

# PUBLIC STREET PLANS FOR LEE'S SUMMIT R7 MIDDLE SCHOOL ON BAILEY RD. - OFF-SITE TRAFFIC IMPROVEMENTS, TRAFFIC SIGNAL AT HAMBLEN RD. & BAILEY RD. & GREENWAY TRAIL IMPROVEMENTS

## CITY OF LEE'S SUMMIT JACKSON COUNTY, MISSOURI

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### LEGEND

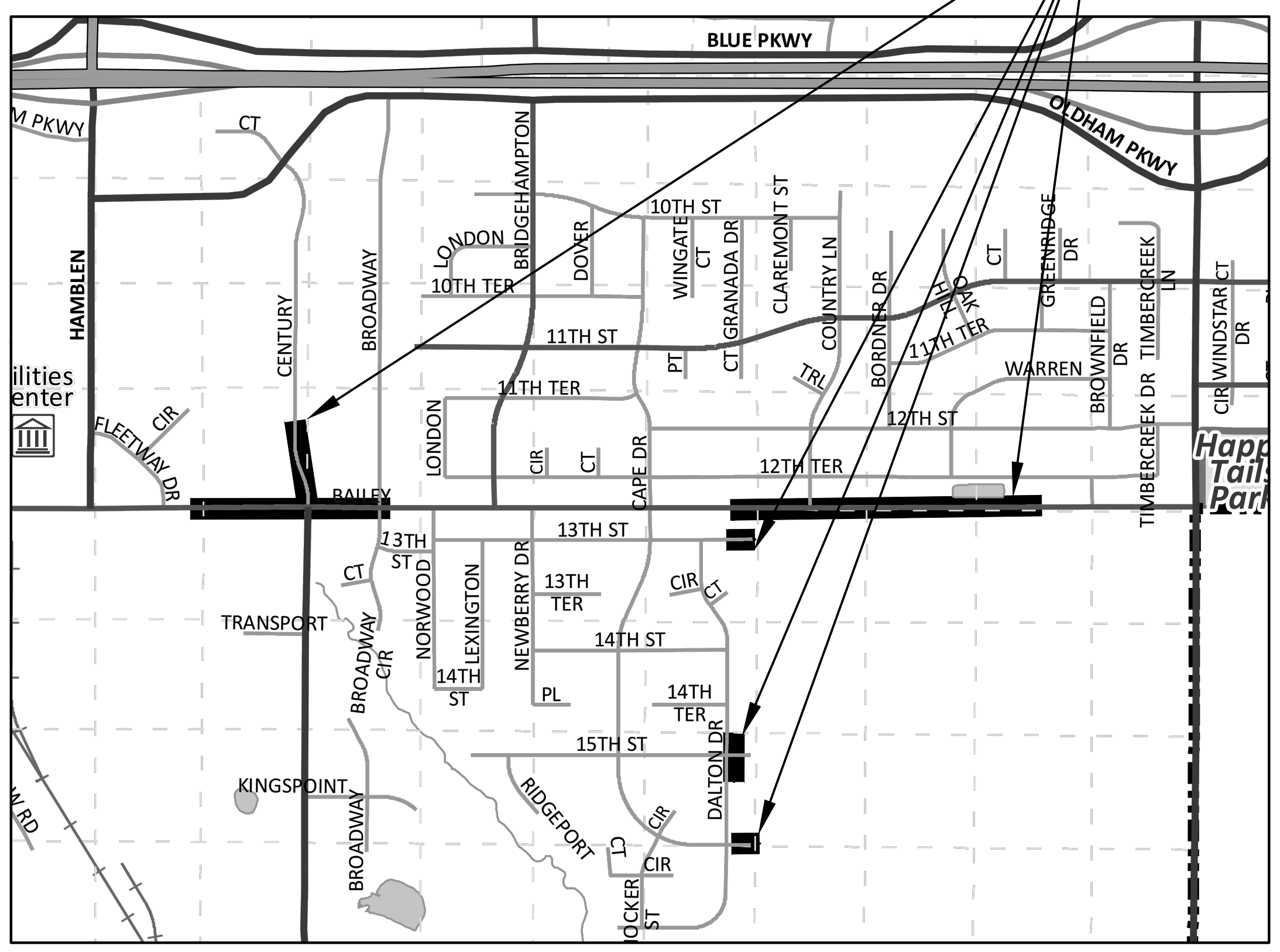
▲CPT	SURVEY CONTROL POINT	☒	TRAFFIC SIGNAL BOX
▲TBM	SURVEY BENCHMARK	⊙	TRAFFIC SIGNAL MANHOLE
▲	SURVEY TEMPORARY BENCHMARK	⊙	TRAFFIC SIGNAL POLE W/ ARM
⊠	GAS METER	⊠	TRAFFIC SIGNAL POLE
⊠	GAS RISER	⊠	TRAFFIC SIGNAL CONTROL BOX
⊠	GAS MANHOLE	⊠	TRAFFIC SIGNAL PEDESTAL
⊠	GAS REGULATOR	⊠	ELECTRIC MANHOLE
⊠	TELEVISION PEDESTAL	⊠	ELECTRIC METER
⊠	FIBER BOX	⊠	ELECTRIC RISER
⊠	FIBER PEDESTAL	⊠	ELECTRIC BOX
⊠	CABLE BOX	⊠	ELECTRIC CABINET
⊠	CABLE VAULT	⊠	ELECTRIC JUNCTION BOX
⊠	TELEPHONE PEDESTAL	⊠	SPRINKLER HEAD
⊠	STORM MANHOLE	⊠	SPRINKLER CONTROL VALVE
⊠	STORM GRATE	⊠	WATER METER PIT
⊠	SANITARY MANHOLE	⊠	FIRE HYDRANT
⊠	YARD LIGHT	⊠	WATER METER
⊠	LIGHT POLE	⊠	WATER VALVE
⊠	POWER POLE	⊠	FLAG POLE
⊠	POWER POLE W/ LIGHT	⊠	SIGN
⊠	STUMP	⊠	BOLLARD
⊠	BUSH	⊠	WOOD POST
⊠	EVERGREEN TREE	⊠	STEEL POST
⊠	DECIDUOUS TREE	⊠	COLUMN
⊠	MAILBOX	⊠	BORE HOLE
⊠		⊠	FIBER OPTIC VAULT

---	SECTION LINE
---	PROPERTY LINE
---	CENTER LINE
---	PROPOSED ROW LINE
---	EXISTING ROW LINE
---	UTILITY EASEMENT
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	EXISTING TELEPHONE LINE
---	EXISTING SANITARY LINE
---	EXISTING STORM LINE
---	EXISTING GAS LINE
---	EXISTING WATER LINE
---	EXISTING CHAIN LINK FENCE
---	EXISTING OVERHEAD ELECTRIC
---	EXISTING UNDERGROUND ELECTRIC
---	GRADING LIMITS
---	TEMPORARY CONSTRUCTION EASEMENT
---	PROPOSED CHAIN LINK FENCE
---	PROPOSED WOOD PRIVACY FENCE
---	EXISTING TREELINE
---	EXISTING FIBER OPTIC LINE
---	EXISTING CATV LINE
---	PROPOSED UNDERDRAIN

### ABBREVIATION TABLE

M.G.	MATCH GRADE
P	PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
CONST.	CONSTRUCT
TBM	TEMPORARY BENCHMARK
CPT	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
B-B	BACK OF CURB TO BACK OF CURB DIMENSION
SP.	SPECIAL
DT.	DITCH
STD.	STANDARD
PERM.	PERMANENT

### PROJECT LOCATIONS



### LOCATION MAP

NOT TO SCALE

### DESIGN/POSTED SPEED:

- RANSON ROAD = 45 MPH
- BAILEY ROAD = 35 MPH
- CENTURY DRIVE (NORTH OF BAILEY ROAD) = 25 MPH
- CENTURY DRIVE (SOUTH OF BAILEY ROAD) = 40 MPH
- SE 13TH STREET = 25 MPH
- SE CAPE DRIVE = 25 MPH

### UTILITY COMPANIES

- WATER - LEE'S SUMMIT WATER UTILITIES**  
1200 SE HAMBLEN ROAD  
LEE'S SUMMIT, MO 64081  
(816) 969-1900
- WASTEWATER - LITTLE BLUE VALLEY SEWER DISTRICT**  
21208 E OLD ATHONTON ROAD  
INDEPENDENCE, MO 640581  
(816) 796-7660
- ELECTRIC - EVERGY**  
1300 SE HAMBLEN ROAD  
LEE'S SUMMIT, MO 64081  
(888) 471-5275
- GAS - SPIRE GAS**  
3025 SE CLOVER DR  
LEE'S SUMMIT, MO 64082  
(816) 969-2200
- TELEPHONE - AT&T**  
1636 SE BLUE PKWY  
LEE'S SUMMIT, MO 64063  
(816) 600-5552
- CABLE - SPECTRUM**  
188 NW OLDHAM PKWY  
LEE'S SUMMIT, MO 64081  
(866) 874-2389
- FIBER OPTIC - GOOGLE FIBER**  
909 BROADWAY BLVD.  
KANSAS CITY, MO 64105.  
(913) 663-1900

**1-800-DIG-RITE or 811**  
**www.mo1call.com**

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!

### PREPARED & SUBMITTED BY:



7301 W. 133RD STREET, SUITE 200  
OVERLAND PARK, KANSAS 66213

*Ryan B. Fleming* 8/11/21  
RYAN B. FLEMING, P.E. DATE  
I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION. THE FOLLOWING DRAWINGS ARE INTENDED TO BE AUTHENTICATED BY MY SEAL: PE-2002003161

*Shannon Jeffries* 5/17/21  
SHANNON JEFFRIES, P.E. DATE  
I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION. THE FOLLOWING DRAWINGS ARE INTENDED TO BE AUTHENTICATED BY MY SEAL: PE-2008000069

### APPROVED BY:

CITY OF LEE'S SUMMIT

GEORGE BINGER, P.E. DATE  
CITY ENGINEER

Olsson Engineering - MO State Certificate of Authority #001592  
7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
Overland Park, KS 66213-4750 FAX: 913.381.1174  
www.olsson.com

RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

TITTLE SHEET

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

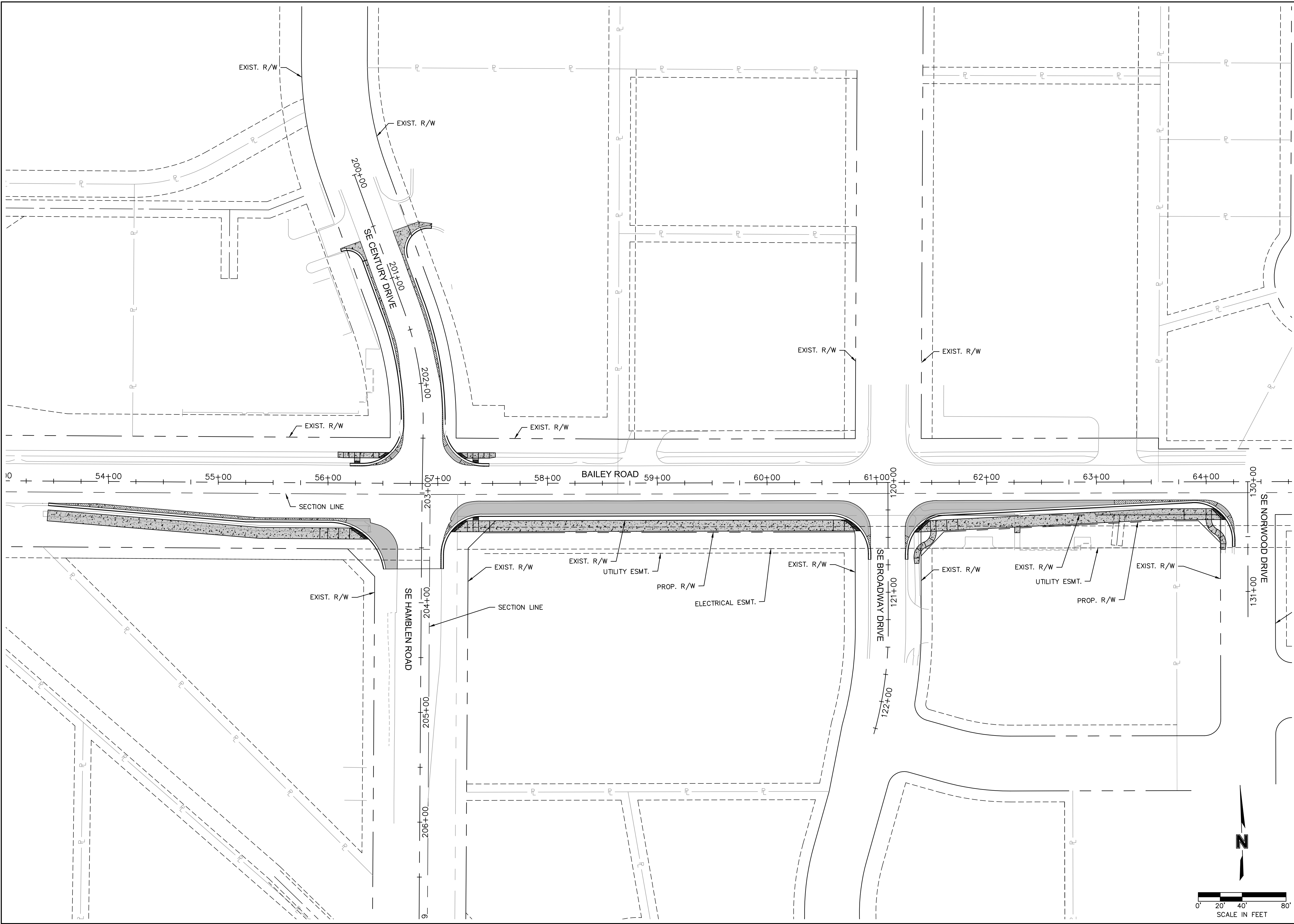
2021

LEE'S SUMMIT, MISSOURI

REVISIONS

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 USER: mrobertson C\_PBASE\_0200103



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 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.olsson.com

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GENERAL LAYOUT

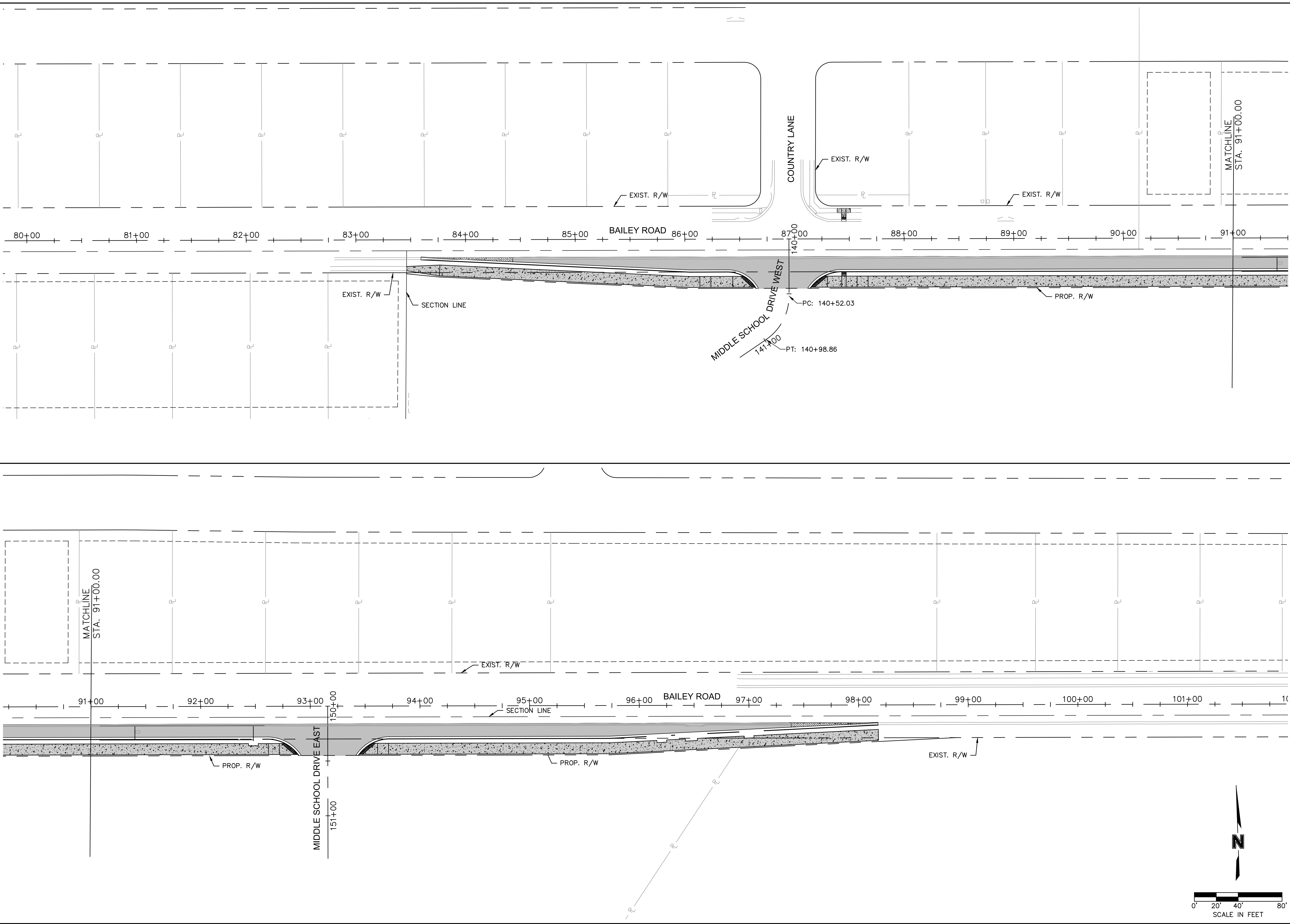
LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

2021

REVISIONS

C.O.A. NO.:	001592	DRAWN BY:	MLW	CHECKED BY:	RPH
APPROVED BY:	RBE	QA/QC BY:	RBE	PROJECT NO.:	020-0103
DWG NO.:	T_LAYOUT_0200103	DATE:	2022-11-04	SHEET	2 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\GENERAL\_LAYOUT\_0200103.dwg  
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 USER: mrobertson C\_PBASE\_0200103



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 7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

GENERAL LAYOUT

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

2021

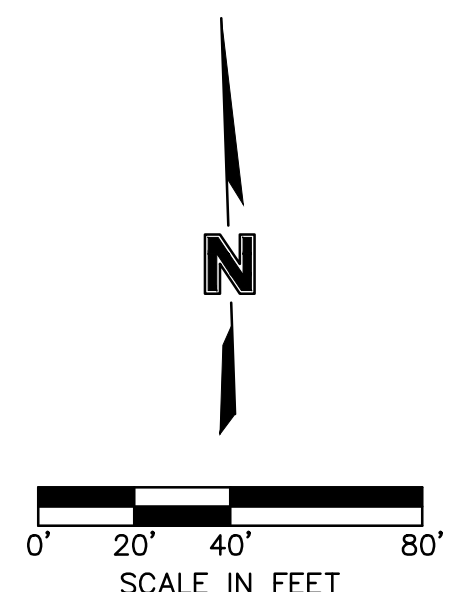
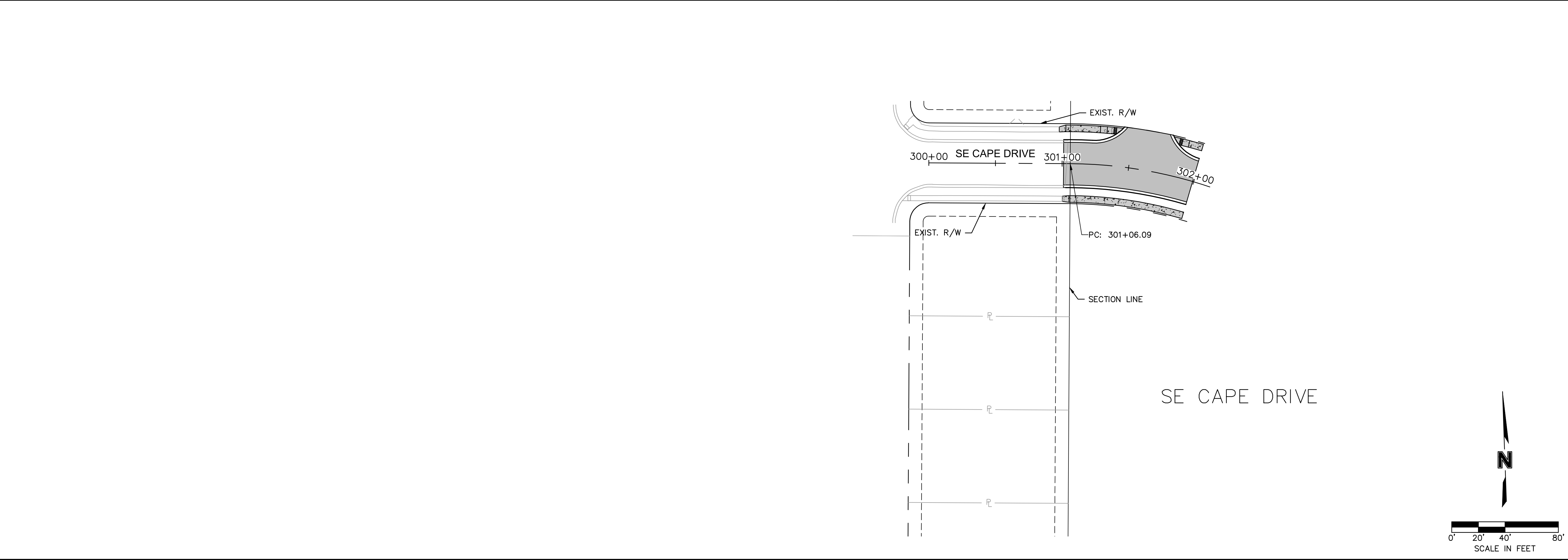
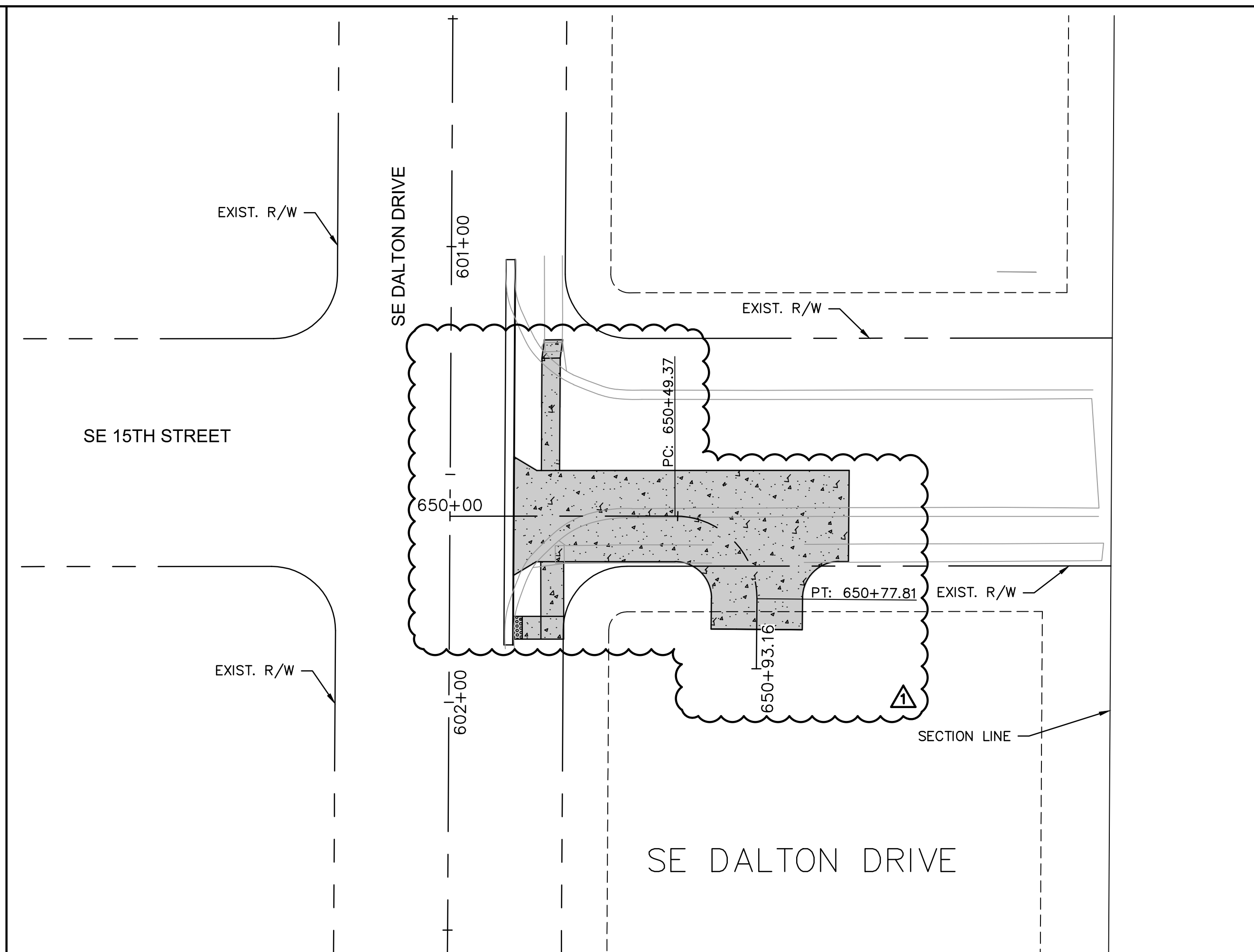
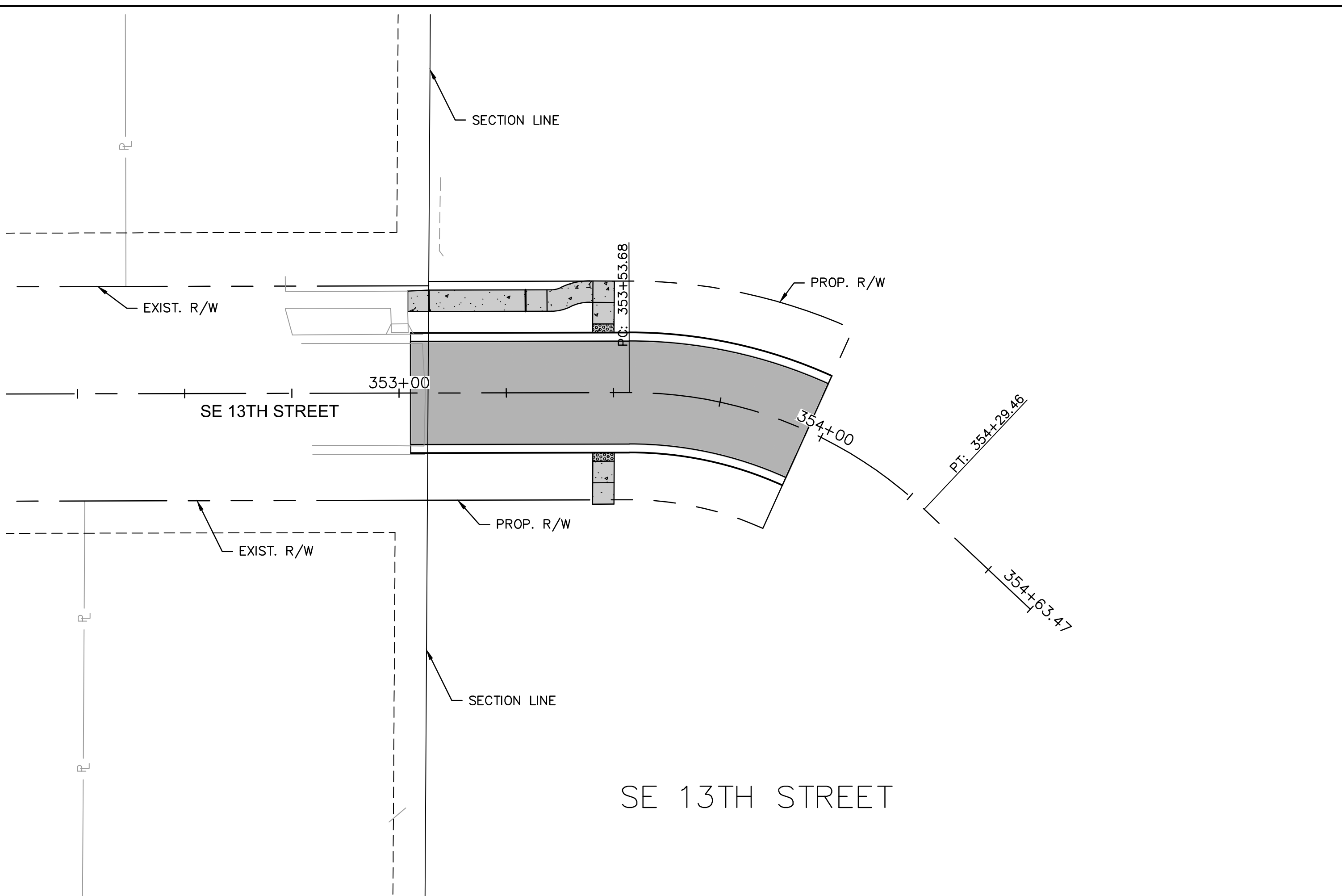
REVISIONS

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO.:	T_LAYOUT_0200103
DATE:	2022-11-04

**SHEET**  
3 OF 101

SCALE IN FEET

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\GENERAL\_T\_LAYOUT\_0200103.dwg  
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1	08/25/2021	ASI #29	RPH

**REVISIONS**

GENERAL LAYOUT  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_LAYOUT\_0200103  
 DATE: 2022-11-04

**SHEET 4 OF 101**

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\GENERAL T\_SUR01\_0200103.dwg  
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 USER: mrobertson

**OLSSON CONTROL INFORMATION:**  
 Basis of coordinates shown hereon are based on Missouri state plane coordinate system, West Zone, and scaled to ground coordinates utilizing a combined adjustment factor of 0.9998986, holding Jackson County GPS Control Point JA-45 as a base point. Distances shown hereon are ground distances in US Survey Feet.

**MO DNR JA-45:**  
 KC Metro Aluminum GRS Disk set in concrete ±3" below pavement on shoulder of SE Ranson Rd. Stamped "JA-45".  
 N: 994990.346  
 E: 2834265.611  
 Elev.: 1046.26'

**Olsson #100:**  
 Set 1/2" Rebar with Olsson Control Cap. Set in the grass on the North side of SE Bailey Rd.  
 N: 993598.83  
 E: 2831586.70  
 Elevation: 1032.16'

**Ties:**  
 1. SW 66.88' to the NE corner of the concrete sidewalk on the South side of SE Bailey Rd.  
 2. SSW 82.19' to the center of a power pole on the South side of SE Bailey Rd.  
 3. East 254.35' to the NW corner of a concrete curb inlet on the North side of SE Bailey Rd.  
 4. East ±298' to the centerline of Country Ln. on the North side of SE Bailey Rd.

**Olsson #101:**  
 Set 1/2" Rebar with Olsson Control Cap. Set in the grass on the North side of SE Bailey Rd.  
 N: 993551.11  
 E: 2832755.84  
 Elevation: 1014.26'

**Ties:**  
 1. East 80.94' to the NW corner of a concrete curb inlet on the North side of SE Bailey Rd.  
 2. SE 91.53' to the SW corner of a concrete curb inlet on the South side of SE Bailey Rd.  
 3. NE 94.82' to the SW corner of a concrete overflow structure on the South side of a pond on the North side of SE Bailey Rd.  
 4. West ±871' to the centerline of Country Ln. on the North side of SE Bailey Rd.

**Olsson #102:**  
 Set 1/2" Rebar with Olsson Control Cap. Set in the grass ±58' East of the East end of SE 15th St.  
 N: 992084.37  
 E: 2831530.63  
 Elevation: 1012.56'

**Ties:**  
 1. NW 67.97' to the center of a water valve on the North side of SE 15th St.  
 2. West 59.33' to the center of a sanitary manhole on the South side of SE 15th St.  
 3. WSW 57.28' to the SE corner of the East end of the concrete sidewalk on the South side of SE 15th St.  
 4. North ±15' to the Easterly prolongation of the centerline of SE 15th St.

**Olsson #103:**  
 Set 1/2" Rebar with Olsson Control Cap. Set in the grass ±62' East of the East end of SE Cape Dr.  
 N: 991953.72  
 E: 2831514.48  
 Elevation: 1000.43'

**Ties:**  
 1. NW 76.12' to the center of a telephone pedestal on the North side of SE Cape Dr.  
 2. SW 67.00' to the center of a water valve on the South side of SE Cape Dr.  
 3. SW 70.06' to the SE corner of the East end of the concrete sidewalk on the South side of SE Cape Dr.  
 4. North ±4' to the Easterly prolongation of the centerline of SE Cape Dr.

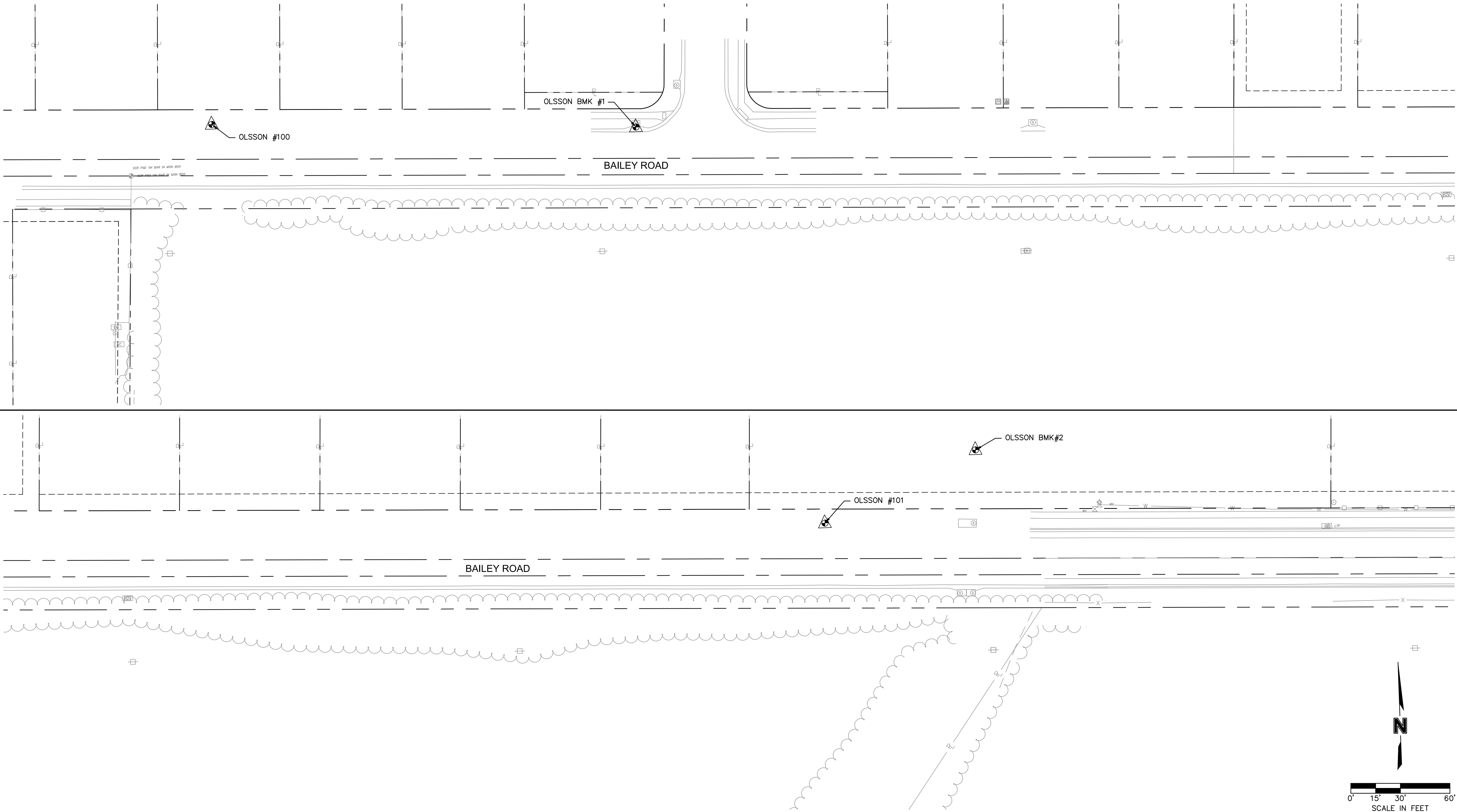
**Basis of elevations shown hereon are based upon NAVD '88 utilizing MoDOT's continuously monitored GNSS system and holding the elevation of JA-45 elevation 1046.26'**

**Olsson Benchmark #1:**  
 Set chiseled square cut on center front face of a curb inlet on North side of SE Bailey Rd. ±42' West of Country Ln.  
 Elevation: 1028.43'

**Olsson Benchmark #2:**  
 Set chiseled square cut on SE corner of overflow structure on South side of pond on North side of SE Bailey Rd. ±962' East of Country Ln.  
 Elevation: 1017.13'

**Olsson Benchmark #3:**  
 Set chiseled "+" cut on SSE flange bolt of fire hydrant in the NW quadrant of the intersection of SE 15th St. and SE Dalton Dr.  
 Elevation: 1016.27'

**Olsson Benchmark #4:**  
 Set chiseled square cut on edge of sidewalk at the West center of a curb inlet in the NW quadrant of the intersection of SE Cape Dr. and SE Dalton Dr.  
 Elevation: 999.24'



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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SURVEY CONTROL

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

REVISIONS

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE

PROJECT NO.: 020-0103  
 DWG NO.: T\_SUR01\_0200103  
 DATE: 2022-11-04

2021

SHEET

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DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\GENERAL\_T\_SUR01\_0200103.dwg  
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 USER: mrobertson

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**Olsson #101:**  
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 3. NE 94.82' to the SW corner of a concrete overflow structure on the South side of a pond on the North side of SE Bailey Rd.  
 4. West ±671' to the centerline of Country Ln. on the North side of SE Bailey Rd.

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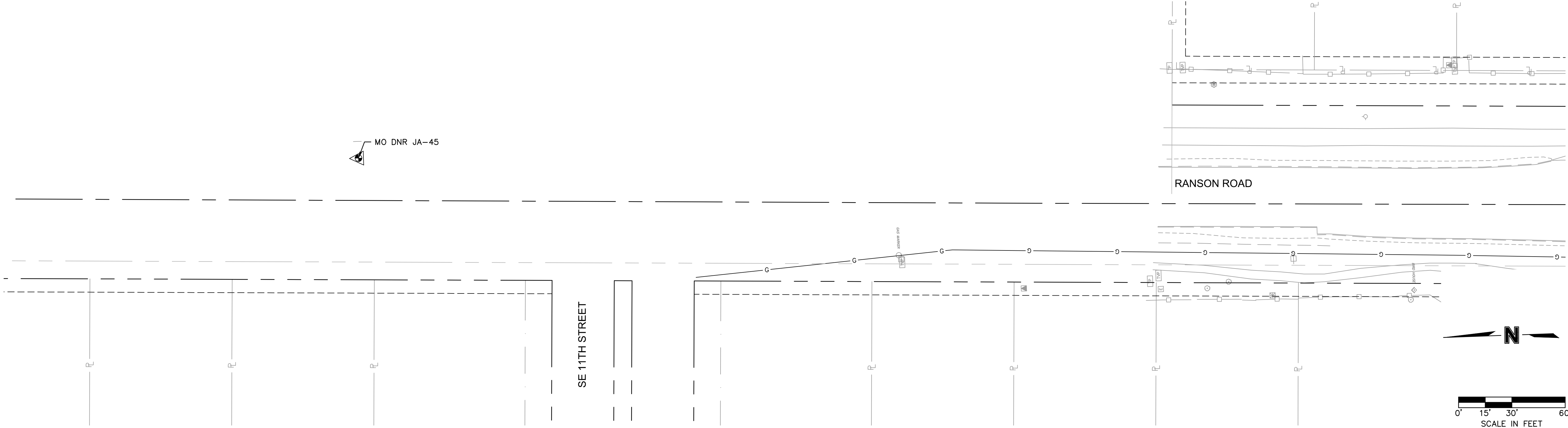
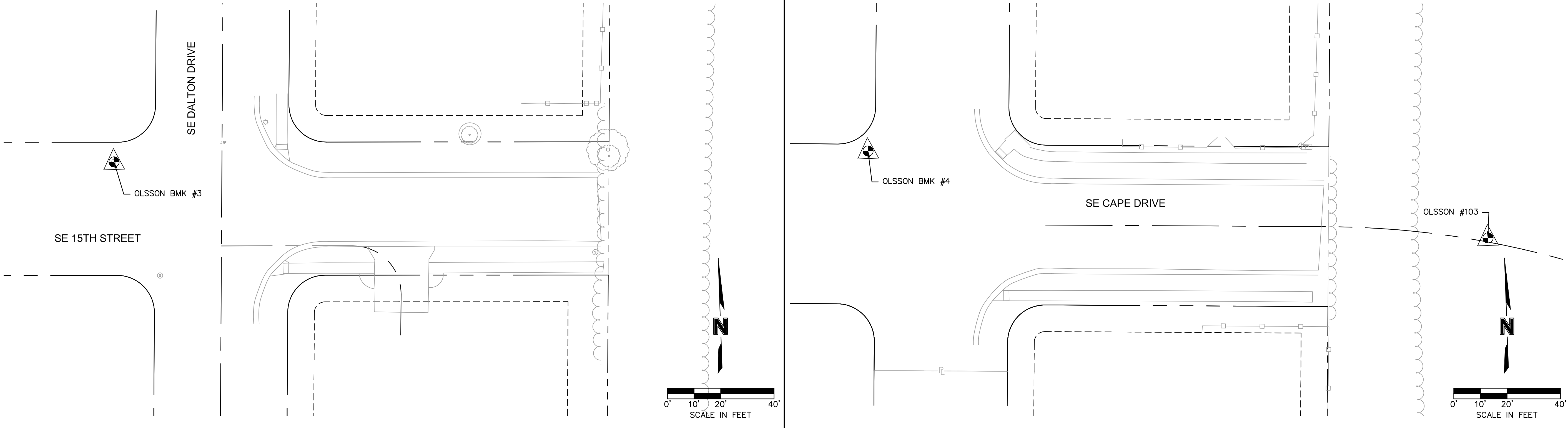
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 Elevation: 999.24'



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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SURVEY CONTROL

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

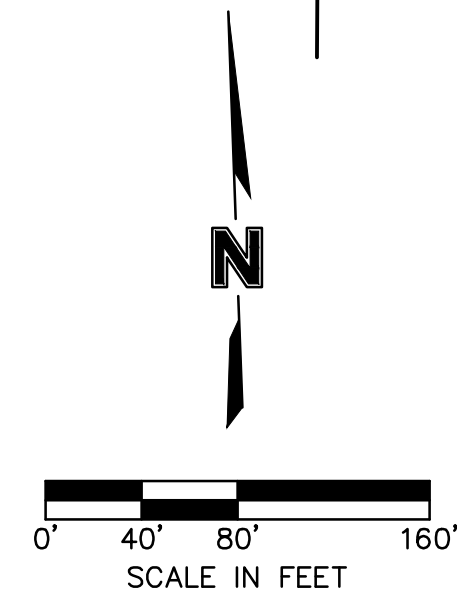
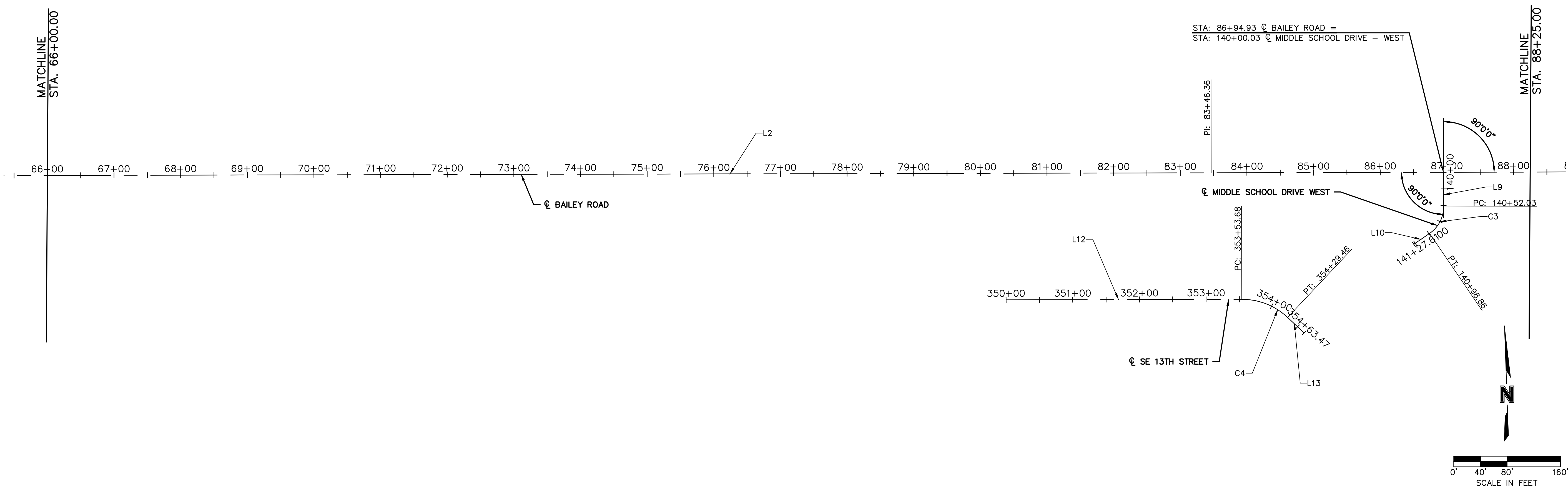
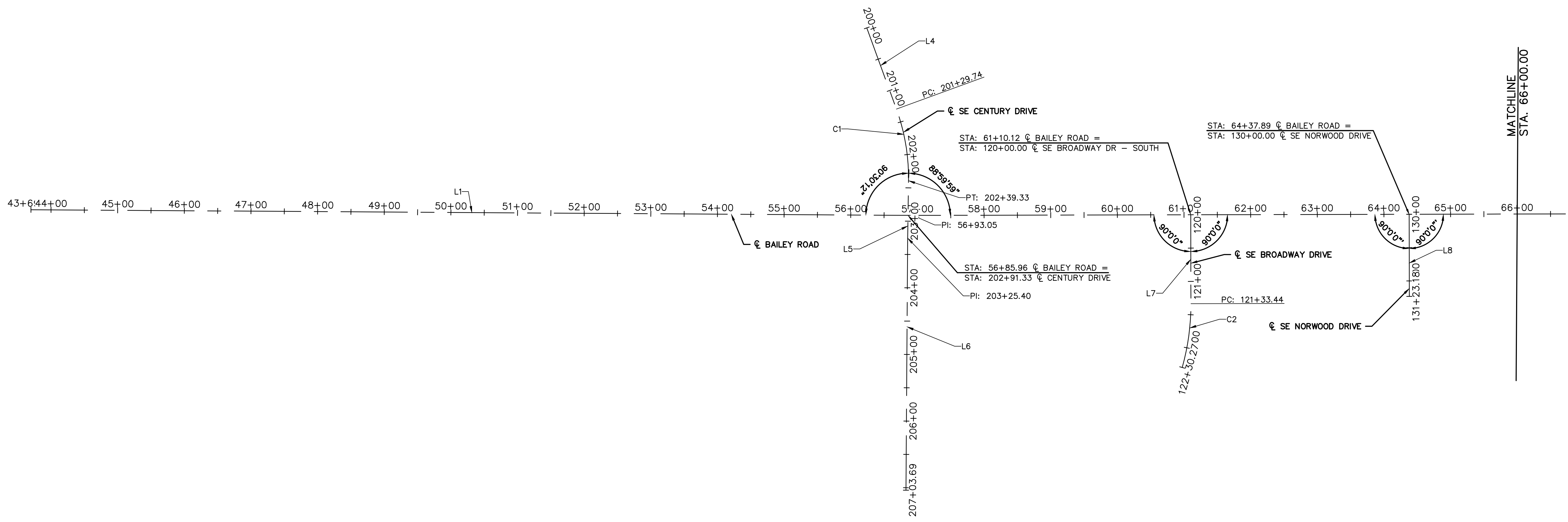
LEE'S SUMMIT, MISSOURI  
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SHEET  
6 OF 101

USER: mrcrobertson

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDR\Lee Summit Plan Set - (Century and Middle School Drives)\GENERAL T\_ALI01\_0200103.dwg  
DATE: Nov 07, 2022 1:07pm XREFS: T\_PTBLK\_0200103 V\_TOPO\_00103 V\_XTOPO-2\_00103 V\_XBOU-2\_00103



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Overland Park, KS 66213-4760 FAX: 913.381.1174 www.ollson.com

**RECORD DRAWINGS**

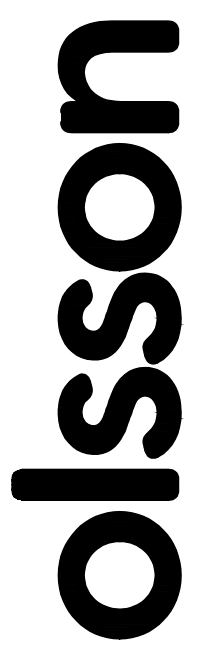
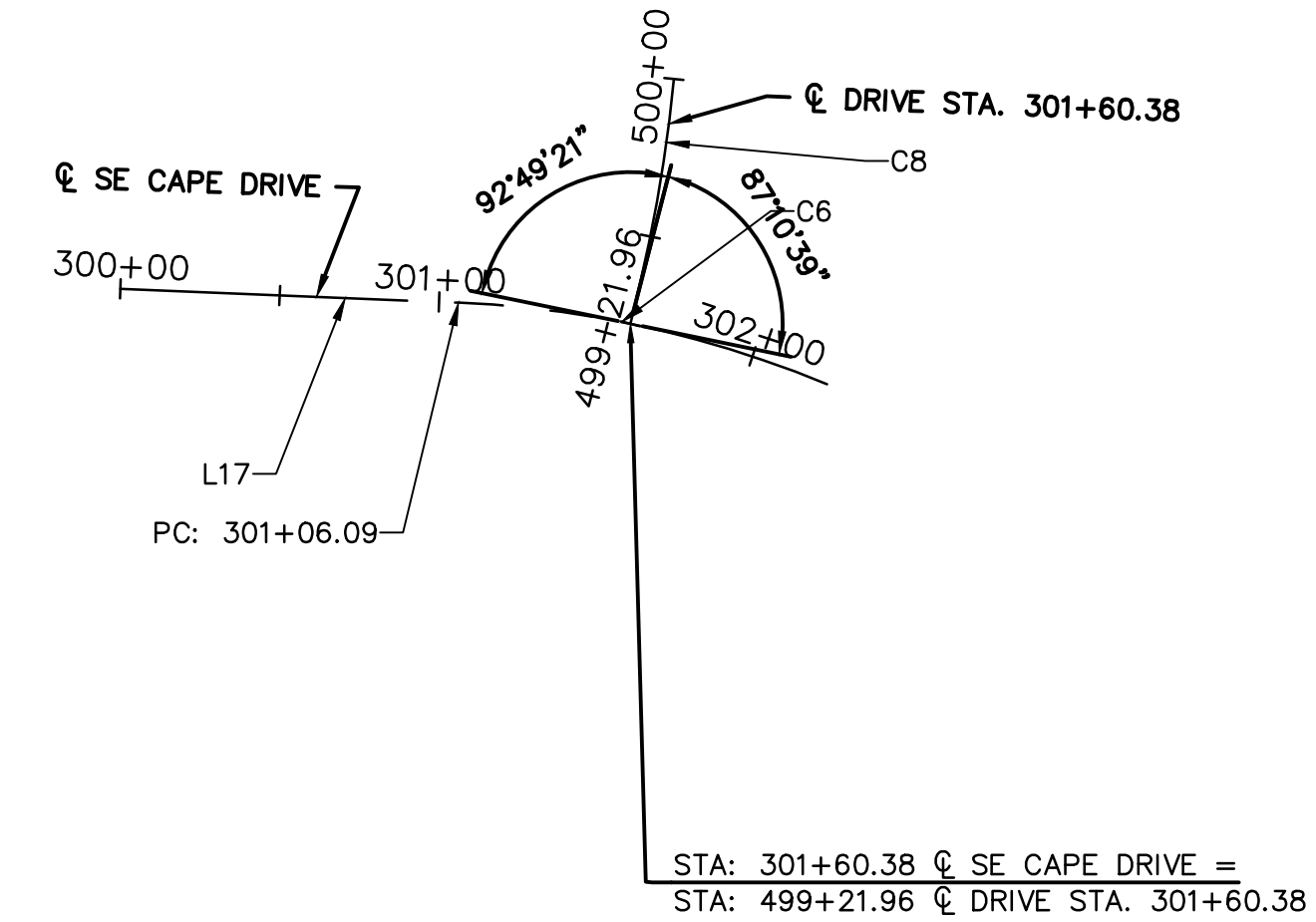
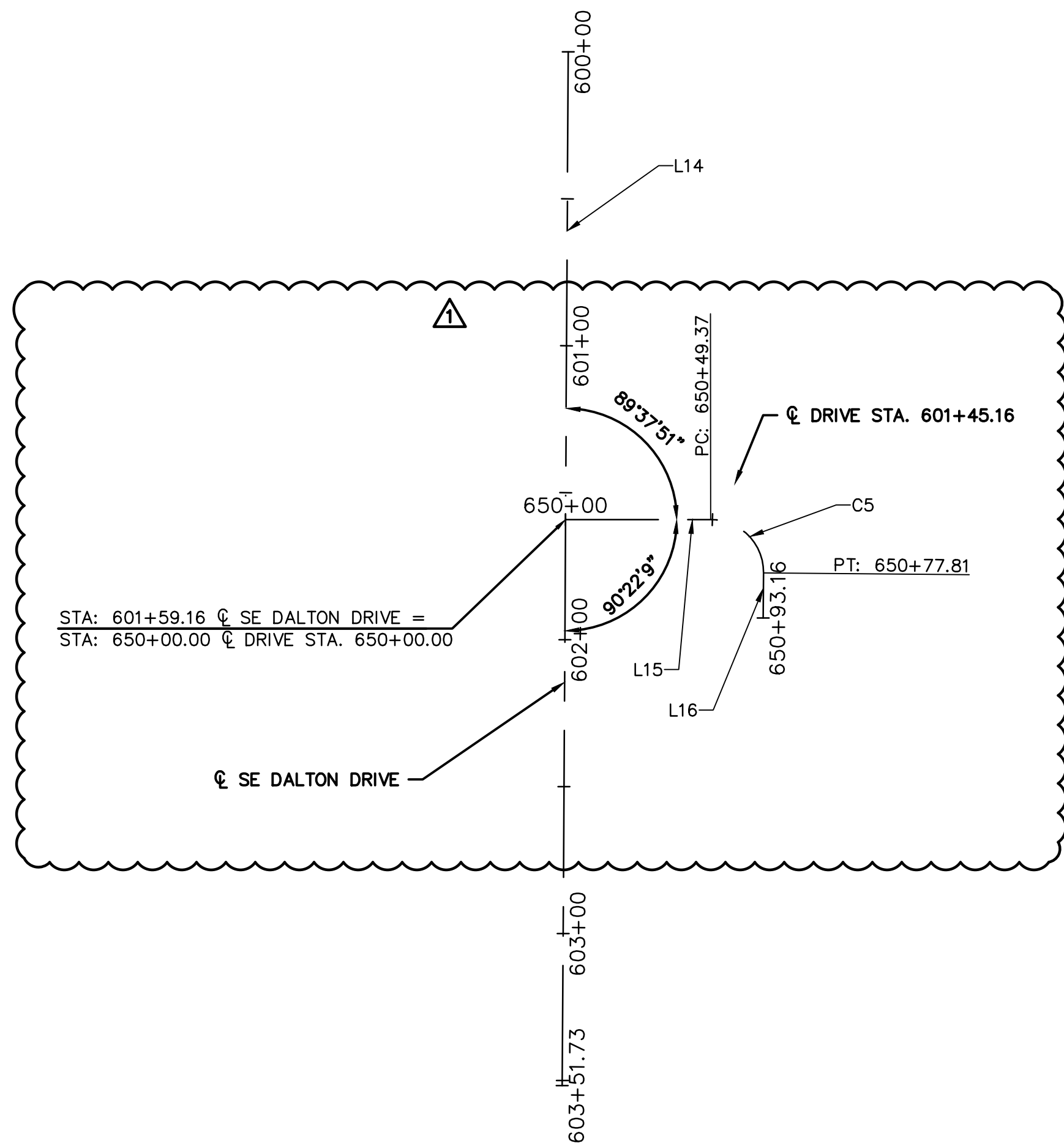
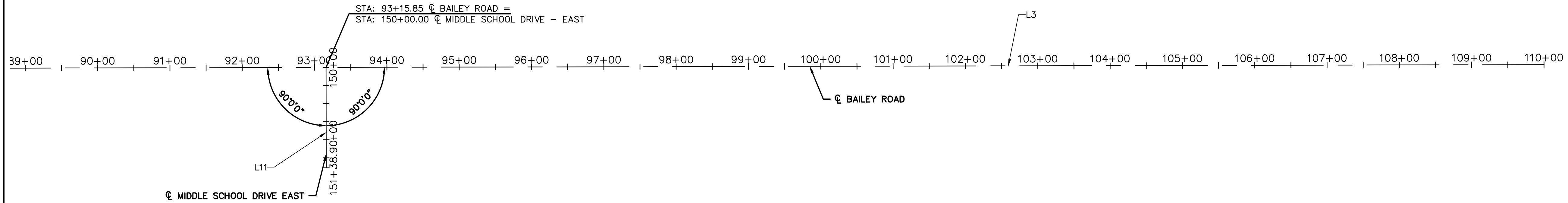
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

ALIGNMENT DATA	
PROJECT	LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS
YEAR	2021
CITY	LEE'S SUMMIT, MISSOURI

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO.:	T_ALI01_0200103
DATE:	2022-11-04

USER: mrobertson

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**RECORD  
DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

REVISIONS

ALIGNMENT DATA

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
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SHEET  
8 OF 101



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RD\Lee Summit Plan Set - (Century and Middle School Drives)\GENERAL\_T\_ALI01\_0200103.dwg  
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BAILEY ROAD								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L1	43+69.83 56+93.05	993720.5791 993665.9183	2827563.2008 2828885.2877	1323.22'	S87°37'57"E			
L2	56+93.05 83+46.36	993665.9183 993579.3187	2828885.2877 2831537.1864	2653.31'	S88°07'47"E			
L3	83+46.36 110+00.00	993579.3187 993492.7705	2831537.1864 2834189.4132	2653.64'	S88°07'52"E			

CENTURY DRIVE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L4	200+00.00 201+29.74	993949.5212 993826.1730	2828826.1134 2828866.3338	129.74'	S18°03'35"E			
C1	PC= 201+29.74 PI= 201+85.15 PT= 202+39.33	993826.1730 993773.4896 993718.1456	2828866.3338 2828883.5125 2828880.7372	109.59'	S7°35'40"E	20°55'50"	55.41'	300.00'
L5	202+39.33 203+25.40	993718.1456 993632.1903	2828880.7372 2828876.4268	86.06'	S2°52'15"W			
L6	203+25.40 207+03.69	993632.1903 993254.2228	2828876.4268 2828860.7609	378.29'	S2°22'24"W			

SE BROADWAY DR - SOUTH								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L7	120+00.00 121+33.44	993652.3058 993518.9376	2829302.1366 2829297.7813	133.44'	S1°52'13"W			
C2	PC= 121+33.44 PI= 121+82.17 PT= 122+30.27	993518.9376 993470.2374 993423.8234	2829297.7813 2829296.1910 2829281.3591	96.83'	S9°47'46"W	15°51'05"	48.73'	350.00'

SE NORWOOD DRIVE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L8	130+00.00 131+23.18	993641.6078 993518.4892	2829629.7349 2829625.7144	123.18'	S1°52'13"W			

MIDDLE SCHOOL DRIVE - WEST								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L9	140+00.00 140+52.03	993567.9501 993515.9461	2831885.5710 2831883.8740	52.03'	S1°52'08"W			
C3	PC= 140+52.03 PI= 140+77.50 PT= 140+98.86	993515.9461 993490.4928 993476.9095	2831883.8740 2831883.0434 2831861.5016	46.83'	S29°49'03"W	55°53'50"	25.47'	48.00'
L10	140+98.86 141+27.61	993476.9095 993461.5769	2831861.5016 2831837.1858	28.75'	S57°45'58"W			

MIDDLE SCHOOL DRIVE - EAST								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L11	150+00.00 151+38.90	993547.6988 993408.8714	2832506.1625 2832501.6323	138.90'	S1°52'08"W			

SE 13TH STREET								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L12	350+00.00 353+53.68	993399.5226 993387.9748	2831222.9266 2831576.4215	353.68'	S88°07'44"E			
C4	PC= 353+53.68 PI= 353+93.50 PT= 354+29.46	993387.9748 993386.6750 993358.3824	2831576.4215 2831616.2123 2831644.2218	75.78'	S66°25'14"E	43°25'01"	39.81'	100.00'
L13	354+29.46 354+63.47	993358.3824 993334.2128	2831644.2218 2831668.1496	34.01'	S44°42'43"E			

SE DALTON DRIVE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L14	600+00.00 603+51.73	992250.3770 991898.9381	2831337.7063 2831323.4004	351.73'	S2°19'52"W			

DRIVE STA. 650+00.00								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L15	650+00.00 650+49.37	992091.3468 992089.6565	2831331.2327 2831380.5784	49.37'	S88°02'17"E			
C5	PC= 650+49.37 PI= 650+67.54 PT= 650+77.81	992089.6565 992089.0346 992070.8857	2831380.5784 2831398.7337 2831397.9452	28.44'	S42°46'31"E	90°31'33"	18.17'	18.00'
L16	650+77.81 650+93.16	992070.8857 992055.5518	2831397.9452 2831397.2790	15.35'	S2°29'16"W			

SE CAPE DRIVE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L17	300+00.00 301+06.09	991564.3519 991560.0371	2831348.8128 2831454.8109	106.09'	S87°40'08"E			
C6	PC= 301+06.09 PI= 301+66.18 PT= 302+25.00	991560.0371 991557.5931 991534.4341	2831454.8109 2831514.8505 2831570.2976	118.91'	S77°30'00"E	20°20'17"	60.09'	335.00'

DRIVE STA. 301+60.38								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
C8	PC= 499+21.96 PI= 499+61.06 PT= 500+00.00	991553.4513 991591.3073 991630.2036	2831508.6475 2831518.4053 2831522.3256	78.04'	N10°06'17"E	8°41'56"	39.09'	514.00'

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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

ALIGNMENT DATA	2021
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
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GENERAL NOTES FOR CAPITAL IMPROVEMENTS PROJECTS  
(REV. FEBRUARY 10, 2010)

- 1) PRELIMINARY INFORMATION:
- a) CONSULT PARAGRAPH 6.12 OF THE EJDCD GENERAL CONDITIONS (C-700) FOR A COMPLETE LIST OF RECORD DOCUMENTS THAT THE CONTRACTOR SHALL MAINTAIN ON SITE.
  - b) PERMITS REQUIRED FOR THE WORK CAN BE FOUND IN SECTION 1010 OF THE GENERAL REQUIREMENTS (DIVISION 1).
  - c) CONSTRUCTION OF THE WORK SHOWN OR IMPLIED BY THIS SET OF DRAWINGS SHALL NOT BE INITIATED UNLESS ALL PRELIMINARY CONTRACT OBLIGATIONS ARE MET, AND THE OWNER IS NOTIFIED OF THE INTENT TO START THE WORK. SEE SECTION 1020 OF DIVISION 1.
  - d) ALL WORK SHALL BE CONFINED WITHIN THE CONSTRUCTION LIMITS OR AS OTHERWISE DIRECTED BY THE OWNER.
  - e) ANY WORK PERFORMED PRIOR TO ENGINEER'S REVIEW AND APPROVAL OF THE PERTINENT SUBMITTAL WILL BE AT THE SOLE EXPENSE AND RESPONSIBILITY OF CONTRACTOR. SUBMITTAL PROCEDURES AND REQUIREMENTS CAN BE FOUND IN PARAGRAPH 6.17 OF C-700 AND SECTIONS 1115 AND 1116 OF DIVISION 1.
  - f) OWNER IS DEFINED AS THE CITY OF LEE'S SUMMIT.
- 2) COORDINATION AND NOTIFICATIONS:
- a) ANY TIME REFERENCES LISTED IN PARAGRAPH 2 ARE TYPICAL TIMELINES. CONSULT SECTION 1105 OF DIVISION 1 FOR PROJECT SPECIFIC TIMELINES, COORDINATION AND NOTIFICATION PROCESSES.
  - b) PRIOR TO ANY STREET CLOSURES, APPROPRIATE NOTIFICATIONS WILL BE DISTRIBUTED. THE CLOSURES OF ARTERIAL AND COLLECTOR STREETS WILL TYPICALLY CAUSE THE OWNER TO GENERATE A PRESS RELEASE AND DETOUR MAP. THIS IS TYPICALLY 14 CALENDAR DAYS.
  - c) THE REMOVAL OF TREES, SHEDS, FENCING OR OTHER ITEMS ON PRIVATE PROPERTY, NOT OTHERWISE SHOWN ON THESE PLANS, ARE NOT AUTHORIZED ON THIS PROJECT. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF ANY SUCH WORK IS PROPOSED. THE OWNER REQUIRES AT LEAST 14 CALENDAR DAYS TO NOTIFY PROPERTY OWNER RESIDENT, IN ORDER TO GIVE THEM OPPORTUNITY TO SALVAGE THESE ITEMS.
  - d) PRIOR TO DRIVEWAY DEMOLITION AND RECONSTRUCTION, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE PROPERTY OWNER OR RESIDENT. THIS IS TYPICALLY 2 WORKING DAYS.
  - e) PRIOR TO SHUTTING DOWN A WATER MAIN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE PROPERTY OWNER OR RESIDENT. THIS IS TYPICALLY 2 WORKING DAYS.
  - f) CONTRACTOR SHALL NOT BE ALLOWED TO WORK WEEKENDS OR HOLIDAYS WITHOUT REQUESTING PRIOR APPROVAL FROM OWNER THREE WORKING DAYS IN ADVANCE.
  - g) BY ORDINANCE 17-42, WORKING HOURS WITHIN THE CITY OF LEE'S SUMMIT ARE 7:00 A.M. TO 10:00 P.M. REQUESTS TO WORK BEYOND THESE HOURS MUST BE FILED WITH THE OWNER ONE WEEK IN ADVANCE.
- 3) SURVEY:
- a) IN ACCORDANCE WITH PARAGRAPH 4.05 OF C-700, OWNER OR ENGINEER SHALL PROVIDE ENGINEERING SURVEYS TO ESTABLISH REFERENCE POINTS FOR CONSTRUCTION WHICH IN THEIR JUDGMENT ARE NECESSARY TO ENABLE CONTRACTOR TO PERFORM THE WORK. CONTRACTOR IS RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL SET THOSE STAKES NECESSARY TO CONSTRUCT THIS PROJECT. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.
  - b) IN ACCORDANCE WITH PARAGRAPH 4.05 OF C-700, CONTRACTOR SHALL RESET ANY PERMANENT REFERENCE POINTS, PROPERTY CORNERS AND PROPERTY MONUMENTS THAT ARE DISTURBED DURING CONSTRUCTION. THESE POINTS AND MONUMENTS SHALL BE RESET BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH STATE LAW. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.
- 4) UNDERGROUND FACILITIES:
- a) INFORMATION REGARDING UNDERGROUND FACILITIES IS APPROXIMATE AND WAS COMPILED USING INFORMATION PROVIDED BY THE FACILITY OWNER. CONSULT PARAGRAPH 4.04 OF C-700 FOR FURTHER INFORMATION.
  - b) UNLESS BORED, ALL UNDERGROUND UTILITIES (INCLUDING THE CONTRACTOR'S WORK) THAT CROSS UNDER PROPOSED STREET PAVEMENTS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF THE NEW PAVEMENT.

- 5) WATER, STORM & SANITARY SEWER:
- a) WATER CAN BE PURCHASED FROM THE CITY'S WATER UTILITIES DEPARTMENT.
  - b) ALL MANHOLES, VALVE LIDS, METER LIDS, FIRE HYDRANTS AND AIR RELIEF ASSEMBLIES WITHIN THE CONSTRUCTION LIMITS SHALL BE RELOCATED OR ADJUSTED TO GRADE BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS. ALL VALVE RISERS IN PAVEMENT (WHETHER ADJUSTED, REPLACED OR PLACED) SHALL BE CAST IRON AND CONFORM TO THE SPECIFICATIONS. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.
  - c) CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE FLOWS AROUND EACH SEGMENT OF PIPE THAT IS TO BE REPLACED OR REFURBISHED. CONTRACTOR SHALL HAVE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE WORK ON THE PIPE SEGMENT PRIOR TO ISOLATING THE SEWER SEGMENT AND BEGINNING BYPASS PUMPING OPERATIONS. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.
- 6) ENVIRONMENTAL & SAFETY:
- a) CONTRACTOR SHALL USE ADEQUATE DUST CONTROL MEASURES DURING ALL PHASES OF THE WORK. CONSULT SECTION 1145 IN DIVISION 1.
  - b) SILTATION AND EROSION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL SYSTEMS, REPLACING DAMAGED OR FAILED EROSION CONTROL DEVICES AND INSPECTING THE SITE IN ORDER TO REPAIR THE EROSION CONTROL SYSTEMS WITHIN 24 HOURS AFTER A SIGNIFICATION RAIN EVENT. GRADING ADJACENT TO PAVEMENTS SHALL BE LEFT THREE INCHES BELOW THE TOP OF PAVEMENT UNTIL IMMEDIATELY BEFORE SOD OR SEED IS PLACED. EROSION AND SEDIMENT CONTROL MUST BE IN PLACE PRIOR TO THE DISTURBANCE OF THE GROUND. FIELD ADJUSTMENTS TO EROSION AND SEDIMENT CONTROL MAY BE REQUIRED DEPENDING ON THE SITE CONDITIONS.
  - c) UNLESS WAIVED IN SECTION 1010, CONTRACTOR SHALL MAINTAIN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON SITE IN ACCORDANCE WITH DNR REGULATIONS.
  - d) PROPERTY MAINTENANCE INFORMATION CAN BE FOUND IN SECTION 1145 OF DIVISION 1.
- 7) GRADING, REMOVALS & DAMAGED ITEMS:
- a) INFORMATION ON SALVAGED MATERIAL CAN BE FOUND IN SECTION 1150 OF DIVISION 1.
  - b) NO BURNING IS ALLOWED ON THE SITE.
  - c) DRIVEWAYS, PARKING LOTS, SIDEWALKS, FENCES, IRRIGATION SYSTEMS AND OTHER ITEMS DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN EXISTING BEFORE DAMAGE OCCURRED. UNLESS WAIVED BY OWNER, ALL ITEMS REQUIRING REPLACEMENT SHALL BE REPLACED WITH NEW MATERIALS, AND ALL MATERIALS ARE SUBJECT TO OWNER'S APPROVAL. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.
  - d) ALL FENCE REPLACEMENT SHOULD BE RELOCATED TO THE PROPERTY LINES, UNLESS THE EXISTING FENCE WAS LOCATED INSIDE OF THE PROPERTY LINES. FENCE INSIDE OF PROPERTY LINES SHOULD BE PLACED IN ITS ORIGINAL LOCATION. GATES AND FENCE CORNERS SHALL BE RE-ESTABLISHED AT THE ORIGINAL LOCATIONS, UNLESS INDICATED BY THE DRAWINGS. REMOVALS SHALL BE AS SHOWN ON THE DRAWINGS OR AS APPROVED BY OWNER. REMOVALS NOT APPROVED BY OWNER WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
  - e) ROOF DRAINS, UNDER DRAINS, SEPTIC LINES AND OTHER SMALL DRAINAGE LINES NOT SHOWN ON THE DRAWINGS THAT ARE UNCOVERED OR DAMAGED SHALL BE REPAIRED, AND THE POINT OF DISCHARGE SHALL BE PLACED NO CLOSER THAN FIVE FEET TO ANY ADJOINING PROPERTY LINE INCLUDING THE RIGHT-OF-WAY LINE (SECTION 16-413 OF THE CODE OF ORDINANCES). UNLESS DIRECTED BY THE CITY ENGINEER, NO DRAIN LINES SHALL BE CONNECTED TO THE STORM SEWER SYSTEM. MATERIALS AND LOCATION ARE SUBJECT TO OWNER'S APPROVAL. IF NO UNIT PRICE IS IN THE BID, THEN PAYMENT WILL BE NEGOTIATED PER THE CONTRACT DOCUMENTS.
  - f) MATERIALS THAT MAY BE CLASSIFIED AS UNSUITABLE OR REQUIRE UNDERGRADING SHALL BE DETERMINED BY THE OWNER OR THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL NOT MAKE THIS DETERMINATION.
  - g) ALL WASTE MATERIAL SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALL MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE. SAWCUTTING SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
- 8) TRAFFIC:
- a) UNLESS DIRECTED IN THE CONTRACT DOCUMENTS OR DRAWINGS, CONTRACTOR SHALL MAINTAIN TRAFFIC AND PEDESTRIAN ACCESS AT ALL TIMES.
  - b) APPROPRIATE TRAFFIC CONTROL DEVICES, SIGNAGE AND PAVEMENT MARKINGS SHALL BE ESTABLISHED AND MAINTAINED THROUGHOUT THE PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE MUTCD.

ADDITIONAL GENERAL NOTES:

- 1) ALL TREES TO BE GRUBBED ARE MARKED THUS "X". SPARE ALL TREES THAT ARE MARKED DND (DO NOT DISTURB) OR ANY TREES NOT MARKED AT ALL. EXCEPTIONALLY GOOD TREES SHALL BE SPARED BY ADJUSTING BACKSLOPE LINES DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. ALL TREES WITHIN THE CONSTRUCTION LIMITS TO BE SAVED SHALL HAVE HEIR TRUNKS AND ROOT ZONE PHYSICALLY PROTECTED PRIOR TO CONSTRUCTION OPERATIONS BY METHODS APPROVED BY THE ENGINEER.
- 2) THE CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION OF ANY PORTION OF THE STORM SEWER, UNDERDRAINS, CONDUIT, AND ANY OTHER SUBSURFACE ELEMENTS OF THE PROJECT. THIS SURVEY INFORMATION SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW. THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION ON ANY SUBSURFACE ELEMENT ON THE PROJECT WITHOUT THE APPROVAL OF THE ENGINEER. THIS ITEM SHALL BE SUBSIDIARY TO OTHER BID ITEMS.

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RECORD  
DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

GENERAL NOTES		
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS		
LEE'S SUMMIT, MISSOURI		2021
C.O.A. NO.: 001592		
DRAWN BY: MLW		
CHECKED BY: RPH		
APPROVED BY: RBE		
QA/QC BY: RBE		
PROJECT NO.: 020-0103		
DWG NO.: T_GEN01_0200103		
DATE: 2022-11-04		

RECAPITULATION OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	Mobilization	Lump Sum	1
2	Clearing and Grubbing	Lump Sum	1
3	Demolition and Removal	Lump Sum	1
4	Pavement, Asphaltic Surface (APWA Type 5-01) (2")	Sq.Yd.	763
5	Pavement, Asphaltic Surface (APWA Type 3-01) (2")	Sq.Yd.	2,765
6	Pavement, Asphaltic Base (APWA RC Type 5-01) (4")	Sq.Yd.	250
7	Pavement, Asphaltic Base (APWA RC Type 5-01) (5.5")	Sq.Yd.	459
8	Pavement, Asphaltic Base (APWA RC Type 5-01) (8")	Sq.Yd.	22
9	Pavement, Asphaltic Base (APWA RC Type 1-01) (10")	Sq.Yd.	3,239
10	Concrete Base Widening	Sq.Yd.	579
11	Aggregate Base (MoDOT Type 5) (4")	Sq. Yd.	2,948
12	Aggregate Base (MoDOT Type 5) (6")	Sq.Yd.	3,891
13	Aggregate Base (MoDOT Type 5) (10")	Sq.Yd.	341
14	Aggregate Base (MoDOT Type 5) (12")	Sq. Yd.	478
15	Geogrid (Tensar TX140)	Sq. Yd.	4,709
16	Curb & Gutter (Type CG-1)	Lin. Ft.	3,248
17	Curb & Gutter (Type CG-2)	Lin. Ft.	85
18	Concrete Driveway (6")	Sq. Yd.	201
19	Concrete Driveway (8")	Sq.Yd.	32
20	Concrete Sidewalk (4")	Sq. Yd.	193
21	Concrete Sidewalk (6")	Sq. Yd.	2,307
22	Concrete ADA Ramps	Sq. Ft.	2,201
23	Detectable Warning Surface	Sq. Ft.	388
24	Inlet (Curb) (5'x3')	Each	2
25	Inlet (Curb) (8'x4')	Each	3
26	Inlet (Curb) (10'x4')	Each	1
27	Junction Box (4'x4')	Each	1
28	Structure Modification	Each	2
29	30" Pipe Collar	Each	1
30	15" Storm Sewer (RCP Class III)	Lin. Ft.	461
31	30" Storm Sewer (RCP Class III)	Lin. Ft.	21
32	15" Storm Sewer (HDPE)	Lin. Ft.	2
33	End Section (15" RC)	Each	1
34	Erosion Control Devices	Lump Sum	1
35	Traffic Signal Installation (Bailey & Century)	Lump Sum	1
36	2" Conduit with Locate Cable and Pull String	Lin. Ft.	1,406
37	Class 1 Fiber Optic Pull Box	Each	5
38	Fiber Interface Panel with 250' Pigtail	Each	2
39	Ethernet Switch, Transition with Separate Power Source	Each	2
40	Single Mode Patch Cable	Each	8
41	Temporary Traffic Control	Lump Sum	1
42	Permanent Signing	Sq. Ft.	54
43	Sign Post	Each	12
44	Pavement Marking (4" Solid White Lane Line)	Lin. Ft.	3,019
45	Pavement Marking (4" Solid Yellow Line)	Lin. Ft.	7,600
46	Pavement Marking (12" Yellow Crosshatch Line)	Lin. Ft.	295
47	Pavement Marking (24" White Stop Line)	Lin. Ft.	122
48	Pavement Marking (6" White Crosswalk Line)	Lin. Ft.	488
49	Pavment Marking (White Right Turn Arrow)	Each	1
50	Pavment Marking (White Left Turn Arrow)	Each	17
51	Connection to Existing Main	Each	1
52	6" Water Line	Lin. Ft.	60
53	8" Water Line	Lin. Ft.	264
54	6" 11.25 Bend	Each	1
55	8" 11.25 Bend	Each	5
56	8" 90 Bend	Each	1
57	Thrust Blocks	Each	7

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**RECORD  
DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #39	RPH
2	11/05/2021	ASI #37	RPH

RECAPITULATION OF QUANTITIES

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

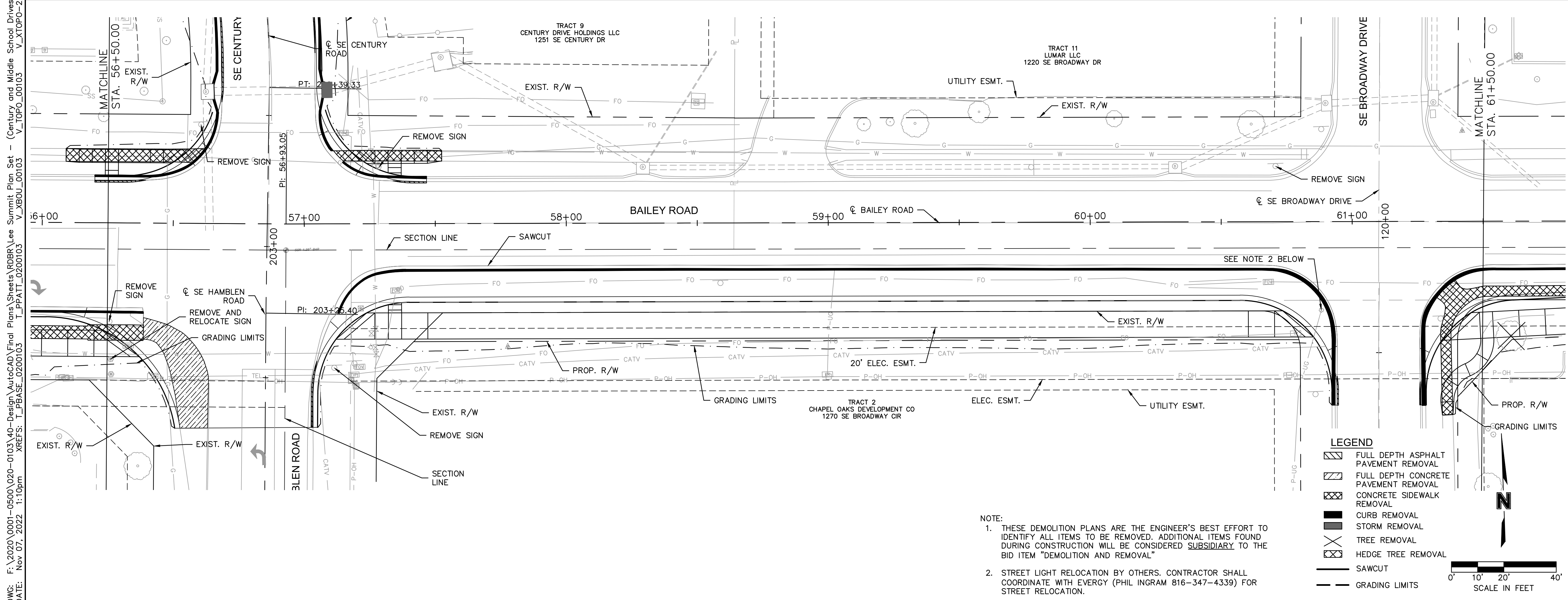
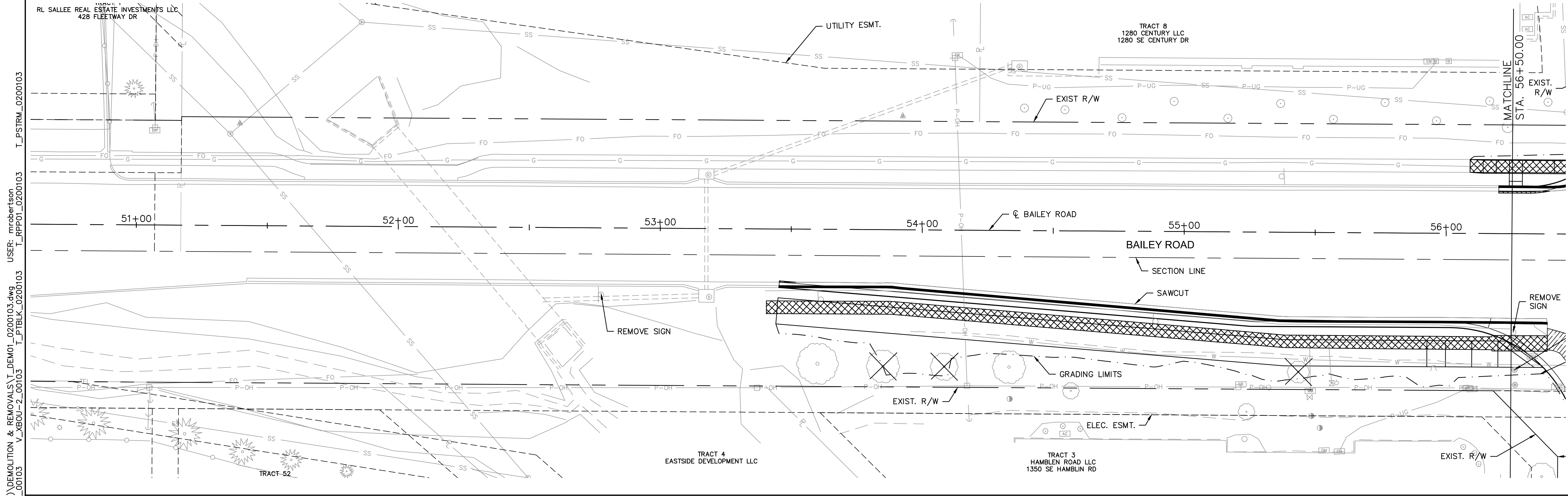
2021

REVISIONS

C.O.A. NO.: 001592	DRAWN BY: MLW
CHECKED BY: RPH	APPROVED BY: RBE
QA/QC BY: RBE	PROJECT NO.: 020-0103
DWG NO.: T_QYT01_0200103	DATE: 2022-11-04

**SHEET**

11 OF 101



**LEGEND**

[Hatched Box]	FULL DEPTH ASPHALT PAVEMENT REMOVAL
[Hatched Box]	FULL DEPTH CONCRETE PAVEMENT REMOVAL
[Hatched Box]	CONCRETE SIDEWALK REMOVAL
[Solid Black Box]	CURB REMOVAL
[Solid Black Box]	STORM REMOVAL
[Cross-hatched Box]	TREE REMOVAL
[Cross-hatched Box]	HEDGE TREE REMOVAL
[Dashed Line]	SAWCUT
[Dashed Line]	GRADING LIMITS

**NOTE:**

- THESE DEMOLITION PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION WILL BE CONSIDERED SUBSIDIARY TO THE BID ITEM "DEMOLITION AND REMOVAL"
- STREET LIGHT RELOCATION BY OTHERS. CONTRACTOR SHALL COORDINATE WITH ENERGY (PHIL INGRAM 816-347-4339) FOR STREET RELOCATION.



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDR\Lee Summit Plan Set - (Century and Middle School Drives)\DEMOLITION & REMOVALS\T\_DEM01\_0200103.dwg  
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 USER: mrobertson

**olsson**

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 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.olsson.com

**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

**DEMOLITION & REMOVALS**  
 BAILEY ROAD

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

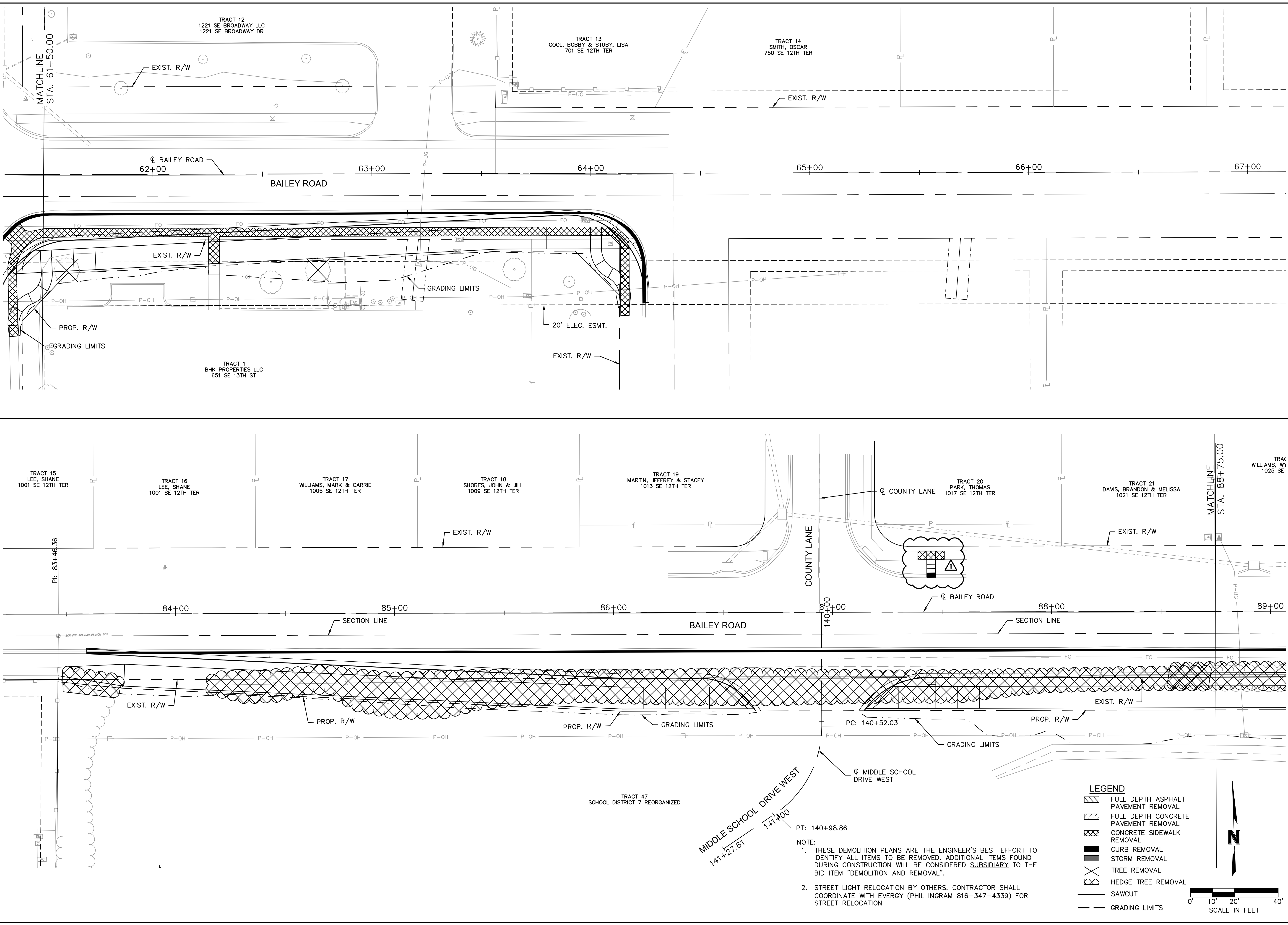
LEE'S SUMMIT, MISSOURI

2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_DEM01\_0200103  
 DATE: 2022-11-04

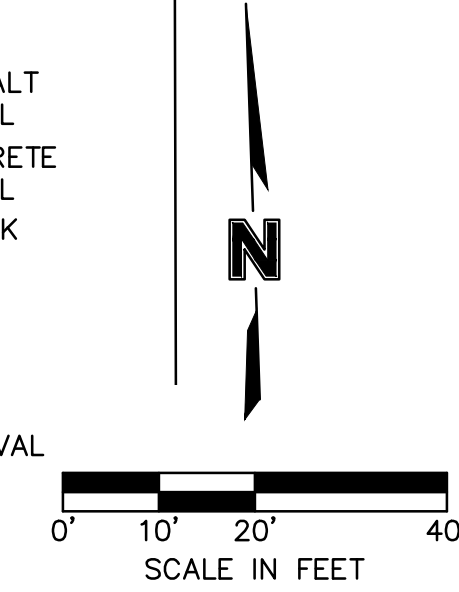
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 12 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\DEMOLITION & REMOVALS\T\_DEM01\_0200103.dwg  
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 USER: mrobertson



NOTE:  
 1. THESE DEMOLITION PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION WILL BE CONSIDERED SUBSIDIARY TO THE BID ITEM "DEMOLITION AND REMOVAL".  
 2. STREET LIGHT RELOCATION BY OTHERS. CONTRACTOR SHALL COORDINATE WITH EVERGY (PHIL INGRAM 816-347-4339) FOR STREET RELOCATION.

- LEGEND**
- FULL DEPTH ASPHALT PAVEMENT REMOVAL
  - FULL DEPTH CONCRETE PAVEMENT REMOVAL
  - CONCRETE SIDEWALK REMOVAL
  - CURB REMOVAL
  - STORM REMOVAL
  - TREE REMOVAL
  - HEDGE TREE REMOVAL
  - SAWCUT
  - GRADING LIMITS



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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03/17/2022	ASI #47	RPH

DEMOLITION & REMOVALS  
BAILEY ROAD

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

C.O.A. NO.: 001592

DRAWN BY: MLW

CHECKED BY: RPH

APPROVED BY: RBE

QA/QC BY: RBE

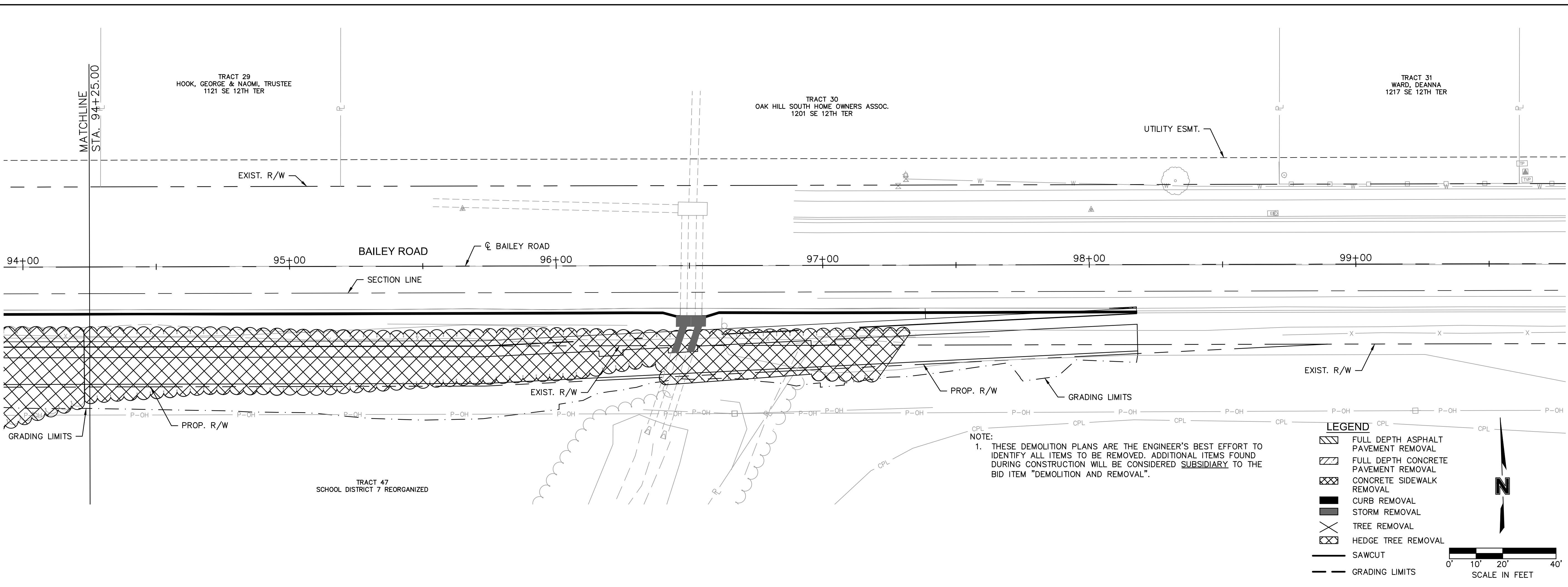
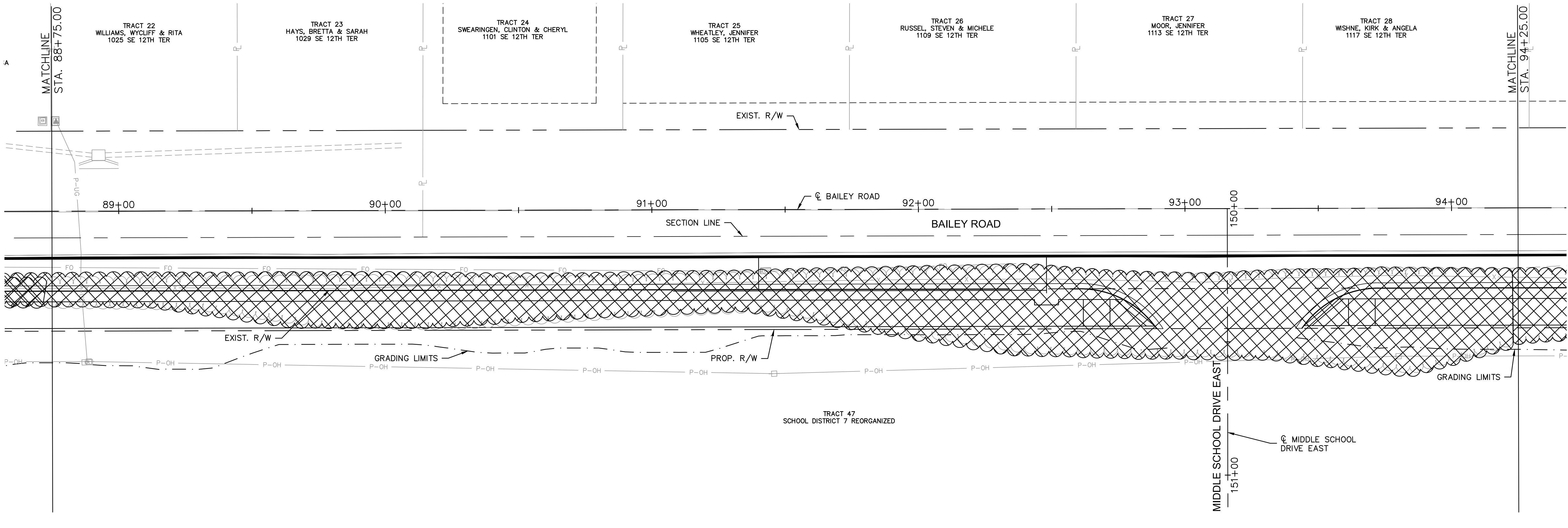
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DWG NO.: T\_DEM01\_0200103

DATE: 2022-11-04

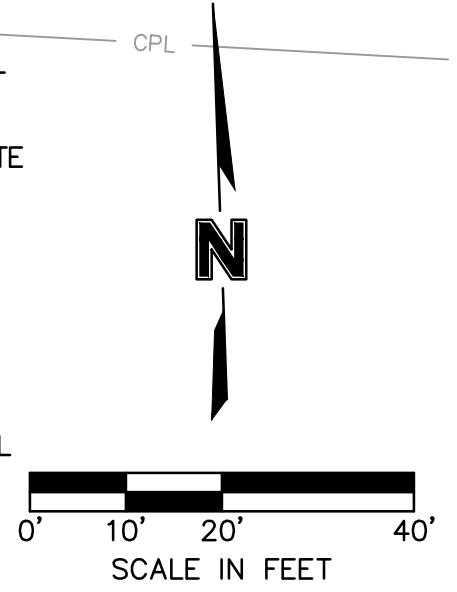
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13 OF 101

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 T\_PSTRM\_0200103



CPL NOTE:  
 1. THESE DEMOLITION PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION WILL BE CONSIDERED SUBSIDIARY TO THE BID ITEM "DEMOLITION AND REMOVAL".

- LEGEND**
- FULL DEPTH ASPHALT PAVEMENT REMOVAL
  - FULL DEPTH CONCRETE PAVEMENT REMOVAL
  - CONCRETE SIDEWALK REMOVAL
  - CURB REMOVAL
  - STORM REMOVAL
  - TREE REMOVAL
  - HEDGE TREE REMOVAL
  - SAWCUT
  - GRADING LIMITS



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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

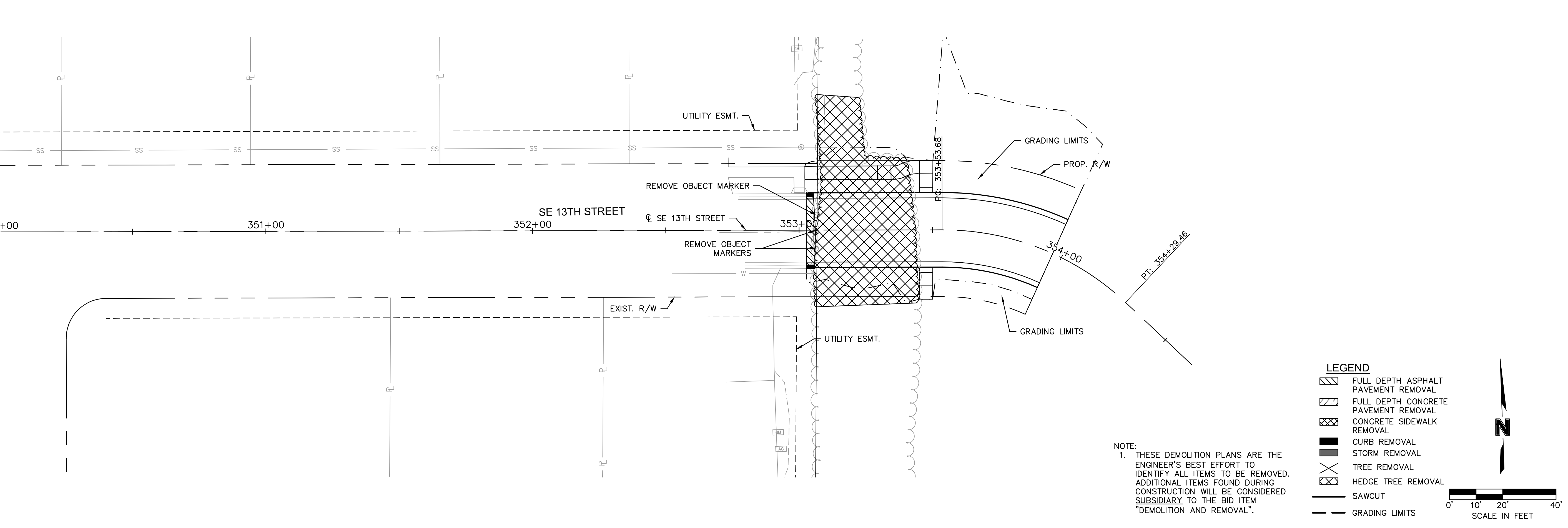
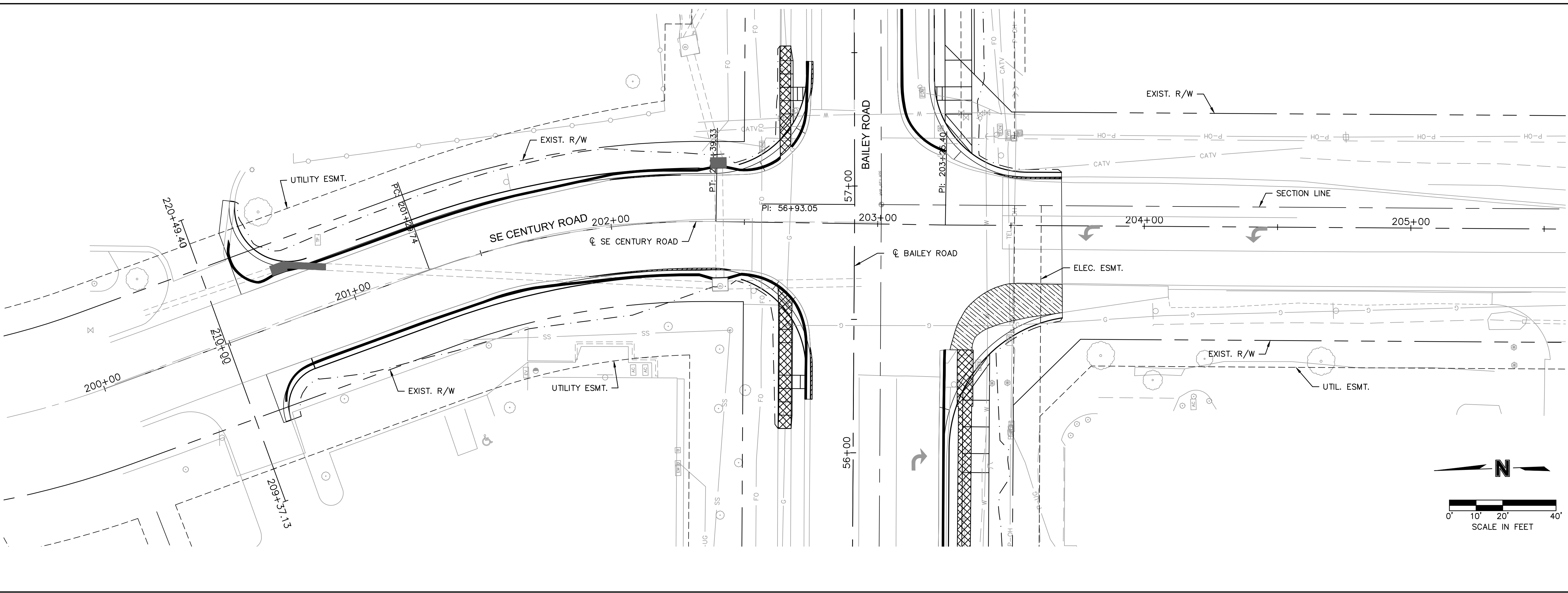
DEMOLITION & REMOVALS  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_DEM01\_0200103  
 DATE: 2022-11-04

**SHEET 14 OF 101**

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\DEMOLITION & REMOVALS\T\_DEM01\_0200103.dwg  
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NOTE:  
 1. THESE DEMOLITION PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION WILL BE CONSIDERED SUBSIDIARY TO THE BID ITEM "DEMOLITION AND REMOVAL".

**LEGEND**

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	FULL DEPTH CONCRETE PAVEMENT REMOVAL
	CONCRETE SIDEWALK REMOVAL
	CURB REMOVAL
	STORM REMOVAL
	TREE REMOVAL
	HEDGE TREE REMOVAL
	SAWCUT
	GRADING LIMITS

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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DEMOLITION & REMOVALS  
 CENTURY DRIVE & 13TH STREET

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

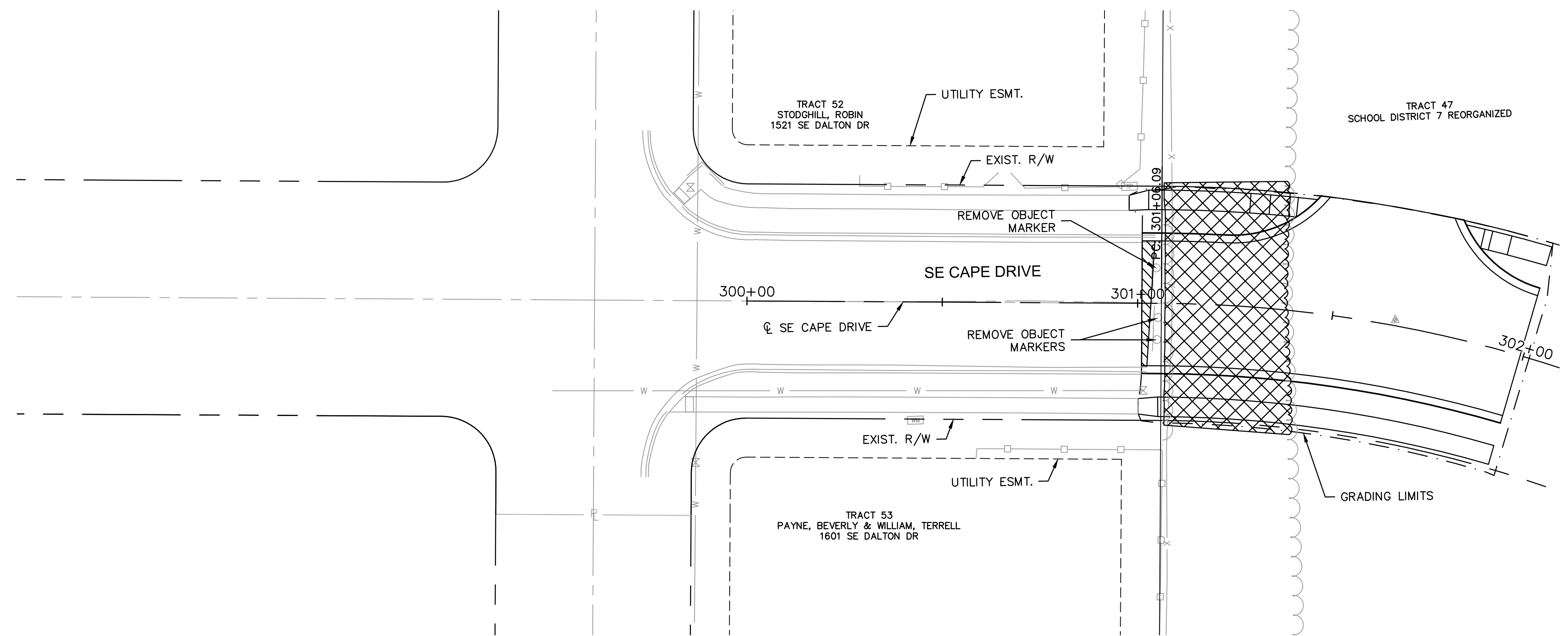
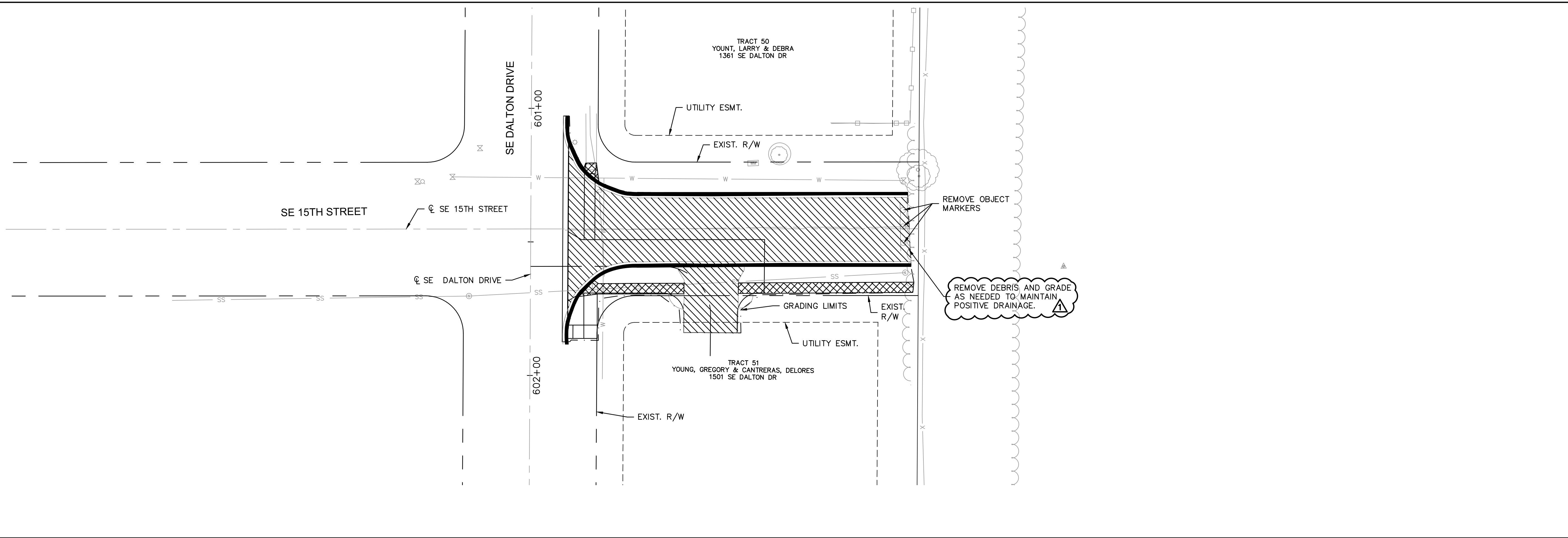
2021

REVISIONS

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO.:	T_DEM01_0200103
DATE:	2022-11-04

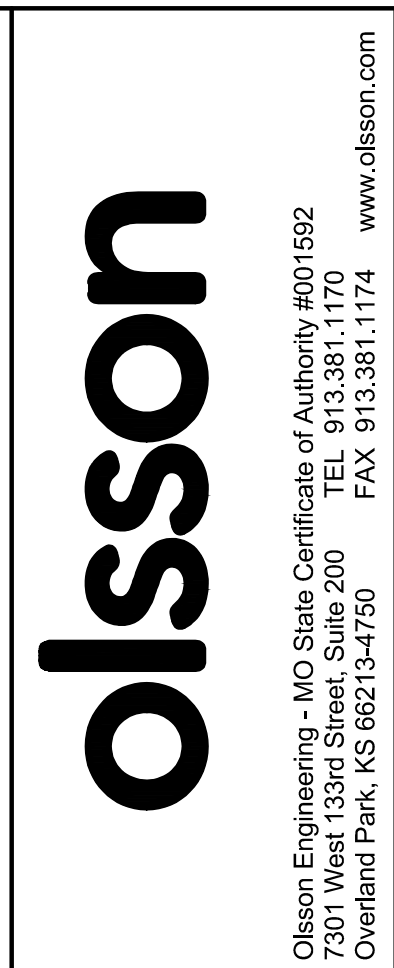
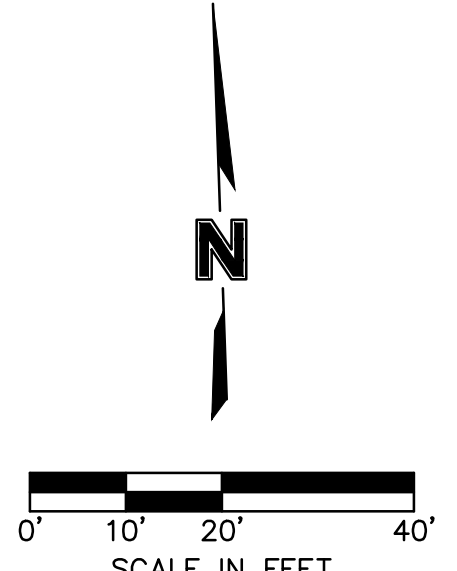
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 15 OF 101

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- LEGEND**
- FULL DEPTH ASPHALT PAVEMENT REMOVAL
  - FULL DEPTH CONCRETE PAVEMENT REMOVAL
  - CONCRETE SIDEWALK REMOVAL
  - CURB REMOVAL
  - STORM REMOVAL
  - TREE REMOVAL
  - HEDGE TREE REMOVAL
  - SAWCUT
  - GRADING LIMITS

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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

**DEMOLITION & REMOVALS**  
 15TH STREET & CAPE DRIVE

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

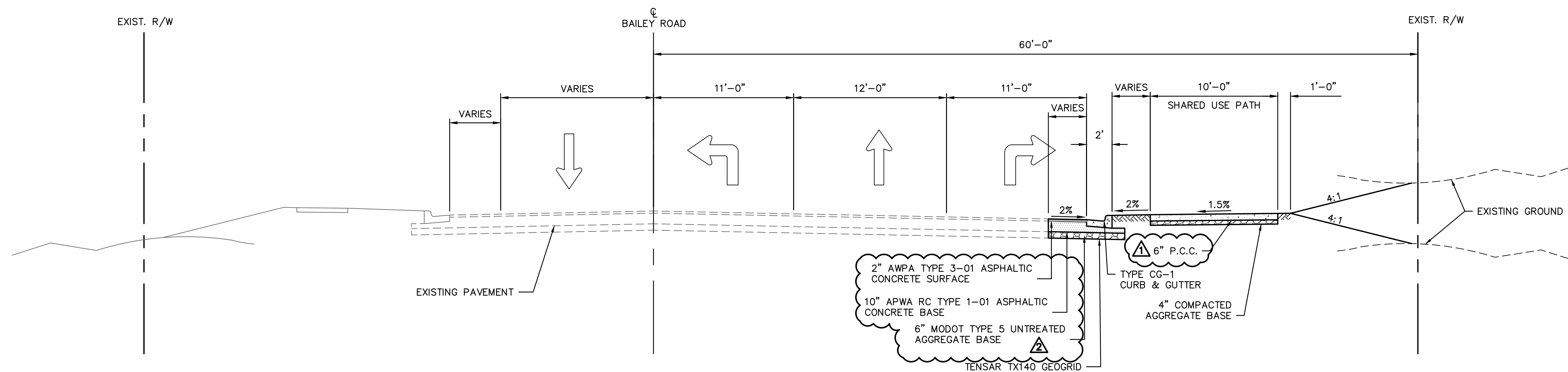
2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_DEM01\_0200103  
 DATE: 2022-11-04

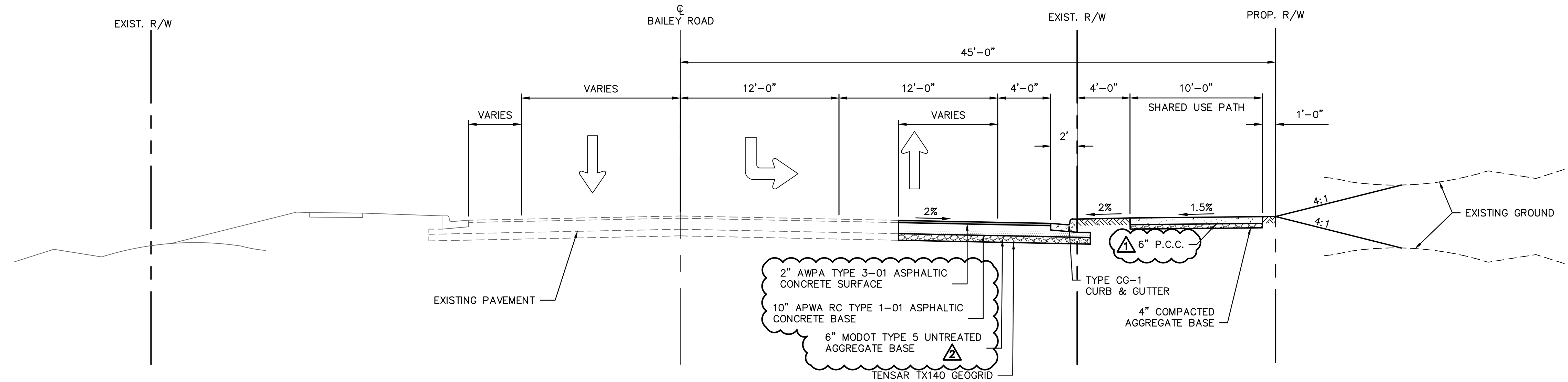
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 DATE: Nov 07, 2022 1:11pm XREFS: T\_PTBK\_0200103 T\_PBASE\_0200103 USER: mrobertson



**TYPICAL SECTION  
 BAILEY ROAD**  
 NOT TO SCALE  
 STA. 55+52.44 TO STA. 56+01.64



**TYPICAL SECTION  
 BAILEY ROAD**  
 NOT TO SCALE  
 STA. 57+40.02 TO STA. 60+57.12  
 STA. 86+04.25 TO STA. 86+38.73  
 STA. 87+41.54 TO STA. 92+60.53  
 STA. 93+71.24 TO STA. 95+72.70

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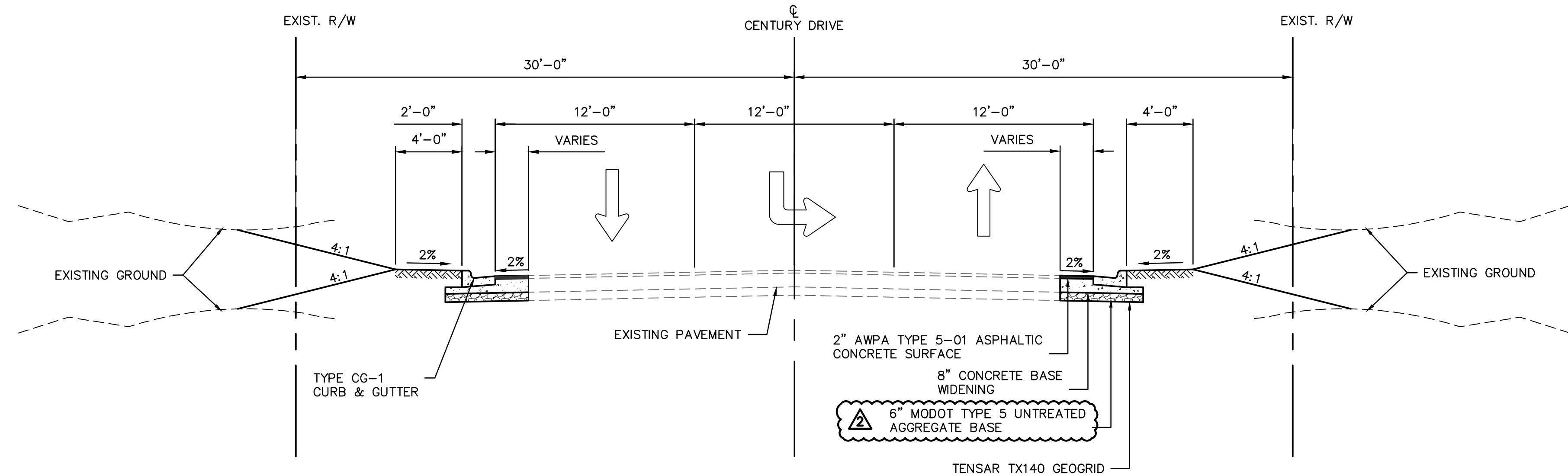
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2	11/05/2021	ASI #37	RPH

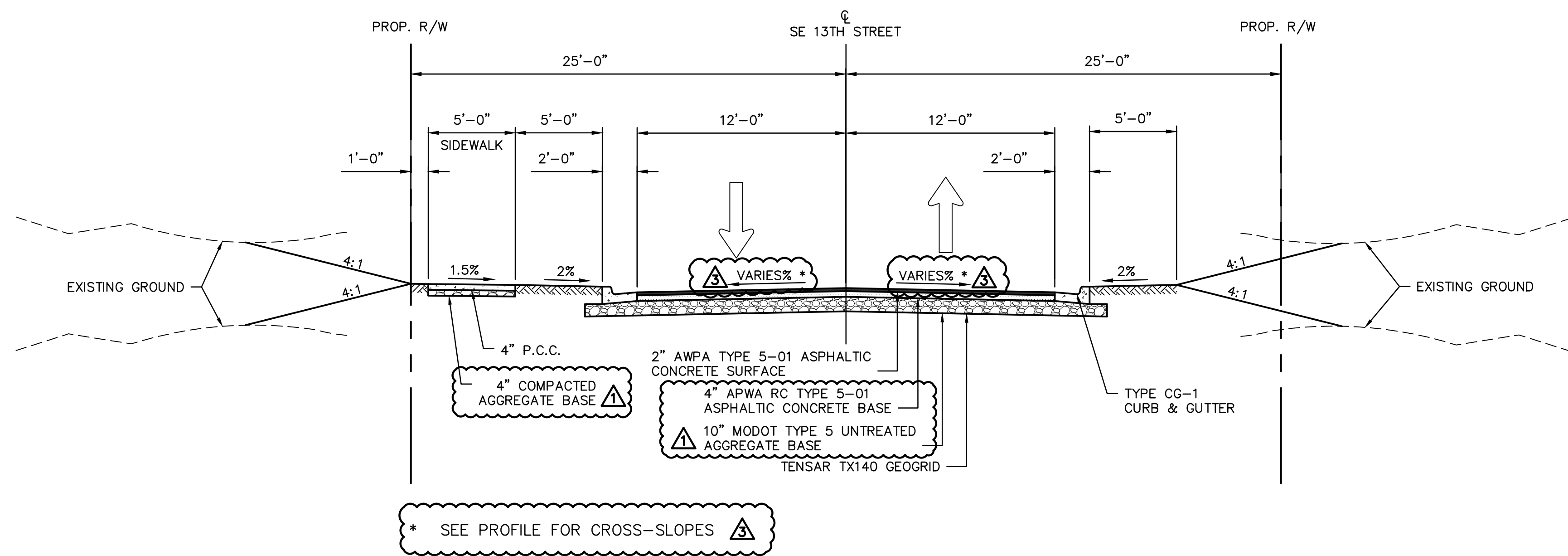
TYPICAL SECTIONS	2021
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_TYP01\_0200103  
 DATE: 2022-11-04

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**TYPICAL SECTION  
SE CENTURY DRIVE**  
 NOT TO SCALE  
 STA. 200+76.78 TO STA. 202+36.71



**TYPICAL SECTION  
SE 13TH STREET**  
 NOT TO SCALE  
 STA. 353+02.70 TO STA. 353+35.59

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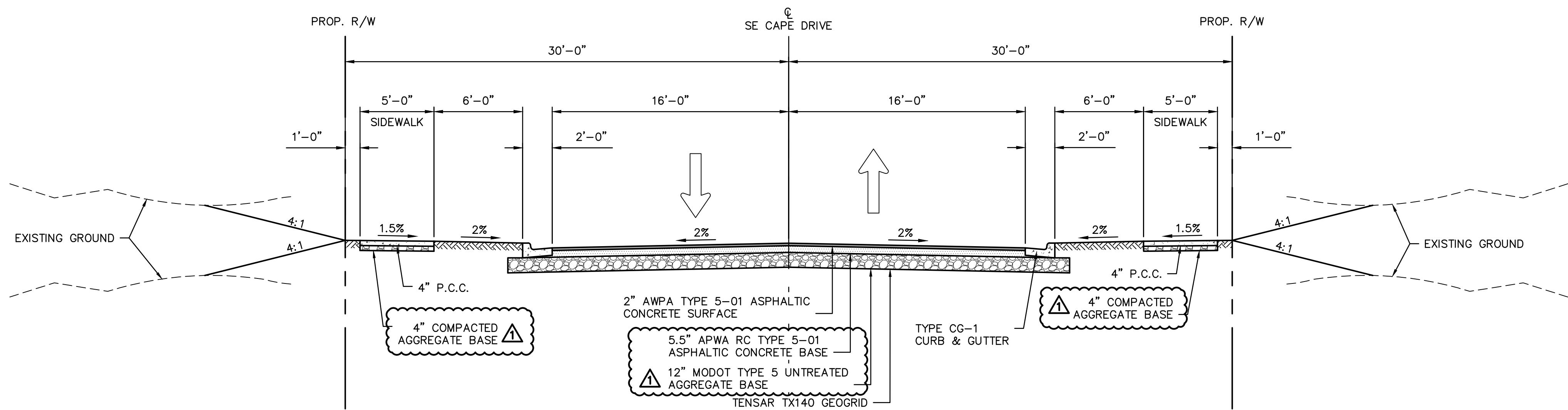
**RECORD  
DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH
2	11/09/2021	ASI #37	RPH
3	05/11/2022	PLAN UPDATES	RPH

TYPICAL SECTIONS	REVISIONS
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_TYP01\_0200103  
 DATE: 2022-11-04

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 DATE: Nov 07, 2022 1:12pm XREFS: T\_PTBLK\_0200103 T\_PBASE\_0200103 USER: mrobertson



**TYPICAL SECTION  
SE CAPE DRIVE**  
 NOT TO SCALE  
 STA. 301+01.09 TO STA. 301+21.99

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 7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.olsson.com

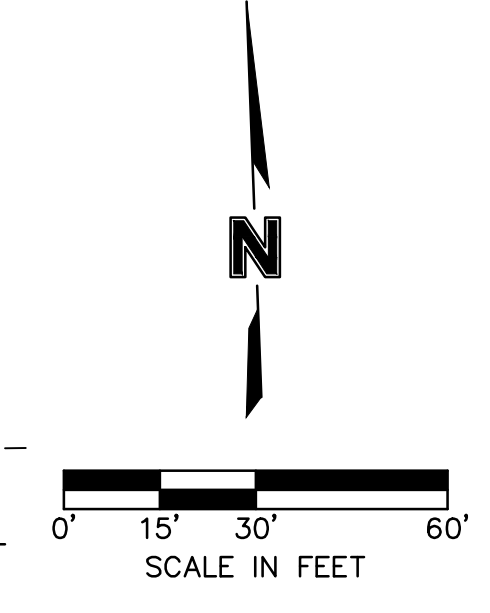
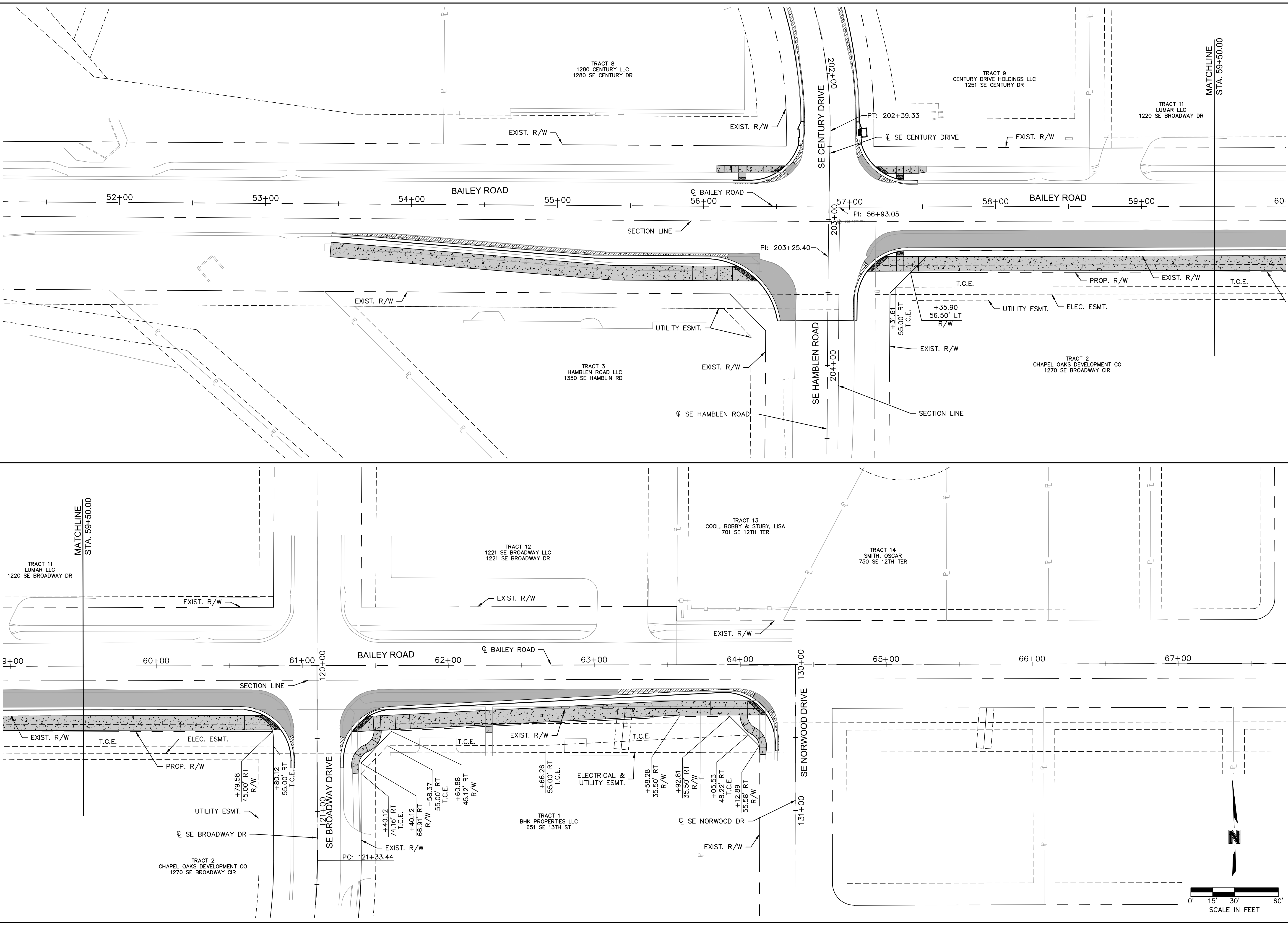
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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TYPICAL SECTIONS	REVISIONS
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_TYP01\_0200103  
 DATE: 2022-11-04

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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

RIGHT OF WAY PLANS  
BAILEY ROAD

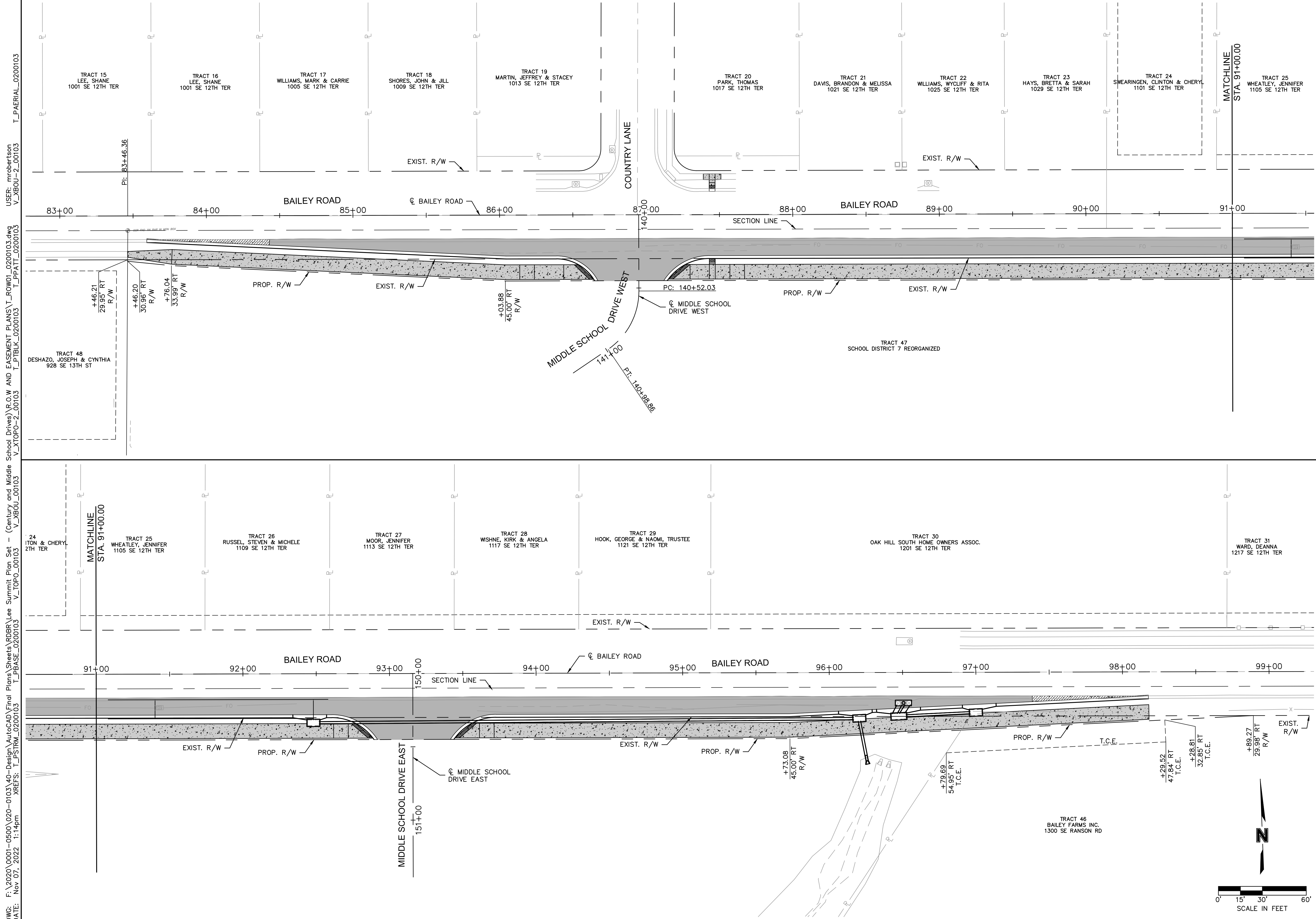
LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

LEE'S SUMMIT, MISSOURI

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_ROW01\_0200103  
 DATE: 2022-11-04

SHEET 20 OF 101



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Streets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\R.O.W. AND EASEMENT PLANS\T\_ROW01\_0200103.dwg  
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 USER: mrobertson T\_PAERIAL\_0200103

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 Overland Park, KS 66213-4750 FAX: 913.381.1174 www.olsson.com

**RECORD DRAWINGS**

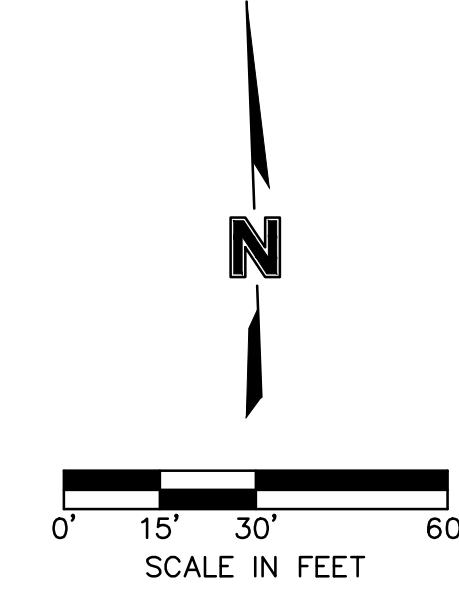
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

**RIGHT OF WAY PLANS**  
**BAILEY ROAD**  
**LEE'S SUMMIT MIDDLE SCHOOL #4**  
**BAILEY ROAD PUBLIC IMPROVEMENTS**  
**LEE'S SUMMIT, MISSOURI**

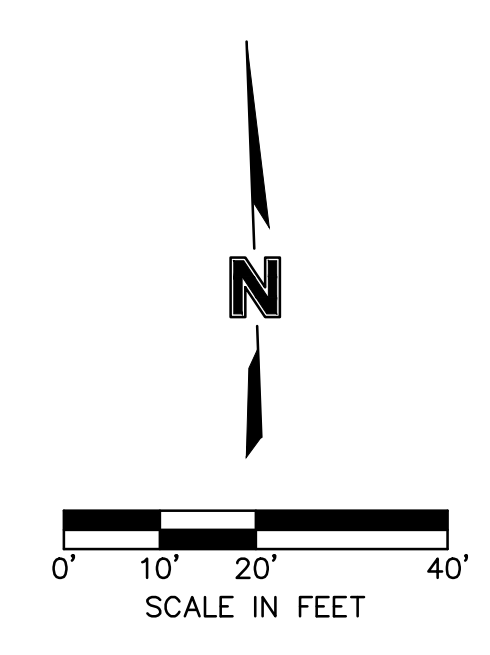
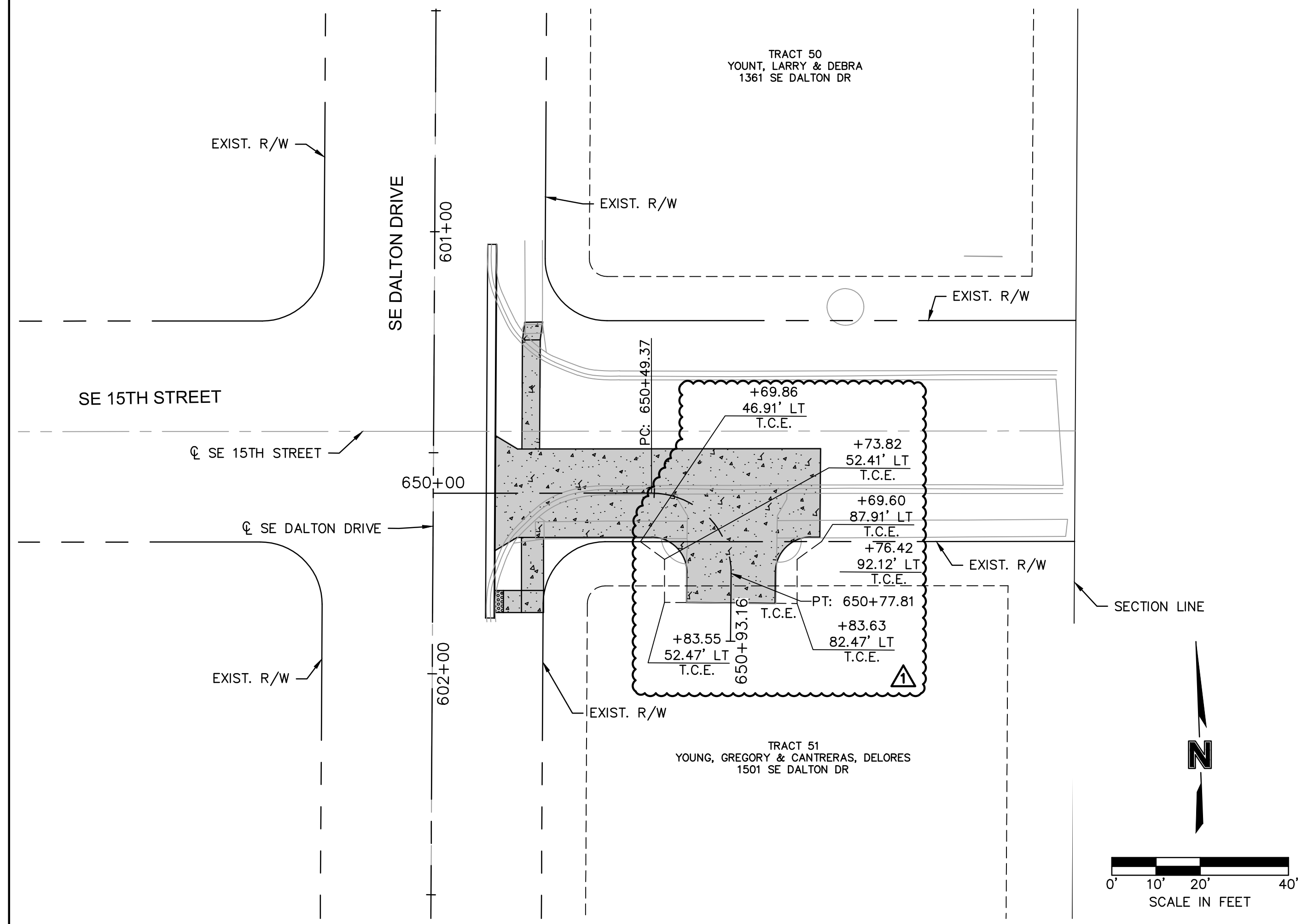
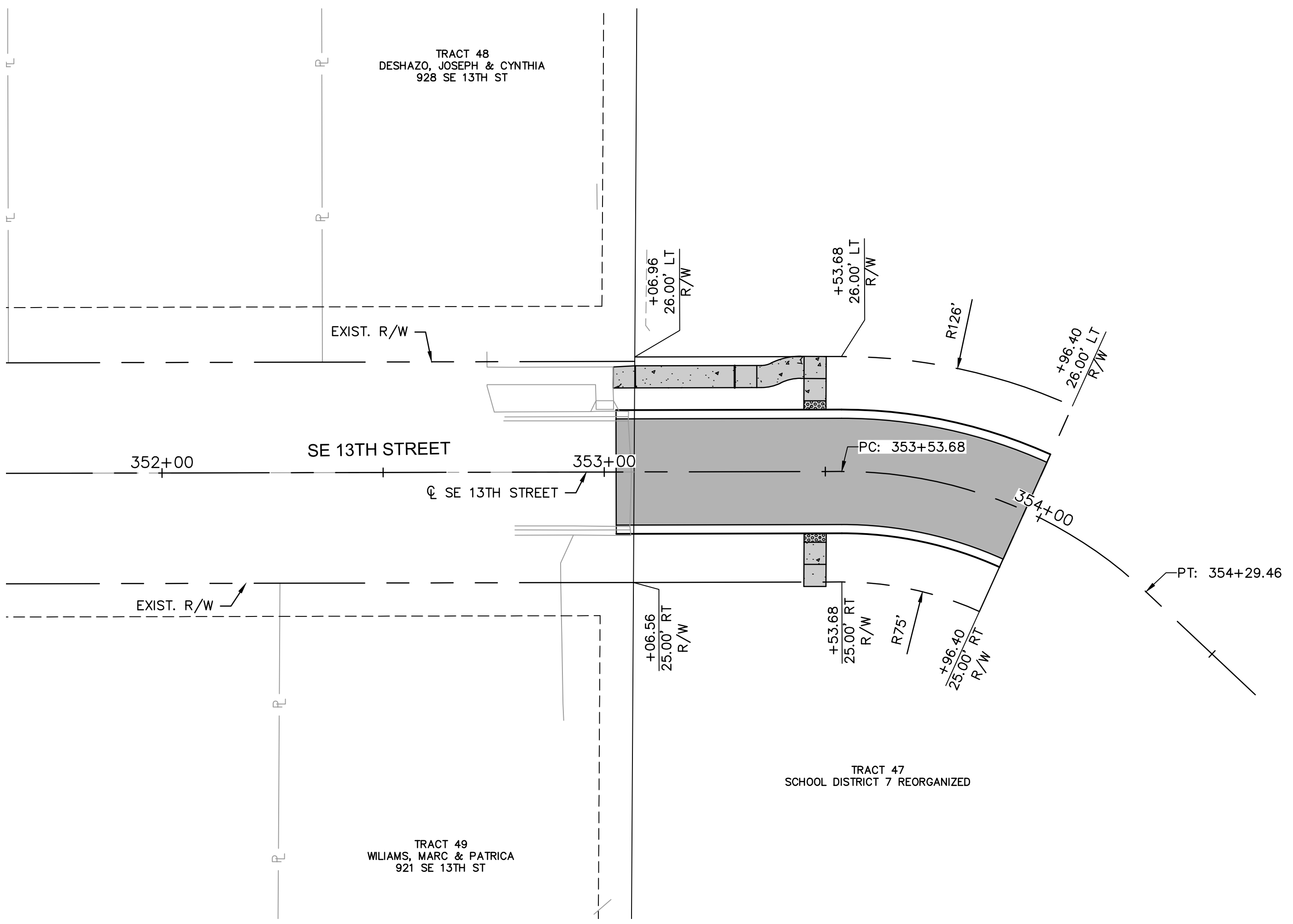
2021

C.O.A. NO.: 001592  
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 CHECKED BY: RPH  
 APPROVED BY: RBE  
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 DWG NO.: T\_ROW01\_0200103  
 DATE: 2022-11-04

**SHEET 21 OF 101**

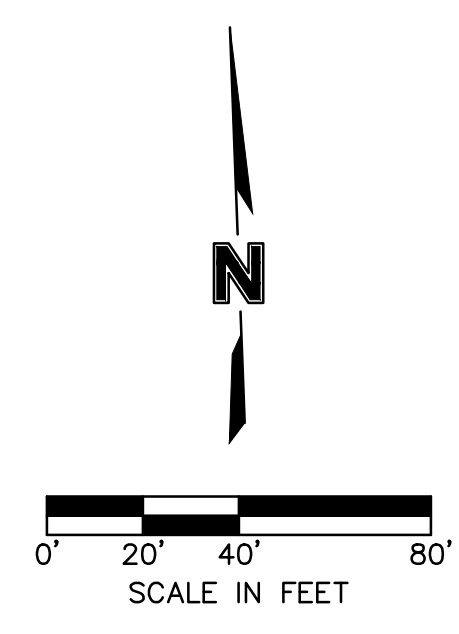
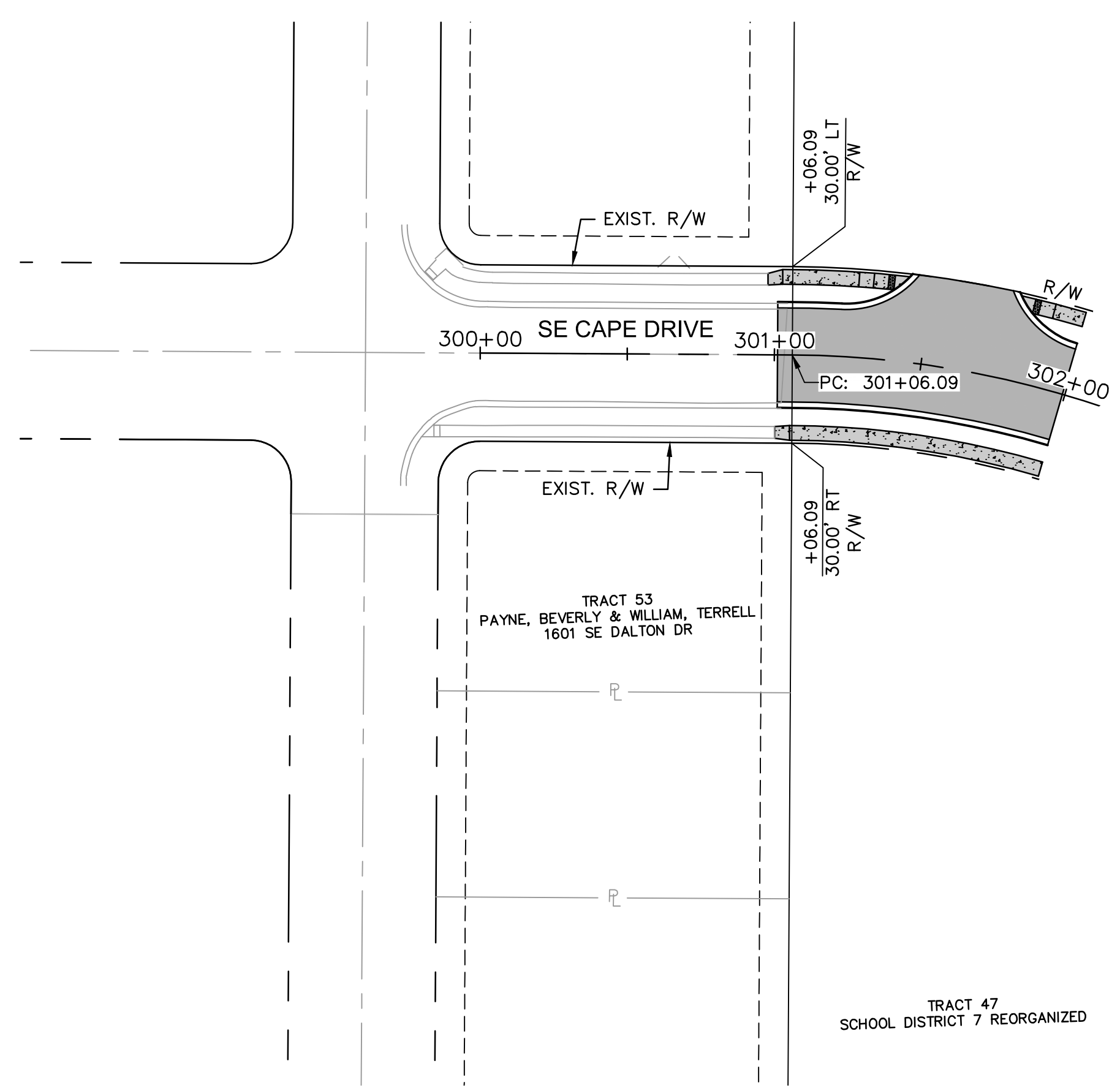


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		RECORD DRAWINGS	
		Olsson Engineering - MO State Certificate of Authority #001592 7301 West 133rd Street, Suite 200 TEL: 913.381.1170 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.olsson.com	
RIGHT OF WAY PLANS BAILEY ROAD	BY: RPH	REVISIONS DESCRIPTION	REVISIONS
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	DATE	08/25/2021	AS1 #29
	REV. NO.	1	
LEE'S SUMMIT, MISSOURI	2021		
C.O.A. NO.: 001592	DRAWN BY: MLW	CHECKED BY: RPH	APPROVED BY: RBE
PROJECT NO.: 020-0103	DWG NO.: T_ROW01_0200103	DATE: 2022-11-04	
SHEET 22 OF 101			

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C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_ROW01\_0200103  
 DATE: 2022-11-04

