PoDI / NHS	
FHWA PROJECT OF DIVISION INTEREST (PoDI)?	■ NO ☐ YES
NATIONAL HIGHWAY SYSTEM?	☐ NO ■ YES

CITY OF LITTLETON

DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PLANS OF PROPOSED
SANTE FE DRIVE AND MINERAL AVENUE
OPERATIONAL IMPROVEMENTS

CDOT PROJECT NO. AQC M810-017
CDOT PROJECT CODE NO. 23574

Related Projects:
P. E. UNDER PROJECT:
Project Number
Project Code:

R.O.W. Projects:
R.O.W. Project Description
Project Code:

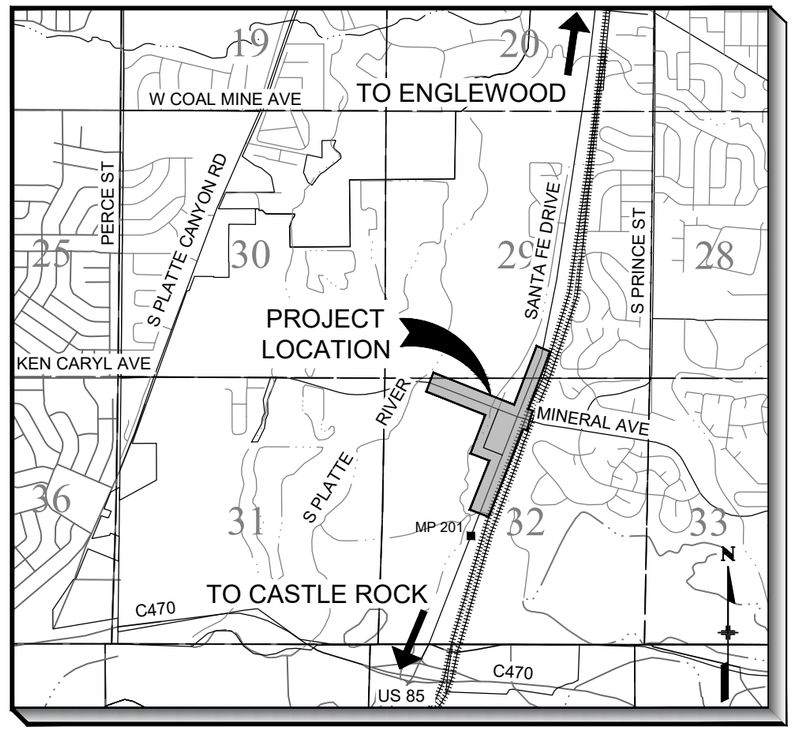
PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF ROADWAY CONSTRUCTION OF A NEW QUADRANT ROAD WITH CONNECTIONS AT SANTA FE DR AND MINERAL AVE. THIS ALLOWS FOR THE REMOVAL OF THE LEFT TURNING MOVEMENTS FROM THE SANTA FE DR AND MINERAL AVE INTERSECTION. THIS PROJECT ALSO INCLUDES WIDENING ALONG SANTA FE DR AND NEW LANE ASSIGNMENTS FOR SANTA FE DR AND MINERAL AVE. THE QUADRANT ROAD IS PLATTE RIVER PKWY AND NICHOLS AVE WITH A NEW ROUNDABOUT INTERSECTION. A NEW SIGNALIZED INTERSECTION AT SANTA FE DR AND THE NICHOLS AVE IS INCLUDED. A BOX CULVERT IS INCLUDED UNDER PLATTE RIVER PKWY.

TABULATION OF LENGTH & DESIGN DATA

STATION	FEET ROADWAY	FEET MAJOR STRUCTURE	
SANTA FE DR BEGIN CONSTRUCTION STA. 100+00.00 (NB), 200+00.00 (SB) M.P. 201.06 SANTA FE DR END CONSTRUCTION STA. 145+47.00 (NB), 234+00.00 (SB) M.P. 201.92	4,547.00		
MINERAL AVE BEGIN CONSTRUCTION STA. 300+22.09 MINERAL AVE END CONSTRUCTION STA. 331+00.00	3,077.91		
PLATTE RIVER PKWY BEGIN CONSTRUCTION STA. 402+09.96 CONCRETE BOX CULVERT STA. 411+74.22 PLATTE RIVER PKWY END CONSTRUCTION STA. 416+50.00	1,440.04	160	
NICHOLS AVE BEGIN CONSTRUCTION STA. 500+84.00 NICHOLS AVE END CONSTRUCTION STA. 508+81.65	797.65		
TOTAL	9,862.60	160	
SUMMARY OF PROJECT LENGTH	FEET	FEET	MILES
ROADWAY (NET LENGTH)	9,862.60		1.87
STRUCTURE (NET LENGTH)		160	0.03
PROJECT GROSS LENGTH	10,022.60		1.90

DESIGN DATA	SANTA FE DR/US85	MINERAL AVE	PLATTE RIVER PKWY/ NICHOLS AVE
MINIMUM RADIUS OF CURVE (FT)	4386(NB) / 7878(SB)	N/A	179.50 / 150
MAXIMUM GRADE	3.48%(NB & SB)	3.41%	1.87% / 3.69%
MINIMUM S.S.D. HORIZONTAL	425 FT	360 FT	200 FT
MAXIMUM DESIGN SPEED	50 MPH	45 MPH	30 MPH
2020 DESIGN TRAFFIC	AADT = 52,000	AADT = 30,000	AADT = 23,000
2040 DESIGN TRAFFIC	AADT = 70,000	AADT = 36,700	AADT = 28,000
% TRUCKS	6.7%	2.8%	3.5%
CLEAR ZONE DISTANCE (TANGENT)	20 FT	20 FT	16 FT
CONSTRUCTION CLEAR ZONE	20 FT	20 FT	16 FT



PROJECT LOCATION MAP

3000 0 1500 3000

INDEX OF SHEETS

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18 to 20	GENERAL NOTES
21	SURVEY TABULATION
22 to 23	SURVEY CONTROL DIAGRAM
24 to 29	SUMMARY OF APPROXIMATE QUANTITIES
30 to 37	TABULATION OF ROADWAY REMOVALS
38	TABULATION OF EARTHWORK
39 to 40	TABULATION OF ROADWAY SURFACING
41 to 45	TABULATION OF ROADWAY FLATWORK
46	TABULATION OF MISCELLANEOUS ITEMS
47 to 67	GEOMETRIC DATA
68	KEY MAP
69 to 110	ROADWAY PLANS AND PROFILES
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130 to 136	SIDEWALK AND DRIVEWAY DETAILS
137 to 151	MEDIAN GEOMETRIC PLAN
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160	CONCRETE JOINTING DETAILS
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189 to 205	STORM WATER MANAGEMENT PLAN - FINAL
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366 to 369	FIBER SPLICING DIAGRAM
366 to 377	ITS DETAILS
ROW-A to ROW-C	ROW RESTRICTIONS-NO WORK AREA
400 to 464	CROSS SECTIONS

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COLORADO LICENSED
JANELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_COVER.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	Contract Information	Project No./Code
No Revisions:	Contractor:	AQC M810-017
Revised:	Project Manager: AARON HEUMANN	23574
Void:	Project Engineer:	Sheet Number 1
	PROJECT STARTED: / / ACCEPTED / /	

$PLOT_INFO$

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COLORADO
DEPARTMENT OF TRANSPORTATION

M&S STANDARDS PLANS LIST

July 31, 2019

Revised on December 20, 2024

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE INDICATED BY A MARKED BOX ■, AND WILL BE ATTACHED TO THE PLANS. ALL THE OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR USE IN CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

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■ S-613-1	ROADWAY LIGHTING (6 SHEETS) *(REVISED ON SEPTEMBER 30, 2020)*	~~179-186~~
□ S-613-2	ALTERNATIVE ROADWAY LIGHTING (4 SHEETS) *(NEW, ISSUED ON SEPTEMBER 30, 2020)*	
■ S-613-3	PULL BOX DETAIL (2 SHEETS) *(NEW, ISSUED ON APRIL 4, 2024)*	
■ S-613-4	TRAFFIC SIGNAL ONE-LINE DIAGRAMS (6 SHEETS) *(NEW, ISSUED ON JUNE 15, 2023)*	
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COLORADO LICENSED
JANELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_SPL.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

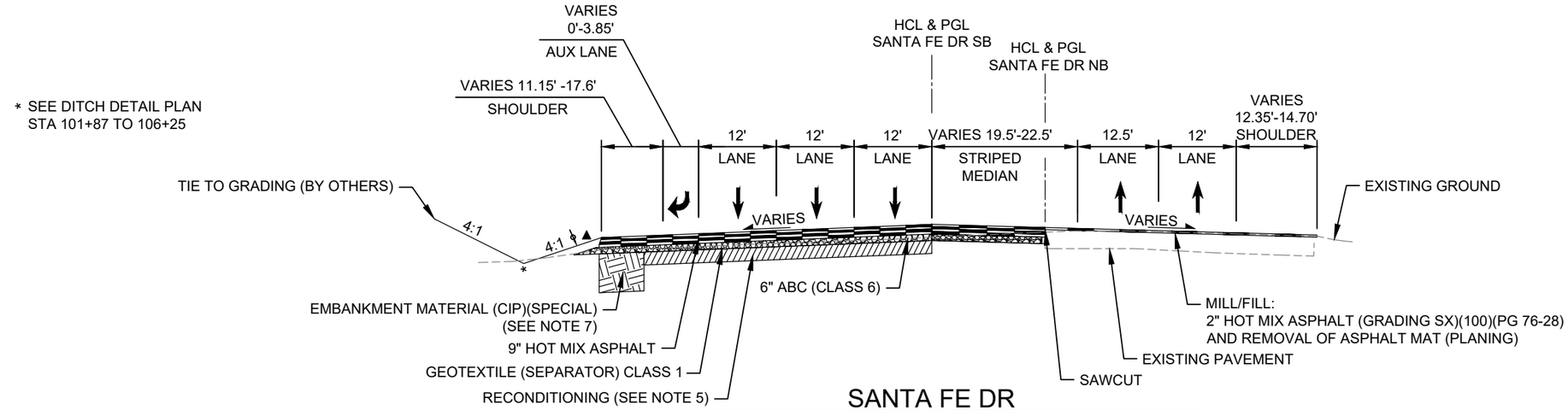
As Constructed
No Revisions:
Revised:
Void:

STANDARD PLANS LIST

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: GENERAL
Subset Sheets: 01 of 01

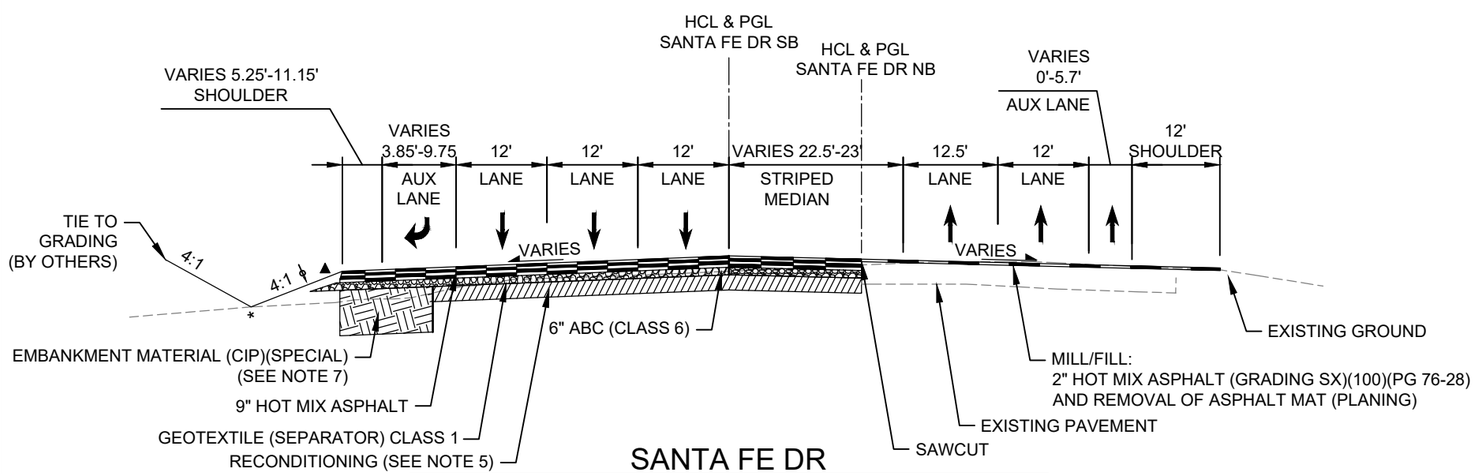
Project No./Code
AQC M810-017
23574
Sheet Number 2

$PLOT_INFO$



SANTA FE DR

STA 100+40.00 (NB) TO STA 102+95.00 (NB)



SANTA FE DR

STA 102+95.00 (NB) TO STA 105+16.00 (NB)

NOTES

1. ϕ - MIN 6" TOPSOIL.
2. VARIES - ROADWAY CROSS SLOPE. FOR CROSS SLOPES AND SUPERELEVATION LIMITS SEE PROFILE SHEETS.
3. ▲ - SAFETY EDGE DETAIL.
4. CROSS SLOPE ON ALL BENCHES TO BE 1.5% OR FLATTER.
5. THE TOP 12 INCHES OF EXISTING SUBGRADE SHALL BE RECONDITIONED BY BLADING AND ROLLING WHERE NEW PAVEMENT IS ADDED TO AREAS PREVIOUSLY PAVED. THIS WILL BE PAID AS 306-01000 RECONDITIONING, SY.
6. GEOTEXTILE (SEPARATOR) CLASS 1 SHALL BE PLACED BETWEEN THE BASE COURSE AND SUBGRADE.
7. AREAS NOT PREVIOUSLY PAVED, SHALL HAVE 36 INCHES OF MOISTURE TREATMENT WITHIN THE SUBGRADE. THIS CAN BE COMBINED BY FILL PLACEMENT, SUBEXCAVATION AND RECOMPACTION OF THE OVEREXCAVATED MATERIAL, OR IN-PLACE SUBGRADE SCARIFICATION AND RECOMPACTION, OR EMBANKMENT FILL PLACEMENT. THIS WILL BE PAID FOR AS 203-00062 EMBANKMENT MATERIAL (COMPLETE IN PLACE)(SPECIAL).

811 Know what's below. Call before you dig.

COLORADO LICENSED
HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'			
Unit Information			

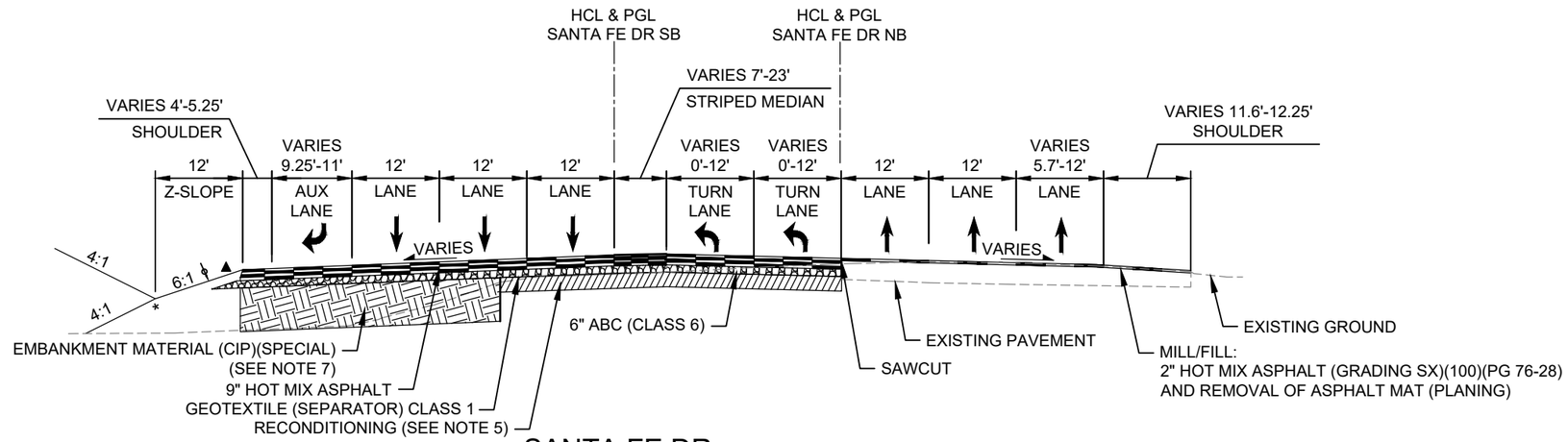
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

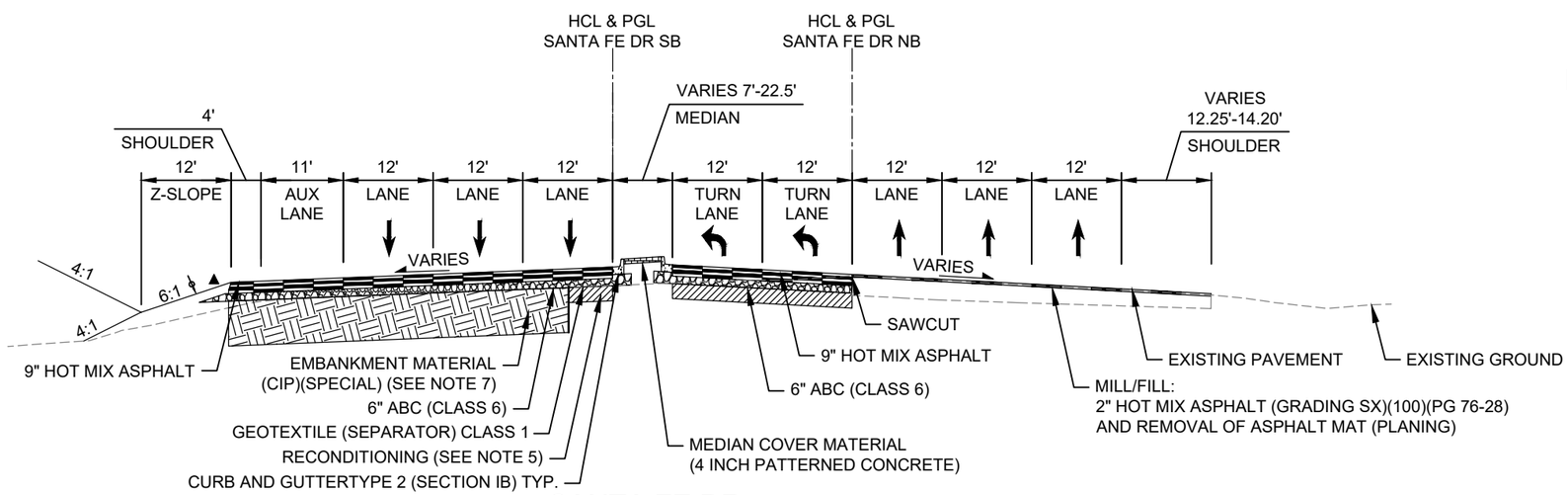
As Constructed	SANTA FE DR TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 3
	Sheet Subset: ROADWAY	Subset Sheets: 01 of 15	

$PLOT_INFO$

* SEE DITCH DETAIL PLAN
STA 101+87 TO 106+25



SANTA FE DR
STA 105+16 TO STA 108+38.00 (NB)



SANTA FE DR
STA 108+38.00 TO STA 113+32.00 (NB)

NOTES

1. ϕ - MIN 6" TOPSOIL.

2. VARIES - ROADWAY CROSS SLOPE. FOR CROSS SLOPES AND SUPERELEVATION LIMITS SEE PROFILE SHEETS.

3. ▲ - SAFETY EDGE DETAIL.

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HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

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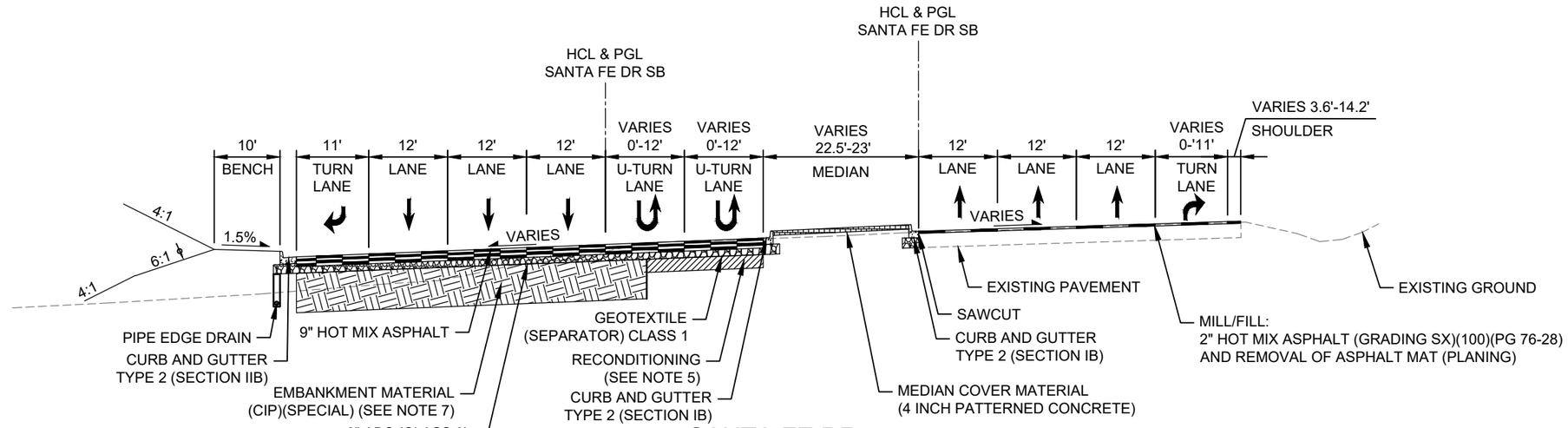
Littleton Colorado

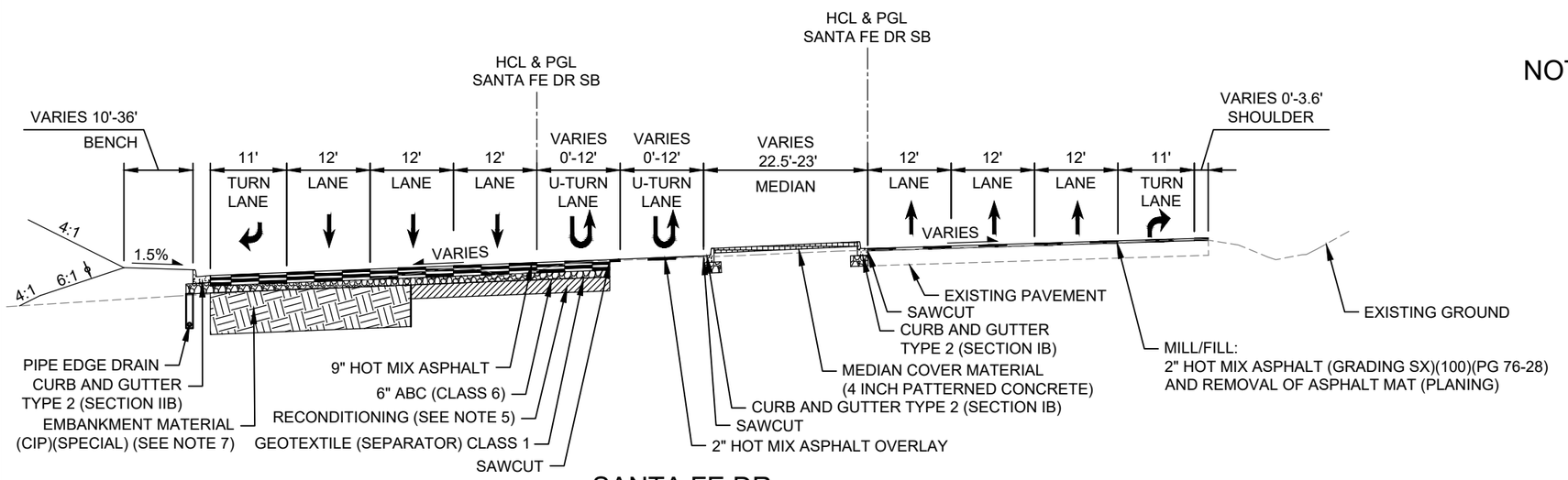
As Constructed	SANTA FE DR TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 4
	Sheet Subset: ROADWAY	Subset Sheets: 02 of 15	

$PLOT_INFO$



SANTA FE DR

STA 113+32.00 TO STA 115+02.00 (NB)



SANTA FE DR

STA 115+02.00 TO STA 122+00.00 (NB)

NOTES

1. ϕ - MIN 6" TOPSOIL.
2. VARIES - ROADWAY CROSS SLOPE. FOR CROSS SLOPES AND SUPERELEVATION LIMITS SEE PROFILE SHEETS.
3. ▲ - SAFETY EDGE DETAIL.
4. CROSS SLOPE ON ALL BENCHES TO BE 1.5% OR FLATTER.
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811 Know what's below. Call before you dig.

COLORADO LICENSED
HECTOR VELASCO
58434
ORION
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 5
	Sheet Subset: ROADWAY	Subset Sheets: 03 of 15	

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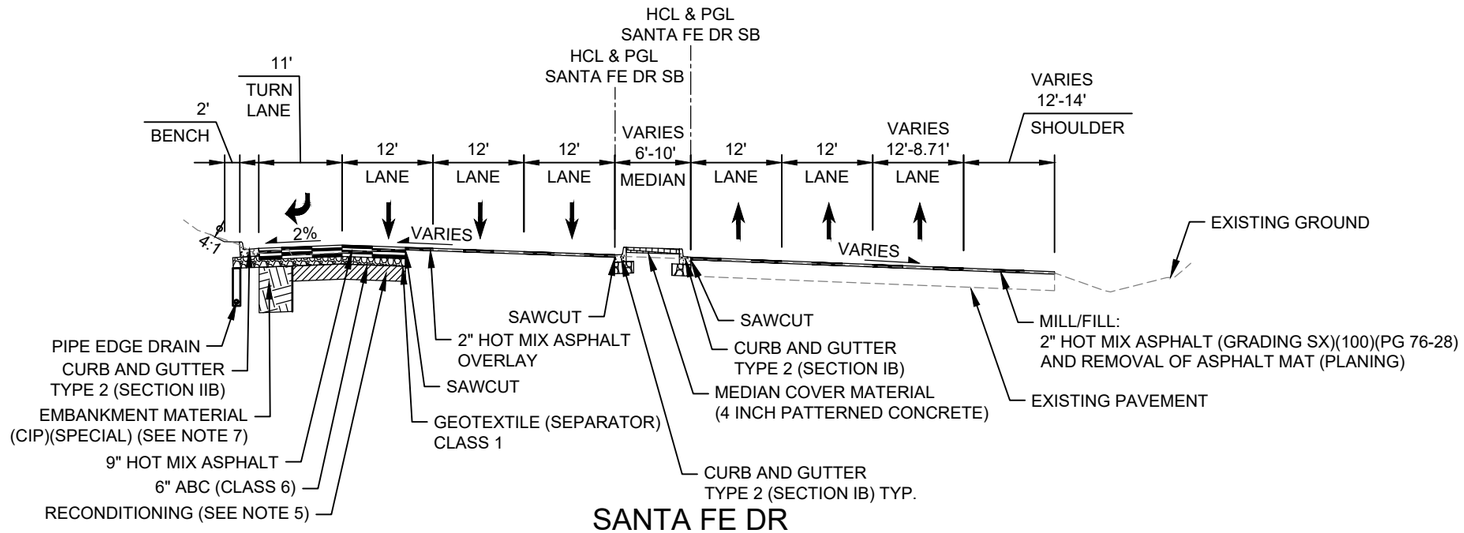
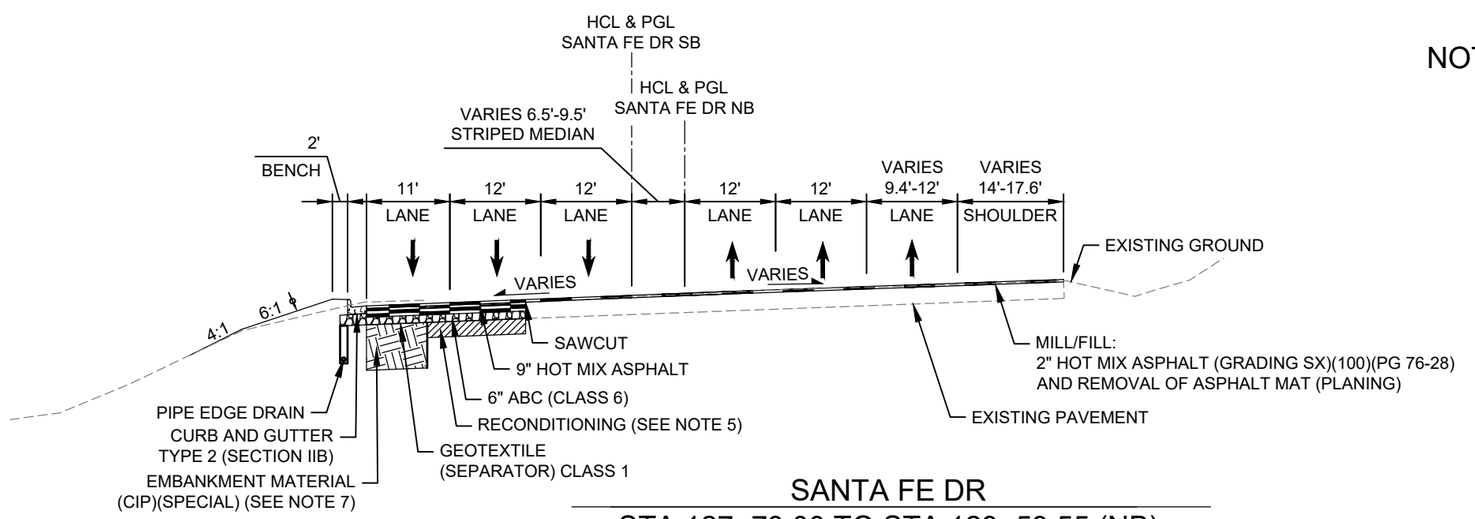


SANTA FE DR
STA 122+00.00 TO STA 127+73.00 (NB)



SANTA FE DR
STA 127+73.00 TO STA 129+59.55 (NB)

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ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 6
	Sheet Subset: ROADWAY	Subset Sheets: 04 of 15	

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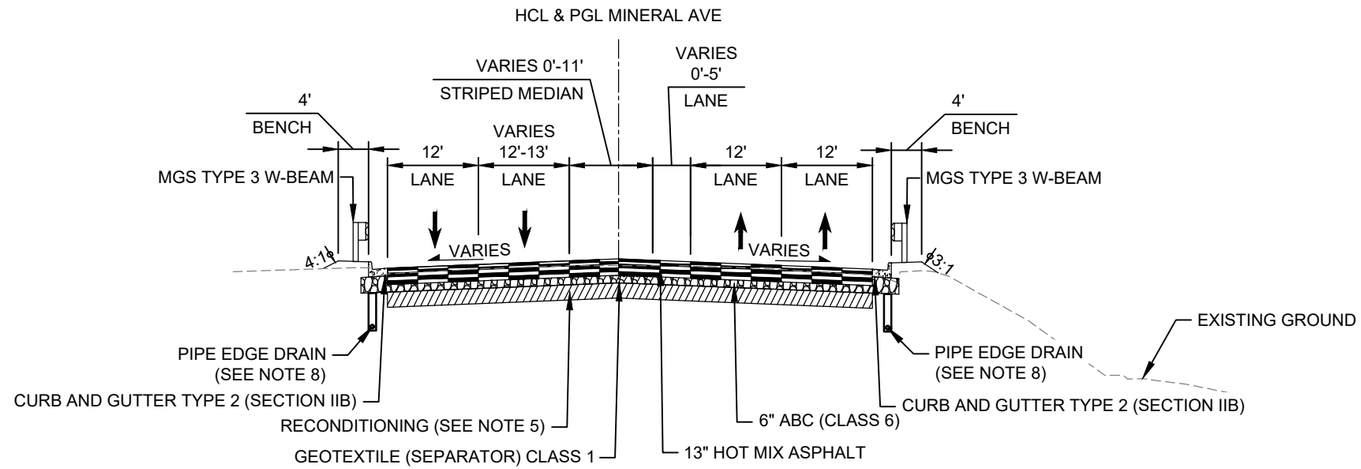
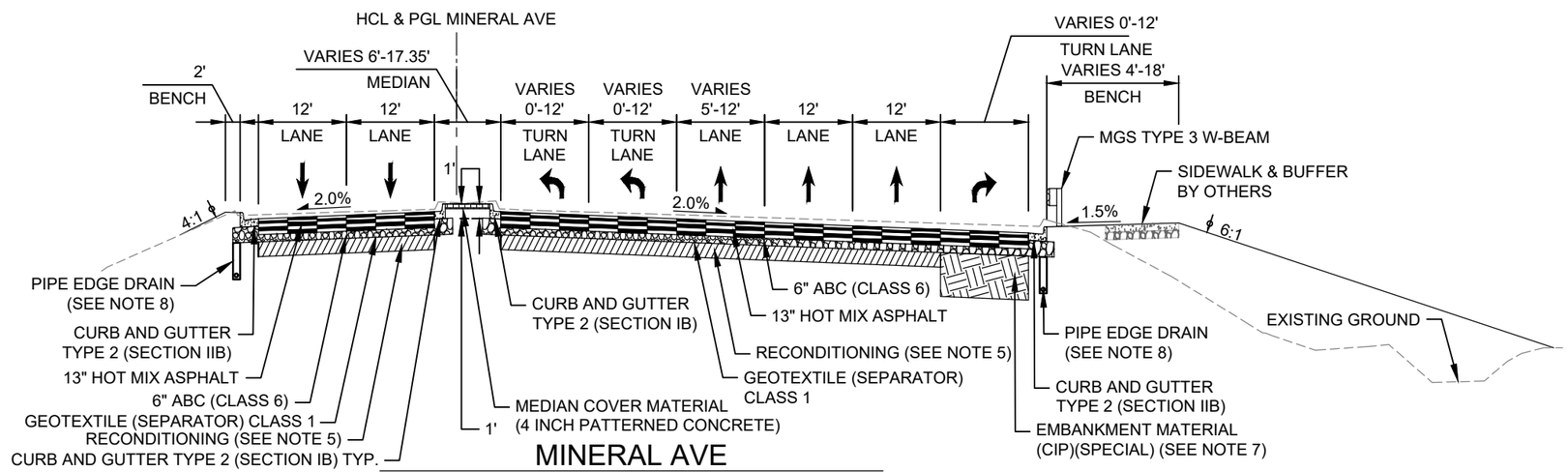


MINERAL AVE

STA 300+20.09 TO STA 305+25.00



MINERAL AVE

STA 305+25.00 TO STA 309+15.00

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8. WHERE GUARDRAIL IS PRESENT, PLACE THE PIPE EDGE DRAIN UNDERNEATH THE CURB FACE TO AVOID A CONFLICT WITH THE GUARDRAIL POST AS DIRECTED BY THE ENGINEER.

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	MINERAL AVE TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 7
	Sheet Subset: ROADWAY	Subset Sheets: 05 of 15	

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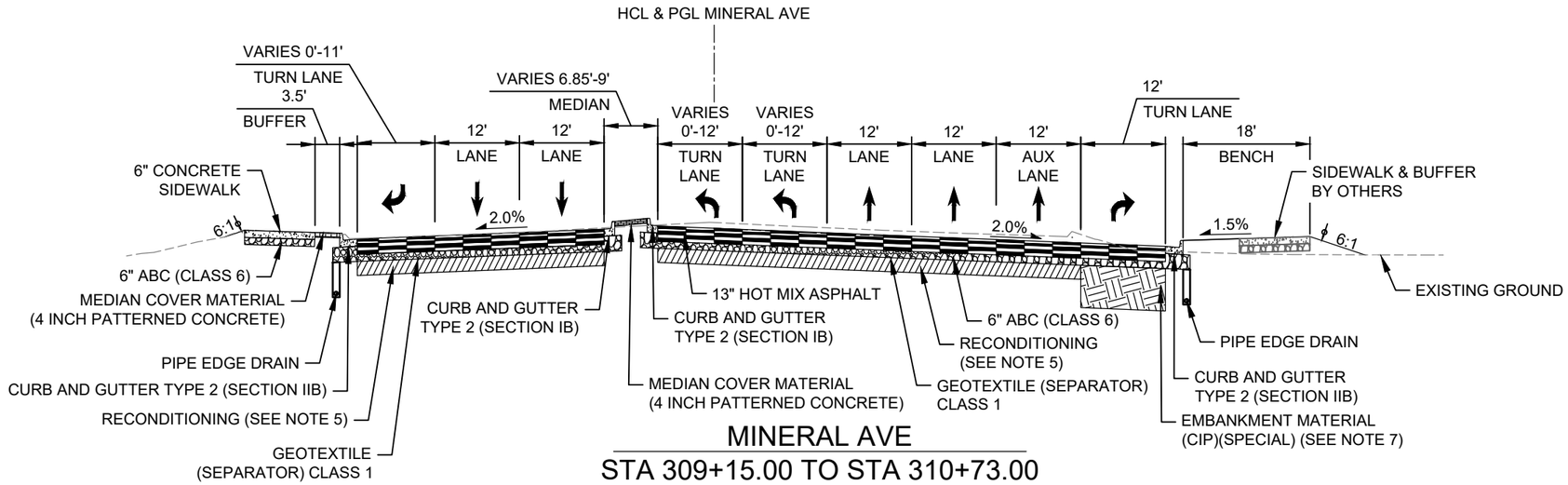
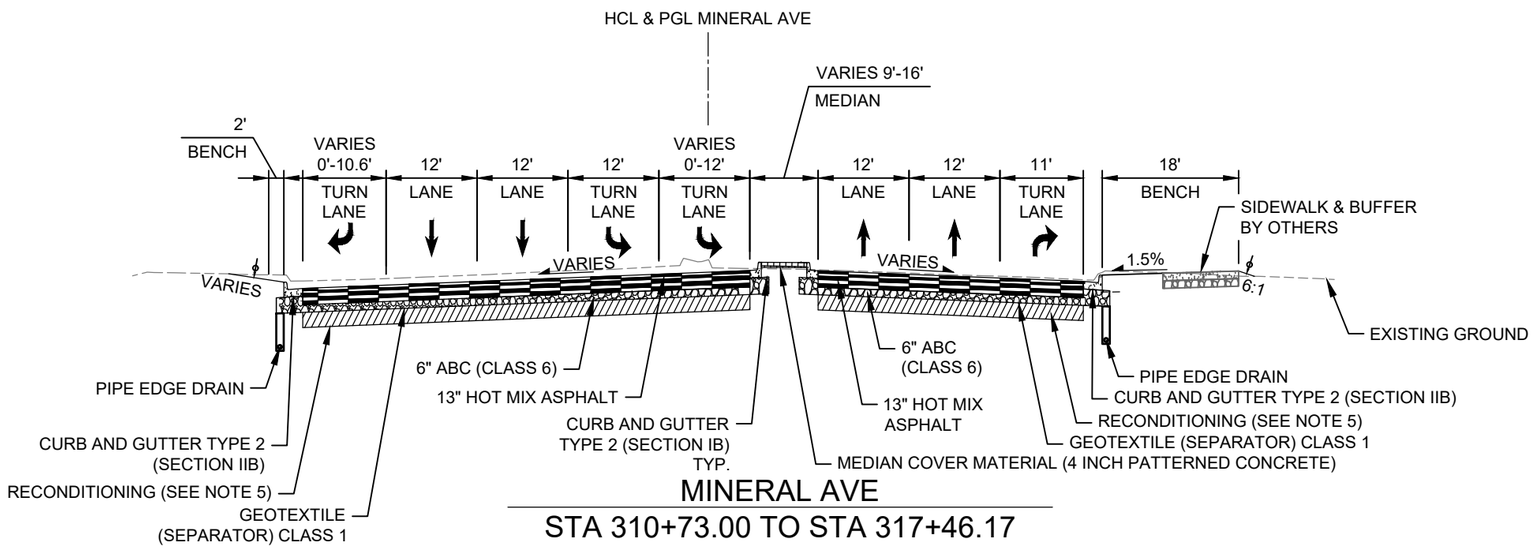


MINERAL AVE
STA 309+15.00 TO STA 310+73.00



MINERAL AVE
STA 310+73.00 TO STA 317+46.17

NOTES

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10/06/2025
PROFESSIONAL ENGINEER

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File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 8
	Sheet Subset: ROADWAY	Subset Sheets: 06 of 15	

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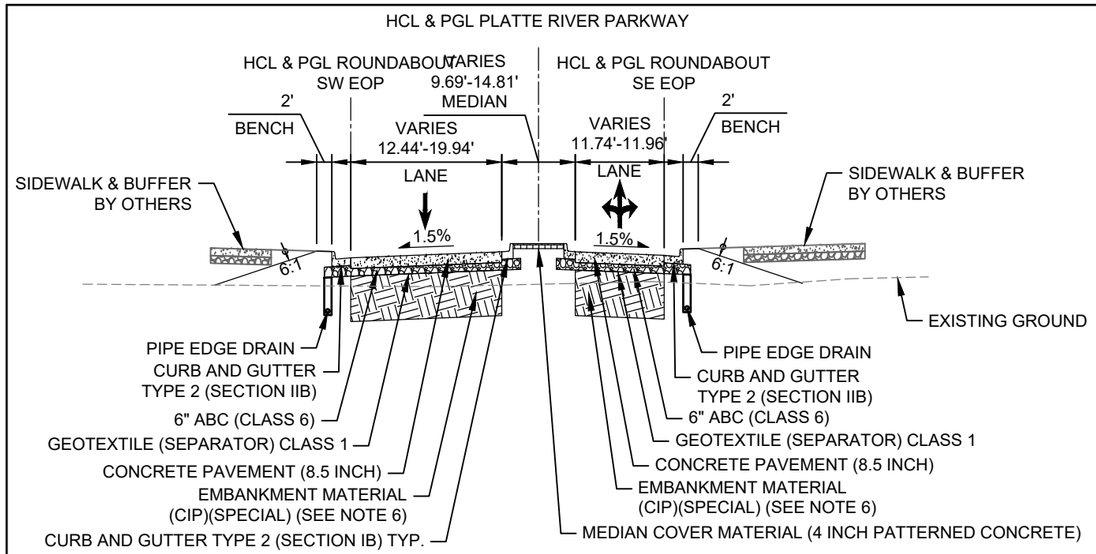
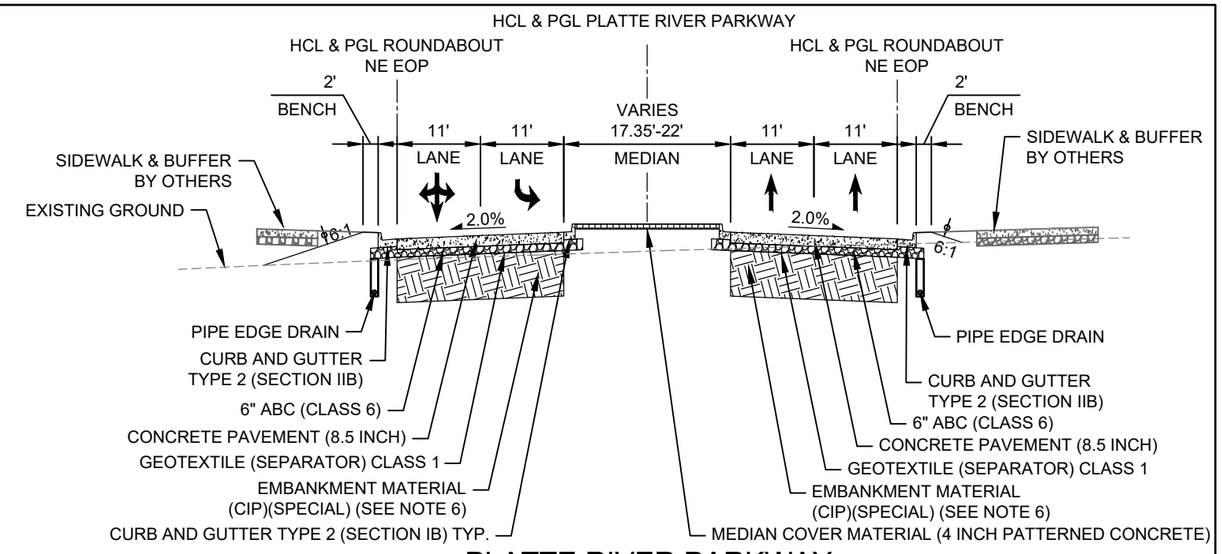


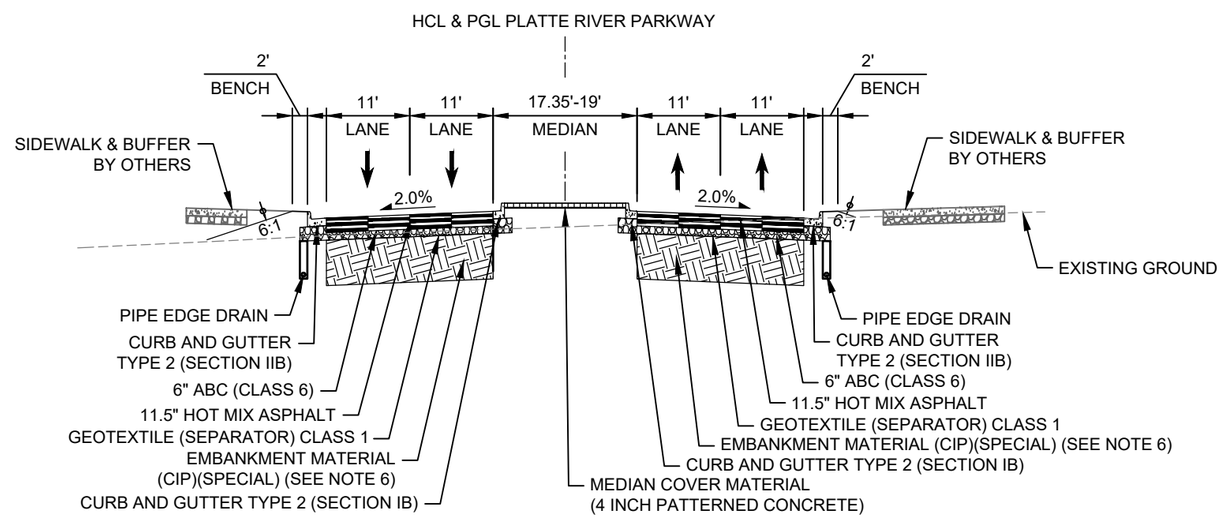
PLATTE RIVER PARKWAY

STA 402+10.00 TO STA 402+60.00



PLATTE RIVER PARKWAY

STA 405+93.00 TO STA 406+49.00



PLATTE RIVER PARKWAY

STA 406+49.00 TO STA 407+50.00

NOTES

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 9
	Sheet Subset: ROADWAY	Subset Sheets: 07 of 15	

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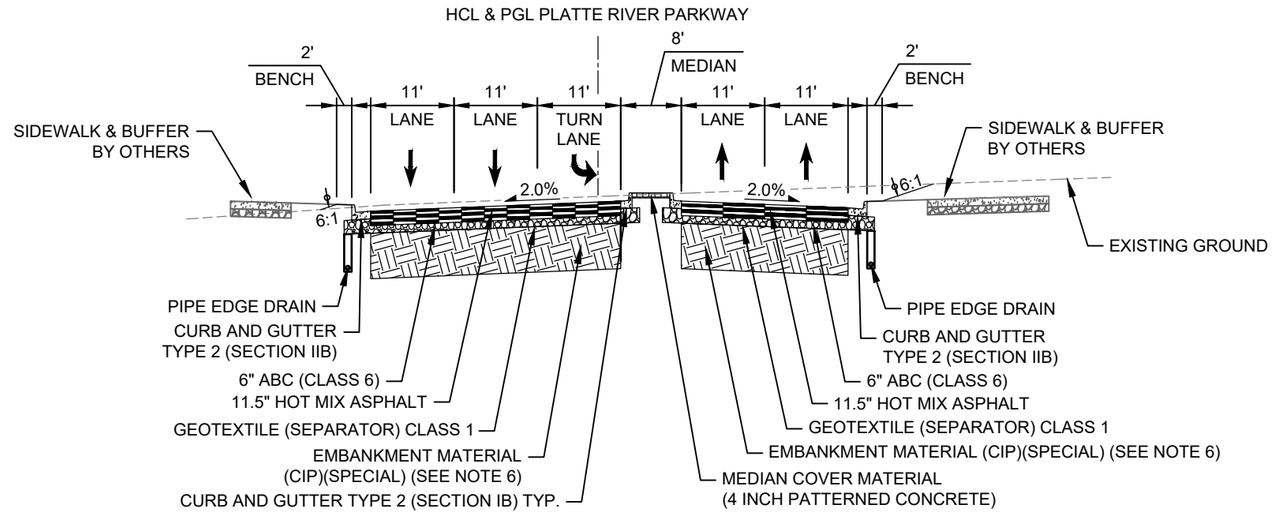
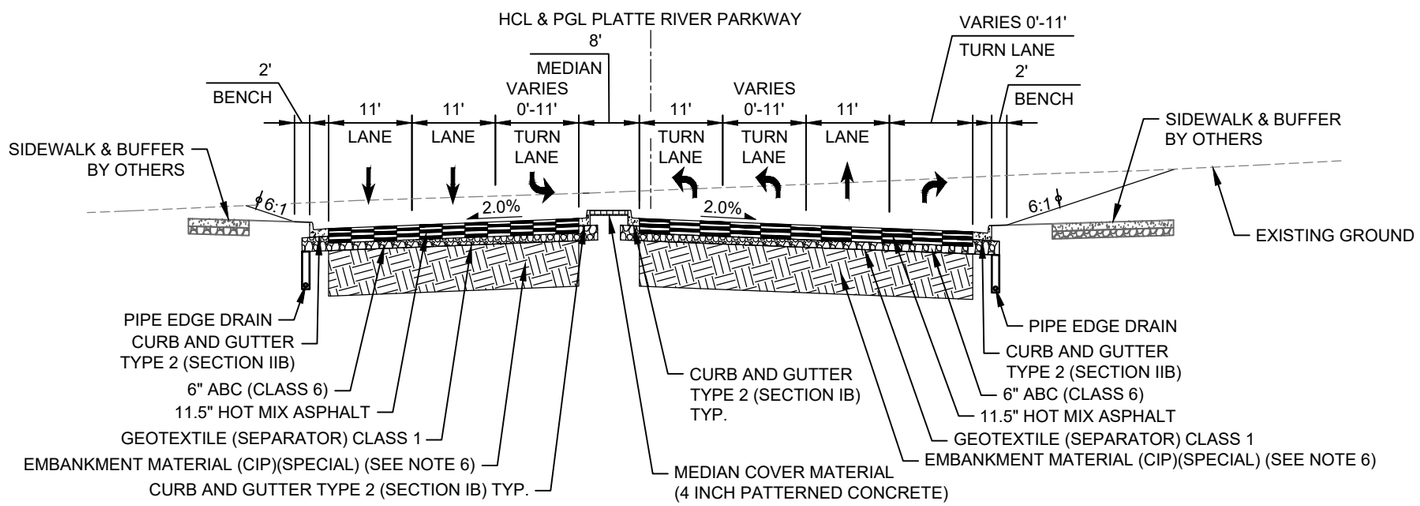


PLATTE RIVER PARKWAY
STA 407+50.00 TO STA 408+57.00



PLATTE RIVER PARKWAY
STA 408+57.00 TO STA 412+40.89

NOTES

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COLORADO LICENSED
HECTOR ORION VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'			
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HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
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Littleton Colorado

As Constructed	PLATTE RIVER PKWY TYPICAL SECTIONS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
	Detailer: OVELASCO		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 08 of 15	Sheet Number 10

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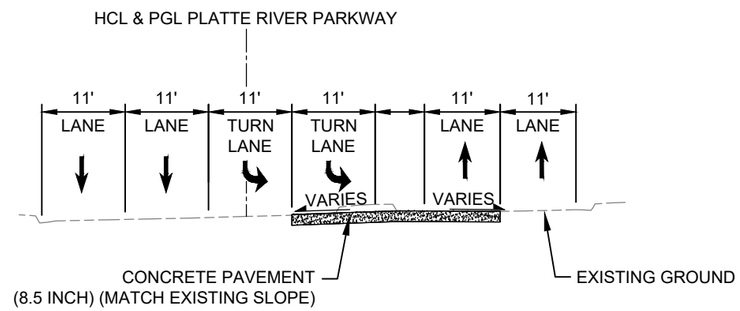

PLATTE RIVER PARKWAY
STA 413+81.17 TO STA 415+31.08

NOTES

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Unit Information				Void:

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
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PLATTE RIVER PKWY TYPICAL SECTIONS			Project No./Code
			AQC M810-017
Designer: OVELASCO	Structure Numbers		23574
Detailer: OVELASCO			
Sheet Subset: ROADWAY	Subset Sheets: 09 of 15		Sheet Number 11

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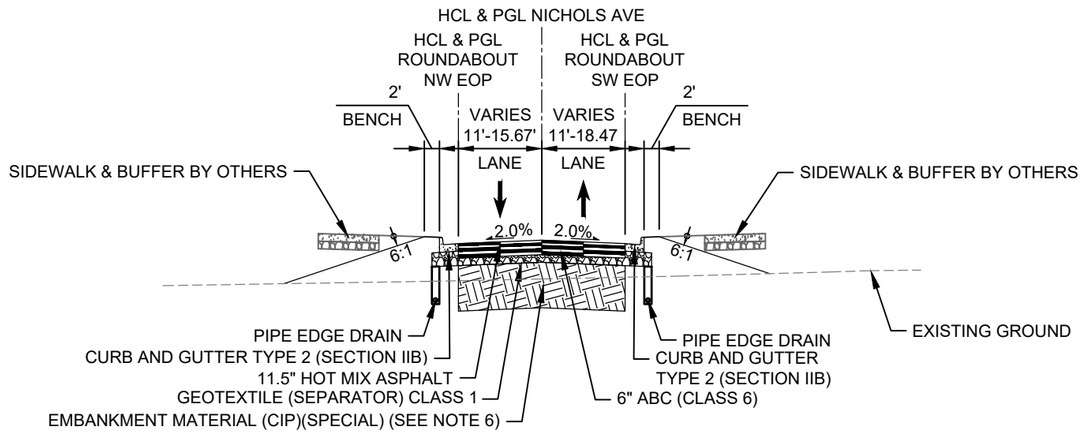
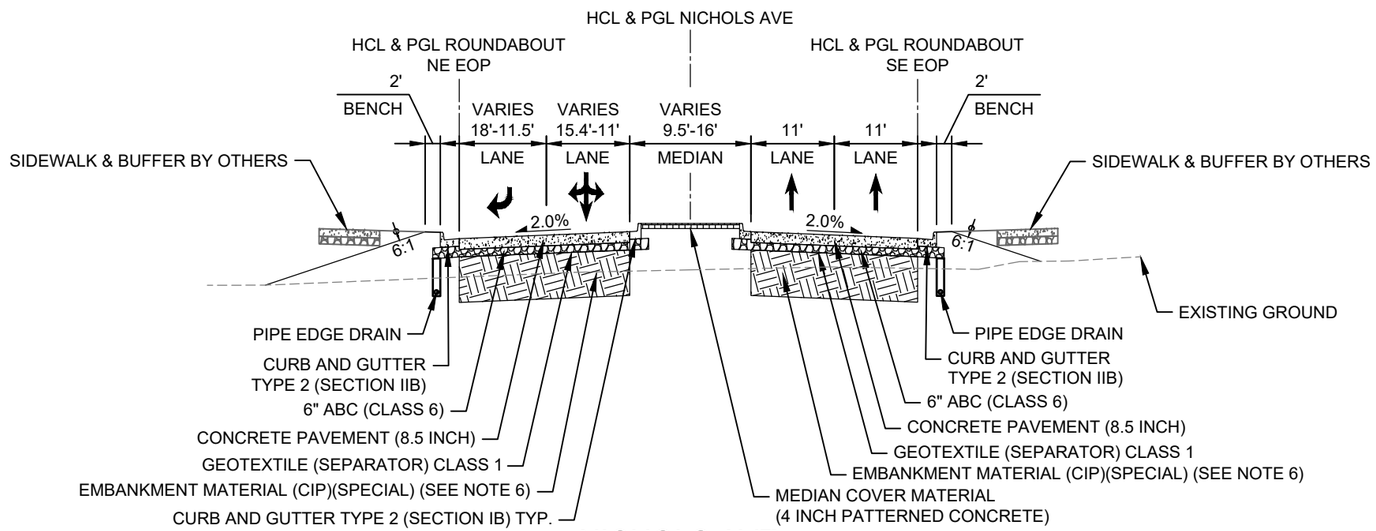


NICHOLS AVE
STA 500+84.00 TO STA 501+72.84



NICHOLS AVE
STA 504+15.52 TO STA 505+33.51

NOTES

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File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 10'				Revised:	Designer: OVELASCO / Structure Numbers	23574
Unit Information				Void:	Detailer: OVELASCO	Sheet Number 12
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: ROADWAY / Subset Sheets: 10 of 15	

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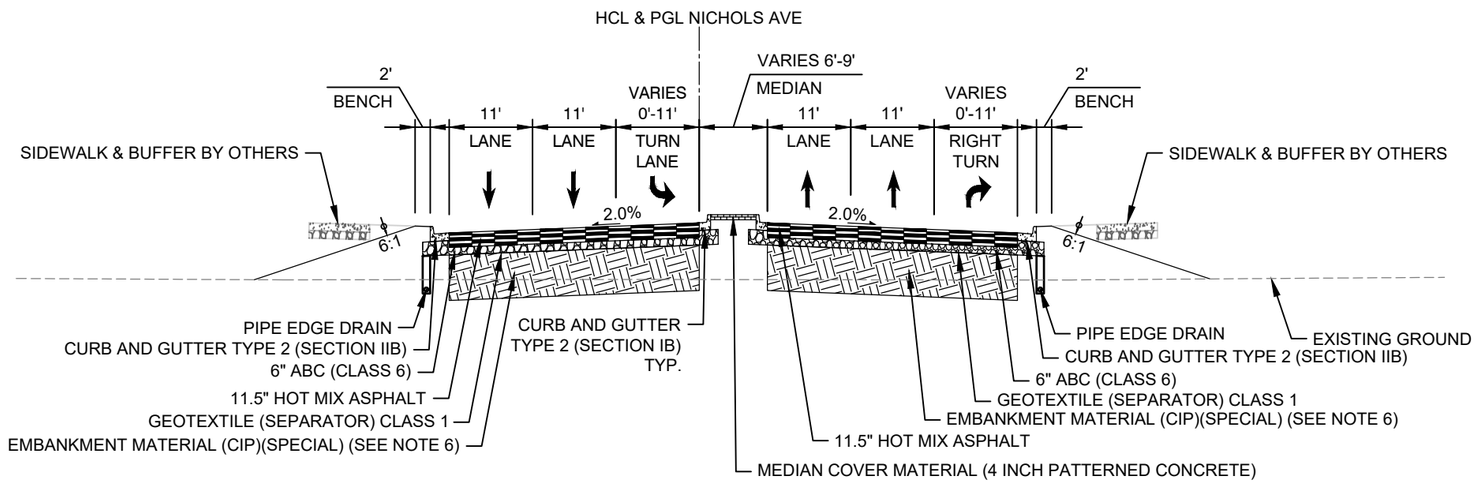

NICHOLS AVE

STA 505+33.51 TO STA 508+81.68

NOTES

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Littleton Colorado

NICHOLS AVE
TYPICAL SECTIONS

Designer:	OVELASCO	Structure Numbers	
Detailer:	OVELASCO		
Sheet Subset:	ROADWAY	Subset Sheets:	11 of 15

Project No./Code: AQC M810-017

23574

Sheet Number 13

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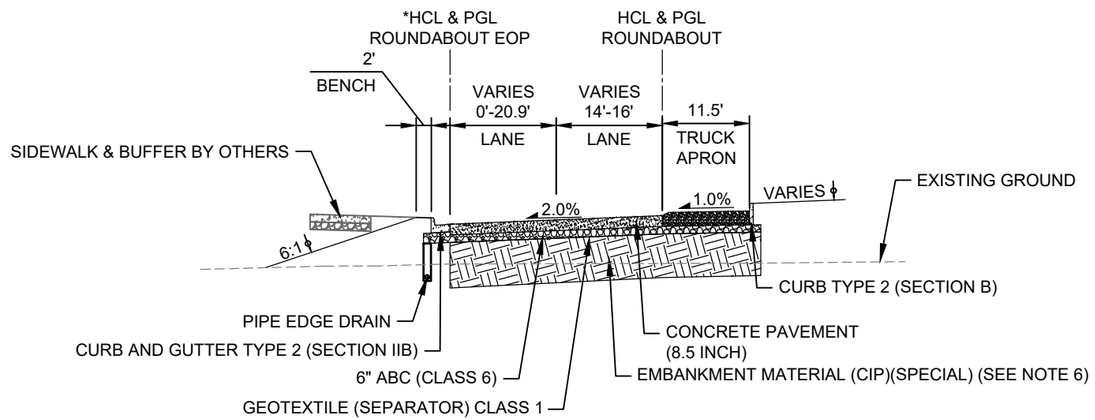

ROUNDABOUT

STA 50+00.00 TO STA 53+61.09

* SEE GEOMETRIC DATA FOR HCL & PGL INFORMATION

NOTES

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_TYPS.DWG	Date:	Comments	Init.
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Littleton Colorado

As Constructed	ROUNDABOUT TYPICAL SECTIONS		Project No./Code
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	Sheet Subset: ROADWAY	Subset Sheets: 12 of 15	

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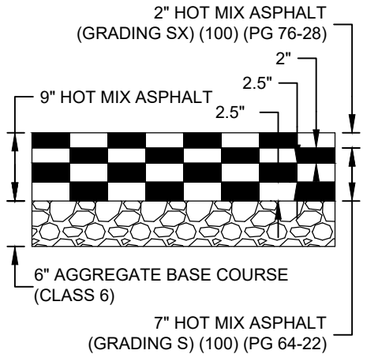
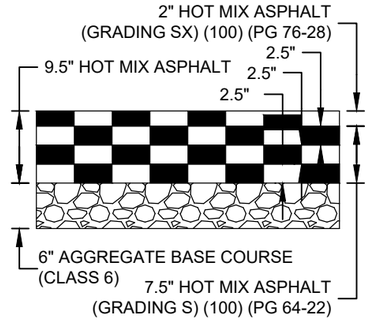
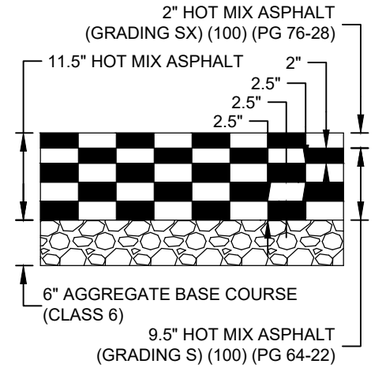


SANTA FE DR
FULL DEPTH PAVEMENT DETAIL
NTS

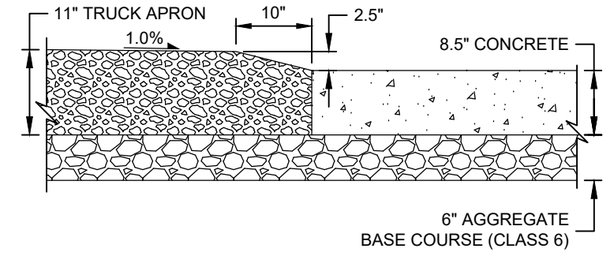


MINERAL AVE & SANTA FE DR INTERSECTION
FULL DEPTH PAVEMENT DETAIL
NTS

SANTA FE DRIVE STA 122+05 TO 122+81 NB

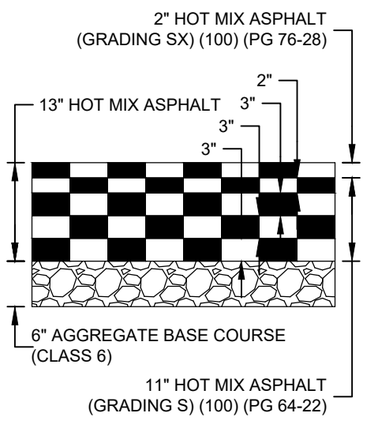


PLATTE RIVER PKWY & NICHOLS AVE
FULL DEPTH PAVEMENT DETAIL
NTS

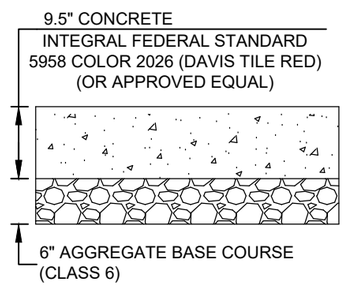


TRUCK APRON DETAIL
NTS

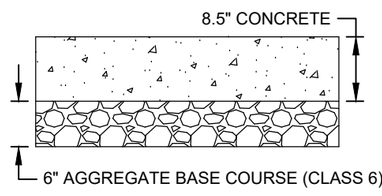
TRUCK APRON SHALL BE PAID FOR AS CONCRETE (11 INCH).
SEE MEDIAN COVER DETAIL FOR PATTERN AND COLOR.



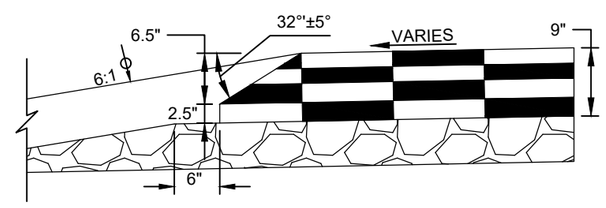
MINERAL AVE
FULL DEPTH PAVEMENT DETAIL
NTS



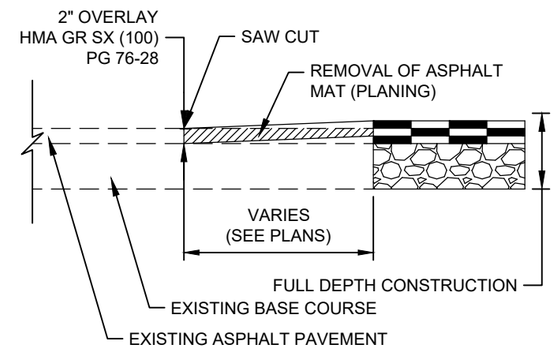
MINERAL AVE & SANTA FE DR INTERSECTION SQUARE CONCRETE PAVEMENT DETAIL
NTS



ROUNDABOUT FULL DEPTH CONCRETE PAVEMENT DETAIL
NTS



PAVEMENT SAFETY EDGE
NTS



MILL/FILL PAVEMENT TRANSITION DETAIL
NTS

NOTES
1. FOR SUBBASE TREATMENT FOR ALL ROADWAYS SEE TYPICAL SECTIONS.
2. THE SAFETY EDGE WILL BE CONSTRUCTED AS PART OF THE ROADWAY PAVEMENT. A SHOULDER WEDGE DEVICE WILL BE ADDED TO THE SCREED OF THE PAVING MACHINE.
3. SITE PREPARATION AND ADDITIONAL EARTHWORK REQUIRED TO CONSTRUCT THE SAFETY EDGE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

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HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

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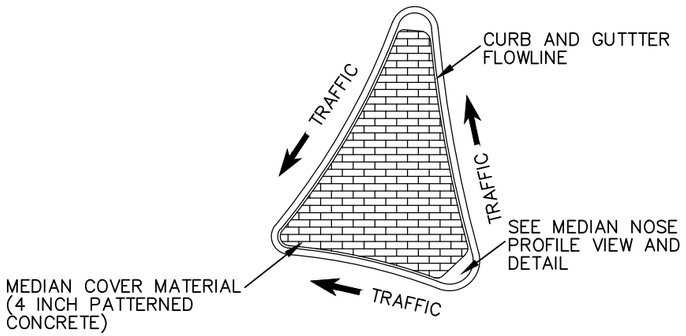
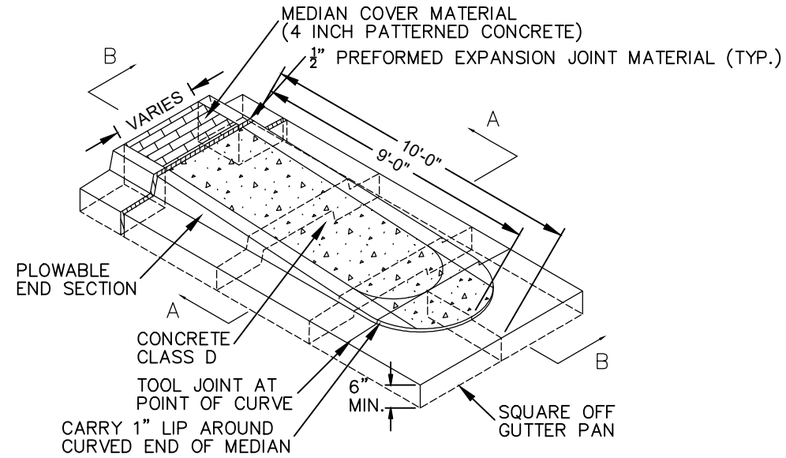
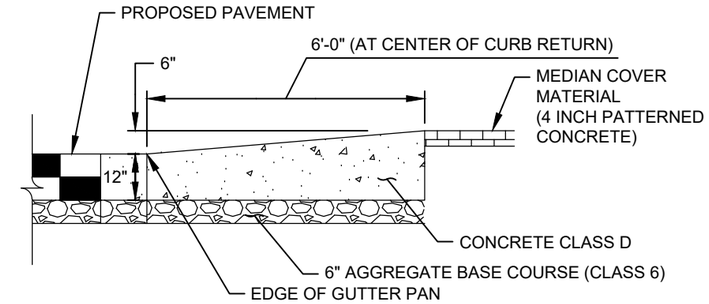


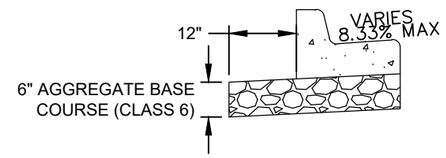
RAISED INTERSECTION NOSE PLAN VIEW DETAIL
NTS



SANTA FE DR
10' PLOWABLE END SECTION DETAIL
NTS

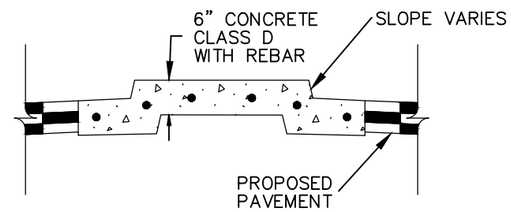


MINERAL AVE, PLATTE RIVER PKWY, & NICHOLS AVE
6' PLOWABLE END DETAIL
NTS

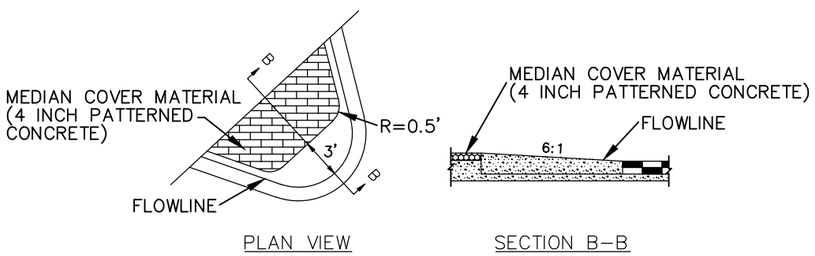


CURB AND GUTTER TYPE 2 (SECTION IB) CATCH DETAIL
NTS

CATCH CURBS ARE LOCATED ALONG THE FOLLOWING LOCATIONS
WITHIN THE RAISED CENTER MEDIAN:
SANTA FE DRIVE STA 218+90 SB TO STA 226+00 SB
&
SANTA FE DRIVE STA 114+60 NB TO STA 116+80 NB

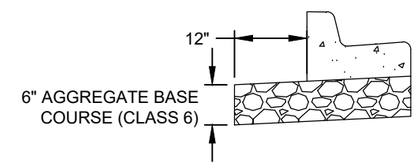


SANTA FE DR
PLOWABLE DETAIL SECTION A-A
NTS



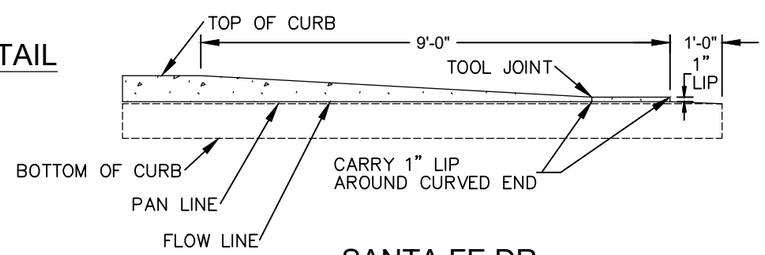
RAISED INTERSECTION NOSE PROFILE VIEW DETAIL
NTS

MEDIAN ISLAND NOSE WILL BE INCLUDED
IN THE COST OF CURB AND GUTTER



LIMITS OF ABC AT CURB AND GUTTER
NTS

*AGGREGATE BASE COURSE TO EXTEND A MINIMUM OF 12" BEYOND
THE END OF THE GUTTER



SANTA FE DR
10' PLOWABLE DETAIL SECTION B-B
NTS

SANTA FE DR
PLOWABLE DETAIL NOTE

1. REINFORCING STEEL SHALL BE #5 REBAR ON 12" CENTERS. REINFORCING STEEL FOR PLOWABLE END SECTION SHALL BE INCLUDED IN THE COST OF CONCRETE CLASS D.

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As Constructed	MEDIAN NOSE AND COVER DETAIL TYPICAL SECTIONS		Project No./Code
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	Detailer: OVELASCO		
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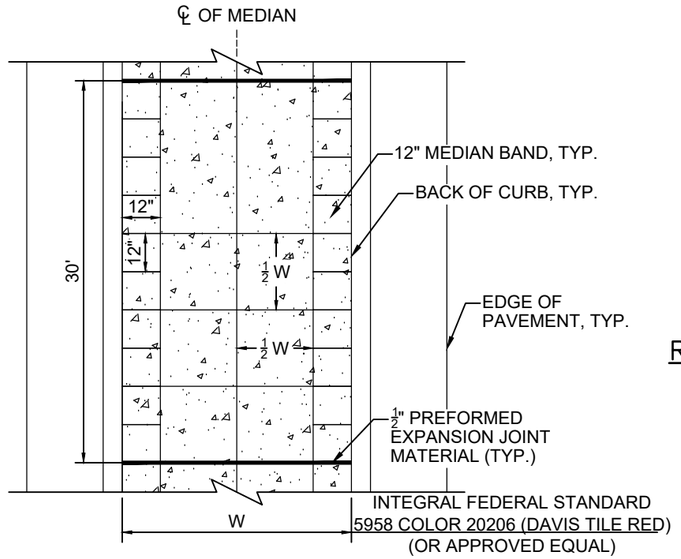
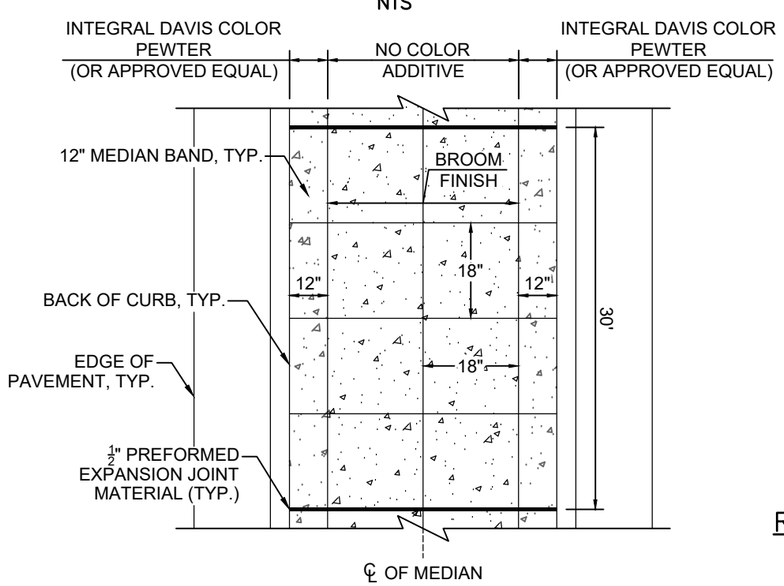


RAISED MEDIAN COVER DETAIL (CDOT ROW)

(SANTA FE DR)
NTS



RAISED MEDIAN COVER DETAIL (CITY ROW)

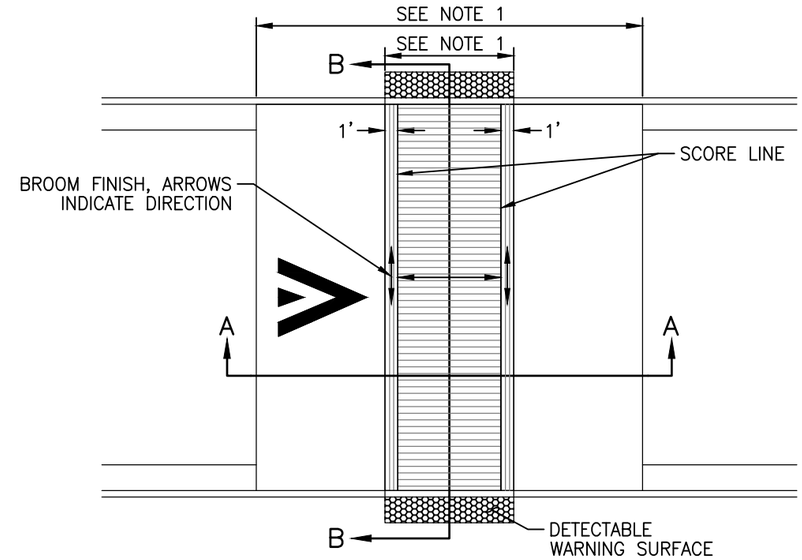
(MINERAL AVE, PLATTE RIVER PKWY, NICHOLS AVE, ROUNDABOUT CENTER ISLAND)
NTS

RAISED MEDIAN COVER NOTES:

1. ½" EXPANSION JOINT MATERIAL SHALL BE PLACED BETWEEN BACK OF CURB AND MEDIAN COVER MATERIAL.
2. MEDIAN COVER MATERIAL SHALL HAVE A 12" WIDE OUTSIDE BAND AGAINST BACK OF CURB AS SHOWN.
3. PROVIDE PVC BLOCKOUTS IN MEDIAN CONCRETE FOR DELINEATORS. THE COST OF THE PATCHING WILL NOT BE PAID FOR SEPARATELY, BUT INCLUDED IN THE COST OF ITEM 610-00024 MEDIAN COVER MATERIAL (4 INCH PATTERNED CONCRETE).
4. CROWN SHALL BE ROUNDED AND CROSS-SLOPE OF MEDIAN COVER MAY VARY.
5. TOOLED JOINT DIMENSIONS: WIDTH = APPROX. ¼" DEPTH = APPROX. ½"
6. CONTROL JOINTS SHALL BE PLACED EVERY 10 FT. OR AS DIRECTED BY THE ENGINEER AT A MINIMUM DEPTH OF 1".
7. CONTRACTOR SHALL SUBMIT A 5'X5' TEST PANEL AND BE APPROVED BY THE CITY AND THE PROJECT ENGINEER PRIOR TO ANY MEDIAN FINISHING WORK. THIS WILL BE INCLUDED IN THE COST OF THE WORK AND PAID FOR AS 610-00024 MEDIAN COVER MATERIAL (4 INCH PATTERNED CONCRETE).

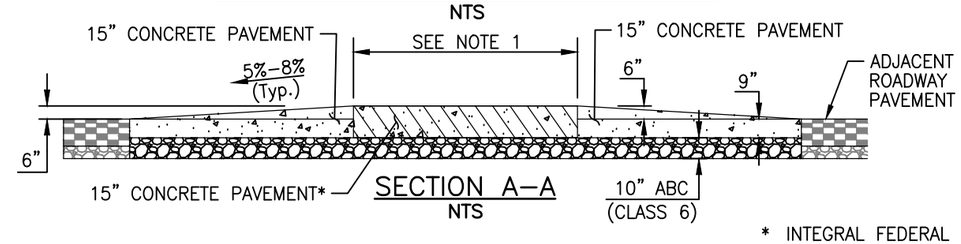
RAISED INTERSECTION ISLAND COVER NOTES:

1. ALL INTERSECTION ISLANDS SHALL BE BRICK PATTERN, INTEGRAL DAVIS COLOR PEWTER OR APPROVED EQUAL AND APPROVED BY THE ENGINEER OUTSIDE OF THE SIDEWALK AND RAMP AREAS.



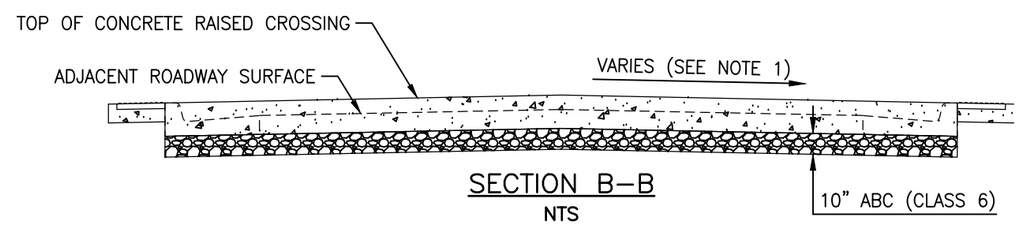
RAISED CONCRETE CROSSING DETAIL

NTS



SECTION A-A
NTS

* INTEGRAL FEDERAL STANDARD 20109 COLOR (RED BROWN)



SECTION B-B
NTS

RAISED CROSSING NOTES:

1. FOR LOCATIONS AND DIMENSIONS OF THE RAISED CROSSING AREAS SEE DETAILS IN PLANS.
2. REFER TO CDOT M-STANDARD M-412-1 FOR TYPICAL JOINTING LAYOUTS AND JOINTING REQUIREMENTS.
3. THE CONCRETE PAVEMENT THICKNESS ACROSS THE ENTIRETY OF THE RAISED CROSSINGS WILL BE PAID FOR AS 412-01500 CONCRETE PAVEMENT (15 INCH).

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$PLOT_INFO$

GENERAL

1. ALL WORK, MATERIALS, EQUIPMENT, INSTALLATION, AND CONSTRUCTION WITHIN THE ROAD RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING STANDARD REFERENCES AS APPLICABLE:

   a. CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   b. CDOT STANDARD PLANS (M&S STANDARDS)
   c. FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS AND THE COLORADO SUPPLEMENT
   d. AASHTO ROADSIDE DESIGN GUIDE

2. ANY WORK WITHIN CDOT RIGHT-OF-WAY MUST BE PERFORMED ACCORDING TO THE STANDARDS SET FORTH IN THE LATEST EDITIONS OF THE STANDARD PLANS, M& S STANDARDS, CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE AND CONSTRUCTION, NEW AND REVISED STANDARDS SPECIFICATIONS, AND IN ACCORDANCE WITH ALL APPLICABLE MATERIALS PROJECT SPECIAL PROVISIONS AND STANDARD SPECIAL PROVISIONS.

3. THE CONTRACTOR SHALL HAVE ONE COPY OF THE PLANS APPROVED BY THE CITY OF LITTLETON, ONE COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND ONE COPY OF ALL NECESSARY PERMITS AT THE JOB SITE AND AVAILABLE AT ALL TIMES. THE CONTRACTOR SHALL HAVE THE APPROVED DRAINAGE REPORT, SOILS REPORT, AND PAVEMENT DESIGN REPORT AND HAVE THEM AVAILABLE AT ALL TIMES AT THE JOB SITE.

4. THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION DESIGNATED TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MONUMENTS DISTURBED BY THE CONTRACTOR NOT DESIGNATED FOR REMOVAL SHALL BE RESET AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR AND THE ENGINEER SHALL NOTE THE MONUMENTS TO REMAIN IN THE FIELD PRIOR TO CONSTRUCTION. THIS WORK SHALL BE INCLUDED IN THE COST OF THE WORK.

5. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS.

6. THE CONTRACTOR SHALL PERFORM CONSTRUCTION ACTIVITIES TO AVOID UNNECESSARY IMPACTS TO EXISTING VEGETATION. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT THEIR OWN EXPENSE.

7. CONSTRUCTION ACTIVITIES, IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES, SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.

8. DURING ALL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS WITHIN THE LIMITS OF THE DISTURBANCE AREA.

9. IN AREAS OF THE PROJECT WHERE WORK IS REQUIRED NEAR OR ADJACENT TO THE RIGHT-OF-WAY, THE CONTRACTOR SHALL PREFORM THE WORK FROM THE PROJECT SIDE OF THE RIGHT-OF-WAY AND NOT TRESPASS ONTO PRIVATE PROPERTY.

10. ANY EXISTING PAVEMENT, INCLUDING BASE AND SUBGRADE, CURB AND GUTTER, SIDEWALK, ETC. THAT IS TO REMAIN AND IS DAMAGED IN ANY WAY BY CONTRACTOR SHALL BE REPLACED IN KIND (FULL DEPTH AND FULL WIDTH) BY THE CONTRACTOR AT THEIR EXPENCE.

MATERIALS

1. FOR PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

   AGGREGATE BASE COURSE CLASS-6 .....@ 133 LBS./CU. FT.
   ASPHALT PAVEMENT .....@ 110 LBS./SQ. YD./INCH
   TACK COAT DILUTED EMULSIFIED ASPHALT (SLOW SETTING) .....@ 0.1 GALS./SQ. YD.(DILUTED)

2. A TACK COAT IS REQUIRED BETWEEN LAYERS OF BITUMINOUS PAVEMENT AND WHERE BITUMINOUS PAVEMENT IS PLACED NEXT TO EDGES OF PAVEMENT.

3. CRUSHED CONCRETE IS NOT ALLOWED TO BE PART OF THE AGGREGATE BASE COURSE OR WITHIN THE SUBGRADE.

4. DILUTED EMULSIFIED ASPHALT FOR TACK COAT CONSISTS OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER. RATES OF APPLICATION SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.

5. MOISTURE-DENSITY CONTROL WILL BE REQUIRED FOR THIS PROJECT.

6. DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:
   EMBANKMENTS: FULL DEPTH
   BASES OF CUTS AND FILLS: 6 INCHES

7. PREPARATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

8. THE CONTRACTOR SHALL FOLLOW SUBGRADE PREPARATION AS DESCRIBED IN THE GEOTECHNICAL ENGINEERING REPORT BY SHANNON & WILSON.

MATERIALS (CONTINUED)

9. TO PROVIDE ADEQUATE SULFATE RESISTANCE IN ALL CONCRETE SUPPLIED, SEVERITY OF POTENTIAL EXPOSURE SHALL BE CLASS 2.

10. CONCRETE PIPE JOINT FASTENERS AS SHOWN ON M-STANDARD ARE REQUIRED ON:
    ALL CONCRETE CULVERT INSTALLATIONS EXCLUDING SIDE DRAINS.

11. CONCRETE PIPE JOINT FASTENERS AS SHOWN ON M-STANDARD ARE REQUIRED ON:
    ALL CONCRETE CULVERT INSTALLATIONS EXCLUDING SIDE DRAINS.

12. HMA PAVEMENT SMOOTHNESS SHALL BE MRI CATEGORY A.

13. CONCRETE PAVEMENT SMOOTHNESS SHALL BE EVALUATED PER SECTION 105.07(a) 2 OF THE 2023 CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

14. CONCRETE FOR PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE CLASS P OR AS DIRECTED BY THE ENGINEER.

15. THE CONTRACTOR MAY PROPOSE A CHANGE TO THE SMOOTHNESS CATEGORY. ONLY REQUESTS TO UTILIZE A LESS STRINGENT SMOOTHNESS CATEGORY WILL BE CONSIDERED. ANY PROPOSED CHANGE TO THE SMOOTHNESS CATEGORY SHALL BE SUBMITTED IN WRITING A MINIMUM OF ONE MONTH BEFORE THE COMMENCEMENT OF ANY PAVING ACTIVITIES. CHANGES TO THE SMOOTHNESS CATEGORY WILL NOT BE PERMITTED AFTER THE COMMENCEMENT OF PAVING ACTIVITIES. ANY CHANGE TO THE SMOOTHNESS CATEGORY SHALL BE AT THE SOLE DISCRETION OF THE ENGINEER AND THE REGIONAL MATERIALS ENGINEER.

16. PCCP ACCEPTANCE SHALL UTILIZE COMPRESSIVE STRENGTH CRITERIA.

17. THE COLORANT FOR ANY COLORED CONCRETE SHALL BE INCORPORATED INTO THE INITIAL CONCRETE MIX DESIGN.

18. GEOTEXTILES PLACED IN CDOT ROW SHALL MEET THE REQUIREMENTS IN THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION INCLUDING BUT NOT LIMITED TO THE REQUIREMENTS SET FORTH IN SECTION 712.08.

CONSTRUCTION – DRAINAGE

1. THE CONTRACTOR SHALL MAINTAIN DRAINAGE DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE REPAIR OF DAMAGES RESULTING FROM DRAINAGE AND RUNOFF IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND COST SHALL BE INCLUDED IN THE WORK.

2. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DRAINAGE AROUND OR THROUGH THE EXISTING STRUCTURES. WHETHER INDICATED IN THE PLANS OR NOT, INLETS AND OUTLETS OF ALL CULVERTS SHALL BE GRADED TO CONVEY WATERS INTO AND AWAY FROM THE CULVERTS TO EXISTING DRAINAGE PATHS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

3. PIPE EDGE DRAINS AS SHOWN IN THE TYPICAL SECTIONS SHALL BE PER CDOT M STANDARD 605-1 WITH A 4-INCH PERFORATED PIPE AS SHOWN IN THE STANDARD. OUTLET EDGE DRAINS TO STORM INLETS. CORING OF THE 4-INCH PIPE INTO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF WORK.

CONSTRUCTION – GENERAL

1. DUST CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE EARTHWORK ITEM.

2. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED AND SHALL BE APPLIED AS REQUIRED OR AS DIRECTED BY THE ENGINEER.

3. ALL WORK SHALL BE DONE TO THE LINES, GRADES, SECTIONS, AND ELEVATIONS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.

4. UNLESS OTHERWISE NOTED, CALLOUTS FOR CURB AND GUTTER FOR STATIONS, OFFSETS, AND ELEVATIONS ARE TO THE PROPOSED EDGE OF PAVEMENT.

5. ALL REMOVALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE INDICATED IN THE PLANS AND PROJECT SPECIFICATIONS.

6. ASPHALT MILLINGS GENERATED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

7. ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.

8. PRIOR TO PLACING SUBSEQUENT LAYERS OF BITUMINOUS PAVEMENT, THE PAVED SURFACE SHALL BE SWEPT AND CLEANED PER PROJECT SPECIAL PROVISION SECTION 203. THIS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK.

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CONSTRUCTION – GENERAL (CONTINUED)

9. ASPHALT JOINTS SHALL FALL ON LANE LINES, SHOULDER LINES, OR MEDIAN LINES, EXCEPT WHERE STATED IN THE PLANS.

10. WHERE NEW PAVEMENT IS TO ABUT EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE REMOVED TO A NEAT VERTICAL LINE USING A CUTTING SAW OR OTHER METHOD AS DIRECTED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK. WHERE IT IS REQUIRED TO CUT EXISTING PAVEMENT, THE CUTTING SHALL BE DONE TO A NEAT WORK LINE FULL DEPTH WITH A PAVEMENT CUTTING SAW OR OTHER METHOD AS APPROVED BY THE PROJECT ENGINEER. THIS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK. ALL SAWCUT RESIDUE MATERIAL SHALL BE PROPERLY CONTAINED AND NOT ALLOWED TO DRAIN TO ANY STORM DRAINS OR WATERWAYS PER CDOT SPECIFICATIONS SECTIONS 107 AND 208.

11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE WORK. ANY CONCRETE OR HMA SUFFERING DAMAGE SUCH AS GRAFFITI, TACK COAT SPRAY, FOOTPRINTS, RAIN DAMAGE, ETC. WILL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. IF ANY CONCRETE MUST BE REPLACED BECAUSE OF RAVELING AT THE JOINTS, RANDOM CRACKING, FOOTPRINTS, GRAFFITI, ETC. THE ENITRE SLAB OR STONE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

12. PATCHING SHALL BE TO THE DEPTH OF THE SURROUNDING EXISTING PAVEMENT AS DIRECTED BY THE ENGINEER. THE TOP LIFT MUST MATCH THE OVERLAY DEPTH AND CONFORM TO THE REQUIREMENTS OF HMA (GRADING SX) (100) (PG 76- 28). LOWER LIFTS SHALL CONFORM TO THE REQUIREMENTS OF HMA (GRADING S) (100) (PG 64-22). THE MINIMUM AND MAXIMUM LIFT THICKNESSES SHALL BE 1.5 AND 3 INCHES, RESPECTIVELY, FOR HMA (GRADING SX) (100) (PG 76-28) AND 2.25 AND 3.5 INCHES, RESPECTIVELY, FOR HMA (GRADING S) (100) (PG 64-22). THE THICKNESS OF EACH LIFT SHALL BE LESS THAN OR EQUAL TO THE THICKNESS OF LIFT DIRECTLY BENEATH IT. ALL PATCHING SHALL BE PER THE ENGINEER.

13. AT NO TIME SHOULD THE BLUNT END OF GUARDRAIL, BARRIER, END TREATMENT, ETC. BE EXPOSED TO ONCOMING TRAFFIC.

TRAFFIC CONTROL

1. THE CONTRACTOR SHALL DEVELOP A TRAFFIC MANAGEMENT PLAN IN ACCORDANCE WITH THE PROJECT SPECIFICATION "TRAFFIC CONTROL PLAN – GENERAL" THAT IDENTIFIES A CONSTRUCTION RELATED TRAFFIC CONTROL PLAN, WORK ZONE MANAGEMENT STRATEGIES, AND CONTINGENCY PLANS. THE TRAFFIC MANAGEMENT PLAN WILL DESCRIBE STRATEGIES TO PROVIDE ADVANCE NOTICE OF ALL CONSTRUCTION DELAYS AND/OR DETOURS.

2. MAINTAIN ACCESS TO BUSINESSES AND RESIDENCES AT ALL TIMES.

ENVIRONMENTAL

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING WATER SERVICES, SPRINKLER CONNECTIONS AND VEGETATION WITHIN THE VICINITY OF CONSTRUCTION THAT IS TO REMAIN. THIS INCLUDES DRIVING OR STAGING OF CONSTRUCTION VEHICLES AND/OR EQUIPMENT. IF ANY DAMAGE OCCURS TO LANDSCAPE, INCLUDING TOPSOIL, GRASS, IRRIGATION SYSTEM COMPONENTS, TREES, SHRUBS, GROUND COVER, AND/OR MULCH, THE CONTRACTOR SHALL RESTORE THE AREA TO ITS ORIGINAL CONDITION. THE REPLACEMENT COST SHALL BE INCLUDED WITH THE COST OF THE WORK.

2. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL AGENCY(S) NOISE ORDINANCES AND/OR OTHER RESTRICTIONS APPLICABLE TO NIGHTTIME CONSTRUCTION ACTIVITIES FOR PROJECTS WITHIN THE LOCAL MUNICIPAL COVERAGE AREAS. PROJECTS FALLING WITHIN UNINCORPORATED AREAS OF A COUNTY WILL BE GOVERNED BY COUNTY CODE. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL AGENCY(S) AND/OR CDOT FOR ALL NECESSARY NOISE EXEMPTIONS OR NOTICES, NOISE PERMIT VARIANCES, AND APPROVALS TO DO NIGHT WORK AS REQUIRED. IF LOCAL AGENCY NIGHTTIME NOISE RESTRICTIONS DO NOT EXIST AND THERE ARE NOISE SENSITIVE RECEPTORS IN THE PROJECT AREA, THE APPROVALS TO DO NIGHTTIME WORK SHALL BE APPROVED THROUGH THE PROJECT ENGINEER. STANDARD NOISE CONTROLS AND BEST MANAGEMENT. PRACTICES FOR REDUCING EQUIPMENT AND CONSTRUCTION ACTIVITY NOISE LEVELS SHALL BE UTILIZED IN ALL CASES AND WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONSISTENTLY EMPLOY WHEN WORKING IN NOISE SENSITIVE AREAS AFTER 7:00 P.M.

3. FOR THIS PROJECT, THE CONTRACTOR IS REQUIRED TO REVIEW AND UNDERSTAND ALL LOCAL AGENCY ORDINANCES WITH PROJECT APPLICABLE NIGHT RESTRICTIONS. WHEN CONDITIONS APPLY, THE CONTRACTOR SHALL SUBMIT A NIGHTTIME NOISE ORDINANCE MEMORANDUM(S) TO ALL JURISDICTIONAL LOCAL AUTHORITIES. THIS MEMORANDUM SHALL REQUEST CONSTRUCTION NOISE EXEMPTIONS FOR NIGHT WORK OPERATIONS (AT LEAST TWO WEEKS PRIOR TO THE PROPOSED NIGHT WORK START DATE) WHERE CONSTRUCTION WORK IS SCHEDULED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M. THE FOLLOWING INFORMATION SHOULD BE INCLUDED IN THE EXEMPTION REQUEST SUBMITTALS AND SENT TO THE CITY/COUNTY ENGINEER: (1) REQUESTING ENTITY, (2) CONTACT PERSON AND PHONE NUMBER, (3) LOCATION OF THE WORK, (4) REASONS NIGHT WORK IS BEING REQUESTED, (5) TYPE OF ACTIVITIES PROPOSED TO OCCUR AT NIGHT, (6) EQUIPMENT PROPOSED TO BE USED AT NIGHT, (7) START AND END DATE PROPOSED, (8) TOTAL NUMBER OF NIGHTS WORK IS PROPOSED TO OCCUR.

ENVIRONMENTAL (CONTINUED)

4. ALL NIGHTTIME CONSTRUCTION ACTIVITIES SUBJECT TO NOISE LEVEL RESTRICTIONS CANNOT BEGIN UNTIL THE NECESSARY DOCUMENTATION AND NOTIFICATIONS HAVE BEEN APPROVED BY THE LOCAL AGENCY AUTHORITY, THE CDOT ENGINEER AND/OR THE REGION'S NOISE SPECIALIST. ALL EXEMPTION REQUESTS AND PERMITTING REQUIREMENTS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE WORK.

5. THE CONTRACTOR SHALL ASCERTAIN IF AN AIR POLLUTION EMISSION NOTICE (APEN) IS REQUIRED TO BE SUBMITTED TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT'S (CDPHE) AIR POLLUTION CONTROL DIVISION (APCD) FOR THIS OPERATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE APEN AND OBTAINING SAID PERMIT, IF REQUIRED. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF THE APEN AND ANY PERMITS ISSUED BY APCD FOR THIS PROJECT. THE CONTRACTOR SHALL CONTROL FUGITIVE DUST THROUGH IMPLEMENTATION OF SECTIONS 107.24, 208, 209, AND 250 OF CDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND APPLICABLE CDPHE REQUIREMENTS.

   THE FOLLOWING BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED DURING CONSTRUCTION:

   (A) MAINTAIN ENGINES AND EXHAUST SYSTEMS ON CONSTRUCTION EQUIPMENT AND VEHICLES IN GOOD WORKING ORDER. PROHIBIT TAMPERING WITH EQUIPMENT TO INCREASE HORSEPOWER OR DISABLING EMISSION CONTROL DEVICES. EQUIPMENT IS SUBJECT TO INSPECTION BY THE PROJECT ENGINEER TO ENSURE MAINTENANCE IS CONDUCTED REGULARLY.

   (B) PROHIBIT UNNECESSARY IDLING OF CONSTRUCTION EQUIPMENT AND VEHICLES.

   (C) LOCATE STAGING AREAS AND STATIONARY CONSTRUCTION EQUIPMENT/DIESEL ENGINES AS FAR AS POSSIBLE FROM RESIDENCES AND OTHER SENSITIVE RECEPTORS.

   (D) COVER, WET, COMPACT, OR USE CHEMICAL STABILIZATION TO CONTROL DUST FROM DISTURBED AREAS AND EXCAVATED MATERIALS DURING CONSTRUCTION. MINIMIZE DISTURBED AREAS, PARTICULARLY DURING DRY WEATHER CONDITIONS, AND USE WIND BARRIERS AS APPROPRIATE.

   (E) CONTROL SOIL/SEDIMENT AT POINTS OF INGRESS/EGRESS AND USE VACUUM STREET SWEEPERS TO REMOVE SOIL TRACKED ONTO ADJACENT ROADWAYS.

6. POTENTIAL LEAD-BASED PAINT OR ASBESTOS-CONTAINING MATERIALS WERE NOT OBSERVED DURING THE INITIAL SITE ASSESSMENT. HOWEVER, IF STRUCTURES ARE DISTURBED DURING THE PROJECT, THEY MUST BE TESTED FOR LEAD-BASED PAINT AND ASBESTOS-CONTAINING MATERIALS FOR WORKER PROTECTION AND DISPOSAL PURPOSES. IF THE STRUCTURES ARE TO BE DEMOLISHED, THEY MUST BE PROPERLY ABATED AND THE MATERIALS PROPERLY DISPOSED OF.

7. CONSTRUCTION STAGING AND MATERIALS STOCKPILING WILL BE LOCATED GREATER THAN 50 FEET FROM THE EDGE OF WETLANDS OR THE EDGE OF OTHER WATERS OF THE U.S., WHEN POSSIBLE, TO AVOID DISTURBANCE OF VEGETATION AND TO PREVENT POLLUTANT DISCHARGES INTO SENSITIVE HABITATS. SPECIFIC LOCATIONS WILL BE DETERMINED DURING CONSTRUCTION PLANNING.

8. EQUIPMENT WILL BE REFUELED WITHIN DESIGNATED REFUELING CONTAINMENT AREAS AWAY FROM THE ORDINARY HIGH-WATER MARK AND WETLANDS.

9. A SPILL RESPONSE PLAN WILL BE DEVELOPED AND IMPLEMENTED FOR THE CONSTRUCTION SITE THAT WILL ESTABLISH STANDARD OPERATING PROCEDURES AND REQUIRED EMPLOYEE TRAINING TO MINIMIZE THE ACCIDENTAL RELEASE OF POLLUTANTS THAT COULD CONTAMINATE STORMWATER RUNOFF.

10. A DETOUR OF THE RAILROAD SPUR/MINERAL AVE TRAIL WILL BE PROVIDED, CONNECTING SOUTH PLATTE PARK, CARSON NATURE CENTER, AND LITTLETON OPEN SPACE.

11. FOLLOWING CONSTRUCTION, THE RAILROAD SPUR TRAIL/MINERAL AVE TRAIL WILL BE FULLY RESTORED TO THE EXISTING CONDITION PRIOR TO THE PROJECT AND CLEANED OF DEBRIS.

12. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PARKS AND OPEN SPACE AREAS, AS WELL AS CONTINUOUS ACCESS THROUGHOUT THE PROJECT FOR PEDESTRIANS AND BICYCLISTS VIA EXISTING ROUTES OR TEMPORARY ALL-WEATHER ALTERNATE ROUTES AS NEEDED.

13. THE CONTRACTOR SHALL NOT CLOSE ANY PORTION OF THE RAILROAD SPUR/MINERAL AVENUE TRAIL AND INITIATE THE DETOUR ROUTE UNTIL THE RIVERPARK DEVELOPMENT HAS CONSTRUCTED THE NEW SIDEWALK AS SHOWN IN THE MINERAL AVE TRAIL CONSTRUCTION TRAIL DETOUR PLAN SHEET. THE CONTRACTOR SHALL NOTIFY THE CITY OF LITTLETON AT LEAST THREE MONTHS PRIOR WHEN WORK IS ANTICIPATED TO BEGIN ALONG THE RAILROAD SPUR/MINERAL AVENUE TRAIL. THE CITY WILL COORDINATE WITH THE RIVERPARK DEVELOPMENT THREE MONTHS IN ADVANCE OF USING THE NEW SIDEWALK FOR THE DETOUR ROUTE TO HELP ENSURE THE CONSTRUCTION OF THE SIDEWALK WILL BE COMPLETE PRIOR TO INITIATING THE DETOUR ROUTE. IF THE NEW SIDEWALK HAS NOT BEEN COMPLETED BY THE RIVERPARK DEVELOPMENT, THE CITY OF LITTLETON WILL NEED TO REEVALUATE THE SECTION 4(F) IMPACTS OF THE TRAIL CLOSURE AND DEVELOP A NEW DETOUR ROUTE IN COOPERATION WITH CDOT. IF SECTION 4(F) IS TO BE REEVALUATED, THE CONTRACTOR SHALL NOT PROCEED WITH CLOSING ANY PORTION OF THE RAILROAD SPUR/MINERAL AVENUE TRAIL.

14. WORKERS SHALL BE ALERT DURING EXCAVATIONS FOR ANY VISUAL OR OLFACTORY SIGNS OF CONTAMINATION. IF SOIL AND/OR WATER CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION, WORK WILL STOP IMMEDIATELY, AND THE PROCEDURES OUTLINED IN THE CDOT SPECIFICATION 250 SHALL BE FOLLOWED.

15. CONTRACTORS AND WORKERS SHALL COMPLY WITH THE CDOT'S LATEST REVISION OF SECTION 250 – ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

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ENVIRONMENTAL (CONTINUED)

16. IF GROUNDWATER MONITORING WELLS ARE LOCATED WITHIN THE PROPOSED CONSTRUCTION AREA, THE WELLS WILL BE ABANDONED AND PLUGGED ACCORDING TO CDOT SECTION 202.02 IN STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (CDOT, 2019) AND IN CONFORMANCE WITH THE COLORADO DEPARTMENT OF NATURAL RESOURCES DIVISION OF WATER RESOURCES STATE ENGINEER WATER WELL CONSTRUCTION RULES, SPECIFICALLY RULE 16, 'STANDARDS FOR PLUGGING, SEALING, AND ABANDONING WELLS AND BOREHOLES' (COLORADO DEPARTMENT OF NATURAL RESOURCES, 2006).

17. THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING BEST MANAGEMENT PRACTICES IN ALL CONSTRUCTION AREAS TO PREVENT THE SPREAD OF NOXIOUS WEEDS AND MINIMIZE THE POTENTIAL EFFECTS FROM TREATMENT, AS DISCUSSED IN CDOT SPECIFICATION 217:
    - MINIMIZE SOIL DISTURBANCE TO THE GREATEST EXTENT POSSIBLE
    - NOXIOUS WEEDS OBSERVED IN OR NEAR THE CONSTRUCTION AREA WILL BE MECHANICALLY REMOVED OR TREATED WITH HERBICIDES APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PRIOR TO THE START OF CONSTRUCTION. AFTER SEEDING AND NEAR THE END OF THE PROJECT, IF NOXIOUS WEED SPECIES PERSIST, SEEDED AREAS SHALL RECEIVE ADDITIONAL APPLICATIONS OF HERBICIDE. THERE SHALL BE NO COLORADO DEPARTMENT OF AGRICULTURE LIST-A NOXIOUS WEEDS WITHIN THE PROJECT AREA UPON COMPLETION OF THE PROJECT.

18. VEHICLES SHALL BE INSPECTED BEFORE THEY ARE USED FOR CONSTRUCTION TO ENSURE THAT THEY ARE FREE OF SOIL AND DEBRIS CAPABLE OF TRANSPORTING NOXIOUS WEED SEEDS OR ROOTS. HEAVY CONSTRUCTION EQUIPMENT SHALL BE CLEANED PRIOR TO USE ON THE PROJECT SITE.

19. MIGRATORY BIRDS MAY NEST ON STRUCTURES AND/OR VEGETATION WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL CONDUCT ALL WORK IN A MANNER THAT DOES NOT RESULT IN THE TAKING OF MIGRATORY BIRDS PROTECTED BY THE MIGRATORY BIRD TREATY ACT (MBTA). IF WORK ON STRUCTURES OR VEGETATION REMOVAL WILL OCCUR DURING THE PRIMARY BREEDING SEASON, APRIL 1 TO AUGUST 31, CDOT'S REVISION OF SECTION 240 PROJECT SPECIAL PROVISION SHALL BE FOLLOWED, INCLUDING PRE-CONSTRUCTION NEST SURVEYS AND REMOVAL OF INACTIVE NESTS (NO EGGS OR YOUNG) FROM STRUCTURES WHILE UNDER CONSTRUCTION. NO WORK SHALL OCCUR WITHIN 50 FEET OF AN ACTIVE NEST, AT ANY TIME, UNLESS THE CONTRACTOR RECEIVES WRITTEN APPROVAL FROM THE PROJECT ENGINEER.

20. THE CONTRACTOR'S WILDLIFE BIOLOGIST SHALL CONDUCT A RAPTOR NEST SURVEY IN ACCESSIBLE AREAS WITHIN ½ MILE OF PROJECT AREA PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES OCCURRING BETWEEN FEBRUARY 15 AND AUGUST 31. IF AN ACTIVE RAPTOR NEST(S) IS LOCATED NEAR THE PROJECT AREA, GUIDELINES PROVIDED IN COLORADO PARKS AND WILDLIFE'S (CPW) "RECOMMENDED BUFFER ZONES AND SEASONAL RESTRICTIONS FOR COLORADO RAPTORS" SHALL BE FOLLOWED.

21. ORANGE PLASTIC FENCE IS REQUIRED TO PROTECT WETLANDS WITHIN 50 FEET OF THE LIMITS OF DISTURBANCE AND IS SHOWN IN THE PLANS AS WETLANDS - PROTECT IN PLACE. ADJACENT CONSTRUCT ACTIVITIES MAY HAVE REMOVED WETLANDS PRIOR TO THE START OF CONSTRUCTION ALONG THE OPEN CHANNEL FOR THE CITY DITCH.

22. IF ARCHAEOLOGICAL RESOURCES ARE DISCOVERED DURING CONSTRUCTION, WORK WILL STOP UNTIL THE CDOT SENIOR STAFF ARCHAEOLOGIST IS CONTACTED AND THE RESOURCES HAVE BEEN EVALUATED TO DETERMINE THEIR SIGNIFICANCE.

23. STOCKPILE AREAS WILL BE IN CONTAINERS OR NEATLY ORGANIZED, CLEANED AND LOCATED IN LESS VISIBLY SENSITIVE AREAS, AND WHENEVER POSSIBLE, NOT VISIBLE FROM RECREATIONAL AREAS OR HISTORIC PROPERTIES.

24. STREAMS ADJACENT TO CONSTRUCTION WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY TEMPORARY AND/OR CONSTRUCTION-LIMIT FENCING. IF FURTHER IMPACTS TO THESE FEATURES ARE ANTICIPATED AS A RESULT OF THE PROJECT, A DETERMINATION OF WATERS OF THE U.S. SHOULD BE EVALUATED, AND IF NECESSARY, COORDINATION WITH THE USACE AND THE CDPHE.

RTD GENERAL NOTES

1. CONTRACTOR TO NOTIFY RTD'S FACILITIES MAINTENANCE STAFF 14 DAYS PRIOR TO THE START OF CONSTRUCTION AT 303-299-2299. A REPRESENTATIVE FROM RTD WILL BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING.

2. CONTRACTOR SHALL CLEARLY MARK AND DELINEATE THE TEMPORARY EASEMENTS ON THE RTD PROPERTY PRIOR TO THE START OF ANY WORK AND WILL BE APPROVED BY THE PROJECT ENGINEER.

3. ALL TREES ON THE RTD PROPERTY ARE TO REMAIN IN PLACE AND BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL CLEARLY MARK ALL TREES WITH ORANGE CONSTRUCTION FENCING THAT ARE WITHIN THE TEMPORARY EASEMENTS.

4. CONTRACTOR SHALL RESTORE LAWN TURF WITH NEW SOD AS APPROVED BY THE PROJECT ENGINEER FOR ANY AREAS WITHIN THE TEMPORARY EASEMENTS ON THE RTD PROPERTY THAT ARE DISTURBED DURING CONSTRUCTION.

5. IRRIGATION MUST BE RESTORED IN-KIND AS APPROVED BY THE PROJECT ENGINEER IF IMPACTED DURING CONSTRUCTION WITHIN THE PROJECT LIMITS ON THE RTD PROPERTY. NOTIFY THE RTD FACILITY MAINTENANCE STAFF AT 303-299-2299, FOR TESTING.

6. THE RAISED MEDIAN ALONG PLATTE RIVER PARKWAY IS DESIGNATED FOR REMOVAL. THE IRRIGATION AT THIS LOCATION IS SERVICED BY THE IRRIGATION SYSTEM ON THE RTD PROPERTY. CONTRACTOR TO CAP THE LATERAL IRRIGATION LINE FEEDING THE RAISED MEDIAN AND TO BE COORDINATED WITH RTD FACILITY MAINTENANCE.

7. CONTRACTOR SHALL NOT STAGE/STORE ANY MATERIALS, EQUIPMENT, OR VEHICLES ON RTD ROW.

RTD GENERAL NOTES (CONTINUED)

8. THE NEW BUS STOP LOCATIONS SERVING RTD ARE SHOWN IN THE PLANS ALONG PLATTE RIVER PARKWAY. CONTRACTOR SHALL NOTIFY RTD ENGINEERING AT 303-299-2299 WITHIN 14 DAYS OF COMPLETION. RTD ENGINEERING WILL FIELD MEASURE AND INSPECT THE CONCRETE PADS FOR ADA COMPLIANCE. ONCE THE CONCRETE PADS ARE APPROVED BY RTD, RTD WILL INSTALL THE BUS STOP SIGNS. THE EXISTING BUS STOP AND BUS STOP SIGN AT THE SANTA FE DRIVE AND MINERAL AVENUE INTERSECTION (STOP # 22631) MUST REMAIN IN PLACE UNTIL THE NEW PADS ARE APPROVED AND COORDINATED WITH RTD.

9. CONTRACTOR TO NOTIFY RTD AT 303-299-2299 14 DAYS PRIOR TO TRAFFIC CONTROL OPERATIONS THAT MAY IMPACT THE EXISTING BUS STOP (STOP #22631) AT THE SOUTHWEST CORNER OF THE SANTA FE DRIVE AND MINERAL AVENUE INTERSECTION. THIS IS AN ACTIVE STOP SERVING THE 402L BUS ROUTE.

10. CONTRACTOR TO COORDINATE WITH RTD AT 303-299-2299 FOR THE REMOVAL OF THE BUS STOP SIGN IN FRONT OF THE 7-ELEVEN PROPERTY. THIS IS AN INACTIVE BUS STOP.

7-ELEVEN GENERAL NOTES

1. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THE LIMITS OF DISTURBANCE AND TOES OF SLOPE ON THE 7-ELEVEN PROPERTY AS SHOWN ON THE PLANS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO THE ORIGINAL CONDITIONS BY THE CONTRACTOR AT THEIR OWN EXPENSE.

2. THE AREAS OF DISTURBANCE WITHIN THE TOES OF SLOPE WILL BE RESTORED BY THE LANDOWNER ON THE 7-ELEVEN PROPERTY.

MISCELLANEOUS

1. IT IS ESTIMATED THAT THE FOLLOWING ITEMS AND QUANTITIES WILL BE REQUIRED FOR THIS PROJECT AS APPROVED AND/OR DIRECTED BY THE CDOT PROJECT ENGINEER:

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
201-00000	CLEARING AND GRUBBING	LS	1
203-01597	POTHOLING	HOUR	100
217-00020	HERBICIDE TREATMENT	HOUR	20
240-00000	WILDLIFE BIOLOGIST	HOUR	20
240-00010	REMOVAL OF NESTS	HOUR	20
*607-11525	FENCE (PLASTIC)	LF	200
620-00002	FIELD OFFICE (CLASS 2)	EACH	1
620-00012	FIELD LABORATORY (CLASS 2)	EACH	1
620-00020	SANITARY FACILITY	EACH	2
625-00000	CONSTRUCTION SURVEYING	LS	1
626-00000	MOBILIZATION	LS	1
626-01112	PUBLIC INFORMATION MANAGEMENT (TIER II)	DAY	414

PLAN SHEET LEGEND

- LIMITS OF MILL AND FILL
- LIMITS OF MEDIAN COVER MATERIAL*
- LIMITS OF MEDIAN COVER MATERIAL (ROUNDABOUT CENTER ISLAND) *
- LIMITS OF CONCRETE PAVEMENT AND SIDEWALK
- LIMITS OF ROUNDABOUT TRUCK APRON
- LIMITS OF WETLAND
- LIMITS OF SIDEWALK BY OTHERS
- TOE OF CUT
- TOE OF FILL
- PROPOSED ROW (TO BE DEDICATED BY PLAT)
- PROPOSED PERMANENT EASEMENT (TO BE DEDICATED BY PLAT)
- TEMPORARY EASEMENT

* SEE DETAILS FOR PATTERNS, COLORS, AND LOCATIONS

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TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

Format *

- ☐ 3D Design Modeling Electronic Files _____
- ■ Horizontal Control _____
- ■ Vertical Control _____
- ■ Roadway Alignment _____
- ☐ Original Terrain Data _____
- ☐ Other: _____

* Specify the information format, ie., plan sheet, computer disk, computer printout, or other.
The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

- ☐ Landscaping
- ☐ Signalization
- ☐ Safety Improvement
- ☐ Asphalt Overlay
- ☐ Concrete Overlay
- ☐ Minor Widening
- ■ Major Reconstruction
- ■ New Roadway Construction
- ☐ Bridge Replacement
- ☐ Bridge Widening
- ☐ New Bridge
- ☐ Other: _____

SURVEY WORK TO BE PERFORMED BY OTHERS: _____

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 625:

- ___ ☐ A complete passing Base Line report (completed within 6 months prior to the start of the project)
- ___ ☐ An instrument calibration Certification (completed within 6 months prior to the start of the project)
- ___ ■ Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)
- ___ ■ Verification and Maintenance of Horizontal and Vertical Control
- ___ ■ Verify or Determine existing grades and alignments
- ___ ☐ Verify or Determine existing topography
- ___ ■ Clearing and Grubbing Limits (Section 201)
- ___ ■ Removal Limits (Section 202)
- ___ ■ Reset Items (Section 210)
- ___ ■ Excavation and Embankment (Section 203)
  - ___ ■ Excavation
    - ___ ■ Unclassified
    - ___ ☐ Stripping
    - ___ ☐ Muck
    - ___ ☐ Rock
    - ___ ☐ Borrow
    - ___ ☐ Other: _____
    - ___ ☐ Potholing
  - ___ ■ Embankment
  - ___ ☐ Site Grading
  - ___ ☐ Erosion Control (Perm)
  - ___ ☐ Other: _____
  - ___ ☐ As Staked Earthwork Quantities (See General Notes)

	Slope Staking (Y/N)	Grid (Y/N)	Grade (Y/N)	Special Interval
Excavation	Y	N	N	50'
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

Embankment	Y	N	Y	50'
	-	-	-	-
	-	-	-	-
	-	-	-	-

- ___ ■ Landscaping
  - ___ ■ Top Soil (Section 207)
  - ___ ■ Seeding (Section 212)
  - ___ ■ Mulching (Section 213)
  - ___ ☐ Planting (Section 214)
  - ___ ☐ Herbicide (Section 217)
  - ___ ☐ Other: _____
- ___ ☐ Erosion Control (Section 208)
  - ___ ☐ Seeding (Temp)
  - ___ ☐ Silt Fence
  - ___ ☐ Erosion Bales
  - ___ ☐ Erosion Logs
  - ___ ☐ Riprap (Temp)
  - ___ ☐ Other: _____
- ___ ■ Roadway Bases
  - ___ ■ Untreated Subgrade
  - ___ ☐ Treated Subgrade
  - ___ ■ Aggregate Base Course (Section 304)
  - ___ ■ Reconditioning
  - ___ ☐ PMBB - Plant Mix Bituminous Base
  - ___ ☐ Other: _____

	Grid (Y/N)	Grade (Y/N)	Special Interval	Special Offset
Roadway Bases	N	Y	50'	N/A
	-	-	-	-
	N	Y	50'	N/A
	N	Y	50'	N/A
	-	-	-	-
	-	-	-	-

- ___ ■ Pavements
  - ___ ■ HMA - Hot Mix Asphalt (Section 403)
  - ___ ■ Concrete (Section 412)
  - ___ ☐ Heating & Scarifying Treatment
  - ___ ☐ Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)
  - ___ ☐ Seal Coat or Chip Seal (Section 409)
  - ___ ☐ Other: _____
- ___ ■ Roadway Elements
  - ___ ■ Curb and Gutter (Section 609)
  - ___ ☐ Drop Inlets - alignment and grades (Section 604)
  - ___ ☐ Retaining Walls
  - ___ ■ Guard Rail (Section 606)
  - ___ ■ Sidewalk (Section 608)
  - ___ ■ Overlay Stationing
  - ___ ☐ Other: _____
- ___ ☐ Riprap (Perm) (Section 506)
- ___ ☐ Slope and Ditch Paving (Section 507)
- ___ ■ Minor Structures
  - ___ ■ Structure Excavation limits (Section 206)
  - ___ ■ Culverts (Section 603)
  - ___ ☐ Culverts w/ Headwalls and Wingwalls (Section 601)
  - ___ ☐ Concrete Box Culverts w/ Headwalls and Wingwalls
  - ___ ☐ Pipes (Section 603)
    - ___ ☐ Sanitary Sewer
    - ___ ☐ Storm Sewer
    - ___ ☐ Water
    - ___ ☐ Irrigation
    - ___ ☐ Miscellaneous
  - ___ ■ Manholes (Section 604)
  - ___ ■ Inlets (Section 604)
  - ___ ☐ Permanent Water Quality BMP (Section 208)
  - ___ ☐ Other: _____
- ___ ■ Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number
  - ___ ■ Structure Excavation limits (Section 206)
  - ___ ■ Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls (Section 601)
  - ___ ☐ Piling locations and cut off elevations (Section 502)
  - ___ ☐ Caisson locations and elevations (Section 503)
  - ___ ☐ Footing locations, alignment, and elevations
  - ___ ☐ Abutment/Pier locations, alignment, and elevations
  - ___ ■ Wingwall skew angles/offsets
  - ___ ☐ Structural concrete form locations
  - ___ ☐ Substructure As-constructed survey required for Bridges (Subsection 601.12) and Overhead signs (S-614-50)
  - ___ ☐ Bridge expansion joint(s) alignment and grade (longitudinal and transverse)
  - ___ ☐ Deck grades at Girder 10th or "n" th point locations and elevations
  - ___ ☐ Slope and Ditch Paving (Section 507)
  - ___ ☐ Other: _____
- ___ ☐ Fencing (Section 607)
  - ___ ☐ Temporary
  - ___ ☐ Permanent
  - ___ ☐ Sound Barrier
  - ___ ☐ Other: _____
- ___ ■ Delineators (Section 612)
  - ___ ☐ Temporary
  - ___ ■ Permanent
- ___ ■ Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)
  - ___ ■ Signal pole locations and elevations
  - ___ ■ Light pole locations and elevations
  - ___ ■ Sign locations
  - ___ ■ Field verify sign post locations, elevations, and lengths before fabrication.
  - ___ ■ Other: ITS
- ___ ■ Pavement Marking (Section 627)
  - ___ ☐ Striping (Temp)
  - ___ ■ Striping (Perm)
  - ___ ■ Symbols
  - ___ ☐ Other: _____

	Grid (Y/N)	Special Interval	Special Offset
Pavements	N	50'	N/A
	N	50'	N/A
	-	-	-
	-	-	-
	-	-	-
	-	-	-

	Tangent Interval	Curve Interval	Special Offset
Curb & Gutter	50'	50'	50'

	Left Interval	Center Interval	Right Interval
Stationing	50'	50'	50'

- ___ ☐ Temporary Lighting and Construction Traffic Control Devices (Section 630)
  - ___ ☐ Signal pole locations and elevations (Temp)
  - ___ ☐ Light pole locations and elevations (Temp)
  - ___ ☐ Sign Locations (Temp)
  - ___ ☐ Other: _____
- ___ ■ All Easements (Temp Staking by P.L.S. Only)
- ___ ■ Right of Way (Temp Staking by P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:

- ___ ■ Monumentation (Section 629)
  - ___ ■ Control
  - ___ ■ Right of Way
  - ___ ☐ Land corners, Aliquot corners
  - ___ ☐ Easements
  - ___ ☐ Reference the specified existing monuments: ** _____
  - ___ ☐ Replace the specified existing monuments: ** _____
  - ___ ☐ Locate monuments. It is estimated ___ hours are required.

NOTE: All 629 items shall include adequate research, calculations, and evaluations of evidence for monument to be set.
** A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

1. Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the CDOT Survey Manual.
2. Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.
3. The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer ___ days prior to the Presurvey Conference - Construction Survey.
4. Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.
5. The Contractor shall furnish an As Staked (or 3D Design Modeling Electronic Files) Earthwork Quantity report to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDOT Survey Manual. A printed copy of the As Staked (or 3D Design Modeling Electronic Files) Earthwork data report and a computer disk with that information on it, in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.
6. Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.
7. The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.
8. The Contractor shall coordinate construction staking on the project with any utility work.
9. Fieldbooks shall contain daily records of points set and or measurements observed. The information recorded shall contain: date, crew members' names, point no., description, staking information, and sketches. If the survey information is collected electronically, information recorded shall be provided to the Project Engineer in a hard copy format that is intuitive, clear and related to the supplemental information recorded in the field books. All linear surveys, such as slope stakes and blue tops, shall have the station and offset information related to the measured information. Non-linear surveys such as structures staking shall have sketches relating electronic information, such as point numbers, to the sketch.
10. The Contractor's surveyor shall submit the following fieldbooks to the Engineer:
    - ■ Horizontal Control (Primary & Secondary)
    - ■ Vertical Control (i.e. Benchmarks)
    - ☐ Property Pin Ties
    - ■ Horizontal Alignment
    - ■ Grading
    - ■ Slope Staking
    - ■ Minor Structures
    - ■ Major Structures
    - ■ One fieldbook for each work category shown on this sheet
    - ☐ Other Fieldbook(s): _____
11. The Contractor's surveyor shall submit the following (prior to surveying on the project) to the Engineer:
    - ■ All required Instrument Calibrations

COLORADO LICENSED
JANELLE KAY JAENKE
38096
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SURV_TABS.DWG	Date:	Comments	Init.
Horiz. Scale: N/A Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SURVEY TABULATION		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: SCASACELI		Sheet Number 21
	Sheet Subset: TABULATION	Subset Sheets: 01 of 01	

$PLOT_INFO$

Colorado Department of Transportation
2829 W. Howard Pl.
Denver, CO 80204
Phone: 303-512-4272
Region 1 Right of Way SH

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Littleton Colorado

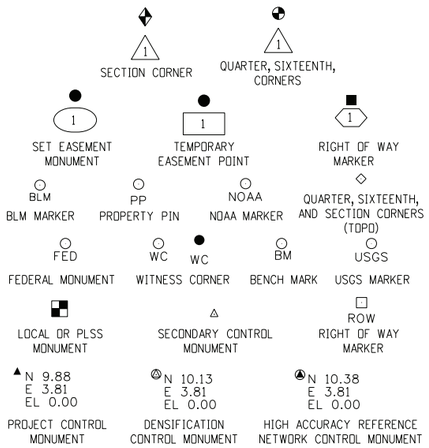
COLORADO LICENSED PROFESSIONAL LAND SURVEYOR RICHARD D. MUNTEAN 4-27-22 38189

Project Control Diagram			
Title Sheet			
Project Number: AQC M810-017			
Project Location: Santa Fe Dr. and Mineral Ave.			
City of Littleton			
Project Code:	Last Mod. Date	Subset	Sheet No.
23574	04-20-22	3.01 to 3.02	3.01

4201 E. Yale Ave., Suite 230
Denver, CO 80222
303.859.4491
105WEST INCORPORATED

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

I, Richard D. Muntean, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.



Note: For a complete listing of symbololgy used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.

Typical Control Monument Cap
Not to Scale

▲ CM-MP - CDOT Control Point Monuments found by 105 West, Inc. They are CDOT Type 2 monuments, a 3¼" dia. aluminum control monument cap (as shown) on a 3' x ¾" dia. aluminum security rod on a 3' x ¾" dia. smooth aluminum rod.

105 West, Inc. Set Control Points are 1" Copper Plugs in Concrete.

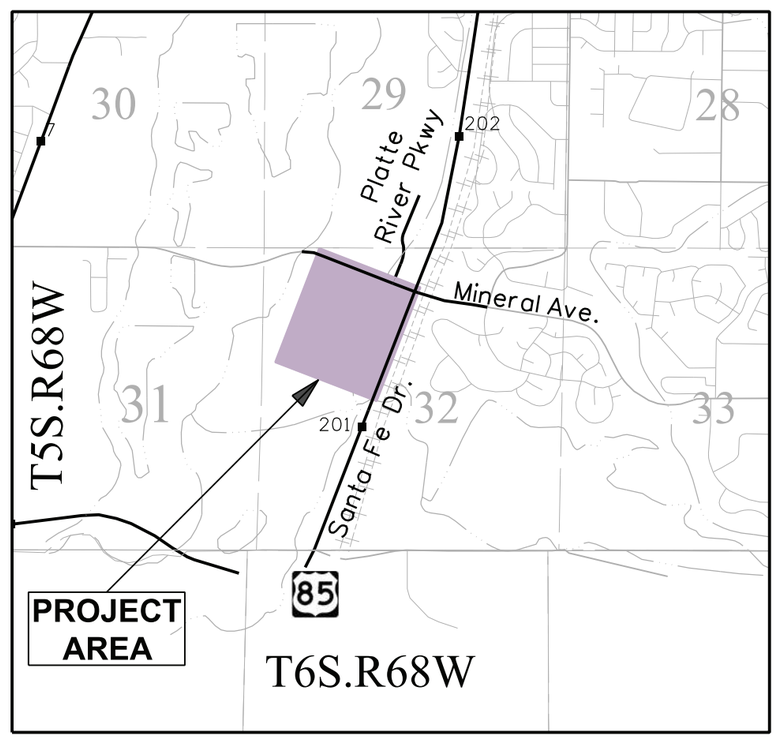
General Notes:

1. This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
2. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
3. Refer to the M-629-1 Survey Monuments of the Standard Plans found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.

CITY OF LITTLETON
STATE OF COLORADO

PROJECT CONTROL DIAGRAM

U.S. Highway 85 @ MP 201.4
Section 32
Township 5 South, Range 68 West
of the 6th Principal Meridian
County of Arapahoe



PROJECT LOCATION MAP

0' 1320' 2640' 5280'
1" = ½ Mile
Lineal Units = U.S. Survey Feet

N

105 West, Inc. Set Project Control is based on and perpetuated from the Colorado Department of Transportations Project Control Diagram for Project STA R600-441, Code 19706, last modified 01-22-15. The following information provided by said CDOT Project Control Diagram.

Basis of Elevations: Project elevations are based on Bench Mark Q 23 1929, PID: KK0556, a standard bench mark disk set on top of a concrete monument, with a NAVD 88 elevation of 5,395.24ft. Q 23 is a first order, class II benchmark.

All 105 West, Inc. set project control elevations are the result of a closed digital differential level loop.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(2011) coordinates. The ground scale factor used to modify the coordinates is 1.000285533. Project coordinates are truncated by 1,000,000 in the Northing and 3,000,000 in the Easting.

Project Coordinates Northing US Survey Feet = State Plane Coordinate Northing * 1.000285533 - 1,000,000.

Project Coordinates Easting US Survey Feet = State Plane Coordinate Easting * 1.000285533 - 3,000,000.

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

INDEX OF SHEETS

SHEET NO.	
3.01-3.01	(1) Title Sheet
3.02-3.02	(1) Plan Sheet and Coordinate Tables
	(2) Total Sheets

4/20/2022 Shown 8:41:11 AM P:\105 West Projects\159-0004 - Hwy 85-City of Littleton\ROW_Survey\Drawings\Reference_Files\Control_Diagrams\23574SURV_PCD-Title.dgn

Colorado Department of Transportation
2829 W. Howard Pl.
Denver, CO 80204
Phone: 303-512-4272

Region 1 Right of Way SH

4201 E. Yale Ave., Suite 230
Denver, CO 80222
303.859.4491
105WEST INCORPORATED

Sheet Revisions		
Date	Description	Initials

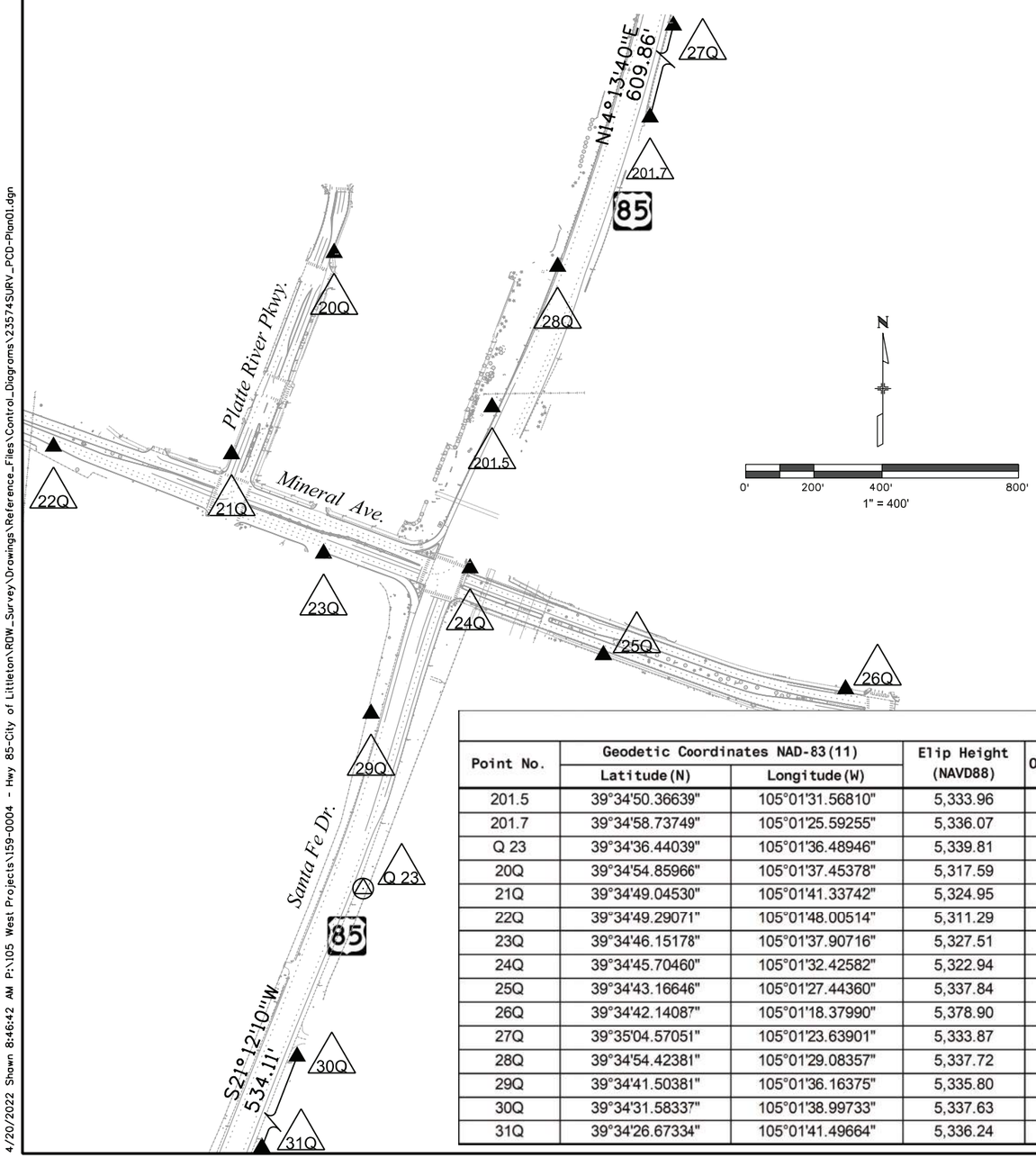
Sheet Revisions		
Date	Description	Initials

Littleton Colorado

COLORADO LICENSED
RICHARD D. MUNTEAN
4-27-22
38189
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
PCD Plan and Coordinate Tables
Project Number: AQC M810-017
Project Location: Santa Fe Dr. and Mineral Ave.
City of Littleton

Project Code:	Last Mod. Date	Subset	Sheet No.
23574	04-20-22	3.01 to 3.02	3.02



PROJECT CONTROL COORDINATE TABLE

Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
201.5	637,199.47	134,655.36	5,389.45	Fnd. CDOT Type 2 Monument, CM-MP 201.5
201.7	638,049.14	135,118.90	5,391.60	Fnd. CDOT Type 2 Monument, CM-MP 201.6
Q 23	635,788.04	134,277.28	5,395.24	Fnd. NGS Bench Mark Disk "Q 23 1929"
20Q	637,651.82	134,192.05	5,373.06	Set 1" Copper Plug in Concrete
21Q	637,061.78	133,890.96	5,380.39	Set 1" Copper Plug in Concrete
22Q	637,083.91	133,368.64	5,366.70	Set 1" Copper Plug in Concrete
23Q	636,770.33	134,161.13	5,382.96	Set 1" Copper Plug in Concrete
26Q	636,372.40	135,692.59	5,434.43	Set 1" Copper Plug in Concrete
25Q	636,472.47	134,982.19	5,393.33	Set 1" Copper Plug in Concrete
24Q	636,727.31	134,590.65	5,378.41	Set 1" Copper Plug in Concrete
27Q	638,640.29	135,268.79	5,389.43	Set 1" Copper Plug in Concrete
28Q	637,611.13	134,847.79	5,393.23	Set 1" Copper Plug in Concrete
29Q	636,300.63	134,300.12	5,391.25	Set 1" Copper Plug in Concrete
31Q	634,797.50	133,890.25	5,391.63	Set 1" Copper Plug in Concrete
30Q	635,295.45	134,083.42	5,393.04	Set 1" Copper Plug in Concrete

GEODETIC COORDINATE TABLE

Point No.	Geodetic Coordinates NAD-83(11)		Elip Height (NAVD88)	Ortho Height	Mapping Angle	Grid Scale Factor	NAD 83 Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing	SP Easting	
201.5	39°34'50.36639"	105°01'31.56810"	5,333.96	5,389.45	0°17'57"	0.999970887	1,636,732.161	3,133,760.612	Fnd. CDOT Type 2 Monument, CM-MP 201.5
201.7	39°34'58.73749"	105°01'25.59255"	5,336.07	5,391.60	0°18'01"	0.999971228	1,637,581.588	3,134,224.020	Fnd. CDOT Type 2 Monument, CM-MP 201.6
Q 23	39°34'36.44039"	105°01'36.48946"	5,339.81	5,395.24	0°17'54"	0.999970325	1,635,321.133	3,133,382.640	Fnd. NGS Bench Mark Disk "Q 23 1929"
20Q	39°34'54.85966"	105°01'37.45378"	5,317.59	5,373.06	0°17'54"	0.999971070	1,637,184.381	3,133,297.435	Set 1" Copper Plug in Concrete
21Q	39°34'49.04530"	105°01'41.33742"	5,324.95	5,380.39	0°17'51"	0.999970834	1,636,594.510	3,132,996.431	Set 1" Copper Plug in Concrete
22Q	39°34'49.29071"	105°01'48.00514"	5,311.29	5,366.70	0°17'47"	0.999970844	1,636,616.634	3,132,474.260	Set 1" Copper Plug in Concrete
23Q	39°34'46.15178"	105°01'37.90716"	5,327.51	5,382.96	0°17'53"	0.999970717	1,636,303.143	3,133,266.523	Set 1" Copper Plug in Concrete
24Q	39°34'45.70460"	105°01'32.42582"	5,322.94	5,378.41	0°17'57"	0.999970699	1,636,260.135	3,133,695.921	Set 1" Copper Plug in Concrete
25Q	39°34'43.16646"	105°01'27.44360"	5,337.84	5,393.33	0°18'00"	0.999970596	1,636,005.368	3,134,087.349	Set 1" Copper Plug in Concrete
26Q	39°34'42.14087"	105°01'18.37990"	5,378.90	5,434.43	0°18'06"	0.999970555	1,635,905.327	3,134,797.546	Set 1" Copper Plug in Concrete
27Q	39°35'04.57051"	105°01'23.63901"	5,333.87	5,389.43	0°18'02"	0.999971466	1,638,172.569	3,134,373.867	Set 1" Copper Plug in Concrete
28Q	39°34'54.42381"	105°01'29.08357"	5,337.72	5,393.23	0°17'59"	0.999971052	1,637,143.703	3,133,952.987	Set 1" Copper Plug in Concrete
29Q	39°34'41.50381"	105°01'36.16375"	5,335.80	5,391.25	0°17'55"	0.999970529	1,635,833.577	3,133,405.474	Set 1" Copper Plug in Concrete
30Q	39°34'31.58337"	105°01'38.99733"	5,337.63	5,393.04	0°17'53"	0.999970130	1,634,828.684	3,133,188.836	Set 1" Copper Plug in Concrete
31Q	39°34'26.67334"	105°01'41.49664"	5,336.24	5,391.63	0°17'51"	0.999969933	1,634,330.876	3,132,995.721	Set 1" Copper Plug in Concrete

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INDEX			ITEM NO.	ITEM DESCRIPTION	UNITS	GENERAL		ROADWAY		HYDRAULICS		STRUCTURES		SWMP		TRAFFIC		ITS		LIGHTING		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
			201-00000	Clearing and Grubbing	L S	1																1	
			202-00010	Removal of Tree	EACH			14														14	
			202-00019	Removal of Inlet	EACH					4												4	
			202-00035	Removal of Pipe	LF					222												222	
			202-00190	Removal of Concrete Median Cover Material	SY			186														186	
			202-00195	Removal of Median Cover	SY			80														80	
			202-00200	Removal of Sidewalk	SY			637														637	
			202-00203	Removal of Curb and Gutter	LF			6,947														6,947	
			202-00206	Removal of Concrete Curb Ramp	SY			211														211	
			202-00210	Removal of Concrete Pavement	SY			17,695														17,695	
			202-00220	Removal of Asphalt Mat	SY			10,727														10,727	
			202-00240	Removal of Asphalt Mat (Planing)	SY			20,046														20,046	
			202-00250	Removal of Pavement Marking	SF											2,675						2,675	
			202-00805	Removal of Overhead Sign Structure	EACH											1						1	
			202-00810	Removal of Ground Sign	EACH											17						17	
			202-00828	Removal of Traffic Signal Equipment	L S											1						1	
			202-01000	Removal of Fence	LF			3,128														3,128	
			202-01035	Removal of Gate	EACH			1														1	
			202-01130	Removal of Guardrail Type 3	LF			265														265	
			202-01300	Removal of End Anchorage	EACH			4														4	
			202-01400	Removal of Cattle Guard	EACH			1														1	
			202-04002	Clean Culvert	EACH									8								8	
			202-04005	Clean Valve Box	EACH	27																27	
			202-05008	Sawing Concrete (8 Inch)	LF			427														427	
			202-05030	Sawing Asphalt Material (10 Inch)	LF			5,646														5,646	
			203-00010	Unclassified Excavation (Complete In Place)	CY			20,771														20,771	
			203-00050	Unsuitable Material	CY			500														500	
			203-00062	Embankment Material (Complete In Place) (Special)	CY			20,194														20,194	
			203-01500	Blading	HOUR									40								40	
			203-01597	Potholing	HOUR	100																100	
			206-00000	Structure Excavation	CY							2,233										2,233	
			206-00100	Structure Backfill (Class 1)	CY							1,129										1,129	
			207-00205	Topsoil	CY									2,415								2,415	
			208-00002	Erosion Log Type 1 (12 Inch)	LF									100								100	
			208-00020	Silt Fence	LF									1,000								1,000	
			208-00035	Aggregate Bag	LF									340								340	

COLORADO LICENSED
JANELLE KAY JAHNKE
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Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

SUMMARY OF
APPROXIMATE QUANTITIES

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: QUANTITIES
Structure Numbers
Subset Sheets: 01 of 06

Project No./Code
AQC M810-017
23574
Sheet Number 24

$PLOT_INFO$

INDEX			ITEM NO.	ITEM DESCRIPTION	UNITS	GENERAL		ROADWAY		HYDRAULICS		STRUCTURES		SWMP		TRAFFIC		ITS		LIGHTING		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
			208-00046	Pre-fabricated Concrete Washout Structure (Type 1)	EACH									2								2	
			208-00051	Storm Drain Inlet Protection (Type I)	LF									400								400	
			208-00056	Storm Drain Inlet Protection (Type III)	EACH									8								8	
			208-00075	Pre-fabricated Vehicle Tracking Pad	EACH									2								2	
			208-00106	Sweeping (Sediment Removal)	HOUR									44								44	
			208-00207	Erosion Control Management	DAY									115								115	
			210-00810	Reset Ground Sign	EACH											4						4	
			210-00866	Reset Fire Preemption Unit and Timer	EACH											7						7	
			210-04010	Adjust Manhole	EACH					28												28	
			210-04020	Modify Inlet	EACH					2												2	
			210-04050	Adjust Valve Box	EACH	54																54	
			212-00701	Compost (Mechanically Applied)	CY									195								195	
			212-00703	Humate	LB									600								600	
			212-00704	Mycorrhizae	LB									24								24	
			212-00705	Elemental Sulfur	LB									180								180	
			212-00706	Seeding (Native) Drill	ACRE									3								3	
			213-00004	Mulching (Weed Free Straw)	ACRE									3								3	
			214-00222	Deciduous Tree (2 Inch Caliper) (Furnish Only)	EACH			14														14	
			217-00020	Herbicide Treatment	HOUR	20																20	
			240-00000	Wildlife Biologist	HOUR	20																20	
			240-00010	Removal of Nests	HOUR	20																20	
			304-06000	Aggregate Base Course (Class 6)	TON			15,631														15,631	
			306-01000	Reconditioning	SY			23,855														23,855	
			403-00720	Hot Mix Asphalt (Patching) (Asphalt)	TON			278														278	
			403-33841	Hot Mix Asphalt (Grading S) (100) (PG 64-22)	TON			19,683														19,683	
			403-34871	Hot Mix Asphalt (Grading SX) (100) (PG 76-28)	TON			6,578														6,578	
			411-10255	Emulsified Asphalt (Slow-Setting)	GAL			16,161														16,161	
			412-00850	Concrete Pavement (8-1/2 Inch)	SY			4,284														4,284	
			412-00950	Concrete Pavement (9-1/2 Inch)	SY			20														20	
			412-01100	Concrete Pavement (11 Inch)	SY			415														415	
			412-01500	Concrete Pavement (15 Inch)	SY			158														158	
			420-00132	Geotextile (Separator) (Class 1)	SY			44,632														44,632	
			503-00018	Drilled Shaft (18 Inch)	LF											10						10	
			503-00036	Drilled Shaft (36 Inch)	LF											95						95	
			503-00048	Drilled Shaft (48 Inch)	LF											83						83	
			503-00054	Drilled Shaft (54 Inch)	LF											63						63	

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38096
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
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Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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No Revisions:
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SUMMARY OF
APPROXIMATE QUANTITIES

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: QUANTITIES
Structure Numbers
Subset Sheets: 02 of 06

Project No./Code
AQC M810-017
23574
Sheet Number 25

$PLOT_INFO$

INDEX			ITEM NO.	ITEM DESCRIPTION	UNITS	GENERAL		ROADWAY		HYDRAULICS		STRUCTURES		SWMP		TRAFFIC		ITS		LIGHTING		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
			515-00120	Waterproofing (Membrane)	SY							522										522	
			601-03000	Concrete Class D	CY			11														11	
			601-03030	Concrete Class D (Box Culvert)	CY							8										8	
			602-00020	Reinforcing Steel (Epoxy Coated)	LB							1,565										1,565	
			603-01185	18 Inch Reinforced Concrete Pipe (Complete In Place)	LF					1,445												1,445	
			603-01245	24 Inch Reinforced Concrete Pipe (Complete In Place)	LF					524												524	
			603-05018	18 Inch Reinforced Concrete End Section	EACH					1												1	
			603-7100X	10x6 Foot Concrete Box Culvert (Precast) (Install Only)	LF							316										316	
			604-00510	Inlet Type D (10 Foot)	EACH					4												4	
			604-00515	Inlet Type D (15 Foot)	EACH					1												1	
			604-19105	Inlet Type R L 5 (5 Foot)	EACH					17												17	
			604-19110	Inlet Type R L 5 (10 Foot)	EACH					13												13	
			604-19115	Inlet Type R L 5 (15 Foot)	EACH					1												1	
			604-19205	Inlet Type R L 10 (5 Foot)	EACH					2												2	
			604-19210	Inlet Type R L 10 (10 Foot)	EACH					1												1	
			604-30010	Manhole Slab Base (10 Foot)	EACH					3												3	
			604-30015	Manhole Slab Base (15 Foot)	EACH					1												1	
			604-31020	Manhole Box Base (20 Foot)	EACH					2												2	
			605-82100	Pipe Edge Drain	LF			7,485														7,485	
			606-00302	Guardrail Type 3 (31 Inch Midwest Guardrail System)	LF			775														775	
			606-01340	End Anchorage Type 3D	EACH			1														1	
			606-01370	Transition Type 3G	EACH			1														1	
			606-01380	Transition Type 3H	EACH			1														1	
			606-02003	End Anchorage (Nonflared)	EACH			1														1	
			607-11525	Fence (Plastic)	LF	200																200	
			608-00006	Concrete Sidewalk (6 Inch)	SY			649														649	
			608-00010	Concrete Curb Ramp	SY			669														669	
			609-20010	Curb Type 2 (Section B)	LF			377														377	
			609-21010	Curb and Gutter Type 2 (Section I-B)	LF			8,769														8,769	
			609-21020	Curb and Gutter Type 2 (Section II-B)	LF			7,503														7,503	
			609-24004	Gutter Type 2 (4 Foot)	LF			27														27	
			609-24008	Gutter Type 2 (8 Foot)	LF			86														86	
			610-00024	Median Cover Material (4 Inch Patterned Concrete)	SF			43,156														43,156	
			612-00041	Delineator (Flexible) (Type I)	EACH											26						26	
			612-00042	Delineator (Flexible) (Type II)	EACH											50						50	
			612-00260	Location Marker (Fiber Optic) (Dome)	EACH													20				20	
			613-00200	2 Inch Electrical Conduit	LF											400		18,121				18,521	

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Unit Information

HDR
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DENVER, COLORADO 80202
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Sheet Revisions		
Date:	Comments	Init.

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SUMMARY OF APPROXIMATE QUANTITIES

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: QUANTITIES
Subset Sheets: 03 of 06

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23574
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$PLOT_INFO$

INDEX			ITEM NO.	ITEM DESCRIPTION	UNITS	GENERAL		ROADWAY		HYDRAULICS		STRUCTURES		SWMP		TRAFFIC		ITS		LIGHTING		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
			613-00206	2 Inch Electrical Conduit (Bored)	LF											1,155		693				1,848	
			613-00300	3 Inch Electrical Conduit	LF											300						300	
			613-00306	3 Inch Electrical Conduit (Bored)	LF											2,311				600		2,911	
			613-01200	2 Inch Electrical Conduit (Plastic)	LF															7,200		7,200	
			613-07002	Type Two Pull Box	EACH															58		58	
			613-07003	Type Three Pull Box	EACH											12		2				14	
			613-07004	Type Four Pull Box	EACH											5		14				19	
			613-07005	Type Five Pull Box	EACH													6				6	
			613-07199	Pull Box (Install Only)	EACH													16				16	
			613-10000	Wiring	L S											0.5				0.5		1	
			613-13008	Luminare (LED) (8,000 Lumens)	EACH															21		21	
			613-13018	Luminaire (LED) (18,000 Lumens)	EACH											13				17		30	
			613-32350	Light Standard Steel (35 Foot)	EACH															36		36	
			613-32352	Light Standard Steel (35 Foot) (2-Arm)	EACH															1		1	
			613-40000	Concrete Foundation Pad	EACH															3		3	
			613-40010	Light Standard Foundation	EACH															37		37	
			613-50109	Meter Power Pedestal	EACH															3		3	
			614-00011	Sign Panel (Class I)	SF											623						623	
			614-00012	Sign Panel (Class II)	SF											1,044						1,044	
			614-00013	Sign Panel (Class III)	SF											271						271	
			614-00216	Steel Sign Post (2x2 Inch Tubing)	LF											828						828	
			614-00612	Steel Sign Post (W 6x12)	LF											31						31	
			614-01583	Steel Sign Support (2-1/2 In Round Sch 80) (Post & Slipbase)	EACH											53						53	
			614-03001	Concrete Footing (Type 1)	EACH											2						2	
			614-10160	Signal Head Backplates	EACH											38						38	
			614-32400	Monotube Overhead Sign Cantilever (24 Inch Diameter)	EACH											1						1	
			614-70030	Optical Attenuator	EACH													6				6	
			614-70150	Pedestrian Signal Face (16) (Countdown)	EACH											18						18	
			614-70200	Accessible Pedestrian Signal	EACH											18						18	
			614-70336	Traffic Signal Face (12-12-12)	EACH											54						54	
			614-72834	Communications Cabinet (Type 2) (Install Only)	EACH													1				1	
			614-72836	Conflict Monitor	EACH											3						3	
			614-72855	Traffic Signal Controller Cabinet	EACH											3						3	
			614-72863	Pedestrian Push Button Post Assembly	EACH											9						9	
			614-72866	Fire Preemption Unit and Timer	EACH											4						4	
			614-72875	Loop Detector Wire	LF													846				846	

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Designer: OVELASCO
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Subset Sheets: 04 of 06

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$PLOT_INFO$

INDEX			ITEM NO.	ITEM DESCRIPTION	UNITS	GENERAL		ROADWAY		HYDRAULICS		STRUCTURES		SWMP		TRAFFIC		ITS		LIGHTING		PROJECT TOTALS	
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			614-72886	Intersection Detection System (Camera)	EACH											6						6	
			614-80003	Rectangular Rapid Flashing Beacon	EACH											8						8	
			614-81145	Traffic Signal-Light Pole Steel (1-45 Foot Mast Arm)	EACH											1						1	
			614-81150	Traffic Signal-Light Pole Steel (1-50 Foot Mast Arm)	EACH											1						1	
			614-81155	Traffic Signal-Light Pole Steel (1-55 Foot Mast Arm)	EACH											3						3	
			614-81165	Traffic Signal-Light Pole Steel (1-65 Foot Mast Arm)	EACH											3						3	
			614-81170	Traffic Signal-Light Pole Steel (1-70 Foot Mast Arm)	EACH											3						3	
			614-84000	Traffic Signal Pedestal Pole Steel	EACH											2						2	
			614-86105	Telemetry (Field)	EACH											3						3	
			614-86238	Traffic Signal Controller (Solid State) (Full-Actuated) (8 Phase)	EACH											3						3	
			614-86800	Uninterrupted Power Supply	EACH											3						3	
			614-87010	Fiber Optic Cable (Single Mode) (12 Fiber)	LF													3,966				3,966	
			614-87012	Fiber Optic Termination Panel (12 Fiber)	EACH													6				6	
			614-87015	Buffer Tube Fan Out Kit	EACH													6				6	
			614-87333	Closed Circuit Television Camera (Traffic Surveillance)	EACH											3						3	
			614-87350	Test Fiber Optic Cable	L S													1				1	
			614-87498	Fiber Optic Cable (Single Mode) (144 Strands)	LF													6,413				6,413	
			614-87501	Splice Fiber Optic Cable (1 Strand)	EACH													234				234	
			614-8769X	Ethernet Switch (Install Only)	EACH													6				6	
			620-00002	Field Office (Class 2)	EACH	1																1	
			620-00012	Field Laboratory (Class 2)	EACH	1																1	
			620-00020	Sanitary Facility	EACH	2																2	
			625-00000	Construction Surveying	L S	1																1	
			626-00000	Mobilization	L S	1																1	
			626-01112	Public Information Management (Tier II)	DAY	414																414	
			627-00008	Modified Epoxy Pavement Marking	GAL											83						83	
			627-00009	Modified Epoxy Pavement Marking (Inlaid)	GAL											92						92	
			627-00013	Pavement Marking Paint (High Build)	GAL											500						500	
			627-01010	Preformed Plastic Pavement Marking (Type I) (Inlaid)	SF											1,552						1,552	
			627-30205	Thermoplastic Pavement Marking (Word-Symbol) (Inlaid)	SF											1,955						1,955	
			627-30210	Thermoplastic Pavement Marking (Xwalk-Stopline) (Inlaid)	SF											5,099						5,099	
			630-00000	Flagging	HOUR											500						500	
			630-00003	Uniformed Traffic Control	HOUR											50						50	
			630-00007	Traffic Control Inspection	DAY											160						160	
			630-00012	Traffic Control Management	DAY											400						400	
			630-80335	Barricade (Type 3 M-A) (Temporary)	EACH											28						28	

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Project No./Code
AQC M810-017
23574
Sheet Number 28

$PLOT_INFO$

INDEX			ITEM NO.	ITEM DESCRIPTION	UNITS	GENERAL		ROADWAY		HYDRAULICS		STRUCTURES		SWMP		TRAFFIC		ITS		LIGHTING		PROJECT TOTALS	
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			630-80340	Pedestrian Barricade (ADA)	LF											36						36	
			630-80341	Construction Traffic Sign (Panel Size A)	EACH											74						74	
			630-80342	Construction Traffic Sign (Panel Size B)	EACH											24						24	
			630-80355	Portable Message Sign Panel	EACH											4						4	
			630-80356	Advance Warning Flashing or Sequencing Arrow Panel (A Type)	EACH											4						4	
			630-80360	Drum Channelizing Device	EACH											150						150	
			630-80363	Drum Channelizing Device (With Light) (Flashing)	EACH											10						10	
			630-80370	Barrier (Temporary)	LF											1,000						1,000	
			630-80380	Traffic Cone	EACH											500						500	
			630-80393	Stackable Vertical Panels	EACH											150						150	
			630-85010	Impact Attenuator (Temporary)	EACH											4						4	
			630-85041	Mobile Attenuator	DAY											100						100	
			700-70010	F/A Minor Contract Revisions	F A	1																1	
			700-70012	F/A Asphalt Pavement Incentive	F A	1																1	
			700-70013	F/A Concrete Pavement Incentive	F A	1																1	
			700-70016	F/A Fuel Cost Adjustment	F A	1																1	
			700-70018	F/A Roadway Smoothness Incentive	F A	1																1	
			700-70019	F/A Asphalt Cement Cost Adjustment	F A	1																1	
			700-70023	F/A On-The-Job Trainee	F A	1																1	
			700-70031	F/A Interim Surface Repair	F A	1																1	
			700-70082	F/A Furnish & Install Electrical Service	F A															1		1	
			700-70110	F/A Install Conduit	F A													1				1	
			700-70111	Project First Program	F A	1																1	
			700-70380	F/A Erosion Control	F A									1								1	

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Subset Sheets: 06 of 06

Project No./Code
AQC M810-017
23574
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$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION		ALIGNMENT	SIDE	202-00190 Removal of Concrete Median Cover Material		202-00195 Removal of Median Cover		202-00200 Removal of Sidewalk		202-00203 Removal of Curb and Gutter		202-00206 Removal of Concrete Curb Ramp		202-00210 Removal of Concrete Pavement		202-00220 Removal of Asphalt Mat	
				SY		SY		SY		LF		SY		SY		SY	
FROM	TO			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
SANTA FE DR																	
99+79.91	104+00.00	SANTA FE DR (NB)	LT/RT														
100+40.00	104+00.00	SANTA FE DR (NB)	LT													2,216	
102+03.82	102+65.33	SANTA FE DR (NB)	LT													81	
104+00.00	111+00.00	SANTA FE DR (NB)	LT/RT													2,624	
110+10.22	111+10.64	SANTA FE DR (NB)	LT														
111+00.00	118+00.00	SANTA FE DR (NB)	LT/RT													3,010	
111+48.89	111+87.87	SANTA FE DR (NB)	LT													93	
118+00.00	125+00.00	SANTA FE DR (NB)	LT/RT													1,504	
122+25.77	222+46.92	SANTA FE DR (NB)	LT													20	
125+00.00	132+41.51	SANTA FE DR (NB)	LT													1,112	
125+00.00	133+40.52	SANTA FE DR (NB)	LT/RT														
125+38.37	132+42.24	SANTA FE DR (NB)	LT							703							
200+00.00	220+98.54	SANTA FE DR (SB)	LT														
202+32.85		SANTA FE DR (SB)	LT														
202+32.85		SANTA FE DR (SB)	LT														
215+07.85	229+64.11	SANTA FE DR (SB)	LT/RT														
MINERAL AVE																	
300+10.13	306+00.00	MINERAL AVE	LT/RT											3,605			
300+10.13	310+83.24	MINERAL AVE	RT							1,092							
300+10.13	300+91.36	MINERAL AVE	RT														
300+34.19	308+57.70	MINERAL AVE	LT							829							
300+40.25	302+26.80	MINERAL AVE	LT														
303+53.25	309+07.86	MINERAL AVE	LT							1,116							
306+00.00	313+00.00	MINERAL AVE	LT/RT											7,757			
306+76.61		MINERAL AVE	LT														
307+31.19	316+89.30	MINERAL AVE	RT														
307+66.01		MINERAL AVE	LT														
307+87.11	308+56.53	MINERAL AVE	LT					78									
309+29.26	309+37.25	MINERAL AVE	LT							8							
307+90.25		MINERAL AVE	LT														
308+61.74		MINERAL AVE	LT									14					
			SHEET 1 SUBTOTAL	**0**		**0**		**78**		**3,748**		**14**		**11,363**		**10,661**	

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Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_RDY-REMOVALS_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

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TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
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Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 01 of 08

Project No./Code
AQC M810-017
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$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION		ALIGNMENT	SIDE	202-00190 Removal of Concrete Median Cover Material		202-00195 Removal of Median Cover		202-00200 Removal of Sidewalk		202-00203 Removal of Curb and Gutter		202-00206 Removal of Concrete Curb Ramp		202-00210 Removal of Concrete Pavement		202-00220 Removal of Asphalt Mat	
				SY		SY		SY		LF		SY		SY		SY	
FROM	TO			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
MINERAL AVE CONTINUED																	
308+67.92	308+70.67	MINERAL AVE	LT							11							
308+76.14	309+07.86	MINERAL AVE	LT	18													
309+07.52	309+09.00	MINERAL AVE	LT							5							
309+07.52	309+28.99	MINERAL AVE	LT					12									
309+16.10		MINERAL AVE	LT									14					
309+21.00	310+80.05	MINERAL AVE	LT							160							
309+21.38	310+83.72	MINERAL AVE	LT					176									
310+83.72	310+98.64	MINERAL AVE	LT					17									
310+86.54		MINERAL AVE	LT									16					
310+88.65		MINERAL AVE	RT									14					
310+94.47	310+98.64	MINERAL AVE	LT							22							
310+95.13	310+98.80	MINERAL AVE	RT							14							
311+71.01	311+74.28	MINERAL AVE	RT							14							
311+71.36	311+75.50	MINERAL AVE	LT							22							
311+80.51	312+16.96	MINERAL AVE	LT					63									
311+80.52		MINERAL AVE	RT									14					
311+81.65		MINERAL AVE	LT									14					
311+85.68	313+93.31	MINERAL AVE	RT							209							
311+87.11	313+69.34	MINERAL AVE	LT							183							
311+97.22	312+42.48	MINERAL AVE	LT/RT	18													
311+97.22	317+25.66	MINERAL AVE	LT/RT							1,063							
312+63.76		MINERAL AVE	RT														
312+91.09		MINERAL AVE	LT														
313+00.00	317+63.51	MINERAL AVE	LT/RT											5,945			
313+21.09		MINERAL AVE	LT														
313+50.38		MINERAL AVE	LT														
313+64.91	313+71.58	MINERAL AVE	LT					42									
313+73.12		MINERAL AVE	LT									21					
313+79.33	313+79.47	MINERAL AVE	LT							7							
SHEET 2 SUBTOTAL				**36**		**0**		**310**		**1,711**		**93**		**5,945**		**0**	

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JANELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_RDY-REMOVALS_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: RDY TABS
Subset Sheets: 02 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 31

$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION		ALIGNMENT	SIDE	202-00190 Removal of Concrete Median Cover Material		202-00195 Removal of Median Cover		202-00200 Removal of Sidewalk		202-00203 Removal of Curb and Gutter		202-00206 Removal of Concrete Curb Ramp		202-00210 Removal of Concrete Pavement		202-00220 Removal of Asphalt Mat	
				SY		SY		SY		LF		SY		SY		SY	
FROM	TO			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
MINERAL AVE CONTINUED																	
313+98.26		MINERAL AVE	RT									14					
314+04.42	314+08.88	MINERAL AVE	LT							14							
314+09.43	314+10.32	MINERAL AVE	LT							4							
314+10.32	314+38.03	MINERAL AVE	LT					33									
314+15.26		MINERAL AVE	LT									14					
314+20.65	316+99.07	MINERAL AVE	LT							281							
314+23.75		MINERAL AVE	LT														
314+43.22	314+46.88	MINERAL AVE	RT							13							
314+47.50		MINERAL AVE	LT														
314+53.72		MINERAL AVE	RT									13					
314+58.10	317+43.97	MINERAL AVE	RT							329							
314+72.74		MINERAL AVE	LT														
314+98.69		MINERAL AVE	LT														
315+30.75		MINERAL AVE	LT														
315+41.90		MINERAL AVE	LT														
316+03.51		MINERAL AVE	LT														
316+40.10	317+25.66	MINERAL AVE	LT/RT	26													
315+64.43	316+98.46	MINERAL AVE	LT					152									
316+99.72	317+57.09	MINERAL AVE	LT							194							
317+01.86	317+06.37	MINERAL AVE	LT					3									
317+05.02		MINERAL AVE	LT									16					
317+12.68	317+50.46	MINERAL AVE	LT							83							
317+13.14	317+57.83	MINERAL AVE	RT							144							
317+40.67		MINERAL AVE	LT	88				25				22					
317+42.92		MINERAL AVE	RT	35				35				25					
318+37.48	319+18.98	MINERAL AVE	RT													66	
318+63.22	319+19.20	MINERAL AVE	RT							116							
318+63.22	319+19.20	MINERAL AVE	RT			55											
PLATTE RIVER PKWY																	
413+75.80	413+98.46	PLATTE RIVER PKWY	RT			12											
413+75.80	415+27.39	PLATTE RIVER PKWY	RT							309							
			SHEET 3 SUBTOTAL	**150**		**67**		**249**		**1,488**		**104**		**0**		**66**	

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TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 03 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 32

$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION FROM	STATION TO	ALIGNMENT	SIDE	202-00190 Removal of Concrete Median Cover Material (SY) PLAN	AS CONST.	202-00195 Removal of Median Cover (SY) PLAN	AS CONST.	202-00200 Removal of Sidewalk (SY) PLAN	AS CONST.	202-00203 Removal of Curb and Gutter (LF) PLAN	AS CONST.	202-00206 Removal of Concrete Curb Ramp (SY) PLAN	AS CONST.	202-00210 Removal of Concrete Pavement (SY) PLAN	AS CONST.	202-00220 Removal of Asphalt Mat (SY) PLAN	AS CONST.
PLATTE RIVER PKWY CONTINUED																	
413+81.17	415+41.08	PLATTE RIVER PKWY	RT											387			
414+36.48		PLATTE RIVER PKWY	RT														
414+60.65		PLATTE RIVER PKWY	RT														
413+81.17	415+41.08	PLATTE RIVER PKWY	RT			13											
SHEET 4 SUBTOTAL				**0**		**13**		**0**		**0**		**0**		**387**		**0**	
SHEET 1 SUBTOTAL				**0**		**0**		**78**		**3,748**		**14**		**11,363**		**10,661**	
SHEET 2 SUBTOTAL				**36**		**0**		**310**		**1,711**		**93**		**5,945**		**0**	
SHEET 3 SUBTOTAL				**150**		**67**		**249**		**1,488**		**104**		**0**		**66**	
SHEET 4 SUBTOTAL				**0**		**13**		**0**		**0**		**0**		**387**		**0**	
Project Totals				**186**		**80**		**637**		**6,947**		**211**		**17,695**		**10,727**	

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Unit Information

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DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

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Date:	Comments	Init.

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TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: RDY TABS
Subset Sheets: 04 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 33

$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION		ALIGNMENT	SIDE	202-00240		202-01000		202-01035		202-01130		202-01300		202-01400		202-05008		202-05030	
				Removal of Asphalt Mat (Planing)		Removal of Fence		Removal of Gate		Removal of Guardrail Type 3		Removal of End Anchorage		Removal of Cattle Guard		Sawing Concrete (8 Inch)		Sawing Asphalt Material (10 Inch)	
				SY		LF		EACH		LF		EACH		EACH		LF		LF	
FROM	TO			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
SANTA FE DR																			
99+79.91	104+00.00	SANTA FE DR (NB)	LT/RT	2,185														419	
100+40.00	104+00.00	SANTA FE DR (NB)	LT																
102+03.82	102+65.33	SANTA FE DR (NB)	LT																
104+00.00	111+00.00	SANTA FE DR (NB)	LT/RT	3,733														543	
110+10.22	111+10.64	SANTA FE DR (NB)	LT									2							
111+00.00	118+00.00	SANTA FE DR (NB)	LT/RT	3,862														1,000	
111+48.89	111+87.87	SANTA FE DR (NB)	LT																
118+00.00	125+00.00	SANTA FE DR (NB)	LT/RT	3,677														1,968	
122+25.77	222+46.92	SANTA FE DR (NB)	LT/RT															54	
125+00.00	132+41.51	SANTA FE DR (NB)	LT																
125+00.00	133+40.52	SANTA FE DR (NB)	LT/RT	2,717														1,482	
125+38.37	132+42.24	SANTA FE DR (NB)	LT																
200+00.00	220+98.54	SANTA FE DR (SB)	LT			2,167													
202+32.85		SANTA FE DR (SB)	LT											1					
202+32.85		SANTA FE DR (SB)	LT					1											
215+07.85	229+64.11	SANTA FE DR (SB)	LT/RT	3,872															
MINERAL AVE																			
300+10.13	306+00.00	MINERAL AVE	LT/RT																
300+10.13	310+83.24	MINERAL AVE	RT																
300+10.13	300+91.36	MINERAL AVE	RT							76		1							
300+34.19	308+57.70	MINERAL AVE	LT																
300+40.25	302+26.80	MINERAL AVE	LT							188		1							
303+53.25	309+07.86	MINERAL AVE	LT																
306+00.00	313+00.00	MINERAL AVE	LT/RT													47			
306+76.61		MINERAL AVE	LT																
307+31.19	316+89.30	MINERAL AVE	RT			960													
307+66.01		MINERAL AVE	LT																
307+87.11	308+56.53	MINERAL AVE	LT																
309+29.26	309+37.25	MINERAL AVE	LT																
307+90.25		MINERAL AVE	LT																
308+61.74		MINERAL AVE	LT																
			SHEET 5 SUBTOTAL	**20,046**		**3,128**		**1**		**265**		**4**		**1**		**47**		**5,466**	

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JAVELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

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TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 05 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 34

$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION		ALIGNMENT	SIDE	202-00240		202-01000		202-01035		202-01130		202-01300		202-01400		202-05008		202-05030	
				Removal of Asphalt Mat (Planing)		Removal of Fence		Removal of Gate		Removal of Guardrail Type 3		Removal of End Anchorage		Removal of Cattle Guard		Sawing Concrete (8 Inch)		Sawing Asphalt Material (10 Inch)	
				SY		LF		EACH		LF		EACH		EACH		LF		LF	
FROM	TO			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
MINERAL AVE CONTINUED																			
308+67.92	308+70.67	MINERAL AVE	LT																
308+76.14	309+07.86	MINERAL AVE	LT																
309+07.52	309+09.00	MINERAL AVE	LT																
309+07.52	309+20.43	MINERAL AVE	LT																
309+16.10		MINERAL AVE	LT																
309+21.00	310+80.05	MINERAL AVE	LT																
309+21.38	310+83.72	MINERAL AVE	LT																
310+83.72	310+98.64	MINERAL AVE	LT																
310+86.54		MINERAL AVE	LT																
310+88.65		MINERAL AVE	RT																
310+94.47	310+98.64	MINERAL AVE	LT																
310+95.13	310+98.80	MINERAL AVE	RT																
311+71.01	311+74.28	MINERAL AVE	RT																
311+71.36	311+75.50	MINERAL AVE	LT																
311+80.51	312+16.96	MINERAL AVE	LT																
311+80.52		MINERAL AVE	RT																
311+81.65		MINERAL AVE	LT																
311+85.68	313+93.31	MINERAL AVE	RT																
311+87.11	313+69.34	MINERAL AVE	LT																
311+97.22	312+42.48	MINERAL AVE	LT/RT																
311+97.22	317+25.66	MINERAL AVE	LT/RT																
312+63.76		MINERAL AVE	RT																
312+91.09		MINERAL AVE	LT																
313+00.00	317+63.51	MINERAL AVE	LT/RT													32			
313+21.09		MINERAL AVE	LT																
313+50.38		MINERAL AVE	LT																
313+64.91	313+71.58	MINERAL AVE	LT																
313+73.12		MINERAL AVE	LT																
313+79.33	313+79.47	MINERAL AVE	LT																
			SHEET 6 SUBTOTAL	0		0		0		0		0		0		32		0	

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Unit Information

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TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: RDY TABS
Subset Sheets: 06 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 35

$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION		ALIGNMENT	SIDE	202-00240		202-01000		202-01035		202-01130		202-01300		202-01400		202-05008		202-05030	
				Removal of Asphalt Mat (Planing)		Removal of Fence		Removal of Gate		Removal of Guardrail Type 3		Removal of End Anchorage		Removal of Cattle Guard		Sawing Concrete (8 Inch)		Sawing Asphalt Material (10 Inch)	
				SY		LF		EACH		LF		EACH		EACH		LF		LF	
FROM	TO			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
MINERAL AVE CONTINUED																			
313+98.26		MINERAL AVE	RT																
314+04.42	314+08.88	MINERAL AVE	LT																
314+09.43	314+10.32	MINERAL AVE	LT																
314+10.32	314+38.03	MINERAL AVE	LT																
314+15.26		MINERAL AVE	LT																
314+20.65	316+99.07	MINERAL AVE	LT																
314+23.75		MINERAL AVE	LT																
314+43.22	314+46.88	MINERAL AVE	RT																
314+47.50		MINERAL AVE	LT																
314+53.72		MINERAL AVE	RT																
314+58.10	317+43.97	MINERAL AVE	RT																
314+72.74		MINERAL AVE	LT																
314+98.69		MINERAL AVE	LT																
315+30.75		MINERAL AVE	LT																
315+41.90		MINERAL AVE	LT																
316+03.51		MINERAL AVE	LT																
316+40.10	317+25.66	MINERAL AVE	LT/RT																
315+64.43	316+98.46	MINERAL AVE	LT																
316+99.72	317+57.09	MINERAL AVE	LT																
317+01.86	317+06.37	MINERAL AVE	LT																
317+05.02		MINERAL AVE	LT																
317+12.68	317+50.46	MINERAL AVE	LT																
317+13.14	317+57.83	MINERAL AVE	RT																
317+40.67		MINERAL AVE	LT																
317+42.92		MINERAL AVE	RT																
318+37.48	319+18.98	MINERAL AVE	RT															180	
318+63.22	319+19.20	MINERAL AVE	RT																
318+63.22	319+19.20	MINERAL AVE	RT																
PLATTE RIVER PKWY																			
413+75.80	413+98.46	PLATTE RIVER PKWY	RT																
413+75.80	415+27.39	PLATTE RIVER PKWY	RT																
			SHEET 7 SUBTOTAL	**0**		**0**		**0**		**0**		**0**		**0**		**0**		**180**	

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TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 07 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 36

$PLOT_INFO$

TABULATION OF ROADWAY REMOVALS

STATION FROM	STATION TO	ALIGNMENT	SIDE	202-00240 Removal of Asphalt Mat (Planing) SY PLAN	202-00240 AS CONST.	202-01000 Removal of Fence LF PLAN	202-01000 AS CONST.	202-01035 Removal of Gate EACH PLAN	202-01035 AS CONST.	202-01130 Removal of Guardrail Type 3 LF PLAN	202-01130 AS CONST.	202-01300 Removal of End Anchorage EACH PLAN	202-01300 AS CONST.	202-01400 Removal of Cattle Guard EACH PLAN	202-01400 AS CONST.	202-05008 Sawing Concrete (8 Inch) LF PLAN	202-05008 AS CONST.	202-05030 Sawing Asphalt Material (10 Inch) LF PLAN	202-05030 AS CONST.
PLATTE RIVER PKWY CONTINUED																			
413+81.17	415+41.08	PLATTE RIVER PKWY	RT													348			
414+36.48		PLATTE RIVER PKWY	RT																
414+60.65		PLATTE RIVER PKWY	RT																
413+81.17	415+41.08	PLATTE RIVER PKWY	RT																
SHEET 8 SUBTOTAL				**0**		**0**		**0**		**0**		**0**		**0**		**348**		**0**	
SHEET 5 SUBTOTAL				**20,046**		**3,128**		**1**		**265**		**4**		**1**		**47**		**5,466**	
SHEET 6 SUBTOTAL				**0**		**0**		**0**		**0**		**0**		**0**		**32**		**0**	
SHEET 7 SUBTOTAL				**0**		**0**		**0**		**0**		**0**		**0**		**0**		**180**	
SHEET 8 SUBTOTAL				**0**		**0**		**0**		**0**		**0**		**0**		**348**		**0**	
Project Totals				**20,046**		**3,128**		**1**		**265**		**4**		**1**		**427**		**5,646**	

NOTE:
COORDINATE WITH PROJECT ENGINEER FOR THE LIMITS OF REMOVAL OF FENCE, REMOVAL OF GATE, AND REMOVAL OF CATTLE GUARD.

COLORADO LICENSED
JANELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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Unit Information
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TABULATION OF ROADWAY REMOVALS

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: RDY TABS
Subset Sheets: 08 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 37

$PLOT_INFO$

SUMMARY OF EARTHWORK QUANTITIES

ITEM	PROJECT TOTALS CU. YD.
203-00010 - UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	
ROADWAY (CROSS SECTIONS) (COMPUTER):	
SANTA FE DR	6,010
MINERAL AVE	10,810
PLATTE RIVER PKWY	1,268
NICHOLS AVE	756
ROUNDABOUT	462
SANTA FE DR DITCH	500
FOR CUT SLOPE TREATMENT	965
TOTAL	**20,771**
203-00050 UNSUITABLE MATERIAL	
AS DIRECTED BY THE ENGINEER	500
TOTAL	**500**
203-00062 EMBANKMENT MATERIAL (COMPLETE IN PLACE) (SPECIAL)	
36-INCH MOISTURE TREAMENT	20,194
TOTAL	**20,194**
***** FOR INFORMATION ONLY*****	
EMBANKMENT (NET)	**CU. YD.**
ROADWAY (CROSS SECTIONS) (COMPUTER):	
SANTA FE DR	6,178
MINERAL AVE	566
PLATTE RIVER PKWY	1,006
NICHOLS AVE	4,161
ROUNDABOUT	828
FOR REPLACING UNSUITABLE MATERIAL	500
TOTAL	**13,239**
COMPACTION (AASHTO T 180)	**CU. YD.**
TOTAL EMBANKMENT (NET)	13,239
BASES OF CUTS AND FILLS	7,342
TOTAL	**20,581**
WETTING QUANTITIES (INFO ONLY)	**M. GAL**
COMPACTION (ROADWAY)	515
DUST PALLIATIVE (SIX APPLICATIONS)	793
TOTAL	**1,307**
***** FOR INFORMATION ONLY *****	
EARTHWORK QUANTITIES BALANCE	**CU. YD.**
UNCLASSIFIED EXCAVATION	20,771
EMBANKMENT (NET)	13,239
EMBANKMENT X FACTOR (1.1)	14,563
EXCESS EXCAVATION	
EXCESS EXCAVATION AND UNSUITABLE MATERIALS TO BECOME PROPERTY OF THE CONTRACTOR	6,708
EMBANKMENT FACTORED PLUS EXCESS EXCAVATION	21,271

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10/06/2025
PROFESSIONAL ENGINEER

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File Name: 23574_EARTH-WORK_TABS_1.DWG
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DENVER, COLORADO 80202
Phone: 303-764-1520
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Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

TABULATION OF EARTHWORK

Designer: JJAHNKE
Detailer: BHEDGES
Sheet Subset: EARTH TAB
Structure Numbers
Subset Sheets: 01 of 01

Project No./Code
AQC M810-017
23574
Sheet Number 38

$PLOT_INFO$

TABULATION OF SURFACING

STATION FROM	STATION TO	ALIGNMENT	SIDE	304-06000 Aggregate Base Course (Class 6) 6 INCH TON PLAN	304-06000 AS CONST	304-06000 Aggregate Base Course (Class 6) 10 INCH TON PLAN	304-06000 AS CONST	306-01000 Reconditioning SY PLAN	306-01000 AS CONST	403-00720 Hot Mix Asphalt (Patching) (Asphalt) (1)(2)(3) TON PLAN	403-00720 AS CONST	403-33841 Hot Mix Asphalt (Grading S) (100) (PG 64-22) TON PLAN	403-33841 AS CONST	403-34871 Hot Mix Asphalt (Grading SX) (100) (PG 76-28) TON PLAN	403-34871 AS CONST	411-10255 Emulsified Asphalt (Slow-Setting) GAL PLAN	411-10255 AS CONST	412-00850 Concrete Pavement (8-1/2 Inch) SY PLAN	412-00850 AS CONST.	412-00950 Concrete Pavement (9-1/2 Inch) SY PLAN	412-00950 AS CONST	412-01100 Concrete Pavement (11 Inch) SY PLAN	412-01100 AS CONST.	412-01500 Concrete Pavement (15 Inch) SY PLAN	412-01500 AS CONST.	420-00132 Geotextile (Separator) (Class 1) SY PLAN	420-00132 AS CONST.
SANTA FE DR																											
99+79.71	104+00.00	SANTA FE DR (NB)	LT/RT											241		219											
100+42.14	104+00.00	SANTA FE DR (NB)	LT	833				2,282				1,030		292		793										2,645	
104+00.00	111+00.00	SANTA FE DR (NB)	LT/RT	1,795				3,108				2,230		1,044		2,093										5,734	
111+00.00	118+00.00	SANTA FE DR (NB)	LT/RT	1,615				1,595				2,069		1,076		2,051										5,369	
118+00.00	125+00.00	SANTA FE DR (NB)	LT/RT	750				1,338		141 (1)		855		871		1,235										2,222	
122+04.94	122+80.78	SANTA FE DR (NB)	LT	50								68		18		50										166	
122+25.67	122+41.49	SANTA FE DR (NB)	LT	6																20						20	
125+00.00	129+60.34	SANTA FE DR (NB)	LT/RT	293				525		4 (1)		374		553		696										970	
MINERAL AVE																											
300+11.34	306+00.00	MINERAL AVE	LT/RT	1,028				3,435				2,078		378		1,374										3,435	
306+00.00	313+00.00	MINERAL AVE	LT/RT	2,294				6,868				4,639		843		3,067										7,667	
310+48.65	310+69.68	MINERAL AVE	RT			37		74																74		74	
313+00.00	317+43.33	MINERAL AVE	LT	758				2,532				1,532		279		1,013										2,532	
313+00.00	317+37.31	MINERAL AVE	RT	535				1,671				1,082		197		715										1,788	
313+78.29		MINERAL AVE	LT	2				7										7								7	
313+81.05	314+07.39	MINERAL AVE	LT	17				68										56								68	
314+11.37		MINERAL AVE	LT	3				12										12								12	
316+90.39	317+08.62	MINERAL AVE	RT			42		84																84		84	
318+46.00	319+19.71	MINERAL AVE	LT/RT	20						32 (2)																	
PLATTE RIVER PKWY																											
402+09.98	406+00.00	PLATTE RIVER PKWY	LT/RT	934														3,122								3,122	
403+83.58	404+75.56	PLATTE RIVER PKWY	LT/RT	124																		415				415	
406+00.00	406+48.54	PLATTE RIVER PKWY	LT	36														121								121	
406+00.00	406+03.51	PLATTE RIVER PKWY	RT	3														10								10	
406+03.51	411+00.00	PLATTE RIVER PKWY	LT/RT	881								1,539		324		1,178										2,945	
407+47.46	408+02.46	PLATTE RIVER PKWY	RT	16														54								54	
408+28.48		PLATTE RIVER PKWY	LT	5														17								17	
408+32.92	408+54.92	PLATTE RIVER PKWY	LT	22								38		8		29										96	
408+62.43		PLATTE RIVER PKWY	LT	5														17								17	
411+00.00	412+40.89	PLATTE RIVER PKWY	LT/RT	333				258				581		122		445										1,112	
413+81.17	415+41.08	PLATTE RIVER PKWY	RT	146														489								501	
			SHEET 1 SUBTOTAL	**12,505**		**79**		**23,855**		**178**		**18,115**		**6,245**		**14,958**		**3,907**		**20**		**415**		**158**		**41,202**	

COLORADO LICENSED
JAMELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_RDY-SURFACING_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
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TABULATION OF ROADWAY SURFACING

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: RDY TABS
Subset Sheets: 01 of 02

Project No./Code
AQC M810-017
23574
Sheet Number 39

$PLOT_INFO$

TABULATION OF SURFACING

STATION FROM	STATION TO	ALIGNMENT	SIDE	304-06000 Aggregate Base Course (Class 6) 6 INCH TON PLAN	AS CONST	304-06000 Aggregate Base Course (Class 6) 10 INCH TON PLAN	AS CONST	306-01000 Reconditioning SY PLAN	AS CONST	403-00720 Hot Mix Asphalt (Patching) (Asphalt) (1)(2)(3) TON PLAN	AS CONST	403-33841 Hot Mix Asphalt (Grading S) (100) (PG 64-22) TON PLAN	AS CONST	403-34871 Hot Mix Asphalt (Grading SX) (100) (PG 76-28) TON PLAN	AS CONST	411-10255 Emulsified Asphalt (Slow-Setting) GAL PLAN	AS CONST	412-00850 Concrete Pavement (8-1/2 Inch) SY PLAN	AS CONST.	412-00950 Concrete Pavement (9-1/2 Inch) SY PLAN	AS CONST	412-01100 Concrete Pavement (11 Inch) SY PLAN	AS CONST.	412-01500 Concrete Pavement (15 Inch) SY PLAN	AS CONST.	420-00132 Geotextile (Separator) (Class 1) SY PLAN	AS CONST.
NICHOLS AVE																											
504+30.79	504+83.59	NICHOLS AVE	RT	37														124								124	
504+41.86	505+00.00	NICHOLS AVE	LT	54														181								181	
504+83.59	505+00.00	NICHOLS AVE	RT	11								19		4		15										37	
505+00.00	508+77.35	NICHOLS AVE	LT/RT	836								1,460		307		1,118										2,794	
505+35.47		NICHOLS AVE	RT	6														20								20	
505+39.45	505+72.45	NICHOLS AVE	RT	29								51		11		39										126	
505+78.16		NICHOLS AVE	RT	5														17								17	
506+18.97		NICHOLS AVE	LT	5														17								17	
506+23.07	506+49.07	NICHOLS AVE	LT	22								38		8		29										95	
506+53.51		NICHOLS AVE	LT	5														17								17	
PROJECT WIDE																											
-	-	PROJECT WIDE (3)	N/A							100																	
		SHEET 2 SUBTOTAL		**1,011**		**0**		**0**		**100**		**1,568**		**331**		**1,201**		**377**		**0**		**0**		**0**		**3,430**	
		SHEET 1 SUBTOTAL		**12,505**		**79**		**23,855**		**178**		**18,115**		**6,245**		**14,958**		**3,907**		**20**		**415**		**158**		**41,202**	
		SHEET 2 SUBTOTAL		**1,011**		**0**		**0**		**100**		**1,568**		**331**		**1,201**		**377**		**0**		**0**		**0**		**3,430**	
		Project Totals		**13,516**		**79**		**23,855**		**278**		**19,683**		**6,576**		**16,159**		**4,284**		**20**		**415**		**158**		**44,632**	

HOT MIX ASPHALT (PATCHING ASPHALT) DOES NOT INCLUDE THE AGGREGATE BASE COURSE. AGGREGATE BASE COURSE IS QUANTIFIED AND PAID FOR SEPARATELY. THE PAVEMENT SECTION SHALL MATCH THE EXISTING PAVEMENT SECTION AS DIRECTED BY THE PROJECT ENGINEER. THE LOCATIONS OF PATCHING ASPHALT INCLUDE:
(1) PIPE TRENCH ALONG SANTA FE DR
(2) THE MINERAL AVE RAISED MEDIAN ON THE EAST SIDE OF THE INTERSECTION WITH SANTA FE DR
(3) AS DIRECTED BY THE PROJECT ENGINEER

COLORADO LICENSED
JANELLE KAY JAENKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
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Sheet Revisions		
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Littleton Colorado

As Constructed
No Revisions:
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TABULATION OF ROADWAY SURFACING

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 02 of 02

Project No./Code
AQC M810-017
23574
Sheet Number 40

$PLOT_INFO$

TABULATION OF FLATWORK

STATION		ALIGNMENT	SIDE	304-06000		601-03000		605-82100		608-00006		608-00010		609-20010		609-21010		609-21020		609-24004		609-24008		610-00024	
				Aggregate Base Course (Class 6)		Concrete Class D		Pipe Edge Drain		Concrete Sidewalk (6 Inch)		Concrete Curb Ramp		Curb Type 2 (Section B)		Curb and Gutter Type 2 (Section I-B)		Curb and Gutter Type 2 (Section II-B)		Gutter Type 2 (4 Foot)		Gutter Type 2 (8 Foot)		Median Cover Material (4 Inch Patterned Concrete)	
				6 INCH																					
				TON		CY		LF		SY		SY		LF		LF		LF		LF		LF		SF	
FROM	TO			PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST.
SANTA FE DR																									
208+43.50	213+36.89	SANTA FE DR (SB)	RT	83.37		1.7										1,001								5,914	
211+76.33	213+10.90	SANTA FE DR (SB)	LT	16.38				141										141							
214+43.17	217+06.59	SANTA FE DR (SB)	LT	30.81				265										265							
214+63.14	221+80.93	SANTA FE DR (SB)	RT	60.25		2.3										723								7,260	
214+63.14	219+99.73	SANTA FE DR (SB)	RT	45.17												542									
217+17.93	218+38.31	SANTA FE DR (SB)	LT	14.01				120										120							
218+44.64	218+79.97	SANTA FE DR (SB)	LT	4.11				35										35							
218+86.30	219+38.98	SANTA FE DR (SB)	LT	6.17				53										53							
219+45.29	219+69.18	SANTA FE DR (SB)	LT	2.80				24										24							
219+75.48	221+17.02	SANTA FE DR (SB)	LT	16.70				144										144							
220+06.07	220+26.91	SANTA FE DR (SB)	RT	2.37												28									
220+33.24	220+56.82	SANTA FE DR (SB)	RT	1.97												24									
220+63.30	221+13.06	SANTA FE DR (SB)	RT	4.15												50									
221+19.18	221+71.28	SANTA FE DR (SB)	RT	4.35												52									
221+23.03	221+57.05	SANTA FE DR (SB)	LT	3.49				30										30							
221+80.93	222+03.14	SANTA FE DR (SB)	RT	3.64												44									
221+93.73		SANTA FE DR (SB)	RT	4.20								14													
222+90.36	227+77.99	SANTA FE DR (SB)	RT	0.00		1.0																		1,763	
222+90.36	223+00.93	SANTA FE DR (SB)	RT	2.35												28									
223+05.88		SANTA FE DR (SB)	RT	3.06								10													
223+10.19	227+77.99	SANTA FE DR (SB)	RT	39.08												469									
223+10.44	223+18.93	SANTA FE DR (SB)	RT	0.67												8									
223+13.59	223+19.96	SANTA FE DR (SB)	LT	0.78				7										7							
223+25.27	223+94.95	SANTA FE DR (SB)	RT	5.75												69									
223+26.08	224+04.84	SANTA FE DR (SB)	LT	9.24				79										79							
224+01.29	225+13.09	SANTA FE DR (SB)	RT	9.42												113									
224+11.14	229+65.24	SANTA FE DR (SB)	LT	64.39				553										553							
225+19.43	227+77.99	SANTA FE DR (SB)	RT	21.66												260									
			SHEET 1 SUBTOTAL	**461**		**5**		**1,452**		**0**		**25**		**0**		**3,411**		**1,452**		**0**		**0**		**14,938**	

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JANELLE KAY JAENKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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File Name: 23574_RDY-FLATWORK_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
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Sheet Revisions		
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TABULATION OF ROADWAY FLATWORK

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 01 of 05

Project No./Code
AQC M810-017
23574
Sheet Number 41

$PLOT_INFO$

TABULATION OF FLATWORK

STATION		ALIGNMENT	SIDE	304-06000		601-03000		605-82100		608-00006		608-00010		609-20010		609-21010		609-21020		609-24004		609-24008		610-00024	
				Aggregate Base Course (Class 6)		Concrete Class D		Pipe Edge Drain		Concrete Sidewalk (6 Inch)		Concrete Curb Ramp		Curb Type 2 (Section B)		Curb and Gutter Type 2 (Section I-B)		Curb and Gutter Type 2 (Section II-B)		Gutter Type 2 (4 Foot)		Gutter Type 2 (8 Foot)		Median Cover Material (4 Inch Patterned Concrete)	
				6 INCH																					
				TON		CY		LF		SY		SY		LF		LF		LF		LF		LF		SF	
FROM	TO			PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST.
MINERAL AVE																									
300+10.40	310+55.47	MINERAL AVE	RT	122.05				1,049										1,049							
300+33.99	308+66.30	MINERAL AVE	LT	97.77				840										840							
305+28.36	310+71.54	MINERAL AVE	LT/RT	91.39		0.4										1,097								3,383	
307+87.11	308+60.16	MINERAL AVE	LT	24.63						82															
308+65.30		MINERAL AVE	LT	4.13								14													
308+70.70	308+70.98	MINERAL AVE	LT	0.48				4										4							
309+06.68		MINERAL AVE	LT	0.77				7										7							
309+09.55	310+74.08	MINERAL AVE	LT	22.35				166						61				166						1,047	
309+14.54		MINERAL AVE	LT	4.37								15													
309+22.68	310+98.08	MINERAL AVE	LT	68.29						228															
309+33.13		MINERAL AVE	LT	1.89								6													
310+57.62		MINERAL AVE	RT	2.26								8													
310+81.11		MINERAL AVE	RT	14.46								24				87								235	
310+81.52		MINERAL AVE	LT	5.03								17													
310+88.98	310+97.49	MINERAL AVE	LT	1.87				16										16							
310+96.90		MINERAL AVE	LT	4.62								15													
310+98.60		MINERAL AVE	LT	0.45				4										4							
311+71.37		MINERAL AVE	LT	0.84				7										7							
311+74.70	311+90.24	MINERAL AVE	LT	2.49				21										21							
311+75.28		MINERAL AVE	LT	4.14								14													
311+80.52		MINERAL AVE	RT	5.88								20													
311+80.72	312+16.96	MINERAL AVE	LT	22.90						77															
311+87.03		MINERAL AVE	RT	0.00																				40	
311+90.14	312+08.82	MINERAL AVE	LT	1.34										27											
311+95.37		MINERAL AVE	LT	5.79								19													
311+98.36		MINERAL AVE	RT	6.20								21													
312+07.32	316+97.50	MINERAL AVE	RT	57.95				498										498							
312+07.43	313+74.10	MINERAL AVE	LT	19.50				168										168							
312+08.36	317+44.69	MINERAL AVE	RT	94.46		1.5						20				1,062								4,115	
			SHEET 2 SUBTOTAL	**689**		**2**		**2,780**		**388**		**193**		**88**		**2,246**		**2,780**		**0**		**0**		**8,821**	

COLORADO LICENSED
JANELLE KAY JANKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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TABULATION OF ROADWAY FLATWORK

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 02 of 05

Project No./Code
AQC M810-017
23574
Sheet Number 42

$PLOT_INFO$

TABULATION OF FLATWORK

STATION FROM	STATION TO	ALIGNMENT	SIDE	304-06000 Aggregate Base Course (Class 6) 6 INCH TON PLAN	AS CONST	601-03000 Concrete Class D CY PLAN	AS CONST	605-82100 Pipe Edge Drain LF PLAN	AS CONST	608-00006 Concrete Sidewalk (6 Inch) SY PLAN	AS CONST	608-00010 Concrete Curb Ramp SY PLAN	AS CONST	609-20010 Curb Type 2 (Section B) LF PLAN	AS CONST	609-21010 Curb and Gutter Type 2 (Section I-B) LF PLAN	AS CONST	609-21020 Curb and Gutter Type 2 (Section II-B) LF PLAN	AS CONST	609-24004 Gutter Type 2 (4 Foot) LF PLAN	AS CONST	609-24008 Gutter Type 2 (8 Foot) LF PLAN	AS CONST	610-00024 Median Cover Material (4 Inch Patterned Concrete) SF PLAN	AS CONST.
MINERAL AVE CONTINUED																									
313+30.34	313+68.25	MINERAL AVE	LT	12.71						42															
313+74.44		MINERAL AVE	LT	4.40								15													
313+79.23		MINERAL AVE	LT	0.73														6							
313+81.05	314+07.39	MINERAL AVE	LT	2.33																27					
314+09.95	314+38.03	MINERAL AVE	LT	9.27						31															
314+14.15		MINERAL AVE	LT	6.46								22													
314+17.90	317+11.61	MINERAL AVE	LT	34.46				296										296							
315+64.43	317+22.38	MINERAL AVE	LT	52.57						176															
316+95.68		MINERAL AVE	RT	4.86								16													
317+17.40		MINERAL AVE	LT	4.61								15													
317+17.98		MINERAL AVE	RT	23.30								44				123								534	
317+23.14	317+30.88	MINERAL AVE	LT	1.36														12							
317+29.77		MINERAL AVE	LT	3.86								13													
318+38.46	319+19.15	MINERAL AVE	RT	17.60		1.1						16				154								751	
PLATTE RIVER PKWY																									
402+09.87	403+41.73	PLATTE RIVER PKWY	LT/RT	34.01								20				337								2,568	
402+10.00	402+97.27	PLATTE RIVER PKWY	LT	9.93				85										85							
402+10.34	402+95.78	PLATTE RIVER PKWY	RT	10.25				88										88							
402+99.18		PLATTE RIVER PKWY	RT	3.52								12													
402+99.56		PLATTE RIVER PKWY	LT	2.45								8													
403+04.11	403+84.69	PLATTE RIVER PKWY	LT	14.74				127										127							
403+83.58	404+75.56	PLATTE RIVER PKWY	LT/RT	0.00																				6,427	
403+83.58	404+75.56	PLATTE RIVER PKWY	LT/RT	14.41										289											
404+28.59	405+56.89	PLATTE RIVER PKWY	LT	15.18				130										130							
405+04.56	407+49.02	PLATTE RIVER PKWY	LT/RT	48.16		0.6						12				534								3,383	
405+50.91	407+49.46	PLATTE RIVER PKWY	RT	22.72				195										195							
405+47.97		PLATTE RIVER PKWY	RT	2.45								8													
405+61.50		PLATTE RIVER PKWY	LT	2.47								8													
405+63.40	408+23.92	PLATTE RIVER PKWY	LT	31.28				269										269							
406+82.60		PLATTE RIVER PKWY	LT	1.60						5															
407+56.46		PLATTE RIVER PKWY	RT	0.70				6										6							
			SHEET 3 SUBTOTAL	**393**		**2**		**1,197**		**255**		**209**		**289**		**1,148**		**1,215**		**27**		**0**		**13,664**	

COLORADO LICENSED
JANELLE KAY JANKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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File Name: 23574_RDY-FLATWORK_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

TABULATION OF ROADWAY FLATWORK

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 03 of 05

Project No./Code
AQC M810-017
23574
Sheet Number 43

$PLOT_INFO$

TABULATION OF FLATWORK

STATION		ALIGNMENT	SIDE	304-06000		601-03000		605-82100		608-00006		608-00010		609-20010		609-21010		609-21020		609-24004		609-24008		610-00024	
				Aggregate Base Course (Class 6)		Concrete Class D		Pipe Edge Drain		Concrete Sidewalk (6 Inch)		Concrete Curb Ramp		Curb Type 2 (Section B)		Curb and Gutter Type 2 (Section I-B)		Curb and Gutter Type 2 (Section II-B)		Gutter Type 2 (4 Foot)		Gutter Type 2 (8 Foot)		Median Cover Material (4 Inch Patterned Concrete)	
				6 INCH																					
				TON		CY		LF		SY		SY		LF		LF		LF		LF		LF		SF	
FROM	TO			PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST	PLAN	AS CONST.
PLATTE RIVER PKWY CONTINUED																									
407+93.46		PLATTE RIVER PKWY	RT	0.70				6										6							
408+00.46	412+21.53	PLATTE RIVER PKWY	RT	49.09				422										422							
408+00.92	412+14.68	PLATTE RIVER PKWY	LT/RT	69.61		0.3										835								2,003	
408+22.87		PLATTE RIVER PKWY	LT	2.77								9													
408+28.96	408+30.92	PLATTE RIVER PKWY	LT	1.89				16										16							
408+32.92	408+58.92	PLATTE RIVER PKWY	LT	4.62																		26			
408+60.92	408+62.94	PLATTE RIVER PKWY	LT	1.89				16										16							
408+64.91		PLATTE RIVER PKWY	LT	2.78								9													
408+68.08	411+99.66	PLATTE RIVER PKWY	LT	39.81				342										342							
408+87.08		PLATTE RIVER PKWY	RT	1.60						5															
NICHOLS AVE																									
500+84.00	501+76.52	NICHOLS AVE	LT	10.47				90										90							
500+84.00	501+70.56	NICHOLS AVE	RT	10.52				90										90							
501+72.16		NICHOLS AVE	RT	2.49								8													
501+79.11		NICHOLS AVE	LT	2.45								8													
501+90.36		NICHOLS AVE	LT/RT	8.63								9				72								263	
503+06.81	503+95.86	NICHOLS AVE	LT	13.49				116										116							
503+32.61	503+91.59	NICHOLS AVE	RT	12.20				105										105							
503+65.17	505+33.43	NICHOLS AVE	LT/RT	43.39		0.5						45				358								1,728	
503+99.62		NICHOLS AVE	RT	7.05								24													
504+08.11		NICHOLS AVE	LT	5.81								19													
504+04.84	505+29.00	NICHOLS AVE	RT	14.72				126										126							
504+18.52	506+14.08	NICHOLS AVE	LT	23.55				202										202							
505+29.08		NICHOLS AVE	RT	3.84								13													
505+35.65	505+37.47	NICHOLS AVE	RT	1.81				16										16							
SHEET 4 SUBTOTAL				**336**		**1**		**1,548**		**6**		**145**		**0**		**1,266**		**1,548**		**0**		**26**		**3,995**	

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JAELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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File Name: 23574_RDY-FLATWORK_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

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DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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TABULATION OF ROADWAY FLATWORK

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 04 of 05

Project No./Code
AQC M810-017
23574
Sheet Number 44

$PLOT_INFO$

TABULATION OF FLATWORK

STATION FROM	STATION TO	ALIGNMENT	SIDE	304-06000 Aggregate Base Course (Class 6) 6 INCH TON PLAN	AS CONST	601-03000 Concrete Class D CY PLAN	AS CONST	605-82100 Pipe Edge Drain LF PLAN	AS CONST	608-00006 Concrete Sidewalk (6 Inch) SY PLAN	AS CONST	608-00010 Concrete Curb Ramp SY PLAN	AS CONST	609-20010 Curb Type 2 (Section B) LF PLAN	AS CONST	609-21010 Curb and Gutter Type 2 (Section I-B) LF PLAN	AS CONST	609-21020 Curb and Gutter Type 2 (Section II-B) LF PLAN	AS CONST	609-24004 Gutter Type 2 (4 Foot) LF PLAN	AS CONST	609-24008 Gutter Type 2 (8 Foot) LF PLAN	AS CONST	610-00024 Median Cover Material (4 Inch Patterned Concrete) SF PLAN	AS CONST.
NICHOLS AVE CONTINUED																									
505+39.45	505+72.45	NICHOLS AVE	RT	5.86																		33			
505+74.45	505+75.82	NICHOLS AVE	RT	1.83				16										16							
505+79.28	508+75.29	NICHOLS AVE	LT/RT	51.09		0.6						9				580								1,148	
505+81.38		NICHOLS AVE	RT	3.79								13													
505+81.45	508+30.23	NICHOLS AVE	RT	29.79				256										256							
506+13.55		NICHOLS AVE	LT	3.64								12													
506+19.70	506+21.07	NICHOLS AVE	LT	1.67				14										14							
506+23.07	506+49.07	NICHOLS AVE	LT	4.62																		26			
506+51.07	506+52.44	NICHOLS AVE	LT	1.67				14										14							
506+54.53		NICHOLS AVE	LT	3.64								12													
506+58.07	508+57.52	NICHOLS AVE	LT	24.12				207										207							
508+36.01		NICHOLS AVE	RT	3.52								12													
508+57.78		NICHOLS AVE	LT	7.68								26													
508+70.30		NICHOLS AVE	RT	13.64								13				118								589	
			SHEET 5 SUBTOTAL	**157**		**1**		**508**		**0**		**97**		**0**		**698**		**508**		**0**		**60**		**1,738**	

SHEET 1 SUBTOTAL	**461**		**5**		**1,452**		**0**		**25**		**0**		**3,411**		**1,452**		**0**		**0**		**14,938**	
SHEET 2 SUBTOTAL	**689**		**2**		**2,780**		**388**		**193**		**88**		**2,246**		**2,780**		**0**		**0**		**8,821**	
SHEET 3 SUBTOTAL	**393**		**2**		**1,197**		**255**		**209**		**289**		**1,148**		**1,215**		**27**		**0**		**13,664**	
SHEET 4 SUBTOTAL	**336**		**1**		**1,548**		**6**		**145**		**0**		**1,266**		**1,548**		**0**		**26**		**3,995**	
SHEET 5 SUBTOTAL	**157**		**1**		**508**		**0**		**97**		**0**		**698**		**508**		**0**		**60**		**1,738**	
Project Totals	**2,036**		**11**		**7,485**		**649**		**669**		**377**		**8,769**		**7,503**		**27**		**86**		**43,156**	

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38096
10/06/2025
PROFESSIONAL ENGINEER

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Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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No Revisions:
Revised:
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TABULATION OF ROADWAY FLATWORK

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: RDY TABS
Structure Numbers
Subset Sheets: 05 of 05

Project No./Code
AQC M810-017
23574
Sheet Number 45

$PLOT_INFO$

TABULATION OF UTILITIES

STATION	ALIGNMENT	OFFSET	202-00035 Removal of Pipe (LF) PLAN	202-00035 AS CONST	202-04005 Clean Valve Box (EACH) PLAN	202-04005 AS CONST	210-04010 Adjust Manhole* (EACH) PLAN	210-04010 AS CONST	210-04050 Adjust Valve Box* (EACH) PLAN	210-04050 AS CONST.
SANTA FE DR										
201+10	SANTA FE DR SB	10' LT			1				2	
201+33	SANTA FE DR SB	11' LT			1				2	
213+22	SANTA FE DR SB	15' RT	25							
213+45	SANTA FE DR SB	15' RT			1				2	
221+88	SANTA FE DR SB	22' LT			1				2	
MINERAL AVE										
300+49	MINERAL AVE	22' LT			2				4	
310+96	MINERAL AVE	30' LT			1				2	
311+45	MINERAL AVE	65' LT			1				2	
313+14	MINERAL AVE	31' LT					2			
316+62	MINERAL AVE	34' LT			1				2	
316+78	MINERAL AVE	30' LT			1				2	
PLATTE RIVER PKWY										
404+21	PLATTE RIVER PKWY	7' LT					2			
404+43	PLATTE RIVER PKWY	39' RT			2				4	
405+86	PLATTE RIVER PKWY	23' LT					2			
406+73	PLATTE RIVER PKWY	27' LT					2			
407+13	PLATTE RIVER PKWY	28' RT			2				4	
407+63	PLATTE RIVER PKWY	27' LT					2			
407+86	PLATTE RIVER PKWY	59' RT			1				2	
408+41	PLATTE RIVER PKWY	27' LT					2			
408+51	PLATTE RIVER PKWY	52' LT			1				2	
408+83	PLATTE RIVER PKWY	27' RT			2				4	
412+37	PLATTE RIVER PKWY	21' RT			1				2	
413+18	PLATTE RIVER PKWY	20' RT			1				2	
NICHOLS AVENUE										
500+80	NICHOLS AVENUE	5' LT			2				4	
503+83	NICHOLS AVENUE	33' RT					2			
504+72	NICHOLS AVENUE	22' RT					2			
504+96	NICHOLS AVENUE	20' LT			1				2	
505+04	NICHOLS AVENUE	20' LT			2				4	
505+44	NICHOLS AVENUE	23' RT					2			
505+67	NICHOLS AVENUE	48' RT			1				2	
506+28	NICHOLS AVENUE	23' RT					2			
506+44	NICHOLS AVENUE	52' LT			1				2	
Project Totals			**25**		**27**		**20**		**54**	

* ADJUST MANHOLE AND VALVE BOX QUANTITIES ASSUME TWO ADJUSTMENTS FOR MANHOLES AND VALVES LOCATED IN EXISTING PAVEMENT.

TABULATION OF TREES

STATION	ALIGNMENT	SIDE	202-00010 Removal of Tree (EACH) PLAN	202-00010 AS CONST	214-00222 Deciduous Tree (2 Inch Caliper) (Furnish Only) (EACH) PLAN	214-00222 AS CONST	NOTES
MINERAL AVE							
306+76.61	MINERAL AVE	LT	1		1		
307+66.01	MINERAL AVE	LT	SEE NOTES				TREE TO BE REMOVED BY CITY OF LITTLETON PRIOR TO CONSTRUCTION
307+90.25	MINERAL AVE	LT	SEE NOTES				TREE TO BE REMOVED BY CITY OF LITTLETON PRIOR TO CONSTRUCTION
312+63.76	MINERAL AVE	RT	1		1		
312+91.09	MINERAL AVE	LT	1		1		
313+21.09	MINERAL AVE	LT	1		1		
313+50.38	MINERAL AVE	LT	1		1		
314+23.75	MINERAL AVE	LT	1		1		
314+47.50	MINERAL AVE	LT	1		1		
314+72.74	MINERAL AVE	LT	1		1		
314+98.69	MINERAL AVE	LT	1		1		
315+30.75	MINERAL AVE	LT	1		1		
315+41.90	MINERAL AVE	LT	1		1		
316+03.51	MINERAL AVE	LT	1		1		
PLATTE RIVER PKWY							
414+36.48	PLATTE RIVER PKWY	RT	1		1		
414+60.65	PLATTE RIVER PKWY	RT	1		1		
Project Totals			**14**		**14**		

NOTES:

1. ALL TREES DESIGNATED FOR REMOVAL ARE WITHIN THE EXISTING RAISED MEDIANS THAT WILL BE REMOVED WITH THIS PROJECT ALONG MINERAL AVENUE AND PLATTE RIVER PARKWAY.
2. CONTRACTOR SHALL REMOVE THE EXISTING IRRIGATION WITHIN THE EXISTING RAISED CENTER MEDIANS AND CAP. THIS IRRIGATION SYSTEM IS SERVING LANDSCAPING WITHIN THE RTD PROPERTY AND SHALL NOT BE DISTURBED. THIS WILL NOT BE PAID FOR SEPERATELY AND IS INCLUDED IN THE COST OF THE WORK.
3. CONTRACTOR SHALL COORDINATE WITH THE CITY OF LITTLETON FORESTER PRIOR TO ANY TREE REMOVALS AND FOR FURNISHING NEW TREES.

