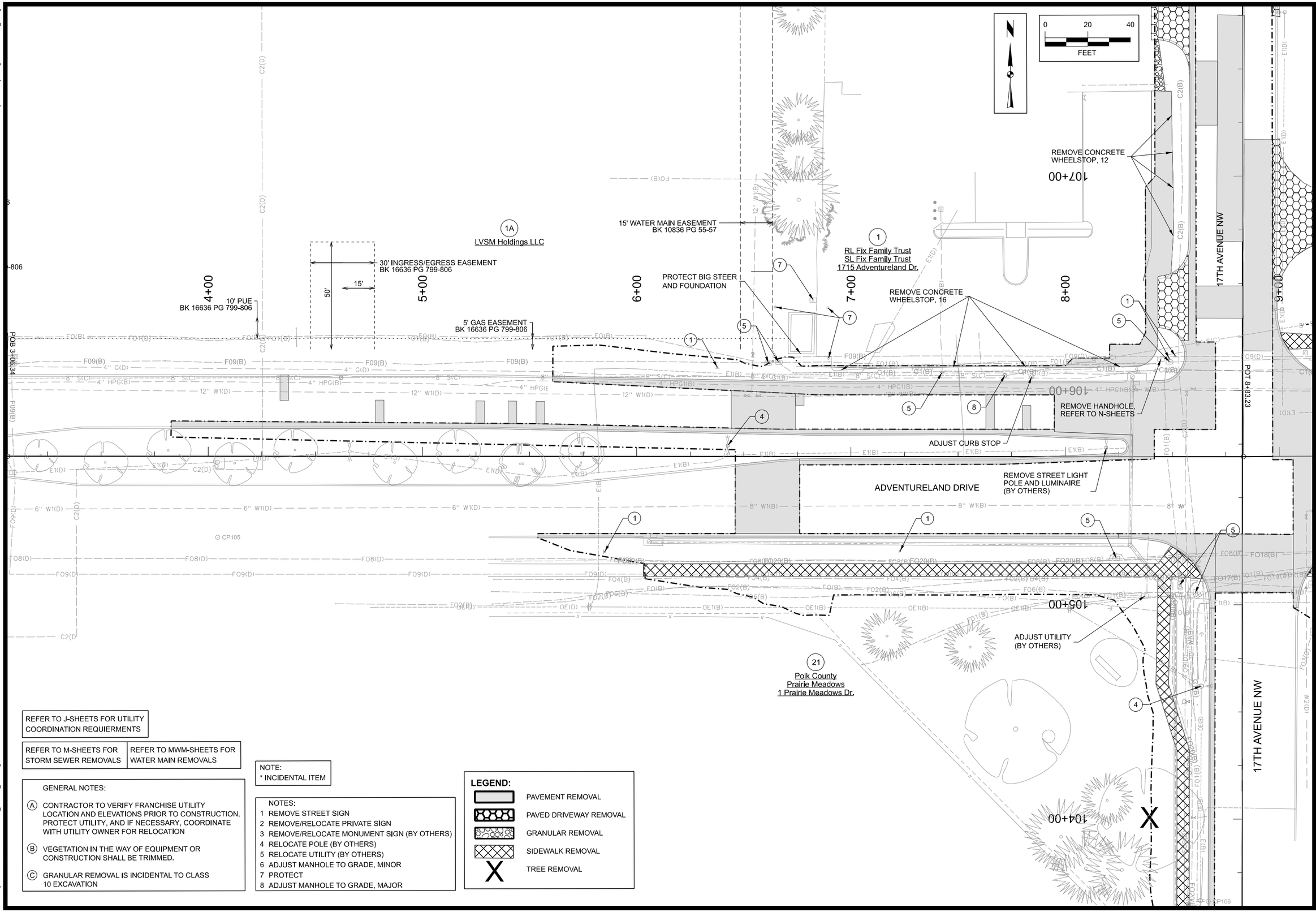

REFER TO J-SHEETS FOR UTILITY COORDINATION REQUIERMENTS

REFER TO M-SHEETS FOR STORM SEWER REMOVALS	REFER TO MWM-SHEETS FOR WATER MAIN REMOVALS

GENERAL NOTES:

(A) CONTRACTOR TO VERIFY FRANCHISE UTILITY LOCATION AND ELEVATIONS PRIOR TO CONSTRUCTION. PROTECT UTILITY, AND IF NECESSARY, COORDINATE WITH UTILITY OWNER FOR RELOCATION

(B) VEGETATION IN THE WAY OF EQUIPMENT OR CONSTRUCTION SHALL BE TRIMMED.

(C) GRANULAR REMOVAL IS INCIDENTAL TO CLASS 10 EXCAVATION

NOTE:
* INCIDENTAL ITEM

NOTES:
1 REMOVE STREET SIGN
2 REMOVE/RELOCATE PRIVATE SIGN
3 REMOVE/RELOCATE MONUMENT SIGN (BY OTHERS)
4 RELOCATE POLE (BY OTHERS)
5 RELOCATE UTILITY (BY OTHERS)
6 ADJUST MANHOLE TO GRADE, MINOR
7 PROTECT
8 ADJUST MANHOLE TO GRADE, MAJOR

LEGEND:

- PAVEMENT REMOVAL
- PAVED DRIVEWAY REMOVAL
- GRANULAR REMOVAL
- SIDEWALK REMOVAL
- X TREE REMOVAL

DOT	STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet U.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

REMOVALS

ALTOONA, IA

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SNYDER & ASSOCIATES

Project No: 1221679

Sheet U.1

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RELOCATE BOULDER, SMALL, 1 EACH

10' SANITARY SEWER EASEMENT
BK 7898 PG 804

CUT, CAP AND RESTORE
SPRINKLER IRRIGATION SYSTEM,
WHERE ENCOUNTERED

REMOVE AND RELOCATE
BOULDER, SMALL, 1 EACH

CUT, CAP AND RESTORE
SPRINKLER IRRIGATION SYSTEM,
WHERE ENCOUNTERED

2
RJB Business Park Condominium
1625 Adventureland Dr.

CUT, CAP AND RESTORE
SPRINKLER IRRIGATION SYSTEM,
WHERE ENCOUNTERED

38' INGRESS/EGRESS EASEMENT
BK 7898 PG 806

15' WA
BK 18(

25' A
BK 1

17TH AVENUE NW

108+00
107+00
106+00
105+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00

POT 8+83.23

REMOVE STREET LIGHT
POLE AND LUMINAIRE
(BY OTHERS)
HANDHOLE REMOVAL
(BY OTHERS)

PCC

REMOVE STREET LIGHT
POLE AND LUMINAIRE
(BY OTHERS)

ADVENTURELAND DRIVE

HMA

REMOVE STREET LIGHT
POLE AND LUMINAIRE
(BY OTHERS)

PUBLIC UTILITY EASEMENT
BK 16985 PG 312-314

ELECTRIC EASEMENT
BK 15192 PG 637-639

5' SIDEWALK EASEMENT
BK 15502 PG 253-257

5' PUBLIC STORM SEWER EASEMENT
BK 15502 PG 253-257

PROTECT ELECTRIC
VAULT

17TH AVENUE NW

0 20 40
FEET

REFER TO M-SHEETS FOR STORM SEWER REMOVALS	REFER TO MWM-SHEETS FOR WATER MAIN REMOVALS

GENERAL NOTES:

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20
Avenue Living US
Operating LP No. 20

REFER TO J-SHEETS FOR UTILITY COORDINATION REQUIERMENTS

NOTE:
* INCIDENTAL ITEM

ACCESS, INGRESS/EGRESS & PARKING EASEMENT (UNPRINTABLE - ENCOMPASSES ALL LOTS 1 & 2) BK 15502 PG 258

NOTES:
1 REMOVE STREET SIGN
2 REMOVE/RELOCATE PRIVATE SIGN
3 REMOVE/RELOCATE MONUMENT SIGN (BY OTHERS)
4 RELOCATE POLE (BY OTHERS)
5 RELOCATE UTILITY (BY OTHERS)
6 ADJUST SANITARY MANHOLE TO GRADE
7 PROTECT

LEGEND:
- PAVEMENT REMOVAL
- PAVED DRIVEWAY REMOVAL
- GRANULAR REMOVAL
- SIDEWALK REMOVAL
- X TREE REMOVAL

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

DOT STP-U-0132(628)--70--77

Project No: 1221679

Sheet U.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

REMOVALS

ALTOONA, IA

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Project No: 1221679

Sheet U.2

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15' WATER MAIN EASEMENT
BK 18058 PG 543-554

25' ACCESS EASEMENT
BK 18058 PG 543-554

6' SIDEWALK EASEMENT
BK 18058 PG 543-554

10' PUE
BK 18058 PG 543-554

47.50' ACCESS, SANITARY & WATER MAIN EASEMENT
BK 18058 PG 543-554

10' PUE
BK 16759 PG 734-736

5' GAS EASEMENT
BK 18058 PG 543-554

BLUE RIDGE PL NW

14TH AVENUE NW

ADVENTURELAND DRIVE

3 Signature Ernst Land Development LLC
1545 Adventureland Dr NW

3A Avenue Living US Operating LP No. 13

4 Signature Ernst Land Development LLC
1375 Adventureland Dr NW

19 Avenue Living US Operating LP No. 20

18 Adventureland Village Partners LLC
807 14th Ave NW

14+00 15+00 16+00 17+00 18+00 19+00 20+00

0 20 40
FEET

REMOVE PER PLAN, PARCEL 18

REMOVE AND RELOCATE POLE, LUMINAIRE, UTILITY, AND REMOVE LIGHTING POLE FOUNDATION (COORDINATE WITH WATER MAIN RELOCATION)

REFER TO J-SHEETS FOR UTILITY COORDINATION REQUIERMENTS

REFER TO M-SHEETS FOR STORM SEWER REMOVALS	REFER TO MWM-SHEETS FOR WATER MAIN REMOVALS

GENERAL NOTES:

Ⓐ CONTRACTOR TO VERIFY FRANCHISE UTILITY LOCATION AND ELEVATIONS PRIOR TO CONSTRUCTION. PROTECT UTILITY, AND IF NECESSARY, COORDINATE WITH UTILITY OWNER FOR RELOCATION

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Ⓒ GRANULAR REMOVAL IS INCIDENTAL TO CLASS 10 EXCAVATION

NOTE:
* INCIDENTAL ITEM

NOTES:
1 REMOVE STREET SIGN
2 REMOVE/RELOCATE PRIVATE SIGN
3
4 RELOCATE POLE (BY OTHERS)
5 RELOCATE UTILITY (BY OTHERS)
6 ADJUST SANITARY MANHOLE TO GRADE
7 PROTECT

LEGEND:

- PAVEMENT REMOVAL
- PAVED DRIVEWAY REMOVAL
- GRANULAR REMOVAL
- SIDEWALK REMOVAL
- X TREE REMOVAL

DOT STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet U.3

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

REMOVALS

ALTOONA, IA

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SNYDER & ASSOCIATES

Project No: 1221679

Sheet U.3

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FEET

20+00 21+00 22+00 23+00 24+00 25+00 26+00

10' PUE
BK 16759 PG 731-733

10' WATER MAIN EASEMENT
BK 17416 PG 285-288

REMOVE GPS POST*

10' GAS EASEMENT
BK 8840 PG 960

10' PUBLIC UTILITY EASEMENT
BK U PG 500

5
Greenway of Altoona Assoc II
1103 Greenway Ct

10' GAS EASEMENT
BK 5333 PG 345-347

10' ELECTRIC
EASEMENT
BK 5134 PG 112

10' ELECTRIC EASEMENT
BK 5134 PG 112

PROTECT CURB AND
PARKING LOT

10' PUE
BK 16759 PG 754-756

5
Greenway of Altoona Assoc II
1103 Greenway Ct

10' ELECTRIC EASEMENT
BK 4918 PG 221

6
Triple Crown
Altoona Cooperative
1003 Greenway Ct

10' ELECTRIC
EASEMENT
BK 4918 PG 221

10' PUE
BK 16759 PG 728-730

ADVENTURELAND DRIVE

REMOVE UTILITY POLE
(BY OTHERS)

ADJUST CURB STOP

5' PUBLIC UTILITY EASEMENT
BK "Q" PG 512

12TH AVENUE NW

REMOVE
SHRUBS

PREVIOUSLY REMOVED

5' PUBLIC UTILITY EASEMENT
BK "Z" PG 565

REMOVE AND
RELOCATE BOULDER,
SMALL, 1 EACH,
APPROX 1.5' x 2' x 1'

5' PUBLIC UTILITY EASEMENT
BK "Q" PG 512

17
Michael Kemnitzer
1206 Adventureland Dr.

16
Russell E Boos
Elizabeth J Boos
813 12th Ave NW

15
Thomas Scott Fordyce and
Pamela Sue Fordyce Trust
806 11th Ave NW

16A
Scott Wailes
809 12th Ave NW

PROTECT SIDEWALK AND SURROUNDING
LANDSCAPING/FURNITURE OUTSIDE OF ROW

REFER TO J-SHEETS FOR UTILITY
COORDINATION REQUIERMENTS

REFER TO M-SHEETS FOR STORM SEWER REMOVALS	REFER TO MWM-SHEETS FOR WATER MAIN REMOVALS

GENERAL NOTES:

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4 RELOCATE POLE (BY OTHERS)
5 RELOCATE UTILITY (BY OTHERS)
6 ADJUST SANITARY MANHOLE TO GRADE
7 PROTECT

LEGEND:
- PAVEMENT REMOVAL
- PAVED DRIVEWAY REMOVAL
- GRANULAR REMOVAL
- SIDEWALK REMOVAL
- X TREE REMOVAL

DOT	STP-U-0132(628)--70--77				
		MARK	REVISION	DATE	BY
		Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
		Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet U.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

REMOVALS

ALTOONA, IA

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Project No: 1221679

Sheet U.4

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REMOVE AND RELOCATE
BOULDERS, 5 EACH LARGE BOULDERS,
APPROX 3.5'x3.5'x2'
17 EACH SMALL BOULDERS LESS
THAN 2.5'x2.5'x2'

10TH AVENUE NW

REMOVAL
PER PLAN, PARCEL 6

26+00 27+00 28+00 29+00 30+00 31+00 32+00

7
Greenway of Altoona
Homeowners

8
City Of Altoona

10' PUE
BK 16759 PG 751-753

PROTECT SIGN

ADVENTURELAND DRIVE

REMOVE 53 LF OF
CHAIN LINK FENCE 42"
AND REINSTALL 40 LF

REMOVE AND RELOCATE
SHED STRUCTURE

14
Grant Giefer
809 11th Ave NW

5' PUBLIC UTILITY EASEMENT
BK 5956 PG 67

5' PUBLIC UTILITY EASEMENT
BK "Z" PG 565

13
Avenue Living US
Operating LP No. 19

10TH AVENUE NW

REMOVE
EXPOSED
CONDUIT*

REMOVE AND RELOCATE
BOULDER, LARGE APPROX
6.5'x6.5'x1.5'

12
Betty M McCormick
813 10th Ave NW

10' PUBLIC U

0 20 40
FEET

REFER TO M-SHEETS FOR STORM SEWER REMOVALS	REFER TO MWM-SHEETS FOR WATER MAIN REMOVALS

REFER TO J-SHEETS FOR UTILITY COORDINATION REQUIERMENTS

NOTE:
* INCIDENTAL ITEM

GENERAL NOTES:

(A) CONTRACTOR TO VERIFY FRANCHISE UTILITY LOCATION AND ELEVATIONS PRIOR TO CONSTRUCTION. PROTECT UTILITY, AND IF NECESSARY, COORDINATE WITH UTILITY OWNER FOR RELOCATION

(B) VEGETATION IN THE WAY OF EQUIPMENT OR CONSTRUCTION SHALL BE TRIMMED.

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NOTES:
1 REMOVE STREET SIGN
2 REMOVE/RELOCATE PRIVATE SIGN
3 REMOVE/RELOCATE MONUMENT SIGN (BY OTHERS)
4 RELOCATE POLE (BY OTHERS)
5 RELOCATE UTILITY (BY OTHERS)
6 ADJUST SANITARY MANHOLE TO GRADE
7 PROTECT

LEGEND:

- PAVEMENT REMOVAL
- PAVED DRIVEWAY REMOVAL
- GRANULAR REMOVAL
- SIDEWALK REMOVAL
- X TREE REMOVAL

DOT STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/17/2026		

Project No: 1221679

Sheet U.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

REMOVALS

ALTOONA, IA

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Project No: 1221679

Sheet U.5

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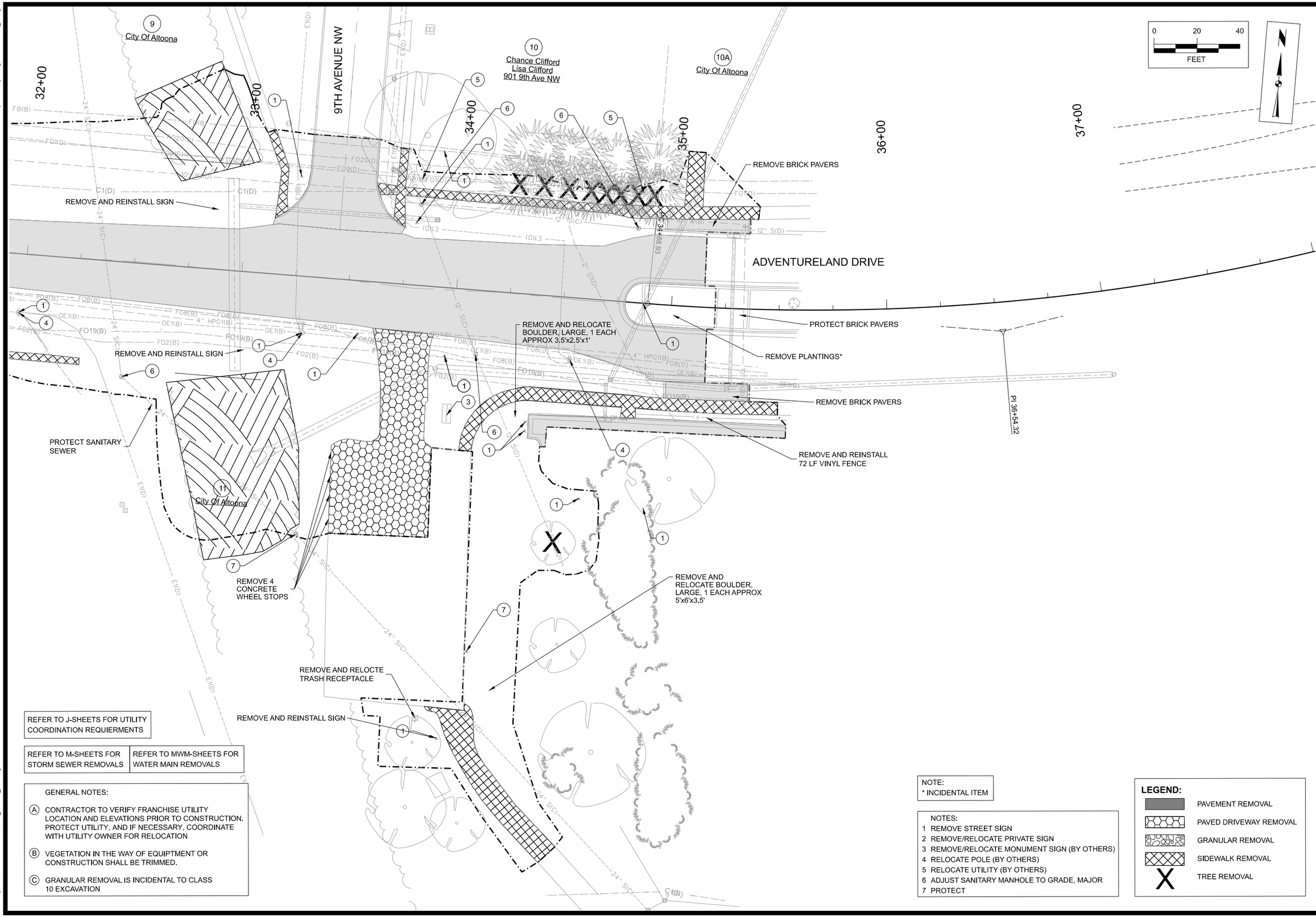

REFER TO J-SHEETS FOR UTILITY COORDINATION REQUIERMENTS

REFER TO M-SHEETS FOR STORM SEWER REMOVALS	REFER TO MWM-SHEETS FOR WATER MAIN REMOVALS

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4 RELOCATE POLE (BY OTHERS)
5 RELOCATE UTILITY (BY OTHERS)
6 ADJUST SANITARY MANHOLE TO GRADE, MAJOR
7 PROTECT

LEGEND:

- PAVEMENT REMOVAL
- PAVED DRIVEWAY REMOVAL
- GRANULAR REMOVAL
- SIDEWALK REMOVAL
- X — TREE REMOVAL

DOT	STP-U-0132(628)--70--77

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 8/18/2026		

Project No: 1221679

Sheet U.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

REMOVALS

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Project No: 1221679

Sheet U.6

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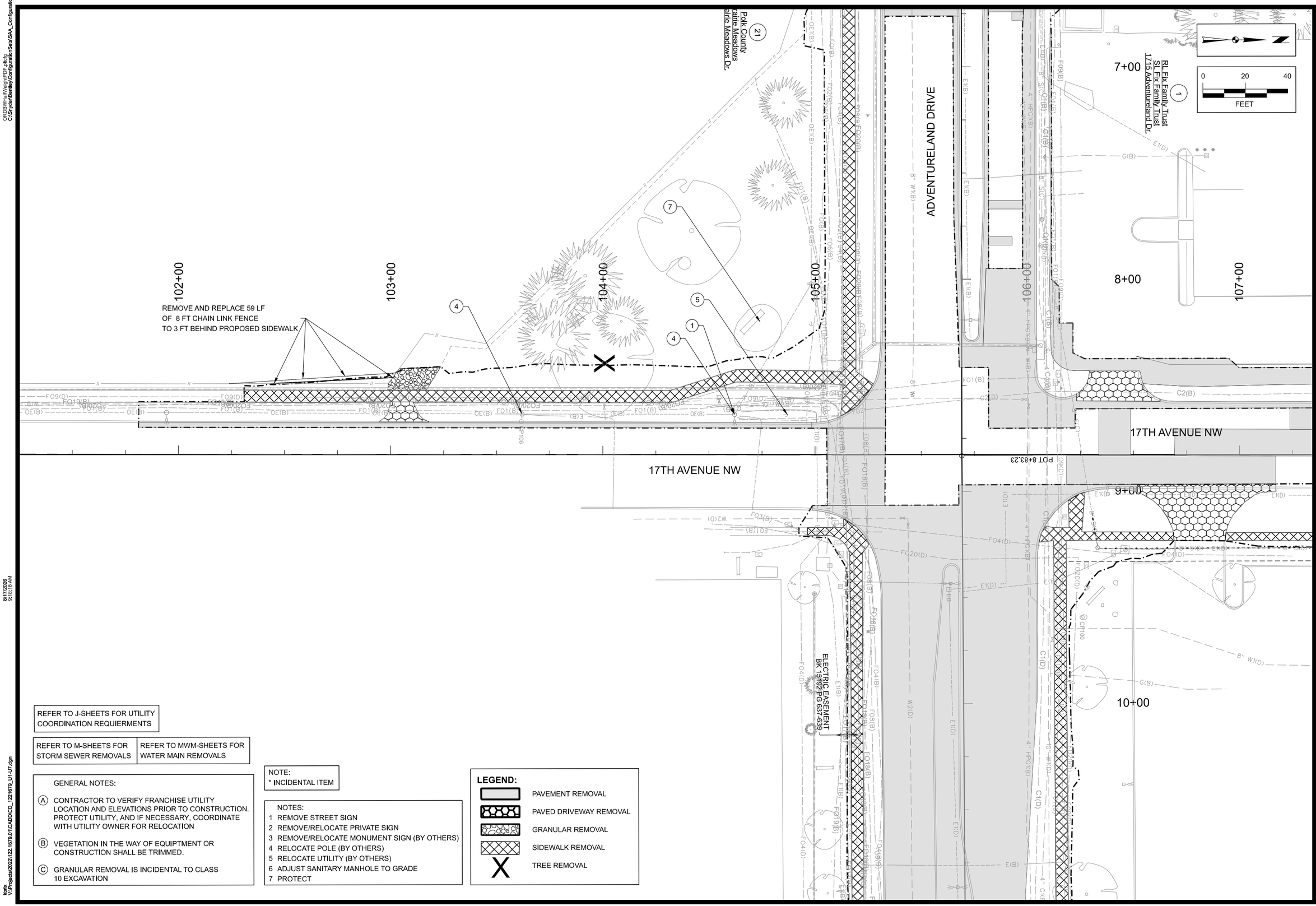

REFER TO J-SHEETS FOR UTILITY COORDINATION REQUIERMENTS

REFER TO M-SHEETS FOR STORM SEWER REMOVALS	REFER TO MWM-SHEETS FOR WATER MAIN REMOVALS

GENERAL NOTES:

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NOTE:
* INCIDENTAL ITEM

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3 REMOVE/RELOCATE MONUMENT SIGN (BY OTHERS)
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6 ADJUST SANITARY MANHOLE TO GRADE
7 PROTECT

LEGEND:

- PAVEMENT REMOVAL
- PAVED DRIVEWAY REMOVAL
- GRANULAR REMOVAL
- SIDEWALK REMOVAL
- X — TREE REMOVAL

DOT	STP-U-0132(628)--70--77			
MARK:	REVISION	DATE	BY	
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:	
Technician: KSB	Date: 8/17/2026			

Project No: 1221679

Sheet U.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

REMOVALS

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Project No: 1221679

Sheet U.7

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SUMMARY OF QUANTITIES INCIDENTAL TO FOOTING

	Item	Unit	Total	
	INCIDENTAL ITEMS			
	CLASS 20 EXCAVATION	CY	5	
	STEEL REINFORCING	LBS	198	
	STRUCTURAL CONCRETE	CY	5	

ESTIMATED QUANTITIES REFERENCE

ITEM NO.	ITEM CODE	DESCRIPTION
176	2599-9999010	PARK SIGNAGE
		('LUMP SUM' ITEM) MONUMENT SIGN, GREENWAY PARK (LS) Refer to U-sheets for sign details and information. Item is for construction of Park Monument Sign complete. - Construction of concrete foundation shall be per Iowa DOT 2403. - Method of measurement: Item is lump sum and no measurement will be made. - Basis of Payment: Payment for item complete shall be full compensation for all labor, equipment, materials necessary to construct sign foundation, including excavation, 12" of subgrade preparation under foundation, forming, reinforcing, pouring, finishing and curing of concrete foundation; preparation of shop drawings, fabrication of sign materials and sign cabinet; construction of stone veneer; concrete cap; acrylic lettering; powder coated aluminum panels, backfill and fine grading at sign foundation. Topsoil and seeding by separate bid item.

STATE OF IOWA
TANNER K VOLK
LANDSCAPE ARCHITECT
NO. 861
PROFESSIONAL LANDSCAPE ARCHITECT

License Expires:
June 30, 2027

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.

8/17/2026

Tanner K. Volk, PLA — Date

License Number 861

Pages or sheets covered by this seal:
U.8, U.9 & U10

MARK	REVISION	DATE	BY
Engineer: ENGR	Checked By: CHKD		
Technician: TECH	Date: 7/2/2026		

T-R-S: TTN-RRW-SS
DOT STP-U-0132(628)--70-77
Project No: 122.1679.01
Sheet

ADVENTURELAND DR NW RECONSTRUCTION PROJECT
GREENWAY PARK SIGN
ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER & ASSOCIATES

Project No: 122.1679.01
Sheet U.8

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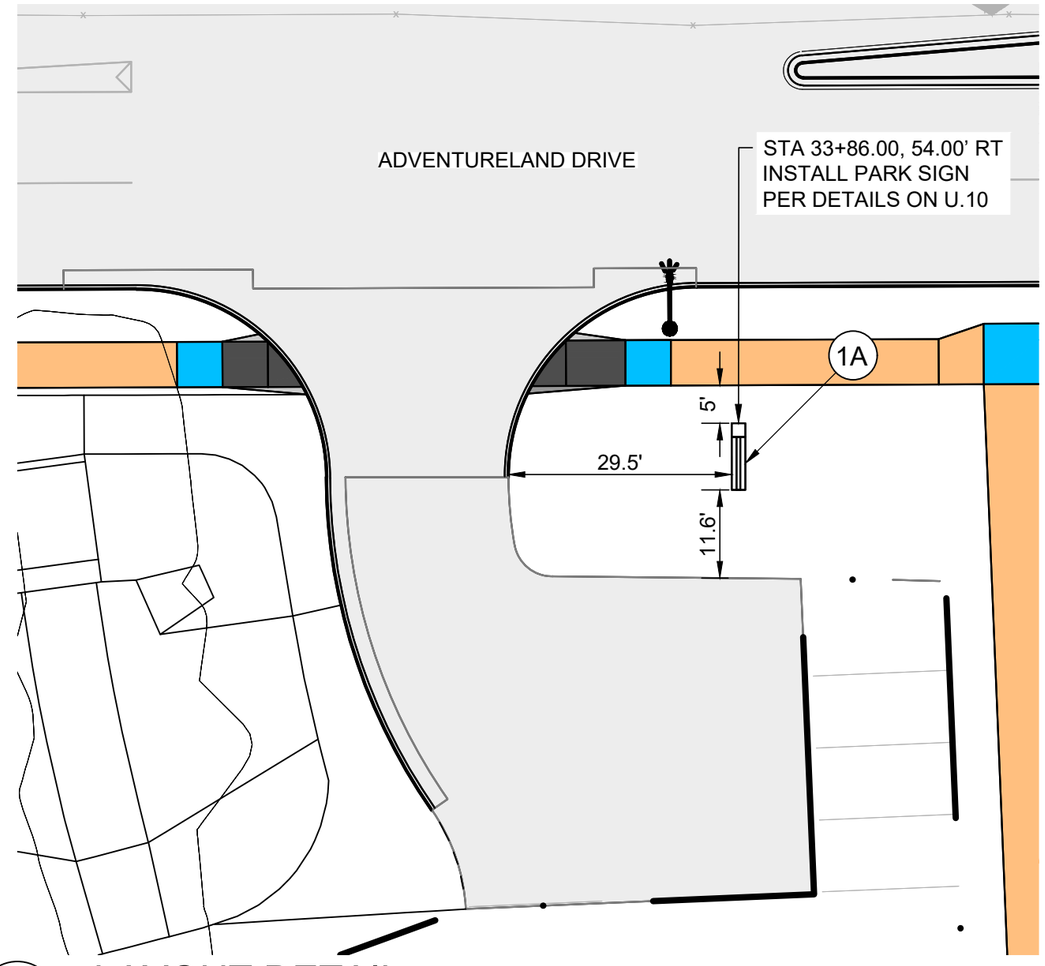
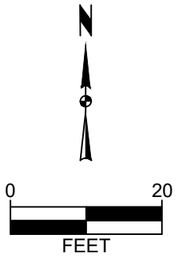




1 U.09 **LAYOUT DETAIL**

1" = 20'

GENERAL CONSTRUCTION NOTES

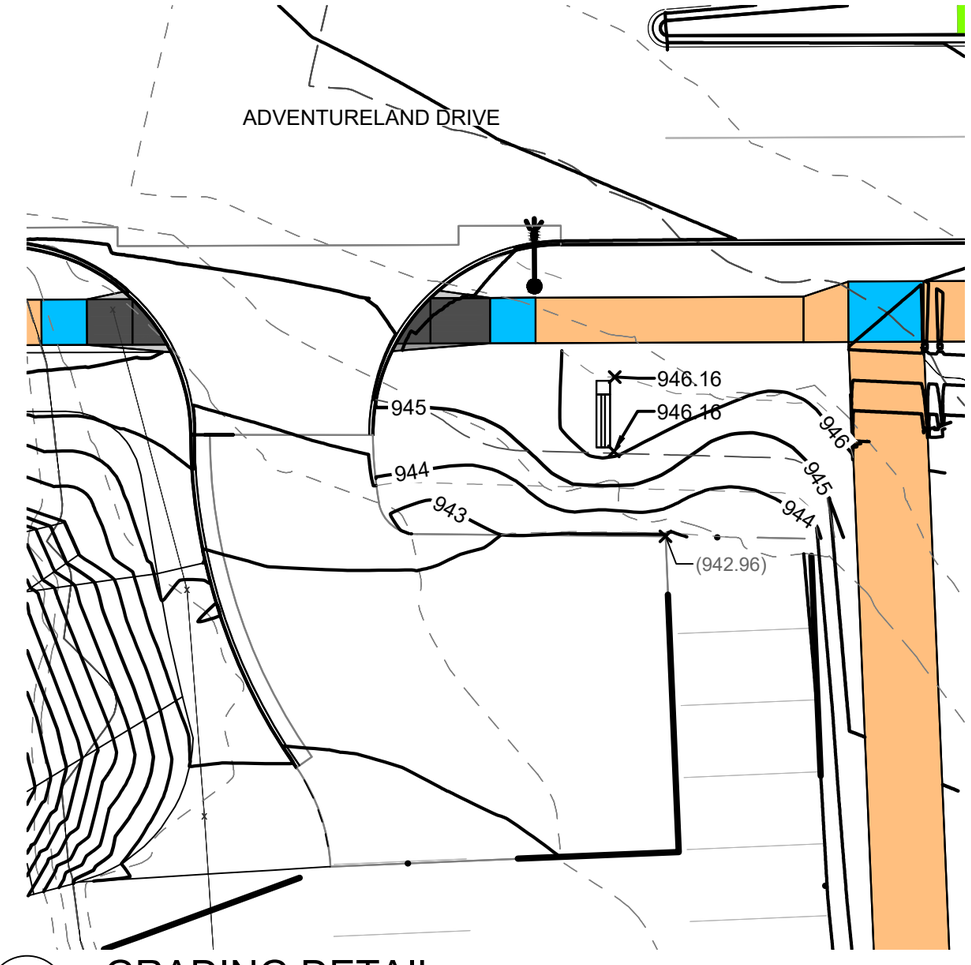
1. PROVIDE THE FOLLOWING.
   A. MONUMENT SIGNAGE. SEE DETAILS U.10.

GRADING PLAN GENERAL NOTES

A. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES IN ACCORDANCE WITH THE TOPSOIL LINE ITEM. REFER TO T-SHEETS.

B. ANY EXCESS CUT FROM CLASS 20 EXCAVATION SHALL BECOME PART OF THE CLASS 10 EXCAVATION ITEM. REFER TO T-SHEETS.

C. REFER TO R-SHEETS FOR SEEDING AND EROSION CONTROL REQUIREMENTS.



2 U.09 **GRADING DETAIL**

1"= 20'

MARK	REVISION	DATE	BY
Technician: TECH	Checked By: CHKD	T-R-S: TTN-RRW-SS	
Engineer: ENGR	Date: 7/2/2026	Sheet	

DOT STP-U-0132(628)--70--77
Project No: 122.1679.01

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

GREENWAY PARK SIGN

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER & ASSOCIATES

Project No: 122.1679.01

Sheet U.9

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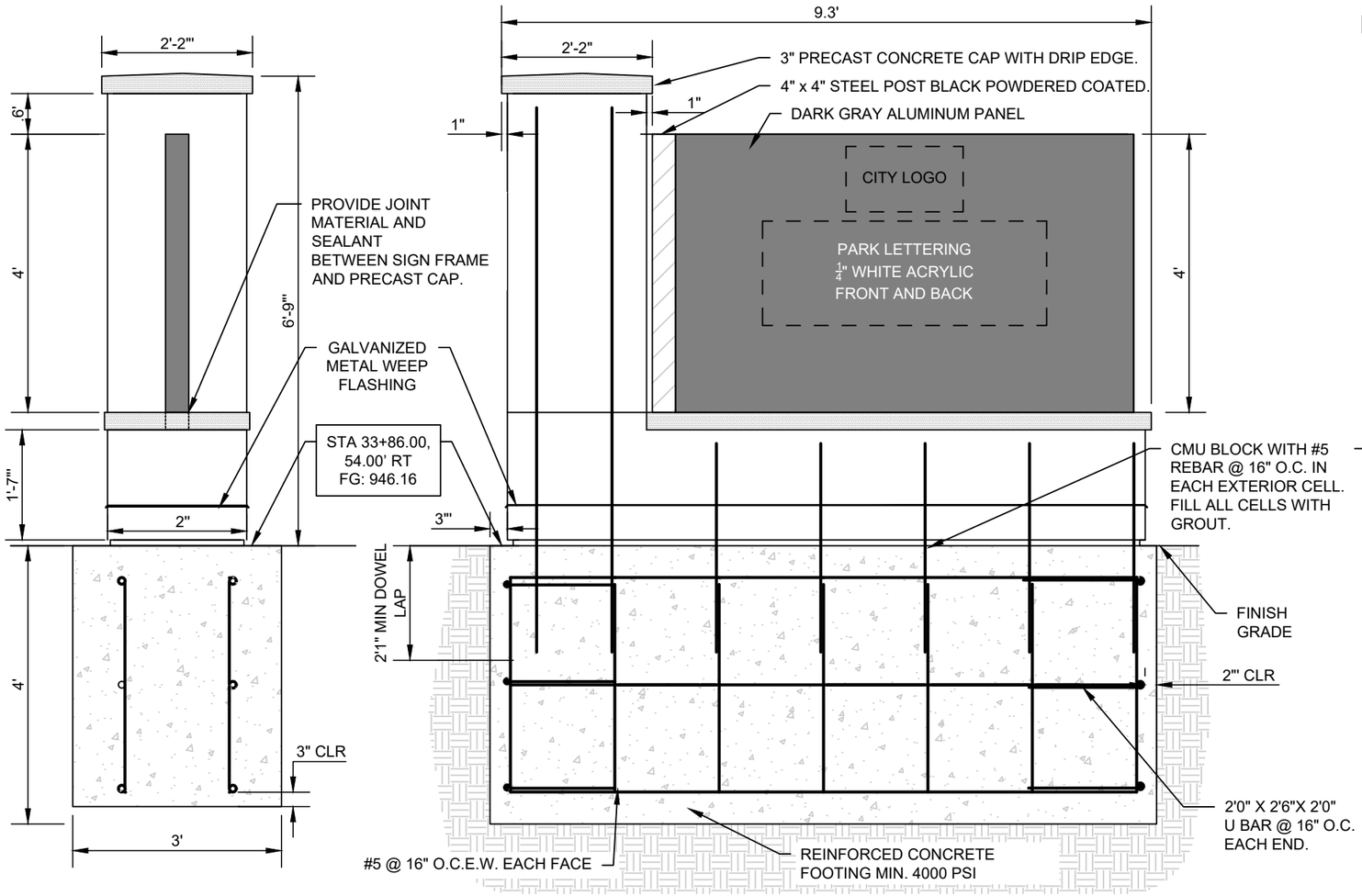

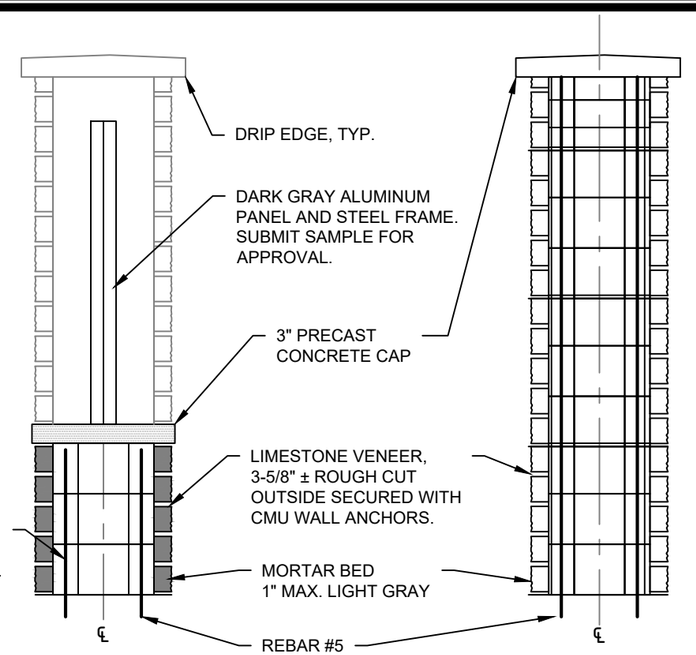

ARCHITECTURAL NOTES

1. ALUMINUM PANELS TO BE 1/4" THICK, POWDER-COATED IN COLOR AS INDICATED IN CONSTRUCTION DETAILS.
2. PROVIDE SIGN ANCHORAGE INTO TOP OF GROUTED MASONRY, SIGN FRAME AND ANCHORS TO BE DESIGNED TO RESIST WIND FORCES.
3. CMU BLOCK COLUMNS AND WALLS TO HAVE A STONE VENEER. A SAMPLE OF THE VENEER IN EACH DIMENSION IS TO BE PROVIDED TO THE ENGINEER FOR APPROVAL.
4. PRE-CAST WALL CAP TO BE BEVELED AND SLOPED TO SHED WATER. PROVIDE NOTCH UNDER LEADING EDGES TO CREATE DRIP EDGE. SUBMIT SAMPLE AND SHOP DRAWING OF ALL CAPS SHOWING COLOR, FINISH, DIMENSIONS, JOINTS AND OTHER PERTINENT INFORMATION TO ENGINEER FOR APPROVAL.
5. STONE VENEER. PROVIDE A SAMPLE FOR APPROVAL. INSTALL VENEER IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, REQUIREMENTS AND RECOMMENDATIONS. LIMESTONE TO BE SOURCED AND PROVIDED FROM A SINGLE QUARRY AND SHALL FOLLOW ILIA GUIDELINES.

   INDIANA LIMESTONE COMPANY
   120 W 7th ST SUITE 210,
   BLOOMINGTON, IN 47404
   PHONE: (800) 457-4026

   WWW.INDIANALIMESTONECOMPANY.COM
6. PRECAST PROVIDER TO INDICATE METHOD OF ANCHORAGE INTO MASONRY TO BE COORDINATED WITH MASONRY CONSTRUCTION.

BASIS OF DESIGN:

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REBAR, LETTERING, AND OVERALL HARDWARE WITH ANCHOR METHODS FOR ENGINEER'S REVIEW PRIOR TO ORDER.
2. VECTOR GRAPHIC FOR LETTERING TO BE PROVIDED BY ENGINEERING UPON REQUEST. LETTERING TO BE WHITE 1/4" ACRYLIC MOUNTED TO THE INSIDE OF THE PANEL. ALL HARDWARE AND SCREWS TO BE HIDDEN.

STRUCTURAL NOTES

1. ALL FOOTINGS SHALL REST ON UNDISTURBED SOILS OR CONTROLLED COMPACTED FILL.
2. BACKFILL EACH WALL SIMULTANEOUSLY
3. FORM TOPS OF ALL FOOTINGS TO ENSURE CORRECT LINE AND GRADE.
4. THE OWNER SHALL HIRE A SOIL TESTING LABORATORY TO VERIFY SOIL BEARING CAPACITY OF EACH FOOTING PRIOR TO PLACING CONCRETE.
5. SHOULD THE SOILS BECOME DISTURBED OR SATURATED PRIOR TO CONCRETE PLACEMENT- AFFECTED SOIL SHALL BE REMOVED AND REPLACED WITH CONTROLLED COMPACTED ENGINEERED FILL.
6. IF UNSUITABLE SUPPORT MATERIALS ARE ENCOUNTERED, SOIL SHALL BE EXCAVATED UNTIL SUITABLE SOIL IS ENCOUNTERED. BACKFILL SHALL BE WITH CONTROLLED COMPACTED ENGINEERED FILL ACCORDING TO GEOTECHNICAL ENGINEER.
7. ASSUMED NET ALLOWABLE FOUNDATION BEARING PRESSURE ON UNDISTURBED SOIL = 1500 PSF.
8. ALL CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
9. MORTAR FOR MASONRY BEARING WALLS TO BE TYPE S.
10. ALL GROUT TO TEST 2000 PSI AT 28 DAYS.
11. DESIGN f 'm = 2000 PSI.
12. PROVIDE STAINLESS STEEL OR GALVANIZED HORIZONTAL JOINT REINFORCING AT 16" O.C.

0 2
FEET

MARK	REVISION	DATE	BY
Engineer: ENGR	Checked By: CHKD	T-R-S: TTN-RRW-SS	
Technician: TECH	Date: 7/2/2026		
DOT STP-U-0132(628)-70-77			
Project No: 122.1679.01			

Sheet

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

GREENWAY PARK SIGN

SNYDER & ASSOCIATES, INC.

