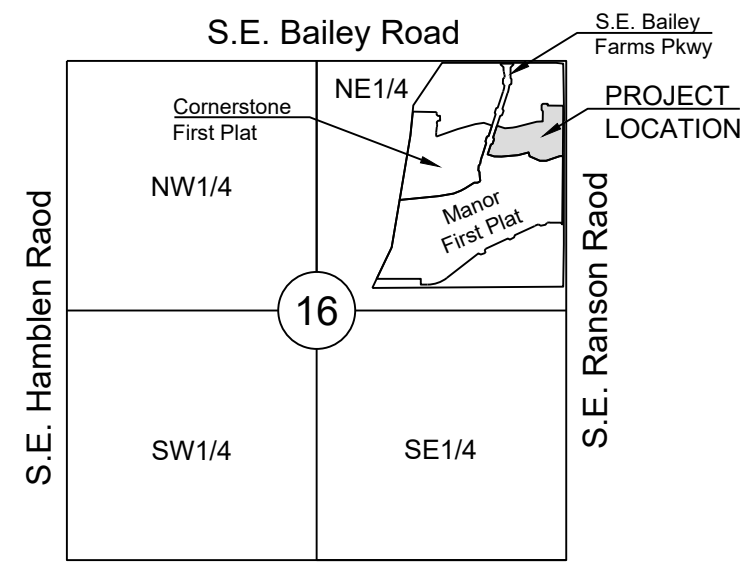


LEGEND:

- A/E - ACCESS EASEMENT
BC - BACK OF CURB
B/B - BACK TO BACK
BM - BENCHMARK
BL or B.L. - BUILDING LINE
CO - CLEANOUT
TJB - TELEPHONE JUNCTION BOX
C&G - CURB AND GUTTER
D/E - DRAINAGE EASEMENT
E/E - ELECTRICAL EASEMENT
EL - ELEVATION
FL - FLOW LINE
G/E - GAS LINE EASEMENT
HDPE - HIGH-DENSITY POLYETHYLENE
L/E - LANDSCAPE EASEMENT
MSFE - MINIMUM SERVICEABLE FLOOR ELEVATION
PVC - POLYVINYL CHLORIDE
P/L - PROPERTY LINE
PUB/E - PUBLIC EASEMENT
RCP - REINFORCED CONCRETE PIPE
ROW or RW - RIGHT-OF-WAY
S/E - SANITARY SEWER EASEMENT
SL - SERVICE LINE
SW - SIDEWALK
TE - TOP ELEVATION
U/E - UTILITY EASEMENT
WSE - WATER SURFACE ELEVATION
W/E - WATERLINE EASEMENT

- ASPHALT PAVEMENT - EXISTING
ASPHALT PAVEMENT - PROPOSED
CONCRETE PAVEMENT - EXISTING
CONCRETE SIDEWALK - EXISTING
CONCRETE SIDEWALK - PROPOSED
CURB & GUTTER
CURB & GUTTER - EXISTING
TREELINE
EXISTING LOT AND R/W LINES
EXISTING PLAT LINES
P/L - PROPERTY LINES
ROW - RIGHT-OF-WAY
STORM SEWER
STORM SEWER - EXISTING
CATV
FOC
T
E
OHP
UG
W
LIGHT - EXISTING
EXISTING MANHOLE
CLEANOUT
EXISTING SANITARY MANHOLE
PROPOSED SANITARY MANHOLE
EXISTING AREA INLET
EXISTING CURB INLET
EXISTING GRATE INLET
EXISTING JUNCTION BOX
EXISTING STORM MANHOLE



UTILITY CONTACTS:

MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT)

Steve Holloway
600 NE Colbern Road
Lee's Summit, MO 64086
(816) 399-2186

MISSOURI GAS ENERGY (MGE)

Brent Jones
3025 SE Clover Drive
Lee's Summit, MO 64082
(816) 399-9633
brent.jones@spireenergy.com

KANSAS CITY POWER & LIGHT COMPANY (KCP&L)

Ron Dejamette
1300 SE Hamblin Road
Lee's Summit, MO 64081
Office: (816) 347-4318
Cell: (816) 810-5234
ron.dejamette@kcpcl.com

CITY OF LEES SUMMIT PUBLIC WORKS

Dena Mezger
220 SE Green Street
Lee's Summit, MO 64063
(816) 969-1800

AT&T

Mark Manion or Marty Loper
500 E. 8th Street, Room 370
Kansas City, MO 64106
(816) 275-2341 or (816) 275-1550

COMCAST CABLE

John Meadows
4700 Little Blue Parkway
Independence, MO 64057
(816) 795-2257

CITY OF LEE'S SUMMIT WATER UTILITIES

Mark Schaufler
1200 SE Hamblin Road
Lee's Summit, MO 64081
(816) 969-1900

GENERAL NOTES:

- 1. ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
2. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.
3. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
4. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE.
5. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-800-DIG-RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL. AFTER APPROVAL OF THE SHOP DRAWINGS, A COPY OF THE APPROVED AND SIGNED SHOP DRAWINGS SHALL BE PROVIDED TO THE CITY INSPECTOR UPON REQUEST.
7. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
8. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.
9. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
10. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
11. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
12. THE CONTRACTOR SHALL CONTACT DEVELOPMENT SERVICES INSPECTIONS AT: 816-969-1200 TO OBTAIN A DEVELOPMENT SERVICES CONSTRUCTION PERMIT. A MINIMUM 48 HOUR NOTICE SHALL BE GIVEN PRIOR TO PERMIT ISSUANCE.
13. THE CONTRACTOR SHALL CONTACT THE RIGHT OF WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHT OF WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD-LATEST EDITION).

STREET NOTES:

- 1. ALL STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL. ALL APPLICABLE AASHTO STANDARDS HAVE BEEN MET.
2. ALL INSPECTION OF STREET CONSTRUCTION TO BE PERFORMED BY THE CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING.
3. CURB RETURN RADII SHALL BE 25' AT BACK OF CURB UNLESS OTHERWISE NOTED.
4. SUBGRADE TO BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
5. ASSUMED DESIGN SPEED = 25 MPH (COLLECTOR).
6. MINIMUM STOPPING SIGHT DISTANCE = 155 FEET.
7. MINIMUM K, SAG CURVE = 26 (14 WITH LIGHTING), CREST CURVE = 12.
8. GRADE INTERSECTIONS TO DRAIN AS SHOWN.
9. SSD = STOPPING SIGHT DISTANCE.
10. ALL ADA SIDEWALK RAMPS SHALL BE CONSTRUCTED BY THE DEVELOPER WITH THE PUBLIC INFRASTRUCTURE.

EARTHWORK:

- 1. It is recommended that a Geotechnical Engineer observe and document all earthwork activities.
2. Contours have been shown at 1-foot or 2-foot intervals, as indicated. Grading shall consist of completing the earthwork required to bring the physical ground elevations of the existing site to the finished grade (or sub-grade) elevations provided on the plans as spot grades, contours or others means as indicated on the plans.
3. The existing site topography depicted on the plans by contouring has been established by aerial photography and field verified by g.p.s. observation near 20-20. The contour elevations provided may not be exact ground elevations, but rather interpretations of such. Accuracy shall be considered to be such that not more than 10 percent of spot elevation checks shall be in error by more than one-half the contour interval provided, as defined by the National Map Accuracy Standards. Any quantities provided for earthwork volumes are established using this topography contour accuracy, and therefore the inherent accuracy of any earthwork quantity is assumed from the topography accuracy.
4. Proposed contours are to approximate finished grade.
5. Unless otherwise noted, payment for earthwork shall include backfilling of the curb and gutter, sidewalk and further manipulation of utility trench spoils. The site shall be left in a movable condition and positive drainage maintained throughout.
6. Unless otherwise noted, all earthwork is considered Unclassified. No additional compensation will be provided for rock or shale excavation, unless specifically stated otherwise.
7. Prior to earthwork activities, pre-disturbance erosion and sediment control devices shall be in place per the Storm Water Pollution Prevention plan and/or the Erosion and Sediment Control Plan prepared for this site.
8. All topsoil shall be stripped from all areas to be graded and stockpiled adjacent to the site at an area specified by the project owner or his appointed representative. Vegetation, trash, trees, brush, tree roots and limbs, rock fragments greater than 6-inches and other deleterious materials shall be removed and properly disposed of offsite or as directed by the owner or his appointed representative.
9. Unless otherwise specified in the Geotechnical Report, all fills shall be placed in maximum 6-inch lifts and compacted to 95-percent of maximum density as defined using a standard proctor test (AASHTO T99/ASTM 698).
10. Fill materials shall be per Geotechnical Report and shall not include organic matter, debris or topsoil. All fills placed on slopes greater than 6:1 shall be benched.
11. The Contractor shall be responsible for redistributing the topsoil over proposed turf and landscaped areas to a minimum depth of 6-inches below final grade.
12. All areas shall be graded for positive drainage. Unless noted otherwise the following grades shall apply:
a. Turf Areas - 2.5% Minimum, 4H:1V Maximum
b. Paved Areas - 1.2% Minimum, 5% Maximum
13. All disturbed areas shall be fertilized, seeded and mulched immediately after earthwork activities have ceased. Seeding shall be per the Erosion and Sediment Control Plan and/or Landscape Plan. If not specified seeding shall be per APWA Section 2400, latest edition. Unless otherwise noted, seeding shall be subsidiary to the contract price for earthwork and grading activities.
14. All disturbed areas in the right-of-way shall be sodded.
15. Underdrains are recommended for all paved areas adjacent to irrigated turf and landscaped beds.
16. Contractor shall adhere to the reporting requirements outlined in the Storm Water Pollution Prevention Plan (SWPPP) prepared for this project. Erosion and Sediment control devices shall be properly maintained and kept clean of silt and debris and in good working order. Additional erosion and sediment control measures shall be installed as required.

UTILITIES:

- 1. Existing utilities have been shown to the greatest extent possible based upon information provided to the Engineer. The contractor is responsible for contacting the respective utility companies and field locating utilities prior to construction and identifying any potential conflicts. All conflicts shall immediately be brought to the attention of the Engineer.
2. The contractor shall be responsible for coordinating any required utility relocations. Utilities damaged through the negligence of the contractor shall be repaired at the contractor's expense.
3. Contractor shall verify flow-lines and structure tops prior to construction, and shall notify Engineer of any discrepancies. Provide shop drawings for all precast and manufactured utility structures for review by the Engineer prior to construction of the structures.
4. Utility Separation: Waterlines shall have a minimum of 10 feet horizontal and 2 feet vertical separation from all sanitary sewer lines, manholes, and sanitary sewer service laterals, as measured from edge to edge. If minimum separations can not be obtained, concrete encasement of the sanitary line shall be required 10 feet in each direction of the conflict.
5. Payment for trenching, backfilling, pipe embedment, flowable fill, backfill materials, clean up, seeding, sodding and any other items necessary for the construction of the utility line shall be included in the contract price for the utility installation.
6. The Contractor shall be responsible for contacting respective utility companies 48-hours in advance for the inspection of any proposed utility main extension or service line or service connection to any existing main.
7. Trench spoils shall be neatly placed onsite adjacent to the trench, and compacted to prevent saturation and excess sediment runoff. Unsuitable materials, excess rock and shale, asphalt, concrete, trees, brush etc. shall be properly disposed of offsite. Materials may be wasted onsite at the direction of the Owner or his appointed representative.
8. All excavation is considered unclassified, unless noted otherwise. Unclassified excavation for utility trenching is subsidiary to the unit price provided for the pipe. Any quantity provided for rock excavation is estimated based on the best information provided to the Project Engineer. The Engineer has the authority to identify and define the physical characteristics to determine the classification. Unit price quantities for rock excavation will be paid at a trench width of the nominal pipe diameter of the installed main plus 18 inches. Contractor is required to dispose of excess rock from their trenches by disposing it in areas as specified by the Project Engineer.

New City Requirements:

Flowable fill required per City specifications at all storm structures.

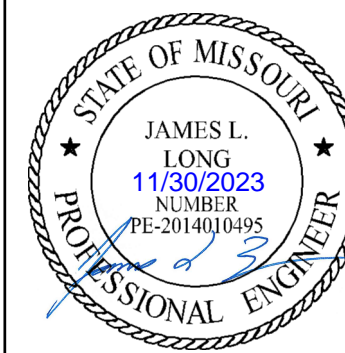
KCMMB Asphalt specification required for all lifts of street pavement. Fly ash is no longer an option for chemical stabilization. Other acceptable options are cement, lime.

STREET, STORMWATER, AND MASTER DRAINAGE PLAN FOR RETREAT AT BAILEY FARMS, FIRST PLAT IN THE CITY OF LEE'S SUMMIT JACKSON COUNTY, MISSOURI

Sheet List Table with columns for Sheet Number and Sheet Title. Includes items like COVER SHEET, GENERAL LAYOUT, MASTER DRAINAGE PLAN-GRADING PLAN, etc.



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

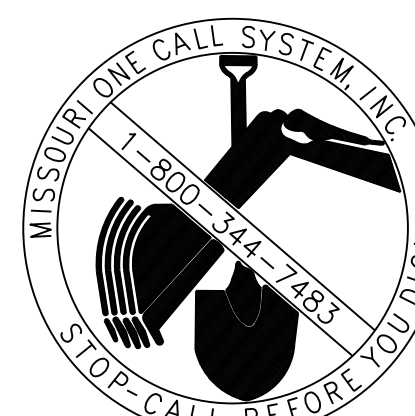
APPROVED BY:

CITY ENGINEER APPROVED FOR ONE YEAR FROM THIS DATE DATE

OWNER/DEVELOPER:

CLAYTON PROPERTIES GROUP INC., DBA SUMMIT HOMES BRADLEY KEMPFF 120 SE 30TH STREET LEE'S SUMMIT, MO 64082 p (816) 246-6700 BRADLEY@SUMMITHOMESKC.COM

RETREAT AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN SE BAILEY ROAD AND SE RANSON ROAD LEE'S SUMMIT, MISSOURI



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

SUMMARY OF QUANTITIES

Table with columns for ITEM, QUANTITY, and UNITS. Lists items like CLEARING AND GRUBBING, GRADING, ASPHALT PAVEMENT, etc.

Revision table with columns for REVISION DATE, DRAWN BY, CHECKED BY, DATE PREPARED, PROJ. NUMBER.

COVER SHEET

SHEET



**MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:**

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**BASIS OF BEARINGS:**

MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

**NOTES:**

ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEES SUMMIT TECHNICAL SPECIFICATIONS.

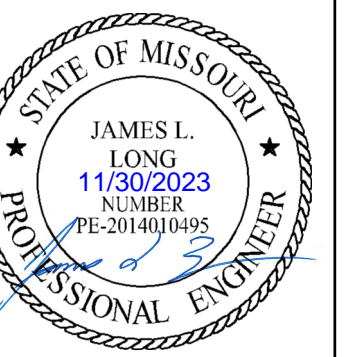
THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.

**STREET LEGEND:**

RESIDENTIAL LOCAL

**SCHLAGEL**  
 ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS  
 14920 West 107th Street • Lenexa, Kansas 66215  
 (913) 492-5158 • Fax: (913) 492-8400  
 WWW.SCHLAGELASSOCIATES.COM  
 Missouri State Certificates of Authority  
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PREPARED BY:



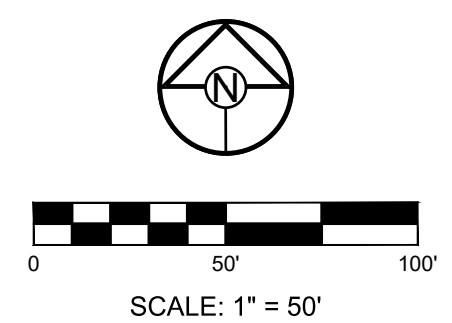
SCHLAGEL & ASSOCIATES, P.A.

**RETREAT AT BAILEY FARMS, FIRST PLAT  
 STREET, STORMWATER, AND MASTER  
 DRAINAGE PLAN  
 SE BAILEY ROAD AND SE RANSON ROAD  
 LEES SUMMIT, MISSOURI**

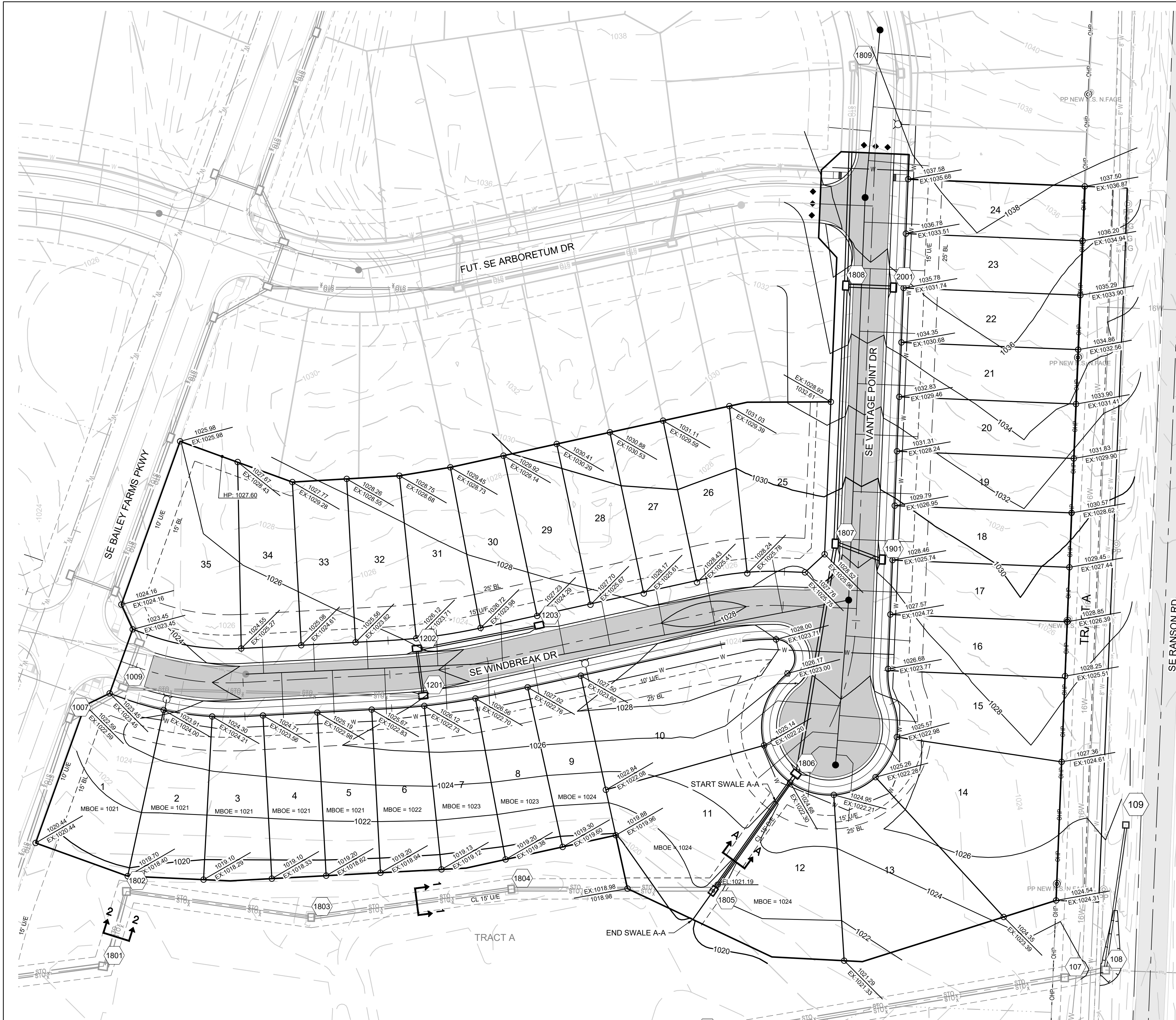
REVISION DATE	DESCRIPTION
03/21/2022	PER CITY COMMENTS
04/20/2022	PER CITY COMMENTS DATED 02/25/2022
08/25/2022	ADD FIELD INLET
09/08/2022	REVISE FIELD INLET
11/17/2022	REVISED INLET 09 TO MATCH S1 INLET
10/27/2023	Updated City Details to 2023 Details
11/30/2023	Added "New City Requirements" Note

**GENERAL LAYOUT**

SHEET



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**MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:**  
 BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.  
 ELEV. = 1046.25

**BASIS OF BEARINGS:**  
 MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

**NOTES:**  
 ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEES SUMMIT TECHNICAL SPECIFICATIONS.  
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**GRADING LEGEND:**  
 --- 1023 --- EXISTING CONTOUR  
 --- 1023 --- PROPOSED CONTOUR

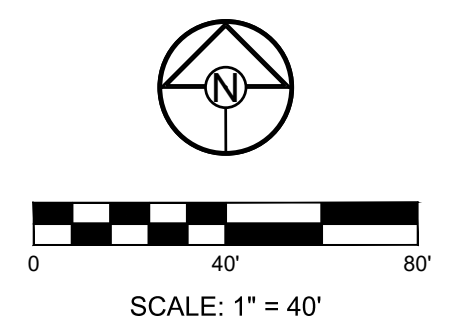
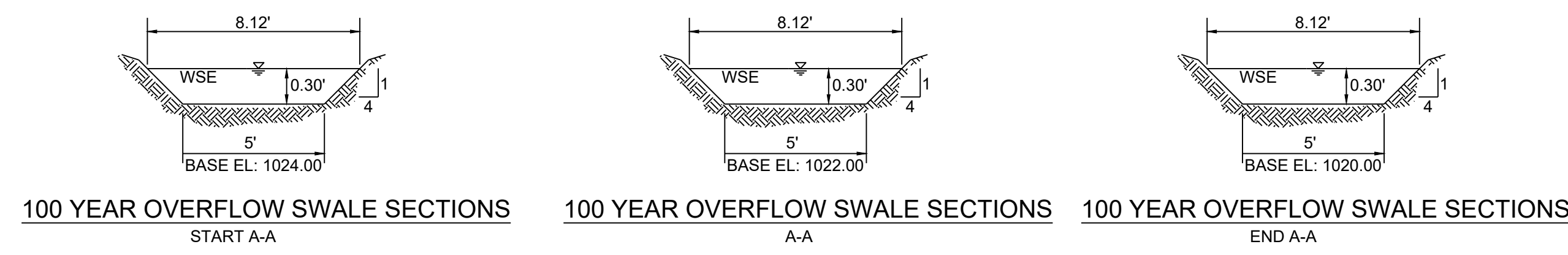
LOT TYPE TABLE		
LOT NUMBER	BASEMENT TYPE	MBOE
1	DAYLIGHT	1021
2	DAYLIGHT	1021
3	DAYLIGHT	1021
4	DAYLIGHT	1021
5	DAYLIGHT	1021
6	DAYLIGHT	1022
7	DAYLIGHT	1023
8	DAYLIGHT	1023
9	DAYLIGHT	1024
10	STANDARD	1026
11	STANDARD	1024
12	STANDARD	1024
13	STANDARD	
14	STANDARD	
15	STANDARD	
16	STANDARD	
17	STANDARD	
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22	STANDARD	
23	STANDARD	
24	STANDARD	
25	STANDARD	
26	STANDARD	
27	STANDARD	
28	STANDARD	
29	STANDARD	
30	STANDARD	
31	STANDARD	
32	STANDARD	
33	STANDARD	
34	STANDARD	
35	STANDARD	

- NOTES:**
- MBOE = MINIMUM BUILDING OPENING ELEVATION FOR HOUSES ADJACENT TO ENGINEERED OVERFLOW SWALES SHALL BE MINIMUM 2 FEET ABOVE THE 100 YR WATER SURFACE ELEVATION.
  - EGL = ENERGY GRADE LINE (100 YR)
  - WSE = WATER SURFACE ELEVATION (100 YR)
  - ENGINEERED SWALES TO BE GRADED TO NORMAL DEPTH OF FLOW (WATER SURFACE ELEVATION) OR 1.0 FT. WHICHEVER IS GREATER. MINIMUM SLOPE OF ENGINEERED SWALES SHALL BE AS NOTED.
  - MBOE'S ADJACENT TO SUMPED INLETS SHALL BE A MINIMUM OF 1 FOOT ABOVE TOP OF ADJACENT BERM.