TABULATION OF GUARDRAIL

STATION FROM	STATION TO	ALIGNMENT	SIDE	606-00302 Guardrail Type 3 (31 Inch Midwest Guardrail System) (LF) PLAN	606-00302 AS CONST	606-01340 End Anchorage Type 3D (EACH) PLAN	606-01340 AS CONST	606-01370 Transition Type 3G (EACH) PLAN	606-01370 AS CONST	606-01380 Transition Type 3H (EACH) PLAN	606-01380 AS CONST	606-02003 End Anchorage (Nonflared) (EACH) PLAN	606-02003 AS CONST.
300+13.07	306+64.59	MINERAL AVE	RT	625		1				1			
300+39.85	302+13.39	MINERAL AVE	LT	150				1				1	
Project Totals				**775**		**1**		**1**		**1**		**1**	

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38096
10/06/2025
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Unit Information

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1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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No Revisions:
Revised:
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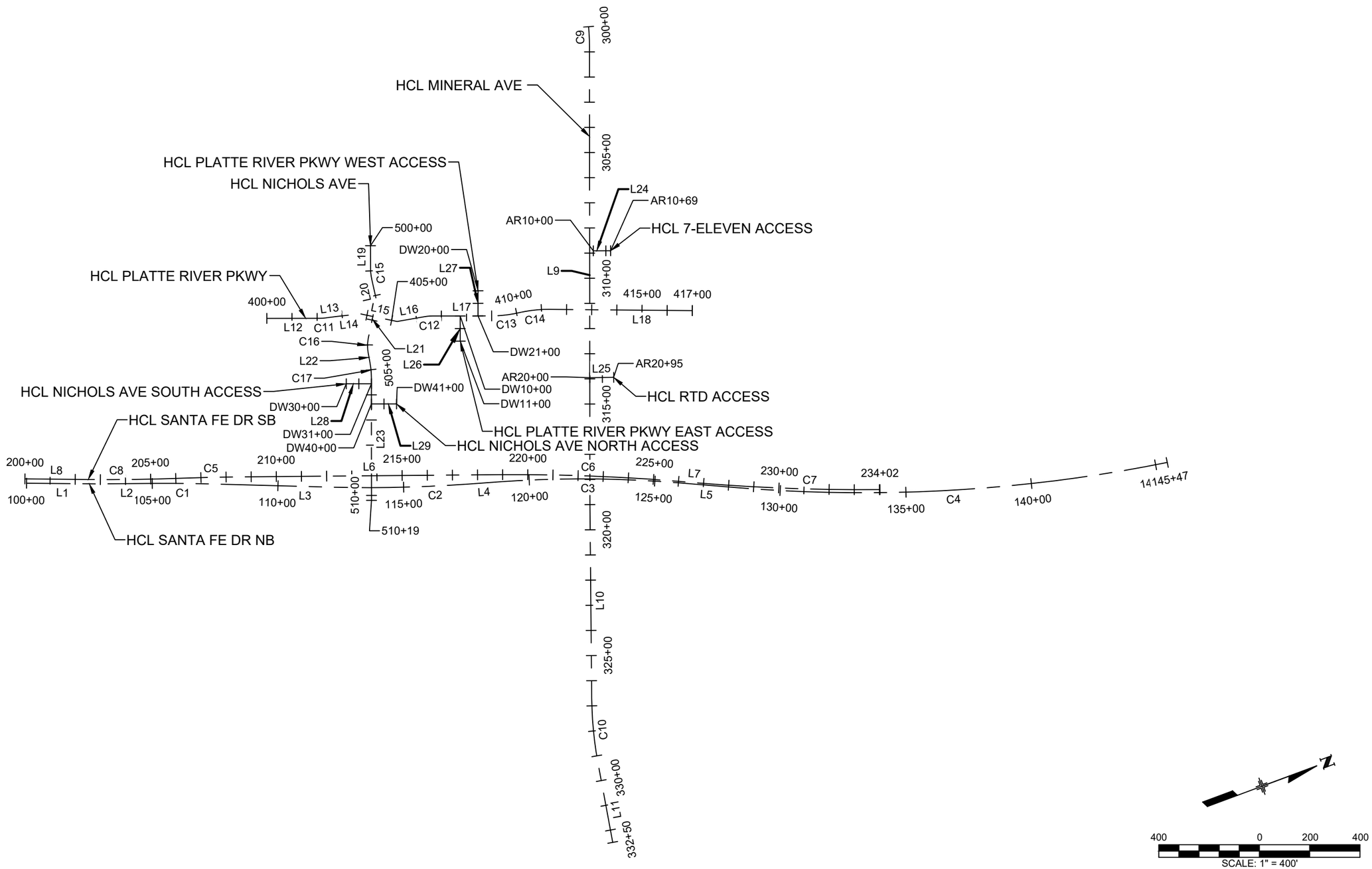
TABULATION OF MISCELLANEOUS ITEMS

Designer: OVELASCO
Detailer: BHEDGES
Sheet Subset: MISC TAB
Structure Numbers
Subset Sheets: 01 of 01

Project No./Code
AQC M810-017
23574
Sheet Number 46

$PLOT_INFO$



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58434
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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_HZ_MAINLINE.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 400' Vert. Scale: N/A			
Unit Information			

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FAX: 303-860-7139

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As Constructed	MAINLINE ALIGNMENT GEOMETRIC DATA		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: S.CASACELI		Sheet Number 47
	Sheet Subset:GEOMETRY	Subset Sheets: 01 of 21	

$PLOT_INFO$

HCL SANTA FE DR NB											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L1	100+00.00	N: 634595.67 E: 133743.35	102+81.53	N: 634858.60 E: 133843.98	281.53'	N20° 56' 33.74"E					
L2	102+81.53	N: 634858.60 E: 133843.98	105+16.03	N: 635079.03 E: 133923.96	234.50'	N19° 56' 32.39"E					
C1	105+16.03	N: 635079.03 E: 133923.96	107+21.90	N: 635271.32 E: 133997.48	205.88'	N20° 55' 31.15"E	205.87'	N: 635079.03 E: 133959.07	001° 57' 58"	000° 57' 18"	6000.00
L3	107+21.90	N: 635271.32 E: 133997.48	112+08.15	N: 635722.45 E: 134178.91	486.24'	N21° 54' 29.92"E					
C2	112+08.15	N: 635722.45 E: 134178.91	117+58.67	N: 636242.48 E: 134358.91	550.53'	N19° 05' 31.15"E	550.30'	N: 635722.45 E: 134281.70	005° 37' 58"	001° 01' 23"	5600.00
L4	117+58.67	N: 636242.48 E: 134358.91	118+77.53	N: 636356.58 E: 134392.22	118.86'	N16° 16' 32.38"E					
C3	118+77.53	N: 636356.58 E: 134392.22	125+90.38	N: 637022.90 E: 134643.57	712.85'	N20° 40' 02.64"E	712.15'	N: 636356.58 E: 134492.30	008° 47' 01"	001° 13' 56"	4650.00
L5	125+90.38	N: 637022.90 E: 134643.57	128+28.27	N: 637238.40 E: 134744.33	237.89'	N25° 03' 32.89"E					
C4	128+28.27	N: 637238.40 E: 134744.33	145+47.16	N: 638876.48 E: 135246.36	1718.89'	N17° 02' 21.01"E	1713.28'	N: 637238.40 E: 135110.74	016° 02' 24"	000° 55' 59"	6140.00

HCL SANTA FE DR SB											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L8	200+00.00	N: 634595.67 E: 133725.15	202+51.45	N: 634830.50 E: 133815.02	251.45'	N20° 56' 33.74"E					
C8	202+51.45	N: 634830.50 E: 133815.02	206+26.02	N: 635183.36 E: 133940.59	374.57'	N19° 35' 17.45"E	374.53'	N: 634830.50 E: 133881.98	002° 42' 33"	000° 43' 24"	7922.00
C5	206+26.02	N: 635183.36 E: 133940.59	208+55.31	N: 635400.07 E: 134015.49	229.29'	N19° 04' 04.01"E	229.28'	N: 635183.36 E: 133976.46	001° 40' 06"	000° 43' 39"	7875.00
L6	208+55.31	N: 635400.07 E: 134015.49	218+84.59	N: 636367.87 E: 134365.87	1029.28'	N19° 54' 06.87"E					
C6	218+84.59	N: 636367.87 E: 134365.87	225+93.42	N: 637022.62 E: 134636.81	708.83'	N22° 28' 49.88"E	708.59'	N: 636367.87 E: 134486.60	005° 09' 26"	000° 43' 39"	7875.00
L7	225+93.42	N: 637022.62 E: 134636.81	226+86.81	N: 637107.22 E: 134676.37	93.39'	N25° 03' 32.89"E					
C7	226+86.81	N: 637107.22 E: 134676.37	234+02.13	N: 637768.01 E: 134949.66	715.32'	N22° 28' 08.70"E	715.08'	N: 637107.22 E: 134827.96	005° 10' 48"	000° 43' 27"	7912.00

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

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No Revisions:
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MAINLINE ALIGNMENT
GEOMETRIC DATA

Designer: O.VELASCO
Detailer: S.CASACELI
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 02 of 21

Project No./Code
AQC M810-017
23574
Sheet Number 48

$PLOT_INFO$

HCL MINERAL AVE											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C9	300+00.00	N: 637322.90 E: 132820.97	300+80.00	N: 637298.47 E: 132897.12	80.00'	S72° 12' 48.08"E	79.97'	N: 637322.90 E: 132859.59	005° 05' 35"	006° 22' 10"	900.00
L9	300+80.00	N: 637298.47 E: 132897.12	318+95.24	N: 636667.71 E: 134599.25	1815.24'	S69° 40' 00.75"E					
L10	318+95.24	N: 636667.71 E: 134599.25	326+67.75	N: 636405.33 E: 135325.83	772.50'	S70° 08' 38.93"E					
C10	326+67.75	N: 636405.33 E: 135325.83	329+28.12	N: 636338.54 E: 135577.16	260.38'	S75° 07' 01.15"E	260.05'	N: 636405.33 E: 135448.59	009° 56' 44"	003° 49' 14"	1500.00
L11	329+28.12	N: 636338.54 E: 135577.16	332+49.83	N: 636283.17 E: 135894.06	321.71'	S80° 05' 23.36"E					

HCL PLATTE RIVER PKWY											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L12	400+00.00	N: 635719.54 E: 133462.11	402+09.98	N: 635916.43 E: 133535.09	209.98'	N20° 20' 19.89"E					
C11	402+09.98	N: 635916.43 E: 133535.09	402+34.40	N: 635939.83 E: 133542.00	24.41'	N16° 26' 33.80"E	24.39'	N: 635916.43 E: 133539.34	007° 47' 32"	032° 20' 51"	179.50
L13	402+34.40	N: 635939.83 E: 133542.00	402+75.50	N: 635979.95 E: 133550.93	41.11'	N12° 32' 47.72"E					
L14	402+75.50	N: 635979.95 E: 133550.93	403+72.94	N: 636074.42 E: 133574.79	97.44'	N14° 10' 30.45"E					
L15	403+72.94	N: 636074.42 E: 133574.79	405+22.37	N: 636201.06 E: 133654.11	149.43'	N32° 03' 38.45"E					
L16	405+22.37	N: 636201.06 E: 133654.11	406+32.11	N: 636308.97 E: 133674.11	109.74'	N10° 30' 07.56"E					
C12	406+32.11	N: 636308.97 E: 133674.11	406+66.33	N: 636341.91 E: 133683.19	34.21'	N15° 24' 10.82"E	34.17'	N: 636308.97 E: 133677.24	009° 48' 07"	028° 57' 18"	200.00
L17	406+66.33	N: 636341.91 E: 133683.19	408+97.83	N: 636559.03 E: 133763.52	231.50'	N20° 18' 14.08"E					
C13	408+97.83	N: 636559.03 E: 133763.52	410+11.29	N: 636668.97 E: 133790.53	113.46'	N13° 48' 12.00"E	113.21'	N: 636559.03 E: 133783.29	013° 00' 04"	011° 28' 42"	500.00
C14	410+11.29	N: 636668.97 E: 133790.53	411+29.83	N: 636783.68 E: 133819.33	118.54'	N14° 05' 41.59"E	118.27'	N: 636668.97 E: 133798.10	013° 35' 03"	011° 28' 42"	500.00
L18	411+29.83	N: 636783.68 E: 133819.33	417+00.00	N: 637316.38 E: 134022.61	570.17'	N20° 53' 13.25"E					

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Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

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MAINLINE ALIGNMENT GEOMETRIC DATA

Designer: O.VELASCO
Detailer: S.CASACELI
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 03 of 21

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AQC M810-017
23574
Sheet Number 49

$PLOT_INFO$

HCL NICHOLS AVE

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L19	500+00.00	N: 636206.83 E: 133334.91	500+88.13	N: 636176.20 E: 133417.54	88.13'	S69° 39' 40.10"E					
C15	500+88.13	N: 636176.20 E: 133417.54	501+36.96	N: 636164.38 E: 133464.82	48.83'	S75° 57' 46.14"E	48.73'	N: 636176.20 E: 133440.53	012° 36' 12"	026° 01' 56"	222.00
L20	501+36.96	N: 636164.38 E: 133464.82	502+18.17	N: 636153.45 E: 133545.30	81.21'	S82° 15' 52.18"E					
L21	502+18.17	N: 636153.45 E: 133545.30	503+72.53	N: 636070.93 E: 133675.74	154.36'	S57° 40' 54.05"E					
C16	503+72.53	N: 636070.93 E: 133675.74	504+31.15	N: 636049.94 E: 133730.07	58.62'	S68° 52' 35.79"E	58.24'	N: 636070.93 E: 133700.83	022° 23' 23"	038° 56' 33"	150.00
L22	504+31.15	N: 636049.94 E: 133730.07	504+69.91	N: 636043.25 E: 133768.26	38.76'	S80° 04' 17.53"E					
C17	504+69.91	N: 636043.25 E: 133768.26	505+33.51	N: 636026.67 E: 133829.56	63.59'	S74° 51' 58.82"E	63.51'	N: 636043.25 E: 133799.67	010° 24' 37"	016° 25' 35"	350.00
L23	505+33.51	N: 636026.67 E: 133829.56	510+19.42	N: 635857.78 E: 134285.18	485.91'	S69° 39' 40.11"E					

HCL 7-ELEVEN ACCESS

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L24	AR10+00.00	N: 637030.10 E: 133662.61	AR10+69.00	N: 637094.87 E: 133686.40	69.00'	N20° 09' 51.16"E					

HCL RTD ACCESS

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L25	AR20+00.00	N: 636841.48 E: 134130.34	AR20+94.95	N: 636930.85 E: 134162.40	94.95'	N19° 44' 11.61"E					

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MAINLINE ALIGNMENT GEOMETRIC DATA

Designer: O.VELASCO
Detailer: S.CASACELI
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 04 of 21

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AQC M810-017
23574
Sheet Number 50

$PLOT_INFO$

HCL PLATTE RIVER PKWY EAST ACCESS											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L26	DW10+00.00	N: 636443.79 E: 133720.88	DW11+00.00	N: 636409.09 E: 133814.67	100.00'	S69° 41' 45.92"E					

HCL PLATTE RIVER PKWY WEST ACCESS											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L27	DW20+00.00	N: 636545.04 E: 133651.72	DW21+00.00	N: 636510.34 E: 133745.50	100.00'	S69° 41' 45.92"E					

HCL NICHOLS AVE SOUTH ACCESS											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L28	DW30+00.00	N: 635925.11 E: 133815.85	DW31+00.00	N: 636018.87 E: 133850.61	100.00'	N20° 20' 19.89"E					

HCL NICHOLS AVE NORTH ACCESS											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L29	DW40+00.00	N: 635991.02 E: 133925.73	DW41+00.00	N: 636084.79 E: 133960.49	100.00'	N20° 20' 19.89"E					

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Date:	Comments	Init.

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Designer: O.VELASCO
Detailer: S.CASACELI
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 05 of 21

Project No./Code
AQC M810-017
23574
Sheet Number 51

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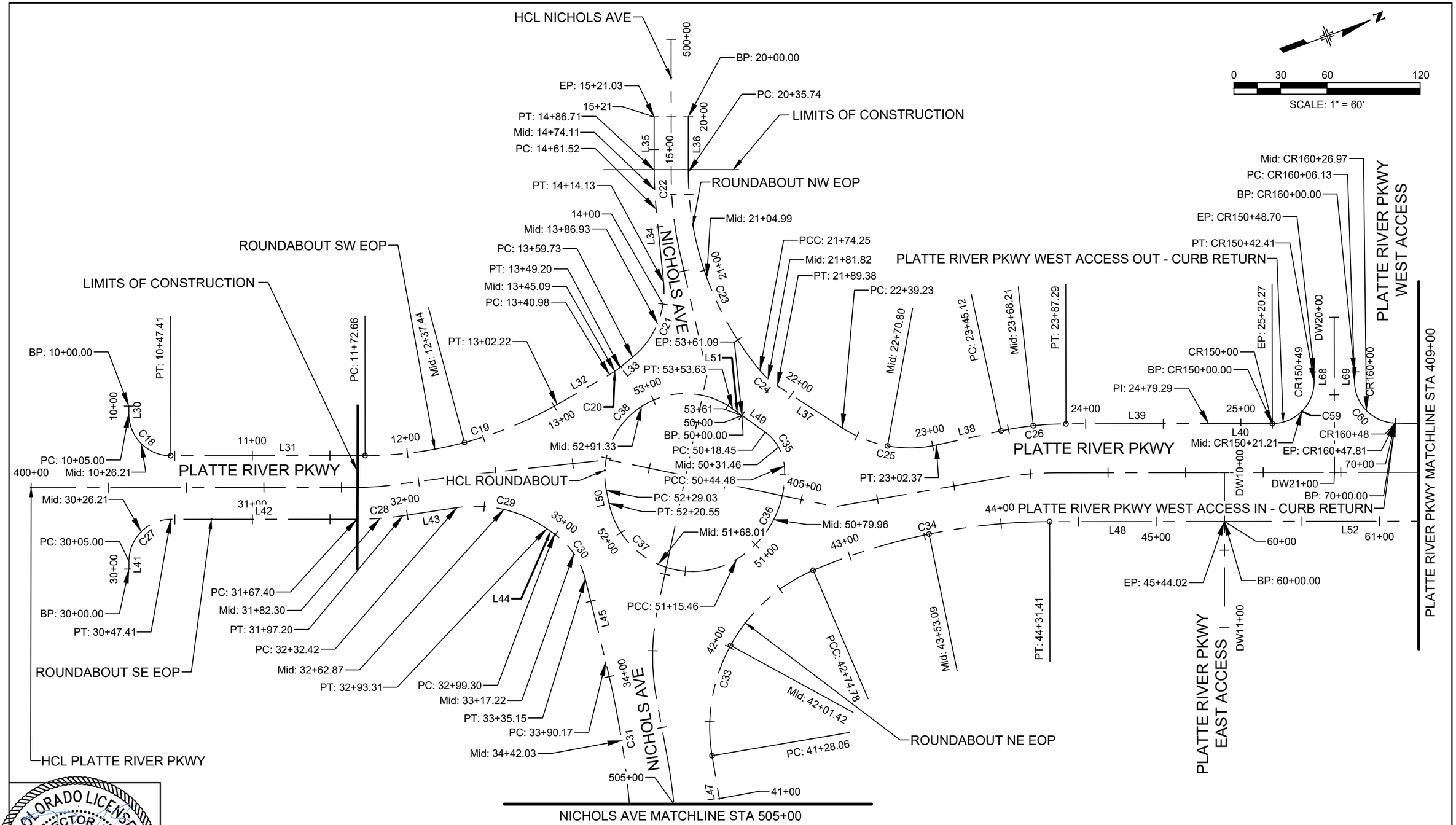

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	Sheet Subset:GEOMETRY	Subset Sheets: 06 of 21	Sheet Number 52

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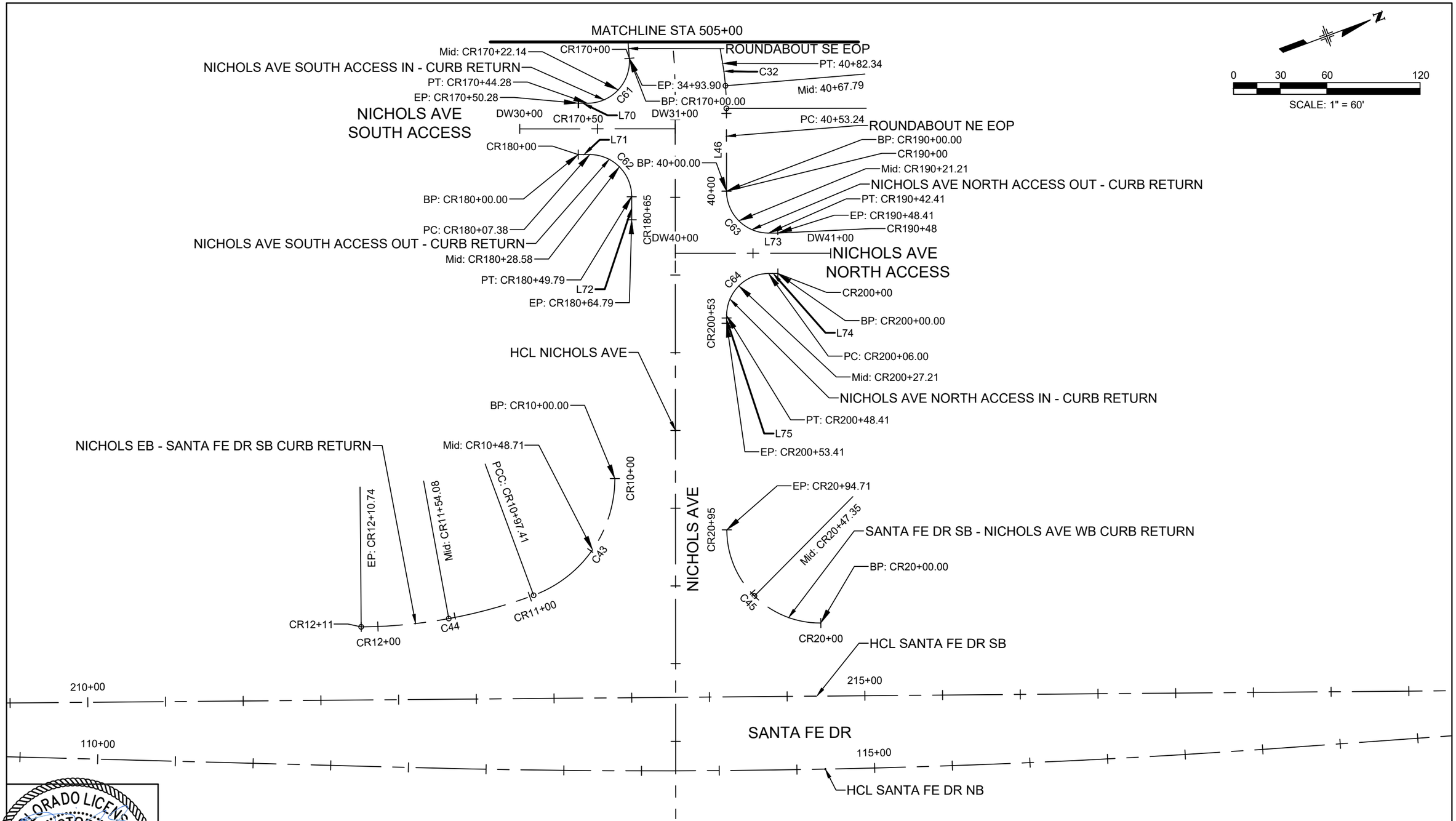

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PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_HZ_SECONDARY.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 60' Vert. Scale: N/A			
Unit Information			

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No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
	Detailer: O.VELASCO		
Void:	Sheet Subset:GEOMETRY	Subset Sheets: 07 of 21	Sheet Number 53

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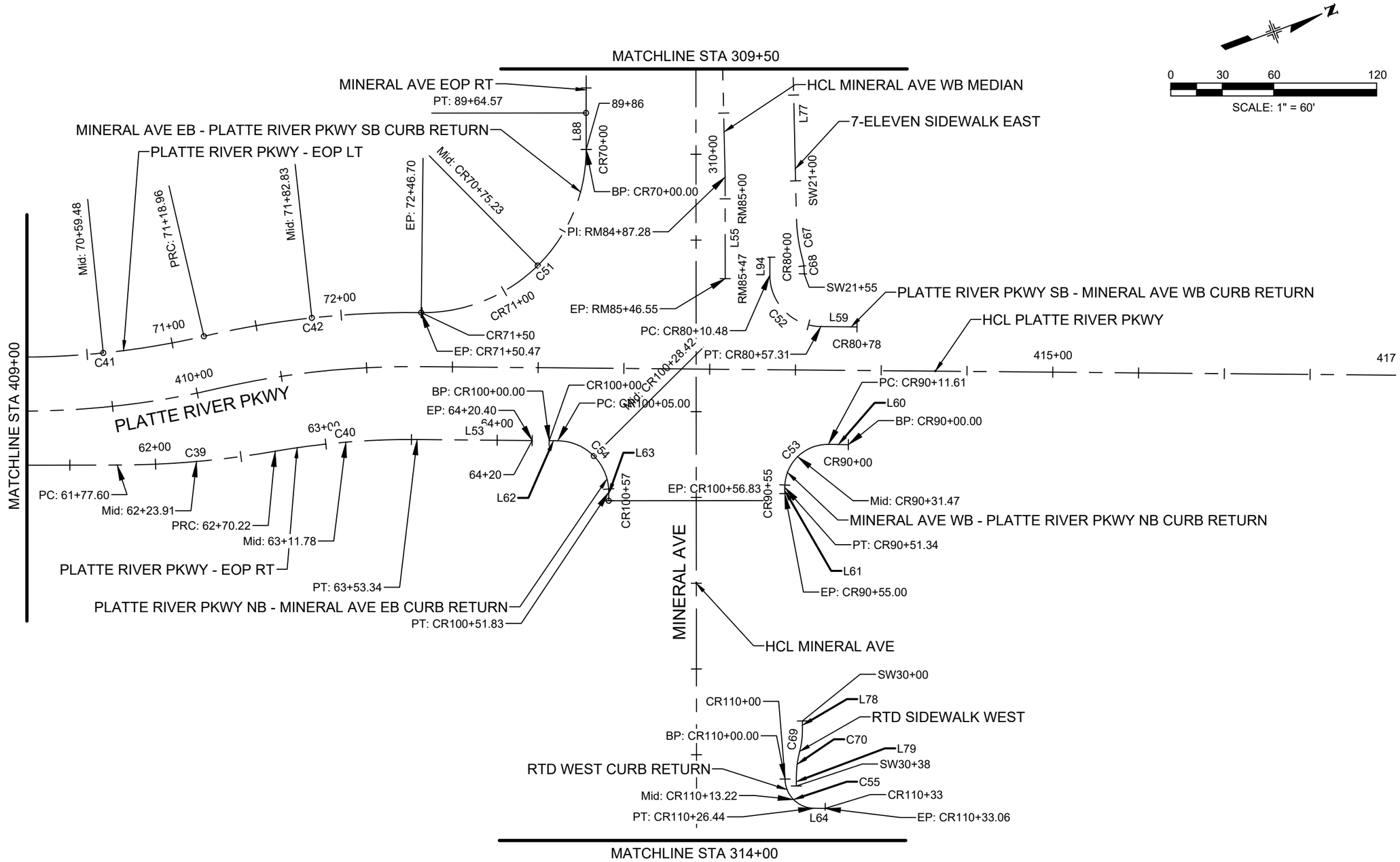

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_HZ_SECONDARY.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 60' Vert. Scale: N/A			
Unit Information			
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Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		
	Sheet Subset:GEOMETRY	Subset Sheets: 08 of 21	Sheet Number 54

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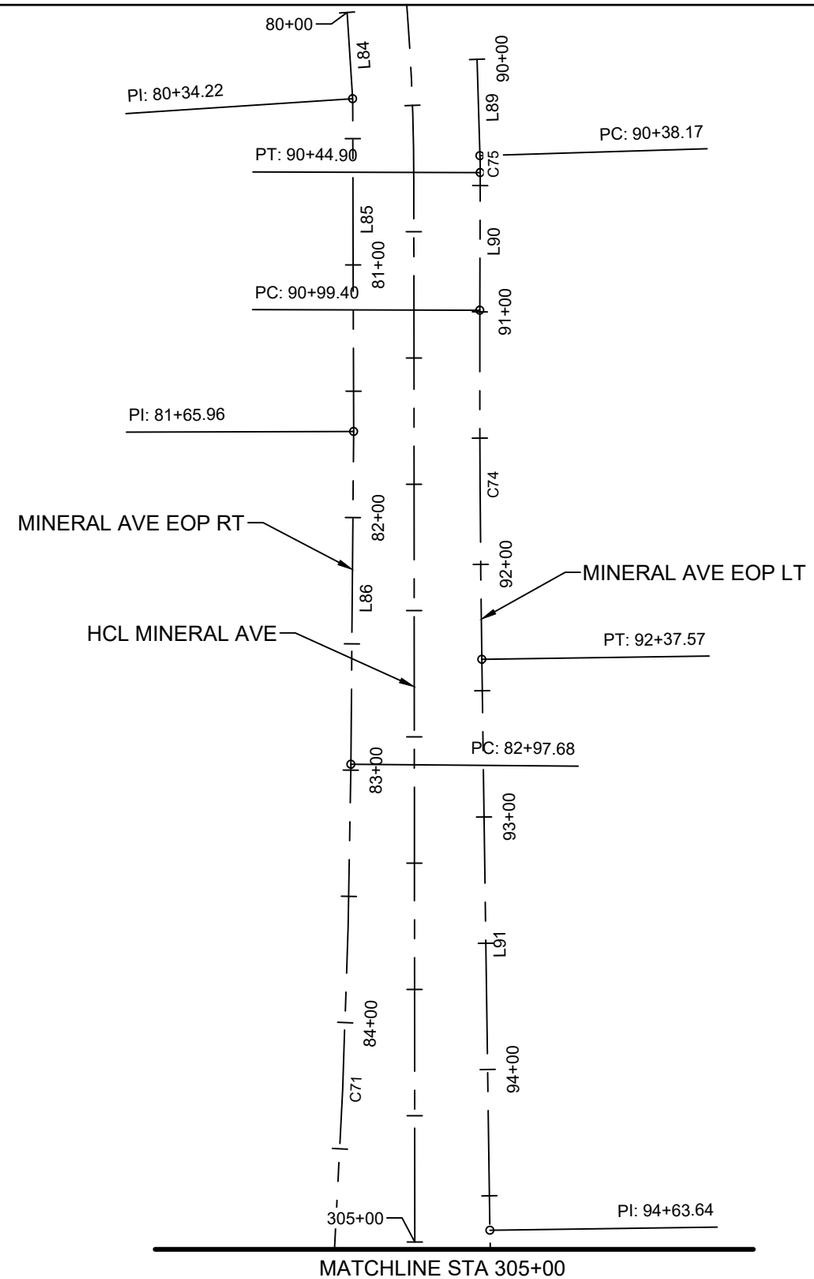

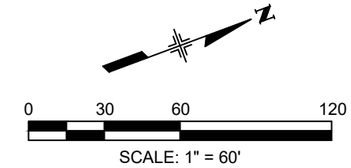

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No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 55
	Sheet Subset:GEOMETRY	Subset Sheets: 09 of 21	

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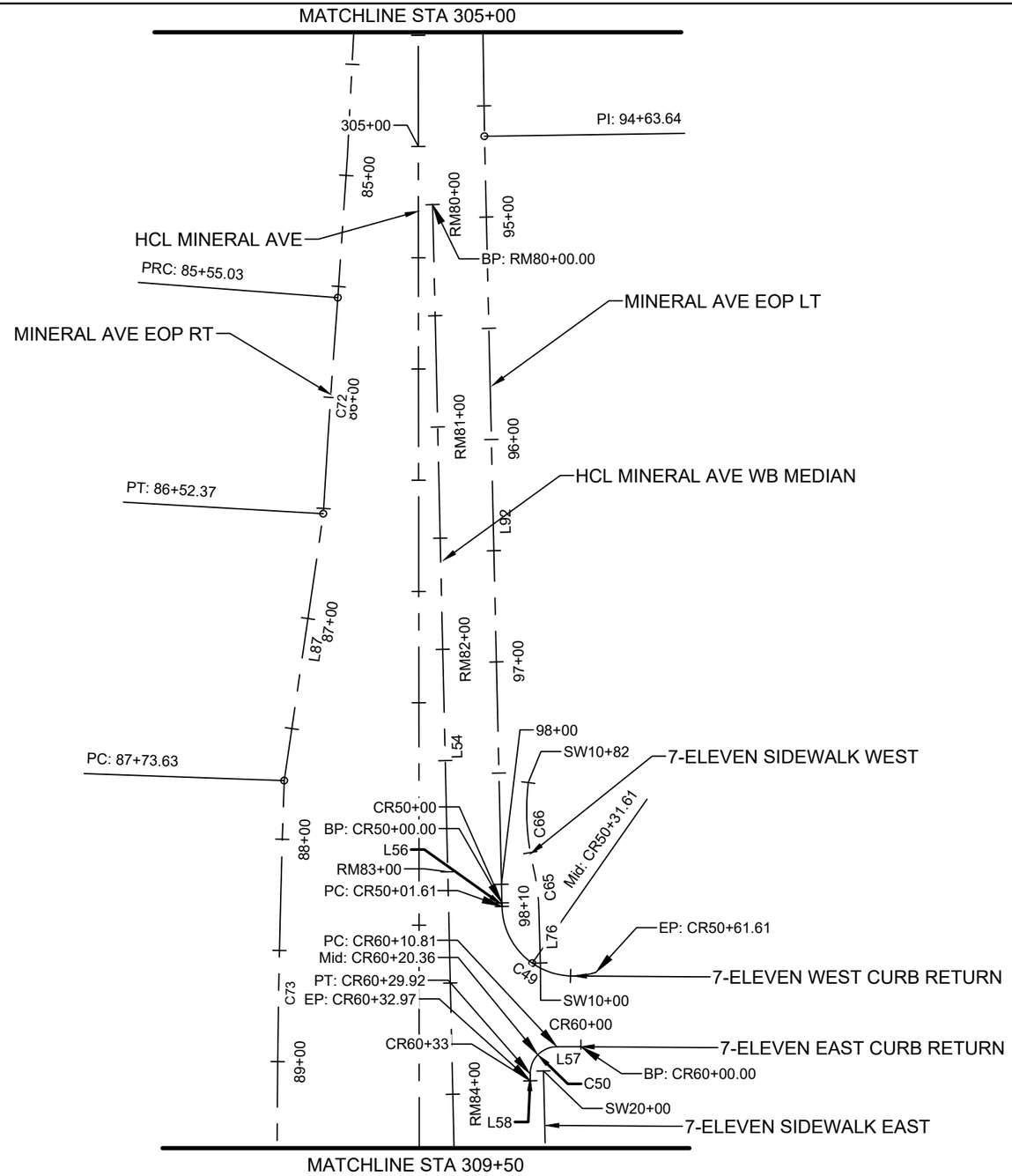

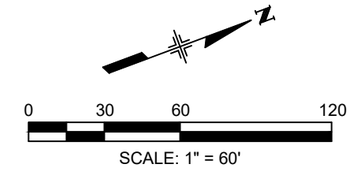

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Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_HZ_SECONDARY.DWG	Date:	Comments	Init.	
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HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139				

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No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 56
	Sheet Subset:GEOMETRY	Subset Sheets: 10 of 21	

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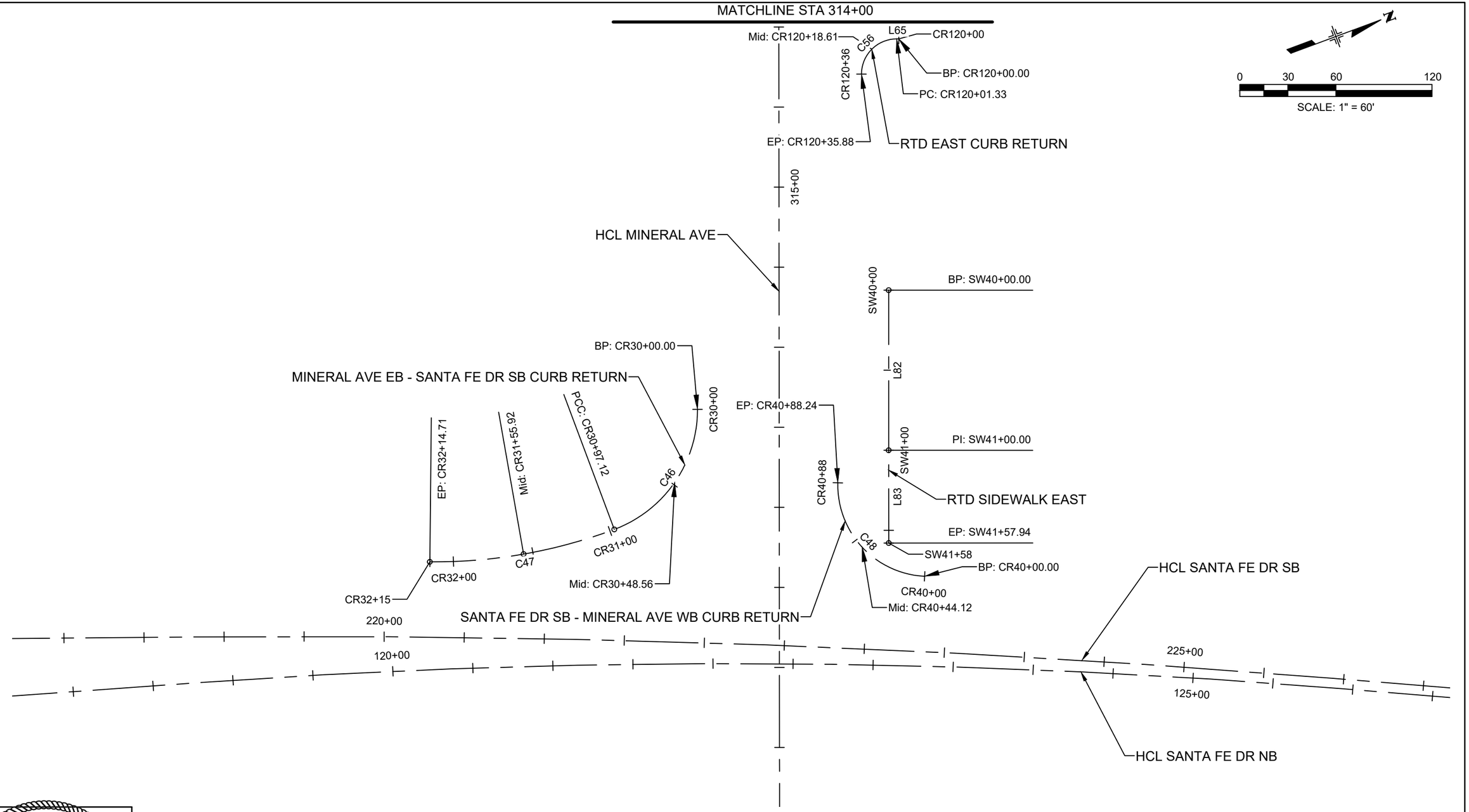

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Unit Information			

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Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 57
	Sheet Subset:GEOMETRY	Subset Sheets: 11 of 21	

$PLOT_INFO$

ROUNDABOUT SW EOP

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L30	10+00.00	N: 635796.86 E: 133434.78	10+05.00	N: 635795.12 E: 133439.47	5.00'	S69° 39' 40.00"E					
C18	10+05.00	N: 635795.12 E: 133439.47	10+47.41	N: 635811.05 E: 133474.17	42.41'	N65° 20' 19.94"E	38.18'	N: 635795.12 E: 133464.78	090° 00' 00"	000° 00' 00"	27.00
L31	10+47.41	N: 635811.05 E: 133474.17	11+72.66	N: 635928.49 E: 133517.70	125.24'	N20° 20' 19.89"E					
C19	11+72.66	N: 635928.49 E: 133517.70	13+02.22	N: 636056.02 E: 133529.96	129.57'	N05° 29' 30.01"E	128.12'	N: 635928.49 E: 133540.73	029° 41' 40"	023° 04' 26"	250.00
L32	13+02.22	N: 636056.02 E: 133529.96	13+40.98	N: 636094.27 E: 133523.66	38.76'	N09° 21' 19.87"W					
C20	13+40.98	N: 636094.27 E: 133523.66	13+49.20	N: 636102.22 E: 133521.67	8.21'	N14° 03' 37.15"W	8.20'	N: 636094.27 E: 133522.99	009° 24' 35"	000° 00' 00"	50.00
L33	13+49.20	N: 636102.22 E: 133521.67	13+59.73	N: 636112.20 E: 133518.28	10.54'	N18° 45' 54.43"W					
C21	13+59.73	N: 636112.20 E: 133518.28	14+14.13	N: 636147.74 E: 133480.03	54.40'	N47° 05' 56.87"W	52.21'	N: 636112.20 E: 133508.74	056° 40' 05"	130° 45' 36"	55.00
L34	14+14.13	N: 636147.74 E: 133480.03	14+61.52	N: 636159.66 E: 133434.17	47.39'	N75° 25' 59.30"W					
C22	14+61.52	N: 636159.66 E: 133434.17	14+86.71	N: 636167.21 E: 133410.15	25.19'	N72° 32' 49.70"W	25.17'	N: 636159.66 E: 133421.97	005° 46' 19"	023° 04' 26"	250.00
L35	14+86.71	N: 636167.21 E: 133410.15	15+21.03	N: 636179.14 E: 133377.97	34.32'	N69° 39' 40.10"W					

ROUNDABOUT NW EOP

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L36	20+00.00	N: 636199.77 E: 133385.62	20+35.74	N: 636187.35 E: 133419.12	35.74'	S69° 39' 40.10"E					
C23	20+35.74	N: 636187.35 E: 133419.12	21+74.25	N: 636186.17 E: 133554.88	138.52'	S89° 30' 08.60"E	135.77'	N: 636187.35 E: 133486.79	039° 40' 57"	028° 57' 18"	200.00
C24	21+74.25	N: 636186.17 E: 133554.88	21+89.38	N: 636193.24 E: 133568.19	15.13'	N61° 59' 25.34"E	15.07'	N: 636186.17 E: 133562.07	017° 19' 55"	179° 59' 55"	50.00
L37	21+89.38	N: 636193.24 E: 133568.19	22+39.23	N: 636223.02 E: 133608.16	49.85'	N53° 19' 27.78"E					
C25	22+39.23	N: 636223.02 E: 133608.16	23+02.37	N: 636275.90 E: 133639.58	63.14'	N30° 42' 47.70"E	61.52'	N: 636223.02 E: 133634.89	045° 13' 20"	077° 21' 52"	80.00
L38	23+02.37	N: 636275.90 E: 133639.58	23+45.12	N: 636318.23 E: 133645.61	42.76'	N08° 06' 07.61"E					
C26	23+45.12	N: 636318.23 E: 133645.61	23+87.29	N: 636359.03 E: 133655.94	42.17'	N14° 12' 10.85"E	42.09'	N: 636318.23 E: 133648.59	012° 12' 06"	029° 15' 14"	198.00
L39	23+87.29	N: 636359.03 E: 133655.94	24+79.29	N: 636445.31 E: 133687.86	92.00'	N20° 18' 14.08"E					
L40	24+79.29	N: 636445.31 E: 133687.86	25+20.27	N: 636483.76 E: 133702.08	40.99'	N20° 18' 14.08"E					

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DENVER, COLORADO 80202
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SECONDARY ALIGNMENT
GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 12 of 21

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AQC M810-017
23574
Sheet Number 58

$PLOT_INFO$

ROUNDABOUT SE EOP

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L41	30+00.00	N: 635760.36 E: 133533.23	30+05.00	N: 635762.10 E: 133528.54	5.00'	N69° 39' 40.00"W					
C27	30+05.00	N: 635762.10 E: 133528.54	30+47.41	N: 635796.80 E: 133512.61	42.41'	N24° 39' 40.06"W	38.18'	N: 635762.10 E: 133503.23	090° 00' 00"	000° 00' 00"	27.00
L42	30+47.41	N: 635796.80 E: 133512.61	31+67.40	N: 635909.30 E: 133554.32	119.98'	N20° 20' 19.89"E					
C28	31+67.40	N: 635909.30 E: 133554.32	31+97.20	N: 635937.91 E: 133562.56	29.80'	N16° 04' 12.42"E	29.77'	N: 635909.30 E: 133559.50	008° 32' 15"	028° 57' 18"	200.00
L43	31+97.20	N: 635937.91 E: 133562.56	32+32.42	N: 635972.39 E: 133569.76	35.22'	N11° 48' 04.95"E					
C29	32+32.42	N: 635972.39 E: 133569.76	32+93.31	N: 636021.89 E: 133602.66	60.89'	N33° 36' 21.58"E	59.43'	N: 635972.39 E: 133576.31	043° 36' 33"	077° 21' 52"	80.00
L44	32+93.31	N: 636021.89 E: 133602.66	32+99.30	N: 636025.29 E: 133607.58	5.99'	N55° 24' 38.21"E					
C30	32+99.30	N: 636025.29 E: 133607.58	33+35.15	N: 636033.81 E: 133641.63	35.86'	N75° 57' 19.51"E	35.09'	N: 636025.29 E: 133623.01	041° 05' 23"	179° 59' 57"	50.00
L45	33+35.15	N: 636033.81 E: 133641.63	33+90.17	N: 636027.58 E: 133696.29	55.01'	S83° 29' 59.19"E					
C31	33+90.17	N: 636027.58 E: 133696.29	34+93.90	N: 636007.03 E: 133797.83	103.73'	S78° 33' 48.34"E	103.60'	N: 636027.58 E: 133747.95	009° 52' 22"	009° 31' 43"	602.00

ROUNDABOUT NE EOP

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L46	40+00.00	N: 636035.87 E: 133899.70	40+53.24	N: 636054.37 E: 133849.78	53.24'	N69° 39' 40.11"W					
C32	40+53.24	N: 636054.37 E: 133849.78	40+82.34	N: 636062.18 E: 133821.78	29.10'	N74° 25' 30.31"W	29.07'	N: 636054.37 E: 133836.11	009° 31' 40"	033° 12' 11"	175.00
L47	40+82.34	N: 636062.18 E: 133821.78	41+28.06	N: 636070.75 E: 133776.87	45.72'	N79° 11' 20.51"W					
C33	41+28.06	N: 636070.75 E: 133776.87	42+74.78	N: 636173.49 E: 133687.63	146.72'	N40° 58' 40.24"W	136.08'	N: 636070.75 E: 133691.81	076° 25' 21"	054° 04' 17"	110.00
C34	42+74.78	N: 636173.49 E: 133687.63	44+31.41	N: 636327.25 E: 133711.35	156.63'	N08° 46' 07.05"E	155.58'	N: 636173.49 E: 133683.80	023° 04' 14"	014° 46' 11"	389.00
L48	44+31.41	N: 636327.25 E: 133711.35	45+44.02	N: 636432.86 E: 133750.43	112.61'	N20° 18' 14.08"E					

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Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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SECONDARY ALIGNMENT GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 13 of 19

Project No./Code
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23574
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$PLOT_INFO$

HCL ROUNDABOUT

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L49	50+00.00	N: 636165.17 E: 133578.08	50+18.45	N: 636175.45 E: 133593.40	18.45'	N56° 07' 56.42"E					
C35	50+18.45	N: 636175.45 E: 133593.40	50+44.46	N: 636179.41 E: 133618.30	26.01'	N80° 58' 20.04"E	25.21'	N: 636175.45 E: 133604.93	049° 40' 47"	000° 00' 00"	30.00
C36	50+44.46	N: 636179.41 E: 133618.30	51+15.46	N: 636129.63 E: 133663.76	71.00'	S42° 24' 26.10"E	67.41'	N: 636179.41 E: 133656.45	063° 33' 41"	102° 45' 01"	64.00
C37	51+15.46	N: 636129.63 E: 133663.76	52+20.55	N: 636065.14 E: 133601.25	105.08'	S44° 06' 32.36"W	89.81'	N: 636129.63 E: 133678.10	109° 28' 16"	130° 45' 36"	55.00
L50	52+20.55	N: 636065.14 E: 133601.25	52+29.03	N: 636066.45 E: 133592.86	8.49'	N81° 09' 19.45"W					
C38	52+29.03	N: 636066.45 E: 133592.86	53+53.63	N: 636161.00 E: 133571.88	124.60'	N12° 30' 41.51"W	96.86'	N: 636066.45 E: 133461.46	137° 17' 16"	148° 06' 55"	52.00
L51	53+53.63	N: 636161.00 E: 133571.88	53+61.09	N: 636165.16 E: 133578.07	7.46'	N56° 07' 56.42"E					

PLATTE RIVER PKWY - EOP RT

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L52	60+00.00	N: 636432.86 E: 133750.43	61+77.60	N: 636599.43 E: 133812.05	177.60'	N20° 18' 14.08"E					
C39	61+77.60	N: 636599.43 E: 133812.05	62+70.22	N: 636688.61 E: 133836.60	92.61'	N15° 23' 26.25"E	92.50'	N: 636599.43 E: 133828.16	009° 49' 36"	010° 37' 32"	540.00
C40	62+70.22	N: 636688.61 E: 133836.60	63+53.34	N: 636768.53 E: 133859.04	83.12'	N15° 40' 55.84"E	83.01'	N: 636688.61 E: 133844.18	010° 24' 35"	012° 32' 55"	457.50
L53	63+53.34	N: 636768.53 E: 133859.04	64+20.40	N: 636831.19 E: 133882.95	67.06'	N20° 53' 13.25"E					

PLATTE RIVER PKWY - EOP LT

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C41	70+00.00	N: 636558.16 E: 133729.43	71+18.96	N: 636672.98 E: 133759.29	118.96'	N14° 34' 35.91"E	118.64'	N: 636558.16 E: 133751.68	014° 32' 52"	012° 15' 11"	468.50
C42	71+18.96	N: 636672.98 E: 133759.29	72+46.70	N: 636796.53 E: 133790.52	127.75'	N14° 11' 17.61"E	127.44'	N: 636672.98 E: 133767.44	013° 46' 15"	010° 47' 46"	531.50

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DENVER, COLORADO 80202
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SECONDARY ALIGNMENT GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
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23574
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$PLOT_INFO$

HCL MINERAL AVE WB MEDIAN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L54	RM80+00.00	N: 637149.47 E: 133317.65	AR84+87.28	N: 636990.12 E: 133778.14	487.28'	S70° 54' 43.43"E					
L55	RM84+87.28	N: 636990.12 E: 133778.14	AR85+46.55	N: 636969.53 E: 133833.71	59.26'	S69° 40' 01.16"E					

NICHOLS AVE EB - SANTA FE DR SB CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C43	CR10+00.00	N: 635904.12 E: 134047.97	CR10+97.41	N: 635828.96 E: 134100.16	97.41'	S34° 46' 39.58"E	91.51'	N: 635904.12 E: 134100.27	069° 46' 01"	077° 21' 52"	80.00
C44	CR10+97.41	N: 635828.96 E: 134100.16	CR12+10.74	N: 635717.91 E: 134080.58	113.33'	S10° 00' 13.92"W	112.76'	N: 635828.96 E: 134100.06	019° 47' 46"	017° 32' 12"	328.00

SANTA FE DR SB - NICHOLS AVE WB CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C45	CR20+00.00	N: 635995.98 E: 134181.25	CR20+94.71	N: 635960.15 E: 134103.98	94.71'	S65° 07' 13.38"W	85.18'	N: 635995.98 E: 134160.67	090° 26' 13"	112° 53' 07"	60.00

MINERAL AVE EB - SANTA FE DR SB CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C46	CR30+00.00	N: 636709.03 E: 134341.00	CR30+97.12	N: 636634.16 E: 134393.20	97.12'	S34° 53' 15.34"E	91.27'	N: 636709.03 E: 134393.09	069° 33' 31"	077° 21' 52"	80.00
C47	CR30+97.12	N: 636634.16 E: 134393.20	CR32+14.71	N: 636519.16 E: 134372.05	117.59'	S10° 25' 07.73"W	116.93'	N: 636634.16 E: 134393.31	021° 03' 16"	017° 58' 43"	320.00

SANTA FE DR SB - MINERAL AVE WB CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C48	CR40+00.00	N: 636805.64 E: 134488.17	CR40+88.24	N: 636775.19 E: 134414.54	88.24'	S67° 31' 42.49"W	79.69'	N: 636805.64 E: 134466.24	088° 41' 35"	122° 36' 40"	57.00

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SECONDARY ALIGNMENT GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 15 of 21

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Sheet Number 61

$PLOT_INFO$

7-ELEVEN WEST CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L56	CR50+00.00	N: 637069.31 E: 133622.70	CR50+01.61	N: 637068.78 E: 133624.23	1.61'	S70° 54' 43.43"E					
C49	CR50+01.61	N: 637068.78 E: 133624.23	CR50+61.61	N: 637098.09 E: 133666.68	60.00'	N55° 22' 23.32"E	51.59'	N: 637068.78 E: 133665.42	107° 25' 47"	000° 00' 00"	32.00

7-ELEVEN EAST CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L57	CR60+00.00	N: 637080.10 E: 133695.68	CR60+10.81	N: 637069.97 E: 133691.93	10.81'	S20° 19' 59.25"W					
C50	CR60+10.81	N: 637069.97 E: 133691.93	CR60+29.92	N: 637054.46 E: 133699.26	19.11'	S25° 17' 22.09"E	17.15'	N: 637069.97 E: 133687.67	091° 14' 43"	000° 00' 00"	12.00
L58	CR60+29.92	N: 637054.46 E: 133699.26	CR60+32.97	N: 637053.46 E: 133702.14	3.06'	S70° 54' 43.43"E					

MINERAL AVE EB - PLATTE RIVER PKWY SB CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C51	CR70+00.00	N: 636919.77 E: 133734.89	CR71+50.47	N: 636796.51 E: 133790.52	150.47'	S24° 17' 30.81"E	135.23'	N: 636919.77 E: 133825.14	090° 45' 00"	063° 30' 49"	95.00

PLATTE RIVER PKWY SB - MINERAL AVE WB CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L94	CR80+00.00	N: 636998.26 E: 133831.00	CR80+10.48	N: 636994.62 E: 133840.82	10.48'	S69° 40' 00.75"E					
C52	CR80+10.48	N: 636994.62 E: 133840.82	CR80+57.31	N: 637012.05 E: 133879.28	46.83'	N65° 36' 40.61"E	42.22'	N: 636994.62 E: 133868.68	089° 26' 37"	000° 00' 00"	30.00
L59	CR80+57.31	N: 637012.05 E: 133879.28	CR80+78.42	N: 637031.78 E: 133886.80	21.11'	N20° 53' 21.97"E					

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SECONDARY ALIGNMENT
GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
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Sheet Number 62

$PLOT_INFO$

MINERAL AVE WB - PLATTE RIVER PKWY NB CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L60	CR90+00.00	N: 637003.08 E: 133949.42	CR90+11.61	N: 636992.26 E: 133945.19	11.61'	S21° 22' 10.26"W					
C53	CR90+11.61	N: 636992.26 E: 133945.19	CR90+51.34	N: 636959.71 E: 133959.79	39.72'	S24° 08' 55.24"E	35.67'	N: 636992.26 E: 133935.92	091° 02' 11"	000° 00' 00"	25.00
L61	CR90+51.34	N: 636959.71 E: 133959.79	CR90+55.00	N: 636958.44 E: 133963.22	3.66'	S69° 40' 00.75"E					

PLATTE RIVER PKWY NB - MINERAL AVE EB CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L62	CR100+00.00	N: 636840.44 E: 133886.48	CR100+05.00	N: 636845.11 E: 133888.26	5.00'	N20° 53' 13.25"E					
C54	CR100+05.00	N: 636845.11 E: 133888.26	CR100+51.83	N: 636862.55 E: 133926.72	46.83'	N65° 36' 36.25"E	42.22'	N: 636845.11 E: 133898.86	089° 26' 46"	000° 00' 00"	30.00
L63	CR100+51.83	N: 636862.55 E: 133926.72	CR100+56.83	N: 636860.81 E: 133931.40	5.00'	S69° 40' 00.75"E					

RTD WEST CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C55	CR110+00.00	N: 636900.61 E: 134119.27	CR110+26.44	N: 636910.41 E: 134141.02	26.44'	N65° 44' 14.25"E	23.86'	N: 636900.61 E: 134134.97	089° 07' 27"	000° 00' 00"	17.00
L64	CR110+26.44	N: 636910.41 E: 134141.02	CR110+33.06	N: 636916.58 E: 134143.41	6.61'	N21° 10' 30.59"E					

RTD EAST CURB RETURN

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L65	CR120+00.00	N: 636907.47 E: 134167.89	CR120+01.33	N: 636906.22 E: 134167.43	1.33'	S20° 19' 59.25"W					
C56	CR120+01.33	N: 636906.22 E: 134167.43	CR120+35.88	N: 636877.95 E: 134180.41	34.56'	S24° 40' 00.75"E	31.11'	N: 636906.22 E: 134159.79	090° 00' 00"	000° 00' 00"	22.00

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PLATTE RIVER PKWY WEST ACCESS OUT - CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C59	CR150+00.00	N: 636483.76 E: 133702.08	CR150+42.41	N: 636518.45 E: 133686.13	42.41'	N24° 41' 45.92"W	38.18'	N: 636483.76 E: 133711.45	090° 00' 00"	000° 00' 00"	27.00
L68	CR150+42.41	N: 636518.45 E: 133686.13	CR150+48.70	N: 636520.63 E: 133680.23	6.29'	N69° 41' 45.92"W					

PLATTE RIVER PKWY WEST ACCESS IN - CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L69	CR160+00.00	N: 636545.01 E: 133689.25	CR160+06.13	N: 636542.89 E: 133695.00	6.13'	S69° 41' 45.92"E					
C60	CR160+06.13	N: 636542.89 E: 133695.00	CR160+47.81	N: 636558.16 E: 133729.43	41.68'	N66° 04' 37.97"E	37.66'	N: 636542.89 E: 133719.65	088° 27' 12"	000° 00' 00"	27.00

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SECONDARY ALIGNMENT
GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 18 of 21

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$PLOT_INFO$

NICHOLS AVE SOUTH ACCESS IN - CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C61	CR170+00.00	N: 636007.03 E: 133797.83	CR170+44.28	N: 635971.75 E: 133815.54	44.28'	S26° 38' 38.79"E	39.48'	N: 636007.03 E: 133825.60	093° 57' 57"	000° 00' 00"	27.00
L70	CR170+44.28	N: 635971.75 E: 133815.54	CR170+50.28	N: 635966.12 E: 133813.45	6.00'	S20° 20' 19.89"W					

NICHOLS AVE SOUTH ACCESS OUT - CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L71	CR180+00.00	N: 635954.65 E: 133844.40	CR180+07.38	N: 635961.57 E: 133846.96	7.38'	N20° 20' 19.89"E					
C62	CR180+07.38	N: 635961.57 E: 133846.96	CR180+49.79	N: 635977.50 E: 133881.66	42.41'	N65° 20' 19.89"E	38.18'	N: 635961.57 E: 133856.35	090° 00' 00"	000° 00' 00"	27.00
L72	CR180+49.79	N: 635977.50 E: 133881.66	CR180+64.79	N: 635972.29 E: 133895.73	15.00'	S69° 39' 40.11"E					

NICHOLS AVE NORTH ACCESS OUT - CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
C63	CR190+00.00	N: 636035.87 E: 133899.70	CR190+42.41	N: 636051.80 E: 133934.40	42.41'	N65° 20' 19.89"E	38.18'	N: 636035.87 E: 133925.01	090° 00' 00"	000° 00' 00"	27.00
L73	CR190+42.41	N: 636051.80 E: 133934.40	CR190+48.41	N: 636057.43 E: 133936.48	6.00'	N20° 20' 19.89"E					

NICHOLS AVE NORTH ACCESS IN - CURB RETURN											
POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L74	CR200+00.00	N: 636048.39 E: 133960.86	CR200+06.00	N: 636042.76 E: 133958.78	6.00'	S20° 20' 19.89"W					
C64	CR200+06.00	N: 636042.76 E: 133958.78	CR200+48.41	N: 636008.06 E: 133974.71	42.41'	S24° 39' 40.11"E	38.18'	N: 636042.76 E: 133949.39	090° 00' 00"	000° 00' 00"	27.00
L75	CR200+48.41	N: 636008.06 E: 133974.71	CR200+53.41	N: 636006.33 E: 133979.40	5.00'	S69° 39' 40.11"E					

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_HZ_SECONDARY.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

SECONDARY ALIGNMENT
GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 19 of 21

Project No./Code
AQC M810-017
23574
Sheet Number 65

$PLOT_INFO$

7-ELEVEN SIDEWALK WEST

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L76	SW10+00.00	N: 637076.13 E: 133654.09	SW10+23.32	N: 637083.65 E: 133632.01	23.32'	N71° 12' 38.31"W					
C65	SW10+23.32	N: 637083.65 E: 133632.01	SW10+43.64	N: 637088.20 E: 133612.25	20.32'	N77° 01' 50.93"W	20.28'	N: 637083.65 E: 133622.36	011° 38' 25"	060° 00' 00"	100.00
C66	SW10+43.64	N: 637088.20 E: 133612.25	SW10+81.56	N: 637099.25 E: 133576.17	37.92'	N72° 58' 30.34"W	37.73'	N: 637088.20 E: 133593.25	019° 45' 06"	054° 04' 17"	110.00

7-ELEVEN SIDEWALK EAST

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L77	SW20+00.00	N: 637060.53 E: 133700.04	SW21+21.44	N: 637020.82 E: 133814.80	121.44'	S70° 54' 43.43"E					
C67	SW21+21.44	N: 637020.82 E: 133814.80	SW21+45.78	N: 637015.73 E: 133838.54	24.34'	S77° 53' 04.43"E	24.28'	N: 637020.82 E: 133826.36	013° 56' 42"	060° 00' 00"	100.00
C68	SW21+45.78	N: 637015.73 E: 133838.54	SW21+54.65	N: 637013.65 E: 133847.12	8.87'	S76° 23' 28.44"E	8.83'	N: 637015.73 E: 133842.99	016° 55' 54"	000° 00' 00"	30.00

RTD SIDEWALK WEST

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L78	SW30+00.00	N: 636921.92 E: 134091.02	SW30+05.00	N: 636920.19 E: 134095.71	5.00'	S69° 43' 55.98"E					
C69	SW30+05.00	N: 636920.19 E: 134095.71	SW30+17.87	N: 636914.23 E: 134107.08	12.87'	S62° 21' 27.19"E	12.84'	N: 636920.19 E: 134101.78	014° 44' 58"	000° 00' 00"	50.00
C70	SW30+17.87	N: 636914.23 E: 134107.08	SW30+33.22	N: 636907.12 E: 134120.63	15.35'	S62° 18' 35.62"E	15.30'	N: 636914.23 E: 134113.40	014° 39' 14"	112° 53' 07"	60.00
L79	SW30+33.22	N: 636907.12 E: 134120.63	SW30+38.22	N: 636905.38 E: 134125.32	5.00'	S69° 38' 12.85"E					

RTD SIDEWALK EAST

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L82	SW40+00.00	N: 636846.84 E: 134312.84	SW41+00.00	N: 636812.00 E: 134406.57	100.00'	S69° 36' 35.04"E					
L83	SW41+00.00	N: 636812.00 E: 134406.57	SW41+57.94	N: 636791.87 E: 134460.90	57.94'	S69° 40' 00.23"E					

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_HZ_SECONDARY.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

SECONDARY ALIGNMENT GEOMETRIC DATA

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset:GEOMETRY
Subset Sheets: 20 of 21

Project No./Code
AQC M810-017
23574
Sheet Number 66

$PLOT_INFO$

MINERAL AVE EOP RT

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L84	80+00.00	N: 637296.96 E: 132825.34	80+34.22	N: 637287.16 E: 132858.12	34.22'	S73° 21' 30.35"E					
L85	80+34.22	N: 637287.16 E: 132858.12	81+65.96	N: 637241.60 E: 132981.74	131.74'	S69° 46' 12.69"E					
L86	81+65.96	N: 637241.60 E: 132981.74	82+97.68	N: 637194.69 E: 133104.83	131.72'	S69° 08' 16.35"E					
C71	82+97.68	N: 637194.69 E: 133104.83	85+55.03	N: 637094.95 E: 133342.00	257.35'	S67° 11' 29.82"E	257.30'	N: 637194.69 E: 133225.11	003° 53' 33"	001° 30' 45"	3788.00
C72	85+55.03	N: 637094.95 E: 133342.00	86+52.37	N: 637055.01 E: 133430.77	97.34'	S65° 46' 20.35"E	97.34'	N: 637094.95 E: 133386.20	001° 03' 14"	001° 04' 58"	5292.00
L87	86+52.37	N: 637055.01 E: 133430.77	87+73.63	N: 636996.72 E: 133537.11	121.26'	S61° 16' 21.92"E					
C73	87+73.63	N: 636996.72 E: 133537.11	89+64.57	N: 636927.17 E: 133714.92	190.94'	S68° 38' 08.02"E	190.93'	N: 636996.72 E: 133625.39	002° 03' 45"	001° 04' 49"	5304.00
L88	89+64.57	N: 636927.17 E: 133714.92	89+85.87	N: 636919.77 E: 133734.89	21.29'	S69° 40' 00.75"E					

MINERAL AVE EOP LT

POINT ID	P.C. STA.	P.C. N / E	P.T. STA.	P.T. N / E	LENGTH	CHORD BEARING	CHORD LENGTH	P.I. N / E	DELTA	DEGREE	RADIUS
L89	90+00.00	N: 637338.74 E: 132860.63	90+38.17	N: 637326.55 E: 132896.80	38.17'	S71° 22' 30.08"E					
C75	90+38.17	N: 637326.55 E: 132896.80	90+44.90	N: 637324.30 E: 132903.14	6.72'	S70° 24' 42.45"E	6.72'	N: 637326.55 E: 132899.99	001° 55' 35"	028° 57' 18"	200.00
L90	90+44.90	N: 637324.30 E: 132903.14	90+99.40	N: 637305.17 E: 132954.17	54.50'	S69° 26' 54.83"E					
C74	90+99.40	N: 637305.17 E: 132954.17	92+37.57	N: 637257.77 E: 133083.96	138.18'	S69° 56' 14.13"E	138.17'	N: 637305.17 E: 133018.86	000° 58' 39"	000° 42' 26"	8100.00
L91	92+37.57	N: 637257.77 E: 133083.96	94+63.64	N: 637182.03 E: 133296.96	226.07'	S70° 25' 33.43"E					
L92	94+63.64	N: 637182.03 E: 133296.96	98+09.95	N: 637068.78 E: 133624.23	346.30'	S70° 54' 43.43"E					

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
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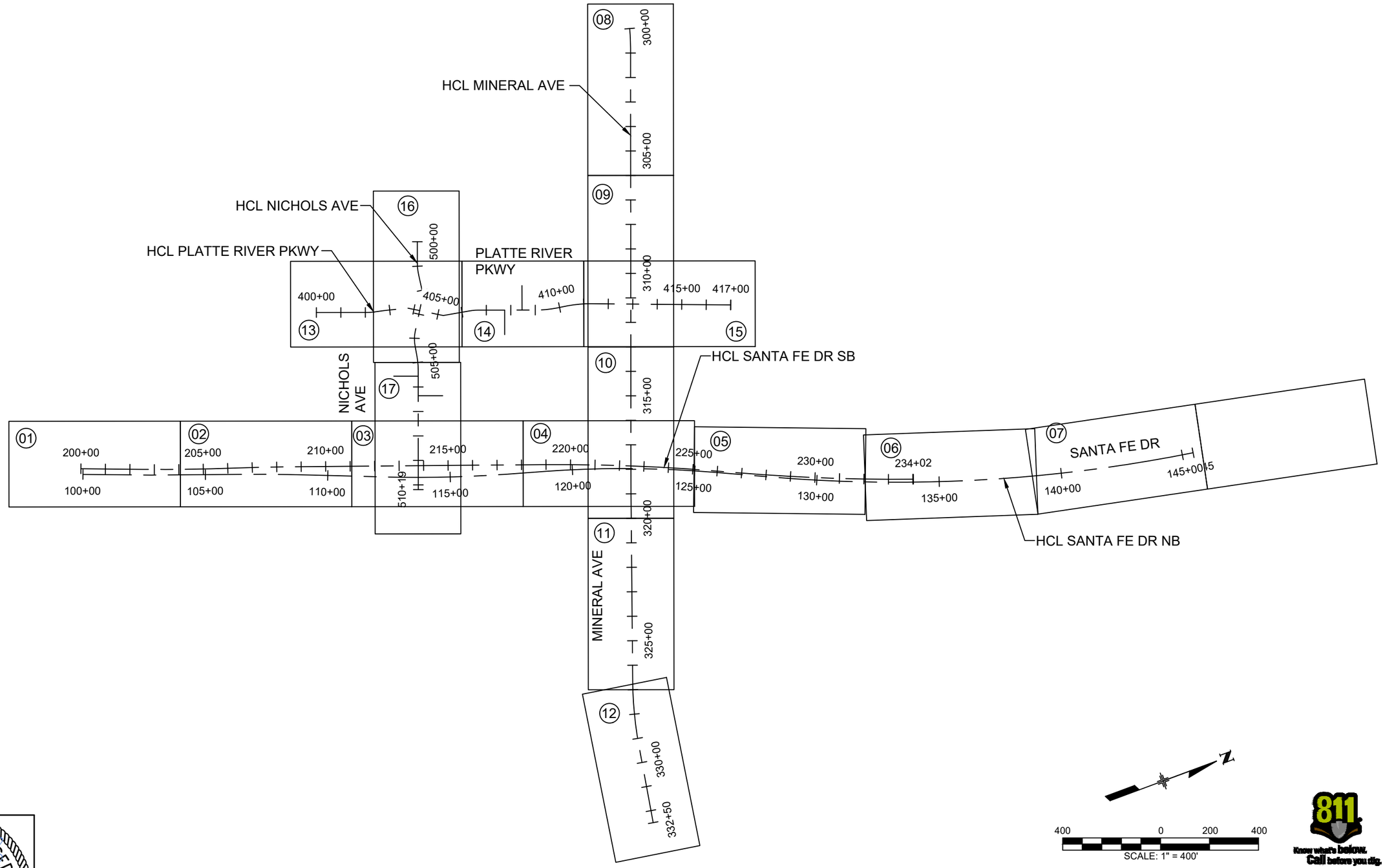

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ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
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Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

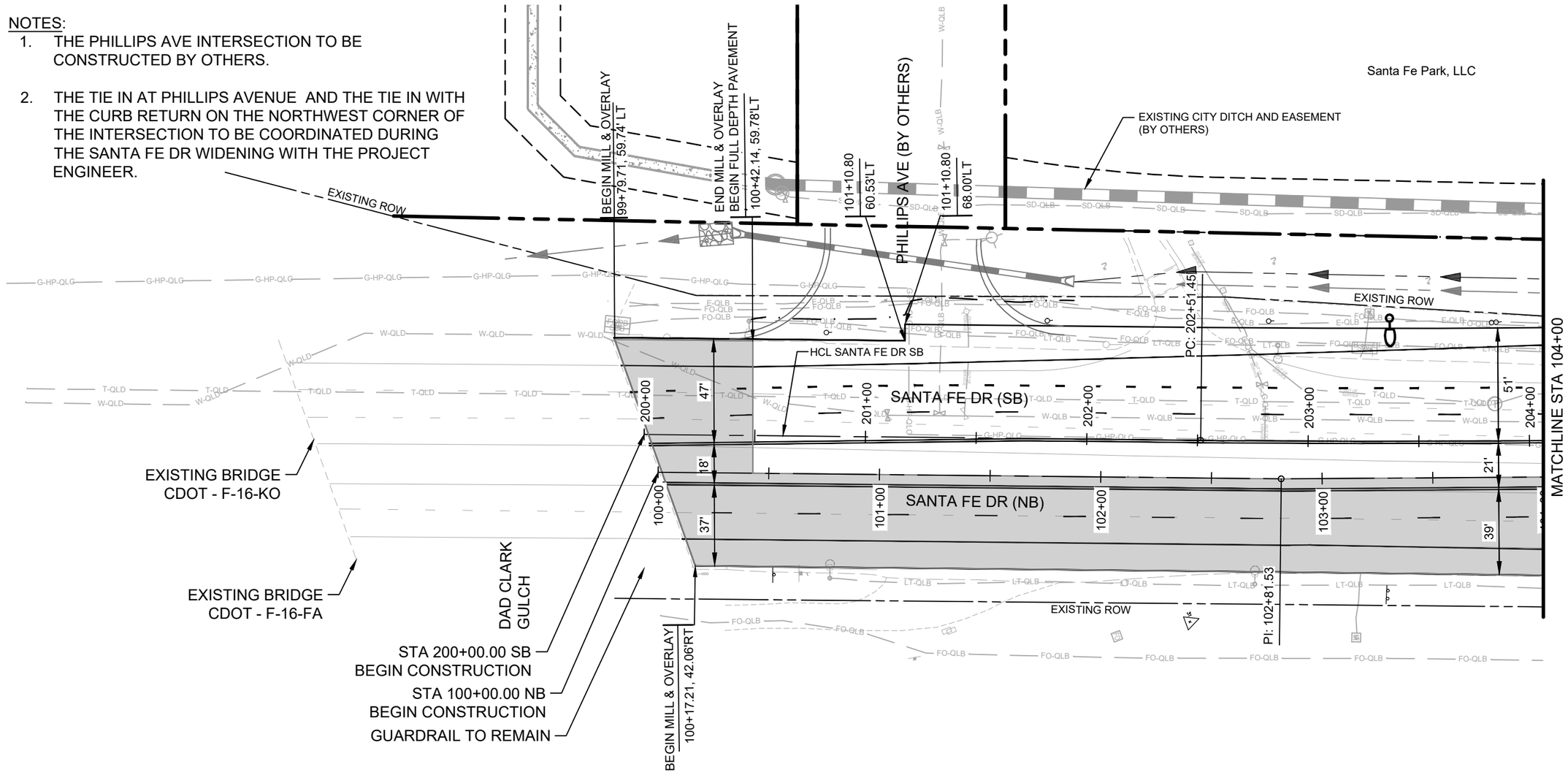
As Constructed	KEY MAP		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: SCASACELI		Sheet Number 68
	Sheet Subset:KEY	Subset Sheets: 01 of 01	

811 Know what's below. Call before you dig.

$PLOT_INFO$

NOTES:

1. THE PHILLIPS AVE INTERSECTION TO BE CONSTRUCTED BY OTHERS.
2. THE TIE IN AT PHILLIPS AVENUE AND THE TIE IN WITH THE CURB RETURN ON THE NORTHWEST CORNER OF THE INTERSECTION TO BE COORDINATED DURING THE SANTA FE DR WIDENING WITH THE PROJECT ENGINEER.



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SCALE: 1" = 50'

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PLAN1.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PLAN STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 69
	Sheet Subset: ROADWAY	Subset Sheets: 01 of 17	

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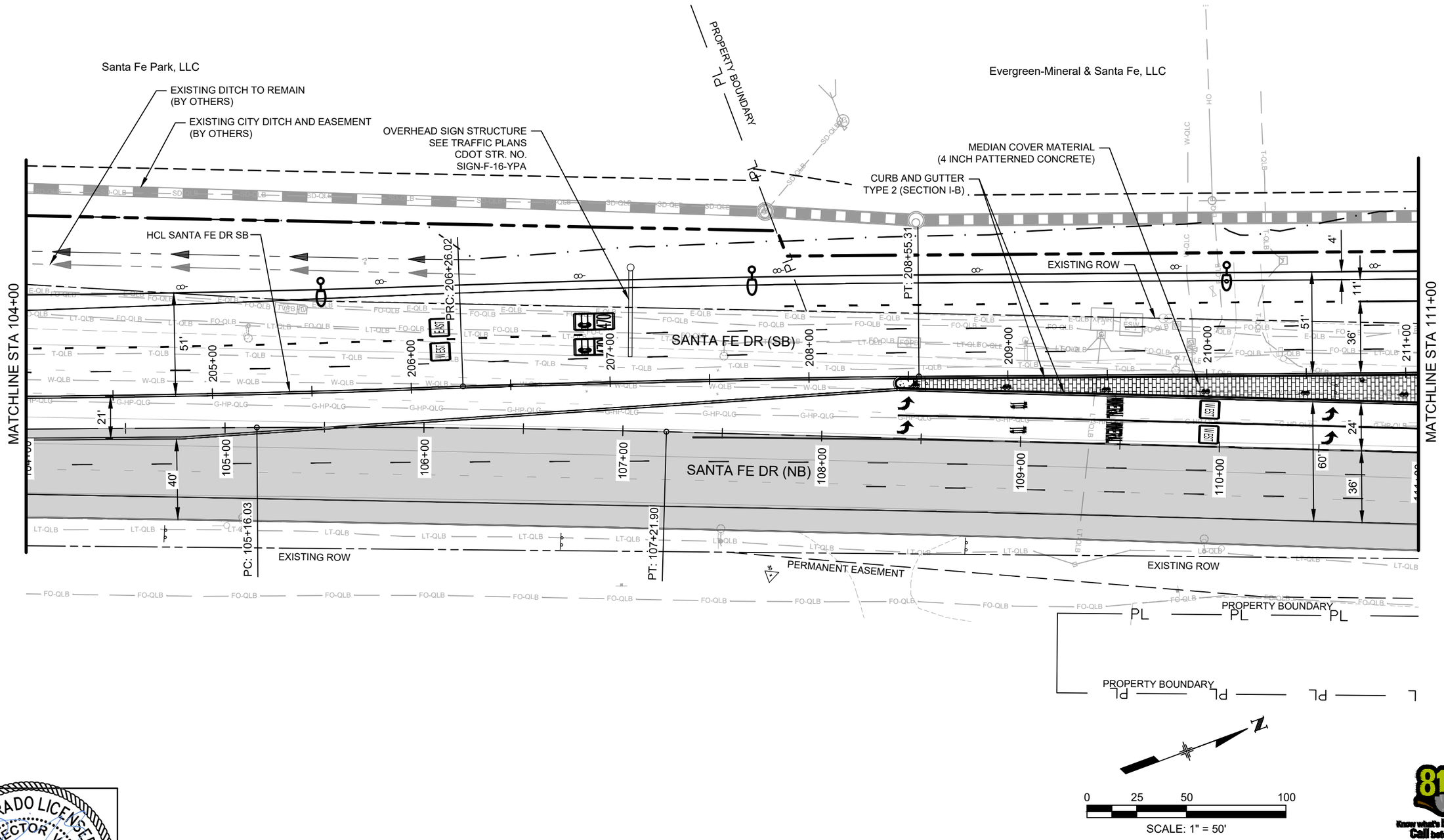
$PLOT_INFO$



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ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

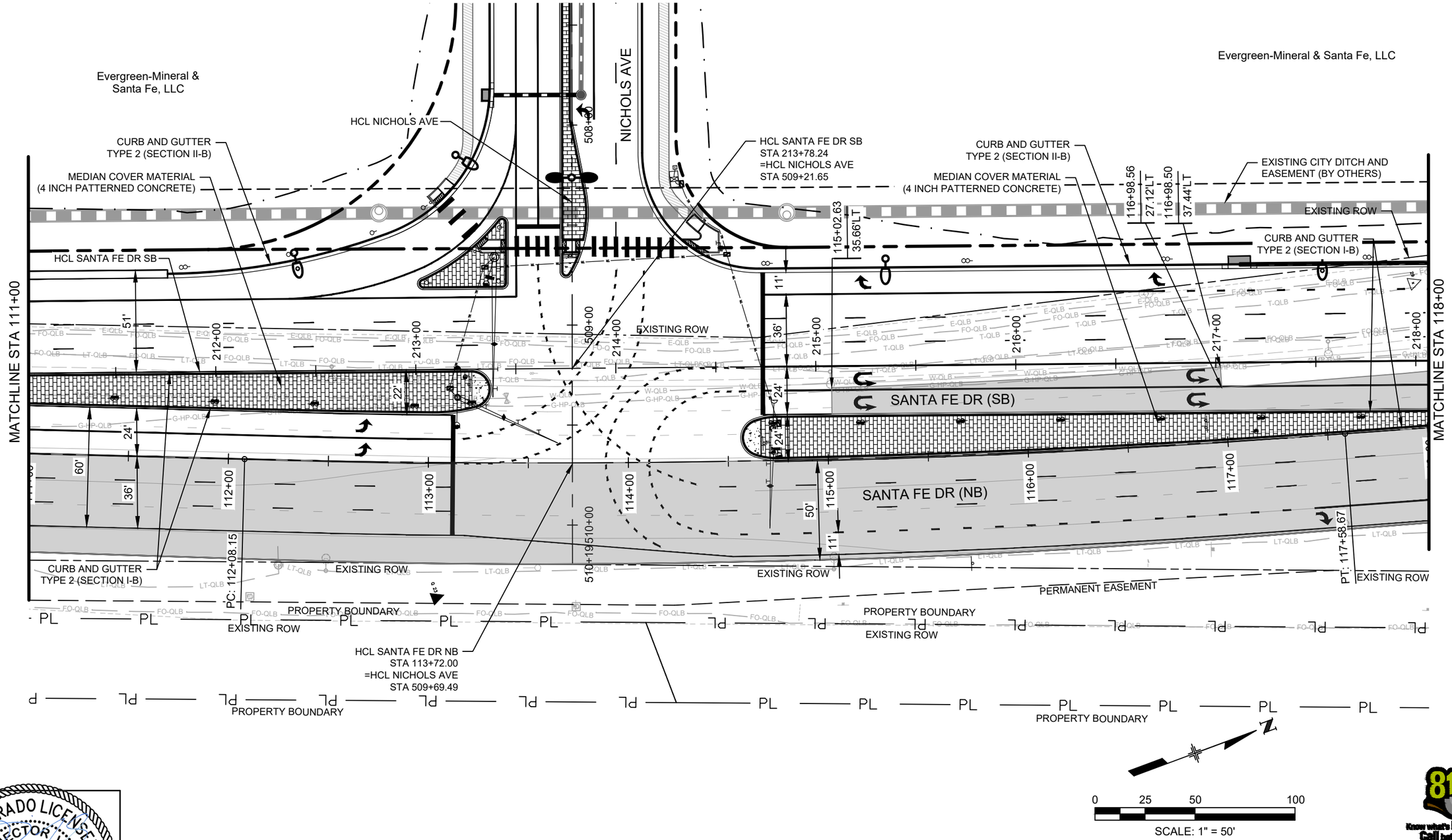
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PLAN1.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PLAN STA. 104+00 TO STA. 111+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 70
	Sheet Subset: ROADWAY	Subset Sheets: 02 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PLAN1.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

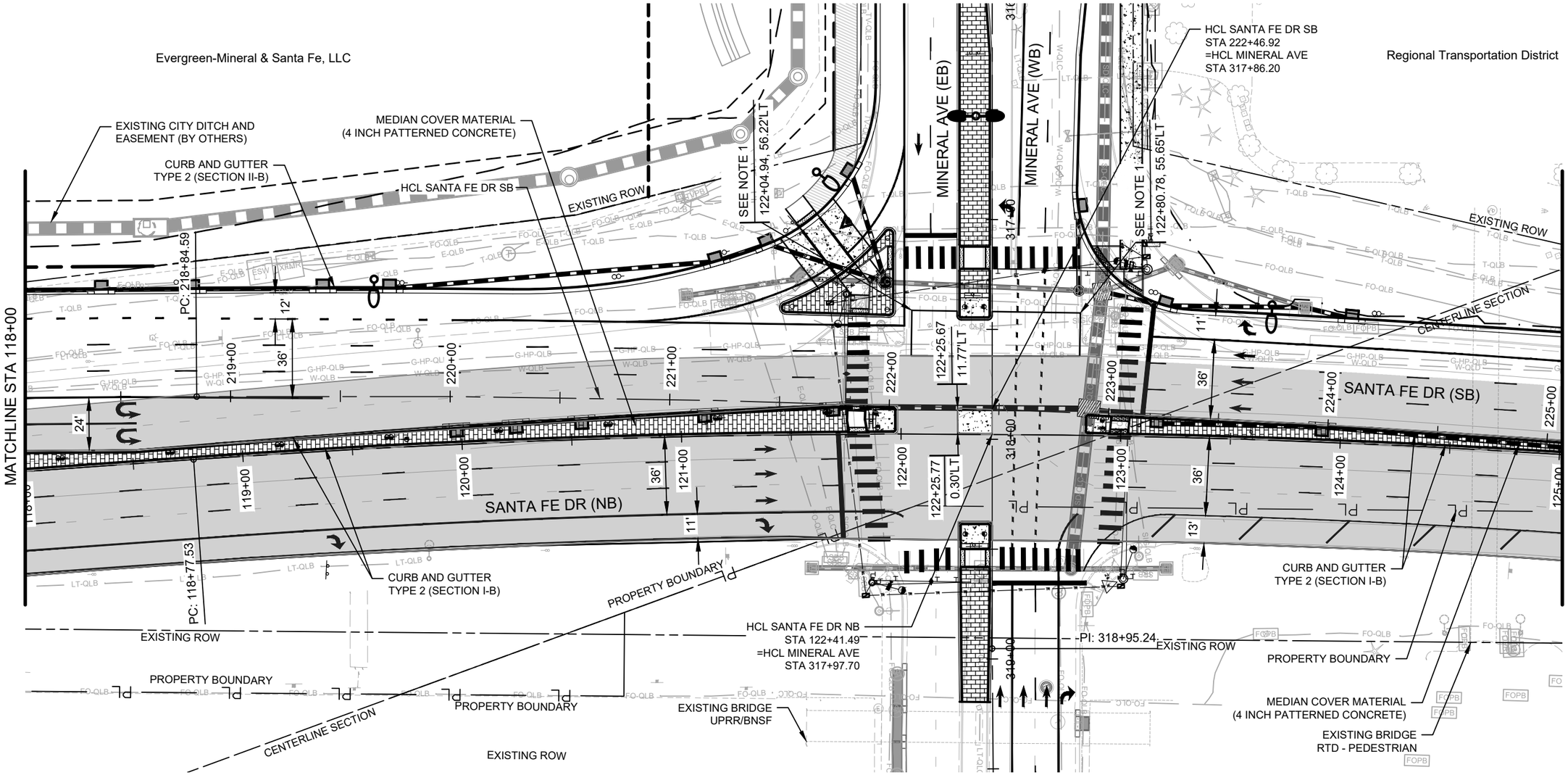
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PLAN STA. 111+00 TO STA. 118+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 71
	Sheet Subset: ROADWAY	Subset Sheets: 03 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. SEE TYPICAL SECTION DETAILS FOR VARIATION IN HMA PAVEMENT THICKNESS AT THE INTERSECTION OF MINERAL AVE AND SANTA FE DR.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

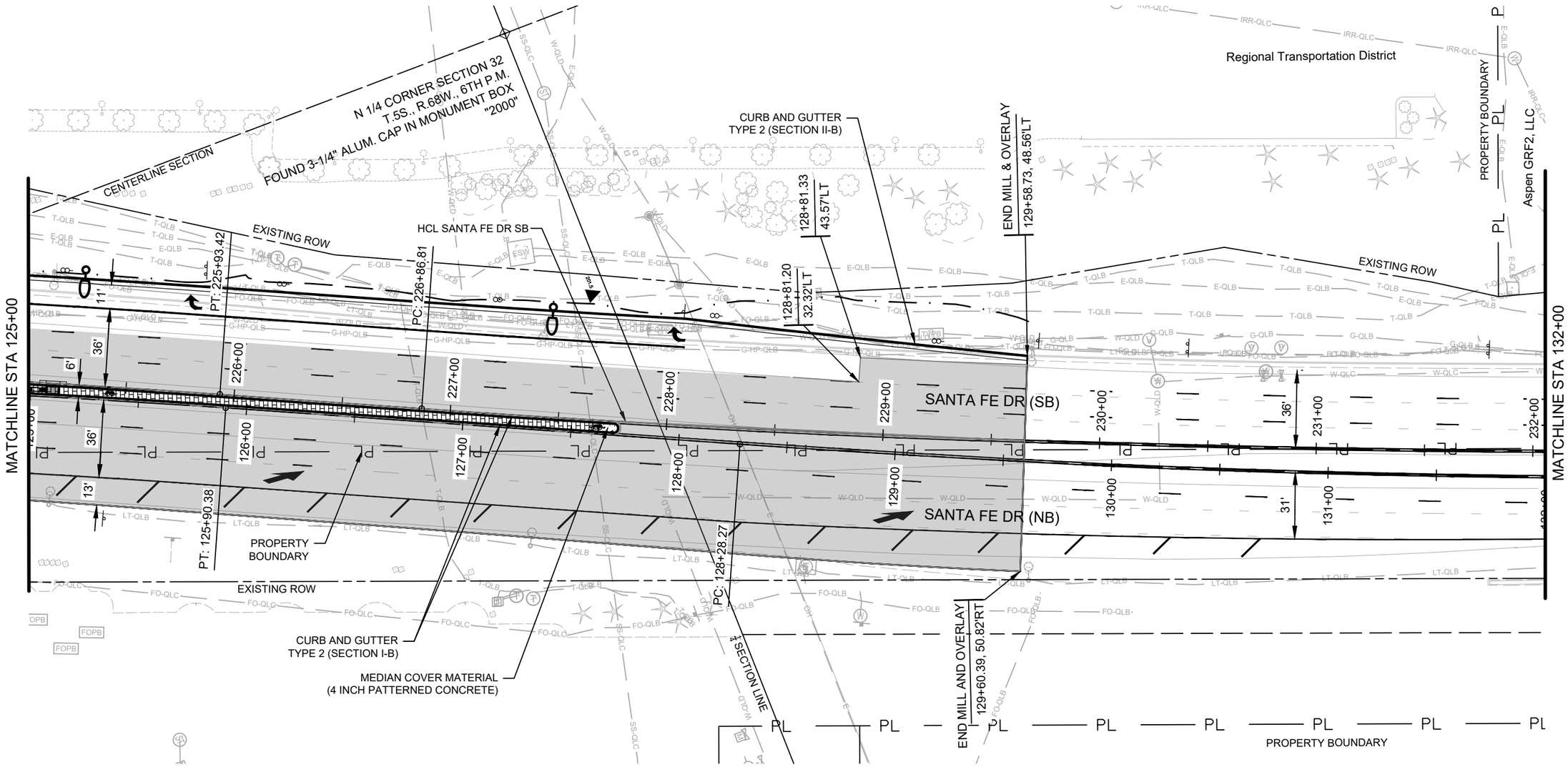
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

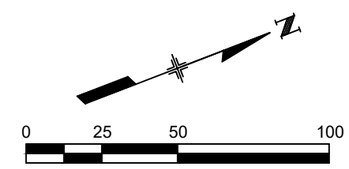
Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PLAN STA. 118+00 TO STA. 125+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 72
	Sheet Subset: ROADWAY	Subset Sheets: 04 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$





COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04			
File Name: 23574_RDW_PLAN1.DWG			
Horiz. Scale: 1" = 50'	Vert. Scale: N/A		
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

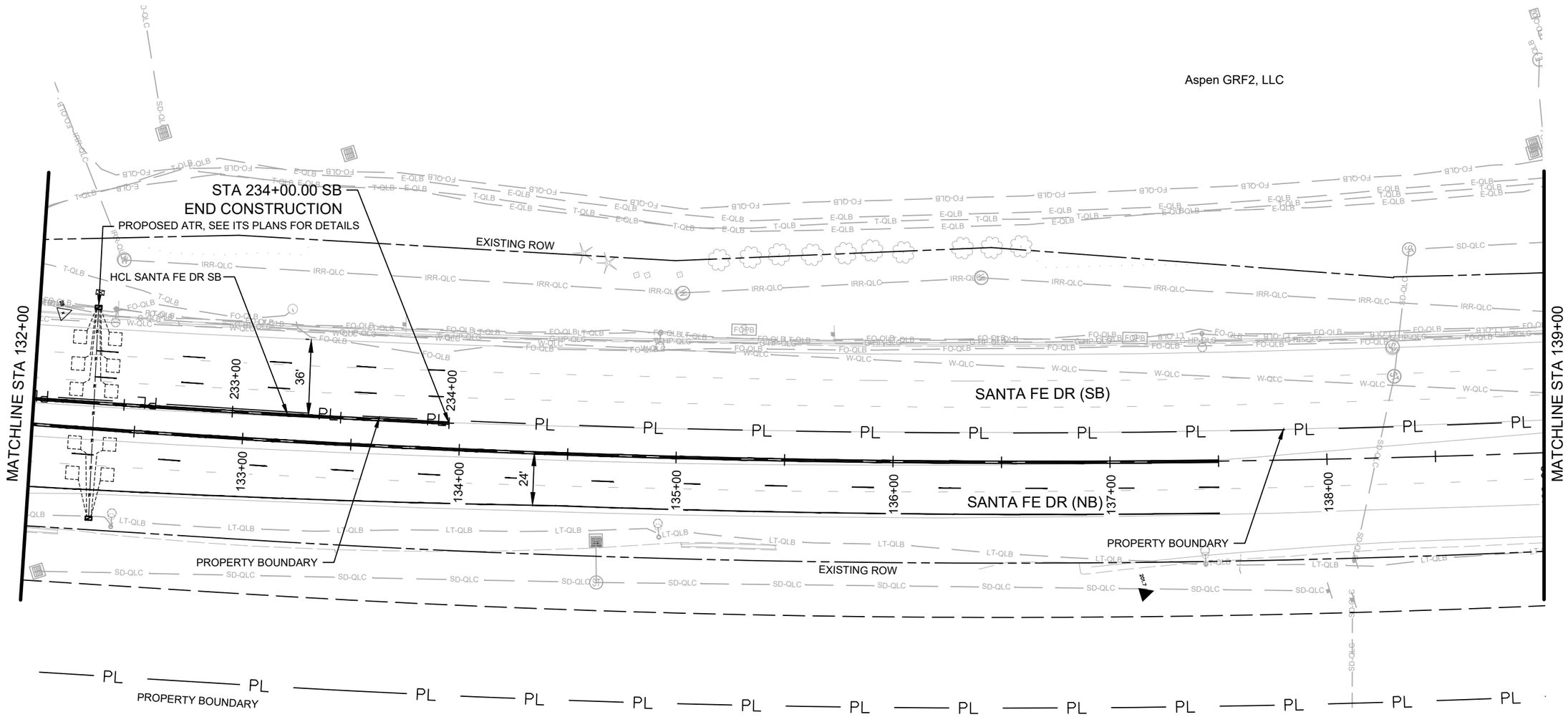
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PLAN STA. 125+00 TO STA. 132+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 73
	Sheet Subset: ROADWAY	Subset Sheets: 05 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NO ROADWAY WORK THIS SHEET.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PLAN1.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PLAN STA. 132+00 TO STA. 139+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 74
	Sheet Subset: ROADWAY	Subset Sheets: 06 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$

Aspen GRF2, LLC

ASPEN GROVE WAY

MATCHLINE STA 139+00

EXISTING ROW

PROPERTY BOUNDARY

SANTA FE DR (SB)

SANTA FE DR (NB)

PL

139+00

140+00

141+00

142+00

143+00

144+00

145+00

145+47

STA 145+47 NB
END CONSTRUCTION

NO ROADWAY WORK THIS SHEET.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
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Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PLAN STA. 139+00 TO STA. 145+45		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 75
	Sheet Subset: ROADWAY	Subset Sheets: 07 of 17	

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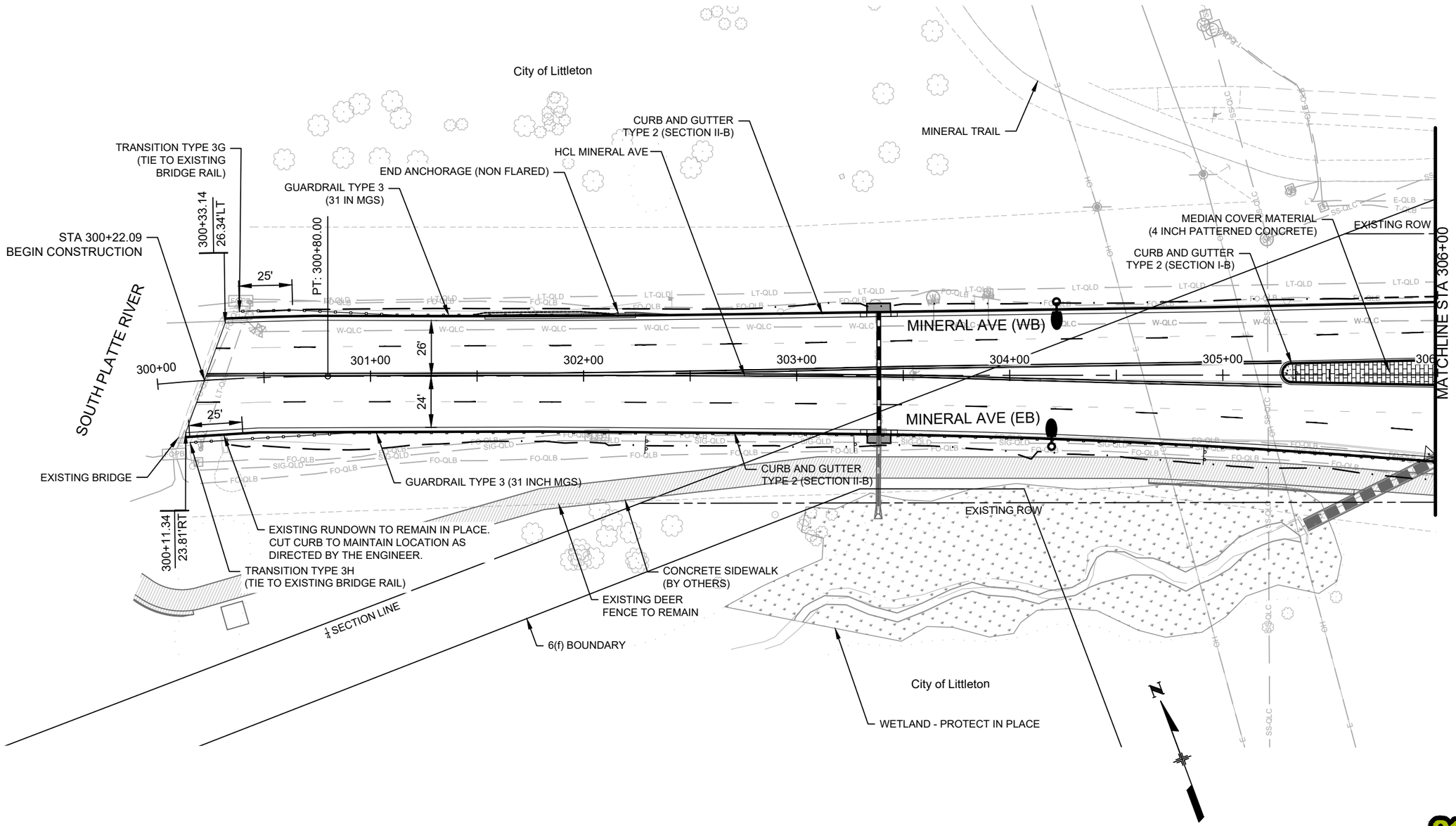


COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

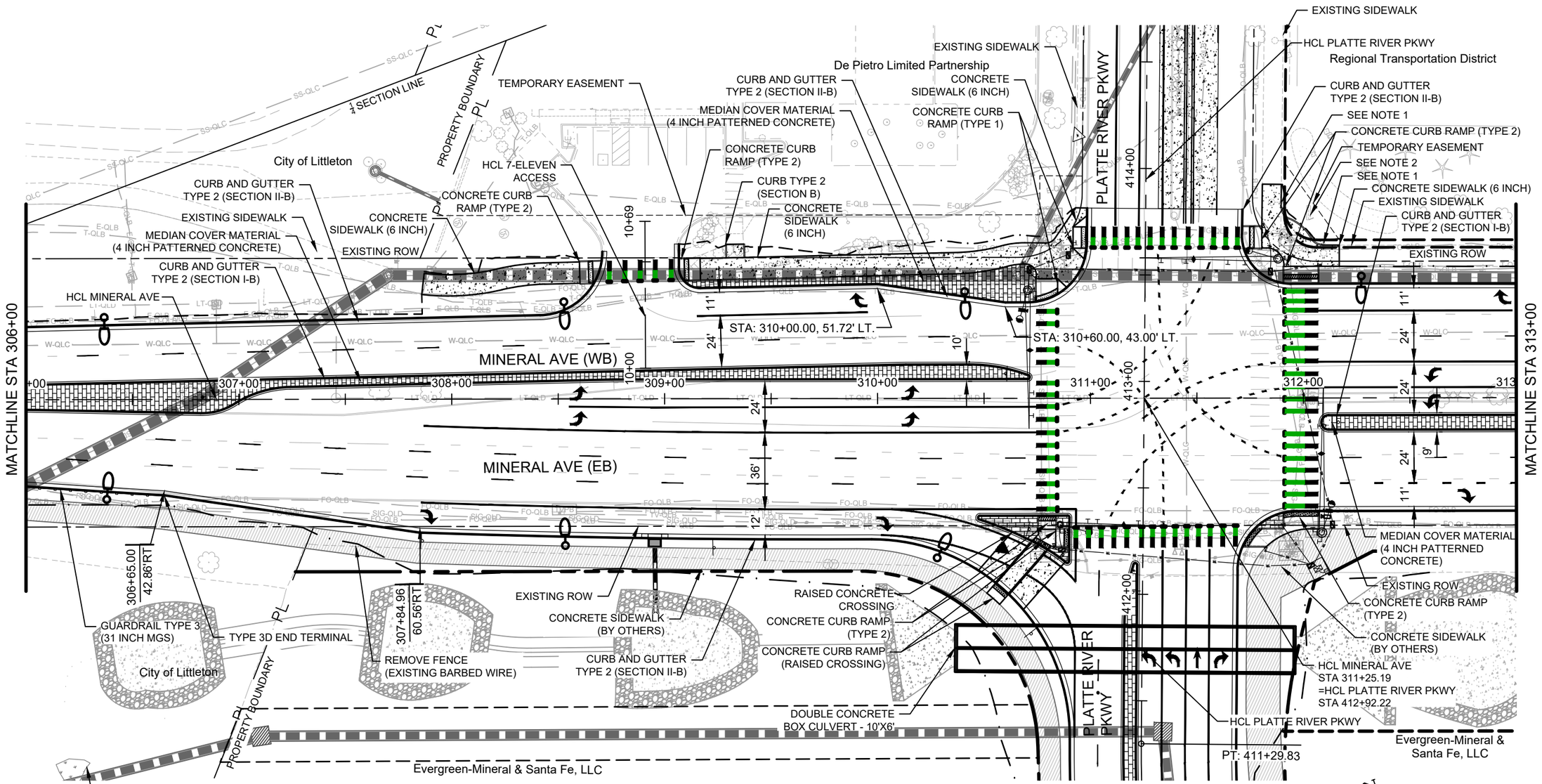
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PLAN2.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	MINERAL AVE ROADWAY PLAN STA. 300+00 TO STA. 306+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: S.CASACELI		
	Sheet Subset: ROADWAY	Subset Sheets: 08 of 17	Sheet Number 76

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. EXISTING PEDESTRIAN LEVEL-STREET LIGHT TO REMAIN AND PROTECT IN PLACE.
2. EXISTING RTD SIGN TO REMAIN AND PROTECT IN PLACE.

0 25 50 100

SCALE: 1" = 50'

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ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE ROADWAY PLAN STA. 306+00 TO STA. 313+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: S.CASACELI		Sheet Number 77
	Sheet Subset: ROADWAY	Subset Sheets: 09 of 17	

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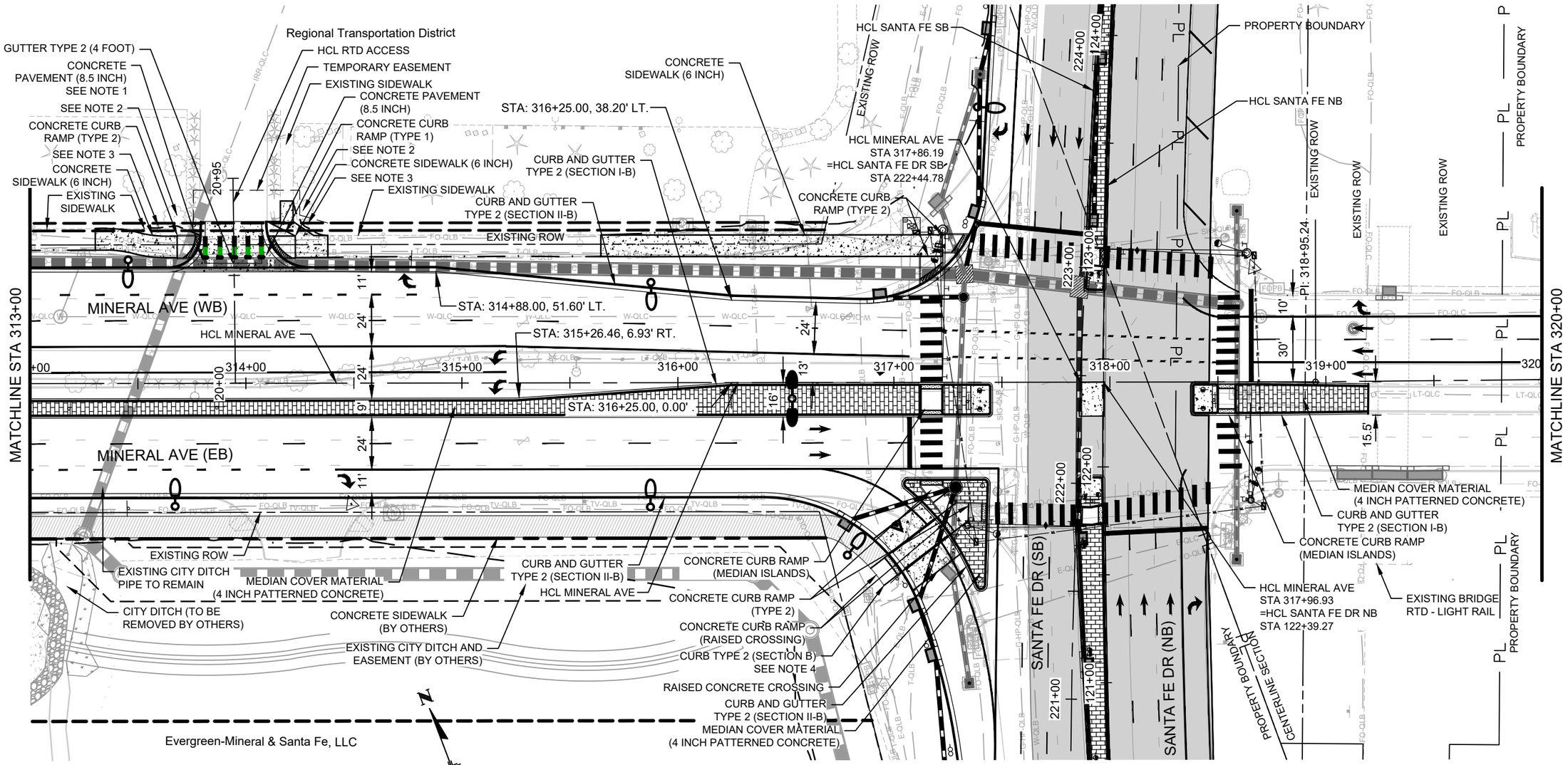

NOTES

1. CONTRACTOR TO PLACE A MINIMUM OF 8.5-INCHES OF CONCRETE PAVEMENT OR MATCH THE EXISTING PAVEMENT THICKNESS IF IT IS GREATER THAN 8.5 INCHES AT THE RTD ACCESS. PAID FOR AS CONCRETE PAVEMENT (8.5 INCH).
2. EXISTING TREE TO REMAIN AND PROTECT IN PLACE.
3. EXISTING PEDESTRIAN LEVEL-STREET LIGHT TO REMAIN AND PROTECT IN PLACE.
4. CURB TYPE 2 (SECTION B) INCLUDED IN THE COST OF THE CURB RAMP.

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COLORADO LICENSED PROFESSIONAL ENGINEER ORION HECTOR VELASCO 58434 10/06/2025

Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE ROADWAY PLAN STA. 313+00 TO STA. 320+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: SCASACELI		Sheet Number 78
	Sheet Subset: ROADWAY	Subset Sheets: 10 of 17	

$PLOT_INFO$

City of Littleton

City of Littleton

PL

PROPERTY BOUNDARY

HCL MINERAL AVE

EXISTING ROW

PC: 326+67.75

MATCHLINE STA 320+00

MATCHLINE STA 327+00

10'

22'

10.5

321+00

322+00

323+00

324+00

325+00

326+00

MINERAL AVE (WB)

MINERAL AVE (EB)

EXISTING ROW

EXISTING BRIDGE
UPRR/BNSF

EXISTING ROW

EXISTING ROW

Southpark Homeowners
Association No. 2

PROPERTY BOUNDARY

Southpark Homeowners
Association No. 2

N

0 25 50 100

SCALE: 1" = 50'

NO ROADWAY WORK THIS SHEET.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
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Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE ROADWAY PLAN STA. 320+00 TO STA. 327+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: SCASACELI		Sheet Number 79
	Sheet Subset: ROADWAY	Subset Sheets: 11 of 17	

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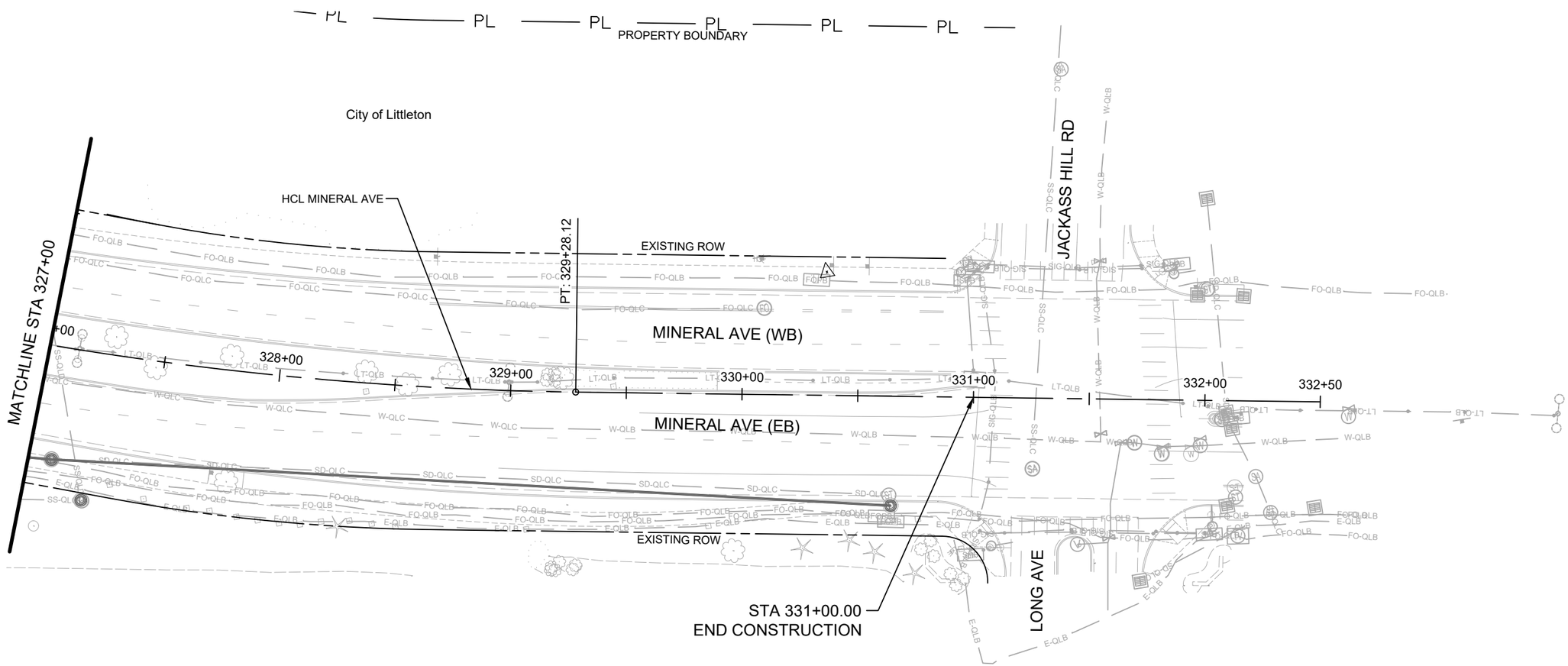

Southpark Homeowners
Association No. 2

N

0 25 50 100
SCALE: 1" = 50'

NO ROADWAY WORK THIS SHEET.

COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

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Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE ROADWAY PLAN STA. 327+00 TO STA. 332+50		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: SCASACELI		Sheet Number 80
	Sheet Subset: ROADWAY	Subset Sheets: 12 of 17	

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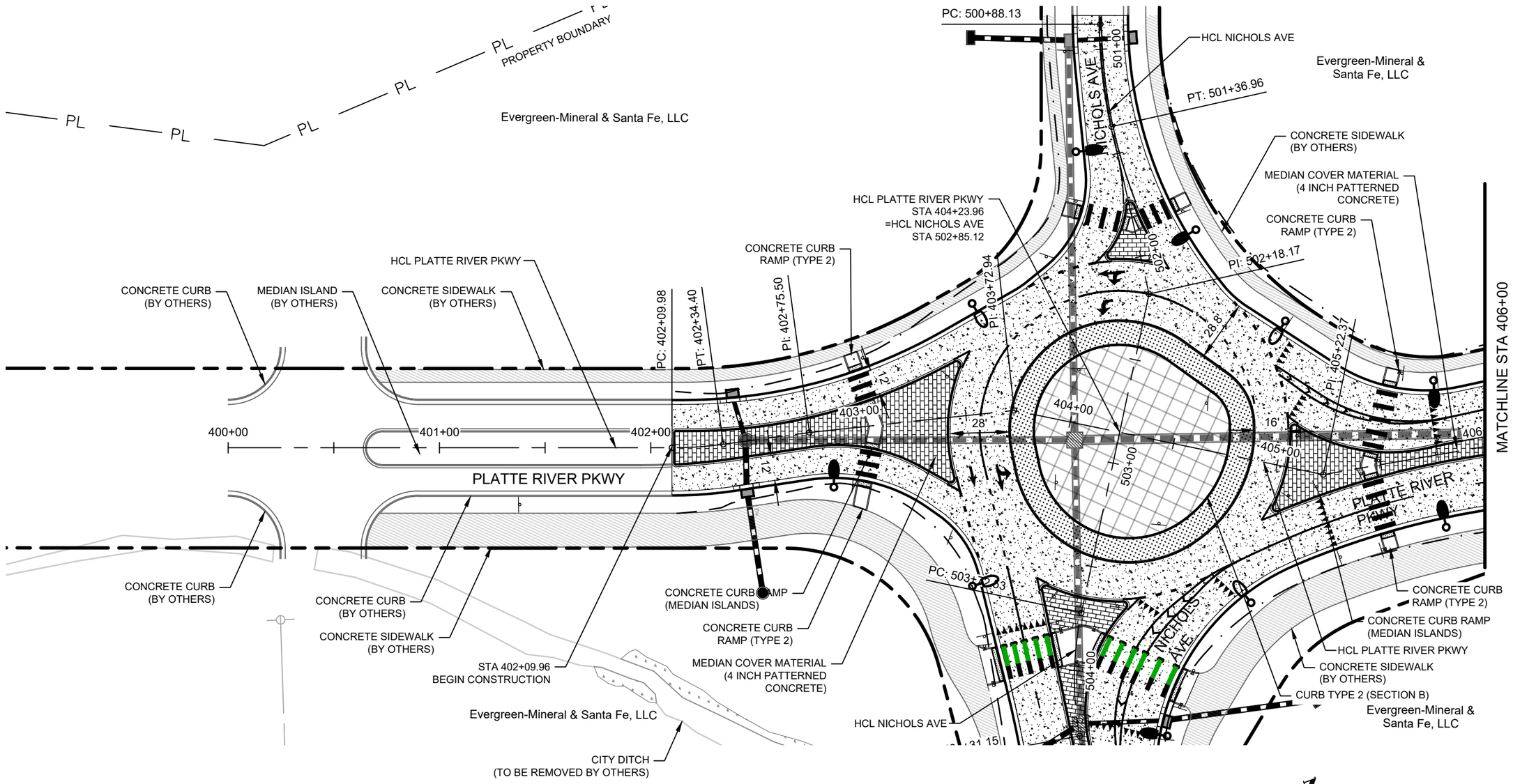

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ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_PLAN3.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: N/A				
Unit Information				

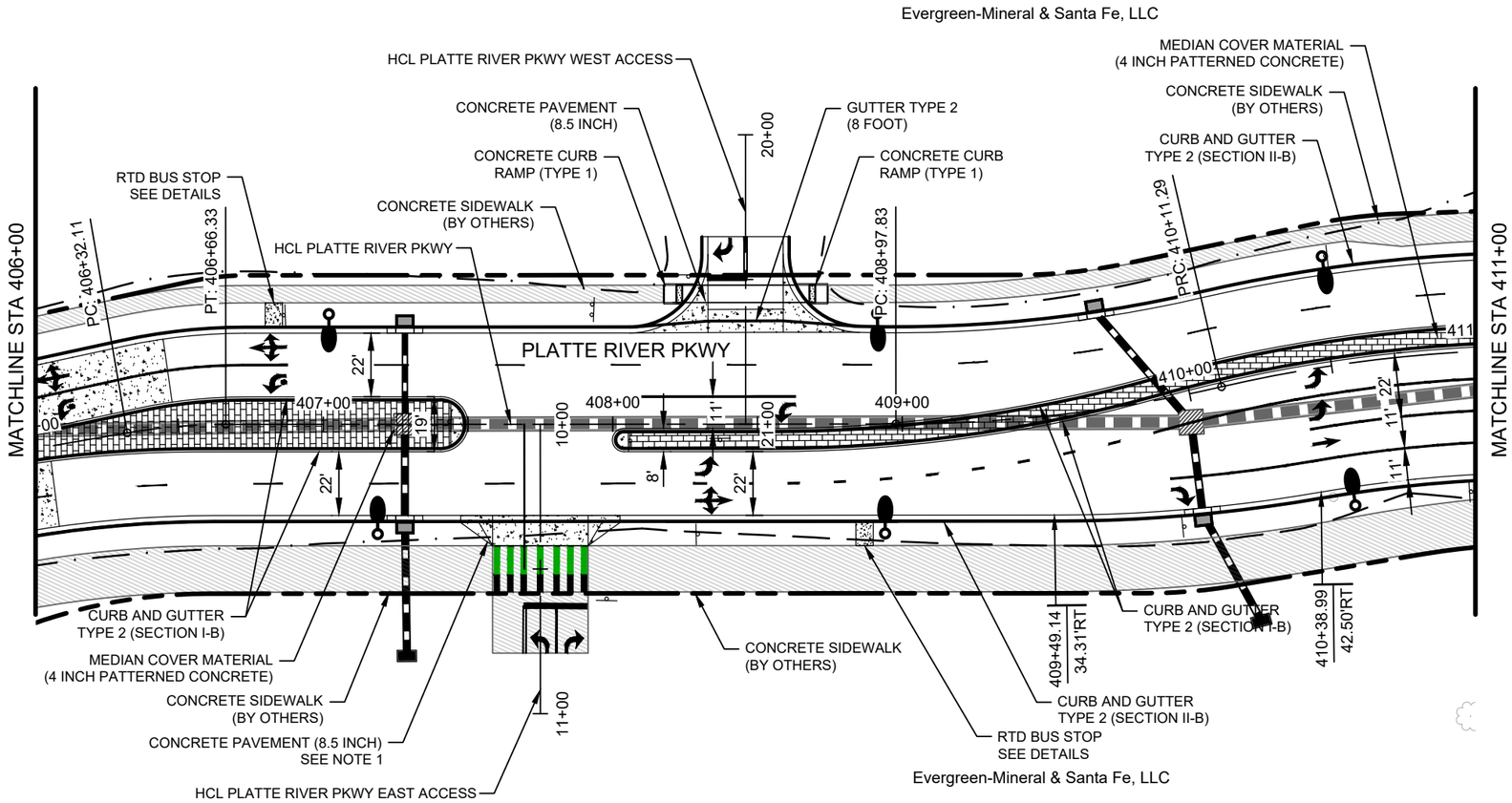
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY ROADWAY PLAN STA. 400+00 TO STA. 406+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 81
	Sheet Subset: ROADWAY	Subset Sheets: 13 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES
1. CONCRETE DRIVEWAY TO BE PAID AS 412-00850 CONCRETE PAVEMENT (8.5 INCH).

N

0 25 50 100

SCALE: 1" = 50'

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10/06/2025
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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PLAN3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	PLATTE RIVER PKWY ROADWAY PLAN STA. 406+00 TO STA. 411+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		Sheet Number 82
	Sheet Subset: ROADWAY	Subset Sheets: 14 of 17	

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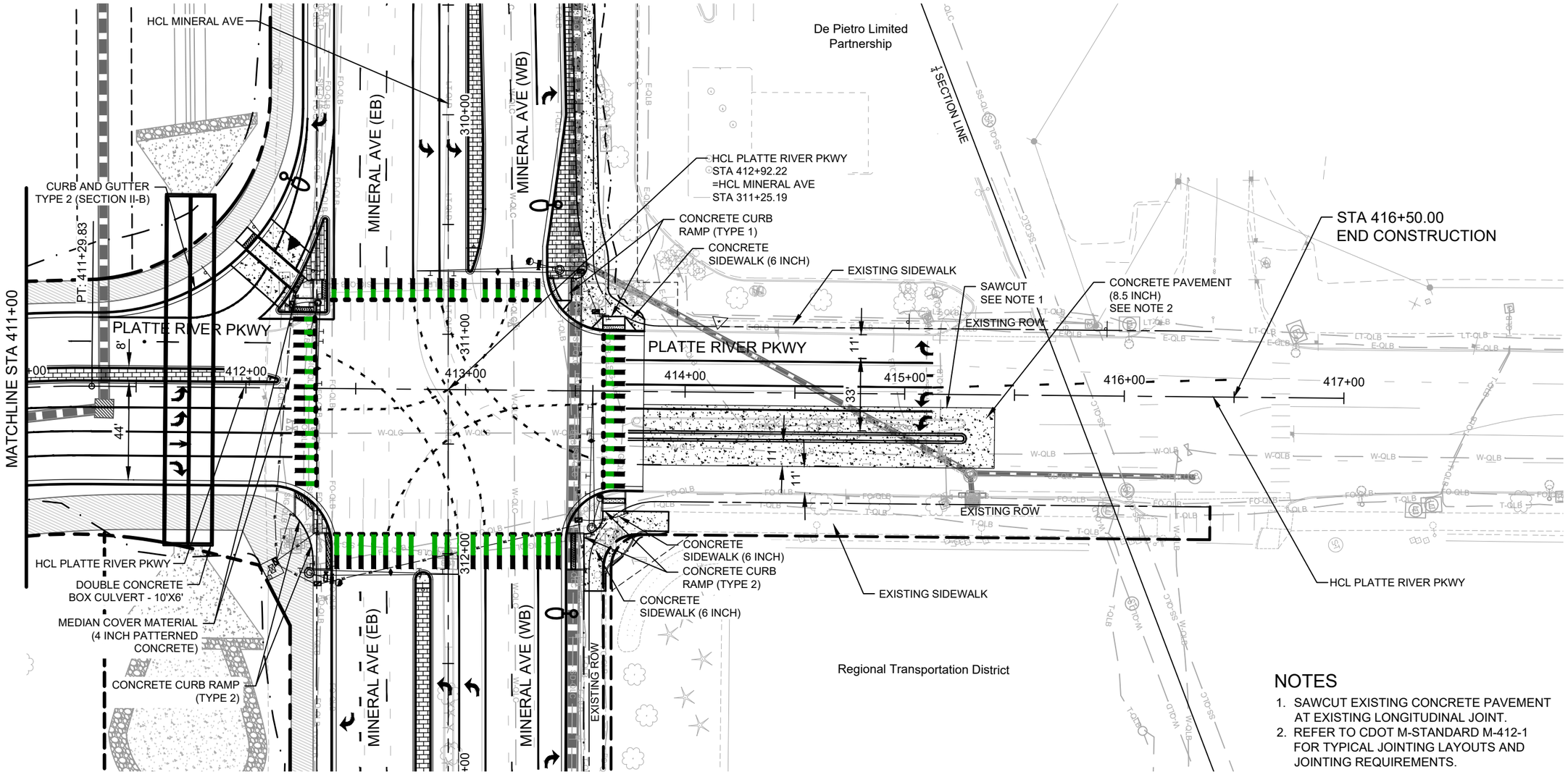

NOTES

1. SAWCUT EXISTING CONCRETE PAVEMENT AT EXISTING LONGITUDINAL JOINT.
2. REFER TO CDOT M-STANDARD M-412-1 FOR TYPICAL JOINTING LAYOUTS AND JOINTING REQUIREMENTS.

N

0 25 50 100

SCALE: 1" = 50'

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Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

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DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY ROADWAY PLAN STA. 411+00 TO STA. 417+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		
	Sheet Subset: ROADWAY	Subset Sheets: 15 of 17	Sheet Number 83

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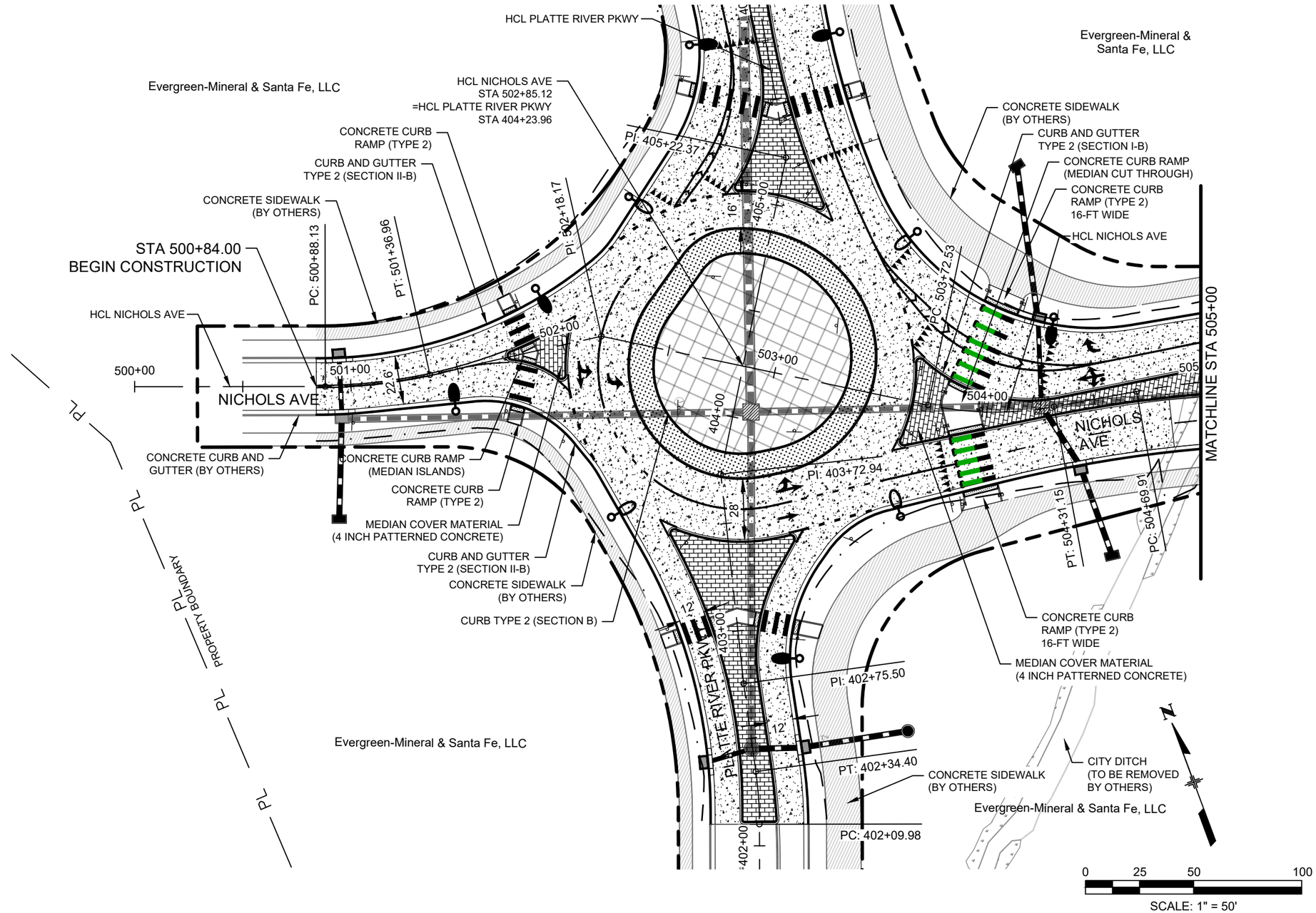

COLORADO LICENSED
HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions			As Constructed	NICHOLS AVE ROADWAY PLAN STA. 500+00 TO STA. 505+00	Project No./Code
File Name: 23574_RDW_PLAN3.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: 1" = 50' Vert. Scale: N/A				Revised:	Designer: OVELASCO / Structure Numbers	23574
Unit Information				Void:	Detailer: GPRINCE	Sheet Number 84
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: ROADWAY / Subset Sheets: 16 of 17	

Littleton Colorado

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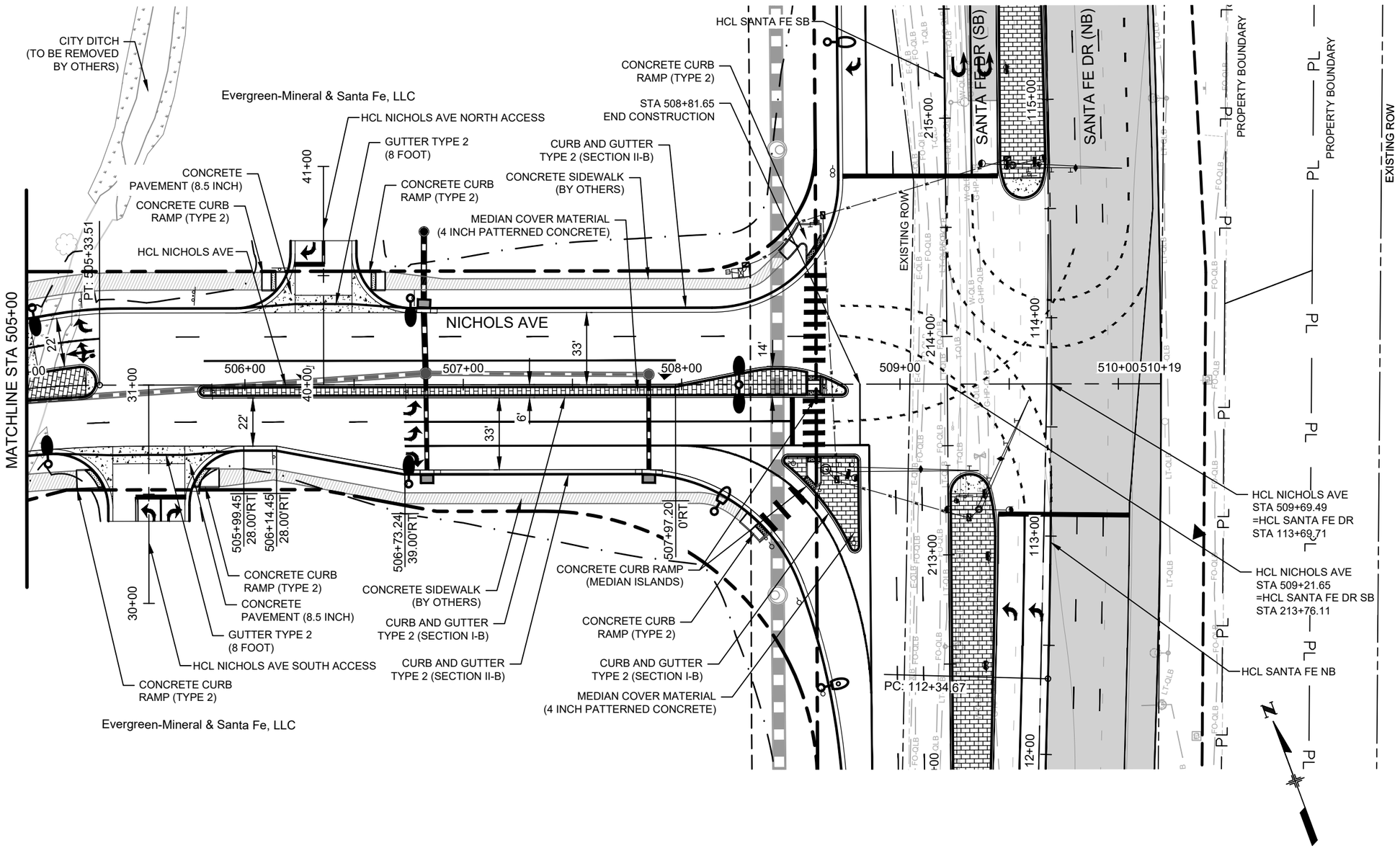
$PLOT_INFO$



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Print Date: 2024-11-04			
File Name: 23574_RDW_PLAN3.DWG			
Horiz. Scale: 1" = 50'	Vert. Scale: N/A		
Unit Information			

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FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	NICHOLS AVE ROADWAY PLAN STA. 505+00 TO STA. 510+19		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: GPRINCE		
	Sheet Subset: ROADWAY	Subset Sheets: 17 of 17	Sheet Number 85

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Know what's below.
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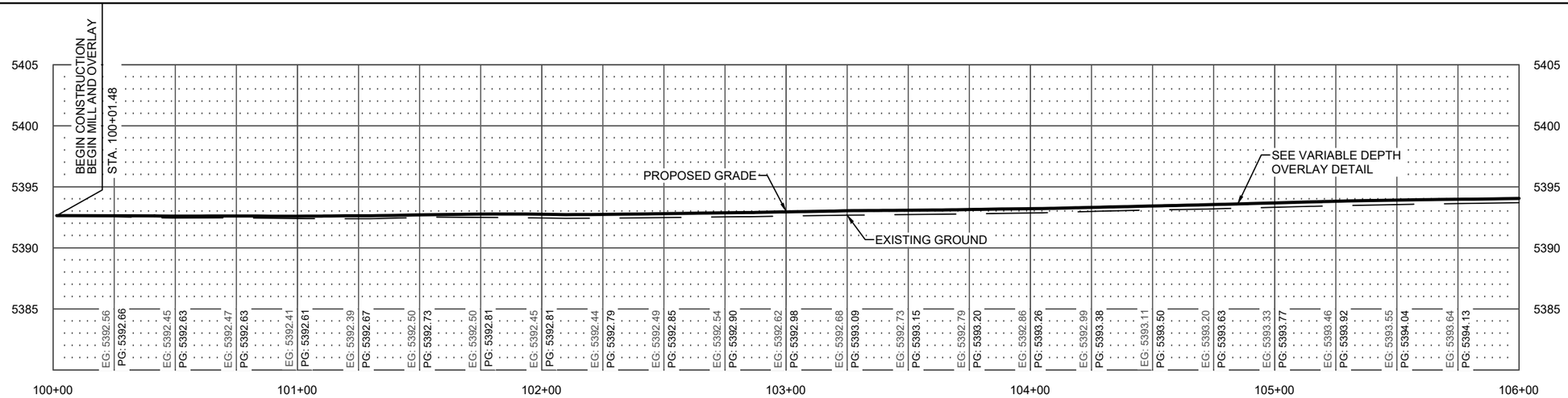

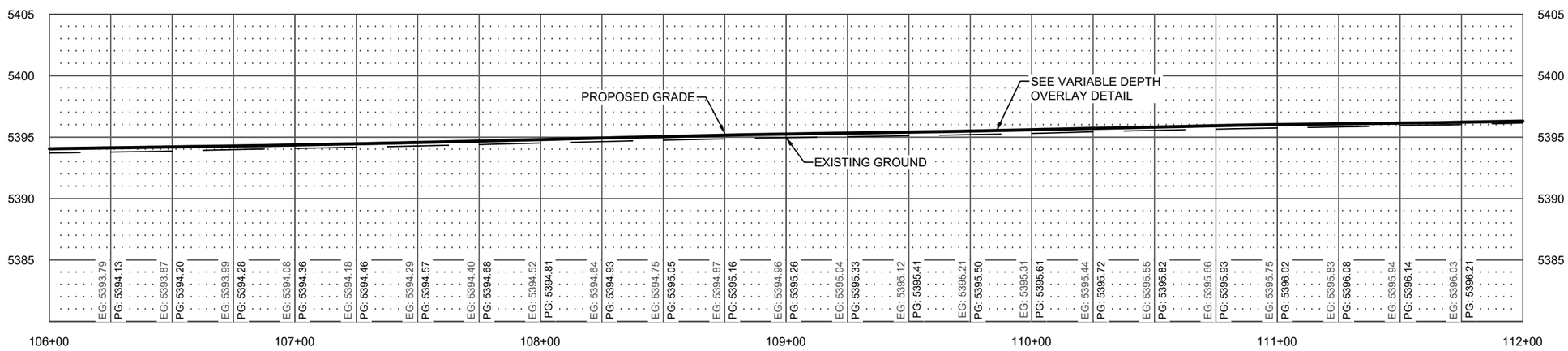

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Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			
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Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PROFILE (NB) STA. 100+00 TO STA. 112+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 86
	Sheet Subset: ROADWAY	Subset Sheets: 01 of 25	

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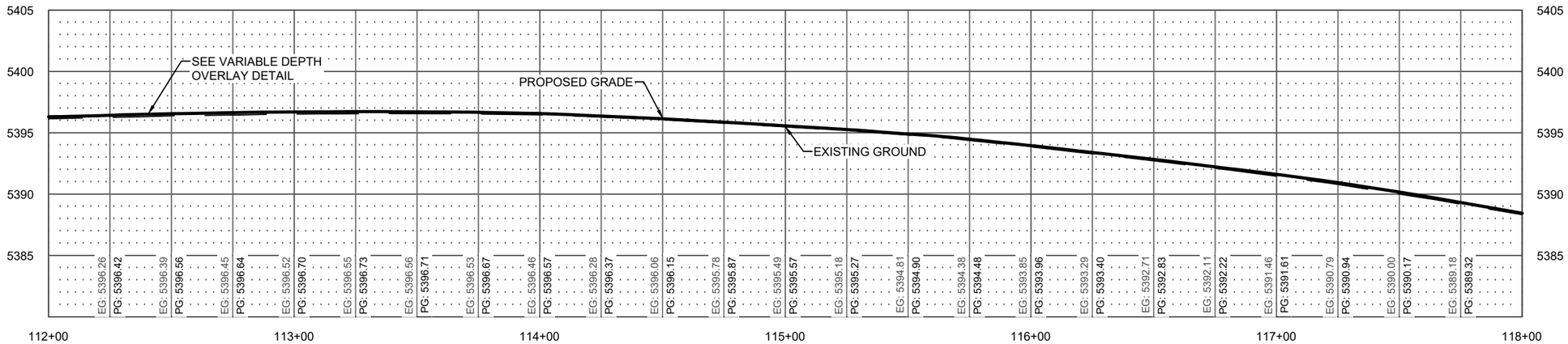

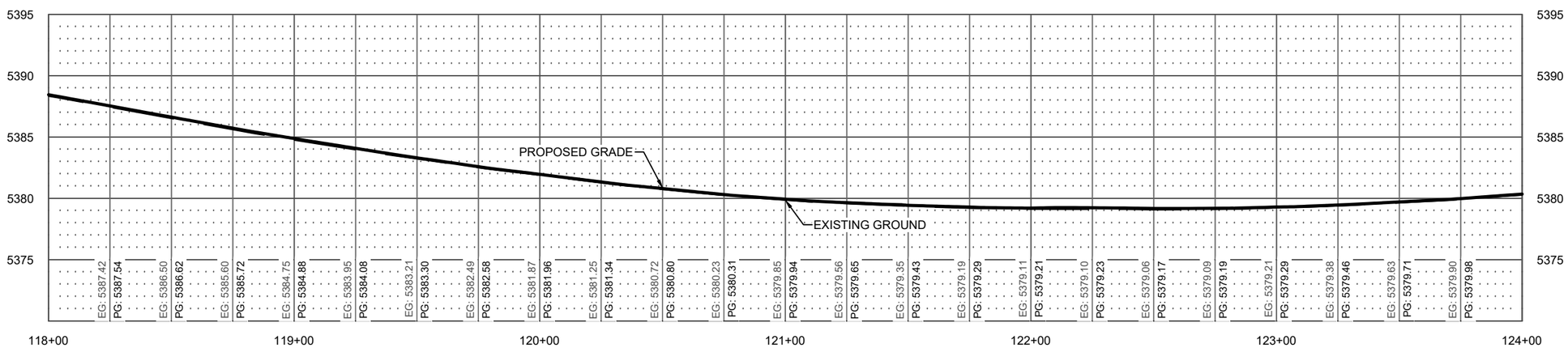

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Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_PRO1.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'				
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DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PROFILE (NB) STA. 112+00 TO STA. 124+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 87
	Sheet Subset: ROADWAY	Subset Sheets: 02 of 25	

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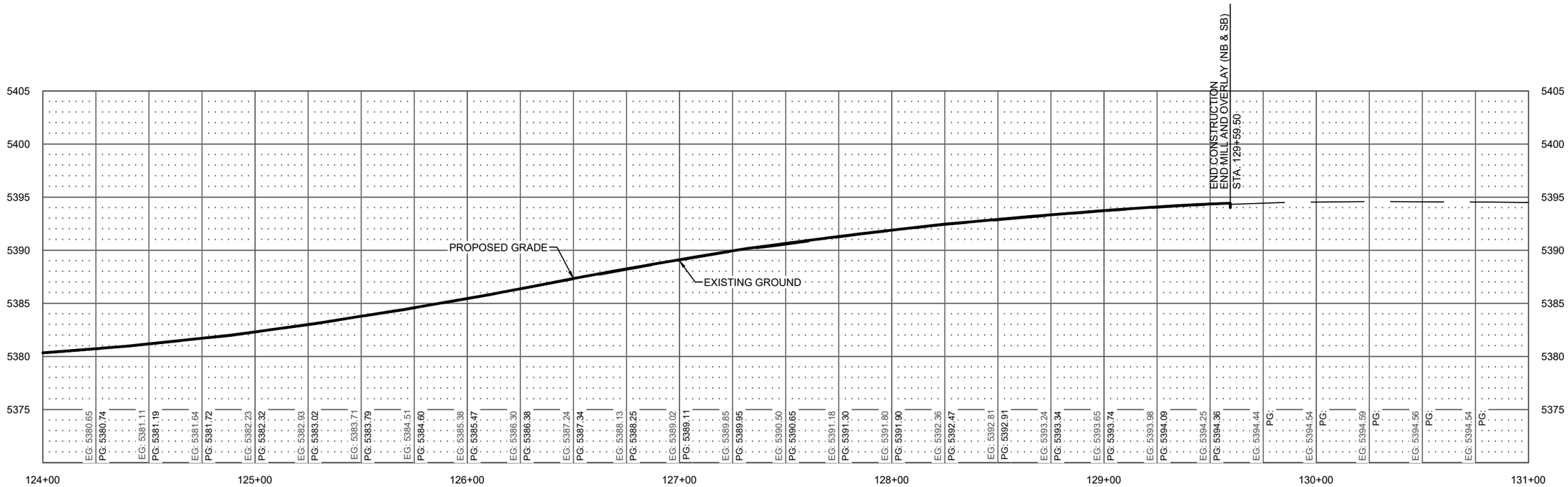
$PLOT_INFO$



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HECTOR VELASCO ORION
58434
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Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_PRO1.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'				
Unit Information				
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Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PROFILE (NB) STA. 124+00 TO STA. 131+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 88
	Sheet Subset: ROADWAY	Subset Sheets: 03 of 25	

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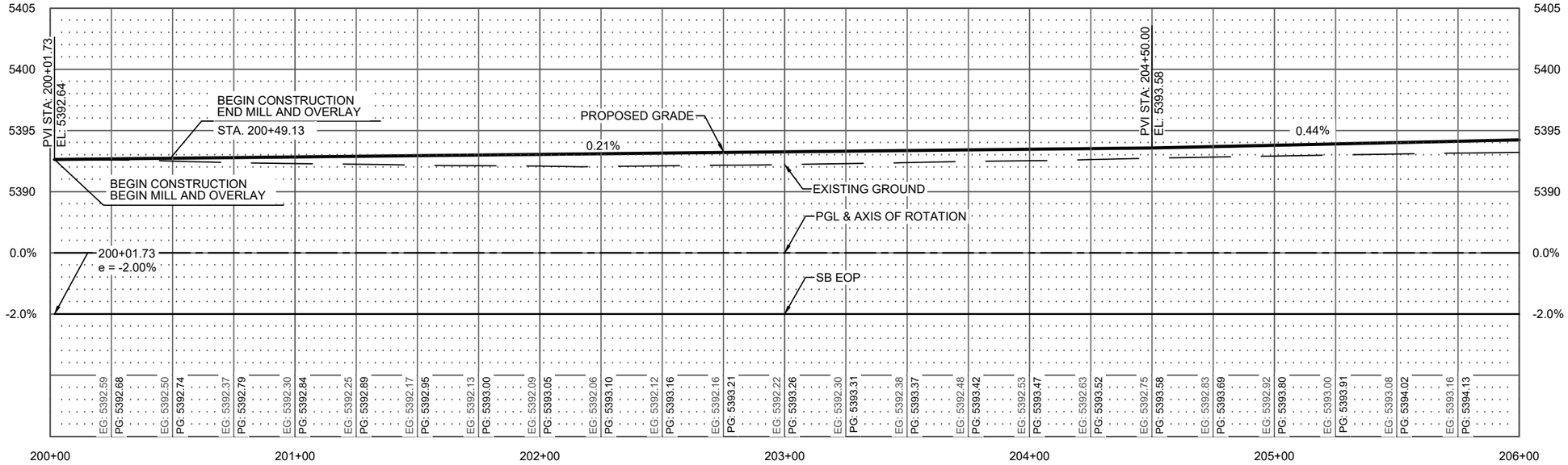

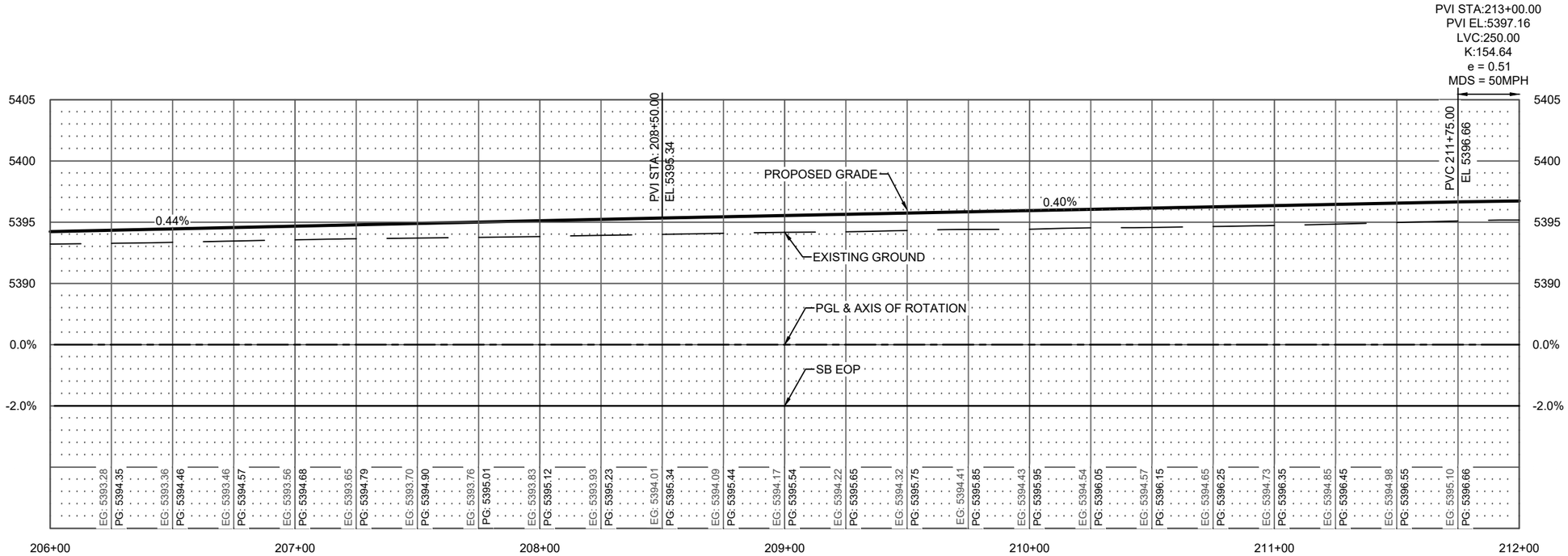

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Print Date: 2024-11-04	Sheet Revisions		
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Unit Information			

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DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PROFILE (SB) STA. 200+00 TO STA. 212+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 89
	Sheet Subset: ROADWAY	Subset Sheets: 04 of 25	

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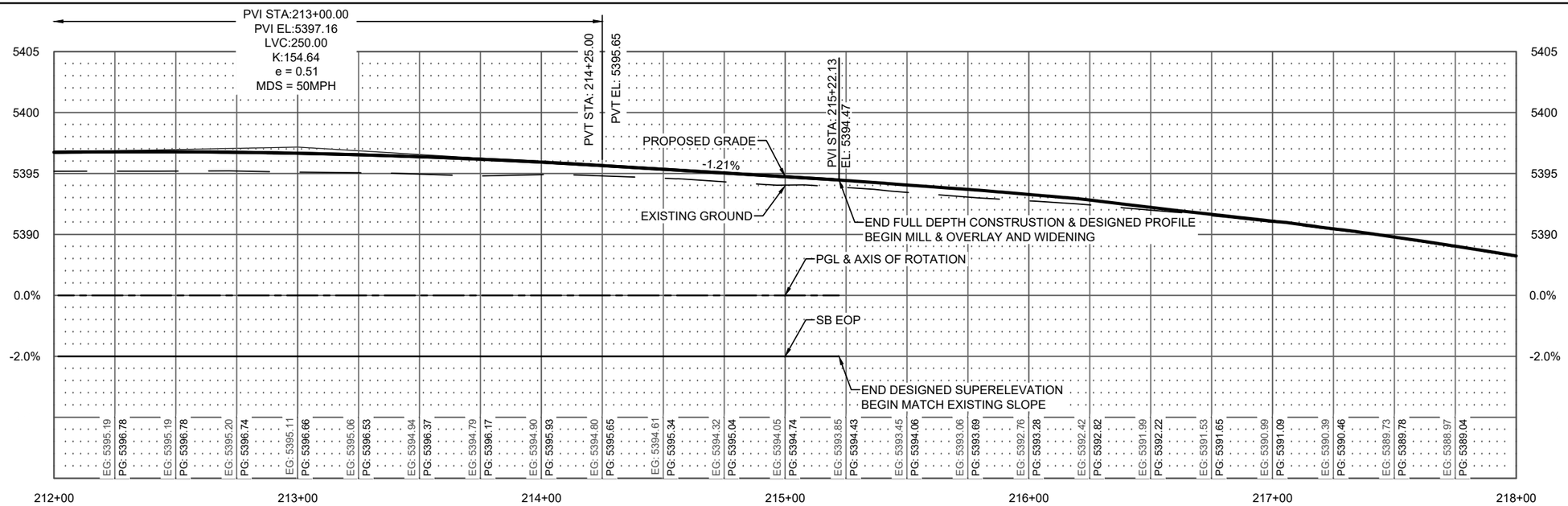

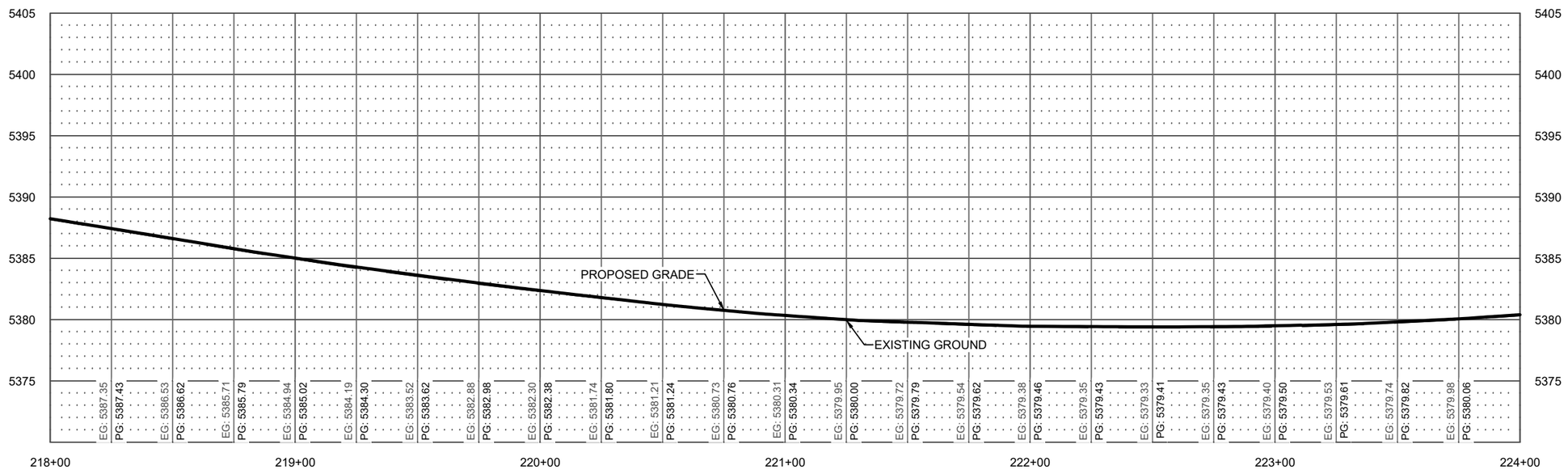

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FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PROFILE (SB) STA. 212+00 TO STA. 224+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 90
	Sheet Subset: ROADWAY	Subset Sheets: 05 of 25	

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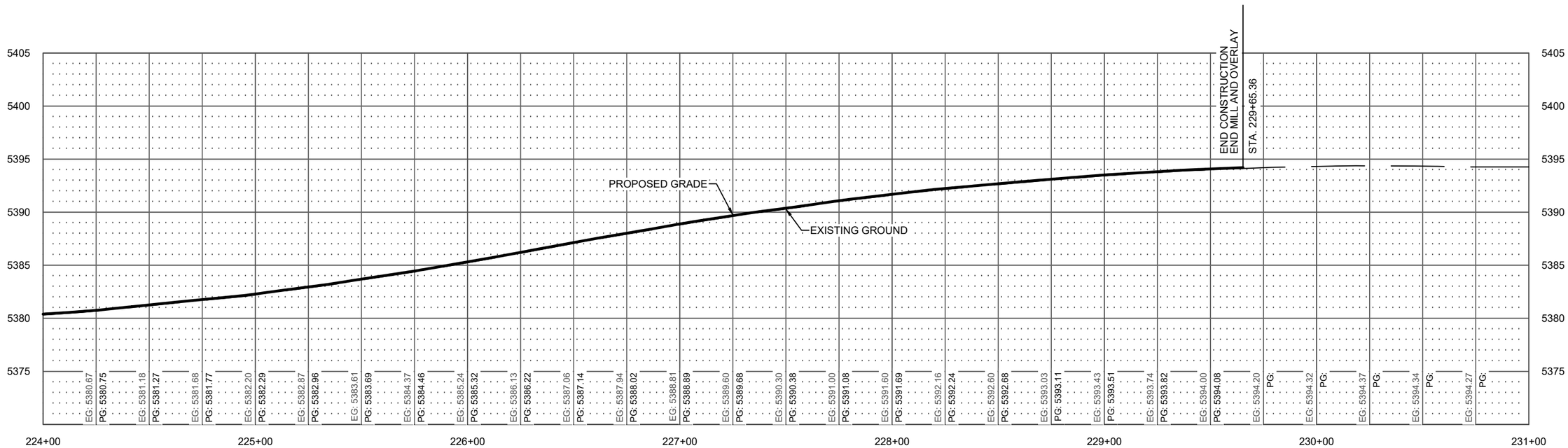

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HECTOR VELASCO ORION
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10/06/2025
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Unit Information				
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139				

Littleton Colorado

As Constructed	SANTA FE DR ROADWAY PROFILE (SB) STA. 212+00 TO STA. 224+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 91
	Sheet Subset: ROADWAY	Subset Sheets: 06 of 25	

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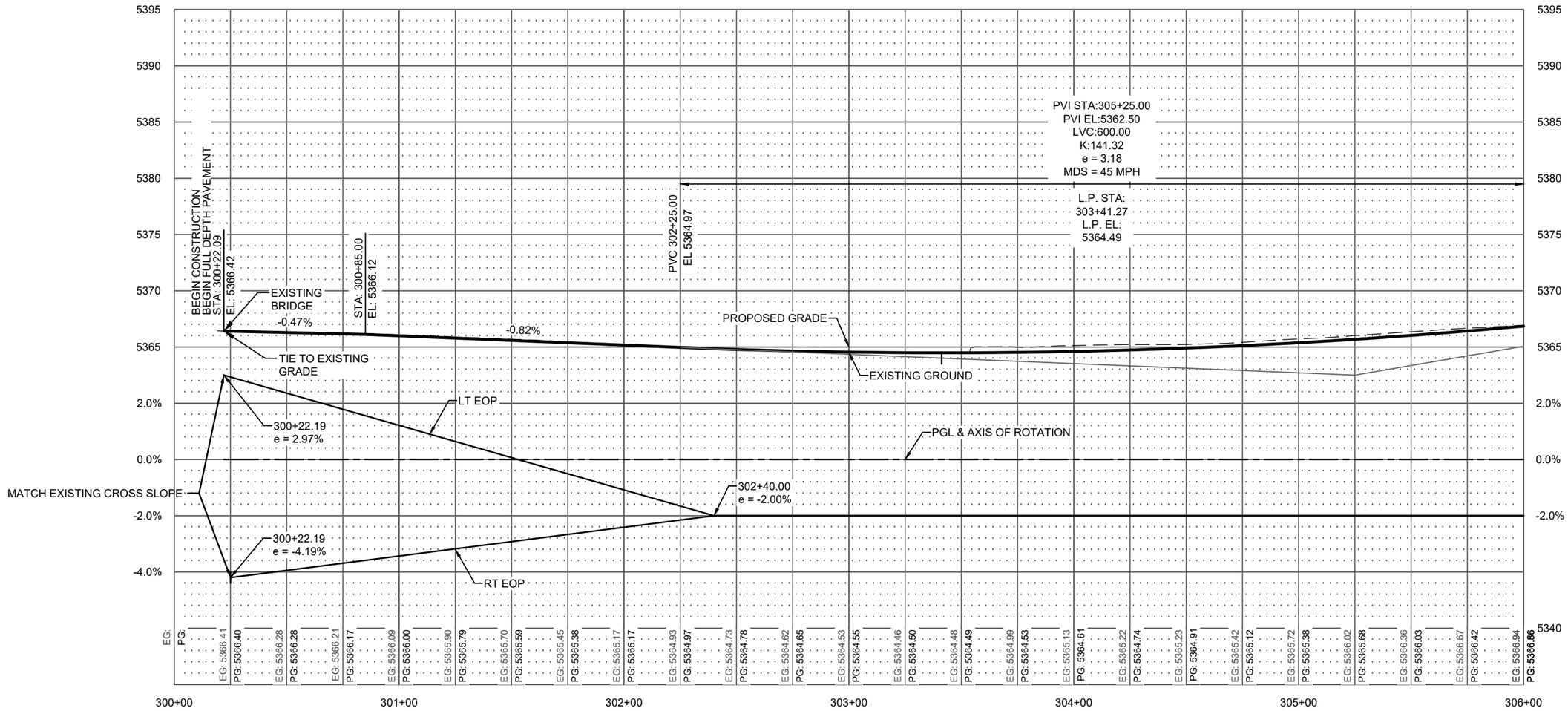

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Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE ROADWAY PROFILE STA. 300+00 TO STA. 306+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
	Detailer: OVELASCO		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 07 of 25	Sheet Number 92

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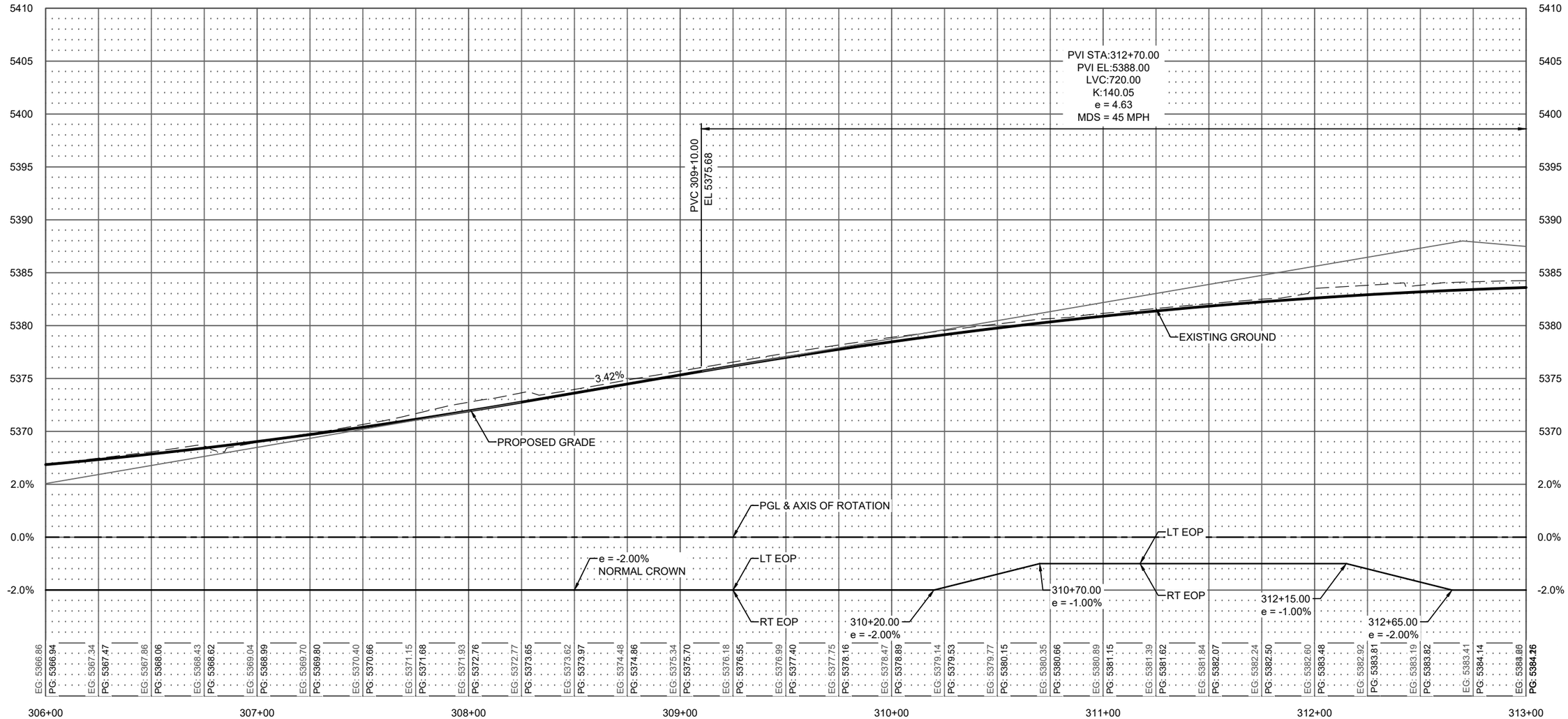
$PLOT_INFO$



COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04			
File Name: 23574_RDW_PRO2.DWG			
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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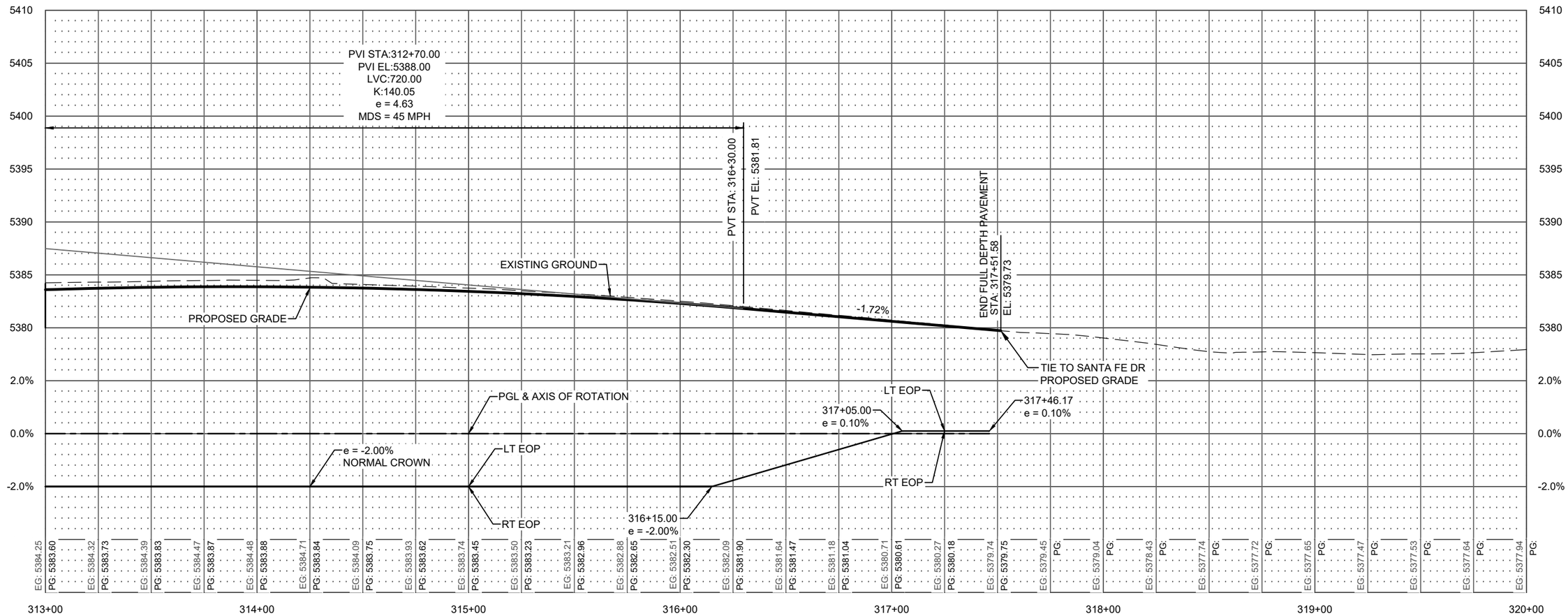
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	MINERAL AVE ROADWAY PROFILE STA. 306+00 TO STA. 313+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 93
	Sheet Subset: ROADWAY	Subset Sheets: 08 of 25	

$PLOT_INFO$



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Print Date: 2024-11-04			
File Name: 23574_RDW_PRO2.DWG			
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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Sheet Revisions		
Date:	Comments	Init.

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As Constructed	MINERAL AVE ROADWAY PROFILE STA. 313+00 TO STA. 320+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 94
	Sheet Subset: ROADWAY	Subset Sheets: 09 of 25	

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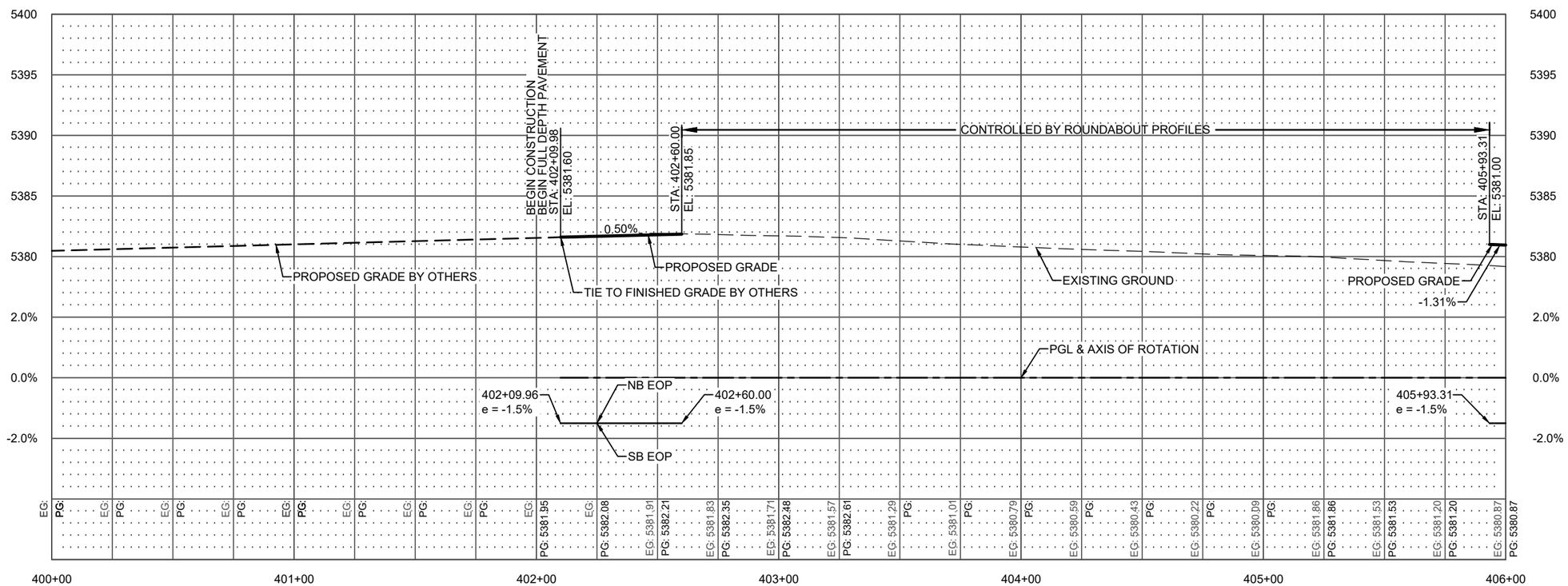
$PLOT_INFO$



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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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As Constructed	PLATTE RIVER PKWY ROADWAY PROFILE STA. 400+00 TO STA. 406+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 95
	Sheet Subset: ROADWAY	Subset Sheets: 10 of 25	

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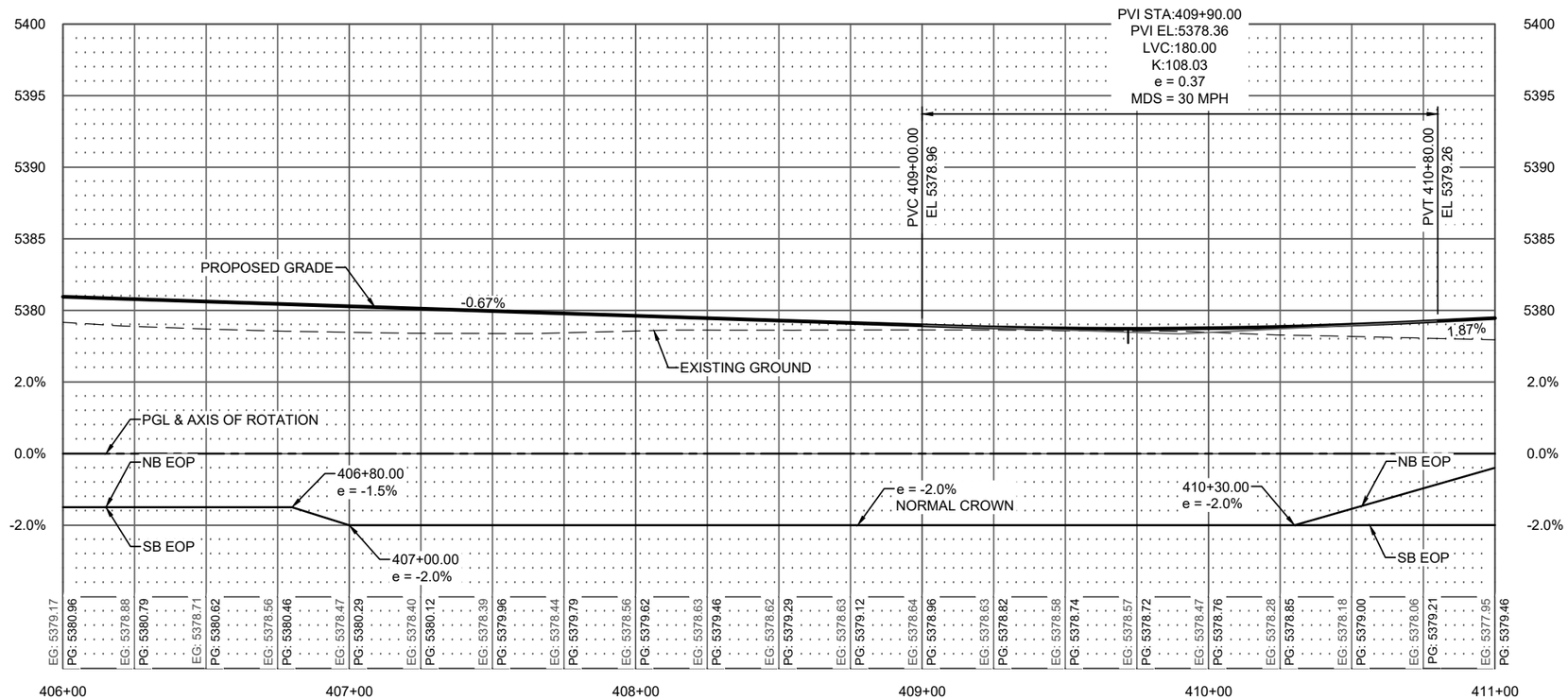

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 1'			
Unit Information			

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As Constructed	PLATTE RIVER PKWY ROADWAY PROFILE STA. 406+00 TO STA. 411+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 96
	Sheet Subset: ROADWAY	Subset Sheets: 11 of 25	

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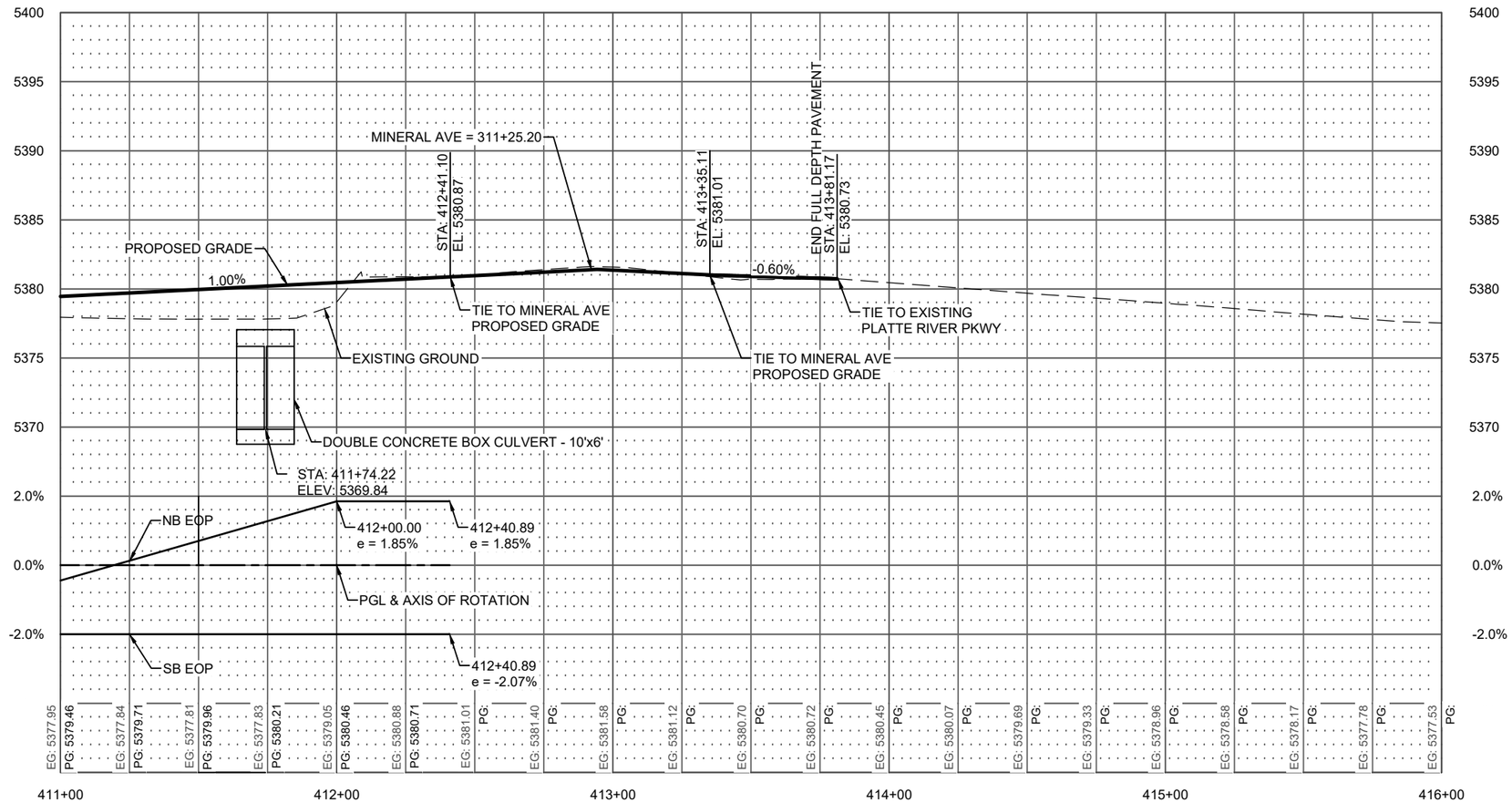

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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As Constructed	PLATTE RIVER PKWY ROADWAY PROFILE STA. 411+00 TO STA. 416+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 97
	Sheet Subset: ROADWAY	Subset Sheets: 12 of 25	

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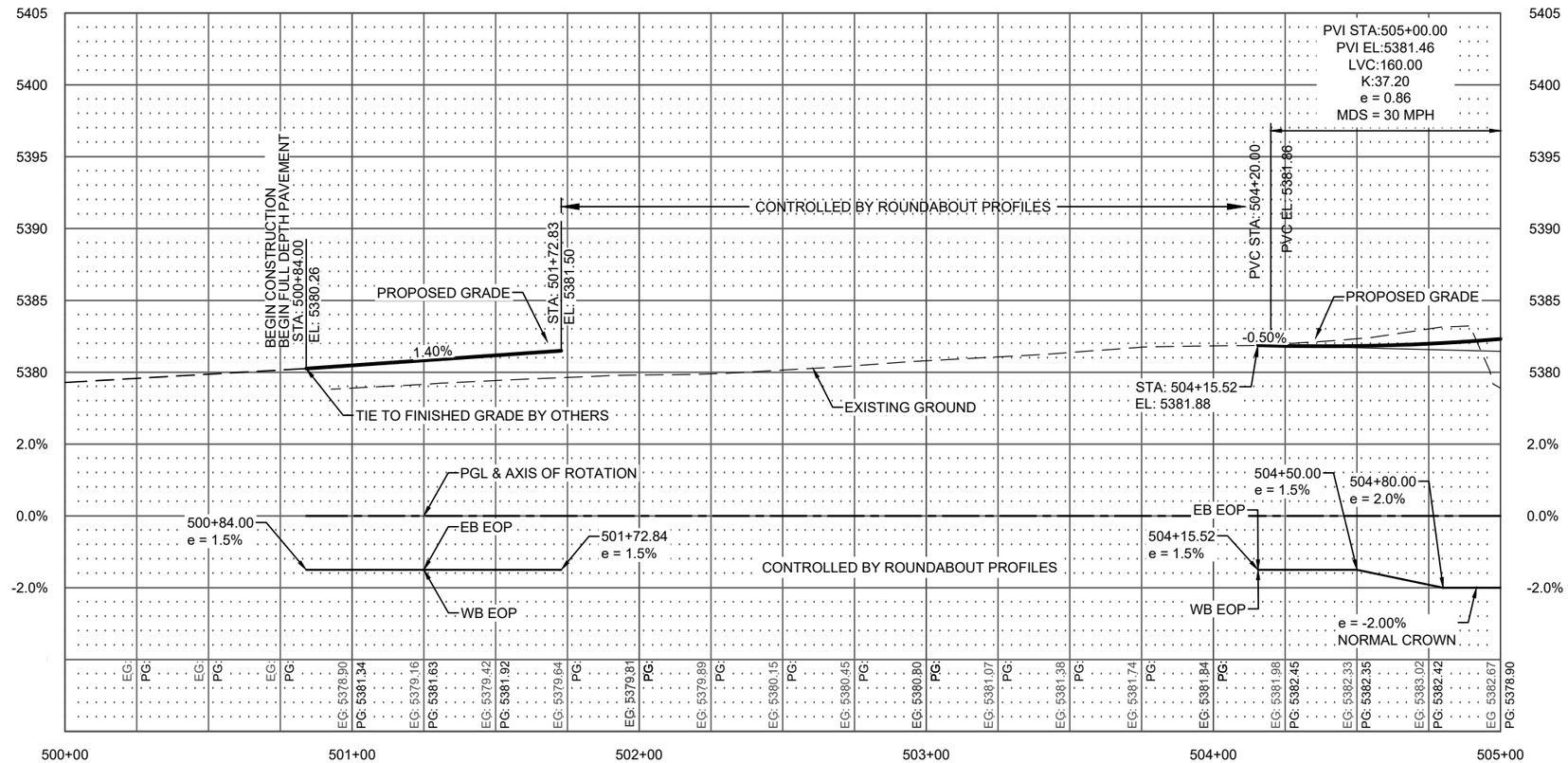

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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As Constructed	NICHOLS AVE ROADWAY PROFILE STA. 500+00 TO STA. 505+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 98
	Sheet Subset: ROADWAY	Subset Sheets: 13 of 25	

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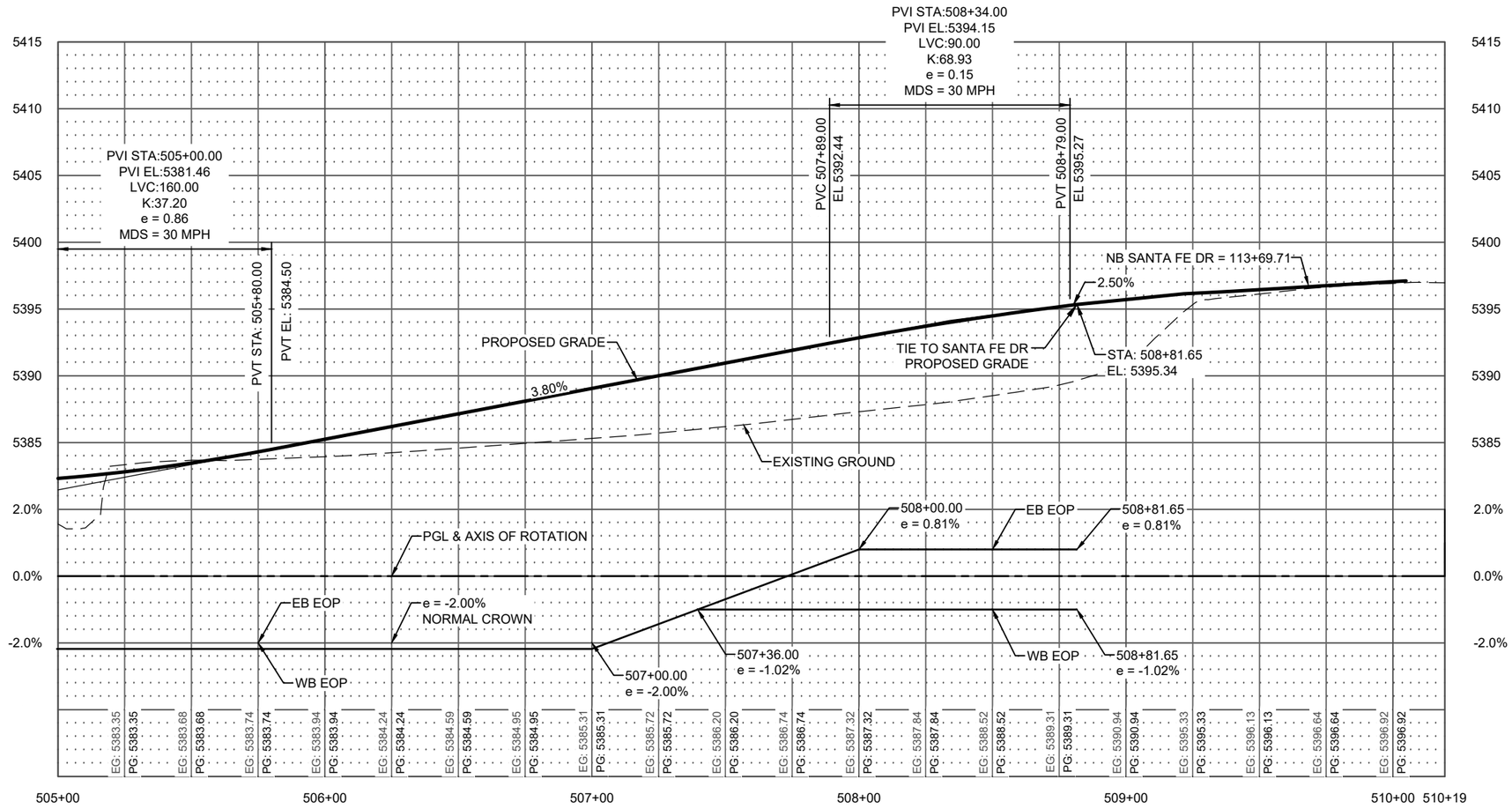
$PLOT_INFO$



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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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As Constructed	NICHOLS AVE ROADWAY PROFILE STA. 505+00 TO STA. 510+19		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 99
	Sheet Subset: ROADWAY	Subset Sheets: 14 of 25	

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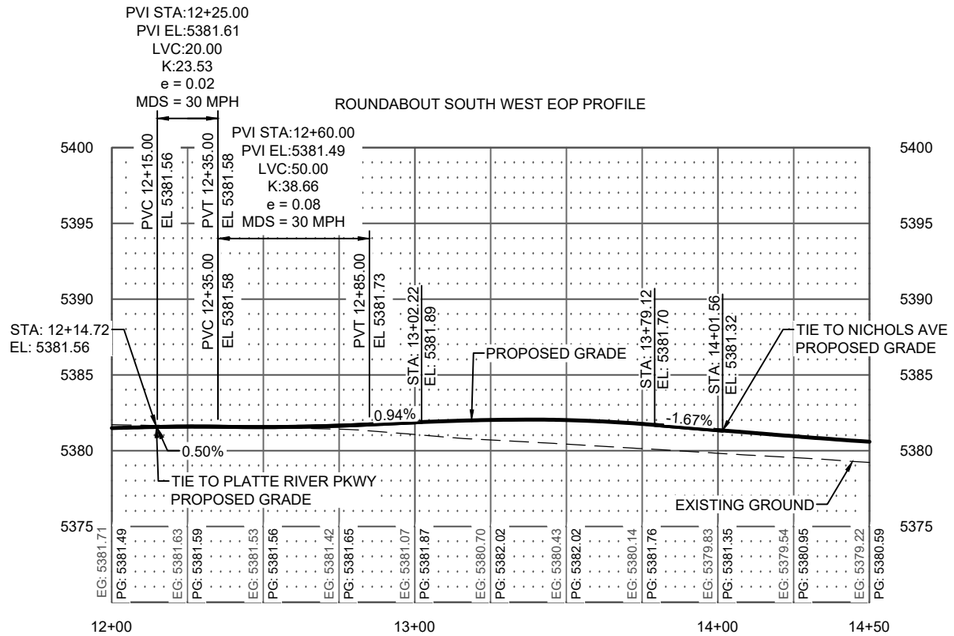
ROUNDABOUT SOUTH WEST EOP PROFILE



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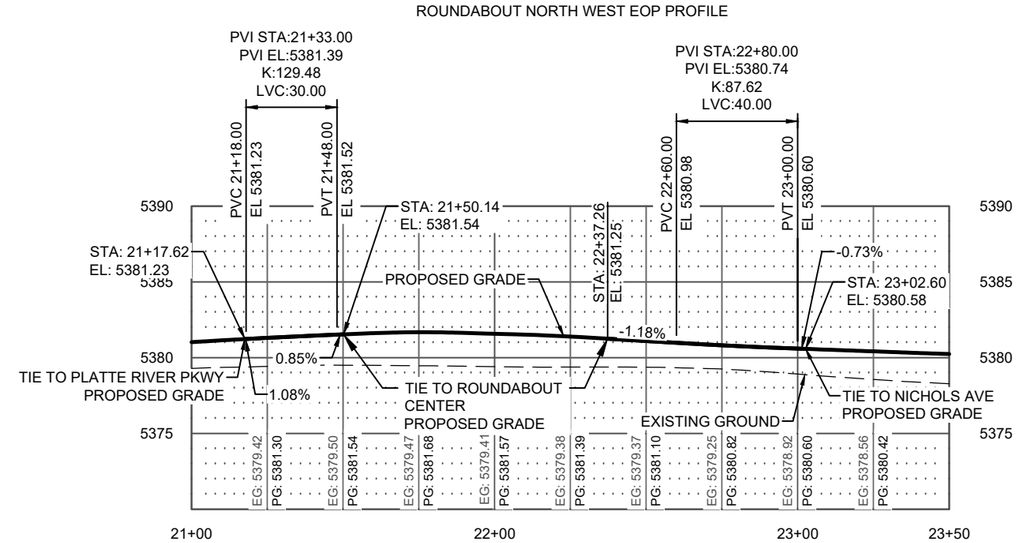

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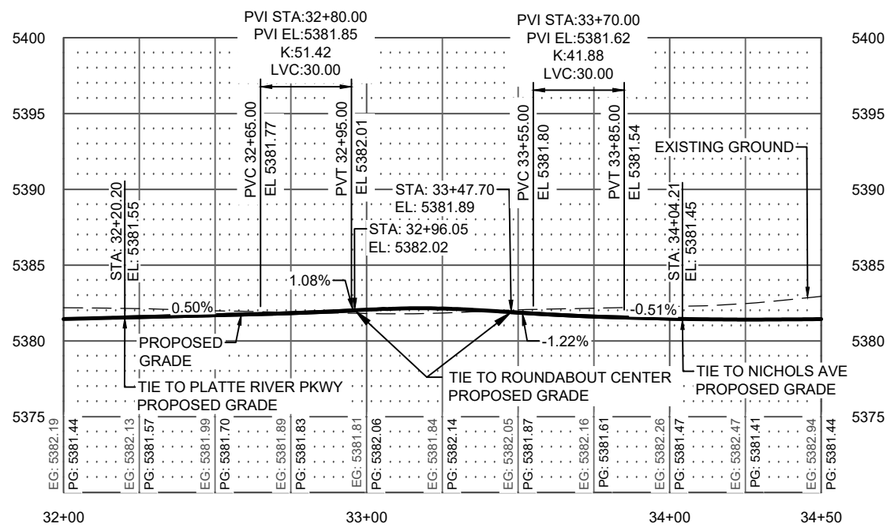

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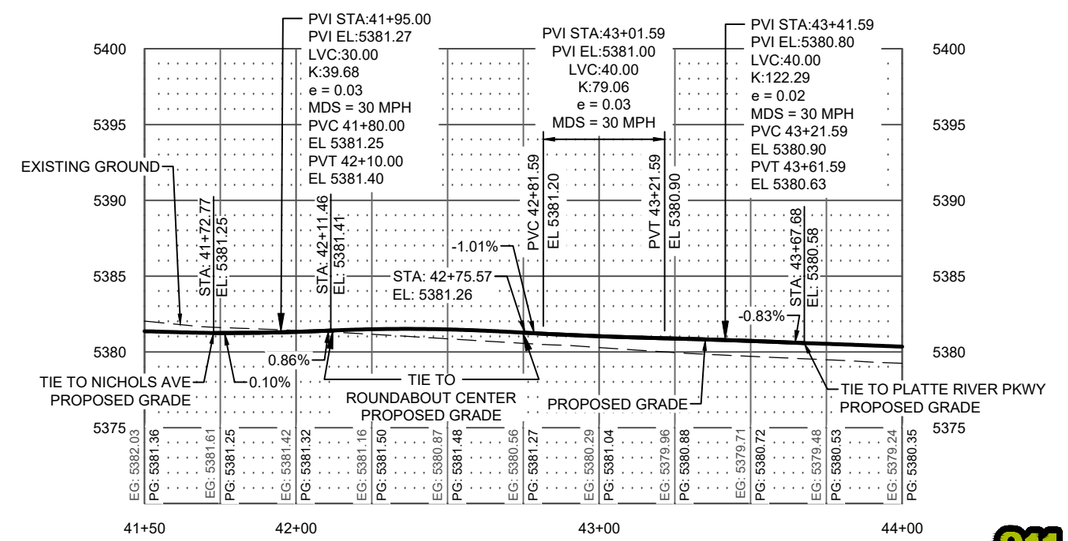

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
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No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 100
	Sheet Subset: ROADWAY	Subset Sheets: 15 of 25	

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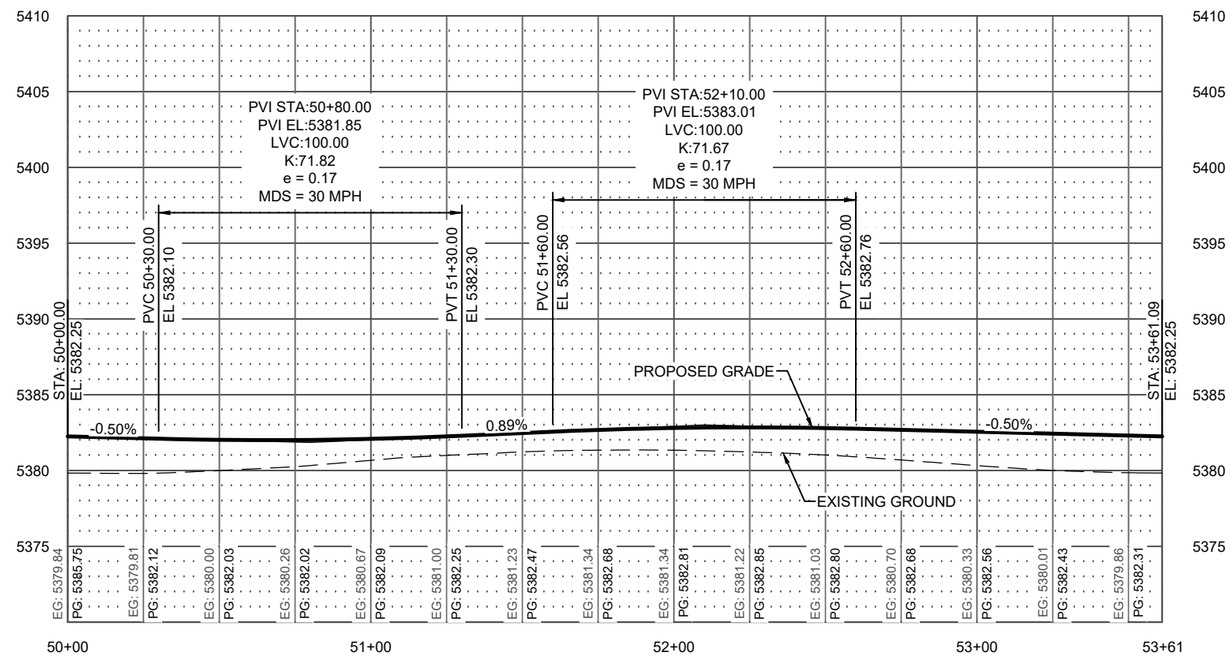
$PLOT_INFO$



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Print Date: 2024-11-04
File Name: 23574_RDW_PRO3.DWG
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'
Unit Information

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Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

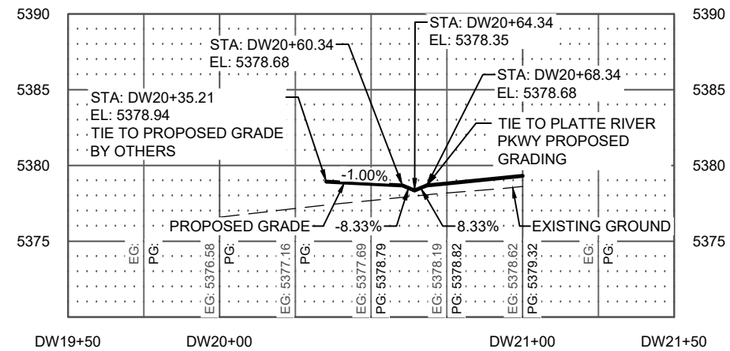
ROUNDABOUT CENTER
ROADWAY PROFILE
STA. 50+00 TO STA. 53+61

Designer: OVELASCO
Detailer: OVELASCO
Structure Numbers
Sheet Subset: ROADWAY
Subset Sheets: 16 of 25

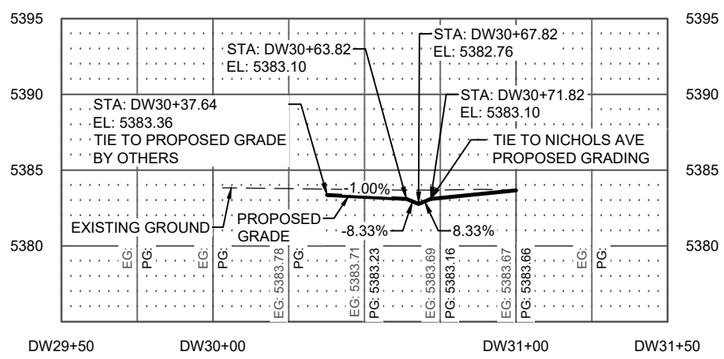
Project No./Code
AQC M810-017
23574
Sheet Number 101

$PLOT_INFO$

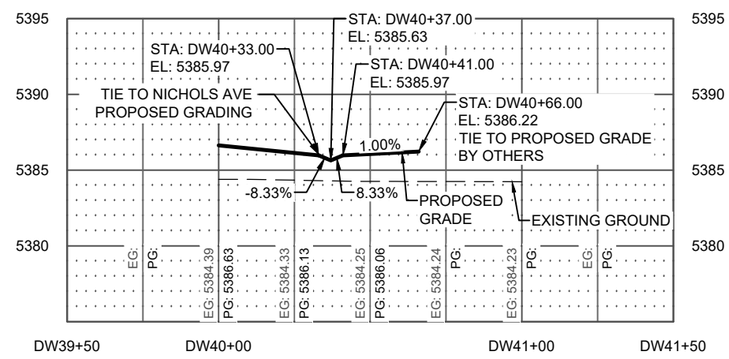
PLATTE RIVER PKWY WEST ACCESS PROFILE



NICHOLS AVE SOUTH ACCESS PROFILE



NICHOLS AVE NORTH ACCESS PROFILE



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File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
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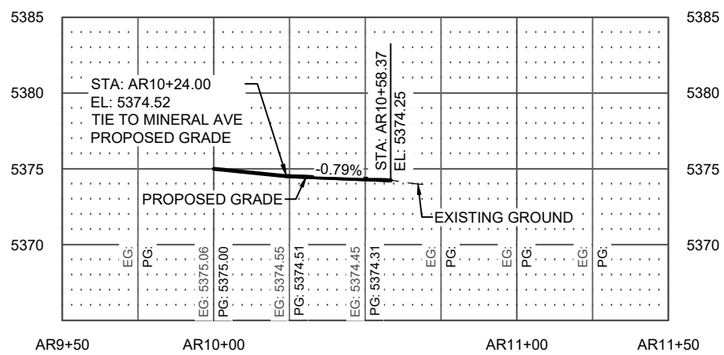
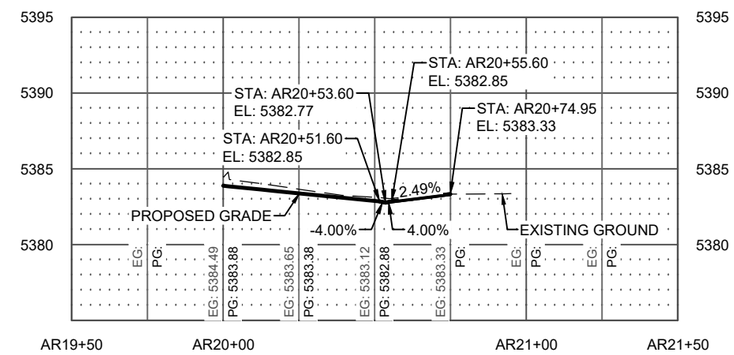
As Constructed	PLATTE RIVER PKWY AND NICHOLS AVE DRIVEWAY PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
	Detailer: OVELASCO		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 17 of 25	Sheet Number 102

$PLOT_INFO$

7-ELEVEN ACCESS ROAD PROFILE



RTD ACCESS ROAD PROFILE



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Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_PRO3.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'				
Unit Information				
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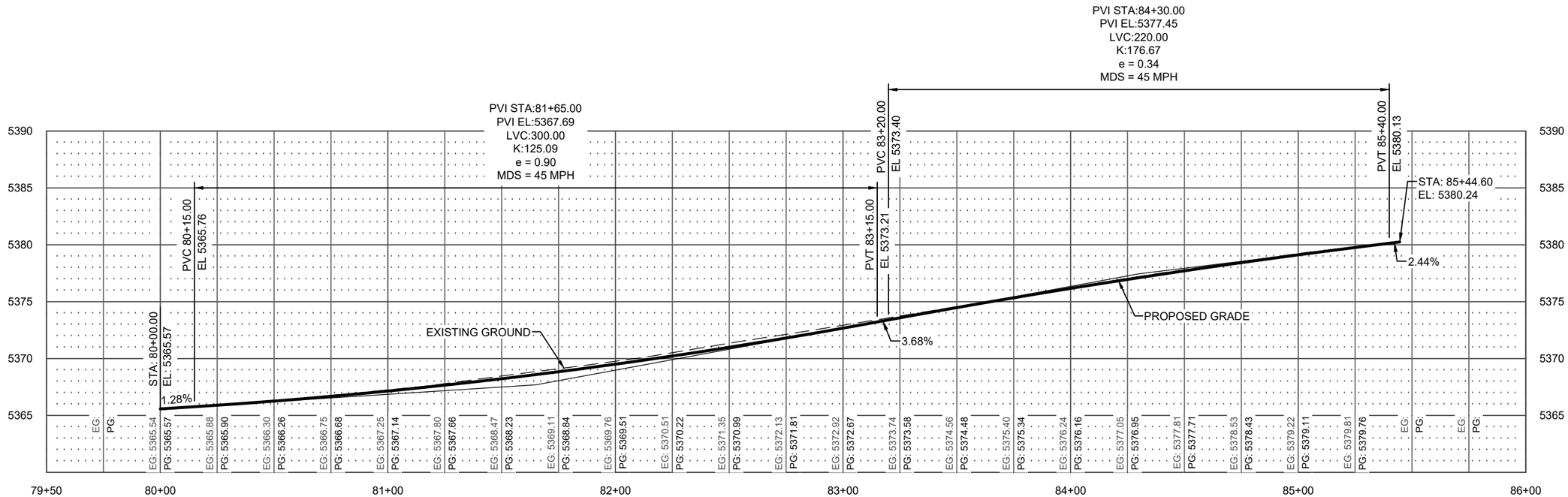
As Constructed	7-ELEVEN AND RTD ACCESS ROAD PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 18 of 25	Sheet Number 103

$PLOT_INFO$



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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO4.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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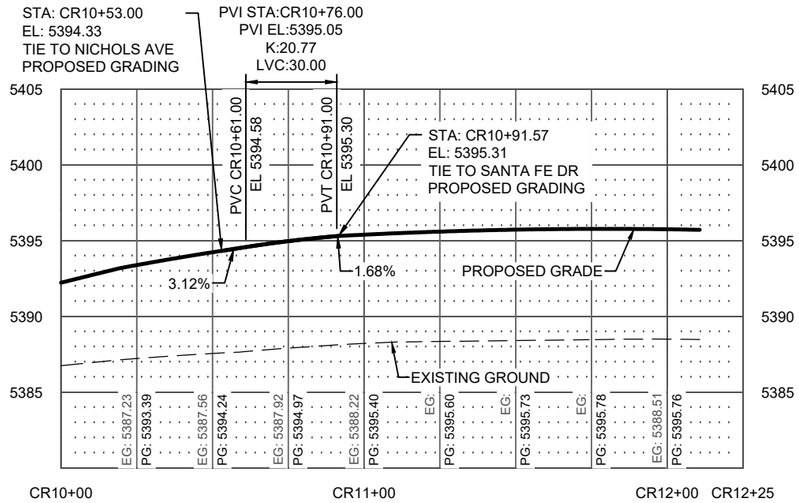
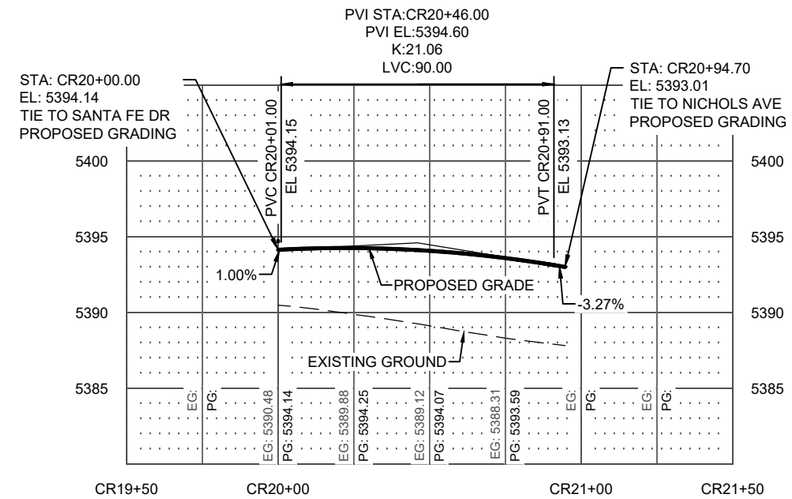
As Constructed	MINERAL AVE WB MEDIAN SECONDARY ROADWAY PROFILE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 104
	Sheet Subset: ROADWAY	Subset Sheets: 19 of 25	

$PLOT_INFO$

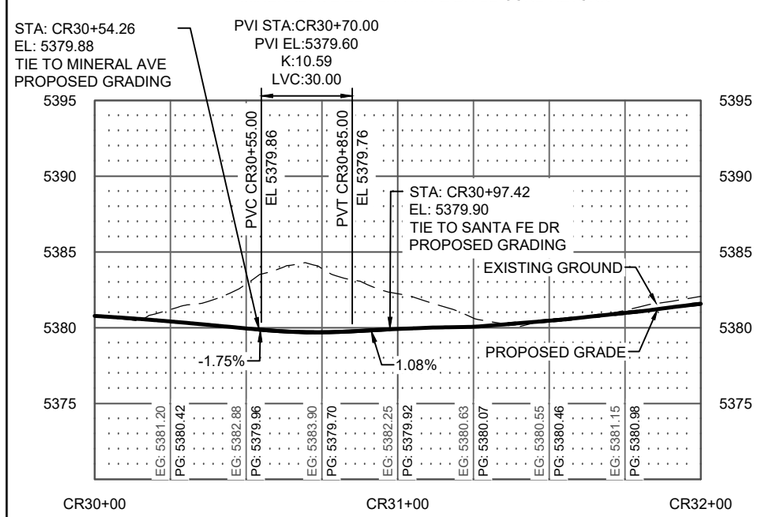
NICHOLS AVE EB - SANTA FE DR SB CURB RETURN



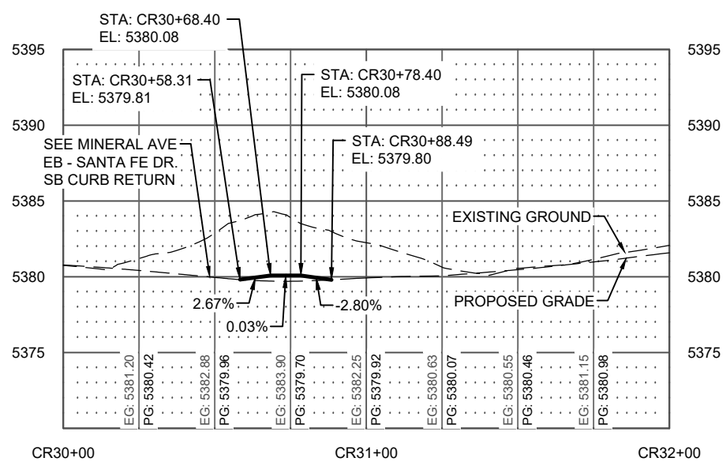
SANTA FE DR SB - NICHOLS AVE WB - CURB RETURN



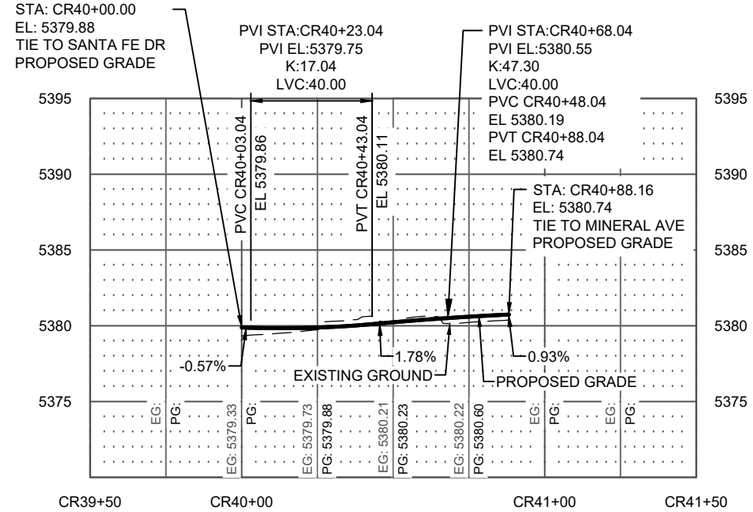
MINERAL AVE EB - SANTA FE DR SB CURB RETURN



MINERAL AVE EB - SANTA FE DR SB RAISED CROSSING



SANTA FE DR SB - MINERAL AVE WB CURB RETURN



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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO4.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'			
Unit Information			

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As Constructed	CURB RETURN SECONDARY ROADWAY PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 105
	Sheet Subset: ROADWAY	Subset Sheets: 20 of 25	

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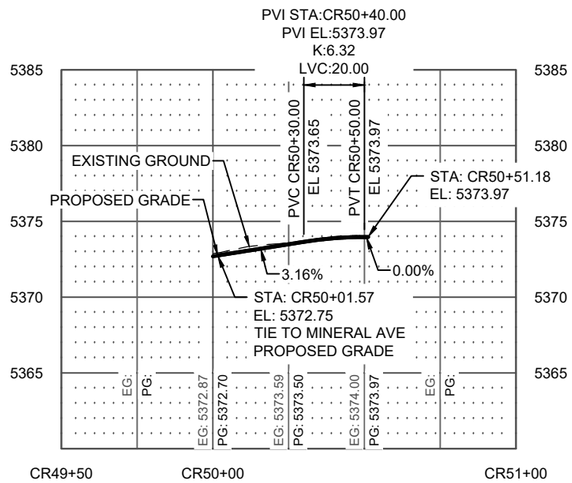
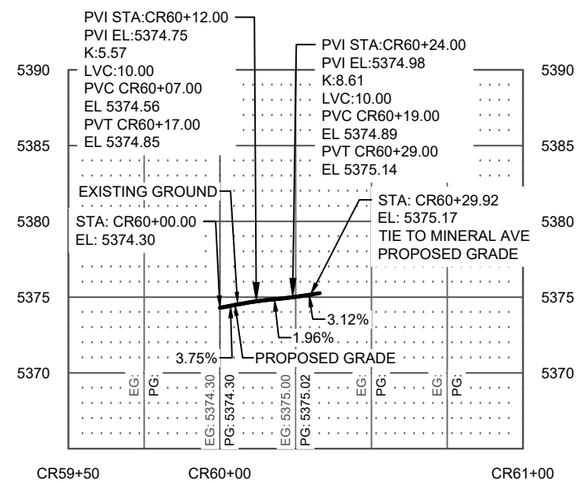
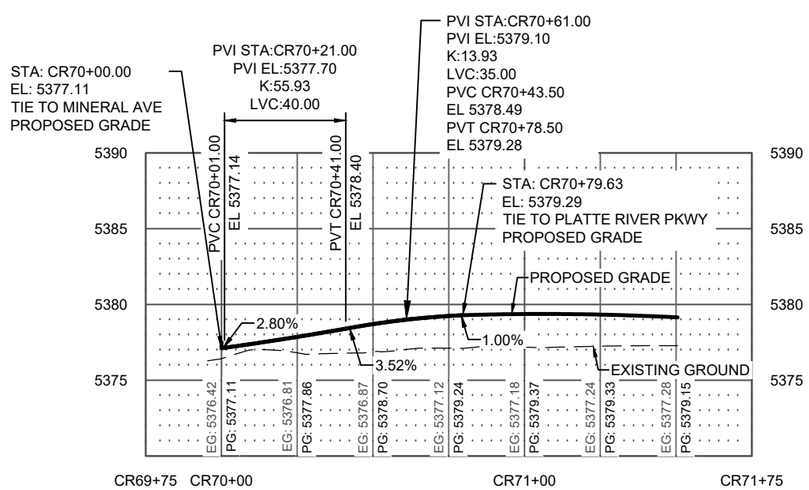
7-ELEVEN WEST CURB RETURN



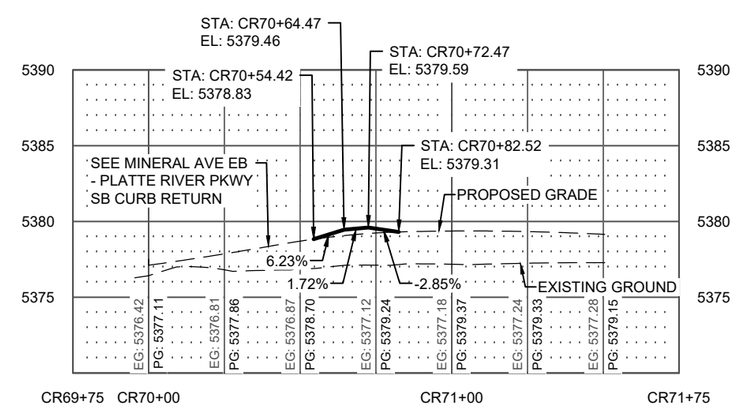
7-ELEVEN EAST CURB RETURN PROFILE



MINERAL AVE EB - PLATTE RIVER PKWY SB CURB RETURN



MINERAL AVE EB - PLATTE RIVER PKWY SB RAISED CROSSING



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Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_PRO4.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 10'				
Unit Information				

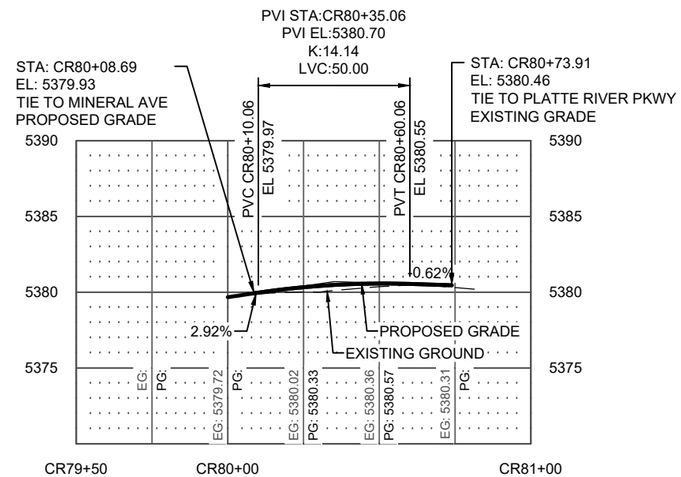
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

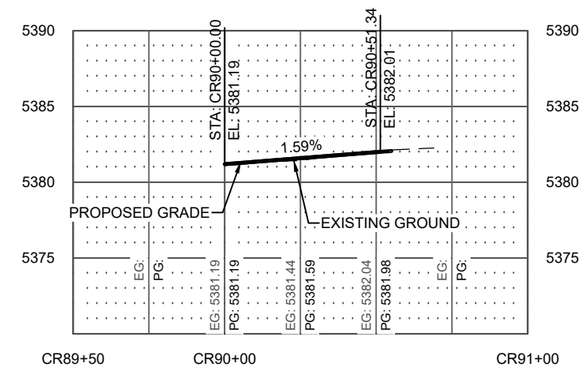
As Constructed	CURB RETURNS SECONDARY ROADWAY PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 21 of 25	Sheet Number 106

$PLOT_INFO$

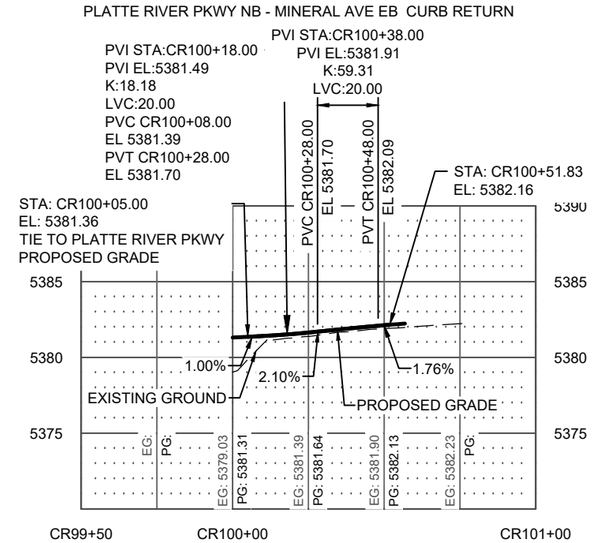
PLATTE RIVER PKWY SB - MINERAL AVE WB CURB RETURN



MINERAL AVE WB - PLATTE RIVER PKWY NB CURB RETURN



PLATTE RIVER PKWY NB - MINERAL AVE EB CURB RETURN



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HECTOR VELASCO
ORION
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PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_PRO4.DWG	Date:	Comments	Init.	
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Unit Information				
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139				

Littleton Colorado

As Constructed	CURB RETURNS SECONDARY ROADWAY PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 107
	Sheet Subset: ROADWAY	Subset Sheets: 22 of 25	

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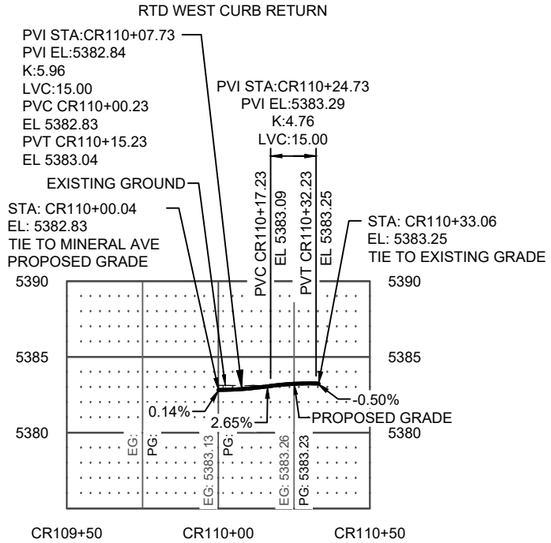
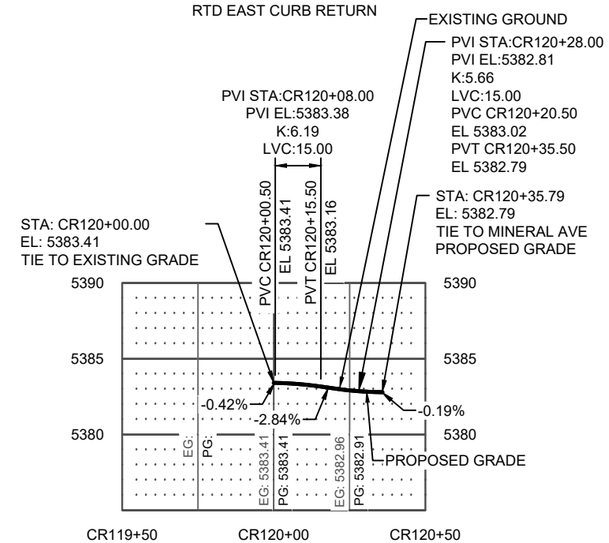
$PLOT_INFO$

RTD WEST CURB RETURN

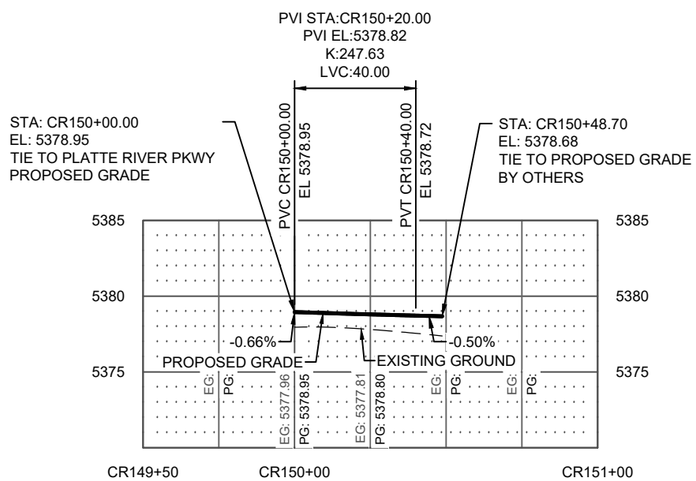


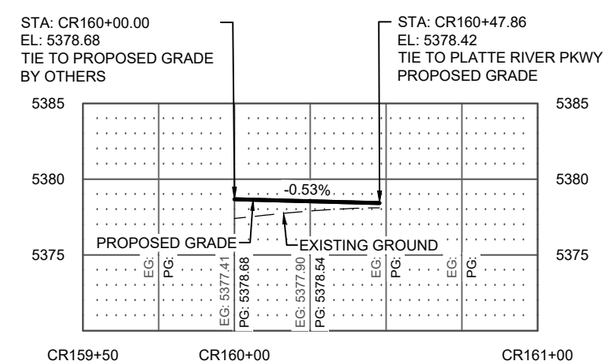
PLATTE RIVER PKWY WEST ACCESS OUT - CURB RETURN

RTD EAST CURB RETURN



PLATTE RIVER PKWY WEST ACCESS IN - CURB RETURN





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Print Date: 2024-11-04	Sheet Revisions		
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DENVER, COLORADO 80202
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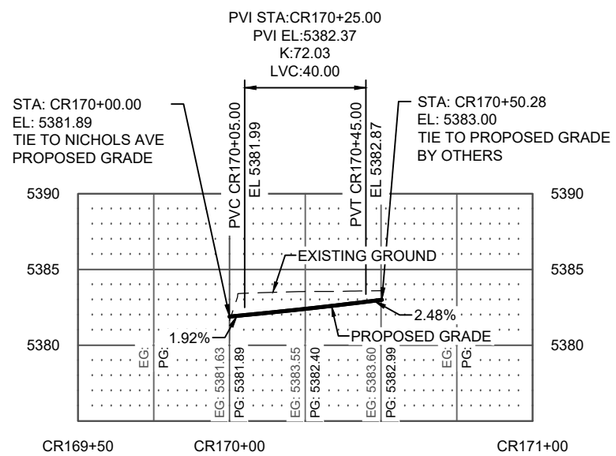
As Constructed	CURB RETURNS SECONDARY ROADWAY PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		Sheet Number 108
	Sheet Subset: ROADWAY	Subset Sheets: 23 of 25	

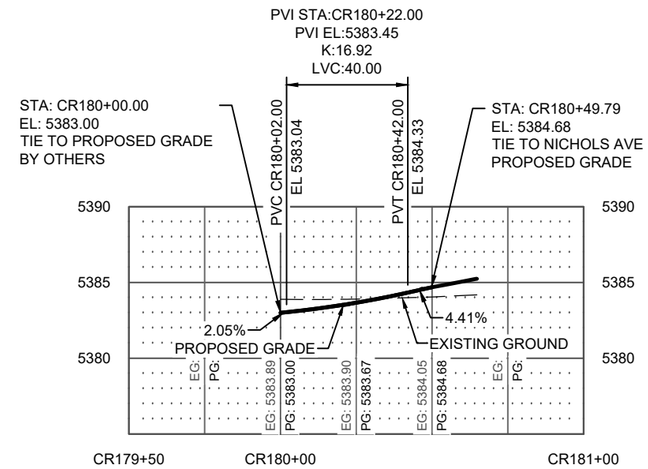
Know what's below. Call before you dig.