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SNYDER & ASSOCIATES

Project No: 122.1679.01

Sheet U.10

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LEGEND

- JUT 1, TRENCHED
- JUT 1, TRENCHLESS
- PROP. CROSSING
- FO1(B) CITY OF ALTOONA
- FO2(B) MEDIACOM
- FO3(B) WELLMARK
- FO4(B) SEGRA (1)
- FO5(B) SEGRA (2)
- FO6(B) UNITI
- FO7(B) METRONET (1)
- FO8(B) METRONET (2)
- FO9(B) METRONET (3)
- FO10(B) METRONET (4)
- FO11(B) METRONET (5)
- FUTURE STORM SEWER
- FUTURE WATER MAIN
- FUTURE SAN SEWER
- FUTURE SIGNALS

0 20 40
FEET

KEY NOTE LEGEND

1. STA 700+86.88, 6.95' LT
   REMOVE CITY FIBER HANDHOLE
2. STA 700+87.68, 4.08' LT
   INSTALL BY OTHERS; LUMEN HANDHOLE
3. STA 700+90.93, 8.32' LT
   REMOVE BY OTHERS; LUMEN HANDHOLE
4. STA 701+79.38, 3.35' RT
   INSTALL METRONET HANDHOLE #1
5. STA 701+73.59, 9.17' RT
   INSTALL SEGRA HANDHOLE #1
6. STA 701+54.32, 4.13' LT
   REMOVE BY OTHERS; LUMEN PEDESTAL
7. STA 701+69.88, 6.50' LT
   INSTALL CITY FIBER HANDHOLE #1
8. STA 701+83.04, 0.87' RT
   INSTALL WELLMARK HANDHOLE #1
9. STA 701+87.29, 0.89' LT
   INSTALL UNITI HANDHOLE #1
10. STA 701+89.46, 10.58' LT
    INSTALL MEDIACOM HANDHOLE #1
11. STA 701+71.70, 109.31' LT
    REMOVE BY OTHERS; UNITI HANDHOLE
12. STA 701+66.19, 111.18' LT
    REMOVE BY OTHERS; WELLMARK HANDHOLE
13. STA 701+54.05, 117.72' LT
    INSTALL BY OTHERS; AUREON HANDHOLE
14. STA 701+56.72, 112.20' LT
    REMOVE BY OTHERS; AUREON HANDHOLE
15. STA 700+86.18, 121.67' LT
    INSTALL BY OTHERS; LUMEN HANDHOLE
16. STA 700+79.30, 117.39' LT
    REMOVE CITY FIBER HANDHOLE
17. STA 700+65.18, 107.55' LT
    INSTALL SEGRA HANDHOLE #2
18. STA 700+65.91, 99.86' LT
    REMOVE BY OTHERS; SEGRA HANDHOLE
19. STA 700+95.38, 112.48' LT
    REMOVE BY OTHERS; LUMEN HANDHOLE
20. STA 701+02.76, 116.08' LT
    REMOVE BY OTHERS; UNKNOWN HANDHOLE

1A LVSM Holdings LLC

1 RL Fix Family Trust
SL Fix Family Trust
1715 Adventureland Dr.

21 Polk County
Prairie Meadows
1 Prairie Meadows Dr.

HP GAS MAIN RELOCATED BY OTHERS

HP GAS MAIN RELOCATED YEAR 1 DURING CONSTRUCTION SEE UTILITY COORDINATION NOTES

ADVENTURELAND DRIVE

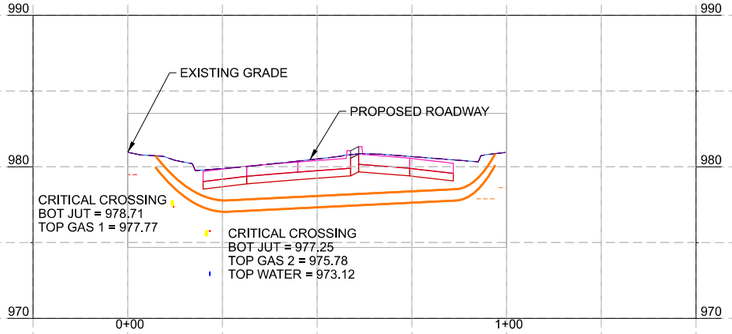
PROTECT HANDHOLE

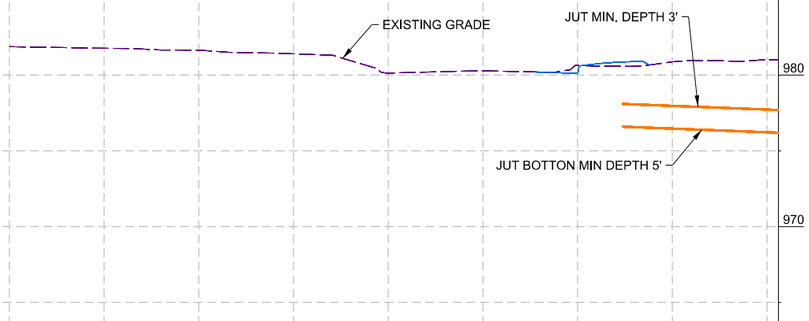
RELOCATE BY OTHERS; UNITI CONFLICT WITH PROPOSED SIGNAL

PROTECT HANDHOLE

POT 8+83.23

GAS





FOR INFORMATION ONLY - IMPROVEMENTS CONSTRUCTED BY OTHERS

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	NTS	
Technician: KSB	Date: 7/30/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet U.11

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

JOINT UTILITY TRENCH PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet U.11

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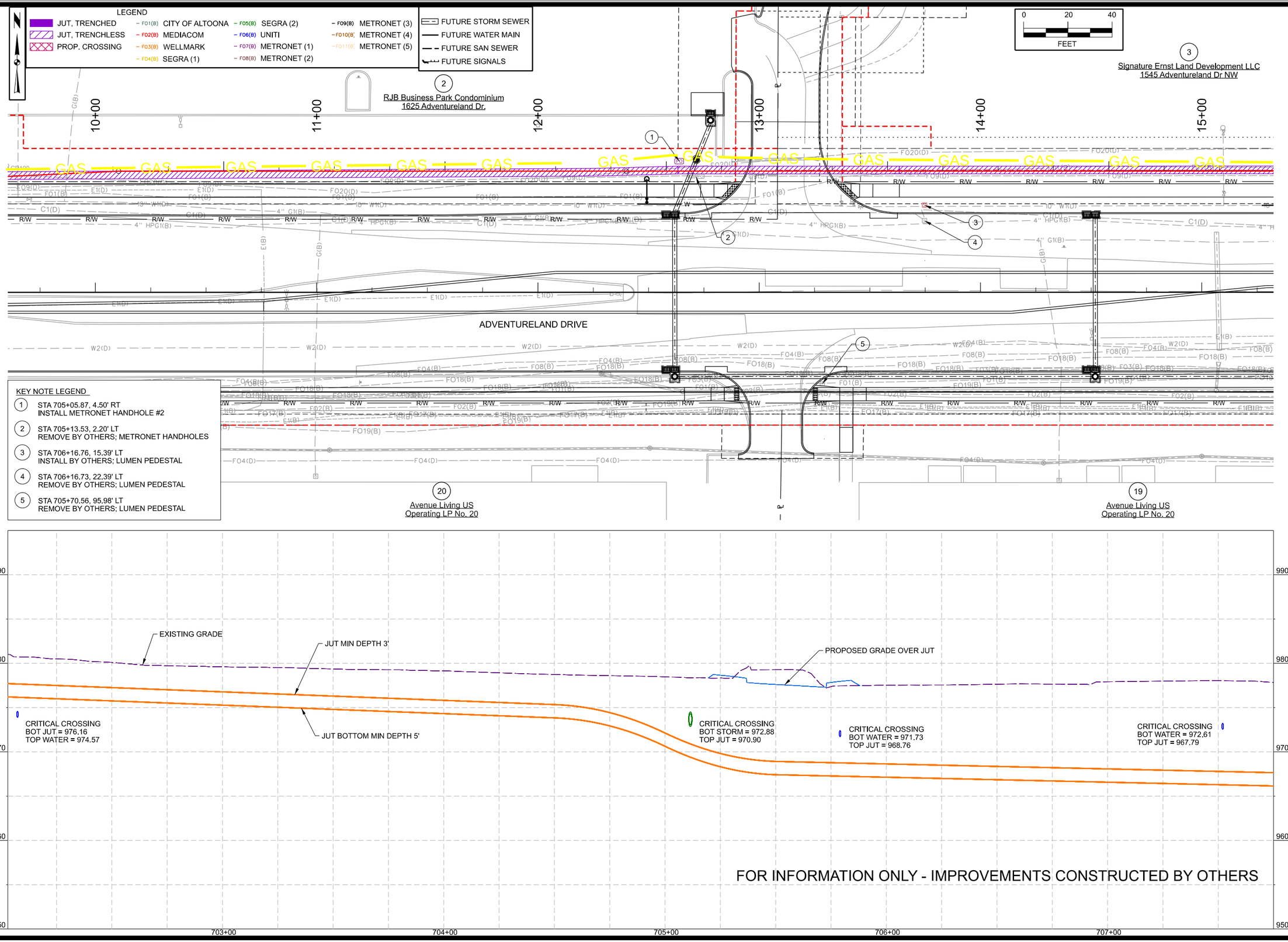

MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ | Field Bk.:
Technician: KSB | Date: 7/30/2026 | Pg.:
DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet U.12

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

JOINT UTILITY TRENCH PLAN AND PROFILE SHEETS

ALTOONA, IA

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2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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SNYDER & ASSOCIATES

Project No: 1221679

Sheet U.12

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HP GAS RELOCATION BY OTHERS

GAS RELOCATION BY OTHERS

ADVENTURELAND DRIVE

BLUE RIDGE PLACE

14TH AVENUE NW

3A Avenue Living US Operating LP No. 13

4 Signature Ernst Land Development LLC
1375 Adventureland Dr NW

18 Adventureland Village Partners LLC
807 14th Ave NW

16+00 17+00 18+00 19+00 20+00

0 20 40
FEET

FUTURE STORM SEWER
FUTURE WATER MAIN
FUTURE SAN SEWER
FUTURE SIGNALS

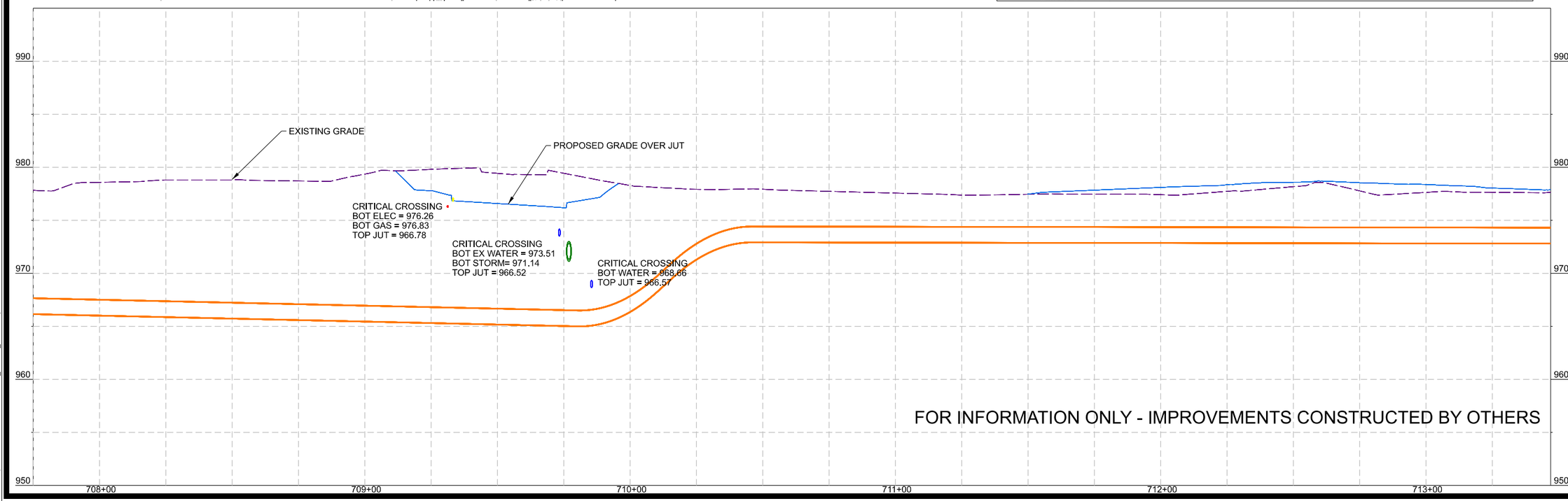
LEGEND

JUT, TRENCHED
JUT, TRENCHLESS
PROP. CROSSING

FO1(B) CITY OF ALTOONA
FO2(B) MEDIACOM
FO3(B) WELLMARK
FO4(B) SEGRA (1)
FO5(B) SEGRA (2)
FO6(B) UNITI
FO7(B) METRONET (1)
FO8(B) METRONET (2)
FO9(B) METRONET (3)
FO10(B) METRONET (4)
FO11(B) METRONET (5)

KEY NOTE LEGEND

1. STA 709+30.19, 4.58' LT
   INSTALL BY OTHERS; LUMEN HANDHOLE
2. STA 709+35.91, 10.26' LT
   REMOVE BY OTHERS; LUMEN HANDHOLE
3. STA 709+77.14, 5.35' LT
   REMOVE BY OTHERS; BLUEBIRD HANDHOLE
4. STA 709+88.70, 3.41' LT
   INSTALL BY OTHERS; BLUEBIRD HANDHOLE
5. STA 710+08.65, 11.21' RT
   INSTALL UNITI HANDHOLE #2
6. STA 710+13.39, 11.18' RT
   INSTALL METRONET HANDHOLE #3
7. STA 710+18.86, 10.55' RT
   INSTALL MEDIACOM HANDHOLE #2
8. STA 710+23.30, 11.10' RT
   INSTALL WELLMARK HANDHOLE #2
9. STA 710+28.42, 11.11' RT
   INSTALL SEGRA HANDHOLE #3
10. STA 710+33.30, 11.11' RT
    INSTALL CITY HANDHOLE #2
11. STA 709+82.33, 13.28' LT
    REMOVE BY OTHERS; METRONET HANDHOLES
12. STA 710+16.88, 105.13' LT
    REMOVE BY OTHERS; WELLMARK HANDHOLE
13. STA 708+81.76, 89.38' LT
    REMOVE BY OTHERS; ICS HANDHOLE
14. STA 708+83.83, 99.53' LT
    REMOVE BY OTHERS; UNITI HANDHOLE
15. STA 708+84.19, 93.29' LT
    REMOVE BY OTHERS; SEGRA HANDHOLE



FOR INFORMATION ONLY - IMPROVEMENTS CONSTRUCTED BY OTHERS

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk.:	Pg.:
Technician: KSB	Date: 7/30/2026	NTS	

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet U.13

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

JOINT UTILITY TRENCH PLAN AND PROFILE SHEETS

ALTOONA, IA

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Project No: 1221679

Sheet U.13

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GAS REGULATOR STATION BY OTHERS

10' GAS EASEMENT BK 6233 PG 345-347

10' ELECTRIC EASEMENT BK 6233 PG 348-350

5 Greenway of Altoona Assoc II
1103 Greenway Ct

6 Triple Crown Altoona Cooperative
1003 Greenway Ct

21+00 22+00 23+00 24+00 25+00 26+00

RELOCATE PEDESTAL; LUMEN

HP GAS RELOCATION BY OTHERS

ADVENTURELAND DRIVE

12TH AVENUE NW

17 Michael Kemnitzer
1206 Adventureland Dr.

0 20 40
FEET

FUTURE STORM SEWER
FUTURE WATER MAIN
FUTURE SAN SEWER
FUTURE SIGNALS

LEGEND

JUT, TRENCHED
JUT, TRENCHLESS
PROP. CROSSING

F01(B) CITY OF ALTOONA
F02(B) MEDIACOM
F03(B) WELLMARK
F04(B) SEGRA (1)
F05(B) SEGRA (2)
F06(B) UNITI
F07(B) METRONET (1)
F08(B) METRONET (2)
F09(B) METRONET (3)
F010(B) METRONET (4)
F011(B) METRONET (5)

KEY NOTE LEGEND

1. STA 714+21.53, 24.84' LT
   REMOVE BY OTHERS; LUMEN PEDESTAL
2. STA 714+30.91, 1.19' RT
   REMOVE BY OTHERS; LUMEN HANDHOLE
3. STA 714+26.93, 12.11' RT
   INSTALL METRONET HANDHOLE #4
4. STA 714+30.66, 5.56' RT
   INSTALL BY OTHERS; LUMEN HANDHOLE
5. STA 715+83.19, 15.04' LT
   INSTALL MEDIACOM HANDHOLE #3
6. STA 717+55.36, 22.73' LT
   REMOVE BY OTHERS; LUMEN PEDESTAL
7. STA 718+64.18, 12.57' RT
   INSTALL WELLMARK HANDHOLE #3
8. STA 718+68.97, 12.51' RT
   INSTALL UNITI HANDHOLE #3
9. STA 718+73.69, 12.48' RT
   INSTALL SEGRA HANDHOLE #4
10. STA 718+78.55, 12.47' RT
    INSTALL METRONET HANDHOLE #5
11. STA 718+83.30, 12.36' RT
    INSTALL CITY HANDHOLE #3
12. STA 718+95.42, 1.31' RT
    REMOVE BY OTHERS; METRONET HANDHOLE
13. STA 719+09.17, 29.66' LT
    REMOVE BY OTHERS; LUMEN PEDESTAL
14. STA 719+12.40, 104.69' LT
    REMOVE BY OTHERS; LUMEN PEDESTAL
15. STA 717+55.65, 103.17' LT
    REMOVE BY OTHERS; LUMEN PEDESTAL
16. STA 717+29.04, 84.50' LT
    REMOVE BY OTHERS; WELLMARK HANDHOLE
17. STA 714+38.55, 98.57' LT
    REMOVE BY OTHERS; METRONET HANDHOLE

PROPOSED GRADE OVER JUT

EXISTING GRADE

CRITICAL CROSSING
BOT ELEC= 970.46
TOP JUT = 969.64

BOT JUT = 968.10
TOP WATER = 966.16

EXISTING GRADE
PROPOSED ROADWAY

CRITICAL CROSSING
BOT JUT = 973.26
TOP WATER = 966.99
TOP GAS 1 = 972.30
TOP GAS 2 = 970.84
TOP STORM = 969.01

PROPOSED MID-AMERICAN ELECTRICAL CONDUIT DESIGN ELEVATION

COORDINATE CRITICAL CROSSING WITH MID-AMERICAN ENERGY; MAINTAIN MINIMUM 12" OF SEPARATION

CRITICAL CROSSING
BOT JUT = 957.08
TOP WATER = 954.89

980 970 960 950 940

0+00 1+00

714+00 715+00 716+00 717+00 718+00 719+00

FOR INFORMATION ONLY - IMPROVEMENTS CONSTRUCTED BY OTHERS

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 7/30/2026	Pg:	
	DOT STP-U-0132(628)--70--77 Project No: 1221679	NTS	

Sheet U.14

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

JOINT UTILITY TRENCH PLAN AND PROFILE SHEETS

ALTOONA, IA

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Project No: 1221679

Sheet U.14

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KEY NOTE LEGEND

1. STA 720+46.28, 12.59' RT
   INSTALL MEDIACOM HANDHOLE #4
2. STA 722+16.15, 26.14' LT
   REMOVE BY OTHERS; LUMEN PEDESTAL
3. STA 722+70.31, 6.27' RT
   INSTALL WELLMARK HANDHOLE #4
4. STA 724+05.21, 10.52' RT
   INSTALL METRONET, HANDHOLE #6
5. STA 724+05.42, 1.92' LT
   REMOVE BY OTHERS; METRONET HANDHOLE
6. STA 723+38.80, 87.20' LT
   REMOVE BY OTHERS; BLUEBIRD HANDHOLE
7. STA 723+38.83, 105.91' LT
   INSTALL BY OTHERS; BLUEBIRD HANDHOLE
8. STA 722+68.60, 95.85' LT
   REMOVE BY OTHERS; WELLMARK HANDHOLE
9. STA 720+72.57, 96.07' LT
   INSTALL BY OTHERS; ICS HANDHOLE
10. STA 720+72.68, 93.03' LT
    REMOVE BY OTHERS; ICS HANDHOLE
11. STA 720+17.52, 82.78' LT
    REMOVE BY OTHERS; SEGRA HANDHOLE

0 20 40
FEET

FUTURE STORM SEWER
FUTURE WATER MAIN
FUTURE SAN SEWER
FUTURE SIGNALS

LEGEND
JUT, TRENCHED
JUT, TRENCHLESS
PROP. CROSSING
F01(B) CITY OF ALTOONA
F02(B) MEDIACOM
F03(B) WELLMARK
F04(B) SEGRA (1)
F05(B) SEGRA (2)
F06(B) UNITI
F07(B) METRONET (1)
F08(B) METRONET (2)
F09(B) METRONET (3)
F010(B) METRONET (4)
F011(B) METRONET (5)

7 Greenway of Altoona Homeowners

10' ELECTRIC EASEMENT
BK 4918 PG 265-277

8 City Of Altoona

29+00 30+00 31+00 32+00

PROTECT PEDESTAL

PROTECT BLUEBIRD HANDHOLE

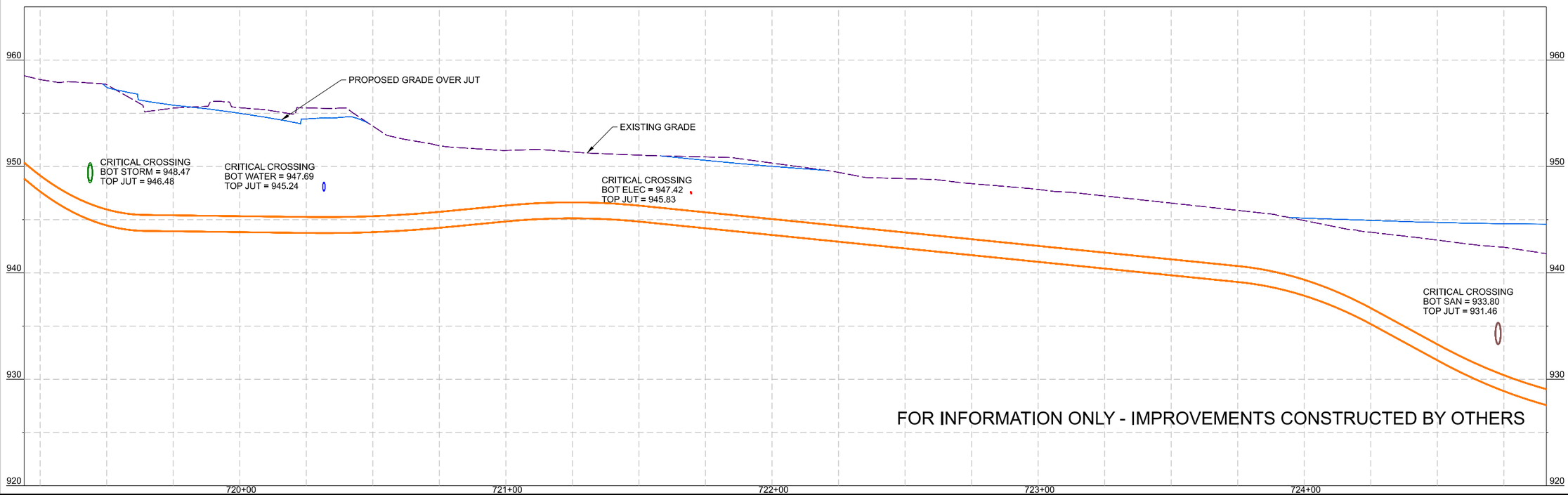
10TH AVENUE NW

ADVENTURELAND DRIVE

14 Grant Giefer
809 11th Ave NW

13 Avenue Living US
Operating LP No. 19

12 Betty M McCormick
813 10th Ave NW



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Engineer: LCL	Checked By: LEJ		NTS
Technician: KSB	Date: 7/30/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet U.15

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

JOINT UTILITY TRENCH PLAN AND PROFILE SHEETS

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SNYDER & ASSOCIATES

Project No: 1221679

Sheet U.15

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LEGEND

JUT, TRENCHED
JUT, TRENCHLESS
PROP. CROSSING

F01(B) CITY OF ALTOONA
F02(B) MEDIACOM
F03(B) WELLMARK
F04(B) SEGRA (1)
F05(B) SEGRA (2)
F06(B) UNITI
F07(B) METRONET (1)
F08(B) METRONET (2)
F09(B) METRONET (3)
F010(B) METRONET (4)
F011(B) METRONET (5)

0 20 40
FEET

FUTURE STORM SEWER
FUTURE WATER MAIN
FUTURE SAN SEWER
FUTURE SIGNALS

10 Chance Clifford
Lisa Clifford
901 9th Ave NW

10A City Of Altoona

9 City Of Altoona

11 City Of Altoona

33+00 34+00 35+00 36+00 37+00 38+00

9TH AVE NW

10' ELECTRIC EASEMENT

PROTECT PEDESTAL

PROTECT HANDHOLE

PROTECT PEDESTAL

FUTURE BOX CULVERT

ADVENTURELAND DRIVE

WELLMARK

POB 38+16.74

PI 36+54.32
Δ 18°46'55" (LT)
T 165.39'
L 327.81'
R 1000.00'

PC 34+88.93

PI 36+54.32

KEY NOTE LEGEND

1. STA 726+28.09, 2.56' LT
   INSTALL BY OTHERS; LUMEN HANDHOLE
2. STA 726+28.08, 5.55' LT
   REMOVE BY OTHERS; LUMEN HANDHOLE
3. STA 727+31.02, 3.57' LT
   REMOVE BY OTHERS; METRONET HANDHOLE
4. STA 727+76.42, 8.21' RT
   INSTALL CITY HANDHOLE #4
5. STA 727+81.09, 8.40' RT
   INSTALL METRONET HANDHOLE #7
6. STA 727+85.59, 8.59' RT
   INSTALL WELLMARK HANDHOLE #5
7. STA 727+90.26, 8.93' RT
   INSTALL UNITI HANDHOLE #4
8. STA 727+95.11, 9.26' RT
   INSTALL MEDIACOM HANDHOLE #5
9. STA 727+99.92, 9.53' RT
   INSTALL SEGRA HANDHOLE #5

950 940 930 920 910

725+00 726+00 727+00 728+00 729+00 730+00

CRITICAL CROSSING
BOT WATER = 937.69
BOT SAN = 935.71
TOP JUT = 933.59

CRITICAL CROSSING
BOT STORM = 933.10
TOP JUT = 927.07

BOTTOM OF PAVEMENT
BOTTOM OF SUBGRADE

CRITICAL CROSSING
BOT JUT = 945.44
TOP ELEC = 944.26
TOP STORM = 943.08
TOP WATER = 942.66

PROPOSED MID-AMERICAN ELECTRICAL
CONDUIT DESIGN ELEVATION

COORDINATE CRITICAL CROSSING WITH MID-AMERICAN
ENERGY; MAINTAIN MINIMUM 12" OF SEPARATION

0+00 1+00

FOR INFORMATION ONLY - IMPROVEMENTS CONSTRUCTED BY OTHERS

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	Pg:
Technician: KSB	Date: 7/30/2026	NTS	

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet U.16

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

JOINT UTILITY TRENCH PLAN AND PROFILE SHEETS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet U.16

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ESTIMATED CULVERT QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QTY
6	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	360	
9	2107-0425020	COMPACTING BACKFILL ADJACENT TO BRIDGES, CULVERTS OR STRUCTURES	CY	112	
27	2402-0425040	FLOODED BACKFILL	CY	114	
28	2402-0875150	COMPACTION WITH MOISTURE CONTROL (STRUCTURES)	CY	48	
29	2402-2720000	EXCAVATION, CLASS 20	CY	907	
30	2402-3825025	GRANULAR MATERIAL FOR BLANKET	CY	112	
31	2403-0100020	STRUCTURAL CONCRETE (RCB CULVERT)	CY	148	
32	2404-7775000	REINFORCING STEEL, RCB CULVERT	LB	24,750	
34	2414-6460000	ORNAMENTAL METAL RAILING, SAFETY	LF	80	
38	2418-0000010	TEMPORARY STREAM DIVERSION	EA	1	
70	2507-3250005	ENGINEERING FABRIC	SY	371	
71	2507-6800061	REVETMENT, CLASS E	TON	368	

ESTIMATE REFERENCE INFORMATION

ITEM NO.	ITEM CODE	DESCRIPTION
6	2104-2710020	EXCAVATION, CLASS 10, CHANNEL - REFER TO BOX CULVERT V-SHEETS FOR INFORMATION. QUANTITY INCLUDES THE VOLUME OF EXCAVATION REQUIRED TO INSTALL RIP RAP AND CONNECT INLET AND OUTLET CHANNELS INTO EXISTING CHANNELS.
9	2107-0425020	COMPACTING BACKFILL ADJACENT TO BRIDGES, CULVERTS OR STRUCTURES - REFER TO BACKFILL DETAIL IN THE V-SHEETS FOR DETAILS AND QUANTITY LIMITS.
27	2402-0425040	FLOODED BACKFILL - REFER TO BACKFILL DETAIL ON DR-111 FOR DETAILS AND QUANTITY LIMITS. QUANTITY ASSUMES FLOODED BACKFILL INSTALLED TO A HEIGHT OF 5'-0.
28	2402-0875150	COMPACTION WITH MOISTURE CONTROL (STRUCTURES) - REFER TO BACKFILL DETAIL ON DR-111 FOR DETAILS AND QUANTITY LIMITS.
29	2402-2720000	EXCAVATION, CLASS 20 - THE EXCAVATION QUANTITY IS MEASURED FROM THE EXISTING GROUND SURFACE. - INCLUDES THE EXCAVATION NECESSARY TO PLACE THE 1'-0 THICK GRANULAR BLANKET.
30	2402-3825025	GRANULAR MATERIAL FOR BLANKET - INCLUDES COST OF 1'-0 THICK GRANULAR BLANKET. - GRANULAR MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 4115 OR 4118, GRADATION NO. 3 (EXCLUDING THE NO. 200 RESTRICTION) OF THE STANDARD SPECIFICATIONS. - RECLAIMED ASPHALT PAVEMENT (RAP) AND RECLAIMED HMA SHALL NOT BE USED FOR THE GRANULAR BLANKET.
31	2403-0100020	STRUCTURAL CONCRETE (RCB CULVERT) - INCLUDES COST FOR THE CONTRACTOR TO PROVIDE CERTIFIED PLANT INSPECTION FOR ALL CONCRETE.
32	2404-7775000	REINFORCING STEEL, RCB CULVERT - INCLUDES REINFORCING STEEL FOR CULVERT BARREL AND END SECTIONS.
34	2414-6460000	ORNAMENTAL METAL RAILING, SAFETY (LF) - REFER TO B-SHEETS FOR DETAILS AND V-SHEETS FOR LOCATIONS AND QUANTITIES. ITEM INCLUDES MOUNTING PLATE. RAILING SHALL BE POWDER COATED WITH BLACK PAINT. - METHOD OF MEASUREMENT: SHALL BE PER LINEAR FOOT OF ORNAMENTAL METAL RAIL, SAFETY INSTALLED PER PLAN AS MEASURED ALONG THE CENTER LINE OF THE RAIL, AT THE TOP RAIL. - BASIS OF PAYMENT: SHALL BE CONSIDERED FULL COMPENSATION FOR SHOP DRAWINGS, FABRICATION, INSTALLATION, FASTENING, POWDER COATING, COMPLETE AND PER PLAN.
38	2418-0000010	TEMPORARY STREAM DIVERSION --
70	2507-3250005	ENGINEERING FABRIC - ENGINEERING FABRIC SHALL BE MATERIAL AS SPECIFIED FOR EMBANKMENT EROSION CONTROL IN ACCORDANCE WITH ARTICLE 4196.01, B, 3 OF THE STANDARD SPECIFICATIONS.
71	2507-6800061	REVETMENT, CLASS E - ESTIMATED AT 1.5 TON/CY

STANDARDS:
FOR DETAILS AND NOTES NOT SHOWN, REFER TO THE FOLLOWING IOWA D.O.T. - HIGHWAY STANDARDS:

STANDARD	ISSUED	REVISED
RCB G3-20	07/30/2020	---
RCB 10-5-20	07/30/2020	---
PWH 0-1-20	07/30/2020	---
PWH 0-2-20	07/30/2020	---
PWH 0-3-20	07/30/2020	---
PWH 0-4-20	07/30/2020	---
PWH 0-8-20	07/30/2020	---

SUMMARY OF REINFORCING STEEL

LOCATION	QUANTITY	TOTAL
10'X5' PARALLEL WING HEADWALL 0° SKEW	2 AT 2,117	4,234
35'-0" BARREL SECTION	2 AT 6,034	12,068
26'-0" BARREL SECTION	1 AT 4,483	4,483
23'-0" BARREL SECTION	1 AT 3,965	3,965
REINFORCING STEEL - TOTAL (LBS.)		24,750

CONCRETE PLACEMENT QUANTITIES

LOCATION	SLAB	FOOTING	WALLS	TOTALS
10'X5' PARALLEL WING HEADWALL 0° SKEW	2 AT 1.4	2 AT 10.3	2 AT 3.5	30.4
35'-0" BARREL SECTION	2 AT 11.1	2 AT 14.3	2 AT 9.0	68.8
26'-0" BARREL SECTION	1 AT 8.2	1 AT 10.6	1 AT 6.7	25.5
23'-0" BARREL SECTION	1 AT 7.3	1 AT 9.4	1 AT 5.9	22.6
TOTAL (C.Y.)	40.5	69.2	37.6	147.3

DESIGN FOR A 0° SKEW

SINGLE 10'-0 x 5'-0 x 117'-0
R.C.B. CULVERT

ESTIMATED QUANTITIES

STATION 32+86.30 AUGUST 2026

CITY OF ALTOONA

DESIGN SHEET NO. 1 OF 3

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	V.1

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

BRIDGES AND CULVERT SITUATION SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679

Sheet V.1

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GENERAL NOTES:

1. THE RCB CULVERT SECTIONS ARE DESIGNED FOR HL-93 LIVE LOAD AND EARTH FILLS OF 4-7 FEET.
2. VERTICAL EARTH PRESSURE, EV=0.120 KCF.
   HORIZONTAL EARTH PRESSURE, EHMAX = 0.060 KCF MAX, EHMIN = 0.030 KCF.
3. THE RCB CULVERT SECTIONS ARE DESIGNED FOR CLASS 1 EXPOSURE CONDITIONS.
4. ALL SLAB AND FLOOR REINFORCING STEEL IS TO BE SUPPORTED AT INTERVALS OF NOT MORE THAN 3'-0" IN EITHER DIRECTION AS OUTLINED IN THE STANDARD SPECIFICATIONS.
5. THE CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR EDGE OR END OF REINFORCING BAR TO BE 2" UNLESS OTHERWISE NOTED.
6. EXCEPT FOR DOWEL BARS 5R1 IN SLAB, LONGITUDINAL REINFORCING IS NOT TO EXTEND THROUGH THE CONSTRUCTION JOINTS.
7. FLOOR OF BARREL IS TO BE FINISHED SMOOTH. SIDES OF FOOTING ARE TO BE FORMED TO ENSURE CORRECT LINE AND GRADE.
8. THE PERMISSIBLE CONSTRUCTION JOINT AT THE TOP OF THE WALLS MAY BE LOWERED AT THE CONTRACTOR'S OPTION WITH ENGINEER'S APPROVAL.
9. THE REINFORCEMENT SUPPLIED FOR THIS STRUCTURE SHALL BE GRADE 60 REINFORCEMENT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE DESIGN STRESSES ARE BASED ON ASTM A706 GRADE 60 REINFORCEMENT.
10. THE VERTICAL BARS IN THE WALLS MAY BE SPLICED ABOVE THE FOOTING AT THE CONTRACTOR'S OPTION AS FOLLOWS:

Bar Size Number	4	5	6	7	8	9
Minimum Splice Length	20"	24"	29"	34"	38"	47"

    THIS SPLICE, IF USED, WILL BE AT THE CONTRACTOR'S EXPENSE.
11. REINFORCING BAR CLEARANCES WILL BE AS FOLLOWS:
    EDGE CLEARANCES: 2" EXCEPT
    TOP OF FLOOR 2¼" TO NEAR TRANSVERSE REINFORCING BAR
    BOTTOM OF FLOOR 3½" TO NEAR TRANSVERSE REINFORCING BAR
    END CLEARANCES:
    VERTICAL TOP 2"
    VERTICAL BOTTOM 3" OR 3½" IF OVERALL HEIGHT OF THE CULVERT IS NOT TO A FULL INCH
    TRANSVERSE 2"
12. ALL CONSTRUCTION JOINTS SHALL BE FORMED WITH A BEVELED KEYWAY EXCEPT AT BELL JOINTS.
13. ALL BEVELED KEYWAYS SHALL BE CENTERED.
14. KEYWAY SIZE SHALL BE 2"X4" EXCEPT AS FOLLOWS:
    KEYWAY BETWEEN THE FLOOR AND WALL SHALL BE 2"X6" WHEN THE WALL IS GREATER THAN 10 INCHES WIDE.
15. KEYWAY DIMENSIONS SHOWN ON THE PLANS ARE BASED ON NOMINAL DIMENSIONS UNLESS STATED OTHERWISE. IN ADDITION, THE BEVEL USED ON THE KEYWAY SHALL BE LIMITED TO A MAXIMUM OF 10 DEGREES FROM VERTICAL.
16. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED OR SHOWN.
17. SEE CURRENT STANDARD SPECIFICATIONS REGARDING CONCRETE FORM REMOVAL.
18. THESE CULVERT STANDARDS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5A1 IS $\frac{5}{8}$ INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

English Size	4	5	6	7	8	9
Bar Designation	13	16	19	22	25	29

19. IT IS THE INTENT OF THIS DESIGN TO REPLACE THE EXISTING 60" X 90'-0 REINFORCED CONCRETE PIPE CULVERT SKEWED 5° AT STATION 32+96.51 WITH A 10'-0 X 5'-0 X 117'-0 REINFORCED CONCRETE BOX CULVERT SKEWED 7.5° AHEAD RIGHT AT STATION 32+86.30.
20. UTILITY COMPANIES AND MUNICIPALITIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION START DATE.
21. THE C.I.P. BARREL AND END SECTIONS SHALL CONFORM TO IOWA D.O.T. SINGLE R.C.B. CULVERT STANDARDS.
22. THE ROADWAY WILL BE CLOSED TO THRU TRAFFIC DURING CONSTRUCTION. REFER TO THE TRAFFIC CONTROL PLAN SHOWN IN THE J-SHEETS.
23. EXCESS CLASS 20 EXCAVATION MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED AT THE CONSTRUCTION SITE, AS DIRECTED BY THE ENGINEER.
24. CLASS 20 EXCAVATION MATERIAL UNSUITABLE FOR BACKFILLING SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF SITE.
25. THE CLASS 20 EXCAVATION QUANTITY IS BASED ON THE ASSUMPTION THAT AT THE START OF CULVERT CONSTRUCTION, THE EXISTING GROUNDLINE SHOWN ON THE "SITUATION PLAN" ON SHEET V.3 HAS REMAINED UNDISTURBED. THE CLASS 20 EXCAVATION QUANTITY IS MEASURED FROM THE EXISTING GROUNDLINE SHOWN ON SHEET V.3 DOWN TO THE LIMIT SHOWN IN THE "GRANULAR BLANKET DETAIL" ON THIS SHEET.
26. WHEN DE-WATERING PRESENTS A PROBLEM FOR PLACING THE CURTAIN WALLS AS DETAILED, ALTERNATE METHODS SUCH AS STEEL SHEET PILE AND PRECAST CONCRETE WALLS MAY BE APPROVED BUT AT NO ADDITIONAL COST. THE CULVERT CONTRACTOR IS TO SUBMIT TO THE ENGINEER FOR APPROVAL COMPLETE DRAWINGS OF THE PROPOSED CURTAIN WALL ALTERNATE BEFORE BEGINNING CONSTRUCTION.
27. POLLUTION PREVENTION PLAN SHOWN IN THE R-SHEETS.
28. ROADWAY QUANTITIES SHOWN IN THE C-SHEETS.
29. ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.
30. DRAINAGE THROUGH EXISTING CULVERT/CHANNEL OR TEMPORARY STREAM DIVERSION SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
31. MATERIAL STOCKPILE LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND AGREED UPON BY THE ENGINEER.
32. CONSTRUCTION OF THE BOX CULVERT AND STREAM IMPACTS SHALL COMPLY WITH THE CORPS OF ENGINEER PERMIT REFERENCED ON SHEET A.1
33. CLASS E REVETMENT SHALL BE PLACED AROUND C.I.P. END SECTIONS, AS SHOWN IN THESE PLANS.
34. ALLOW MINIMUM TWO (2) WEEK CONSOLIDATION PERIOD AFTER FINAL FILL PLACEMENT BEFORE PAVING ROADWAY.

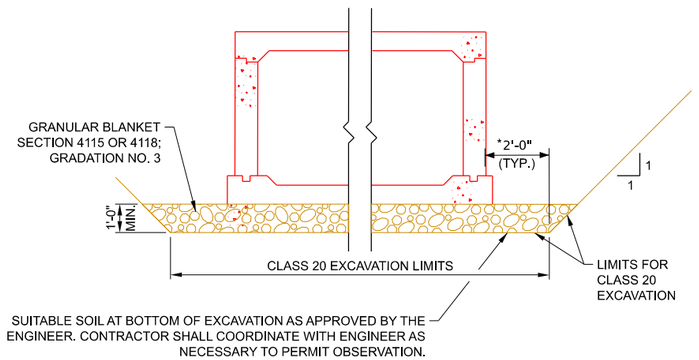
SPECIFICATIONS:

DESIGN:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH ED., SERIES OF 2017.

CONSTRUCTION:
IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2023, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH ED., SERIES OF 2017;
REINFORCING STEEL IN ACCORDANCE WITH AASHTO LRFD SECTION 5, GRADE 60.
CONCRETE IN ACCORDANCE WITH AASHTO LRFD SECTION 5, F'C = 4.0 KSI.



GRANULAR BLANKET DETAIL

GRANULAR BLANKET SHALL TERMINATE 3'-0" SHORT OF THE CURTAIN WALL.

DESIGN FOR A 0° SKEW
SINGLE 10'-0 x 5'-0 x 117'-0 R.C.B. CULVERT
TYPICAL DETAIL
STATION 32+86.30 AUGUST 2026
CITY OF ALTOONA
DESIGN SHEET NO. 2 OF 3

MARK	REVISION	DATE	BY
		-	

Engineer: LCL | Checked By: LEJ | T-R-S:
Technician: KSB | Date: 8/17/2026
DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet V.2

ADVENTURELAND DR NW RECONSTRUCTION PROJECT
ALTOONA, IA
BRIDGES AND CULVERT SITUATION SHEETS

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679
Sheet V.2

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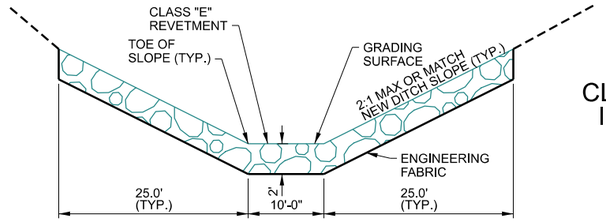
ESTIMATED REVETMENT QUANTITIIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INTLET	45	46	117
OUTLET	326	329	611
TOTALS	371	375	728

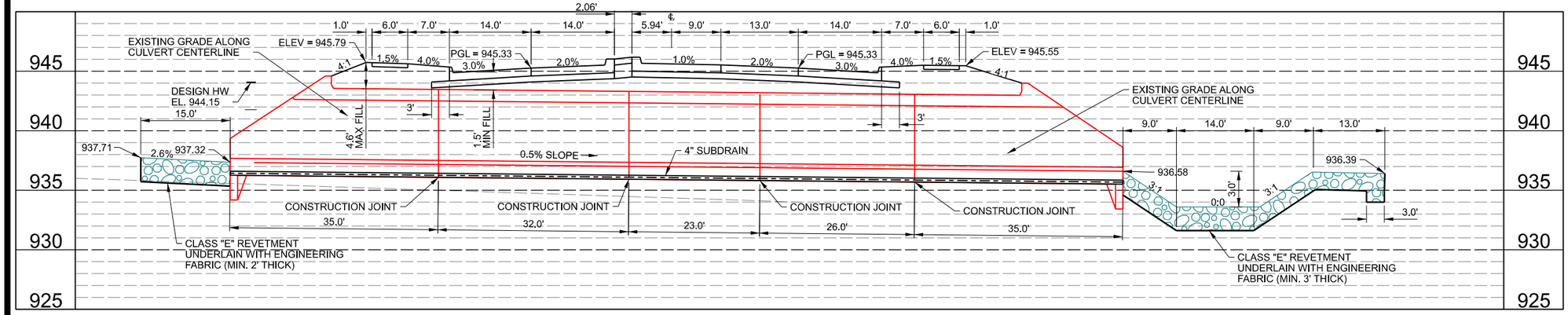
EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



CLASS E REVETMENT INLET AND OUTLET SPLASH BASIN

ESTIMATED CULVERT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REINFORCING STEEL (LB)	STRUCTURAL CONCRETE (CY)	POROUS BACKFILL(CY)	FLOODABLE BACKFILL(CY)	COMPACTING BACKFILL ADJ. TO STRUCTURES(CY)	EXCAVATION CLASS 20 (CY)
CULVERT	20,516	116.9	0.5	114	112	703
HEADWALLS	4,234	30.4	4.4	0	0	204
TOTALS	24,750	147.3	4.9	114	112	907



LOCATION

ADVENTURELAND DRIVE NW
OVER LITTLE FOURMILE CREEK
T-79N R-23W, SECTION 12
T-79N R-23W, SECTION 13
POLK COUNTY
CITY OF ALTOONA
LATITUDE 41.658546°
LONGITUDE -93.474888°

HYDRAULIC DATA

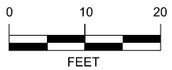
DRAINAGE AREA = 1.18 Sq. Mi.
Q_{100} = 438.3 C.F.S.
HW_{100} ELEV. = 944.15

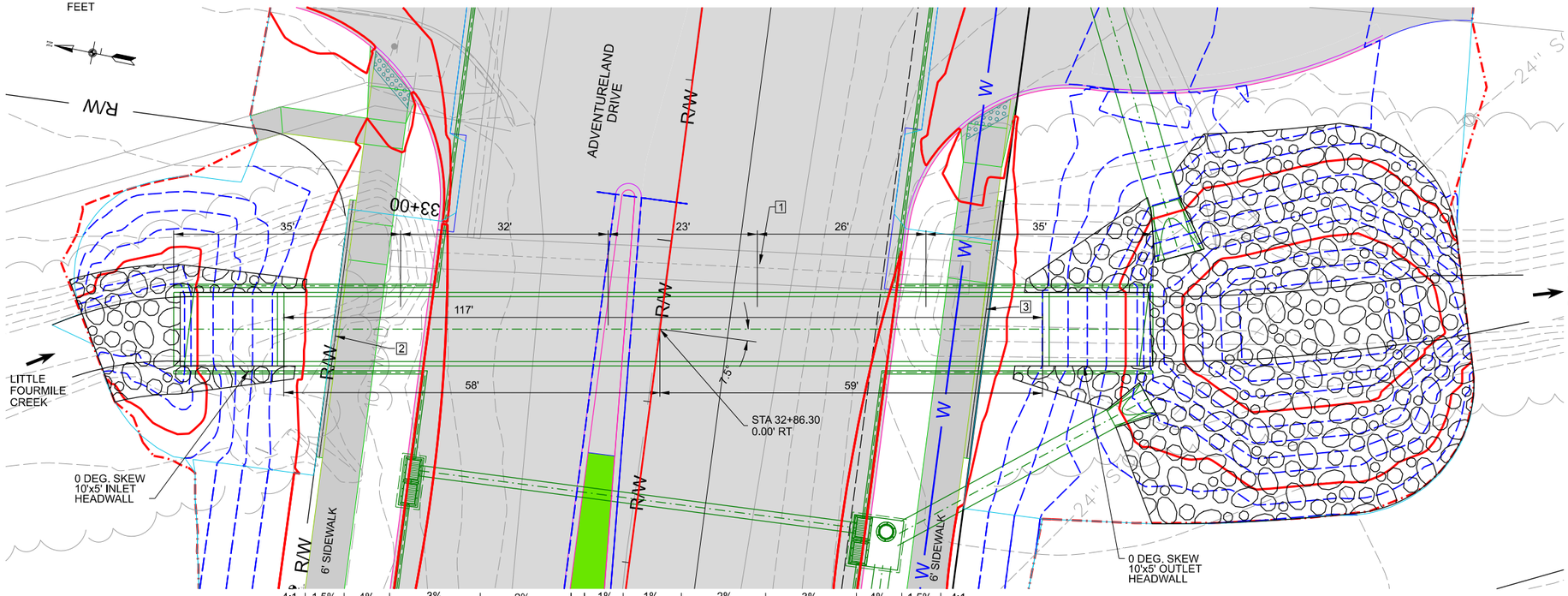
TRAFFIC ESTIMATE

2016 ADT	4,140	V.P.D.
2026 ADT	7,200	V.P.D.
2076 ADT	13,100	V.P.D.
TRUCKS	3%	%
TOTAL DESIGN ESALs	1,361,000	

LONGITUDINAL SECTION ALONG CULVERT

ANTICIPATED SETTLEMENT = 1" TO 2"
MIN. FILL = 1.5'
MAX. FILL = 4.6'
DESIGN FILL = 4'-7'



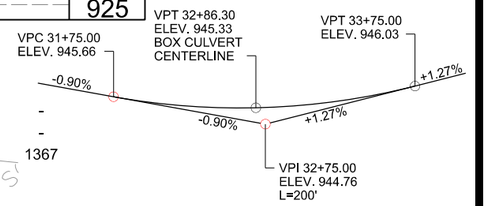


1 REMOVE EXISTING 60-INCH DIAMETER RCP CULVERT

2 INSTALL 40 LF OF SAFETY RAILING

3 INSTALL 40 LF OF SAFETY RAILING

SITUATION PLAN



PROPOSED PROFILE GRADE ON ADVENTURELAND DRIVE NW

NBI STRUCTURE LENGTH = 10.1'

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.

Steve Klocke 8/14/2026
Steven A. Klocke, P.E. Date

License Number P16312
My License Renewal Date is December 31, 2027

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DESIGN FOR A 7.5° SKEW
SINGLE 10'-0 x 5'-0 x 117'-0 R.C.B. CULVERT
SITUATION PLAN
STATION 32+86.30 AUGUST 2026
CITY OF ALTOONA
DESIGN SHEET NO. 3 OF 3

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	Field Bk:	
Technician: KSB	Date: 8/12/2026	Pg:	
DOT STP-U-0132(628)--70-77	Project No: 1221679	Sheet V.3	

ADVENTURELAND DR NW RECONSTRUCTION PROJECT
ALTOONA, IA
GENERAL NOTES AND CULVERT QUANTITIES

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

SNYDER & ASSOCIATES

Project No: 1221679
Sheet V.3

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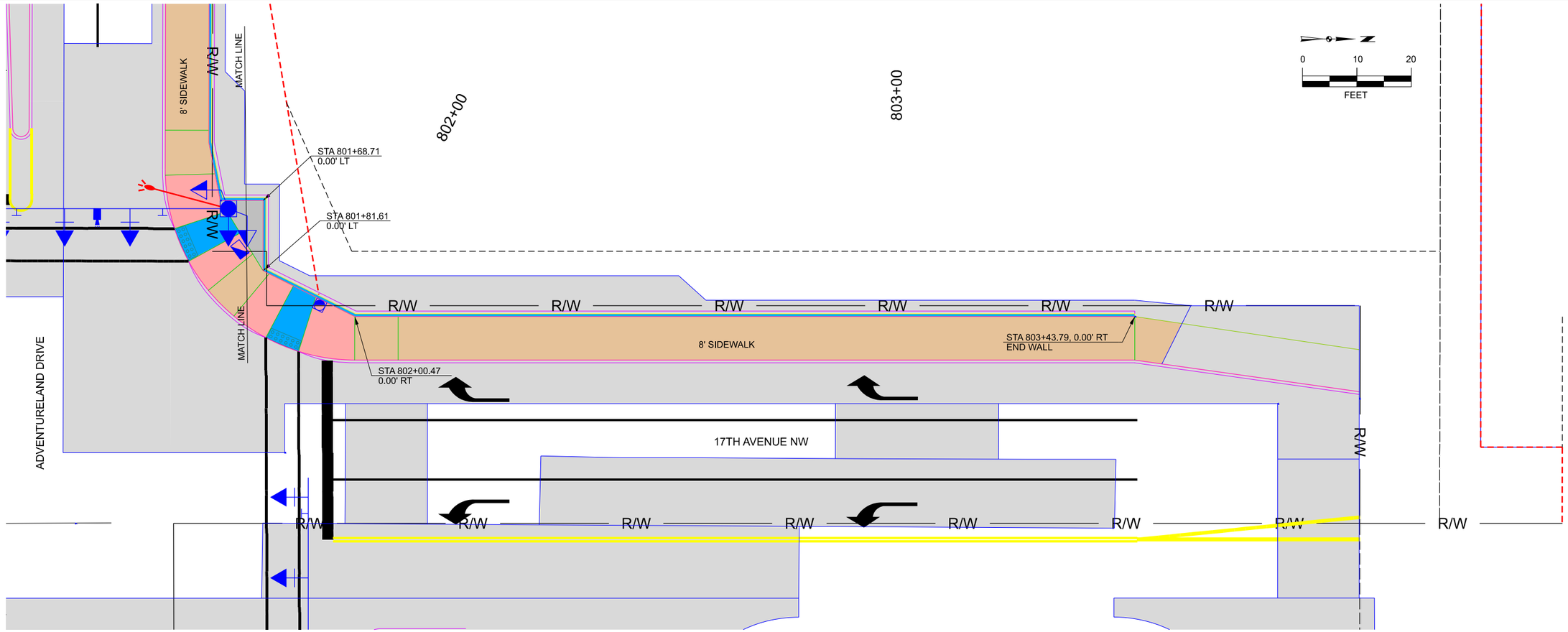

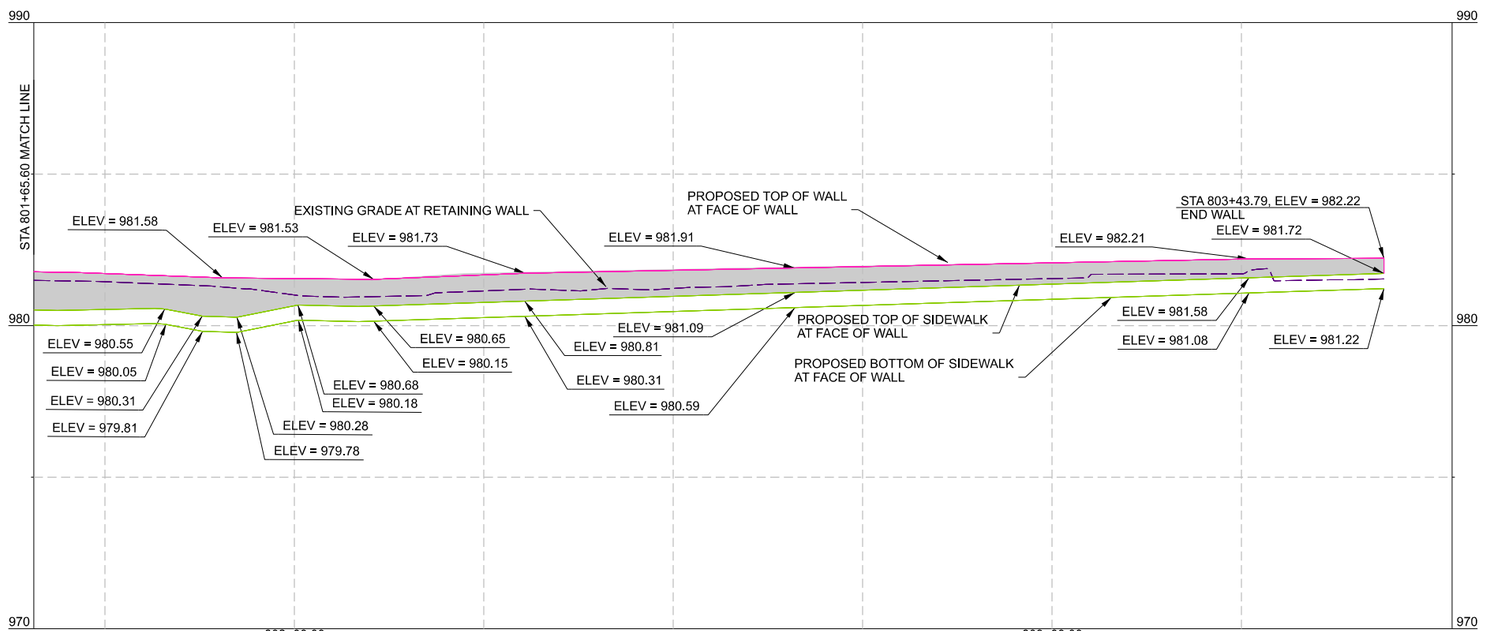

NOTE: COMBINED SIDEWALK RETAINING WALL, REFER TO IOWA DOT SRP MI-221.

BOX OUT HANDHOLES, SIGNAL POLES, PEDESTRIAN PUSHBUTTON FOUNDATIONS, AND MANHOLES IN THE SIDEWALK WITH 2 ADDITIONAL #5 REINFORCING BARS ON EACH SIDE.

ADDITIONAL "L" BARS REQUIRED AT SIGNAL POLE FOUNDATION.