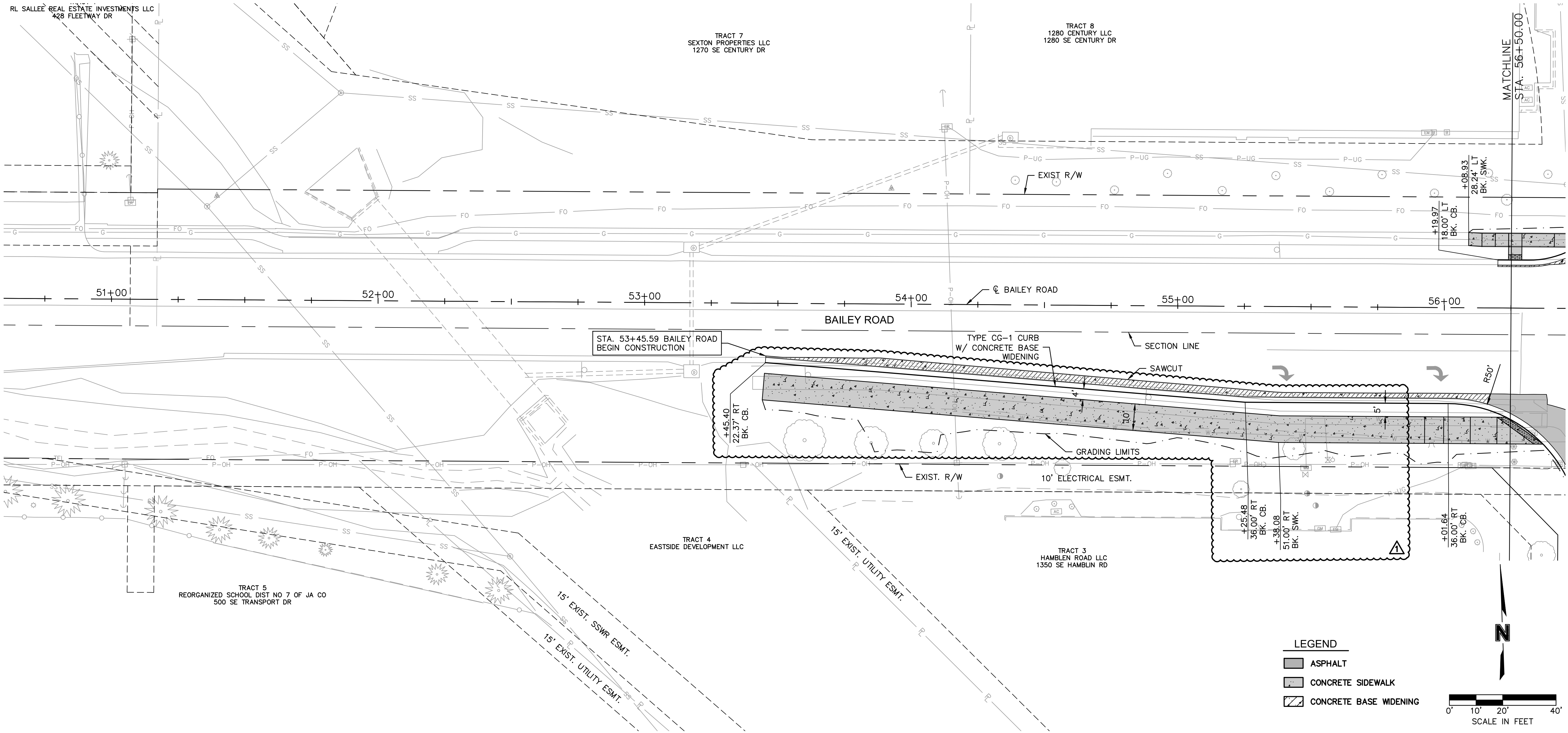
RIGHT OF WAY PLANS  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

RECORD DRAWINGS

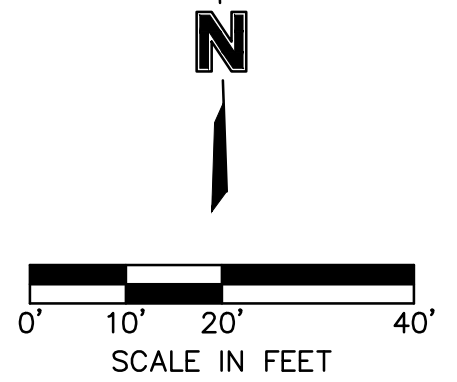
**olsson**  
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DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDR\Lee Summit Plan Set - (Century and Middle School Drives)\PLAN & PROFILES\BAILEY ROAD\T\_RPP01\_0200103.dwg  
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 USER: mrcobertson

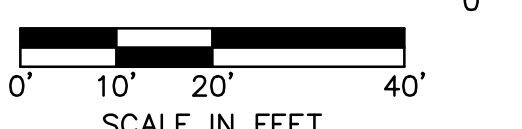
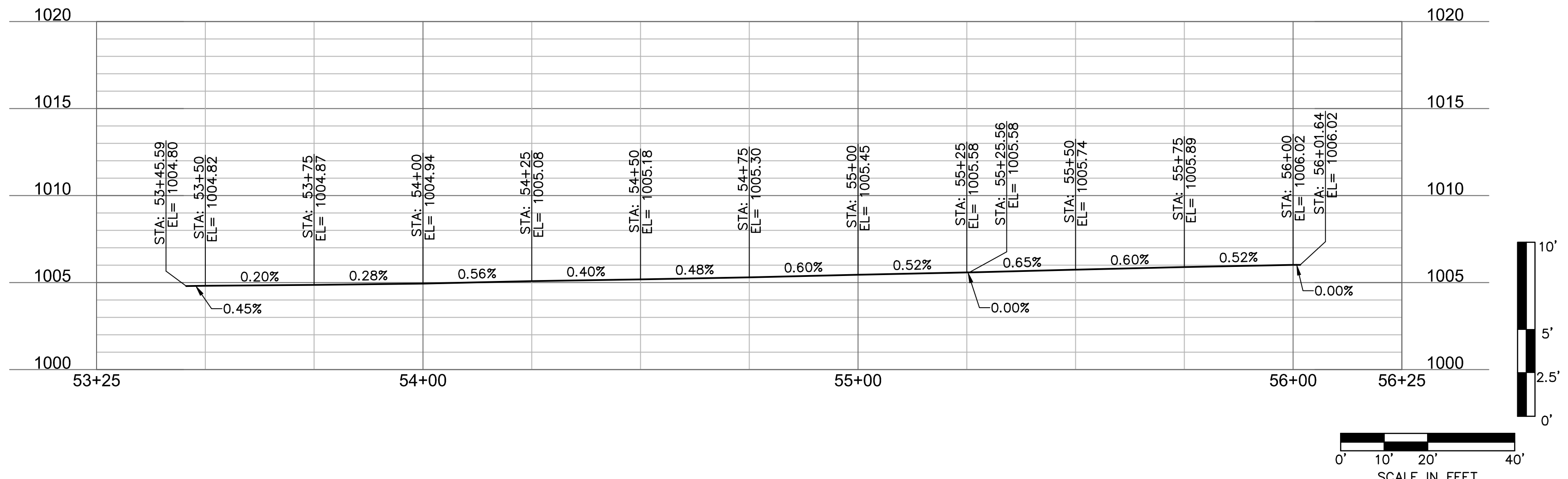


**LEGEND**

- ASPHALT
- CONCRETE SIDEWALK
- CONCRETE BASE WIDENING



**BAILEY ROAD RIGHT EDGE OF PAVEMENT**



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1	08/25/2021	ASI #29	RPH

PLAN & EDGE OF PAVEMENT PROFILE  
BAILEY ROAD

2021

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

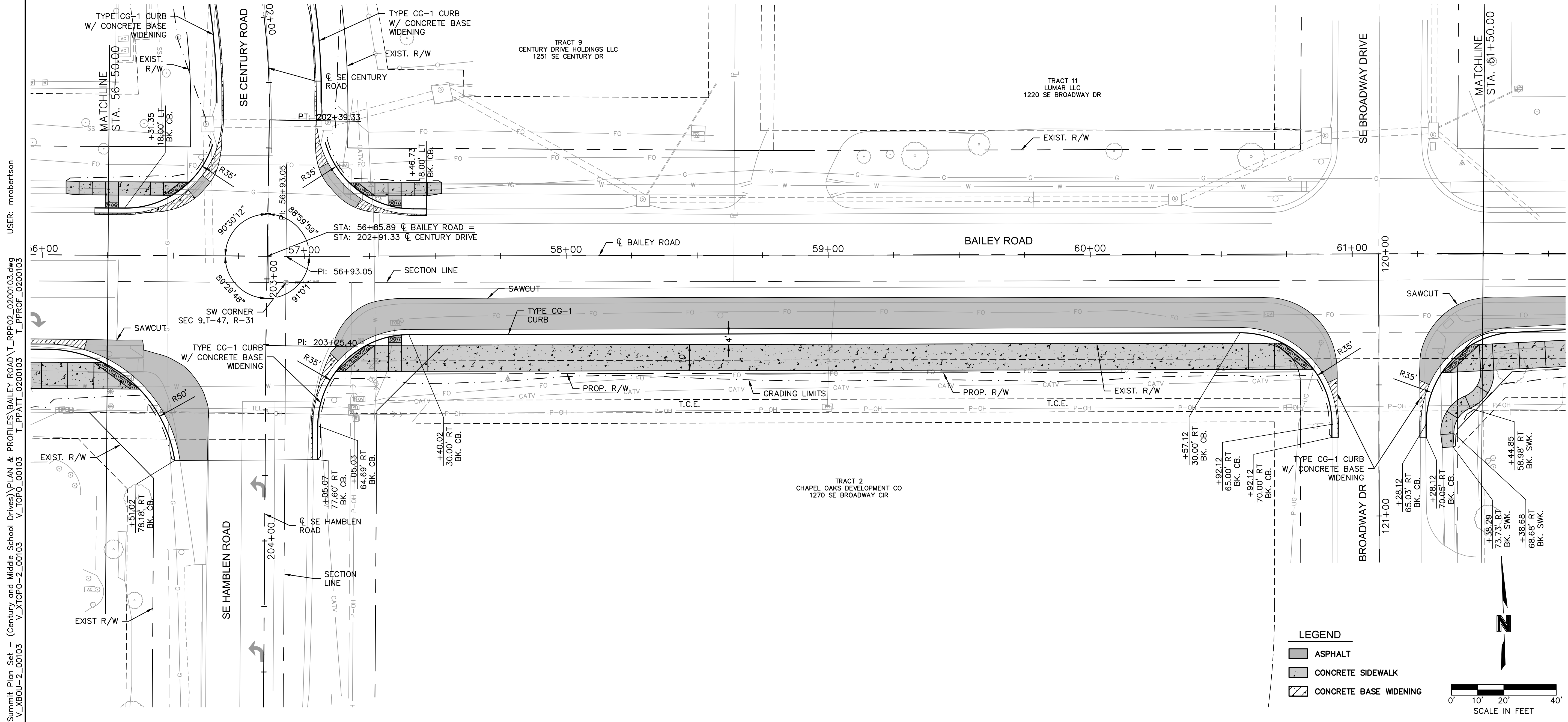
2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE

PROJECT NO.: 020-0103  
 DWG NO.: T\_RPP01\_0200103  
 DATE: 2022-11-04

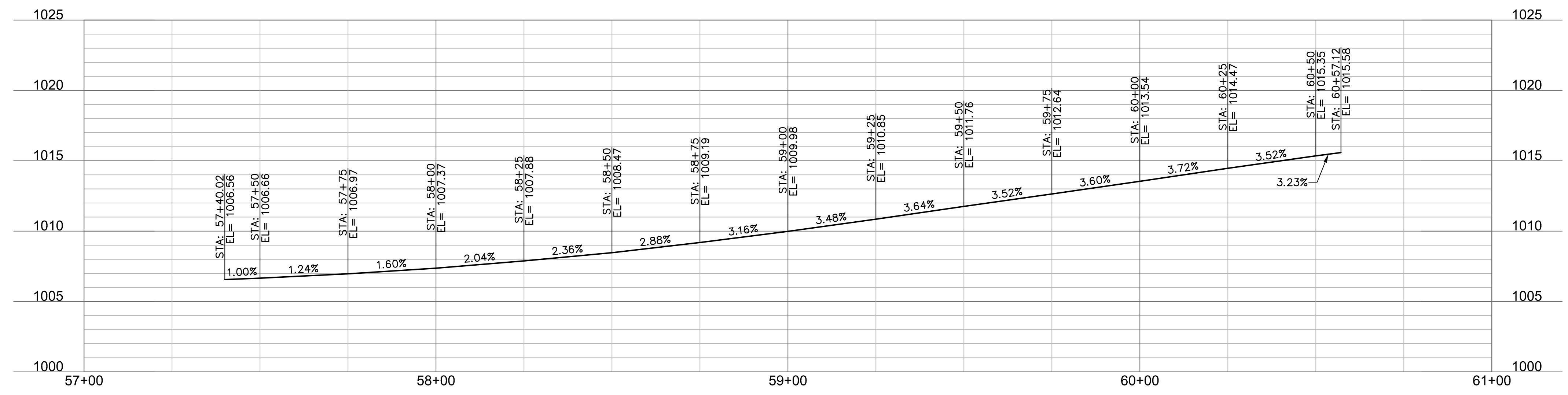
**SHEET 24 OF 101**





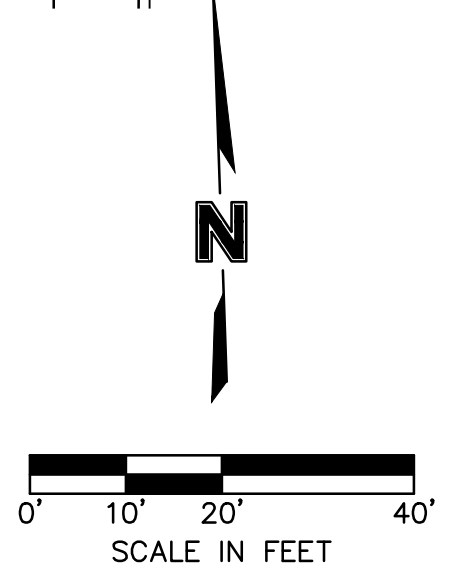
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 USER: mrobertson

BAILEY ROAD RIGHT EDGE OF PAVEMENT



**LEGEND**

- ASPHALT
- CONCRETE SIDEWALK
- CONCRETE BASE WIDENING



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RECORD  
DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION

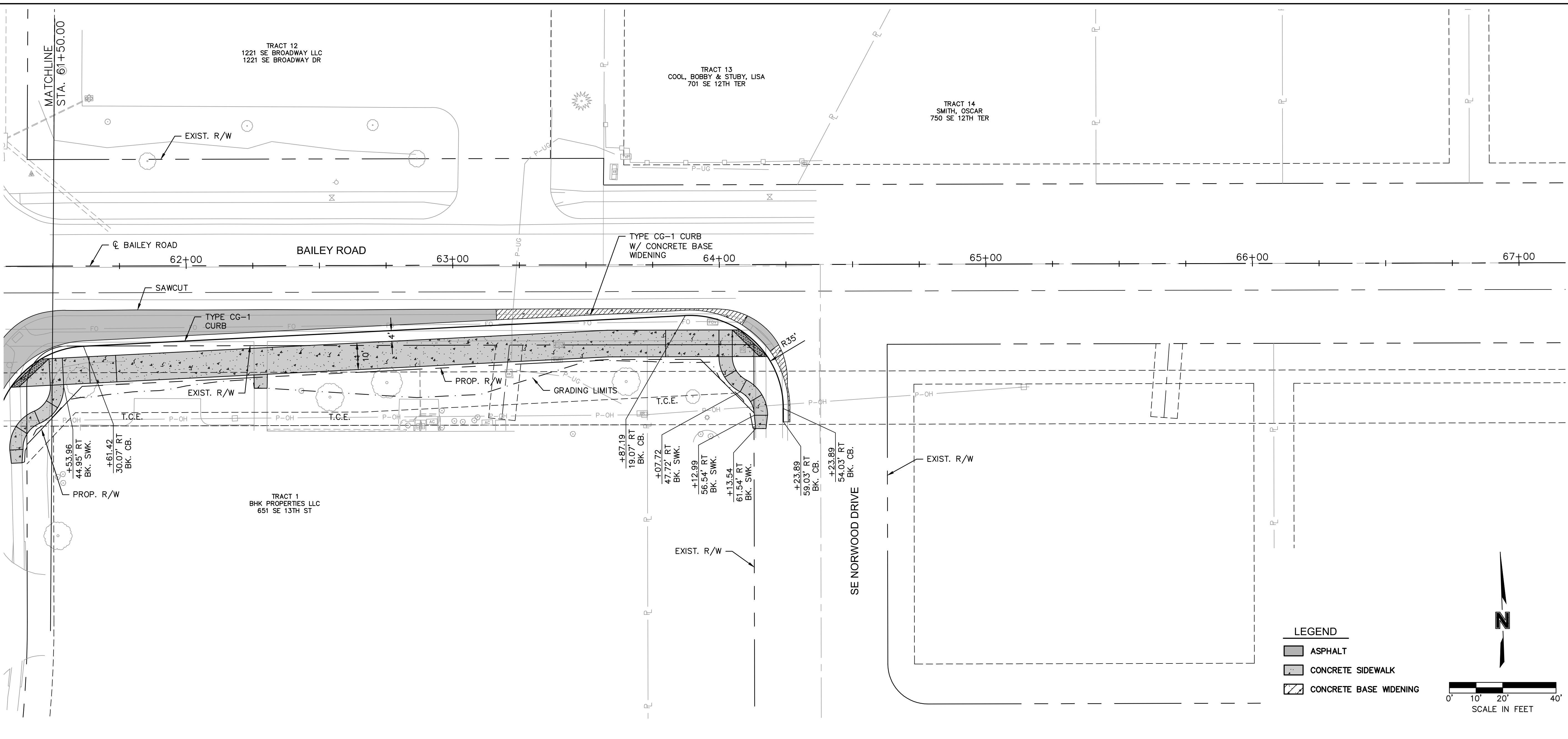
PLAN & EDGE OF PAVEMENT PROFILE  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO.:	T_RPP02_0200103
DATE:	2022-11-04

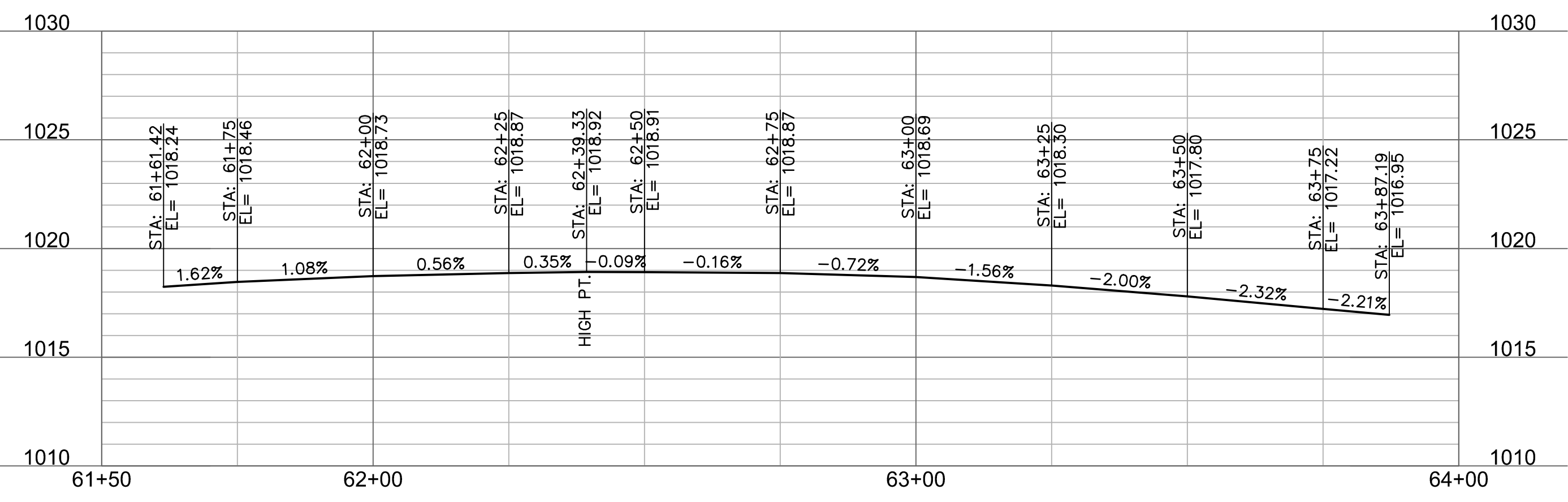
2021 REVISIONS

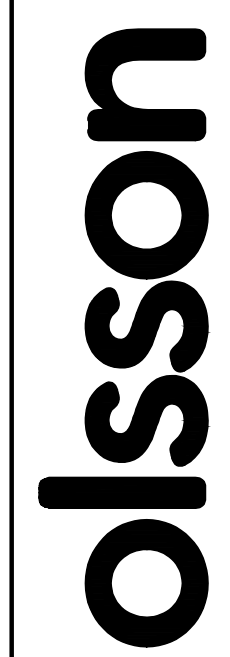
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USER: mrobertson



BAILEY ROAD RIGHT EDGE OF PAVEMENT





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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PLAN & EDGE OF PAVEMENT PROFILE  
 BAILEY ROAD

REVISIONS  
 2021

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

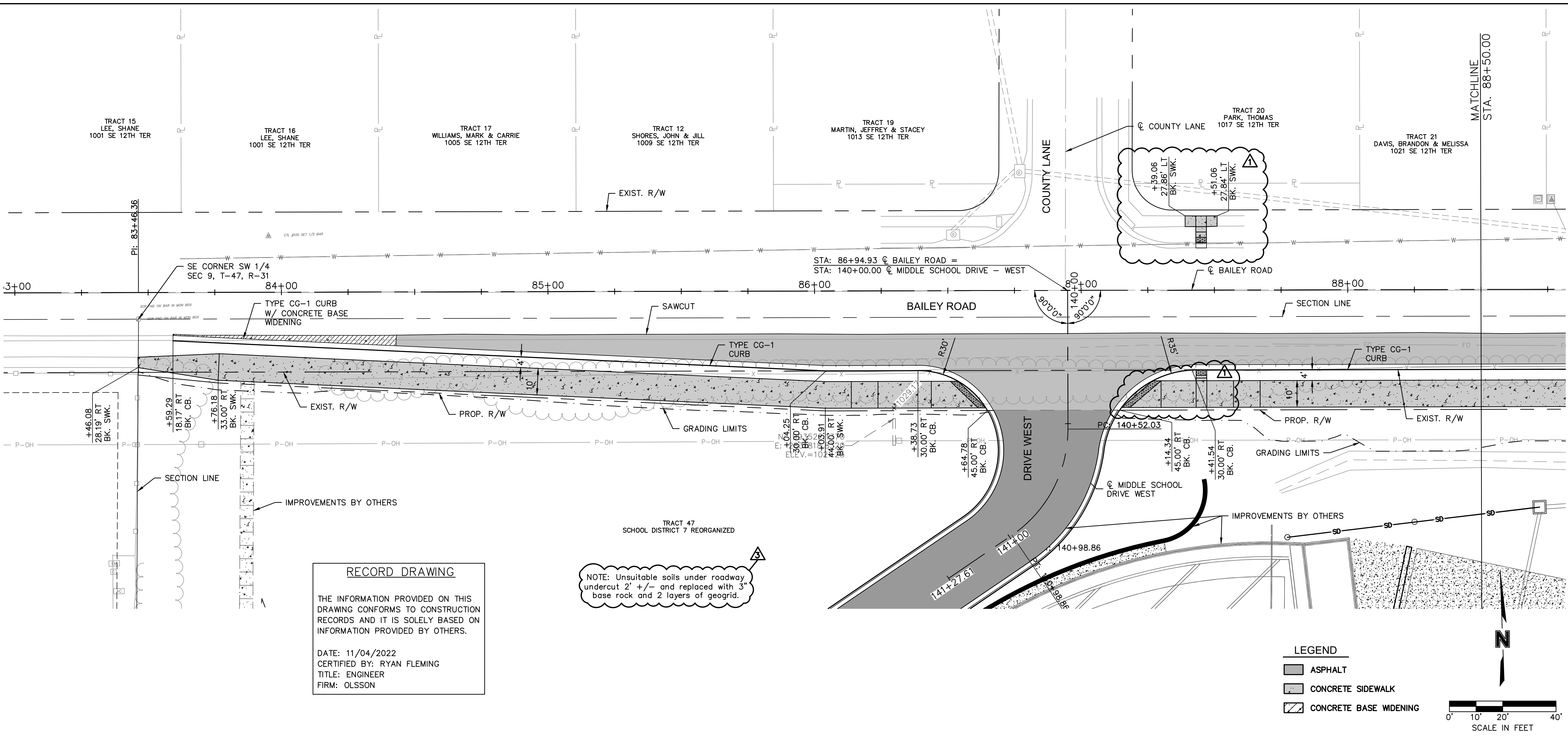
LEE'S SUMMIT, MISSOURI

C.O.A. NO.: 001592  
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 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE

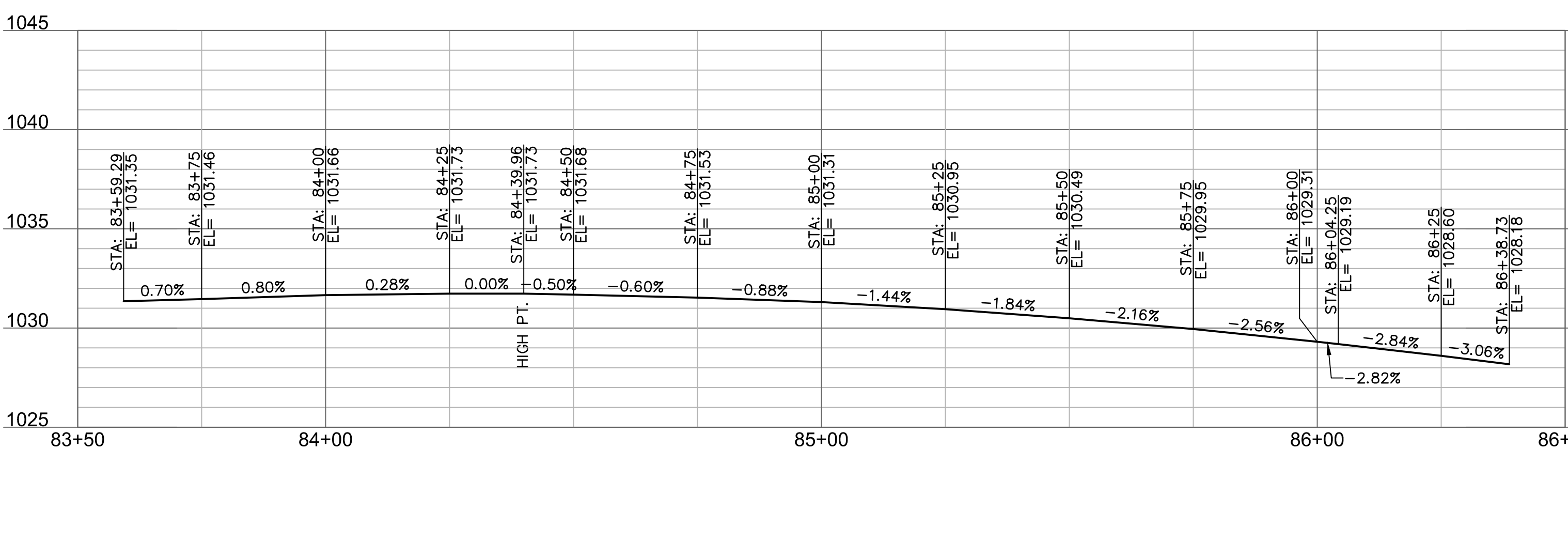
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 DWG NO.: T\_RPP03\_0200103  
 DATE: 2022-11-04

SHEET 26 OF 101

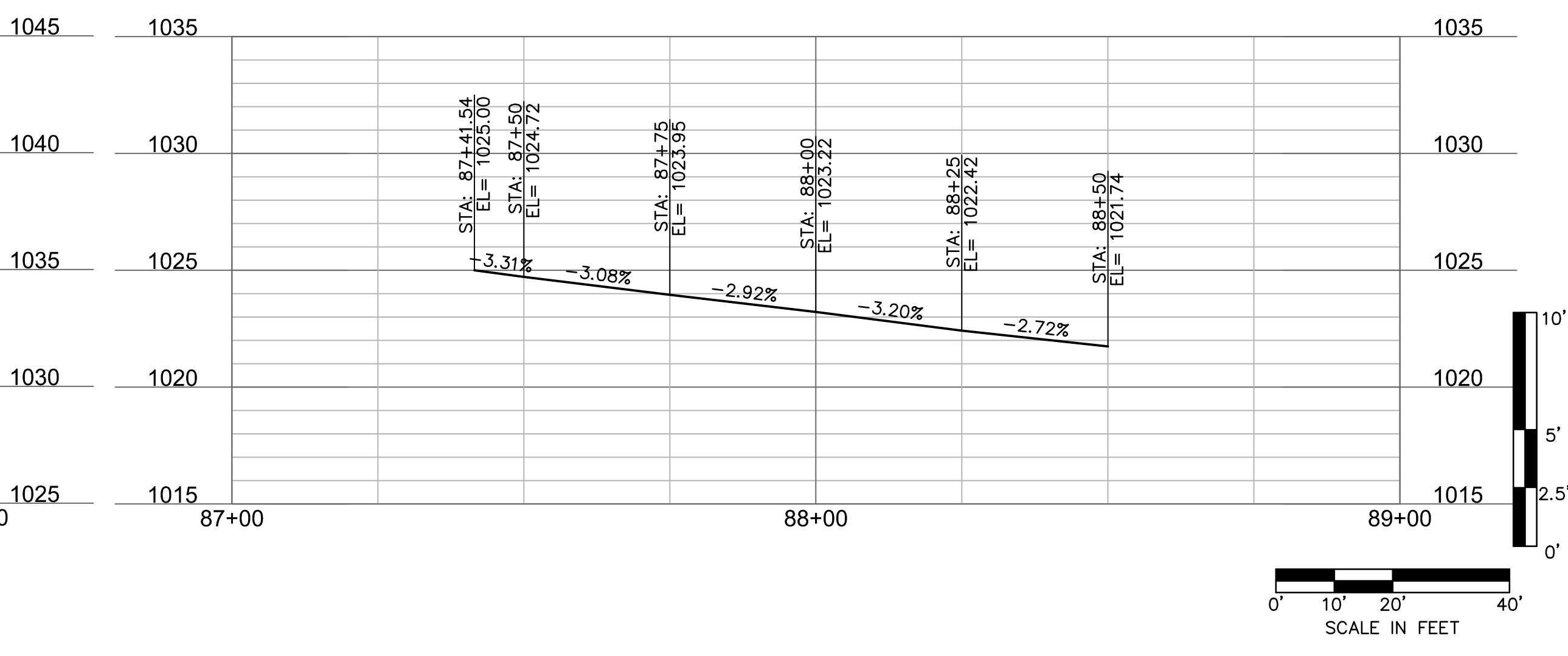
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 USER: mrobertson



BAILEY ROAD RIGHT EDGE OF PAVEMENT



BAILEY ROAD RIGHT EDGE OF PAVEMENT



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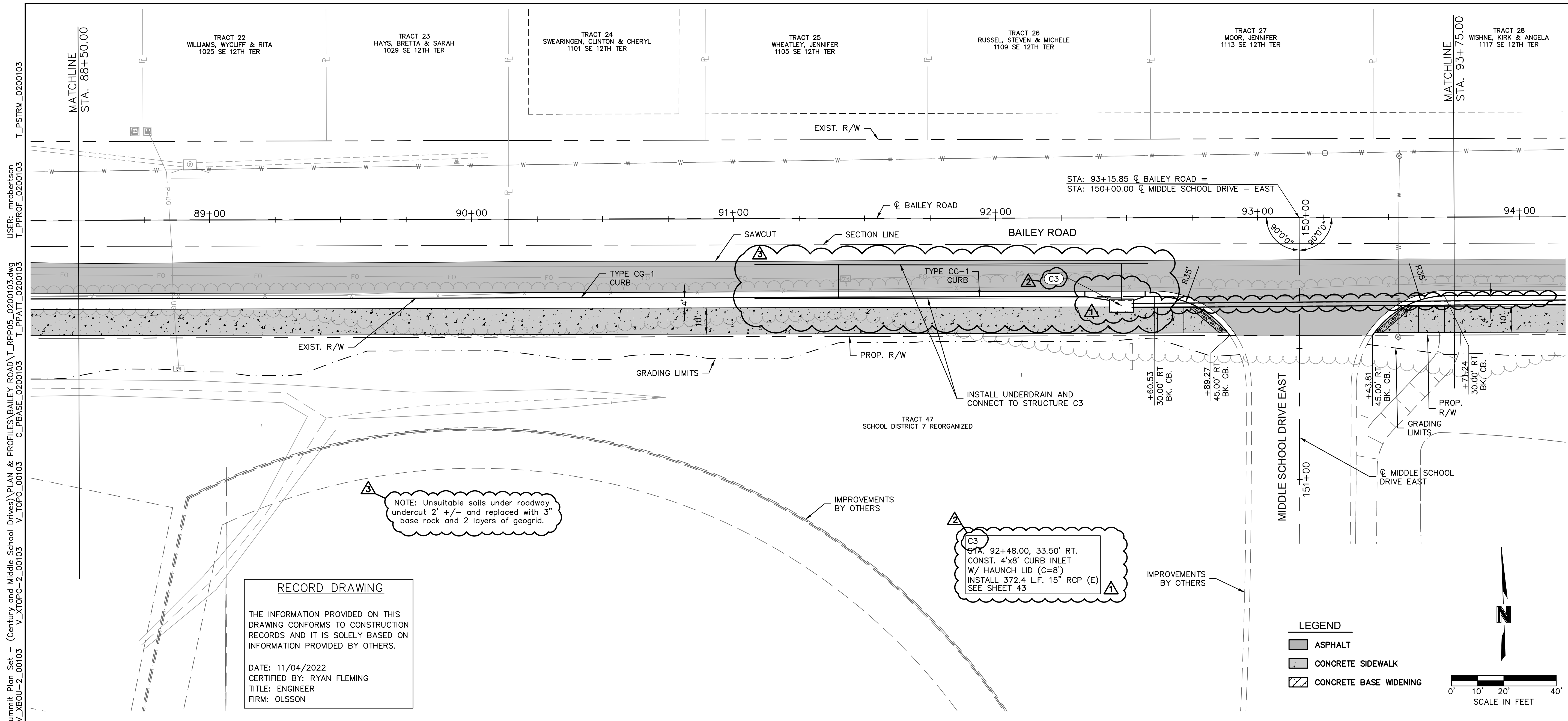
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03/11/2022	ASI #47	RPH
3	11/04/2022	RECORD DRAWING REVISIONS	MAR

SCALE IN FEET: 0' 5' 10' 2.5'

PLAN & EDGE OF PAVEMENT PROFILE  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

2021

SHEET 27 OF 101

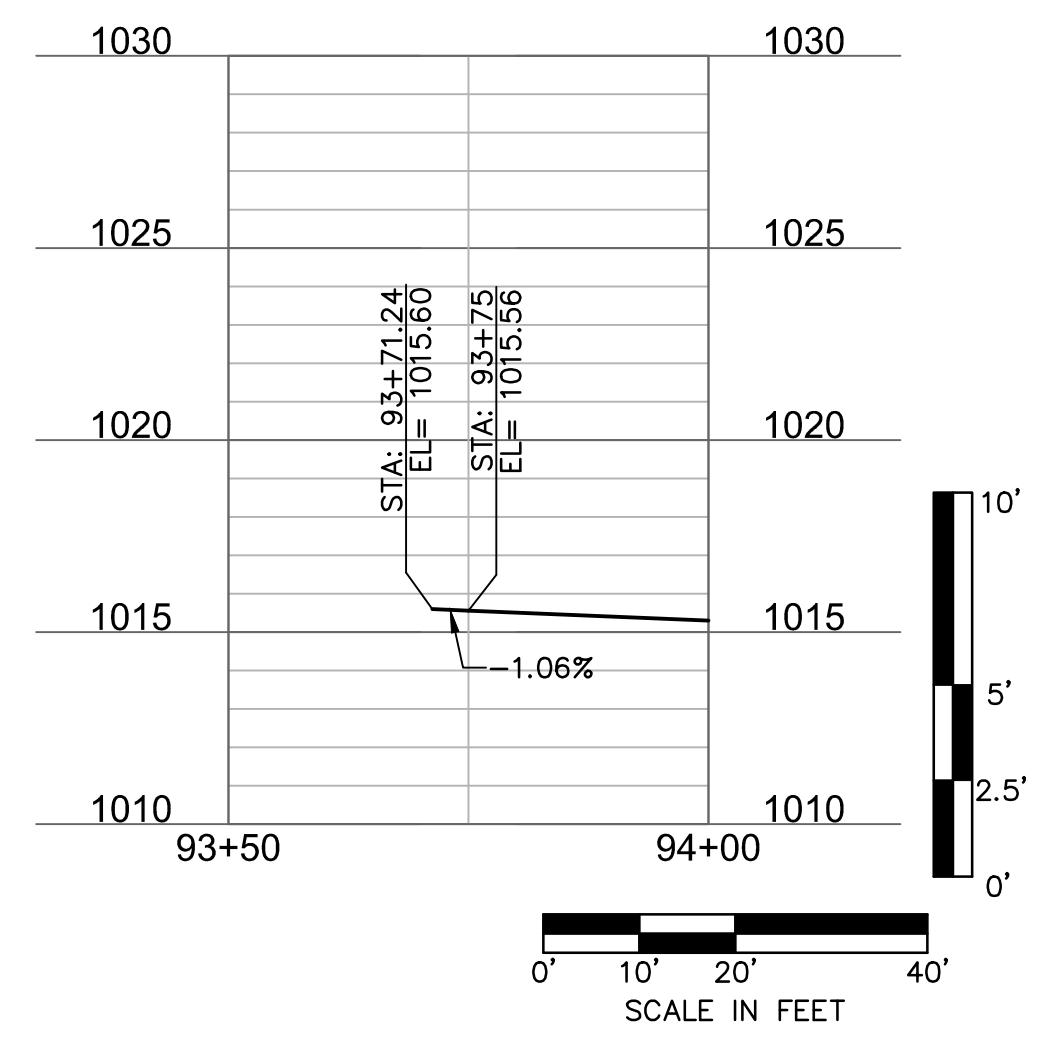
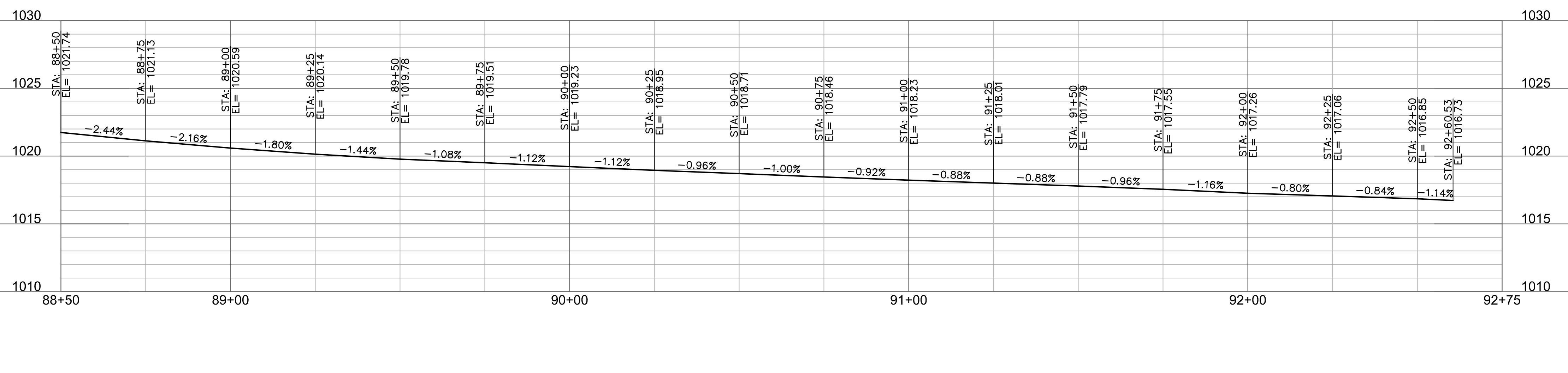


**RECORD DRAWING**

THE INFORMATION PROVIDED ON THIS DRAWING CONFORMS TO CONSTRUCTION RECORDS AND IT IS SOLELY BASED ON INFORMATION PROVIDED BY OTHERS.

DATE: 11/04/2022  
 CERTIFIED BY: RYAN FLEMING  
 TITLE: ENGINEER  
 FIRM: OLSSON

**BAILEY ROAD RIGHT EDGE OF PAVEMENT**



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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2	10/20/2021	STORM SEWER REVISION	RPH
3	11/04/2022	RECORD DRAWING REVISIONS	MAR

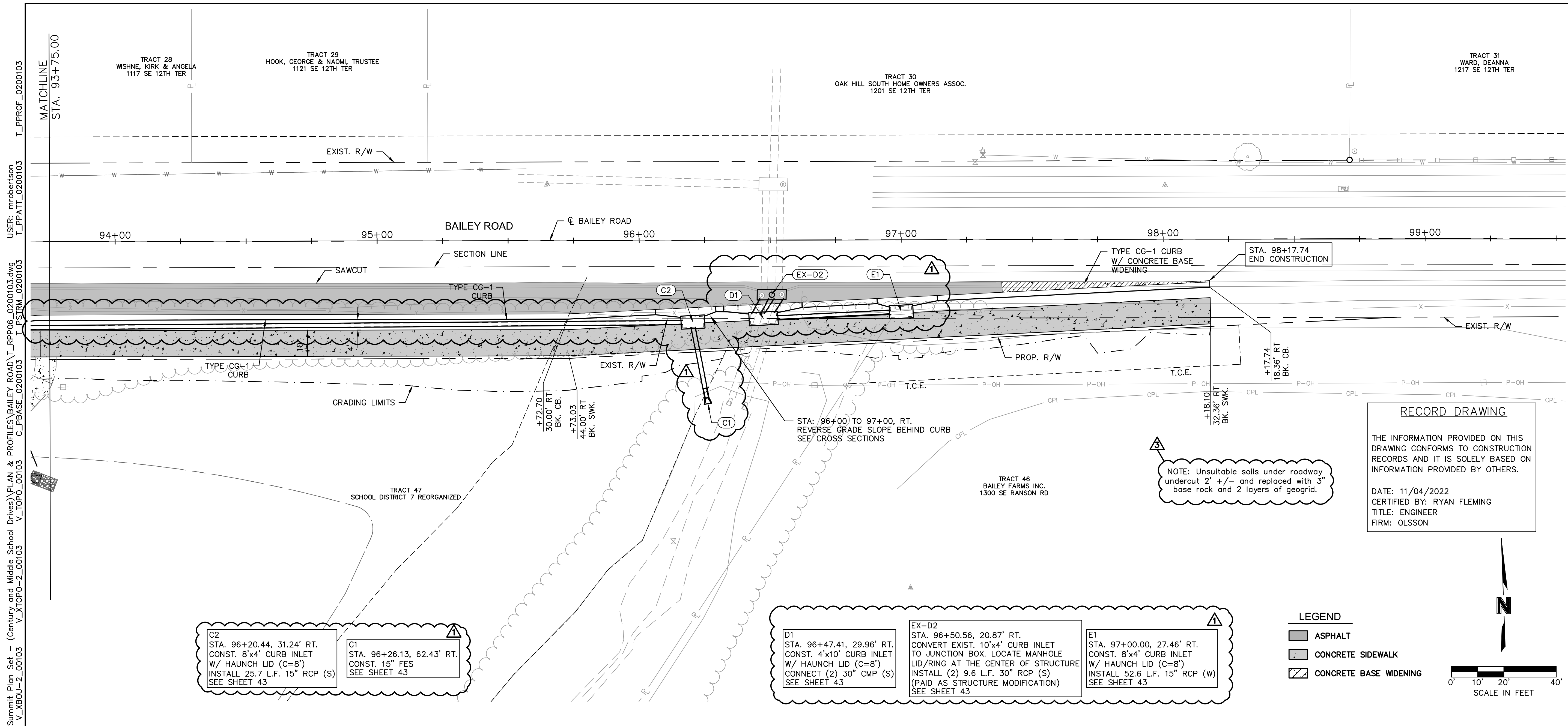
**REVISIONS**

PLAN & EDGE OF PAVEMENT PROFILE  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_RPP05\_0200103  
 DATE: 2022-11-04

**SHEET 28 OF 101**

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RD\Lee Summit Plan Set - (Century and Middle School Drives)\PLAN & PROFILES\BAILEY ROAD\T\_RPP05\_0200103.dwg  
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 USER: mrobertson



**C2**  
STA. 96+20.44, 31.24' RT.  
CONST. 8"x4' CURB INLET  
W/ HAUNCH LID (C=8)  
INSTALL 25.7 L.F. 15" RCP (S)  
SEE SHEET 43

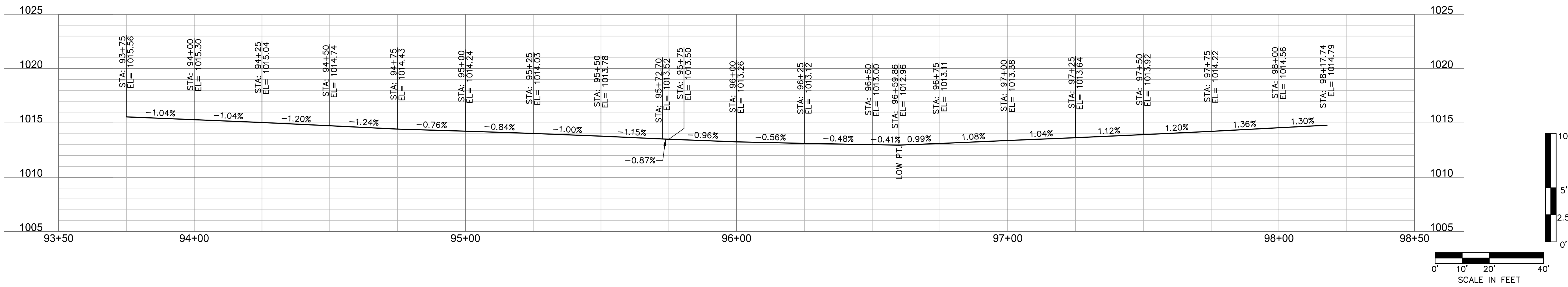
**C1**  
STA. 96+26.13, 62.43' RT.  
CONST. 15" FES  
SEE SHEET 43

**D1**  
STA. 96+47.41, 29.96' RT.  
CONST. 4"x10' CURB INLET  
W/ HAUNCH LID (C=8)  
CONNECT (2) 30" CMP (S)  
SEE SHEET 43

**EX-D2**  
STA. 96+50.56, 20.87' RT.  
CONVERT EXIST. 10"x4' CURB INLET  
TO JUNCTION BOX. LOCATE MANHOLE  
LID/RING AT THE CENTER OF STRUCTURE  
INSTALL (2) 9.6 L.F. 30" RCP (S)  
(PAID AS STRUCTURE MODIFICATION)  
SEE SHEET 43

**E1**  
STA. 97+00.00, 27.46' RT.  
CONST. 8"x4' CURB INLET  
W/ HAUNCH LID (C=8)  
INSTALL 52.6 L.F. 15" RCP (W)  
SEE SHEET 43

**BAILEY ROAD RIGHT EDGE OF PAVEMENT**



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDBR\Lee Summit Plan Set - (Century and Middle School Drives)\PLAN & PROFILES\BAILEY ROAD\T\_RPP06\_0200103.dwg  
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PLAN & EDGE OF PAVEMENT PROFILE  
BAILEY ROAD

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH
3	11/04/2022	RECORD DRAWING REVISIONS	MAR

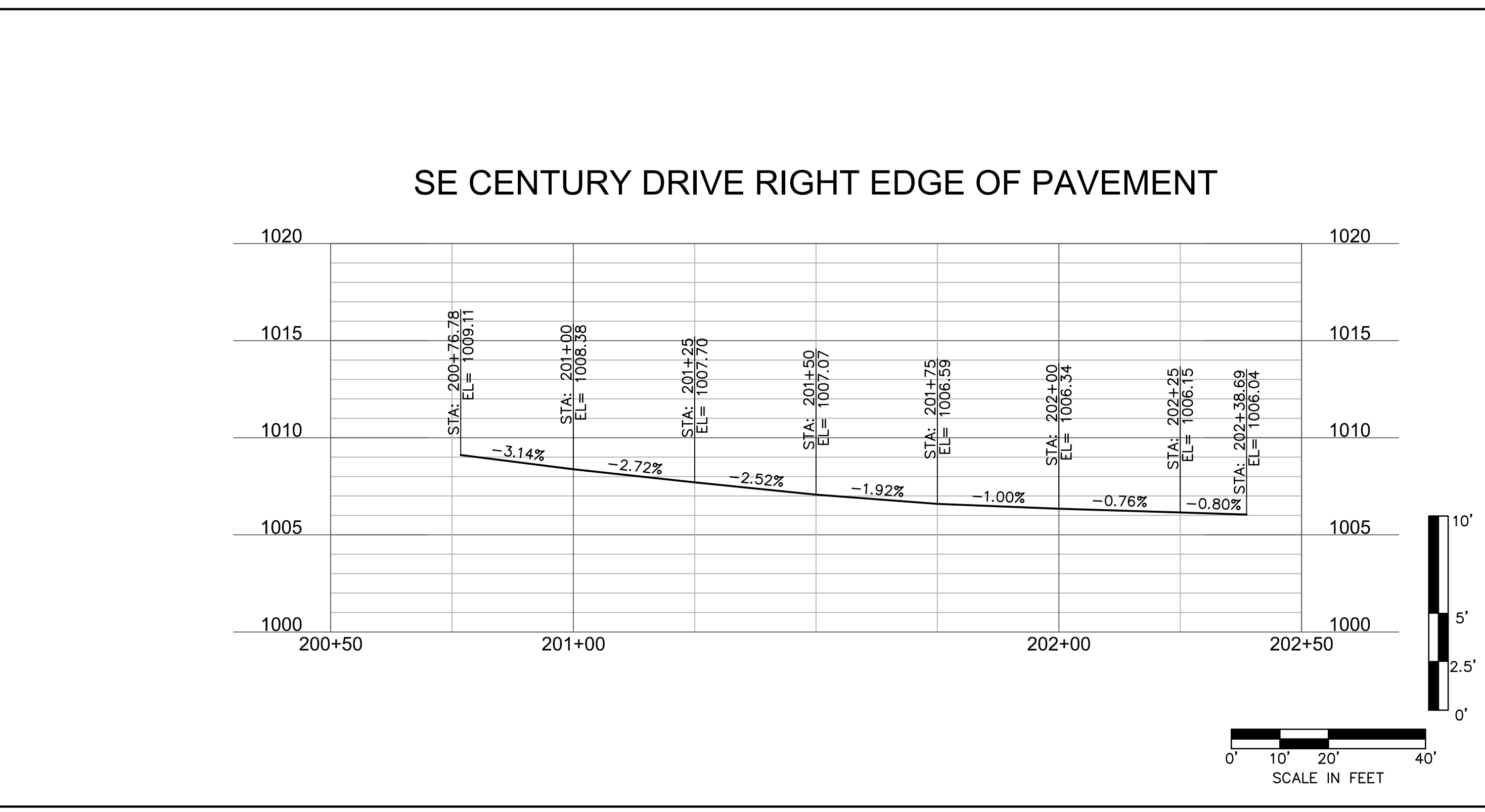
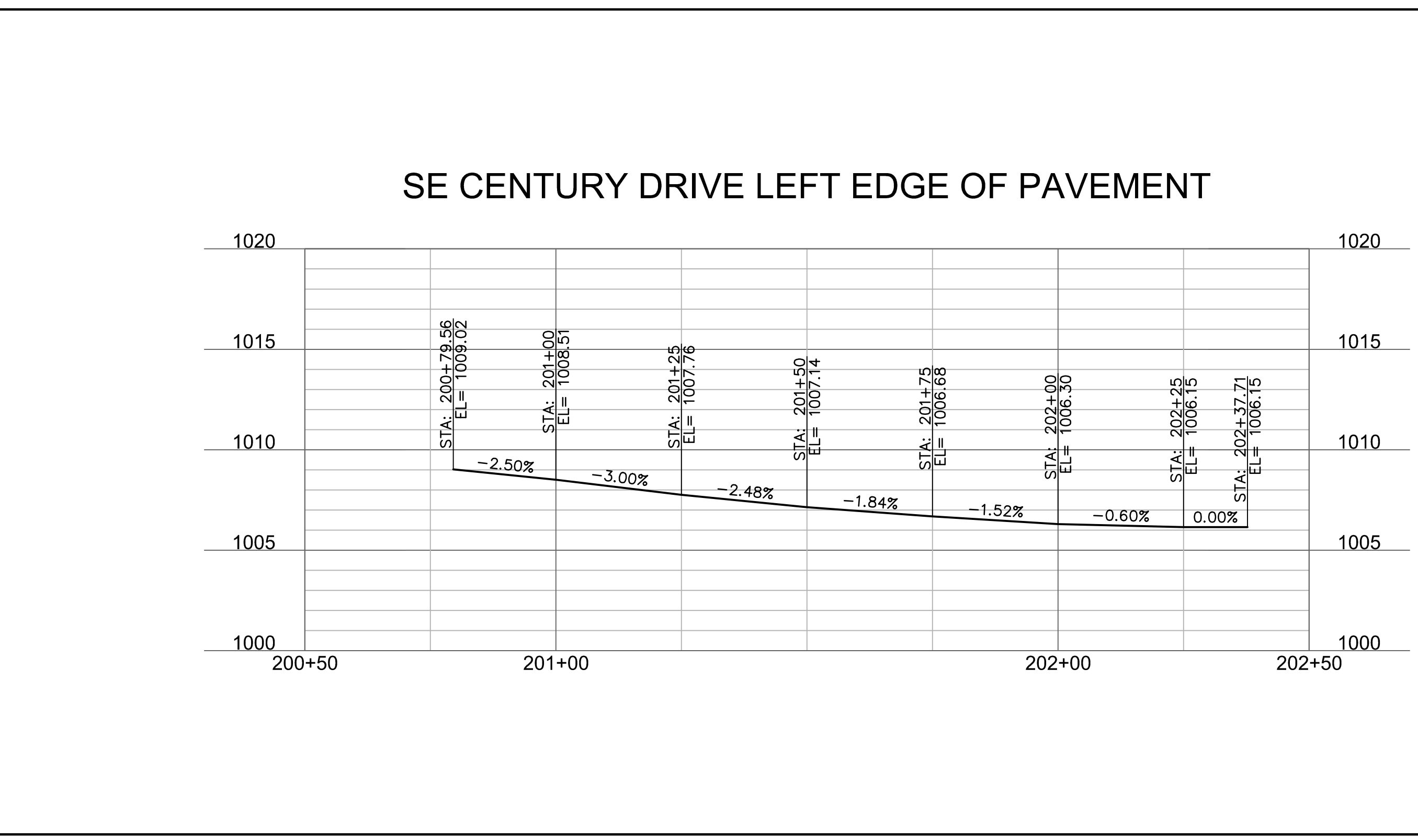
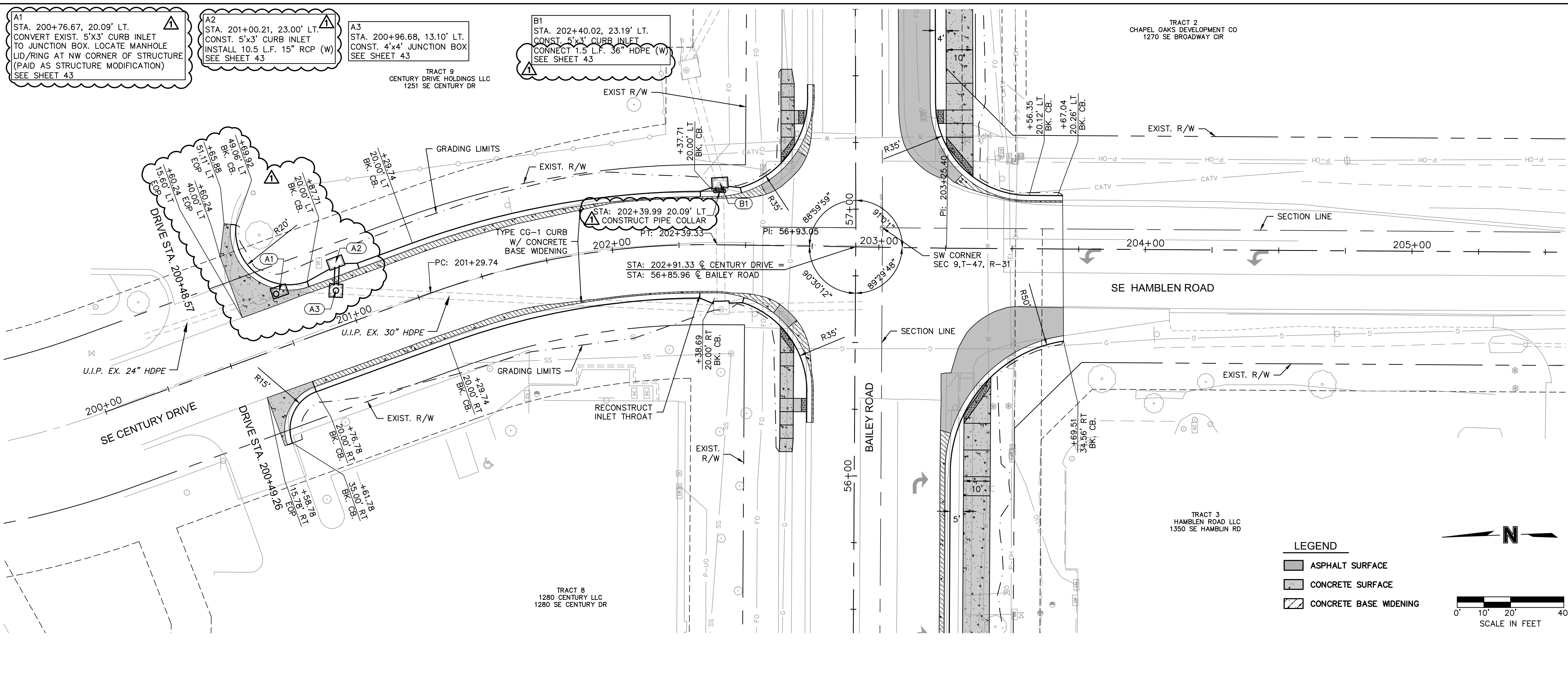
REVISIONS

2021

C.O.A. NO.: 001592  
DRAWN BY: MLW  
CHECKED BY: RPH  
APPROVED BY: RBE  
QA/QC BY: RBE  
PROJECT NO.: 020-0103  
DWG NO.: T\_RPP06\_0200103  
DATE: 2022-11-04

**SHEET 29 OF 101**

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDR\Lee Summit Plan Set - (Century and Middle School Drives)\PLAN & PROFILES\CENTURY DRIVE\T\_RPP10\_0200103.dwg  
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 USER: mrobertson



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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

PLAN & EDGE OF PAVEMENT PROFILE  
CENTURY DRIVE

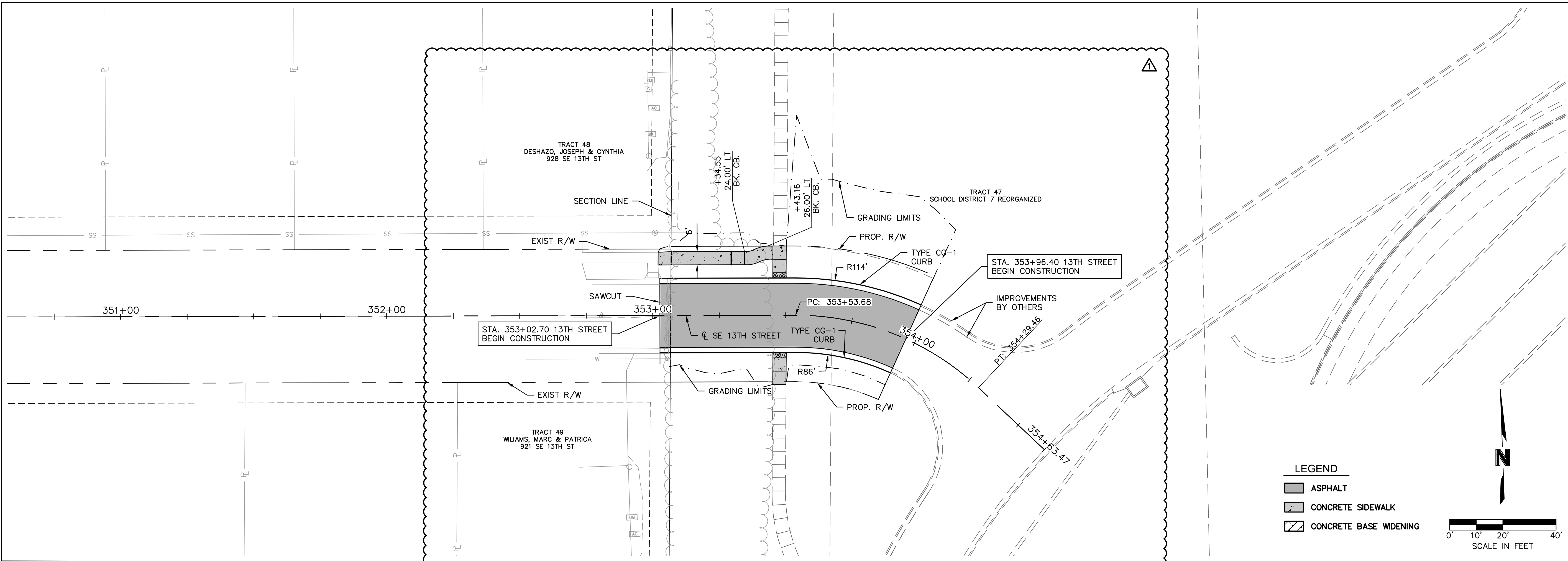
LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

C.O.A. NO.: 001592  
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 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_RPP10\_0200103  
 DATE: 2022-11-04

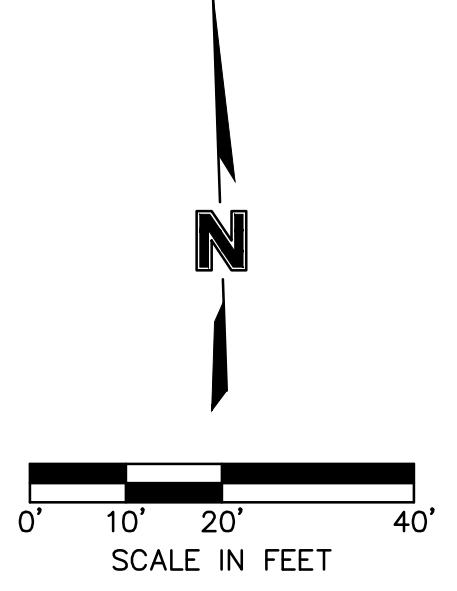
**SHEET**  
30 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDBR\Lee Summit Plan Set - (Century and Middle School Drives)\PLAN & PROFILES\SE 13TH STREET\T\_RPP07\_0200103.dwg  
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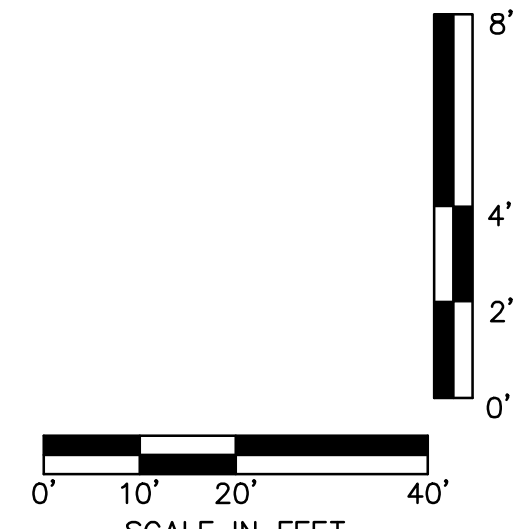
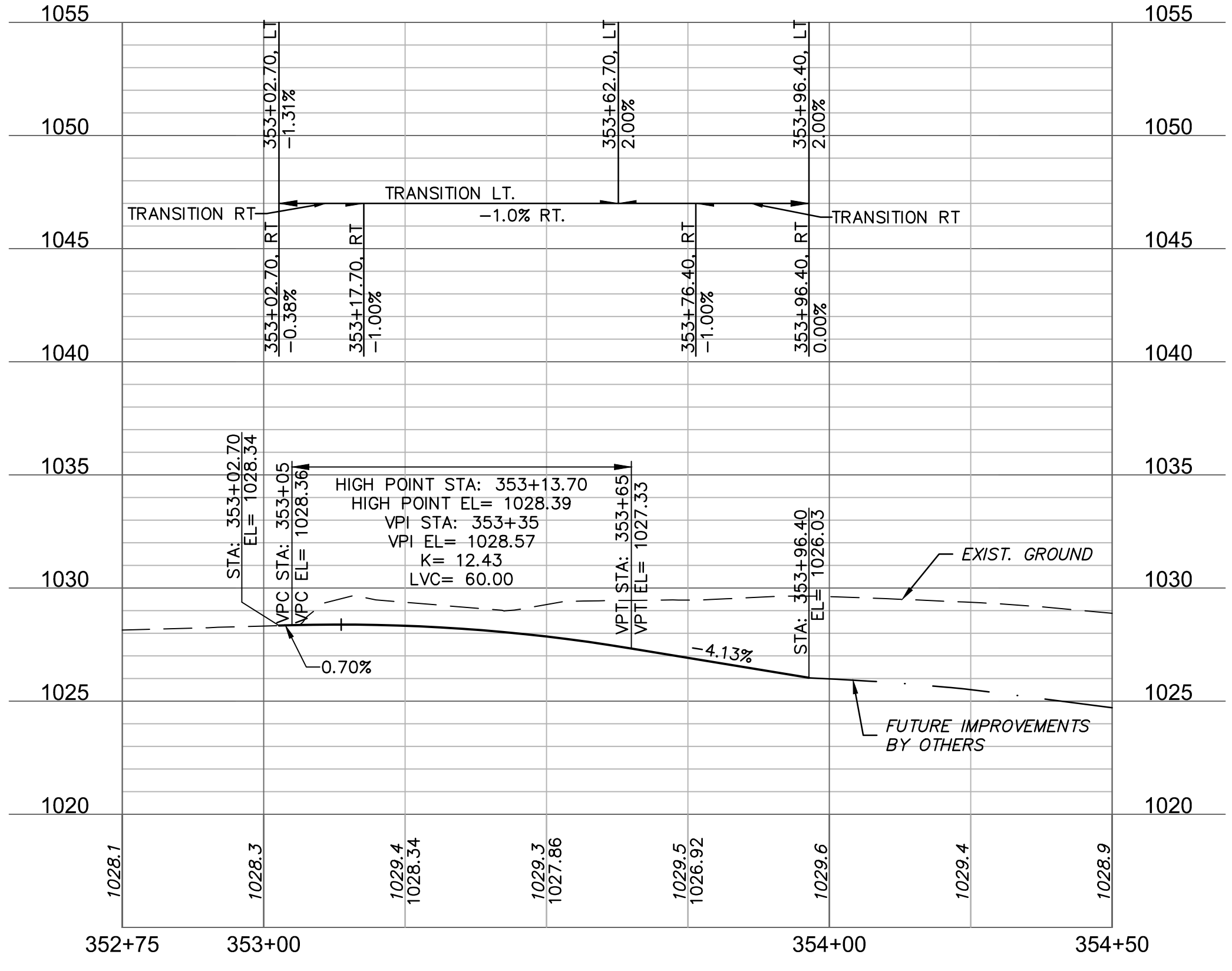


**LEGEND**

- ASPHALT
- CONCRETE SIDEWALK
- CONCRETE BASE WIDENING



**SE 13TH STREET**



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	05/11/2022	PLAN UPDATES	RPH

PLAN & PROFILE  
SE 13TH STREET

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

2021

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO.:	T_RPP07_0200103
DATE:	2022-11-04

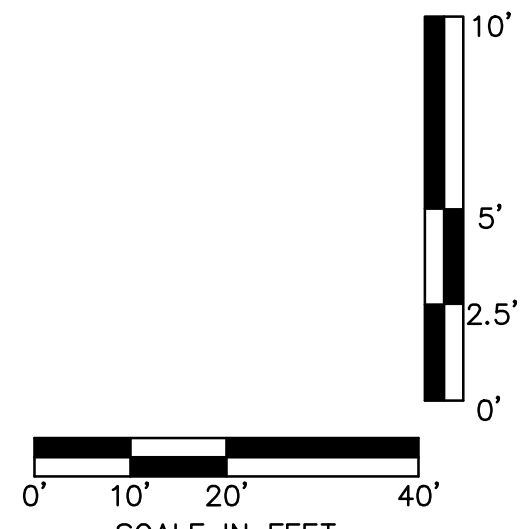
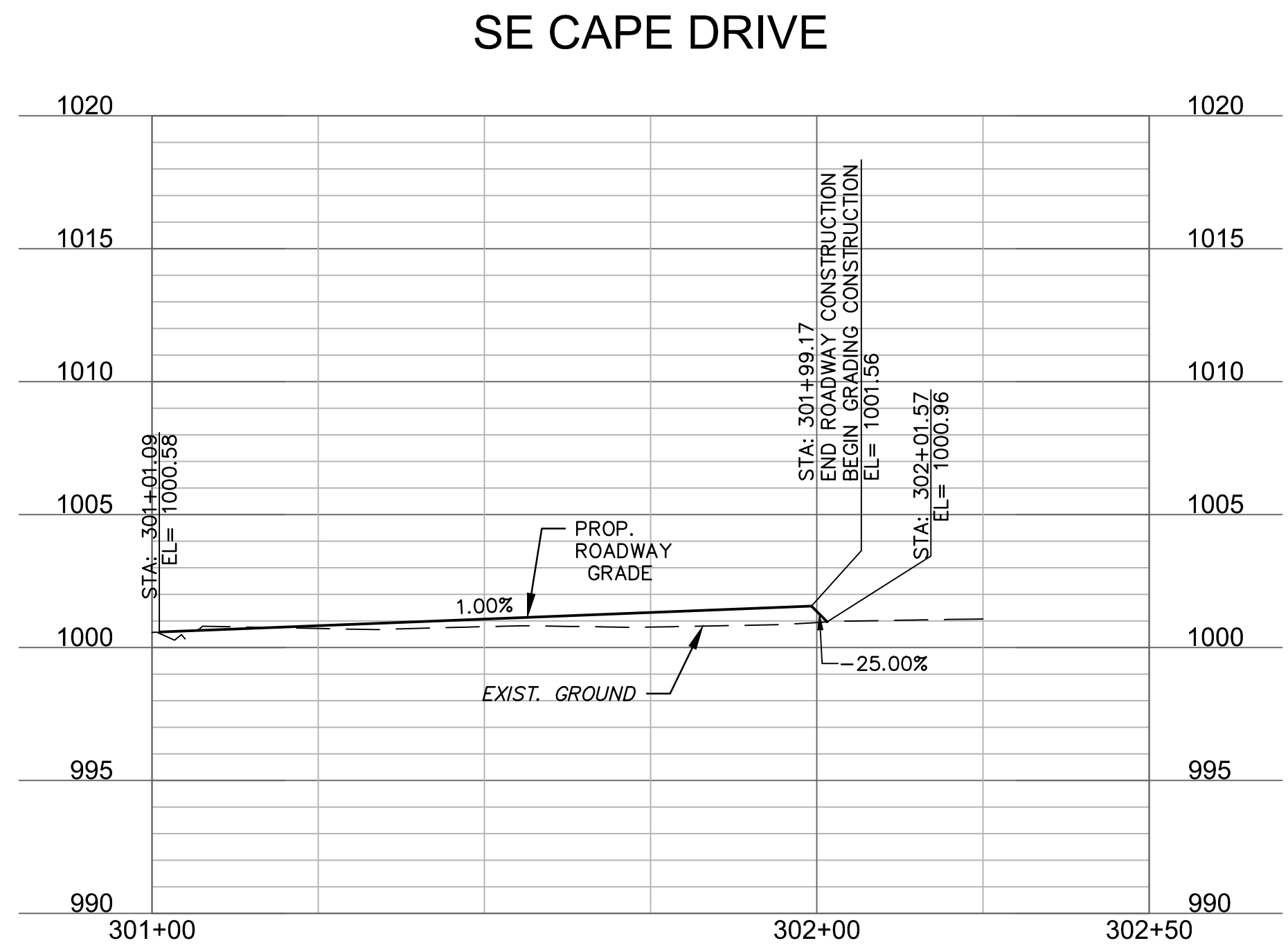
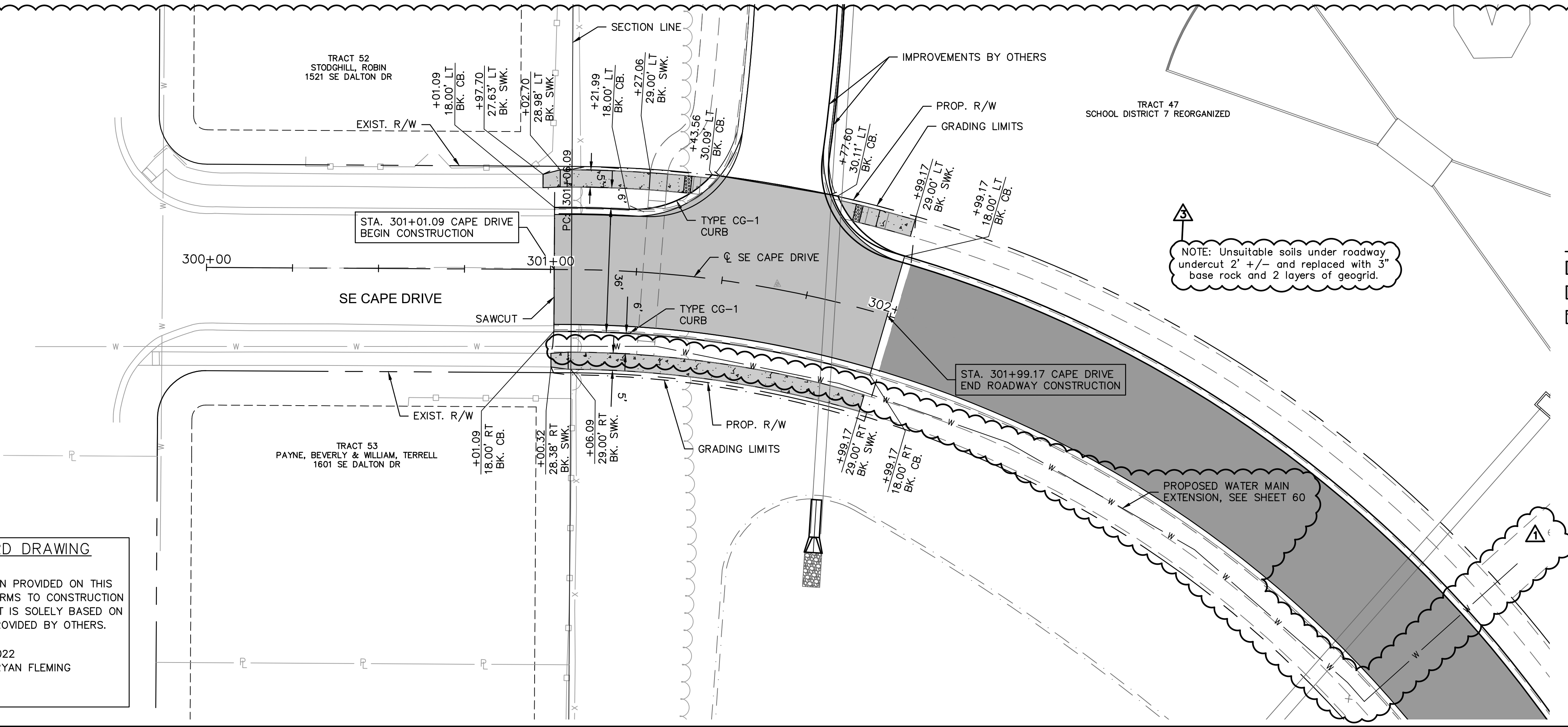
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**RECORD DRAWING**

THE INFORMATION PROVIDED ON THIS DRAWING CONFORMS TO CONSTRUCTION RECORDS AND IT IS SOLELY BASED ON INFORMATION PROVIDED BY OTHERS.

DATE: 11/04/2022  
 CERTIFIED BY: RYAN FLEMING  
 TITLE: ENGINEER  
 FIRM: OLSSON



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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH
3	11/04/2022	RECORD DRAWING REVISIONS	MAR

**REVISIONS**

NO.	DATE	DESCRIPTION

**PLAN & PROFILE**  
 SE CAPE DRIVE

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

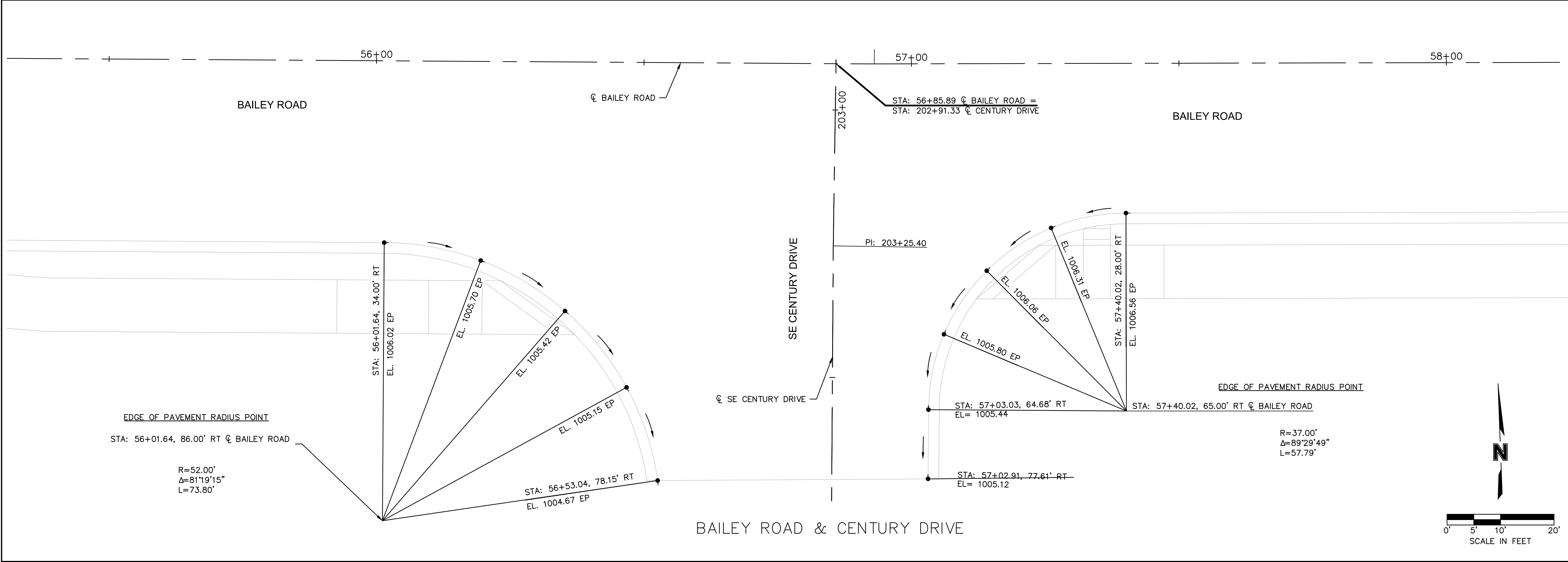
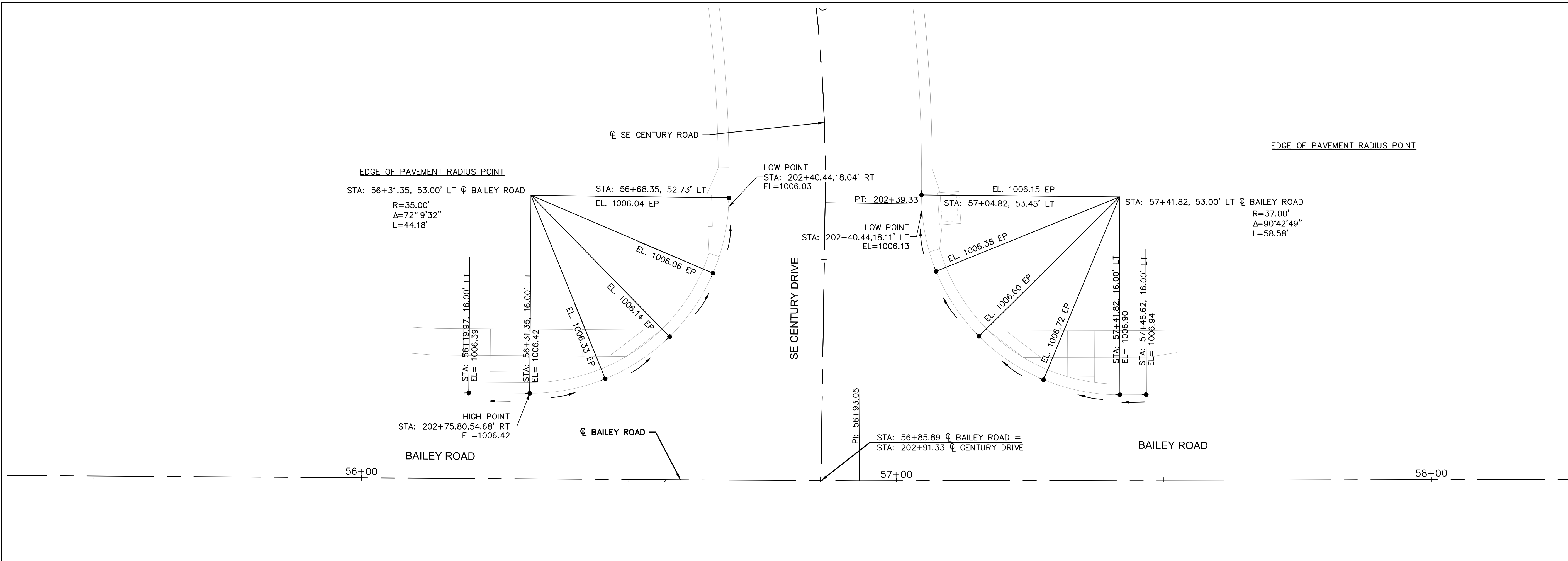
2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_RPP09\_0200103  
 DATE: 2022-11-04

**SHEET**  
 32 OF 101



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\RD\Lee Summit Plan Set - (Century and Middle School Drives)\INTERSECTION LAYOUTS\T\_INT01\_0200103.dwg  
 DATE: Nov 07, 2022 1:46pm XREFS: T\_PBASE\_0200103 T\_PALIGN\_0200103 T\_PTBLK\_0200103 T\_PSUFR\_0200103 USER: mrobertson



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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

INTERSECTION LAYOUTS

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

2021

C.O.A. NO.: 001592

DRAWN BY: MLW

CHECKED BY: RPH

APPROVED BY: RBE

QA/QC BY: RBE

PROJECT NO.: 020-0103

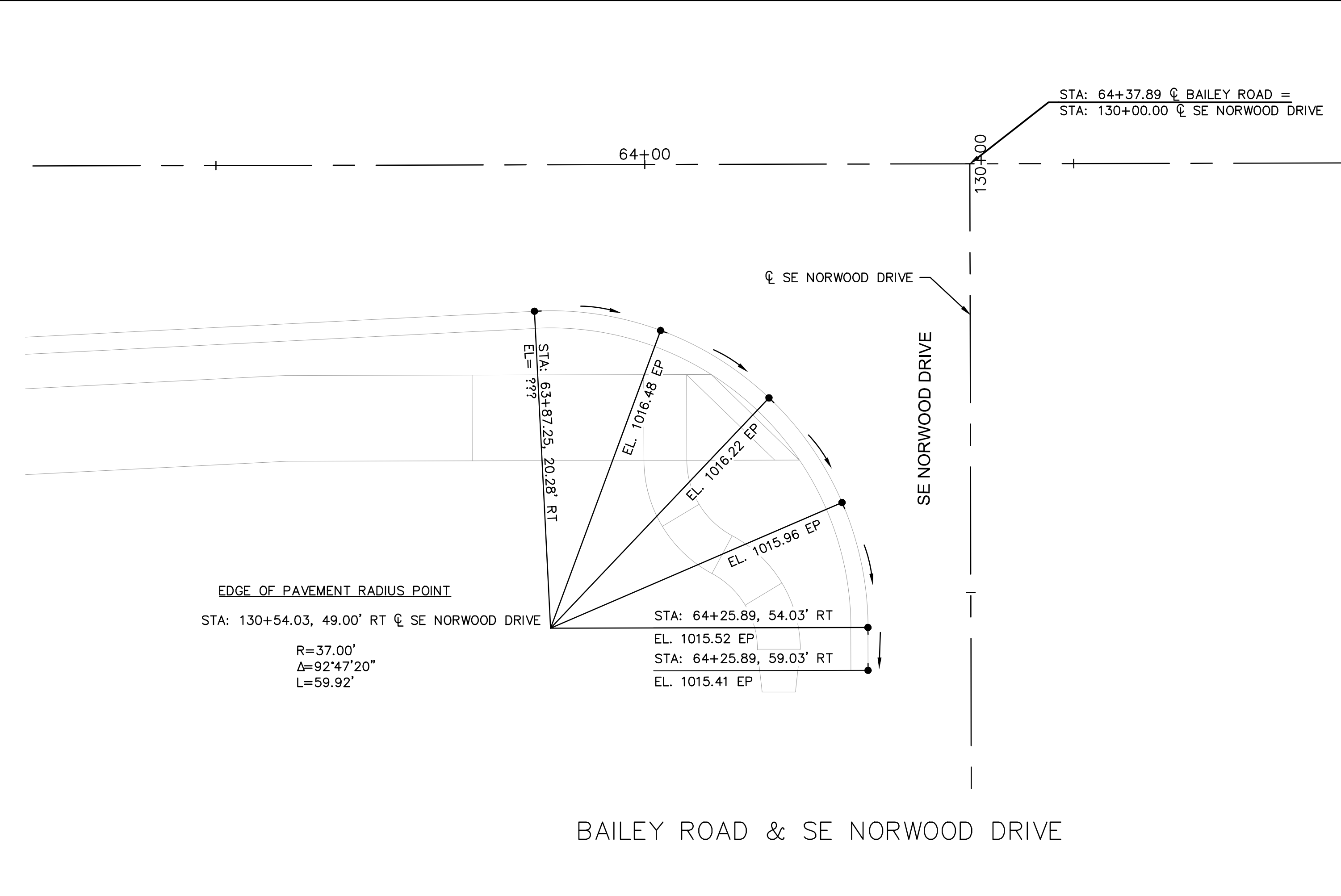
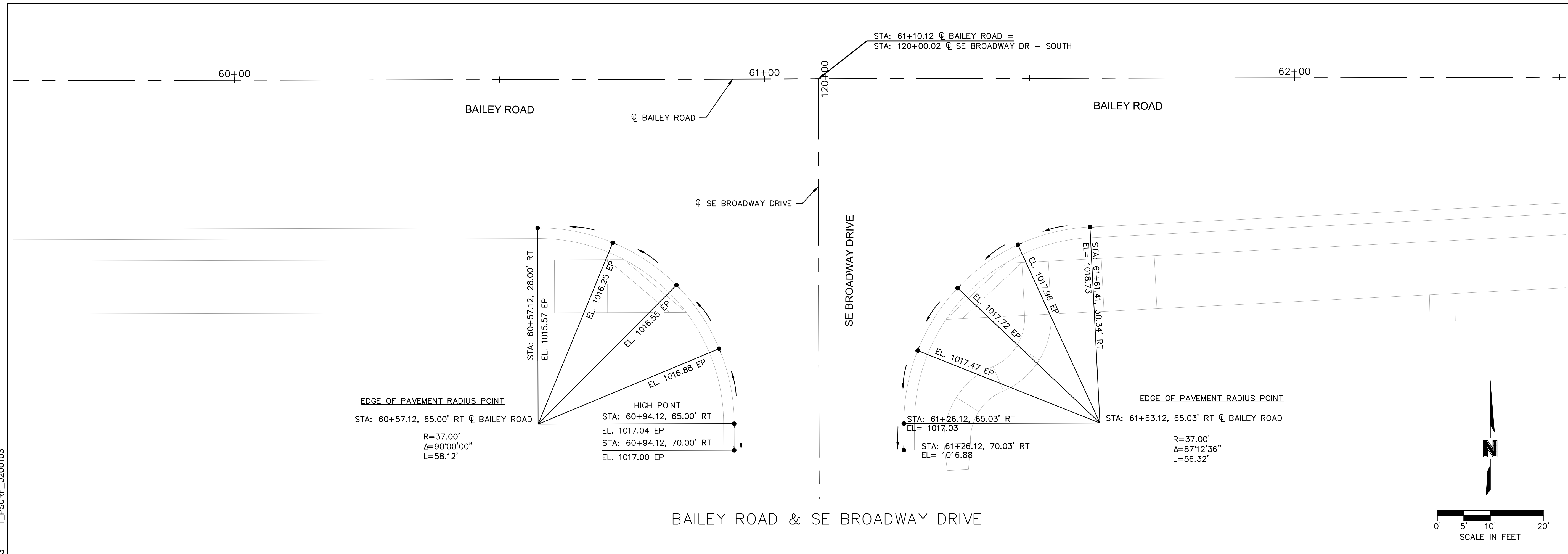
DWG NO.: T\_INT01\_0200103

DATE: 2022-11-04

LEE'S SUMMIT, MISSOURI

SHEET 33 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDBR\Lee Summit Plan Set - (Century and Middle School Drives)\INTERSECTION LAYOUTS\T\_INT01\_0200103.dwg  
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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

INTERSECTION LAYOUTS

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

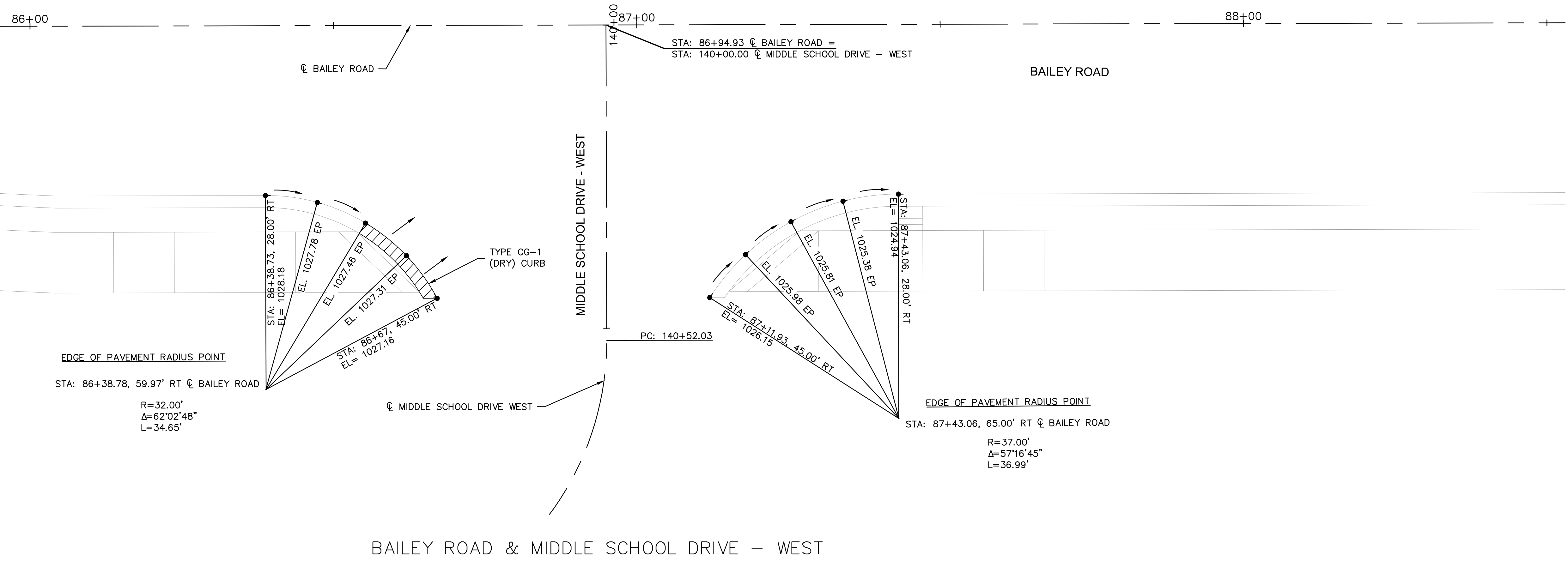
LEE'S SUMMIT, MISSOURI

2021

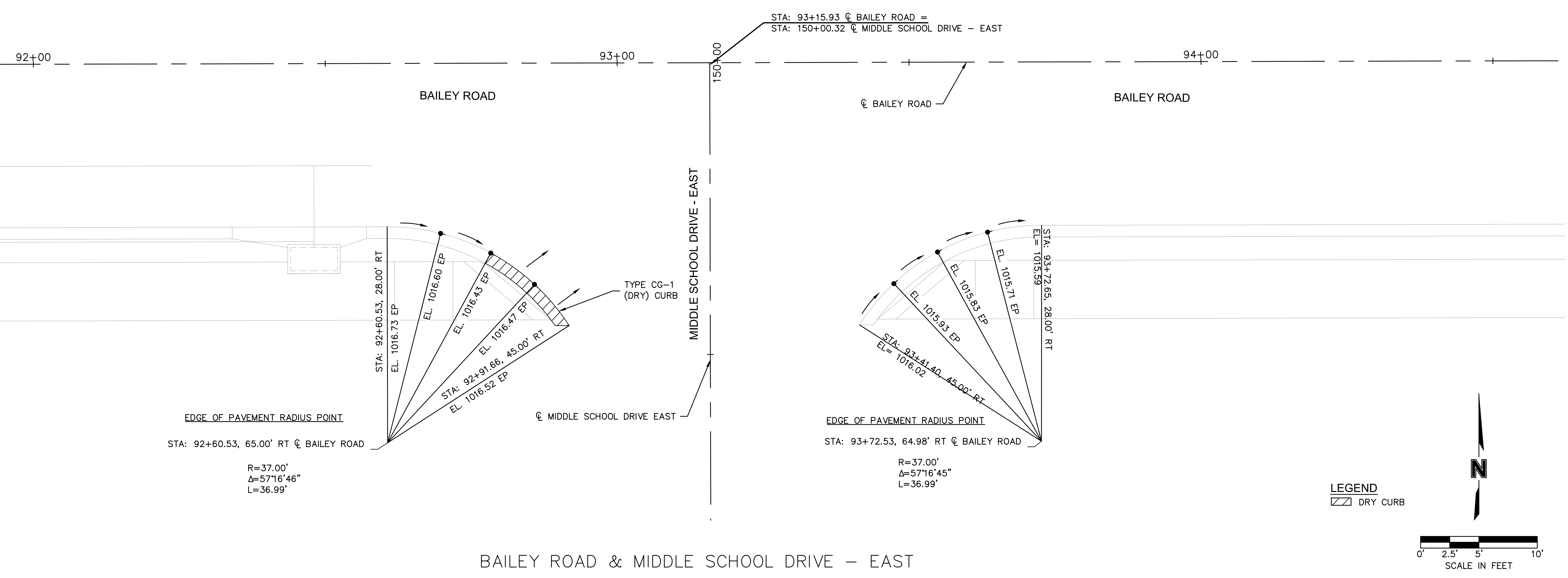
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 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_INT01\_0200103  
 DATE: 2022-11-04

SHEET  
 34 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RD\Lee Summit Plan Set - (Century and Middle School Drives)\INTERSECTION LAYOUTS\T\_INT01\_0200103.dwg  
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 USER: mrobertson

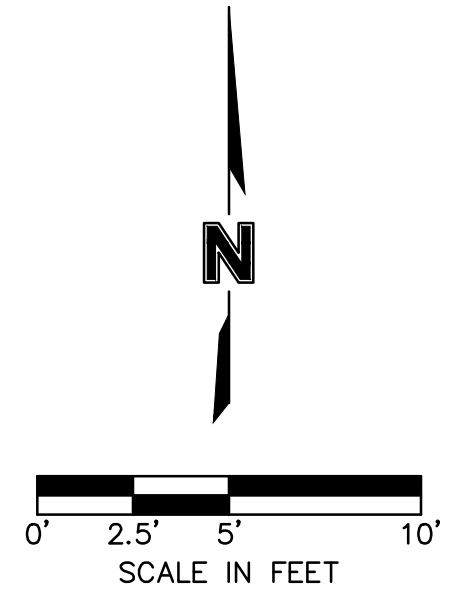


BAILEY ROAD & MIDDLE SCHOOL DRIVE - WEST



BAILEY ROAD & MIDDLE SCHOOL DRIVE - EAST

LEGEND  
 [Symbol] DRY CURB



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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

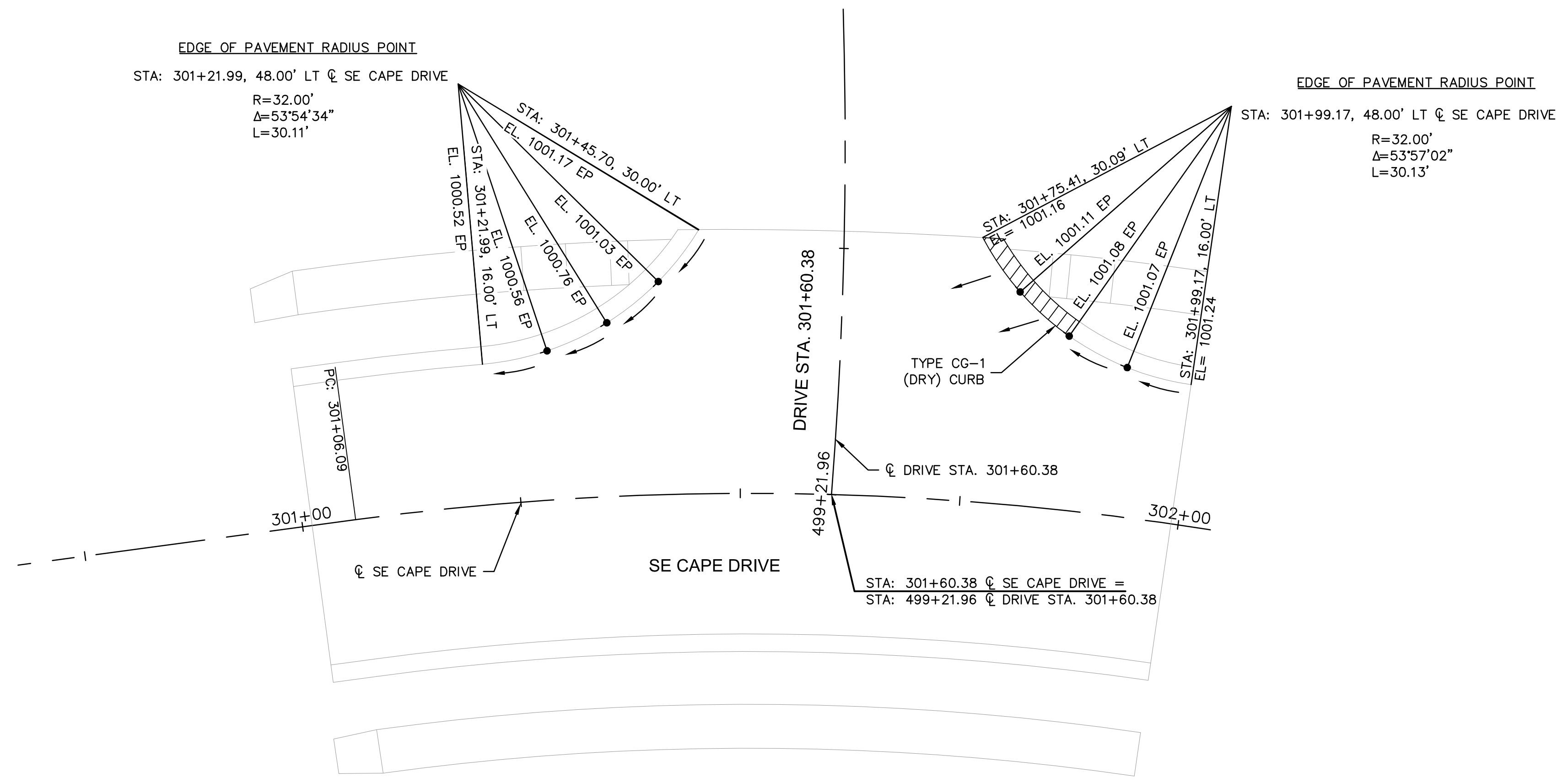
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 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

2021

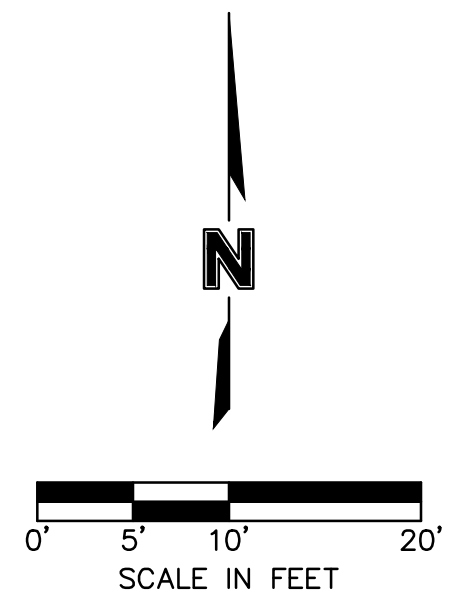
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 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_INT01\_0200103  
 DATE: 2022-11-04

SHEET  
 35 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RD\Lee Summit Plan Set - (Century and Middle School Drives)\INTERSECTION LAYOUTS\T\_INT01\_0200103.dwg  
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LEGEND  
 DRY CURB



SE CAPE DRIVE & MIDDLE SCHOOL DRIVE

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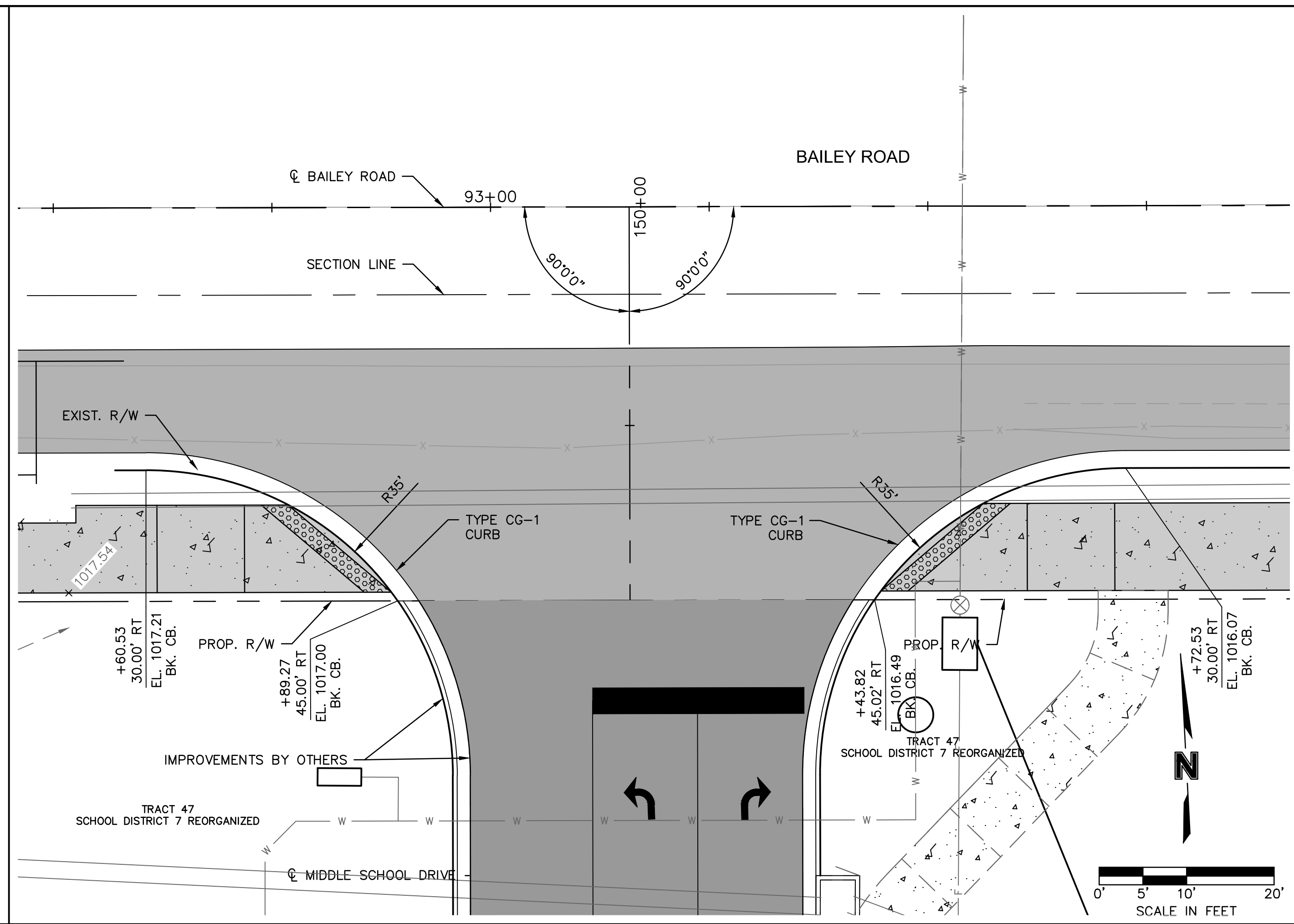
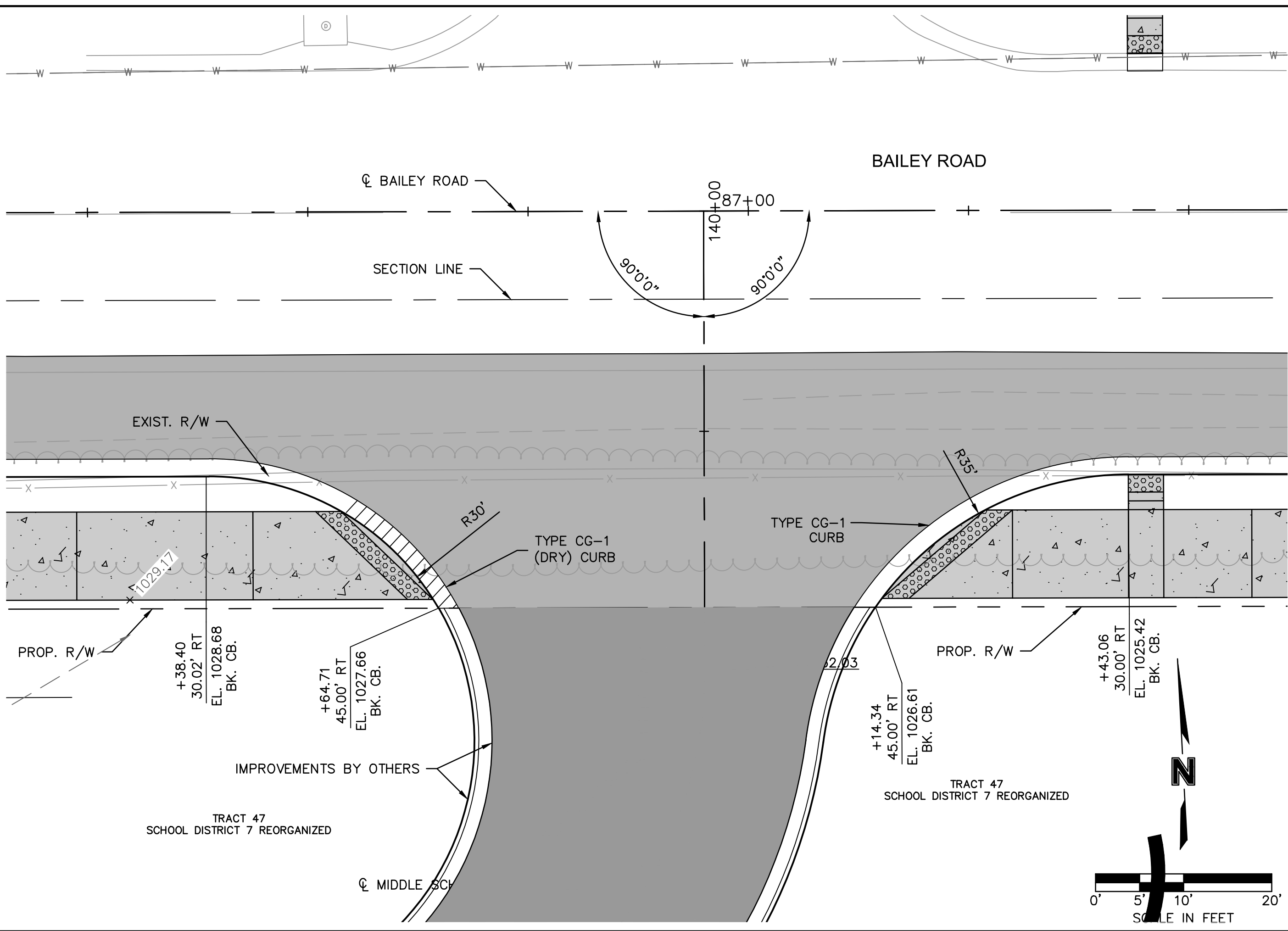
**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

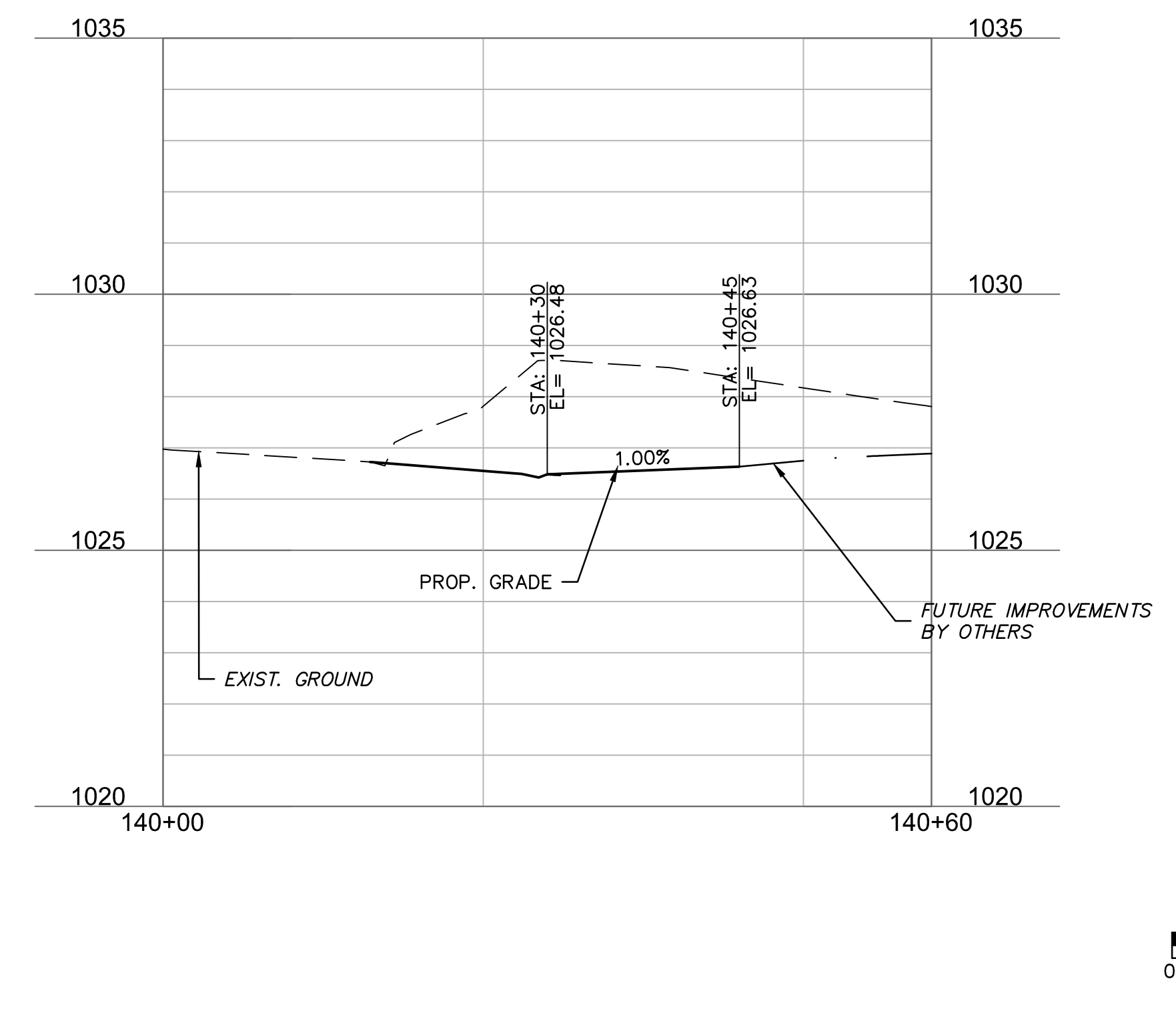
INTERSECTION LAYOUTS	2021
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_INT01\_0200103  
 DATE: 2022-11-04

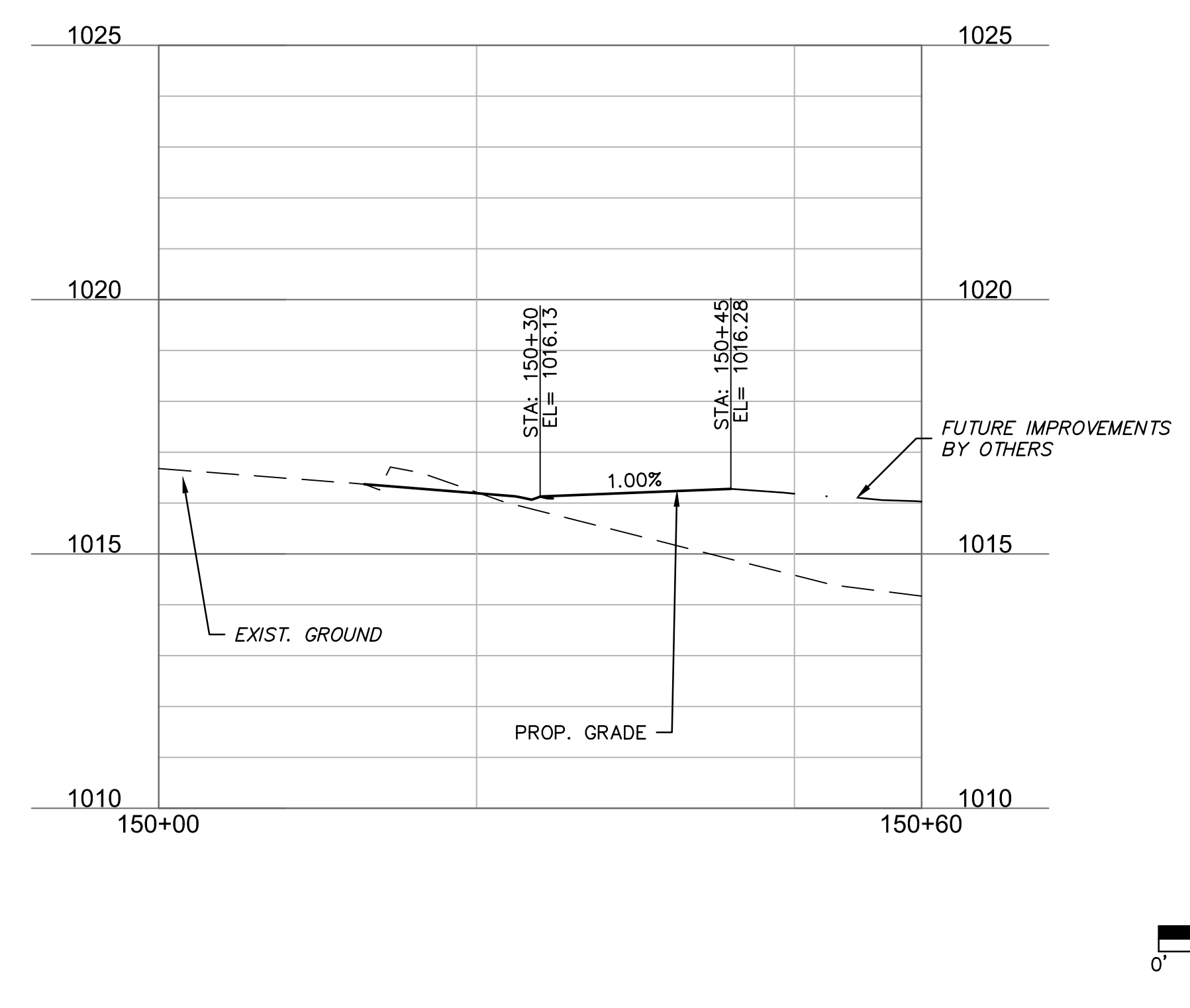
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 USER: mrobertson  
 C:\BASE\_0200103



MIDDLE SCHOOL DRIVE - WEST



MIDDLE SCHOOL DRIVE - EAST



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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION

DRIVEWAY LAYOUT

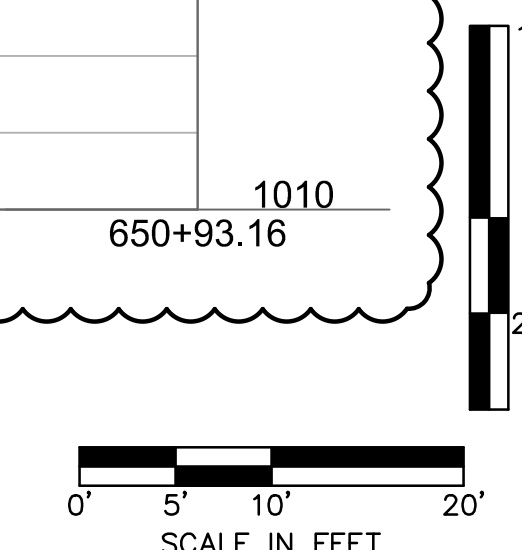
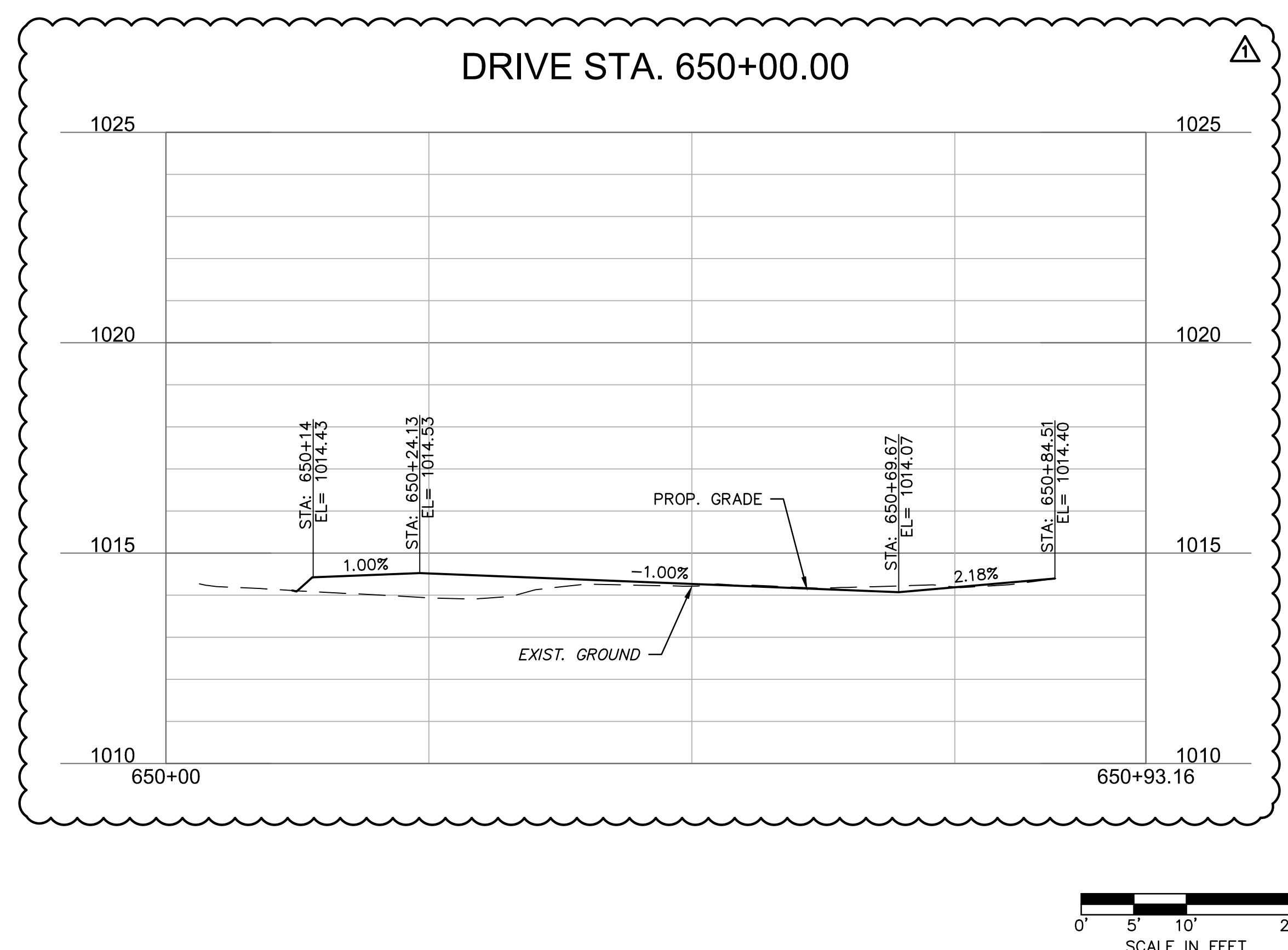
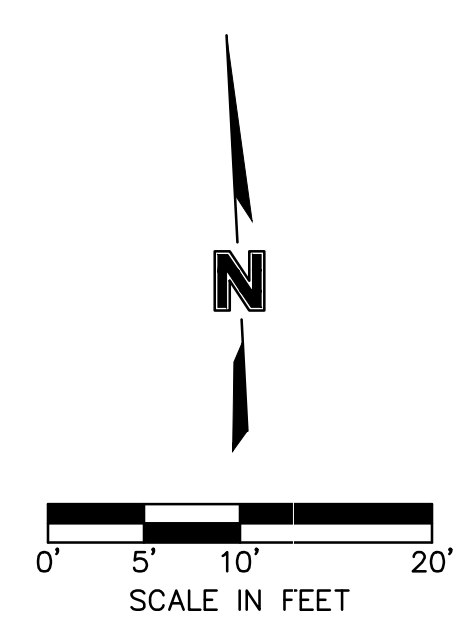
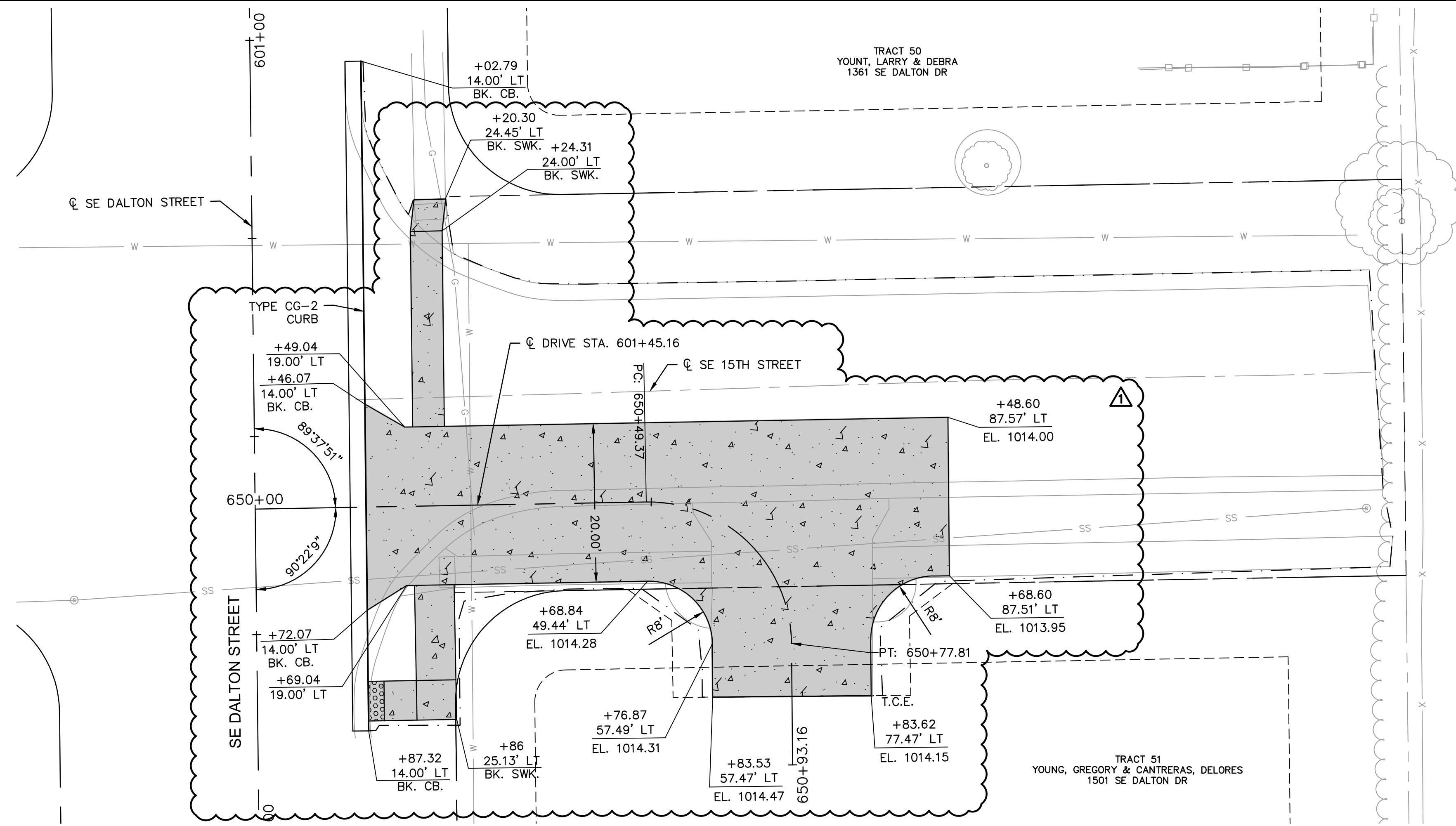
LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO.:	T_PDRIV_0200103
DATE:	2022-11-04

SHEET 37 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RDBR\Lee Summit Plan Set - (Century and Middle School Drives)\DRIVE LAYOUTS\T\_PDRIV\_0200103.dwg  
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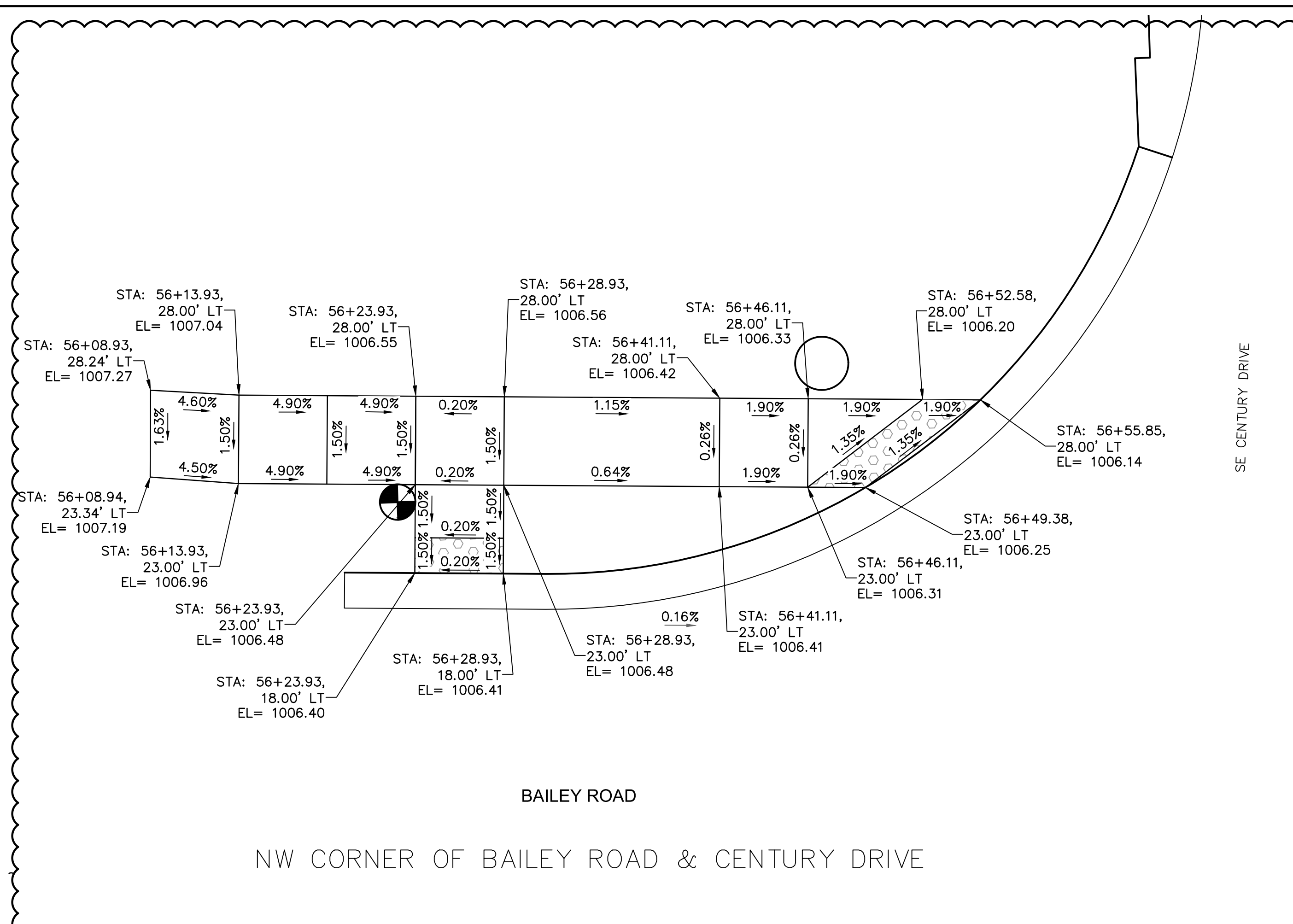
**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

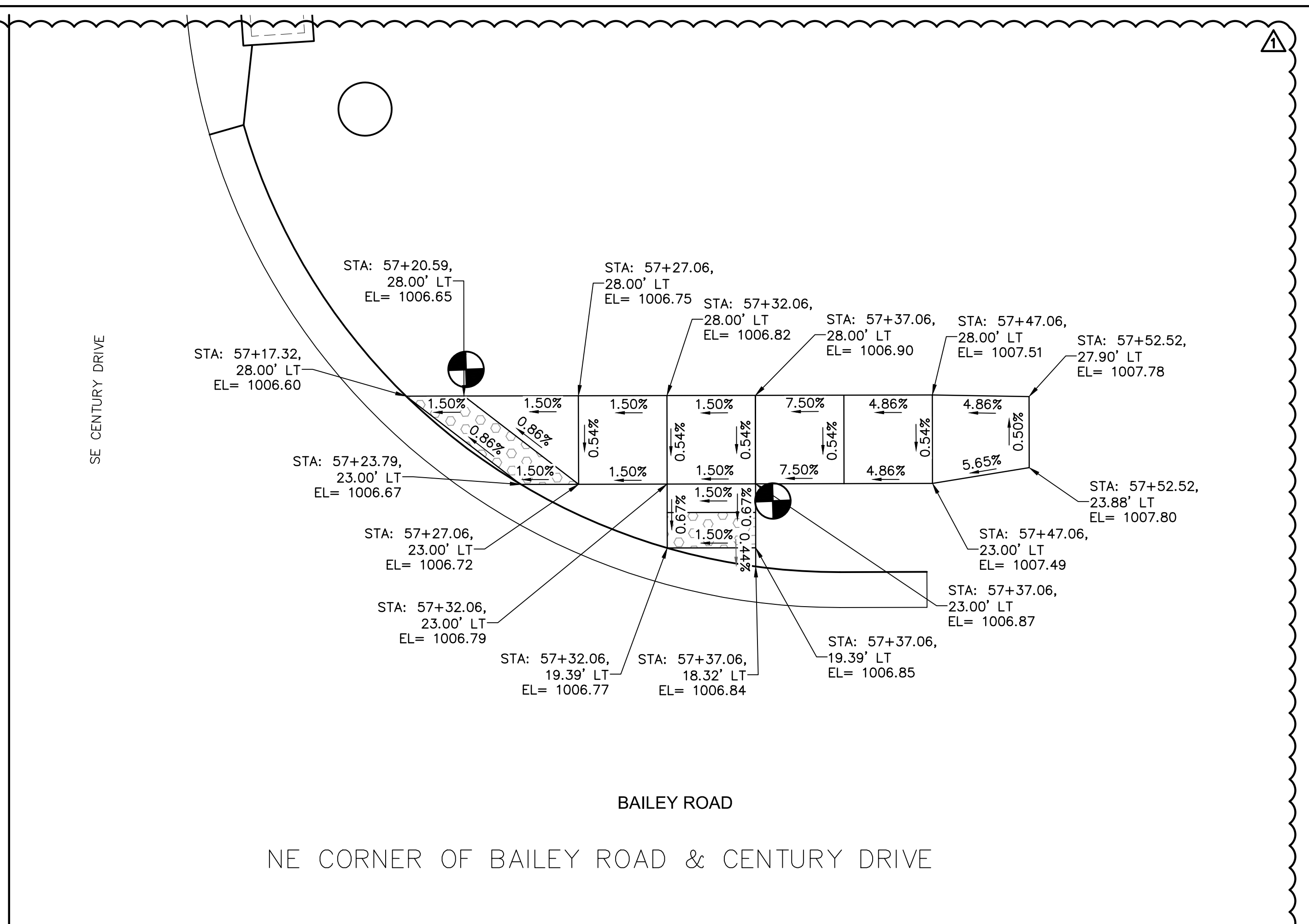
DRIVEWAY LAYOUT	2021
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_PDRIV\_0200103  
 DATE: 2022-11-04

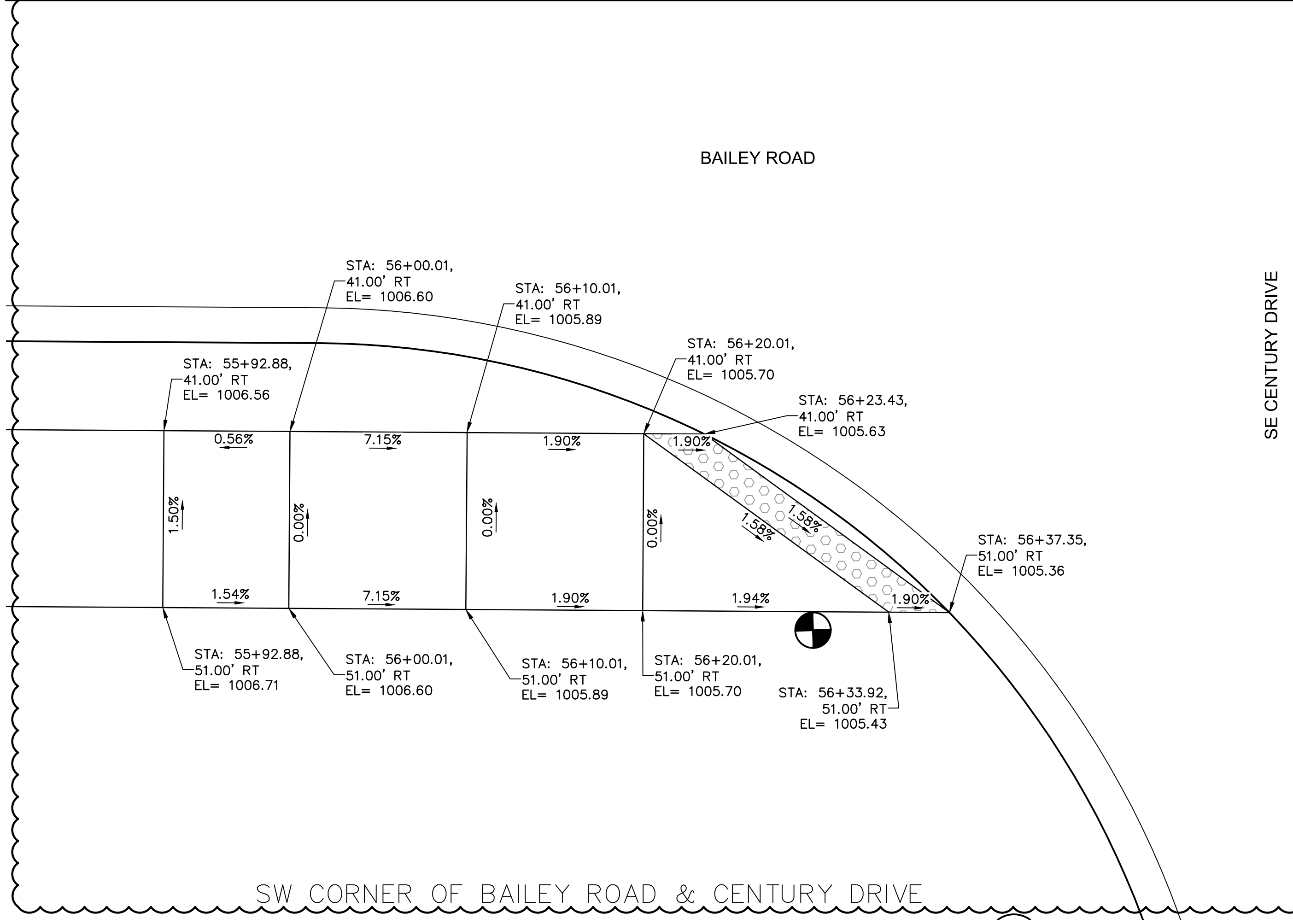
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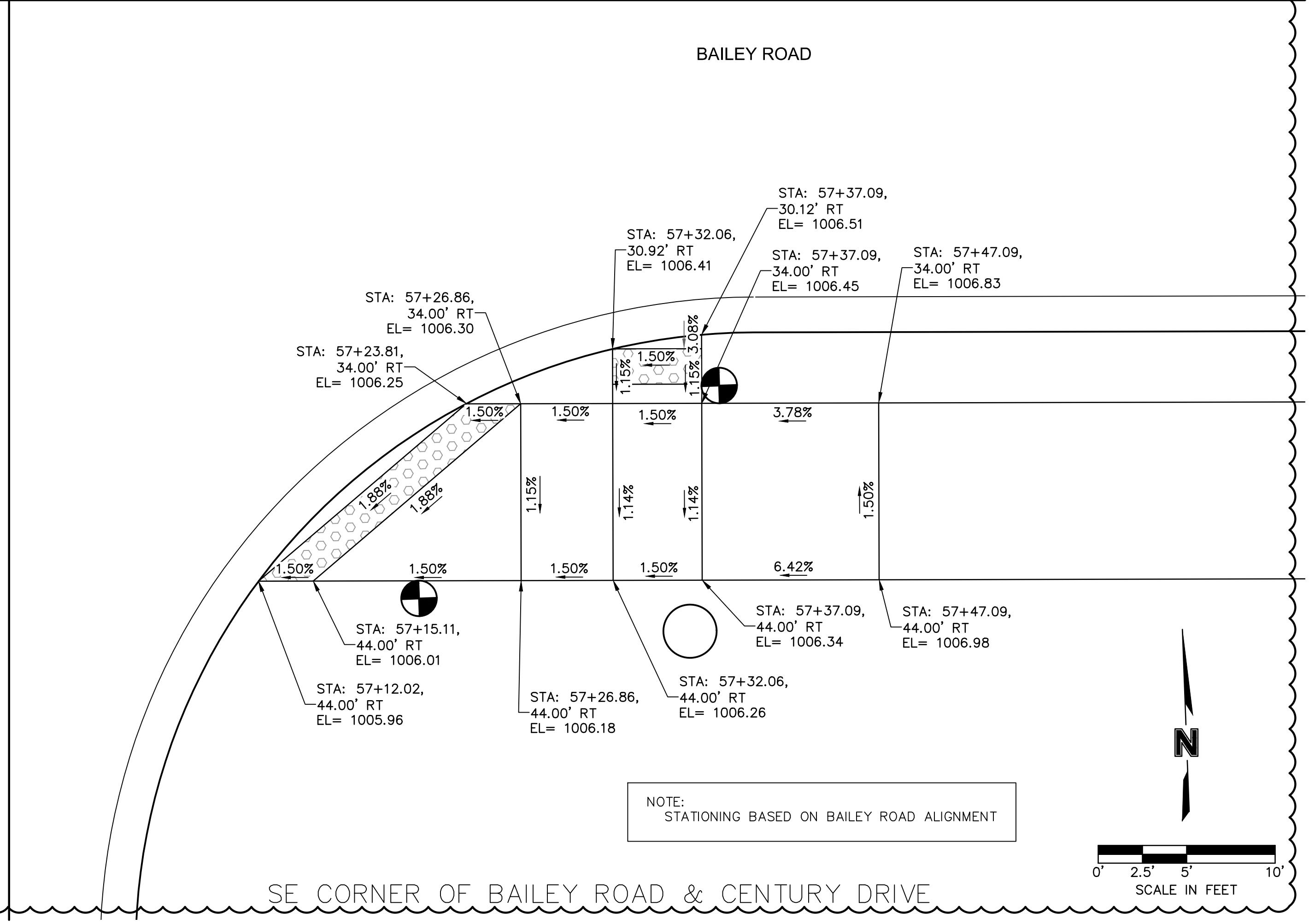
NW CORNER OF BAILEY ROAD & CENTURY DRIVE



NE CORNER OF BAILEY ROAD & CENTURY DRIVE

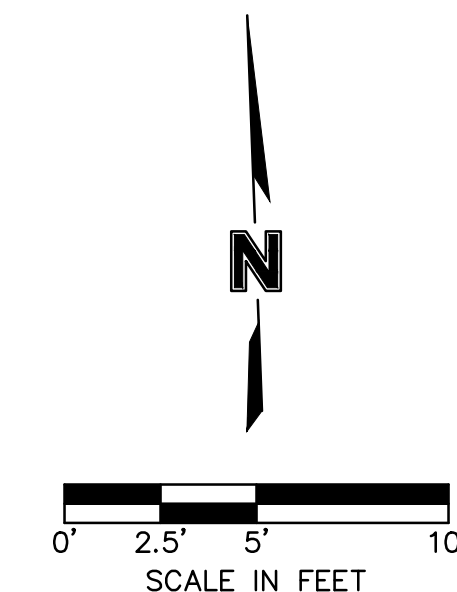


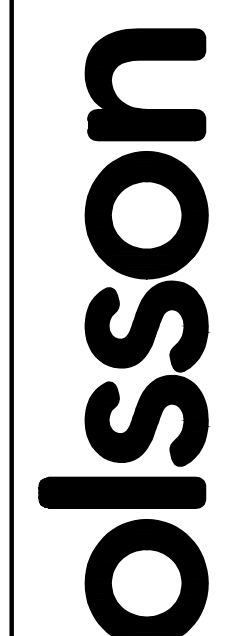
SW CORNER OF BAILEY ROAD & CENTURY DRIVE



SE CORNER OF BAILEY ROAD & CENTURY DRIVE

NOTE: STATIONING BASED ON BAILEY ROAD ALIGNMENT





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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

SIDEWALK LAYOUTS

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

REVISIONS

2021

C.O.A. NO.: 001592	DRAWN BY: MLW	CHECKED BY: RPH
APPROVED BY: RBE	QA/QC BY: RBE	PROJECT NO.: 020-0103
DWG NO.: I_SWK01_0200103_LS	DATE: 2022-11-04	

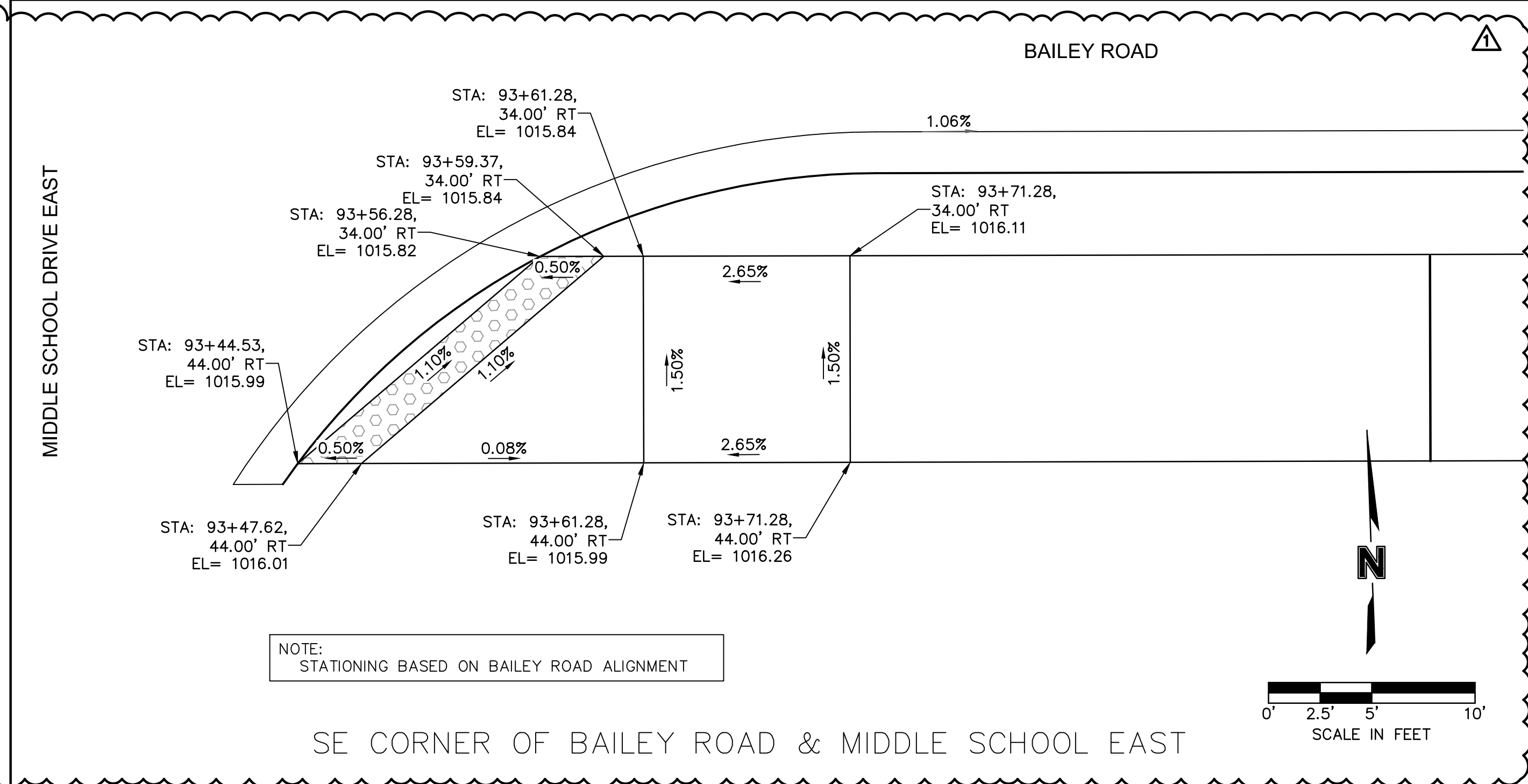
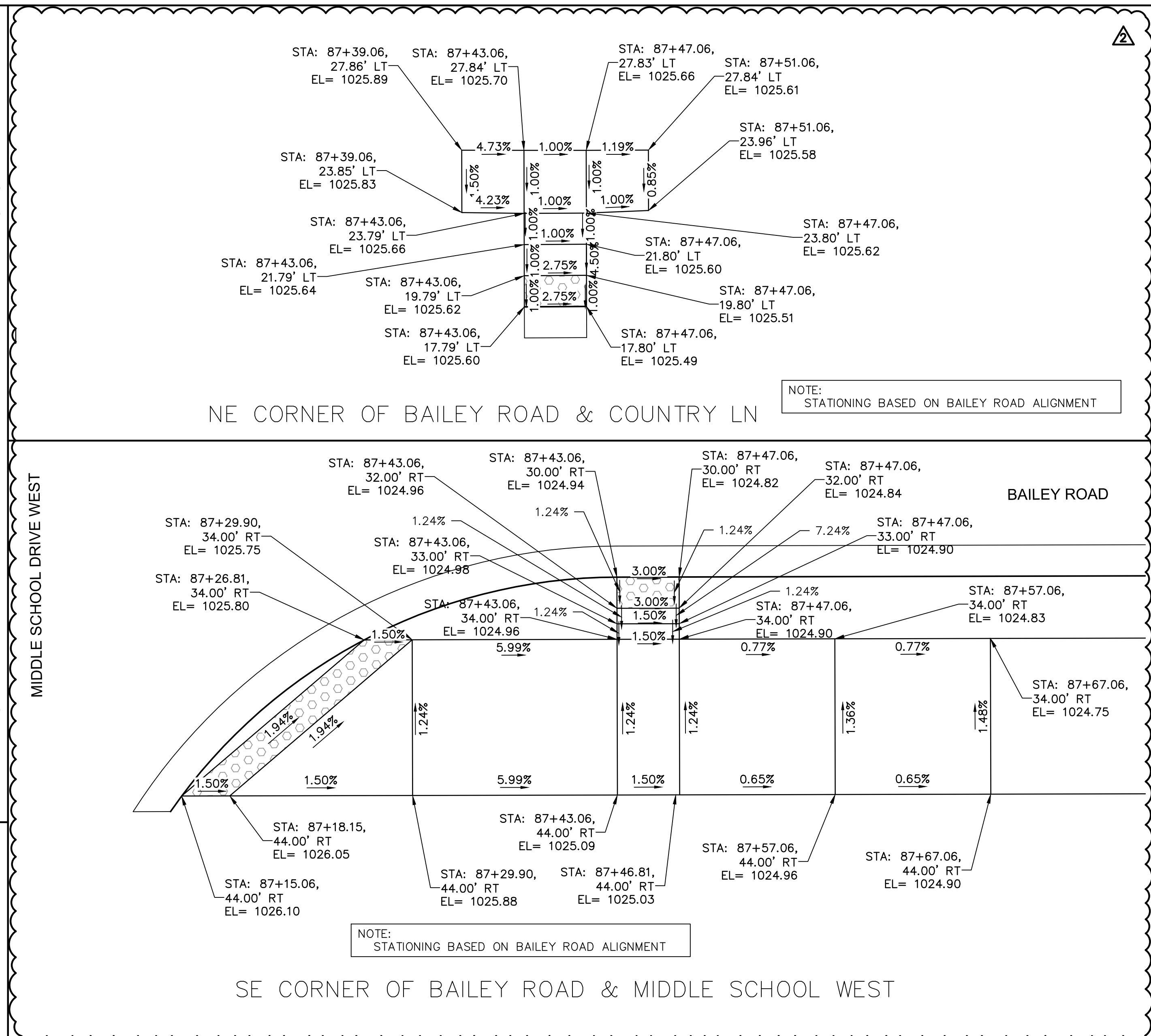
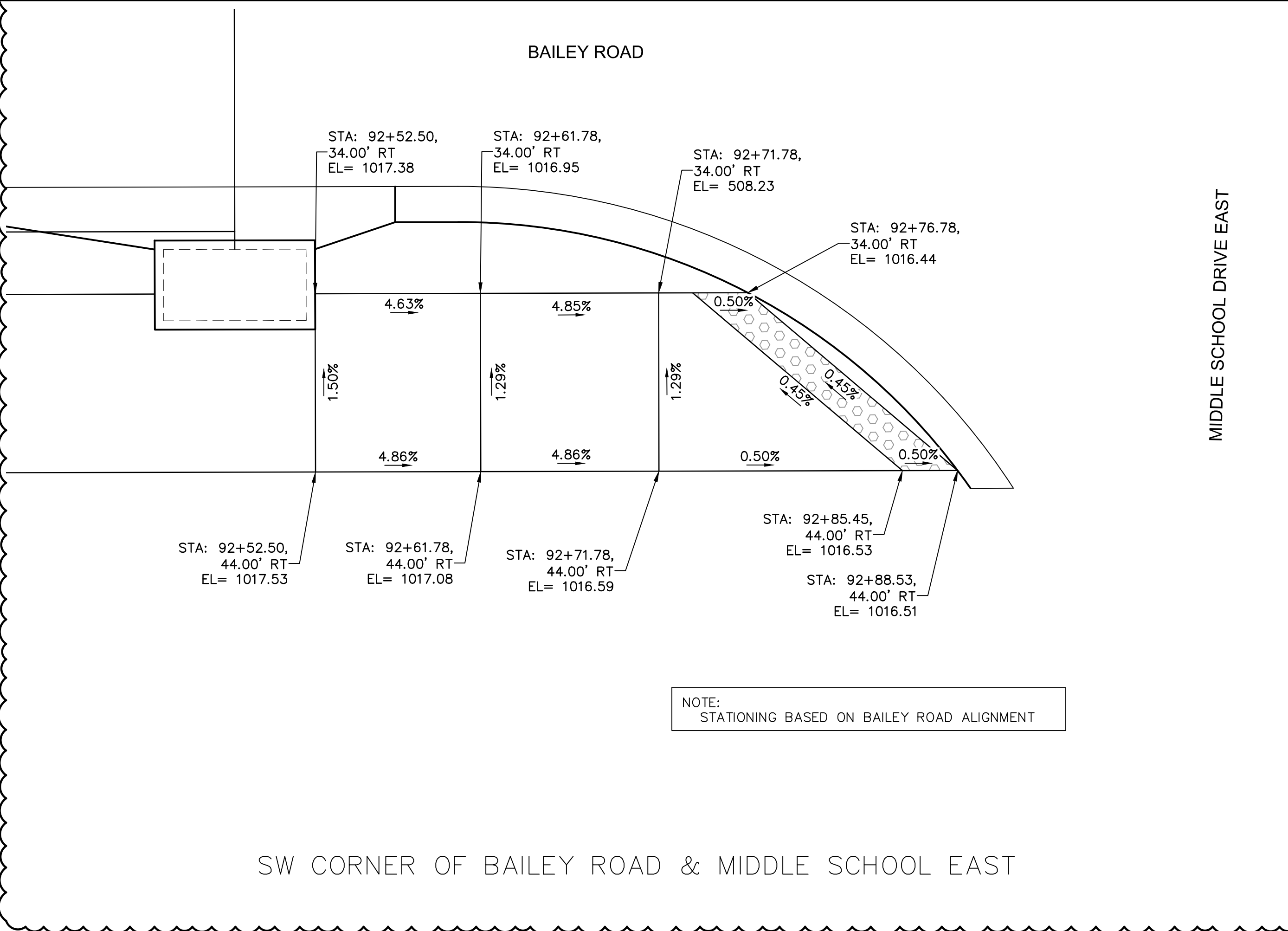
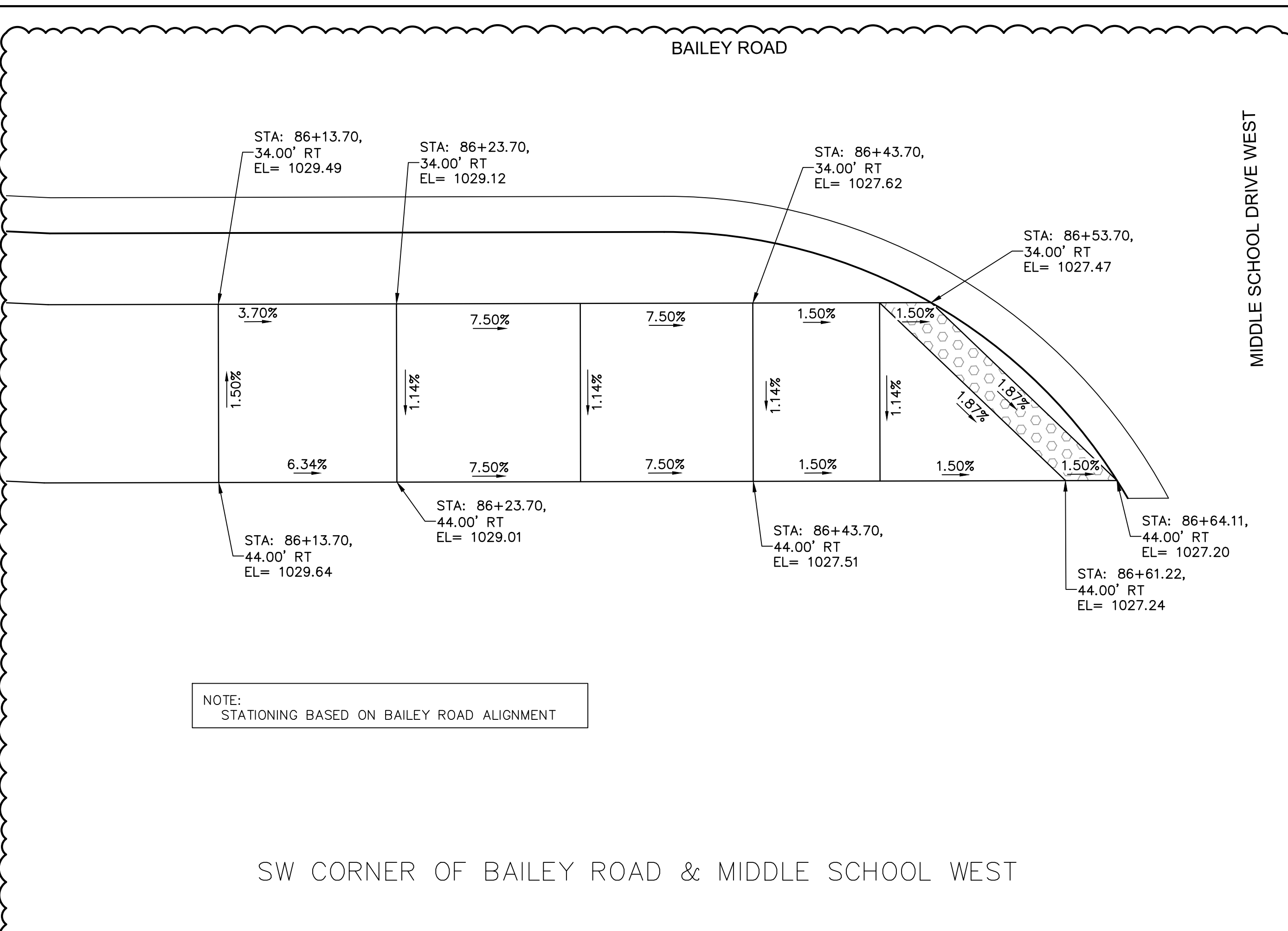
SHEET