$PLOT_INFO$

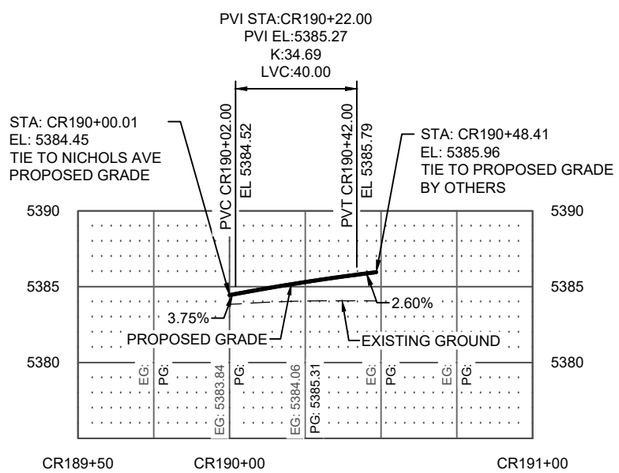
NICHOLS AVE SOUTH ACCESS IN - CURB RETURN



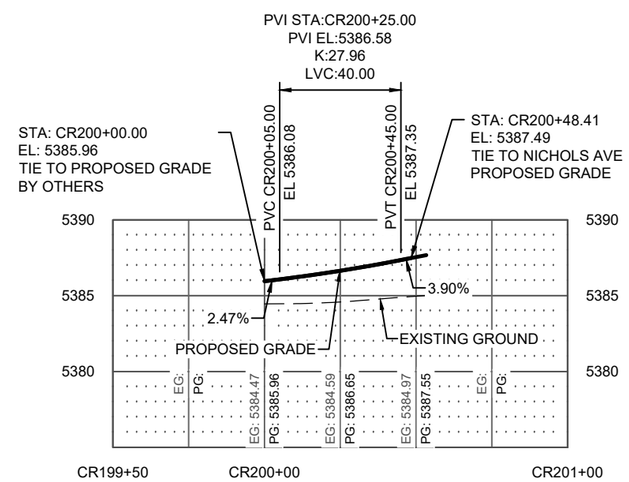
NICHOLS AVE SOUTH ACCESS OUT - CURB RETURN



NICHOLS AVE SOUTH ACCESS IN - CURB RETURN



NICHOLS AVE SOUTH ACCESS OUT - CURB RETURN



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Print Date: 2024-11-04	Sheet Revisions		
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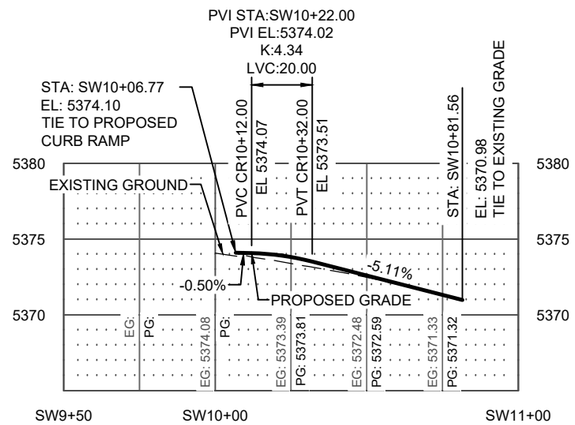
As Constructed	CURB RETURNS SECONDARY ROADWAY PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 24 of 25	Sheet Number 109

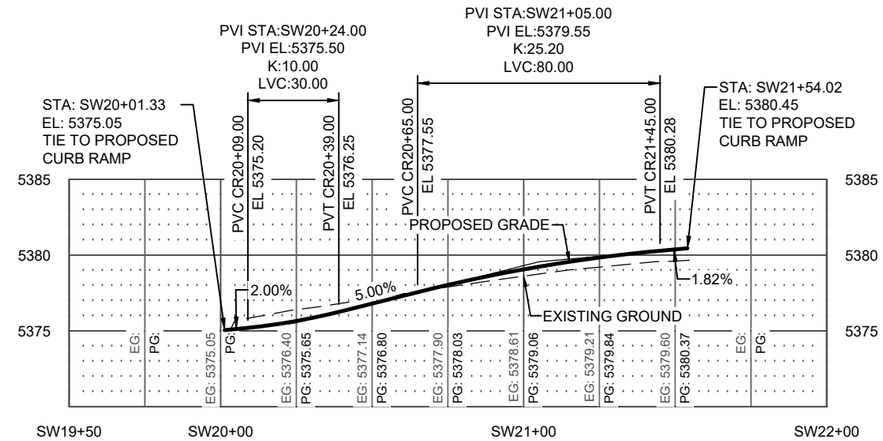
811 Know what's below. Call before you dig.

$PLOT_INFO$

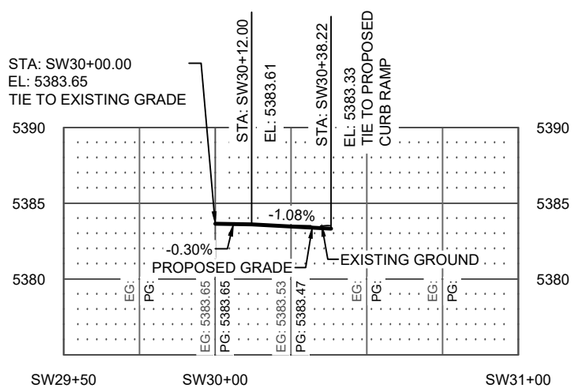
7-ELEVEN WEST SIDEWALK



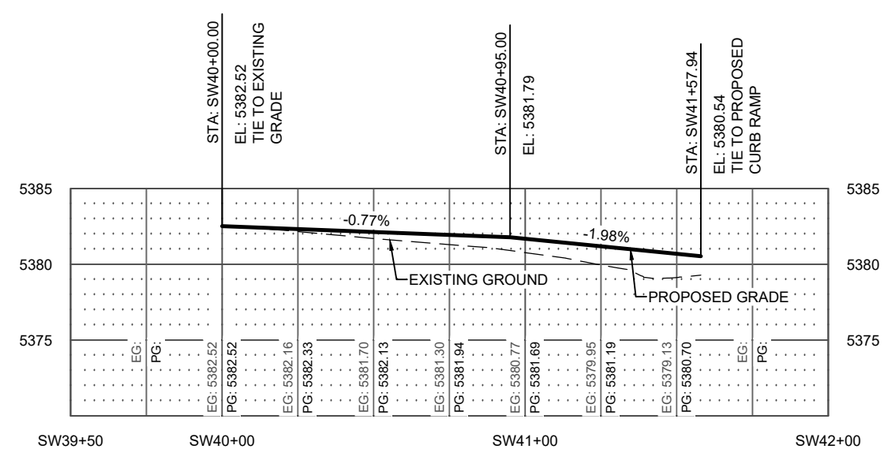
7-ELEVEN EAST SIDEWALK



RTD WEST SIDEWALK



RTD EAST SIDEWALK



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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_PRO4.DWG	Date:	Comments	Init.
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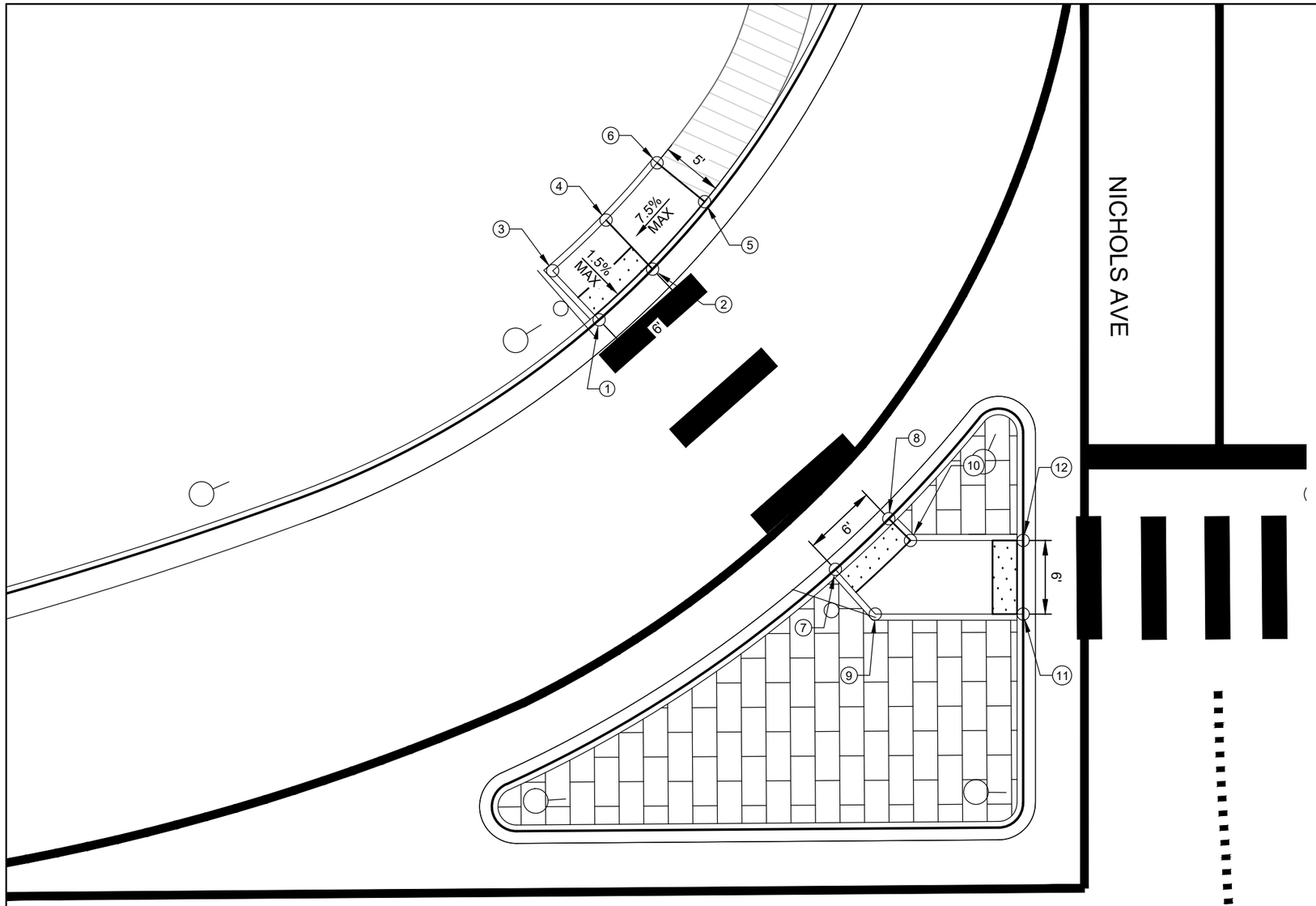
As Constructed	SIDEWALKS SECONDARY ROADWAY PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: OVELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 25 of 25	Sheet Number 110

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
1	635856.9447	134093.0280	5394.69
2	635862.4631	134090.6727	5394.51
3	635854.7839	134087.9655	5394.70
4	635860.3023	134085.6102	5394.59
5	635868.3533	134086.9928	5394.72
6	635865.8213	134082.6813	5394.79
7	635867.9399	134118.7954	5395.33
8	635873.4606	134116.4392	5395.12
9	635869.7283	134123.3375	9395.23
10	635874.5066	134118.7098	9395.10
11	635881.0286	134127.5263	5395.15
12	635883.1140	134121.9004	5394.99

N

0 5 10 20

SCALE: 1" = 10'

811 Know what's below. Call before you dig.

COLORADO LICENSED
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58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR1.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

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Phone: 303-764-1520
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Littleton Colorado

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No Revisions:
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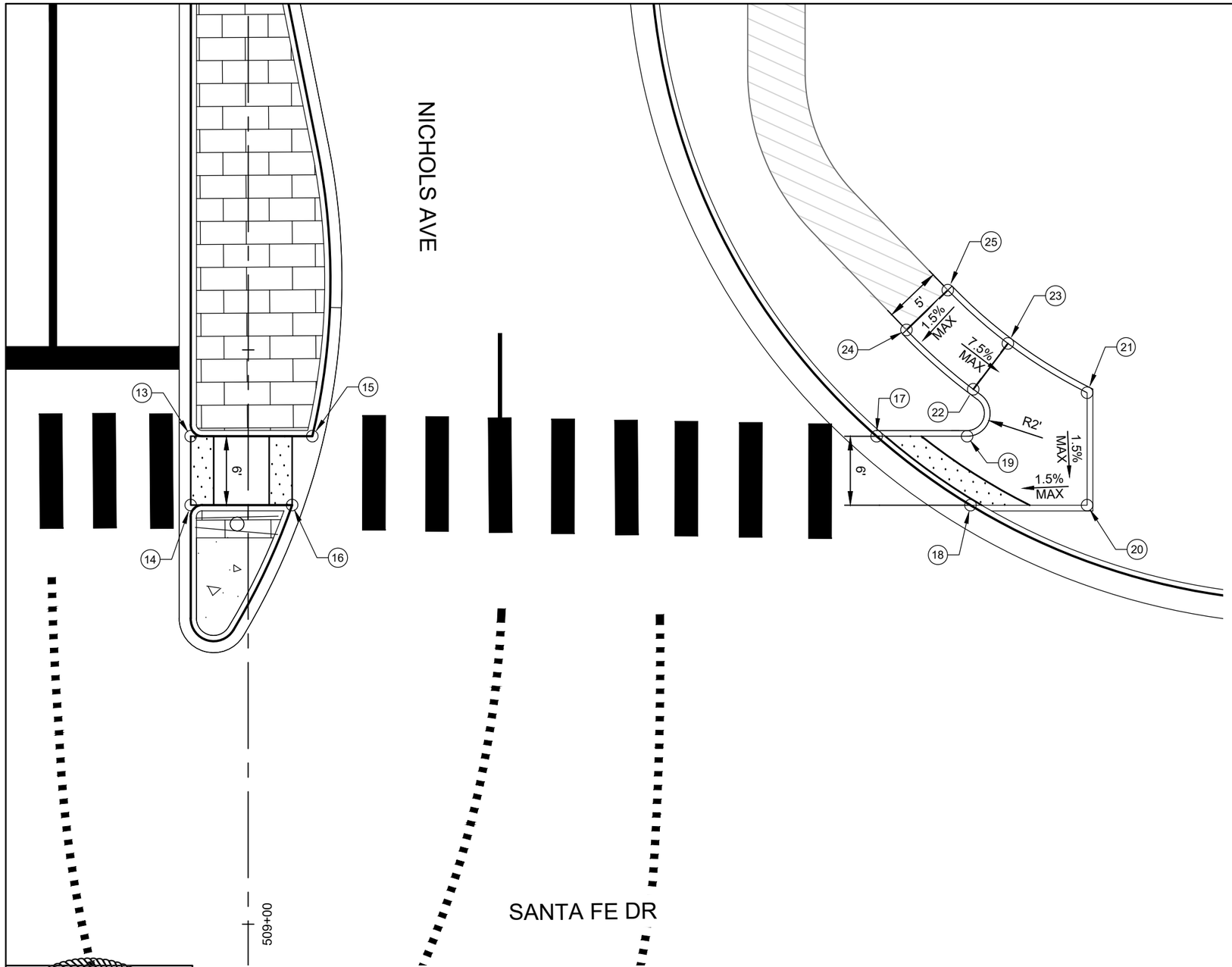
CURB RAMP DETAILS
SANTA FE DR AND NICHOLS AVE (SW)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 1 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 111

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
13	635909.3683	134131.6324	5394.79
14	635907.2829	134137.2583	5394.96
15	635919.2964	134135.3126	5394.95
16	635915.5644	134140.3281	5395.02
17	635965.3738	134152.3927	5394.17
18	635970.9551	134160.8605	5394.13
19	635972.7683	134155.1337	5394.25
20	635980.4812	134164.3916	5394.25
21	635983.8861	134155.2059	5394.32
22	635974.6919	134151.4790	5394.31
23	635978.9055	134148.7872	5394.38
24	635971.0329	134144.6149	5394.74
25	635975.6154	134142.6167	5394.79

N

0 5 10 20

SCALE: 1" = 10'

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58434
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Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR1.DWG
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Unit Information

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FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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No Revisions:
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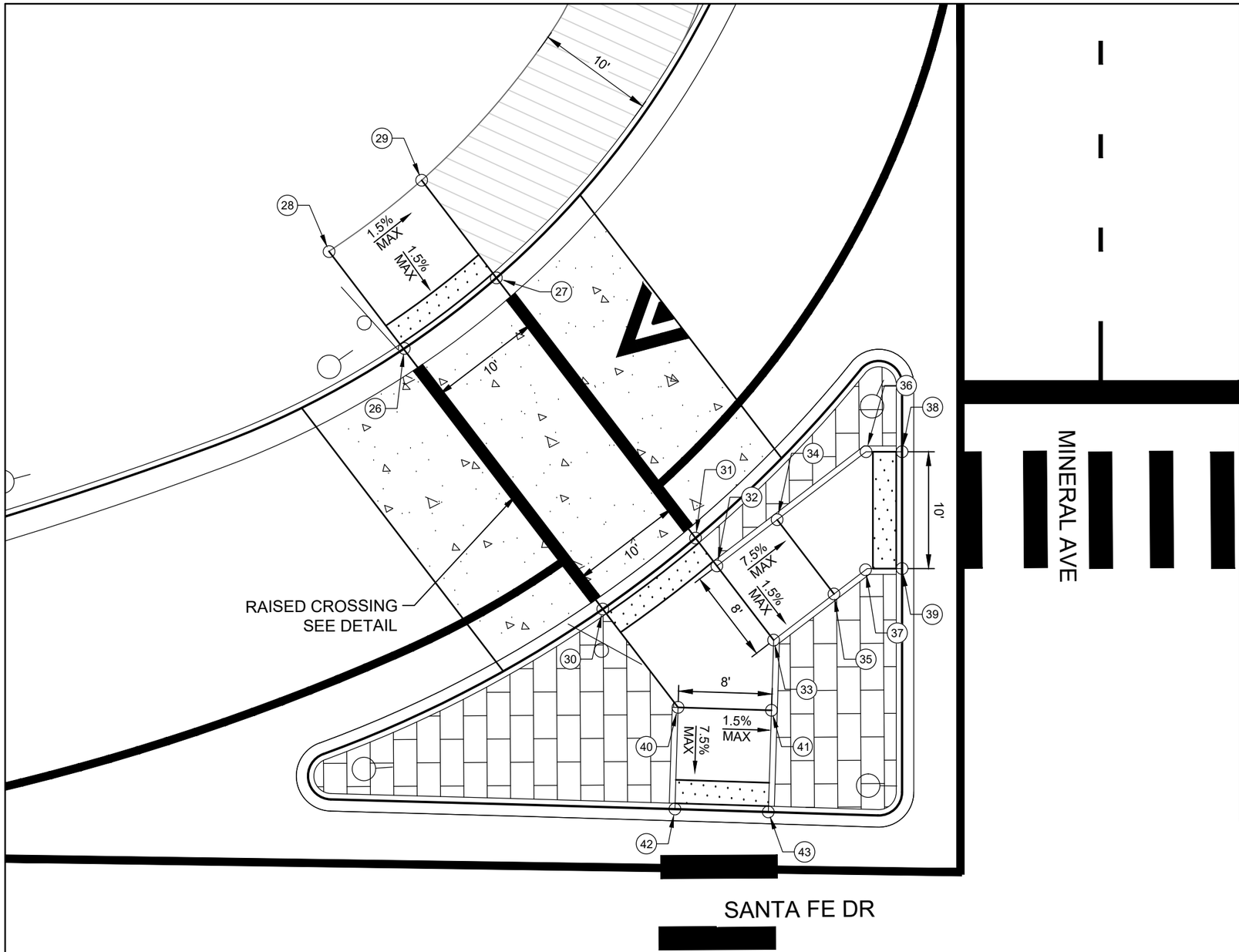
Void:

CURB RAMP DETAILS
SANTA FE DR AND NICHOLS AVE (NW)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 2 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 112

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
26	636652.1832	134389.0483	5380.05
27	636661.6762	134386.1279	5380.05
28	636649.0342	134379.0428	5380.15
29	636658.5816	134376.0681	5380.15
30	636660.3636	134415.8711	5380.52
31	636669.9216	134412.9308	5380.52
32	636670.8037	134415.7982	5380.51
33	636673.1559	134423.4445	5380.47
34	636677.0163	134413.8870	5380.10
35	636679.3685	134421.5334	5379.98
36	636686.1709	134411.0708	5380.07
37	636682.6257	134420.5314	5379.95
38	636689.0604	134412.1416	5380.09
39	636685.5857	134421.5184	5379.92
40	636663.4806	134426.0036	5380.48
41	636670.8921	134429.0154	5380.36
42	636660.2047	134434.0652	5380.11
43	636667.6161	134437.0769	5380.04

N

0 5 10 20

SCALE: 1" = 10'

811 Know what's below. Call before you dig.

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58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR1.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
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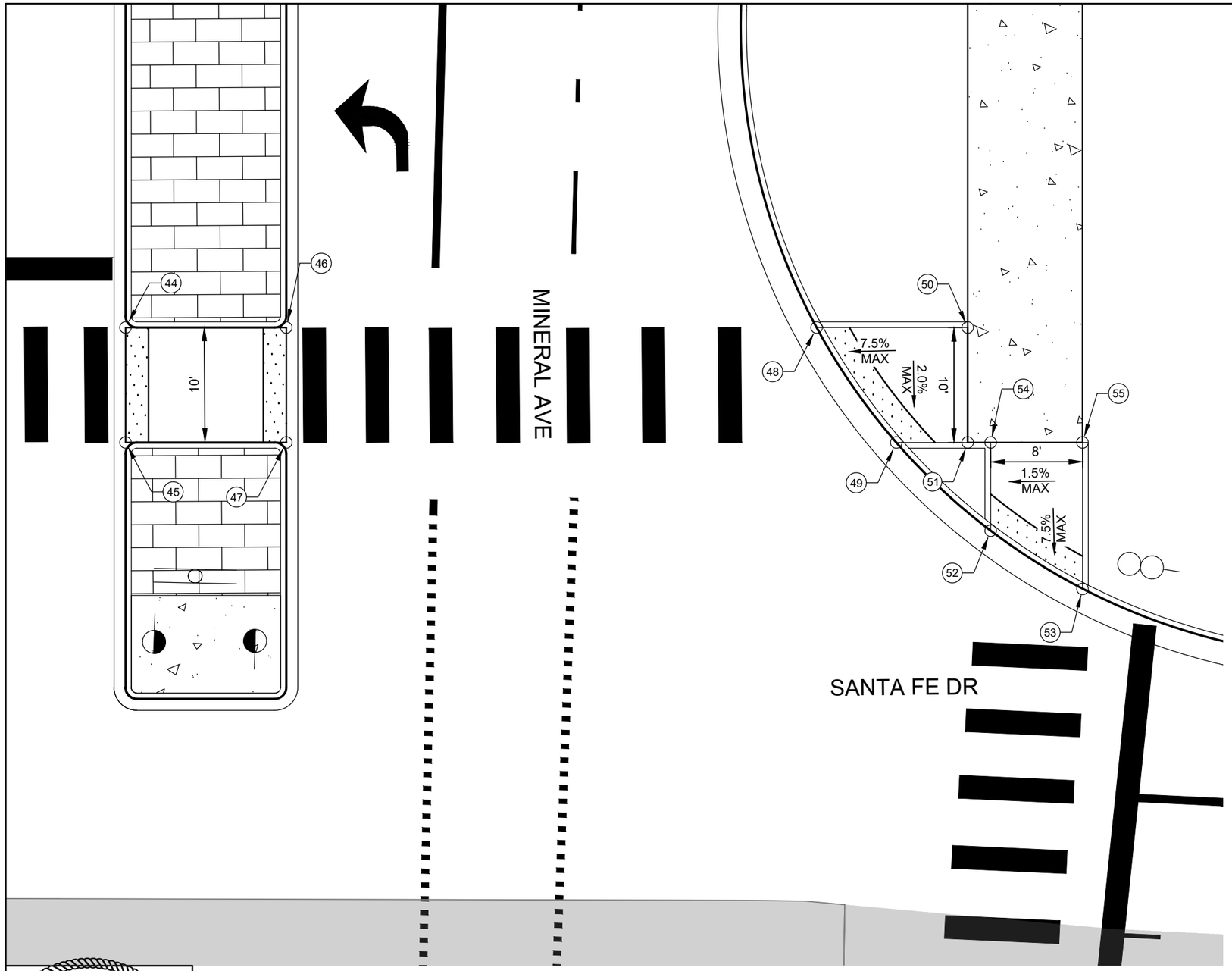
Void:

CURB RAMP DETAILS
SANTA FE DR AND MINERAL AVE (SW)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 3 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 113

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
44	636717.1911	134422.5659	5380.12
45	636713.7163	134431.9428	5379.95
46	636730.3187	134427.4306	5380.44
47	636726.8440	134436.8075	5380.27
48	636773.6235	134443.4780	5380.27
49	636776.6504	134455.2642	5380.06
50	636785.9655	134448.0515	5380.59
51	636782.4907	134457.4284	5380.39
52	636781.6963	134465.3280	5379.87
53	636787.4367	134472.8601	5379.78
54	636784.3661	134458.1234	5380.42
55	636791.8676	134460.9032	5380.54

N

0 5 10 20

SCALE: 1" = 10'

811 Know what's below. Call before you dig.

COLORADO LICENSED
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58434
10/06/2025
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Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR1.DWG
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Unit Information

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Date:	Comments	Init.

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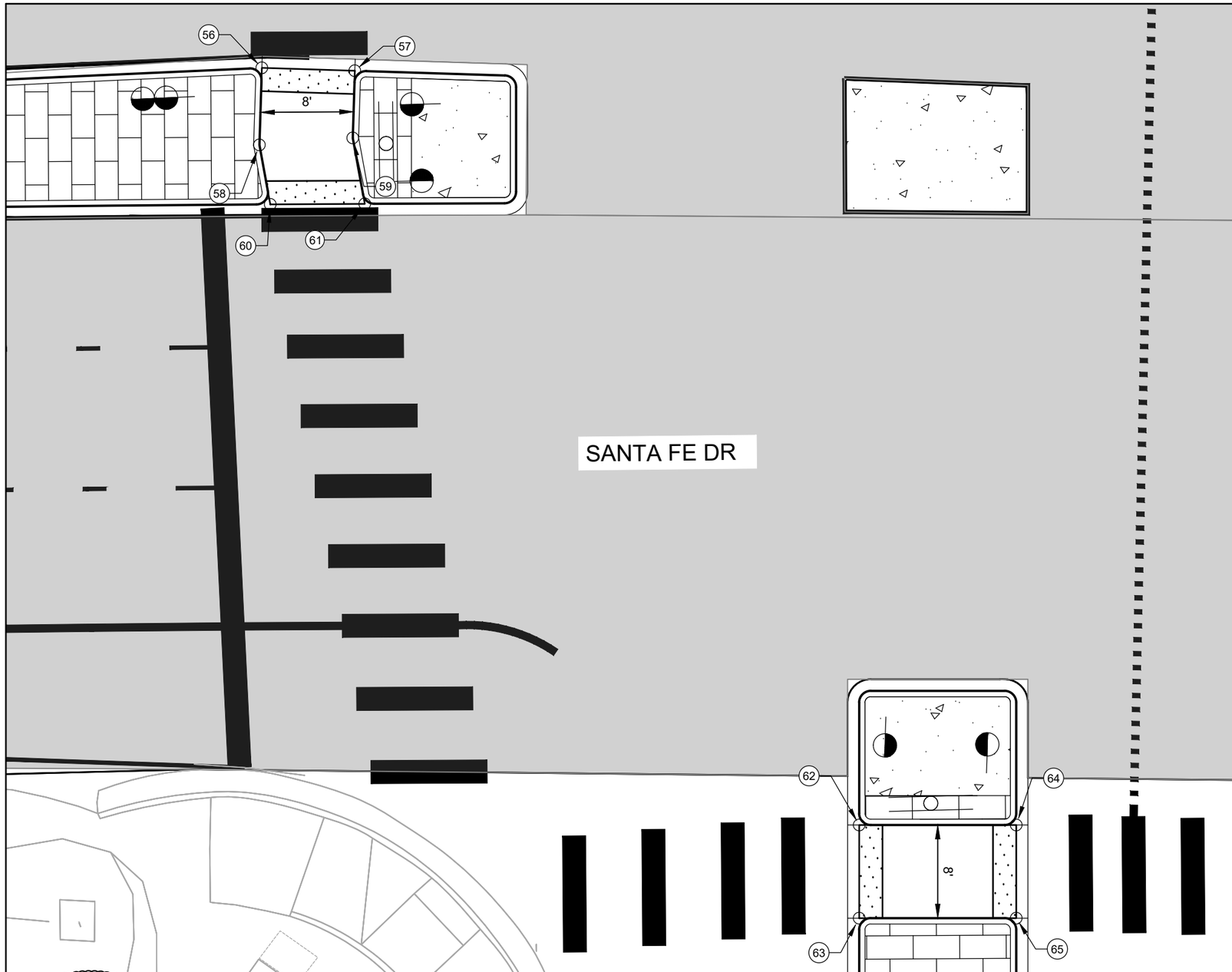
CURB RAMP DETAILS
SANTA FE DR AND MINERAL AVE (NW)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 4 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 114

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
56	636644.2880	134472.9366	5379.62
57	636651.7009	134475.9449	5379.56
58	636641.7935	134479.0751	5379.61
59	636649.5250	134481.2994	5379.55
60	636640.8955	134484.1877	5379.60
61	636648.5272	134486.9666	5379.53
62	636669.8358	134551.7957	5377.72
63	636667.0560	134559.2972	5377.56
64	636682.4946	134556.4867	5377.78
65	636679.7148	134563.9882	5377.67

N

0 5 10 20

SCALE: 1" = 10'

811 Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
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Unit Information

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Sheet Revisions		
Date:	Comments	Init.

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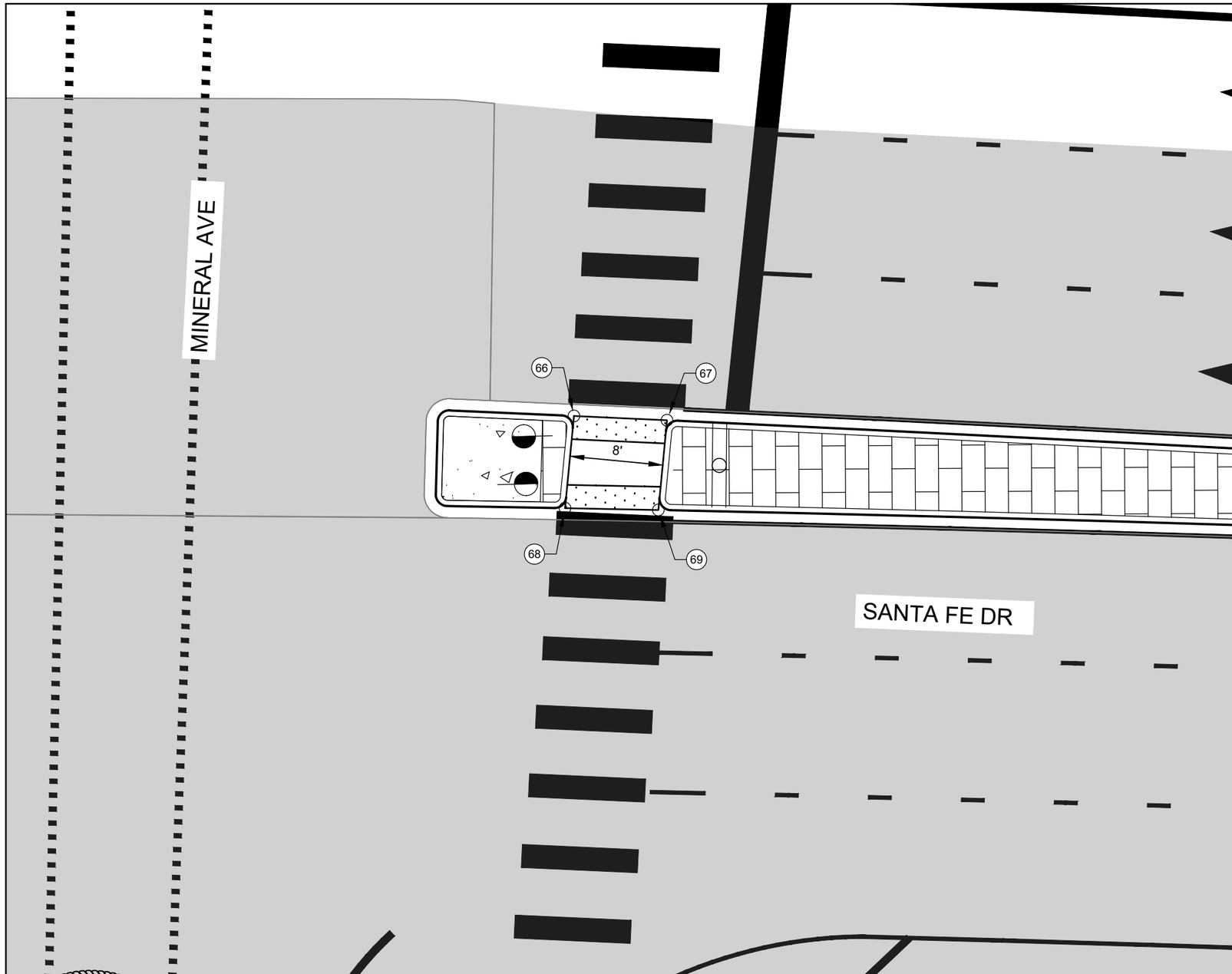
CURB RAMP DETAILS
SANTA FE DR AND MINERAL AVE

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 5 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 115

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
66	636755.5359	134519.0101	5379.55
67	636762.9111	134522.1352	5379.54
68	636752.0698	134526.1746	5379.45
69	636759.5361	134529.1113	5379.42

N

0 5 10 20

SCALE: 1" = 10'

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COLORADO LICENSED
ORION HECTOR VELASCO
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10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR1.DWG
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FAX: 303-860-7139

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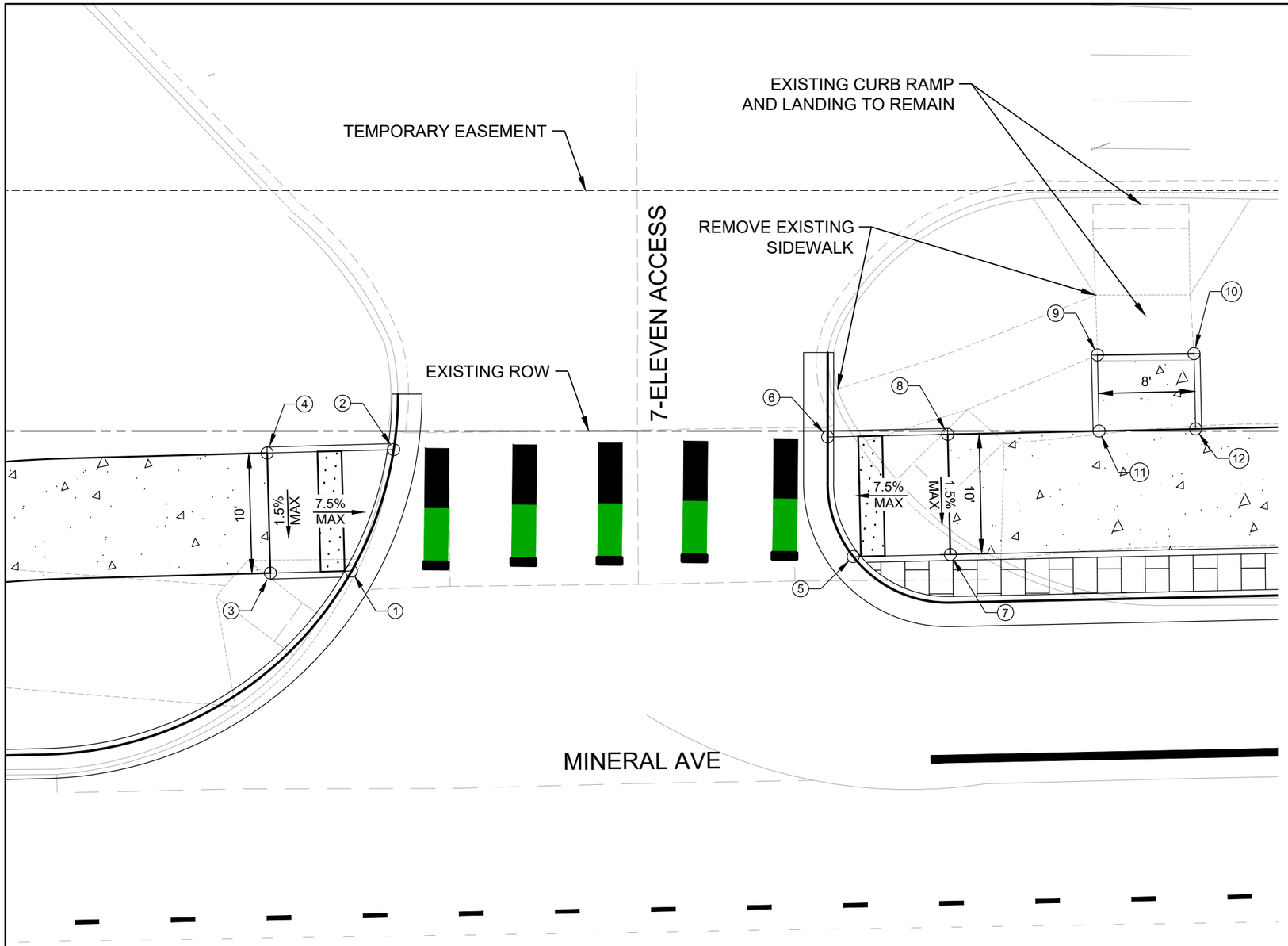
CURB RAMP DETAILS
SANTA FE DR AND MINERAL AVE

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 6 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 116

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
1	637076.1404	133654.0733	5373.69
2	637084.3872	133660.8809	5373.86
3	637078.3145	133647.6830	5374.10
4	637087.7816	133650.9039	5374.25
5	637062.7419	133693.6574	5374.78
6	637072.8184	133695.1175	5374.46
7	637060.0973	133701.2997	5375.05
8	637069.5482	133704.5677	5375.15
9	637071.4101	133718.5529	5375.09
10	637068.7189	133726.1232	5375.18
11	637065.4258	133716.4808	5375.42
12	637062.7981	133724.0743	5375.65

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR2.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

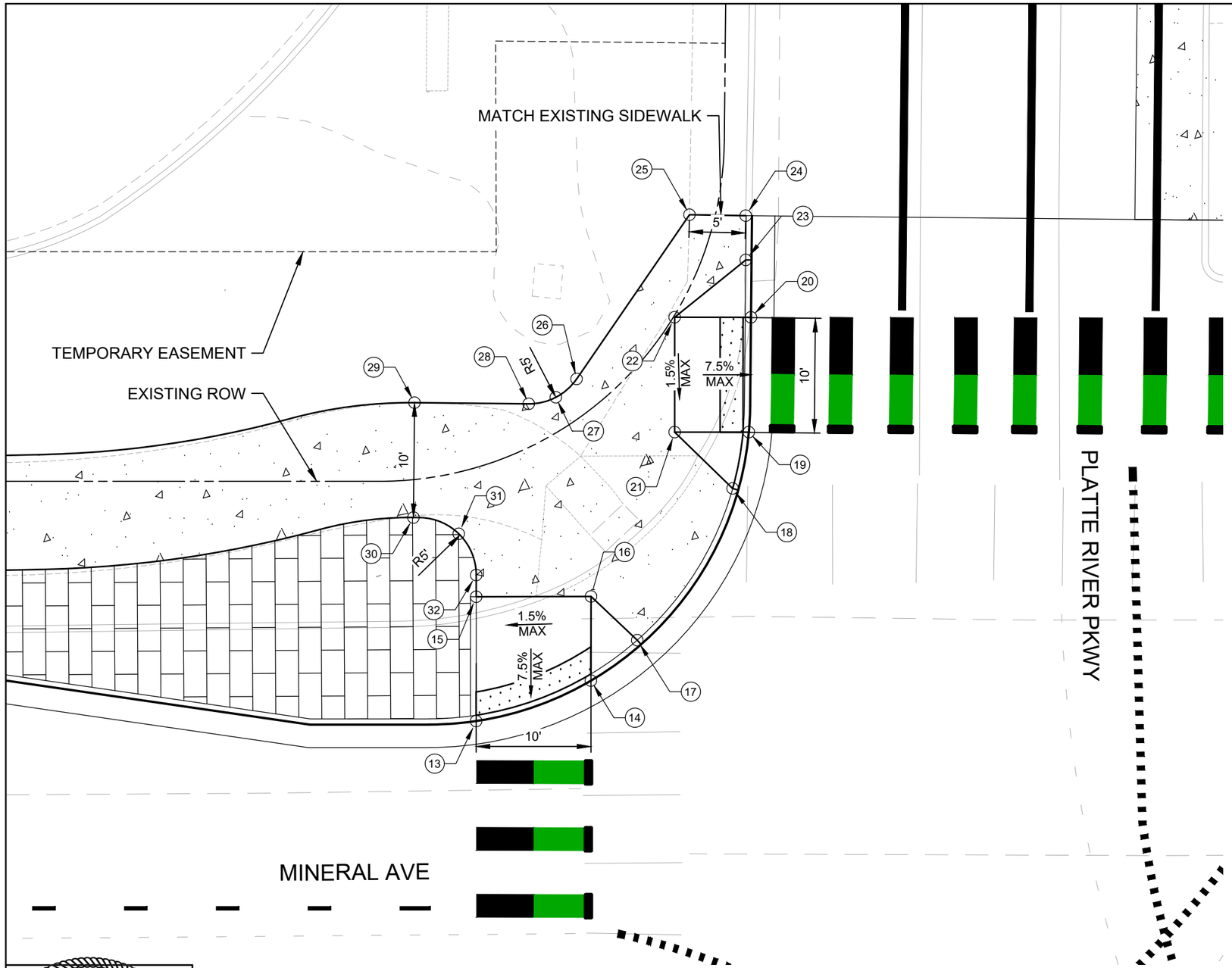
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
MINERAL AVE AND 7-ELEVEN ACCESS

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 7 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 117

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
13	636995.3473	133845.5024	5380.00
14	636995.1764	133856.1057	5380.25
15	637005.5055	133849.2735	5380.50
16	637002.0493	133858.6573	5380.65
17	636997.0819	133861.1122	5380.78
18	637006.5835	133873.4914	5380.90
19	637010.6973	133876.5197	5380.47
20	637020.0088	133880.1705	5380.42
21	637012.9454	133870.4640	5380.90
22	637022.3232	133873.9426	5380.85
23	637024.8544	133881.4846	5380.82
24	637028.4730	133882.8181	5380.79
25	637030.2558	133878.2524	5380.98
26	637020.2563	133864.0693	5380.91
27	637019.3796	133861.8123	5380.90
28	637019.6710	133859.4048	5380.83
29	637023.2175	133850.1129	5380.55
30	637013.8739	133846.5467	5380.45
31	637011.1752	133849.7521	5380.47
32	637007.2740	133849.9300	5380.49

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR2.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

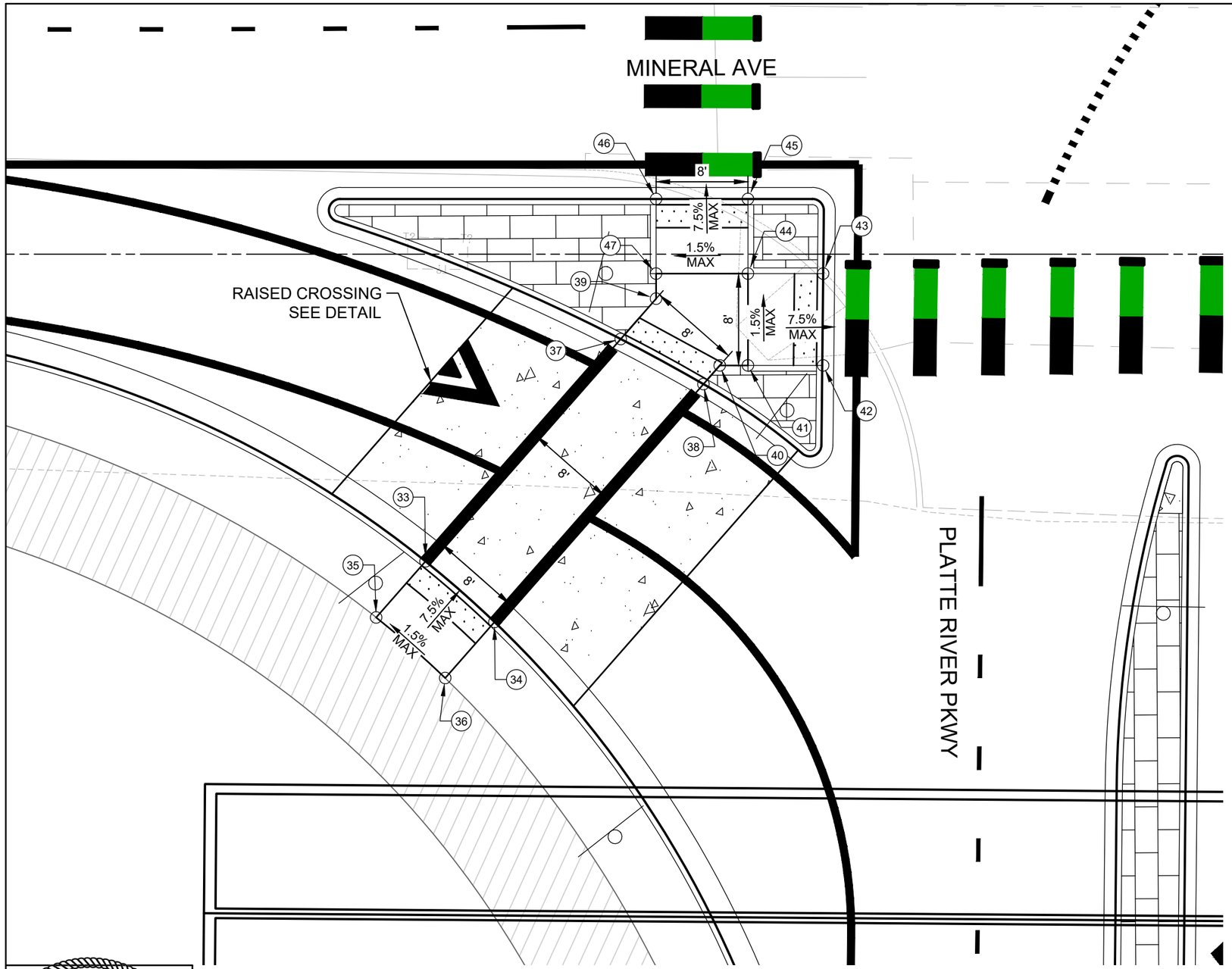
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
MINERAL AVE AND PLATTE RIVER PKWY (NW)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 8 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 118

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
33	636878.3568	133781.7295	5379.40
34	636871.3176	133785.5309	5379.54
35	636875.2652	133776.0047	5379.46
36	636868.2261	133779.8061	5379.60
37	636890.6010	133804.4022	5380.14
38	636884.4193	133809.7915	5380.28
39	636892.8207	133808.5125	5380.09
40	636885.4427	133811.6865	5380.26
41	636884.5879	133813.9933	5380.20
42	636882.3135	133820.1308	5380.04
43	636889.8151	133822.9106	5380.12
44	636892.0894	133816.7731	5380.18
45	636898.1839	133819.0316	5379.99
46	636900.9637	133811.5301	5379.81
47	636894.8692	133809.2716	5380.07

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR2.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

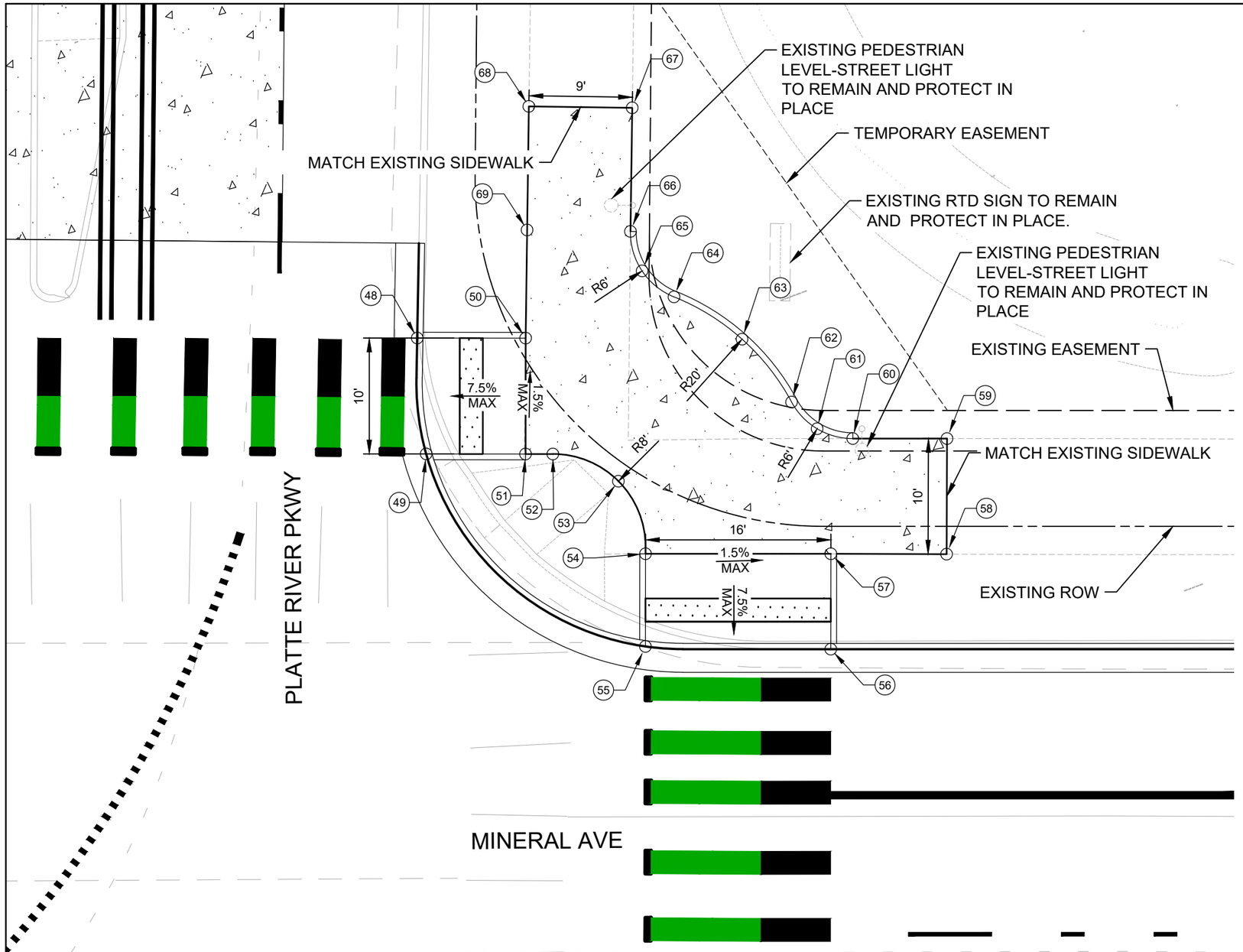
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
MINERAL AVE AND PLATTE RIVER PKWY (SW)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 9 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 119

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
48	636994.7283	133948.3045	5381.22
49	636985.0784	133945.5534	5381.39
50	636991.4680	133957.0751	5381.90
51	636982.0932	133953.5948	5381.95
52	636981.2715	133955.8081	5381.97
53	636977.1046	133960.2965	5382.11
54	636970.4246	133960.3145	5382.26
55	636962.9228	133957.5260	5381.85
56	636957.1488	133972.4493	5382.08
57	636964.8650	133975.3175	5382.67
58	636961.3623	133984.6755	5382.83
59	636970.7008	133988.1711	5382.43
60	636973.5263	133980.5448	5382.43
61	636975.3905	133977.9552	5382.36
62	636978.3188	133976.6875	5382.30
63	636984.8906	133974.5608	5382.24
64	636990.3470	133970.3254	5382.18
65	636993.4077	133968.5198	5382.15
66	636996.9529	133968.7623	5382.12
67	637006.9026	133972.6091	5381.90
68	637010.1227	133964.2875	5381.64
69	637000.1705	133960.4401	5381.85

N

0 5 10 20

SCALE: 1" = 10'

811 Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR2.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

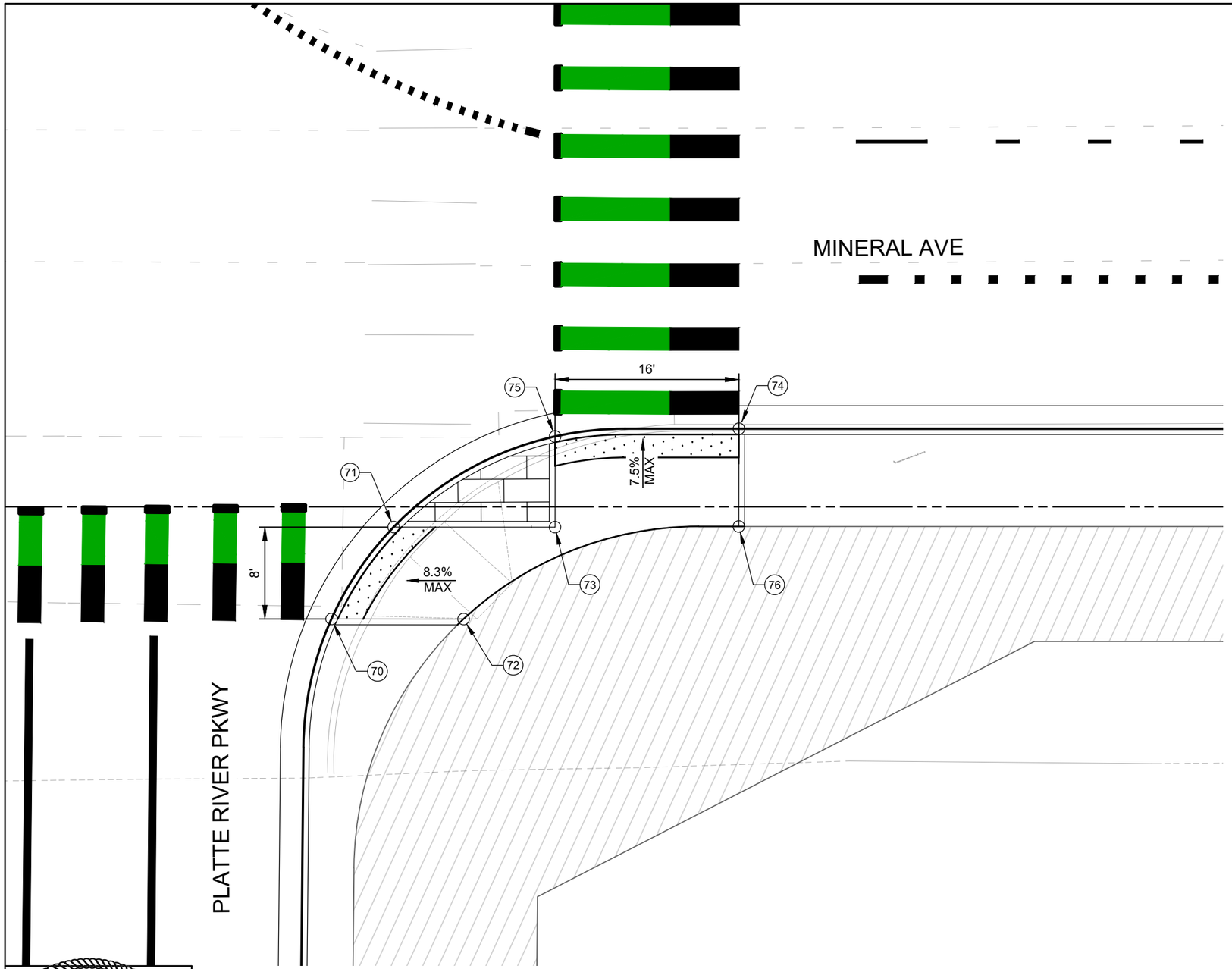
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
MINERAL AVE AND PLATTE RIVER PKWY (NE)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 10 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 120

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
70	636854.0270	133896.3080	5381.41
71	636859.6473	133904.1548	5381.60
72	636850.0275	133907.0805	5381.18
73	636854.7592	133917.3204	5381.38
74	636857.2284	133935.3079	5382.21
75	636862.1583	133920.0708	5381.94
76	636849.2610	133932.3463	5382.71

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR2.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

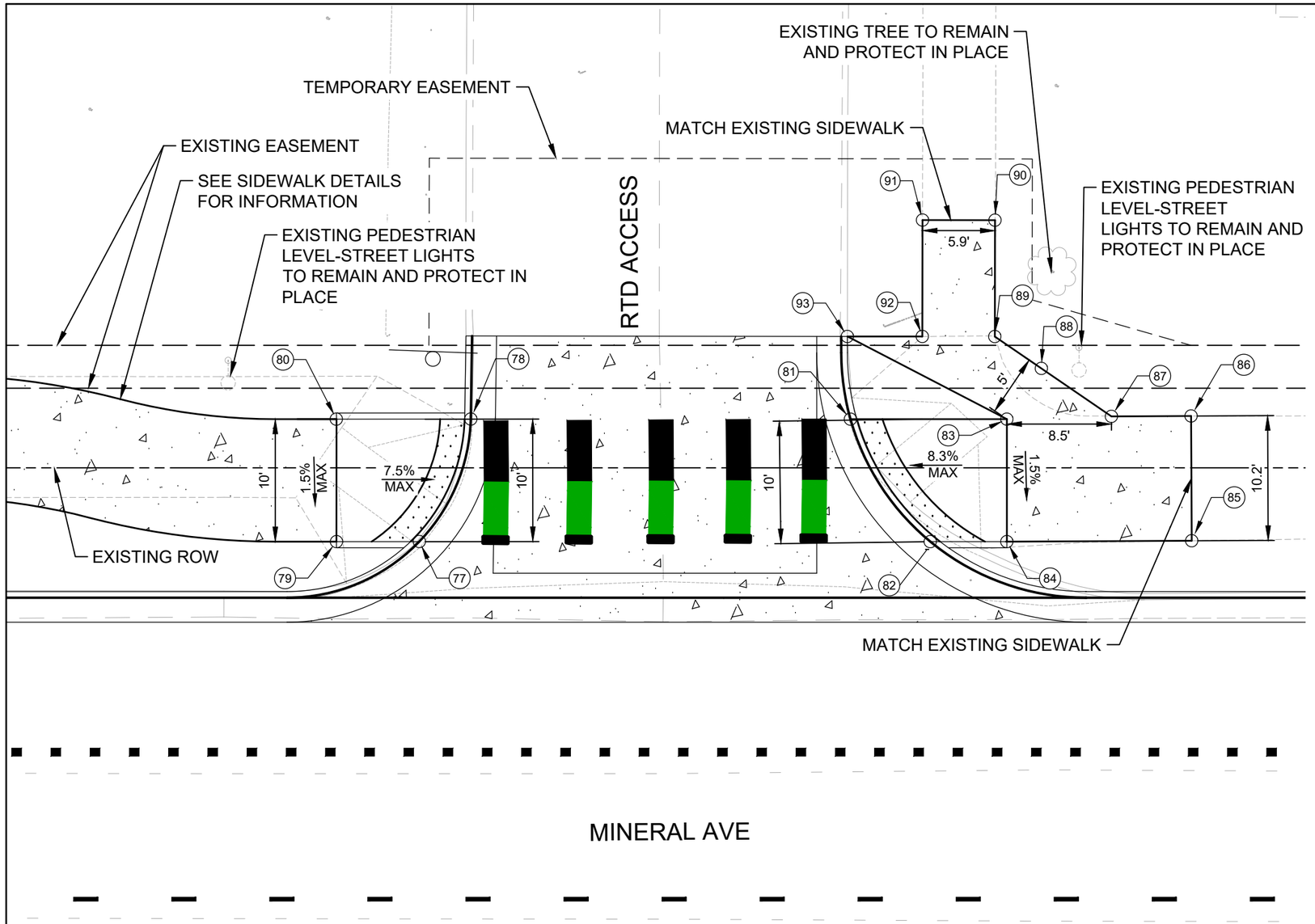
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
MINERAL AVE AND PLATTE RIVER PKWY (SE)

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 11 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 121

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
77	636903.0368	134131.6677	5382.83
78	636910.9510	134139.0792	5383.14
79	636905.3756	134125.3301	5383.33
80	636914.7578	134128.7906	5383.43
81	636900.1856	134168.1239	5383.24
82	636888.5445	134170.7591	5382.92
83	636895.7497	134180.0944	5383.56
84	636886.3731	134176.6198	5383.41
85	636881.1989	134190.7841	5383.43
86	636890.7659	134194.2789	5383.63
87	636892.9962	134188.1736	5383.63
88	636898.6553	134184.1676	5383.63
89	636902.4078	134181.5114	5383.89
90	636911.3112	134184.8248	5384.36
91	636913.3753	134179.2785	5384.30
92	636904.4724	134175.9643	5383.89
93	636906.5959	134170.2341	5383.88

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR2.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

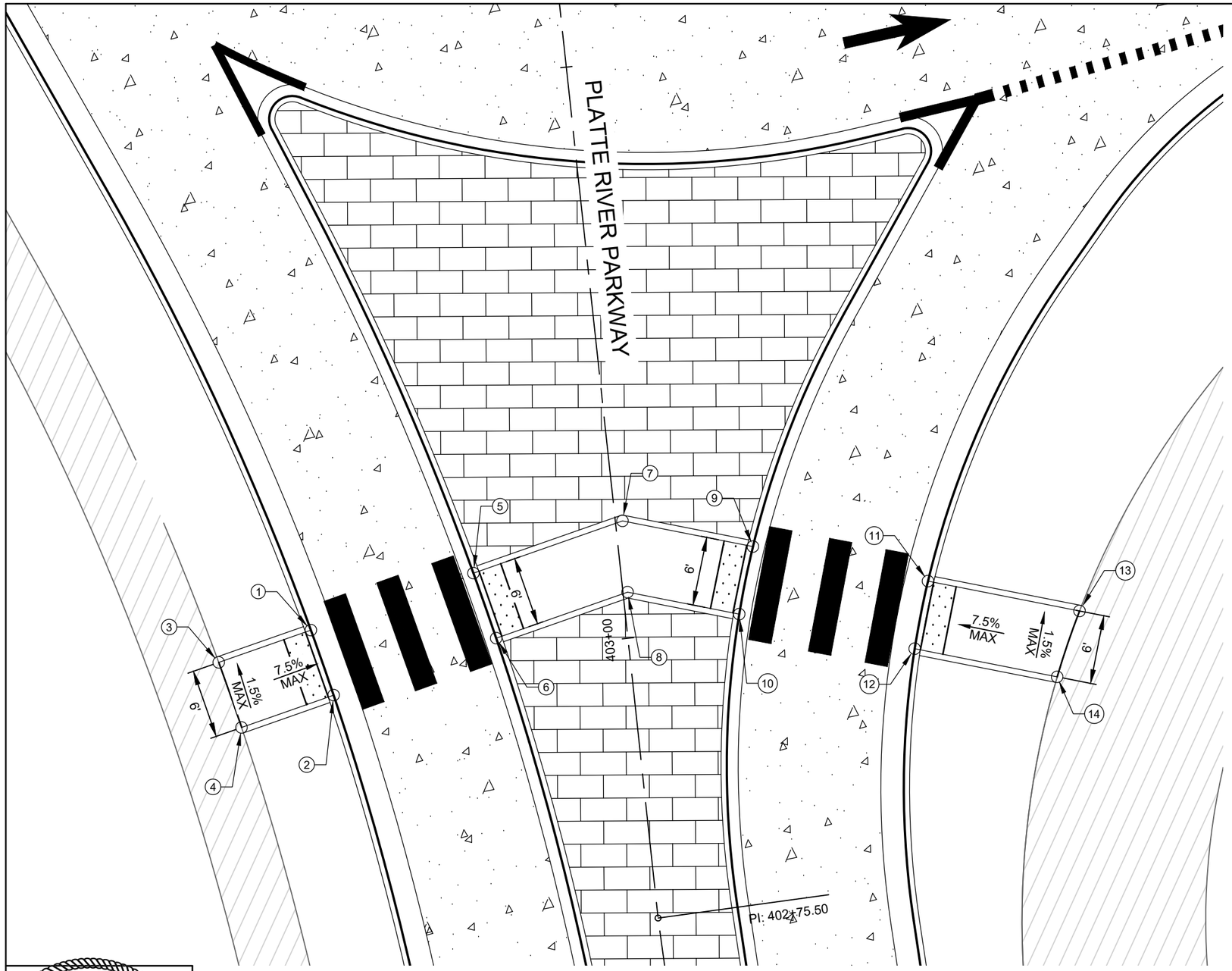
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
MINERAL AVE AND RTD ACCESS

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 12 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 122

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
1	636013.9590	133531.2828	5381.47
2	636007.9599	133531.1771	5381.46
3	636014.1105	133522.7835	5381.98
4	636008.1115	133522.6765	5381.97
5	636013.6916	133546.2814	5381.79
6	636007.6925	133546.1745	5381.78
7	636013.4464	133560.0335	5381.90
8	636007.4765	133558.2936	5381.88
9	636007.3992	133569.9110	5381.99
10	636002.3023	133566.7451	5381.96
11	635999.2863	133583.1627	5381.66
12	635994.1691	133580.0299	5381.63
13	635992.2632	133594.6344	5382.20
14	635987.5627	133590.8171	5382.14

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR3.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

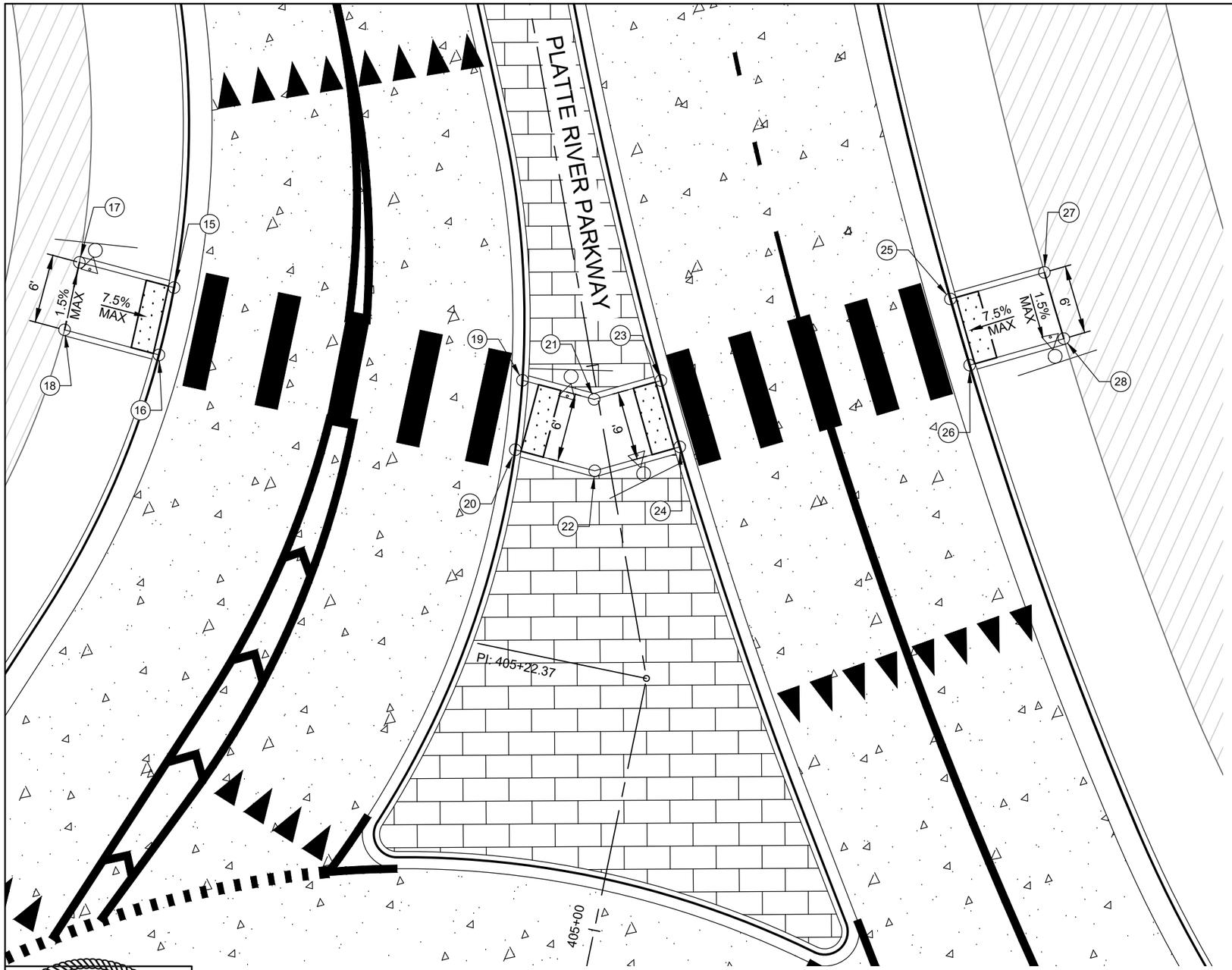
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
SOUTH OF ROUNDABOUT

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 13 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 123

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
15	636247.2299	133627.3750	5380.76
16	636242.1950	133624.1036	5380.83
17	636252.1484	133620.4078	5381.27
18	636247.0971	133617.1595	5381.34
19	636229.1368	133653.0047	5381.41
20	636223.6864	133650.3217	5381.35
21	636225.4121	133658.2811	5381.34
22	636219.5632	133656.1625	5381.33
23	636224.9278	133664.2951	5381.27
24	636218.9462	133663.8257	5381.30
25	636222.8270	133690.3881	5380.79
26	636216.8420	133689.9607	5380.75
27	636222.1449	133698.8604	5381.30
28	636216.1590	133698.4434	5381.33

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR3.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

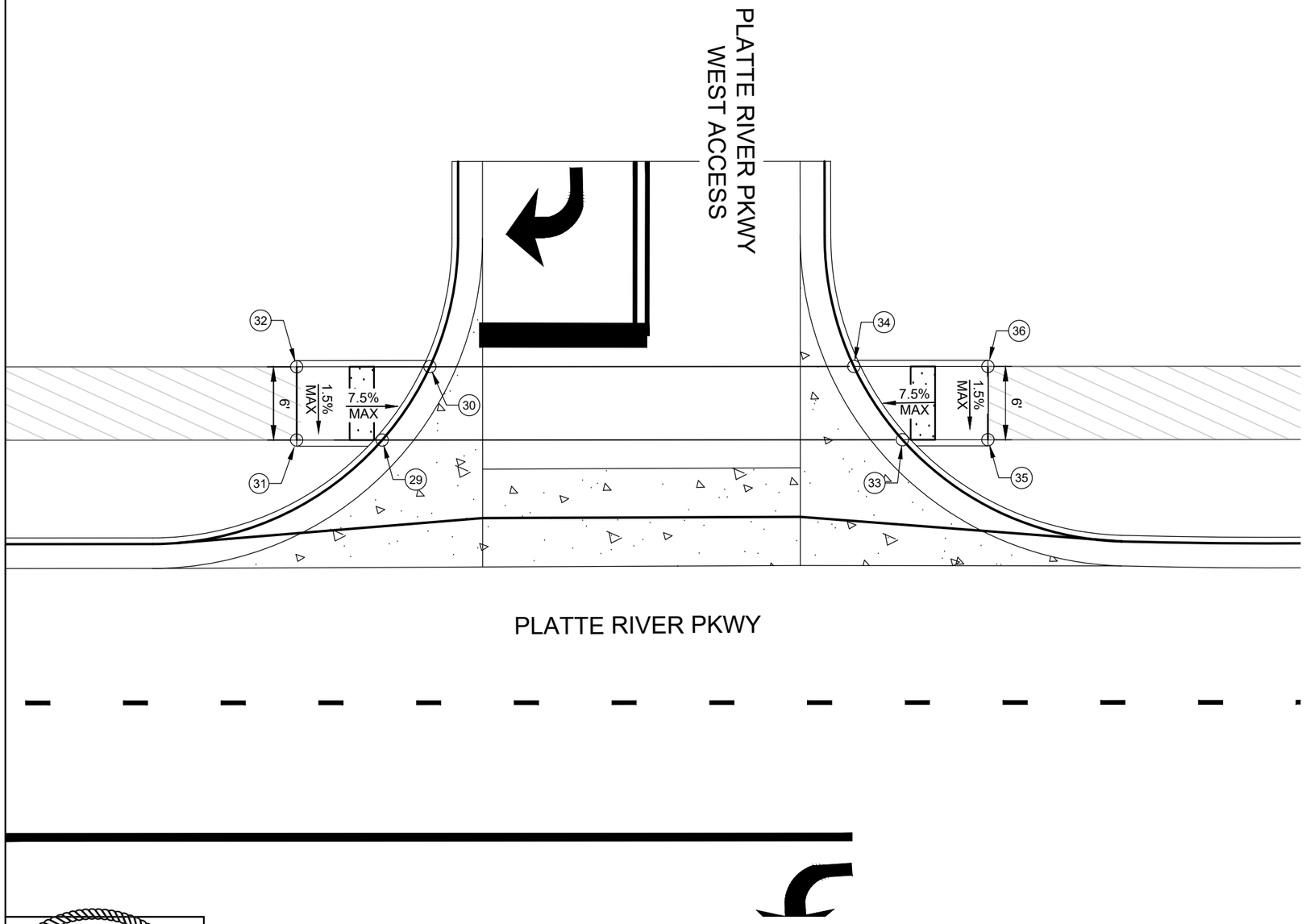
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
NORTH OF ROUNDABOUT

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 14 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 124

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
29	636505.0136	133698.7511	5378.71
30	636510.7593	133694.4794	5378.67
31	636498.4485	133696.3221	5379.21
32	636500.5305	133690.6949	5379.17
33	636544.9472	133713.5261	5378.44
34	636543.3022	133706.5200	5378.48
35	636551.5122	133715.9551	5378.94
36	636553.5942	133710.3279	5378.98

N

0 5 10 20

SCALE: 1" = 10'

811 Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR3.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

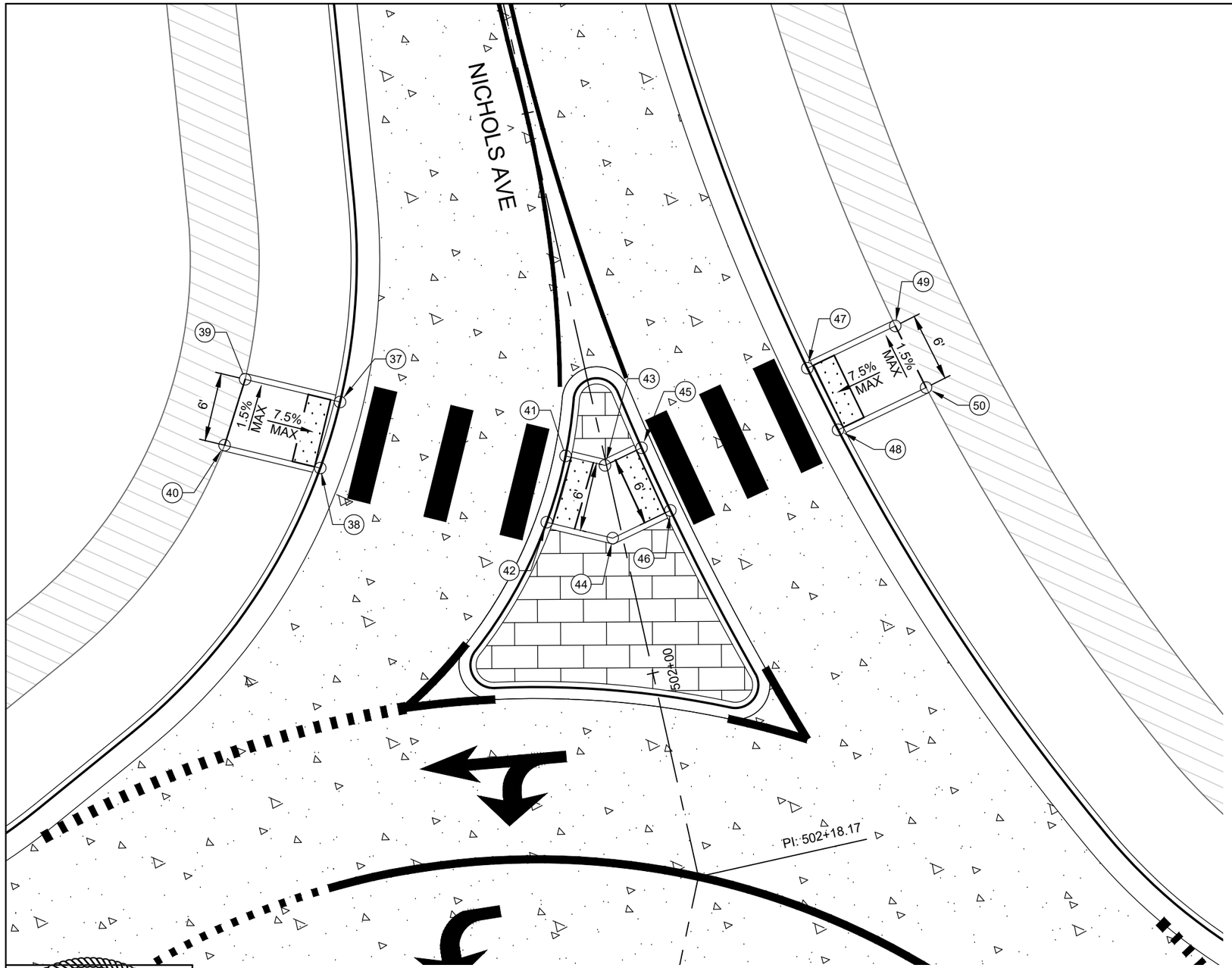
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
PLATTE RIVER PKWY
WEST ACCESS

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 15 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 125

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
37	636138.5567	133495.6756	5381.32
38	636134.9368	133500.4727	5381.43
39	636131.4924	133490.9485	5381.84
40	636127.8179	133495.7091	5381.94
41	636155.3392	133506.9056	5381.63
42	636151.7944	133511.7530	5381.71
43	636158.2736	133508.8692	5381.61
44	636156.7088	133515.0415	5381.67
45	636161.7914	133508.5406	5381.58
46	636162.2444	133514.5244	5381.64
47	636177.7362	133507.0513	5381.21
48	636178.3847	133513.0168	5381.27
49	636186.1993	133506.2608	5381.72
50	636186.8519	133512.2260	5381.78

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR3.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

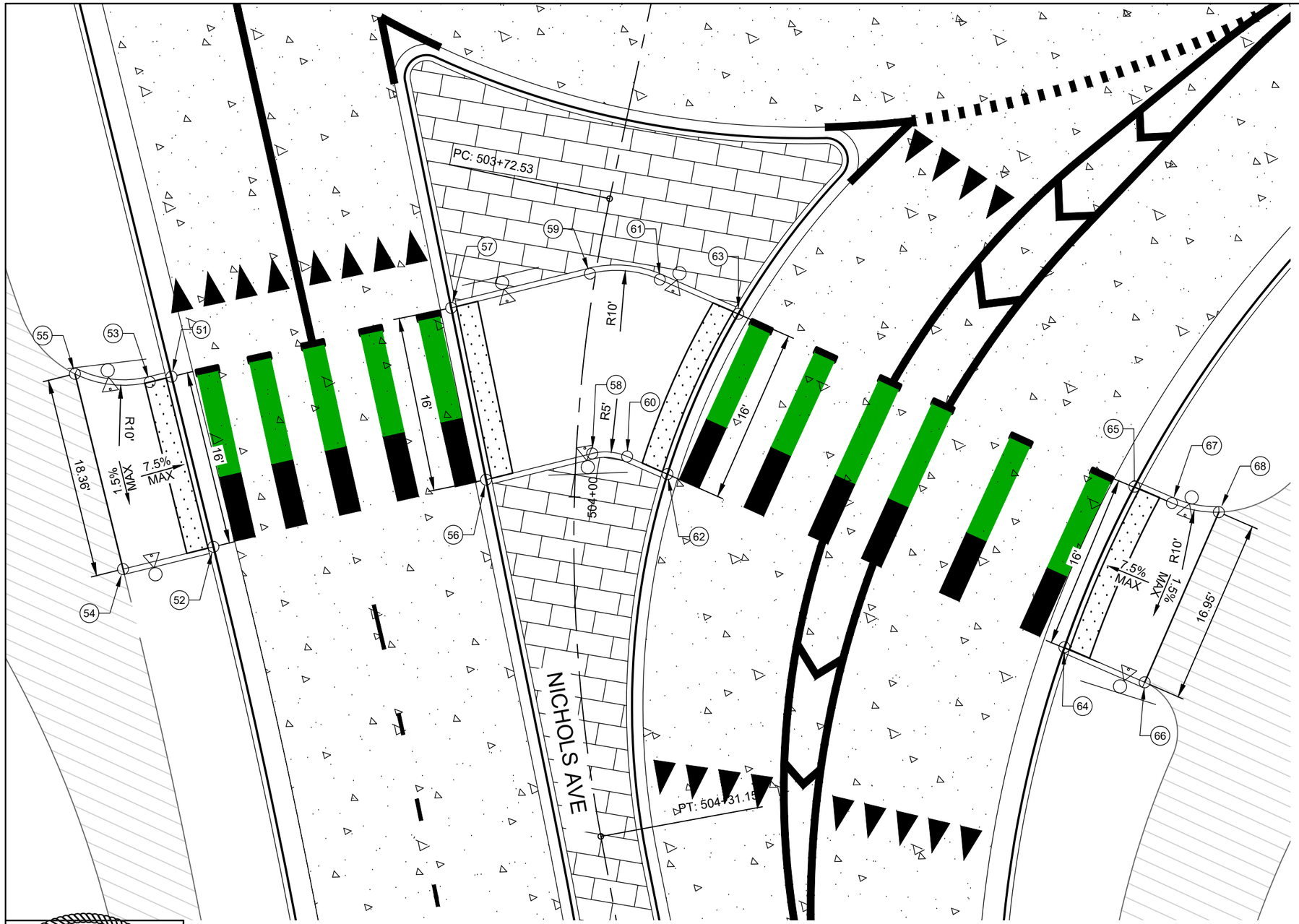
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
WEST OF ROUNDABOUT

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 16 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 126

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
51	636027.7527	133677.0834	5381.54
52	636025.9414	133692.9805	5381.44
53	636025.7215	133676.8519	5381.65
54	636017.4953	133692.0182	5381.94
55	636019.5748	133673.7740	5382.04
56	636051.4270	133695.8843	5381.93
57	636053.8891	133680.0613	5382.03
58	636061.3452	133697.0144	5381.90
59	636066.8555	133681.5387	5381.98
60	636064.2460	133698.3793	5381.90
61	636072.6571	133684.2686	5381.95
62	636067.1382	133701.1623	5381.88
63	636078.2892	133689.6880	5381.93
64	636095.6441	133728.5916	5381.16
65	636106.7380	133717.0622	5381.22
66	636101.4089	133734.1386	5381.66
67	636109.4315	133719.6540	5381.39
68	636113.1635	133721.9225	5381.73

N

0 5 10 20

SCALE: 1" = 10'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR3.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

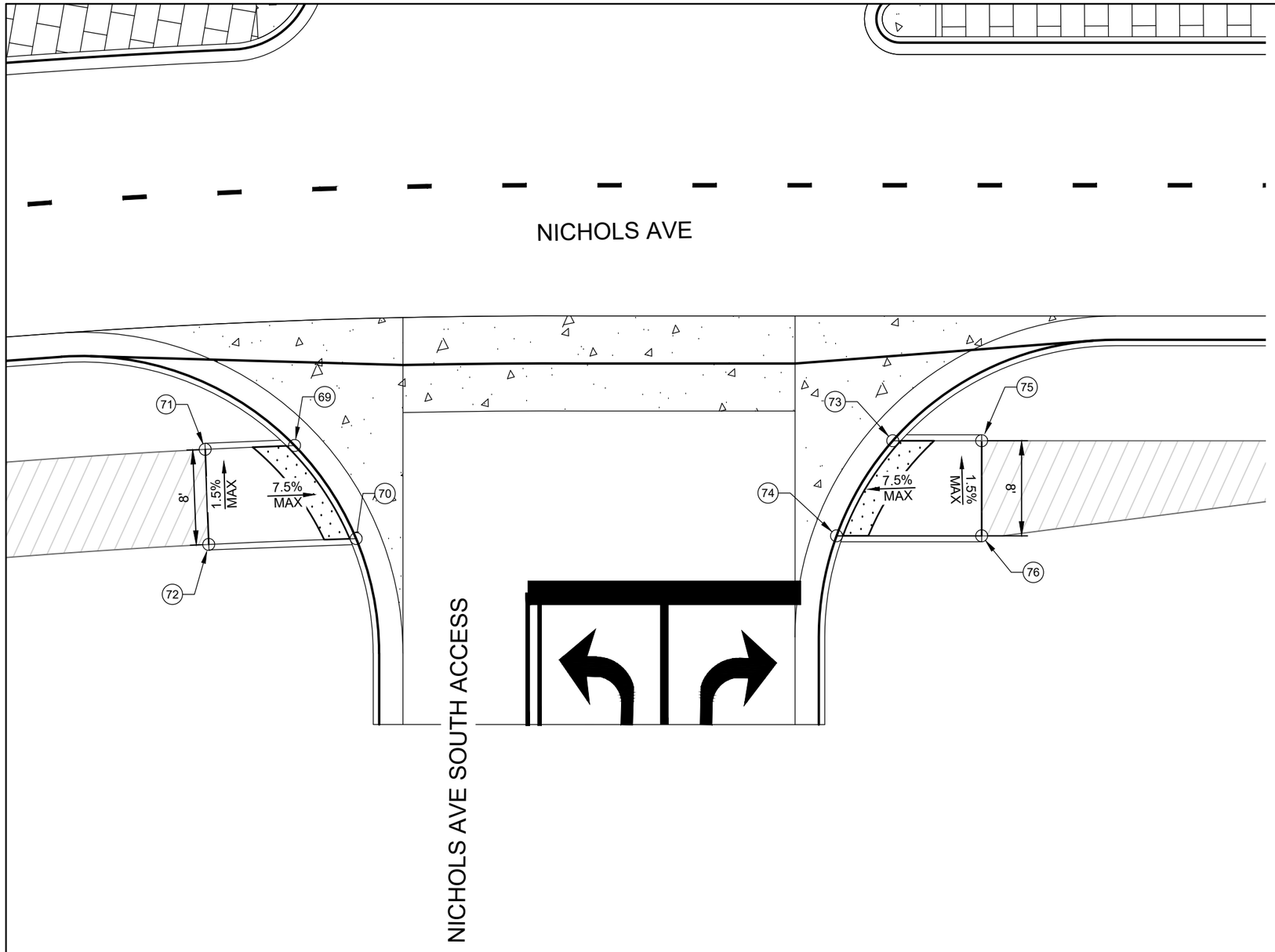
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
EAST OF ROUNDABOUT

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: ROADWAY
Subset Sheets: 17 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 127

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
69	635991.2972	133813.0621	5382.27
70	635982.1490	133815.2023	5382.50
71	635993.6060	133805.8939	5382.83
72	635986.0037	133803.4014	5382.91
73	635974.1813	133860.4018	5383.63
74	635968.3237	133853.1870	5383.31
75	635971.5798	133867.4197	5384.13
76	635964.0786	133864.6391	5384.17

N

0 5 10 20

SCALE: 1" = 10'

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COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR3.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

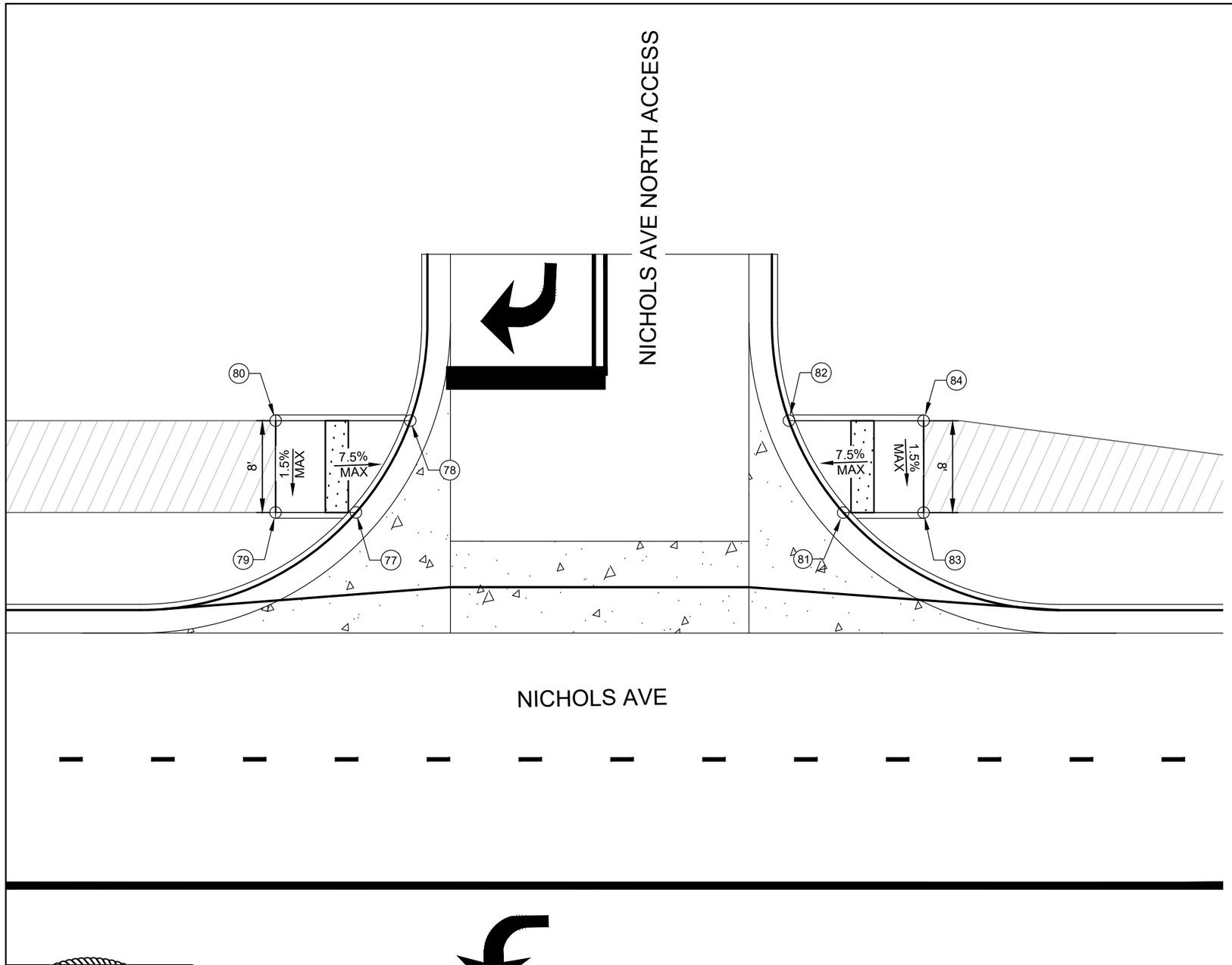
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
NICHOLS AVE SOUTH ACCESS

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: CURB RAMPS
Subset Sheets: 18 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 128

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
77	636039.1865	133920.9580	5385.14
78	636045.0440	133928.1727	5385.45
79	636041.6195	133914.3944	5385.64
80	636049.1207	133917.1750	5385.72
81	636024.4367	133960.7489	5386.56
82	636033.5816	133959.0953	5386.26
83	636022.0037	133967.3124	5387.06
84	636029.5049	133970.0930	5387.14

N

0 5 10 20

SCALE: 1" = 10'

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HECTOR VELASCO
58434
10/06/2025
ORION
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_CR3.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

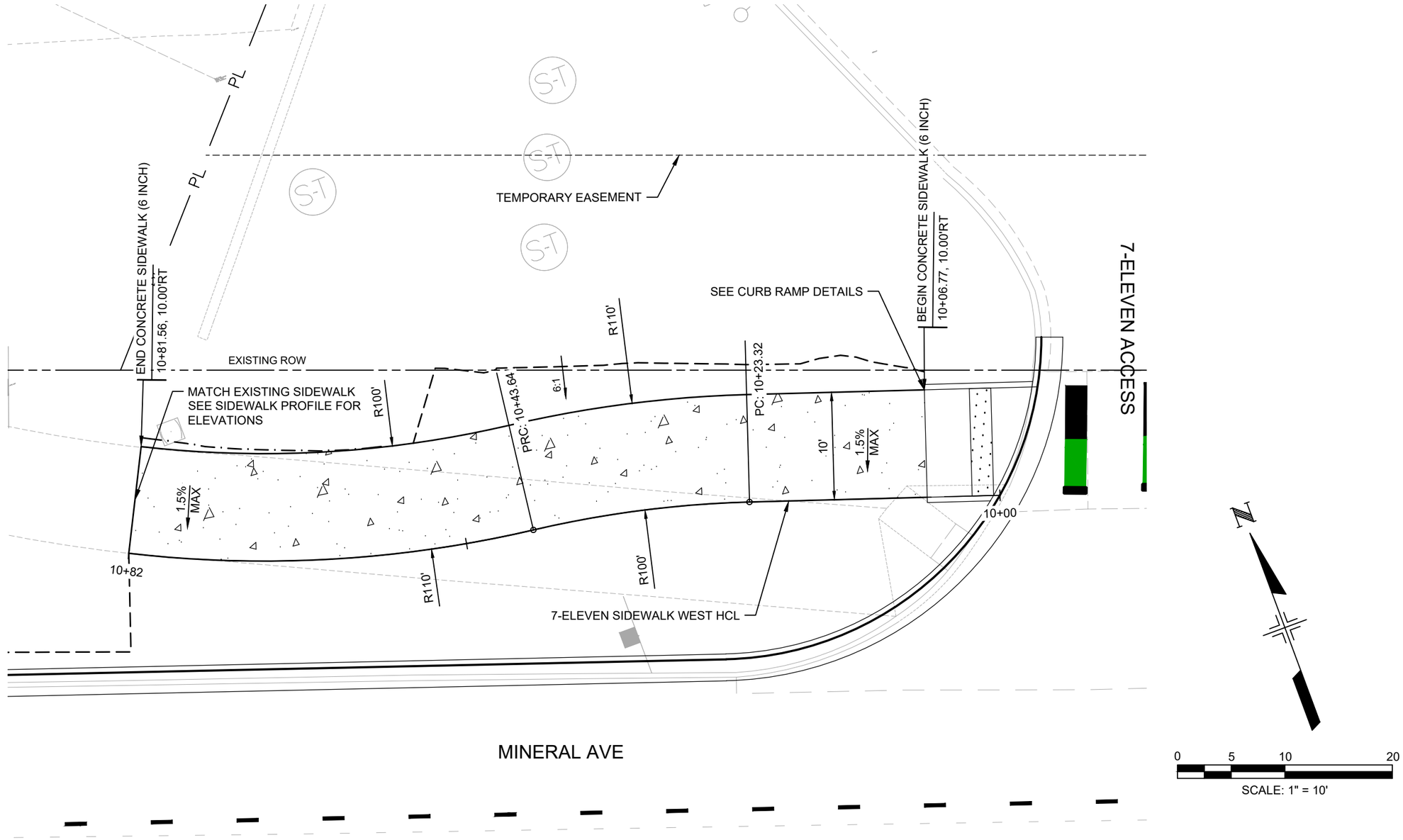
As Constructed
No Revisions:
Revised:
Void:

CURB RAMP DETAILS
NICHOLS AVE NORTH ACCESS

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: ROADWAY
Subset Sheets: 19 of 19

Project No./Code
AQC M810-017
23574
Sheet Number 129

$PLOT_INFO$



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ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

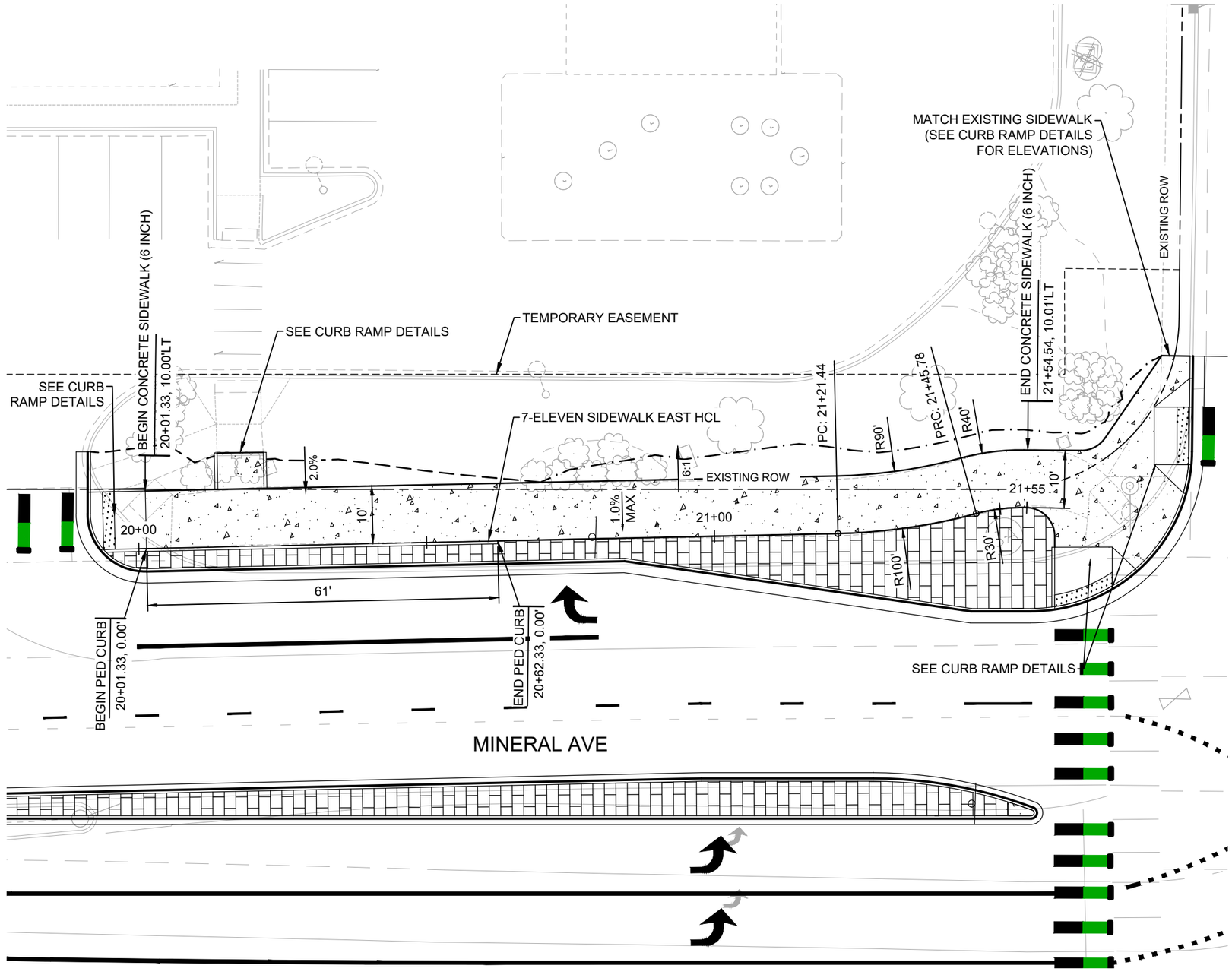
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_SW.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 10' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SIDEWALK DETAILS 7-ELEVEN SIDEWALK WEST		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: G. PRINCE		Sheet Number 130
	Sheet Subset: SIDEWALKS	Subset Sheets: 1 of 6	

Know what's below. Call before you dig.

$PLOT_INFO$



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58434
10/06/2025
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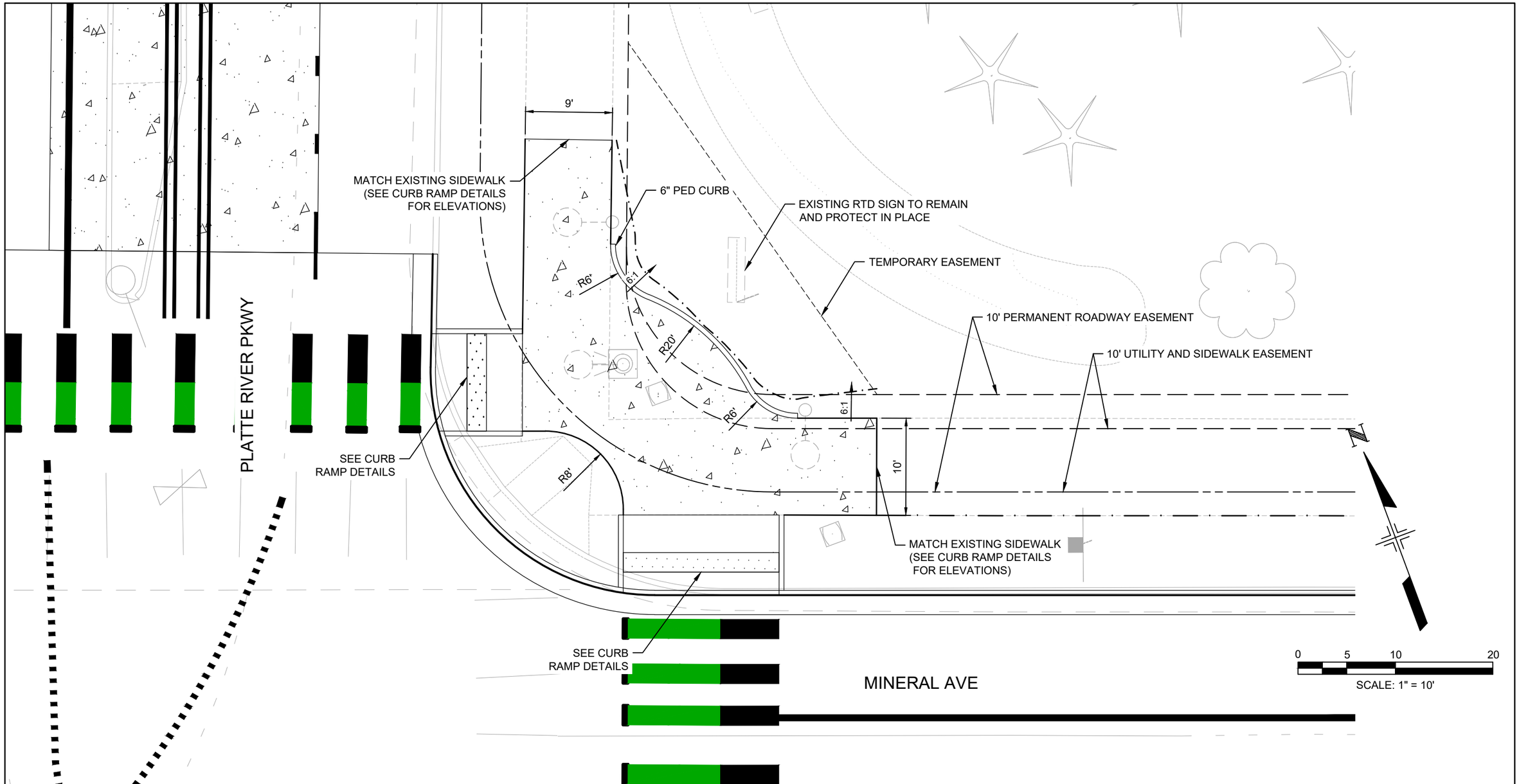
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_SW.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SIDEWALK DETAILS 7-ELEVEN SIDEWALK EAST		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: G. PRINCE		
	Sheet Subset: SIDEWALKS	Subset Sheets: 2 of 6	Sheet Number 131

$PLOT_INFO$



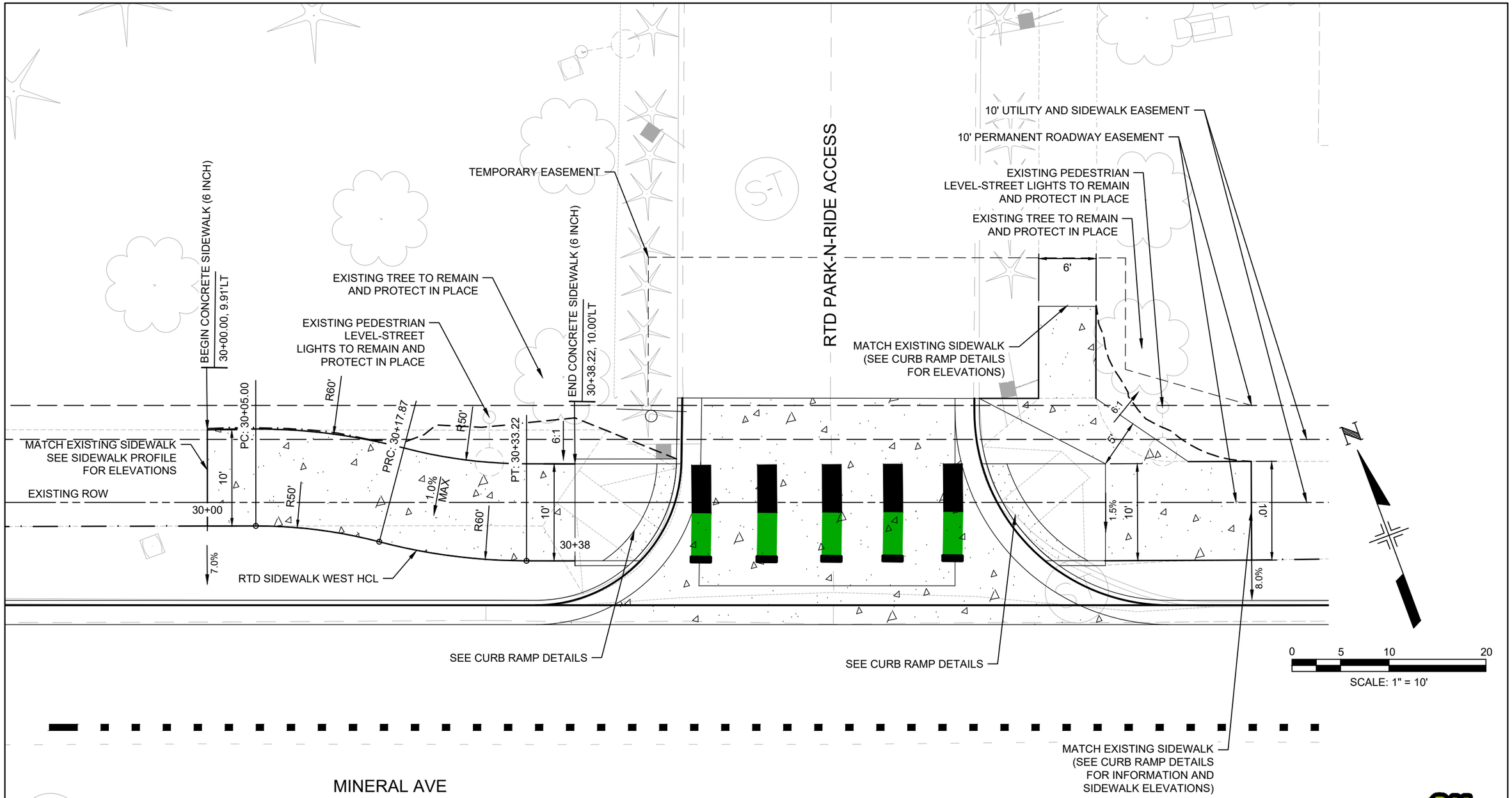
COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions			As Constructed	SIDEWALK DETAILS RTD SIDEWALK WEST	Project No./Code
File Name: 23574_RDW_DET_SW.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: 1" = 10' Vert. Scale: N/A				Revised:	Designer: O.VELASCO / Structure Numbers	23574
Unit Information				Void:	Detailer: G. PRINCE	Sheet Number 132
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: SIDEWALKS / Subset Sheets: 3 of 6	

Littleton Colorado

$PLOT_INFO$



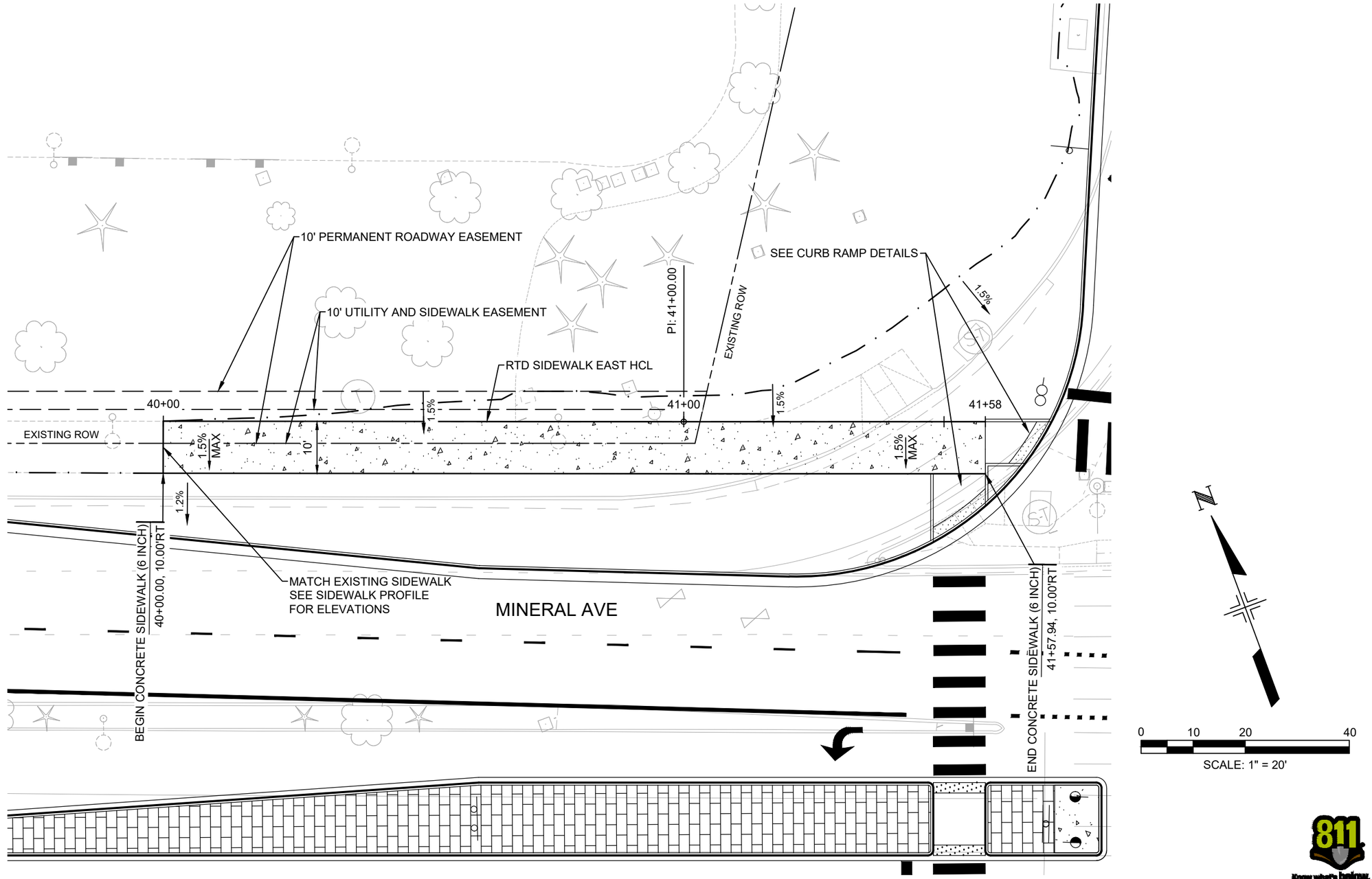
COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

811 Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions			As Constructed	SIDEWALK DETAILS RTD SIDEWALK - PARK-N-RIDE ACCESS	Project No./Code
File Name: 23574_RDW_DET_SW.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: 1" = 10' Vert. Scale: N/A				Revised:	Designer: O.VELASCO / Structure Numbers	23574
Unit Information				Void:	Detailer: G. PRINCE	Sheet Number 133
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: SIDEWALKS / Subset Sheets: 4 of 6	

Littleton Colorado

$PLOT_INFO$



COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

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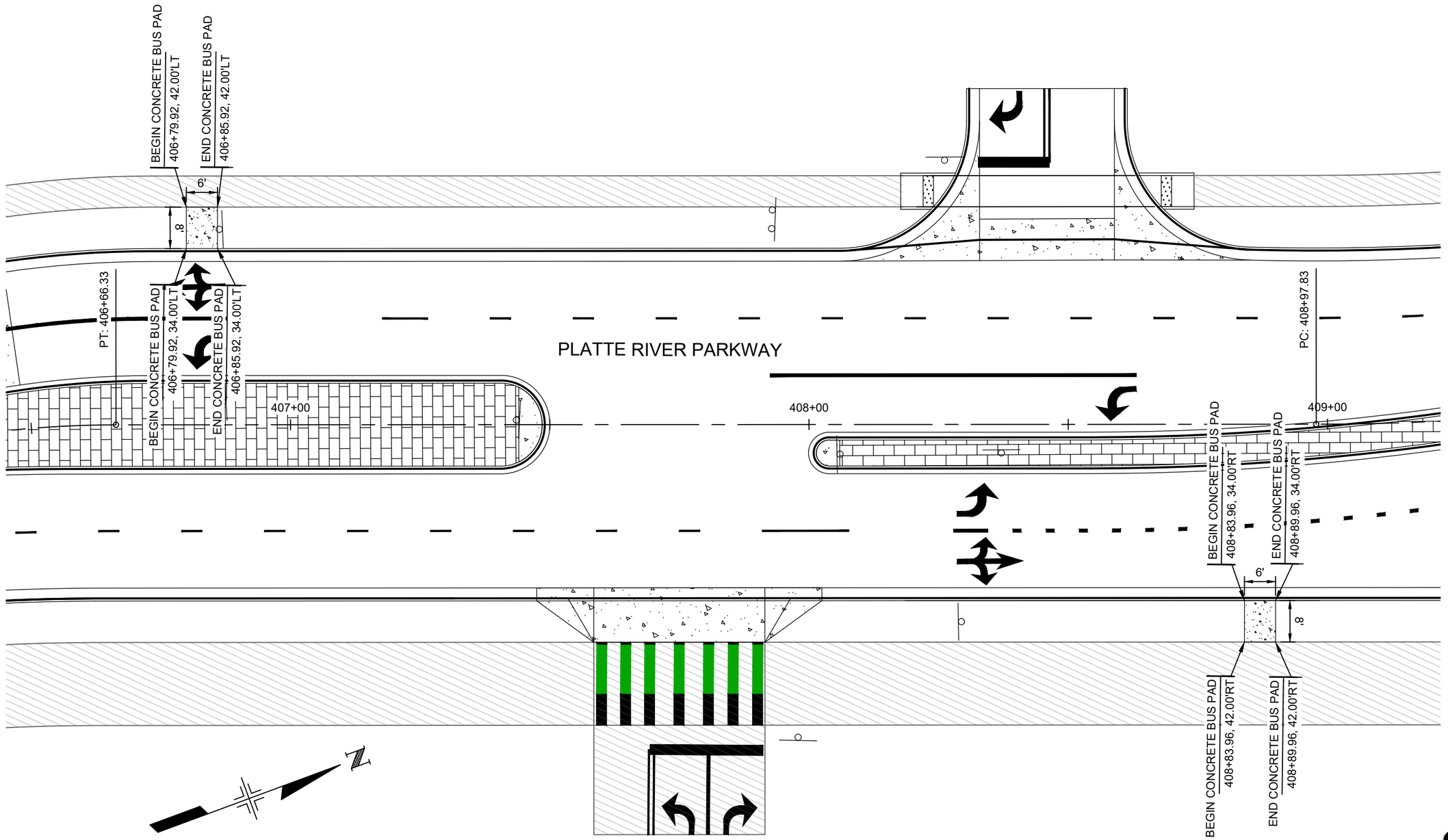
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_SW.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SIDEWALK DETAILS RTD SIDEWALK EAST		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: G. PRINCE		Sheet Number 134
	Sheet Subset: SIDEWALKS	Subset Sheets: 5 of 6	

$PLOT_INFO$



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ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

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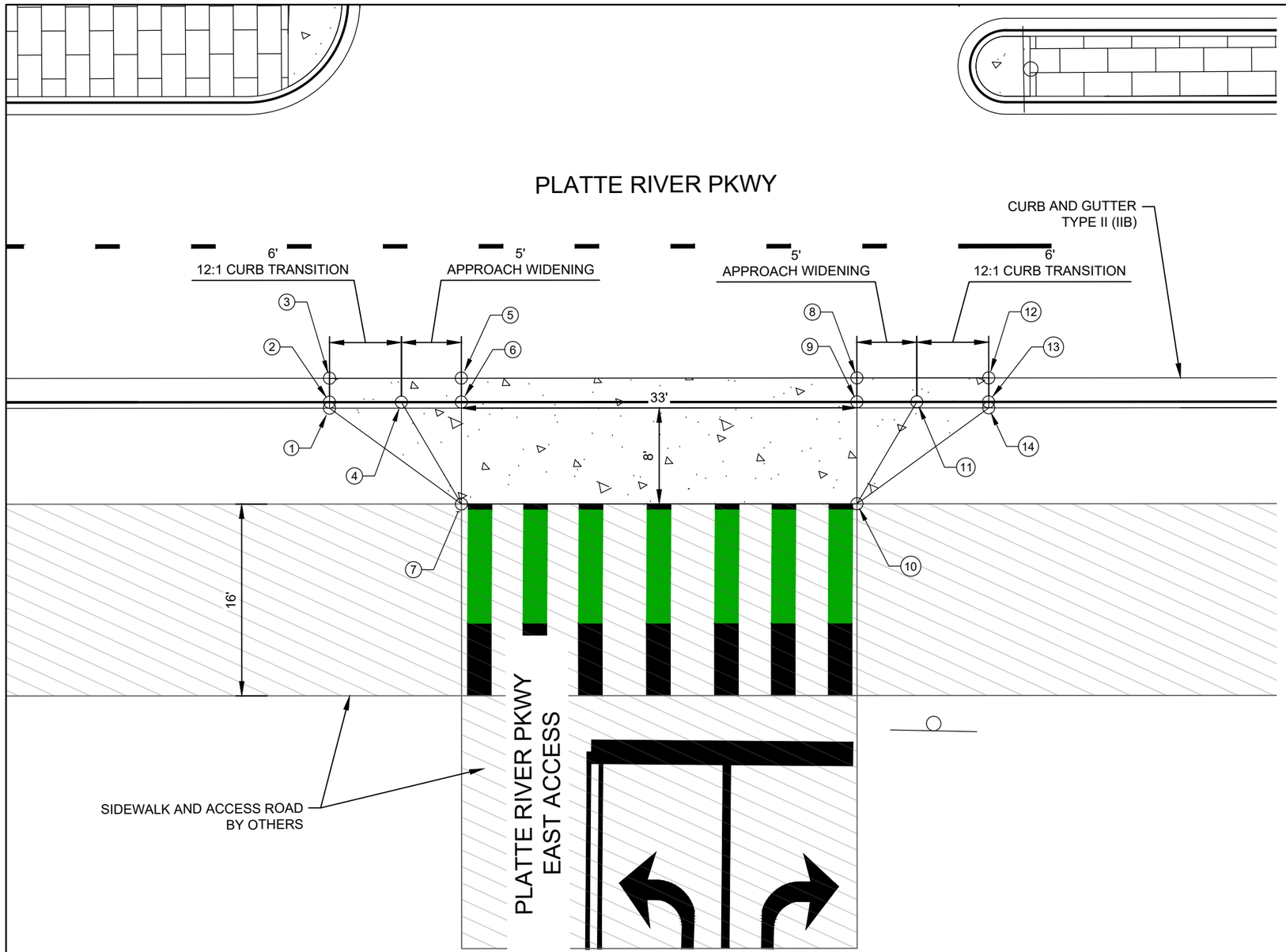
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_SW.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 20' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SIDEWALK DETAILS RTD BUS PADS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: G. PRINCE		Sheet Number 135
	Sheet Subset: SIDEWALKS	Subset Sheets: 6 of 6	

$PLOT_INFO$



POINT TABLE			
POINT #	NORTHING	EASTING	ELEVATION
1	636406.2025	133743.2272	5379.68
2	636406.3760	133742.7583	5379.18
3	636407.0700	133740.8825	5379.34
4	636412.0032	133744.8403	5379.14
5	636417.3865	133744.6995	5379.27
6	636416.6925	133746.5753	5379.10
7	636413.7431	133754.5471	5379.60
8	636448.3361	133756.1505	5379.05
9	636447.6421	133758.0263	5378.88
10	636444.6926	133765.9981	5379.38
11	636452.3314	133759.7613	5378.85
12	636458.6526	133759.9675	5378.98
13	636457.9413	133761.8369	5378.81
14	636457.7851	133762.3122	5379.31

N

0 5 10 20

SCALE: 1" = 10'

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COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_DW.DWG
Horiz. Scale: 1" = 10' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

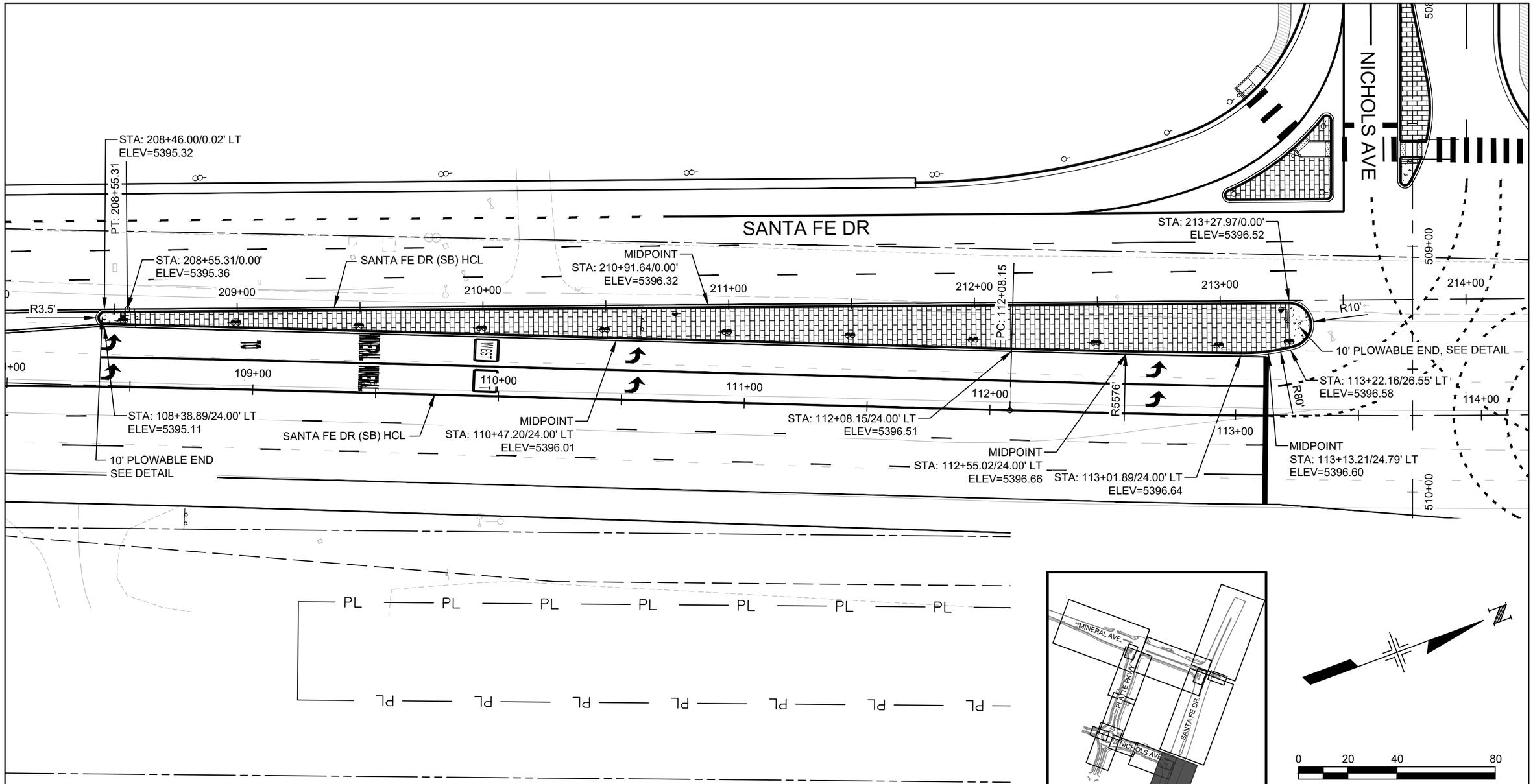
As Constructed
No Revisions:
Revised:
Void:

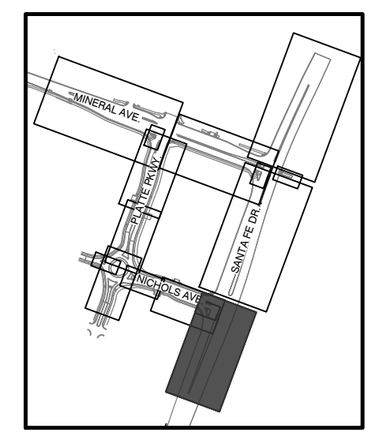
DRIVEWAY DETAIL
PLATTE RIVER PKWY - EAST ACCESS

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: DETAILS
Subset Sheets: 1 of 1

Project No./Code
AQC M810-017
23574
Sheet Number 136

$PLOT_INFO$





KEY MAP

0 20 40 80

SCALE: 1" = 40'

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COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 40' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN SANTA FE DR		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 137
	Sheet Subset: ROADWAY	Subset Sheets: 1 of 15	

$PLOT_INFO$

10' PLOWABLE END, SEE DETAIL

STA: 214+68.74/26.08' RT
ELEV=5395.64

MIDPOINT
STA: 216+65.15/23.97' RT
ELEV=5392.28

R35'

STA: 214+80.61/24.00' RT
ELEV=5395.44

215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00

PT: 117+58.67

STA: 218+56.98/24.00' RT
ELEV=5386.56

PC: 218+84.59

R7655'

MIDPOINT
STA: 220+19.11/11.99' RT
ELEV=5381.81

STA: 222+01.95/0.00'
ELEV=5379.46

STA: 221+81.06/0.00'
ELEV=5379.58

R2'

R2'

SANTA FE DR (SB) HCL

SANTA FE DR (SB) HCL

R10'

115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00

10' PLOWABLE END, SEE DETAIL

R4650'

SANTA FE DR

STA: 114+75.01/0.00'
ELEV=5395.87

R35'

STA: 114+62.95/2.13' LT
ELEV=5396.45

R560'

PC: 118+77.53

STA: 118+77.53/0.00'
ELEV=5385.63

MIDPOINT
STA: 120+37.01/0.00'
ELEV=5381.06

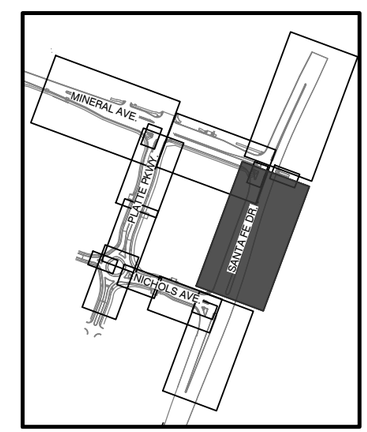
STA: 121+96.50/0.00'
ELEV=5379.21

MIDPOINT
STA: 116+16.84/0.00'
ELEV=5393.58

STA: 117+58.67/0.00'
ELEV=5389.89

MIDPOINT
STA: 118+18.10/0.00'
ELEV=5387.79

PL PL PL PL PL PL PL PL PL PL



KEY MAP

N

0 25 50 100

SCALE: 1" = 50'

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COLORADO LICENSED
HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

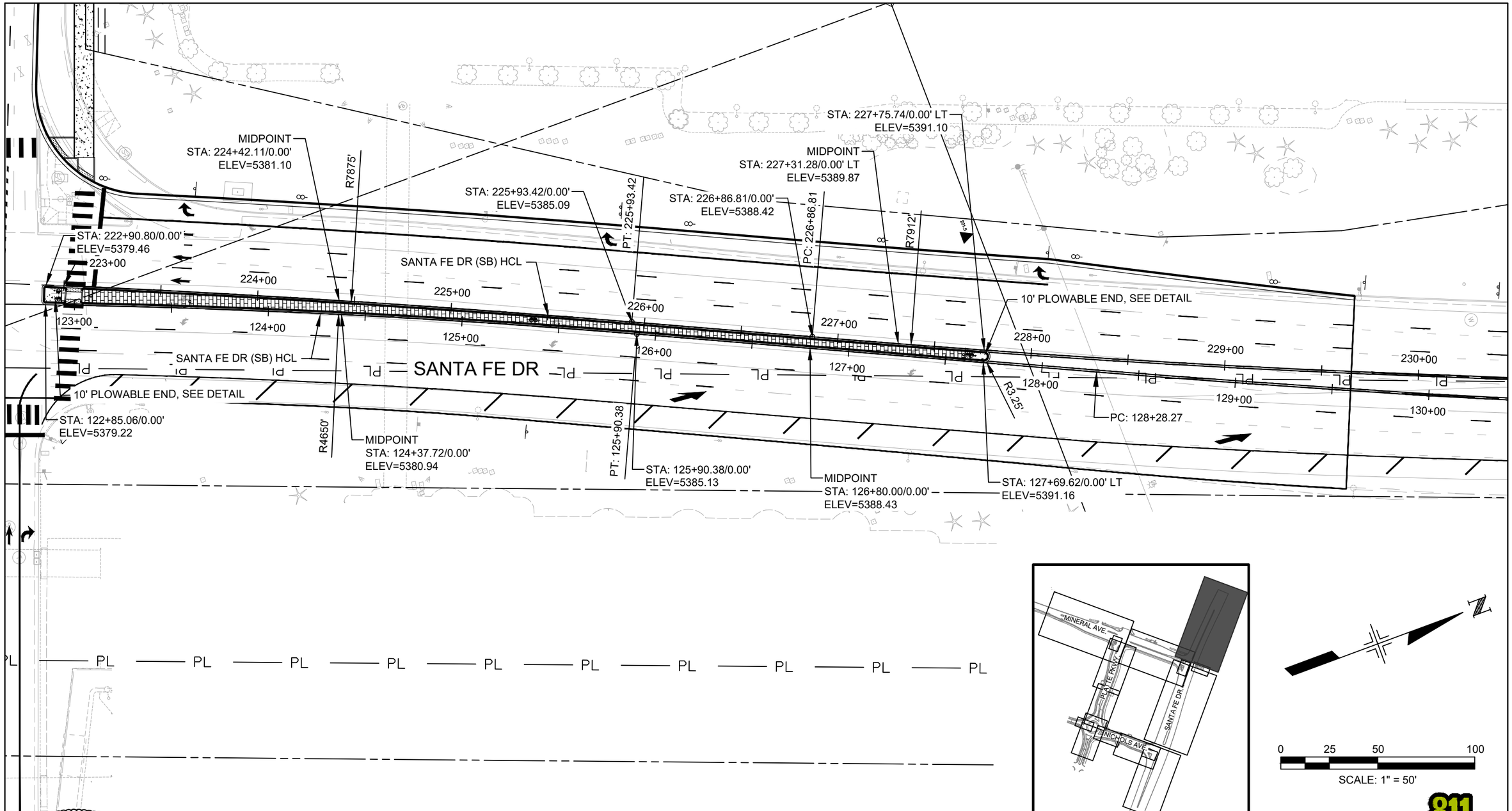
Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: N/A				
Unit Information				

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN SANTA FE DR		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 138
	Sheet Subset: ROADWAY	Subset Sheets: 2 of 15	

$PLOT_INFO$



KEY MAP

0 25 50 100

SCALE: 1" = 50'

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COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
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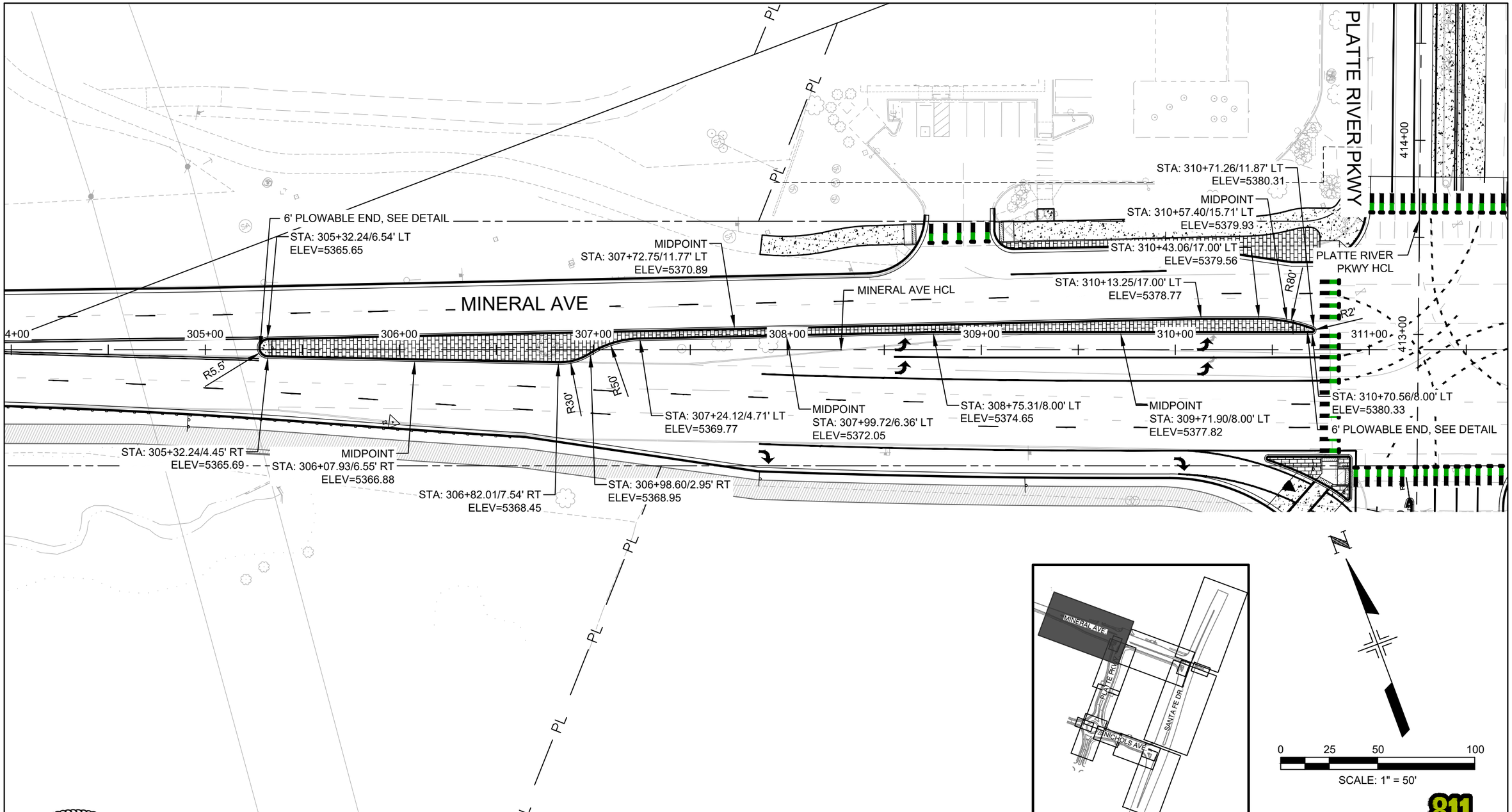
Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN SANTA FE DR		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 139
	Sheet Subset: ROADWAY	Subset Sheets: 3 of 15	

$PLOT_INFO$



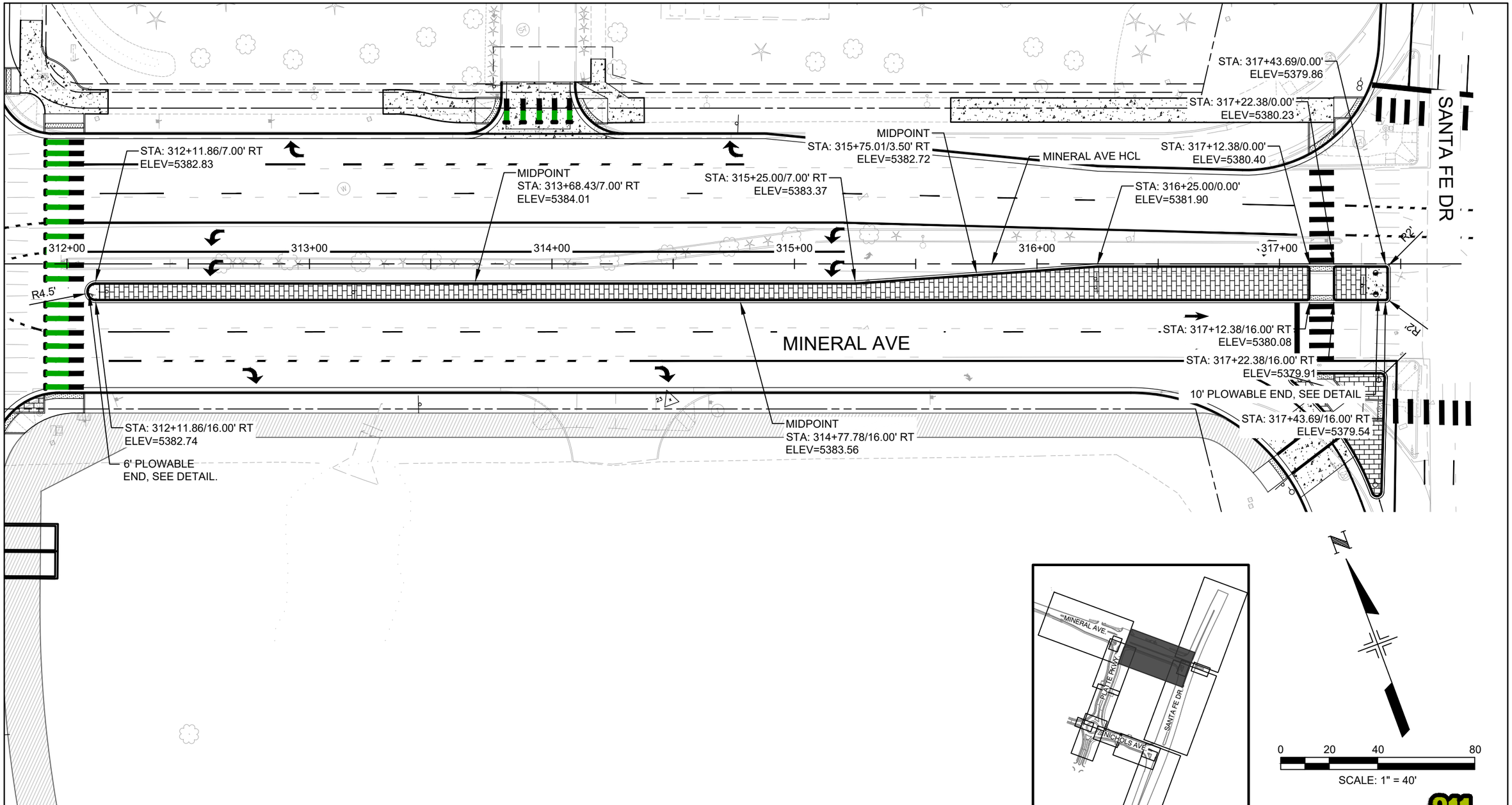
COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: N/A				
Unit Information				
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139				

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN MINERAL AVE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
	Detailer: O.VELASCO		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 4 of 15	Sheet Number 140

$PLOT_INFO$



COLORADO LICENSED
HECTOR VELASCO
ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

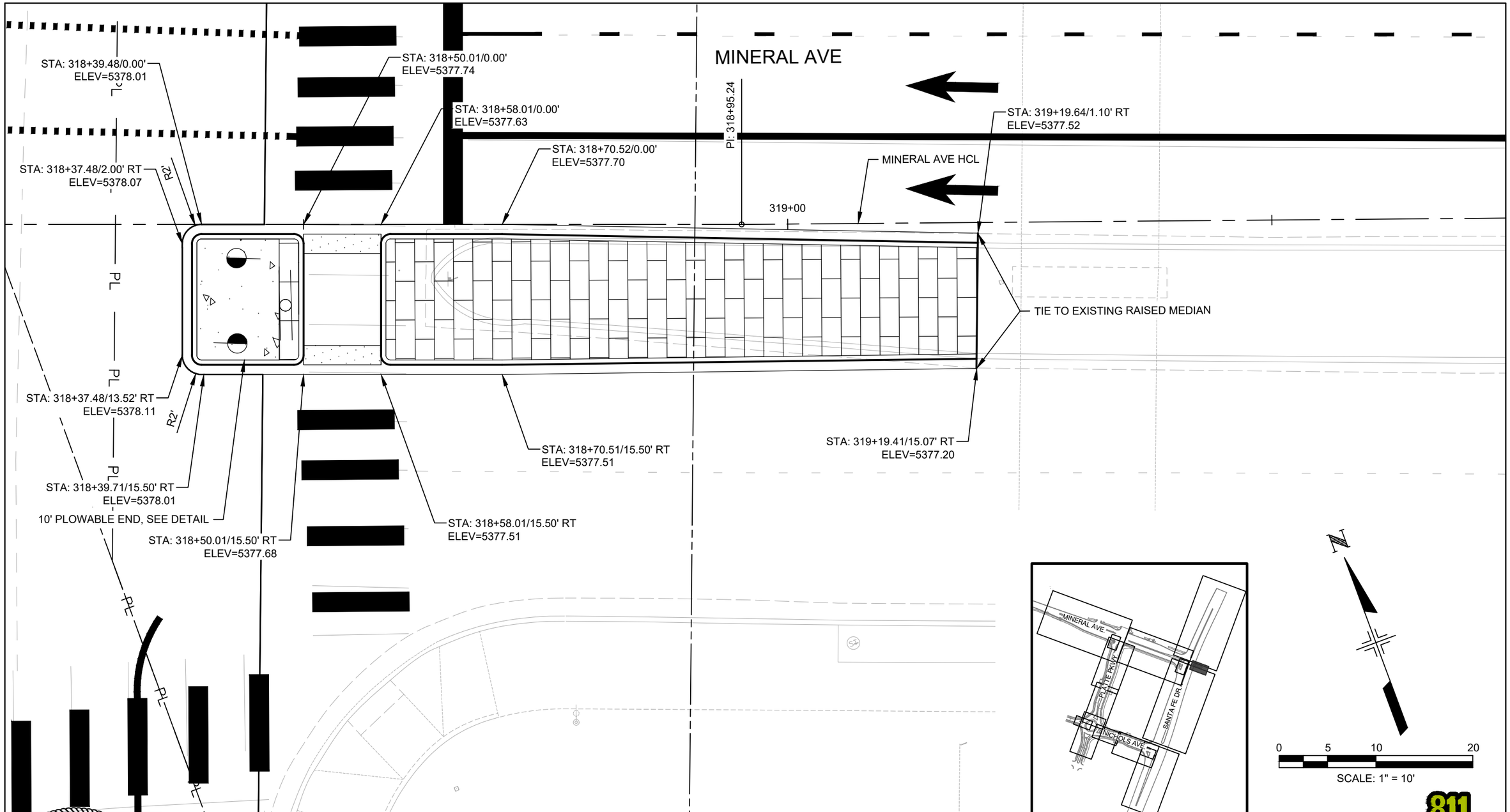
Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 40' Vert. Scale: N/A				
Unit Information				

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN MINERAL AVE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 141
	Sheet Subset: ROADWAY	Subset Sheets: 5 of 15	

$PLOT_INFO$



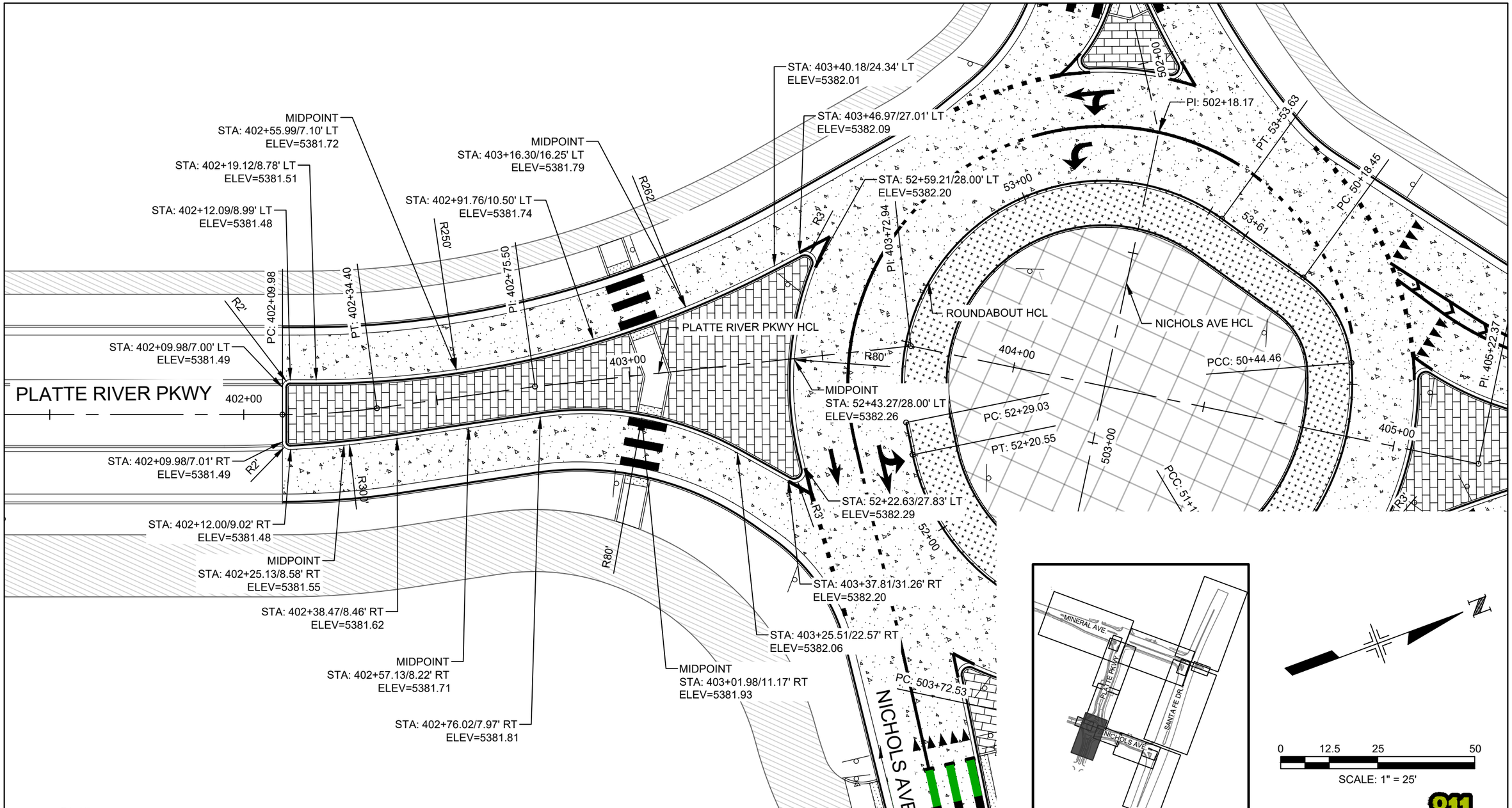
COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions			As Constructed	MEDIAN GEOMETRICS PLAN MINERAL AVE	Project No./Code
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: 1" = 10' Vert. Scale: N/A				Revised:	Designer: O.VELASCO / Structure Numbers	23574
Unit Information				Void:	Detailer: O.VELASCO	
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: ROADWAY / Subset Sheets: 6 of 15	Sheet Number 142

Littleton Colorado

Know what's below. Call before you dig.

$PLOT_INFO$



KEY MAP

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 25' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

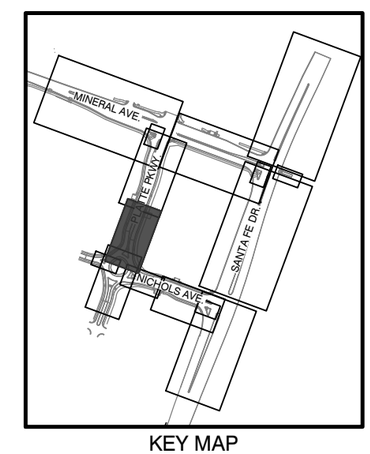
Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN PLATTE RIVER PKWY		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 143
	Sheet Subset: ROADWAY	Subset Sheets: 7 of 15	

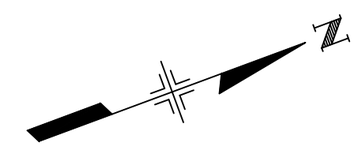
811 Know what's below. Call before you dig.

$PLOT_INFO$

PI: 502+18.17
PT: 53+53.63
PC: 50+18.45
53+61
ROUNDABOUT HCL
MIDPOINT
STA: 405+41.36/9.79' LT
ELEV=5381.40
STA: 405+05.75/21.32' LT
ELEV=5381.67
PCC: 50+44.46
STA: 50+48.97/16.00' LT
ELEV=5381.71
MIDPOINT
STA: 50+63.82/16.00' LT
ELEV=5381.69
PCC: 51+15.46
STA: 50+78.68/16.00' LT
ELEV=5381.70
STA: 405+72.11/5.02' LT
ELEV=5381.08
PI: 405+22.37
R80'
R3'
405+00
51+00
MIDPOINT
STA: 406+04.53/6.37' LT
ELEV=5380.83
STA: 406+36.77/7.79' LT
ELEV=5380.59
PC: 406+32.11
R176'
406+00
MIDPOINT
STA: 406+54.73/8.85' LT
ELEV=5380.46
PT: 406+66.33
STA: 406+72.93/9.50' LT
ELEV=5380.32
MIDPOINT
STA: 407+06.73/9.50' LT
ELEV=5380.06
407+00
PLATTE RIVER PKWY HCL
STA: 407+40.52/9.50' LT
ELEV=5379.83
R9.5'
408+00
PLATTE RIVER PKWY
6' PLOWABLE END, SEE DETAIL
STA: 406+55.98/9.24' RT
ELEV=5380.44
MIDPOINT
STA: 406+98.49/9.50' RT
ELEV=5380.12
STA: 407+40.52/9.50' RT
ELEV=5379.83
6' PLOWABLE END, SEE DETAIL
R400'
MIDPOINT
STA: 405+81.29/4.80' RT
ELEV=5381.02
STA: 405+13.57/17.02' RT
ELEV=5381.51
STA: 405+05.59/22.19' RT
ELEV=5381.61
OHP



KEY MAP



0 12.5 25 50
SCALE: 1" = 25'

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COLORADO LICENSED
HECTOR VELASCO
ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions			As Constructed	MEDIAN GEOMETRICS PLAN PLATTE RIVER PKWY	Project No./Code
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: 1" = 25' Vert. Scale: N/A				Revised:	Designer: O.VELASCO / Structure Numbers	23574
Unit Information				Void:	Detailer: O.VELASCO	
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: ROADWAY / Subset Sheets: 8 of 15	Sheet Number 144

Littleton Colorado

$PLOT_INFO$

STA: 408+03.92/1.50' RT
ELEV=5379.63

MIDPOINT
STA: 408+29.16/1.50' RT
ELEV=5379.46

STA: 408+54.41/1.50' RT
ELEV=5379.29

PLATTE RIVER PKWY HCL

PC: 408+97.83

STA: 409+88.28/8.48' LT
ELEV=5378.56

PRC: 410+11.29

MIDPOINT
STA: 410+59.46/9.50' LT
ELEV=5378.88

R509.5'

STA: 411+29.83/9.50' LT
ELEV=5379.57

PT: 411+29.83

STA: 411+85.97/9.50' LT
ELEV=5380.13

STA: 412+14.25/5.42' LT
ELEV=5380.49

MIDPOINT
STA: 412+00.26/8.47' LT
ELEV=5380.29

R2'

MIDPOINT
STA: 409+21.07/2.48' LT
ELEV=5378.79

R492'

408+00

409+00

410+00

411+00

412+00

R4'

STA: 411+29.83/1.50' LT
ELEV=5379.75

R501.5'

MIDPOINT
STA: 411+71.92/1.50' LT
ELEV=5380.16

STA: 409+89.00/0.51' LT
ELEV=5378.74

MIDPOINT
STA: 410+59.46/1.50' LT
ELEV=5379.09

6' PLOWABLE END, SEE DETAIL

R500'

MIDPOINT
STA: 409+21.77/5.49' RT
ELEV=5378.73

PLATTE RIVER PKWY

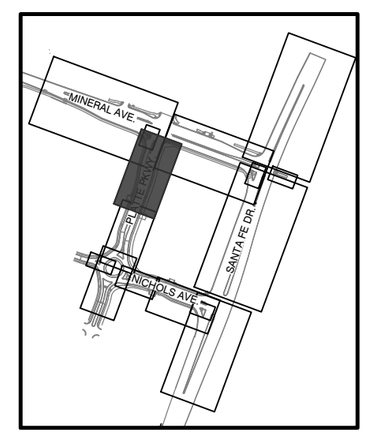
STA: 412+14.00/1.50' LT
ELEV=5380.57

STA: 408+54.41/9.50' RT
ELEV=5379.07

MIDPOINT
STA: 408+29.16/9.50' RT
ELEV=5379.24

STA: 408+03.92/9.50' RT
ELEV=5379.41

6' PLOWABLE END, SEE DETAIL



KEY MAP

N

0 15 30 60

SCALE: 1" = 30'

811
Know what's below.
Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

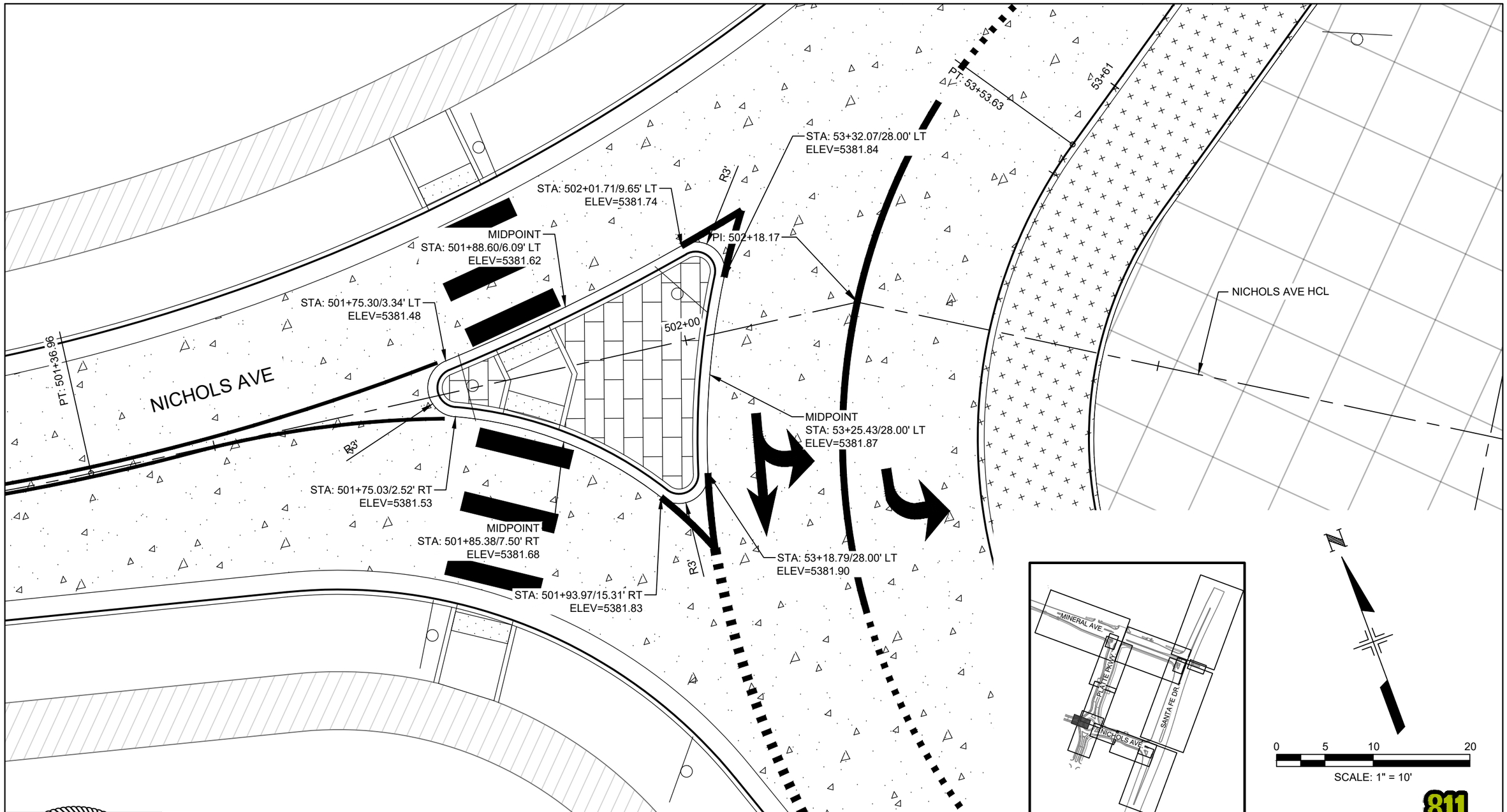
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 30' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN PLATTE RIVER PKWY		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 145
	Sheet Subset: ROADWAY	Subset Sheets: 9 of 15	

$PLOT_INFO$



COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 10' Vert. Scale: N/A				
Unit Information				

HDR
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Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN NICHOLS AVE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 10 of 15	Sheet Number 146

$PLOT_INFO$

STA: 51+47.39/17.32' LT
ELEV=5382.10

STA: 503+66.52/21.15' LT
ELEV=5382.00

R3'

STA: 504+33.91/4.78' LT
ELEV=5381.74

MIDPOINT
STA: 504+67.52/5.32' LT
ELEV=5381.83

PC: 504+69.91

STA: 505+24.32/9.49' LT
ELEV=5382.61

MIDPOINT
STA: 505+12.44/8.41' LT
ELEV=5382.37

R276'

PT: 505+33.51

STA: 505+00.54/7.22' LT
ELEV=5382.18

NICHOLS AVE HCL

R8'

R70'

PC: 503+72.53

MIDPOINT
STA: 503+99.69/8.93' LT
ELEV=5381.83

PT: 504+31.15

MIDPOINT
STA: 51+61.00/18.64' LT
ELEV=5382.20

505+00

NICHOLS AVE

R80'

504+00

6' PLOWABLE END, SEE DETAIL

STA: 51+74.32/20.29' LT
ELEV=5382.27

R3'

STA: 505+25.13/6.48' RT
ELEV=5382.69

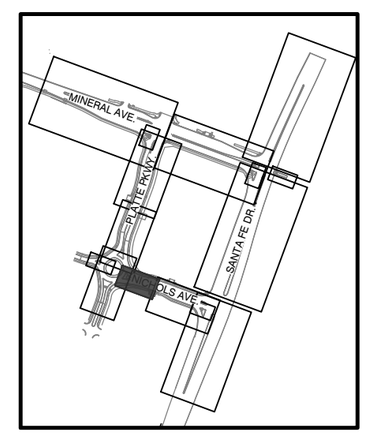
R624'

MIDPOINT
STA: 504+75.10/5.85' RT
ELEV=5381.89

STA: 504+26.09/4.97' RT
ELEV=5381.76

MIDPOINT
STA: 503+95.08/10.11' RT
ELEV=5381.91

STA: 503+66.33/21.41' RT
ELEV=5382.21



KEY MAP

N

0 12.5 25 50

SCALE: 1" = 25'

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COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 25' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
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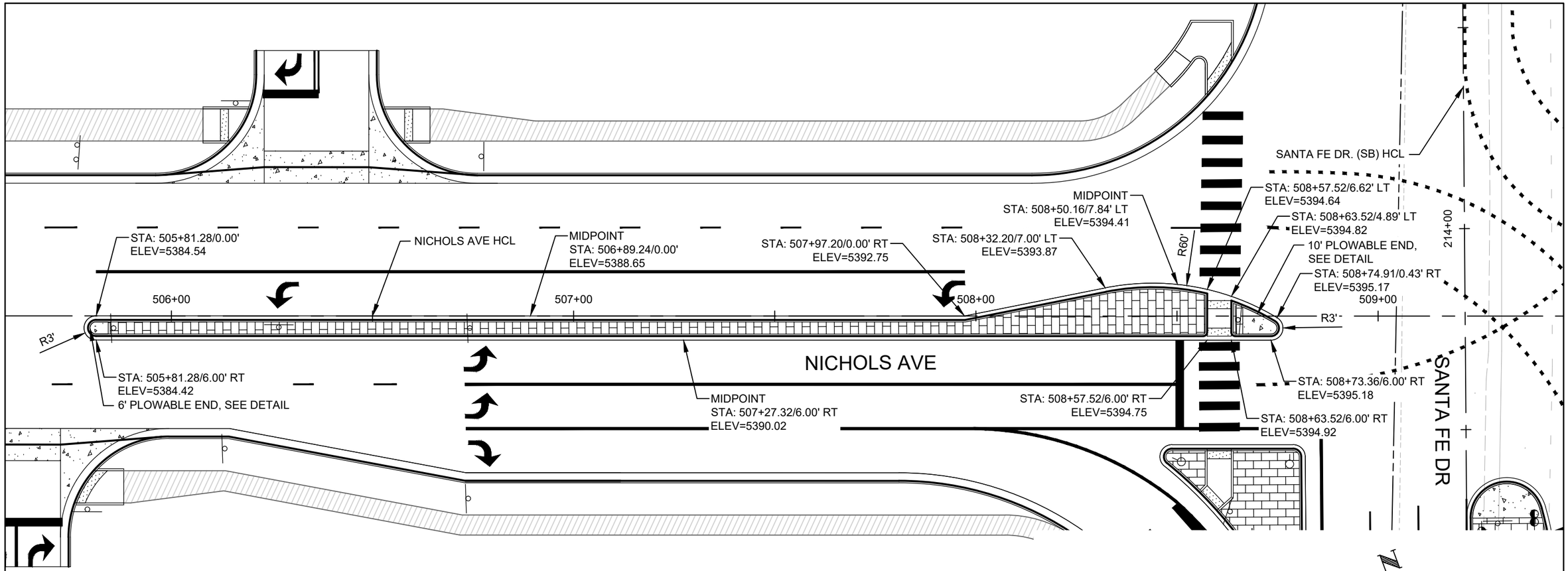
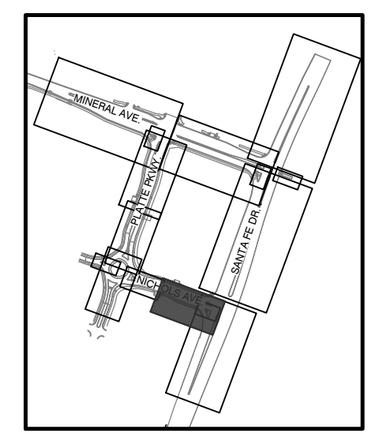
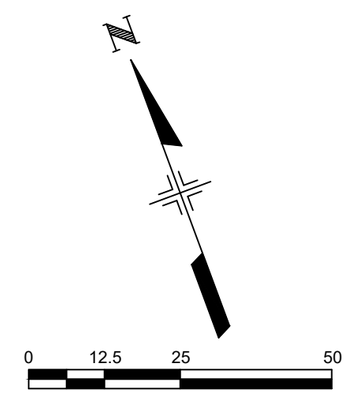
As Constructed	MEDIAN GEOMETRICS PLAN NICHOLS AVE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 147
	Sheet Subset: ROADWAY	Subset Sheets: 11 of 15	

$PLOT_INFO$





KEY MAP



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COLORADO LICENSED
HECTOR VELASCO
ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_RDW_DET_MED.DWG
Horiz. Scale: 1" = 25' Vert. Scale: N/A
Unit Information

HDR
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DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

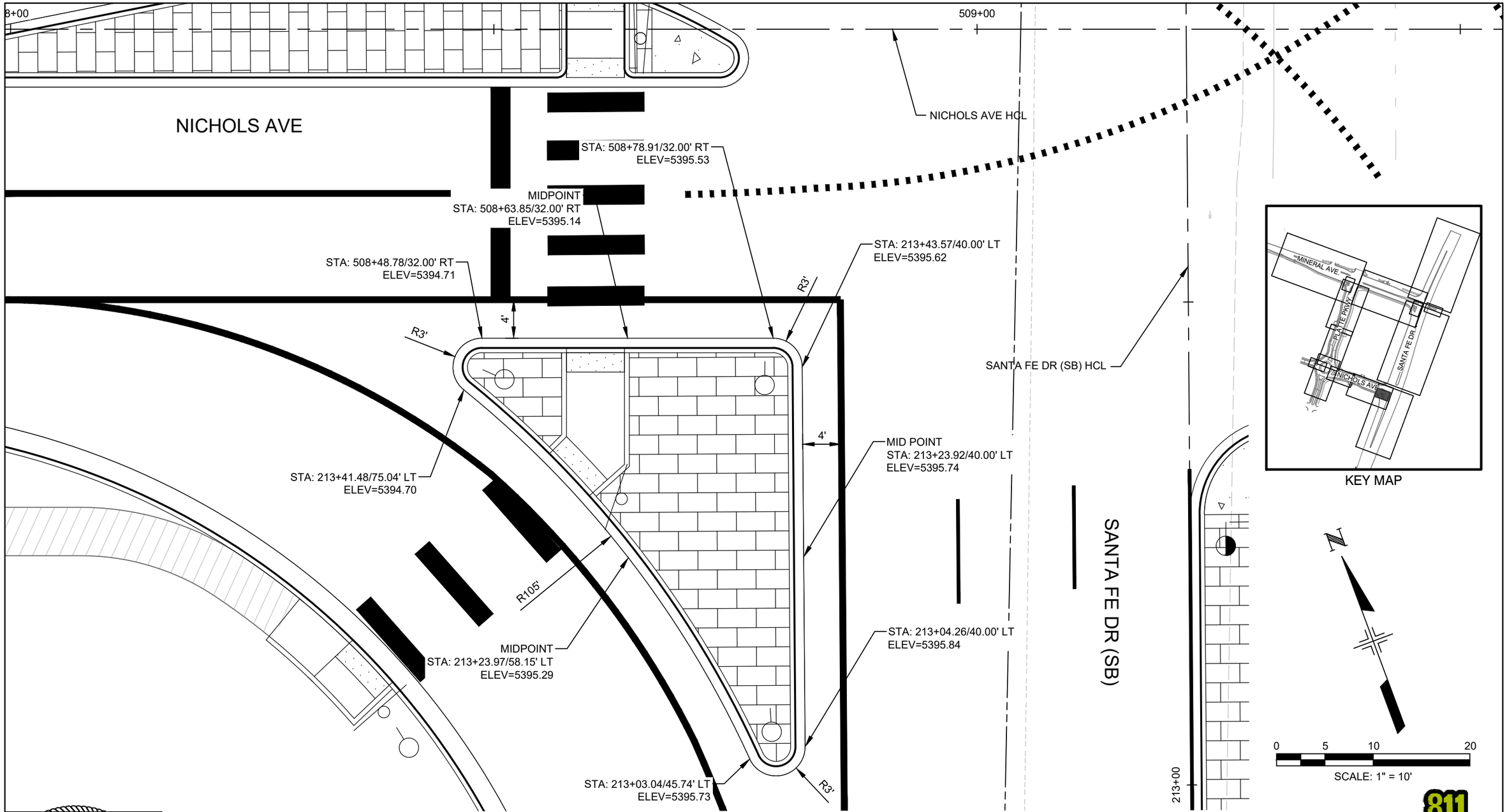
As Constructed
No Revisions:
Revised:
Void:

MEDIAN GEOMETRICS PLAN
NICHOLS AVE

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: ROADWAY
Subset Sheets: 12 of 15

Project No./Code
AQC M810-017
23574
Sheet Number 148

$PLOT_INFO$



COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 10' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN SANTA FE DR		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 13 of 15	Sheet Number 149

$PLOT_INFO$

STA: 221+95.01/79.69' LT
ELEV=5380.16

MIDPOINT
STA: 221+75.23/59.68' LT
ELEV=5379.95

STA: 317+06.61/44.00' RT
ELEV=5380.21

R3'

STA: 221+50.80/45.79' LT
ELEV=5380.14

MIDPOINT
STA: 317+24.06/44.00' RT
ELEV=5379.91

4'

MINERAL AVE

R3'

4.5'

3.75'

STA: 317+41.51/44.00' RT
ELEV=5379.61

R3'

STA: 221+51.90/40.00' LT
ELEV=5380.14

MIDPOINT
STA: 221+75.20/40.00' LT
ELEV=5380.00

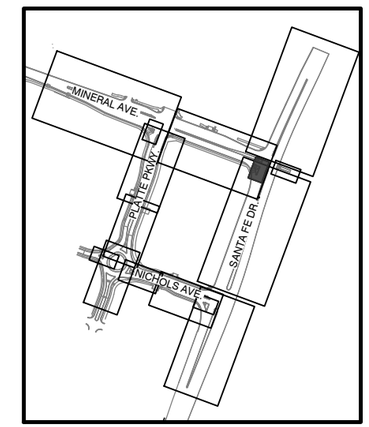
STA: 221+98.50/40.00' LT
ELEV=5379.92

NICHOLS AVE HCL

SANTA FE DR

222+00

SANTA FE DR (SB) HCL



KEY MAP

N

0 5 10 20

SCALE: 1" = 10'

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04			
File Name: 23574_RDW_DET_MED.DWG			
Horiz. Scale: 1" = 10'	Vert. Scale: N/A		
Unit Information			

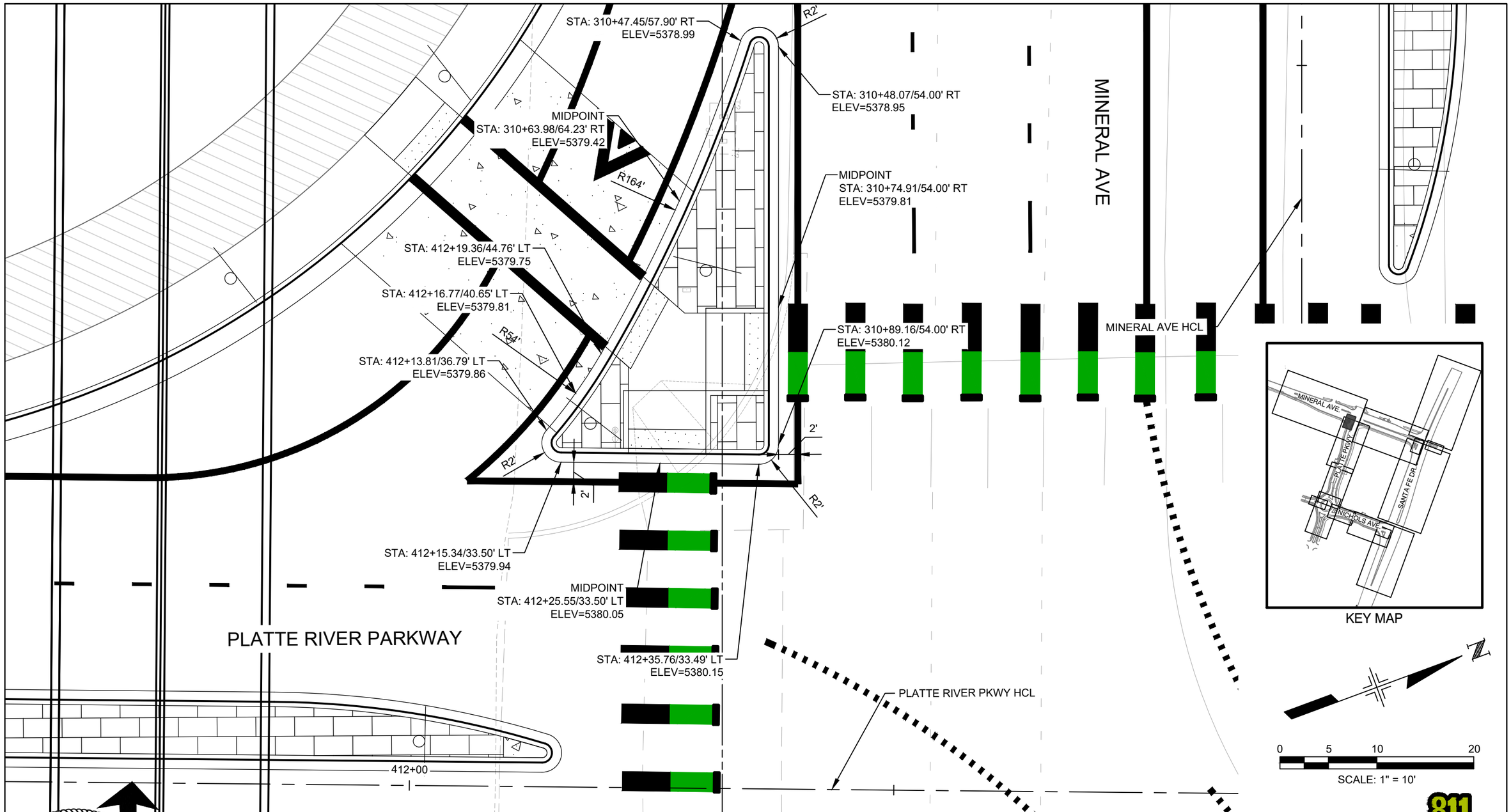
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	MEDIAN GEOMETRICS PLAN SANTA FE DR		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 14 of 15	Sheet Number 150

$PLOT_INFO$



COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_MED.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 10' Vert. Scale: N/A			
Unit Information			

HDR
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DENVER, COLORADO 80202
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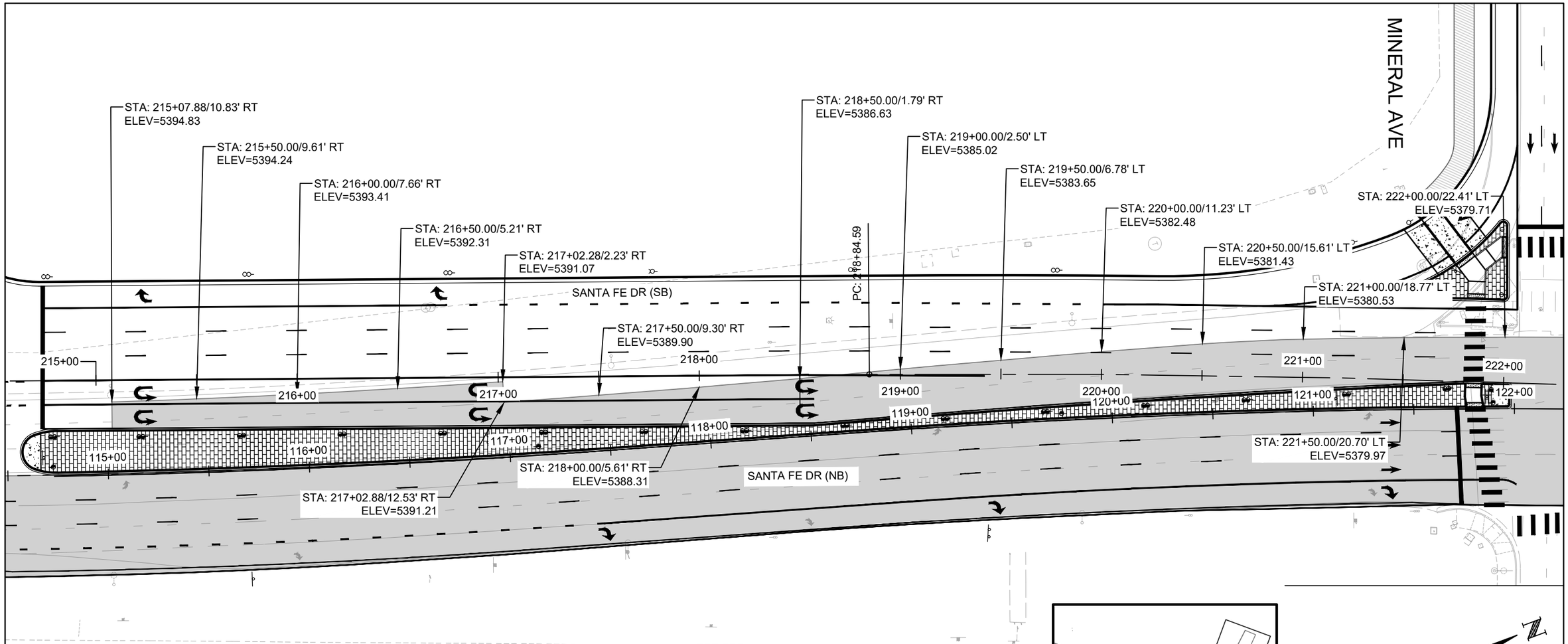
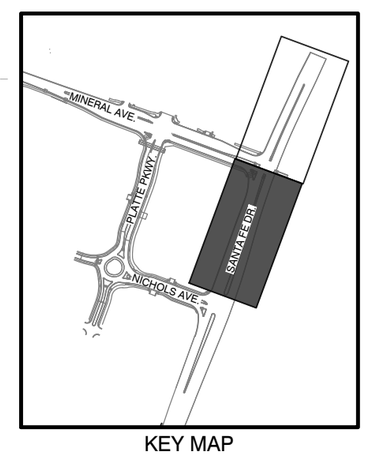
Littleton Colorado

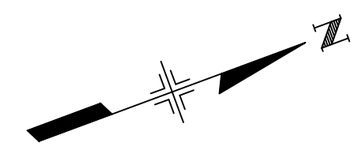
As Constructed	MEDIAN GEOMETRICS PLAN PLATTE RIVER PKWY		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
	Detailer: O.VELASCO		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 15 of 15	Sheet Number 151

$PLOT_INFO$





KEY MAP



0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
HECTOR VELASCO ORION
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_RDW_DET_SAW.DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions

Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR SAW CUT PLAN		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
	Detailer: O.VELASCO		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 1 of 2	Sheet Number 152

$PLOT_INFO$

STA: 222+50.00/24.18' LT
ELEV=5379.60

STA: 223+00.00/25.24' LT
ELEV=5379.82

STA: 223+50.00/24.49' LT
ELEV=5380.11

STA: 224+00.00/24.50' LT
ELEV=5380.72

STA: 224+50.00/24.50' LT
ELEV=5381.72

STA: 225+00.00/24.47' LT
ELEV=5382.73

PT: 225+93.42

STA: 226+00.00/24.50' LT
ELEV=5385.35

PC: 226+86.81

STA: 226+50.00/24.50' LT
ELEV=5386.94

STA: 227+00.00/24.50' LT
ELEV=5388.42

STA: 227+50.00/24.50' LT
ELEV=5389.84

STA: 228+00.00/24.51' LT
ELEV=5391.17

STA: 228+50.00/24.73' LT
ELEV=5392.15

STA: 228+88.09/35.25' LT
ELEV=5392.53

SANTA FE DR (SB)

SANTA FE DR (NB)

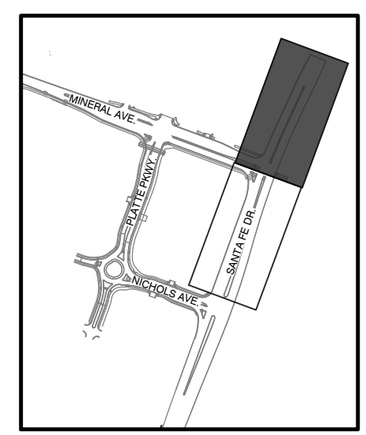
223+00 123+00 224+00 124+00 225+00 125+00 226+00 126+00 227+00 127+00 228+00 128+00 229+00 129+00

STA: 225+50.00/24.47' LT
ELEV=5383.90

STA: 228+87.71/24.01' LT
ELEV=5392.77

STA: 229+49.96/35.12' LT
ELEV=5393.30

STA: 229+65.29/35.12' LT
ELEV=5393.44



KEY MAP

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

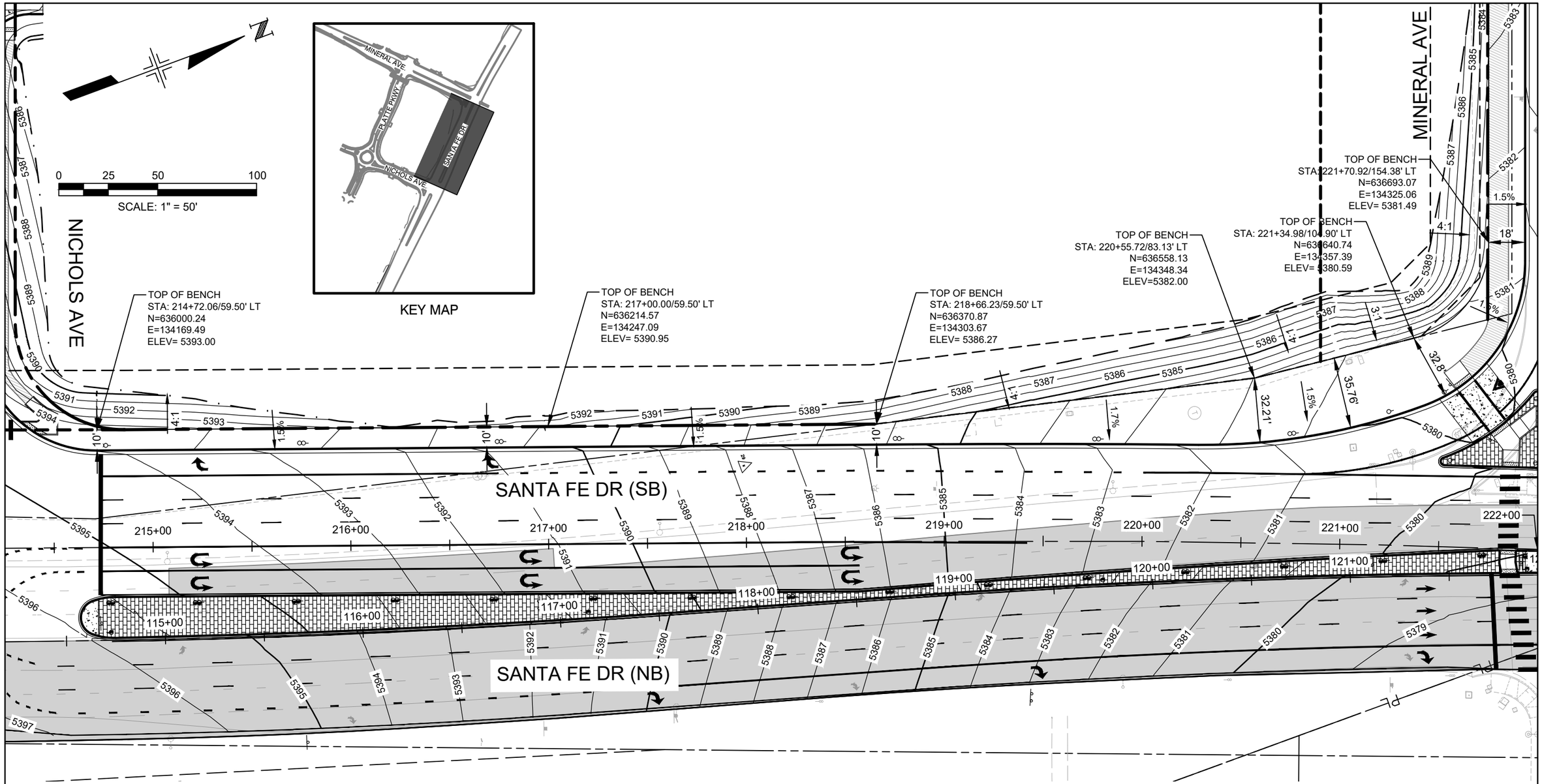
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_SAW.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR SAW CUT PLAN		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 153
	Sheet Subset: ROADWAY	Subset Sheets: 2 of 2	

$PLOT_INFO$



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Print Date: 2024-11-04	
File Name: 23574_RDW_DET_GRD.DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

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Phone: 303-764-1520
FAX: 303-860-7139

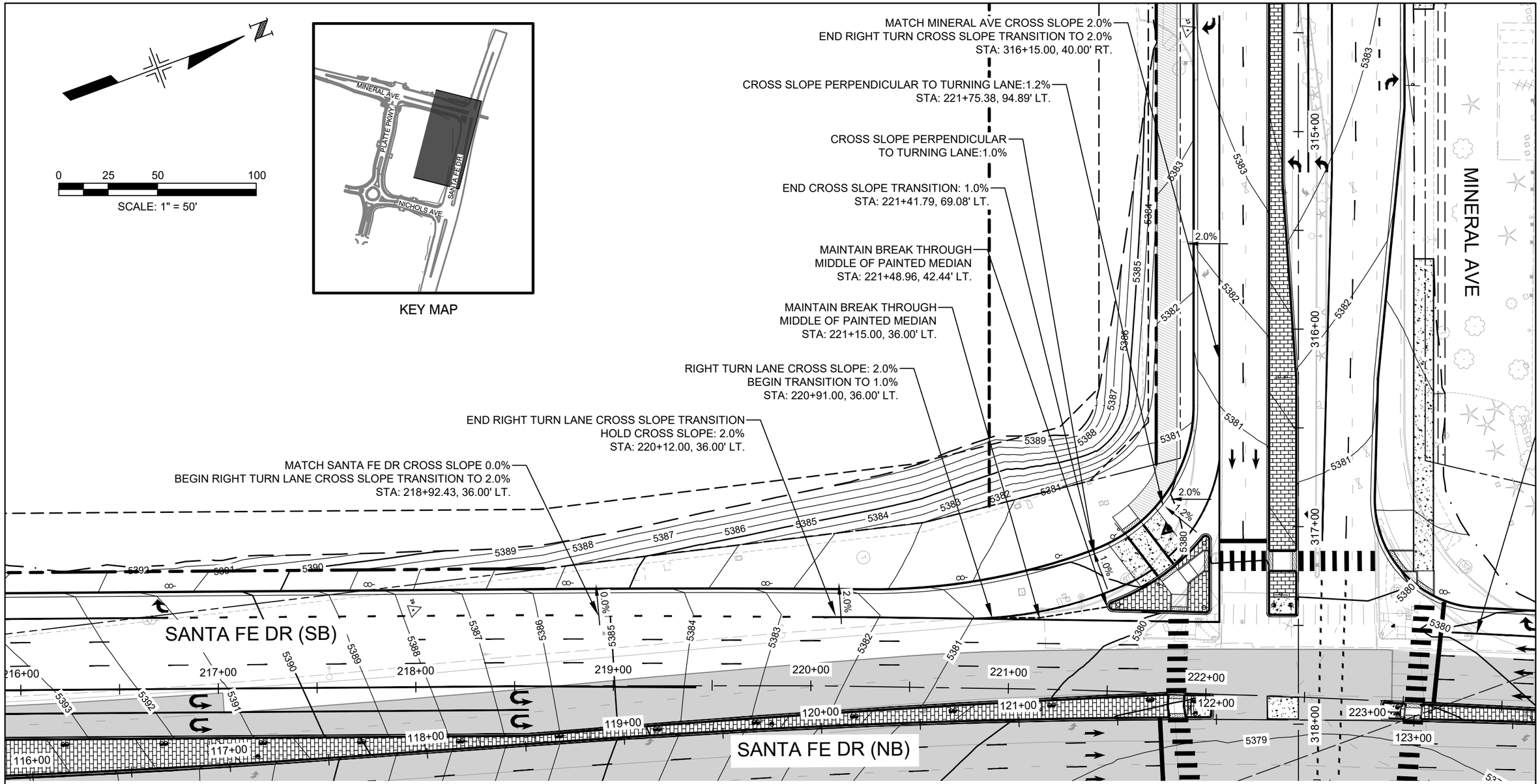
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR. BENCH GRADING DETAIL		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
	Detailer: O.VELASCO		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 1 of 1	Sheet Number 154

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES

1. CROSS SLOPES ON SANTA FE DR. ARE PERPENDICULAR TO SAW CUT LINE EXCEPT WHERE NOTED WITHIN CHANNELIZED TURNING LANE.
2. CROSS SLOPES ON MINERAL AVE ARE PERPENDICULAR TO MINERAL AVE ALIGNMENT EXCEPT WHERE NOTED WITHIN CHANNEIZED TURNING LANE.