REFER TO V.6 FOR FORMLINER REQUIERMENTS.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	T-R-S:	
Technician: KSB	Date: 8/18/2026		

DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet V.5

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

RETAINING WALL PLAN AND PROFILE

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Sheet V.5

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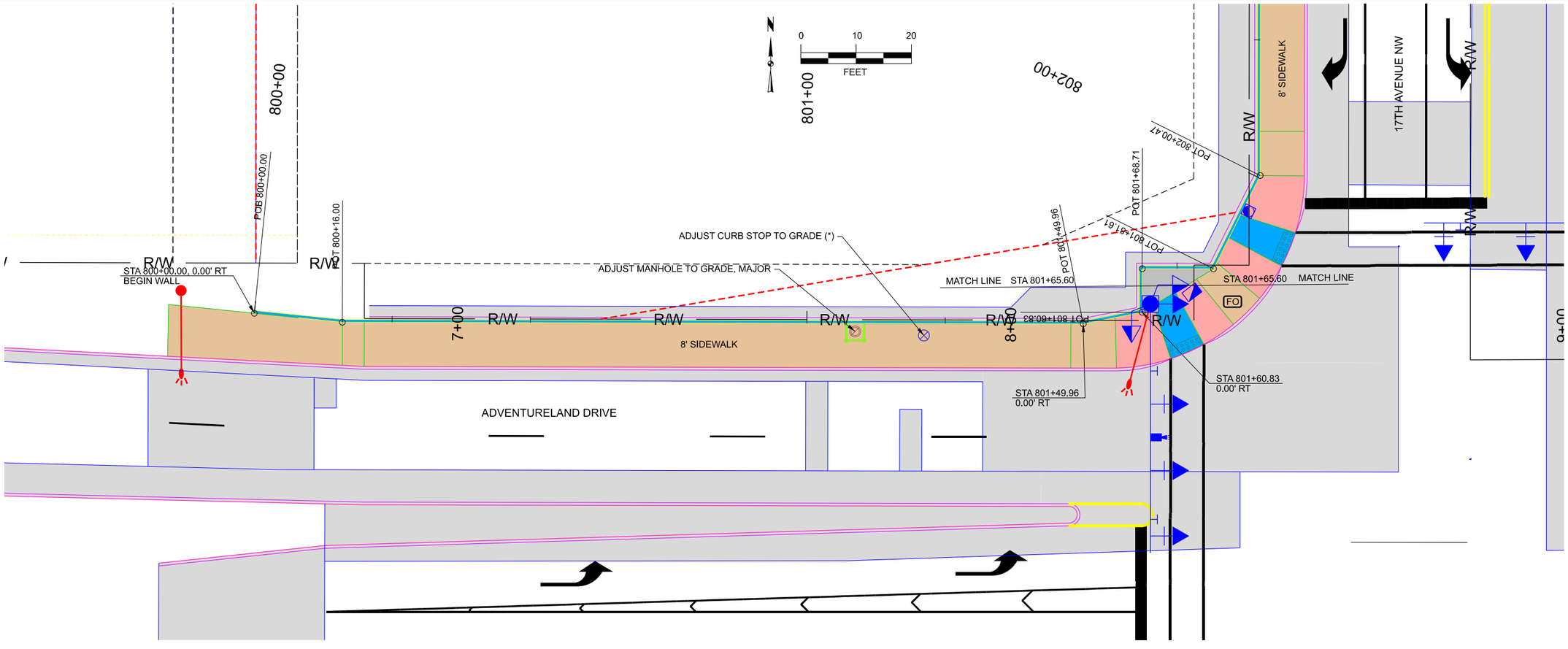

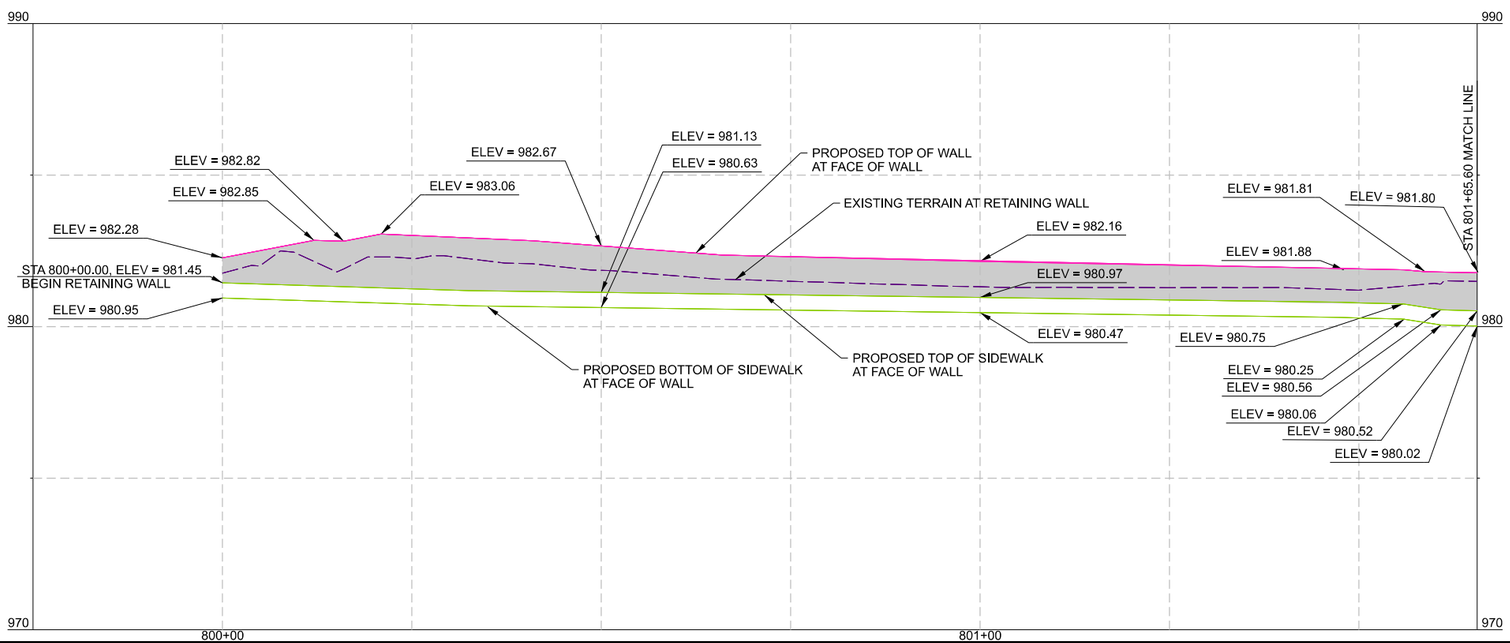

NOTE: COMBINED SIDEWALK RETAINING WALL, REFER TO IOWA DOT SRP MI-221.

BOX OUT HANDHOLES, SIGNAL POLES, PEDESTRIAN PUSHBUTTON FOUNDATIONS, AND MANHOLES IN THE SIDEWALK WITH 2 ADDITIONAL #5 REINFORCING BARS ON EACH SIDE.

ADDITIONAL "L" BARS REQUIRED AT SIGNAL POLE FOUNDATION.

REFER TO V.6 FOR FORMLINER REQUIERMENTS.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/18/2026	T-R-S:	
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	V.4

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

RETAINING WALL PLAN AND PROFILE

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Sheet V.4

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GENERAL NOTES FOR TEXTURED CONCRETE FORMLINER:

A. CONTRACTOR TO PROVIDE AND USE FORMLINER FOR RETAINING WALL FACADE AS SPECIFIED. USE A FORMLINER SYSTEM MADE OF HIGH-STRENGTH URETHANE ELASTOMER, FLEXIBLE FOAM, OR PLASTIC MATERIALS CAPABLE OF WITHSTANDING CONCRETE PRESSURES ANTICIPATED FROM POUR. SYSTEM SHOULD NOT ALLOW LEAKAGE OR CAUSE PHYSICAL DAMAGE OR DEFECTS TO THE CONCRETE. FORMLINER SYSTEM SHALL ATTACH EASILY TO FORMS AND MUST BE ABLE TO BE REMOVED WITHOUT CAUSING CONCRETE SURFACE DAMAGE.

B. CONCEAL JOINTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO PROVIDE A SEAMLESS FINISH FROM SIDE TO SIDE AND END TO END. CONTRACTOR SHALL MATCH FEATURES OF PATTERN AT FORMLINER JOINTS TO MINIMIZE REPEATS IN PATTERN AND MAKE THE FINISHED SURFACE APPEAR CONTINUOUS AND UNIFORM WITHOUT VISIBLE SEAMS AND FORM MARKS.

C. IF CONCRETE SURFACE CURVES, CUT FORMLINER CLEANLY AND PARALLEL TO THE CURVE WITH THE EDGES FOLLOWING THE CURVE.

D. CONTRACTOR SHALL USE ADEQUATE BLOCKING, SEALING, AND OTHER MEANS NECESSARY IN ORDER TO MAINTAIN THE SPECIFIED DEPTH AND CHARACTER OF TEXTURE AT ANY CUT EDGES OF LINERS AND TO PREVENT MORTAR LEAKAGE.

E. SHOP DRAWINGS OF FORMLINER(S) SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO BEGINNING CONSTRUCTION WORK. SHOP DRAWINGS SHALL INDICATE FORMLINER PATTERN, LAYOUT, AND TERMINATION DETAILS. INDICATE DIMENSIONS, BACKUP, RUSTICATION, AND REVEAL LOCATIONS. INCLUDE JOINTING, FORM TIE LOCATIONS, CORNERS, END LOCATIONS, AND OTHER SPECIAL CONDITIONS.

F. PROVIDE MATERIAL INFORMATION FOR FORM RELEASE AGENTS, JOINT SEALANTS, AND CONCRETE MIX FOR APPROVAL.

G. PRIOR TO BEGINNING FORMWORK, PROVIDE A MOCKUP. ACCEPTED MOCKUP WILL BE STANDARD BY WHICH REMAINING WORK WILL BE EVALUATED FOR TECHNICAL AND AESTHETIC MERIT.

H. CONTRACTOR SHALL ENSURE ADEQUATE CARE IS GIVEN WHEN LOADING CONCRETE INTO FORM, INCLUDING MAKING SURE TO ADEQUATELY VIBRATE CONCRETE TO PREVENT VOIDS AND MAINTAIN ALL INTENDED FEATURES OF THE FORMLINER.

I. CONFIRM RELEASE AGENT IS COMPATIBLE WITH FORMLINER MATERIAL AND SPECIFIED CONCRETE STAIN APPLICATION. ENSURE RELEASE AGENT IS NON-STAINING. STRIP FORMWORK USING TECHNIQUES IN ACCORDANCE WITH LINER MANUFACTURER'S RECOMMENDATIONS AFTER THE CONCRETE HAS ACHIEVED THE STRENGTH AND CURE TIMES REQUIRED BY THE PLANS AND APPLICABLE SPECIFICATIONS. APPLY RELEASE AGENT AND STRIP FORMWORK IN ACCORDANCE WITH LINER MANUFACTURER'S RECOMMENDATIONS, REQUIREMENTS, AND SPECIFICATIONS.

J. CONTRACTOR TO ENSURE FORMLINERS ARE CLEAN AND IN GOOD CONDITION PRIOR TO USE. DO NOT USE DELAMINATED OR DAMAGED FORMLINERS. CLEAN AND REPAIR FORMLINER SURFACES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, REQUIREMENTS, AND SPECIFICATIONS PRIOR TO USE.

K. FORM TIES, IF USED, MUST BE MADE OF NON-CORROSIVE MATERIALS. POSITION FORM TIES AND ACCESSORIES SO CONCEALED IN MORTAR JOINTS OF THE STONE PATTERN AND AT HIGH POINTS OF THE FINISHED WALL.

L. THE COMPLETED SURFACE SHALL BE FREE OF BLEMISHES, SURFACE VOIDS, AND CONSPICUOUS FORM MARKS TO THE SATISFACTION OF THE ENGINEER. FIX HONEYCOMBING OR BUG HOLES AND SPALLED CONCRETE AS APPROVED BY THE ENGINEER. IF MINOR DEFECTS ARE FOUND FOLLOWING THE REMOVAL OF FORMS, FINISH IN A MANNER THAT BLENDS WITH THE INTENDED SURFACE TEXTURE. THE CONTRACTOR SHALL CORRECT, AT THE CONTRACTOR'S EXPENSE, ANY SURFACE DEFECTS.

M. FORMLINERS SHALL BE DESIGNED TO FORM SURFACES CONFORMING TO THE DESIGN INTENT INCLUDING THE SHAPE, LINES, AND DIMENSIONS SPECIFIED AND TO AVOID VISIBLE PATTERN REPEATS.

THE FORMLINER USED SHALL PRODUCE THE DESIRED TEXTURED EFFECT OF REALISTIC, ASHLAR STONE MASONRY SURFACE, SHOWING STONES OF VARIOUS SIZE. THE FORMLINER SHALL PRODUCE A RANDOM STONE MASONRY SURFACE HAVING STONES OF VARYING SIZE AND SHAPE. INDIVIDUAL STONE DIMENSIONS SHALL BE BETWEEN 3 TO 9 INCHES IN HEIGHT AND 7 TO 15 INCHES IN WIDTH. TEXTURE SHALL HAVE A MAXIMUM RELIEF OF 1.5 INCHES AND A MINIMUM DEPTH OF 1.25 INCHES. PRE-APPROVED MANUFACTURERS ARE AS FOLLOWS:

CUSTOM ROCK FORMLINER
2020 West 7th Street
St. Paul, MN 55116
Phone: (651) 699-1345
Fax: (651) 699-1830
info@customrock.com

FITZGERALD FORMLINERS
1500 East Chestnut Avenue
Santa Ana, CA 92701 USA
Phone: 714-547-6710

SIKA ARCHITECTURAL FORMLINERS
PATTERN NO. 330
ASHLAR STONE
Sika Greenstreak, Inc.
3400 Tree Court Industrial Blvd.
St. Louis, MO 63122
Phone: 800-325-9504

MOCKUP NOTES:

A. PRIOR TO BEGINNING FORMWORK AND ANY PRODUCTION OF CONCRETE WORK THAT INCLUDES A TEXTURED TREATMENT, A MOCKUP PANEL MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO BEGINNING ANY TEXTURED CONCRETE WORK.

B. PROVIDE A FULL SCALE VERTICAL 3 FOOT HEIGHT BY 6 INCH THICK (MINIMUM) BY 3 FOOT LONG MOCKUP USING JOB SPECIFIC MATERIALS, METHODS, AND WORKMANSHIP. THESE INCLUDE CONCRETE MIX, FORMING SYSTEM (TIES, LINER, FORMWORK), FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, JOINT SEALING, VIBRATING, AND STRIPPING PRACTICES. CROSS-SECTION SHALL BE REPRESENTATIVE OF TEXTURE, COLOR, AND REVEAL. INCORPORATE FORMWORK RUSTICATION AND MINIMUM ONE HORIZONTAL AND ONE VERTICAL FORM LINER JOINT.

C. MOCKUP TO BE FORMED ON SITE BY THE INSTALLERS WHO WILL ACTUALLY PERFORM THE WORK FOR THE PROJECT. A SINGLE MAT OF NO. 5 REINFORCING BARS IN TWO DIRECTIONS SHALL BE CENTERED WITHIN THE PANEL FOR REINFORCEMENT. TEXTURED FACE SHALL BE VERTICAL DURING THE CASTING PROCESS.

D. PROVIDE ENGINEER AND OWNER A 7 CALENDAR DAY NOTICE PRIOR TO PERFORMING MOCKUP CONSTRUCTION. FORMWORK MOCKUP TO BE APPROVED BY ENGINEER AND OWNER PRIOR TO PROCEEDING WITH STAINING MOCKUP. STAINED MOCKUP TO BE APPROVED BY ENGINEER AND OWNER PRIOR TO PREFORMING RELATED WORK.

E. ACCEPTED MOCKUP WILL BE STANDARD BY WHICH REMAINING WORK WILL BE EVALUATED FOR TECHNICAL AND AESTHETIC MERIT. MOCKUP TO REMAIN UNTIL COMPLETION OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUITABLE PROTECTIONS TO PREVENT DAMAGE TO MOCKUP.

F. REMOVE MOCKUP FROM SITE UPON ACCEPTANCE OF PROJECT OR WHEN DIRECTED BY ENGINEER.

G. IF THE MOCKUP PANEL IS REJECTED, THE CONTRACTOR SHALL PROVIDE A NEW MOCKUP PANEL AS DIRECTED BY THE ENGINEER AND AT NO ADDITIONAL COST.

MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		T-R-S:
Technician: KSB	Date: 8/17/2026		

STP-U-0132(628)--70--77
Project No: 1221679
Sheet V.6

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

RETAINING WALL PLAN AND PROFILE

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Sheet V.6

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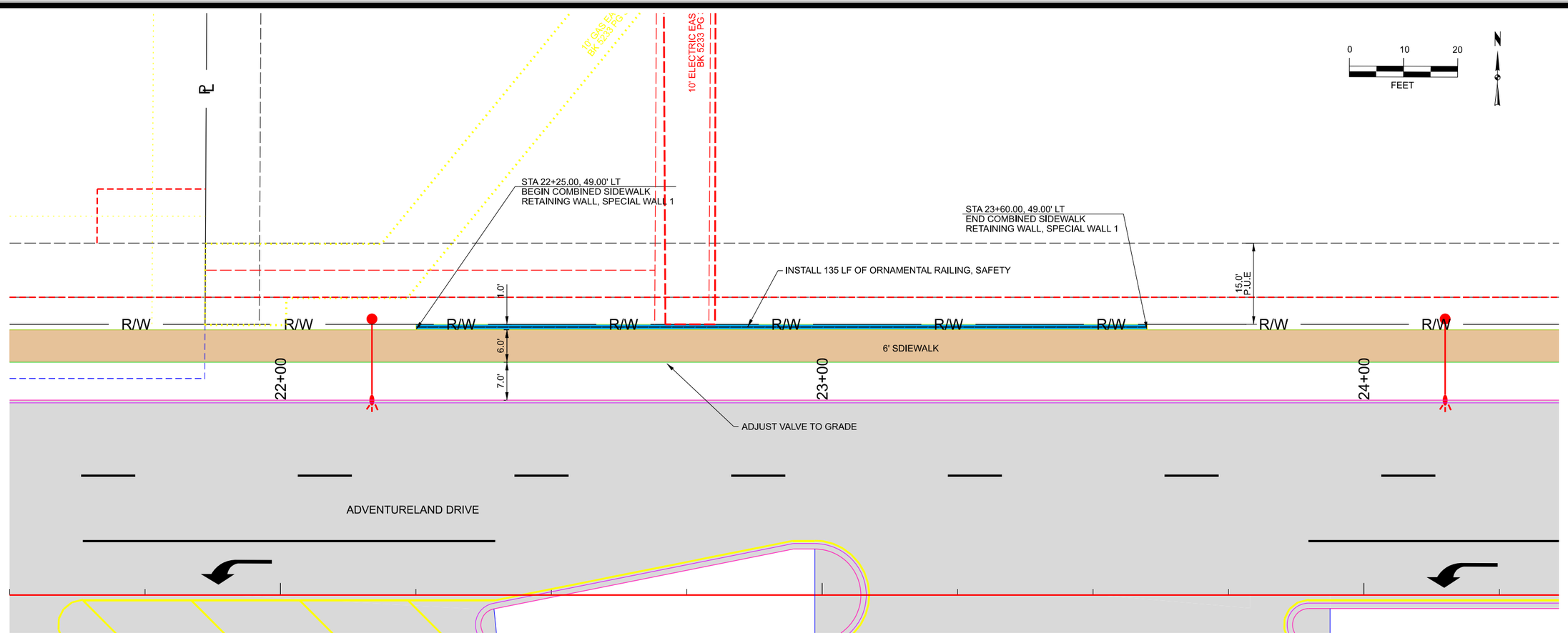

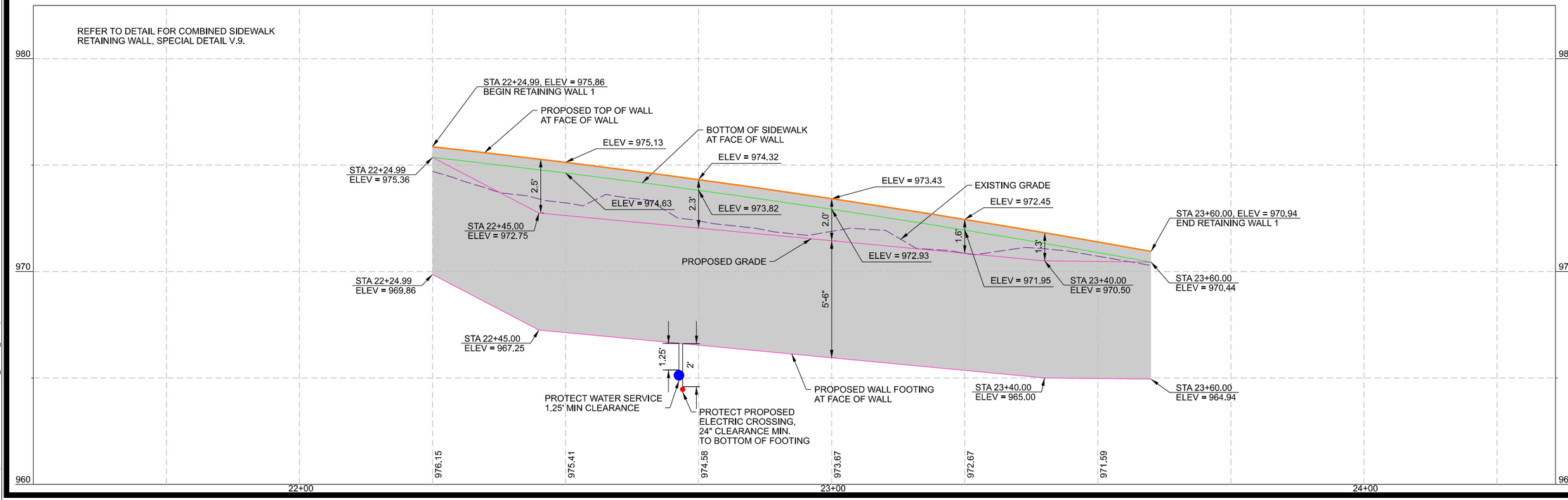

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet V.7

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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RETAINING WALL PLAN AND PROFILE

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Project No: 1221679

Sheet V.7

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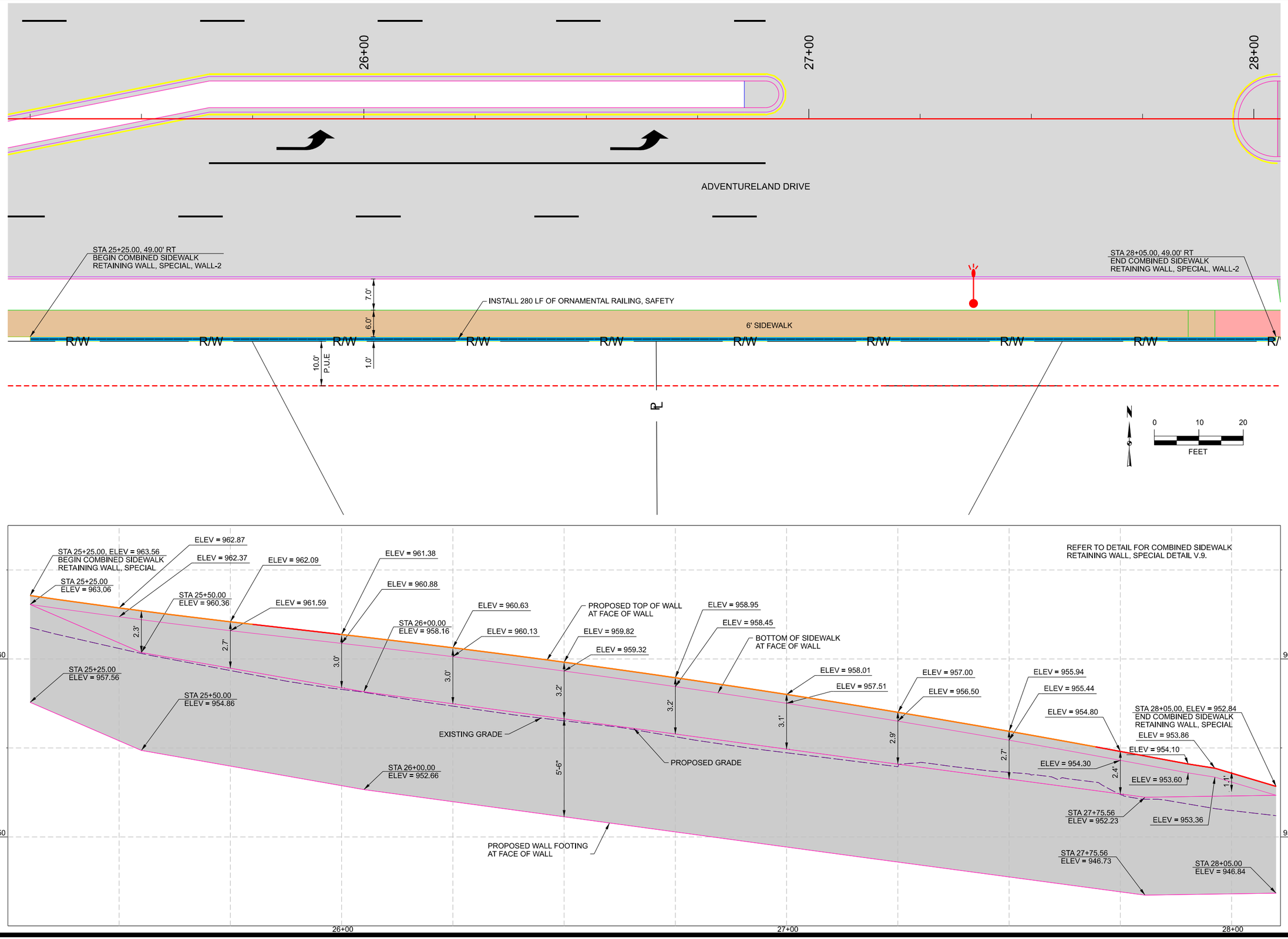

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet V.8

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

RETAINING WALL PLAN AND PROFILE

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Sheet V.8

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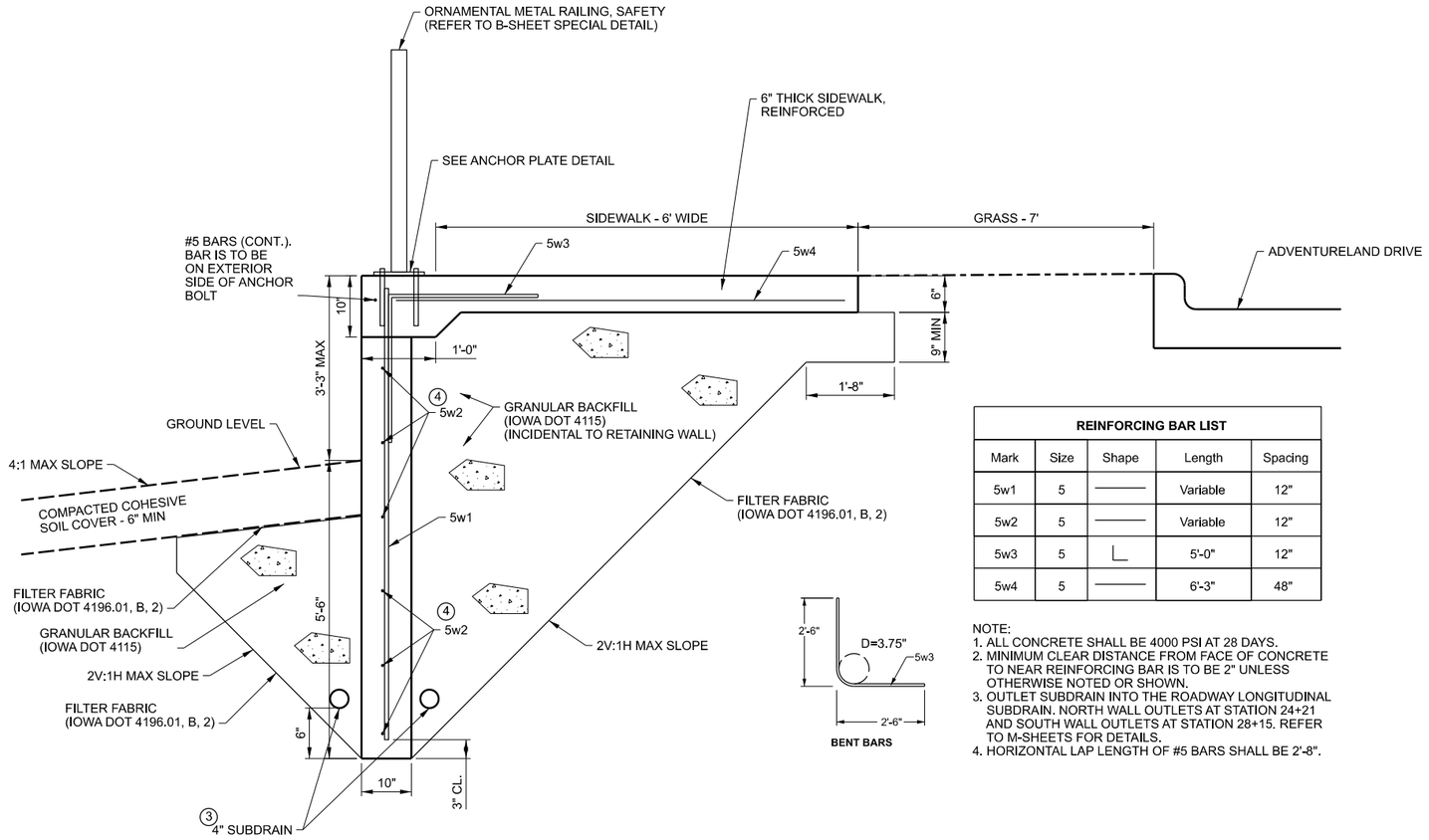
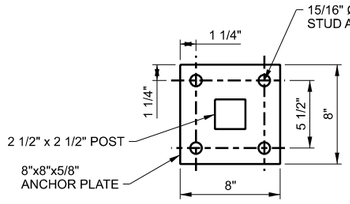


BENT BARS

REINFORCING BAR LIST				
Mark	Size	Shape	Length	Spacing
5w1	5	———	Variable	12"
5w2	5	———	Variable	12"
5w3	5	⌊	5'-0"	12"
5w4	5	———	6'-3"	48"

NOTE:
1. ALL CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
2. MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.
3. OUTLET SUBDRAIN INTO THE ROADWAY LONGITUDINAL SUBDRAIN. NORTH WALL OUTLETS AT STATION 24+21 AND SOUTH WALL OUTLETS AT STATION 28+15. REFER TO M-SHEETS FOR DETAILS.
4. HORIZONTAL LAP LENGTH OF #5 BARS SHALL BE 2'-8".



ANCHOR PLATE DETAIL

COMBINED SIDEWALK RETAINING WALL, SPECIAL DETAIL

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.

Jordan A. Gustafson, P.E. 8-17-26
Date

License Number P24723

My License Renewal Date is December 31, 2027

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MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ	-	
Technician: KSB	Date: 8/17/2026	T-R-S:	
DOT STP-U-0132(628)--70-77 Project No: 1221679		Sheet	V.9

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

RETAINING WALL DETAIL

ALTOONA, IA

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Sheet V.9

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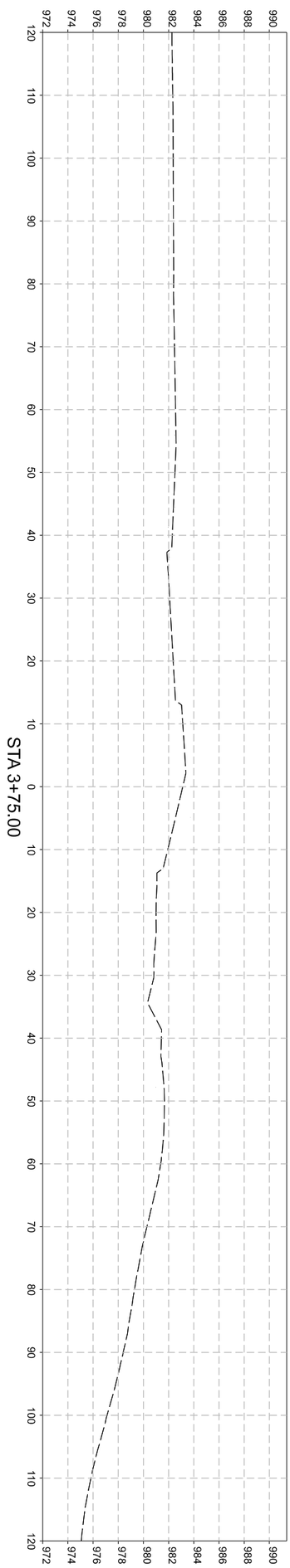

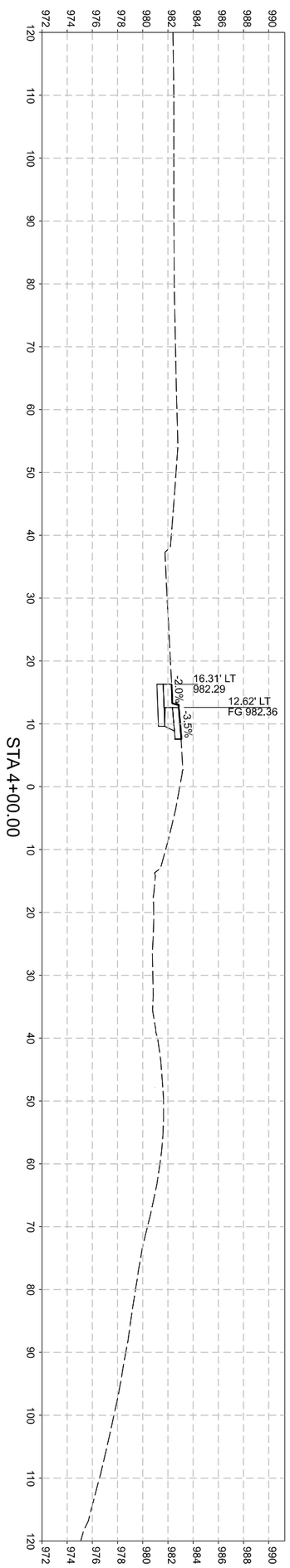

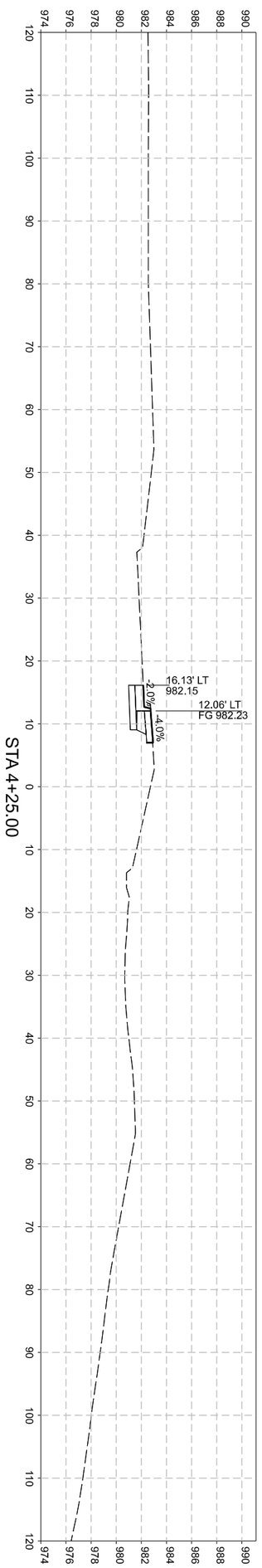

Sheet W.1

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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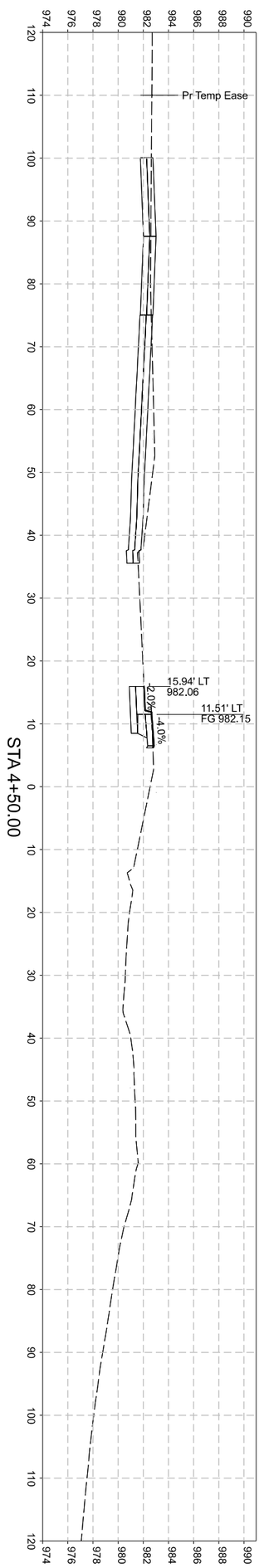
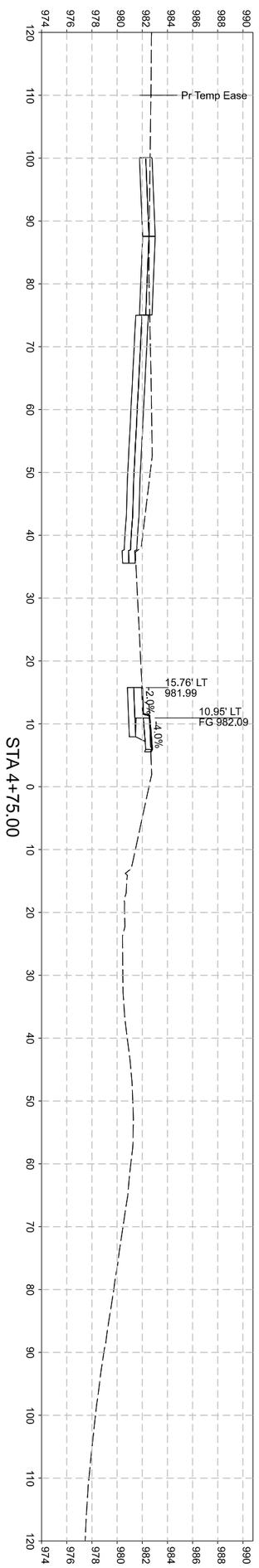
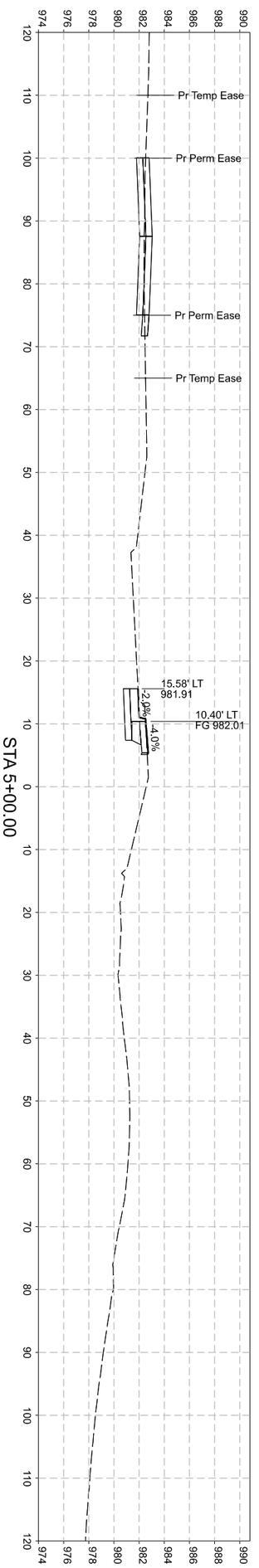
Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet W.1







Sheet W.2

Project No: 1221679

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ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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Engineer: LCL | Checked By: LEJ

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DOT STP-U-0132(628)--70--77

Project No: 1221679

Sheet W.2

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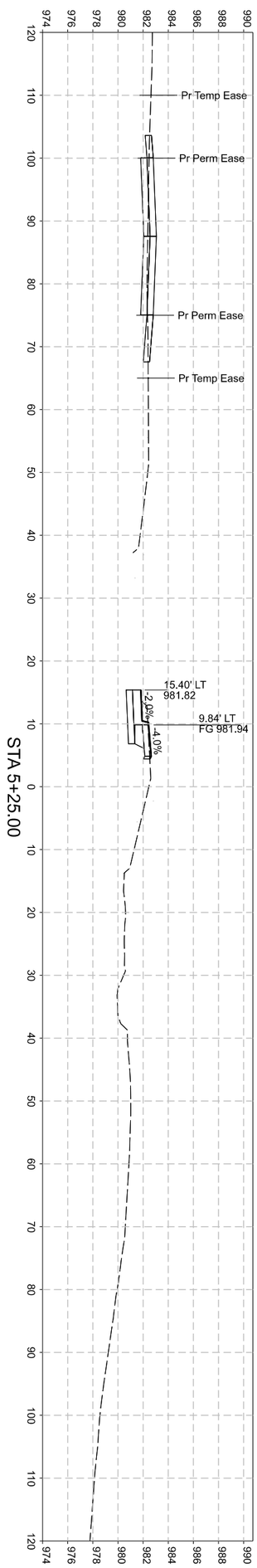

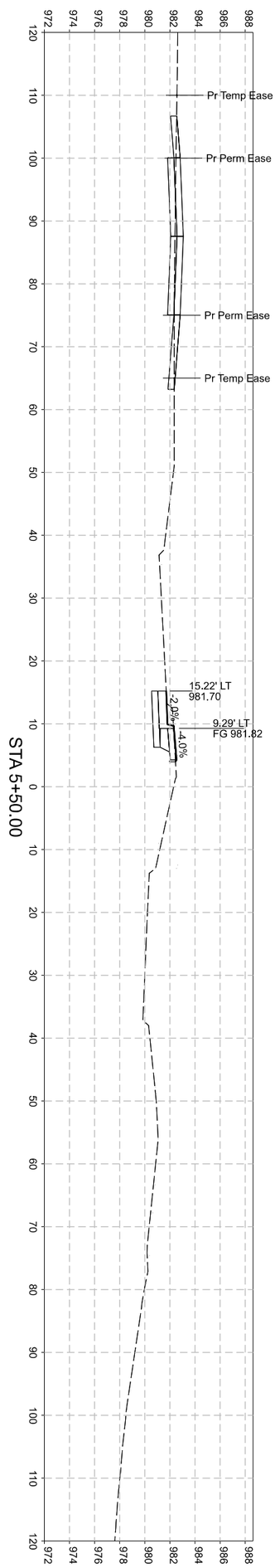

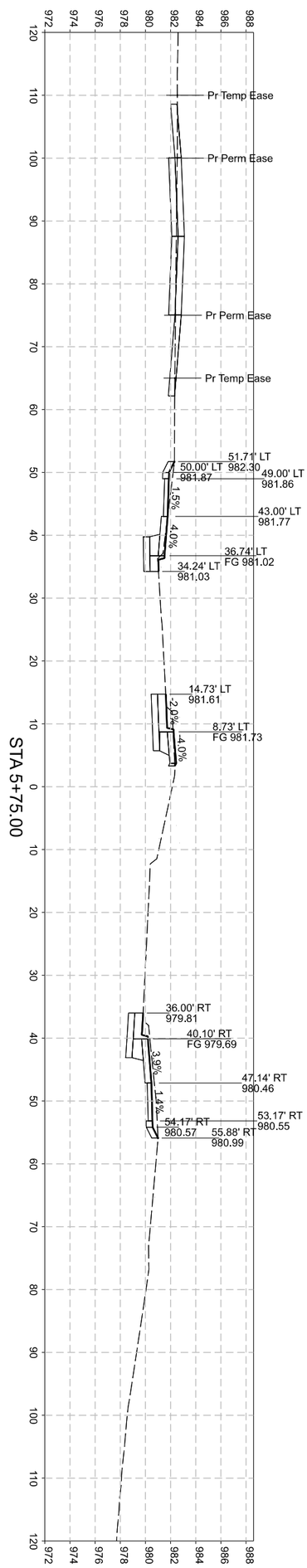

Sheet W.3

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Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70-77
Project No: 1221679

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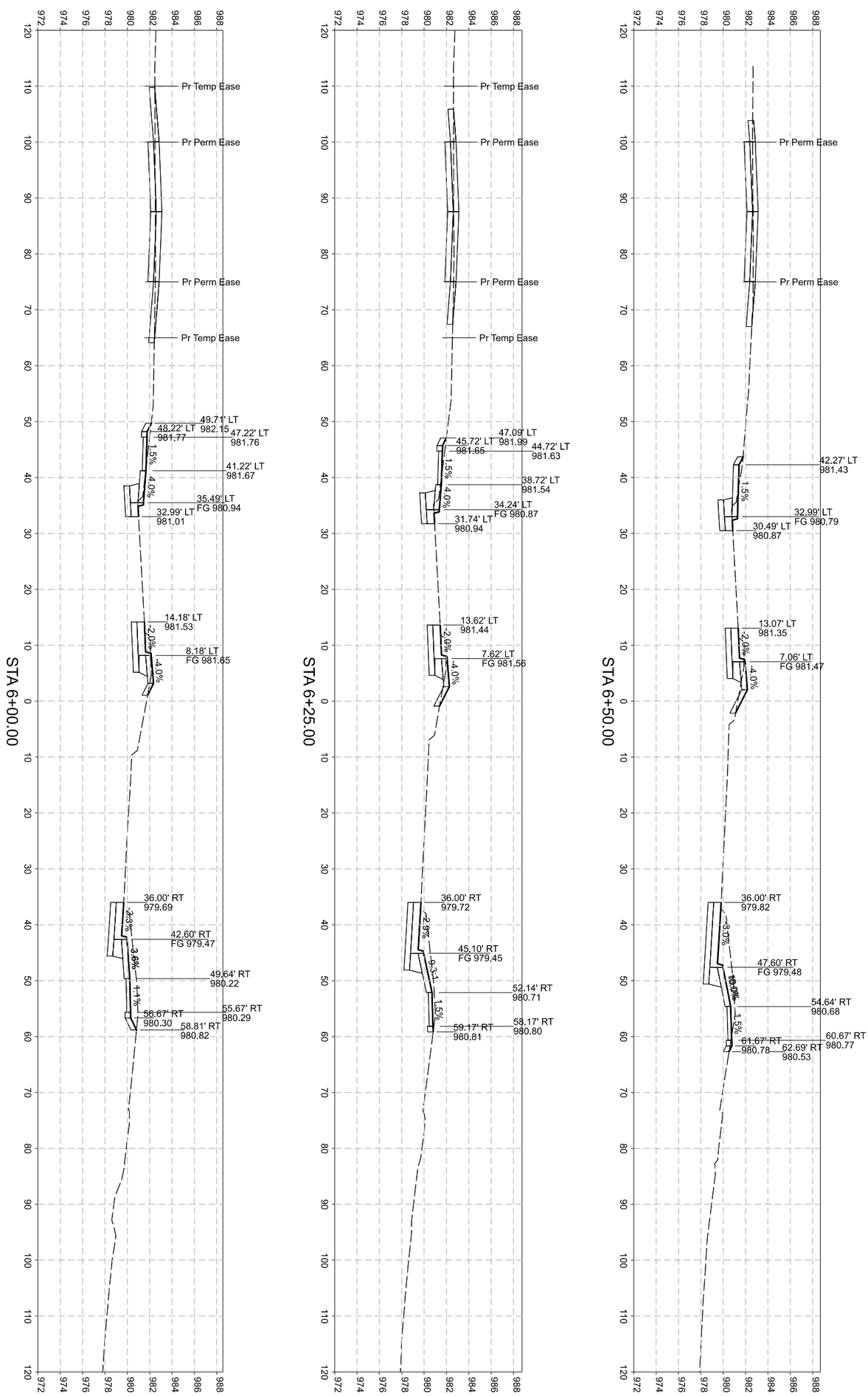

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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DOT STP-U-0132(628)--70--77
Project No: 1221679
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Project No: 1221679

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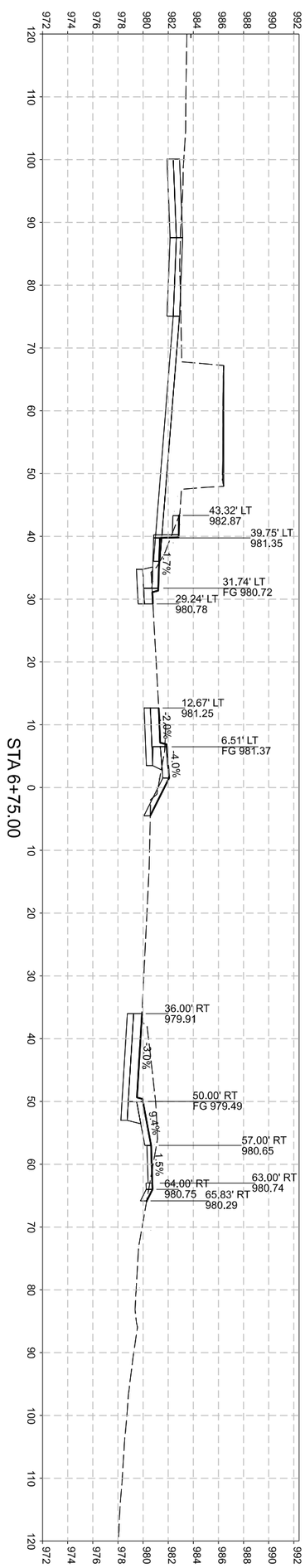

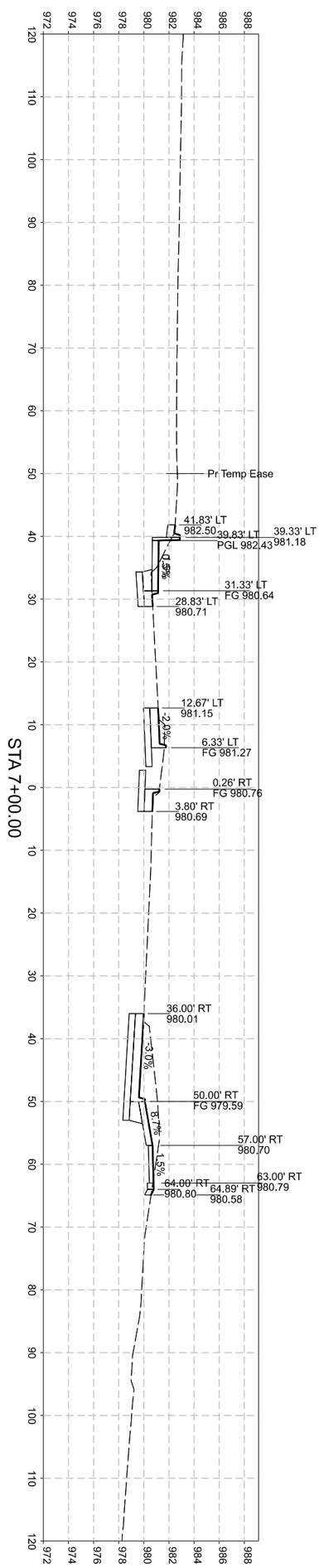

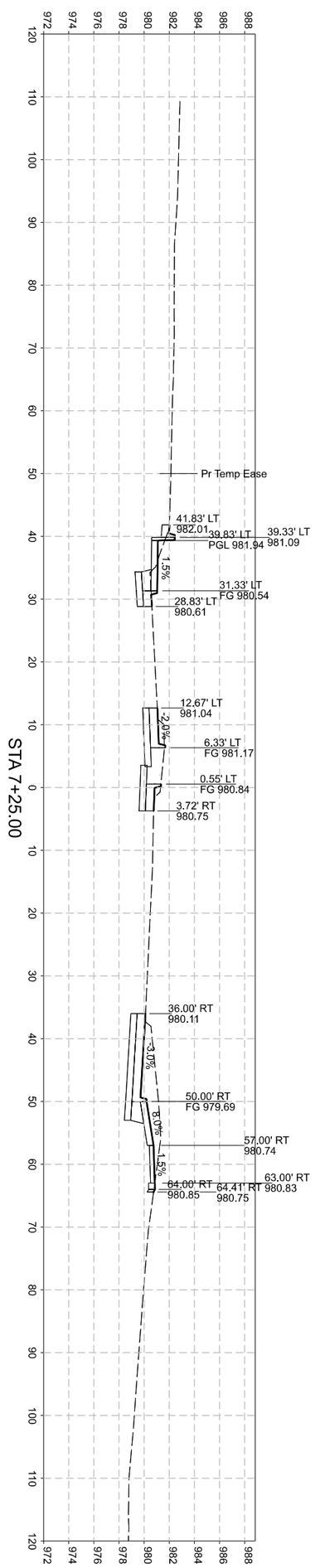

Sheet W.5

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70-77
Project No: 1221679

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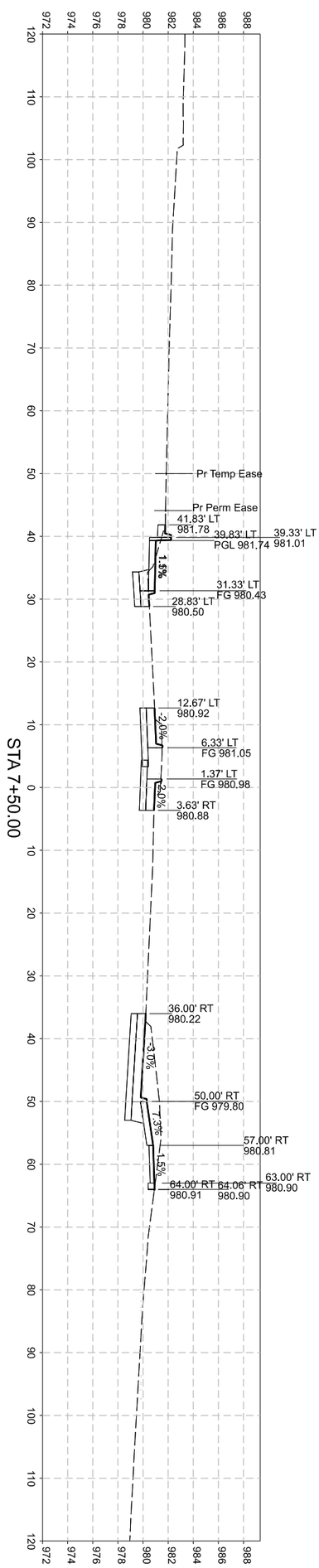