WEIR CALCULATIONS (Q = CLH <sup>3/2</sup> )							
SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	DESIGN OVERFLOW (CFS)	WEIR ELEVATION	WEIR COEFFICIENT	LENGTH	WSE
1	4.07	34.65	34.65	1018.50	3.33	10'-0"	1019.53
2	5.12	43.60	43.60	1018.50	3.33	10'-0"	1019.70

100 YEAR OVERFLOW SWALES												
SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	Q10 (CFS)	DESIGN OVERFLOW (CFS)	BED SLOPE (%)	BASE WIDTH (FT.)	SIDE SLOPE	TOP WIDTH (FT.)	NORMAL DEPTH (FT.)	VELOCITY (FPS)	VELOCITY HEAD (FT.)	EGL (FT.)
A-A	3.11	26.50	15.10	11.40	3.80	5	4:1	8.12	0.39	4.45	0.31	0.70

**RUNOFF CALCULATIONS:**  
 $Q = K \cdot C \cdot I \cdot A$   
 $K_{10} = 1.0$   $K_{100} = 1.25$   $C = 0.66$   $I =$  INTENSITY  
 DESIGN OVERFLOW =  $Q_{DESIGN} - Q_{10}$   
 MANNINGS "n" = 0.030 FOR SWALES



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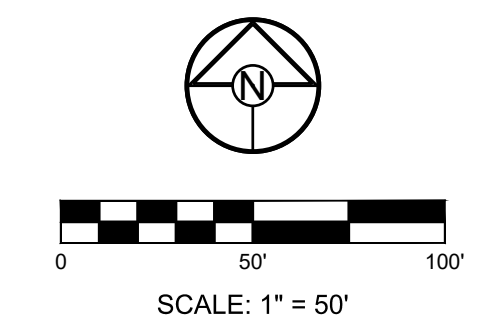
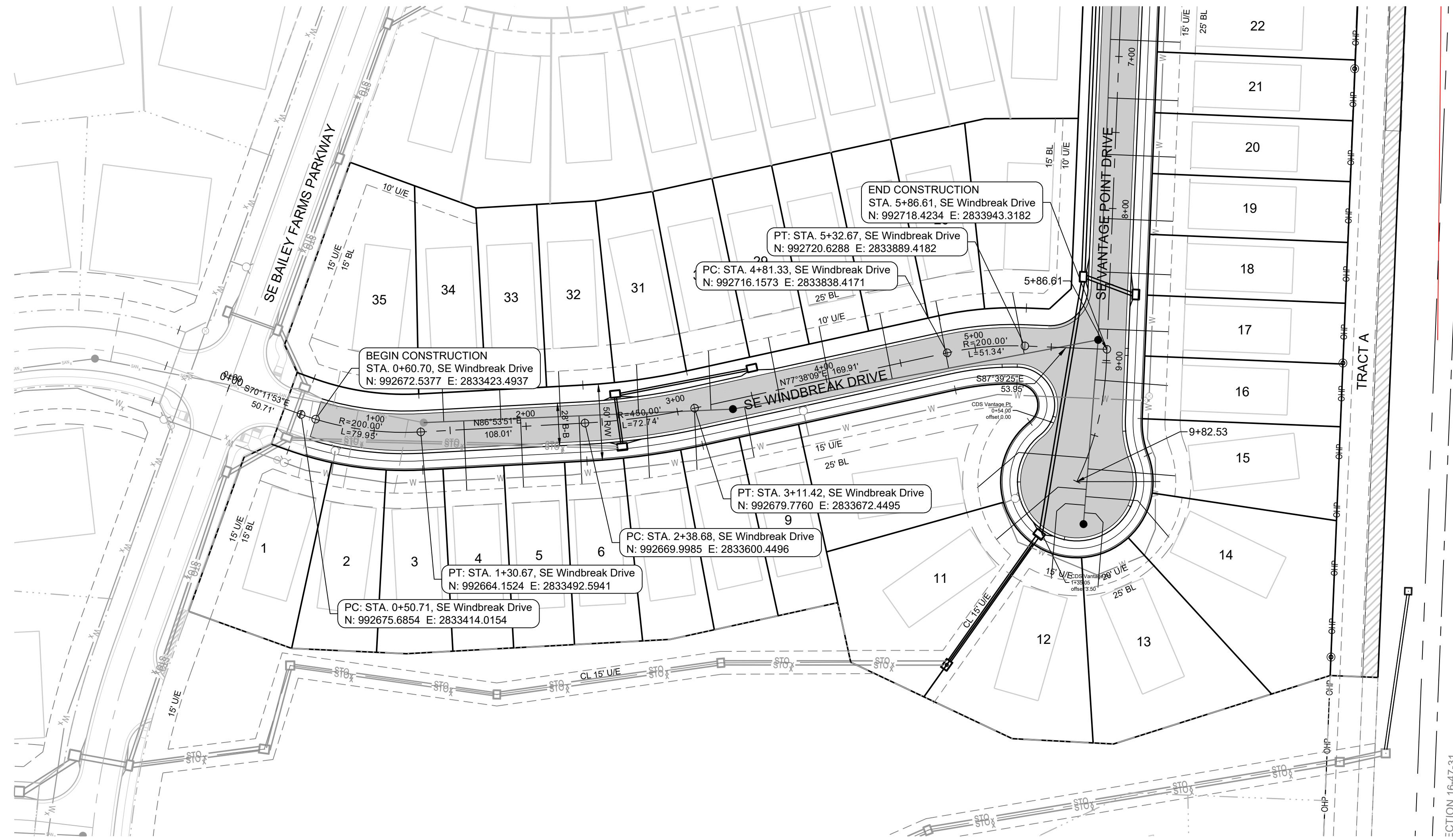
PREPARED BY:  
  
 SCHLAGEL & ASSOCIATES, P.A.

RETREAT AT BAILEY FARMS, FIRST PLAT  
 STREET, STORMWATER, AND MASTER  
 DRAINAGE PLAN  
 SE BAILEY ROAD AND SE RANSON ROAD  
 LEES SUMMIT, MISSOURI

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11/30/2023	

MASTER DRAINAGE PLAN-GRADING PLAN  
 SHEET  
**3**

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SECTION 16-47-31

**MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:**

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PREPARED BY:

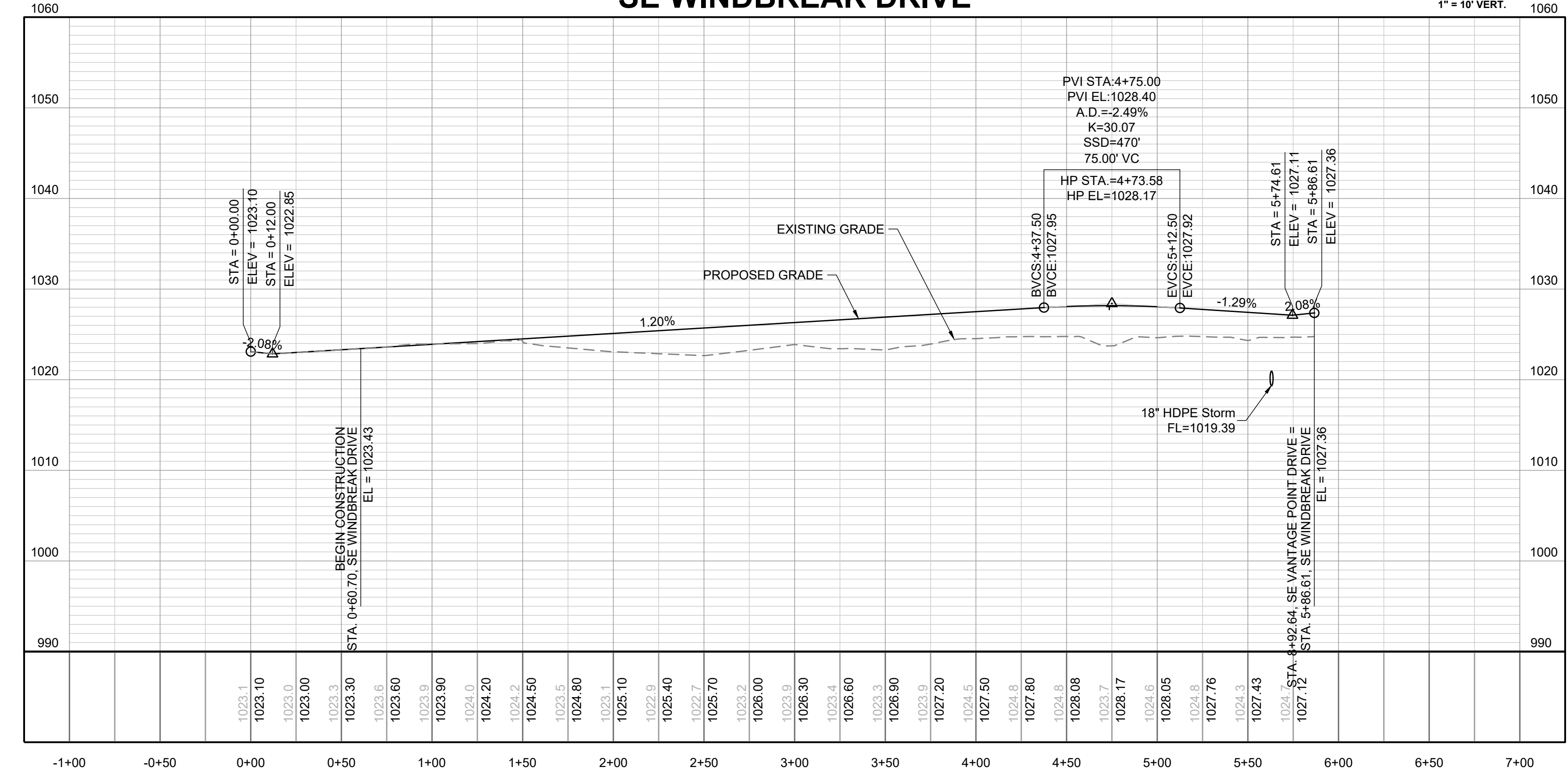


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**SE WINDBREAK DRIVE**

1" = 50' HORIZ.  
 1" = 10' VERT.

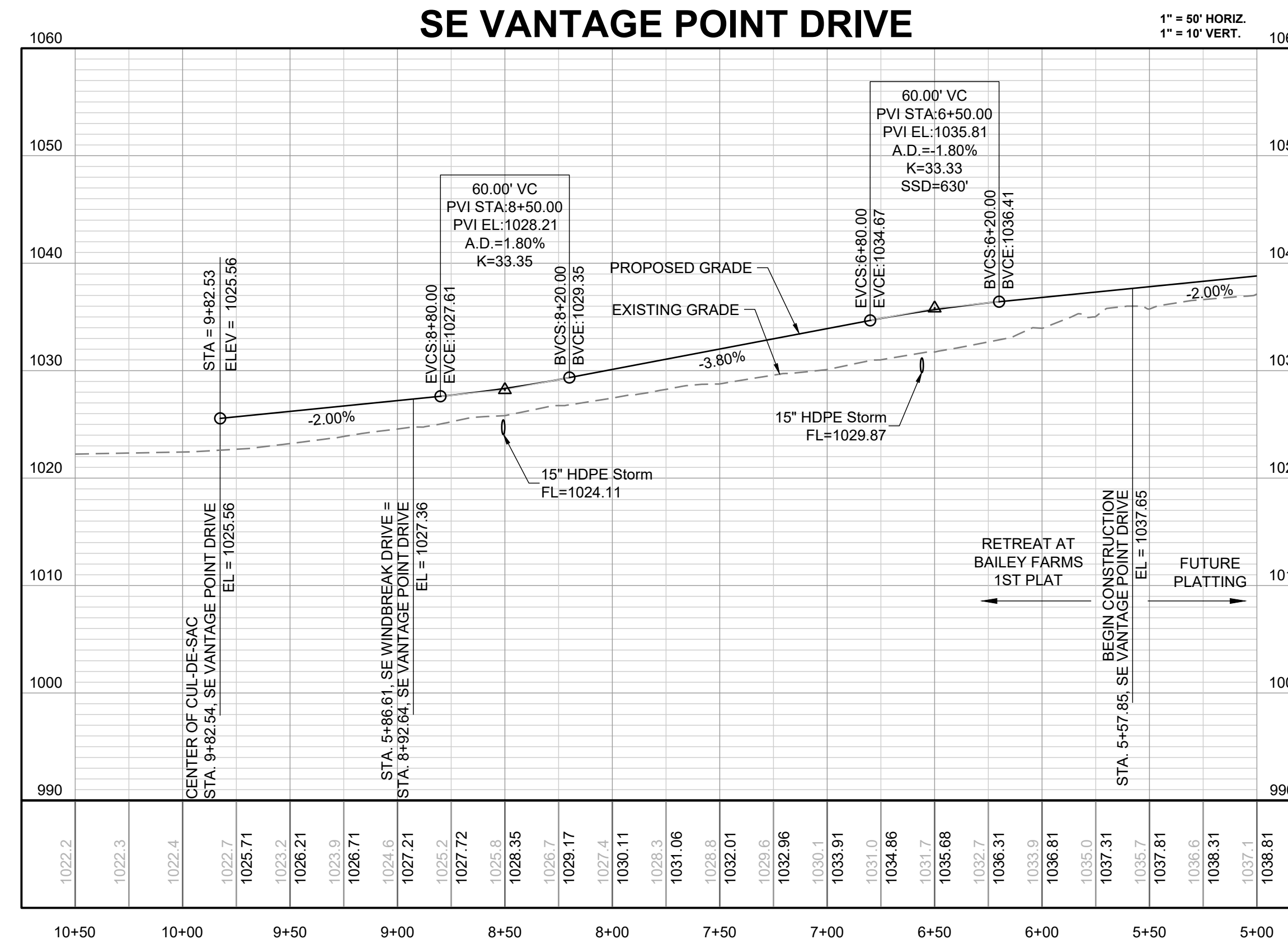
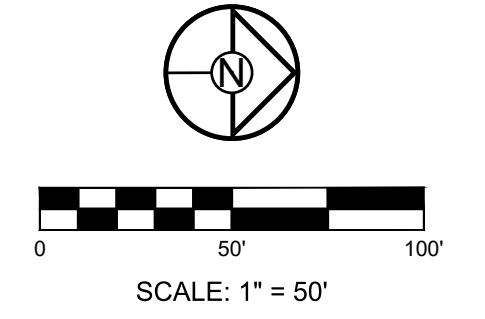
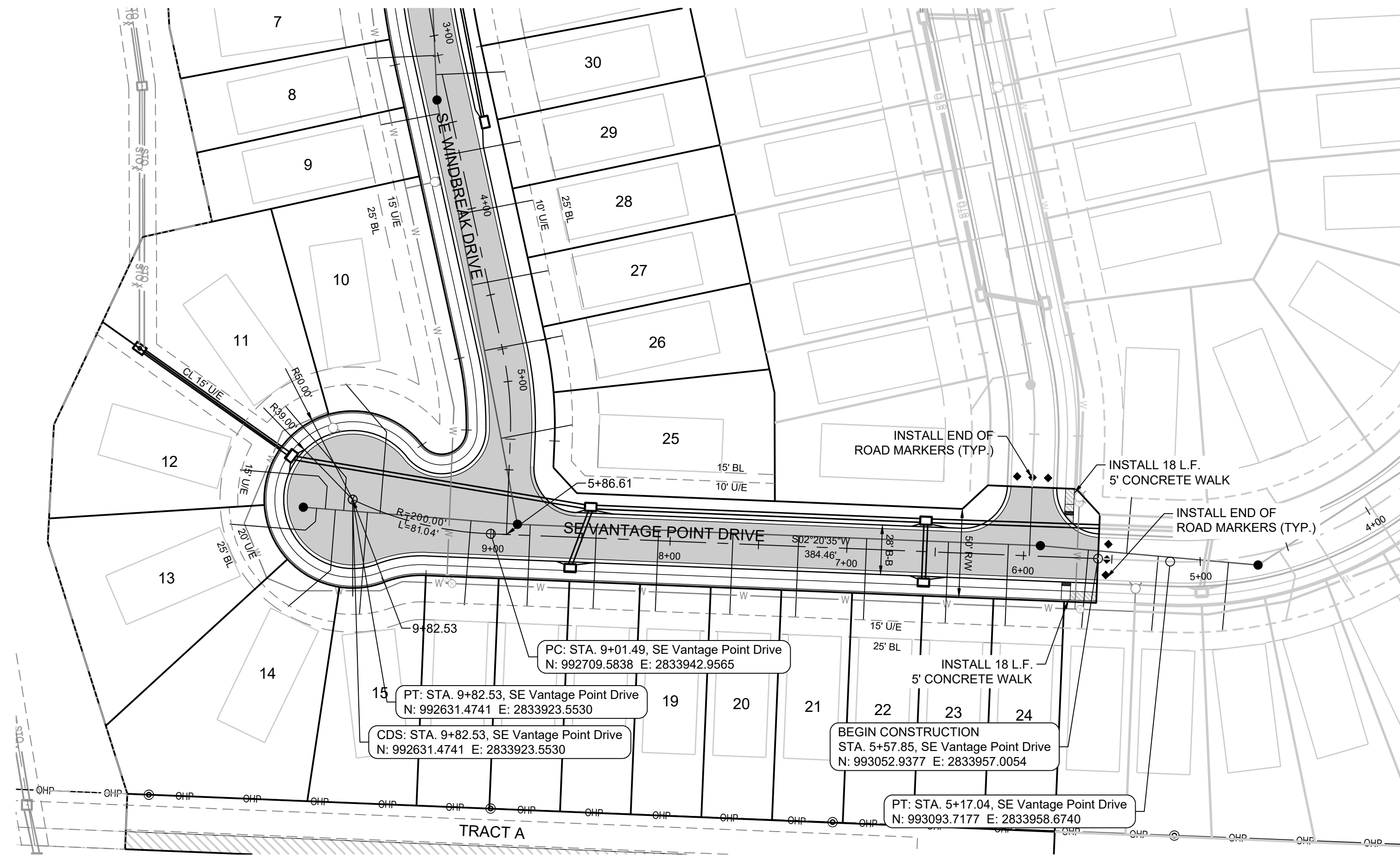


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SE WINDBREAK  
 DR PLAN AND  
 PROFILE

SHEET

**4**



**MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:**

BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

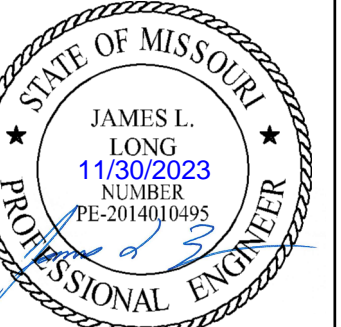
**NOTES:**

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PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