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_RTLANE.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE (EB) - SANTA FE DR (SB) CROSS SLOPE TRANSITION DETAIL RIGHT TURN LANE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 155
	Sheet Subset: ROADWAY	Subset Sheets: 1 of 2	

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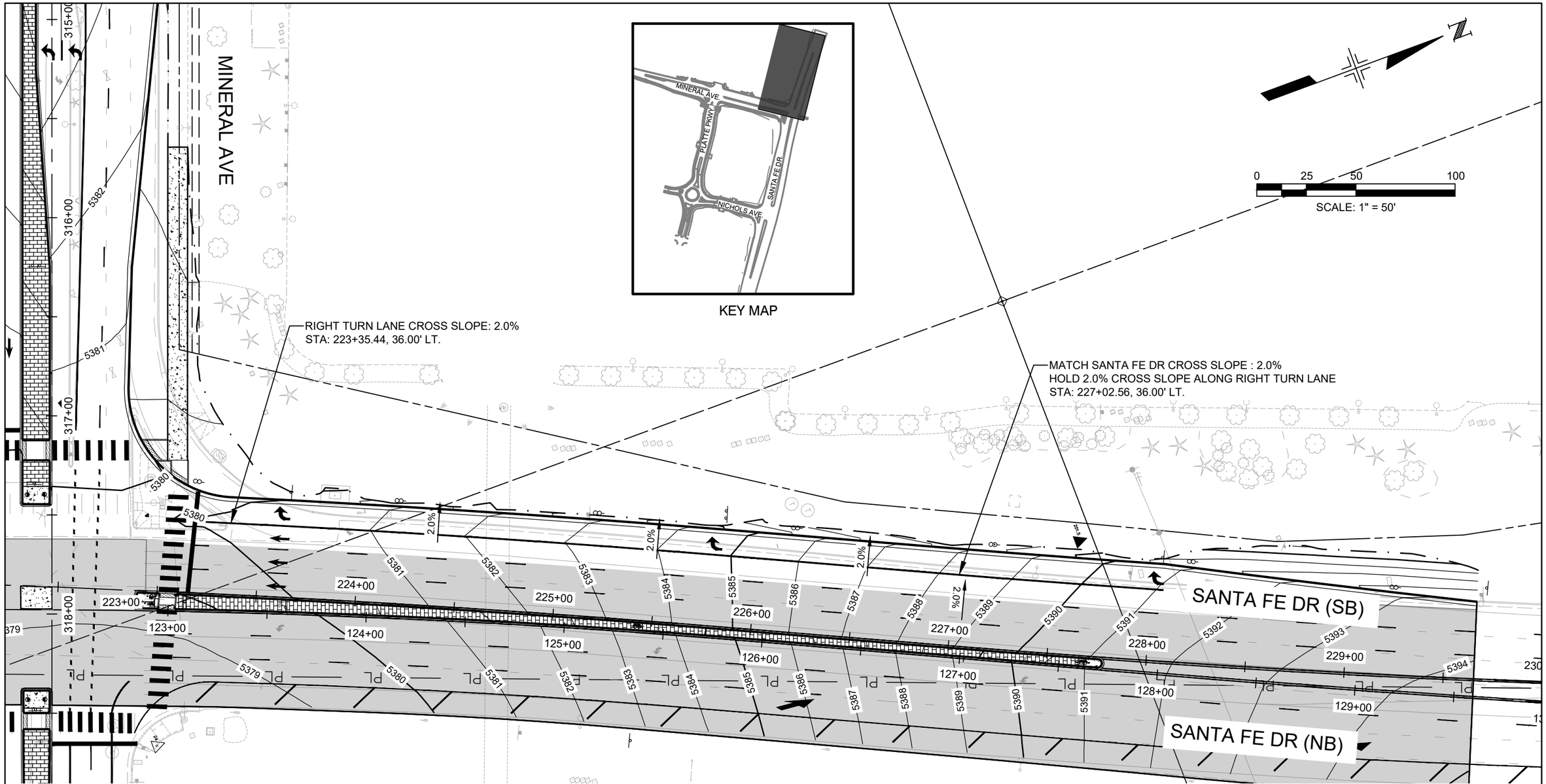

NOTES

1. CROSS SLOPES ON SANTA FE DR (SB) ARE PERPENDICULAR TO SAW CUT LINE.

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_RTLANE.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

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1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR (SB) - MINERAL AVE (WB) CROSS SLOPE TRANSITION DETAIL RIGHT TURN LANE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 2 of 2	Sheet Number 156

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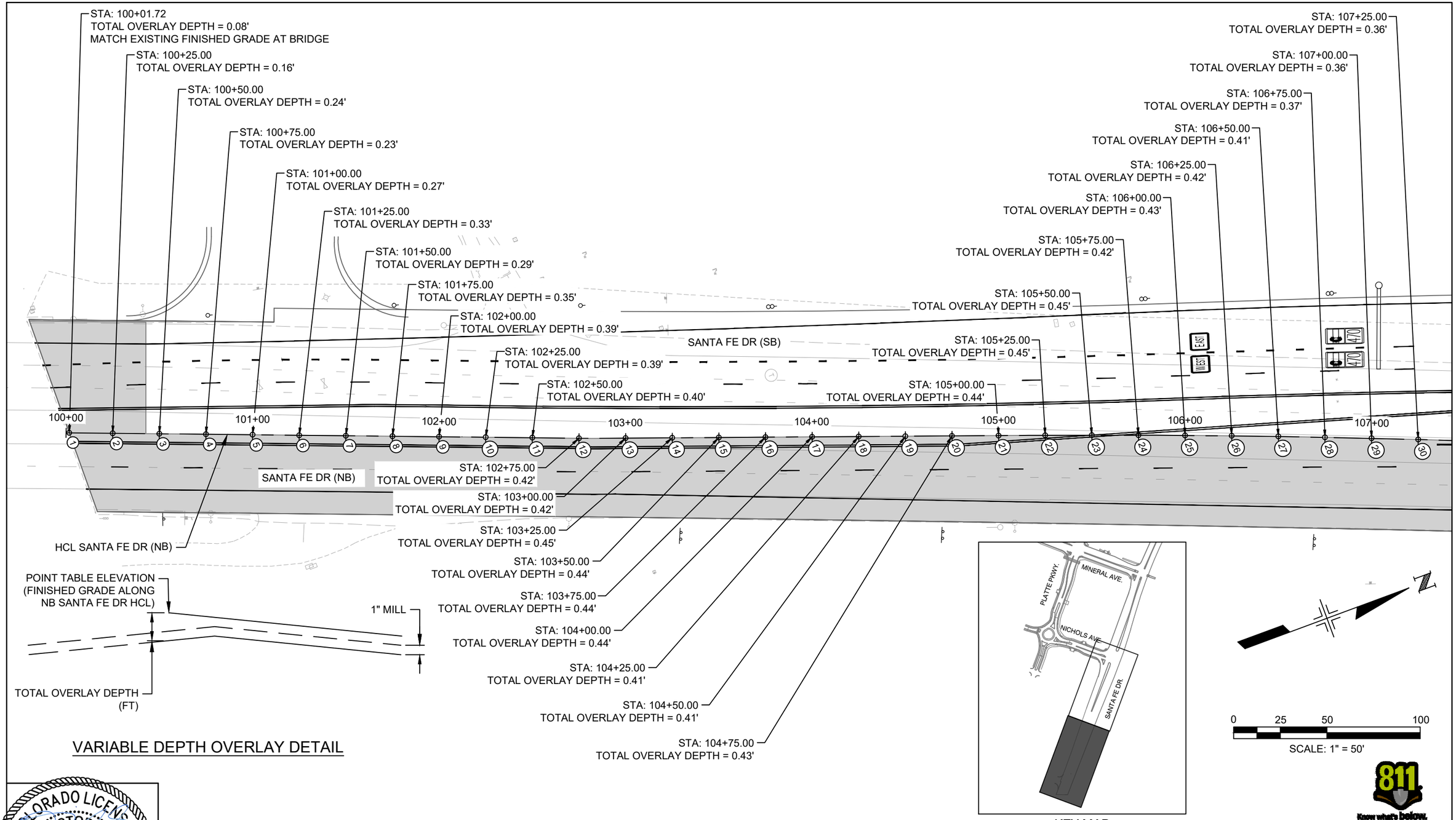

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58434
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Print Date: 2024-11-04	Sheet Revisions			
File Name: 23574_RDW_DET_OVR.DWG	Date:	Comments	Init.	
Horiz. Scale: 1" = 50' Vert. Scale: N/A				
Unit Information				

HDR
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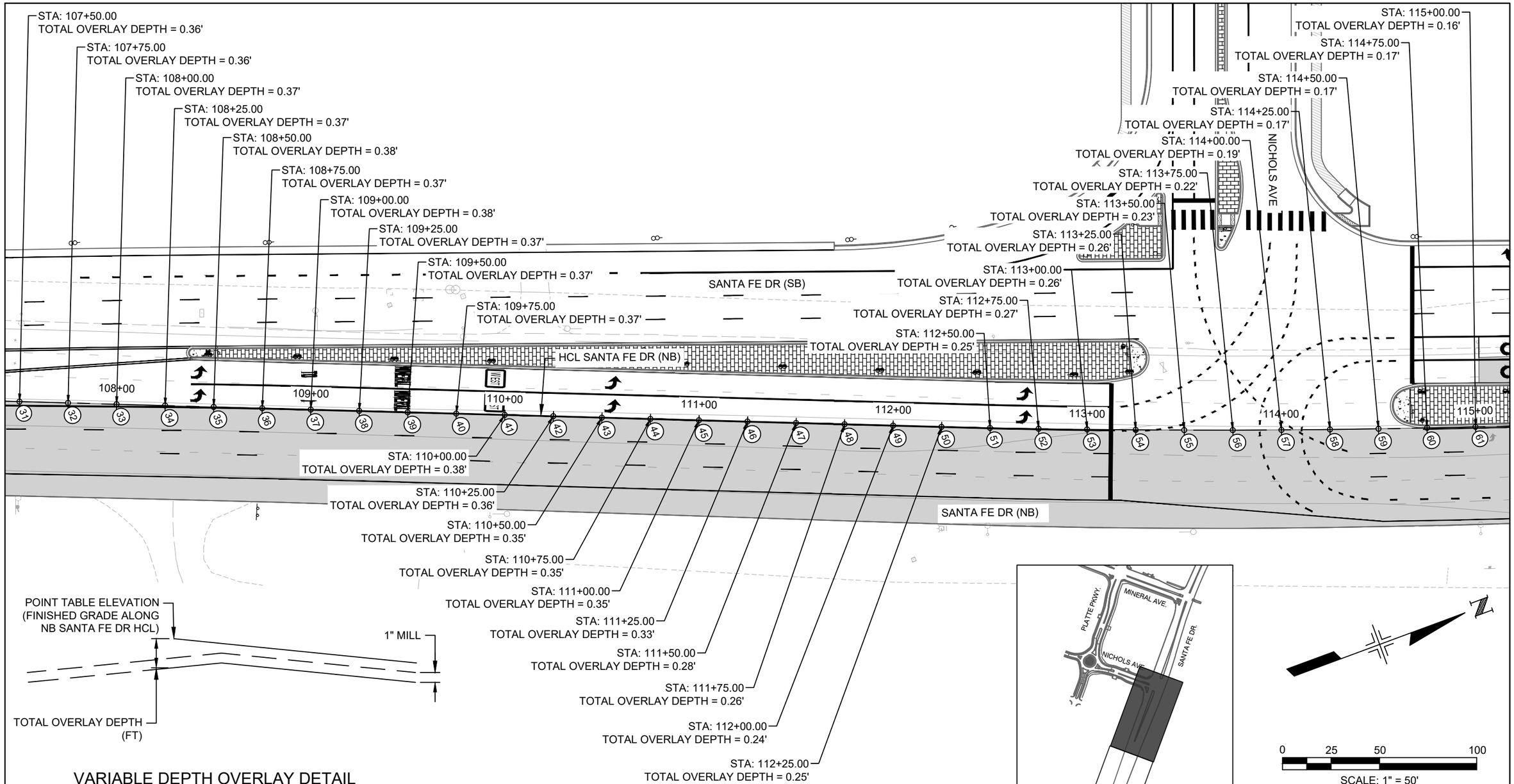
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

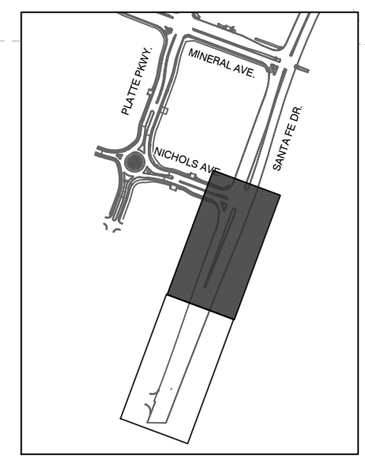
As Constructed	SANTA FE DR VARIABLE DEPTH OVERLAY DETAIL		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number 157
	Sheet Subset: ROADWAY	Subset Sheets: 1 of 3	

811 Know what's below. Call before you dig.

$PLOT_INFO$



VARIABLE DEPTH OVERLAY DETAIL



KEY MAP

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_RDW_DET_OVR.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SANTA FE DR VARIABLE DEPTH OVERLAY DETAIL		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		
	Sheet Subset: ROADWAY	Subset Sheets: 2 of 3	Sheet Number 158

$PLOT_INFO$

POINT TABLE			
POINT #	NORTHING	EASTING	FINISHED GRADE
1	634597.2678	133743.9608	5392.65
2	634619.0139	133752.2834	5392.63
3	634642.3623	133761.2193	5392.61
4	634665.7108	133770.1551	5392.62
5	634689.0592	133779.0910	5392.60
6	634712.4077	133788.0268	5392.64
7	634735.7562	133796.9627	5392.71
8	634759.1046	133805.8986	5392.77
9	634782.4531	133814.8344	5392.76
10	634805.8015	133823.7703	5392.75
11	634829.1500	133832.7061	5392.81
12	634852.4984	133841.6420	5392.88
13	634875.9595	133850.2756	5392.96
14	634899.4605	133858.8025	5393.05
15	634922.9614	133867.3293	5393.09
16	634946.4623	133875.8562	5393.15
17	634969.9632	133884.3830	5393.22
18	634993.4641	133892.9099	5393.32
19	635016.9650	133901.4368	5393.44
20	635040.4659	133909.9636	5393.55
21	635063.9668	133918.4905	5393.69
22	635087.4654	133927.0236	5393.83
23	635110.9357	133935.6345	5393.92
24	635134.3698	133944.3431	5393.98
25	635157.7675	133953.1493	5394.06

POINT TABLE			
POINT #	NORTHING	EASTING	FINISHED GRADE
26	635181.1282	133962.0529	5394.13
27	635204.4517	133971.0538	5394.20
28	635227.7374	133980.1517	5394.28
29	635250.9851	133989.3466	5394.36
30	635274.1945	133998.6376	5394.46
31	635297.3891	134007.9656	5394.57
32	635320.5836	134017.2937	5394.68
33	635343.7782	134026.6217	5394.81
34	635366.9727	134035.9498	5394.93
35	635390.1673	134045.2779	5395.05
36	635413.3618	134054.6059	5395.16
37	635436.5564	134063.9340	5395.26
38	635459.7509	134073.2620	5395.33
39	635482.9455	134082.5901	5395.41
40	635506.1400	134091.9182	5395.50
41	635529.3346	134101.2462	5395.61
42	635552.5292	134110.5743	5395.72
43	635575.7237	134119.9023	5395.82
44	635598.9183	134129.2304	5395.93
45	635622.1128	134138.5585	5396.02
46	635645.3074	134147.8865	5396.08
47	635668.5019	134157.2146	5396.14
48	635691.6965	134166.5426	5396.21
49	635714.8910	134175.8707	5396.31
50	635738.0950	134185.1752	5396.42

POINT TABLE			
POINT #	NORTHING	EASTING	FINISHED GRADE
51	635761.3381	134194.3816	5396.56
52	635784.6221	134203.4840	5396.64
53	635807.9465	134212.4825	5396.70
54	635831.3108	134221.3767	5396.73
55	635854.7146	134230.1666	5396.71
56	635878.1574	134238.8518	5396.67
57	635901.6388	134247.4324	5396.57
58	635925.1582	134255.9080	5396.37
59	635948.7152	134264.2785	5396.15
60	635972.3188	134272.5471	5395.87
61	635995.9401	134280.7037	5395.57

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_RDW_DET_OVR.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

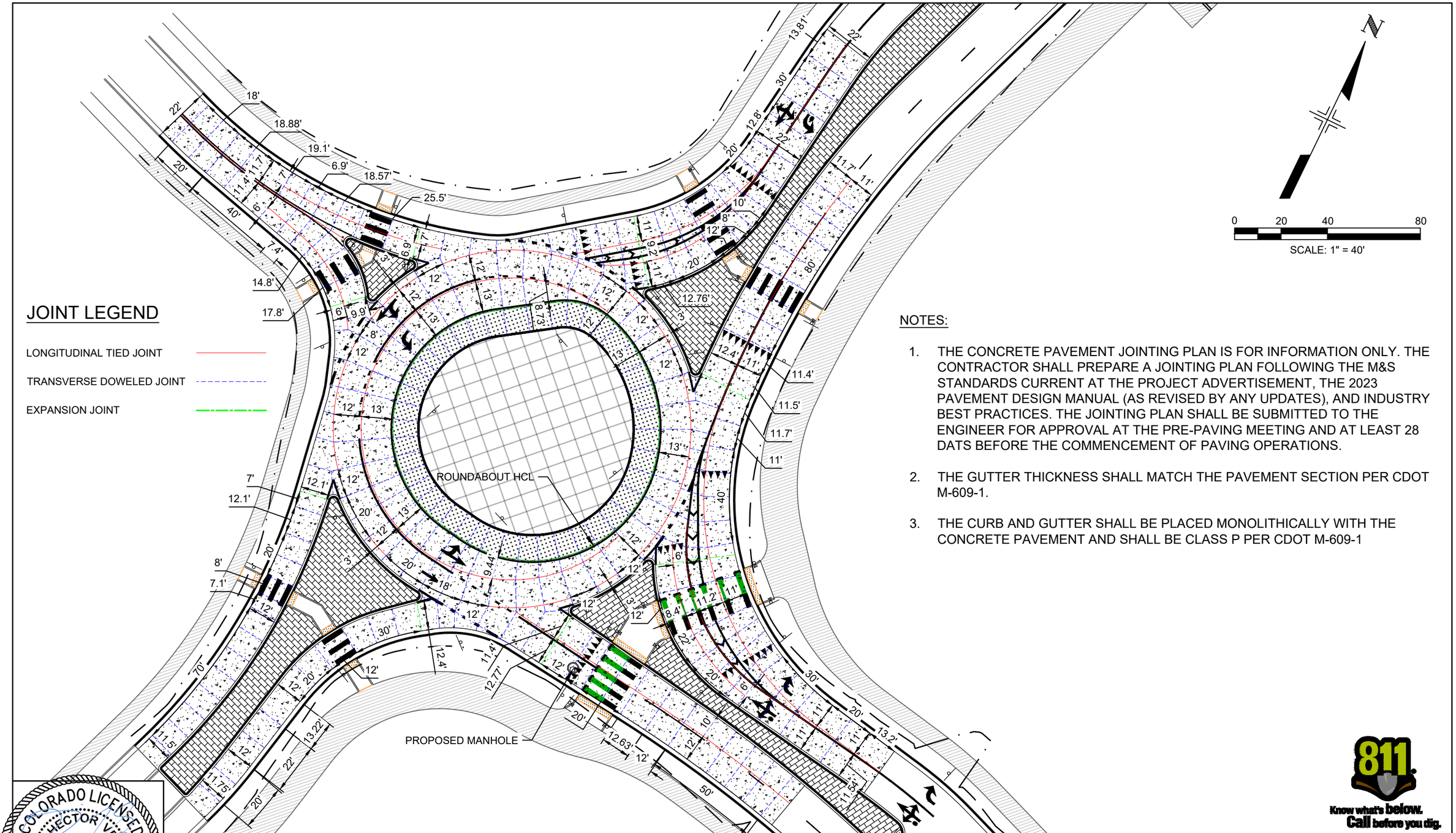
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
VARIABLE DEPTH OVERLAY DETAIL

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: ROADWAY
Subset Sheets: 3 of 3

Project No./Code
AQC M810-017
23574
Sheet Number 159

$PLOT_INFO$



JOINT LEGEND

LONGITUDINAL TIED JOINT

TRANSVERSE DOWELED JOINT

EXPANSION JOINT

NOTES:

1. THE CONCRETE PAVEMENT JOINTING PLAN IS FOR INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE A JOINTING PLAN FOLLOWING THE M&S STANDARDS CURRENT AT THE PROJECT ADVERTISEMENT, THE 2023 PAVEMENT DESIGN MANUAL (AS REVISED BY ANY UPDATES), AND INDUSTRY BEST PRACTICES. THE JOINTING PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AT THE PRE-PAVING MEETING AND AT LEAST 28 DATS BEFORE THE COMMENCEMENT OF PAVING OPERATIONS.
2. THE GUTTER THICKNESS SHALL MATCH THE PAVEMENT SECTION PER CDOT M-609-1.
3. THE CURB AND GUTTER SHALL BE PLACED MONOLITHICALLY WITH THE CONCRETE PAVEMENT AND SHALL BE CLASS P PER CDOT M-609-1

COLORADO LICENSED
ORION HECTOR VELASCO
58434
10/06/2025
PROFESSIONAL ENGINEER

Print Date: 2023-09-22	Sheet Revisions		
File Name: 23574_RDW_DET_JNT.DWG	Date:	Comments	Init.
Horiz. Scale: 1"=40 Vert. Scale: 1" = 40'			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	ROUNDABOUT CONCRETE JOINTING DETAILS		Project No./Code
No Revisions:			AQC M810-23574
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O. VELASCO		
	Sheet Subset: JOINTING	Subset Sheets: 01 of 01	Sheet Number 160

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$PLOT_INFO$

GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS APPLICABLE TO THE PROJECT (2023 VERSION).

EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213.

THE INFORMATION ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO ANY EXCAVATION OR FOUNDATION CONSTRUCTION TO CONFIRM THE STATUS OF UTILITY RELOCATIONS. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 1-800-922-1987 AT LEAST 2 DAYS (NOT INCLUDING THE DAY OF NOTIFICATION) PRIOR TO ANY EXCAVATION OR OTHER EARTHWORK.

ALL CONCRETE SHALL BE CLASS D (BOX CULVERT).

ALL REINFORCING STEEL SHALL BE UNCOATED UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL PROVIDE CONCRETE FOR SULFATE EXPOSURE LEVEL CLASS 2 AS INDICATED IN THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2022, SECTION 601-STRUCTURAL CONCRETE.

ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED BEFORE FRESH CONCRETE IS PLACED.

CONSTRUCTION JOINTS NOT SHOWN ON THE PLANS MAY BE CONSTRUCTED ONLY IF APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL MAINTAIN THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION.

REINFORCING STEEL SHALL BE GRADE 60.

ABBREVIATIONS:

CLR.	= CLEAR DISTANCE	ROW	= RIGHT-OF-WAY
ELEV.	= ELEVATION	STA.	= STATION
HCL	= HORIZONTAL CONTROL LINE	TYP.	= TYPICAL

ALL TRANSVERSE REINFORCING SHALL BE NORMAL TO THE CENTERLINE ON THE BOX.

ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED $\frac{3}{4}$ INCHES UNLESS NOTED OTHERWISE.

ALL LONGITUDINAL AND TRANSVERSE DIMENSIONS ARE MEASURED HORIZONTALLY AND INCLUDE NO CORRECTION FOR GRADE.

EARTHWORK

ALL WORK SHALL CONFORM TO RECOMMENDATIONS, AS APPLICABLE, DISCUSSED IN THE GEOTECHNICAL REPORT FOR THIS PROJECT.

FOR GEOTECHNICAL INFORMATION, SEE GEOTECHNICAL AND PAVEMENT DESIGN REPORT - SANTA FE AND MINERAL INTERSECTION IMPROVEMENT REPORT BY SHANNON & WILSON, DATED SEPTEMBER 2023.

EXCEPT AS SHOWN IN THE PLANS, STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH CDOT STANDARD PLAN M-206-1. PER GEOTECHNICAL RECOMMENDATIONS, A MINIMUM OF 5 FEET OF OVEREXCAVATION AND BACKFILL SHALL BE REQUIRED BENEATH BOX CULVERT. IF ADDITIONAL EXCAVATION IS REQUIRED, ADDITIONAL DEPTH SHALL BE DETERMINED BY THE GEOTECH DURING CONSTRUCTION.

BACKFILL OF THE BOX CULVERT AND WINGWALLS SHALL CONSIST OF A GRANULAR MATERIAL MEETING COLORADO DEPARTMENT OF TRANSPORTATION REQUIREMENTS FOR CLASS 1 STRUCTURAL BACKFILL AND SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY (AASHTO T-180).

DESIGN DATA

AASHTO LRFD 9TH EDITION WITH CURRENT INTERIMS
AND 2023 VERSION OF CDOT BRIDGE DESIGN MANUAL

DESIGN METHODS: LOAD AND RESISTANCE FACTOR DESIGN

REINFORCED CONCRETE:
CLASS D CONCRETE: f'c = 4,500 PSI
REINFORCING STEEL: fy = 60,000 PSI

STRUCTURAL STEEL:
AASHTO M270 (ASTM A709) GRADE 50 fy = 50,000 PSI

LIVE LOAD = HL-93 (DESIGN TRUCK OR TANDEM, DESIGN LANE LOAD), AND CDOT PERMIT VEHICLE

DESIGN FILL HEIGHT = VARIES, 5.0 FT. MAX., 0.5 FT MIN.
(PART OF THE BOX HAS LESS THAN 2 FT OF COVER AND THE REMAINDER HAS BETWEEN 2 FT AND 5 FT OF COVER, FABRICATOR TO DESIGN BOX FOR MOST CONSERVATIVE SITUATION).

DEAD LOAD CASE 1: VERTICAL EARTH LOAD = 120 LBS./CU./FT.
HORIZONTAL EARTH LOAD = 30 LBS./CU./FT.

DEAD LOAD CASE 2: VERTICAL EARTH LOAD = 120 LBS./CU./FT.
HORIZONTAL EARTH LOAD = 60 LBS./CU./FT.

DEAD LOAD CASES ARE PER CDOT M-STANDARDS

FUTURE ASPHALT OVERLAY (BASED ON 3 IN. THICKNESS) = 36.67 LBS./SQ. FT.

LIVE LOAD SURCHARGE ON EXTERIOR WALLS = 2 FT. OF EARTH

BEARING RESISTANCE: 5.4 KSF
STRENGTH LIMIT STATE RESISTANCE FACTOR: 0.45

A WATERPROOFING MEMBRANE OR 30 MIL THICK GEOMEMBRANE SHALL BE PROVIDED FOR THE TOP OF THE TOP SLAB AND 18 INCHES DOWN ALONG THE TOPS OF THE EXTERIOR WALLS.

INDEX OF SHEETS

01 GENERAL NOTES
02 GENERAL LAYOUT
03 ENGINEERING GEOLOGY

SUMMARY OF APPROXIMATE QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
206-00000	STRUCTURE EXCAVATION	CY	2233
206-00100	STRUCTURE BACKFILL (CLASS 1)	CY	1129
515-00120	WATERPROOFING (MEMBRANE)	SY	522
601-03030	CONCRETE CLASS D (BOX CULVERT)	CY	8
602-00020	REINFORCING STEEL (EPOXY COATED)	LB	1565
603-7100X	10x6 FOOT CONCRETE BOX CULVERT (PRECAST) (INSTALL ONLY)	LF	316

COLORADO LICENSED
JEFFREY A. ROBERTS
46035
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_CBC_GENNOTES.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

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1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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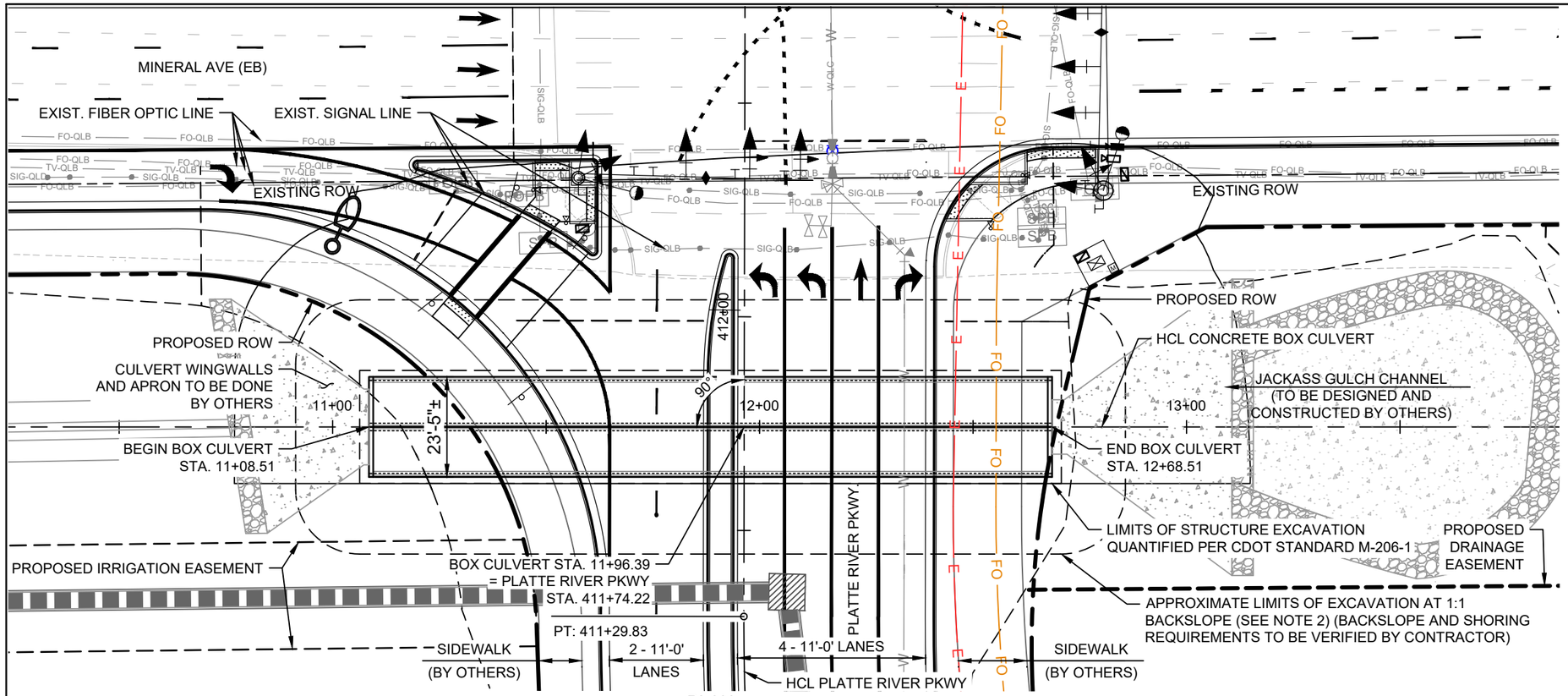
As Constructed
No Revisions:
Revised:
Void:

JACKASS GULCH CHANNEL
BOX CULVERT
GENERAL NOTES

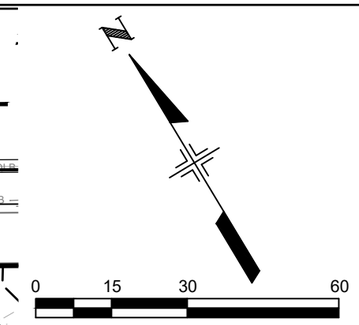
Designer: J. ROBERTS
Detailer: E. SCHAWO
Structure Numbers
Sheet Subset: STRUCTURES
Subset Sheets: 01 of 03

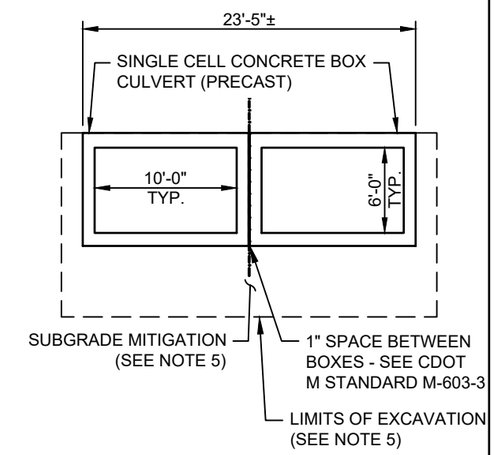
Project No./Code
AQC M810-017
23574
Sheet Number 161

$PLOT_INFO$

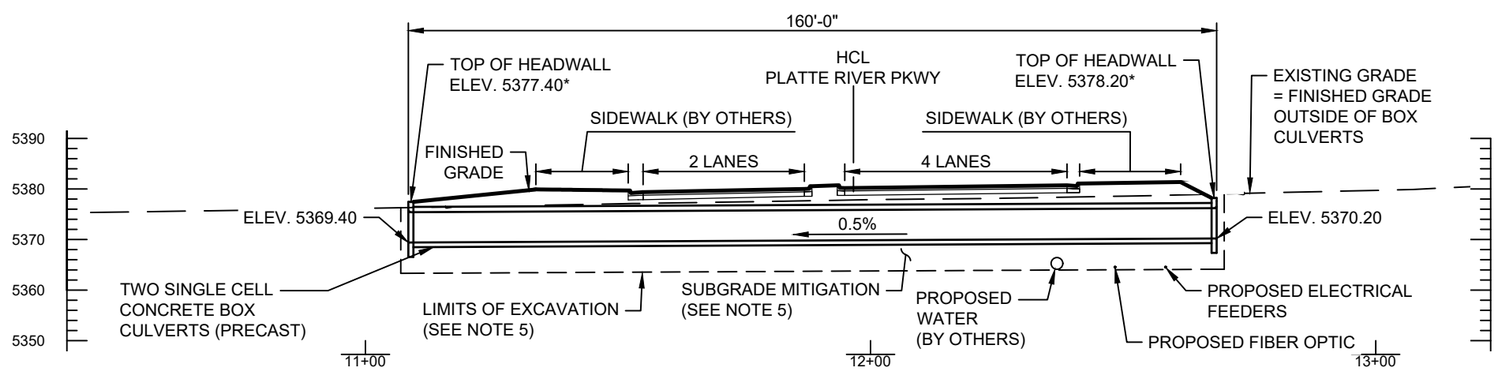


PLAN
SCALE: 1" = 30'-0"





TYPICAL SECTION
NTS



ELEVATION
SCALE:1" = 30'-0"

* ELEVATIONS MAY VARY BASED ON TOP AND BOTTOM SLAB THICKNESSES, TO BE DETERMINED BY PRECASTER.

NOTES:

1. CONCRETE BOX CULVERT SHALL BE IN ACCORDANCE WITH STANDARD PLAN (M-603-3). BOX CULVERTS SHALL BE FINISHED BY THE CONTRACTOR INCLUDING END TREATMENT TOEWALL, HEADWALL, AND NOSE ANGLE.
2. STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH STANDARD PLAN M-206-1. BACKFILL SHALL BE CDOT CLASS 1 STRUCTURE BACKFILL.
3. A WATERPROOFING MEMBRANE SHALL BE PROVIDED FOR THE TOP OF THE TOP SLAB AND 18 INCHES DOWN ALONG THE TOPS OF THE EXTERIOR WALLS.
4. PRECAST CULVERT END SECTIONS SHALL INCLUDE INSERTS PLACED WHERE DOWELS ARE TO BE LOCATED, PER RIVERPARK WINGWALL DETAILS SHEET S2.
5. OPTION 1: OVEREXCAVATE ADDITIONAL 5 FEET BELOW BOX CULVERT AND BACKFILL WITH CDOT CLASS 1 STRUCTURE BACKFILL.

   OPTION 2: MOISTURE CONDITION THE SUBGRADE SOILS TO THE OPTIMUM MOISTURE CONTENT, THEN COMPACT TO A POST-SWELLED STATE.

HYDRAULIC INFORMATION:

PER RIVERPARK SUBDIVISION PHASE III DRAINAGE REPORT
BY HKS, March 2024

Q10 = 184 CFS Q100 = 672 CFS
Q50 = 503 CFS HW = 5376.20'

811 Know what's below. Call before you dig.

COLORADO LICENSE
JEFFREY A. ROBERTS
46035
10/08/2025
PROFESSIONAL ENGINEER

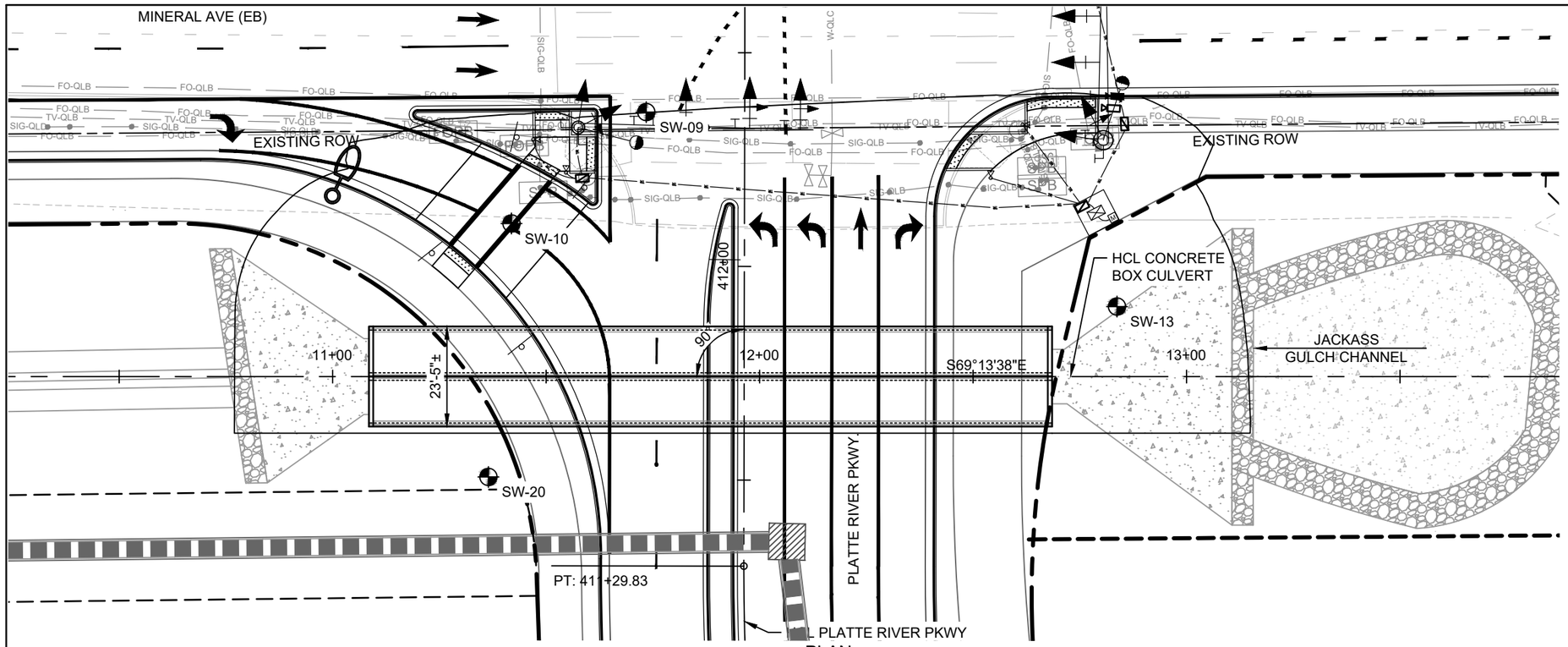
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_BOX CULVERT_GENLYT.DWG	Date:	Comments	Init.
Horiz. Scale: AS NOTED Vert. Scale: N/A			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

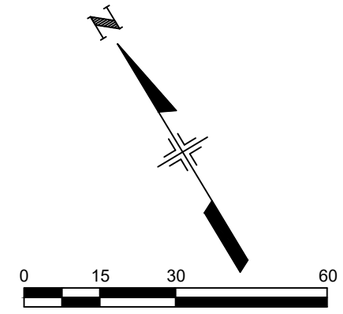
Littleton Colorado

As Constructed	JACKASS GULCH CHANNEL BOX CULVERT GENERAL LAYOUT		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: J. ROBERTS	Structure Numbers	23574
	Detailer: E. SCHAWO		
Void:	Sheet Subset: STRUCTURES	Subset Sheets: 02 of 03	Sheet Number 162

$PLOT_INFO$



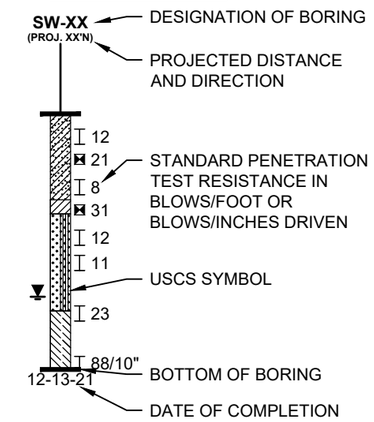
PLAN
SCALE: 1" = 30'-0"

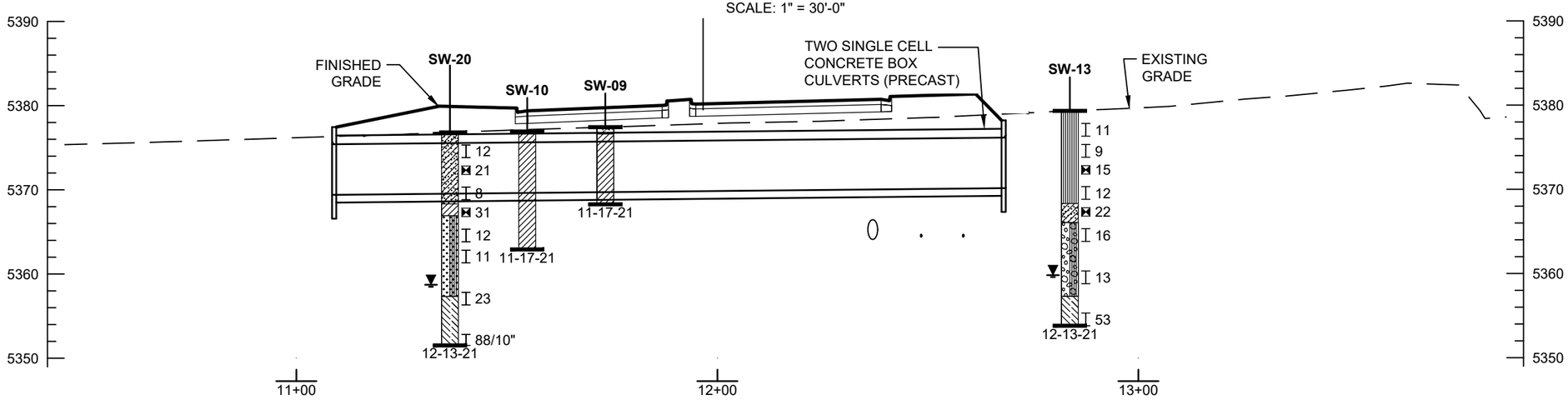


LEGEND

- CONCRETE
- CLAYEY SAND
- LEAN CLAY
- SAND WITH SILT AND GRAVEL
- CLAYSTONE
- SILT WITH SAND
- GRAVEL WITH SILT AND SAND

BORING LEGEND





ELEVATION
SCALE: 1" = 30'-0" H
1" = 15'-0" V

COLORADO LICENSED PROFESSIONAL ENGINEER
JEFFREY A. ROBERTS
46035
10/08/2025

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File Name: 23574_BOX CULVERT_ENGGEO.DWG	Date:	Comments	Init.
Horiz. Scale: ######## Vert. Scale: N/A			
Unit Information			

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1670 BROADWAY, SUITE 3400
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Littleton Colorado

As Constructed	JACKASS GULCH CHANNEL BOX CULVERT ENGINEERING GEOLOGY		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: J. ROBERTS	Structure Numbers	23574
Void:	Detailer: E. SCHAWO		
	Sheet Subset: STRUCTURES	Subset Sheets: 03 of 03	Sheet Number 163

$PLOT_INFO$

CITY OF LITTLETON STORMWATER MANAGEMENT NOTES

1. THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE IS RESPONSIBLE FOR OBTAINING APPLICABLE PERMITS AND THE INSTALLATION AND MAINTENANCE OF ALL BEST MANAGEMENT PRACTICES (BMPS) FOR EROSION AND SEDIMENT CONTROL, EVEN IF SPECIFIC TASKS MAY BE DESIGNATED TO OTHERS.

2. FOR ALL SITES DISTURBING ONE (1) OR MORE ACRES, THE STATE OF COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) REQUIRES A "STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" PERMIT. A COPY OF THAT ISSUED PERMIT SHALL BE SUBMITTED TO THE ENGINEERING DIVISION PRIOR TO ISSUANCE OF A LOCAL CITY PERMIT.

3. ALL BMPS SHOWN ON THE APPROVED STORMWATER MANAGEMENT PLAN (SWMP) PLAN SHALL BE INSTALLED PROPERLY AND INSPECTED BY A CITY REPRESENTATIVE PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY ON THE SITE THAT DISTURBS THE GROUND. BMPS SHALL BE INSPECTED, CLEANED, AND MAINTAINED BY THE PROPERTY OWNER OR DESIGNEE AS NEEDED DURING CONSTRUCTION.

4. ISSUANCE OF A GRADING OR BUILDING PERMIT WITH AN APPROVED SWMP PROVIDES AUTHORIZATION FOR THE CITY TO ENTER THE PREMISES FOR PURPOSES OF INSPECTIONS AND COMPLIANCE WITH THE APPROVED PLANS, PROVISIONS OF MUNICIPAL CODE TITLE 7 CHAPTER 7, AND THE CITY'S STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA.

5. THE CITY MAY REQUIRE THAT THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE PROVIDE ADDITIONAL EROSION OR SEDIMENT CONTROL MEASURES, SHOULD WATER OR WIND EROSION PROBLEMS OCCUR OR SHOULD THE IMPLEMENTED STORMWATER MANAGEMENT PLAN (SWMP) AND BEST MANAGEMENT PRACTICES (BMPS) NOT FUNCTION ADEQUATELY OR AS INTENDED.

6. SWMPS SHALL ACCOMMODATE CONSTRUCTION PHASING, INCLUDING CLEARING AND GRUBBING, UTILITIES, ROADS, VERTICAL CONSTRUCTION, FINAL GRADING, AND STABILIZATION, AND SHALL HAVE REDUNDANT DOWNSLOPE BMPS IN PLACE TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL DURING ALL PHASES.

7. THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE IS RESPONSIBLE TO CLEAN ALL PUBLIC STREETS AND SIDEWALKS WHERE SEDIMENT OR MUD IS TRACKED ONTO THE PAVED SURFACE. THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE SHALL CLEAN THE PUBLIC WAY IMMEDIATELY OR WITHOUT DELAY UPON BEING NOTIFIED BY THE CITY. IT MAY ALSO BE NECESSARY TO PERIODICALLY CLEAN THE PUBLIC STORM SEWERS AND DOWN GRADIENT PROPERTIES DURING THE DEVELOPMENT OF THE SITE.

8. THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE SHALL BE RESPONSIBLE FOR IMPLEMENTATION AND FIELD UPDATES/CHANGES TO THE STORM WATER MANAGEMENT PLAN (SWMP) THAT INCLUDES THE PLAN VIEW LAYOUT AND INSTALLATION DETAILS OF APPROPRIATE CONTROL MEASURES, AND MAINTENANCE PROCEDURES.

9. IF THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE FAILS TO IMPLEMENT ANY OF THE PROVISIONS OF THE SWMP AND IGNORES THE CITY'S VERBAL OR WRITTEN REQUEST FOR IMMEDIATE REMEDY, THE CITY MAY MAKE ARRANGEMENTS OR HIRE A PRIVATE PROPERTY OWNER OR DESIGNEE TO PERFORM MAINTENANCE, INSTALLATION OR REPLACEMENT OF BMPS, OR CLEAN THE PUBLIC WAYS. CHARGES FOR SERVICES WILL BE SENT TO THE OPERATOR, PROPERTY OWNER OR DESIGNEE FOR PAYMENT. ENFORCEMENT PROCEDURES ARE OUTLINED IN LITTLETON MUNICIPAL CODE 7-7-12.

10. THE CITY MAY ISSUE A "STOP WORK" ORDER TO STOP ANY PERMITTED SITE CONSTRUCTION WORK FROM PROCEEDING UNTIL THE BMPS PROVIDED ON THE SWMP AND APPROVED PLANS ARE INSTALLED, IMPLEMENTED AS INTENDED, MAINTAINED, OR UNTIL CORRECTIVE MEASURES ARE TAKEN AND ANY NECESSARY CLEANUP IS PERFORMED. THE OWNER BEARS ALL COSTS ASSOCIATED WITH ANY DELAYS IN THE PROJECT.

11. THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE SHALL NOT UTILIZE THE PUBLIC STREET AS A STAGING AREA FOR THE TEMPORARY STORAGE OF BUILDING MATERIALS, EXCAVATED MATERIALS, OR CONSTRUCTION EQUIPMENT, EXCEPT AS APPROVED BY THE CITY. USE OF OFFSITE PRIVATE PROPERTY FOR STAGING MAY BE SUBJECT TO REVIEW BY THE COMMUNITY DEVELOPMENT DEPARTMENT.

12. A CONSTRUCTION DEWATERING DISCHARGE PERMIT SHALL BE OBTAINED FROM CDPHE PRIOR TO PUMPING OF ANY SURFACE OR SUB-SURFACE WATER INTO ANY CITY PUBLIC WAY OR STORM DRAINAGE SYSTEM. ADEQUATE SEDIMENT CONTROL BMPS SHALL BE REQUIRED AT THE PUMP'S INLET AND OUTLET.

13. ALL SOIL AREAS DISTURBED SHALL BE GRADED, SEEDED, AND MULCHED OR OTHERWISE VEGETATED OR COVERED, TO STABILIZE THE GROUND SURFACE WITHIN 14 DAYS OF COMPLETION OF GRADING OPERATIONS. THE CITY SHALL APPROVE THE SEED MIX AND RATE OF APPLICATION PRIOR TO SEEDING THE AREA. IF DISTURBED SOIL AREAS ARE TO BE LEFT DORMANT FOR OVER 14 DAYS, A TEMPORARY STABILIZING COVER IS REQUIRED, THE METHOD TO BE APPROVED BY THE CITY. WEEDS ARE NOT AN ACCEPTABLE TEMPORARY OR PERMANENT STABILIZATION COVER.

14. BMPS SHALL REMAIN IN-PLACE AND OPERATIONAL UNTIL ALL SITE PAVING, PERMANENT LANDSCAPING, OR ADEQUATE VEGETATIVE COVER ESTABLISHMENT IS COMPLETED. ADEQUATE VEGETATION COVER IS DEFINED AS A UNIFORM VEGETATIVE COVER WITH A PLANT DENSITY (STEM OR STALKS) OF AT LEAST 70% OF THE PRE-DISTURBANCE CONDITION. TEMPORARY IRRIGATION MAY BE NECESSARY TO ESTABLISH PLANT GROWTH. ADEQUATE VEGETATIVE COVER WILL BE DETERMINED BY CITY STAFF WITH AN ON-SITE INSPECTION PRIOR TO ANY PERMIT RELEASE, INCLUDING TERMINATION OF A CDPHE STORMWATER PERMIT.

15. AFTER THE SITE HAS BEEN STABILIZED AS DETERMINED BY CITY STAFF, THE OPERATOR, PROPERTY OWNER, OR THEIR DESIGNEE SHALL REMOVE ALL BMPS AND CLEAN ANY STORM SEWERS WHERE CONSTRUCTION SEDIMENT MAY HAVE DEPOSITED.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: NTS Vert. Scale: NTS			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SWMP NOTES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: ACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 164
	Sheet Subset: SWMP	Subset Sheets: 01 of 08	

$PLOT_INFO$

SWMP TEMPLATE (PLAN SHEETS) FOR PROJECTS WITH 1 ACRE OR MORE OF DISTURBANCE 2/25/2022 UPDATE

1. SITE DESCRIPTION

The Contractor shall comply with all CDOT contractual requirements, and all requirements associated with the CDPS-SCP on this project. The SWMP Administrator for Construction shall update the SWMP to reflect current project site conditions.

A. PROJECT SITE LOCATION:
The project is located in Section 32, of Township 5 South, and Range 68 West, at the intersection of Santa Fe Drive (CDOT Highway US-85) and Mineral Avenue within the City of Littleton, Colorado. The quadrant roadway is within the Evergreen-Mineral & Santa Fe, LLC development.

Location or address of construction office: TBD

B. PROJECT SITE DESCRIPTION:
This project consists of roadway construction of a new quadrant road with connections at Santa Fe Drive and Mineral Ave. This allows for the removal of the left turning movements from the Santa Fe Drive and Mineral Ave intersection. This project also includes widening along Santa Fe Drive and new lane assignments for Santa Fe Drive and Mineral Ave. The quadrant road is Platter River Pkwy and Nichols Ave with a new roundabout intersection. A new signalized intersection at Santa Fe Drive and Nichols Ave is included. A box culvert is included under Platte River Pkwy.

C. PROPOSED SCHEDULE FOR SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES:
Install initial BMP, Removals, grading, utility relocation and installation, storm sewer installation, finished grading, curb and gutter installation, sidewalk installation, paving signal installation, signing installation, striping, and revegetation

D. ACRES OF DISTURBANCE:
1. Total area of construction site (LOC (PERMITTED AREA)): 21.82 acres
2. Total area of proposed disturbance (LDA): 20.40 acres
3. Total area of seeding: 3.0 acres
4. Total area of pre-project impervious surface: 11.05 acres
5. Total area of final impervious surface: 15.95 acres

E. EXISTING SOIL DATA:
Soil information was obtained from the Natural Resources Conservation Service (NRCS) Web Soil Survey. The project area consists mostly of Type D soils in the creek terrace escarpments, and wet alluvial. Soils on the east of the project consist of type C soils such as Fort Collins loam, and Nunn loams.

F. EXISTING VEGETATION, INCLUDING PERCENT OF VEGETATIVE COVER:
During design, the SWMP Administrator for Design in consultation with the Engineer will determine if the SWMP Administrator for Design or the SWMP Administrator for Construction will conduct the Vegetation Transects. If the site is disturbed, an Adequate Reference Site(s) may be utilized, refer to the permit.

Pre-Construction Date of survey:_____ Percent Existing Vegetative Cover:_____
Description of existing vegetation
Method for determining percent vegetative cover:
Map or table showing transect locations, photos documenting pre-Construction vegetative cover, and methodology used to determine existing vegetative cover in SWMP tab 17:

Post-Construction Date of survey: _____ Percent Vegetative Cover: _____
Description of vegetation:
The method used to determine pre-construction percent cover shall be used to determine post construction percent cover.
Map or table showing transect locations, photos documenting post-Construction vegetative cover, and methodology used to determine existing vegetative cover in SWMP tab 17:

G. POTENTIAL POLLUTANTS SOURCES:
Refer to Potential Pollutant Sources in SWMP Section 4A. The SWMP Administrator for Construction shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.

H. DRAINAGE PATTERNS AND RECEIVING WATER(S):
1. Description of drainage patterns from the Site:
Generally runoff flows from East to West. The proposed Jackass Gulch (JAG) channel collects runoff from EB Mineral Ave. Drainage from WB Mineral Ave is collected in the existing 60" trunkline before out letting to the Jackass Gulch and ultimately to the South Platte River. The Jackass Gulch 25 year storm events and greater, flows through the site. Drainage from the quadrant roadway is collected and runs in storm sewer to a proposed detention basin on the west side of the site before outletting to the South Platte River
2. Names of immediate and ultimate receiving water(s) on site:
Jackass Gulch
Englewood City Ditch (irrigation channel)
South Platte River (Ultimate Receiving Water)
3. Description of all stream crossings located within the Construction Site Boundary:

Location (Station)	Stream Name	Description Of Any Disturbed Upland Areas
411+75 (Platte River Pkwy)	Jackass Gulch	Eastbound Mineral Avenue
312+50 (Mineral Ave)	Englewood City Ditch	N/A

I. ALLOWABLE NON-STORMWATER DISCHARGES:

Discharge Description	Site Map #	Method Statement (Location)
Uncontaminated Springs	N/A	
Concrete Washout Water (in-ground washout structure)#	N/A	
Landscape Irrigation Return Flows	N/A	
Discharges from Diversions of State Waters	N/A	
Emergency Fire Fighting	N/A	

#Concrete washout water associated with the washing of concrete tools and concrete mixer chutes can be discharged to the ground if site is managed accordingly to prevent the water from leaving the site as surface runoff or reaching receiving waters.

J. DIVERSION CRITERIA:
1. Is a diversion planned for the Site? Yes _____ No __X_
2. If yes, complete information below:
   a. What is the 2-year peak flow for the waterway being diverted (cubic feet per second)?
   b. What are the monthly averages if available? (provide averages for Jan- Dec if available)
   c. What is the upstream contributing drainage area and imperviousness?
   d. A method statement must be prepared by the Contractor and approved by CDOT for each diversion. Diversion structures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion and meet the conditions in the SCP.
   e. If the conditions in the SCP cannot be met and an alternative is required, CDOT must approve the alternative and then it must be submitted and approved by CDPHE's Water Quality Control Division prior to implementation.

2. SITE MAP COMPONENTS:

Pre-construction

A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES:
See SWMP Site Maps

B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS ON-SITE, RUN-ON AND RUNOFF DIRECTION:
See SWMP Site Maps

C. ALL AREAS OF GROUND SURFACE DISTURBANCE:
See SWMP Site Maps

D. AREAS OF CUT AND FILL:
See SWMP Site Maps

Template Revised: 2.25.2022

COLORADO LICENSED
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52470
10/08/2025
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Littleton Colorado

As Constructed	SWMP NOTES		Project No./Code
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Void:	Detailer: MCHAVEZ		Sheet Number 165
	Sheet Subset: SWMP	Subset Sheets: 02 of 08	

$PLOT_INFO$

E. AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) and LOCATIONS OF ALL WASTE ACCUMULATION and BATCH PLANTS INCLUDING MASONRY MIXING STATIONS:
See SWMP Site Maps

F. LOCATION OF ALL STRUCTURAL CONTROL MEASURES IDENTIFIED IN THE SWMP:
See SWMP Site Maps

G. LOCATION OF NON-STRUCTURAL CONTROL MEASURES AS APPLICABLE IN THE SWMP:
See SWMP Site Maps

H. SPRINGS, STREAMS, WETLANDS, DIVERSIONS, AND OTHER STATE WATERS, INCLUDING AREAS THAT REQUIRE PRE-EXISTING VEGETATION BE MAINTAINED WITHIN 50 FEET OF A RECEIVING WATER:
See SWMP Site Maps

I. LOCATIONS OF ALL STREAM CROSSING LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY:
See SWMP Site Maps

J. PROTECTION OF TREES, SHRUBS, SENSITIVE HABITAT, AND CULTURAL RESOURCES:
See SWMP Site Maps

K. LOCATIONS WHERE ALTERNATIVE TEMPORARY STABILIZATION SCHEDULES APPLY:
See SWMP Site Maps

3. QUALIFIED STORMWATER MANAGERS:

A. SWMP ADMINISTRATOR FOR DESIGN:
CDOT Certified Individual responsible for developing SWMP Plan Sheets and SWMP Site Maps during the design phase.

Name/Title	Contact Information	Certification #
Sam Acosta, P.E., CFM	719-272-8800, Samuel.acosta@hdrinc.com	E12D9909

B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Section 208) The Contractor shall designate a SWMP Administrator for Construction upon accepting co-permittee of the permit. The SWMP Administrator for Construction shall become the operator for the SWMP and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03, the SWMP shall remain the property of CDOT. The SWMP Administrator for Construction shall be responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP Administrator for Construction shall address all aspects of the project's SWMP. (Update the information below for each new SWMP Administrator for Construction) (A copy of TECS Certification must be included in the SWMP.)

Name/Title	Contact Information (phone & email)	Certification #	Start Date	Engineer Approval

C. EROSION CONTROL INSPECTOR: (As defined in Section 208) The Contractor may designate an Erosion Control Inspector. The Erosion Control Inspector shall complete duties in accordance with subsection 208.03 (c) (Copy of TECS Certification must also be included in the SWMP.)

Name/Title	Contact Information (phone & email)	TECS Certification #	Start Date	Engineer Approval

D. PERMANENT STABILIZATION SUBJECT MATTER EXPERT: This qualified individual will be either a Regional Environmental Staff member, or an Independent Contractor Controller (Independent Assurance Program). This expert is a project team leader responsible for ensuring project adherence to requirements of the 207 and 212 Project Special Provisions as follows and will be available for questions regarding permanent stabilization requirements.

1. Review the Topsoil Management Plan and the Permanent Stabilization Site Maps.
2. Attend the Environmental Pre-Construction Conference.
3. Coordinate the Site Pre-Vegetation Conference.
4. Review and recommend approval of products.
5. Review and recommend approval of the Quantities Verification Prerequisite.
6. Attend the Partial Landscape Completion Walkthrough.
7. Attend the Final Landscape Completion Walkthrough.

Name/Title	Contact Information
Susie Hagie, Landscape Architect	Susie.hagie@state.co.us (303)-757-9932

4. STORMWATER MANAGEMENT CONTROLS FOR FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES:
Evaluate, identify, locate and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPS-SCP and place in the SWMP. All control measures related to potential pollutants shall be shown on the SWMP Site Map by the Contractor's SWMP Administrator for Construction.

B. OFFSITE DRAINAGE (RUN ON WATER):
Describe and record control measures on the SWMP Site Map that have been implemented to address off site run-on water in accordance with subsection 208.03.

C. VEHICLE TRACKING CONTROL:
Control measures shall be implemented in accordance with subsection 208.04.

D. PERIMETER CONTROL:
1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. Perimeter control shall be in accordance with subsection 208.04
2. Perimeter control may consist of berms, silt fence, erosion logs, existing landforms, or other control measures as approved.

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR FOR CONSTRUCTION: Considered a "living document", the SWMP is continuously reviewed and modified throughout the construction phases. During construction, SWMP Administrator for Construction shall add, update, or amend the items A-G below as needed in accordance with subsection 208.03.

During construction, indicate how items that were not addressed during design are being handled in construction. If items are covered in other sections of the SWMP, indicate below what section the discussion takes place.

A. MATERIALS HANDLING AND SPILL PREVENTION AND RESPONSE PLAN: Prior to construction commencing the Contractor shall submit a Spill Response Plan. Materials handling and Spill Response Plan shall be in accordance with subsection 208.06.

B. OTHER CDPS PERMITS: List applicable CDPS permits associated with the permitted site and activities.

C. STOCKPILE MANAGEMENT: Shall be done in accordance with subsections 107.25 and 208.07.

D. CONCRETE WASHOUT: Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.

E. SAW CUTTING: Shall be done in accordance with subsections 107.25, 208.04, 208.05

F. STREET SWEEPING: Shall be done in accordance with subsection 208.04.

Template Revised: 2.25.2022

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

6. INSPECTIONS

A. Water Quality Inspections shall be in accordance with subsection 208.03(c).

B. Permanent Stabilization Inspections shall be in accordance with subsections 208.04(e)4 and 208.10.

7. CONTROL MEASURE MAINTENANCE

Maintenance shall be in accordance with subsection 208.04(f).

8. RECORD KEEPING

Records shall be kept in accordance with subsection 208.03(d).

9. INTERIM, PERMANENT STABILIZATION and LONG-TERM STORMWATER MANAGEMENT

The Contractor shall comply with all interim stabilization and permanent stabilization requirements in accordance with subsection 208.04(e).

A. SEEDING PLAN:
The following seed mix(es) and rates are for drill seeding method as shown on the Permanent Stabilization Site Maps shall be used:

Permanent Seeding

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
Grasses		
Thickspike wheatgrass	Elymus lanceolatus ssp. dasystachyum "Critana"	4
Sideoats grama	Bouteloua curtipendula "Vaughn"	2
Green Needlegrass	Nasella viridula	2
Sand bluestem	Andropogon hallii "Elida"	4
Blue grama	Bouteloua gracilis "Hachita"	1
Little bluestem	Schizachyrium scoparium "Pastura"	1.5
Prairie sandreed	Calamovilfa longifolia "Goshen"	3
Switchgrass	Panicum virgatum "Nebr. 28"	1.5
TOTAL		19
Forbes		
Prairie coneflower	Ratibida columnaris	0.3
Purple prairie clover	Petalostemum purpurea	0.5
Dotted gayfeather	Liatrus punctata	0.5
Gaillardia	Gaillardia aristata	1
Blue flax	Linum lewisii	0.5
Narrowleaf penstemon	Penstemon angustifolius	2
TOTAL		4.8

*Seeding shall be increased by 50% if applied by Broadcasting

B. SEEDING APPLICATION METHOD:
The following seeding methods shall be used for all areas shown on the Permanent Stabilization Site Maps. Soil compaction shall be minimized for areas where permanent stabilization will be achieved through vegetative cover. Seeding may be installed via Broadcast Spreader where Drilling may be difficult.

Pay Item	Seeding Method (subsection 212.05)	Acre
212-00706	Seeding (Native) Drill	3.0
FOR INFO ONLY	Seeding (Native) Broadcast	3.0 (F.I.O.)
	Total	3.0

C. SOIL STABILIZATION METHODS:
Minimum soil stabilization methods (attached mulch) for all disturbances to receive seeding.
1. Apply a minimum of 2 tons/ac certified weed free hay or 2 ½ tons/ac of certified weed free straw and mechanically crimp into the soil in combination with natural mulch tackifier in accordance with Section 213. Prior to winter shutdown or the summer seeding window closure: Uncompleted slopes shall be mulched with 2 tons of mulching (weed free) per acre, mechanically crimped into the topsoil in combination with an organic mulch tackifier in accordance with Sections 208 and 213.
2. Install Soil Retention Blankets in accordance with Standard Plan M-216-1 and Section 216.

D. SPECIAL REQUIREMENTS:
1. Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e) at no additional cost to the Department.
2. Complete permanent stabilization mulching within 24 hours of hydraulic application of native seed.
3. The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer for approval showing how implementation of SWMP Permanent Stabilization Plans will minimize damage to seeded areas.

E. SOIL AMENDMENT REQUIREMENTS: Minimum amendment material requirements for all disturbances to receive seeding.

3.0 Total Acres of Seeding (Native) Drill

	Pay Item	Description	Amount/ Acre	Unit	Total for this Method
212-00706 Seeding (Native) Drill	212-00701	Compost (Mechanically Applied)	65	CY	195
	212-00703	Humate	200	LB	600
	212-00704	Mycorrhizae [seeding (native) drill]	8	LB	24
	212-00705	Elemental Sulfur	60	LB	180

***Organic fertilizer shall be a Low N fertilizer, in accordance with Subsection 212.02(b)**
****Humate shall be in accordance with Subsection 212.02(e)**

F. Permanent Stabilization Application Under Structures:
Under structures shade patterns should be considered and the use of Median Cover Material (Stone) or other stabilized options with an approved Project Special Provision should be used. See SWMP Site Map for locations.

G. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION:
Prior to stormwater construction work partial acceptance.
1. All seeded areas shall be reviewed by the SWMP Administrator for Construction and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.
2. The Contractor shall maintain seeding/mulch/tackifier/blanket/TRM, mow to control weeds or apply herbicide to control weeds in the seeded areas, at no additional cost to the project.

H. LOCATION AND DESCRIPTION OF PLANNED PERMANENT CONTROL MEASURES:
Quality Required. Yes
See Item #18 (as defined in section 208.03(D)(1) of the SWMP for long term management practices to control pollutants in stormwater discharges that will occur after construction operations are completed.

10. PRIOR TO PROJECT FINAL ACCEPTANCE

A. When directed by the Engineer, removal and disposal of temporary control measures shall be included in the cost of work.

B. At the end of the project, all ditch checks shall consist of either temporary erosion logs (or equivalent) or permanent riprap.

C. All storm drains within the project limits shall be cleaned prior to the Final Acceptance of the project. Cleaning of proposed storm drains shall be included in the cost of the pipe. Cleaning of existing storm drains shall be paid for as 202-04002 Clean Culvert.

D. Refer to subsection 208.10 for Items to be completed prior to requesting partial acceptance of water quality work.

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SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
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Unit Information
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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As Constructed	SWMP NOTES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: ACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 167
	Sheet Subset: SWMP	Subset Sheets: 04 of 08	

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11. NARRATIVES

Control Measure Matrixes During Construction:

1. Control measure narratives have been included for the CDOT Standard Specifications and Standard Plan M-208 and M-216 along with any non-standard control measures approved during the design process. If a Non-Standard Control Measure not included in the SWMP is proposed and approved by the Engineer the SWMP Administrator for Construction shall do the following: Place an "X" in the column for non-standard and complete a Non-Standard Control Measure Specification and Narrative covering the what, when, where and why the control measure is being used shall be add to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).
2. The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.
3. A "B" in the Initial Activities Column indicates that the control measure shall be installed **before** construction activity starts. Locations and quantities will be discussed during the Environmental Pre-Construction Conference with the Regional Water Pollution Control Manager.

STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to the following:

APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
PROTECTION OF EXISTING WETLANDS *Fence (plastic) and erosion logs*	Fence (plastic) shall be placed in combination with erosion logs to prevent encroachment of construction traffic and sediment into state waters prior to start of construction disturbances. Fence (plastic) shall be placed adjacent to the wetlands; erosion logs shall be placed between the plastic fence and disturbance area. Logs shall be placed to direct flows away from or filter water running into wetlands from disturbance areas.			B	X	
PROTECTION OF EXISTING TREES/LANDSCAPING *Fence (plastic)*	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of sensitive habitat, mature trees and/or existing landscaping prior to start of construction disturbances.			B	X	
CHECK DAM/DITCH CHECK *Erosion log, silt berm, silt dike, rock check dam*	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208		X	X	
Storm Drain Inlet Protection In Paved Roadways (Type 1, 2 and 3 as shown on M-208-1, sheet 5 of 11)	Manufactured storm drain inlet protection placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208		B	X	
Storm Drain Inlet Protection In Native Seed Areas (M-604 Standard Inlets Type C and D)	Erosion logs or aggregate bags placed around inlet grate to prevent sediment from entering inlet. Place prior to construction disturbances to protect existing inlets or immediately upon completion of new inlets.	M-208		B		
CULVERT INLET/OUTLET PROTECTION *Erosion logs, aggregate bags*	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to the start of construction disturbances.	M-208		B	X	
TYPE C, TYPE D AND TYPE 13 PROTECTION *Erosion logs, aggregate bags, erosion bales*	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to the start of construction disturbances.	M-208		B	X	
STOCKPILE PROTECTION *Temporary berm, erosion logs, aggregate bags**	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the work day. Place prior to start of stockpiling, increase control as the stockpile increases size.	M-208			X	
TOE OF FILL PROTECTION *Erosion logs, temporary berm, silt fence, topsoil windrow**	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
PERIMETER CONTROL *Erosion logs, silt fence, temporary berm, topsoil windrow**	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
SLOPE CONTROL *Silt fence, erosion logs*	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to the start of construction disturbances.	M-208				
TEMPORARY SEDIMENT TRAP	Used to capture sediment laden runoff from disturbed areas < 5 acres during construction. Place prior to the start of construction disturbances. Outlets that withdraw water from or near the surface may be installed when discharging from basins and impoundments.	M-208		X	X	
TEMPORARY SLOPE DRAIN	Placed as a conduit or chute to drain runoff down slope and to prevent erosion of slope.	M-208				
OUTLET PROTECTION *Riprap, or approved other*	Material placed as an energy dissipater to prevent erosion at outlet structure.	M-601-12			X	X
CONCRETE WASHOUT *In-ground or fabricated*	Construction control, used for waste management of concrete and concrete equipment cleaning. Place prior to the start of concrete activities.	M-208		B	X	

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SWMP NOTES

Designer: ACOSTA
Detailer: MCHAVEZ
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APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
VEHICLE TRACKING PAD	Source control, placed to prevent tracking of sediment from disturbed area to offsite surface. Place prior to the start of construction disturbances.	M-208		**B**	**X**	
Engineered SEDIMENT BASIN	Constructed early in the project, prior to storm sewer/ditches and in accordance with 208.05(p) to capture storm flow. Outlet structure and/or outfall shall be modified for temporary sediment control using an approved non-standard detail. Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible					
DEWATERING (Contractor is responsible for obtaining a permit from Colorado Department of Health and Environment.)	Shall be done in such a manner to prevent potential pollutants from entering state waters.					
TEMPORARY STREAM CROSSING	Constructed over stream or drainage to prevent discharge of pollutants from construction equipment into water.					
CLEAN WATER DIVERSION	Placed to divert clean surface or groundwater around the disturbance area to prevent it from mixing with construction runoff.					
OTHER						

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Designer: ACOSTA
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Sheet Number 169

$PLOT_INFO$

NON-STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to:
Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction controls are control measures related to construction access and staging. Control Measure locations are indicated on the SWMP Site Map.

* **Use of vegetative buffer strip requirements.** The CDPHE Water Quality Control Division Technical Memorandum dated August 27, 2015 clarifies the requirements for utilization of existing vegetation as a buffer type of sediment control measure, while maintaining compliance with the CDPS permit for Stormwater Discharges Associated with Construction Activity – CDPS Permit No. COR4000000. In general, the division does not recommend that vegetated buffers be implemented as a sediment removal control measure for runoff from disturbed areas at construction sites, unless implemented as a "finishing" component of a treatment train comprised of additional, adequate up-gradient Control Measures. The entire memorandum can be found at: **https://www.colorado.gov/pacific/sites/default/files/Vegetative%20Buffer%20Memo.pdf**

APPLICATION, CONTROL MEASURE	NARRATIVE	M-STANDARD or "For NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITY	INTERIM ACTIVITIES	PERMANENT STABILIZATION
** VEGETATIVE BUFFER STRIP*	Finishing component for filtering sediment-laden runoff from disturbance area. Area within CDOT ROW or temporary easement to be identified on SWMP prior to construction starting.			X	X	X
GRADING APPLICATIONS (LANDFORM)	Existing or created landforms may be used as a control measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.	M-208		X	X	
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Stockpile	Prior to any site disturbance work commencing, existing topsoil shall be scraped to a depth six inches or as specified, and placed in stockpiles or windrows. Upon completion of final grading, topsoil shall be evenly distributed over embankment to a depth of six inches or as specified.	M-208		X	X	X
SURFACE ROUGHENING / GRADING TECHNIQUES	Temporary stabilization of disturbance and to minimize wind and erosion.				X	
SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.				X	
BONDED FIBER MATRIX or MULCHING (HYDRAULIC)	Not to be used in areas of concentrated flows, i.e. ditch lines. To be for either Interim or Permanent Stabilization placed as a surface cover for erosion control. May be used as surface cover when work is temporarily halted and as approved by the Engineer for stockpiles.					
Straw or Hay MULCH/MULCH TACKIFIER	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as Interim Stabilization as a surface cover when work is temporarily halted and as approved by the Engineer				X	X
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer					
SEEDING PERMANENT (NATIVE PERENNIAL)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.					X
SOIL RETENTION BLANKET (SRB)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.	M-216				
TURF REINFORCEMENT MAT (TRM)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas. Placed in channels or on slopes for erosion control, channel liner and seeding establishment.	M-216				
Sweeping	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.			X	X	X
OTHER						

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SWMP NOTES

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12. TABULATION OF STORMWATER QUANTITIES

A. Control Measure sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Equipment) and 208 Removal and Disposal of Sediment (Labor). All other control measure maintenance shall be included in the cost of the control measure.

B. It is estimated that 40 hours of blading (140-250 horsepower), dozing (130-250 horsepower) and/or combination loader (80-125 horsepower) may be required for miscellaneous erosion control work as directed by the Engineer. Work shall be paid for as: 203 Blading

PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	202-04002	Clean Culvert	Each			8	8
	203-01500	Blading	Hour		40		40
	207-00205	Topsoil	CY			2415	2415
	208-00002	Erosion Log Type 1 (12 inch)	LF	100			100
	208-00020	Silt Fence	LF	1000			1000
	208-00035	Aggregate Bag	LF	300	40		340
	208-00046	Pre-fabricated Concrete Washout Structure (Type I)	Each	2			2
	208-00051	Storm Drain Inlet Protection (Type I)	LF	100	300		400
	208-00056	Storm Drain Inlet Protection (Type III)	Each	8			8
	208-00075	Pre-fabricated Vehicle Tracking Pad	Each	2			2
	208-00106	Sweeping (Sediment Removal)	Hour		40	4	44
	208-00207	Erosion Control Management (ECM)	Day	10	100	5	115
	212-00701	Compost (Mechanically Applied)	CY			195	195
	212-00703	Humate	Pounds			600	600
	212-00704	Mycorrhizae	Pounds			24	24
	212-00705	Elemental Sulfur	Pounds			180	180
	212-00706	Seeding (Native) Drill	Acre			3.0	3.0
	213-00004	Mulching (Weed Free Straw)	Acre			3.0	3.0
	700-70380	F/A Erosion Control	FA				1

*It is anticipated that additional control measures and control measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsections 208.03 and 208.04. **Quantities for all control measures shown above are estimated and have been increased for unforeseen conditions and normal control measure life expectancy.** Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.
*** F/A refers to CDOT's Force Account Pay Items.

13. BIOLOGICAL IMPACTS and DEWATERING

A. ENVIRONMENTAL IMPACTS:
1. Wetland Impacts NO
2. Stream Impacts: NO
3. Threatened and Endangered Species:
No species are anticipated to be impacted by the project.

B. DEWATERING:
(Not covered under the CDPHE guidance document Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land):
https://www.colorado.gov/pacific/sites/default/files/WQ%20LOW%20RISK%20GW.pdf
1. Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in Tab 16 of the SWMP.
2. If groundwater does not meet water quality standards for receiving water a separate CDPS Dewatering Permit shall be obtained by the Contractor from CDPHE in accordance with subsections 107.02 and 107.25.

14. NOTES

A. Pay items are NOT quantified based on the 18 Month expected project timeline nor for the phased construction. The following table specifies the CDOT typical control measure lifespans for several of the pay items. See subsection 208.03 and 208.04 for additional information.

Pay Item	Lifespan
Mulching and Mulch Tackifier	3 months
Soil Retention Blankets	9 months
Aggregate Bag	6 months
Erosion Logs	6 months
Silt Fence	9 months
Storm Drain Inlet Projection	12 months
Vehicle Tracking Control	12 months

B. Landscaping plans shall take precedence over seeding and landscaping limits for permanent stabilization shown on the SWMP notes and site maps. Landscaping quantities are separate from quantities shown herein. The quantities shown here are estimates for seeding and sod and are not inclusive of all landscaped items.
C. Erosion log, silt fence, plastic fence, pre-fabricated concrete washout structure, and pre-fabricated vehicle tracking pad locations to be determined as required by contractor based on construction phasing.
D. Construction in ingress and egress points to be determined by the contractor based on construction phasing.

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SWMP NOTES

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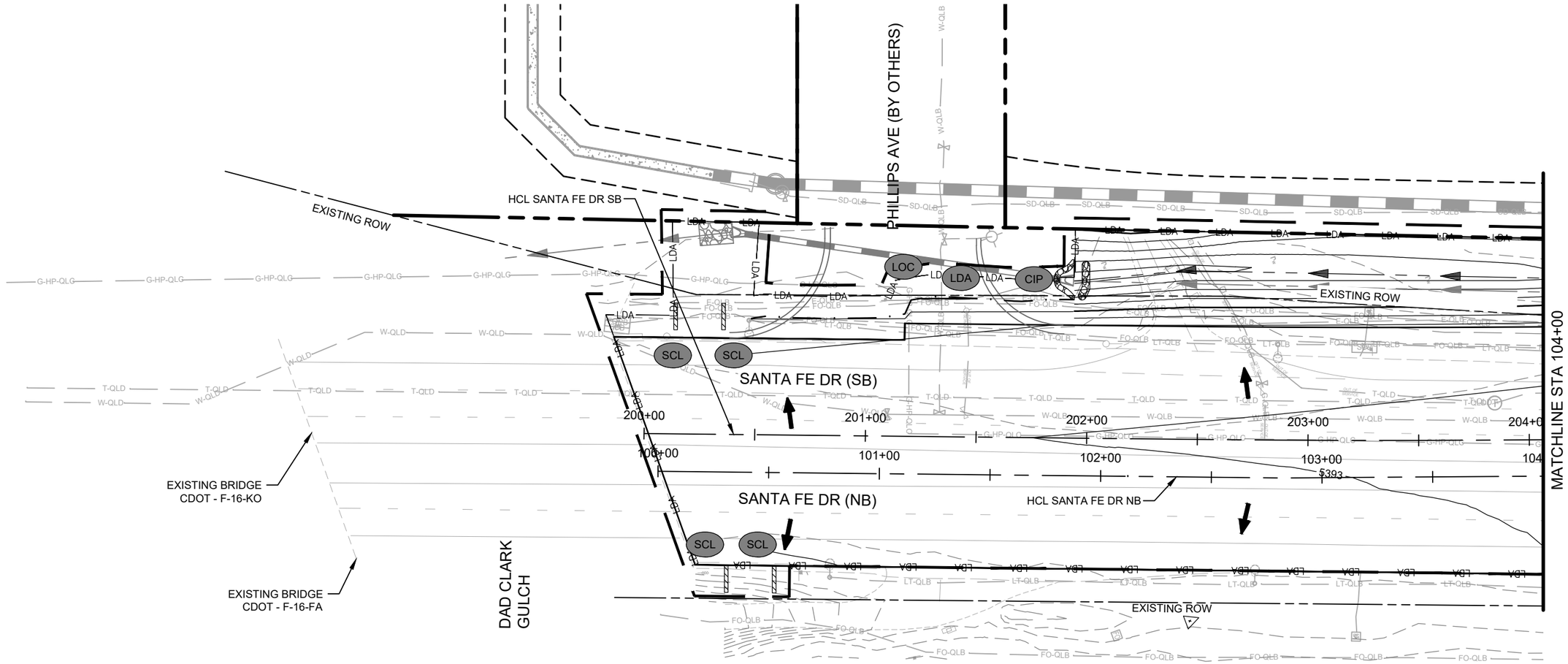

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SCALE: 1" = 50'

BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

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SANTA FE DR
SWMP PLAN - INITIAL & INTERIM
STA. 100+00 TO STA. 104+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 01 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 172

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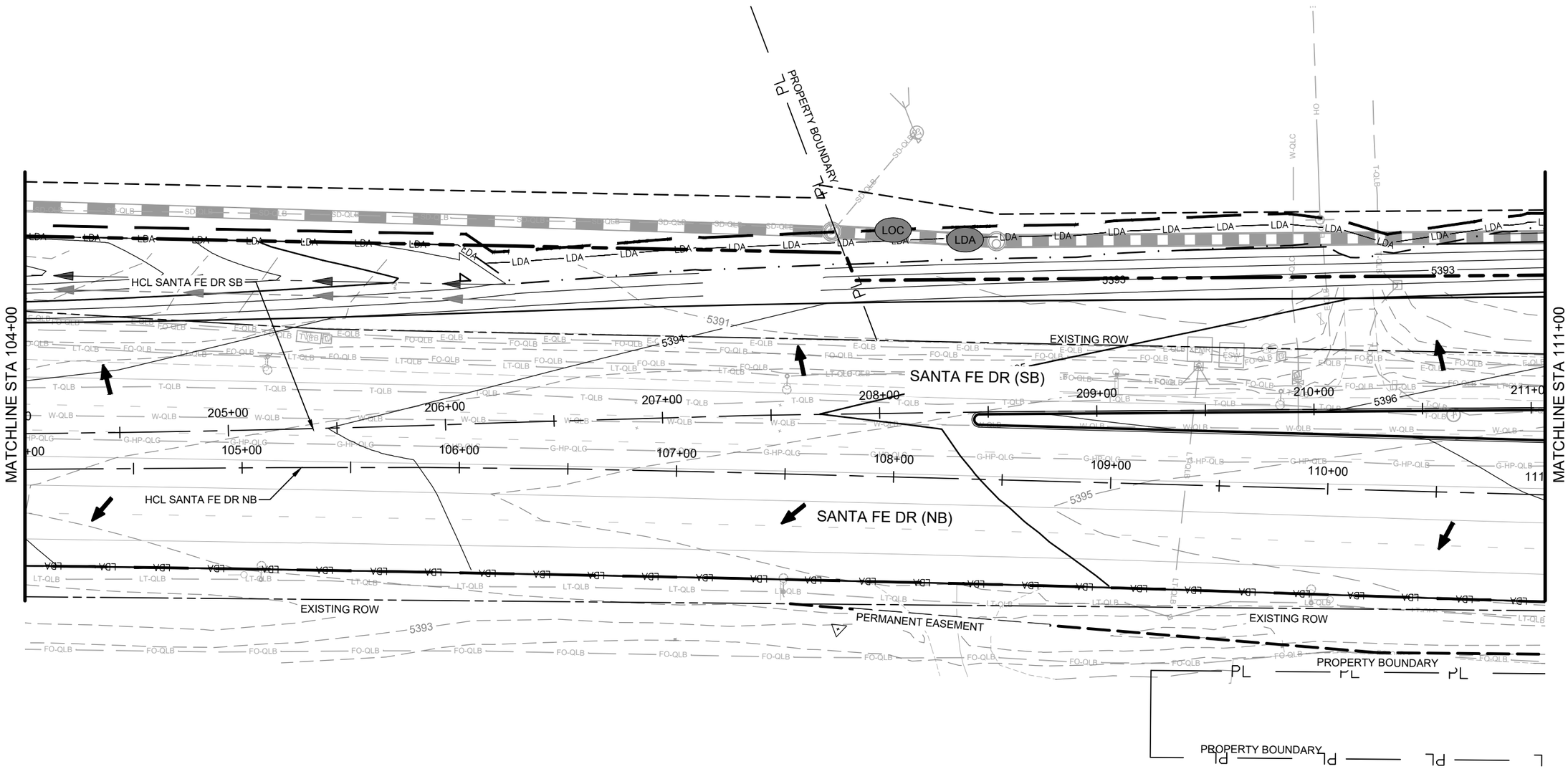

BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

0 25 50 100

SCALE: 1" = 50'

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SWMP PLAN - INITIAL & INTERIM
STA. 104+00 TO STA. 111+00

Designer: ACOSTA
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Project No./Code
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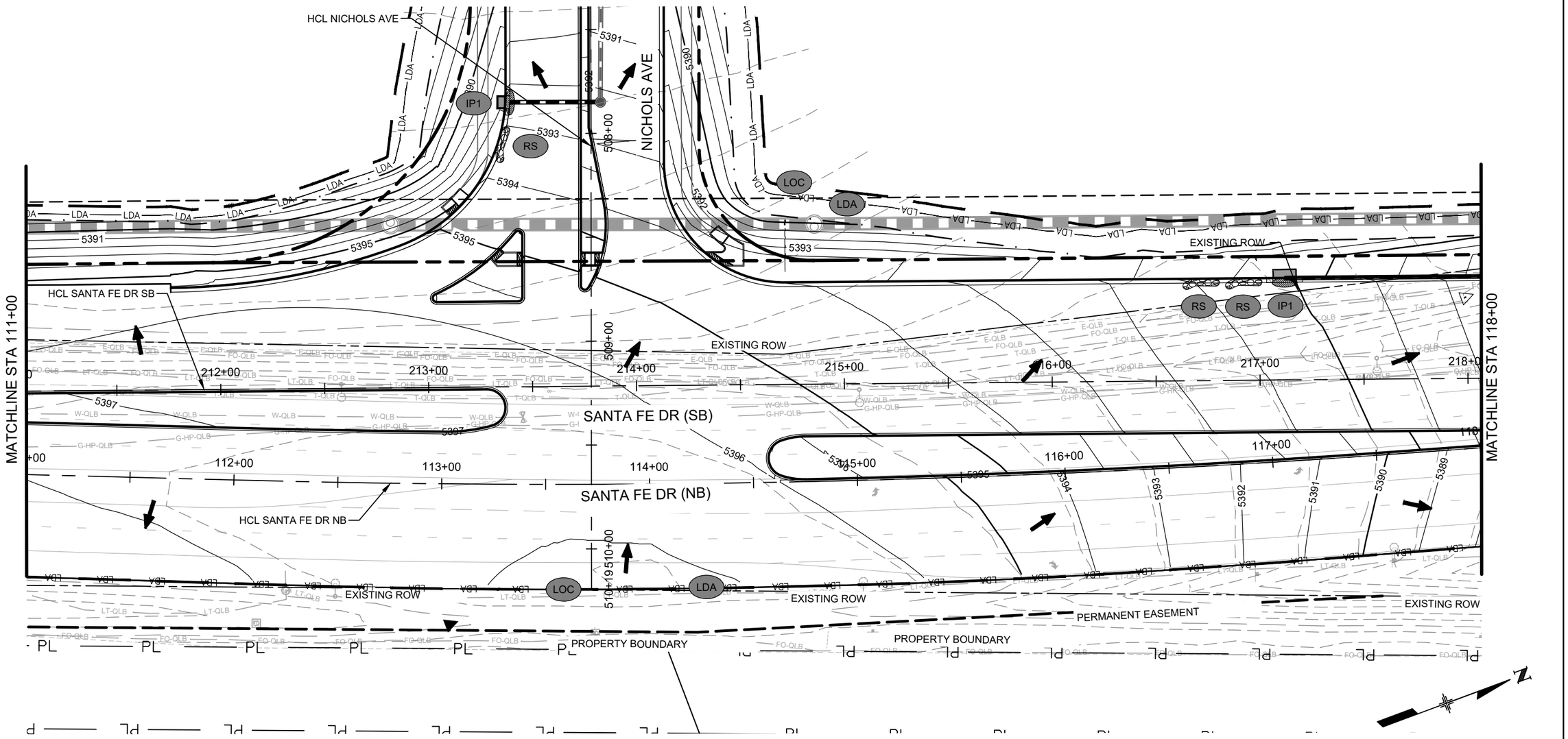

BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

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SWMP PLAN - INITIAL & INTERIM
STA. 111+00 TO STA. 118+00

Designer: ACOSTA
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Subset Sheets: 03 of 17

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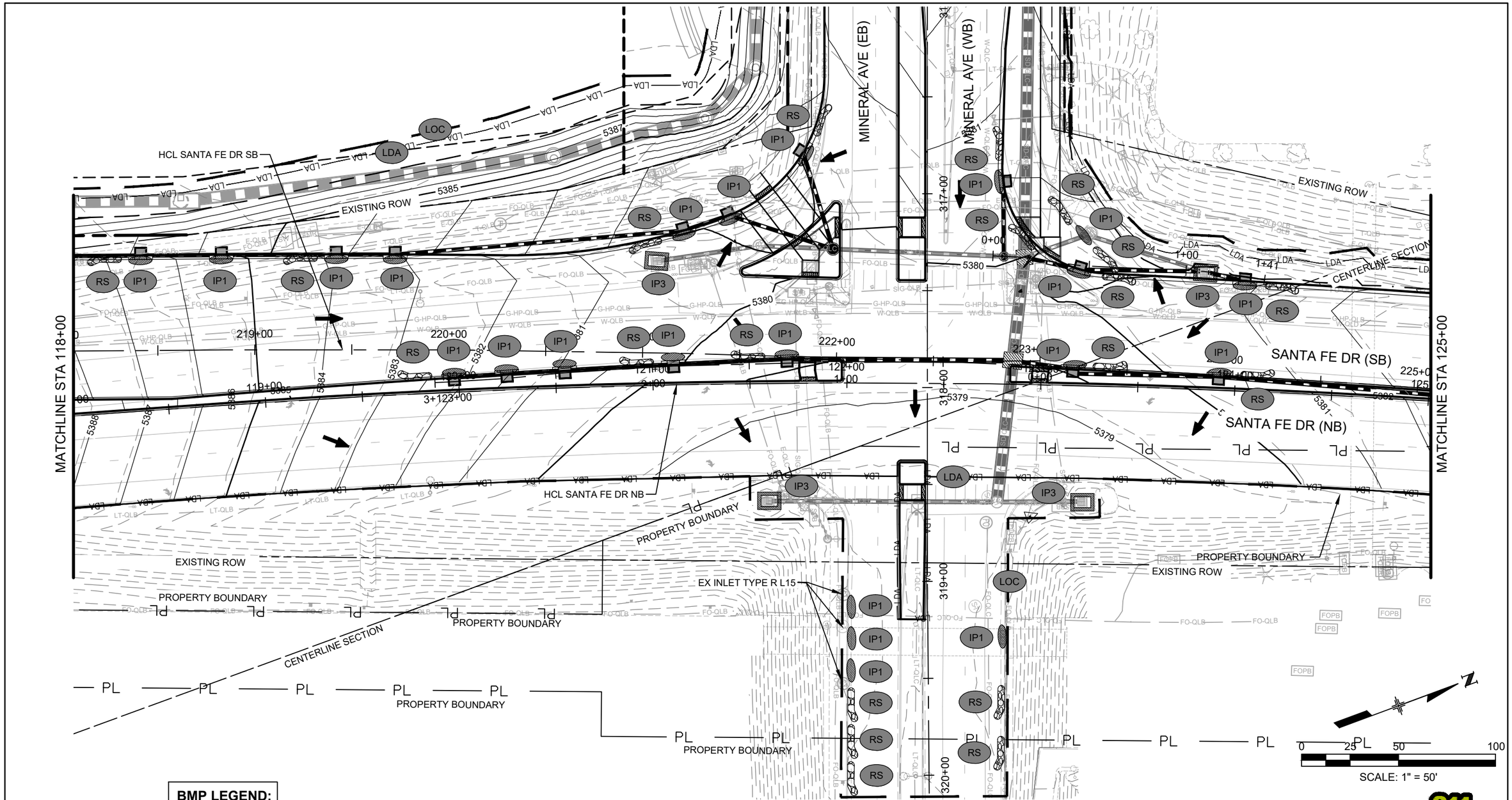

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LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

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SWMP PLAN - INITIAL & INTERIM
STA. 118+00 TO STA. 125+00

Designer: ACOSTA
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Structure Numbers
Subset Sheets: 04 of 17

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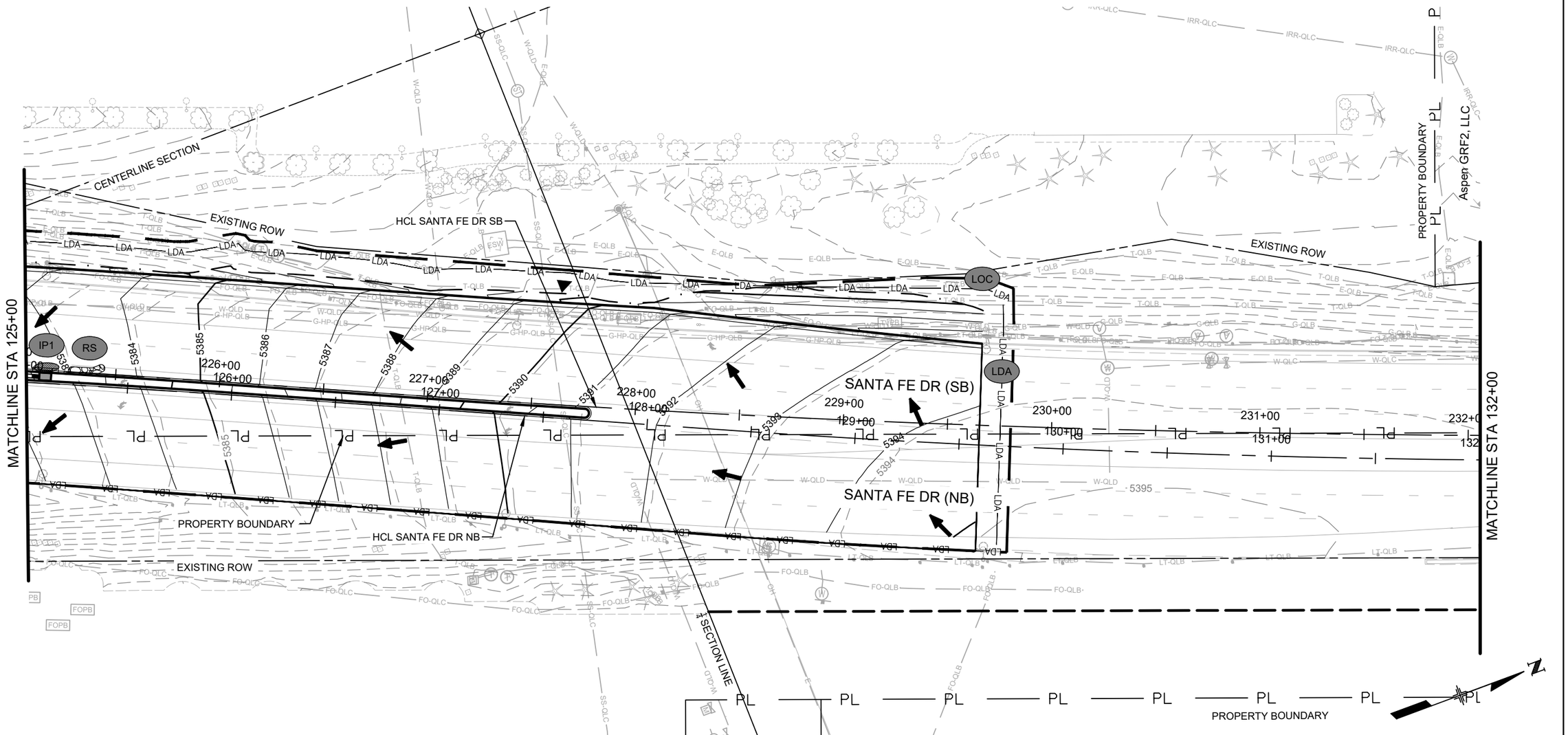
Sheet Number 175

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

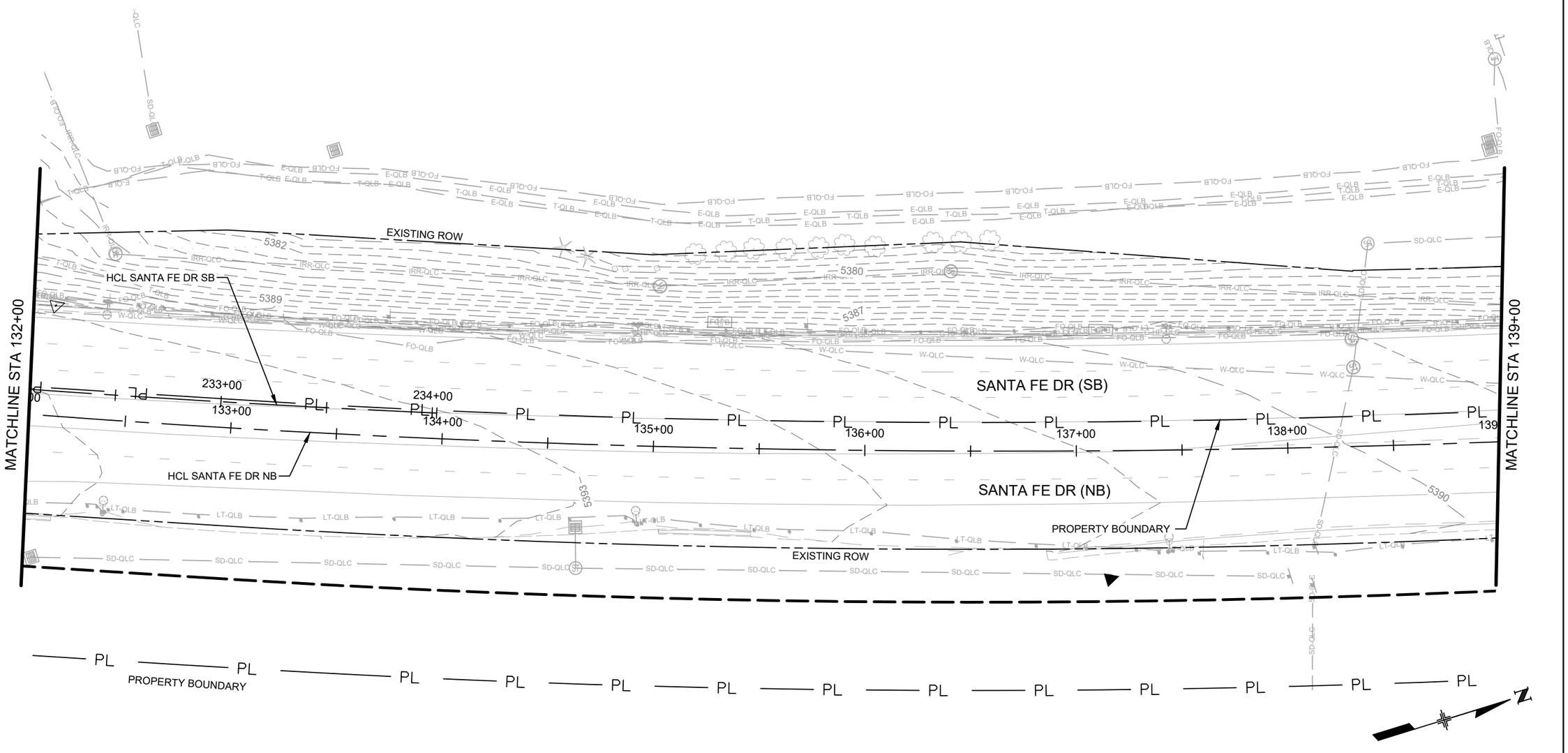
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SWMP_PLAN II_01.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR SWMP PLAN - INITIAL & INTERIM STA. 125+00 TO STA. 132+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: ACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		
	Sheet Subset: SWMP	Subset Sheets: 05 of 17	Sheet Number 176

$PLOT_INFO$



BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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File Name: 23574_SWMP_PLAN II_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

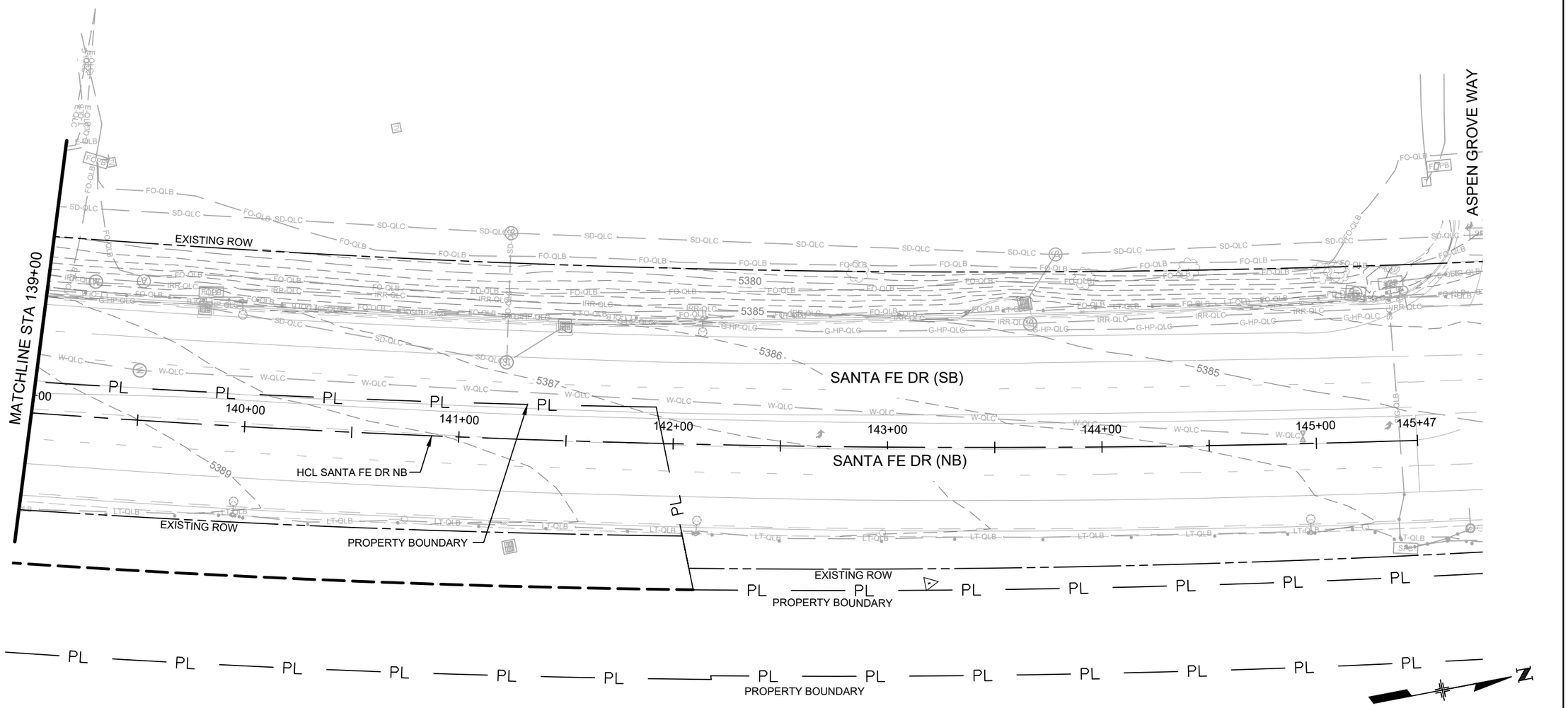
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
SWMP PLAN - INITIAL & INTERIM
STA. 132+00 TO STA. 139+00

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 06 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 177

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

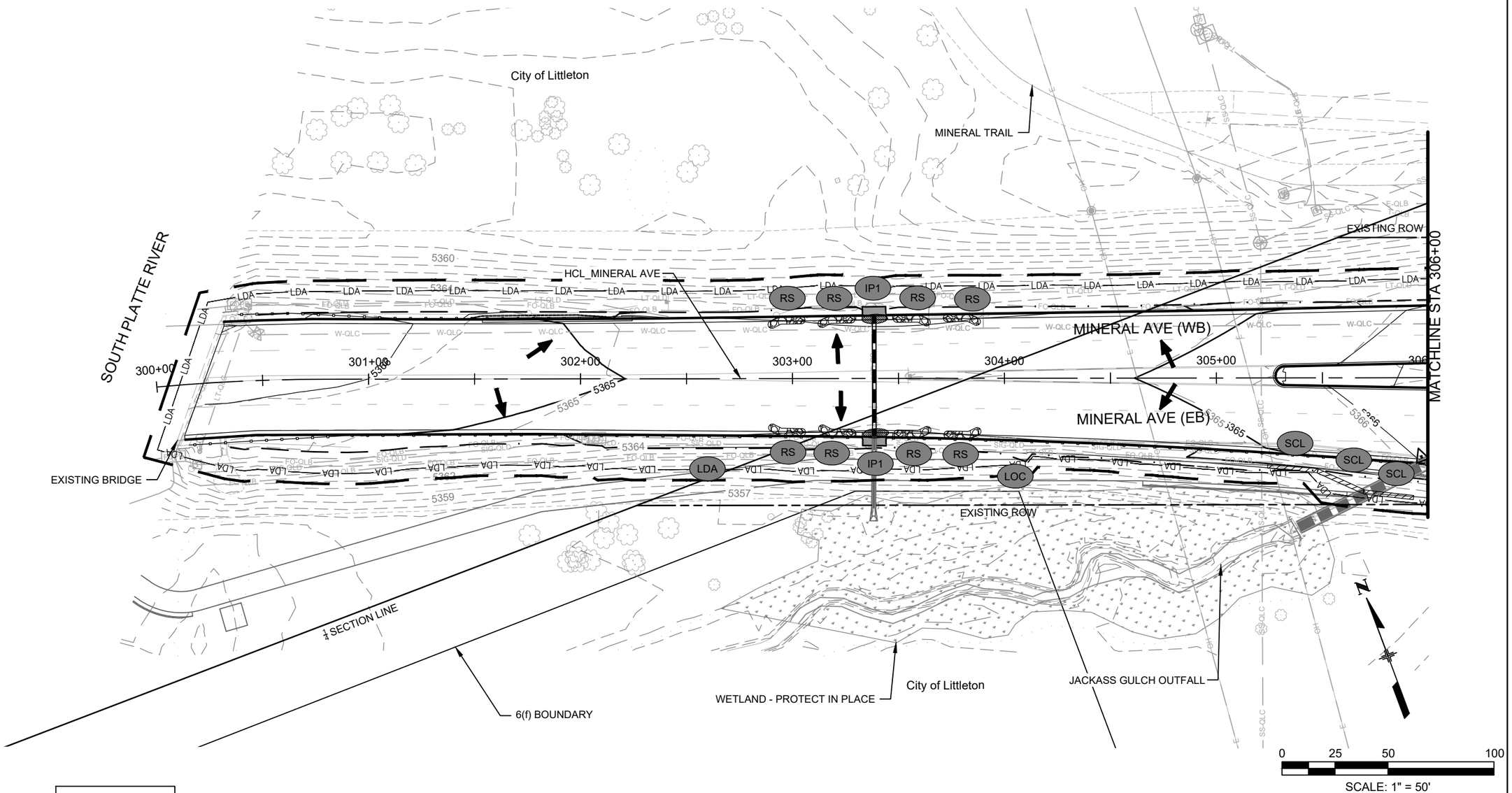
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
SWMP PLAN - INITIAL & INTERIM
STA. 139+00 TO STA. 145+45

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 07 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 178

$PLOT_INFO$



BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

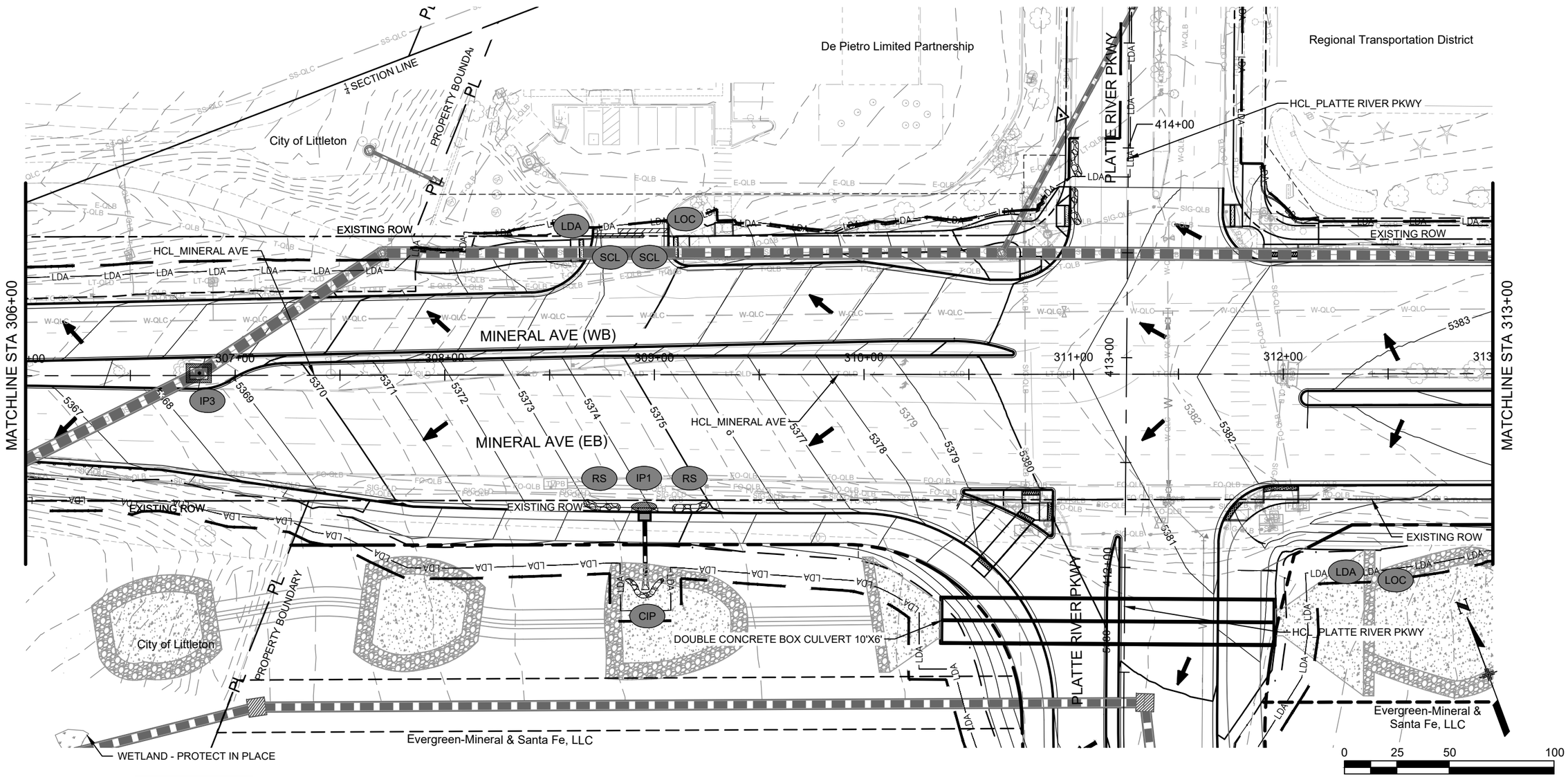
As Constructed
No Revisions:
Revised:
Void:

MINERAL AVE
SWMP PLAN - INITIAL & INTERIM
STA. 300+00 TO STA. 306+00

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 08 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 179

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SWMP_PLAN II_02.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE SWMP PLAN - INITIAL & INTERIM STA. 306+00 TO STA. 313+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: ACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 180
	Sheet Subset: SWMP	Subset Sheets: 09 of 17	

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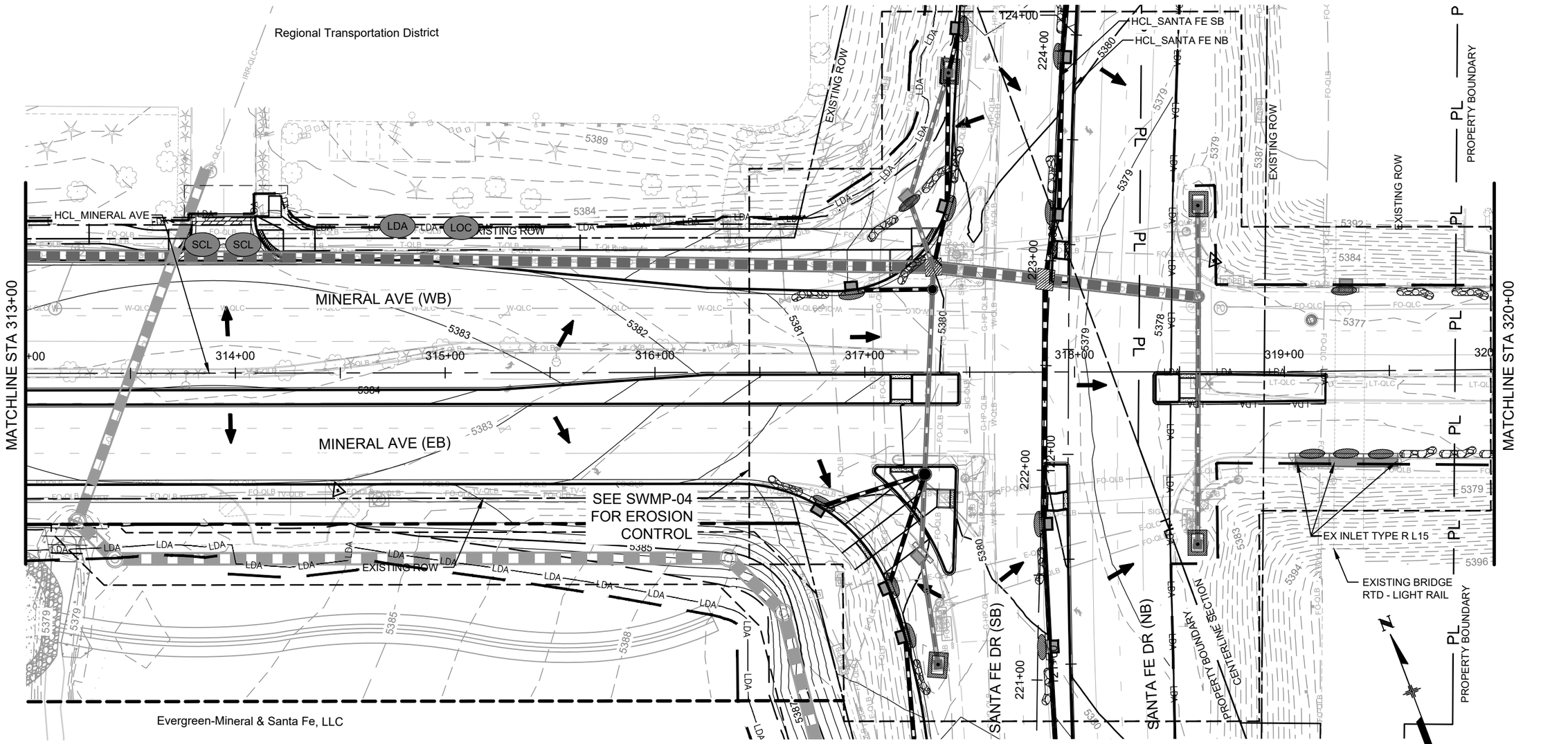


BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

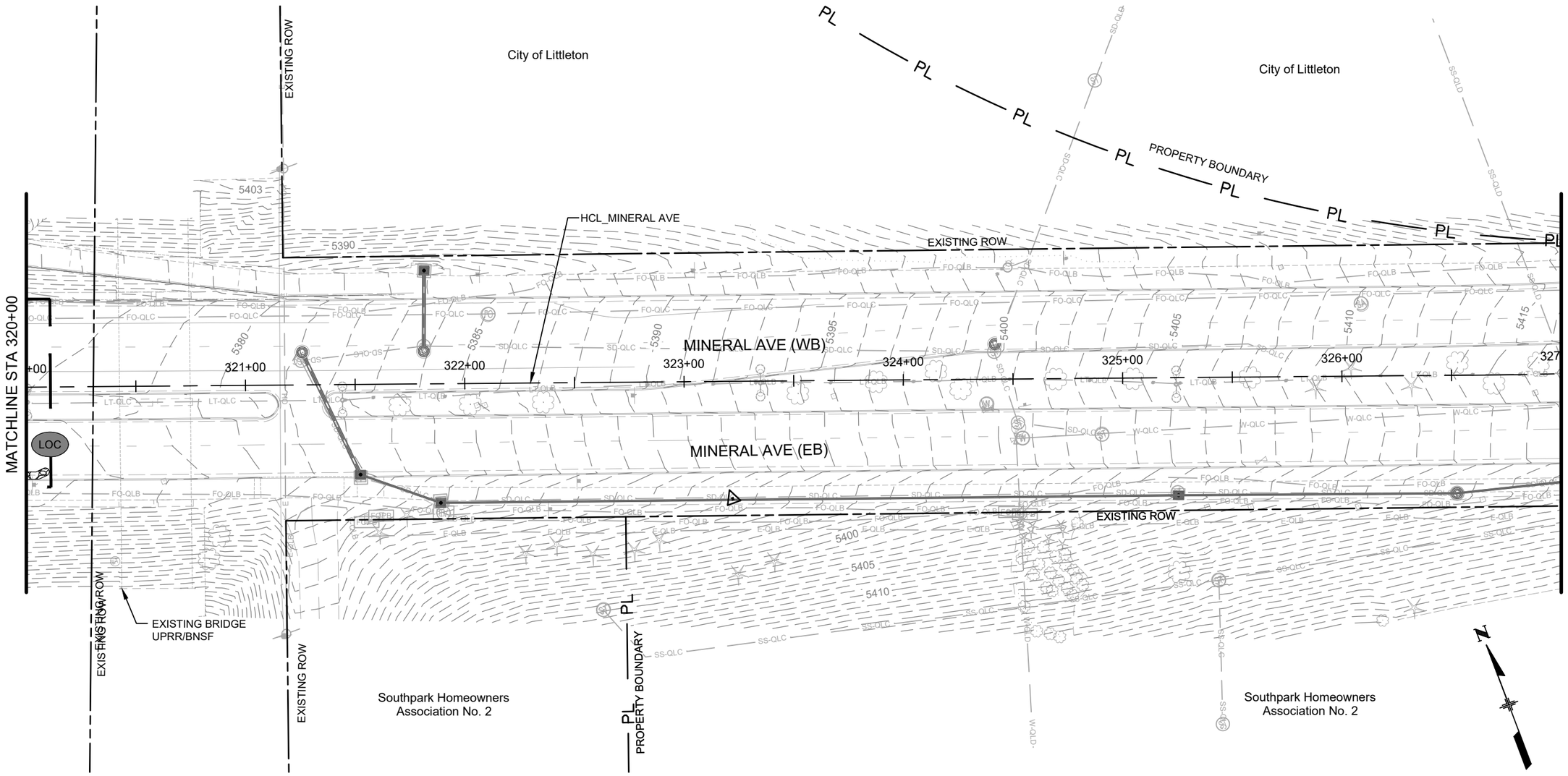
MINERAL AVE
SWMP PLAN - INITIAL & INTERIM
STA. 313+00 TO STA. 320+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 10 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 181

811 Know what's below. Call before you dig.

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

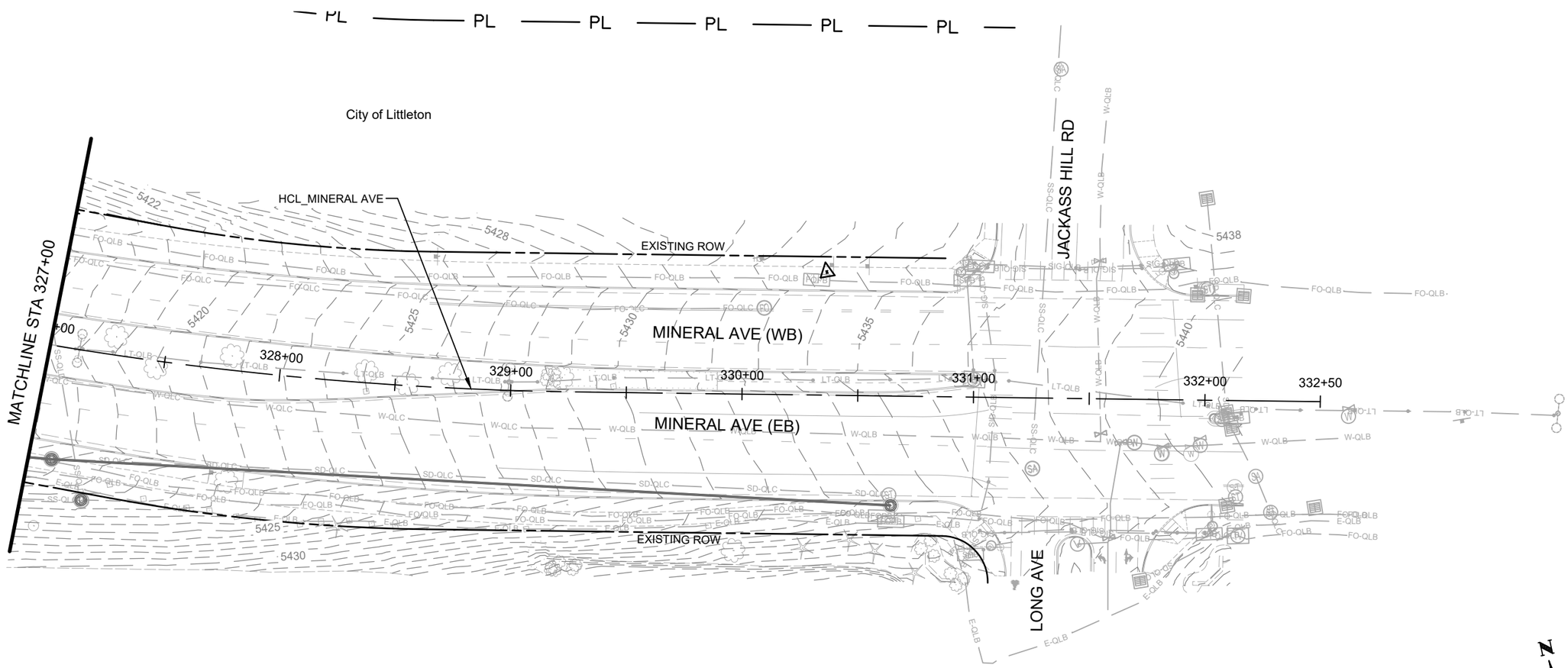
COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions			As Constructed	MINERAL AVE SWMP PLAN - INITIAL & INTERIM STA. 320+00 TO STA. 327+00	Project No./Code
File Name: 23574_SWMP_PLAN II_02.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: 1" = 50' Vert. Scale: N/A				Revised:	Designer: ACOSTA / Structure Numbers	23574
Unit Information				Void:	Detailer: MCHAVEZ	
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: SWMP / Subset Sheets: 11 of 17	Sheet Number 182

Littleton Colorado

$PLOT_INFO$



Southpark Homeowners
Association No. 2

N

0 25 50 100
SCALE: 1" = 50'

BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

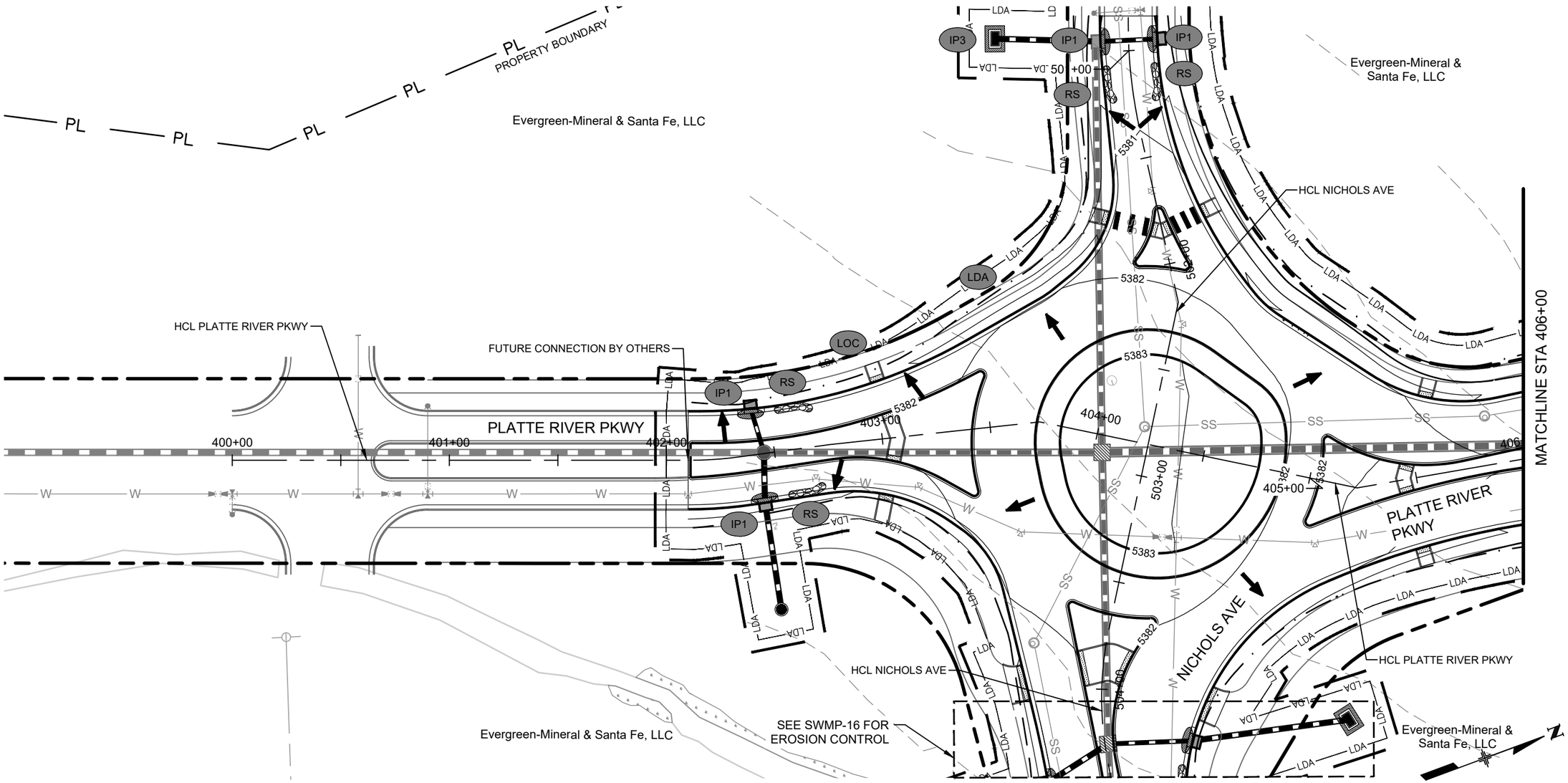
As Constructed
No Revisions:
Revised:
Void:

MINERAL AVE
SWMP PLAN - INITIAL & INTERIM
STA. 327+00 TO STA. 332+50

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 12 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 183

$PLOT_INFO$



BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions

Date:	Comments	Init.

Littleton Colorado

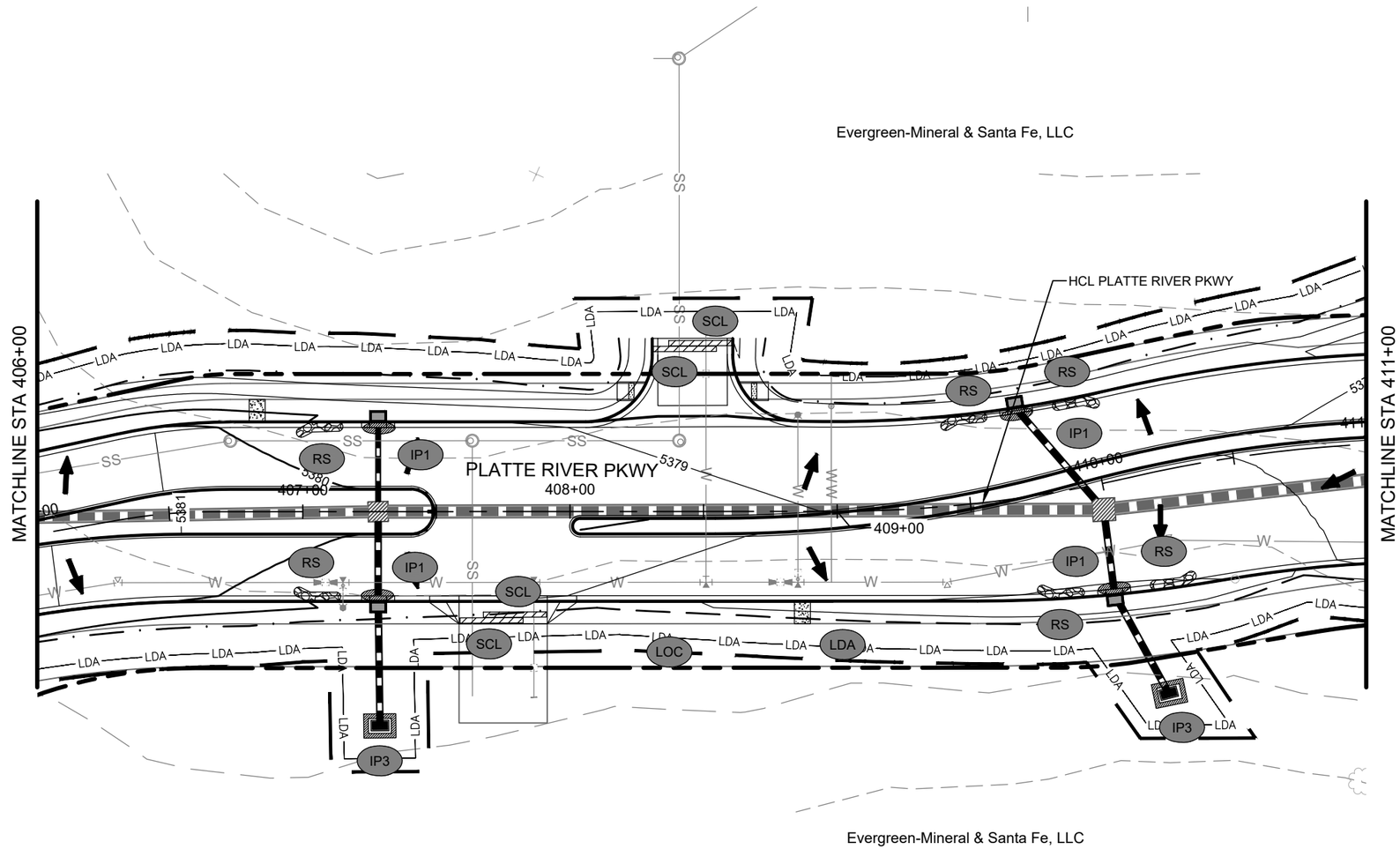
As Constructed
No Revisions:
Revised:
Void:

PLATTE RIVER PKWY
SWMP PLAN - INITIAL & INTERIM
STA. 400+00 TO STA. 406+00

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 13 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 184

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

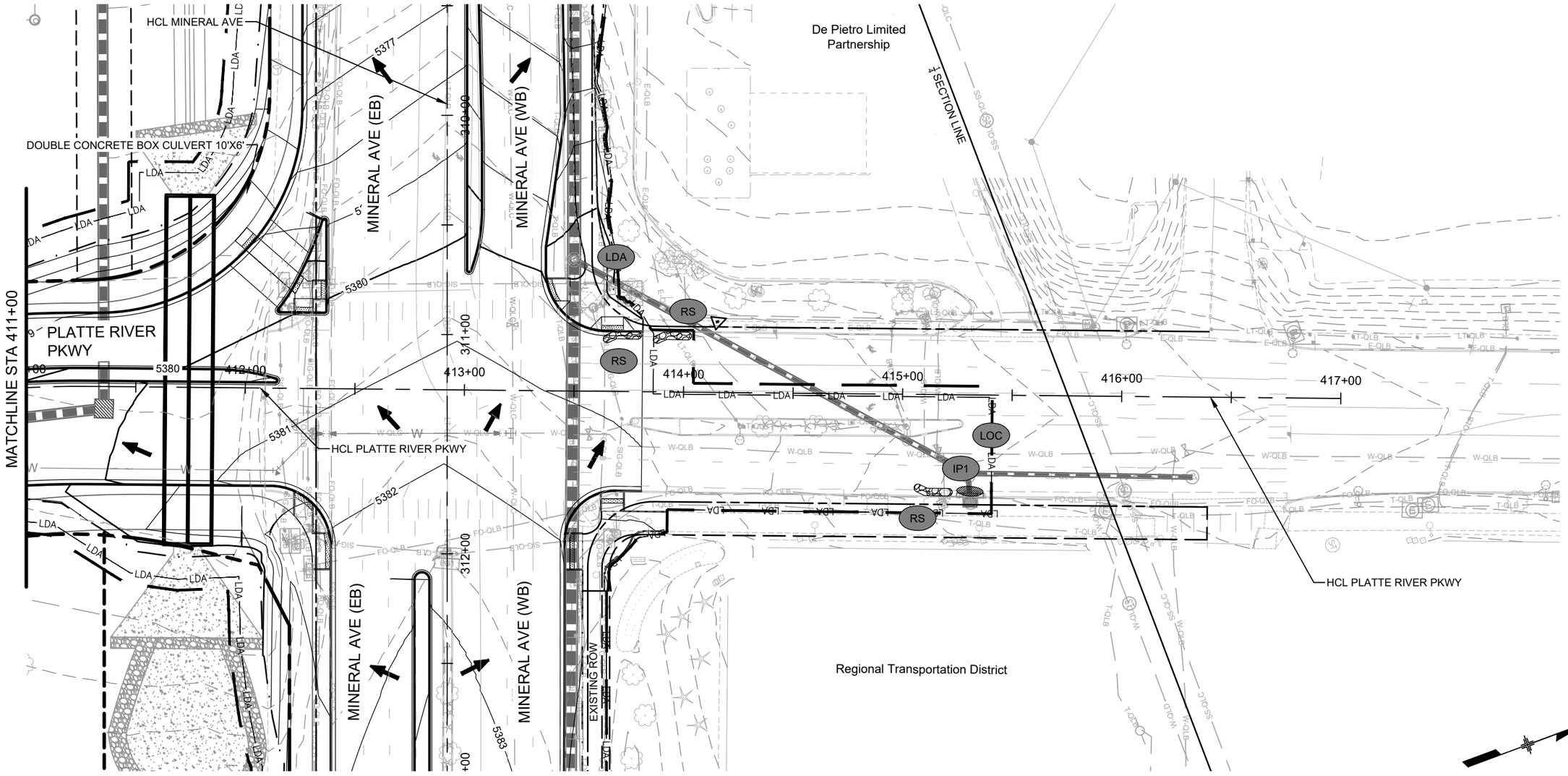
As Constructed
No Revisions:
Revised:
Void:

PLATTE RIVER PKWY
SWMP PLAN - INITIAL & INTERIM
STA. 406+00 TO STA. 411+00

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 14 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 185

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

PLATTE RIVER PKWY
SWMP PLAN - INITIAL & INTERIM
STA. 411+00 TO STA. 417+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 15 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 186

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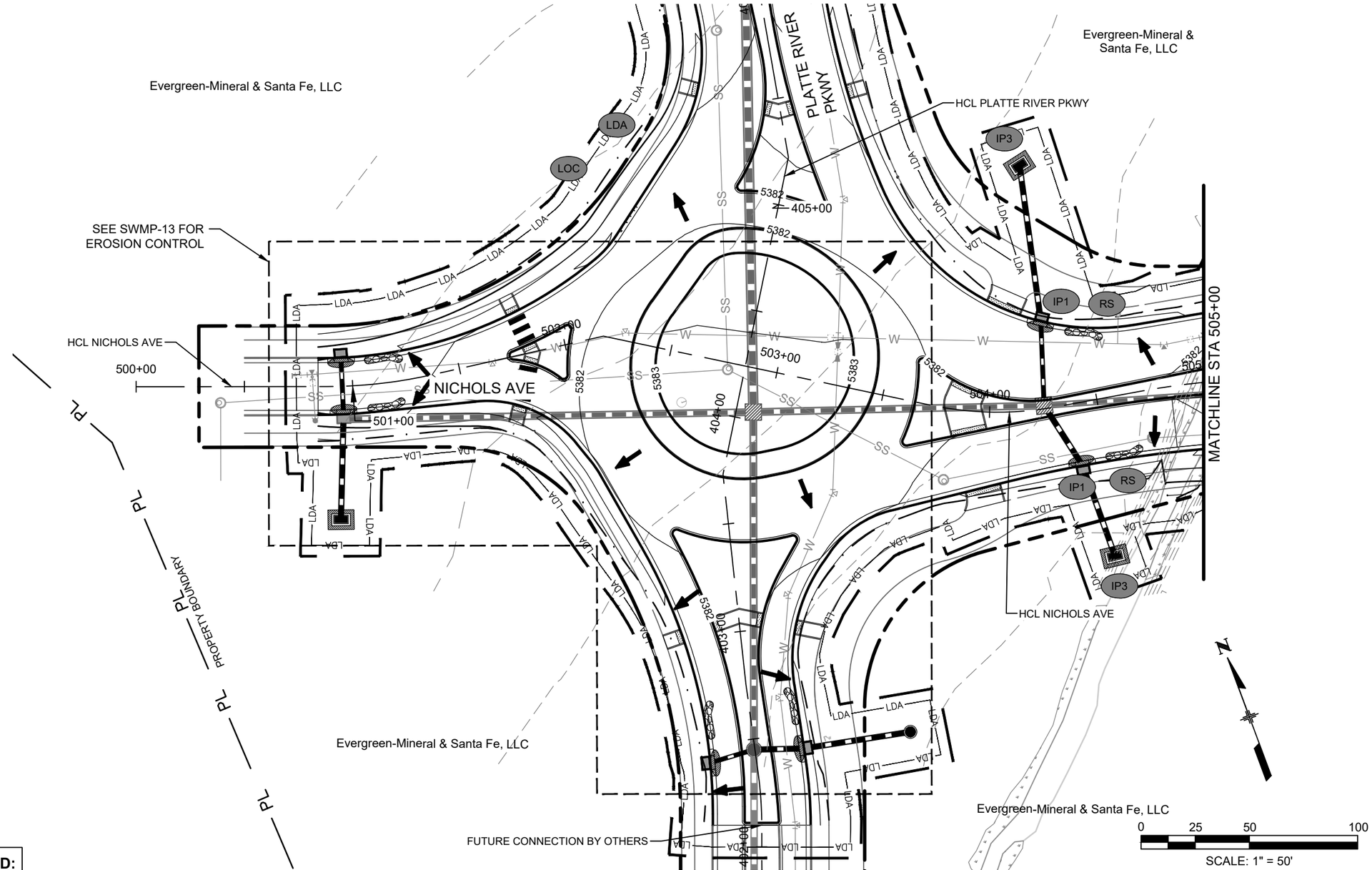
$PLOT_INFO$



BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

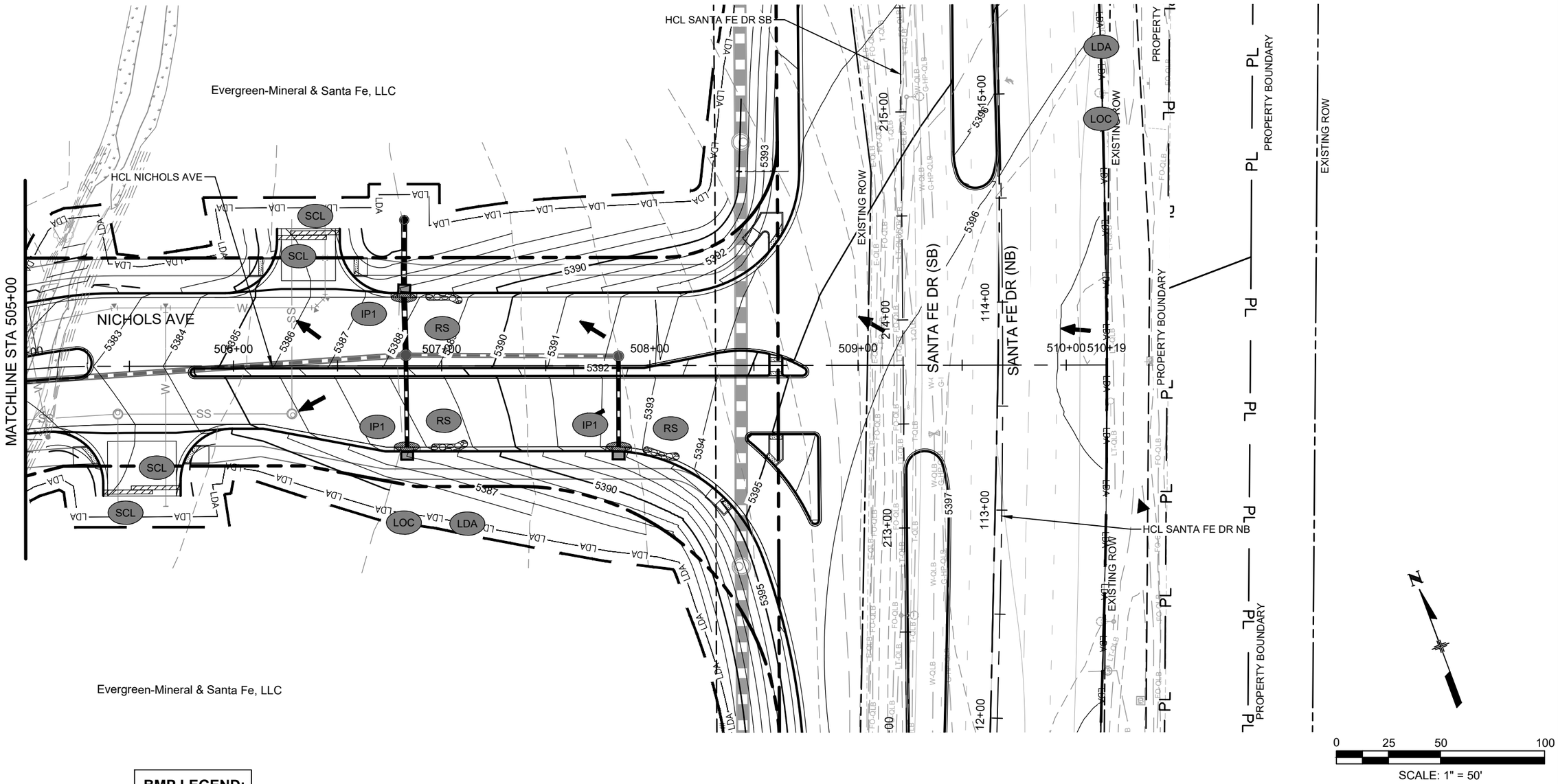
As Constructed
No Revisions:
Revised:
Void:

NICHOLS AVE
SWMP PLAN - INITIAL & INTERIM
STA. 500+00 TO STA. 505+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 16 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 187

$PLOT_INFO$



BMP LEGEND:

		LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS			SCL	SEDIMENT CONTROL LOG
LDA		LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING			CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN II_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

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1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

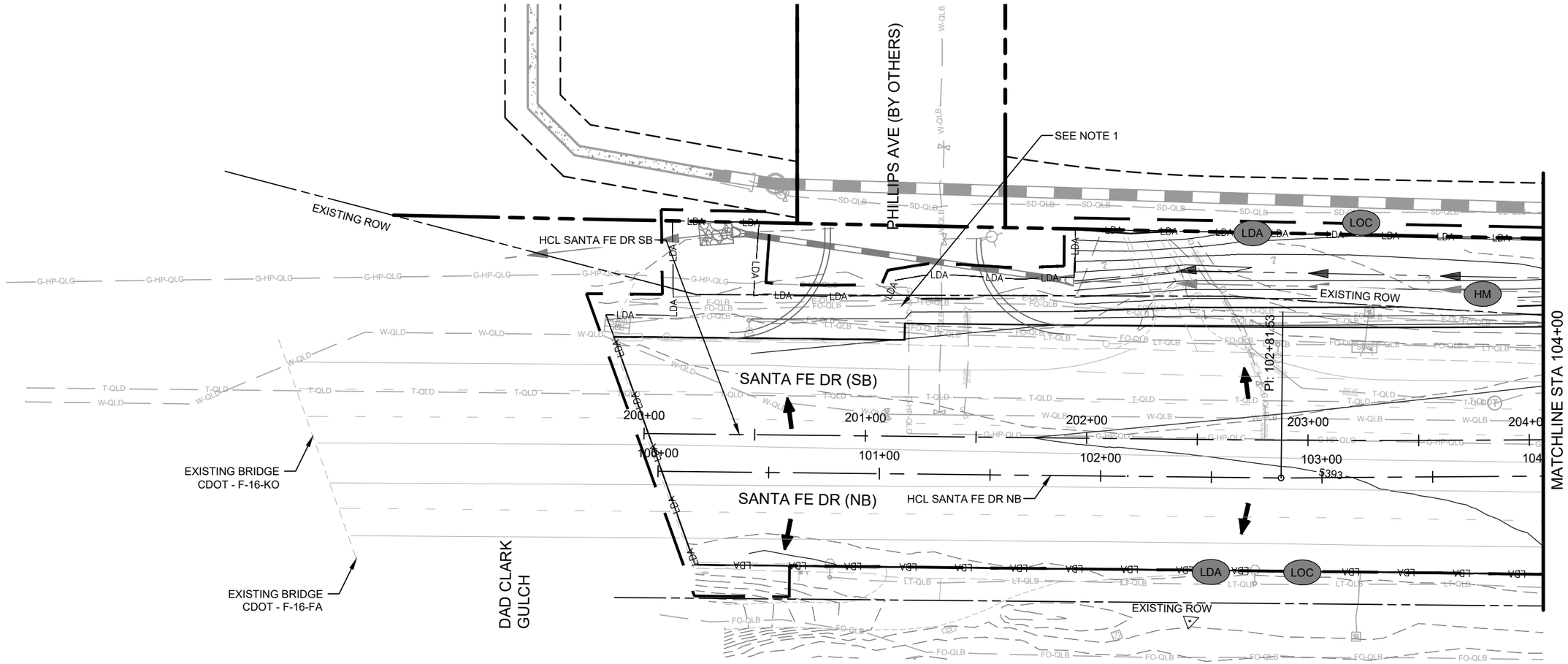
As Constructed
No Revisions:
Revised:
Void:

NICHOLS AVE
SWMP PLAN - INITIAL & INTERIM
STA. 505+00 TO STA. 510+19

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 17 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 188

$PLOT_INFO$



NOTES

1. FINAL PLACEMENT OF SEEDING MAY BE ADJUSTED DEPENDING ON TIMING OF THE PHILLIPS AVE INTERSECTION AS DIRECTED BY THE ENGINEER

0 25 50 100

SCALE: 1" = 50'

BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SWMP_PLAN III_01.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR SWMP PLAN - FINAL STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: ACOSTA	Structure Numbers	23574
	Detailer: MCHAVEZ		
Void:	Sheet Subset: SWMP	Subset Sheets: 01 of 17	Sheet Number 189

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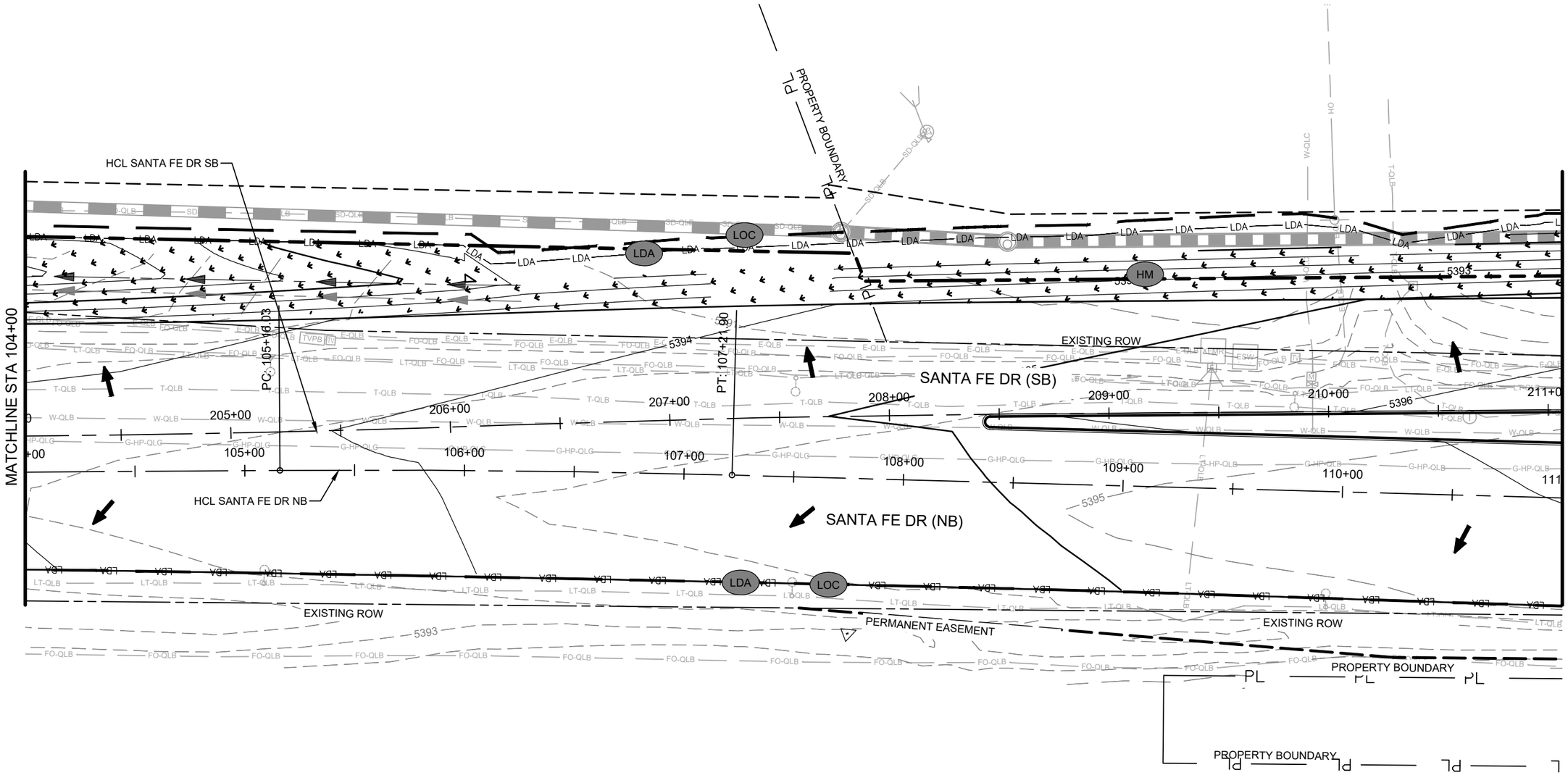


BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

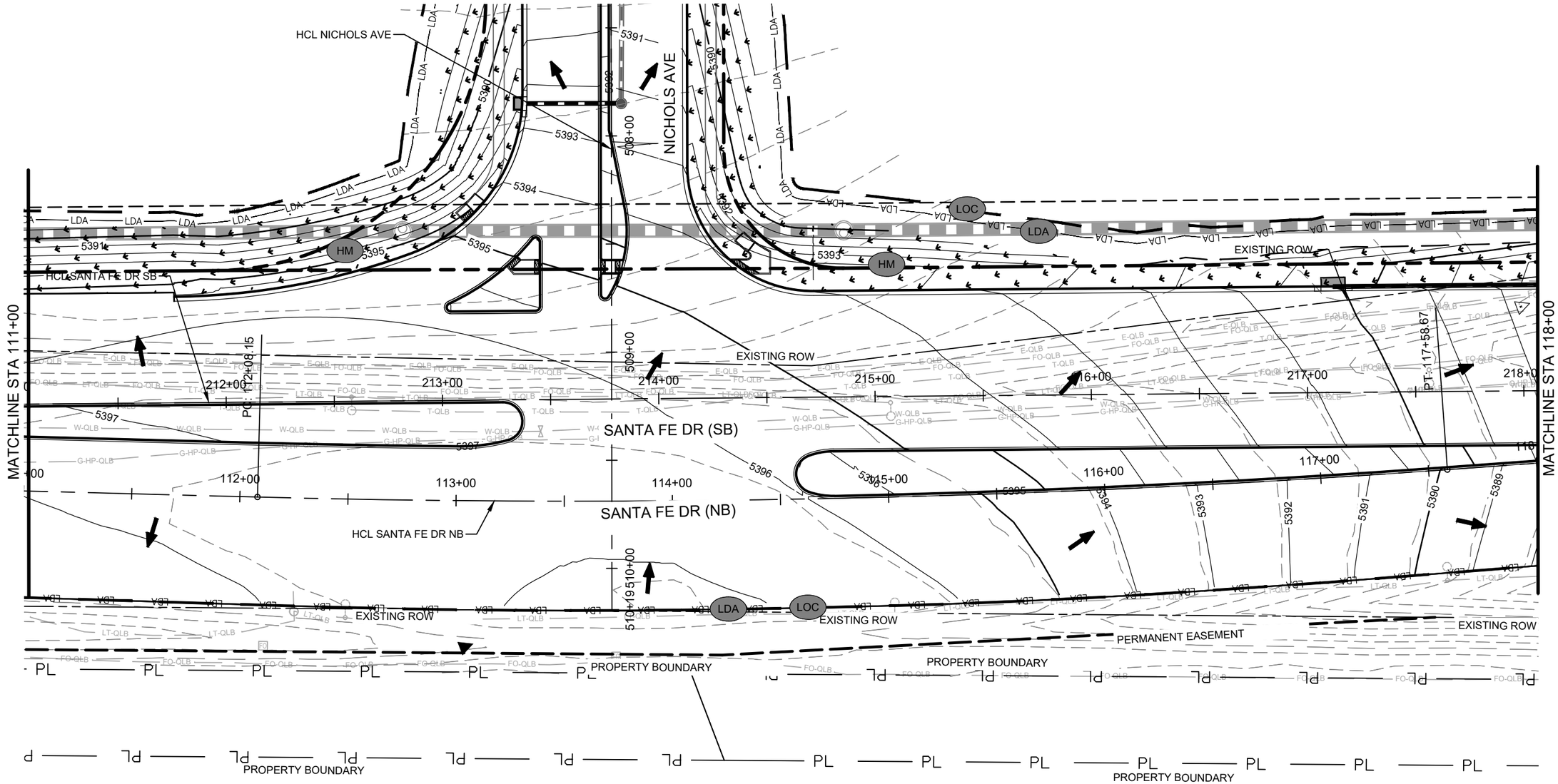
SANTA FE DR
SWMP PLAN - FINAL
STA. 104+00 TO STA. 111+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 02 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 190

811 Know what's below. Call before you dig.

$PLOT_INFO$



BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED PROFESSIONAL ENGINEER SAMUEL D. ACOSTA 52470 10/08/2025

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

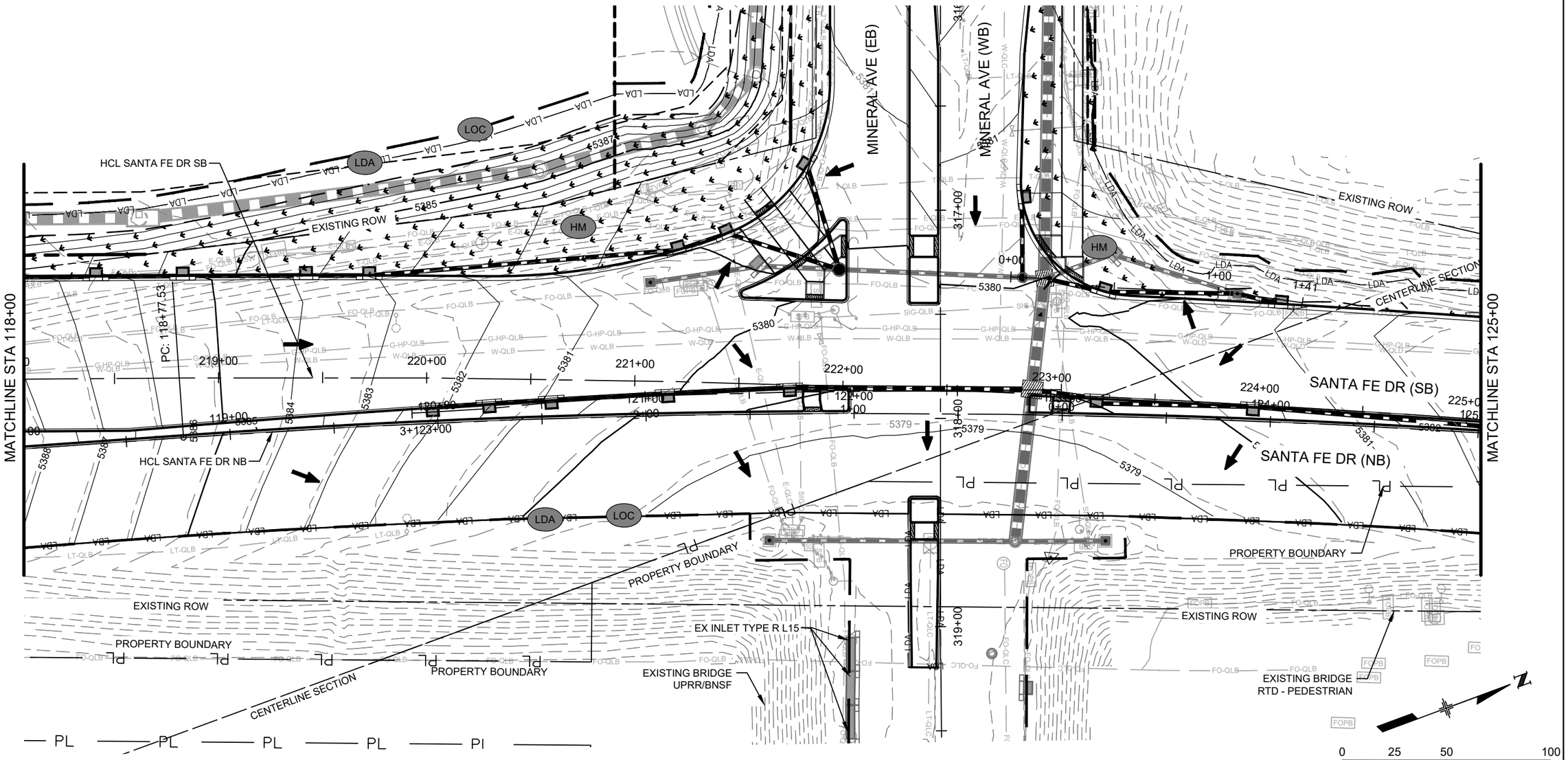
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
SWMP PLAN - FINAL
STA. 111+00 TO STA. 118+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 03 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 191

$PLOT_INFO$



BMP LEGEND:

LOC	LIMITS OF CONSTRUCTION	IP1	INLET PROTECTION I	RS	ROCK SOCKS	SCL	SEDIMENT CONTROL LOG
LDA	LIMITS OF DISTURBED AREA	IP3	INLET PROTECTION III	HM	SEEDING	CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

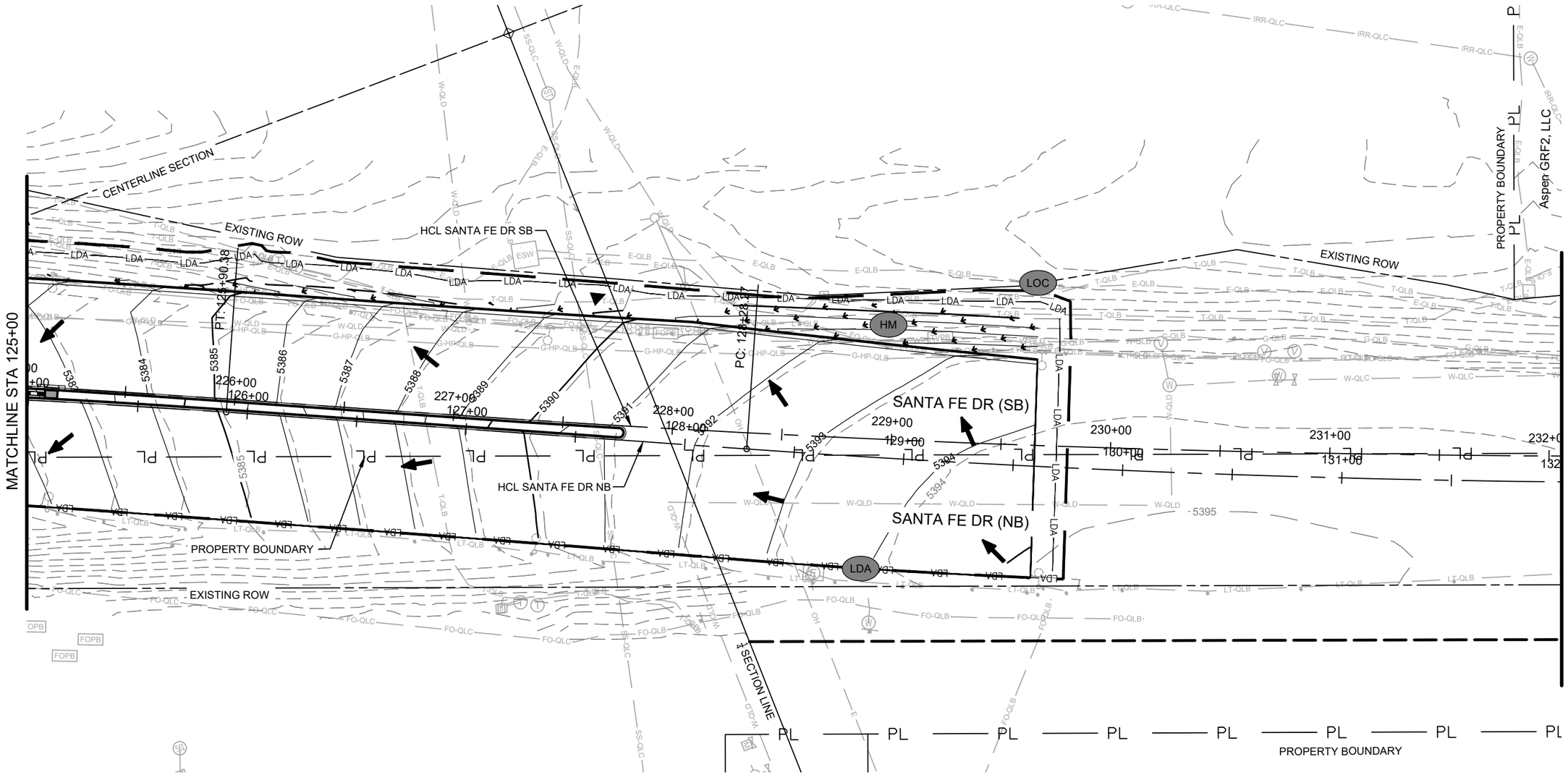
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
SWMP PLAN - FINAL
STA. 118+00 TO STA. 125+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 04 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 192

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

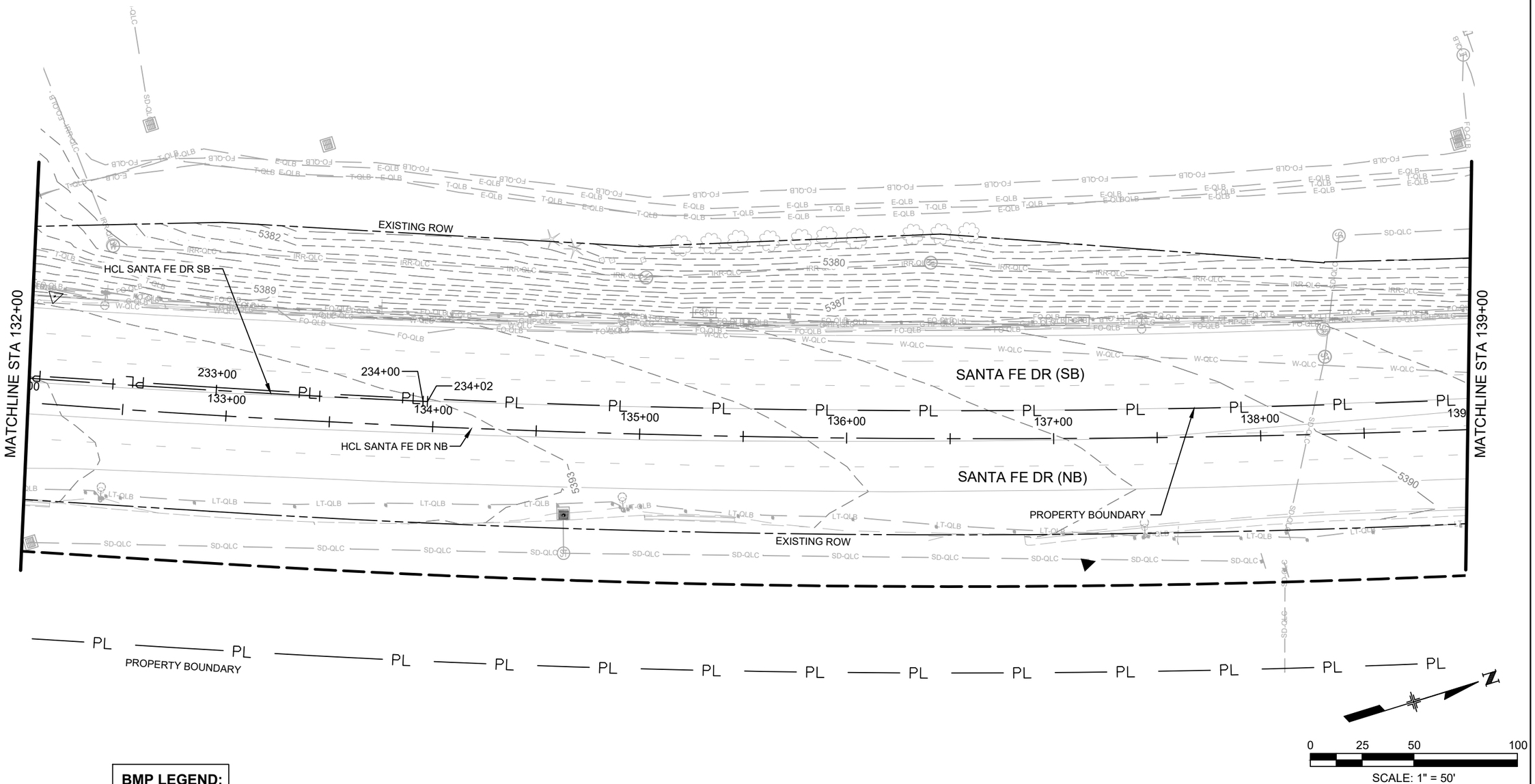
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
SWMP PLAN - FINAL
STA. 125+00 TO STA. 132+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 05 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 193

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

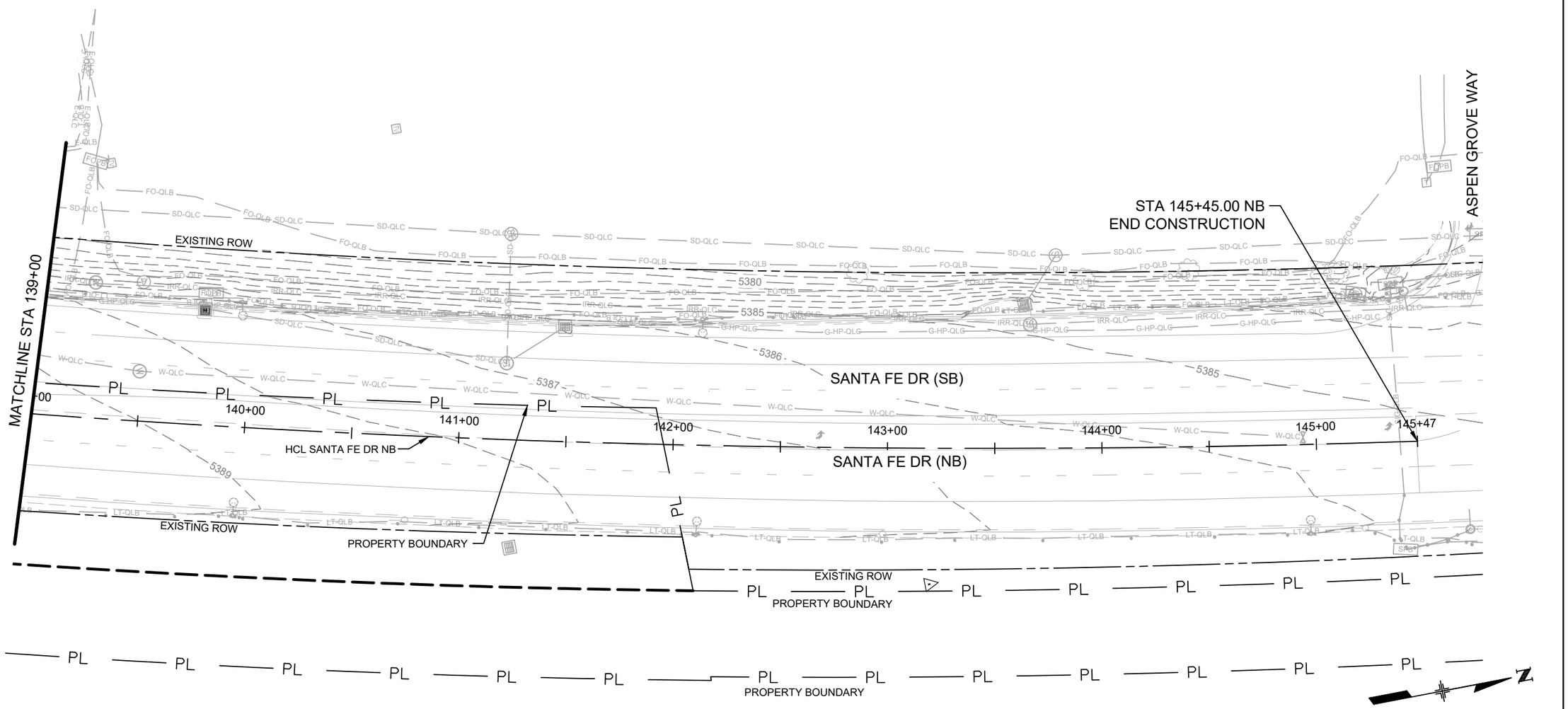
SANTA FE DR
SWMP PLAN - FINAL
STA. 132+00 TO STA. 139+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 06 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 194

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_01.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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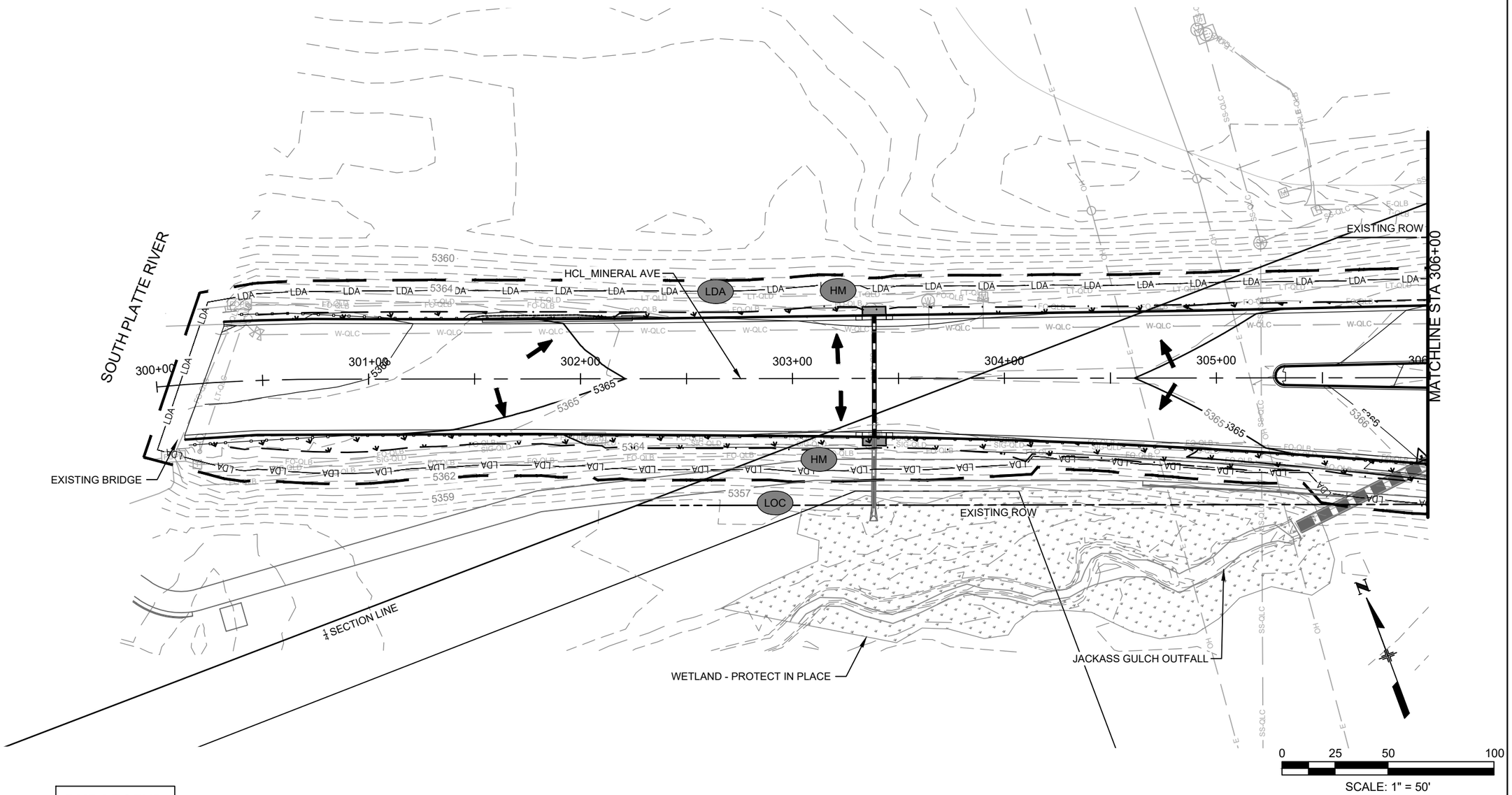
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
SWMP PLAN - FINAL
STA. 139+00 TO STA. 145+45

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 07 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 195

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

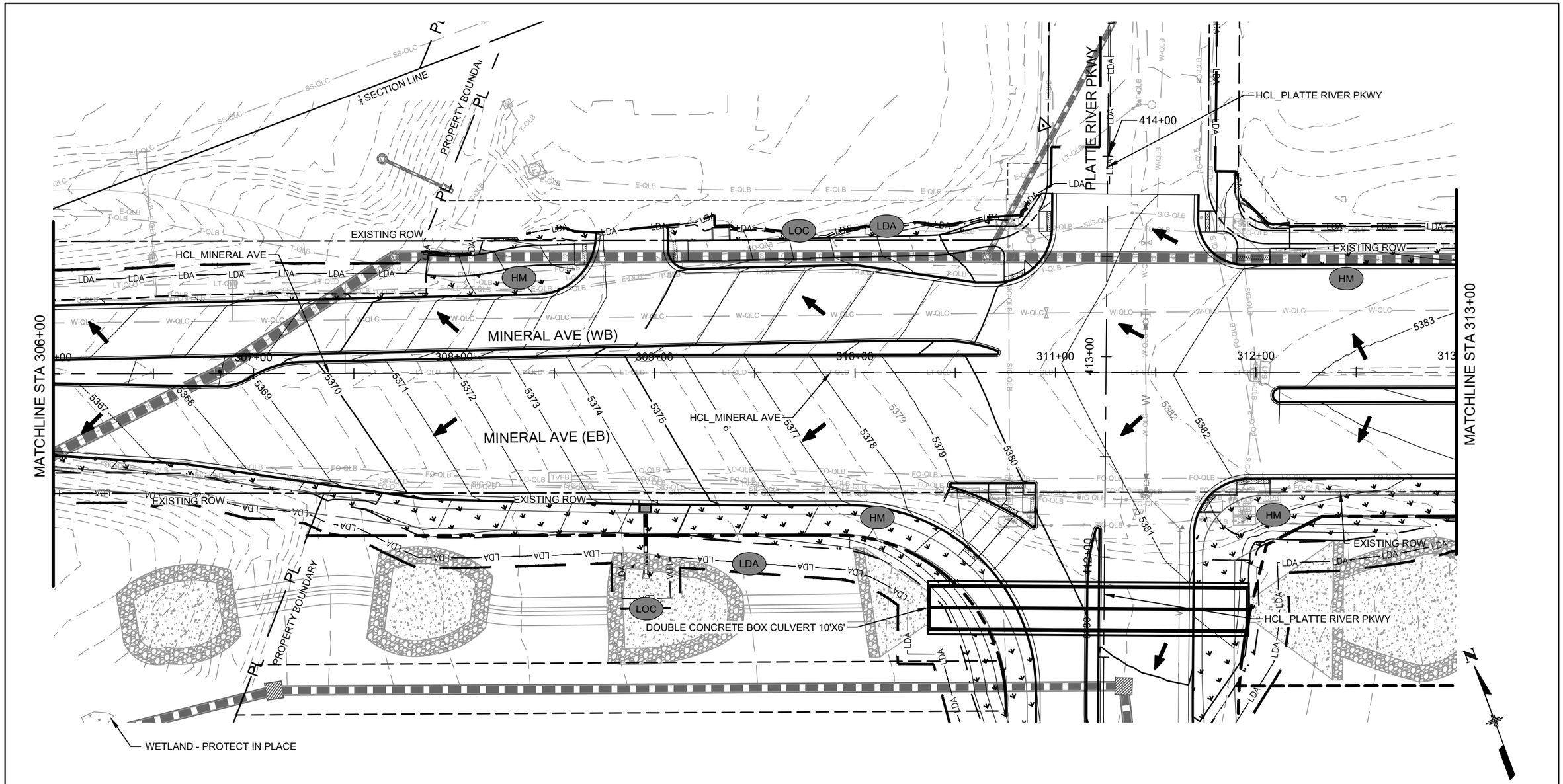
MINERAL AVE
SWMP PLAN - FINAL
STA. 300+00 TO STA. 306+00

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 08 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 196

811 Know what's below. Call before you dig.

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

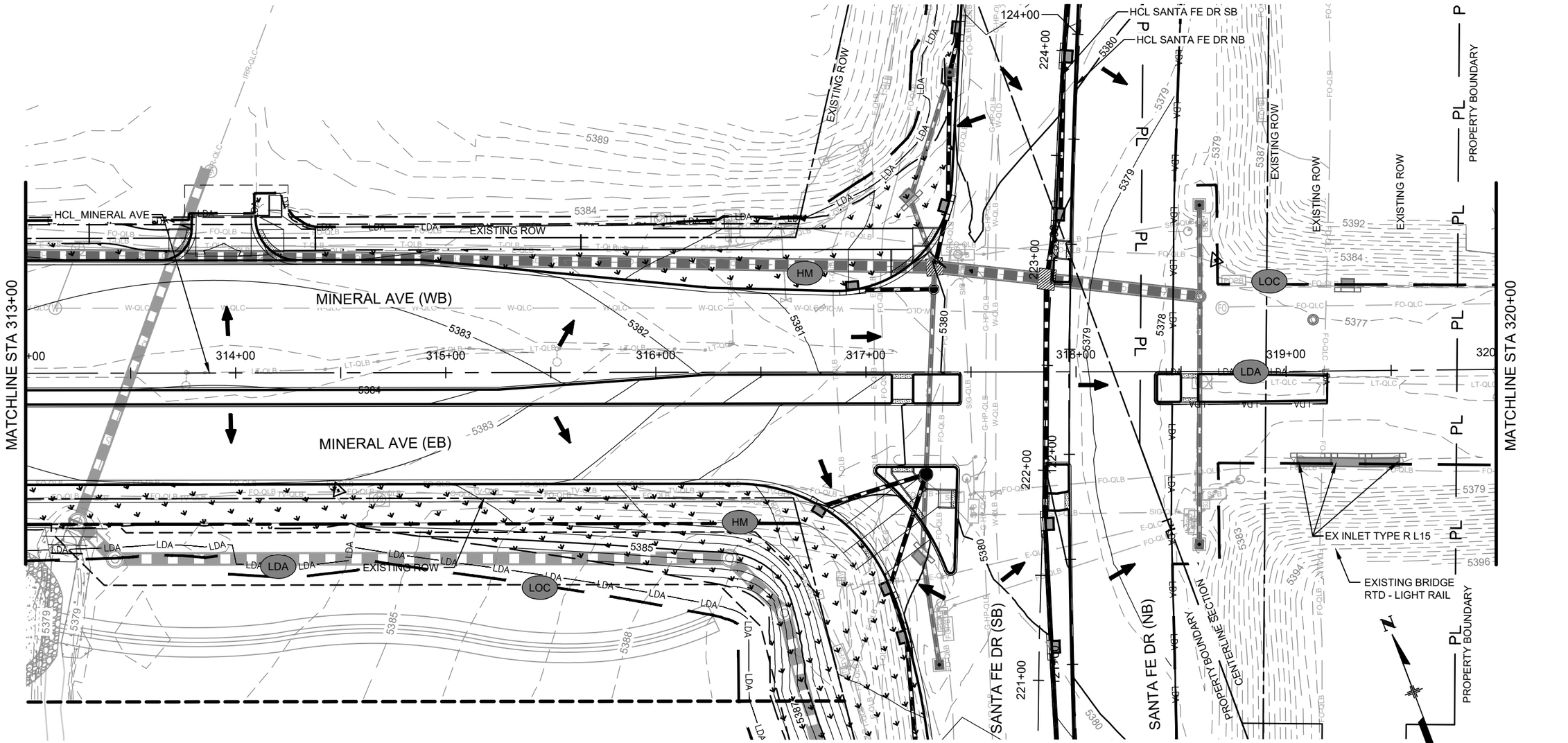
As Constructed
No Revisions:
Revised:
Void:

MINERAL AVE
SWMP PLAN - FINAL
STA. 306+00 TO STA. 313+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 09 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 197

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

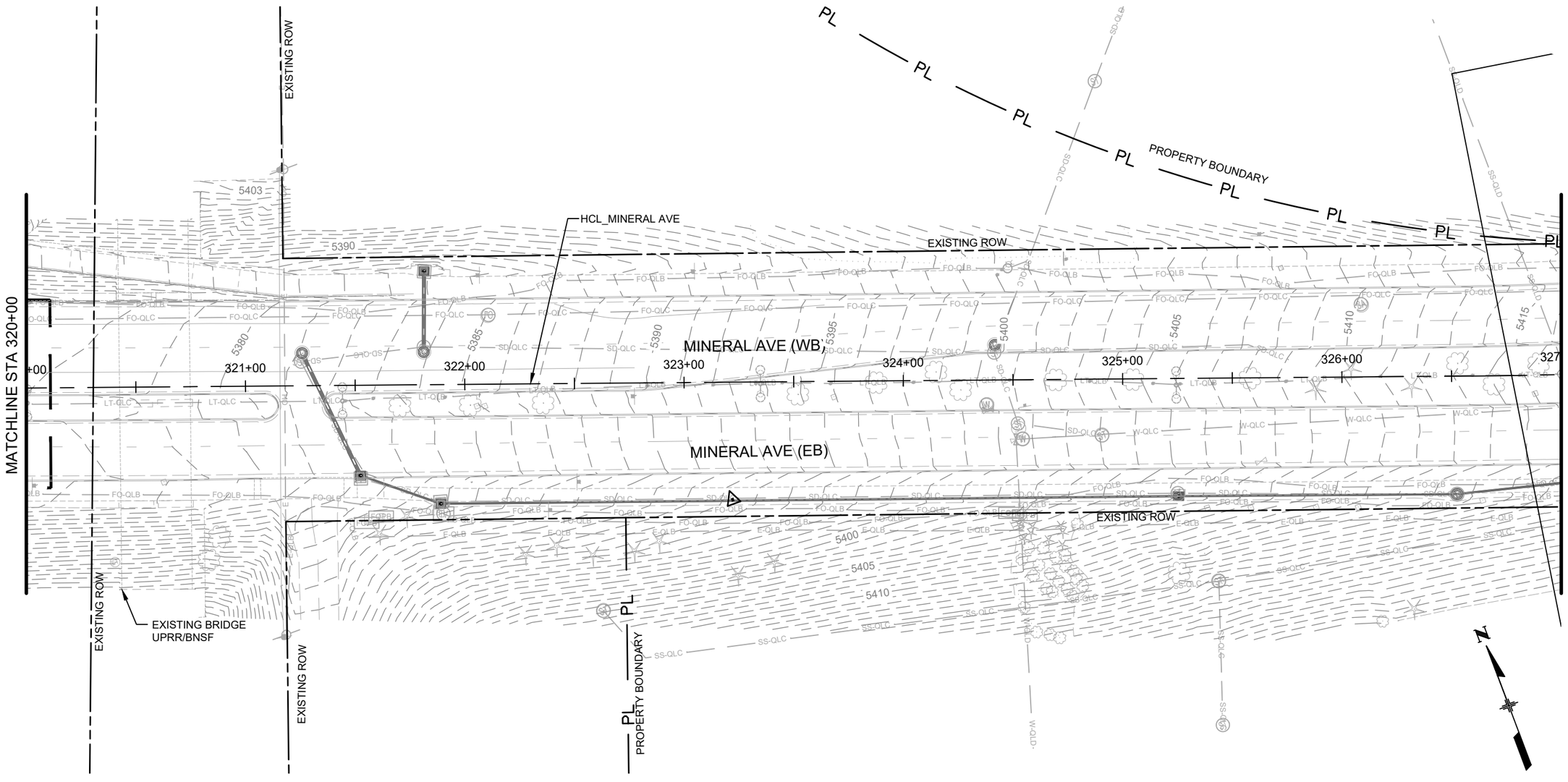
MINERAL AVE
SWMP PLAN - FINAL
STA. 313+00 TO STA. 320+00

Designer:	ACOSTA	Structure Numbers	
Detailer:	MCHAVEZ		
Sheet Subset:	SWMP	Subset Sheets:	10 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 198

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

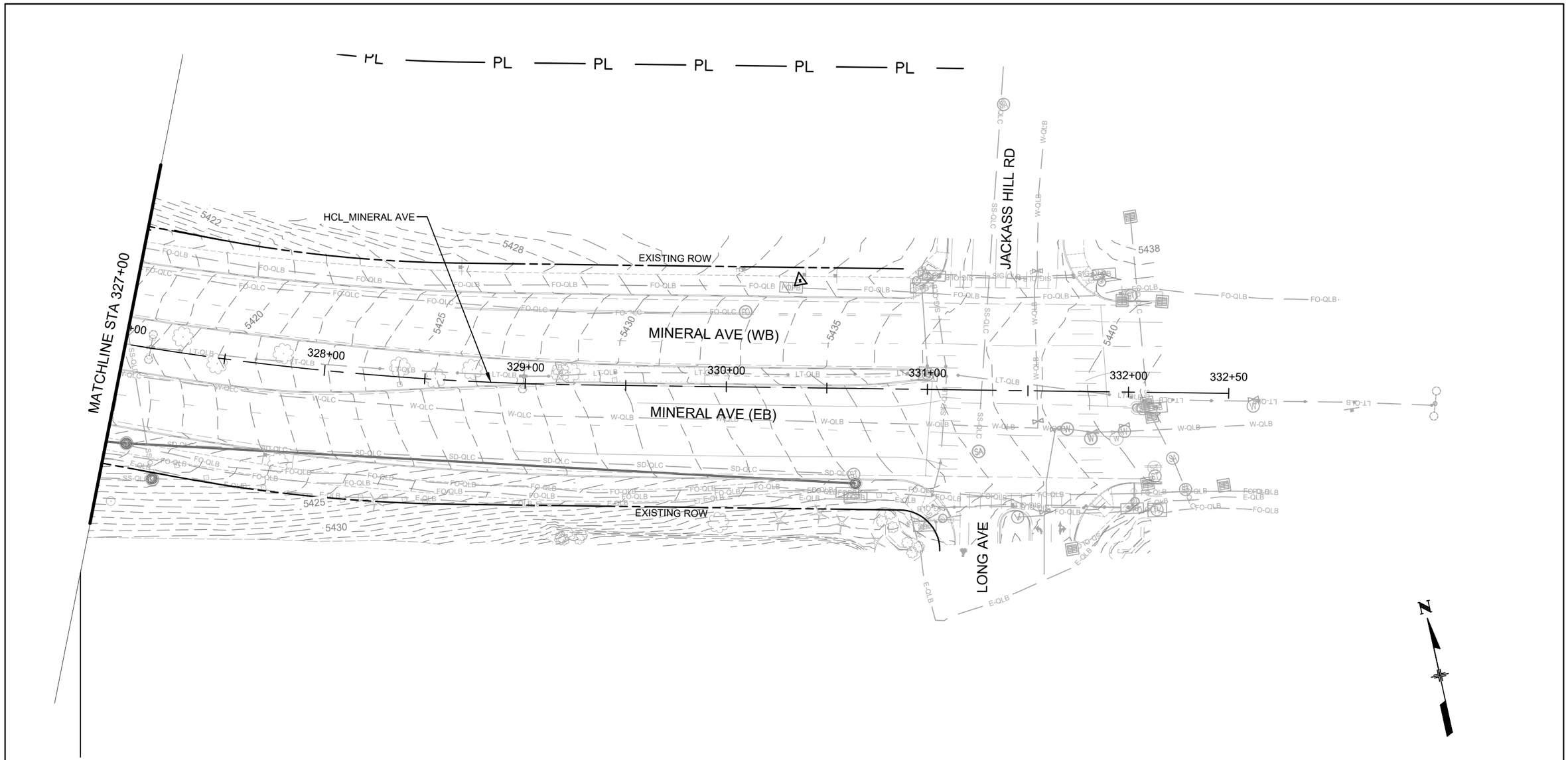
As Constructed
No Revisions:
Revised:
Void:

MINERAL AVE
SWMP PLAN - FINAL
STA. 320+00 TO STA. 327+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 11 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 199

$PLOT_INFO$



BMP LEGEND:

		LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA		LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_02.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

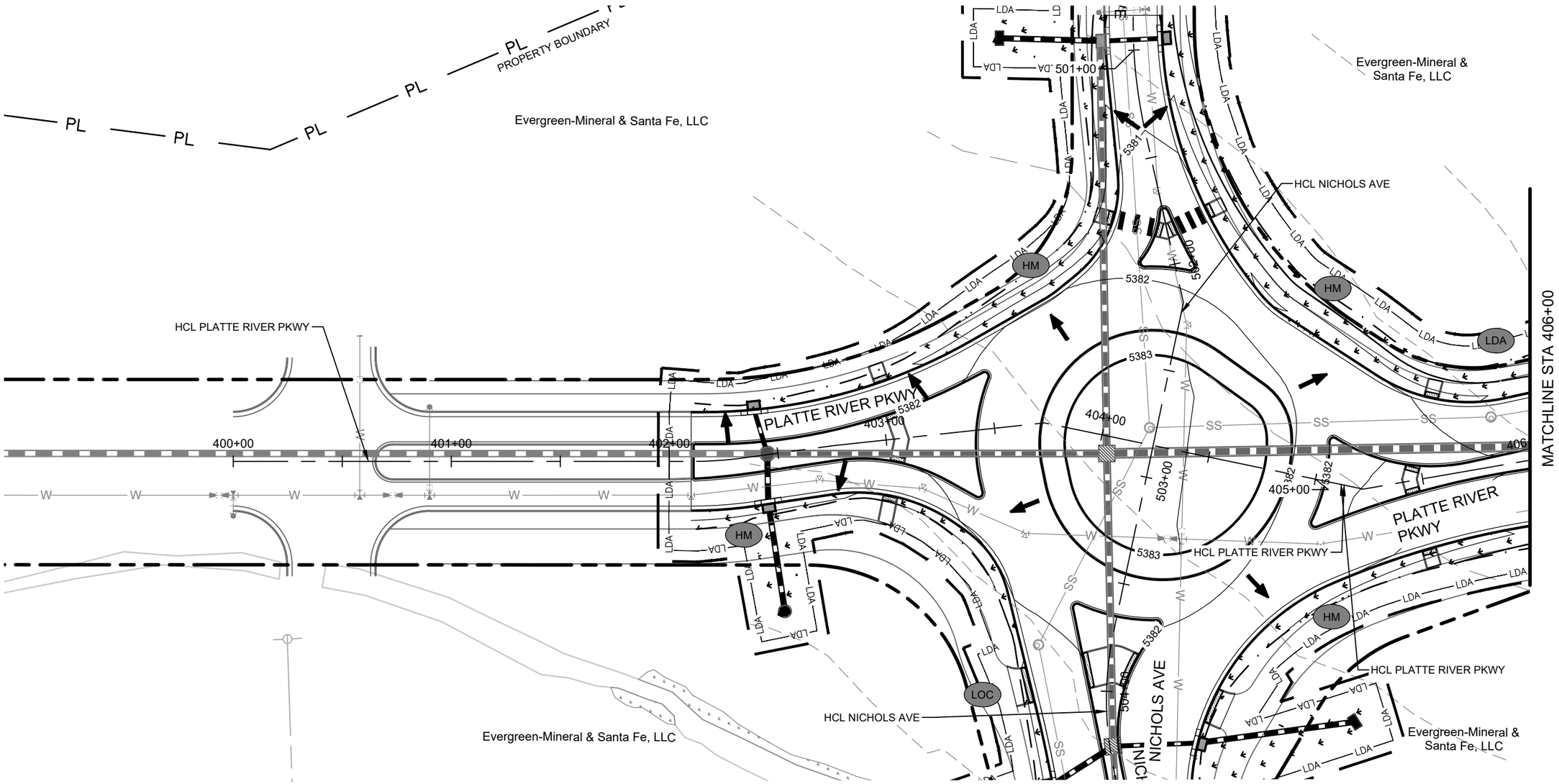
As Constructed
No Revisions:
Revised:
Void:

MINERAL AVE
SWMP PLAN - FINAL
STA. 327+00 TO STA. 332+50

Designer: ACOSTA
Detailer: MCHAVEZ
Sheet Subset: SWMP
Structure Numbers
Subset Sheets: 12 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 200

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

N

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_SWMP_PLAN III_03.DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

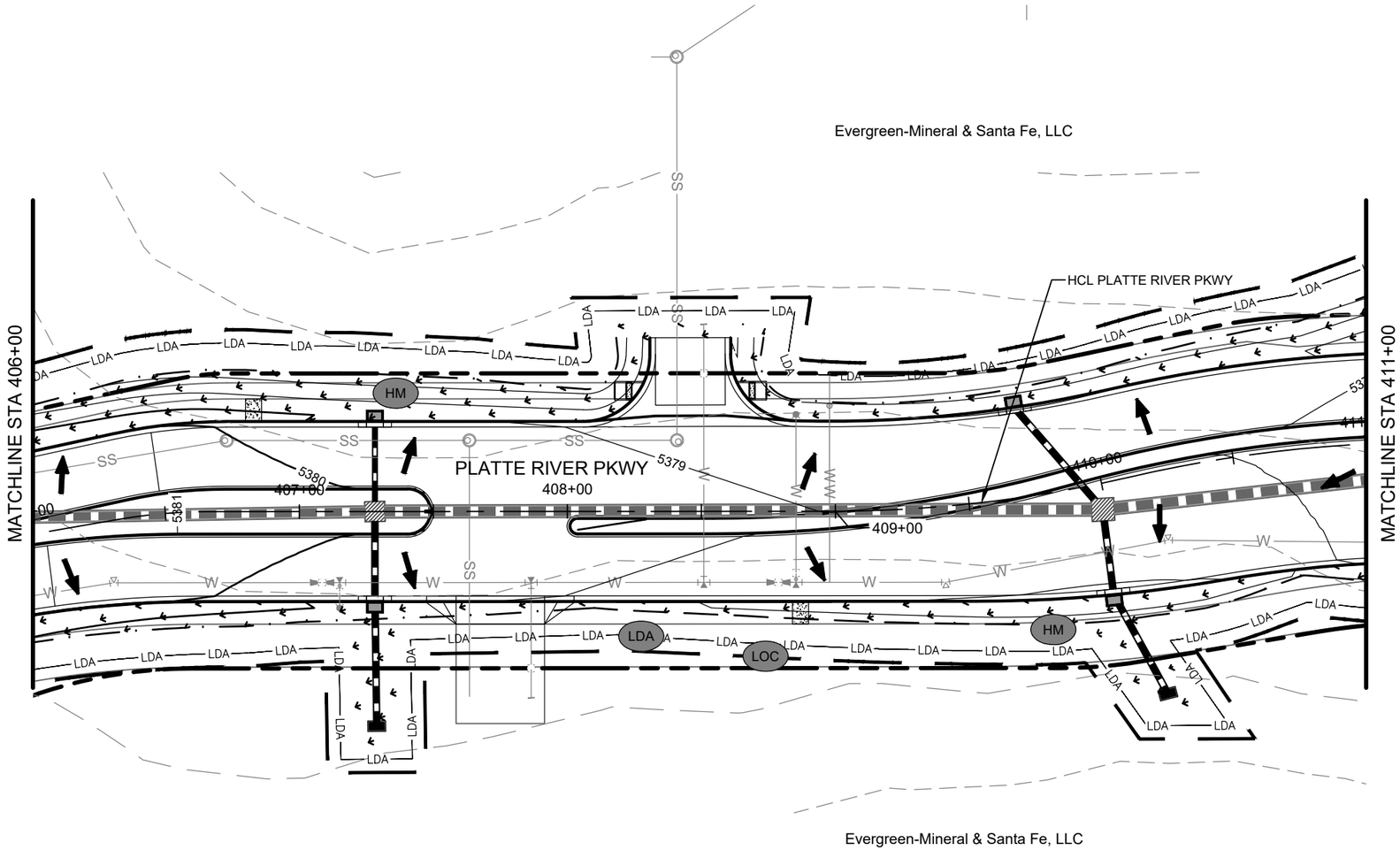
Sheet Revisions

Date:	Comments	Init.

Littleton Colorado

As Constructed	PLATTE RIVER PKWY SWMP PLAN - FINAL STA. 400+00 TO STA. 406+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: ACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 201
	Sheet Subset: SWMP	Subset Sheets: 13 of 17	

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

Know what's below. Call before you dig.

COLORADO LICENSED PROFESSIONAL ENGINEER SAMUEL D. ACOSTA 52470 10/08/2025

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

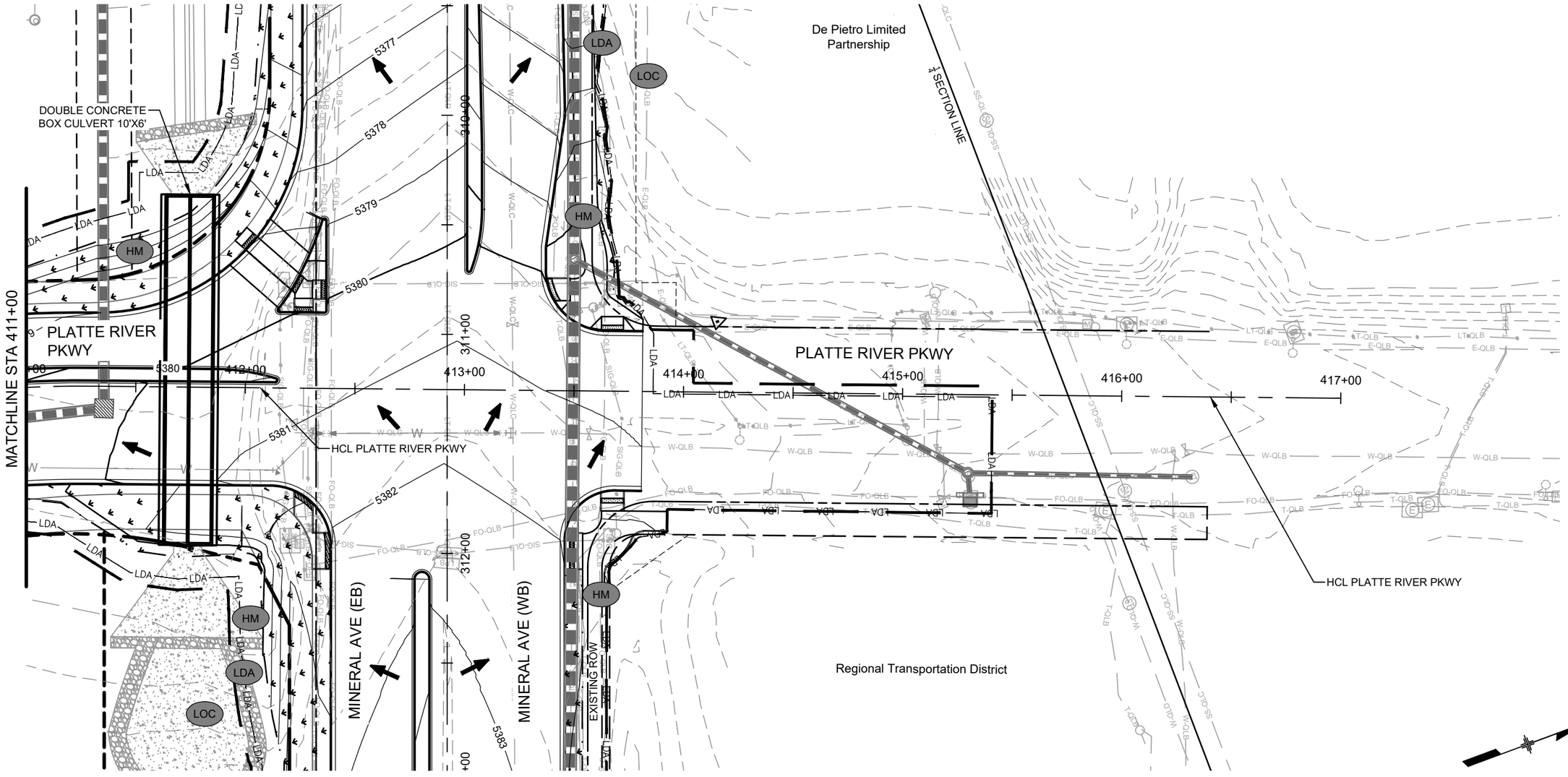
As Constructed
No Revisions:
Revised:
Void:

PLATTE RIVER PKWY
SWMP PLAN - FINAL
STA. 406+00 TO STA. 411+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 14 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 202

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

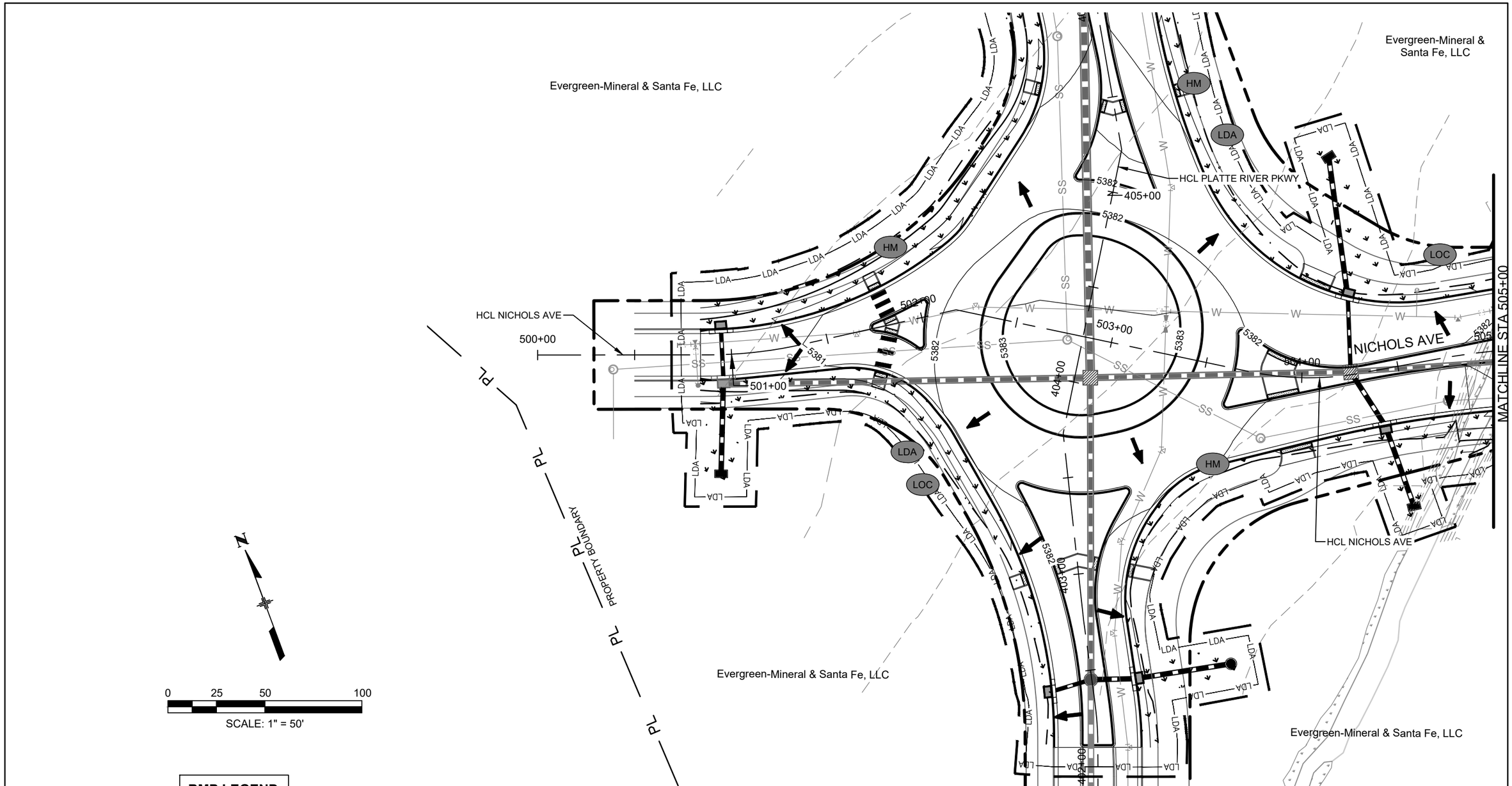
As Constructed
No Revisions:
Revised:
Void:

PLATTE RIVER PKWY
SWMP PLAN - FINAL
STA. 411+00 TO STA. 417+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 15 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 203

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

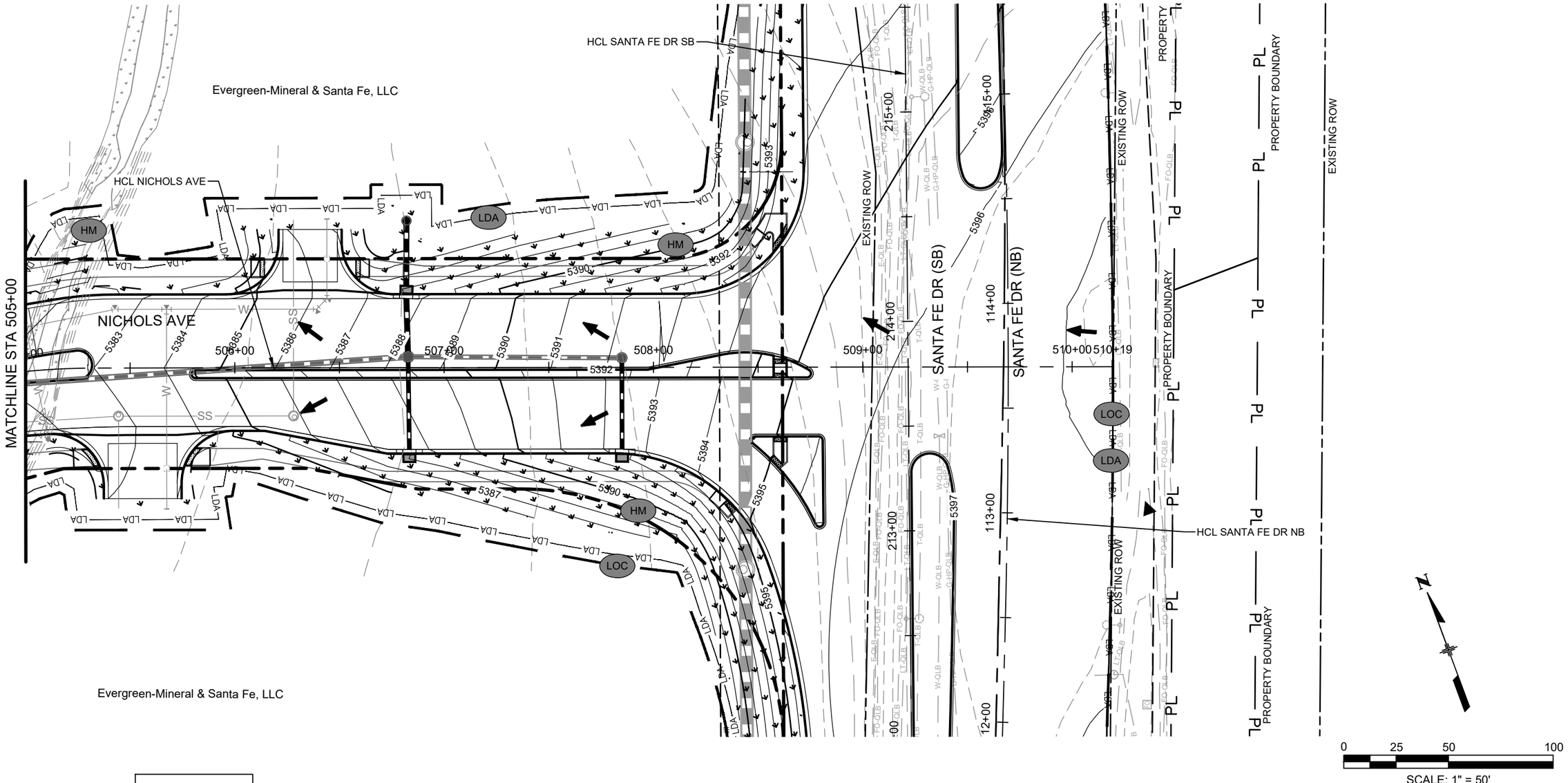
As Constructed
No Revisions:
Revised:
Void:

NICHOLS AVE
SWMP PLAN - FINAL
STA. 500+00 TO STA. 505+00

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 16 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 204

$PLOT_INFO$



BMP LEGEND:

	LOC	LIMITS OF CONSTRUCTION		IP1	INLET PROTECTION I		RS	ROCK SOCKS		SCL	SEDIMENT CONTROL LOG
LDA	LDA	LIMITS OF DISTURBED AREA		IP3	INLET PROTECTION III		HM	SEEDING		CIP	CULVERT INLET PROTECTION

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SWMP_PLAN III_03.DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

NICHOLS AVE
SWMP PLAN - FINAL
STA. 505+00 TO STA. 510+19

Designer: ACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: SWMP
Subset Sheets: 17 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 205

811 Know what's below. Call before you dig.

$PLOT_INFO$

TABULATION OF DRAINAGE REMOVALS

	Station	Offset	Station	Offset	ALIGNMENT	202-00019 Removal of Inlet EACH		202-00035 Removal of Pipe LF	
	FROM		TO			PLAN	AS CONST.	PLAN	AS CONST.
	FT		FT	FT					
EX-P-13	221+06	L 47.3	221+59	L 56.5	HCL_SANTA FE DR	2		50	
EX-P-16	223+26	L 68.4	222+95	L 55.4	HCL_SANTA FE DR	1		35	
EX-P-17	223+87	L 52.8	223+26	L 68.4	HCL_SANTA FE DR			64	
EX-P-12	303+39	L 29.7	303+39	R 27.5	HCL_MINERAL AVE	1		48	
Project Totals						**4**		**197**	

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File Name: 23574_HH_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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No Revisions:
Revised:
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TABULATION OF DRAINAGE REMOVALS

Designer: SACOSTA
Detailer: SACOSTA
Sheet Subset: H&H TAB
Structure Numbers
Subset Sheets: 01 of 01

Project No./Code
AQC M810-017
23574
Sheet Number 206

Know what's below. Call before you dig.