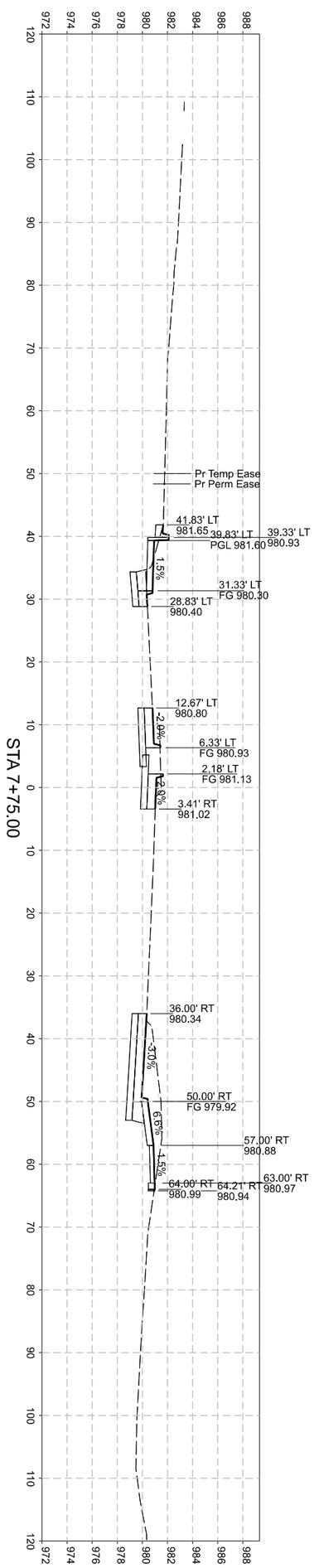

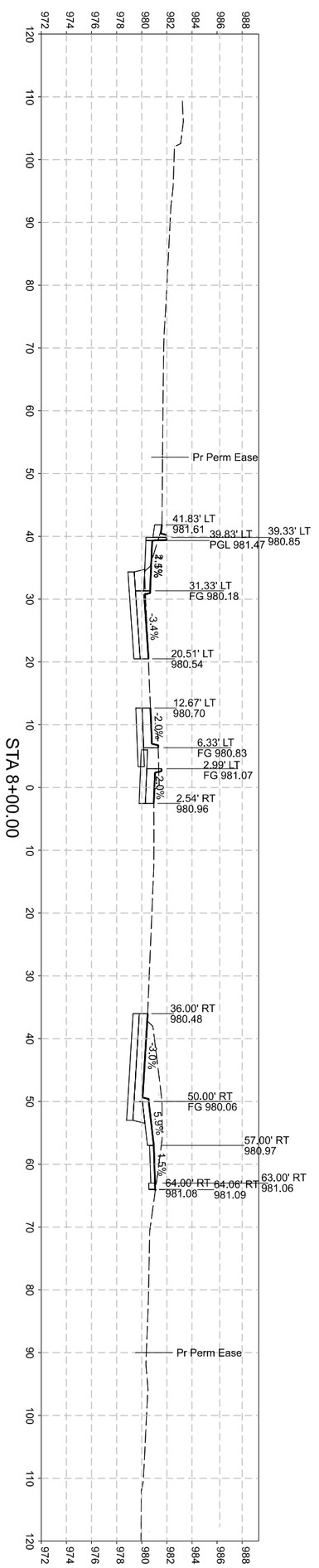

Sheet W.6

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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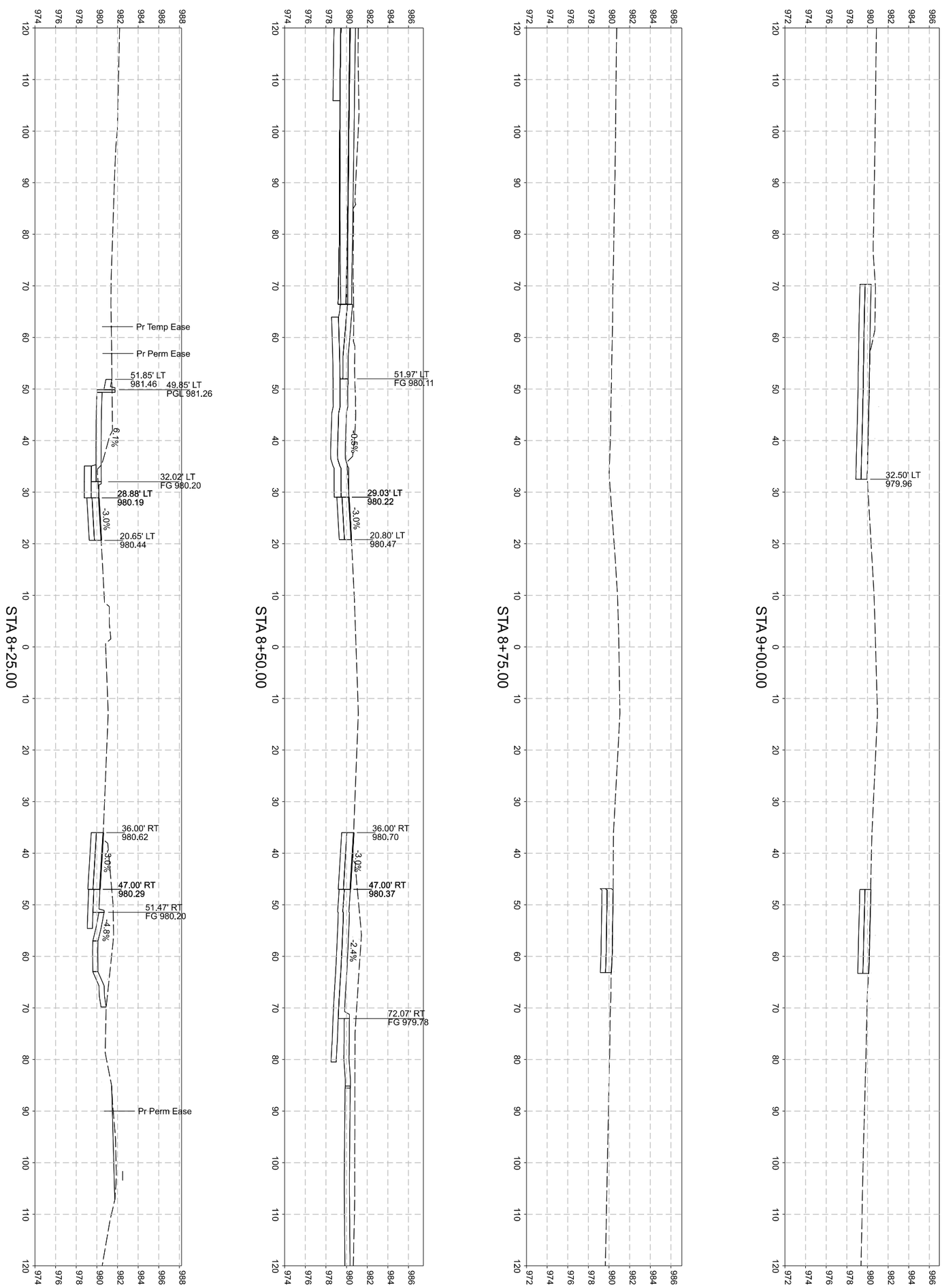
Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet W.6



ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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SNYDER & ASSOCIATES, INC.
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Engineer: LCL | Checked By: LEJ
Technician: KSB | Date: 8/17/2026 | T-R-S:
DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet W.7

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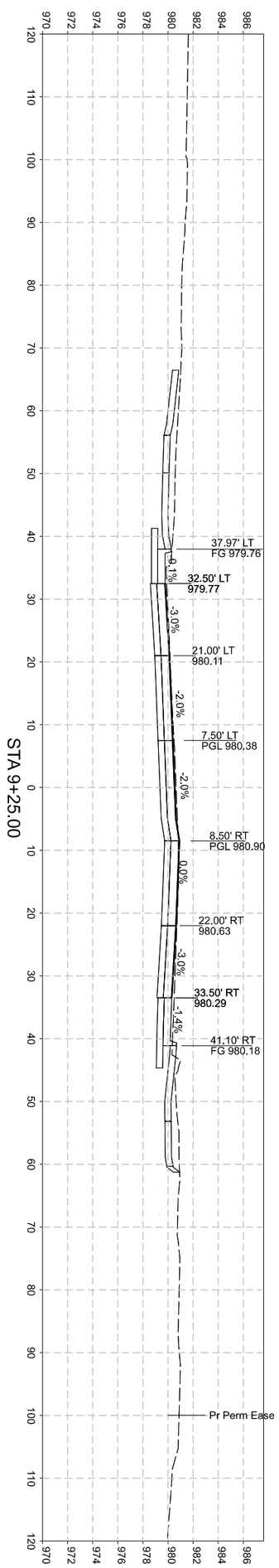
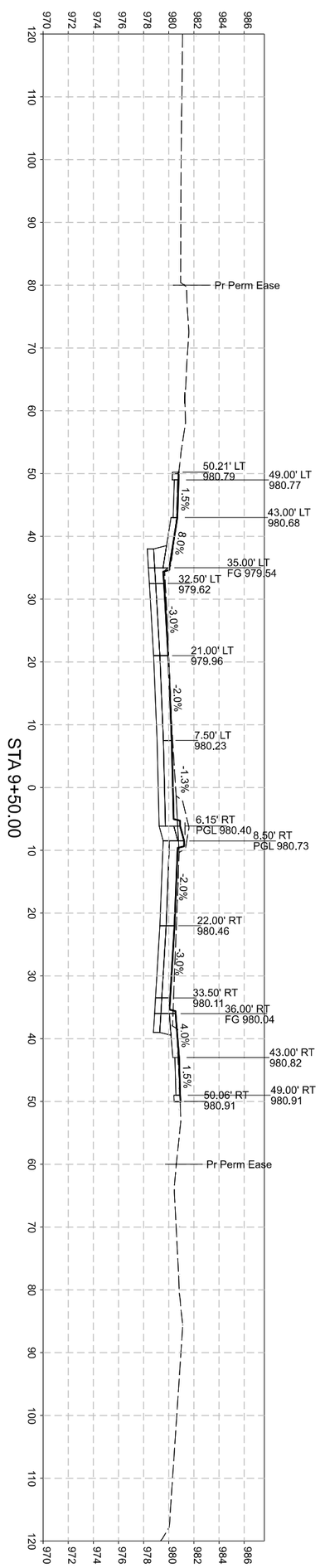
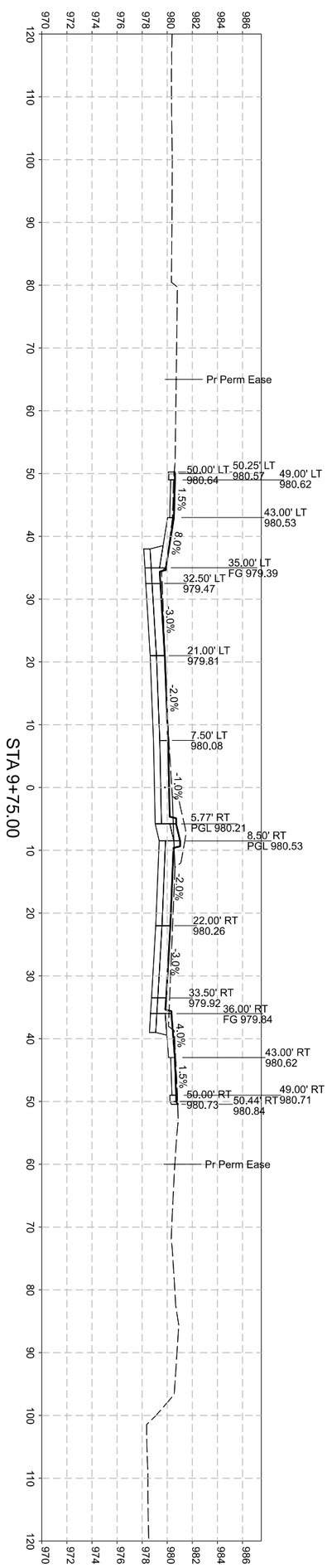
Project No: 1221679







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SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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Technician: KSB | Date: 8/17/2026 | T-R-S:

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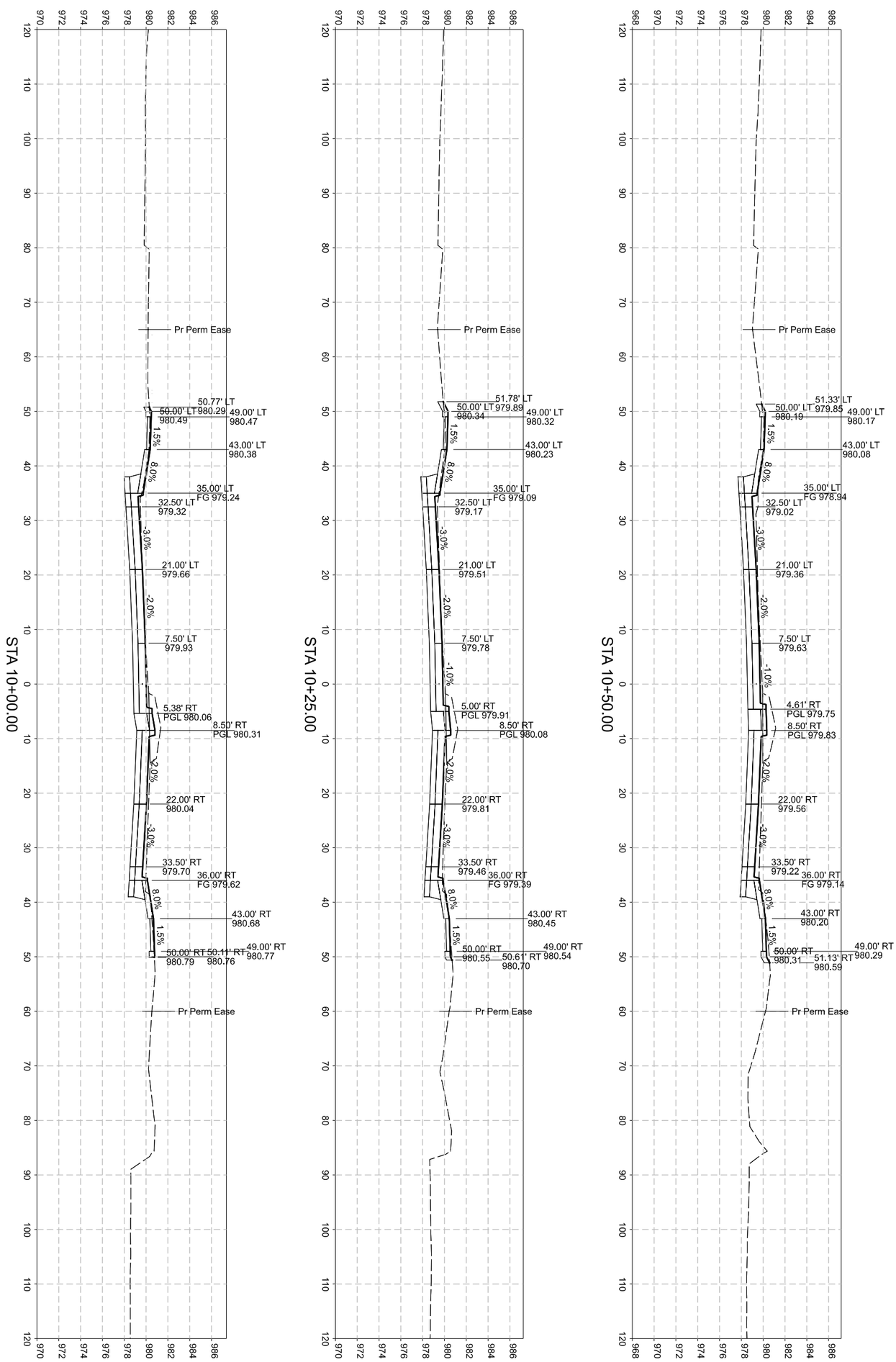
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM



Sheet W.9

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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2727 SW SNYDER BLVD
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DOT STP-U-0132(628)--70--77
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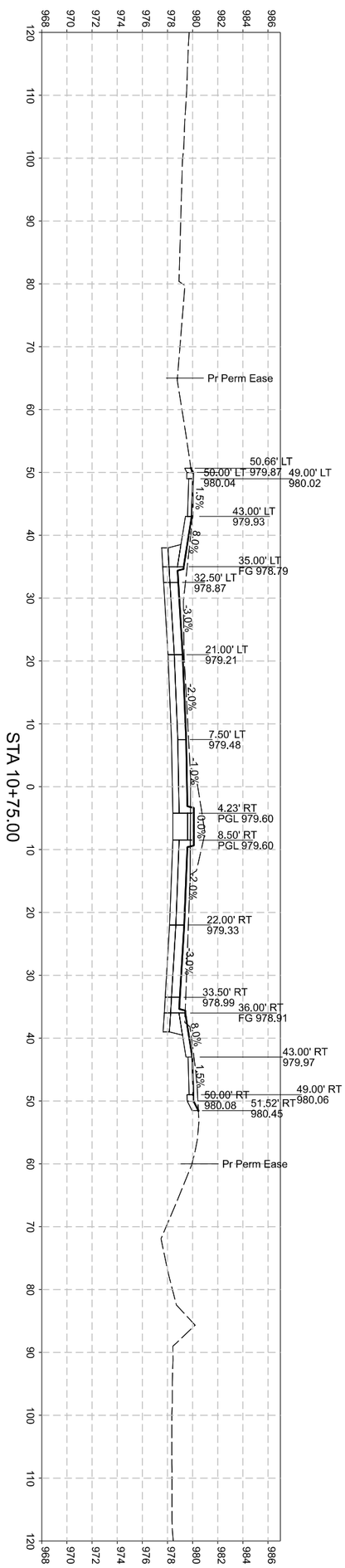

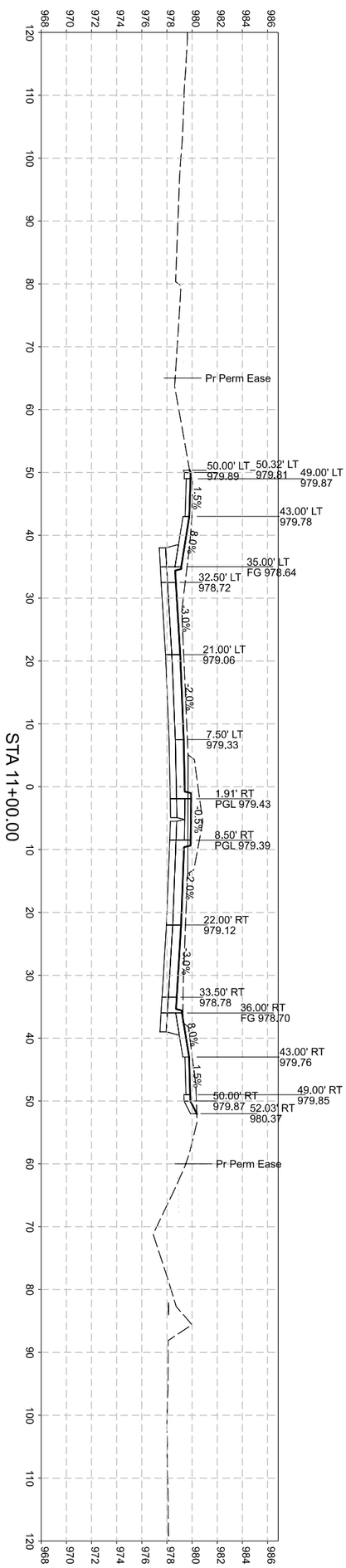

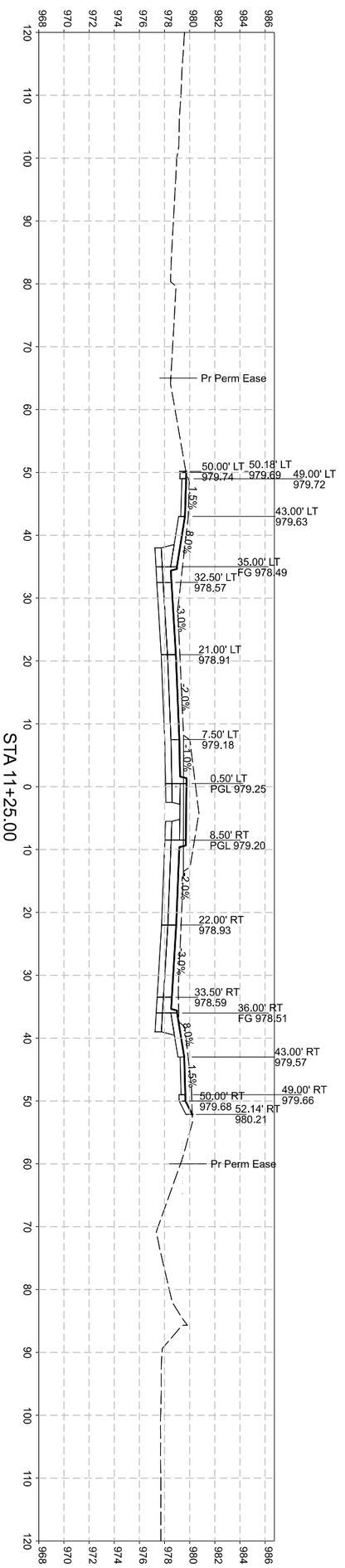

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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DOT STP-U-0132(628)--70-77
Project No: 1221679
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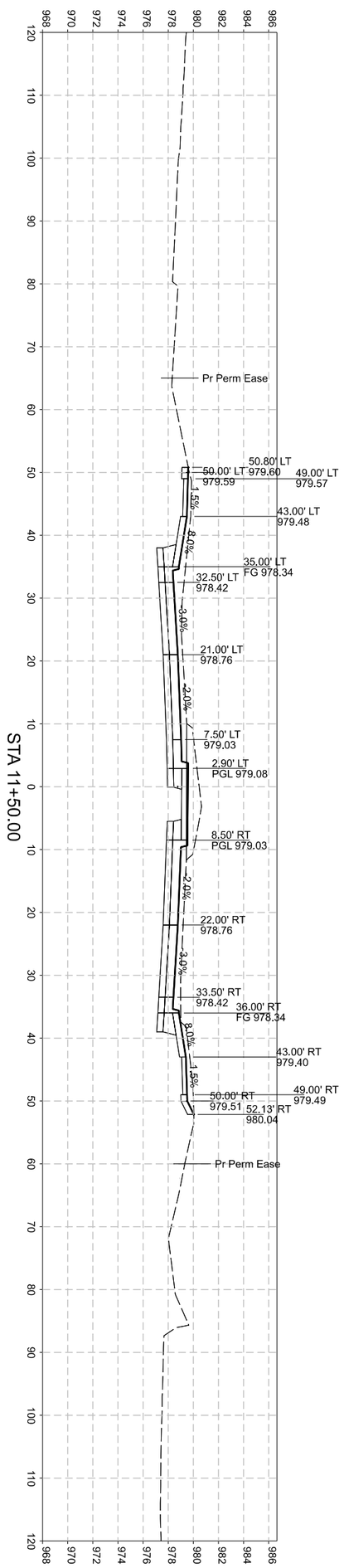

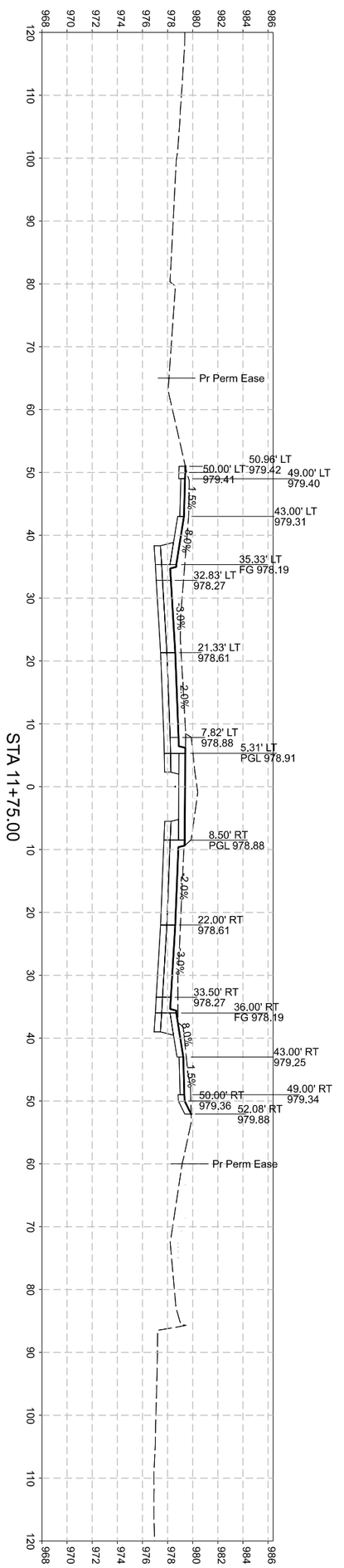

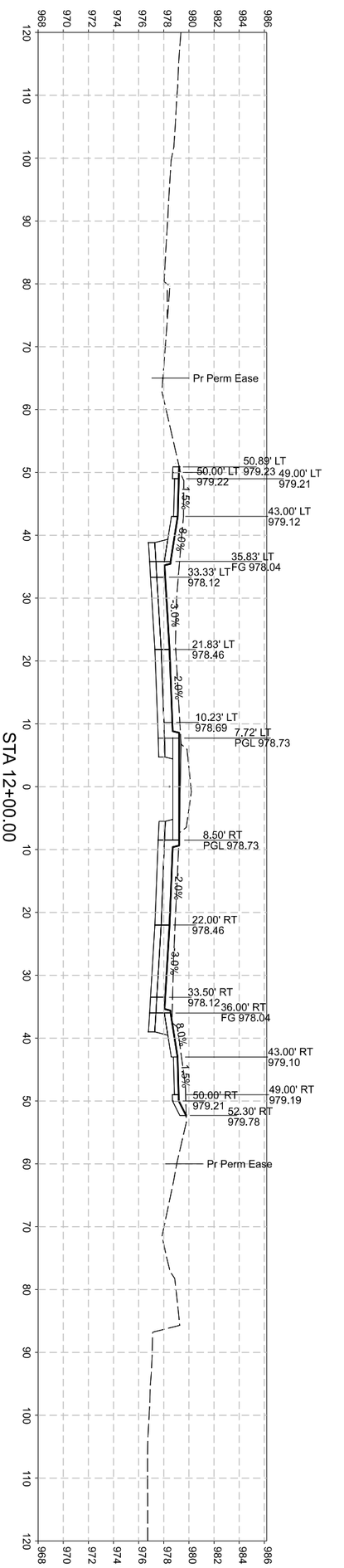

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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

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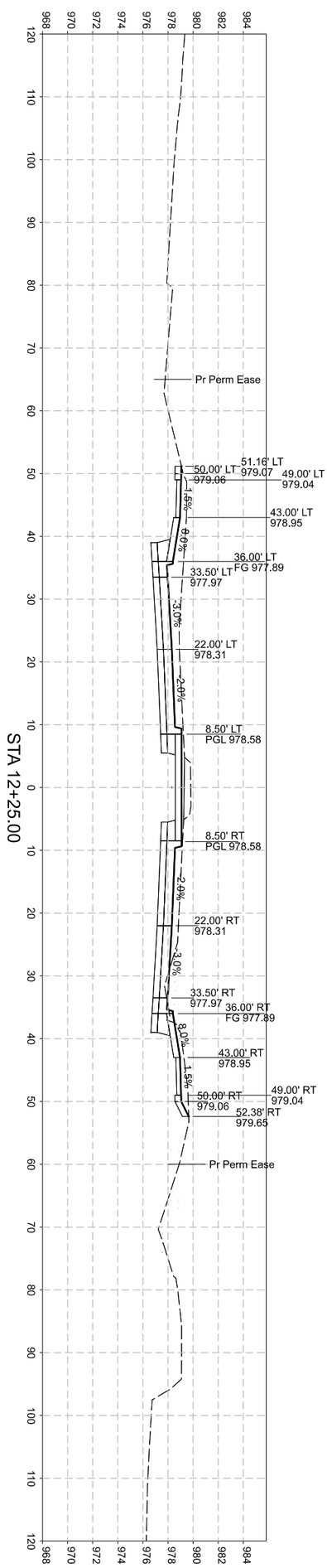
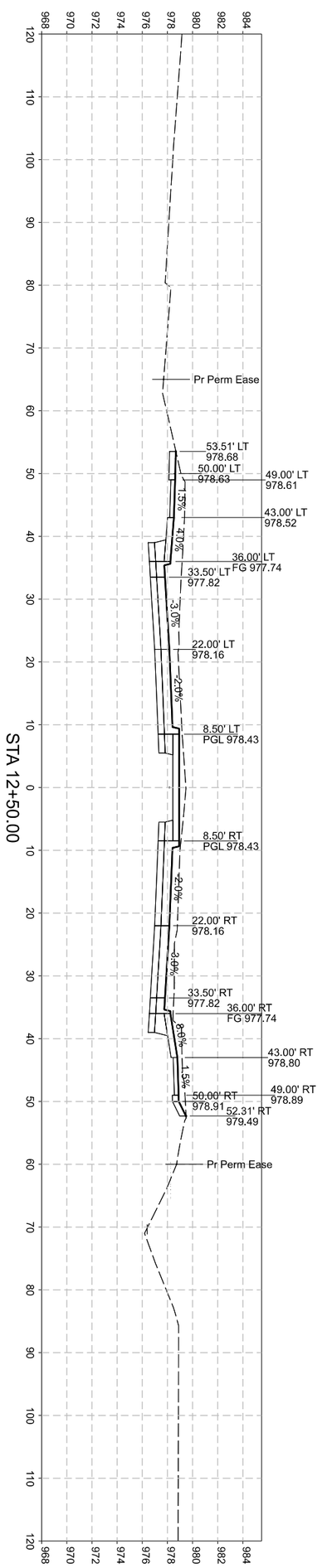
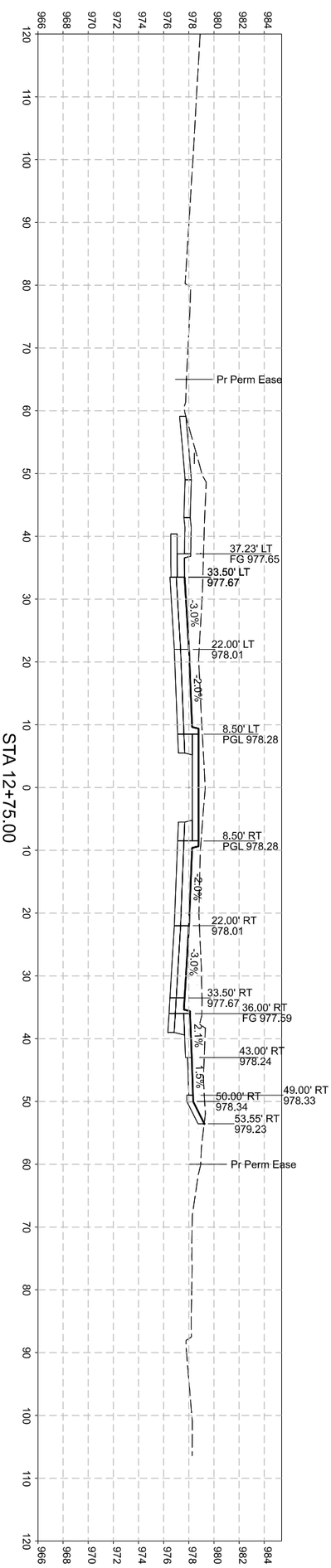
DOT STP-U-0132(628)--70--77
Project No: 1221679
Sheet W.11







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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet W.12

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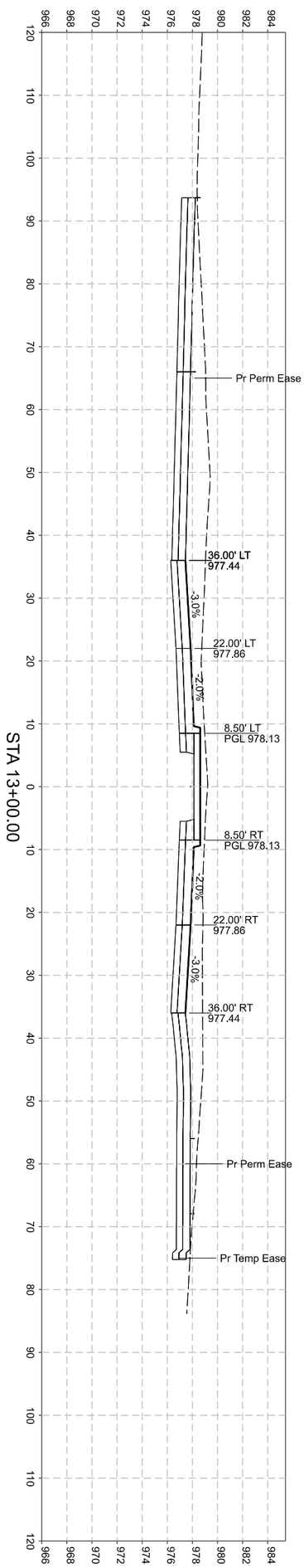
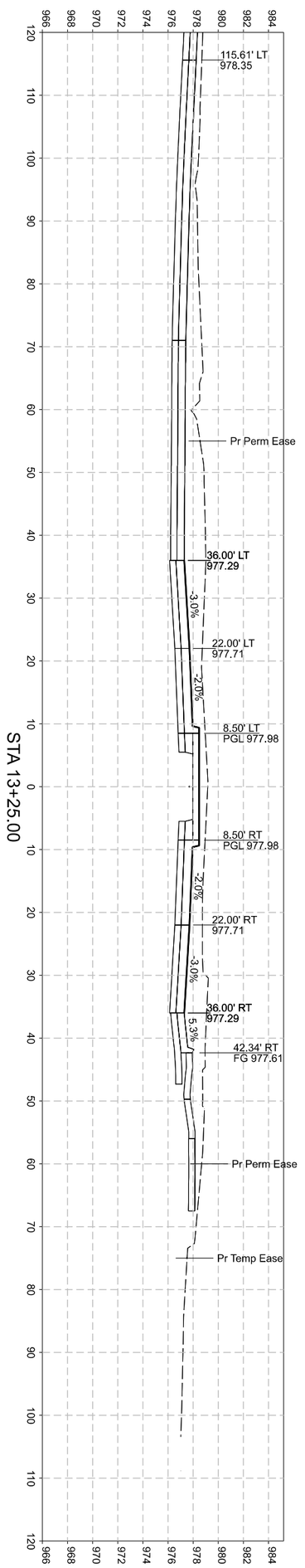
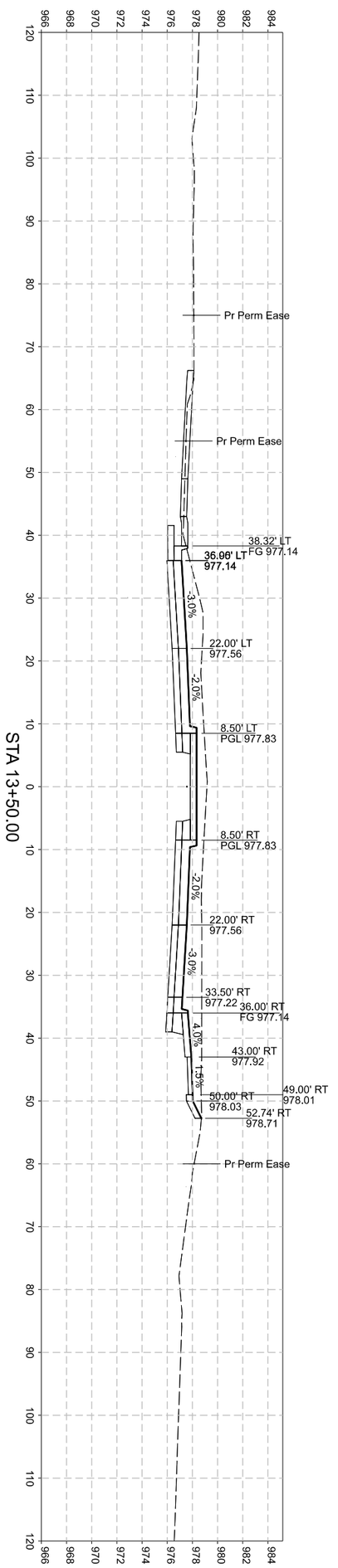






Sheet W.13

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ

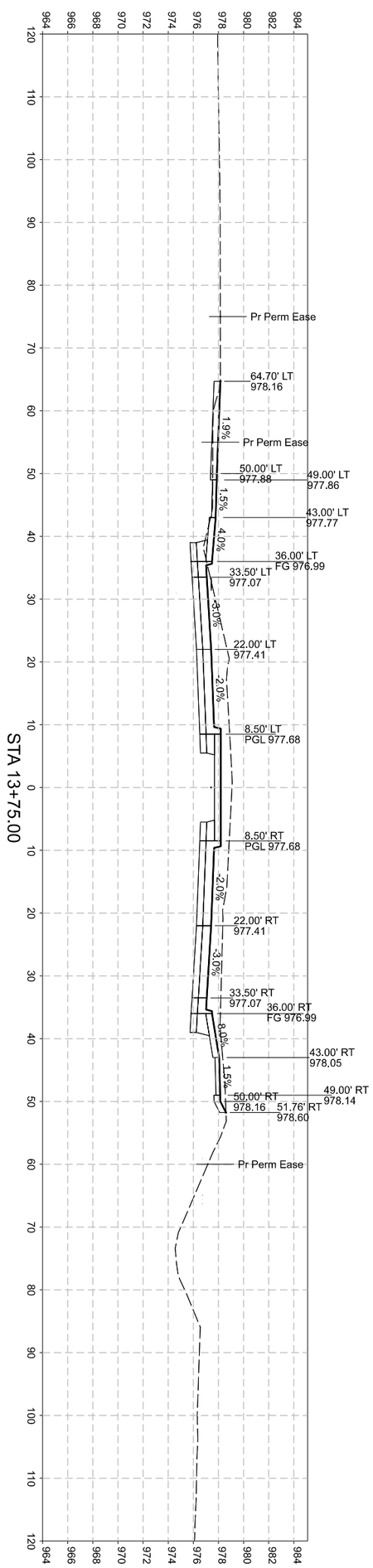
Technician: KSB | Date: 8/17/2026 | T-R-S:

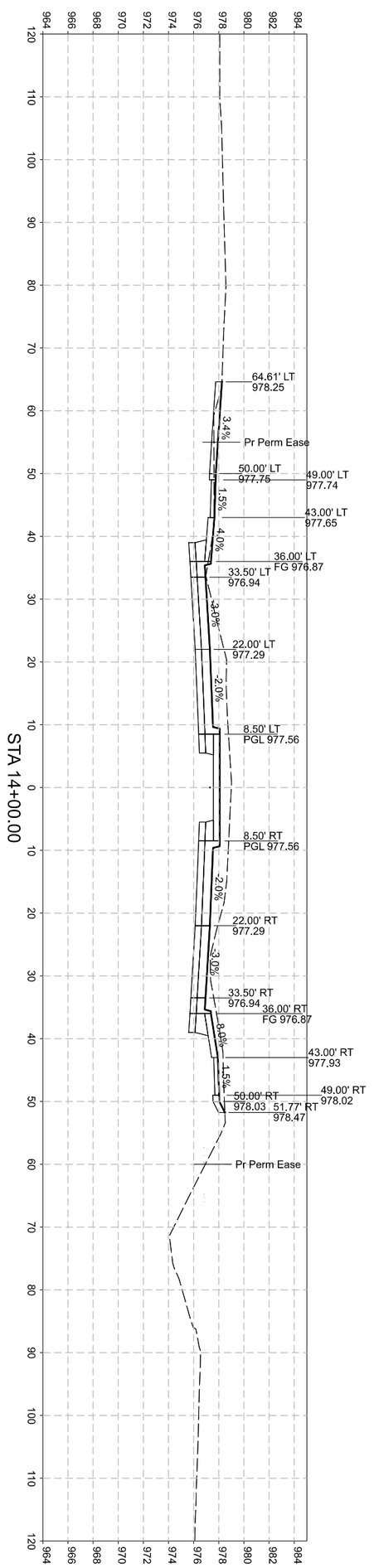
DOT STP-U-0132(628)--70--77

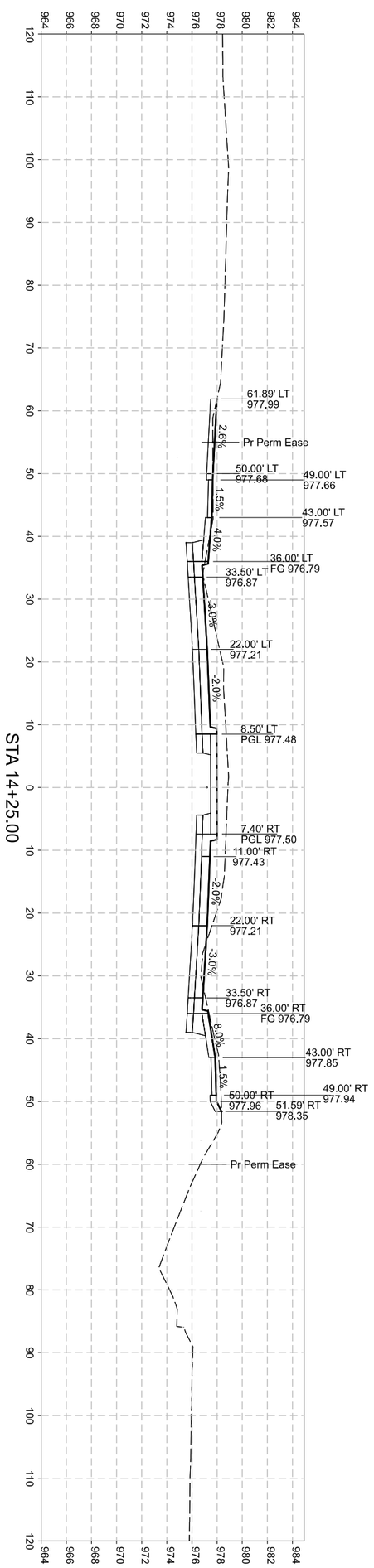
Project No: 1221679

Sheet W.13

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM







Sheet W.14

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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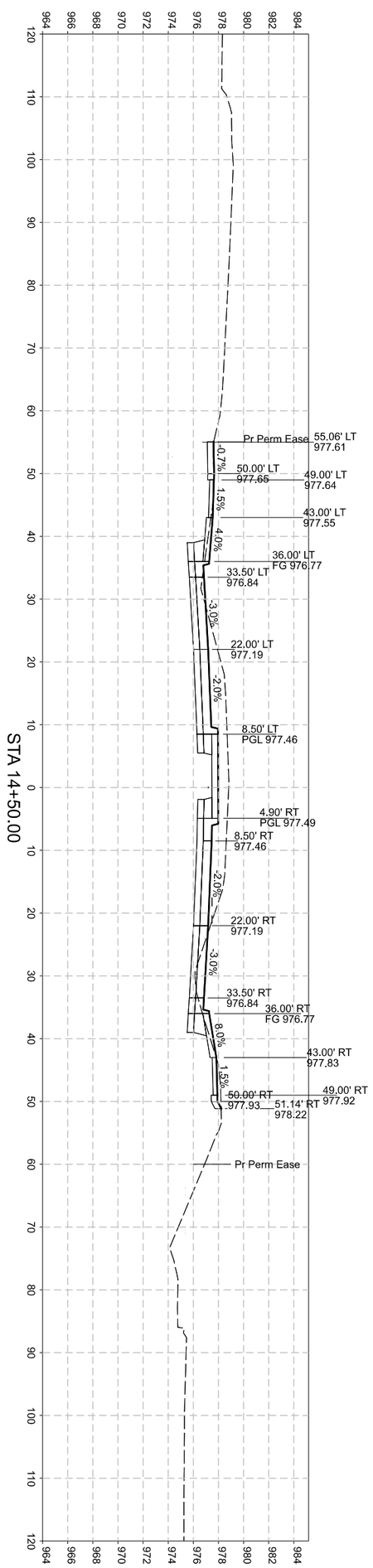
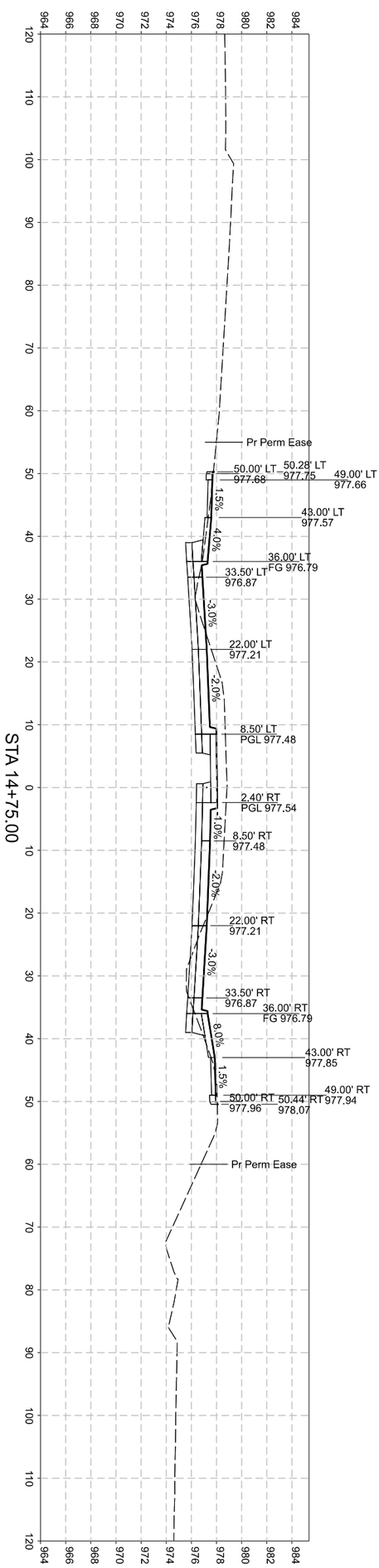
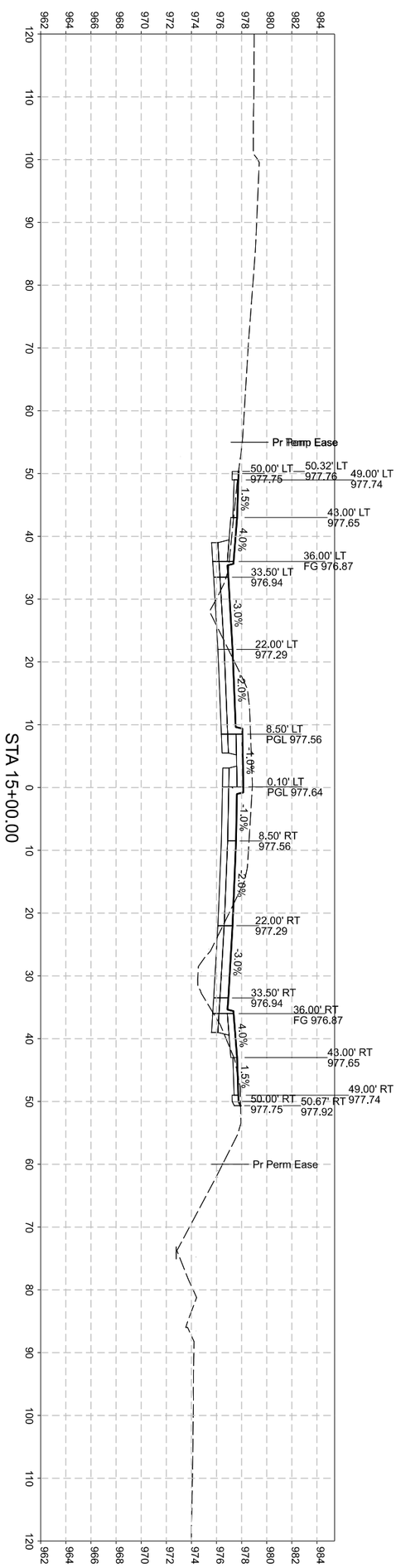
DOT STP-U-0132(628)--70-77