39 OF 101





DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RD\Lee Summit Plan Set - (Century and Middle School Drives)\SIDEWALK RAMP LAYOUTS\I\_SWK01\_0200103\_LS.dwg  
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 USER: mrobertson



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RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH
2	03/11/2022	ASI #47	RPH

SIDEWALK LAYOUTS

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

C.O.A. NO.: 001592

DRAWN BY: MLW

CHECKED BY: RPH

APPROVED BY: RBE

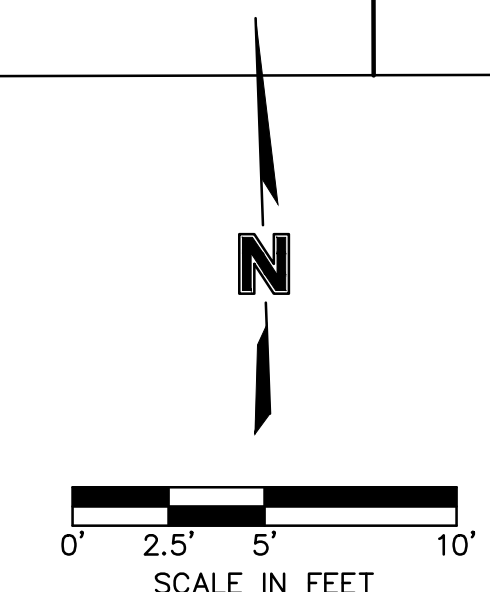
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PROJECT NO.: 020-0103

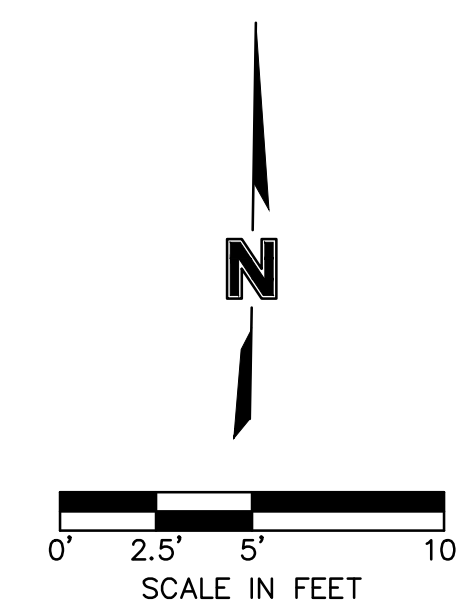
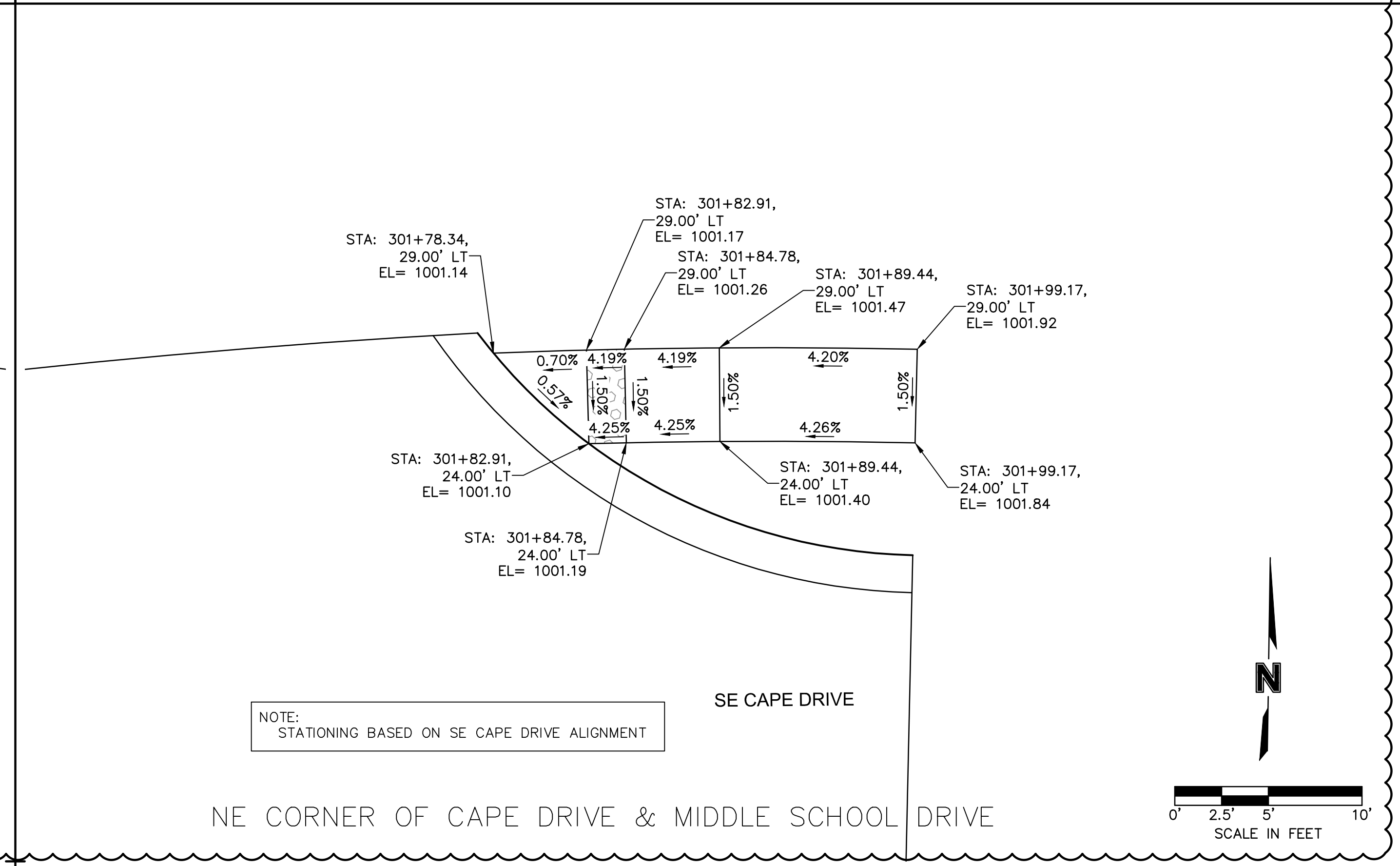
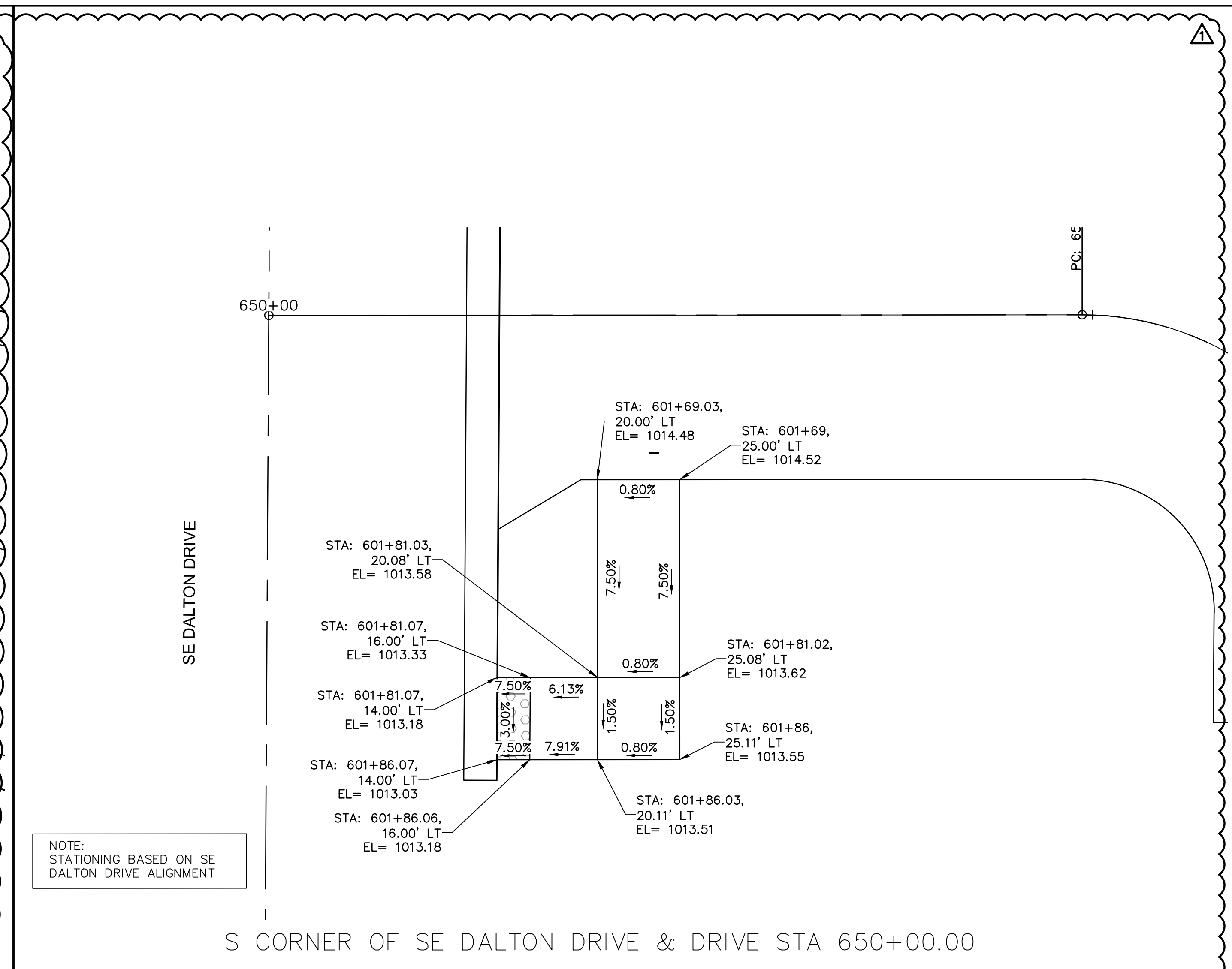
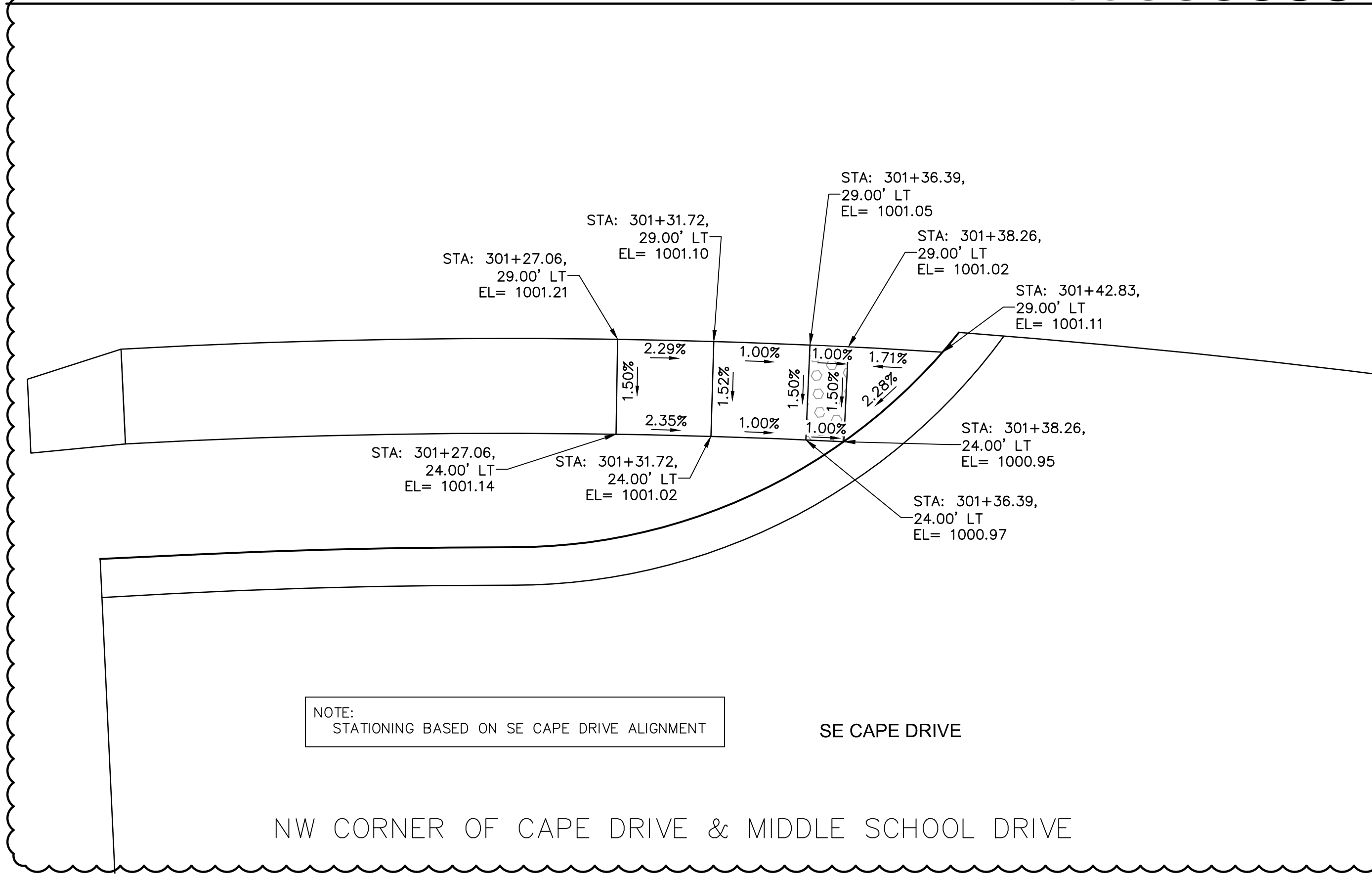
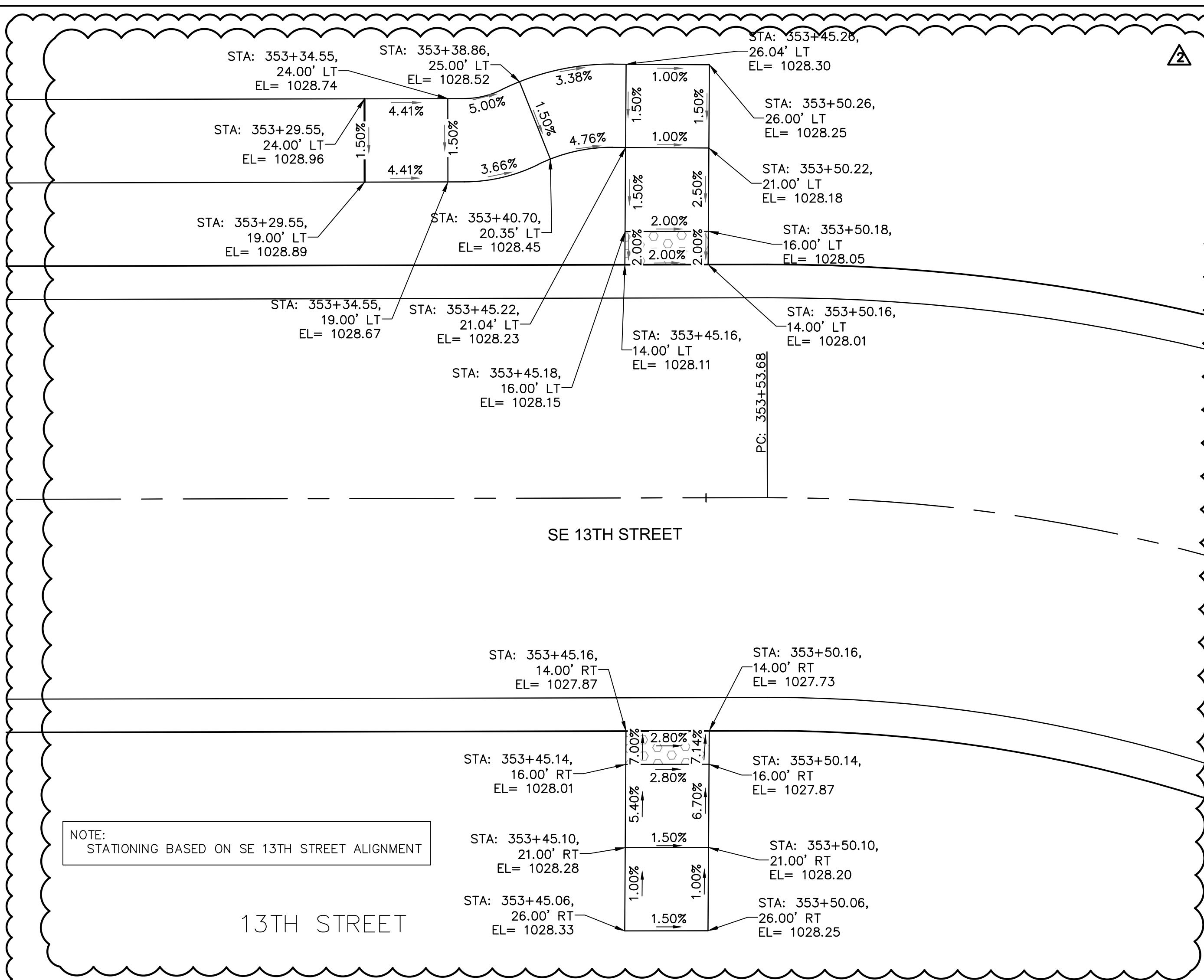
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DATE: 2022-11-04

SHEET  
41 OF 101



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\RD\Lee Summit Plan Set - (Century and Middle School Drives)\SIDEWALK RAMP LAYOUTS\I\_SWK01\_0200103\_LS.dwg  
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 USER: mrobertson



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH
2	05/11/2022	PLAN UPDATES	RPH

**REVISIONS**

NO.	DATE	DESCRIPTION

**SIDEWALK LAYOUTS**

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

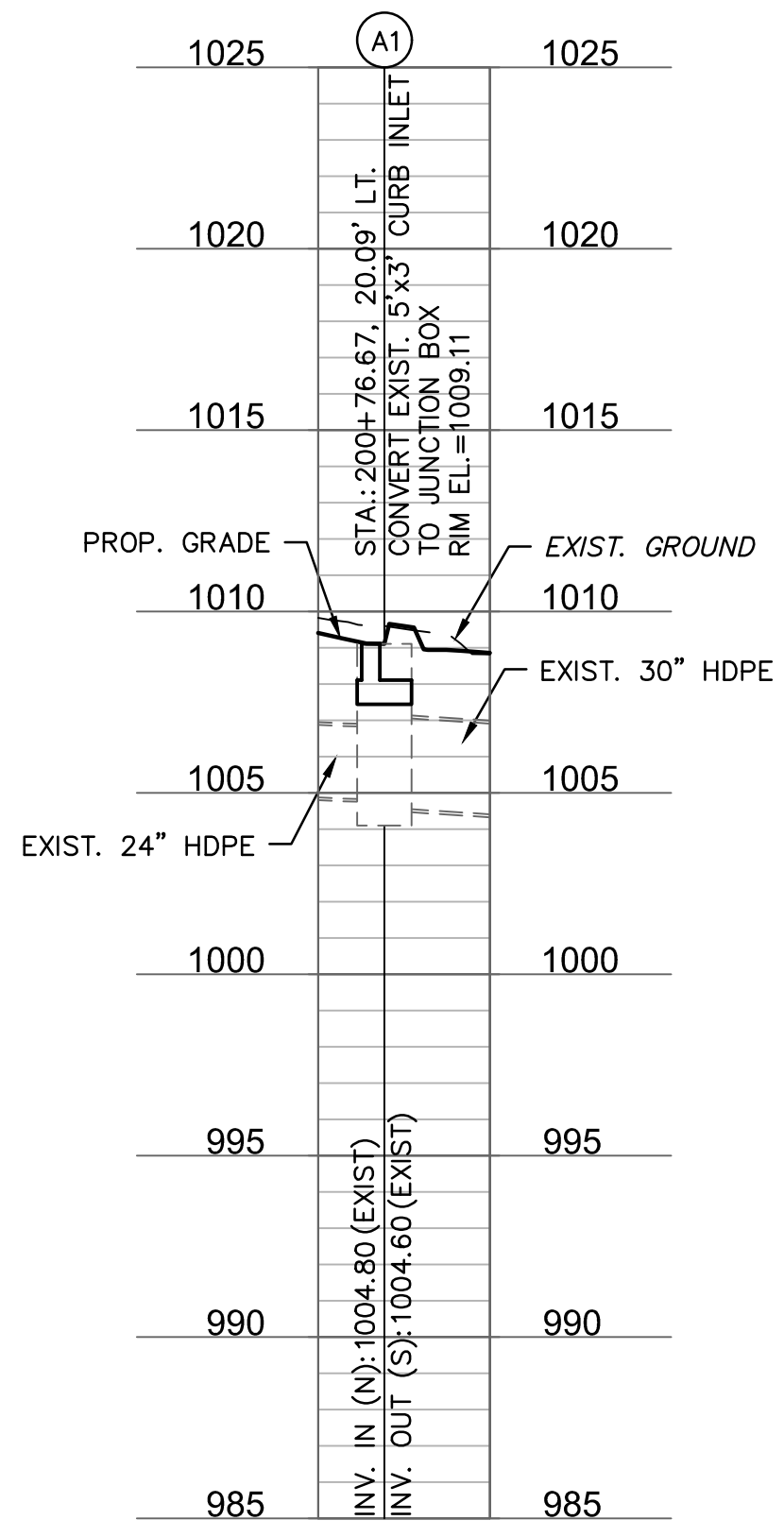
2021

C.O.A. NO.: 001592  
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 CHECKED BY: RPH  
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 PROJECT NO.: 020-0103  
 DWG NO.: I\_SWK01\_0200103\_LS  
 DATE: 2022-11-04

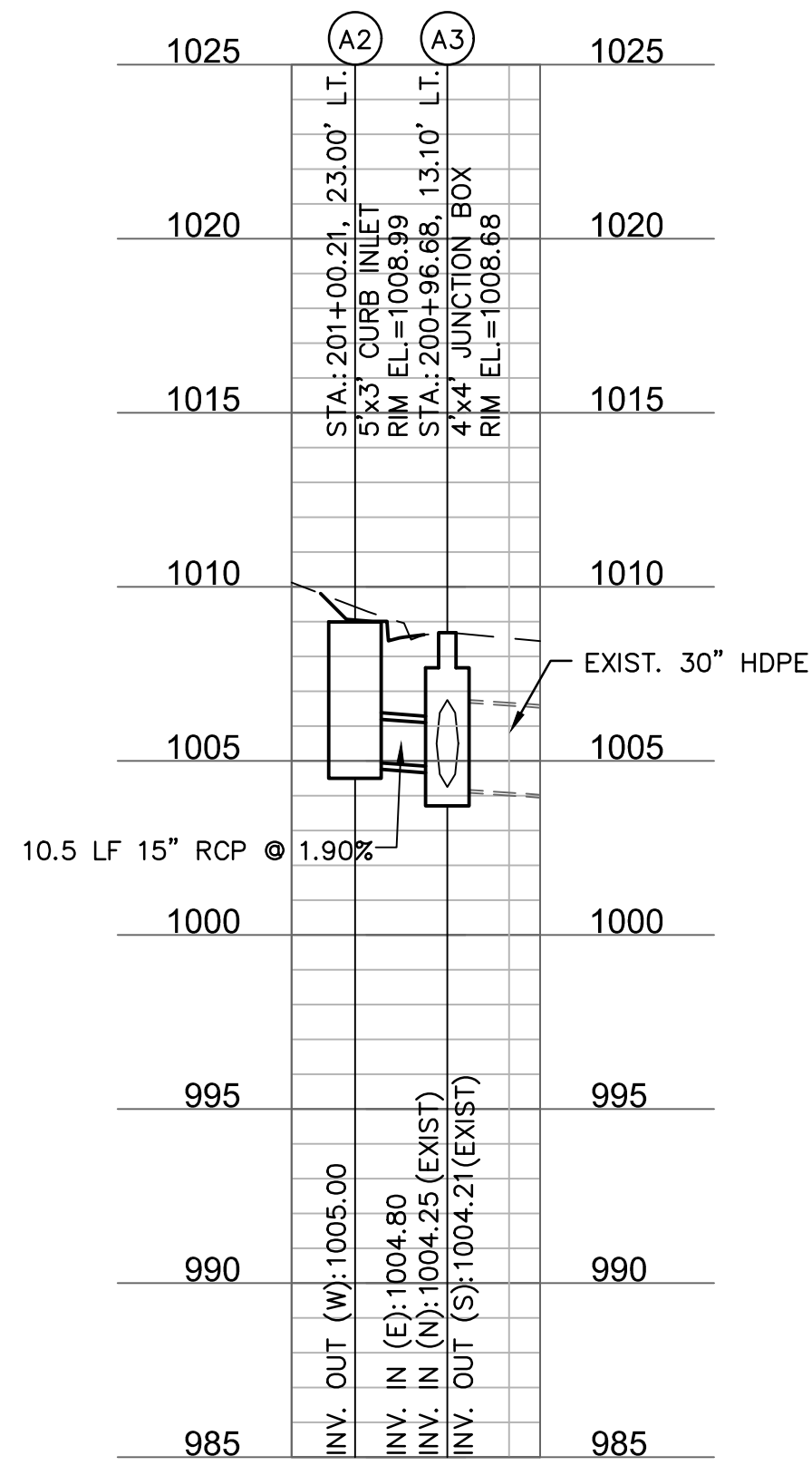
**SHEET 42 OF 101**

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheet\RD\Lee Summit Plan Set - (Century and Middle School Drives)\STORM SEWER\T\_STRM01\_0203004.dwg  
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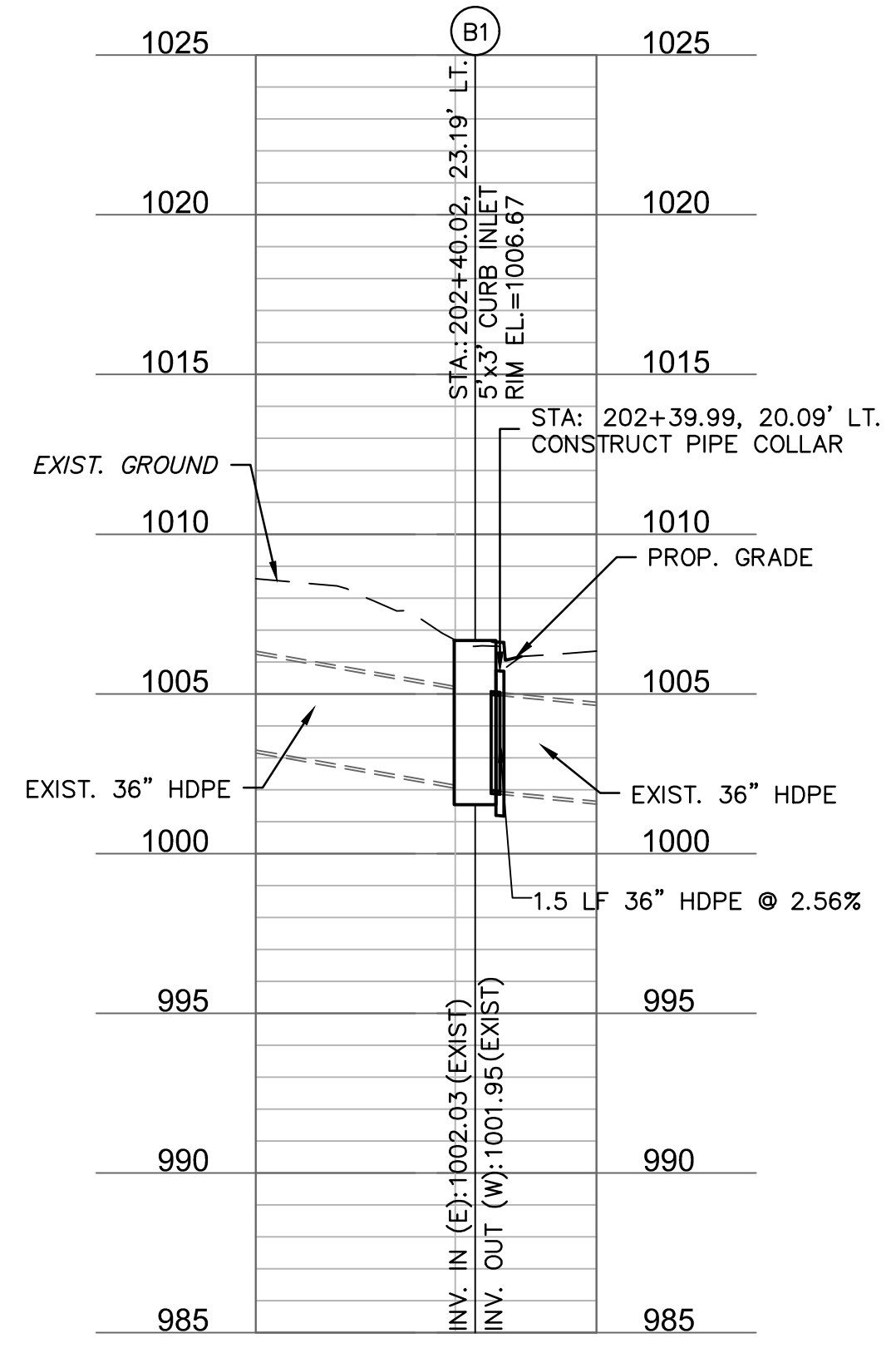
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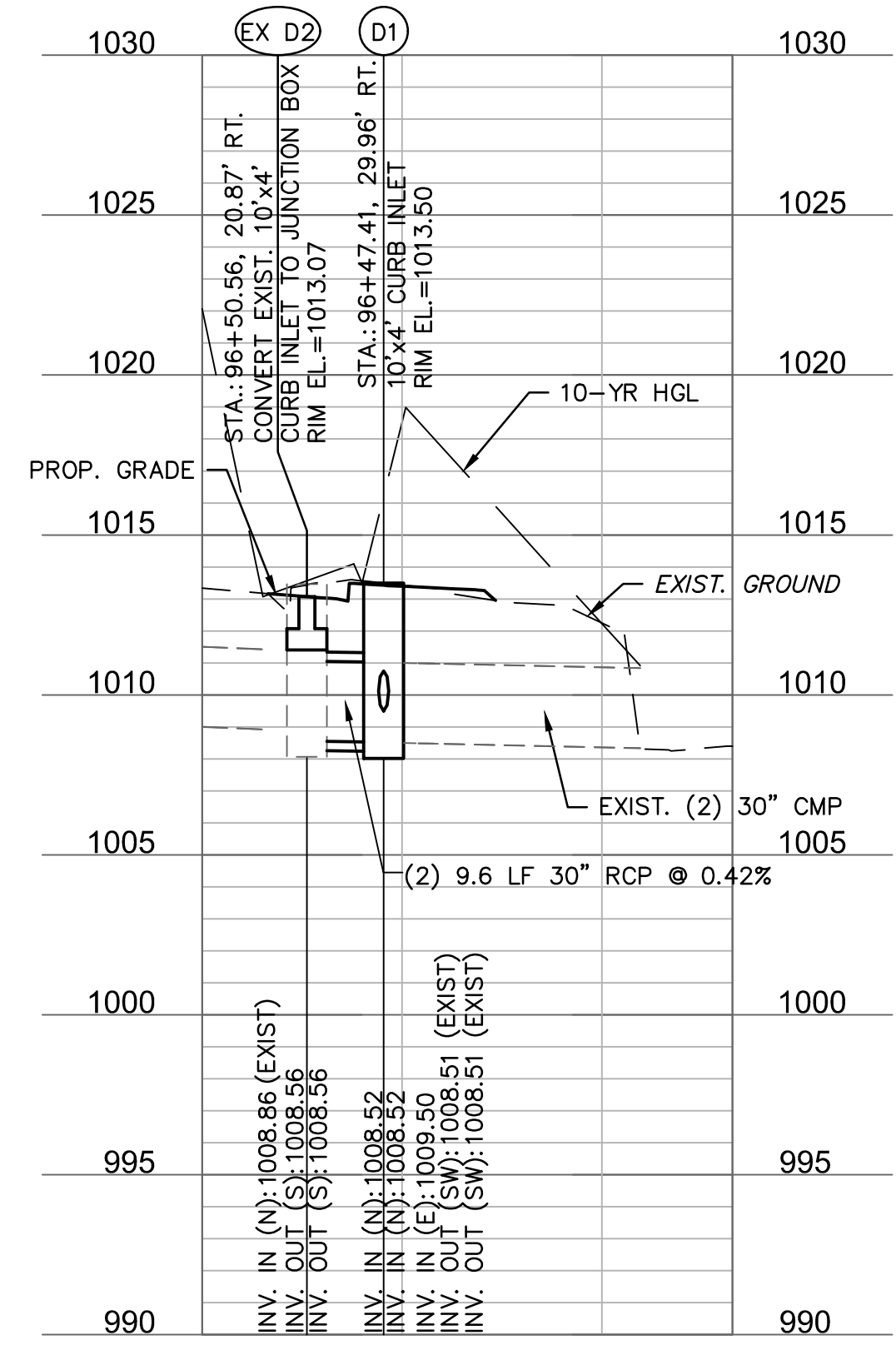
**STORM LINE A**



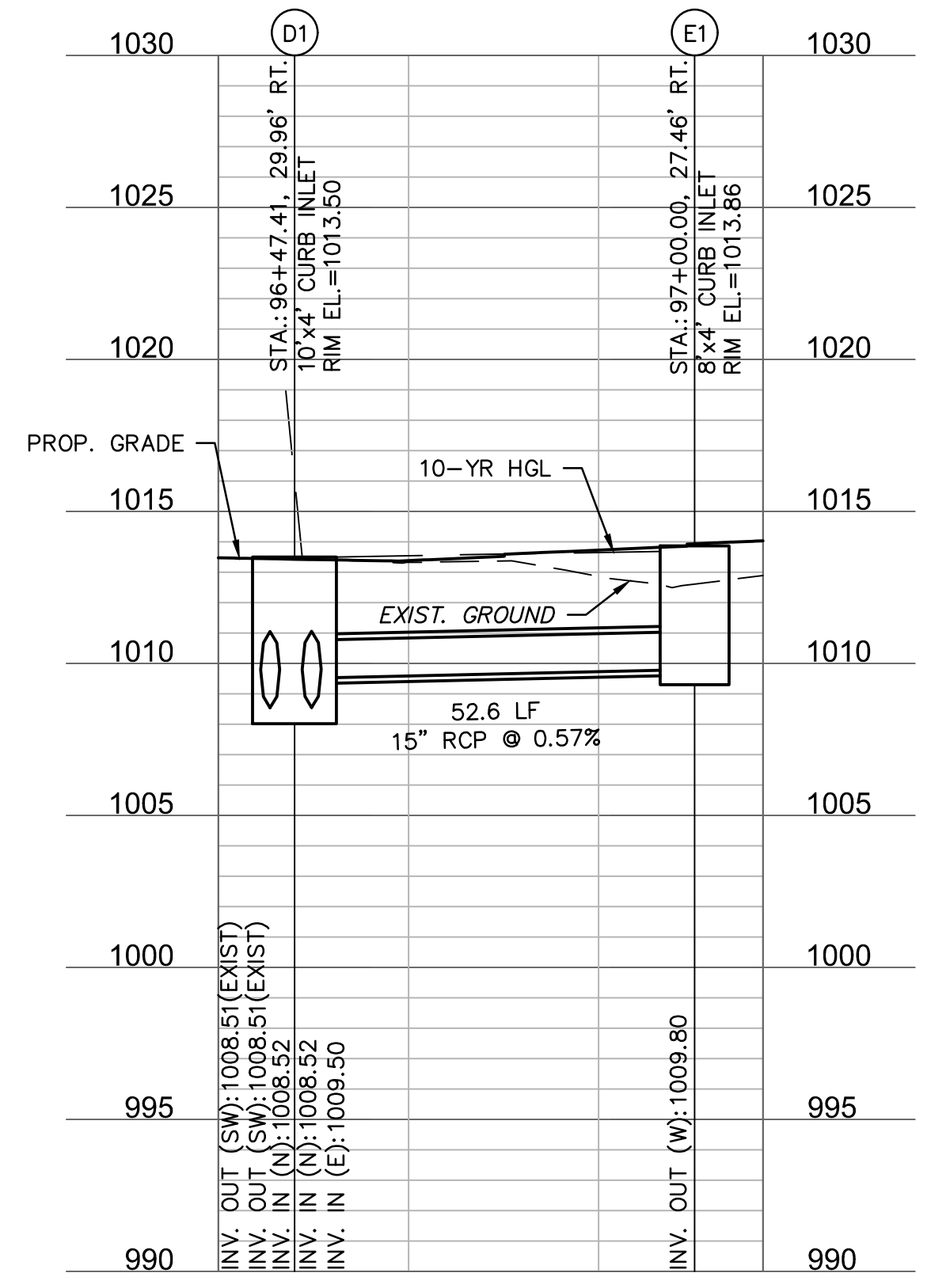
**STORM LINE B**



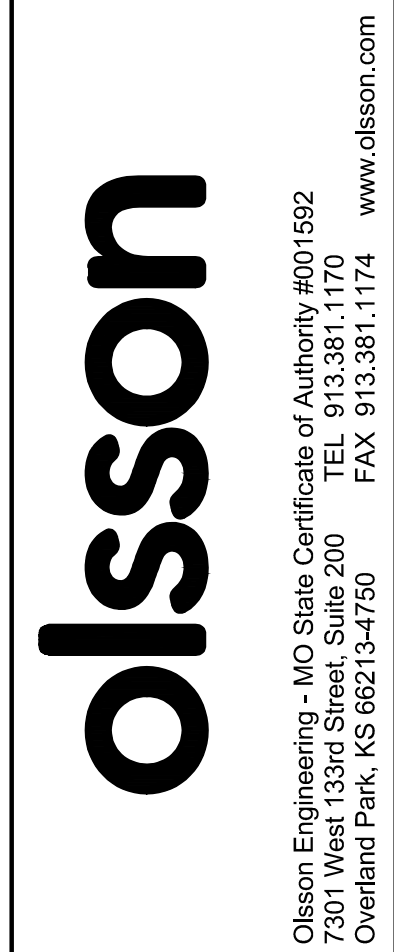
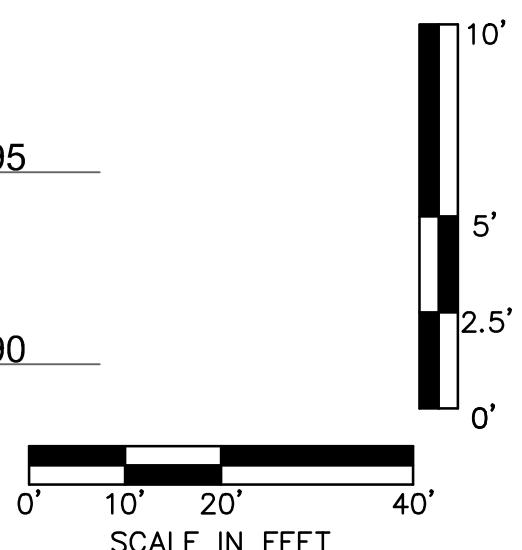
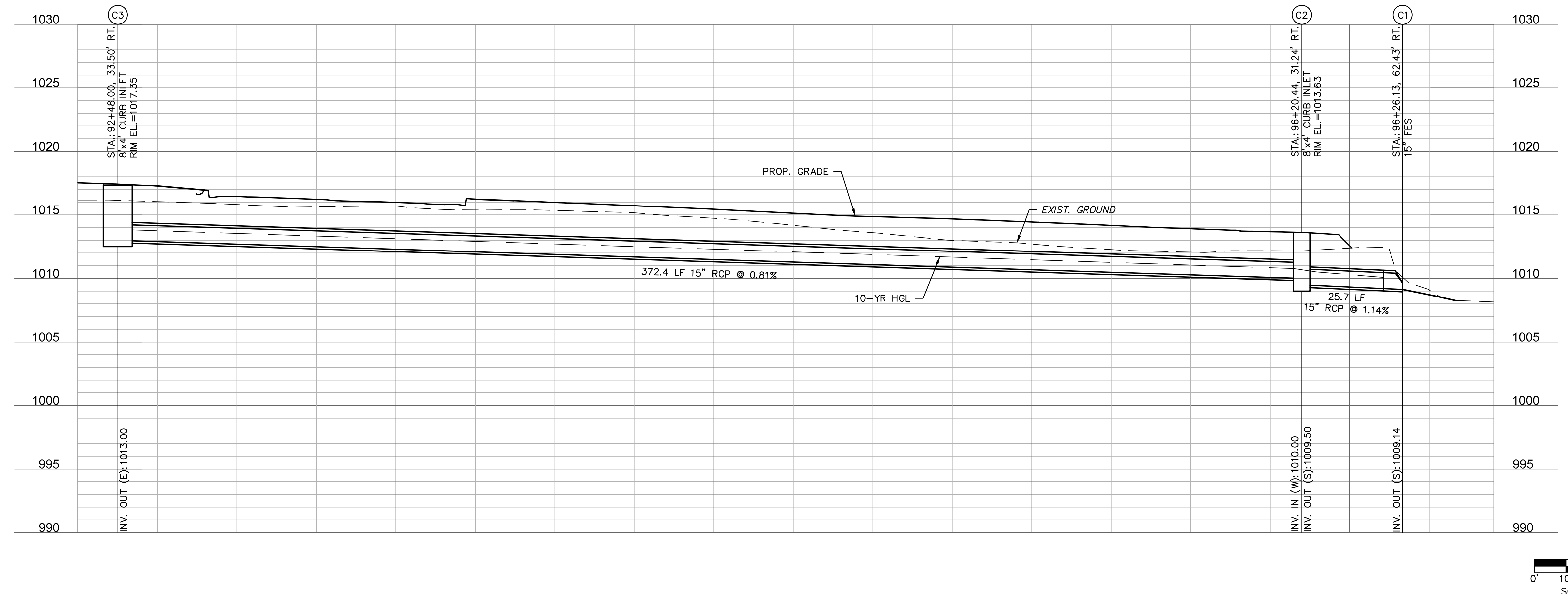
**STORM LINE D**



**STORM LINE E**



**STORM LINE C**



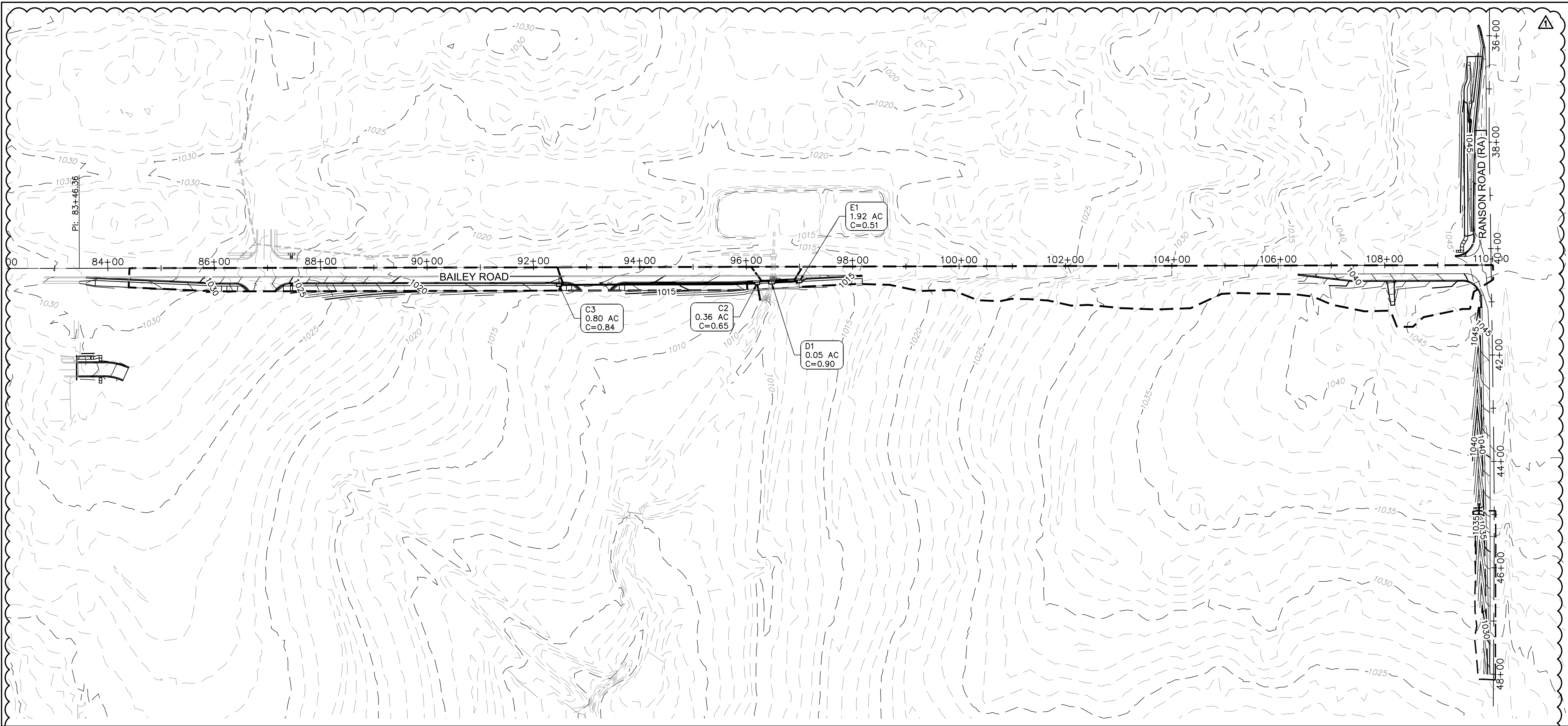
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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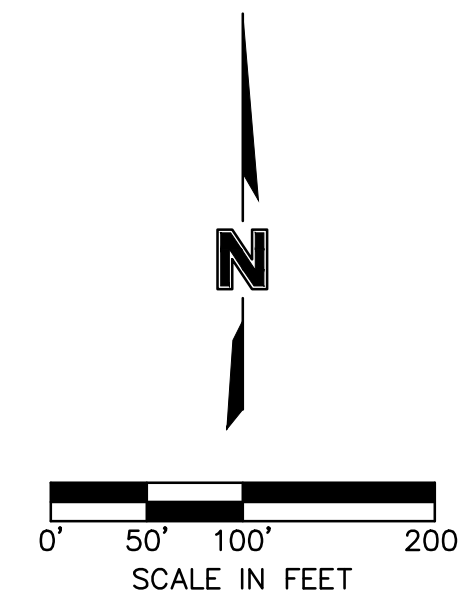
STORM SEWER PROFILES  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

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DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\ROBR\Lee Summit Plan Set - (Century and Middle School Drives)\STORM DRAINAGE & CALCULATIONS\T\_DRN01\_0200103.dwg  
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 USER: mrobertson



10 YEAR STORM SEWER STRUCTURES																			
Label	Inlet	Inlet Location	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Inlet C	Inlet Drainage Area (acres)	Total Inlet Tc (min)	Local Intensity (in/h)	System Intensity (in/h)	System Rational Flow (cfs)	Curb Opening Length (ft)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Capture Efficiency (Calculated) (%)	Bypass Target	Longitudinal Slope (Inlet) (%)	Road Cross Slope (%)	Spread / Top Width (ft)	Depth (Gutter) (in)
C2	Standard Curb Inlet	On Grade	1,013.63	1,009.50	0.65	0.36	5.00	7.35	7.00	6.27	6.00	2.45	0.13	95.00	D1	0.51	2.00	10.80	2.60
C3	Standard Curb Inlet	On Grade	1,017.35	1,013.00	0.84	0.80	5.00	7.35	7.35	4.13	8.00	4.13	0.85	83.00	C2	1.09	2.00	12.00	2.90
D1	Standard Curb Inlet	In Sag	1,013.50	1,008.51	0.90	0.05	5.00	7.35	5.17	210.55	8.00	3.19	0.00	100.00	N/A	N/A	2.00	11.00	3.20
E1	Standard Curb Inlet	On Grade	1,013.86	1,009.80	0.51	1.92	9.80	6.12	6.12	3.82	8.00	3.82	2.27	62.70	D1	1.15	2.00	12.60	3.50



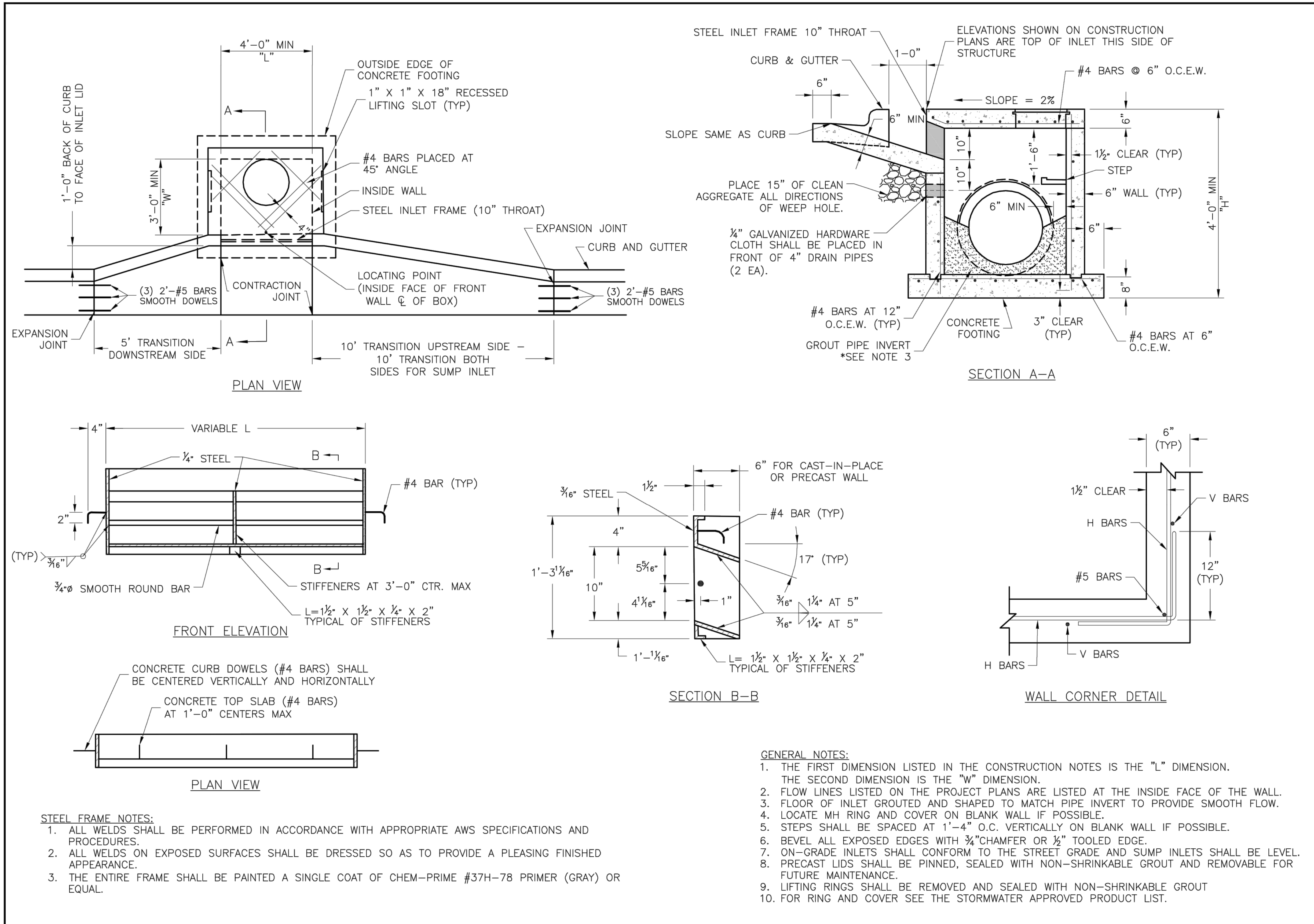
**olsson**  
 Olsson Engineering - MO State Certificate of Authority #001592  
 7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.olsson.com

**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	RPH

**REVISIONS**

DRAINAGE MAP & STORM SEWER CALCULATIONS  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021



- GENERAL NOTES:**
- THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
  - FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
  - FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
  - LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
  - STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
  - BEVEL ALL EXPOSED EDGES WITH 3/4" CHAMFER OR 1/2" TOOLED EDGE.
  - ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
  - PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
  - LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON-SHRINKABLE GROUT
  - FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

**LEE'S SUMMIT MISSOURI**  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS  
 CITY OF LEE'S SUMMIT, MO  
 LEE'S SUMMIT, JACKSON COUNTY, MO  
 Sheet Name: CURB INLET DETAIL

Drawn By: MJF  
 Checked By: DL  
 Date: 04/17  
 Proj. #:

**STM-1**

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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM SEWER DETAILS

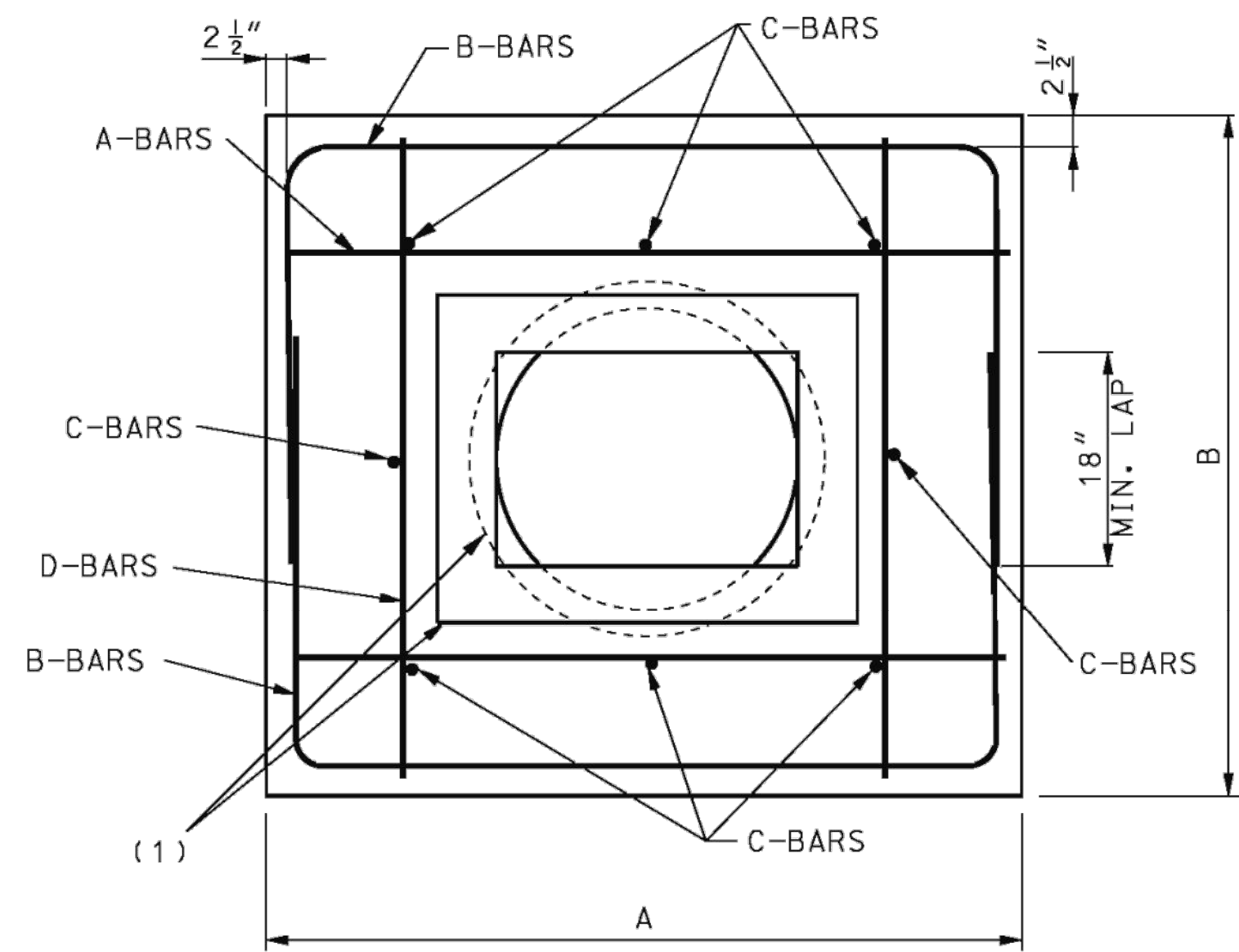
LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

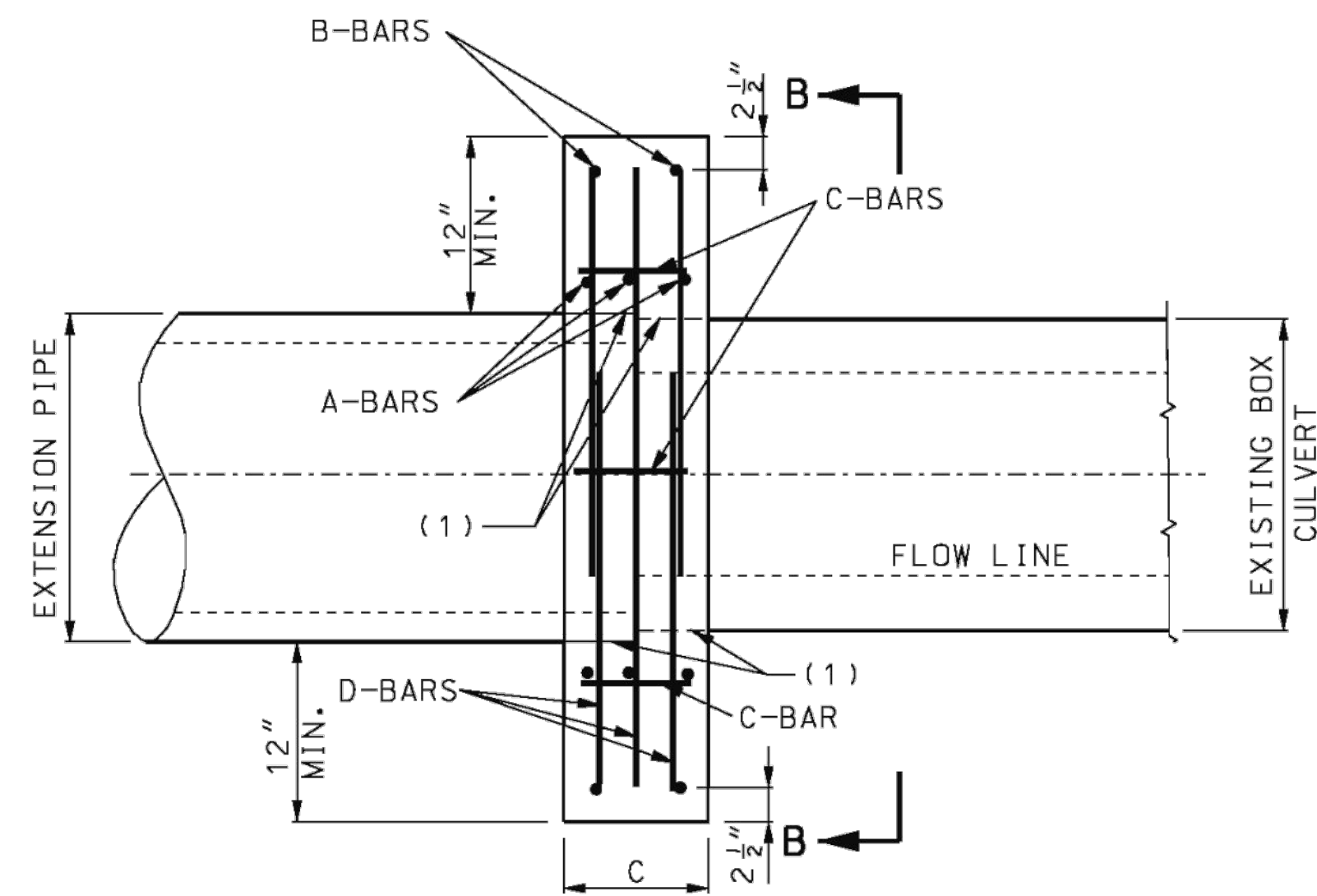
2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO: STRMDTL01\_0200103  
 DATE: 2022-11-04

**SHEET 45 OF 101**

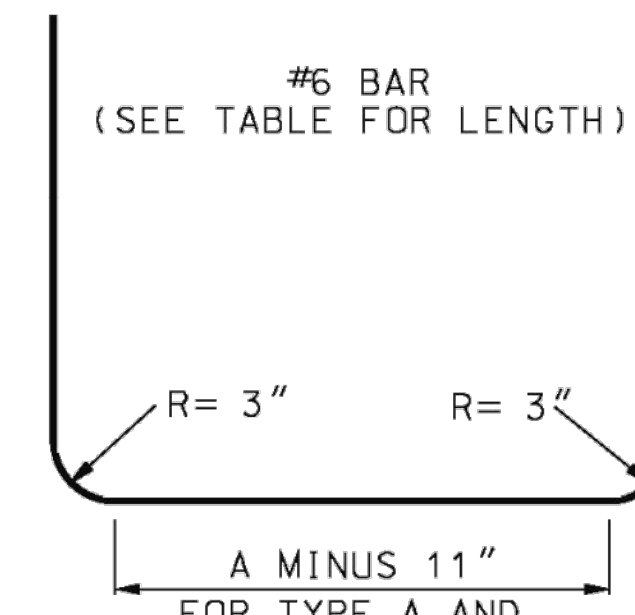


SECTION B-B

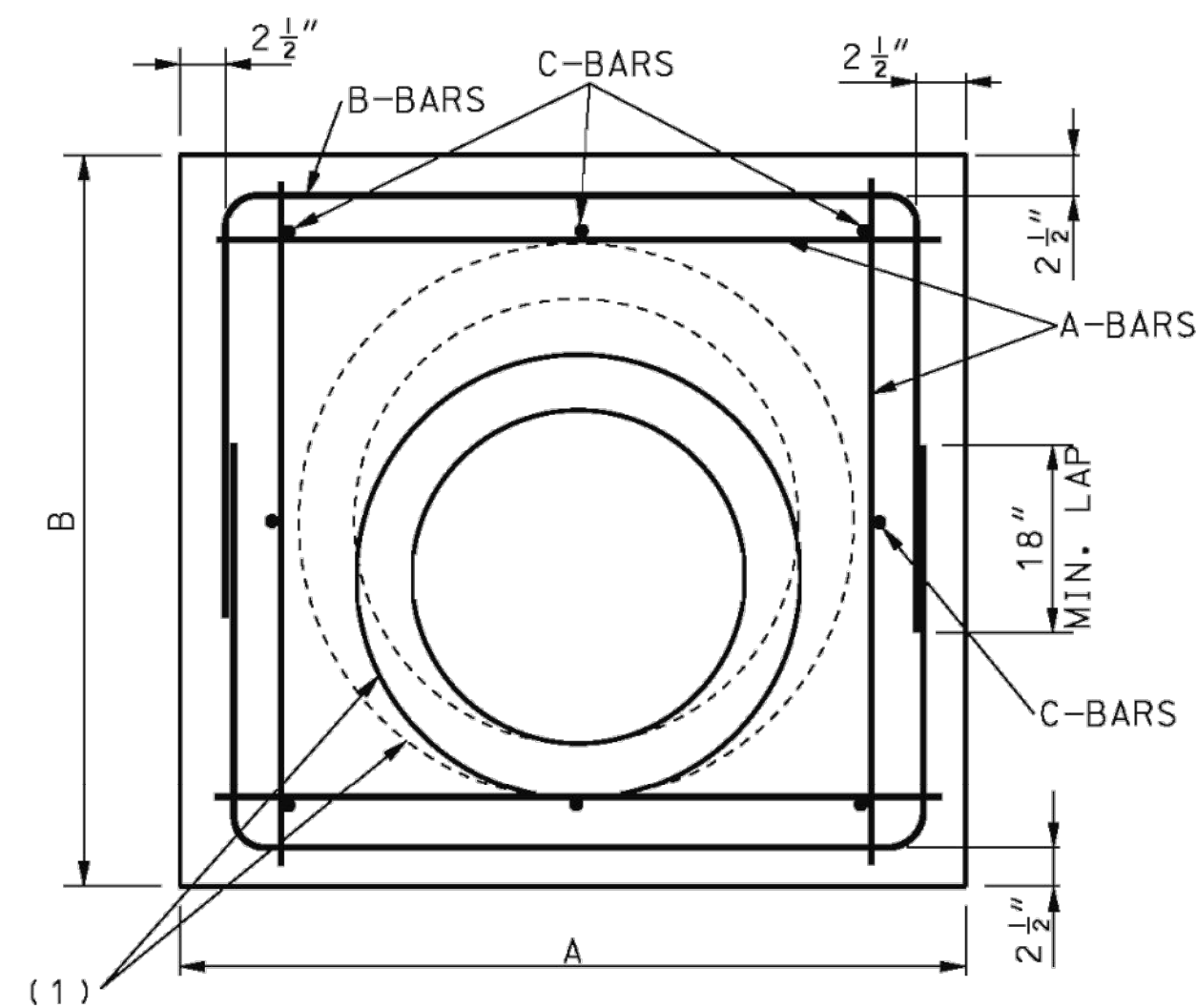


ELEVATION  
(FOR BOX CULVERT TO PIPE)

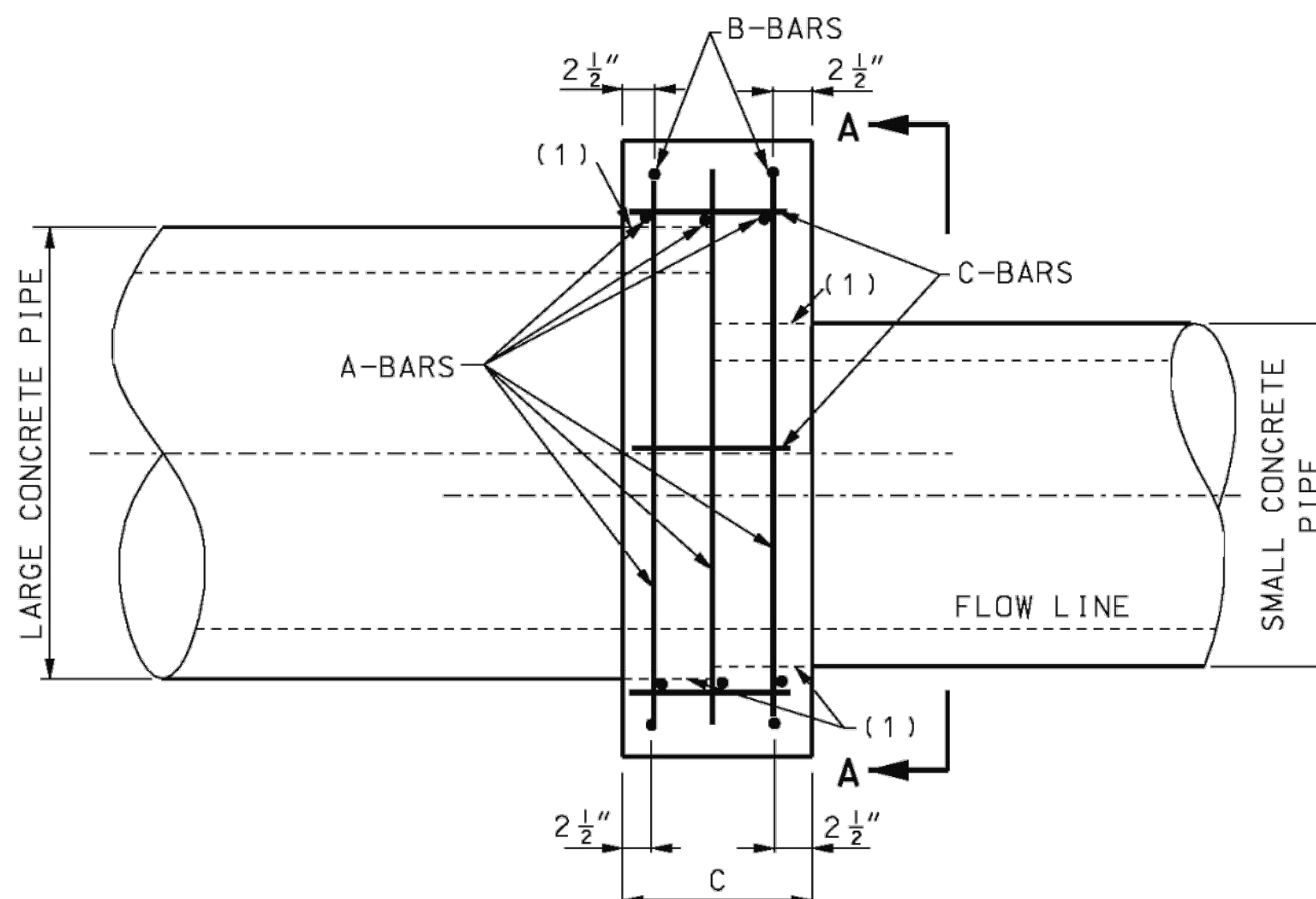
TYPE C COLLAR



BENDING DIAGRAM FOR B-BARS



SECTION A-A



ELEVATION  
(FOR CONCRETE PIPE TO CONCRETE PIPE)

TYPE A COLLAR

(1) ONE LAYER COMMERCIALY AVAILABLE  
55-POUND ROLL ROOFING.

<p><b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b></p> <p>105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)</p>	
<p><b>PIPE COLLARS</b></p>	
<p>STATE OF MISSOURI KATHRYN PHILLIPS HARVEY NUMBER PE-23751 PROFESSIONAL ENGINEER</p> <p>THIS SHEET HAS BEEN SIGNED SEALED AND DATED ELECTRONICALLY.</p>	<p>DATE EFFECTIVE: 10/01/2000 DATE PREPARED: 8/21/2009</p>
<p>604.40F</p>	<p>SHEET NO. 1 OF 2</p>

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

STORM SEWER DETAILS

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RECORD DRAWINGS

**olsson**

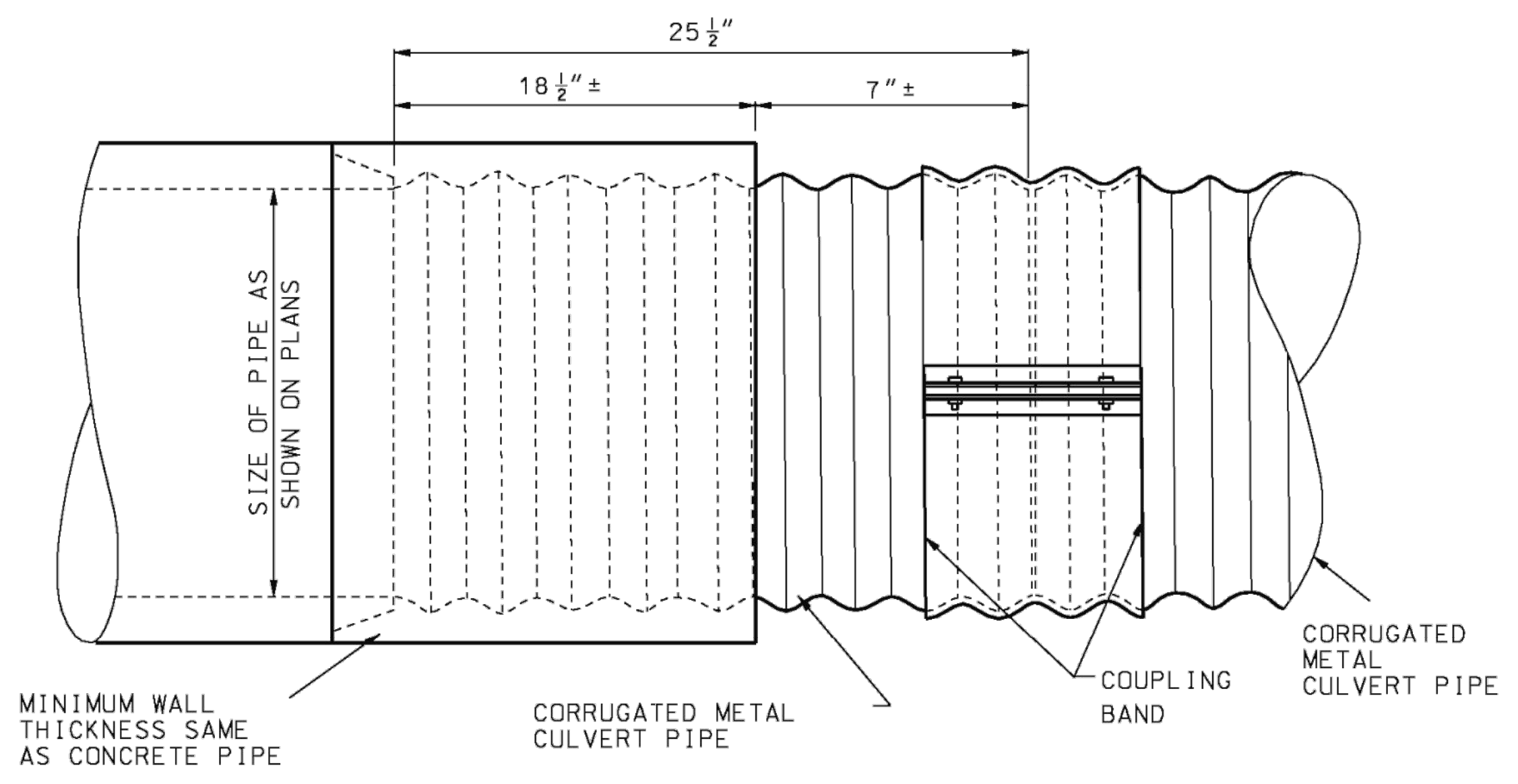
Olsson Engineering - MO State Certificate of Authority #001592  
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 Overland Park, KS 66213-4760 FAX: 913.381.1174  
 www.ollsson.com

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO: STRMDTL01\_0200103  
 DATE: 2022-11-04

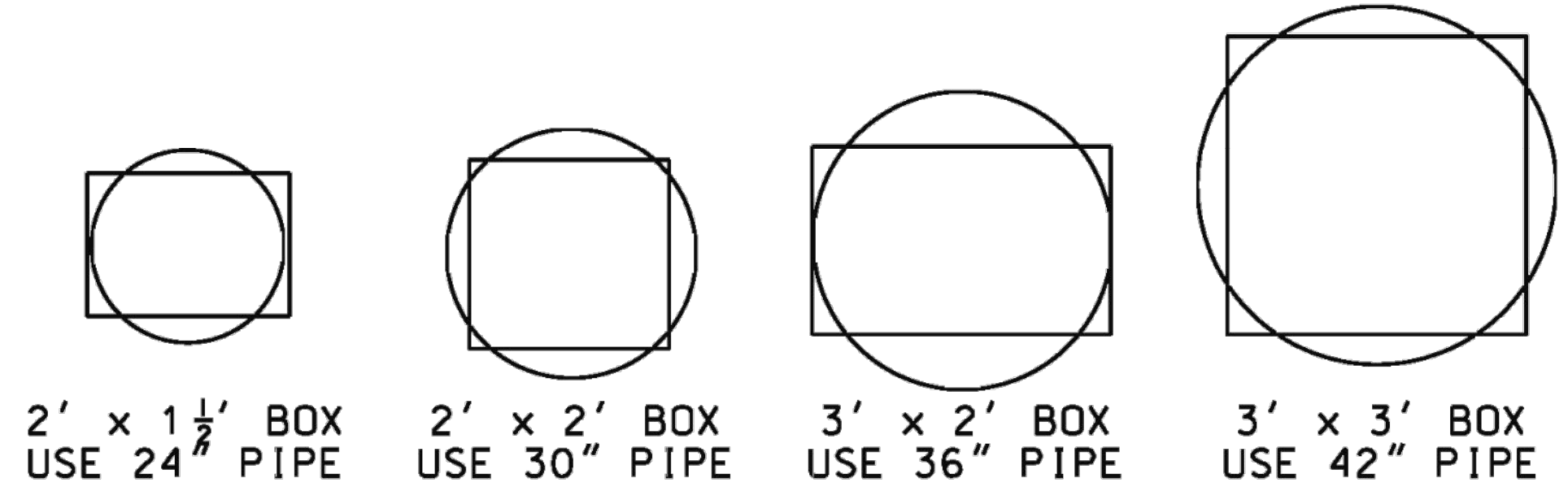
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TABLE OF DIMENSIONS								
SIZE OF PIPE		DIMENSIONS		LENGTH OF BARS			QUANTITIES	
LARGE (IN.)	SMALL (IN.)	A & B (FT.-IN.)	C (FT.-IN.)	A (#5) 12 REQUIRED (FT.-IN.)	B (#6) 4 REQUIRED (FT.-IN.)	C (#4) 8 REQUIRED (FT.-IN.)	CONCRETE (CU. YD.)	STEEL (LBS.)
12	12	2-8	1-0	2-5	5-10	0-9	0.21	70
15	12 15	3-0	1-0	2-9	6-6	0-9	0.27 0.25	77
18	12 15 18	3-3	1-0	3-0	7-0	0-9	0.33 0.32 0.30	84
21	12 15 18	3-6	1-0	3-3	7-6	0-9	0.36 0.34 0.33	90
24	15 18 24	3-10	1-0	3-6	8-2	0-9	0.44 0.40 0.36	97
30	18 24 30	4-5	1-4	4-2	9-4	1-0	0.71 0.66 0.60	114
36	24 30 36	5-0	1-4	4-9	10-6	1-0	0.88 0.79 0.76	128
42	30 36 42	5-7	1-4	5-4	11-8	1-0	1.05 0.98 0.89	142
48	36 42 48	6-2	1-4	6-0	12-10	1-0	1.22 1.13 1.03	158
54	42 48 54	7-1	1-8	6-9	14-8	1-6	2.02 1.90 1.76	181
60	48 54 60	7-8	1-8	7-5	15-10	1-6	2.27 2.13 1.97	196
66	54 60 66	8-3	2-0	8-0	17-0	1-9	3.04 2.85 2.65	210
72	60 66 72	8-10	2-0	7-7	18-2	1-9	3.36 3.16 2.93	225

TABLE OF DIMENSIONS										
BOX SIZE (FT.)	PIPE SIZE (IN.)	DIMENSIONS			LENGTH OF BARS				QUANTITIES	
		A (FT.-IN.)	B (FT.-IN.)	C (FT.-IN.)	A (#5) 6 REQUIRED (FT.-IN.)	B (#6) 4 REQUIRED (FT.-IN.)	C (#4) 8 REQUIRED (FT.-IN.)	D (#5) 6 REQUIRED (FT.-IN.)	CONCRETE (CU. YD.)	STEEL (LBS.)
2 x 1 1/2	24	5-1	4-9	1-0	4-10	10-4	0-9	4-6	0.65	124
2 x 2	30	5-3	5-3	1-4	5-0	11-0	1-0	5-0	0.93	134
3 x 2	36	6-1	5-10	1-4	5-10	12-5	1-0	5-7	1.16	151
3 x 3	42	6-5	6-5	1-4	6-0	13-4	1-0	6-0	1.29	162



**TYPE B COLLAR**  
(FOR CONCRETE PIPE TO CORRUGATED METAL PIPE)

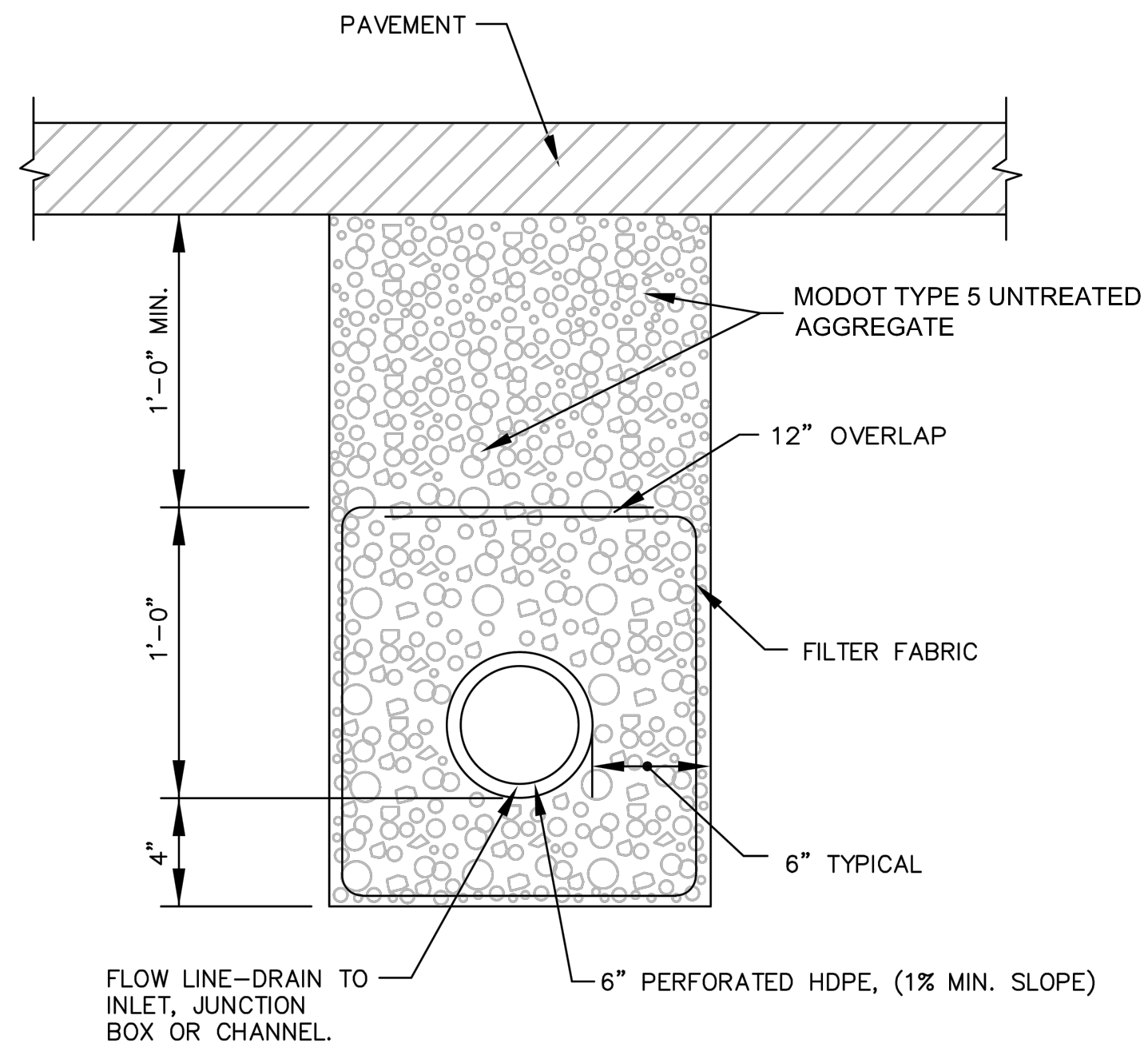


**PIPE PLACEMENT**

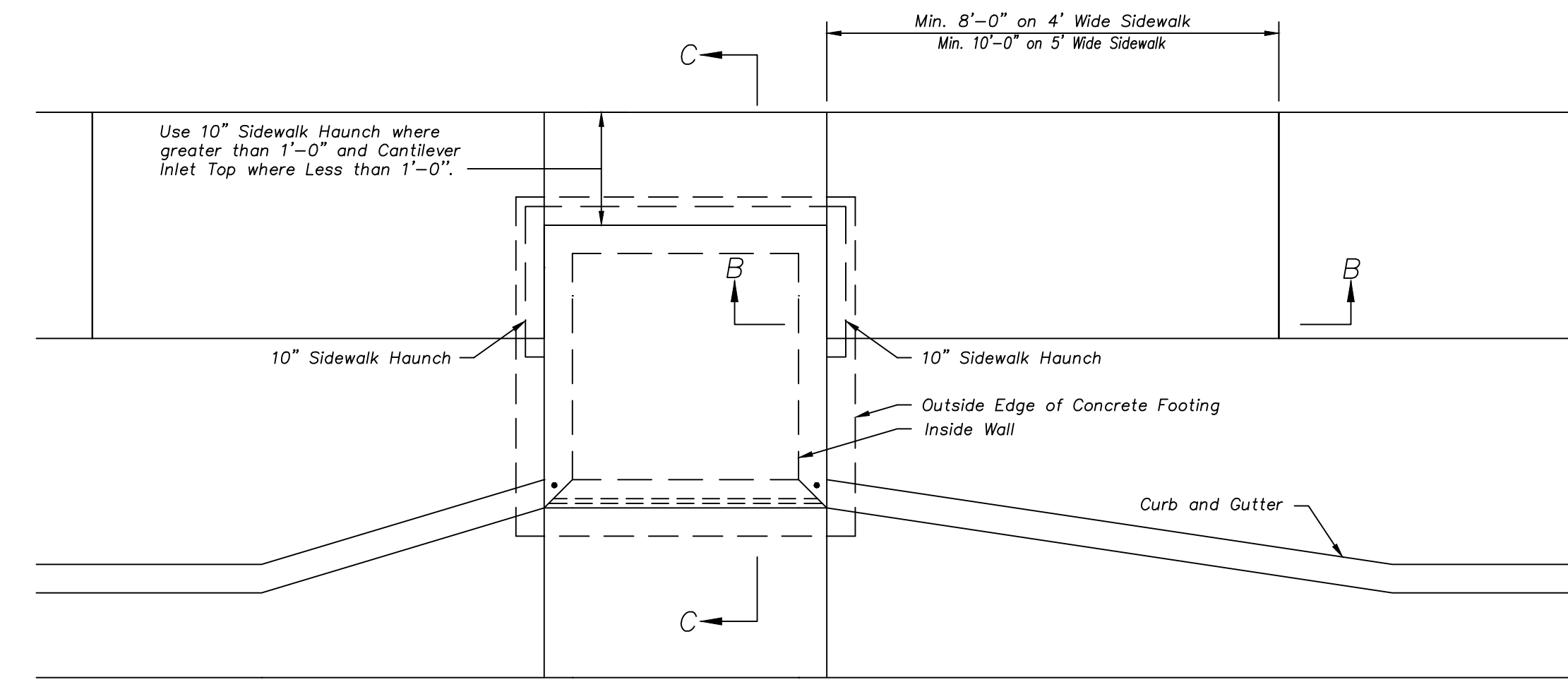
<b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	<b>PIPE COLLARS</b>
DATE EFFECTIVE: 10/01/2000 DATE PREPARED: 8/21/2009	<b>604.40F</b>
SHEET NO. <b>2 OF 2</b>	

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

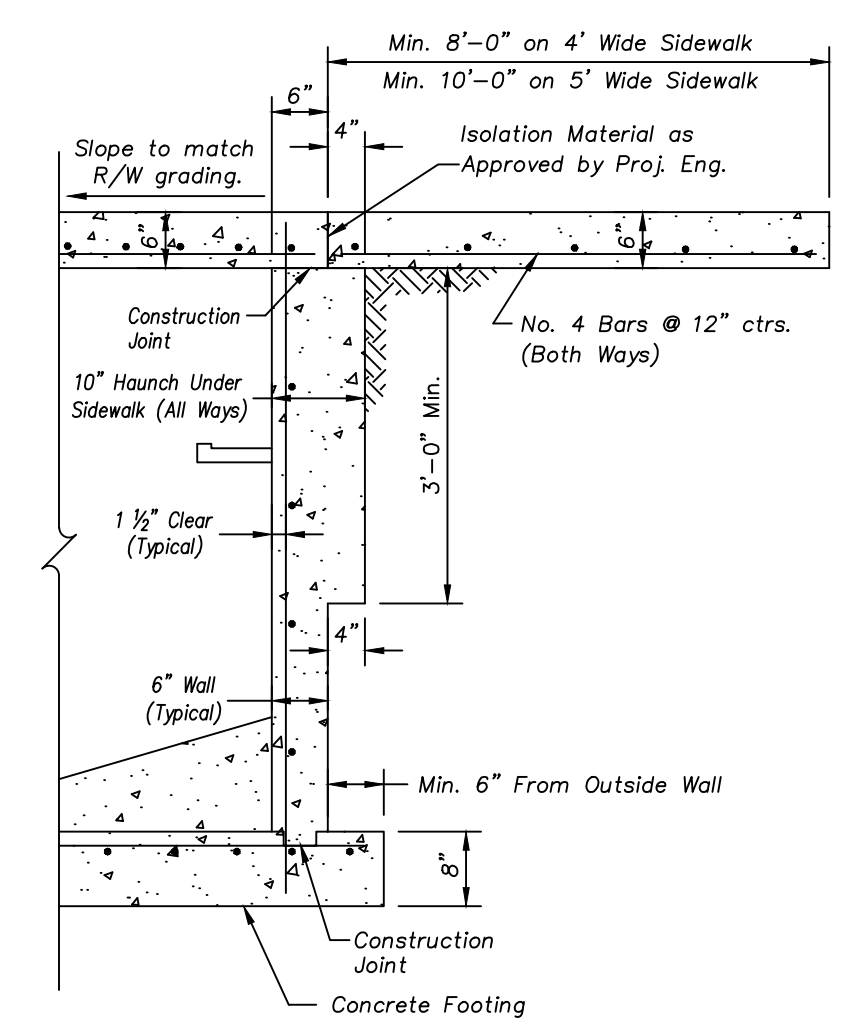
<b>olsson</b>		Olsson Engineering - MO State Certificate of Authority #001592 7301 West 133rd Street, Suite 200 TEL: 913.381.1170 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.ollson.com	
RECORD DRAWINGS		REVISIONS	
BY	REVISIONS DESCRIPTION	DATE	REV. NO.
STORM SEWER DETAILS		LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI		2021	
C.O.A. NO.: 001592		DRAWN BY: MLW	
CHECKED BY: RPH		APPROVED BY: RBE	
QA/QC BY: RBE		PROJECT NO.: 020-0103	
DWG NO: STRMDTL01_0200103		DATE: 2022-11-04	
SHEET 47 OF 101			



UNDERDRAIN

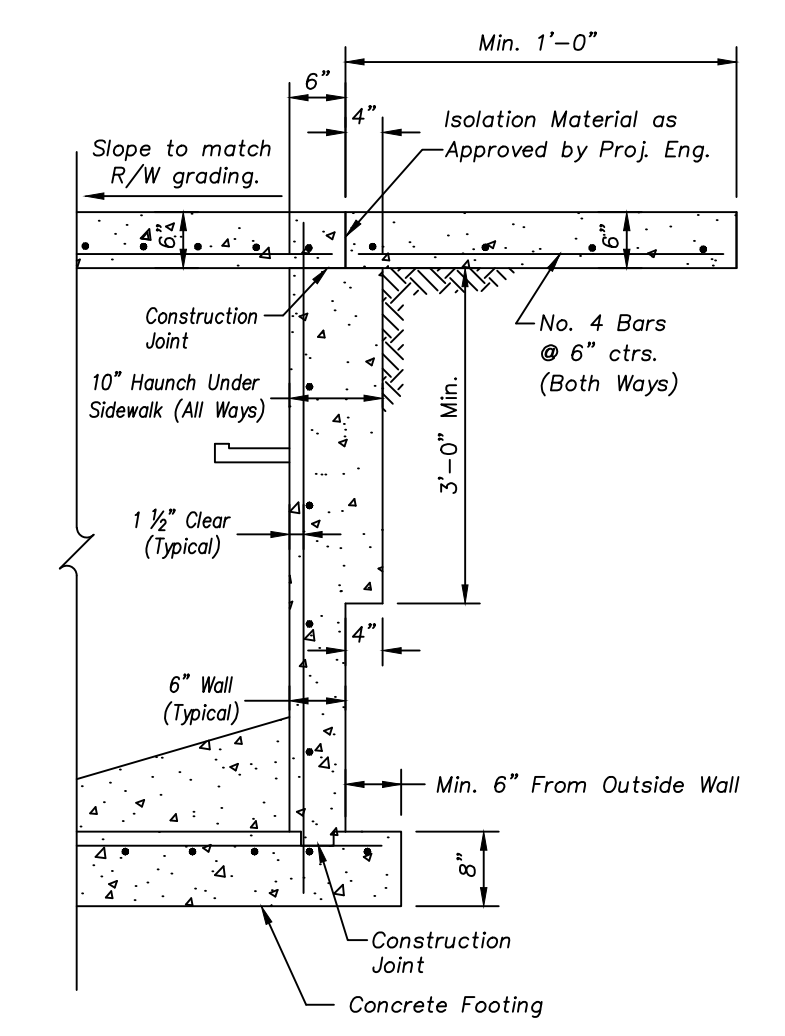


Plan  
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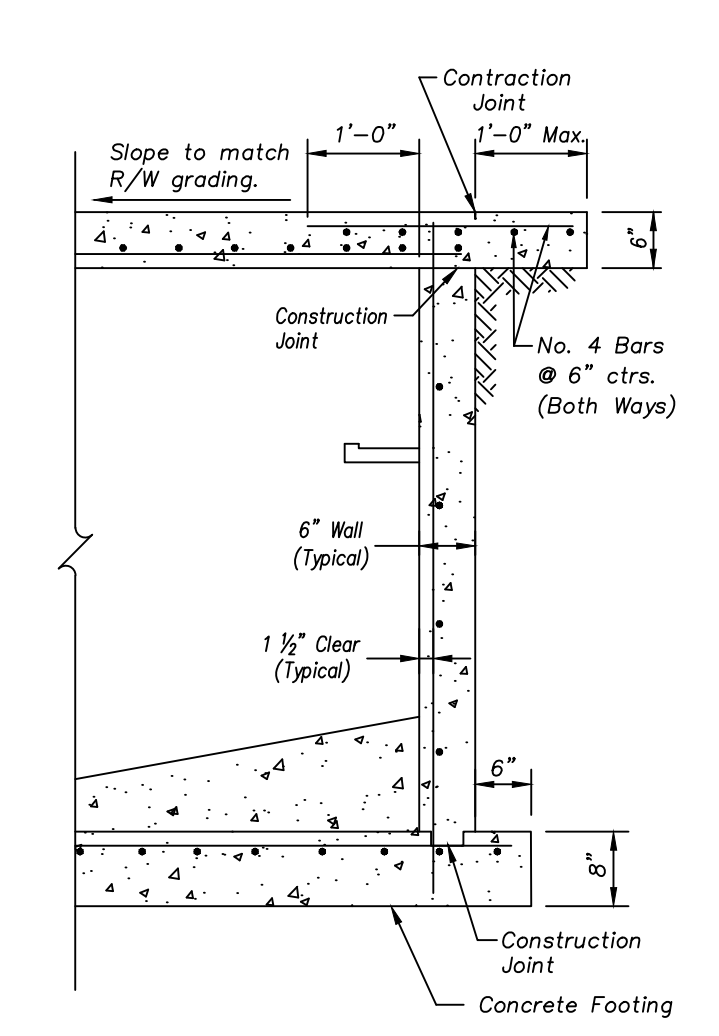
Section B-B  
With Sidewalk Haunch

NOTE: Sidewalk Haunch is Subsidiary to the Curb Inlet Construction.



Section C-C  
With Sidewalk Haunch Where Sidewalk Width > 1' Along Back of Inlet

NOTE: Sidewalk Haunch is Subsidiary to the Curb Inlet Construction.



Section C-C  
With Cantilever Inlet Top Where Sidewalk Width < 1' Along Back of Inlet

NOTE: Sidewalk Haunch is Subsidiary to the Curb Inlet Construction.

CURB INLET WITH ADJOINING SIDEWALK

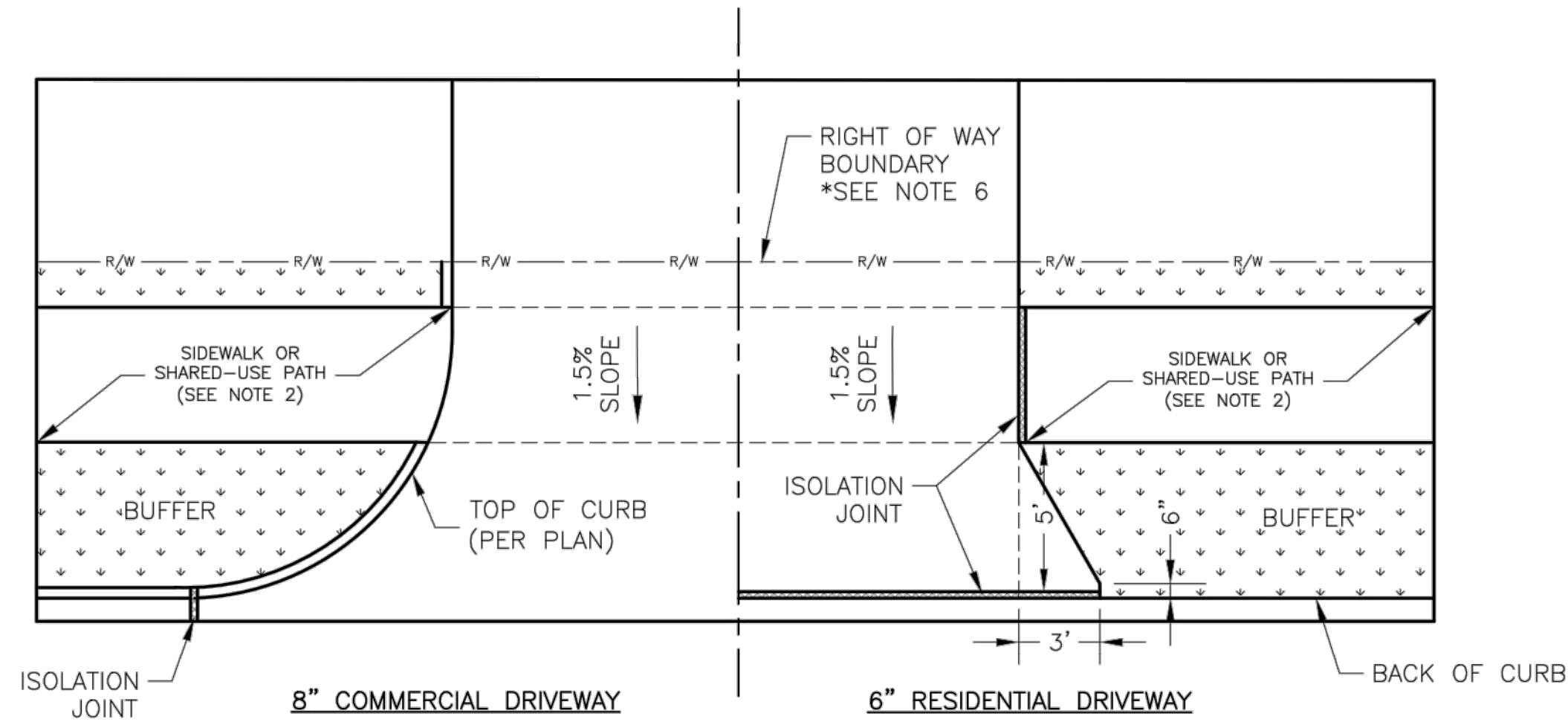
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2	06/08/2022	ASI #56	MAR

STORM SEWER DETAILS	2021
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	

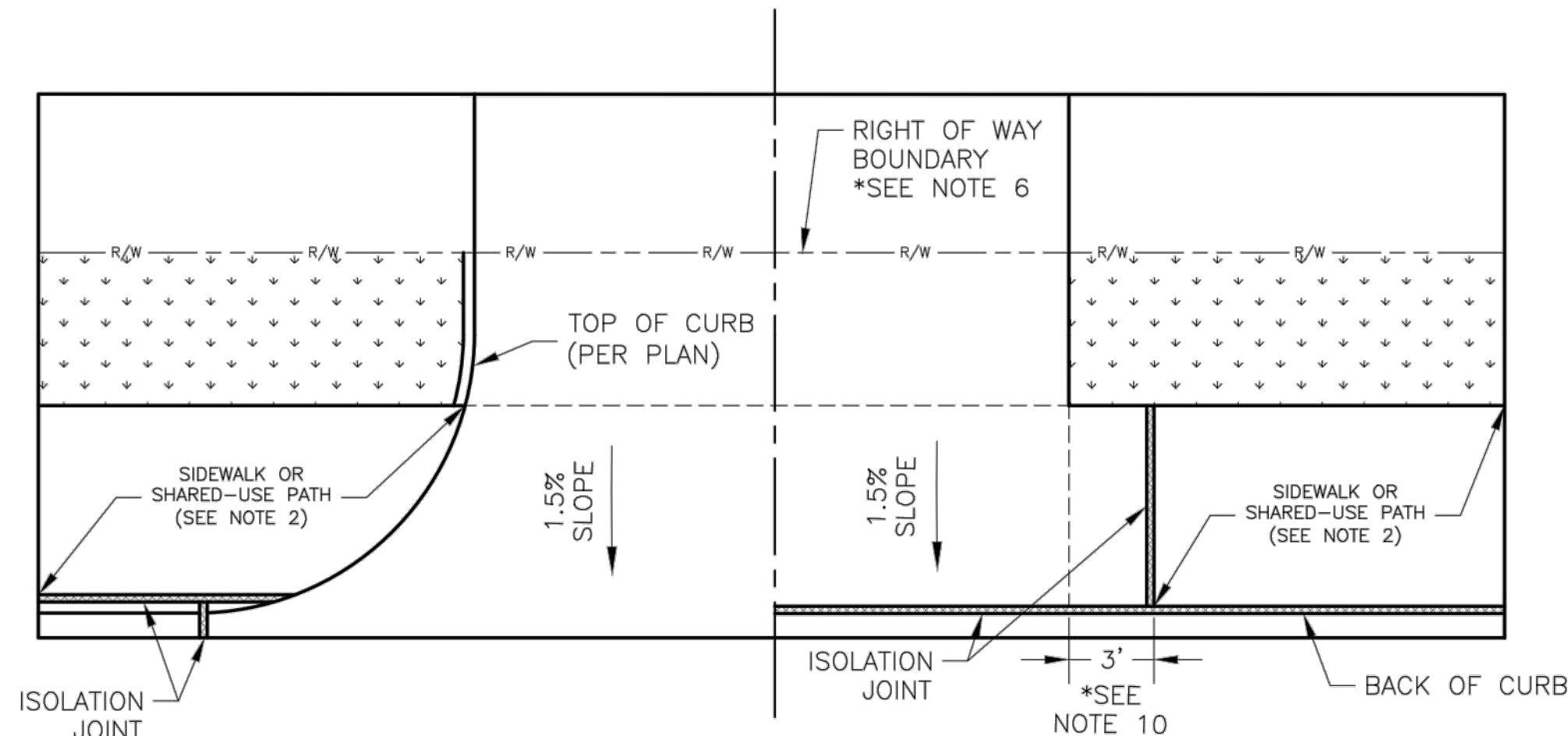
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CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO. STRMDTL01_0200103	
DATE:	2022-11-04



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 DATE: Nov 07, 2022 1:58pm  
 USER: mrcobertson



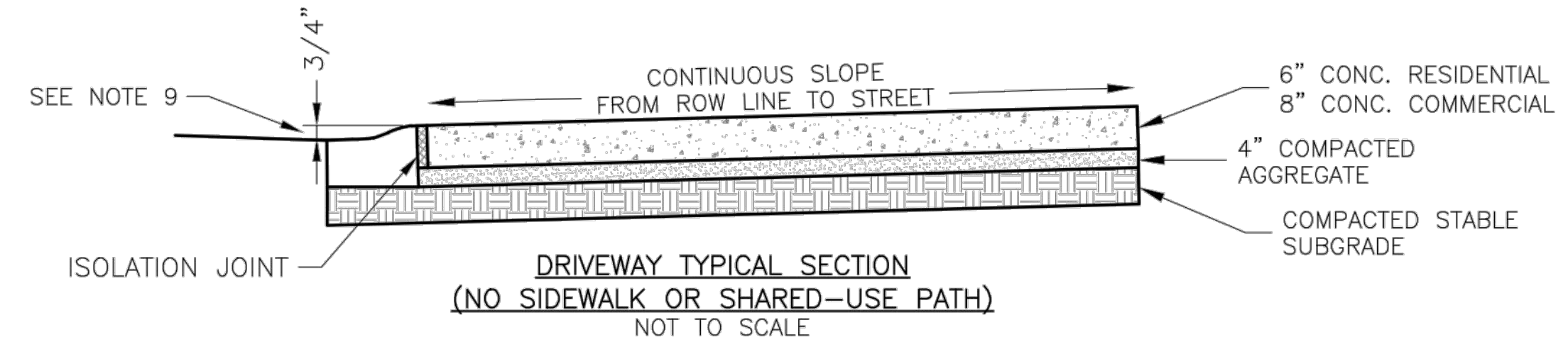
**DRIVEWAY WITH BUFFER**  
NOT TO SCALE



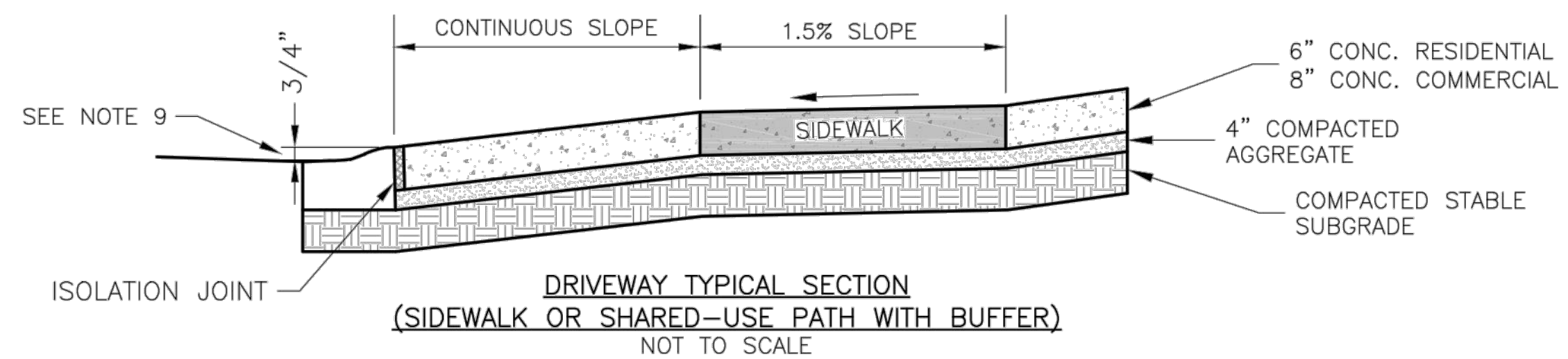
**DRIVEWAY WITHOUT BUFFER**  
NOT TO SCALE

**GENERAL NOTES**

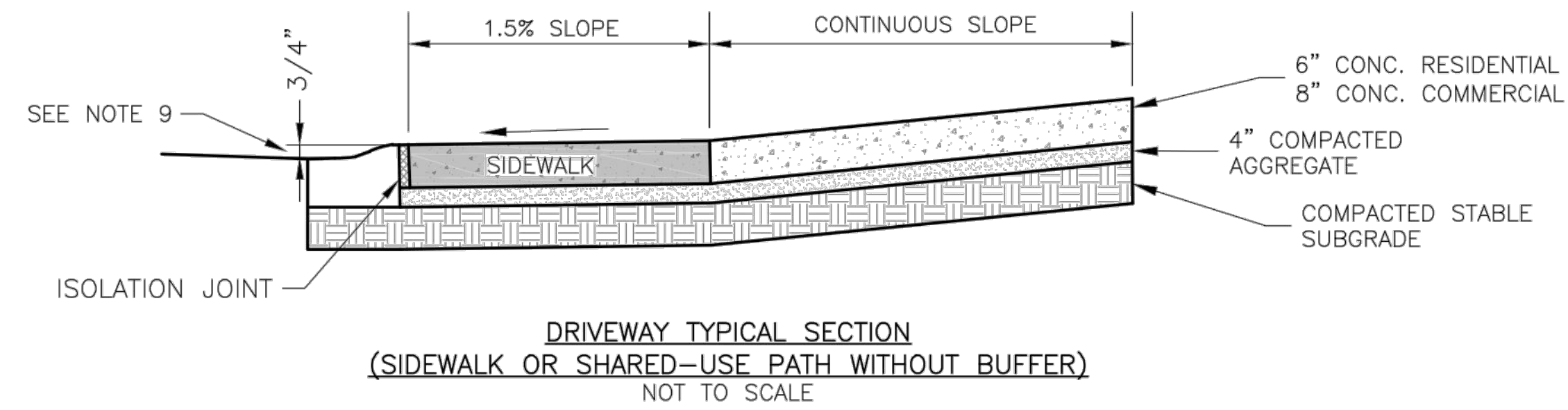
1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL GEN-3B, SIDEWALK/SHARED USE PATH RAMP AT DRIVEWAY DETAIL).
3. JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
4. KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
5. COMMERCIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
6. RESIDENTIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, KCMMB 4K CONCRETE MIX IS RECOMMENDED. OTHER CONCRETE MIXES NEEDS TO BE APPROVED BY CITY INSPECTOR.
7. A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
9. 3/4" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG-1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
10. SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
11. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.



**DRIVEWAY TYPICAL SECTION**  
(NO SIDEWALK OR SHARED-USE PATH)  
NOT TO SCALE



**DRIVEWAY TYPICAL SECTION**  
(SIDEWALK OR SHARED-USE PATH WITH BUFFER)  
NOT TO SCALE



**DRIVEWAY TYPICAL SECTION**  
(SIDEWALK OR SHARED-USE PATH WITHOUT BUFFER)  
NOT TO SCALE

**LEE'S SUMMIT MISSOURI**  
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
Sheet No: GEN-1

Drawn By: MJF  
Checked By: DL  
Date: 04/17

**GEN-1**

**RECORD DRAWINGS**

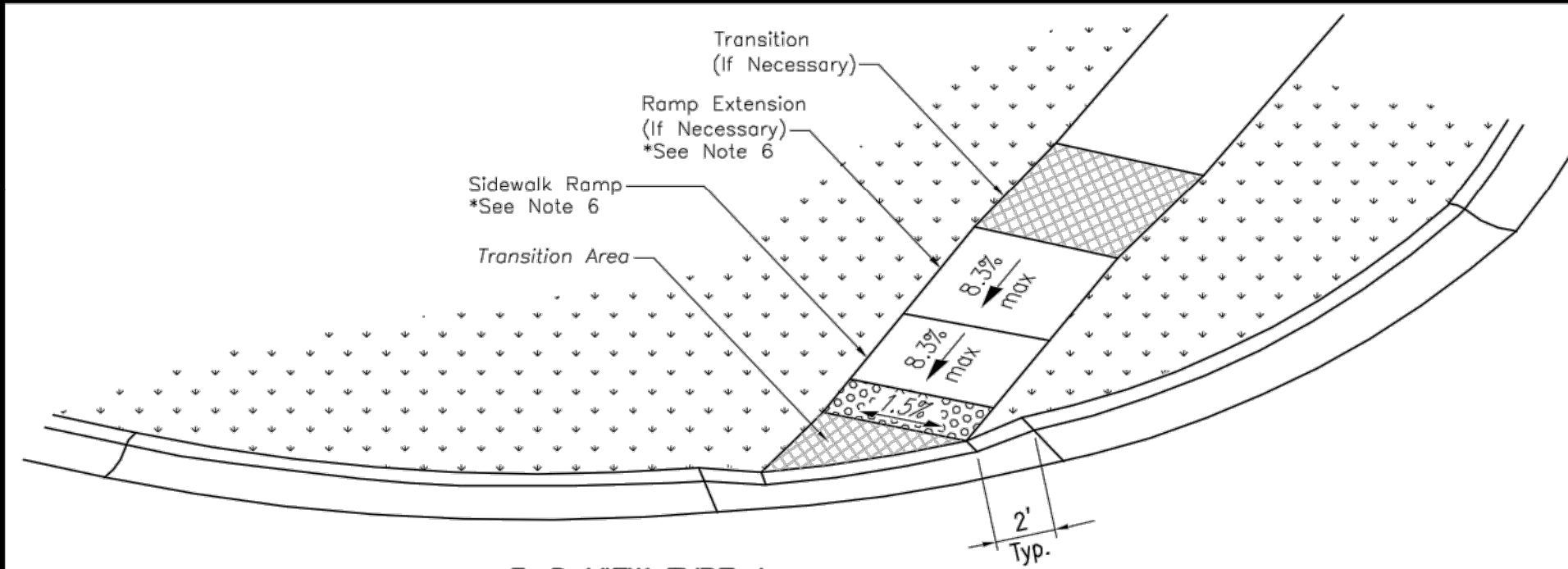
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STANDARD DETAILS	REV. NO.	DATE	REVISIONS DESCRIPTION	BY
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS				
LEE'S SUMMIT, MISSOURI				

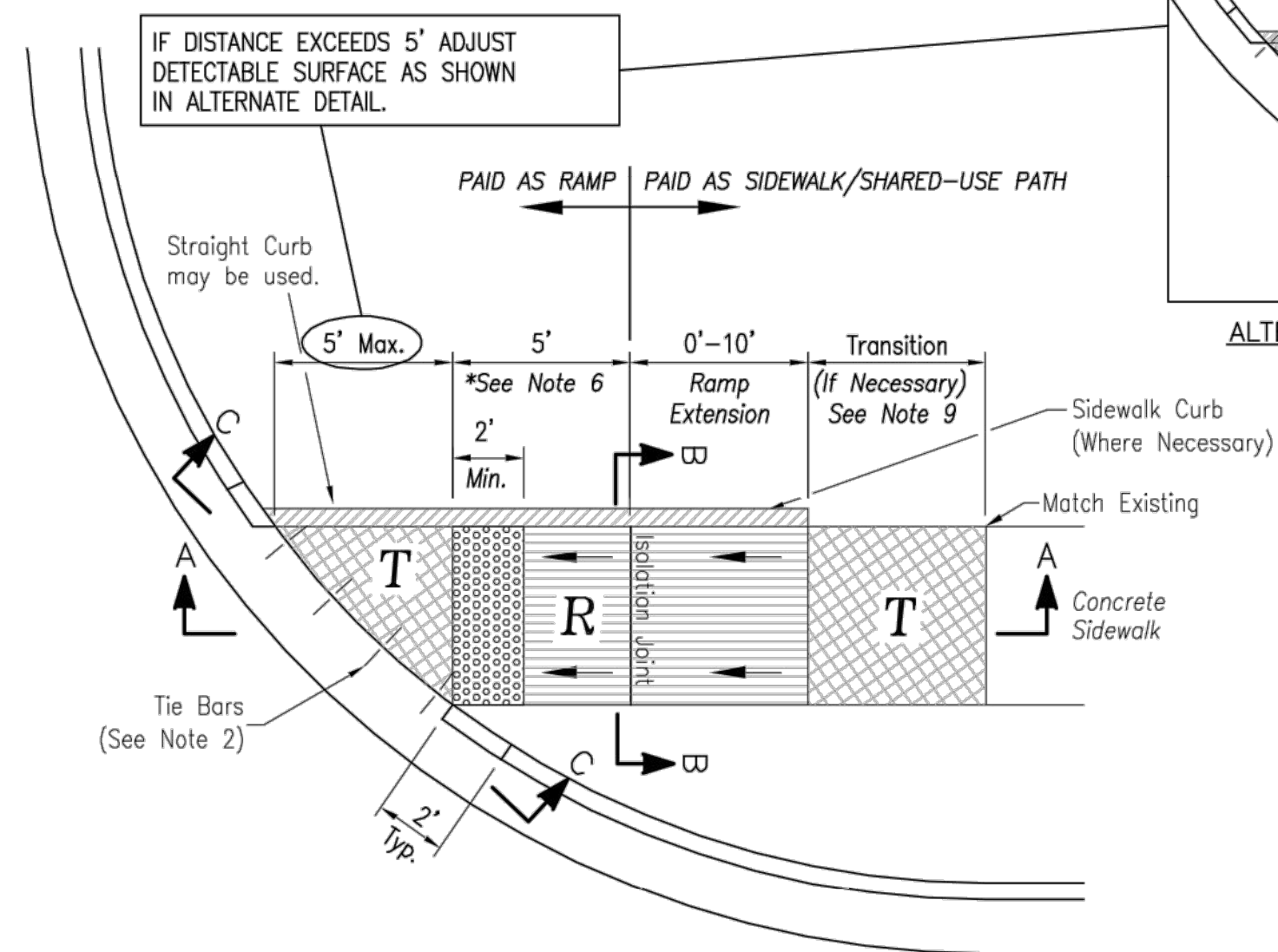
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 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_DTL01\_0200103  
 DATE: 2022-11-04

**olsson**

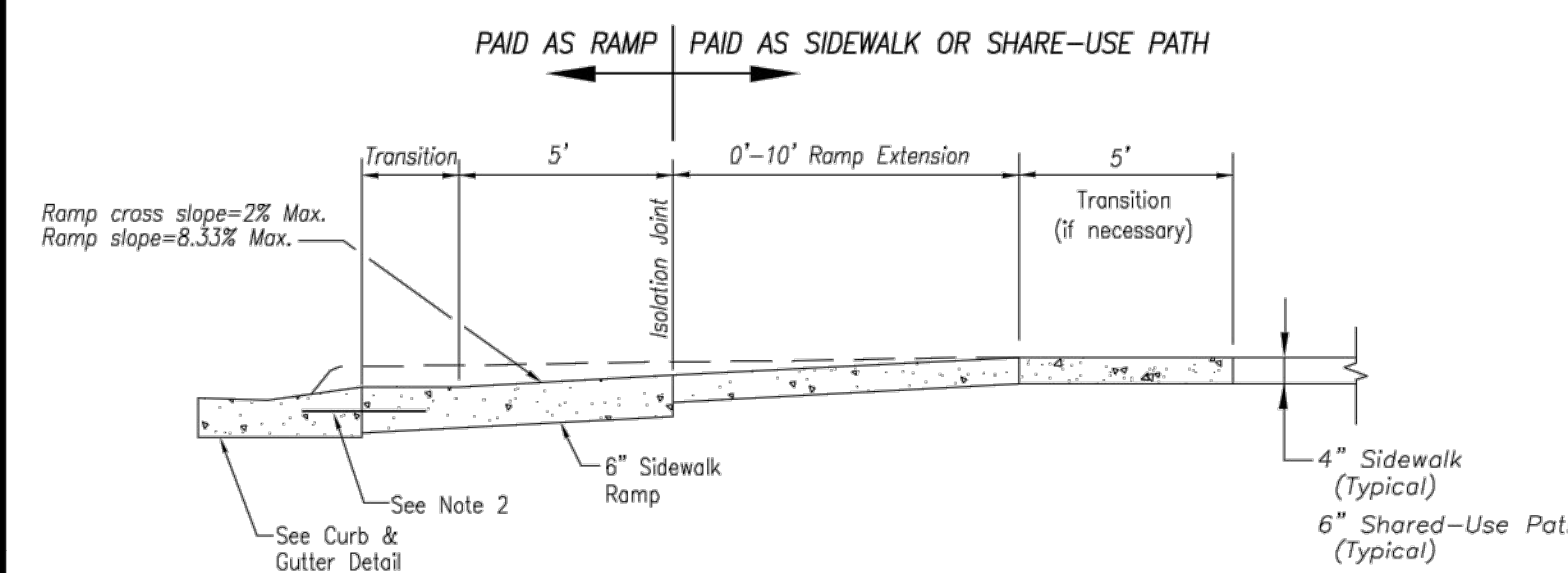
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 7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
 Overland Park, KS 66213-4760 FAX: 913.381.1174  
 www.ollson.com



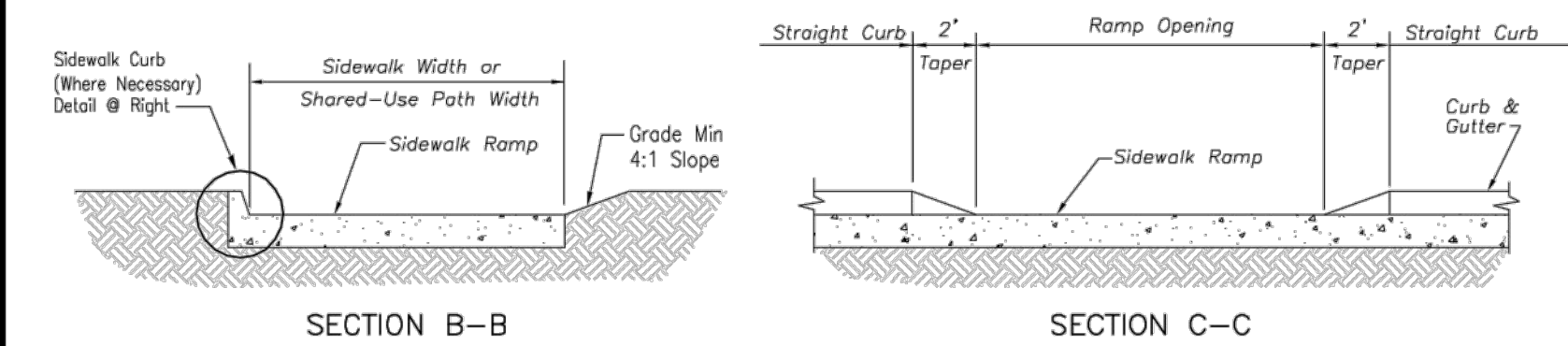
3-D VIEW TYPE A SIDEWALK/SHARED-USE RAMP



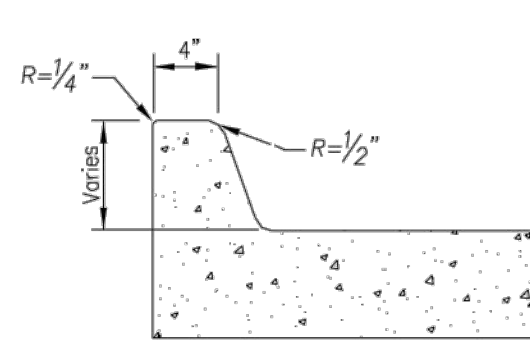
TYPE A SIDEWALK/SHARED-USE RAMP Not to Scale



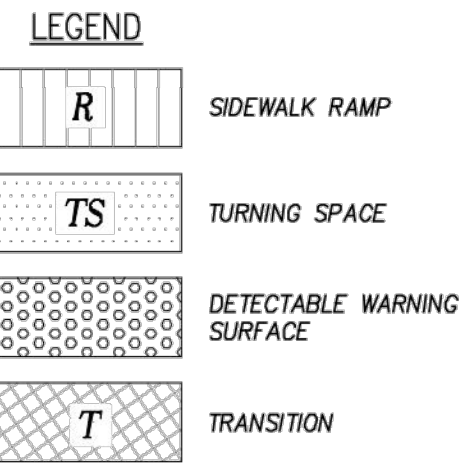
SECTION A-A



TYPE A & B SIDEWALK RAMP Not to Scale

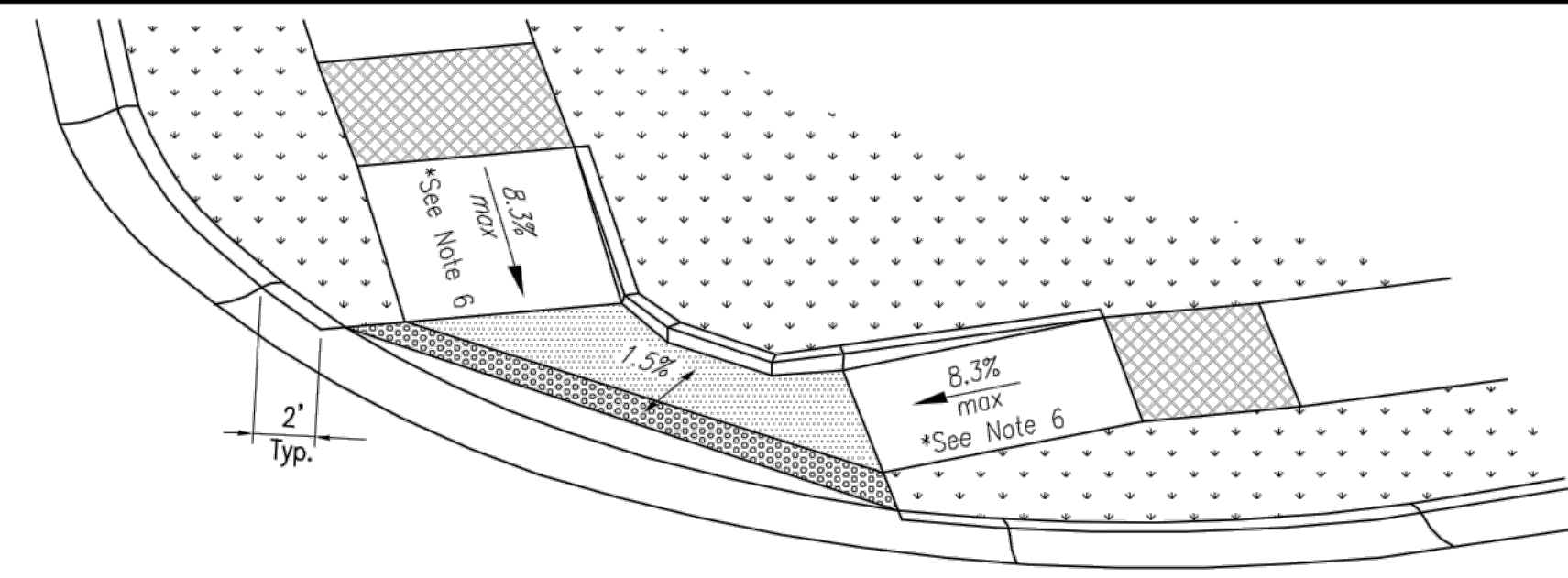


SIDEWALK CURB DETAIL Not to Scale

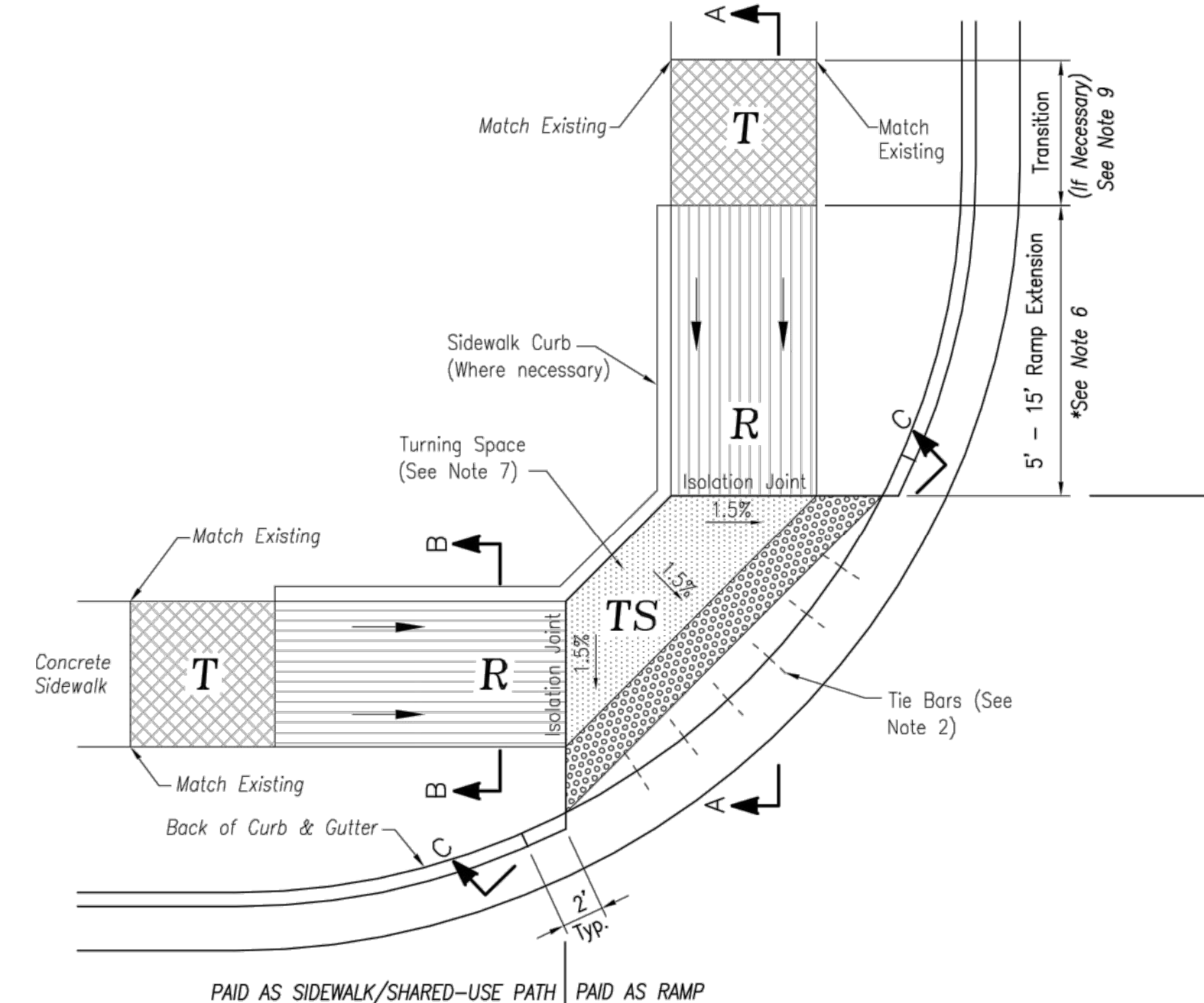


SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

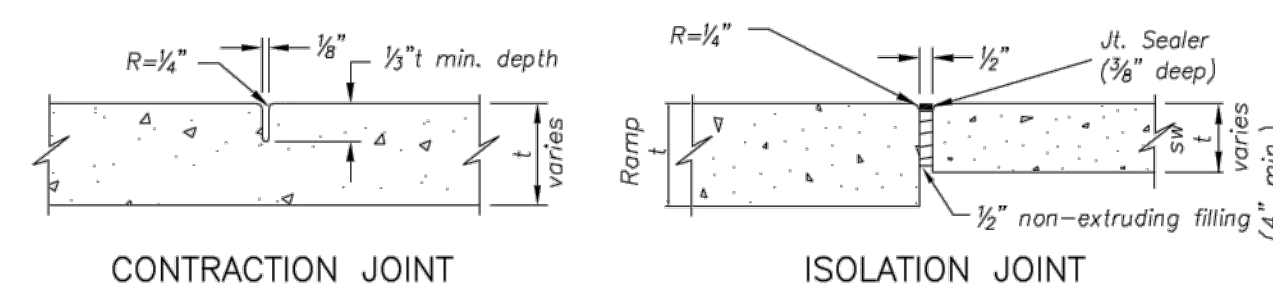
- CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
- USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
- ALL RAMP, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
- LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
- ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
- ADA MAXIMUM RAMP SLOPE = 8.33%  
ADA MAXIMUM CROSS SLOPE = 2.0%  
\*ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
- TURNING SPACES SHALL BE 1.5%, ±0.5% SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
- FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
- RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMP TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
- ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



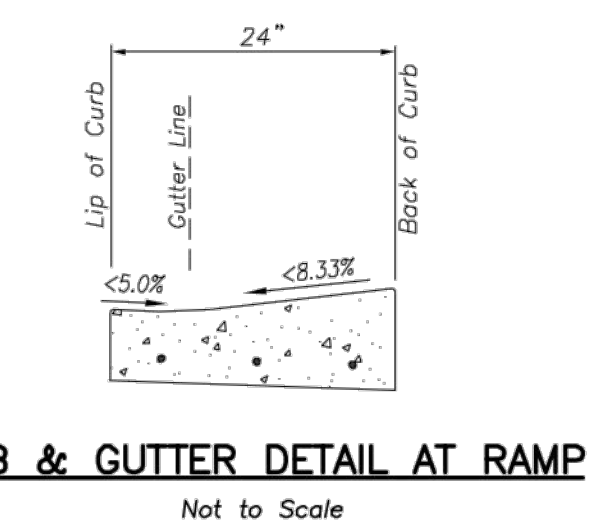
3-D VIEW TYPE B SIDEWALK/SHARED-USE RAMP



TYPE B SIDEWALK/SHARED-USE RAMP Not to Scale



JOINT DETAILS Not to Scale



CURB & GUTTER DETAIL AT RAMP Not to Scale

LEE'S SUMMIT MISSOURI

STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
Sheet Name: ADA RAMP RETROFIT DETAIL

Drawn By: MJF  
Checked By: DL  
Date: 04/17  
Proj. #:

GEN-3A

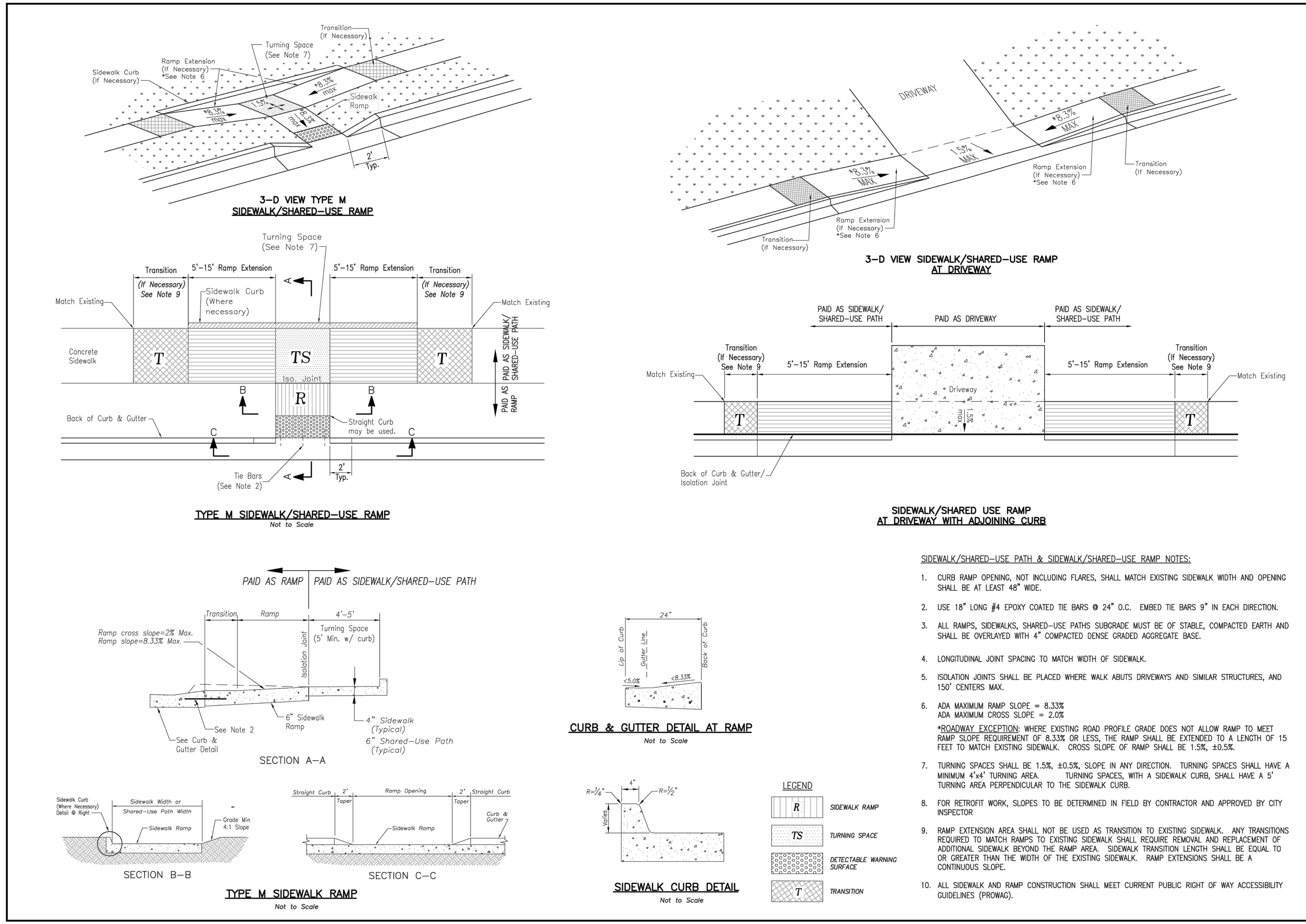
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

2021

STANDARD DETAILS  
LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS  
LEE'S SUMMIT, MISSOURI

C.O.A. NO.: 001592  
DRAWN BY: MLW  
CHECKED BY: RPH  
APPROVED BY: RBE  
QA/QC BY: RBE  
PROJECT NO.: 020-0103  
DWG NO.: T\_DTL01\_0200103  
DATE: 2022-11-04



- SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:**
- CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
  - USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
  - ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
  - LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
  - ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
  - ADA MAXIMUM RAMP SLOPE = 8.33%  
ADA MAXIMUM CROSS SLOPE = 2.0%  
\*ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
  - TURNING SPACES SHALL BE 1.5%, ±0.5% SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
  - FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
  - RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
  - ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).