$PLOT_INFO$

TABULATION OF DRAINAGE STRUCTURES

STRUCTURE ID	Station	Offset	Station	Offset	ALIGNMENT	210-04010 Adjust Manhole		210-04020 Modify Inlet		603-01185 18 Inch Reinforced Concrete Pipe (Complete In Place)		603-01245 24 Inch Reinforced Concrete Pipe (Complete In Place)		603-05018 18 Inch Reinforced Concrete End Section		604-00510 Inlet Type D (10 Foot)		604-00515 Inlet Type D (15 Foot)		604-19105 Inlet Type R L 5 (5 Foot)		604-19110 Inlet Type R L 5 (10 Foot)		604-19115 Inlet Type R L 5 (15 Foot)		604-19205 Inlet Type R L 10 (5 Foot)		604-19210 Inlet Type R L 10 (10 Foot)		604-30010 Manhole Slab Base (10 Foot)		604-30015 Manhole Slab Base (15 Foot)		604-31020 Manhole Box Base (20 Foot)	
						EACH		EACH		LF		LF		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH	
	FROM		TO			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
					SANTA FE DR																																
PIPE - 169	217+12.26	49.0	L	218+41.47	49.0	L	HCL_SANTA FE DR					127																									
S217R	217+12.26	49.0	L				HCL_SANTA FE DR																			1											
PIPE - 169 (1)	218+41.47	49.0	L	218+83.13	49.0	L	HCL_SANTA FE DR					39																									
S218LA	218+41.47	49.0	L				HCL_SANTA FE DR													1																	
PIPE - 165	218+83.13	49.0	L	219+42.04	49.0	L	HCL_SANTA FE DR					57																									
S218L	218+83.13	49.0	L				HCL_SANTA FE DR													1																	
PIPE - 201	219+42.04	49.0	L	219+72.21	49.0	L	HCL_SANTA FE DR					28																									
S219L	219+42.04	49.0	L				HCL_SANTA FE DR													1																	
PIPE - 168	219+72.21	49.0	L	221+19.78	63.3	L	HCL_SANTA FE DR					147																									
S218LA (1)	219+72.21	49.0	L				HCL_SANTA FE DR													1																	
PIPE - 182	220+02.90	14.2	R	220+30.07	12.2	R	HCL_SANTA FE DR					25																									
S220RB	220+02.90	14.2	R				HCL_SANTA FE DR													1																	
PIPE - 183	220+30.07	12.2	R	220+59.99	10.0	R	HCL_SANTA FE DR					27																									
S220RA	220+30.07	12.2	R				HCL_SANTA FE DR													1																	
PIPE - 173	220+59.99	10.0	R	221+16.02	5.8	R	HCL_SANTA FE DR					54																									
S220R	220+59.99	10.0	R				HCL_SANTA FE DR													1																	
PIPE - 175	221+16.02	5.8	R	221+74.44	1.5	R	HCL_SANTA FE DR					56																									
S221RA	221+16.02	5.8	R				HCL_SANTA FE DR													1																	
PIPE - 184	221+19.78	63.3	L	221+42.75	71.7	L	HCL_SANTA FE DR					22																									
S221LB	221+19.78	63.3	L				HCL_SANTA FE DR													1																	
PIPE - 185	221+42.75	71.7	L	221+96.44	55.9	L	HCL_SANTA FE DR					52																									
S221LA	221+42.75	71.7	L				HCL_SANTA FE DR													1																	
PIPE - 167	221+74.44	1.5	R	222+90.94	1.9	L	HCL_SANTA FE DR					111																									
S221R	221+74.44	1.5	R				HCL_SANTA FE DR													1																	
P-M316R	221+79.70	105.2	L	221+96.44	55.90	L	HCL_SANTA FE DR					47																									
IN-M316R	221+79.70	105.2	L				HCL_SANTA FE DR													1																	
MH-M317.2R	221+96.44	55.9	L				HCL_SANTA FE DR																							1							
PIPE - 186	222+81.99	94.0	L	222+84.04	55.4	L	HCL_SANTA FE DR					36																									
M774L	222+81.99	94.0	L				HCL_SANTA FE DR															1															
							SHEET 1 SUBTOTAL					828								12		1				1				1							

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TABULATION OF DRAINAGE STRUCTURES

Designer: SACOSTA
Detailer: SACOSTA
Structure Numbers
Sheet Subset: H&H TAB
Subset Sheets: 01 of 04

Project No./Code
AQC M810-017
23574
Sheet Number 207

$PLOT_INFO$

TABULATION OF DRAINAGE STRUCTURES

STRUCTURE ID	Station	Offset		Station	Offset		ALIGNMENT	210-04010 Adjust Manhole EACH		210-04020 Modify Inlet EACH		603-01185 18 Inch Reinforced Concrete Pipe (Complete In Place) LF		603-01245 24 Inch Reinforced Concrete Pipe (Complete In Place) LF		603-05018 18 Inch Reinforced Concrete End Section EACH		604-00510 Inlet Type D (10 Foot) EACH		604-00515 Inlet Type D (15 Foot) EACH		604-19105 Inlet Type R L 5 (5 Foot) EACH		604-19110 Inlet Type R L 5 (10 Foot) EACH		604-19115 Inlet Type R L 5 (15 Foot) EACH		604-19205 Inlet Type R L 10 (5 Foot) EACH		604-19210 Inlet Type R L 10 (10 Foot) EACH		604-30010 Manhole Slab Base (10 Foot) EACH		604-30015 Manhole Slab Base (15 Foot) EACH		604-31020 Manhole Box Base (20 Foot) EACH	
	FROM			TO				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
SANTA FE DR CONTINUED																																							
MH-M317.2L	222+84.04	55.4	L				HCL_SANTA FE DR																													1			
MH-M318L	222+90.94	1.9	L				HCL_SANTA FE DR																															1	
MH-M317L	222+94.53	55.4	L				HCL_SANTA FE DR																															1	
PIPE - 163	223+22.10	1.0	R	222+90.94	1.9	L	HCL_SANTA FE DR					26																											
S223RB	223+22.10	1.0	R				HCL_SANTA FE DR															1																	
P-M317L	223+23.02	50.3	L	222+94.53	55.4	L	HCL_SANTA FE DR					25																											
IN-M316L	223+23.02	50.3	L				HCL_SANTA FE DR																	1															
EX-IN-S125L	223+86.78	52.8	L				HCL_SANTA FE DR			1																													
P-M317LB	223+86.78	52.8	L	223+23.02	50.3	L	HCL_SANTA FE DR					61																											
PIPE - 180	223+97.39	1.0	R	223+24.55	3.2	R	HCL_SANTA FE DR					72																											
S223RA	223+97.39	1.0	R				HCL_SANTA FE DR															1																	
PIPE - 189	224+07.99	48.9	L	223+86.78	52.8	L	HCL_SANTA FE DR					19																											
S227L	224+07.99	48.9	L				HCL_SANTA FE DR															1																	
PIPE - 179	225+13.92	3.3	R	223+97.39	1.0	R	HCL_SANTA FE DR					116																											
S225R	225+16.26	1.0	R				HCL_SANTA FE DR															1																	
MINERAL AVE																																							
P-12	303+38.57	29.7	L	303+38.57	27.5	R	HCL_MINERAL AVE					48																											
IN-5	303+38.57	27.5	R				HCL_MINERAL AVE																							1									
IN-9	303+38.57	29.7	L				HCL_MINERAL AVE																					1											
P-309R	308+95.27	65.3	R	308+95.60	102.4	R	HCL_MINERAL AVE					35																											
IN-309R	308+95.27	65.3	R				HCL_MINERAL AVE															1																	
FES-309R	308+95.60	102.4	R				HCL_MINERAL AVE									1																							
PLATTE RIVER PKWY																																							
P-P401L	402+41.86	21.2	L	402+45.12	0.5	L	HCL_PLATTE RIVER PKWY					15																											
IN-P401L	402+41.86	21.2	L				HCL_PLATTE RIVER PKWY																	1															
P-P401R	402+42.51	22.2	R	402+45.12	0.5	L	HCL_PLATTE RIVER PKWY							17																									
IN-P401R	402+42.51	22.2	R				HCL_PLATTE RIVER PKWY																	1															
P-P401.2R	402+43.36	72.2	R	402+42.51	22.2	R	HCL_PLATTE RIVER PKWY							45																									
IN-P401.2R	402+43.36	72.2	R				HCL_PLATTE RIVER PKWY																											1					
							SHEET 2 SUBTOTAL			**1**		**417**		**62**		**1**						**5**		**3**				**1**		**1**		**1**		**1**		**2**	

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TABULATION OF DRAINAGE STRUCTURES

Designer: SACOSTA
Detailer: SACOSTA
Sheet Subset: H&H TAB
Structure Numbers
Subset Sheets: 02 of 04

Project No./Code
AQC M810-017
23574
Sheet Number 208

$PLOT_INFO$

TABULATION OF DRAINAGE STRUCTURES

STRUCTURE ID	Station (FROM)	Offset (FROM)		Station (TO)	Offset (TO)		ALIGNMENT	210-04010 Adjust Manhole (EACH) PLAN	AS CONST.	210-04020 Modify Inlet (EACH) PLAN	AS CONST.	603-01185 18 Inch Reinforced Concrete Pipe (Complete In Place) (LF) PLAN	AS CONST.	603-01245 24 Inch Reinforced Concrete Pipe (Complete In Place) (LF) PLAN	AS CONST.	603-05018 18 Inch Reinforced Concrete End Section (EACH) PLAN	AS CONST.	604-00510 Inlet Type D (10 Foot) (EACH) PLAN	AS CONST.	604-00515 Inlet Type D (15 Foot) (EACH) PLAN	AS CONST.	604-19105 Inlet Type R L 5 (5 Foot) (EACH) PLAN	AS CONST.	604-19110 Inlet Type R L 5 (10 Foot) (EACH) PLAN	AS CONST.	604-19115 Inlet Type R L 5 (15 Foot) (EACH) PLAN	AS CONST.	604-19205 Inlet Type R L 10 (5 Foot) (EACH) PLAN	AS CONST.	604-19210 Inlet Type R L 10 (10 Foot) (EACH) PLAN	AS CONST.	604-30010 Manhole Slab Base (10 Foot) (EACH) PLAN	AS CONST.	604-30015 Manhole Slab Base (15 Foot) (EACH) PLAN	AS CONST.	604-31020 Manhole Box Base (20 Foot) (EACH) PLAN	AS CONST.
PLATTE RIVER PKWY CONTINUED																																							
MH-P401	402+45.12	0.5	L				HCL_PLATTE RIVER PKWY	1																															
MH-P404	404+03.91	7.9	R				HCL_PLATTE RIVER PKWY	1																															
P-P407R	407+28.20	33.5	R	407+28.20		L	HCL_PLATTE RIVER PKWY							28																									
P-P407L	407+28.20	33.5	L	407+28.20		L	HCL_PLATTE RIVER PKWY					28																											
IN-P407L	407+28.20	33.5	L				HCL_PLATTE RIVER PKWY																	1															
IN-P407R	407+28.20	33.5	R				HCL_PLATTE RIVER PKWY																	1															
MH-P407	407+28.20						HCL_PLATTE RIVER PKWY	1																															
P-P407.2R	407+28.85	80.1	R	407+28.20	33.5	R	HCL_PLATTE RIVER PKWY							41																									
IN-P407.2R	407+28.85	80.1	R				HCL_PLATTE RIVER PKWY											1																					
P-P409L	409+72.03	33.5	L	409+98.54	9.7	R	HCL_PLATTE RIVER PKWY							42																									
IN-P409L	409+72.03	33.5	L				HCL_PLATTE RIVER PKWY																	1															
P-P409R	409+96.30	41.5	R	409+98.54	9.7	R	HCL_PLATTE RIVER PKWY							25																									
IN-P409R	409+96.30	41.5	R				HCL_PLATTE RIVER PKWY																	1															
MH-P408	409+98.54	9.7	R				HCL_PLATTE RIVER PKWY	1																															
P-P409.2R	410+07.13	81.9	R	409+96.30	41.5	R	HCL_PLATTE RIVER PKWY							37																									
IN-P409.2R	410+07.13	81.9	R				HCL_PLATTE RIVER PKWY											1																					
MH-P411L	411+35.58	10.1	R				HCL_PLATTE RIVER PKWY	1																															
NICHOLS AVE																																							
P-N500.2R	500+93.12	61.4	R	500+95.36	12.9	R	HCL NICHOLS AVE							43																									
IN-N500.2R	500+93.12	61.4	R				HCL NICHOLS AVE													1																			
P-N500R	500+94.97	13.1	L	500+95.36	12.9	R	HCL NICHOLS AVE					21																											
IN-N500L	500+94.97	13.1	L				HCL NICHOLS AVE																	1															
IN-N500R	500+95.36	12.9	R				HCL NICHOLS AVE			1																													
P-N504L	504+31.10	40.0	L	504+25.46	1.5	L	HCL NICHOLS AVE							33																									
P-N504.2L	504+34.55	112.7	L	504+31.10	40.0	L	HCL NICHOLS AVE							67																									
IN-N504.2L	504+34.55	112.7	L				HCL NICHOLS AVE											1																					
MH-N504	504+35.23	0.1	R				HCL NICHOLS AVE	1																															
P-N505R	504+37.96	28.9	R	504+25.46	1.5	L	HCL NICHOLS AVE							26																									
IN-N504R	504+37.96	28.9	R				HCL NICHOLS AVE																			1													
							SHEET 3 SUBTOTAL	**6**		**1**		**49**		**342**				**3**		**1**				**5**		**1**													

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TABULATION OF DRAINAGE STRUCTURES

Designer: SACOSTA
Detailer: SACOSTA
Sheet Subset: H&H TAB
Structure Numbers
Subset Sheets: 03 of 04

Project No./Code
AQC M810-017
23574
Sheet Number 209

$PLOT_INFO$

TABULATION OF DRAINAGE STRUCTURES

STRUCTURE ID	Station	Offset		Station	Offset		ALIGNMENT	210-04010 Adjust Manhole		210-04020 Modify Inlet		603-01185 18 Inch Reinforced Concrete Pipe (Complete In Place)		603-01245 24 Inch Reinforced Concrete Pipe (Complete In Place)		603-05018 18 Inch Reinforced Concrete End Section		604-00510 Inlet Type D (10 Foot)		604-00515 Inlet Type D (15 Foot)		604-19105 Inlet Type R L 5 (5 Foot)		604-19110 Inlet Type R L 5 (10 Foot)		604-19115 Inlet Type R L 5 (15 Foot)		604-19205 Inlet Type R L 10 (5 Foot)		604-19210 Inlet Type R L 10 (10 Foot)		604-30010 Manhole Slab Base (10 Foot)		604-30015 Manhole Slab Base (15 Foot)		604-31020 Manhole Box Base (20 Foot)	
								EACH		EACH		LF		LF		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH	
	FROM			TO				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
							NICHOLS AVE CONTINUED																														
IN-N504L	504+43.51	35.4	L				HCL NICHOLS AVE																	1													
P-N505.2R	504+45.07	72.6	R	504+37.96	28.9	R	HCL NICHOLS AVE							39																							
IN-N505.2R	504+45.07	72.6	R				HCL NICHOLS AVE											1																			
P-N506L	506+81.96	35.0	L	506+82.79	5.2	L	HCL NICHOLS AVE							25																							
IN-N506L	506+81.96	35.0	L				HCL NICHOLS AVE																	1													
P-N506.2L	506+82.10	70.1	L	506+81.96	35.0	L	HCL NICHOLS AVE							31																							
IN-N506.2L	506+82.10	70.1	L				HCL NICHOLS AVE																									1					
MH-N506	506+82.79	5.2	L				HCL NICHOLS AVE	1																													
P-N506R	506+83.38	41.0	R	506+82.79	5.2	L	HCL NICHOLS AVE					41																									
IN-N506R	506+83.38	41.0	R				HCL NICHOLS AVE																	1													
MH-N508	507+84.90	4.5	L				HCL NICHOLS AVE	1																													
P-N508R	507+84.99	41.0	R	507+84.90	4.5	L	HCL NICHOLS AVE					41																									
IN-N508R	507+84.99	41.0	R				HCL NICHOLS AVE																	1													
							SHEET 4 SUBTOTAL	**2**				**82**		**95**				**1**						**4**								**1**					
							SHEET 1 SUBTOTAL					**828**										**12**		**1**				**1**				**1**					
							SHEET 2 SUBTOTAL			**1**		**417**		**62**		**1**						**5**		**3**				**1**		**1**		**1**		**1**		**2**	
							SHEET 3 SUBTOTAL	**6**		**1**		**49**		**342**				**3**		**1**				**5**		**1**											
							SHEET 4 SUBTOTAL	**2**				**82**		**95**				**1**						**4**								**1**					
							5% IRREGULARITIES					**69**		**25**																							
							Project Totals	**8**		**2**		**1,445**		**524**		**1**		**4**		**1**		**17**		**13**		**1**		**2**		**1**		**3**		**1**		**2**	

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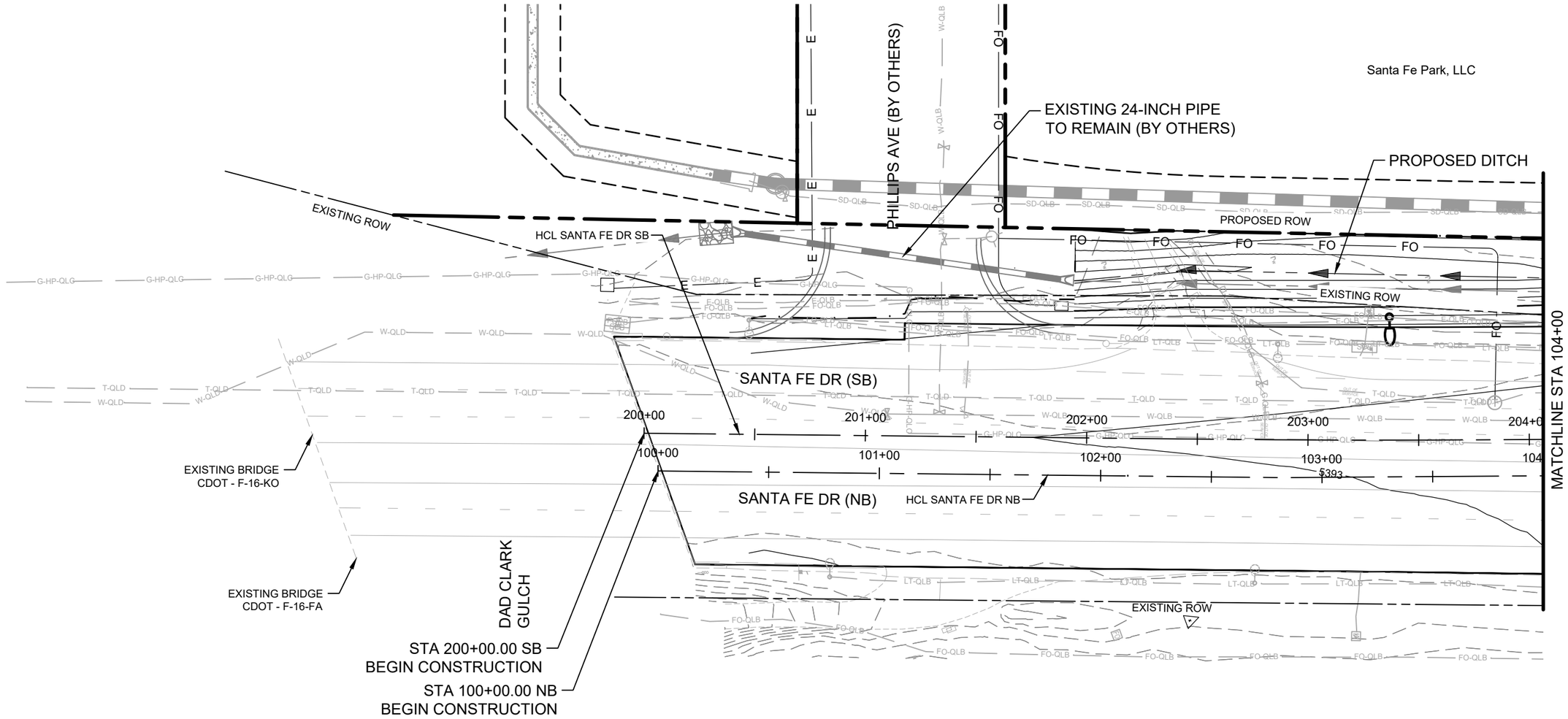
Sheet Subset: H&H TAB
Structure Numbers
Subset Sheets: 04 of 04

Project No./Code
AQC M810-017
23574
Sheet Number 210

$PLOT_INFO$



NO DRAINAGE WORK THIS SHEET

0 25 50 100

SCALE: 1" = 50'

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52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_DR_PLAN(1).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

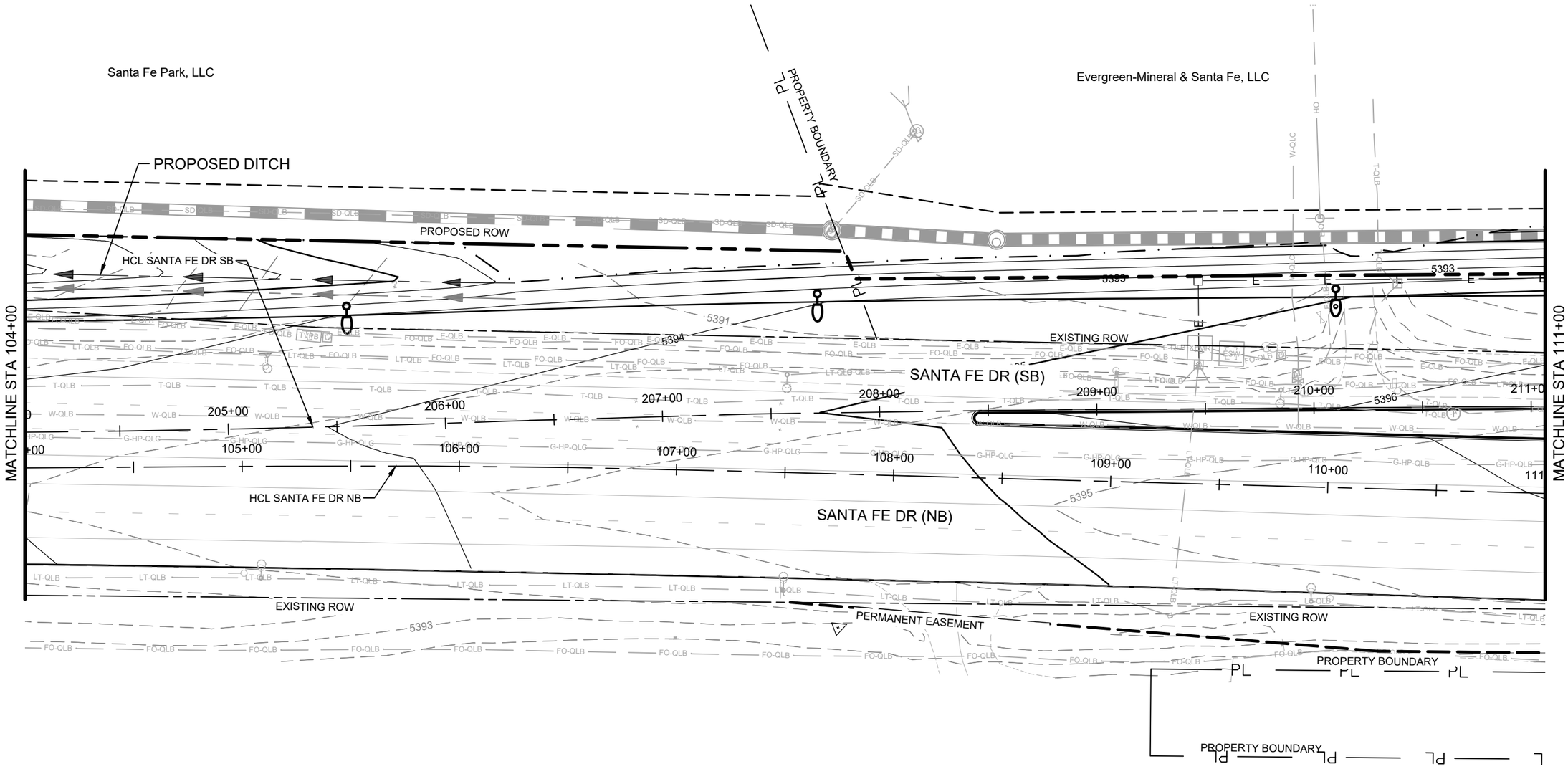
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR DRAINAGE PLAN STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 211
	Sheet Subset: DRAINAGE	Subset Sheets: 01 of 17	

$PLOT_INFO$



NO DRAINAGE WORK THIS SHEET

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_DR_PLAN(1).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

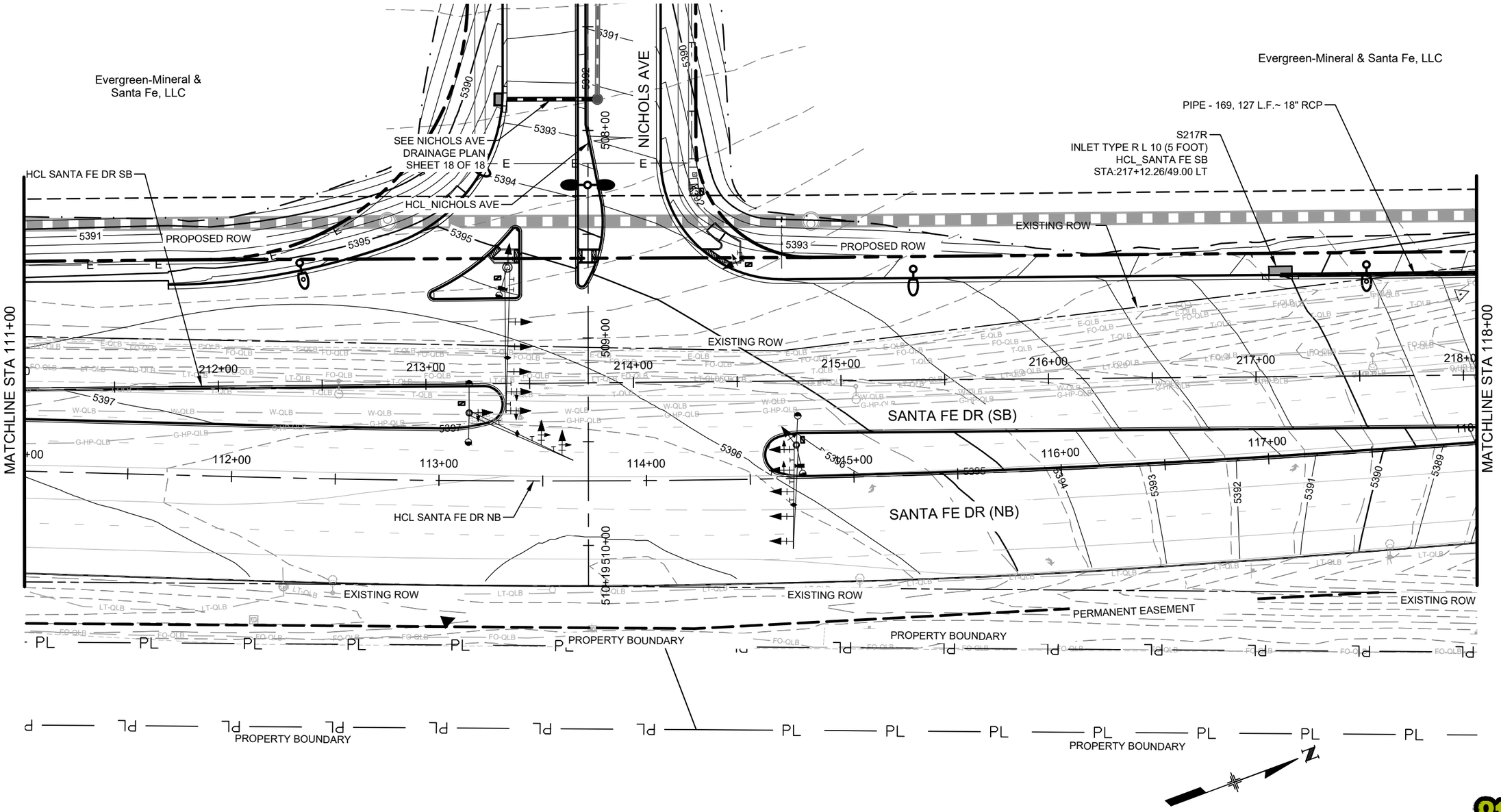
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR DRAINAGE PLAN STA. 104+00 TO STA. 111+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 212
	Sheet Subset: DRAINAGE	Subset Sheets: 02 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

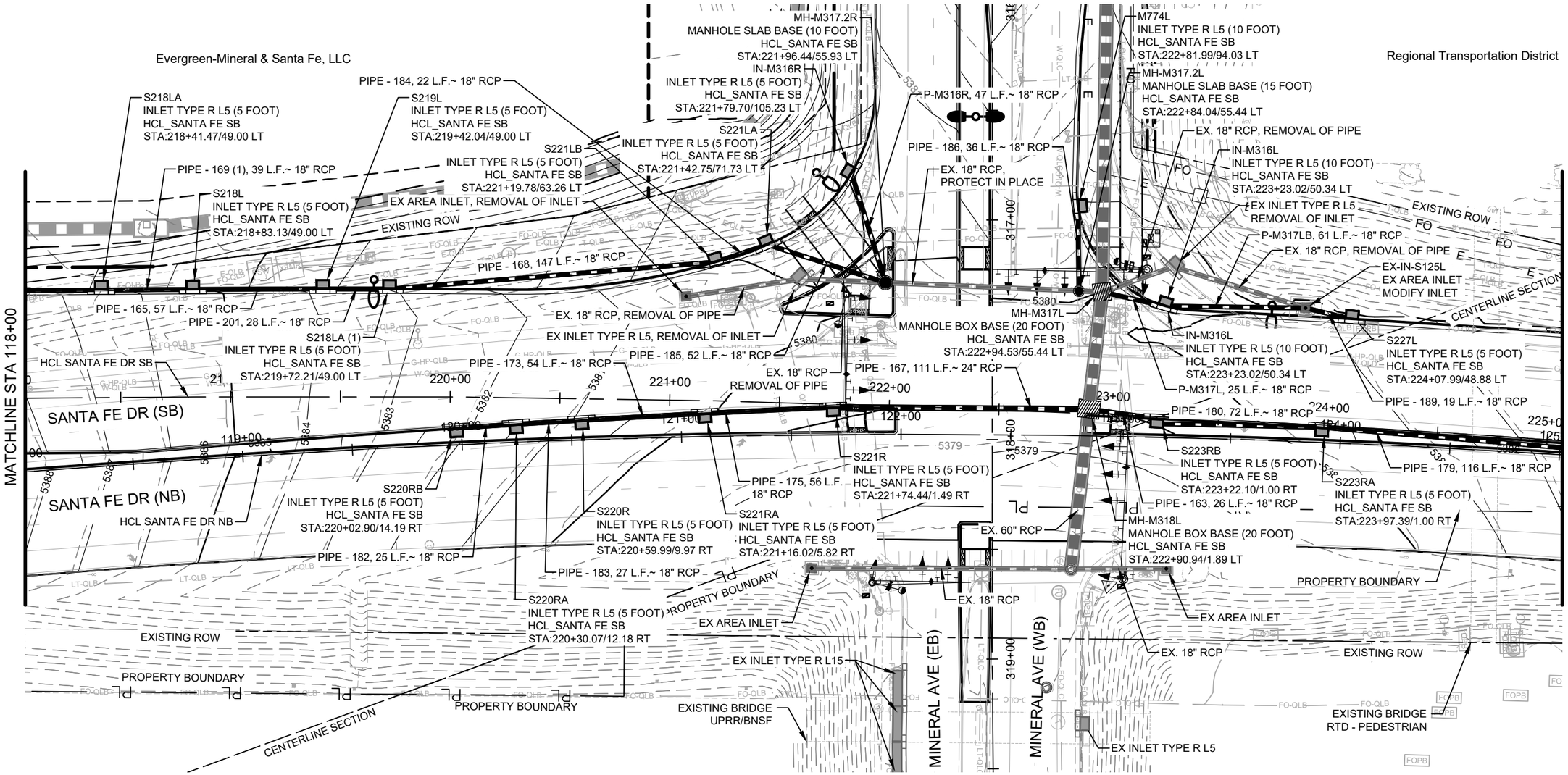
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR DRAINAGE PLAN STA. 111+00 TO STA. 118+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 213
	Sheet Subset: DRAINAGE	Subset Sheets: 03 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(1).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

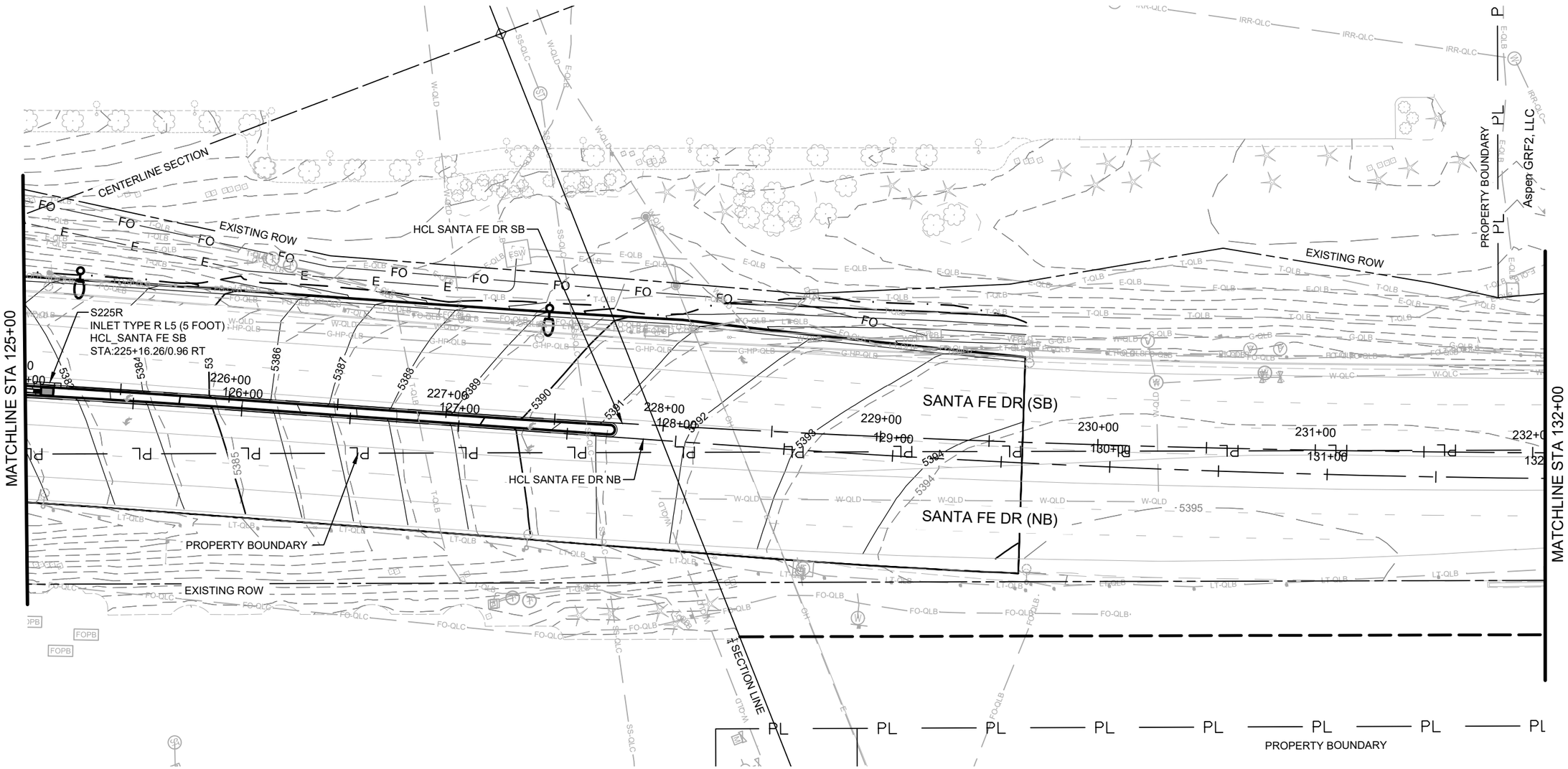
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR DRAINAGE PLAN STA. 118+00 TO STA. 125+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 214
	Sheet Subset: DRAINAGE	Subset Sheets: 04 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(1).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

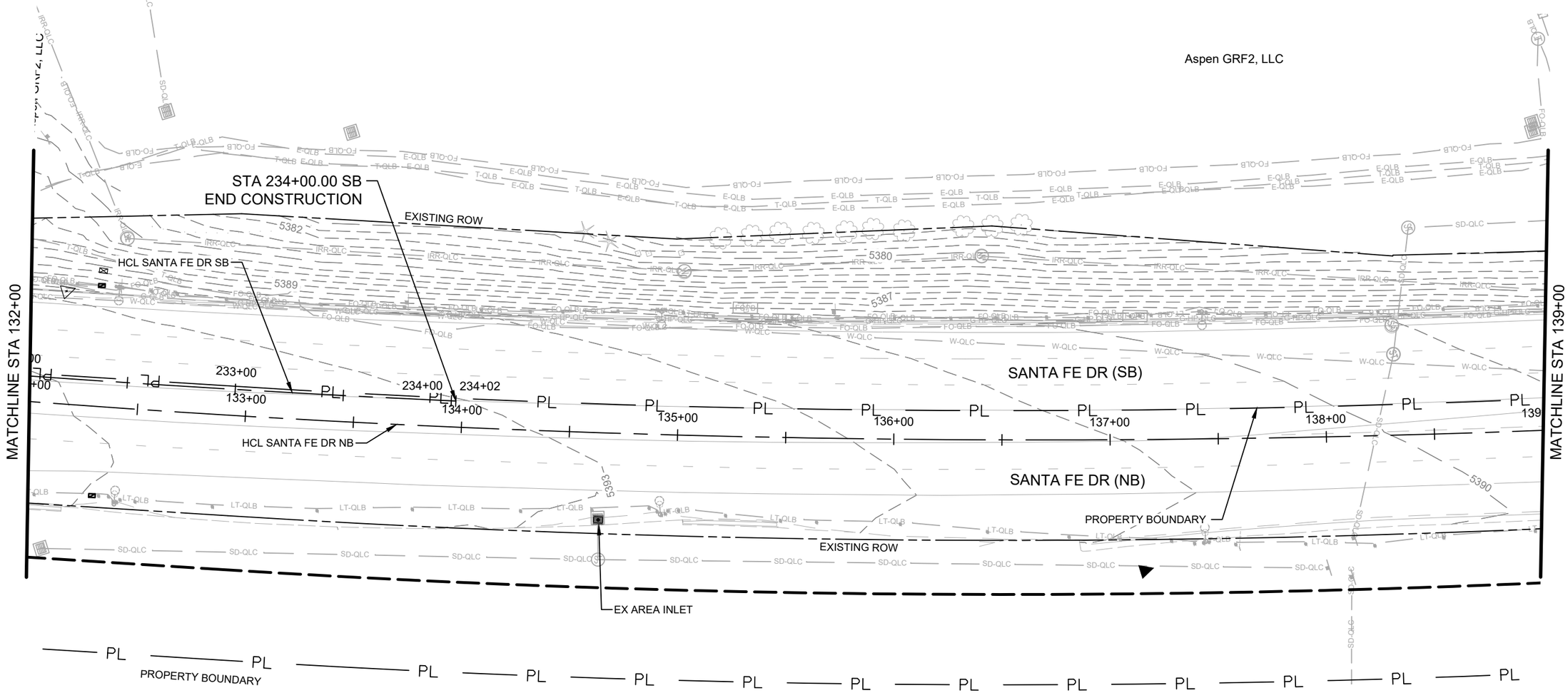
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
DRAINAGE PLAN
STA. 125+00 TO STA. 132+00

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 05 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 215

$PLOT_INFO$



NO DRAINAGE WORK THIS SHEET

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_DR_PLAN(1).DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR 1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

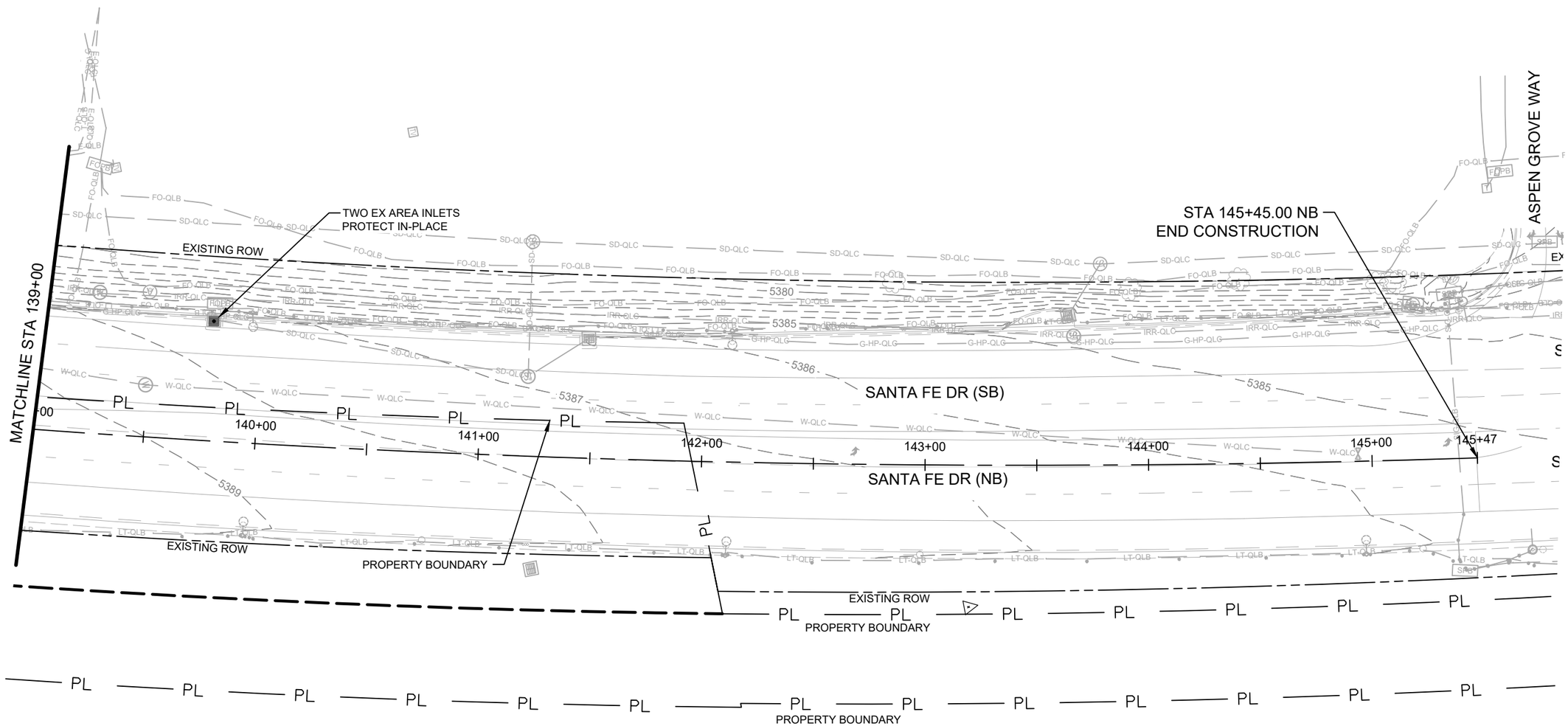
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR DRAINAGE PLAN STA. 132+00 TO STA. 139+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		
	Sheet Subset: DRAINAGE	Subset Sheets: 06 of 17	Sheet Number 216

Know what's below. Call before you dig.

$PLOT_INFO$



NO DRAINAGE WORK THIS SHEET

N

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(1).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

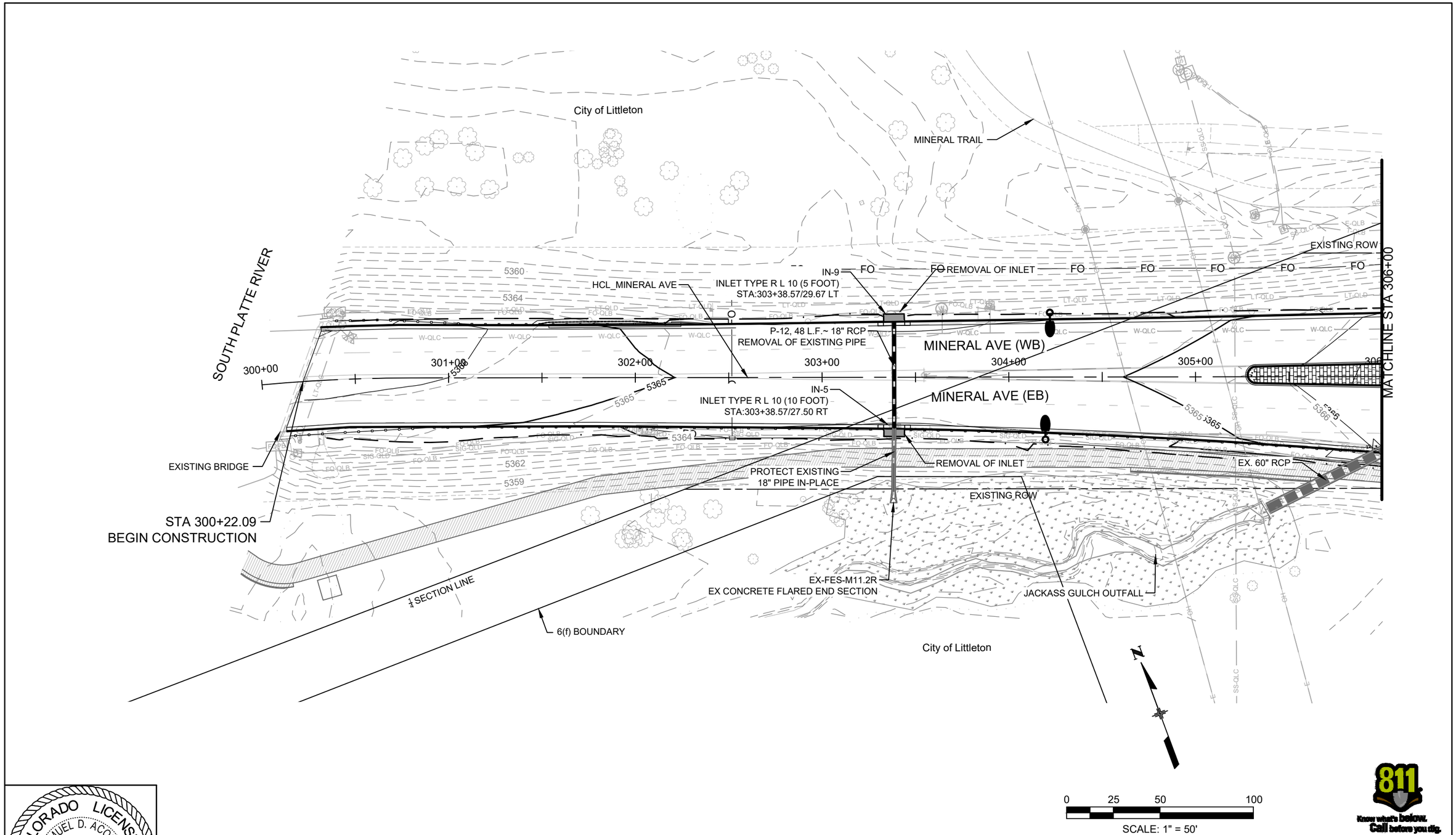
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
DRAINAGE PLAN
STA. 139+00 TO STA. 145+45

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 07 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 217

$PLOT_INFO$



COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_DR_PLAN(2).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

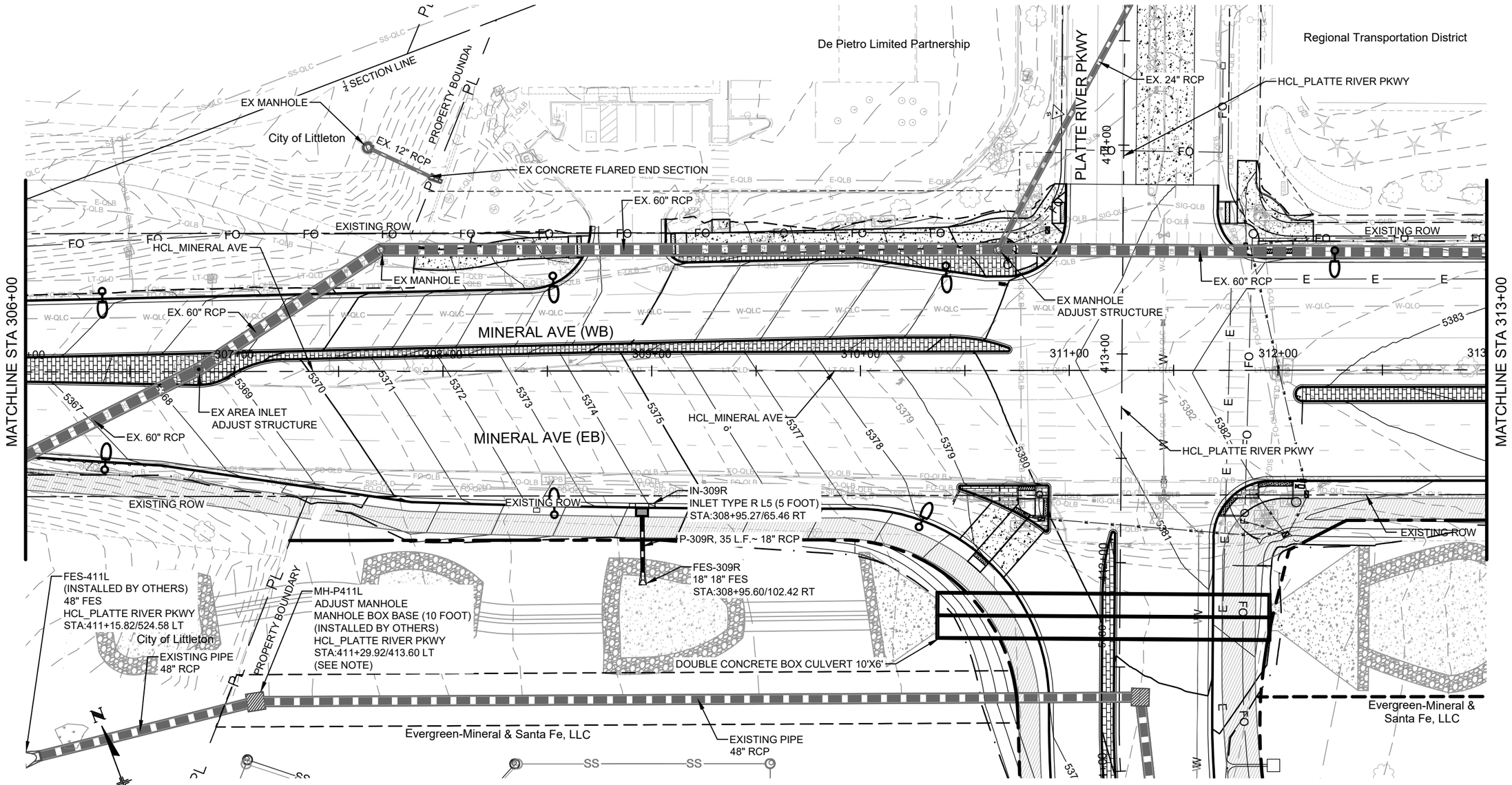
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	MINERAL AVE DRAINAGE PLAN STA. 300+00 TO STA. 306+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 218
	Sheet Subset: DRAINAGE	Subset Sheets: 08 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTE:

1. COORDINATE WITH PROJECT ENGINEER PRIOR TO ANY WORK IN THIS AREA FOR THE ADJUSTMENT OF MANHOLE.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

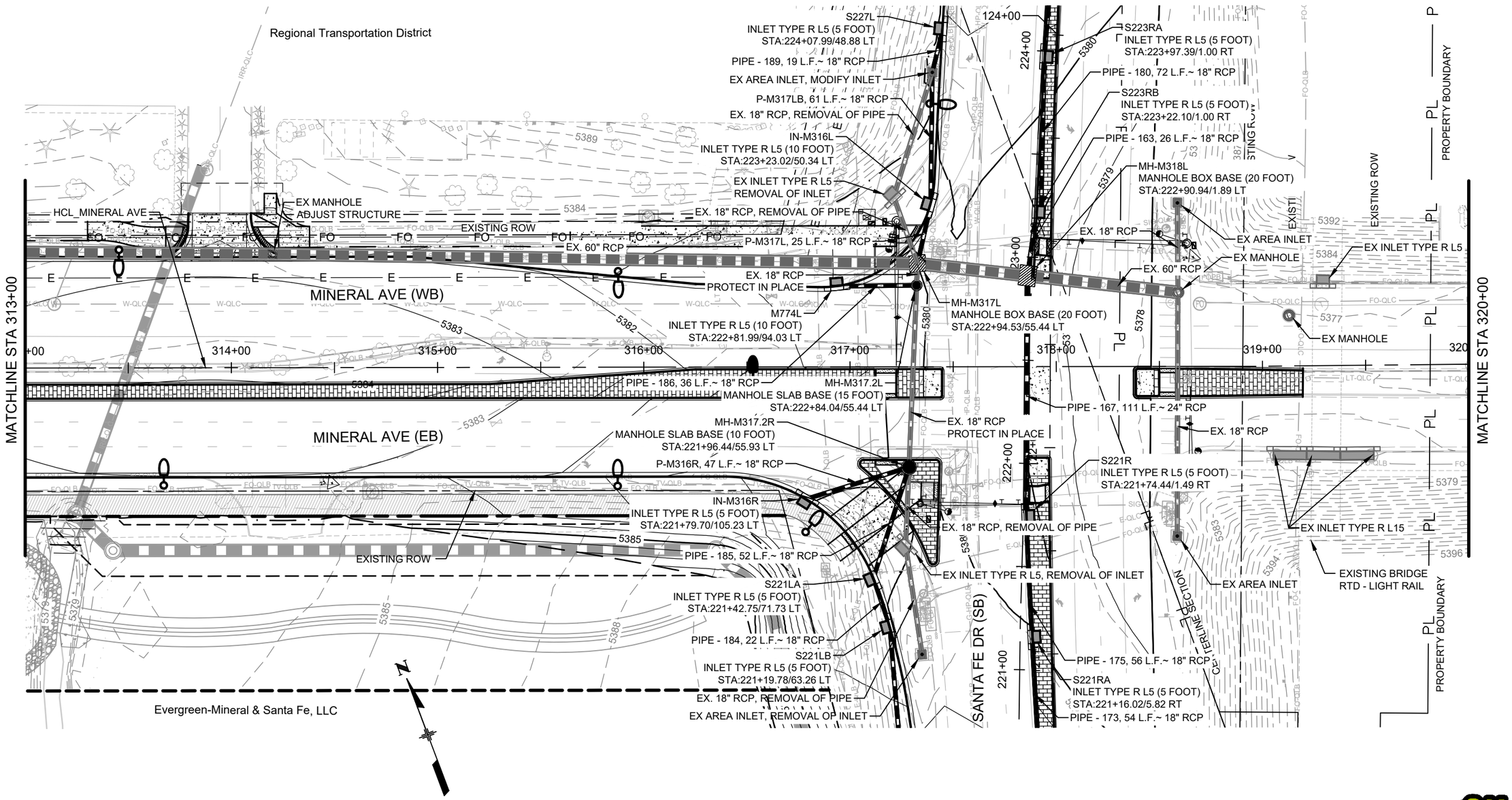
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE DRAINAGE PLAN STA. 306+00 TO STA. 313+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 219
	Sheet Subset: DRAINAGE	Subset Sheets: 09 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

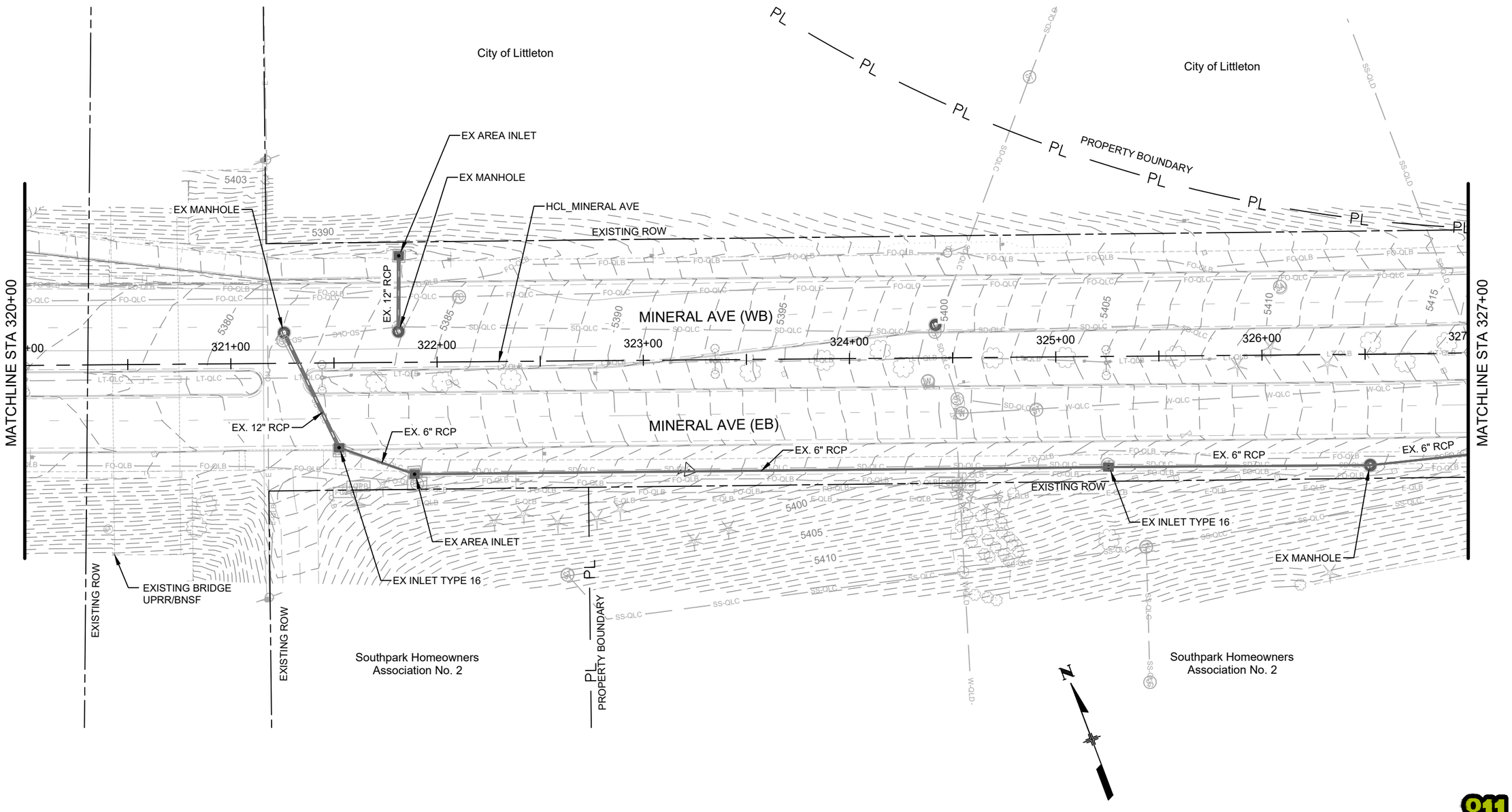
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE DRAINAGE PLAN STA. 313+00 TO STA. 320+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 220
	Sheet Subset: DRAINAGE	Subset Sheets: 10 of 17	

$PLOT_INFO$



NO DRAINAGE WORK THIS SHEET

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

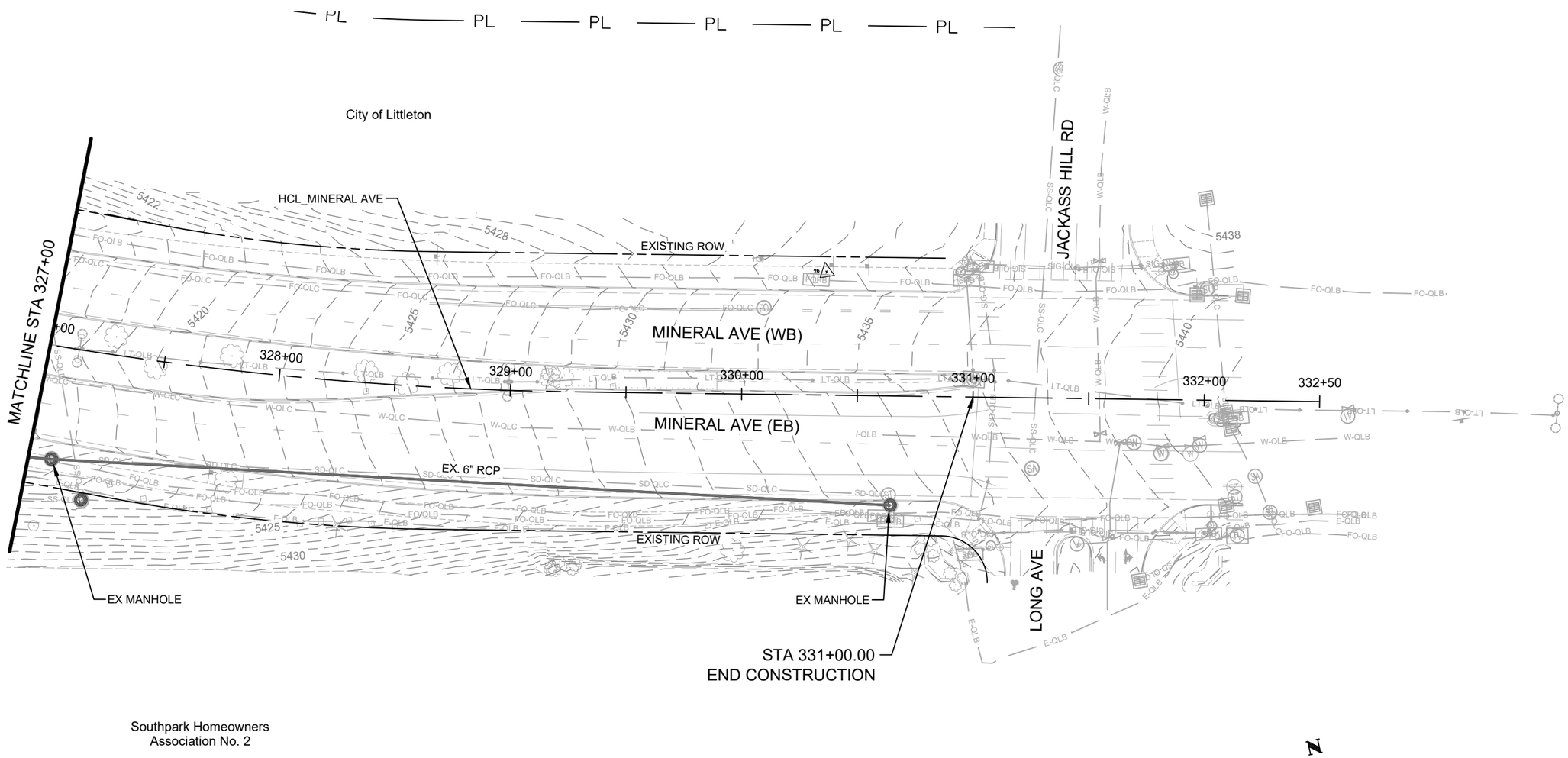
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	MINERAL AVE DRAINAGE PLAN STA. 320+00 TO STA. 327+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 221
	Sheet Subset: DRAINAGE	Subset Sheets: 11 of 17	

Know what's below. Call before you dig.

$PLOT_INFO$



NO DRAINAGE WORK THIS SHEET

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(2).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

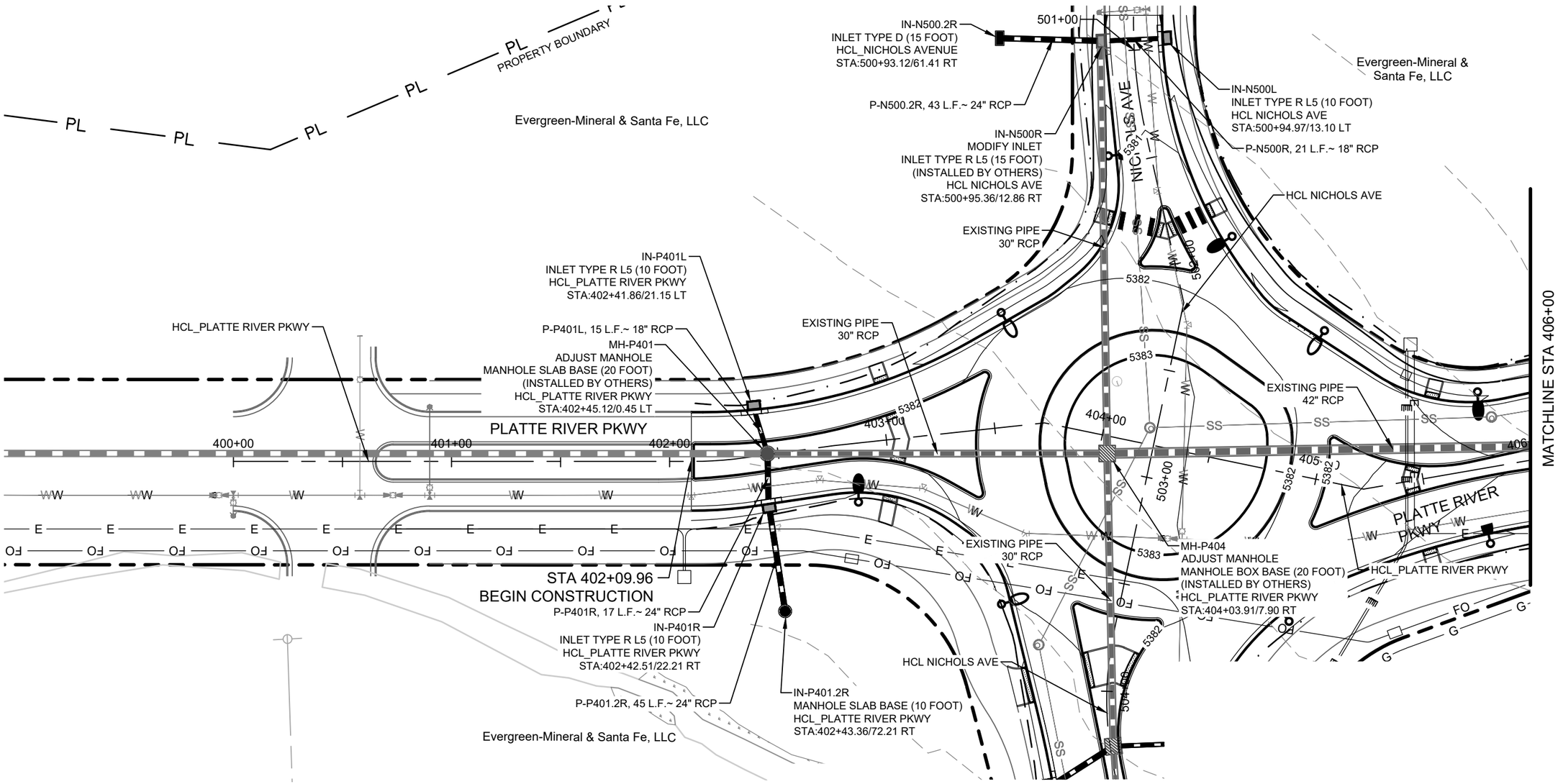
MINERAL AVE
DRAINAGE PLAN
STA. 327+00 TO STA. 332+50

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 12 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 222

811 Know what's below. Call before you dig.

$PLOT_INFO$



N

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(3).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

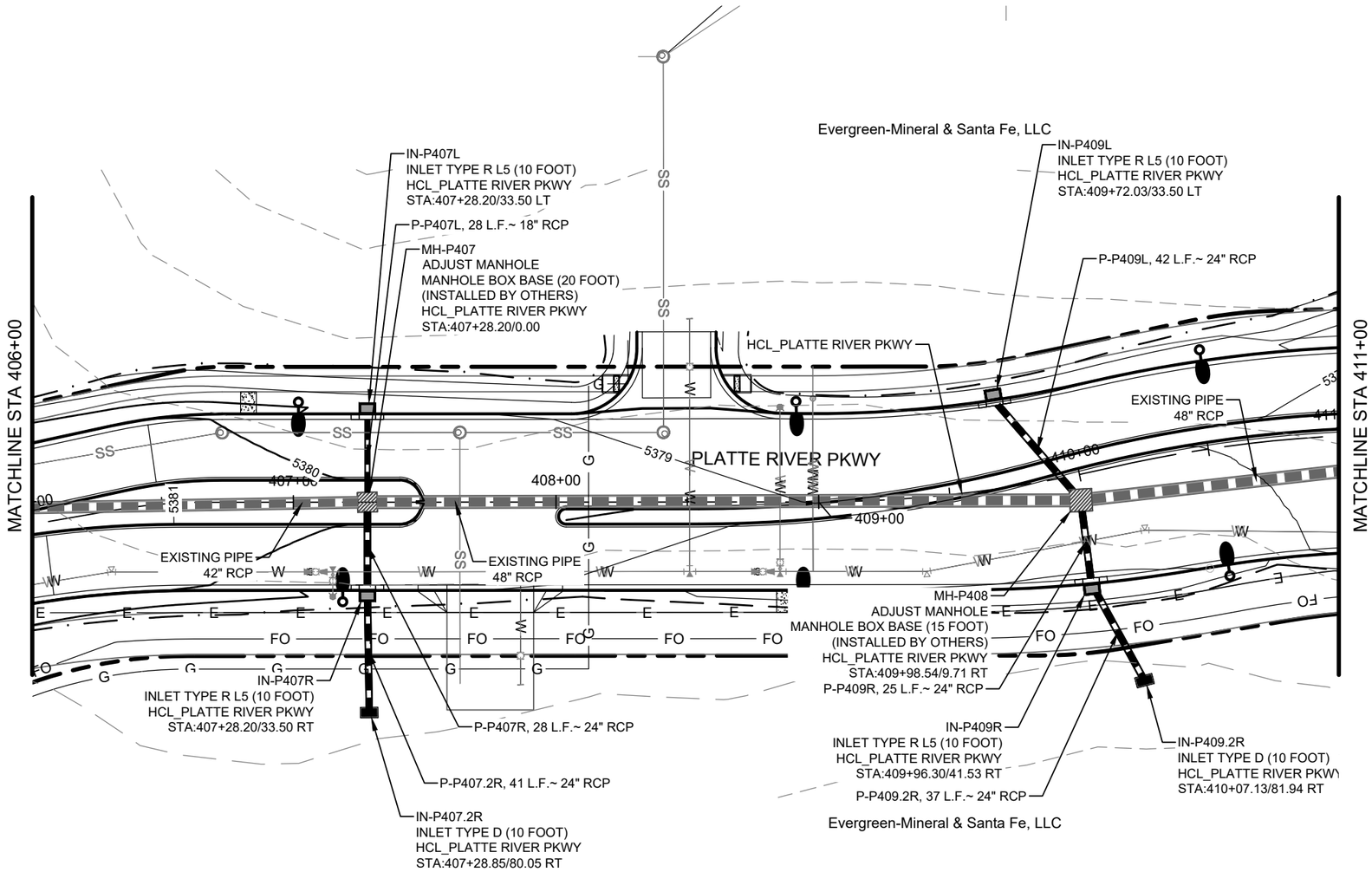
PLATTE RIVER PKWY
DRAINAGE PLAN
STA. 400+00 TO STA. 406+00

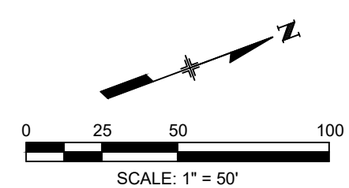
Designer:	SACOSTA	Structure Numbers	
Detailer:	MCHAVEZ		
Sheet Subset:	DRAINAGE	Subset Sheets:	13 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 223

811 Know what's below. Call before you dig.

$PLOT_INFO$





COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(3).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

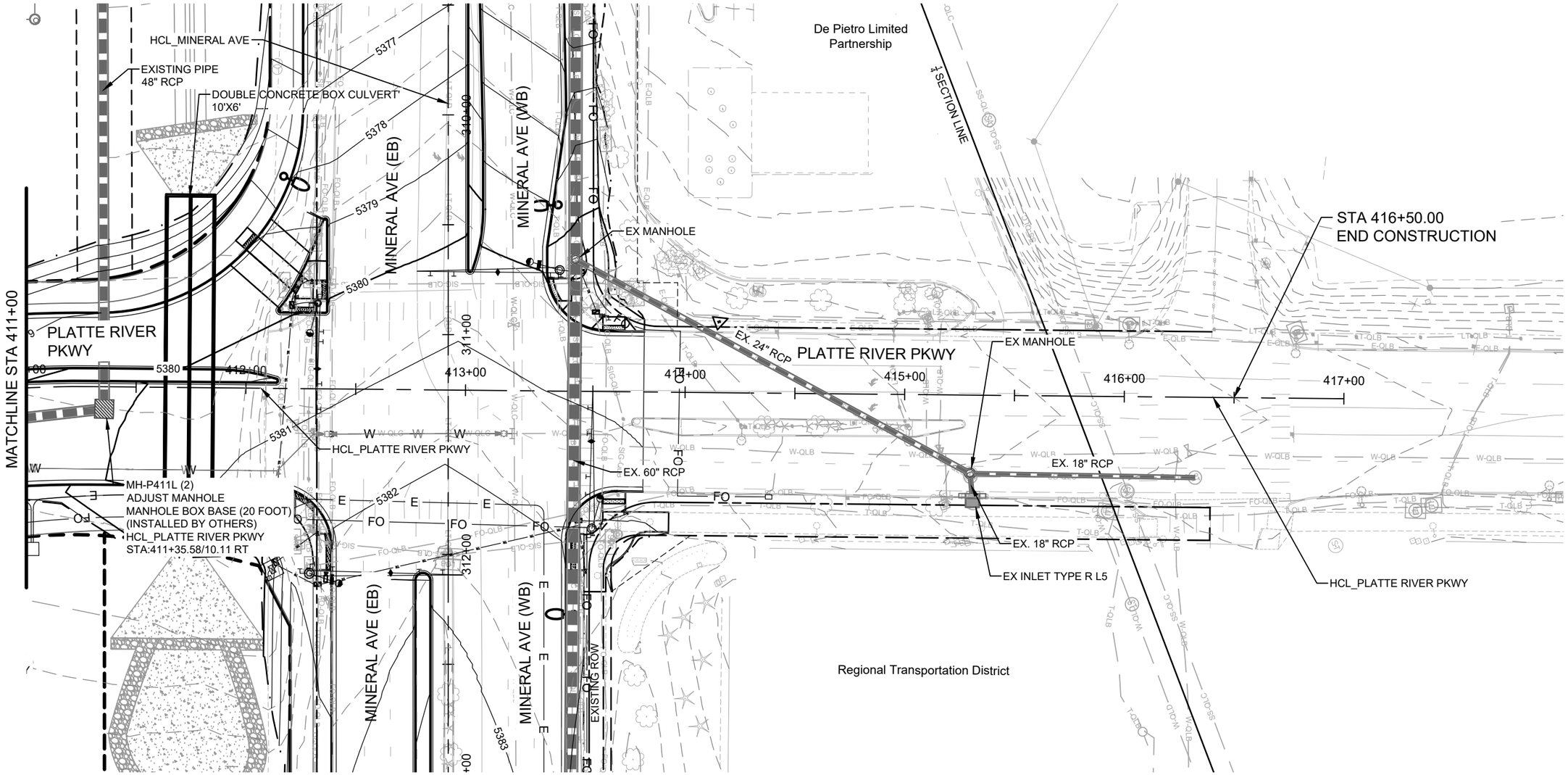
PLATTE RIVER PKWY
DRAINAGE PLAN
STA. 406+00 TO STA. 411+00

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 14 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 224

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(3).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

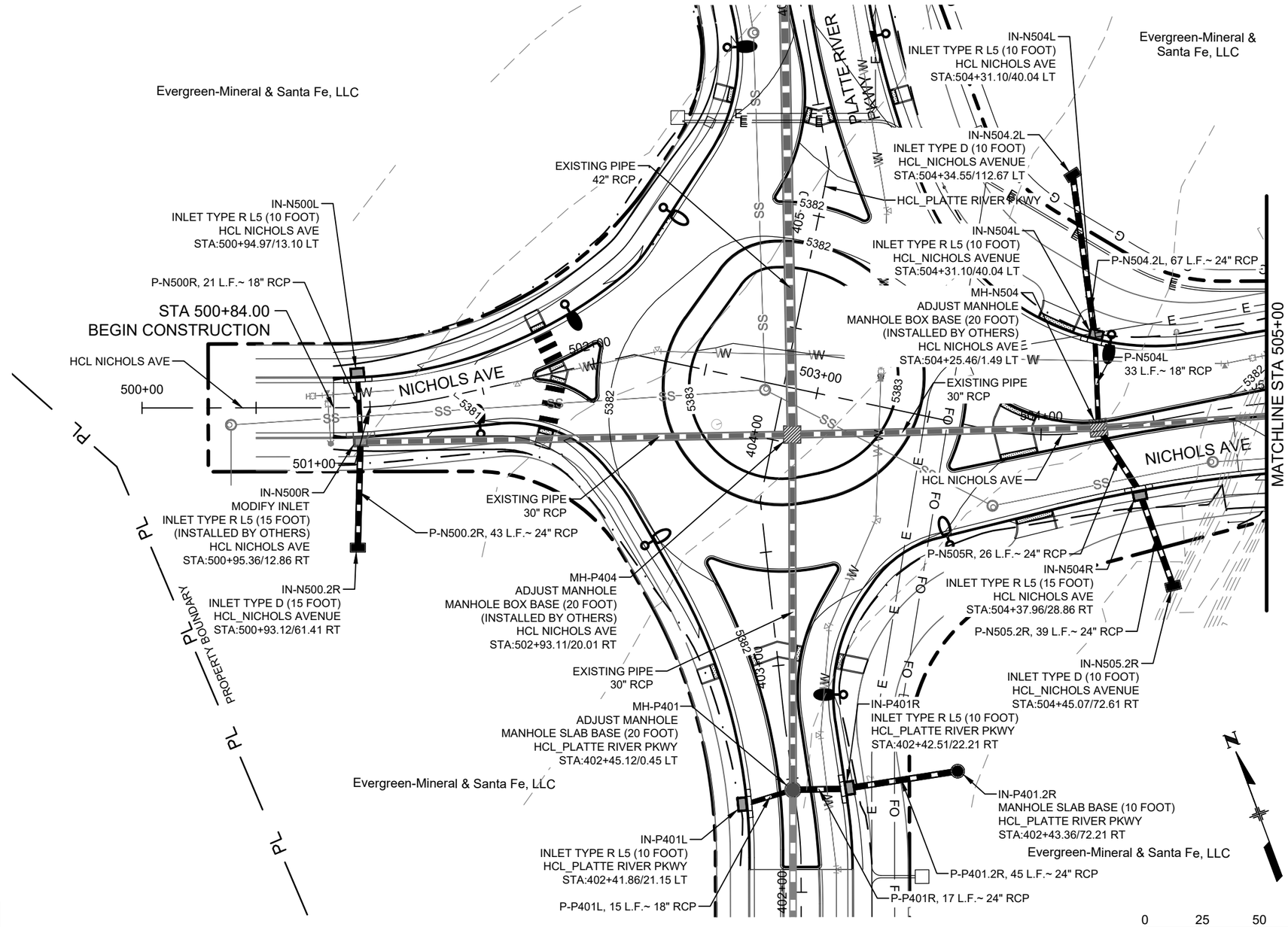
As Constructed	
No Revisions:	
Revised:	
Void:	

PLATTE RIVER PKWY
DRAINAGE PLAN
STA. 411+00 TO STA. 417+00

Designer:	SACOSTA	Structure Numbers	
Detailer:	MCHAVEZ		
Sheet Subset: DRAINAGE		Subset Sheets:	15 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 225

$PLOT_INFO$



COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

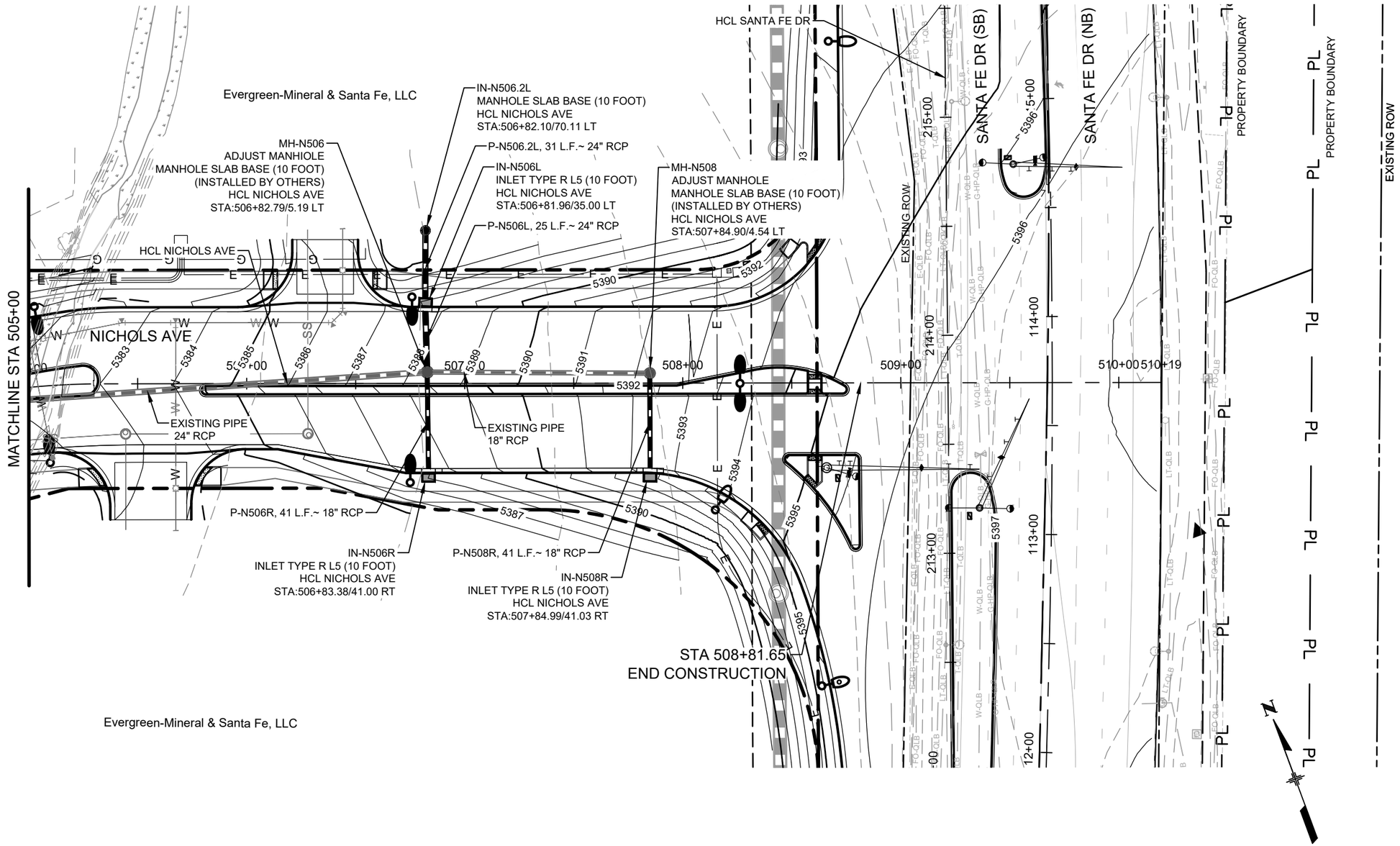
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	NICHOLS AVE DRAINAGE PLAN STA. 500+00 TO STA. 505+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 226
	Sheet Subset: DRAINAGE	Subset Sheets: 16 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PLAN(3).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

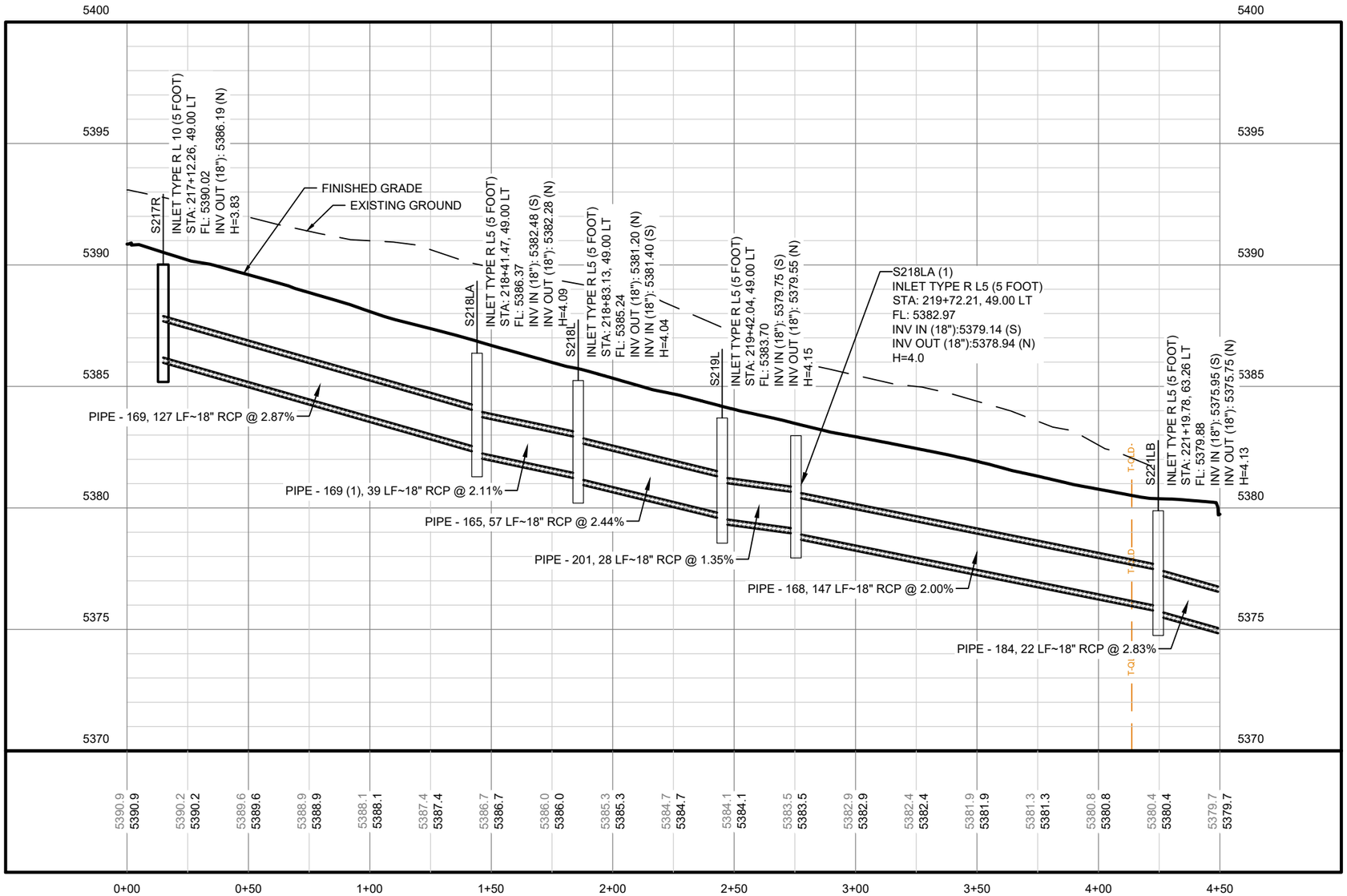
NICHOLS AVE
DRAINAGE PLAN
STA. 505+00 TO STA. 510+19

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 17 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 227

811 Know what's below. Call before you dig.

$PLOT_INFO$



SANTA FE DR- SOUTH

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100

SCALE: 1" = 50'

811 Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_DR_PROFILES(2).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: 1" = 5'
Unit Information	

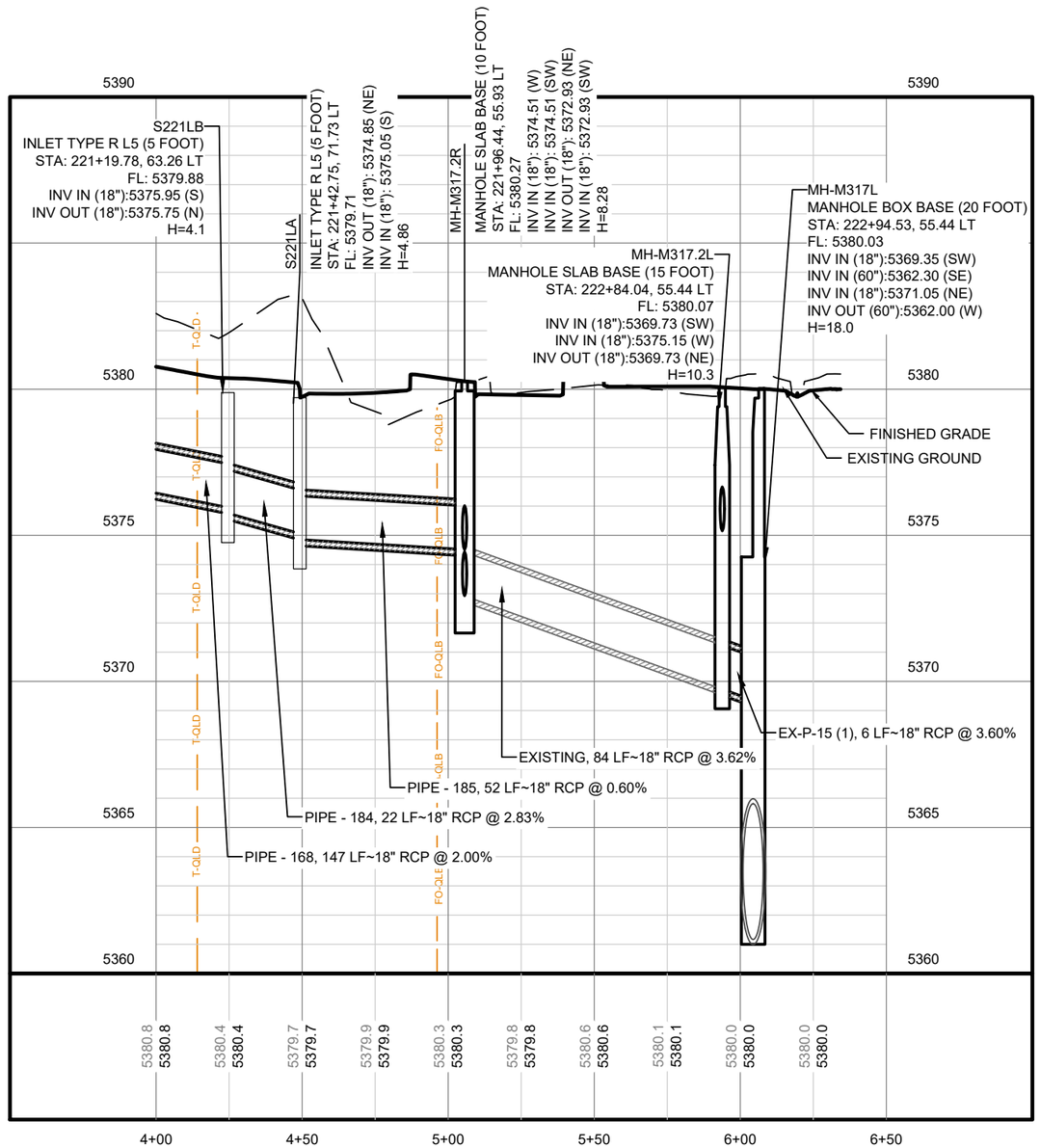
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 228
	Sheet Subset: DRAINAGE	Subset Sheets: 1 of 17	

$PLOT_INFO$



SANTA FE DR- SOUTH

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100
SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PROFILES(2).DWG
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 5'
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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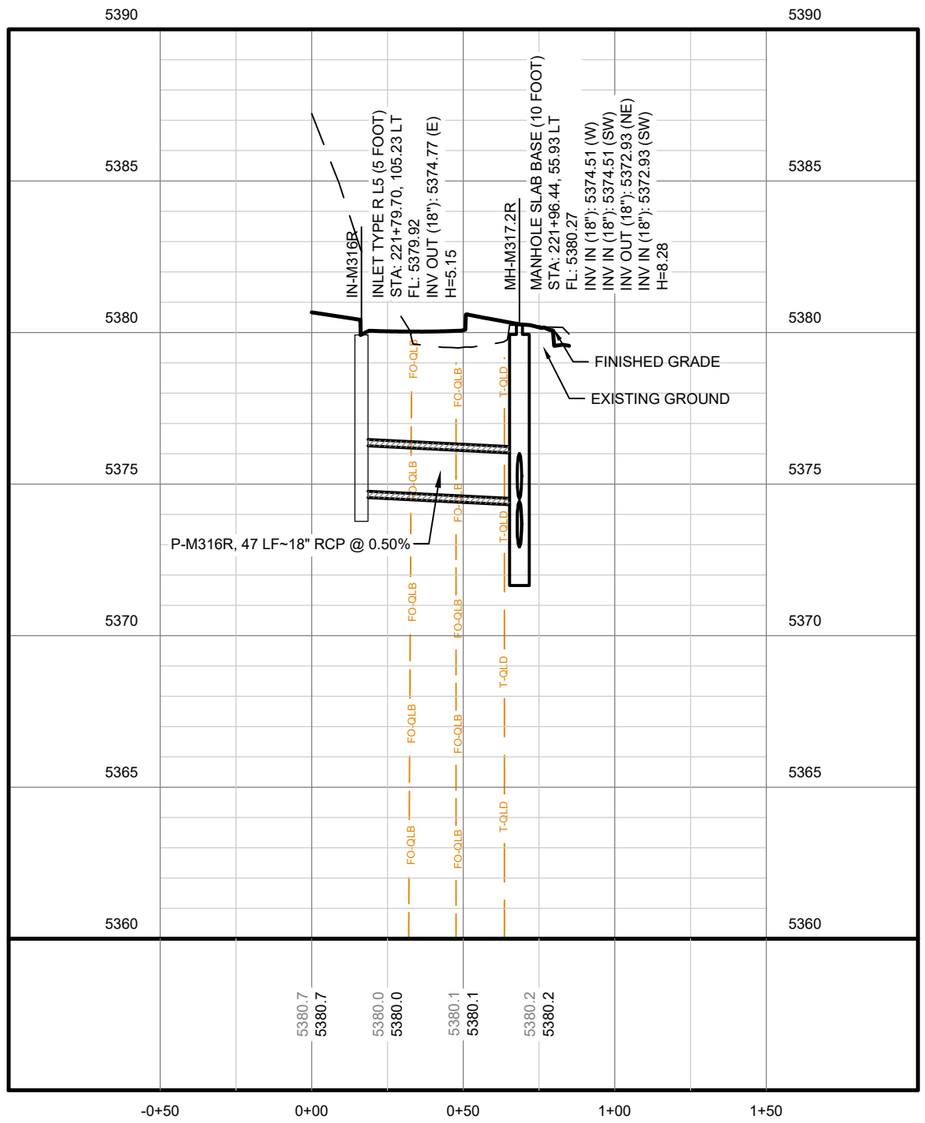
As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
DRAINAGE PROFILES

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 2 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 229

$PLOT_INFO$



SANTA FE DR- SOUTH

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

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52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date:	2024-11-04
File Name:	23574_DR_PROFILES(2).DWG
Horiz. Scale: ########	Vert. Scale: 1" = 5'
Unit Information	

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1670 BROADWAY, SUITE 3400
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Phone: 303-764-1520
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Sheet Revisions

Date:	Comments	Init.

Littleton Colorado

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Void:	

SANTA FE DR
DRAINAGE PROFILES

Designer:	SACOSTA	Structure Numbers	
Detailer:	MCHAVEZ		
Sheet Subset:	DRAINAGE	Subset Sheets:	3 of 17

Project No./Code	
AQC M810-017	
23574	
Sheet Number	230

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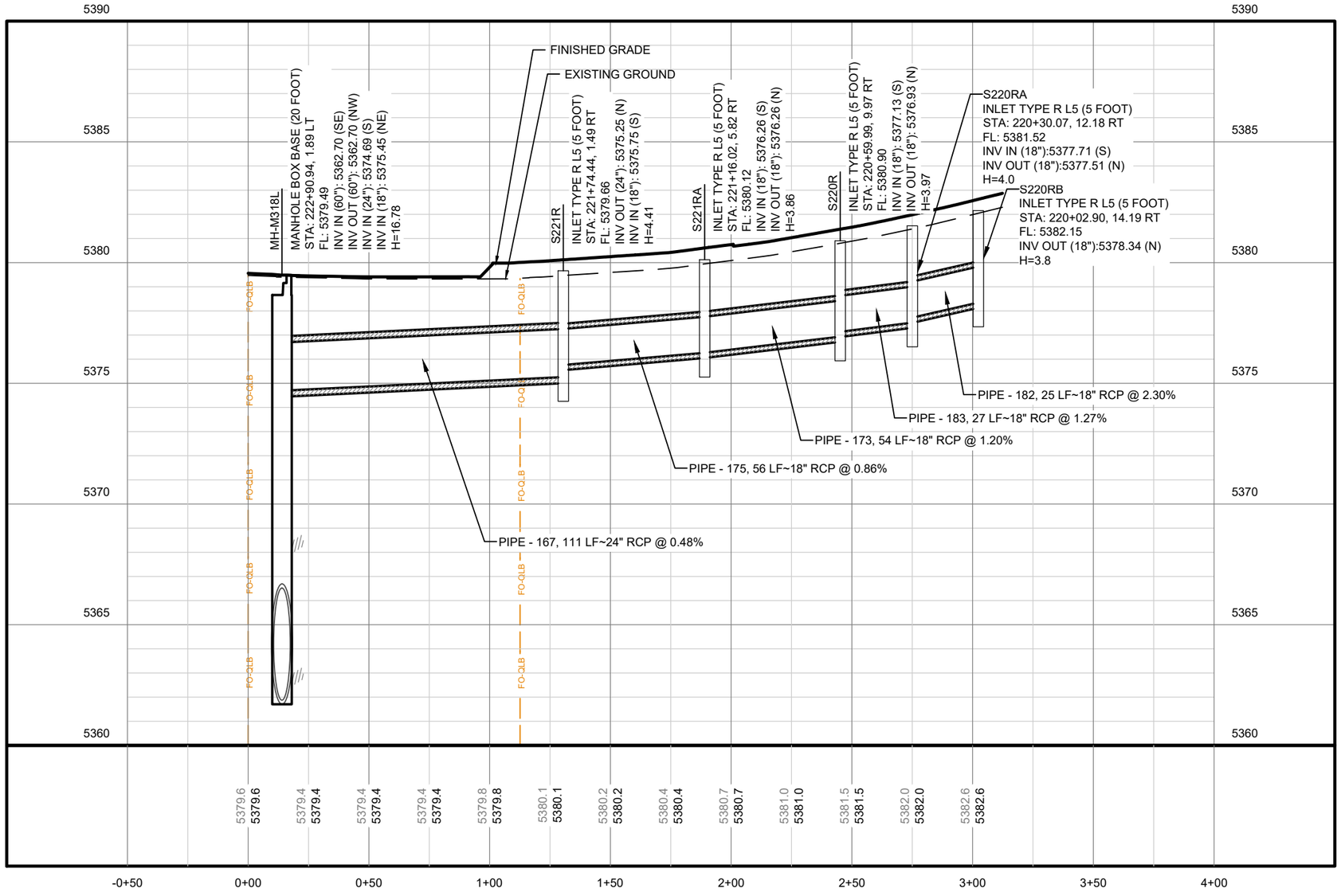

SANTA FE DR- SOUTH

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100

SCALE: 1" = 50'

811 Know what's below. Call before you dig.

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SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_DR_PROFILES(2).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: 1" = 5'
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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As Constructed	SANTA FE DR DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 231
	Sheet Subset: DRAINAGE	Subset Sheets: 4 of 17	

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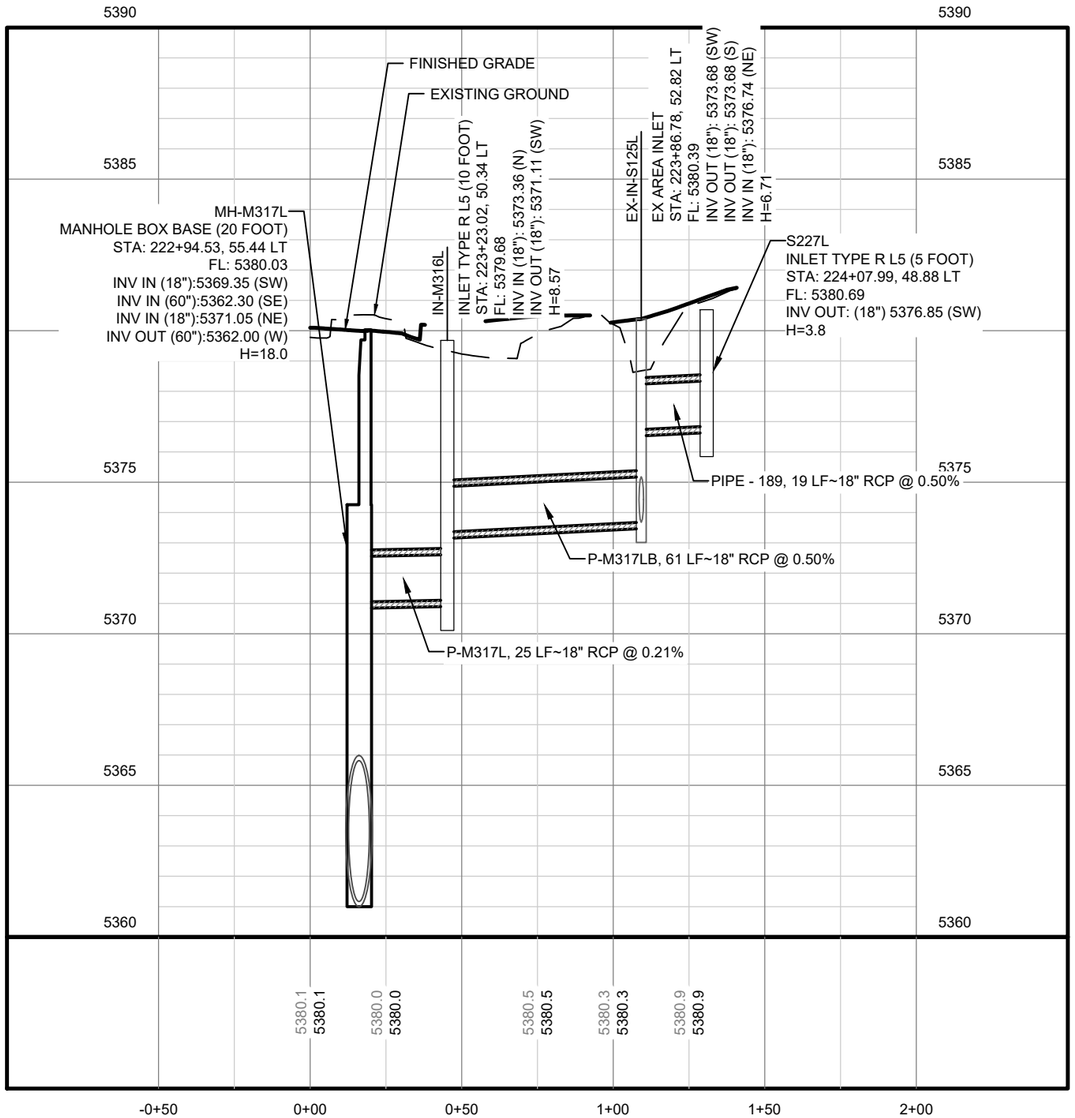
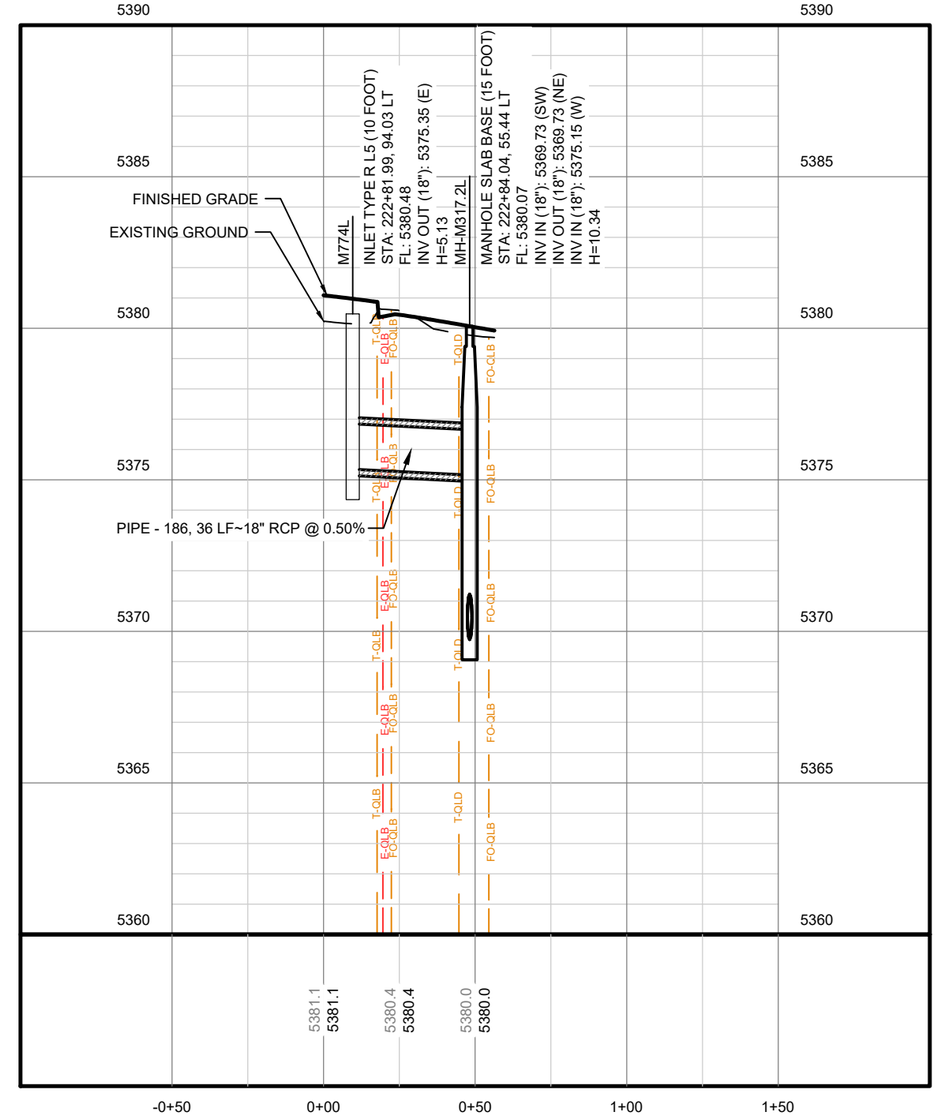


SANTA FE DR- NORTH

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'



SANTA FE DR- NORTH

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

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0 25 50 100

SCALE: 1" = 50'

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Print Date: 2024-11-04	
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Horiz. Scale: 1" = 50'	Vert. Scale: 1" = 5'
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Sheet Revisions		
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As Constructed	SANTA FE DR DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 232
	Sheet Subset: DRAINAGE	Subset Sheets: 5 of 17	

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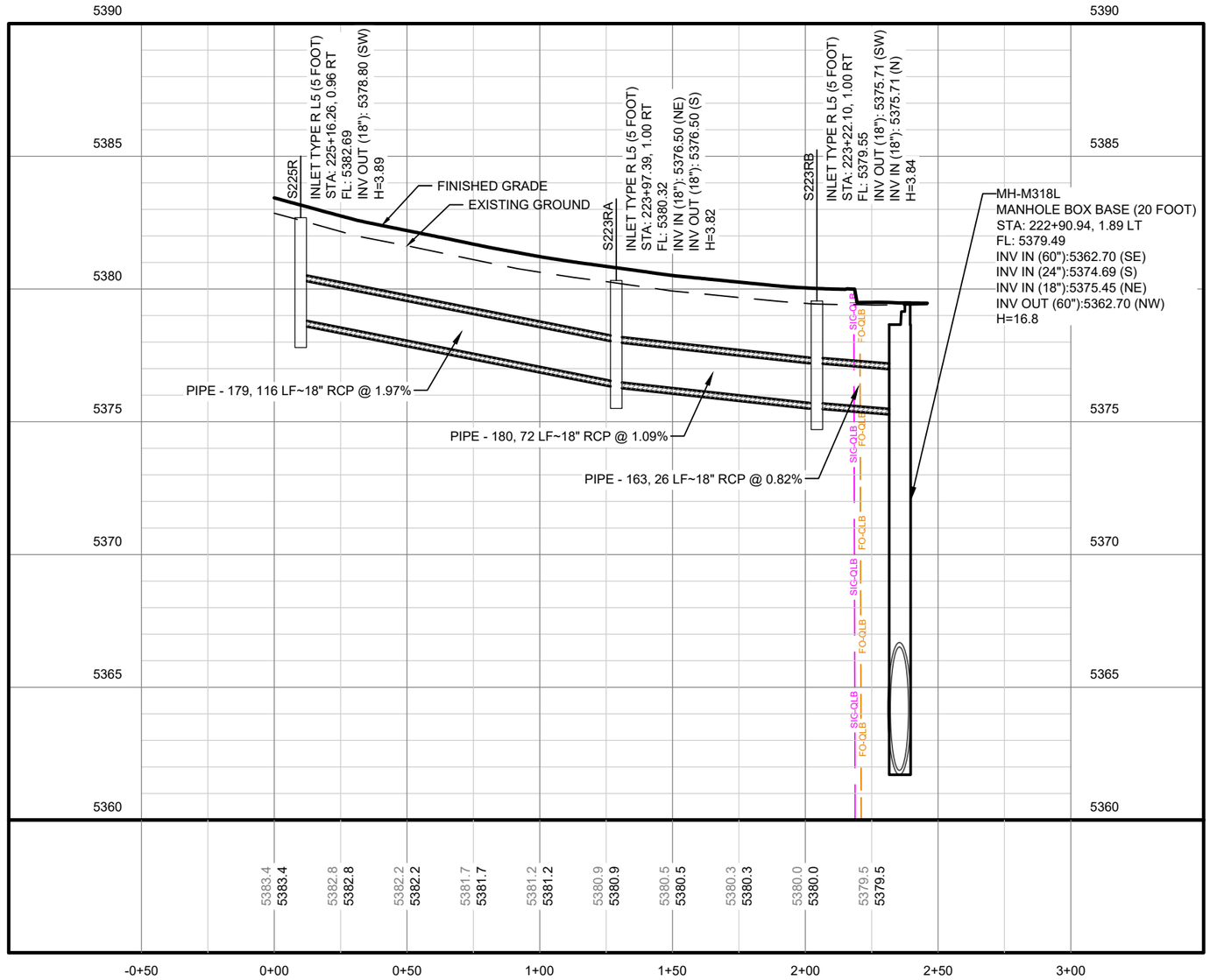

SANTA FE DR- NORTH

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100

SCALE: 1" = 50'

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SAMUEL D. ACOSTA
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Horiz. Scale: 1" = 50' Vert. Scale: 1" = 5'
Unit Information

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1670 BROADWAY, SUITE 3400
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FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
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SANTA FE DR
DRAINAGE PROFILES

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 6 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 233

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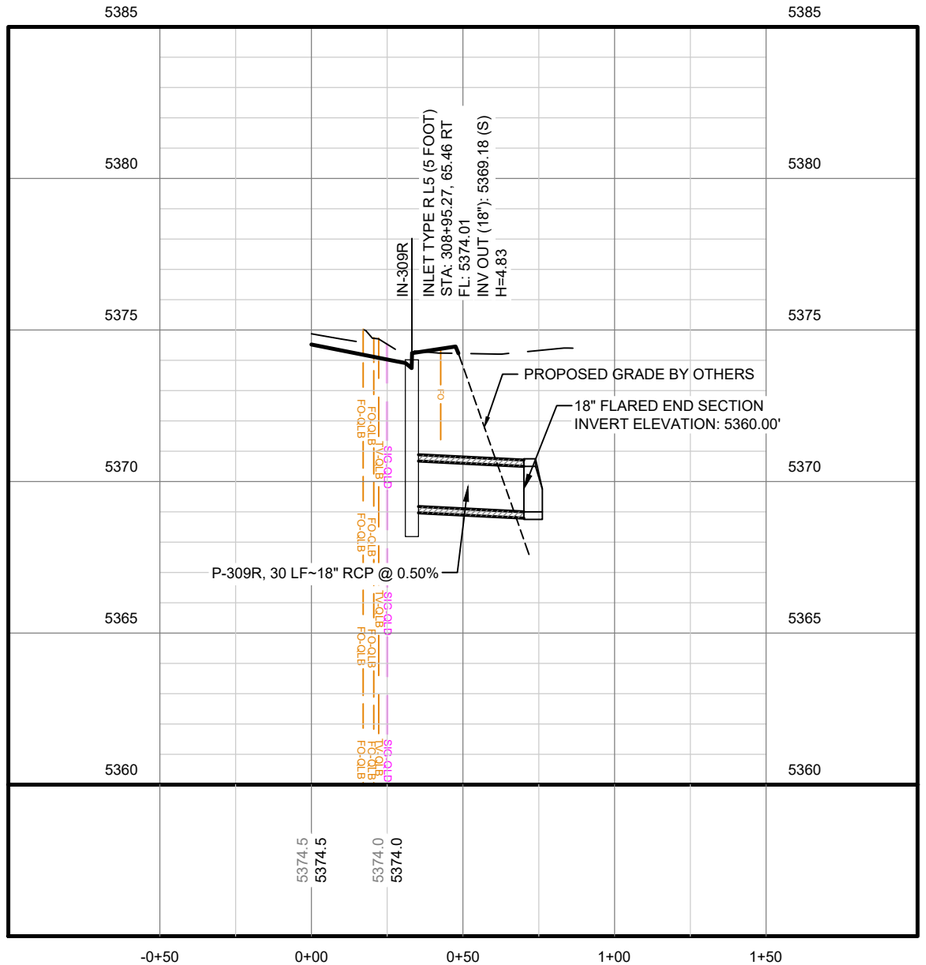
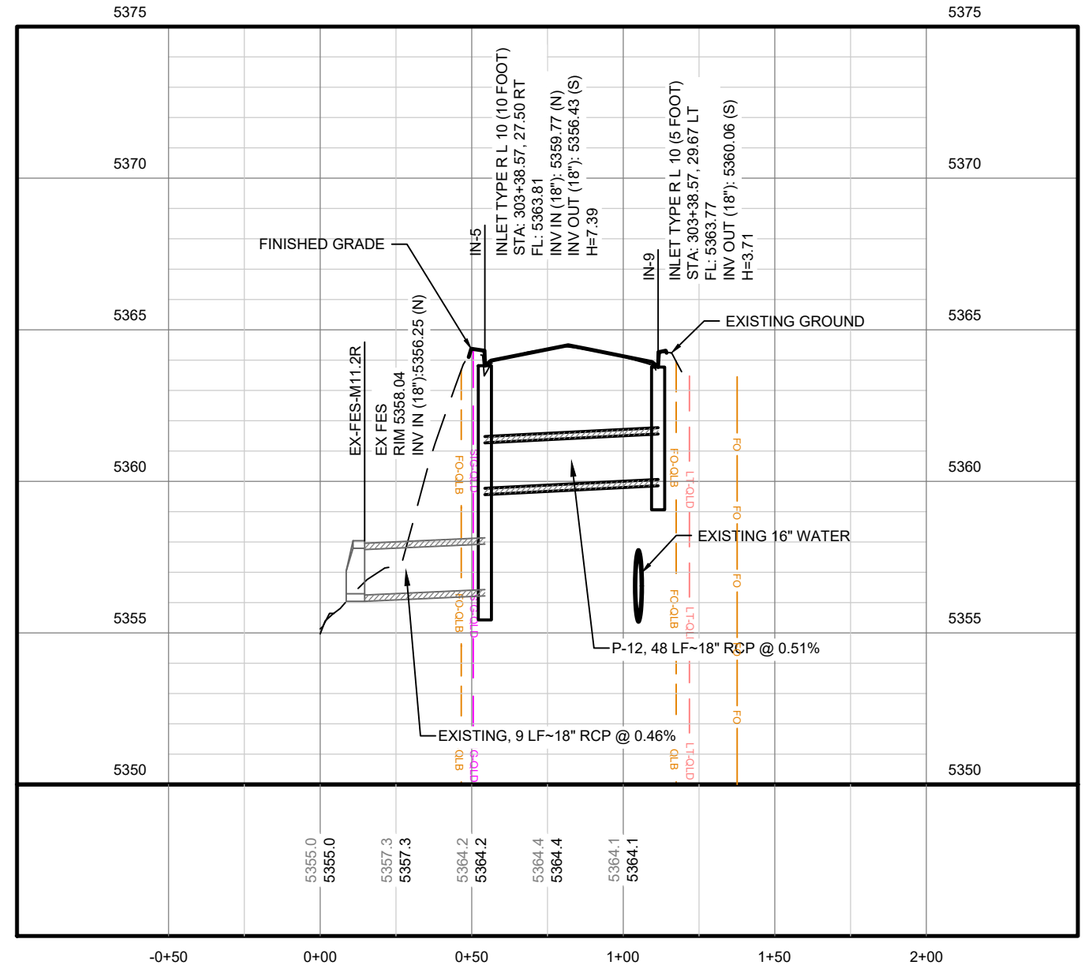
$PLOT_INFO$



MINERAL AVE - WEST

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'



MINERAL AVE - WEST

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100

SCALE: 1" = 50'

811 Know what's below. Call before you dig.

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52470
10/08/2025
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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PROFILES(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 5'			
Unit Information			

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As Constructed	MINERAL AVE DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 234
	Sheet Subset: DRAINAGE	Subset Sheets: 7 of 17	

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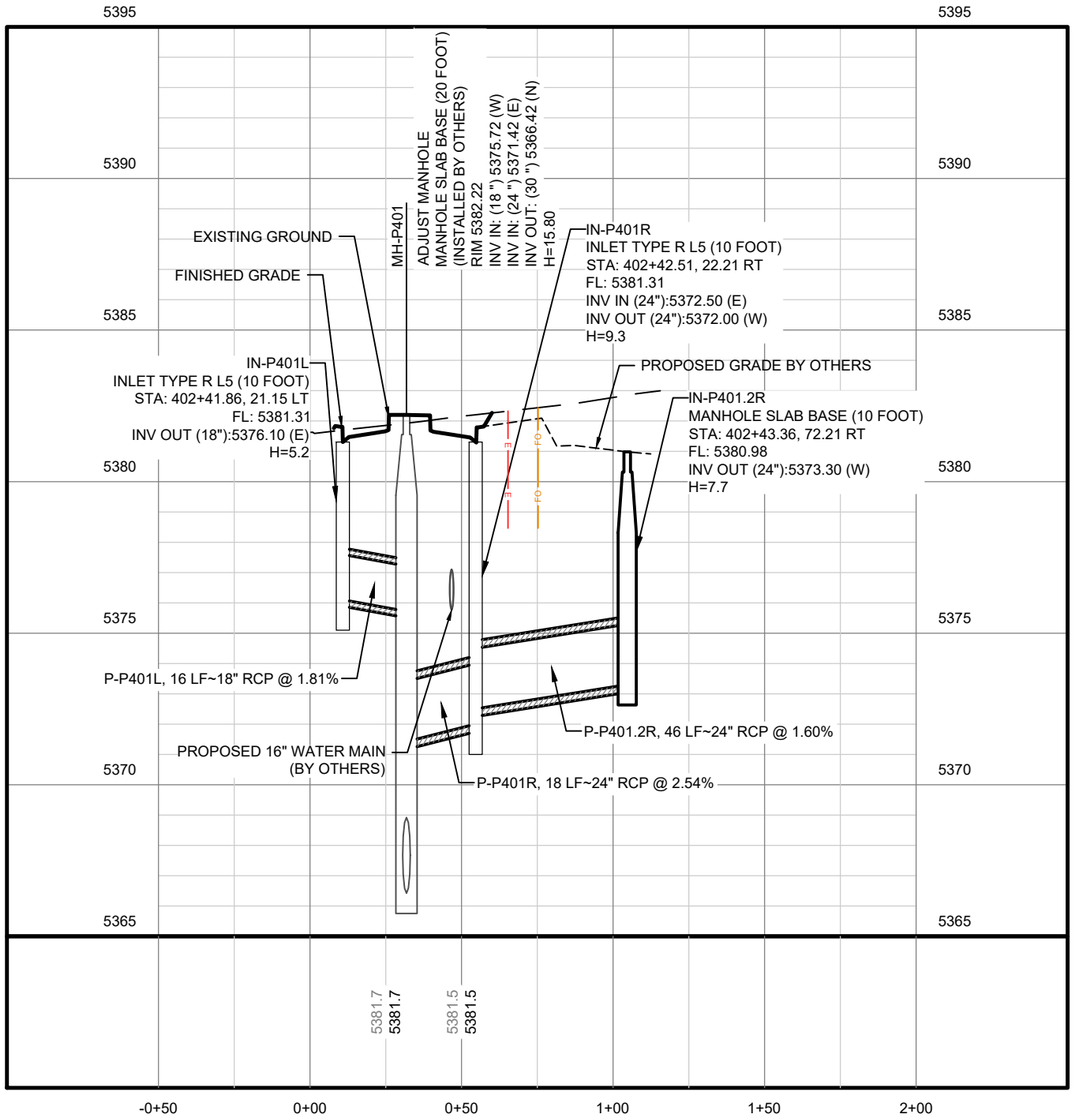


PLATTE RIVER PKWY SOUTH LATERAL 2

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

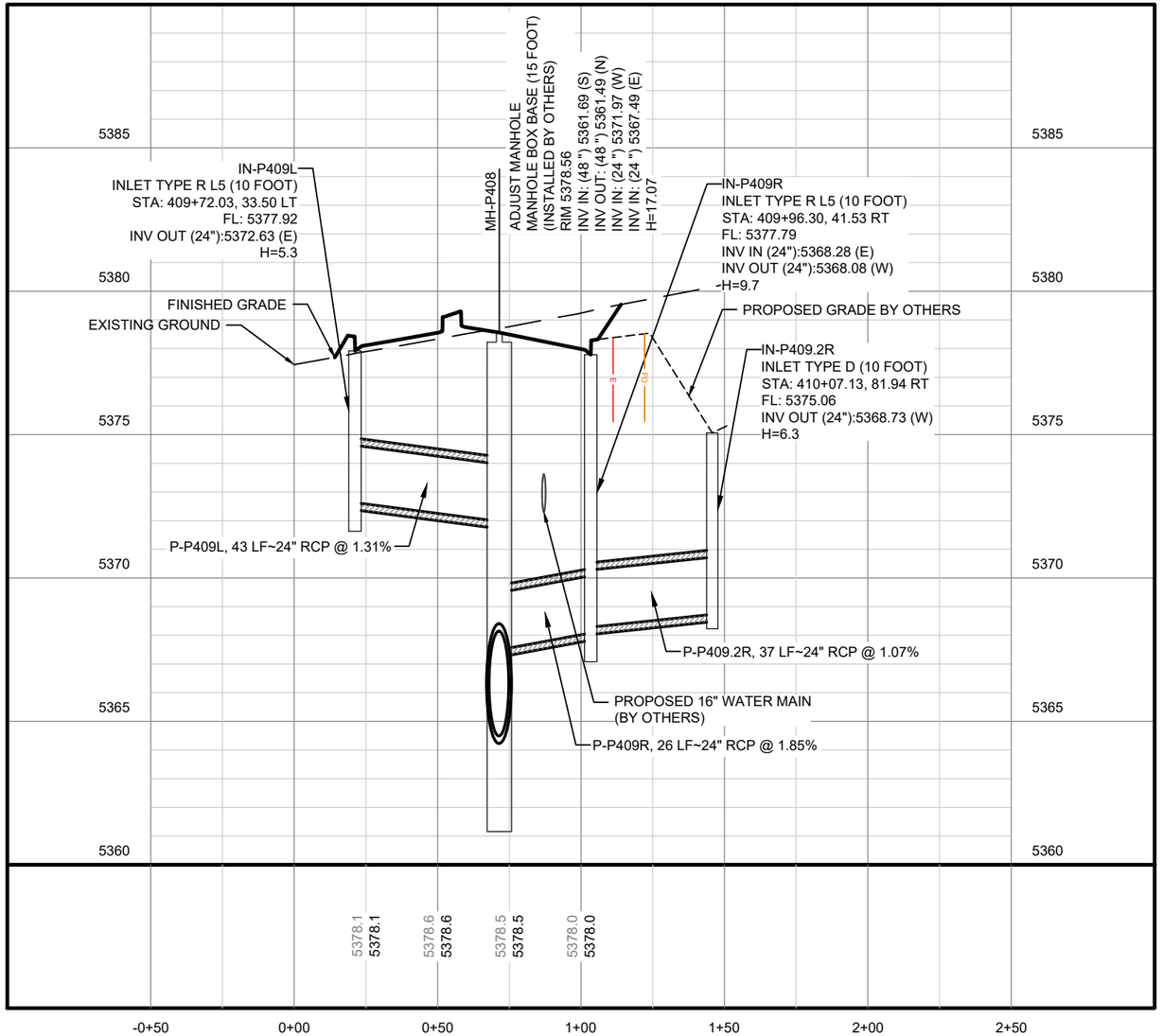
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PROFILES(1).DWG	Date:	Comments	Init.
Horiz. Scale: ######## Vert. Scale: 1" = 5'			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

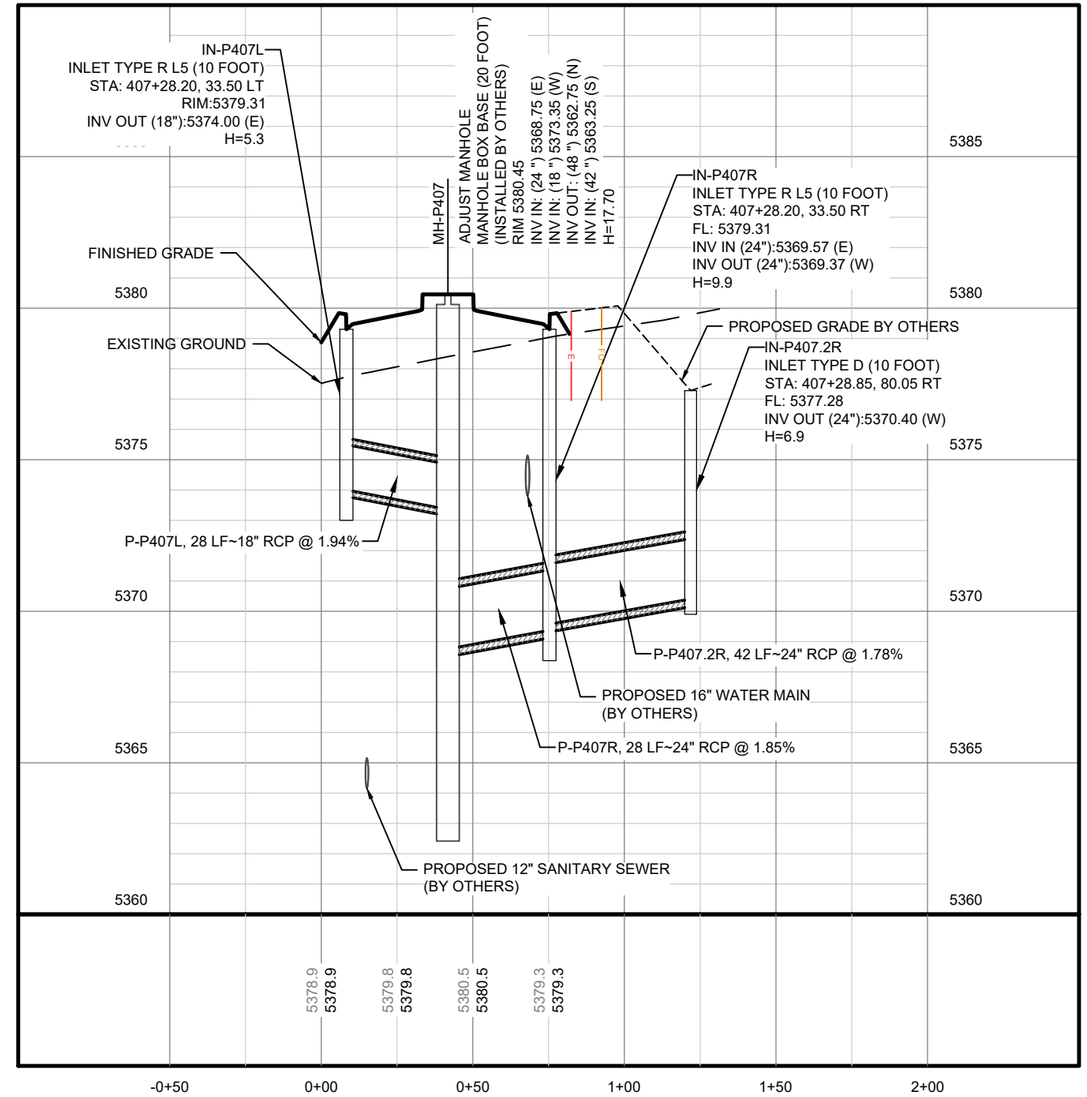
As Constructed	PLATTE RIVER PKWY DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
	Detailer: MCHAVEZ		
Void:	Sheet Subset: DRAINAGE	Subset Sheets: 8 of 17	Sheet Number 235

$PLOT_INFO$



PLATTE RIVER PKWY NORTH LATERAL 1

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'



PLATTE RIVER PKWY NORTH LATERAL 2

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

0 25 50 100

SCALE: 1" = 50'

811 Know what's below. Call before you dig.

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SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PROFILES(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 5'			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
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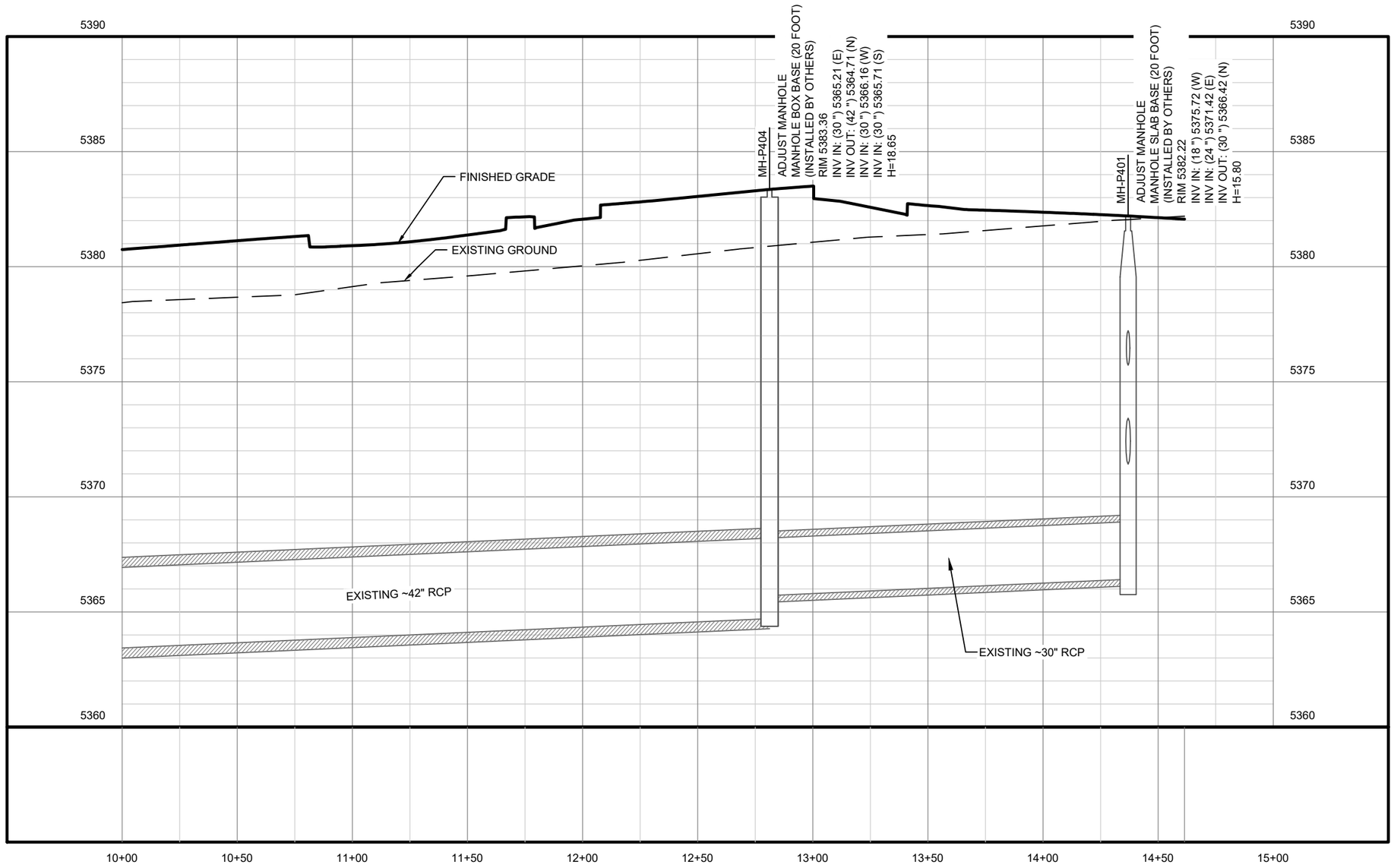
Littleton Colorado

As Constructed	PLATTE RIVER PKWY DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 236
	Sheet Subset: DRAINAGE	Subset Sheets: 9 of 17	

$PLOT_INFO$



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PLATTE RIVER PKWY NORTH TRUNKLINE

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

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SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_DR_PROFILES(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 5'			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
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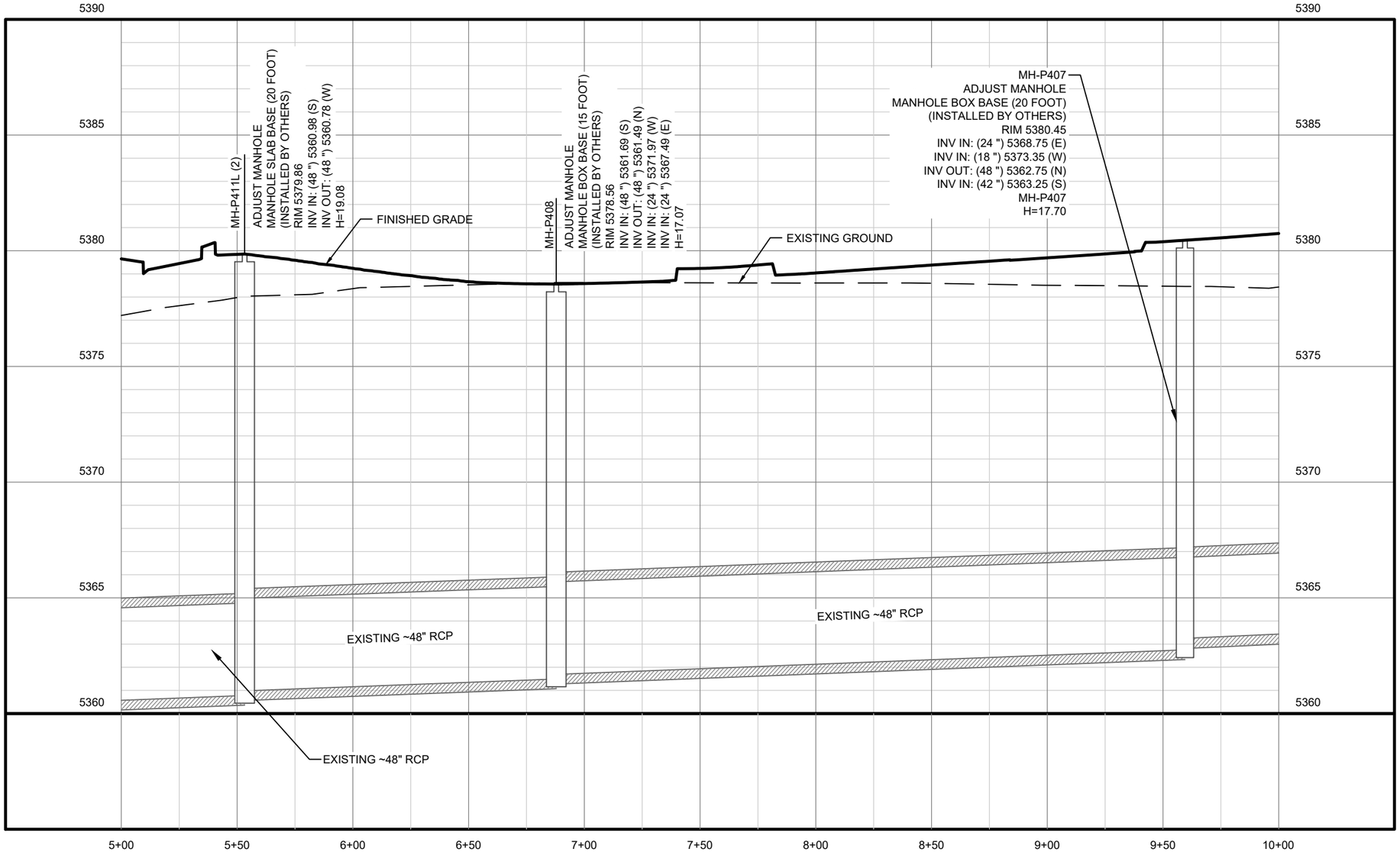
Littleton Colorado

As Constructed	PLATTE RIVER PKWY DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		
	Sheet Subset: DRAINAGE	Subset Sheets: 10 of 17	Sheet Number 237

$PLOT_INFO$



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PLATTE RIVER PKWY NORTH TRUNKLINE

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

0 25 50 100
SCALE: 1" = 50'

COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
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Horiz. Scale: 1" = 50' Vert. Scale: 1" = 5'
Unit Information

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1670 BROADWAY, SUITE 3400
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Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

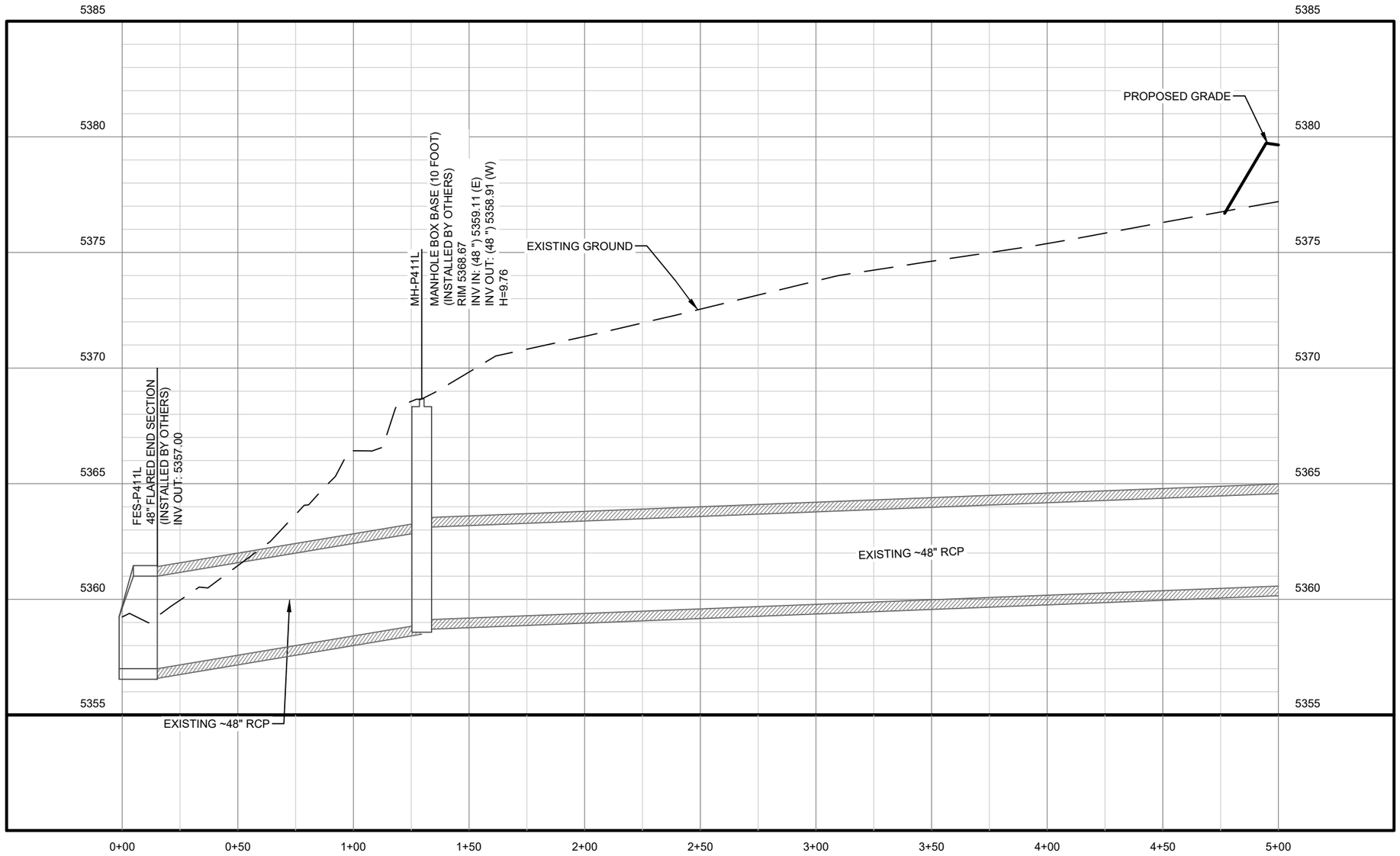
As Constructed
No Revisions:
Revised:
Void:

PLATTE RIVER PKWY
DRAINAGE PROFILES

Designer: SACOSTA
Detailer: MCHAVEZ
Sheet Subset: DRAINAGE
Structure Numbers
Subset Sheets: 11 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 238

$PLOT_INFO$



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PLATTE RIVER PKWY NORTH TRUNKLINE

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

0 25 50 100
SCALE: 1" = 50'

811 Know what's below. Call before you dig.

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SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
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Unit Information

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Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

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No Revisions:
Revised:
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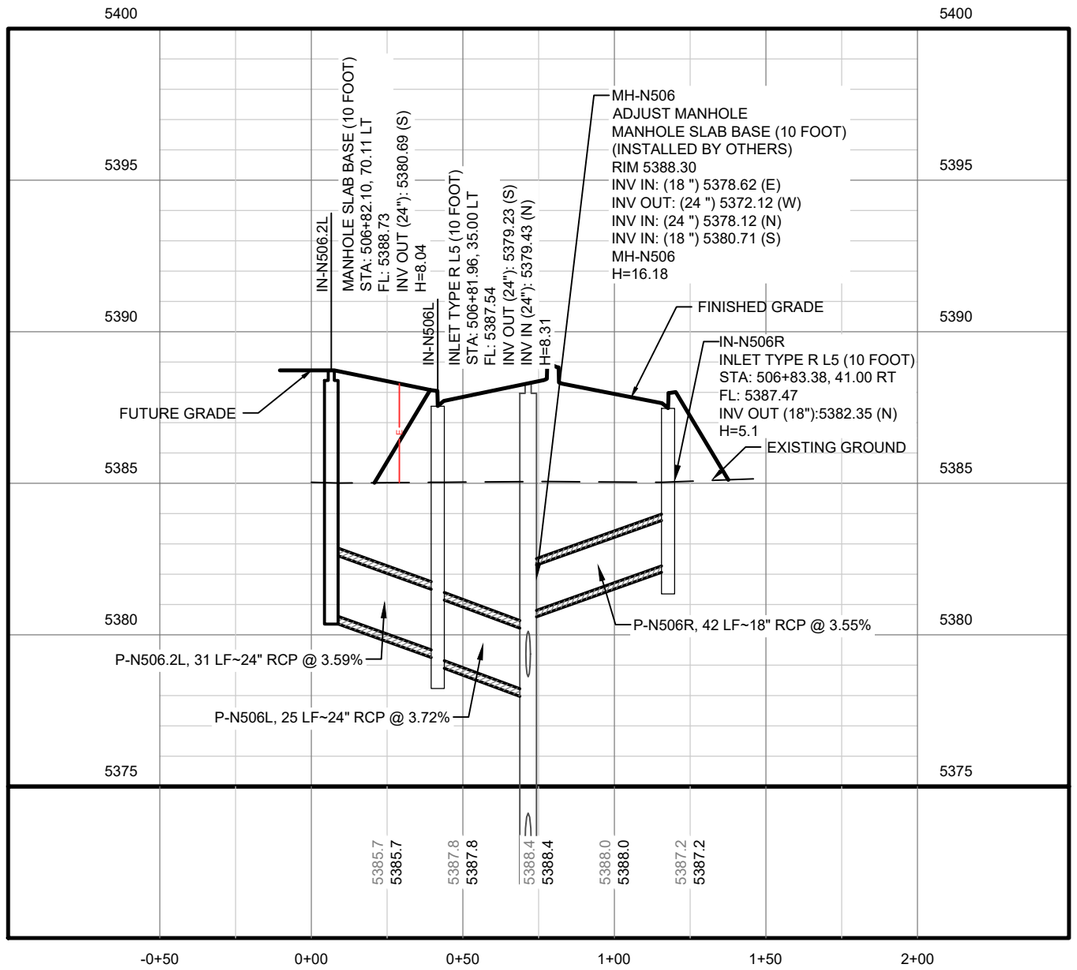
PLATTE RIVER PKWY
DRAINAGE PROFILES

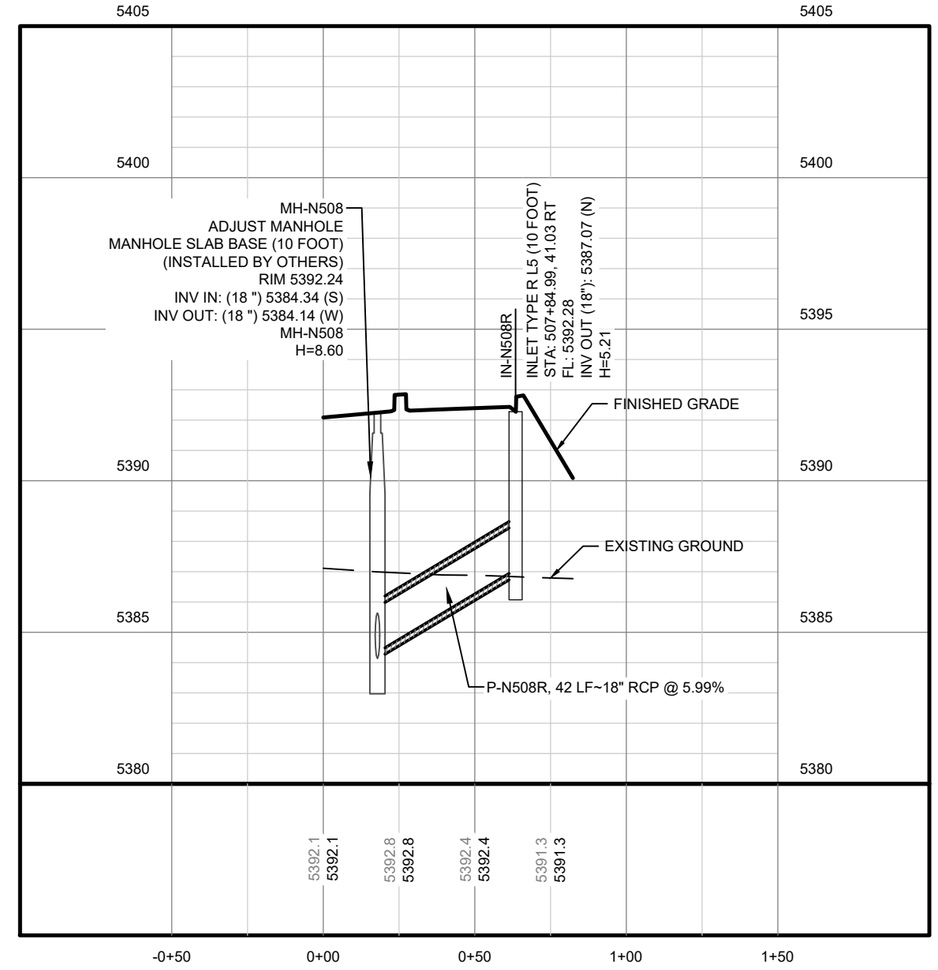
Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 12 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 239

$PLOT_INFO$



NICHOLS AVE LATERALS
SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'



NICHOLS AVE LATERALS
SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

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0 25 50 100
SCALE: 1" = 50'

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10/08/2025
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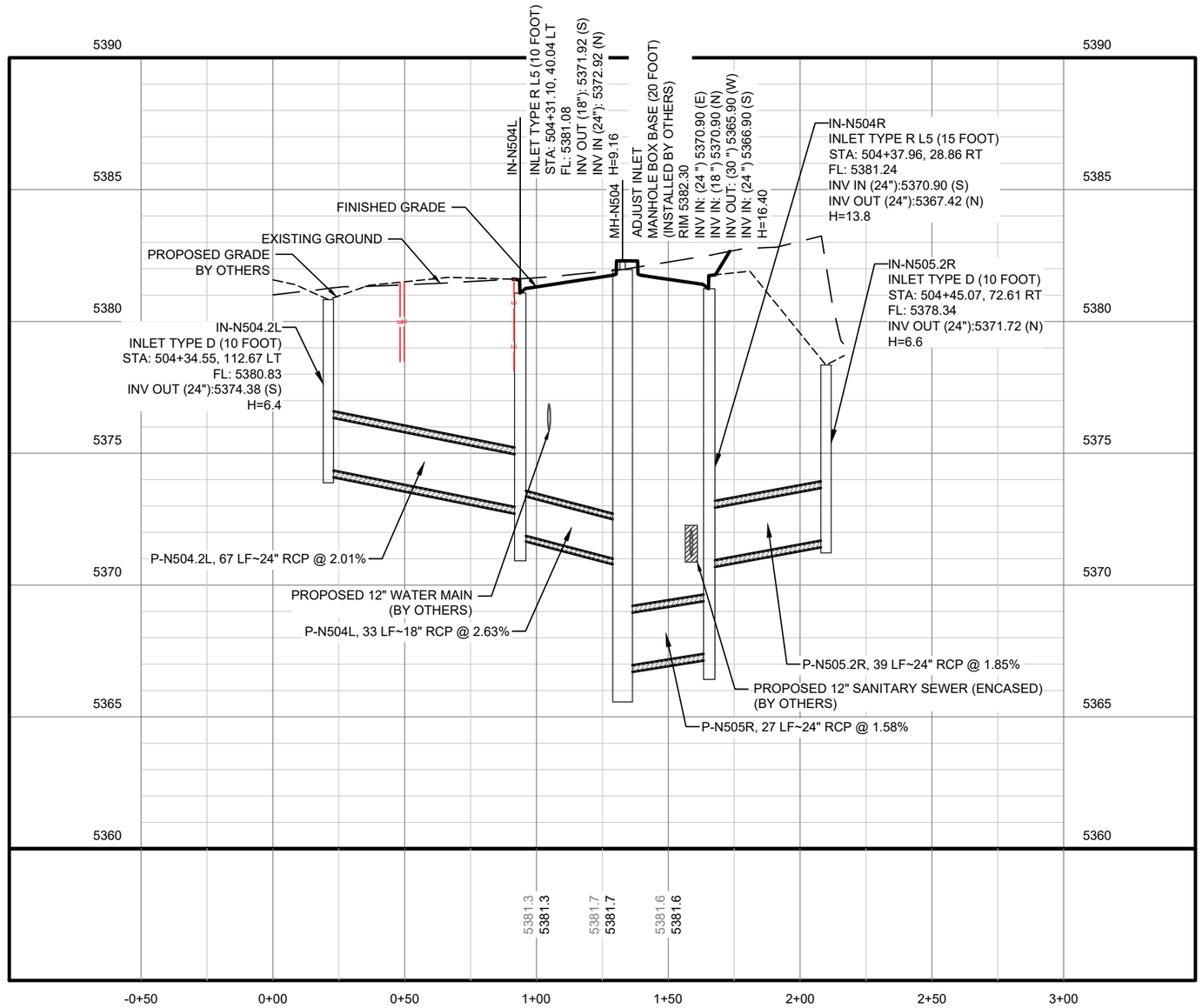
As Constructed	NICHOLS AVE DRAINAGE PROFILES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: SACOSTA	Structure Numbers	23574
Void:	Detailer: MCHAVEZ		Sheet Number 240
	Sheet Subset: DRAINAGE	Subset Sheets: 13 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTE - ONLY EXISTING UTILITIES TO REMAIN IN SERVICE AND UTILITIES TO BE CONSTRUCTED BY OTHERS ARE SHOWN ON PROPOSED DRAINAGE PROFILES. THE CONTRACTOR SHALL BE AWARE OF THE POTENTIAL TO ENCOUNTER EXISTING OUT-OF-SERVICE UTILITIES DURING STORM SEWER CONSTRUCTION. REMOVAL OF OUT OF SERVICE UTILITIES SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF STORM SEWER INSTALLATION.

NICHOLS AVE LATERALS

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

0 25 50 100
SCALE: 1" = 50'

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COLORADO LICENSED
SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PROFILES(1).DWG
Horiz. Scale: 1" = 50' Vert. Scale: 1" = 5'
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

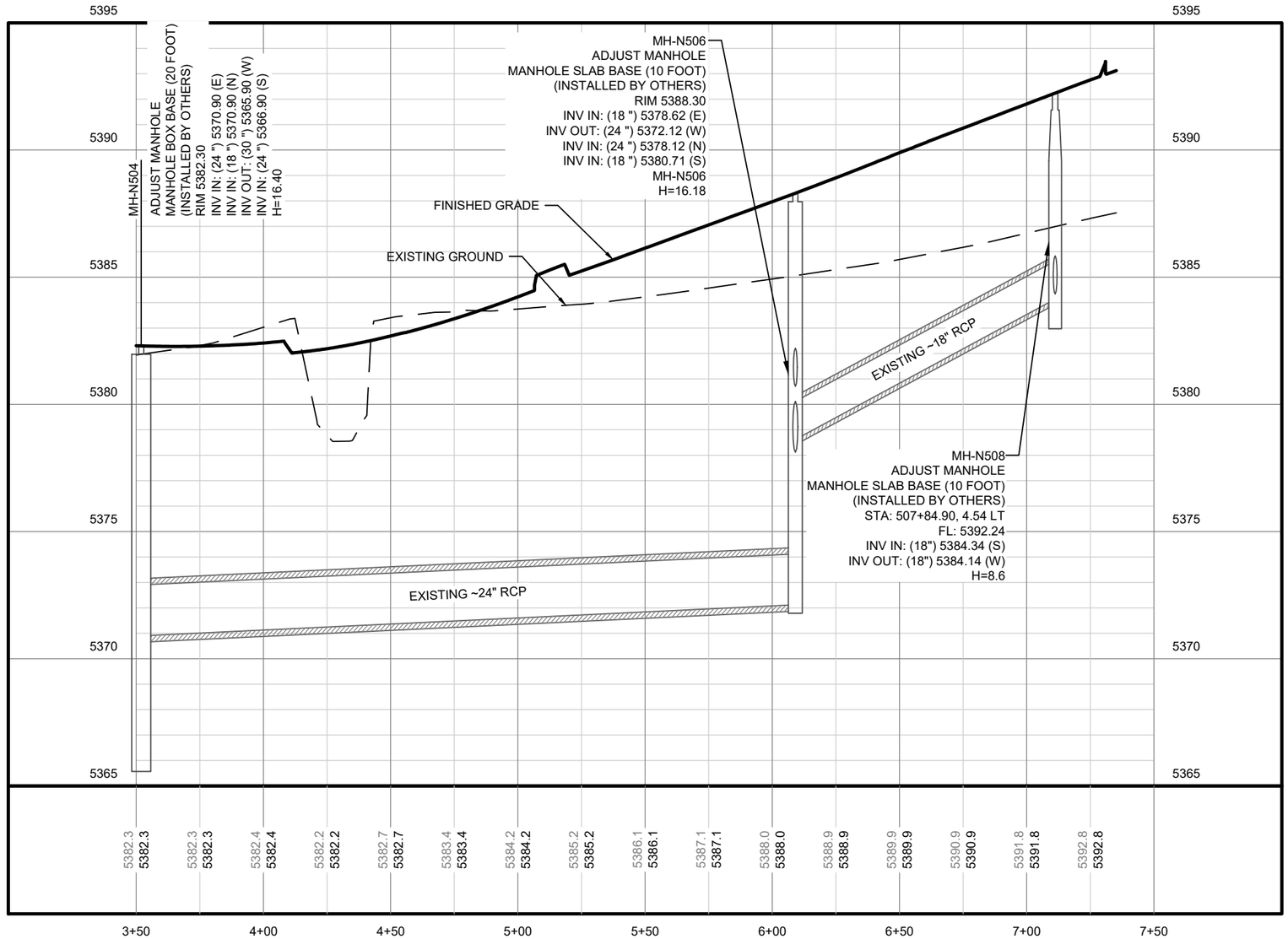
As Constructed
No Revisions:
Revised:
Void:

NICHOLS AVE
DRAINAGE PROFILES

Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 14 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 241

$PLOT_INFO$



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NICHOLS AVE TRUNKLINE

SCALE: VERT: 1" = 5'
HORIZ: 1" = 50'

0 25 50 100
SCALE: 1" = 50'

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SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_PROFILES(1).DWG
Horiz. Scale: Custom Vert. Scale: 1" = 5'
Unit Information

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1670 BROADWAY, SUITE 3400
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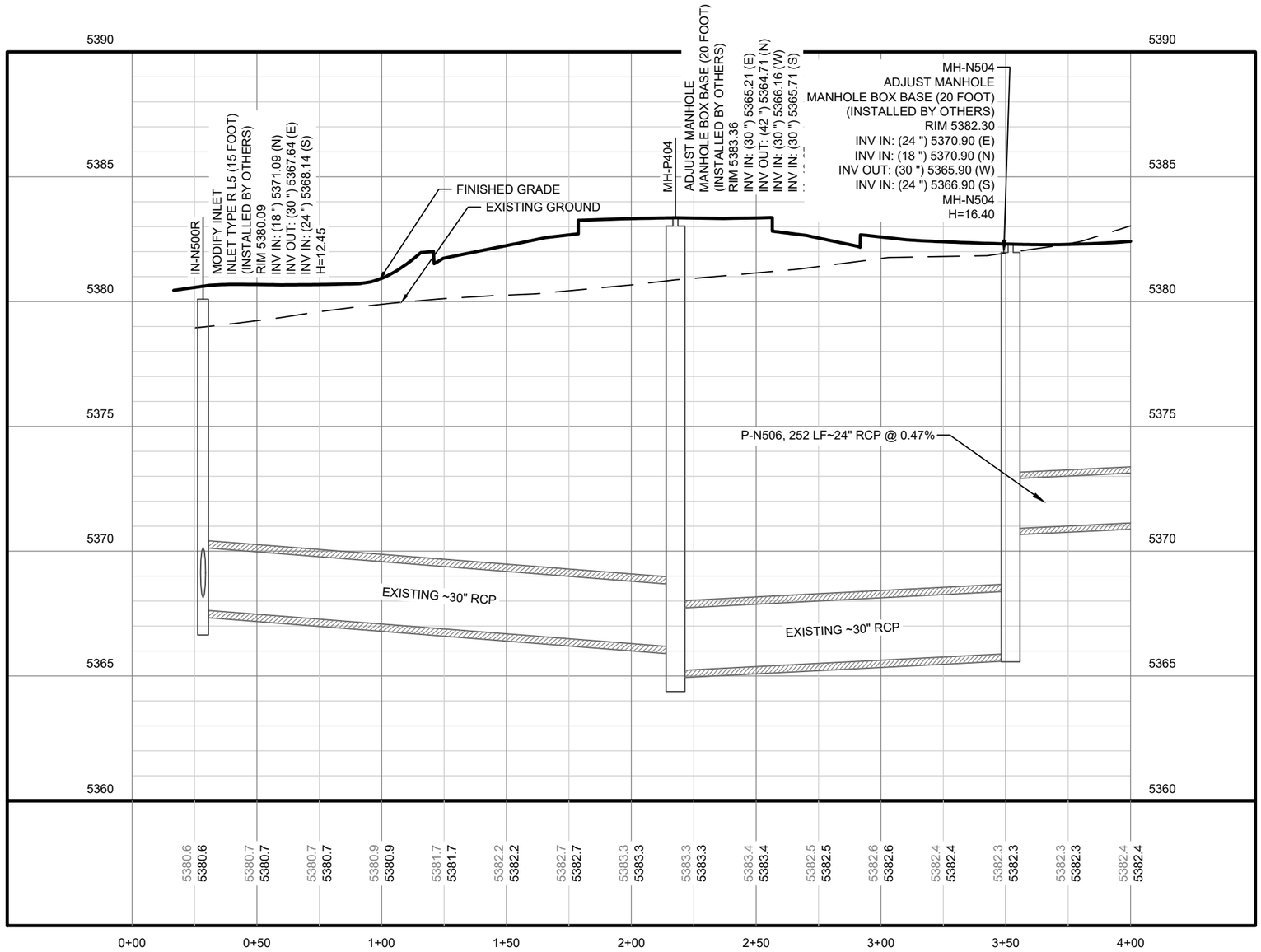
NICHOLS AVE
DRAINAGE PROFILES

Designer: SACOSTA
Detailer: MCHAVEZ
Sheet Subset: DRAINAGE
Structure Numbers
Subset Sheets: 15 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 242

$PLOT_INFO$



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Vert. Scale:	1" = 5'
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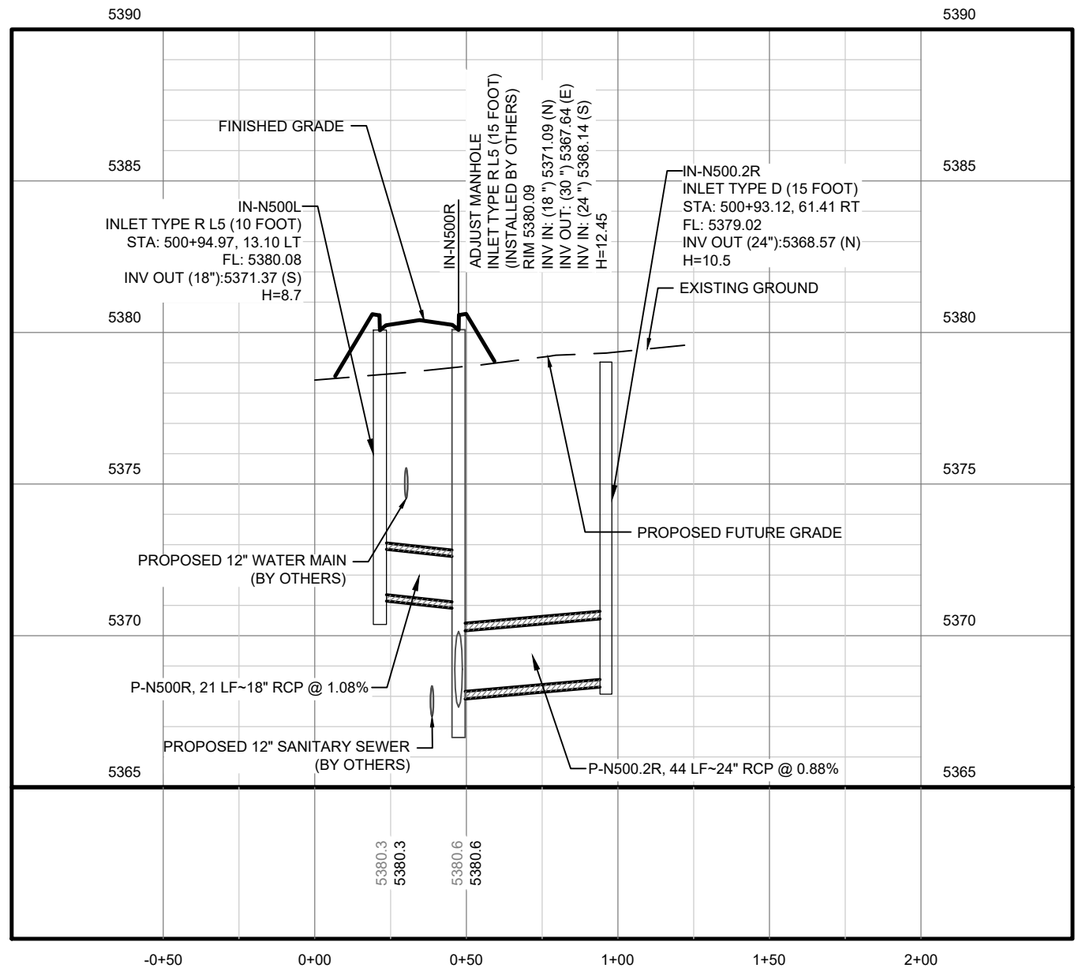
NICHOLS AVE
DRAINAGE PROFILES

Designer:	SACOSTA	Structure Numbers	
Detailer:	MCHAVEZ		
Sheet Subset:	DRAINAGE	Subset Sheets:	16 of 17

Project No./Code	
AQC M810-017	
23574	
Sheet Number	243

$PLOT_INFO$



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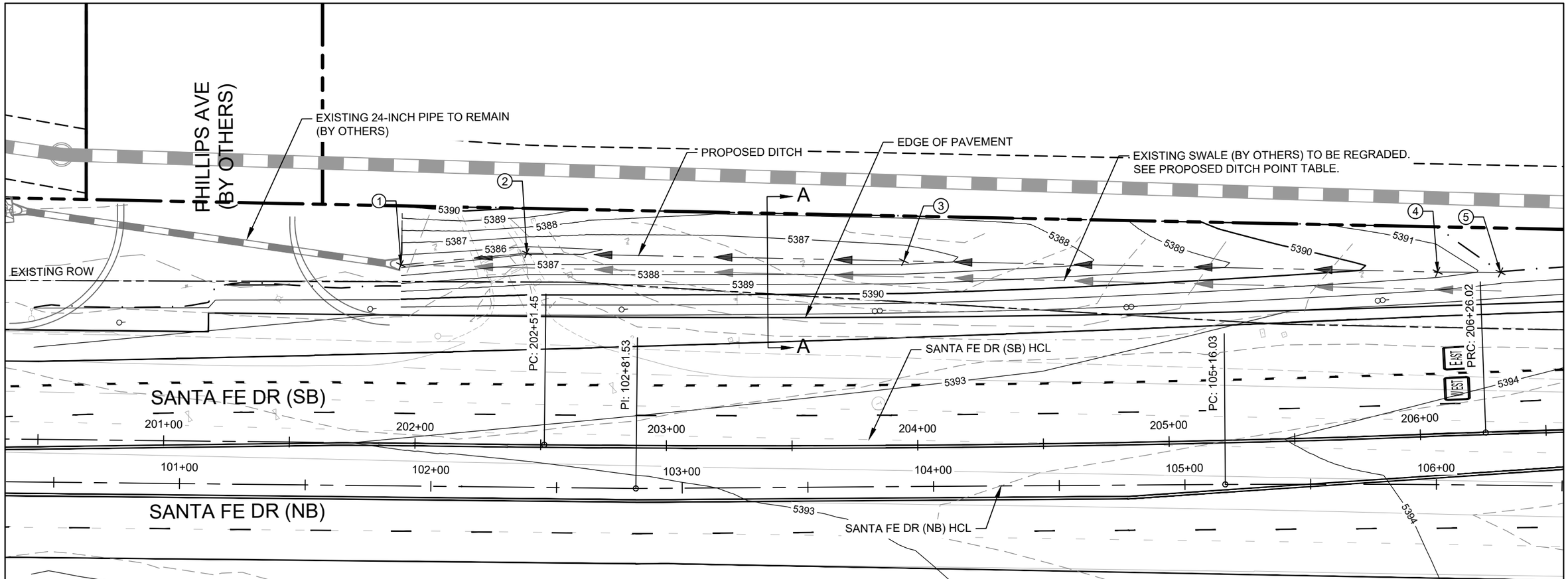
DRAINAGE PROFILES

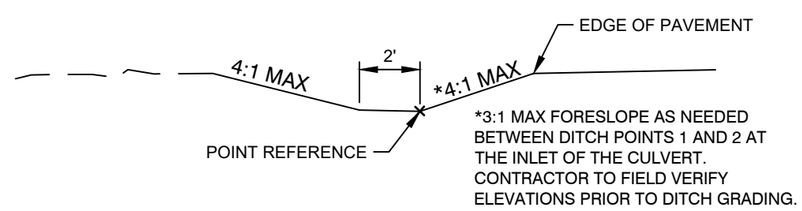
Designer: SACOSTA
Detailer: MCHAVEZ
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 17 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 244

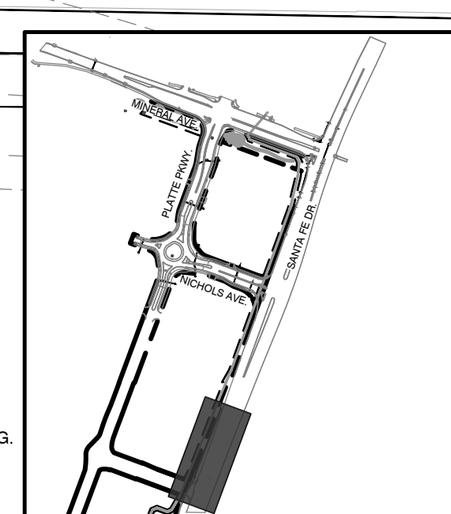
$PLOT_INFO$

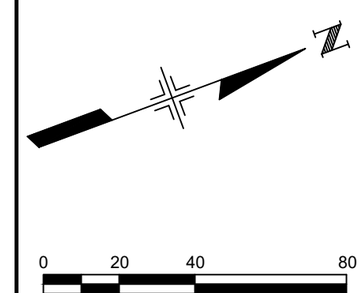


PROPOSED DITCH POINT TABLE			
Point #	Northing	Easting	Elevation
1	634801.95	133728.11	5385.36
2	634850.48	133741.13	5385.89
3	634990.03	133796.15	5386.64
4	635187.62	133874.06	5390.57
5	635211.01	133882.91	5391.26



SECTION A-A





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SAMUEL D. ACOSTA
52470
10/08/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_DR_DITCH_DET.DWG
Horiz. Scale: 1" = 40' Vert. Scale: N/A
Unit Information

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DENVER, COLORADO 80202
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FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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No Revisions:
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SANTA FE DR
DITCH DETAIL PLAN

Designer: O.VELASCO
Detailer: O.VELASCO
Structure Numbers
Sheet Subset: DRAINAGE
Subset Sheets: 1 of 1

Project No./Code
AQC M810-017
23574
Sheet Number 245

$PLOT_INFO$

UTILITY CONTACT LIST - SANTA FE & MINERAL OPERATIONAL IMPROVEMENTS PROJECT

UTILITY OWNER	UTILITY TYPE	CONTACT	PHONE	EMAIL
City of Littleton	Traffic Signals	Tim Weaver	Office: 303-795-3834	tweaver@littletongov.org
		Aaron Heumann	Office: 303-795-3867	aheumann@littletongov.org
	Sanitary Sewer Storm Sewer	Sarah White	Office: 303-795-3826	swhite@littletongov.org
		Brent Thompson	Office: 303-795-3798	bthompson@littletongov.org
City of Englewood	Irrigation (City Ditch)	Stephanie Ellis	Office: 303-783-6811 Mobile: 720-668-1770	sellis@englewoodco.gov
Colorado Department of Transportation (CDOT)	Fiber Optic (ITS Backbone)	Jill Scott	Office: 303-515-5805	jill.scott@state.co.us
Comcast	Fiber Optic Television	Jason Mollo	Mobile: 303-241-1964	jason_mollo@comcast.com
Denver Water	Water	Paul Peloquin	Office: 303-628-6620 Mobile: 720-808-3618	paul.peloquin@denverwater.org
Lumen Technologies (Formerly CenturyLink / Level 3)	Fiber Optic Telephone	Bobby Hight (Local Telecom)	Office: 303-309-8794	bobby.hight@lumen.com
		Tom Longan (National Fiber)	Office: 303-482-9822 Mobile: 720-878-6311	thomas.longan@lumen.com
		Wes Bugal (Consultant - Terra Tech)	Mobile: 720-331-6099	wbugal@congruex.com
RTD	Electric Irrigation	Mace Pemberton	Office: 303-299-2272	mace.pemberton@RTD-denver.com
Southwest Metropolitan Water and Sanitation District (SWMWSD)	Sanitary Sewer Water	Justin Roquemore	Office: 303-979-2333 Mobile: 303-591-5207	jwroquemore@plattecanyon.org
		Chris Cochran	Mobile: 303-591-5206	clcochran@plattecanyon.org
Verizon Business (Formerly MCI)	Fiber Optic	Lane Grady	Office: 303-390-2466 Mobile: 303-827-9756	lane.grady@verizon.com
Xcel Energy	Electric Gas - Distribution Street Lighting	Owi Effiongudo	Mobile: 720-305-8135	owoidohoabasi.m.effiongudo@xcelenergy.com
	Gas - High Pressure	Austin Shorr	Office: 720-501-5657	austin.e.shorr@xcelenergy.com
Zayo	Fiber Optic	James Black	Mobile: 719-216-8508	jamesr.black@zayo.com zayo.relo.colorado@zayo.com

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_SUE_CONTACTS.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
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SUE INVESTIGATION PLAN
CONTACTS

Designer: TSCHARRA
Detailer: SDELONG
Sheet Subset: SUE-GEN
Structure Numbers
Subset Sheets: 01 of 03

Project No./Code
AQC M810-017
23574
Sheet Number 246

$PLOT_INFO$

GENERAL
- CONTROL MONUMENT
- PI STATION
- PI STATION STRUCTURE
- TESTHOLE (THXX)

ELECTRIC
- GUY POLE
- GUY WIRE
- MANHOLE
- MARKER
- METER
- OUTLET
- PEDESTAL
- POLE
- PULLBOX (EPB)
- SWITCH (ESW)
- TOWER
- TRANSFORMER (XFMR)
- VAULT

FIBER OPTIC
- MANHOLE
- MARKER
- PEDESTAL
- POLE
- PULLBOX (FOPB)
- VAULT

GAS
- MANHOLE
- MARKER
- METER
- TANK
- VALVE
- VAULT
- VENT

GAS-HP
- HP MARKER
- HP METER
- HP VALVE
- HP VENT

IRRIGATION
- BLOWOFF
- END SECTION
- MANHOLE
- MARKER
- METER
- PEDESTAL
- PULLBOX (IRPB)
- VALVE
- VENT

LIGHTING
- MARKER
- PEDESTAL
- POLE
- PULLBOX (LPB)

OIL
- MARKER
- METER
- VALVE
- WELLHEAD

SANITARY
- CLEANOUT
- MANHOLE
- MARKER
- VALVE
- VAULT
- VENT

SIGNAL
- CONTROLLER
- MARKER
- PEDESTAL
- POLE
- PULLBOX (SPB)

STORM
- CLEANOUT
- END SECTION
- INLET
- MANHOLE
- MARKER

TELEPHONE
- MANHOLE
- MARKER
- PEDESTAL
- POLE
- PULLBOX (TPB)
- VAULT

TELEVISION
- MANHOLE
- MARKER
- PEDESTAL
- POLE
- PULLBOX (TVPB)
- VAULT

WATER
- BLOWOFF
- HYDRANT
- MANHOLE
- MARKER
- METER
- VALVE
- VAULT
- VENT
- WELL

OTHER
- MANHOLE
- MARKER
- METER
- PEDESTAL
- POLE
- PULLBOX
- VALVE
- VAULT
- VENT
- OTHER

E / OH	OVERHEAD ELECTRIC LINE
E-QLB, E-QLC, E-QLD	UNDERGROUND ELECTRIC LINE
F / OH	OVERHEAD FIBER OPTIC LINE
FO-QLB, FO-QLC, FO-QLC	UNDERGROUND FIBER OPTIC LINE
G / OH	OVERHEAD GAS LINE
G-QLB, G-QLC, G-QLD	UNDERGROUND GAS LINE
G-HP-QLB, G-HP-QLG, G-HP-QLG	UNDERGROUND HIGH PRESSURE GAS LINE
IRR-QLB, IRR-QLC, IRR-QLD	UNDERGROUND IRRIGATION LINE
SLT / OH	OVERHEAD LIGHTING LINE
LT-QLB, LT-QLC, LT-QLD	UNDERGROUND LIGHTING LINE
O / OH	OVERHEAD OIL LINE
O-QLB, O-QLC, O-QLD	UNDERGROUND OIL LINE
SS / OH	OVERHEAD SANITARY LINE
SS-QLB, SS-QLC, SS-QLD	UNDERGROUND SANITARY SEWER
COM, SA/ST-QLB; COM, SA/ST-QLC; COM, SA/ST-QLD	UNDERGROUND SANITARY/ STORM SEWER COMBINED
SIG / OH	OVERHEAD SIGNAL LINE
SIG-QLB, SIG-QLC, SIG-QLD	UNDERGROUND SIGNAL LINE
SD-QLB, SD-QLC, SD-QLD	UNDERGROUND STORM SEWER
TDUC-QLB, TDUC-QLC, TDUC-QLD	UNDERGROUND TELECOM DUCTBANK
T / OH	OVERHEAD TELEPHONE LINE
T-QLB, T-QLC, T-QLD	UNDERGROUND TELEPHONE LINE
TV / OH	OVERHEAD TELEVISION LINE
TV-QLB, TV-QLC, TV-QLD	UNDERGROUND TELEVISION LINE
W / OH	OVERHEAD WATER LINE
W-QLB, W-QLC, W-QLD	UNDERGROUND WATER LINE
x x x x x x	REMOVE, RELOCATE, OR ABANDON EXISTING UTILITY LINE

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COLORADO LICENSED — TODD J. SCHARRA — 0052936 — 10/6/2025 — PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SUE_LEGEND.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
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SUE INVESTIGATION PLAN LEGEND

Designer: TSCHARRA
Detailer: SDELONG
Sheet Subset: SUE-GEN
Structure Numbers
Subset Sheets: 02 of 03

Project No./Code: AQC M810-017
23574
Sheet Number 247

$PLOT_INFO$

SUBSURFACE UTILITY ENGINEERING (SUE) INVESTIGATION NOTES:

NOTE S1 - TIME FRAME:
HDR ENGINERING, INC. PERFORMED INITIAL SUE LOCATING AND SURVEYING DURING NOVEMBER, 2021. CLARIFICATION SITE VISITS AND FIELD MEETINGS WERE CONDUCTED THEREAFTER.

NOTE S2 - CONTROL:
HDR ENGINEERING, INC. UTILIZED LAND SURVEY CONTROL SET DURING PREVIOUS TOPOGRAPHIC SURVEY BY 105 WEST WHILE COMPLETING THE SUE SURVEY. POSITIONAL CHECKING WAS CONDUCTED AT CONTROL POINTS Q23 AND 201.5.

NOTE S4 - EQUIPMENT:
THE UTILITY SURVEY UTILIZED TRIMBLE R8 AND CATALYST RECEIVERS WHICH TRACK GPS GLONASS AND GNSS SATTELITES WITH VRS CORRECTION SERVICE.

NOTE S5 - ACCURACY:
GPS NETWORK QC CHECKS WERE PERFORMED AT PREVIOUSLY ESTABLISHED CONTROL POINTS Q23 AND 201.5. SUE SURVEY GROUND SHOTS WERE COLLECTED AT AN ACCURACY OF 10 CM OR BETTER.

NOTE S6 - PLANIMETRICS:
SYMBOLS AND LINES REPRESENTING TOPOGRAPHIC SURVEY AND OTHER PLANIMETRIC FEATURES WERE SURVEYED BY 105 WEST AND SHOWN AS BACKGROUND INFORMATION ON THE SUBSURFACE UTILITY INVESTIGATION PLAN. ONLY UTILITY FEATURES WERE FIELD MEASURED DURING THE SUE INVESTIGATION.

ENGINEERING NOTES:

NOTE E1 - OUT OF SERVICE UTILITIES:
OUT OF SERVICE OR ABANDONED UTILITY LINES THAT MAY BE SHOWN ON THE SUE INVESTIGATION PLAN WERE LOCATED DUE TO THE PRESENCE OF ABOVE GROUND APPURTENANCES OR OWNER PROVIDED MAPPING. THE SUE INVESTIGATION PLAN IS INTENDED TO SHOW ACTIVE UTILITY LINES AND DOES NOT SHOW ALL OUT OF SERVICE UTILITY LINES THAT MAY EXIST IN THE PROJECT AREA. OUT OF SERVICE STATUS WAS DETERMINED VIA OWNER PROVIDED MAPPING OR FIELD MEETINGS WITH PROVIDERS AND IS NOT AFFIRMED BY HDR ENGINEERING, INC. THE CONTRACTOR SHALL USE CAUTION AROUND OUT OF SERVICE UTILITY LINES AND SHALL TREAT THEM AS IF THEY ARE ACTIVE.

NOTE E2: - SEWER QUALITY LEVEL:
ALL SANITARY SEWERS AND STORM DRAINS SHOWN ON THE SUE INVESTIGATION PLAN ARE DEPICTED AS QUALITY LEVEL C UNLESS OTHERWISE NOTED. THESE LINES WERE NOT LOCATED USING GEOPHYSICAL MEANS AS THIS LEVEL OF INVESTIGATION WOULD PROVIDE RELATIVELY LITTLE ADDITIONAL USEFUL INFORMATION. DURING PREVIOUS TOPOGRAPHIC SURVEY, SEWER LINES WERE IDENTIFIED VIA ABOVE GROUND APPURTENANCES AND MEASURE DOWNS WERE CONDUCTED TO CONFIRM UTILITY LINE PRESENCE. ALL SEWER AND STORM DRAIN UTILITY SIZING IS BASED ON OWNER PROVIDED MAPPING AND / OR PREVIOUS TOPOGRAPHIC SURVEY.

NOTE E3 - CONTRACTOR RESPONSIBILITY:
A PROGRAMMATIC EFFORT HAS BEEN MADE TO SYSTEMATICALLY LOCATE, SURVEY, AND DEPICT UTILITIES WITHIN THE PROJECT AREA TO THE EXTENT PRACTICAL. SUBSURFACE UTILITY INVESTIGATION PLANS ARE FOR DESIGN PURPOSES ONLY AND REFLECT SUBSURFACE UTILITY CONDITIONS AT THE TIME OF THE SUE INVESTIGATION. EXISTING UTILITY LOCATIONS DEPICTED ON THE PLANS DO NOT SUPERCEDE COLORADO STATE ONE CALL DEMARCATIONS OF BURIED UTILITIES OR RELIEVE THE CONTRACTOR FROM THE LEGAL REQUIREMENT TO CONTACT ONE CALL TWO WORKING DAYS PRIOR TO CONSTRUCTION. HDR ENGINEERING, INC. SHOULD BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE EXISTING UTILITY PLAN AND ONE CALL DEMARCATIONS. THE CONTRACTOR SHALL USE CAUTION UNTIL SUCH DISCREPANCIES ARE RESOLVED.

NOTE E4 - SERVICE LATERALS:
UTILITY SERVICE LATERALS WERE LOCATED WHEN DEPICTED ON UTILITY OWNER MAPPING AND WHEN EXISTENCE COULD BE VERIFIED IN THE FIELD. IT IS POSSIBLE THAT PREVIOUSLY UNKNOWN SERVICE LATERALS MAY EXIST WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL VERIFY ALL SERVICE LATERALS WITH PROPERTY AND UTILITY OWNERS AS REQUIRED DURING CONSTRUCTION.

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COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_NOTES.DWG	Date:	Comments	Init.
Horiz. Scale: N/A Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

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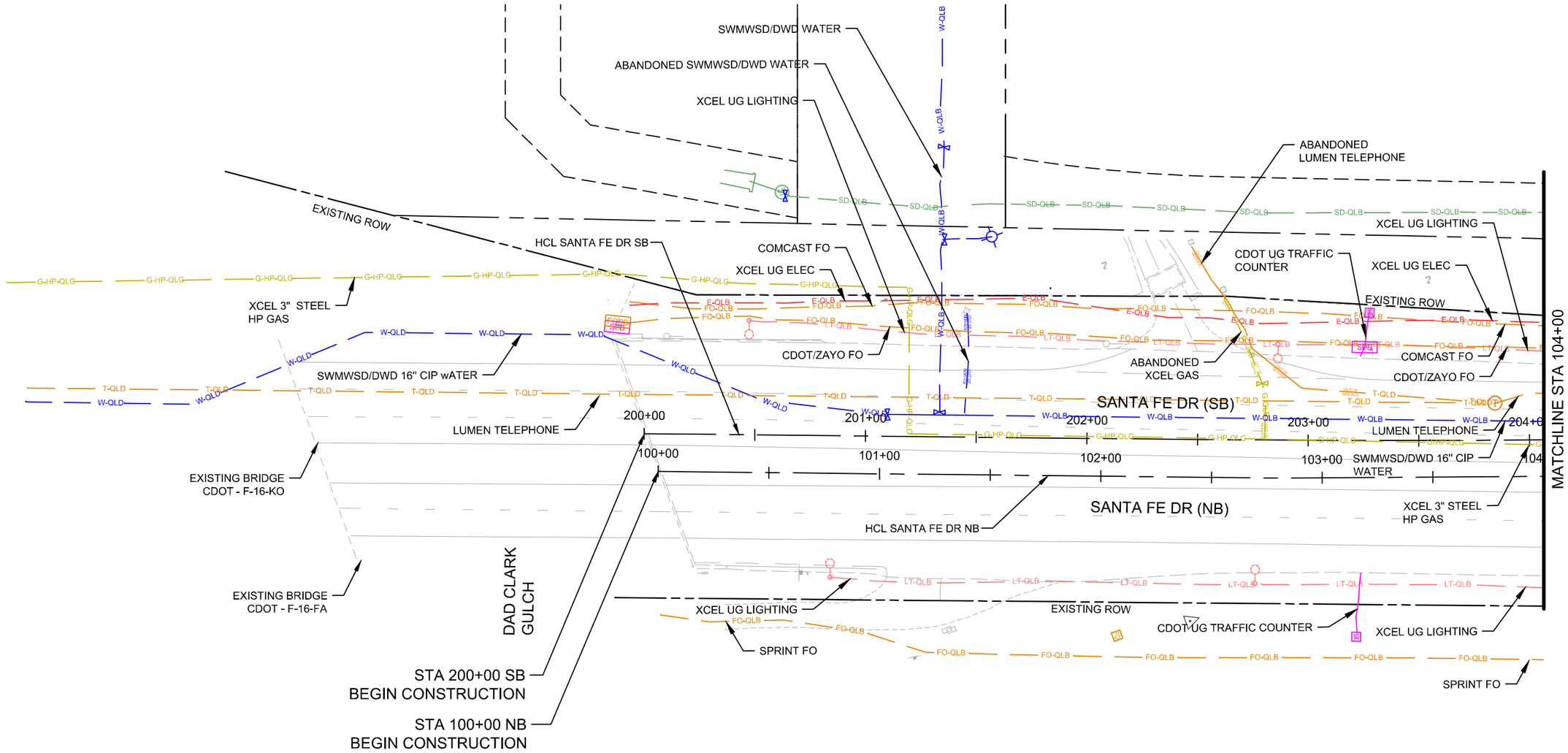
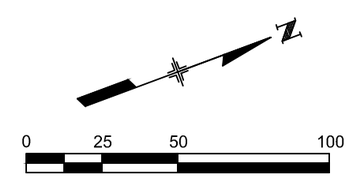
As Constructed	SUE INVESTIGATION PLAN NOTES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: SUE-GEN	Subset Sheets: 03 of 03	Sheet Number 248

$PLOT_INFO$





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0052936
Todd Scharra
10/6/2025
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Unit Information			

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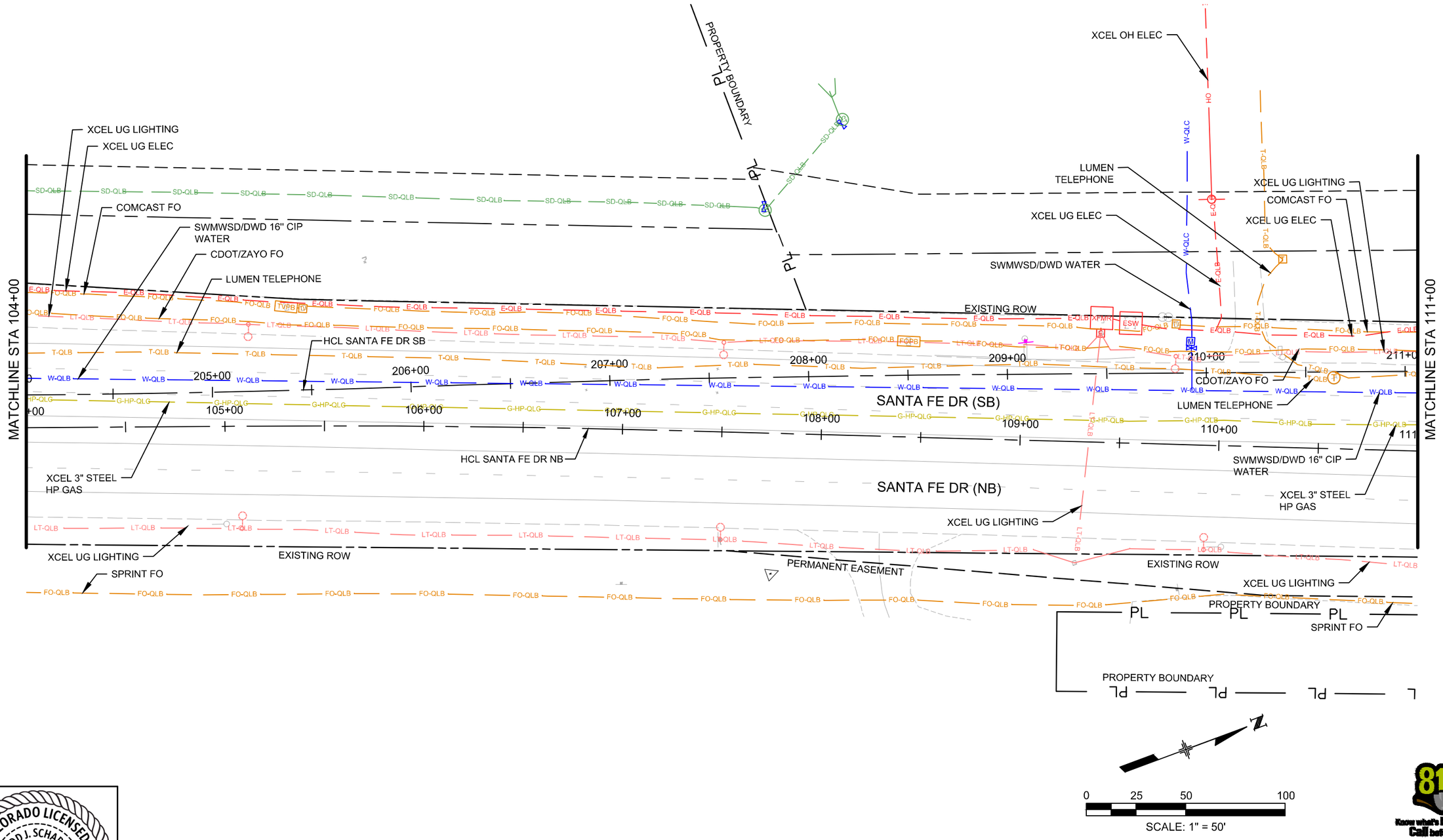
As Constructed	SANTA FE DR SUE INVESTIGATION PLAN STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: SUE-PLAN	Subset Sheets: 01 of 17	Sheet Number 249

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

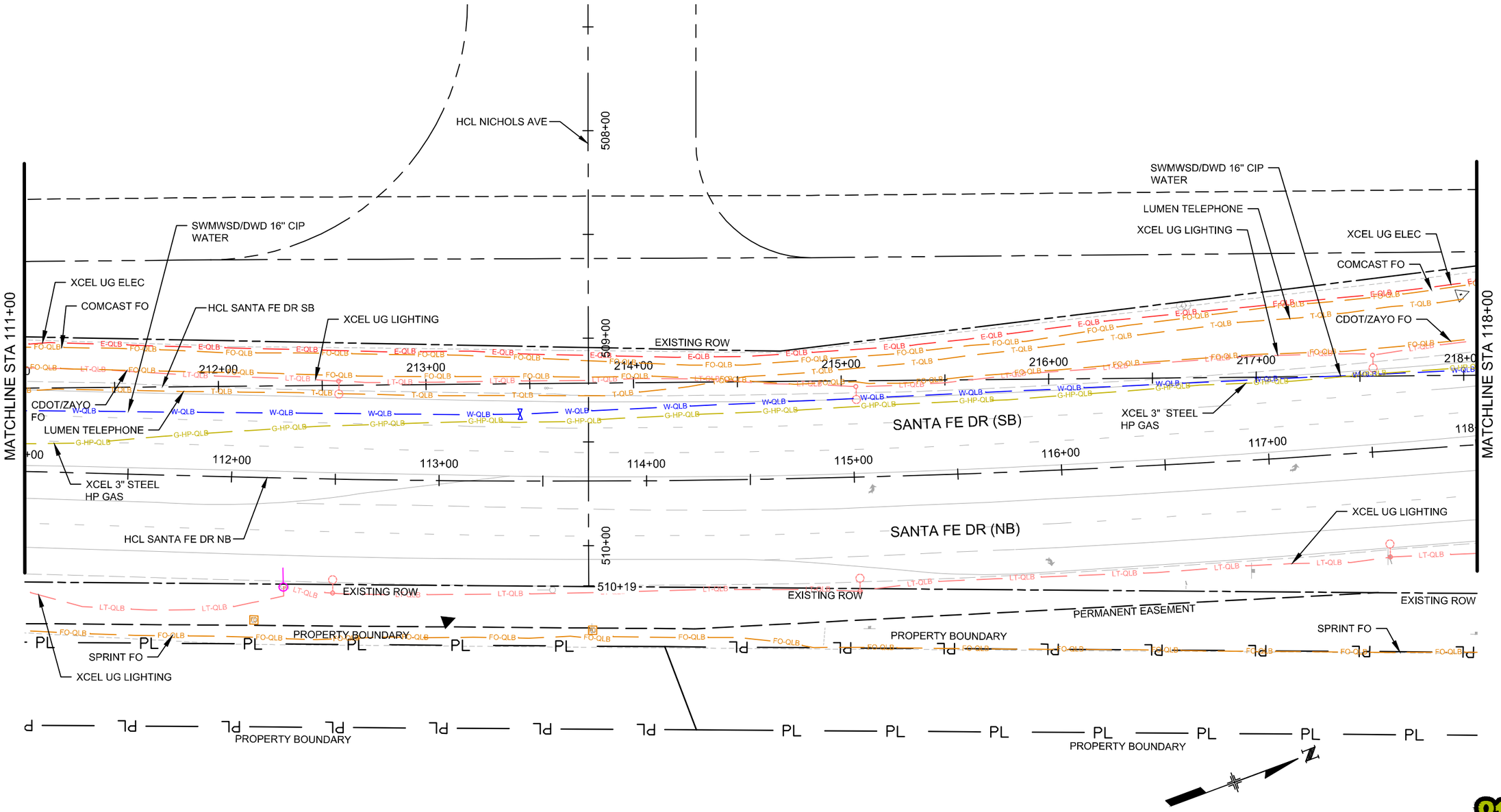
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR SUE INVESTIGATION PLAN STA. 104+00 TO STA. 111+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 250
	Sheet Subset: SUE- PLAN	Subset Sheets: 02 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
Todd Scharra
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_SUE_PLAN(1).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

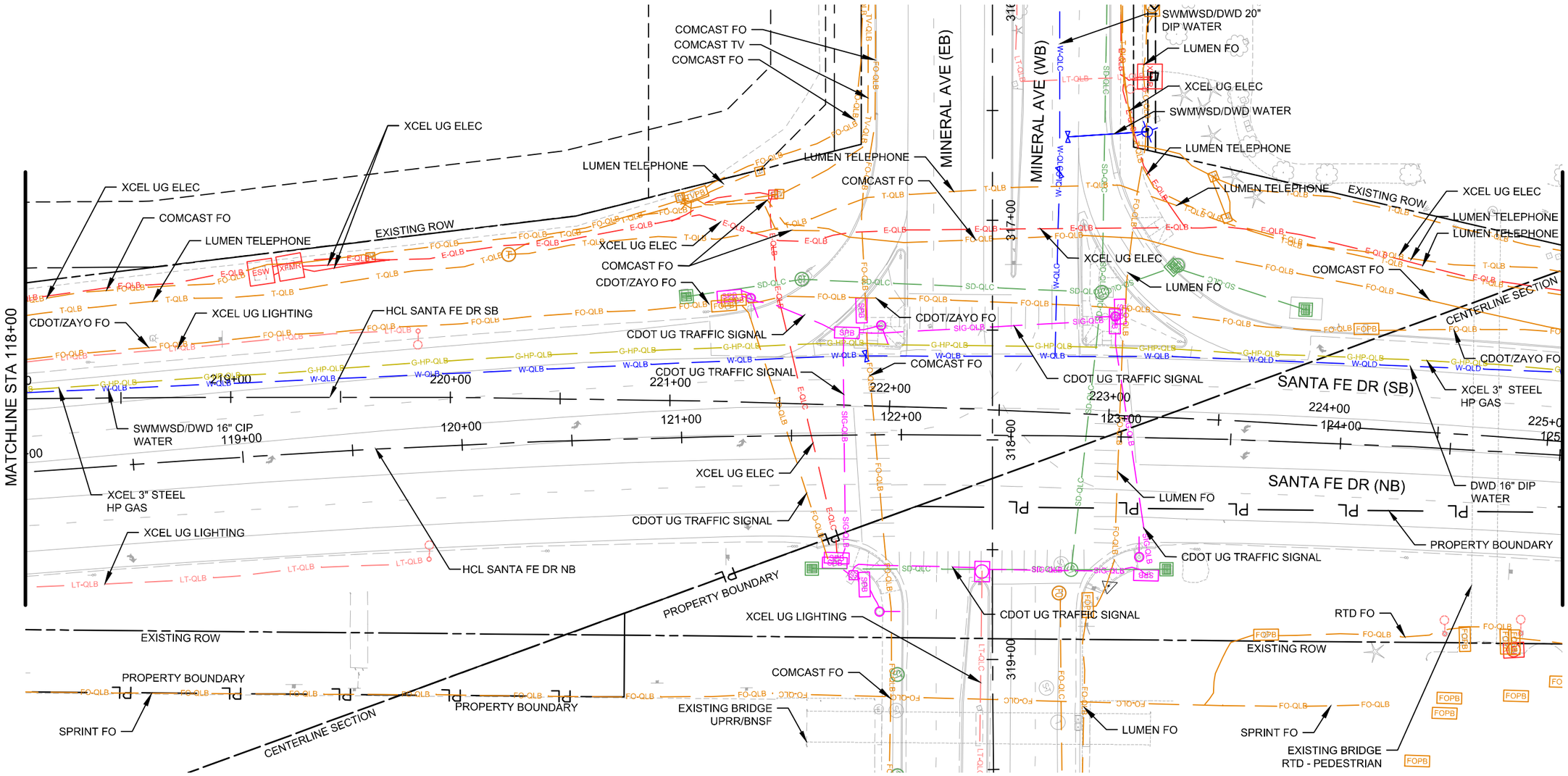
SANTA FE DR
SUE INVESTIGATION PLAN
STA. 111+00 TO STA. 118+00

Designer:	TSCHARRA	Structure Numbers	
Detailer:	SDELONG		
Sheet Subset: SUE-PLAN		Subset Sheets:	03 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 251

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04			
File Name: 23574_SUE_PLAN(1).DWG			
Horiz. Scale: 1" = 50'	Vert. Scale: N/A		
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

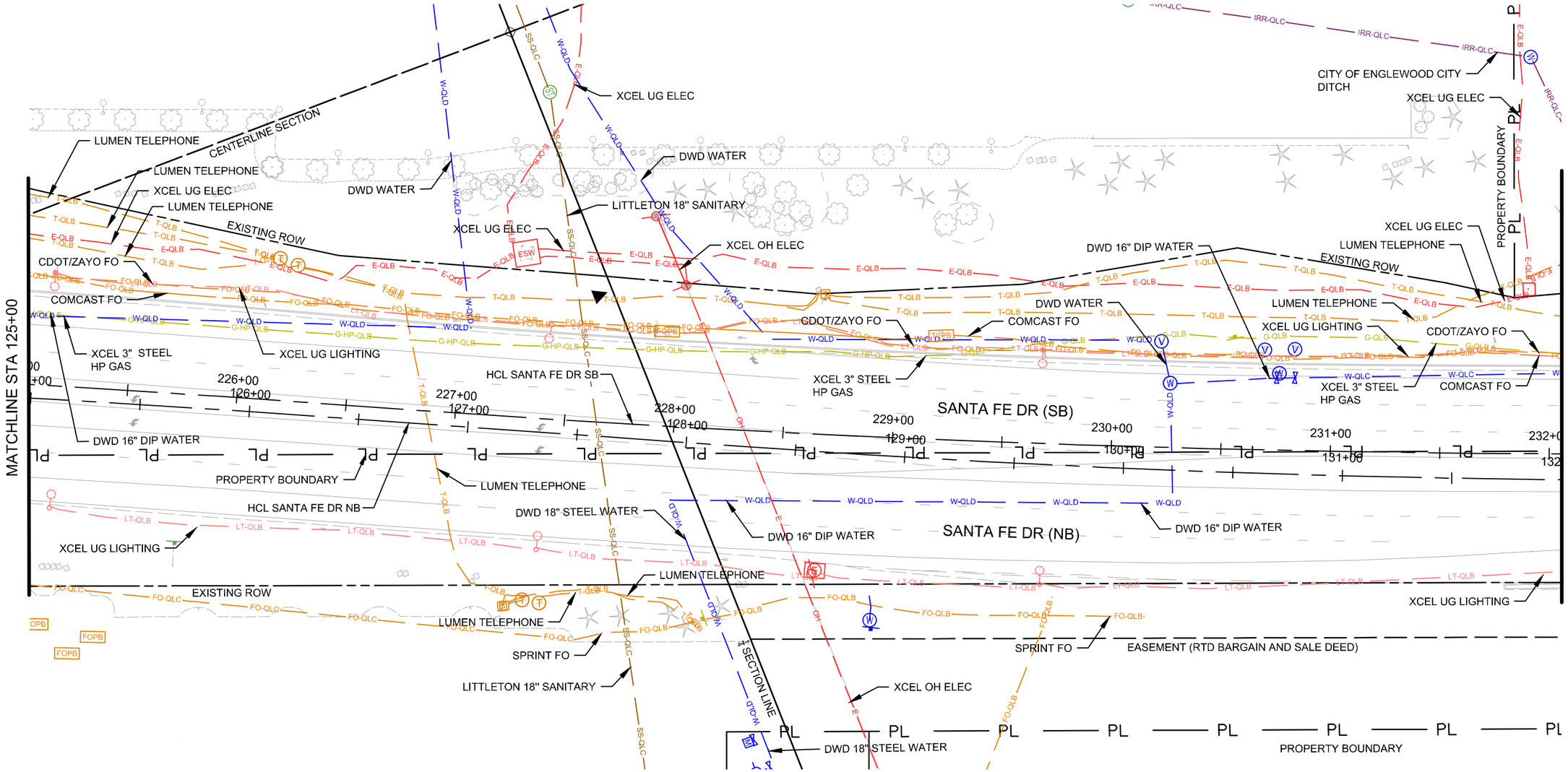
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR SUE INVESTIGATION PLAN STA. 118+00 TO STA. 125+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 252
	Sheet Subset: SUE- PLAN	Subset Sheets: 04 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04			
File Name: 23574_SUE_PLAN(1).DWG			
Horiz. Scale: 1" = 50'	Vert. Scale: N/A		
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

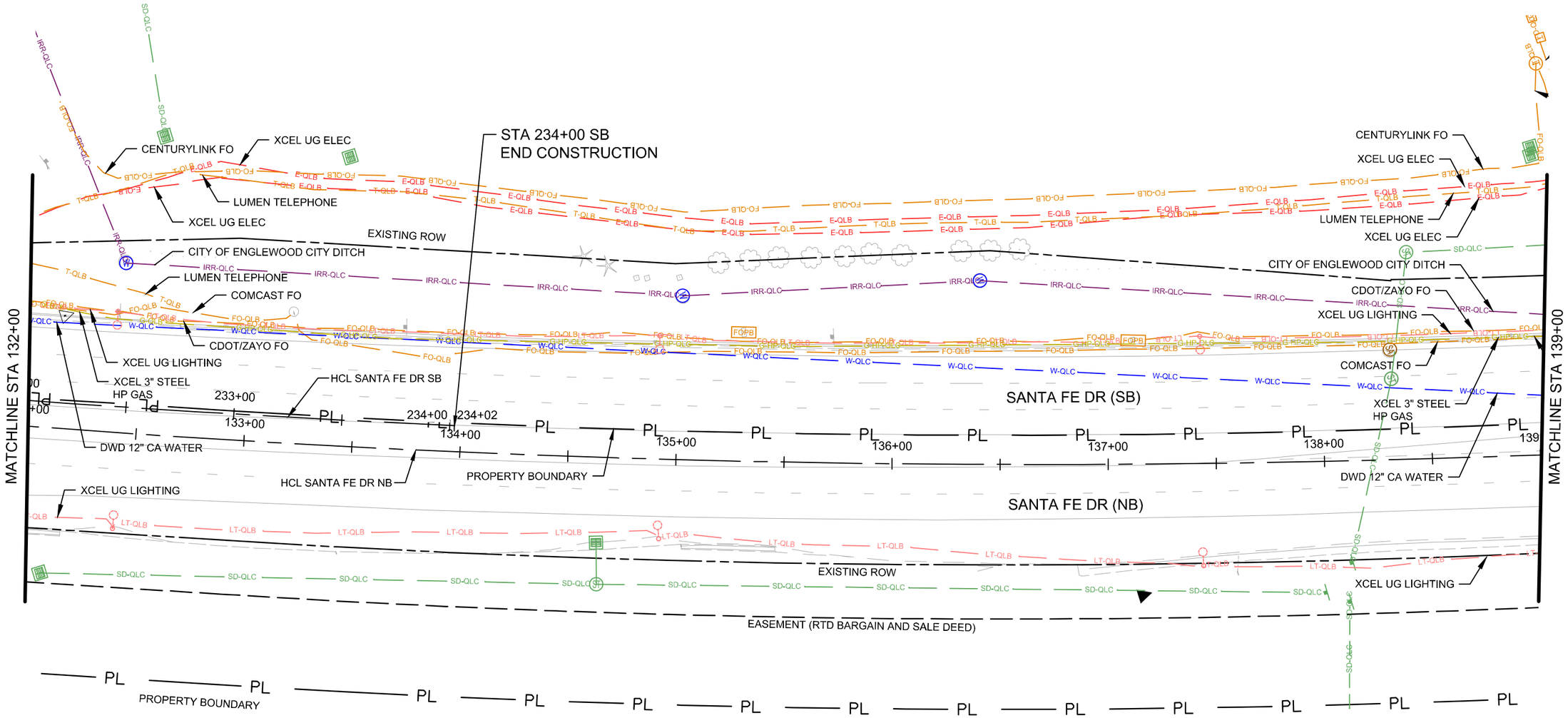
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR SUE INVESTIGATION PLAN STA. 125+00 TO STA. 132+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: SUE- PLAN	Subset Sheets: 05 of 17	Sheet Number 253

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_SUE_PLAN(1).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

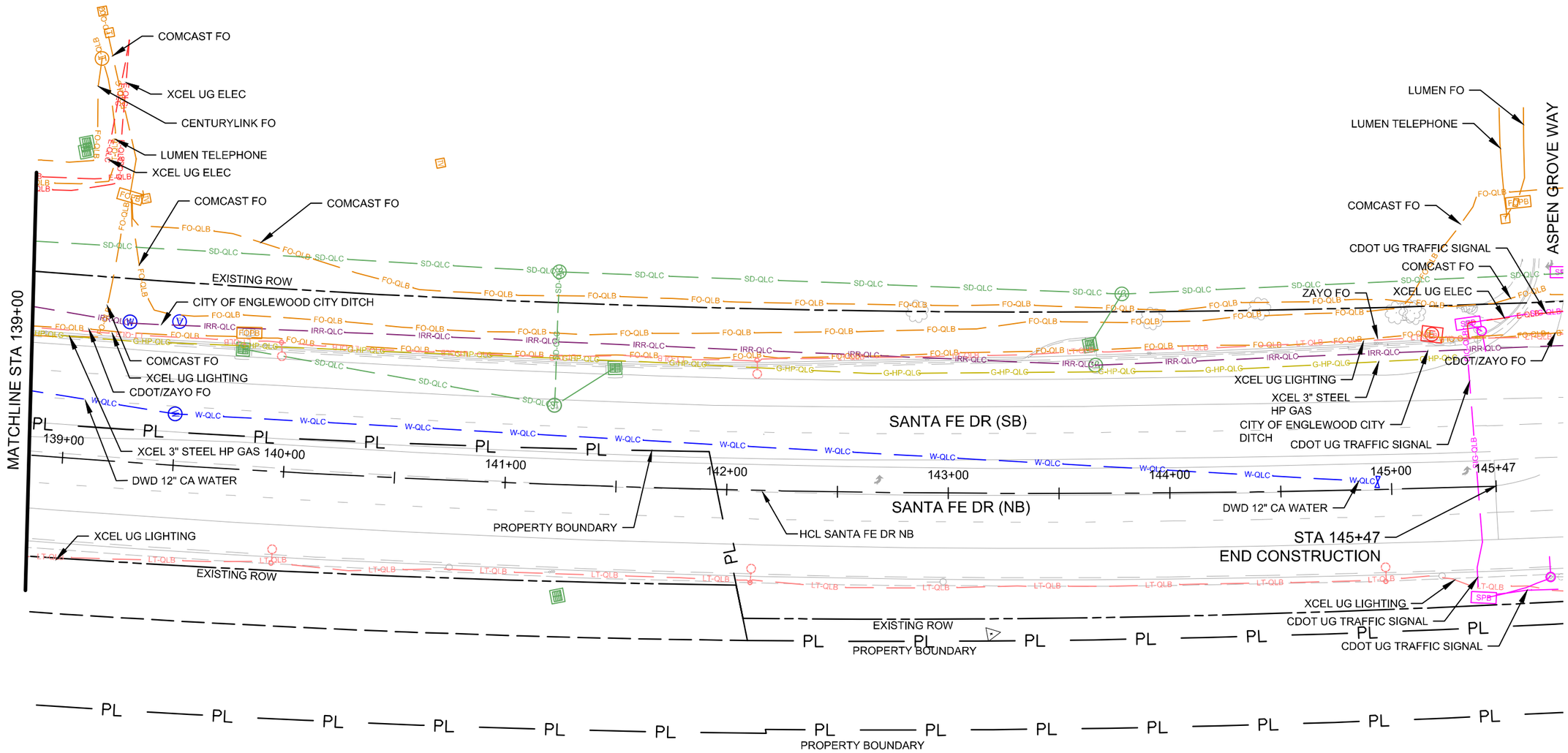
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR SUE INVESTIGATION PLAN STA. 132+00 TO STA. 139+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: SUE- PLAN	Subset Sheets: 06 of 17	Sheet Number 254

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_SUE_PLAN(1).DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions

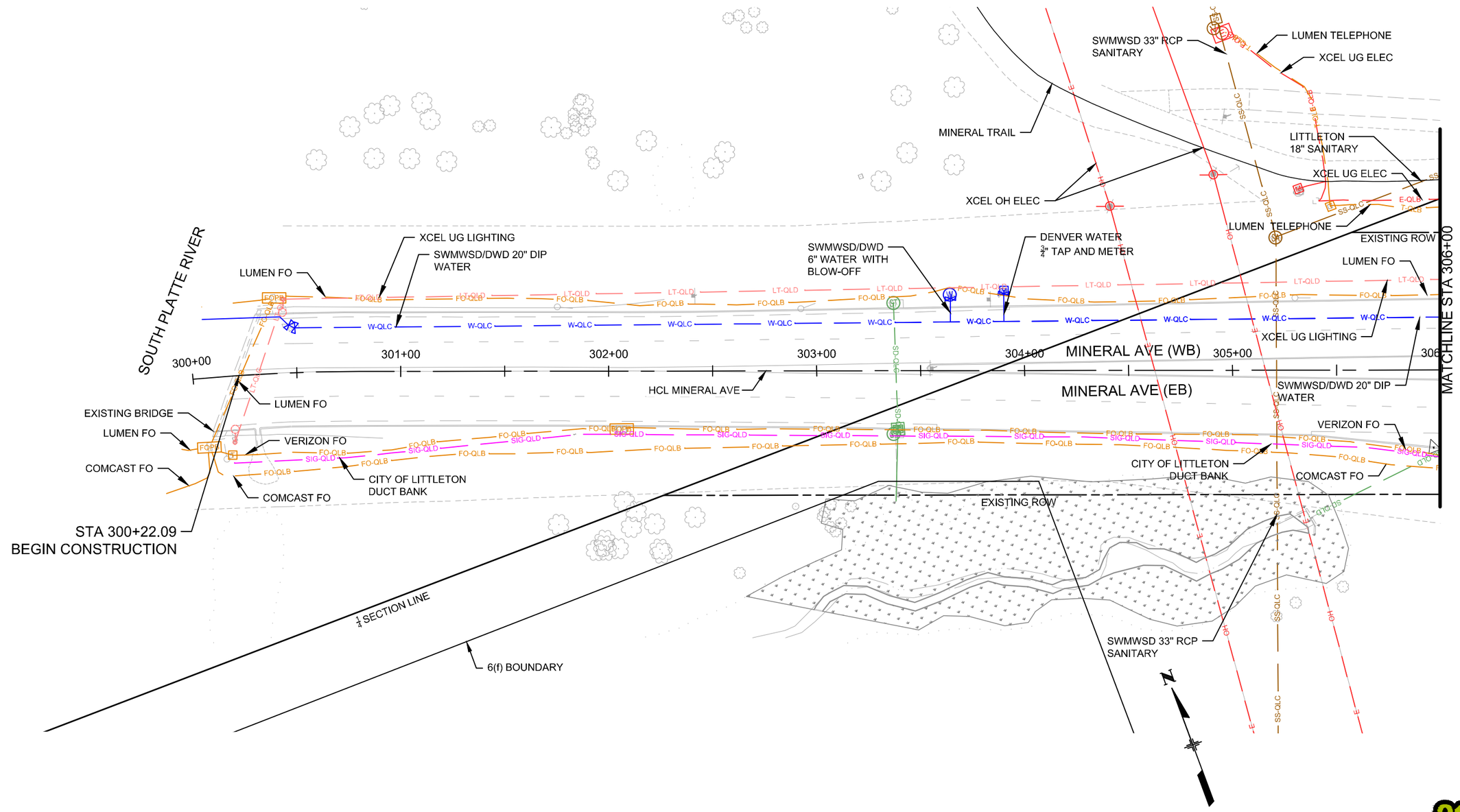
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR SUE INVESTIGATION PLAN STA. 139+00 TO STA. 145+47		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: SUE- PLAN	Subset Sheets: 07 of 17	Sheet Number 255

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_SUE_PLAN(2).DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