RETREAT AT BAILEY FARMS, FIRST PLAT  
STREET, STORMWATER, AND MASTER  
DRAINAGE PLAN  
SE BAILEY ROAD AND SE RANSON ROAD  
LEE'S SUMMIT, MISSOURI

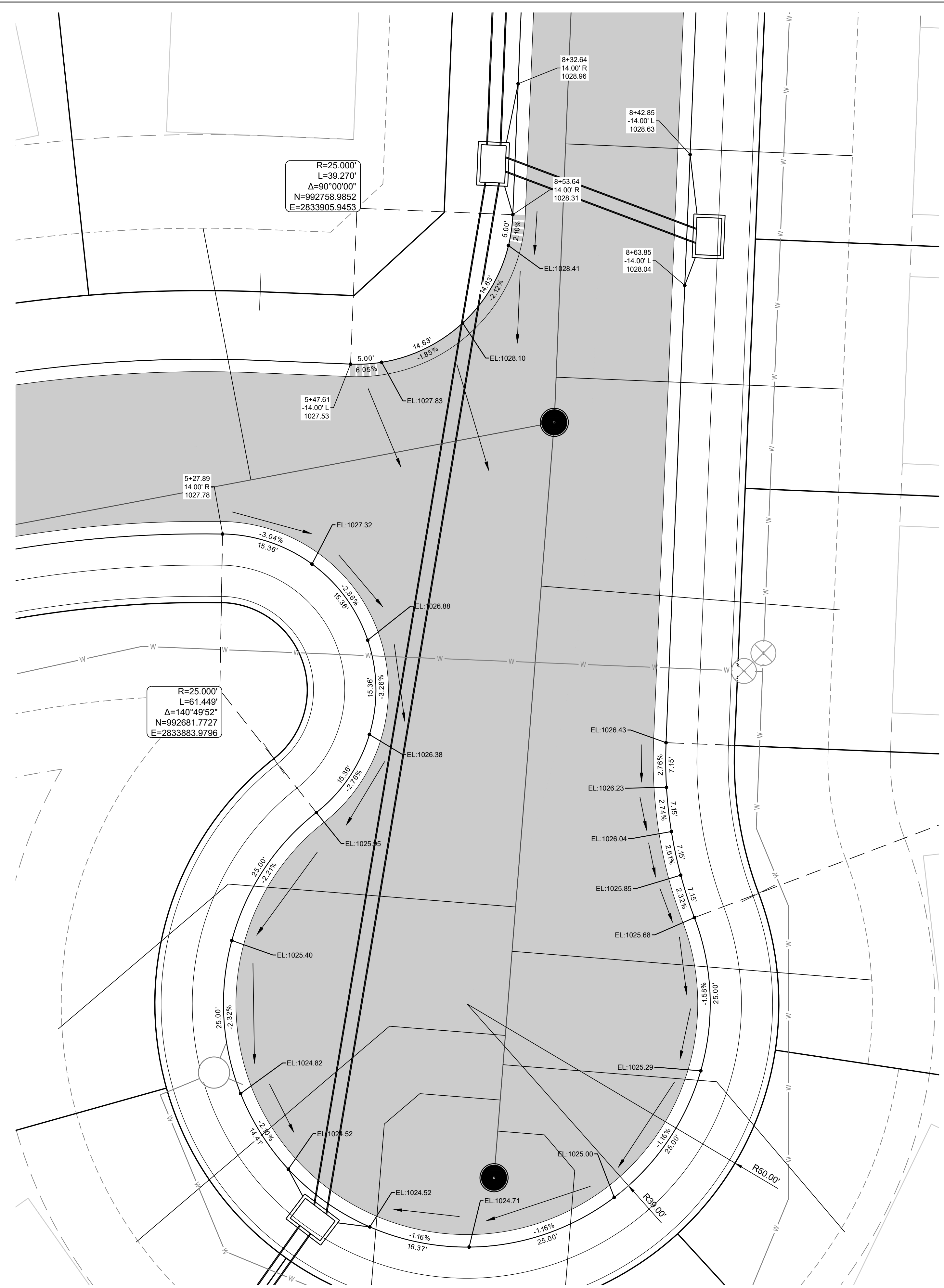
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09/08/2022	REVISED FIELD INLET
11/17/2022	REVISED INLET 09 TO MATCH S1 INLET
10/27/2023	Updated City Details to 2023 Details
11/30/2023	Added "New City Requirements" Note

SE VANTAGE POINT DR PLAN AND PROFILE

SHEET

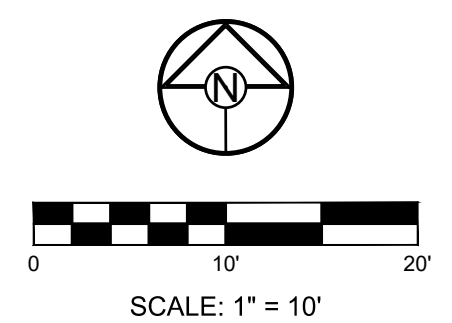
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**CURB LEGEND**

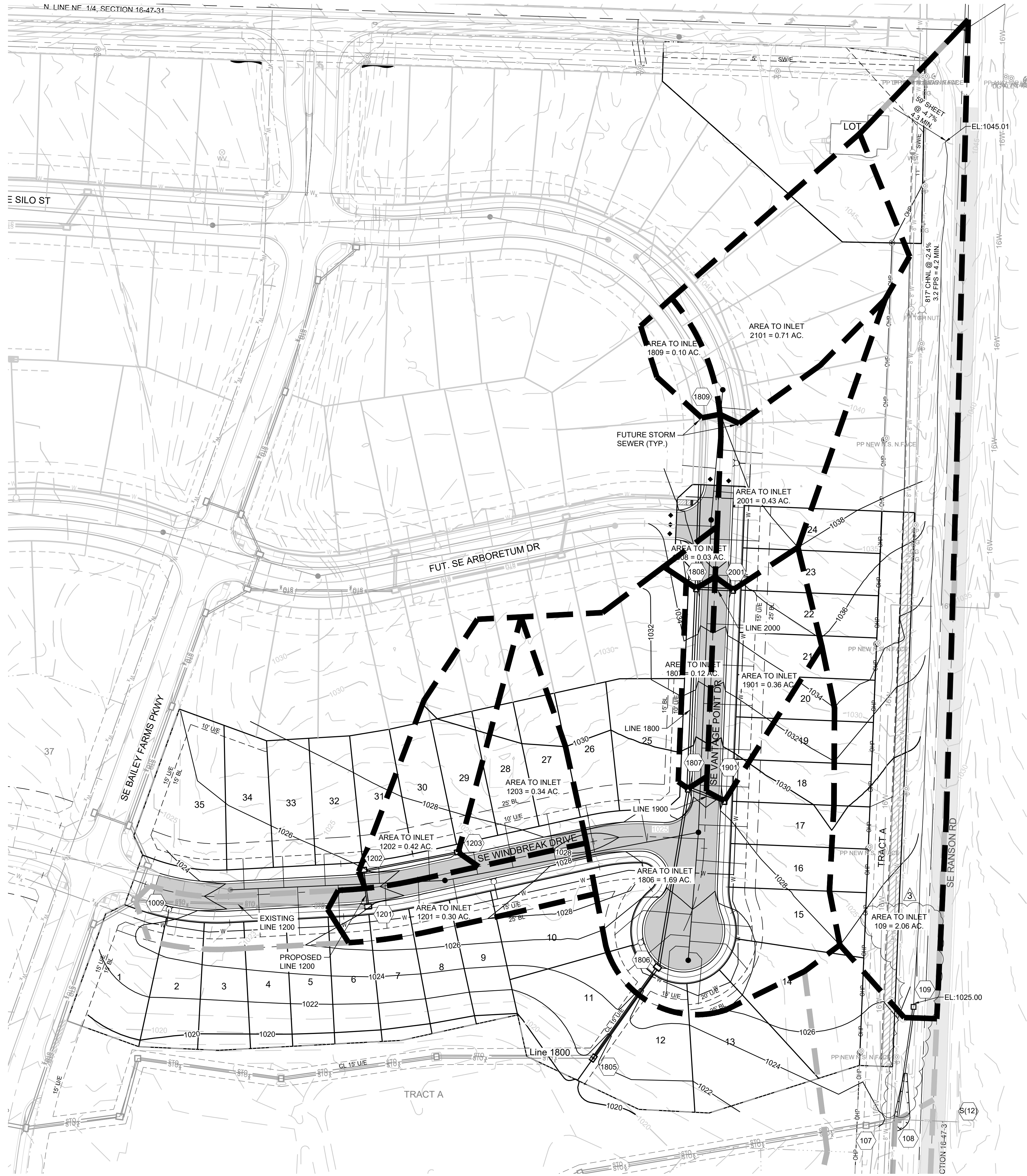
	CURB & GUTTER - EXISTING
	TYPE "CG-2" CURB & GUTTER
	TYPE "CG-2" DRY CURB & GUTTER
	TRANSITION "CG-2" TO "CG-2 DRY"



RETREAT AT BAILEY FARMS, FIRST PLAT  
 STREET, STORMWATER, AND MASTER  
 DRAINAGE PLAN  
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INTERSECTION  
 DETAILS



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**BASIS OF BEARINGS:**

MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

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**LEGEND**

- EXISTING DRAINAGE AREA
- PROPOSED DRAINAGE AREA

**SCHLAGEL**  
 ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS  
 14920 West 107th Street • Lenexa, Kansas 66215  
 (913) 492-5158 • Fax: (913) 492-8400  
 WWW.SCHLAGELASSOCIATES.COM  
 Missouri State Certificates of Authority  
 #E2002003609F #LAC201005237 #LS2002008695F

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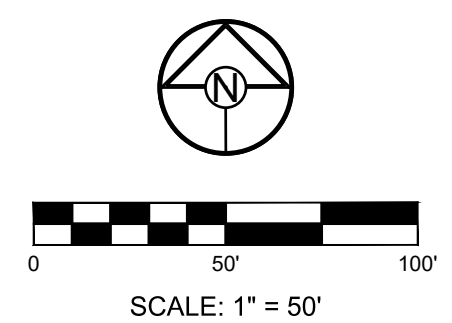
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 DRAINAGE PLAN**  
**SE BAILEY ROAD AND SE RANSON ROAD  
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**MASTER DRAINAGE PLAN- DRAINAGE MAP**

SHEET

**7**

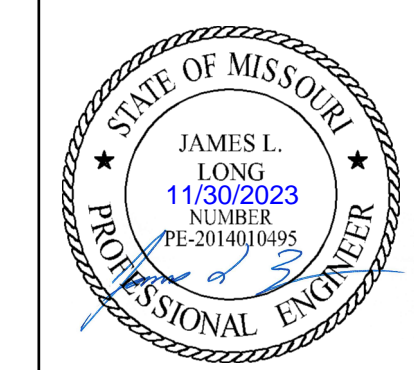


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**10-YEAR RUNOFF CALCULATIONS**

Design Storm: 10  
 "K" Value: 1.00  
 "F" Factor: 1.00

Runoff Calculations															Pipe Properties												
Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cx	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlet 1	Up Piped Inlet 2	Up Area (acres)	CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top		
DS TAILWATER @ STR #100																											
108	13.00	0.51	15.06	7.66	15.0	5.18	34.33	39.66	81.69	11.56												0.50	1018.77	1018.31	1024.32		
109	2.06	0.50	2.06	1.03	8.5	6.41	6.60	6.60	27.66	8.80												N/A	1020.88	1019.27	1026.00		
Drop in Inlet 1009																											
1201	0.30	0.66	1.06	0.70	5.0	7.35	1.46	5.14	16.09	9.11											2.00	1019.15	1014.74	1023.40			
1202	0.42	0.66	0.76	0.50	5.2	7.29	2.02	3.66	12.12	9.88											3.00	1020.68	1019.65	1025.95			
1203	0.34	0.66	0.34	0.22	5.0	7.35	1.65	1.65	9.90	8.06											N/A	1023.01	1021.18	1027.08			
Drop in Inlet 1007																											
1805	0.00	0.66	3.42	2.26	6.5	6.92	0.00	15.63	29.00	9.23											0.50	1015.30	1013.22	1020.98			
1806	1.69	0.66	3.42	2.26	6.2	6.99	7.79	15.77	23.25	7.40											0.50	1016.74	1015.80	1024.53			
1807	0.12	0.66	1.73	1.14	5.8	7.11	0.56	8.12	12.04	6.82	1901										4.00	1019.17	1017.24	1028.61			
1808	0.03	0.66	1.25	0.83	5.4	7.22	0.14	5.96	9.90	8.06	2001										0.50	1026.96	1023.17	1035.63			
1809	0.10	0.66	0.79	0.52	5.0	7.35	0.49	3.83	7.67	6.25	2101										N/A	1029.40	1027.46	1039.10			
Drop in Inlet 1807																											
1901	0.36	0.66	0.36	0.24	5.0	7.35	1.75	1.75	7.00	5.70											1.00	1024.29	1023.93	1028.40			
Drop in Inlet 1808																											
2001	0.43	0.66	0.43	0.28	5.0	7.35	2.09	2.09	7.00	5.70											1.00	1029.31	1028.96	1035.54			

**100-YEAR RUNOFF CALCULATIONS**

Design Storm: 100  
 "K" Value: 1.25  
 "F" Factor: 1.00

Runoff Calculations															Pipe Properties												
Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cx	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlet 1	Up Piped Inlet 2	Up Area (acres)	CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top		
DS TAILWATER @ STR #100																											
108	13.00	0.51	15.06	7.66	15.0	7.36	60.97	70.44	81.69	11.56												0.50	1018.77	1018.31	1024.32		
109	2.06	0.50	2.06	1.03	8.5	9.05	11.65	11.65	27.66	8.80												N/A	1020.88	1019.27	1026.00		
Drop in Inlet 1009																											
1201	0.30	0.66	1.06	0.70	5.0	10.32	2.55	9.03	16.09	9.11											0.50	1019.15	1014.74	1023.40			
1202	0.42	0.66	0.76	0.50	5.2	10.24	3.55	6.42	12.12	9.88											3.00	1020.68	1019.65	1025.95			
1203	0.34	0.66	0.34	0.22	5.0	10.32	2.90	2.90	9.90	8.06											N/A	1023.01	1021.18	1027.08			
Drop in Inlet 1007																											
1805	0.00	0.66	3.42	2.26	6.5	9.74	0.00	27.49	29.00	9.23											0.50	1015.30	1013.22	1020.98			
1806	1.69	0.66	3.42	2.26	6.2	9.83	13.71	27.74	23.25	7.40											0.50	1016.74	1015.80	1024.53			
1807	0.12	0.66	1.73	1.14	5.8	9.99	0.99	14.26	12.04	6.82	1901										4.00	1019.17	1017.24	1028.61			
1808	0.03	0.66	1.25	0.83	5.4	10.15	0.25	10.46	9.90	8.06	2001										0.50	1026.96	1023.17	1035.63			
1809	0.10	0.66	0.79	0.52	5.0	10.32	0.85	6.73	7.67	6.25	2101										N/A	1029.40	1027.46	1039.10			
Drop in Inlet 1807																											
1901	0.36	0.66	0.36	0.24	5.0	10.32	3.07	3.07	7.00	5.70											1.00	1024.29	1023.93	1028.40			
Drop in Inlet 1808																											
2001	0.43	0.66	0.43	0.28	5.0	10.32	3.66	3.66	7.00	5.70											1.00	1029.31	1028.96	1035.54			

**GUTTER SPREAD AND INLET CAPACITY CALCULATIONS - RETREAT AT BAILEY FARMS, FIRST PLAT**

DESIGN STORM 10 CURB TYPE "A" = LAZY BACK  
 "K" FACTOR 1.00 CURB TYPE "B" = HIGH BACK

RUNOFF CALCULATIONS												INLET DESIGN								GUTTER DESIGN							
INLET #	COMPOSITE "C"	AREA	INLET Tc	INTENSITY	RUNOFF	UPSTREAM INLET	UPSTREAM INLET	UPSTREAM INLET	UPSTREAM INLET	BYPASS FROM UPSTREAM INLET	TOTAL RUNOFF	STREET GRADE	STREET CROSS SLOPE	CURB TYPE	INLET LENGTH	EFFECTIVE LENGTH 80% CAP	INLET INTERCEPTION	BYPASS TO DOWNSTREAM INLET	STREET GRADE	STREET CROSS SLOPE	DEPTH AT CURB	SPREAD OF FLOW					
LINE 1200																											
1201	0.66	0.30	5	7.35	1.46					0.00	1.46	1.20	2.08	A	6	4.8	1.32	0.14	1.20	2.08	0.15	7.94					
1202	0.66	0.42	5	7.35	2.04	1203				0.18	2.22	1.20	2.08	A	6	4.8	1.89	0.32	1.20	2.08	0.18	9.22					
1203	0.66	0.34	5	7.35	1.65					0.00	1.65	1.20	2.08	A	6	4.8	1.47	0.18	1.20	2.08	0.16	8.30					
LINE 1800																											
1806	0.66	1.69	5	7.35	8.20	1807	1901			0.67	8.87	SUMP	2.08	A	6	4.8	13.44	0.00	SUMP	2.08	< 0.21	< 10.50					
1807	0.66	0.12	5	7.35	0.58	1808				0.00	0.58	3.80	2.08	A	6	4.8	0.53	0.05	3.80	2.08	0.09	4.75					
1808	0.66	0.03	5	7.35	0.15					0.00	0.15	2.00	2.08	A	6	4.8	0.14	0.00	2.00	2.08	0.06	3.35					
1809	0.66	0.10	5	7.35	0.49					0.00	0.49	2.00	2.08	A	6	6	0.47	0.01	2.00	2.08	0.09	4.98					
LINE 1900																											
1901	0.66	0.36	5	7.35	1.75	2001				0.40	2.15	3.80	2.08	A	6	4.8	1.53	0.62	3.80	2.08	0.14	7.44					
LINE 2000																											
2001	0.66	0.43	5	7.35	2.09					0.00	2.09	2.00	2.08	A	6	4.8	1.68	0.40	2.00	2.08	0.16	8.24					

NOTES:  
 1. CAPACITY OF INLETS ON GRADE DETERMINED USING ROUTINE OUTLINED ON PGS 56-95 TO 56-97, SECTION 5600 APWA  
 2. CAPACITY OF SUMP INLETS CALCULATED USING FIGURE 5604-21, SECTION 5600 APWA  
 3. MANNINGS "n" VALUE FOR COMBINED ASPHALT PAVEMENT AND CONCRETE CURB - 0.014

RETREAT AT BAILEY FARMS, FIRST PLAT  
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 DRAINAGE PLAN  
 SE BAILEY ROAD AND SE RANSON ROAD  
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MASTER DRAINAGE PLAN-DRAINAGE CALCS SHEET 8





Storm Sewer Construction Notes	
Structure	Notes
109	STA 11+18.60, LINE 100 INSTALL 4' X 4' MODOT TYPE S-1 DOUBLE GRATE DROP INLET N 992559.4871 E 2834141.2360
1201	STA 2+20.44, LINE 1200 INSTALL 6' X 4' CURB INLET N 992654.3986 E 2833624.9486
1202	STA 2+54.97, LINE 1200 INSTALL 6' X 4' CURB INLET N 992688.6205 E 2833620.3630
1203	STA 3+46.45, LINE 1200 INSTALL 6' X 4' CURB INLET N 992705.6873 E 2833710.2379
1805	STA 5+80.78, LINE 1800 INSTALL 4 X 4 JUNCTION BOX N 992511.0888 E 2833838.0784
1806	STA 6+85.93, LINE 1800 INSTALL 6' X 4' CURB INLET N 992596.8865 E 2833898.8588
1807	STA 8+57.59, LINE 1800 INSTALL 6' X 4' CURB INLET N 992766.0995 E 2833927.7543
1808	STA 10+47.31, LINE 1800 INSTALL 6' X 4' CURB INLET N 992955.6599 E 2833935.5105
1901	STA 0+36.46, LINE 1900 INSTALL 6' X 4' CURB INLET N 992754.4673 E 2833962.3077
2001	STA 0+35.00, LINE 2000 INSTALL 6' X 4' CURB INLET N 992954.2290 E 2833970.4812

**New City Requirements:**  
Flowable fill required per City specifications at all storm structures.

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MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

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PREPARED BY:



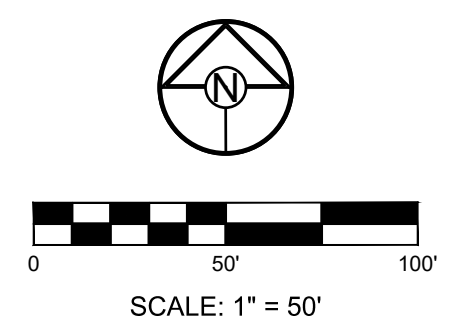
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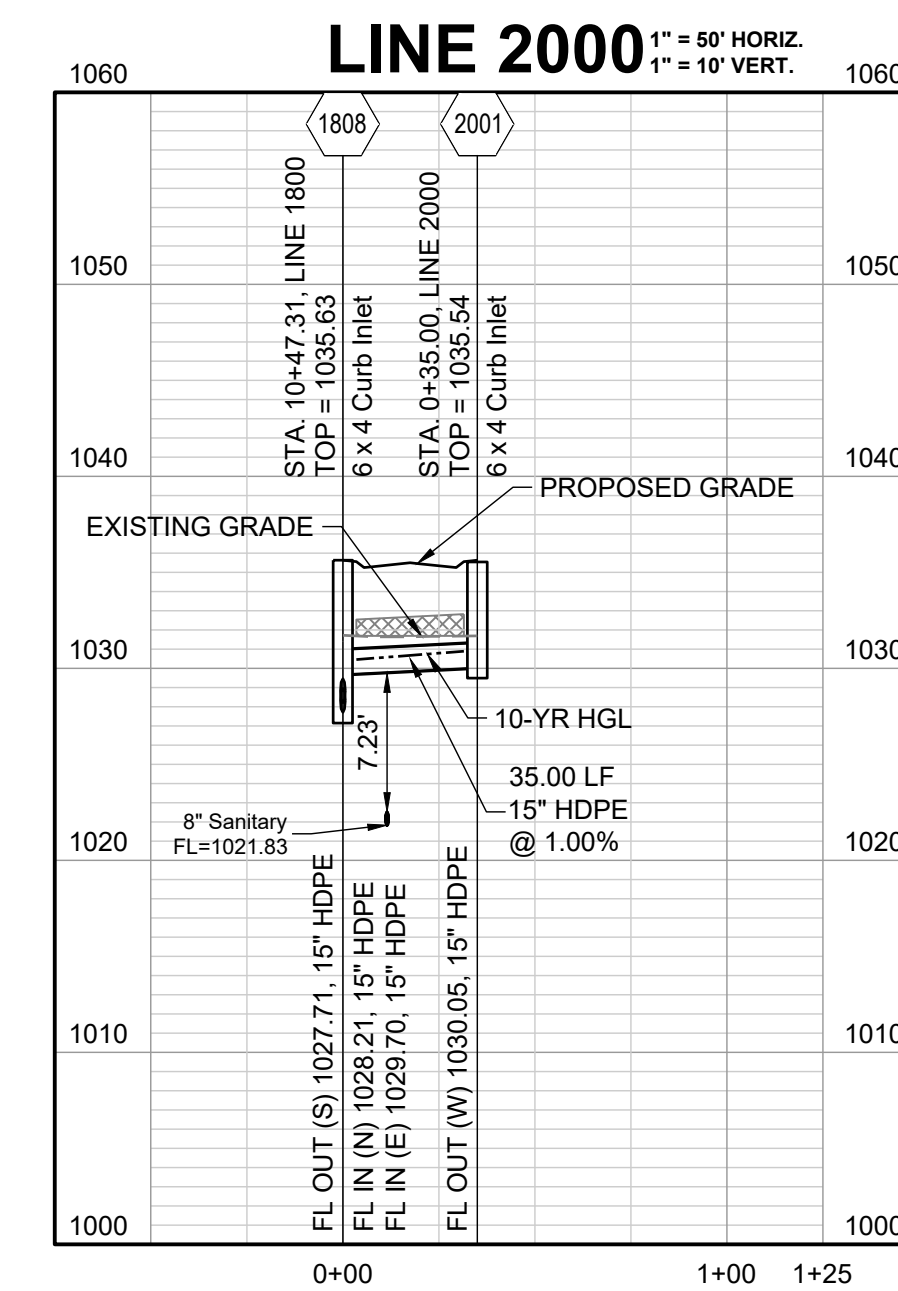
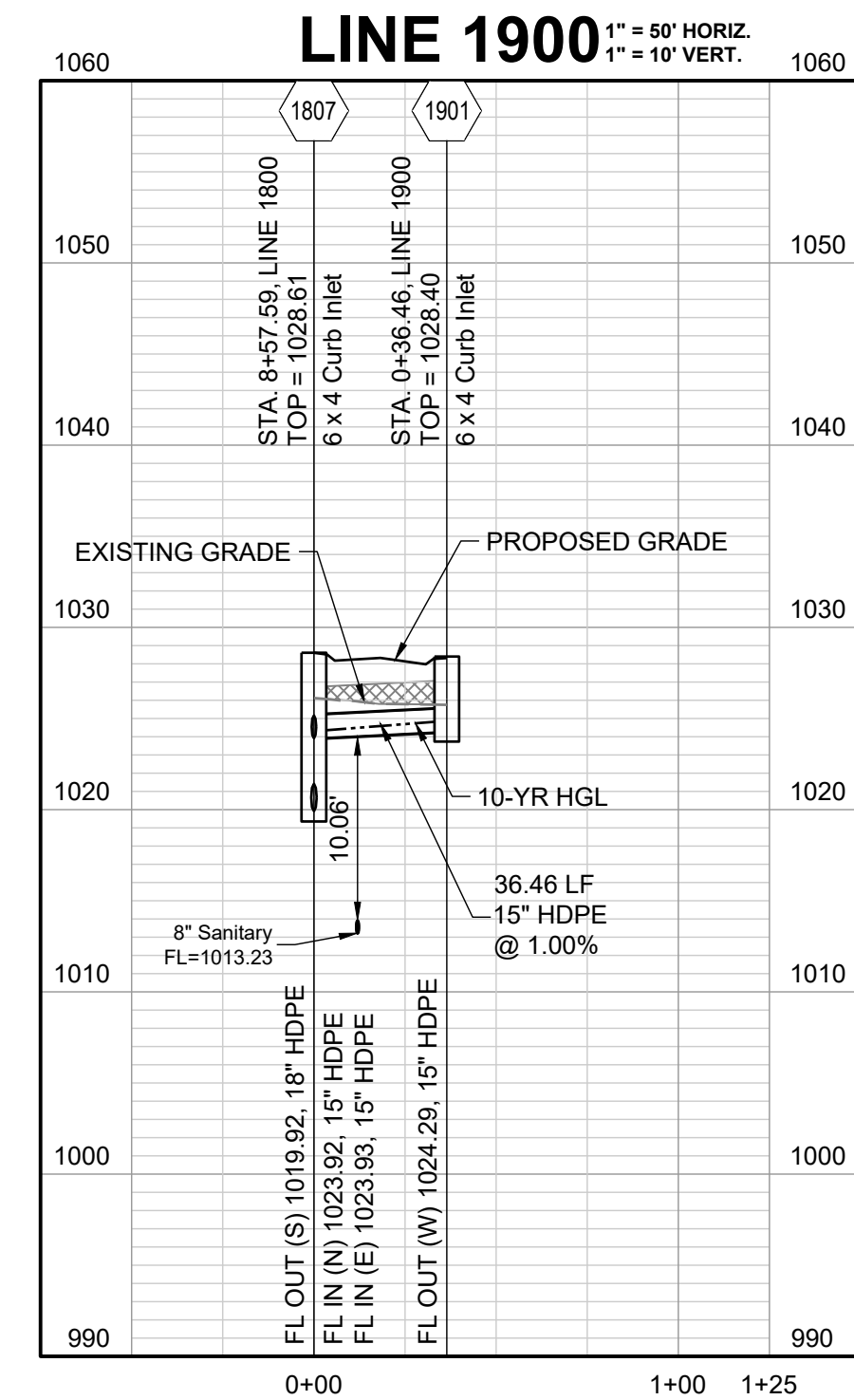
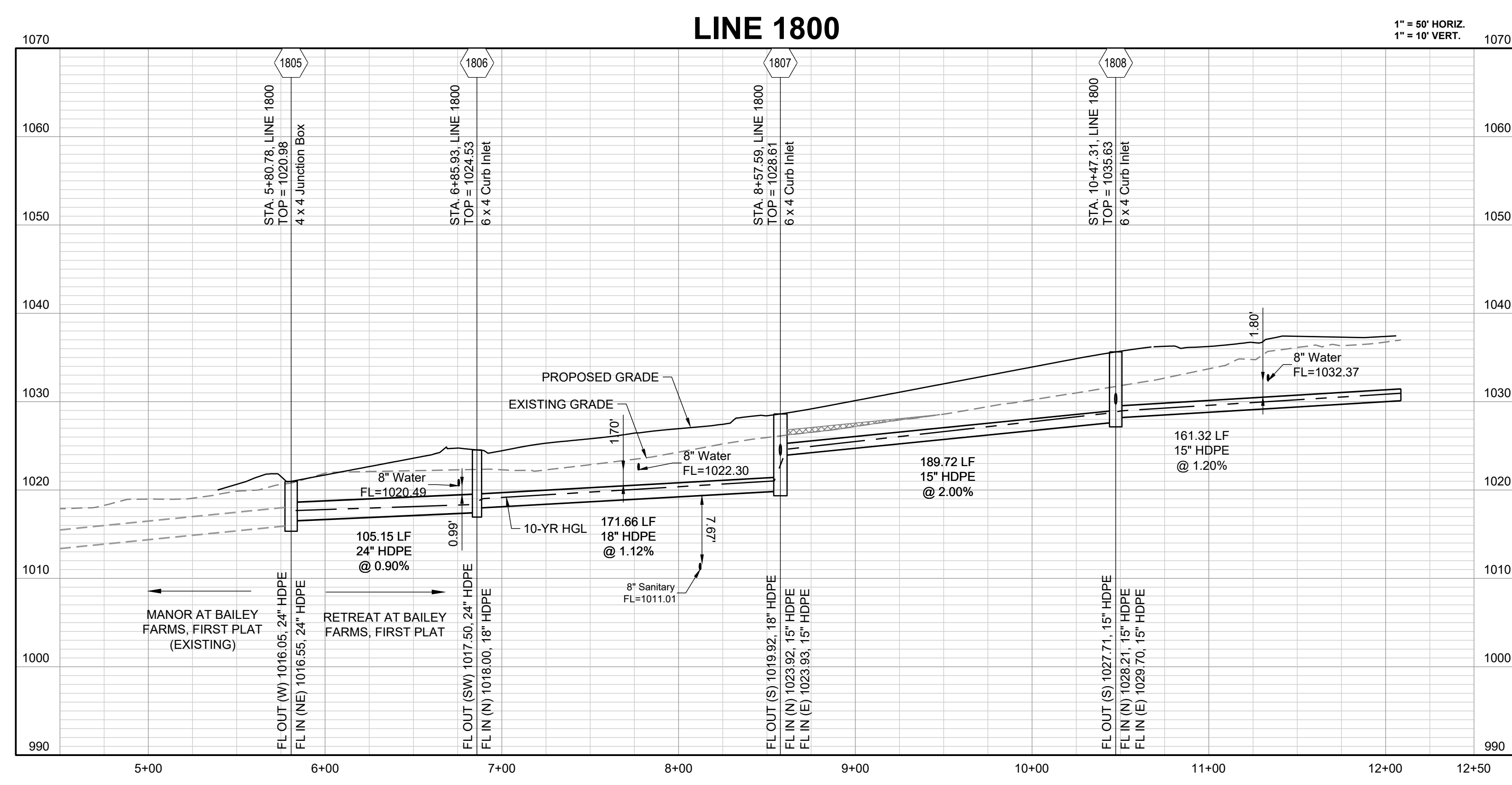
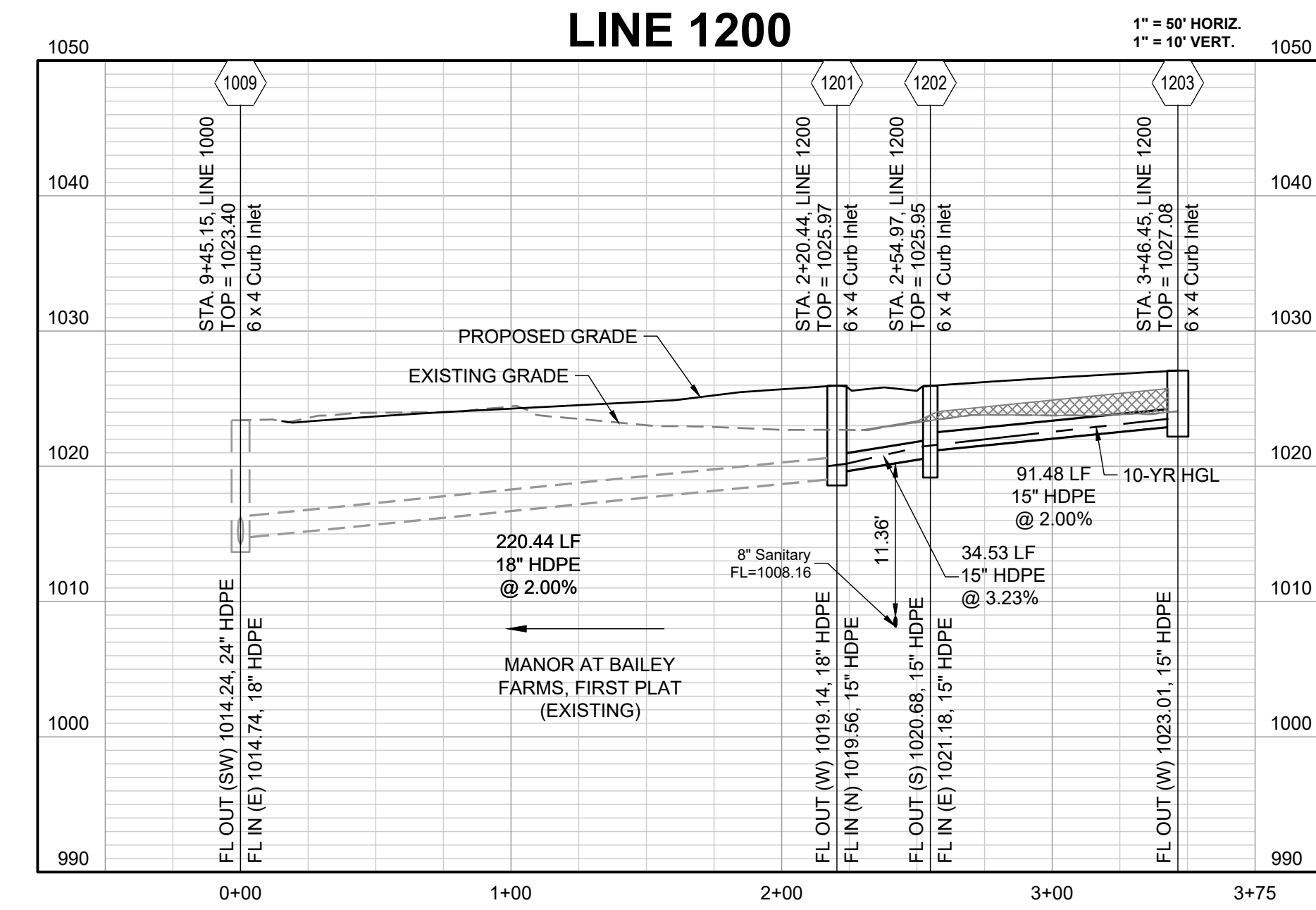
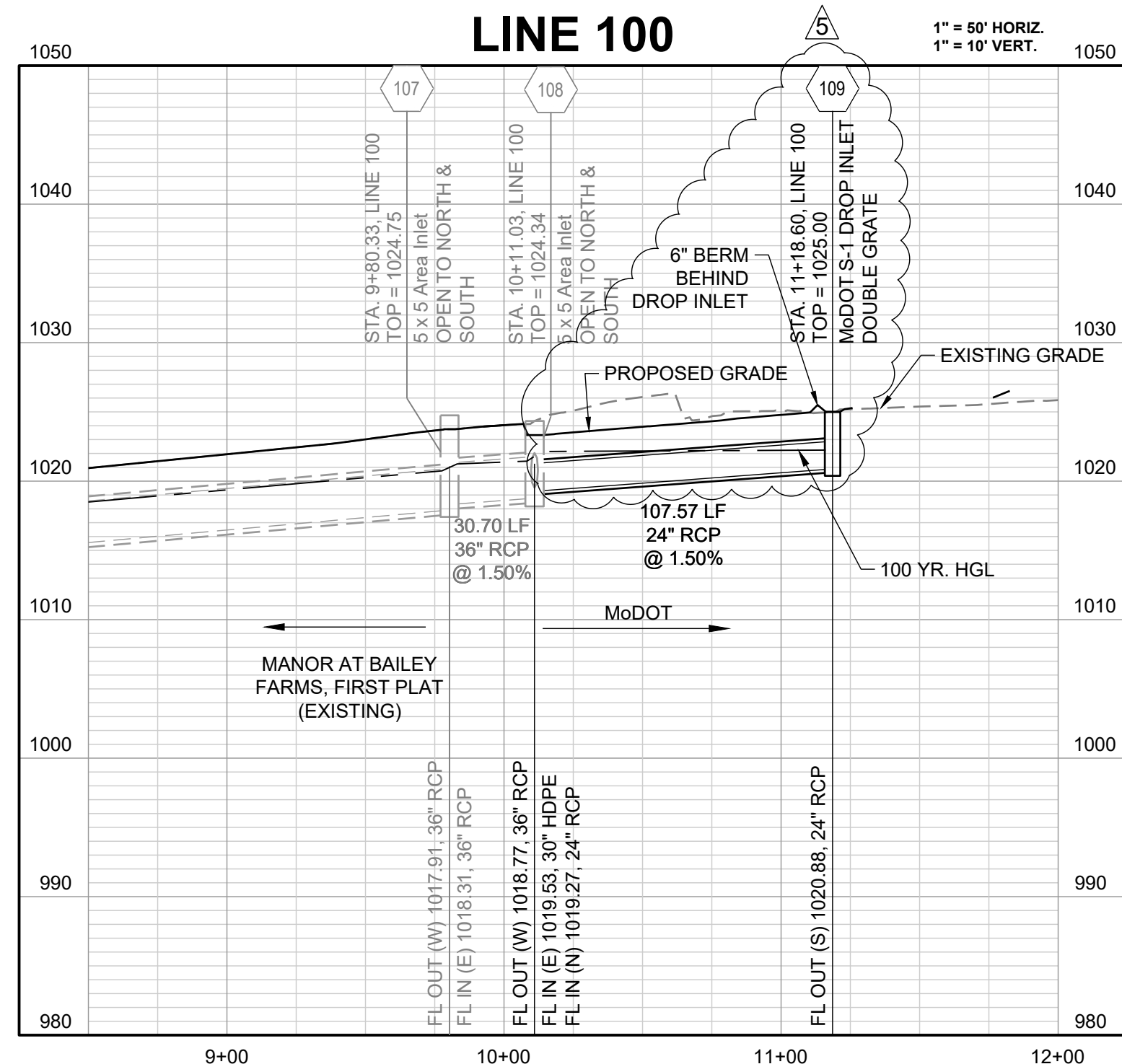
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**STORM PLAN**

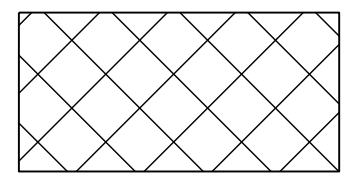
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COMPACTED FILL TO BE PLACED A MINIMUM OF 1.5 FEET ABOVE TOP OF PIPE ELEVATION PRIOR TO PIPE INSTALLATION.