**LEE'S SUMMIT MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
Sheet Name: ADA RAMP RETROFIT DETAIL

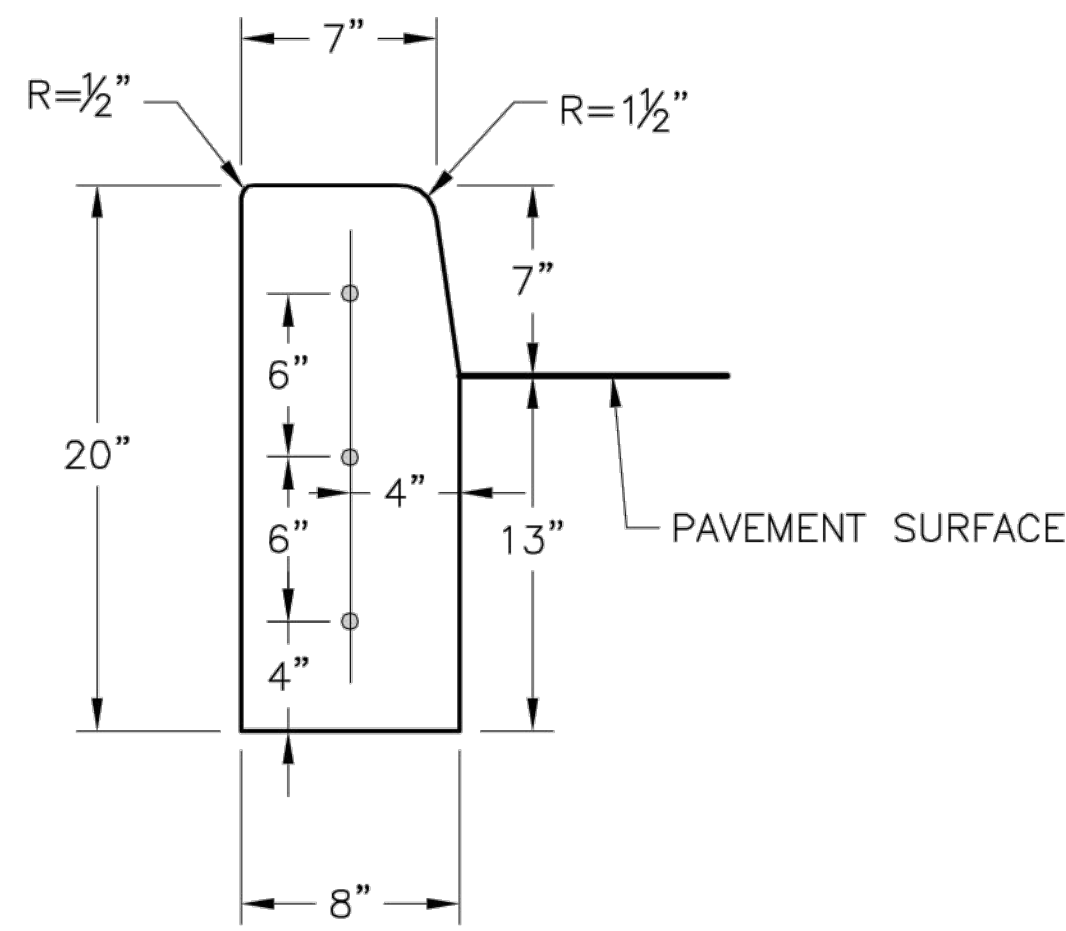
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Checked By: DL  
Date: 04/17  
Proj. #:

**GEN-3B**

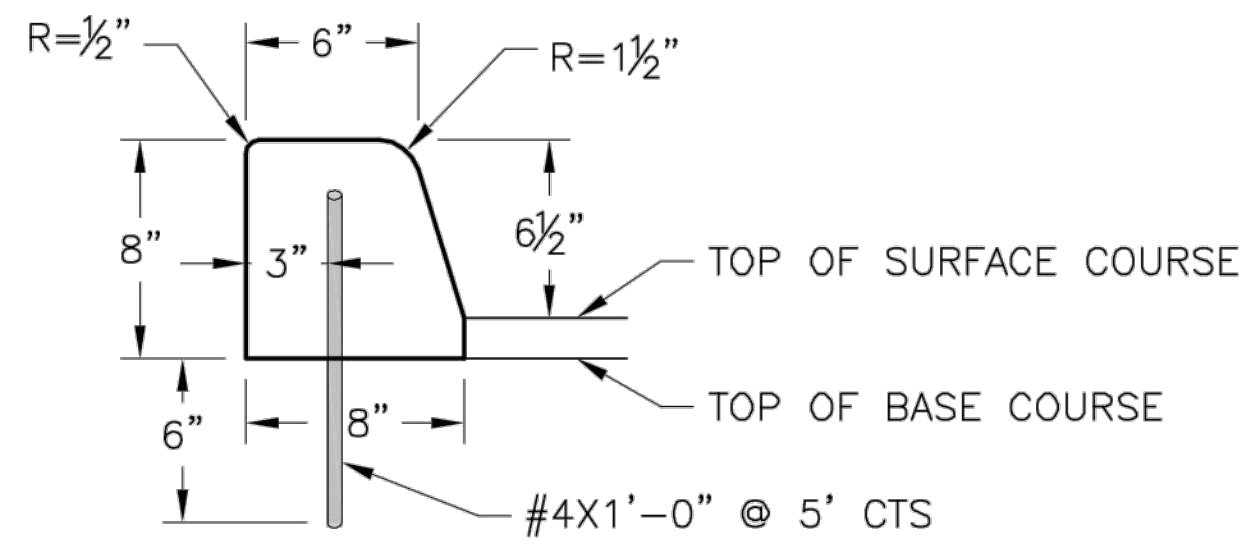
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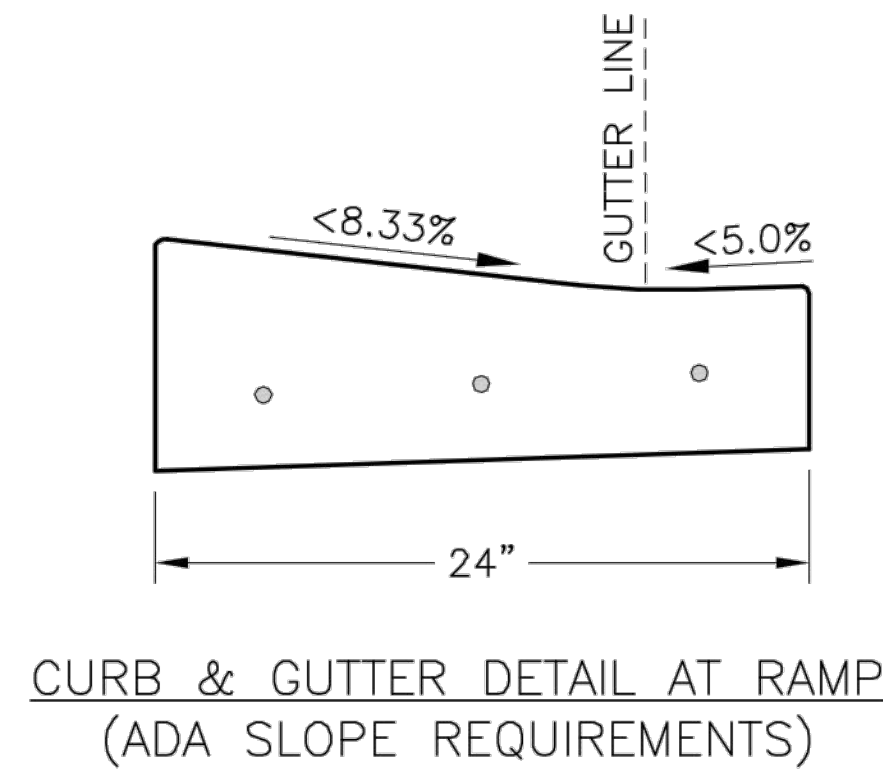
STANDARD DETAILS	2021
LEE'S SUMMIT MIDDLE SCHOOL #4 BAILEY ROAD PUBLIC IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	



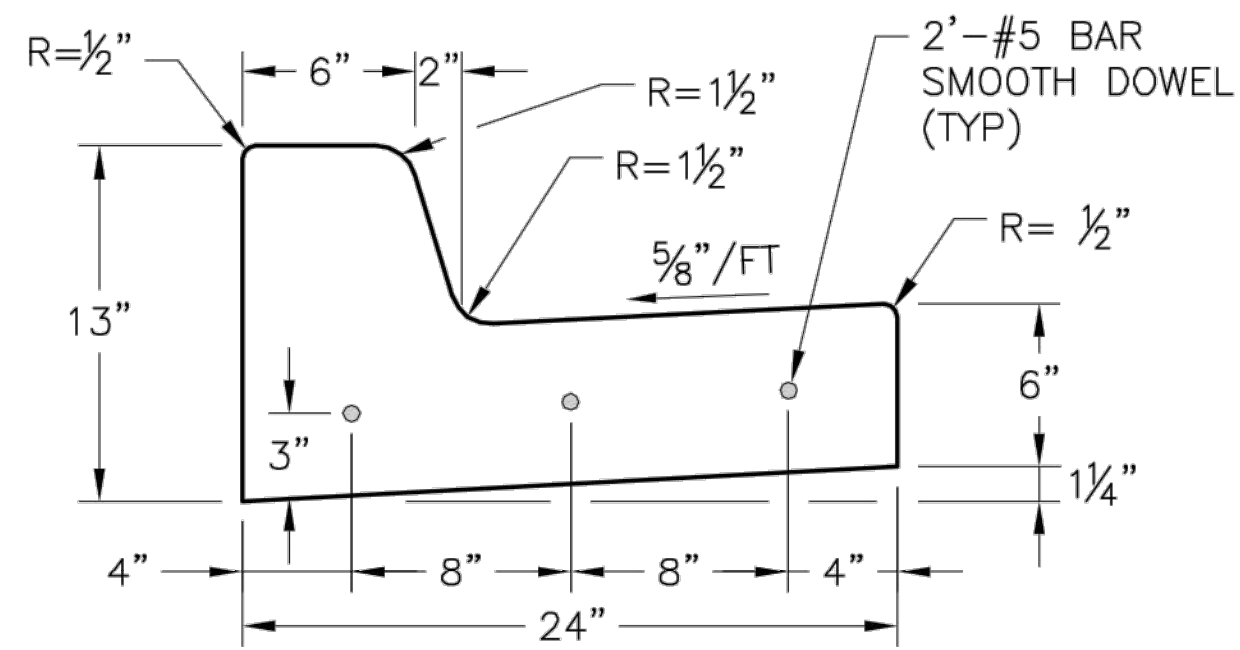
STRAIGHT CURB  
(TYPE C-1)



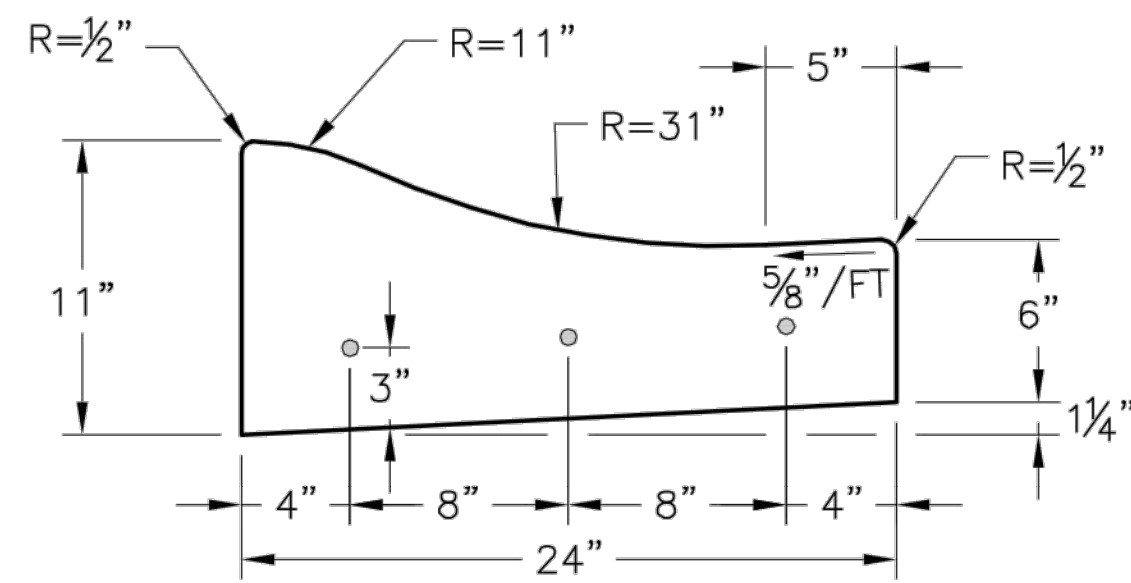
DOWELLED CURB  
(TYPE DC)



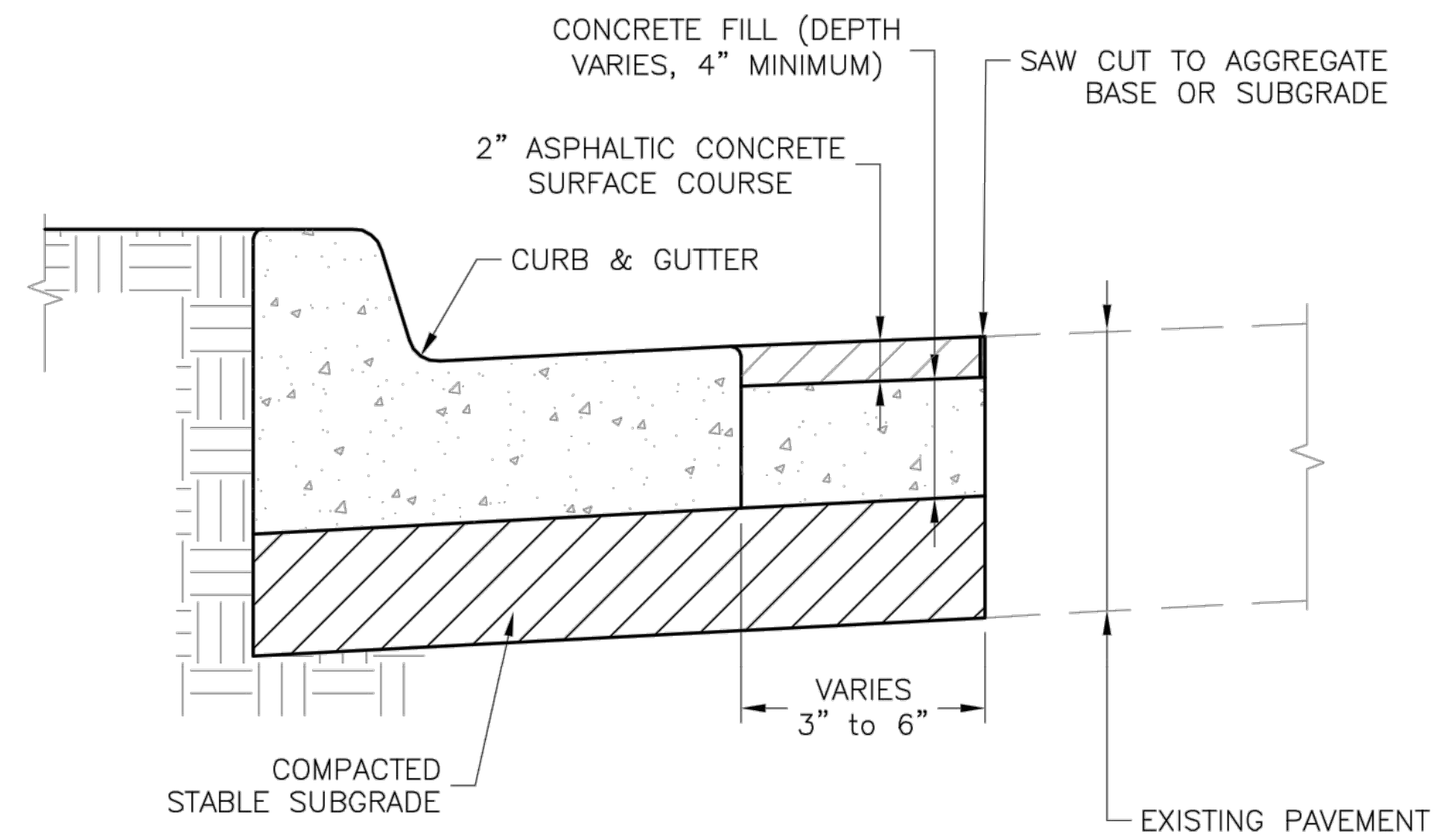
CURB & GUTTER DETAIL AT RAMP  
(ADA SLOPE REQUIREMENTS)



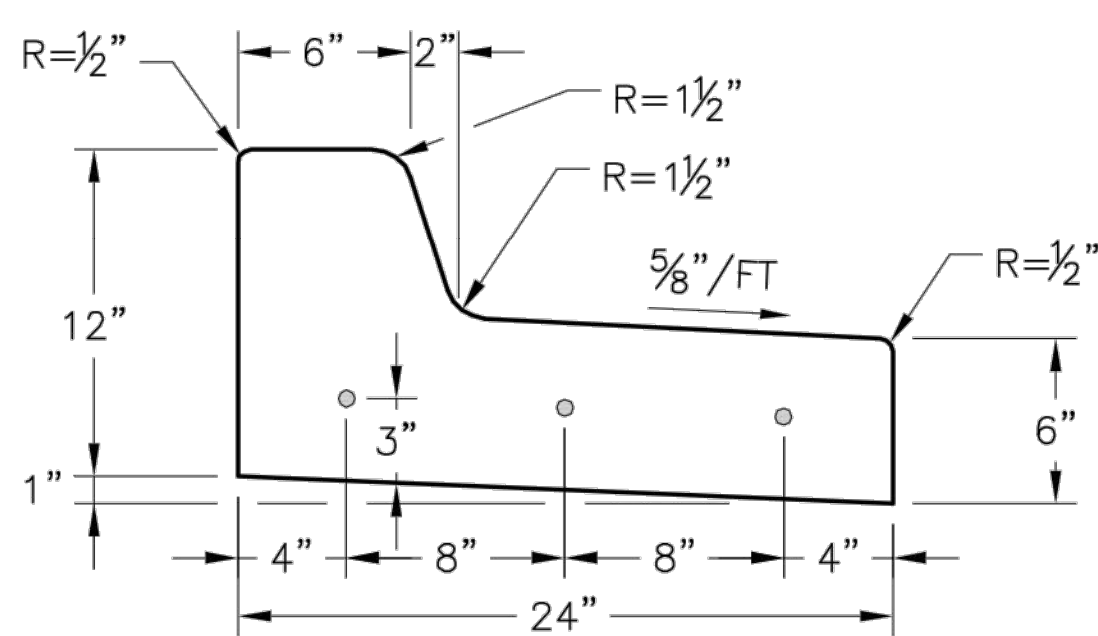
STRAIGHT BACK CURB & GUTTER  
(TYPE CG-1)



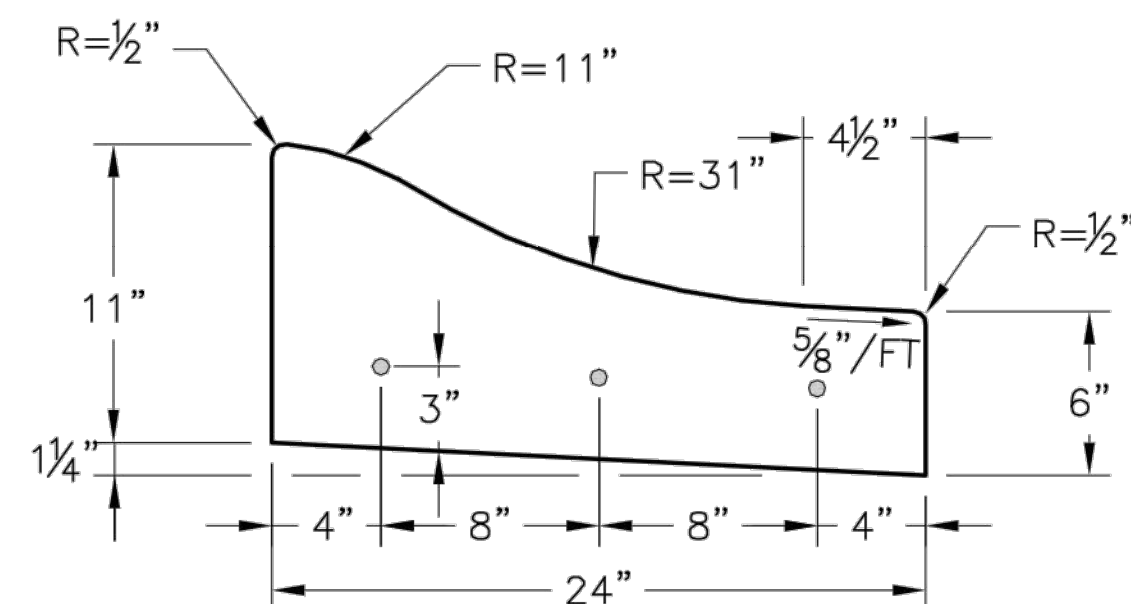
ROLL BACK CURB & GUTTER  
(TYPE CG-2)



CURB REPLACEMENT DETAIL



STRAIGHT BACK DRY CURB & GUTTER  
(TYPE CG-1 DRY)



ROLL BACK DRY CURB & GUTTER  
(TYPE CG-2 DRY)

GENERAL NOTES

- 3/4" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
- 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
- KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
- ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
- CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
- WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

**LEE'S SUMMIT**  
**MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
Sheet Name: CURB & GUTTER DETAIL

Drawn By: MJF  
Checked By: DL  
Date: 04/17  
Proj. #:

GEN-4

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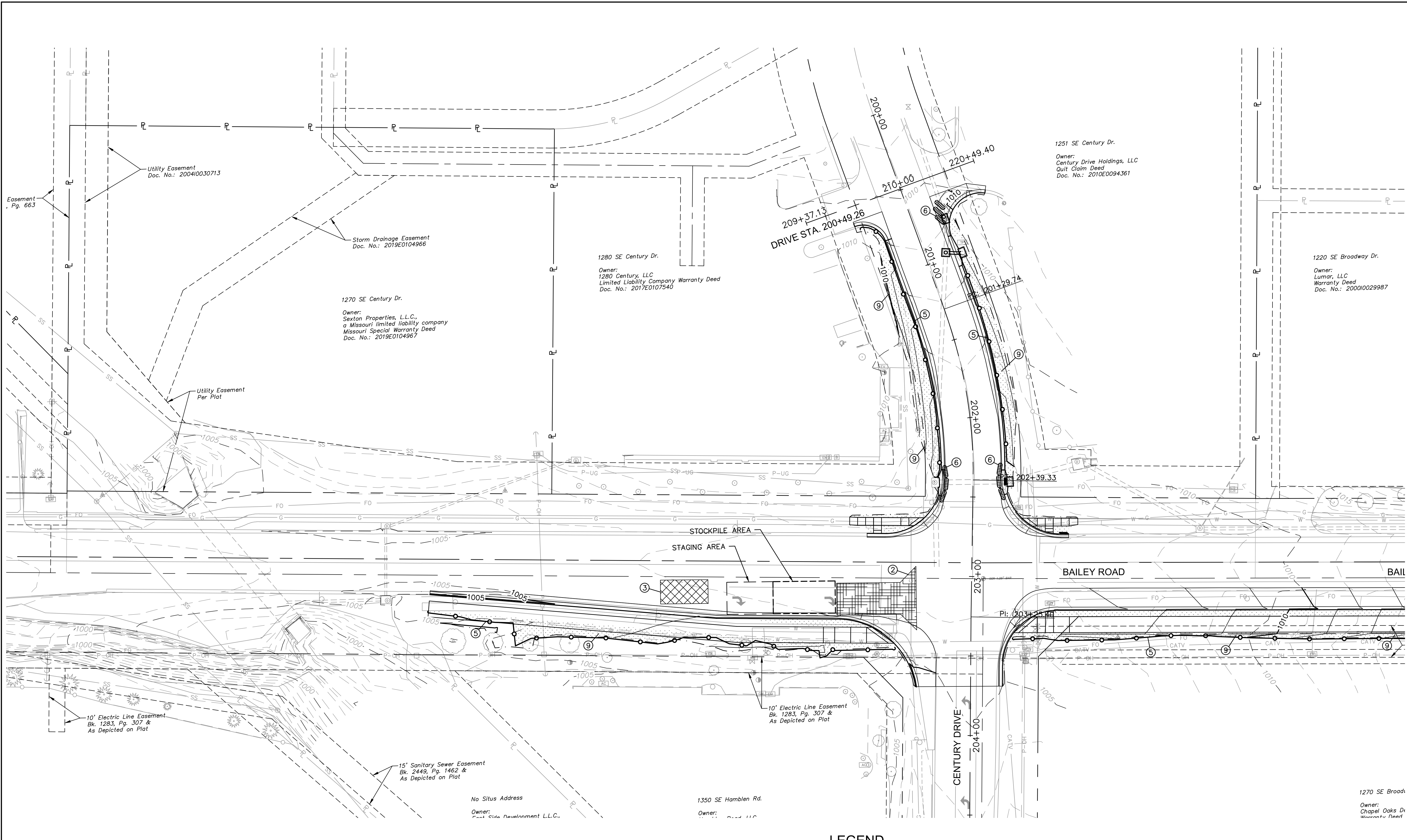
STANDARD DETAILS

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

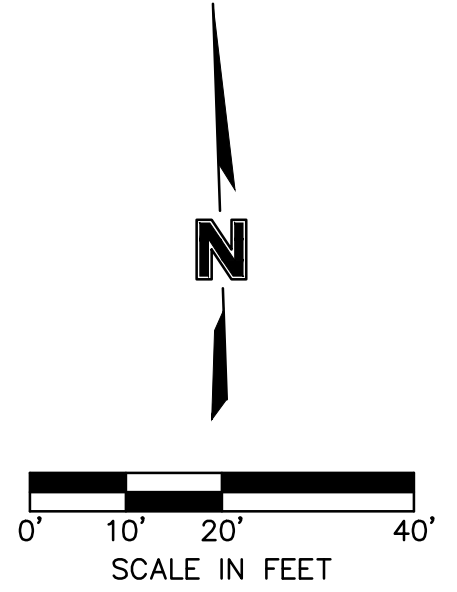
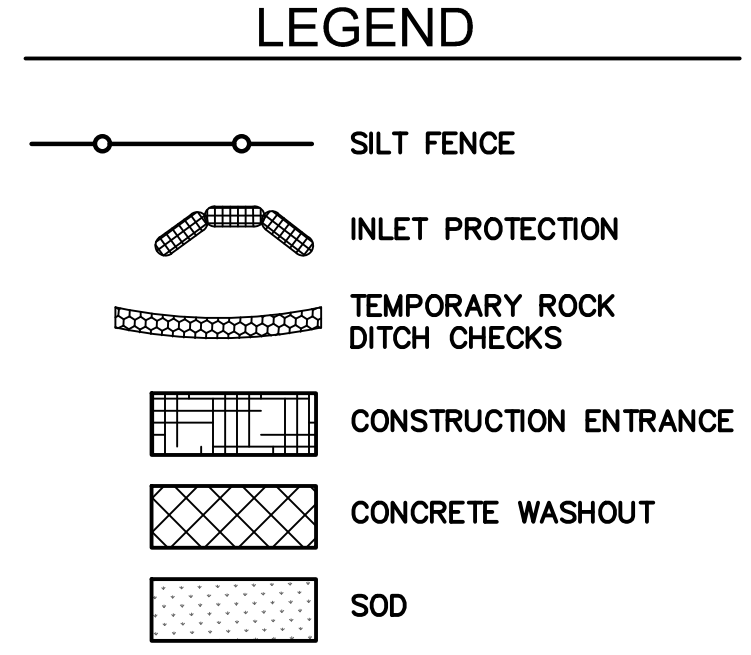
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DRAWN BY:	MLW
CHECKED BY:	RPH
APPROVED BY:	RBE
QA/QC BY:	RBE
PROJECT NO.:	020-0103
DWG NO.:	T_DTL01_0200103
DATE:	2022-11-04

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EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
I - STORM SEWER INSTALLATION PRIOR TO ROADWAY GRADING	1	STAGING AREA	III	
	2	TEMPORARY CONSTRUCTION ENTRANCE	III	
	3	CONCRETE WASHOUT	III	
	4	TEMP. ROCK DITCH CHECK AND/OR BIO LOGS	IV	INSTALL BEFORE STORM SEWER INSTALLATION
	5	SILT FENCE/OR BIODEGRADABLE LOGS (9")	IV	
	6	CURB INLET PROTECTION	III	PER CURB INLET DETAIL
II - ROADWAY GRADING & SWALE GRADING	7	TEMP. ROCK DITCH CHECK AND/OR BIO LOGS	IV	PER DETAIL SHEET XX
	8	CURB INLET/AREA INLET PROTECTION	IV	GRAVEL FILTER BAGS
III - PAVING	9	SOD	N/A	



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EROSION CONTROL PLAN

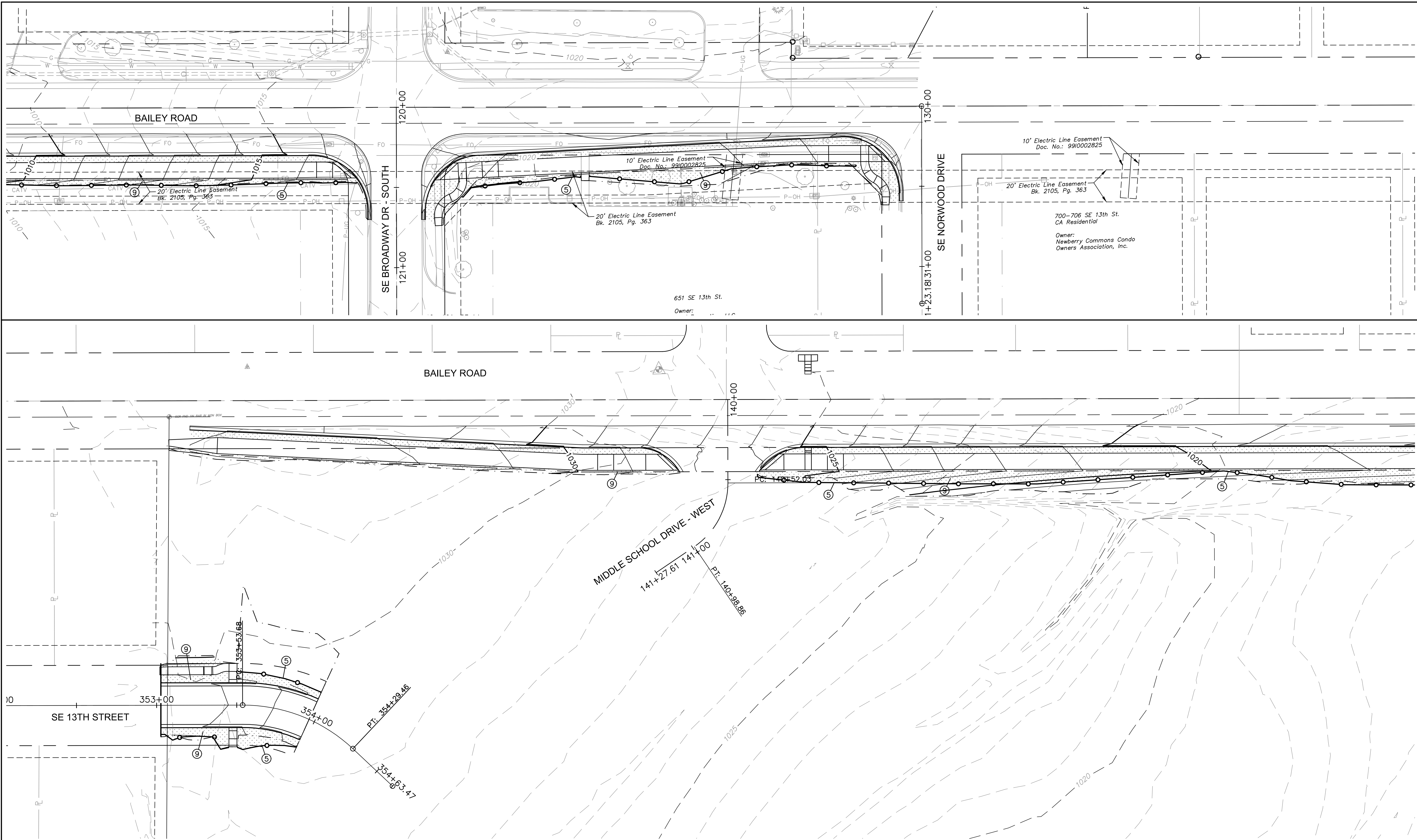
LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_ERC01\_0200103  
 DATE: 2022-11-04

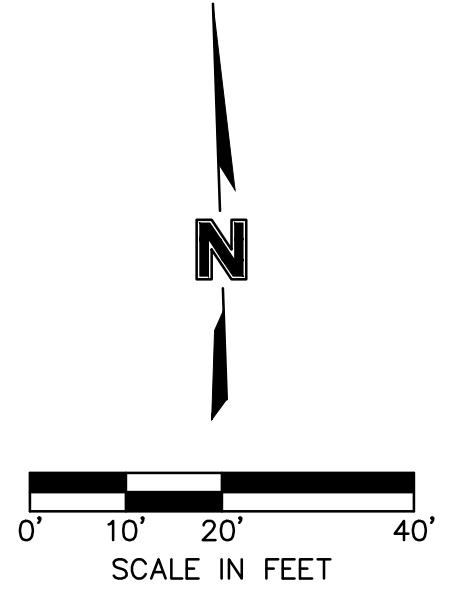
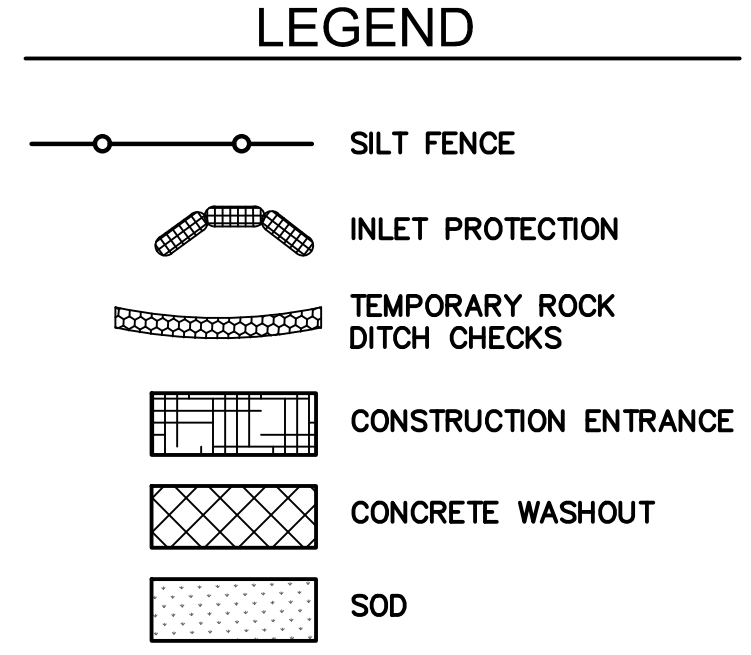
**SHEET 53 OF 101**

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EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
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	8	CURB INLET/AREA INLET PROTECTION	IV	GRAVEL FILTER BAGS
III - PAVING	9	SOD	N/A	



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EROSION CONTROL PLAN

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

EROSION CONTROL PLAN

LEE'S SUMMIT MIDDLE SCHOOL #4  
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EROSION CONTROL PLAN

LEE'S SUMMIT MIDDLE SCHOOL #4  
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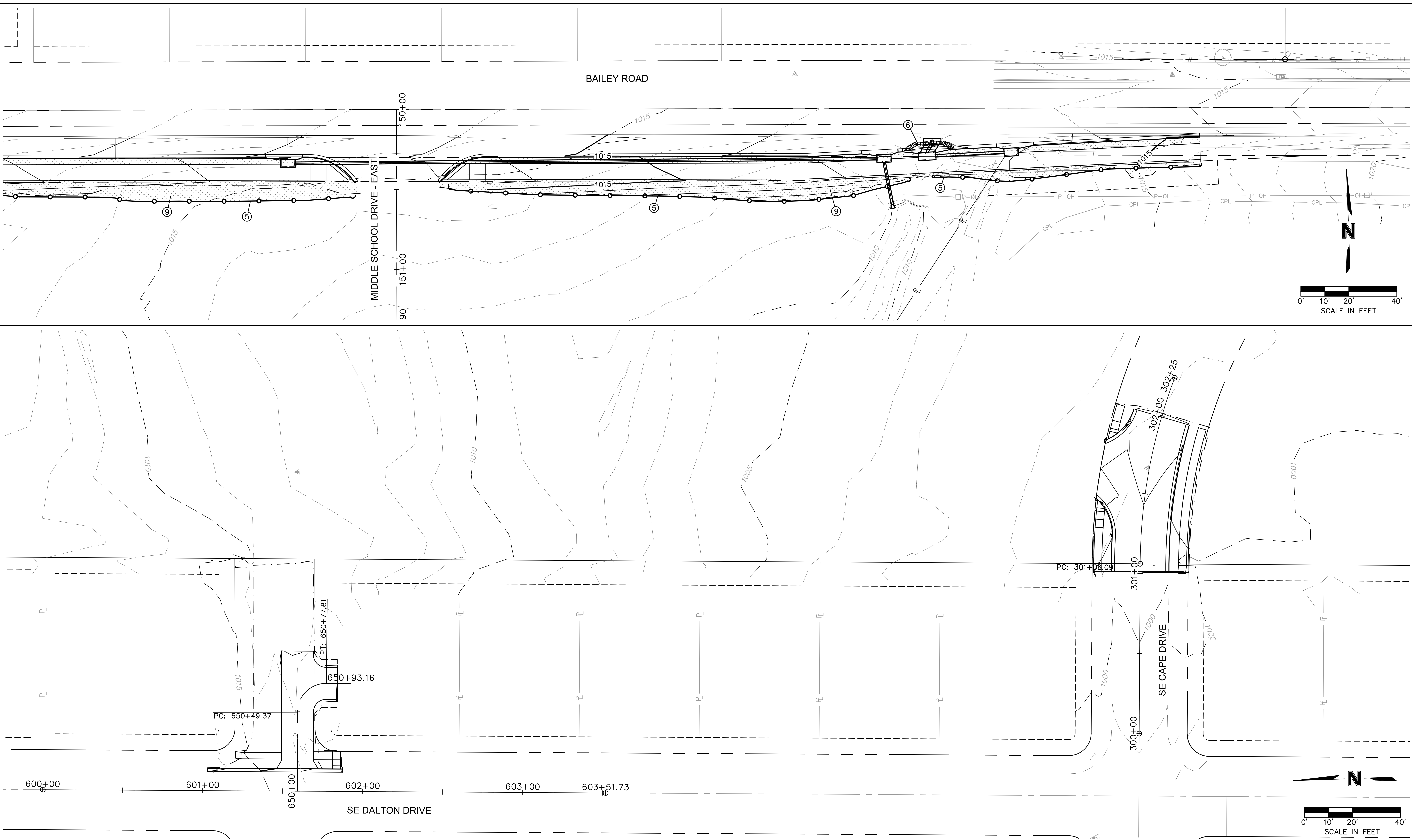
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EROSION CONTROL PLAN

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

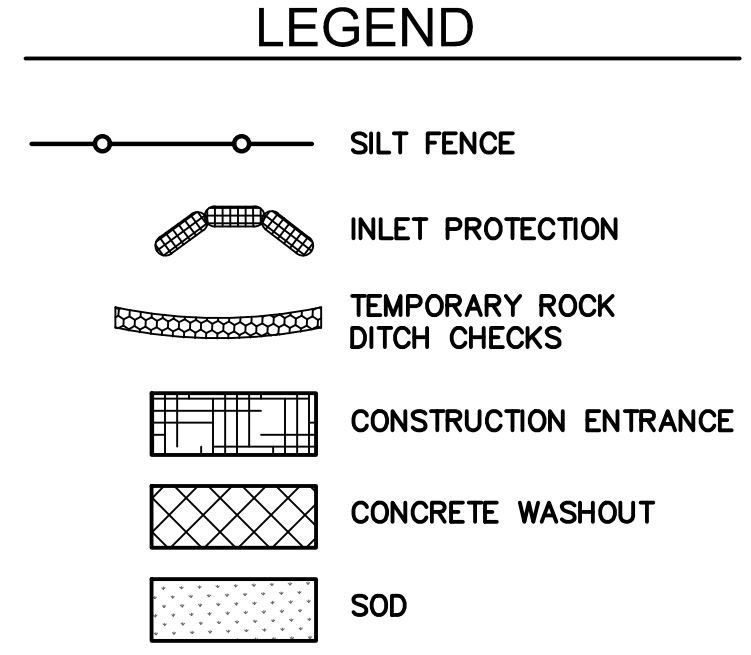
2021

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EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
I - STORM SEWER INSTALLATION PRIOR TO ROADWAY GRADING	1	STAGING AREA	III	
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EROSION CONTROL PLAN

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

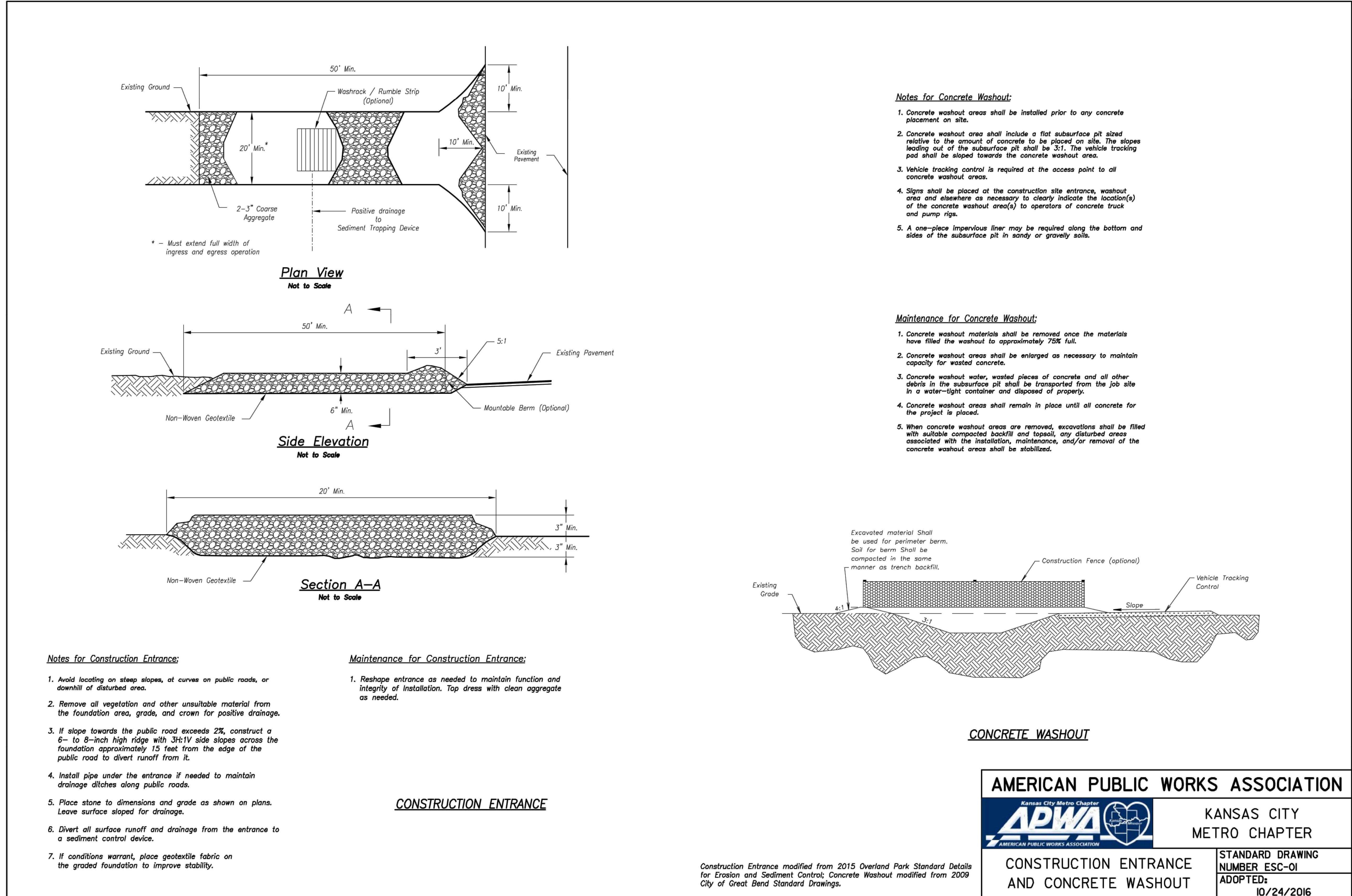
EROSION CONTROL PLAN

LEE'S SUMMIT, MISSOURI

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_ERC01\_0200103  
 DATE: 2022-11-04

SHEET  
 55 OF 101

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**CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT**

**STANDARD DRAWING NUMBER ESC-01 ADOPTED: 10/24/2016**

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**EROSION CONTROL DETAILS**

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

2021

LEE'S SUMMIT, MISSOURI

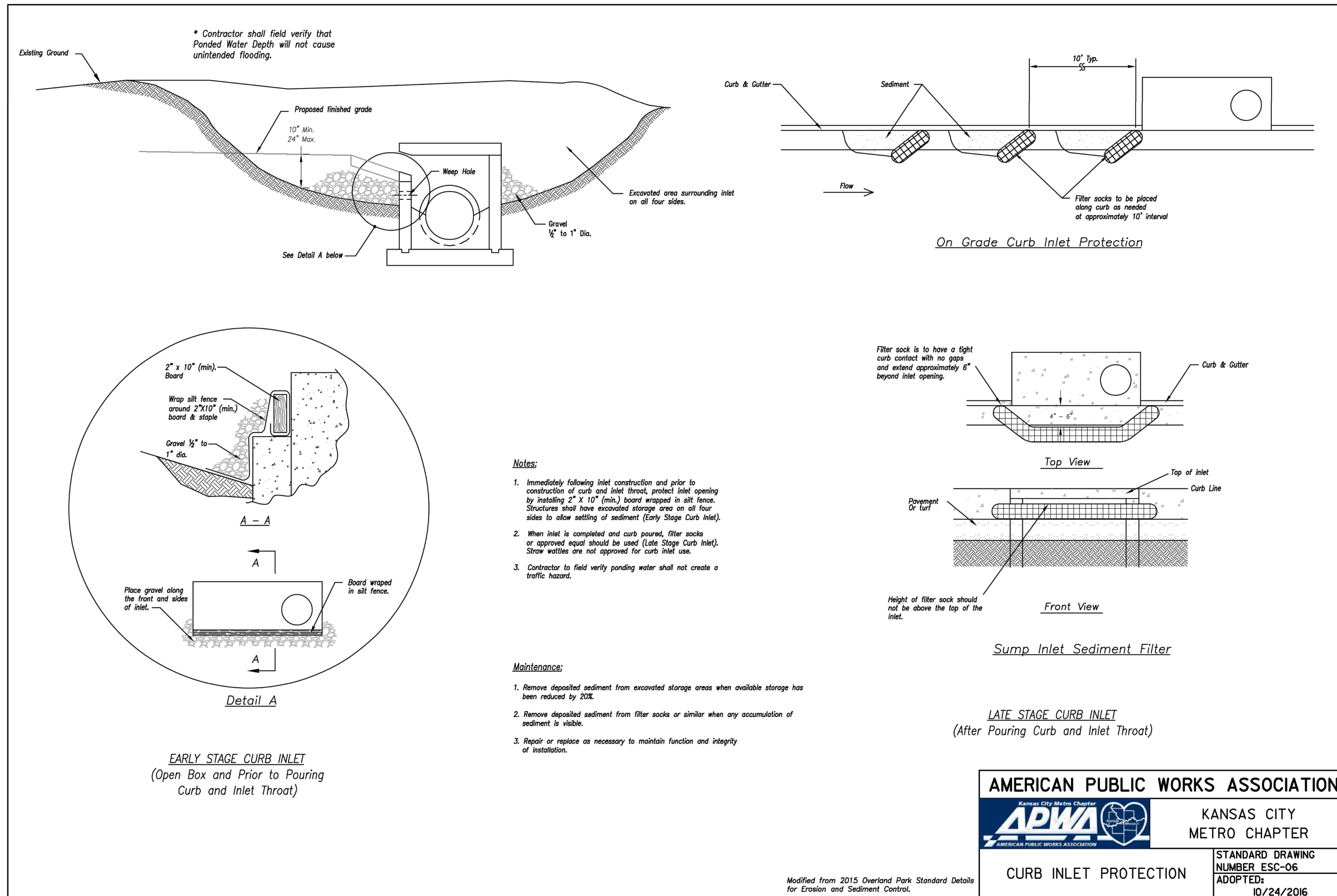
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 DWG NO.: T\_ERCDTL01\_0203004  
 DATE: 2022-11-04

**SHEET 56 OF 101**



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**Notes:**

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

**Maintenance:**

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016

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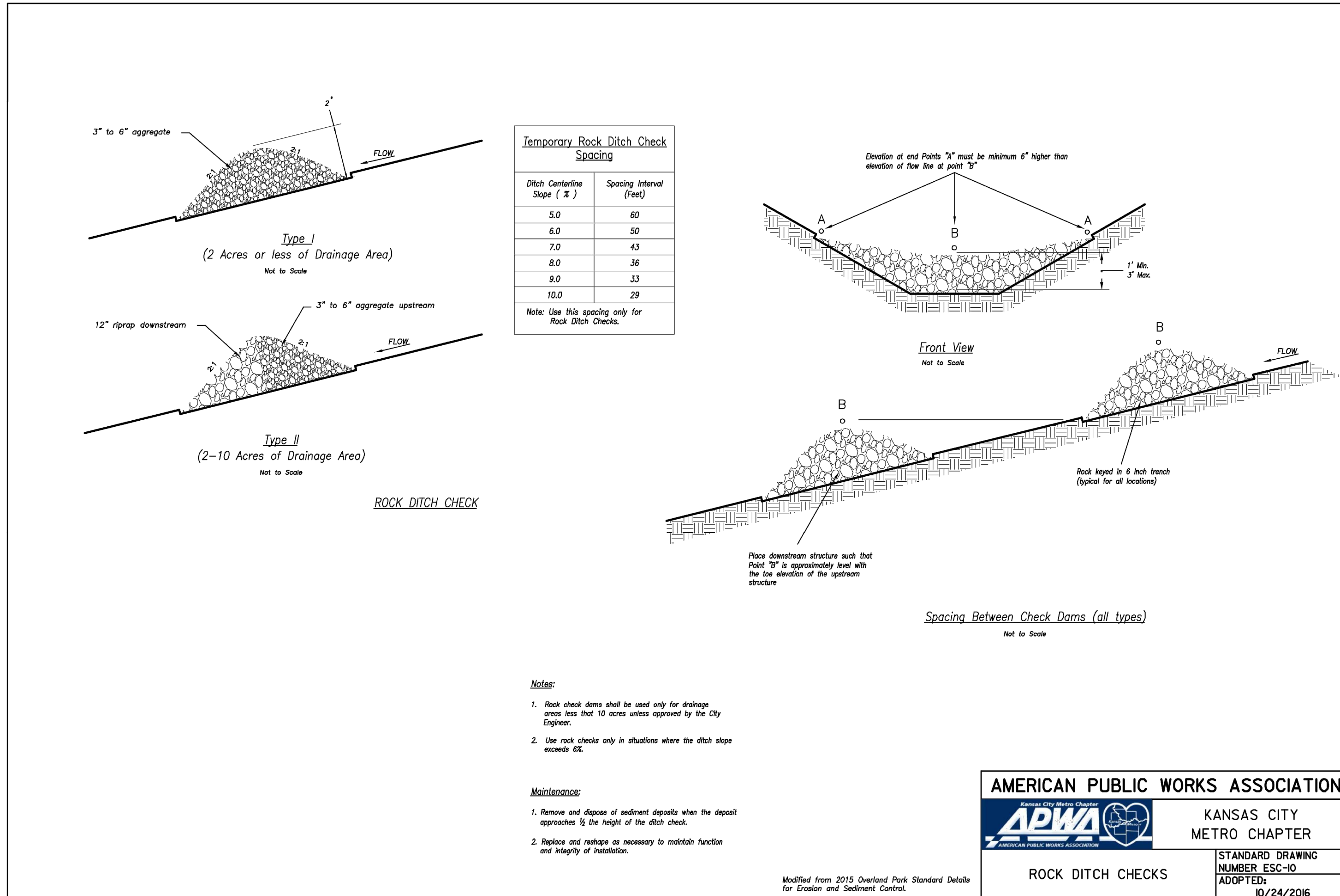
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EROSION CONTROL DETAILS  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
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**ROCK DITCH CHECKS**

STANDARD DRAWING  
 NUMBER ESC-10  
 ADOPTED:  
 10/24/2016

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EROSION CONTROL DETAILS

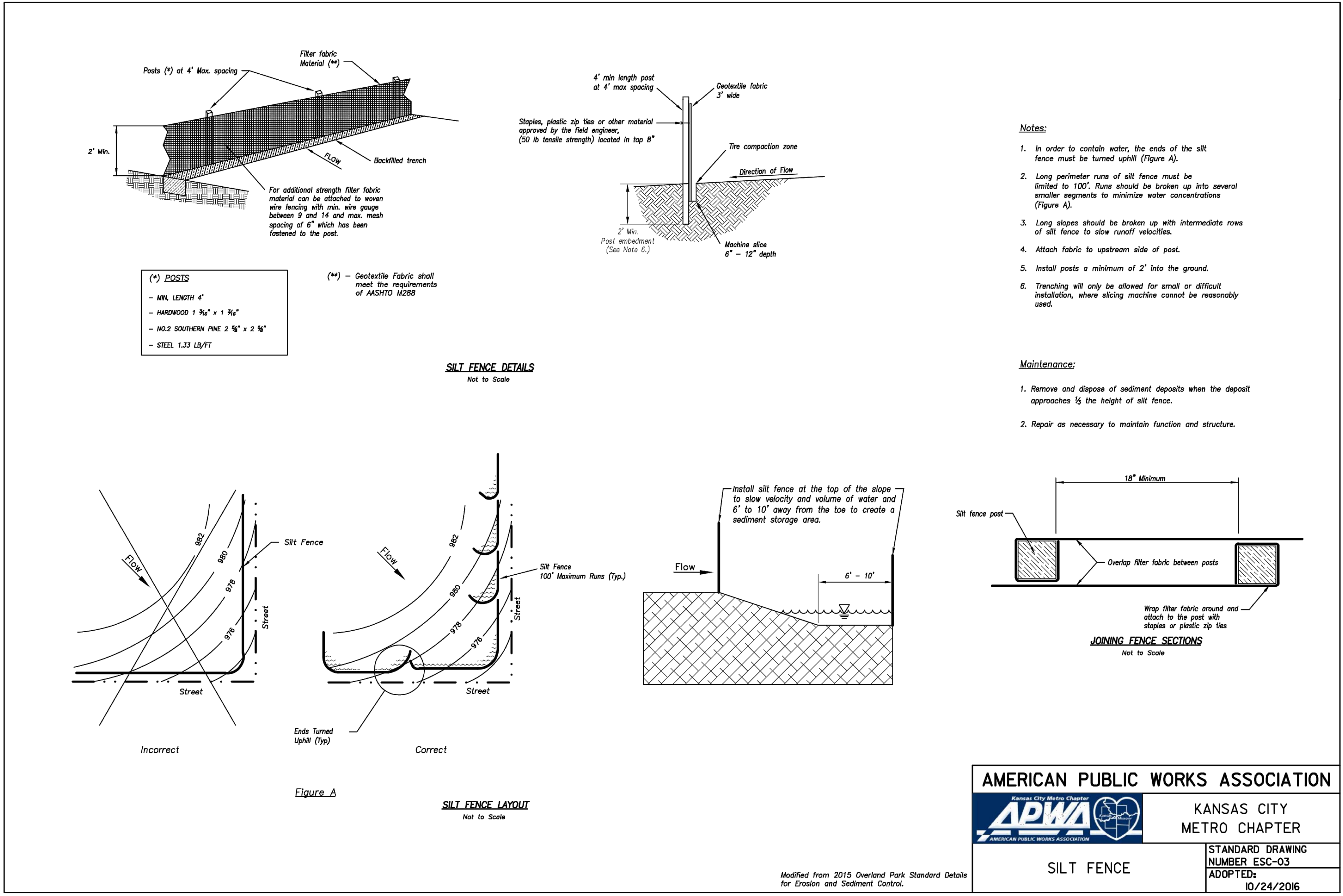
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LEE'S SUMMIT, MISSOURI

2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
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**SILT FENCE**

STANDARD DRAWING  
 NUMBER ESC-03  
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 10/24/2016

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EROSION CONTROL DETAILS

LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

2021

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

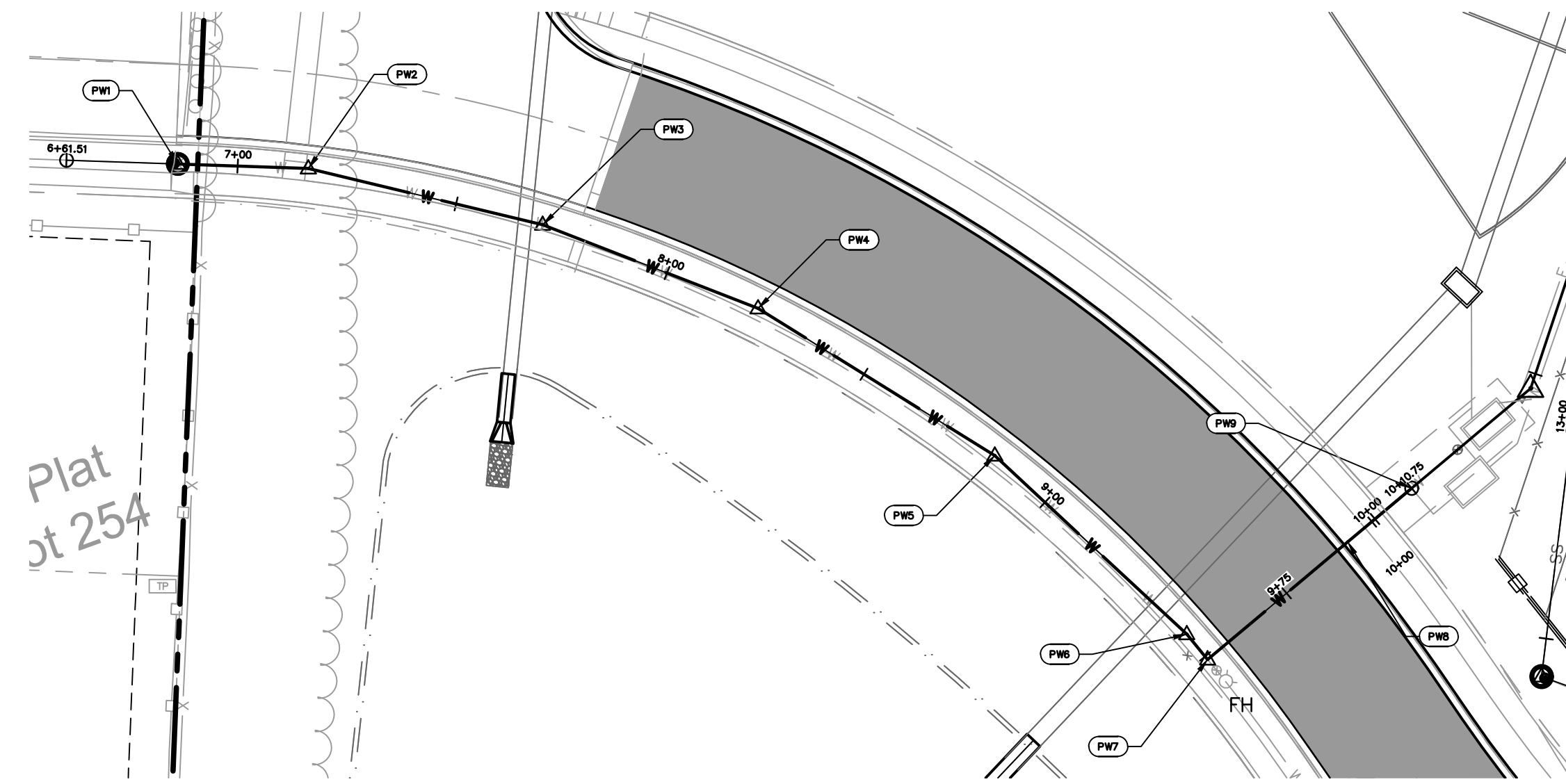
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SHEET  
 59 OF 101

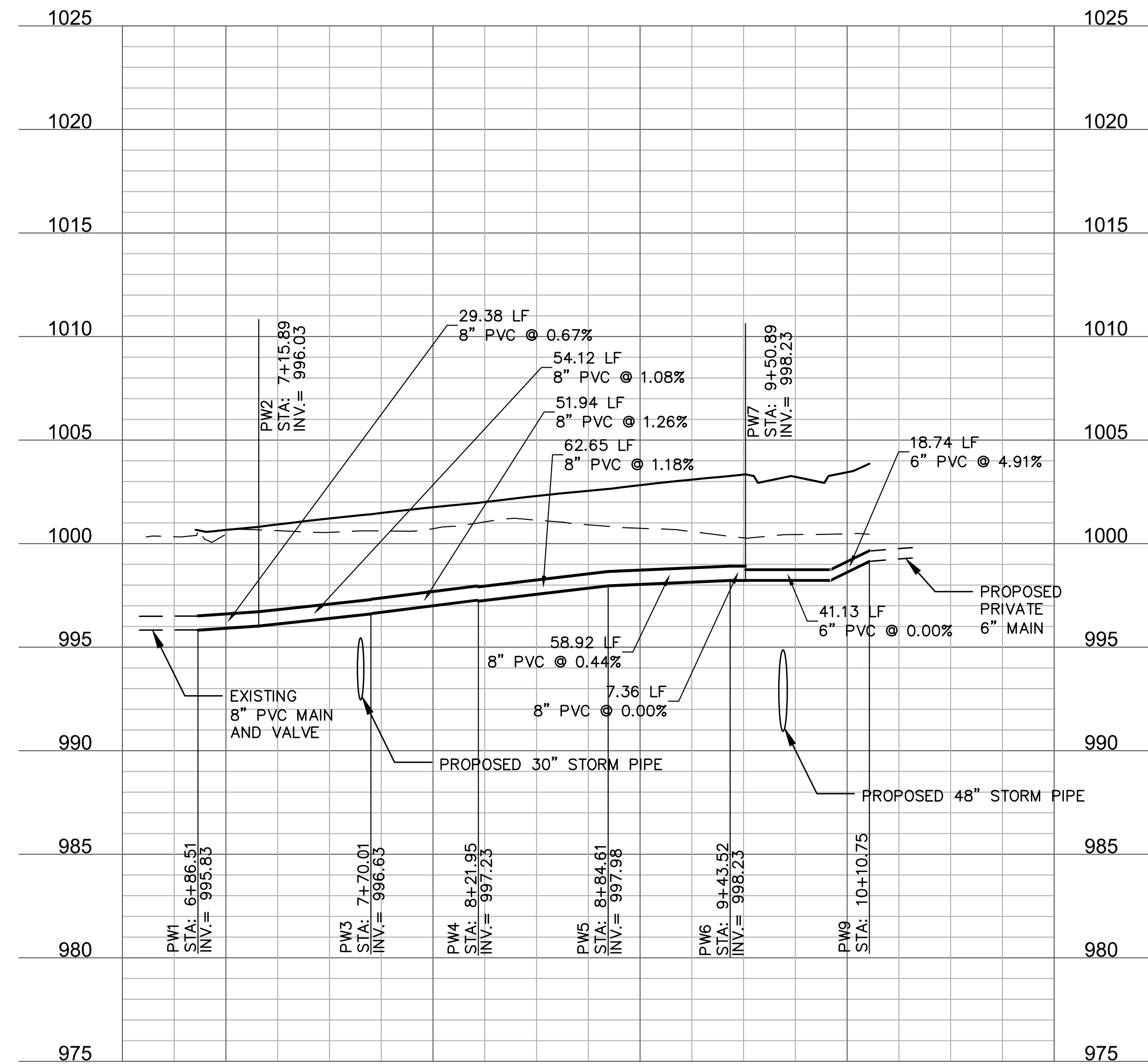
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Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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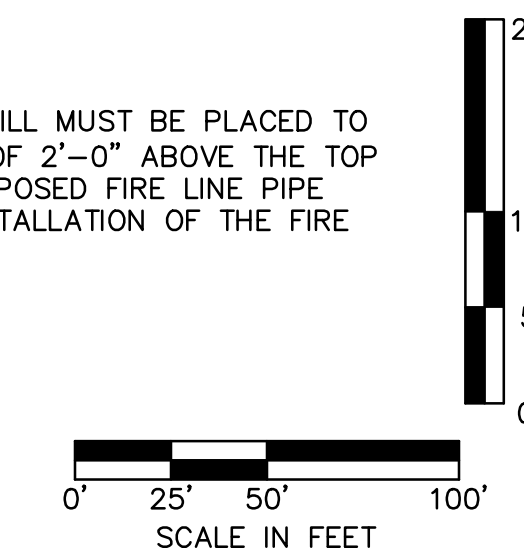
### CAPE DRIVE PUBLIC WATER MAIN EXTENSION (6+50 - 11+00)



STRUCTURES	
ID	DESCRIPTION
PW1	CONNECT TO EXISTING VALVE 6+86.51, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 995.83 (8" PVC) N: 991537.881; E: 2831449.379
PW2	11.25 BEND WITH THRUST BLOCK 7+15.89, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 996.03 (8" PVC) INV OUT = 996.03 (8" PVC) N: 991536.851; E: 2831478.740
PW3	11.25 BEND WITH THRUST BLOCK 7+70.01, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 996.63 (8" PVC) INV OUT = 996.62 (8" PVC) N: 991524.226; E: 2831531.371
PW4	11.25 BEND WITH THRUST BLOCK 8+21.95, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 997.23 (8" PVC) INV OUT = 997.29 (8" PVC) N: 991505.415; E: 2831579.786
PW5	11.25 BEND WITH THRUST BLOCK 8+84.61, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 997.98 (8" PVC) INV OUT = 997.98 (8" PVC) N: 991472.333; E: 2831632.991
PW6	11.25 BEND WITH THRUST BLOCK 9+43.52, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 998.23 (8" PVC) INV OUT = 998.23 (8" PVC) N: 991432.192; E: 2831676.120
PW7	90 BEND WITH THRUST BLOCK, REDUCER, AND STANDARD FIRE HYDRANT ASSEMBLY 9+50.89, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 998.23 (6" PVC) INV OUT = 998.23 (8" PVC) N: 991426.518; E: 2831680.811
PW8	11.25 BEND WITH THRUST BLOCK 9+92.01, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION INV IN = 998.23 (6" PVC) INV OUT = 998.23 (6" PVC) N: 991452.963; E: 2831712.306
PW9	CONTINUE TO PRIVATE MAIN 10+10.75, 0.00' CAPE DRIVE PUBLIC WATER MAIN EXTENSION N: 991465.015; E: 2831726.659

#### LEGEND

COMPACTED FILL MUST BE PLACED TO A MINIMUM OF 2'-0" ABOVE THE TOP OF THE PROPOSED FIRE LINE PIPE PRIOR TO INSTALLATION OF THE FIRE LINE PIPE.

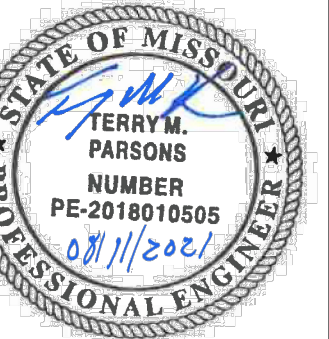


#### GENERAL NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE AMERICAN PUBLIC WORKS ASSOCIATION - KANSAS CITY METROPOLITAN CHAPTER (APWA-KC) AND THE CITY OF LEE'S SUMMIT, MO, EXCEPT WHERE SHOWN OTHERWISE. NOTIFY ENGINEER OF DISCREPANCIES
- PIPE AND FITTING MATERIALS USED IN THE CONSTRUCTION OF WATER MAINS SHALL BE POLYVINYL CHLORIDE (PVC) AWWA C900 AND AWWA C905

# olsson

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 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.olsson.com



TERRY M. PARSONS  
 MO. NO. PE-2018010505

REV. NO.	DATE	REVISIONS DESCRIPTION

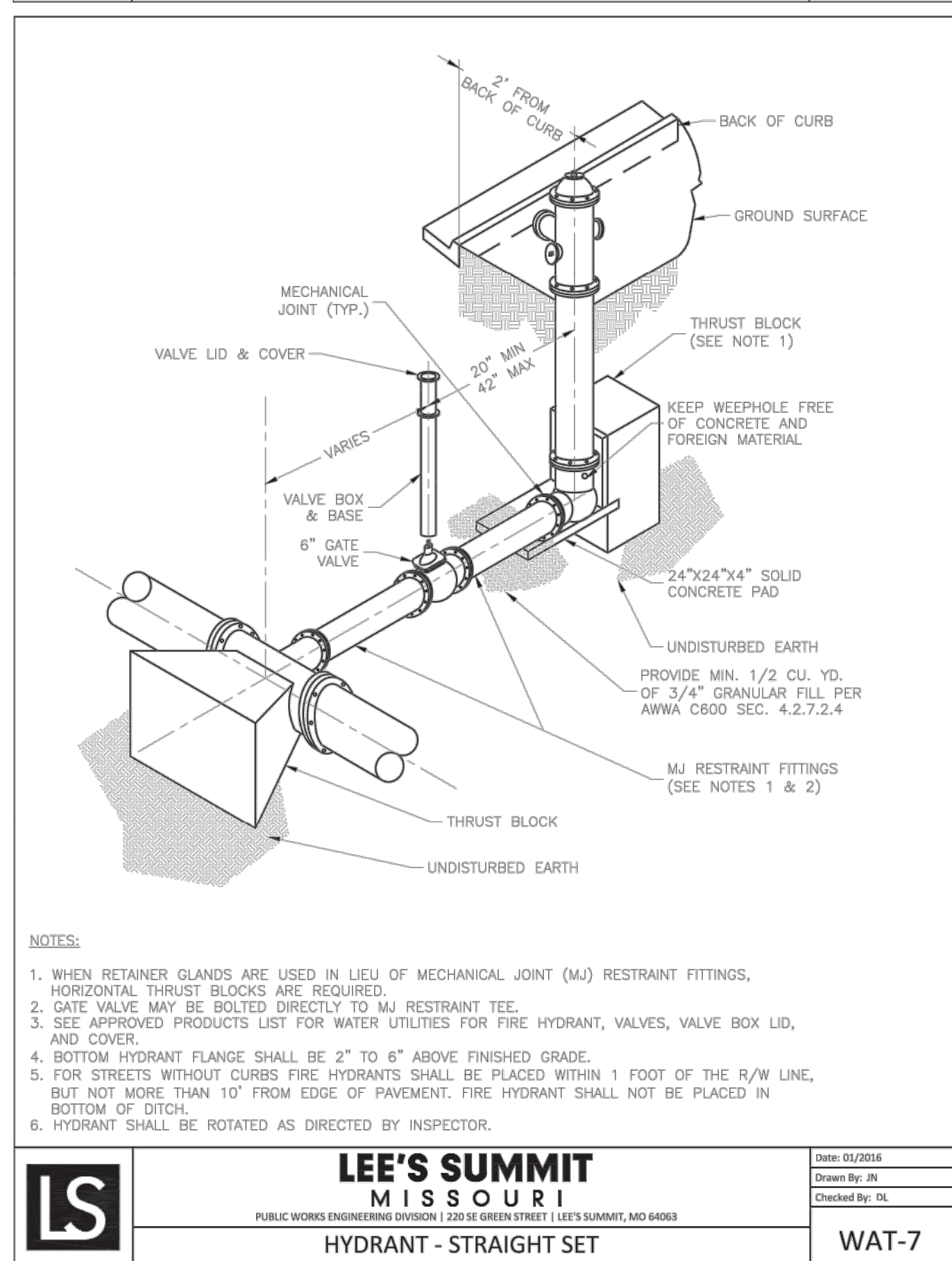
**REVISIONS**  
 PUBLIC WATER MAIN EXTENSION (CAPE DRIVE)  
 PLAN & PROFILE  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

C.O.A. NO.: 001592  
 DRAWN BY: RPH  
 CHECKED BY: RBE  
 APPROVED BY: TMP  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: C\_UTL06\_0200103  
 DATE: 2021-02-01

DWG: F:\2020\0001-0500\020-0103\40-Design\AutocAD\Final Plans\Sheets\GNCV\CONSTRUCTION DOCUMENTS\C\_UTL06\_0200103.dwg  
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 C:\PBASE02\_0200103  
 T\_PTBK\_CIVL\_0200103

REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)

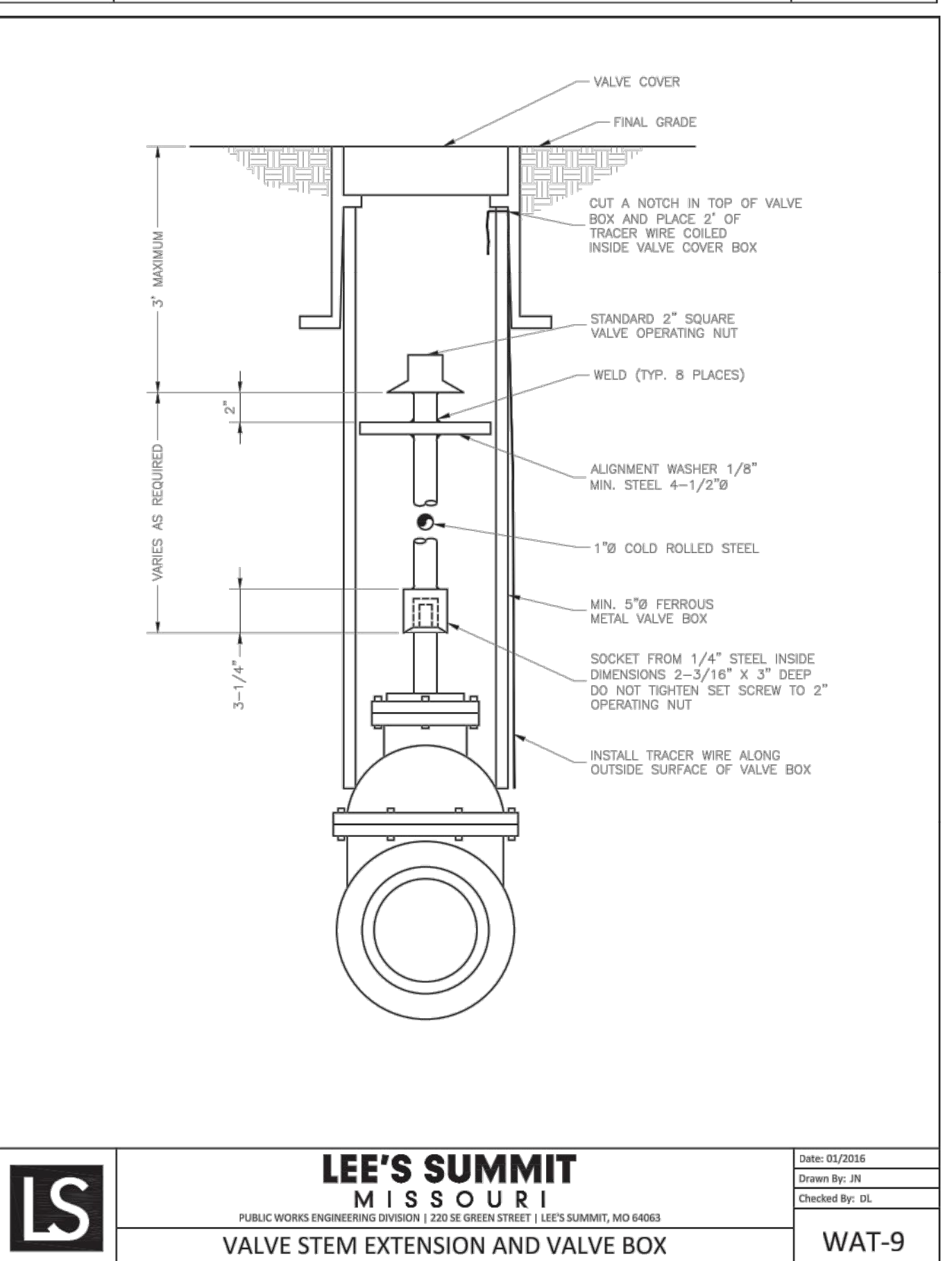
NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	4.7	6.7	4.0	4.0	4.0
8	8.4	11.8	6.4	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	REST. JT.	32.5	16.5	8.3
20	REST. JT.	REST. JT.	40.1	20.4	10.3
24	REST. JT.	REST. JT.	REST. JT.	29.4	14.8



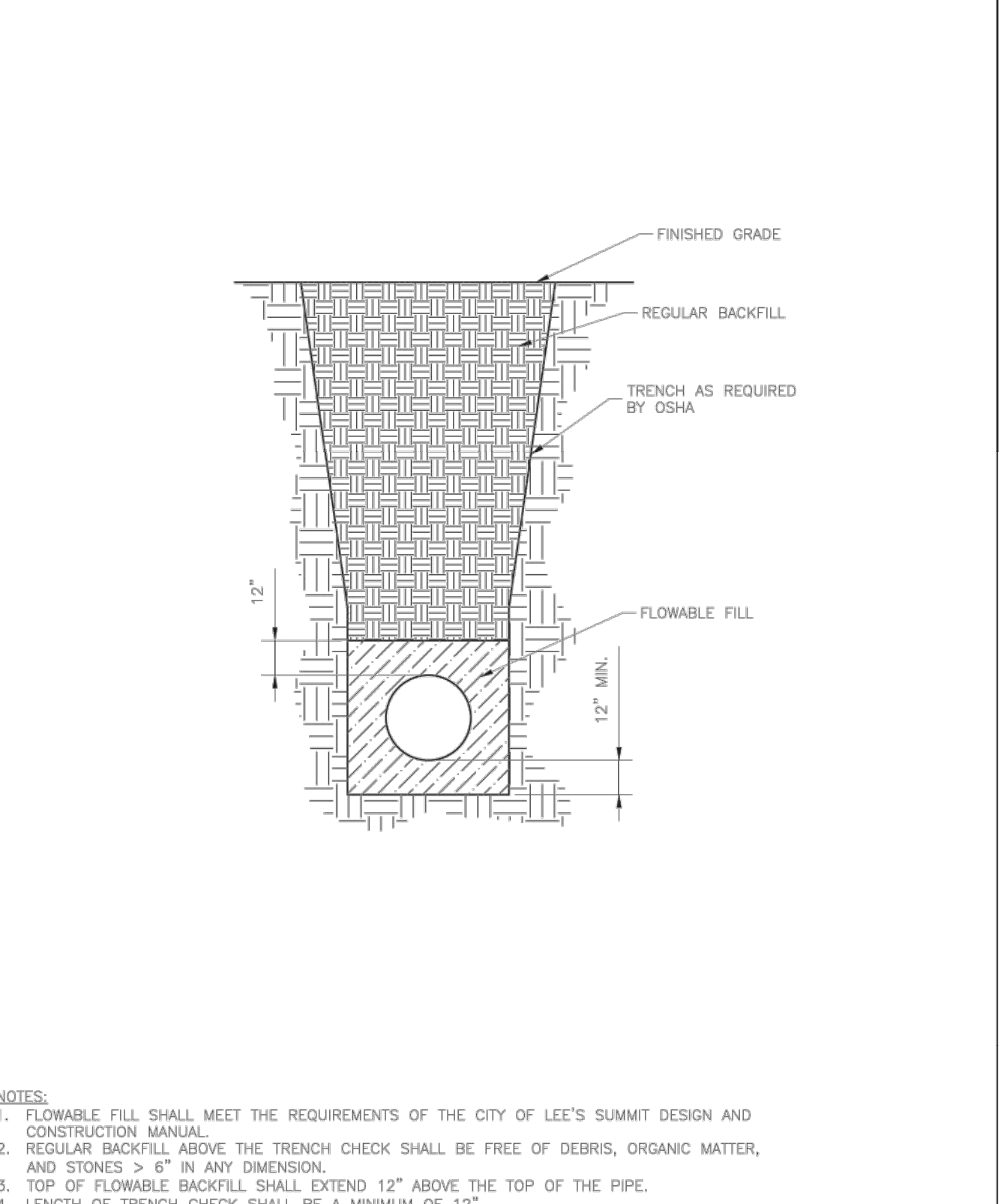
**LEE'S SUMMIT MISSOURI**  
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.8	126.9	68.7	35.0	17.6
10	140.2	198.3	107.3	54.7	27.5
12	202.0	REST. JT.	154.6	78.8	39.6
14	REST. JT.	REST. JT.	210.4	107.3	53.9
16	REST. JT.	REST. JT.	REST. JT.	140.1	70.4
18	REST. JT.	REST. JT.	REST. JT.	177.3	89.1
20	REST. JT.	REST. JT.	REST. JT.	REST. JT.	110.0
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	158.4

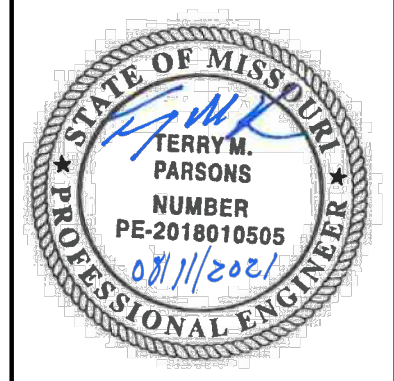


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PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063



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Overland Park, KS 66213-4750 FAX: 913.381.1174  
www.olsson.com



TERRY M. PARSONS  
MO. NO. PE-2018010505

REV. NO.	DATE	REVISIONS DESCRIPTION

PUBLIC WATER MAIN EXTENSION (CAPE DRIVE)  
STANDARD DETAILS

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

2021

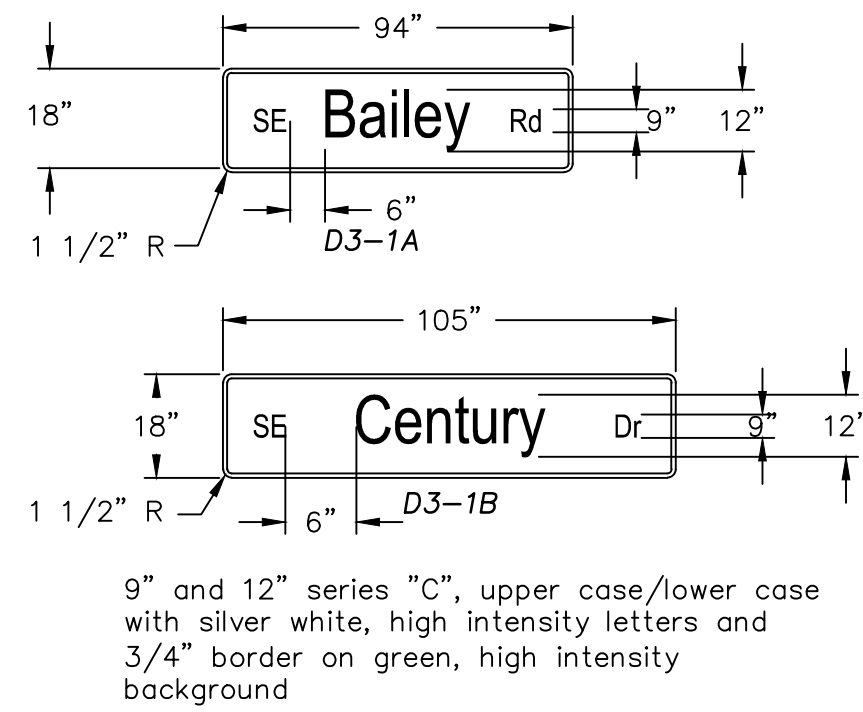
C.O.A. NO.: 001592  
DRAWN BY: RPH  
CHECKED BY: RBE  
APPROVED BY: TMP  
QA/QC BY: RBE  
PROJECT NO.: 020-0103  
DWG NO.: C\_UTL06\_0200103  
DATE: 2021-02-01

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Streets\TFC\SIGNAL\_PLANS\LEES\_SUMMIT\_SET\F\_TRS\_0200103.dwg  
 DATE: Nov 07, 2022 10:25am  
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**GENERAL NOTES:**

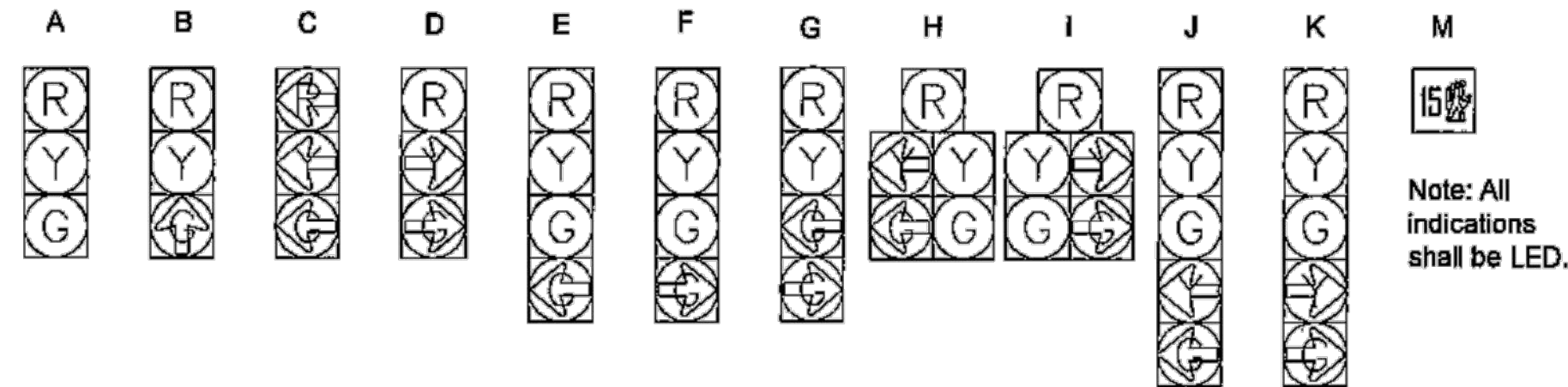
- The contractor shall have one (1) signed copy of the plans (approved by the City of Lee's Summit) and one (1) copy of the appropriate Design and Construction Standards and Specification at the job site at all times.
- Construction of the improvements shown or implied by this set of drawings shall not be initiated or any part thereof undertaken until the Director of Public works or his agent is notified of such intent, and all required and properly executed bonds and contract agreements are received and approved by the City.
- The Construction covered by these plans shall conform to all applicable standards and specifications of the Public Works Department of the City of Lee's Summit, Missouri, in current use. Specifically, but not exclusive to: Traffic Signal Specification: Section 2900. Traffic Signal Standard Drawings: TS-1 through TS-10.
- All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit, Missouri.
- Right-Of-Way limits should be cross checked by the Contractor and approved by the field inspector before undertaking any excavations at the site.
- The contractor shall stake the location of all pole bases, pull boxes, and controller cabinet base, then provide the City one week notice prior to the start of construction, and subsequent construction activities, for inspection and approval. The contractor shall provide a work schedule, contact names, and phone numbers.
- All locations indicated in drawings, including conduit runs are subject to adjustment to clear obstructions and to meet site conditions, if any, by the City.
- Existence and location of any underground or overhead facilities shown on these drawings or reference to any soil conditions, if made, are approximate only. It is the Contractor's responsibility to verify all site conditions and to locate all utilities, including depth, before starting construction so that any adjustments to design can be made prior to pole ordering or fabrication. In addition, the Contractor shall avoid disruption of services provided by the utilities and shall insure that proper clearances (overhead and underground) are maintained for the duration of construction. The Contractor shall be fully responsible for any and all damages caused by failure to exactly locate and preserve all utilities.
- The contractor shall coordinate with the City Traffic Engineer for any necessary changes to the traffic signals resulting from existing utilities or other construction issues.
- Any equipment damaged during construction shall be replaced at the Contractor's expense.
- Signal equipment shall not form an obstruction to the movement of pedestrian and wheelchair traffic and shall be ADA accessible. Where sidewalks are present, a minimum clear width of 48 inches shall be available for pedestrian and wheelchair movement. Pull boxes shall not be installed on wheelchair ramps.
- Conduits to be placed outside of paved areas shall be trenched in place. If the project includes roadway improvements, the conduit shall be trenched after the roadway rough grade is established and prior to any final roadway paving, curb & gutter, median or sidewalk sections are placed. All compaction and backfill shall meet City of Lee's Summit requirements. At the option of the contractor, conduits may be bored outside paved areas, but there will be no adjustment to the unit prices for conduit installation and any change in cost would be the contractor's responsibility. Any conduit bore outside paved areas shall be done after roadway improvements are complete. Conduits to be placed within the limits of pavement shall be bored unless otherwise authorized by the City Traffic Engineer. If the project includes roadway improvements, the conduit shall be bored prior to any final roadway paving. Potholing for utilities on road bores after final paving will not be allowed.
- The traffic signal controller, cabinet and related equipment, as specified for this project, shall be delivered to the City for testing prior to installation. All signal timings will be provided by the City Traffic Engineer. The Contractor shall coordinate material delivery and pick-up with the Public Works Operations Department (969-1870) at least 48 hours prior to transportation. A minimum of 2 weeks shall be permitted for testing between delivery and pick-up. The Contractor assumes all damage liability and should inspect all materials before and after transportation of equipment.
- The Contractor shall coordinate all electrical power requirements and connection activities with the Utility Company, including location of the meter, circuitry and connection requirements, and powering up the complete system. The Contractor shall order the meter and pay electrical bills until Final Acceptance, at which time the Contractor shall coordinate with the City for transferring the electrical billing services to the City.
- All disturbed surfaces shall be made good to match existing at the Contractor expense.
- Contractor shall maintain at all times access for Emergency Vehicles and residents along the entire project.
- Substantial completion of the traffic signals shall be defined as all components of the traffic signal operated fully and satisfactorily with red, yellow, and green cycles. Substantial completion shall allow for testing of the signals, including a flash period, prior to signals operating with cycles. Substantial completion shall also include the completion of all interconnect, sidewalk, curb ramp and removal work.
- Final acceptance of traffic signals shall be defined as final written approval and acceptance by the City, including completion or correction of all punch list items and the traffic signals fully operational for a time period of fifteen (15) days, without any problem, as noted in the specifications. As-built plans shall be submitted prior to final acceptance by the City.

**STREET NAME SIGN DETAIL**



**LEGEND**

- Optically Limiting Traffic Signal Head
- Traffic Signal Head
- Traffic Signal Head With Backplate
- Pedestrian Signal Head
- Stop Line
- Lane Use
- Mast Arm Pole
- Signal Pedestal
- Traffic Controller Cabinet
- Pull Box
- Span Wire Signal Head
- Power Supply (Disconnect)
- Suggested Vehicle Detection Zone
- Induction Loop Detector
- Push Button Detector
- Opticom Detector
- Magnatometer Detector
- Power Supply (Source)
- Conduit
- Signal Face Number
- Post Number
- Detector Number
- Pull Box Number
- Push Button Number
- Cobra Head Luminaire
- Vehicular Detection Camera



**TYPICAL REGULATORY SIGN DETAIL**



SIGN R10-12  
24" X 30"



SIGN R10-3E  
9" X 15"

Note: Sign R10-3E shall be provided for each push button.

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**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC SIGNAL PLAN  
 GENERAL NOTES & LEGEND  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 PUBLIC ROAD IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

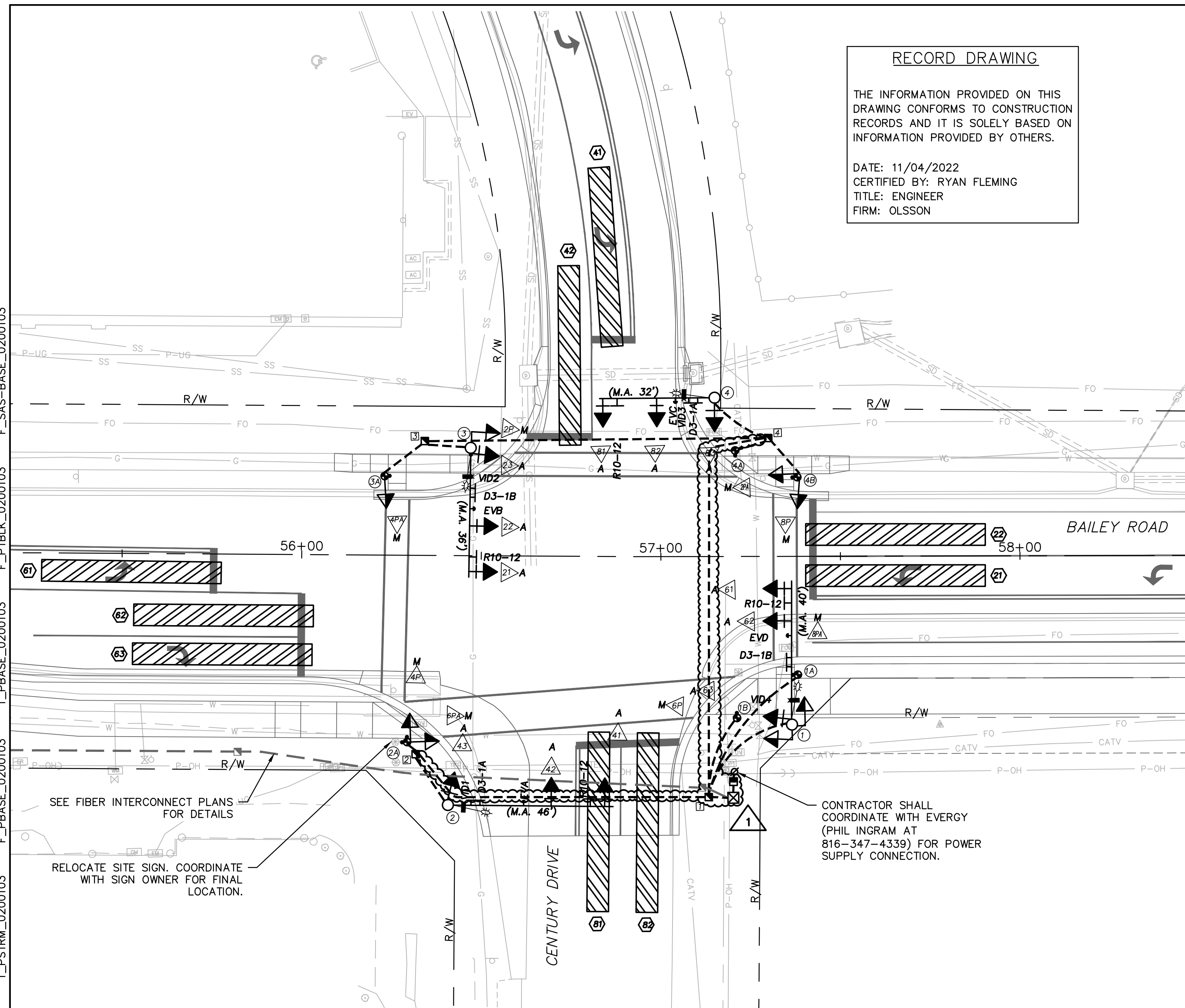
2021

C.O.A. NO.:	001592
DRAWN BY:	JRC
CHECKED BY:	JAB
APPROVED BY:	SLJ
QA/QC BY:	THE
PROJECT NO.:	020-0103
DWG NO.:	F 115 020103
DATE:	11/4/2022

**RECORD DRAWING**

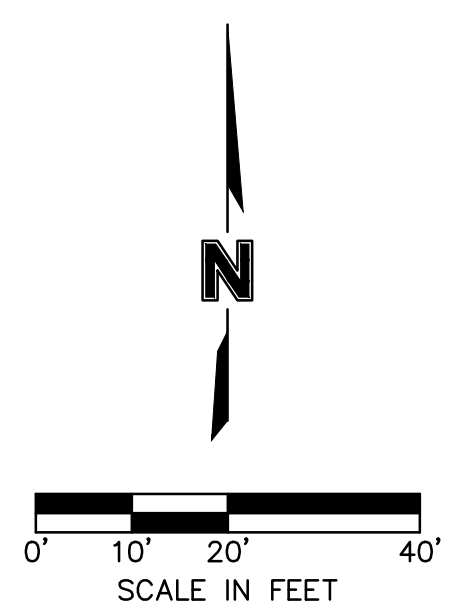
THE INFORMATION PROVIDED ON THIS DRAWING CONFORMS TO CONSTRUCTION RECORDS AND IT IS SOLELY BASED ON INFORMATION PROVIDED BY OTHERS.

DATE: 11/04/2022  
 CERTIFIED BY: RYAN FLEMING  
 TITLE: ENGINEER  
 FIRM: OLSSON

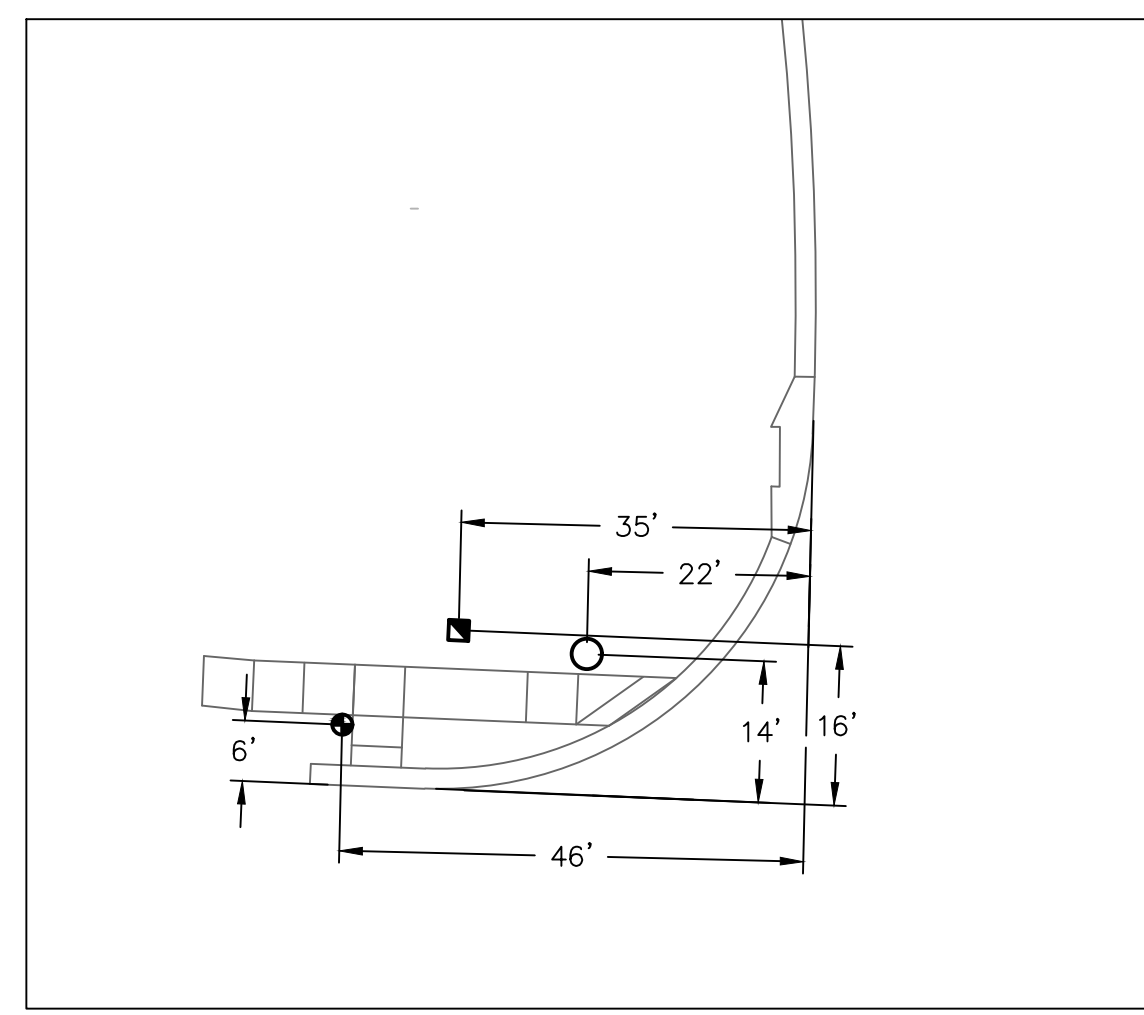


**GENERAL NOTES:**

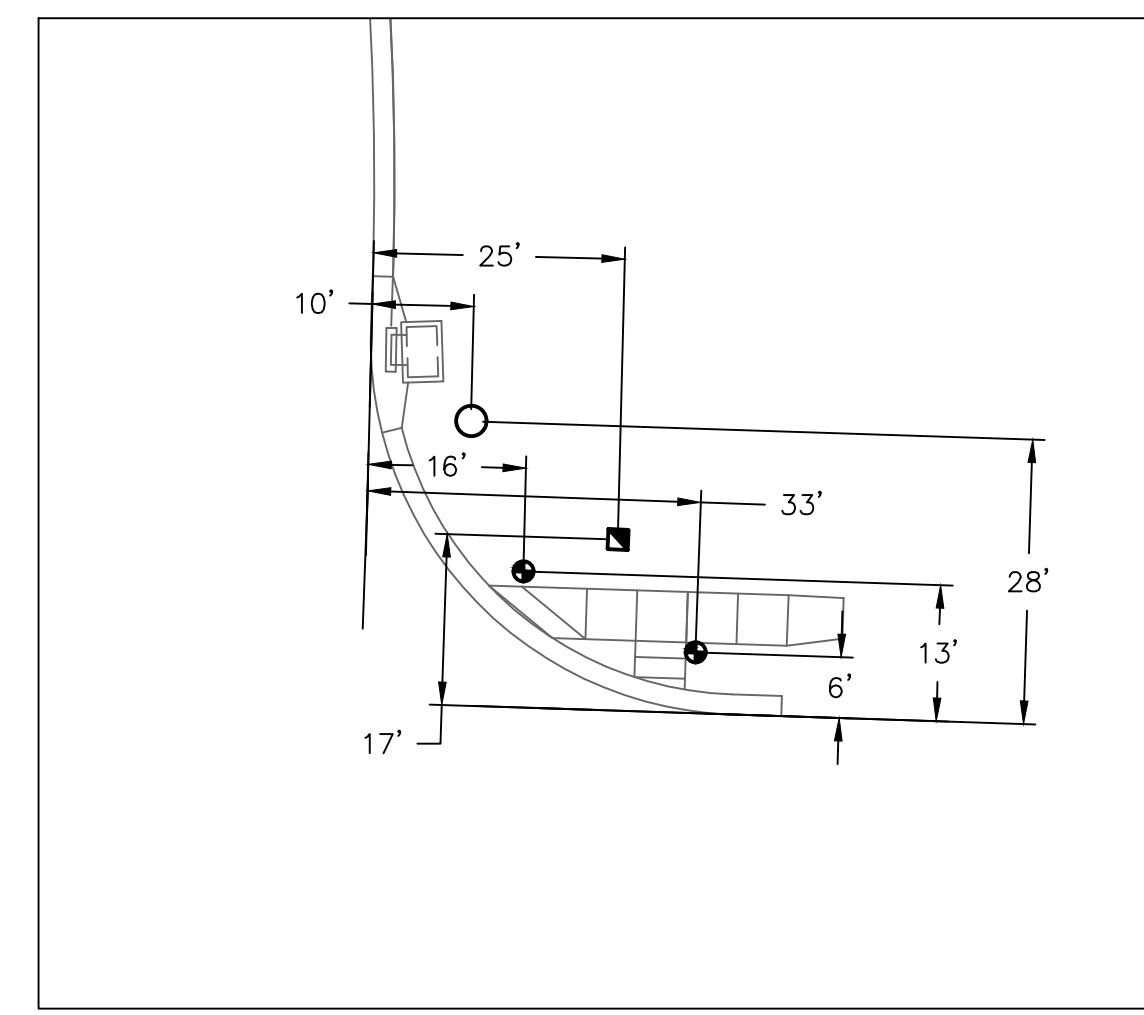
- Existing underground (U/G), overhead (OH) utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual Contractors to exactly locate each utility before actual construction.
- All construction methods and traffic signal equipment shall conform to the latest edition of the City of Lee's Summit Standard Specifications and Approved Products List.
- Contractor shall stake the location of all traffic signal poles, conduit, controllers, service boxes and junction boxes to be installed. The Project Engineer shall inspect the staking prior to any excavation and/or construction. Minor relocation of equipment to avoid conflicts may be allowed with the approval of the Project Engineer.
- All existing curb and gutter, sidewalk, pavement, drainage structures, or ground damaged during the traffic signal construction shall be replaced to match existing. This work will be considered SUBSIDIARY to the "Traffic Signal Installation" bid item.
- Contractor shall coordinate signal turn-on with the City of Lee's Summit.
- All traffic signal indications shall be L.E.D. (Light Emitting Diode.)
- Contractor to verify location of power source with Evergy before construction.



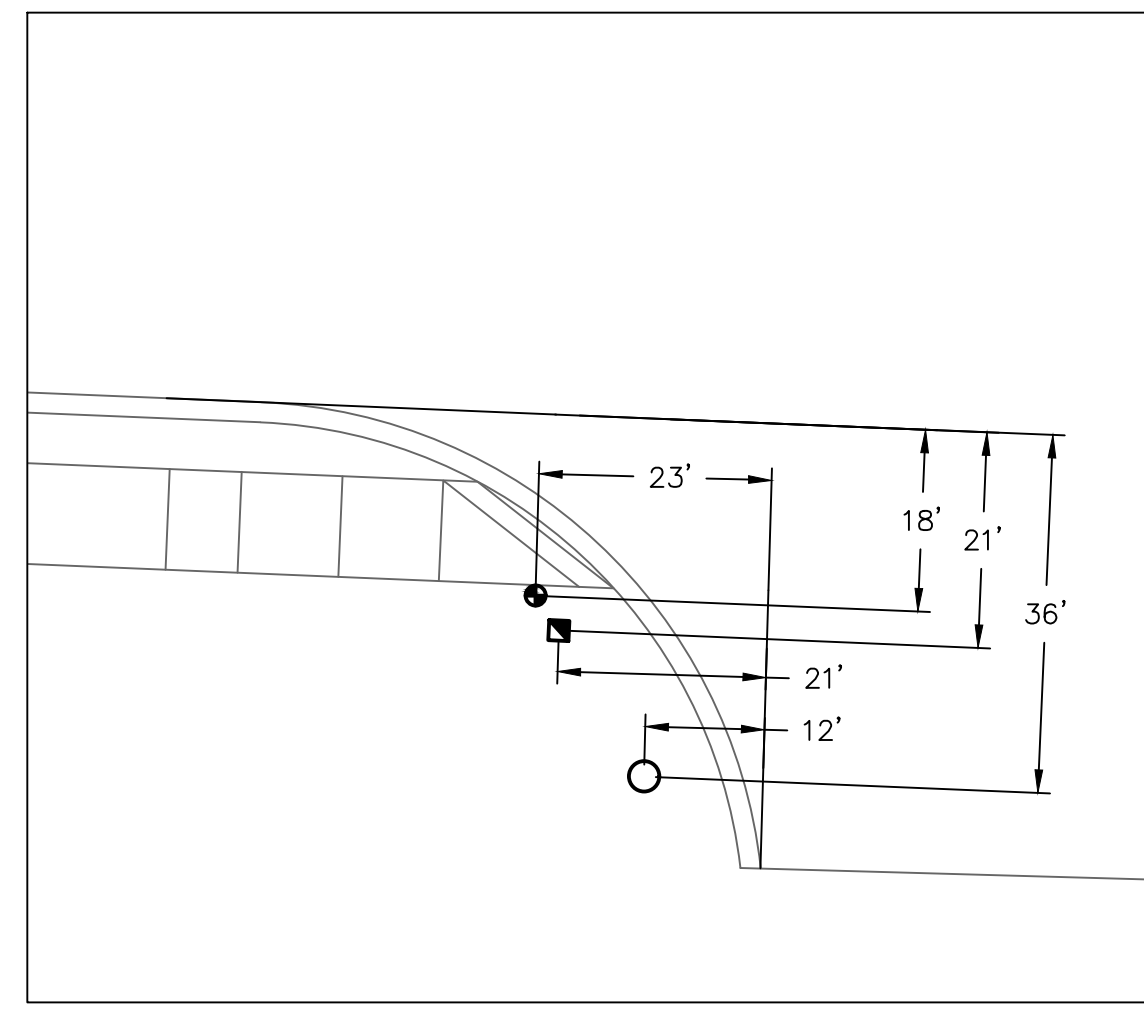
**SIGNAL PLAN**



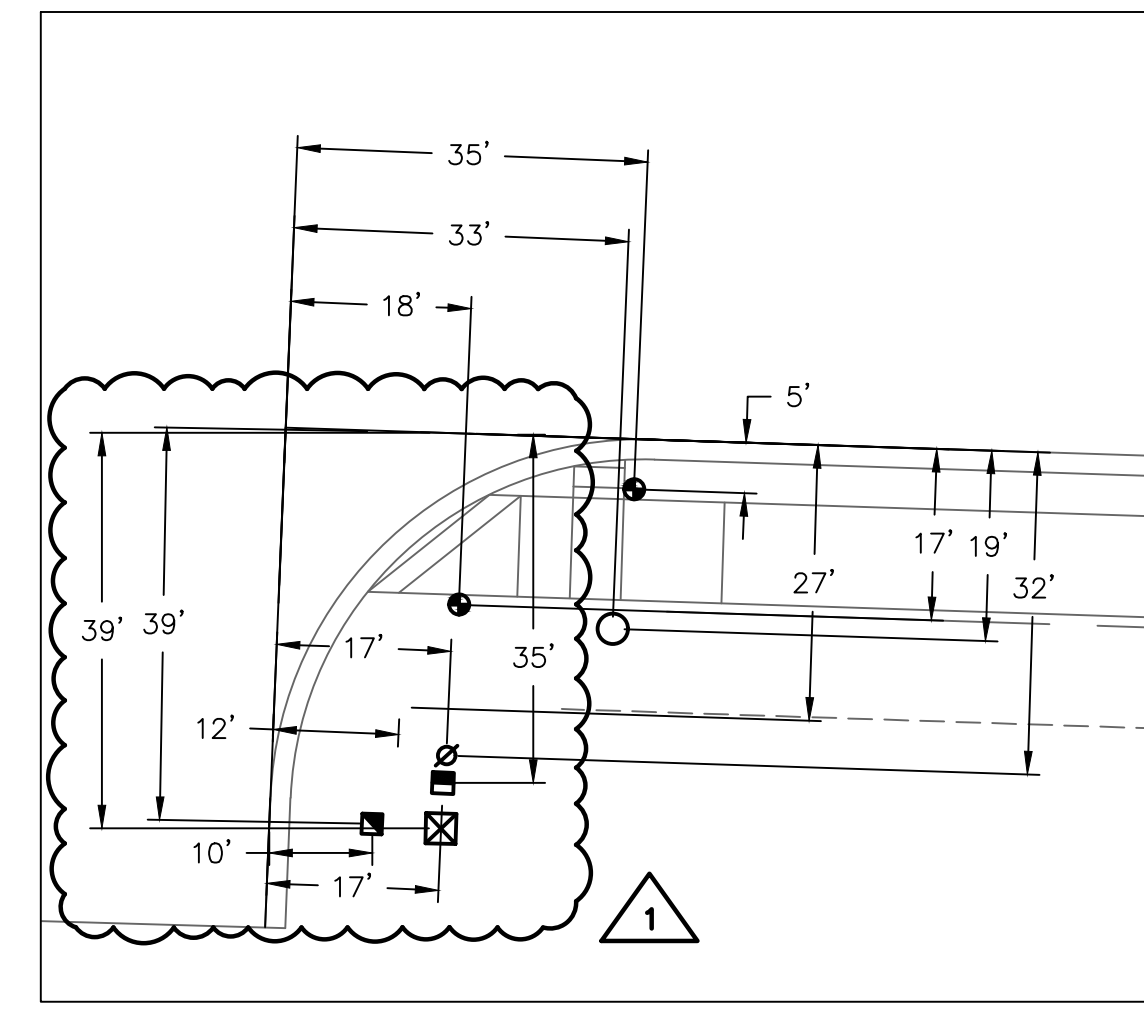
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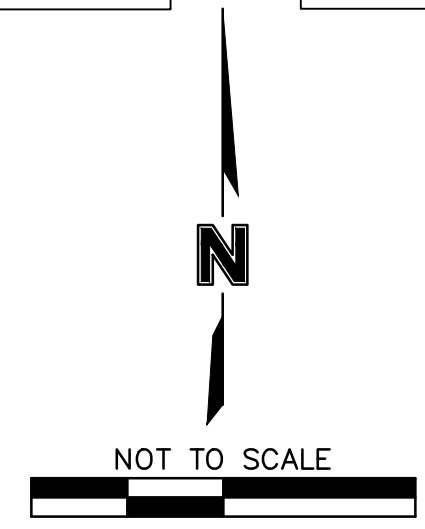
NE CORNER



SW CORNER



SE CORNER



**NEW EQUIPMENT TO BACK-OF-CURB DISTANCES**

**POLE, PULL BOX, POWER METER, AND CONTROLLER LOCATION**

	STATION	O/S
①	57+36.40	46.9' RT.
⑩	57+38.08	33.0' RT.
⑪	57+21.09	45.0' RT.
⑫	57+15.56	55.4' RT.
⑬	56+41.12	69.5' RT.
⑭	56+29.64	52.1' RT.
⑮	56+32.08	55.4' RT.
⑯	56+46.85	30.0' LT.

	STATION	O/S
Ⓐ	56+22.93	22.0' LT.
Ⓑ	56+34.08	31.8' LT.
Ⓒ	57+15.03	44.2' LT.
Ⓓ	57+20.71	29.5' LT.
Ⓔ	57+38.03	22.0' LT.
Ⓕ	57+29.98	33.0' LT.
Ⓖ	57+15.83	64.5' RT.
Ⓗ	57+21.93	64.5' RT.
Ⓘ	57+20.35	60.0' RT.

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 Overland Park, KS 66213-4750 FAX: 913.381.1174 www.olsson.com

**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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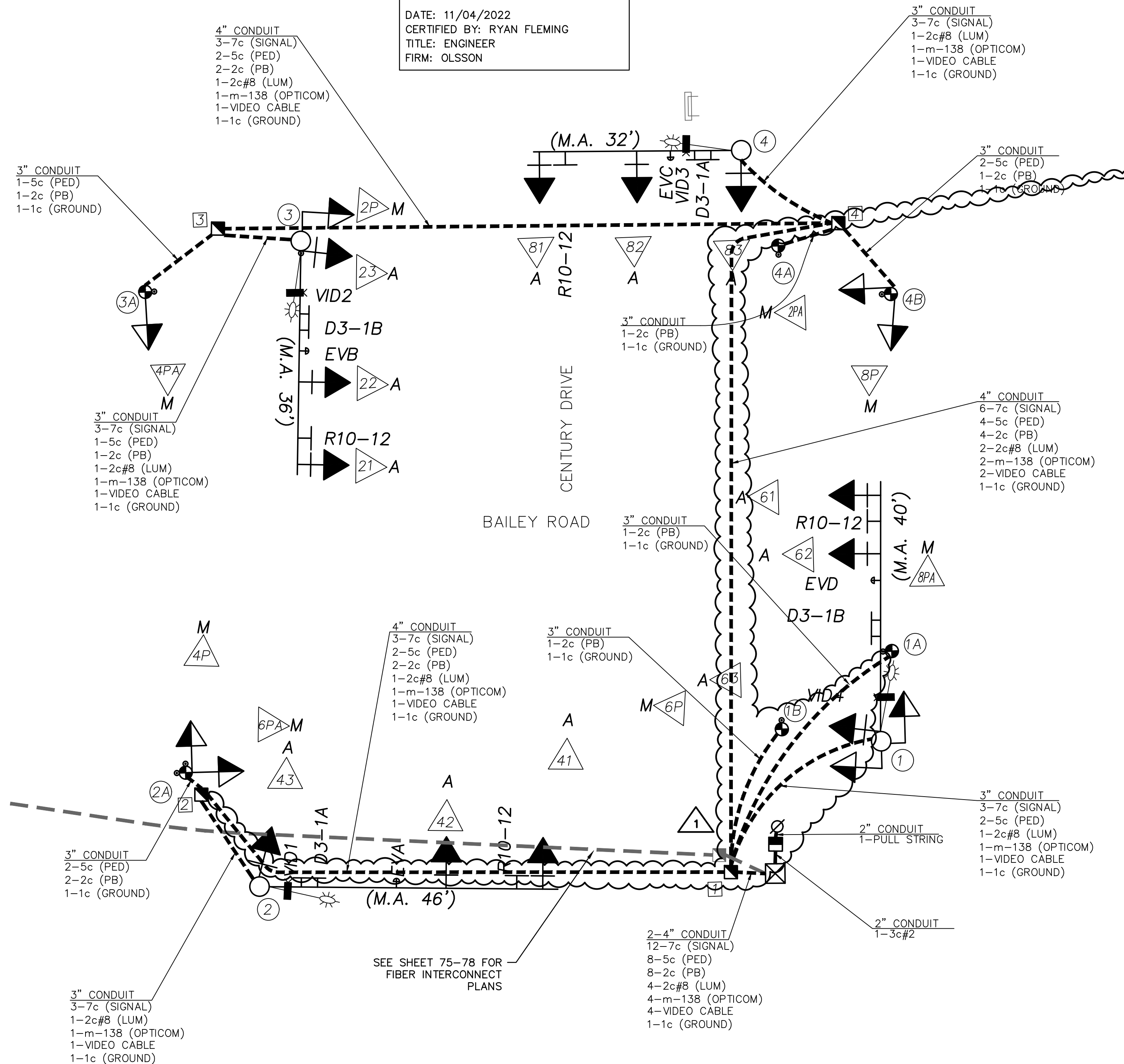
TRAFFIC SIGNAL PLAN  
 BAILEY ROAD & CENTURY DRIVE  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 PUBLIC ROAD IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

# WIRING DIAGRAM

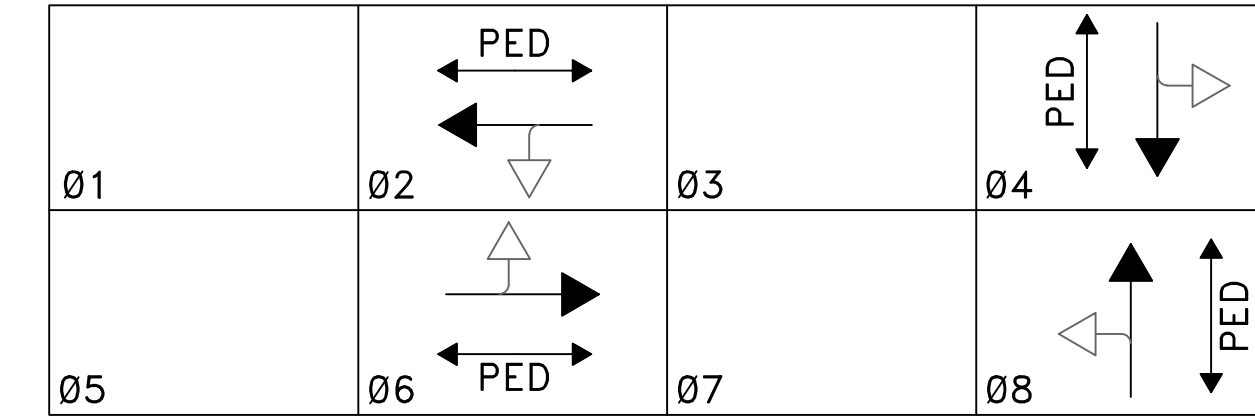
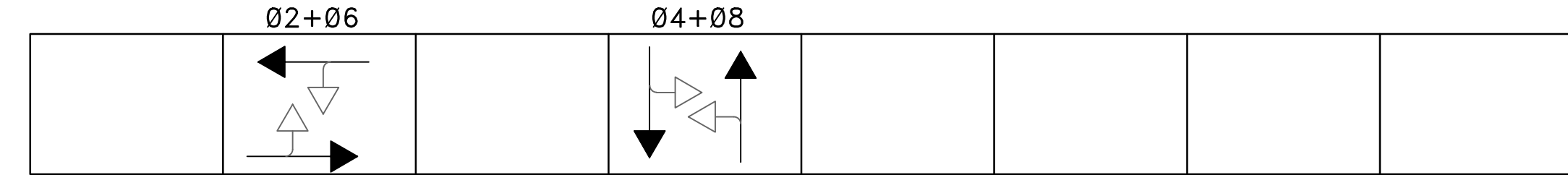
## RECORD DRAWING

THE INFORMATION PROVIDED ON THIS DRAWING CONFORMS TO CONSTRUCTION RECORDS AND IT IS SOLELY BASED ON INFORMATION PROVIDED BY OTHERS.

DATE: 11/04/2022  
 CERTIFIED BY: RYAN FLEMING  
 TITLE: ENGINEER  
 FIRM: OLSSON



## SEQUENCE



## PHASE DIAGRAM

## OUTPUT FILE ASSIGNMENTS

FR1	01	02	PED 02	03	04	PED 04	MONITOR
FR2							
FR3	05	06	PED 06	07	08	PED 08	
FR4							

1	2	3	4	5	6	7	8	9	10	11	12	13	14
											PED 02	PED 04	FLH
											PED 06	PED 08	STOP TIME

FLASHING	OPERATIONS
EMERGENCY	SCHEDULED
FY-No 0's	FY-No 0's
FR-All 0's	FR-All 0's

LOCATION	Power Supply Type	CIRCUIT BREAKER TRIP RATINGS		
		SERVICE DISCONNECT (2-POLE)	TRAFFIC SIGNAL (1-POLE)	LIGHTING (2-POLE)
SE CORNER	2-Circuit	40 AMP	40 AMP	15 AMP

### Wiring and Phasing General Notes

- All signals heads shall each be served by one 7c#14 cable extending from the head back to the controller. No cable splices are allowed, including at the base of the pole and inside pull boxes. Most arm heads shall not be jumpered, so that additional 7c can be used for left-turn signal head if needed in the future.
- A continuous 1c#6 AWG bare solid copper ground wire shall be provided in addition to ground rods. All grounding and ground rods shall be tied together using 1c#6 AWG bare solid copper wire to bond the system.

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## RECORD DRAWINGS

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2021
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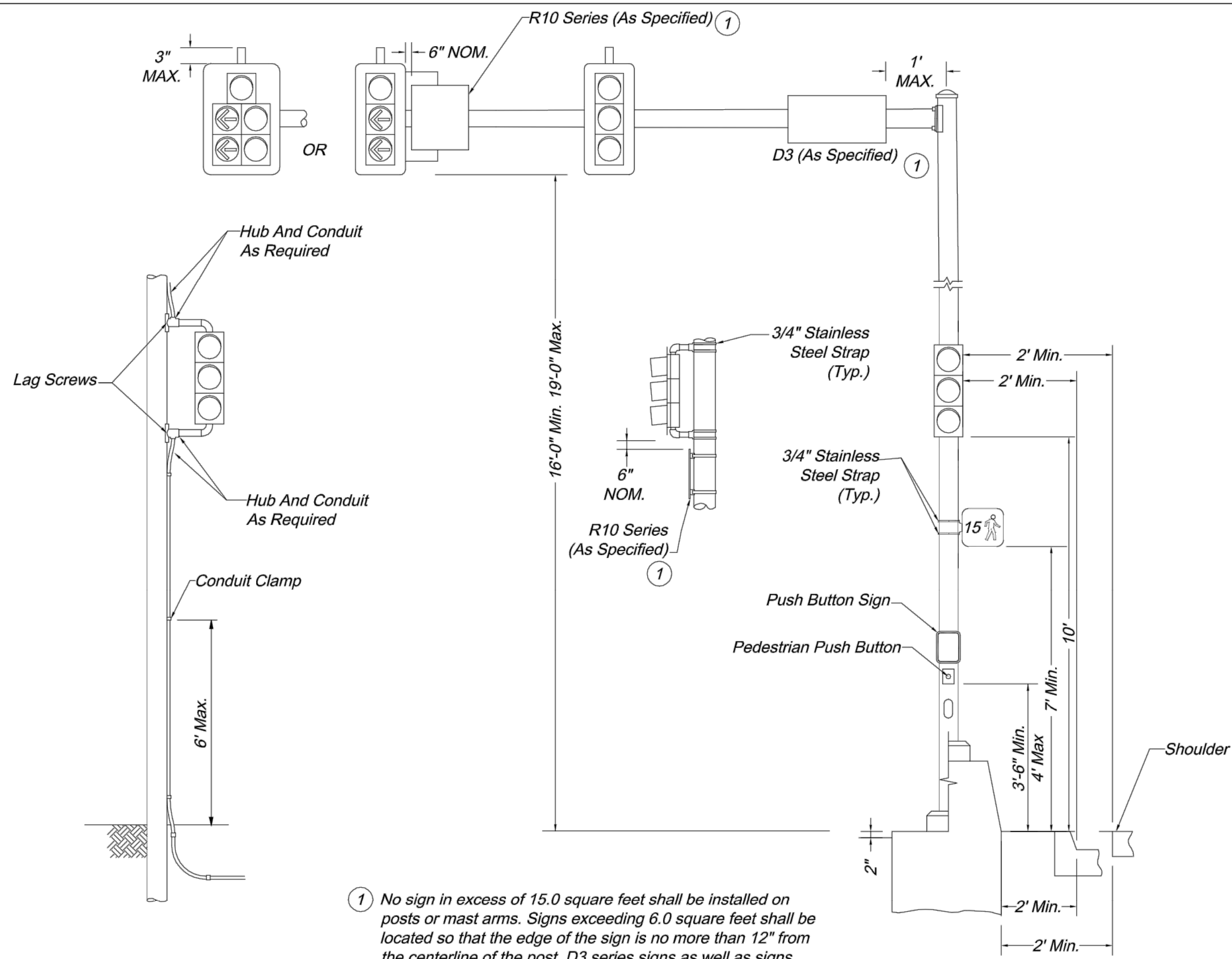
WIRING DIAGRAM  
 BAILEY ROAD & CENTURY DRIVE  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 PUBLIC ROAD IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI

C.O.A. NO.:	001592
DRAWN BY:	JRC
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APPROVED BY:	SLJ
QA/QC BY:	THE
PROJECT NO.:	020-0103
DWG NO.:	F 75 020103
DATE:	11/4/2022

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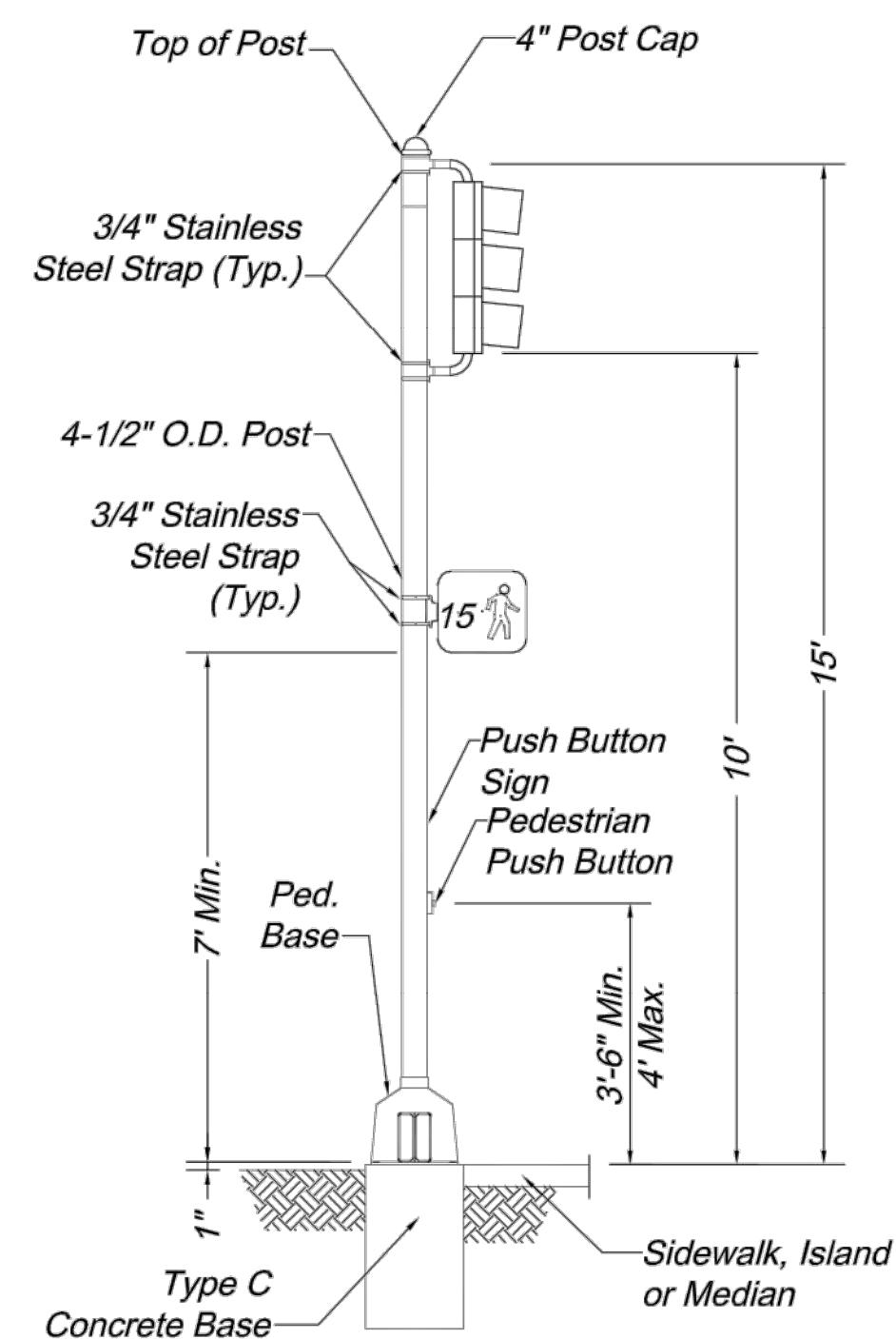
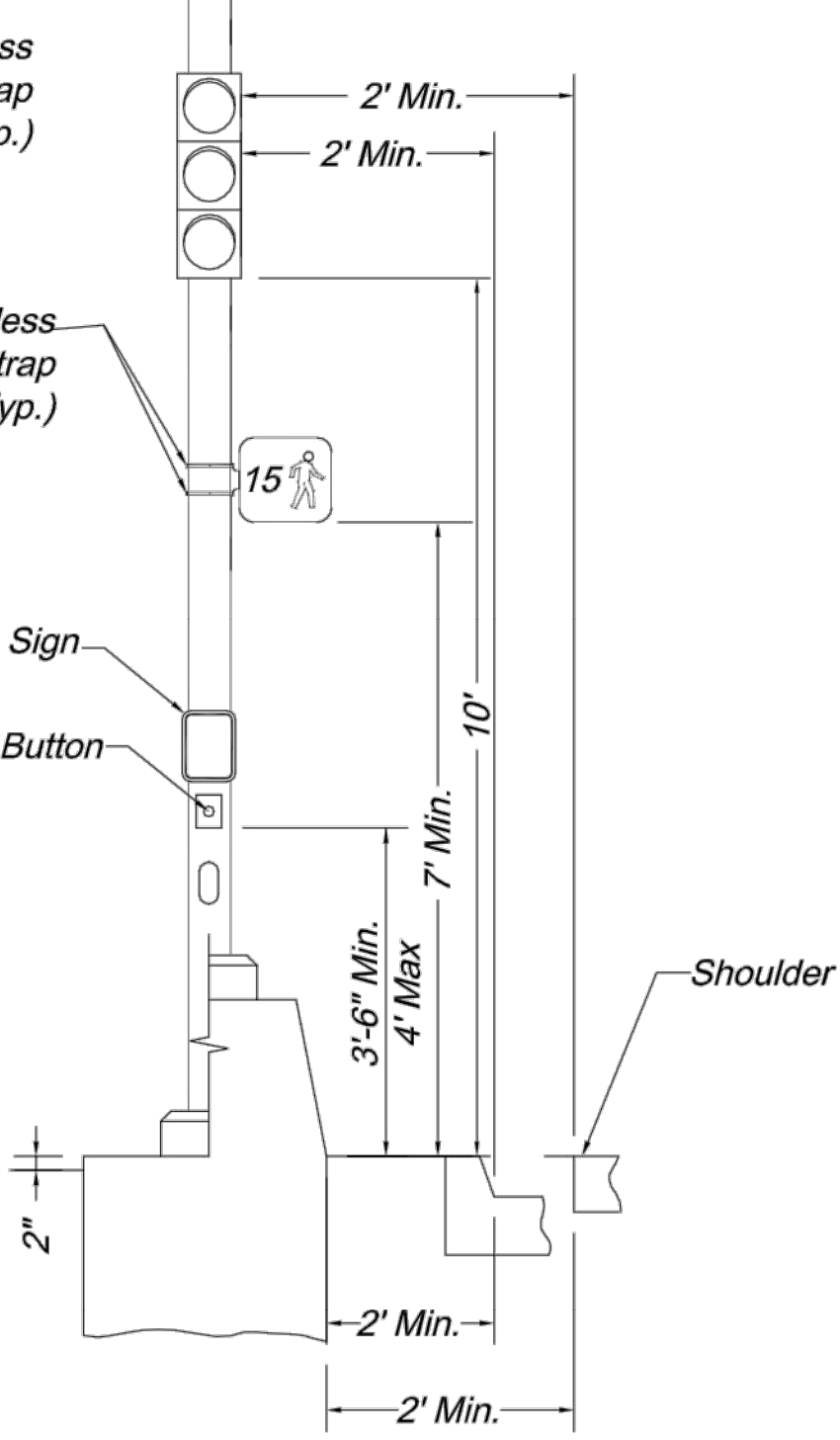




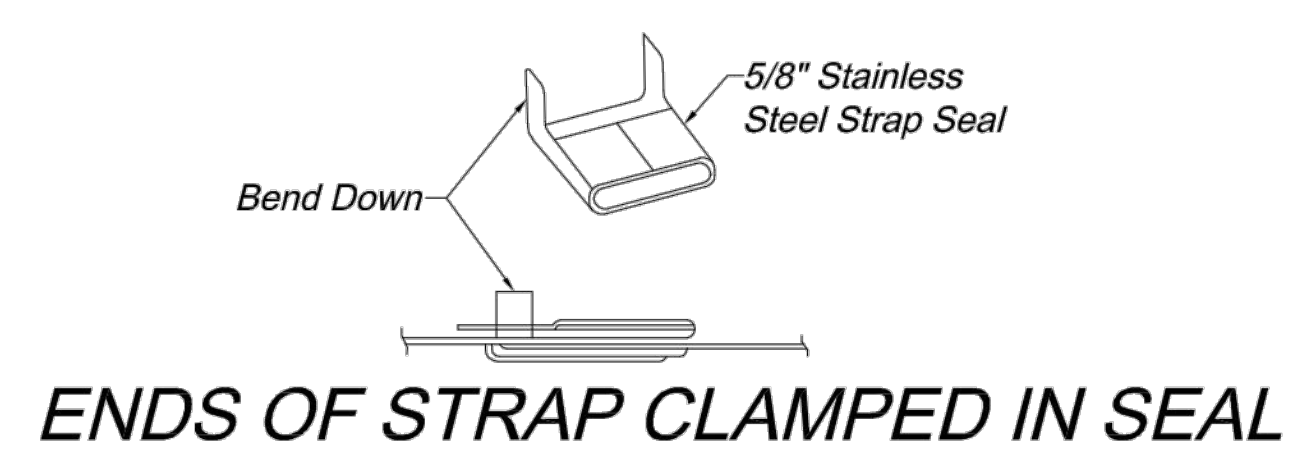
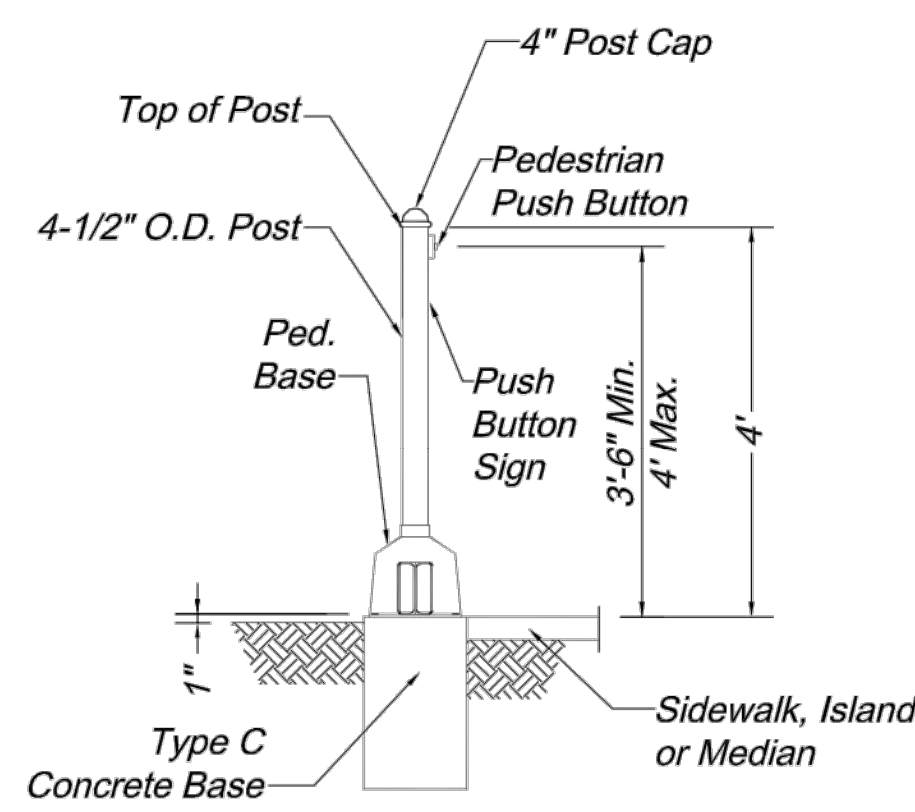
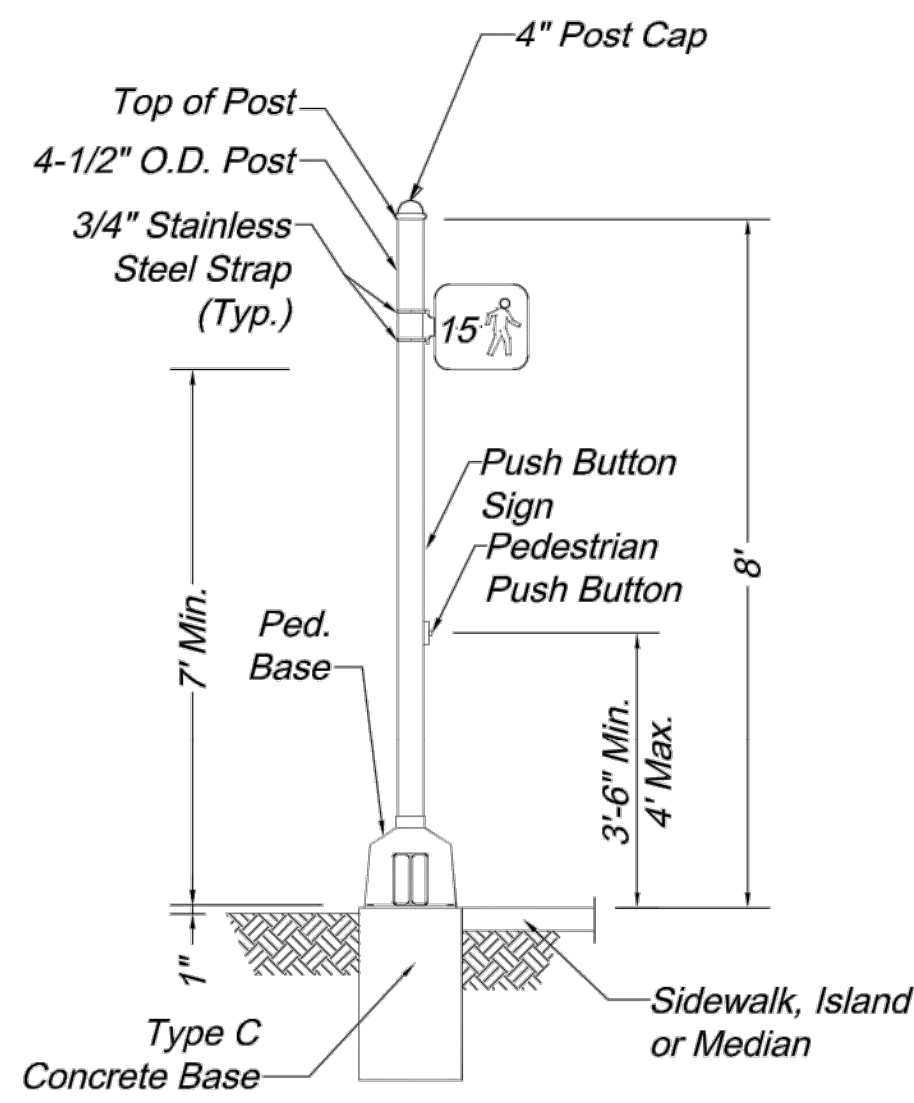
**WOOD POLE MOUNTING**

1 No sign in excess of 15.0 square feet shall be installed on posts or mast arms. Signs exceeding 6.0 square feet shall be located so that the edge of the sign is no more than 12" from the centerline of the post. D3 series signs as well as signs installed on the post shall be mounted with a strap type sign support. R10 series signs installed on the mast arm shall be mounted with an Astro-Bracket assembly.

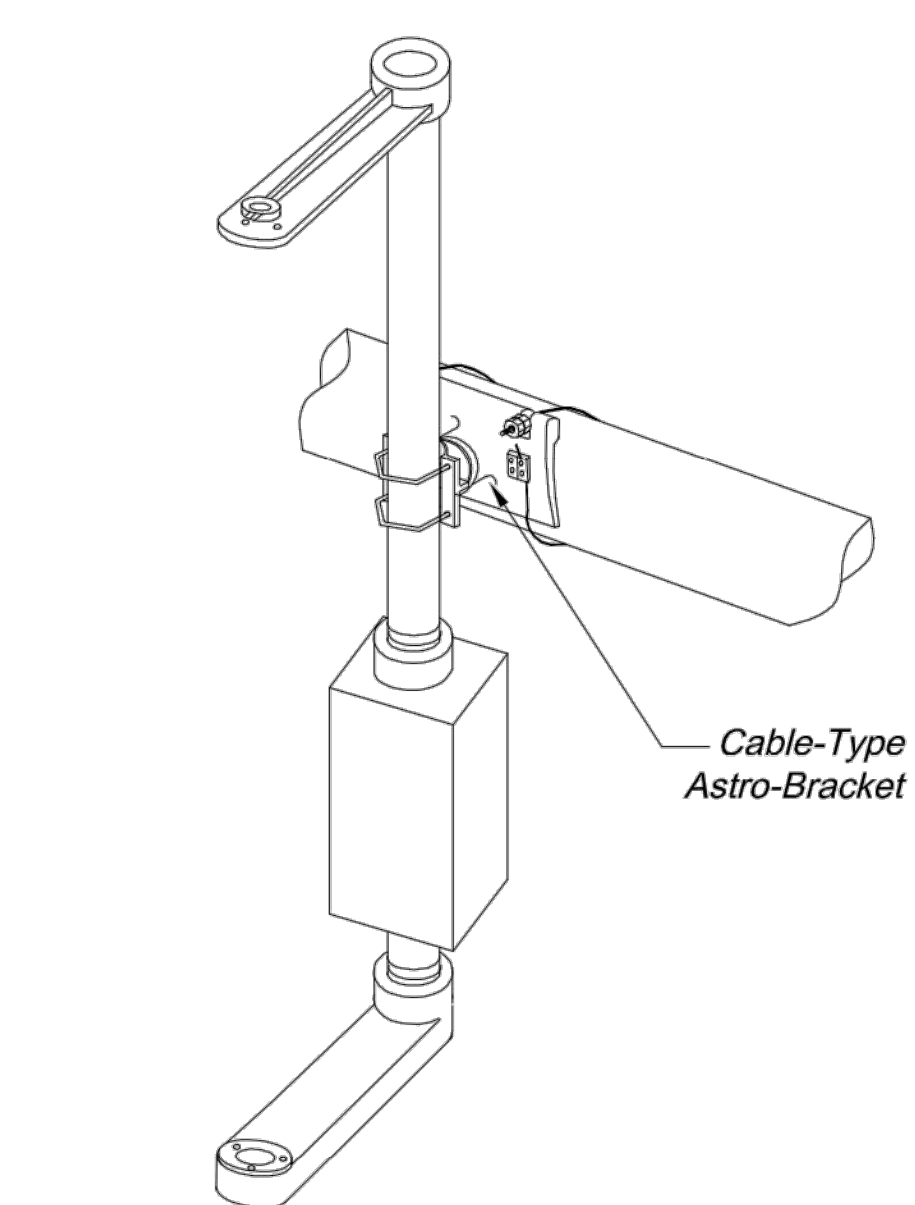
**MAST ARM POLE MOUNTING**



**PEDESTAL POST MOUNTINGS**



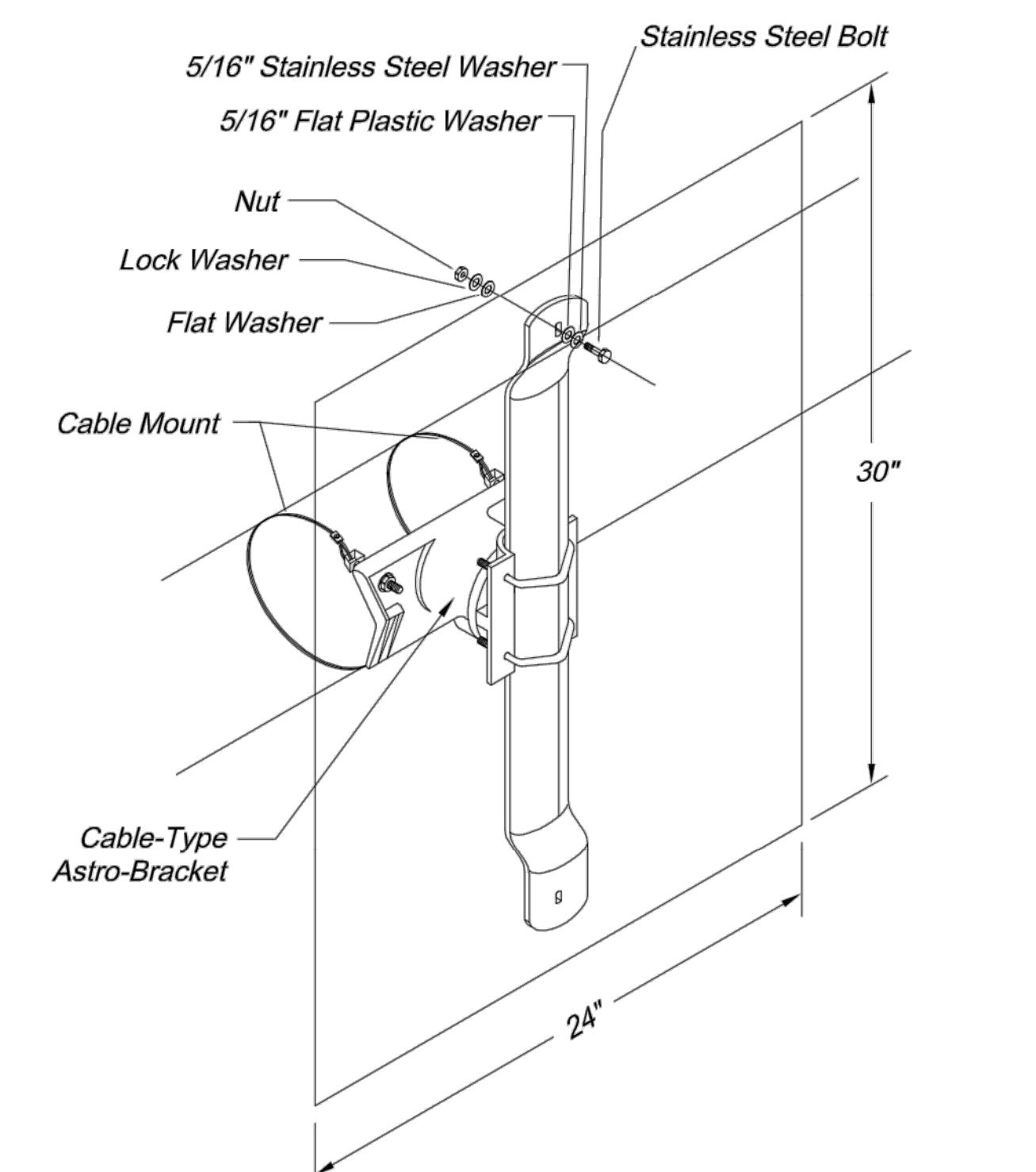
**ENDS OF STRAP CLAMPED IN SEAL**



**SIGNAL HEAD MAST ARM MOUNTING DETAIL**

Astro-Brac Terminal Compartment Bracket Assembly  
Note: Only cable type Astro-Brac will be allowed, no bands.

**STRAP TYPE SIGN SUPPORT**



**MAST ARM SIGN MOUNTING DETAIL**

**General Notes:**

- All post wire outlets shall be deburred and equipped with bushings.
- Backplates not shown in mounting diagrams for clarity.
- Posts shall be grounded with #6 AWG bare copper wire from grounding bushing on conduit to grounding lug in post base if steel conduit is used. If Non-metallic conduit is used, provide #6 AWG wire from grounding lug in post to power supply ground buss in controller cabinet.
- Leads from pedestrian signal lamps are connected to the signal head terminal compartment.
- All signals shall be mounted vertically unless otherwise noted on the traffic signal plans.
- Span wire mounted signals shall have a disconnect hanger.
- Signal heads on mast arms shall be tilted forward from the top 3 to 7 degrees from vertical.
- If a sign exceeds 42" in length, two supports are required: and if a sign exceeds 96" in length, three supports are required.
- Mast arm mounted signals shall have a terminal compartment.
- Side-mounted optically limiting heads shall have a minimum post clearance of 5-1/2".
- Symbol for pedestrian lenses shall have a minimum height of 11"
- Push button signs shall be mounted directly above the actuator, except for locations on 4' pedestals the sign shall be located directly below the actuator.
- Signal appurtenances shall have a horizontal clearance no less than 2' from the face of a vertical curb or from the outside edge of a shoulder, except signals located in a median island.
- See standard drawing TS-3 for base details.