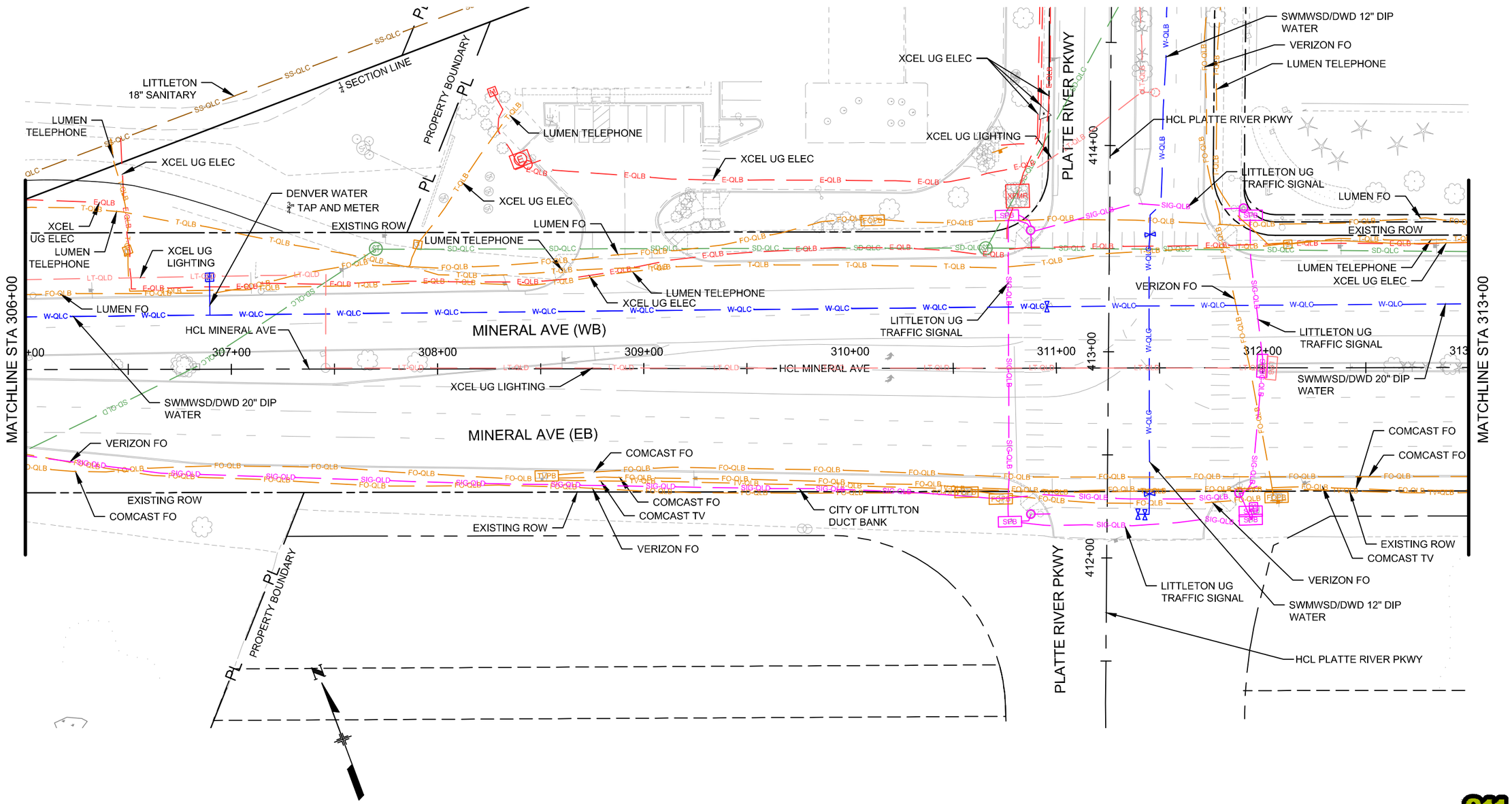
MINERAL AVE
SUE INVESTIGATION PLAN
STA. 300+00 TO STA. 306+00

Designer:	TSCHARRA	Structure Numbers	
Detailer:	SDELONG		
Sheet Subset: SUE- PLAN		Subset Sheets:	08 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 256

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

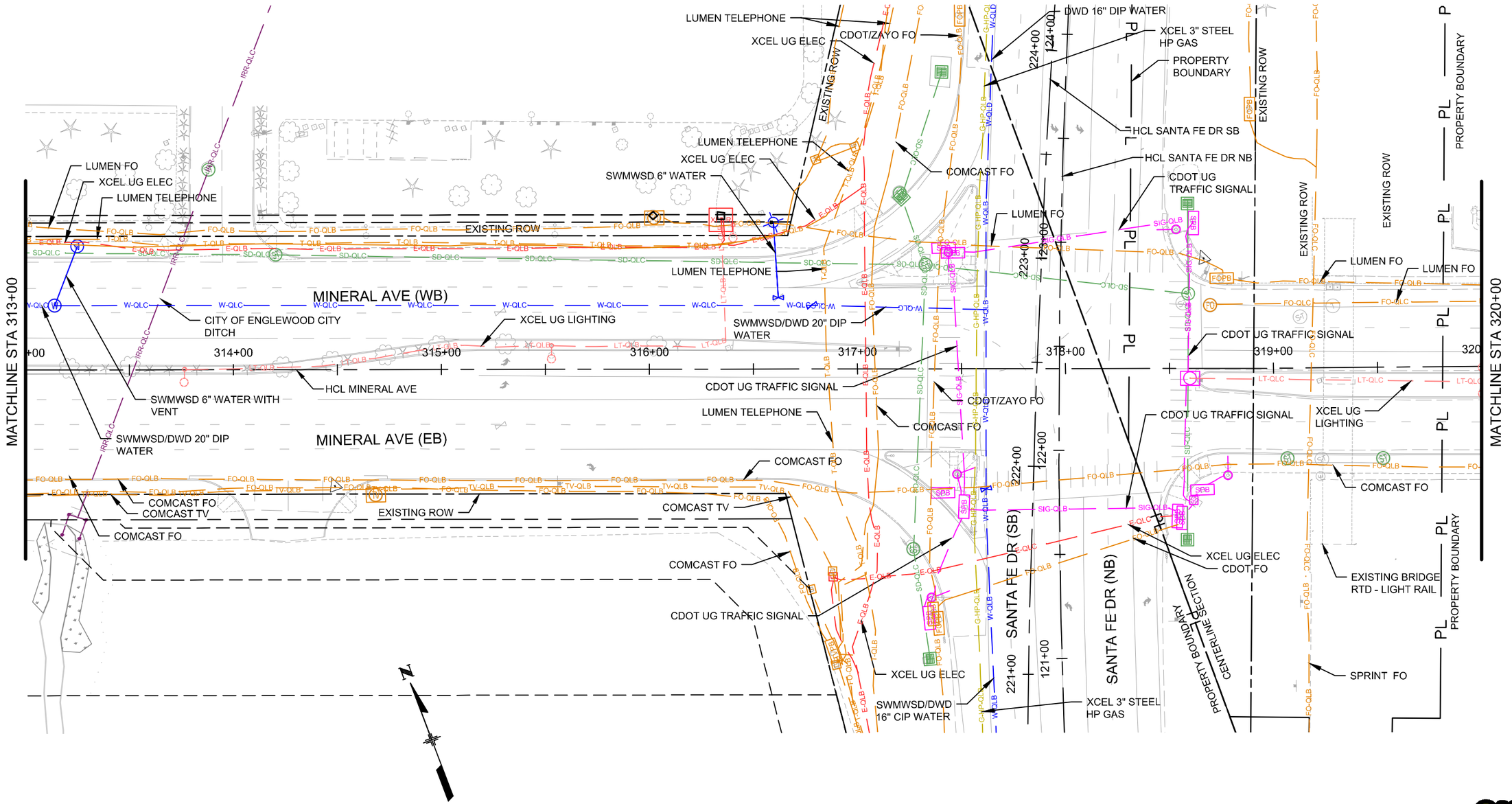
MINERAL AVE
SUE INVESTIGATION PLAN
STA. 306+00 TO STA. 313+00

Designer:	TSCHARRA	Structure Numbers	
Detailer:	SDELONG		
Sheet Subset:	SUE-PLAN	Subset Sheets:	09 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 257

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

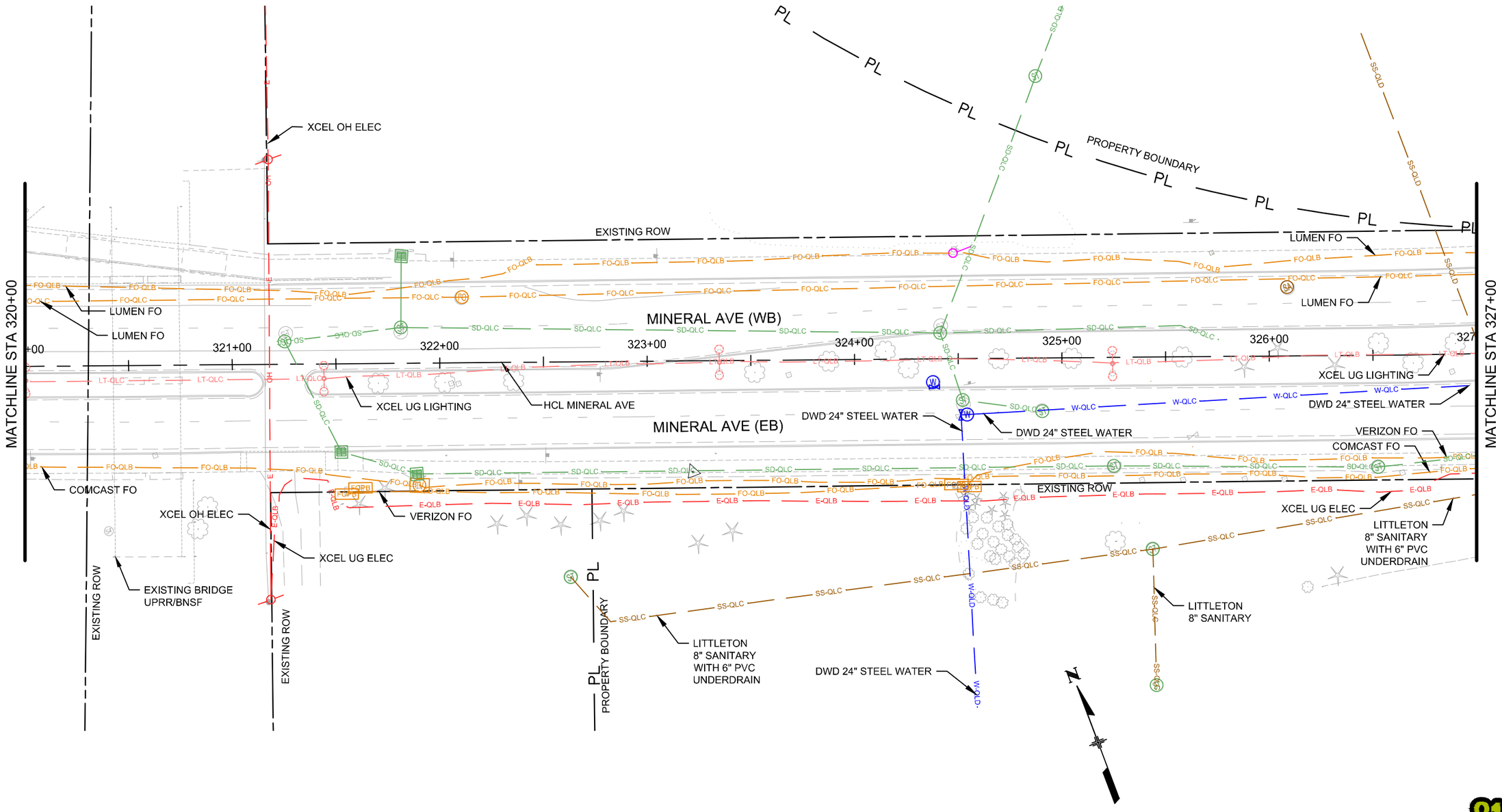
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE SUE INVESTIGATION PLAN STA. 313+00 TO STA. 320+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 258
	Sheet Subset: SUE-PLAN	Subset Sheets: 10 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

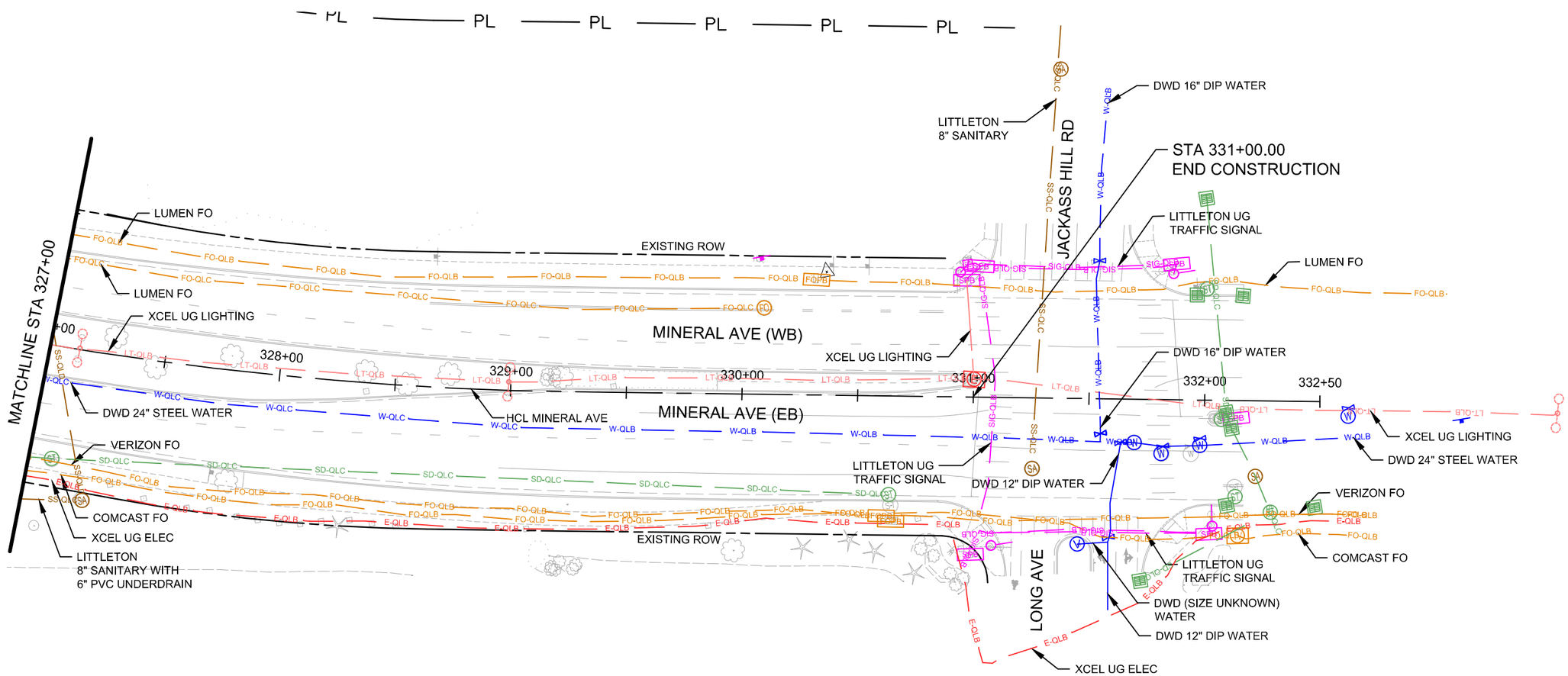
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE SUE INVESTIGATION PLAN STA. 320+00 TO STA. 327+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 259
	Sheet Subset: SUE-PLAN	Subset Sheets: 11 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



N

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

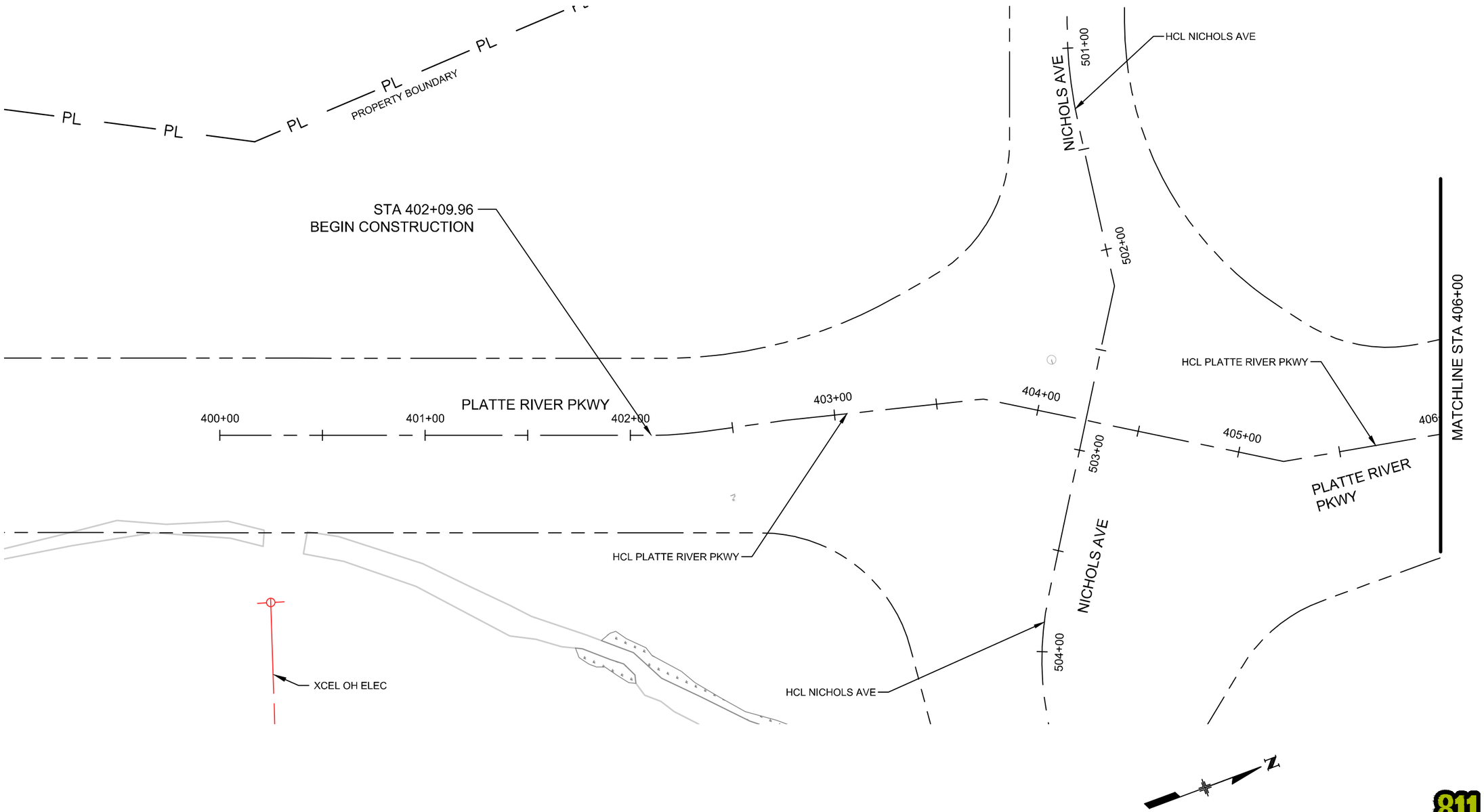
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE SUE INVESTIGATION PLAN STA. 327+00 TO STA. 332+50		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 260
	Sheet Subset: SUE-PLAN	Subset Sheets: 12 of 17	

Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

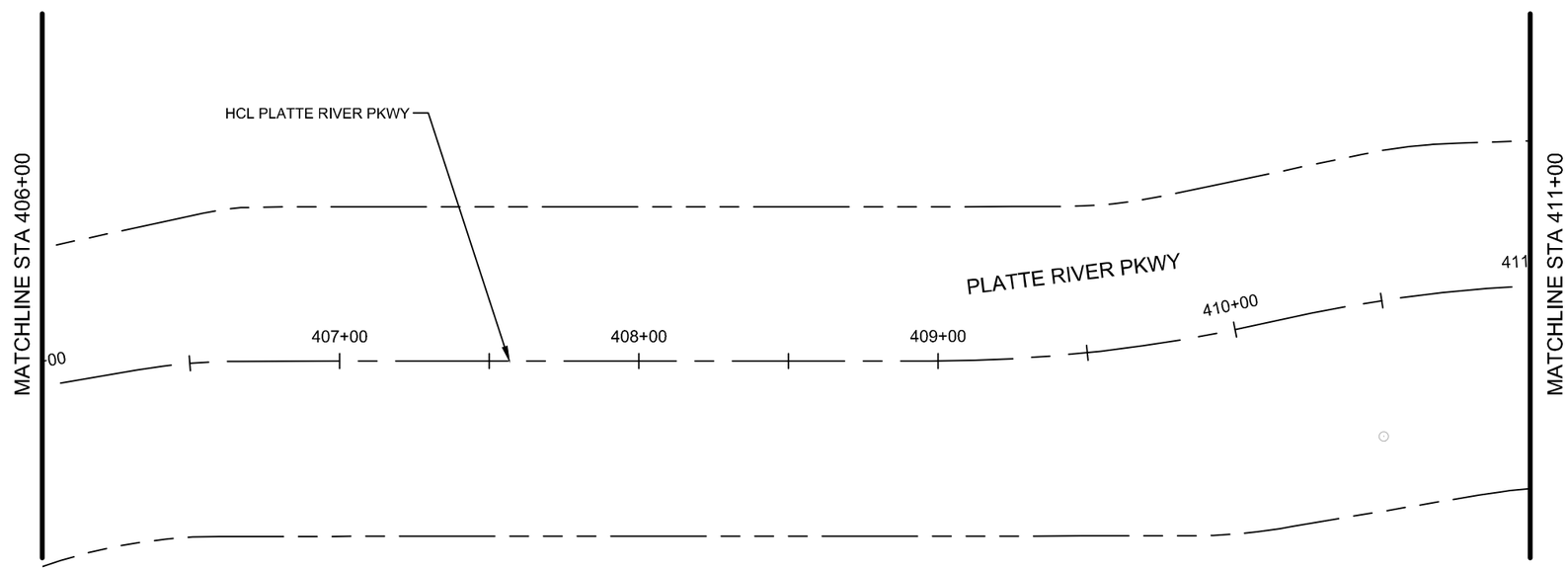
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY SUE INVESTIGATION PLAN STA. 400+00 TO STA. 406+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
	Detailer: SDELONG		
Void:	Sheet Subset: SUE-PLAN	Subset Sheets: 13 of 17	Sheet Number 261

811 Know what's below. Call before you dig.

$PLOT_INFO$



NO EXISTING UTILITIES THIS SHEET

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
File Name: 23574_SUE_PLAN(3).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

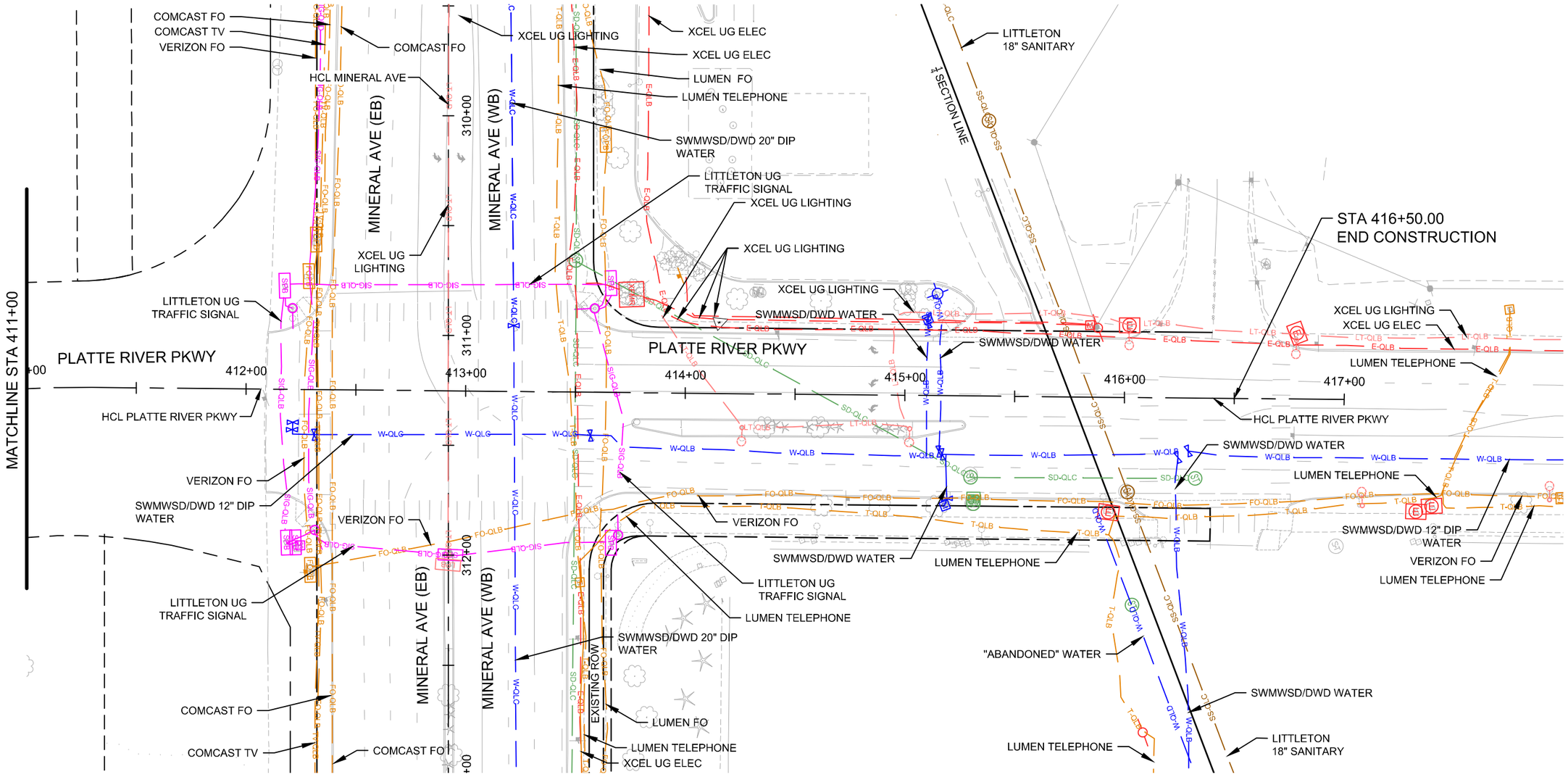
As Constructed
No Revisions:
Revised:
Void:

PLATTE RIVER PKWY
SUE INVESTIGATION PLAN
STA. 406+00 TO STA. 411+00

Designer: TSCHARRA
Detailer: SDELONG
Structure Numbers
Sheet Subset: SUE-PLAN
Subset Sheets: 14 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 262

$PLOT_INFO$



COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

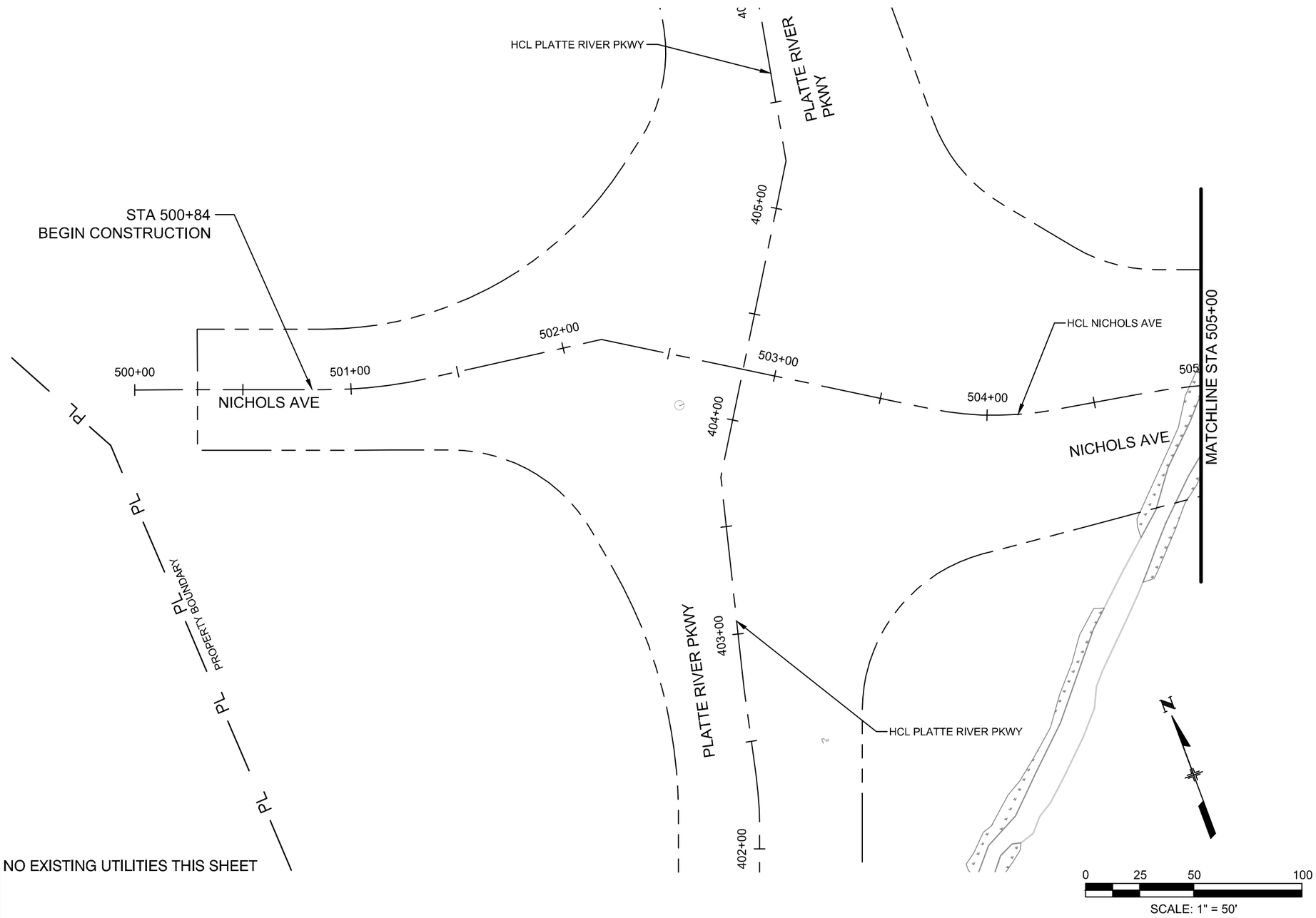
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY SUE INVESTIGATION PLAN STA. 411+00 TO STA. 417+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 263
	Sheet Subset: SUE-PLAN	Subset Sheets: 15 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NO EXISTING UTILITIES THIS SHEET

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04			
File Name: 23574_SUE_PLAN(3).DWG			
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

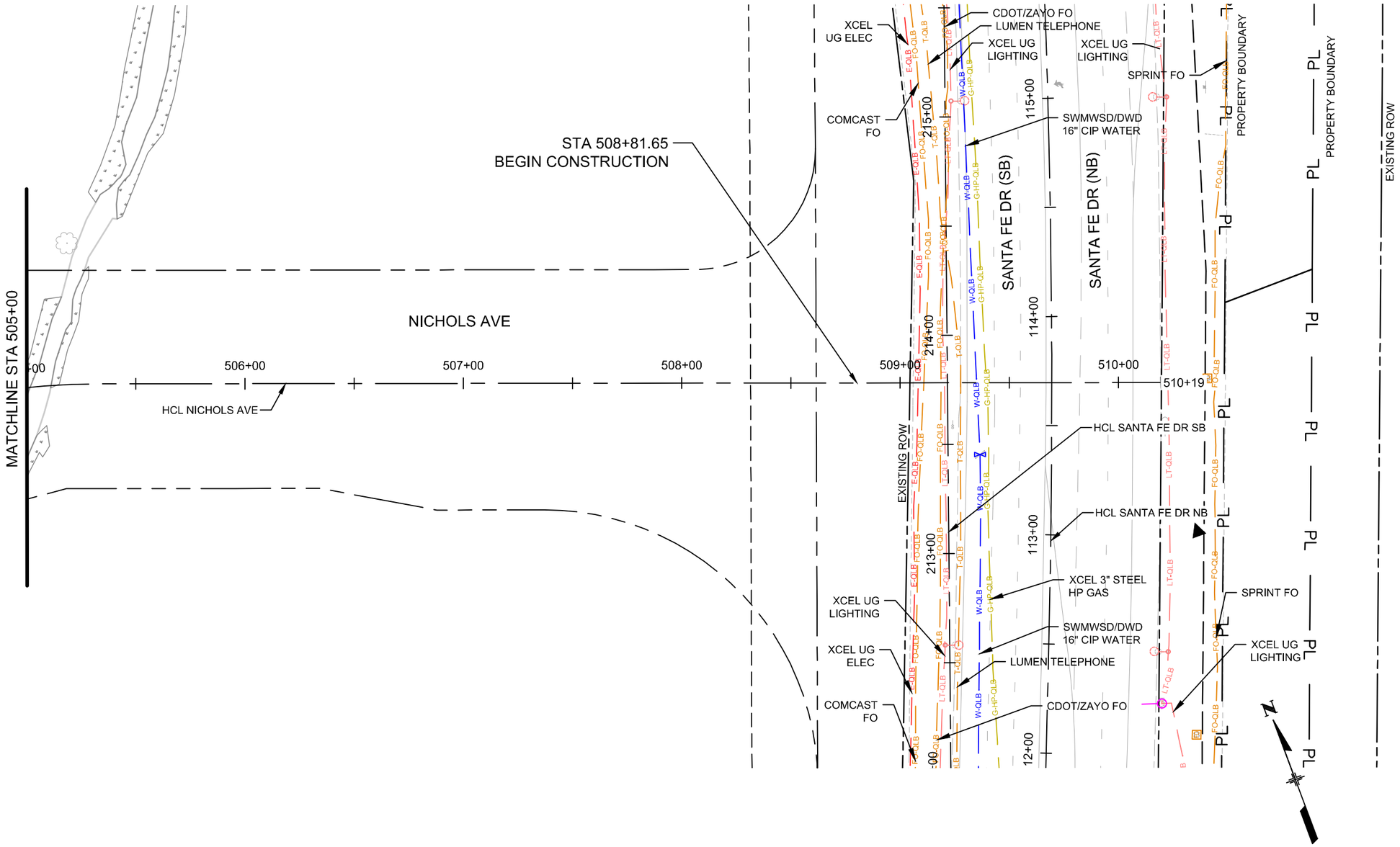
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	NICHOLS AVE SUE INVESTIGATION PLAN STA. 500+00 TO STA. 505+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 264
	Sheet Subset: SUE- PLAN	Subset Sheets: 16 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_SUE_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

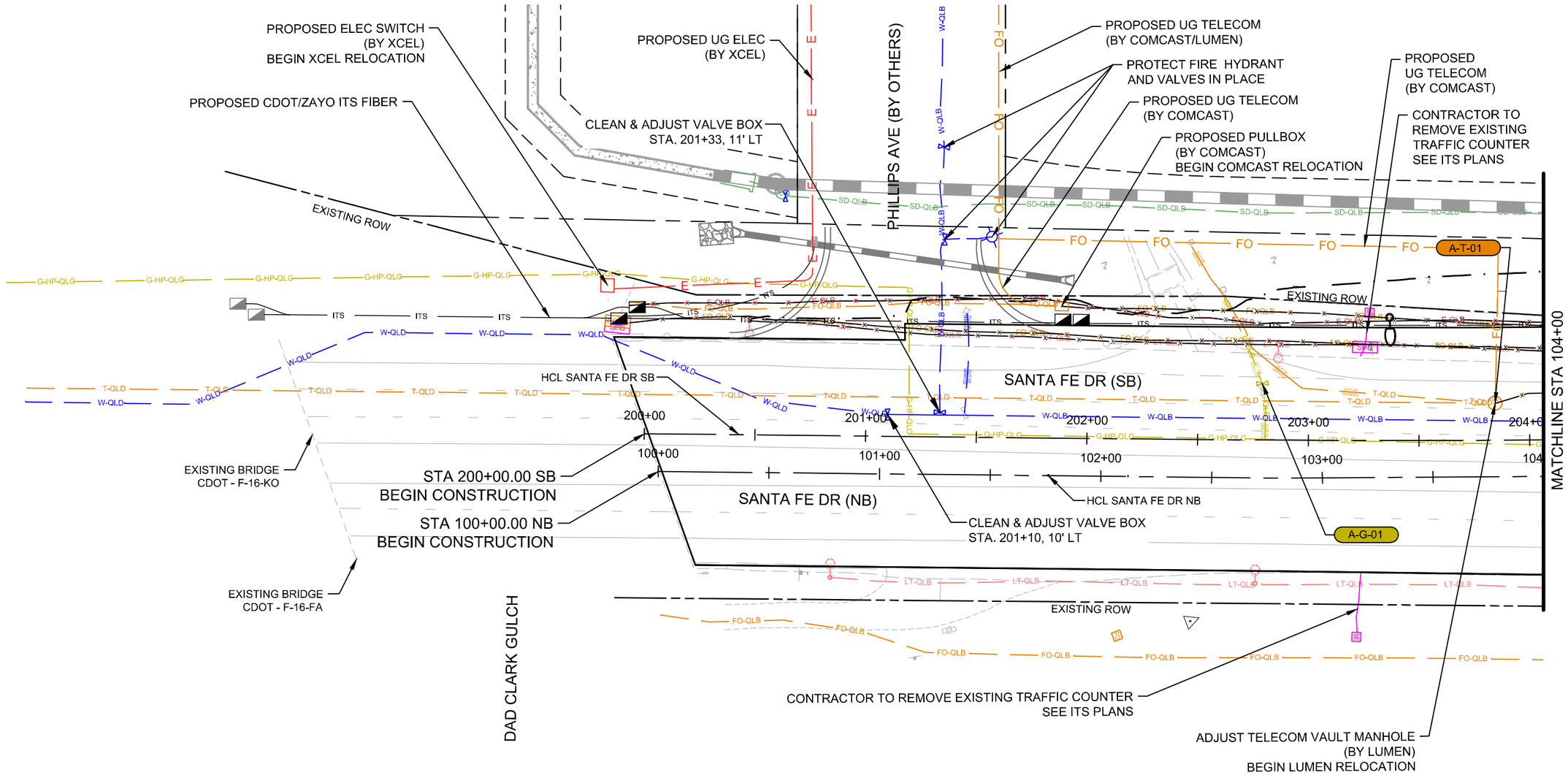
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	NICHOLS AVE SUE INVESTIGATION PLAN STA. 505+00 TO STA. 510+19		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 265
	Sheet Subset: SUE-PLAN	Subset Sheets: 17 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. THE PHILLIPS AVE INTERSECTION TO BE CONSTRUCTED BY OTHERS. THE TIMING AND FINAL LOCATION OF THIS ACCESS TO BE COORDINATED.
2. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

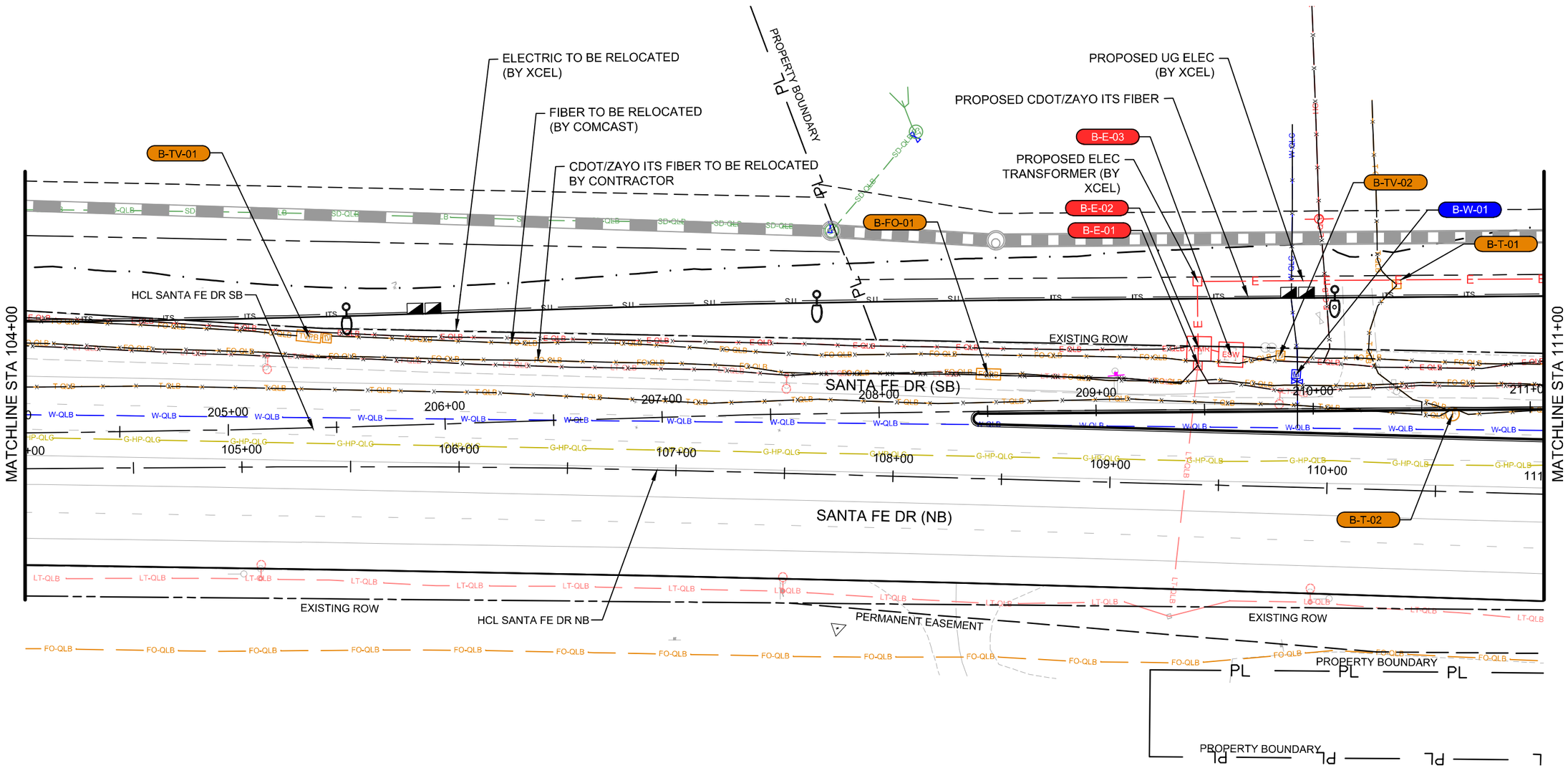
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR UTILITY MODIFICATION PLAN STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: UTIL-PLAN	Subset Sheets: 01 of 17	Sheet Number 266

Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_UTL_PLAN(1).DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

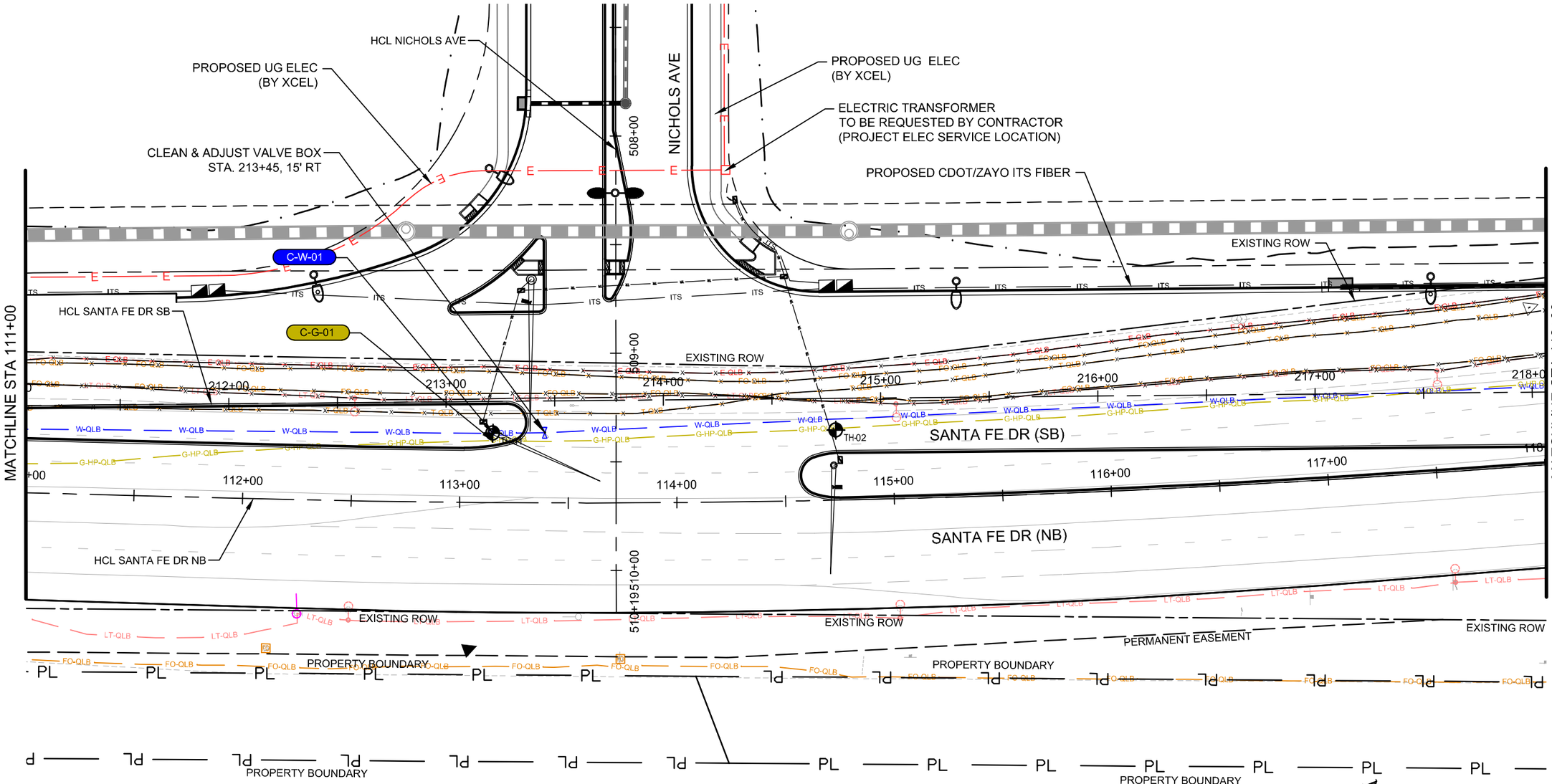
SANTA FE DR
UTILITY MODIFICATION PLAN
STA. 104+00 TO STA. 111+00

Designer:	TSCHARRA	Structure Numbers	
Detailer:	SDELONG		
Sheet Subset: UTIL- PLAN		Subset Sheets:	02 of 17

Project No./Code	
AQC M810-017	
23574	
Sheet Number	267

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
TODD J. SCHARRA
0052936
Todd Scharra
10/6/2025
PROFESSIONAL ENGINEER

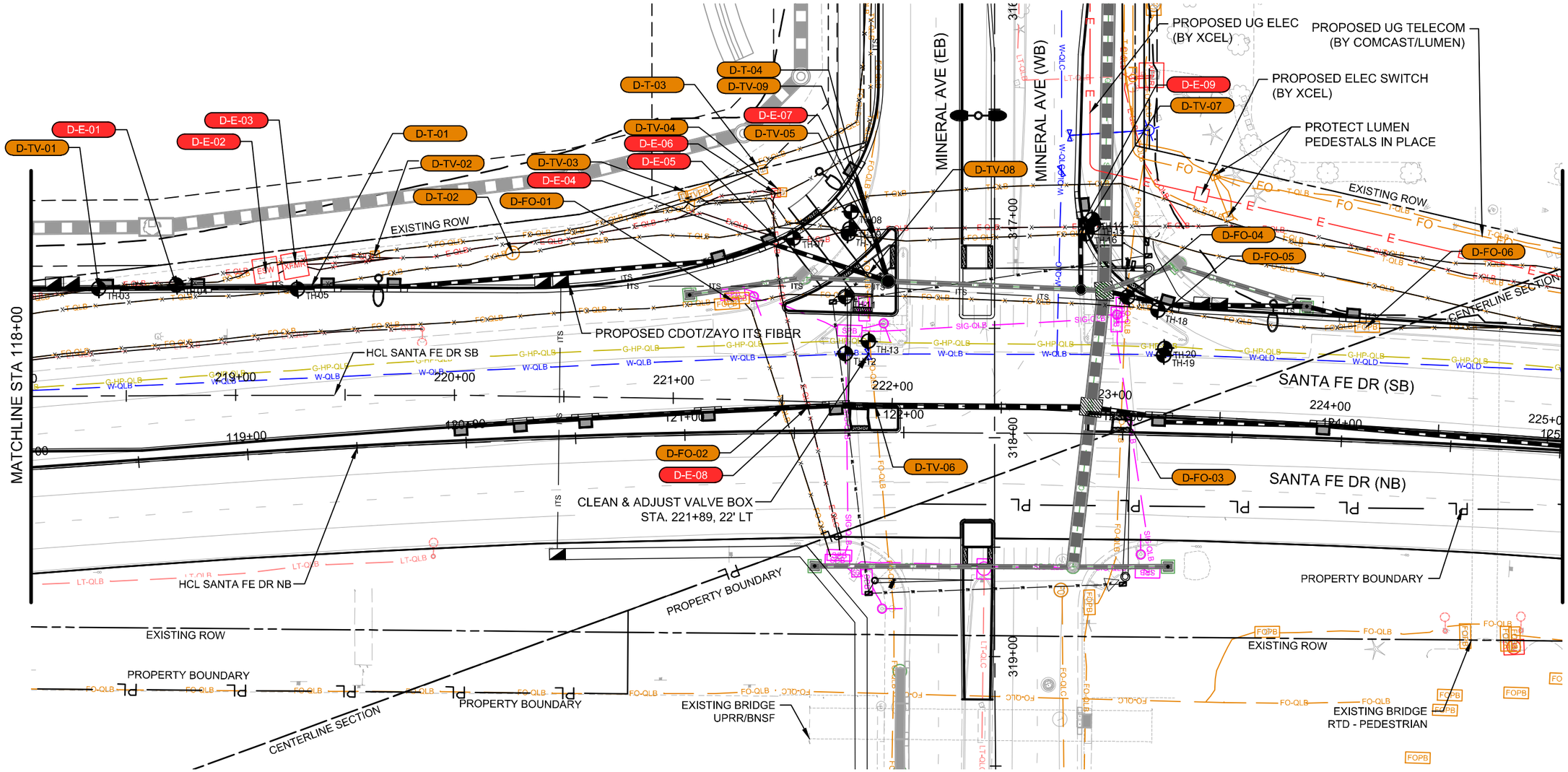
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR UTILITY MODIFICATION PLAN STA. 111+00 TO STA. 118+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 268
	Sheet Subset: UTIL- PLAN	Subset Sheets: 03 of 17	

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

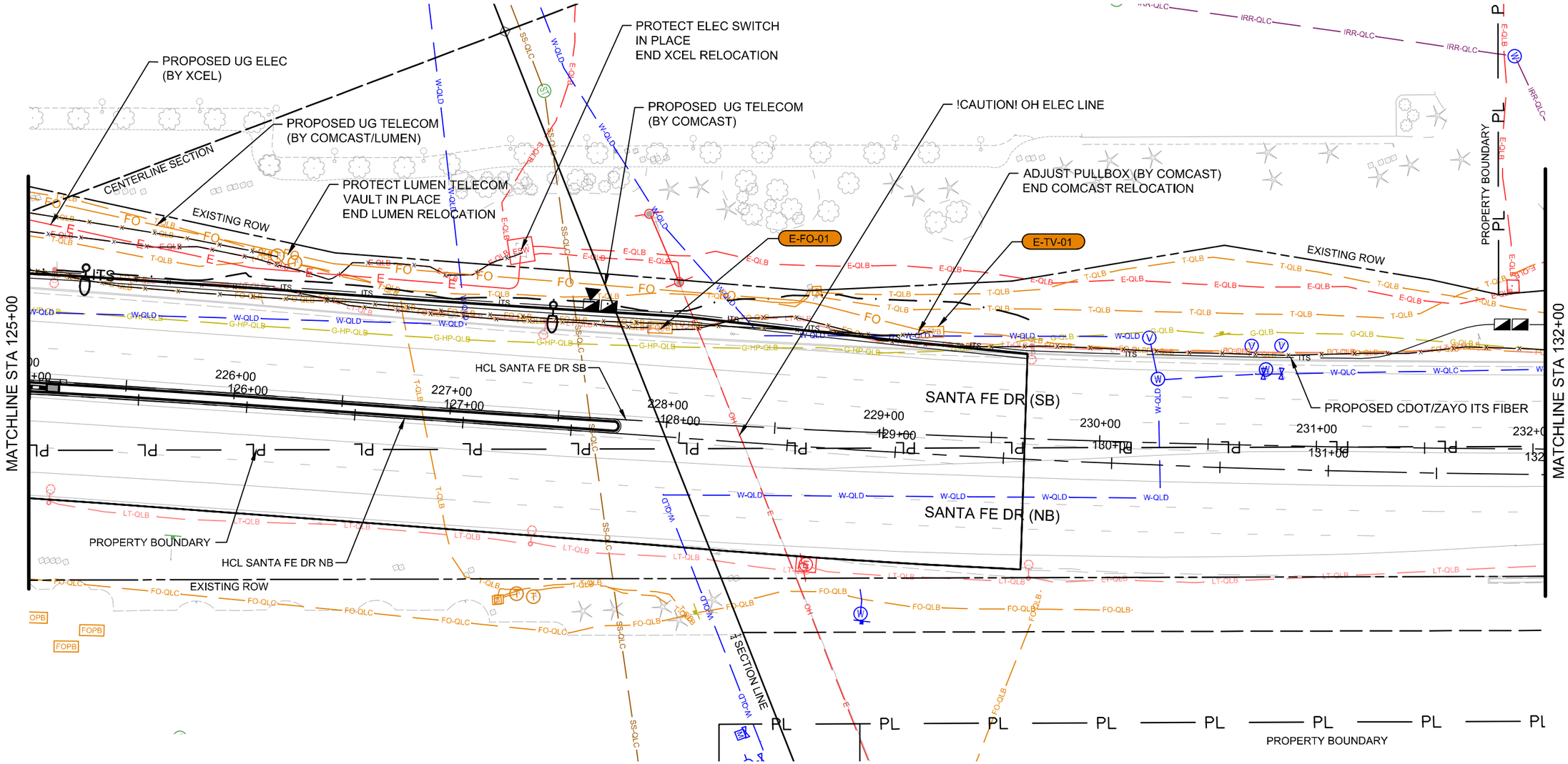
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR UTILITY MODIFICATION PLAN STA. 118+00 TO STA. 125+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 269
	Sheet Subset: UTIL- PLAN	Subset Sheets: 04 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	SANTA FE DR UTILITY MODIFICATION PLAN STA. 125+00 TO STA. 132+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: UTIL-PLAN	Subset Sheets: 05 of 17	Sheet Number 270

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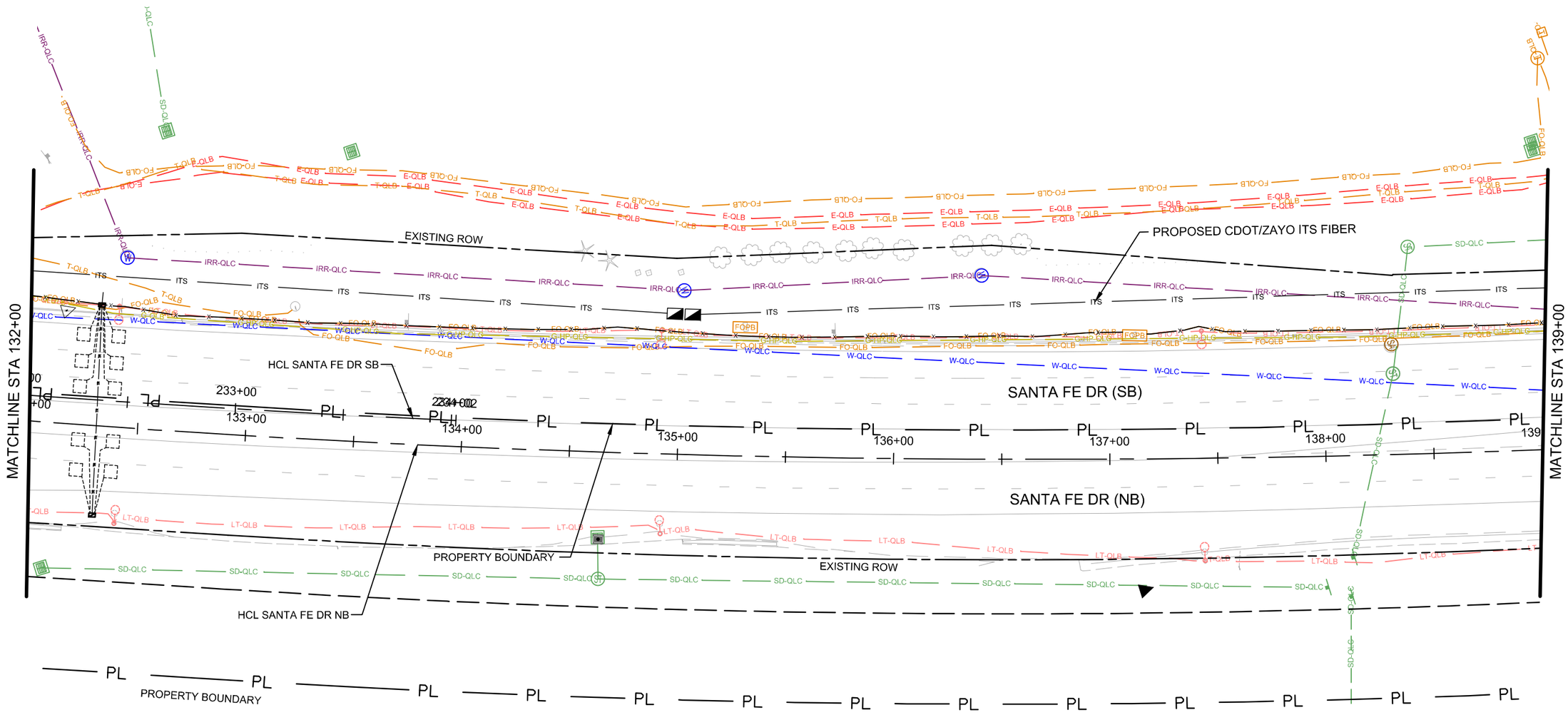

NOTES:

1. NO UTILITY MODIFICATIONS THIS SHEET.
2. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

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TODD J. SCHARRA
0052936
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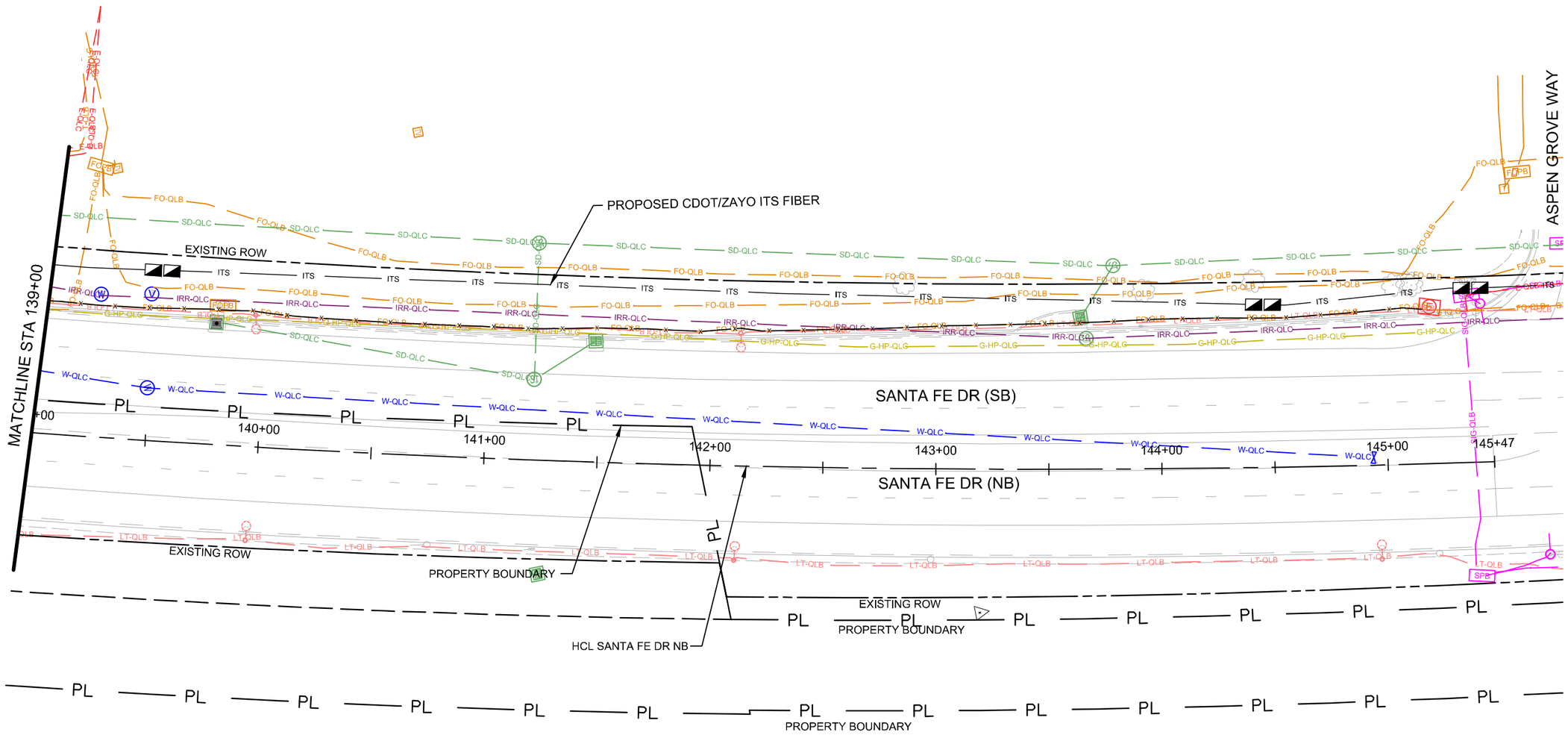
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR UTILITY MODIFICATION PLAN STA. 132+00 TO STA. 139+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 271
	Sheet Subset: UTIL-PLAN	Subset Sheets: 06 of 17	

$PLOT_INFO$



NOTES:

1. NO UTILITY MODIFICATIONS THIS SHEET.
2. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

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TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR UTILITY MODIFICATION PLAN STA. 139+00 TO STA. 145+45		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 272
	Sheet Subset: UTIL-PLAN	Subset Sheets: 07 of 17	

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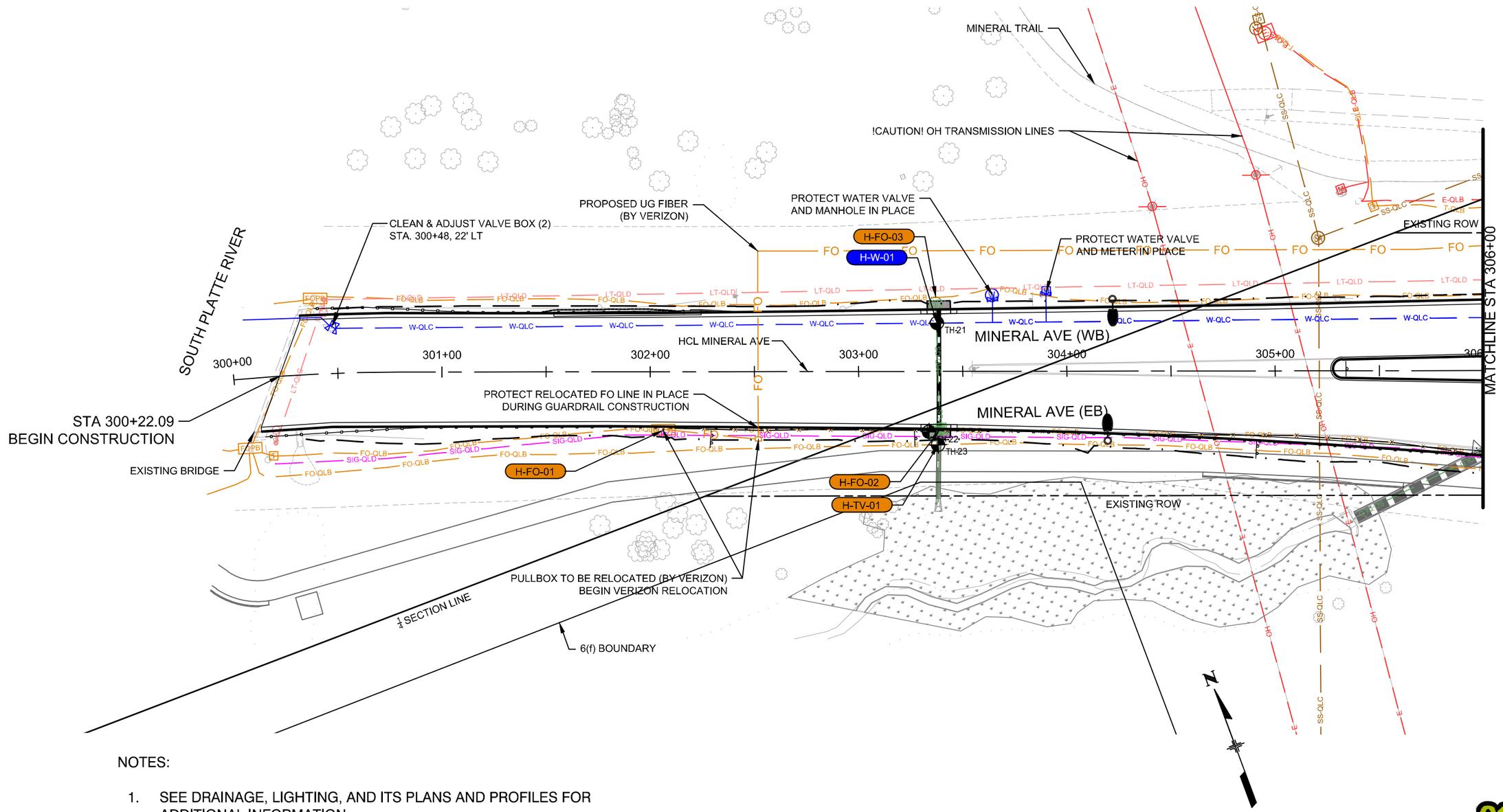

NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

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TODD J. SCHARRA
0052936
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PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE UTILITY MODIFICATION PLAN STA. 300+00 TO STA. 306+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: UTIL-PLAN	Subset Sheets: 08 of 17	Sheet Number 273

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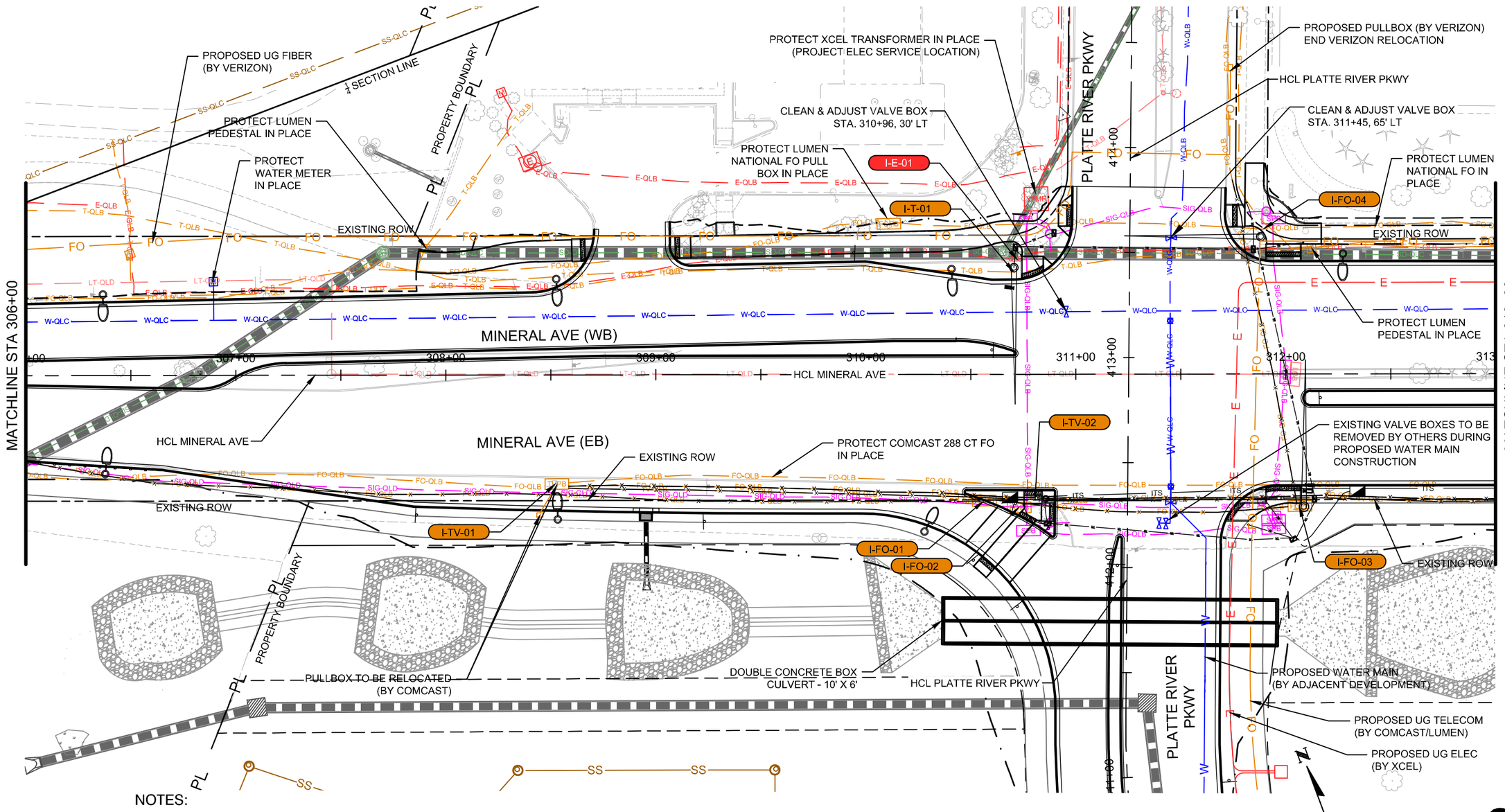

NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

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TODD J. SCHARRA
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10/6/2025
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Print Date: 2024-11-04	
File Name: 23574_UTL_PLAN(2).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
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Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

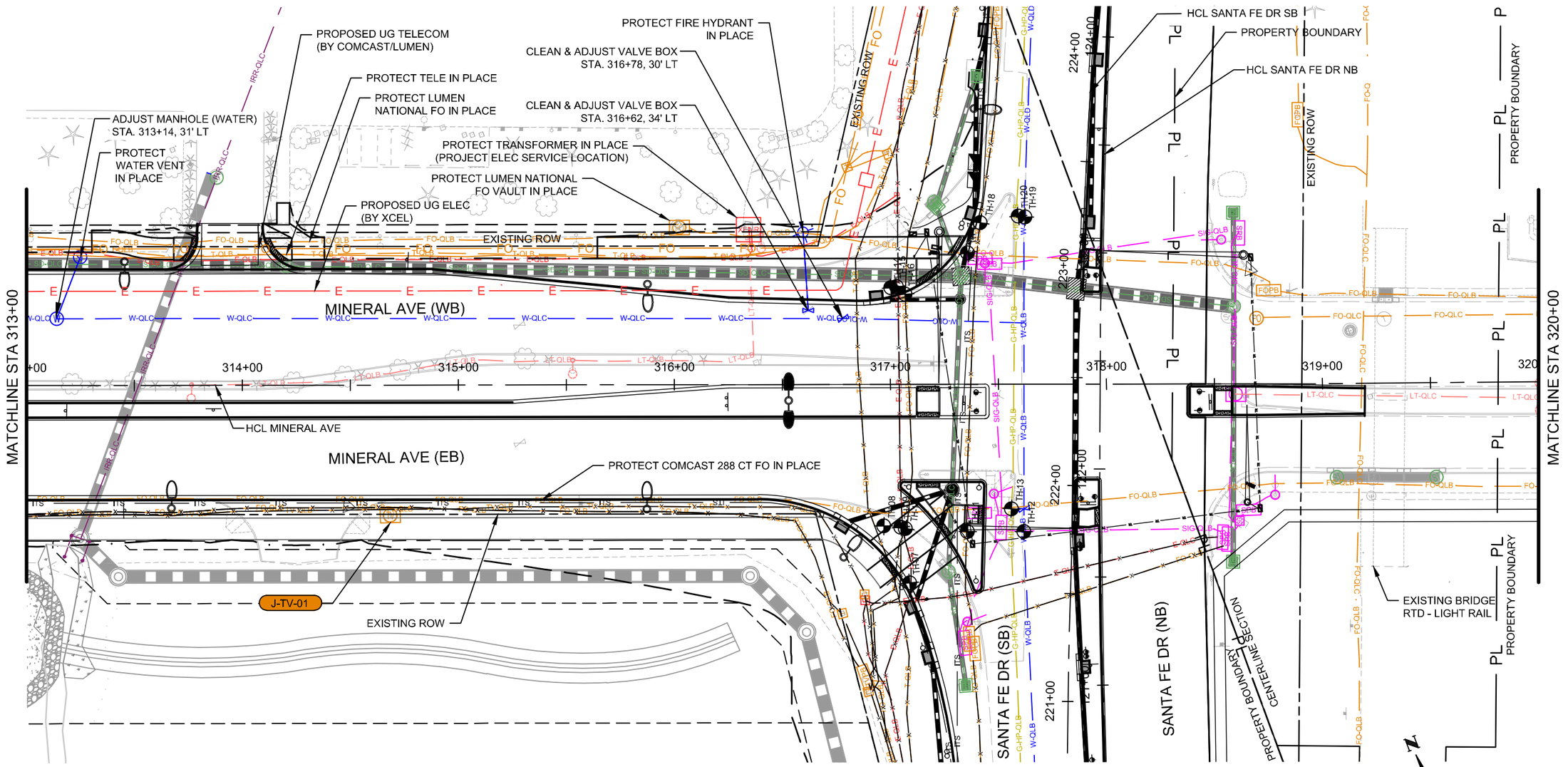
MINERAL AVE
UTILITY MODIFICATION PLAN
STA. 306+00 TO STA. 313+00

Designer:	TSCHARRA	Structure Numbers	
Detailer:	SDELONG		
Sheet Subset:	UTIL-PLAN	Subset Sheets:	09 of 17

Project No./Code	
AQC M810-017	
23574	
Sheet Number	274

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

811 Know what's below. Call before you dig.

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TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

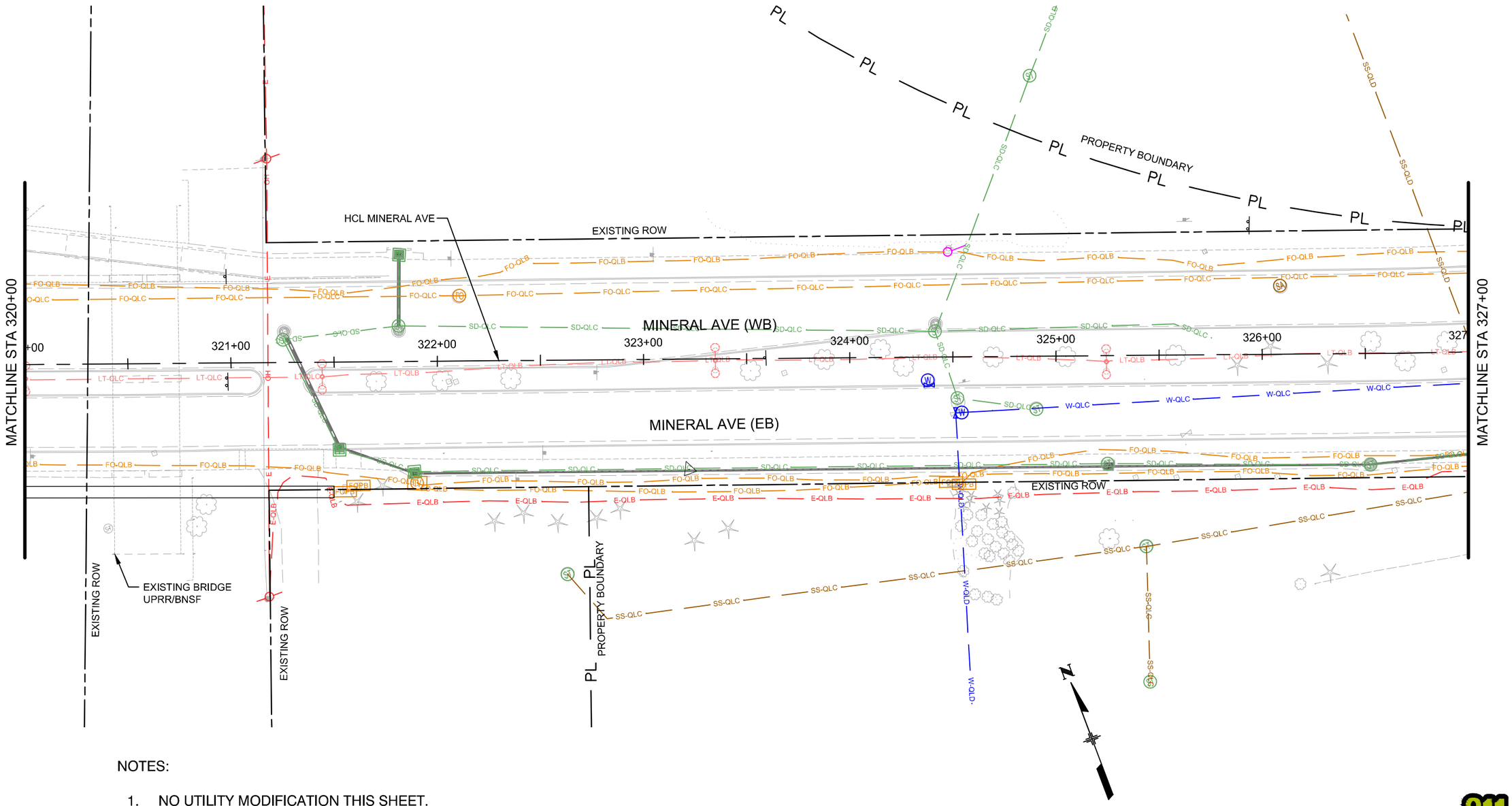
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE UTILITY MODIFICATION PLAN STA. 313+00 TO STA. 320+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 275
	Sheet Subset: UTIL- PLAN	Subset Sheets: 10 of 17	

$PLOT_INFO$



NOTES:

1. NO UTILITY MODIFICATION THIS SHEET.
2. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

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TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

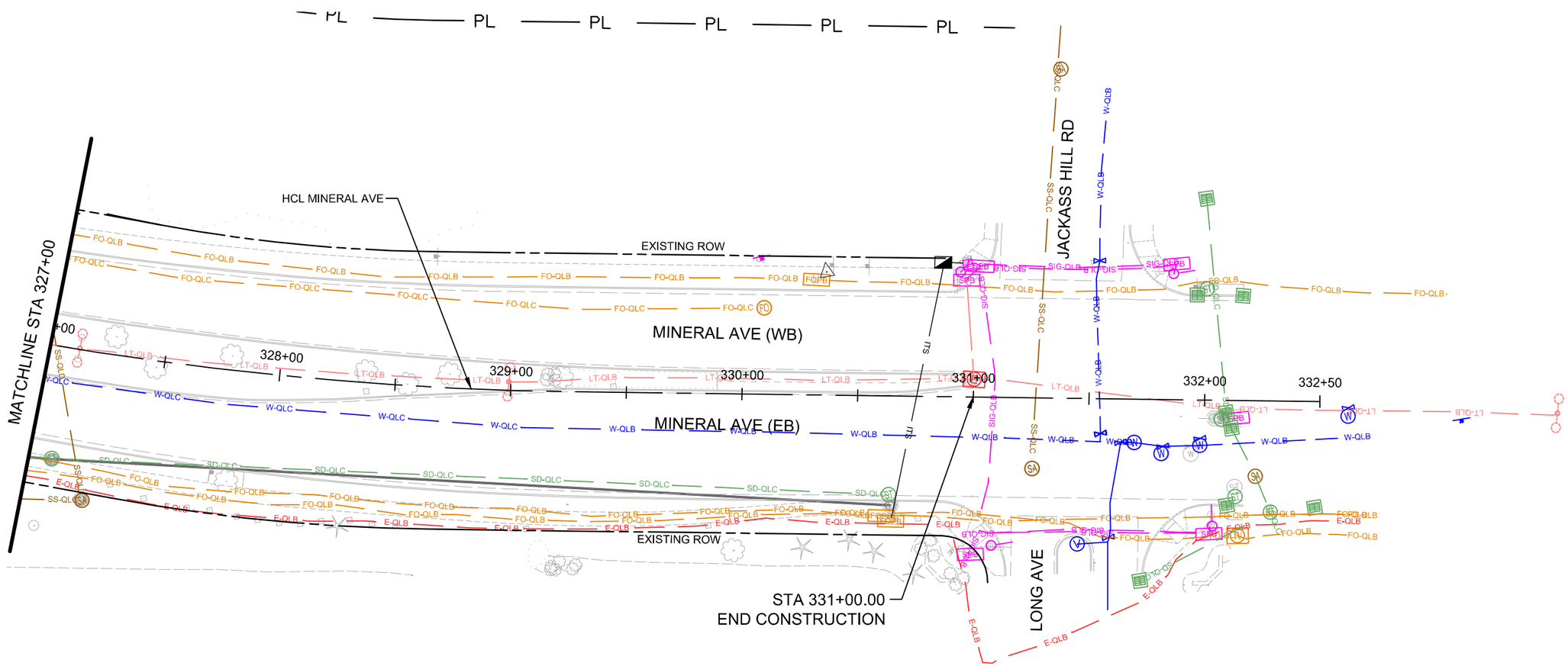
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE UTILITY MODIFICATION PLAN STA. 320+00 TO STA. 327+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 276
	Sheet Subset: UTIL- PLAN	Subset Sheets: 11 of 17	

Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. NO UTILITY MODIFICATIONS THIS SHEET.
2. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

N

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

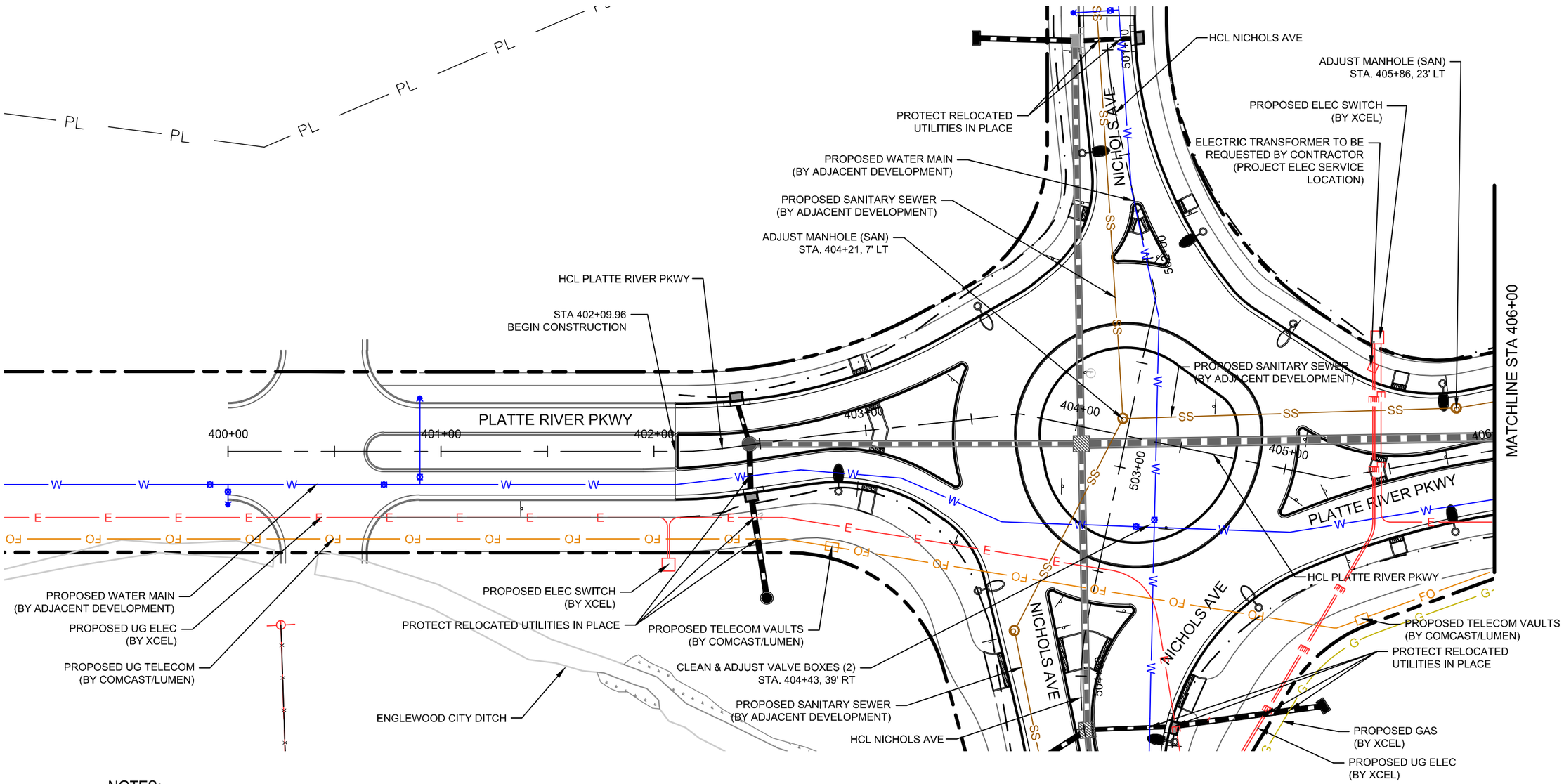
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE UTILITY MODIFICATION PLAN STA. 327+00 TO STA. 332+50		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 277
	Sheet Subset: UTIL- PLAN	Subset Sheets: 12 of 17	

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

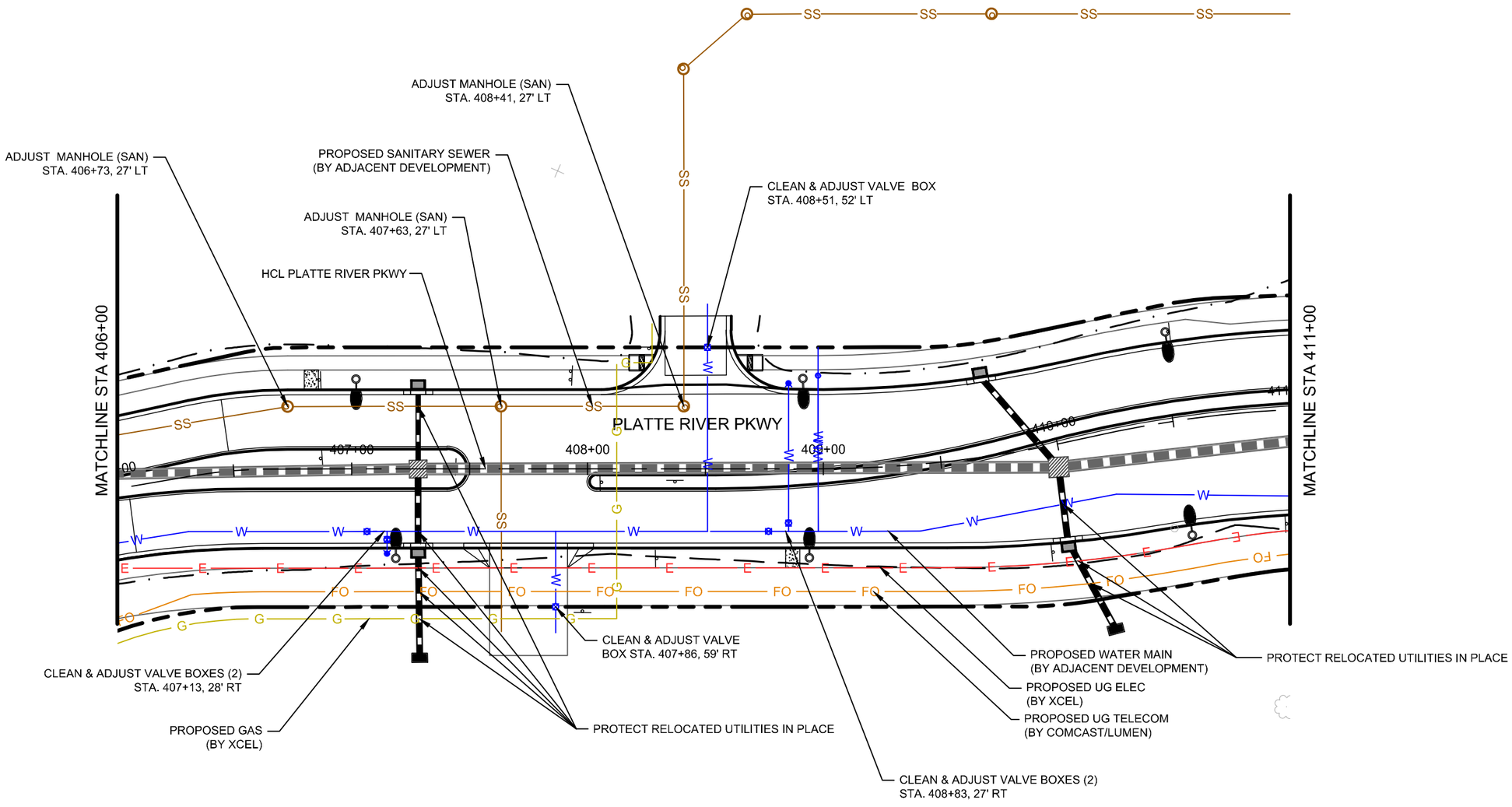
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY UTILITY MODIFICATION PLAN STA. 400+00 TO STA. 406+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 278
	Sheet Subset: UTIL-PLAN	Subset Sheets: 13 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

N

0 25 50 100

SCALE: 1" = 50'

811 Know what's below. Call before you dig.

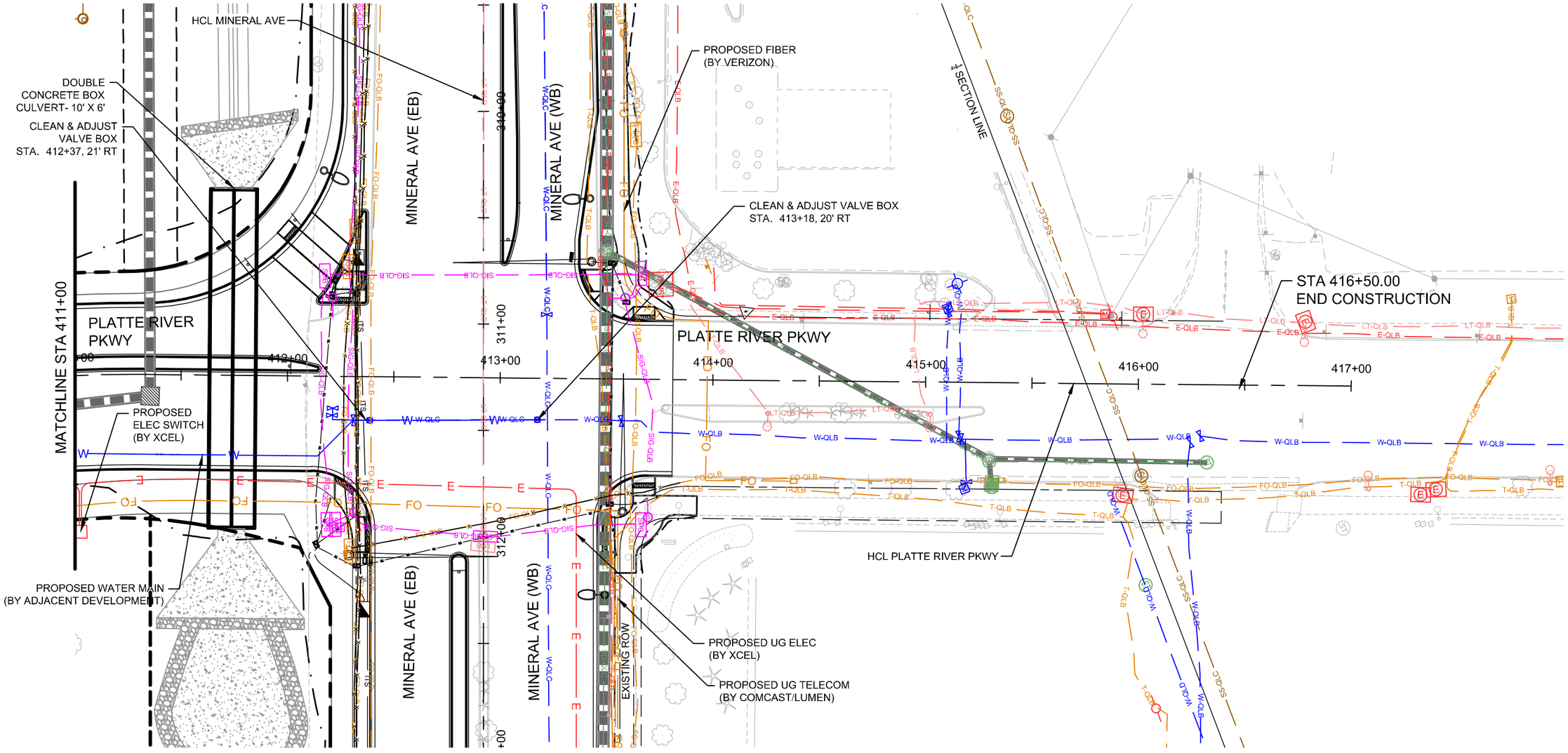
COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	PLATTE RIVER PKWY UTILITY MODIFICATION PLAN STA. 406+00 TO STA. 411+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 279
	Sheet Subset: UTIL-PLAN	Subset Sheets: 14 of 17	

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

N

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

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TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY UTILITY MODIFICATION PLAN STA. 411+00 TO STA. 418+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		
	Sheet Subset: UTIL-PLAN	Subset Sheets: 15 of 17	Sheet Number 280

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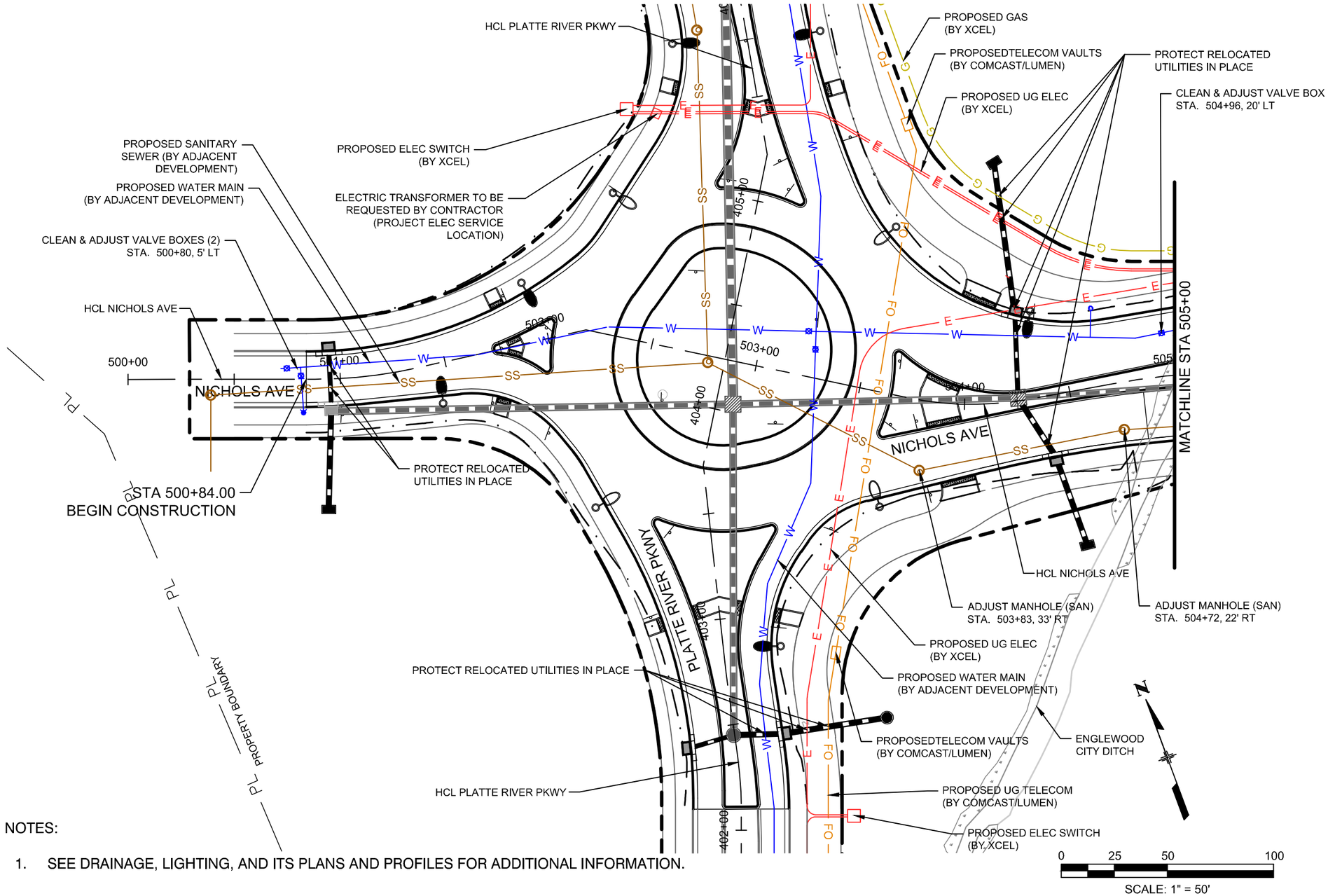


NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

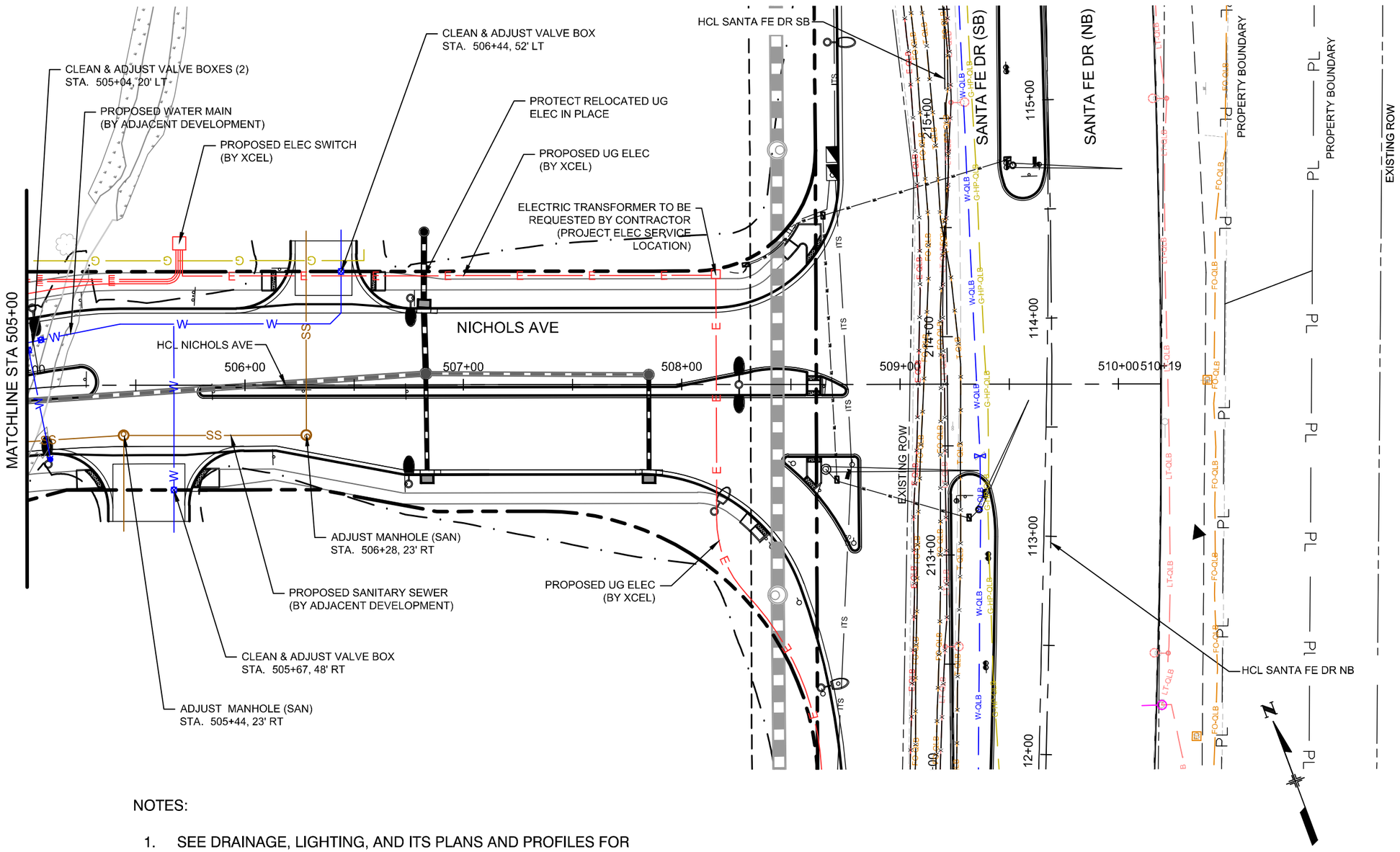
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	NICHOLS AVE UTILITY MODIFICATION PLAN STA. 500+00 TO STA. 505+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 281
	Sheet Subset: UTIL-PLAN	Subset Sheets: 16 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$



NOTES:

1. SEE DRAINAGE, LIGHTING, AND ITS PLANS AND PROFILES FOR ADDITIONAL INFORMATION.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_UTL_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	NICHOLS AVE UTILITY MODIFICATION PLAN STA. 505+00 TO STA. 510+19		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 282
	Sheet Subset: UTIL-PLAN	Subset Sheets: 17 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$

UTILITY MATRIX

Utility Owner	Utility ID No.	Conflict Location						Utility Data								Conflict Description	Conflict Resolution		
		Utility Type	Alignment Name	Approx. STA	Offset Lt. / Rt.	Northing	Easting	Test Hole ID	Size and/or Material	Northing	Easting	Ex. Surface Elevation	Measure Down	Utility Elevation Top	Utility Elevation Bottom		Recommended Action or Resolution	Est. Resolution Date	Current Status
CDOT	D-FO-02	Fiber Optic	Santa Fe Dr NB	121+45	11' LT	636614.82	134463.60									Fiber optic patch cable crossing proposed storm pipe	Contractor to adjust fiber optic patch cable to maintain signal fiber service.		
CDOT/Zayo	B-FO-01	ITS/Fiber Optic	Santa Fe Dr NB	108+42	48' LT	635401.09	133997.68									ITS fiber optic pull box in proposed roadway.	CDOT ITS fiber optic pullbox to be removed by Contractor		
CDOT/Zayo	D-FO-01	ITS Fiber Optic	Santa Fe Dr NB	121+22	60' LT	636609.93	134409.66									ITS fiber optic pull box in proposed roadway	CDOT ITS fiber optic pullbox to be removed by Contractor		
CDOT/Zayo	D-FO-05	ITS/Fiber Optic	Santa Fe Dr NB	123+15	57' LT	636791.16	134481.26	TH-18	2" Plastic	636791.13	134481.23	5379.63	32"	5379.63	5379.63	ITS fiber optic line adjacent to proposed inlet	CDOT ITS fiber optic line to be relocated by Contractor		
CDOT/Zayo	D-FO-06	ITS/Fiber Optic	Santa Fe Dr NB	124+09	51' LT	636876.95	134522.50									ITS fiber optic pull box in proposed roadway	CDOT ITS fiber optic pullbox to be removed by Contractor		
CDOT/Zayo	E-FO-01	ITS/Fiber Optic	Santa Fe Dr NB	127+88	50' LT	637224.88	134678.14									ITS fiber optic pull box in proposed roadway	CDOT ITS fiber optic pullbox to be removed by Contractor		
City of Littleton	I-FO-02	ITS/Fiber Optic	Mineral Ave	310+72	63' RT	636894.56	133805.55									Empty ITS/fiber optic pull box in conflict with proposed curb line	Contractor to adjust City of Littleton pullbox to final traffic island pavement grade at no additional cost to the project		
Comcast	B-TV-01	TV/Fiber Optic	Santa Fe Dr NB	105+31	59' LT	635113.71	133872.75									TV/FO pull box and pedestal in proposed roadway.	TV/FO pull box and pedestal to be removed by Comcast		
Comcast	B-TV-02	TV/Fiber Optic	Santa Fe Dr NB	109+76	61' LT	635530.12	134036.45									TV/FO pedestal in proposed roadway	TV/FO pedestal to be removed by Comcast		
Comcast	D-TV-01	TV/Fiber Optic	Santa Fe Dr NB	118+38	80' LT	636340.58	134303.90	TH-03	4 x 2" Plastic	636340.58	134303.90	5390.08	40"	5390.08	5390.08	TV/fiber optic line crossing proposed storm pipe/structure	TV/fiber optic line to be relocated by Comcast		
Comcast	D-TV-02	TV/Fiber Optic	Santa Fe Dr NB	119+62	87' LT	636463.61	134333.66									TV/FO pedestal in conflict with proposed grading	TV/FO pedestal to be removed by Comcast		
Comcast	D-TV-03	TV/Fiber Optic	Santa Fe Dr NB	121+05	109' LT	636609.32	134358.10									TV/FO pedestal and pull box in conflict with proposed grading	TV/FO pedestal and pull box to be removed by Comcast		
Comcast	D-TV-04	TV/COAX	Santa Fe Dr NB	121+38	120' LT	636644.42	134358.41									TV pedestal in conflict with proposed grading	TV pedestal to be removed by Comcast		
Comcast	D-TV-05	TV/Fiber Optic	Santa Fe Dr NB	121+87	89' LT	636680.90	134405.15	TH-10	2 x 2" Plastic	636670.59	134399.38	5379.76	48"	5376.43	5376.26	TV/fiber optic line crossing proposed storm pipe	TV/fiber optic line to be relocated by Comcast		
Comcast	D-TV-06	TV/Fiber Optic	Santa Fe Dr NB	121+87	13' LT	636655.26	134476.15									TV/fiber optic line crossing proposed storm pipe	Protect 288 CT fiber optic line in place or coordinate with Comcast to adjust conduit in place if required to accommodate storm pipe install		
Comcast	D-TV-07	TV/Fiber Optic	Santa Fe Dr NB	122+82	91' LT	636772.26	134437.12	TH-16	2 x 2" Plastic	636772.26	134437.12	5380.62	62"	5380.62	5380.62	TV/fiber optic line crossing proposed storm pipe	TV/fiber optic line to be relocated by Comcast		
Comcast	D-TV-08	TV/Fiber Optic	Santa Fe Dr NB	121+83	104' LT	636682.03	134389..88									TV/fiber optic line crossing proposed storm pipe	Protect 288 CT fiber optic line in place or coordinate with Comcast to adjust conduit in place if required to accommodate storm pipe install		
Comcast	D-TV-09	TV/Fiber Optic	Santa Fe Dr NB	121+82	107' LT	636683.12	134386.49									TV/fiber optic line crossing proposed storm pipe	Protect 288 CT fiber optic line in place or coordinate with Comcast to adjust conduit in place if required to accommodate storm pipe install		
Comcast	E-TV-01	TV/Fiber Optic	Santa Fe Dr NB	129+14	53' LT	637340.11	134727.18									TV/fiber optic pull box in conflict with proposed grading	Contractor shall coordinate with Comcast forces to adjust pullbox to proposed grade in a manor that does not impede project schedule and at no additional cost to the project		
Comcast	H-TV-01	TV/Fiber Optic	Mineral Ave	303+38	35 ' RT	637175.63	133127.29	TH-23	2 x 2" Plastic	637175.72	133126.87	5363.69	28"	5363.69	5363.69	TV/fiber optic line adjacent to proposed inlet.	Protect TV/fiber optic line in place		
Comcast	I-TV-01	TV/Fiber Optic	Mineral Ave	308+52	52' RT	636981.53	133603.09									TV/fiber optic pull box in proposed roadway	TV / fiber optic pullbox to be removed and relocated out of roadway by Comcast. Contractor to protect remaining TV / fiber lines in place		
Comcast	I-TV-02	TV/Fiber Optic	Mineral Ave	310+80	60' RT	636894.92	133814.38									TV/fiber optic lines in conflict with proposed signal caisson	TV/fiber optic lines to be relocated by Comcast		
Comcast	J-TV-01	TV	Mineral Ave	314+67	60' RT	636760.18	134176.58									TV vault in conflict with proposed grading	TV vault to be removed by Comcast		
SWMSWD	H-W-01	Water	Mineral Ave	303+39	23' LT	637230.66	133146.78	TH-21	24" Steel	637230.66	133146.78	5363.97	77"	5363.97	5363.97	Water line crossing proposed storm pipe	Protect waterline in place		
Lumen	A-T-01	Telecom	Santa Fe Dr NB	103+78	33' LT	634960.91	133845.86									Telecom vault in proposed roadway	Contractor shall coordinate with Lumen forces to adjust telecom vault manhole to proposed grade in a manor that does not impede project schedule and at no additional cost to the project. Contractor shall otherwise protect telecom vault in place		
Lumen	B-T-01	Telephone	Santa Fe Dr NB	110+30	95' LT	635592.07	134024.42									Telephone pedestal in conflict with adjacent construction.	Telephone pedestal to be removed by others (Evergreen) prior to construction		
Lumen	B-T-02	Telecom	Santa Fe Dr NB	110+58	38' LT	635595.51	134089.40									Telecom vault in proposed roadway	Telecom vault anticipated to be removed by Lumen. If required to maintain construction schedule, the contractor shall modify, fill, and / or remove existing telephone vault in an appropriate manner at no additional cost to the project		
Lumen	D-FO-03	National Fiber Optic	Santa Fe Dr NB	122+99	11' LT	636759.40	134518.82									National fiber optic line crossing proposed storm pipe	Protect 96 CT National fiber optic line in place or coordinate with Lumen to adjust conduit in place if required to accommodate storm pipe install.		
Lumen	D-FO-04	National Fiber Optic	Santa Fe Dr NB	123+01	63' LT	636780.33	134470.32	TH-17	3 x 2" Plastic	636780.15	134470.86	5380.41	64"	5380.41	5380.41	National fiber optic line crossing proposed storm pipe	Protect 96 CT National fiber optic line in place or coordinate with Lumen to adjust conduit in place if required to accommodate storm pipe install.		
Lumen	D-T-01	Telecom	Santa Fe Dr NB	119+33	73' LT	636431.55	134336.97									Telecom duct bank crossing proposed storm pipe	Telecom duct bank to be relocated by Lumen		

NOTES:

1.) If underground utility lines shown on the Utility Modification Plan to be relocated are not relocated prior to construction NTP, the Contractor shall coordinate with the applicable utility forces to relocate those utility lines in a manner that does not impede project schedule and at no additional cost to the project. If aboveground utility appurtenances shown on the Utility Modification Plan to be removed are not removed prior to construction NTP, the Contractor shall coordinate with the applicable utility forces to remove those appurtenances in a manner that does not impede project schedule and at no additional cost to the project.

2.) Out-of-Service utility pipes, conduits, and duct banks, that previously housed relocated utilities, or that house abandoned utilities, may be encountered by the Contractor during construction operations. Removal of encountered out-of-service utility pipes, conduits, and duct banks shall be completed by the Contractor as required to maintain project schedule. Removal of encountered out-of-service utility pipes, conduits, and duct banks shall be at no additional cost to the project, unless pipes or conduits are greater than six inches in diameter. Removal of pipes and conduits greater than six inches in diameter will be paid for as Removal of Pipe, and only if absolutely required to accommodate construction operations. The Contractor shall confirm encountered utility pipes, conduits, and duct banks are out-of -service before removal.

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TODD J. SCHARRA
0052936
10/6/2025
PROFESSIONAL ENGINEER

Print Date: 2024-11-04
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Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

UTILITY MODIFICATION PLAN
UTILITY CONFLICT MATRIX

Designer: TSCHARRA
Detailer: SDELONG
Structure Numbers
Sheet Subset: UTIL- MATRIX
Subset Sheets: 01 of 02

Project No./Code
AQC M810-017
23574
Sheet Number 283

$PLOT_INFO$

UTILITY MATRIX

Utility Owner	Utility ID No.	Conflict Location						Utility Data								Conflict Description	Conflict Resolution		
		Utility Type	Alignment Name	Approx. STA	Offset Lt. / Rt.	Northing	Easting	Test Hole ID	Size and/or Material	Northing	Easting	Ex. Surface Elevation	Measure Down	Utility Elevation Top	Utility Elevation Bottom		Recommended Action or Resolution	Est. Resolution Date	Current Status
Lumen	D-T-02	Telecom	Santa Fe Dr NB	120+24	87' LT	636523.20	134353.11									Telecom vault in conflict with proposed grading	Telecom vault anticipated to be removed by Lumen. If required to maintain construction schedule, the contractor shall modify, fill, and / or remove existing telephone vault in an appropriate manner at no additional cost to the project		
Lumen	D-T-03	Telephone	Santa Fe Dr NB	121+39	121' LT	636645.28	134358.31									Telephone pedestal in conflict with proposed grading	Telephone pedestal to be removed by Lumen		
Lumen	D-T-04	Telecom	Santa Fe Dr NB	121+84	99' LT	636681.71	134394.28	TH-08	NOT FOUND	636675.23	134390.48	5380.69	CLEARED 10' DOWN	-	-	Telecom duct bank crossing proposed storm pipe	Telecom duct bank to be relocated by Lumen.		
Lumen	H-FO-03	National Fiber Optic	Mineral Ave	303+38	36' LT	637242.76	133150.55									National fiber optic line adjacent to proposed inlet	Protect 96 CT National fiber optic line in place or coordinate with Lumen to adjust conduit if required to accommodate inlet install.		
Lumen	I-FO-04	National Fiber Optic	Mineral Ave	311+90	70' LT	636978.2852	133962.7116									National fiber optic line adjacent to proposed signal pole	Protect 96 CT National fiber optic line in place or coordinate with Lumen to adjust conduit to accommodate signal caisson. Requires vacuum excavation of the caisson at no additional cost to limit soil disturbance adjacent to the fiber optic line.		
Lumen	I-T-01	Telephone	Mineral Ave	310+70	50' LT	637001.66	133842.83									Telephone line adjacent to proposed signal pole	Protect telephone line in place or coordinate with Lumen to adjust line to accommodate signal caisson. Requires vacuum excavation of the caisson at no additional cost to limit soil disturbance adjacent to adjacent utilities.		
SWMWSD	B-W-01	Water	Santa Fe Dr NB	109+84	52' LT	635534.13	134047.20									Water meter and valve in proposed roadway	Water meter, valve, and service line to be removed by others (Evergreen) prior to construction.		
SWMWSD	C-W-01	Water	Santa Fe Dr NB	113+15	32' LT	635833.32	134187.91	TH-01	12" Steel	635833.32	134187.91	5395.90	71"	5390.57	5390.40	Proposed signal caisson is in direct conflict with existing 16" water main	Existing water main to be abandoned in-place by others (Evergreen). Contractor to remove water pipe as required to accommodate signal caisson once abandoned.		
Verizon	H-FO-01	Fiber Optic	Mineral Ave	302+06	28' RT	637228.11	133005.71									Fiber optic pull box in conflict with guardrail	Pullbox to be removed and relocated by Verizon. Contractor to protect remaining fiber lines in place.		
Verizon	H-FO-02	Fiber Optic	Mineral Ave	303+38	29' RT	637182.02	133129.86	TH-22	2" Plastic	637183.08	133125.04	5364.20	44"	5361.53	5361.37	Fiber optic line in conflict with proposed inlet	Fiber optic line to be relocated by Verizon		
Verizon	I-FO-01	Fiber Optic	Mineral Ave	310+73	64' RT	636893.30	133805.98									Fiber optic pull box in proposed roadway	Pull box to be removed by Verizon		
Verizon	I-FO-03	Fiber Optic	Mineral Ave	312+06	63' RT	636848.06	133931.45									Fiber optic pull box in conflict with proposed signal pole	Pull box to be removed by Verizon		
Xcel	A-G-01	Gas	Santa Fe Dr NB	102+73	43' LT	634865.36	133800.86									Existing gas valve in proposed roadway	Contractor shall coordinate with Xcel forces to adjust valve to proposed grade in a manor that does not impede project schedule and at no additional cost to the project.		
Xcel	B-E-01	Electric	Santa Fe Dr NB	109+39	55' LT	635493.43	134027.58									Electric lighting pedestal in proposed roadway	Electric lighting pedestal to be removed by Xcel		
Xcel	B-E-02	Electric	Santa Fe Dr NB	109+40	62' LT	635496.35	134020.60									Electric transformer in proposed roadway	Electric transformer to be removed by Xcel		
Xcel	B-E-03	Electric	Santa Fe Dr NB	109+54	60' LT	635509.20	134028.16									Electric switch in proposed roadway	Electric switch to be removed by Xcel		
Xcel	C-G-01	Gas	Santa Fe Dr NB	113+15	28' LT	635831.81	134191.68	TH-02	3" Steel	635981.65	134241.42	5395.17	55"	5395.17	5395.17	Proposed signal caisson adjacent to existing HP gas line	Contractor to coordinate with Xcel to protect gas main in place during signal installation. Requires vacuum excavation of the caisson at no additional cost to limit soil disturbance adjacent to the gas line		
Xcel	D-E-01	Electric	Santa Fe Dr NB	121+43	86 LT	636374.43	134314.69	TH-04	2 x Direct Bury Electric Cables	636374.43	134314.69	5389.38	50"	5382.96	5380.96	Electric line crossing proposed storm pipe	Electric line to be relocated by Xcel		
Xcel	D-E-02	Electric	Santa Fe Dr NB	119+14	83' LT	636414.99	134323.38									Electric switch in conflict with proposed grading	Electric switch to be removed by Xcel		
Xcel	D-E-03	Electric	Santa Fe Dr NB	119+25	90' LT	636428.92	134324.44									Electric transformer in conflict with proposed grading	Electric transformer to be removed by Xcel		
Xcel	D-E-04	Electric	Santa Fe Dr NB	121+42	86' LT	636637.21	134392.95									Electric signal service line crossing proposed storm pipe	Contractor to adjust electric signal service line to maintain signal electrical service		
Xcel	D-E-05	Electric	Santa Fe Dr NB	121+42	89' LT	636638.87	134389.65									Electric signal service line adjacent to proposed inlet.	Contractor to adjust electric signal service line to maintain signal electrical service		
Xcel	D-E-06	Electric	Santa Fe Dr NB	121+50	109' LT	636645.99	134370.32									Electric signal service line/signal pedestal in conflict with proposed grading	Contractor to adjust electric pedestal to maintain signal electrical service		
Xcel	D-E-07	Electric	Santa Fe Dr NB	121+86	93' LT	636681.33	134401.52	TH-09	NOT FOUND	636671.96	134397.60	5379.91	CLEARED 6' DOWN	-	-	Electric line crossing proposed storm pipe	Electric line to be relocated by Xcel		
Xcel	D-E-08	Electric	Santa Fe Dr NB	121+56	12' LT	636625.67	134466.98									Electric signal service line crossing proposed storm pipe	Contractor to adjust electric signal service line to maintain signal electrical service		
Xcel	D-E-09	Electric	Santa Fe Dr NB	122+85	96' LT	636776.66	134434.28	TH-15	8" Plastic	636776.96	134434.51	5379.99	53"	5379.99	5379.99	Electric line crossing proposed storm pipe	Electric line to be relocated by Xcel		
Xcel	I-E-01	Electric	Mineral Ave	310+73	54' LT	637004.12	133847.07									Electric line adjacent to proposed signal pole	Protect electric line in place or coordinate with Xcel to adjust line to accommodate signal caisson. Requires vacuum excavation of the caisson at no additional cost to limit soil disturbance adjacent to the electric line		

NOTES:

1.) If underground utility lines shown on the Utility Modification Plan to be relocated are not relocated prior to construction NTP, the Contractor shall coordinate with the applicable utility forces to relocate those utility lines in a manner that does not impede project schedule and at no additional cost to the project. If aboveground utility appurtenances shown on the Utility Modification Plan to be removed are not removed prior to construction NTP, the Contractor shall coordinate with the applicable utility forces to remove those appurtenances in a manner that does not impede project schedule and at no additional cost to the project.

2.) Out-of-Service utility pipes, conduits, and duct banks, that previously housed relocated utilities, or that house abandoned utilities, may be encountered by the Contractor during construction operations. Removal of encountered out-of-service utility pipes, conduits, and duct banks shall be completed by the Contractor as required to maintain project schedule. Removal of encountered out-of-service utility pipes, conduits, and duct banks shall be at no additional cost to the project, unless pipes or conduits are greater than six inches in diameter. Removal of pipes and conduits greater than six inches in diameter will be paid for as Removal of Pipe, and only if absolutely required to accommodate construction operations. The Contractor shall confirm encountered utility pipes, conduits, and duct banks are out-of -service before removal.

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Littleton Colorado

As Constructed	UTILITY MODIFICATION PLAN UTILITY CONFLICT MATRIX		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: TSCHARRA	Structure Numbers	23574
Void:	Detailer: SDELONG		Sheet Number 284
	Sheet Subset: UTIL- MATRIX	Subset Sheets: 02 of 02	

$PLOT_INFO$

LIGHTING AND ELECTRICAL LEGEND

POLE MOUNTED T

PAD MOUNTED T

PAD OR POLE MOUNTED UTILITY TRANSFORMER FOR SERVICE TO LIGHTING AND TRAFFIC SIGNALS. CONTRACTOR TO COORDINATE WITH UTILITY, FIELD VERIFY FINAL LOCATIONS AND NOTIFY ENGINEER IF THERE IS A DISCREPANCY WITH THE PLANS.

PP1 — TRANSFORMER IDENTIFICATION NUMBER EXISTING TRANSFORMER/POWER PEDESTAL TO REMAIN
EX REL — EXISTING RELOCATED TRANSFORMER/POWER PEDESTAL
NEW — NEW TRANSFORMER/POWER PEDESTAL

NEW DUAL HEAD LED STREETLIGHT 'SL1-2', 8,000 LUMENS, 3,000K, 72 WATT, 120V, TYPE II DISTRIBUTION WITH 8' ARM ON 35' POLE, MOUNTED TO NEW CONCRETE FOUNDATION. OWNED AND MAINTAINED BY XCEL ENERGY.
L1 L2 — ELECTRICAL CIRCUIT NUMBERS
SL1-2-## — LIGHT STANDARD IDENTIFICATION NUMBER

NEW DUAL HEAD LED STREETLIGHT 'SL2-2', 18,000 LUMENS, 3,000K, 160 WATT, 120V, TYPE III DISTRIBUTION WITH 8' ARM ON 35' POLE, MOUNTED TO NEW CONCRETE FOUNDATION. OWNED AND MAINTAINED BY XCEL ENERGY.
L1 L2 — ELECTRICAL CIRCUIT NUMBERS
SL2-2-## — LIGHT STANDARD IDENTIFICATION NUMBER

NEW LED STREETLIGHT 'SL1', 8,000 LUMENS, 3,000K, 72 WATT, 120V, TYPE II DISTRIBUTION WITH 8' ARM ON 35' POLE, MOUNTED TO NEW CONCRETE FOUNDATION. OWNED AND MAINTAINED BY XCEL ENERGY.
SL1-## — LIGHT STANDARD IDENTIFICATION NUMBER
L2 — ELECTRICAL CIRCUIT NUMBER

NEW LED STREETLIGHT 'SL2', 18,000 LUMENS, 3,000K, 160 WATT, 120V, TYPE III DISTRIBUTION WITH 8' ARM ON 35' POLE, MOUNTED TO NEW CONCRETE FOUNDATION. OWNED AND MAINTAINED BY XCEL ENERGY.
SL2-## — LIGHT STANDARD IDENTIFICATION NUMBER
L2 — ELECTRICAL CIRCUIT NUMBER

NEW LED STREETLIGHT 'SL3', 22,000 LUMENS, 3,000K, 180 WATT, 120V, TYPE III DISTRIBUTION WITH 8' ARM ON 35' POLE, MOUNTED TO NEW CONCRETE FOUNDATION. OWNED AND MAINTAINED BY XCEL ENERGY.
SL3-## — LIGHT STANDARD IDENTIFICATION NUMBER
L2 — ELECTRICAL CIRCUIT NUMBER

NEW LED STREETLIGHT 'SL1', 8,000 LUMENS, 3,000K, 72 WATT, 120V, TYPE II DISTRIBUTION, MOUNTED TO NEW TRAFFIC POLE. OWNED AND MAINTAINED AS NOTED ON PLANS.
SL1-3-## — LIGHT STANDARD IDENTIFICATION NUMBER
L2 — ELECTRICAL CIRCUIT NUMBER

NEW LED STREETLIGHT 'SL2', 18,000 LUMENS, 3,000K, 160 WATT, 120V, TYPE III DISTRIBUTION, MOUNTED TO NEW TRAFFIC POLE. OWNED AND MAINTAINED AS NOTED ON PLANS.
SL2-3-## — LIGHT STANDARD IDENTIFICATION NUMBER
L2 — ELECTRICAL CIRCUIT NUMBER

NEW LED STREETLIGHT 'SL2', 18,000 LUMENS, 3,000K, 160 WATT, 120V, TYPE III DISTRIBUTION, MOUNTED TO NEW TRAFFIC POLE. OWNED AND MAINTAINED AS NOTED ON PLANS.
L1 L2 — ELECTRICAL CIRCUIT NUMBERS
SL2-3-## — LIGHT STANDARD IDENTIFICATION NUMBER

EXISTING STREETLIGHT TO REMAIN

EXISTING STREETLIGHT TO BE REMOVED

M — NEW UTILITY METER

M — NEW METER POWER PEDESTAL

S2 — NEW HEAVY DUTY TYPE 2 SPLICE BOX (13"x24"x12" DEEP BOTTOMLESS) WITH HEAVY DUTY ANSI TIER 22 TRAFFIC RATED COVER.

S2 — S2 — NEW 1-3" SCHEDULE 80 PVC OR HDPE SLEEVE UNDER ROADWAY TERMINATING IN SPLICE BOXES (13"x24"x12" DEEP) AT EACH END UNLESS NOTED OTHERWISE ON THE PLANS.

XCEL ENERGY OWNER UNDERGROUND BURIED RACEWAY IN 2" SCHEDULE 80 HDPE CONDUIT BORED AT 30" DEPTH. BURY AND COMPACT BACKFILL TO PRECONSTRUCTION CONDITION.

XCEL ENERGY OWNER UNDERGROUND BURIED RACEWAY IN 3" SCHEDULE 80 PVC CONDUIT TRENCHED AT 48" DEPTH. BURY AND COMPACT BACKFILL AROUND BORE PIT TO PRECONSTRUCTION CONDITION.

CDOT OR CITY OWNED CONDUIT. UNDERGROUND BURIED RACEWAY IN 2" SCHEDULE 80 PVC CONDUIT BORED OR TRENCHED AS IDENTIFIED IN THE FEEDER SCHEDULE. BURY AND COMPACT BACKFILL TO PRECONSTRUCTION CONDITION.

PP1-B — ELECTRICAL FEEDER TAG. REFER TO FEEDER SCHEDULES.

GENERAL NOTES:

1. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT OF WAY.
2. ALL CONDUCTORS SHALL BE RATED 600 VOLTS AND SHALL BE OF SIZES AND TYPES AS INDICATED IN THE PLANS, OR AS REQUIRED BY THE NATIONAL ELECTRIC CODE (NEC). ALL CONDUCTORS SHALL BE COPPER, THWN-2 OR XHHW INSULATION, MINIMUM #12 AWG WIRE SIZE. CONDUCTORS SHALL BE CONTINUOUS BETWEEN OUTLETS OR JUNCTION BOXES. SPLICES SHALL BE IN READILY ACCESSIBLE PULL BOXES, JUNCTION BOXES, OR OUTLET BOXES AND MADE IN AN ACCEPTABLE MANNER.
3. CONTRACTOR TO INSTALL 1#12 AWG LOCATE WIRE AND 1250 LB NYLON PULL STRING WITH FOOTAGE TAPE IN ALL SPARE AND EMPTY CONDUIT.
4. CONTRACTOR SHALL FIELD LOCATE AND STAKE ALL LUMINAIRE AND LIGHT STANDARD LOCATIONS PRIOR TO INSTALLATION. ENGINEER SHALL CONFIRM ALL LOCATIONS PRIOR TO INSTALLATION. STREETLIGHTS MAY BE SHIFTED UP TO 5-FEET IN THE FIELD WITHOUT APPROVAL FROM THE ELECTRICAL ENGINEER.
5. UNLESS OTHERWISE NOTED, THE WORK DESCRIBED ON THE PLANS SHALL INCLUDE ALL LABOR AND MATERIAL NECESSARY FOR COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. FURNISH ALL REQUIRED ITEMS WHETHER SUCH ARE SPECIFICALLY SHOWN OR NOT.
6. INFORMATION SHOWN ON THE DRAWINGS IS DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. OBTAIN AND VERIFY EXACT LOCATIONS, MEASUREMENTS, ELEVATIONS, SPACE REQUIREMENTS, POTENTIAL CONFLICTS AMONG TRADE, ETC. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND FOR ADJUSTING THE WORK AS REQUIRED BY THE ACTUAL CONDITIONS OF THE PROJECT.
7. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING INTEGRITY OF ELECTRICAL SYSTEMS THAT MAY BE AFFECTED BY CONSTRUCTION WORK INCLUDING, BUT NOT LIMITED TO, EXISTING TRAFFIC AND LIGHTING WIRING AND CONDUIT, IRRIGATION WIRING, AND COMMUNICATIONS WIRING.
8. COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, REGULATIONS, AND ORDINANCES; AND THE LATEST APPLICABLE REQUIREMENTS OF THE NEC AS INTERPRETED BY THE AGENCY HAVING JURISDICTION.
9. MAINTAIN A COMPLETE SET OF DRAWINGS AT THE JOB SITE WITH ALL CHANGES OR VARIATIONS IN THE WORK MARKED IN AN OBVIOUS MANNER. A COMPLETE AS-BUILT SET OF DRAWINGS INCORPORATING ALL MARK-UPS OF THE WORK SHALL BE DELIVERED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
10. CONTRACTOR SHALL SCHEDULE THE WORK TO CONFORM WITH THE PROGRESS OF OTHER TRADES. COORDINATE ALL INSTALLATION AND ROUGH-IN AS REQUIRED.
11. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE INFORMATION INDICATED ON THE DRAWINGS AND IN FULL ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
12. ALL MATERIALS SHALL BE NEW, SHALL BE SUITABLE FOR THE PURPOSE, AND SHALL BEAR THE UL LABEL. DAMAGED OR DEFECTIVE MATERIAL SHALL BE REPLACED AT NO COST TO THE PROJECT.
13. COORDINATE NEW ELECTRICAL WORK AND POWER SOURCE LOCATIONS WITH XCEL ENERGY,
14. POWER OUTAGES, WHEN NECESSARY, SHALL BE SCHEDULED SUFFICIENTLY IN ADVANCE WITH THE OWNER. POWER SHALL BE INTERRUPTED ONLY AT OWNER APPROVED TIMES.
15. CONTRACTOR TO SECURE AND PAY FOR ALL PERMITS, FEES, TAXES, LICENSES, AND INSPECTIONS IN CONNECTION WITH THE ELECTRICAL WORK INCLUDING ANY CONNECTION FEES OR SERVICE MODIFICATION COSTS BY XCEL ENERGY.
16. CONDUIT CROSSING OTHER UTILITIES SHALL BE ROUTED ABOVE THE UTILITY WHEN POSSIBLE. MAINTAIN A MINIMUM OF 24-INCHES OF COVER BETWEEN THE TOP OF CONDUIT AND FINISHED GRADE, OR CONCRETE ENCASE CONDUIT WHEN 24-INCHES OF COVER CANNOT BE MAINTAINED.

CLANTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING
4699 NAUTILUS COURT SOUTH STE. 102
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303-530-7229

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DANE R. SANDERS
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Littleton Colorado

As Constructed	LIGHTING COVER SHEET			Project No./Code
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Revised:	Designer: BN	Structure Numbers		23574
	Detailer: GG			
Void:	Sheet Subset: LIGHT GEN.	Subset Sheets: LG01 of 02		Sheet Number 285

$PLOT_INFO$

TABULATION OF QUANTITIES

CDOT PAY ITEM	DESCRIPTION	UNIT	QTY	QTY FIO (BY XCEL)	NOTES
FIO	REMOVAL OF LIGHT STANDARD	EACH		14	
FIO	REMOVAL OF LIGHT STANDARD FOUNDATION	EACH		14	
613-10000	WIRING	LS	1		
613-00306	3 INCH ELECTRICAL CONDUIT (BORED)	LF	600		
613-01200	2 INCH ELECTRICAL CONDUIT (PLASTIC)	LF	7200		
613-07002	TYPE TWO PULL BOX	EACH	58		
613-13008	LUMINAIRE (LED) (8,000 LUMENS)	EACH	21	2	1
613-13018	LUMINAIRE (LED) (18,000 LUMENS)	EACH	17	7	2
FIO	LUMINAIRE (LED) (25,000 LUMENS)	EACH		3	3
613-32350	LIGHT STANDARD STEEL (35-FOOT)	EACH	36	10	4
613-32352	LIGHT STANDARD STEEL (35-FOOT) (2-Arm)	EACH	1	1	5
613-40000	CONCRETE FOUNDATION PAD	EACH	3		
613-40010	LIGHT STANDARD FOUNDATION	EACH	37	11	
613-50109	METER POWER PEDESTAL	EACH	3		
700-70082	F/A FURNISH & INSTALL ELECTRICAL SERVICE	FA	1		

NOTES:
1) FOR STREETLIGHT TYPES SL1 AND SL1-2
2) FOR STREETLIGHT TYPES SL2 AND SL2-2
3) FOR STREETLIGHT TYPE SL3
4) FOR STREETLIGHT TYPES SL1, SL2, AND SL3
5) FOR STREETLIGHT TYPES SL1-2 AND SL2-2
6) THIS ITEM SHALL BE A PRECAST CONCRETE FOUNDATION XCEL CAT#54541

SCHEDULE OF DEVICES

LONG DESCRIPTION					REMOVAL OF LIGHT STANDARD	REMOVAL OF LIGHT STANDARD FOUNDATION	LIGHT STANDARD FOUNDATION	LUMINAIRE (LED) (8,000 LUMENS)	LUMINAIRE (LED) (18,000 LUMENS)	LUMINAIRE (LED) (25,000 LUMENS)	LIGHT STANDARD STEEL (35-FOOT)	LIGHT STANDARD STEEL (35-FOOT) (2-ARMS)	TRANSFORMER BASE ALUMINUM	NOTES
UNITS					EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
SHEET No.	I.D. No.	BASELINE	STATION	OFFSET										
LE03	SL1-01	NICHOLS	508+14.9	R=58.19			1	1			1			
	SL1-02	NOT USED												
LE11	SL1-03	MINERAL	304+19.62	R=33.44			1	1			1			
LE11	SL1-04	MINERAL	304+22	L=34.51			1	1			1			
LE09	SL1-05	PLATTE	410+52.17	L=37.86			1	1			1			
LE09	SL1-06	PLATTE	410+51.05	R=48.96			1	1			1			
LE09	SL1-07	PLATTE	408+91.38	L=38.22			1	1			1			
LE09	SL1-08	PLATTE	408+94.09	R=37.84			1	1			1			
LE09	SL1-09	PLATTE	407+18.19	L=37.81			1	1			1			
LE09	SL1-10	PLATTE	407+18.79	R=37.93			1	1			1			
LE08	SL1-11	PLATTE	405+81.45	L=34.99			1	1			1			
LE08	SL1-12	PLATTE	405+75.44	R=34.55			1	1			1			
LE08	SL1-13	NICHOLS	501+93.33	L=28.26			1	1			1			
LE08	SL1-14	NICHOLS	501+44.93	R=19.07			1	1			1			
LE08	SL1-15	PLATTE	402+84.26	R=26.98			1	1			1			
LE08	SL1-16	NICHOLS	504+38.63	L=40.79			1	1			1			
LE08	SL1-17	NICHOLS	505+5.54	L=36.7			1	1			1			
LE08	SL1-18	NICHOLS	505+7.23	R=35.25			1	1			1			
LE08	SL1-19	NICHOLS	506+75.87	L=39.66			1	1			1			
LE08	SL1-20	NICHOLS	506+74.99	R=45.42			1	1			1			
LE03	SL1-2-01	NICHOLS	508+26.28	R=0.16			1	2				1		
LE04	SL1-2-02	MINERAL	316+52.88	R=7.41			1	2				1		3
LE03	SL1-3-01	SANTA FE SB	213+39.79	L=55.97										1
LE01	SL2-01	SANTA FE SB	203+36.78	L=55.61			1		1		1			3
LE02	SL2-02	SANTA FE SB	205+55.04	L=55.28			1		1		1			3
LE02	SL2-03	SANTA FE SB	207+72.28	L=54.73			1		1		1			3
LE03	SL2-04	SANTA FE SB	215+35.35	L=53.46			1		1		1			3
LE04	SL2-05	SANTA FE SB	219+65.21	L=53.23			1		1		1			3
LE04	SL2-06	MINERAL	316+78.39	R=80.01			1		1		1			
LE04	SL2-07	SANTA FE SB	223+71.67	L=53.23			1		1		1			
LE05	SL2-08	SANTA FE SB	225+28.7	L=53.52			1		1		1			3
LE05	SL2-09	SANTA FE SB	227+44.48	L=50.82			1		1		1			3
LE10	SL2-10	MINERAL	315+87.23	R=57.58			1		1		1			
LE10	SL2-11	MINERAL	315+87.6	L=46.46			1		1		1			
LE10	SL2-12	MINERAL	313+67.16	R=56.97			1		1		1			
LE10	SL2-13	MINERAL	313+45.57	L=57.2			1		1		1			
LE10	SL2-14	MINERAL	312+27.29	L=57.2			1		1		1			
LE10	SL2-15	MINERAL	310+27.93	R=74.87			1		1		1			
LE10	SL2-16	MINERAL	310+40.95	L=50.14			1		1		1			
LE11	SL2-17	MINERAL	308+53.3	R=68.82			1		1		1			
LE11	SL2-18	MINERAL	308+52.71	L=45.6			1		1		1			
LE11	SL2-19	MINERAL	306+37.91	R=46.93			1		1		1			
LE11	SL2-20	MINERAL	306+36.8	L=38.56			1		1		1			
LE08	SL2-21	PLATTE	404+90.04	R=67.53			1		1		1			
LE08	SL2-22	PLATTE	403+48.63	L=52.45			1		1		1			
LE08	SL2-23	NICHOLS	503+70.78	R=53.03			1		1		1			
LE08	SL2-24	PLATTE	405+01.23	R=66.36			1		1		1			
LE04	SL2-3-01	SANTA FE SB	221+86.89	L=49.25										1
LE04	SL2-3-02	SANTA FE SB	221+94.84	R=83.33										1
LE04	SL2-3-03	SANTA FE SB	223+14.52	L=66.42										1
LE04	SL2-3-04	SANTA FE SB	223+13.04	R=74.48										1
LE10	SL2-3-05	MINERAL	312+08.61	R=63.24										1
LE10	SL2-3-06	MINERAL	311+88.92	L=65.78										1
LE10	SL2-3-07	MINERAL	310+85.72	R=72.44										1
LE10	SL2-3-08	MINERAL	310+72.58	L=56.04										1
LE03	SL2-4-01	SANTA FE SB	213+20.73	R=13.98										1
LE03	SL2-4-02	SANTA FE SB	214+78.22	R=30.88										1
LE02	SL3-01	SANTA FE SB	210+10.44	L=54.73			1			1	1			3
LE03	SL3-02	SANTA FE SB	212+39.71	L=59.01			1			1	1			3
LE03	SL3-03	SANTA FE SB	217+53.75	L=53.62			1			1	1			3
LE01	LR01	SANTA FE SB	202+87.21	L=43.42	1	1								2
LE02	LR02	SANTA FE SB	205+18.87	L=33.74	1	1								2
LE02	LR03	SANTA FE SB	207+58.52	L=18.14	1	1								2
LE02	LR04	SANTA FE SB	209+93.98	L=8.93	1	1								2
LE03	LR05	SANTA FE SB	212+59.16	L=2.26	1	1								2
LE03	LR06	SANTA FE SB	215+8.59	R=2.74	1	1								2
LE03	LR07	SANTA FE SB	217+57.78	L=10.13	1	1								2
LE04	LR08	SANTA FE SB	219+84.14	L=32.93	1	1								2
LE05	LR09	SANTA FE SB	225+13.7	L=50.4	1	1								2
LE05	LR10	SANTA FE SB	227+42.76	L=42.82	1	1								2
LE10	LR11	MINERAL	313+76.52	L=0.19	1	1								2
LE10	LR12	MINERAL	315+42.50	L=11.00	1	1								2
LE10	LR13	PLATTE	414+25.49	R=15.42	1	1								2
LE10	LR14	PLATTE	415+2.32	R=15.23	1	1								2
TOTALS					14	14	48	23	24	3	46	2	0	

NOTES:
1) SIGNAL MOUNTED LUMINAIRES SHOWN FOR REFERENCE ONLY. REFER TO TRAFFIC SIGNAL PLANS FOR QUANTITIES.
2) SHOWN FOR INFORMATION ONLY. XCEL TO REMOVE EXISTING LIGHT STANDARD, MAST ARM, LUMINAIRE, AND ASSOCIATED EQUIPMENT.
3) SHOWN FOR INFORMATION ONLY. XCEL TO INSTALL NEW FOUNDATIONS, LIGHT STANDARD POLE, MAST ARM, LUMINAIRE, AND ASSOCIATED EQUIPMENT.

Know what's below. Call before you dig.

COLORADO LICENSED
DANE R. SANDERS
10/09/2025
41269
PROFESSIONAL ENGINEER

CLANTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING
4699 NAUTILUS COURT SOUTH STE. 102
BOULDER, CO 80301
303-530-7229

Print Date: 2024-11-04
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Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
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DENVER, COLORADO 80202
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FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

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No Revisions:
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LIGHTING SCHEDULES

Designer: BN
Detailer: GG
Sheet Subset: LIGHT GEN.
Structure Numbers
Subset Sheets: LG02 of 02

Project No./Code
AQC M810-017
23574
Sheet Number 286

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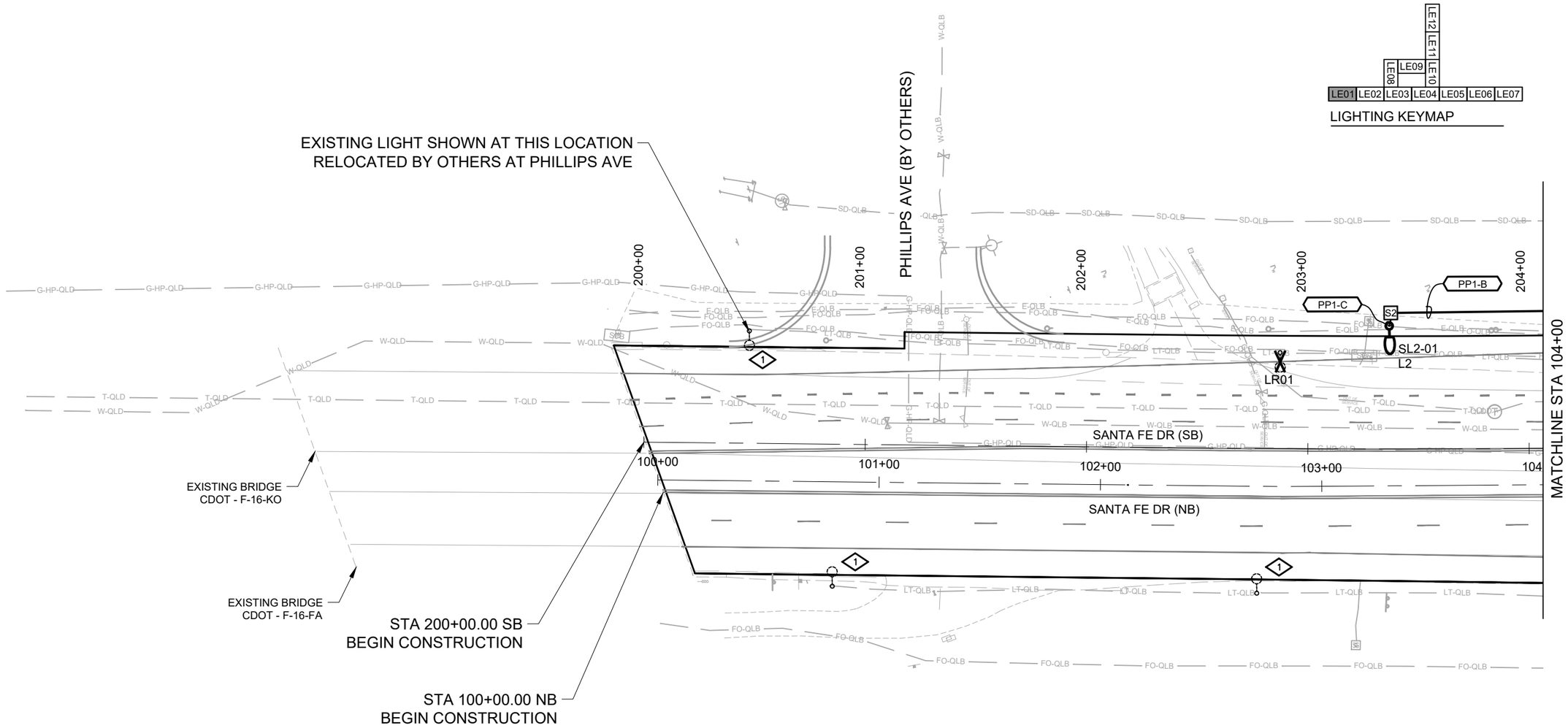

PLAN NOTES:

1. EXISTING TO REMAIN, PROTECT IN PLACE.

0 25 50 100

SCALE: 1" = 50'

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As Constructed	SANTA FE DR LIGHTING PLAN STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: BN	Structure Numbers	23574
	Detailer: GG		
Void:	Sheet Subset: LIGHT ELECT.	Subset Sheets: LE01 of 12	Sheet Number 287

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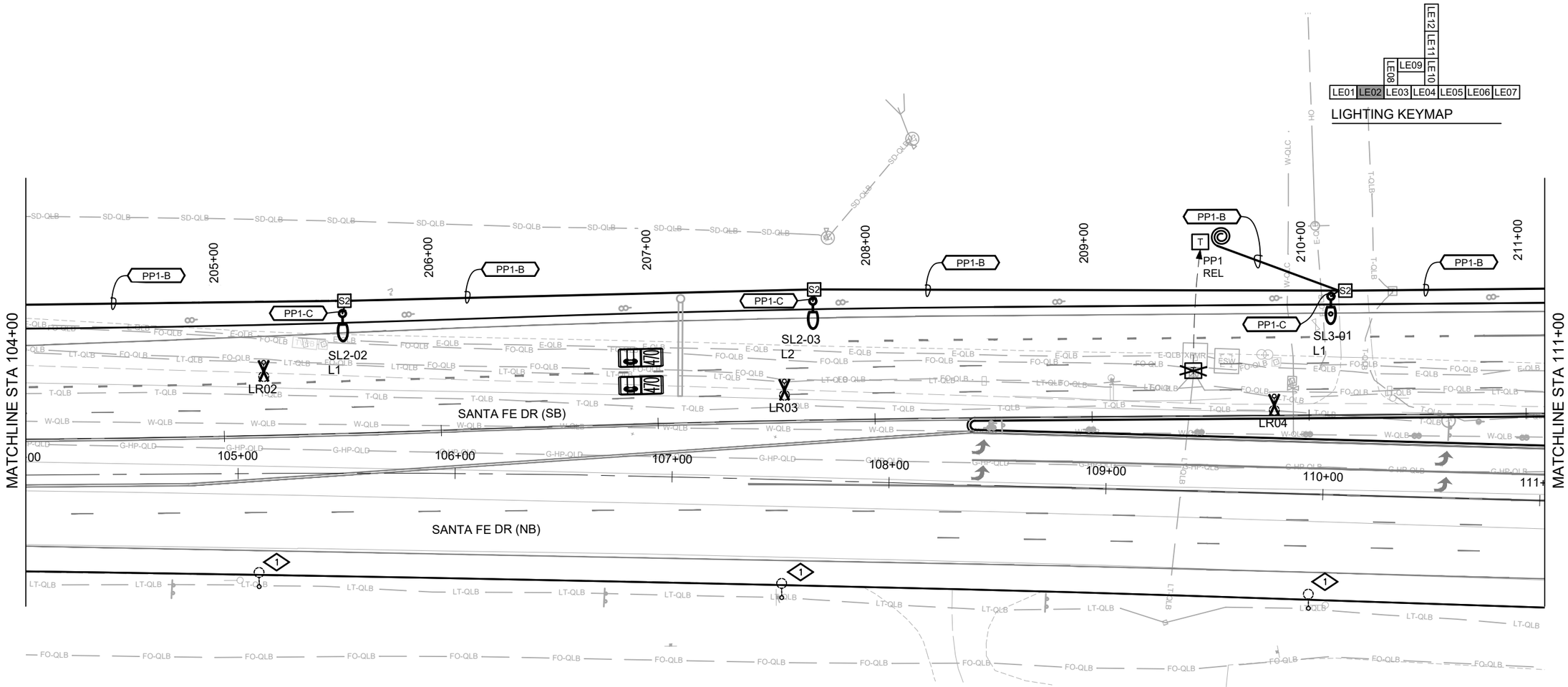

PLAN NOTES:

1 EXISTING TO REMAIN, PROTECT IN PLACE.

0 25 50 100

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As Constructed	SANTA FE DR LIGHTING PLAN STA. 104+00 TO STA. 111+00		Project No./Code
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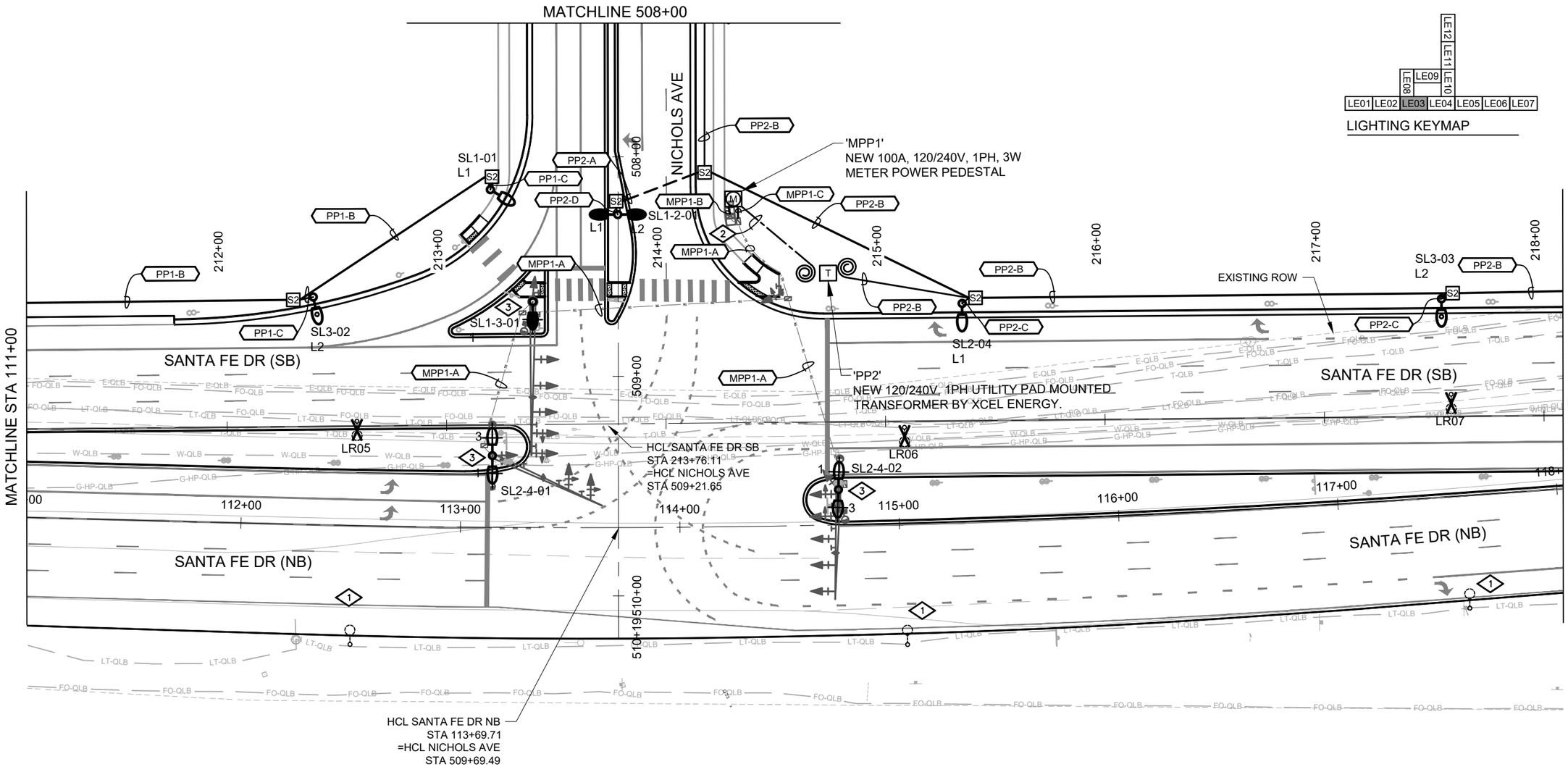

PLAN NOTES:

1. EXISTING TO REMAIN, PROTECT IN PLACE.
2. 'MPP1' SERVICE LATERAL. SEE ONELINE DIAGRAM FOR CONDUIT AND CONDUCTORS.
3. SIGNAL MOUNTED LUMINAIRES TO BE OWNED AND MAINTAINED BY XCEL ENERGY.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
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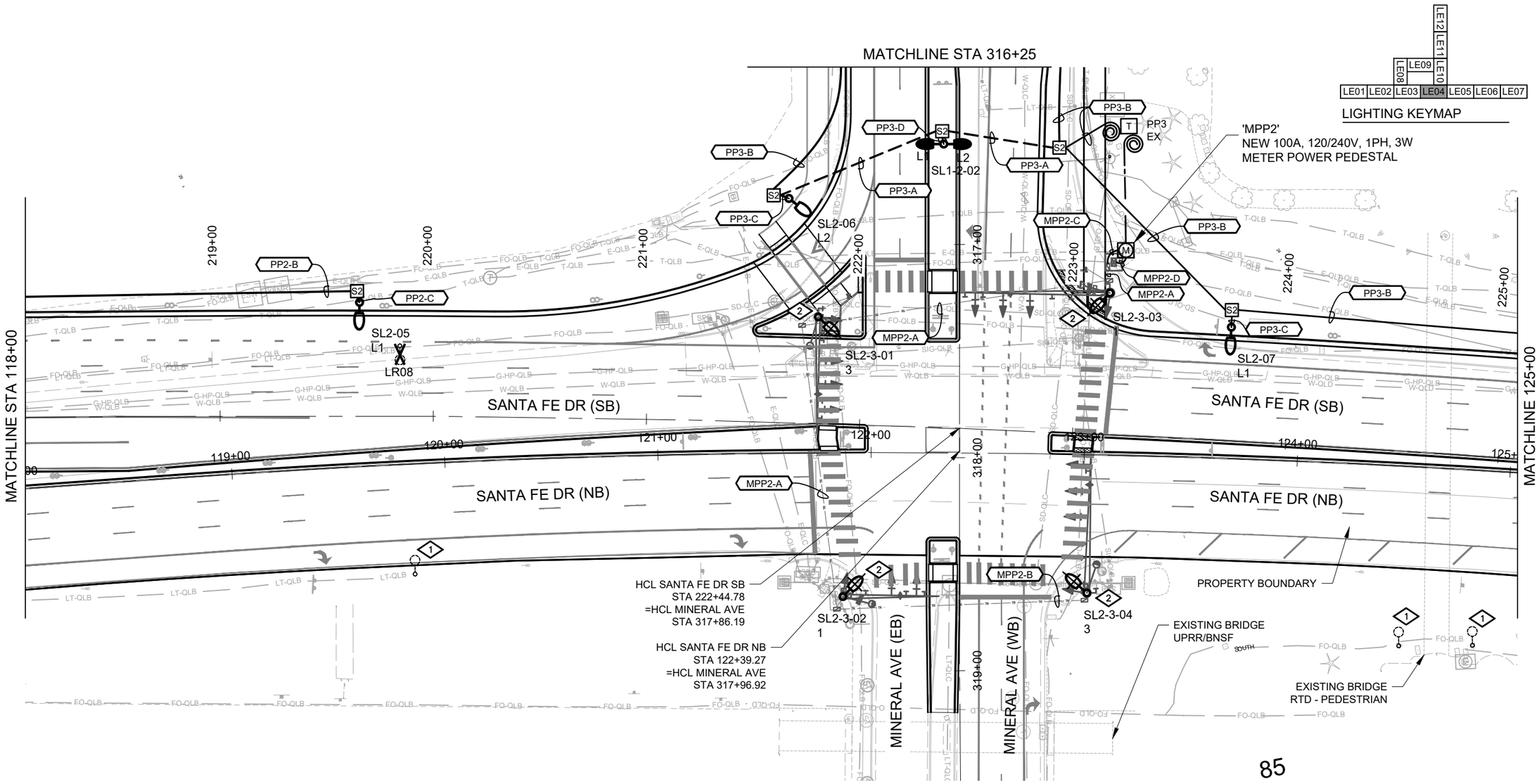

PLAN NOTES:

1. EXISTING TO REMAIN, PROTECT IN PLACE.
2. SIGNAL MOUNTED LUMINAIRES TO BE OWNED AND MAINTAINED BY XCEL ENERGY.

SCALE: 1" = 50'

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SANTA FE DR
LIGHTING PLAN
STA. 118+00 TO STA. 125+00

Designer: BN
Detailer: GG
Structure Numbers
Sheet Subset: LIGHT ELECT.
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Project No./Code
AQC M810-017
23574
Sheet Number 290

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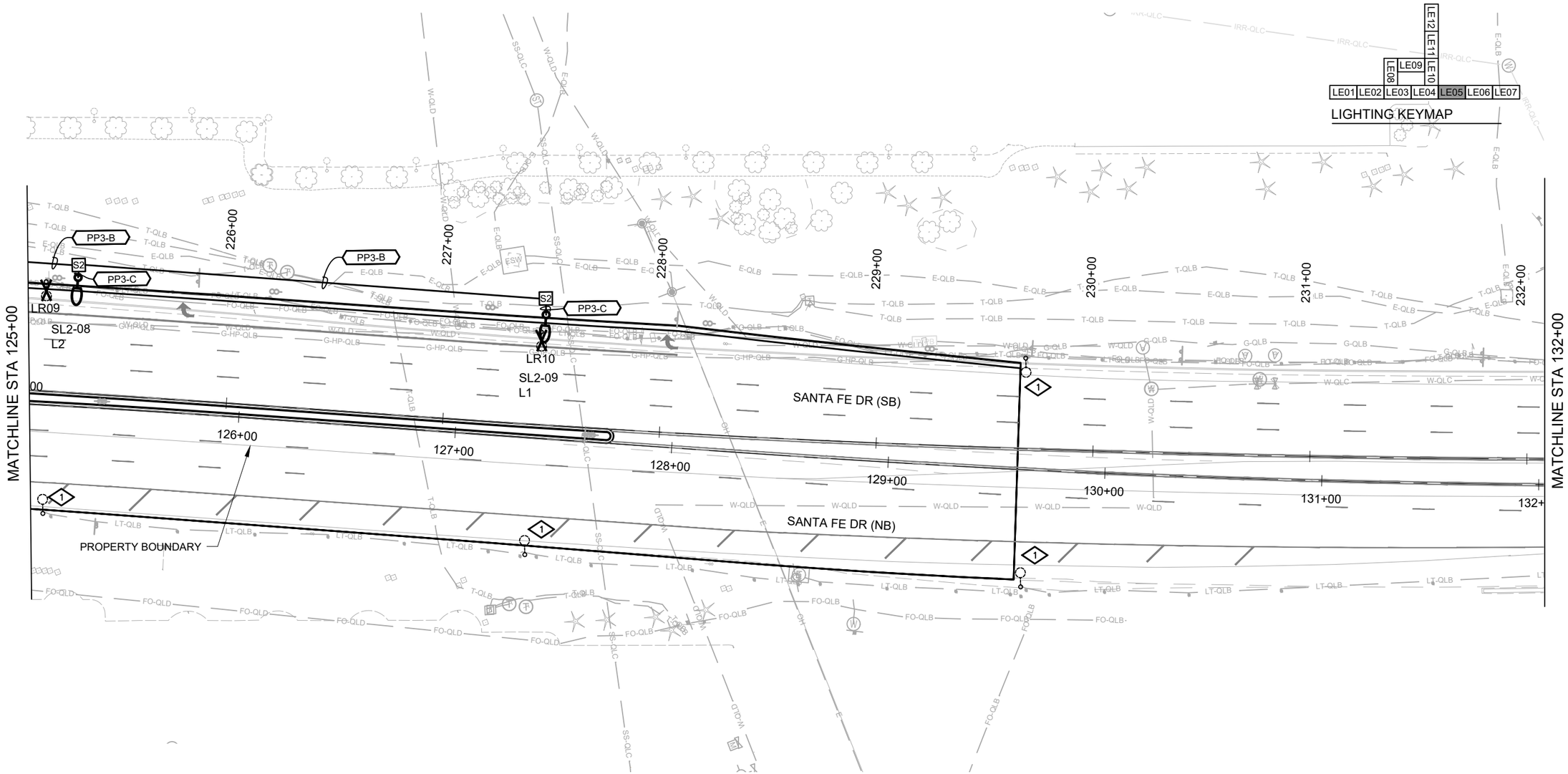

PLAN NOTES:

1 EXISTING TO REMAIN, PROTECT IN PLACE.

0 25 50 100

SCALE: 1" = 50'

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As Constructed	SANTA FE DR LIGHTING PLAN STA. 125+00 TO STA. 132+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: BN	Structure Numbers	23574
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Void:	Sheet Subset: LIGHT ELECT.	Subset Sheets: LE05 of 12	Sheet Number 291

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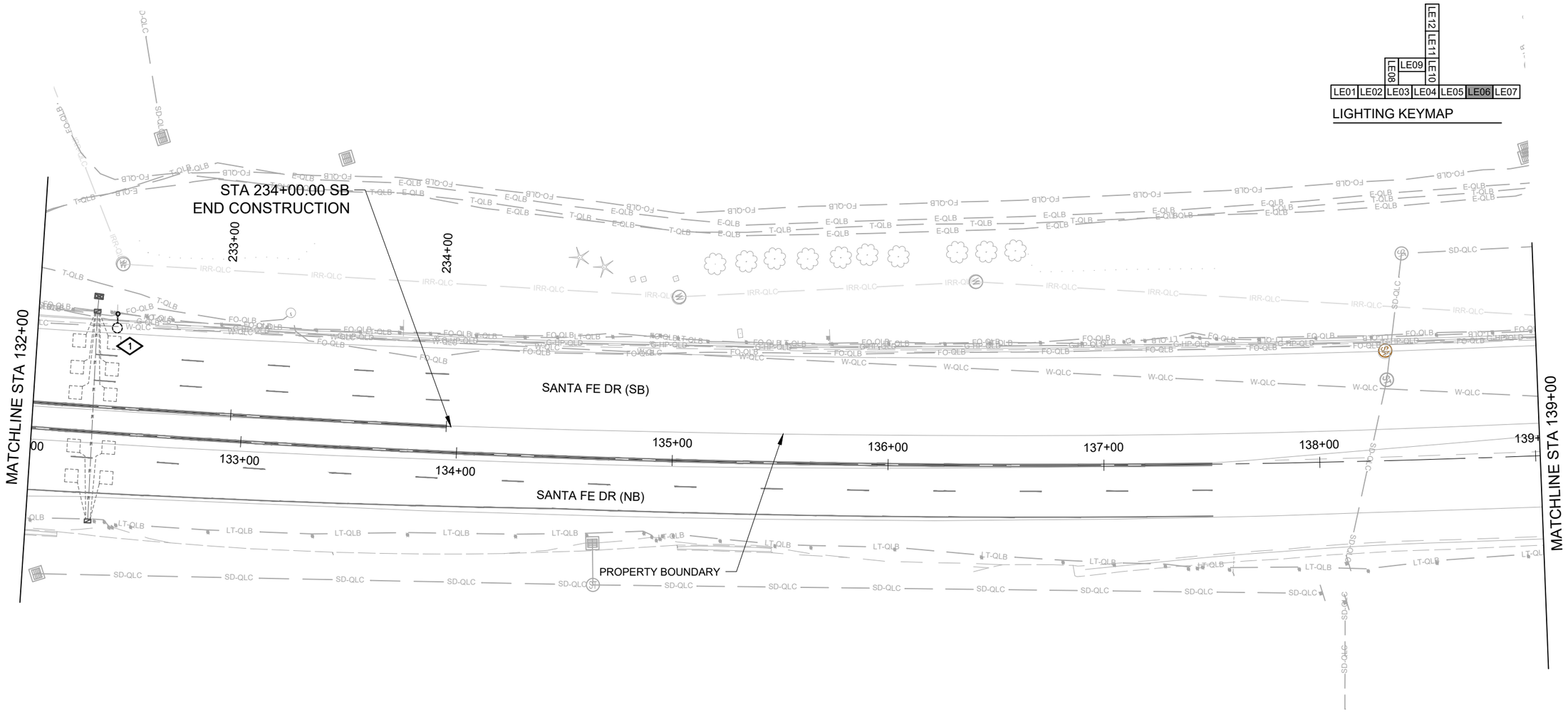

PLAN NOTES:

1 EXISTING TO REMAIN, PROTECT IN PLACE.

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
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Littleton Colorado

As Constructed	SANTA FE DR LIGHTING PLAN STA. 132+00 TO STA. 139+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: BN	Structure Numbers	23574
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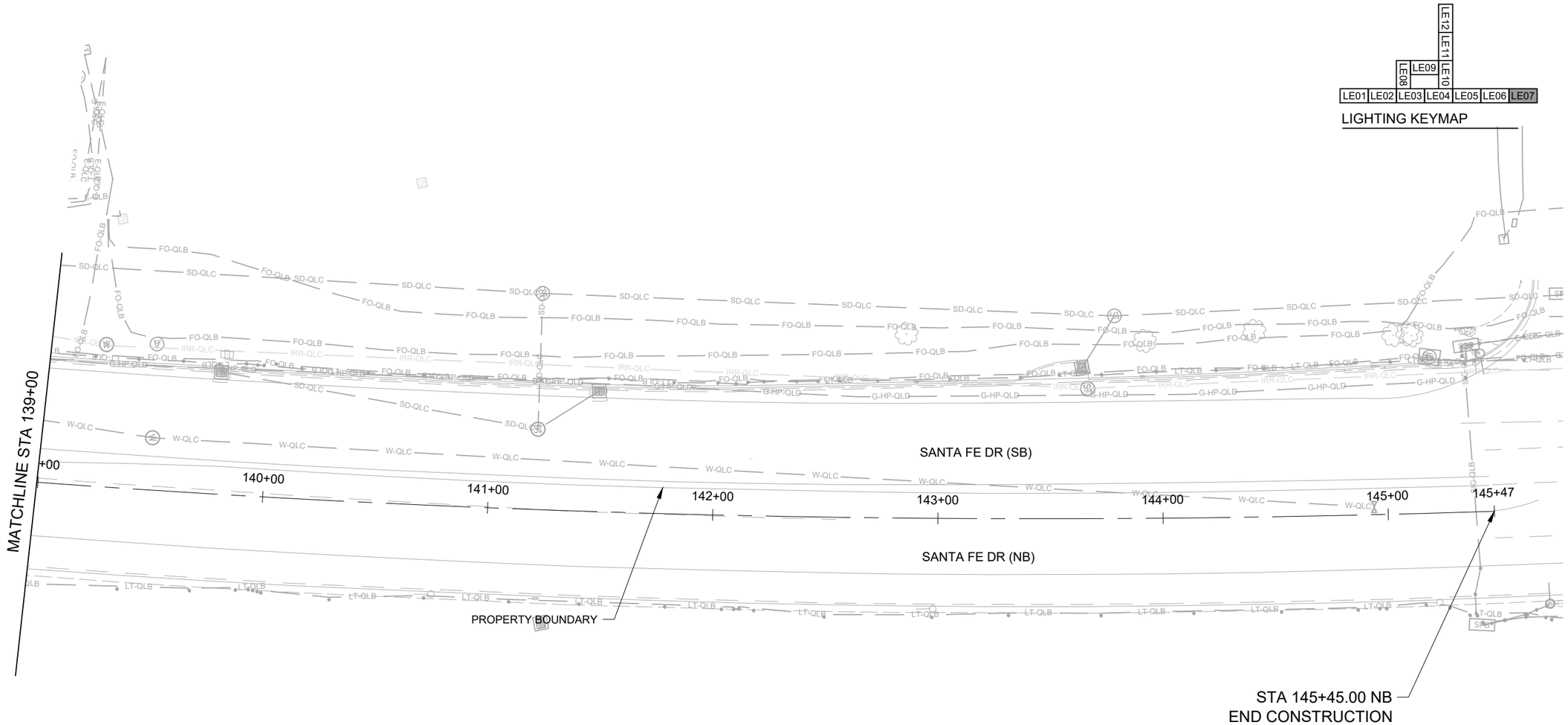

NO LIGHTING OR ELECTRICAL
WORK THIS SHEET

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
DANE R. SANDERS
10/09/2025
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As Constructed	SANTA FE DR LIGHTING PLAN STA. 139+00 TO STA. 145+45		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: BN	Structure Numbers	23574
	Detailer: GG		
Void:	Sheet Subset: LIGHT ELECT.	Subset Sheets: LE07 of 12	Sheet Number 293

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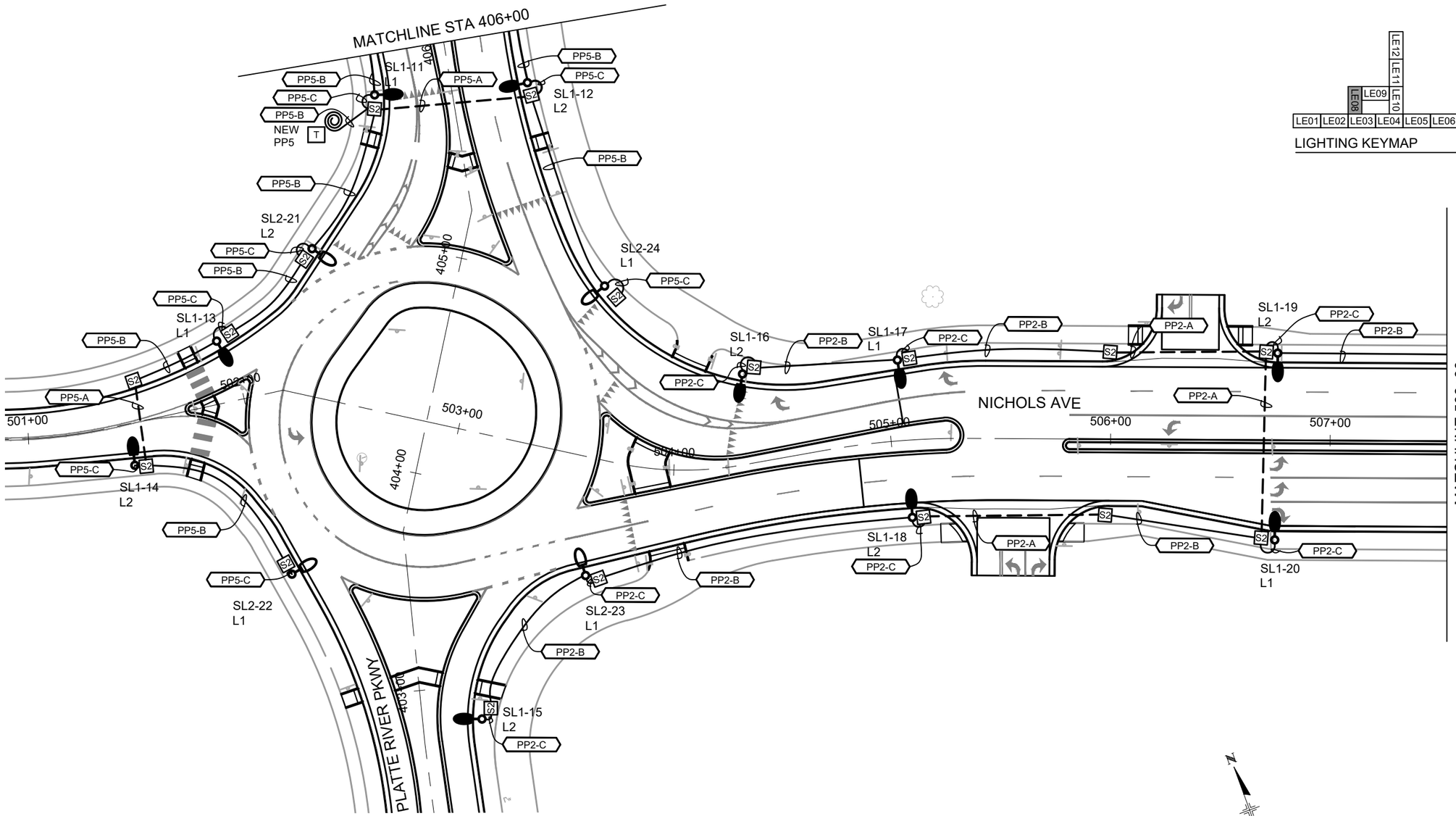

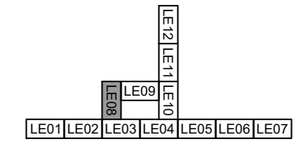

LIGHTING KEYMAP

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
DANE R. SANDERS
10/09/2025
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PROFESSIONAL ENGINEER

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4699 NAUTILUS COURT SOUTH STE. 102
BOULDER, CO 80301
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Print Date: 2024-11-04	
File Name: 23574_LT-PLAN_01.DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

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1670 BROADWAY, SUITE 3400
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Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	NICHOLS AVE LIGHTING PLAN STA. 501+00 TO STA. 508+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: BN	Structure Numbers	23574
	Detailer: GG		
Void:	Sheet Subset: LIGHT ELECT.	Subset Sheets: LE08 of 12	Sheet Number 294

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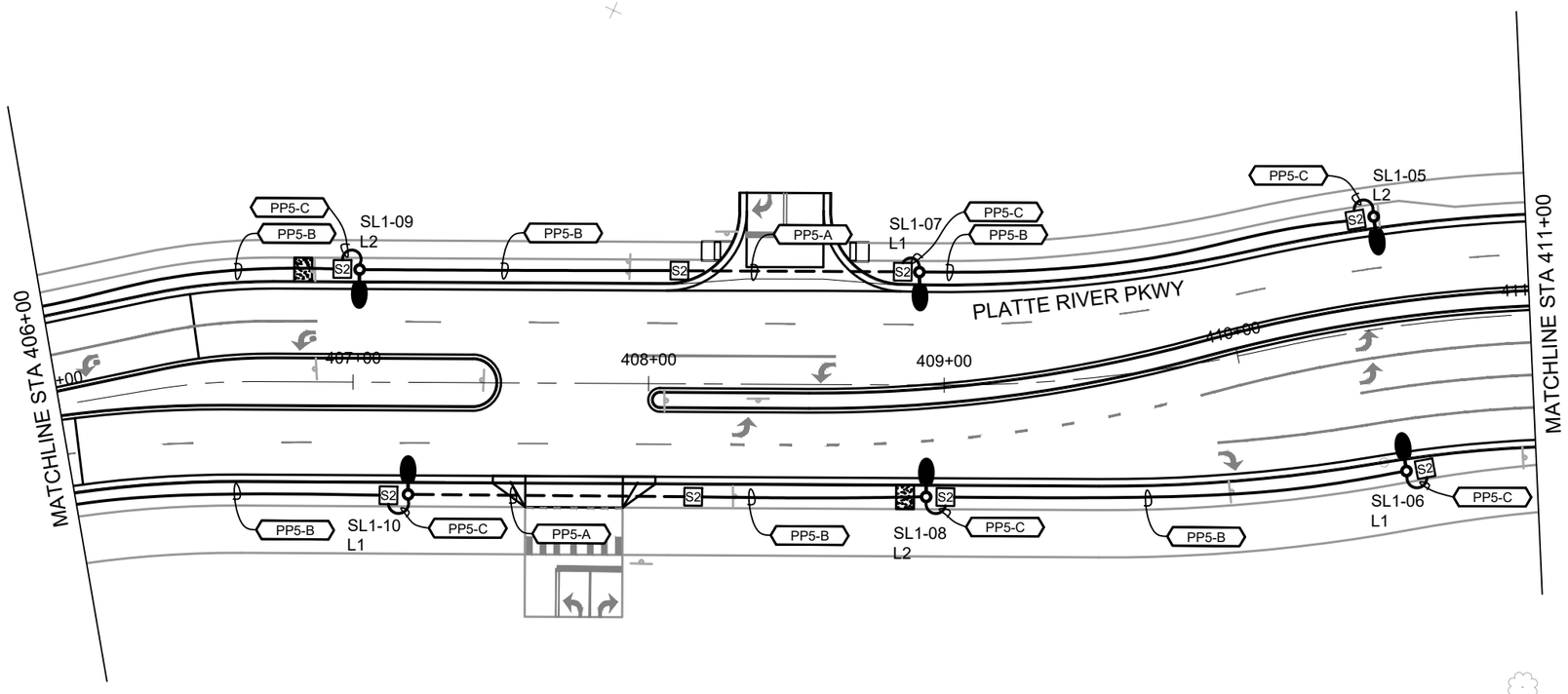

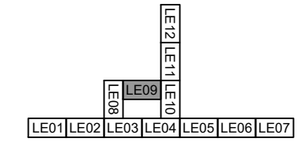

LIGHTING KEYMAP

0 25 50 100

SCALE: 1" = 50'

COLORADO LICENSED
DANE R. SANDERS
10/09/2025
41269
PROFESSIONAL ENGINEER

CLANTON & ASSOCIATES

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PLATTE RIVER PARKWAY
LIGHTING PLAN
STA. 406+00 TO STA. 411+00

Designer:	BN	Structure Numbers	
Detailer:	GG		
Sheet Subset:	LIGHT ELECT.	Subset Sheets:	LE09 of 12

Project No./Code

AQC M810-017

23574

Sheet Number 295

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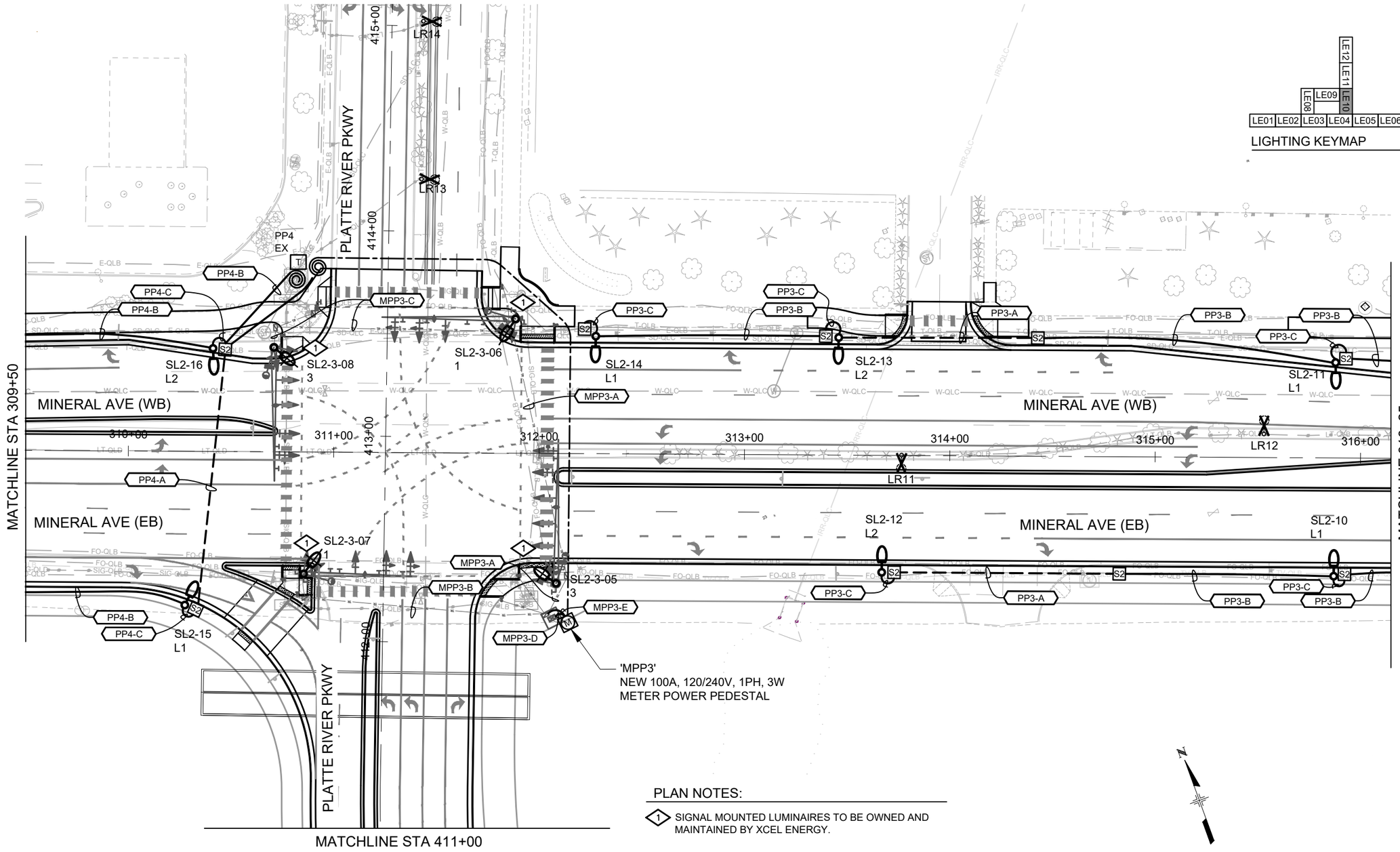

PLAN NOTES:

1. SIGNAL MOUNTED LUMINAIRES TO BE OWNED AND MAINTAINED BY XCEL ENERGY.

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As Constructed	MINERAL AVE LIGHTING PLAN STA. 309+50 TO STA. 316+25		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: BN	Structure Numbers	23574
	Detailer: GG		
Void:	Sheet Subset: LIGHT ELECT.	Subset Sheets: LE10 of 12	Sheet Number 296

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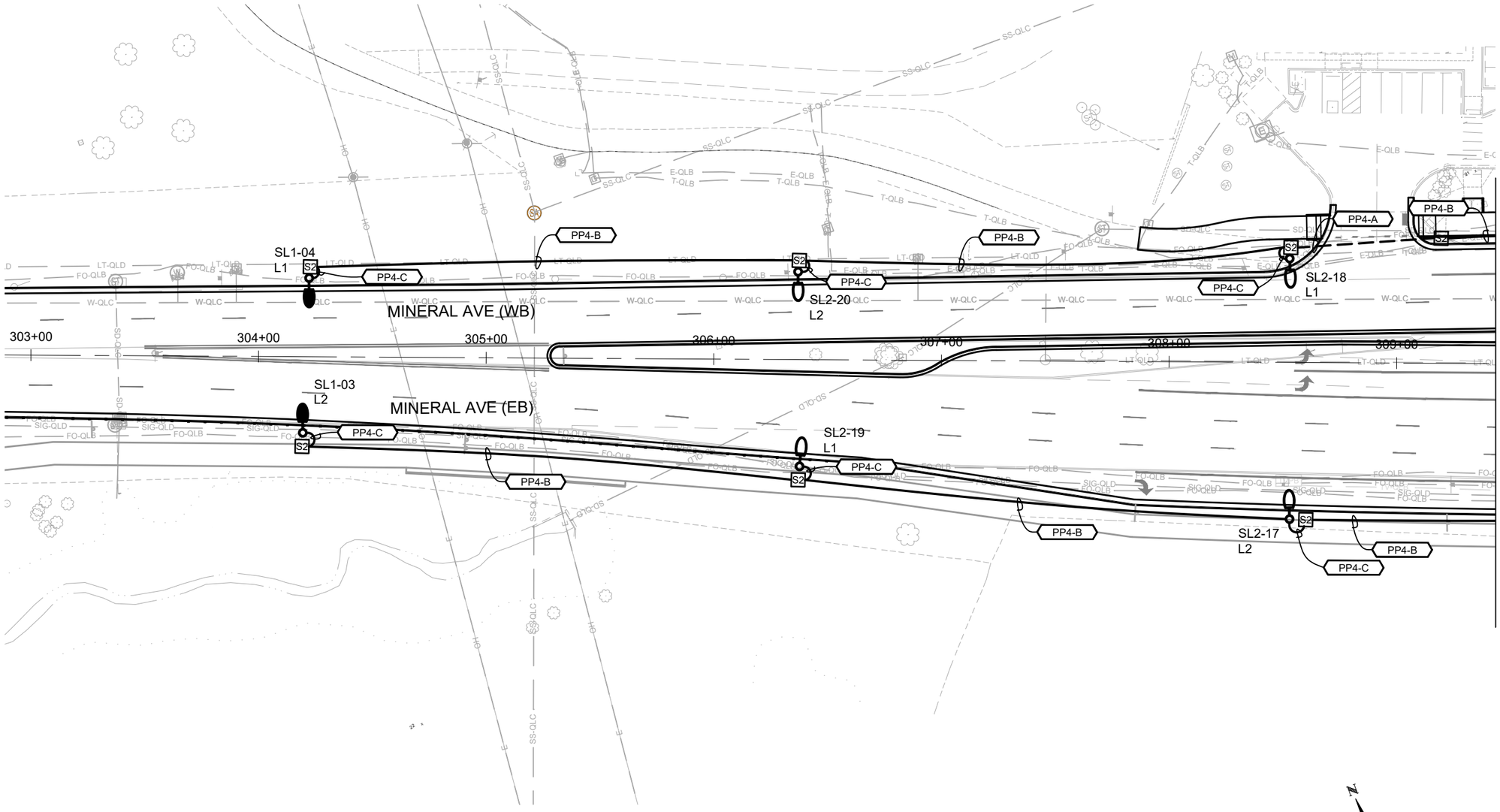

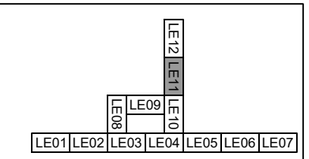

LIGHTING KEYMAP

N

0 25 50 100

SCALE: 1" = 50'

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Revised:	
Void:	

MINERAL AVE
LIGHTING PLAN
STA. 303+00 TO STA. 309+50

Designer:	BN	Structure Numbers	
Detailer:	GG		
Sheet Subset:	LIGHT ELECT.	Subset Sheets:	LE11 of 12

Project No./Code	
AQC M810-017	
23574	
Sheet Number	297

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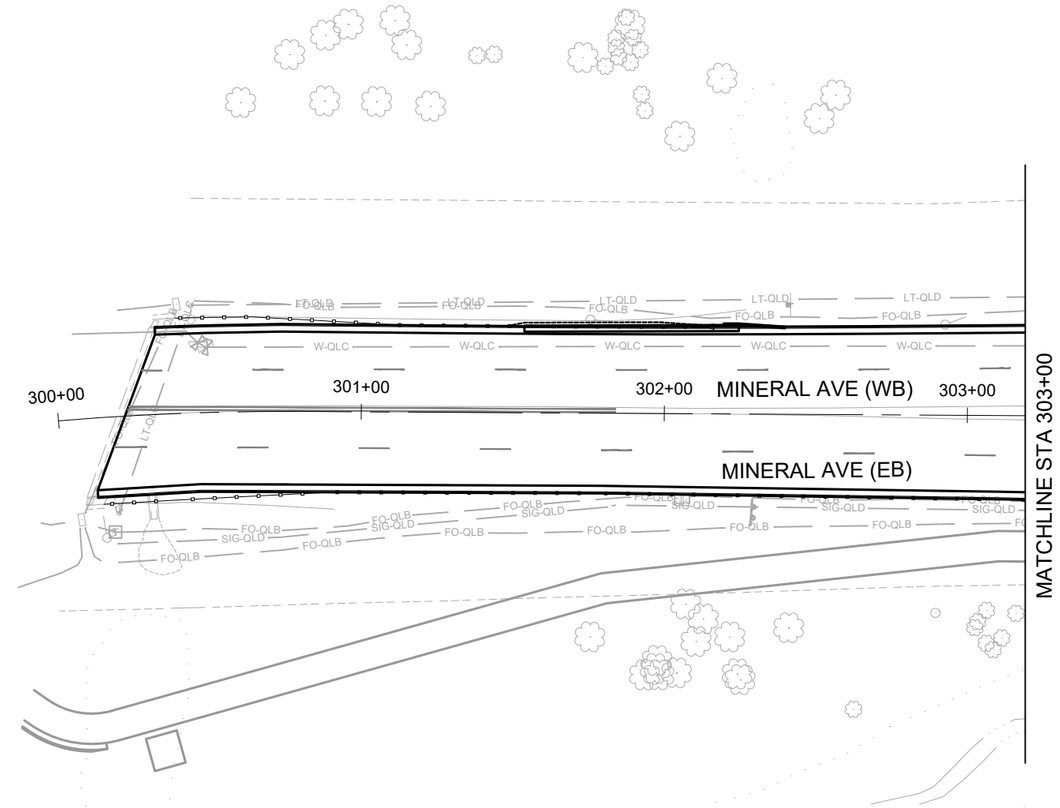

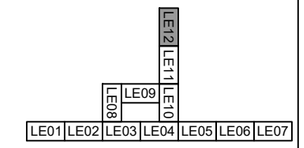

LIGHTING KEYMAP

NO LIGHTING OR ELECTRICAL
WORK THIS SHEET

N

0 25 50 100

SCALE: 1" = 50'

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Date:	Comments	Init.

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MINERAL AVE
LIGHTING PLAN
STA. 300+00 TO STA. 303+00

Designer: BN
Detailer: GG
Structure Numbers
Sheet Subset: LIGHT ELECT.
Subset Sheets: LE12 of 12

Project No./Code
AQC M810-017
23574
Sheet Number 298

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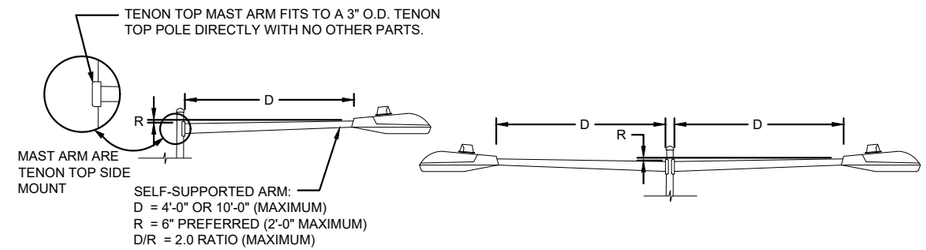
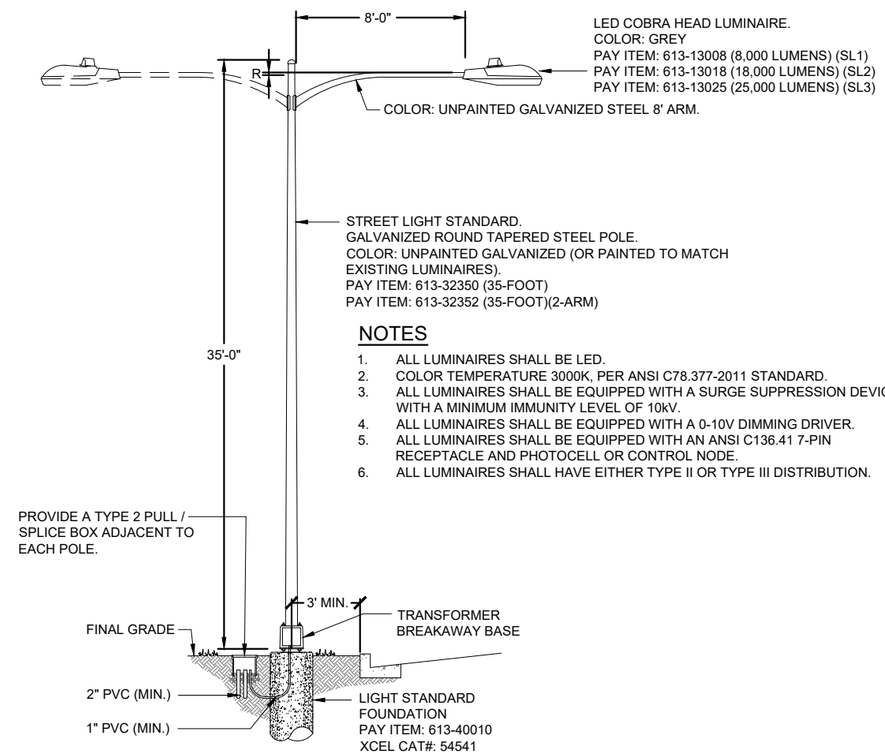
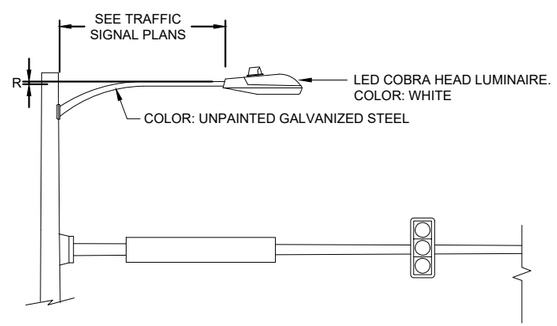




NOTES

1. ALL LUMINAIRES SHALL BE LED.
2. COLOR TEMPERATURE 3000K, PER ANSI C78.377-2011 STANDARD.
3. ALL LUMINAIRES SHALL BE EQUIPPED WITH A SURGE SUPPRESSION DEVICE WITH A MINIMUM IMMUNITY LEVEL OF 10kV.
4. ALL LUMINAIRES SHALL BE EQUIPPED WITH A 0-10V DIMMING DRIVER.
5. ALL LUMINAIRES SHALL BE EQUIPPED WITH AN ANSI C136.41 7-PIN RECEPTACLE AND PHOTOCELL OR CONTROL NODE.
6. ALL LUMINAIRES SHALL HAVE EITHER TYPE II OR TYPE III DISTRIBUTION.



1 / LD01 LIGHT ON TRAFFIC SIGNAL POLE

NOT TO SCALE PLAN SYMBOL =

2 / LD01 TYPICAL ROADWAY LIGHT STANDARD DETAIL

NOT TO SCALE

PLAN SYMBOL = OR 613-13008 (8,000 LUMENS) (SL1)
613-13018 (18,000 LUMENS) (SL2)
613-13025 (25,000 LUMENS) (SL3)

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10/09/2025
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	Sheet Subset: LIGHT DETAIL	Subset Sheets: LD01 of 08	

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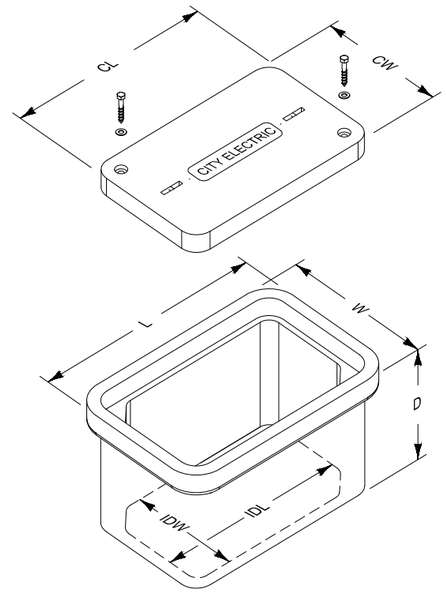


XCEL PULL BOX / SPLICE BOX - COMPOSITE MINIMUM DIMENSIONS	
SMALL	LARGE
CAT ID #: LID - 215570 BODY - 215571	CAT ID #: LID - 215567 BODY - 215569
L = 18"	L = 24"
W = 11"	W = 13"
D = 12"	D = 12"

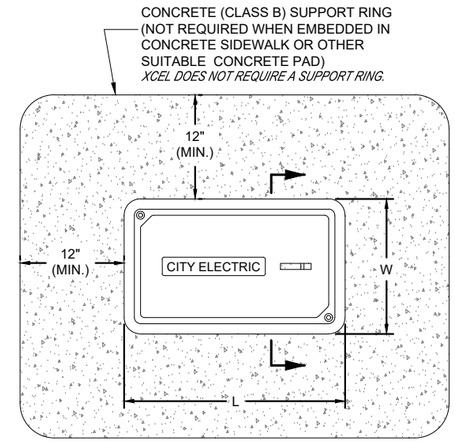
DETAIL NOTES

1. BOX COVERS MUST BE POLYMER CONCRETE WITH FIBERGLASS REINFORCEMENT, INCIDENTAL TRAFFIC RATED TO TIER 22 RATED AND BOLTED.
2. BOX COVERS SHALL BE LABELED AS FOLLOWS:
   - "XCEL ENERGY" ON ALL PULL BOXES CONTAINING UTILITY ELECTRICAL POWER.
   - "XCEL ENERGY" ON ALL PULL BOXES CONTAINING UTILITY OWNED STREET LIGHTING CONDUCTORS.

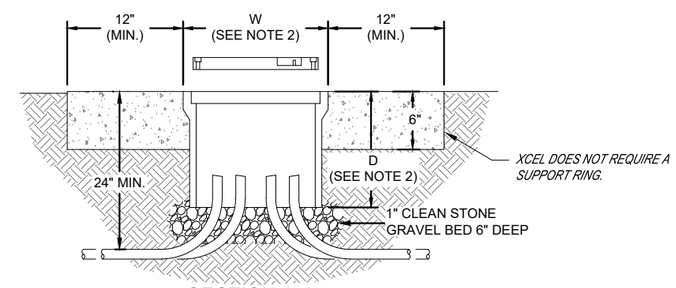
   LABELING MUST BE CAST INTO THE COVER AND NOT A SEPARATE INDEPENDENT TAG.
3. REFER TO N.E.C. ARTICLE 314 "PULL AND JUNCTION BOXES AND CONDUIT BODIES MINIMUM SIZE" FOR BOX SIZE REQUIREMENTS BASED ON CONDUIT AND WIRE SIZES

1 LD02 TYPICAL XCEL PULL BOX / SPLICE BOX

NOT TO SCALE



PLAN VIEW



SECTION A-A

TYPICAL PULL BOX / SPLICE BOX

DETAIL NOTES

1. ALL PULL OR SPLICE BOXES SHALL BE INCIDENTAL TRAFFIC RATED TO TIER 22 MINIMUM.
2. REFER TO DS-02 FOR PULL BOX SIZE REQUIREMENTS.

2 LD02 TYPICAL CDOT PULL BOX / SPLICE BOX

NOT TO SCALE

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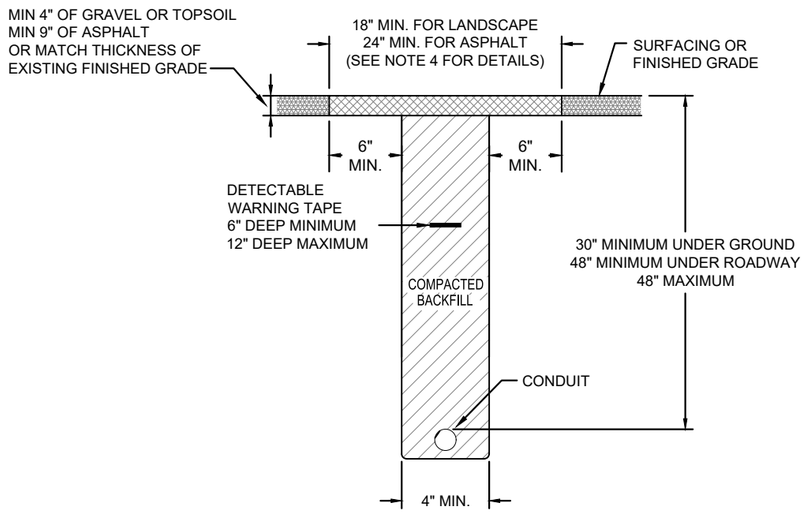
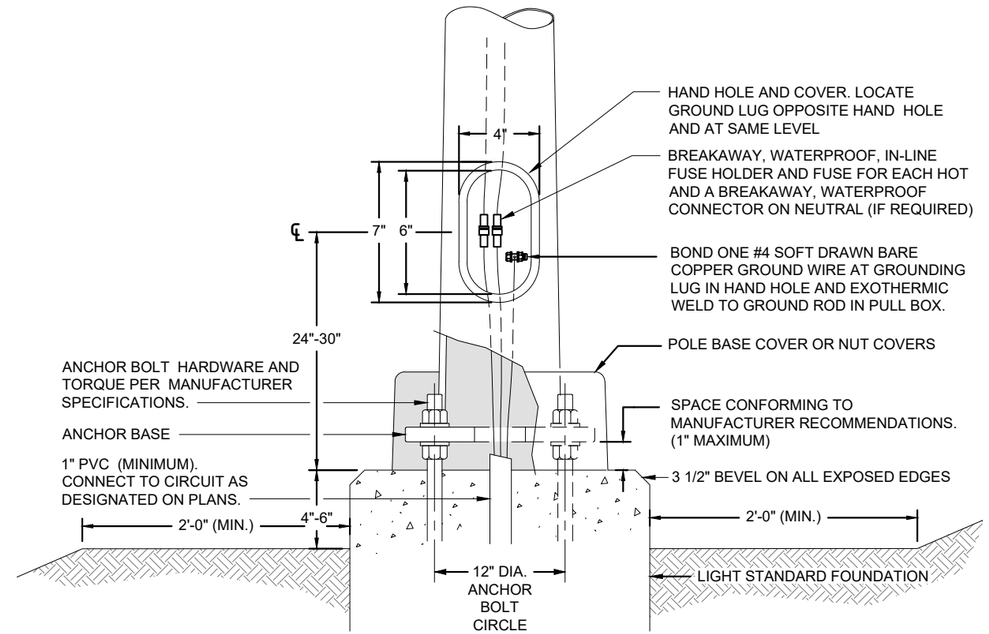


DETAIL NOTES

1. CONTRACTOR SHALL COORDINATE BORING, DRIVING, OR TRENCHING WITH OTHER UNDERGROUND UTILITIES. CONTRACTOR SHALL USE COMMON TRENCHES WHEREVER POSSIBLE.
2. WHENEVER POSSIBLE, CONDUIT OR CABLE SHALL BE INSTALLED BY BORING, DRIVING, OR ANY OTHER ACCEPTABLE MEANS UNDER CONCRETE UNITS. OPEN CUTTING SHALL BE USED ONLY UNDER SPECIAL CIRCUMSTANCES AND ONLY WITH APPROVAL OF PUBLIC WORKS. PAY ITEM: 613-40010, XCEL CAT#:54541
3. MINIMUM WIDTH AND TYPE OF RESTORATION TO BE DETERMINED BY PW INSPECTOR, BASED ON CONTRACTOR'S PRE-ACTIVITY PHOTOS, TO MATCH PRE-EXISTING CONDITIONS.
4. SOD REPLACEMENT SHALL BE A MINIMUM OF 18" IN WIDTH. ASPHALT REPLACEMENT SHALL BE A MINIMUM OF 24" IN WIDTH.
5. ANY HARDSCAPE (CONCRETE OR PAVERS) SHALL BE REPLACED IN FULL PANELS OR PAVERS OF THE SAME TYPE, COLOR, AND SIZE AS BEFORE.
6. 1-#12 AWG LOCATE WIRE AND A NYLON OR POLYESTER PULL TAPE WITH 1,250 LBS TEST STRENGTH AND FOOTAGE MARKINGS IN ALL EMPTY CONDUITS.

1 LD03 TYPICAL CONDUIT BURIAL DETAIL

NOT TO SCALE



TYPICAL NON-BREAKAWAY BASE DETAIL

FOR USE ONLY OUTSIDE CLEAR ZONE OR IN PROTECTED INSTALLATIONS.

NOTES

1. LIGHT STANDARD FOUNDATIONS SHALL BE PRECAST CONCRETE.
2. ALL CONDUCTORS SHALL BE SIZED IN CONFORMANCE WITH N.E.C. REQUIREMENTS 3/C COPPER #12 AWG CABLE MINIMUM.
3. *XCEL REQUIRES SIZE BASED ON THE ODL MANUAL " MAXIMUM DISTANCE AND LUMINAIRES PER STREETLIGHT CONDUCTOR RUN-UG FED" USING ALUMINUM CONDUCTORS.*
4. *XCEL IS GOVERNED BY THE N.E.S.C. INSTEAD OF N.E.C.*

2 LD03 NON-BREAKAWAY POLE BASE DETAIL

NOT TO SCALE

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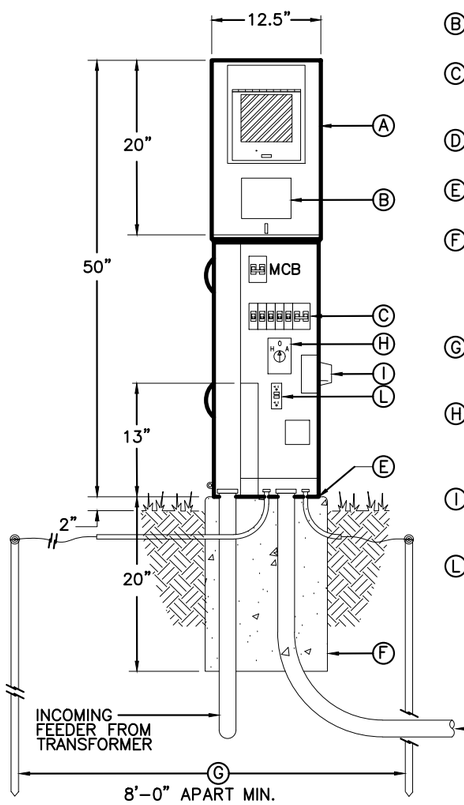


COMPONENT LIST

(A) 200A METER SOCKET, MCB, 120/240V, NEMA 3R COMBINATION SERVICE ENTRANCE RATED, COLD SEQUENCE, METER/POWER PEDESTAL WITH LEVER BYPASS, LOAD CENTER, MCB AND FUSED TEE–HANDLE PULL OUT DISCONNECT AHEAD OF METER. SEE PANEL SCHEDULE ON SHEET LD07 FOR SIZE OF MAIN AND NUMBER AND SIZE OF BRANCH BREAKERS. SET ON NEW CONCRETE PAD PLUMB AND LEVEL.

(B) TEE–HANDLE, PULL–OUT FUSE TYPE, DISCONNECT FLUSH MOUNTED INTO THE BACK SIDE OF THE ENCLOSURE WITH TAB FOR SEAL.

(C) SERVICE ENTRANCE PANEL BREAKER SECTION, FOR CUSTOMER LOADS. SEE PANEL SCHEDULES FOR SIZE OF BREAKERS AND NUMBER OF POLES REQUIRED.

(D) BUILT–IN GFCI NEMA 5–20R, DUPLEX, GFCI MAINTENANCE RECEPTACLE FLUSH MOUNTED IN PANEL DEAD–FRONT.

(E) PROVIDE RECESSED CONCRETE PAD MOUNTING PLATE WITH L–BOLTS TO MATCH THE ENCLOSURE BASE BOLT PATTERN.

(F) PROVIDE 4000 PSI, RE–BAR RE–ENFORCED, CONCRETE WITH A MINIMUM DIRECT EARTH BURY DEPTH OF 18", 2" OVERLAP OF THE ENCLOSURE ON ALL SIDES FRONT AND BACK AND 2" EXPOSURE ABOVE GRADE. PROVIDE 1" CHAMFERED EDGES. PROVIDE STRUCTURAL ENGINEERED STAMPED DRAWING FOR PAD.

(G) 5/8"x 8'–0" Lg, COPPER–CLAD DRIVEN GROUND ROD WITH EXOTHERMIC WELD OR UNDERGROUND LUG CONNECT CONDUCTOR TO ROD. (2) RODS REQUIRED.

(H) HOA – HAND–OFF–AUTO SELECTOR SWITCH WITH LEGEND PLATE, 15A CONTACTS FOR CONTROL OF THE 2–POLE LIGHTING CONTACTOR WHEN SWITCH IS IN THE AUTO POSITION. FLUSH MOUNT IN PANEL DEAD–FRONT.

(I) PHOTOCELL – BUILT–IN PHOTOCELL ON THE EXTERIOR OF THE NEMA 3R ENCLOSURE FOR ON/OFF CONTROL OF THE LIGHTS ON THE SIGNAL POLES.

(L) LIGHTING CONTACTOR – BUILT–IN 20A–2P ELECTRICALLY HELD LIGHTING CONTACTOR FOR ON/OFF CONTROL OF THE (2) CIRCUITS THAT FEED THE LIGHTS ON THE SIGNAL POLES. PHOTOCELL CONTROL WHEN HOA IS IN THE AUTO POSITION.

NOTE:
ALL COMPONENTS LISTED SHALL BE INCLUDED IN THE 'METER POWER PEDESTAL' PAY ITEM.

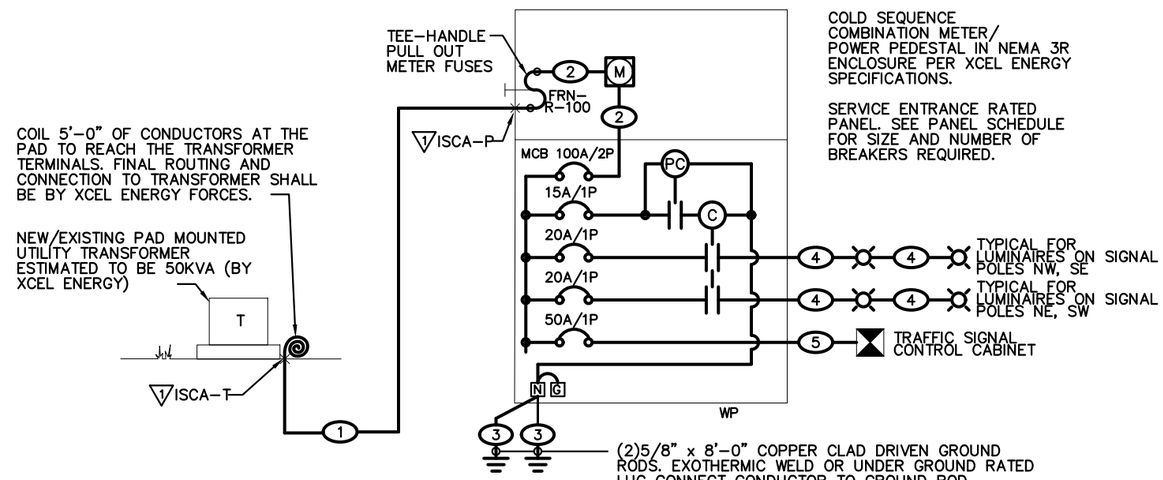
BRANCH FEEDER TO TRAFFIC SIGNAL CONTROL CABINET AND LIGHTS ON SIGNAL POLES.