10-YEAR HGL - - - - -

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STORM PROFILE

LS5200

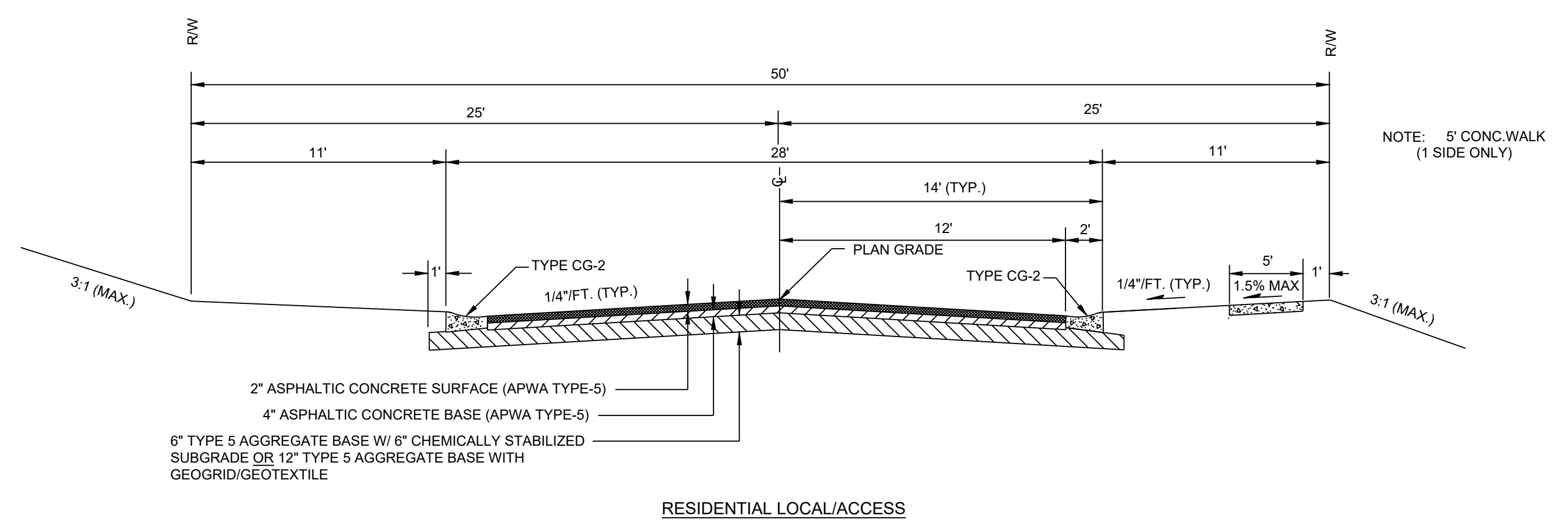
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July 2020

TABLE LS-2: MINIMUM ASPHALT PAVEMENT THICKNESSES

Street Classification	Pavement Option	AC Surface (in.)	AC Base (in.)	Aggregate Base (in.)	Chemical Subgrade Stabilization (in.)	Geogrid / Geotextile <sup>(1)</sup>
Residential Local/Access	A	2	4	6	6	--
	B	2	4	12	--	Geogrid / Geotextile
Residential Collector	A	2	5.5	6	9	--
	B	2	5.5	12	--	Geogrid / Geotextile
Commercial Industrial Local/Collector	A	2	7.5	6	9	--
	B	2	7.5	12	--	Geogrid / Geotextile

Notes:  
 (1) Geogrid shall be polypropylene material and Geotextile shall be woven, polypropylene as shown in the City's Approved Products List



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STREET DETAILS

SHEET

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STREET DETAILS

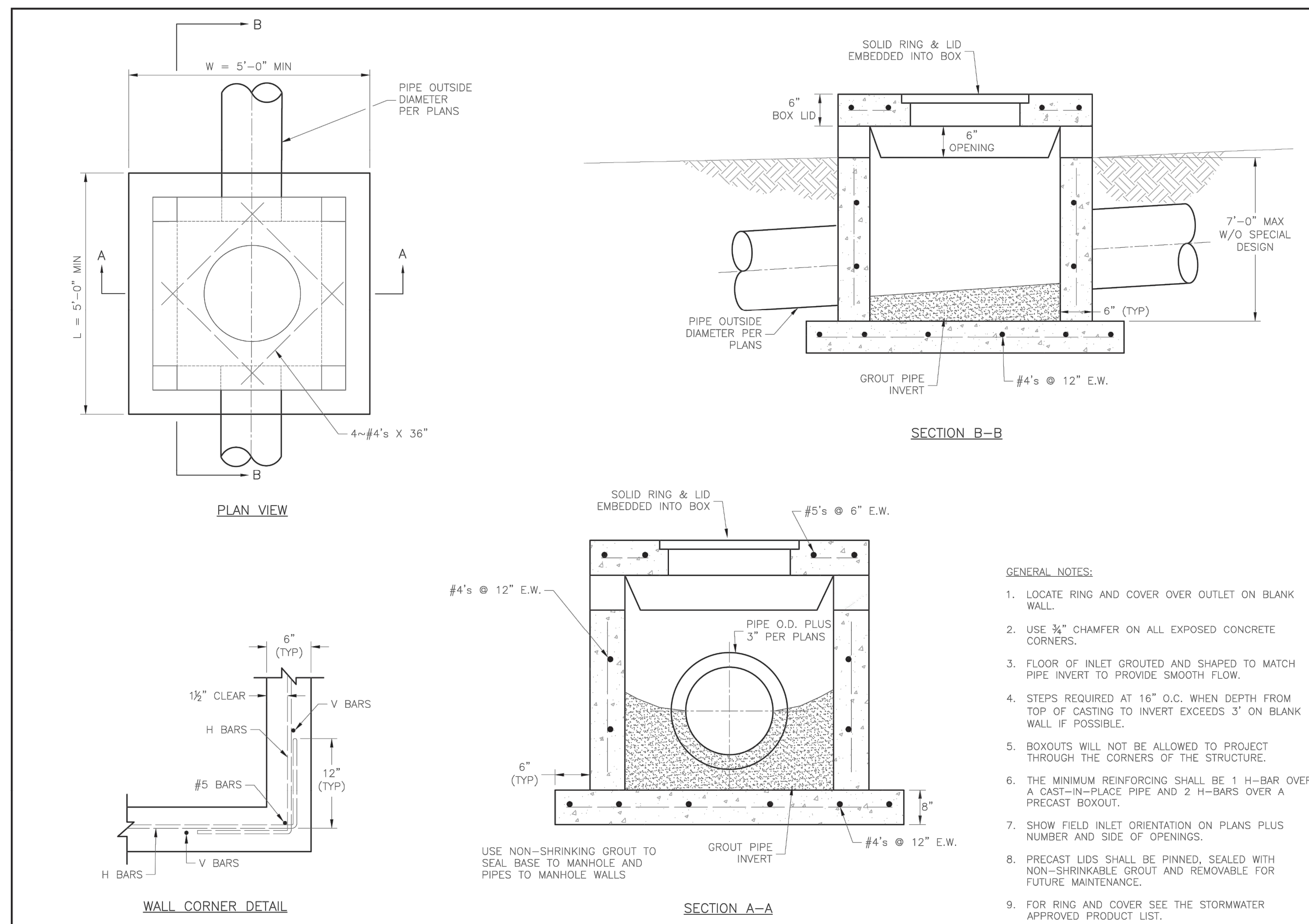
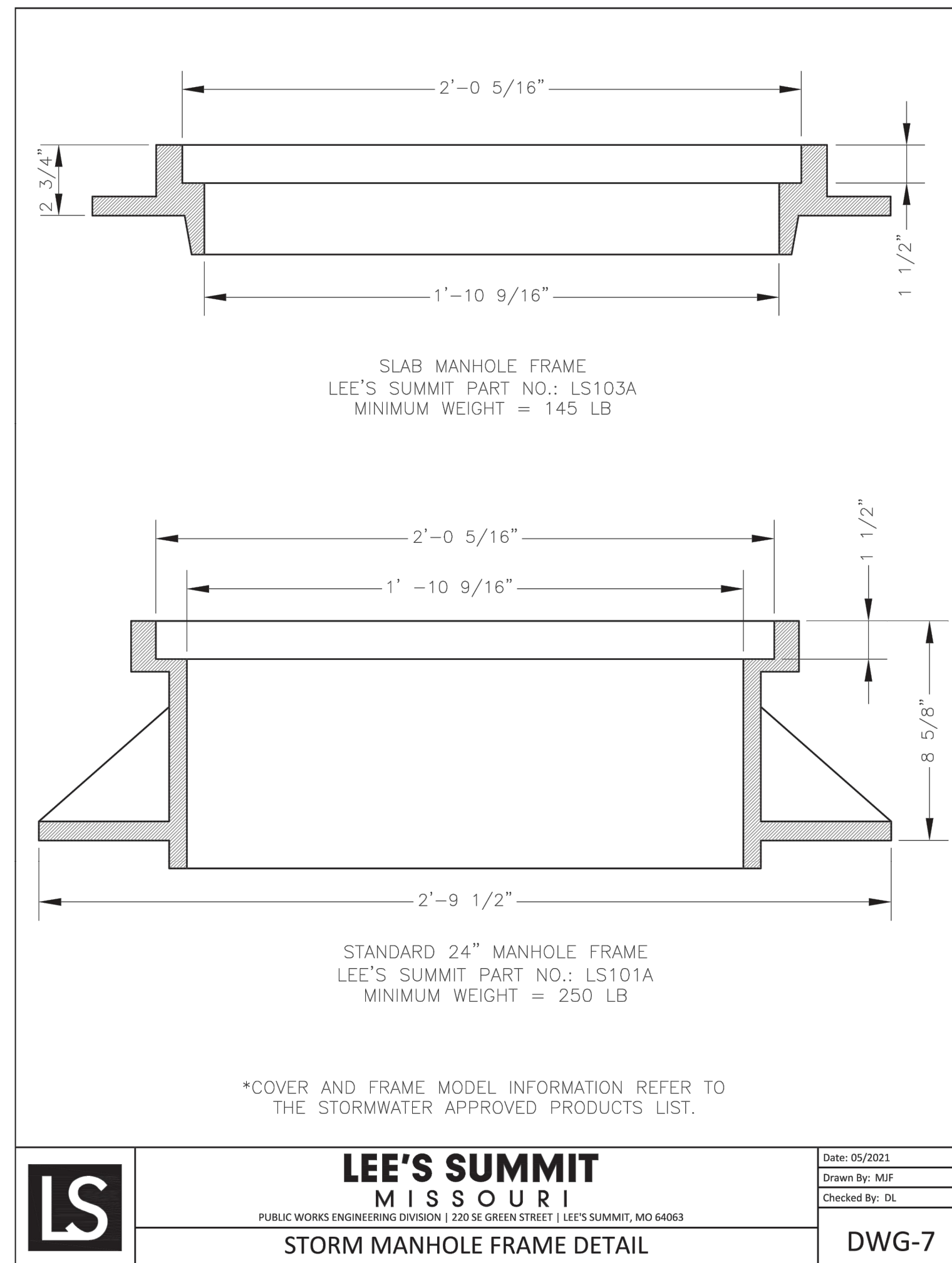
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**GEN-1**  
 STANDARD DETAILS  
 CITY OF LEE'S SUMMIT, MO  
 LEE'S SUMMIT, JACKSON COUNTY, MO  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64663

**GEN-3A**  
 STANDARD DETAILS  
 CITY OF LEE'S SUMMIT, MO  
 LEE'S SUMMIT, JACKSON COUNTY, MO  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64663

**GEN-4**  
 STANDARD DETAILS  
 CITY OF LEE'S SUMMIT, MO  
 LEE'S SUMMIT, JACKSON COUNTY, MO  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64663

**GEN-5**  
 LEE'S SUMMIT  
 MISSOURI  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64663



**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

FIELD INLET DETAIL

Drawn By: MJF  
Checked By: DL  
Date: 05/2021  
Proj. #

STM-2



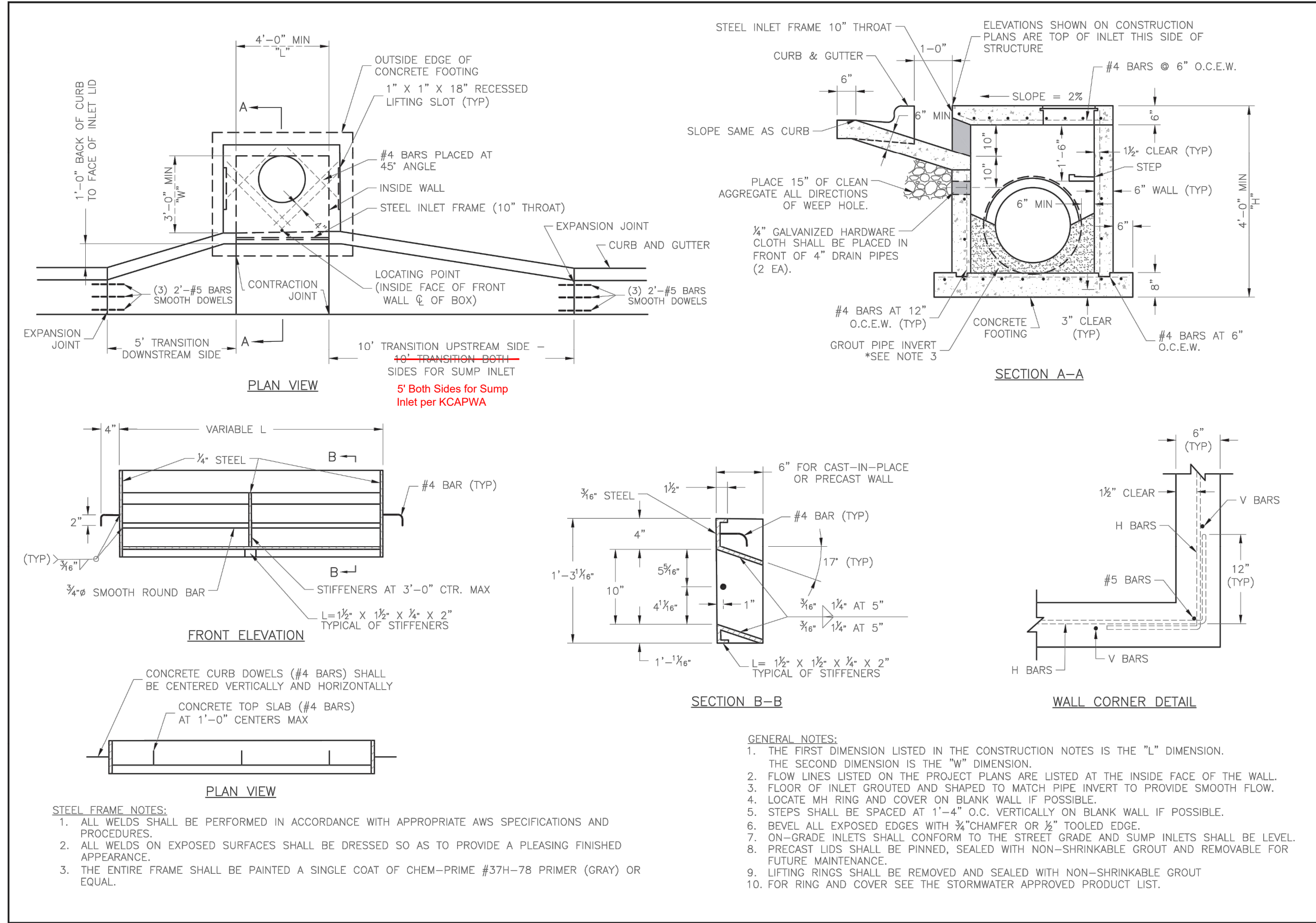
SCHLAGEL & ASSOCIATES, P.A.

RETREAT AT BAILEY FARMS, FIRST PLAT  
STREET, STORMWATER, AND MASTER  
DRAINAGE PLAN  
SE BAILEY ROAD AND SE RANSON ROAD  
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
03/21/2022	PER CITY COMMENTS
04/20/2022	PER CITY COMMENTS DATED 02/25/2022
08/25/2022	ADD FIELD INLET
09/08/2022	REVISE FIELD INLET
11/17/2022	REVISED INLET 09 TO MGDOT S1 INLET
10/27/2023	Updated City Details to 2023 Details
11/30/2023	Added "New City Requirement" Note

DRAWN BY: JRJ  
CHECKED BY: JLL  
DATE PREPARED: 02/09/2022  
PROJ. NUMBER: 21-133

STORM DETAILS

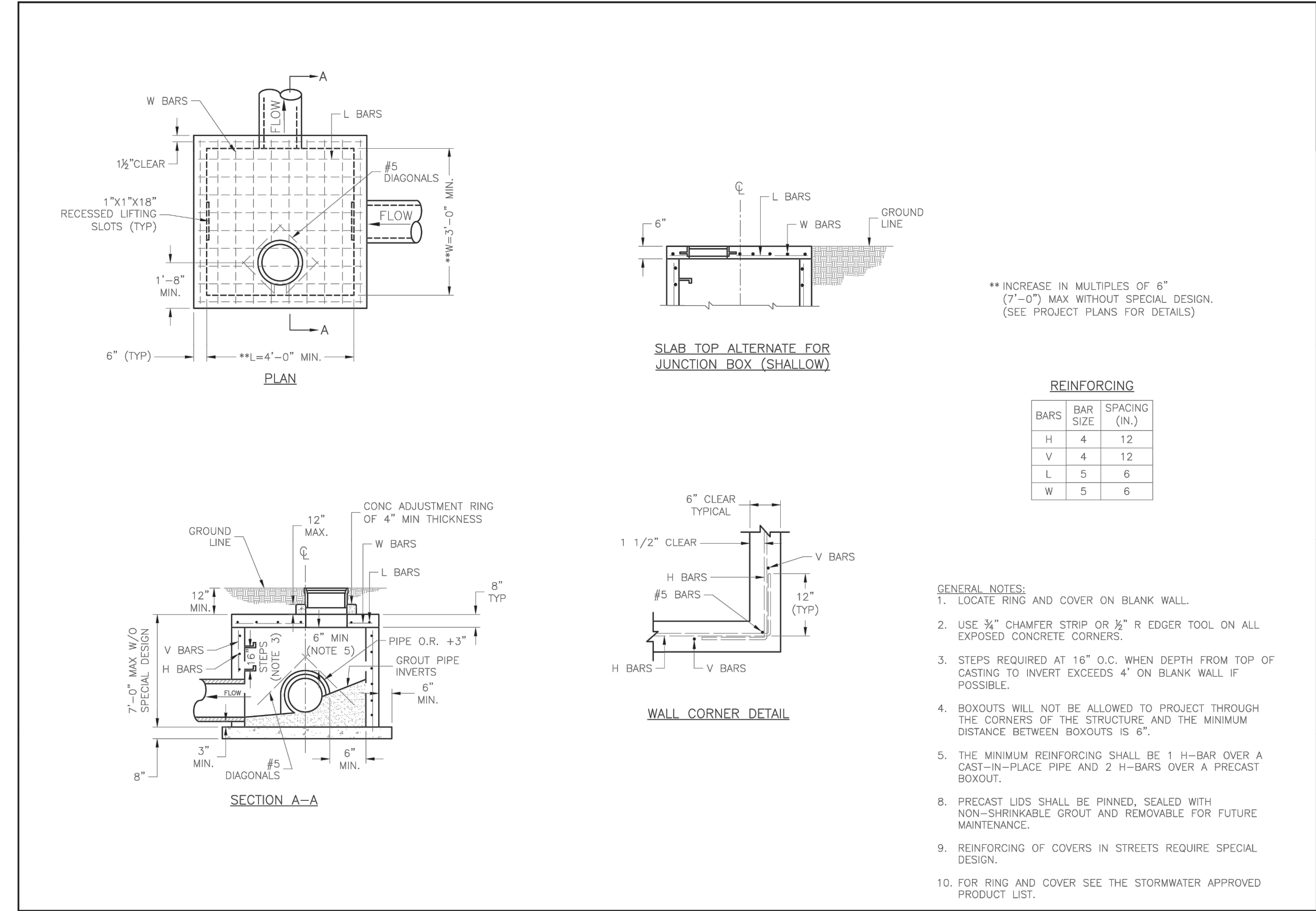


**LEE'S SUMMIT MISSOURI**  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

**STANDARD DETAILS**  
 CITY OF LEE'S SUMMIT, MO  
 LEE'S SUMMIT, JACKSON COUNTY, MO  
 CURB INLET DETAIL

Drawn By: MIF  
 Checked By: DL  
 Date: 02/20/23  
 Title: #

**STM-1**

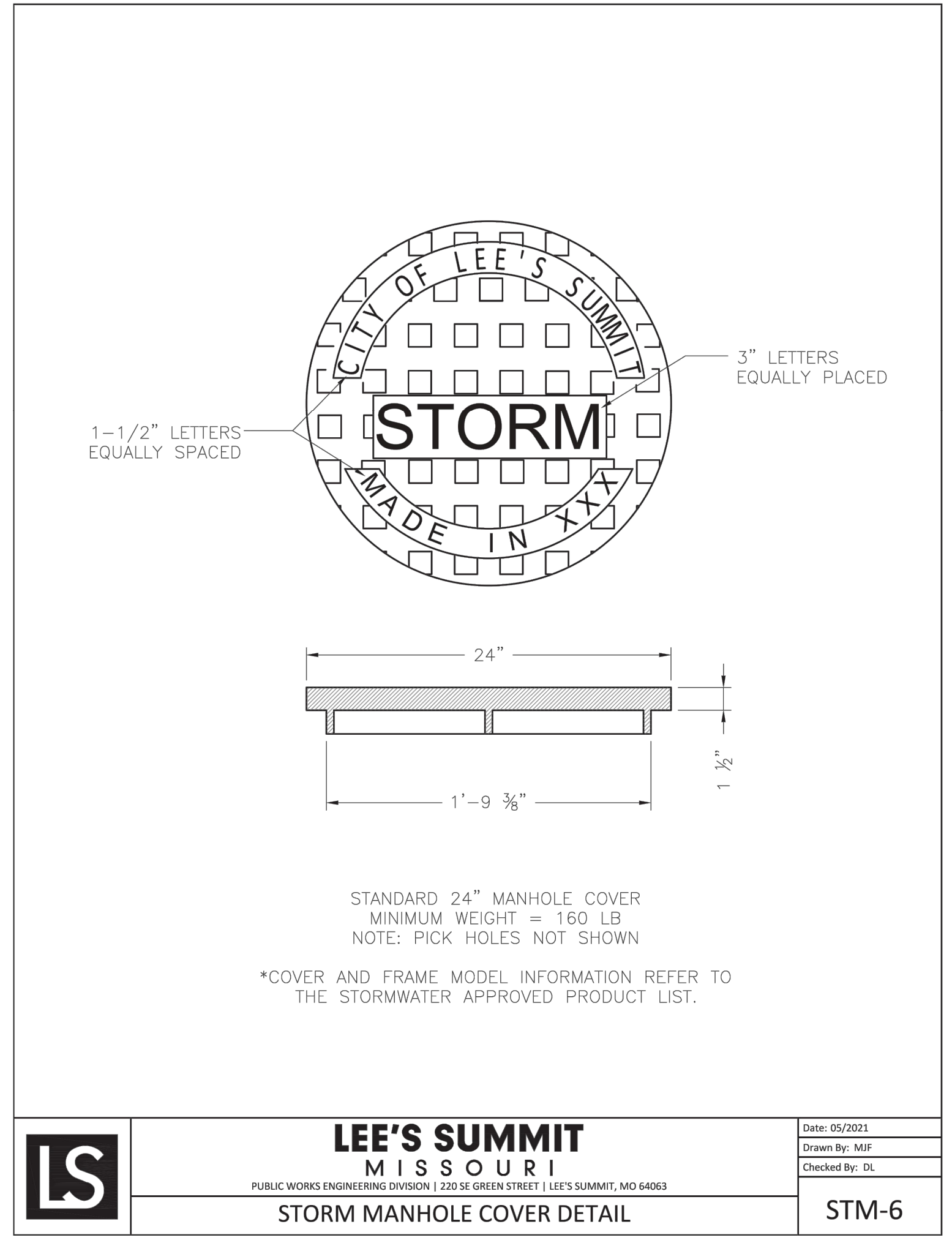


**LEE'S SUMMIT MISSOURI**  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

**STANDARD DETAILS**  
 CITY OF LEE'S SUMMIT, MO  
 LEE'S SUMMIT, JACKSON COUNTY, MO  
 JUNCTION BOX DETAIL

Drawn By: MIF  
 Checked By: DL  
 Date: 02/20/23  
 Title: #

**STM-3**



REVISION DATE	DESCRIPTION
03/21/2022	PER CITY COMMENTS DATED 02/25/2022
04/20/2022	PER CITY COMMENTS DATED 02/25/2022
08/25/2022	ADD FIELD INLET
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DRAWN BY: JRJ  
 CHECKED BY: JLL  
 DATE PREPARED: 02/09/2022  
 PROJ. NUMBER: 21-133



**MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:**

BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

**BASIS OF BEARINGS:**

MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

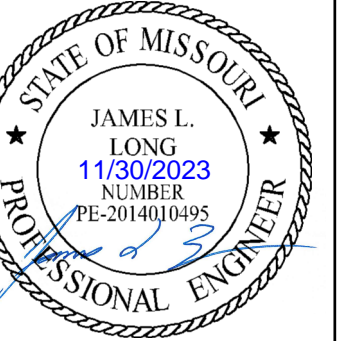
**NOTES:**

ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEES SUMMIT TECHNICAL SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.



