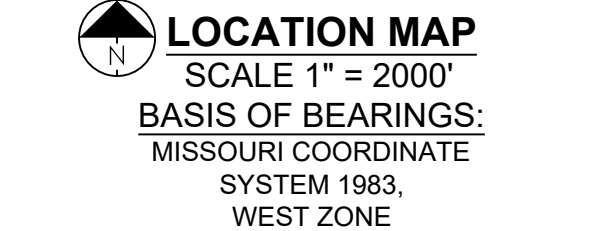
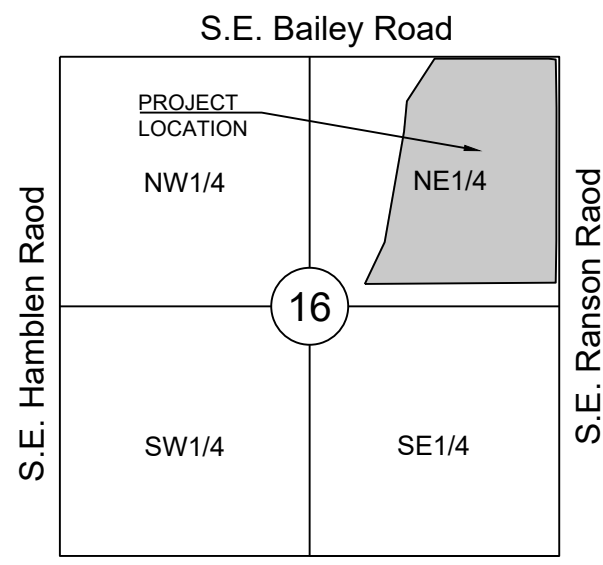


LEGEND:

- 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 RW LINES
EXISTING PLAT LINES
PROPERTY LINES
RIGHT-OF-WAY
SANITARY SEWER MAIN
SANITARY SEWER MAIN - EXIST.
STORM SEWER
STORM SEWER - EXISTING
CABLE TV - EXISTING
FIBER OPTIC CABLE - EXISTING
TELEPHONE LINE - EXIST.
ELECTRIC LINE - EXISTING
OVERHEAD POWER LINE - EXIST.
UNDERGROUND ELECTRIC - EX.
GAS LINE - EXISTING
WATERLINE - EXISTING
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) 607-2186

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

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

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.
9. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.
10. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
11. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
12. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
13. 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.
14. 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 RAMP 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 2-20-19. 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.

Sheet List Table with columns: Sheet Number, Sheet Title. Rows include COVER SHEET, GENERAL LAYOUT NORTH, GENERAL LAYOUT EAST, GENERAL LAYOUT WEST, MASTER DRAINAGE PLAN-GRADING PLAN - NORTH, etc.

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PREPARED BY:



1/31/2022 SCHLAGEL & ASSOCIATES, P.A.

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

APPROVED BY:

CITY ENGINEER DATE APPROVED FOR ONE YEAR FROM THIS DATE

OWNER/DEVELOPER:

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



SUMMARY OF QUANTITIES table with columns: ITEM, QUANTITY, UNITS. Rows include CLEARING AND GRUBBING, GRADING, ASPHALT PAVEMENT, CONCRETE SIDEWALK, CURB AND GUTTER, etc.

Table with columns: Item description, Quantity, Units. Rows include 6"x6" WATER QUALITY OUTLET STRUCTURE, 15" HDPE FLARED END SECTION, 24" HDPE FLARED END SECTION, etc.

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 RANSOM ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

COVER SHEET

SHEET

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PREPARED BY:



1/31/2022
 SCHLAGEL & ASSOCIATES, P.A.

MANOR 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
1/21/2022	City Comments dated 12/19/2021

DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	1/10/2021
PROJ. NUMBER:	21-130

GENERAL LAYOUT
 NORTH

SHEET

NOTES:

ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.

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

STREET LEGEND:

- RESIDENTIAL LOCAL
- RESIDENTIAL COLLECTOR

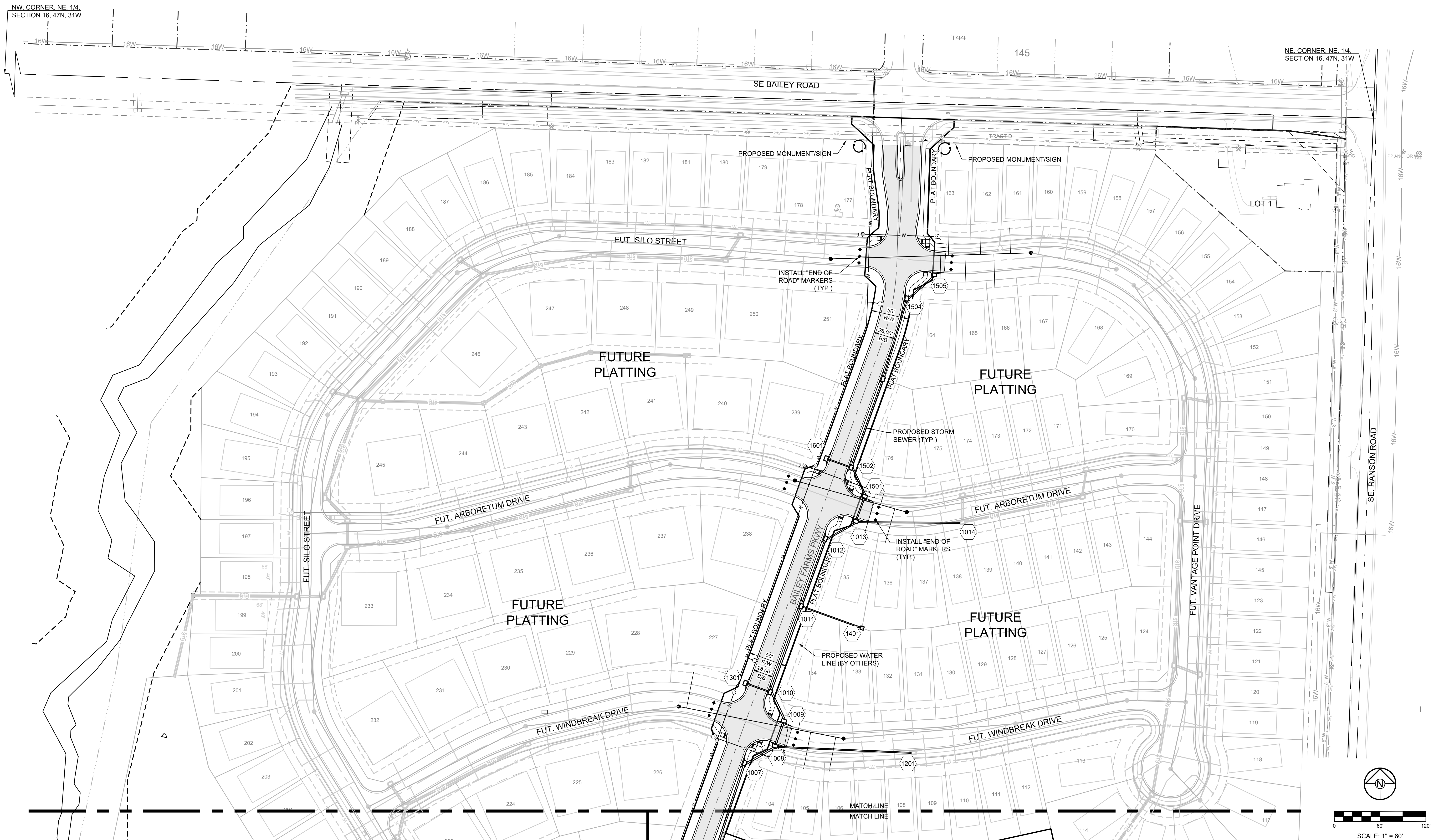
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ELEV. = 1046.25

BASIS OF BEARINGS:

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



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MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

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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.

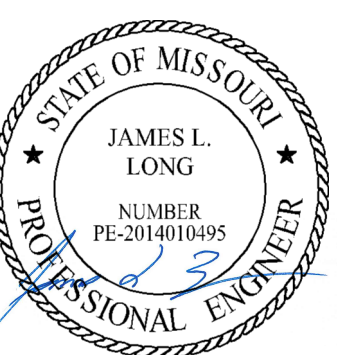
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STREET LEGEND:

-  RESIDENTIAL LOCAL
-  RESIDENTIAL COLLECTOR

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PREPARED BY:



1/31/2022

SCHLAGEL & ASSOCIATES, P.A.