METER POWER PEDESTAL'S INDIVIDUAL PANEL FAULT CURRENT TABLE

PANEL DESIGNATION	MAIN CIRCUIT BREAKER	SERVICE LATERAL (S.L.) FEEDER (1)	S.L. FEEDER MINIMUM LENGTH ~	S.L. FEEDER MAXIMUM LENGTH ^	TRANSFORMER SIZE AND FAULT (1) CURRENT ISCA-T	UTILITY COMPANY	AVAILABLE FAULT CURRENT @ PANEL - ISCA-P
MPP1	100A-2P	(3#1 XHHW CU) 2"PVC.	60'	195' ^	50kVA - 14,800 ISCA	XCEL ENERGY	7,467 ISCA
MPP2	100A-2P	(3#1 XHHW CU) 2"PVC.	65'	195' ^	50kVA - 14,800 ISCA	XCEL ENERGY	7,169 ISCA
MPP3	100A-2P	(3#2/0 XHHW CU) 2"PVC.	290'	310' ^	50kVA - 14,800 ISCA	XCEL ENERGY	3,588 ISCA

~ = MINIMUM SERVICE LATERAL CONDUCTOR LENGTH FOR THE ISCA VALUE GIVEN. IF CONDUCTOR LENGTH IS LESS THAN THIS VALUE THE PANEL WILL NEED TO BE BRACED AT THE NEXT HIGHER AIC RATING.

^ = MAXIMUM FEEDER LENGTH TO MAINTAIN LESS THAN 2% VOLTAGE DROP. IF SERVICE LATERAL IS LONGER THAN THIS AMOUNT CHANGE CONDUCTOR TO THE NEXT LARGER AWG SIZE.



FEEDER SCHEDULE

(1) SEE "METER POWER PEDESTALS' INDIVIDUAL PANEL FAULT CURRENT TABLE" ON THIS SHEET FOR THIS SERVICE LATERAL

(2) INTERNAL FEEDER SUPPLIED W/PEDESTAL

(3) 1#6 SOLID BARE COPPER THROUGH FEEDER ENCLOSURE TO GROUND RODS.

(4) (2#10THWN CU & 1#10GND) 2" PVC CONDUIT

(5) (2#6THWN CU & 1#10GND) 2" PVC CONDUIT

(1) SEE "METER POWER PEDESTALS' INDIVIDUAL PANEL FAULT CURRENT TABLE" ON THIS SHEET FOR THIS ISCA VALUE.

1 / LD04 METER POWER PEDESTAL 'MPP1' "MPP2 "MPP3" DETAIL

NOT TO SCALE — PLAN SYMBOL = (M)

2 / LD04 TYPICAL METER POWER PEDESTAL ONE-LINE DIAGRAM

NOT TO SCALE — PLAN SYMBOL = (M)

COLORADO LICENSED
DALE R. SANDERS
10/09/2025
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Sheet Number 302

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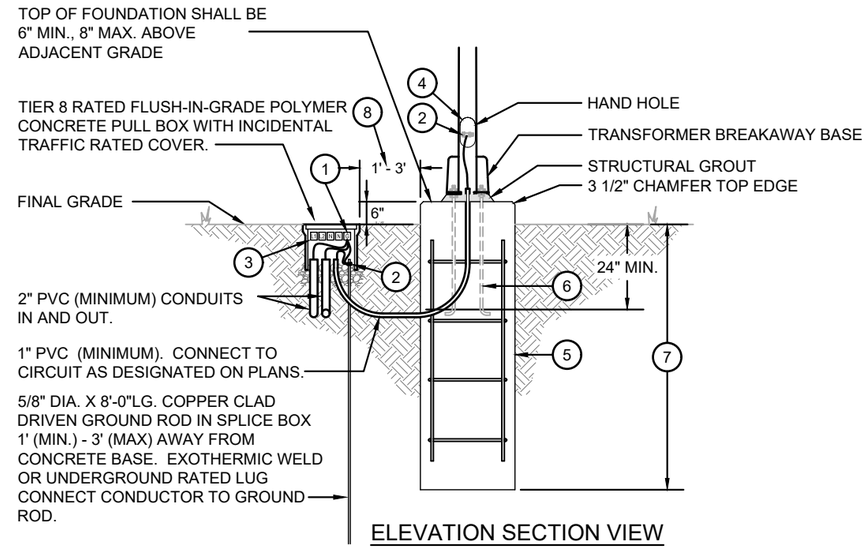

ELEVATION SECTION VIEW

FOUNDATION DETAIL NOTES

1. BOND RACEWAY GROUND TO GROUND ROD IN PULL BOX / SPLICE BOX.
2. BOND (1#4 SOFT DRAWN BARE CU) TO GROUND ROD IN PULL BOX / SPLICE BOX AND GROUNDING LUG IN POLE BASE HAND HOLE.
3. UNDERGROUNG RATED LUG CONNECTORS TO FIT #12AWG TO 350 KCMIL CU/AL. PROVIED 4-LUG TERMINAL FOR HOT CONDUCTORS AND 6-LUG TERMINAL FOR NEUTRAL/GROUND CONDUCTORS
4. AT EACH POLE BASE HAND HOLE, PROVIDE A BREAKAWAY, WATERPROOF, IN-LINE FUSE HOLDER BY EATON OR APPROVED EQUAL WITH FNQ-R 15A FUSE FOR EACH HOT AND A BREAKAWAY, WATERPROOF CONNECTOR ON NEUTRAL (IF REQUIRED).
5. LIGHT STANDARD FOUNDATION EMBEDMENT DEPTH, DIMENSIONS AND REINFORCEMENT SHALL BE PRE-CAST CONCRETE TO XCEL ENERGY'S STANDARD CAT ID #54541
6. ANCHOR BOLT CIRCLE SHALL BE 12 INCH DIAMETER AND CENTERED ON FOUNDATION.
7. DEPTH OF FOUNDATION PER XCEL ODL MANUAL OR AS DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF COLORADO.
8. XCEL REQUIRES THE CLOSEST EDGE OF PULL BOX SHALL BE 1' TO 3' FROM FOUNDATION, EXCEPT WHEN FIELD CONDITIONS DICTATE OTHERWISE.

GENERAL NOTE

FOUNDATION DETAILS ARE INCLUDED ONLY TO SHOW ELECTRICAL COMPONENTS.

1 LD05 TYPICAL LIGHT STANDARD FOUNDATION ELECTRICAL DETAIL

NOT TO SCALE

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Littleton Colorado

As Constructed	ELECTRICAL DETAILS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: BN	Structure Numbers	23574
Void:	Detailer: GG		Sheet Number 303
	Sheet Subset: LIGHT DETAIL	Subset Sheets: LD05 of 08	

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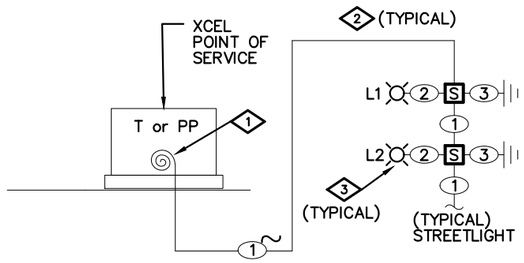


FEEDER SCHEDULE

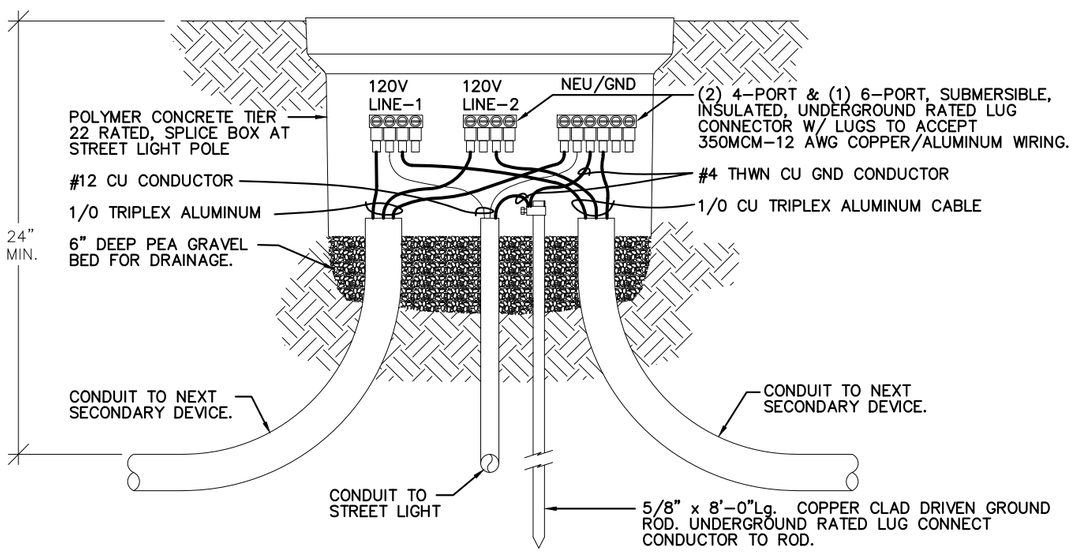
1. (1/0 TRIPLEX ALUMINUM) 2" PVC
2. (2#12THWN CU & 1#4 GND) 1" PVC
3. (1#4CU GND) EXOTHERMIC WELD OR UNDERGROUND RATED LUG CONNECT GROUND CONDUCTOR TO GROUND ROD

DETAIL NOTES

1. STREETLIGHT WIRING SHALL BE PROCURED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE 5'-0" OF CONDUCTOR COILED AT THE TRANSFORMER FOR FINAL CONNECTION TO THE TRANSFORMER BY XCEL ENERGY FORCES.
2. ALL XCEL OWNED LIGHTING VOLTAGE DROP SHALL BE DETERMINED BY THE XCEL ENERGY'S "STREETLIGHT TABLE MAXIMUM DISTANCES AND LIGHTS PER CONDUCTOR RUN" ON THIS SHEET.
3. INTERNAL WIRING FROM HANDHOLE UP TO LUMINAIRE SHALL BE 12/2C WITH GROUND, COPPER CONDUCTORS IN COMMON CABLE.

2 / LD06 NON-METERED XCEL ENERGY ONLY FLAT RATE LIGHTING ONE-LINE DIAGRAM

NOT TO SCALE



1 / LD06 TYPICAL XCEL OWNED FLAT RATE STREET LIGHT SPLICE BOX DETAIL

NOT TO SCALE

PLAN SYMBOL = S2

STREET LIGHT POLE AND SPLICE BOX NOTES:

- IN EACH SPLICE BOX PROVIDE (3) UNDERGROUND SUBMERSIBLE INSULATED CONNECTORS, (2) 4-PORT, ONE FOR LINE-1, ONE FOR LINE-2 AND (1) 6-PORT FOR THE NEUTRAL/GROUND. CONNECTORS' LUGS SHALL ACCEPT 350MCM-12AWG CU/AL CONDUCTORS. PROVIDE A 5/8" X 8'-0"Lg. COPPER CLAD DRIVEN GROUND ROD (IN EACH LUMINAIRE'S SPLICE BOX) AND BOND TO NEUTRAL LUG TO THE ROD AND TO POLE WITH A #4 THWN CU GROUND CONDUCTOR. PROVIDE ENOUGH SLACK IN ALL CONDUCTORS SO THAT CONNECTORS CAN BE REMOVED 12"MIN. ABOVE SPLICE BOX FOR MAINTENANCE.
- CONNECT 1#12 COPPER HOT TO ONE LINE (ALTERNATING BETWEEN LINE-1 AND LINE-2 IN EVERY OTHER POLE) AND 1#12 COPPER NEUTRAL FROM NEU/GND CONNECTOR IN THE SPLICE BOX AND ROUTE TO POLE BASE. ROUTE #4 COPPER FROM THE NEU/GND CONNECTOR TO GROUND ROD AND FROM GROUND ROD TO THE POLE GROUND LUG WITH THE (2) #12 COPPER THROUGH THE FEEDER TO THE POLE BASE.
- IN THE POLE BASE PROVIDE (1) SUBMERSIBLE, IN-LINE FUSE HOLDER WITH FRN-20 AMP FUSE FOR THE LINE HOT CONDUCTOR AND A SUBMERSIBLE, CONNECTOR FOR THE NEUTRAL CONDUCTOR. CONNECT THE #4 GROUND CONDUCTOR TO THE POLE'S GROUND LUG. ALL OF THESE CONNECTIONS SHALL BE VISIBLE FROM THE POLE'S HANDHOLE AND ADD ENOUGH SLACK IN WIRE TO ALLOW CONNECTORS TO BE REMOVED FROM HANDHOLE FOR MAINTENANCE. FROM THE LOAD SIDE OF THE FUSE HOLDER, NEU CONNECTOR AND GROUND LUG ROUTE A 12/3C, 600V, STRANDED COPPER CABLE THROUGH POLE UP TO LUMINAIRE AND CONNECT THEM TO THE LUMINAIRE'S HOT, NEUTRAL AND GROUND LEADS.
- EACH LIGHT STANDARD IS CONSIDERED A SERVICE ENTRANCE AND THE IN-LINE FUSE IS THE SERVICE MAIN.

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Revised:	Designer: BN	Structure Numbers	23574
Void:	Detailer: GG		Sheet Number 304
	Sheet Subset: LIGHT DETAIL	Subset Sheets: LD06 of 08	

$PLOT_INFO$

"PP1" UTILITY LOAD SUMMARY

LUMINAIRE TYPE OR MPP	LOAD		QUANTITY		SUB-TOTAL
SL1 (8,000 LUMENS)	80 VA	X	1	=	80 VA
SL2 (18,000 LUMENS)	180 VA	X	3	=	540 VA
SL3 (25,000 LUMENS)	200 VA	X	2	=	400 VA
MPP	0 VA	X		=	0 VA
			TOTAL LOAD	=	1020 VA
	1020 VA	/	240	V =	4.25 AMPS @240V-1PH

"PP2" UTILITY LOAD SUMMARY

LUMINAIRE TYPE OR MPP	LOAD		QUANTITY		SUB-TOTAL
SL1 (8,000 LUMENS)	80 VA	X	8	=	640 VA
SL2 (18,000 LUMENS)	180 VA	X	3	=	540 VA
SL3 (25,000 LUMENS)	200 VA	X	1	=	200 VA
MPP1	4180 VA	X	1	=	4180 VA
			TOTAL LOAD	=	5560 VA
	5560 VA	/	240	V =	23.17 AMPS @240V-1PH

"PP3" UTILITY LOAD SUMMARY

LUMINAIRE TYPE OR MPP	LOAD		QUANTITY		SUB-TOTAL
SL1 (8,000 LUMENS)	80 VA	X	2	=	160 VA
SL2 (18,000 LUMENS)	180 VA	X	9	=	1620 VA
SL3 (25,000 LUMENS)	200 VA	X	0	=	0 VA
MPP2	4080 VA	X	1	=	4080 VA
			TOTAL LOAD	=	5860 VA
	5860 VA	/	240	V =	24.42 AMPS @240V-1PH

"PP4" UTILITY LOAD SUMMARY

LUMINAIRE TYPE OR MPP	LOAD		QUANTITY		SUB-TOTAL
SL1 (8,000 LUMENS)	80 VA	X	2	=	160 VA
SL2 (18,000 LUMENS)	180 VA	X	6	=	1080 VA
SL3 (25,000 LUMENS)	200 VA	X	0	=	0 VA
MPP3	3180 VA	X	1	=	3180 VA
			TOTAL LOAD	=	4420 VA
	4420 VA	/	240	V =	18.416667 AMPS @240V-1PH

"PP5" UTILITY LOAD SUMMARY

LUMINAIRE TYPE OR MPP	LOAD		QUANTITY		SUB-TOTAL
SL1 (8,000 LUMENS)	80 VA	X	10	=	800 VA
SL2 (18,000 LUMENS)	180 VA	X	3	=	540 VA
SL3 (25,000 LUMENS)	200 VA	X	0	=	0 VA
MPP	0 VA	X		=	0 VA
			TOTAL LOAD	=	1340 VA
	1340 VA	/	240	V =	5.58 AMPS @240V-1PH

NEW

MOUNTING: PEDESTAL — **PANEL "MPP1"** — 120/240V-1PH-3W

NEMA 3R METER POWER PEDESTAL

FEEDER: BOTTOM — Minimum A.I.C.= 10,000 AMPS — 100 AMP MAIN BREAKER

				BRANCH BREAKER								
				LEFT PHASE LOAD			RIGHT PHASE LOAD					
DESCRIPTION	Size	P	Ckt#	L1	L2		L1	L2	Ckt#	Size	P	DESCRIPTION
LIGHTING ON SIGNAL POLES	20	1	1	440					2	20	1	SPARE
LIGHTING ON SIGNAL POLES	20	1	3		360			2800	4	50	1	TRAFFIC CONTROLLER
MAINTENANCE RECEPTACLE	20	1	5	180			200		6	15	1	MPP1 LTG. CNTRL. CKT.
				620	360		200	2800				
				820	3160	Total Connected V.A.						
					3980	=Total Connected VA Both Phases						

LOAD	CONNECTED	D.FACT.	Est. KVA	AMPS
LIGHTING	800 VA	1.25	1.00	
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18	
RECEPTACLES (REMAINING)	VA	0.50	0.00	
MOTOR (LARGEST)	0 VA	1.25	0.00	
MOTORS (REMAINING)	0 VA	1.00	0.00	
ELECTRICAL HEATING	0 VA	1.25	0.00	
ELECTRICAL MISC.	3000 VA	1.00	3.00	
TOTAL ESTIMATED LOAD	3980 VA		4.18	17

180 VA=Total Receptacle Load

NOTE:

ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.

NEW

MOUNTING: PEDESTAL — **PANEL "MPP2"** — 120/240V-1PH-3W

NEMA 3R METER POWER PEDESTAL

FEEDER: BOTTOM — Minimum A.I.C.= 10,000 AMPS — 100 AMP MAIN BREAKER

				BRANCH BREAKER								
				LEFT PHASE LOAD			RIGHT PHASE LOAD					
DESCRIPTION	Size	P	Ckt#	L1	L2		L1	L2	Ckt#	Size	P	DESCRIPTION
LIGHTING ON SIGNAL POLES	20	1	1	360					2	20	1	SPARE
LIGHTING ON SIGNAL POLES	20	1	3		360			2800	4	50	1	TRAFFIC CONTROLLER
MAINTENANCE RECEPTACLE	20	1	5	180			200		6	15	1	MPP2 LTG. CNTRL. CKT
				540	360		200	2800				
				740	3160	Total Connected V.A.						
					3900	=Total Connected VA Both Phases						

LOAD	CONNECTED	D.FACT.	Est. KVA	AMPS
LIGHTING	720 VA	1.25	0.90	
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18	
RECEPTACLES (REMAINING)	VA	0.50	0.00	
MOTOR (LARGEST)	0 VA	1.25	0.00	
MOTORS (REMAINING)	0 VA	1.00	0.00	
ELECTRICAL HEATING	0 VA	1.25	0.00	
ELECTRICAL MISC.	3000 VA	1.00	3.00	
TOTAL ESTIMATED LOAD	3900 VA		4.08	17

180 VA=Total Receptacle Load

NOTE:

ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.

NEW

MOUNTING: PEDESTAL — **PANEL "MPP3"** — 120/240V-1PH-3W

NEMA 3R METER POWER PEDESTAL

FEEDER: BOTTOM — Minimum A.I.C.= 10,000 AMPS — 100 AMP MAIN BREAKER

				BRANCH BREAKER								
				LEFT PHASE LOAD			RIGHT PHASE LOAD					
DESCRIPTION	Size	P	Ckt#	L1	L2		L1	L2	Ckt#	Size	P	DESCRIPTION
LIGHTING ON SIGNAL POLES	20	1	1	360					2	20	1	SPARE
LIGHTING ON SIGNAL POLES	20	1	3		360			2800	4	50	1	TRAFFIC CONTROLLER
MAINTENANCE RECEPTACLE	20	1	5	180			200		6	15	1	MPP3 LTG. CNTRL. CKT.
				540	360		200	2800				
				740	3160	Total Connected V.A.						
					3900	=Total Connected VA Both Phases						

LOAD	CONNECTED	D.FACT.	Est. KVA	AMPS
LIGHTING	720 VA	1.25	0.90	
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18	
RECEPTACLES (REMAINING)	VA	0.50	0.00	
MOTOR (LARGEST)	0 VA	1.25	0.00	
MOTORS (REMAINING)	0 VA	1.00	0.00	
ELECTRICAL HEATING	0 VA	1.25	0.00	
ELECTRICAL MISC.	3000 VA	1.00	3.00	
TOTAL ESTIMATED LOAD	3900 VA		4.08	17

180 VA=Total Receptacle Load

NOTE:

ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.

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As Constructed
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Revised:
Void:

ELECTRICAL SCHEDULES

Designer: BN
Detailer: GG
Sheet Subset: LIGHT DETAIL
Structure Numbers
Subset Sheets: LD07 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 305

$PLOT_INFO$

PP1 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
PP1-A	PP1-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	3" HDPE BORE 48" BELOW GRADE
PP1-B	PP1-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	2" PVC 30" BELOW GRADE
PP1-C	PP1-L1 AND/OR PP1-L2 AS SHOWN ON PLANS	120-HOT, NEU	2#12 THWN CU	BLK AND/OR RED, WHT	1" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#4 THWN CU	GREEN	

PP2 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
PP2-A	PP2-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	3" HDPE BORE 48" BELOW GRADE
PP2-B	PP2-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	2" PVC 30" BELOW GRADE
PP2-C	PP2-L1 AND/OR PP2-L2 AS SHOWN ON PLANS	120-HOT, NEU	2#12 THWN CU	BLK AND/OR RED, WHT	1" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#4 THWN CU	GREEN	
PP2-D	PP2-L1,L2	120/240V-HOT,HOT,NEU	3#12 THWN-2 CU	BLK,RED,WHT	1" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#4 THWN-2 CU	GREEN	

PP3 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
PP3-A	PP3-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	3" HDPE BORE 48" BELOW GRADE
PP3-B	PP3-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	2" PVC 30" BELOW GRADE
PP3-C	PP3-L1 AND/OR PP3-L2 AS SHOWN ON PLANS	120-HOT, NEU	2#12 THWN CU	BLK AND/OR RED, WHT	1" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#4 THWN CU	GREEN	
PP3-D	PP3-L1,L2	120/240V-HOT,HOT,NEU	3#12 THWN-2 CU	BLK,RED,WHT	1" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#4 THWN-2 CU	GREEN	

PP4 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
PP4-A	PP4-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	3" HDPE BORE 48" BELOW GRADE
PP4-B	PP4-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	2" PVC 30" BELOW GRADE
PP4-C	PP4-L1 AND/OR PP4-L2 AS SHOWN ON PLANS	120-HOT, NEU	2#12 THWN CU	BLK AND/OR RED, WHT	1" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#4 THWN CU	GREEN	

PP5 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
PP5-A	PP5-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	3" HDPE BORE 48" BELOW GRADE
PP5-B	PP5-L1,L2	120/240V-HOT,HOT,NEU/GND	#1/0 AL TRIPLEX	BLK,RED,WHT	2" PVC 30" BELOW GRADE
PP5-C	PP5-L1 AND/OR PP5-L2 AS SHOWN ON PLANS	120-HOT, NEU	2#12 THWN CU	BLK AND/OR RED, WHT	1" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#4 THWN CU	GREEN	

MPP1 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
MPP1-A	MPP1-1,3	120/240V-HOT,HOT,NEU	3#10-THWN CU	BLK,RED,WHT	TRAFFIC SIGNAL CONDUIT
	GROUND	120/240V-GND	1#10-THWN CU	GREEN	
MPP1-B	MPP1-4	120-HOT,NEU	2#6-THWN-2 CU	RED,WHT	2" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#10-THWN-2 CU	GREEN	
MPP1-C	MPP1-1,3	120/240V-HOT,HOT,NEU	3#10-THWN-2 CU	BLK,RED,WHT	2" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#10-THWN-2 CU	GREEN	

MPP2 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
MPP2-A	MPP2-1,3	120/240V-HOT,HOT,NEU	3#10-THWN CU	BLK,RED,WHT	TRAFFIC SIGNAL CONDUIT
	GROUND	120/240V-GND	1#10-THWN CU	GREEN	
MPP2-B	MPP2-3	120V-HOT,NEU	2#10-THWN CU	RED,WHT	TRAFFIC SIGNAL CONDUIT
	GROUND	120/240V-GND	1#10-THWN CU	GREEN	
MPP2-C	MPP2-4	120V-HOT,NEU	2#6-THWN-2 CU	RED,WHT	2" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#10-THWN-2 CU	GREEN	
MPP2-D	MPP2-1,3	120/240V-HOT,HOT,NEU	3#10-THWN-2 CU	BLK,RED,WHT	2" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#10-THWN-2 CU	GREEN	

MPP3 BRANCH FEEDER SCHEDULE

KEY	CKT. NUMBERS	VOLTAGE	WIRE SIZE	COLOR	CONDUIT SIZE & TYPE
MPP3-A	MPP3-1,3	120/240V-HOT,HOT,NEU	3#10-THWN CU	BLK,RED,WHT	TRAFFIC SIGNAL CONDUIT
	GROUND	120/240V-GND	1#10-THWN CU	GREEN	
MPP3-B	MPP3-1	120V-HOT,NEU	2#10-THWN CU	BLK,WHT	TRAFFIC SIGNAL CONDUIT
	GROUND	120/240V-GND	1#10-THWN CU	GREEN	
MPP3-C	MPP3-3	120V-HOT,NEU	2#10-THWN CU	RED,WHT	TRAFFIC SIGNAL CONDUIT
	GROUND	120/240V-GND	1#10-THWN CU	GREEN	
MPP3-D	MPP3-4	120V-HOT,NEU	2#6-THWN-2 CU	RED,WHT	2" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#10-THWN-2 CU	GREEN	
MPP3-E	MPP3-1,3	120/240V-HOT,HOT,NEU	3#10-THWN-2 CU	BLK,RED,WHT	2" PVC 30" BELOW GRADE
	GROUND	120/240V-GND	1#10-THWN-2 CU	GREEN	

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Subset Sheets: LD08 of 08

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Sheet Number 306

$PLOT_INFO$

CONSTRUCTION TRAFFIC CONTROL SIGNS

SIGN CODE	LEGEND	DIMENSIONS	CONSTRUCTION TRAFFIC SIGN (EACH)		
			PANEL SIZE		
			630-80341	630-80342	630-80343
			A	B	C
CUSTOM	"MINERAL TRAIL CLOSED"	36" x 36"	2		
G20-5P	"WORK/ZONE"	24" x 18"	6		
G20-10	"XYZ/CONSTRUCTION/THANKS YOU/..."	48" x 48"		6	
G20-11	"ROAD/WORK/(DATE...)"	48" x 48"		6	
M4-8A	"END DETOUR"	30" x 18"	2		
M4-9aL	BIKES AND PEDS "DETOUR" LEFT ARROW	30" x 24"	8		
M4-9aR	BIKES AND PEDS "DETOUR" RIGHT ARROW	30" x 24"	4		
M4-9S	"DETOUR" STRAIGHT ARROW	30" x 24"	2		
R2-1(XX)	"SPEED/LIMIT/XX"	30" x 36"	6		
R2-6P	"FINES/DOUBLE"	24" x 18"	4		
R4-1	"DO/NOT/PASS"	24" x 30"	6		
R4-2	"PASS/WITH/CARE"	24" x 30"	4		
R9-9	"SIDEWALK CLOSED"	24" x 12"	4		
R52-6a	"BEGIN/FINES/DOUBLE/IN WORK/ZONE"	36" x 48"		6	
R52-6b	"END/FINES/DOUBLE/IN WORK/ZONE"	36" x 48"		6	
W4-2R	RIGHT LANE CLOSED SYMBOL	36" x 36"	4		
W5-1	"ROAD NARROWS"	36" x 36"	2		
W16-2a	"1500 FT"	24" x 18"	2		
W20-1	"ROAD/WORK/(DIST.)"	36" x 36"	6		
W20-4	"ONE LANE/ROAD/AHEAD"	36" x 36"	2		
W20-5L	"LEFT LANE/CLOSED/(DIST.)"	36" x 36"	2		
W20-5R	"RIGHT LANE/CLOSED/(DIST.)"	36" x 36"	2		
W20-7	FLAGGER SYMBOL	36" x 36"	4		
W21-5aR	"RIGHT/SHOULDER/CLOSED"	36" x 36"	2		
PROJECT TOTALS			74	24	0

OTHER TRAFFIC CONTROL DEVICES

ITEM NUMBER	DESCRIPTION	SIZE	UNIT	QUANTITY
627-00013	PAVEMENT MARKING PAINT (HIGH BUILD)		GAL	500
630-00000	FLAGGING		HOUR	500
630-00003	UNIFORM TRAFFIC CONTROL		HOUR	50
630-00007	TRAFFIC CONTROL INSPECTION		DAY	160
630-00012	TRAFFIC CONTROL MANAGEMENT		DAY	400
630-80335	BARRICADE (TYPE 3M-A) (TEMPORARY)		EACH	28
630-80340	PEDESTRIAN BARRICADE (ADA)		LF	36
630-80355	PORTABLE MESSAGE SIGN PANEL		EACH	4
630-80356	ADVANCE WARNING FLASHING OR SEQUENCING ARROW PANEL (A TYPE)		EACH	4
630-80360	DRUM CHANNELIZING DEVICE		EACH	150
630-80363	DRUM CHANNELIZING DEVICE (WITH LIGHT) (FLASHING)		EACH	10
630-80370	BARRIER (TEMPORARY)		LF	1,000
630-80380	TRAFFIC CONE	28"	EACH	500
630-80393	STACKABLE VERTICAL PANELS		EACH	150
630-85010	IMPACT ATTENUATOR (TEMPORARY)		EACH	4
630-85041	MOBILE ATTENUATOR		DAY	100

NOTES:

1. ADVANCED WARNING SIGNS SHALL BE POST MOUNTED AND PLACED IN ACCORDANCE WITH THE STANDARD S-614 "GROUND SIGN PLACEMENT." ALL OTHER SIGNS MAY BE MOUNTED ON APPROVED TEMPORARY STANDS AND MOVED WITH THE CONSTRUCTION OPERATION AND MOVED WITH THE CONSTRUCTION OPERATION, AS APPROVED BY THE ENGINEER.
2. W20-1 SIGNS SHALL BE MOUNTED WITH FLASHING BEACON (PORTABLE) AT 1000 FT AND 1500 FT IN ADVANCE OF THE BEGINNING OF THE WORK ZONE.
3. BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS, THE FINAL LOCATION OF SIGNS IS SUBJECT TO THE APPROVAL OF THE ENGINEER.
4. CONTRACTOR TO SUBMIT CDOT FORM 568 FOR TEMPORARY SPEED LIMIT REDUCTIONS.
5. IMPACT ATTENUATORS SHALL BE PROVIDED IN ACCORDANCE WITH THE POSTED SPEED LIMITS.
6. FULL COMPLIANCE PAVEMENT MARKING SHALL BE REQUIRED AT THE END OF EACH WORKING DAY, IN ACCORDANCE WITH STANDARD S-627-1 "PAVEMENT MARKINGS". ALL CONFLICTING MARKINGS MUST BE REMOVED BY THE END OF EACH WORKING DAY. TEMPORARY PAVEMENT MARKINGS SHALL INCLUDE CENTER, EDGE, AND CHANNELIZING LINES, AS APPROPRIATE PER MUTCD. MULTIPLE APPLICATIONS MAY BE REQUIRED DURING CONSTRUCTION AND WILL NOT BE PAID
7. REMOVAL OF STRIPING ON EXISTING PAVEMENT AND FOR EACH CONSTRUCTION PHASE SHALL NOT BE PAID FOR SEPERATLY BUT INCLUDED IN THE COST OF THE WORK.
8. FINAL PLACEMENT OF PEDESTRIAN AND BYCYCLE DETOUR SIGNAGE TO BE APPROVED BY PROJECT ENGINEER.
9. ALL TEMPORARY BARRIER SHALL BE CONCRETE PER CDOT STANDARD SPECIFICATIONS, 630.08A.

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JANELLE KAY JAHNKE
38096
10/06/2025
PROFESSIONAL ENGINEER

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Print Date: 2024-11-04
File Name: 23574_TRF-CNT_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

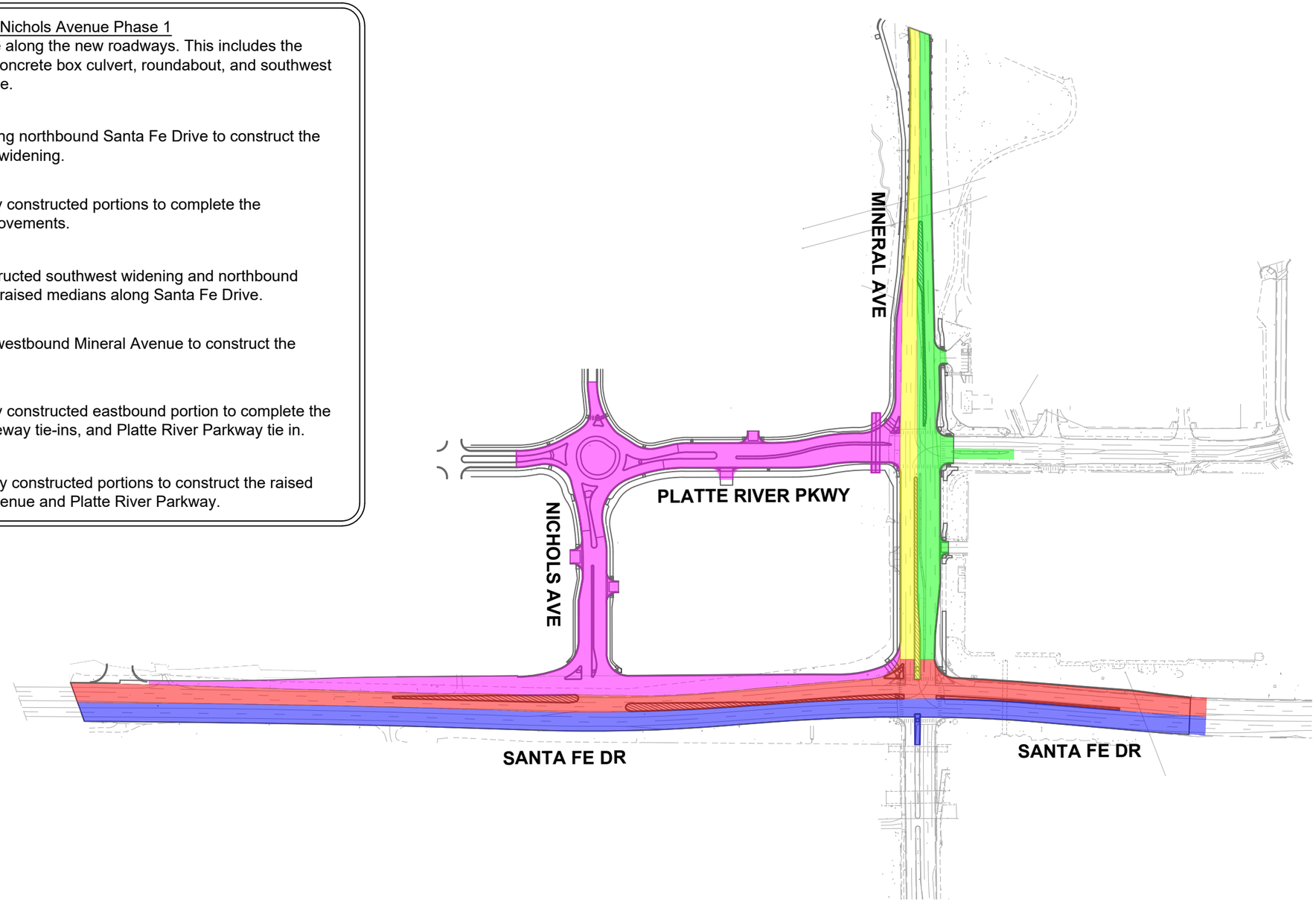
SANTA FE DR
TABULATION OF TRAFFIC CONTROL

Designer: OVELASCO
Detailer: BHEDGES
Structure Numbers
Sheet Subset: TRF CNT TAB
Subset Sheets: 01 of 01

Project No./Code
AQC M810-017
23574
Sheet Number 307

LEGEND

- Platte River Parkway and Nichols Avenue Phase 1
  Construction to take place along the new roadways. This includes the construction for the dual concrete box culvert, roundabout, and southwest widening of Santa Fe Drive.
- Santa Fe Drive Phase 1
  Traffic to shift along existing northbound Santa Fe Drive to construct the remainder of southbound widening.
- Santa Fe Drive Phase 2
  Traffic to shift to the newly constructed portions to complete the northbound direction improvements.
- Santa Fe Drive Phase 3
  Shift traffic to newly constructed southwest widening and northbound Santa Fe to construct the raised medians along Santa Fe Drive.
- Mineral Avenue Phase 1
  Traffic to shift to existing westbound Mineral Avenue to construct the eastbound direction.
- Mineral Avenue Phase 2
  Traffic to shift to the newly constructed eastbound portion to complete the westbound direction, driveway tie-ins, and Platte River Parkway tie in.
- Mineral Avenue Phase 3
  Shift traffic along the newly constructed portions to construct the raised medians along Mineral Avenue and Platte River Parkway.



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HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

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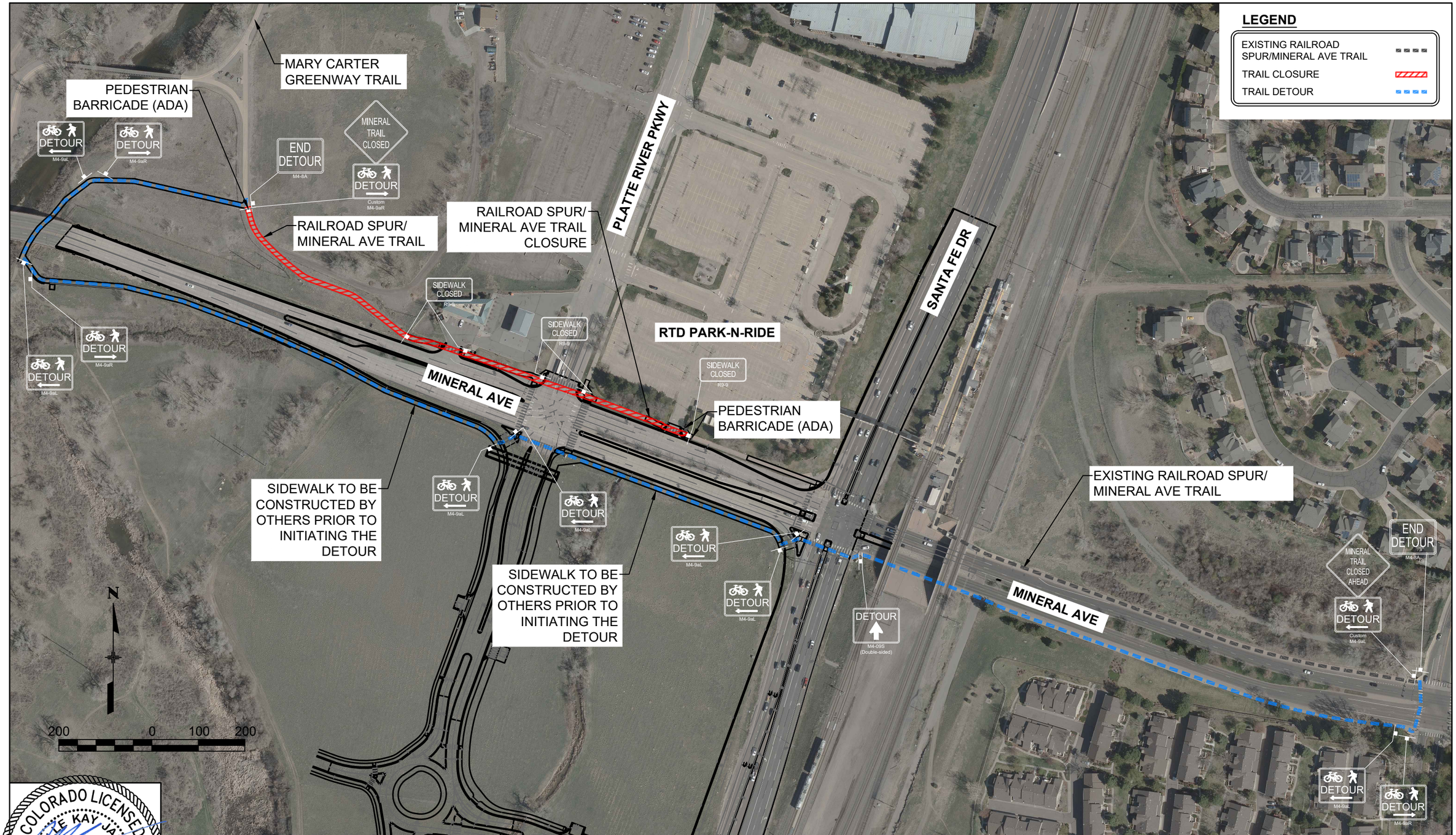
No Revisions:			AQC M810-017
Revised:	Designer: OVELASCO	Structure Numbers	23574
Void:	Detailer: SCASACELI		Sheet Number 308
	Sheet Subset:	Subset Sheets: 01 of 01	

$PLOT_INFO$



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MINERAL AVE TRAIL
CONSTRUCTION TRAIL DETOUR

Designer:	OVELASCO	Structure Numbers	
Detailer:	GPRINCE		
Sheet Subset:		Subset Sheets:	01 of 01

Project No./Code	
AQC M810-017	
23574	
Sheet Number	309

$PLOT_INFO$

TABULATION OF SIGNS

Sign No.	Location / Alignment	Station	Direction Of Travel	MUTCD Sign Code	Sign Panel Size W"	x	H"	Background Color	Legend	202-00805 Removal of Overhead Sign Structure EACH Plan	202-00805 As Const.	202-00810 Removal of Ground Sign EACH Plan	202-00810 As Const.	210-00810 Reset Ground Sign EACH Plan	210-00810 As Const.	503-00048 Drilled Shaft (48 Inch) LF Plan	503-00048 As Const.	Sign Panel 614-00011 Class I SF Plan	Sign Panel 614-00011 As Const.	Sign Panel 614-00012 Class II SF Plan	Sign Panel 614-00012 As Const.	Sign Panel 614-00013 Class III SF Plan	Sign Panel 614-00013 As Const.	Number of Posts (FIO)	614-00216 Steel Sign Post (2x2 Inch Tubing) LF Plan	614-00216 As Const.	614-00612 Steel Sign Post (W6x12) LF Plan	614-00612 As Const.	614-01583 Steel Sign Support (2-1/2 In Round Sch 80) (Post & Slipbase) EACH Plan	614-01583 As Const.	614-03001 Concrete Footing (Type 1) EACH Plan	614-03001 As Const.	614-32400 Monotube Overhead Sign Cantilever (24 Inch Diameter) EACH Plan	614-32400 As Const.	614-80003 Rectangular Rapid Flashing Beacon EACH Plan	614-80003 As Const.	Remarks
A1	SANTA FE DR NB	103+30	NB	D3-2 MOD	72	x	48	GREEN	NICHOLS AVENUE NEXT SIGNAL											24.0				2					2								SEE SIGN DETAIL SHEETS
A2	SANTA FE DR NB	100+65	NB	REMOVE								1																									
A3	SANTA FE DR NB	100+50	NB	R52-7A	36	x	48	WHITE						1										1					1								RESET FROM STA 107+50
B1	SANTA FE DR NB	105+70	NB	D3-2 MOD	108	x	60	GREEN	MINERAL AVE WEST / LEFT NEXT SIGNAL MINERAL AVE EAST / RIGHT SECOND SIGNAL											45.0				2					2								SEE SIGN DETAIL SHEETS
B2	SANTA FE DR NB	106+70	NB	SPECIAL	96	x	66	GREEN	RTD LITTLETON-MINERAL / PARK-N-RIDE / NEXT LEFT											44.0				2					2								SEE SIGN DETAIL SHEETS
B3	SANTA FE DR NB	108+75	NB	SPECIAL	84	x	54	GREEN	TO / MINERAL AVE / ← WEST											31.5				2					2								SEE SIGN DETAIL SHEETS
B4	SANTA FE DR NB	108+51	NB	R4-7R	30	x	36	WHITE												7.5				1					1								
				OM-3L	12	x	36	YELLOW										3.0																			
B5	SANTA FE DR SB	207+10	SB	SPECIAL	264	x	120	GREEN								20						220.0												1			
B6	SANTA FE DR SB	209+09	SB	REMOVE						1																											
B7	SANTA FE DR NB	110+58	NB	SPECIAL	84	x	54	GREEN	TO / MINERAL AVE / ← WEST											31.5				2					2								SEE SIGN DETAIL SHEETS
C1	SANTA FE DR NB	112+28	NB	REMOVE								1																									
C2	SANTA FE DR SB	213+28	SB	R4-7R	30	x	36	WHITE												7.5				1					1								
				OM-3L	12	x	36	YELLOW										3.0																			
C3	SANTA FE DR NB	114+65	NB	R4-7R	30	x	36	WHITE												7.5				1					1								
				OM-3L	12	x	36	YELLOW										3.0																			
C4	SANTA FE DR NB	114+83	NB	REMOVE								1																									
C5	SANTA FE DR SB	216+95	SB	SPECIAL	84	x	42	GREEN	MINERAL AVE / 'U ARROW' EAST															2					2								SEE SIGN DETAIL SHEETS
				R5-2MOD	24	x	36	WHITE	NO TRUCKS OVER 12,000 GVW									6.0																			
C6	SANTA FE DR NB	116+55	NB	REMOVE								1																									
D1	SANTA FE DR NB	119+36	NB	SPECIAL	84	x	36	GREEN	MINERAL AVE / EAST →															2					2								SEE SIGN DETAIL SHEETS
D2	SANTA FE DR SB	221+17	SB	SPECIAL	36	x	60	GREEN	MINERAL / AVE / EAST / 'U ARROW'											15.0				1					1								SEE SIGN DETAIL SHEETS
D3	SANTA FE DR SB	221+85	SB	R4-7R	30	x	36	WHITE												7.5				1					1								MOUNT REGUALTORY SIGNS BACK-TO-BACK
				OM-3L	12	x	36	YELLOW										3.0																			
				R3-18	36	x	36	WHITE												9.0																	
D4	SANTA FE DR NB	123+08	NB	R4-7R	30	x	36	WHITE												7.5				1					1								MOUNT REGUALTORY SIGNS BACK-TO-BACK
				OM-3L	12	x	36	YELLOW										3.0																			
				R3-18	36	x	36	WHITE												9.0																	
D5	SANTA FE DR SB	223+65	SB	R3-7R	36	x	36	WHITE												9.0				1					1								
D6	SANTA FE DR SB	224+15	SB	SPECIAL	54	x	48	GREEN	MINERAL AVE / WEST / 'U' ARROW / EAST											18.0				1					1								SEE SIGN DETAIL SHEETS
E1	SANTA FE DR SB	225+13	SB	REMOVE								1																									
E2	SANTA FE DR NB	127+37	NB	W4-2R	36	x	36	YELLOW												9.0				1					1								
E3	SANTA FE DR SB	225+83	SB	SPECIAL	72	x	66	GREEN	MINERAL AVE / WEST / 'U' ARROW / EAST											33.0				2					2								SEE SIGN DETAIL SHEETS
E4	SANTA FE DR SB	227+97	SB	REMOVE								1																									
E5	SANTA FE DR SB	228+06	SB	R3-7R	36	x	36	WHITE												9.0				1					1								
E6	SANTA FE DR SB	229+65	SB	RESET										1																							
E7	SANTA FE DR SB	230+40	SB	D3-2 MOD	108	x	60	GREEN	MINERAL AVE WEST / RIGHT NEXT SIGNAL MINERAL AVE EAST / U-TURN SECOND SIGNAL											45.0				2					2								SEE SIGN DETAIL SHEETS
E8	SANTA FE DR SB	227+71	SB	R4-7R	30	x	36	WHITE												7.5				1					1								
				OM-3L	12	x	36	YELLOW										3.0																			
E9	SANTA FE DR SB	231+73	SB	REMOVE								1																									
E10	SANTA FE DR NB	231+77	SB	SPECIAL	96	x	66	GREEN	RTD LITTLETON-MINERAL / PARK-N-RIDE / NEXT LEFT											44.0				2					2								SEE SIGN DETAIL SHEETS
									SHEET 1 SUBTOTALS	**1**		**7**		**2**		**20**		**24.0**		**421.0**		**220.0**		**32**	**0.0**		**0.0**		**32**		**0**		**1**		**0**		

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10/10/20205
PROFESSIONAL ENGINEER

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Unit Information

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TABULATION OF SIGNING AND STRIPING

Designer: GBAKER
Detailer: GBAKER
Structure Numbers
Sheet Subset: TRAFFIC TAB
Subset Sheets: 01 of 09

Project No./Code
AQC M810-017
23574
Sheet Number 310

$PLOT_INFO$

TABULATION OF SIGNS

Sign No.	Location / Alignment	Station	Direction Of Travel	MUTCD Sign Code	Sign Panel Size W"	x	H"	Background Color	Legend	202-00805 Removal of Overhead Sign Structure EACH Plan	As Const.	202-00810 Removal of Ground Sign EACH Plan	As Const.	210-00810 Reset Ground Sign EACH Plan	As Const.	503-00048 Drilled Shaft (48 Inch) LF Plan	As Const.	Sign Panel 614-00011 Class I SF Plan	As Const.	614-00012 Class II SF Plan	As Const.	614-00013 Class III SF Plan	As Const.	Number of Posts (FIO)	614-00216 Steel Sign Post (2x2 Inch Tubing) LF Plan	As Const.	614-00612 Steel Sign Post (W6x12) LF Plan	As Const.	614-01583 Steel Sign Support (2-1/2 In Round Sch 80) (Post & Slipbase) EACH Plan	As Const.	614-03001 Concrete Footing (Type 1) EACH Plan	As Const.	614-32400 Monotube Overhead Sign Cantilever (24 Inch Diameter) EACH Plan	As Const.	614-80003 Rectangular Rapid Flashing Beacon EACH Plan	As Const.	Remarks
F1	SANTA FE DR SB	232+44	SB	REMOVE								1																								
H1	MINERAL AVE	302+30	EB	SPECIAL	84	x	60	GREEN	TO 85 / SANTA FE DR / KEEP RIGHT											35.0				2					2							SEE SIGN DETAIL SHEETS
H2	MINERAL AVE	303+55	EB	REMOVE								1																								
H3	MINERAL AVE	305+34	EB	R4-7R	30	x	36	WHITE												7.5				1					1							
				OM-3L	12	x	36	YELLOW										3.0																		
H4	MINERAL AVE	304+95	EB	SPECIAL	72	x	102	GREEN	DIAGRAMMATIC ARROW / 85 / SOUTH / TO 85 / NORTH													51.0		2			31.0				2						SEE SIGN DETAIL SHEETS
H5	MINERAL AVE	303+30	EB	R2-1	30	x	36	WHITE	SPEED LIMIT 40											7.5				1	13.0											
I1	MINERAL AVE	307+85	EB	R3-7R	36	x	36	WHITE												9.0				1	13.0											
I2	MINERAL AVE	308+60	EB	REMOVE								1																								
I3	MINERAL AVE	309+25	EB	REMOVE								1																								
I4	MINERAL AVE	309+25	EB	M4-5	24	x	12	WHITE	TO									2.0						1	15.3											
				M3-1	24	x	12	WHITE	NORTH									2.0																		
				M1-4	24	x	24	WHITE	85									4.0																		
				M6-1	21	x	15	WHITE	→									2.2																		
I5	MINERAL AVE	309+95	WB	R3-7R	36	x	36	WHITE												9.0				1	13.0											
I6	MINERAL AVE	310+64	WB	R4-7R	30	x	36	WHITE												7.5				1	13.0											
				OM-3L	12	x	36	YELLOW										3.0																		
I7	MINERAL AVE	310+71	EB	W11-2	30	x	30	YELLOW										6.3						1	14.5											
				W16-7P	24	x	12	YELLOW										2.0																		
I8	MINERAL AVE	310+74	EB	R1-2	36	x	36	WHITE												4.5				1	14.0											
I9	MINERAL AVE	312+00	EB	REMOVE								1																								
I10	MINERAL AVE	312+17	WB	R4-7R	30	x	36	WHITE												7.5				1	13.0											
				OM-3L	12	x	36	YELLOW										3.0																		
I11	MINERAL AVE	310+87	EB	R1-2	36	x	36	WHITE												4.5				1	14.0											
I12	MINERAL AVE	310+53	EB	W11-2	30	x	30	YELLOW										6.3						1	14.5											
				W16-7P	24	x	12	YELLOW										2.0																		
J1	MINERAL AVE	313+48	EB	M3-3	24	x	12	WHITE	SOUTH									2.0						1	14.3											INSTALL PER CDOT PLAN S-614-8 USING U-BRACKETS
				M1-4	24	x	24	WHITE	85									4.0																		
				M6-1	21	x	15	WHITE	→									2.2																		
				M4-5	24	x	12	WHITE	TO									2.0																		
				M1-5a	24	x	24	WHITE	C470									4.0																		
				M6-1	21	x	15	WHITE	→									2.2																		
J2	MINERAL AVE	313+76	WB	RESET										1																						
J3	MINERAL AVE	313+86	WB	RESET										1																						
J4	MINERAL AVE	307+85	WB	R3-7R	36	x	36	WHITE												9.0				1	13.0											
J5	MINERAL AVE	313+20	WB	M4-5	24	x	12	WHITE	TO									2.0						1	15.3											
				M3-3	24	x	12	WHITE	SOUTH									2.0																		
				M1-4	24	x	24	WHITE	85									4.0																		
				M6-1	21	x	15	WHITE	←									2.2																		
J6	MINERAL AVE	317+20	WB	REMOVE								1																								
									SHEET 2 SUBTOTALS	**0**		**6**		**2**		**0**		**62.3**		**101.0**		**51.0**		**18**	**179.8**		**31.0**		**3**		**2**		**0**		**0**		

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DAVID SCOTT MILLAR
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10/10/20205
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SANTA FE DR
TABULATION OF SIGNING AND STRIPING

Designer: GBAKER
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Structure Numbers
Sheet Subset: TRAFFIC TAB
Subset Sheets: 02 of 09

Project No./Code
AQC M810-017
23574
Sheet Number 311

$PLOT_INFO$

TABULATION OF SIGNS

Sign No.	Location / Alignment	Station	Direction Of Travel	MUTCD Sign Code	Sign Panel Size W"	x	H"	Background Color	Legend	202-00805 Removal of Overhead Sign Structure EACH Plan	As Const.	202-00810 Removal of Ground Sign EACH Plan	As Const.	210-00810 Reset Ground Sign EACH Plan	As Const.	503-00048 Drilled Shaft (48 Inch) LF Plan	As Const.	Sign Panel 614-00011 Class I SF Plan	As Const.	614-00012 Class II SF Plan	As Const.	614-00013 Class III SF Plan	As Const.	Number of Posts (FIO)	614-00216 Steel Sign Post (2x2 Inch Tubing) LF Plan	As Const.	614-00612 Steel Sign Post (W6x12) LF Plan	As Const.	614-01583 Steel Sign Support (2-1/2 In Round Sch 80) (Post & Slipbase) EACH Plan	As Const.	614-03001 Concrete Footing (Type 1) EACH Plan	As Const.	614-32400 Monotube Overhead Sign Cantilever (24 Inch Diameter) EACH Plan	As Const.	614-80003 Rectangular Rapid Flashing Beacon EACH Plan	As Const.	Remarks
J7	MINERAL AVE	317+29	EB	W11-2	30	x	30	YELLOW										6.3						1					1								
				W16-7P	24	x	12	YELLOW										2.0																			
J8	MINERAL AVE	317+34	EB	R4-7R	30	x	36	WHITE												7.5				1					1								MOUNT REGUALTORY SIGNS BACK-TO-BACK
				OM-3L	12	x	36	YELLOW										3.0																			
				R3-18	30	x	30	WHITE										6.3																			
J9	MINERAL AVE	318+49	WB	R4-7R	30	x	36	WHITE												7.5				1					1								MOUNT REGUALTORY SIGNS BACK-TO-BACK
				OM-3L	12	x	36	YELLOW										3.0																			
				R3-18	30	x	30	WHITE										6.3																			
J10	MINERAL AVE	318+64	EB	REMOVE								1																									
J11	MINERAL AVE	318+65	WB	REMOVE								1																									
J12	MINERAL AVE	316+25	WB	SPECIAL	78	x	48	GREEN	TO 85 / ← SOUTH											26.0				2					2.0								
J13	MINERAL AVE	314+64	EB	REMOVE								1																									
J14	MINERAL AVE	317+01	EB	W11-2	30	x	30	YELLOW										6.3						1					1.0								
				W16-7P	24	x	12	YELLOW										2.0																			
K1	MINERAL AVE	321+00	WB	M3-1	24	x	12	WHITE	NORTH									2.0						1	14.3												
				M1-4	24	x	24	WHITE	85									4.0																			
				M6-1	21	x	15	WHITE	→									2.2																			
K2	MINERAL AVE	322+77	WB	REMOVE								1																									
K3	MINERAL AVE	320+98	WB	SPECIAL	72	x	54	GREEN	↑ / TO 85 / SOUTH											27.0				2					2.0								SEE SIGN DETAIL SHEETS
K4	MINERAL AVE	323+59	WB	M4-5	24	x	12	WHITE	TO									2.0						1	16.8												
				M3-3	24	x	12	WHITE	SOUTH									2.0																			
				M1-4	24	x	24	WHITE	85									4.0																			
				M6-3	21	x	15	WHITE	↑									2.2																			
				M5-4	24	x	18	WHITE	LEFT LANE									3.0																			
K5	MINERAL AVE	325+95	WB	SPECIAL	96	x	60	GREEN	TO 85 SOUTH / SANTA FE DR / LEFT SECOND SIGNAL											40.0				2					2.0								SEE SIGN DETAIL SHEETS
M1	NICHOLS AVE	503+68	WB	R1-2	36	x	36	WHITE												4.5				1	14.0												
M2	PLATTE RIVER PKWY	401+38	NB	W2-6	30	x	30	YELLOW										6.3						1	12.5												
M3	PLATTE RIVER PKWY	403+06	NB	W11-2	30	x	30	YELLOW										6.3						1	13.5												
				W16-7P	24	x	12	YELLOW										2.0																			
M4	PLATTE RIVER PKWY	403+14	SB	W11-2	30	x	30	YELLOW										6.3						1	13.5												
				W16-7P	24	x	12	YELLOW										2.0																			
M5	PLATTE RIVER PKWY	403+41	SB	D1-1D	84	x	18	GREEN	PLATTE RIVER PKWY ↗											10.5				1	11.5												SEE SIGN DETAIL SHEETS
M6	PLATTE RIVER PKWY	430+35	NB	R1-2	36	x	36	WHITE												4.5				1	14.0												
M7	PLATTE RIVER PKWY	404+02	NB	R6-4A	48	x	24	WHITE												8.0				1	12.0												
M8	PLATTE RIVER PKWY	404+59	SB	R6-4A	48	x	24	WHITE												8.0				1	12.0												
M9	PLATTE RIVER PKWY	404+93	SB	R1-2	36	x	36	WHITE												4.5																	MOUNT ON LIGHT POLE
M10	PLATTE RIVER PKWY	405+07	SB	R1-2	36	x	36	WHITE												4.5				1	14.0												
M11	PLATTE RIVER PKWY	405+09	NB	D1-1D	84	x	24	GREEN	PLATTE RIVER PKWY / TO MINERAL AVE / ↗											14.0				1	12.0												SEE SIGN DETAIL SHEETS
	PLATTE RIVER PKWY	405+40	NB	RRFB																															2		SOLAR POWERED RRFB PER PLANS / SPECS
	PLATTE RIVER PKWY	405+50	SB	RRFB																															2		SOLAR POWERED RRFB PER PLANS / SPECS
									SHEET 3 SUBTOTALS	**0**		**4**		**0**		**0**		**79.1**		**166.5**		**0.0**		**22**	**160.0**		**0.0**		**10.0**		**0**		**0**		**4**		

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Designer: GBAKER
Detailer: GBAKER
Structure Numbers
Sheet Subset: TRAFFIC TAB
Subset Sheets: 03 of 09

Project No./Code
AQC M810-017
23574
Sheet Number 312

$PLOT_INFO$

TABULATION OF SIGNS

Sign No.	Location / Alignment	Station	Direction Of Travel	MUTCD Sign Code	Sign Panel Size W"	x	H"	Background Color	Legend	202-00805 Removal of Overhead Sign Structure (EACH) Plan	As Const.	202-00810 Removal of Ground Sign (EACH) Plan	As Const.	210-00810 Reset Ground Sign (EACH) Plan	As Const.	503-00048 Drilled Shaft (48 Inch) (LF) Plan	As Const.	Sign Panel 614-00011 Class I (SF) Plan	As Const.	614-00012 Class II (SF) Plan	As Const.	614-00013 Class III (SF) Plan	As Const.	Number of Posts (FIO)	614-00216 Steel Sign Post (2x2 Inch Tubing) (LF) Plan	As Const.	614-00612 Steel Sign Post (W6x12) (LF) Plan	As Const.	614-01583 Steel Sign Support (2-1/2 In Round Sch 80) (Post & Slipbase) (EACH) Plan	As Const.	614-03001 Concrete Footing (Type 1) (EACH) Plan	As Const.	614-32400 Monotube Overhead Sign Cantilever (24 Inch Diameter) (EACH) Plan	As Const.	614-80003 Rectangular Rapid Flashing Beacon (EACH) Plan	As Const.	Remarks
M12	NICHOLS AVE	501+00	EB	W2-6	30	x	30	YELLOW										6.3						1	12.5											
M13	NICHOLS AVE	501+76	WB	W11-2	30	x	30	YELLOW										6.3						1	13.5											
				W16-7P	24	x	12	YELLOW										2.0																		
M14	NICHOLS AVE	501+76	EB	W11-2	30	x	30	YELLOW										6.3						1	13.5											
				W16-7P	24	x	12	YELLOW										2.0																		
M15	NICHOLS AVE	501+90	EB	R1-2	36	x	36	WHITE												4.5				1	14.0											
M16	NICHOLS AVE	502+00	WB	D1-1D	66	x	18	GREEN	NICHOLS AVE ↗											8.3				1	11.5											SEE SIGN DETAIL SHEETS
M17	NICHOLS AVE	502+60	EB	R6-4A	48	x	24	WHITE												8.0				1	12.0											
M18	NICHOLS AVE	503+26	WB	R6-4A	48	x	24	WHITE												8.0				1	12.0											
	NICHOLS AVE	503+80	EB/WB	RRFB																														4		SOLAR POWERED RRFB PER PLANS / SPECS
M19	NICHOLS AVE	503+68	EB	D1-1D	60	x	30	GREEN	NICHOLS AVE / TO 85 / ↗											12.5				1	12.5											SEE SIGN DETAIL SHEETS
M20	PLATTE RIVER PKWY	405+77	SB	R1-5L	36	x	36	WHITE												9.0				1	13.0											
M21	PLATTE RIVER PKWY	405+77	SB	R1-5R	36	x	36	WHITE												9.0				1	13.0											
M22	PLATTE RIVER PKWY	405+20	NB	R1-5L	36	x	36	WHITE												9.0				1	13.0											
M23	PLATTE RIVER PKWY	405+19	NB	R1-5R	36	x	36	WHITE												9.0				1	13.0											
M24	PLATTE RIVER PKWY	504+30	WB	R1-5dL	36	x	42	WHITE												10.5																MOUNT ON LIGHT POLE
M25	PLATTE RIVER PKWY	504+26	WB	R1-5dR	36	x	42	WHITE												10.5				1	13.5											
M26	NICHOLS AVE	503+87	EB	R1-5dL	36	x	42	WHITE												10.5				1	13.5											
M27	NICHOLS AVE	503+77	EB	R1-5dR	36	x	42	WHITE												10.5				1	13.5											
M28	NICHOLS AVE	501+76	EB	R4-7R	30	x	36	WHITE												7.5				1	13.0											
N1	PLATTE RIVER PKWY	406+88	SB	R3-8MOD	42	x	30	WHITE												8.8				1	12.5											
N2	PLATTE RIVER PKWY	406+88	SB	R3-8MOD	42	x	30	WHITE												8.8				1	12.5											
N3	PLATTE RIVER PKWY	407+44	SB	R4-7R	30	x	36	WHITE												7.5				1	13.0											
				OM-3L	12	x	36	YELLOW										3.0																		
N4	PLATTE RIVER PKWY	407+90	SB	D1-5MOD	78	x	54	GREEN	TO / 85 / ROUNDABOUT ARROW											29.3				2				2								SEE SIGN DETAIL SHEETS
N5	PLATTE RIVER PKWY	408+00	WB	R1-1	30	x	30	RED										6.3						1	15.0											
				SPECIAL	36	x	30	YELLOW										7.5																		
N6	PLATTE RIVER PKWY	408+06	NB	R4-7R	30	x	36	WHITE												7.5				1	13.0											
				OM-3L	12	x	36	YELLOW										3.0																		
N7	PLATTE RIVER PKWY	408+25	EB	R1-1	30	x	30	RED										6.3						1	12.5											
N8	PLATTE RIVER PKWY	408+35	EB	R6-1R	36	x	12	WHITE										3.0						1	11.0											
N9	PLATTE RIVER PKWY	408+28	NB	R3-8MOD	42	x	30	WHITE												8.8				1	12.5											
				SPECIAL	36	x	54	GREEN	RTD LOGO / ↑											13.5																PER RTD STANDARDS
N10	PLATTE RIVER PKWY	409+90	NB	R3-7R	36	x	36	WHITE												9.0				1	13.0											
N11	PLATTE RIVER PKWY	410+95	NB	R3-8MOD	66	x	30	WHITE												13.8				2	25.0											
N12	PLATTE RIVER PKWY	410+50	SB	R2-1	30	x	36	WHITE	SPEED LIMIT 30											7.5																MOUNT ON LIGHT POLE
									SHEET 4 SUBTOTALS	**0**		**0**		**0**		**0**		**51.8**		**241.0**		**0.0**		**29**	**347.0**		**0.0**		**2**		**0**		**0**		**4**		

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Structure Numbers
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Subset Sheets: 04 of 09

Project No./Code
AQC M810-017
23574
Sheet Number 313

$PLOT_INFO$

TABULATION OF SIGNS

Sign No.	Location / Alignment	Station	Direction Of Travel	MUTCD Sign Code	Sign Panel Size W"	x	H"	Background Color	Legend	202-00805 Removal of Overhead Sign Structure (EACH) Plan	As Const.	202-00810 Removal of Ground Sign (EACH) Plan	As Const.	210-00810 Reset Ground Sign (EACH) Plan	As Const.	503-00048 Drilled Shaft (48 Inch) (LF) Plan	As Const.	Sign Panel 614-00011 Class I (SF) Plan	As Const.	614-00012 Class II (SF) Plan	As Const.	614-00013 Class III (SF) Plan	As Const.	Number of Posts (FIO)	614-00216 Steel Sign Post (2x2 Inch Tubing) (LF) Plan	As Const.	614-00612 Steel Sign Post (W6x12) (LF) Plan	As Const.	614-01583 Steel Sign Support (2-1/2 In Round Sch 80) (Post & Slipbase) (EACH) Plan	As Const.	614-03001 Concrete Footing (Type 1) (EACH) Plan	As Const.	614-32400 Monotube Overhead Sign Cantilever (24 Inch Diameter) (EACH) Plan	As Const.	614-80003 Rectangular Rapid Flashing Beacon (EACH) Plan	As Const.	Remarks
O1	PLATTE RIVER PKWY	412+15	SB	R4-7R	30	x	36	WHITE												7.5				1	13.0												
				OM-3L	12	x	36	YELLOW										3.0																			
O2	PLATTE RIVER PKWY	415+00	SB	R3-8MOD	66	x	30	WHITE												13.8				2	25.0												
O3	PLATTE RIVER PKWY	415+90	SB	M3-3	24	x	12	WHITE	SOUTH									2.0						1					1								INSTALL PER CDOT PLAN S-614-8 USING U-BRACKETS
				M1-4	24	x	24	WHITE	85									4.0																			
				M6-1	21	x	15	WHITE	←									2.2																			
				M4-5	24	x	12	WHITE	TO									2.0																			
				M3-1	24	x	12	WHITE	NORTH									2.0																			
				M1-4	24	x	24	WHITE	85									4.0																			
				M6-3	21	x	15	WHITE	↑									2.2																			
Q1	NICHOLS AVE	505+27	WB	R3-8MOD	42	x	30	WHITE												8.8				1	12.5												
				SPECIAL	36	x	48	GREEN	RTD LOGO / →											12.0																	PER RTD STANDARDS
Q2	NICHOLS AVE	505+27	WB	R3-8MOD	42	x	30	WHITE												8.8				1	12.5												
Q3	NICHOLS AVE	505+79	NB	R1-1	30	x	30	RED										6.3						1	12.5												
Q4	NICHOLS AVE	505+85	EB	R4-7R	30	x	36	WHITE												7.5				1	13.0												
Q5	NICHOLS AVE	506+12	EB	M3-3	24	x	12	WHITE	SOUTH									2.0						1	14.3												
				M1-4	24	x	24	WHITE	85									4.0																			
				M6-1	21	x	15	WHITE	→									2.2																			
Q6	NICHOLS AVE	506+14	SB	R1-1	30	x	30	RED										6.3							12.5												
Q7	NICHOLS AVE	506+27	SB	R6-1R	36	x	12	WHITE										3.0							11.0												
Q8	NICHOLS AVE	506+73	EB	R3-7R	36	x	36	WHITE												9.0																	MOUNT ON LIGHT POLE
Q9	NICHOLS AVE	506+73	EB	M3-1	24	x	12	WHITE	NORTH									2.0						1	14.3												
				M1-4	24	x	24	WHITE	85									4.0																			
				M6-1	21	x	15	WHITE	←									2.2																			
Q10	NICHOLS AVE	508+63	EB	W11-2	30	x	30	YELLOW										6.3						1					1.0								
				W16-7P	24	x	12	YELLOW										2.0																			
Q11	NICHOLS AVE	505+75	WB	D1-5MOD	84	x	54	GREEN	ROUNDABOUT ARROW / TO / MINERAL / AVE											31.5				2					2.0								SEE SIGN DETAIL SHEETS
Q12	NICHOLS AVE	508+68	EB/WB	R4-7R	30	x	36	WHITE												7.5				1					1.0								
				OM-3L	12	x	36	YELLOW										3.0																			
Q13	NICHOLS AVE	560+74	WB	R2-1	30	x	36	WHITE	SPEED LIMIT 30											7.5																	MOUNT ON LIGHT POLE
Q14	NICHOLS AVE	508+38	EB	W11-2	30	x	30	YELLOW										6.3						1					1.0								
				W16-7P	24	x	12	YELLOW										2.0																			
									SHEET 5 SUBTOTAL	**0**		**0**		**0**		**0**		**72.8**		**113.8**		**0.0**		**15**	**140.5**		**0**		**6**		**0**		**0**		**0**		

SHEET 1 SUBTOTAL										**1**		**7**		**2**		**20**		**24.0**		**421.0**		**220.0**		**32**	**0.0**		**0**		**32**		**0**		**1**		**0**		
SHEET 2 SUBTOTAL										**0**		**6**		**2**		**0**		**62.3**		**101.0**		**51.0**		**18**	**179.8**		**31**		**3**		**2**		**0**		**0**		
SHEET 3 SUBTOTAL										**0**		**4**		**0**		**0**		**79.1**		**166.5**		**0.0**		**22**	**160.0**		**0**		**10**		**0**		**0**		**4**		
SHEET 4 SUBTOTAL										**0**		**0**		**0**		**0**		**51.8**		**241.0**		**0.0**		**29**	**347.0**		**0**		**2**		**0**		**0**		**4**		
SHEET 5 SUBTOTAL										**0**		**0**		**0**		**0**		**72.8**		**113.8**		**0.0**		**15**	**140.5**		**0**		**6**		**0**		**0**		**0**		
TOTALS										**1**		**17**		**4**		**20**		**290.0**		**1044.0**		**271.0**		**116**	**828.0**		**31**		**53**		**2**		**1**		**8**		

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$PLOT_INFO$

TABULATION OF DELINEATORS

STATION		ALIGNMENT	DIRECTION OF TRAVEL	COLOR	612-00041 DELINEATOR (FLEXIBLE) (TYPE I) EACH		612-00042 DELINEATOR (FLEXIBLE) (TYPE II) EACH		COMMENTS
From	To				PLAN	AS CONST.	PLAN	AS CONST.	
108+40	113+30	SANTA FE DR NB	NB MEDIAN	YELLOW			11		
114+70	122+00	SANTA FE DR NB	NB MEDIAN	YELLOW	4				
122+80	127+75	SANTA FE DR NB	NB/SB MEDIAN	YELLOW	3				INCLUDES BACK-TO-BACK DELINEATORS
200+80	213+20	SANTA FE DR SB	SB SHOULDER	CRYSTAL	6		10		
208+50	213+30	SANTA FE DR SB	SB MEDIAN	YELLOW	3				
213+05	213+45	SANTA FE DR SB	SB AT NICHOLS (ISLAND)	CRYSTAL	3				
214+73	221+65	SANTA FE DR SB	SB SHOULDER	CRYSTAL	2		7		
214+75	222+05	SANTA FE DR SB	SB MEDIAN	YELLOW	1		15		
221+50	222+00	SANTA FE DR SB	SB AT MINERAL (ISLAND)	YELLOW	3				
222+97	222+97	SANTA FE DR SB	SB MEDIAN	YELLOW	1				
223+18	229+25	SANTA FE DR SB	SB SHOULDER	CRYSTAL			7		
TOTALS					**26**		**50**		

SEE PLANS FOR DELINEATOR SPACING.
SEE CDOT S-STANDARD S-612-1 FOR ADDITIONAL DELINEATOR PLACEMENT INFORMATION.

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TABULATION OF PAVEMENT MARKINGS

STATION		LOCATION	202-00250 Removal of Pavement Marking	627-00008 Modified Epoxy Pavement Marking				627-00009 Modified Epoxy Pavement Marking(Inlaid)				627-01010 Preformed Plastic Pavement Marking (Type I)(Inlaid)		
				CENTER	EDGE	CHANNELIZING	LANE	CENTER	EDGE		CHANNELIZING	CHANNELIZING		LANE
				DOUBLE YELLOW SOLID	WHITE SOLID	WHITE LANE DROP	WHITE BROKEN	DOUBLE YELLOW SOLID	YELLOW SOLID	WHITE SOLID	WHITE SOLID	WHITE DOTTED EXTENSION	WHITE LANE DROP	WHITE BROKEN
				4 INCH	6 INCH	8 INCH	6 INCH	4 INCH	4 INCH	6 INCH	8 INCH	8 INCH	8 INCH	6 INCH
			SF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
SANTA FE NB														
100+00	106+00	NB		600	600		600							
106+00	108+38	NB						238						
106+00	113+12	NB												712
106+00	121+79	NB								1579				
107+35	113+12	NB									577			
108+21	113+12	NB												491
108+37	113+12	NB							475		475			
114+50	121+79	NB							729		729			1458
123+05	126+32	NB												327
123+05	127+70	NB							465					
123+05	137+50	NB								1478	250			1775
127+70	137+50	NB						980						
129+60	137+50	NB/SB	1613											
SANTA FE SB														
200+00	206+00	SB		600	600	600	600							
206+00	207+20	SB											120	
206+00	208+40	SB						240						
206+00	213+30	SB								730				730
207+20	213+30	SB												610
207+38	210+76	SB											338	
208+40	213+30	SB							490					
210+76	213+50	SB									274			
214+73	216+74	SB									201			
214+73	218+56	SB									383			
214+73	219+41	SB									468			
214+73	221+80	SB							757					1414
216+74	220+00	SB											326	
220+00	222+10	SB									210			
222+50	222+80	NB/SB										245		
223+18	228+06	SB									488			
223+18	227+80	SB							462					
223+18	234+00	SB												2164
227+80	234+00	SB						620						
213+20	214+70	NB/SB										696		
TOTAL SEGMENT LENGTH (LF)				1,200	1,200	600	1,200	2,078	3,378	3,787	4,055	941	784	9,681
ACTUAL SEGMENT LENGTH (LF)				2,400	1,200	150	300	4,156	3,378	3,787	4,055	314	196	2,420
SUBTOTAL (SQ. FT.)				800	600	100	150	1,386	1,126	1,894	2,704	**210**	**131**	**1,211**
SUBTOTAL (GALS)				**10**	**8**	**2**	**2**	**17**	**14**	**23**	**32**			
SHEET 1 SUBTOTAL GALS				**22**				**86**						
SHEET 1 SUBTOTAL SQ.FT.			**1,613**									**1,552**		

STATION	LOCATION	627-30405 Preformed Thermoplastic Pavement Marking (Word- Symbol)					627-30410 Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line)		
		WHITE TURN ARROW	WHITE THRU ARROW	MERGE ARROW	TWO COMBO OR U-TURN ARROW	LETTERING AND ROUTE MARKINGS	PEDESTRIAN CROSSWALK	TRANSVERSE CROSSWALK BAR (12 INCH)	STOP BAR (24 INCH)
		EACH	EACH	EACH	EACH	SF	EACH	LF	LF
SANTA FE NB									
108+38	NB	2							
108+90	NB					24			
109+40	NB					80			
109+90	NB					160			
110+55	NB	2							
112+65	NB	2							
117+41	NB	1							
121+33	NB	1	3						
126+31	NB								
129+10	NB								
SANTA FE SB									
207+38	SB			1					
210+45	SB			1					
215+27	SB	1			2				
216+75	SB	1							
216+94	SB				2				
218+56	SB				2				
223+59	SB	1	3						
225+82	SB	1							
228+06	SB	1							
SANTA FE/NICHOLS INTERSECTION							16		84
SANTA FE/MINERAL INTERSECTION							58	50	164
SUBTOTAL		**209**	**73**	**116**	**165**	**264**	**1,480**	**50**	**496**
SHEET 1 SUBTOTAL SQ.FT.		**827**					**2,026**		

COLORADO LICENSED PROFESSIONAL ENGINEER
DAVID SCOTT MILLAR
36122
10/10/20205

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Horiz. Scale: N/A	Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions

Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

TABULATION OF SIGNING AND STRIPING

Designer: GBAKER
Detailer: GBAKER
Structure Numbers
Sheet Subset: TRAFFIC TAB
Subset Sheets: 07 of 09

Project No./Code
AQC M810-017
23574

$PLOT_INFO$

TABULATION OF PAVEMENT MARKINGS

STATION		LOCATION	202-00250	627-00008						STATION	LOCATION	627-30405				627-30410				
				Modified Epoxy Pavement Marking								Preformed Thermoplastic Pavement Marking (Word- Symbol)				Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line)				
			Removal of Pavement Marking	CENTER	EDGE	CHANNELIZING			LANE											
				DOUBLE YELLOW SOLID	YELLOW SOLID	WHITE SOLID	WHITE DOTTED EXTENSION	WHITE LANE DROP	WHITE BROKEN			WHITE TURN ARROW	WHITE THRU ARROW	THREE COMBO ARROW	LETTERING AND ROUTE MARKINGS	PEDESTRIAN CROSSWALK	PEDESTRIAN / BICYCLE CROSSWALK (10FT X 2FT)	PEDESTRIAN / BICYCLE CROSSWALK (16FT X 2FT)	TRANSVERSE CROSSWALK BAR (12 INCH)	STOP BAR (24 INCH)
			SF	4 INCH	4 INCH	8 INCH	8 INCH	8 INCH	4 INCH			EACH	EACH	SF	SF	EACH	EACH	EACH	LF	LF
				LF	LF	LF	LF	LF	LF											
MINERAL AVE										MINERAL AVE										
300+22	305+28	EB			506					307+85	EB	1								
300+22	305+28	WB			506					308+55	EB	2								
300+22	310+70	EB							1048	309+95	WB	1								
300+22	310+70	WB							1048	310+03	EB	1								
306+61	310+70	EB							409	310+14	EB	2								
307+85	310+70	EB				690				312+72	EB	1								
308+55	310+70	EB				215				312+64	WB	2								
309+15	309+95	WB				80				312+98	WB	1								
310+80	311+80	EB/WB					600			314+42	EB	1								
312+12	312+98	WB				86				314+79	WB	1								
312+12	315+20	WB				308				315+20	WB	2								
312+12	317+20	WB				508			508	316+66	EB		2							
312+98	314+79	WB				181				316+98	WB	1								
312+17	314+42	EB						225		319+20	WB	1	3							
312+17	317+20	EB							503	320+47	WB				80					
314+42	317+50	EB				458				321+10	WB				112					
318+65	321+21	WB				512			256	321+21	WB	1								
318+50	321+21	EB/WB	781							321+66	WB				12					
PLATTE RIVER PKWY										322+76	WB		1							
405+22	408+28	NB		15		15			253	MINERAL DRIVEWAY AT 309+00							5			
405+50	406+86	SB				136				MINERAL/PLATTE INTERSECTION							43	18	52	
406+86	412+20	SB		15		70			534	MINERAL DRIVEWAY AT 314+00							5			
408+54	412+20	NB				366		165		PLATTE RIVER PKWY										
409+88	412+20	NB				464				403+10	NB/SB					6				
413+80	415+13	SB		266		399			133	405+22	NB					5				
415+13	416+50	SB						137		405+50	SB					10				
413+30	416+50	SB	281							405+80	SB	1		1						
										406+80	SB	1		1						
										407+80	NB (driveway)	2						7		20
										408+40	SB (driveway)	1								11
										408+50	NB/SB	2		1						
										409+88	NB	1								
										410+38	NB	2	1							
TOTAL SEGMENT LENGTH (LF)				296	1,012	4,488	600	527	4,692	411+65	NB	3	1							
ACTUAL SEGMENT LENGTH (LF)				592	1,012	4,488	200	132	1,173	415+12	SB	3	1							
SUBTOTAL (SQ. FT.)				198	338	2,992	134	88	391			**451**	**85**	**120**	**204**	**420**	**1,060**	**800**	**52**	**62**
SUBTOTAL (GALS)				**3**	**4**	**36**	**2**	**2**	**5**											
SHEET 2 SUBTOTAL GALS				**52**																
SHEET 2 SUBTOTAL SQ.FT.			**1,062**									**860**				**2,394**				

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10/10/20205
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Detailer: GBAKER
Structure Numbers
Sheet Subset: TRAFFIC TAB
Subset Sheets: 08 of 09

Project No./Code
AQC M810-017
23574
Sheet Number 317

$PLOT_INFO$

TABULATION OF PAVEMENT MARKINGS

STATION		LOCATION	202-00250	627-00008			627-00009				STATION	LOCATION	627-30405				627-30410			
			Removal of Pavement Marking	Modified Epoxy Pavement Marking			Modified Epoxy Pavement Marking(Inlaid)						Preformed Thermoplastic Pavement Marking (Word- Symbol)				Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line)			
				CENTER	CHANNELIZING	LANE	CHANNELIZING			LANE										
				DOUBLE YELLOW SOLID	WHITE SOLID	WHITE BROKEN	WHITE SOLID	WHITE DOTTED EXTENSION	WHITE DOTTED EXTENSION	WHITE BROKEN			WHITE TURN ARROW	WHITE THRU ARROW	TWO COMBO OR U-TURN ARROW	THREE COMBO ARROW	YIELD	PEDESTRIAN CROSSWALK	PEDESTRIAN / BICYCLE CROSSWALK (16FT X 2FT)	STOP BAR (24 INCH)
			SF	4 INCH	8 INCH	4 INCH	8 INCH	8 INCH	12 INCH	4 INCH			EACH	EACH	EACH	SF	EACH	EACH	EACH	LF
				LF	LF	LF	LF	LF	LF	LF										
NICHOLS AVE											NICHOLS AVE									
500+85	501+70	EB/WB		85							501+75	EB/WB						6		
504+10	504+74	EB								64	504+00	EB/WB							11	
504+74	506+73	EB		10	10	199					505+33	WB	1			1				
503+40	505+34	WB					344				505+65	EB (driveway)	2							20
505+33	508+60	WB		10	217	327					506+30	WB (driveway)	1							10
506+73	508+80	EB			564						506+30	WB	1							
											506+73	EB	3							
CHOLS/PLATTE RAB							559	143	165		507+97	WB	1							
											NICHOLS/PLATTE ROUNDABOUT		1	1	2		49			
TOTAL SEGMENT LENGTH (LF)				105	791	526	903	143	165	64										
ACTUAL SEGMENT LENGTH (LF)				210	791	132	301	36	55	16										
SUBTOTAL (SQ. FT.)				70	528	44	201	24	55	6			161	12	55	40	147	120	352	60
SUBTOTAL (GALS)				1	7	1	3	1	1	1										
SHEET 3 SUBTOTAL GALS				9			6													
SHEET 3 SUBTOTAL SQ.FT.			0										268				679			

SUMMARY OF PAVEMENT MARKING QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	SHEET 1 SUBTOTAL	SHEET 2 SUBTOTAL	SHEET 3 SUBTOTAL	TOTAL	AS CONST.
202-00250	Removal of Pavement Marking	SF	1,613	1,062	0	2,675	
627-00008	Modified Epoxy Pavement Marking	GAL	22	52	9	83	
627-00009	Modified Epoxy Pavement Marking(Inlaid)	GAL	86	0	6	92	
627-01010	Preformed Plastic Pavement Marking (Type I)(Inlaid)	SF	1,552	0	0	1,552	
627-30405	Preformed Thermoplastic Pavement Marking (Word- Symbol)	SF	827	860	268	1,955	
627-30410	Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line)	SF	2,026	2,394	679	5,099	

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Sheet Revisions		
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TABULATION OF SIGNING AND STRIPING

Designer: GBAKER
Detailer: GBAKER
Structure Numbers
Sheet Subset: TRAFFIC TAB
Subset Sheets: 09 of 09

Project No./Code
AQC M810-017
23574
Sheet Number 318

$PLOT_INFO$

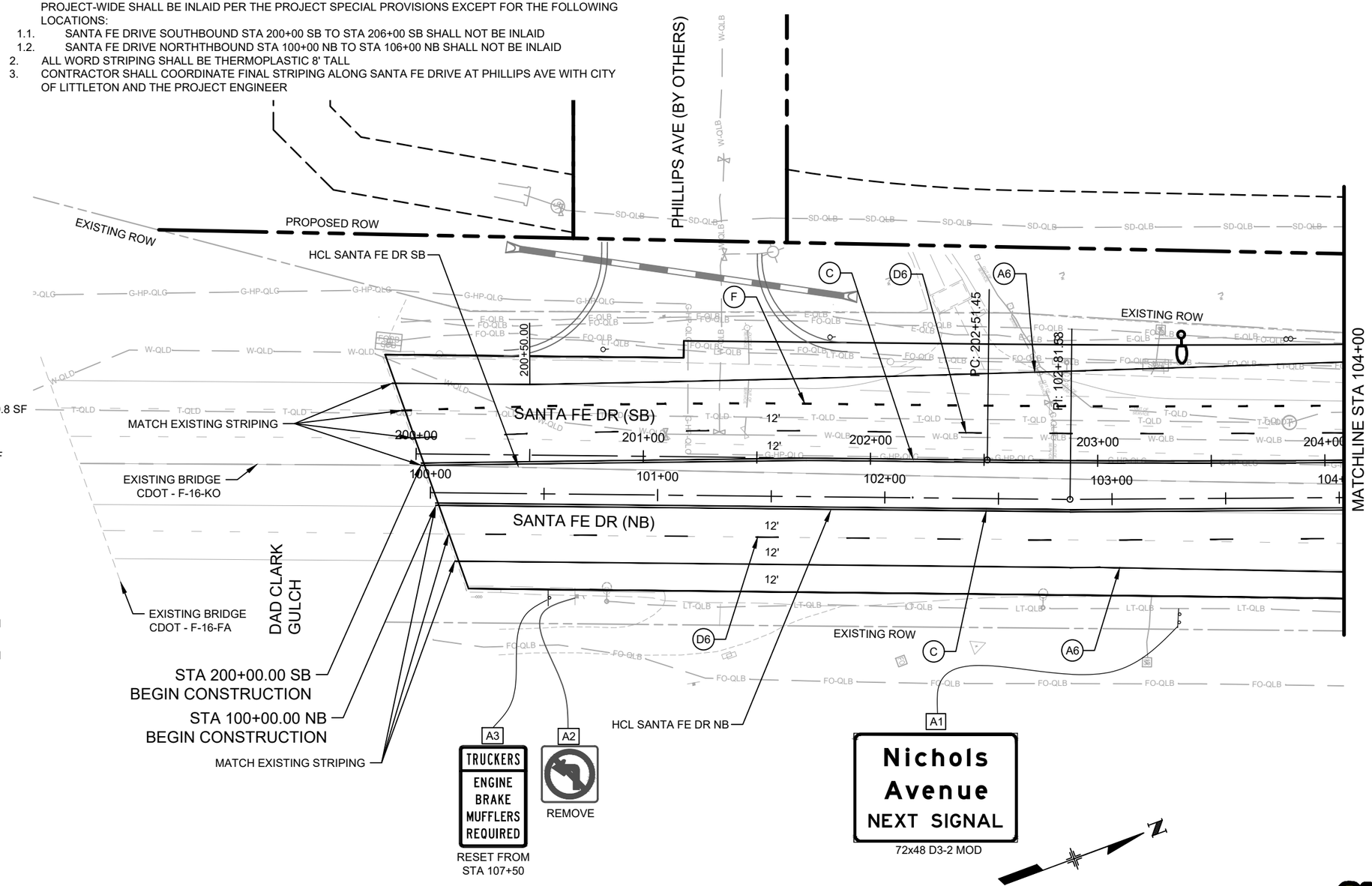
LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

- DELINEATOR TYPE I (CRYSTAL)
- DELINEATOR TYPE II (CRYSTAL)
- DELINEATOR TYPE I (YELLOW)
- DELINEATOR TYPE II (YELLOW)
- DELINEATOR TYPE I (YELLOW-YELLOW, BACK-TO-BACK)

NOTES

1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE AND ALL THERMOPLASTIC PAVEMENT MARKINGS PROJECT-WIDE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS EXCEPT FOR THE FOLLOWING LOCATIONS:
   - 1.1. SANTA FE DRIVE SOUTHBOUND STA 200+00 SB TO STA 206+00 SB SHALL NOT BE INLAID
   - 1.2. SANTA FE DRIVE NORTHTHBOUND STA 100+00 NB TO STA 106+00 NB SHALL NOT BE INLAID
2. ALL WORD STRIPING SHALL BE THERMOPLASTIC 8' TALL
3. CONTRACTOR SHALL COORDINATE FINAL STRIPING ALONG SANTA FE DRIVE AT PHILLIPS AVE WITH CITY OF LITTLETON AND THE PROJECT ENGINEER



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36122
10/10/2025
PROFESSIONAL ENGINEER

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File Name: 23574_TR_SIGN_PLAN(1).DWG	Date:	Comments	Init.
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Unit Information			

HDR
1670 BROADWAY, SUITE 3400
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Littleton Colorado

As Constructed	SANTA FE DR SIGNING AND STRIPING PLAN STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
	Detailer: GBAKER		
Void:	Sheet Subset: TRAFFIC	Subset Sheets: 01 of 17	Sheet Number 319

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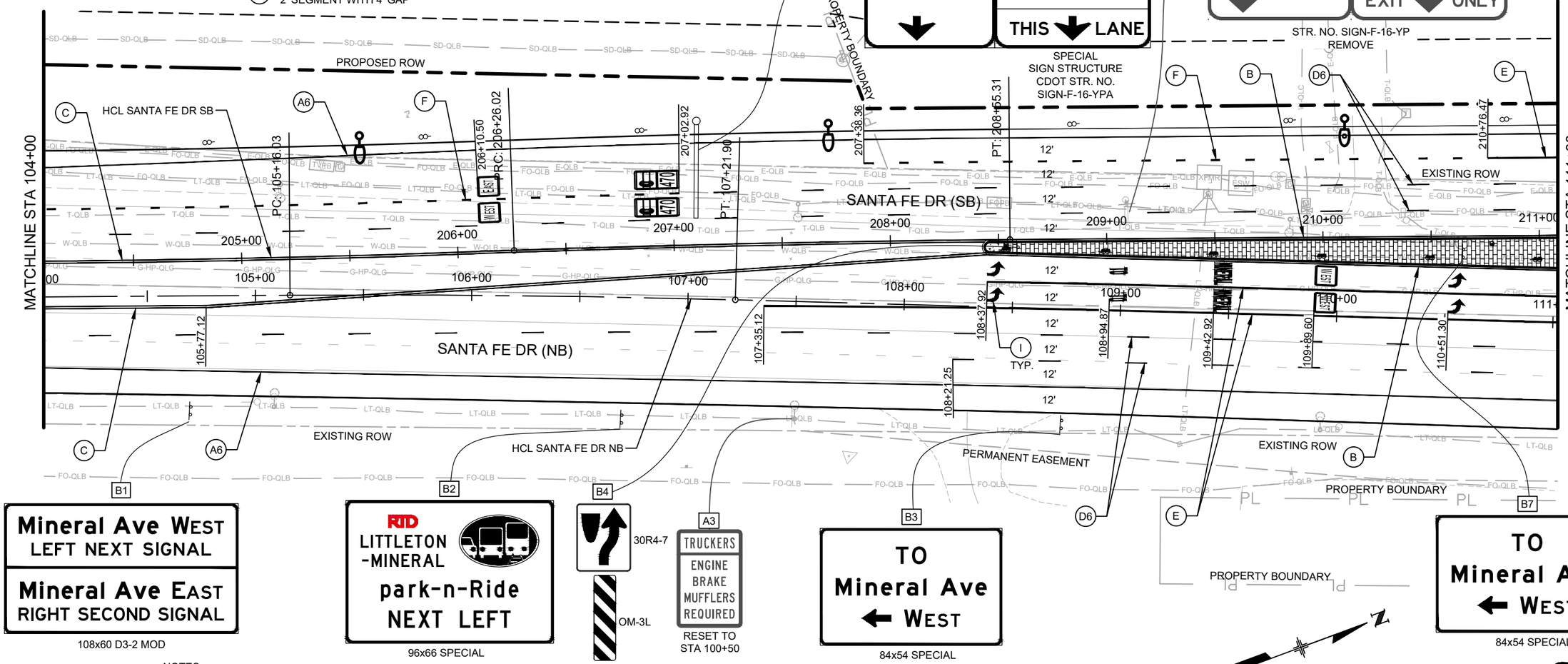
$PLOT_INFO$

LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP
- DELINEATOR TYPE I (CRYSTAL)
- DELINEATOR TYPE I (YELLOW)
- DELINEATOR TYPE I (YELLOW-YELLOW, BACK-TO-BACK)
- DELINEATOR TYPE II (CRYSTAL)
- DELINEATOR TYPE II (YELLOW)



NOTES

1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE AND ALL THERMOPLASTIC PAVEMENT MARKINGS PROJECT-WIDE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS EXCEPT FOR THE FOLLOWING LOCATIONS:
   - 1.1. SANTA FE DRIVE SOUTHBOUND STA 200+00 SB TO STA 206+00 SB SHALL NOT BE INLAID
   - 1.2. SANTA FE DRIVE NORTHTHBOUND STA 100+00 NB TO STA 106+00 NB SHALL NOT BE INLAID
2. ALL WORD STRIPING SHALL BE THERMOPLASTIC 8' TALL
3. CONTRACTOR SHALL COORDINATE FINAL STRIPING ALONG SANTA FE DRIVE AT PHILLIPS AVE WITH CITY OF LITTLETON AND THE PROJECT ENGINEER

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DAVID SCOTT MILLAR
36122
10/10/20205
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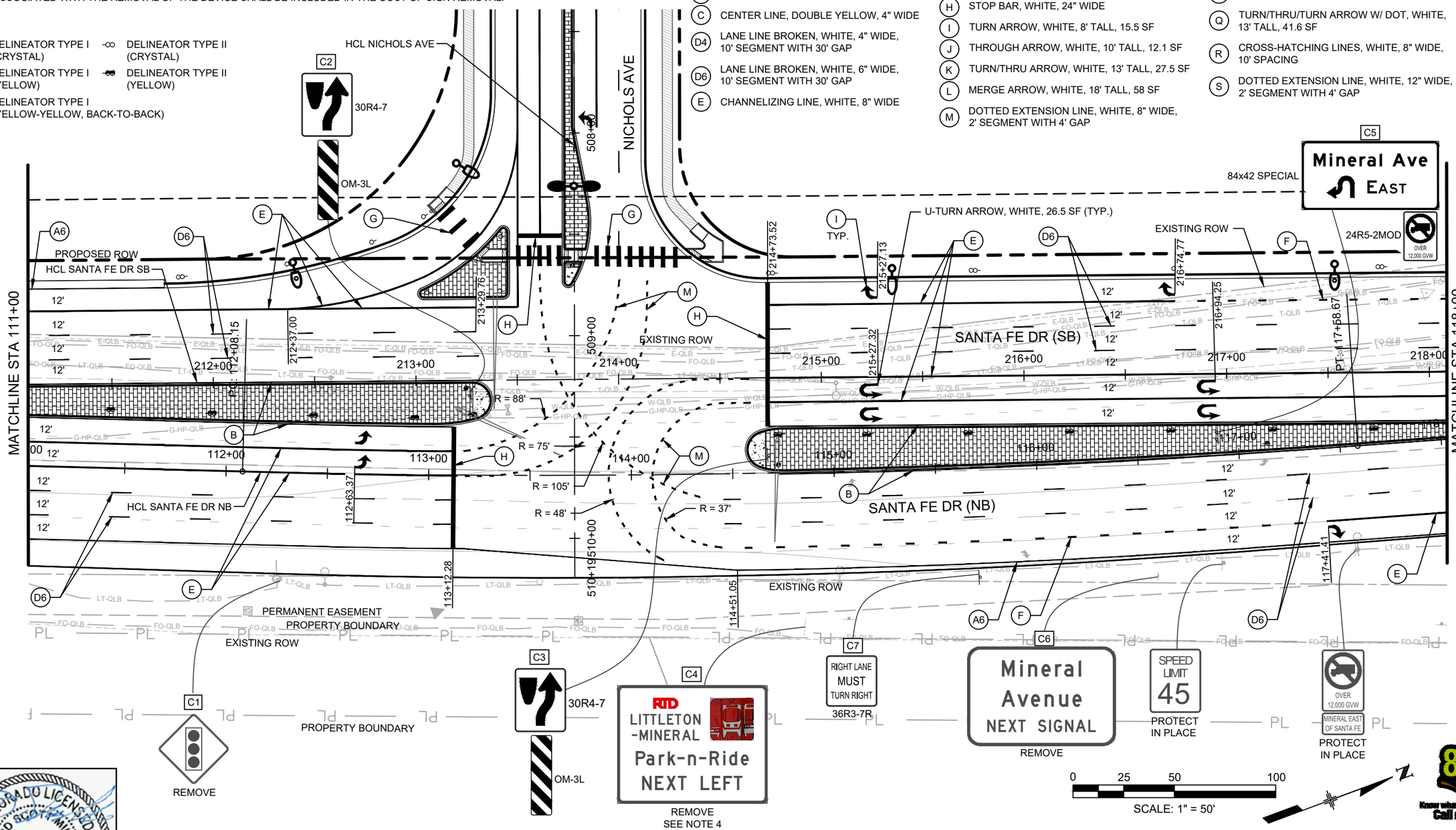
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 320
	Sheet Subset: TRAFFIC	Subset Sheets: 02 of 17	

$PLOT_INFO$

NOTES
1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
2. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
3. ALL WORD STRIPING SHALL BE 8' TALL.
4. RTD ELECTRONIC LOT INDICATION DEVICE CONNECTED TO EXISTING LIGHTING CIRCUIT. ELECTRICAL WORK ASSOCIATED WITH THE REMOVAL OF THE DEVICE SHALL BE INCLUDED IN THE COST OF SIGN REMOVAL.

LEGEND
- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP



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10/10/20205
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Void:	Detailer: GBAKER		Sheet Number 321
	Sheet Subset: TRAFFIC	Subset Sheets: 03 of 17	

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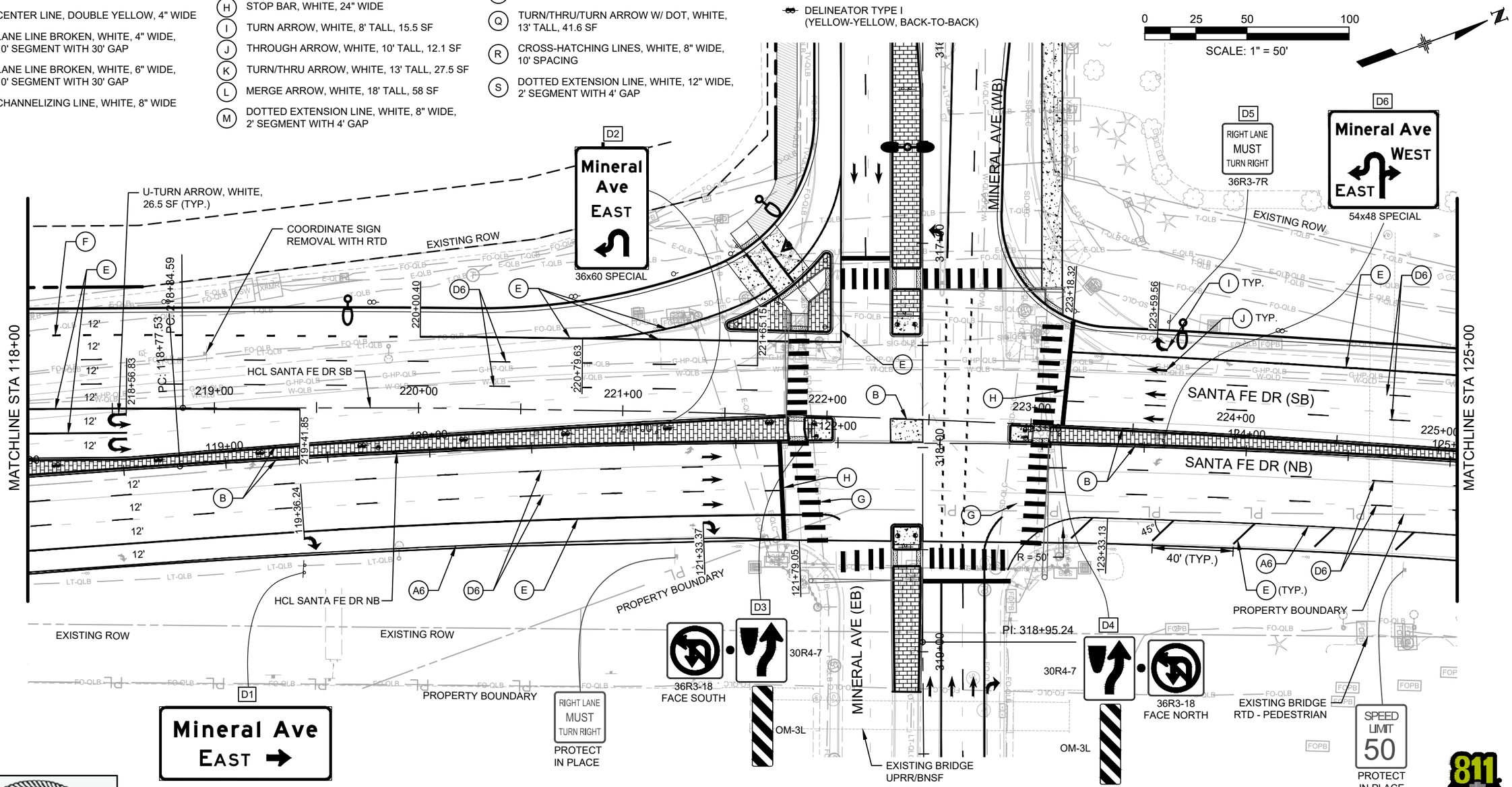
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

- DELINEATOR TYPE I (CRYSTAL)
- DELINEATOR TYPE I (YELLOW)
- DELINEATOR TYPE I (YELLOW-YELLOW, BACK-TO-BACK)
- DELINEATOR TYPE II (CRYSTAL)
- DELINEATOR TYPE II (YELLOW)

NOTES

1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
2. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.



COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

811 Know what's below. Call before you dig.

Print Date:	2024-11-04
File Name:	23574_TR_SIGN_PLAN(1).DWG
Horiz. Scale:	1" = 50' Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

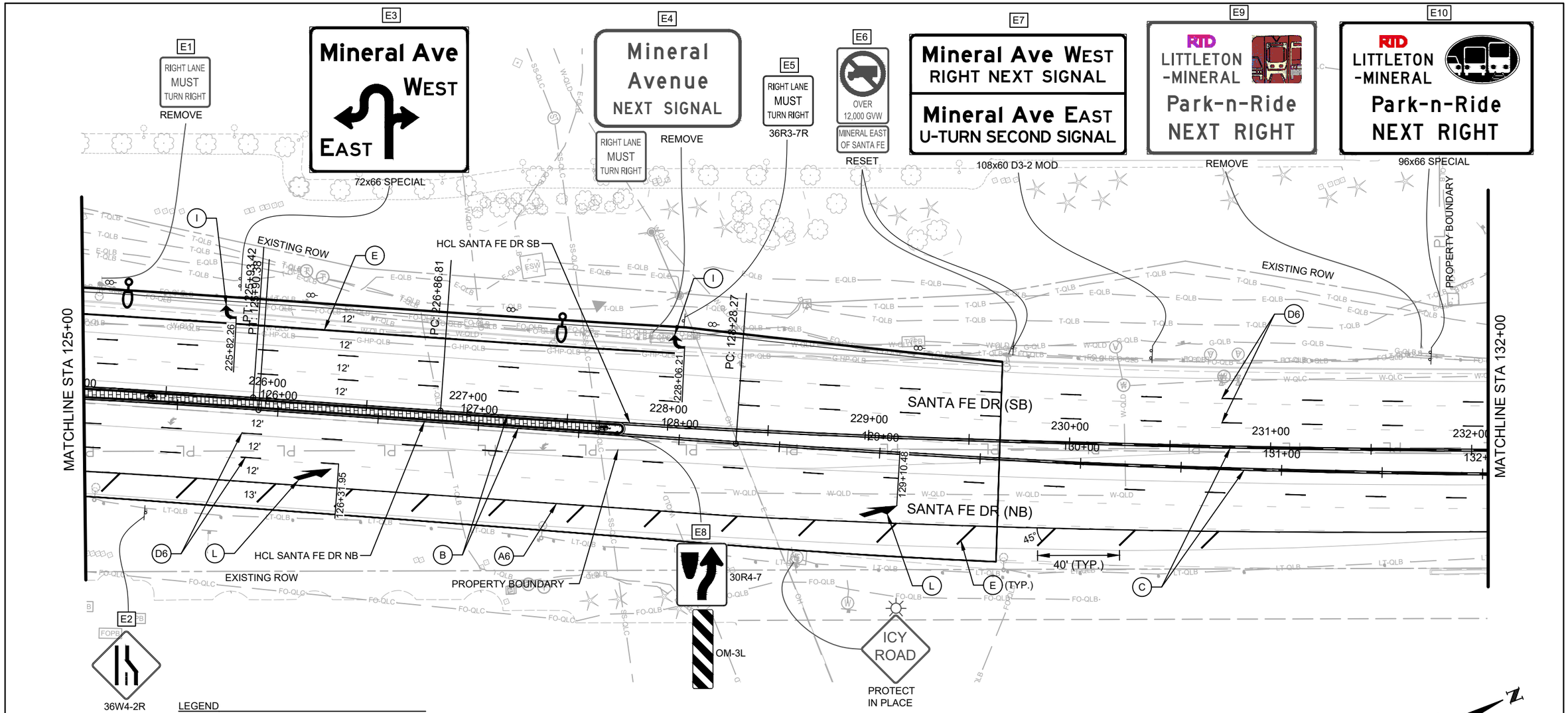
As Constructed	
No Revisions:	
Revised:	
Void:	

SANTA FE DR
SIGNING AND STRIPING PLAN
STA. 118+00 TO STA. 125+00

Designer:	GBAKER	Structure Numbers	
Detailer:	GBAKER		
Sheet Subset:	TRAFFIC	Subset Sheets:	04 of 17

Project No./Code	
AQC M810-017	
23574	
Sheet Number	322

$PLOT_INFO$



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

- DELINEATOR TYPE I (CRYSTAL)
- DELINEATOR TYPE I (YELLOW)
- DELINEATOR TYPE I (YELLOW-YELLOW, BACK-TO-BACK)
- DELINEATOR TYPE II (CRYSTAL)
- DELINEATOR TYPE II (YELLOW)

N

0 25 50 100

SCALE: 1" = 50'

NOTES

1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
2. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.

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COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_TR_SIGN_PLAN(1).DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions

Date:	Comments	Init.

Littleton Colorado

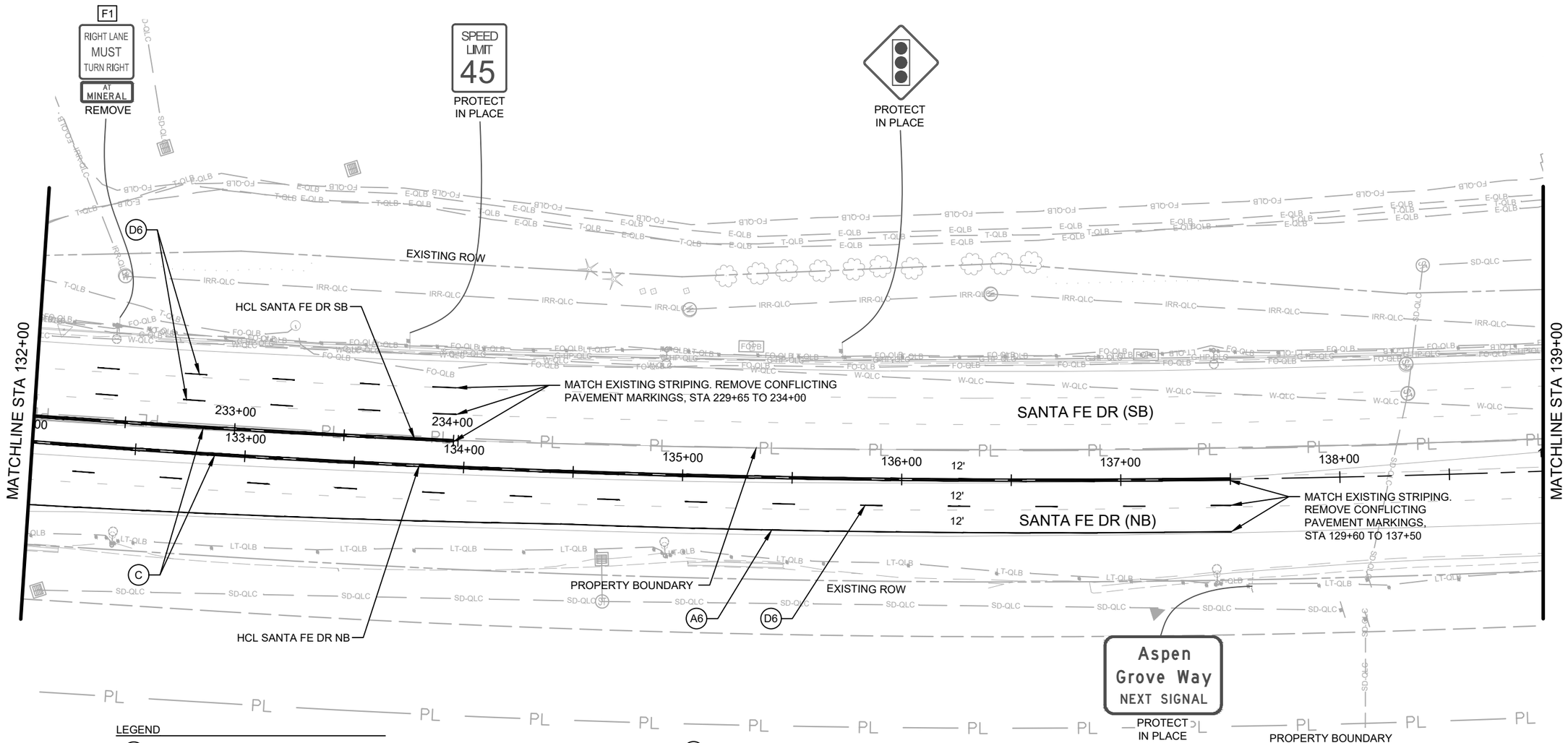
As Constructed	
No Revisions:	
Revised:	
Void:	

SANTA FE DR
SIGNING AND STRIPING PLAN
STA. 125+00 TO STA. 132+00

Designer:	GBAKER	Structure Numbers	
Detailer:	GBAKER		
Sheet Subset: TRAFFIC		Subset Sheets:	05 of 17

Project No./Code
AQC M810-017
23574
Sheet Number 323

$PLOT_INFO$



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

0 25 50 100
SCALE: 1" = 50'

NOTES
1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
2. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.

Know what's below. Call before you dig.

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_TR_SIGN_PLAN(1).DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Sheet Revisions

Date:	Comments	Init.

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

SANTA FE DR
SIGNING AND STRIPING PLAN
STA. 132+00 TO STA. 139+00

Designer:	GBAKER	Structure Numbers	
Detailer:	GBAKER		
Sheet Subset: TRAFFIC		Subset Sheets:	06 of 17

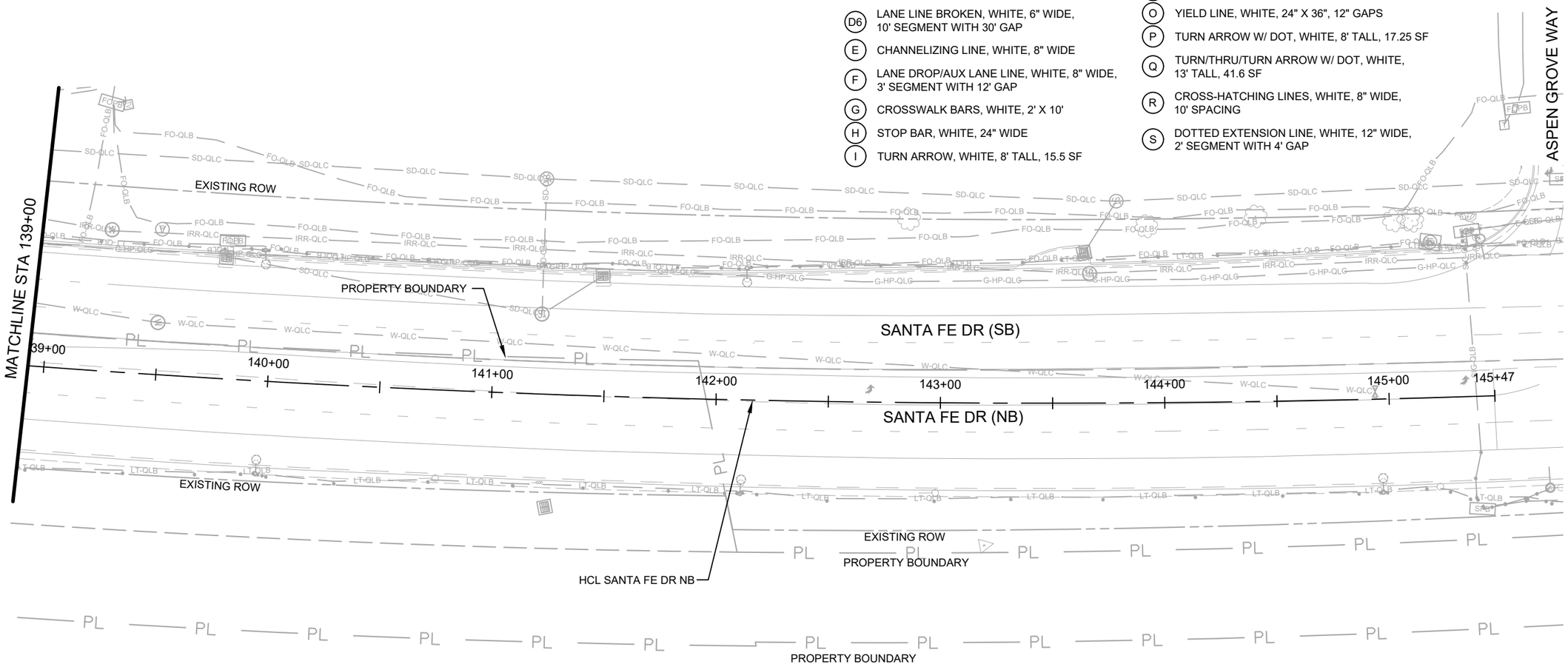
Project No./Code
AQC M810-017
23574
Sheet Number 324

$PLOT_INFO$

NOTES
1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
2. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.

LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP



NO SIGNING AND STRIPING WORK THIS SHEET

N

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR SIGNING AND STRIPING PLAN STA. 139+00 TO STA. 145+45		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 325
	Sheet Subset: TRAFFIC	Subset Sheets: 07 of 17	

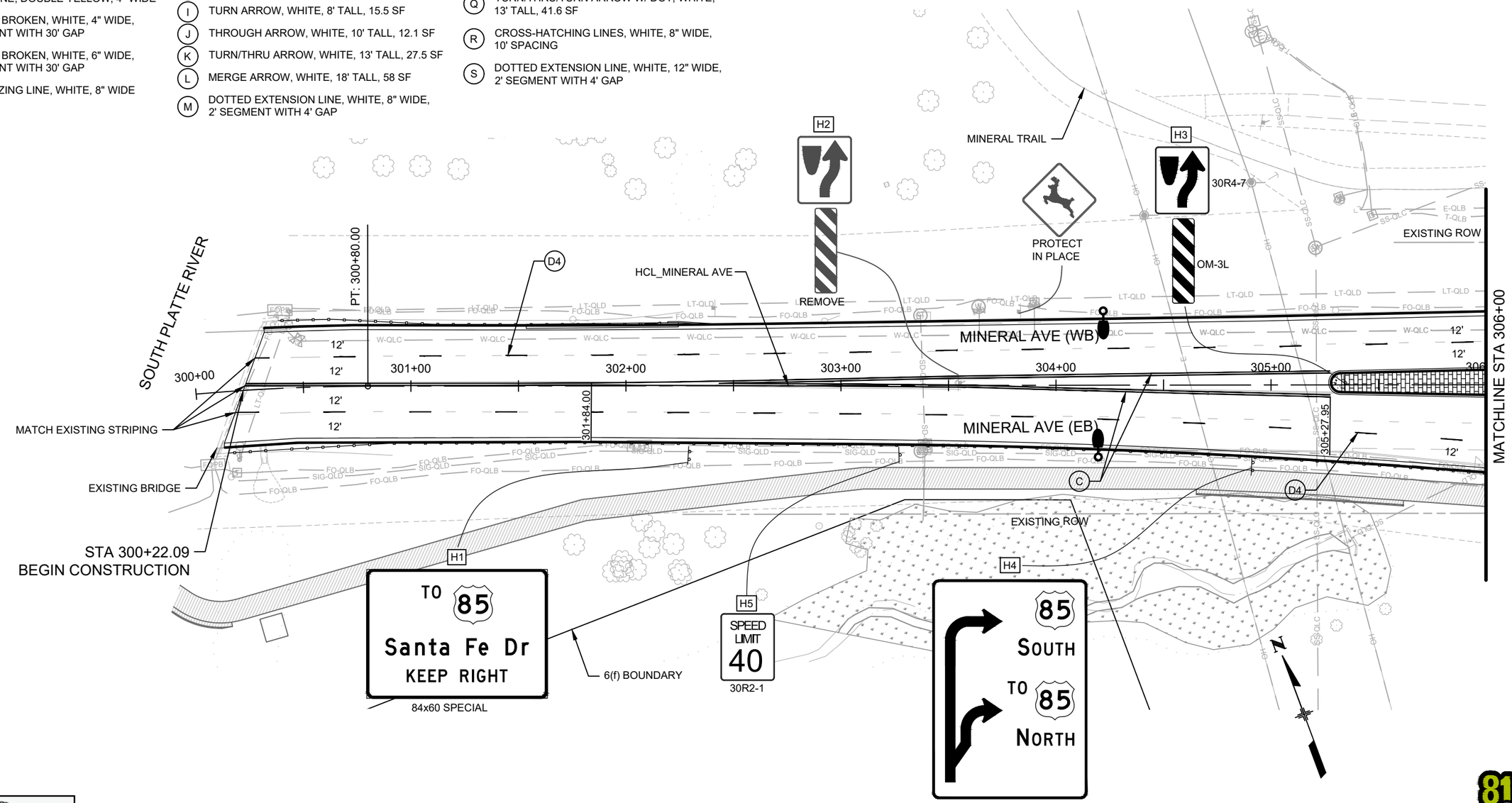
$PLOT_INFO$

LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

NOTES

1. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
2. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.



COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

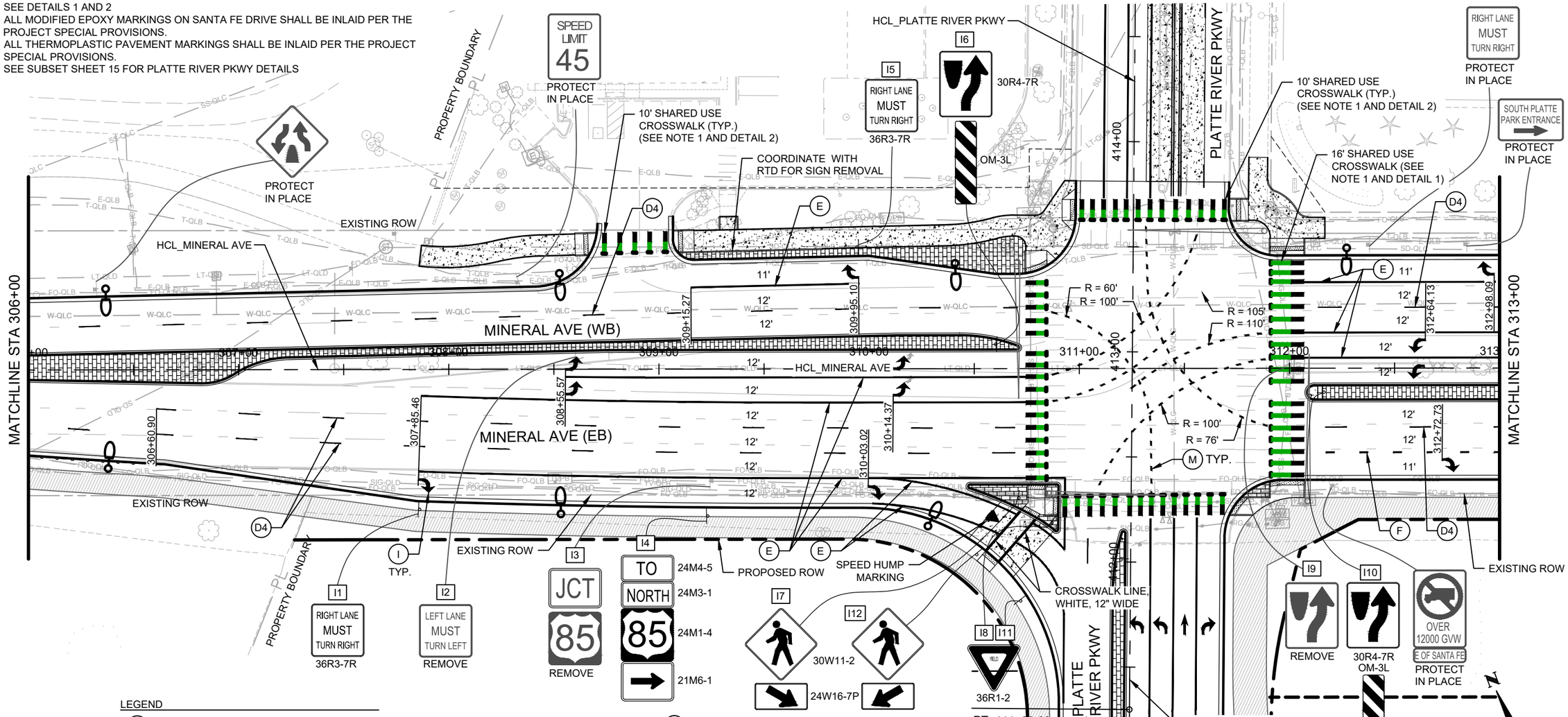
As Constructed	MINERAL AVE SIGNING AND STRIPING PLAN STA. 300+00 TO STA. 306+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 326
	Sheet Subset: TRAFFIC	Subset Sheets: 08 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$

NOTES

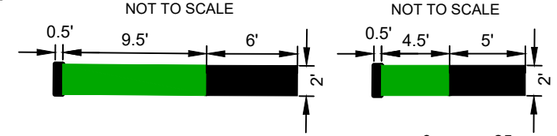
1. GREEN CONFLICT MARKINGS ARE 9.5' X 2' OR 4.5' X 2' WITH 6" WHITE STRIPE AT END. SEE DETAILS 1 AND 2
2. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
3. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
4. SEE SUBSET SHEET 15 FOR PLATTE RIVER PKWY DETAILS



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

DETAIL 1
16' SHARED USE CROSSWALK
NOT TO SCALE



DETAIL 2
10' SHARED USE CROSSWALK
NOT TO SCALE

0 25 50 100
SCALE: 1" = 50'

Know what's below. Call before you dig.

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

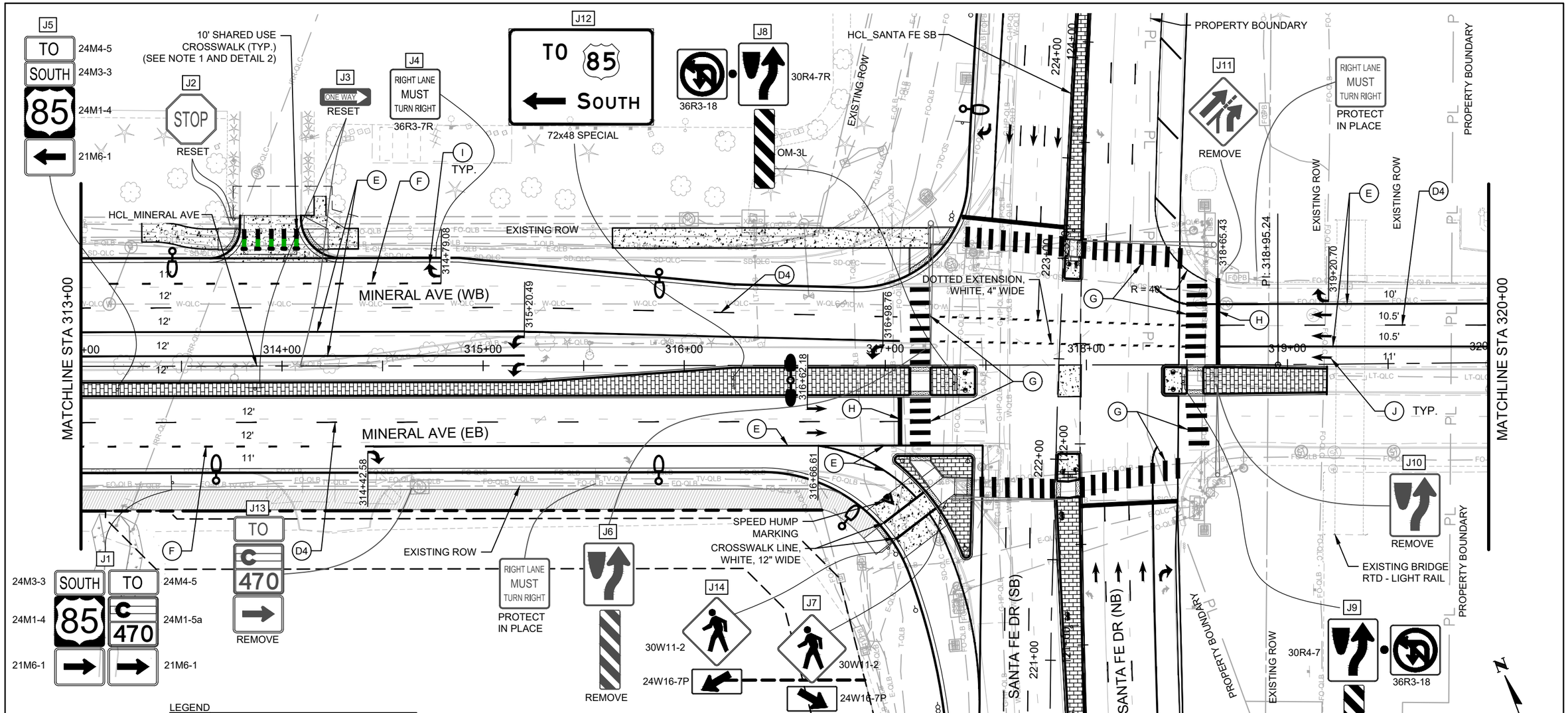
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE SIGNING AND STRIPING PLAN STA. 306+00 TO STA. 313+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 327
	Sheet Subset: TRAFFIC	Subset Sheets: 09 of 17	

$PLOT_INFO$



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
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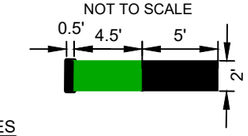
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

DETAIL 1
10' SHARED USE CROSSWALK
NOT TO SCALE



NOTES

1. GREEN CONFLICT MARKINGS ARE 4.5' X 2' WITH 6" WHITE STRIPE AT END. SEE DETAIL 1
2. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
3. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

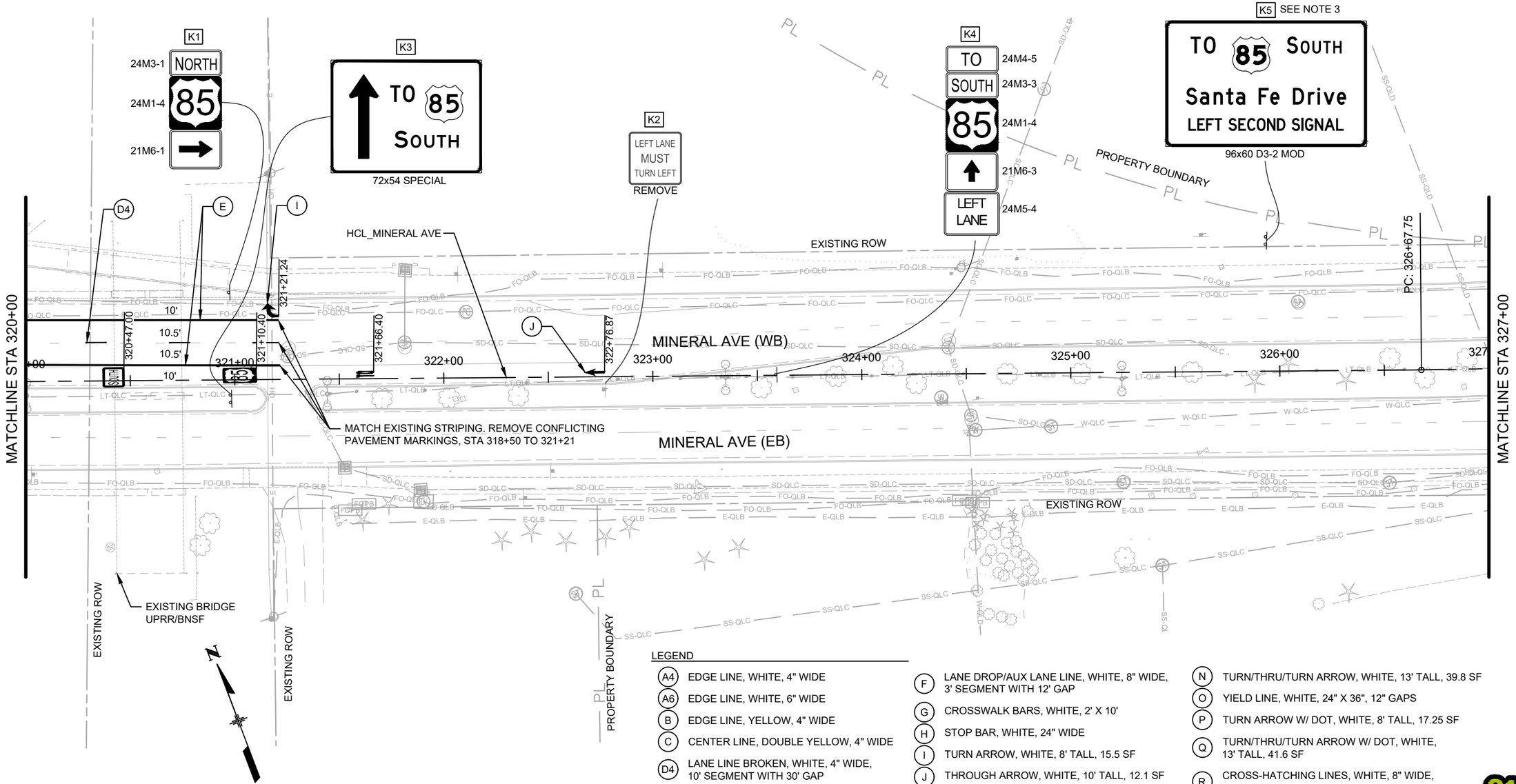
Littleton Colorado

As Constructed	MINERAL AVE SIGNING AND STRIPING PLAN STA. 313+00 TO STA. 320+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 328
	Sheet Subset: TRAFFIC	Subset Sheets: 10 of 17	

Know what's below. Call before you dig.

$PLOT_INFO$

NOTES
1. ALL WORD STRIPING SHALL BE 8' TALL.
2. ALL MODIFIED EPOXY MARKINGS ON SANTA FE DRIVE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
3. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
4. CONTRACTOR TO COORDINATE FINAL PLACEMENT OF SIGN K5 WITH CITY OF LITTLETON.



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

0 25 50 100
SCALE: 1" = 50'

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_TR_SIGN_PLAN(2).DWG	
Horiz. Scale: 1" = 50'	Vert. Scale: N/A
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

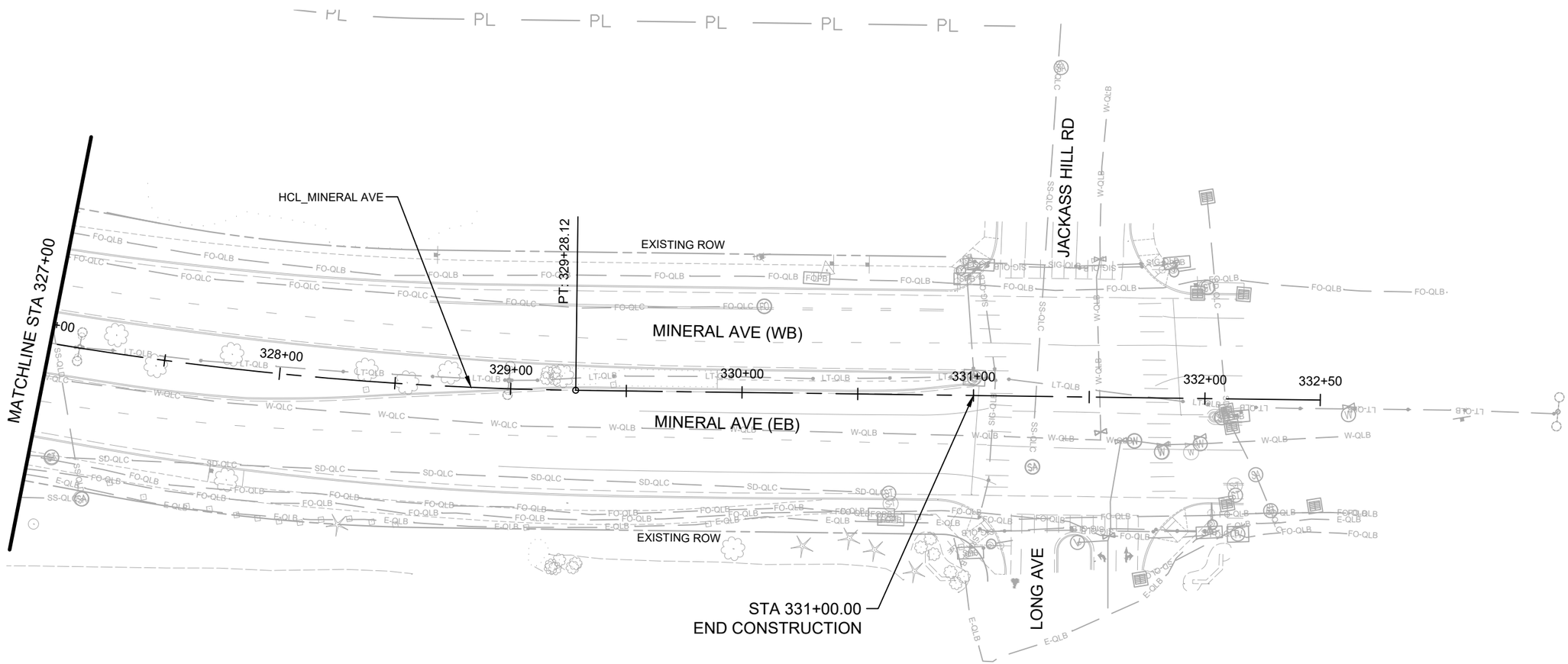
Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	MINERAL AVE SIGNING AND STRIPING PLAN STA. 320+00 TO STA. 327+00			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers		23574
Void:	Detailer: GBAKER			Sheet Number 329
	Sheet Subset: TRAFFIC	Subset Sheets: 11 of 17		

Know what's below. Call before you dig.

$PLOT_INFO$



NO SIGNING AND STRIPING WORK THIS SHEET

0 25 50 100

SCALE: 1" = 50'

Know what's below. Call before you dig.

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DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

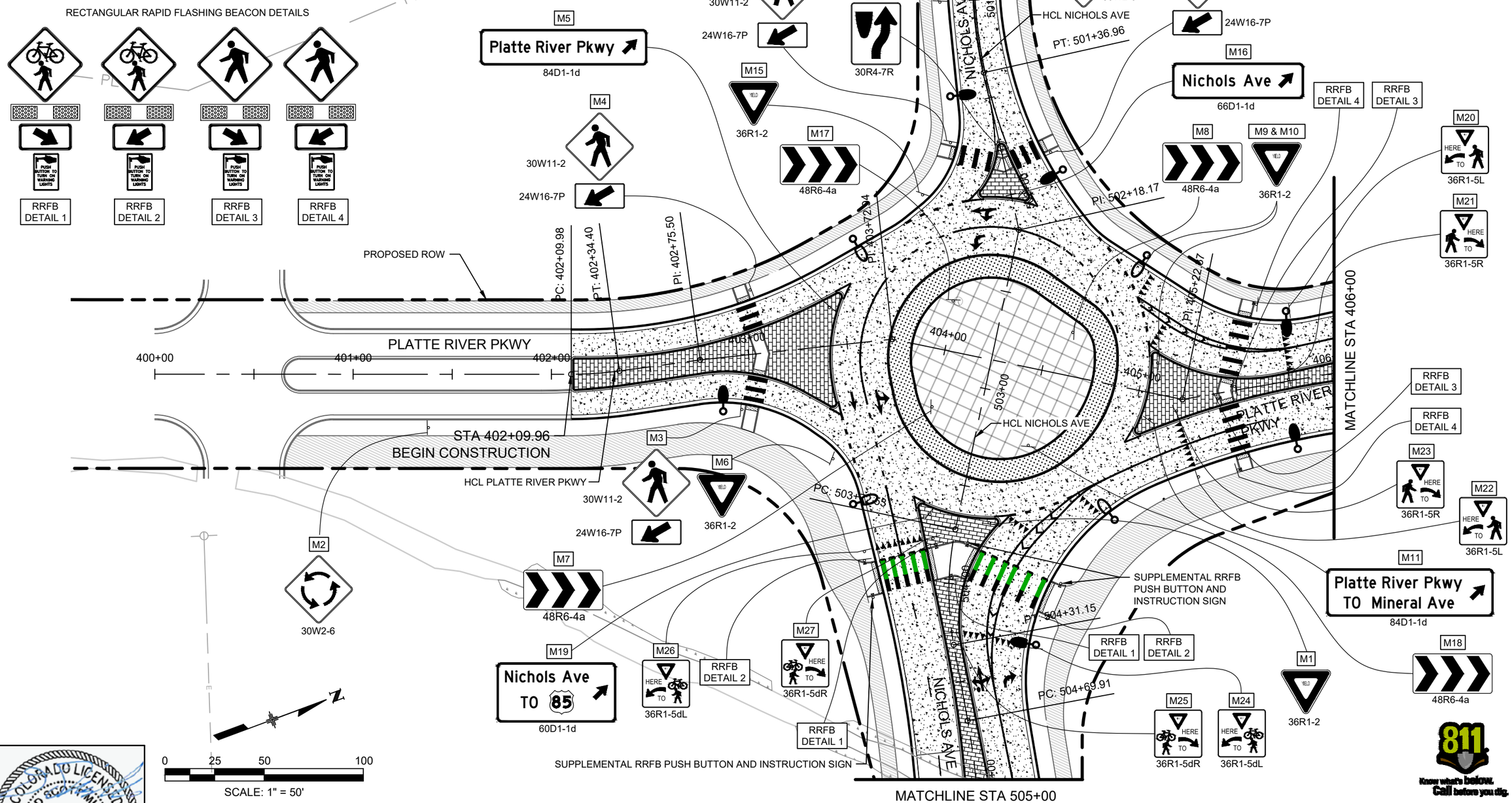
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	MINERAL AVE SIGNING AND STRIPING PLAN STA. 327+00 TO STA. 332+50		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 330
	Sheet Subset: TRAFFIC	Subset Sheets: 12 of 17	

$PLOT_INFO$

NOTES
1. FOR STRIPING DETAILS SEE SHEET 13.
2. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
3. ALL MODIFIED EPOXY MARKINGS ON ROUNDABOUT CONCRETE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
4. RECTANGULAR RAPID FLASHING BEACONS SHALL BE SOLAR POWERED.



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36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

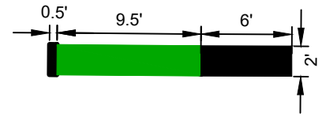
As Constructed	PLATTE RIVER PKWY SIGNING AND STRIPING PLAN STA. 400+00 TO STA. 406+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 331
	Sheet Subset: TRAFFIC	Subset Sheets: 13 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$

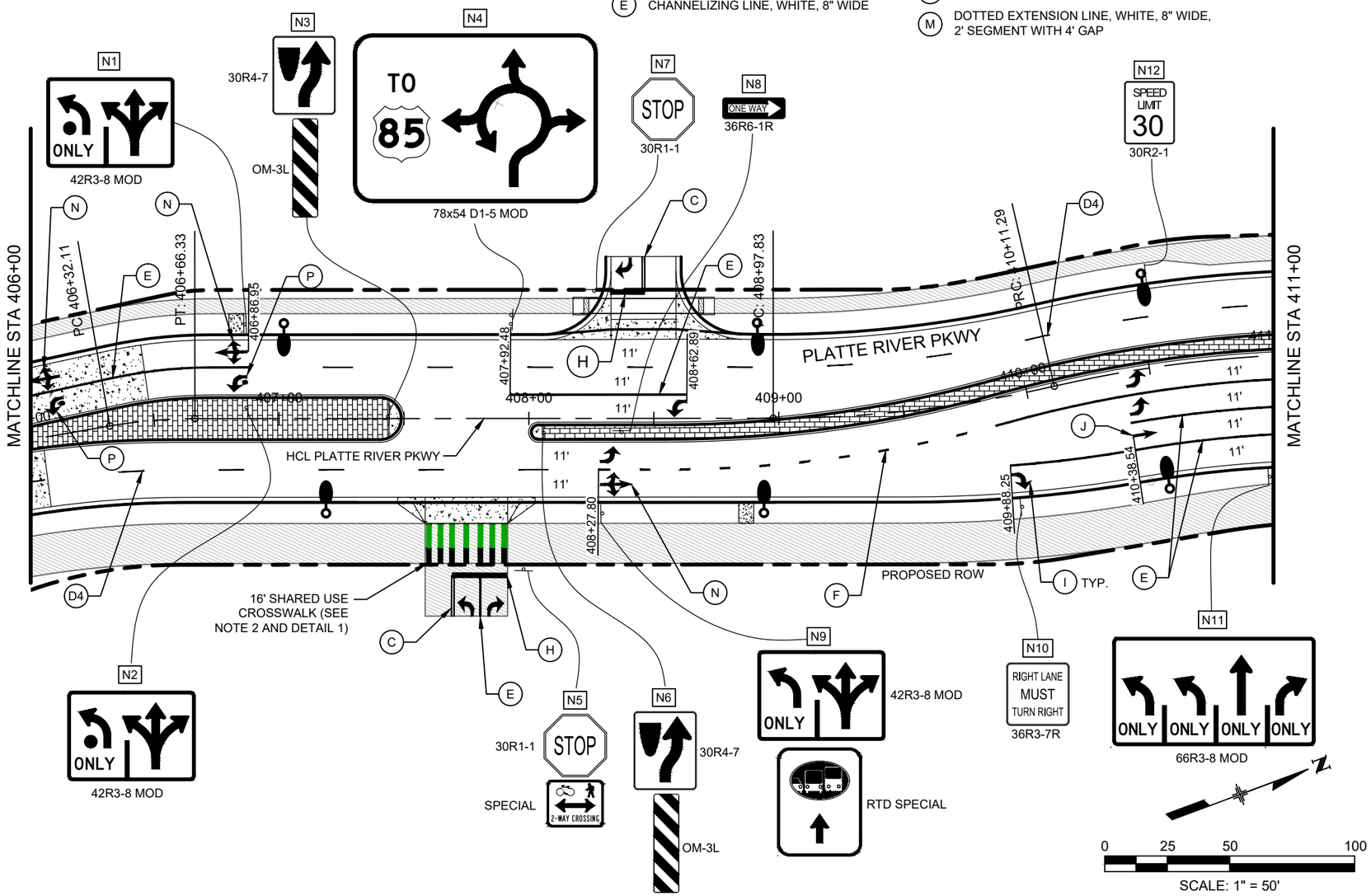
NOTES
1. ALL WORD STRIPING SHALL BE 8' TALL.
2. GREEN CONFLICT MARKINGS ARE 9.5' X 2' WITH 6" WHITE STRIPE AT END. SEE DETAIL 1.
3. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.

DETAIL 1
16' SHARED USE CROSSWALK
NOT TO SCALE



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP



COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

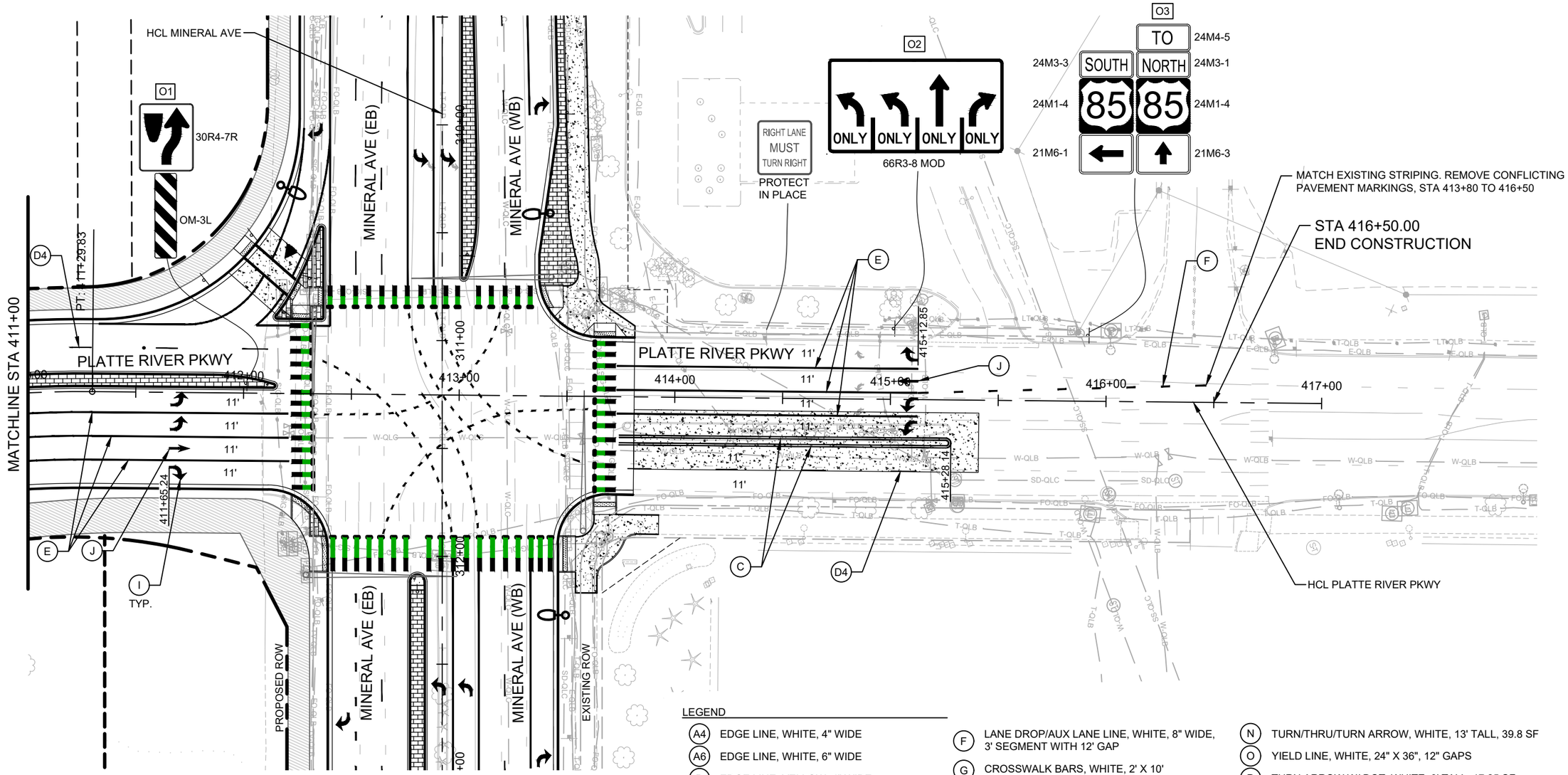
Littleton Colorado

As Constructed	PLATTE RIVER PKWY SIGNING AND STRIPING PLAN STA. 406+00 TO STA. 411+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 332
	Sheet Subset: TRAFFIC	Subset Sheets: 14 of 17	

811 Know what's below. Call before you dig.

$PLOT_INFO$

NOTES
1. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

N

0 25 50 100
SCALE: 1" = 50'

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

811 Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	PLATTE RIVER PKWY SIGNING AND STRIPING PLAN STA. 411+00 TO STA. 417+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
	Detailer: GBAKER		
Void:	Sheet Subset: TRAFFIC	Subset Sheets: 15 of 17	Sheet Number 333

$PLOT_INFO$

NOTES
1. ALL WORD STRIPING SHALL BE 8' TALL.
2. GREEN CONFLICT MARKINGS ARE 9.5' X 2' WITH 6" WHITE STRIPE AT END. SEE DETAIL 1.
3. FOR SIGN DETAILS SEE SHEET 15.
4. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.
5. ALL MODIFIED EPOXY MARKINGS ON ROUNDABOUT CONCRETE SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.

LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
- (E) CHANNELIZING LINE, WHITE, 8" WIDE
- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
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- (H) STOP BAR, WHITE, 24" WIDE
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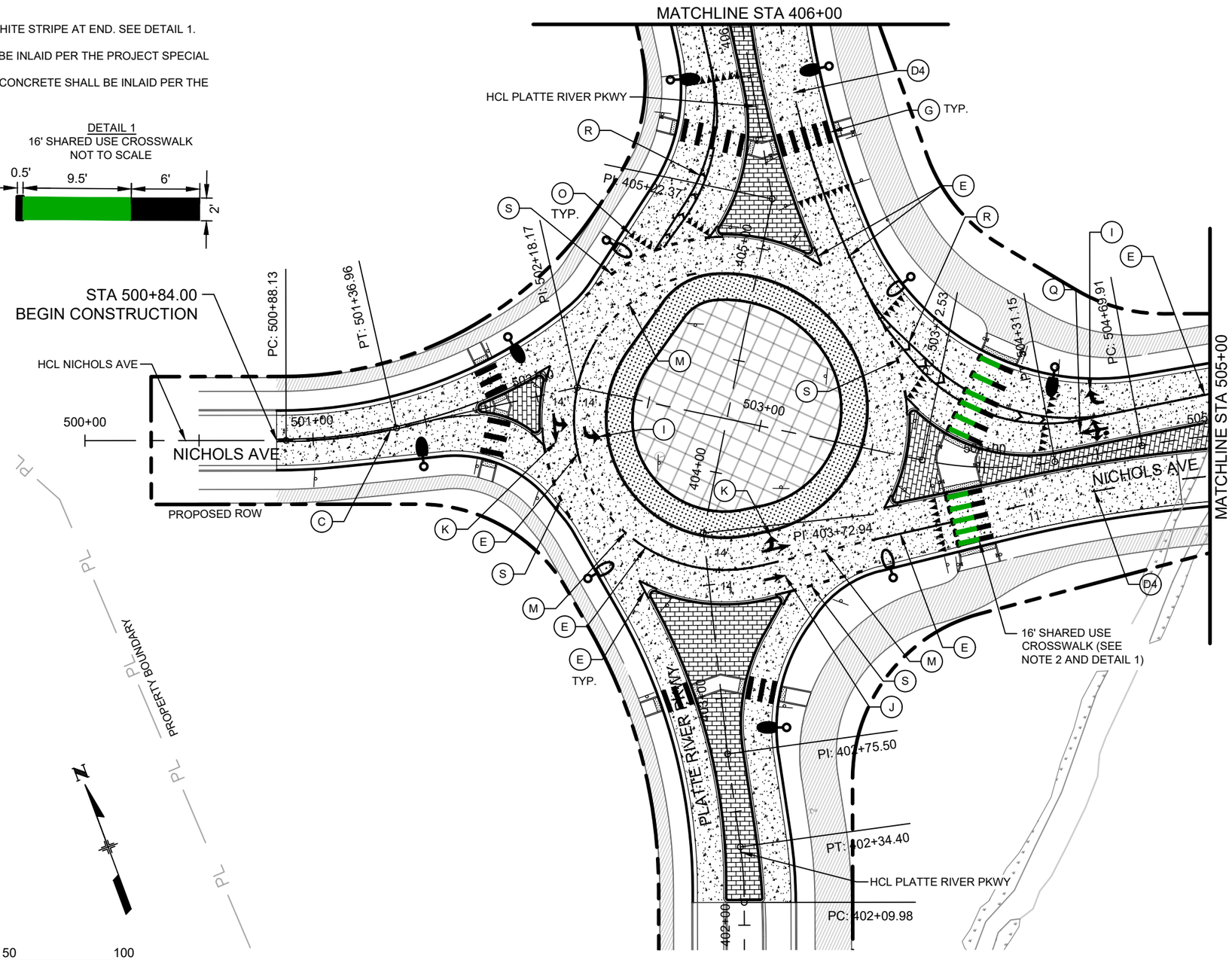
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

DETAIL 1
16' SHARED USE CROSSWALK
NOT TO SCALE



0 25 50 100
SCALE: 1" = 50'

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

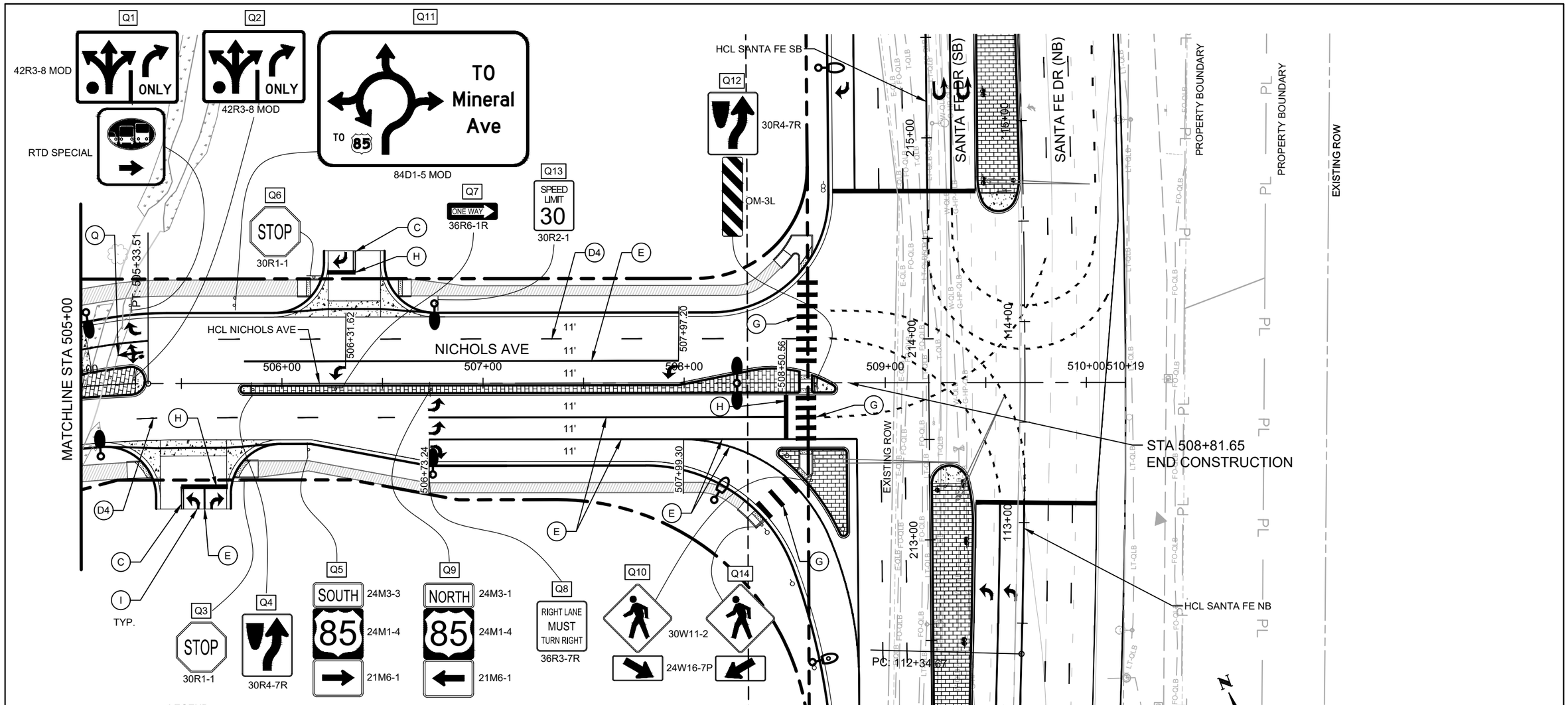
Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	NICHOLS AVE SIGNING AND STRIPING PLAN STA. 500+00 TO STA. 505+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 334
	Sheet Subset: TRAFFIC	Subset Sheets: 16 of 17	

$PLOT_INFO$



LEGEND

- (A4) EDGE LINE, WHITE, 4" WIDE
- (A6) EDGE LINE, WHITE, 6" WIDE
- (B) EDGE LINE, YELLOW, 4" WIDE
- (C) CENTER LINE, DOUBLE YELLOW, 4" WIDE
- (D4) LANE LINE BROKEN, WHITE, 4" WIDE, 10' SEGMENT WITH 30' GAP
- (D6) LANE LINE BROKEN, WHITE, 6" WIDE, 10' SEGMENT WITH 30' GAP
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- (F) LANE DROP/AUX LANE LINE, WHITE, 8" WIDE, 3' SEGMENT WITH 12' GAP
- (G) CROSSWALK BARS, WHITE, 2' X 10'
- (H) STOP BAR, WHITE, 24" WIDE
- (I) TURN ARROW, WHITE, 8' TALL, 15.5 SF
- (J) THROUGH ARROW, WHITE, 10' TALL, 12.1 SF
- (K) TURN/THRU ARROW, WHITE, 13' TALL, 27.5 SF
- (L) MERGE ARROW, WHITE, 18' TALL, 58 SF
- (M) DOTTED EXTENSION LINE, WHITE, 8" WIDE, 2' SEGMENT WITH 4' GAP
- (N) TURN/THRU/TURN ARROW, WHITE, 13' TALL, 39.8 SF
- (O) YIELD LINE, WHITE, 24" X 36", 12" GAPS
- (P) TURN ARROW W/ DOT, WHITE, 8' TALL, 17.25 SF
- (Q) TURN/THRU/TURN ARROW W/ DOT, WHITE, 13' TALL, 41.6 SF
- (R) CROSS-HATCHING LINES, WHITE, 8" WIDE, 10' SPACING
- (S) DOTTED EXTENSION LINE, WHITE, 12" WIDE, 2' SEGMENT WITH 4' GAP

0 25 50 100

SCALE: 1" = 50'

NOTES

1. ALL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INLAID PER THE PROJECT SPECIAL PROVISIONS.

Know what's below. Call before you dig.

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

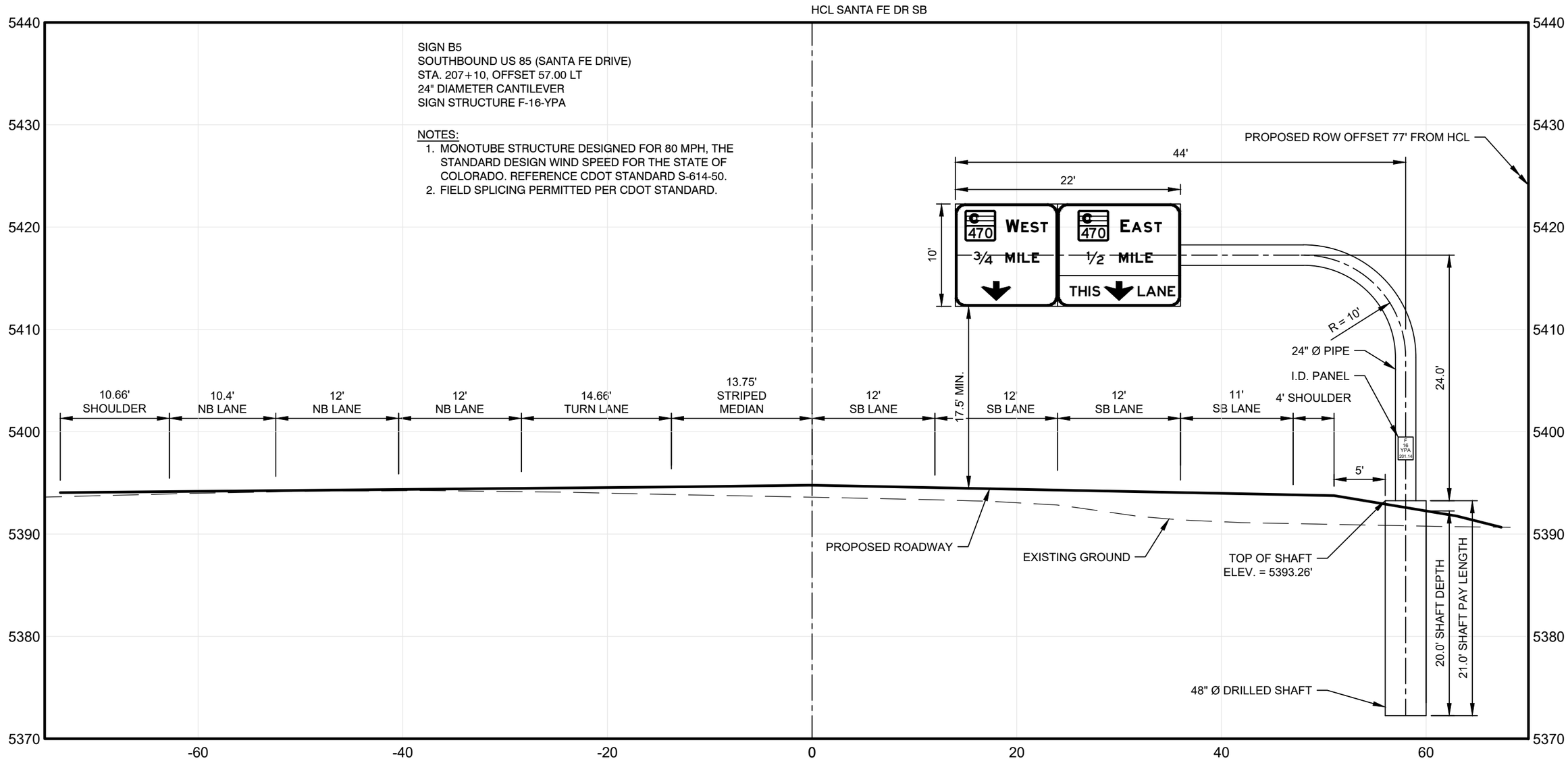
Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_PLAN(3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	NICHOLS AVE SIGNING AND STRIPING PLAN STA. 505+00 TO STA. 510+19		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
	Detailer: GBAKER		
Void:	Sheet Subset: TRAFFIC	Subset Sheets: 17 of 17	Sheet Number 335

$PLOT_INFO$



207+10.15
SIGN B5
CDOT SIGN STR. NO.
SIGN-F-16-YPA

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	
File Name: 23574_TR_SIGN_SECTION.DWG	
Horiz. Scale: 1"=10' Vert. Scale: 1" = 10'	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

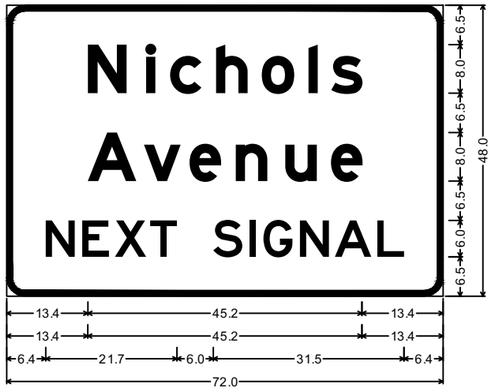
SANTA FE DR
CLASS III SIGN CROSS SECTION
SIGN B5

Designer:	G. BAKER	Structure Numbers	
Detailer:	G. BAKER		
Sheet Subset: TRAFFIC		Subset Sheets:	01 of 01

Project No./Code	
AQC M810-017	
23574	
Sheet Number	336

811 Know what's below. Call before you dig.

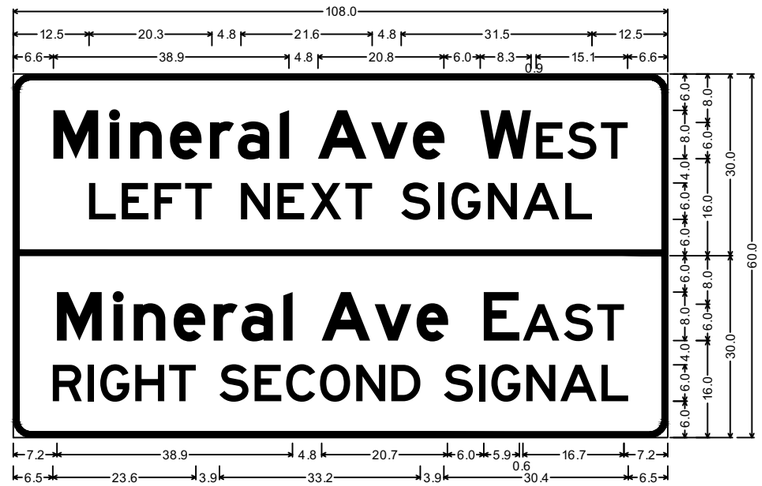
$PLOT_INFO$



D3-2;
3.0" Radius, 1.0" Border, White on Green;
"Nichols", E Mod; "Avenue", E Mod;
"NEXT SIGNAL", E 80% spacing;
Table of distances between letter and object lefts

13.4	N 9.6	i 4.0	c 7.5	h 7.6	o 7.7	l 3.7	s 5.1	13.4				
13.4	A 9.3	v 7.5	e 7.6	n 8.2	u 7.5	e 5.1	13.4					
6.4	N 6.1	E 5.4	X 5.8	T 10.4	S 6.0	I 2.3	G 6.0	N 5.8	A 6.9	L 4.5	6.4	

SIGN A1



D3-2s (conventional road - 8");

3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 60% spacing; "WEST", E 60% spacing; "LEFT NEXT SIGNAL", E 80% spacing;

3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 60% spacing; "EAST", E 60% spacing;
"RIGHT SECOND SIGNAL", E 65% spacing;
Table of distances between letter and object lefts

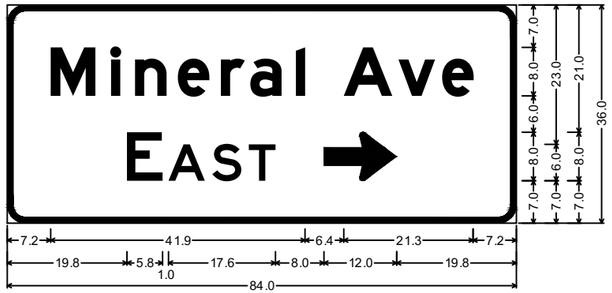
6.6	M 9.4	i 3.3	n 6.6	e 6.6	r 4.6	a 6.9	l 6.3	A 8.7	v 7.0	e 11.1	W 9.2	E 5.1	S 5.6	T 4.4	6.6
12.5	L 5.4	E 5.4	F 5.1	T 9.2	N 6.0	E 5.4	X 5.8	T 9.2	S 6.0	I 2.3	G 6.0	N 5.8	A 7.0	L 4.4	12.5
7.2	M 9.4	i 3.3	n 6.6	e 6.6	r 4.6	a 6.9	l 6.3	A 8.7	v 6.9	e 11.1	E 6.5	A 6.7	S 5.6	T 4.4	7.2
6.5	R 5.8	I 2.1	G 5.7	H 5.6	T 8.3	S 5.8	E 5.2	C 5.6	O 6.0	N 5.8	D 8.7	S 5.7	I 2.1	G 5.8	N 5.6	A 6.8	L 4.4	6.5

SIGN B1

SPECIAL GUIDE;
3.0" Radius, 1.0" Border, White on Green;
"TO", E; "Mineral Ave", E Mod 80% spacing; Arrow 6" Type D2 - 13.5" 180°;
"WEST", E;
Table of distances between letter and object lefts

34.9	T 7.5	O 6.7	34.9															
7.2	M 9.9	i 4.0	n 7.0	e 7.2	r 4.8	a 7.5	l 7.9	A 9.0	v 7.2	e 5.1	7.2							
19.3	← 19.5	W 9.8	E 5.7	S 6.0	T 4.4	19.3												

SIGN B3 B7

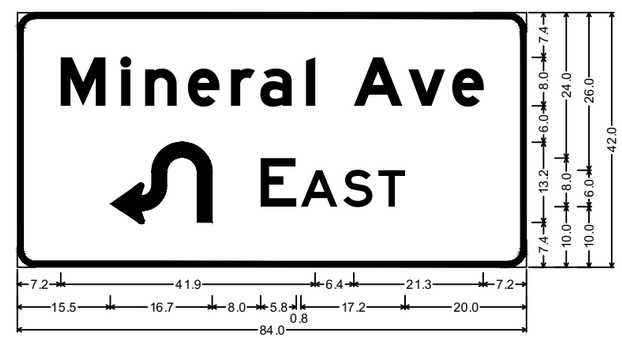


D3-2s (conventional road - 8");

SPECIAL D3-2;
3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 80% spacing; "EAST", E;
Standard Arrow 12.0" X 8.0" 0°;
Table of distances between letter and object lefts

7.2	M 9.9	i 4.0	n 7.0	e 7.2	r 4.8	a 7.5	l 7.9	A 9.0	v 7.2	e 5.1	7.2	
19.8	E 6.8	A 7.2	S 6.0	T 12.4	→ 12.0	19.8						

SIGN D1



D3-2s (conventional road - 8");

SPECIAL D3-2;
3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 80% spacing; "EAST", E 80% spacing;
Table of distances between letter and object lefts

7.2	M 9.9	i 4.0	n 7.0	e 7.2	r 4.8	a 7.5	l 7.9	A 9.0	v 7.2	e 5.1	7.2	
15.5	24.7	E 6.6	A 7.0	S 5.8	T 4.4	20.0						

SIGN C5

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

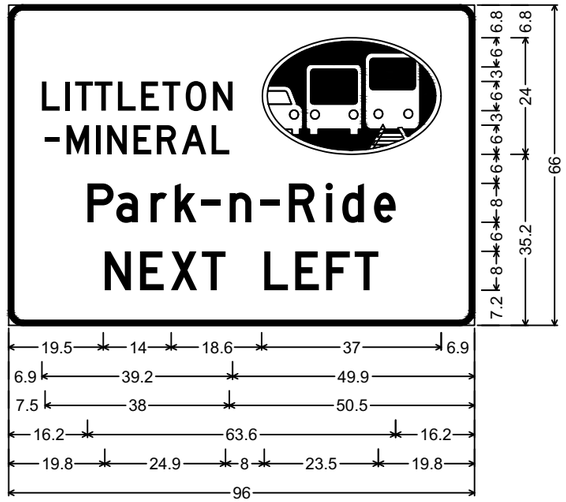
Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGN_DETAILS.DWG	Date:	Comments	Init.
Horiz. Scale: N/A Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	TRAFFIC SIGN DETAILS			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers		23574
Void:	Detailer: GBAKER			
	Sheet Subset: TRAFFIC	Subset Sheets: 01 of 05		Sheet Number 337

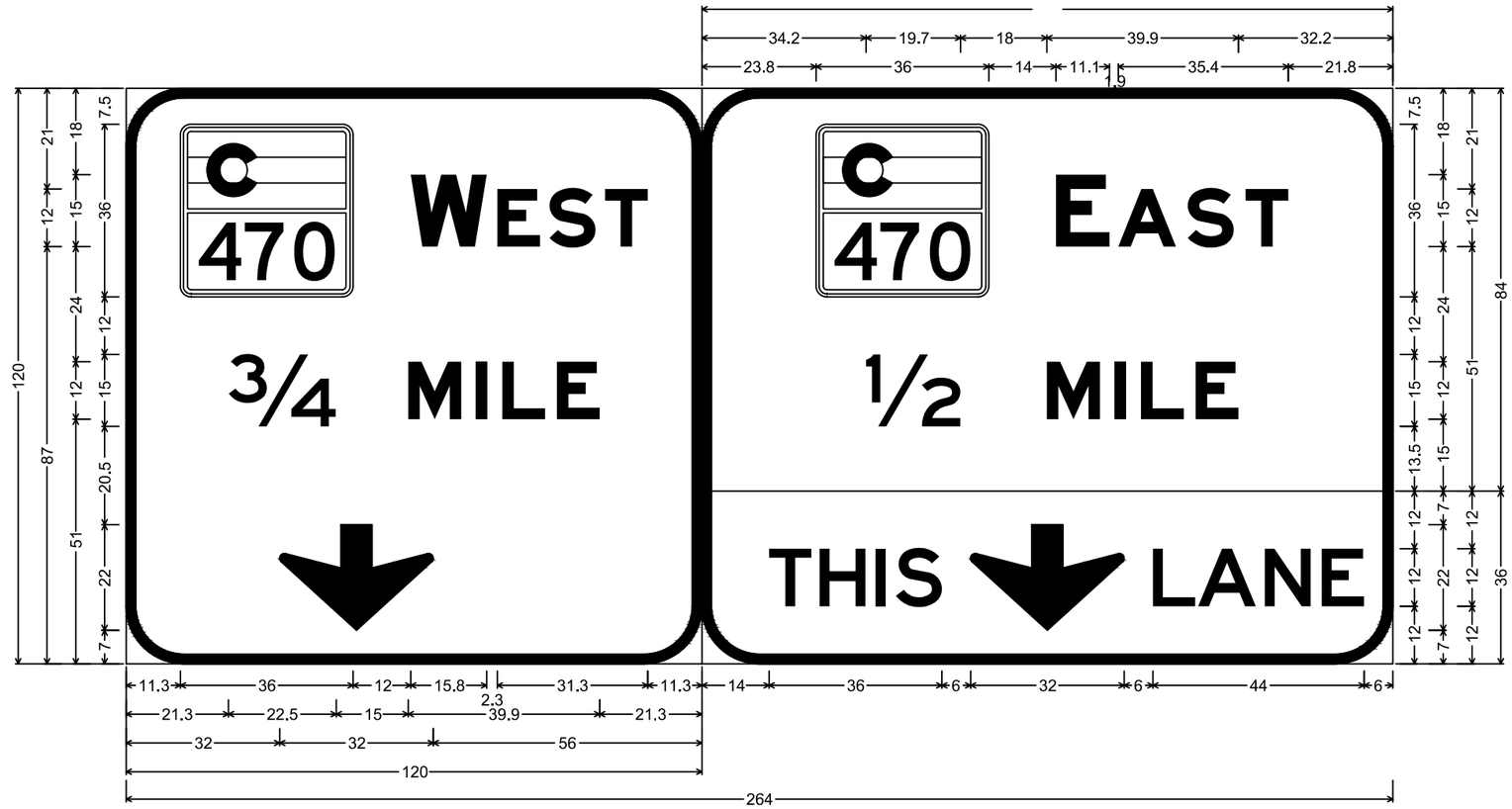
$PLOT_INFO$



3.0" Radius, 1.0" Border, White on Green;
"LITTLETON", D; "-MINERAL", D;
Rounded Rectangle 3.0" Radius; "park-n-Ride", D;
"NEXT LEFT", D;
Table of distances between letter and object lefts

19.5	■ 32.6	■ 37.0	6.9								
6.9	L 4.7	I 2.1	T 4.0	T 4.8	L 4.8	E 4.4	T 4.8	O 5.6	N 4.0	49.9	
7.5	- 4.4	M 6.1	I 2.3	N 5.5	E 4.7	R 5.2	A 6.1	L 3.7	50.5		
16.2	P 6.0	a 7.0	r 5.0	k 5.5	- 5.9	n 6.3	- 5.9	R 7.6	i 3.4	d 6.5	e 4.5	16.2
19.8	N 7.3	E 6.3	X 6.4	T 12.9	L 6.4	E 6.3	F 5.9	T 4.9	19.8		

SIGN B2



12.0" Radius, 2.0" Border, White on Green;
"WEST", E Mod 80% spacing; "3/4", E; "MILE", E Mod; Down Arrow 13.33-16-20" - 22.0" 270°;

12.0" Radius, 2.0" Border, White on Green;
"EAST", E Mod; "1/2", E; "MILE", E Mod;

12.0" Radius, 2.0" Border, Black on Yellow;
"THIS", E specified length; Down Arrow 13.33-16-20" - 22.0" 270°; "LANE", E specified length;
Table of distances between letter and object lefts

11.3	■ 48.0	W 18.1	E 10.8	S 11.6	T 8.9	155.3					
21.3	3/4 37.5	M 14.1	I 5.5	L 11.4	E 8.9	165.3					
44.0	↓ 32.0	188.0									
143.8	■ 50.0	E 13.0	A 14.5	S 12.0	T 8.9	21.8					
154.2	1/2 37.7	M 14.1	I 5.5	L 11.4	E 8.9	32.2					
134.0	T 10.5	H 11.7	I 4.2	S 15.6	↓ 38.0	L 9.4	A 13.9	N 11.9	E 8.8	6.0	

SIGN B5

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

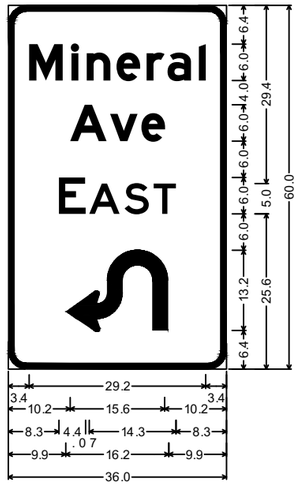
Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions				
File Name: 23574_TR_SIGN_DETAILS.DWG	Date:	Comments	Init.		
Horiz. Scale: N/A Vert. Scale: N/A					
Unit Information					
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					

Littleton Colorado

As Constructed	TRAFFIC SIGN DETAILS			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers		23574
Void:	Detailer: GBAKER			Sheet Number 338
	Sheet Subset: TRAFFIC	Subset Sheets: 02 of 05		

$PLOT_INFO$



D3-2s (conventional road - 8");

3.0" Radius, 1.0" Border, White on Green;
"Mineral", E Mod 60% spacing;
"Ave", E Mod 60% spacing;
"EAST", E 80% spacing;
Table of distances between letter and object lefts

3.4	M 7.0	i 2.5	n 5.0	e 4.9	r 3.5	a 5.1	l 1.2	3.4		
10.2	A 6.6	v 5.2	e 3.8	10.2						
8.3	E 5.1	A 5.8	S 4.8	T 3.7	8.3					
9.9	16.2	9.9								

SIGN D2

D3-2s (conventional road - 8");

3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 50% spacing; "WEST", E 60% spacing;
"EAST", E 60% spacing;
Table of distances between letter and object lefts

5.1	M 9.0	i 3.0	n 6.4	e 6.3	r 4.5	a 6.6	l 5.5	A 8.6	v 6.8	e 5.1	5.1	
42.6	W 9.2	E 5.2	S 5.5	T 4.4	5.1							
5.1	E 6.5	A 6.7	S 5.5	T 4.4	43.8							

SIGN E3

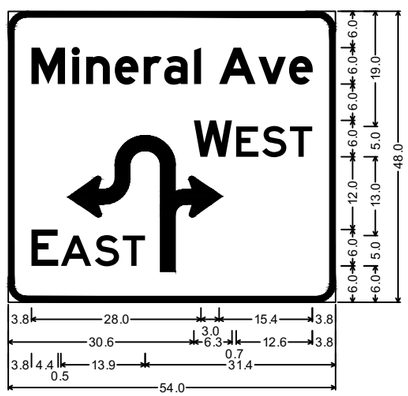
D3-2s (conventional road - 8");

3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 60% spacing; "WEST", E 60% spacing;
"RIGHT NEXT SIGNAL", E 80% spacing;

3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 60% spacing; "EAST", E 60% spacing;
"U-TURN SECOND SIGNAL", E 50% spacing;
Table of distances between letter and object lefts

6.6	M 9.4	i 3.3	n 6.6	e 6.6	r 4.6	a 6.9	l 6.3	A 8.7	v 7.0	e 11.1	W 9.2	E 5.1	S 5.6	T 4.4	6.6			
10.4	R 6.0	I 2.3	G 6.0	H 5.8	T 9.2	N 6.0	E 5.4	X 5.8	T 9.2	S 6.0	I 2.3	G 6.0	N 5.8	A 7.0	L 4.4	10.4		
7.2	M 9.4	i 3.3	n 6.6	e 6.6	r 4.6	a 6.9	l 6.3	A 8.7	v 6.9	e 11.1	E 6.5	A 6.7	S 5.6	T 4.4	7.2			
5.4	U 5.5	- 3.4	T 5.1	U 5.5	R 5.6	N 7.7	S 5.6	E 5.0	C 5.4	O 5.8	N 5.5	D 7.8	S 5.6	I 1.8	G 5.5	N 5.4	A 6.6	L 4.4	5.4

SIGN E7

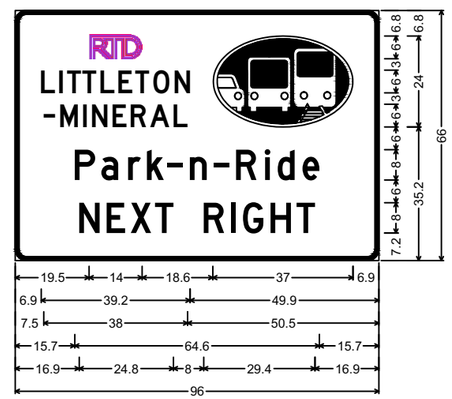


D3-2s (conventional road - 8");

3.0" Radius, 1.0" Border, White on Green;
"Mineral Ave", E Mod 50% spacing;
"WEST", E 60% spacing;
"EAST", E 60% spacing;
Table of distances between letter and object lefts

3.8	M 6.8	i 2.3	n 4.7	e 4.8	r 3.3	a 5.0	l 4.1	A 6.5	v 5.0	e 3.9	3.8	
30.6	W 7.0	E 4.3	S 4.6	T 3.7	3.8							
3.8	E 4.9	A 5.6	S 4.6	T 3.7	31.4							

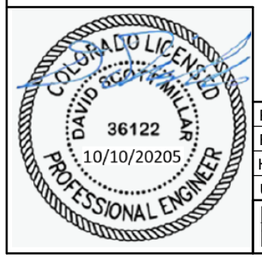
SIGN D6



3.0" Radius, 1.0" Border, White on Green;
"LITTLETON", D; "-MINERAL", D;
Rounded Rectangle 3.0" Radius; "Park-n-Ride", D;
"NEXT RIGHT", D;
Table of distances between letter and object lefts

19.5	[redacted] 32.6	[redacted] 37.0	6.9															
6.9	L 4.7	I 2.1	T 4.0	T 4.8	L 4.8	E 4.4	T 4.8	O 5.6	N 4.0	49.9								
7.5	- 4.4	M 6.1	I 2.3	N 5.5	E 4.7	R 5.2	A 6.1	L 3.7	50.5									
15.7	P 7.0	a 7.1	r 5.0	k 5.4	- 5.9	n 6.3	- 5.9	R 7.7	i 3.3	d 6.5	e 4.5	15.7						
16.9	N 7.2	E 6.4	X 6.4	T 12.8	R 7.3	I 3.1	G 7.3	H 6.9	T 4.8	16.9								

SIGN E10

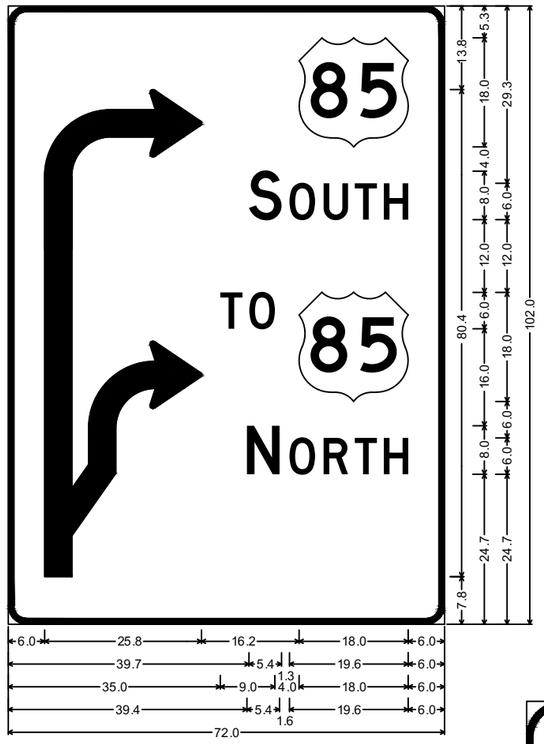


Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions			As Constructed	TRAFFIC SIGN DETAILS	Project No./Code
File Name: 23574_TR_SIGN_DETAILS.DWG	Date:	Comments	Init.	No Revisions:		AQC M810-017
Horiz. Scale: N/A Vert. Scale: N/A				Revised:	Designer: GBAKER / Structure Numbers	23574
Unit Information				Void:	Detailer: GBAKER	Sheet Number 339
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139					Sheet Subset: TRAFFIC / Subset Sheets: 03 of 05	

Littleton Colorado

$PLOT_INFO$

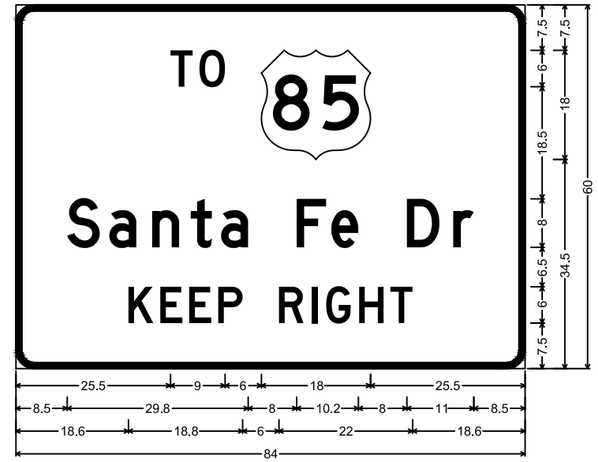


D3-2s (conventional road - 8");

3.0" Radius, 1.0" Border, White on Green;
US 85; "SOUTH", D; "TO", D; US 85; "NORTH", D;
Table of distances between letter and object lefts

6.0	42.0	18.0	6.0	
39.7	S 6.7	O 5.6	U 5.2	T 4.8	H 4.0	6.0
35.0	T 4.8	O 8.2	18.0	6.0
39.4	N 7.0	O 5.6	R 5.2	T 4.8	H 4.0	6.0

SIGN H4

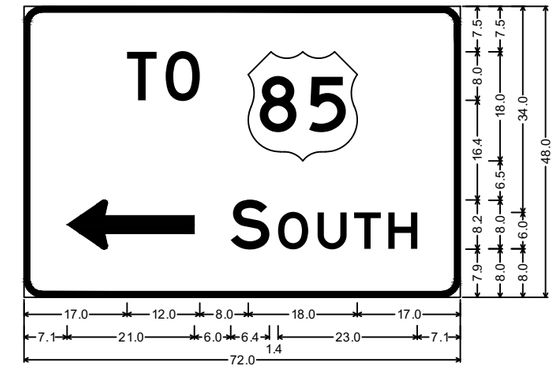


D3-2s (conventional road - 8");

3.0" Radius, 1.0" Border, White on Green;
"TO", D; US85; "Santa Fe Dr", D; "KEEP RIGHT", D;
Table of distances between letter and object lefts

25.5	T 4.8	O 10.2	18.0	25.5
8.5	S 6.9	a 7.1	n 6.3	t 5.1	a 12.4	F 5.7	e 12.5	D 7.7	r 3.3	8.5
18.6	K 5.2	E 4.8	E 4.8	P 10.0	R 5.4	I 2.4	G 5.4	H 5.2	T 3.6	18.6

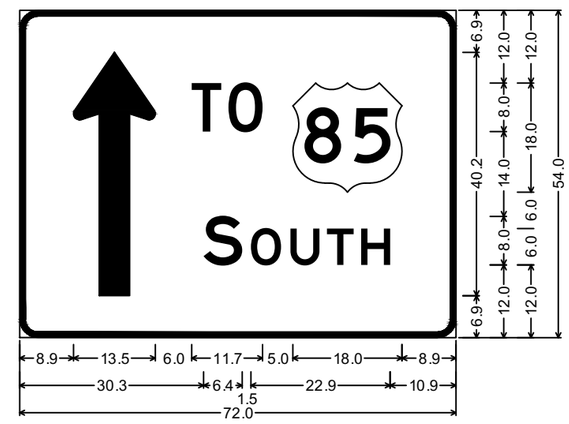
SIGN H1



SPECIAL GUIDE;
3.0" Radius, 1.0" Border, White on Green;
"TO", D; US 85; Arrow Custom - 21.0" 180°; "SOUTH", E;
Table of distances between letter and object lefts

17.0	T 6.4	O 13.6	18.0	17.0
7.1	← 27.0	S 7.8	O 6.5	U 6.1	T 5.6	H 4.8	7.1

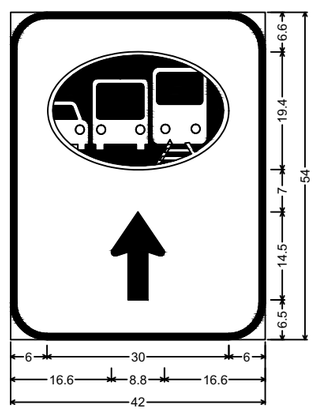
SIGN J12



3.0" Radius, 1.0" Border, White on Green;
"TO", D 80% spacing; US 85; "SOUTH", E;
Table of distances between letter and object lefts

8.9	↑ 19.5	T 6.1	O 10.6	18.0	8.9
30.3	S 7.9	O 6.5	U 6.0	T 5.6	H 4.8	10.9

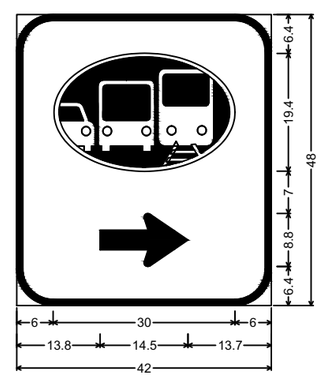
SIGN K3



6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Bus Train;
Standard Arrow Custom 14.5" X 8.8" 90°;
Table of distances between letter and object lefts

6.0	30.0	6.0
16.6	↑ 8.8	16.6

SIGN N1



6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Bus Train;
Standard Arrow Custom 14.5" X 8.8" 0°;
Table of distances between letter and object lefts

6.0	30.0	6.0
13.8	→ 14.4	13.8

SIGN P9

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

Print Date: 2024-11-04			
File Name: 23574_TR_SIGN_DETAILS.DWG			
Horiz. Scale: N/A	Vert. Scale: N/A		
Unit Information			

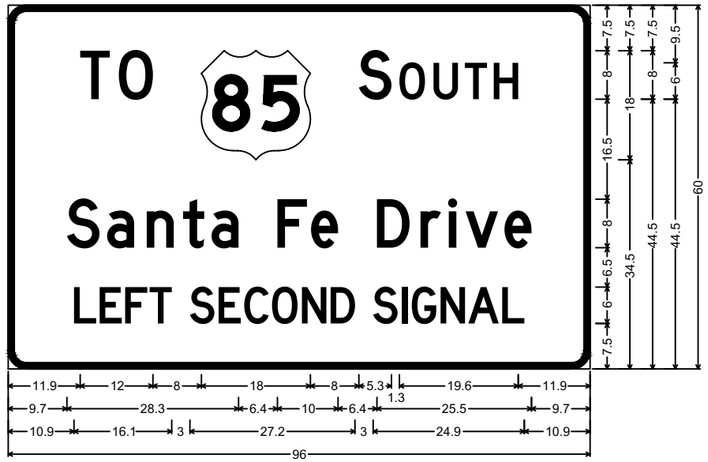
HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	TRAFFIC SIGN DETAILS		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 340
	Sheet Subset: TRAFFIC	Subset Sheets: 04 of 05	

$PLOT_INFO$



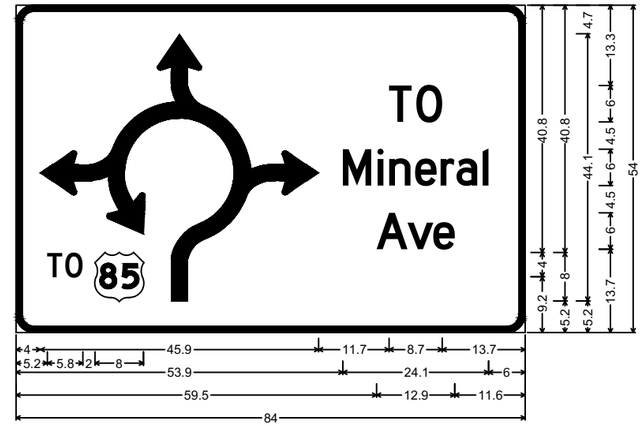
3.0" Radius, 1.0" Border, White on Green;
"TO", D; US 85; "SOUTH", D; "Santa Fe Drive", D 80% spacing;
"LEFT SECOND SIGNAL", D 50% spacing;
Table of distances between letter and object lefts

11.9	T 6.3	O 13.7	● 26.0	S 6.6	O 5.7	U 5.1	T 4.8	H 4.0	11.9

9.7	S 6.6	a 6.6	n 5.9	t 4.7	a 10.9	F 5.6	e 10.8	D 7.2	r 4.7	i 2.7	v 6.5	e 4.4	9.7	

10.9	L 4.2	E 4.2	F 4.0	T 6.7	S 4.7	E 4.2	C 4.6	O 4.9	N 4.8	D 7.0	S 4.7	I 1.7	G 4.7	N 4.6	A 5.6	L 3.6	10.9

SIGN K5



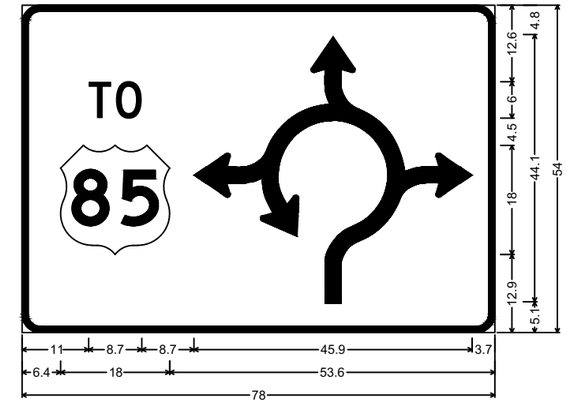
D1-5_VARxVAR;
3.0" Radius, 1.0" Border, White on Green;
"TO", D 2K; US 85; "TO", D 2K; "Mineral", D 2K 80% spacing;
"Ave", D 2K 0% spacing;
Table of distances between letter and object lefts

5.2	T 3.0	O 4.8	● -8.9	✥ 57.5	T 4.5	O 4.2	13.7		

53.9	M 5.8	i 1.9	n 4.2	e 4.2	r 2.7	a 4.3	l 1.0	6.0	

59.5	A 5.1	v 4.2	e 3.6	11.6

SIGN N11

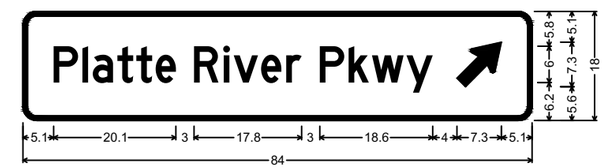


D1-5_VARxVAR;
3.0" Radius, 1.0" Border, White on Green;
"TO", D 2K; US 85;
Table of distances between letter and object lefts

11.0	T 4.5	O 12.9	✥ 45.9	3.7

6.4	● 18.0	53.6

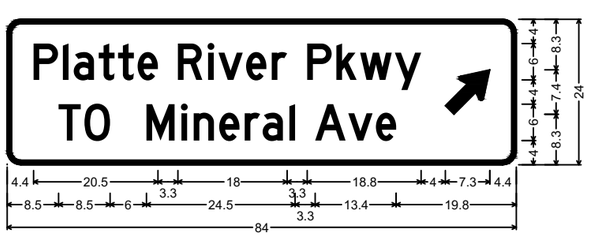
SIGN P4



D1-1d;
2.3" Radius, 0.8" Border, White on Green;
"Platte River Pkwy", D 50% spacing; Standard Arrow Custom 9.4" X 5.4" 45°;
Table of distances between letter and object lefts

5.1	P 4.7	l 1.7	a 4.1	t 3.1	t 3.2	e 6.3	R 4.9	i 1.7	v 4.5	e 4.1	r 5.6	P 4.7	k 3.9	w 5.7	y 8.3	↗ 7.3	5.1

SIGN O5

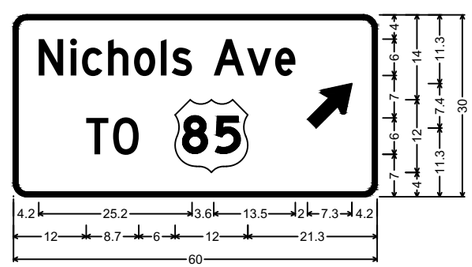


D1-1d;
2.3" Radius, 0.8" Border, White on Green;
"Platte River Pkwy", D 55% spacing; "TO", D 55% spacing;
"Mineral Ave", D 55% spacing; Standard Arrow Custom 9.4" X 5.4" 45°;
Table of distances between letter and object lefts

4.4	P 4.8	l 1.8	a 4.1	t 3.2	t 3.2	e 6.7	R 4.9	i 1.8	v 4.5	e 4.3	r 5.8	P 4.8	k 3.9	w 5.8	y 8.3	↗ 7.3	4.4

8.5	T 4.3	O 10.2	M 5.8	i 2.0	n 4.2	e 4.2	r 3.0	a 4.4	l 4.2	A 5.5	v 4.5	e 3.4	19.8	

SIGN O11

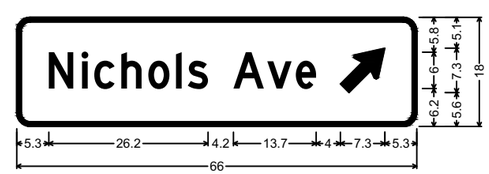


D1-1d;
2.3" Radius, 0.8" Border, White on Green;
"Nichols Ave", D 60% spacing; "TO", D 70% spacing;
US 85; Standard Arrow Custom 9.4" X 5.4" 45°;
Table of distances between letter and object lefts

4.2	N 5.2	i 1.9	c 4.3	h 4.3	o 4.4	l 1.8	s 6.9	A 5.5	v 4.7	e 5.3	↗ 7.3	4.2		

12.0	T 4.4	O 10.3	● 12.0	21.3	

SIGN O23



D1-1d;
2.3" Radius, 0.8" Border, White on Green;
"Nichols Ave", D 70% spacing;
Standard Arrow Custom 9.4" X 5.4" 45°;
Table of distances between letter and object lefts

5.3	N 5.5	i 2.0	c 4.5	h 4.4	o 4.6	l 1.9	s 7.5	A 5.6	v 4.7	e 7.4	↗ 7.3	5.3		

SIGN O20

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Unit Information				
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139				

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As Constructed	TRAFFIC SIGN DETAILS			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers		23574
Void:	Detailer: GBAKER			Sheet Number 341
	Sheet Subset: TRAFFIC	Subset Sheets: 05 of 05		

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$PLOT_INFO$

NOTES:

1. SEE ITS PLANS AND TABULATIONS FOR PROPOSED FIBER DESIGN AND RELATED ITEMS.
2. SEE LIGHTING PLANS AND TABULATIONS FOR PROPOSED POWER FEED DESIGN AND RELATED ITEMS.
3. REFER TO CITY OF LITTLETON FINDINGS IN THE PUBLIC INTEREST (FIPIs) FILED WITH CDOT FOR PROJECT SPECIFIC APPROVED PROPRIETARY ITEMS. COORDINATE WITH THE CITY OF LITTLETON PRIOR TO PURCHASE.

TRAFFIC SIGNAL QUANTITIES

Item No.	Description	Unit	MINERAL AVE & PLATTE RIVER PKWY		MINERAL AVE & SANTA FE DR		SANTA FE DR & NICHOLS AVE		Project Totals		Notes
			Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	
202-00828	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	LS	0.5		0.5		-		1.0		
210-00866	RESET FIRE PREEEMPTION UNIT AND TIMER	EACH	3		4		-		7		
503-00018	DRILLED SHAFT (18 INCH)	LF	5		-		5		10		
503-00036	DRILLED SHAFT (36 INCH)	LF	19		38		38		95		
503-00048	DRILLED SHAFT (48 INCH)	LF	42		21		-		63		
503-00054	DRILLED SHAFT (54 INCH)	LF	21		21		21		63		
613-00200	2 INCH ELECTRICAL CONDUIT	LF	100		100		200		400		
613-00206	2 INCH ELECTRICAL CONDUIT (BORED)	LF	410		420		326		1,155		
613-00300	3 INCH ELECTRICAL CONDUIT	LF	100		100		100		300		
613-00306	3 INCH ELECTRICAL CONDUIT (BORED)	LF	820		840		652		2,311		
613-07003	TYPE THREE PULL BOX	EACH	5		4		3		12		
613-07004	TYPE FOUR PULL BOX	EACH	1		2		2		5		
613-10000	WIRING	LS	0.33		0.33		0.33		1.0		LS Wiring also shown on Lighting Tabulations. Paid as 1 LS
613-13018	LUMINAIRE (LED) (18,000 LUMENS)	EACH	4		4		5		13		
614-00011	SIGN PANEL (CLASS I)	SF	125		128		81		333		
614-10160	SIGNAL HEAD BACKPLATES	EACH	15		11		12		38		
614-70150	PEDESTRIAN SIGNAL FACE (16) (COUNTDOWN)	EACH	8		8		2		18		
614-70200	ACCESSIBLE PEDESTRIAN SIGNAL	EACH	8		8		2		18		
614-70336	TRAFFIC SIGNAL FACE (12-12-12)	EACH	23		15		16		54		
614-72836	CONFLICT MONITOR	EACH	1		1		1		3		
614-72855	TRAFFIC SIGNAL CONTROLLER CABINET	EACH	1		1		1		3		
614-72863	PEDESTRIAN PUSH BUTTON POST ASSEMBLY	EACH	7		2		-		9		
614-72866	FIRE PREEEMPTION UNIT AND TIMER	EACH	1		-		3		4		
614-72886	INTERSECTION DETECTION SYSTEM (CAMERA)	EACH	2		2		2		6		
614-81145	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-45 FOOT MAST ARM)	EACH	-		1		-		1		
614-81150	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-50 FOOT MAST ARM)	EACH	-		-		1		1		
614-81155	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-55 FOOT MAST ARM)	EACH	1		1		1		3		
614-81165	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-65 FOOT MAST ARM)	EACH	2		1		-		3		
614-81170	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-70 FOOT MAST ARM)	EACH	1		1		1		3		
614-84000	TRAFFIC SIGNAL PEDESTAL POLE STEEL	EACH	1		-		1		2		
614-86105	TELEMETRY (FIELD)	EACH	1		1		1		3		
614-86238	TRAFFIC SIGNAL CONTROLLER (SOLID STATE) (FULL ACTUATED) (8-PHASE)	EACH	1		1		1		3		
614-86800	UNINTERRUPTED POWER SUPPLY	EACH	1		1		1		3		
614-87333	CLOSED CIRCUIT TELEVISION CAMERA (TRAFFIC SURVEILLANCE)	EACH	1		1		1		3		

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Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
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Void:

TABULATION OF TRAFFIC SIGNAL ITEMS

Designer: GBAKER
Detailer: GBAKER
Sheet Subset: SIGNALS TAB
Structure Numbers
Subset Sheets: 01 of 01

Project No./Code
AQC M810-017
23574
Sheet Number 342

$PLOT_INFO$

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. TRAFFIC SIGNAL MATERIALS AND INSTALLATION SHALL COMPLY WITH THE "STATE OF COLORADO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", THE "STATE OF COLORADO STANDARD PLANS, M AND S STANDARDS" (LATEST EDITION), THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "NATIONAL ELECTRIC CODE" (LATEST EDITION), AND ALL LOCAL ORDINANCES AND REGULATIONS THAT APPLY, EXCEPT AS NOTED ON THE PLANS OR SPECIAL PROVISIONS.

2. THE CONTRACTOR SHALL CONTACT THE CITY OF LITTLETON AND CDOT A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WORK ON THE SIGNALS.

3. THE CONTROLLER CABINET SHALL BE MOUNTED ON A PREFORMED FIBERGLASS BASE. THE CONTROLLER CABINET SHALL BE INSTALLED SUCH THAT, WITH THE FRONT DOOR OPEN, A TECHNICIAN CAN VIEW BOTH THE CONTROLLER AND THE SIGNAL INSTALLATION AS WELL AS THE NEXT ADJACENT COORDINATED SIGNAL.

4. FOR LOCATIONS IDENTIFIED ON THE PLANS, AN ELECTRIC METER PEDESTAL (SECONDARY SERVICE/DISCONNECT) SHALL BE INSTALLED PER CDOT S-STANDARD 614-42. CONTRACTOR SHALL INSTALL 1-2" CONDUIT FROM THE POWER SOURCE TRANSFORMER TO THE SERVICE METER PEDESTAL AND FROM THE METER PEDESTAL TO THE TRAFFIC SIGNAL CONTROLLER. THE CONTRACTOR SHALL COORDINATE WITH XCEL ENERGY FOR PERMITS, INSPECTION, CONNECTION TO THE POWER SOURCE, AND METER INSTALLATION.

5. ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE APPROVED SOLID STATE LED TYPE. ALL VEHICLE AND PEDESTRIAN HEAD HOUSINGS SHALL BE POLYCARBONATE TYPE AND BLACK IN COLOR. TRAFFIC SIGNALS THAT ARE MOUNTED ON MAST ARMS SHALL BE FURNISHED WITH MOUNTING BRACKET AND BLACK LOUVERED BACKING PLATES WITH 1.5 INCH WIDE BORDER OF YELLOW TYPE XI MATERIAL PER THE LATEST FHWA SIGN SHEETING REFERENCE GUIDE. MAST ARMS SHALL BE OF SUFFICIENT LENGTH TO ALLOW ALL SIGNAL HEADS TO BE CENTERED OVER OUTBOUND LANES. ALL SIDE-OF-POLE MOUNTED HEADS SHALL HAVE A HEIGHT OF 10 FEET ABOVE GROUND LINE AND PEDESTRIAN SIGNALS SHALL HAVE A HEIGHT OF 8 FEET ABOVE GROUND LINE AS MEASURED TO THE BOTTOM OF THE SIGNAL HEAD HOUSING OR BRACKET.

6. THE SIGNAL SHALL NOT BE PUT IN FLASH MODE OR MADE FULLY OPERATIONAL UNTIL CDOT AND CITY OF LITTLETON HAVE INSPECTED AND APPROVED THE INSTALLATION AND ALL REGULATORY SIGNING AND PAVEMENT MARKINGS ARE IN PLACE.

7. 1/2 INCH PREFORMED JOINT MATERIAL SHALL BE APPLIED AROUND THE 6 INCHES OF LEVELING CONCRETE BENEATH SIGNAL POLES WHEN THE SIGNAL POLE IS INSTALLED IN EXISTING CONCRETE AND CONSIDERED INCIDENTAL TO THE WORK AND SHALL NOT BE PAID FOR SEPARATELY.

8. ALL CONDUIT SHALL BE SCHEDULE 80 PVC. A LOCATING WIRE (SINGLE STRAND 12 AWG INSULATED) AND PULL TAPE SHALL BE PLACED IN ALL NEW CONDUIT INSTALLATIONS AS WELL AS WITHIN ALL EXISTING CONDUIT. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR CONDUIT.

9. CONTRACTORS SIGNAL ELECTRICIAN IS REQUIRED TO BE ON SITE, AT A MINIMUM, DURING AM & PM PEAK HOURS FOLLOWING THE NEXT DAY A SIGNAL IS TURNED ON TO OBSERVE OPERATION AND MAKE ADJUSTMENTS AS NEEDED. THE ENGINEER MAY REQUIRE THE SIGNAL ELECTRICIAN TO BE ON SITE FOR ADDITIONAL HOURS AS DIRECTED. THIS APPLIES TO BOTH PERMANENT AND TEMPORARY INSTALLATIONS.

10. THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING REQUIREMENTS REGARDING TRAFFIC SIGNAL CONSTRUCTION AND MAINTENANCE PERSONNEL. CURRENT CERTIFICATES SHOWING QUALIFICATIONS SHALL BE SUBMITTED AT THE PRE-CONSTRUCTION MEETING.

    (1) A LICENSED JOURNEYMAN ELECTRICIAN SHALL BE ON SITE AT ALL TIMES THAT SIGNALIZATION WORK IS TAKING PLACE TO ENSURE PROPER CONSTRUCTION. THIS SHALL INCLUDE CONDUIT AND CAISSON INSTALLATION.

    (2) FOR WORK INSIDE THE TRAFFIC SIGNAL CABINET, SIGNAL AND SIGNAL BENCH TECHNICIANS SHALL BE MINIMUM INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) LEVEL II CERTIFIED. THIS INCLUDES THE COMPLETION OF TRAINING IN CONSTRUCTION, CORRECTIVE MAINTENANCE, AND SIGNAL TURN-ON.