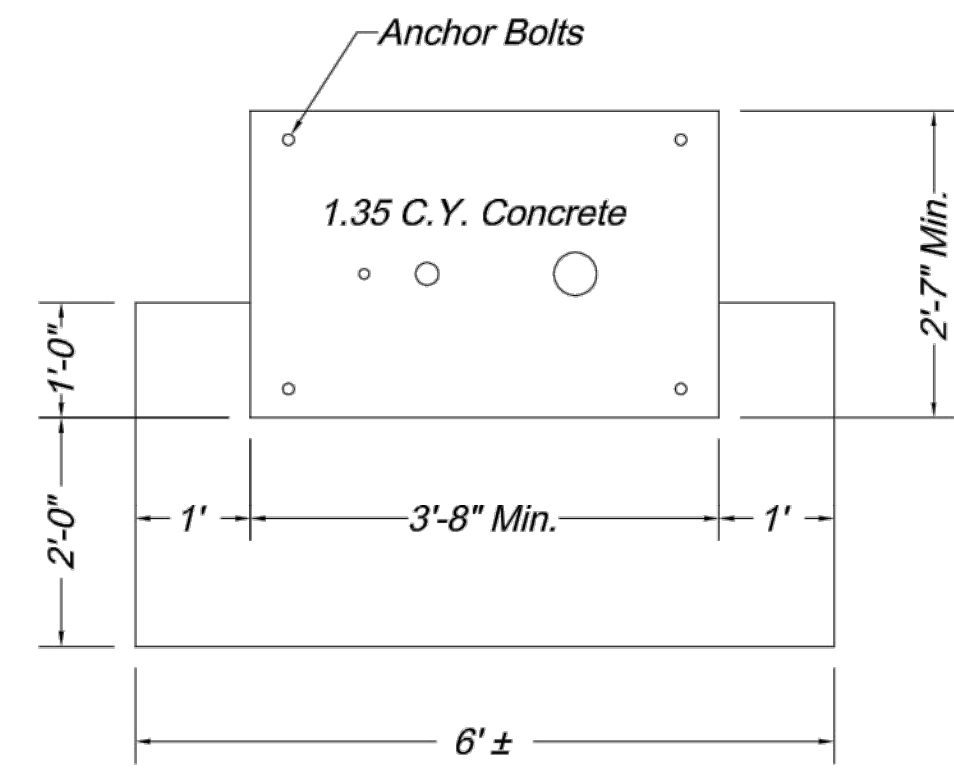
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STANDARD DRAWING TS-1

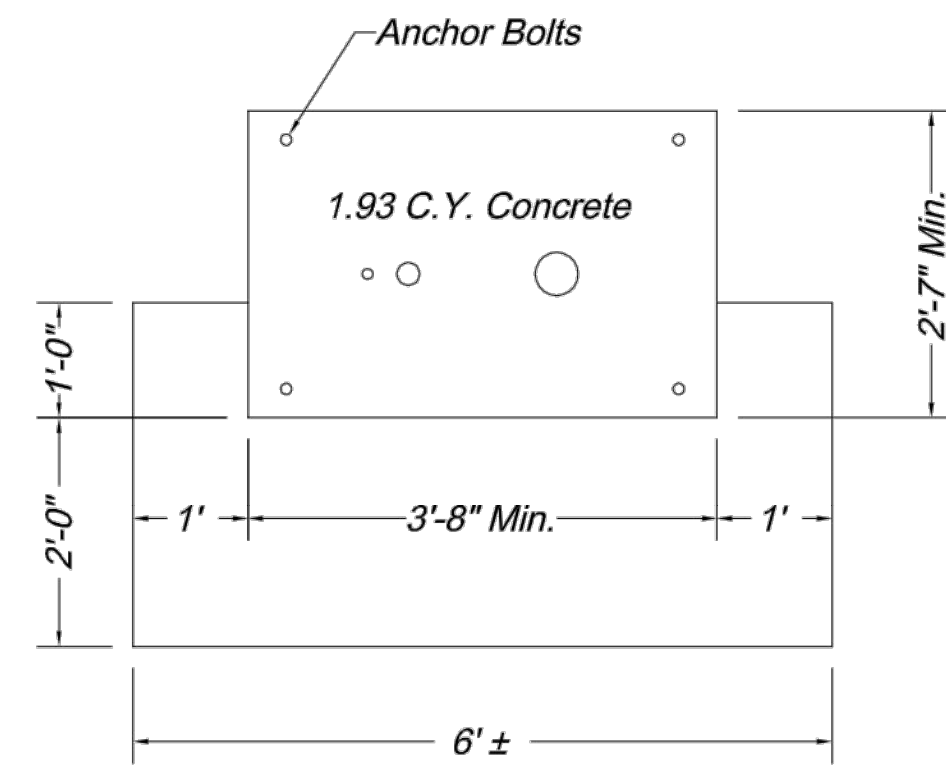
SIGNAL HEAD MOUNTING DETAILS

Drawn By: AS  
Checked By: MP  
Date: 09/25/2009  
Project#

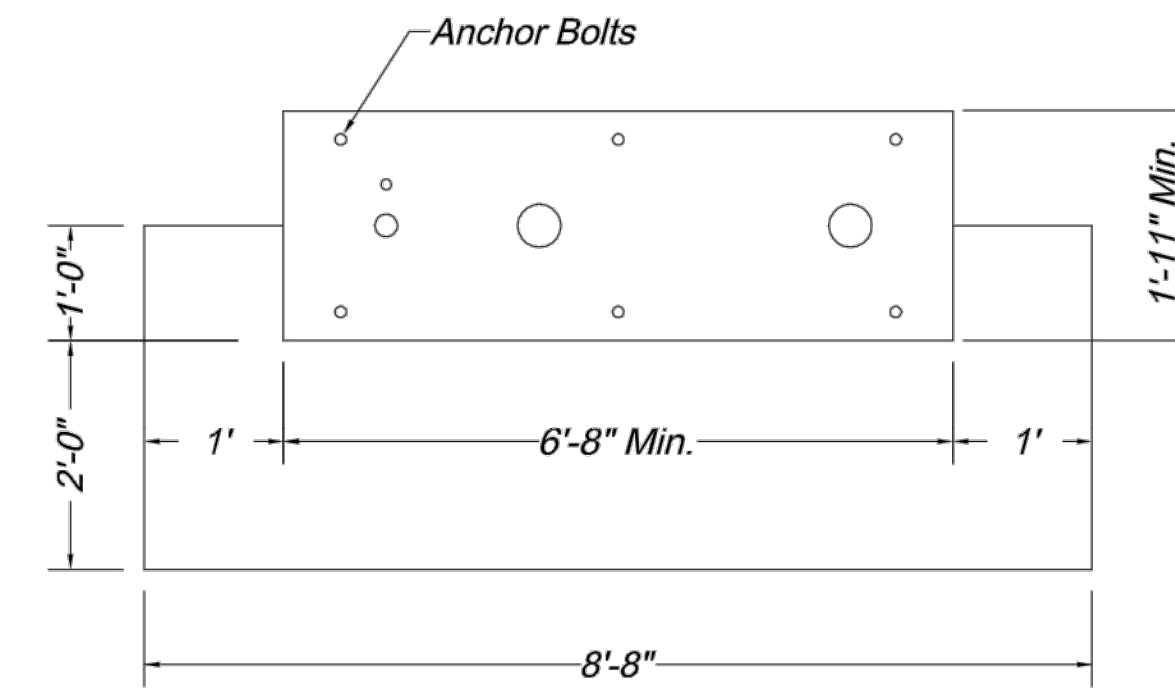
**66**



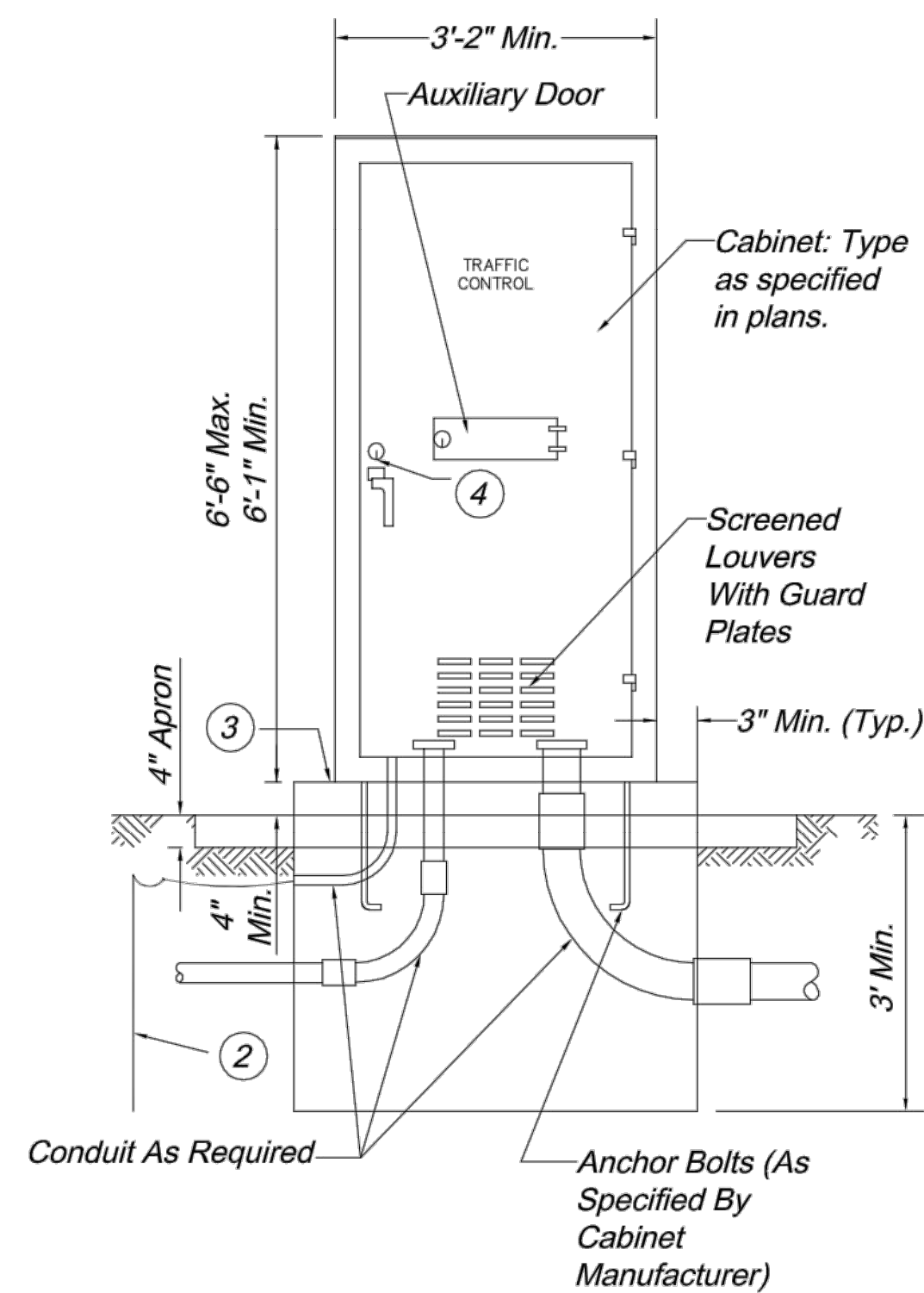
PLAN VIEW



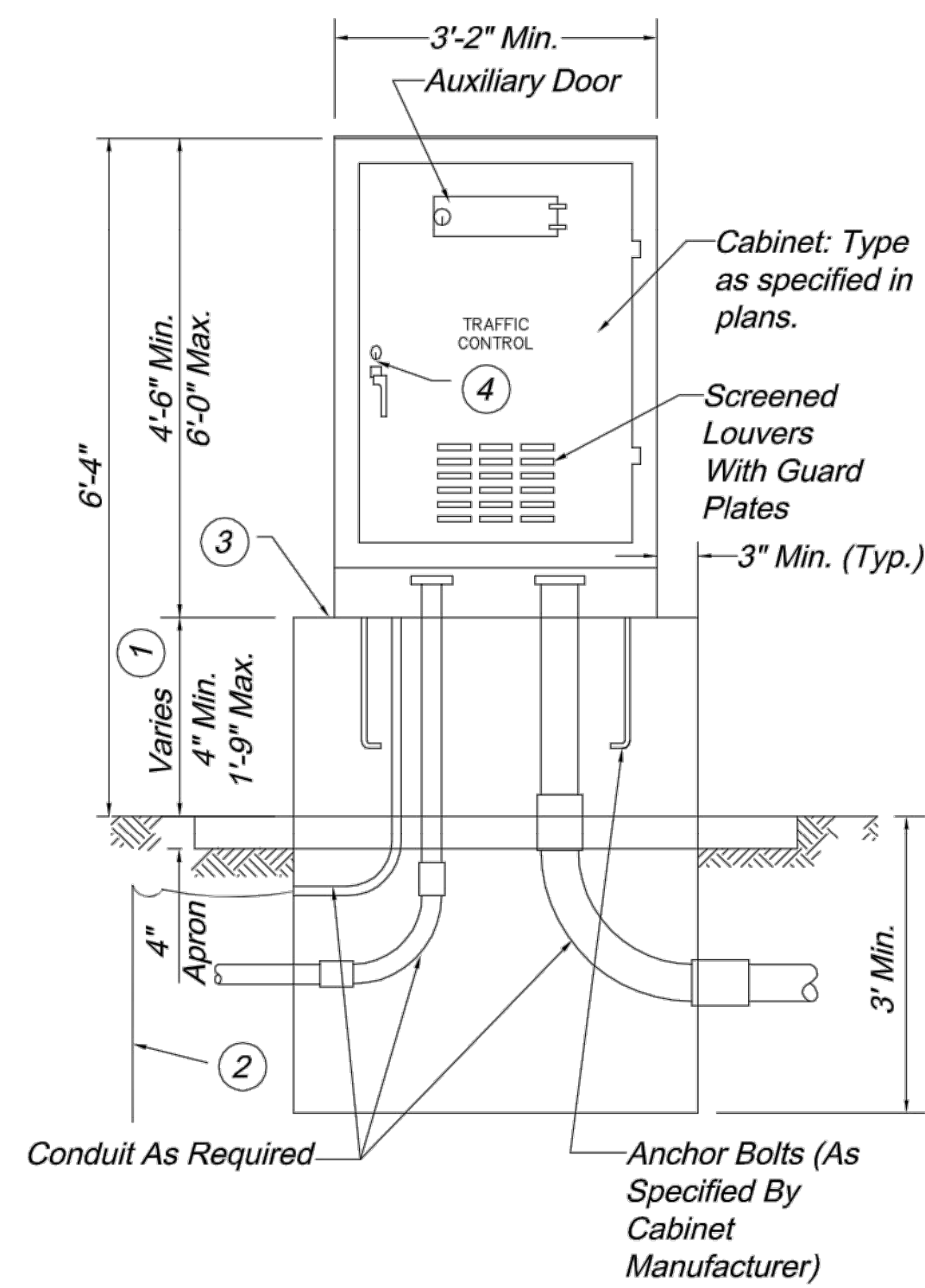
PLAN VIEW



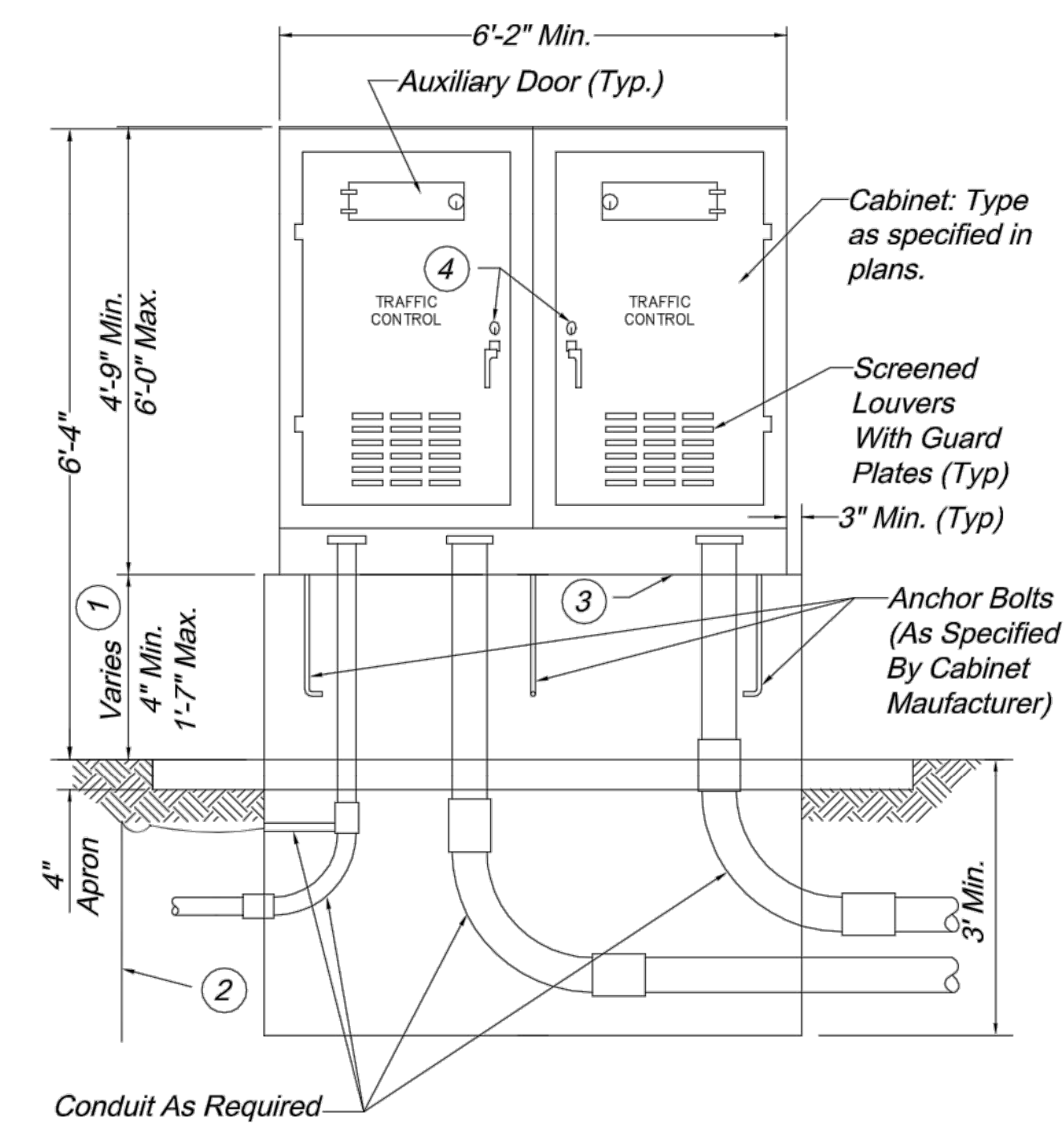
PLAN VIEW



For Controller Cabinets With Heights From 6'-1" To 6'-6" TYPE E

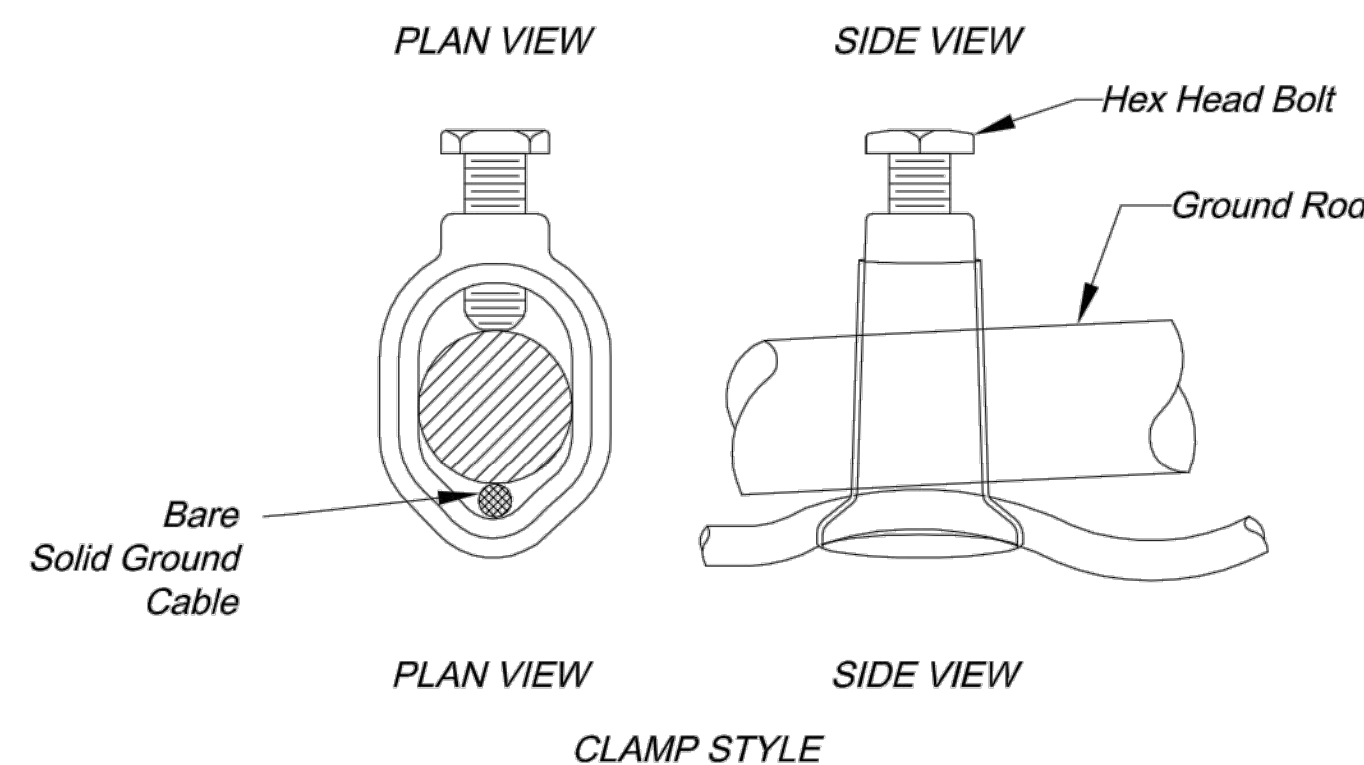


For Controller Cabinets With Heights From 4'-4" To 6'-0" TYPE EV



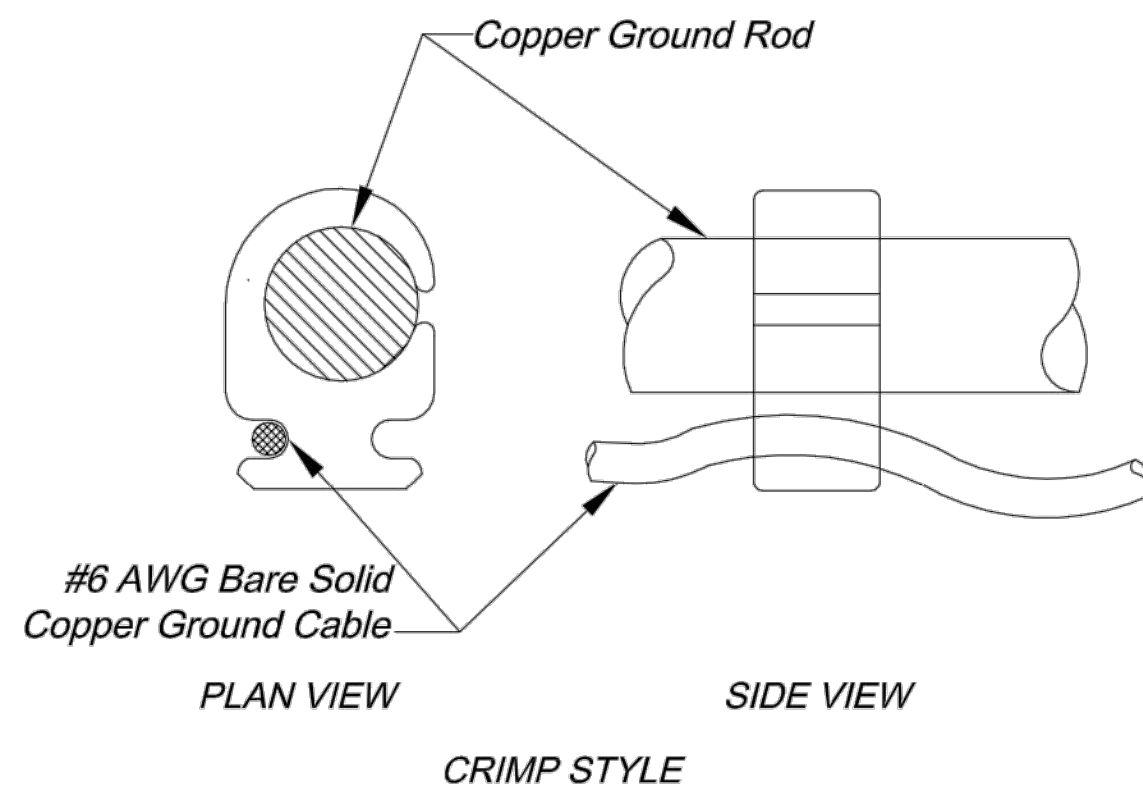
DOUBLE

### CONTROLLER CABINETS AND BASE TYPES



### GROUND ROD CLAMP CONNECTION DETAIL

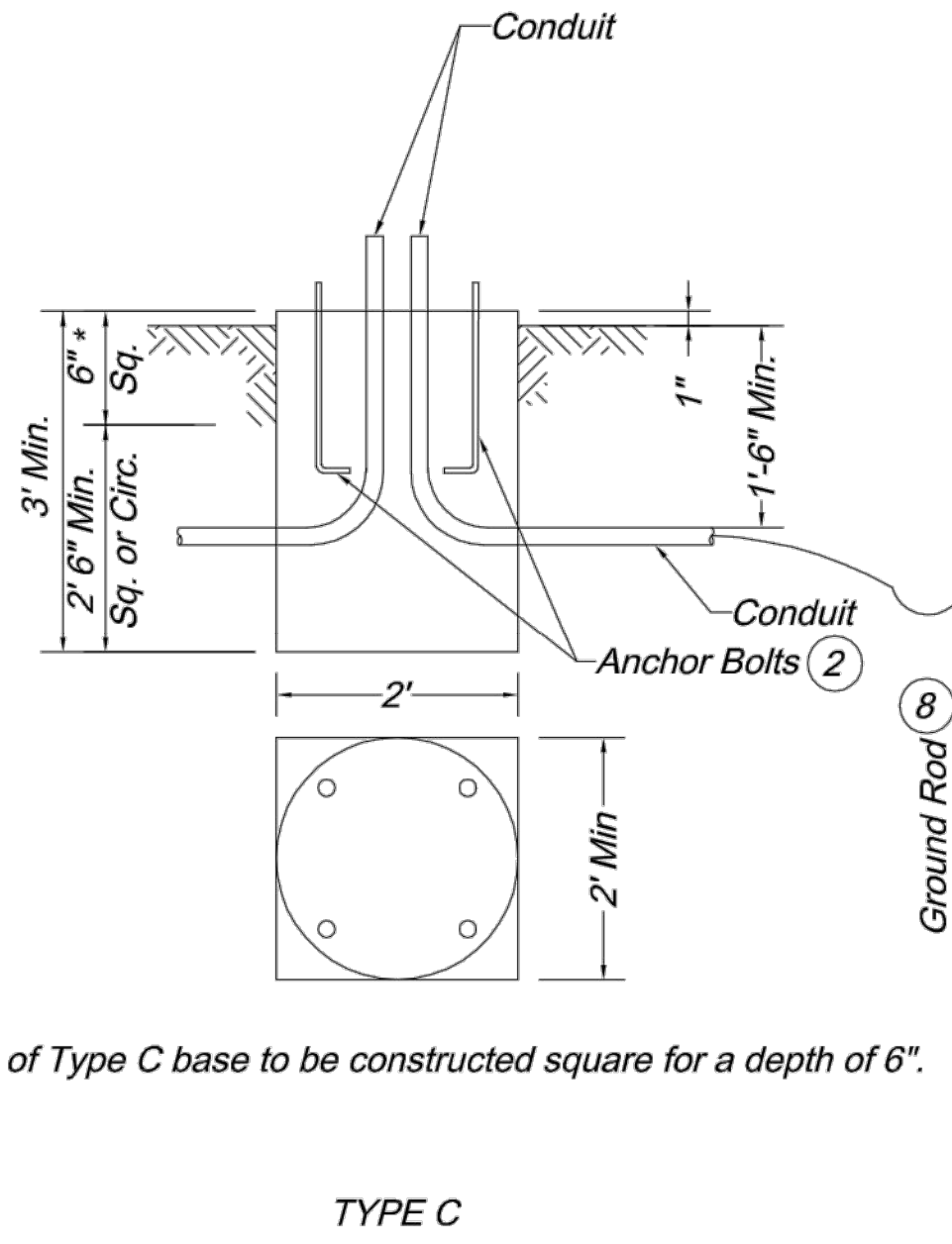
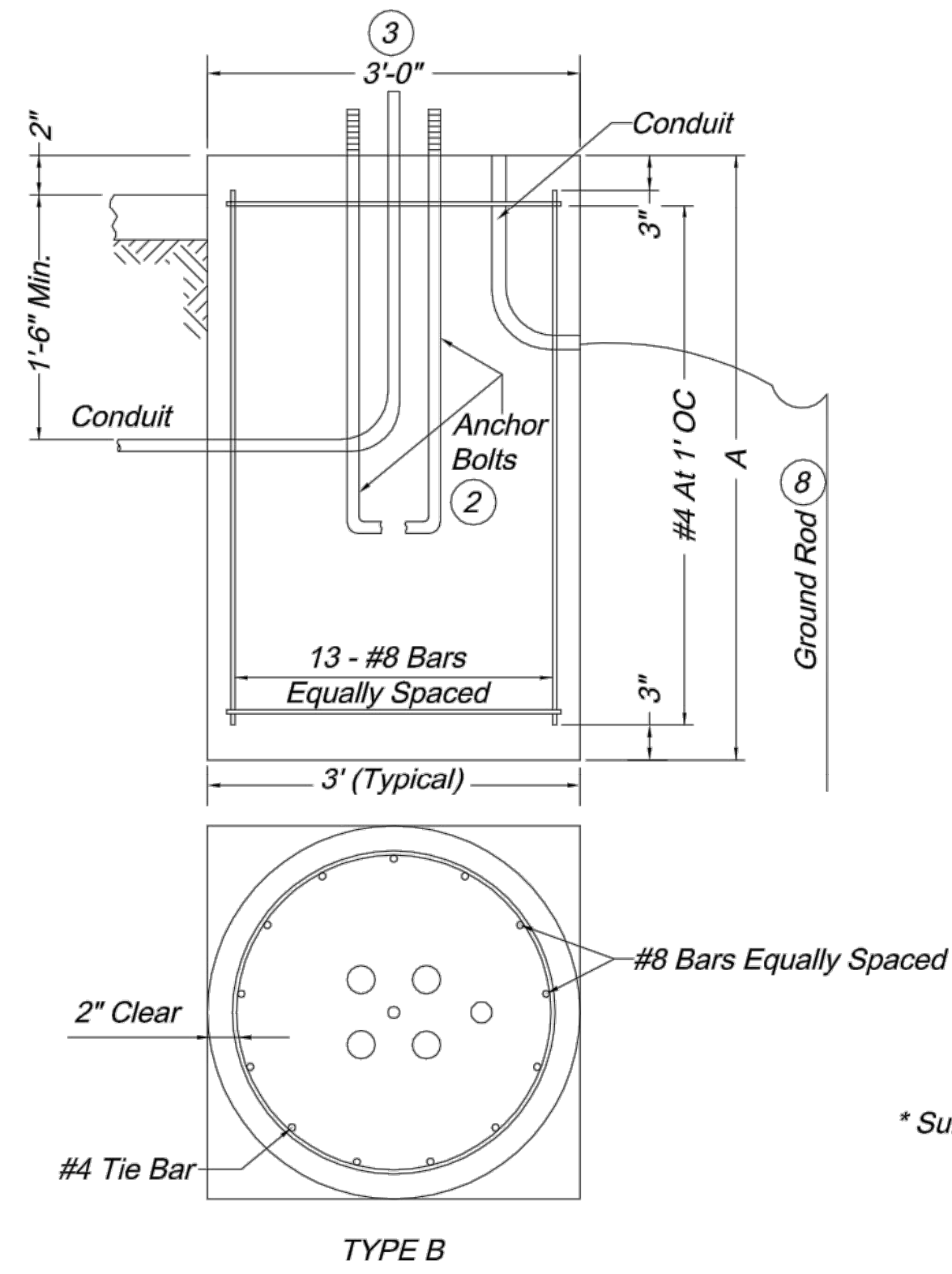
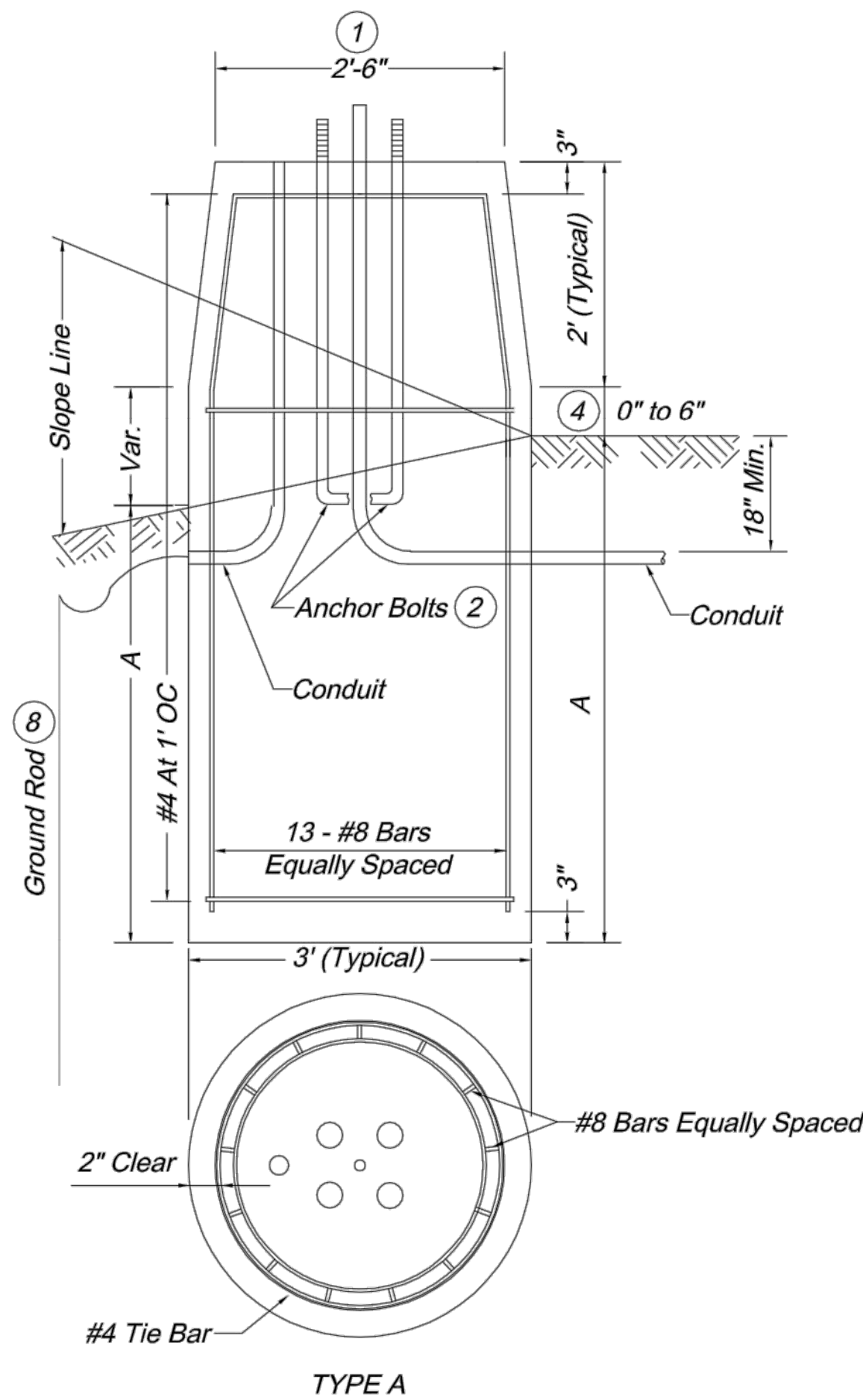
Ground rod clamp shall be subsidiary to ground rod.



**General Notes:**

Traffic signal controller cabinet shall be oriented with the back of the controller cabinet facing the intersection, such that when the door is open the signal head indications can be viewed while looking inside the cabinet.

- ① Dimension varies according to cabinet height.
- ② Ground rod, 3/4" dia. x 8' min. If subsurface conditions exist which prohibit the placement of the ground rod in a vertical position, the rod may be driven at an oblique angle not to exceed 45 degrees from vertical or buried in a trench at least 30 in. deep. Connection to ground rod shall be clamp type as detailed.
- ③ Lifetime silicone caulk between cabinet and base.
- ④ #2 corbin lock.



**POST BASES**

\* Surface of Type C base to be constructed square for a depth of 6".

POST BASES		
Post Type	Arm Length (Ft.)	Base Type
B, BL, C & CL	8 - 14	A-8 or B-8
B, BL, C & CL	15 - 34	A-10 or B-10
B, BL, C & CL	35 - 54	A-13 or B-13

Arm length determined by length of longest arm for Type B & BL signal posts.

Base Type A or B determined by location of post base.

**Special Design Requirements:**

Signal structures which will exceed the dimension limits shown on Standard Drawing TS-5 shall have its Post Base designed by a professional engineer and approved by the City Engineer (or designee). A set of drawings including specifications and design computations shall be submitted for record and reference. The submitted drawings and calculations shall be signed and sealed by a professional engineer in accordance with the laws relating to architects and professional engineers (Chapter 327, RSMO) and shall include a title block or summary sheet which lists and certifies that the foundation will meet the design criteria.

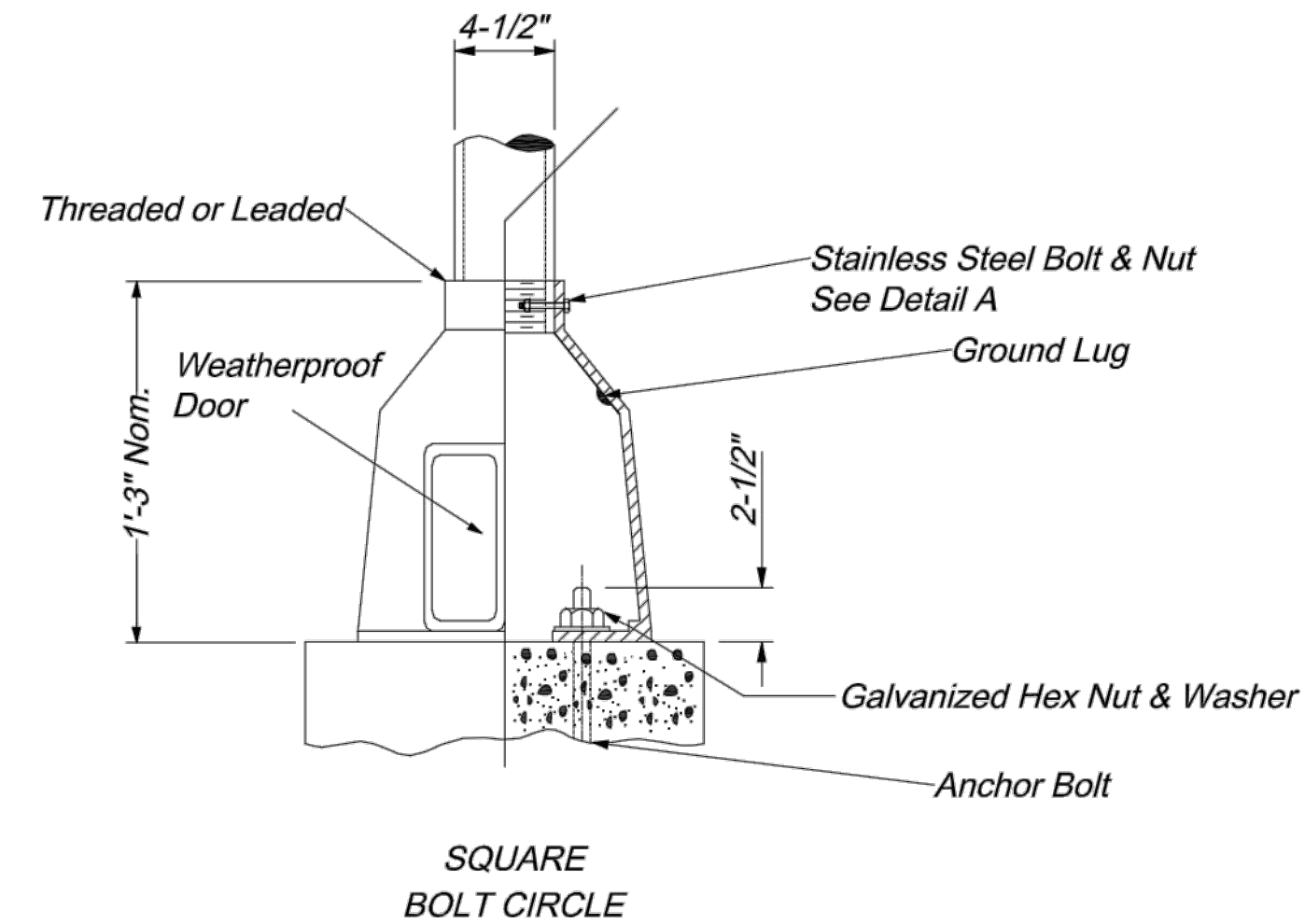
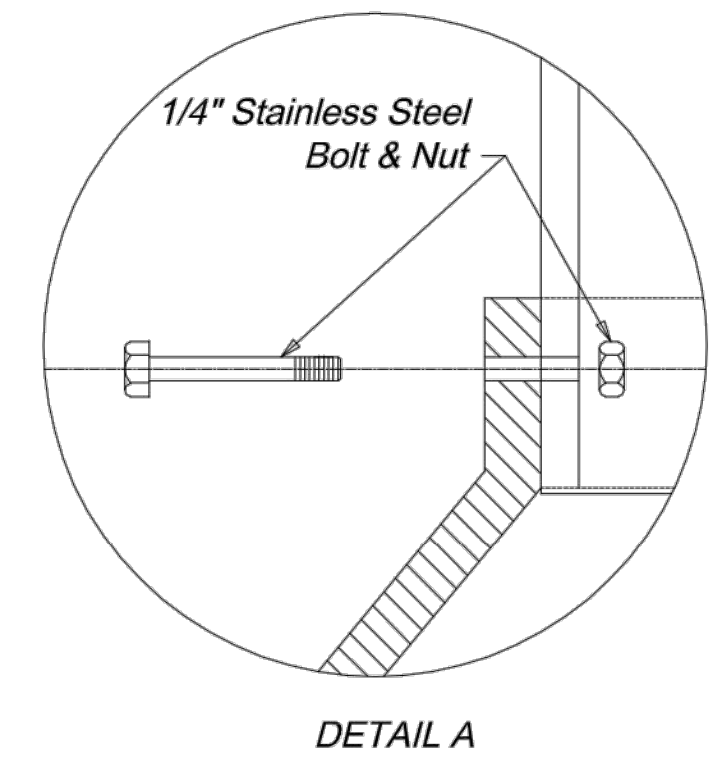
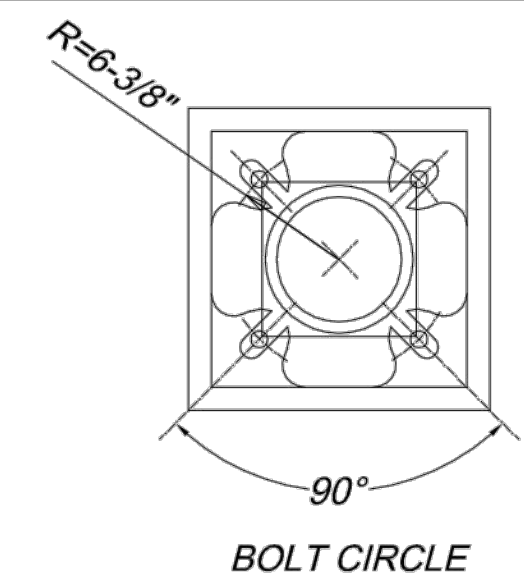
STEEL & CONCRETE REQUIREMENTS FOR POST BASES				
Type	Bases		#8 Steel Bar	
	A (10)	Length	Weight Lbs (11)	Conc. C.Y.
A-8	8'-0"	9'-6"	399	2.53
A-10	10'-0"	11'-6"	481	3.06
A-13	13'-0"	14'-6"	604	3.84
B-8	8'-0"	7'-6"	317	2.09
B-10	10'-0"	9'-6"	400	2.62
B-13	13'-0"	12'-6"	523	3.40
C*				0.44

(10) Soil depth, no rock  
(11) Include #4 tie bar

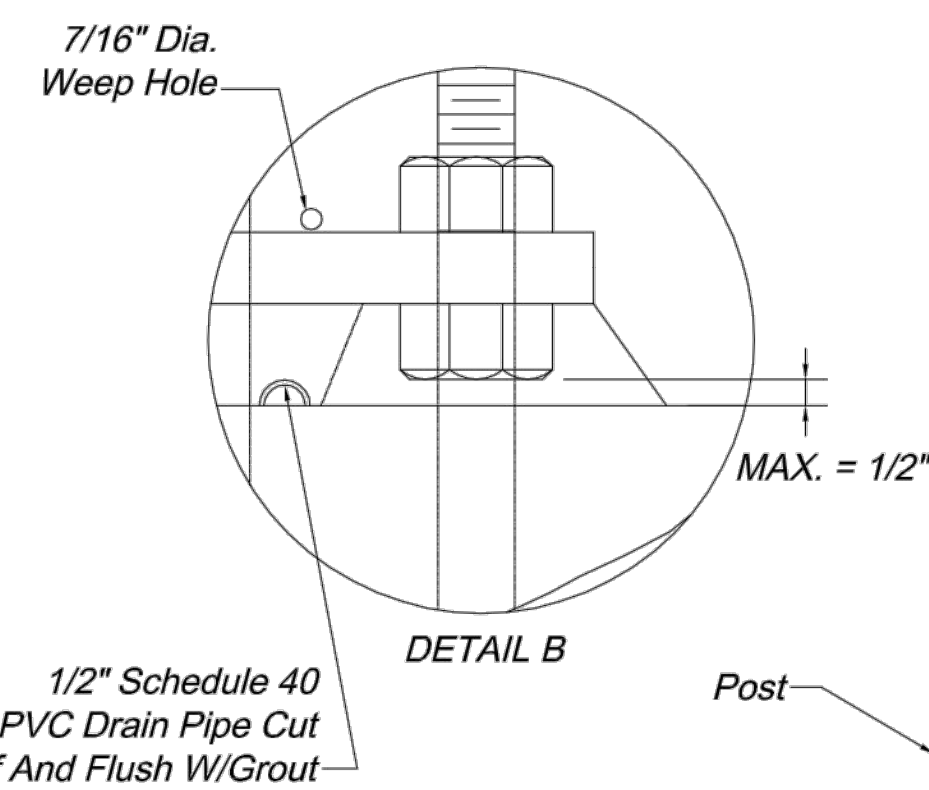
\* Surface of Type C base to be constructed square for a minimal depth of 6".

Solid Rock Encounter Point	Required Embedment For Base Type		
	A-8 B-8	A-10 B-10	A-13 B-13
At Surface	4'-6"	4'-9"	5'-9"
At One-Fourth Normal Depth	3'-6"	4'-0"	5'-0"
At One-Half Normal Depth	3'-0"	3'-3"	3'-3"
At Three-Fourths Normal Depth	1'-3"	1'-3"	1'-0"

- Required embedment depths can be interpolated between encounter points for other solid rock encounter depths.
- Normal lengths for anchor bolts and reinforcing steel will be required.
- Core drill holes for anchor bolts and reinforcing steel in solid rock shall be provided. Core drill holes shall be twice the diameter of the anchor bolt and reinforcing steel diameter and to within 3 inches of the normal base depth.
- If soil, shale, gravel, fractured rock, or voids are encountered during core drilling, the rock shall be removed to the point of encounter.
- Anchor bolts and reinforcing steel shall be grouted in the core drill holes with non-shrink grout having a minimum strength of 9,000 pounds in 24 hours.
- Straight anchor bolts of the length shown in the anchor bolt table under the column "bolt length" are adequate for use in grouted core drilled holes. No heat induced alteration or bending of anchor bolts will be permitted.

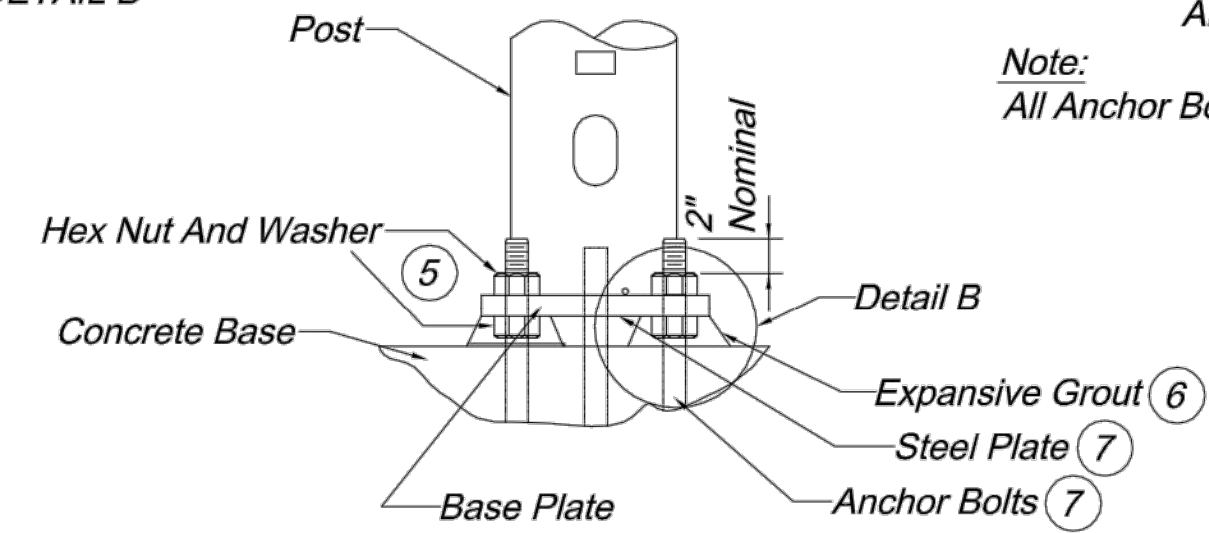


**CAST BASE**

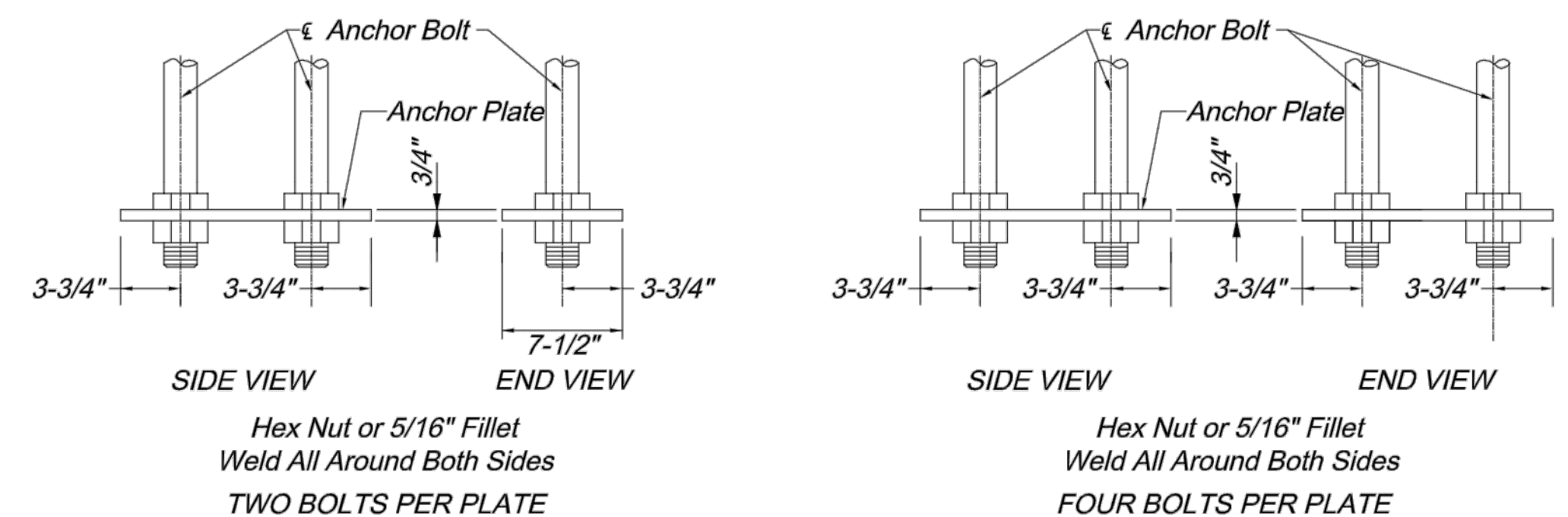


Bolt Length Inches	Vert Ht. A Inches	Thread Len. B Inches	Dia. C Inches
19	17	1.50	0.625
57	51	7.00	1.250
79	73	7.50	1.500
94	88	8.00	1.750
121	115	8.50	2.000
120	114	9.00	2.250
146	140	9.50	2.500

Note: All Anchor Bolts Shall Be Fully Galvanized.



**STEEL PLATE AND ANCHOR BASE**



**OPTIONAL STEEL PLATE FOR ANCHOR BOLTS**

- If bolt circle is 22 inches or greater, use Type B base. If Type B base is used anywhere, all Type B, BL, C, and CL posts shall have Type B base. Base plate shall stay within the top of the post base diameter.
- Anchor bolt dimensions are shown on the manufacturer's approved drawings.
- Maximum bolt circle diameter is 26". Base plate shall stay within the top of the post base diameter.
- 0" to 6" variation in base height is for obtaining 16'-0" clearance. 0.13" C.Y. concrete and 3 lbs. reinforcing steel per 6".
- Posts shall be furnished with individual nut covers.
- Expansive grout shall be used between the post base plate and concrete base.
- Plate and bolt sizes shall be shown on fabricators shop drawings and shall be subject to approval.
- 3/4" x 8' minimum ground rod. If subsurface conditions exist which prohibit the placement of the ground rod in vertical position, the rod may be driven at an oblique angle not to exceed 45 degrees from vertical or buried in a trench at least 30 in. deep. Connection to ground rod shall be clamp type as detailed on standard drawing TS-2.

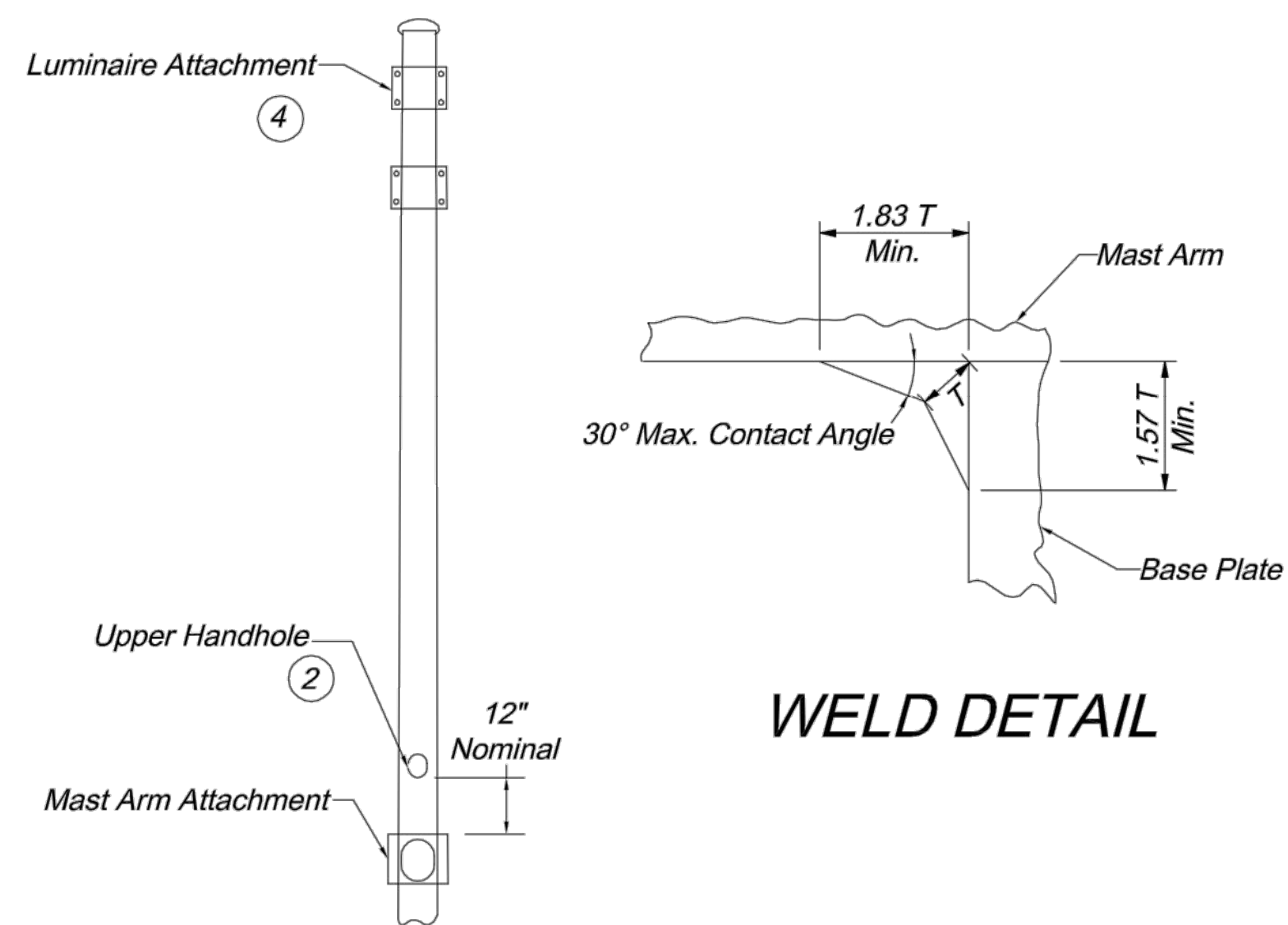
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ENGINEERING DIVISION  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
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POST BASE DETAILS

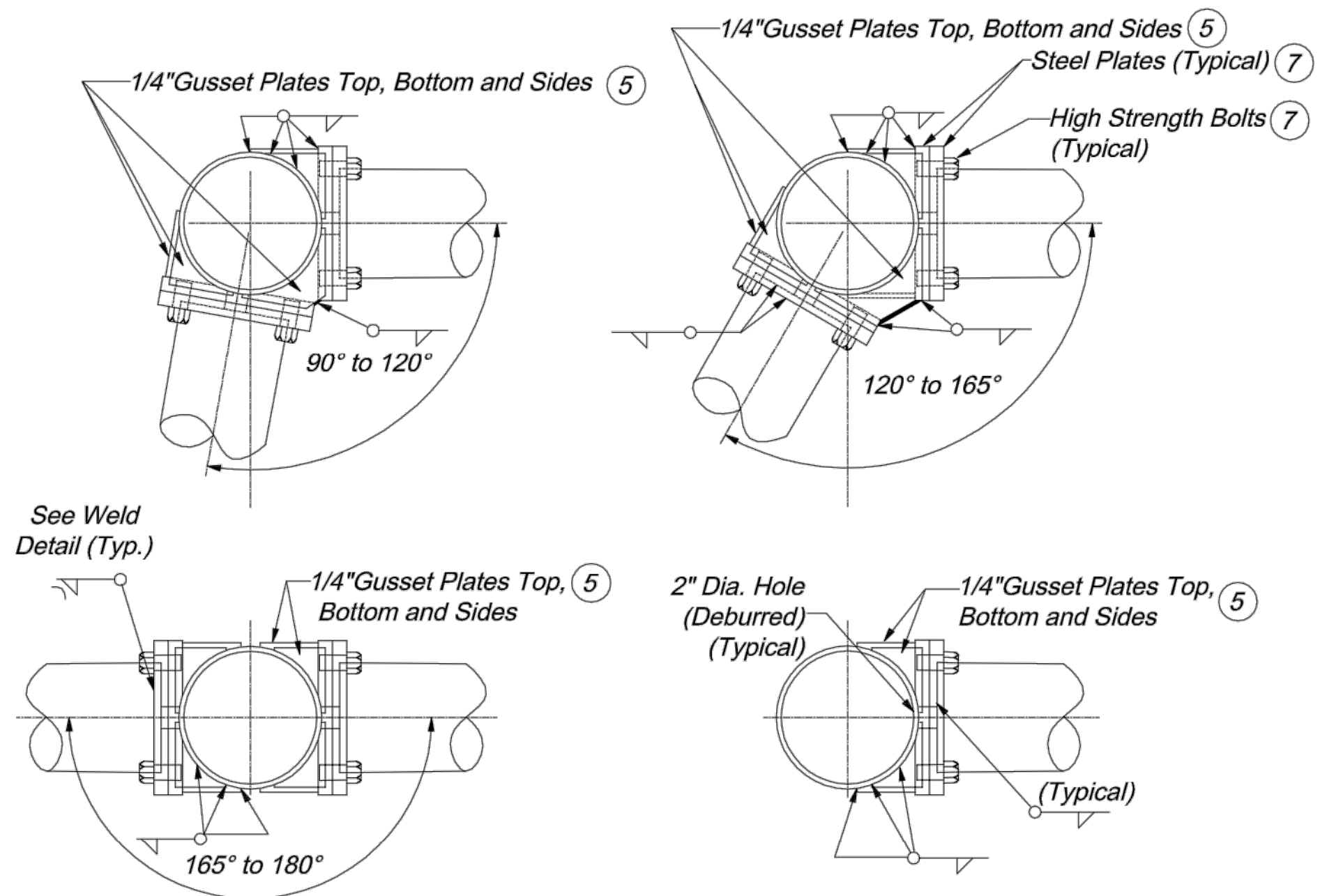
STANDARD DRAWING TS-3

Drawn By: AS  
Checked By: MP  
Date: 09/25/2009  
Project#



**TYPE BL AND CL POSTS**

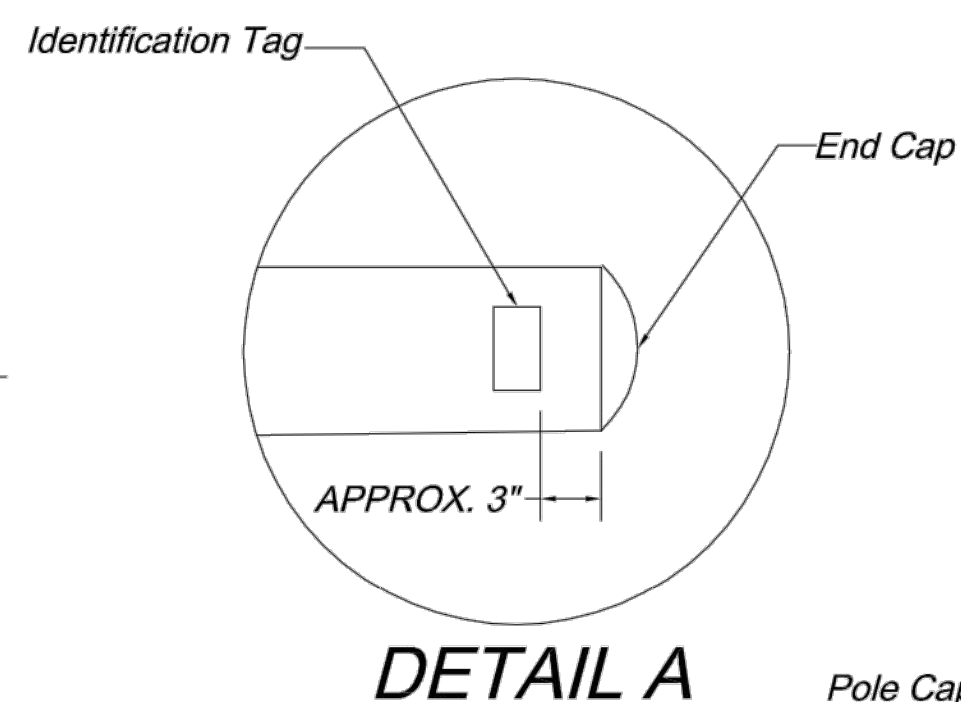
**WELD DETAIL**



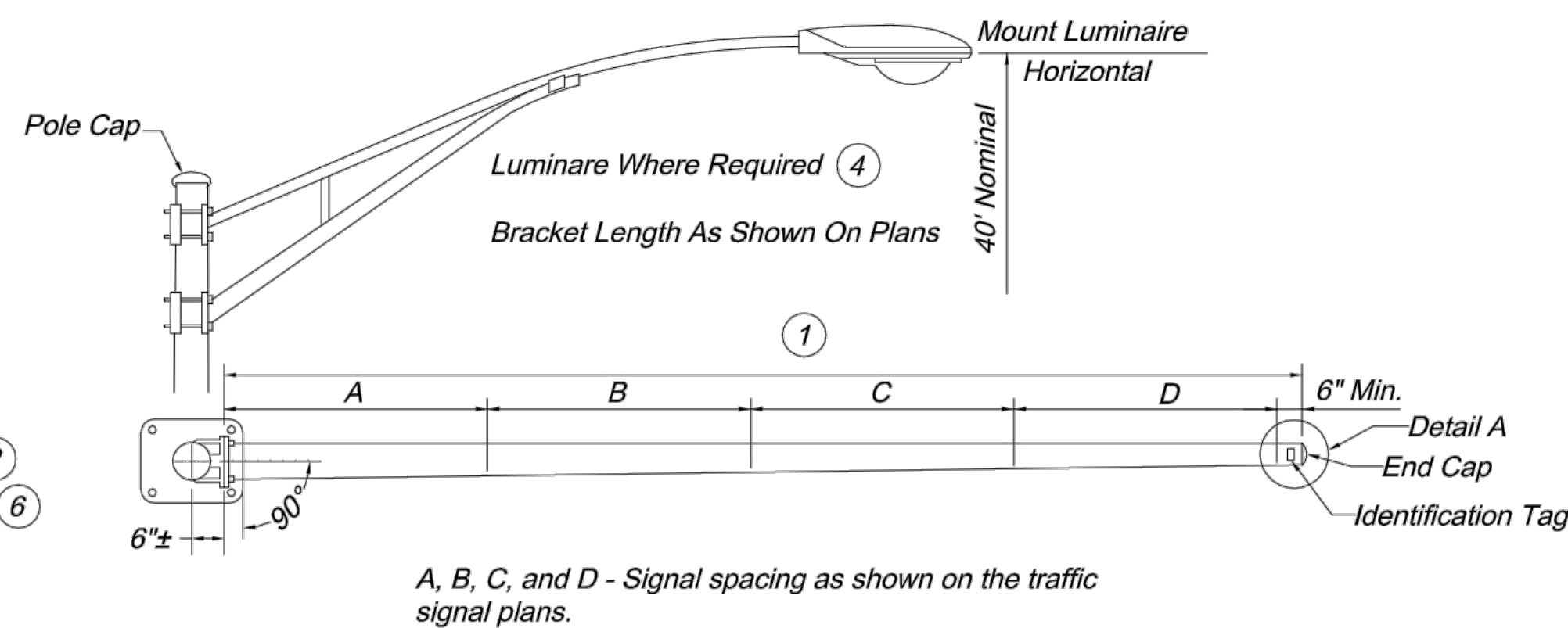
**ID Tag Note:**

Tag shall be aluminum or stainless steel and attached to pole or mast arm using two rivets or stainless steel drive screws. ID tag holes shall be drilled prior to galvanizing.

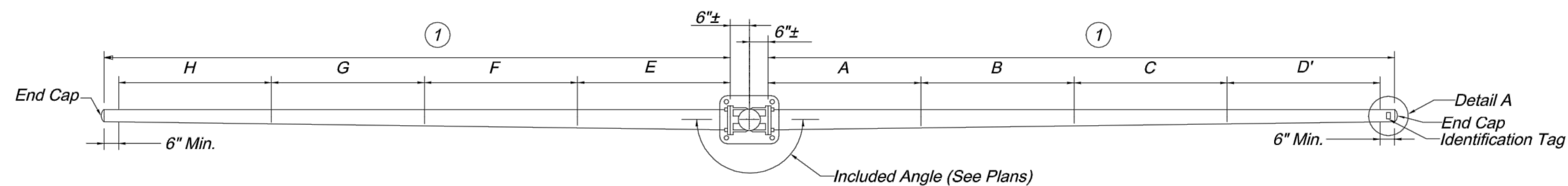
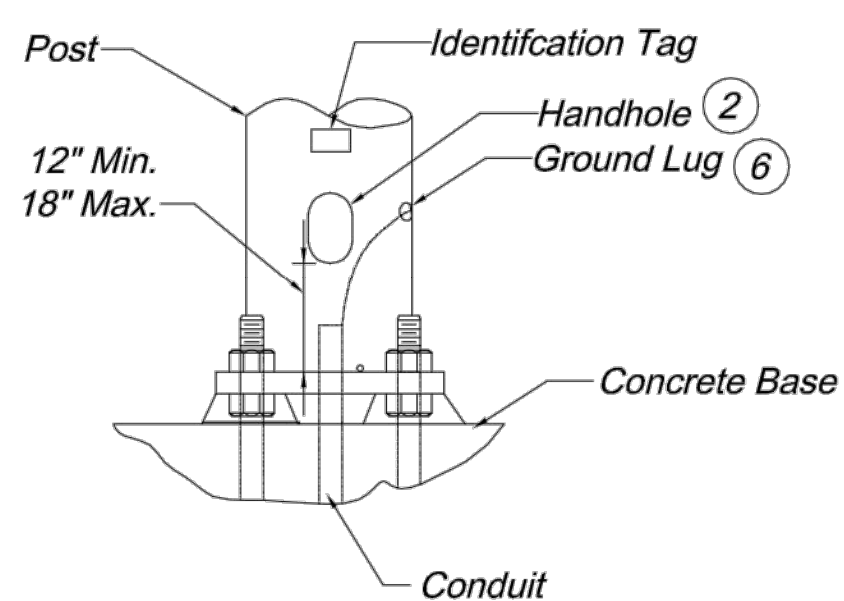
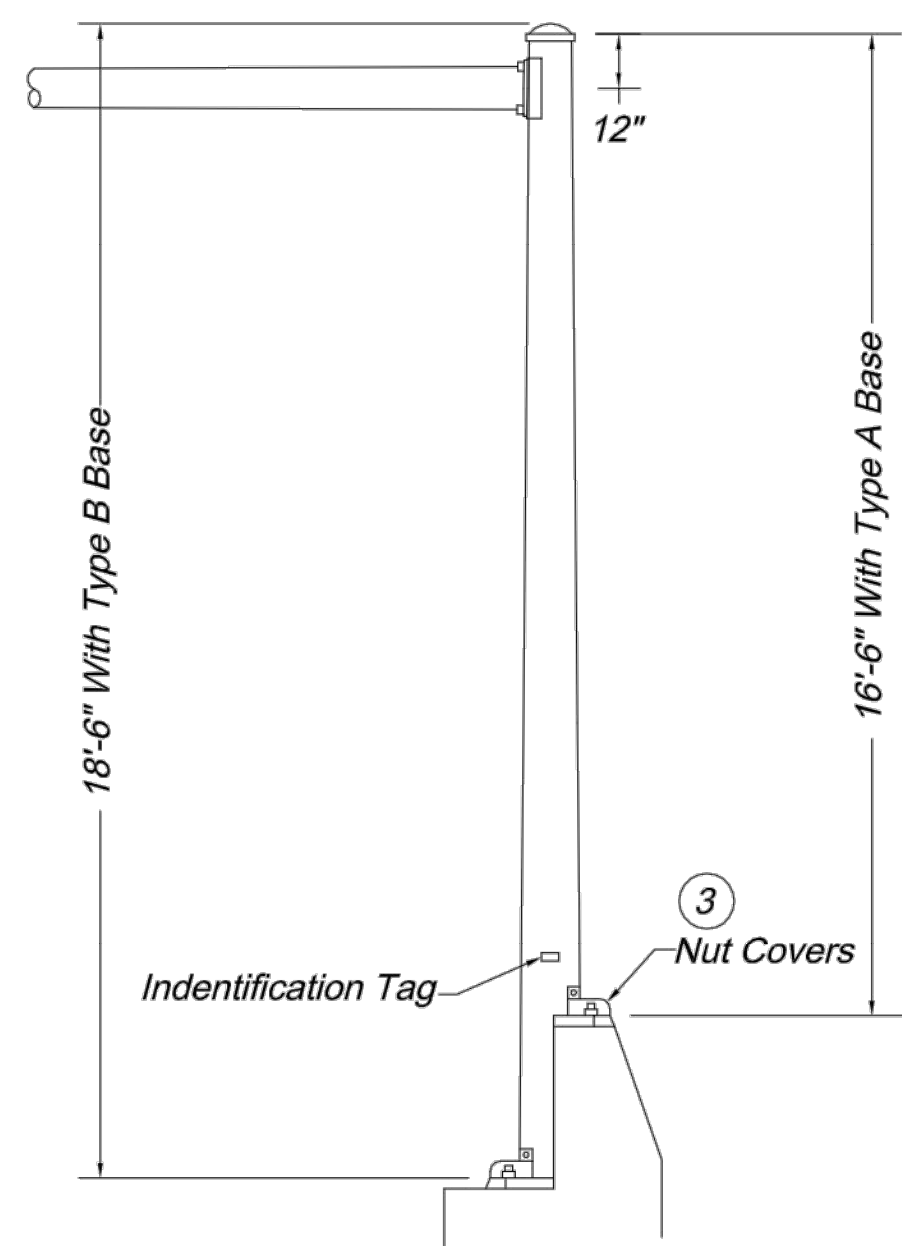
**ARM ATTACHMENTS**



**DETAIL A**



**TYPE C AND TYPE CL (WITH LUMINAIRE)**



E, F, G, and H - Signal spacing as shown on the traffic signal plans.

A, B, C, and D - Signal spacing as shown on the traffic signal plans.

**TYPE B AND TYPE BL (WITH LUMINAIRE)**

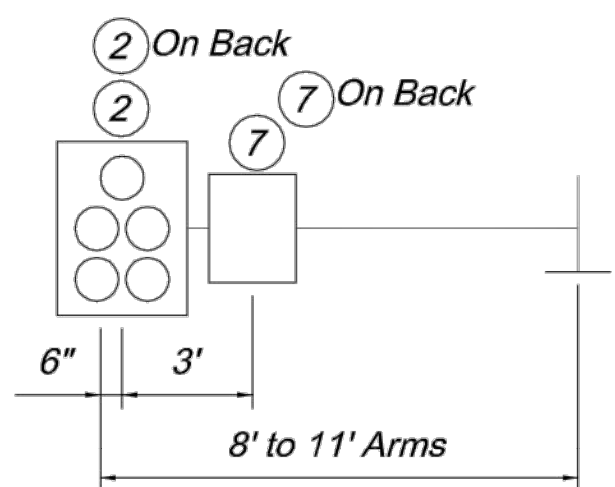
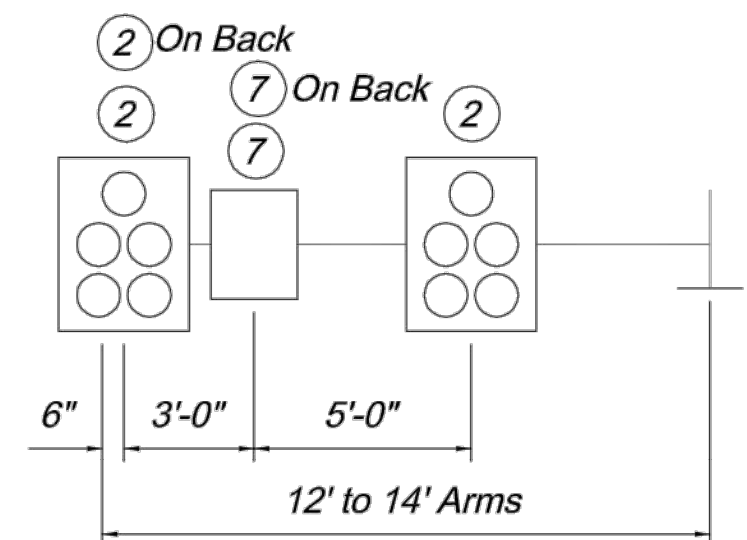
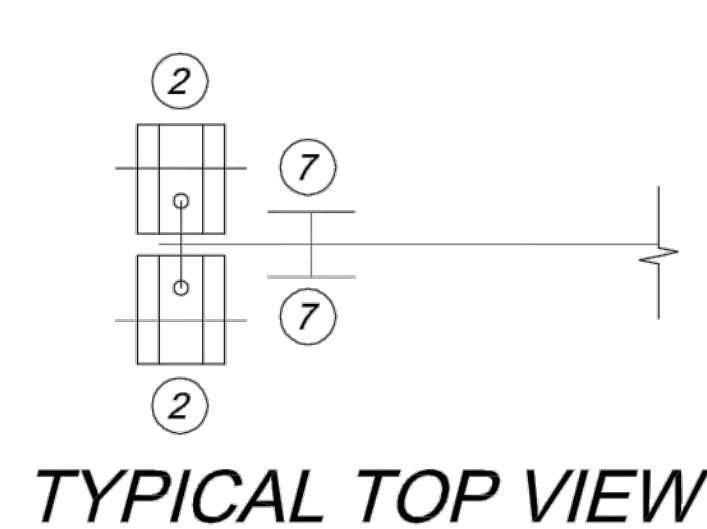
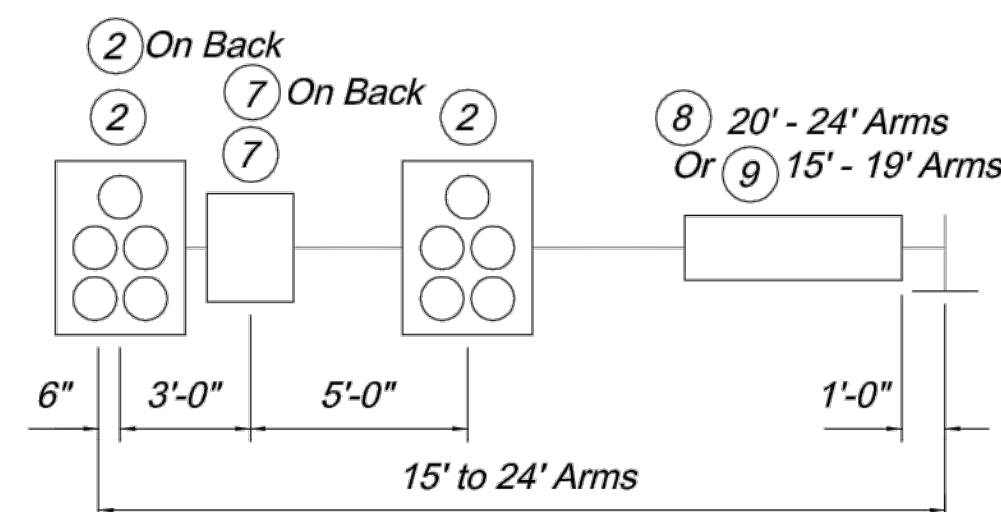
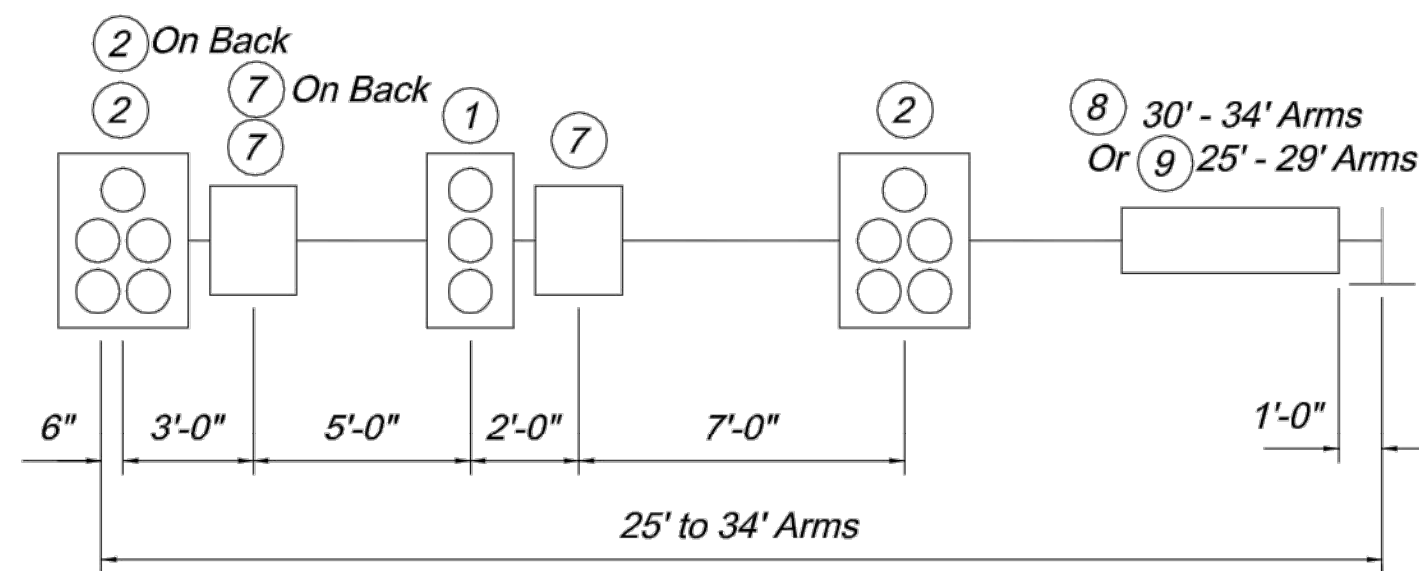
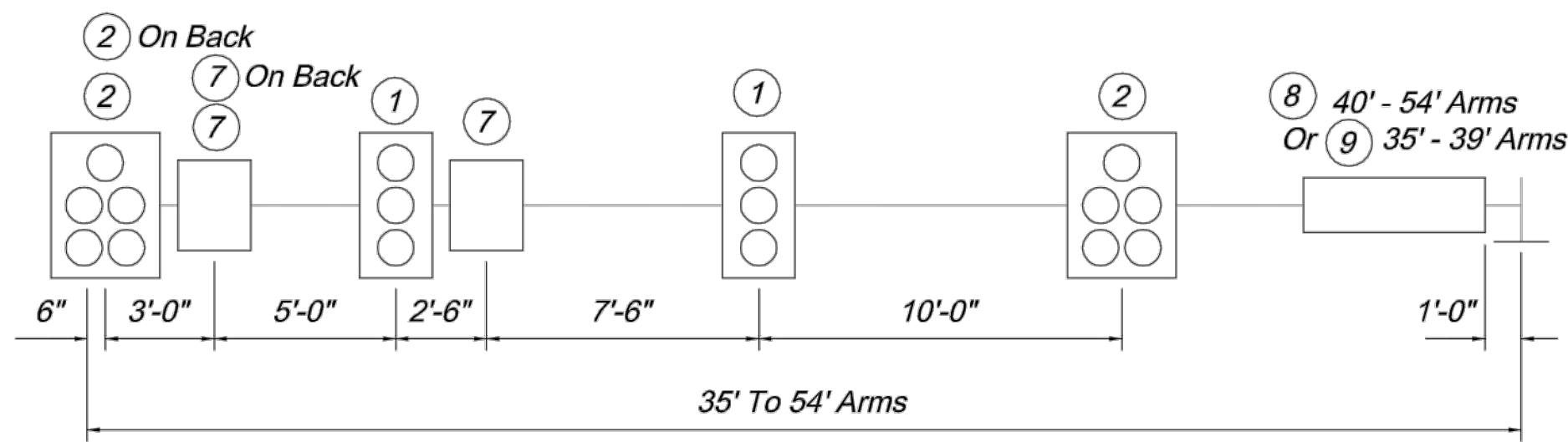
- 1 Arm Lengths shall not exceed 54 feet. See traffic signal plans for dimensions.
- 2 Handholes shall be approximately 4" x 6-1/2". Handhole frame shall be reinforced so that the pole strength is not reduced.
- 3 Posts shall be furnished with individual nut covers.
- 4 See street lighting standard details for typical bracket arm mounting for Type BL and Type CL posts.
- 5 Any openings between top and side gusset plates shall be sealed with lifetime caulk at time of installation.
- 6 Post shall be grounded from ground lug in post with #6 AWG bare copper wire to conduit system. Ground lug shall be 90° or 180° from the handhole.
- 7 Plate and bolt sizes shall be shown on fabricators shop drawings and shall be subject to approval.

**General Notes:**

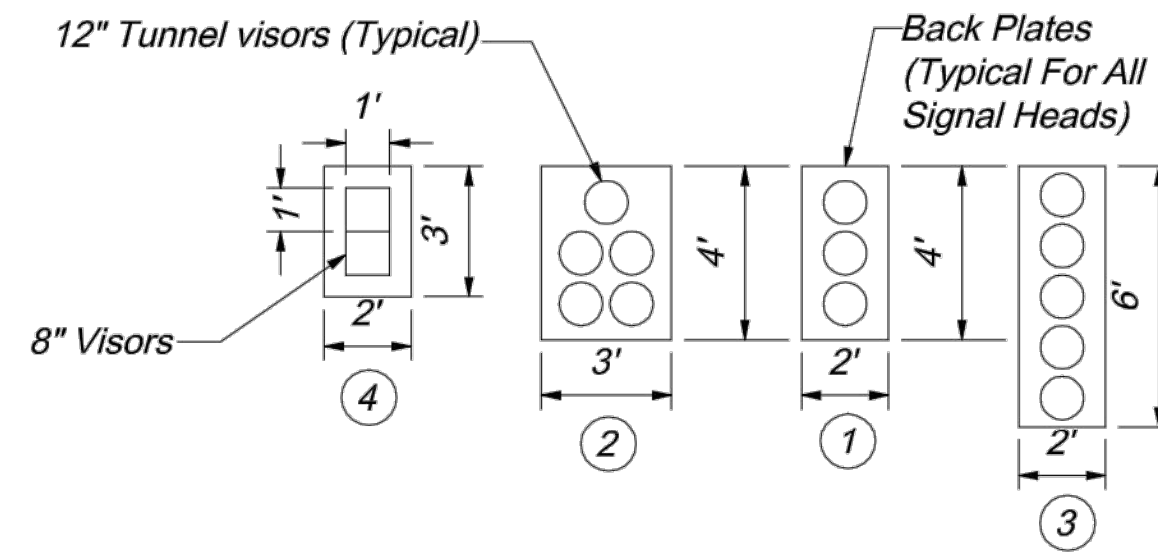
Arms shall be raked up 0.25" per foot minimum. Arms shall be provided with a permanent marking indicating proper orientation for installation.

To determine left or right on Type B or C signal post, viewing position shall be from the center of the intersection being controlled and facing the signal involved.





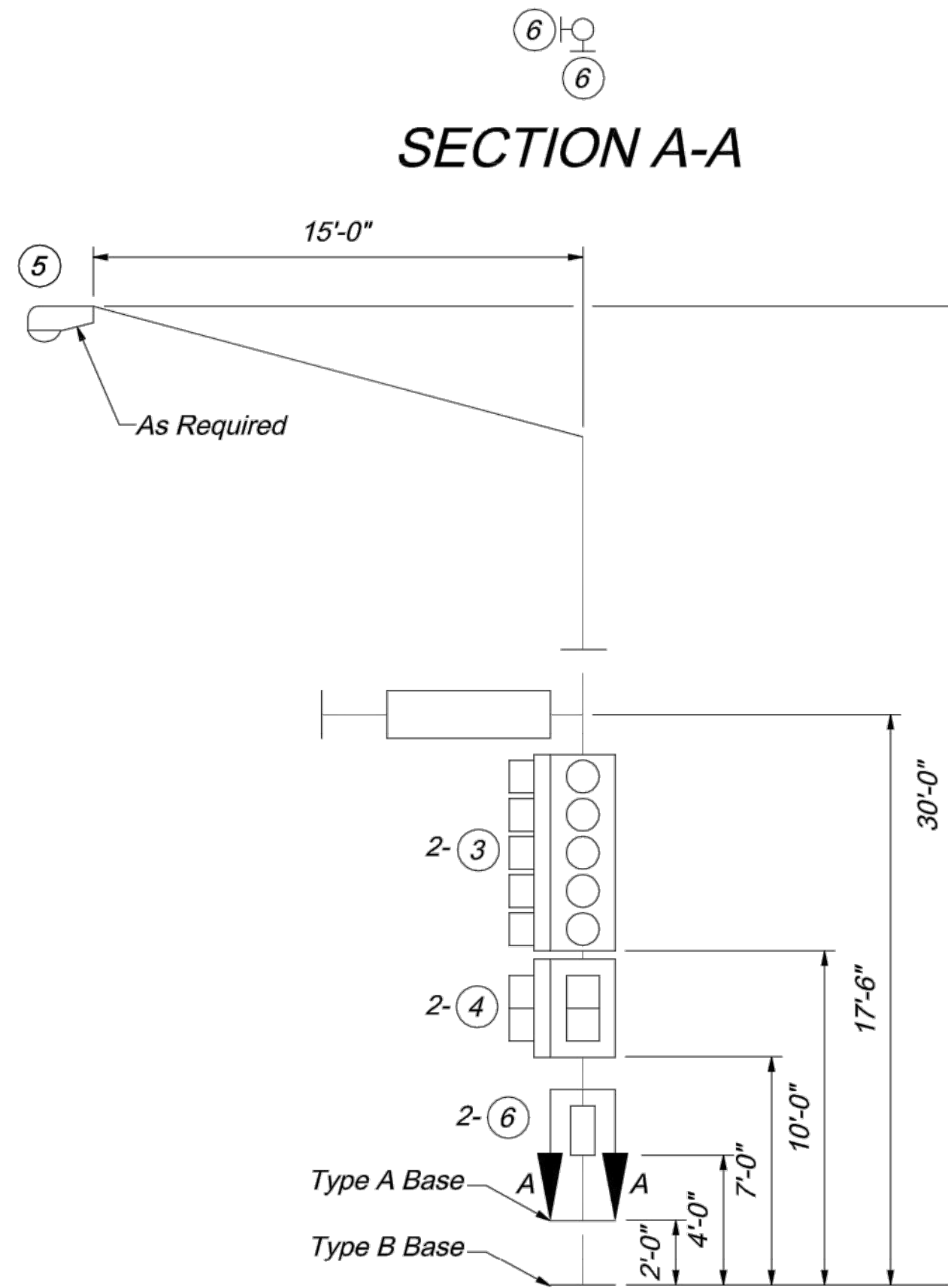
**MAST ARM LOADING**



Item No.	Description	Weight (Lbs.)*	Proj. Area (Sq. Ft.)	Surface Area (Sq. Ft.)
①	3-Section OL Head	60.0	8.0	32.5
②	5-Section OL Head	100.0	12.0	47.5
③	Vert. 5-Section OL Head	100.0	12.0	50.5
④	2-Section OL Head	40.0	6.0	23.0
⑤	150 Watt Luminaire	30.0	1.0	3.5
⑥	9" X 18" Sign	2.0	1.1	N/A
⑦	24" X 30" Sign	27.0	5.0	N/A
⑧	120" X 18" Sign	25.0	15.0	N/A
⑨	96" X 16" Sign 96" X 18" Sign 96" X 28" Sign	18.0 20.0 31.0	10.7 12.0 18.7	N/A N/A N/A

OL - Optically Limited  
\* Mounting Hardware Included

**SECTION A-A**



**TYPICAL POST LOADING**

**Structural Design Requirements:**

Structural supports shall be designed and fabricated to withstand their own loading and the attachment loading shown on this drawing or on the plans, whichever is greater. Structural members include posts, mast arms and luminaires bracket arms, as required.

Design of the structural supports shall be based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1994 or latest revision with these exceptions.

Minimum Design Wind Speed of 90 MPH at 30 Feet Above Ground.  
Group Loading:

Loads	Percent of Allowable Stress*
Group I - DL	100
Group II - DL + W	133
Group III - DL + Ice + 0.5(W**)	133

\*No load reduction factors shall be applied in conjunction with these increased allowable stresses.

\*\* W to be computed on the basis of the wind pressure formula. 25 PSF (1197 Pa) minimum for W for Group III.

Signal structures which will exceed the dimension limits shown shall be designed by a professional engineer\*\*\* based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 2001, 4th Edition, including any interim with the criteria noted below:

- Minimum Basic Wind Speed 90 MPH at 30 Feet Above Ground
- Fatigue Category I
- 50 Year Design Life.
- Shall not be specifically designed for truck induced wind gusts.
- Shall be specifically designed to resist periodic galloping forces.

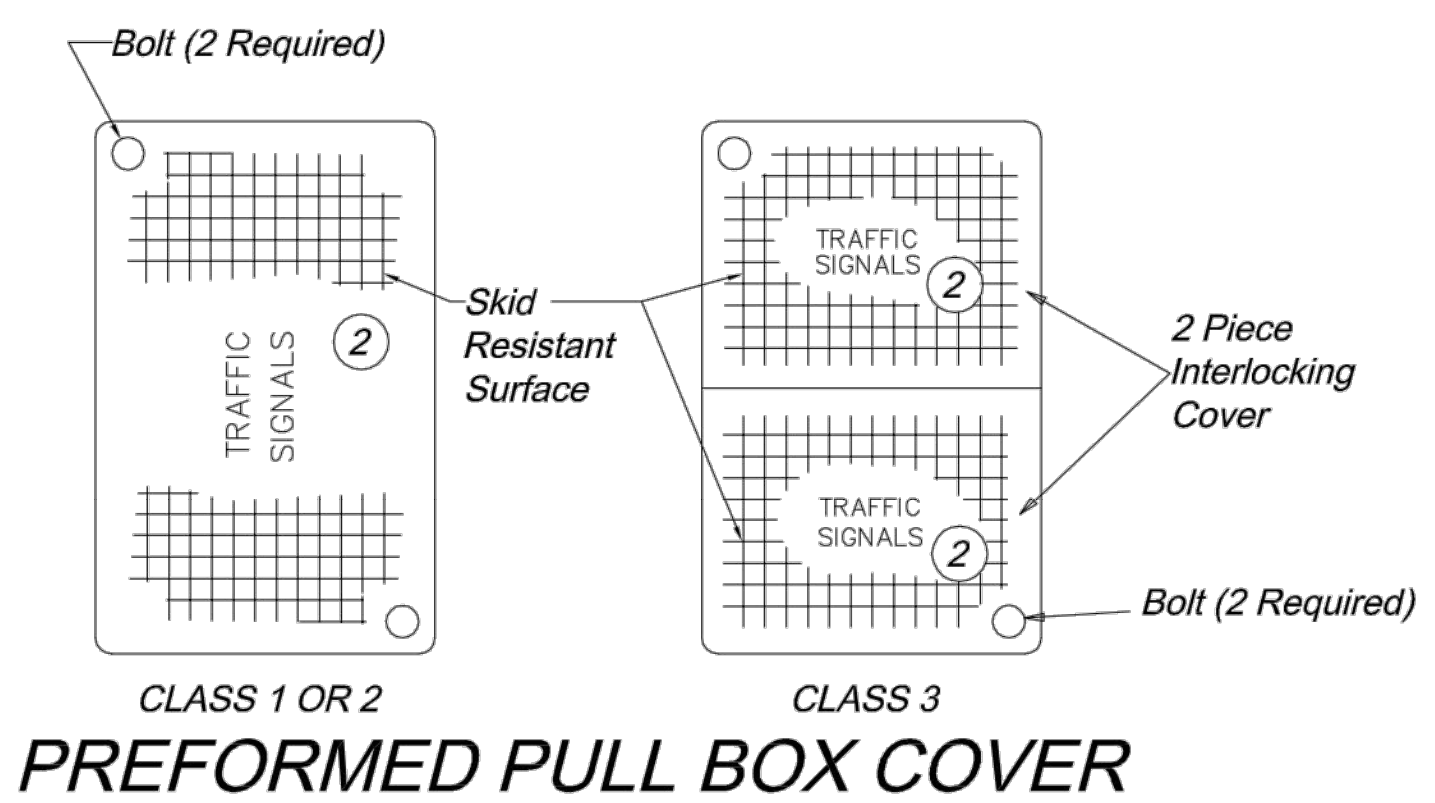
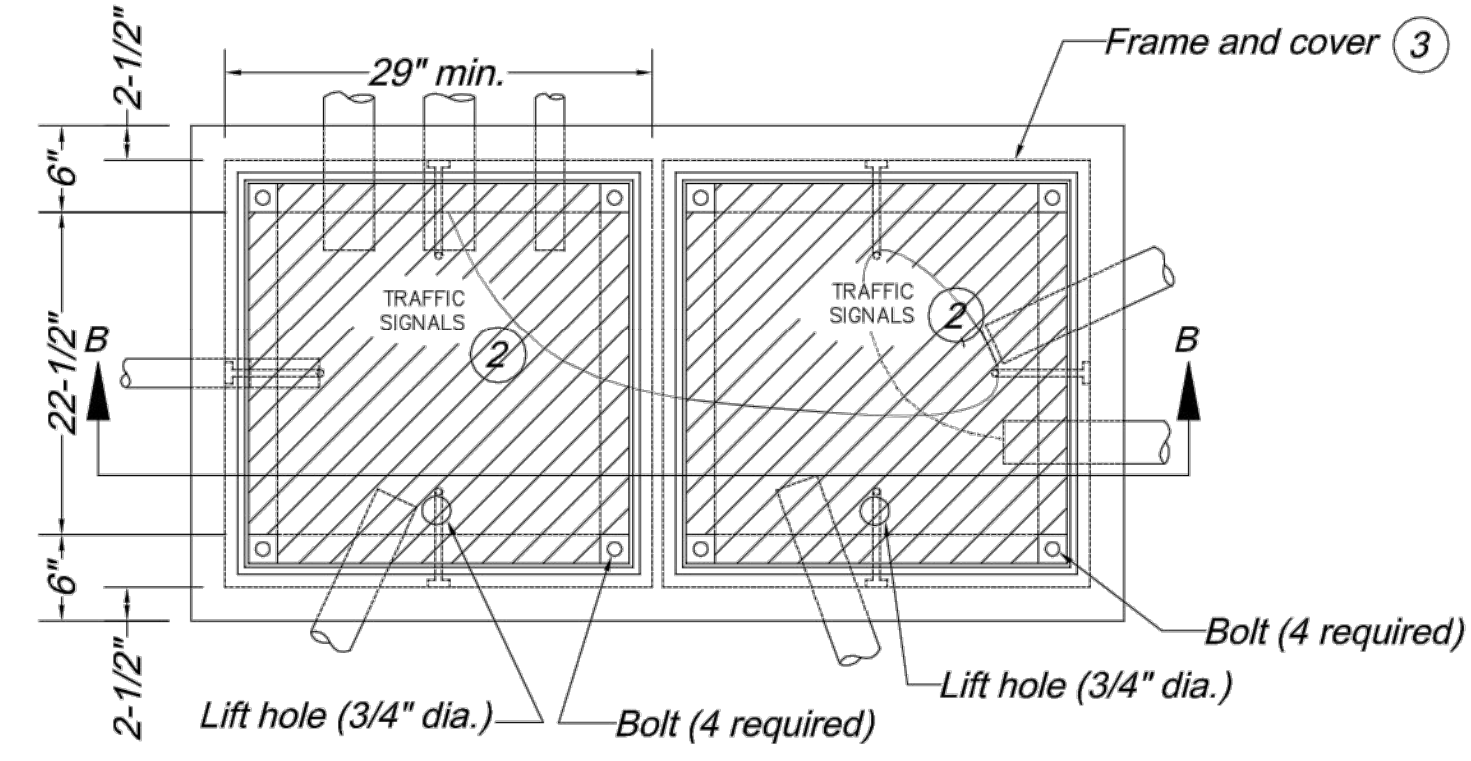
\*\*\*A set of shop drawings including weld procedure specifications and design computations shall be submitted for record and reference. The submitted drawings and calculations shall be signed and sealed by a professional engineer in accordance with the laws relating to architects and professional engineers (Chapter 327, RSMO) and shall include a title block or summary sheet which lists and certifies that the product meets all of the specified design criteria.

For Type B and BL posts. Ice and dead loading shall be based on the combined effect of design loading on each arm. Wind loading is applied as described in section 1.2.5(b) of the AASHTO Standard Specifications for Structural Supports, 1994 or latest version.

**General Notes:**

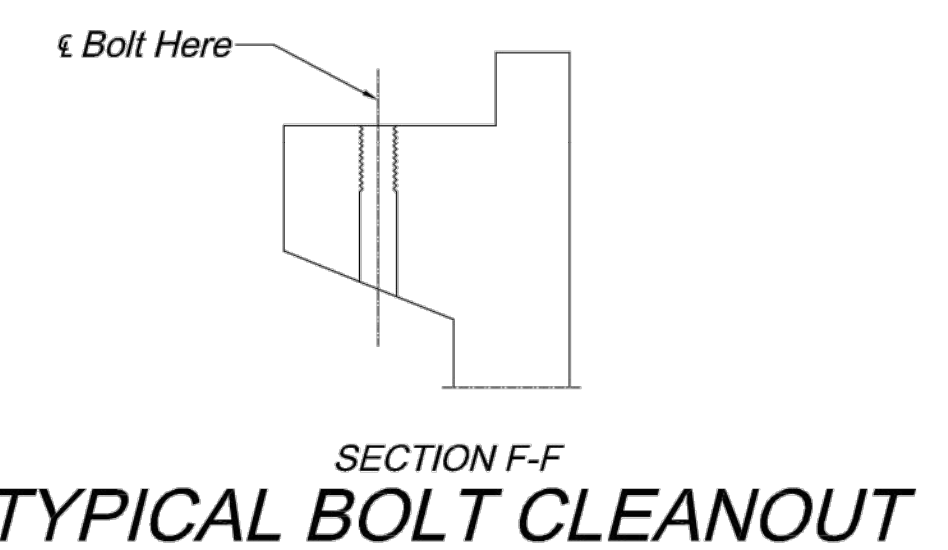
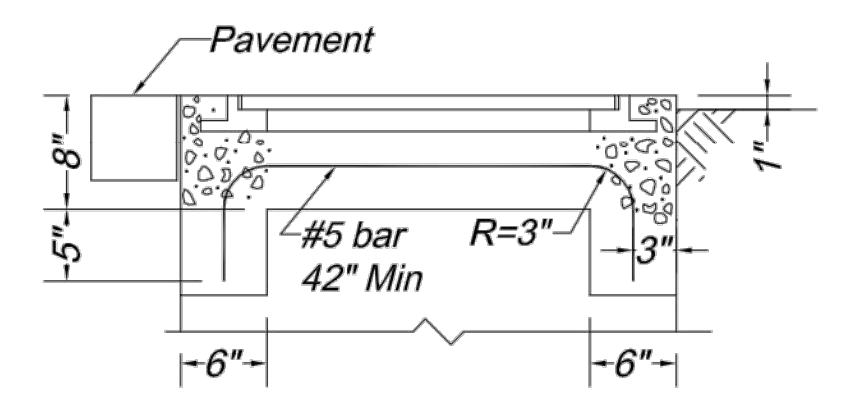
Attachment locations are for structural design purposes only. Actual locations are shown on the plans.

**MINIMUM DESIGN LOADING FOR POST AND MAST ARM ATTACHMENTS**

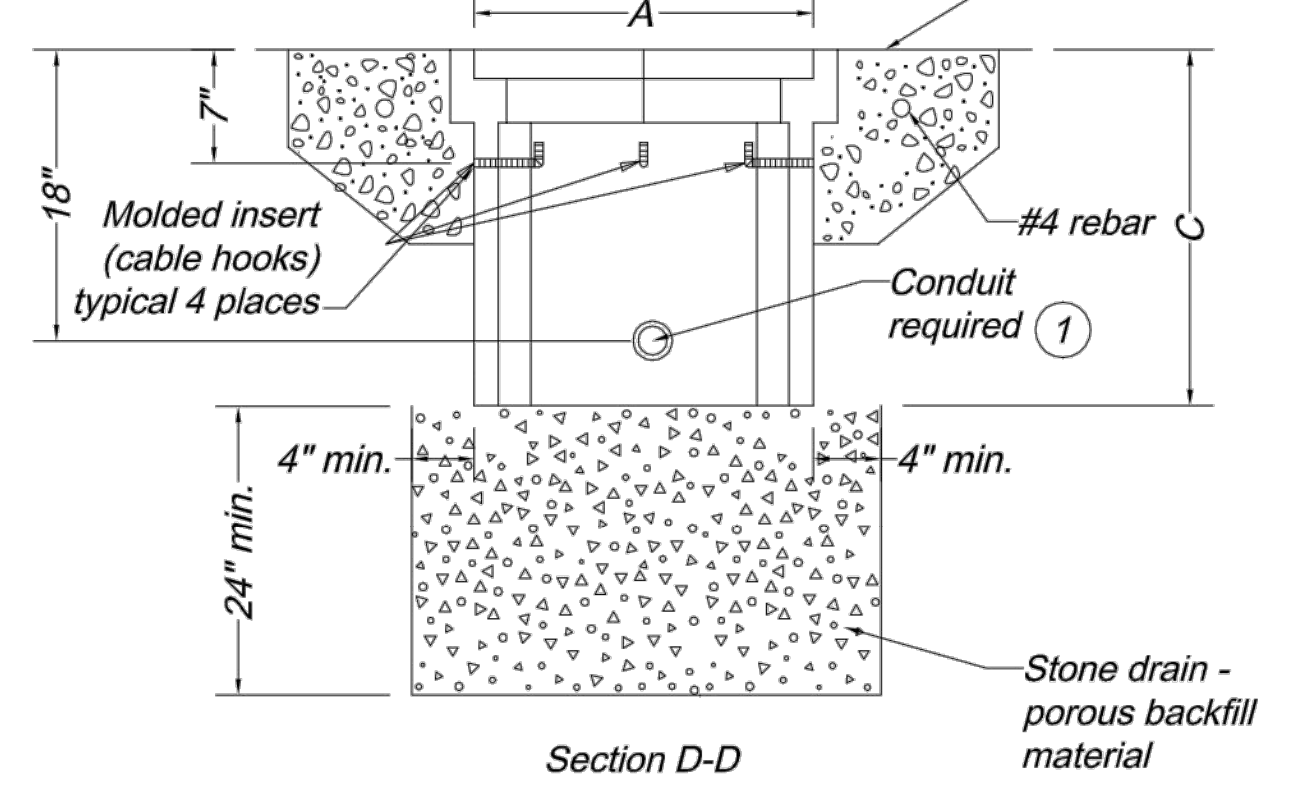
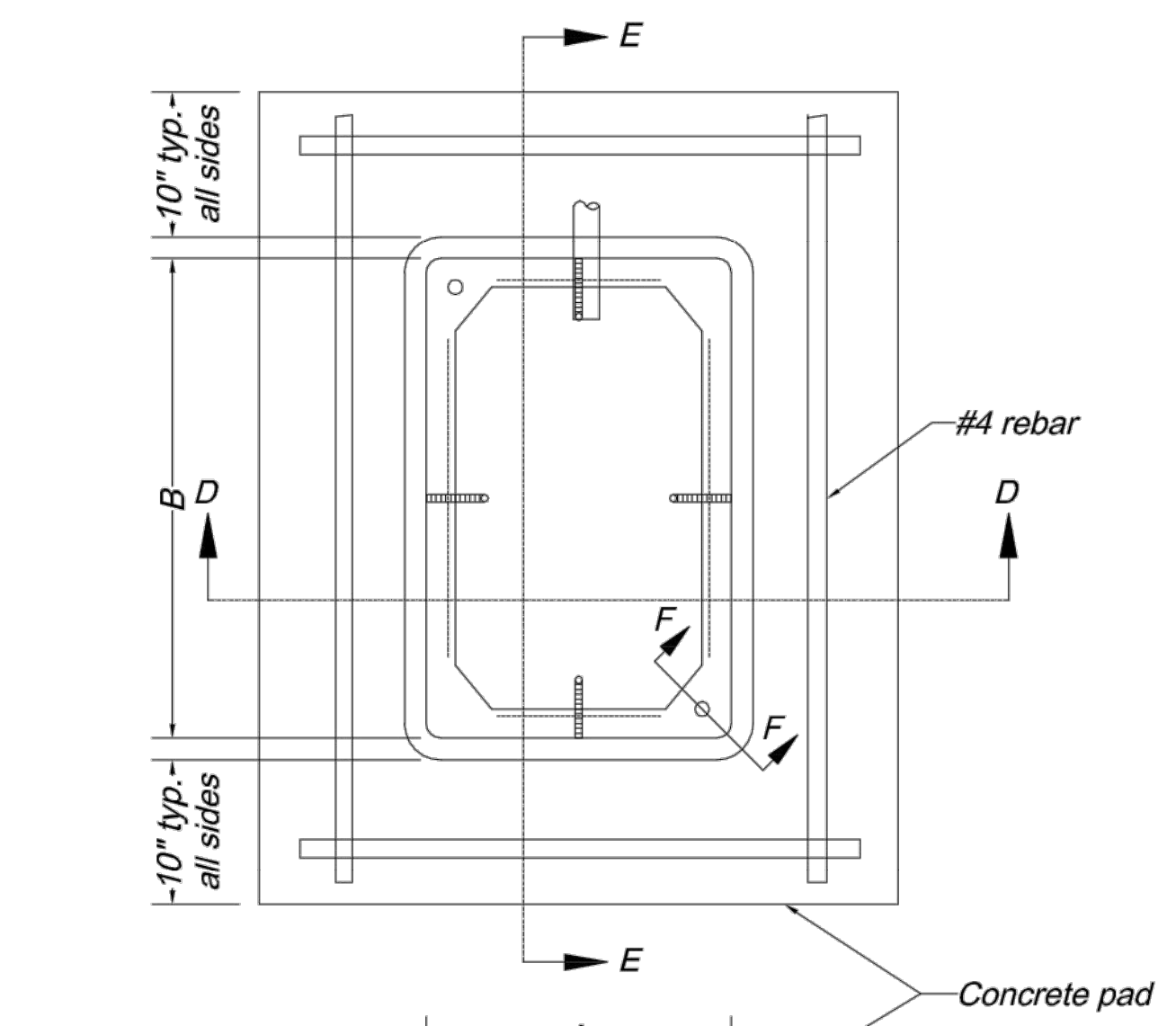
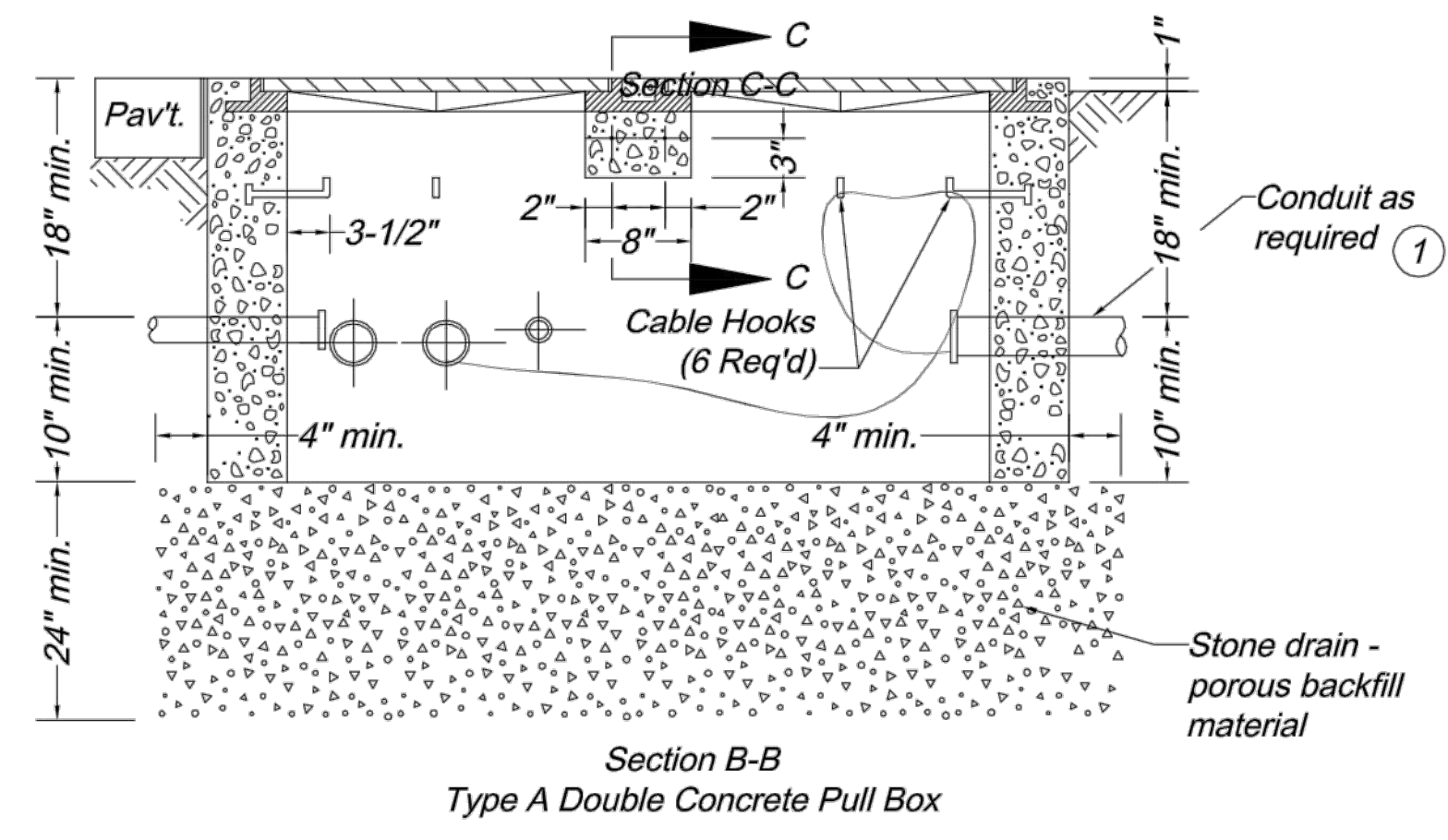


Number of Entering Conductors	Class	Preformed Pull Box Minimum Dimensions		
		A	B	C
< 23	1	17"	30"	20"
23 - 68	2	24"	36"	24"
> 68	3	30"	48"	24"

CLASS 1 OR 2 CLASS 3  
**PREFORMED PULL BOX COVER**



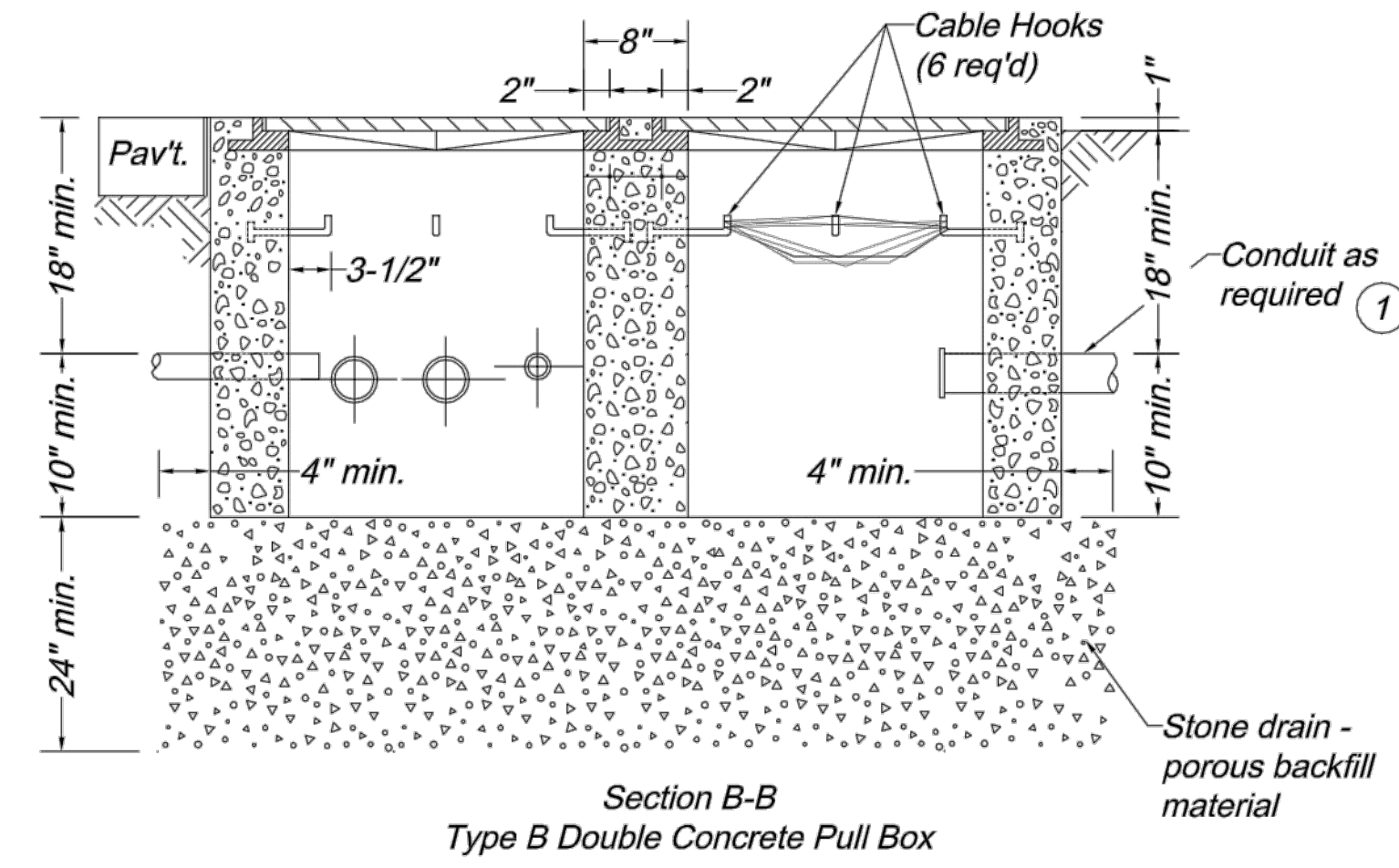
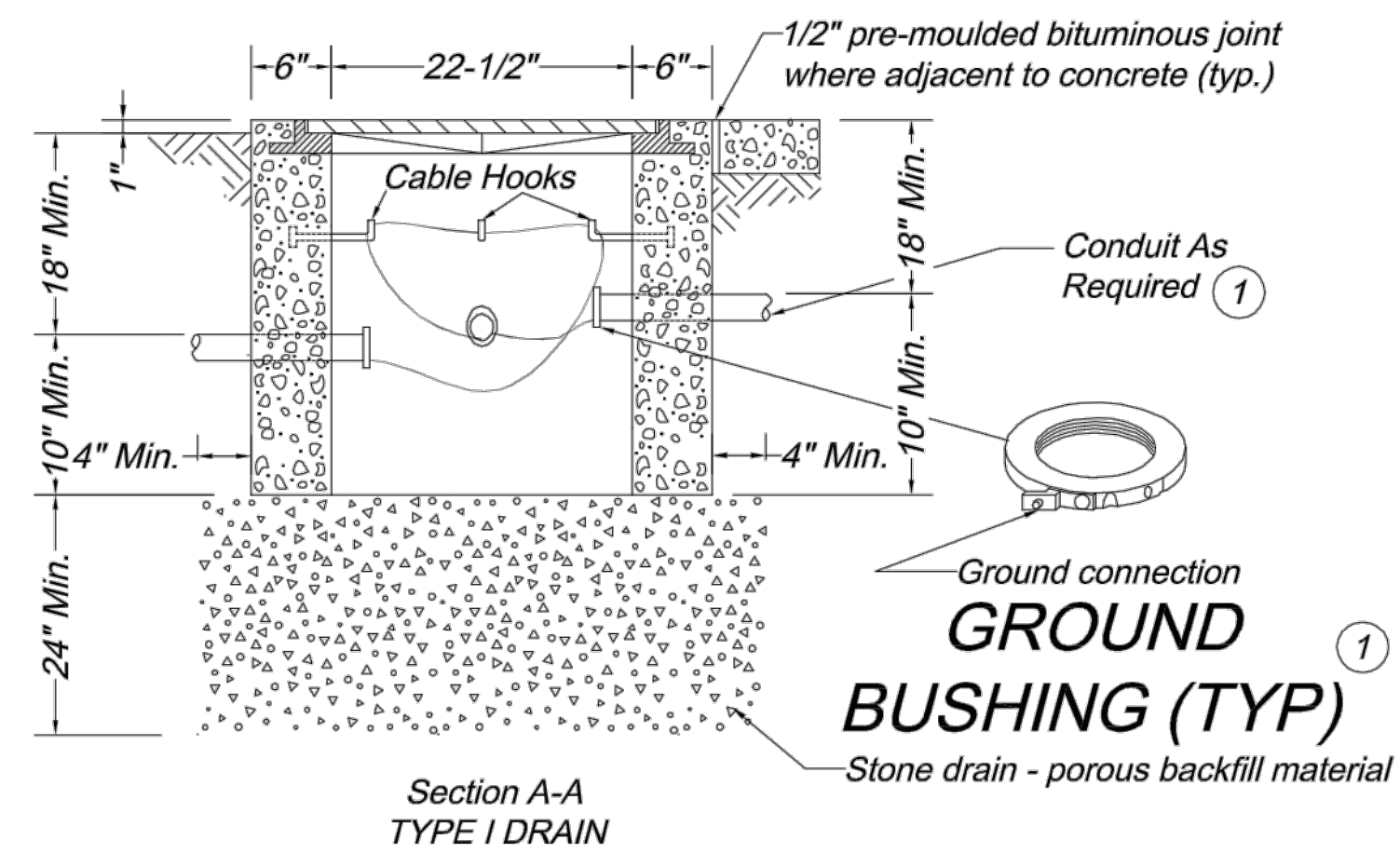
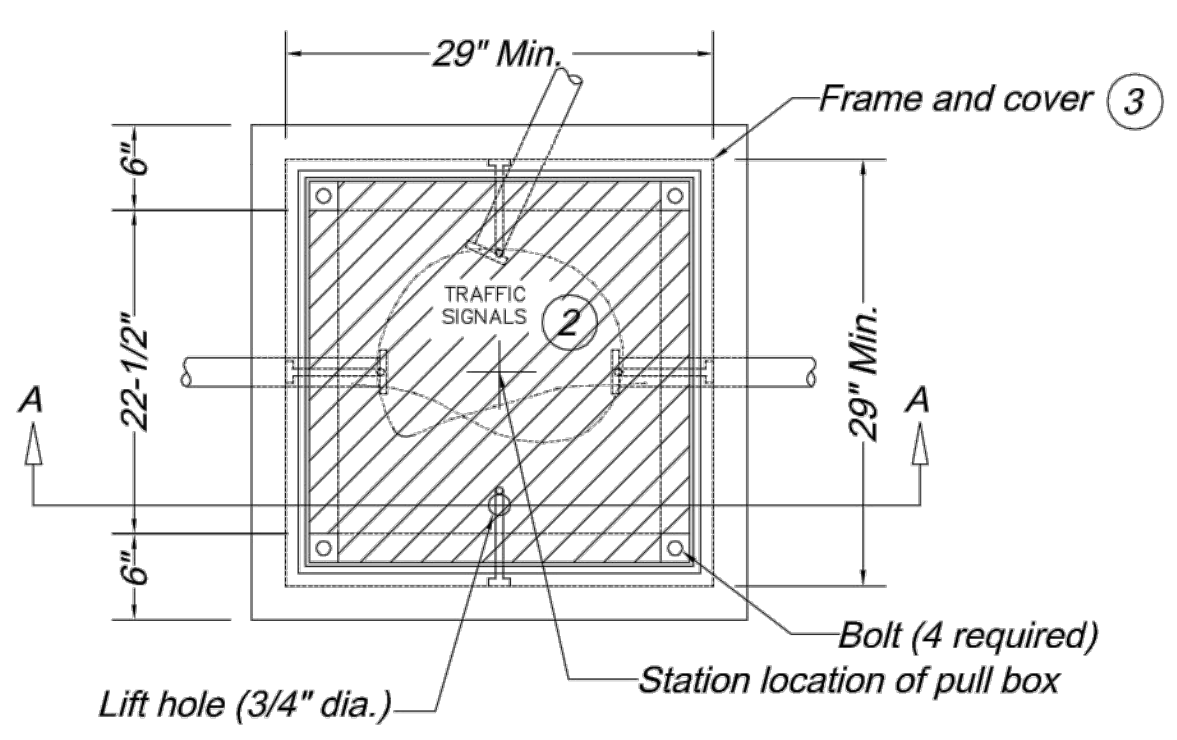
SECTION F-F  
**TYPICAL BOLT CLEANOUT**



- All metal conduits shall be electrically bonded by a ground bushing and #6 AWG bare copper wire. For PVC, all ground wires shall be connected.
- Signal pull boxes shall be embossed "Traffic Signals."
- Pull box frames and covers shall be cast iron and the following minimum dimensions:  
 Frame Size: 29" x 29"  
 Opening Size: 22 1/2" x 22 1/2"  
 Frame Height: 4-1/4"  
 Frame Weight: 120 lbs.  
 Cover Size: 22-5/8" x 22-5/8"  
 Cover Thickness: 3/4"  
 Cover Weight: 140 lbs.

**General Notes:**  
 All dimensions shown are nominal.  
 Bolt cleanout detail shall be approved by the City Traffic Engineer.  
 All concrete shall be 3,000 PSI minimum, and shall be subsidiary to the pull box.  
 Pavement and subgrade shall be as shown on plans.  
 Stone drain material shall be 1/2" - 3/4" clean rock.  
 Lift opening required on all covers.  
 Preformed box walls may be either flared or vertical.  
 If an extension is used with a preformed box, the lip of the extension may be interior or exterior. The extension shall be compatible and from the same manufacturer.

If preformed pull boxes are specified, the contractor may use the standard concrete pull box in lieu of the Class 1 or 2 preformed pull box or the double concrete pull box, Type A, in lieu of the Class 3 preformed pull boxes.

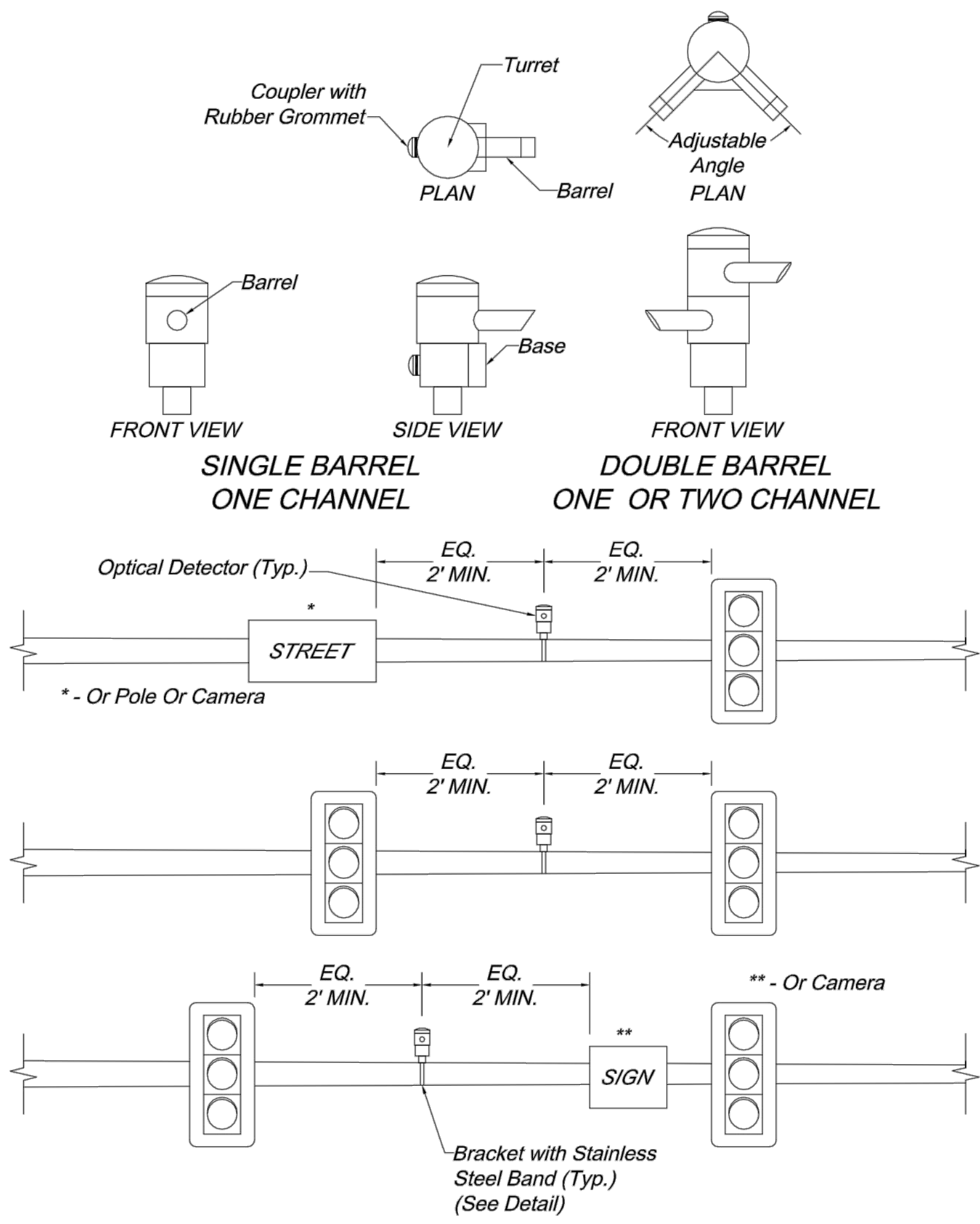


**SINGLE CONCRETE PULL BOX**

**DOUBLE CONCRETE PULL BOX**

**PREFORMED PULL BOX**





**Emergency Vehicle Detection Notes:**

- The detector cable shall be continuous from the optical detector to the traffic signal controller. No splices shall be allowed.
- The contractor shall label the optical detector cable in all pull boxes by channels as indicated on the plans. This shall be accomplished with aluminum tags attached to the cable with aluminum wire. No direct payment shall be made for this work.
- Opticom shall be mounted inside the controller cabinet. Unless otherwise indicated on the plans, the placement of the optical detectors shall be centered between the signal heads and/or signal head and sign located on the mast arms. Further information on optical detector placement is shown in the details. The final placement of the optical detector may be adjusted for line of sight requirements.
- The equipment manufacturer shall be responsible for providing onsite technical assistance to the contractor in final placement of the optical detectors, as well as in all the aspects of the system installation.
- Preemption sequences and timings shall be developed by the equipment supplier. Timings shall be marked up on the timing sheets from the specific model of controller at each intersection and submitted for review by the City prior to implementation by the supplier. Pre-emption sequences shall use an all red interval or other methods to prevent the occurrence of "Yellow Traps" at intersections with protected/permitted left-turn phasing.
- Preempts are to be assigned as follows unless otherwise indicated in the plans:

Direction	Preempt No.	Channel
Northbound	1	A
Southbound	2	B
Eastbound	3	C
Westbound	4	D

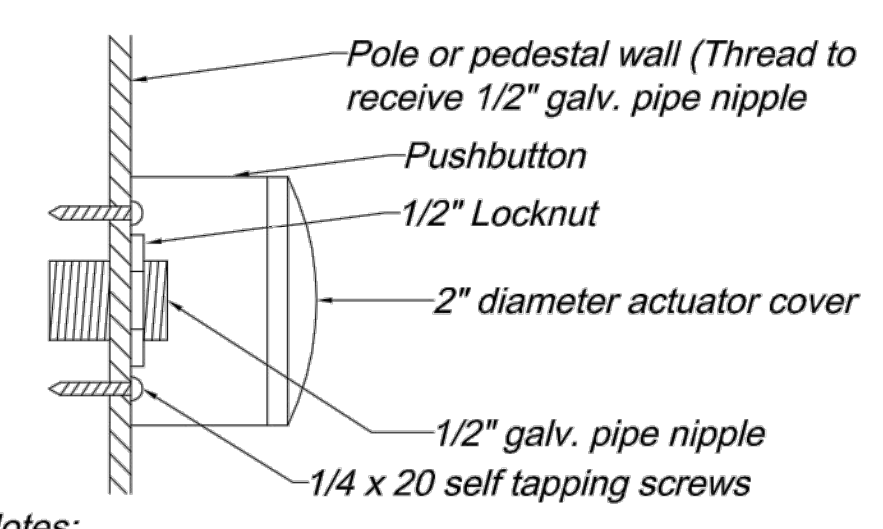
7. The Contractor shall install the equipment consistent with the equipment manufacturer's recommended installation procedures and interface diagrams in a neat and workmanlike manner. Emergency Vehicle Detection System shall be provided and installed by the contractor and shall consist of all detectors, processors, mounting brackets, etc for a fully operational system.

**OPTICAL DETECTOR**

**Video Detection Notes:**

- The video detection system shall consist of video camera(s), video detection processor (VDP), cables, brackets, and all other materials necessary for a fully functional system.
- The video detection system shall include software that detects vehicles in multiple lanes of each direction using only one video camera. Detection Zones (DZ) shall be defined using only a video menu and a pointing device to define and place zones on a video image. Up to 24 DZ per camera shall be available.
- The actual number and location of DZ shall be determined in the field by the City Traffic Engineer. The City reserves the right to have additional zones programmed or modify those shown based on the field programming period completed prior to turning on the signal.
- Video cameras are to be mounted as shown on the traffic signal plans. If the camera is mounted on a Type BL or CL pole, the camera shall be mounted directly to the luminaire bracket arm. If the camera is mounted on a Type B or C pole, the camera shall be mounted on the mast arm using a 6-foot riser.
- Video camera placement, adjustment, setup and initial programming shall be at the direction of the manufacturers representative. The manufacturers representative shall assist with identifying optical camera locations, system setup, programming, and turn-on.

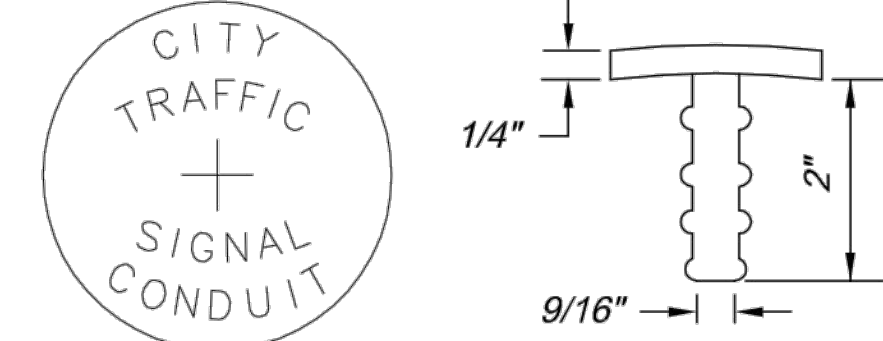
**VIDEO DETECTION**



**Push Button Notes:**

- Push buttons shall include 2 mounting brackets each and be of the type as noted in the plans.
- Push buttons shall be ADA approved and weatherproof, mounted in accordance with standard drawing TS-1.

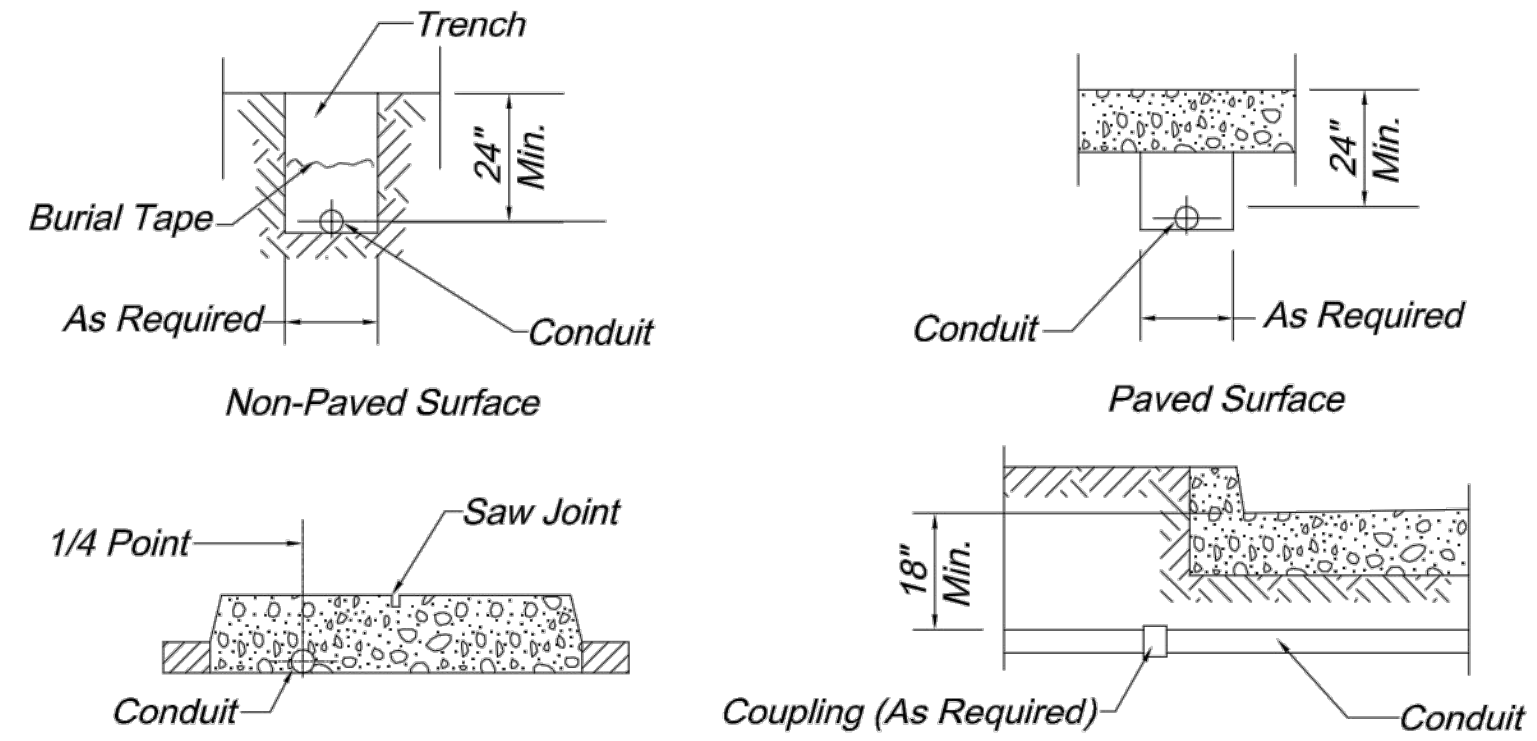
**PUSH BUTTON MOUNT DETAIL**



**CONDUIT MARKER**

**Conduit Marker Notes:**

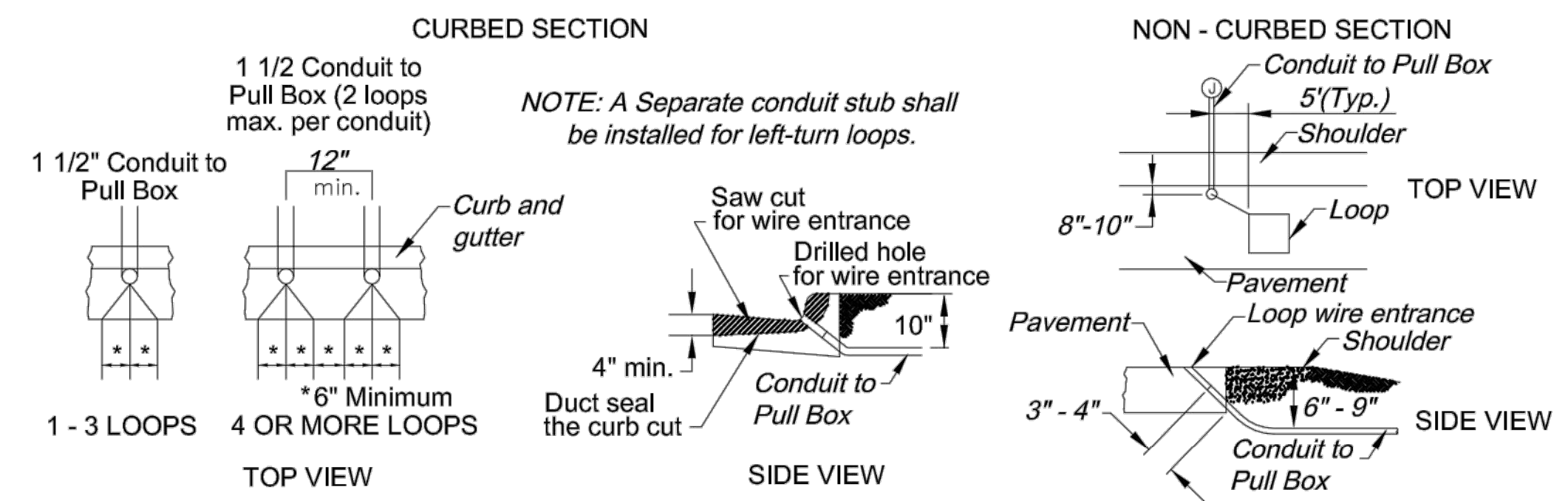
- Wherever a conduit passes beneath a curbed street, aluminum conduit markers shall be installed in the curb immediately over the conduit location. Conduit markers shall be furnished by the contractor as detailed and shall be installed in the top of the curb by drilling the curb and epoxying the conduit marker in place. Conduit markers shall be flush with the curb. Conduit markers shall be subsidiary to conduit.



**Conduit Location Notes:**

- Conduit shall be installed to drain, and if metallic all ends shall be threaded and capped.
- The Contractor shall notify the City of Lee's Summit, Department of Public Works Traffic Division at (816) 969-1807 for inspection of the conduit installation. At least 24 hours notice shall be provided. The conduit shall not be covered unless inspected and approved by the Engineer or his authorized representative, so as to ensure proper depth, correct conduit material and proper conduit end treatment as described above.

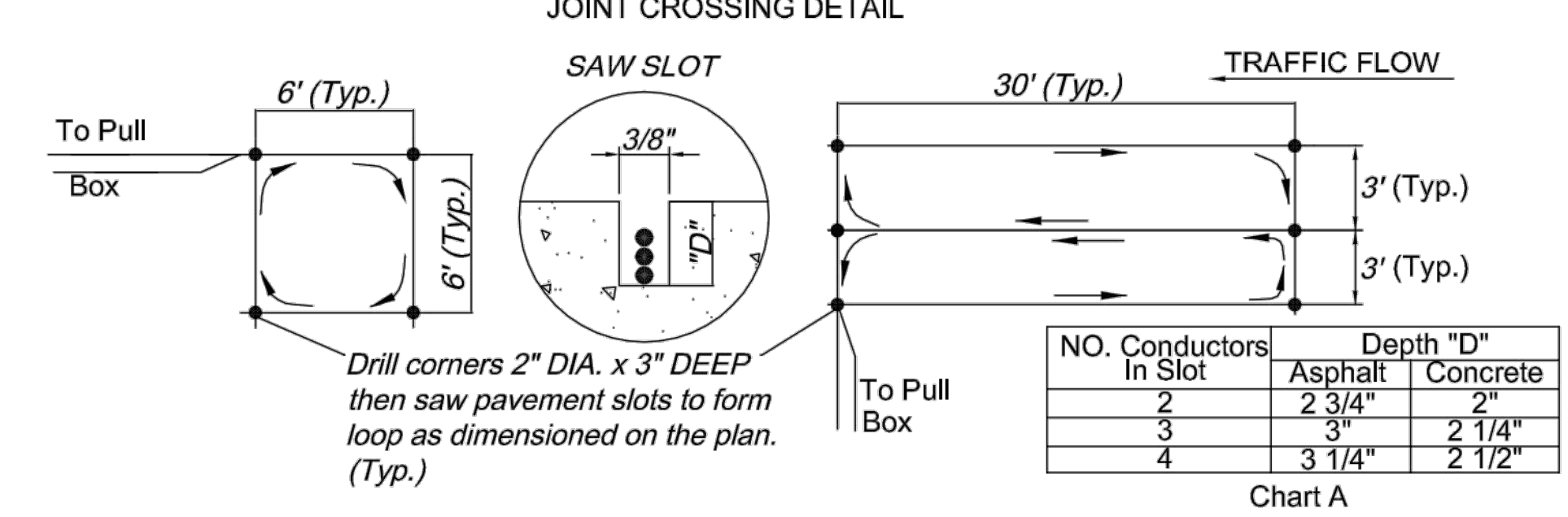
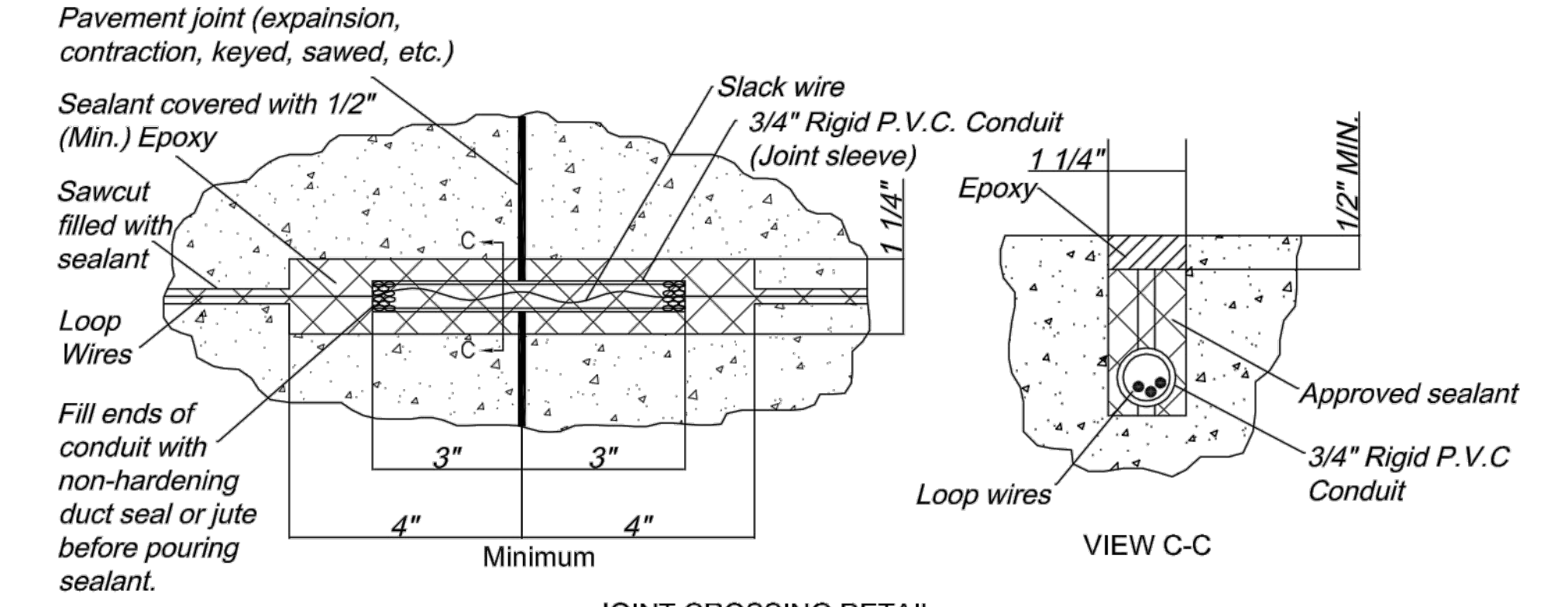
**CONDUIT LOCATIONS**



**Loop Wire Entrance Notes:**

- Saw cut in the curb and gutter section and conduit entrance to be sealed with a pliable, non-hardening duct sealant prior to application of loop sealant. No loop sealant shall be applied in the curb and gutter section or at conduit entrance.
- Grout around conduit inserted into curb or pavement section.
- Each loop shall have a separate lead-in-saw cut to the loop wire entrance in the curb or at the edge of pavement.

**LOOP WIRE ENTRANCE DETAIL**



**Loop Detection Notes:**

- Quadrapole loop to be one continuous wire placed in two turns. All loops to be wound in same direction, with start and end clearly marked at pull box.
- Transverse loop to be one continuous wire placed in three turns. All loops to be wound in same direction, with start and end clearly marked at pull box.
- Slot in pavement for loops to be cut 3/8" wide at minimum depth "D" as indicated in Chart A. Slot in pavement for lead shall be 1/2" wide at minimum depth "D". Fill slots with an approved asphalt sealer (asphalt pavement) or an approved elastic epoxy sealant (concrete pavement) to within 1/8" of pavement surface.
- Other than soldered type splice or splice made with wire nuts at their junction, feeder cable and loop wire shall be of continuous run with no splices. All connections to be watertight with approved splice kits. Watertight connections shall extend to and encompass each outer jacket of the detector feeder and loop wire cables.
- All leads for individual loops to be kept separate and loop wire between the loop and the feeder cable connection shall be twisted three turns per foot.
- All loops shall be wet cut with equipment approved by the City Traffic Engineer.
- Where loops are to be installed on projects involving either asphalt pavement construction or milling and overlay of an existing asphalt pavement, loops shall be installed in the base course prior to placement of the asphalt surface course.
- If existing loops are to be abandoned and new loop installed, abandoned loop wires shall be removed or cut completely through along all slots parallel to vehicle flow.
- Loops shall be #14 AWG stranded wire in pvc duct made up of 2 non-twisted turns in single slot or as recommended by manufacturer of the detector amplifier. Loop shall be placed in sawed slots in a figure eight manner with device which will not damage the wire insulation. Lead-in cable shall be 2-1c #14 AWG twisted.

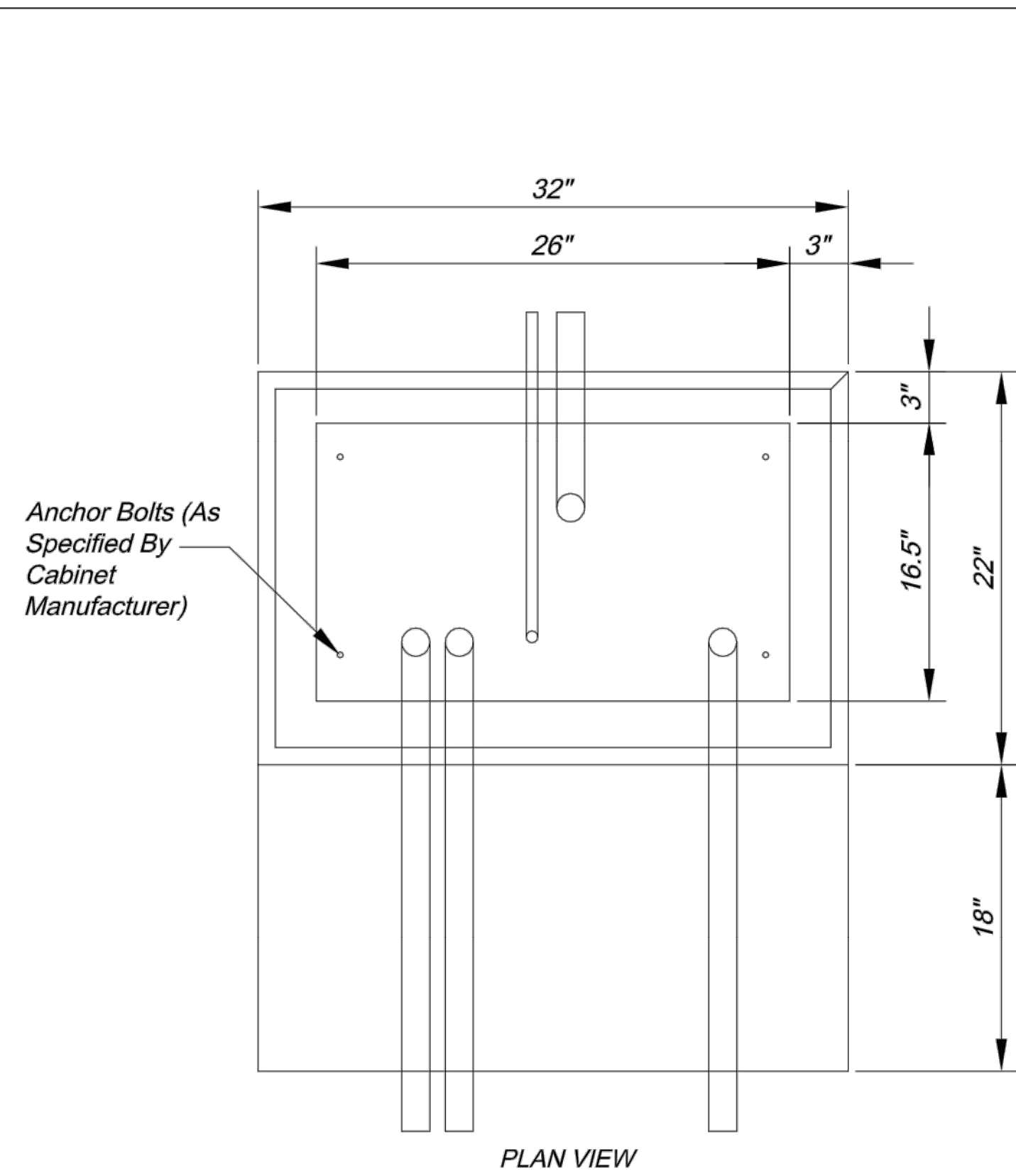
**LOOP DETECTION**

CITY OF LEE'S SUMMIT  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
PHONE: (816) 969-1800 FAX: (816) 969-1809

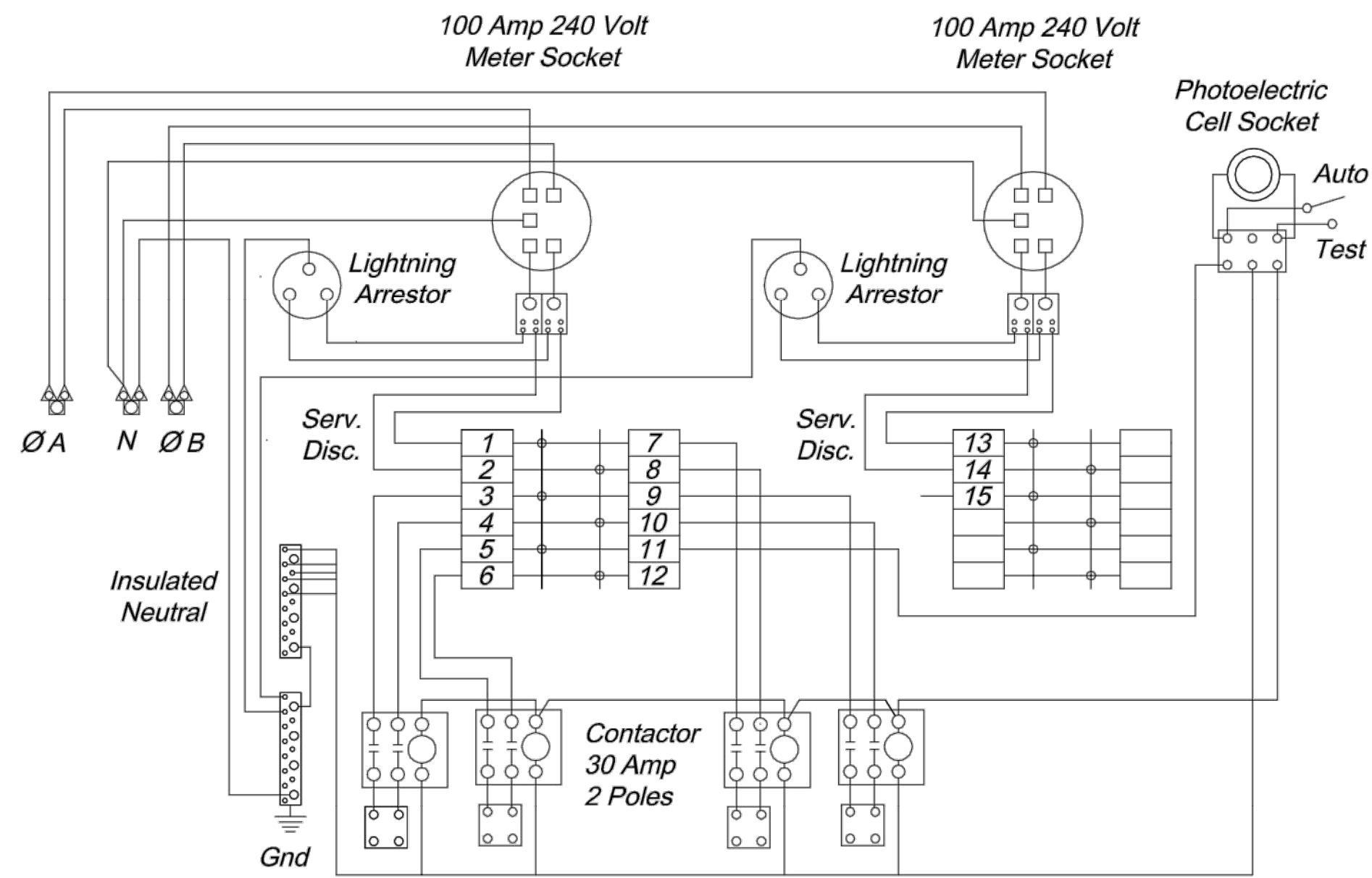
CONDUIT & DETECTION DETAILS  
STANDARD DRAWING TS-7

Drawn By: AS  
Checked By: MP  
Date: 09/25/2009  
Project#



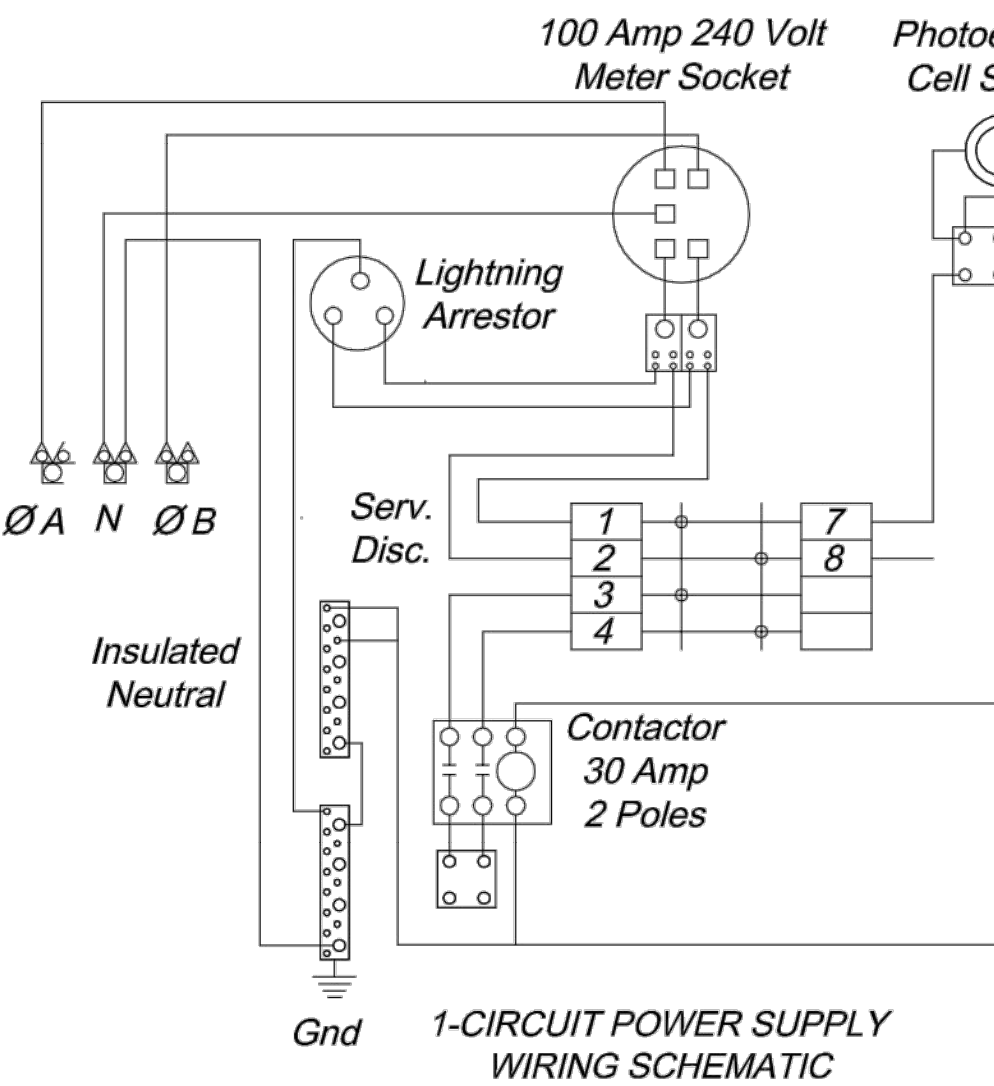


PLAN VIEW

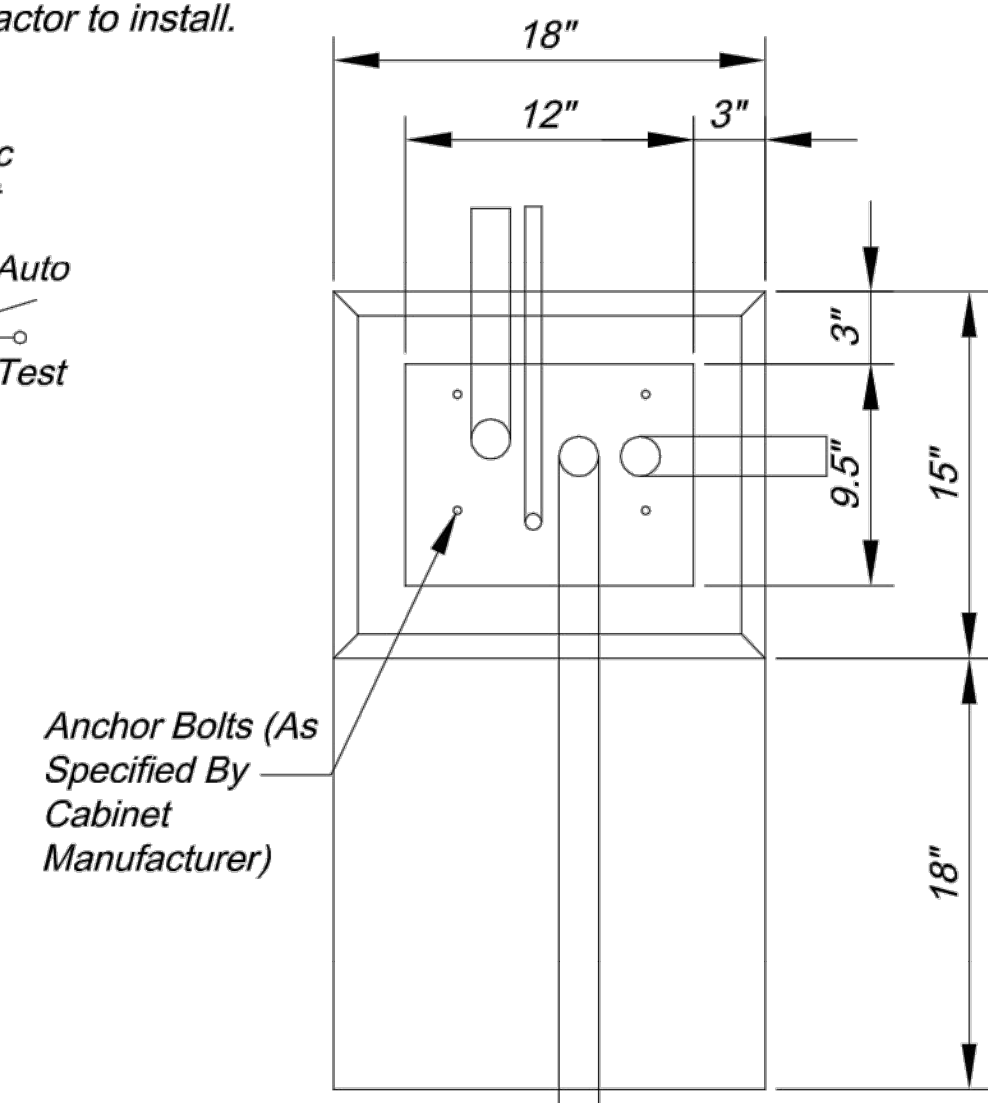


DUAL METER POWER SUPPLY WIRING SCHEMATIC

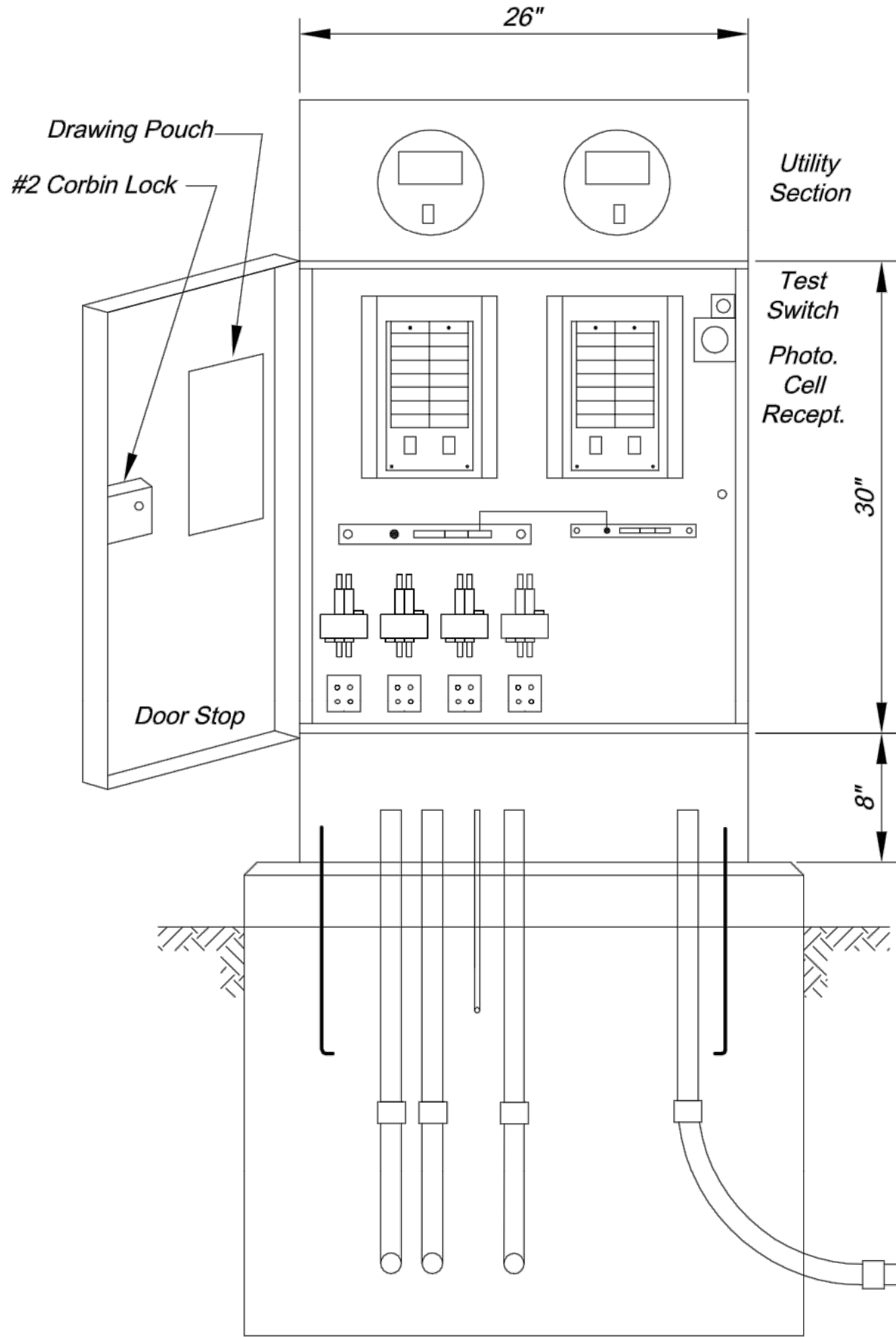
- NOTES:
1. Photoelectric cell should be oriented to the north or east.
  2. Seal around joint between cabinet and base with lifetime silicone caulk.
  3. All exposed edges of the base should have a 1" chamfer
  4. If base is adjacent to a traffic signal controller, raised portion of base (above finished grade) should be constructed to the same height as the signal controller base.
  5. The street address with the power supply number below it should be labeled on the upper portion of the cabinet facing the street. The City will supply stickers for the Contractor to install.