PREPARED BY:



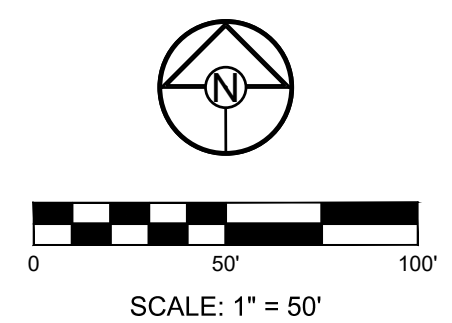
SCHLAGEL & ASSOCIATES, P.A.

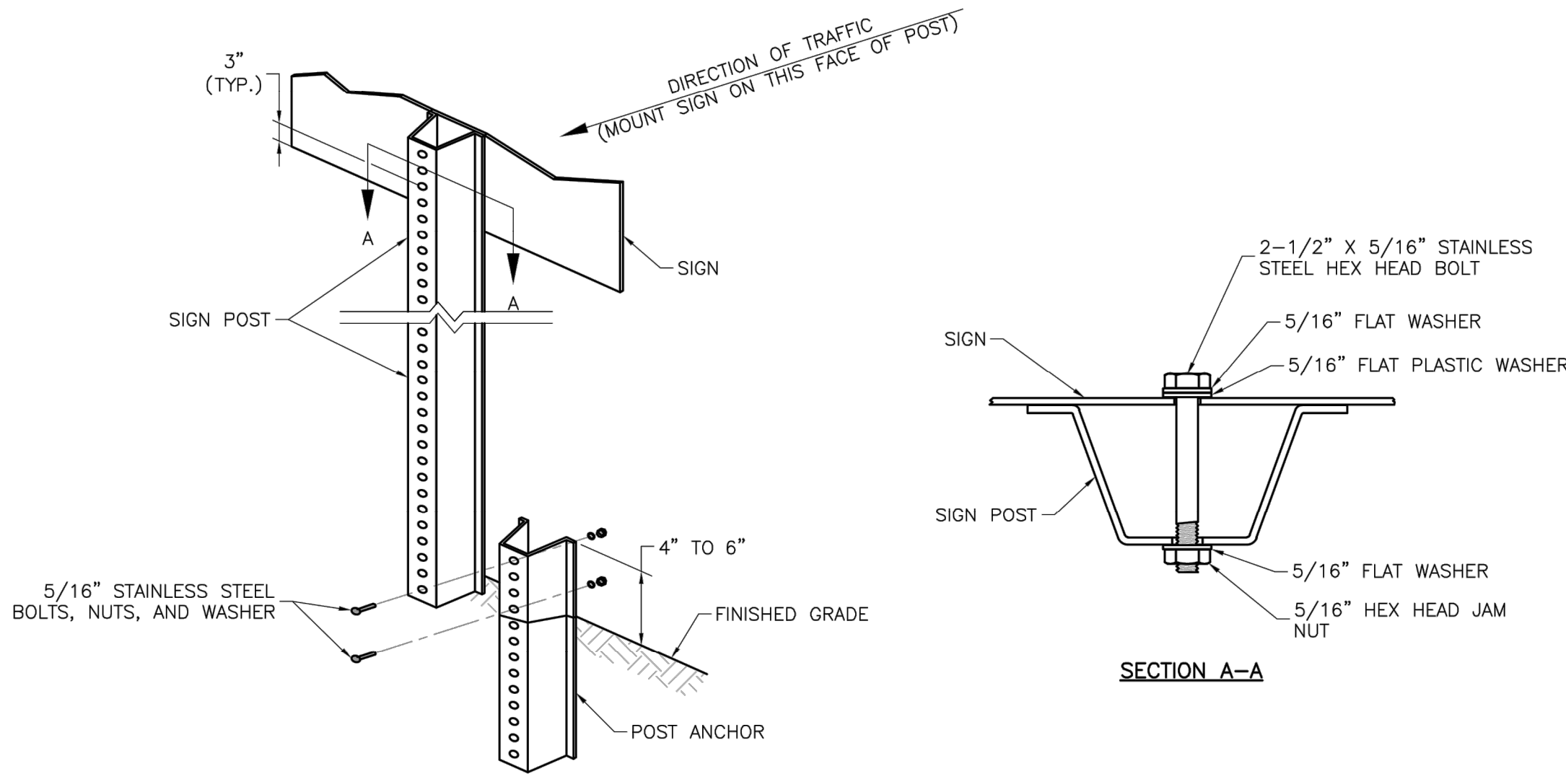
**RETREAT AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN**  
**SE BAILEY ROAD AND SE RANSON ROAD LEE'S SUMMIT, MISSOURI**

REVISION DATE	DESCRIPTION
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11/30/2023	Added "New City Requirements" Note

**SIGNAGE PLAN**

SHEET  
**15**

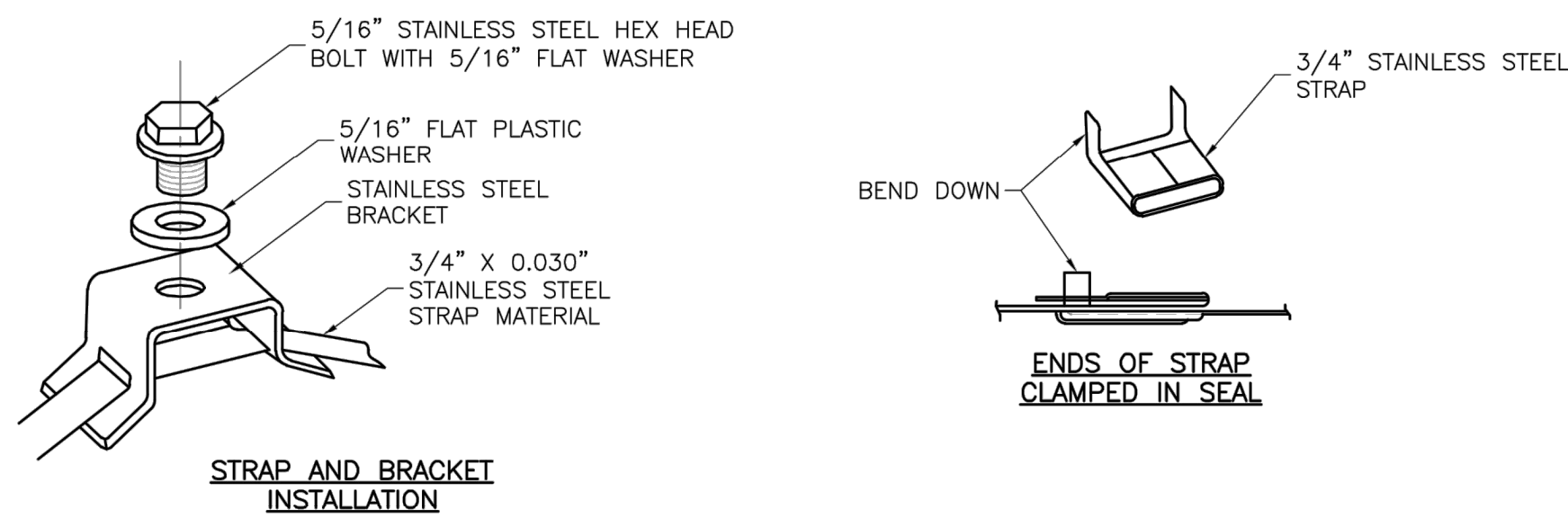




### U-STEEL POST DETAILS

#### 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

#### NOTES:

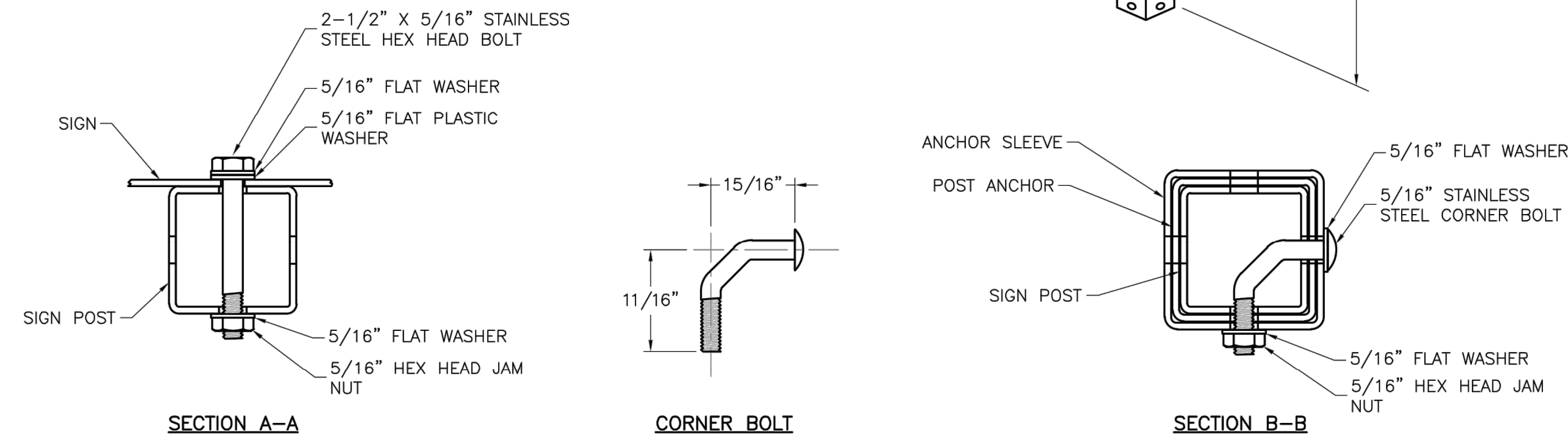
1. SIGNS ON METAL POLES SHALL BE ATTACHED WITH TWO BRACKETS AND STAINLESS STEEL BANDS.
2. HOLES IN SIGN FOR ATTACHMENT TO THE MOUNTING BRACKETS SHALL BE OFFSET A MINIMUM OF 2 INCHES FROM THE EDGE OF THE SIGN.
3. HOLES IN SIGN SHALL BE LOCATED SUCH THAT THE SIGN IS LEVEL.
4. ALL STRAP, BRACKET, AND SEAL 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.
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 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

#### 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 GA. 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 OR EQUAL TO 48" (NOT INCLUDING 36" X 36" DIAMOND SHAPED SIGNS) WILL REQUIRE TWO POSTS.

# 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

POST DETAILS

Project: LEE'S SUMMIT, JACKSON COUNTY, MO  
Street Name: LEE'S SUMMIT, MO 64063  
Drawn By: BWC  
Checked By: MP  
Date: 01/2020  
Proj. #:

SN-2

PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

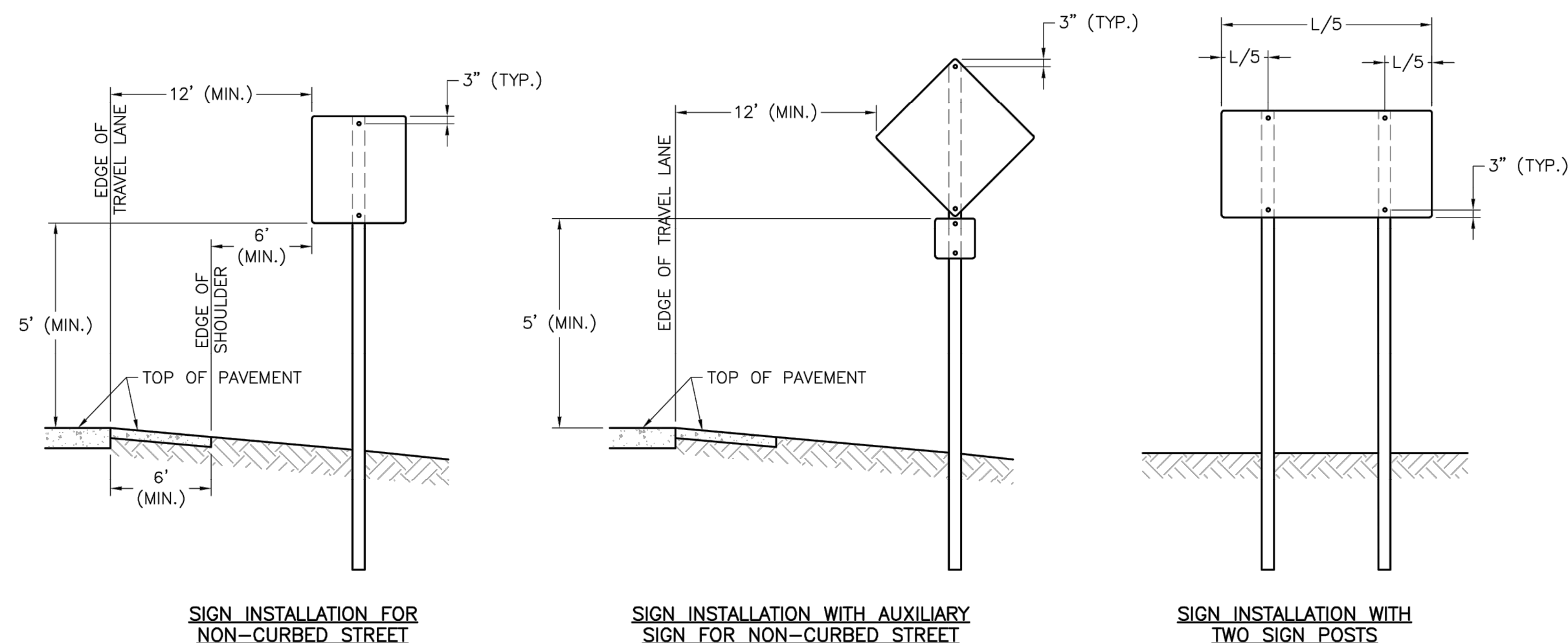
RETREAT AT BAILEY FARMS, FIRST PLAT  
STREET, STORMWATER, AND MASTER  
DRAINAGE PLAN  
SE BAILEY ROAD AND SE RANSON ROAD  
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
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11/30/2023	Added "New City Requirements" Note