    (3) FOR ALL WORK EXTERNAL TO THE SIGNAL CABINET, A MINIMUM IMSA LEVEL I TRAFFIC SIGNAL FIELD TECHNICIAN/ELECTRICIAN, OR TRAFFIC SIGNAL BENCH TECHNICIAN/SIGNAL TECHNICIAN, IS REQUIRED. A JOURNEYMAN ELECTRICIAN AND AN IMSA LEVEL II TRAFFIC SIGNAL ELECTRICIAN SHALL BE ON THE JOB SITE AT ALL TIMES THAT THE SIGNALIZATION WORK IS TAKING PLACE TO ENSURE PROPER CONSTRUCTION. FOR EACH JOURNEYMAN ELECTRICIAN PRESENT, A MAXIMUM OF 3 APPRENTICE ELECTRICIANS WILL BE ALLOWED FOR WORK.

    (4) A MAXIMUM RATIO OF FOUR IMSA LEVEL I TO ONE IMSA LEVEL II WILL BE ALLOWED FOR WORK EXTERNAL TO THE SIGNAL CABINET.THE UNITED STATES DEPARTMENT OF LABOR BUREAU OF APPRENTICESHIP AND TRAINING MAY BE SUBSTITUTED FOR THE IMSA LEVEL I TRAFFIC SIGNAL ELECTRICIAN REQUIREMENT.

11. LUMP SUM ITEMS ARE PROJECT WHOLE ITEMS. ITEM 613-10000, WIRING (1 LUMP SUM), SHALL INCLUDE ALL NECESSARY WIRING WORK, NOT OTHERWISE INCLUDED IN AN INDIVIDUAL PAY ITEM. ALL WIRING WORK FOR SIGNALS, LIGHTING, AND ITS WILL BE COMPLETE AND THE SYSTEMS SHALL BE FULLY FUNCTIONAL BEFORE WIRING IS PAID.

12. ITEM 202-00828, REMOVAL OF TRAFFIC SIGNAL EQUIPMENT (1 LUMP SUM) SHALL INCLUDE ALL SIGNAL EQUIPMENT REMOVALS IN THIS PROJECT, ENCOMPASSING MULTIPLE GEOGRAPHIC LOCATIONS.

13. THE REMOVAL OF TRAFFIC SIGNAL EQUIPMENT SHALL INCLUDE ALL BASES TO BELOW THE FINISHED GRADE PER CDOT SPECIFICATIONS, THE EXISTING CONTROL CABINET AND ITS BASE, POLES, MAST ARMS, SIGNAL FACES, PEDESTRIAN PUSH BUTTONS, PEDESTRIAN POLES, PULL BOXES, AND ANY OTHER DEVICES THAT WERE UTILIZED IN THE EXISTING SIGNAL SYSTEM TO BE REPLACED WHICH MAY INCLUDE THE REMOVAL OF EXISTING CONDUIT THAT MAY INTERFERE WITH THE NEW SIGNAL INSTALLATION. ALL EQUIPMENT, LABOR, AND/OR MATERIALS USED TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PAY ITEM REMOVAL OF TRAFFIC SIGNAL EQUIPMENT. ALL EXISTING SALVAGEABLE SIGNAL EQUIPMENT SHALL REMAIN THE PROPERTY OF CITY OF LITTLETON PUBLIC WORKS (303-884-1279).

14. SIGNAL HEADS SHALL BE WIRED SEPARATELY FROM THE SIGNAL HEAD TO THE ABOVE GROUND HANDHOLE AT THE BASE OF THE SIGNAL POLE AND WITH NO OVERHEAD SPLICES. A SEPARATE 21-CONDUCTOR CABLE SHALL RUN WITH NO SPLICES FROM THE CONTROLLER CABINET TO THE HANDHOLE AT EACH POLE.

15. UNIFORMED TRAFFIC CONTROL SHALL BE UTILIZED WHILE MODIFYING OPERATIONS AT SIGNALIZED INTERSECTIONS. SEE TABULATION OF CONSTRUCTION TRAFFIC CONTROL FOR PAY ITEM AND QUANTITY.

16. THE CONTRACTOR SHALL SUBMIT TEMPORARY SIGNAL PHASING AND TIMING PLANS TO THE ENGINEER FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO THE START OF CONSTRUCTION.

17. ALL MANUALS, INSTALLATION GUIDES AND ASSOCIATED EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER AT TIME OF INSPECTION.

18. ITEM 614-86800, UNINTERRUPTIBLE POWER SUPPLY (UPS) SHALL BE PROVIDED TO RUN THE SIGNAL FOR 8 HOURS IN ALL PHASES, AND FLASH FOR FOUR ADDITIONAL HOURS.

19. THE TOP OF THE POLE FOUNDATION SHALL BE LEVEL WITH FINISHED GRADE. IF THE SLOPE OR SHOULDER DROPS FROM FINISHED GRADE, CONTRACTOR SHALL GRADE AROUND POLE FOUNDATION.

20. PULL BOX LOCATIONS ARE APPROXIMATE, ACTUAL LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER. PULL BOXES SHALL BE FLUSH WITH THE FINISHED GROUND SURFACE AND SHALL NOT BE PLACED IN AREAS SUSCEPTIBLE TO WATER RUN OFF OR STANDING WATER. CONDUIT RUNS BETWEEN PULL BOXES SHALL NOT EXCEED 200 FEET.

21. SIGNAL POLE NORTHING/EASTING IS TO CENTER OF CAISSON.

22. PRIOR TO INSTALLATION OF TRAFFIC SIGNAL POLE CAISSONS, THE CONTRACTOR SHALL STAKE PROPOSED LOCATIONS IN THE FIELD PER THE DESIGN PLANS AND CONTACT THE CITY OF LITTLETON FOR THEIR FIELD VERIFICATION AND APPROVAL PRIOR TO DRILLING OR EXCAVATION. THE LOCATION OF EACH SIGNAL POLE FOUNDATION SHALL BE POTHOLED PRIOR TO DRILLING TO VERIFY NO UTILITY CONFLICTS EXIST. THE LOCATION OF TRAFFIC SIGNAL EQUIPMENT INCLUDING POLES, CONTROLLER CABINETS AND PULL BOXES WITHIN CDOT ROW, SHALL BE FIELD VERIFIED WITH THE CDOT R1 TRAFFIC SIGNAL ENGINEER (303-365-7325), AND CDOT UTILITIES (303-757-9883) PRIOR TO CONSTRUCTION.

23. ALL SIGNAL DETECTION SHOWN ON PLANS IS FOR ILLUSTRATIVE PURPOSES ONLY. SIGNAL DETECTION SHALL BE FIELD VERIFIED WITH THE VENDOR AND CITY OF LITTLETON PRIOR TO CONSTRUCTION.

24. CITY OF LITTLETON WILL PROGRAM THE TRAFFIC SIGNAL CONTROLLER WITH THE CITY DEVELOPED TRAFFIC SIGNAL TIMING. ALL TRAFFIC SIGNAL TIMING (CONTROLLER PROGRAMMING) SHALL BE BENCH TESTED BY THE CONTRACTOR WITH A MINIMUM OF 72 HOURS BURN TIME TO VERIFY SUCCESSFUL OPERATION PRIOR TO INSTALLATION.

25. AS-BUILTS SHALL BE PROVIDED TO THE CITY PRIOR TO THE SIGNAL OPERATION AT NO ADDITIONAL COST AND INCLUDE ACCURATE DOCUMENTATION OF INSTALLED CONDUITS.

26. TRAFFIC SIGNAL TURN ON SHALL NOT OCCUR ON A FRIDAY OR PRIOR TO A HOLIDAY WITHOUT PRIOR AUTHORIZATION FROM CITY OF LITTLETON PUBLIC WORKS (303-884-1279). NO TRAFFIC SIGNAL SHALL BE TURNED ON WITHOUT PERMANENT SIGNING AND STRIPING.

27. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND RELOCATION OF ALL CONFLICTING UTILITIES.

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As Constructed	TRAFFIC SIGNAL NOTES		Project No./Code
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Void:	Detailer: GBAKER		Sheet Number 343
	Sheet Subset: SIGNALS	Subset Sheets: 01 of 06	

$PLOT_INFO$

NOTES:

1. TOP OF CAISSON ELEVATION IN FINISHED AREAS IS 6 INCHES BELOW FINISHED GRADE PER CDOT S-614-40 AND S-614-40A

MINERAL AVENUE AND PLATTE RIVER PARKWAY SIGNAL POLE SCHEDULE

NO.	STR. NO.	BASE LOCATION	NORTHING	EASTING	TOP OF CAISSON ELEV.	POLE TYPE	MAST ARM LENGTH	CAISSON DIA.	CAISSON LENGTH
MA1	--	SE	636847.04	133933.43	5382.20'	MAST ARM	70'	54"	■ 21'
MA2	--	NE	636974.71	133958.96	5381.65'	MAST ARM	65'	48"	■ 21'
MA3	--	NW	637001.90	133843.64	5380.00'	MAST ARM	65'	48"	■ 21'
MA4	--	SW	636893.43	133819.49	5379.80'	MAST ARM	55'	36"	● 19'
PP1	--	NW	637012.41	133869.65	5380.57'	PEDESTAL	--	18"	▲ 5'
PB1	--	SE	636848.12	133905.62	--	PUSH BUTTON	--	--	--
PB2	--	SE	636857.10	133917.01	--	PUSH BUTTON	--	--	--
PB3	--	NE	636965.03	133976.95	--	PUSH BUTTON	--	--	--
PB4	--	NE	636992.36	133958.24	--	PUSH BUTTON	--	--	--
PB5	--	NW	637006.24	133849.02	--	PUSH BUTTON	--	--	--
PB6	--	SW	636894.55	133808.61	--	PUSH BUTTON	--	--	--
PB7	--	SW	636884.53	133813.06	--	PUSH BUTTON	--	--	--

SANTA FE DRIVE AND MINERAL AVENUE SIGNAL POLE SCHEDULE

NO.	STR. NO.	BASE LOCATION	NORTHING	EASTING	TOP OF CAISSON ELEV.	POLE TYPE	MAST ARM LENGTH	CAISSON DIA.	CAISSON LENGTH
MA1	--	NW	636793.84	134462.01	5380.04'	MAST ARM	70'	54"	■ 21'
MA2	085B201496A1	SW	636661.50	134424.97	5379.98'	MAST ARM	55'	36"	● 19'
MA3	--	SE	636626.85	134552.07	5377.54'	MAST ARM	45'	36"	● 19'
MA4	085B201496B1	NE	636734.74	134590.23	5377.50'	MAST ARM	65'	48"	■ 21'
PB1	--	NW	636787.17	134447.15	--	PUSH BUTTON	--	--	--
PB2	--	SW	636677.99	134421.51	--	PUSH BUTTON	--	--	--

SANTA FE DRIVE AND NICHOLS AVENUE SIGNAL POLE SCHEDULE

NO.	STR. NO.	BASE LOCATION	NORTHING	EASTING	TOP OF CAISSON ELEV.	POLE TYPE	MAST ARM LENGTH	CAISSON DIA.	CAISSON LENGTH
MA1	085B201276D	SW	635874.67	134127.78	5395.10'	MAST ARM	70'	54"	■ 21'
MA2	085B201276A	SE	635832.93	134187.07	5396.70'	MAST ARM	55'	36"	● 19'
MA3	085B201276C	NE	635975.30	134256.53	5395.65'	MAST ARM	50'	36"	● 19'
PP1	--	NW	635982.08	134163.67	5394.40'	PEDESTAL	--	--	▲ 5'

■ BASED ON S-STANDARD S-614-40

● BASED ON S-STANDARD S-614-40A

▲ BASED ON S-STANDARD S-614-44

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TRAFFIC SIGNAL SCHEDULE

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Detailer: GBAKER
Sheet Subset: SIGNALS
Structure Numbers
Subset Sheets: 02 of 06

Project No./Code
AQC M810-017
23574
Sheet Number 344

$PLOT_INFO$

NOTES:

1. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED. ALL REMOVALS PAID FOR UNDER ITEM 202-00828 REMOVAL OF TRAFFIC SIGNAL EQUIPMENT.
2. EXISTING FIRE PREEMPTION UNITS SHALL BE RESET TO NEW MAST ARMS. CONTRACTOR TO COORDINATE WITH SOUTHWEST METRO FIRE.
3. EXISTING CONDUIT MAY BE ABANDONED IN PLACE.
4. SEE ITS PLANS AND TABULATIONS FOR PROPOSED FIBER DESIGN AND ITEMS.
5. SEE LIGHTING PLANS FOR ELECTRICAL SERVICE CONNECTION DETAILS.

LEGEND:

- MA1 — TRAFFIC SIGNAL POLE, FOUNDATION AND MAST ARM (LENGTH AS SHOWN)
- PP1 — PEDESTAL POLE
- (1) — TRAFFIC SIGNAL FACE WITH BACKPLATE
- (1) — TRAFFIC SIGNAL FACE WITHOUT BACKPLATE
- (1) — TRAFFIC SIGNAL FACE FOR TURNING MOVEMENT WITH BACKPLATE
- (1) — TRAFFIC SIGNAL FACE FOR TURNING MOVEMENT WITHOUT BACKPLATE
- PEDESTRIAN SIGNAL HEAD
- PB1 — PEDESTRIAN PUSH BUTTON POST ASSEMBLY
- APS PEDESTRIAN PUSH BUTTON AND SIGN
- LUMINAIRE
- TRAFFIC SIGNAL CONTROLLER AND CABINET
- (1) — SIGN PANEL
- M — METER PEDESTAL
- PULL BOX (TYPE AS NOTED)
- VIDEO DETECTOR
- PTZ CAMERA
- CONDUIT (AS NOTED)
- OPTICOM DETECTORS (ONE-WAY) SEE NOTE 2

TRAFFIC SIGN SCHEDULE

R3-5L
30"x36"
(2)

R3-5R
30"x36"
(3)

D3-1 72"x18"
(9)

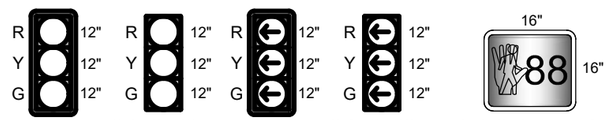
D3-1 96"x18"
(7)

PED PUSH BUTTON SIGN DETAILS

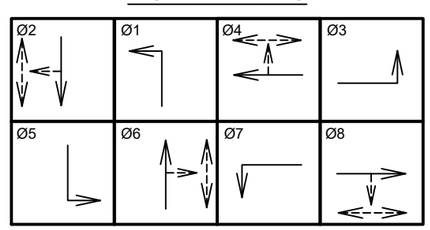
R10-3R
9"x12"

R10-3L
9"x12"

TRAFFIC SIGNAL HEAD SCHEDULE



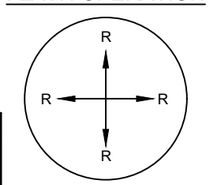
SIGNAL PHASING

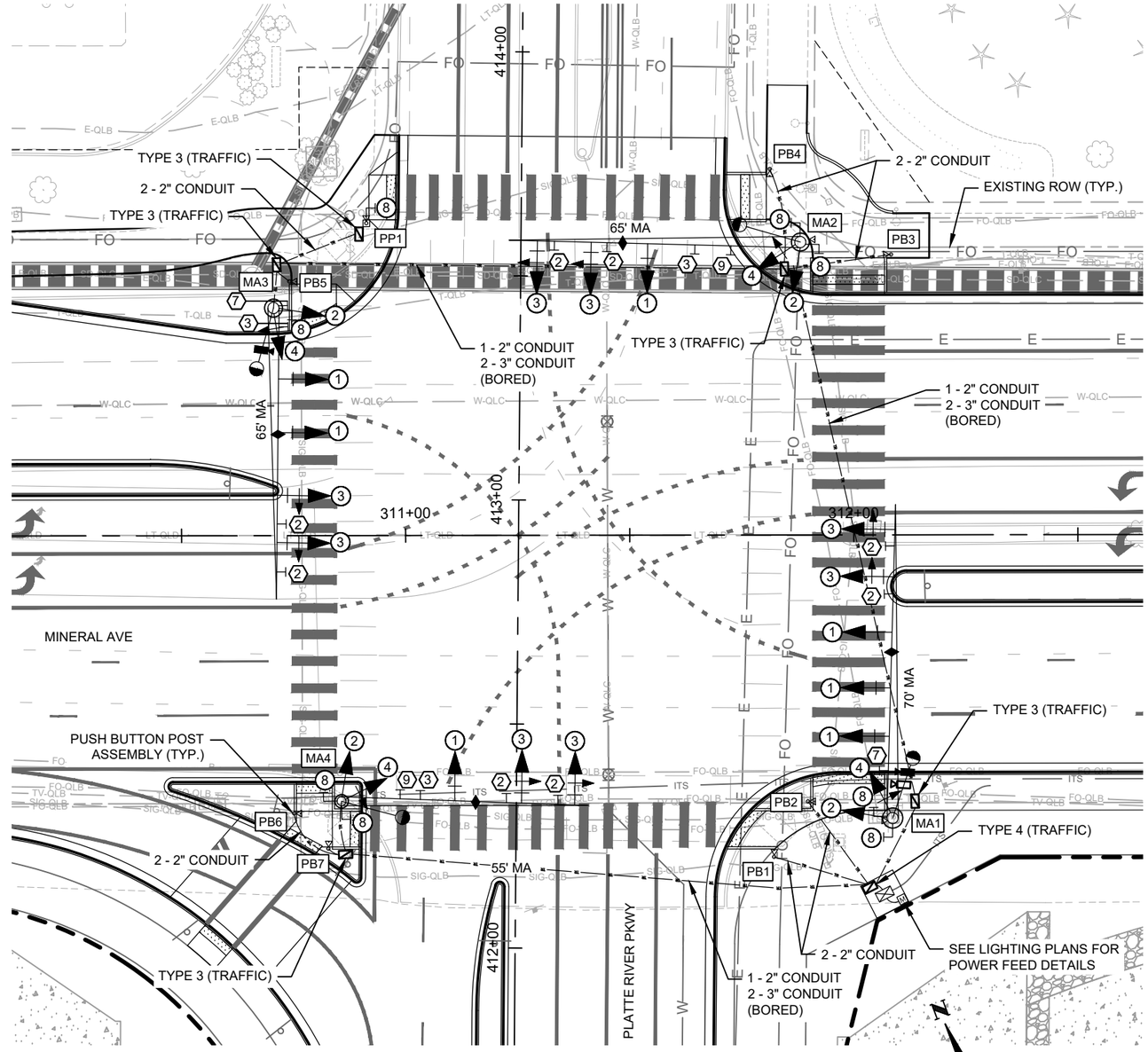


- PROTECTED PHASE
- PERMISSIVE PHASE
- PEDESTRIAN PHASE

Ø1 AND Ø5 SHALL NOT OPERATE CONCURRENTLY

FLASH OPERATION





0 15 30 60
SCALE: 1" = 30'

Know what's below. Call before you dig.

COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGNAL_PLAN.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 30' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	TRAFFIC SIGNAL PLAN MINERAL AVE & PLATTE RIVER PKWY			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers		23574
	Detailer: GBAKER			
Void:	Sheet Subset: SIGNALS	Subset Sheets: 03 of 06		Sheet Number 345

$PLOT_INFO$

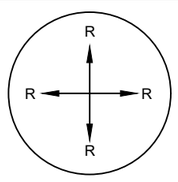
NOTES:

1. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED. ALL REMOVALS PAID FOR UNDER ITEM 202-00828 REMOVAL OF TRAFFIC SIGNAL EQUIPMENT.
2. EXISTING FIRE PREEMPTION UNITS SHALL BE RESET TO NEW MAST ARMS. CONTRACTOR TO COORDINATE WITH SOUTHWEST METRO FIRE.
3. EXISTING CONDUIT MAY BE ABANDONED IN PLACE.
4. SEE ITS PLANS AND TABULATIONS FOR PROPOSED FIBER DESIGN AND ITEMS.
5. SEE LIGHTING PLANS FOR ELECTRICAL SERVICE CONNECTION DETAILS.

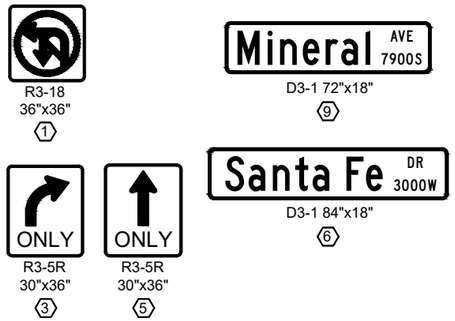
LEGEND:

- MA1 — TRAFFIC SIGNAL POLE, FOUNDATION AND MAST ARM (LENGTH AS SHOWN)
- PP1 — PEDESTAL POLE
- (1) — TRAFFIC SIGNAL FACE WITH BACKPLATE
- (1) — TRAFFIC SIGNAL FACE WITHOUT BACKPLATE
- (1) — TRAFFIC SIGNAL FACE FOR TURNING MOVEMENT WITH BACKPLATE
- (1) — TRAFFIC SIGNAL FACE FOR TURNING MOVEMENT WITHOUT BACKPLATE
- PEDESTRIAN SIGNAL HEAD
- PB1 — PEDESTRIAN PUSH BUTTON POST ASSEMBLY
- APS PEDESTRIAN PUSH BUTTON AND SIGN
- LUMINAIRE
- TRAFFIC SIGNAL CONTROLLER AND CABINET
- (1) — SIGN PANEL
- M — METER PEDESTAL
- PULL BOX (TYPE AS NOTED)
- VIDEO DETECTOR
- PTZ CAMERA
- CONDUIT (AS NOTED)
- OPTICOM DETECTORS (ONE-WAY) SEE NOTE 2

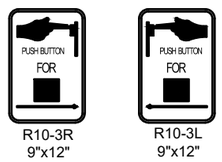
FLASH OPERATION



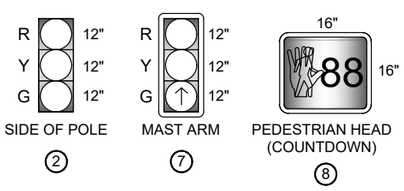
TRAFFIC SIGN SCHEDULE



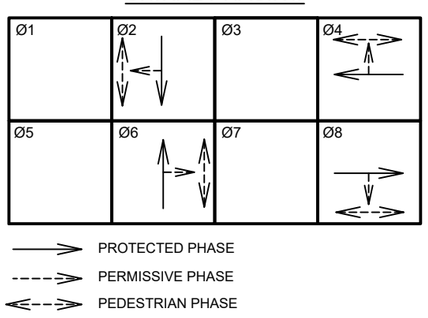
PED PUSH BUTTON SIGN DETAILS

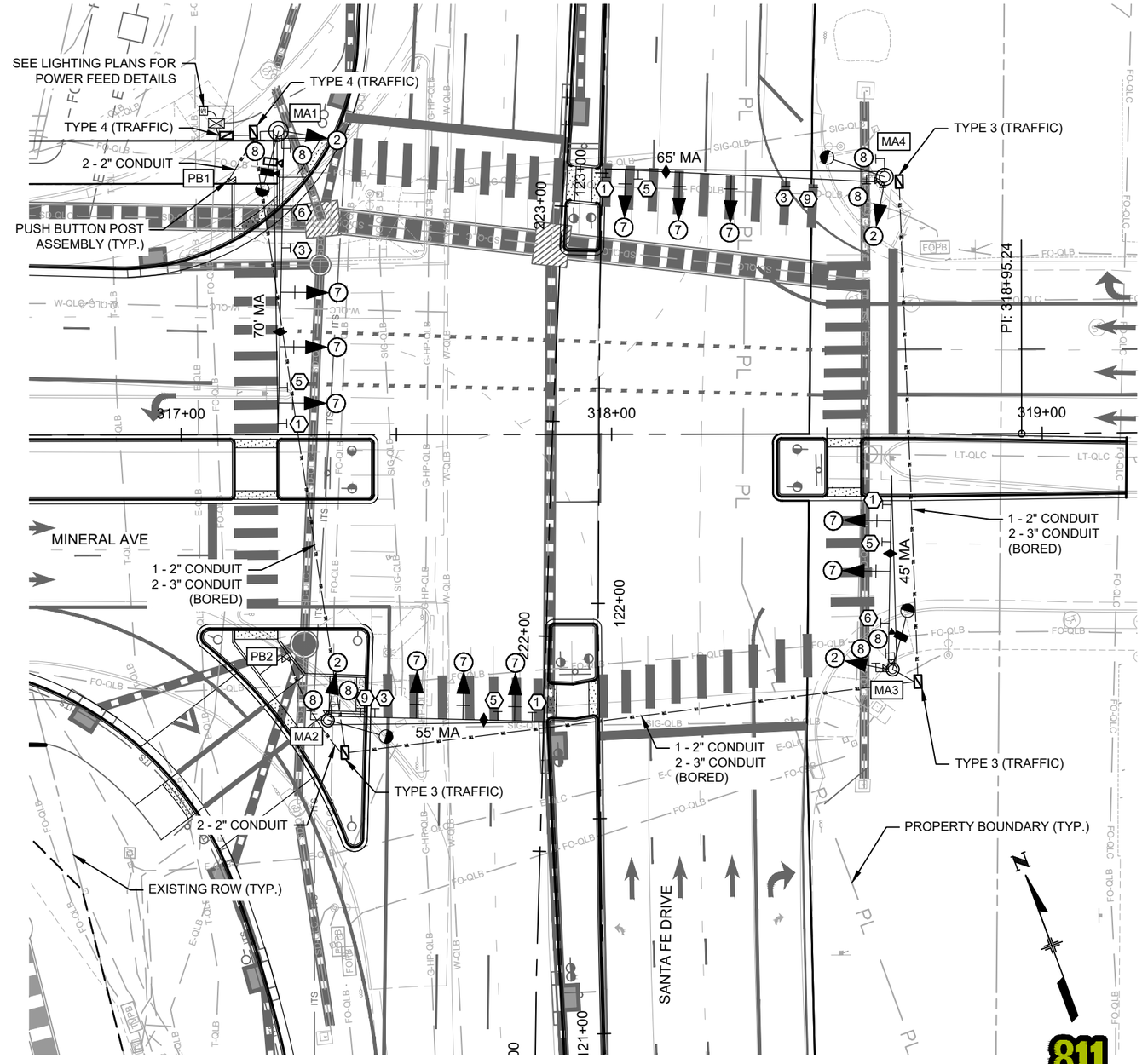


TRAFFIC SIGNAL HEAD SCHEDULE



SIGNAL PHASING





COLORADO LICENSED
DAVID SCOTT MILLAR
36122
10/10/20205
PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGNAL_PLAN.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 30' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	TRAFFIC SIGNAL PLAN MINERAL AVE & S SANTA FE DR		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 346
	Sheet Subset: SIGNALS	Subset Sheets: 04 of 06	

811 Know what's below. Call before you dig.

$PLOT_INFO$

NOTES:

1. SEE ITS PLANS AND TABULATIONS FOR PROPOSED FIBER DESIGN AND ITEMS.
2. CONTRACTOR TO COORDINATE FIRE PREEMPTION UNIT INSTALLATION WITH SOUTHWEST METRO FIRE.
3. SEE LIGHTING PLANS FOR ELECTRICAL SERVICE CONNECTION DETAILS.
4. CONTRACTOR TO PROVIDE EXTRA 50FT OF SIGNAL WIRING BUNDLED IN PULL BOX. COORDINATE WITH CITY OF LITTLETON PRIOR TO INSTALLATION.

LEGEND:

- MA1 — TRAFFIC SIGNAL POLE, FOUNDATION AND MAST ARM (LENGTH AS SHOWN)
- PP1 — PEDESTAL POLE
- (1) — TRAFFIC SIGNAL FACE WITH BACKPLATE
- (1) — TRAFFIC SIGNAL FACE WITHOUT BACKPLATE
- (1) — TRAFFIC SIGNAL FACE FOR TURNING MOVEMENT WITH BACKPLATE
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- PEDESTRIAN SIGNAL HEAD
- PB1 — PEDESTRIAN PUSH BUTTON POST ASSEMBLY
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- TRAFFIC SIGNAL CONTROLLER AND CABINET
- (1) — SIGN PANEL
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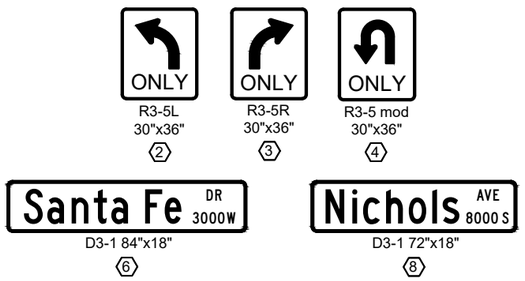
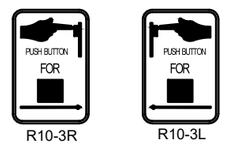
- PULL BOX (TYPE AS NOTED)
- VIDEO DETECTOR
- PTZ CAMERA
- CONDUIT (AS NOTED)
- OPTICOM DETECTORS (ONE-WAY) SEE NOTE 2

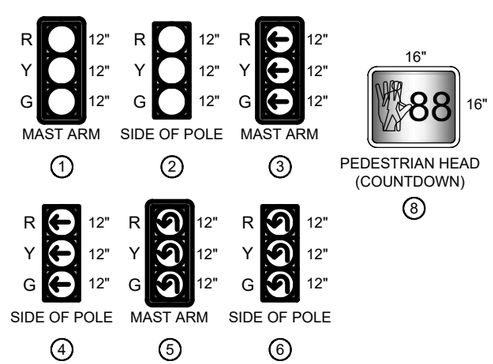
TRAFFIC SIGN SCHEDULE



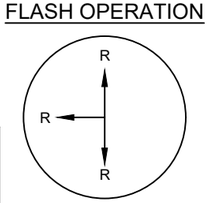
PED PUSH BUTTON SIGN DETAILS



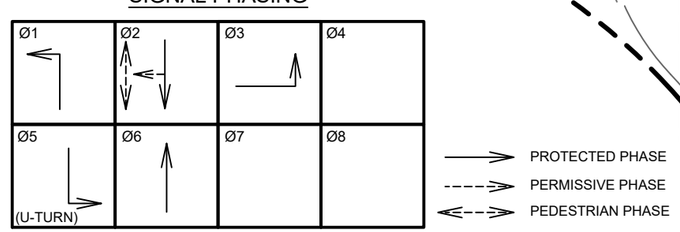
TRAFFIC SIGNAL HEAD SCHEDULE

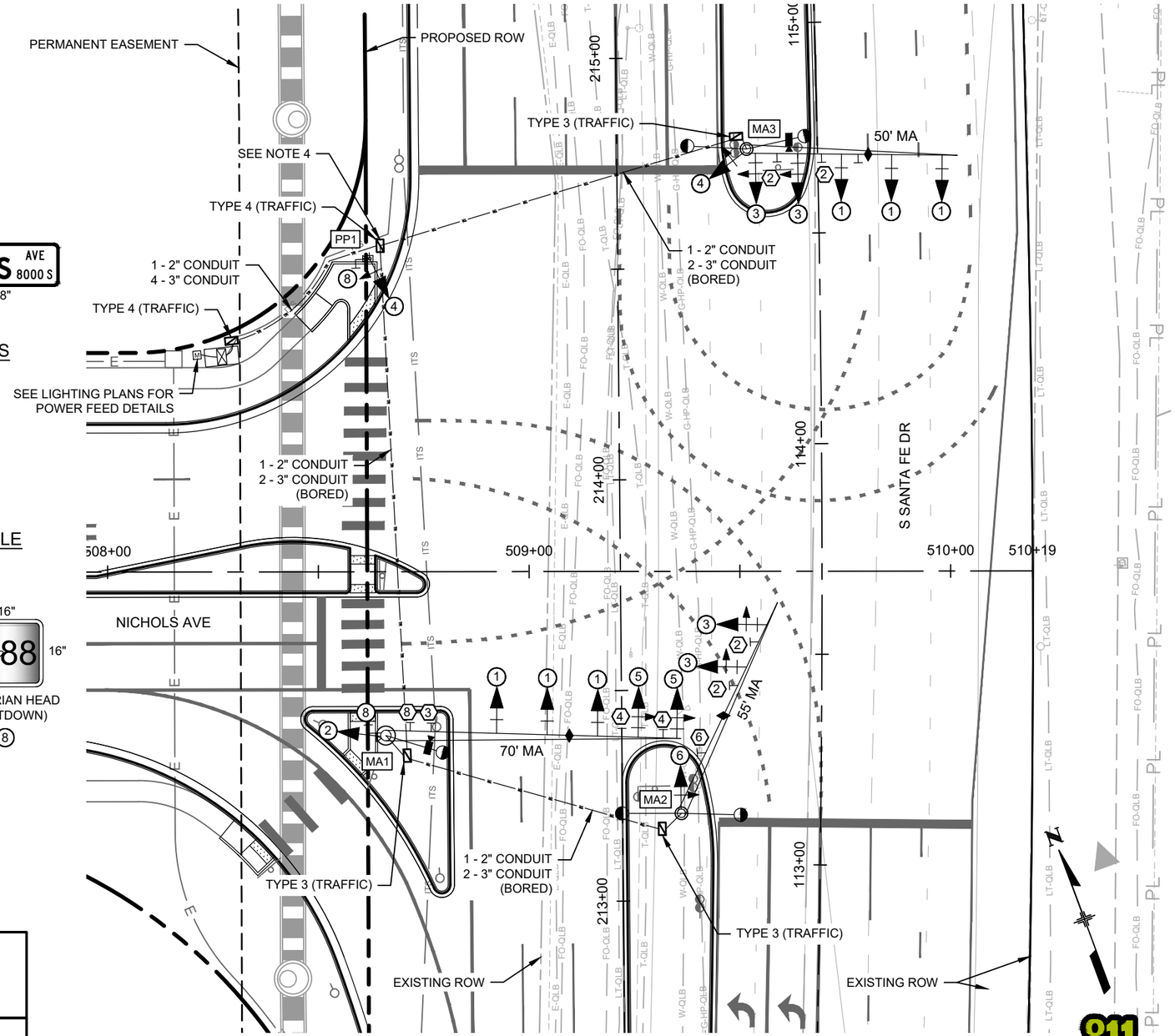


FLASH OPERATION



SIGNAL PHASING





COLORADO LICENSED DAVID SCOTT MILLAR 36122 10/10/20205 PROFESSIONAL ENGINEER

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_TR_SIGNAL_PLAN.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 30' Vert. Scale: N/A			
Unit Information			

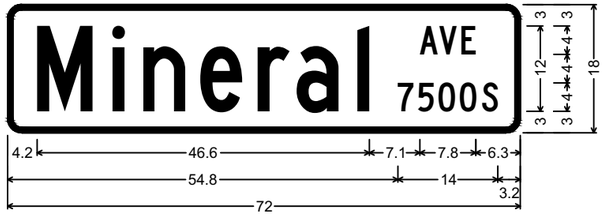
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	TRAFFIC SIGNAL PLAN S SANTA FE DR & NICHOLS AVE		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: GBAKER	Structure Numbers	23574
Void:	Detailer: GBAKER		Sheet Number 347
	Sheet Subset: SIGNALS	Subset Sheets: 05 of 06	

811 Know what's below. Call before you dig.

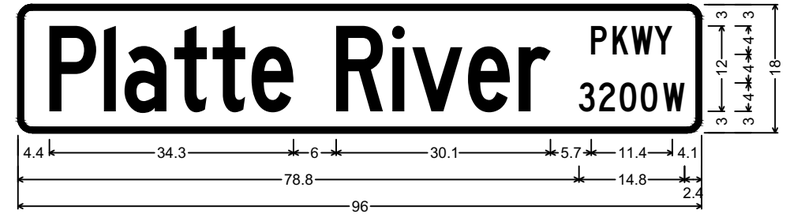
$PLOT_INFO$



SPECIAL D3-1 OH;
2.0" Radius, 0.8" Border, White on Green;
"Mineral", C 70% spacing; "AVE", C; "7500S", C;
Table of distances between letter and object lefts

	M	i	n	e	r	a	l	A	V	E	
4.2	10.5	4.4	8.0	8.0	5.5	8.5	8.8	2.7	3.1	2.0	6.3

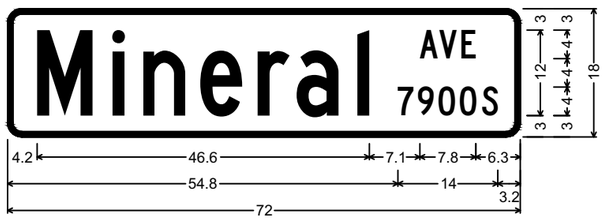
	7	5	0	0	S	
54.8	2.9	2.8	3.0	3.2	2.1	3.2



SPECIAL D3-1 OH;
2.0" Radius, 0.8" Border, White on Green;
"Platte", C 40% spacing; "River", C 40% spacing; "PKWY", C; "3200W", C;
Table of distances between letter and object lefts

	P	l	a	t	t	e	R	i	v	e	r	P	K	W	Y	
4.4	7.7	2.9	6.9	5.4	5.5	11.9	7.9	2.8	7.8	7.1	10.2	3.0	2.7	3.2	2.5	4.1

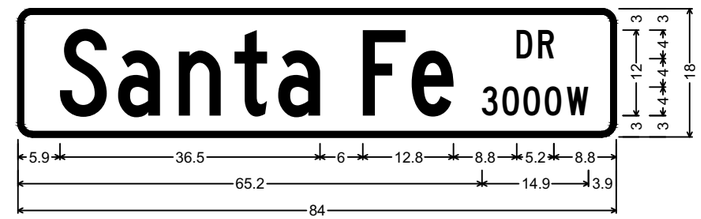
	3	2	0	0	W	
78.8	2.8	2.9	3.0	3.1	3.0	2.4



SPECIAL D3-1 OH;
2.0" Radius, 0.8" Border, White on Green;
"Mineral", C 70% spacing; "AVE", C; "7900S", C;
Table of distances between letter and object lefts

	M	i	n	e	r	a	l	A	V	E	
4.2	10.5	4.4	8.0	8.0	5.5	8.5	8.8	2.7	3.1	2.0	6.3

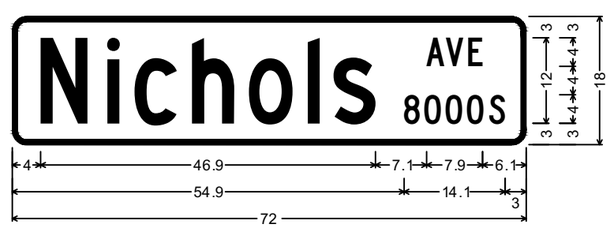
	7	9	0	0	S	
54.8	2.9	2.8	3.0	3.2	2.1	3.2



SPECIAL D3-1 OH;
2.0" Radius, 0.8" Border, White on Green;
"Santa", C 70% spacing; "Fe", C 70% spacing; "DR", C; "3000W", C;
Table of distances between letter and object lefts

	S	a	n	t	a	F	e	D	R	
5.9	8.2	8.5	7.8	6.1	11.9	6.9	14.7	3.1	2.1	8.8

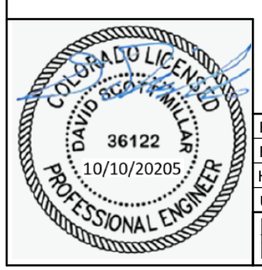
	3	0	0	0	W	
65.2	2.8	3.0	3.0	3.1	3.0	3.9



SPECIAL D3-1 OH;
2.0" Radius, 0.8" Border, White on Green;
"Nichols", C 70% spacing; "AVE", C; "8000S", C;
Table of distances between letter and object lefts

	N	i	c	h	o	l	s	A	V	E			
4.0	9.3	3.8	8.1	8.0	8.2	3.6	13.0	2.8	3.1	2.0	6.1		

	8	0	0	0	S	
54.9	2.8	3.0	3.0	3.2	2.1	3.0



Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_TR_SIGNAL_OH SNS.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

OVERHEAD STREET NAME SIGN DETAILS

Designer: GBAKER
Detailer: GBAKER
Structure Numbers
Sheet Subset: SIGNALS
Subset Sheets: 06 of 06

Project No./Code
AQC M810-017
23574
Sheet Number 348

$PLOT_INFO$

TABULATION OF ITS

PLAN SHEET	612-00260		613-00200		613-00206		700-70110		613-07003		613-07004		613-07005		613-07199		614-70030	
	Location Marker (Fiber Optic)(Dome)		2 Inch Electrical Conduit		2 Inch Electrical Conduit (Bored)		Zayo-Supplied Conduit* (Install Only)		Type Three Pull Box		Type Four Pull Box		Type Five Pull Box		Pull Box (Install Only)		Optical Attenuator	
	EACH		LF		LF		LF (F.I.O.)		EACH		EACH		EACH		EACH		EACH	
	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
ITS PLAN SHEET 1	2		1,736		176		1,131		-		1		1		2		1	
ITS PLAN SHEET 2	2		2,320		-		1,547		-		2		-		2		-	
ITS PLAN SHEET 3	2		2,508		-		1,520		-		1		1		2		1	
ITS PLAN SHEET 4	4		3,214		132		1,562		-		3		1		3		1	
ITS PLAN SHEET 5	2		2,313		-		1,542		-		2		-		2		-	
ITS PLAN SHEET 6	1		2,284		121		1,522		2		1		-		1		-	
ITS PLAN SHEET 7	2		1,957		-		1,305		-		2		-		2		-	
ITS PLAN SHEET 8	2		106		144		70		-		1		1		2		1	
ITS PLAN SHEET 9	-		-		-		-		-		-		-		-		-	
ITS PLAN SHEET 10	2		572		-		-		-		1		1		-		1	
ITS PLAN SHEET 11	-		1,111		-		-		-		-		-		-		-	
ITS PLAN SHEET 12	-		-		-		-		-		-		-		-		-	
ITS PLAN SHEET 13	1		-		120		-		-		-		1		-		1	
TOTALS	**20**		**18,121**		**693**		**10,199**		**2**		**14**		**6**		**16**		**6**	

*CONTRACTOR TO INSTALL ADDITIONAL ZAYO-SUPPLIED CONDUITS AS SHOWN ON THE ITS PLAN WITHIN THE TRENCH OPENED FOR THE CDOT ITS BACKBONE. LINEAR FOOT QUANTITY PROVIDED FOR INFORMATION ONLY. WORK SHALL BE PAID FOR AS 700-70110 F/A INSTALL CONDUIT.

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_ITS_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

TABULATION OF ITS

Designer:
Detailer:
Structure Numbers
Sheet Subset: ITS TAB
Subset Sheets: 01 of 02

Project No./Code
AQC M810-017
23574
Sheet Number 349

$PLOT_INFO$

TABULATION OF ITS

614-72834		614-72875		614-87010		614-87012		614-87015		614-87350		614-87498		614-87501		614-8769X	
Communications Cabinet (Type 2) (Install Only)		Loop Detector Wire		Fiber Optic Cable (Single Mode) (12 Fiber)		Fiber Optic Termination Panel (12 Fiber)		Buffer Tube Fan Out Kit		Test Fiber Optic Cable		Fiber Optic Cable (Single Mode) (144 Strands)		Splice Fiber Optic Cable (1 Strand)		Ethernet Switch (Install Only)	
EACH		LF		LF		EACH		EACH		L S		LF		EACH		EACH	
PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
-		-		244		1		1		-		885		148		1	
-		-		-		-		-		-		873		-		-	
-		-		201		1		1		-		910		4		1	
-		-		979		1		1		-		981		8		1	
-		-		-		-		-		-		871		-		-	
1		846		-		-		-		-		811		-		-	
-		-		-		-		-		-		752		-		-	
-		-		159		1		1		-		329		50		1	
-		-		-		-		-		-		-		-		-	
-		-		238		1		1		-		-		12		1	
-		-		556		-		-		-		-		-		-	
-		-		882		-		-		-		-		-		-	
-		-		707		1		1		-		-		12		1	
1		**846**		**3,966**		**6**		**6**		**1**		**6,413**		**234**		**6**	

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Know what's below. Call before you dig.

Print Date: 2024-11-04
File Name: 23574_ITS_TABS_1.DWG
Horiz. Scale: N/A Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

TABULATION OF ITS

Designer:
Detailer:
Structure Numbers
Sheet Subset: ITS TAB
Subset Sheets: 02 of 02

Project No./Code
AQC M810-017
23574
Sheet Number 350

$PLOT_INFO$

LEGEND:

EXISTING	PROPOSED	
ITS	ITS	ITS CONDUIT
		PULL BOX

NOTES:

1. REFER TO THE SIGNAL PLANS AND LEGEND FOR THE IDENTIFICATION OF SIGNAL ELEMENTS SHOWN ON THE ITS PLANS.
2. REFER TO THE UTILITY PLANS AND LEGEND FOR THE IDENTIFICATION OF EXISTING UTILITY ELEMENTS SHOWN ON THE ITS PLANS.

CONSTRUCTION NOTES:

1. EXISTING TYPE FIVE PULL BOX TO REMAIN (CDOT)
2. EXISTING PULL BOX TO REMAIN (30"x48"x36") (ZAYO)
3. EXISTING TYPE FOUR PULL BOX TO REMAIN (CDOT)
4. NEW TYPE FOUR PULL BOX (24"X36"X24") (CDOT)
5. NEW TYPE FIVE PULL BOX (30"x48"x24") (CDOT)
6. NEW PULL BOX (30"x48"x36") (ZAYO - INSTALL ONLY)
7. SPLICE POINT
8. CONDUIT TO BE BORED
9. (2) - 2 INCH CONDUITS (ORANGE - CDOT)
10. (1) - 2 INCH CONDUIT (BLUE - ZAYO)
    (2) - ZAYO-SUPPLIED CONDUITS (INSTALL ONLY)
11. (2) - 2 INCH CONDUIT (LITTLETON)
12. NEW TYPE FOUR PULL BOX (LITTLETON)
13. NEW TYPE FIVE PULL BOX (LITTLETON)
14. EXISTING PULL BOX TO REMAIN (LITTLETON)
15. EXISTING CONDUIT TO REMAIN (LITTLETON)

WIRING NOTES:

1. 144 STRAND FIBER OPTIC BACKBONE CABLE (CDOT)
2. 12 STRAND FIBER OPTIC CABLE (LITTLETON)

GENERAL NOTES:

1. ALL COMMUNICATION CONNECTIONS, CABLES, AND ITS DEVICES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ANY IMPACTS TO THE EXISTING SYSTEMS. ANY DISCREPANCIES, ADDITIONAL EQUIPMENT, OR COMMUNICATION CONNECTIONS SHALL BE DOCUMENTED AND SUBMITTED TO THE CDOT ENGINEER FOR REVIEW AND COMMENT. ANY MODIFICATIONS TO THE DESIGN SHOWN IN THE PLANS SHALL BE SUBMITTED TO THE CDOT ENGINEER FOR APPROVAL PRIOR TO ANY WORK IMPACTING THE EXISTING SYSTEMS.
2. UNLESS OTHERWISE NOTED ON THE PLANS ALL CDOT CONDUIT INSTALLED AS PART OF THE ITS TRENCH SHALL CONSIST OF A MINIMUM OF TWO (2) TWO-INCH (2") CONDUITS, ONE CONDUIT SHALL BE CONSIDERED SPARE AND ONE CONDUIT SHALL CONTAIN A 144 STRAND SINGLE MODE FIBER OPTIC CABLE.
3. THE CONTRACTOR SHALL NOTIFY THE CDOT ENGINEER FOR THE FOLLOWING:
   a. TWO WORKING DAYS (48 HOURS) PRIOR TO THE INSTALLATION OF ANY ITS DEVICE, INFRASTRUCTURE, OR THE RELOCATION OF ANY EXISTING ITS DEVICE.
   b. TWO WEEKS PRIOR TO SPLICING FIBER OPTIC CABLES.
   c. TWO WORKING DAYS (48 HOURS) PRIOR TO THE WORK AT EACH SPLICE LOCATION AS NECESSARY TO HAVE A CDOT REPRESENTATIVE ON SITE WHILE SPLICING IS PERFORMED.
4. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUBMIT RECORD DRAWINGS "AS CONSTRUCTED "PLANS TO CDOT, SHOWING THE ACTUAL LOCATION OF CONDUIT AND OTHER SIGNIFICANT WORK ITEMS AT NO ADDITIONAL COST TO THE PROJECT. PULL BOX AND MANHOLE LOCATIONS SHALL BE RECORDED ON THE CONSTRUCTION PLAN SET WITH CHANGES MARKED IN RED INK. THE CONTRACTOR SHALL PROVIDE GLOBAL POSITIONING SYSTEM (GPS) COORDINATES PER THE REVISION OF SECTION 614 GLOBAL POSITIONING SYSTEM FOR ALL ITS DEVICE AND PULL BOX LOCATIONS ON THE PROJECT. THIS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT. DOCUMENTS IN THE FORM OF BOTH PRINTS AND ELECTRONIC FILES SHALL BE SUBMITTED PRIOR TO BEGINNING THE SYSTEM ACCEPTANCE TESTS.
5. THE CONTRACTOR SHALL REMOVE AND SALVAGE TO CDOT ALL EXISTING COMMUNICATION EQUIPMENT THAT IS TO BE REPLACED ON THE PROJECT. CABLING NOTED TO BE REMOVED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
6. A PULL TAPE SHALL BE INSTALLED IN CDOT CONDUITS IN ACCORDANCE WITH THE REQUIREMENTS AS INCLUDED IN THE REVISION OF SECTION 613 ELECTRICAL CONDUIT.
7. CONDUITS SHALL BE PLUGGED IN ACCORDANCE WITH THE REQUIREMENTS AS INCLUDED IN THE REVISION OF SECTION 613 ELECTRICAL CONDUIT.
8. THE CONTRACTOR SHALL REFER TO THE REVISION OF SECTION 108 DISINCENTIVE FOR ITS OFFLINE DEVICES FOR ALLOWABLE DOWN-TIME FOR ITS AND COMMUNICATION SYSTEMS. CONTRACTOR SHALL PREPARE AND SUBMIT TO THE CDOT ENGINEER FOR REVIEW AND APPROVAL A FIBER OPTIC BACKBONE CUTOVER PLAN FOR THE TEMPORARY AND PERMANENT FIBER OPTIC CABLES PRIOR TO ANY IMPACT TO THE EXISTING COMMUNICATION SYSTEM.
9. ALL REQUIRED DEVICE CABLES FOR RELOCATION OF EXISTING ITS DEVICES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED ITS DEVICE MODIFICATION.
10. COMMUNICATION CABLES SHALL NOT BE LOCATED IN THE SAME CONDUIT OR PULL BOX AS 120V OR HIGHER ELECTRICAL WIRING.
11. ALL EXISTING OR TEMPORARY FIBER OPTIC CABLES SHALL BE REMOVED AT THE END OF THE PROJECT OR AS NO LONGER REQUIRED. REMOVAL OF EXISTING CABLES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE NEW FIBER OPTIC CABLES.
12. THE CONTRACTOR SHALL COIL A MINIMUM OF 50 LINEAR FEET OF FIBER OPTIC CABLE SLACK IN PULL BOXES THAT ARE NOT SPLICE POINTS, A MINIMUM OF 100 LINEAR FEET OF FIBER OPTIC CABLE SLACK SHALL BE REQUIRED AT ALL SPLICING LOCATIONS. CONTRACTOR SHALL COIL AND NEATLY STORE ALL FIBER OPTIC CABLE SLACK IN THE ASSOCIATED PULL BOX.
13. THE CONTRACTOR SHALL SPLICE THE FIBER OPTIC CABLE ONLY AT APPROVED SPLICE LOCATIONS AS SHOWN IN THE PLANS. THE COST OF THE SPLICE ENCLOSURE SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED AS BID ITEM 614 - FIBER OPTIC CABLE. MID-SHEATH SPLICES SHALL BE PERFORMED AT LATERAL LOCATIONS AND ONLY FIBERS BEING SPLICED SHALL BE CUT. FULL FUSION BUTT-SPLICES OF ALL FIBER STRANDS SHALL BE ALLOWED FOR TEMPORARY FIBER OPTIC CABLE AND PERMANENT FIBER OPTIC CABLE ONLY AT LOCATIONS AS SHOWN IN THE PLANS. REFER TO THE FIBER COMMUNICATION ONE-LINE AND SPLICING DETAILS FOR LOCATION AND QUANTITY OF ALL TEMPORARY AND PERMANENT SPLICES PROPOSED.
14. ALL TESTING AND INTEGRATION OF THE ETHERNET SWITCHES SHALL BE PER THE PLAN SHEETS AND PROJECT SPECIFICATIONS. A NETWORK TESTING, INTEGRATION, AND SPLICING MEETING SHALL BE SCHEDULED BY THE CONTRACTOR PRIOR TO ANY FIBER OPTIC CABLE OR NETWORK INSTALLATION. THE CONTRACTOR SHALL SUBMIT A SPECIFIC AND DETAILED METHOD STATEMENT FOR THE FIBER OPTIC SPLICING AND NETWORK TESTING METHODOLOGY PRIOR TO THE MEETING.
15. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TESTING HARDWARE AND EQUIPMENT FOR THE FIBER OPTIC COMMUNICATION CABLES INSTALLED AS PART OF THE PROJECT.
16. THE CONTRACTOR SHALL SUBMIT TO THE CDOT ENGINEER FOR REVIEW AND APPROVAL CUT SHEETS AND/OR MATERIAL DESCRIPTIONS FOR ALL FIBER OPTIC MATERIALS AND DEVICES PRIOR TO THE START OF ANY FIBER INSTALLATION WORK. THESE SUBMITTALS SHALL INCLUDE ALL INFORMATION FOR THE PROPOSED MATERIALS INCLUDING ALL MODEL OR ITEM IDENTIFICATION NUMBERS CLEARLY HIGHLIGHTED.
17. ALL FIBER OPTIC WORK SHALL BE PER THE MANUFACTURER'S INSTRUCTION AND RECOMMENDATION.

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ITS_NOTES.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

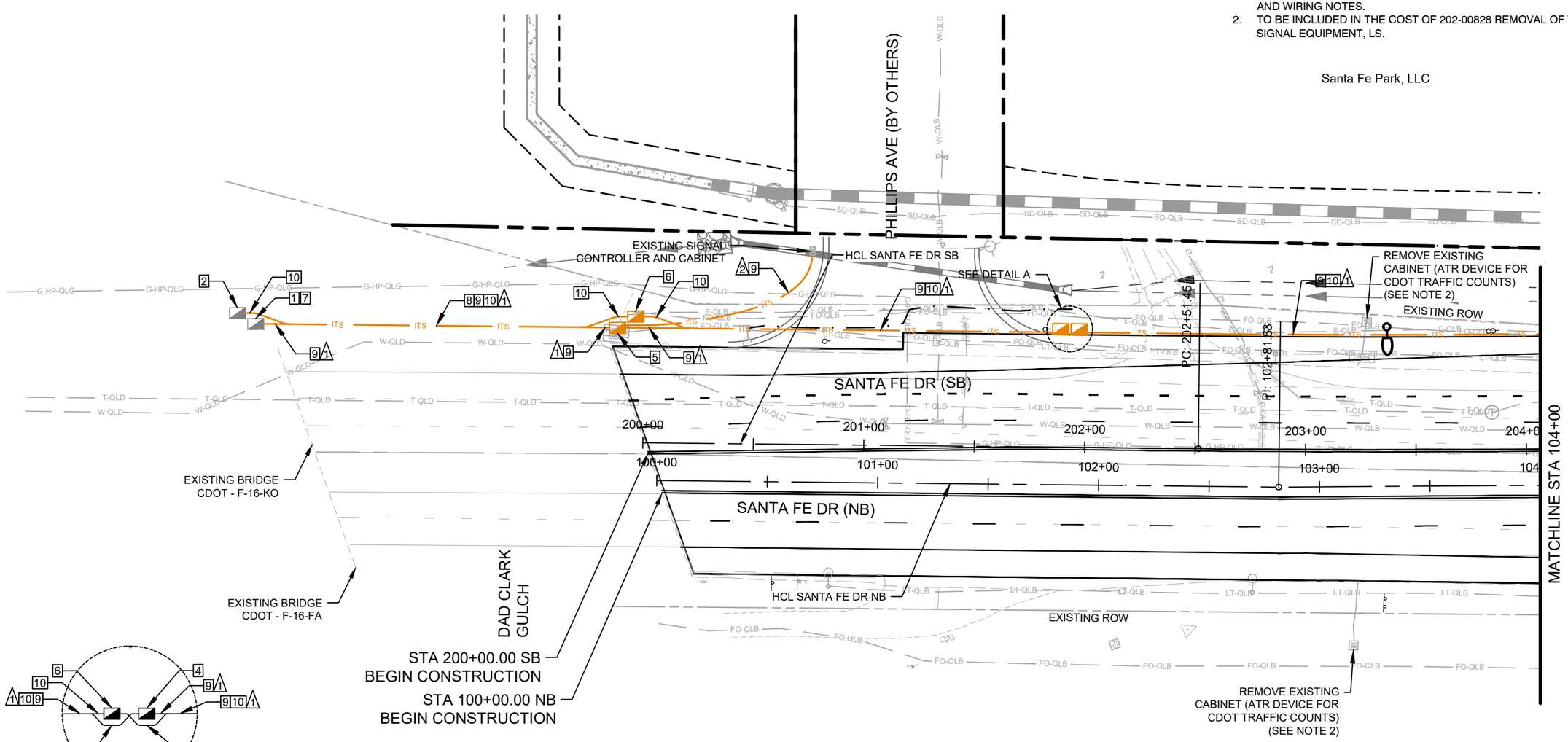
As Constructed	SANTA FE DR ITS/FIBER LEGEND & NOTES		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 351
	Sheet Subset: ITS GN	Subset Sheets: 01 of 01	

$PLOT_INFO$

NOTES:

1. REFER TO ITS/FIBER LEGEND & NOTES PAGE FOR CONSTRUCTION AND WIRING NOTES.
2. TO BE INCLUDED IN THE COST OF 202-00828 REMOVAL OF TRAFFIC SIGNAL EQUIPMENT, LS.

Santa Fe Park, LLC



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0059629
10/07/25

Print Date: 2024-11-04			
File Name: 23574_ITS_PLAN(1).DWG			
Horiz. Scale: 1" = 50'	Vert. Scale: N/A		
Unit Information			

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FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR ITS PLAN STA. 100+00 TO STA. 104+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 352
	Sheet Subset: ITS PLN	Subset Sheets: 01 of 14	

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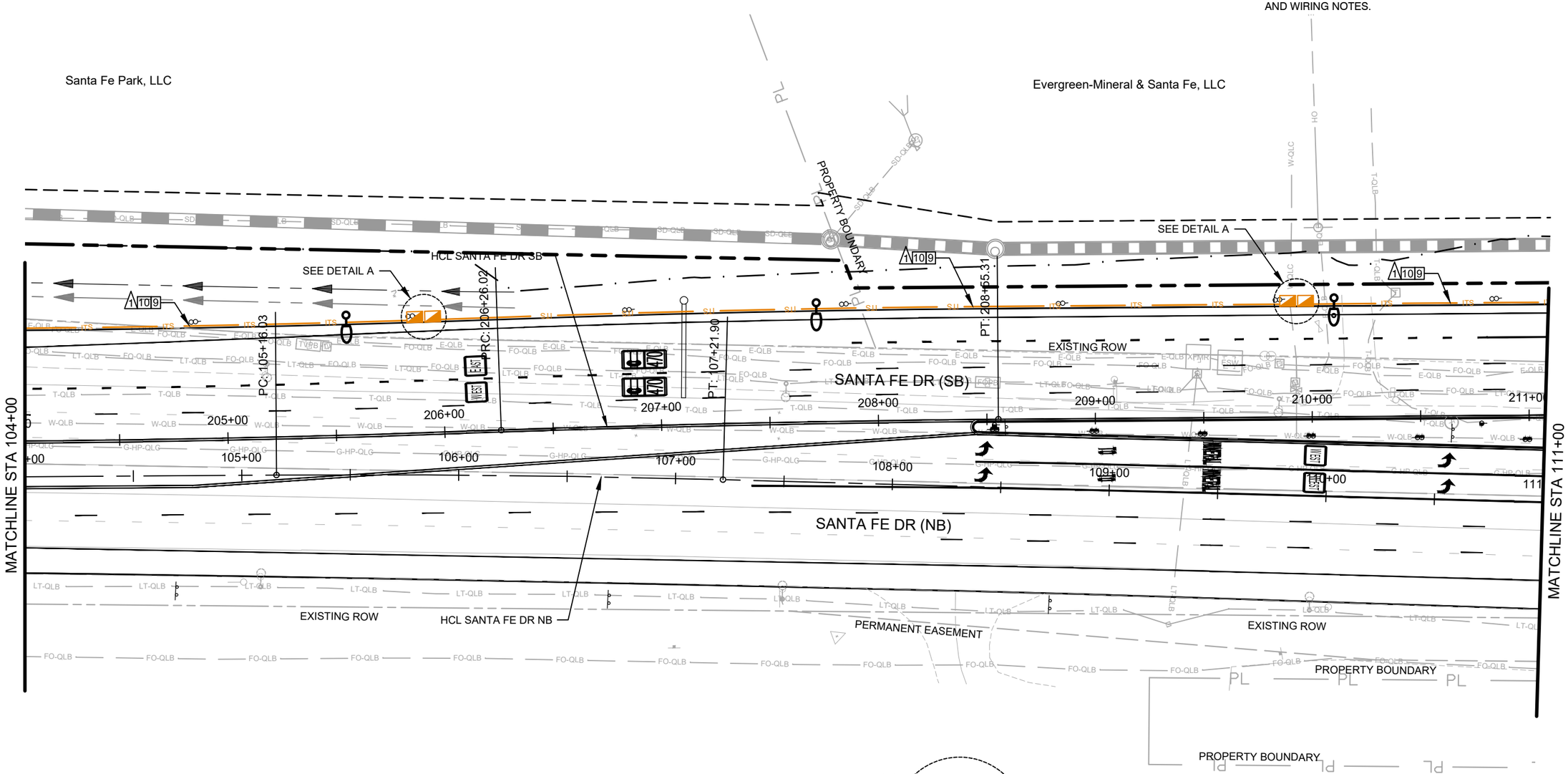
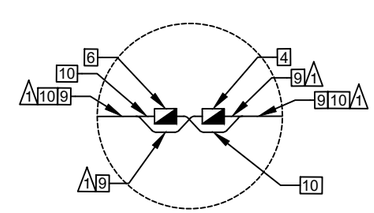
$PLOT_INFO$

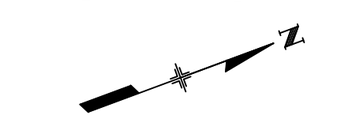
NOTES:

1. REFER TO ITS/FIBER LEGEND & NOTES PAGE FOR CONSTRUCTION AND WIRING NOTES.





DETAIL A



SCALE: 1" = 50'

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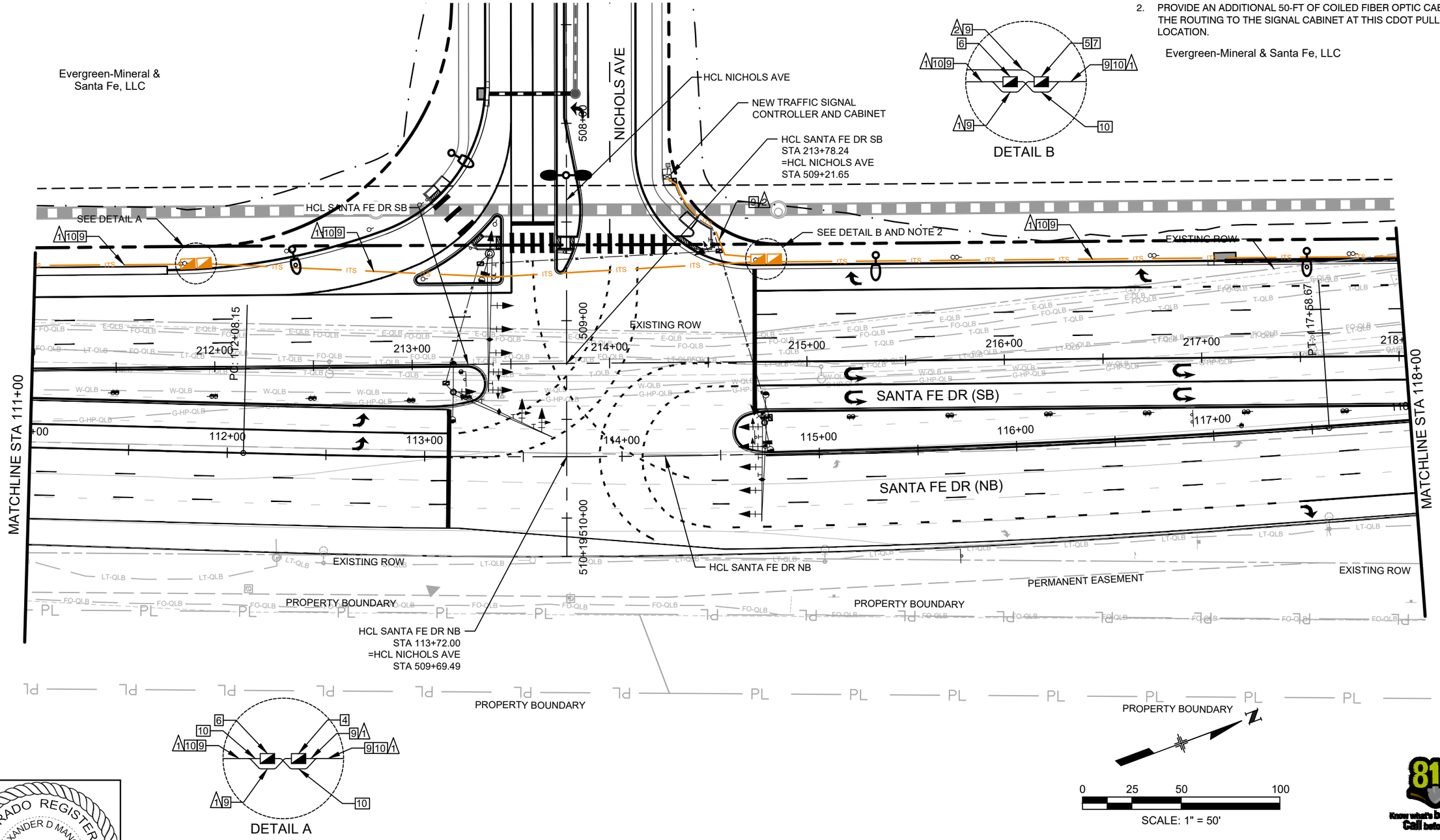
As Constructed	SANTA FE DR ITS PLAN STA. 104+00 TO STA. 111+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 353
	Sheet Subset: ITS PLN	Subset Sheets: 02 of 14	

$PLOT_INFO$

NOTES:

1. REFER TO ITS/FIBER LEGEND & NOTES PAGE FOR CONSTRUCTION AND WIRING NOTES.
2. PROVIDE AN ADDITIONAL 50-FT OF COILED FIBER OPTIC CABLE FOR THE ROUTING TO THE SIGNAL CABINET AT THIS CDOT PULL BOX LOCATION.

Evergreen-Mineral & Santa Fe, LLC



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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ITS_PLAN(1).DWG	Date:	Comments	Init.
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As Constructed	SANTA FE DR ITS PLAN STA. 111+00 TO STA. 118+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 354
	Sheet Subset: ITS PLN	Subset Sheets: 03 of 14	

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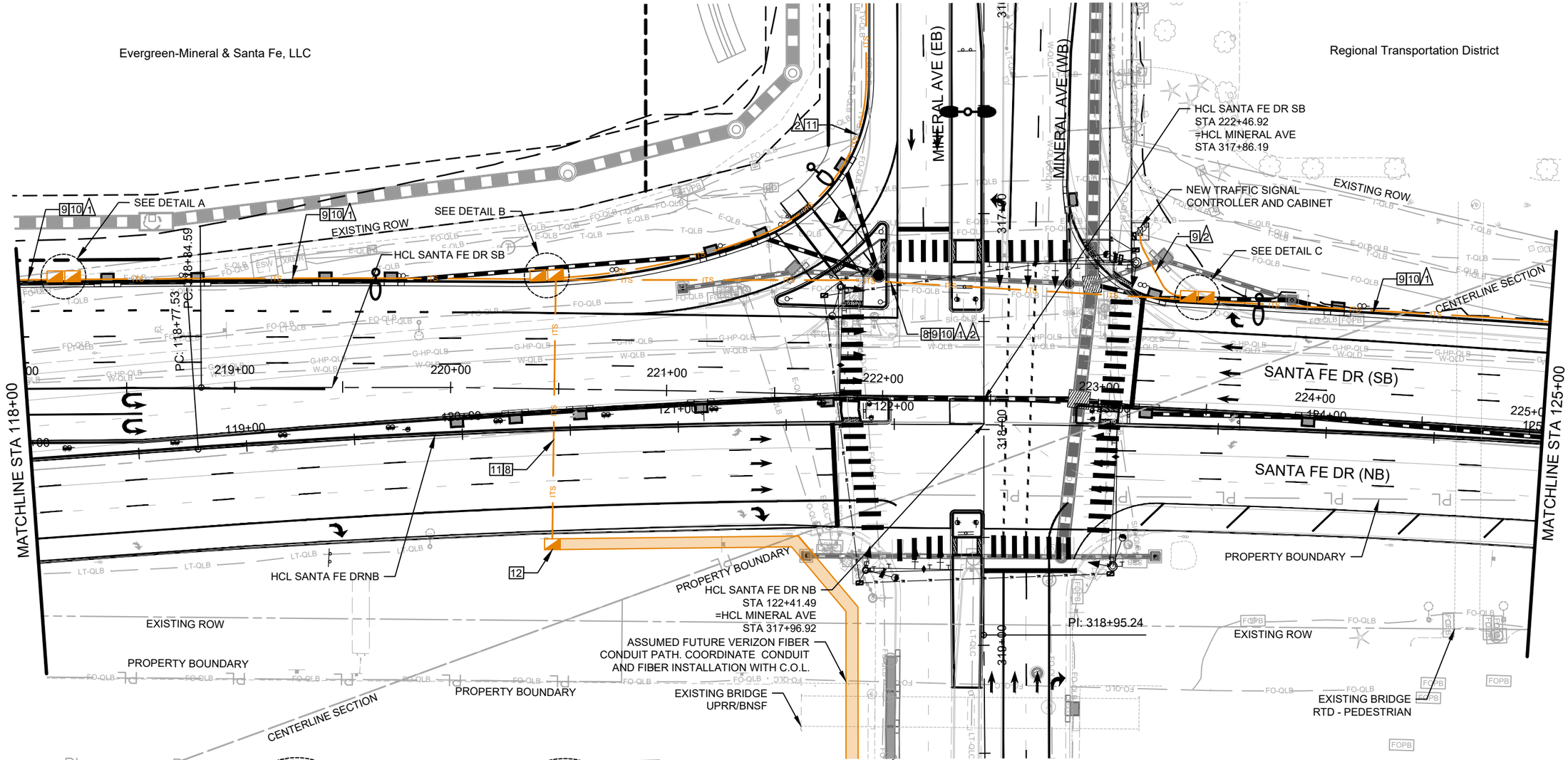

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ITS_PLAN(1).DWG	Date:	Comments	Init.
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Unit Information			

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As Constructed	SANTA FE DR ITS PLAN STA. 118+00 TO STA. 125+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 355
	Sheet Subset: ITS PLN	Subset Sheets: 04 of 14	

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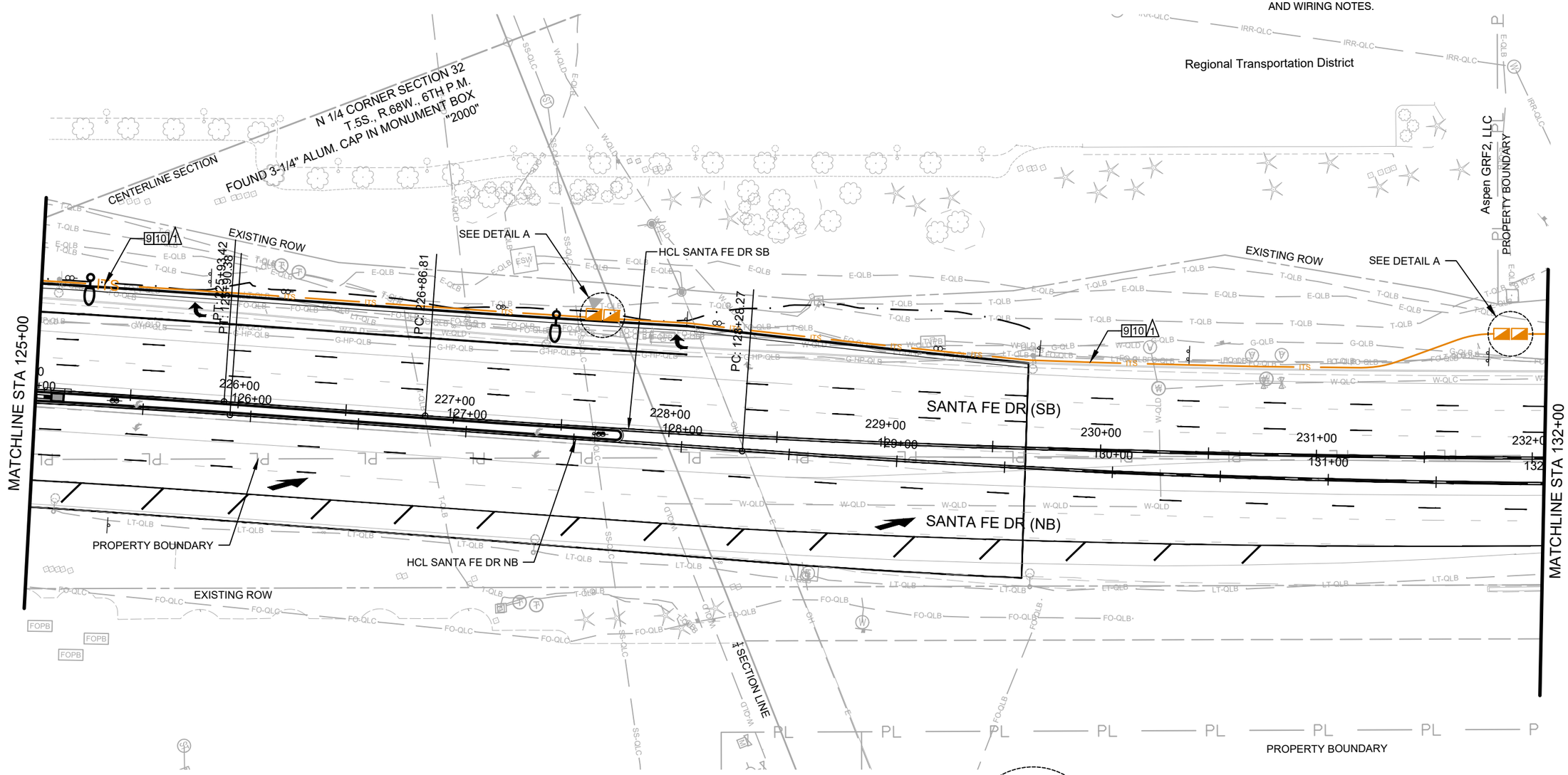
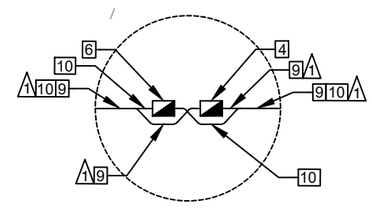
$PLOT_INFO$

NOTES:

1. REFER TO ITS/FIBER LEGEND & NOTES PAGE FOR CONSTRUCTION AND WIRING NOTES.





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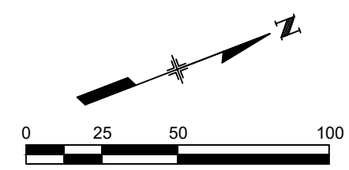

SCALE: 1" = 50'

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10/07/25

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ITS_PLAN(1).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

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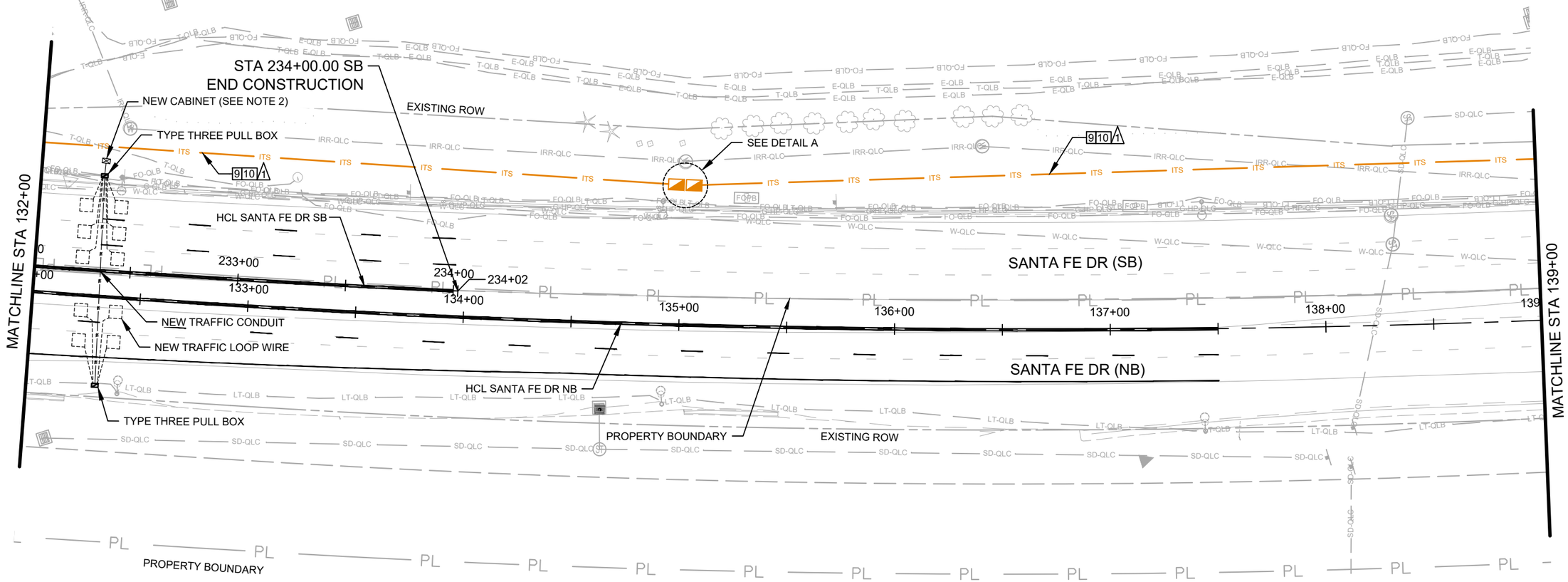
As Constructed	SANTA FE DR ITS PLAN STA. 125+00 TO STA. 132+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 356
	Sheet Subset: ITS PLN	Subset Sheets: 05 of 14	

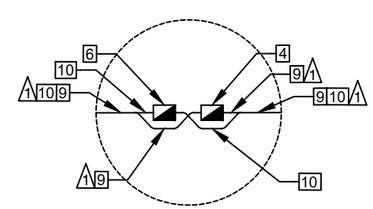
$PLOT_INFO$

NOTES:

1. REFER TO ITS/FIBER LEGEND & NOTES PAGE FOR CONSTRUCTION AND WIRING NOTES.
2. CONTRACTOR TO INSTALL THE COMMUNICATIONS CABINET AND BASE PROVIDED BY CDOT. CONTRACTOR TO COORDINATE THE INSTALLATION WITH PROJECT ENGINEER 90 DAYS PRIOR TO INSTALLATION. PAID FOR AS 614-72834 COMMUNICATIONS CABINET (TYPE 2) (INSTALL ONLY).

Aspen GRF2, LLC





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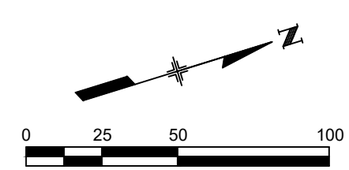

SCALE: 1" = 50'

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As Constructed	SANTA FE DR ITS PLAN STA. 132+00 TO STA. 139+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 357
	Sheet Subset: ITS PLN	Subset Sheets: 06 of 14	

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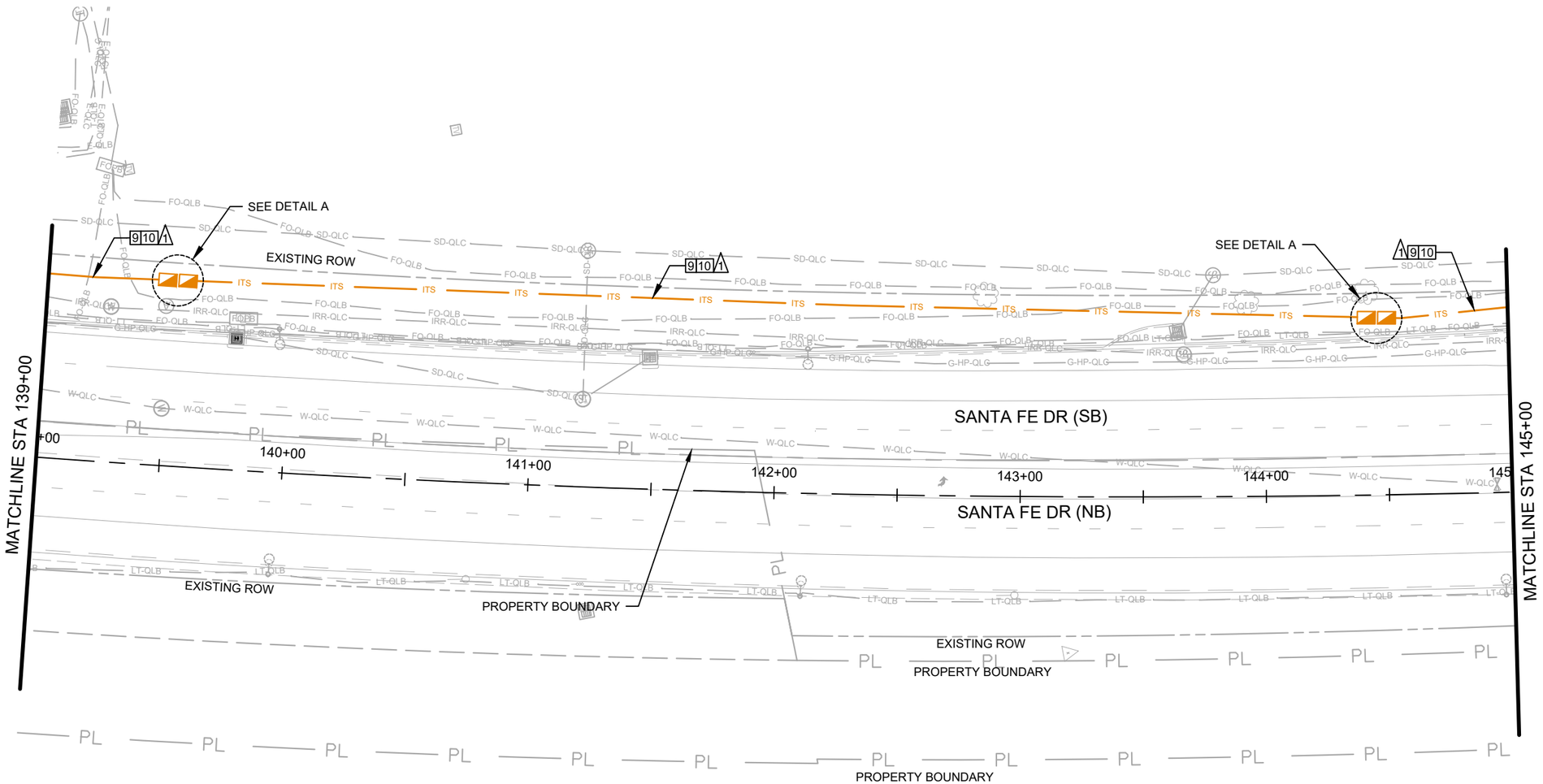
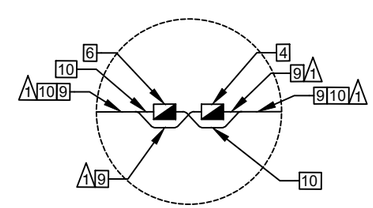
NOTES:

1. REFER TO ITS/FIBER LEGEND & NOTES PAGE FOR CONSTRUCTION AND WIRING NOTES.





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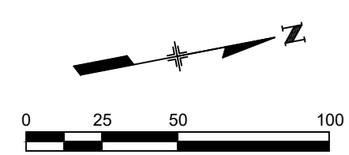

SCALE: 1" = 50'

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Print Date: 2024-11-04	Sheet Revisions		
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Horiz. Scale: 1" = 50' Vert. Scale: N/A			
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As Constructed	SANTA FE DR ITS PLAN STA. 139+00 TO STA. 145+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 358
	Sheet Subset: ITS PLN	Subset Sheets: 07 of 14	

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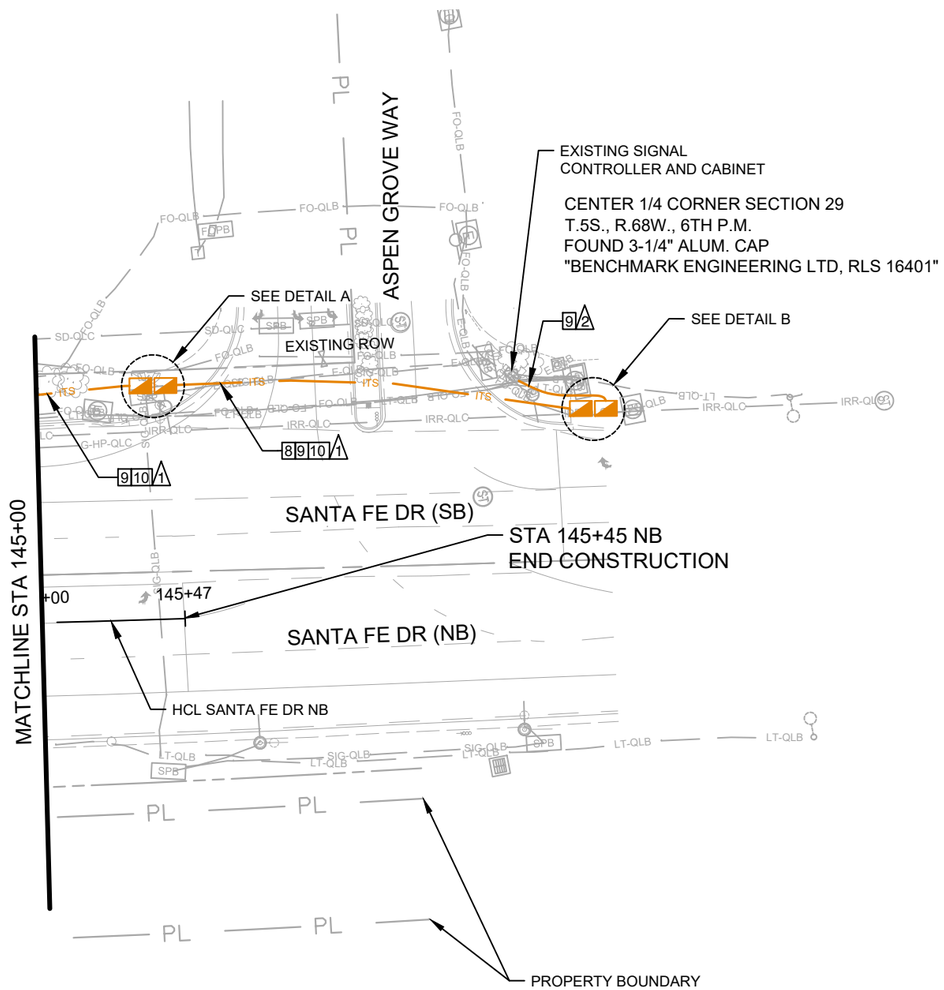
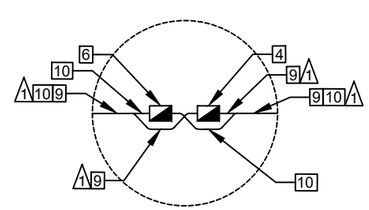
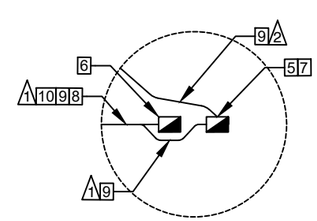
NOTES:

1. REFER TO ITS/FIBER LEGEND & NOTES PAGE FOR CONSTRUCTION AND WIRING NOTES.

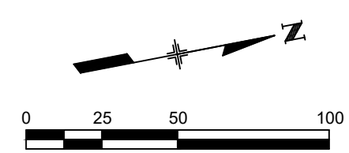




DETAIL A



DETAIL B



SCALE: 1" = 50'

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10/07/25

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Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	SANTA FE DR ITS PLAN STA. 145+00 TO STA. 145+45		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
	Detailer: DMADDOCK		
Void:	Sheet Subset: ITS PLN	Subset Sheets: 08 of 14	Sheet Number 359

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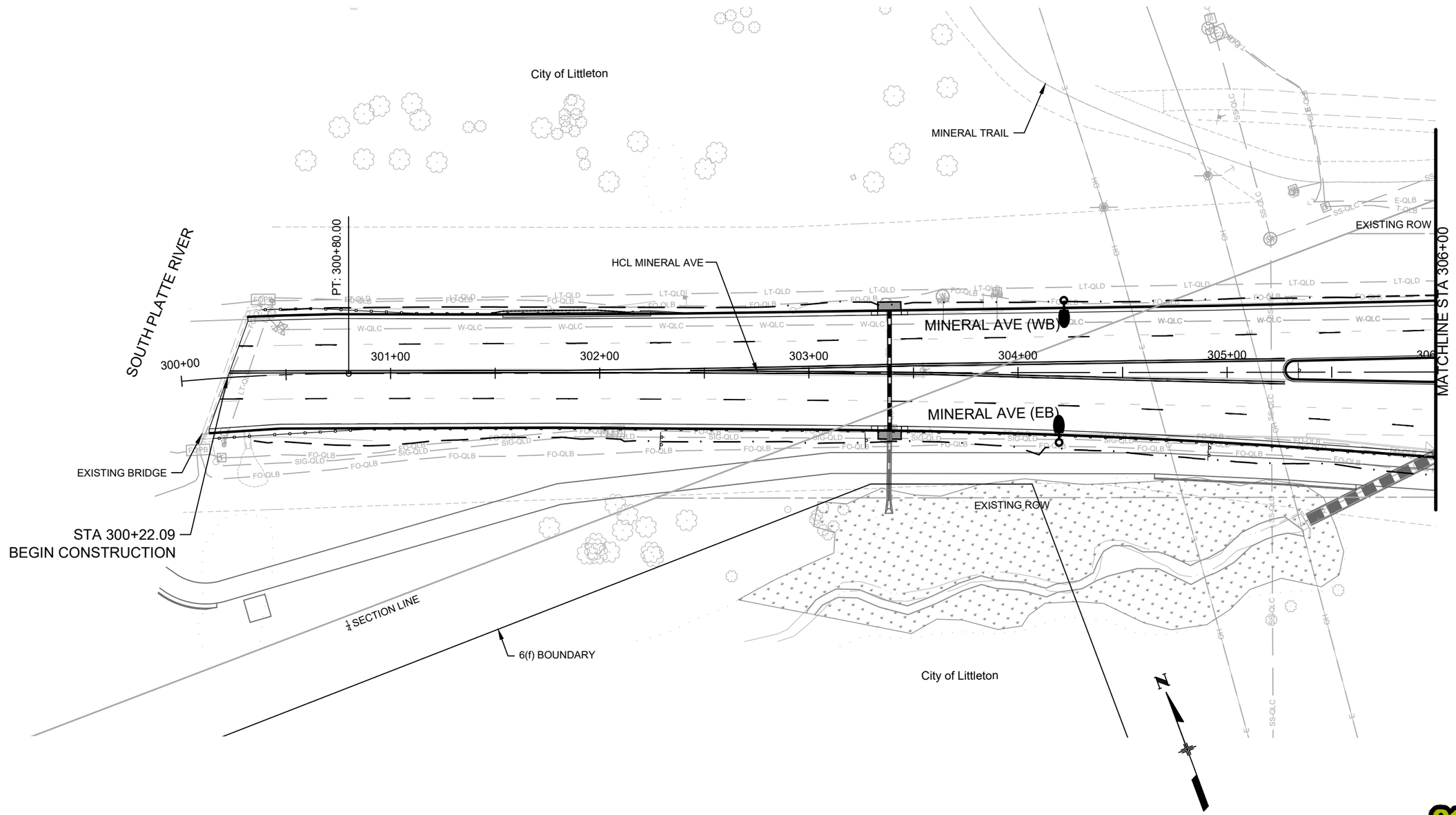

NO ITS WORK THIS SHEET.

0 25 50 100

SCALE: 1" = 50'

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0059629
10/07/25

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Unit Information

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Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

MINERAL AVE
ITS PLAN
STA. 300+00 TO STA. 306+00

Designer: AMANCINI
Detailer: DMADDOCK
Structure Numbers
Sheet Subset: ITS PLN
Subset Sheets: 09 of 14

Project No./Code
AQC M810-017
23574
Sheet Number 360

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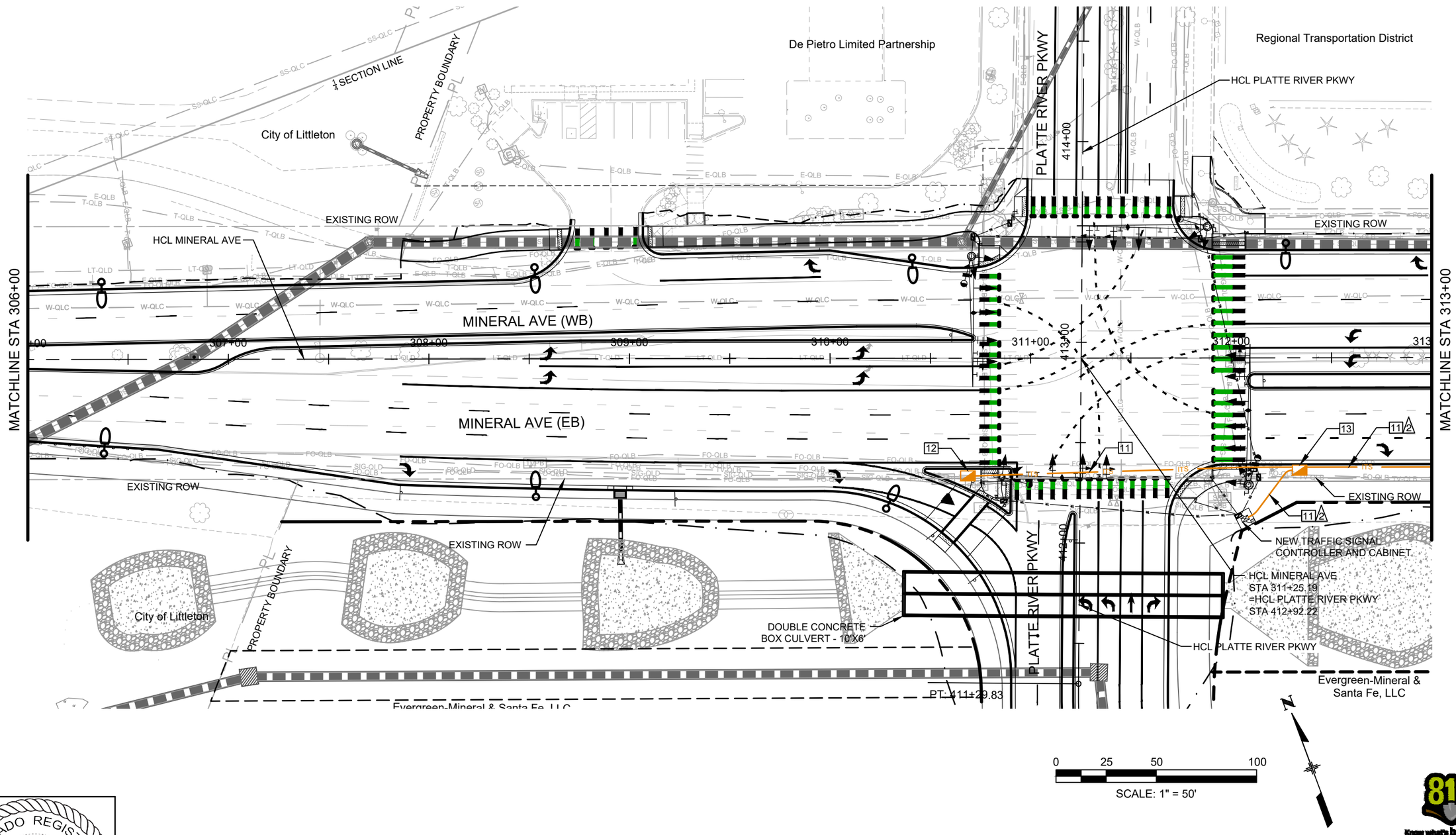


COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Print Date: 2024-11-04	
File Name: 23574_ITS_PLAN(2).DWG	
Horiz. Scale: 1" = 50' Vert. Scale: N/A	
Unit Information	

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed	
No Revisions:	
Revised:	
Void:	

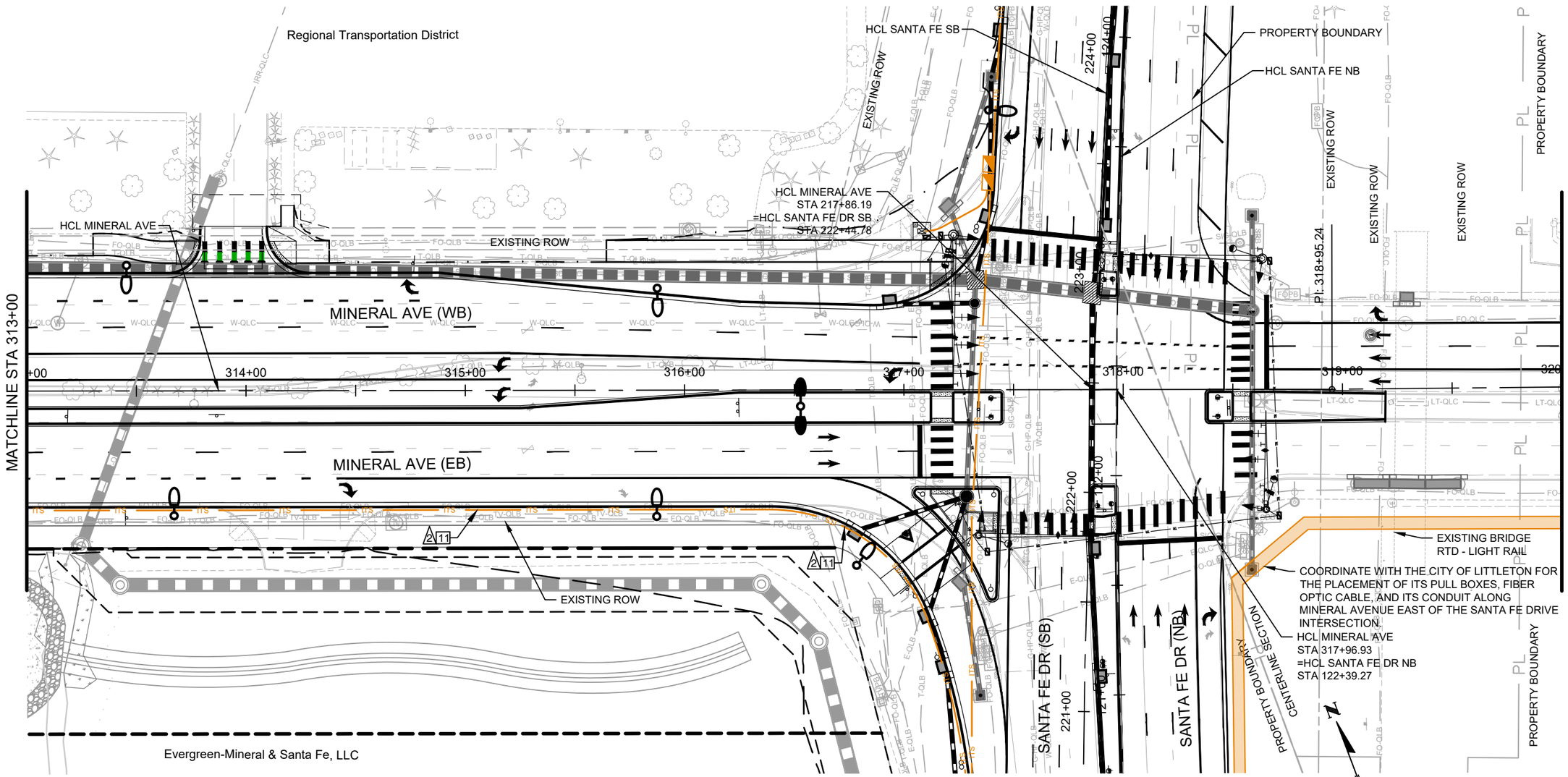
MINERAL AVE
ITS PLAN
STA. 306+00 TO STA. 313+00

Designer:	AMANCINI	Structure Numbers	
Detailer:	DMADDOCK		
Sheet Subset: ITS PLN		Subset Sheets:	10 of 14

Project No./Code	
AQC M810-017	
23574	
Sheet Number	361

811 Know what's below. Call before you dig.

$PLOT_INFO$



COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Print Date: 2024-11-04	Sheet Revisions		
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Unit Information			

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FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE ITS PLAN STA. 313+00 TO STA. 320+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 362
	Sheet Subset: ITS PLN	Subset Sheets: 11 of 28	

811 Know what's below. Call before you dig.

$PLOT_INFO$

City of Littleton

City of Littleton

PROPERTY BOUNDARY

HCL MINERAL AVE

EXISTING ROW

PC: 326+67.75

MATCHLINE STA 320+00

MATCHLINE STA 327+00

MINERAL AVE (WB)

MINERAL AVE (EB)

321+00

322+00

323+00

324+00

325+00

326+00

EXISTING ROW

COORDINATE WITH THE CITY OF LITTLETON FOR THE PLACEMENT OF ITS PULL BOXES, FIBER OPTIC CABLE, AND ITS CONDUIT ALONG MINERAL AVENUE EAST OF THE SANTA FE DRIVE INTERSECTION.

EXISTING BRIDGE UPRR/BNSF

EXISTING ROW

EXISTING ROW

Southpark Homeowners Association No. 2

PROPERTY BOUNDARY

Southpark Homeowners Association No. 2

N

0 25 50 100

SCALE: 1" = 50'

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

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File Name: 23574_ITS_PLAN(2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
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DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE ITS PLAN STA. 320+00 TO STA. 327+00		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 363
	Sheet Subset: ITS PLN	Subset Sheets: 12 of 14	

Know what's below. Call before you dig.

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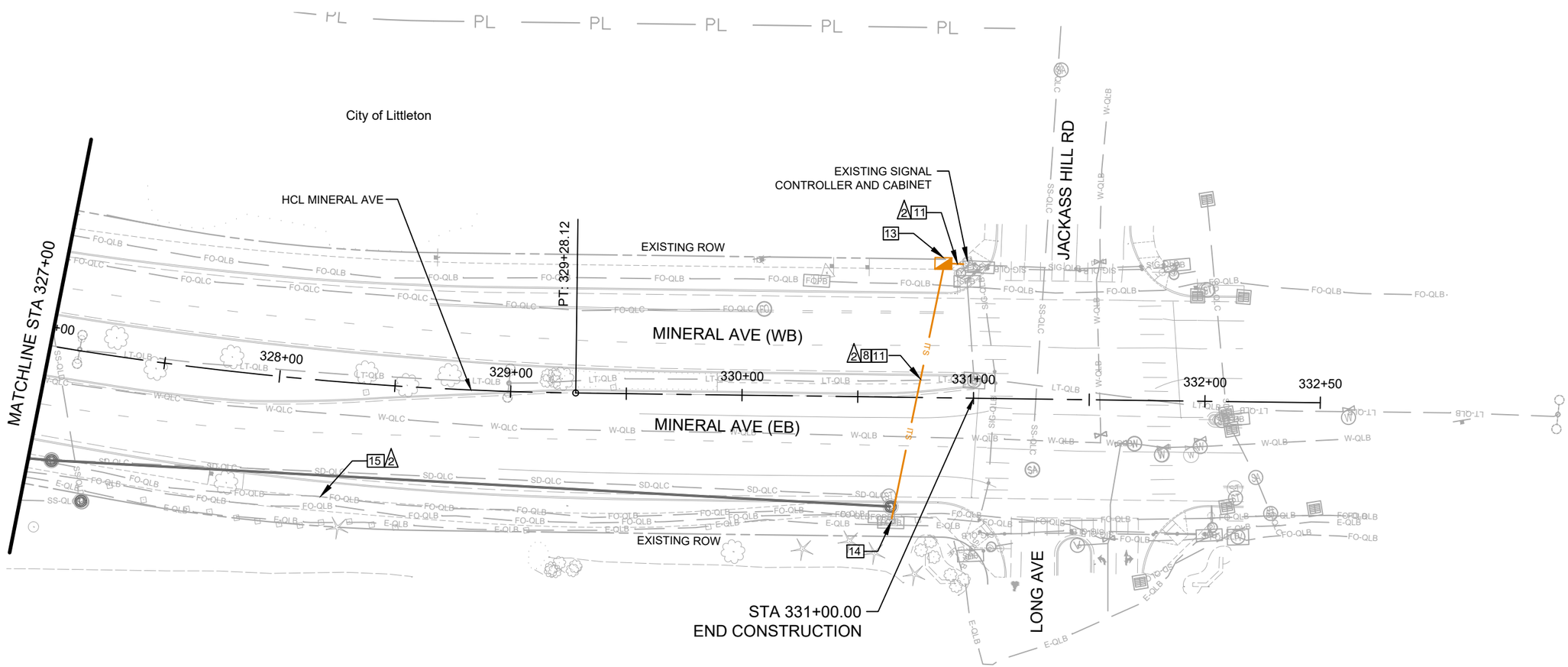

0 25 50 100

SCALE: 1" = 50'

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Print Date: 2024-11-04
File Name: 23574_ITS_PLAN(2).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

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Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

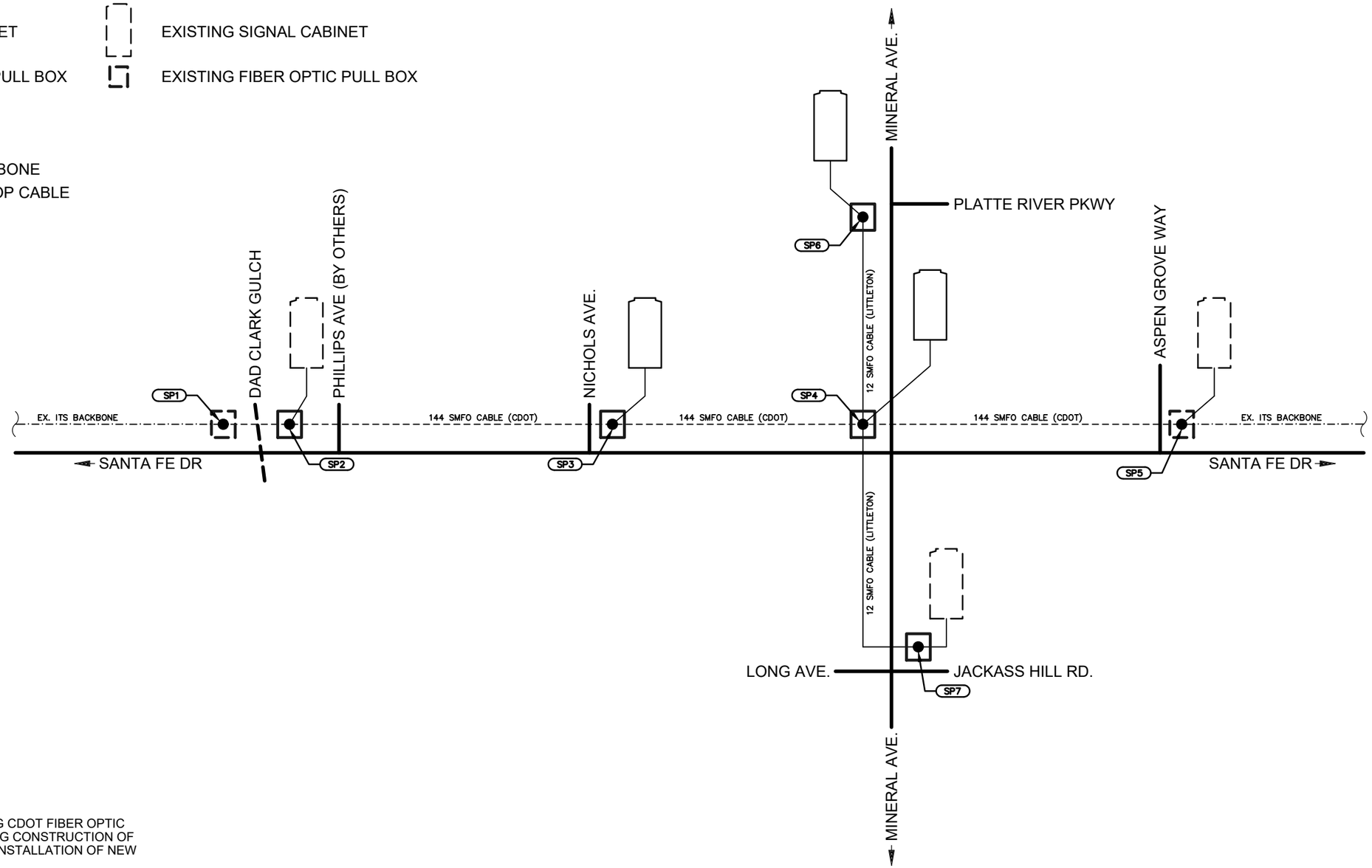
MINERAL AVE
ITS PLAN
STA. 327+00 TO STA. 332+50

Designer: AMANCNI
Detailer: DMADDOCK
Structure Numbers
Sheet Subset: ITS PLN
Subset Sheets: 13 of 14

Project No./Code
AQC M810-017
23574
Sheet Number 364

$PLOT_INFO$

NEW SIGNAL CABINET
EXISTING SIGNAL CABINET
NEW FIBER OPTIC PULL BOX
EXISTING FIBER OPTIC PULL BOX
SPLICE POINT
SP# SPLICE POINT ID
144 SMFO CABLE
EXISTING ITS BACKBONE
12 SMFO FIBER DROP CABLE



NOTES:

1. MAINTAIN AND PROTECT EXISTING CDOT FIBER OPTIC CABLE AND CONNECTIONS DURING CONSTRUCTION OF NEW PERMANENT CONDUIT AND INSTALLATION OF NEW CDOT FIBER OPTIC CABLE.
2. REFER TO FIBER OPTIC SPLICING DIAGRAMS FOR FIBER SPLICING DETAILS.

FIBER COMMUNICATION
ONE-LINE DIAGRAM

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

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Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ITS_DIAGRAMS.DWG	Date:	Comments	Init.
Horiz. Scale: N/A Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	ITS/FIBER OPTIC DIAGRAM		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 365
	Sheet Subset: ITS PLN	Subset Sheets: 14 of 14	

$PLOT_INFO$

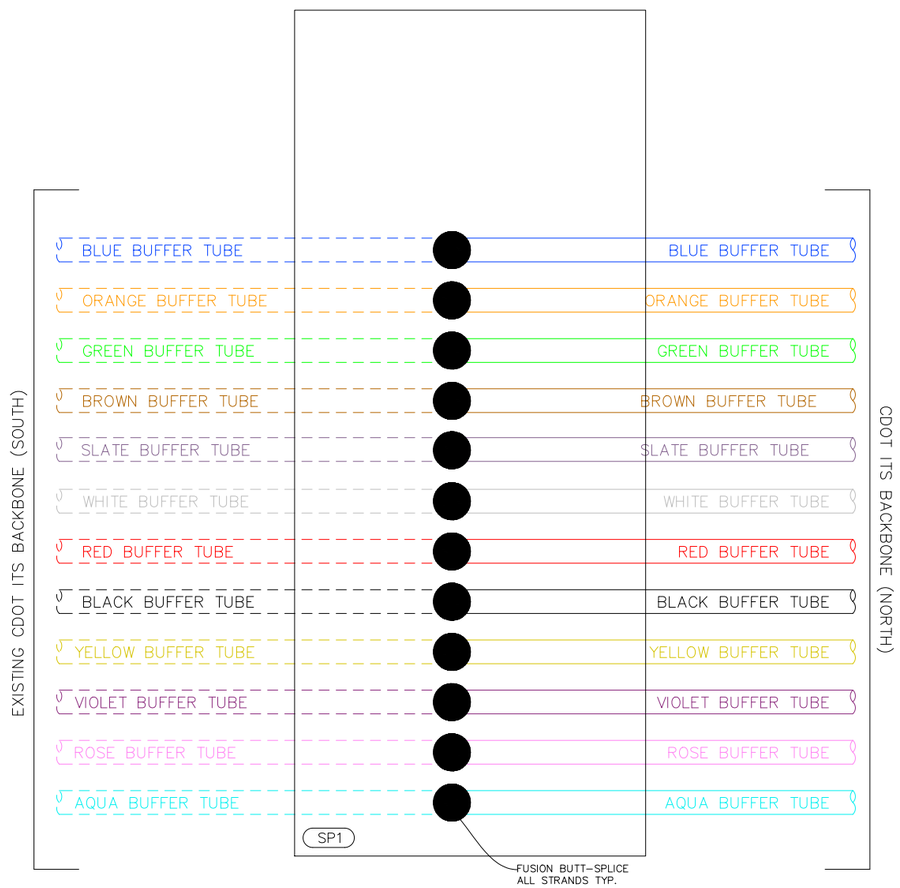
SIGNAL CABINET

FIBER OPTIC PULL BOX / MANHOLE

SIGNAL CABINET ID, SEE TABLE THIS SHEET

FUSION SPLICE

SP# SPLICE POINT ID



FIBER SPLICING DIAGRAMS

GENERAL NOTES:

1. ONLY TYPICAL SIGNAL CABINET COMMUNICATION SPLICING SHOWN. CONTRACTOR SHALL COORDINATE WITH THE CDOT ENGINEER FOR FINAL FIBER ALLOCATION AND SHALL FIELD VERIFY EXISTING SYSTEM TO DETERMINE IF ADDITIONAL SPLICES/CONNECTIONS ARE REQUIRED. ALL EXISTING FIBER CABLES AND SPLICES SHALL BE REESTABLISHED FOR TEMPORARY AND PERMANENT OPERATIONS.

2. REFER TO FIBER COMMUNICATION ONE-LINE DIAGRAMS AND ITS PLANS SHEETS FOR LOCATION OF FIBER OPTIC SPLICES.

3. REFER TO ITS PLANS FOR CONDUIT AND FIBER OPTIC CABLE ROUTING BETWEEN NEW AND EXISTING PULL BOXES.

4. COIL AND NEATLY STORE IN THE PULL BOX A MINIMUM OF 100 FEET OF SLACK FIBER OPTIC CABLE AT ALL SPLICE LOCATIONS.

5. FIBER STRANDS / BUFFER TUBES TERMINATING IN A PULL BOX AND NOT SHOWN AS SPLICED SHALL BE CAPPED AND SEALED. FIBER STRANDS / BUFFER TUBES NOT TERMINATING OR SHOWN AS SPLICED SHALL REMAIN INTACT AND SHALL NOT BE CUT OR DAMAGED.

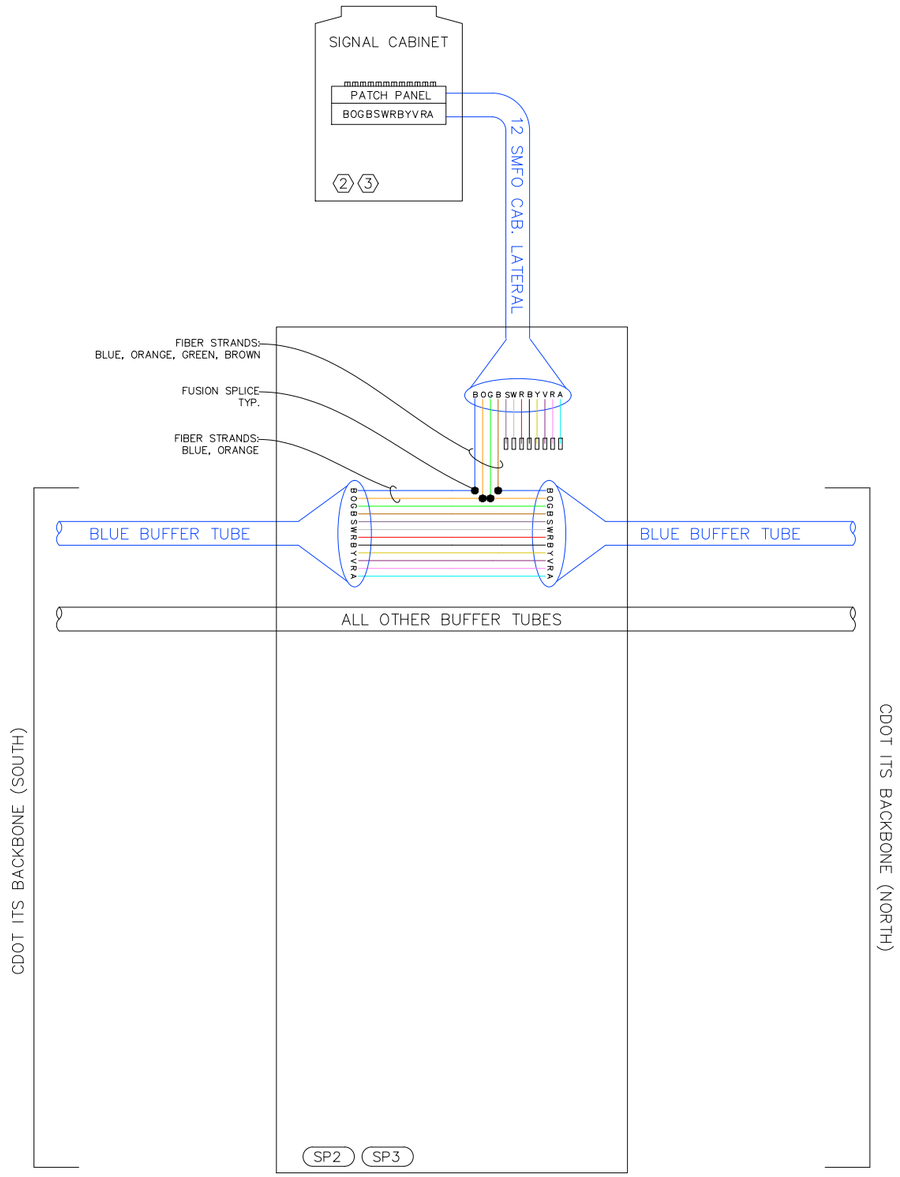
COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Print Date: 2024-11-04		Sheet Revisions	
File Name: 23574_ITS_SPLICING DIAGRAMS (1).DWG		Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A				
Unit Information				
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139				

Littleton Colorado

As Constructed	FIBER SPLICING DIAGRAM			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers		23574
	Detailer: DMADDOCK			
Void:	Sheet Subset: ITS SPL	Subset Sheets: 01 of 04		Sheet Number 366

$PLOT_INFO$



FIBER SPLICING DIAGRAMS

SIGNAL CABINET

FIBER OPTIC PULL BOX / MANHOLE

SIGNAL CABINET ID, SEE TABLE THIS SHEET

FUSION SPLICE

SP# SPLICE POINT ID

CABINET ID:

2 SANTA FE DR. & PHILLIPS AVE. SIGNAL CABINET

3 SANTA FE DR. & NICHOLS AVE. SIGNAL CABINET

GENERAL NOTES:

1. ONLY TYPICAL SIGNAL CABINET COMMUNICATION SPLICING SHOWN. CONTRACTOR SHALL COORDINATE WITH THE CDOT ENGINEER FOR FINAL FIBER ALLOCATION AND SHALL FIELD VERIFY EXISTING SYSTEM TO DETERMINE IF ADDITIONAL SPLICES/CONNECTIONS ARE REQUIRED. ALL EXISTING FIBER CABLES AND SPLICES SHALL BE REESTABLISHED FOR TEMPORARY AND PERMANENT OPERATIONS.

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ALEXANDER D MANCINI
0059629
10/07/25

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File Name: 23574_ITS_SPLICING DIAGRAMS (2).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	FIBER SPLICING DIAGRAM			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers		23574
	Detailer: DMADDOCK			
Void:	Sheet Subset: ITS SPL	Subset Sheets: 02 of 04		Sheet Number 367

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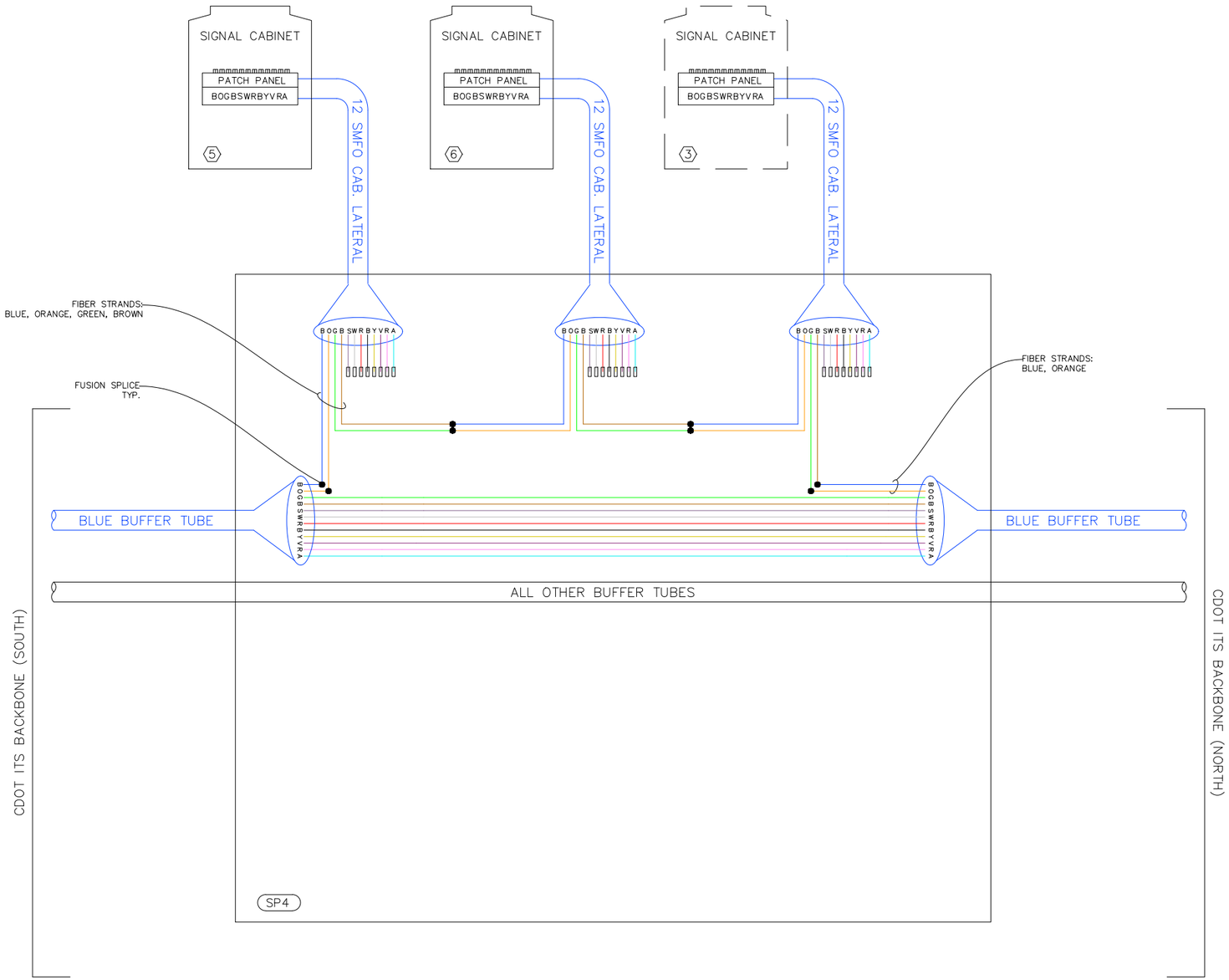

FIBER SPLICING DIAGRAMS

SIGNAL CABINET

FIBER OPTIC PULL BOX / MANHOLE

(#) SIGNAL CABINET ID, SEE TABLE THIS SHEET

● FUSION SPLICE

(SP#) SPLICE POINT ID

CABINET ID:

(3) SANTA FE DR. & MINERAL AVE. SIGNAL CABINET

(5) MINERAL AVE. & S. PLATTE PKWY. SIGNAL CABINET

(6) (EXISTING) MINERAL AVE. & W. JACKASS HILL RD. SIGNAL CABINET

GENERAL NOTES:

1. ONLY TYPICAL SIGNAL CABINET COMMUNICATION SPLICING SHOWN. CONTRACTOR SHALL COORDINATE WITH THE CDOT ENGINEER FOR FINAL FIBER ALLOCATION AND SHALL FIELD VERIFY EXISTING SYSTEM TO DETERMINE IF ADDITIONAL SPLICES/CONNECTIONS ARE REQUIRED. ALL EXISTING FIBER CABLES AND SPLICES SHALL BE REESTABLISHED FOR TEMPORARY AND PERMANENT OPERATIONS.

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COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ITS_SPLICING DIAGRAMS (3).DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139			

Littleton Colorado

As Constructed	FIBER SPLICING DIAGRAM		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 368
	Sheet Subset: ITS SPL	Subset Sheets: 03 of 04	

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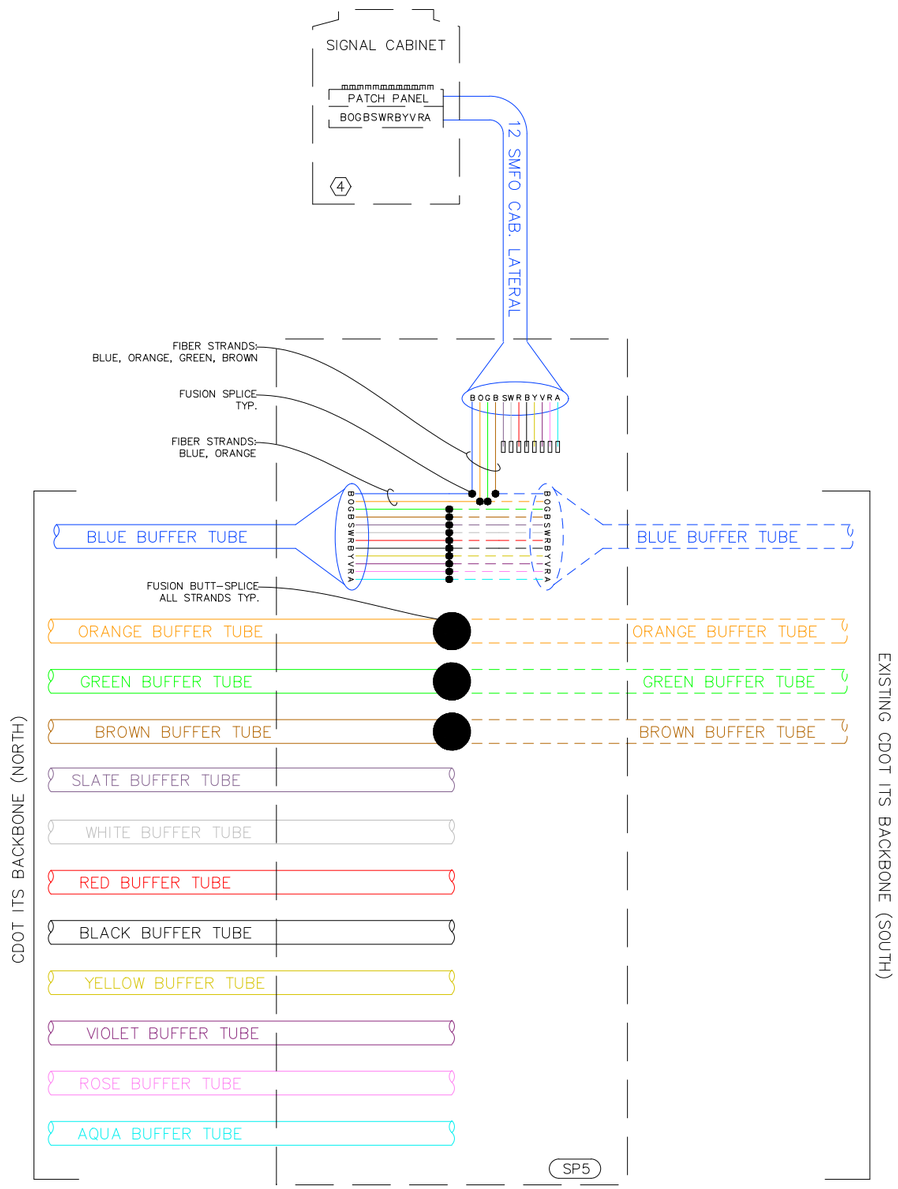

FIBER SPLICING DIAGRAMS

SIGNAL CABINET

FIBER OPTIC PULL BOX / MANHOLE

SIGNAL CABINET ID, SEE TABLE THIS SHEET

FUSION SPLICE

SP# SPLICE POINT ID

CABINET ID:

4 (EXISTING) SANTA FE DR. & ASPEN GROVE WAY SIGNAL CABINET

GENERAL NOTES:

1. ONLY TYPICAL SIGNAL CABINET COMMUNICATION SPLICING SHOWN. CONTRACTOR SHALL COORDINATE WITH THE CDOT ENGINEER FOR FINAL FIBER ALLOCATION AND SHALL FIELD VERIFY EXISTING SYSTEM TO DETERMINE IF ADDITIONAL SPLICES/CONNECTIONS ARE REQUIRED. ALL EXISTING FIBER CABLES AND SPLICES SHALL BE REESTABLISHED FOR TEMPORARY AND PERMANENT OPERATIONS.

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3. REFER TO ITS PLANS FOR CONDUIT AND FIBER OPTIC CABLE ROUTING BETWEEN NEW AND EXISTING PULL BOXES.

4. COIL AND NEATLY STORE IN THE PULL BOX A MINIMUM OF 100 FEET OF SLACK FIBER OPTIC CABLE AT ALL SPLICE LOCATIONS.

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COLORADO REGISTERED PROFESSIONAL ENGINEER
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0059629
10/07/25

Print Date: 2024-11-04		Sheet Revisions	
File Name: 23574_ITS_SPLICING DIAGRAMS (4).DWG		Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			
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Littleton Colorado

As Constructed	FIBER SPLICING DIAGRAM			Project No./Code
No Revisions:				AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers		23574
	Detailer: DMADDOCK			
Void:	Sheet Subset: ITS SPL	Subset Sheets: 04 of 04		Sheet Number 369

$PLOT_INFO$

- DIRECTION OF FIBER OPTIC CABLE RUN (BACKBONE AND LATERAL CABLES)
- DEVICE ATTACHED (LATERAL CABLE)
- FOOTAGE MEASUREMENT AT PULL BOX OR MANHOLE (TMS) LOCATION (BACKBONE AND LATERAL CABLES)
- FIBER MANUFACTURER SERIAL NUMBER (BACKBONE AND LATERAL CABLES)
- NUMBER OF FIBERS IN CABLE (BACKBONE AND LATERAL CABLES)
- DATE OF INSTALLATION (BACKBONE AND LATERAL CABLES)

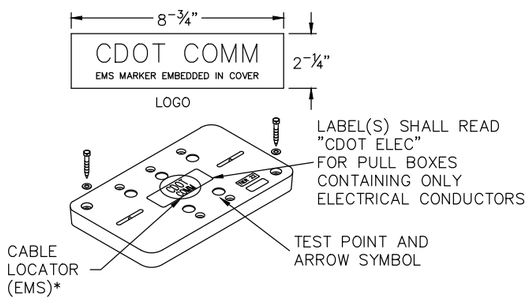
COMMUNICATIONS CABLE LABEL

TO BE ATTACHED BY PLASTIC TIE TO EACH COMMUNICATIONS CABLE LOCATED IN ALL PULL BOXES AND MANHOLES (TMS)

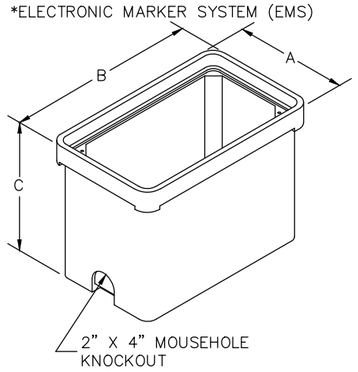
- FED FROM: DESCRIPTION OF SERVICE LOCATION / __LF __(DIRECTION) / THROUGH __PULL BOXES
- FEEDS: DESCRIPTION OF ITS CABINET / __LF __(DIRECTION) / THROUGH __PULL BOXES
- NUMBER OF CONDUCTORS AND SIZE (e.g. 3C#6)

ELECTRIC CABLE LABEL

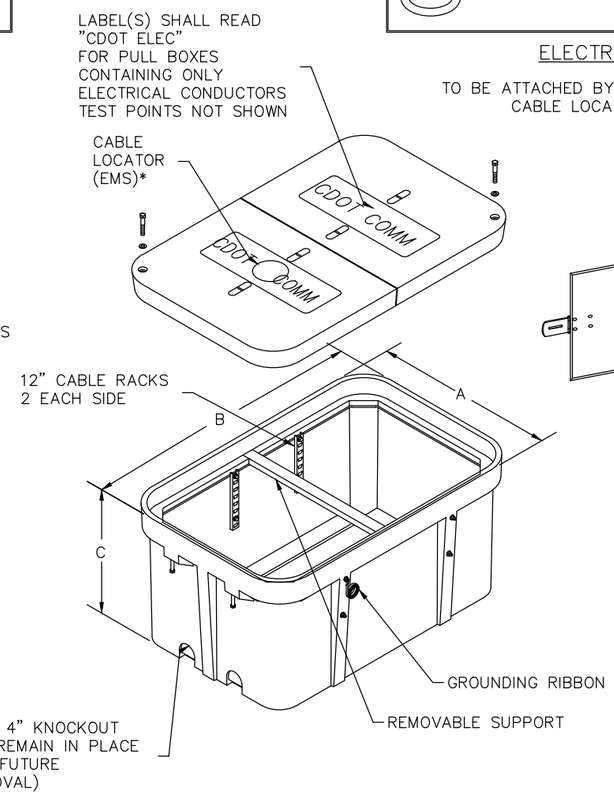
TO BE ATTACHED BY PLASTIC TIE TO EACH ELECTRIC CABLE LOCATED IN ALL PULL BOXES

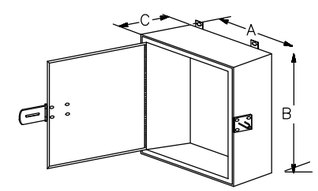


*ELECTRONIC MARKER SYSTEM (EMS)



TYPE TWO PULL BOX





SURFACE MOUNTED TYPE WEATHER TIGHT WITH HASP AND KEY LOCK

TYPE FOUR PULL BOX (OR LARGER)

ITS PULL BOX TYPE	DIMENSIONS (INCHES)			KNOCKOUT	COILED FIBER (FEET)	COILED TRACER WIRE (FEET)
	A	B	C	MOUSE HOLE TYPE		
TYPE ONE PULL BOX	11	18	12	2	N/A	6
TYPE TWO PULL BOX	13	24	12	2	50	6
TYPE THREE PULL BOX	17	30	12	2	50	6
TYPE FOUR PULL BOX	24	36	24	4	50	6
TYPE FIVE PULL BOX	30	48	24	4	50	6
PULL BOX – (SURFACE MOUNTED)	24	24	8	NA	5	5

PULL BOX NOTES:

1. CONDUITS DEPICTED ON THIS TYPICAL DETAIL ARE REPRESENTATIVE ONLY. NUMBER OF CONDUITS INSTALLED AND CONDUIT SIZE SHALL BE AS TABULATED AND SHOWN ON THE PLANS.
2. DESIGNATION FOR THE INSTALLATION OF ELECTRICAL WIRING AND FIBER OPTIC CABLE IN THE BACKBONE CONDUIT SYSTEM IS DESCRIBED IN THE PROJECT SPECIFICATIONS.
3. CONDUIT CENTERLINE SHALL BE ALIGNED WITHIN THE PULL BOX TO FACILITATE FIBER OPTIC CABLE PULLING.
4. CONDUIT PLUGS SHALL BE INSTALLED IN ALL CONDUITS, BOTH WITH AND WITHOUT WIRE OR CABLE AND SHALL BE INCLUDED IN THE COST OF ELECTRICAL CONDUIT ITEM.
5. WEATHERPROOF TAGS SHALL BE INSTALLED ON ALL COMMUNICATIONS AND ELECTRIC CABLES AND SHALL BE INCLUDED IN THE COST OF ELECTRICAL CONDUIT ITEM.
6. TRACER WIRE AND PULL TAPE SHALL BE INCLUDED IN THE COST OF ELECTRICAL CONDUIT ITEM FOR BOTH BACKBONE AND LATERAL CONDUIT RUNS.
   - IF INSTALLATION INCLUDES MULTIPLE RUNS OF CONDUIT, PULL TAPE SHALL BE INSTALLED IN EACH INDIVIDUAL CONDUIT, TRACER WIRE SHALL BE INSTALLED IN THE CONDUIT CONTAINING FIBER OPTIC CABLE.
   - IF INSTALLATION INCLUDES ONLY ONE RUN OF CONDUIT, PULL TAPE AND TRACER WIRE SHALL BE INSTALLED IN SAME CONDUIT AS FIBER CABLE.
7. ALL PULL BOX TYPES SHALL BE PAID FOR UNDER THE CORRESPONDING PULL BOX ITEM, AND SHALL BE SIZED AS TABULATED AND SHOWN IN THE PLANS.
8. PULL BOXES SHALL HAVE A CONCRETE APRON SLOPED AWAY FROM PULL BOX OPENING. THE COST OF THE CONCRETE APRON SHALL BE PAID FOR AS PART OF PULL BOX ITEM.
9. SEE TABLE FOR THE QUANTITY OF EACH FIBER OPTIC BACKBONE AND LATERAL CABLE TO BE COILED IN ALL PULL BOXES.
10. FIBER OPTIC CABLE COILS WITHIN PULL BOXES SHALL BE TIED TO EACH CABLE RACK. PLASTIC WIRE TIES SHALL NOT BE ALLOWED. CAUTION SHALL BE TAKEN TO COIL THE FIBER CABLE PER MANUFACTURER'S RECOMMENDATIONS.
11. WORK TO INSTALL PULL BOX SHALL INCLUDE BUT NOT BE LIMITED TO SAW CUTTING OF CONCRETE SIDEWALKS, REMOVAL OF PAVEMENT, CONCRETE, EARTHWORK, ALL LANDSCAPE RESTORATION AND SHALL BE PAID FOR AS PART OF PULL BOX. ALL MATERIAL SHALL BE CONTAINED BY AN APPROVED BMP AND NOT ALLOWED TO RUN OFF SITE.
12. PULL BOX TYPES AS DEPICTED ON THIS PROJECT DETAIL SHALL NOT BE INSTALLED IN THE ASPHALT OR CONCRETE SHOULDER OF THE ROADWAY.
13. A COMMUNICATIONS ELECTRONIC MARKER SYSTEM (EMS) SHALL BE EMBEDDED IN TO THE COVER AS SHOWN IN DETAILS ON THIS SHEET.
14. ALL PULL BOXES AND COVERS LOCATED IN AREAS WITH NON–DELIBERATE VEHICULAR TRAFFIC MUST COMPLY WITH ALL TEST PROVISIONS OF LATEST EDITION OF THE ANSI/SCTE 77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY" AND MUST MEET THE TIER 22 APPLICATION. MARKING SHOWING THE TIER 22 RATING MUST BE LABELED OR STENCILED ON THE INSIDE AND OUTSIDE OF THE BOX AND ON THE UNDERSIDE OF THE COVER.
15. COVER MUST BE SECURED TO PULL BOX USING 3/8–7 LAG THREAD HEX HEAD BOLTS.
16. A COMPLIANCE LETTER FROM THE MANUFACTURER OF THE PULL BOXES SHALL BE SUBMITTED ALONG WITH MATERIAL SUBMITTALS. THE COMPLIANCE LETTER SHALL INDICATE THAT THE PULL BOX MANUFACTURER HAS MET OR EXCEEDED ALL TEST PROVISIONS OF THE LATEST EDITION OF THE ANSI/SCTE 77 & ALL OF CDOT REQUIREMENTS LISTED IN PLAN DETAILS.
17. ALL PULL BOX COVERS SHALL BE FURNISHED WITH 3/8 (35) X 1/16 (2), DEEP TEST POINT AREAS, WITH 2 – 3/8–7 LAG LONG STAINLESS STEEL HEX HEAD BOLTS, 2 – 3/8 (10) STAINLESS STEEL FLAT WASHERS, DIRECTIONAL LABELS AND 1 – GROUND LABEL. THE MINIMUM NUMBER OF TEST POINT AREAS AND DIRECTIONAL LABELS SHALL EQUAL THE NUMBER OF CONDUIT BANKS ENTERING THE PULL BOX, UP TO A MAXIMUM OF 5 TEST POINTS. PULL BOXES WITH SPLIT LIDS SHALL HAVE TEST POINTS ON ONE SPLIT LID SECTION ONLY.
18. TEST POINT LABEL SHALL BE 1 1/2" DIAMETER ORANGE CIRCLE WITH BLACK ARROW GRAPHIC. ONE ARROW GRAPHIC SHALL BE INSTALLED FOR EACH TEST POINT USED INDICATING THE DIRECTION THE CONDUIT EXITS THE PULL BOX.
19. THE DEEP RECESS OF THE POLYMER CONCRETE PULL BOX SHALL BE CLEANED WITH AN ALCOHOL–BASED CLEANER PRIOR TO APPLYING LABELS.

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

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Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
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Sheet Revisions		
Date:	Comments	Init.

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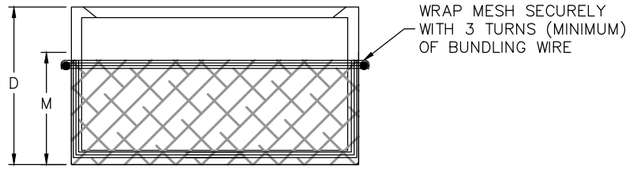
SANTA FE DR
CDOT ITS PULL BOX
SHEET 1 OF 2

Designer: AMANCINI
Detailer: DMADDOCK
Structure Numbers
Sheet Subset: ITS DET
Subset Sheets: 01 of 08

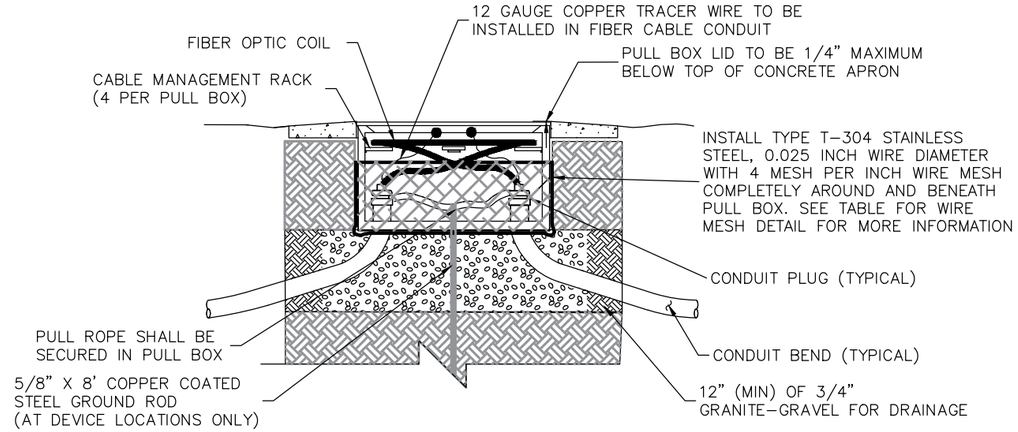
Project No./Code
AQC M810-017
23574
Sheet Number 370

$PLOT_INFO$

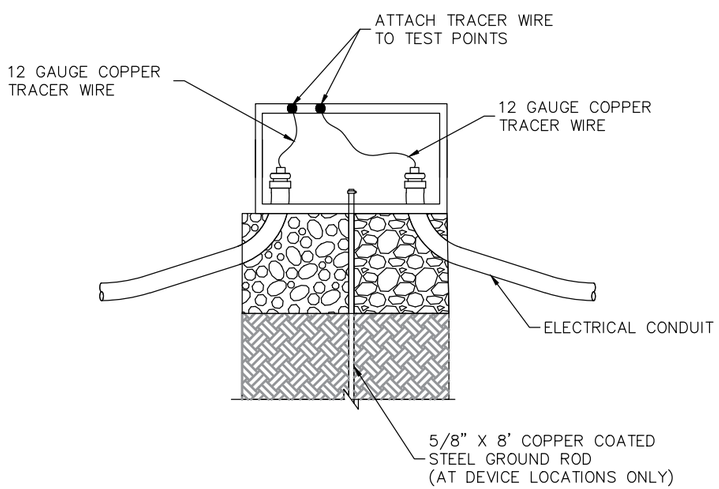


PULL BOX DEPTH "D"	WIRE MESH HEIGHT "M" (FROM BOTTOM)
12"	9"
18"	12"
24"	18"
30"	18"
36"	18"

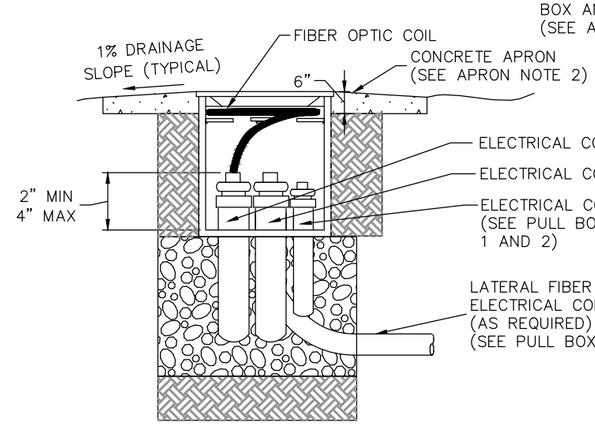
WIRE MESH DETAIL

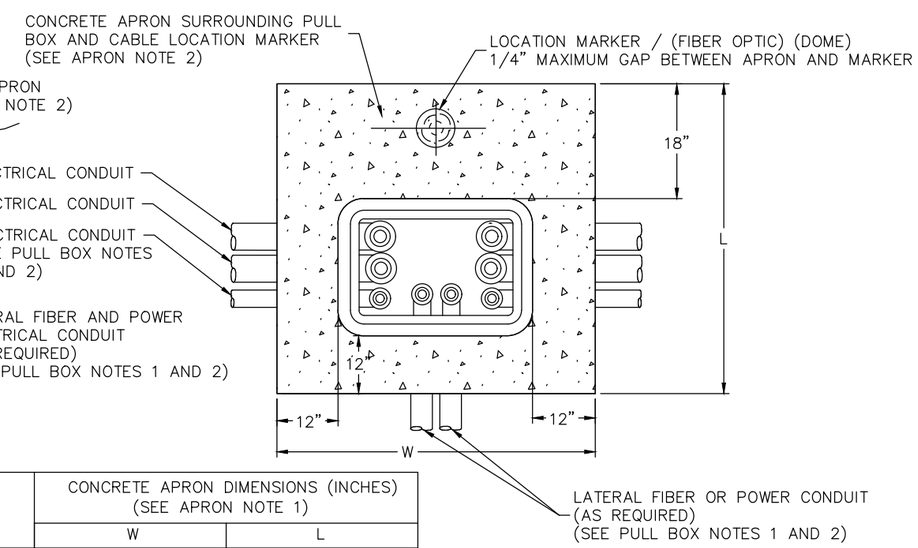


CONDUIT BEND NOTES:
1. RADIUS MUST NOT BE LESS THAN 48" FOR CONDUIT CONTAINING FIBER
2. SWEEP MUST NOT BE GREATER THAN 45 DEGREES
3. DURING CABLE INSTALLATION, CONTRACTOR SHALL ENSURE NO DAMAGE TO CABLE OCCURS DUE TO FRICTION BETWEEN CONDUIT AND CABLE JACKET. THIS MAY REQUIRE INSTALLING TEMPORARY PVC SWEEPS ON HDPE CONDUIT ENDS.



GROUNDING DETAIL





ITS PULL BOX TYPE	CONCRETE APRON DIMENSIONS (INCHES) (SEE APRON NOTE 1)	
	W	L
TYPE ONE PULL BOX	42	41
TYPE TWO PULL BOX	48	43
TYPE THREE PULL BOX	54	47
TYPE FOUR PULL BOX	60	54
TYPE FIVE PULL BOX	72	60

APRON NOTES:
1. APRON DIMENSIONS MAY VARY BASED ON PULL BOX WALL THICKNESS.
2. WITH APPROVAL FROM ENGINEER, A SKID-RESISTANT PRECAST CONCRETE OR POLYMER CONCRETE APRON OF SIMILAR DIMENSIONS MAY BE USED. GROUND SHALL BE COMPACTED PER MANUFACTURER RECOMMENDATIONS.

ITS PULL BOX INSTALLATION

COLORADO REGISTERED PROFESSIONAL ENGINEER
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10/07/25

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1670 BROADWAY, SUITE 3400
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SANTA FE DR
CDOT ITS PULL BOX INSTALLATION
SHEET 2 OF 2

Designer: AMANCINI
Detailer: DMADDOCK
Structure Numbers
Sheet Subset: ITS DET
Subset Sheets: 02 of 08

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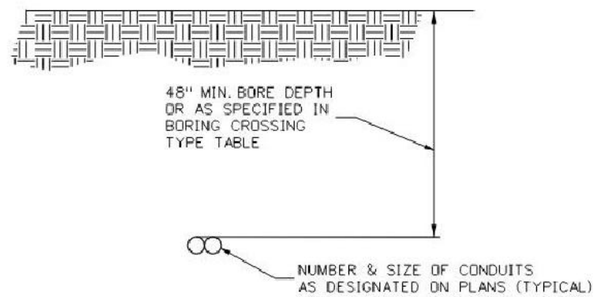
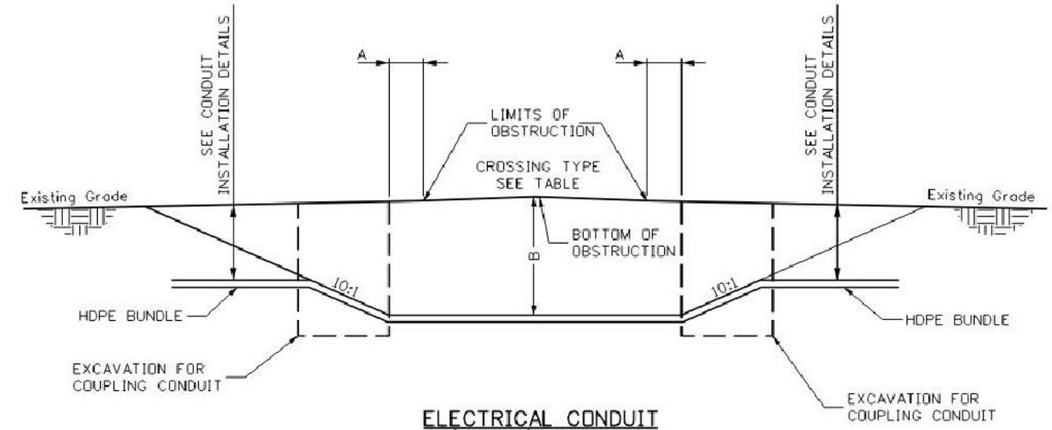
AQC M810-017
23574
Sheet Number 371

$PLOT_INFO$

CROSSING TYPE	A	B
CULVERT	5' MIN	48" MIN
DRIVEWAY	5' MIN	48" MIN
DITCH	15' MIN	48" MIN
CROSS ROAD	15' MIN	48" MIN
FREEWAY	15' MIN	48" MIN
PRAIRIE DOGS	15' MIN	84" MIN
TREE	20' MIN	84" MIN
WATERWAY	50' MIN	48" MIN
WETLAND	50' MIN	48" MIN



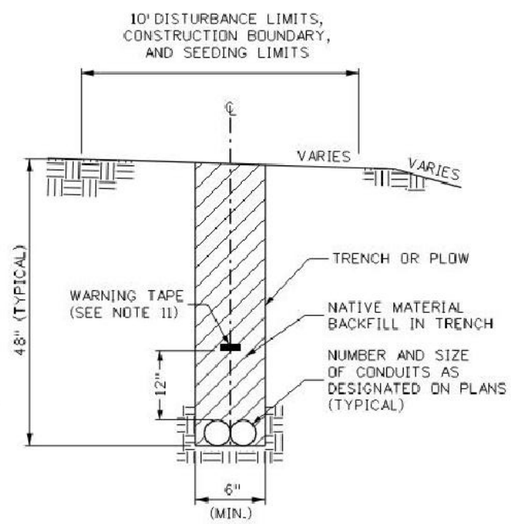
ELECTRICAL CONDUIT (BORED)
NTS



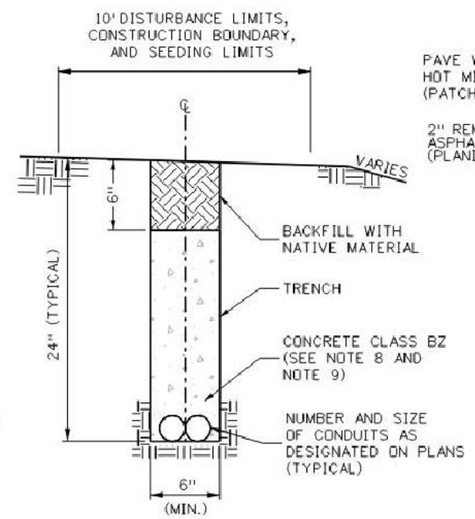
ELECTRICAL CONDUIT (BORED) PROFILE
NTS

NOTES:

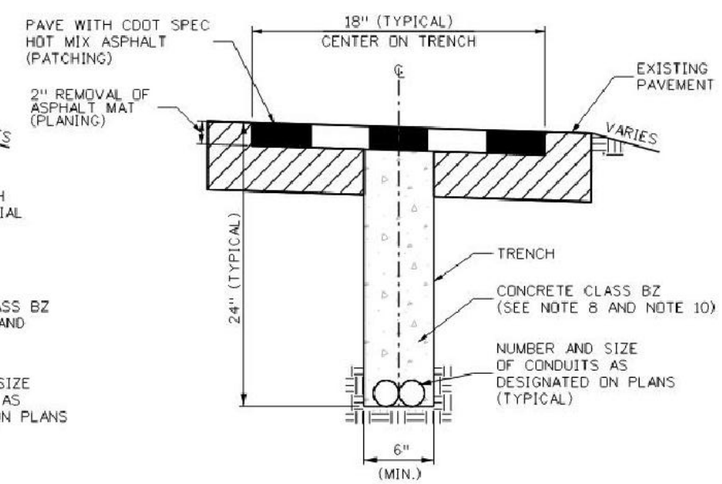
1. CONTRACTOR SHALL CONFORM TO THE APPLICABLE AGENCY REQUIREMENTS AND SPECIFICATION FOR BORE CROSSINGS.
2. EXCAVATIONS AND DISTURBANCE LIMITS REQUIRE SEEDING AND MULCHING.
3. REFER TO SPECIAL PROVISIONS FOR REQUIREMENTS ON HANDLING AND DISPOSING OF BORING SLUDGE.
4. EXCAVATION FOR COUPLING CONDUIT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.
5. CONTRACTOR SHALL BACKFILL AND REGRADE SITE TO MATCH EXISTING CONDITIONS.
6. CONTRACTOR SHALL REPAIR ALL DAMAGE TO PAVEMENT CAUSED BY ERRANT BORING AT THEIR COST.
7. TRENCHES SHALL BE FILLED IN BY THE END OF THE WORK DAY. CONTRACTOR SHALL USE AN APPROVED ENVIRONMENTAL BEST MANAGEMENT PRACTICE ON THE DOWNSTREAM SIDE OF ANY REMAINING SPOILS TO PREVENT THE TRANSPORT OF THE SEDIMENT DURING A RAIN EVENT.
8. CONCRETE CLASS BZ WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
9. WHERE SHALLOW TRENCH IN PAVEMENT IS USED, REMOVAL OF ASPHALT MAT (PLANING) AND HOT MIX ASPHALT (PATCHING) WILL BE MEASURED AND PAID FOR SEPARATELY.
10. THE CONTRACTOR SHALL USE FACTORY MANUFACTURED CONDUIT SPACERS AND ANCHORS WHEN CONDUIT IS INSTALLED IN CONCRETE.
11. WARNING TAPE SHALL BE RED IF ANY CONDUIT IN THE TRENCH IS DESIGNATED FOR ELECTRICAL CONDUCTORS. THE WARNING TAPE SHALL BE ORANGE FOR COMMUNICATIONS-ONLY CONDUITS.



ELECTRICAL CONDUIT (PLASTIC)
NTS



ELECTRICAL CONDUIT (PLASTIC)
SHALLOW - OUTSIDE OF PAVEMENT
ONLY TO BE USED IF 48" DEPTH CANNOT BE ACHIEVED AND IF APPROVED BY THE ENGINEER



ELECTRICAL CONDUIT (PLASTIC)
SHALLOW - IN PAVEMENT
ONLY TO BE USED WHERE SHOWN ON PLANS OR IF APPROVED BY THE ENGINEER

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

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As Constructed	SANTA FE DR CONDUIT INSTALLATION DETAIL		Project No./Code
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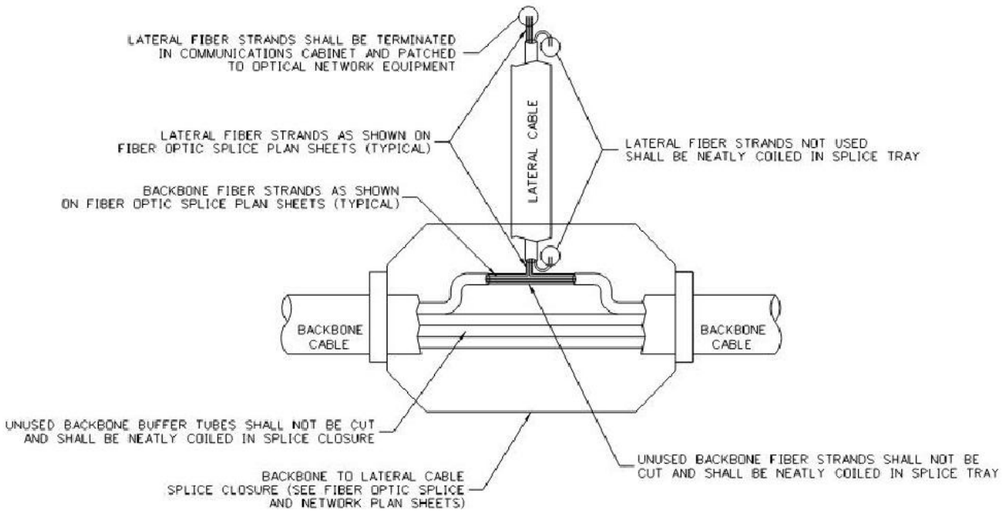
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 372
	Sheet Subset: ITS DET	Subset Sheets: 03 of 08	

$PLOT_INFO$

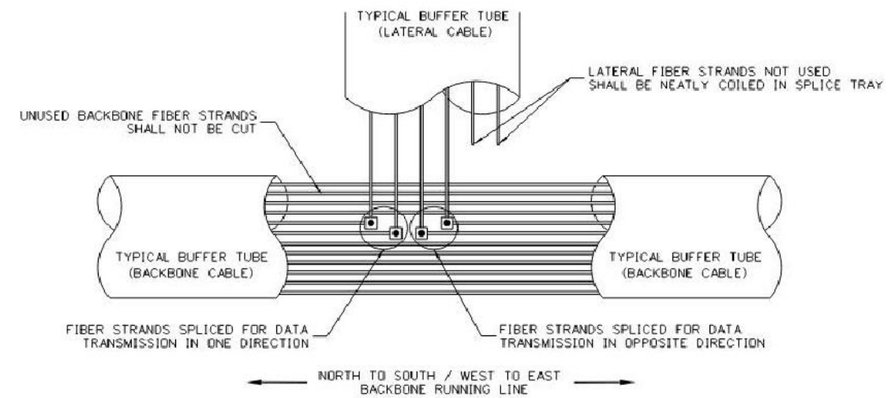
NOTES:

1. WHERE NOTED IN THE PLANS, FIBER OPTIC CABLE SHALL BE SPLICED IN THE MANNER SHOWN. ADDITIONAL SPLICING WILL NOT BE ALLOWED UNLESS APPROVED BY THE PROJECT ENGINEER. IN NO CASE SHALL SPLICING CAUSE THE TOTAL OPTICAL SIGNAL TO EXCEED THE POWER BUDGET SPECIFIED BY THE NETWORK EQUIPMENT SPECIFICATION AND PROJECT SPECIFICATION.
2. FIBER OPTIC CABLE SPLICES SHALL BE PLACED AND SEALED IN A WEATHERPROOF FIBER OPTIC SPLICE CLOSURE.
3. ONLY THE FIBER OPTIC BUFFER TUBES AND FIBER OPTIC STRANDS PROPOSED FOR SPLICING SHALL BE CUT AND ACCESSED FROM FIBER OPTIC CABLE. ALL OTHER FIBER OPTIC BUFFER TUBES SHALL REMAIN UNCUT AND SHALL BE NEATLY COILED IN SPLICE CLOSURE. ALL BARE FIBER STRANDS FROM THE PROPOSED FIBER OPTIC BUFFER TUBE SHALL BE NEATLY COILED IN THE SPLICE TRAY.
4. THE CONTRACTOR SHALL VERIFY DATA DIRECTIONS AT EACH SPLICE LOCATION AS IT PERTAINS TO THE OPERATION OF THE OPTICAL NETWORK EQUIPMENT PRIOR TO SPLICING.
5. THE FUSION SPLICE METHOD SHALL BE THE ONLY ACCEPTABLE METHOD FOR SPLICING FIBER OPTIC STRANDS. AFTER THE FUSION SPLICE OF THE BACKBONE TO LATERAL CABLES ARE COMPLETE THEY SHALL BE PROTECTED BY FIBER OPTIC HEAT-SHRINKING SLEEVES AND INSERTED INTO THE SPLICE CHIPS SECURED TO THE SPLICE TRAY.
6. THE CONTRACTOR SHALL LABEL SPLICE TRAY IN THE BACKBONE TO LATERAL CABLE SPLICE CLOSURE WITH THE FOLLOWING INFORMATION:
   - BACKBONE BUFFER TUBE AND DIRECTION
   - LATERAL BUFFER TUBE AND DIRECTION
   - FOR SPLICES, LABEL BOTH THE BACKBONE FIBER STRANDS AND THE LATERAL FIBER STRANDS



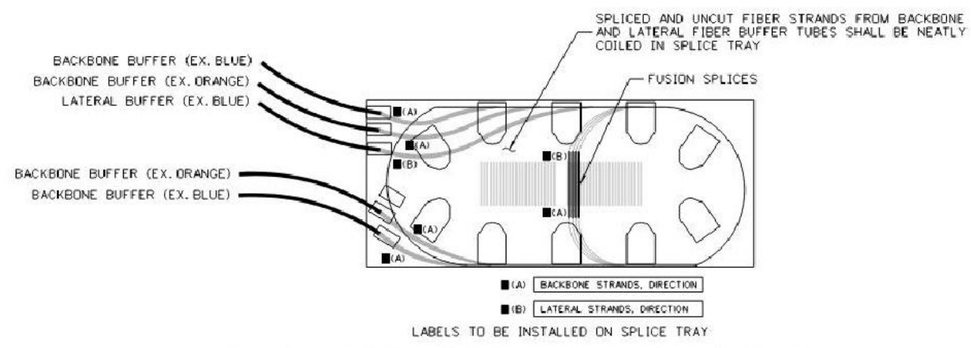
BACKBONE TO LATERAL CABLE SPLICING DETAIL

SCHEMATIC DETAIL ONLY, SPLICE CLOSURE NOT SHOWN FOR CLARITY



SPLICING DATA DIRECTION DETAIL

BUS NETWORK TOPOLOGY (DROP AND REPEAT/DAISY CHAIN)



LABELS TO BE INSTALLED ON SPLICE TRAY

BACKBONE TO LATERAL SPLICE TRAY LABELING DETAIL

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10/07/25

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As Constructed	SANTA FE DR FIBER OPTIC CABLE SPLICE DETAIL		Project No./Code
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Void:	Detailer: DMADDOCK		Sheet Number 373
	Sheet Subset: ITS DET	Subset Sheets: 04 of 08	

$PLOT_INFO$

NOTES:

1. FOR 1310NM/1550NM NETWORKS, OPTICAL ATTENUATION TEST SHALL BE FROM Rx PORT(S) OF TERMINATION PANEL LOCATED IN FIELD CABINETS AND FROM Rx PORT(S) OF TERMINATION PANEL LOCATED IN TRAFFIC MANAGEMENT SYSTEMS (TMS) BUILDINGS. ST-UPC TO ST-UPC FIX TYPE FIBER OPTIC ATTENUATORS SHALL BE INSTALLED IN FIELD CABINET TERMINATION PANEL PORTS. FIBER OPTIC ATTENUATORS TO BE INSTALLED IN TMS BUILDING TERMINATION PANELS SHALL BE DEPENDENT ON BULKHEADS PORT CONNECTOR TYPE. SEE PROJECT PLANS AND SPECIFICATIONS FOR FIBER OPTIC ATTENUATORS CONNECTION TYPES.

2. FOR COARSE WAVELENGTH DIVISION MULTIPLEXING (CWDM) NETWORKS, OPTICAL ATTENUATION TEST SHALL BE CONDUCTED FROM Rx PORT(S) OF TERMINATION PANEL LOCATED IN FIELD CABINETS AND FROM WAVELENGTH Rx PORT(S) OF MULTIPLEXOR/DEMULTIPLEXOR LOCATED IN TMS BUILDINGS. ST-UPC TO ST-UPC FIX TYPE FIBER OPTIC ATTENUATORS SHALL BE INSTALLED IN FIELD CABINET TERMINATION PANEL PORTS. LC-APC TO LC-APC FIX TYPE FIBER OPTIC ATTENUATORS SHALL BE INSTALLED IN TMS BUILDING MULTIPLEXOR/DEMULTIPLEXOR PORTS.

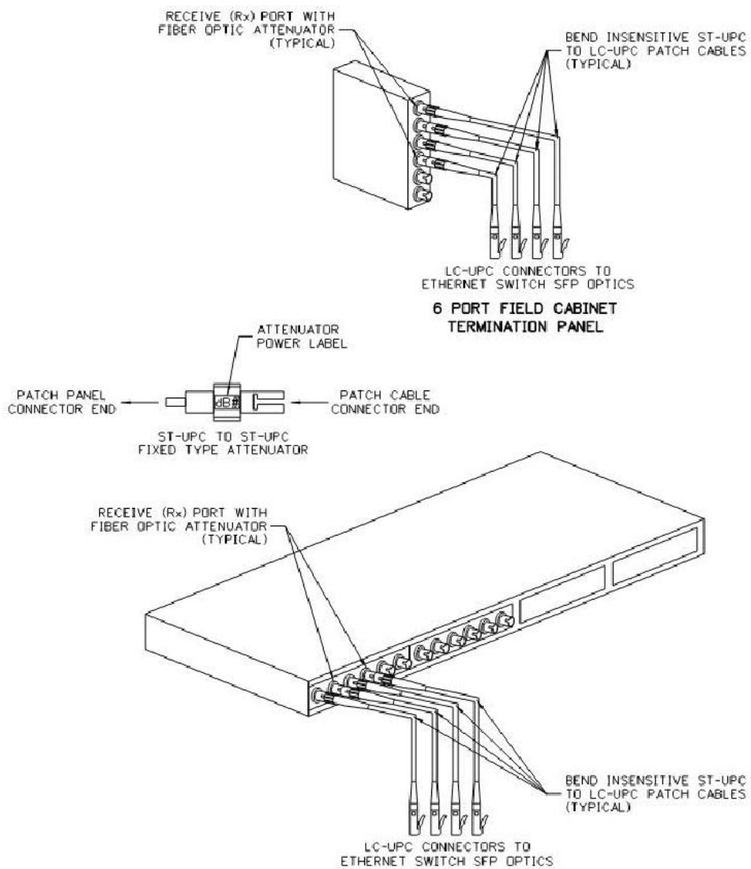
3. THE CONTRACTOR SHALL USE APPROPRIATE OPTICAL TESTING EQUIPMENT (SPECTRUM ANALYZER) FOR THE TESTING AND ATTENUATION CALCULATIONS FOR CWDM SFP OPTICS AND 1310NM/1550NM SFP OPTICS.

4. THE FIBER OPTIC NETWORK AND SFP OPTICS SHALL BE ATTENUATED TO THE RECEIVE (Rx) POWER LEVELS AS STATED BY THE MANUFACTURER.

5. FIBER OPTIC ATTENUATORS SHALL NEVER BE STACKED. ONLY ONE OPTICAL ATTENUATOR SHALL BE INSTALLED TO BRING THE OPTICAL POWER TO THE RECOMMENDED LEVELS.

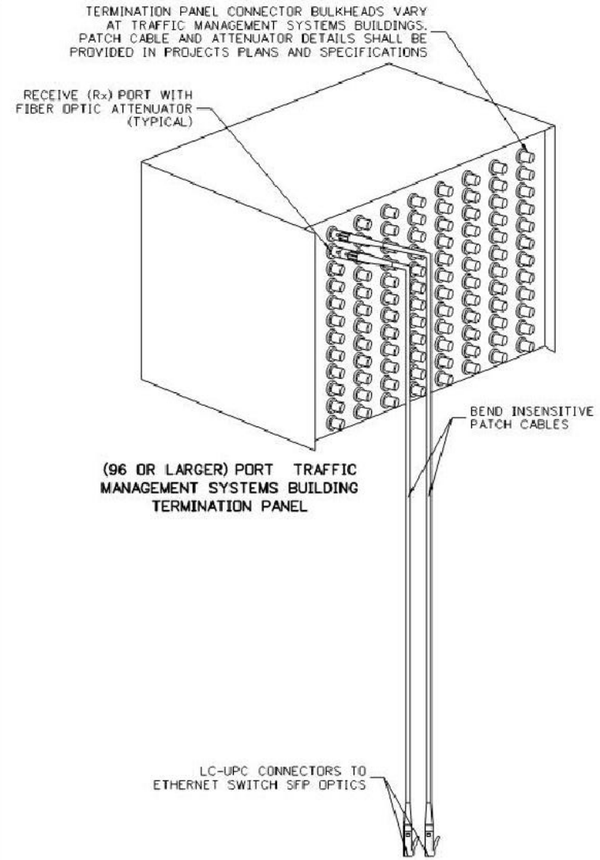
6. THE DECIBEL (dB) RATING OF THE ATTENUATOR INSTALLED SHALL BE LABELED ON THE ATTENUATOR.

7. SEE PROJECT DETAIL SHEETS AND PROJECT SPECIFICATIONS FOR ALL REQUIRED LABELING OF THE OPTIC PATCH CABLES.



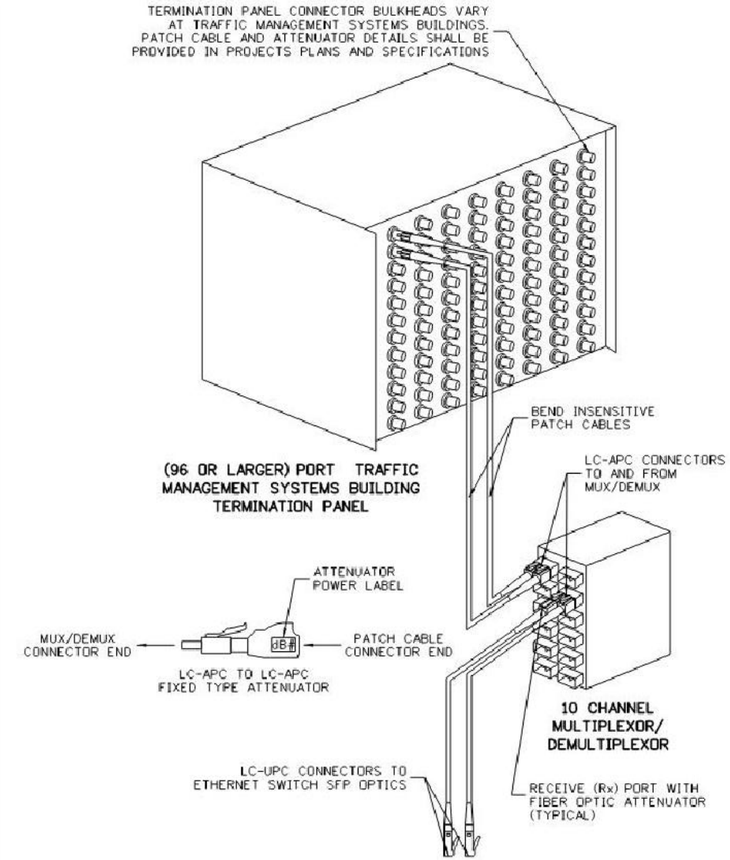
FIELD OPTICAL POWER ATTENUATOR INSTALLATION

SEE NOTES FOR ADDITIONAL TESTING AND INSTALLATION DETAILS



TRAFFIC MANAGEMENT SYSTEMS BUILDING
1310NM/1550NM WAVELENGTH
OPTICAL POWER ATTENUATOR INSTALLATION

SEE NOTES FOR ADDITIONAL TESTING AND INSTALLATION DETAILS



TRAFFIC MANAGEMENT SYSTEMS BUILDING
CWDM WAVELENGTH
OPTICAL POWER ATTENUATOR INSTALLATION

SEE NOTES FOR ADDITIONAL TESTING AND INSTALLATION DETAILS

COLORADO REGISTERED PROFESSIONAL ENGINEER
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10/07/25

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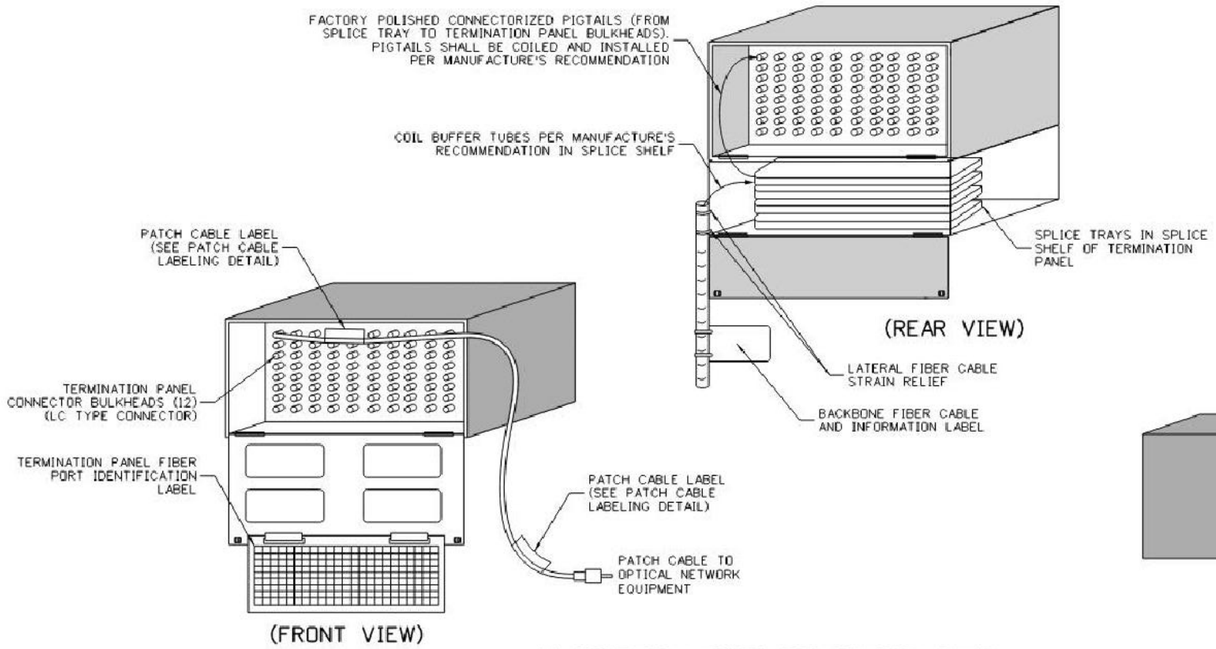
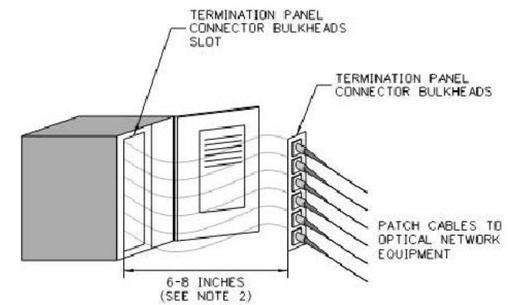
$PLOT_INFO$

NOTES:

1. WHEN A BACKBONE FIBER OPTIC CABLE IS BEING TERMINATED IN A TRAFFIC MANAGEMENT SYSTEM BUILDING TERMINATION PANEL, BUFFER TUBES SHALL BE SPLICED IN SPLICE TRAYS TO FACTORY POLISHED CONNECTORIZED PIGTAILS. TRAFFIC MANAGEMENT SYSTEM BUILDING TERMINATION PANEL SHALL HAVE A SPLICE SHELF WITH ADEQUATE STORAGE FOR BUFFER TUBE COILS AND SPLICE TRAYS.
2. THE CONTRACTOR SHALL PROVIDE SUFFICIENT FIBER OPTIC STRAND SLACK IN TERMINATION PANELS SO THE CONNECTOR BULKHEADS CAN BE REMOVED 6-8 INCHES FROM THE FRONT SIDE OF THE TERMINATION PANEL FOR FUTURE SERVICE AND MAINTENANCE.
3. PATCH CABLES USED TO CONNECT FROM A TERMINATION PANEL TO OPTICAL NETWORK EQUIPMENT IN A TRAFFIC MANAGEMENT SYSTEM BUILDING OR A FIELD CABINET SHALL HAVE AN INFORMATION LABEL ATTACHED TO BOTH ENDS.



96 PORT OR LARGER TERMINATION PANEL
(TRAFFIC MANAGEMENT SYSTEM BUILDING)



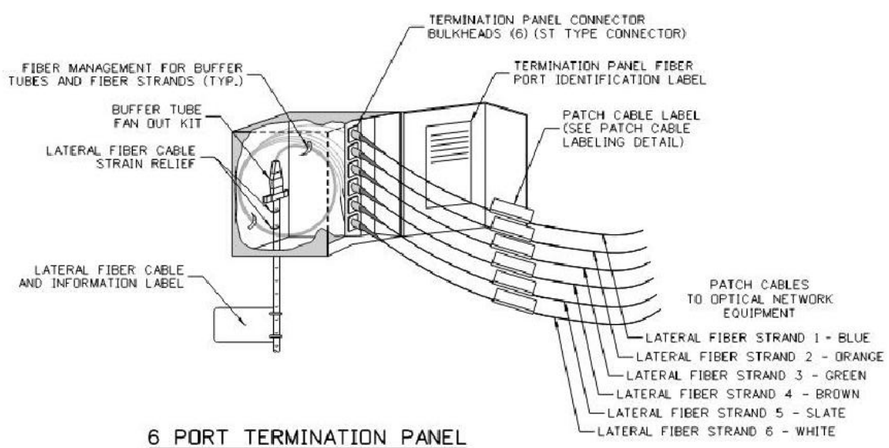
PATCH CABLE LABELING DETAIL

THE FOLLOWING INFORMATION SHALL BE SUPPLIED ON LABEL:

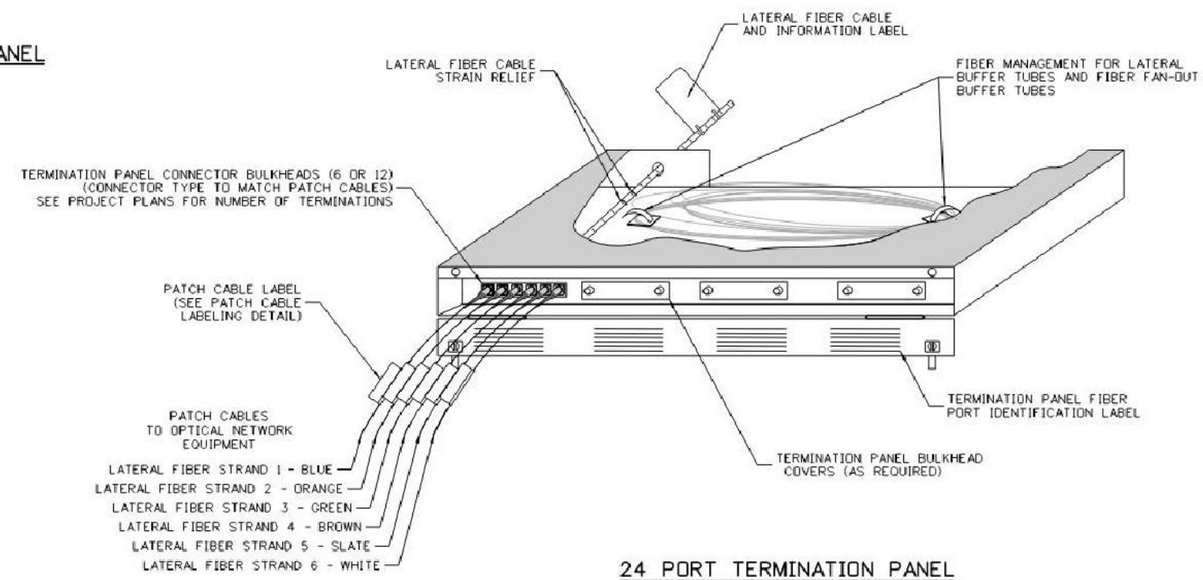
- TERMINATION PANEL PORT
- OPTICAL NETWORK EQUIPMENT PORT
- OPTICAL WAVELENGTH
- LOCATION AND DEVICES
- DATA DIRECTION AND NETWORK NODE BUILDING

EXAMPLE LABEL:

TERMINATION PANEL PORT 1-2 CIENA 3930 PORT 9 1450NM I-25 MM71 - NB VMS AND CCTV NB - 29TH STREET NODE



6 PORT TERMINATION PANEL
(FIELD CABINET)



24 PORT TERMINATION PANEL
(FIELD CABINET OR TRAFFIC MANAGEMENT SYSTEM BUILDING)

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
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SANTA FE DR
TERMINATION PANEL
DETAIL

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Sheet Subset:	ITS DET	Subset Sheets:	06 of 08

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AQC M810-017
23574
Sheet Number 375

$PLOT_INFO$

LEGEND

- LOCATION MARKER (FIBER OPTIC) (DOME)
- PULL BOX
- MANHOLE (TMS)
- ITS — CDOT ITS CONDUIT – (NUMBER AND SIZE AS SHOWN IN PLANS)
- E — ELECTRIC LOCATION MARKER (UTILITY) (FLAT SLAT) AND ELECTRIC CONDUIT
- T — ELECTRIC LOCATION MARKER (UTILITY) (FLAT SLAT) AND CDOT TELEPHONE CONDUIT

LOCATION MARKER SPACING

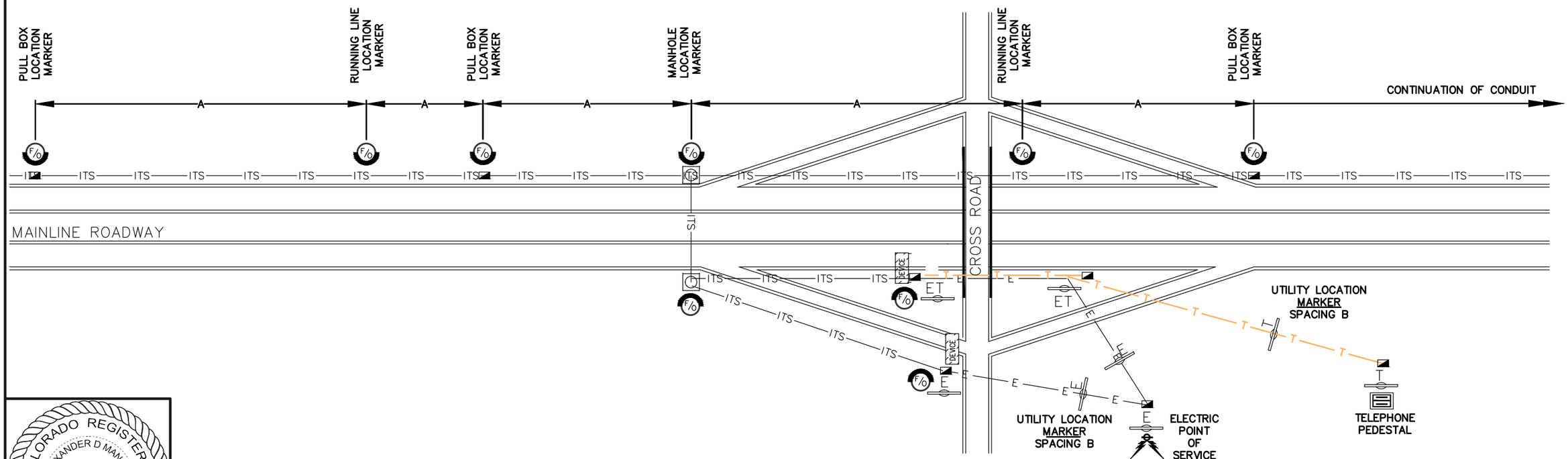
MEASUREMENT	DESCRIPTION	DISTANCE (FEET)
A	LOCATION MARKER (FIBER OPTIC) (DOME) SPACING	1 1000
B	LOCATION MARKER (UTILITY) (FLAT SLAT) SPACING	* ■

* LOCATION MARKER (UTILITY) (FLAT SLAT) SHALL BE INSTALLED AT EACH PULL BOX IN ELECTRIC UTILITY CONDUIT RUN, AND AT A SPACING OF LESS THAN 500 FEET BETWEEN MARKERS.

■ LOCATION MARKER (UTILITY) (FLAT SLAT) SHALL BE INSTALLED AT EACH PULL BOX IN TELEPHONE SERVICE CONDUIT RUN, AND AT A SPACING OF LESS THAN 1000 FEET BETWEEN MARKERS.

LOCATION MARKER INSTALLATION NOTES:

1. AREA AROUND LOCATION MARKER INSTALLATION SHALL BE RETURNED TO EXISTING GRADE AND CONDITION. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT BE INCLUDED IN THE COST OF LOCATION MARKER ITEM.
2. LOCATION MARKER (FIBER OPTIC) (DOME) SHALL BE INSTALLED AT EACH PULL BOX AND MANHOLE ALONG BOTH THE BACKBONE AND LATERAL FIBER OPTIC CABLE RUNS THROUGHOUT THE PROJECT. ADDITIONAL MARKERS SHALL BE INSTALLED ALONG THE RUNNING LINE SO THAT SPACING IS LESS THAN OR EQUAL TO 1000 FEET.
3. LOCATION MARKER (UTILITY) (FLAT SLAT) SHALL BE INSTALLED AT BOTH THE UTILITY POINT OF SERVICE PULL BOX AND THE PULL BOX OR MANHOLE AT PROJECT DEVICE. ADDITIONAL MARKERS, IF REQUIRED, SHALL BE INSTALLED AT MID POINTS ALONG THE UTILITY LINE AS SHOWN ON THIS DETAIL.
4. CONCRETE FOOTING SUPPORT LOCATION MARKER (FIBER OPTIC) (DOME) AT PULL BOX LOCATIONS SHALL BE INCLUDED IN THE COST OF EACH PULL BOX SHOWN IN THE PROJECT.
5. CONCRETE FOOTING SUPPORT FOR LOCATION MARKER (FIBER OPTIC) (DOME) ALONG THE RUNNING LINE AND AT MANHOLES SHALL BE INCLUDED IN LOCATION MARKER (FIBER OPTIC) (DOME) ITEM.
6. LOCATION MARKER (UTILITY) (FLAT SLAT) SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. CONCRETE SUPPORT FOUNDATIONS SHALL NOT BE REQUIRED FOR LOCATION MARKER (UTILITY) (FLAT SLAT).
7. LANDSCAPE LOCATION MARKERS SHALL BE INSTALLED IN LANDSCAPE AREAS AND AREAS SUCH AS PARKING LOTS WHICH COULD HAVE VEHICULAR OR PEDESTRIAN TRAFFIC.
8. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AN AS-BUILT DRAWING SHOWING THE INSTALLED LOCATIONS OF ALL MARKER TYPES.
9. LOCATION MARKERS SHALL HAVE INFORMATION LABELS ATTACHED WITH ADHESIVE TO WITHSTAND HEAT AND COLD. INFORMATION ON LABELS SHALL INCLUDE CDOT CONTACT INFORMATION. NUMBERS INDICATING THE HIGHWAY MILE POINT OF THE PULL BOX OR MANHOLE, TO THE HUNDREDTH OF A MILE, SHALL BE INSTALLED BENEATH THE INFORMATION LABELS AS SHOWN ON SHEET TWO OF THIS PROJECT DETAIL.
10. WHERE REQUIRED ON NATIONAL FOREST SERVICE LAND, MARKERS SHALL BE BROWN (FED #20059) IN COLOR. INFORMATION LABELS SHALL HAVE BLACK LETTERING ON THE BROWN BACKGROUND.



COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

Print Date: 2024-11-04
File Name: 23574_ITS_MARKER (1).DWG
Horiz. Scale: 1" = 50' Vert. Scale: N/A
Unit Information

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

Littleton Colorado

As Constructed
No Revisions:
Revised:
Void:

SANTA FE DR
ITS FIBER OPTIC AND UTLITY MARKERS
SHEET 1 OF 2

Designer: AMANCINI
Detailer: DMADDOCK
Structure Numbers
Sheet Subset: ITS PLN
Subset Sheets: 07 of 08

Project No./Code
AQC M810-017
23574
Sheet Number 376

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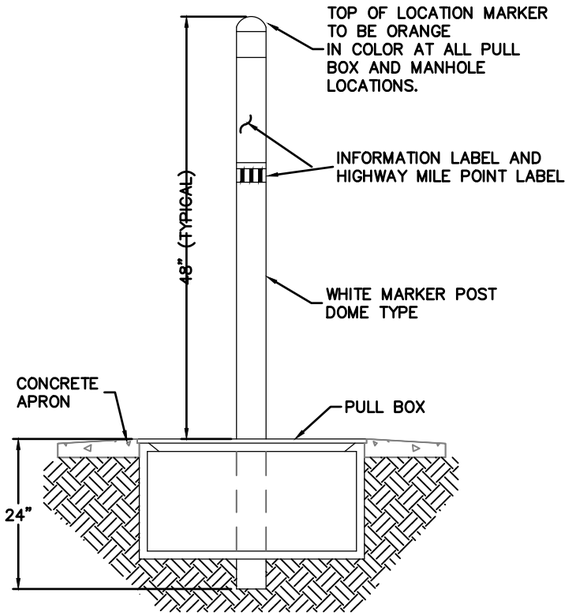
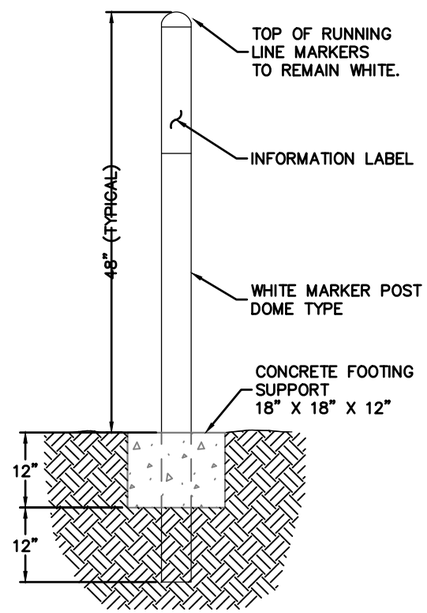
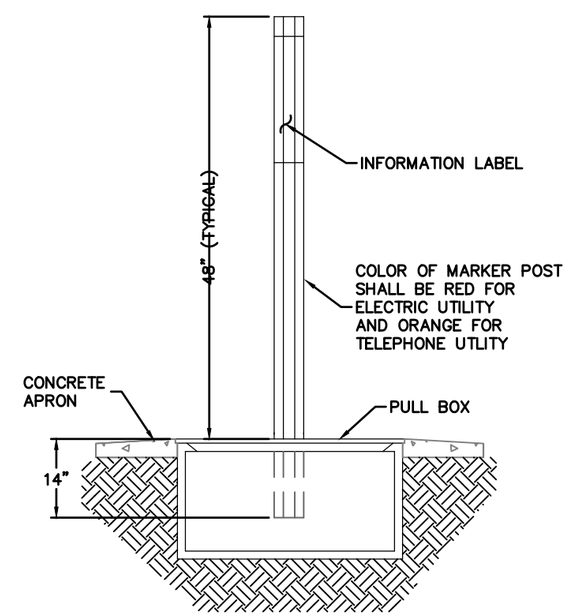
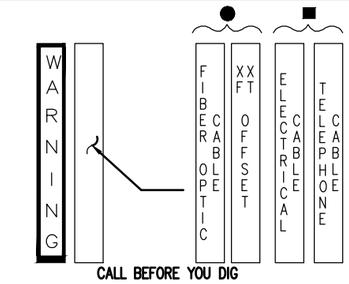






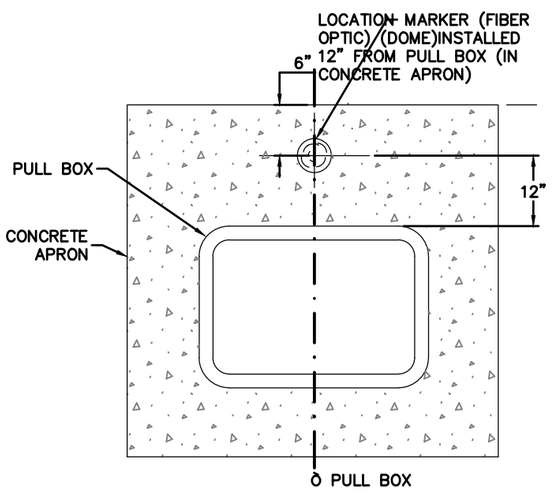


811 Know what's below Call before you dig.

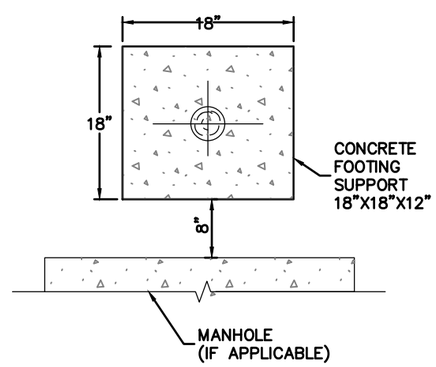
X X X • X X HIGHWAY MILE POINT

LOCATION MARKER
INFORMATION LABELING

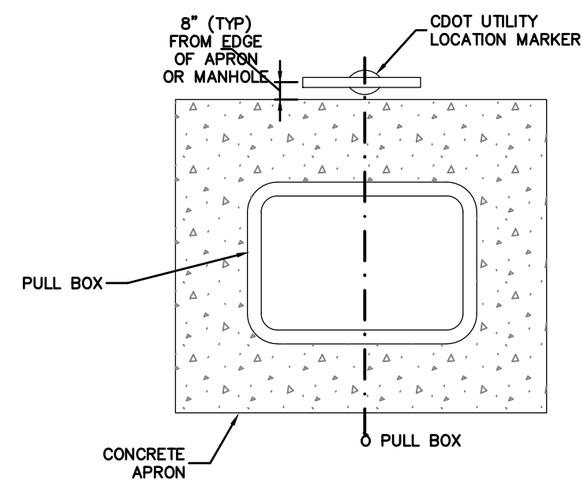
LABEL WITH CDOT CONTACT INFORMATION
BLACK LETTERING ON ORANGE BACKGROUND
● LOCATION MARKER (FIBER OPTIC) (DOME)
■ LOCATION MARKER (UTILITY) (FLAT SLAT)
HIGHWAY MILE POINT DESIGNATION
TO BE TO 100TH OF A MILE
BLACK NUMBERS WITH WHITE BACKGROUND



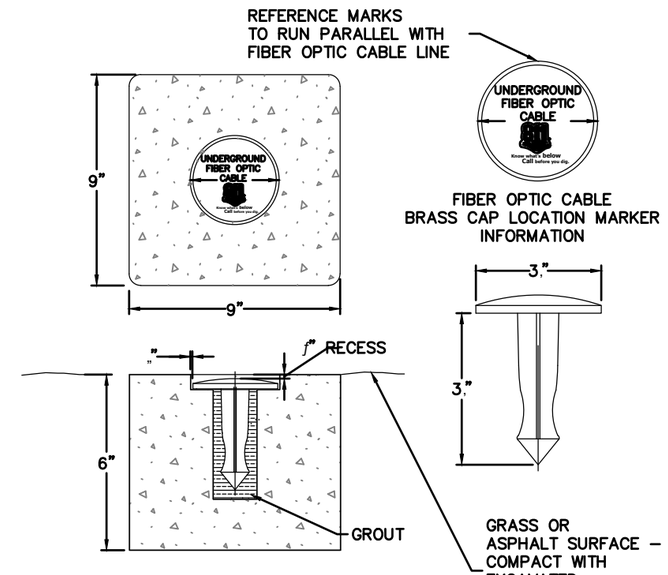
LOCATION MARKER
(FIBER OPTIC) (DOME)
AT PULL BOXES
3" x 6' DOME TYPE POST



LOCATION MARKER
(FIBER OPTIC) (DOME)
ALONG RUNNING LINE
AND AT MANHOLE
3" x 6' DOME TYPE POST



LOCATION MARKER
(UTILITY) (FLAT SLAT)
3 1 /2 " X 62" FLAT TYPE POST ELECTRICAL POWER RUNNING LINES AND TELEPHONE RUNNING LINES



LOCATION MARKER
(FIBER OPTIC) (BRASS CAP)
BRASS CAP SURVEY MONUMENT USED AS FIBER OPTIC CABLE MARKER WITH CONCRETE FOOTING SUPPORT

COLORADO REGISTERED PROFESSIONAL ENGINEER
ALEXANDER D MANCINI
0059629
10/07/25

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Unit Information			

HDR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Littleton Colorado

As Constructed	SANTA FE DR ITS FIBER OPTIC AND UTLITY MARKERS SHEET 2 OF 2		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: AMANCINI	Structure Numbers	23574
Void:	Detailer: DMADDOCK		Sheet Number 377
	Sheet Subset: ITS DET	Subset Sheets: 08 of 08	

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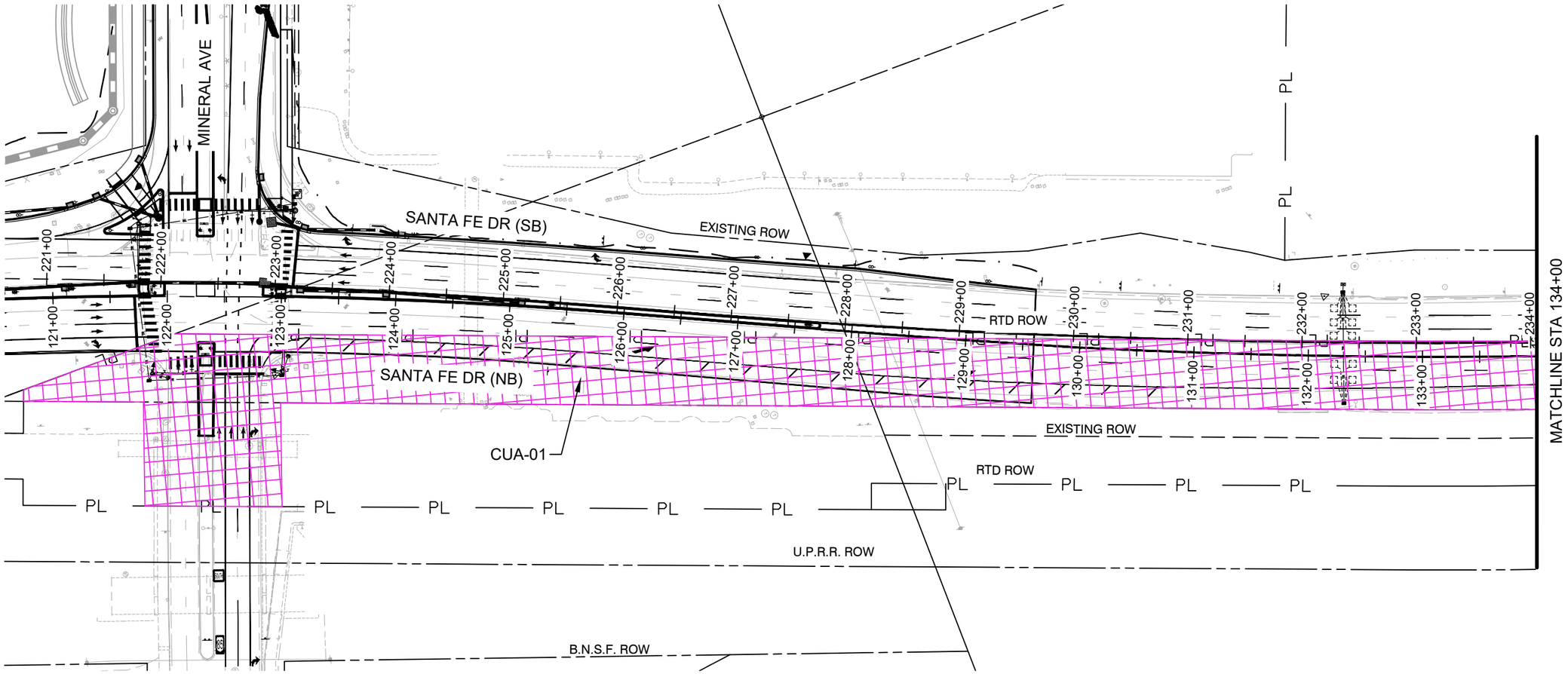

NO WORK AREA
SEE PROJECT
SPECIAL PROVISION
SECTION 107

0 50 100 200
SCALE: 1" = 100'

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ROW-NO-WORK.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 100' Vert. Scale: N/A			
Unit Information			
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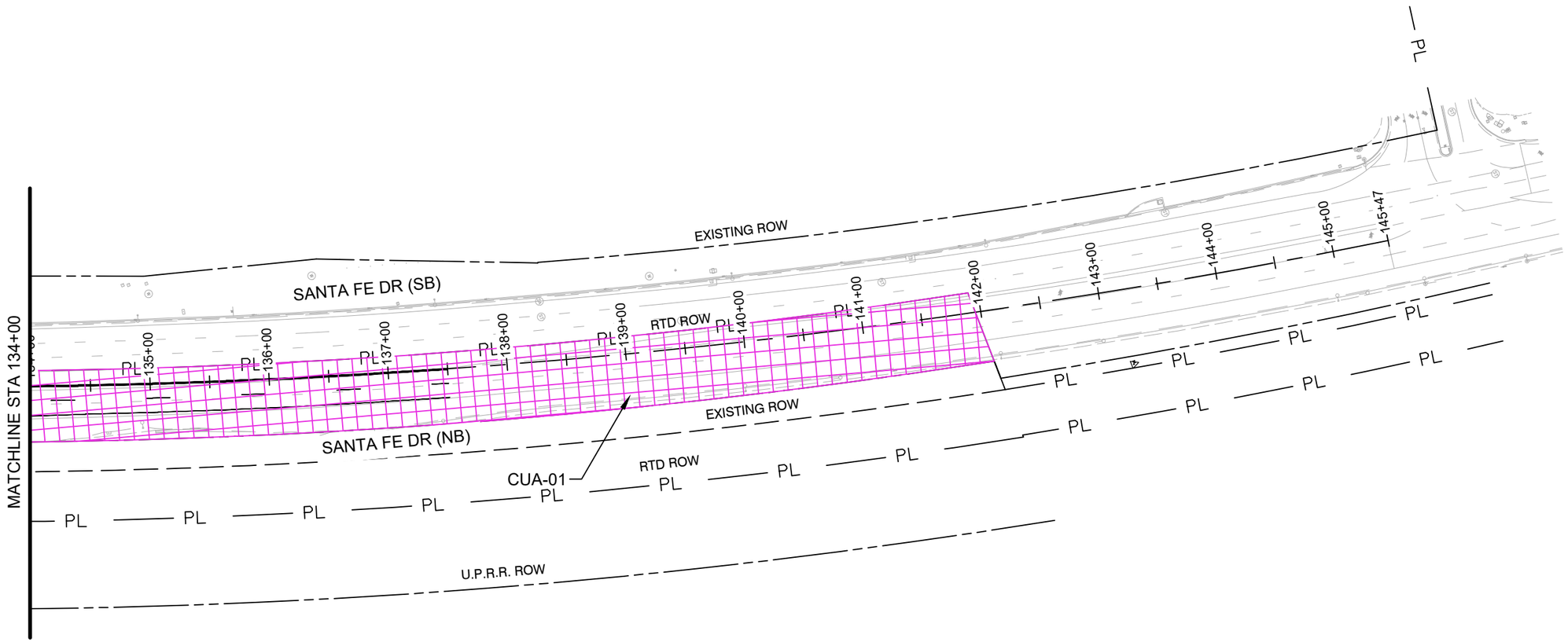
As Constructed	SANTA FE DR RIGHT OF WAY RESTRICTIONS NO WORK AREA		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
	Detailer: O.VELASCO		
Void:	Sheet Subset: ROW	Subset Sheets: 01 of 03	Sheet Number ROW-A

$PLOT_INFO$



NO WORK AREA
SEE PROJECT
SPECIAL PROVISION
SECTION 107

N

0 50 100 200

SCALE: 1" = 100'

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ROW-NO-WORK.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 100' Vert. Scale: N/A			
Unit Information			
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Littleton Colorado

As Constructed	SANTA FE DR RIGHT OF WAY RESTRICTIONS NO WORK AREA		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
	Detailer: O.VELASCO		
Void:	Sheet Subset: ROW	Subset Sheets: 02 of 03	Sheet Number ROW-B

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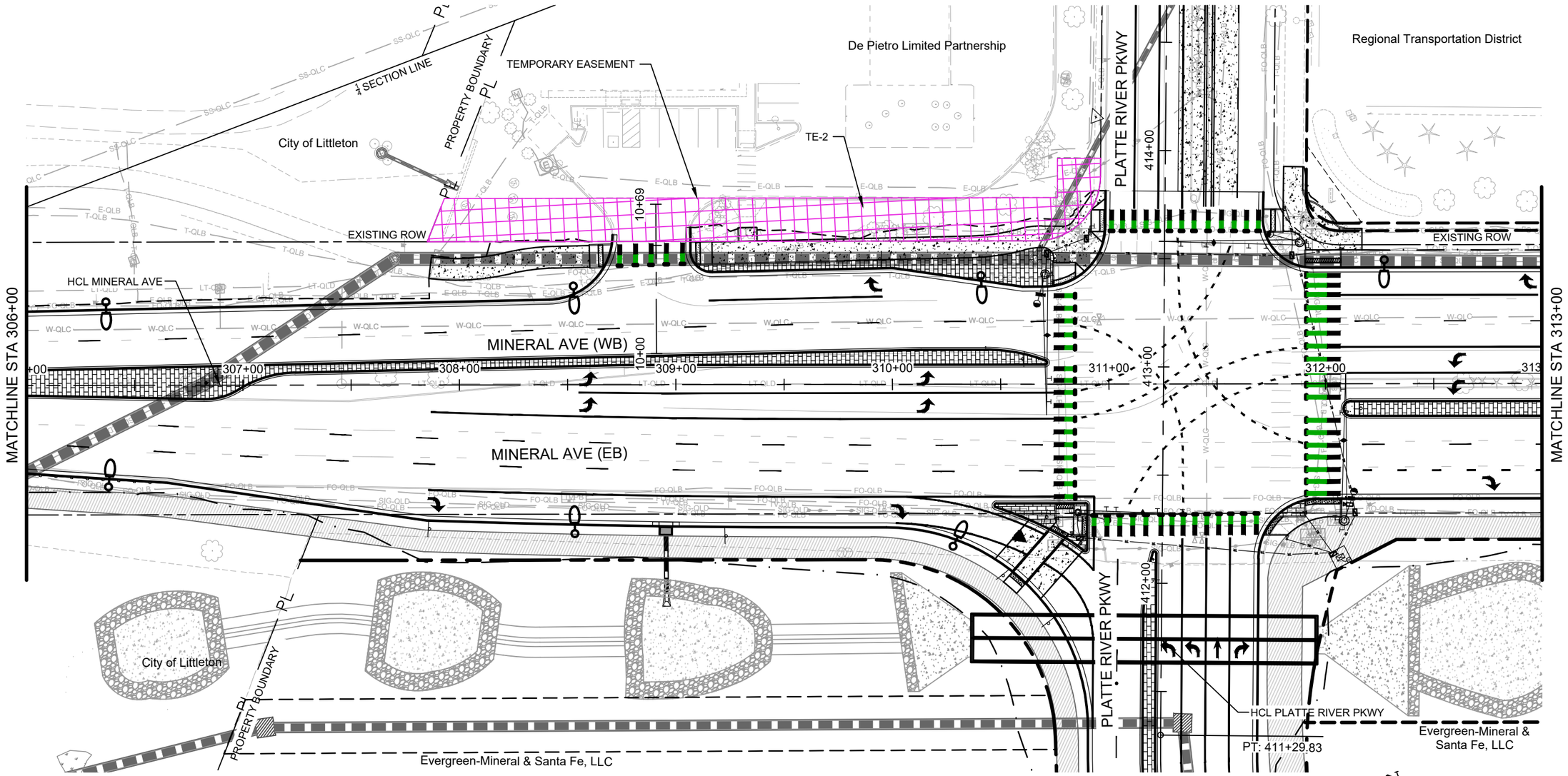

NO WORK AREA
SEE PROJECT
SPECIAL PROVISION
SECTION 107

0 25 50 100
SCALE: 1" = 50'

Know what's below. Call before you dig.

Print Date: 2024-11-04	Sheet Revisions		
File Name: 23574_ROW-NO-WORK2.DWG	Date:	Comments	Init.
Horiz. Scale: 1" = 50' Vert. Scale: N/A			
Unit Information			

HDR
1670 BROADWAY, SUITE 3400
DENVER, COLORADO 80202
Phone: 303-764-1520
FAX: 303-860-7139

Littleton Colorado

As Constructed	MINERAL AVE RIGHT OF WAY RESTRICTIONS NO WORK AREA		Project No./Code
No Revisions:			AQC M810-017
Revised:	Designer: O.VELASCO	Structure Numbers	23574
Void:	Detailer: O.VELASCO		Sheet Number ROW C
	Sheet Subset: ROW	Subset Sheets: 03 of 03	

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