Project No: 1221679

Sheet W.14







Sheet W.15

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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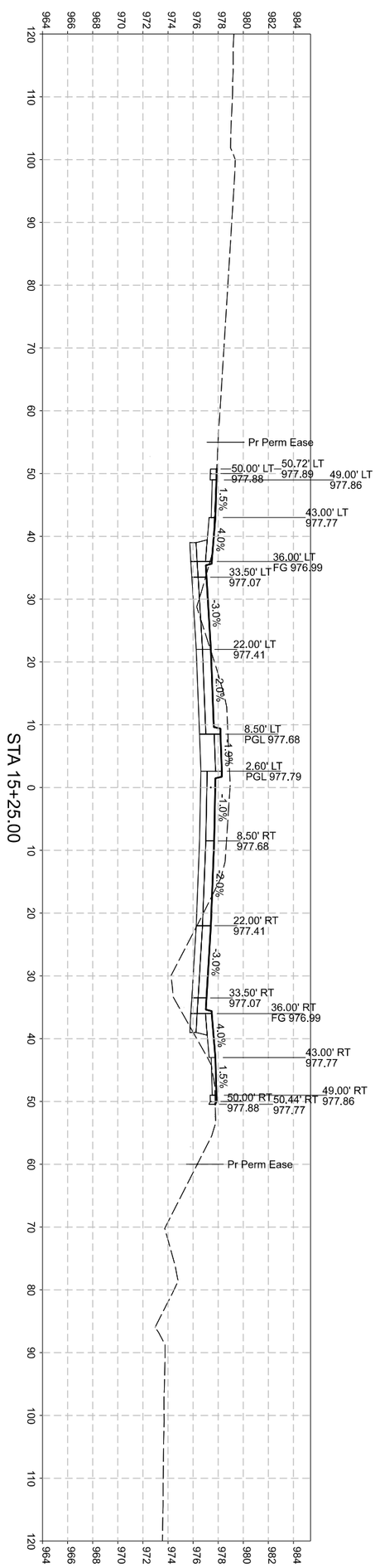
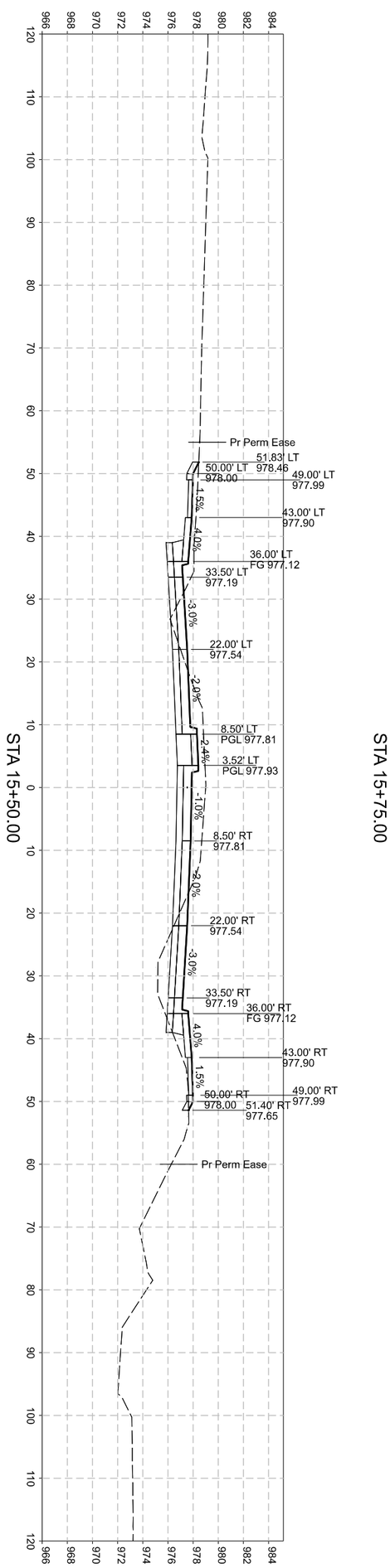
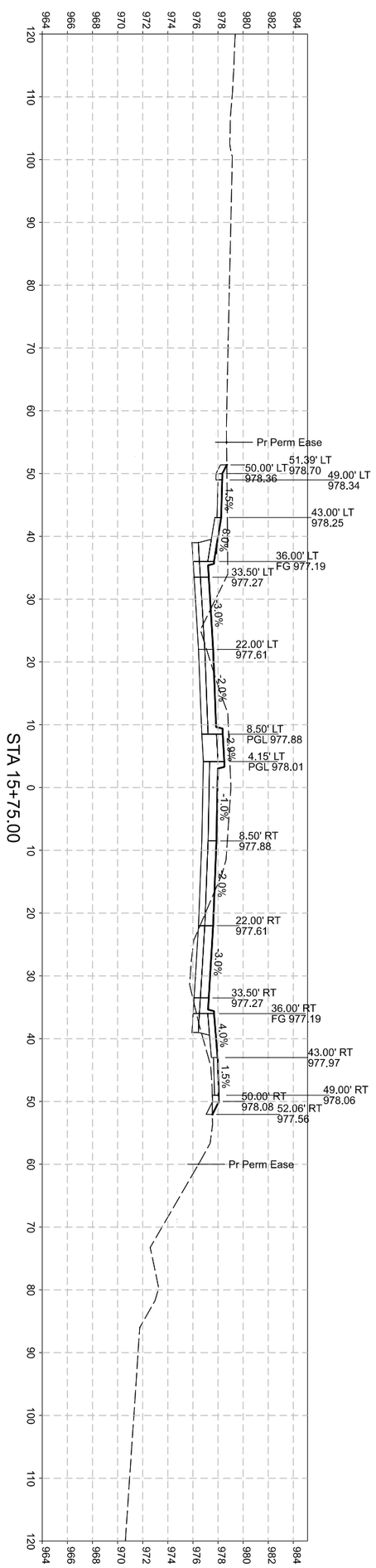
DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet W.15







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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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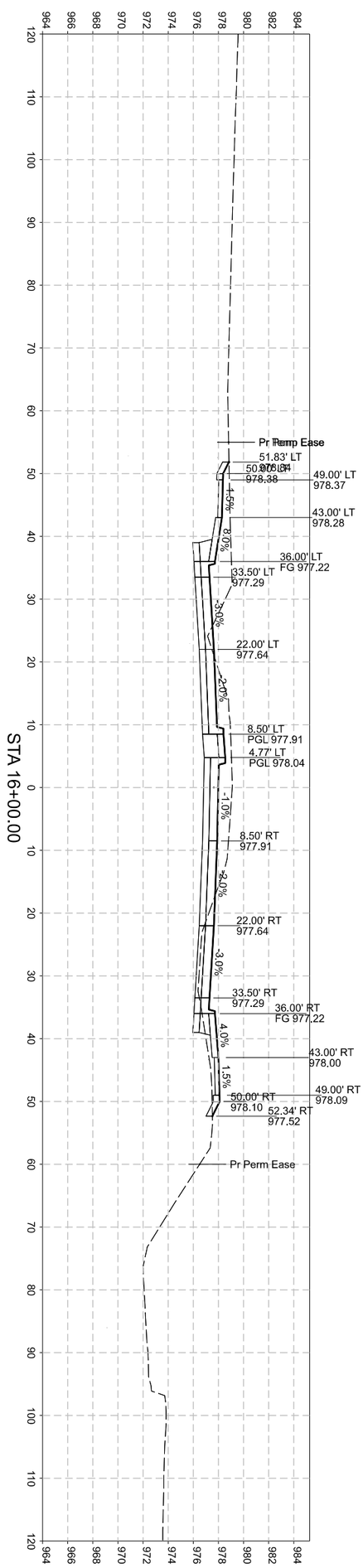
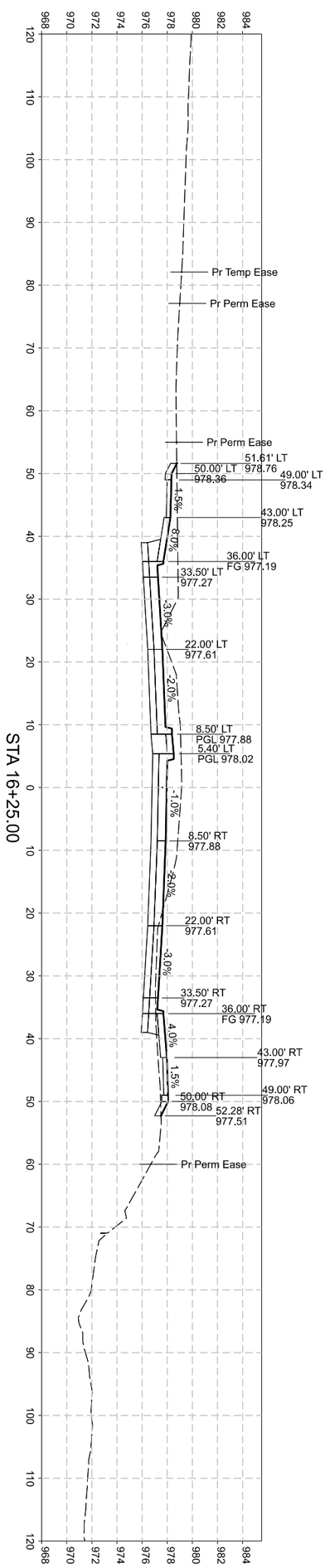
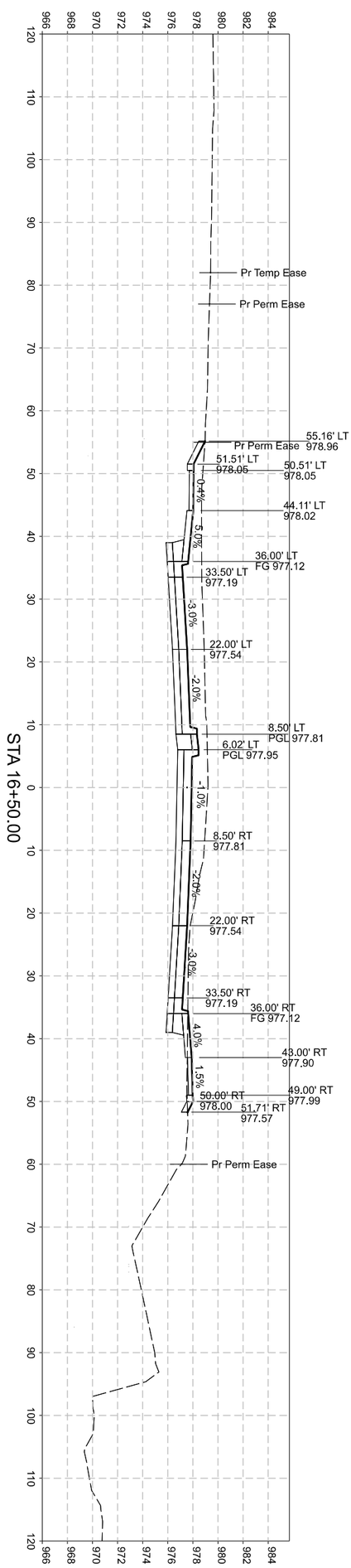
DOT STP-U-0132(628)--70-77
Project No: 1221679
Sheet W.16







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MAINLINE CROSS SECTIONS

ALTOONA, IA

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SNYDER & ASSOCIATES, INC.
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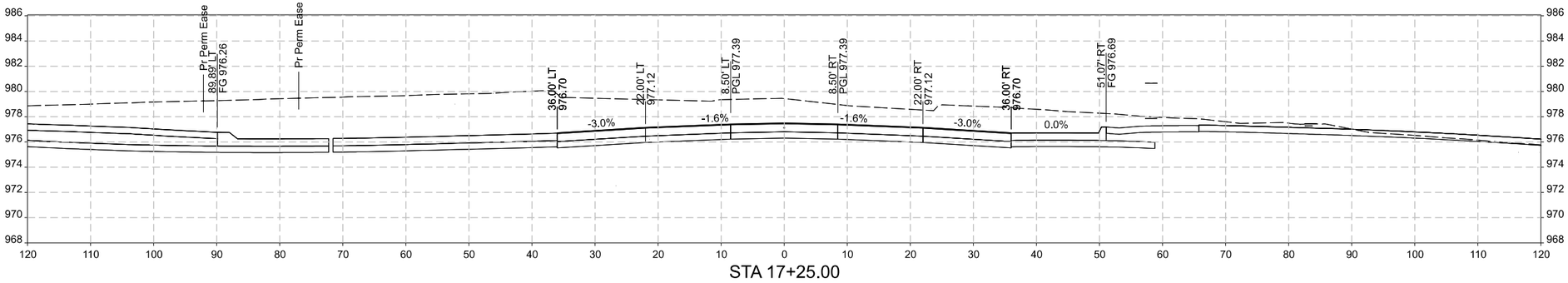

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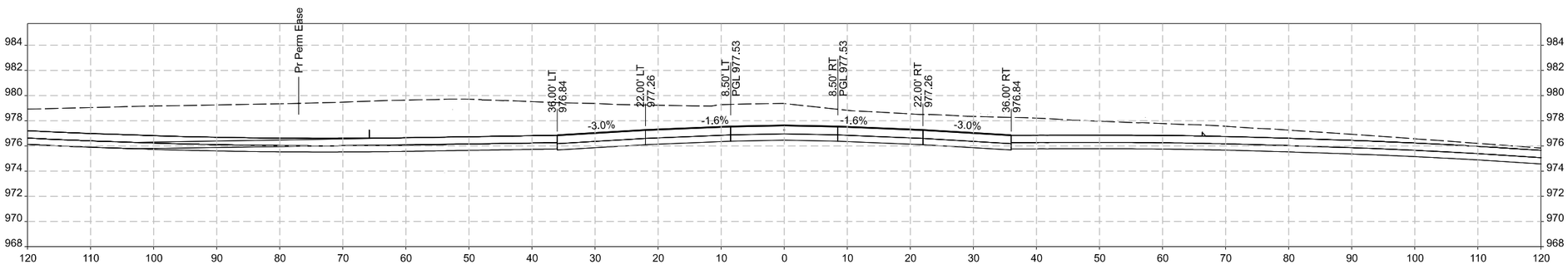

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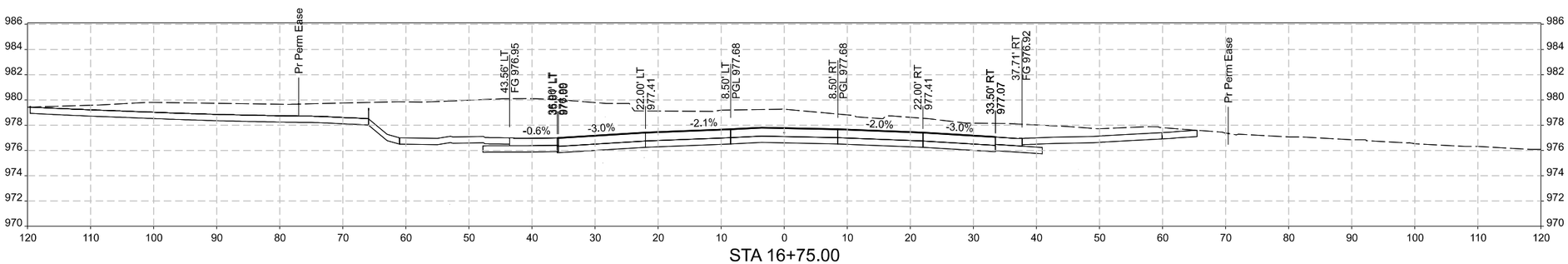

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ADVENTURELAND DR NW RECONSTRUCTION PROJECT

ALTOONA, IA

MAINLINE CROSS SECTIONS

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Sheet W.18

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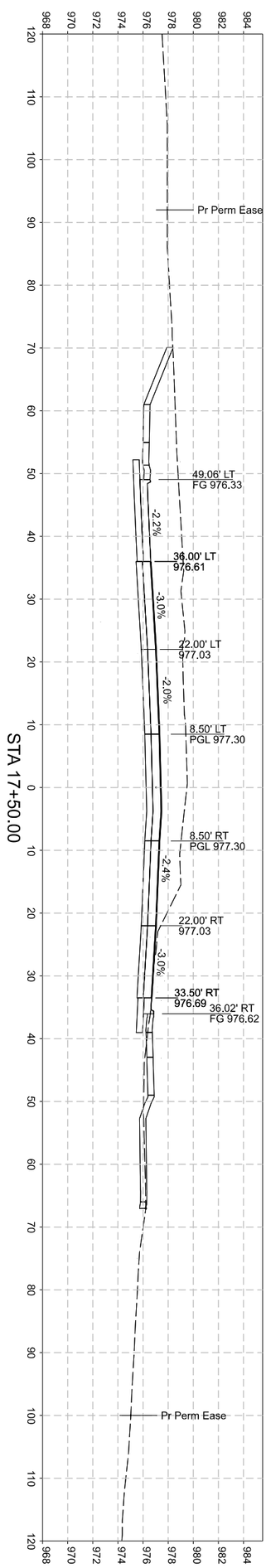

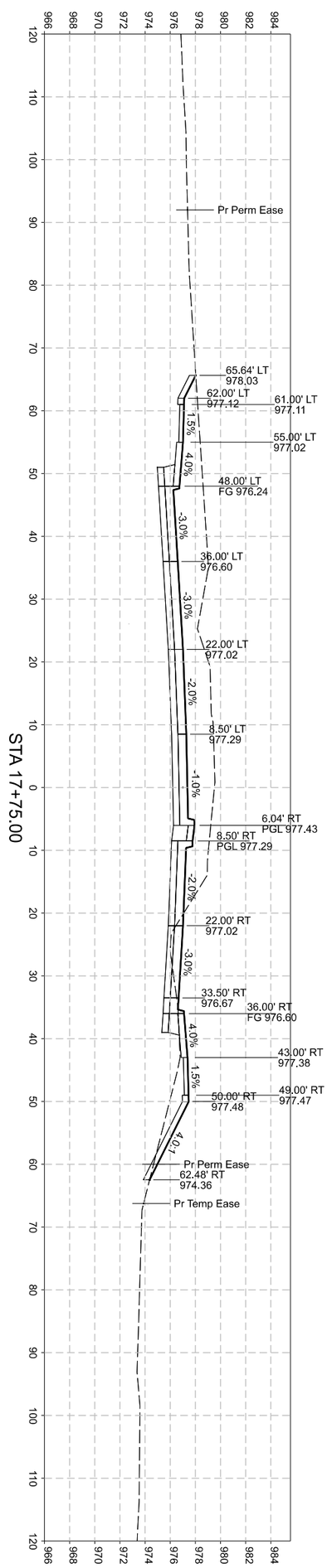

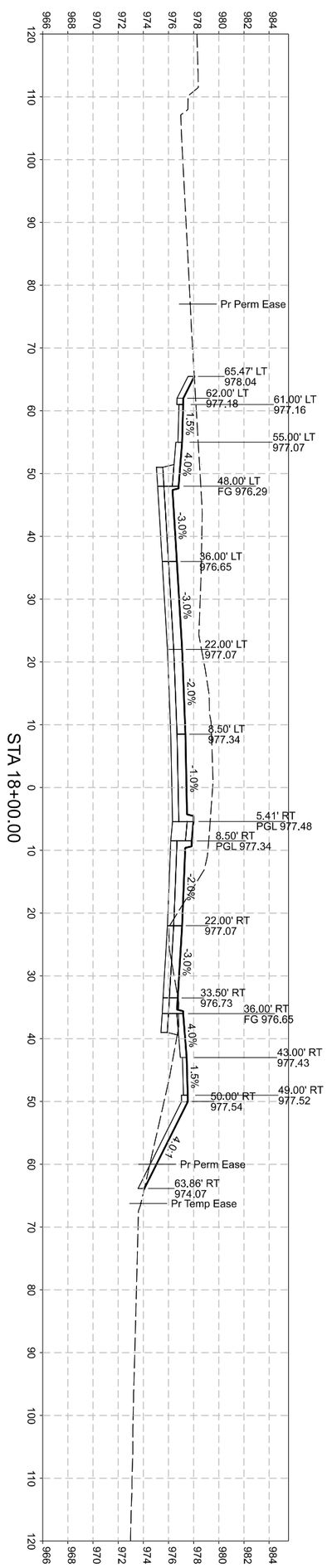

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SNYDER & ASSOCIATES

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ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

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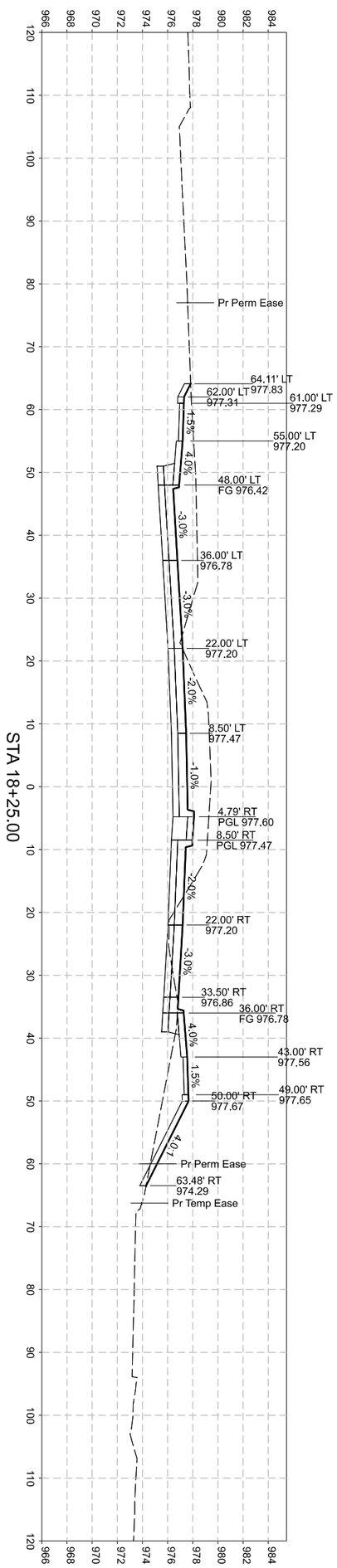

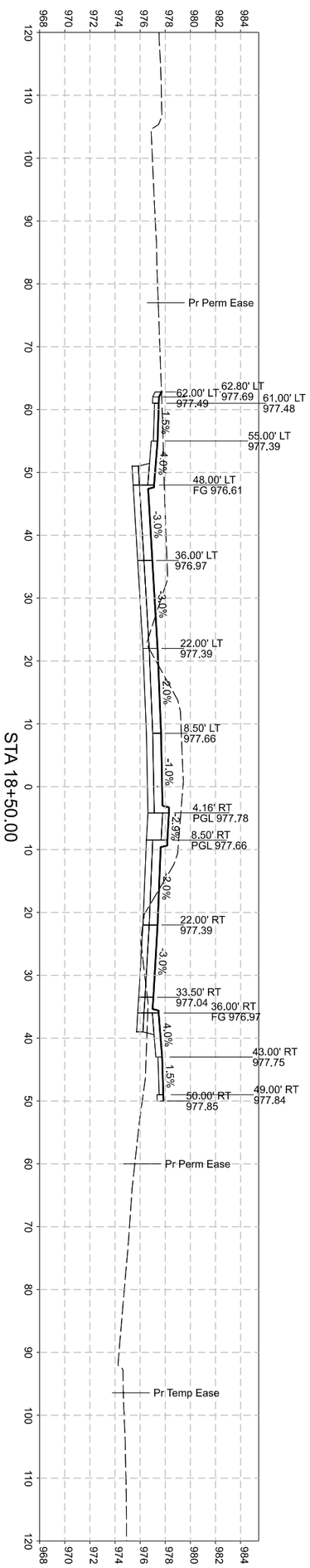

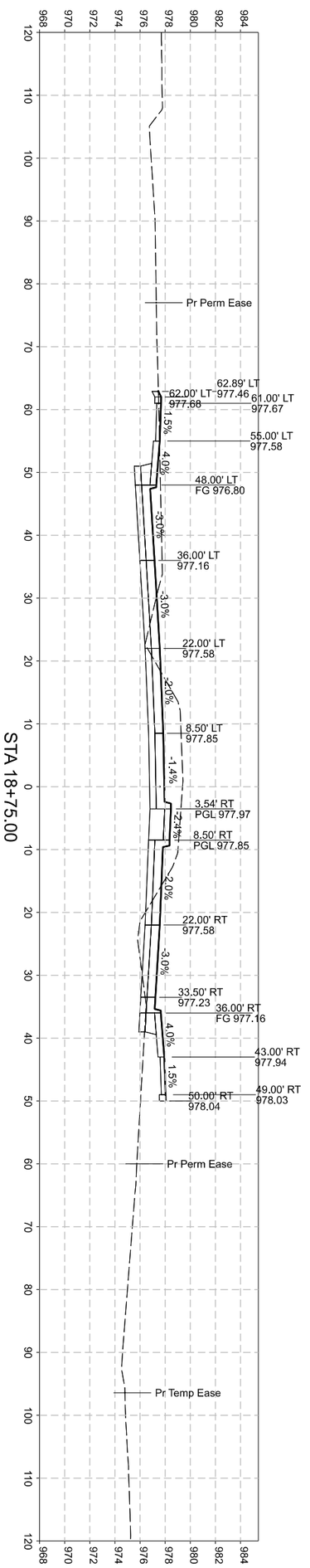

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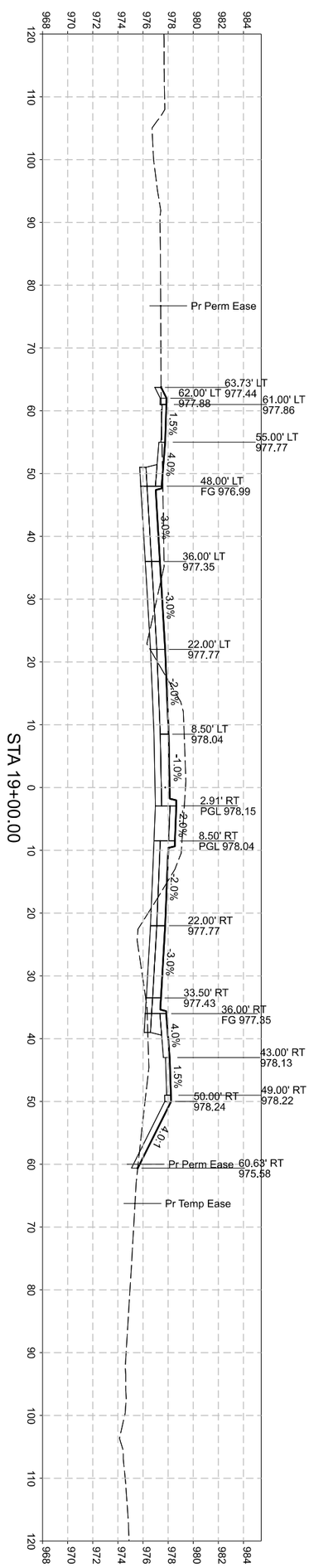

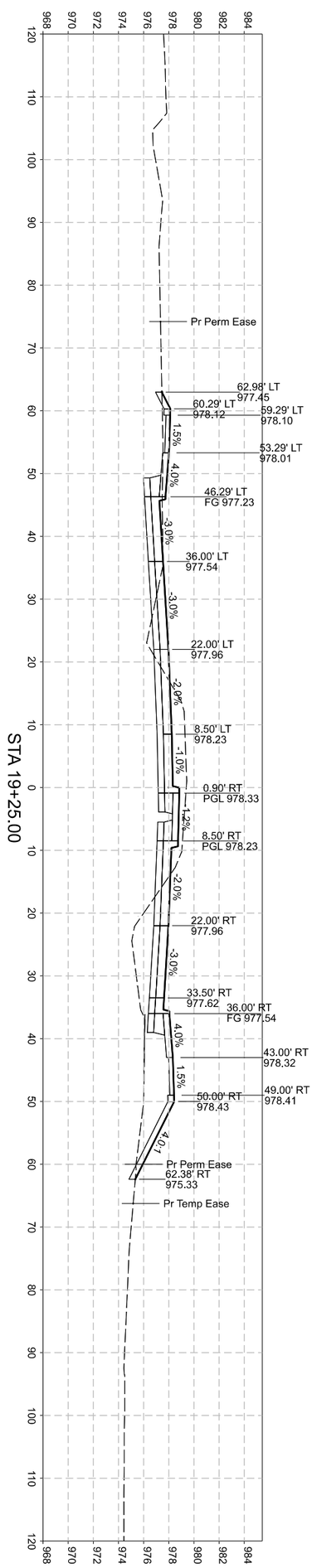

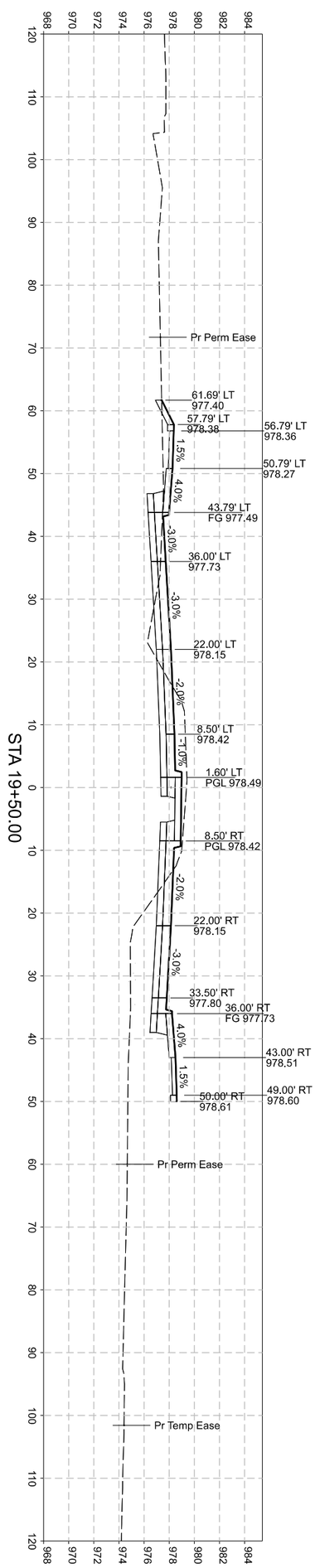

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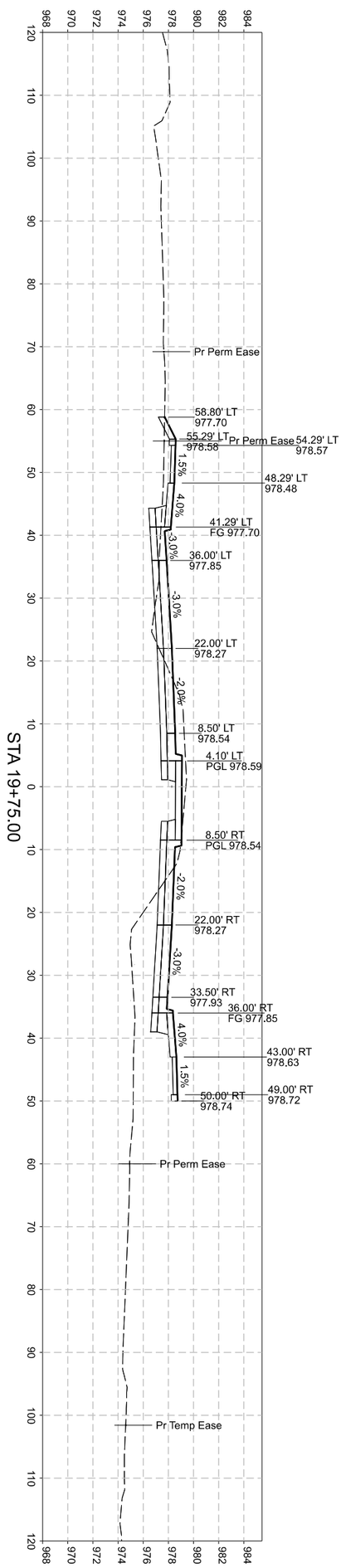

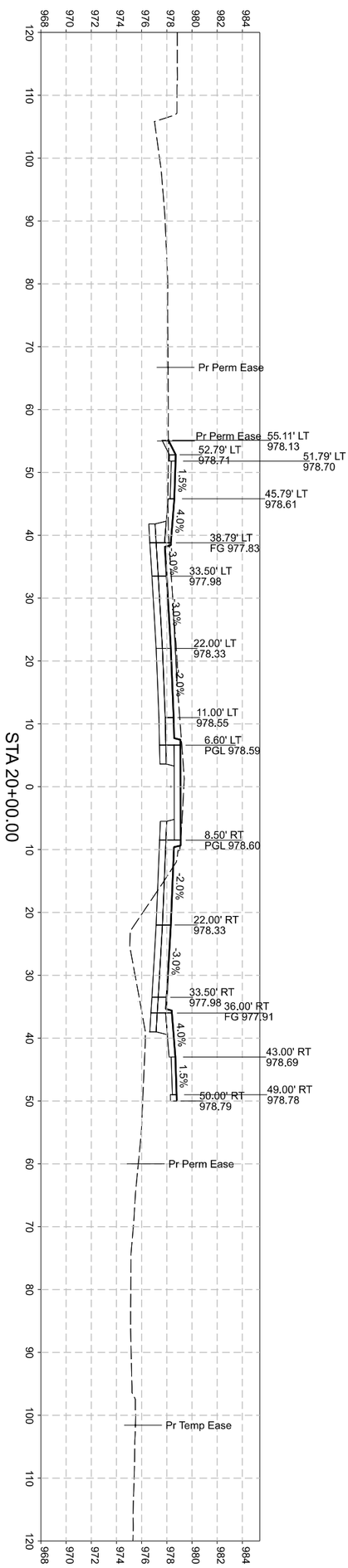

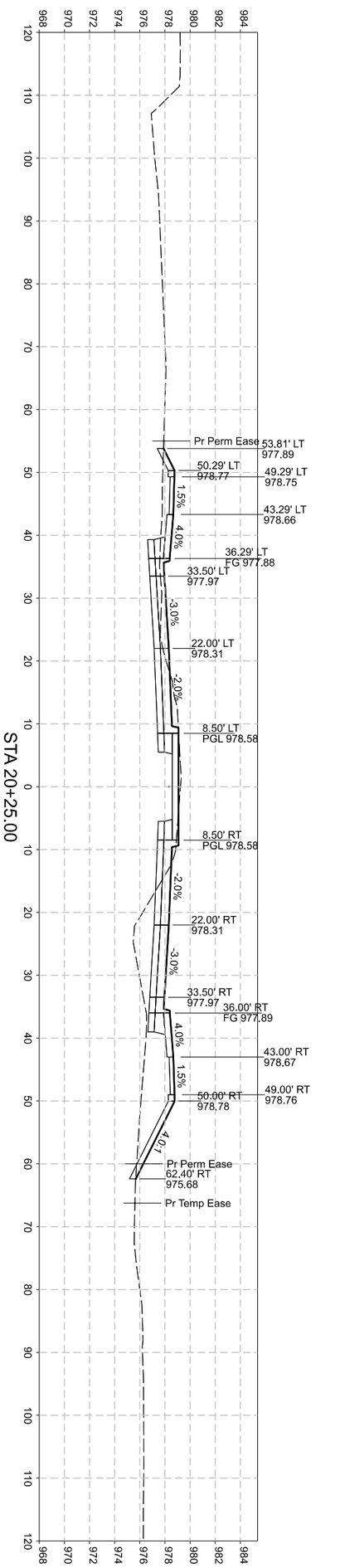

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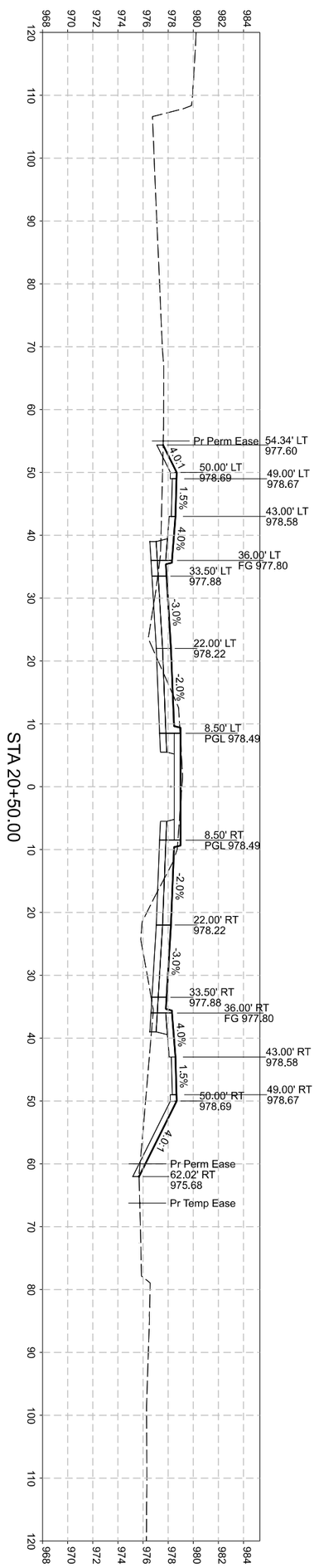

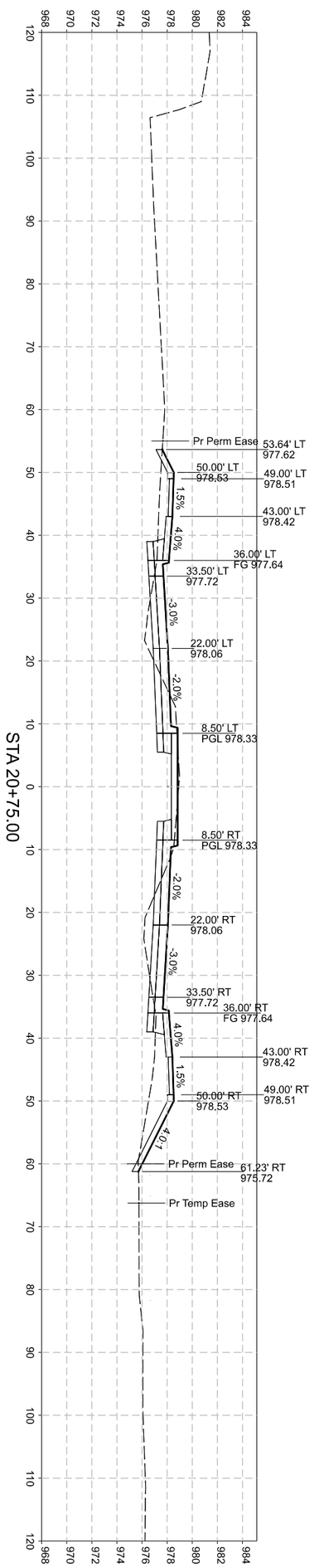

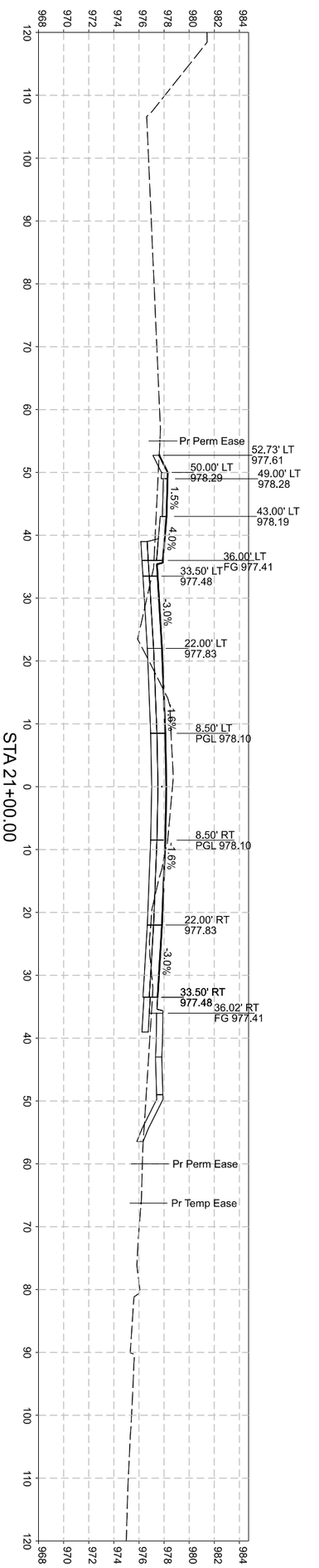

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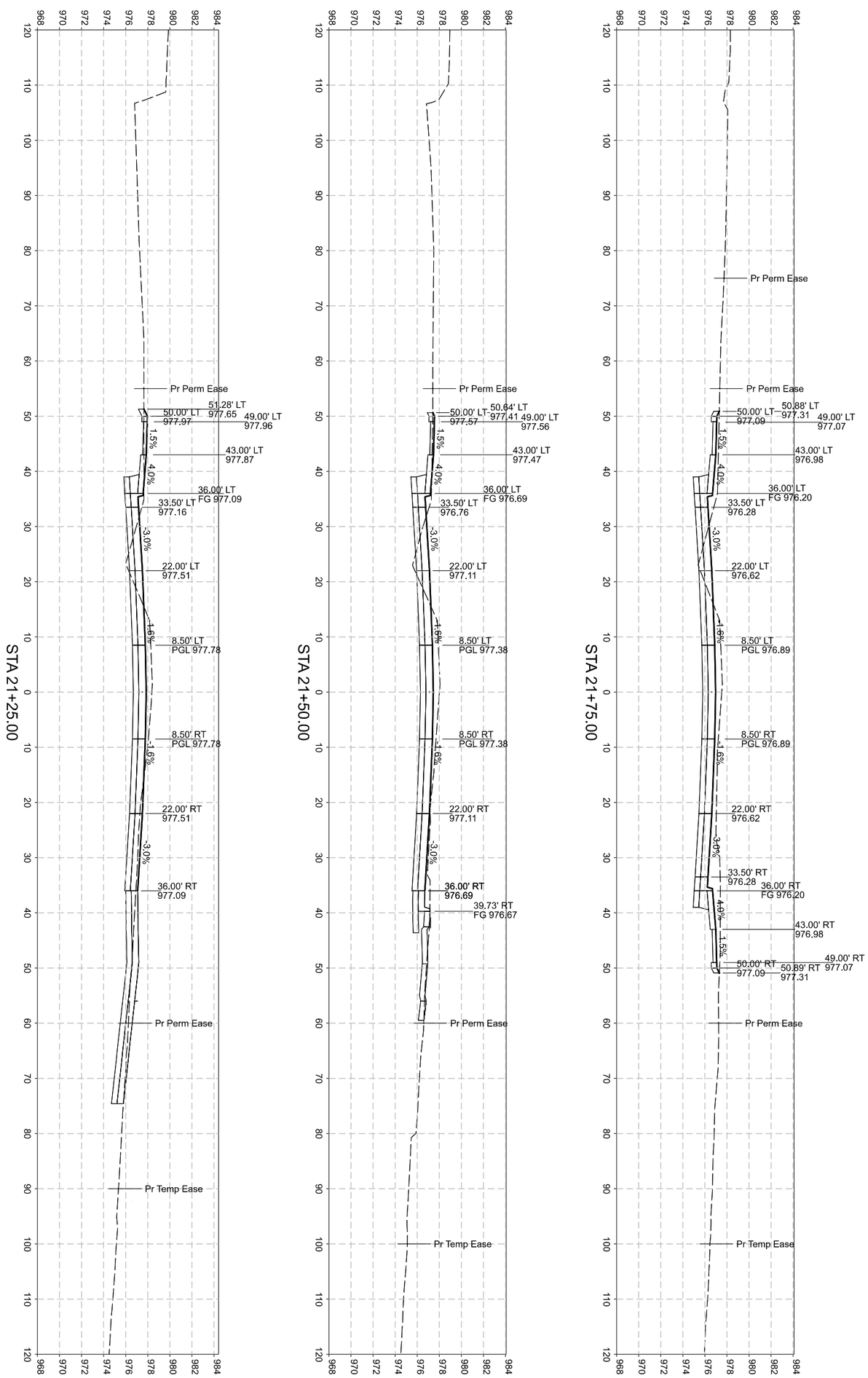

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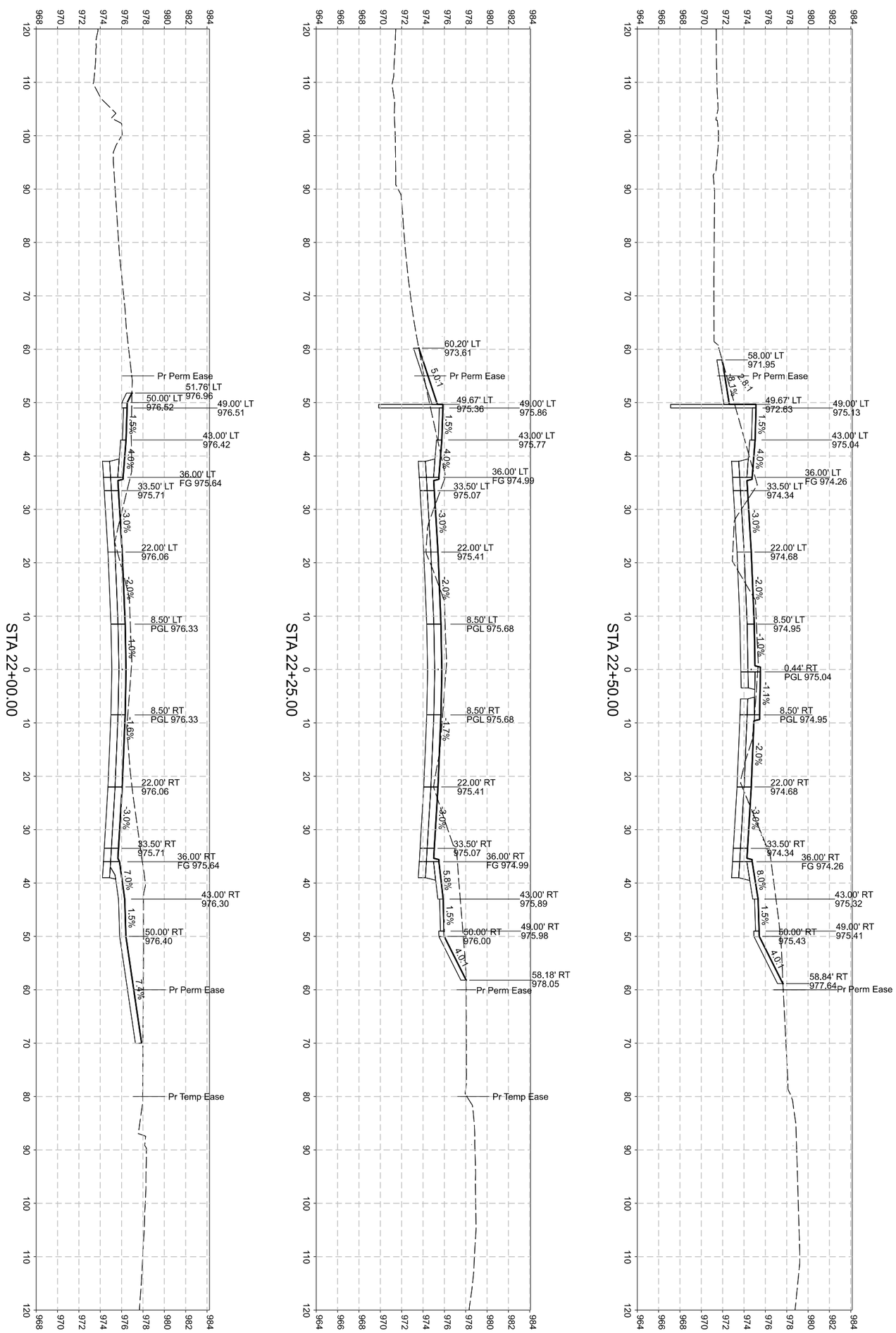

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

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2727 SW SNYDER BLVD
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515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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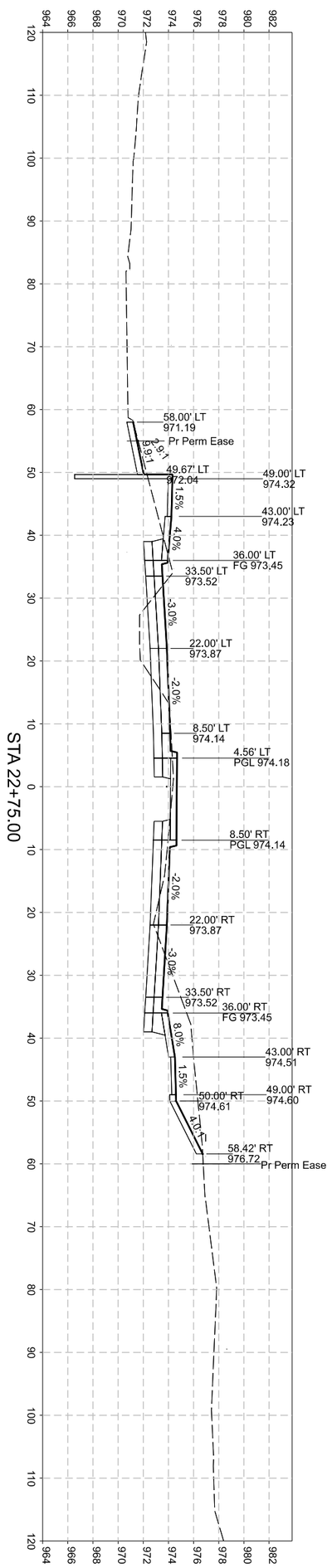

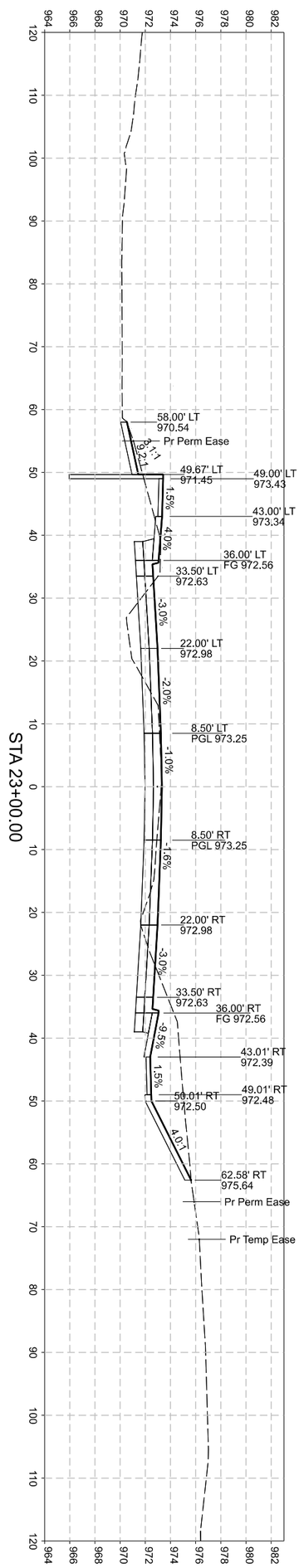

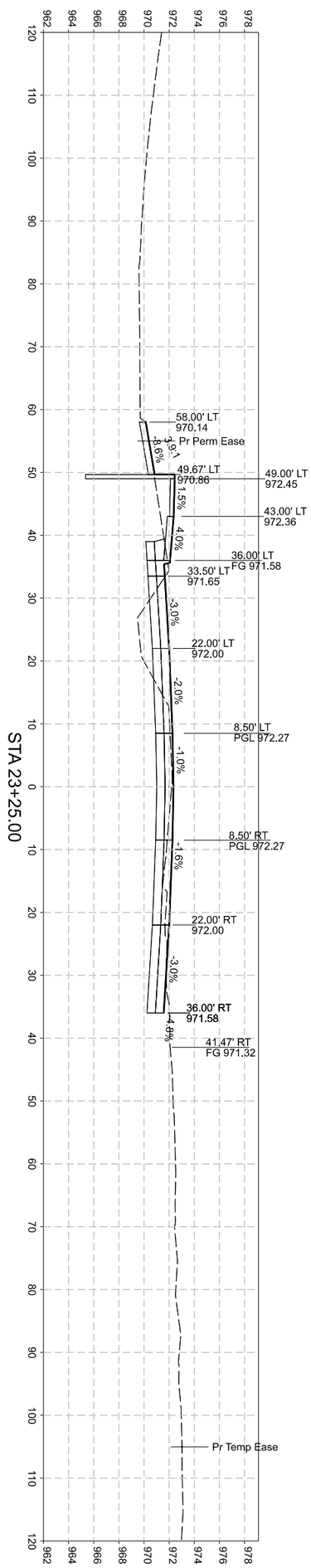

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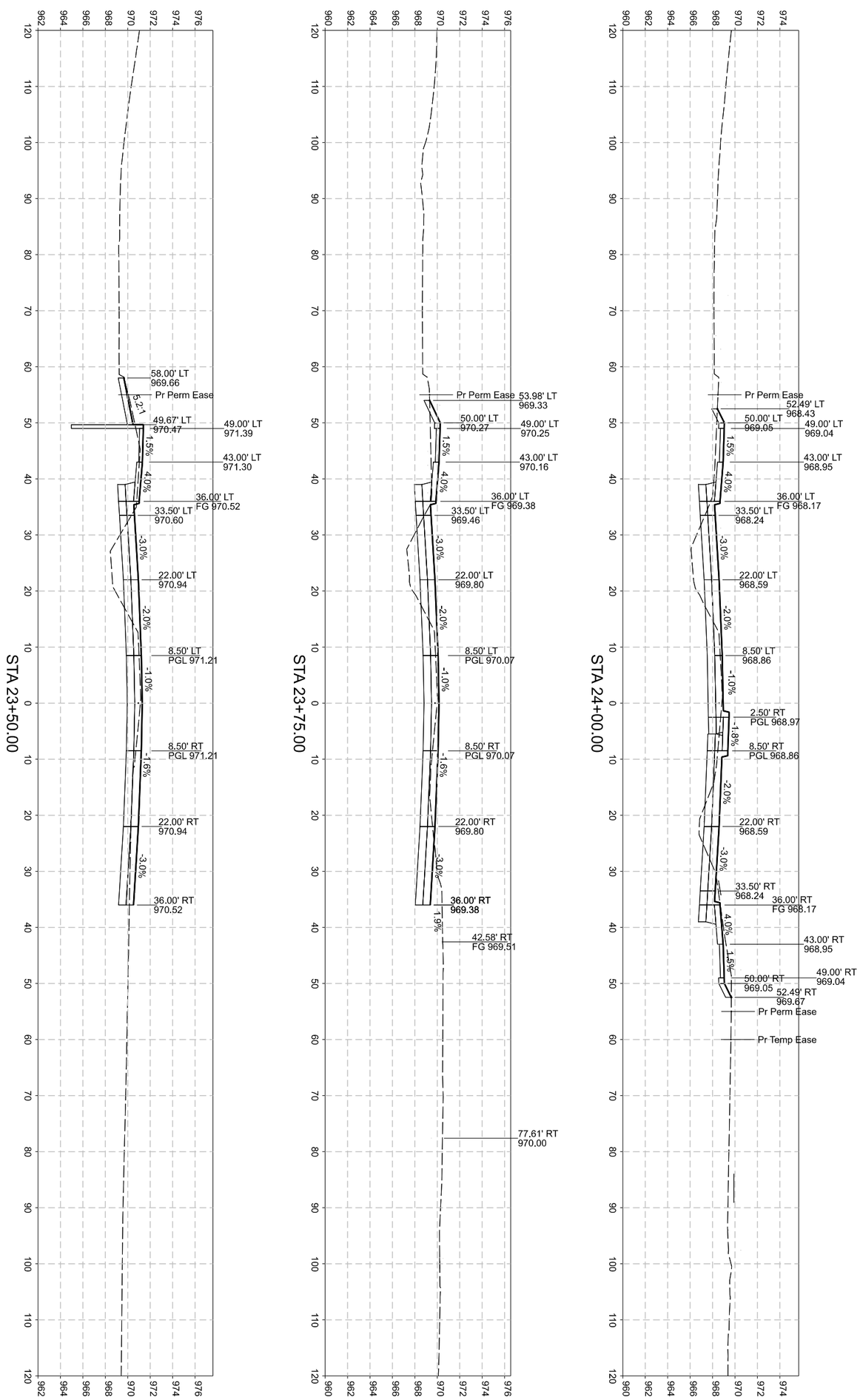