SIGN POST DETAILS

SHEET

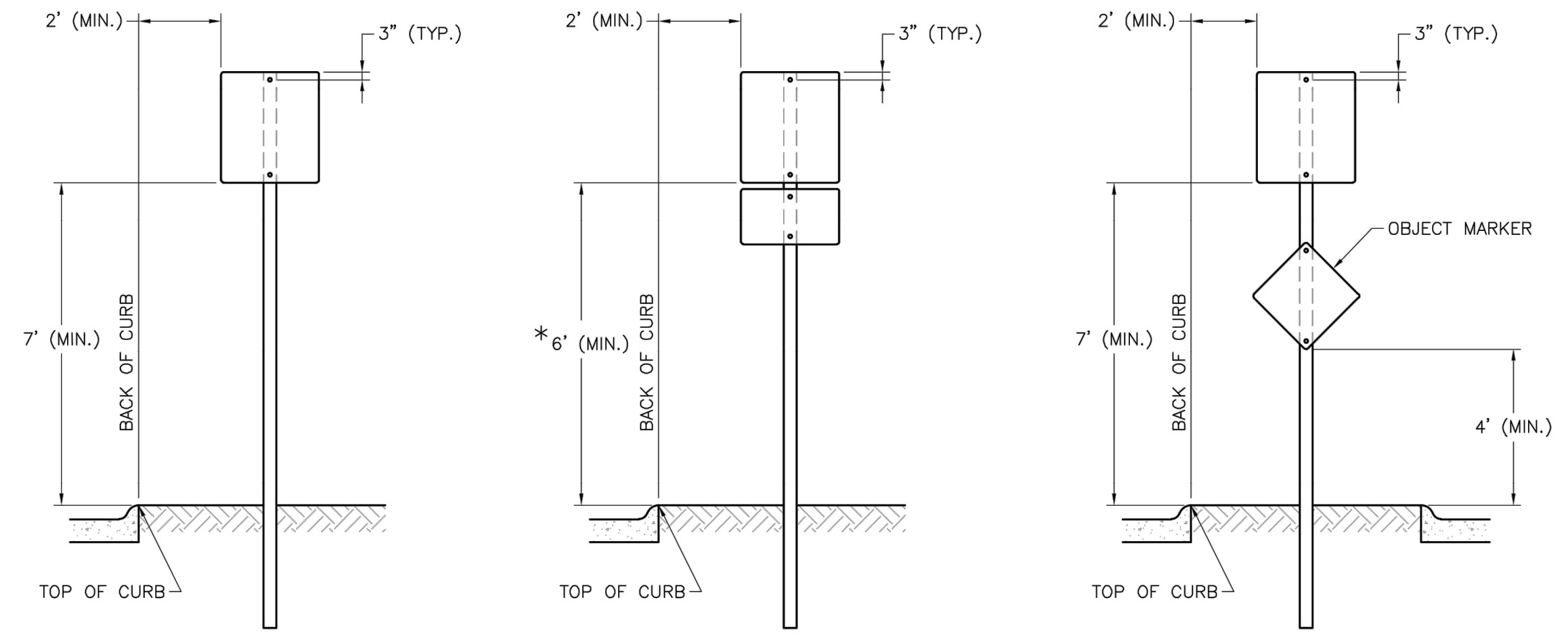




SIGN INSTALLATION FOR NON-CURBED STREET

SIGN INSTALLATION WITH AUXILIARY SIGN FOR NON-CURBED STREET

SIGN INSTALLATION WITH TWO SIGN POSTS



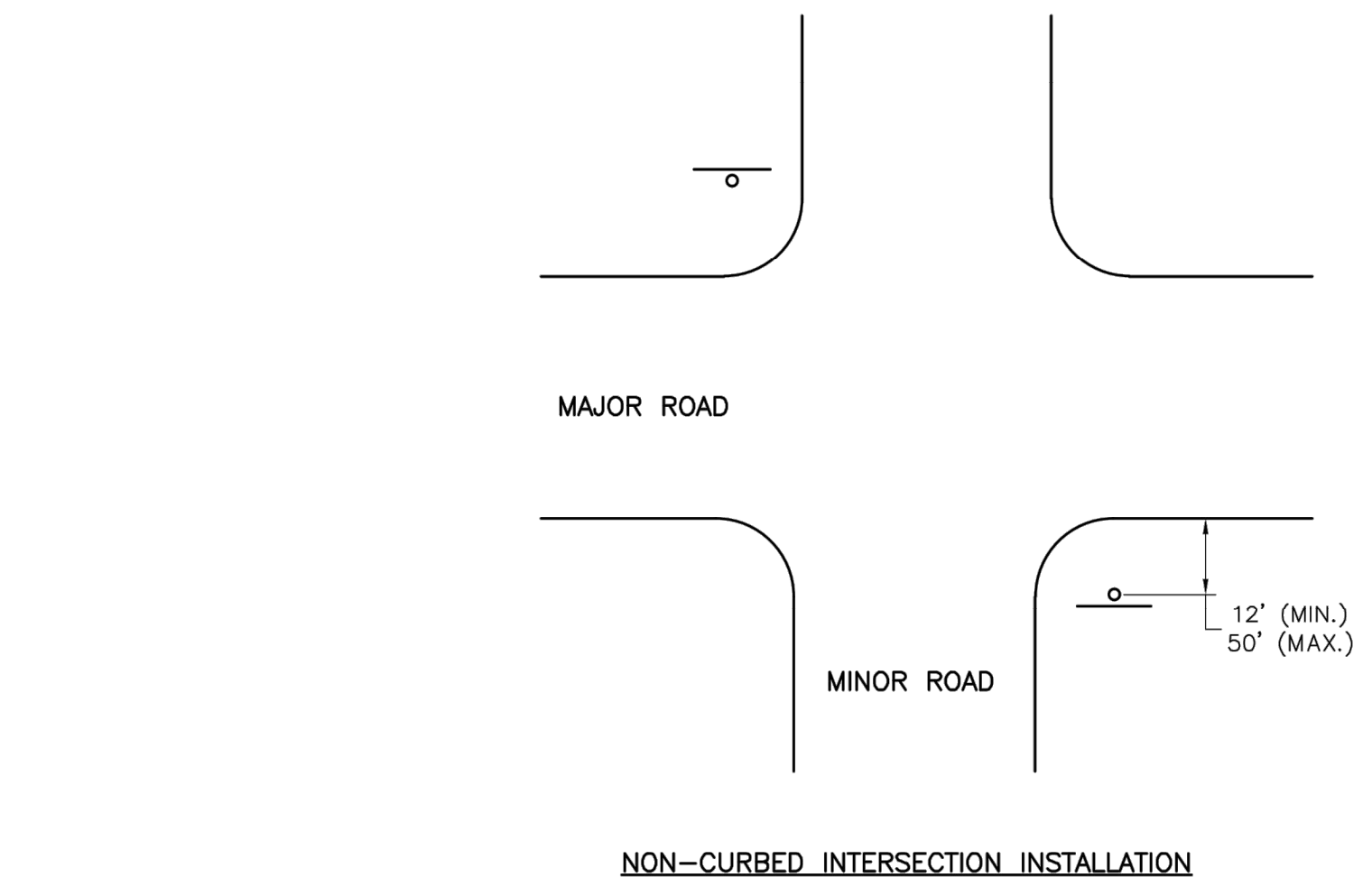
SIGN INSTALLATION FOR CURBED STREET

SIGN INSTALLATION WITH AUXILIARY SIGN FOR CURBED STREET

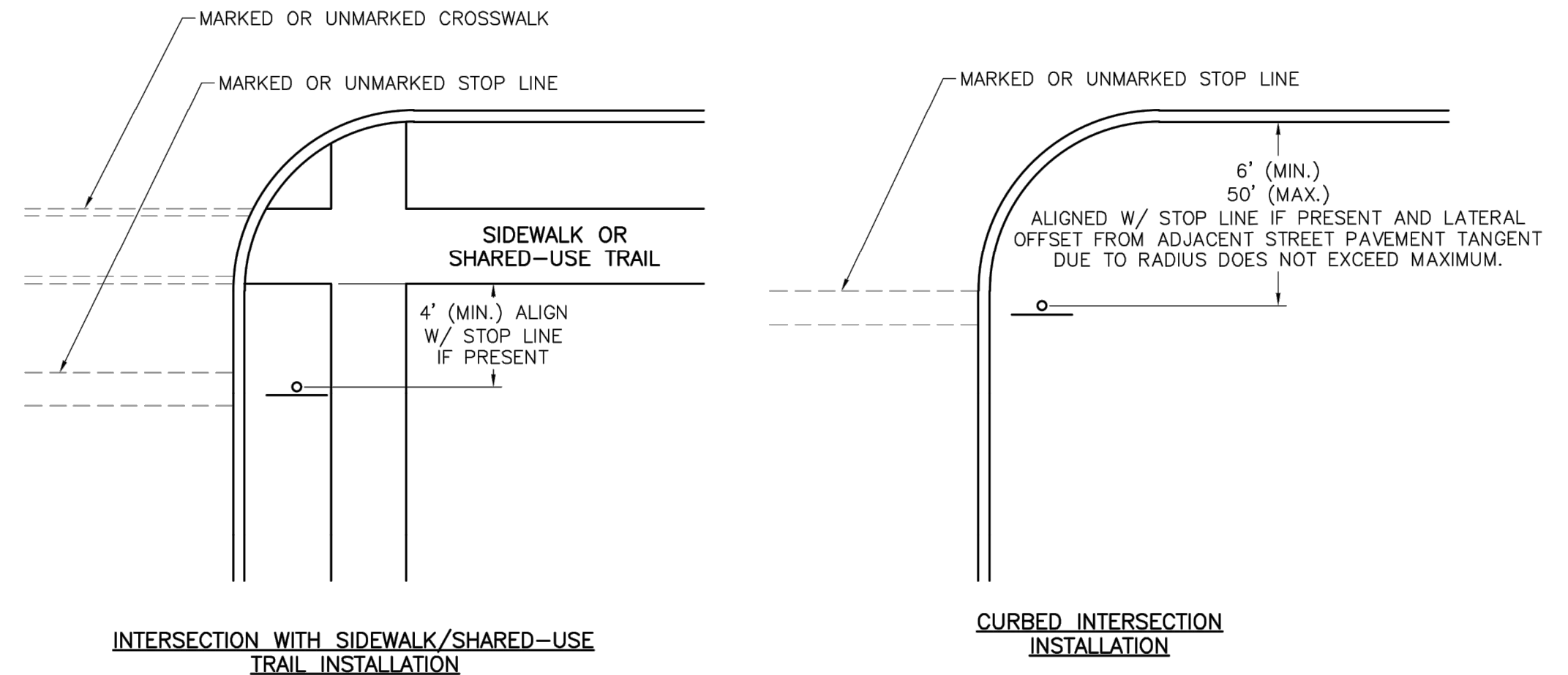
SIGN INSTALLATION FOR RAISED MEDIANS

**SIGN MOUNTING DETAILS**

- NOTES:
1. GENERALLY, THE SIGN MOUNTING HEIGHT SHOULD NOT BE MORE THAN 1" GREATER THAN THE MINIMUM MOUNTING HEIGHT.
  2. \*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.



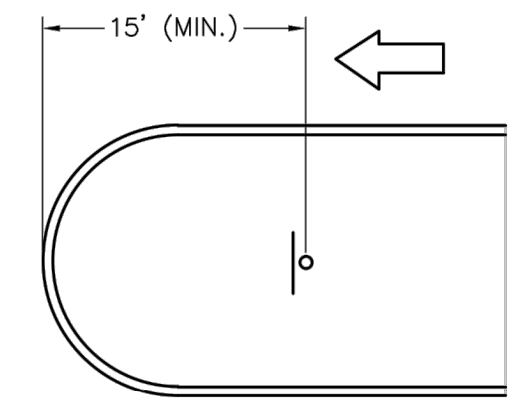
NON-CURBED INTERSECTION INSTALLATION



INTERSECTION WITH SIDEWALK/SHARED-USE TRAIL INSTALLATION

CURBED INTERSECTION INSTALLATION

**CONTROL SIGN LOCATION**



TYPICAL MEDIAN SIGN LOCATION

**MEDIAN SIGN LOCATION**

- NOTES:
1. A 4" P.V.C. SLEEVE SHALL BE INSTALLED IN NEW CONCRETE MEDIANS AT EACH LOCATION WHERE A SIGN IS TO BE INSTALLED.
  2. FOR EXISTING CONCRETE MEDIANS, A 4" HOLE SHALL BE CORED INTO THE CONCRETE.

**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: SIGN MOUNTING DETAILS

Drawn By: BWC  
Checked By: MP  
Date: 01/2020  
Proj. #:

SN-1

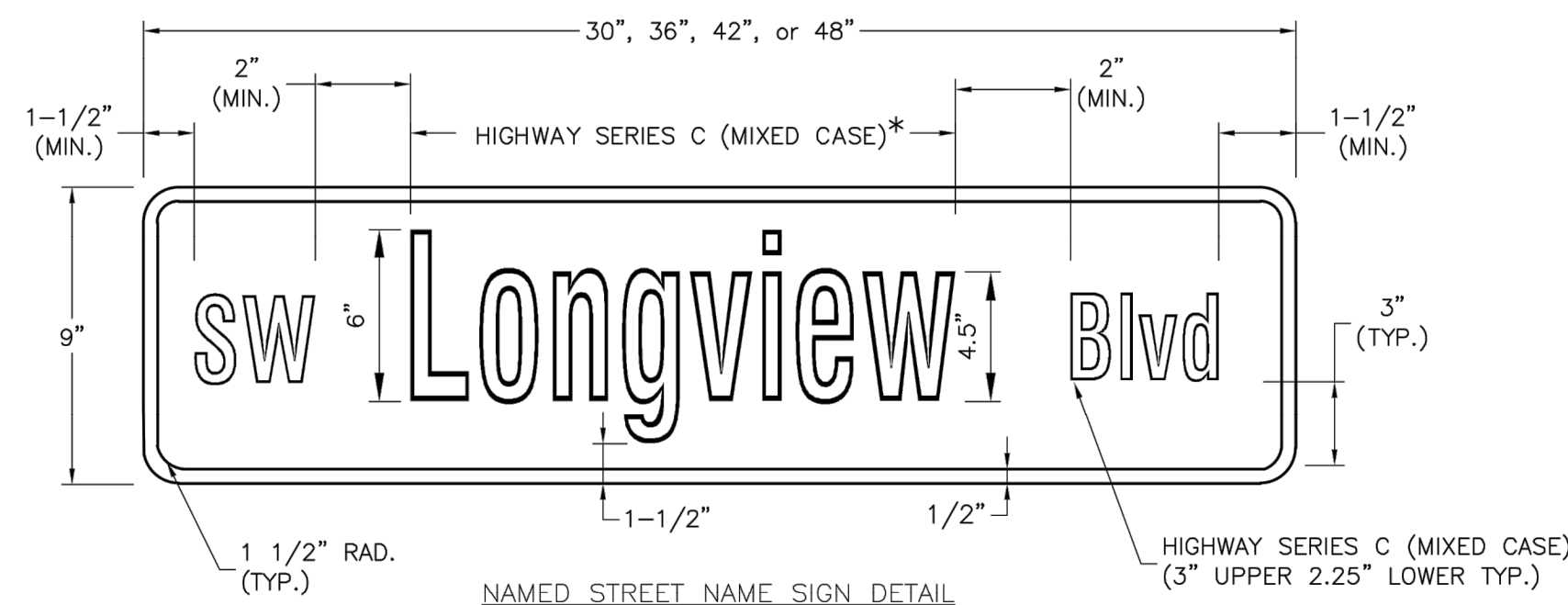
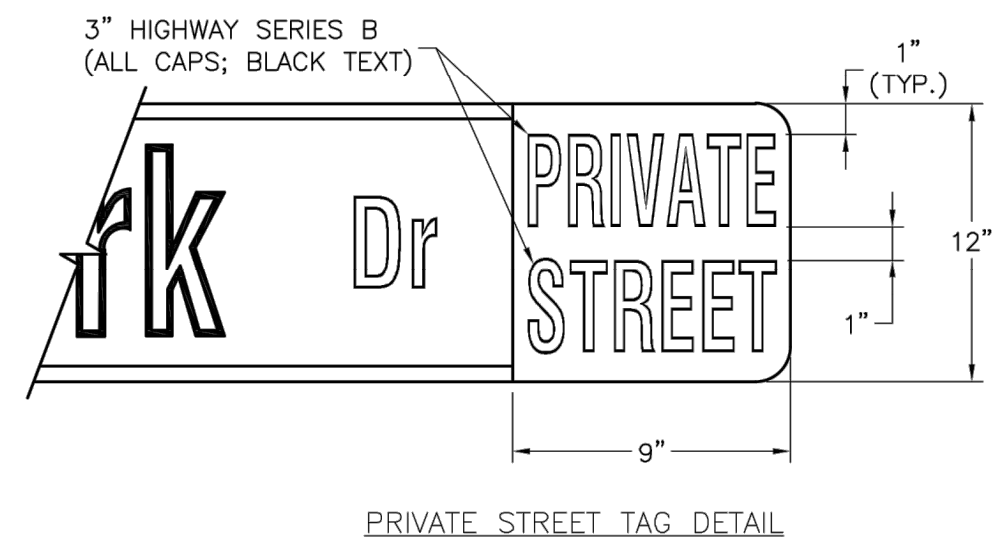
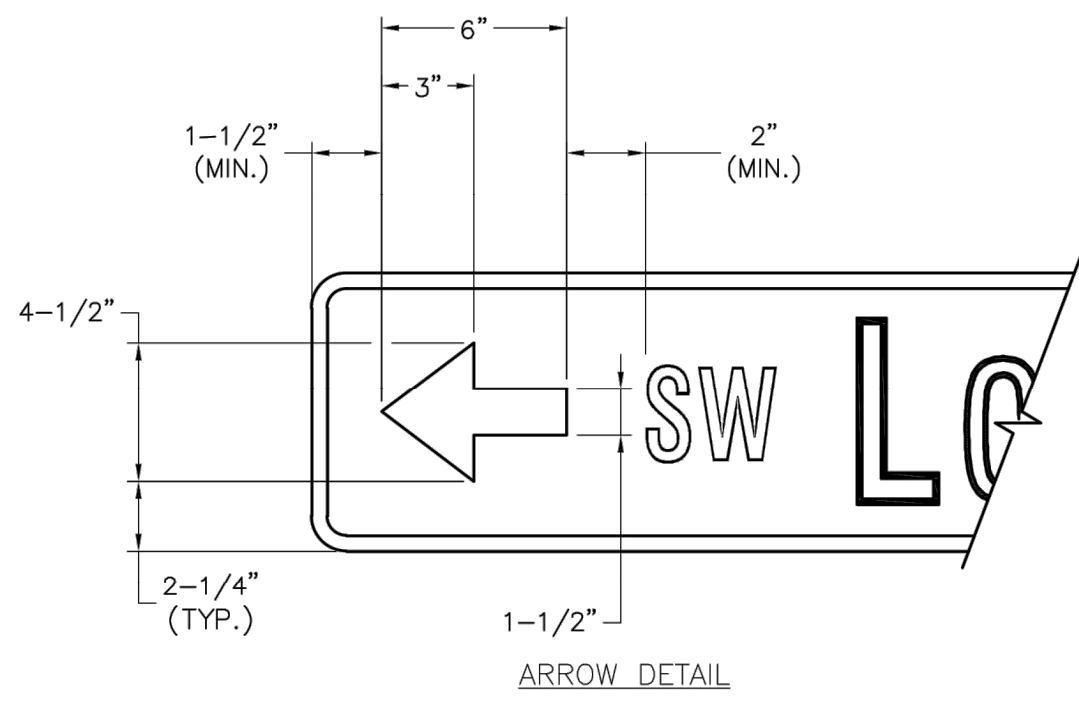
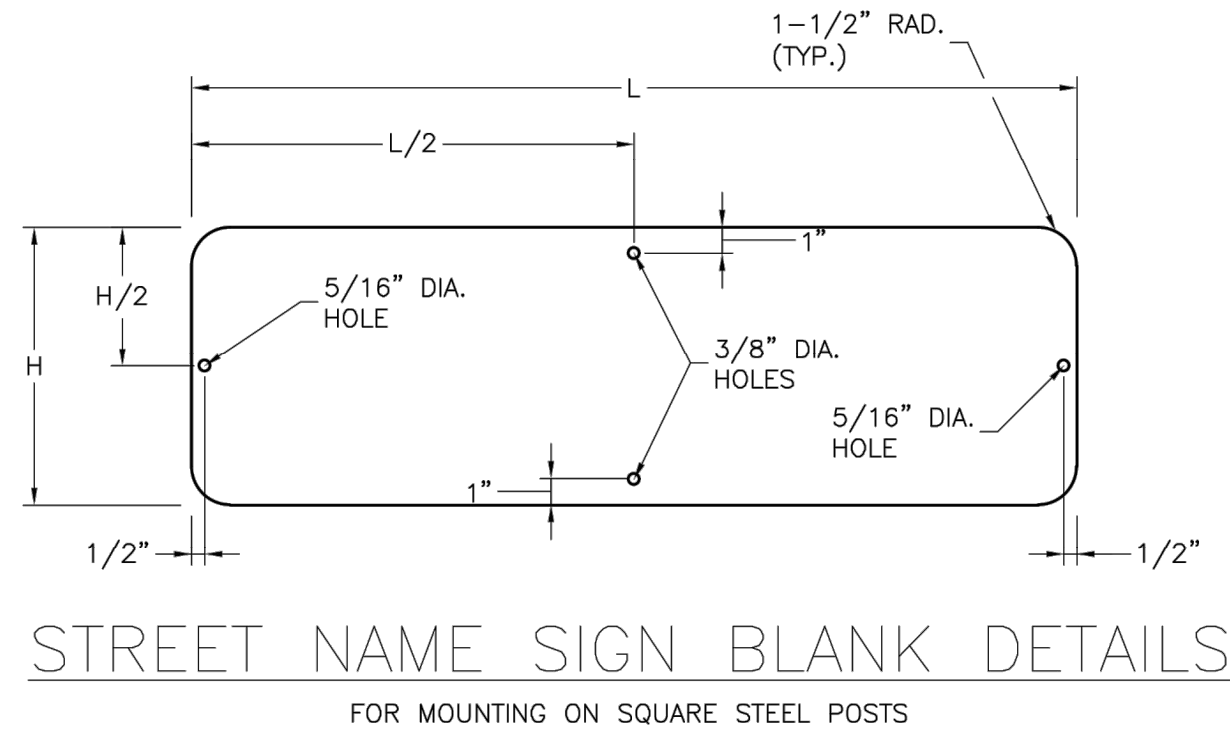
REVISION DATE	DESCRIPTION
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SIGN MOUNTING DETAILS

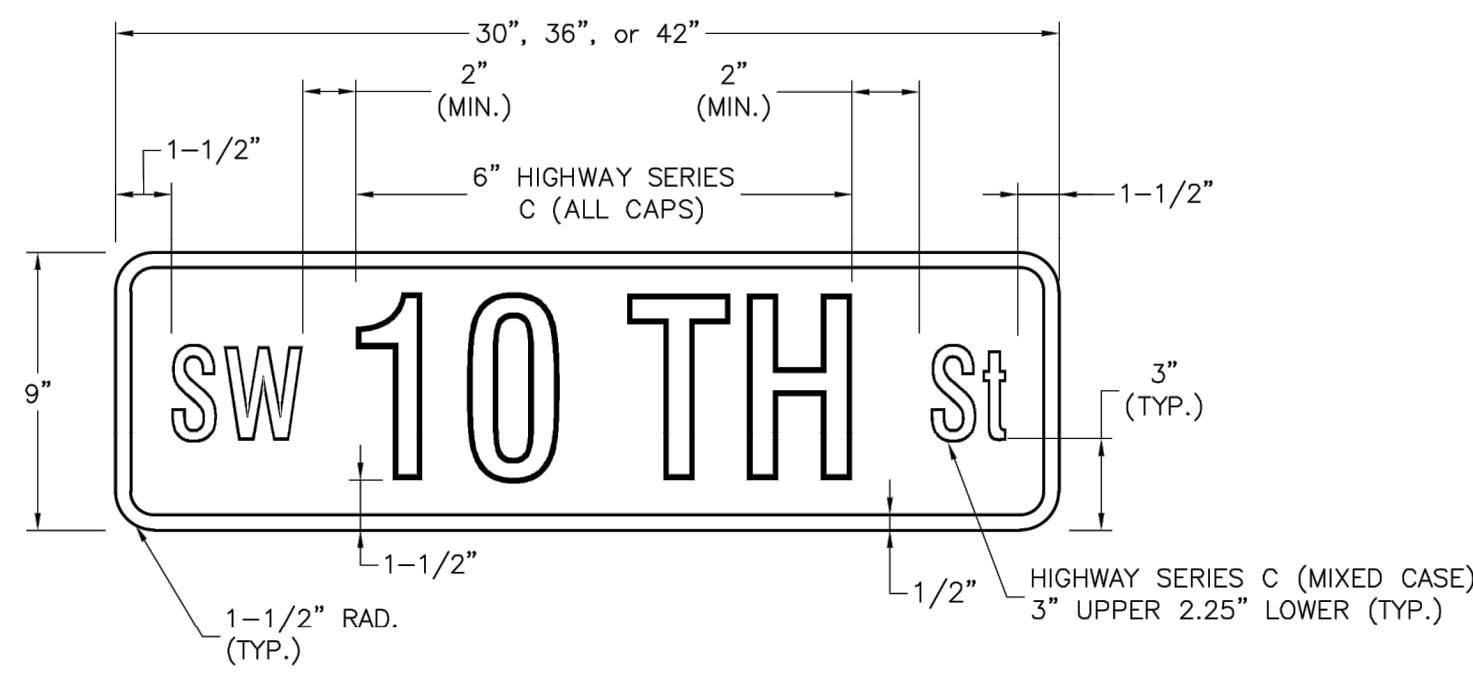
STANDARD ABBREVIATION LISTS

NAMED STREETS	
AVENUE	Ave
BOULEVARD	Blvd
CIRCLE	Cir
CREEK	Cr
COURT	Ct
CROSSING	Xing
DRIVE	Dr
HIGHWAY	Hwy
LANE	Ln
PARKWAY	Pkwy
PLACE	Pi
ROAD	Rd
STREET	St
TERRACE	Ter
TRAIL	Tri
WAY	Way