1-CIRCUIT POWER SUPPLY WIRING SCHEMATIC

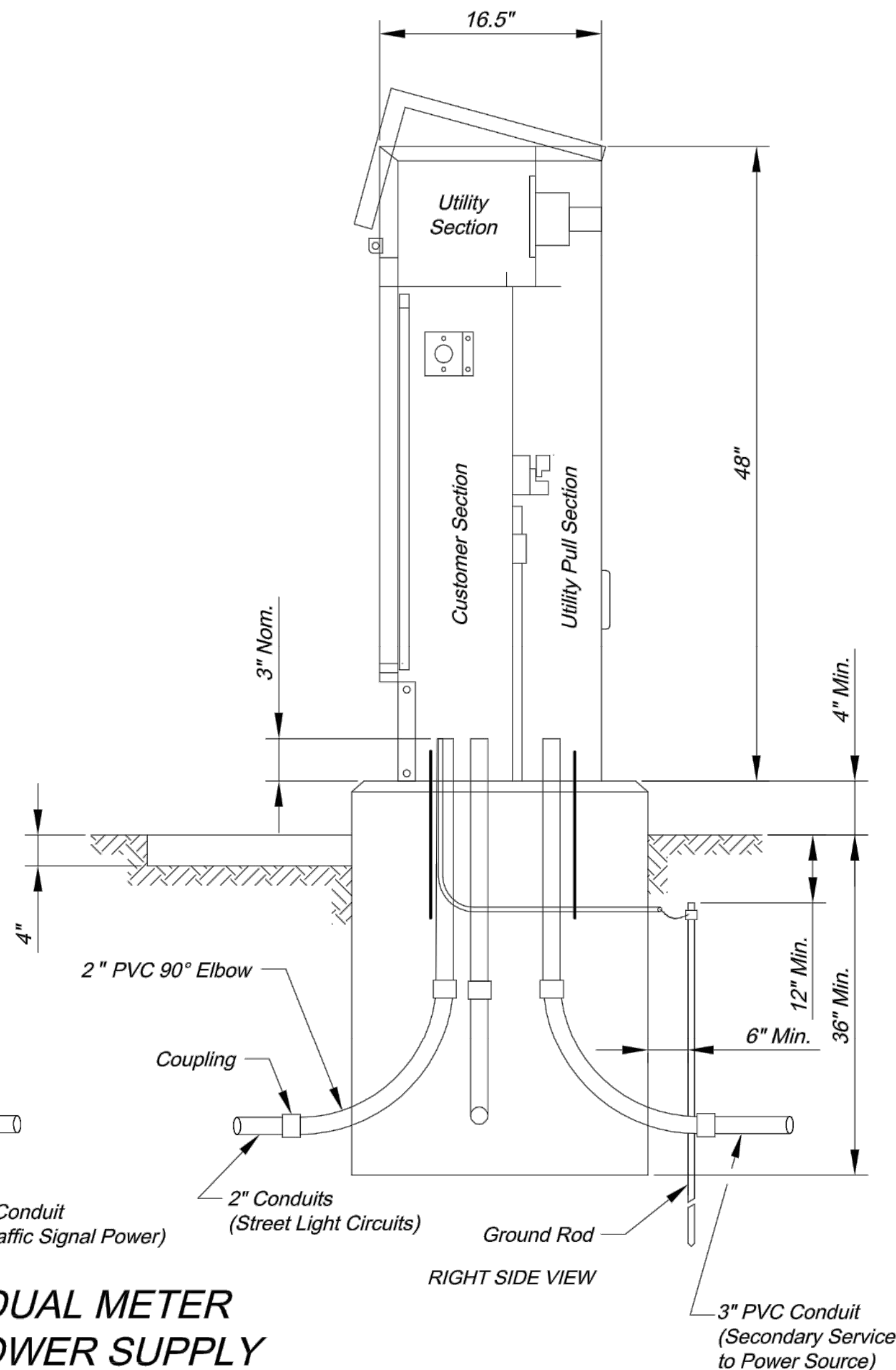


PLAN VIEW



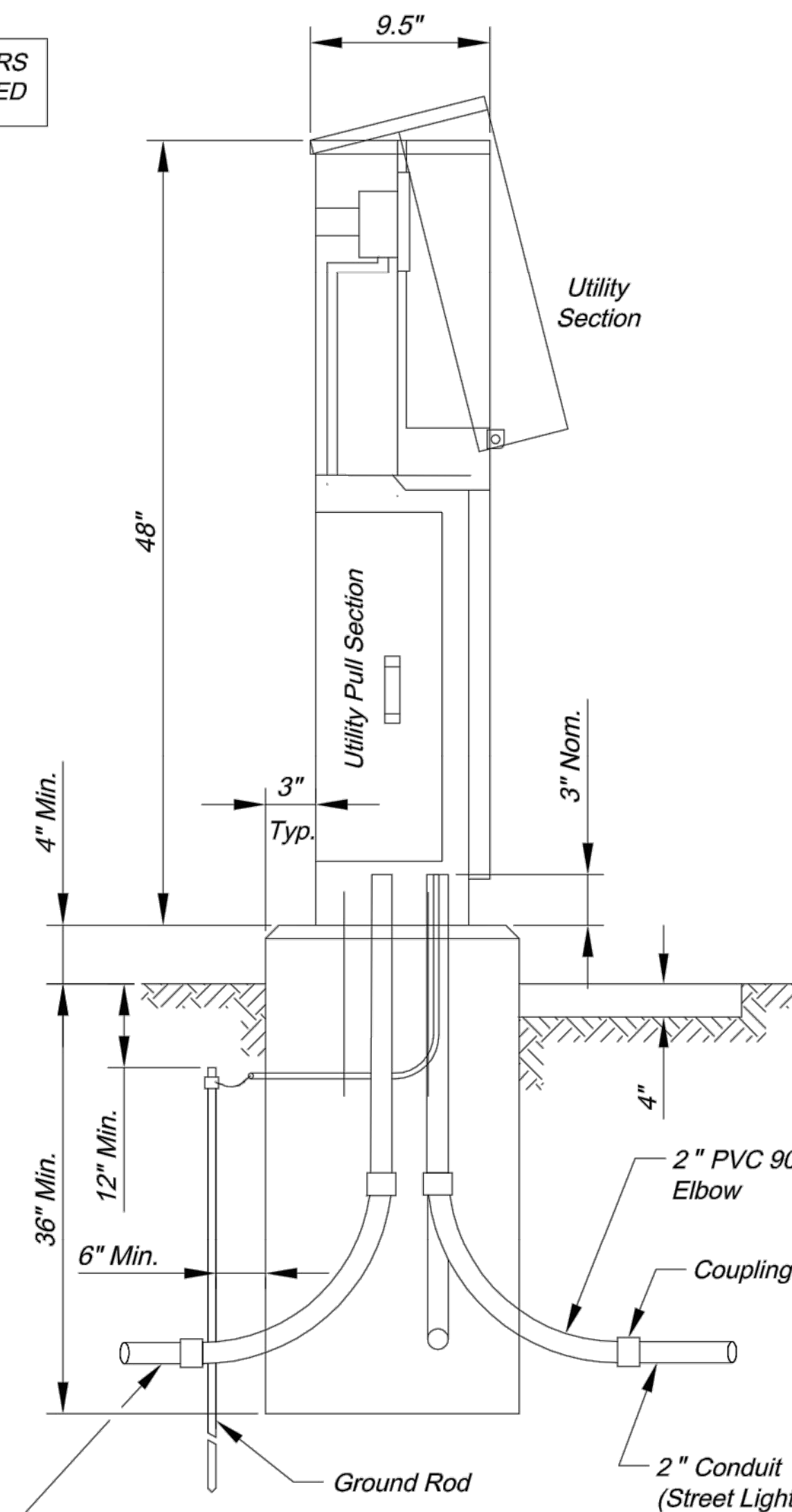
FRONT VIEW

DUAL METER POWER SUPPLY



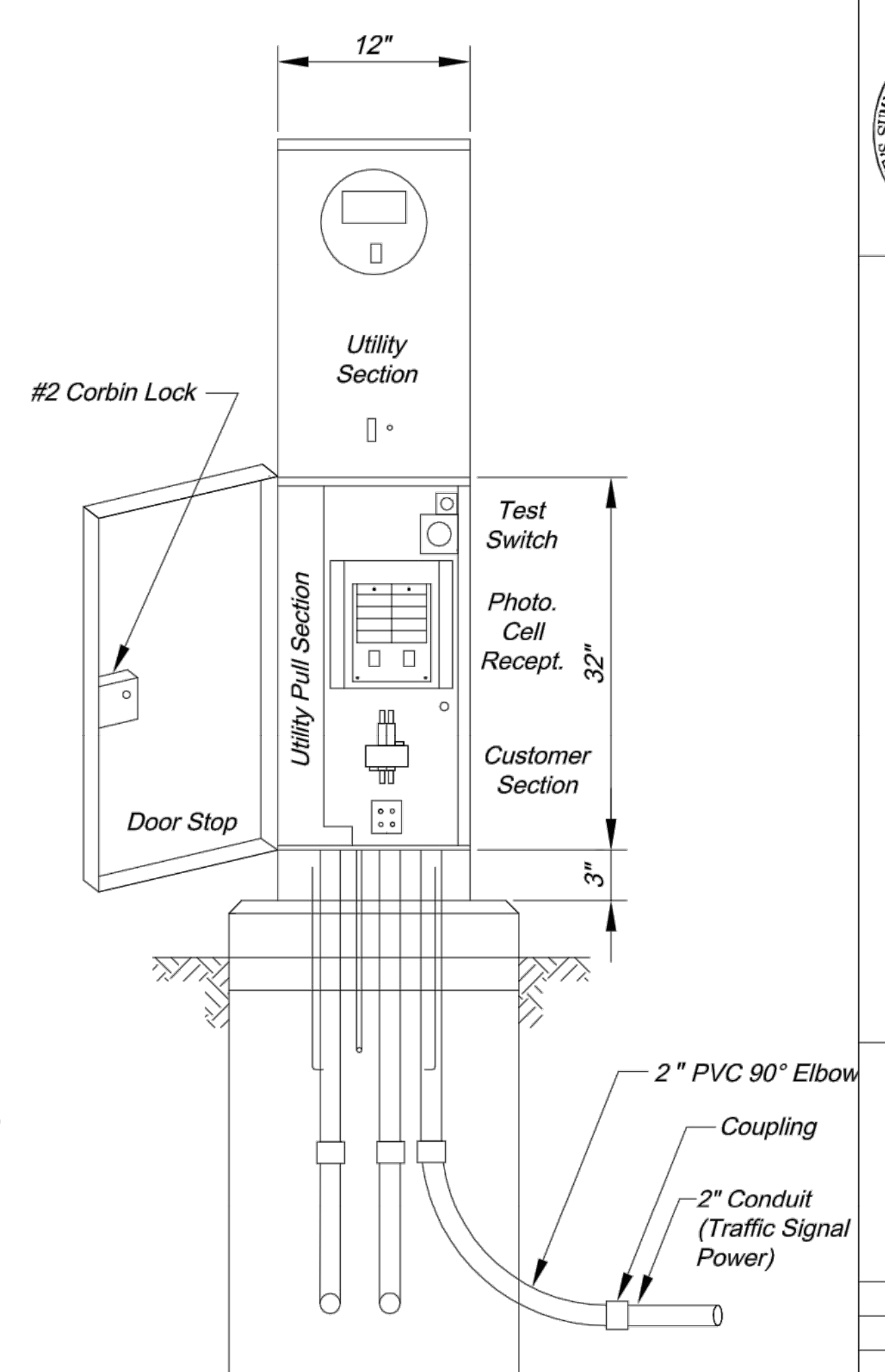
RIGHT SIDE VIEW

FUSED CONTACTORS ARE NOT PERMITTED



LEFT SIDE VIEW

1 - CIRCUIT POWER SUPPLY

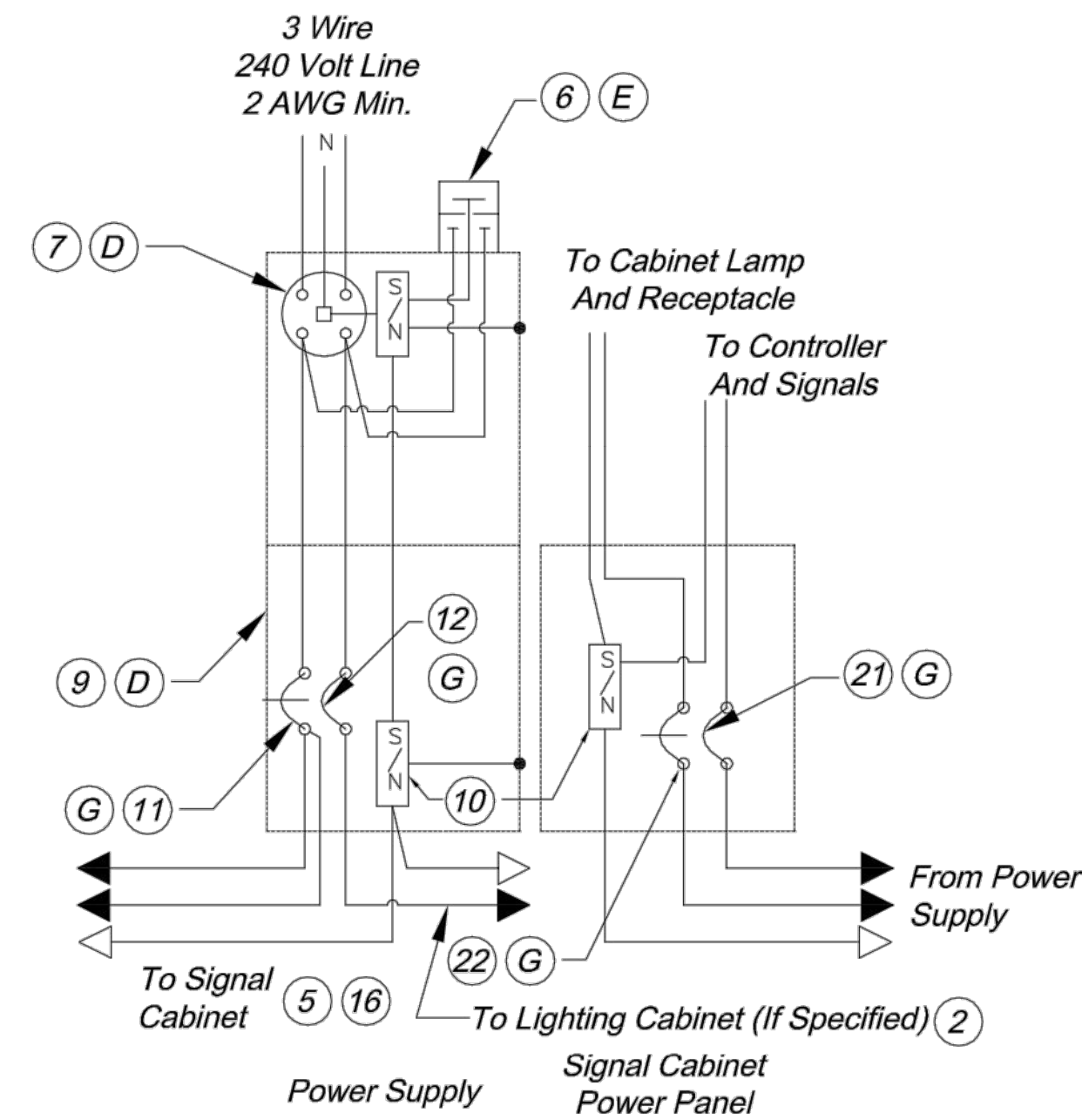


FRONT VIEW

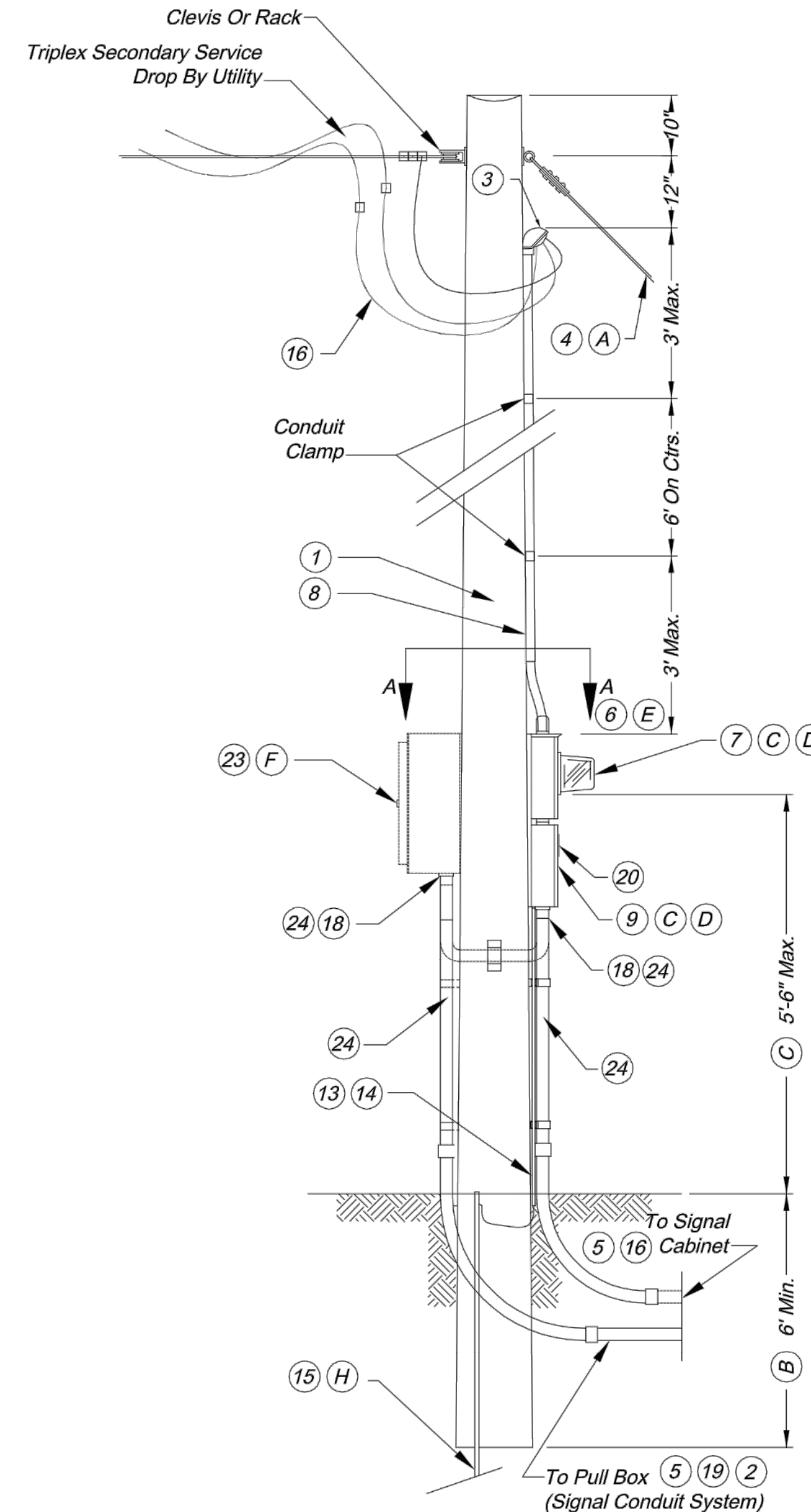
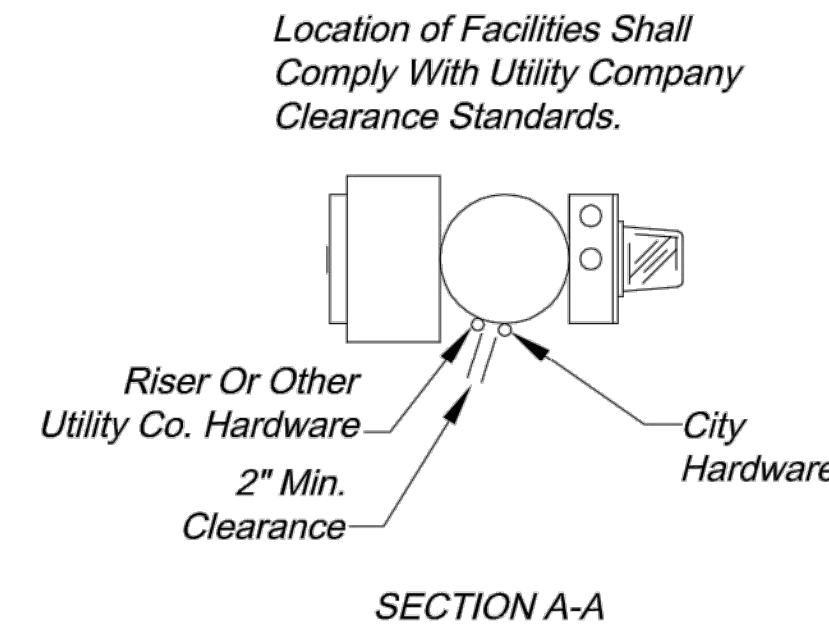
CITY OF LEE'S SUMMIT  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
PHONE: (816) 969-1800 FAX: (816) 969-1809

POWER SUPPLY ASSEMBLY  
240/120 VOLT SERVICE  
STANDARD DRAWING TS-8

Drawn By: AS  
Checked By: MP  
Date: 09/25/2009  
Project#



OVERHEAD SERVICE POWER SUPPLY  
WIRING SCHEMATIC  
SIGNALS AND/OR LIGHTING



OVERHEAD SERVICE POWER SUPPLY  
TEMPORARY SIGNAL ONLY

LIST OF MATERIALS	
Item	Description
1	Service pole 30' min., Class IV wood, Contractor provided, City owned. *
2	#8 AWG Min. Cable, 600 volt *
3	Service entrance head
4	Guy cable, as required
5	2" min. rigid conduit with preformed elbows
6	Lightning arrester, Valve type, 2 pole, 650 volt
7	240 volt Meter socket, 100 amp for signals
8	2" min. rigid conduit
9	Service disconnect box, Locking, Raintight, NEMA 4
10	Insulated, Groundable neutral, 200 amp minimum
11	Signal breaker, Single pole, 40 amp min., Type A or B
12	Lighting breaker, Single pole, 40 amp, Type A or B
13	Metal conduit, 1/2"
14	Ground wire, #2 AWG min.
15	Ground rod, 3/4" x 8' min.
16	#2 AWG min. cable, 600 volt
17	Reserved
18	Threaded conduit hub with sealing washers
19	Lighting cables *
20	Weatherproof adhesive label (signals) vinyl raised lettering
21	Type B controller and signal breaker, as specified.
22	Type B auxiliary breaker, 15 amp
23	Lighting control cabinet
24	2" Steel Conduit (minimum)
* See plans	

Notes

- (A) Service pole shall be guyed when span of overhead wire exceeds 50'.
- (B) Increase 1 foot for each 5 feet above 50 feet.
- (C) Service disconnect boxes and meter boxes shall be aluminum or stainless steel. All hardware, hinges, catches, etc. shall be stainless steel. Meter socket and other equipment shall be U.L. approved, and conform to the requirements of the utility company providing power.
- (D) Schematic diagram shall be mounted on inside of door.
- (E) Utility company shall decide if lightning arresters are to be connected on the load or line side of the meter. The utility company shall also decide if the lightning arrester is terminated in the meter or disconnect cabinet. If terminated in the disconnect cabinet, it shall be installed on the connect cabinet.
- (F) If lighting is specified, install lighting control on power supply.
- (G) Breakers shall conform to the standard specifications.
- (H) If subsurface conditions exist which prohibit the placement of the ground rod in vertical position, the rod may be driven at an oblique angle not to exceed 45 degrees from vertical or buried in a trench at least 30 in. deep. Connection to ground rod shall be clamp type as detailed on standard drawing TS-2.

General Notes:

For cable types and installation. See standard specifications.

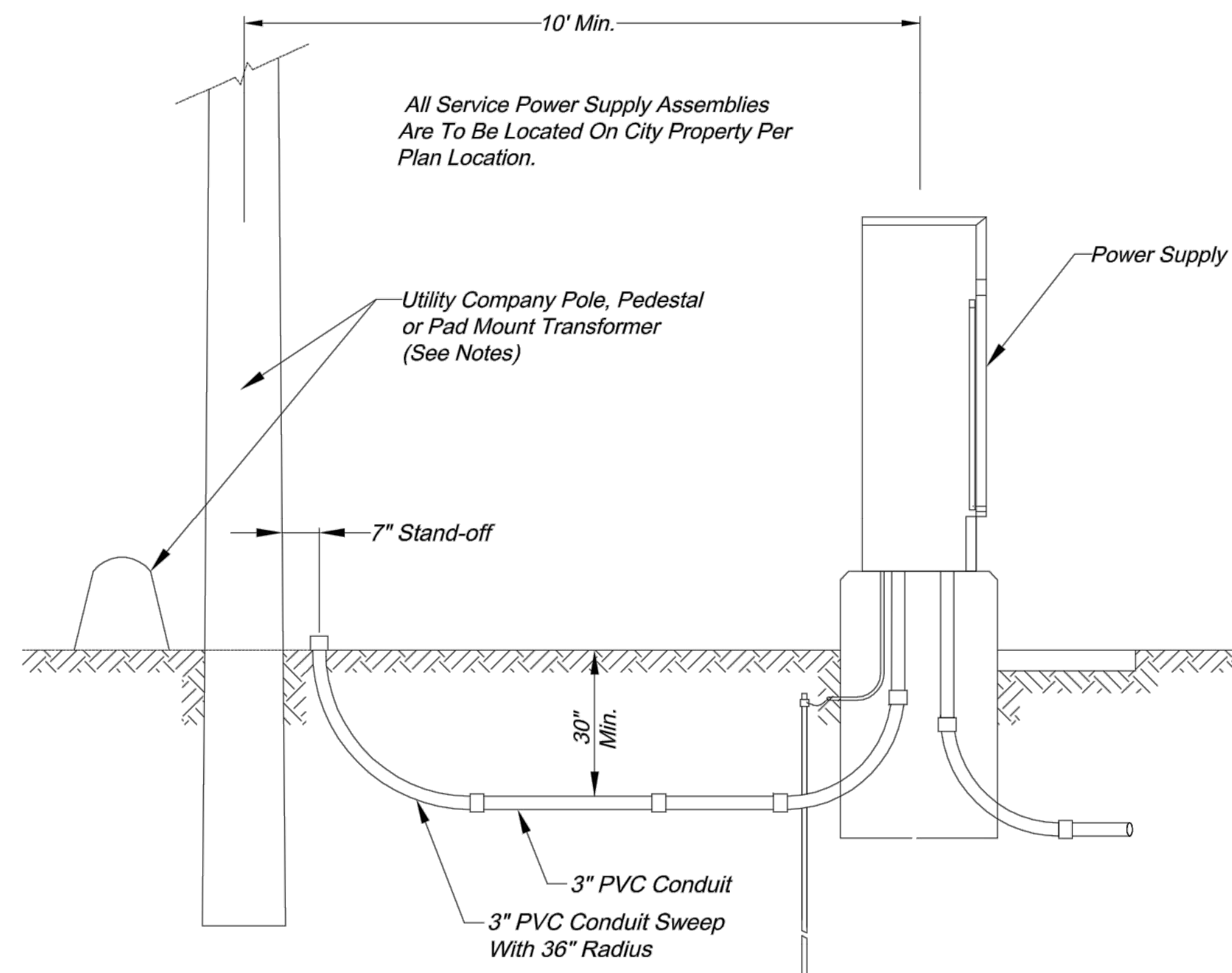
The type power supply assembly is shown on the plans or is designated on the contract.

The utility company shall be notified 30 days prior to date service will be required.

All openings in any utility enclosure, service box, or meter shall be covered and sealed with lifetime silicone caulk.

Contractor to provide sufficient number of ground rod(s) as required for maximum of 25 Ohms resistance to ground.

All materials required excluding reference items as shown on drawing shall be included in price bid for power supply assembly.



SECONDARY SERVICE CONNECTION DETAILS

NOTES:

1. Contractor shall install a conduit stub 24" to 6" above ground at utility poles. Conduit shall be stubbed to the side of the pole that will allow a direct run up the pole to the transformer without crossing other utility lines or cables. The end of the conduit shall be capped.
2. Contractor shall install conduit in a trench to within 24" of pedestals or pad mount transformers and leave a 36" x 36" access hole in the ground. Contractor shall keep open trench covered and promptly backfill access hole when service is completed.

CITY OF LEE'S SUMMIT  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
PHONE: (816) 969-1800 FAX: (816) 969-1809



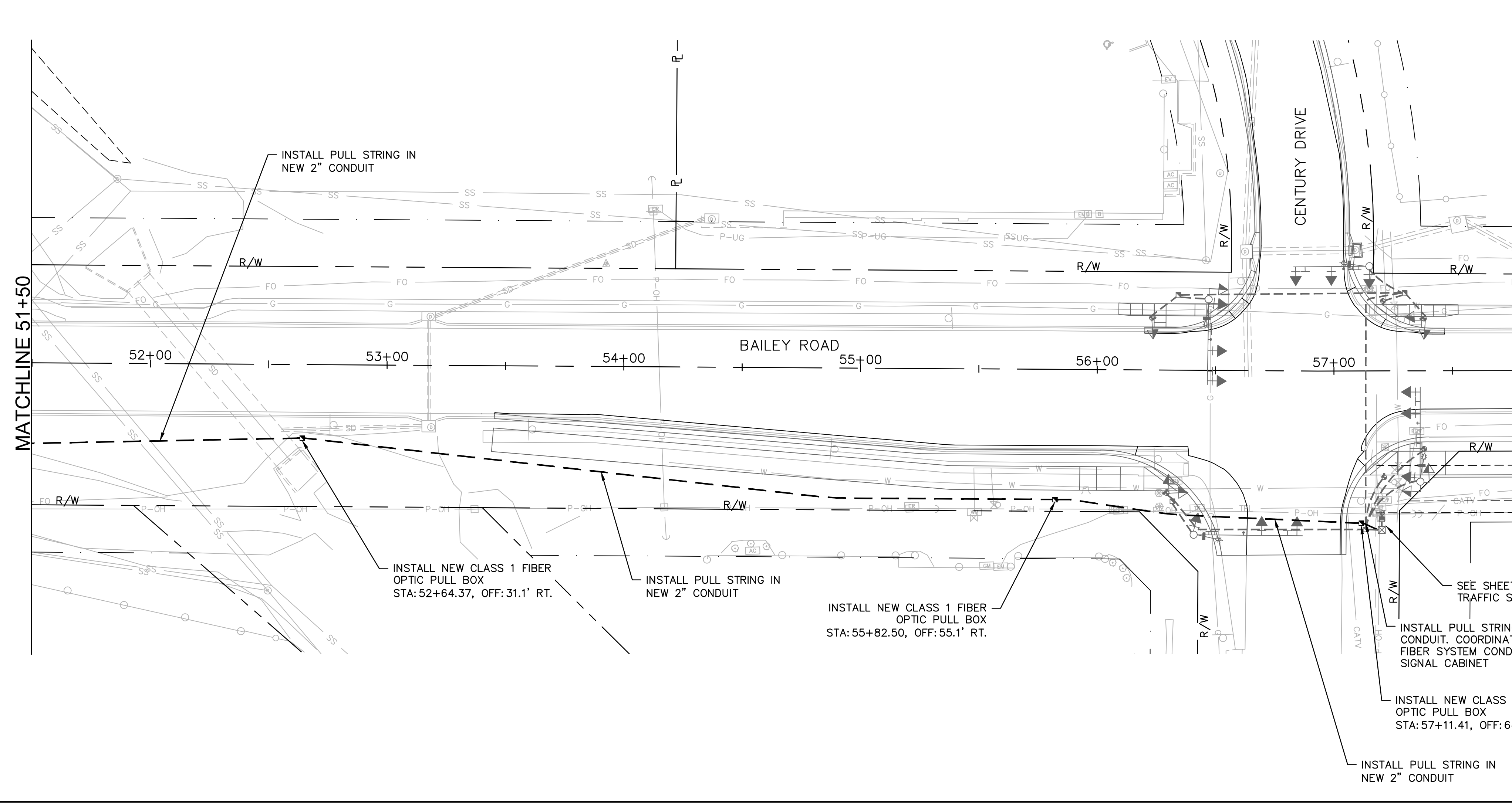
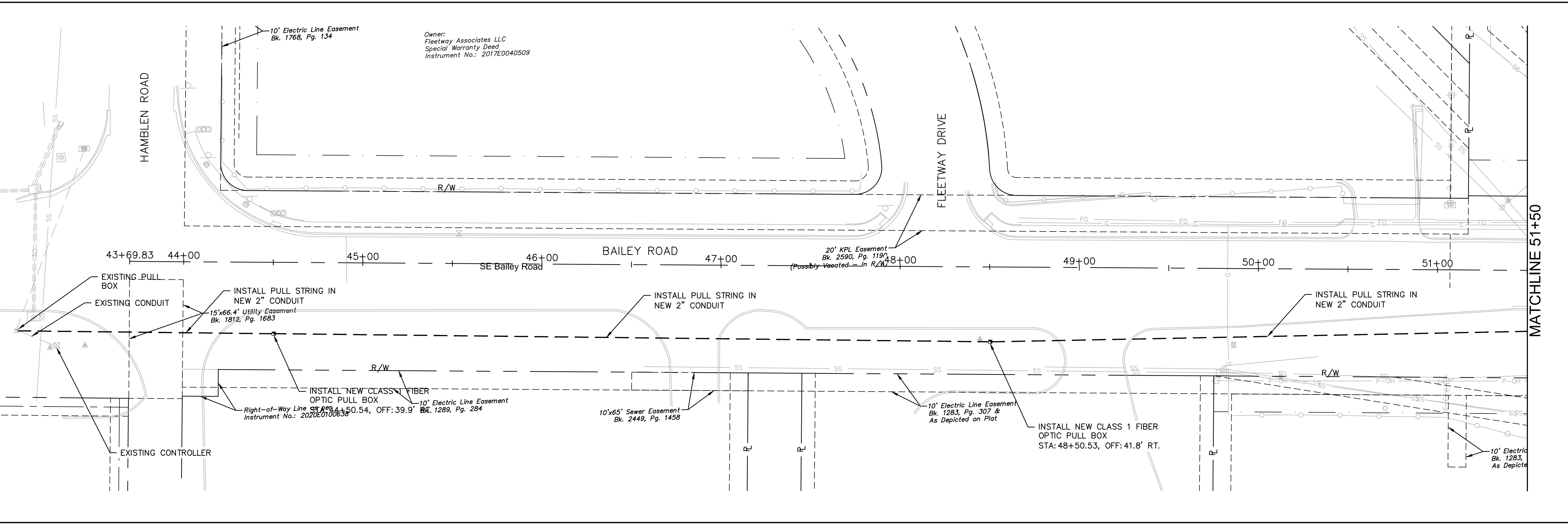
POWER SUPPLY ASSEMBLY  
240/120 VOLT SERVICE

STANDARD DRAWING TS-9

Drawn By: AS  
Checked By: MP  
Date: 09/25/2009  
Project#

USER: jclmence  
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F\_PTBLK\_0200103

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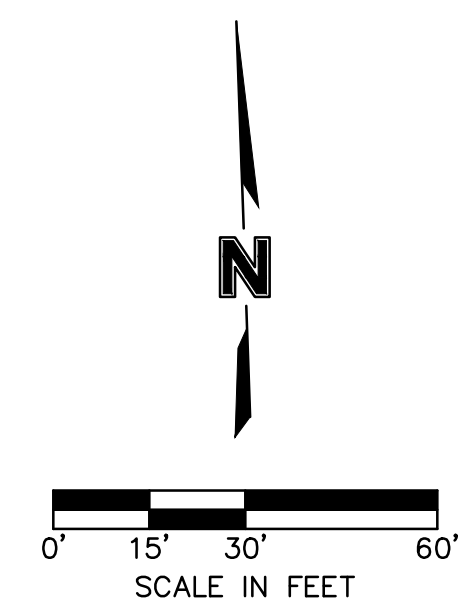


QUANTITIES			
ITEM	ITEM DESCRIPTION	UNITS	QUANTITY
1.	2" CONDUIT WITH LOCATE CABLE AND PULL STRING	L.F.	1,406
2.	CLASS 1 FIBER OPTIC PULL BOX	EA.	5
3.	FIBER INTERFACE PANEL WITH 250' PIGTAIL	EA.	2
4.	ETHERNET SWITCH, TRANSITION WITH SEPARATE POWER SOURCE*	EA.	2
5.	SINGLE MODE PATCH CABLES	EA.	8

\*EACH ETHERNET SWITCH SHALL INCLUDE:  
ONE (1) COMTROL MP-1204-XT  
ONE (1) MEAN WELL 240 DIN RAIL POWER SUPPLY  
TWO (2) COMTROL 1200060 SFP MODULE

- GENERAL NOTES:
1. A 1c#10 AWG THHN/THWN STRANDED COPPER LOCATING CABLE (RED) AND PULL STRING SHALL BE INSTALLED IN ALL CONDUITS AND IS CONSIDERED SUBSIDIARY TO THE CONDUIT BID ITEM.
  2. CONTRACTOR TO INSTALL CONDUIT, PULL BOXES, PULL STRING, TRACER WIRE, AND CONNECTIONS TO INSIDE THE CABINET. ONCE COMPLETE CONTACT TIM SCHARFF AT CITY OF LEE'S SUMMIT IT DEPARTMENT 816-969-1234 TO COORDINATE INSTALLATION OF FIBER OPTIC CABLE.
  3. FIBER OPTIC CONDUIT AND PULL BOX LOCATIONS MAY BE FIELD ADJUSTED (AS APPROVED BY THE ENGINEER) TO MAINTAIN ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE FROM UNDERGROUND UTILITIES.

SEE SHEET 62-65 FOR TRAFFIC SIGNAL PLANS.  
INSTALL PULL STRING IN NEW 2" CONDUIT. COORDINATE INSTALLATION OF FIBER SYSTEM CONDUIT INTO PROPOSED SIGNAL CABINET  
INSTALL NEW CLASS 1 FIBER OPTIC PULL BOX STA: 57+11.41, OFF: 64.4' RT  
INSTALL PULL STRING IN NEW 2" CONDUIT



**olsson**  
Olsson Engineering - MO State Certificate of Authority #001592  
7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
Overland Park, KS 66213-4750 FAX: 913.381.1174 www.ollsson.com

**RECORD DRAWINGS**

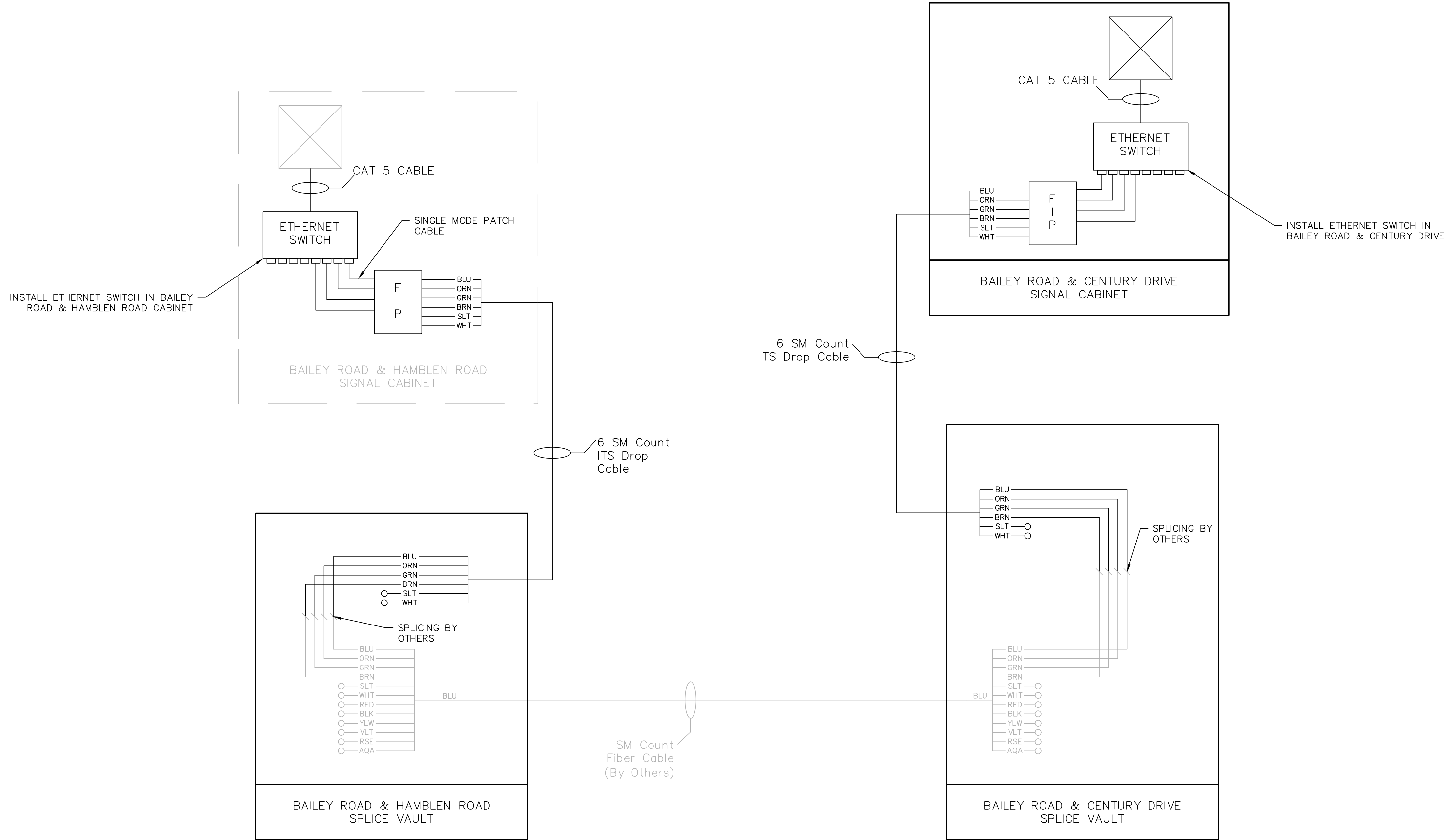
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FIBER INTERCONNECT  
BAILEY ROAD  
LEE'S SUMMIT MIDDLE SCHOOL #4  
PUBLIC ROAD IMPROVEMENTS  
LEE'S SUMMIT, MISSOURI  
2021

C.O.A. NO.: 001592  
DRAWN BY: JRC  
CHECKED BY: JAB  
APPROVED BY: SLJ  
QA/QC BY: THE  
PROJECT NO.: 020-0103  
DWG NO.: FBR 0200103  
DATE: 11/4/2022

SHEET 75 OF 101

LEGEND	
	INDIVIDUAL FIBER SPLICE
	FIBER SPLICE OF EACH FIBER IN BUFFER TUBES
	UN-TERMINATED FIBER/BUFFER TUBE/CABLE
	EXISTING FIBER/BUFFER TUBE/CABLE
	PROPOSED FIBER/BUFFER TUBE/CABLE
	EXISTING FIBER DISTRIBUTION UNIT
	PROPOSED FIBER DISTRIBUTION UNIT
	PROPOSED FIBER INTERFACE PANEL
	PROPOSED ETHERNET SWITCH
	SIGNAL CONTROLLER



RECORD  
 DRAWINGS

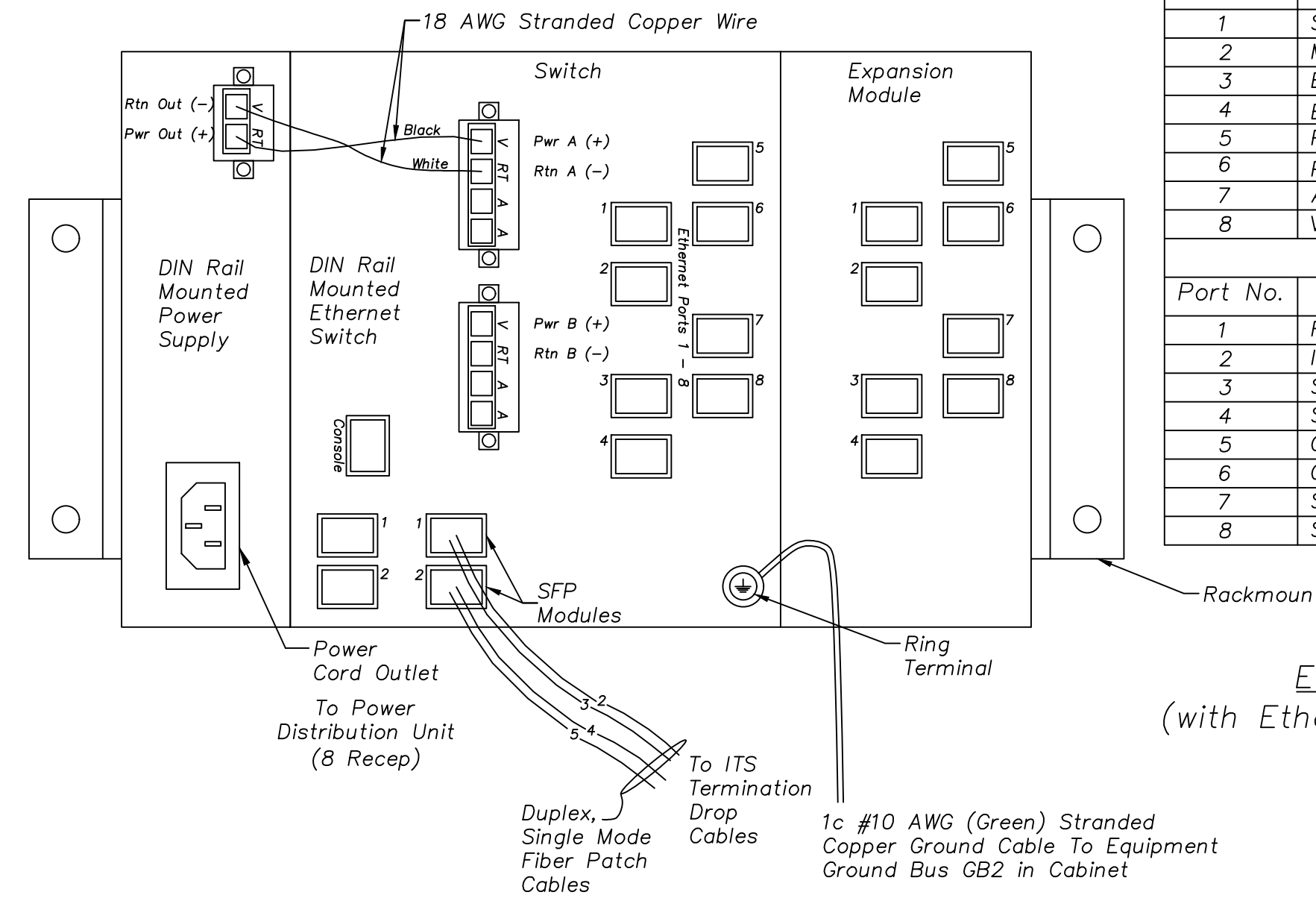
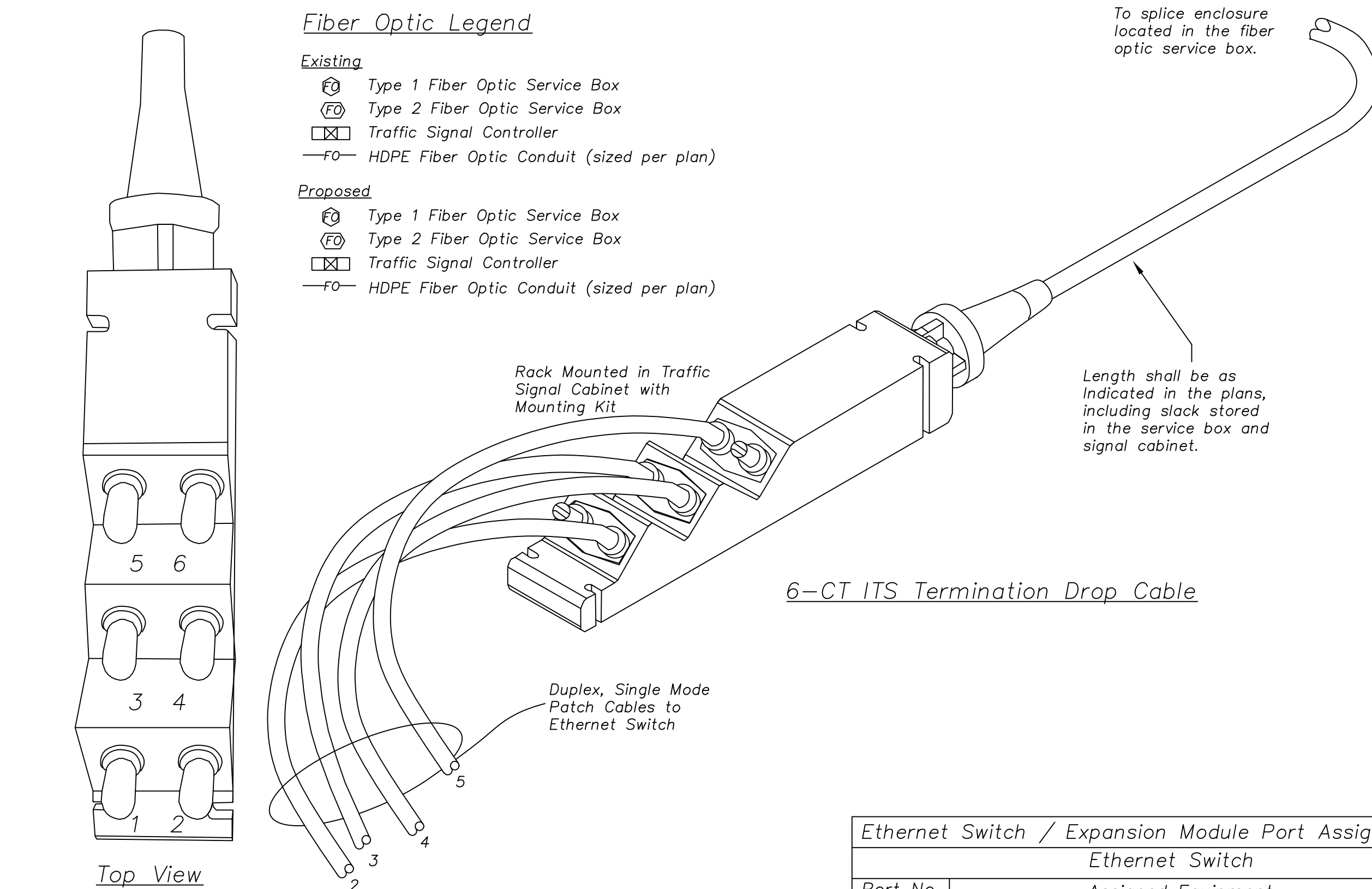
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SPLICE DIAGRAM BAILEY ROAD	LEE'S SUMMIT MIDDLE SCHOOL #4 PUBLIC ROAD IMPROVEMENTS	2021

C.O.A. NO.:	001592
DRAWN BY:	JRC
CHECKED BY:	JAB
APPROVED BY:	SLJ
QA/QC BY:	THE
PROJECT NO.:	020-0103
DWG NO.:	FBR_0200103
DATE:	11/4/2022

Fiber Optic General Notes

- All material shall be from The City of Lee's Summit pre-approved materials list available at City Hall.
- All traffic control in conjunction with the fiber optic construction shall be in conformance with the Manual on Uniform Traffic Control Devices and the Overland Park Traffic Control Handbook for Street Maintenance and Construction Operations, latest revisions.
- The Contractor shall stake the locations for all service boxes to be installed. The stations and offsets provided are to the center of the fiber optic equipment. The contractor shall provide elevations. If obstructions are encountered during installation, the contractor will re-stake those locations affected by the obstruction. The city fiber optic inspector shall inspect the staking prior to any excavation/construction.
- The locations of existing underground utilities, if shown, are an approximate only and have not been independently verified. The Contractor shall be responsible for contacting all utility companies for locations of all underground lines prior to excavation and be fully responsible for any and all damages, which might occur as a result of the Contractor's failure to exactly locate and preserve any and all underground utilities.
- The contractor shall call 1-800-DIG-RITE to obtain locates for street lighting, traffic signals, and fiber optic conduits/cables.
- All cables in service boxes and poles shall be identified with color-coded tape as follows:  
North Cable: Tape Color Code Blue  
East Cable: Tape Color Code Yellow.  
South Cable: Tape Color Code Purple  
West Cable: Tape Color Code Red
- Rock and shale may be encountered and thus the bid items shall reflect the extra work necessary to accomplish the installation. No additional payments ("extras") will be made for excavation of rock or shale and suitable backfill materials. All conduit trenches within rock/shale shall be backfilled with suitable material and properly compacted in accordance with the specifications.
- Conduit shall be bored (by approved methods) in those areas outside of the street improvement limits. Multiple conduits cannot be pulled back through the same bore unless otherwise approved.
- Continuous HDPE (orange) conduit (sized per plan) shall be installed between all service boxes prior to paving within the limits of the street improvements. Conduit splices between appurtenances shall not be allowed unless fusion couplings or other fusion methods are used.
- The conduit placement shall be coordinated with the paving operation, when applicable. Conduit installation and conduit connections shall be inspected and approved by the City inspector. The contractor shall pay any and all extra costs of installing conduits by alternate construction methods after pavement has been placed or for any damages to pavement that may occur during conduit installation. All trenches for conduit under proposed paved surfaces (drives, streets and sidewalks) shall be backfilled with flowable fill unless otherwise directed, to below the proposed pavement surface.
- The conduit shall be installed under underdrain pipe crossings and under the underdrain blankets. Refer to the street plans for underdrain pipe and blanket locations and appropriate details, if applicable.
- All fiber optic fusion splices shall be made at an existing service box made in the presence of the inspector for approval.
- The contractor shall take all precautions necessary to minimize the downtime of the existing systems to be modified. Any existing fiber optic system shall be maintained during construction as long as possible until the new system is installed and operating.
- Damage to any existing fiber optic equipment due to construction shall be the responsibility of the contractor. The equipment shall be replaced or repaired (as directed by the City) with materials equal or better than the existing material.
- All existing fiber optic equipment is to be used in place (U.I.P.) unless otherwise noted in the plans.
- The contractor shall notify the City of Lee's Summit, MO, Department of Public Works (816) 969-1800 of the exact construction schedule so that inspection of the installation can be made.
- The contractor shall be responsible for any damage to existing underground sprinkler systems during construction. All affected pipes or fittings shall be restored to original condition and location with new materials similar to existing. All restoration work shall be acceptable to the engineer and property owner.
- All unpaved areas disturbed or damaged during construction shall be restored to the original condition. Unless otherwise directed, grassy areas shall be re-sodded.
- Contractor shall use a polymer lubricating agent to facilitate conduit bores under paved streets. Failure to do so will result in a denial to retrieve bore head, in the case of loss, under any paved street by excavation methods.
- A 1c#10 AWG THHN/THWN stranded copper locating cable (red) shall be installed in all conduits.
- The ends of all conduit in service boxes shall be plugged with duct seal or spray foam.
- All fusion splices shall be performed by the City of Lee's Summit.



Ethernet Switch / Expansion Module Port Assignments	
Ethernet Switch	
Port No.	Assigned Equipment
1	Signal Controller
2	Malfunctioning Management Unit (MMU)
3	Emergency Vehicle Pre-emption (EVP)
4	Battery Backup / UPS
5	Presence Radar Detector Interface Module
6	Presence / Advance Radar Detector Interface Module
7	Advance Radar Detector Interface Module
8	Video Detection
Expansion Module	
Port No.	Assigned Equipment
1	Flashing School Beacons
2	Irrigation
3	Spare 1
4	Spare 2
5	CCTV Camera 1 PoE Injector
6	CCTV Camera 2 PoE Injector
7	Spare 3
8	Spare 4

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 USER: jclence  
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 F\_PTBK\_0200103  
 F\_PBASE\_0200103  
 F\_XTOPO-2\_00103

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 Olsson Engineering - MO State Certificate of Authority #01592  
 7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
 Overland Park, KS 66213-4750 FAX: 913.381.1174 www.olsson.com

**RECORD DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

FIBER DETAILS  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 PUBLIC ROAD IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

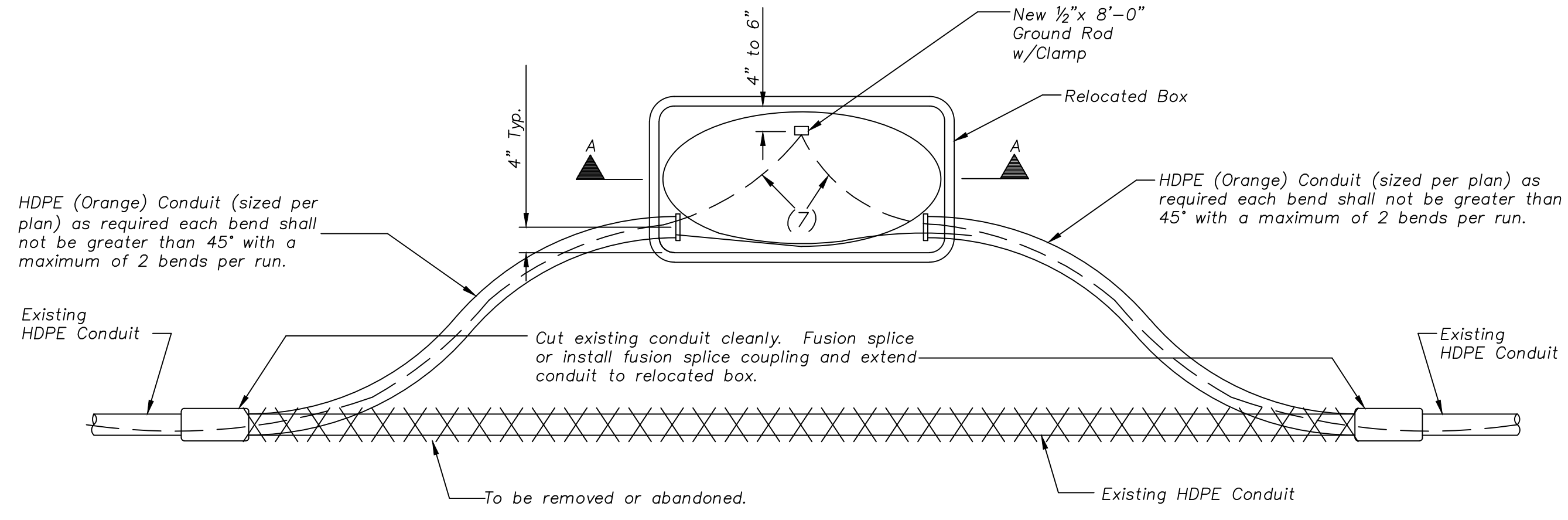
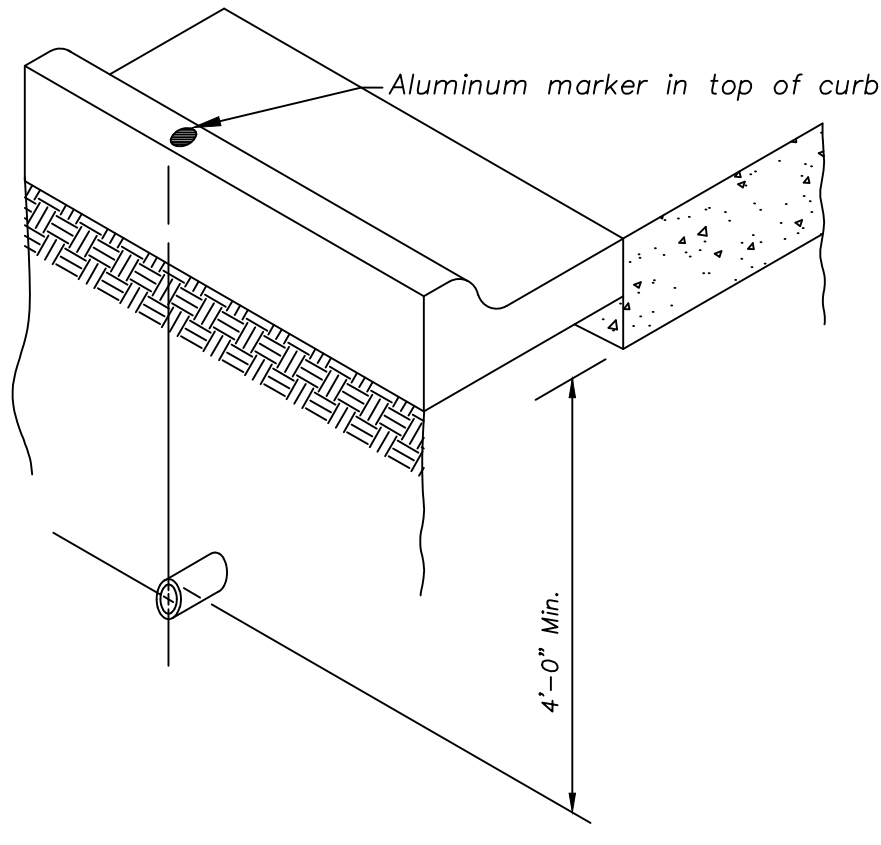
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 CHECKED BY: JAB  
 APPROVED BY: SLJ  
 QA/QC BY: THE  
 PROJECT NO.: 020-0103  
 DWG NO.: FBR\_0200103  
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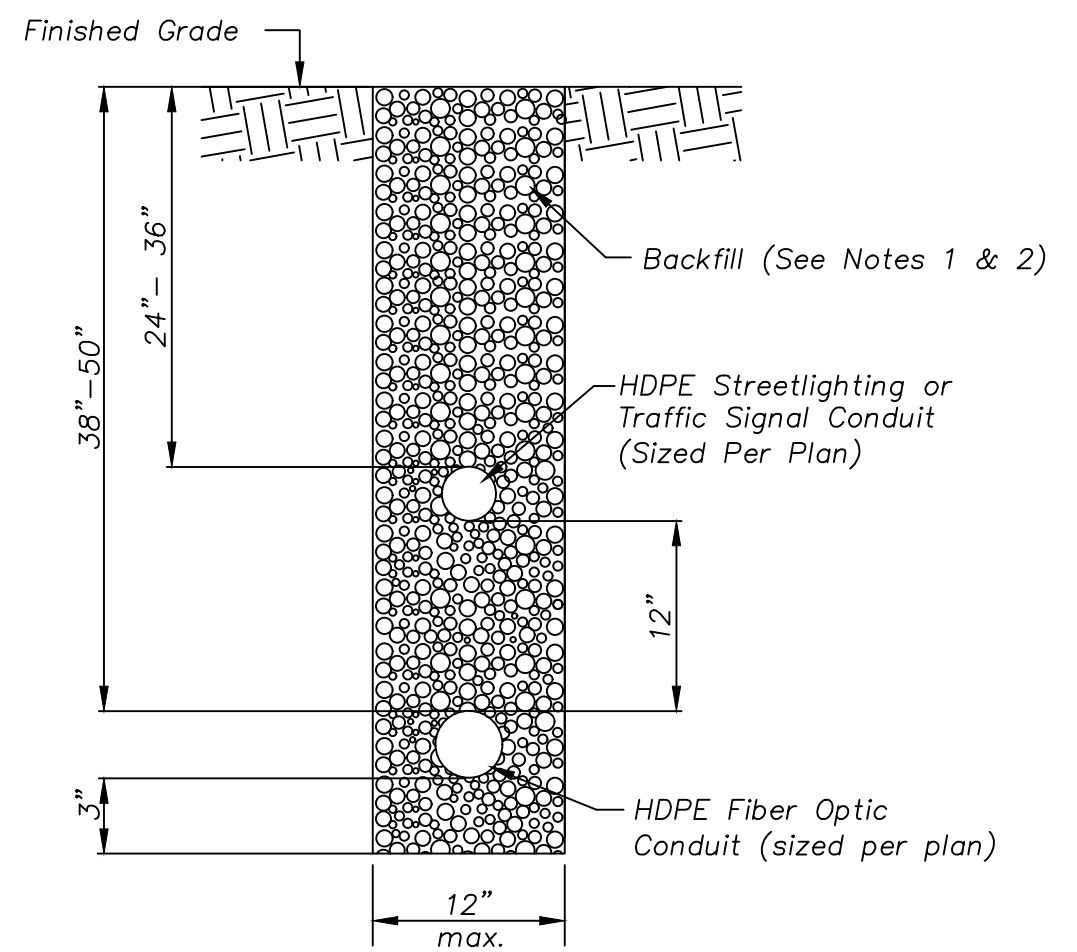
**Conduit Marking Detail Notes:**

- Conduit under all roadway surfaces shall be placed a minimum of 4'-0" below the bottom of pavement and shall extend to a junction box or service box. Refer to The City of Lee's Summit Horizontal Directional Drilling Guidelines Handbook, latest edition for further requirements for conduit installation under roadway surfaces. The conduit shall be installed to drain. All ends shall be capped if not used. An aluminum marker shall be placed in the top of the curb directly over the conduit.
- The contractor shall notify the City of Lee's Summit, Department of Public Works Traffic Services Division, ???-???, For inspection of the conduit installation by the streetlighting inspector. at least 24 hours notice shall be provided. The conduit shall not be covered so as to ensure proper depth, correct conduit material, and proper conduit end treatment as described above.

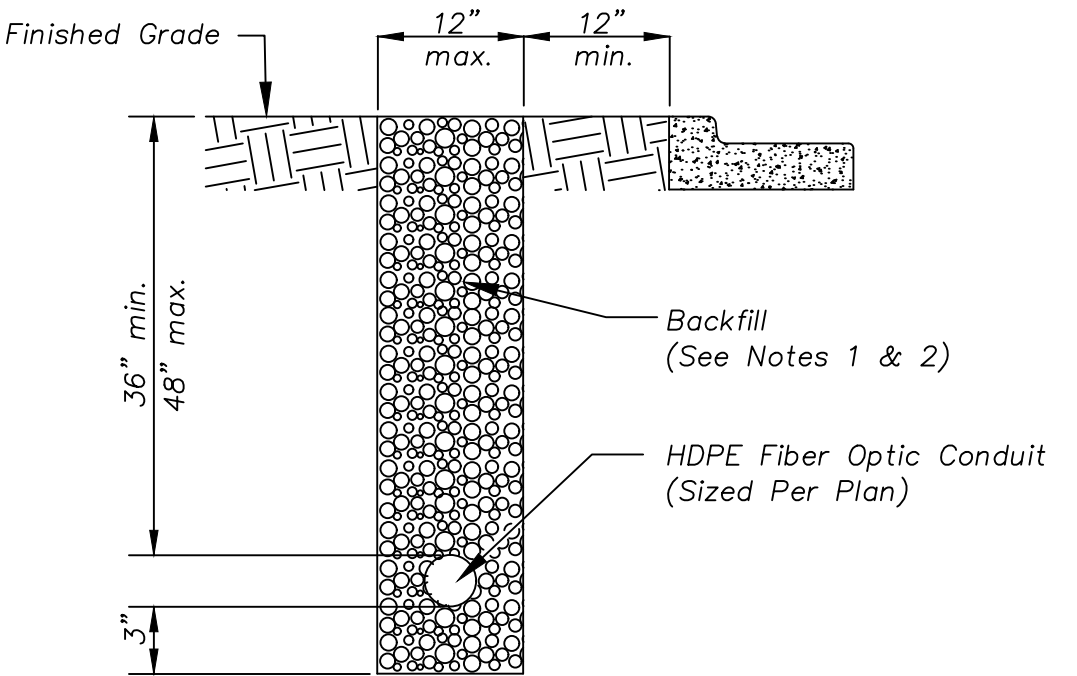
**Conduit Marking Detail**



**Plan (Conduit Position)  
Relocated Box Installation Detail**



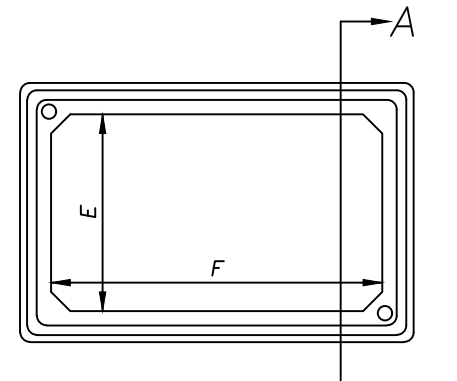
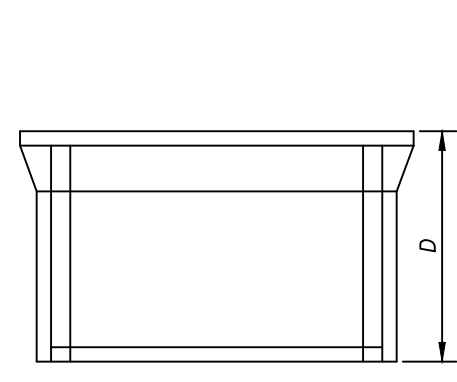
**Trench w/Multiple  
Conduits in Unpaved  
Areas**



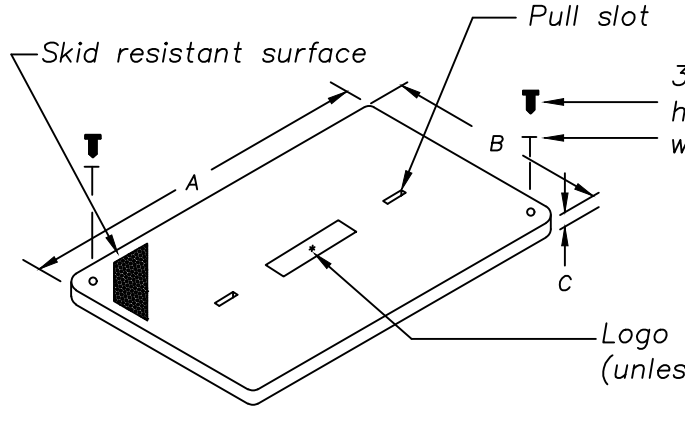
**Trenching in Unpaved  
Areas**

- Notes:**
- All trenches for conduit under proposed paved surfaces shall be backfilled with flowable fill.
  - Backfill in unpaved areas shall be earth or AB-3 and free of rubble and rock. Conduits shall be pitched to drain.
  - If multiple conduits are installed, they shall have a minimum of 12" horizontal or vertical separation between them.

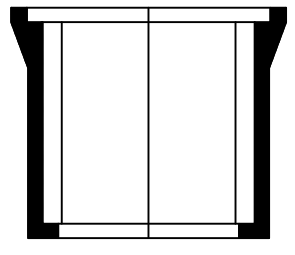
**Trenching Details**



**Box**



**Cover**



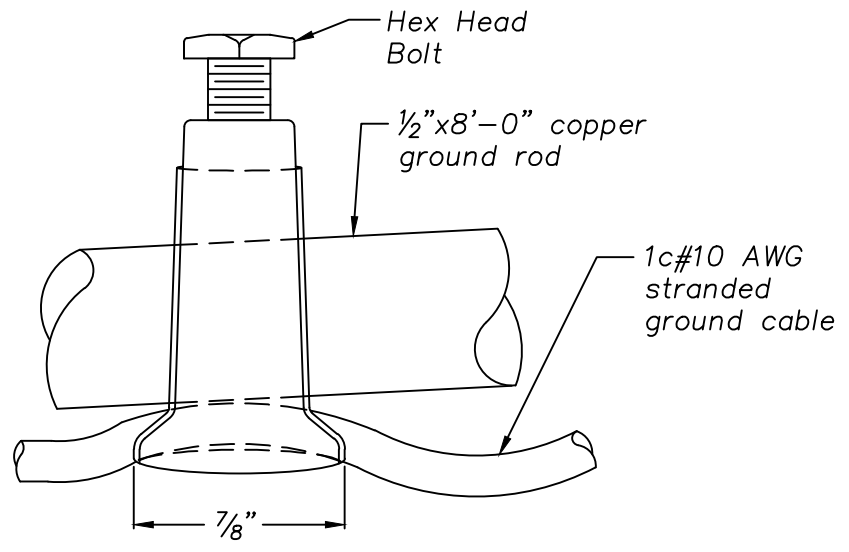
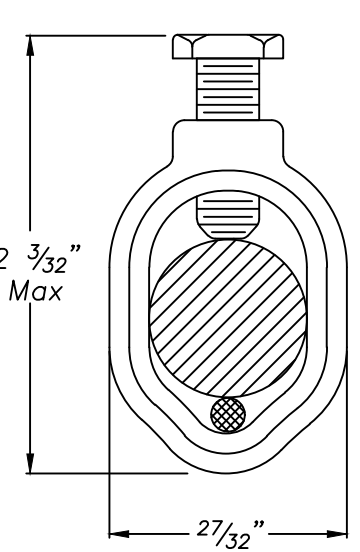
**Section A-A**

Box Type	Approximate Dimensions (inches)					
	A	B	C	D	E	F
Type 1 Fiber	35 5/8	24	3	24	22 1/4	33 7/8
Type 2 Fiber (8)	47 5/8	30 1/8	3	24	28 1/8	45 5/8

**Fiberglass Reinforced Polymer Concrete  
Fiber Optic Service Box Details**

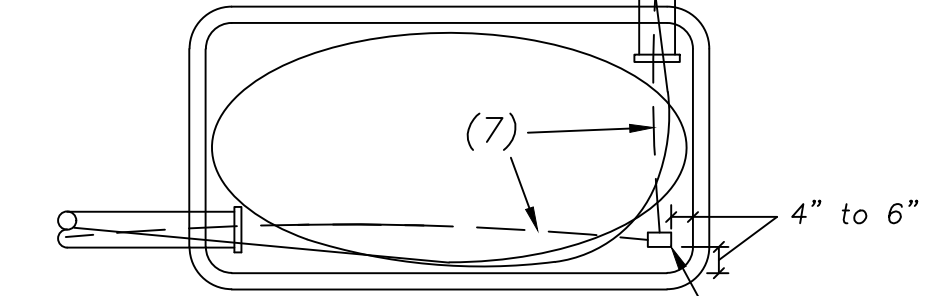
**Plan View**

**Side View**

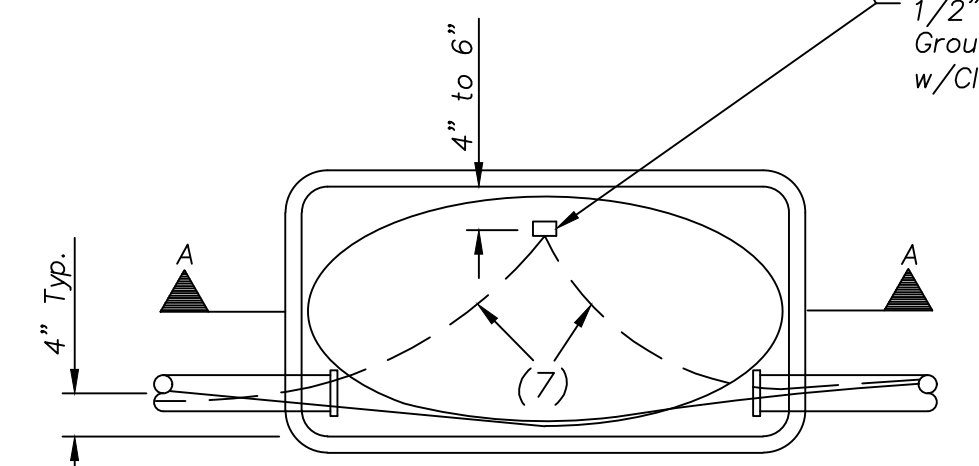


**Ground Rod Clamp Connection Detail**

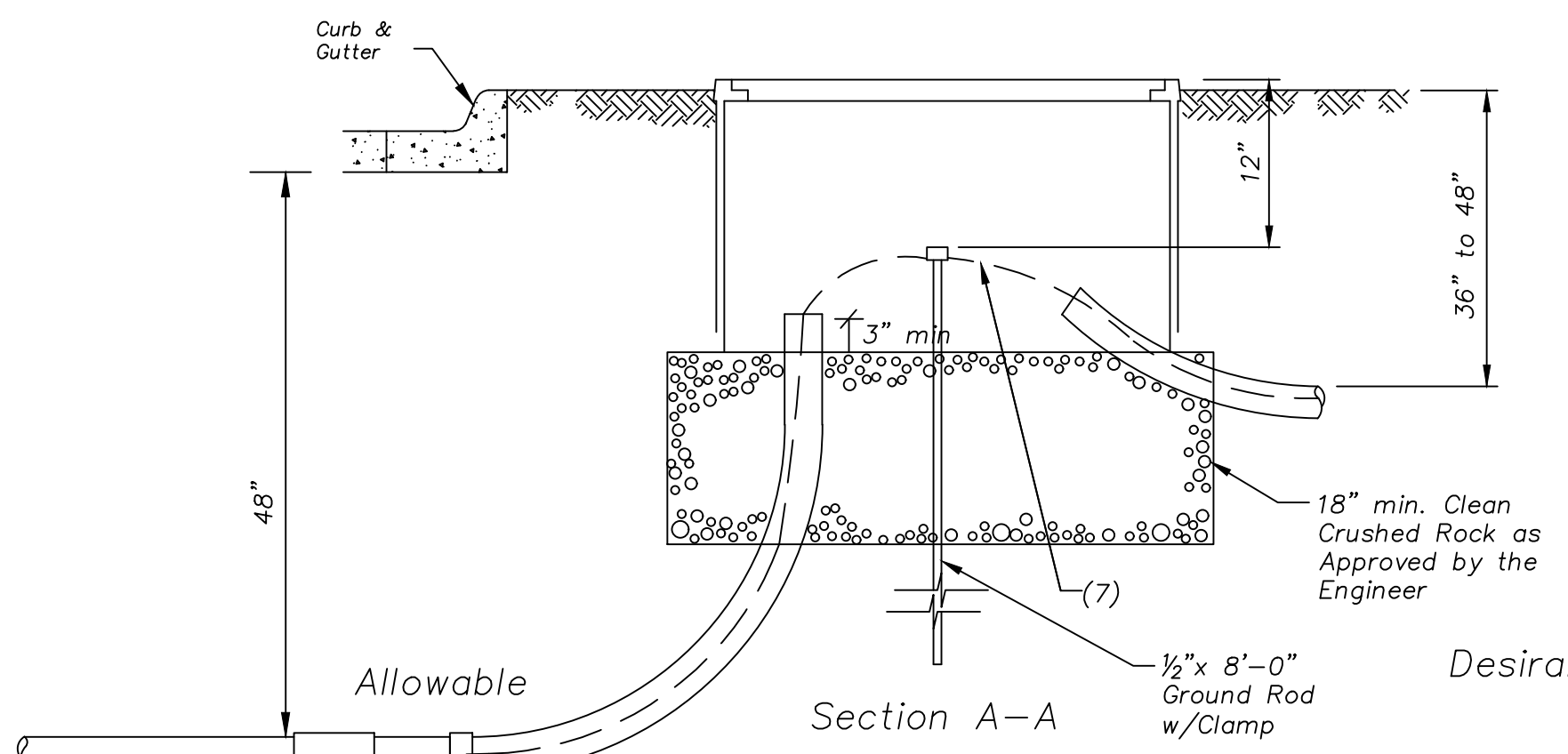
- Notes:**
- Boxes shall be stackable for extra depth.
  - The "FO" service box and cover shall be rated for no less than 22,500 lbs test load (Tier 15) load per ANSI/SCTE-77.
  - Service box material to be an aggregate consisting of sand and gravel bound together with a polymer and reinforced with continuous woven glass strands. The material must have the following mechanical properties:  
Compressive Strength - 11,000 psi ASTM C-109/D3410  
Tensile Strength - 1,700 psi ASTM C-496/D638/D2343  
Flexural Strength - 7,500 psi ASTM C-580/D790
  - A 1/2" x 8'-0" ground rod shall be installed in each service box.
  - The conduit shall enter and exit the service box between 36" and 48" and shall be 4" centered off the edge of the service box wall. The fiber cable shall at no time have less than an 8" radius bend.
  - 18" min. layer of 1/2" clean crushed rock shall be constructed below the service box for drainage purposes.
  - 1c#10 AWG THHN/THWN (red) stranded copper locating cable.
  - The Type 2 fiber box shall have a two-piece overlapping cover.



**Plan (Conduit Position)  
Directional Change**



**Plan (Conduit Position)  
Straight Through Run**



**Initial Box Installation Detail**

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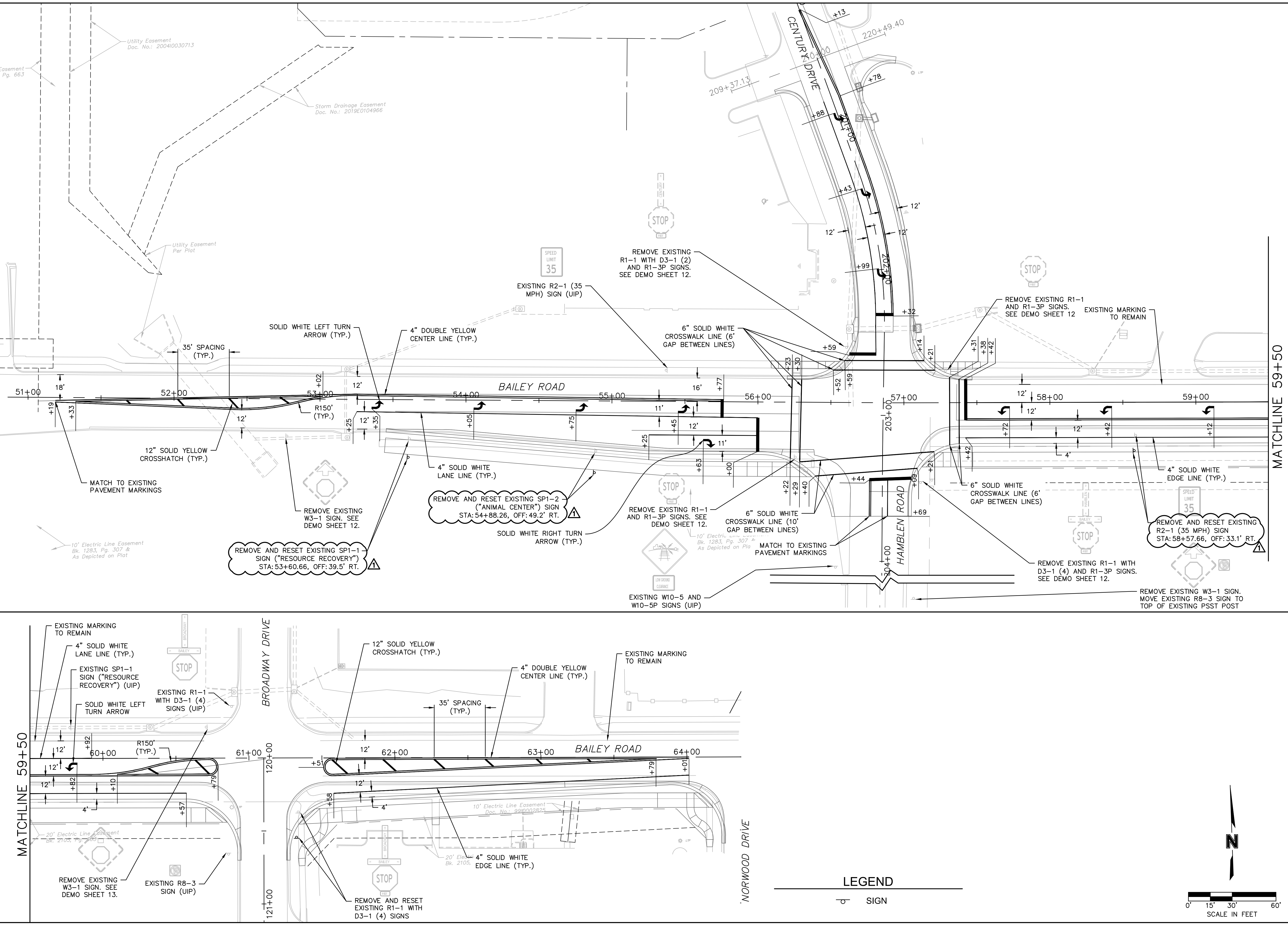
**RECORD  
DRAWINGS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

**FIBER DETAILS  
BAILEY ROAD**  
**LEE'S SUMMIT MIDDLE SCHOOL #4  
PUBLIC ROAD IMPROVEMENTS**  
**LEE'S SUMMIT, MISSOURI**  
 2021

C.O.A. NO.: 001592  
 DRAWN BY: JRC  
 CHECKED BY: JAB  
 APPROVED BY: SLJ  
 QA/QC BY: THE  
 PROJECT NO.: 020-0103  
 DWG NO.: FBR\_0200103  
 DATE: 11/4/2022

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\TFC\PAVEMENT MARKING & SIGNING PLAN\LEE'S SUMMIT SET\F\_SAS\_0200103.dwg  
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MATCHLINE 59+50

MATCHLINE 59+50

PAVEMENT MARKING AND SIGNING PLAN  
 BAILEY ROAD

LEE'S SUMMIT MIDDLE SCHOOL #4  
 PUBLIC ROAD IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

RECORD  
 DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	JAB

2021

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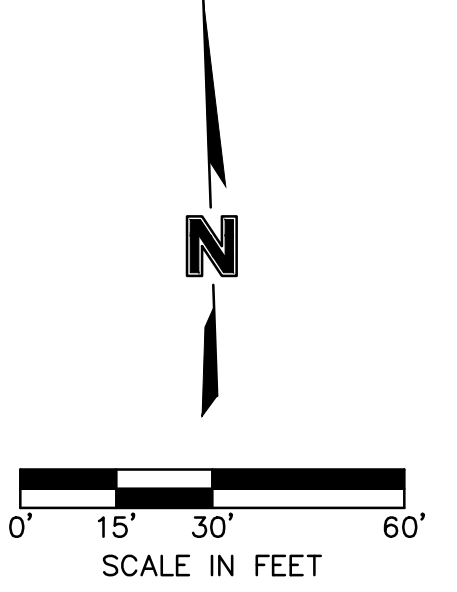
Olsson Engineering - MO State Certificate of Authority #001592  
 7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
 Overland Park, KS 66213-4750 FAX: 913.381.1174 www.olsson.com

C.O.A. NO.: 001592  
 DRAWN BY: JRC  
 CHECKED BY: JAB  
 APPROVED BY: SLJ  
 QA/QC BY: THE  
 PROJECT NO.: 020-0103  
 DWG NO.: F\_SAS\_0200103  
 DATE: 11/4/2022

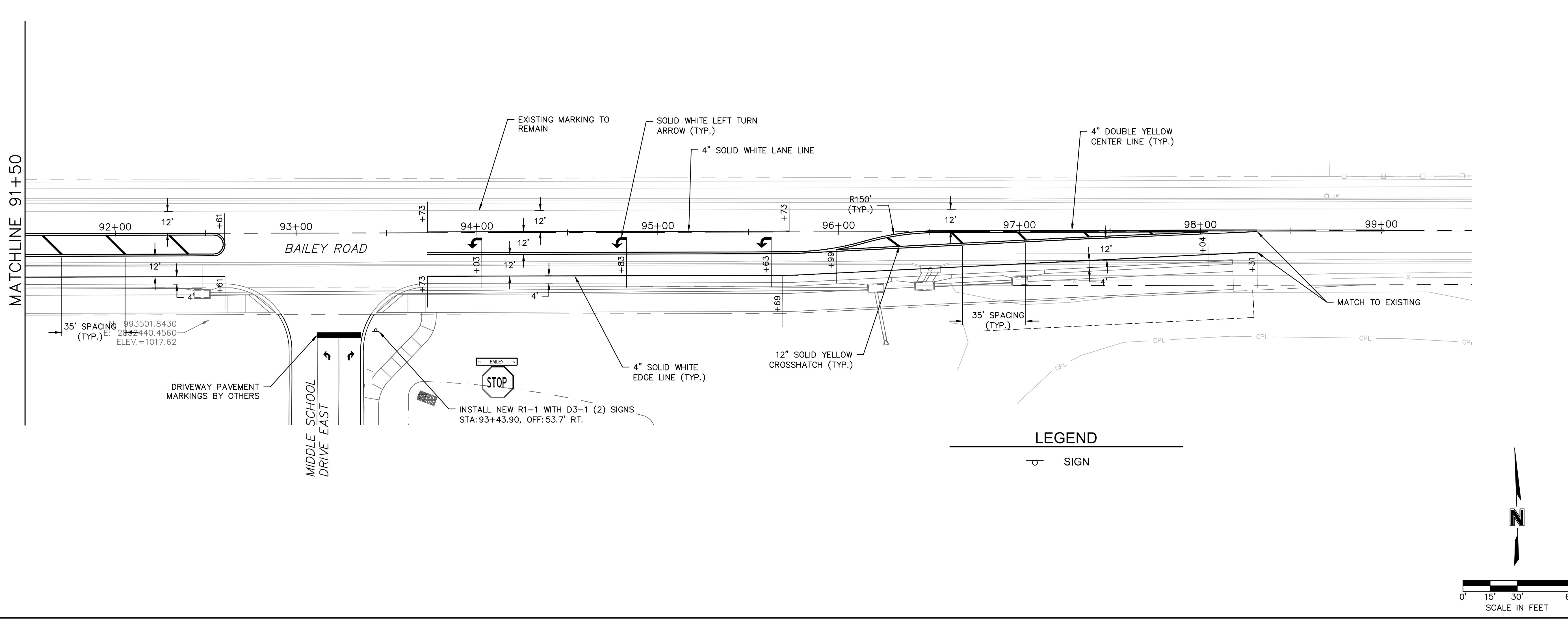
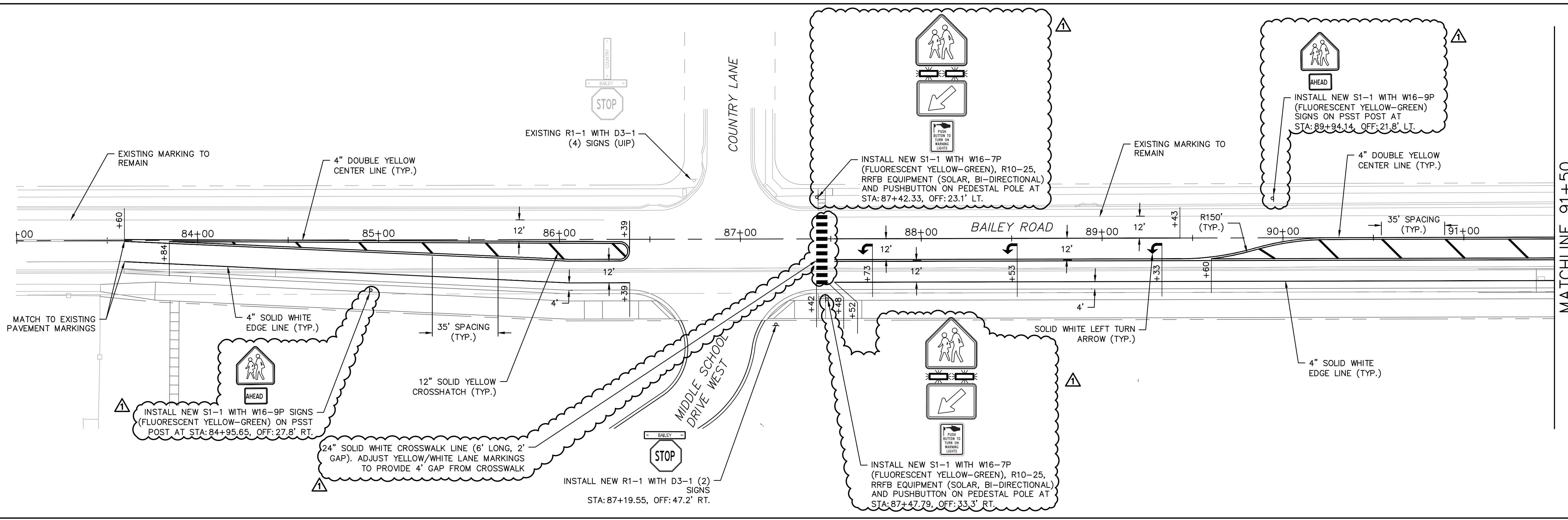
SHEET  
 79 OF 101

LEGEND

○ SIGN

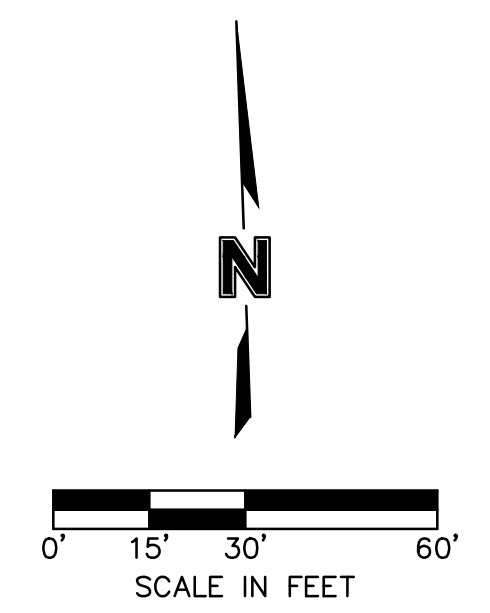


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**LEGEND**

○ SIGN



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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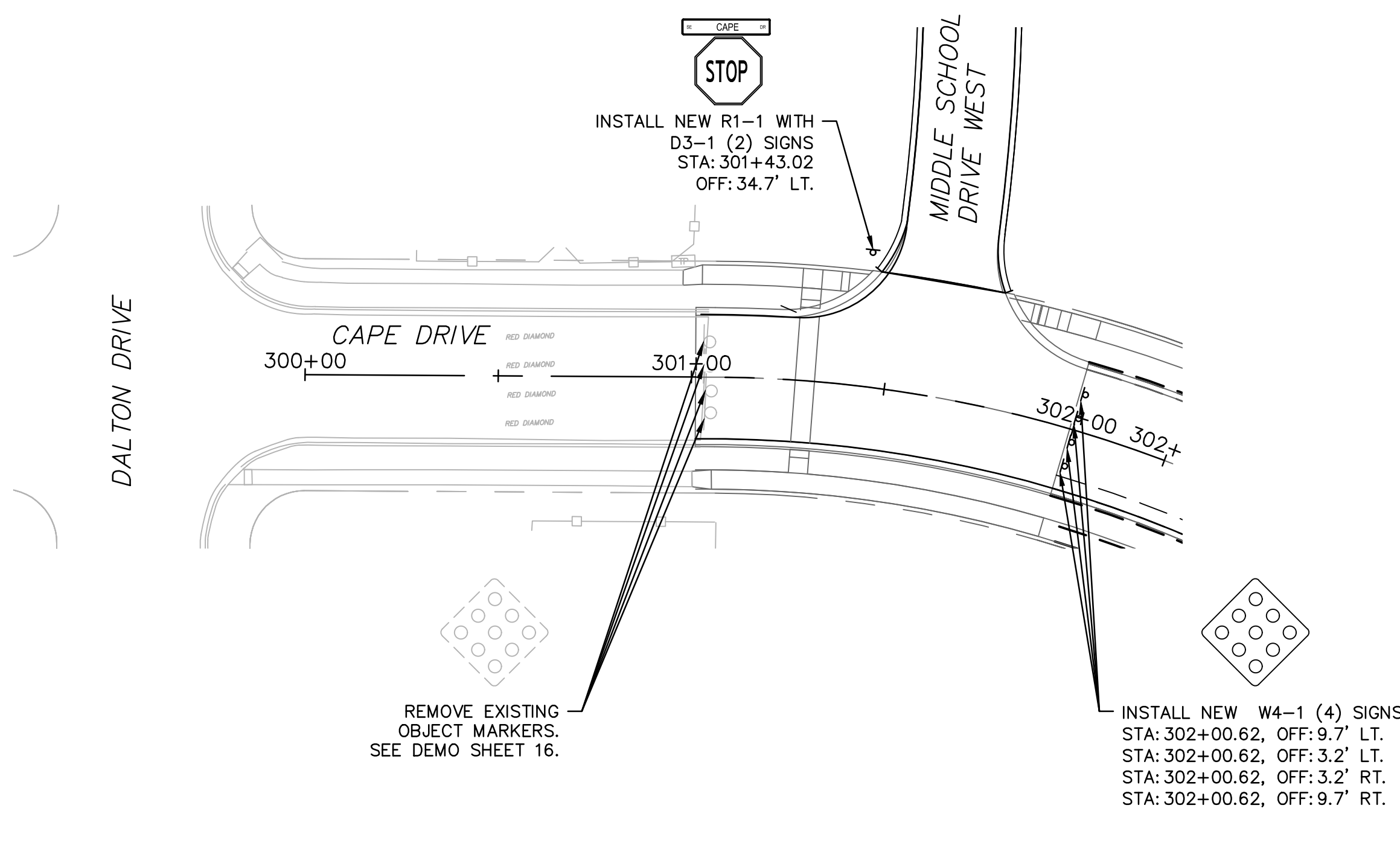
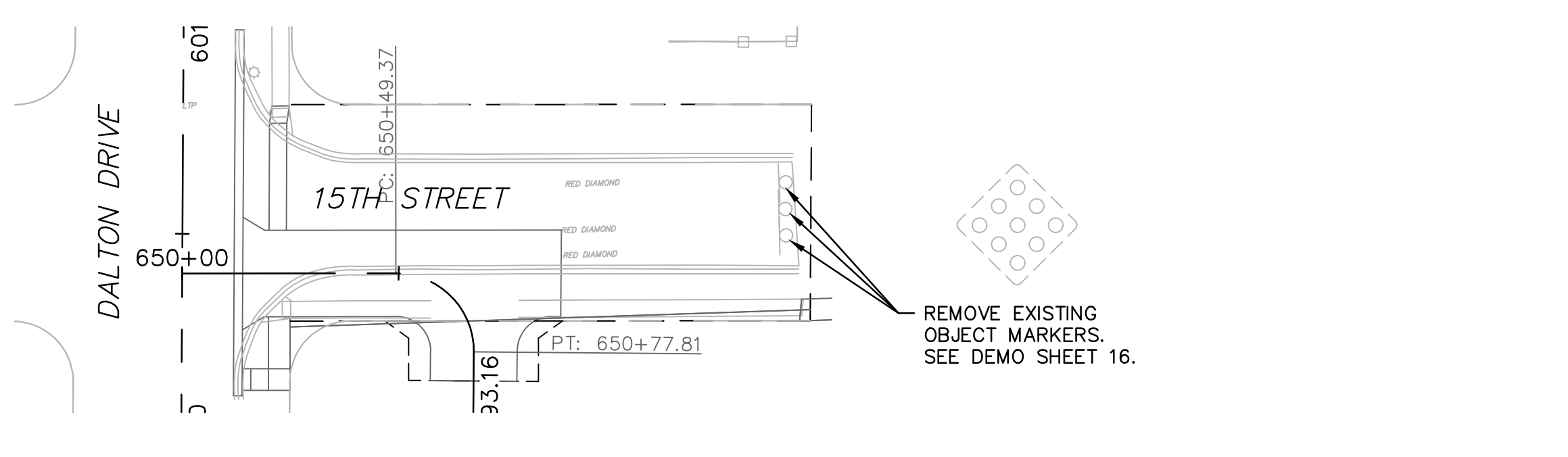
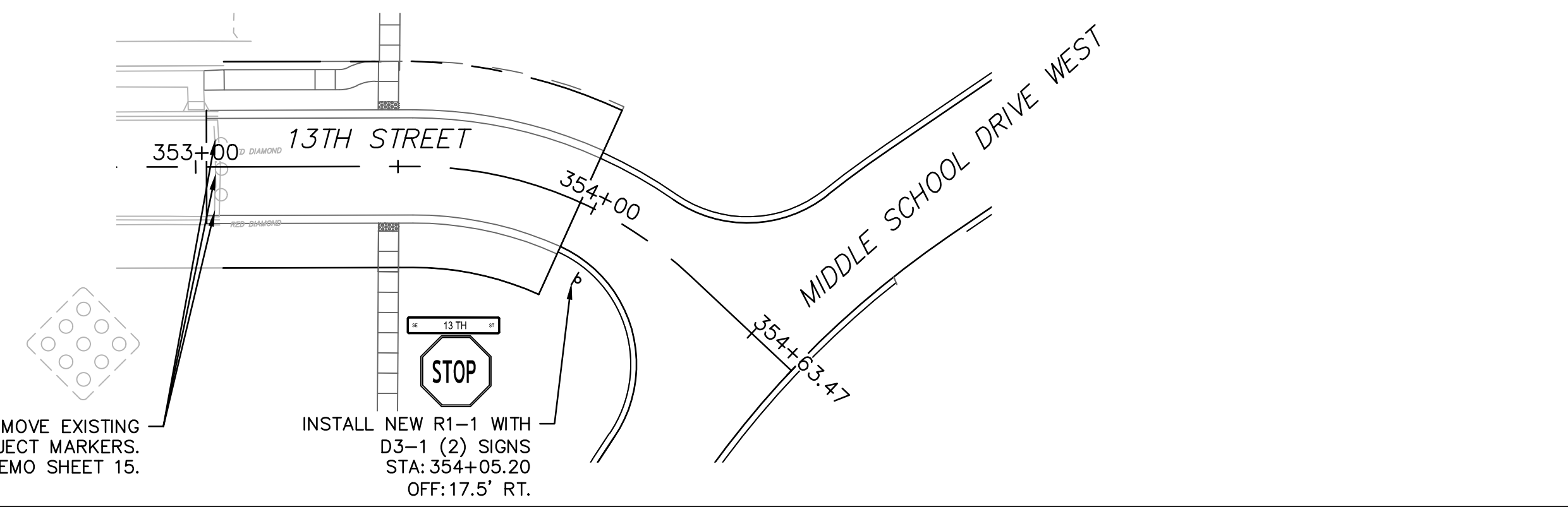
PAVEMENT MARKING AND SIGNING PLAN  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 PUBLIC ROAD IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

C.O.A. NO.:	001592
DRAWN BY:	JRC
CHECKED BY:	JAB
APPROVED BY:	SLJ
QA/QC BY:	THE
PROJECT NO.:	020-0103
DWG NO.:	F_SAS_0200103
DATE:	11/4/2022



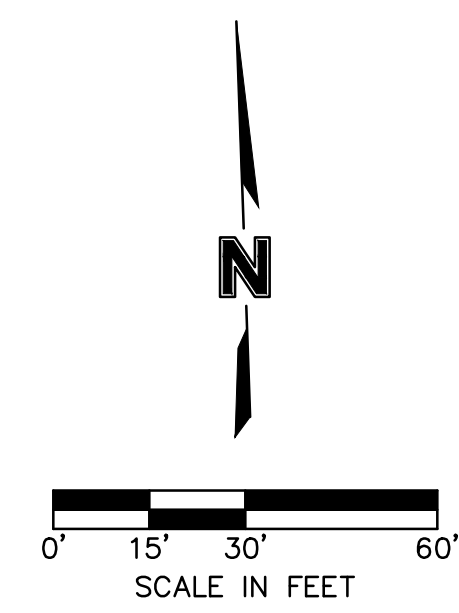
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F\_SAS\_BASE\_0200103 T\_PBASE\_0200103 C\_PBASE\_0200103



PERMANENT SIGNING SUMMARY

STATION	STREET REFERENCE	OFFSET FROM C/L	MUTCD DESIGNATION	SIGN SIZE	AREA (SF)	POST TYPE	REMARKS
53+60.66	BAILEY ROAD	39.5' RIGHT	SP1-1 (RESOURCE RECOVERY)	-	-	SQUARE	Remove and Reset on New Post
54+88.26	BAILEY ROAD	49.2' RIGHT	SP1-2 (ANIMAL CENTER)	-	-	SQUARE	Remove and Reset on New Post
-	BAILEY ROAD	-	R2-1 (35 MPH)	-	-	-	Use In Place
-	HAMBLER ROAD	-	W10-5	-	-	-	Use In Place
-	HAMBLER ROAD	-	W10-5P	-	-	-	Shared Post
-	HAMBLER ROAD	-	R8-3	-	-	-	Move Existing Sign to Top of Existing Post
58+57.66	BAILEY ROAD	33.1' RIGHT	R2-1 (35 MPH)	-	-	SQUARE	Remove and Reset on New Post
-	BAILEY ROAD	-	SP1-1 (RESOURCE RECOVERY)	-	-	-	Use In Place
-	BROADWAY DRIVE	-	R1-1	-	-	-	Use In Place
-	BROADWAY DRIVE	-	D3-1 (BAILEY RD)	-	-	-	Shared Post
-	BROADWAY DRIVE	-	D3-1 (BAILEY RD)	-	-	-	Shared Post
-	BROADWAY DRIVE	-	D3-1 (BROADWAY DR)	-	-	-	Shared Post
-	BROADWAY DRIVE	-	D3-1 (BROADWAY DR)	-	-	-	Shared Post
120+54.34	BROADWAY DRIVE	22.4' LEFT	R1-1	-	-	SQUARE	Remove and Reset on New Post
-	BROADWAY DRIVE	-	D3-1 (BAILEY RD)	-	-	-	Shared Post
-	BROADWAY DRIVE	-	D3-1 (BAILEY RD)	-	-	-	Shared Post
-	BROADWAY DRIVE	-	D3-1 (BROADWAY CIR)	-	-	-	Shared Post
-	BROADWAY DRIVE	-	D3-1 (BROADWAY CIR)	-	-	-	Shared Post
-	BROADWAY DRIVE	-	R8-3	-	-	-	Use In Place
-	BAILEY ROAD	-	R1-1	-	-	-	Use In Place
-	BAILEY ROAD	-	D3-1 (BAILEY RD)	-	-	-	Shared Post
-	BAILEY ROAD	-	D3-1 (BAILEY RD)	-	-	-	Shared Post
-	BAILEY ROAD	-	D3-1 (COUNTRY LN)	-	-	-	Shared Post
-	BAILEY ROAD	-	D3-1 (COUNTRY LN)	-	-	-	Shared Post
87+19.55	BAILEY ROAD	47.2' RIGHT	R1-1	30"x30"	6.25	SQUARE	Install on New Post
-	BAILEY ROAD	-	D3-1 (BAILEY RD)	9" x 42"	2.63	-	Shared Post
-	BAILEY ROAD	-	D3-1 (BAILEY RD)	9" x 42"	2.63	-	Shared Post
93+43.90	BAILEY ROAD	53.7' RIGHT	R1-1	30"x30"	6.25	SQUARE	Install on New Post
-	BAILEY ROAD	-	D3-1 (BAILEY RD)	9" x 42"	2.63	-	Shared Post
-	BAILEY ROAD	-	D3-1 (BAILEY RD)	9" x 42"	2.63	-	Shared Post
354+05.20	13TH STREET	17.5' RIGHT	R1-1	30"x30"	6.25	SQUARE	Install on New Post
-	13TH STREET	-	D3-1 (13TH ST)	9" x 36"	2.25	-	Shared Post
-	13TH STREET	-	D3-1 (13TH ST)	9" x 36"	2.25	-	Shared Post
301+43.02	CAPE DRIVE	34.7' LEFT	R1-1	30"x30"	6.25	SQUARE	Install on New Post
-	CAPE DRIVE	-	D3-1 (CAPE DR)	9" x 36"	2.25	-	Shared Post
-	CAPE DRIVE	-	D3-1 (CAPE DR)	9" x 36"	2.25	-	Shared Post
302+00.62	CAPE DRIVE	9.7' LEFT	W4-1	18"x18"	2.25	SQUARE	Install on New Post
302+00.62	CAPE DRIVE	3.2' LEFT	W4-1	18"x18"	2.25	SQUARE	Install on New Post
302+00.62	CAPE DRIVE	3.2' RIGHT	W4-1	18"x18"	2.25	SQUARE	Install on New Post
302+00.62	CAPE DRIVE	9.7' RIGHT	W4-1	18"x18"	2.25	SQUARE	Install on New Post
TOTALS					54	12	



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	JAB

PAVEMENT MARKING AND SIGNING PLAN  
BAILEY ROAD

LEE'S SUMMIT MIDDLE SCHOOL #4  
PUBLIC ROAD IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

C.O.A. NO.: 001592  
 DRAWN BY: JRC  
 CHECKED BY: JAB  
 APPROVED BY: SLJ  
 QA/QC BY: THE  
 PROJECT NO.: 020-0103  
 DWG NO.: F\_SAS\_0200103  
 DATE: 11/4/2022

2021

SHEET 81 OF 101

DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\TFC\PAVEMENT MARKING & SIGNING PLAN\LEE'S SUMMIT SET\F\_SAS\_0200103.dwg USER: jceremence  
 DATE: Nov 07, 2022 10:35am XREFS: T\_PSTRM\_0200103 F\_PBASE\_0200103 F\_PTBK\_0200103 V\_XBOU\_0200103 V\_XTOPO\_2\_00103 V\_XBOU\_2\_00103 F\_SAS\_BASE\_0200103 T\_PBASE\_0200103 C\_PBASE\_02

PAVEMENT MARKING SUMMARY

STATION TO STATION	LOCATION	4" SOLID WHITE LANE LINE (LF)	4" BROKEN WHITE LANE LINE (LF)	8" DASHED WHITE EXTENSION LINE (LF)	4" SOLID YELLOW LINE (LF)	4" BROKEN YELLOW LANE LINE (LF)	12" YELLOW CROSSHATCH LINE (LF)	24" WHITE STOP LINE (LF)	6" WHITE CROSSWALK LINE (LF)	WHITE TURN ARROW (EA)		
										RT	LT	
51+19	51+33	BAILEY ROAD			28							
51+33	53+02	BAILEY ROAD			678		26					
53+02	55+77	BAILEY ROAD			550							
53+25	56+00	BAILEY ROAD	275								4	
55+25	56+00	BAILEY ROAD	75							1		
55+77	55+77	BAILEY ROAD						12				
56+00	56+00	BAILEY ROAD						23				
56+22	56+23	BAILEY ROAD							54			
56+29	56+30	BAILEY ROAD							56			
56+29	57+21	BAILEY ROAD							92			
56+40	57+09	BAILEY ROAD							70			
56+52	57+21	BAILEY ROAD							70			
56+59	57+14	BAILEY ROAD							55			
200+13	202+32	CENTURY DRIVE			442							
200+78	202+59	CENTURY DRIVE	179								3	
202+32	202+32	CENTURY DRIVE						12				
202+59	202+59	CENTURY DRIVE						18				
203+44	203+44	CENTURY DRIVE						29				
203+44	203+69	CENTURY DRIVE	25									
203+44	203+69	CENTURY DRIVE			50							
57+31	57+31	BAILEY ROAD							47			
57+38	57+38	BAILEY ROAD							44			
57+42	57+42	BAILEY ROAD						28				
57+42	59+92	BAILEY ROAD	250								4	
57+42	60+10	BAILEY ROAD			534							
57+42	60+57	BAILEY ROAD	315									
60+10	60+79	BAILEY ROAD			288		22					
61+51	63+79	BAILEY ROAD			926		51					
61+58	64+01	BAILEY ROAD	243									
63+79	64+01	BAILEY ROAD			44							
83+60	83+84	BAILEY ROAD			48							
83+60	86+39	BAILEY ROAD	280									
83+84	86+39	BAILEY ROAD			1030		53					
87+43	89+43	BAILEY ROAD	200								3	
87+43	89+60	BAILEY ROAD			434							
87+43	92+61	BAILEY ROAD	518									
89+60	92+61	BAILEY ROAD			1218		115					
93+73	95+73	BAILEY ROAD	200								3	
93+73	95+99	BAILEY ROAD			452							
93+73	98+31	BAILEY ROAD	459									
95+99	98+04	BAILEY ROAD			824		28					
98+04	98+31	BAILEY ROAD			54							
TOTALS			3019	0	0	7600	0	295	122	488	1	17



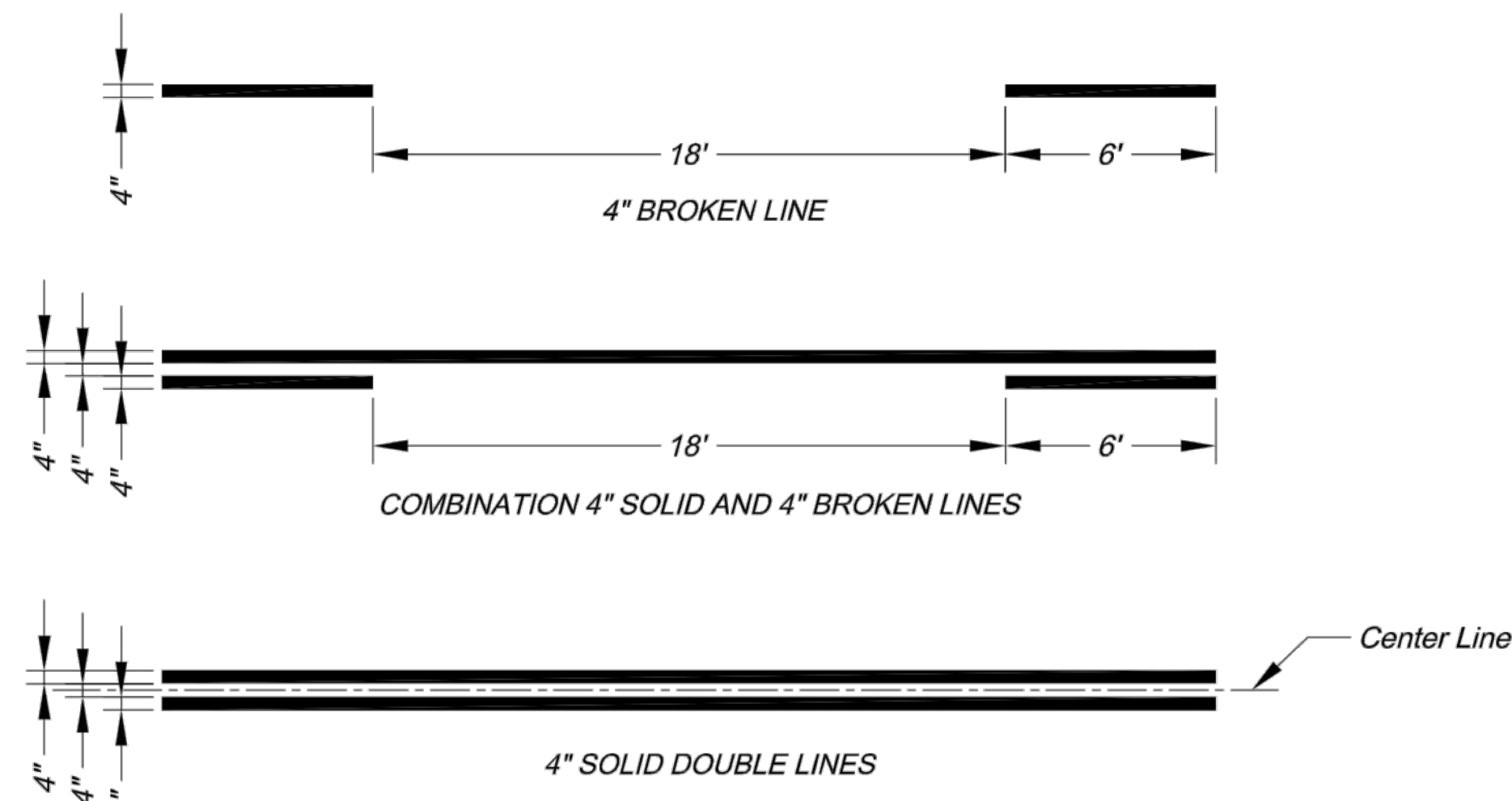
**olsson**  
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 Overland Park, KS 66213-4760 FAX: 913.381.1174 www.olson.com

RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	08/25/2021	ASI #29	JAB

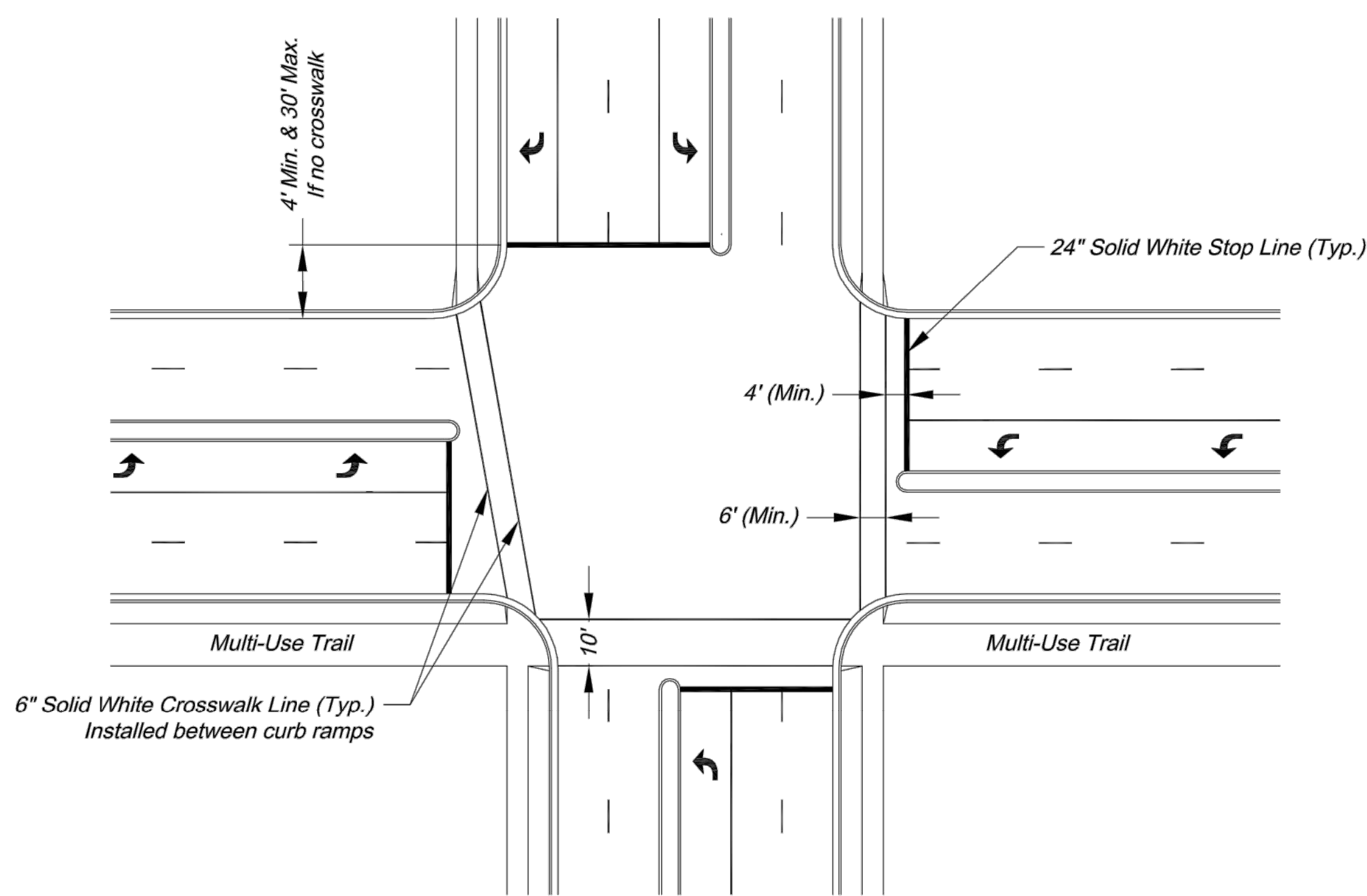
PAVEMENT MARKING AND SIGNING PLAN  
 BAILEY ROAD  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 PUBLIC ROAD IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

C.O.A. NO.: 001592  
 DRAWN BY: JRC  
 CHECKED BY: JAB  
 APPROVED BY: SLJ  
 QA/QC BY: THE  
 PROJECT NO.: 020-0103  
 DWG NO.: F 846 (2011)  
 DATE: 11/4/2022



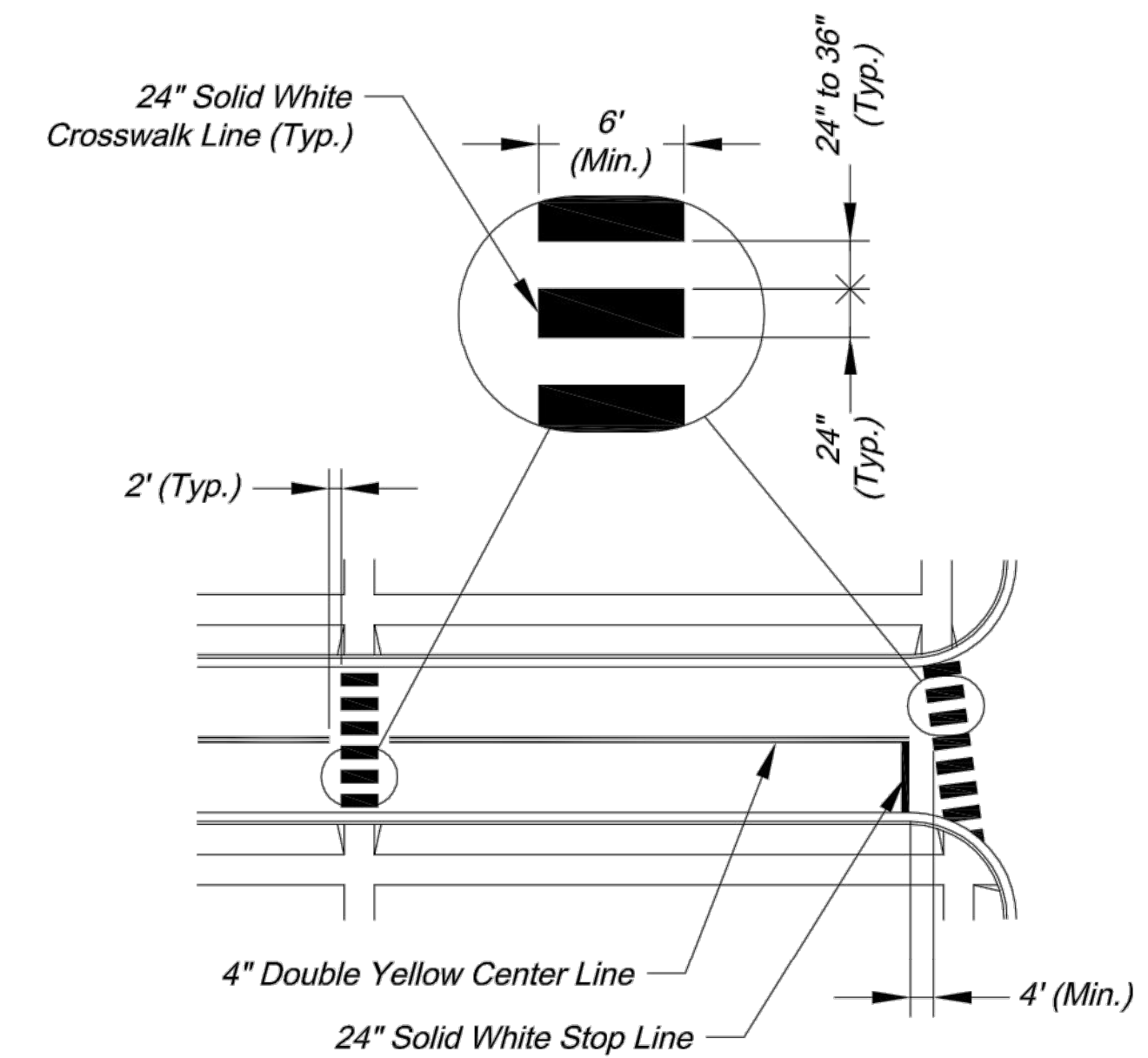
**TYPICAL LINE DETAILS**

- NOTES:**
1. All edge line, center line, and lane line pavement markings shall be 4" wide unless otherwise noted.
  2. Edge lines shall be continuous solid white or yellow lines. Right side edge lines shall be solid white. Median or left side edge lines on divided roadways are to be solid yellow. Edge lines and center lines shall be continuous across driveways.

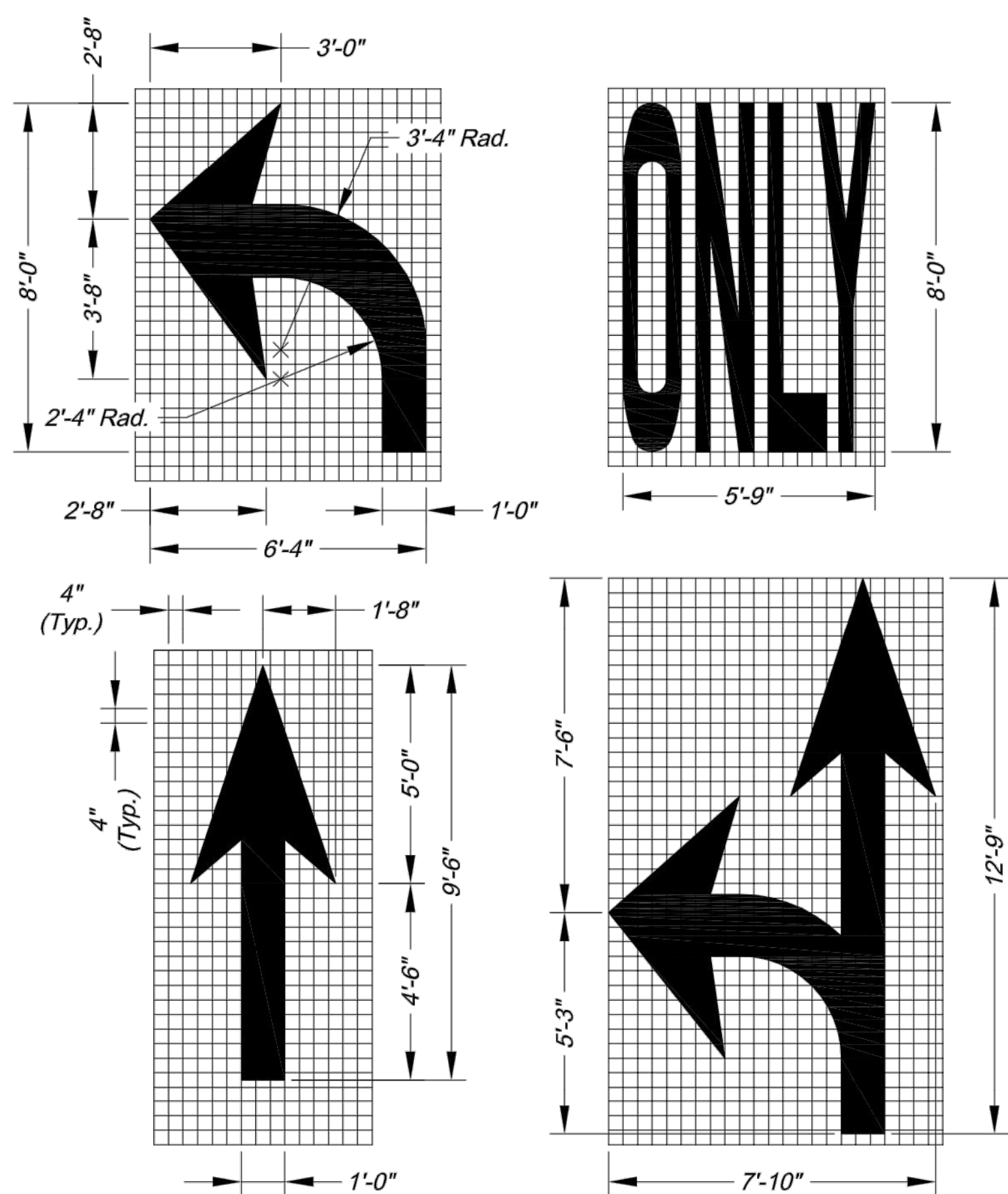


**TYPICAL INTERSECTION MARKINGS**

- NOTES:**
1. Transverse crosswalk lines shall be installed such that the distance between lines is at least 6 or 10 feet.
  2. Stop lines are required at signalized intersections, on multi-lane stop controlled approaches, or in front of crosswalks at controlled intersections.

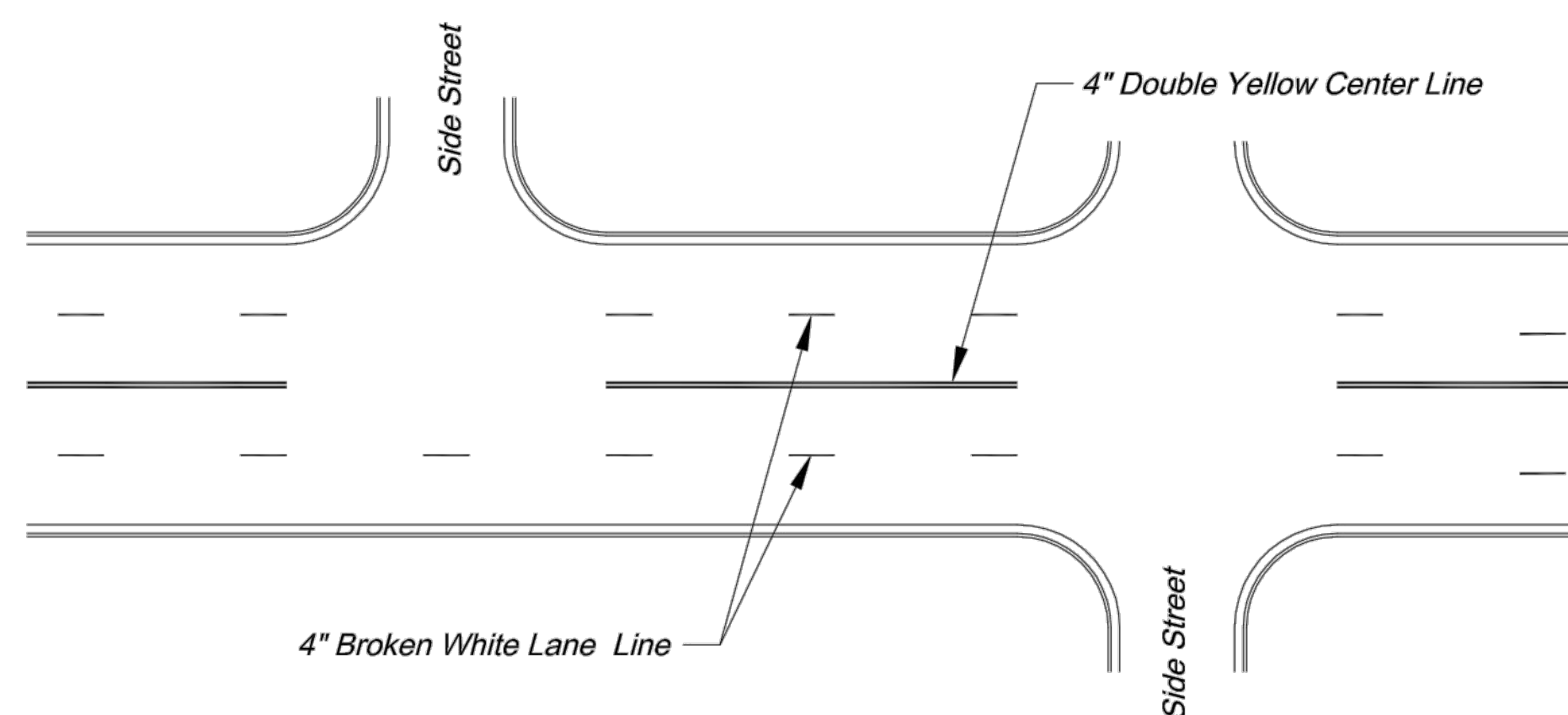


**TYPICAL MIDBLOCK OR SCHOOL CROSS WALK**

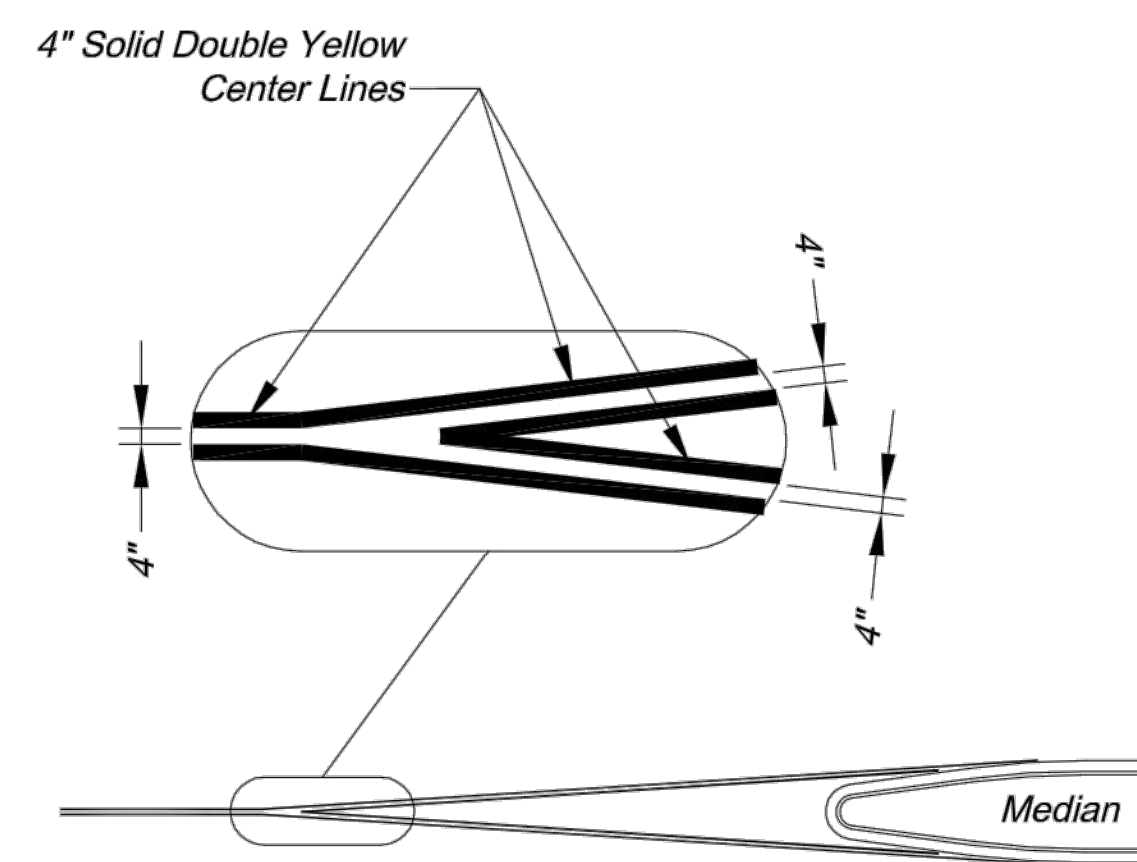


**ARROW AND SYMBOL DETAILS**

- NOTES:**
1. All arrow and symbol markings shall be white, and shall be centered in their respective traffic lanes.
  2. Right-turn and combination right-turn/straight arrows are reverse of arrows shown.



**TYPICAL MARKINGS FOR FOUR-LANE UNDIVIDED ROADWAY**

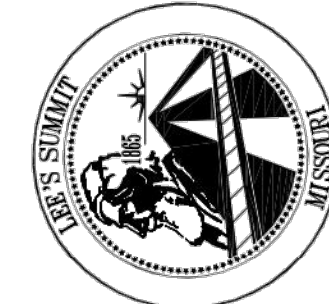


**TYPICAL MEDIAN NOSE CENTER LINE DETAIL**

**PAVEMENT MARKING GENERAL NOTES:**

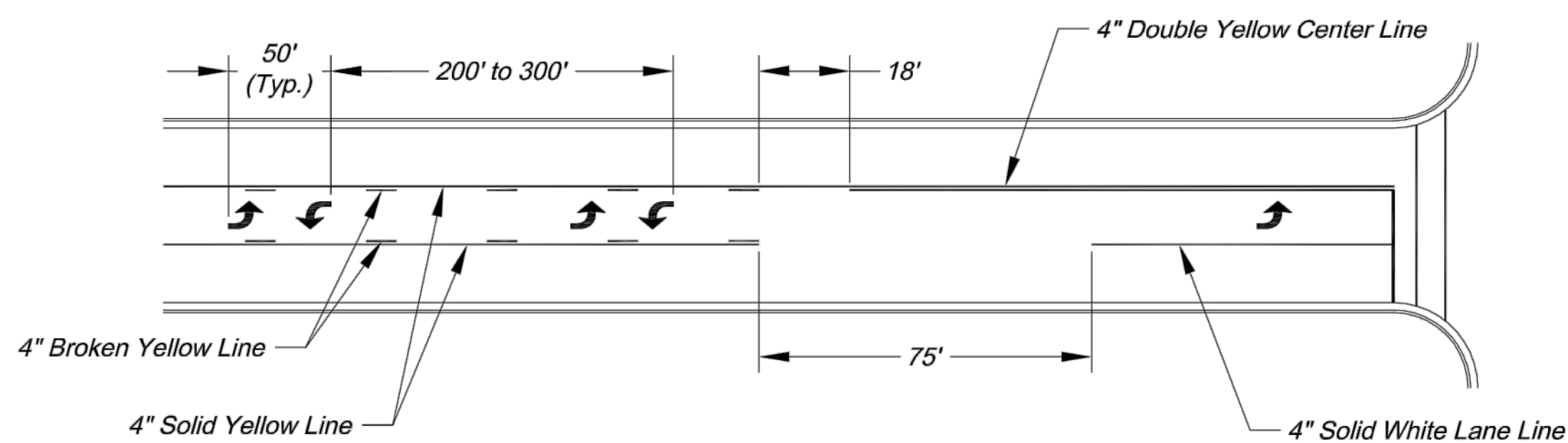
1. All pavement markings shall be in accordance with the latest edition of the *Manual on Uniform Traffic Control Devices (MUTCD)*.
2. All words and symbols shall conform to the latest edition of *Standard Alphabets for Highway Signs and Pavement Markings* printed by the U.S. Department of Transportation, Federal Highway Administration.
3. Pavement markings, either temporary or permanent are required at all times if the roadway is open to traffic.
4. All pavement markings that conflict with the desired markings shall be completely removed. Removals shall not leave the road surface scarred with an image that misleads traffic. Any excess damage or scarring of pavement shall be repaired at the Contractor's expense.
5. The proposed permanent markings shall be laid out by the Contractor in advance of the marking installation. Markings shall not be applied until the layout has been approved by the City Traffic Engineer.
6. Center lines shall be marked on all undivided arterial streets, and any other undivided street with more than two lanes and/or a speed limit of 30 mph or more.
7. Edge lines shall be marked on all non-curbed streets.

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 ENGINEERING DIVISION  
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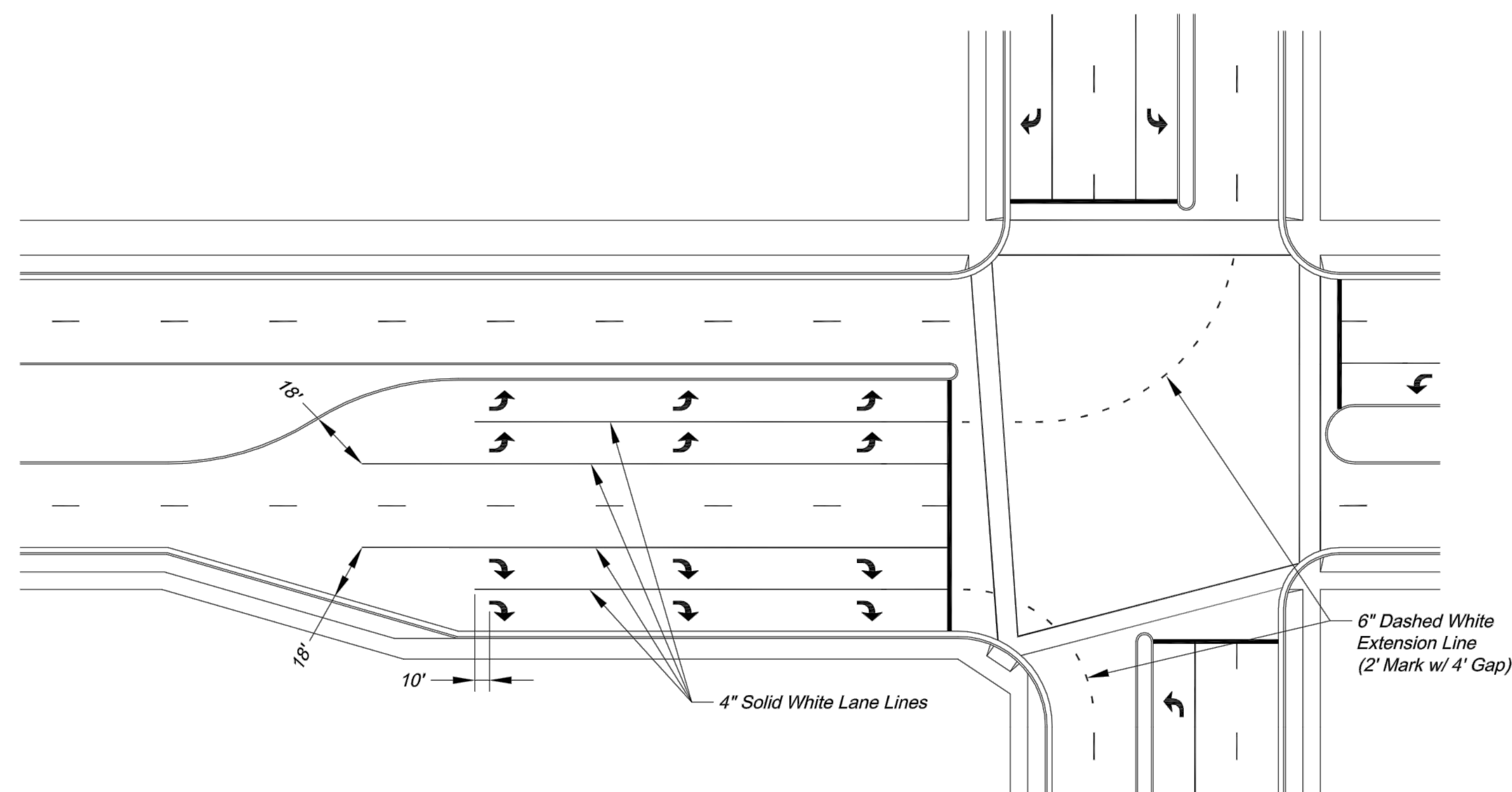


Project:  
**ROADWAY MARKING DETAILS**  
 Sheet Name: STANDARD DRAWING PM-1

Drawn By: AS  
 Checked By: JW  
 Date: 09/09/2009  
 Project#

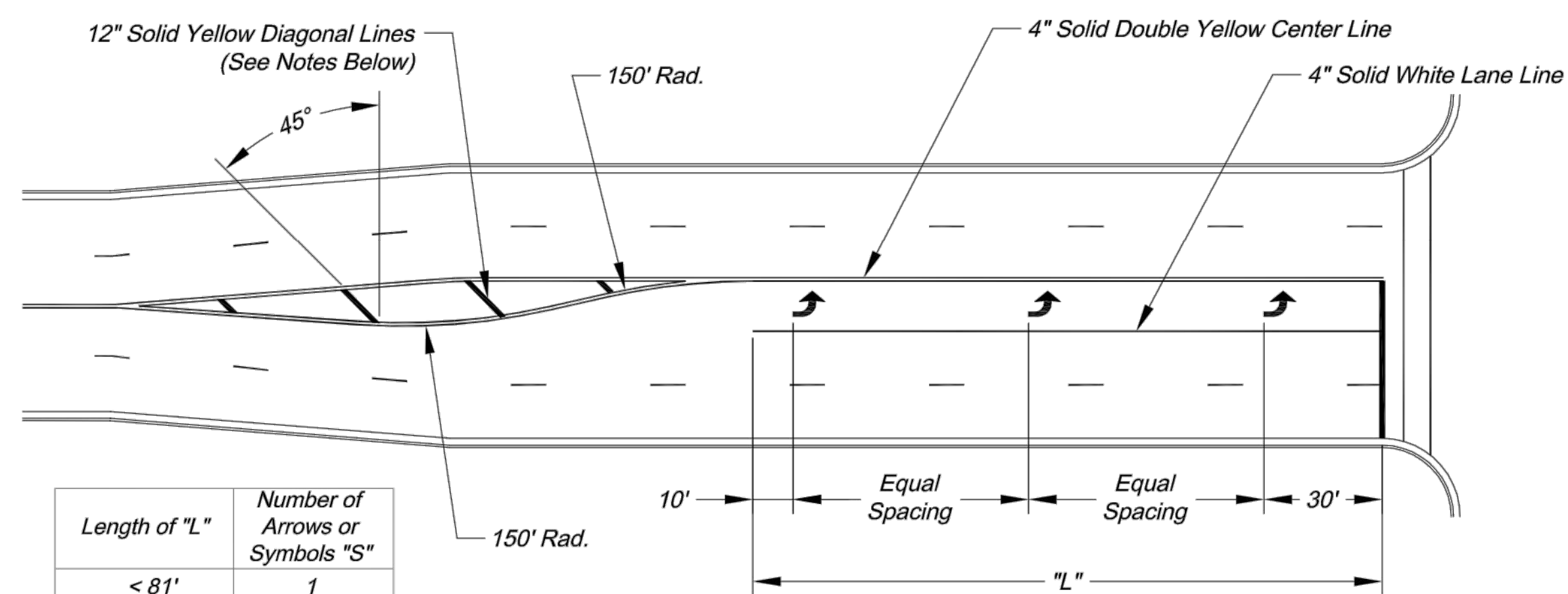


**TYPICAL MARKINGS FOR TWO-WAY LEFT-TURN LANE**



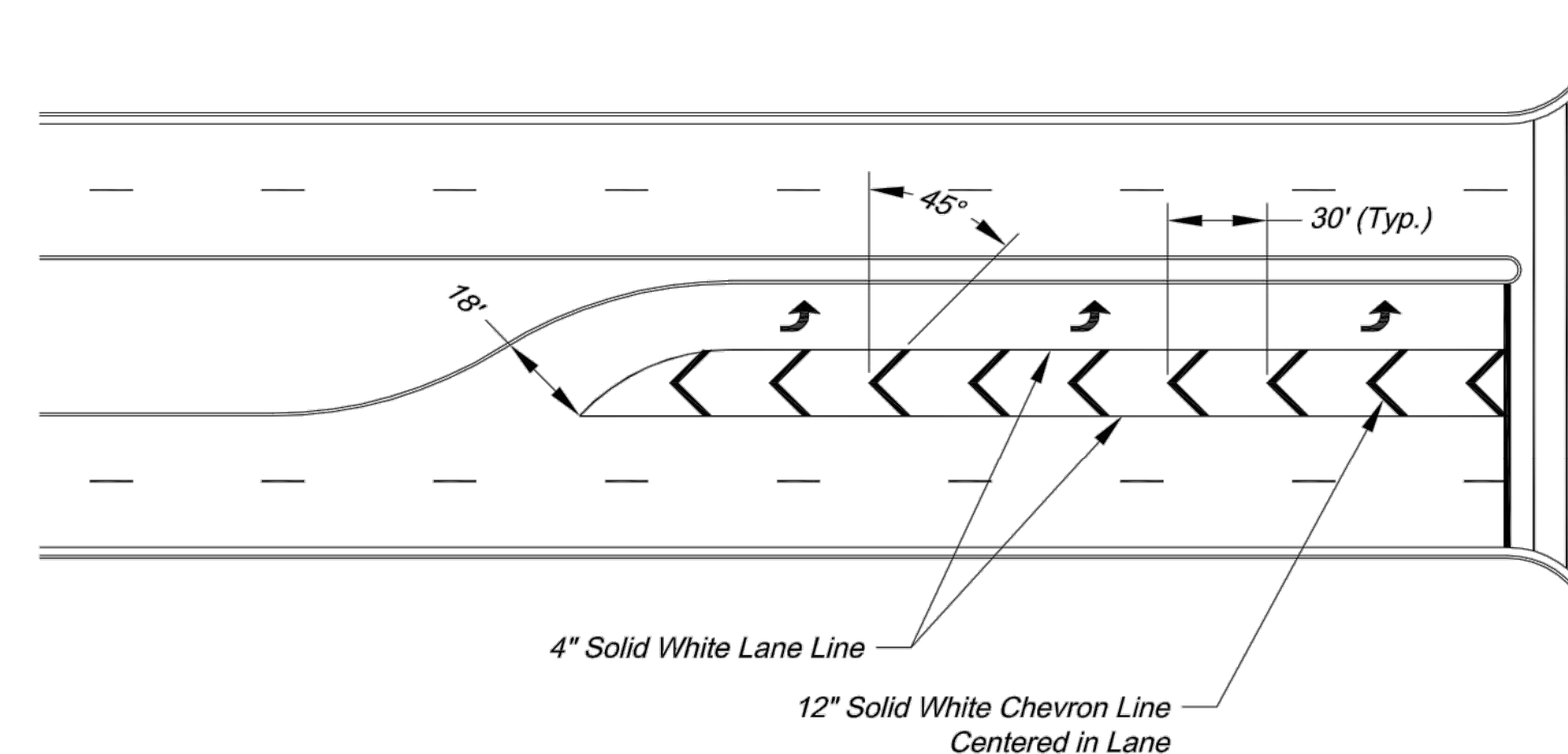
**TYPICAL DUAL TURN LANE MARKINGS**

NOTE:  
1. Dashed extension lines shall not extend through crosswalks.