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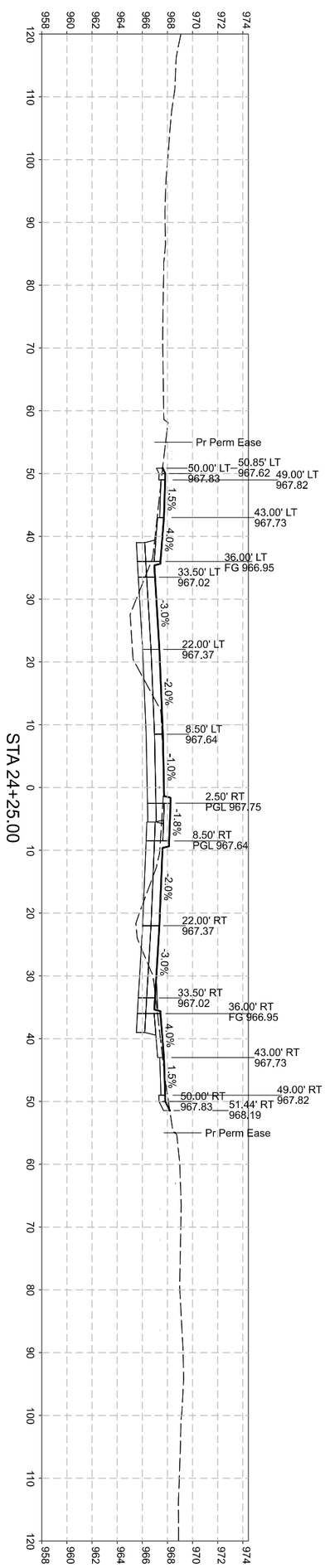

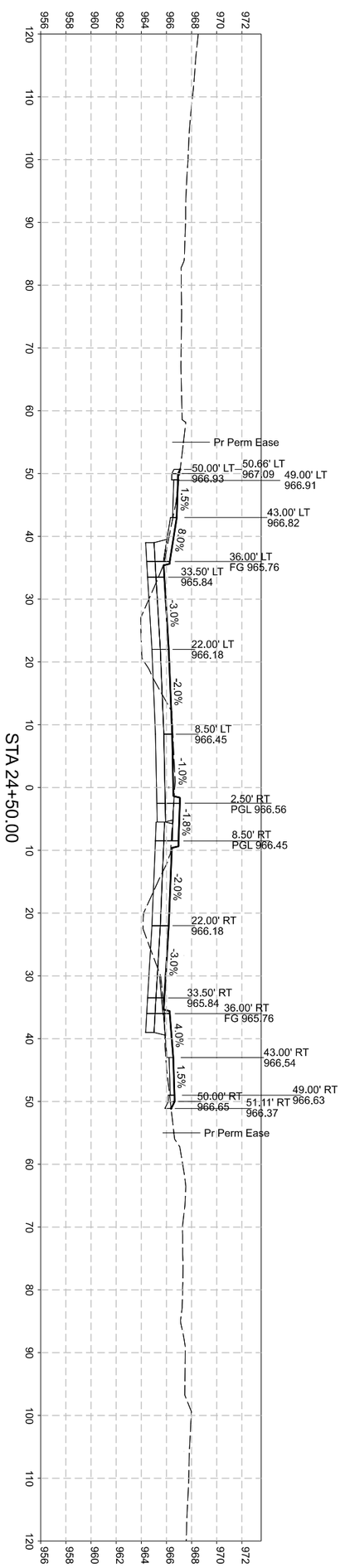

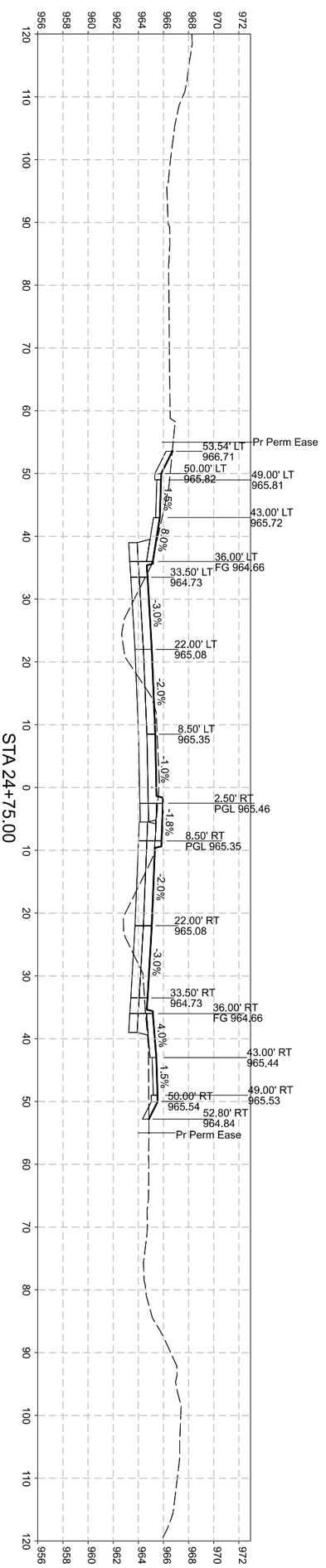

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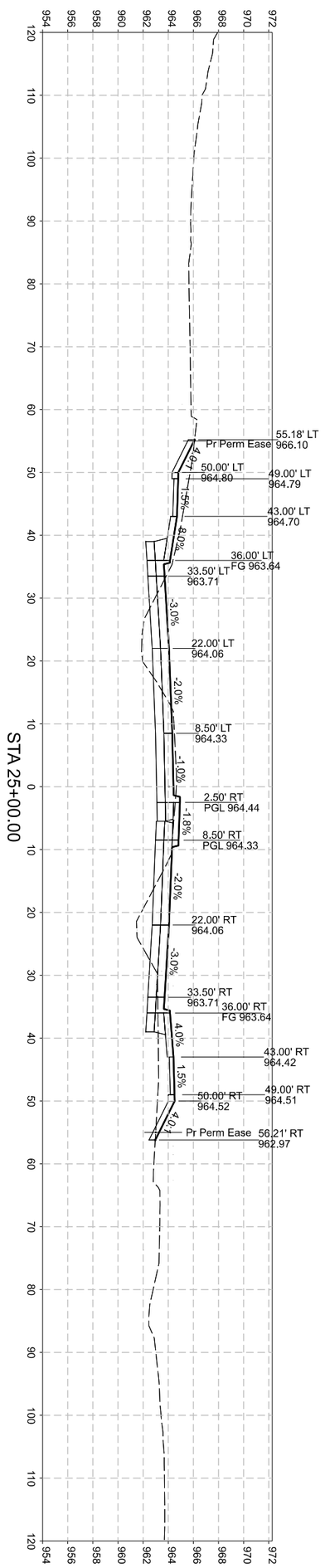

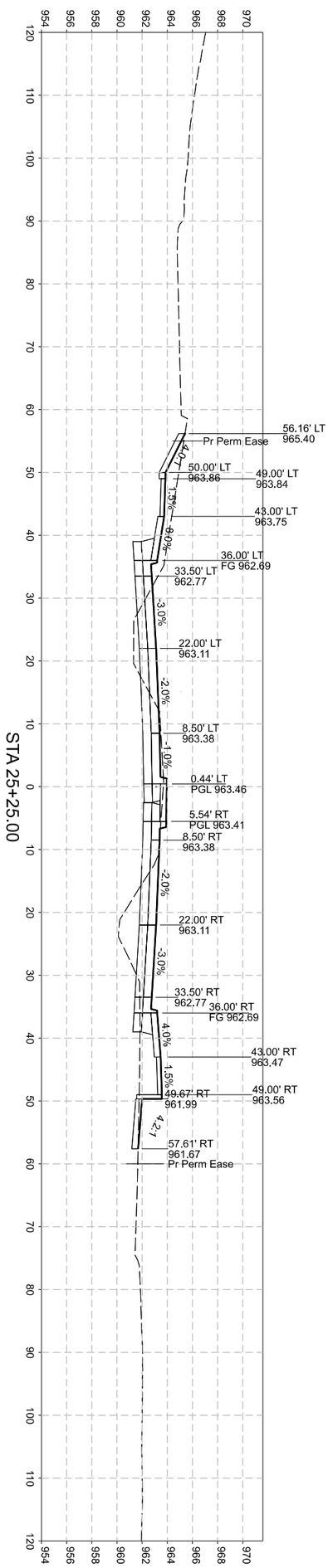

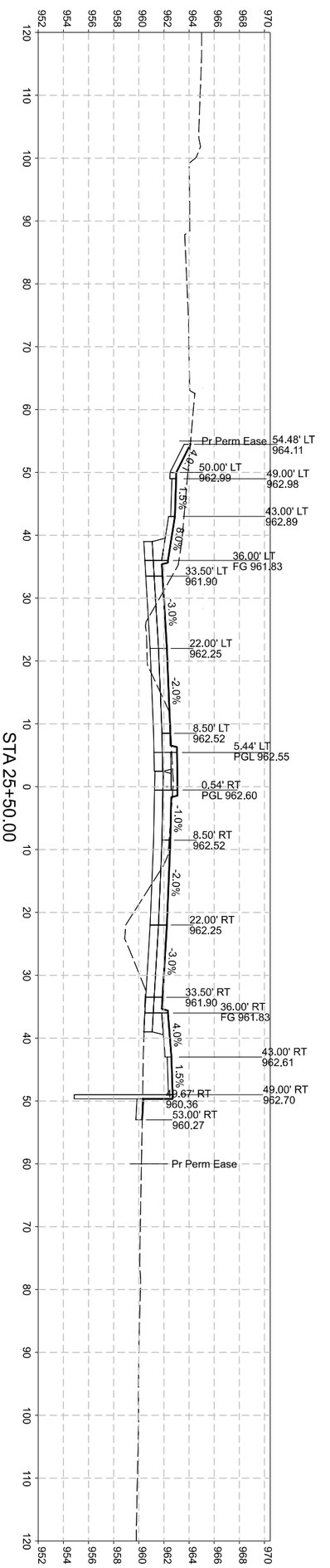

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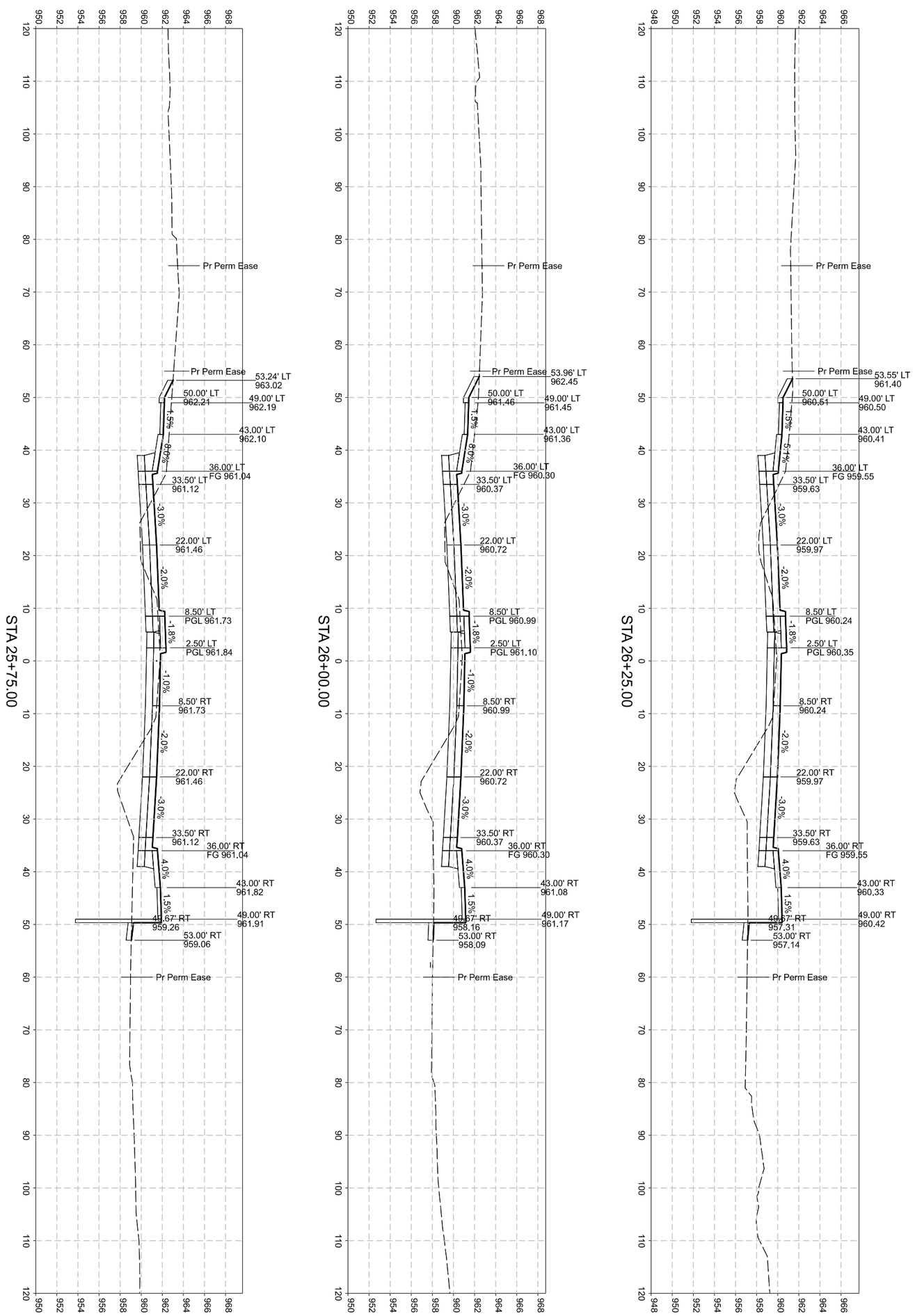

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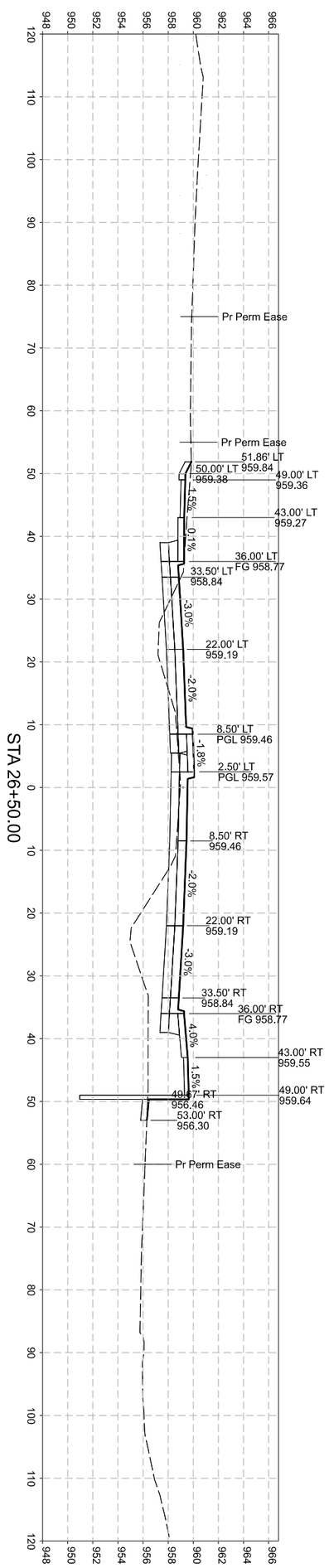

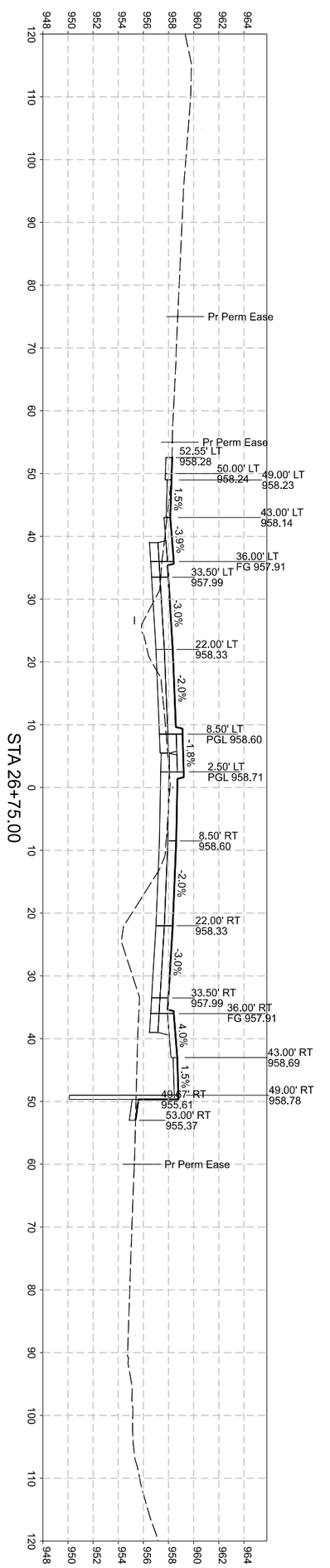

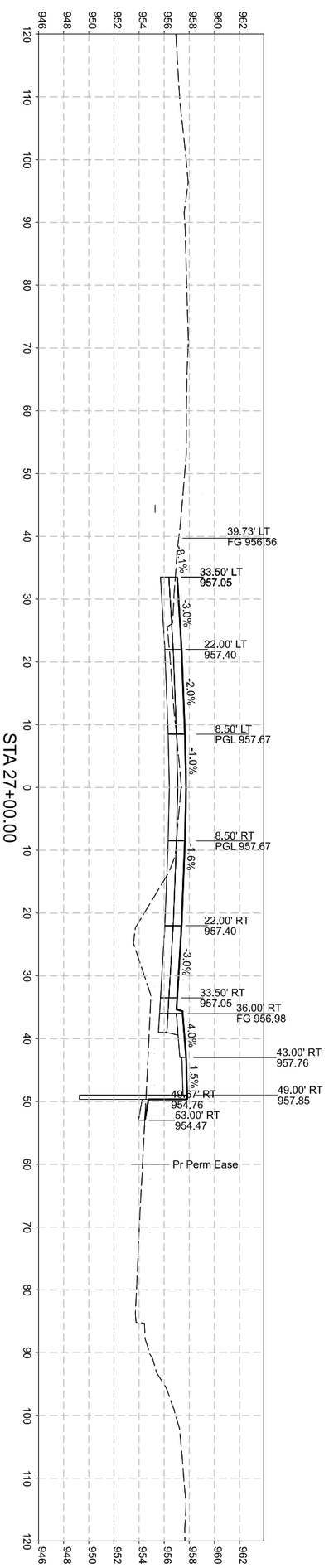

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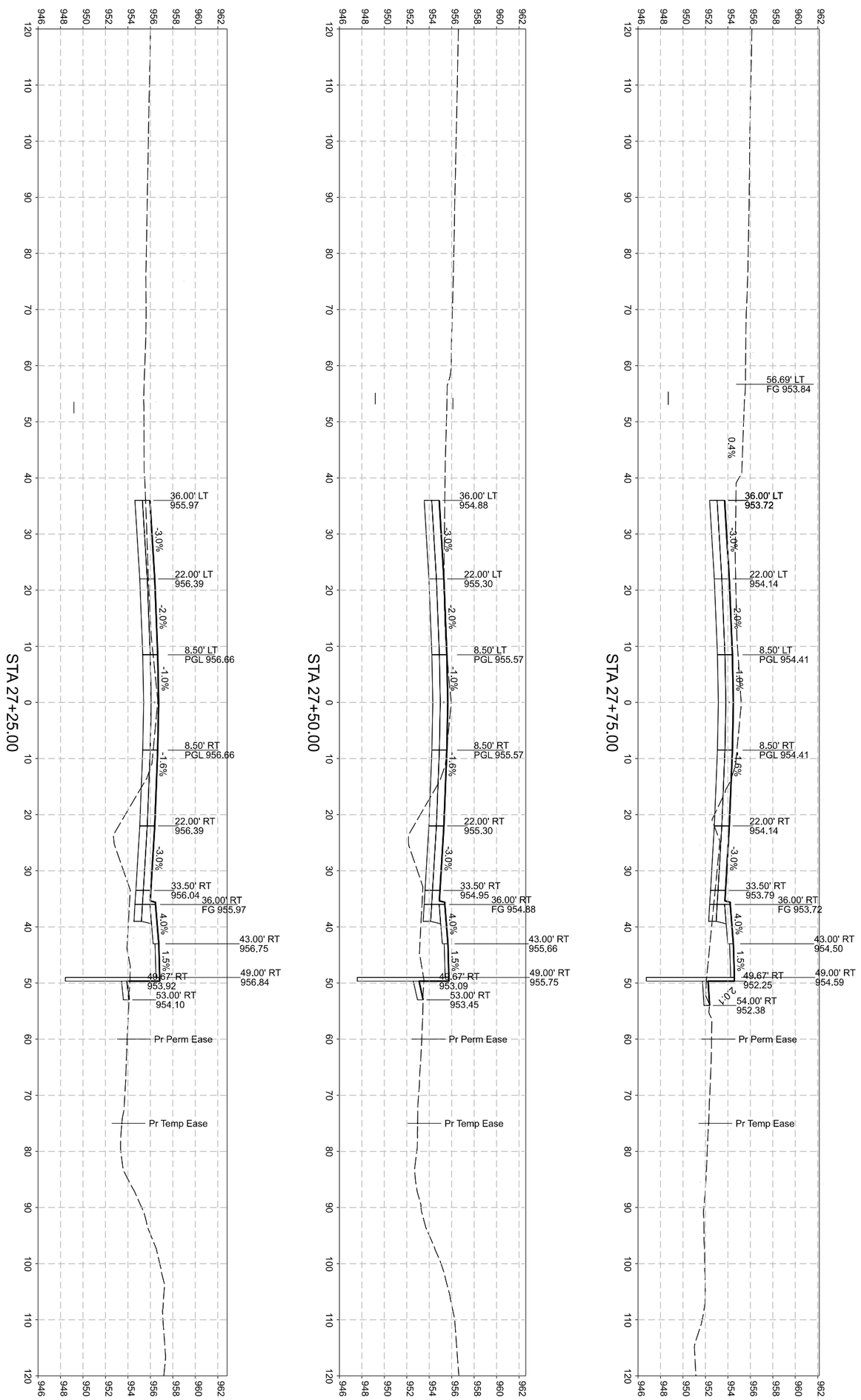

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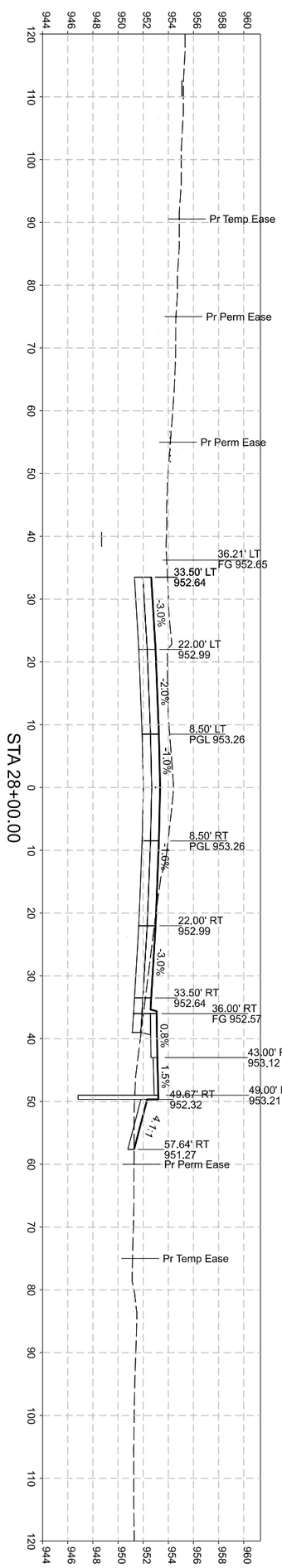

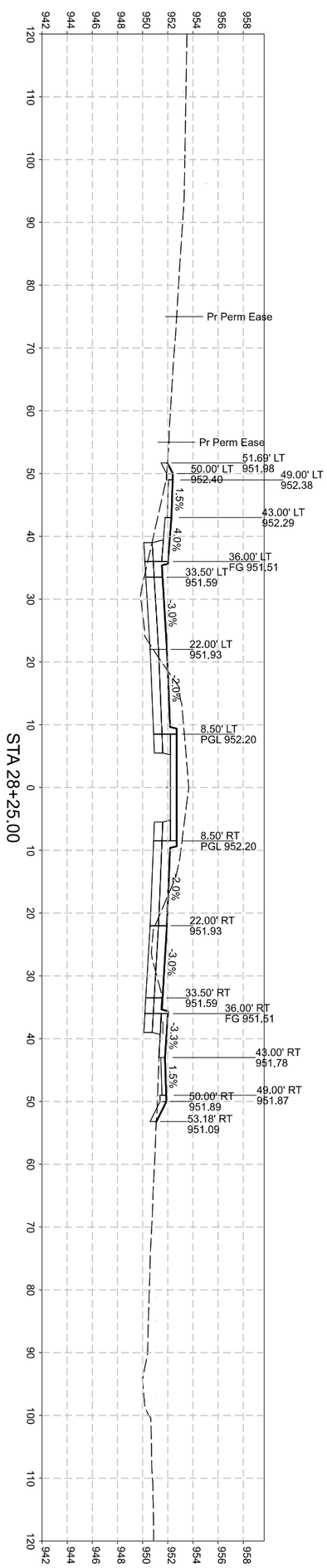

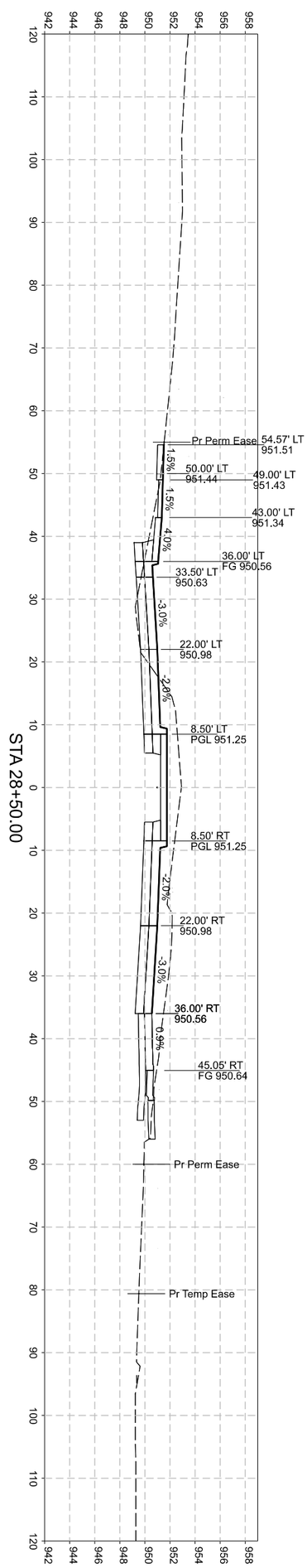

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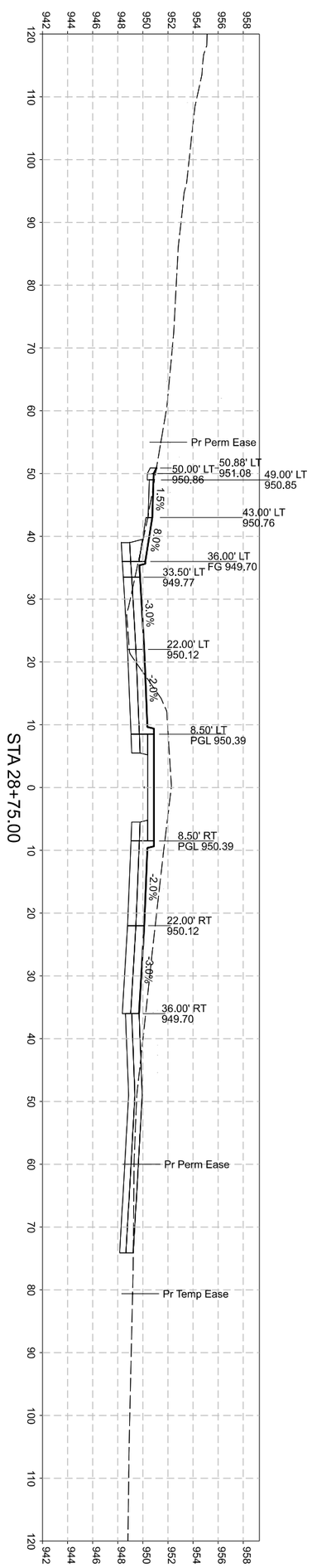

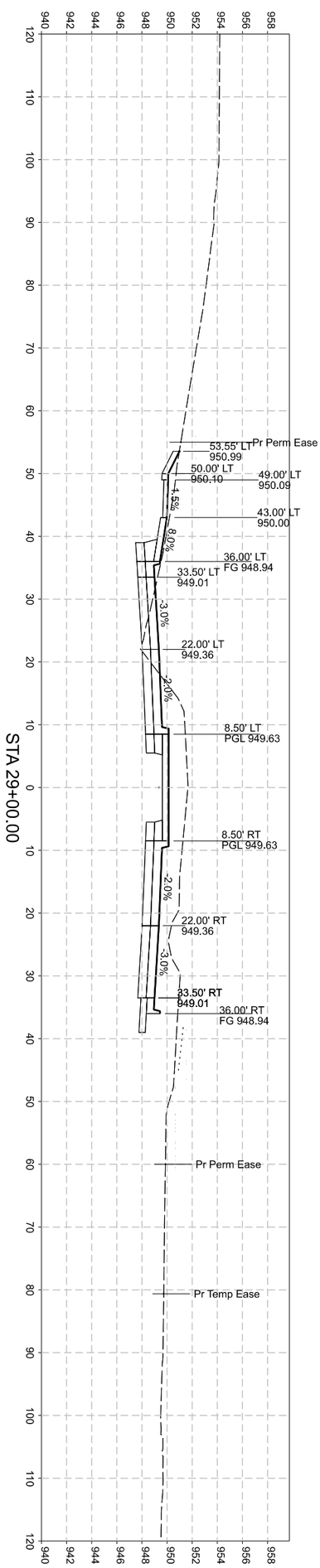

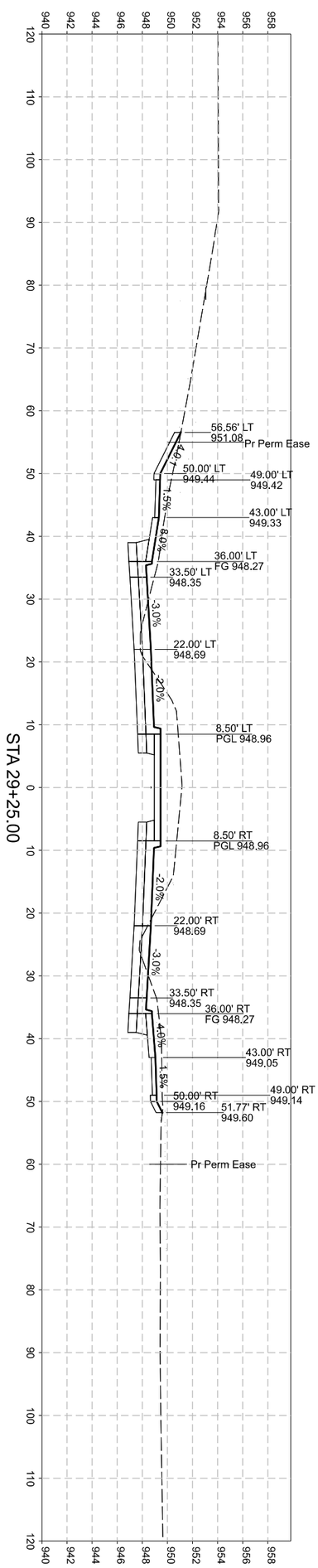

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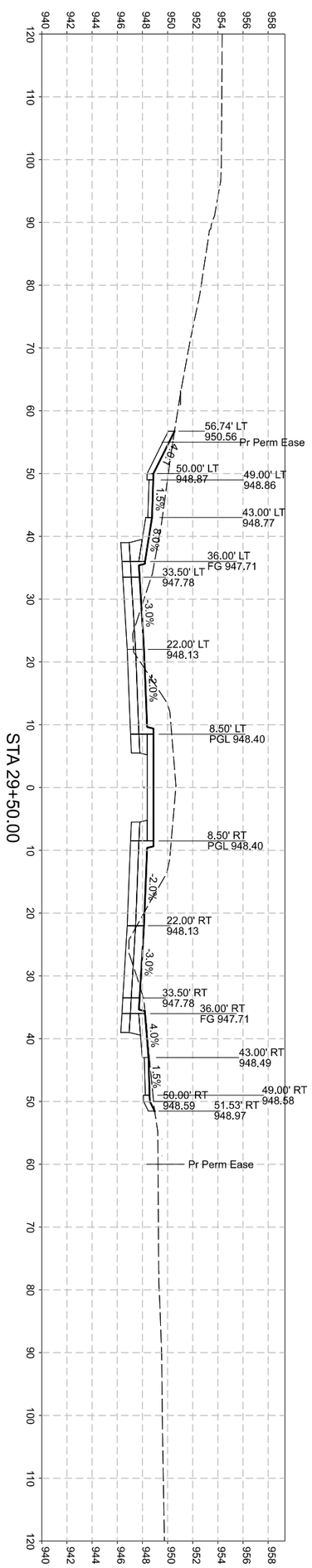
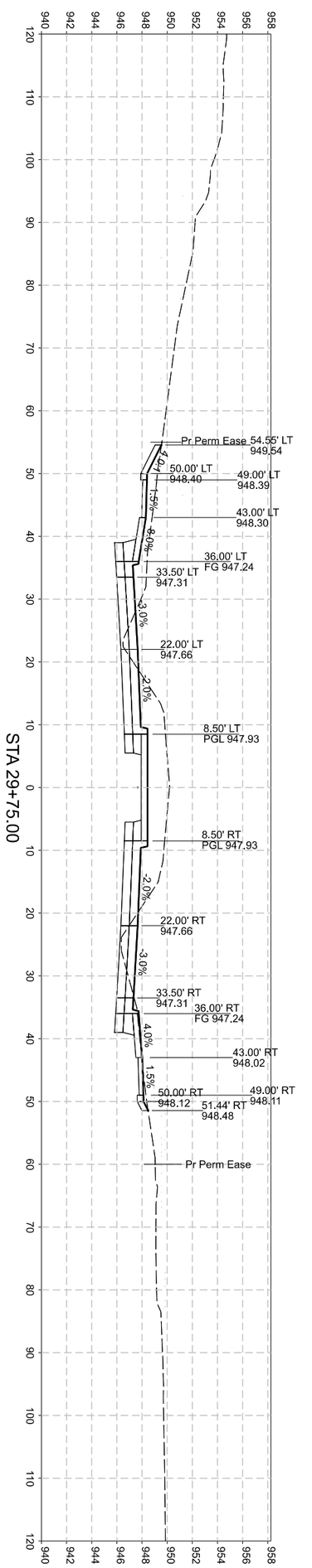
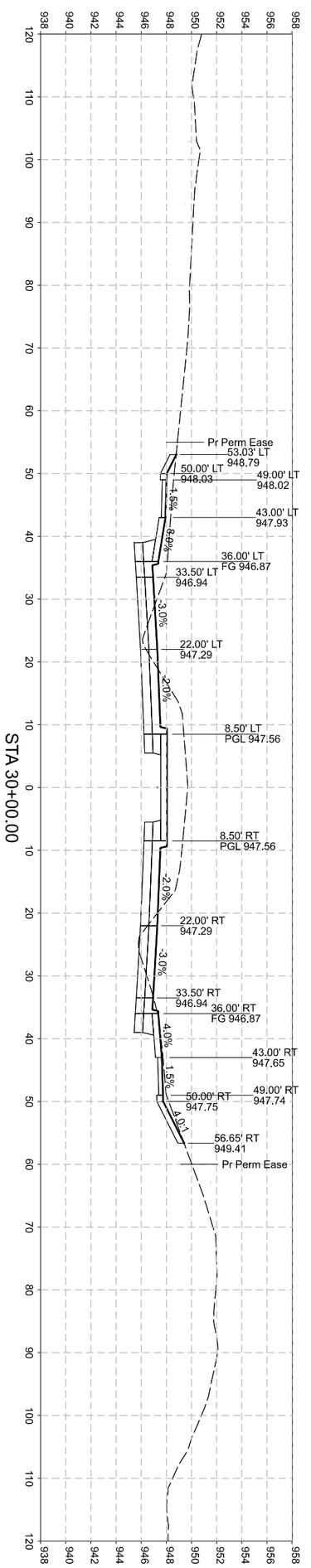






Sheet W.35

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

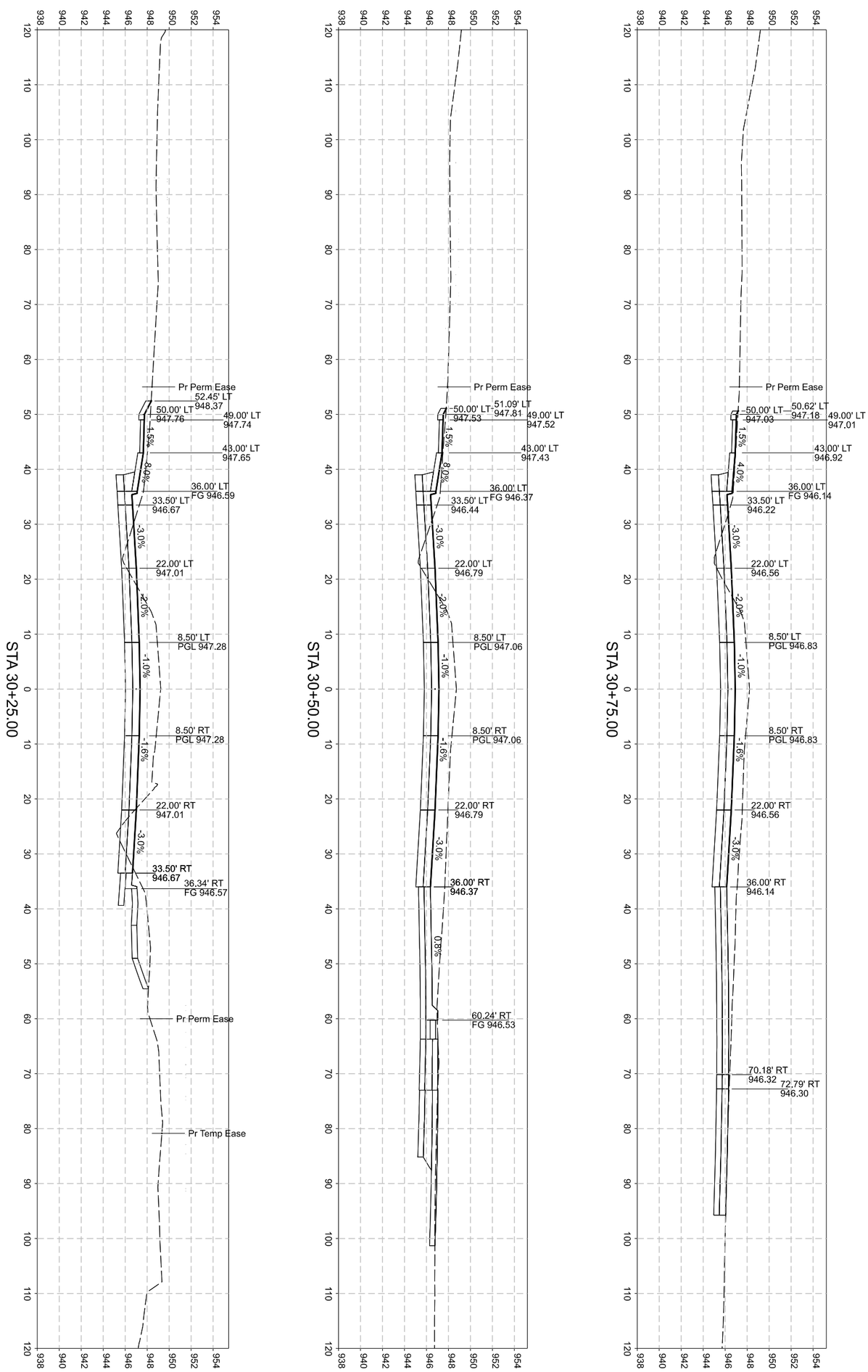
MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet W.35



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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

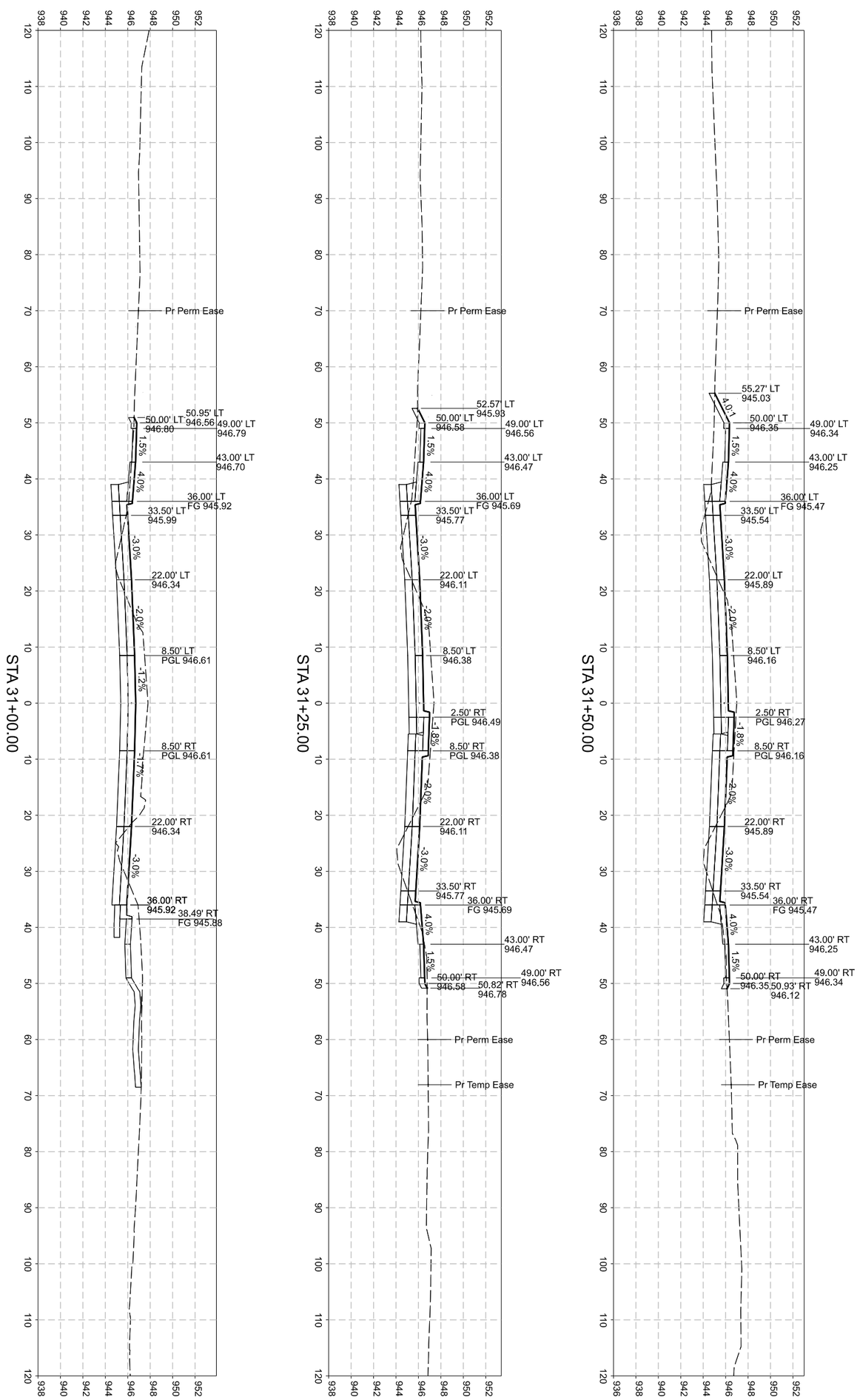
MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet W.36



Sheet W.37

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

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Project No: 1221679

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SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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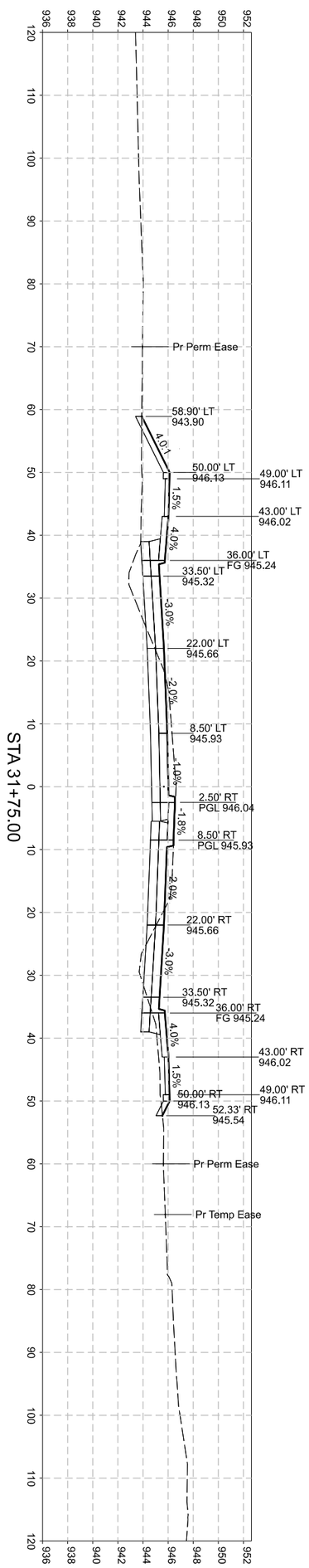