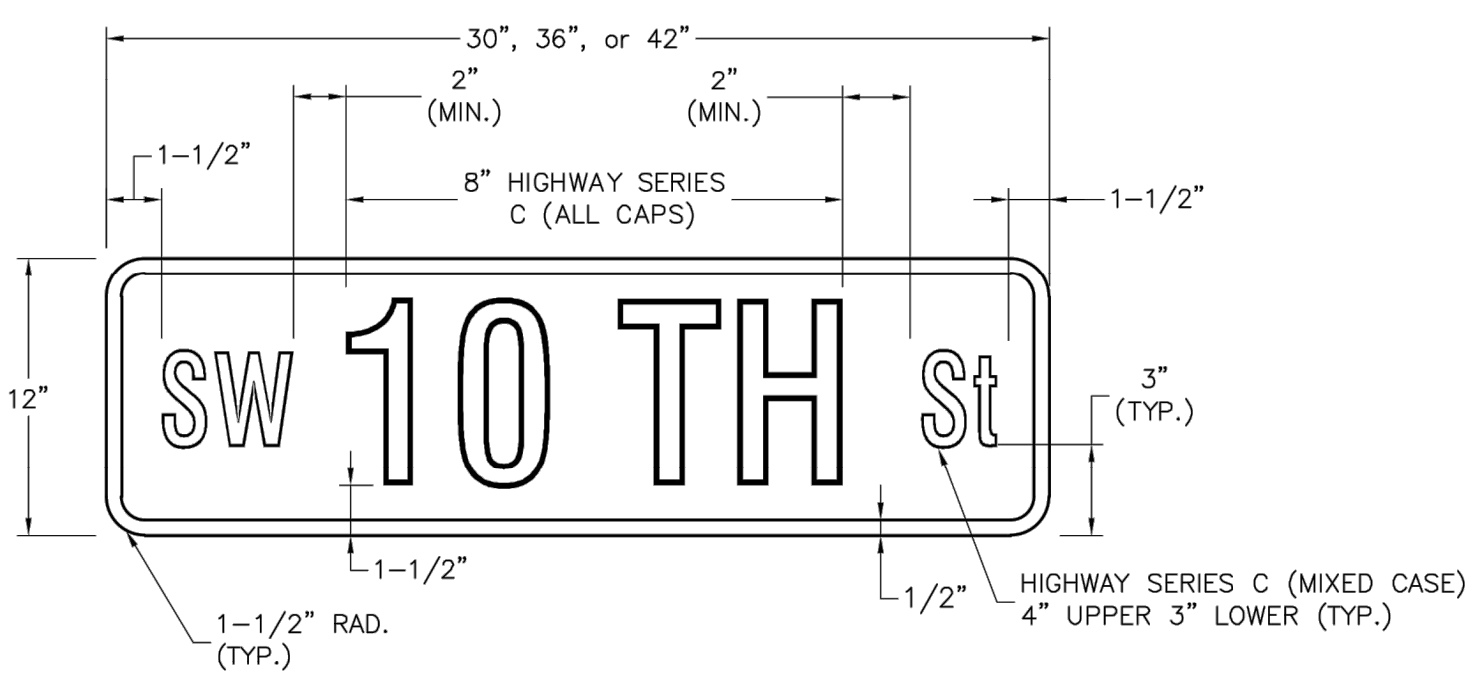
NUMBERED STREETS	
FIRST	ST
SECOND	ND
THIRD	RD
FOURTH TO TENTH	TH



STREET NAME SIGN FACE DETAILS  
POST MOUNTED 2-LANE ALL SPEEDS AND MULTI-LANE UNDER 40 MPH



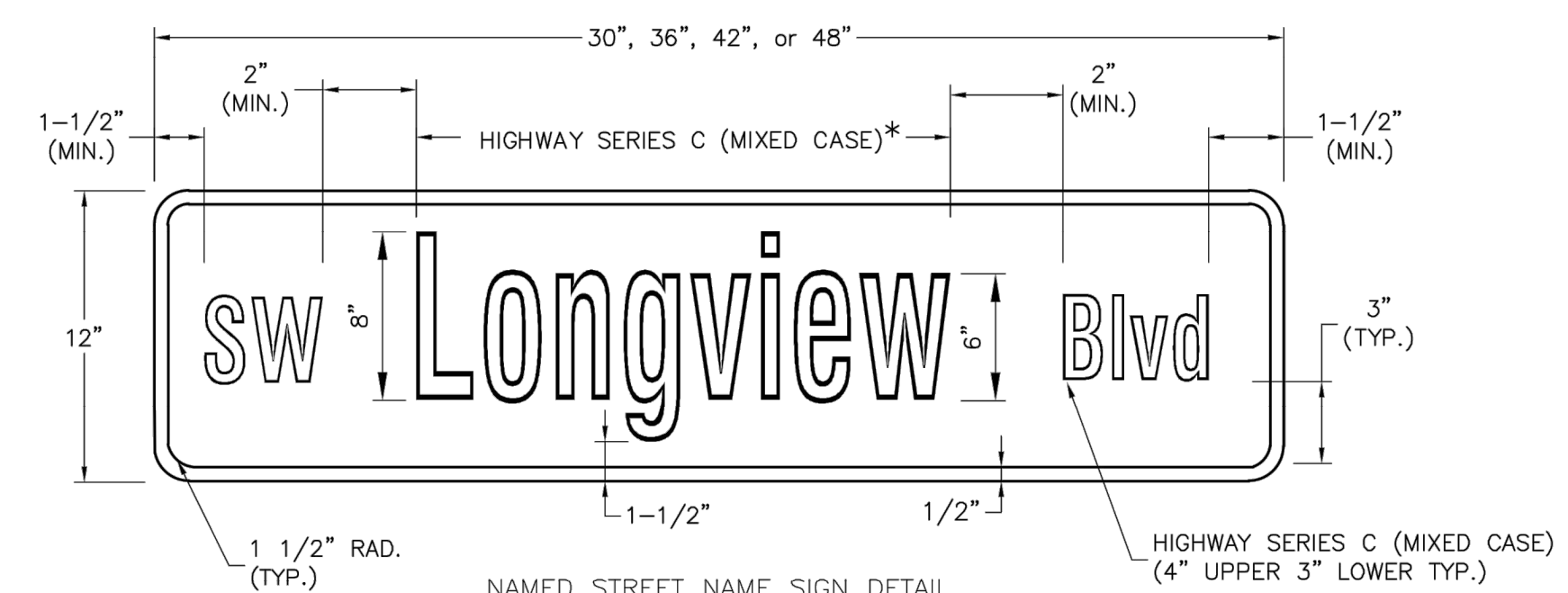
STREET NAME SIGN FACE DETAILS  
POST MOUNTED 2-LANE ALL SPEEDS AND MULTI-LANE UNDER 40 MPH



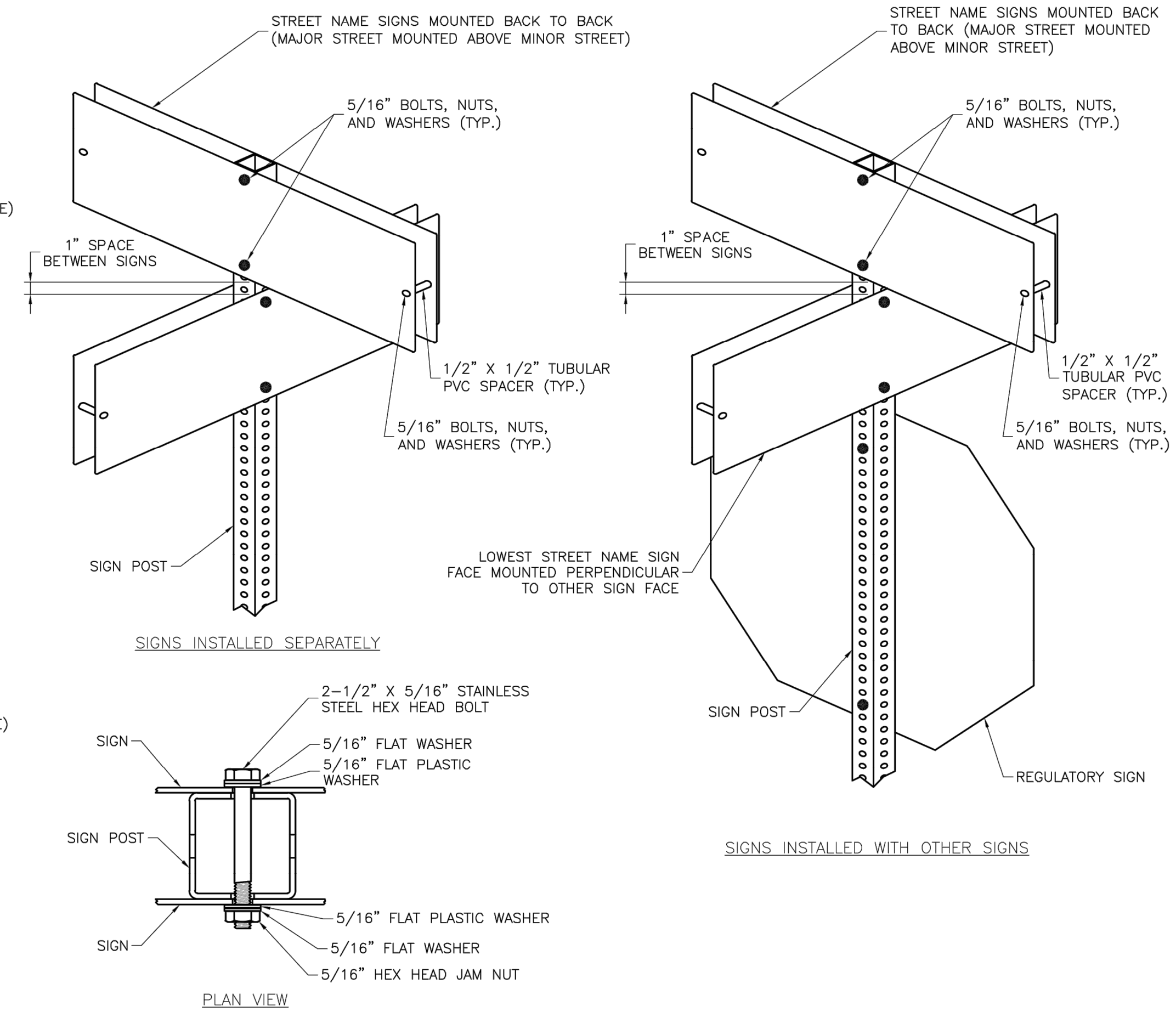
STREET NAME SIGN FACE DETAILS  
POST MOUNTED MULTI-LANE GREATER THAN 40 MPH

NOTES:

- FOR ALL STREET NAME SIGNS, THE LEGEND SHALL BE WHITE AND THE BACKGROUND SHALL BE GREEN.
- 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.
- 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.
- MULTI-LANE IS DEFINED AS HAVING 2 LANES OR MORE IN EACH DIRECTION, EXCLUDING TURN LANES.
- OVERHEAD SIGN DETAILS MAY BE FOUND ON THE SIGNAL HEAD MOUNTING DETAIL.



STREET NAME SIGN FACE DETAILS  
POST MOUNTED MULTI-LANE GREATER THAN 40 MPH



STREET NAME SIGN INVENTORY

66"	SE Bailey Farms Pkwy	D3-1 (SP-1)
66"	SE Vantage Point DR	D3-1 (SP-1)
48"	SE Windbreak Dr	D3-1 (SP-3)

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

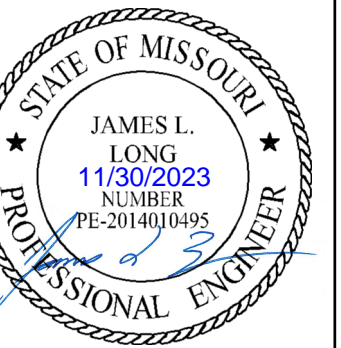
STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
STREET NAME SIGN DETAILS

Drawn By: BWC  
Checked By: MP  
Date: 01/2020  
Proj. #:

SN-3



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

RETREAT AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN  
SE BAILEY ROAD AND SE RANSON ROAD  
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DRAWN BY: JRJ  
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DATE PREPARED: 02/09/2022  
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STREET NAME SIGN DETAILS

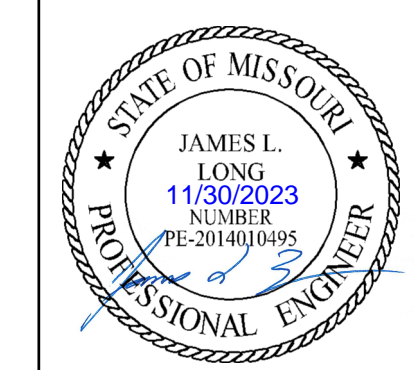
SHEET  
**18**



LONG  
ENGINEERS ARCHITECTS  
14920 West 107th Street • Lenexa, Kansas 66215  
(913) 492-5158 • Fax: (913) 492-8400  
WWW.SCHLAGELASSOCIATES.COM  
Missouri State Certificates of Authority  
#E2002003600-F #LAC2001005237 #LS2002008659-F

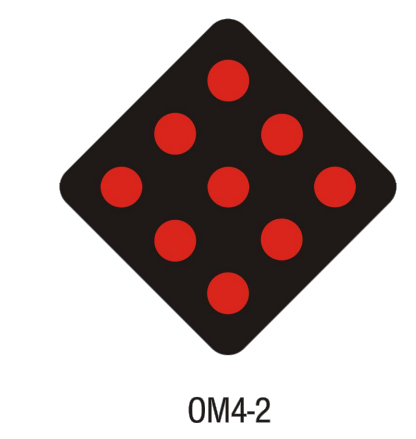
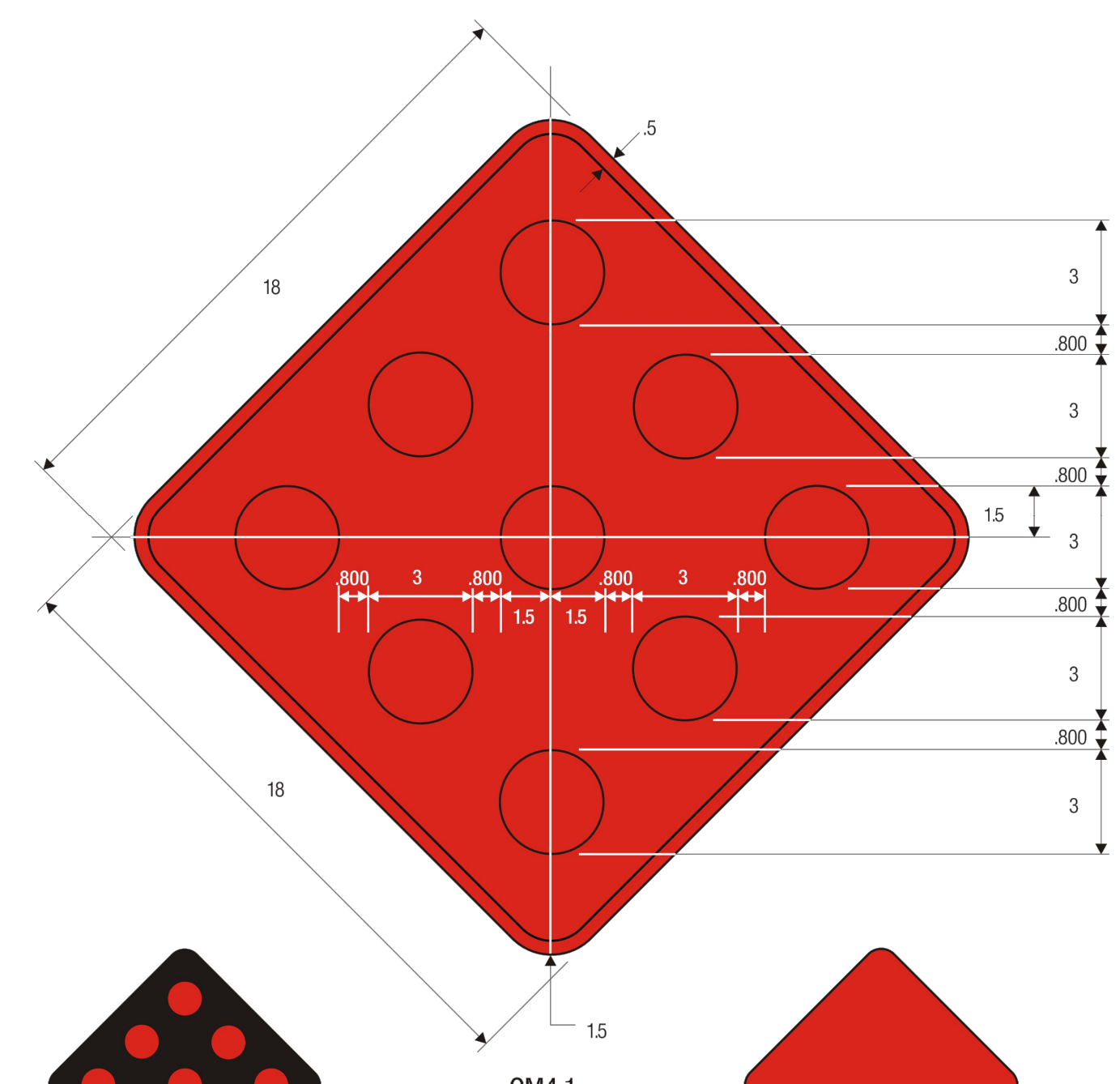


PREPARED BY:



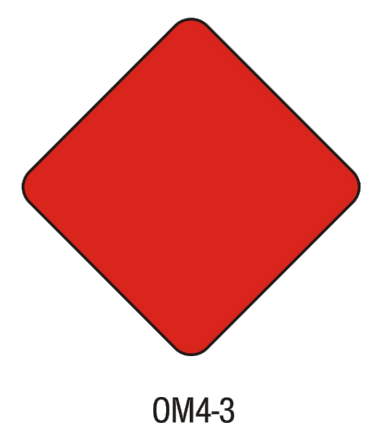
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SE BAILEY ROAD AND SE RANSON ROAD  
LEE'S SUMMIT, MISSOURI

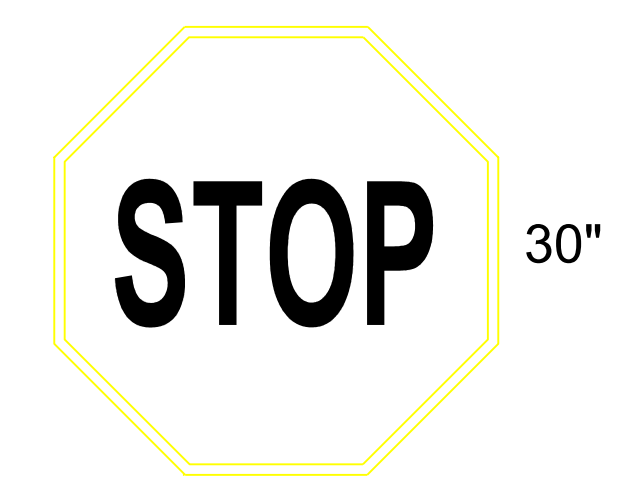


OM4-2 COLORS:  
REFLECTORS – RED (RETROREFLECTIVE)  
BACKGROUND – BLACK

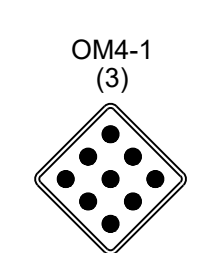
OM4-1 COLORS:  
REFLECTORS – RED (RETROREFLECTIVE)  
BACKGROUND – RED  
BORDER – RED (RETROREFLECTIVE)



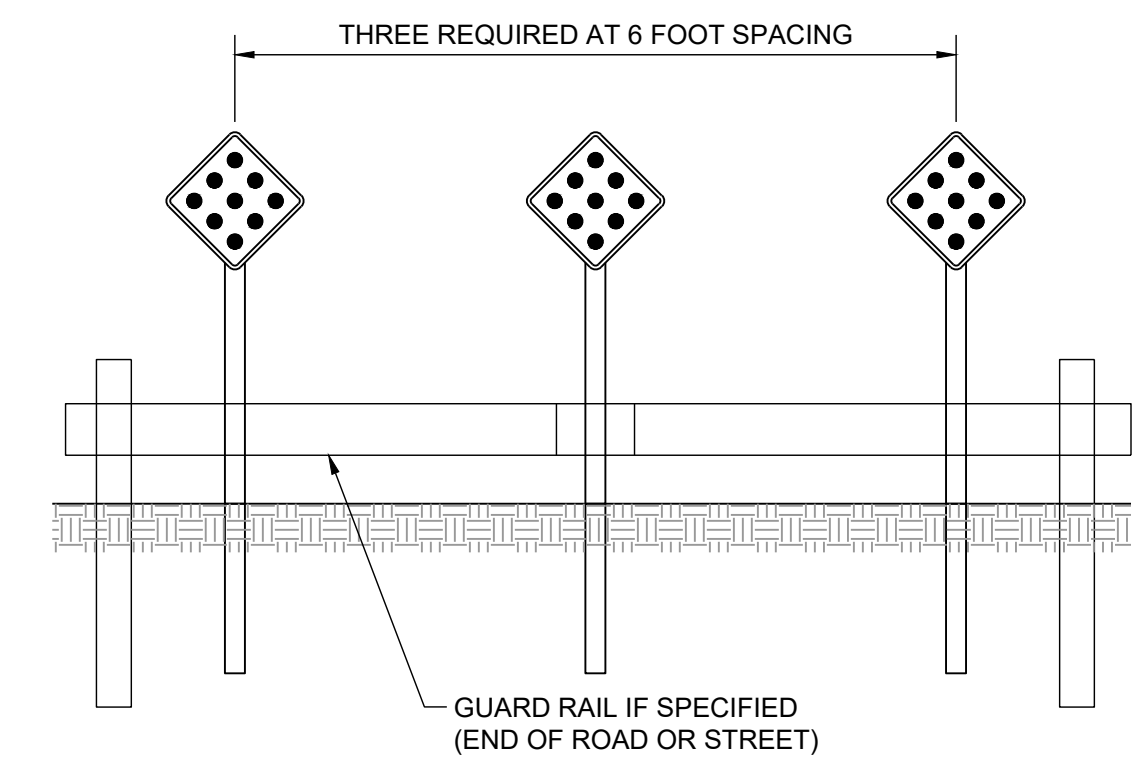
OM4-3 COLORS:  
SIGN PANEL – RED (RETROREFLECTIVE)



R1-1  
STOP SIGN



NOTE:  
THICKNESS OF FLAT SHEET FOR END OF ROAD  
MARKERS SHALL BE 0.0063". RED REFLECTORS  
ON RED BACKGROUND.



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OM-4 SIGN  
DETAILS

SHEET  
19