**TYPICAL TURN LANE MARKINGS**

NOTES:  
1. Diagonal lines are required between centerlines if the width of the area between the center lines is greater than 12' and/or the length of the area between center lines is greater than 250'.  
2. Diagonal lines should be spaced at 5' increments, equal to the posted speed limit.  
3. Equal Spacing is calculated as  $(L - 40) / (S - 1)$ .  
4. When a through lane of traffic terminates as a mandatory turn lane, Arrow and "ONLY" symbols should be marked in the turn lane, in alternating order. The first and last symbols should be Arrows.



**TYPICAL STRIPED OUT TURN LANE MARKINGS**

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INTERSECTION MARKING DETAILS

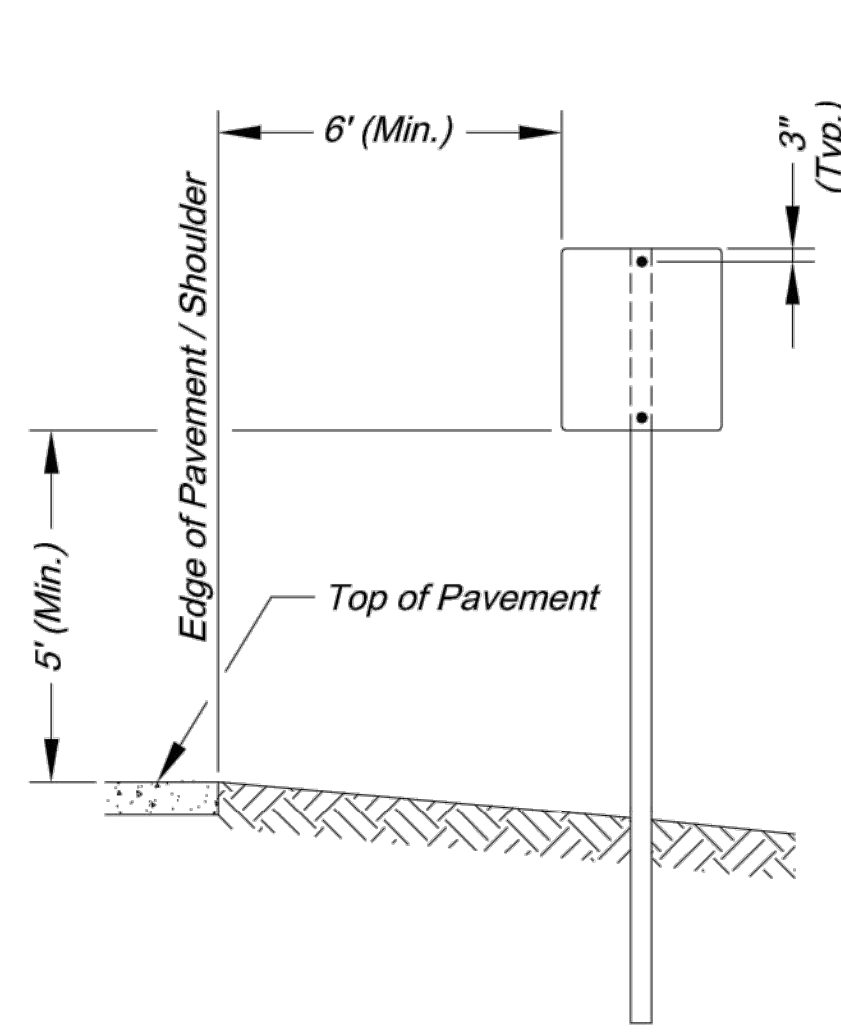
STANDARD DRAWING PM-2

Project:

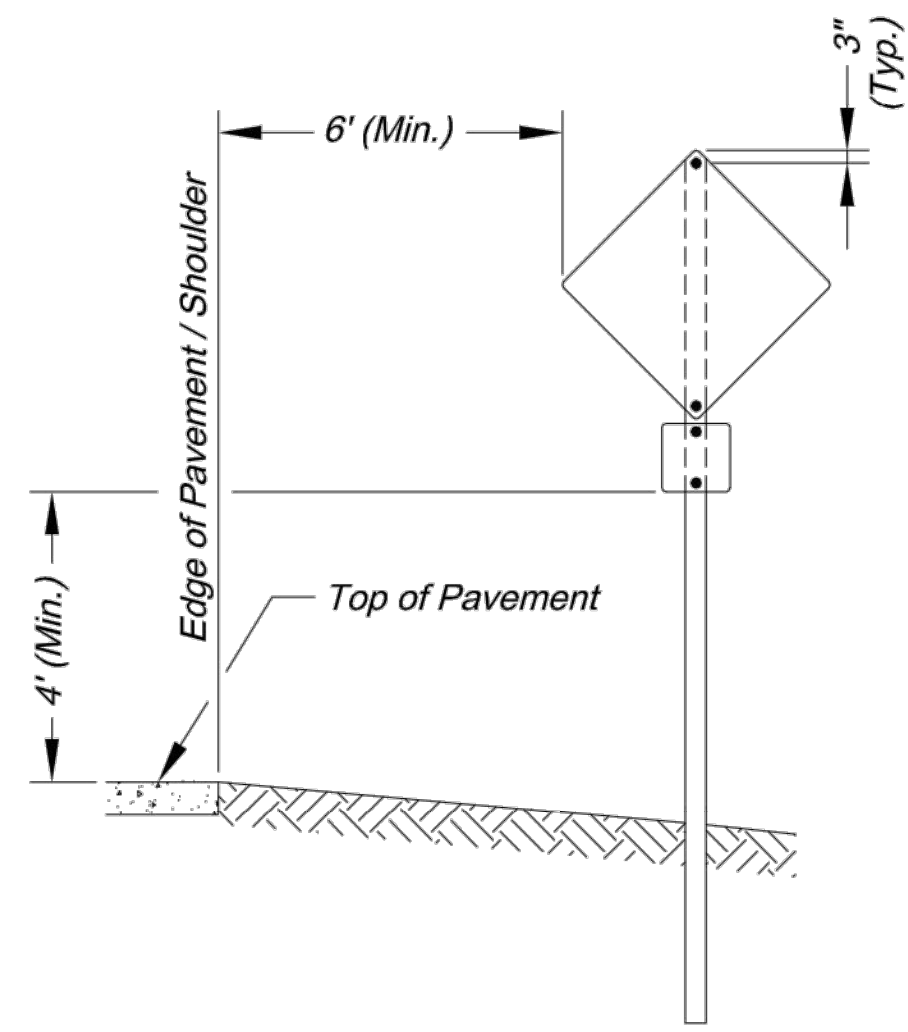
Sheet Name:

Drawn By: AS  
Checked By: JW  
Date: 09/09/2009  
Project#

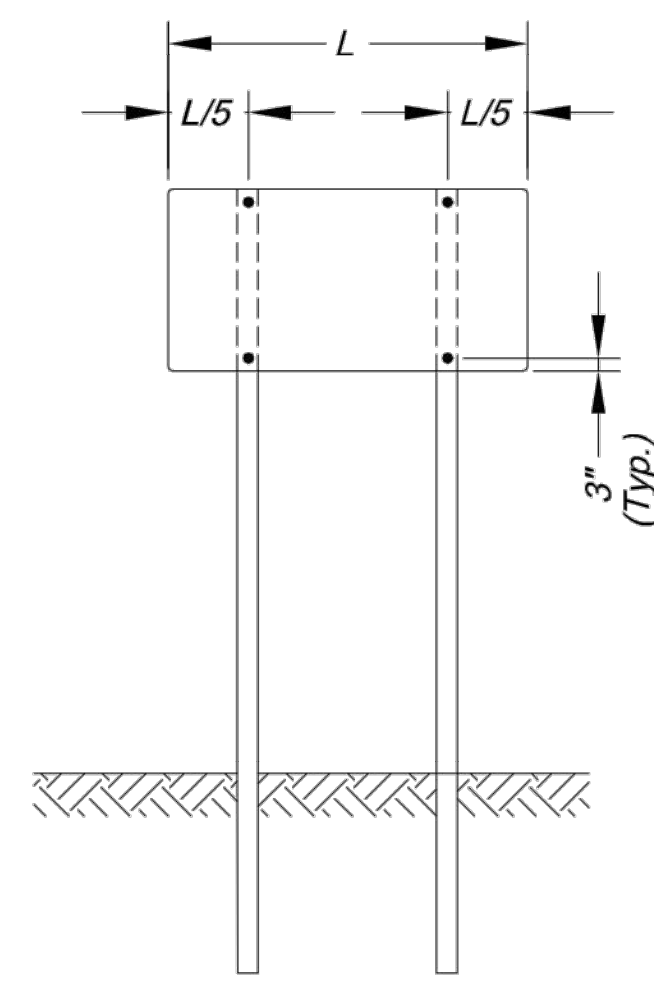
2 OF 2



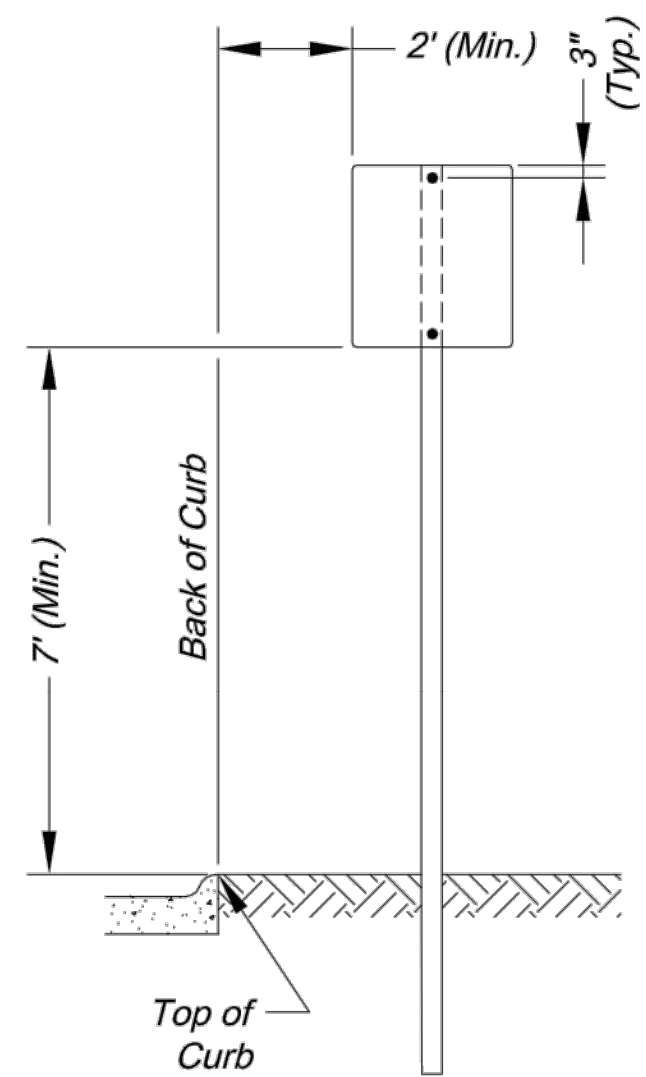
SIGN INSTALLATION FOR NON-CURBED STREET



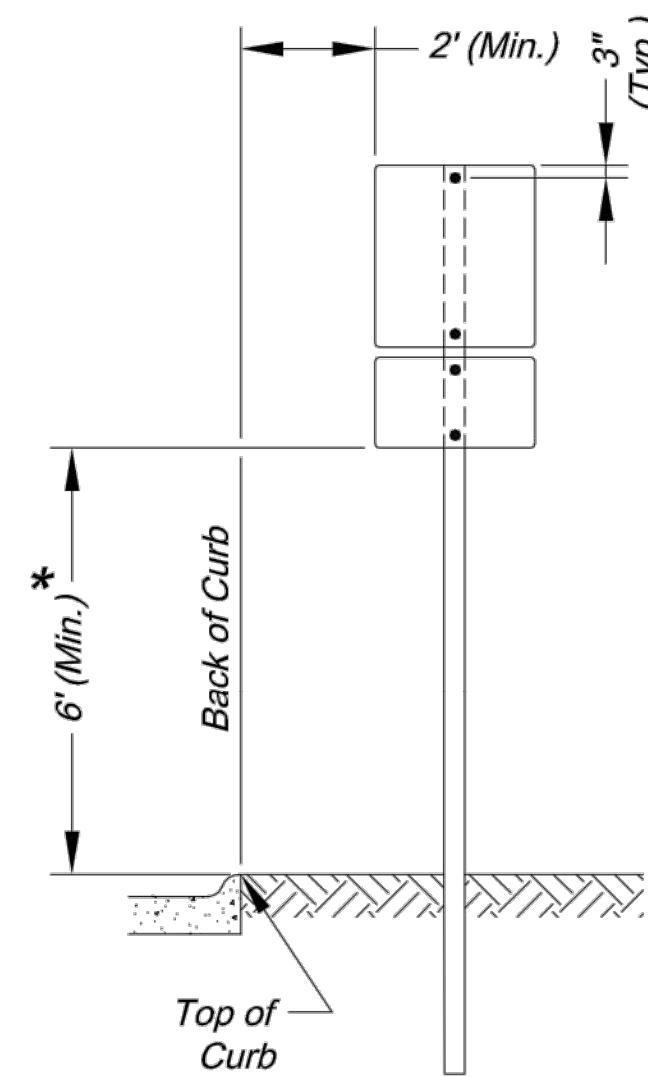
SIGN INSTALLATION WITH AUXILIARY SIGN FOR NON-CURBED STREET



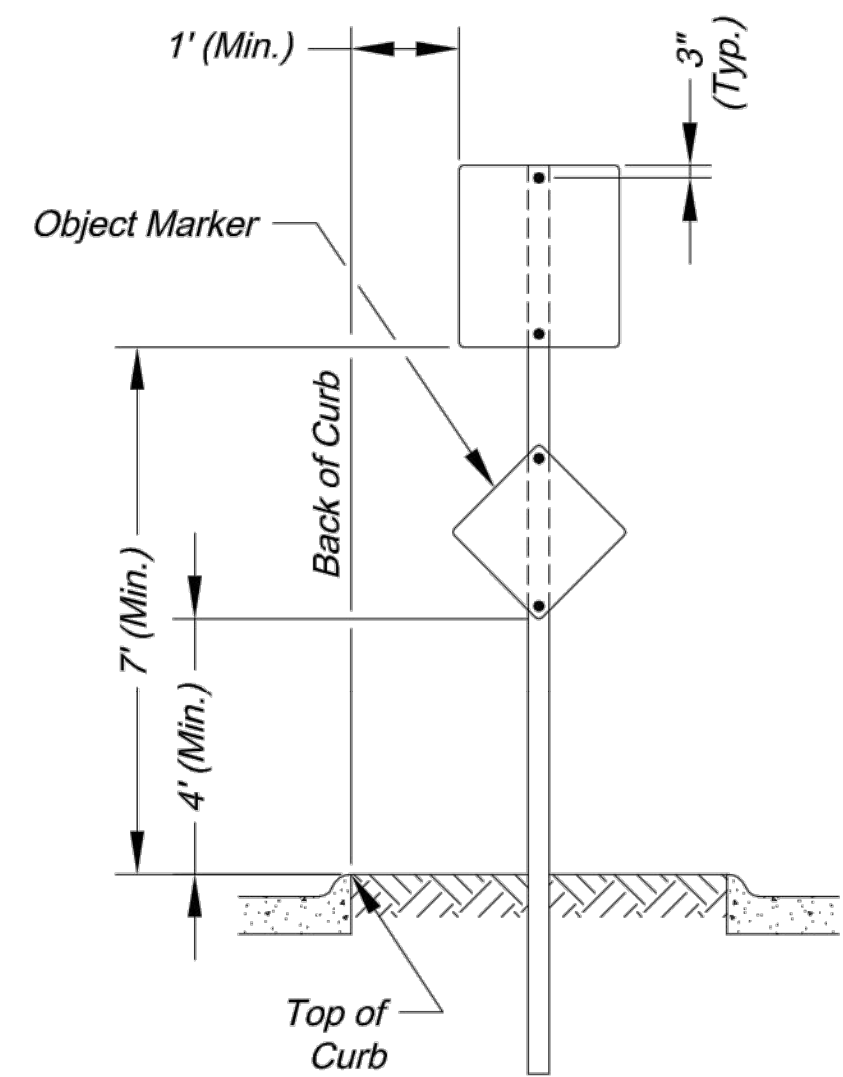
SIGN INSTALLATION WITH TWO SIGN POSTS



SIGN INSTALLATION FOR CURBED STREET



SIGN INSTALLATION WITH AUXILIARY SIGN FOR CURBED STREET



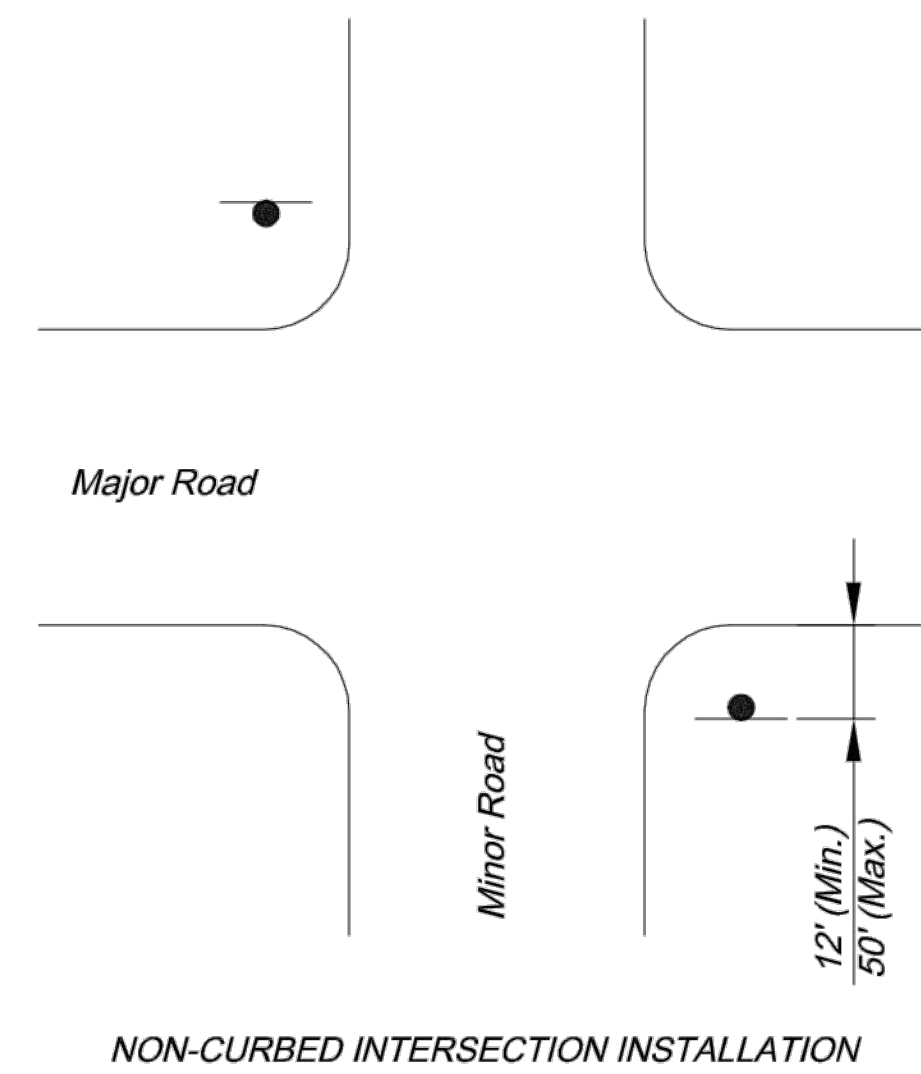
SIGN INSTALLATION FOR RAISED MEDIANS

### SIGN MOUNTING DETAILS

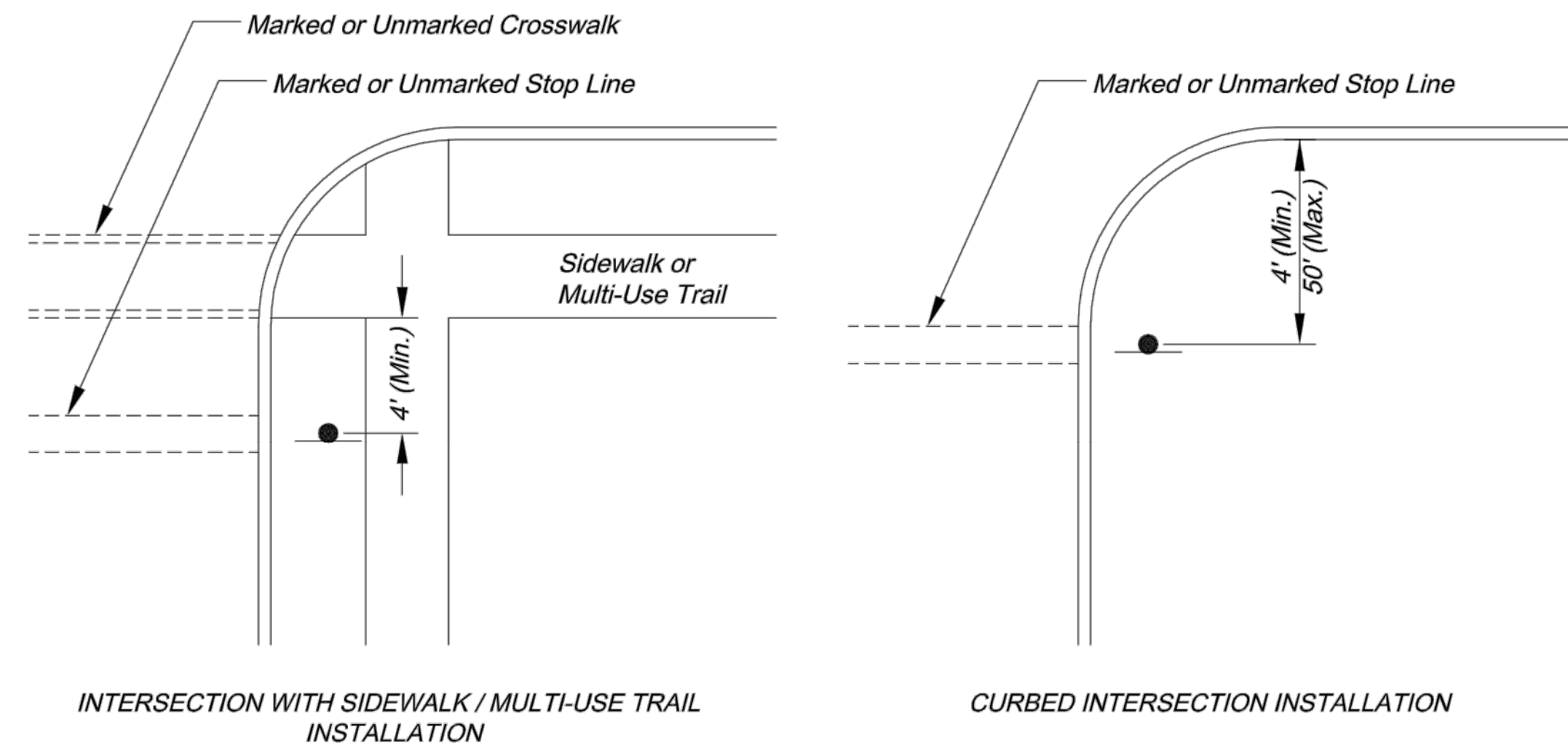
\* The height to the bottom of a sign when it is located in a pedestrian walkway or extends into a walkway shall be a minimum of 80 inches above the walkway.

NOTE:

- Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.



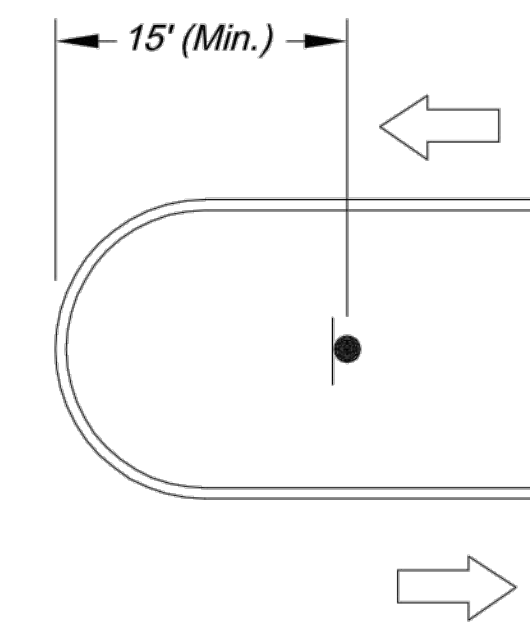
NON-CURBED INTERSECTION INSTALLATION



INTERSECTION WITH SIDEWALK / MULTI-USE TRAIL INSTALLATION

CURBED INTERSECTION INSTALLATION

### CONTROL SIGN LOCATION



TYPICAL MEDIAN SIGN LOCATION

### MEDIAN SIGN LOCATION

NOTES:

- A 4" P.V.C. sleeve shall be installed in new concrete medians at each location where a sign is to be installed.
- For existing concrete medians, a 4" hole shall be cored into the concrete.

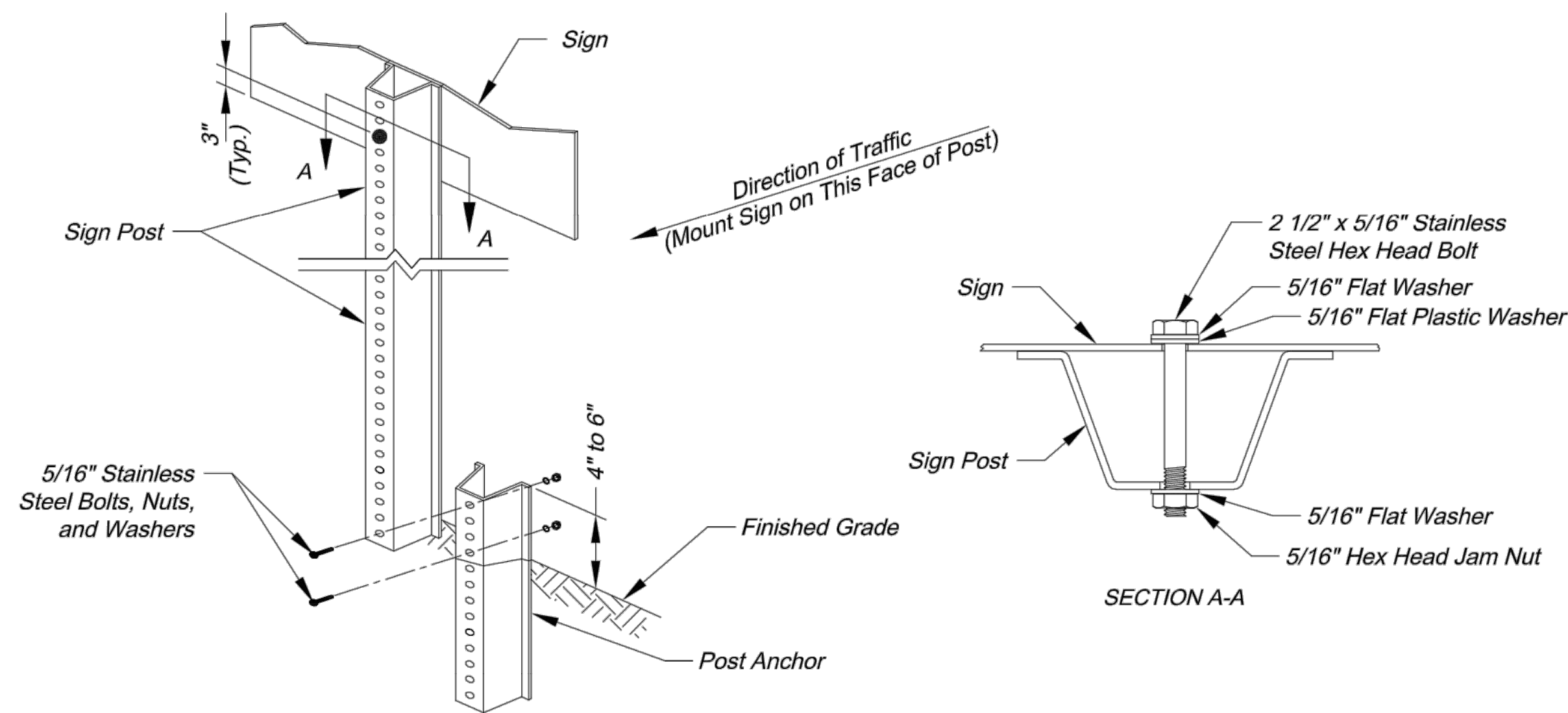
CITY OF LEE'S SUMMIT  
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Project:  
SIGN MOUNTING DETAILS

Sheet Name:  
STANDARD DRAWING SN-1

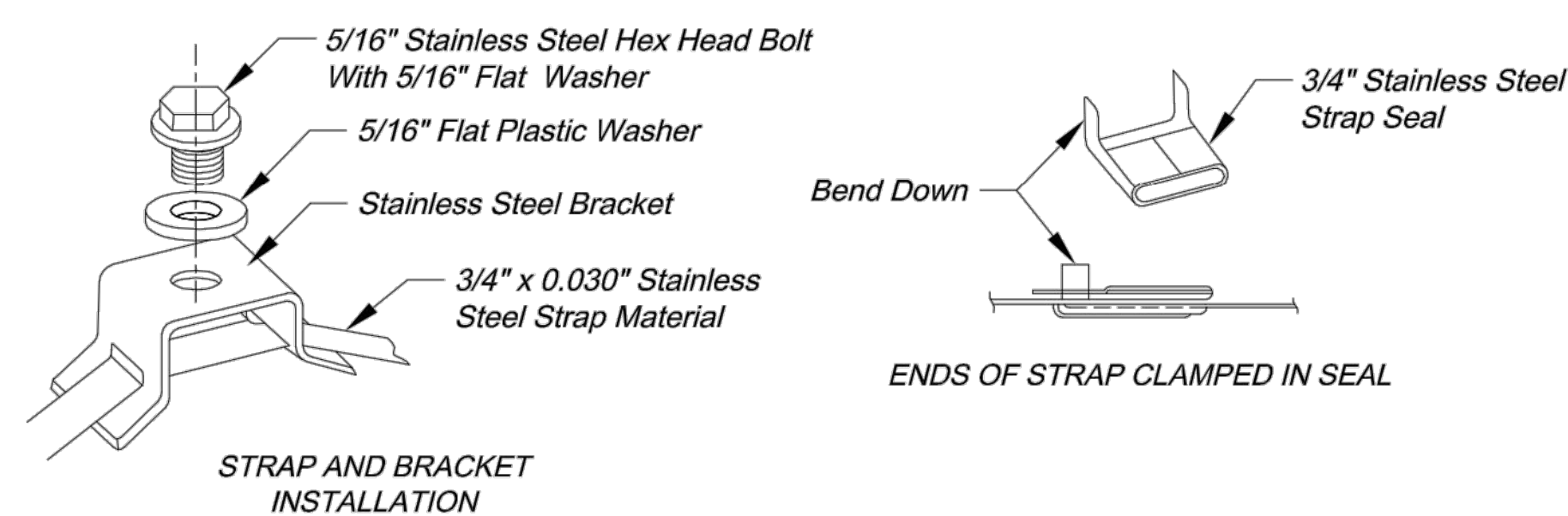
Drawn By: AS  
Checked By: JW  
Date: 08/26/2009  
Project#



### U-STEEL POST DETAILS

#### U-STEEL POST NOTES:

1. Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.
2. U-Steel post shall be 3 lb./ft., galvanized according to ASTM A123.
3. U-Steel post can be used for installation of signs with an area of less than 2.5 square feet.
4. All posts shall be embedded a minimum of 3 feet.



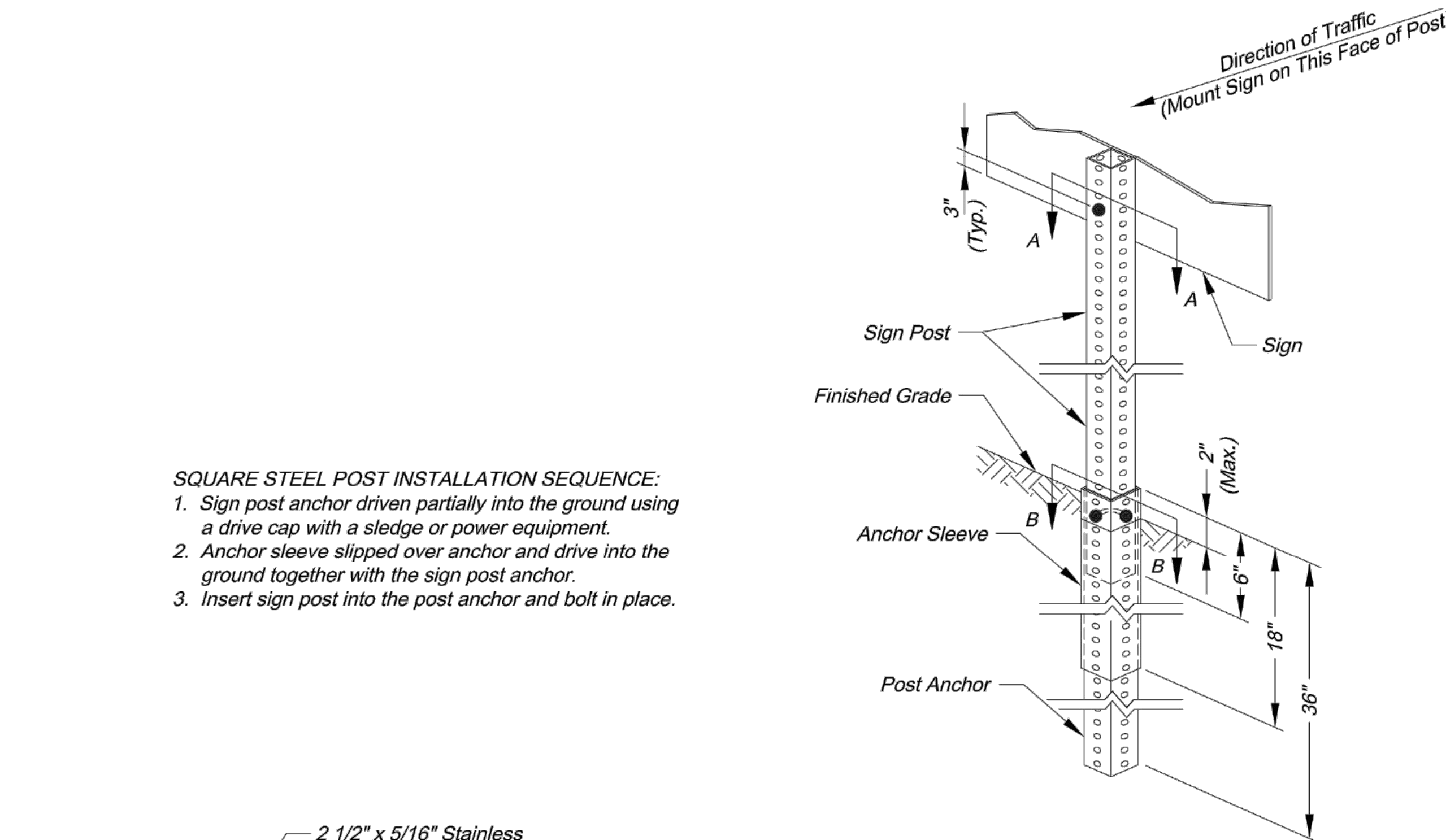
### STRAP TYPE SIGN SUPPORT DETAILS

#### METAL POLE SIGN MOUNTING NOTES:

1. Signs on metal poles shall be attached with two brackets and stainless steel bands.
2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
3. Holes in sign shall be located such that the sign is level.
4. All strap, bracket, and seal materials should be Type 201 stainless steel.

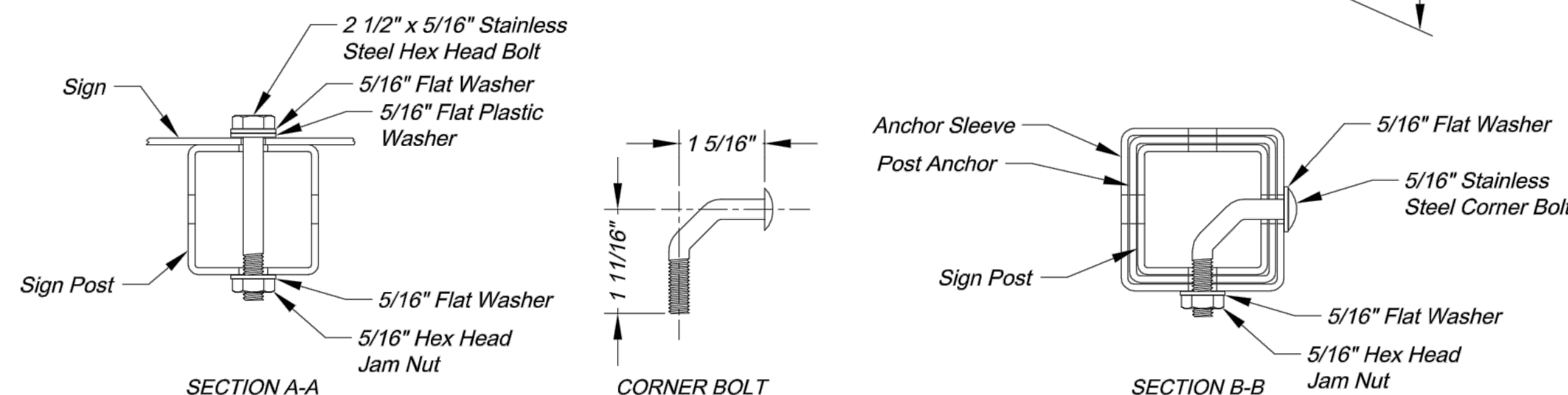
#### PERMANENT SIGNING GENERAL NOTES:

1. All signing shall be in accordance with the latest edition of the *Manual on Uniform Traffic Control Devices (MUTCD)*.
2. The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
3. All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
4. The Contractor shall stake the location of all sign posts to be installed. The City Inspector shall inspect the staking prior to installation. Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or designee.
5. Signs shown to be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Signal Standard Drawings for the installation of signs on mast arms.
6. All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
7. All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the Contractor's expense. The Contractor shall be responsible for removing and storing any signs that are to be reinstalled on the project. All equipment shall be reinstalled in good condition.
8. Existing permanent signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1971 SE Hamblen Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.
9. All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in reflectorized drums (no less than 7 feet above the pavement surface) until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.



#### SQUARE STEEL POST INSTALLATION SEQUENCE:

1. Sign post anchor driven partially into the ground using a drive cap with a sledge or power equipment.
2. Anchor sleeve slipped over anchor and drive into the ground together with the sign post anchor.
3. Insert sign post into the post anchor and bolt in place.



### SQUARE STEEL POST DETAILS

#### SQUARE STEEL POST NOTES:

1. Square steel sign posts and break-away anchor shall consist of the following materials:  
 Sign Post - 14 Ga. 2" x 2" Square Steel Post  
 Post Anchor - 12 Ga. 2 1/4" x 2 1/4" x 36" Square Steel Post  
 Anchor Sleeve - 12 Ga. 2 1/2" x 2 1/2" x 18" Square Steel Post
2. 14 Gauge posts must meet a certified minimum yield strength of 60,000 psi.
3. In all installations the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt.
4. The maximum area for one sign post is 9.0 square feet. A sign or combination of signs with an area greater than 9.0 square feet will require two posts. Also, signs with a width greater than 36" (not including 36" x 36" diamond shaped signs) will require two posts.

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SIGN POST DETAILS  
 STANDARD DRAWING SN-2

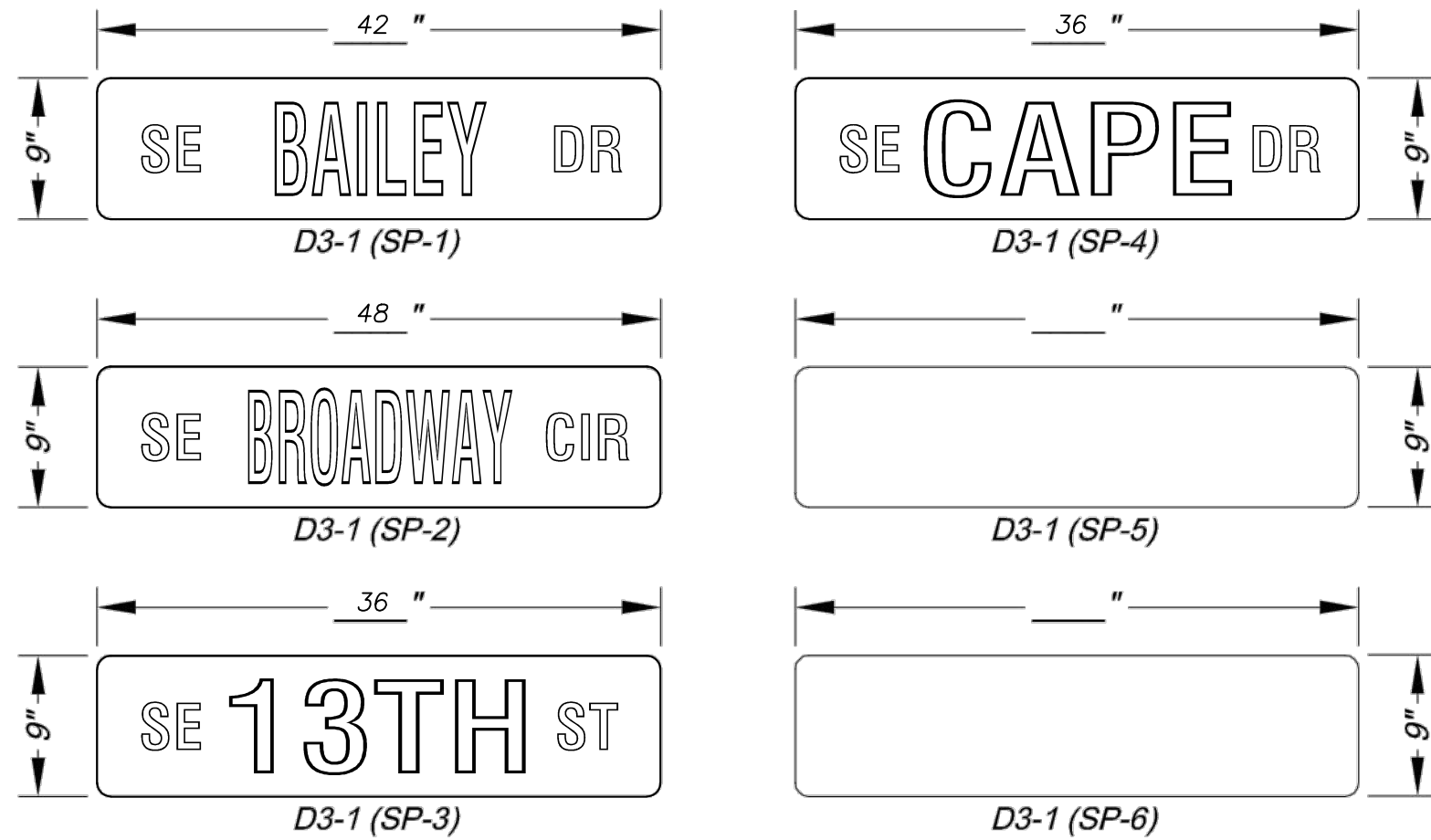
Project:  
 Sheet Name:  
 Drawn By: AS  
 Checked By: JW  
 Date: 08/26/2009  
 Project#

### STANDARD ABBREVIATION LISTS

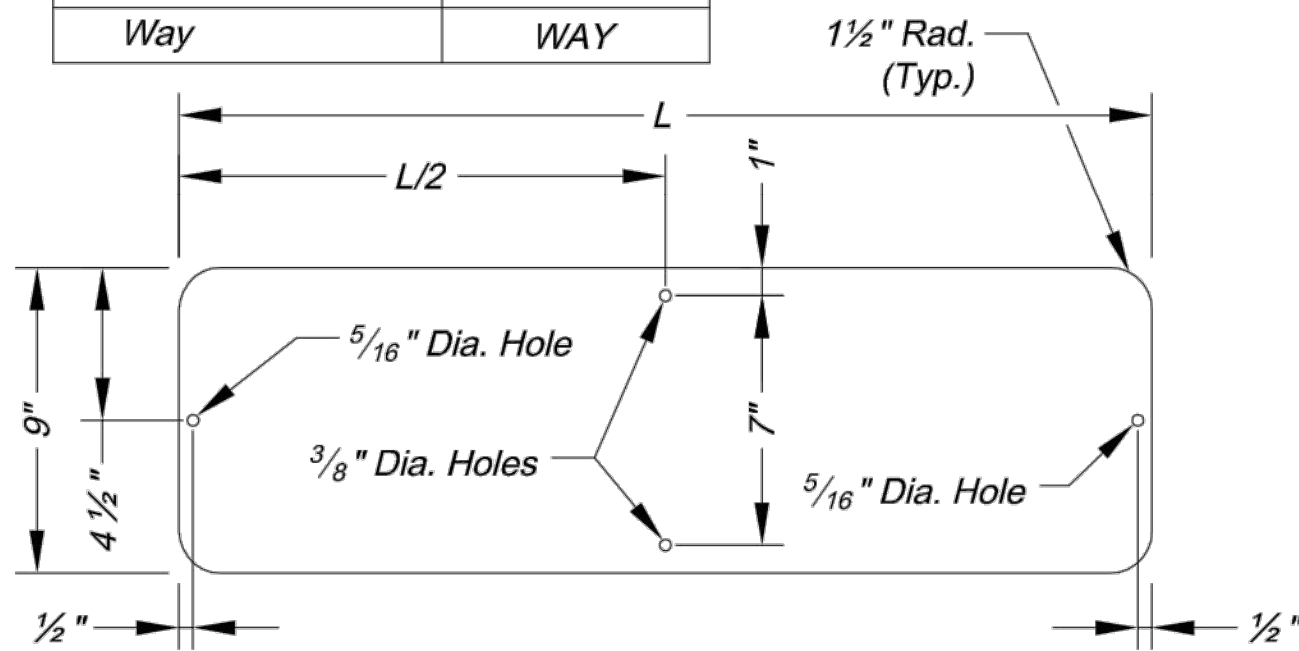
Named Streets		Numbered Streets	
Avenue	AVE	First	ST
Boulevard	BLVD	Second	ND
Circle	CIR	Third	RD
Creek	CR	Fourth to Tenth	TH
Court	CT		
Crossing	XING		
Drive	DR		
Highway	HWY		
Lane	LN		
Parkway	PKWY		
Place	PL		
Road	RD		
Street	ST		
Terrace	TER		
Trail	TRL		
Way	WAY		

### STREET NAME SIGN QUANTITIES

Sign Designation	Sign Size	Sign Area (Sq. Ft.)	Number	Quantity (Sq. Ft.)
D3-1 (BAILEY RD)	9" x 42"	2.63	4	10.50
D3-1 (BROADWAY CIR)	9" x 48"	3.00	0	0.00
D3-1 (13TH ST)	9" x 36"	2.25	2	4.50
D3-1 (CAPE DR)	9" x 36"	2.25	2	4.50



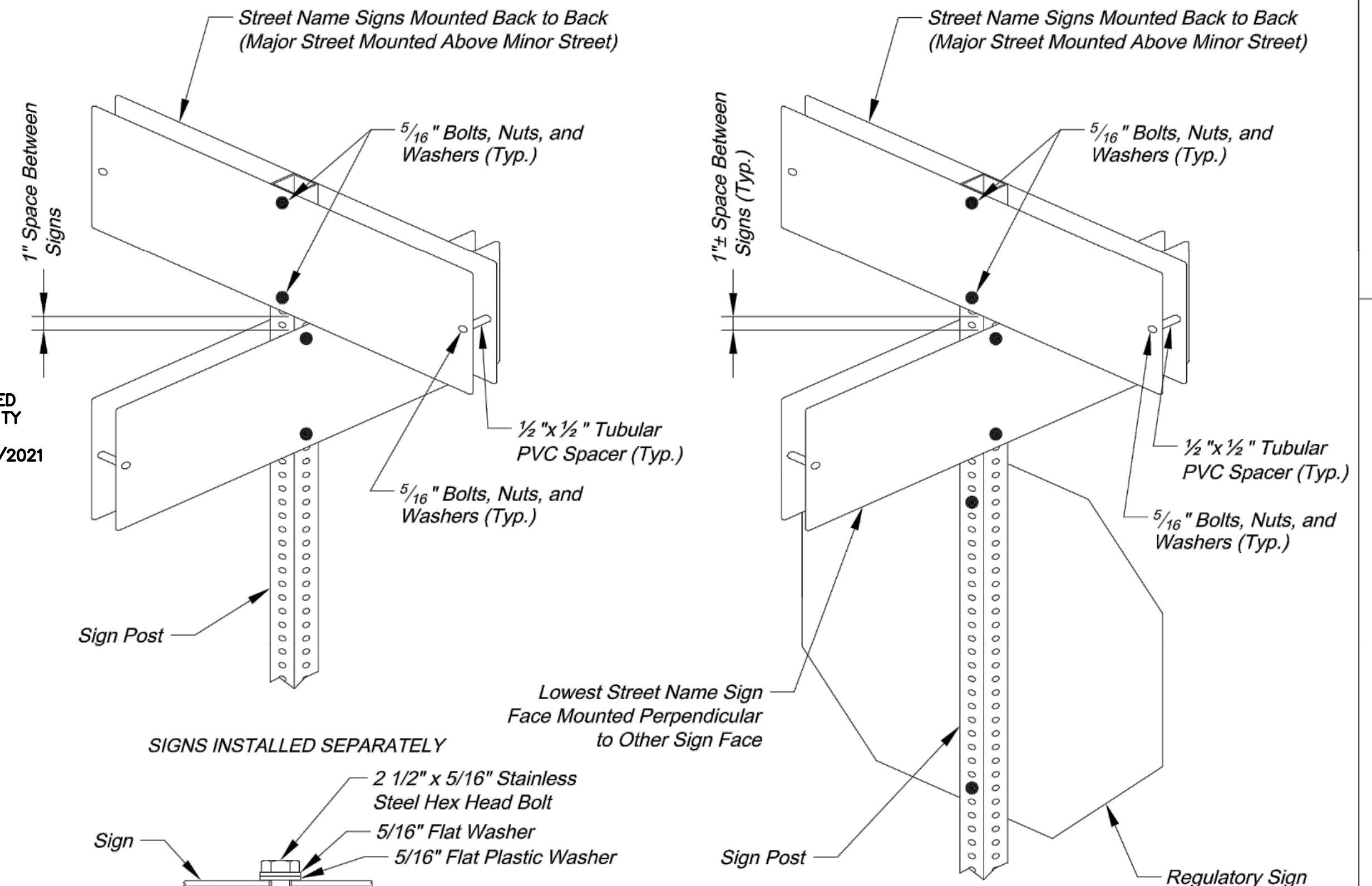
UPDATED QUANTITY TABLE 08/25/2021



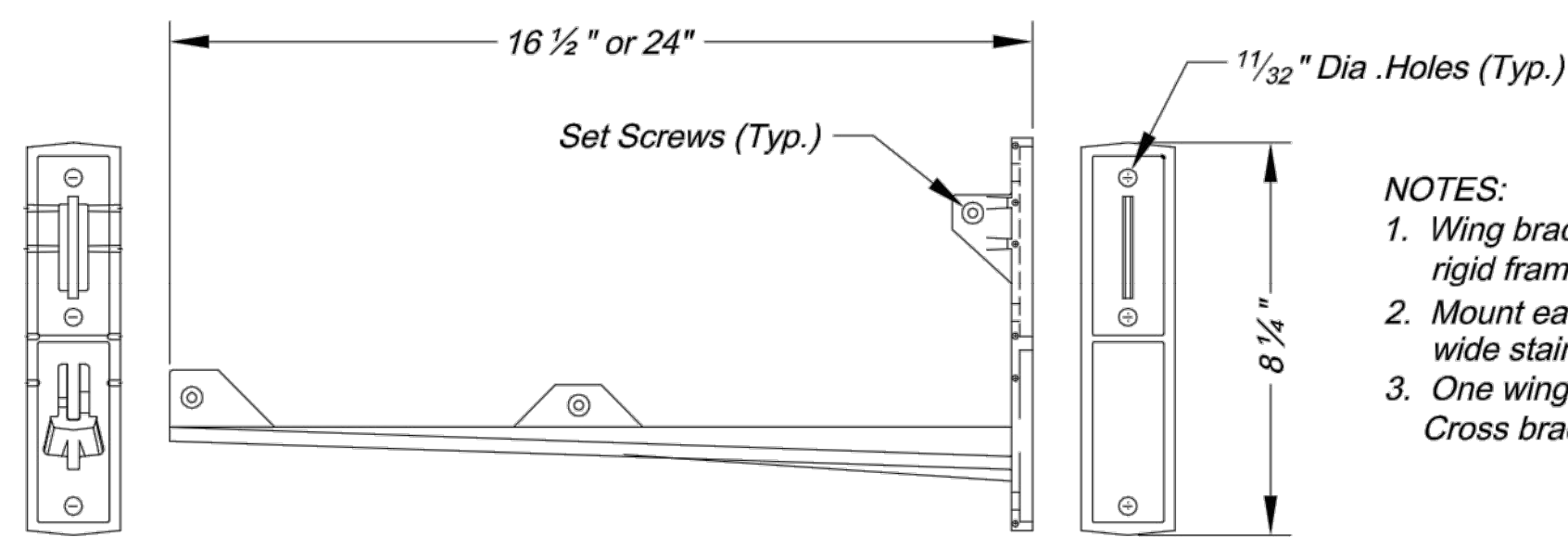
### STREET NAME SIGN BLANK DETAILS

For Mounting on Square Steel Posts

### PROJECT SIGN DETAILS

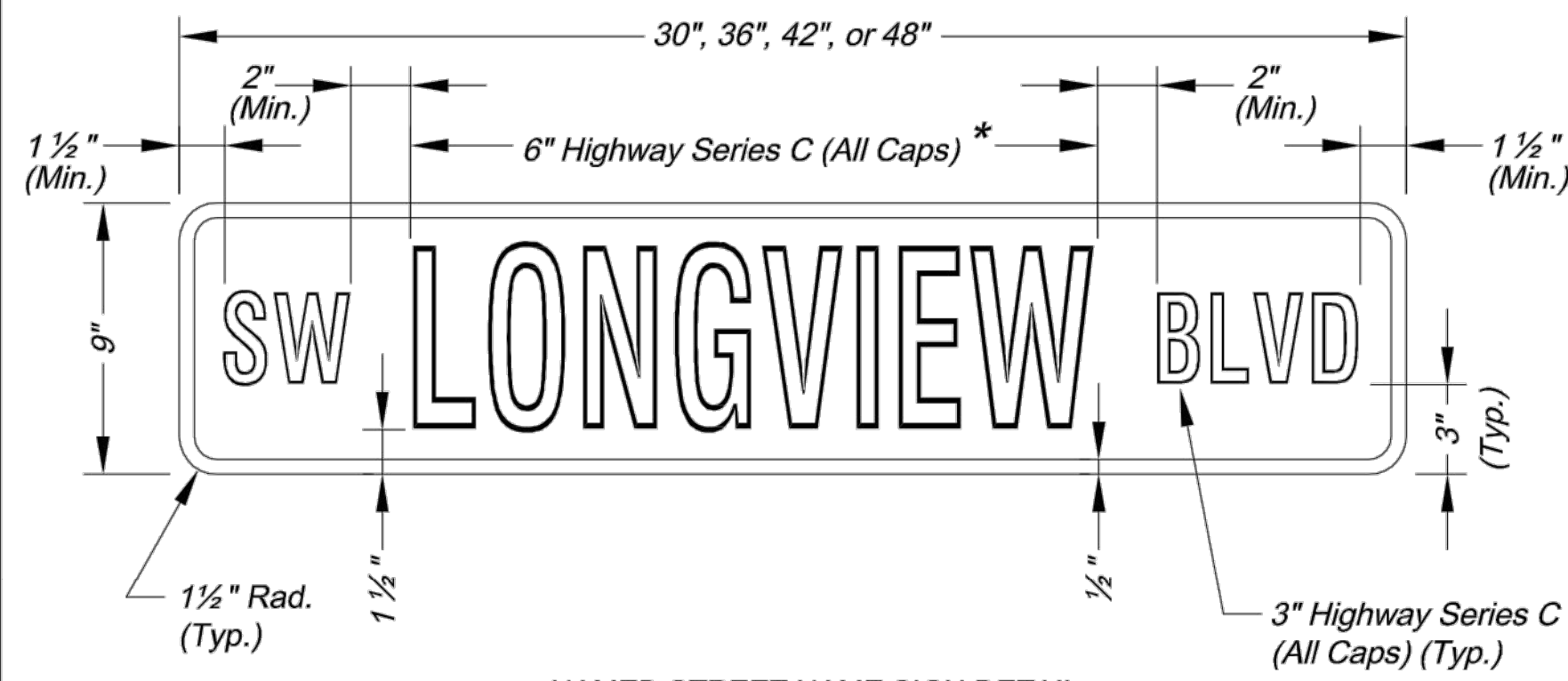


### SQUARE STEEL POST MOUNTING DETAILS



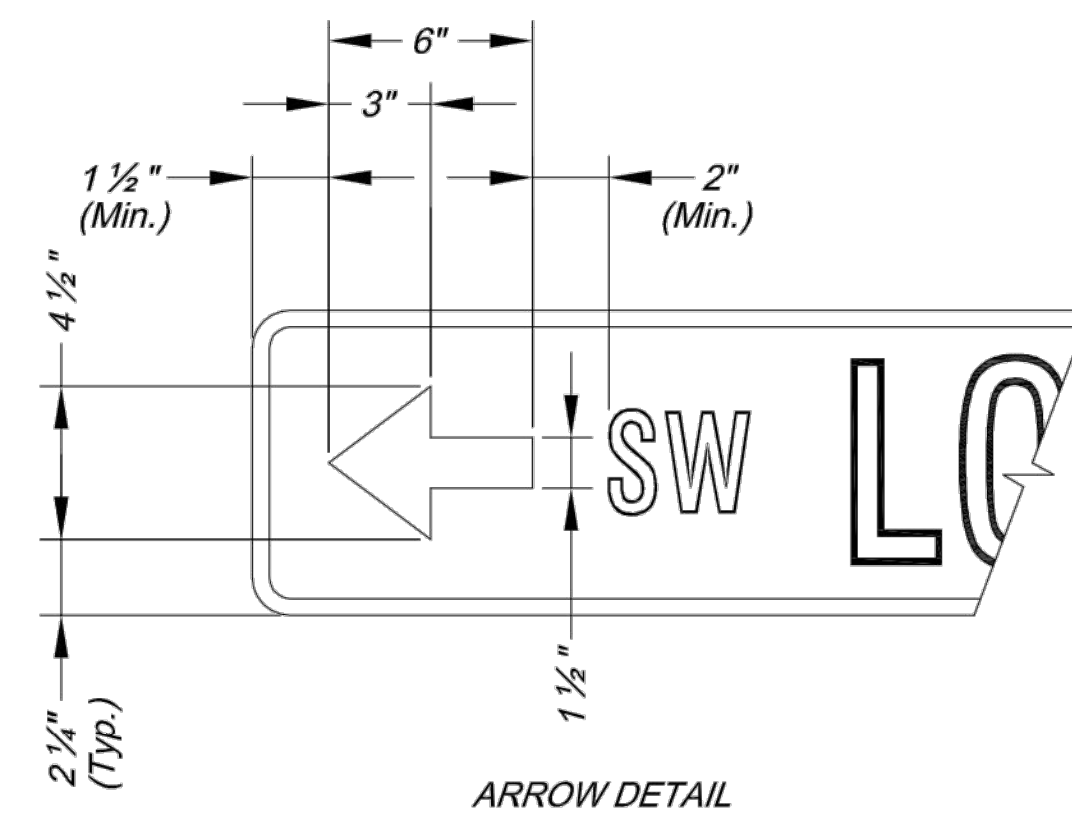
#### NOTES:

1. Wing bracket shall be an L-shaped cantilever of T-beam rigid frame 380-3 aluminum alloy construction.
2. Mount each wing bracket to metal pole using two 3/4" wide stainless steel straps.
3. One wing bracket shall be installed per each sign. Cross brackets are not allowed.

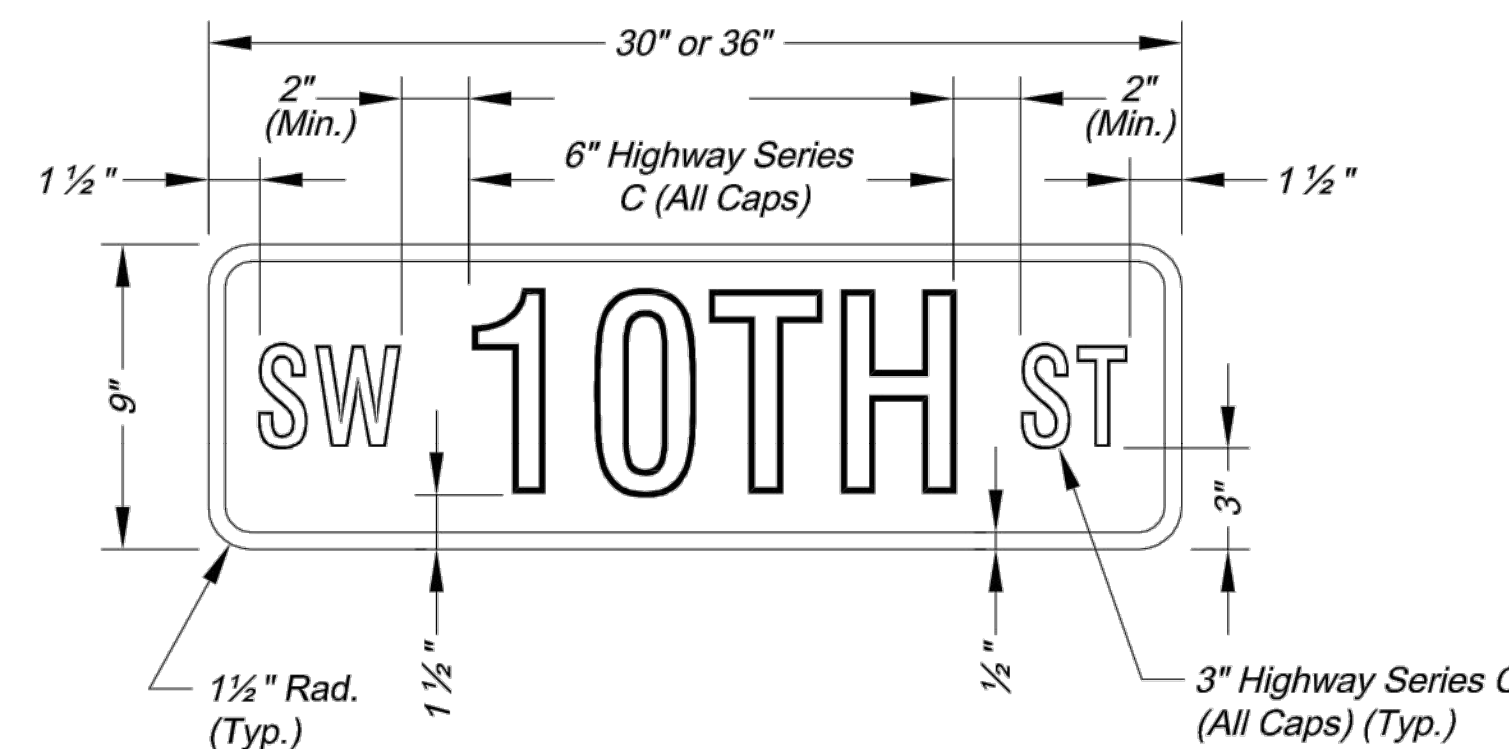


#### NAMED STREET NAME SIGN DETAIL

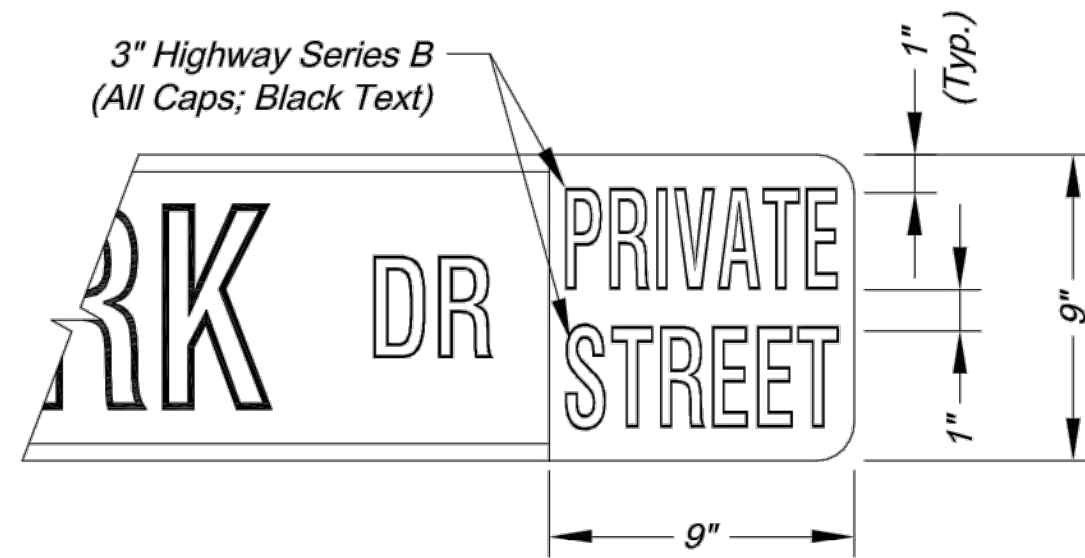
\* Use Highway Series B (All Caps) in lieu of series C if necessary to fit text on a 36" sign blank.



#### ARROW DETAIL



#### NUMBERED STREET NAME SIGN DETAIL



#### PRIVATE STREET TAG DETAIL

#### NOTES:

1. For all street name signs, the legend shall be white and the background shall be green.
2. Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each side of the intersection to indicate the change in names. Arrows shall be white.
3. The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.

### STREET NAME SIGN FACE DETAILS

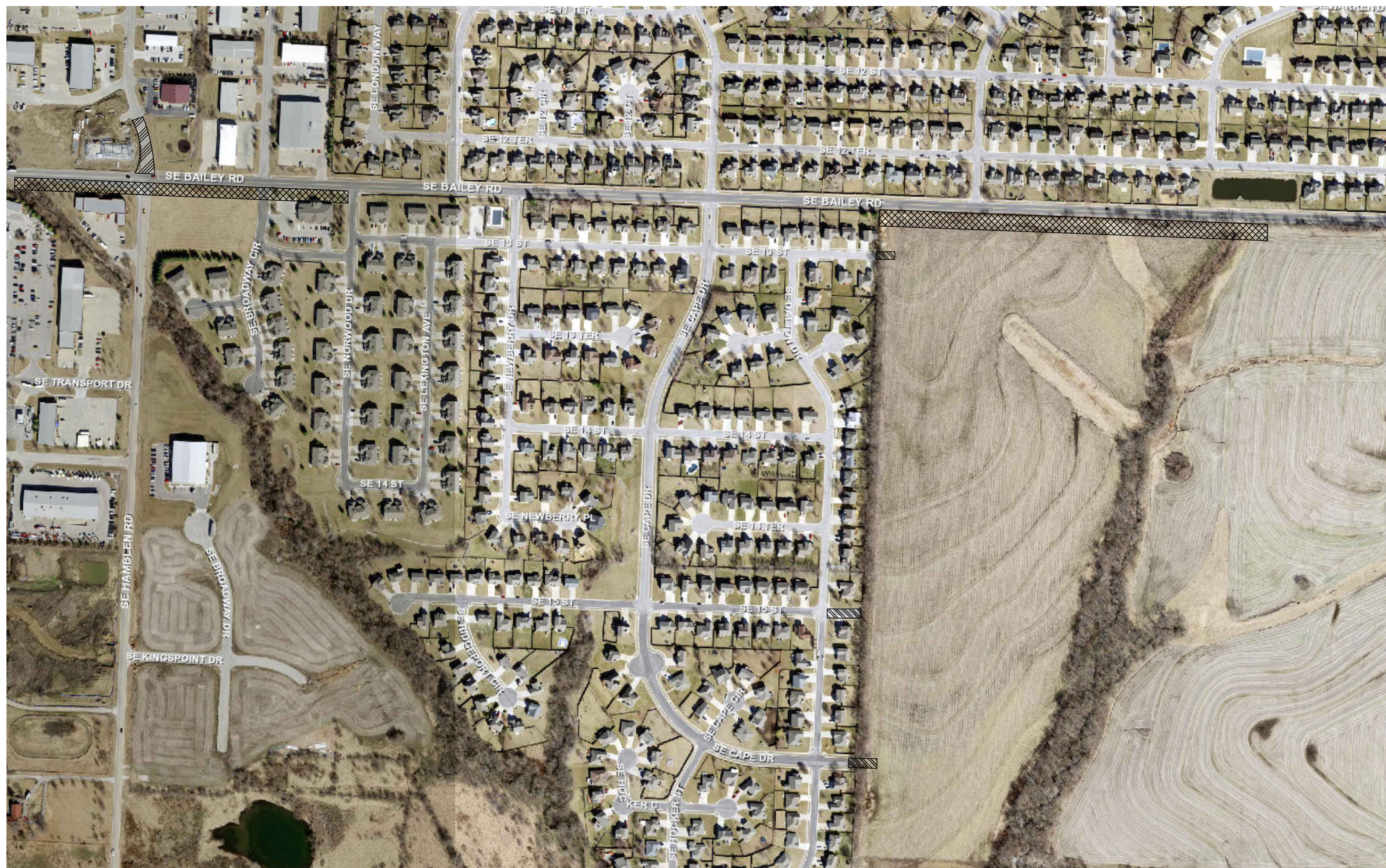
CITY OF LEE'S SUMMIT  
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ENGINEERING DIVISION  
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Project: STREET NAME SIGN DETAILS  
Sheet Name: STANDARD DRAWING SN-3

Drawn By: AS  
Checked By: JW  
Date: 08/26/2009  
Project#

CONSTRUCTION PHASING:



PHASING LEGEND

- PHASE 1 WORK AREA
- PHASE 2 WORK AREA
- PHASE 3 WORK AREA

GENERAL NOTES:

- 1) SEE SHEET 89 FOR MINIMUM TAPER LENGTHS, TEMPORARY SIGNAGE, AND OTHER TRAFFIC CONTROL REQUIREMENTS.
- 2) DURING ALL PHASES OF CONSTRUCTION, CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC (ONE LANE EACH DIRECTION) ON ALL ADJACENT ROADWAYS WITH 10' MINIMUM LANE WIDTHS.

PHASE 1:

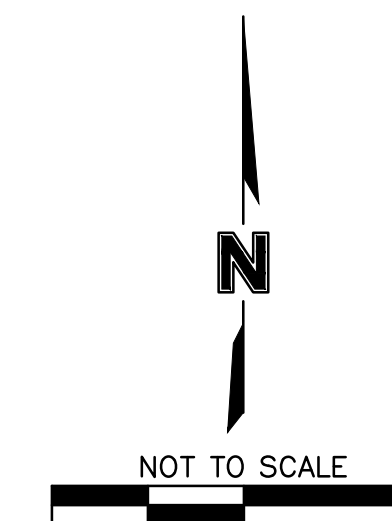
CONSTRUCT BAILEY ROAD IMPROVEMENTS. SHIFT TRAFFIC TO NORTH HALF OF BAILEY ROAD AND MAINTAIN TWO-WAY TRAFFIC (ONE LANE EACH DIRECTION) ON BAILEY ROAD AND ON ALL SIDES STREETS. MAINTAIN 10' MIN. LANE WIDTH. SEE SHEET 89 FOR TAPER, TEMPORARY SIGNAGE, AND OTHER TRAFFIC CONTROL REQUIREMENTS.

PHASES 2A AND 2B:

CONSTRUCT CENTURY DRIVE IMPROVEMENTS ONE HALF AT A TIME (E.G. WEST HALF, THEN EAST HALF). MAINTAIN TWO-WAY TRAFFIC (ONE LANE EACH DIRECTION) ON CENTURY DRIVE WITH 10' MIN. LANE WIDTH.

PHASE 3:

CONSTRUCT MIDDLE SCHOOL ROADWAY CONNECTIONS WITH 13TH STREET, 15TH STREET, AND CAPE DRIVE. SEE "TYPICAL STREET CLOSURE (NO ACCESS ALLOWED)" DETAIL ON SHEET 89 FOR SIDE STREET AND MAINLINE TRAFFIC CONTROL REQUIREMENTS. NOTE, PHASE 3 WORK MAY BE CONSTRUCTED SIMULTANEOUSLY WITH PRECEDING PHASE IF DESIRED.



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Traffic Control Plan\LEE'S SUMMIT SET\F\_TRF\_0200103.dwg USER: jclemeence  
DATE: Nov 07, 2022 10:36am XREFS: F\_PTBK\_0200103

RECORD DRAWINGS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLAN	2021
LEE'S SUMMIT MIDDLE SCHOOL #4 PUBLIC ROAD IMPROVEMENTS	
LEE'S SUMMIT, MISSOURI	

C.O.A. NO.:	001592
DRAWN BY:	JRC
CHECKED BY:	JAB
APPROVED BY:	SLJ
QA/QC BY:	THE
PROJECT NO.:	020-0103
DWG NO.:	F_TRF_0200103
DATE:	11/4/2022

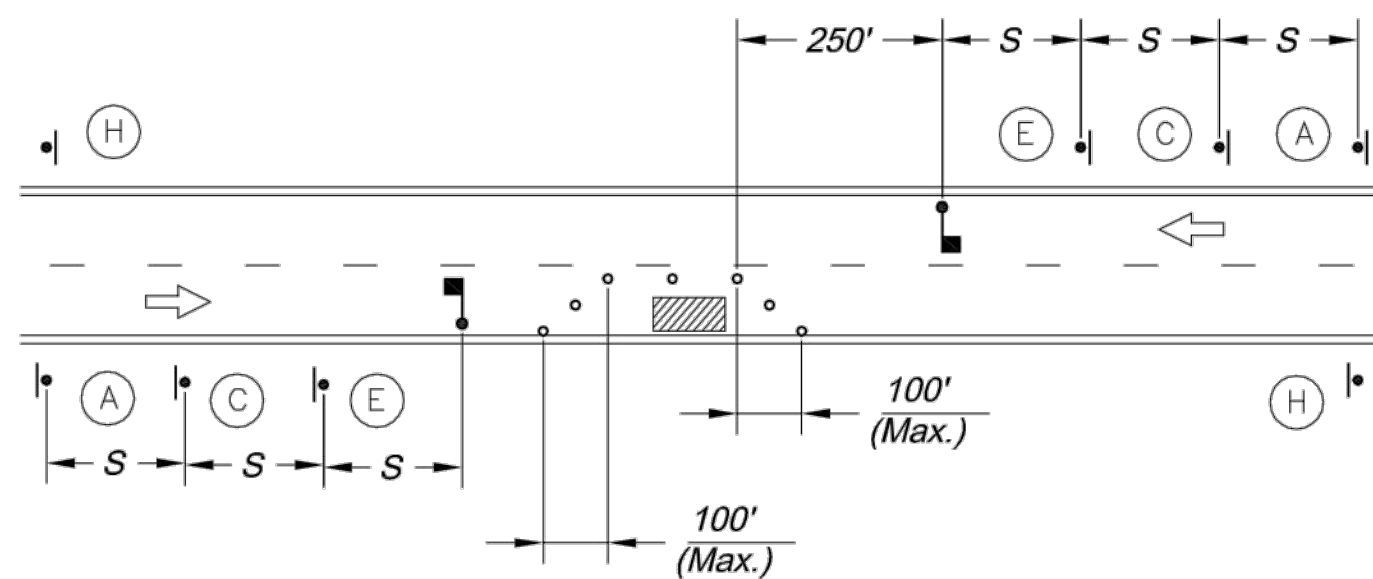
**olsson**

Olsson Engineering - MO State Certificate of Authority #001592  
7301 West 133rd Street, Suite 200 TEL: 913.381.1170  
Overland Park, KS 66213-4750 FAX: 913.381.1174 www.olsson.com

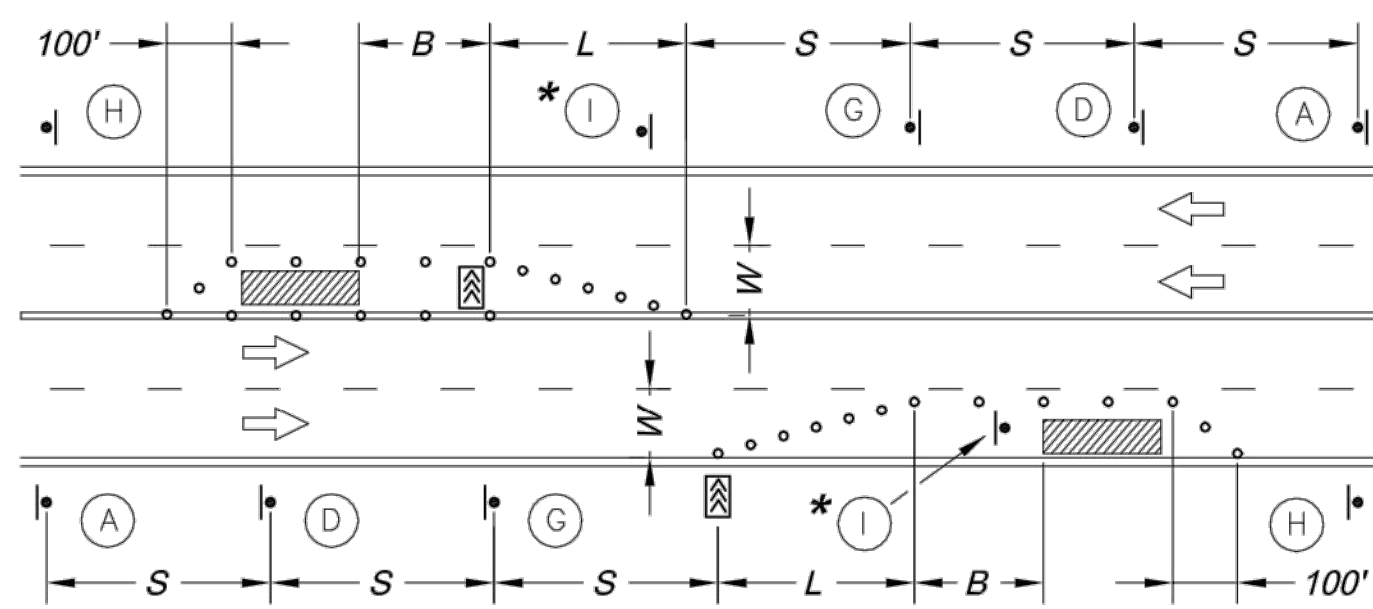


### SYMBOL LEGEND

- Work Area
- Channelizer
- Sign
- Arrow Panel
- Barricade
- Flagger
- Direction of Travel

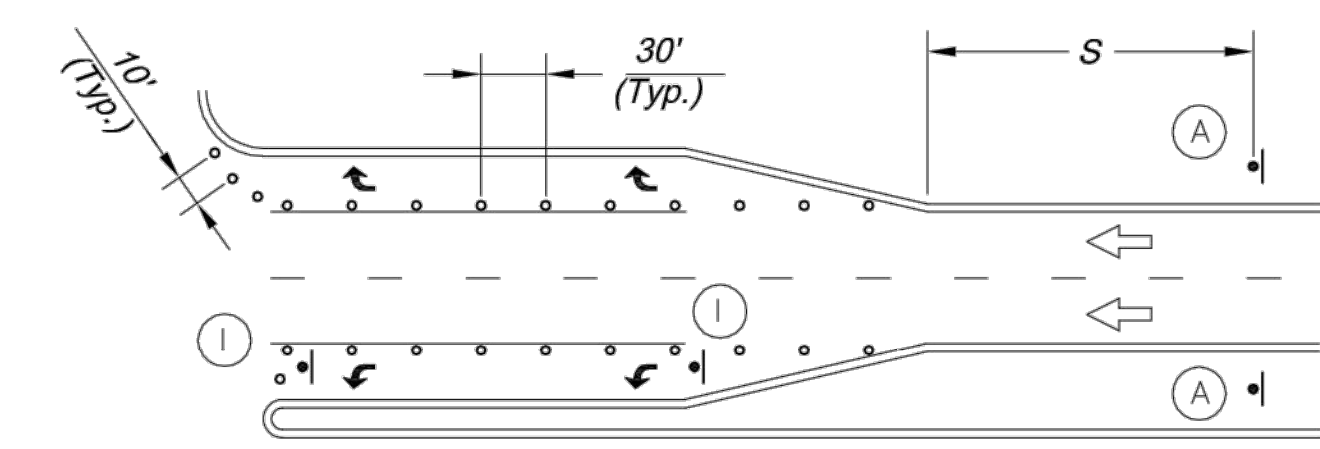


LANE CLOSURE - TWO LANE STREET



LANE CLOSURE - FOUR LANE STREET

\* Install Signs Every 200 Feet Throughout the Closed Lane or As Needed



TURN LANE CLOSURE

Sign Spacing "S"	
Speed Limit (mph)	Spacing (Feet)
25	100
30 - 35	250
≥ 40	350

Speed Limit (mph)	Taper Dimensions (Feet)			Minimum Number of Channelizers
	Minimum Taper Length "L", per Lane Width "W"	10	11	
25	105	115	125	6
30	150	165	180	7
35	205	225	245	8
40	270	295	320	9
45	450	495	540	13

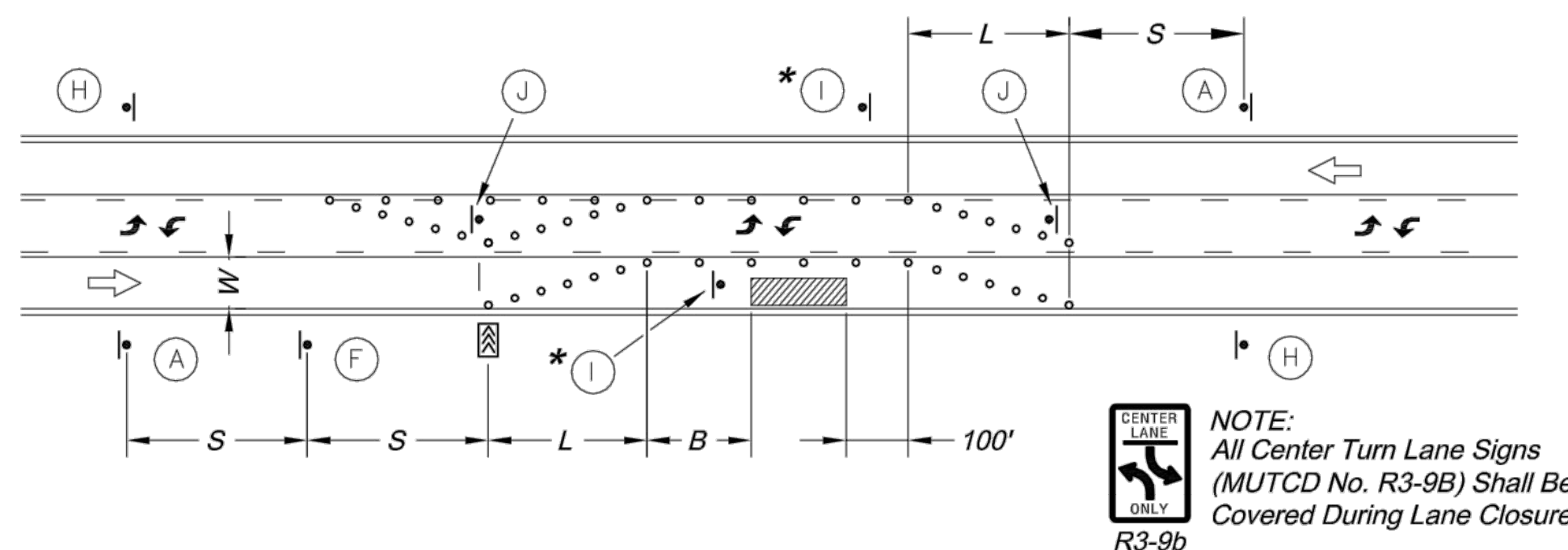
Guidelines for Length of Longitudinal Buffer Space "B"	
Speed Limit (mph)	Length (Feet)
25	35
30	55
35	85
40	120
45	170

Speed Limit (mph)	Maximum Channelizer Spacing	
	Within Taper (Feet)	Outside Taper (Feet)
25	25	50
30	30	60
35	35	70
40	40	80
45	45	90

### SIGN LEGEND

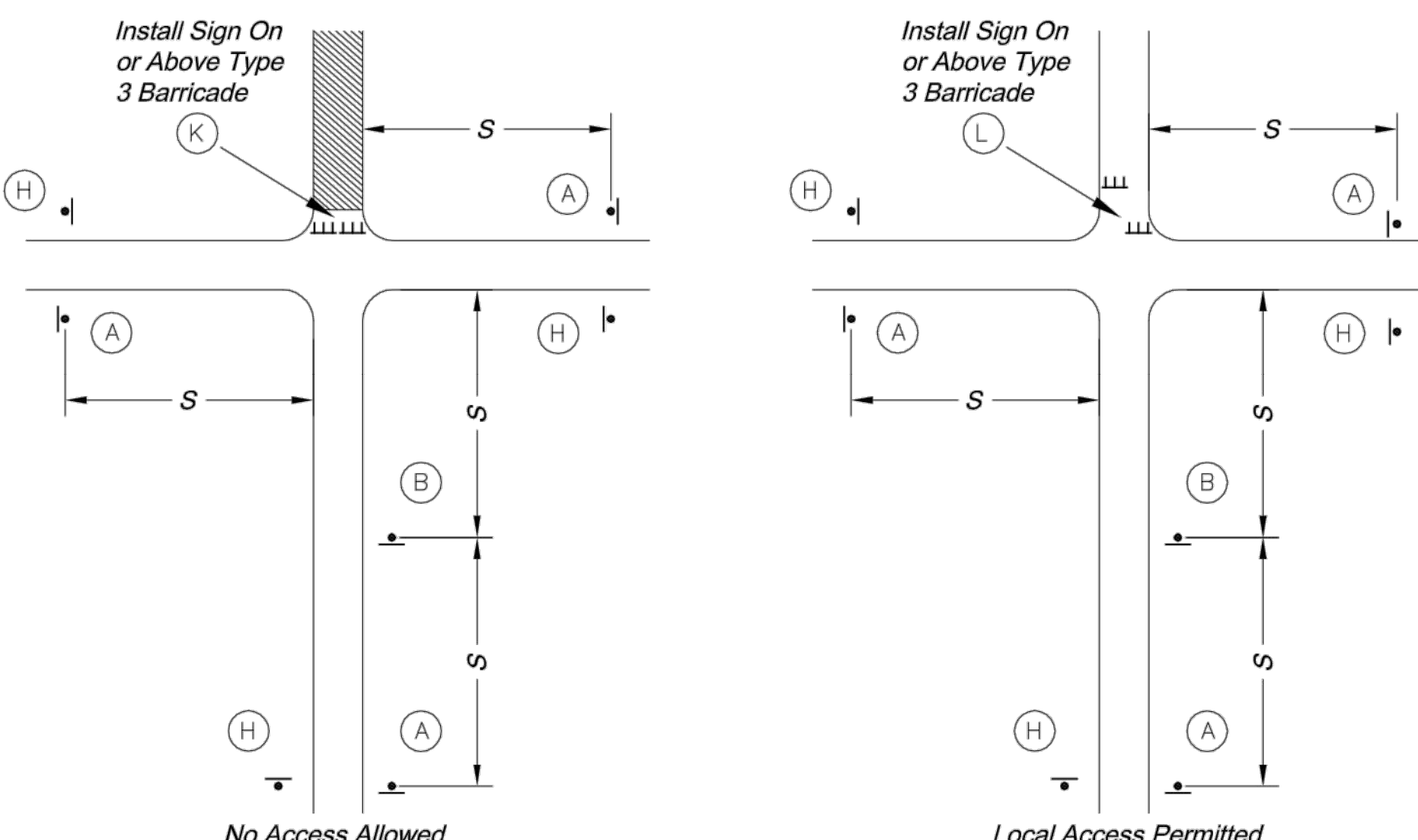
- ROAD WORK AHEAD (A) W20-1 36" x 36"
- ROAD CLOSED AHEAD (B) W20-2 36" x 36"
- ONE LANE ROAD AHEAD (C) W20-4 36" x 36"
- RIGHT LANE CLOSED AHEAD (D) W20-5R 36" x 36"
- LEFT LANE CLOSED AHEAD (E) W20-7a 36" x 36"
- (F) W1-4L 36" x 36"
- (G) W4-2R 36" x 36"
- END ROAD WORK (H) G20-2 36" x 18"
- Use Only As Approved by City Traffic Engineer (I) R3-2 24" x 24"
- KEEP RIGHT (J) R4-7a 24" x 30"
- ROAD CLOSED (K) R11-2 48" x 30"
- ROAD CLOSED TO THRU TRAFFIC (L) R11-4 60" x 30"

TYPICAL SIGNING FOR WORK ADJACENT TO THE STREET



LANE CLOSURE - THREE LANE STREET

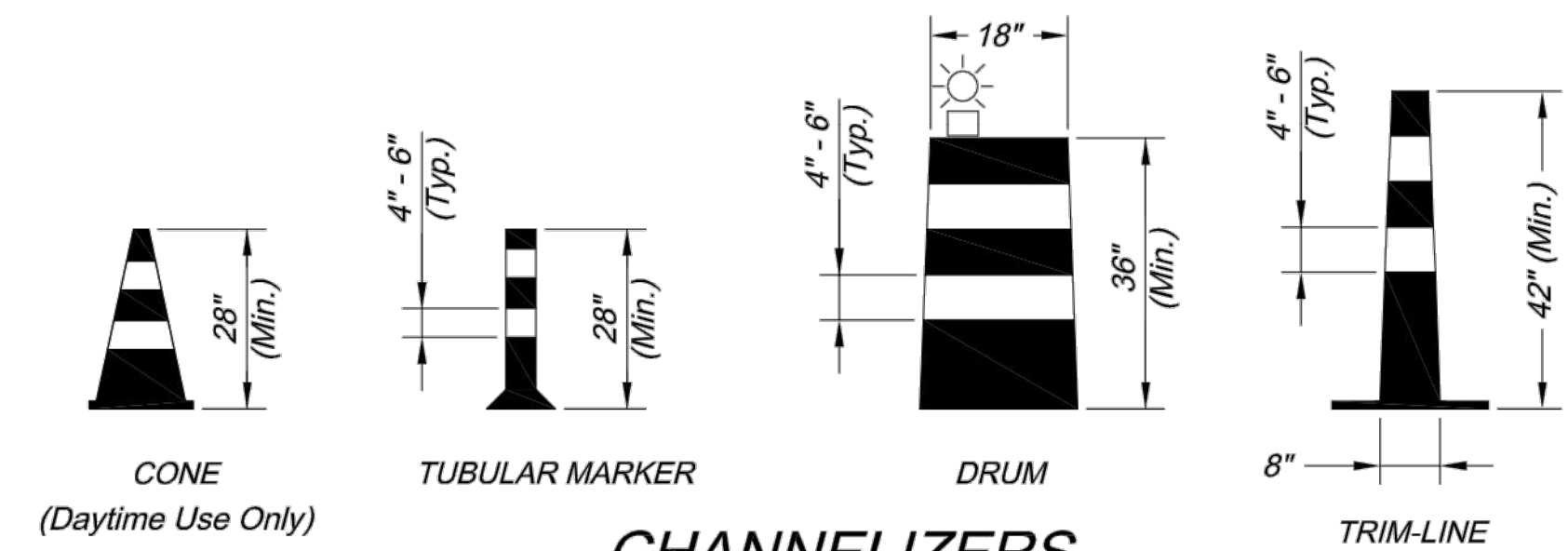
\* Install Signs Every 200 Feet Throughout the Closed Lane or As Needed



TYPICAL STREET CLOSURE

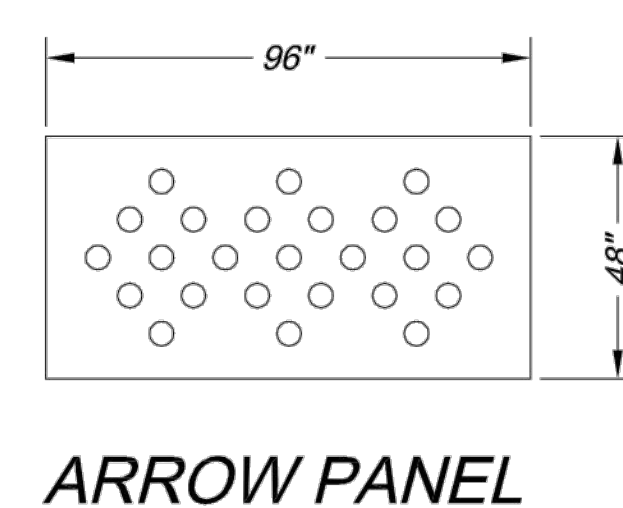
### GENERAL NOTES:

- All signs, barricades, channelizers, markings and other traffic control devices shall conform to the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- All traffic control devices shall be standard in size, shape, color, and message, in good condition, and retro-reflectORIZED. All signs shall be securely mounted with height and lateral location as described in the MUTCD.
- Warning lights shall be used on barricades in place at night and on warning signs which alert drivers about a change in alignment, traffic control, lane closure, or road closure.
- Flaggers shall be used where indicated on the plans, where construction vehicles interact with normal traffic, or where construction activities impose a restriction on traffic, as directed by the City Traffic Engineer. Where flaggers are used, advance signing shall be erected as shown in the details or as specified in the MUTCD. Flaggers shall meet the requirements in the MUTCD in regard to character, training, attire, and behavior.
- Trim-lines are the City's preferred channelizing device. Cones may not be used at nighttime.
- Traffic control devices not in use or not applicable shall be either covered or removed from the work area.
- The Contractor shall use barricades, street plates, or fencing as needed to effectively shield pedestrian and vehicular traffic from exposed objects, excavations, and construction activities.
- Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.
- No street shall be closed without the approval of the City Traffic Engineer. The Contractor shall notify the City Traffic Engineer at least 7 days in advance of any street closure. If a detour route around the closure is to be provided, all detour signing shall be as shown on a plan approved by the City Traffic Engineer.
- Construction vehicles parked along streets shall be located within the work area (traffic control) or where otherwise normally permitted. Construction materials, including traffic control and vehicles shall not restrict sight distance for vehicles exiting at streets or drives.
- Construction materials shall be kept off of sidewalks, consolidated in one location within City right-of-way, and removed daily unless otherwise approved by the Inspector. Dirt, mud, and other construction debris on streets and sidewalks shall be removed immediately.
- The Contractor shall not perform any work that will restrict vehicular traffic in any way between the hours of 7:00 a.m. and 9:00 a.m. or 4:00 p.m. and 6:00 p.m. Monday through Friday unless otherwise indicated in the specifications.
- All travel lanes should be at least 11 feet wide unless otherwise authorized by the City Traffic Engineer. A "Narrow Lanes" sign shall be installed in advance of a lane width reduction to less than 11 feet.
- All edge drop-offs of more than 2 inches and less than 4 inches should be protected by a wedge or barrier and all edge drop-offs greater than 4 inches shall have edge protection (see Traffic Control Specifications for edge treatment requirements).
- The "Workers" symbolic sign (MUTCD No. W21-1a) may be used instead of the "Road Work Ahead" sign for work with a duration of 12 hours or less. The "End Road Work" sign is not required to be installed after the "Workers" sign.
- No traffic signal shall be altered or modified in any way without a plan approved by the City Traffic Engineer.
- The Contractor shall be responsible for maintaining all traffic control devices on an around-the-clock basis, whether or not work is actively being pursued and any deficiencies noted shall be corrected immediately.
- The traffic control requirements shown on these plans are minimum requirements only and do not attempt to address in depth the variety of situations that may occur once construction has started. In no way do the requirements shown on these plans relieve the Contractor of his responsibility for selecting the proper traffic control devices and implementation procedures that will assure the safety of drivers, pedestrians, and workers at all times.
- Should the contractor fail to enforce the traffic control plan or fail to clean, replace or otherwise maintain the traffic control devices when directed to do so by the City Traffic Engineer or representative, the City may take one or more of the following actions:
  - Employ another agency to correct deficiencies in traffic control devices and deduct the cost from the Contractor's pay estimate,
  - Stop the work until deficiencies are corrected,
  - Suspend all pay estimates until deficiencies are corrected, or
  - Place the Contractor in default.

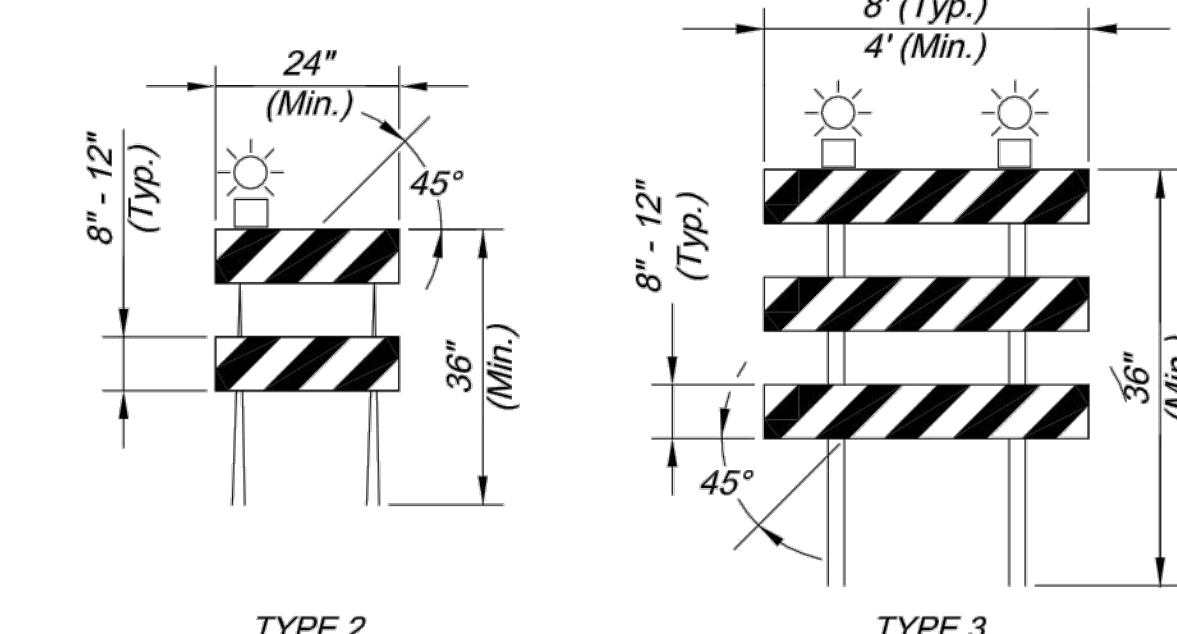


CHANNELIZERS

NOTE: White Bands On Barricades and Channelizers Shall Be Made From High Intensity Sheeting Material.



ARROW PANEL



BARRICADES

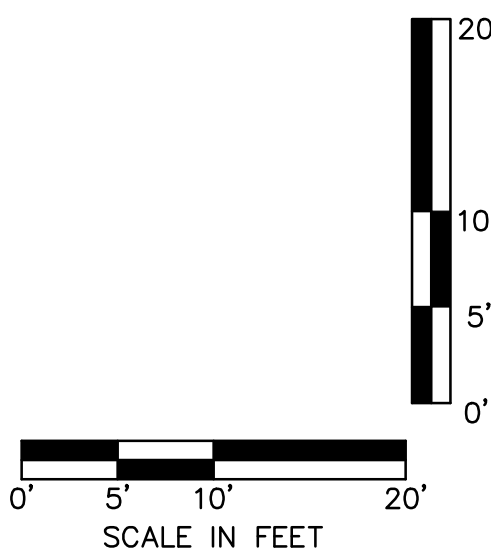
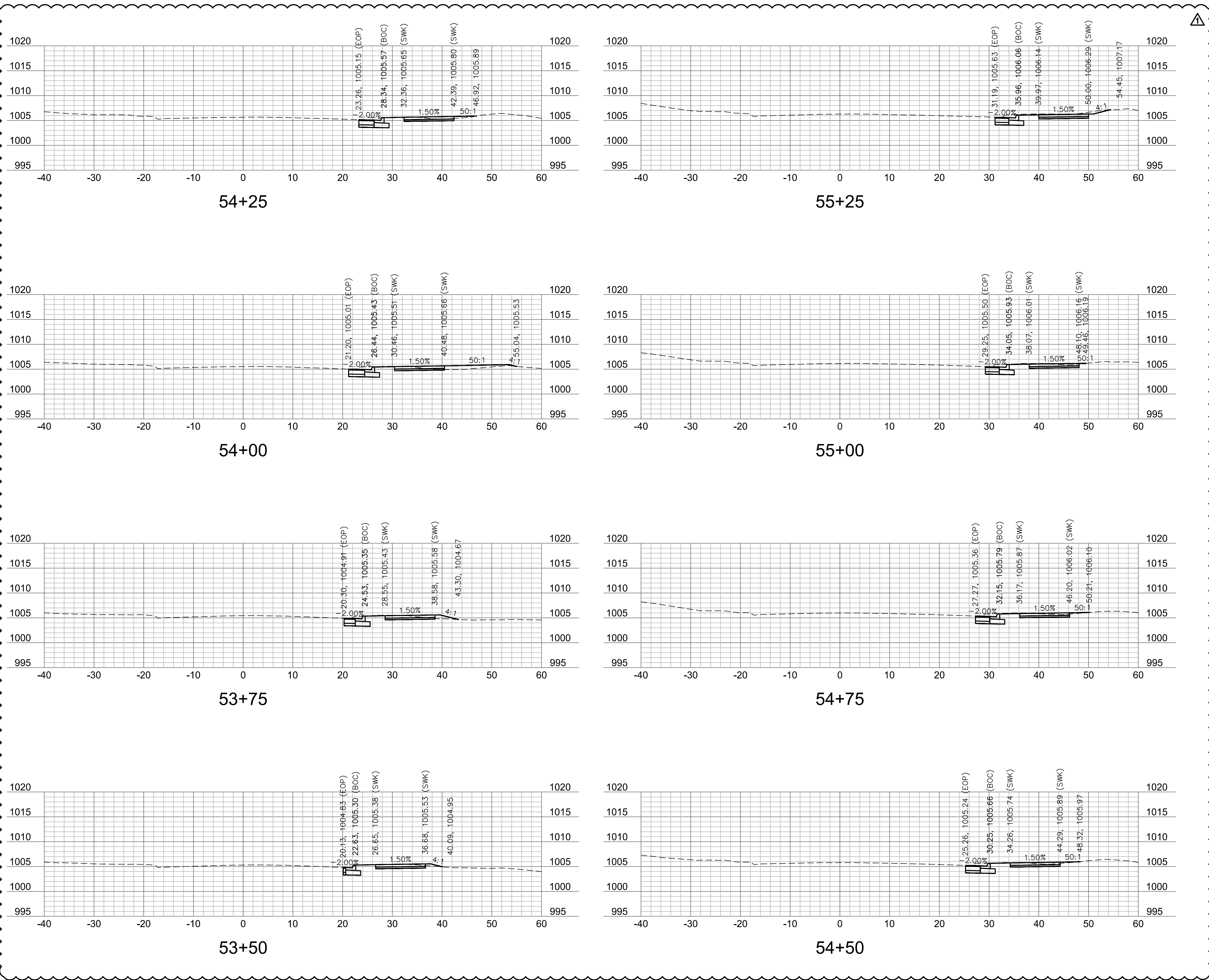
CITY OF LEE'S SUMMIT  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
PHONE: (816) 969-1800 FAX: (816) 969-1809



Project: BAILEY ROAD  
TRAFFIC CONTROL DETAILS  
Standard Drawing TC-1

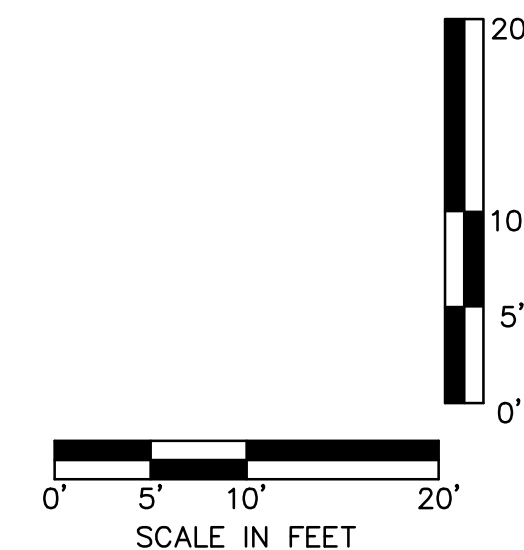
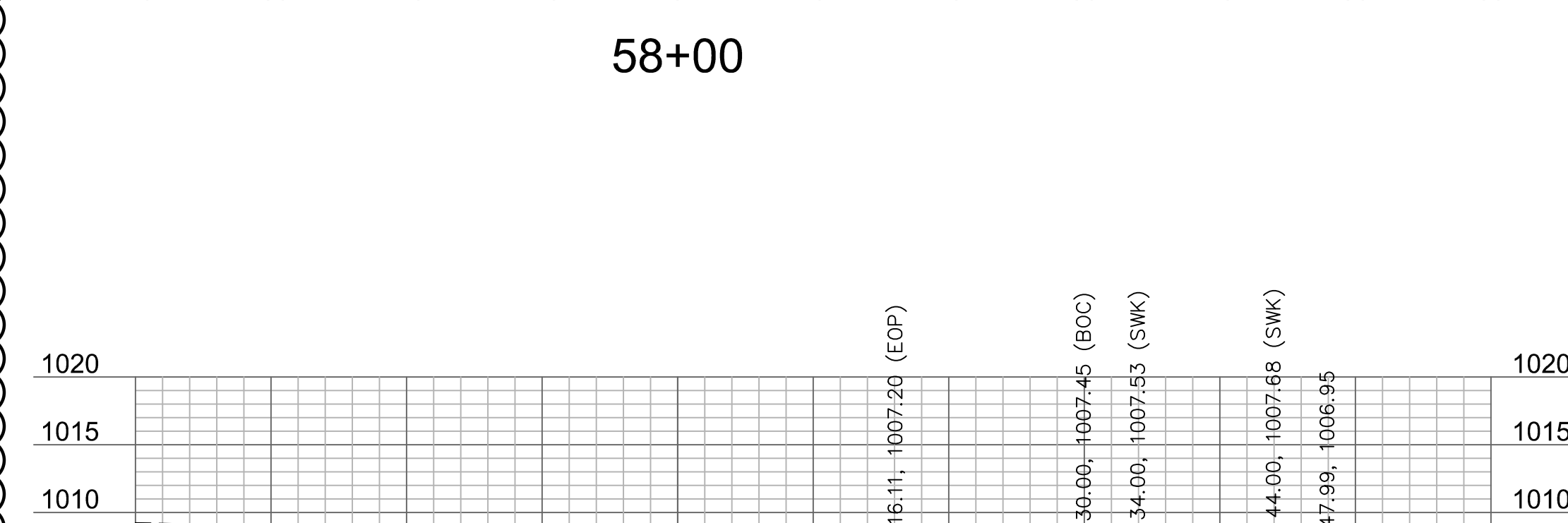
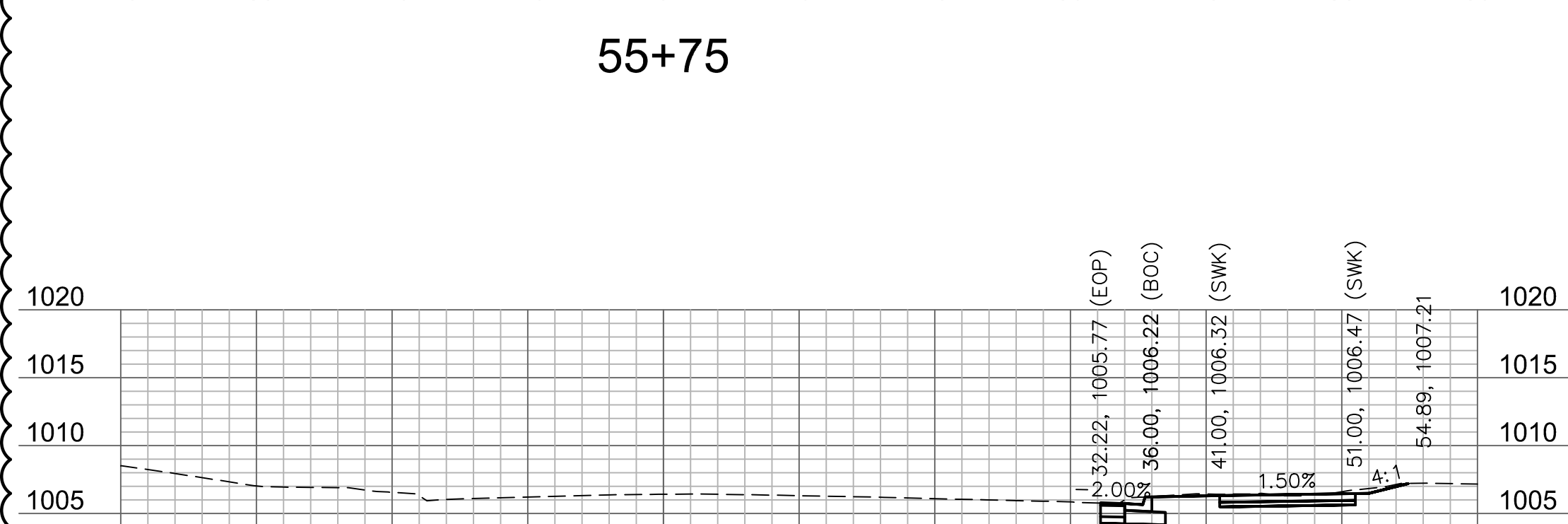
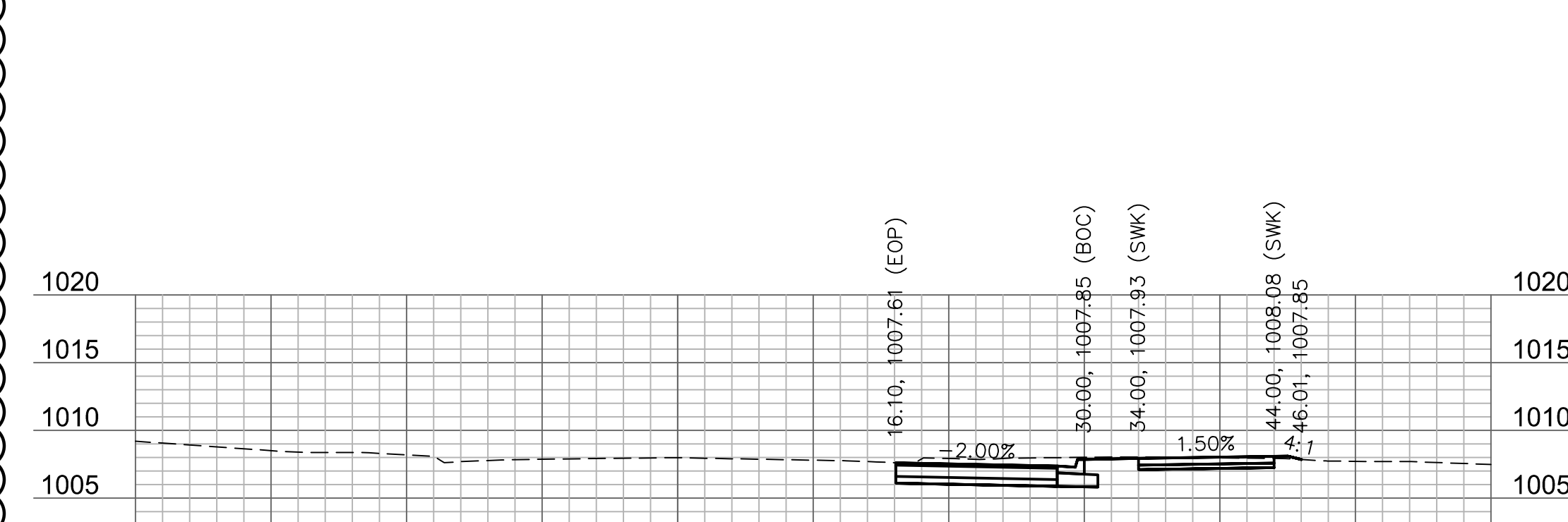
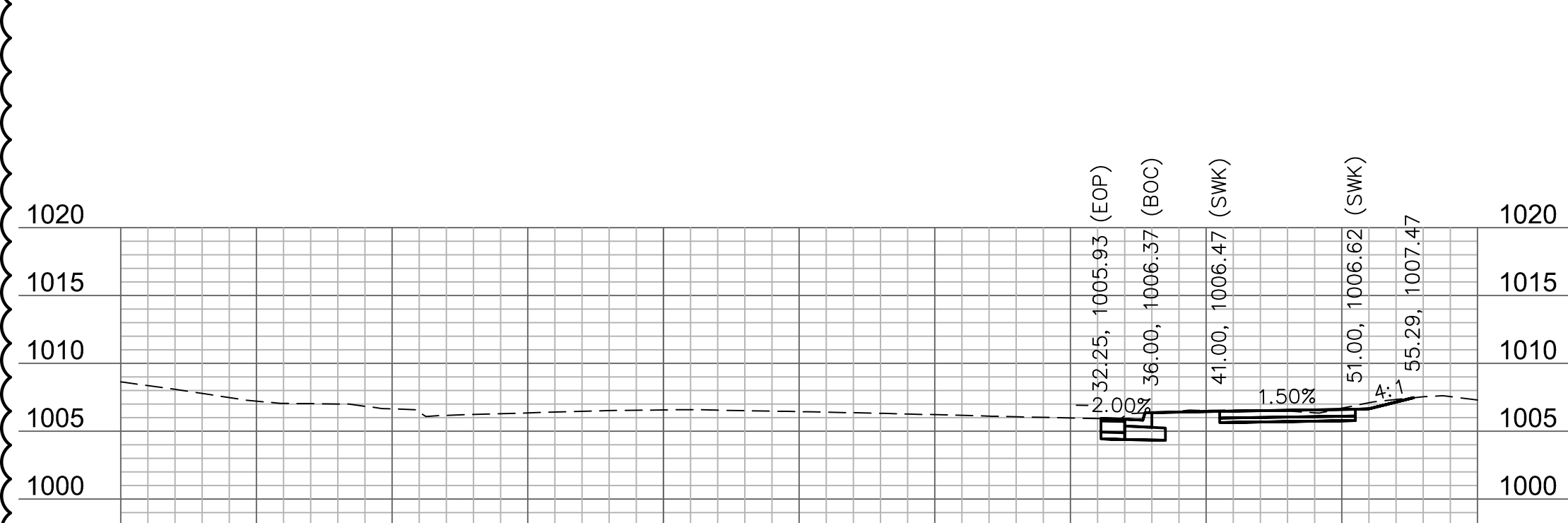
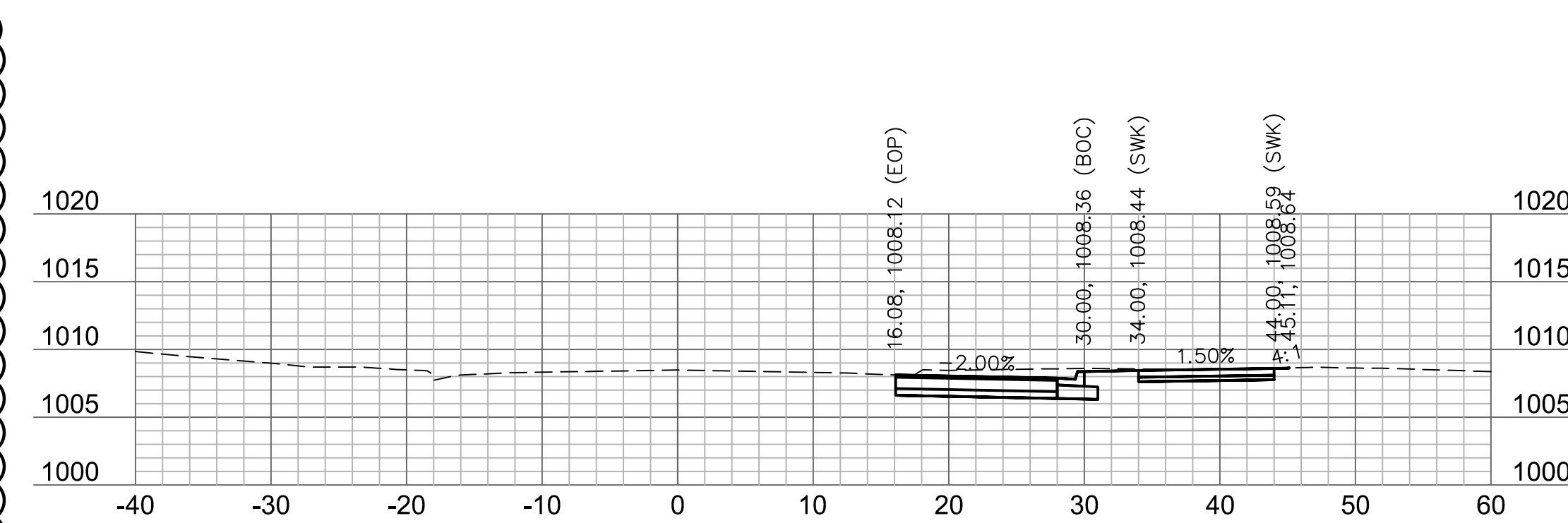
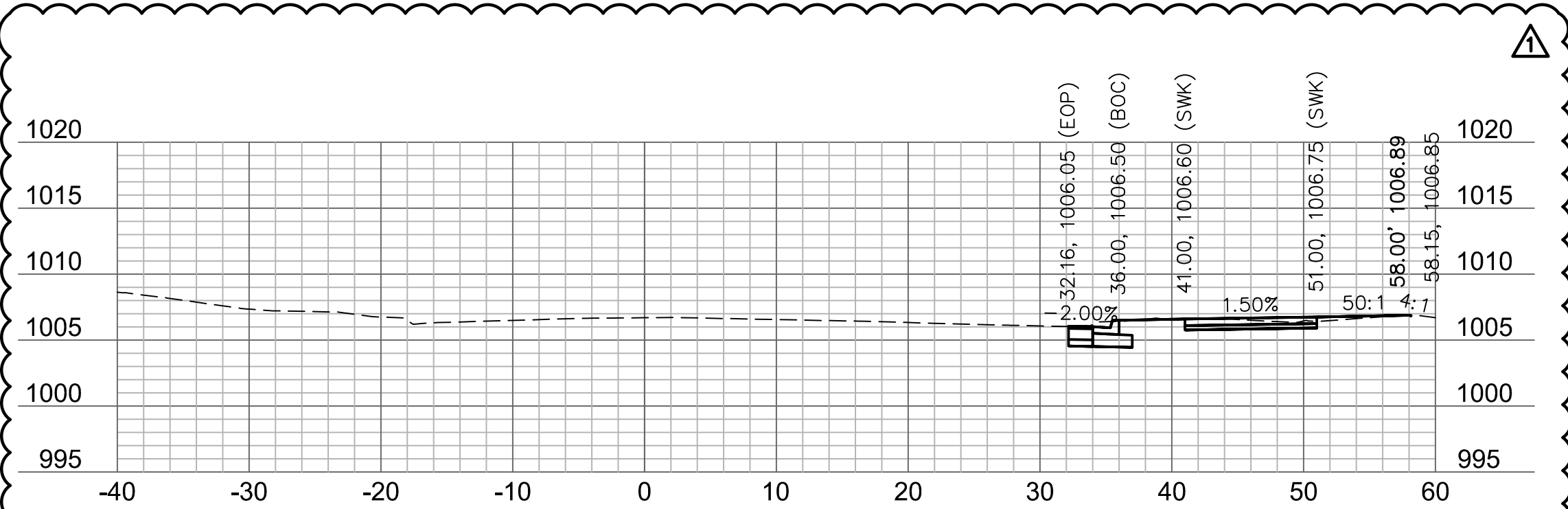
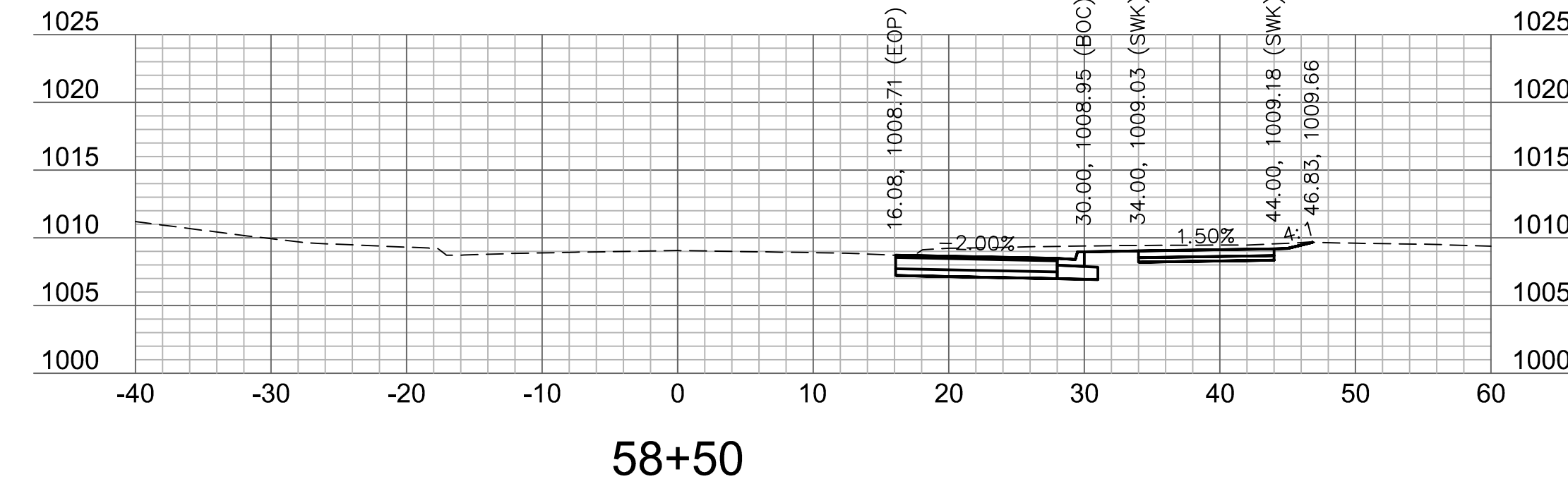
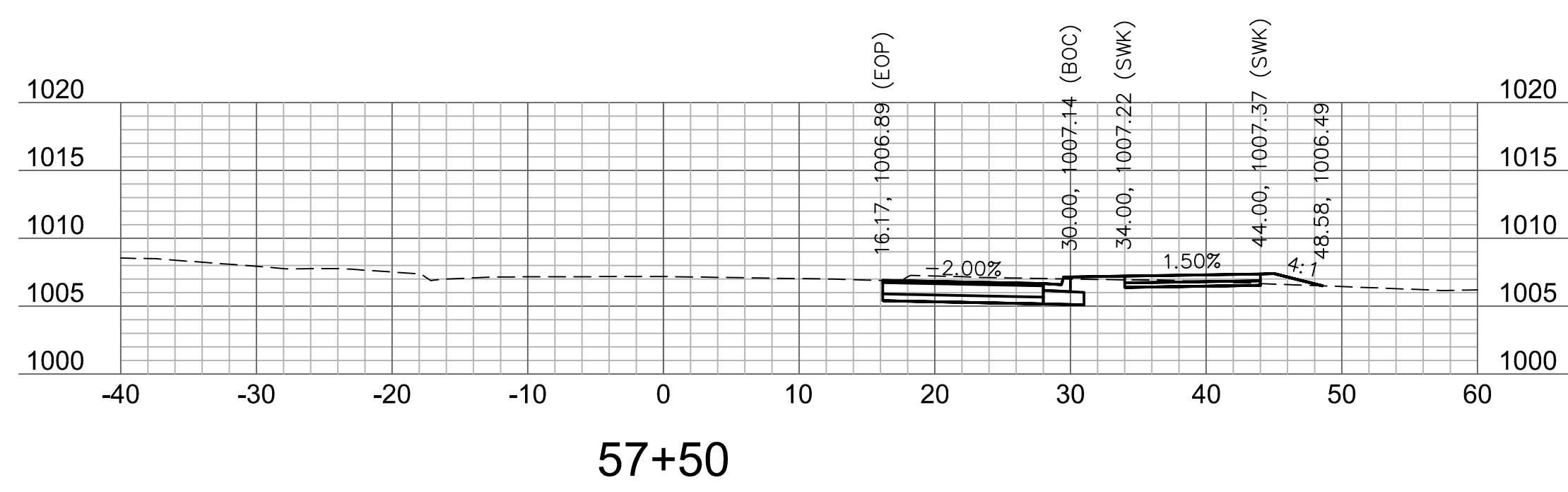
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		<b>RECORD DRAWINGS</b>		
BY	RPH	REV. NO.	DATE	REVISIONS DESCRIPTION
		1	08/25/2021	AS1 #29
<b>BAILEY ROAD CROSS SECTIONS</b> <b>LEE'S SUMMIT MIDDLE SCHOOL #4</b> <b>BAILEY ROAD PUBLIC IMPROVEMENTS</b> <b>LEE'S SUMMIT, MISSOURI</b>				<b>REVISIONS</b> 2021
C.O.A. NO.: 001592 DRAWN BY: MLW CHECKED BY: RPH APPROVED BY: RBE QA/QC BY: RBE PROJECT NO.: 020-0103 DWG NO.: T_XSC01_0200103 DATE: 2022-11-04				<b>SHEET</b> <b>90 OF 101</b>

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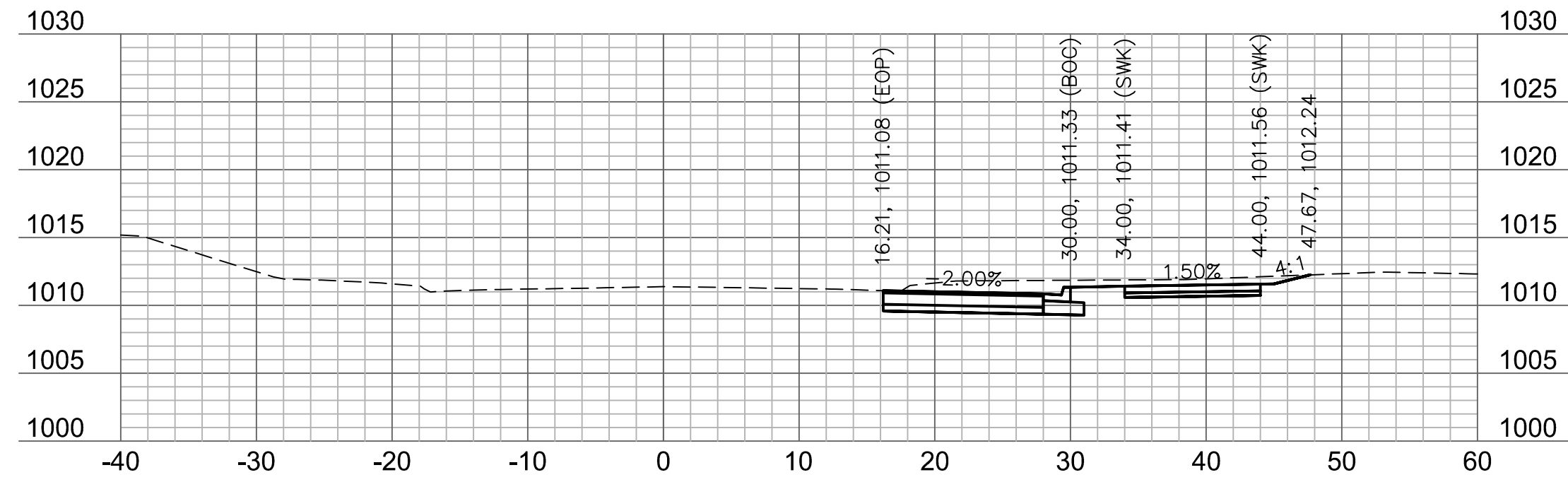
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1	08/25/2021	ASI #29	RPH

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 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

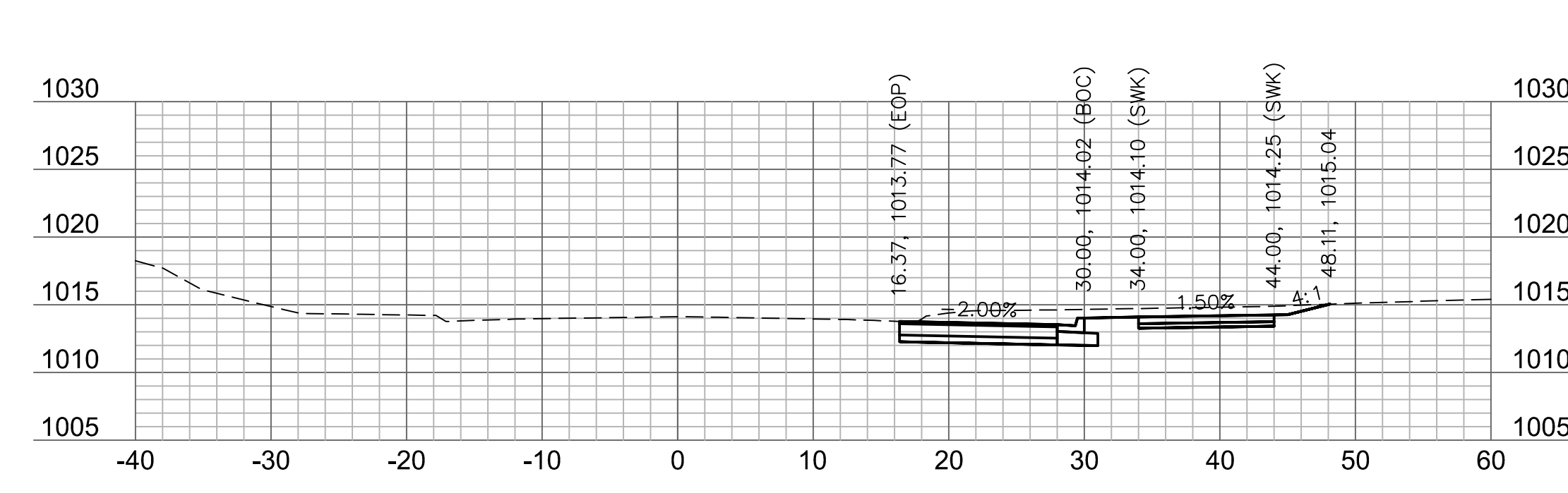
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**SHEET 91 OF 101**

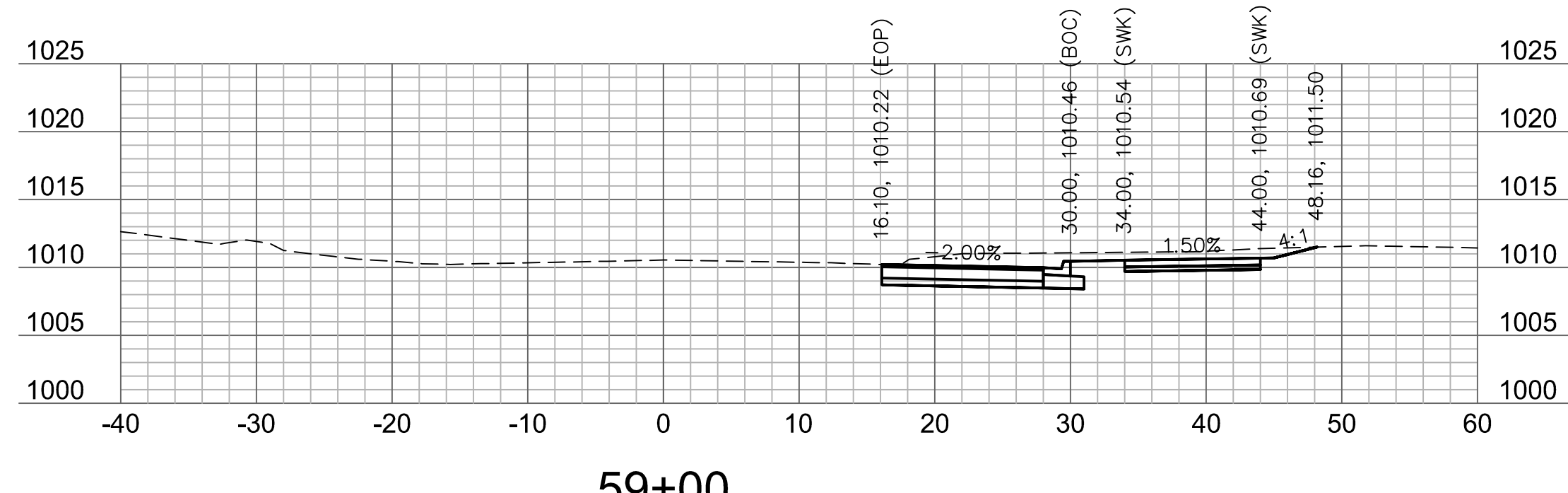
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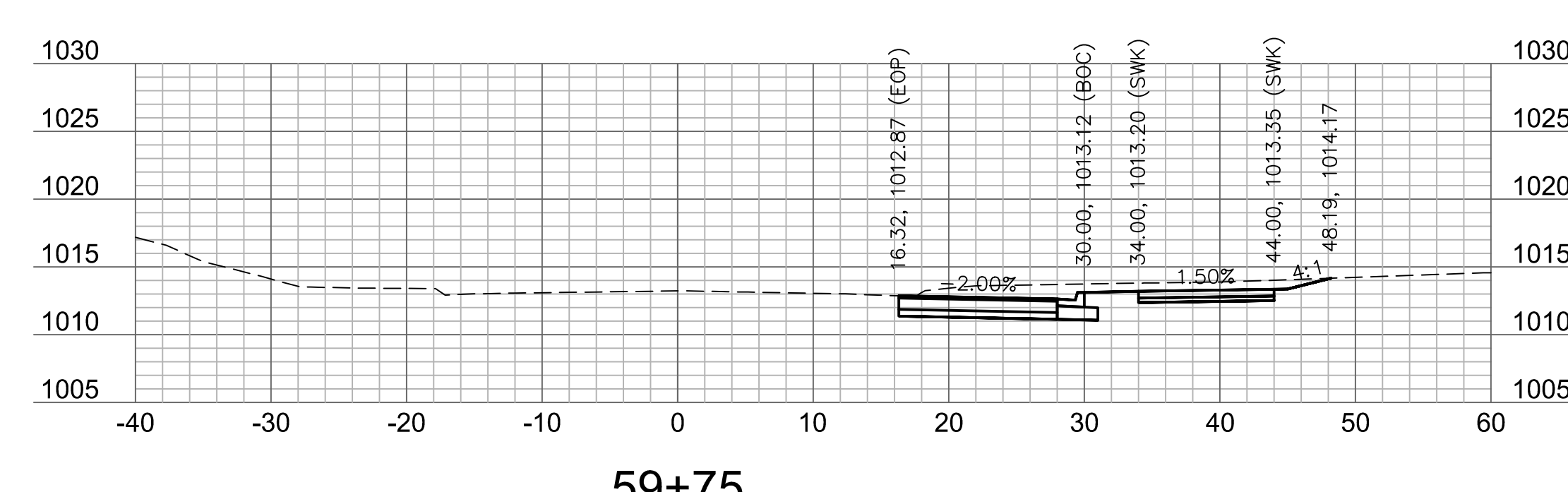
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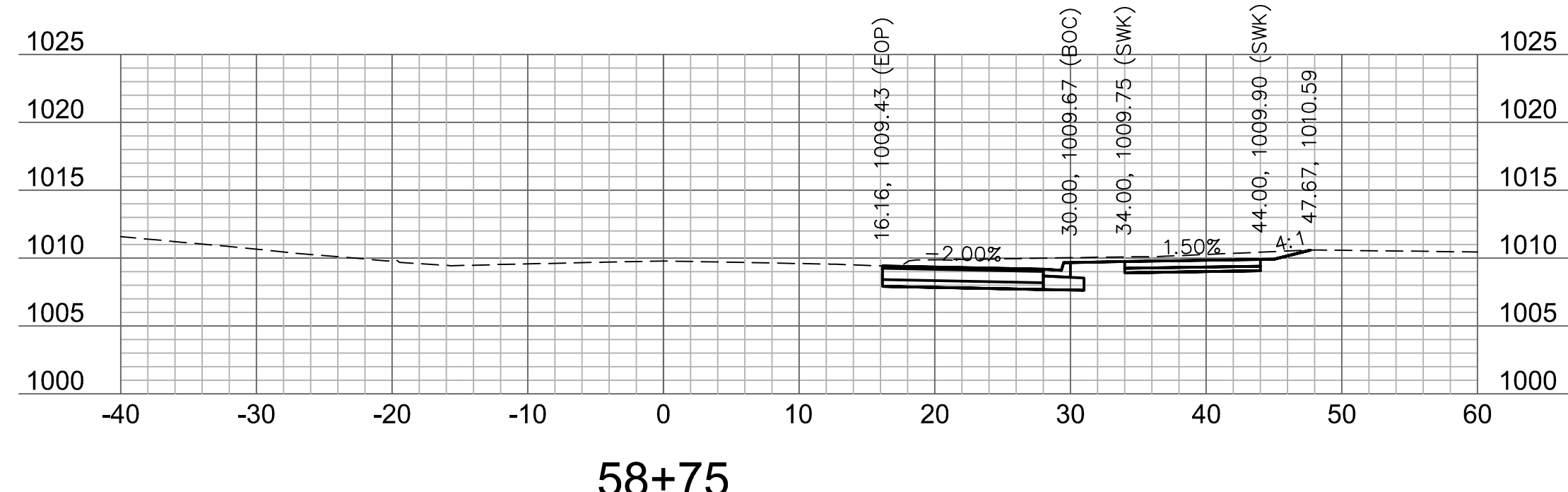
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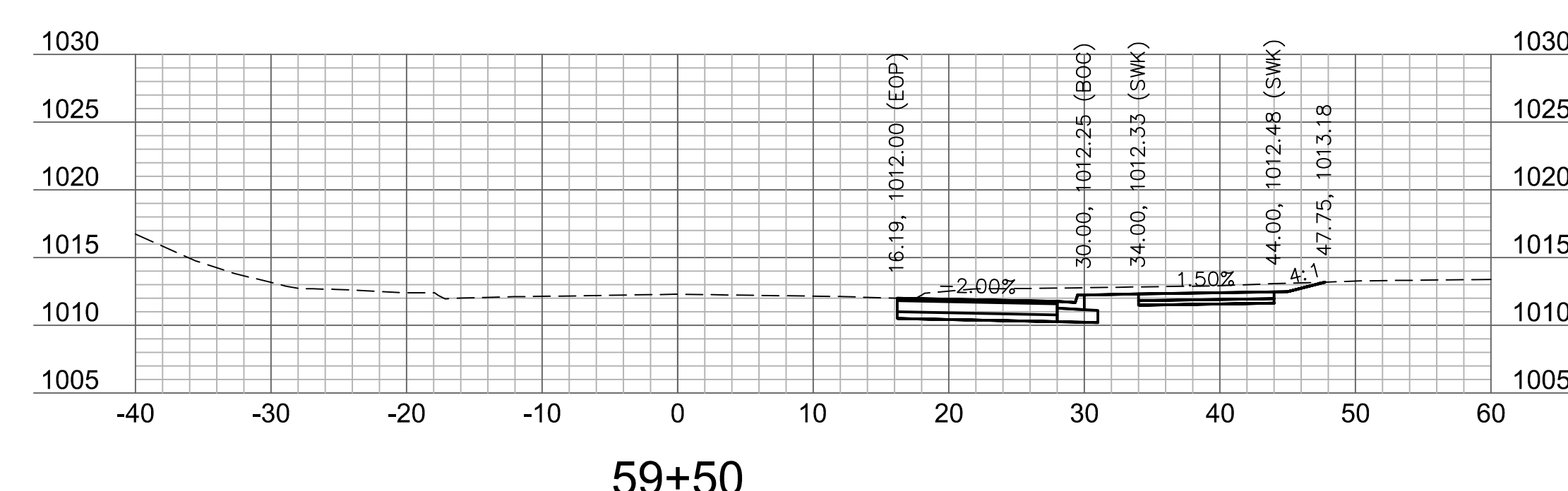
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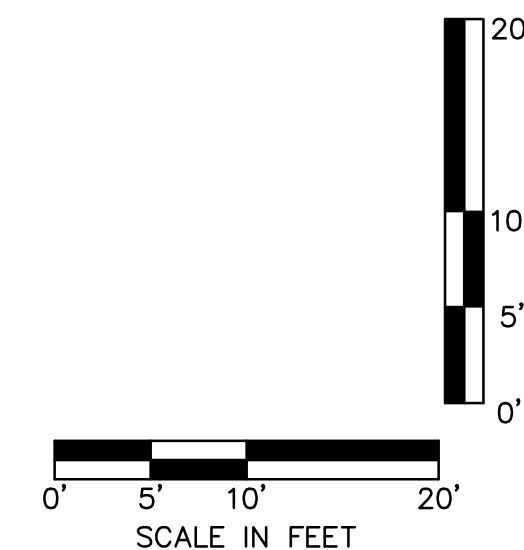
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59+50