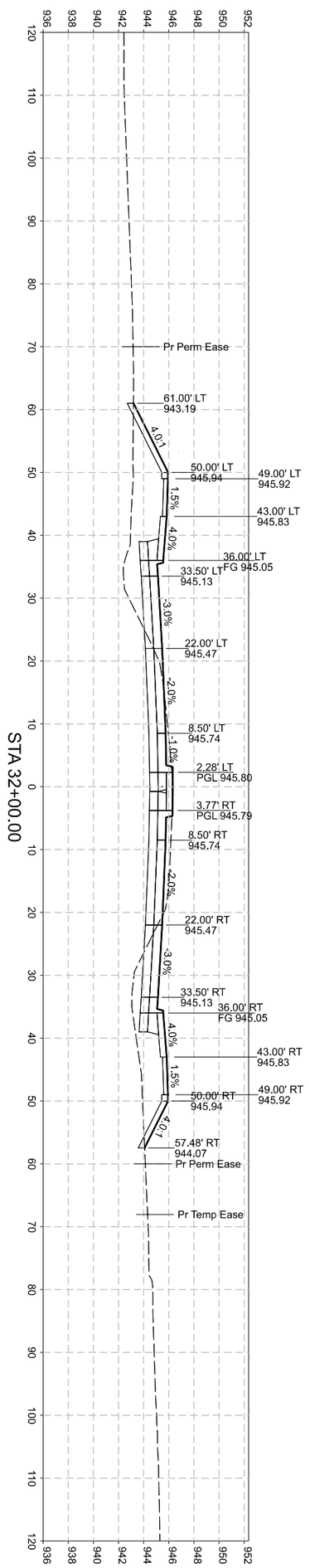

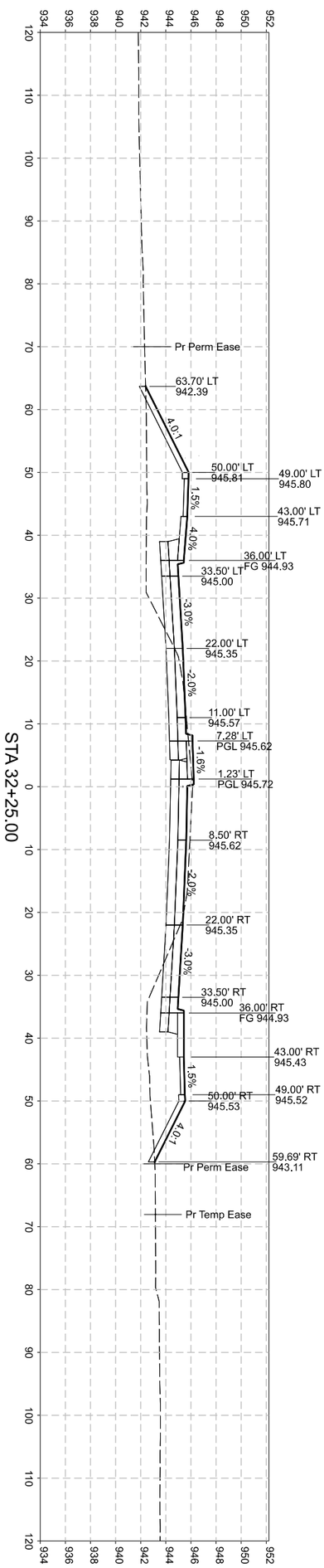

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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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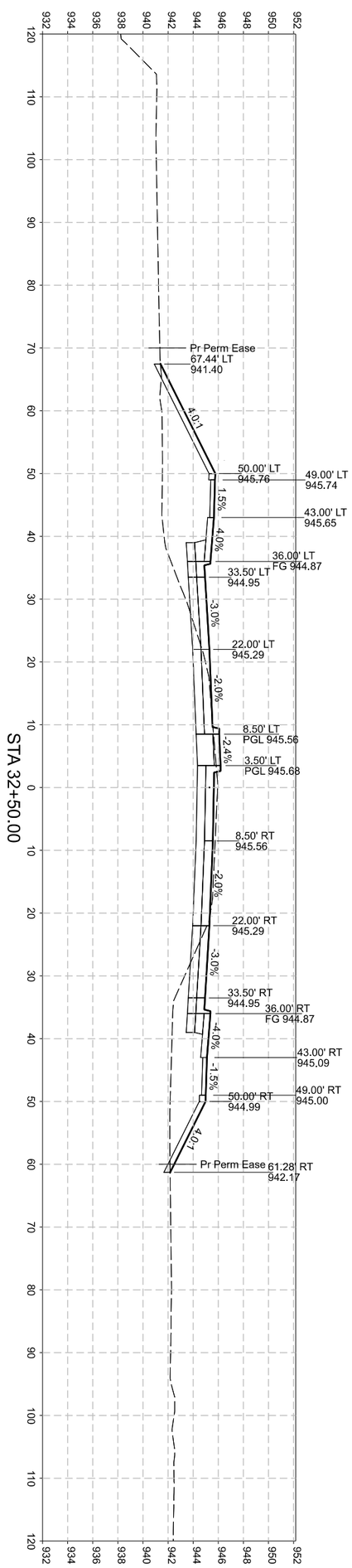
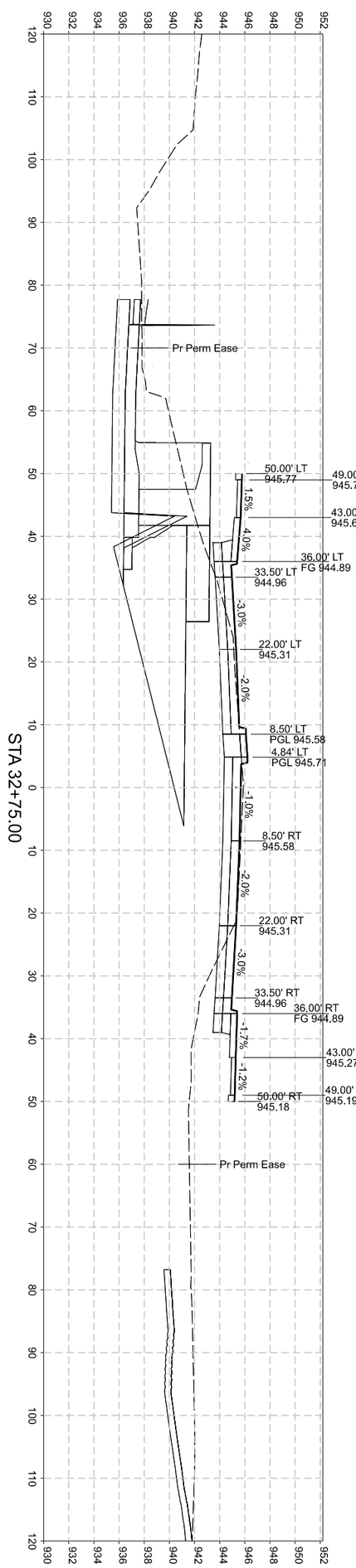
Engineer: LCL | Checked By: LEJ

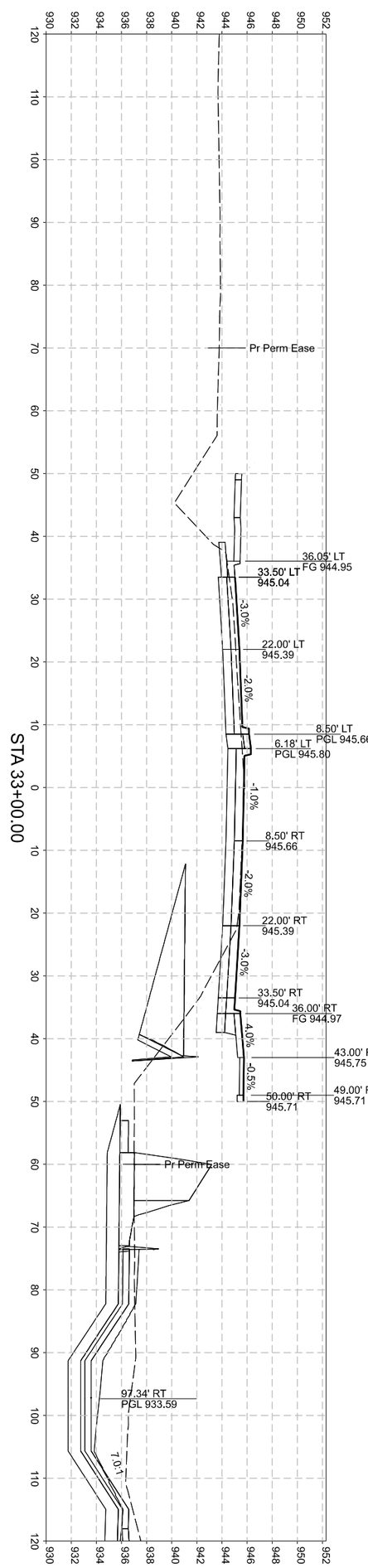
Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet W.38







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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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Engineer: LCL | Checked By: LEJ

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SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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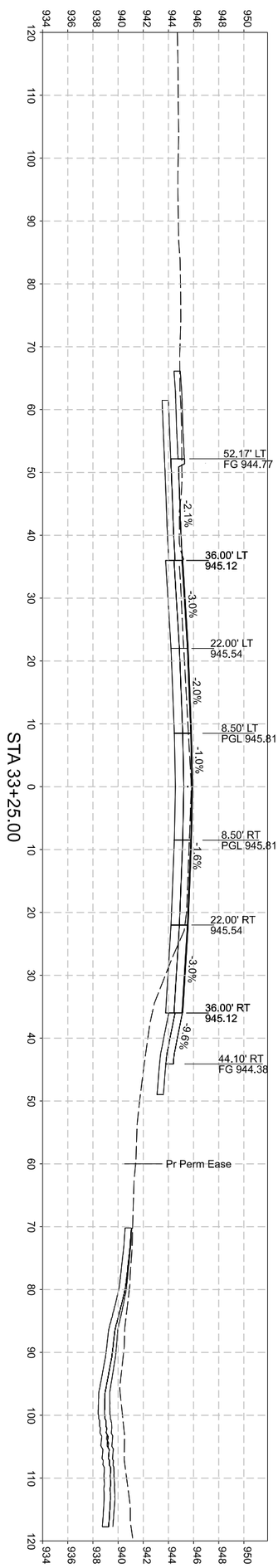

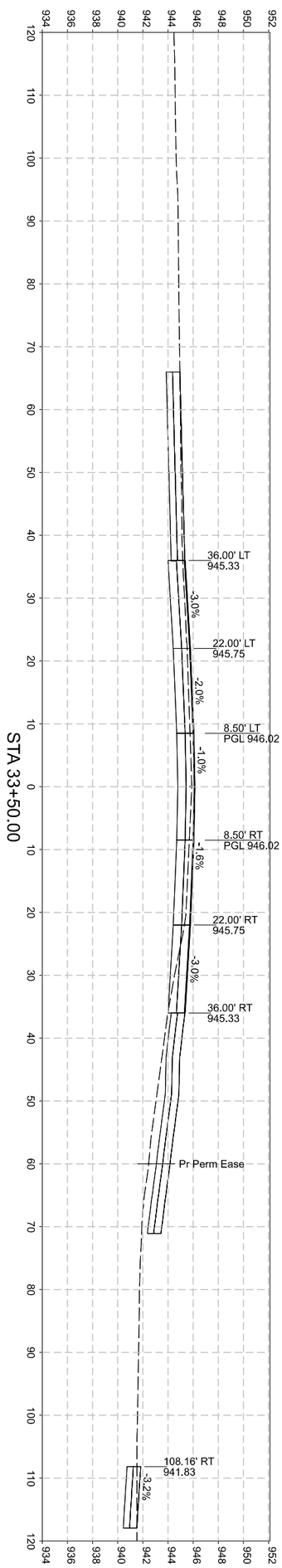

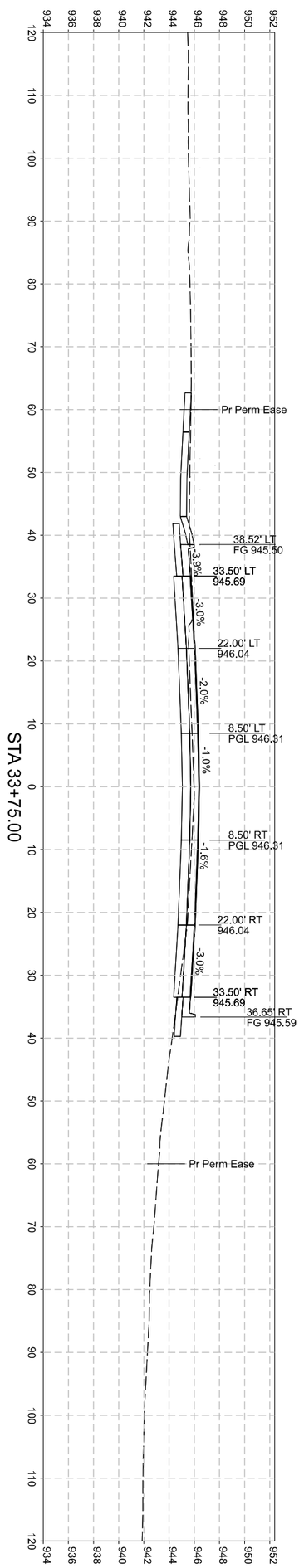

Sheet W.40

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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Engineer: LCL | Checked By: LEJ

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77

Project No: 1221679

Sheet W.40

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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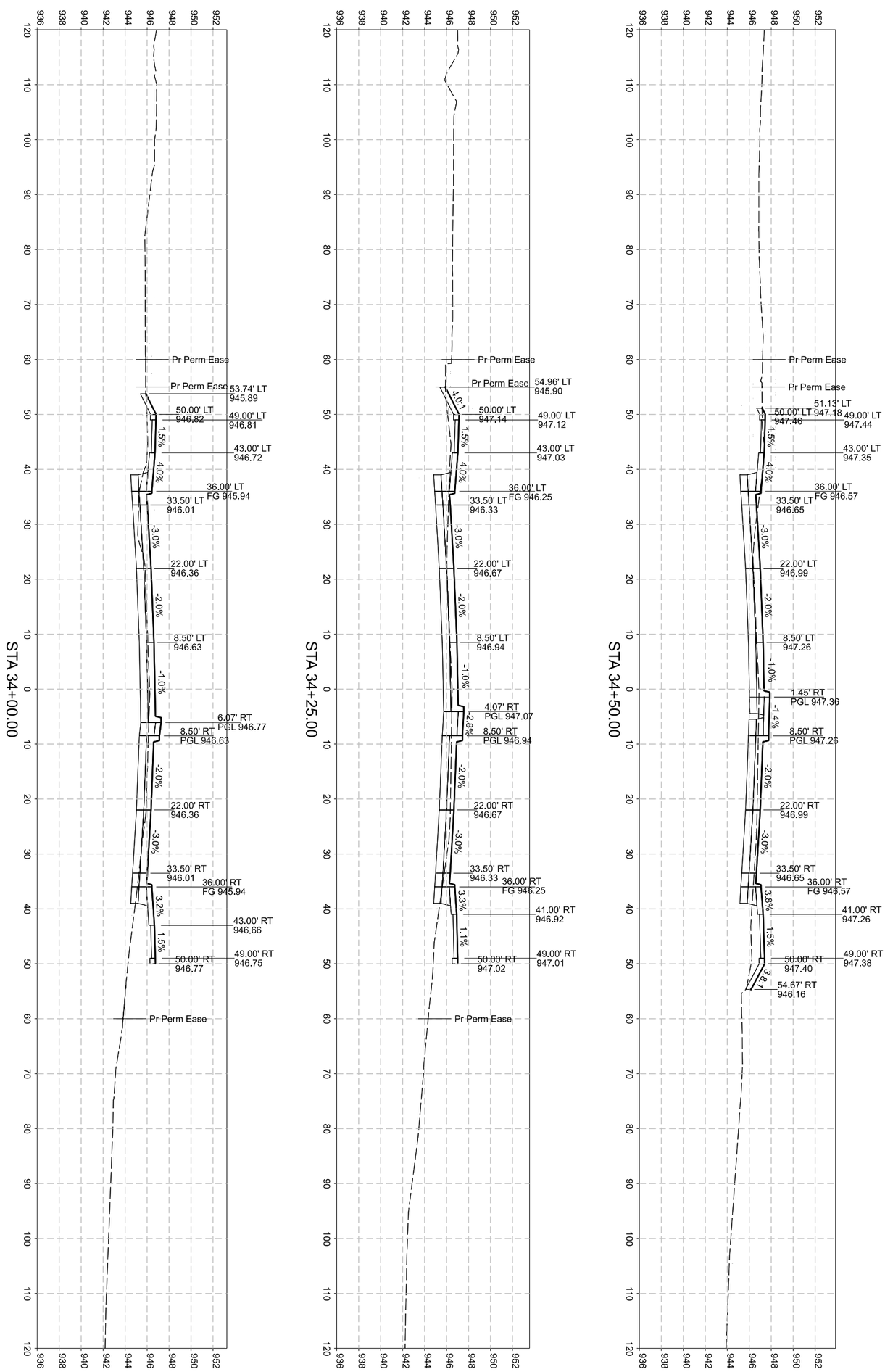

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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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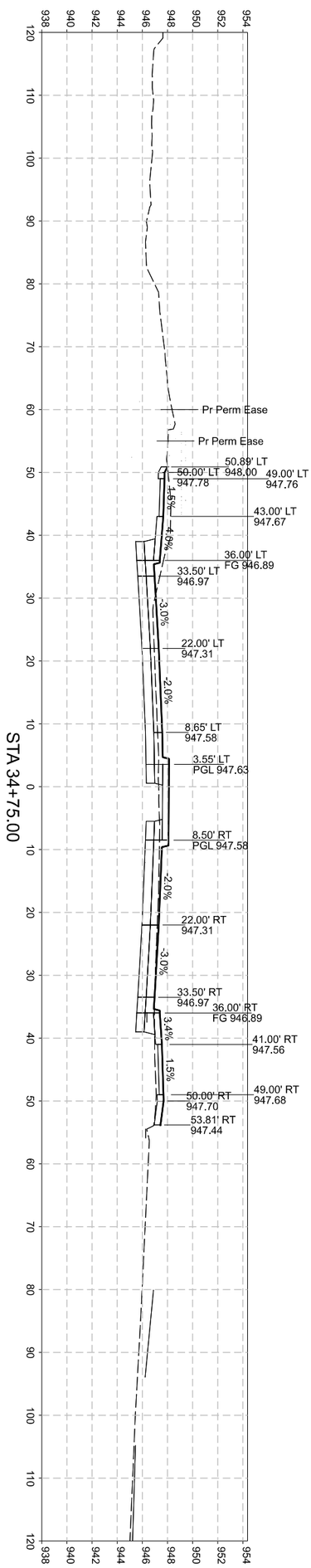
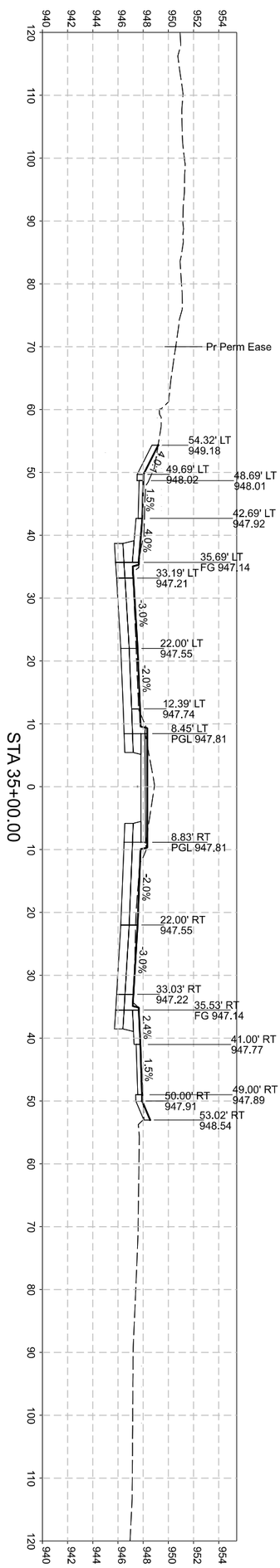
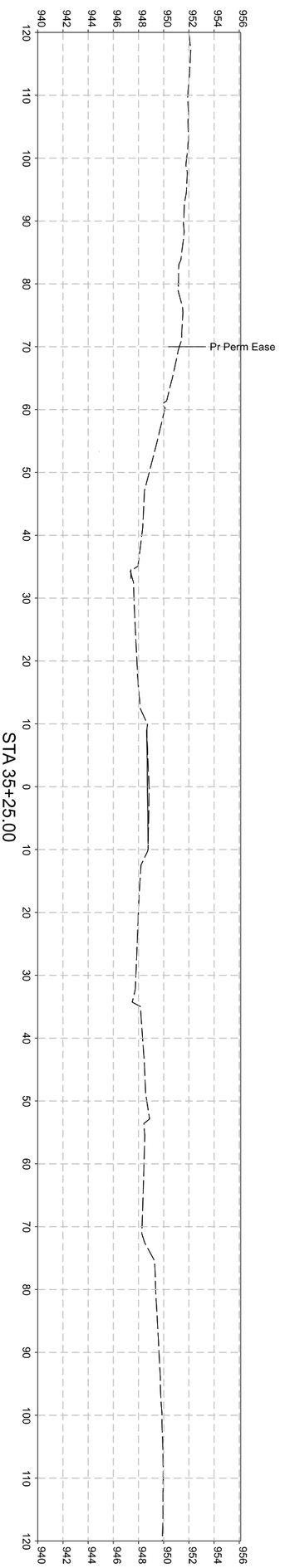
Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77
Project No: 1221679

Sheet W.41







ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ
Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70--77
Project No: 1221679

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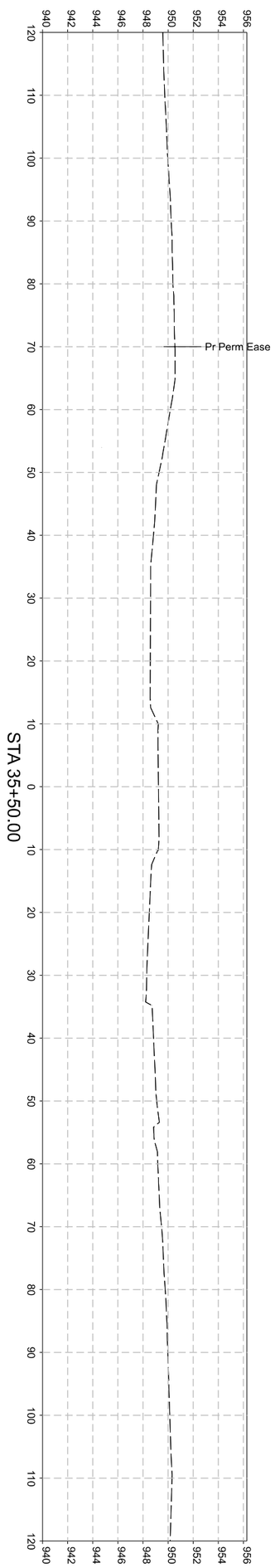
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 1221679
Sheet W.42



ADVENTURELAND DR NW RECONSTRUCTION PROJECT

MAINLINE CROSS SECTIONS

ALTOONA, IA

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Engineer: LCL | Checked By: LEJ
Technician: KSB | Date: 8/17/2026 | T-R-S:
DOT STP-U-0132(628)--70-77
Project No: 1221679
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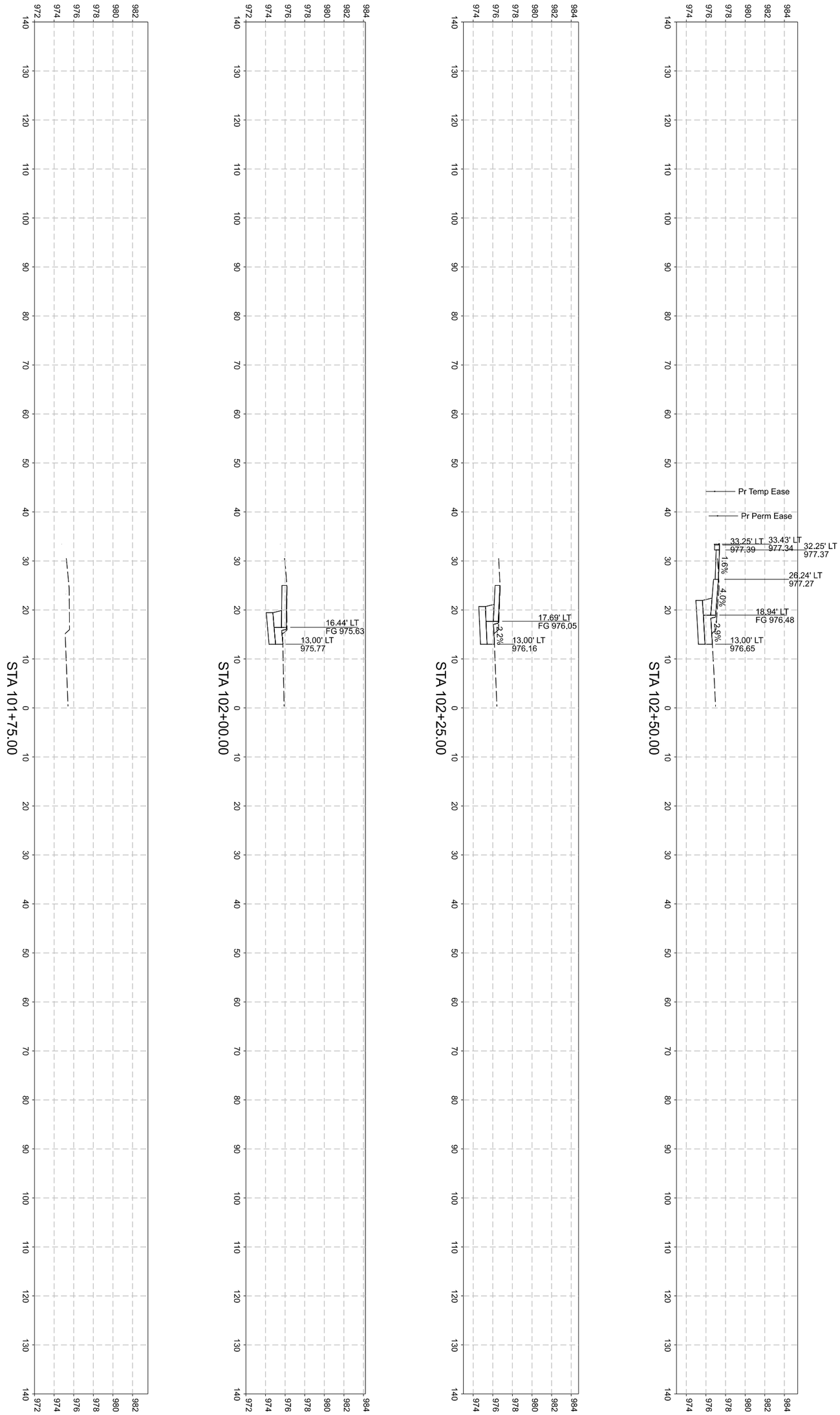
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 1221679
Sheet W.43



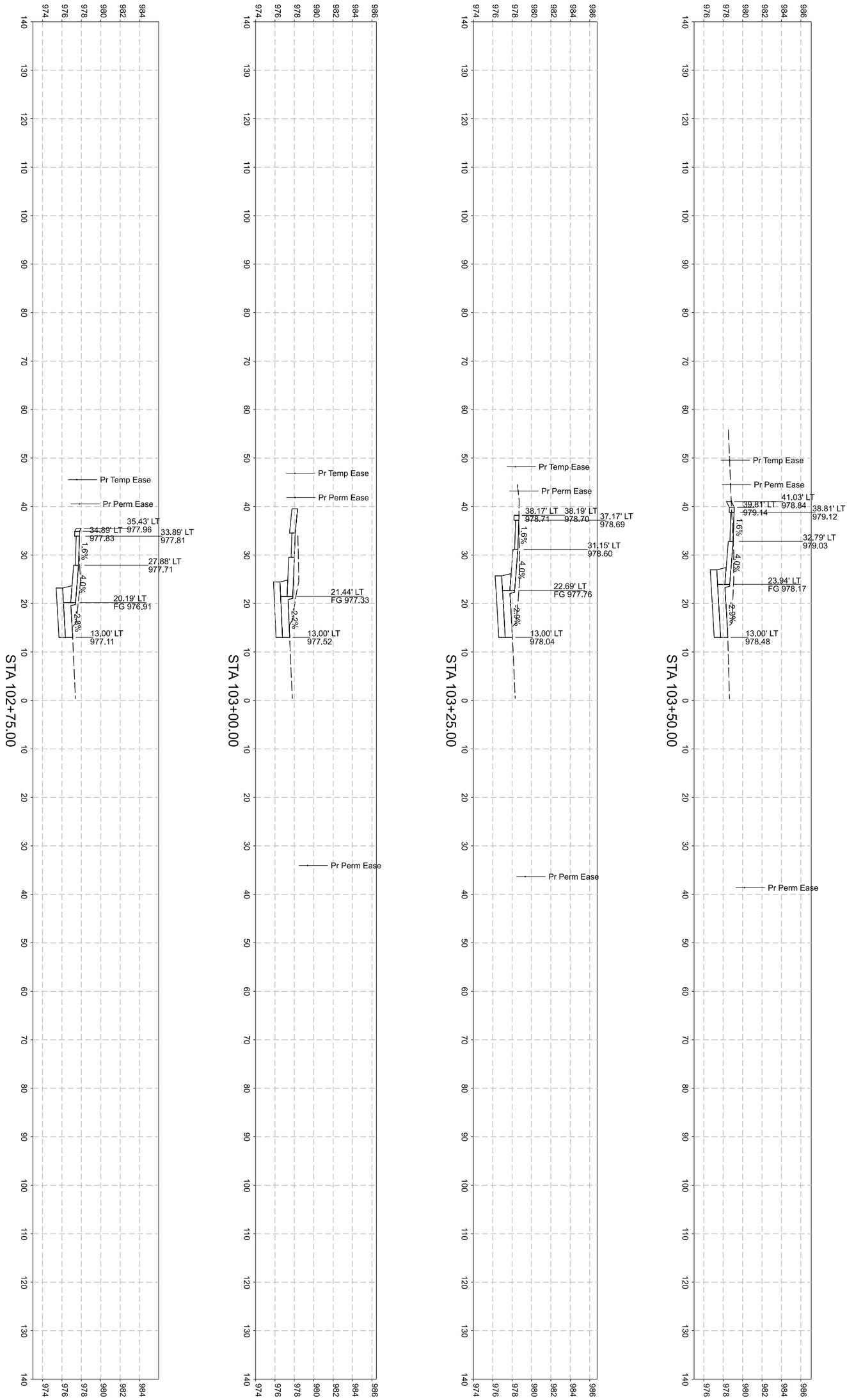
ADVENTURELAND DR NW RECONSTRUCTION PROJECT

17TH AVENUE NW CROSS SECTIONS — ALTOONA, IA

STP-U-0132(628)—70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.1	

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

Project No: 1221679
Sheet X.1



Sheet X.2

Project No: 1221679

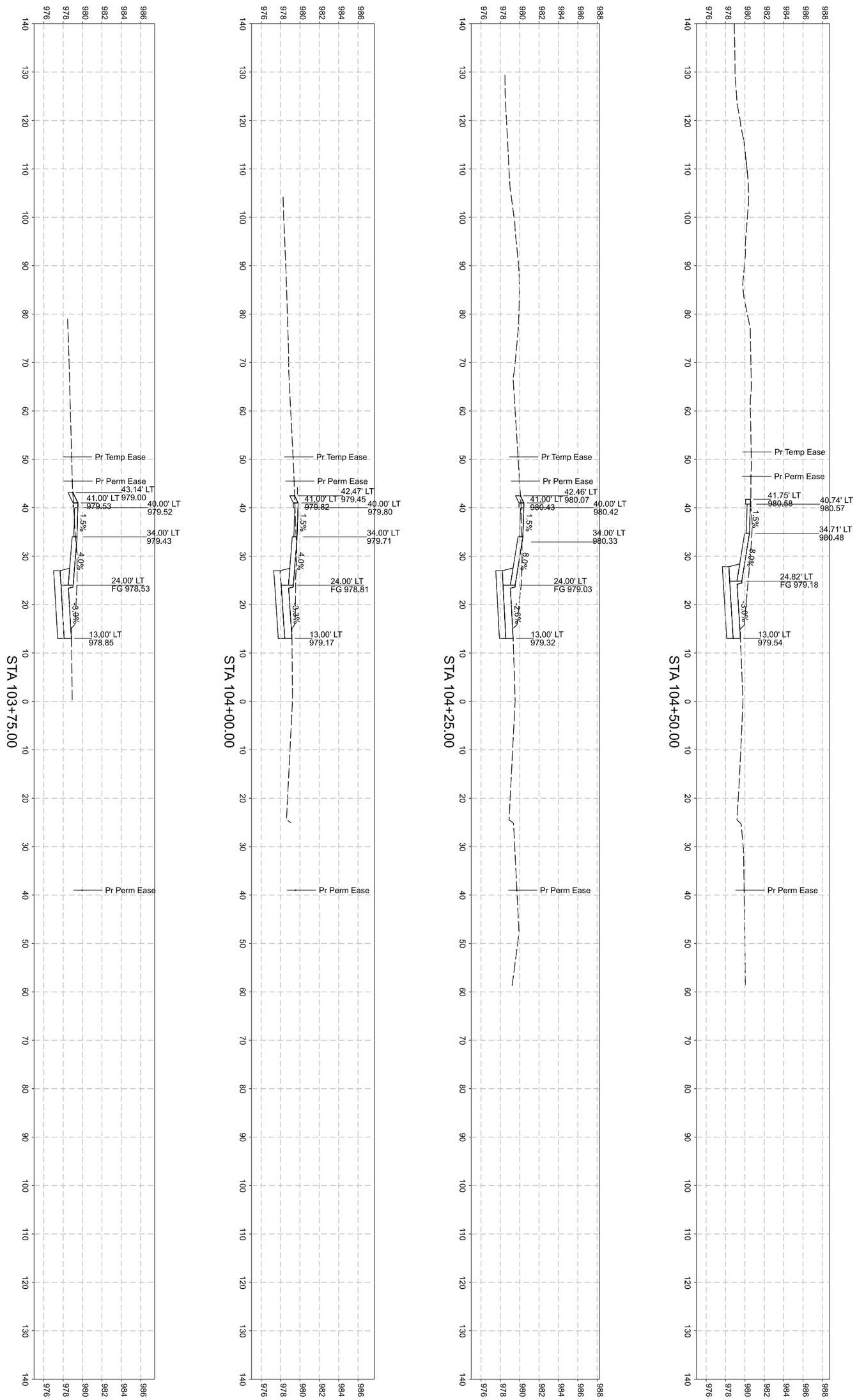
SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

17TH AVENUE NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD ANKENY, IOWA 50023 515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679	Sheet X.2		



Sheet X.3

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

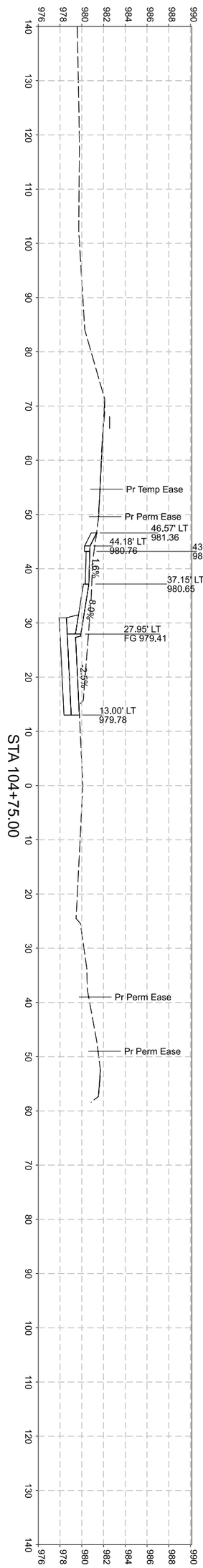
17TH AVENUE NW CROSS SECTIONS

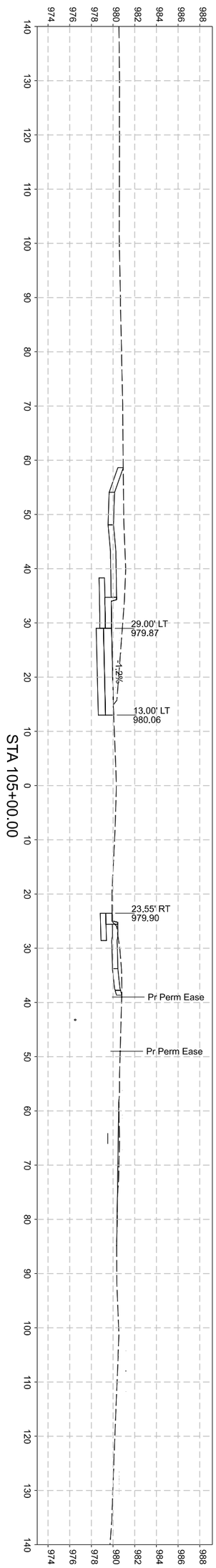
ALTOONA, IA

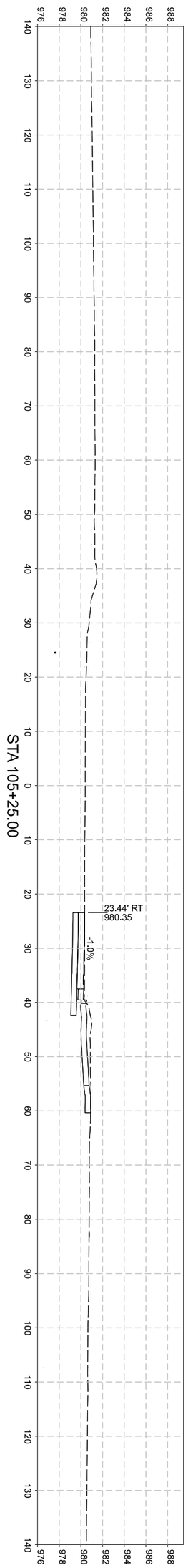
SNYDER & ASSOCIATES, INC.

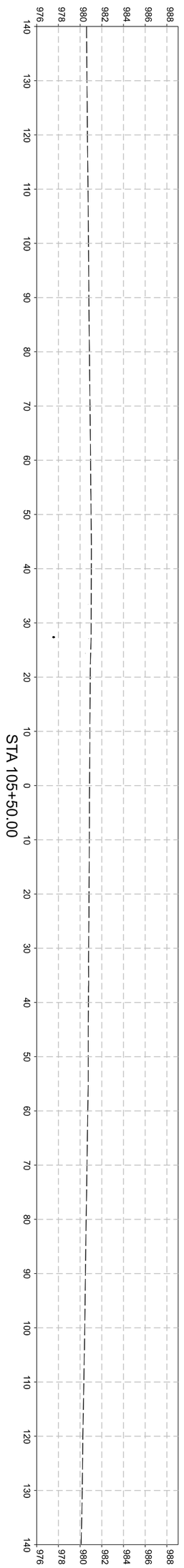
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679	Sheet X.3		









Sheet X.4

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

17TH AVENUE NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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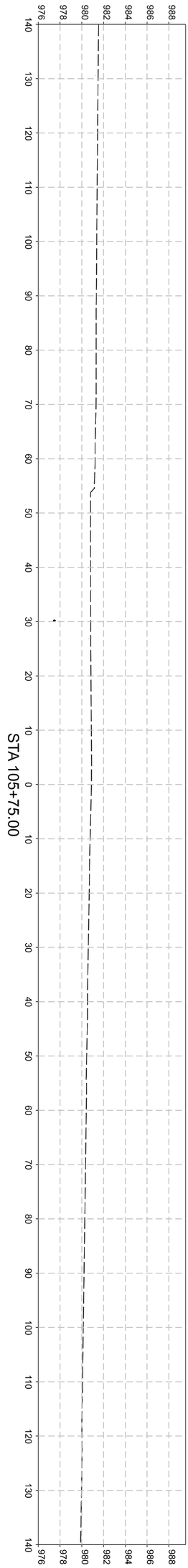
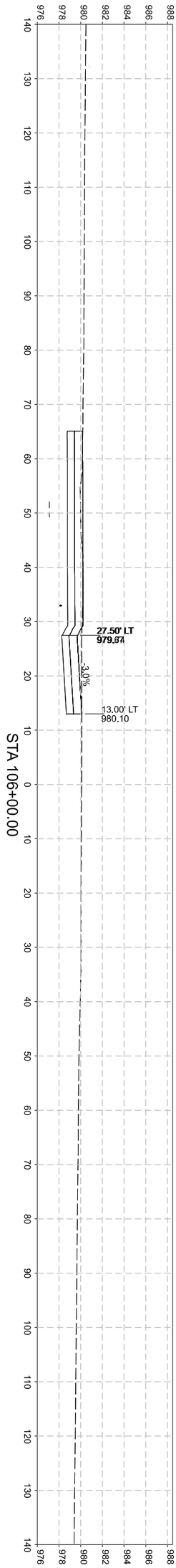
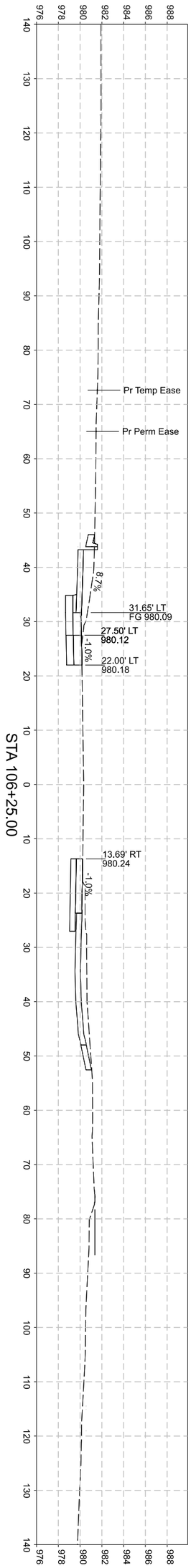
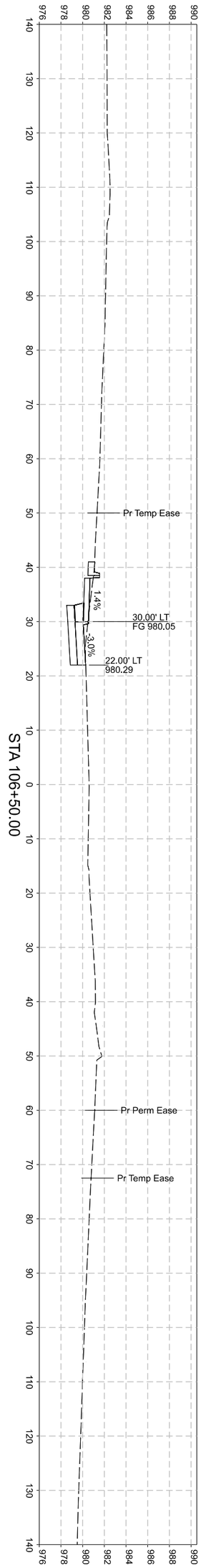
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.4	









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Project No: 1221679

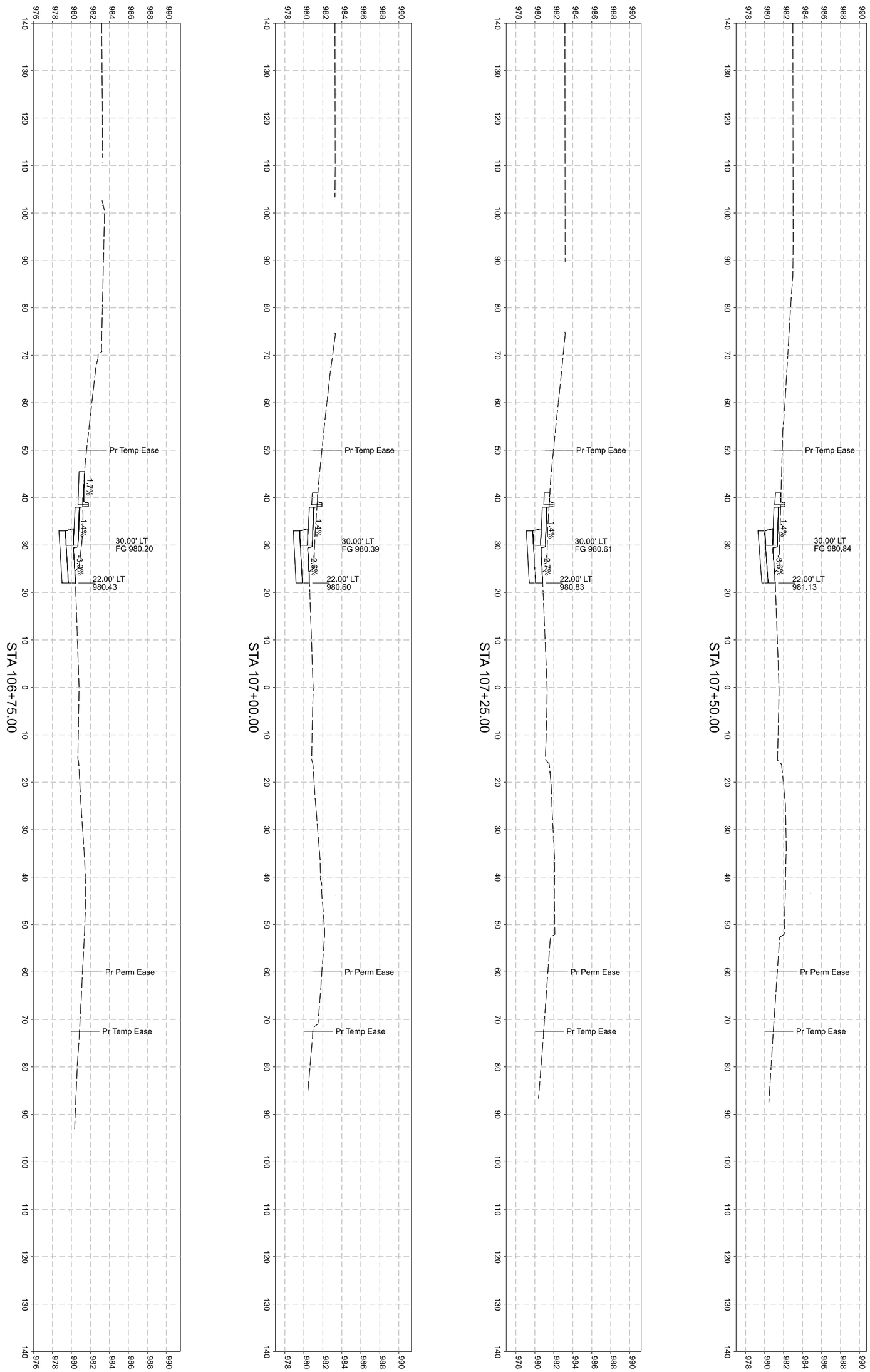
SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

17TH AVENUE NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD, ANKENY, IOWA 50023, 515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679	Sheet X.5		



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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

17TH AVENUE NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

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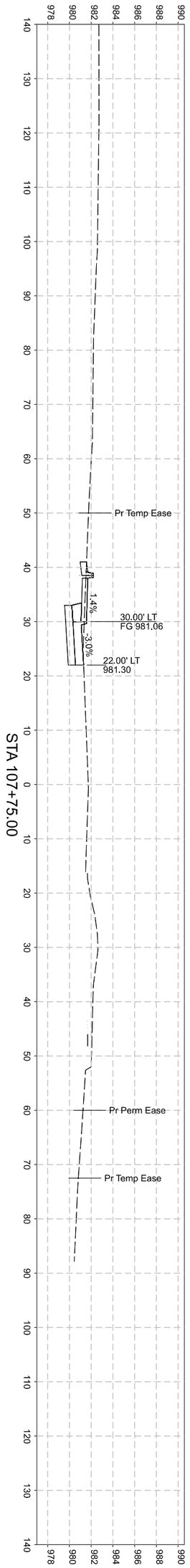
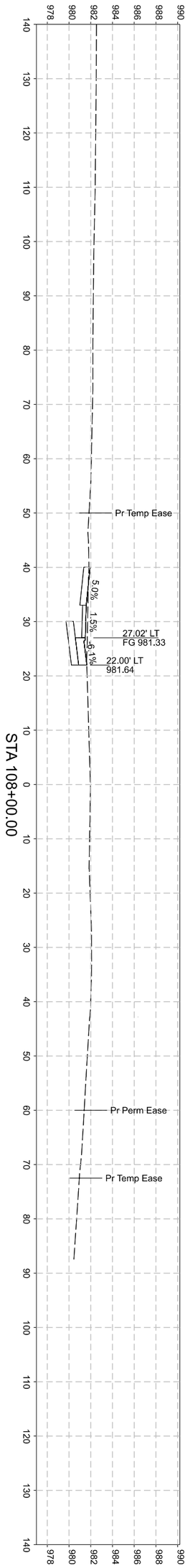
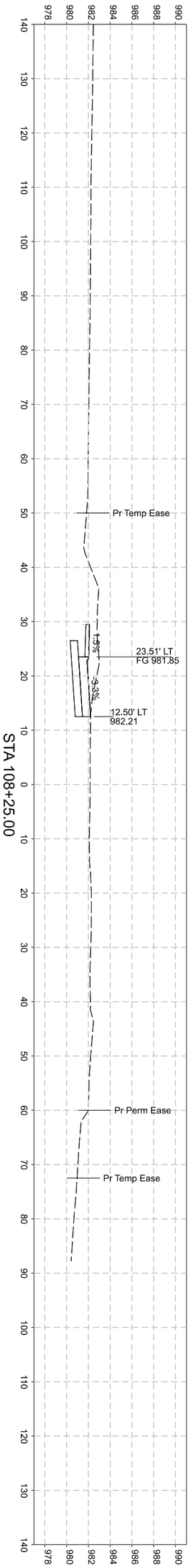
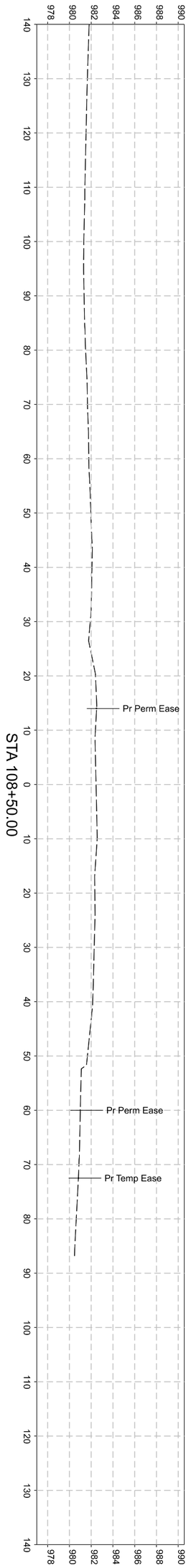
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.6	









Sheet X.7

Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

17TH AVENUE NW CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
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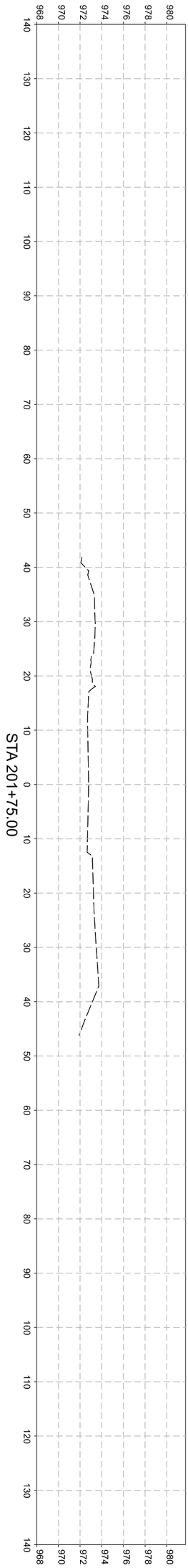
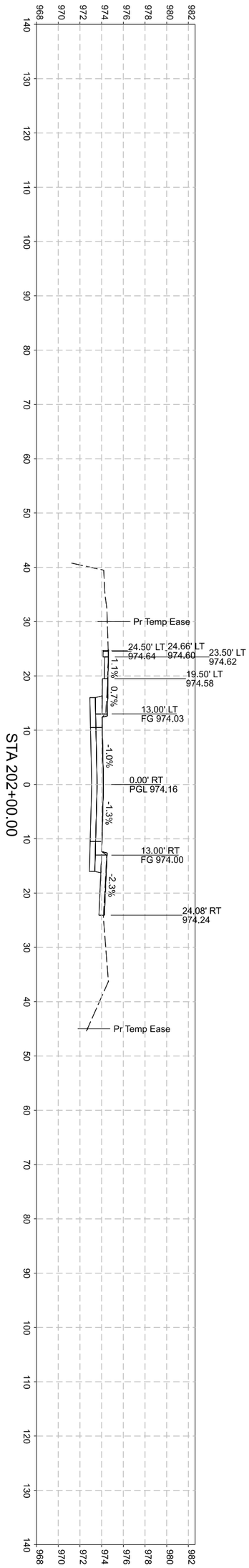
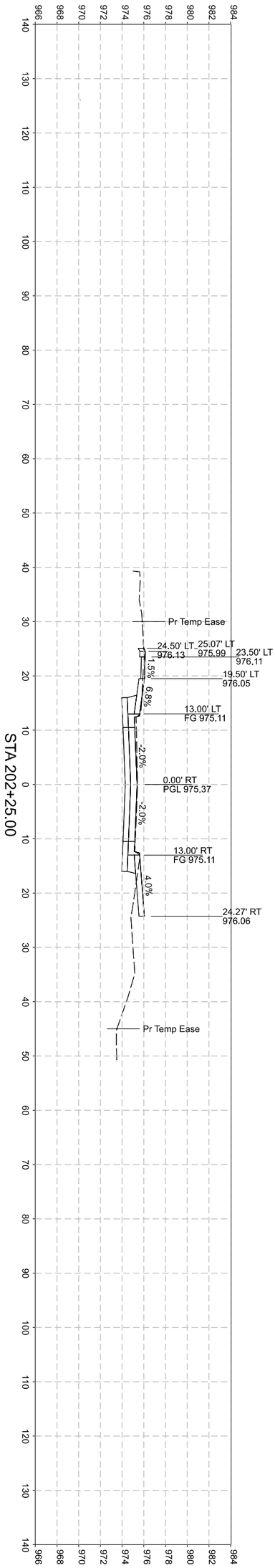
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.7	







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Project No: 1221679

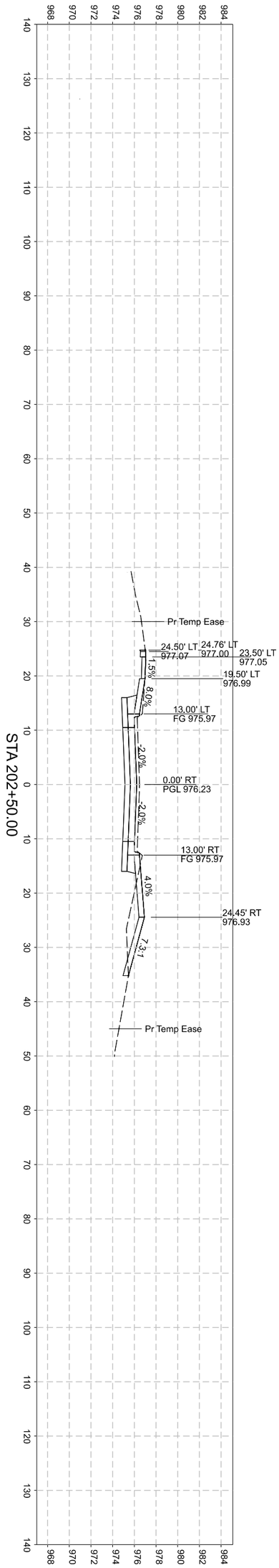
SNYDER & ASSOCIATES

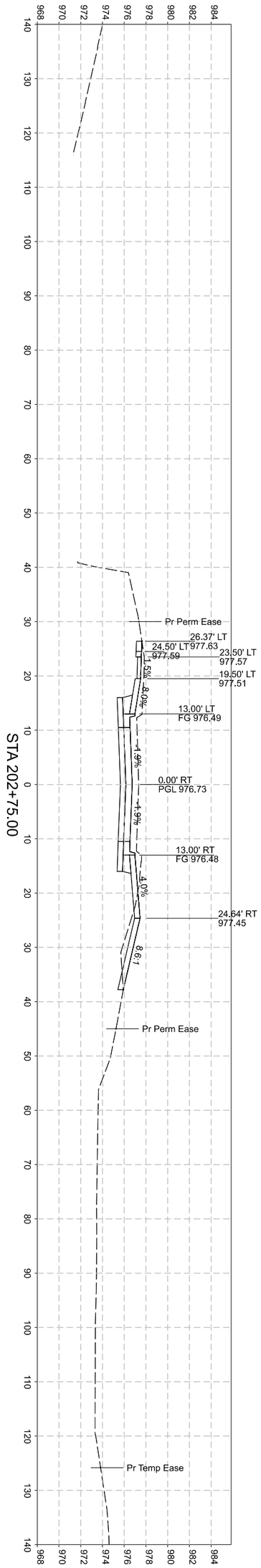
ADVENTURELAND DR NW RECONSTRUCTION PROJECT

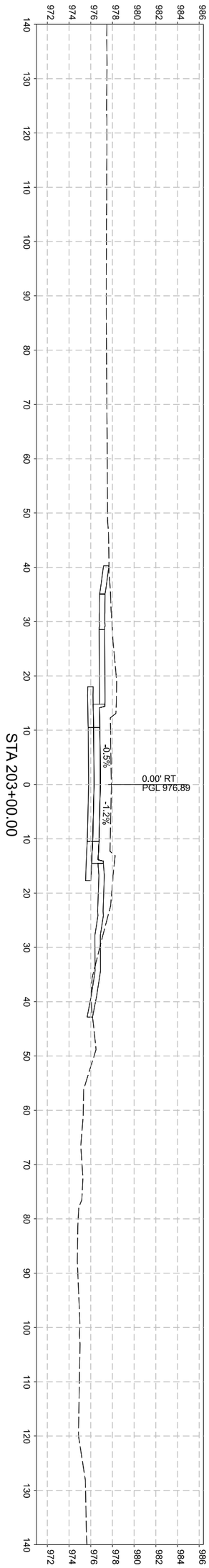
14TH AVENUE NW/BLUE RIDGE PL NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

	STP-U-0132(628)--70-77		
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.8	

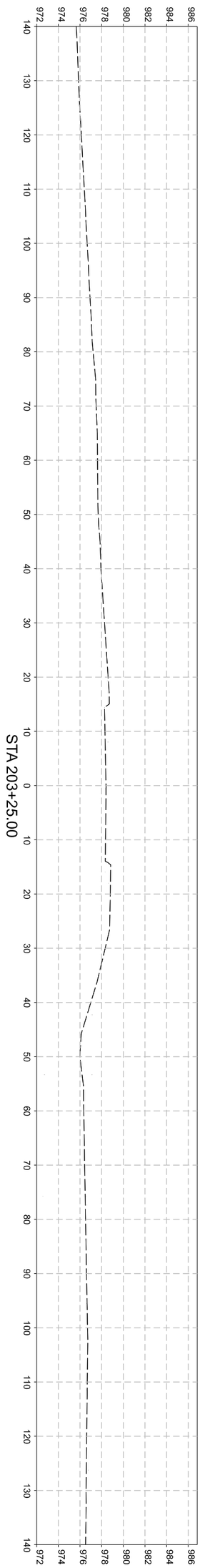


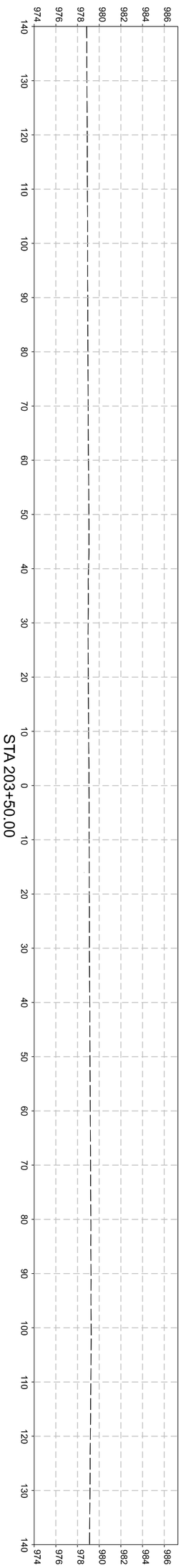


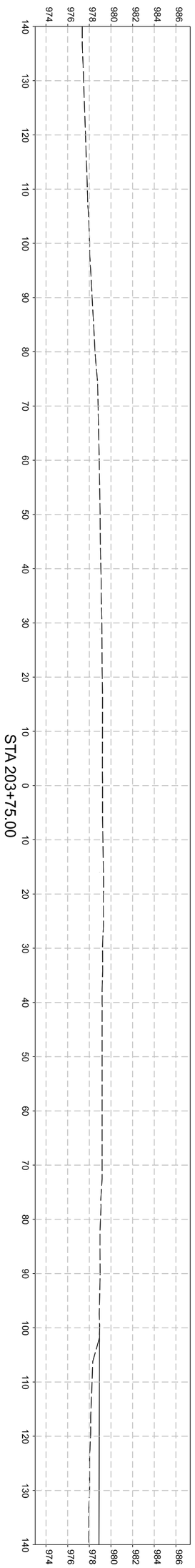


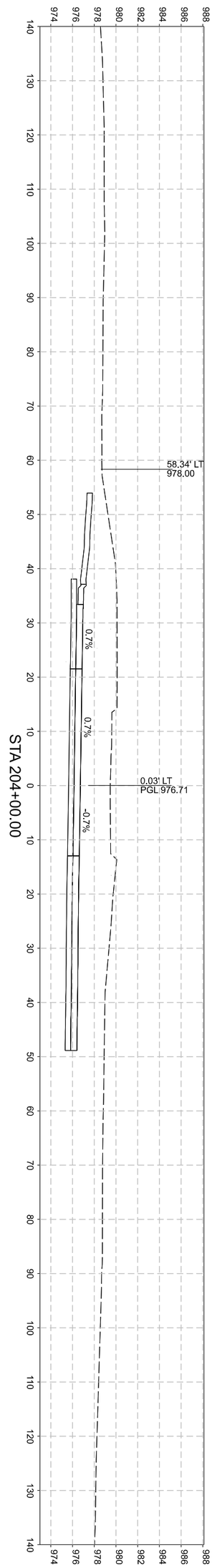
Sheet X.9	Project No: 1221679	SNYDER & ASSOCIATES	ADVENTURELAND DR NW RECONSTRUCTION PROJECT
			14TH AVENUE NW/BLUE RIDGE PL NW CROSS SECTIONS — ALTOONA, IA
			SNYDER & ASSOCIATES, INC. — 2727 SW SNYDER BLVD, ANKENY, IOWA 50023, 515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

STP-U-0132(628)—70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679	Sheet X.9		









ADVENTURELAND DR NW RECONSTRUCTION PROJECT

14TH AVENUE NW/BLUE RIDGE PL NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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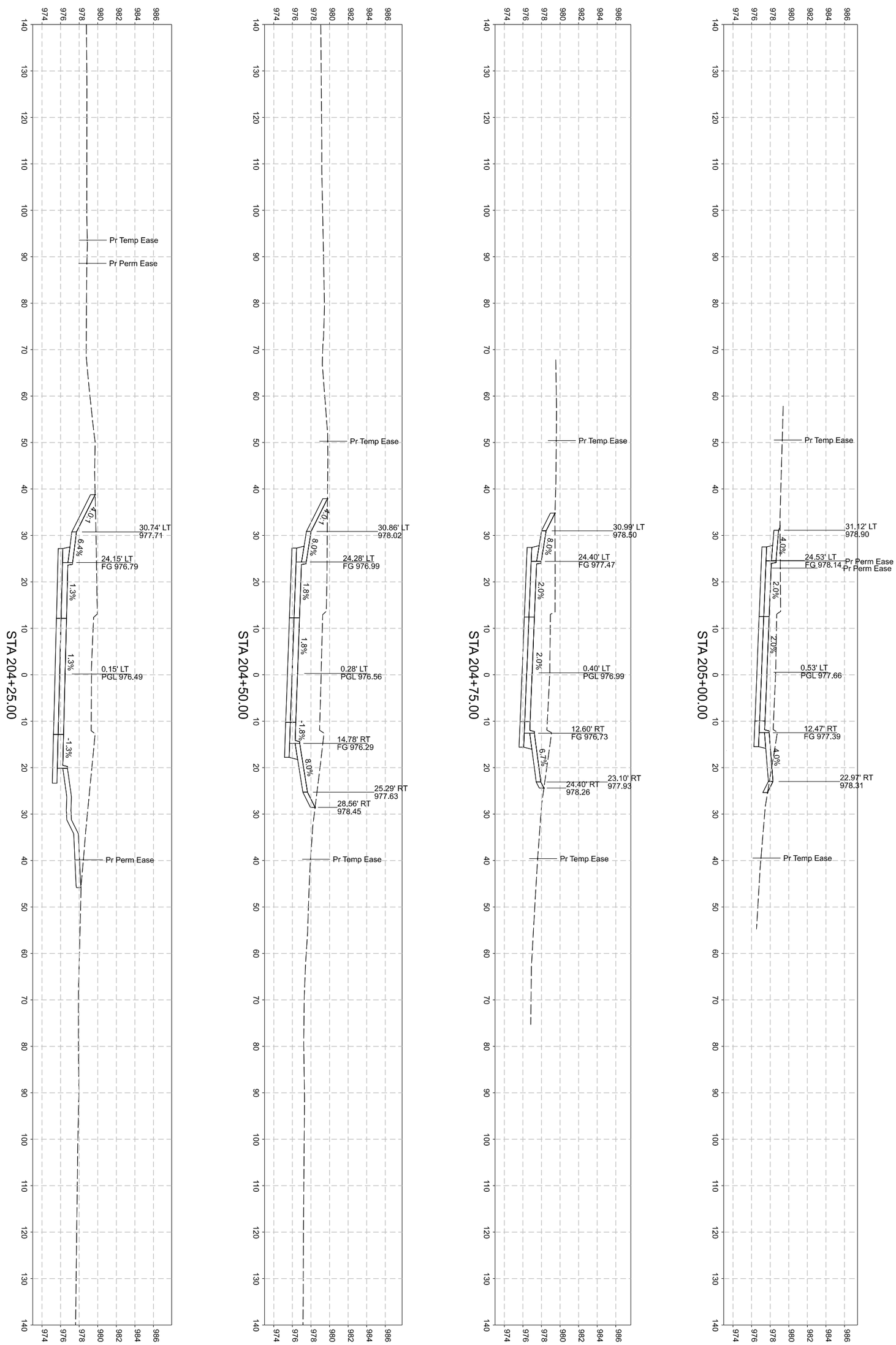
STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.10	

Project No: 1221679
Sheet X.10



ADVENTURELAND DR NW RECONSTRUCTION PROJECT

14TH AVENUE NW/BLUE RIDGE PL NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC.
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STP-U-0132(628)--70-77	
MARK / REVISION / DATE / BY	
Engineer: LCL	Checked By: LEJ
Technician: KSB	Date: 8/17/2026
Field Bk:	Pg:
Project No: 1221679	Sheet X.11

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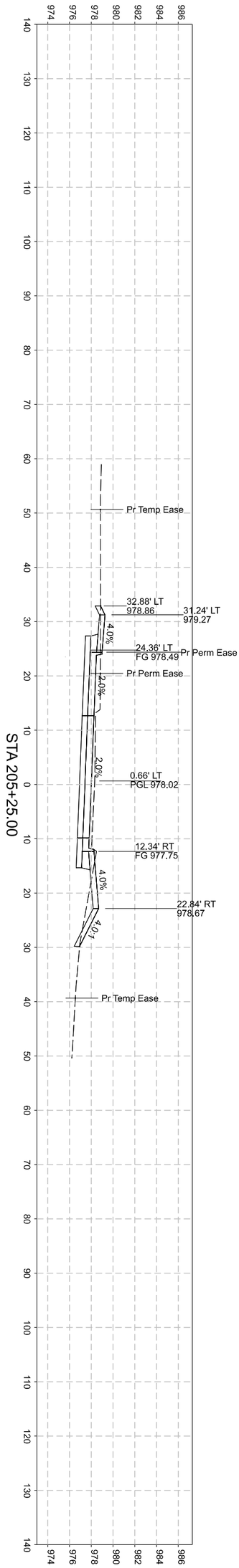

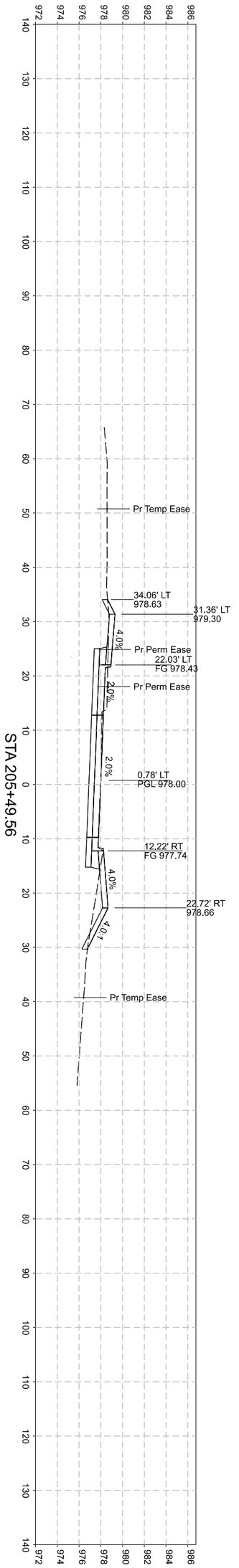

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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

14TH AVENUE NW/BLUE RIDGE PL NW CROSS SECTIONS — ALTOONA, IA

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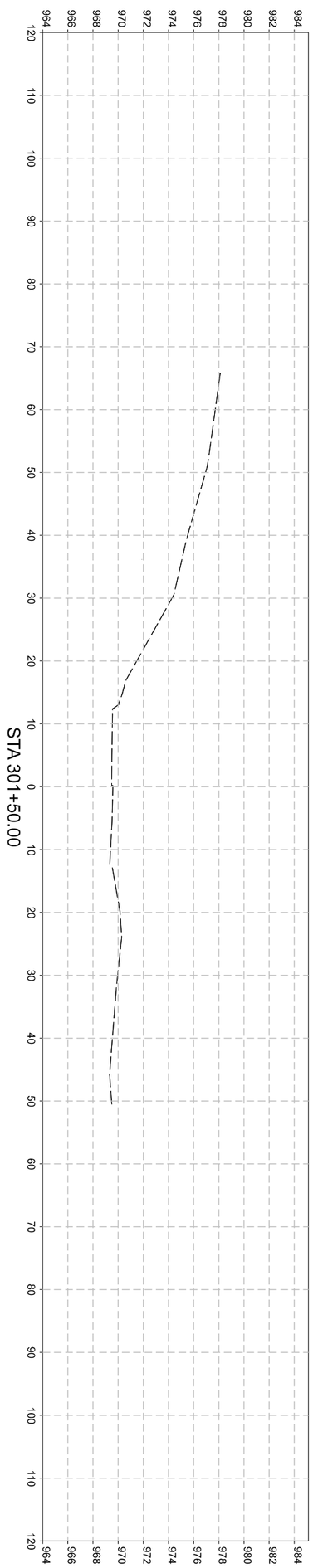
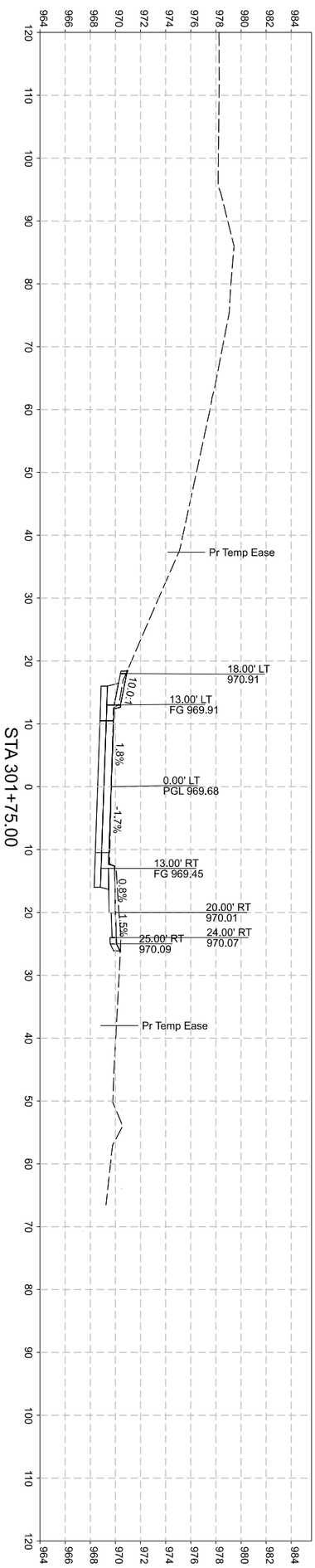
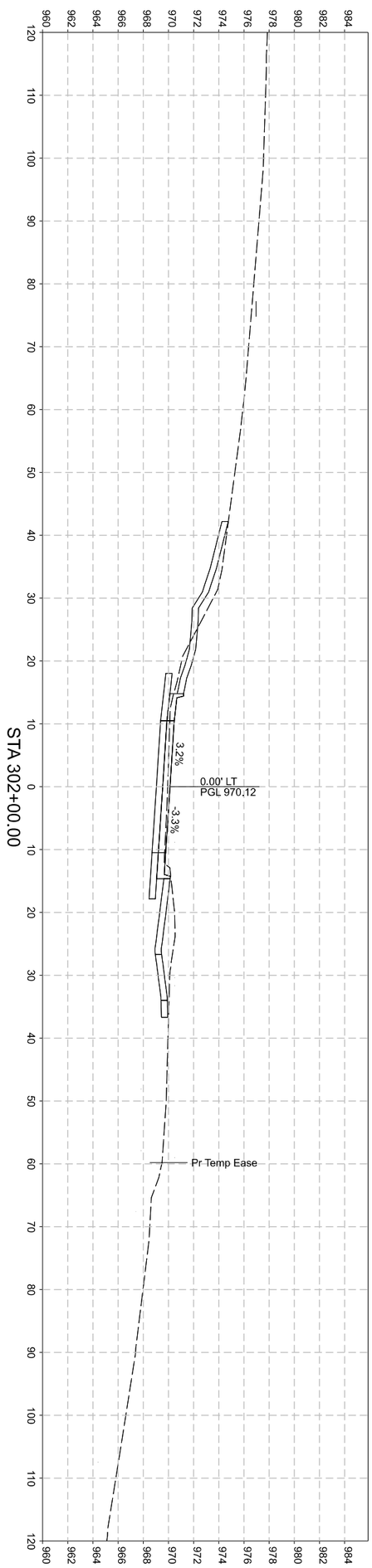
	STP-U-0132(628)—70-77		
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.12	







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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

12TH STREET CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
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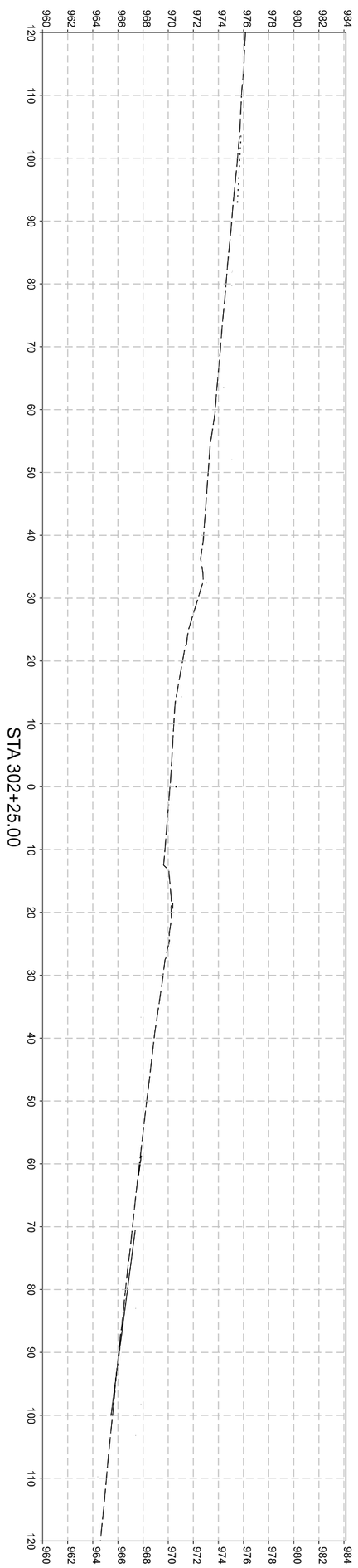
MARK	REVISION	DATE	BY

Engineer: LCL | Checked By: LEJ | NTS'

Technician: KSB | Date: 8/17/2026 | T-R-S:

DOT STP-U-0132(628)--70-77
Project No: 1221679

Sheet X.13



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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

12TH STREET CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
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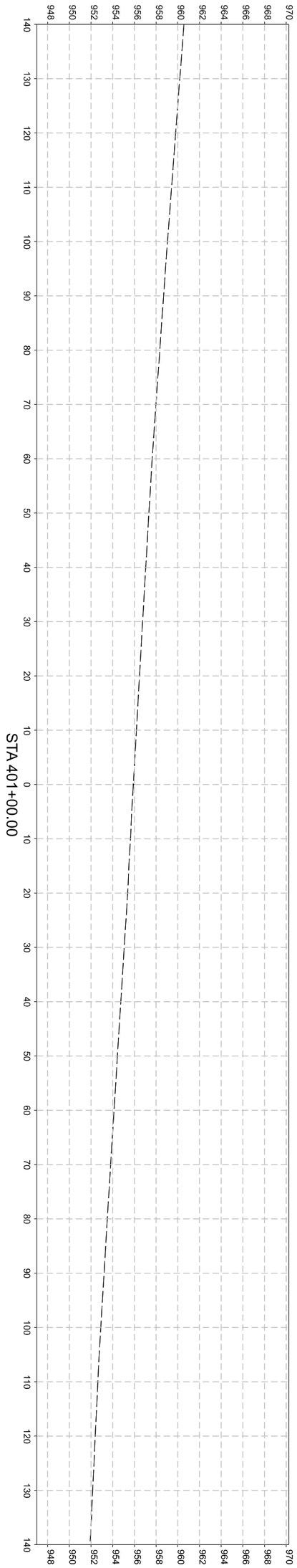
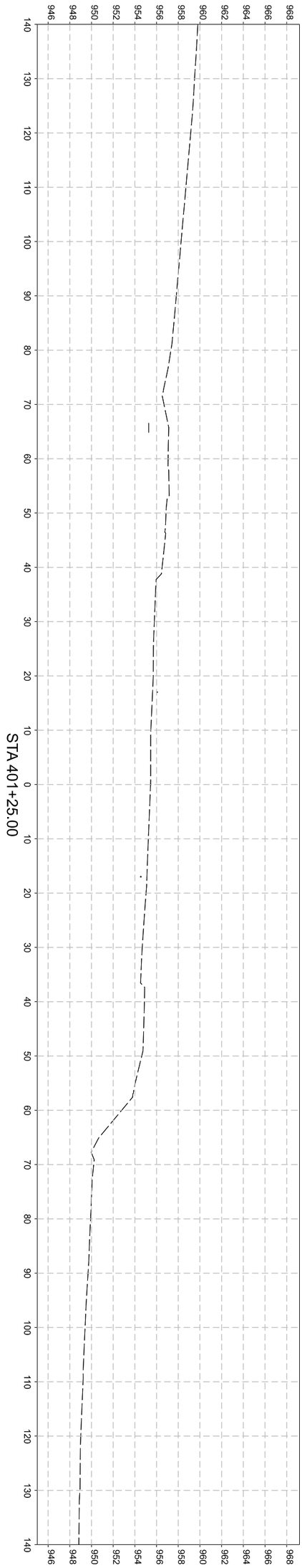
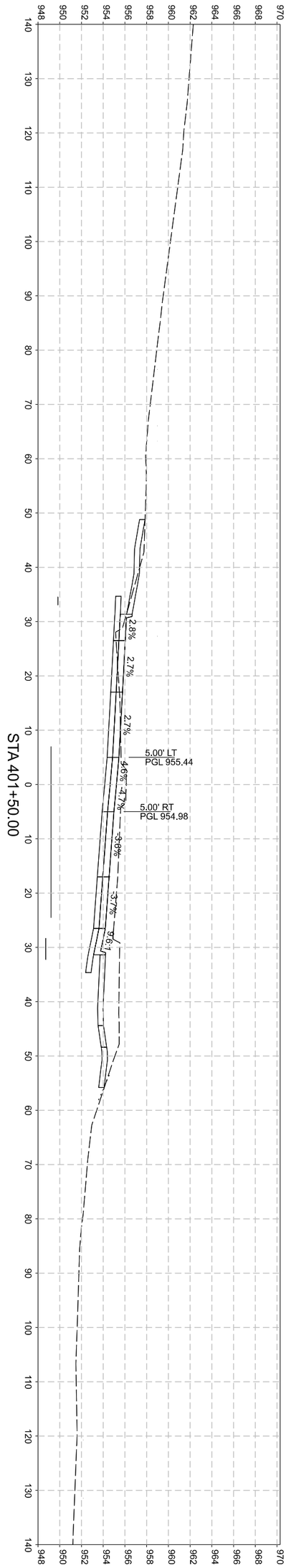
MARK	REVISION	DATE	BY

Engineer: LCL	Checked By: LEJ	NTS'
Technician: KSB	Date: 8/17/2026	T-R-S:
DOT STP-U-0132(628)--70-77 Project No: 1221679	Sheet X.14	







ADVENTURELAND DR NW RECONSTRUCTION PROJECT

10TH AVENUE NW CROSS SECTIONS — ALTOONA, IA

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STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.15	

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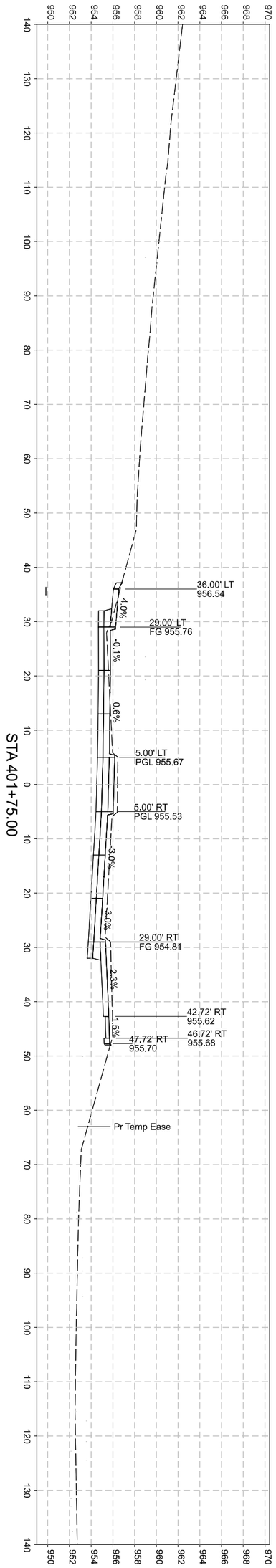
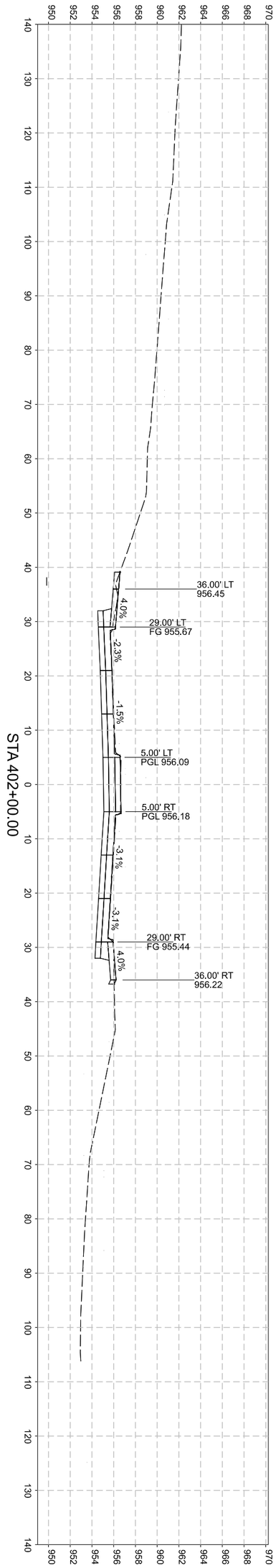
Sheet X.15





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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

10TH AVENUE NW CROSS SECTIONS

ALTOONA, IA

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2727 SW SNYDER BLVD
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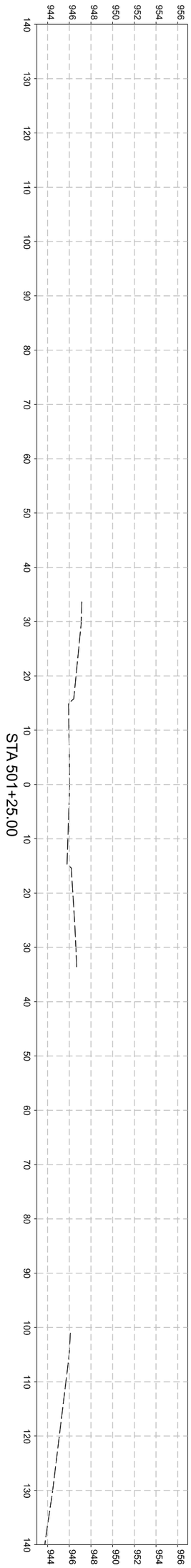
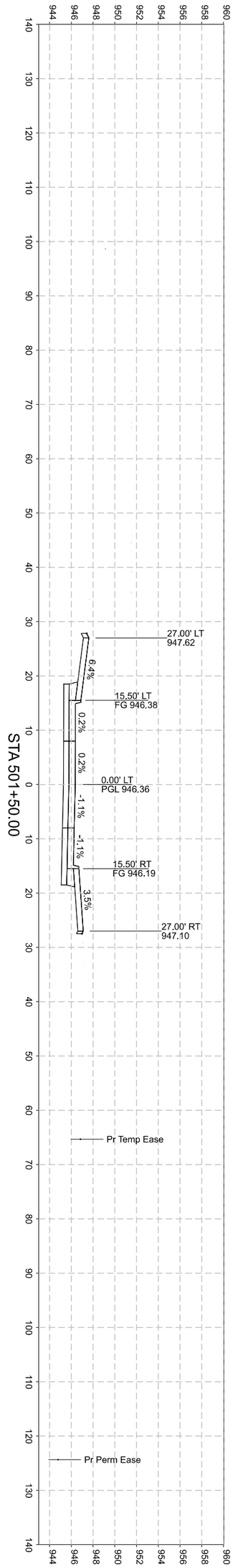
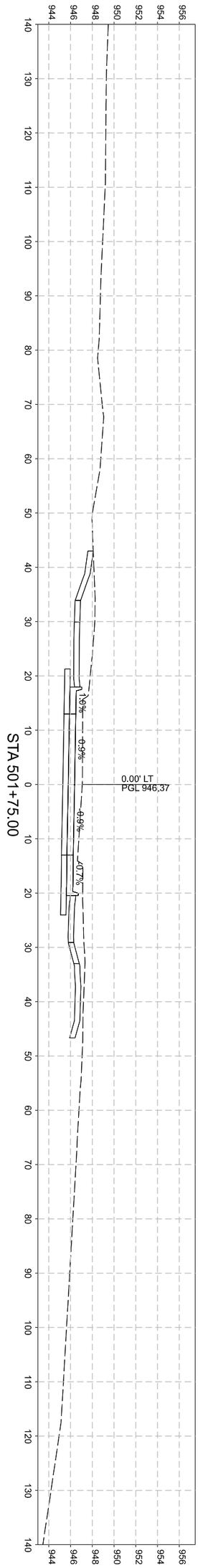
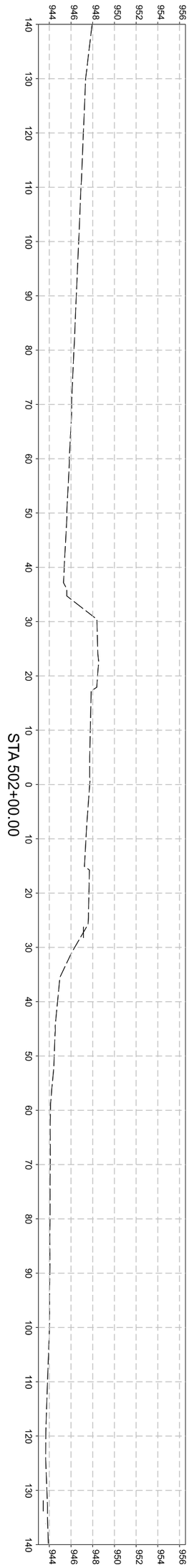
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

	STP-U-0132(628)--70-77		
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.16	









ADVENTURELAND DR NW RECONSTRUCTION PROJECT

10TH AVENUE NW CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.17	

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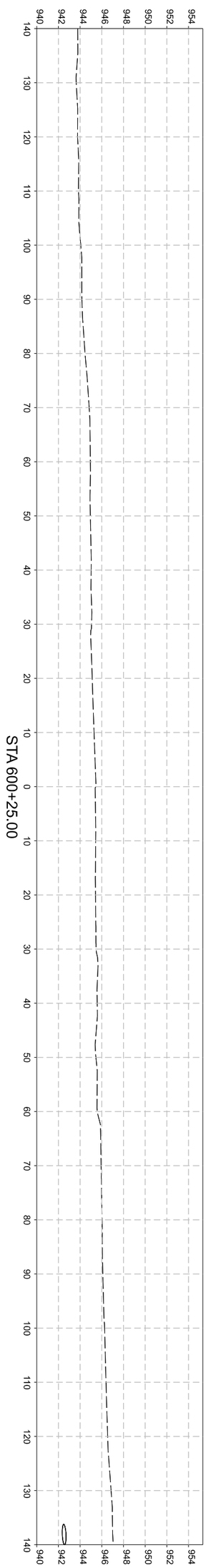
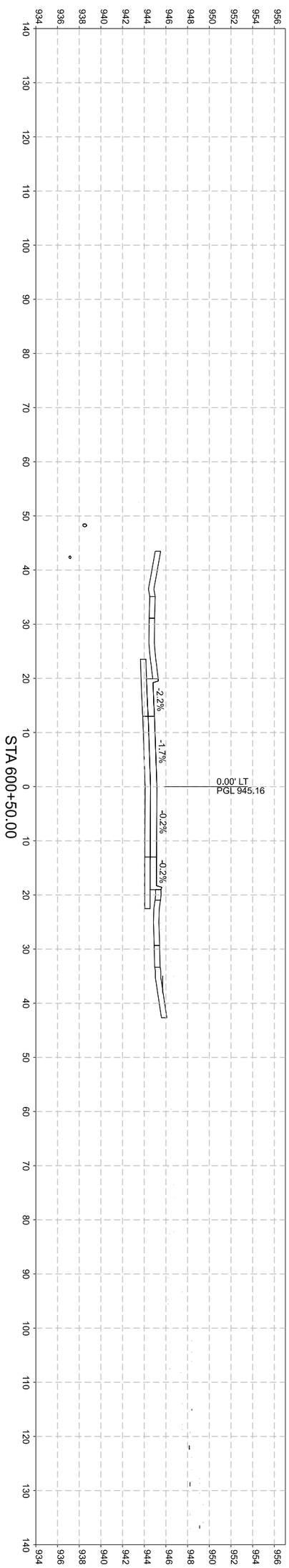
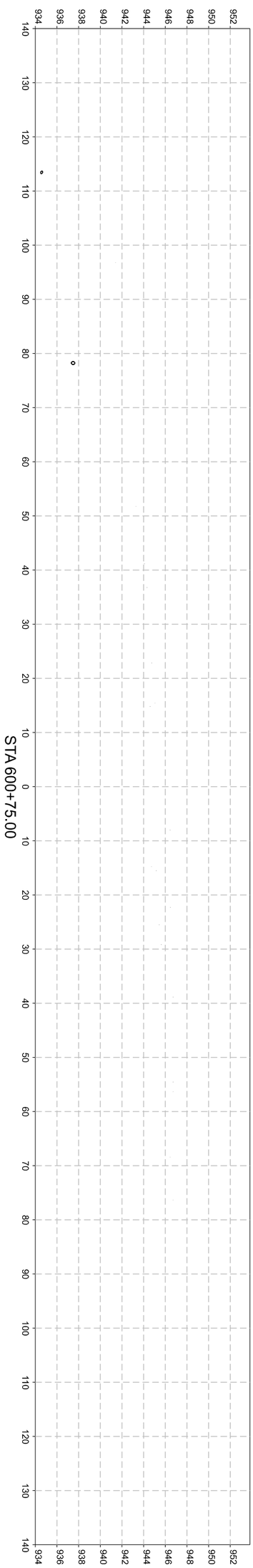
Sheet X.17







ADVENTURELAND DR NW RECONSTRUCTION PROJECT

9TH AVENUE NW CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
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STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.18	

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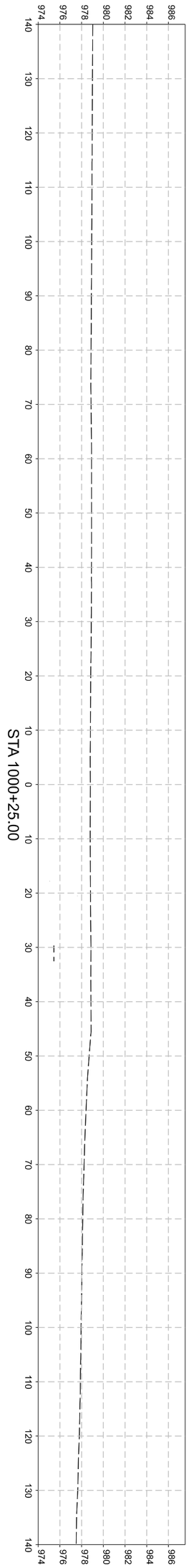
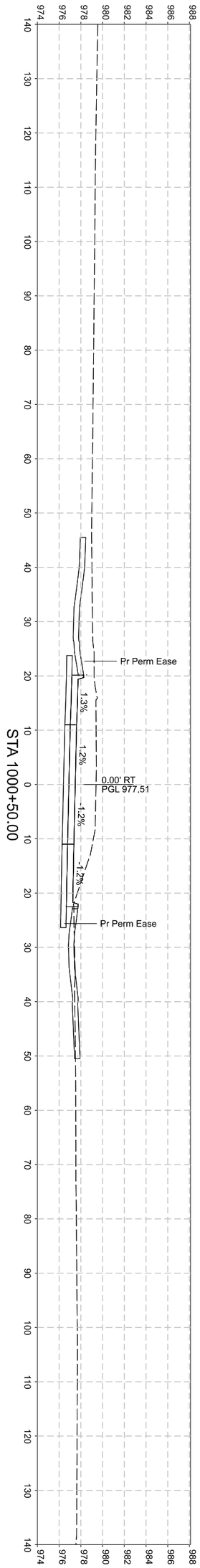
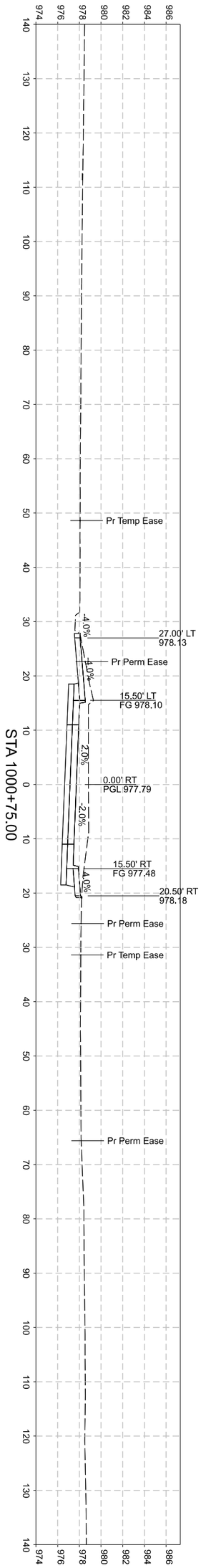
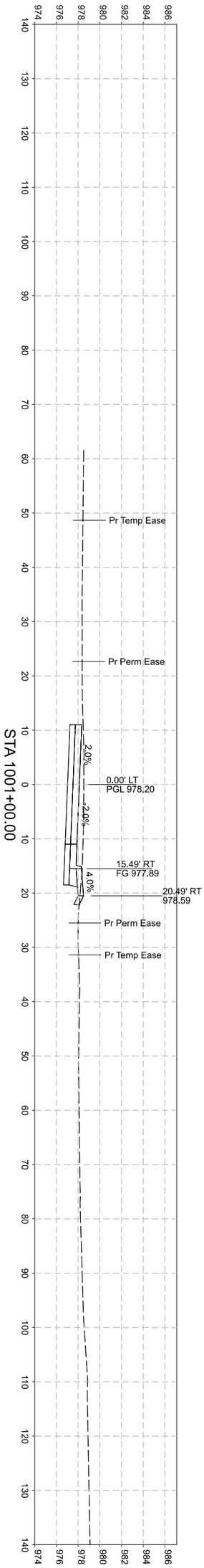
Sheet X.18









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Project No: 1221679

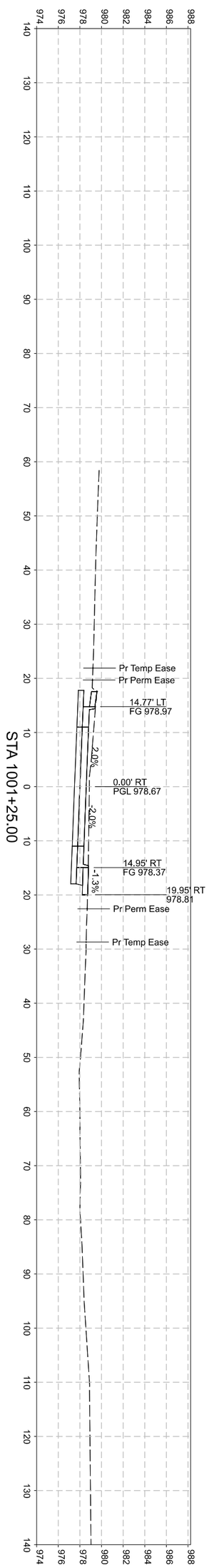
SNYDER & ASSOCIATES

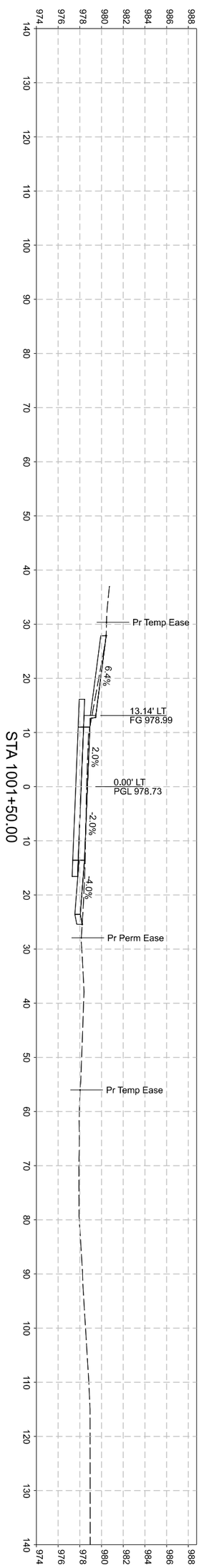
ADVENTURELAND DR NW RECONSTRUCTION PROJECT

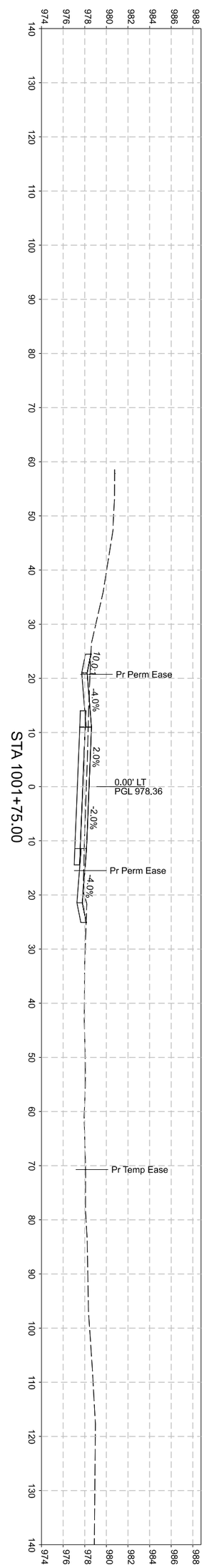
TEMPORARY ROAD CROSS SECTIONS — ALTOONA, IA

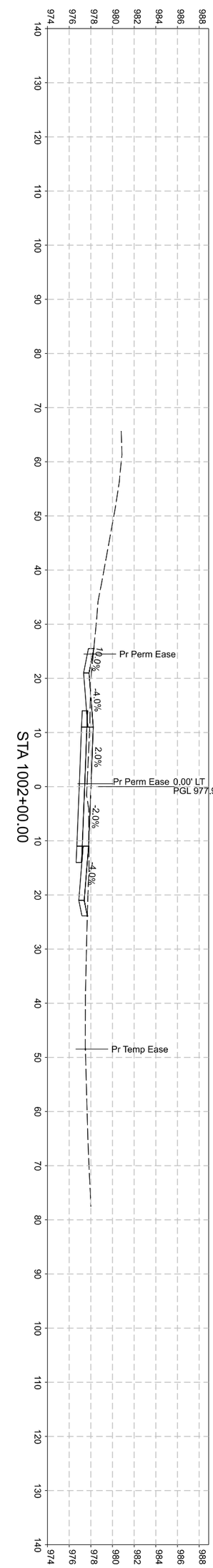
SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

	STP-U-0132(628)--70-77		
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.19	









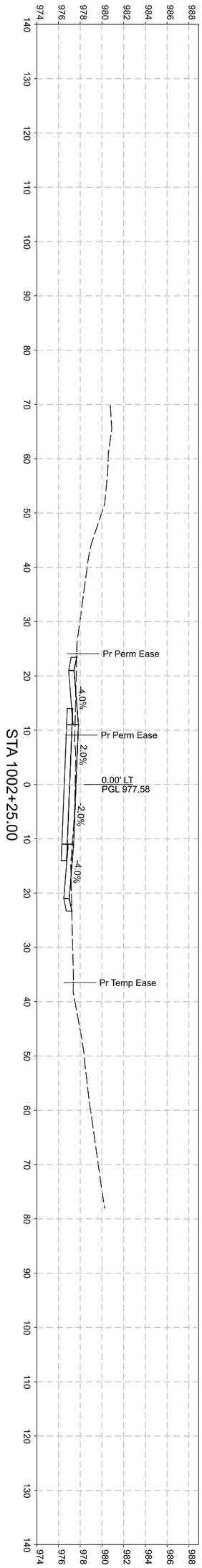
SNYDER & ASSOCIATES

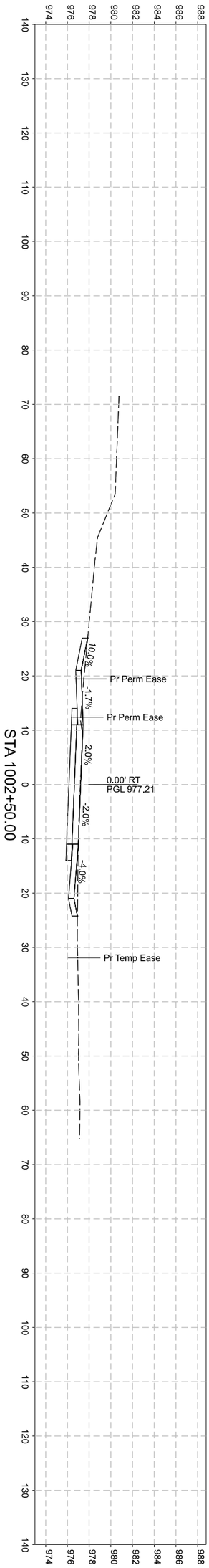
ADVENTURELAND DR NW RECONSTRUCTION PROJECT

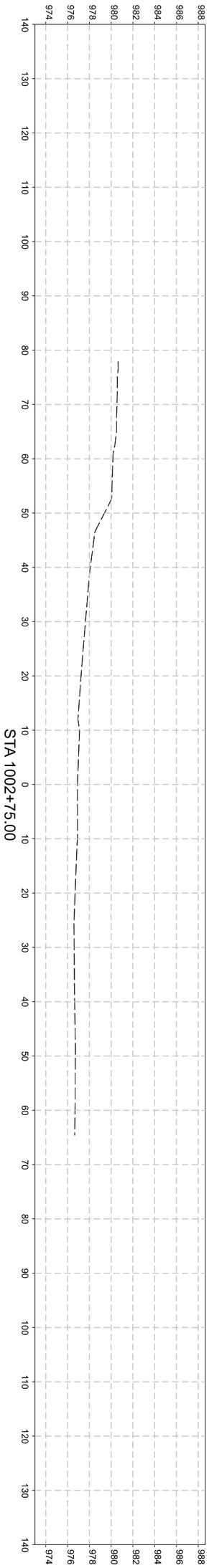
TEMPORARY ROAD CROSS SECTIONS — ALTOONA, IA

SNYDER & ASSOCIATES, INC. | 2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

STP-U-0132(628)--70-77			
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:
Project No: 1221679		Sheet X.20	







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Project No: 1221679

SNYDER & ASSOCIATES

ADVENTURELAND DR NW RECONSTRUCTION PROJECT

TEMPORARY ROAD CROSS SECTIONS

ALTOONA, IA

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | WWW.SNYDER-ASSOCIATES.COM

	STP-U-0132(628)—70-77		
MARK	REVISION	DATE	BY
Engineer: LCL	Checked By: LEJ		
Technician: KSB	Date: 8/17/2026	Field Bk:	Pg:

Project No: 1221679

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