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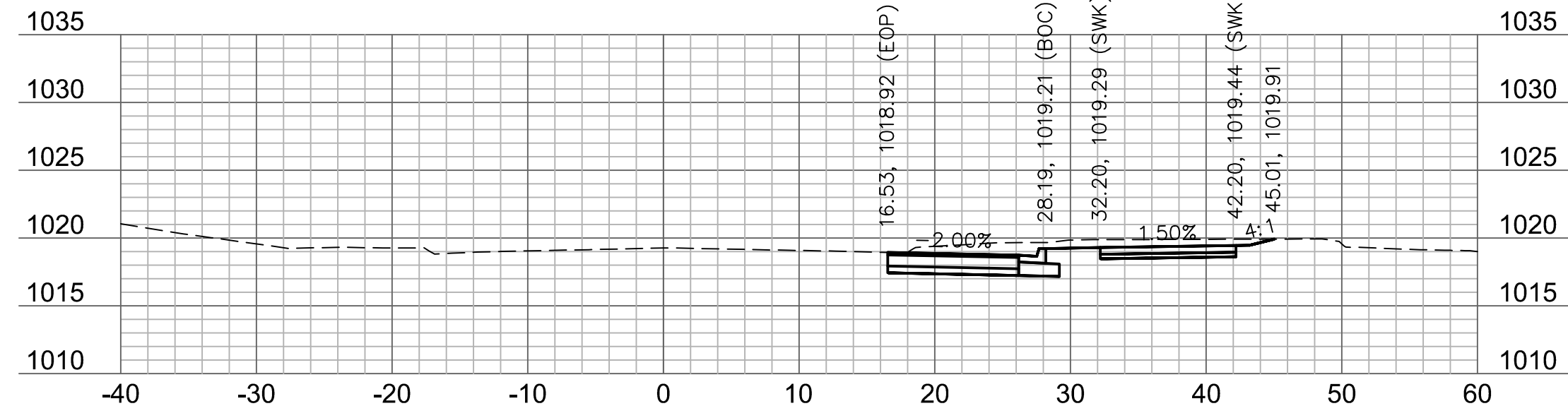
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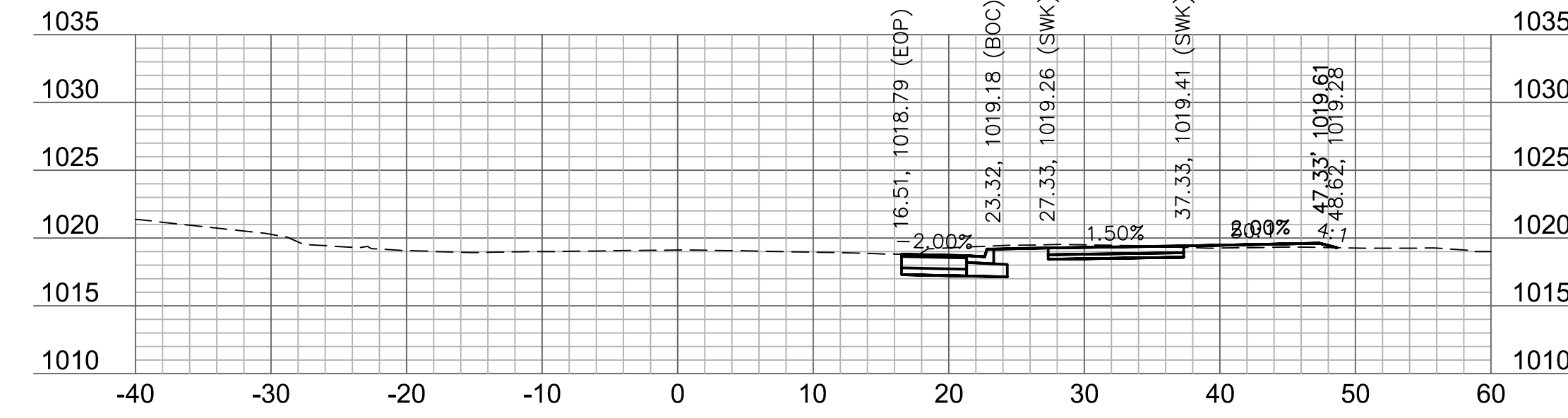
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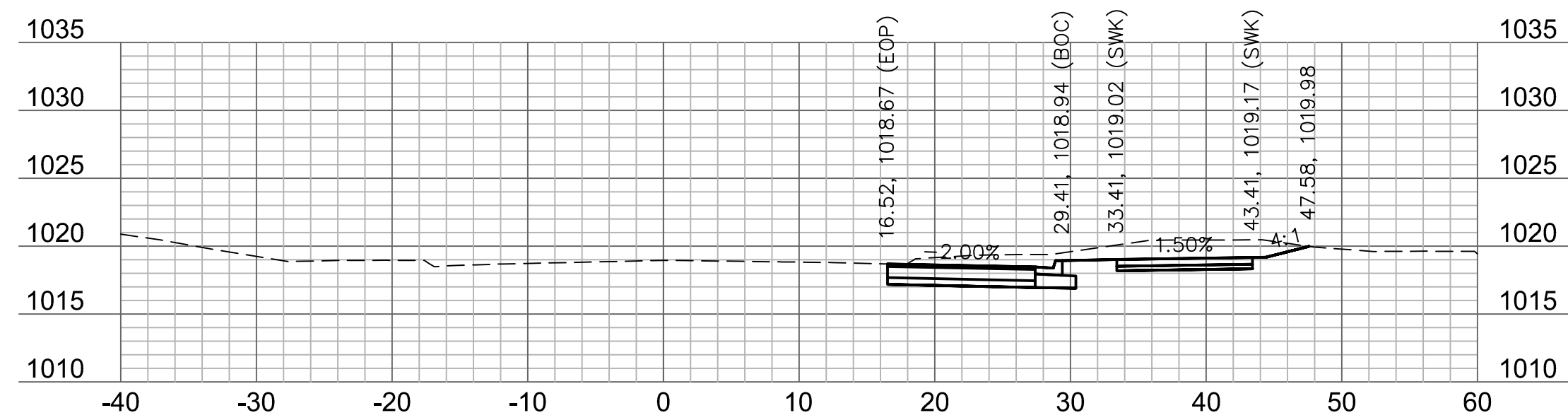
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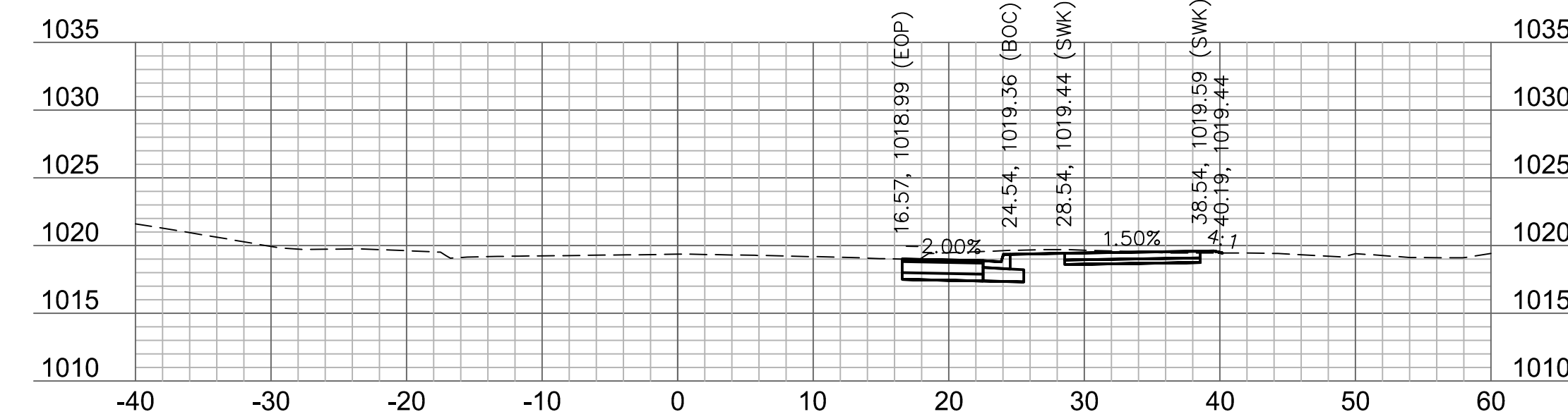
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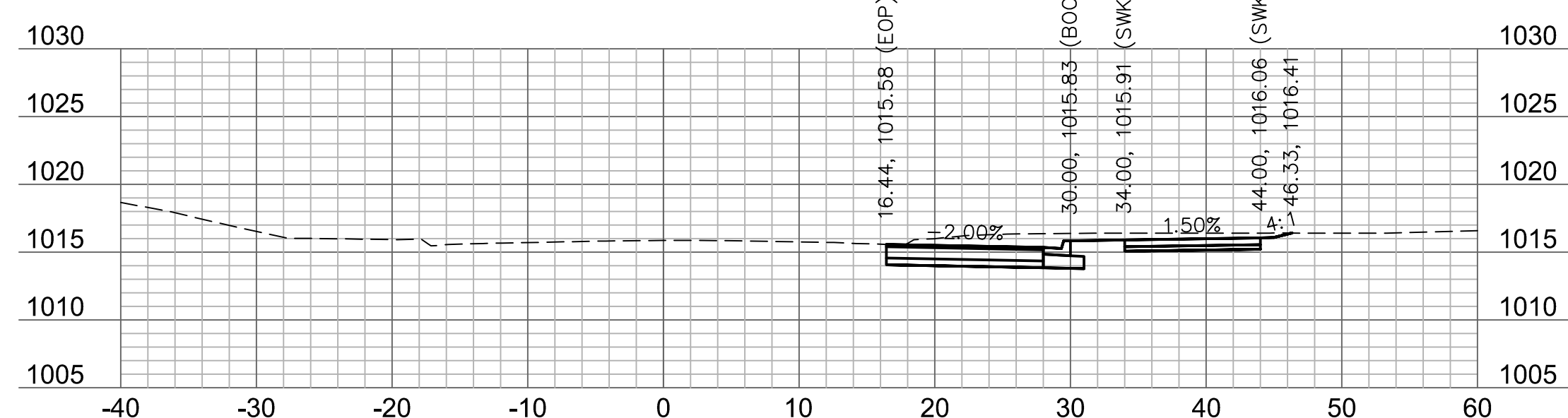
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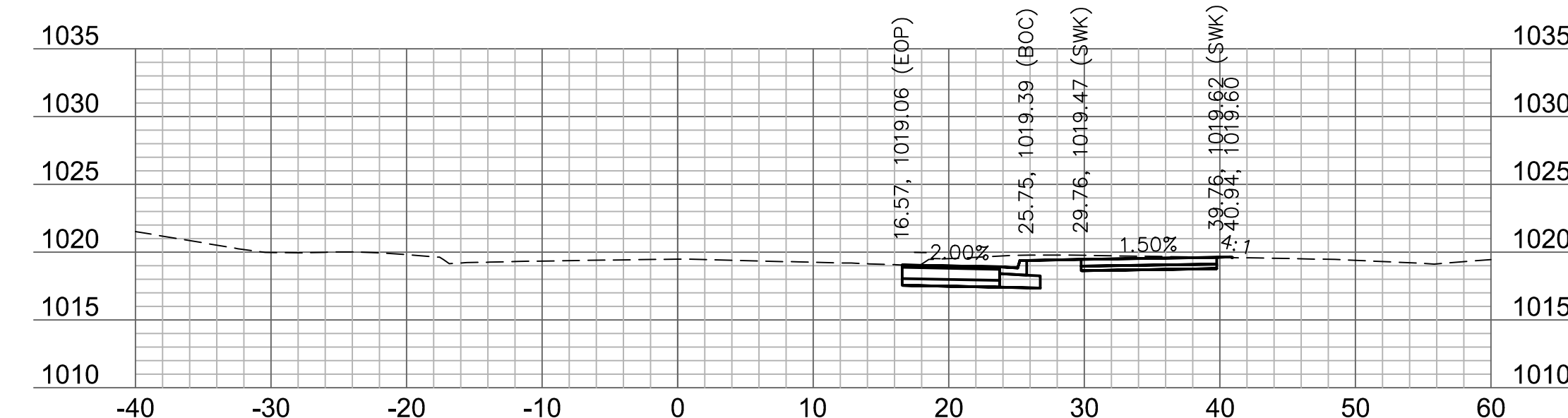
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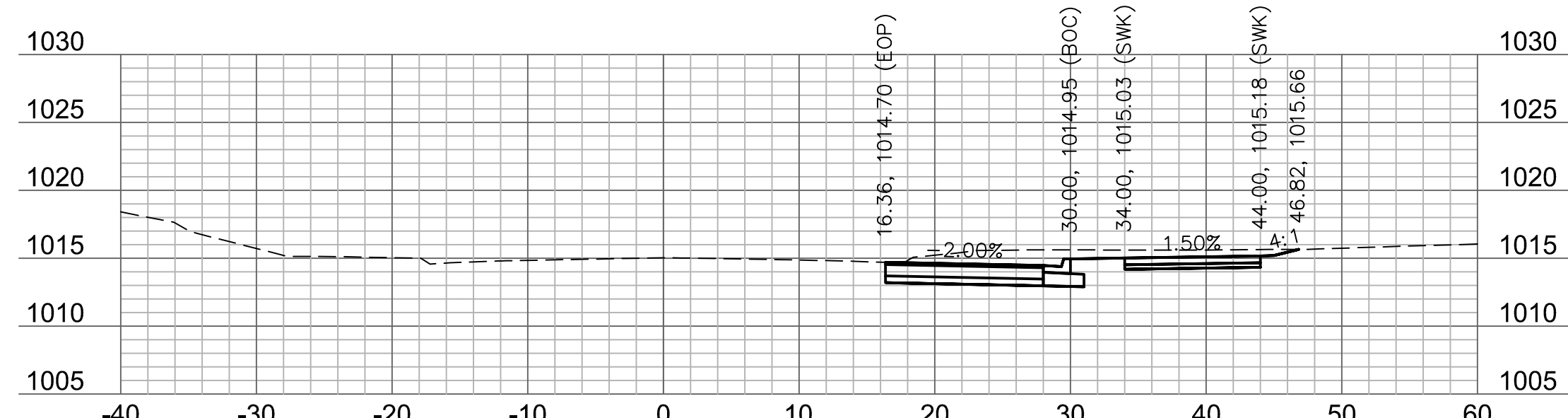
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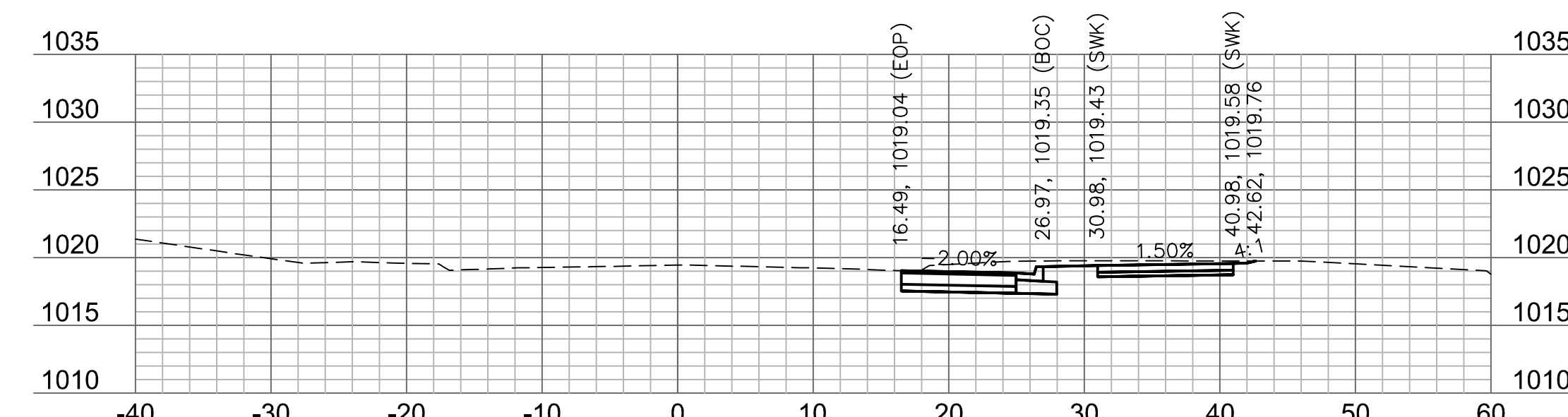
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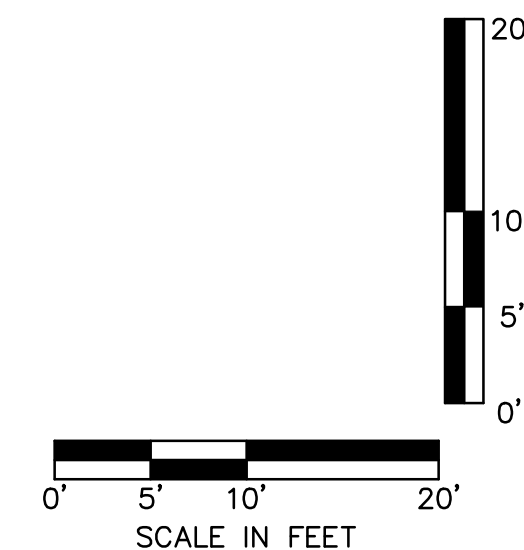
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60+25



62+25



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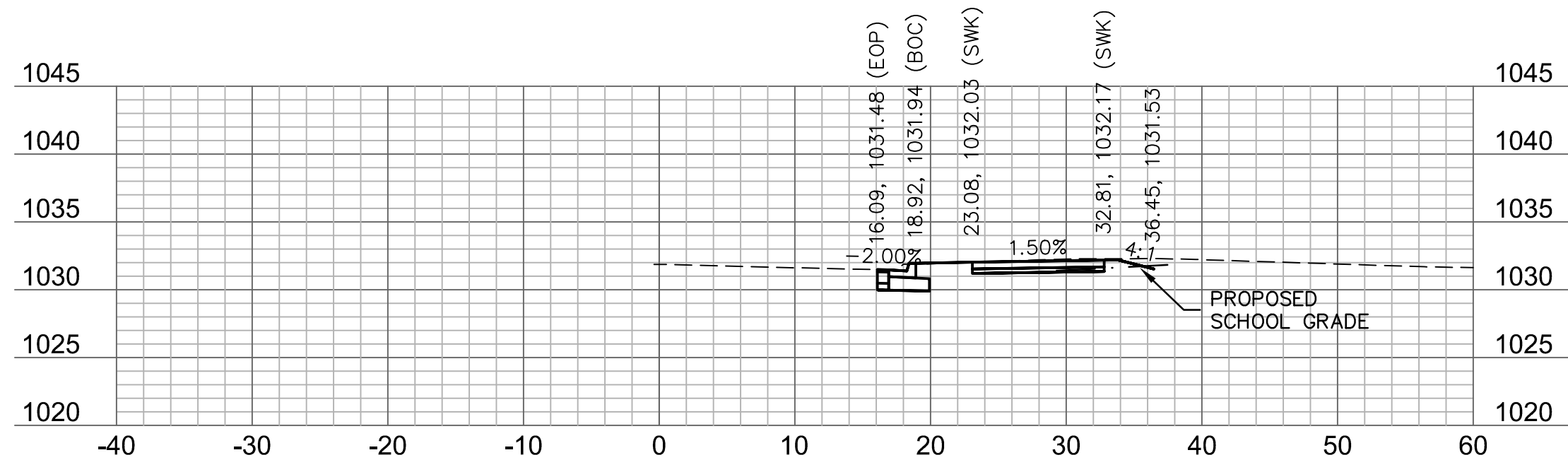
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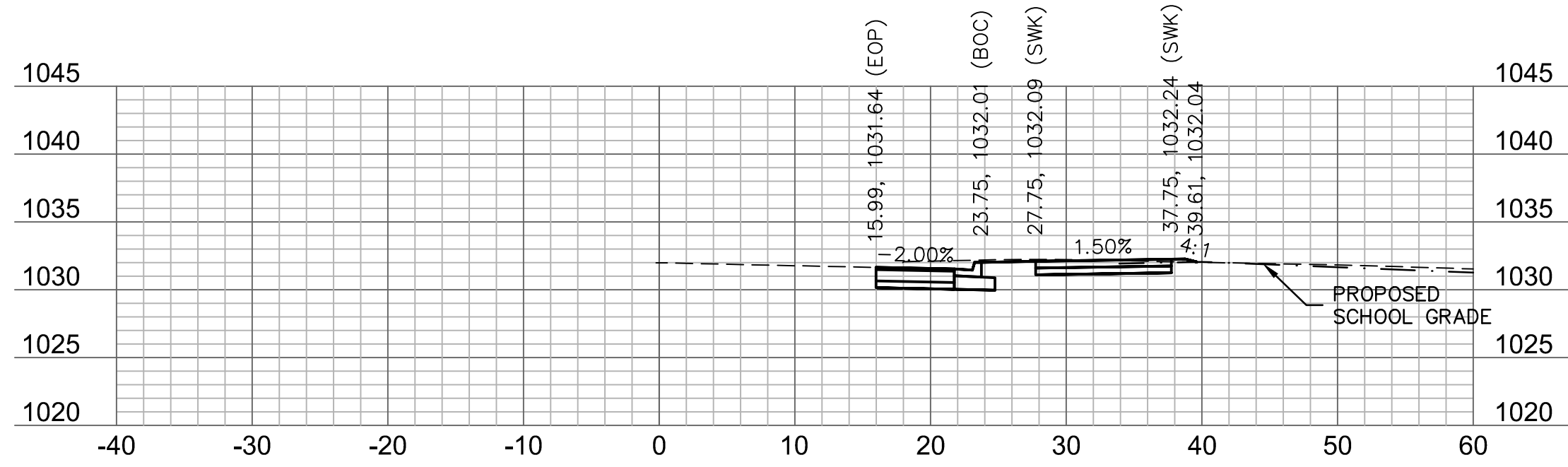
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 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
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 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
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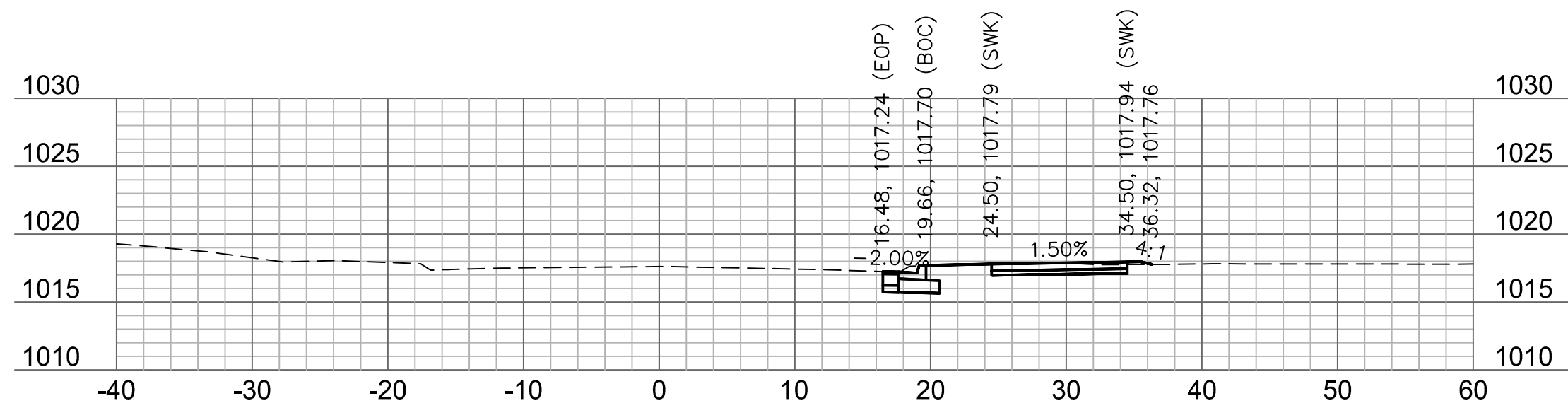
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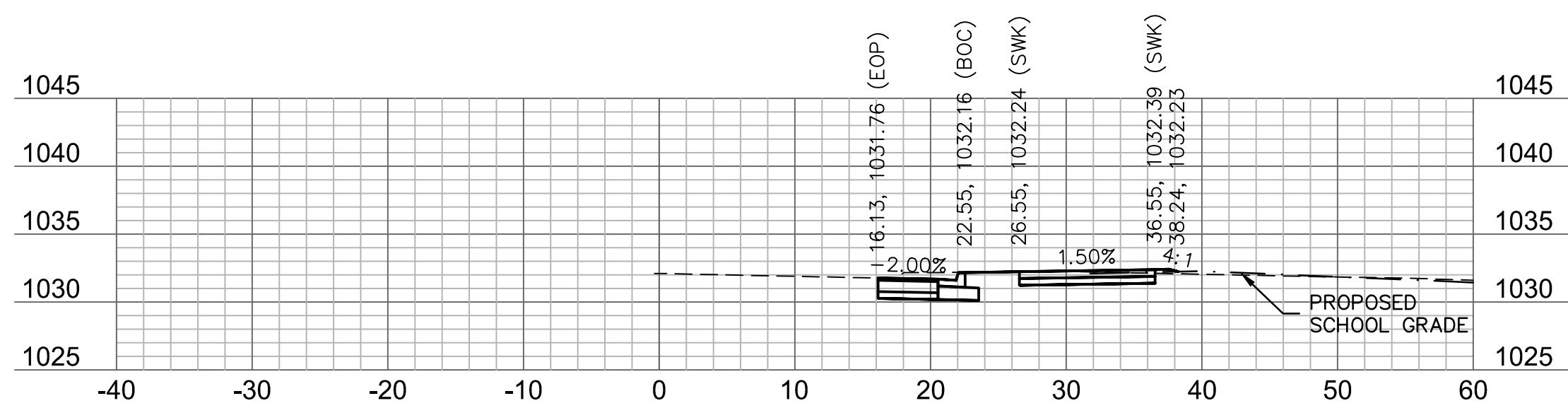
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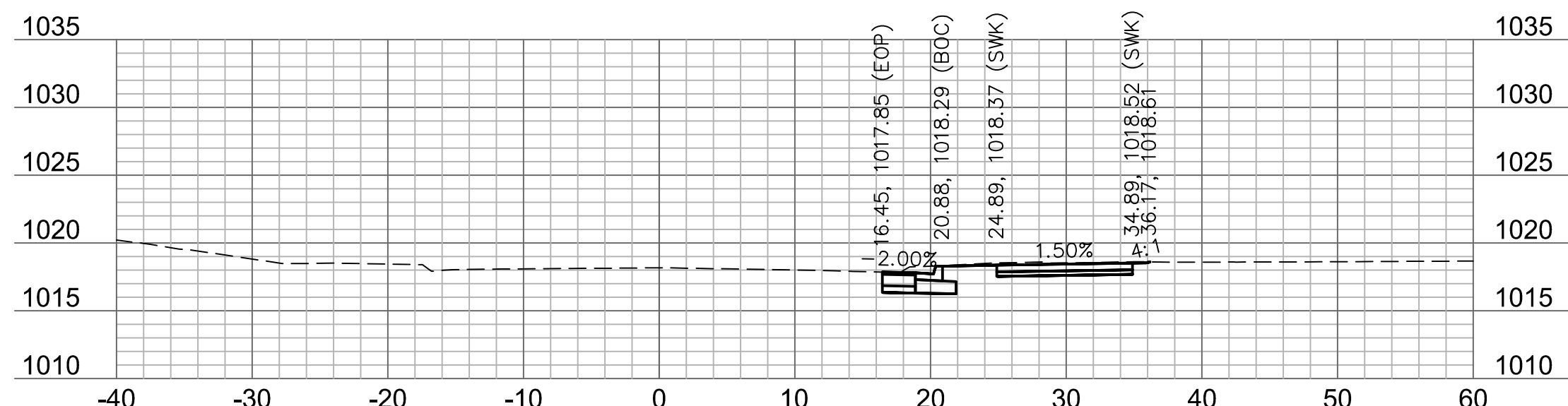
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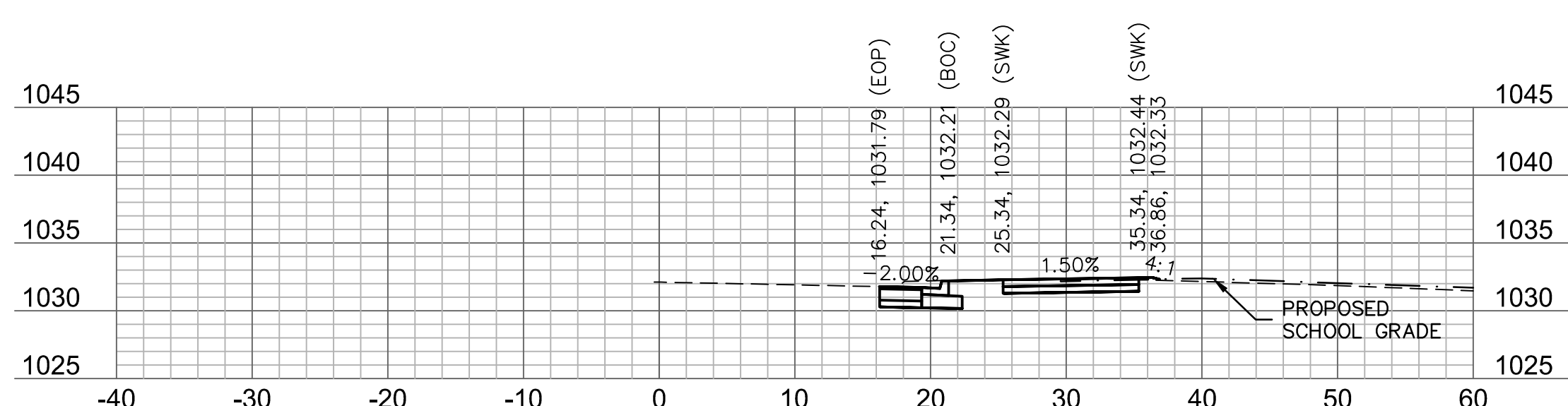
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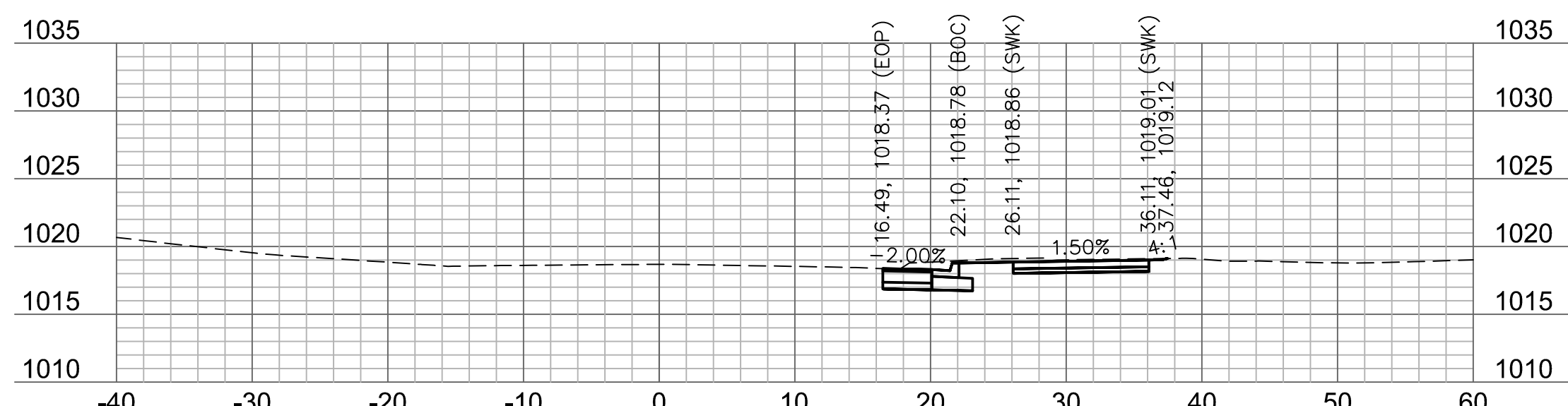
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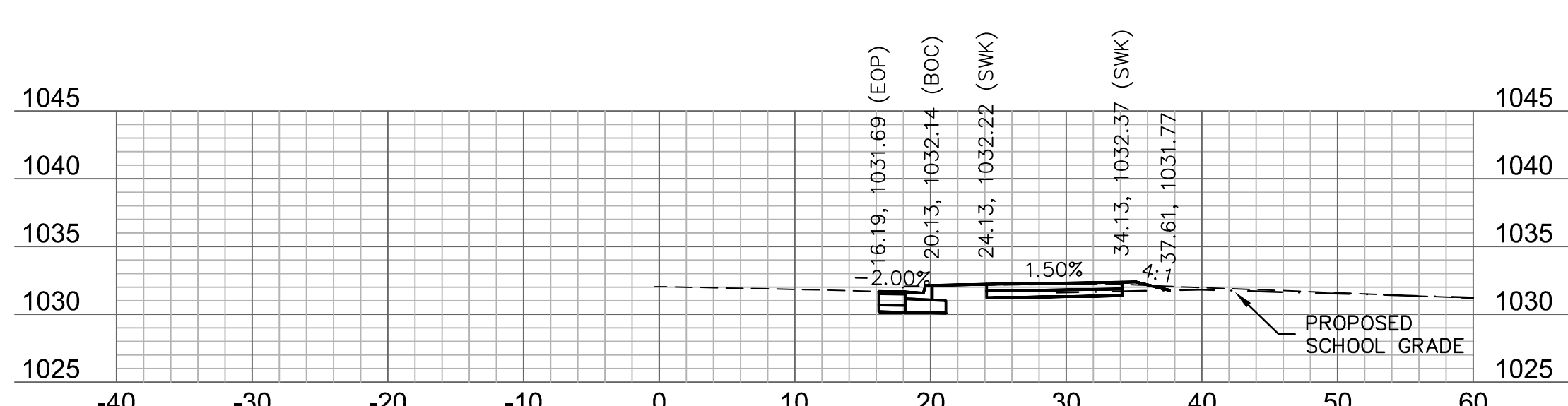
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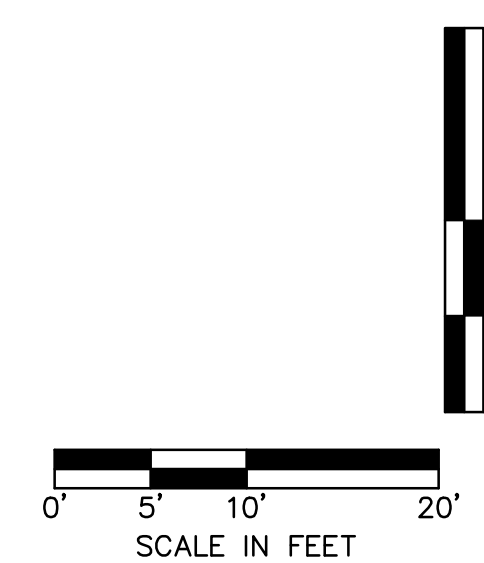
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63+25



84+00



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BAILEY ROAD  
CROSS SECTIONS

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

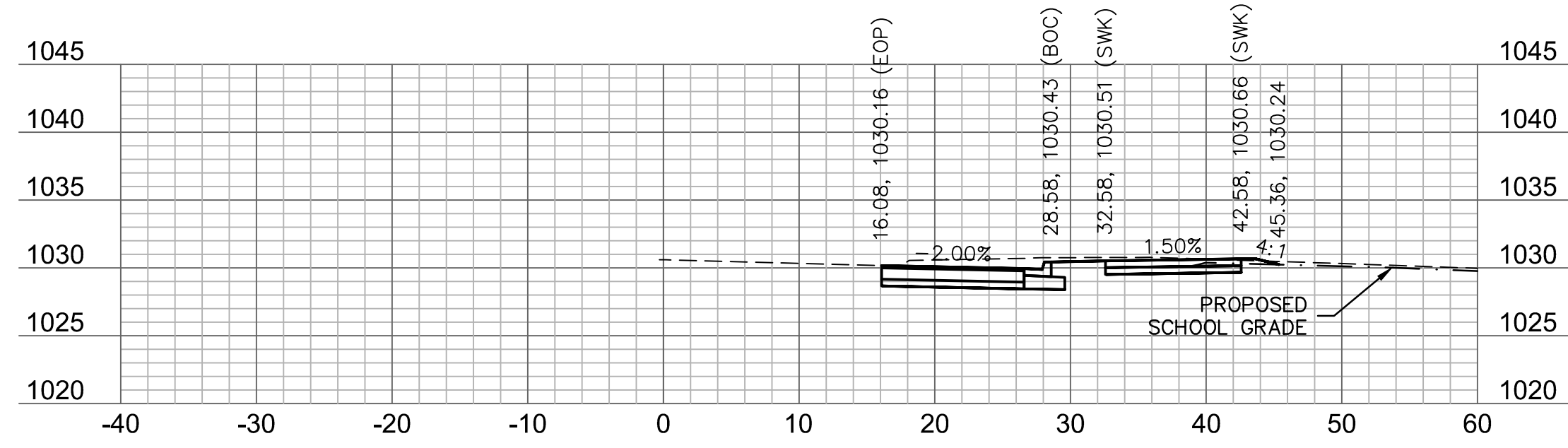
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2021

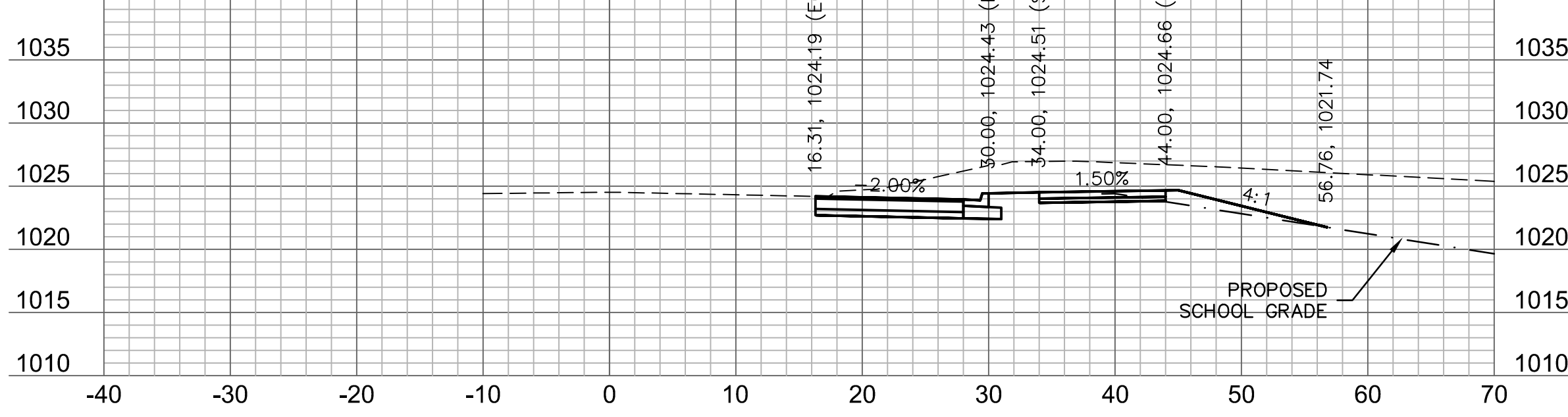
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SHEET  
94 OF 101

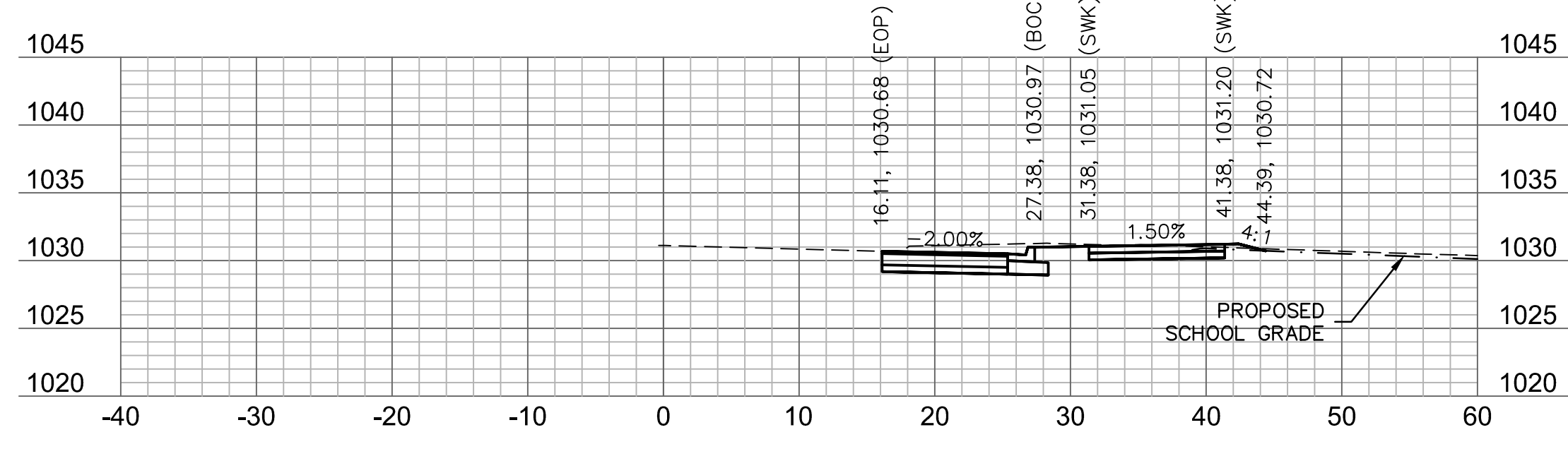
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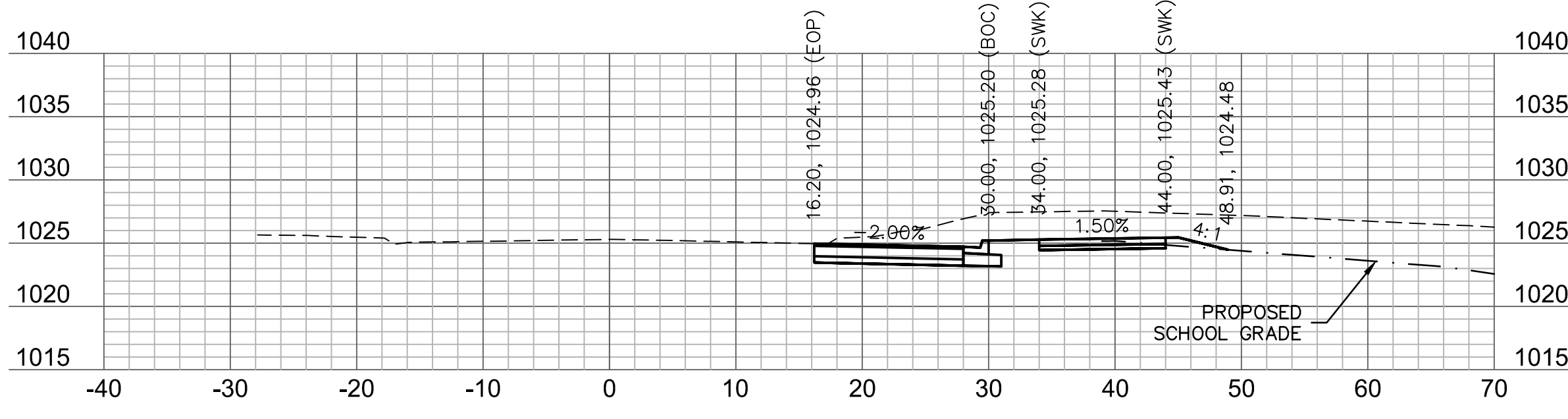
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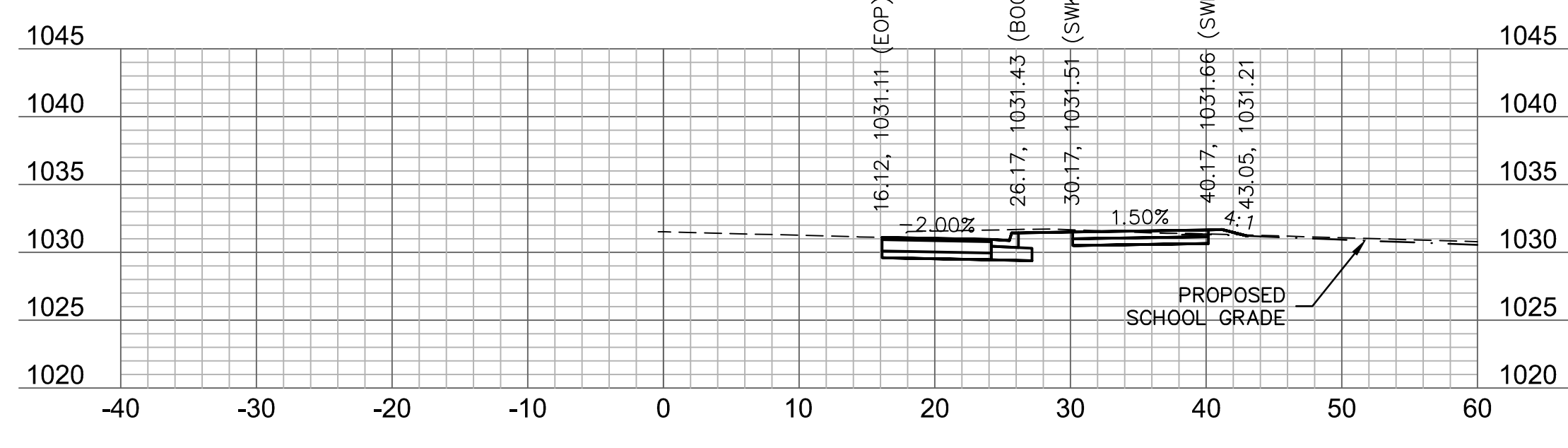
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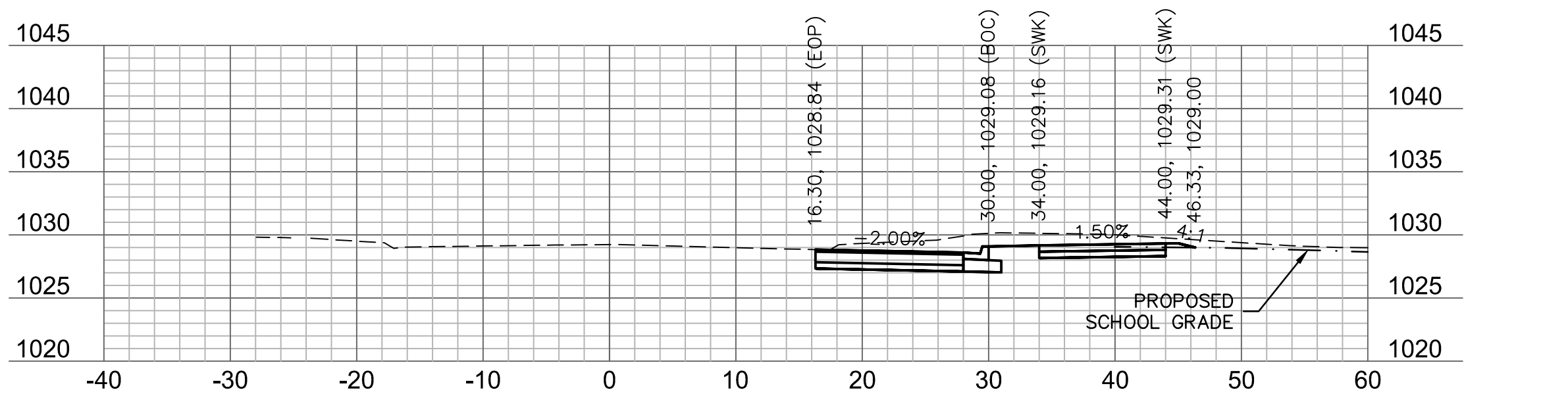
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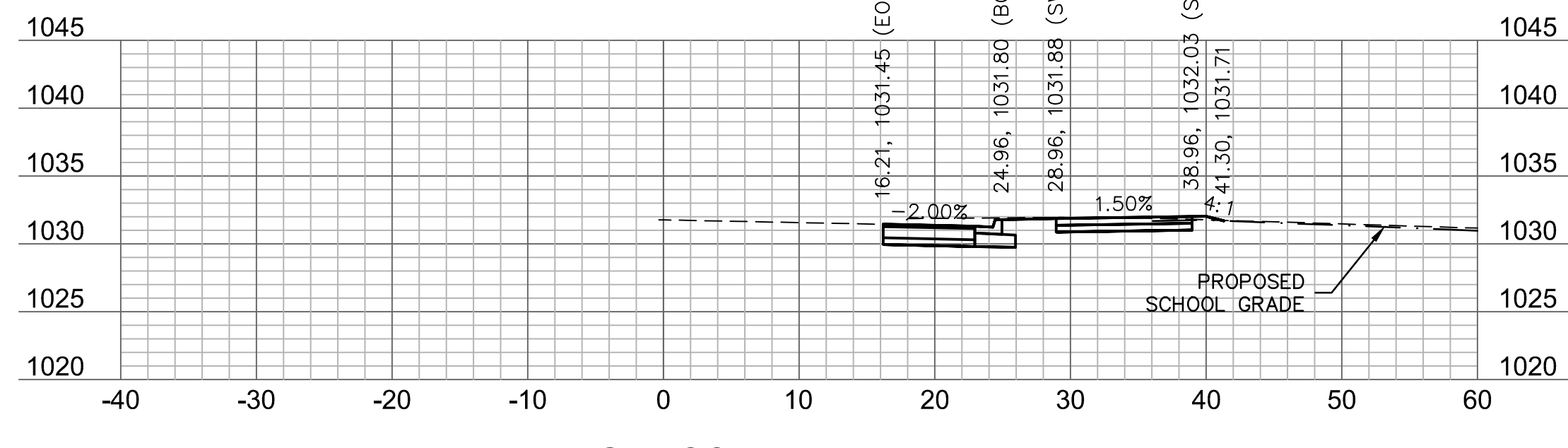
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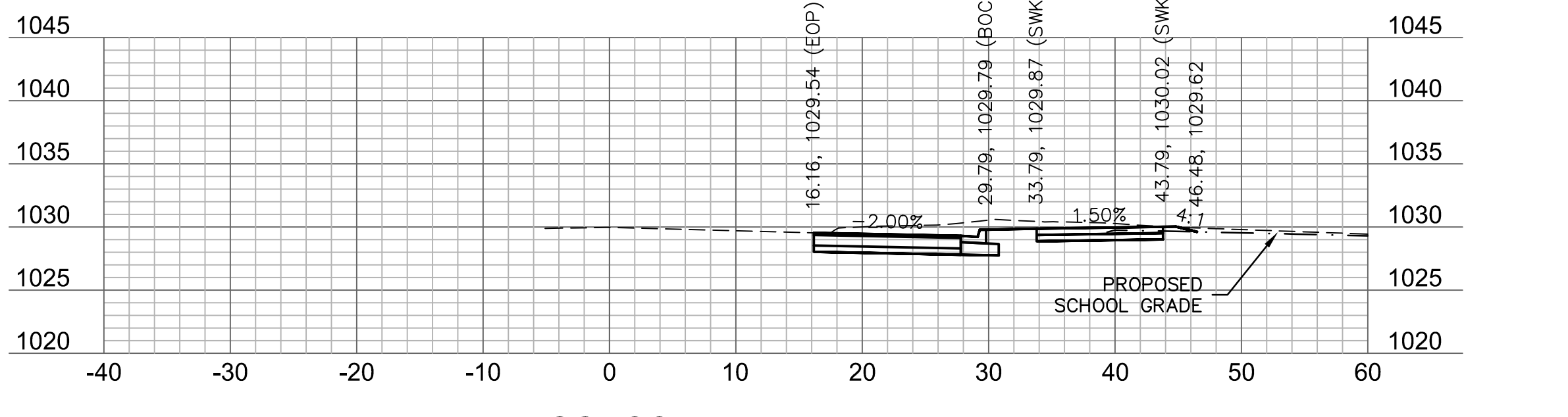
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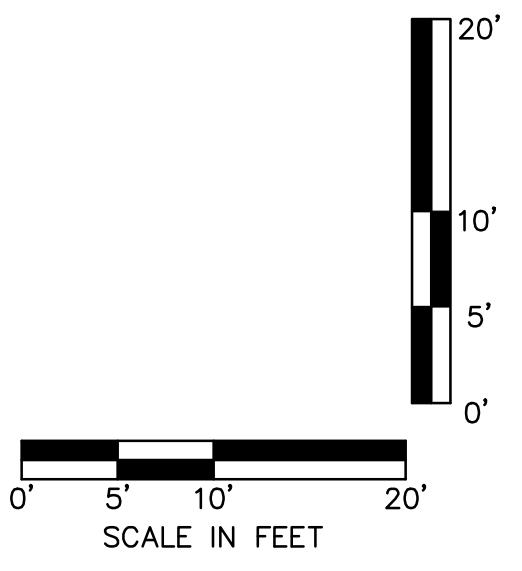
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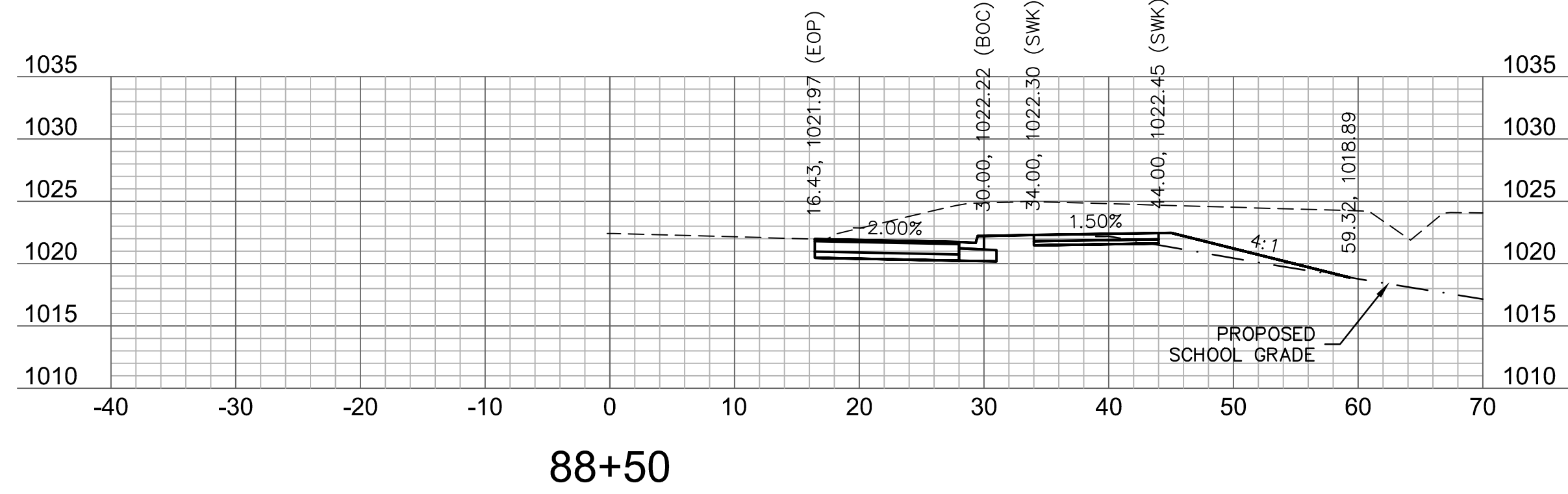
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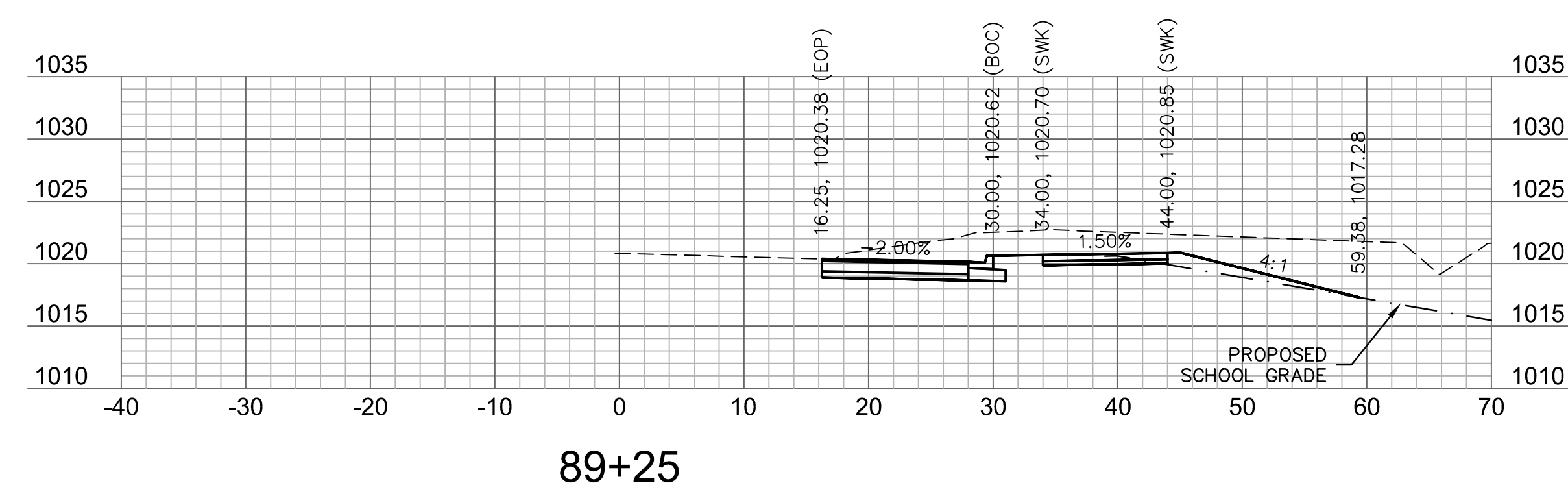
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 LEE'S SUMMIT, MISSOURI  
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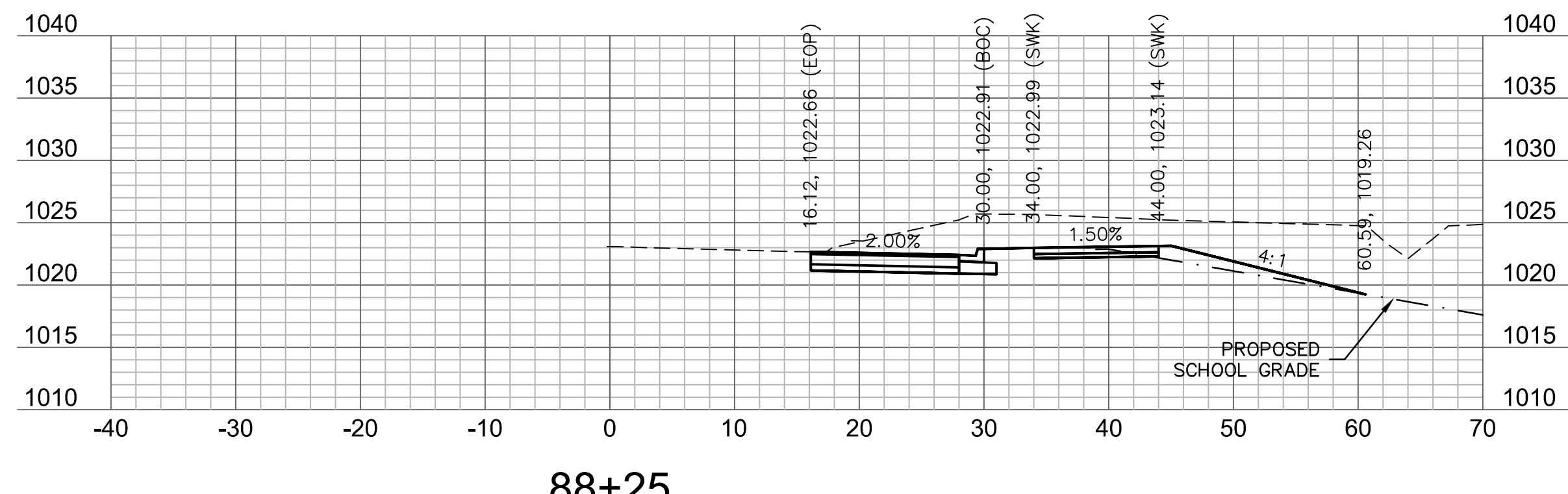
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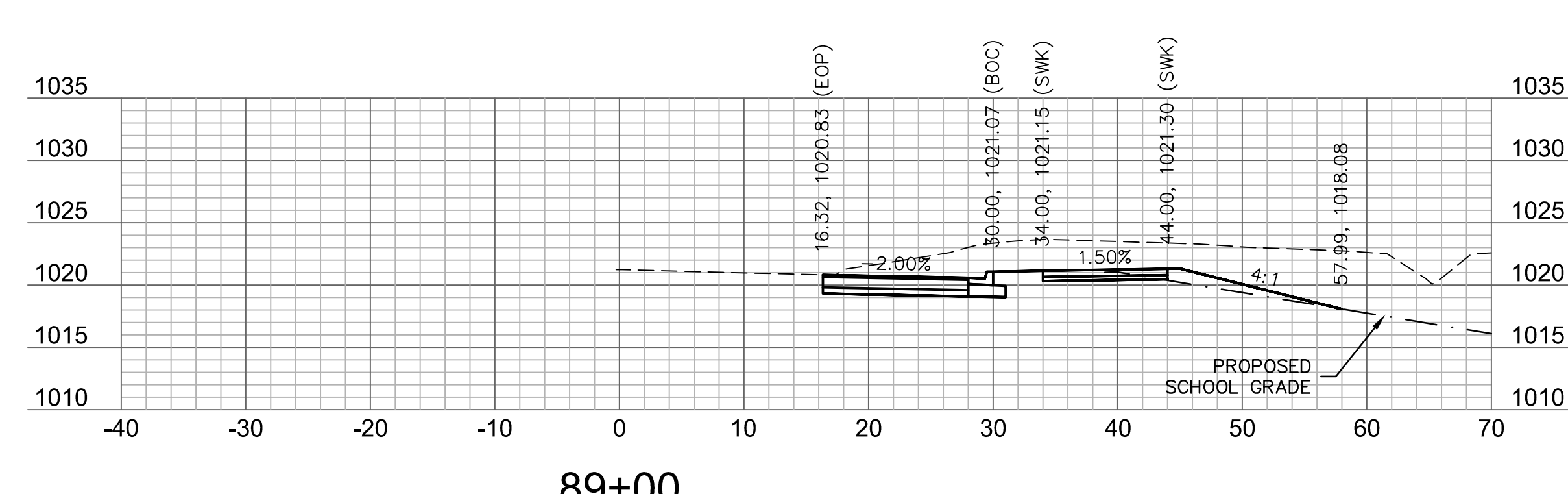
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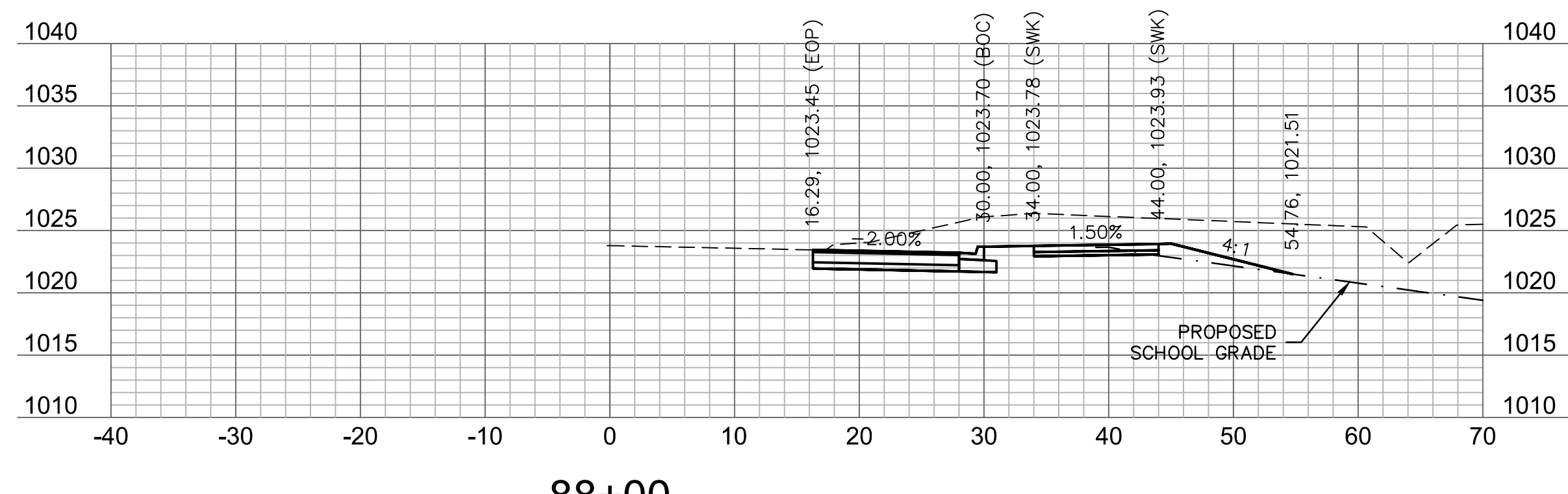
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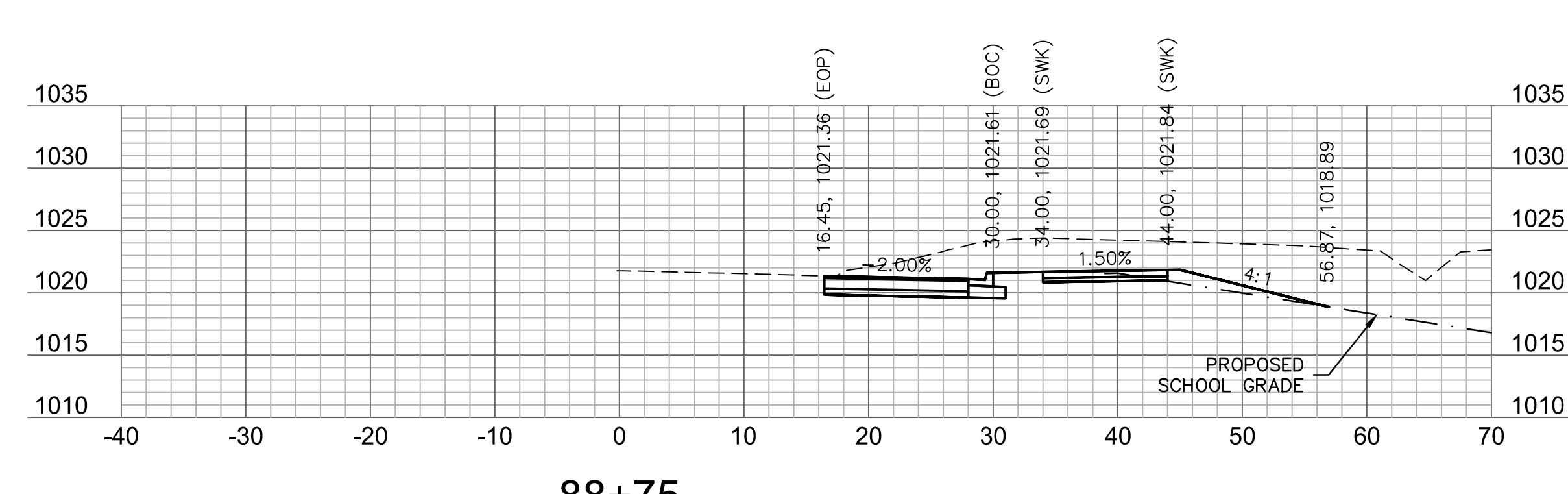
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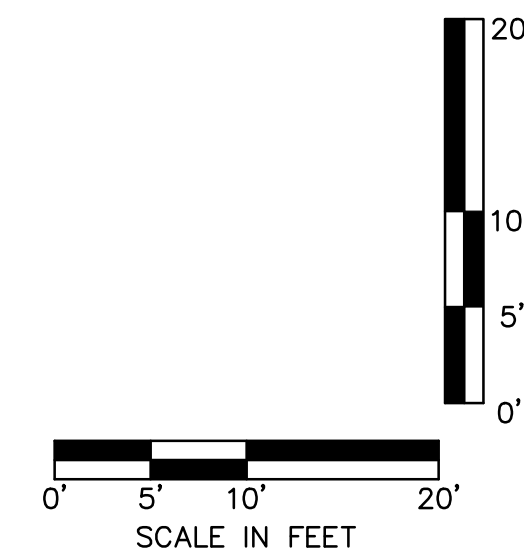
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88+00



88+75



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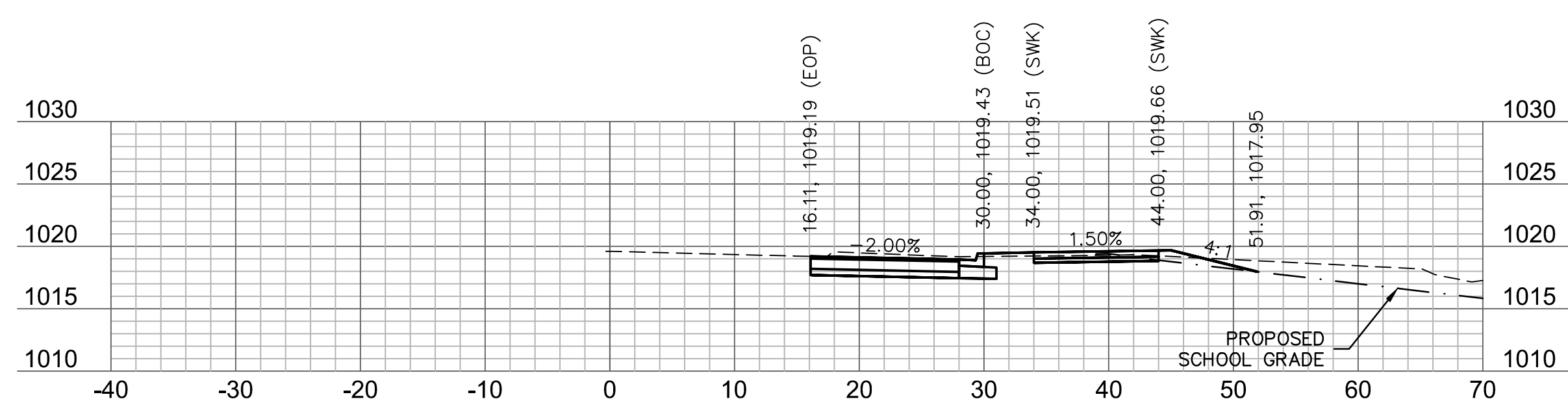
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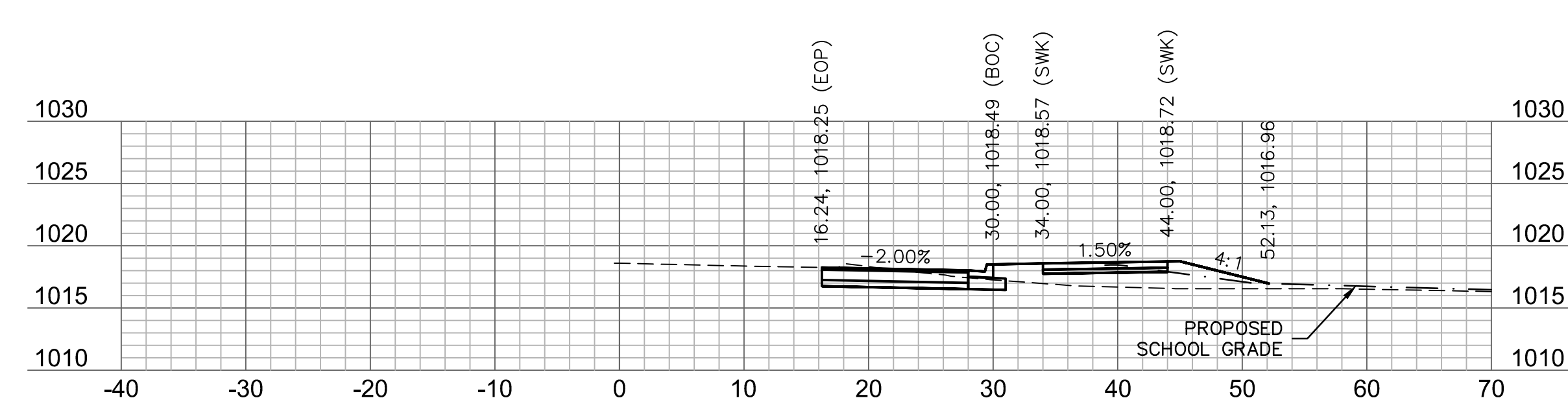
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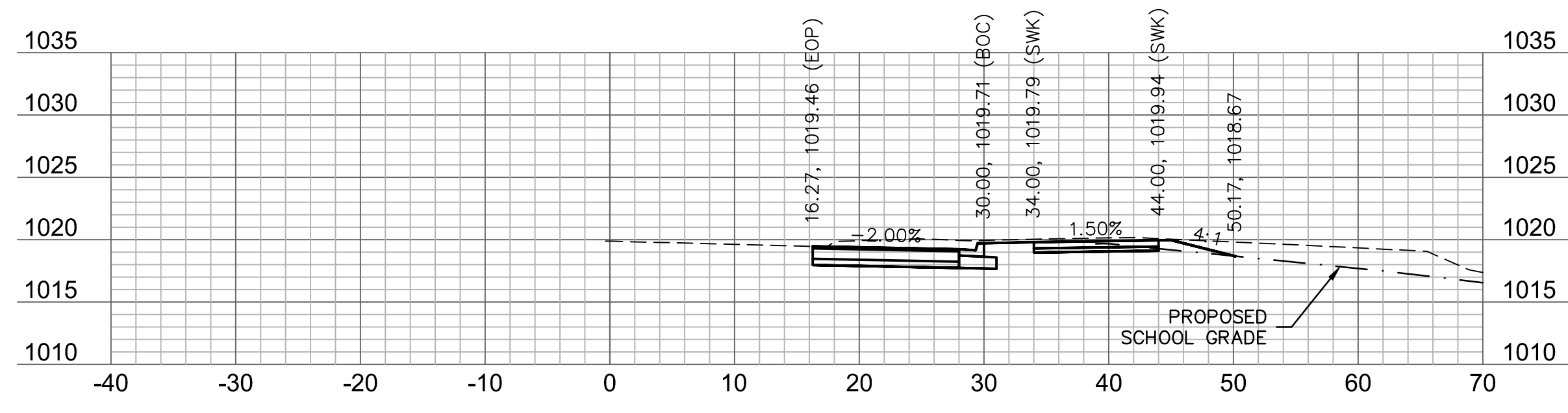
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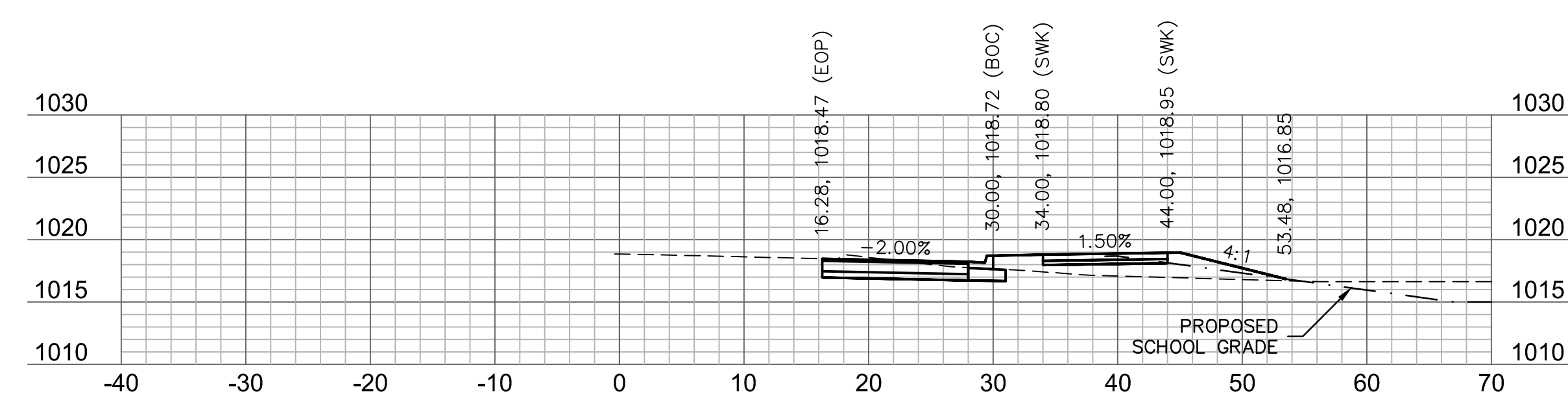
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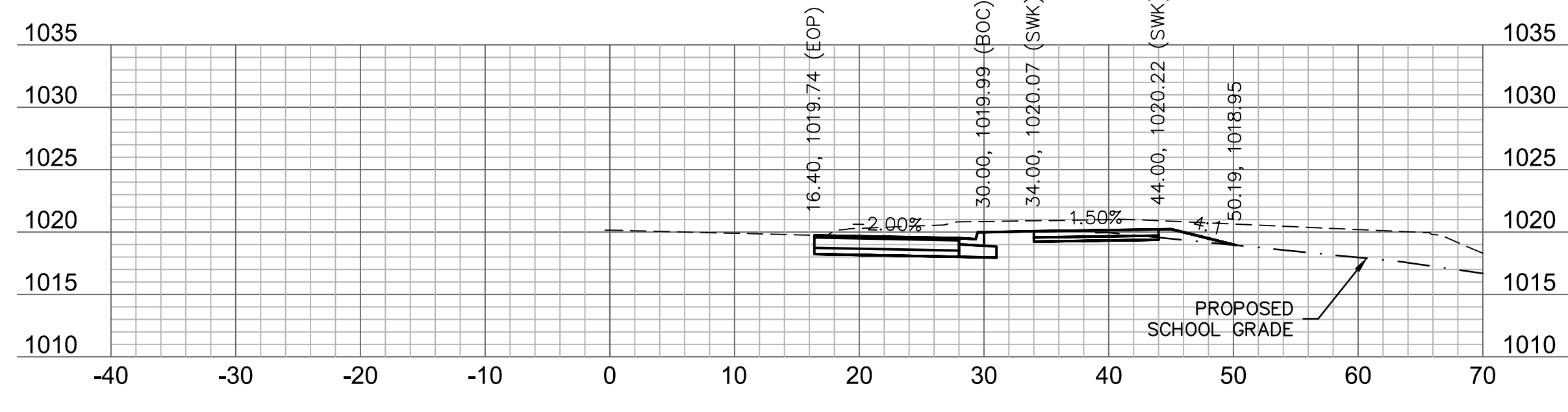
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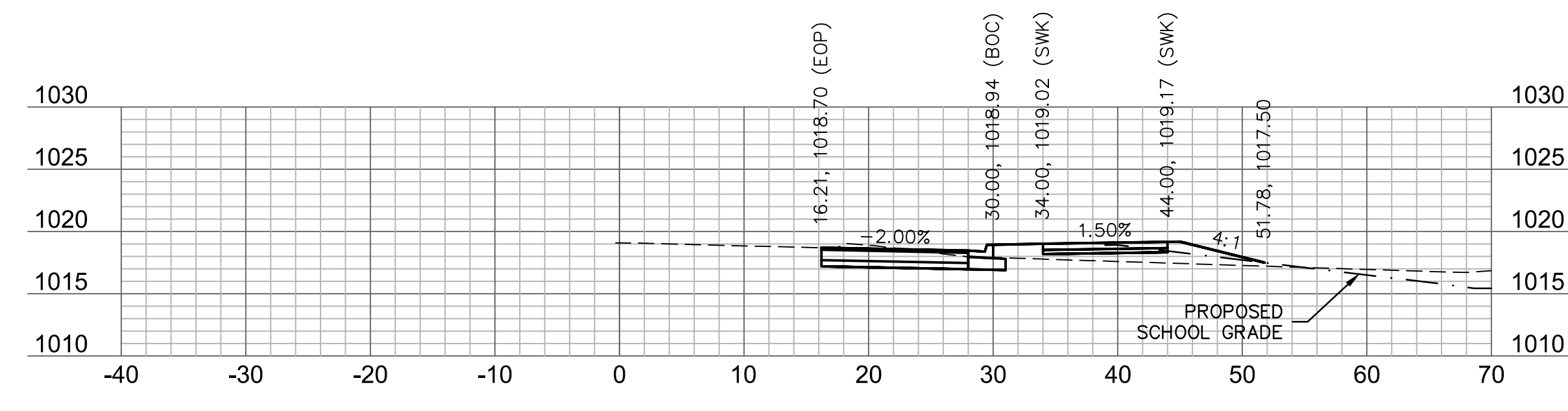
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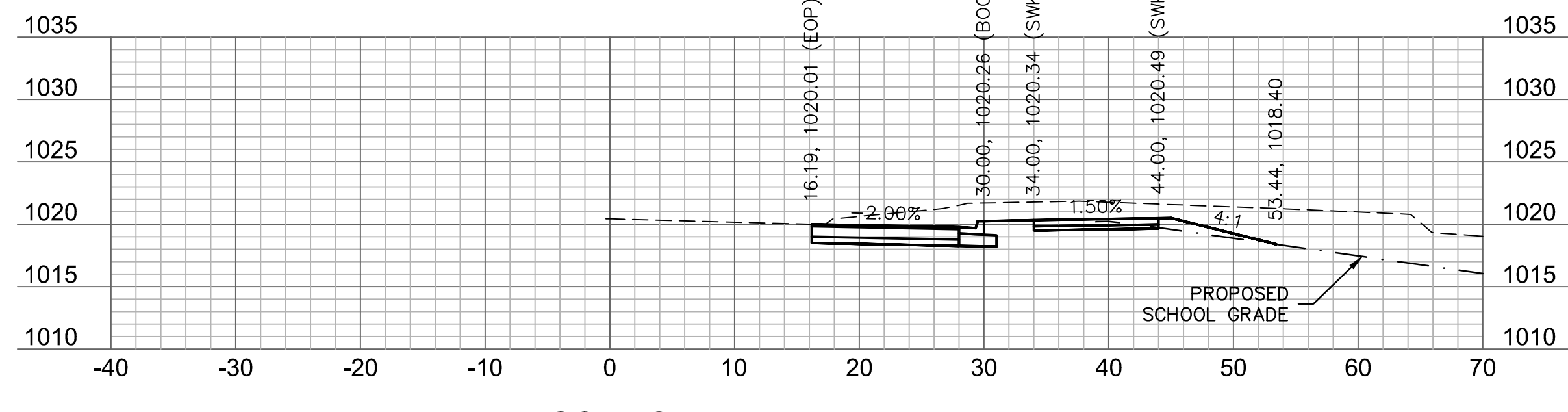
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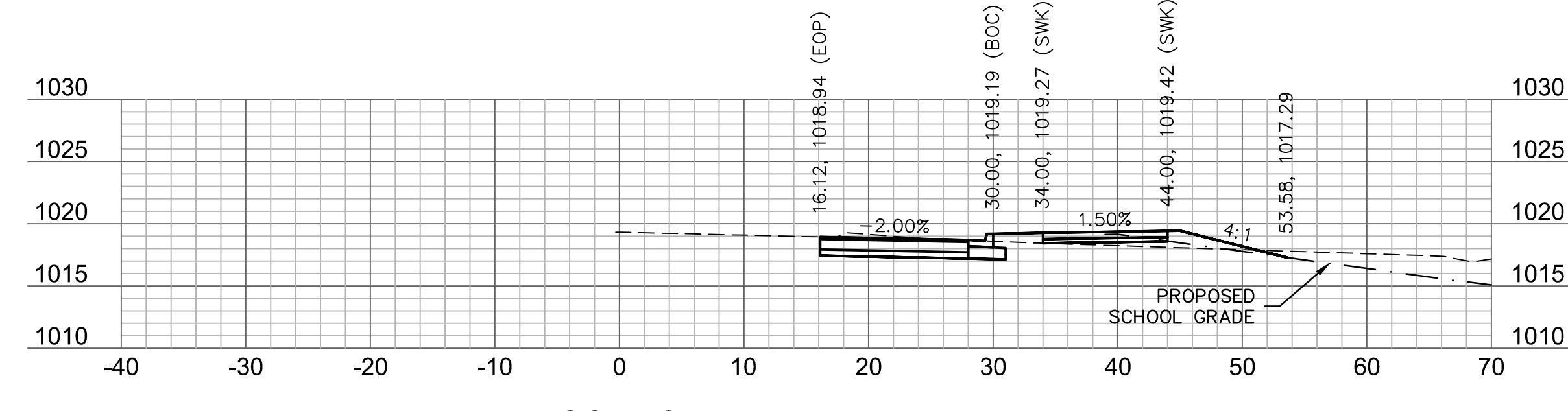
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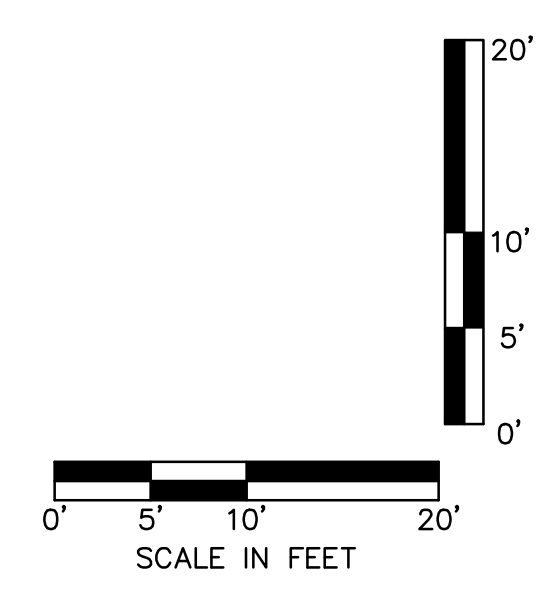
90+75



89+50



90+50



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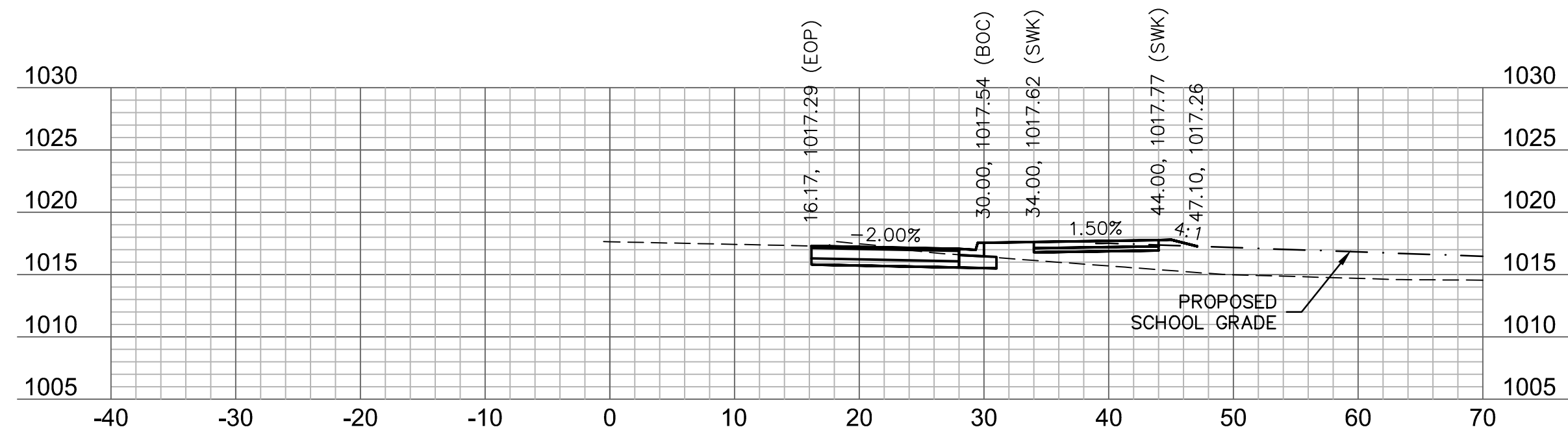
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

BAILEY ROAD CROSS SECTIONS  
 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

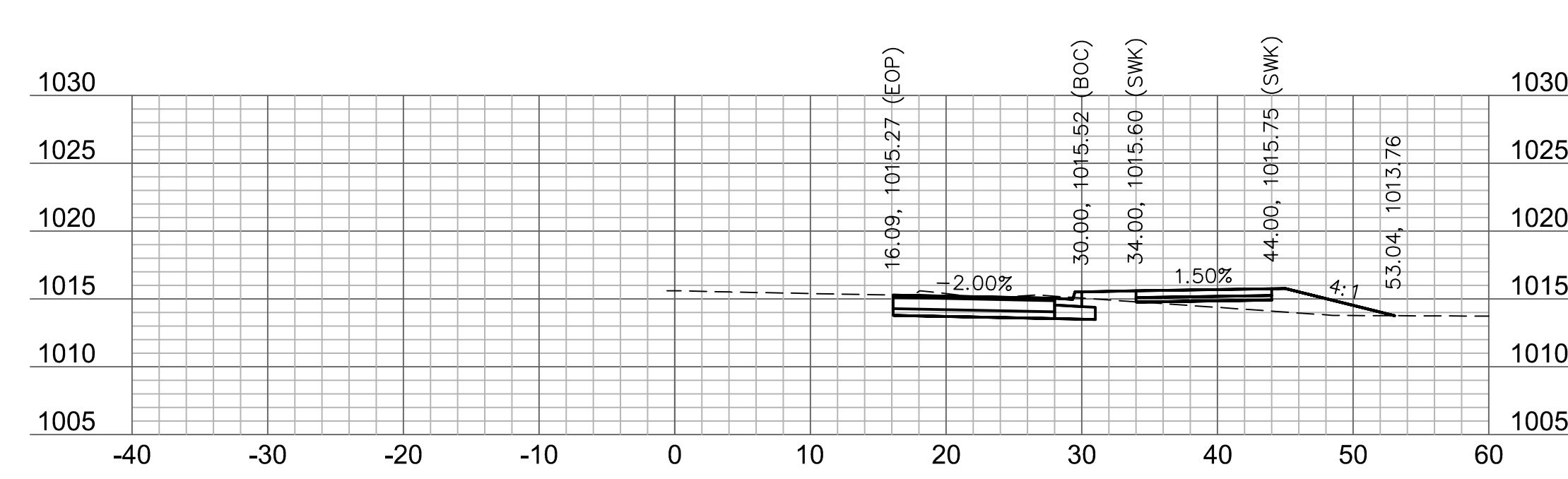
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 CHECKED BY: RPH  
 APPROVED BY: RBE  
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 PROJECT NO.: 020-0103  
 DWG NO.: T\_XSC01\_0200103  
 DATE: 2022-11-04

**SHEET 97 OF 101**

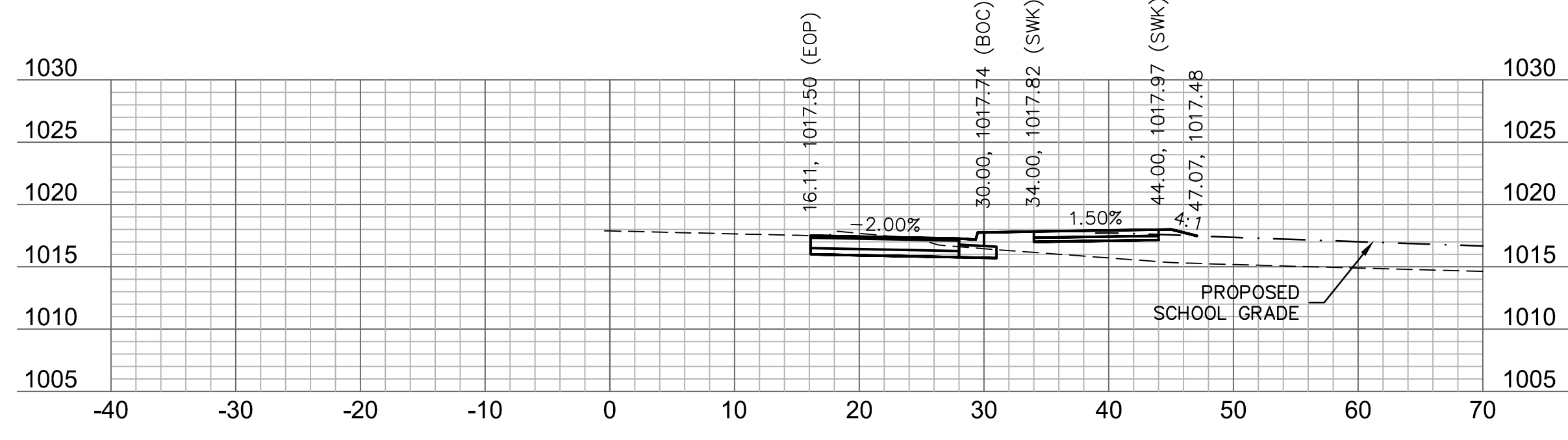
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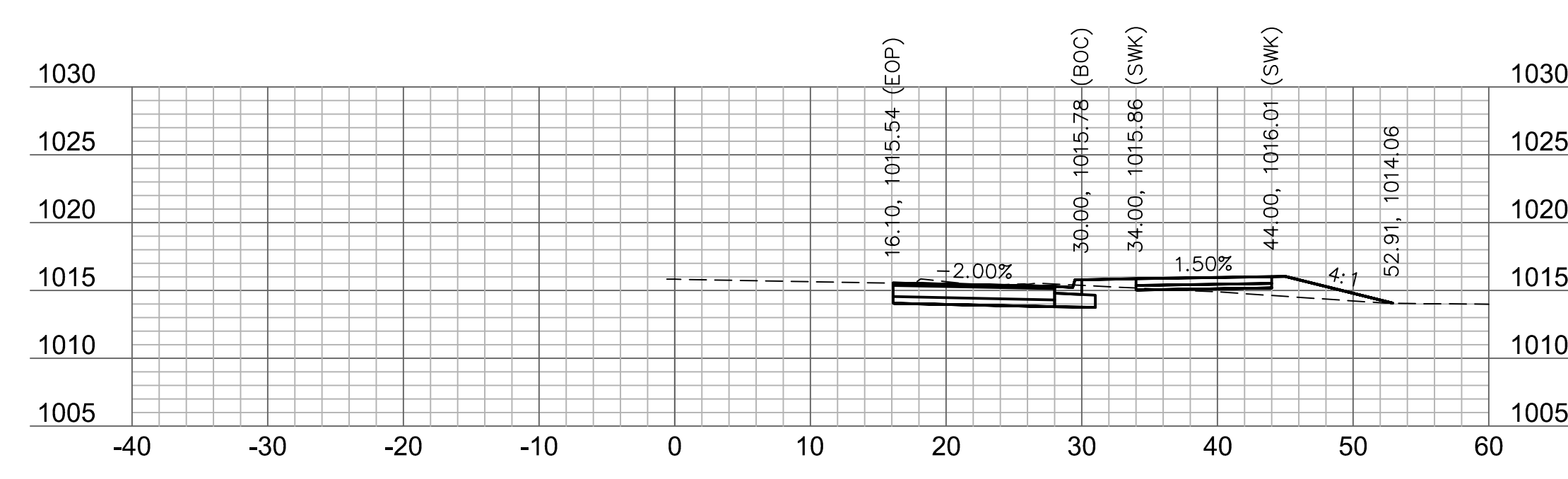
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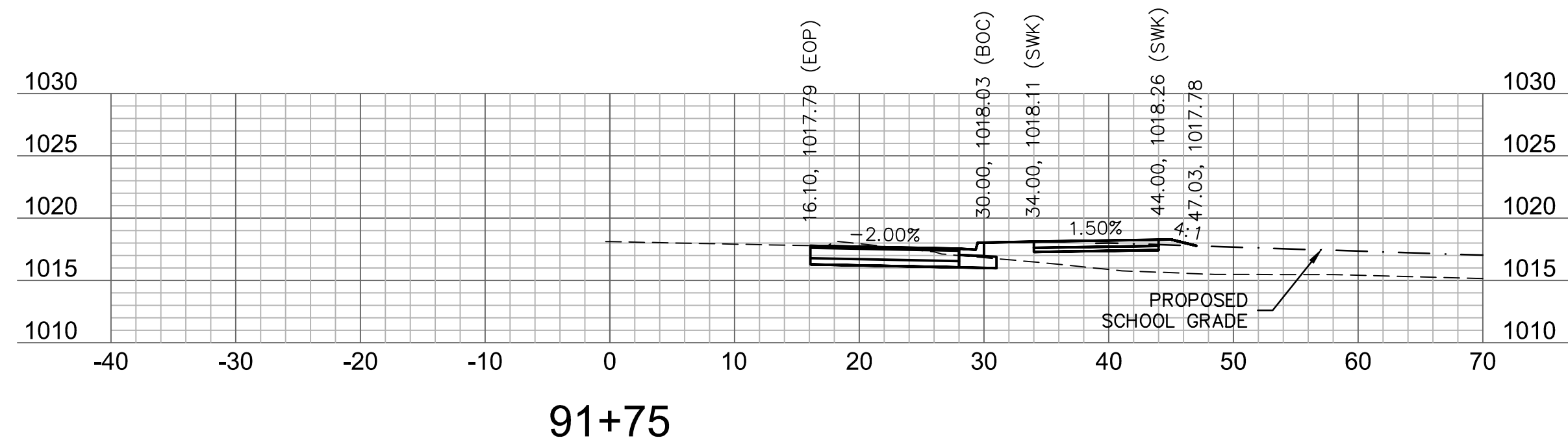
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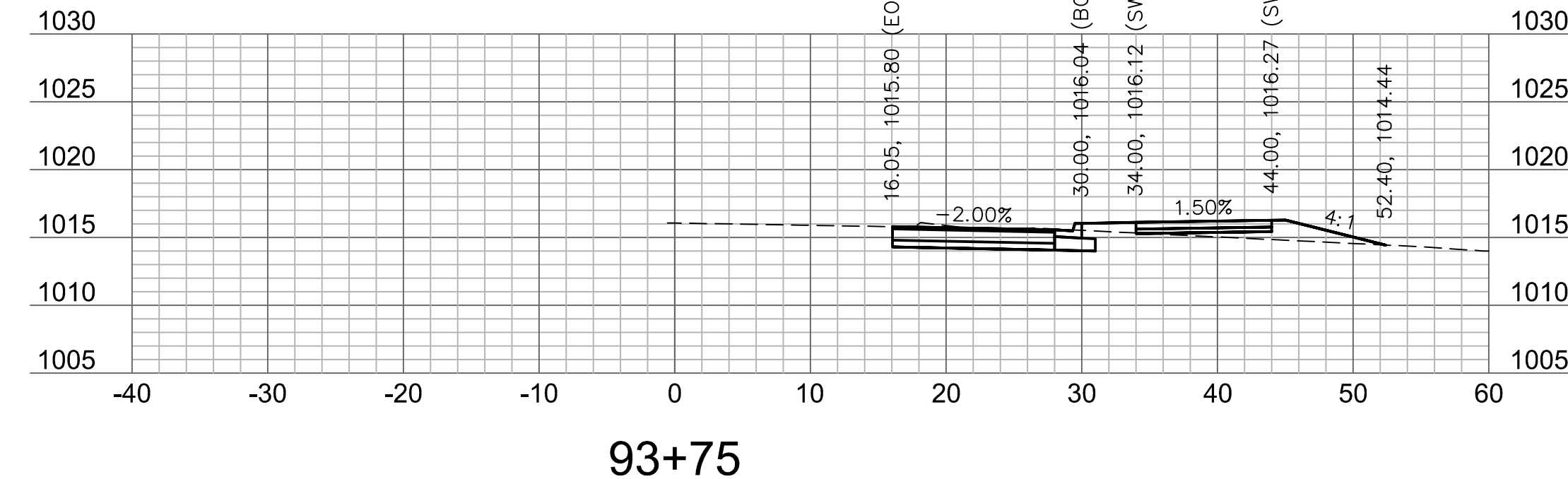
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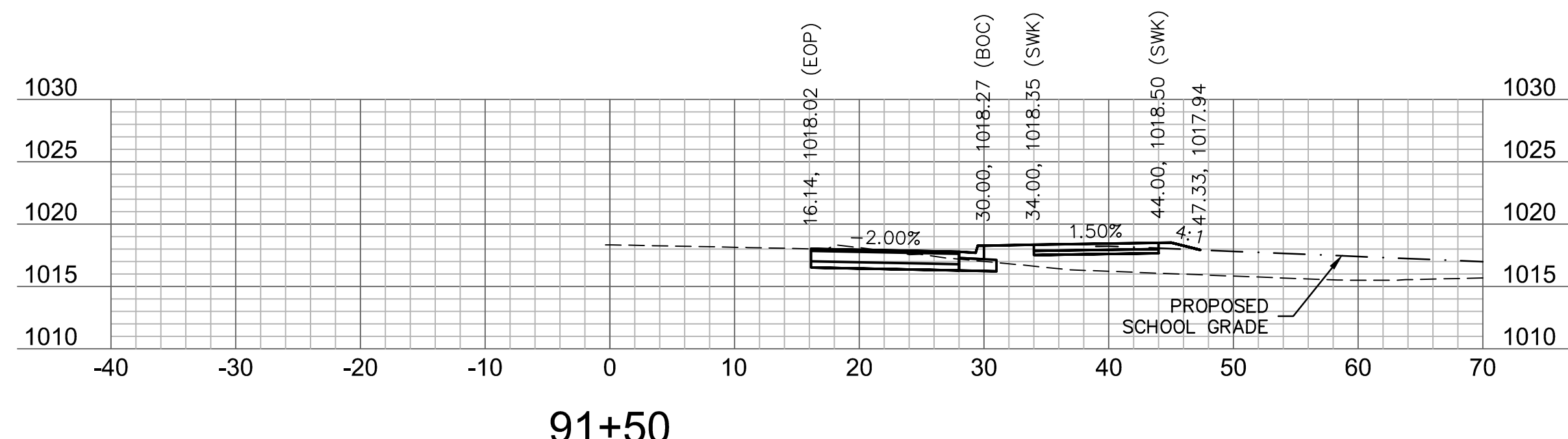
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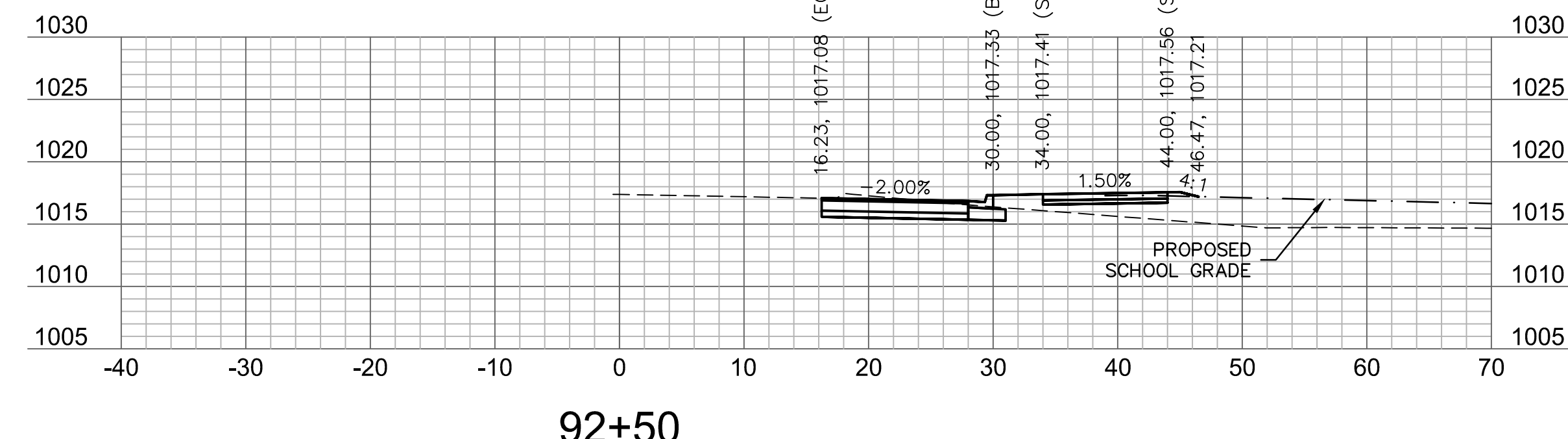
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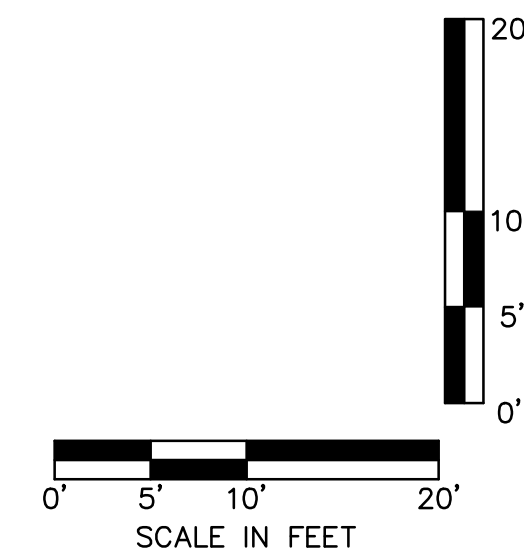
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91+50



92+50



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BAILEY ROAD CROSS SECTIONS

LEE'S SUMMIT MIDDLE SCHOOL #4  
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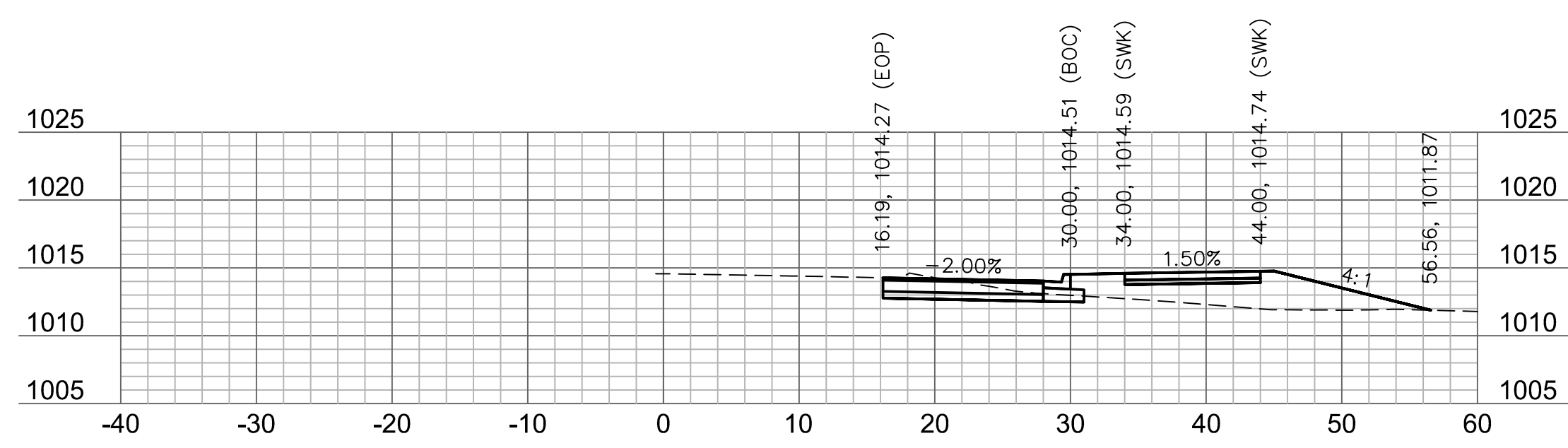
LEE'S SUMMIT, MISSOURI

2021

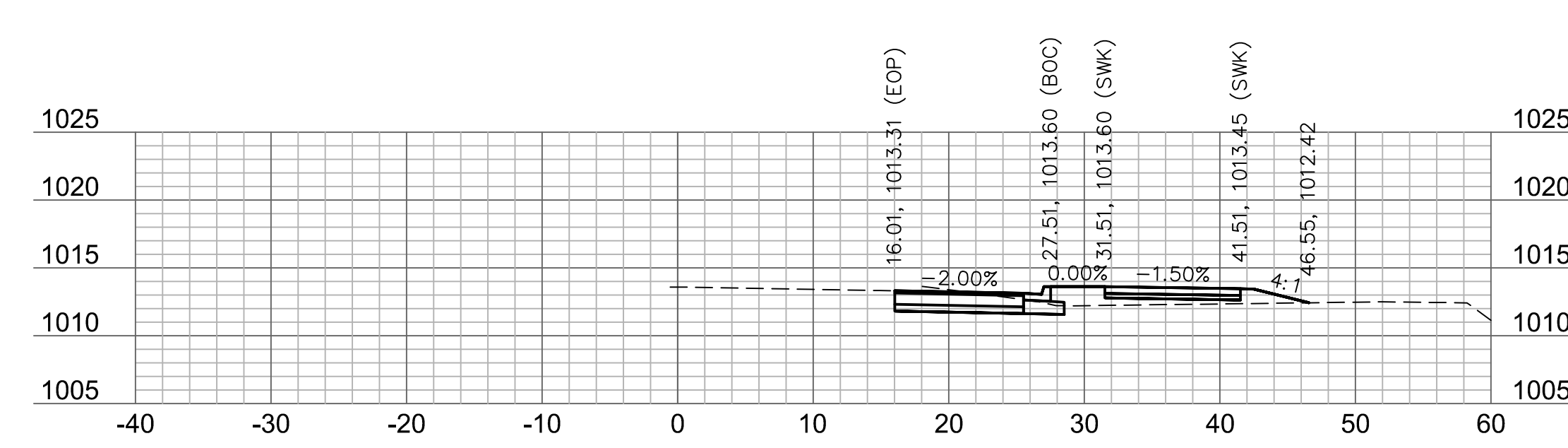
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 DWG NO.: T\_XSC01\_0200103  
 DATE: 2022-11-04

**SHEET 98 OF 101**

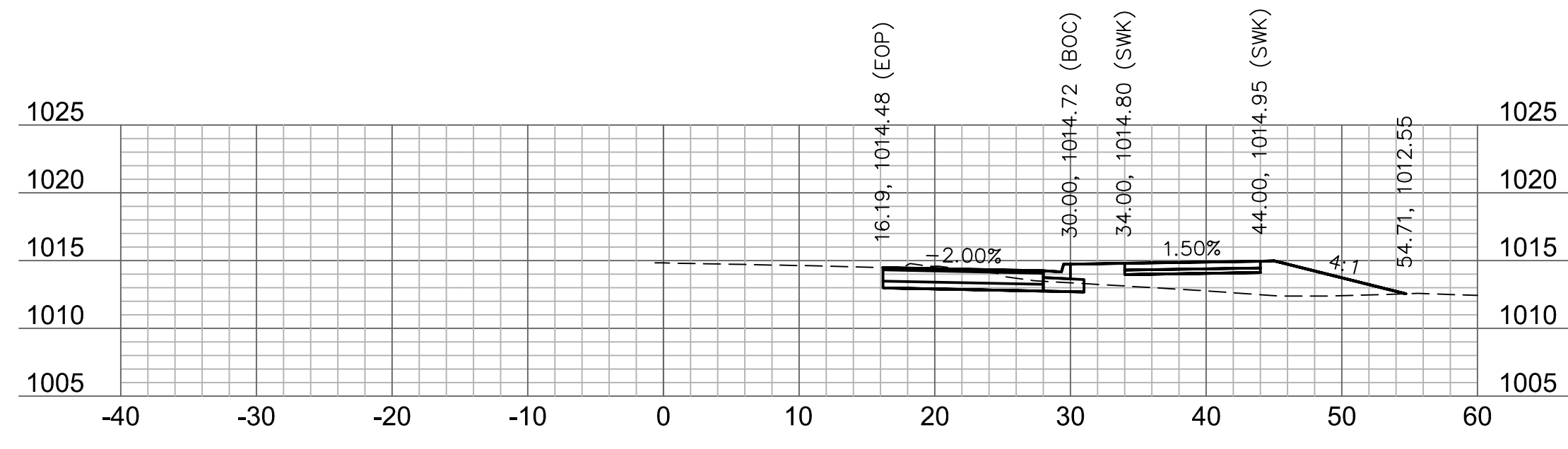
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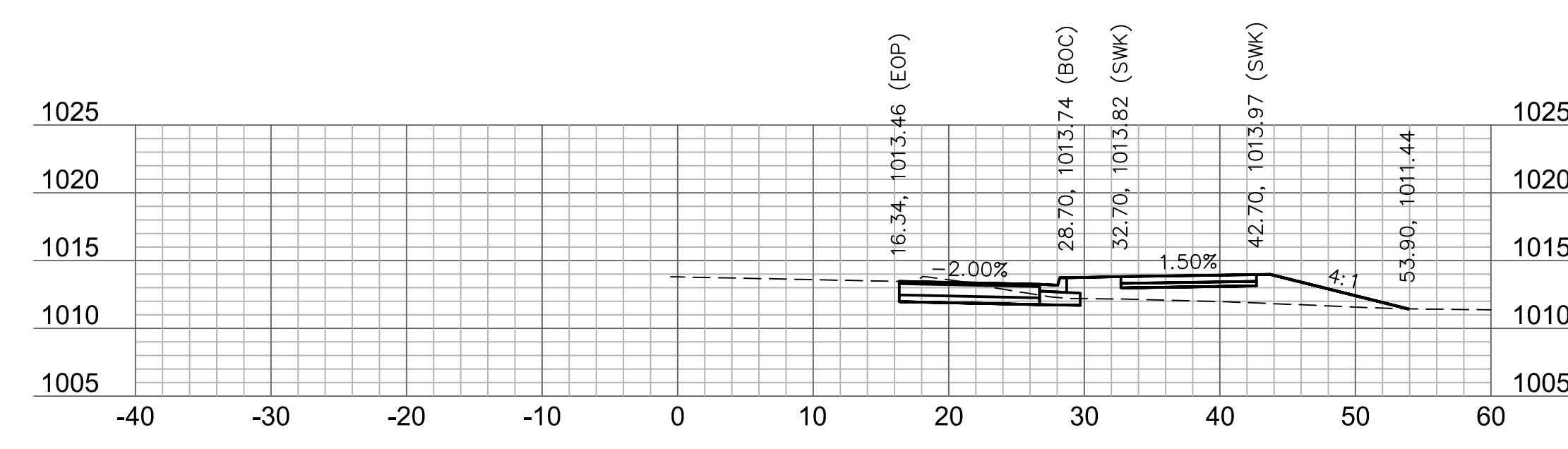
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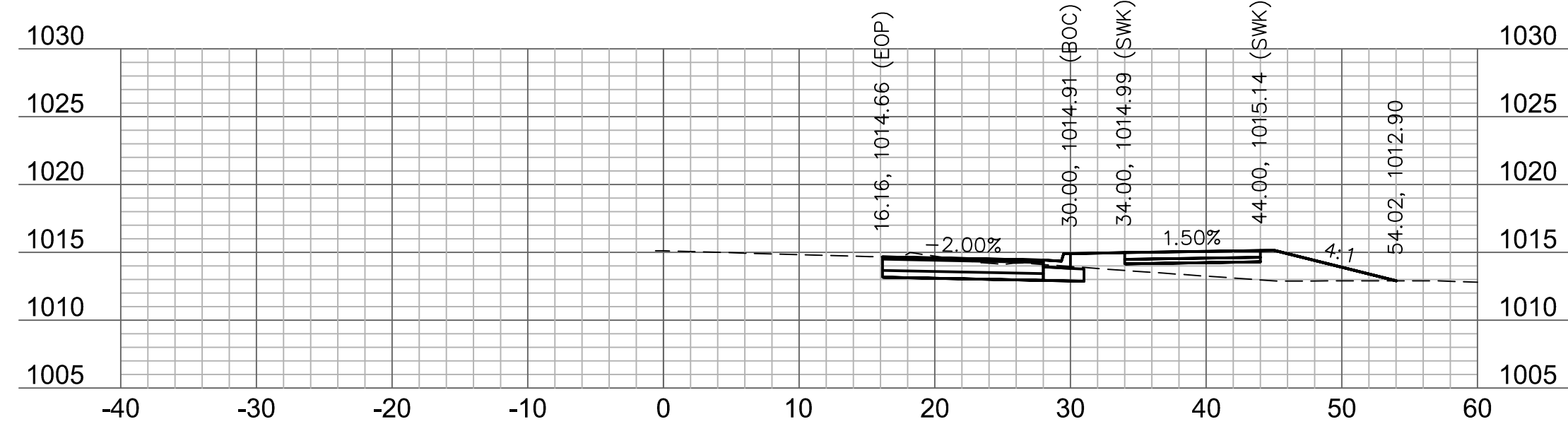
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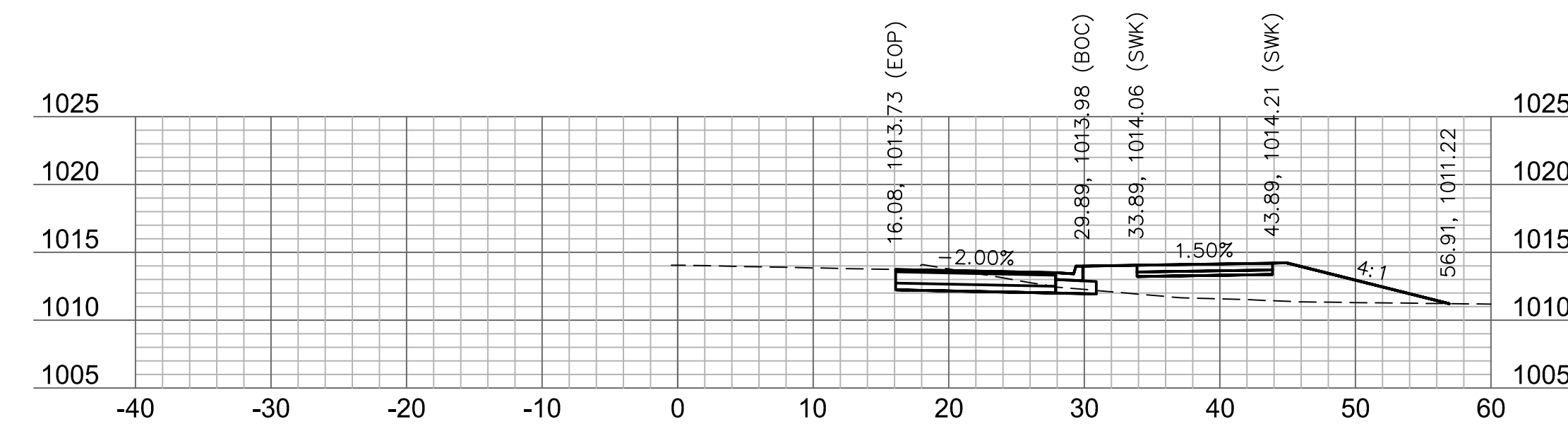
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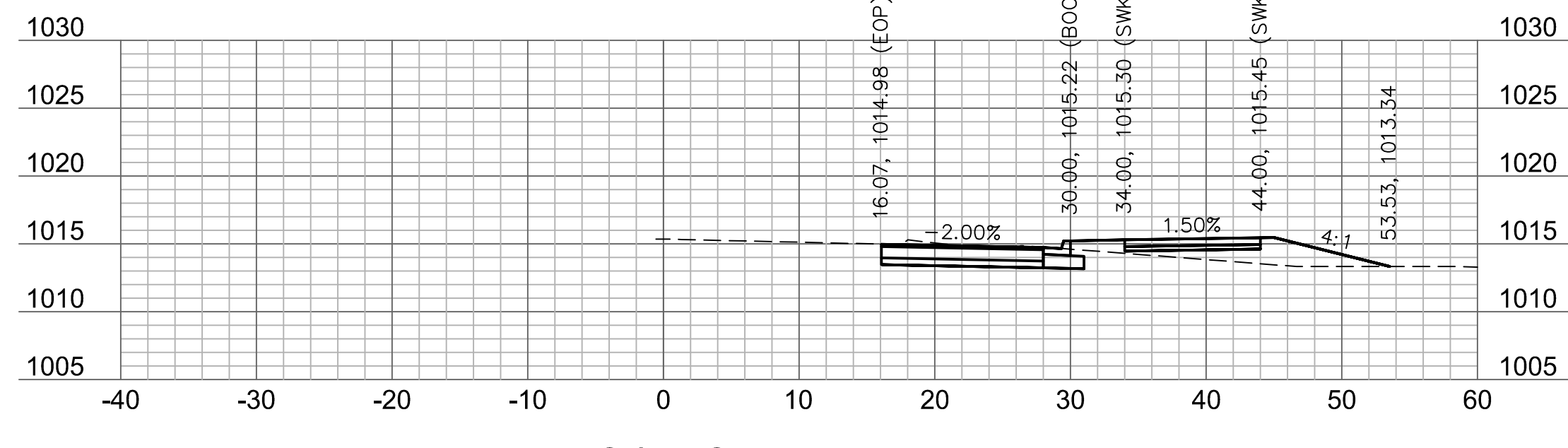
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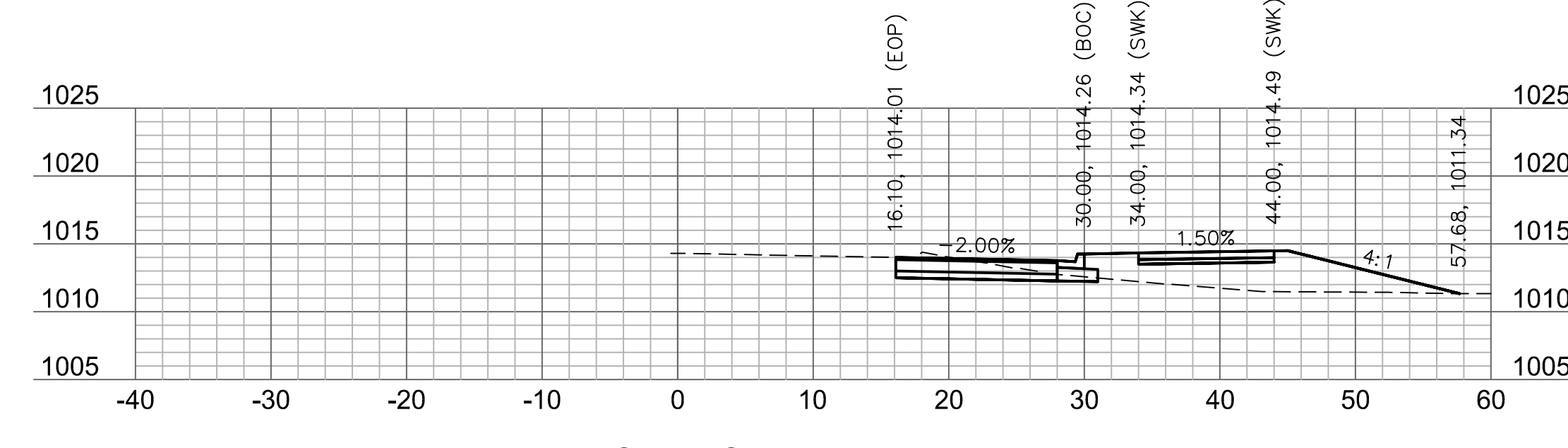
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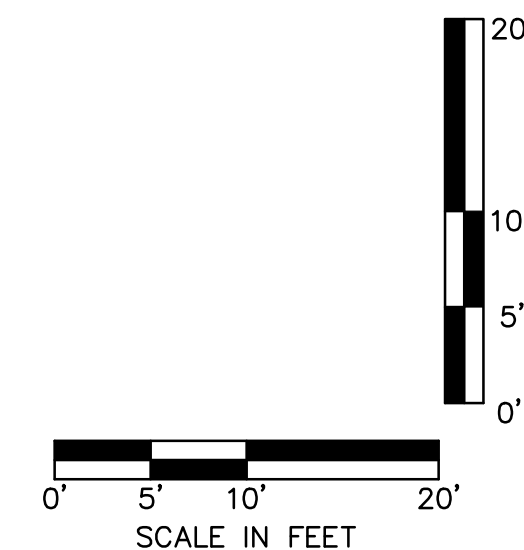
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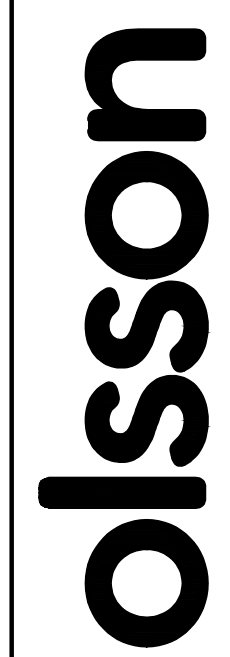


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95+50





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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

BAILEY ROAD  
CROSS SECTIONS

LEE'S SUMMIT MIDDLE SCHOOL #4  
BAILEY ROAD PUBLIC IMPROVEMENTS

2021

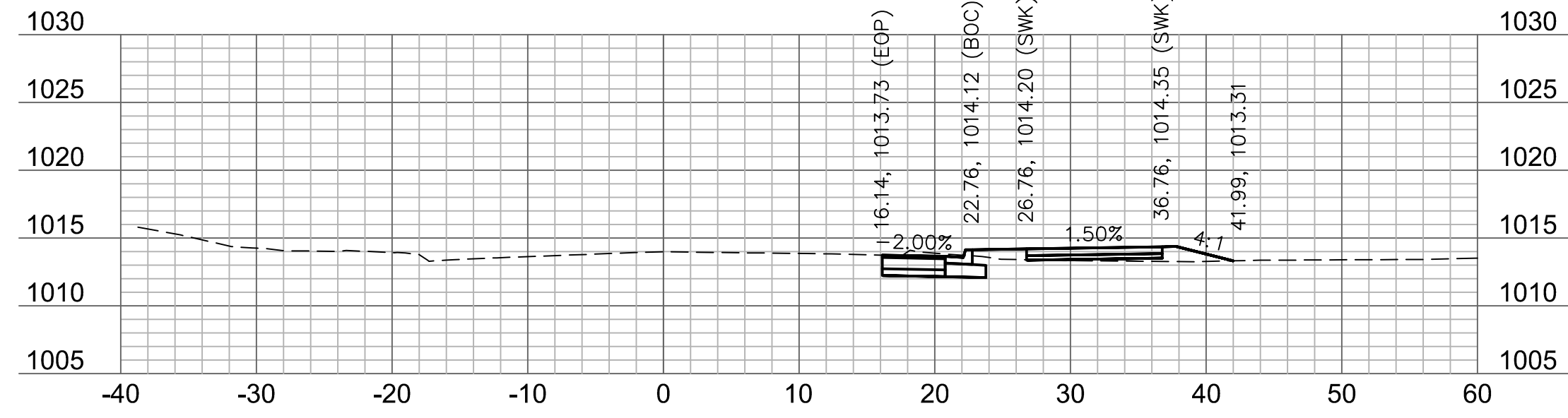
REVISIONS

C.O.A. NO.:	001592
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QA/QC BY:	RBE
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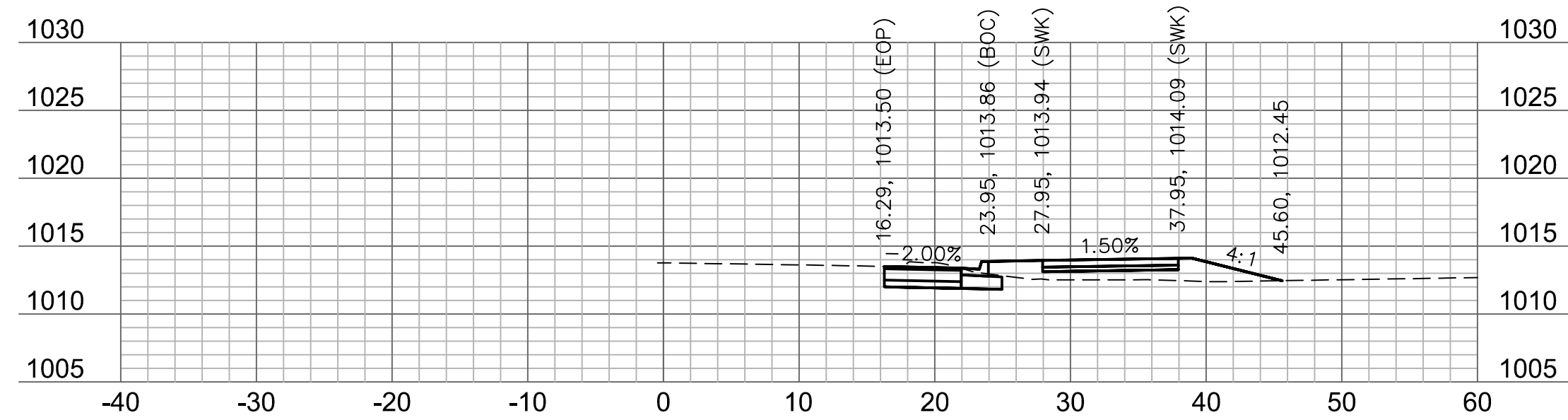
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**99 OF 101**

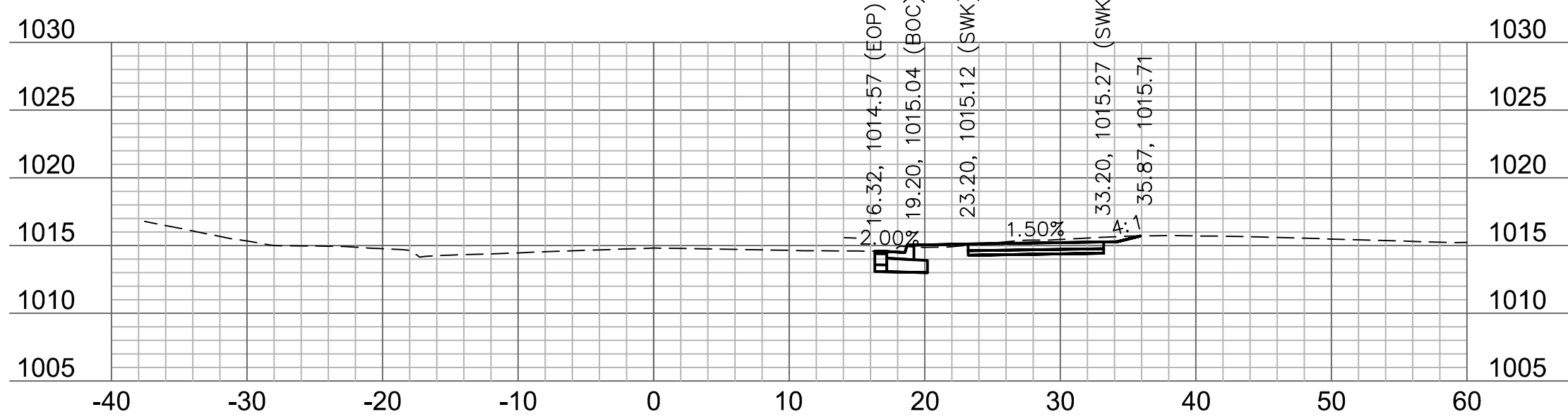
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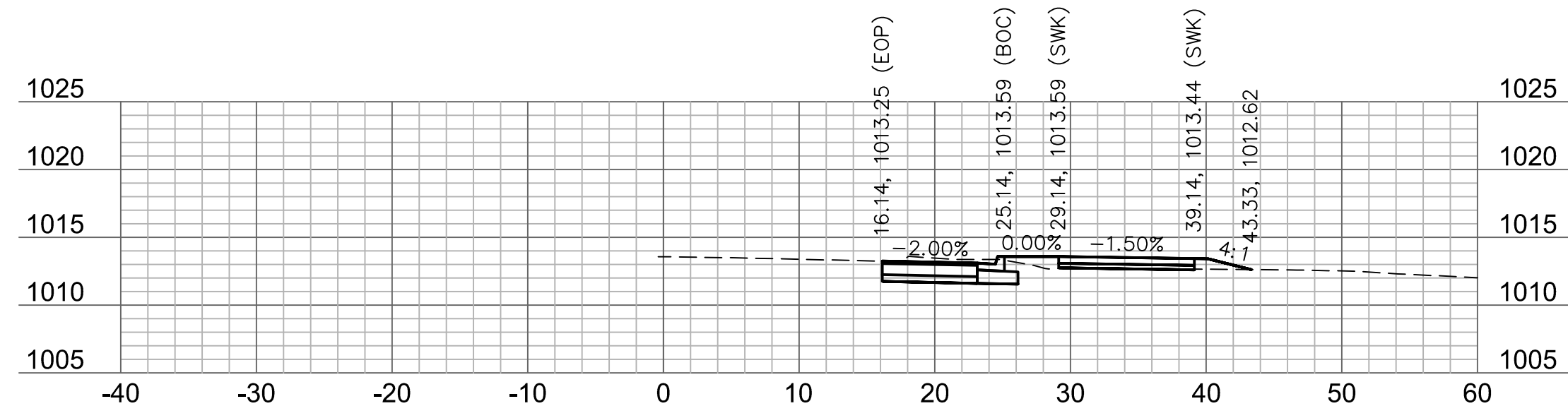
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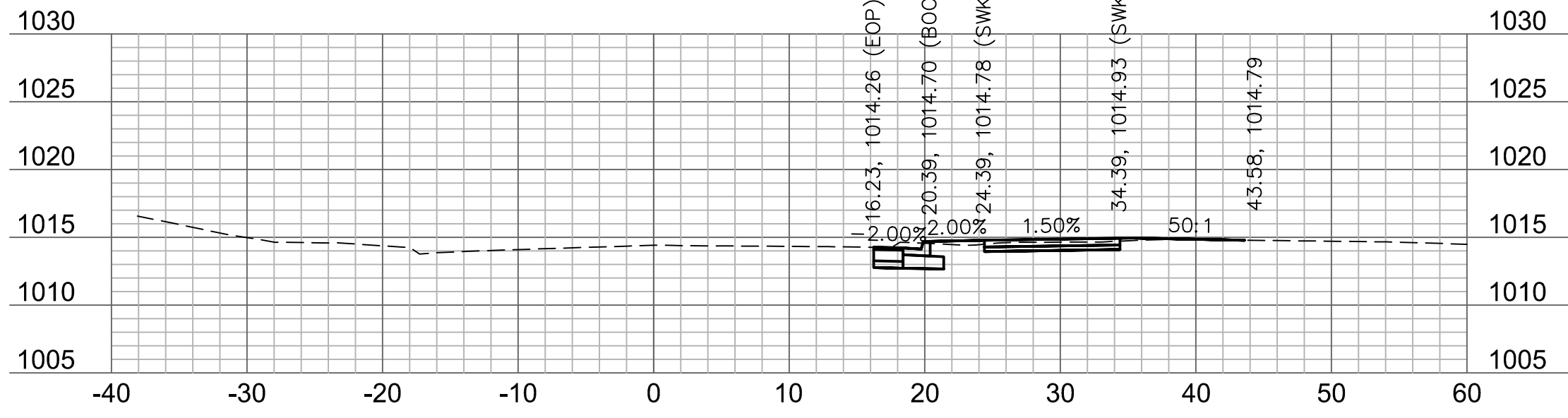
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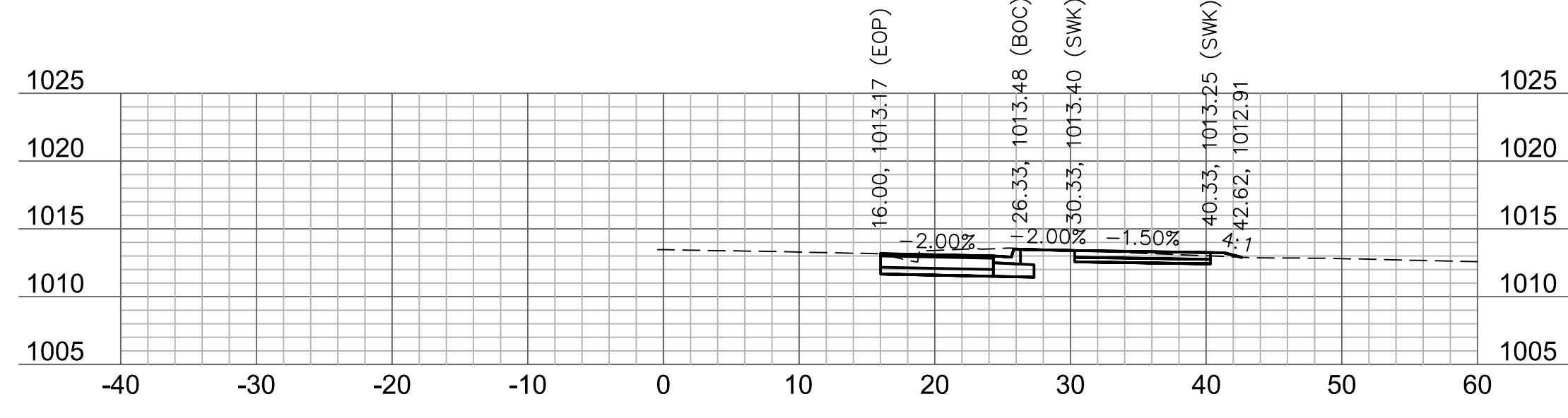
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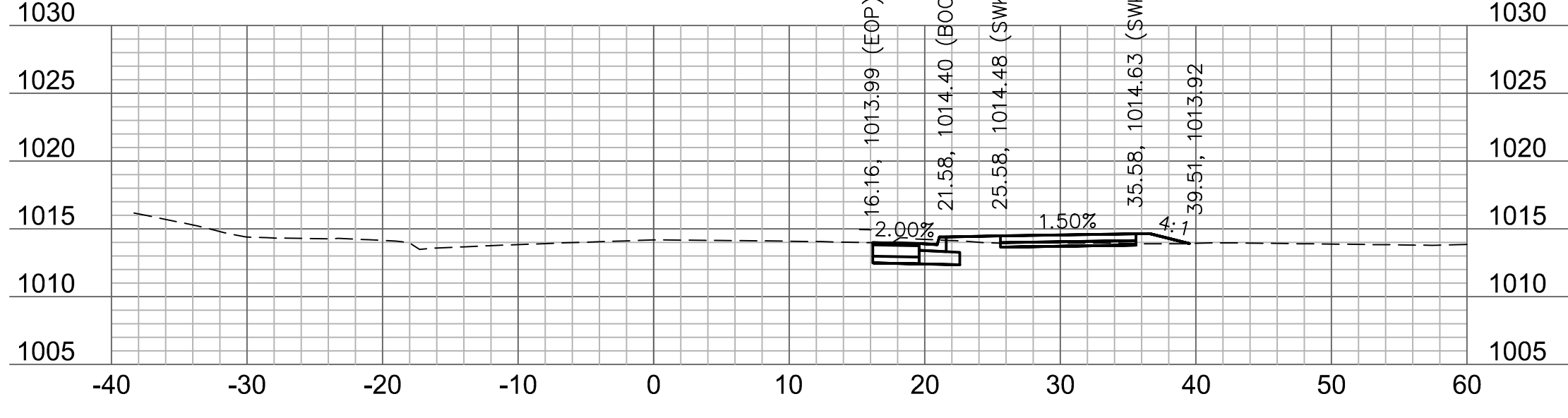
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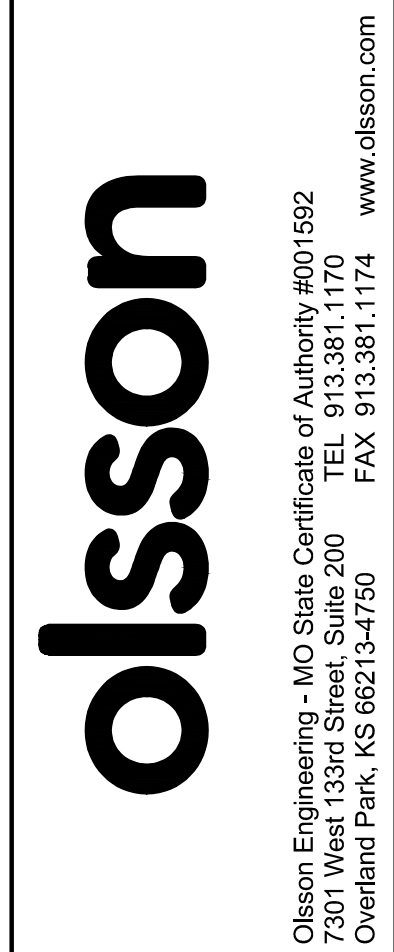
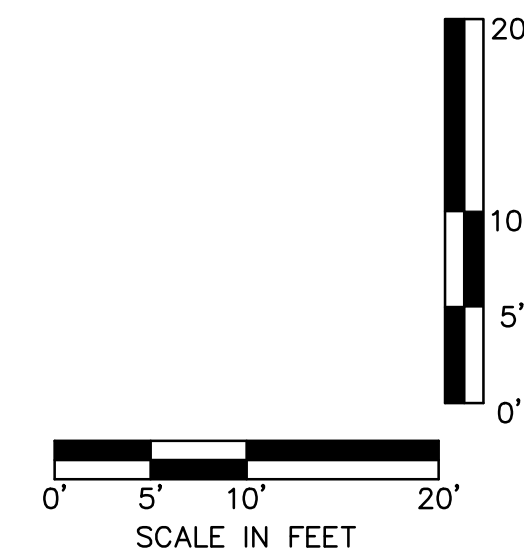
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96+50



97+50



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

BAILEY ROAD  
CROSS SECTIONS

LEE'S SUMMIT MIDDLE SCHOOL #4  
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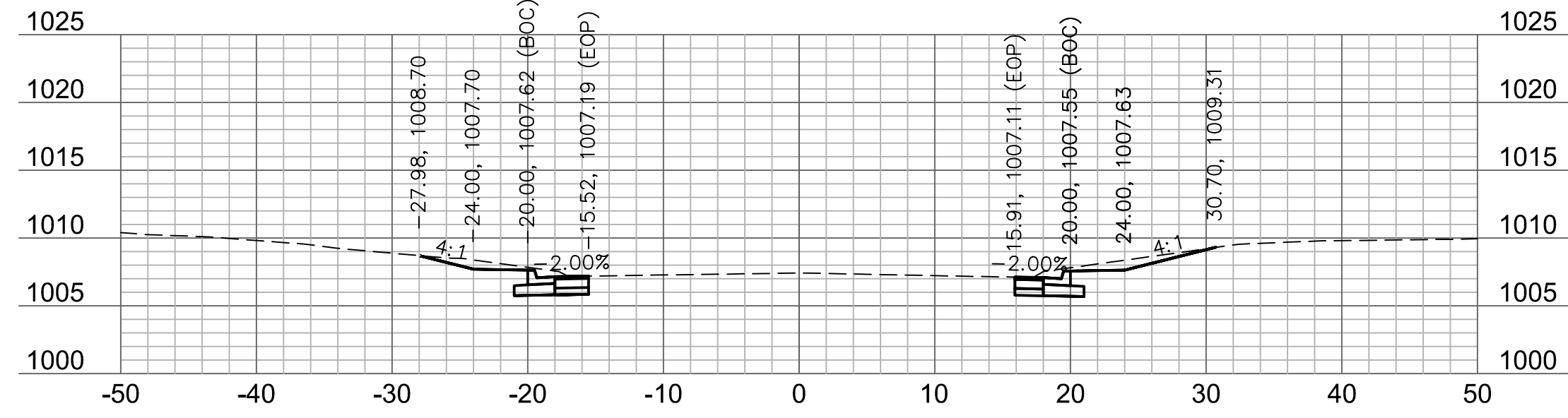
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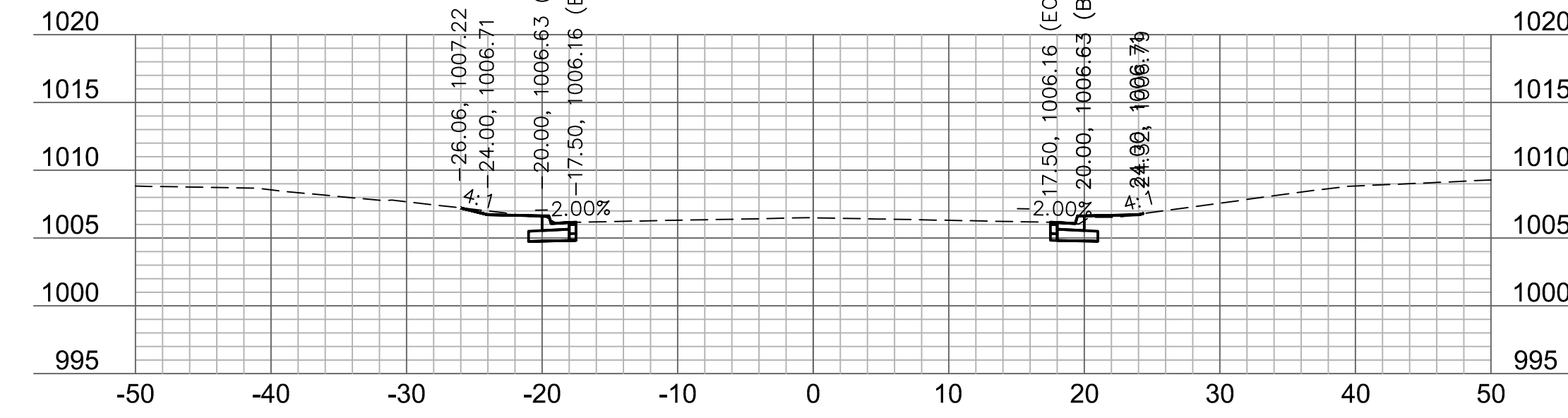
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 DWG NO.: T\_XSC01\_0200103  
 DATE: 2022-11-04

**SHEET**  
100 OF 101

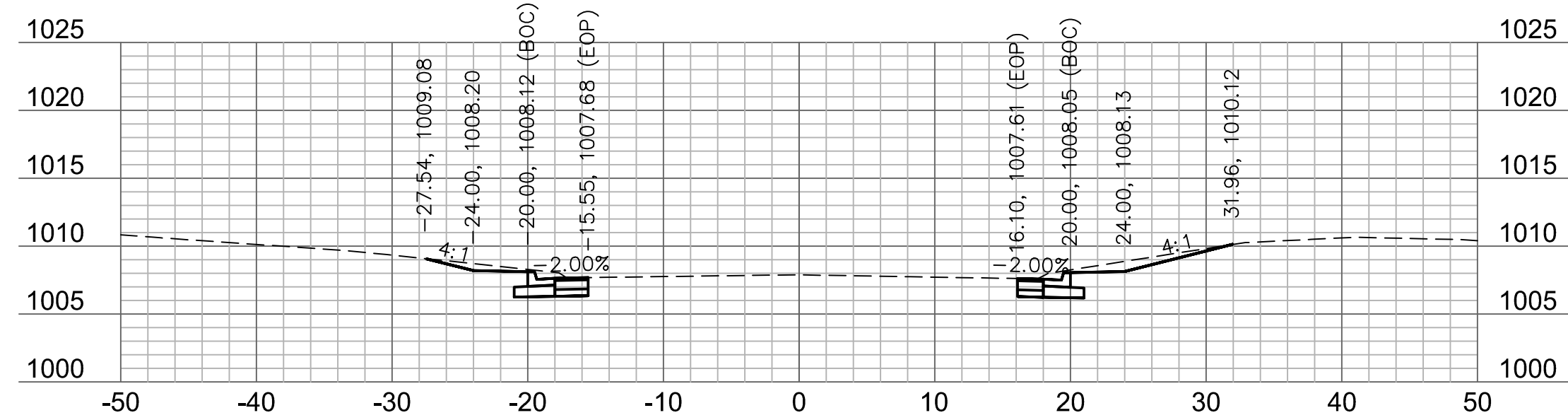
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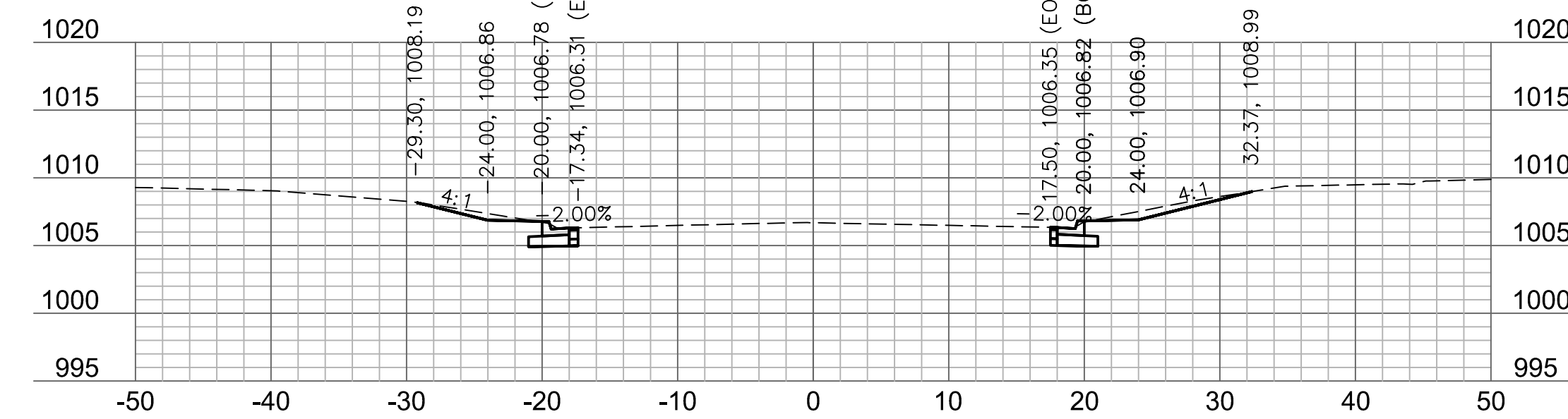
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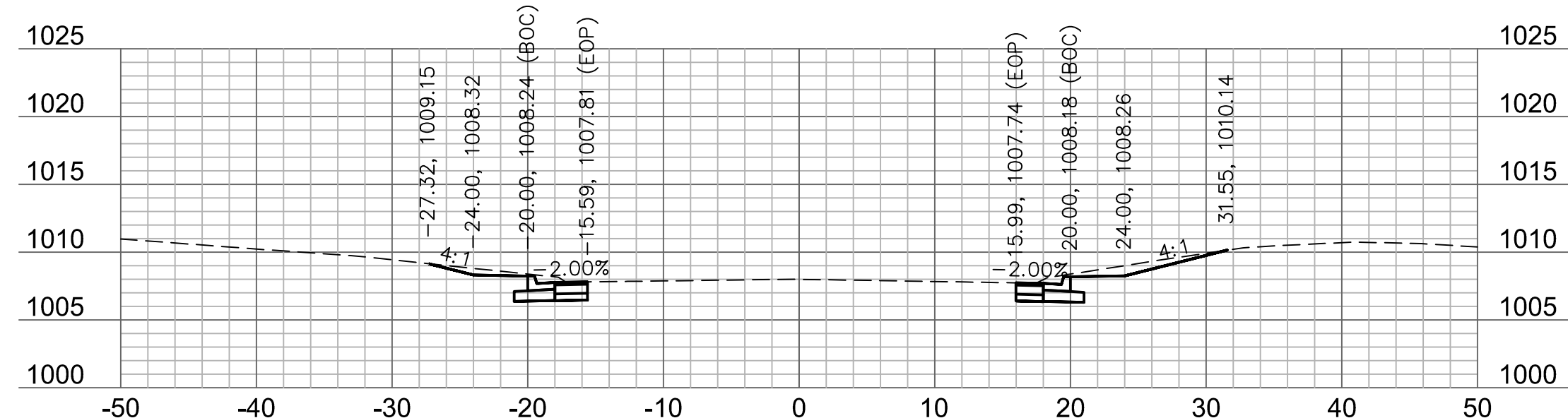
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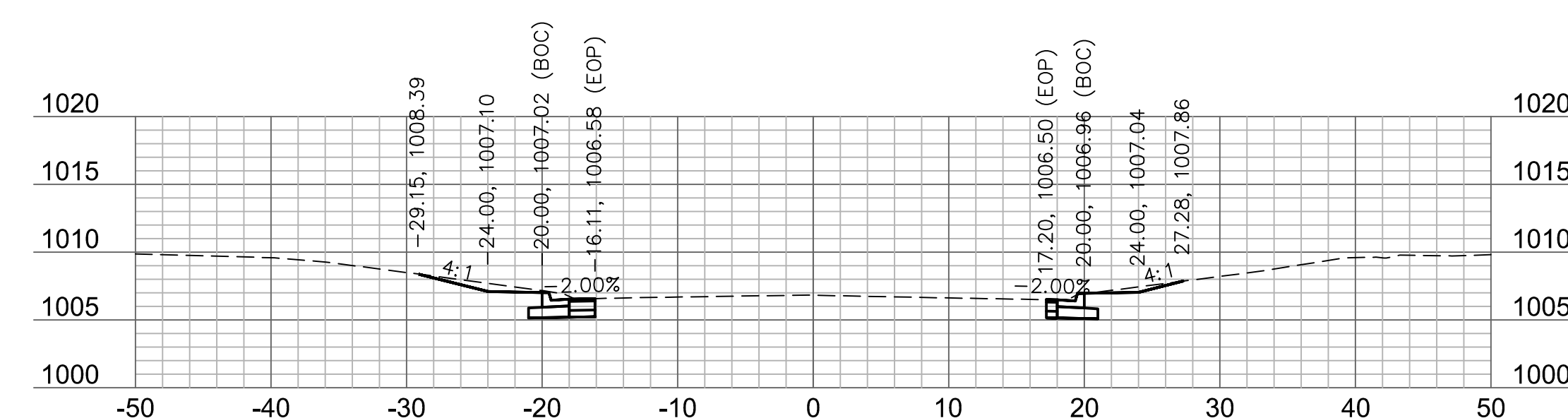
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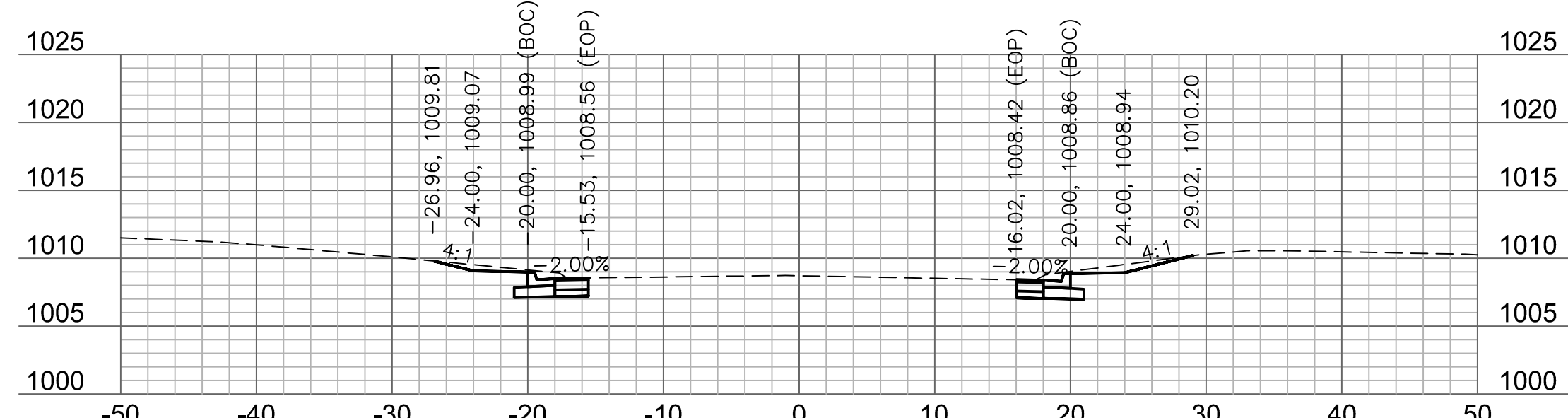
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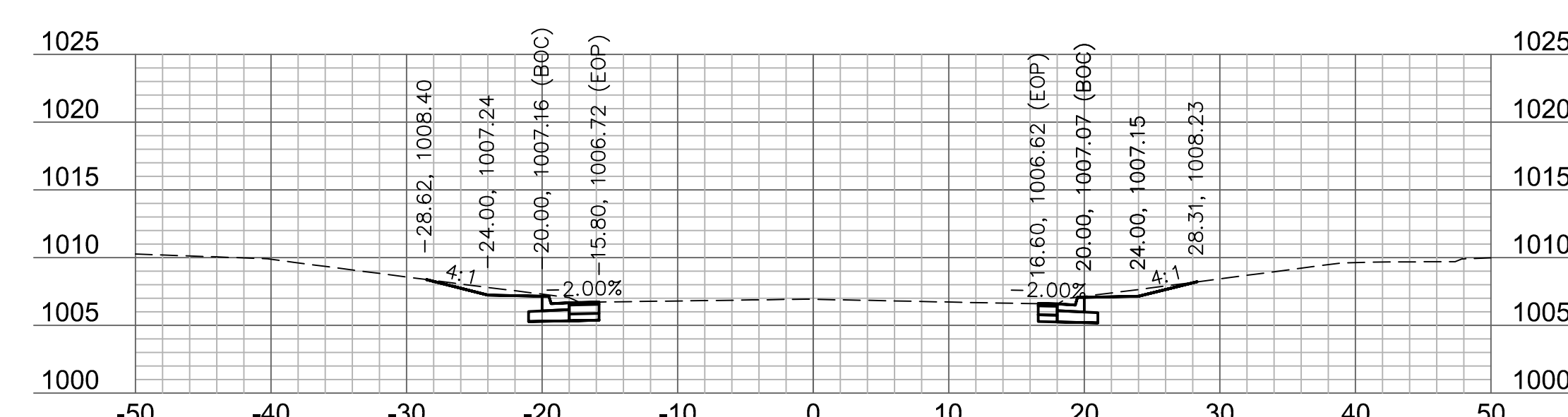
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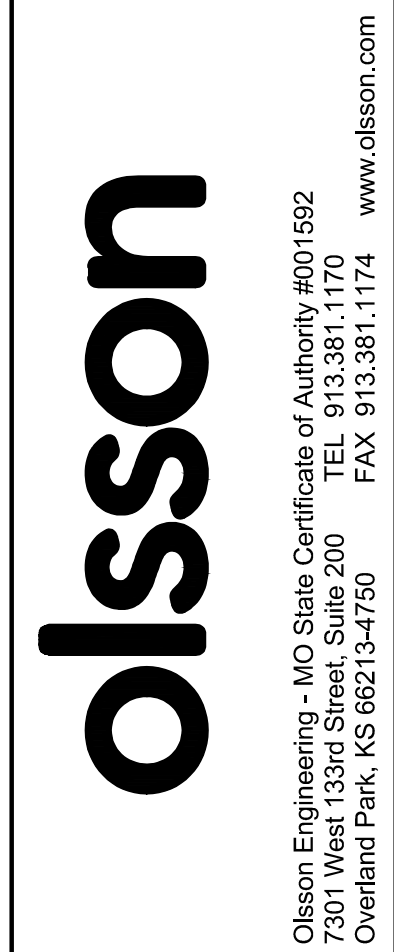
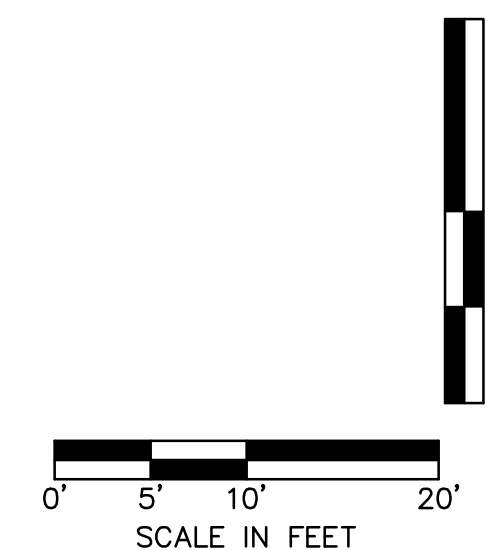
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201+00



201+75



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

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 LEE'S SUMMIT MIDDLE SCHOOL #4  
 BAILEY ROAD PUBLIC IMPROVEMENTS  
 LEE'S SUMMIT, MISSOURI  
 2021

C.O.A. NO.: 001592  
 DRAWN BY: MLW  
 CHECKED BY: RPH  
 APPROVED BY: RBE  
 QA/QC BY: RBE  
 PROJECT NO.: 020-0103  
 DWG NO.: T\_XSC01\_0200103  
 DATE: 2022-11-04