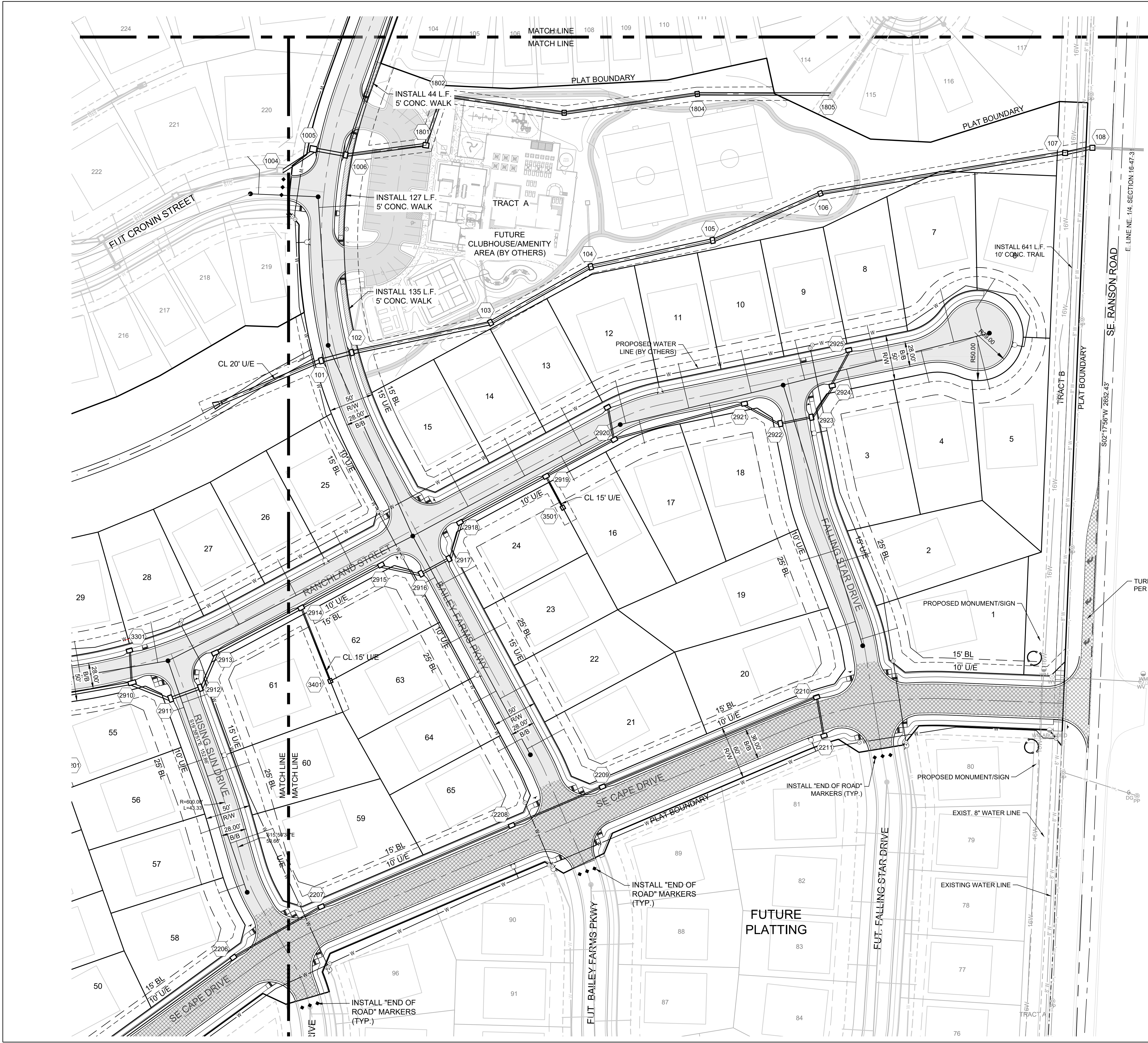
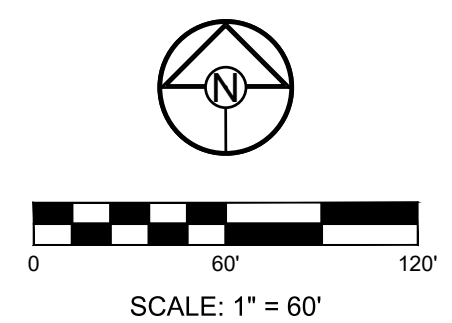
**MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEES SUMMIT, MISSOURI**

REVISION DATE	DESCRIPTION
1/21/2022	City Comments dated 12/19/2021

GENERAL LAYOUT EAST

SHEET

3



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**MISSOURI GEOGRAPHIC REFERENCE SYSTEM
BENCHMARK:**

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ELEV. = 1046.25

BASIS OF BEARINGS:

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

NOTES:

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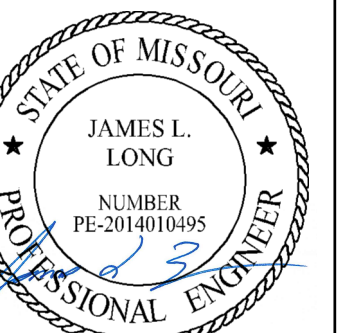
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STREET LEGEND:

- RESIDENTIAL LOCAL
- RESIDENTIAL COLLECTOR



PREPARED BY:



1/31/2022

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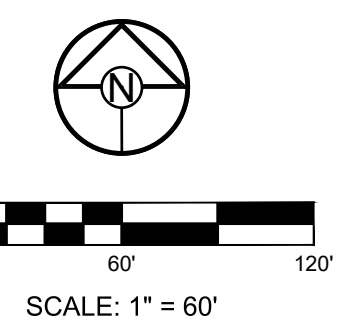
MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1/21/2022	City Comments dated 12/19/2021

GENERAL LAYOUT WEST

SHEET

4



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GRADING LEGEND:
 - - - - - 1023 EXISTING CONTOUR
 ———— 1023 PROPOSED CONTOUR
 - - - - - MWSE

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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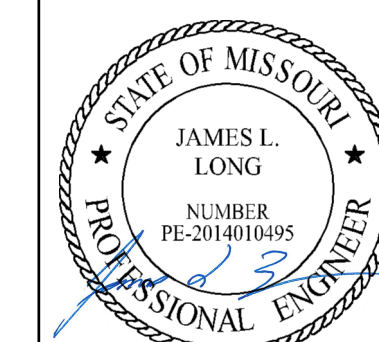
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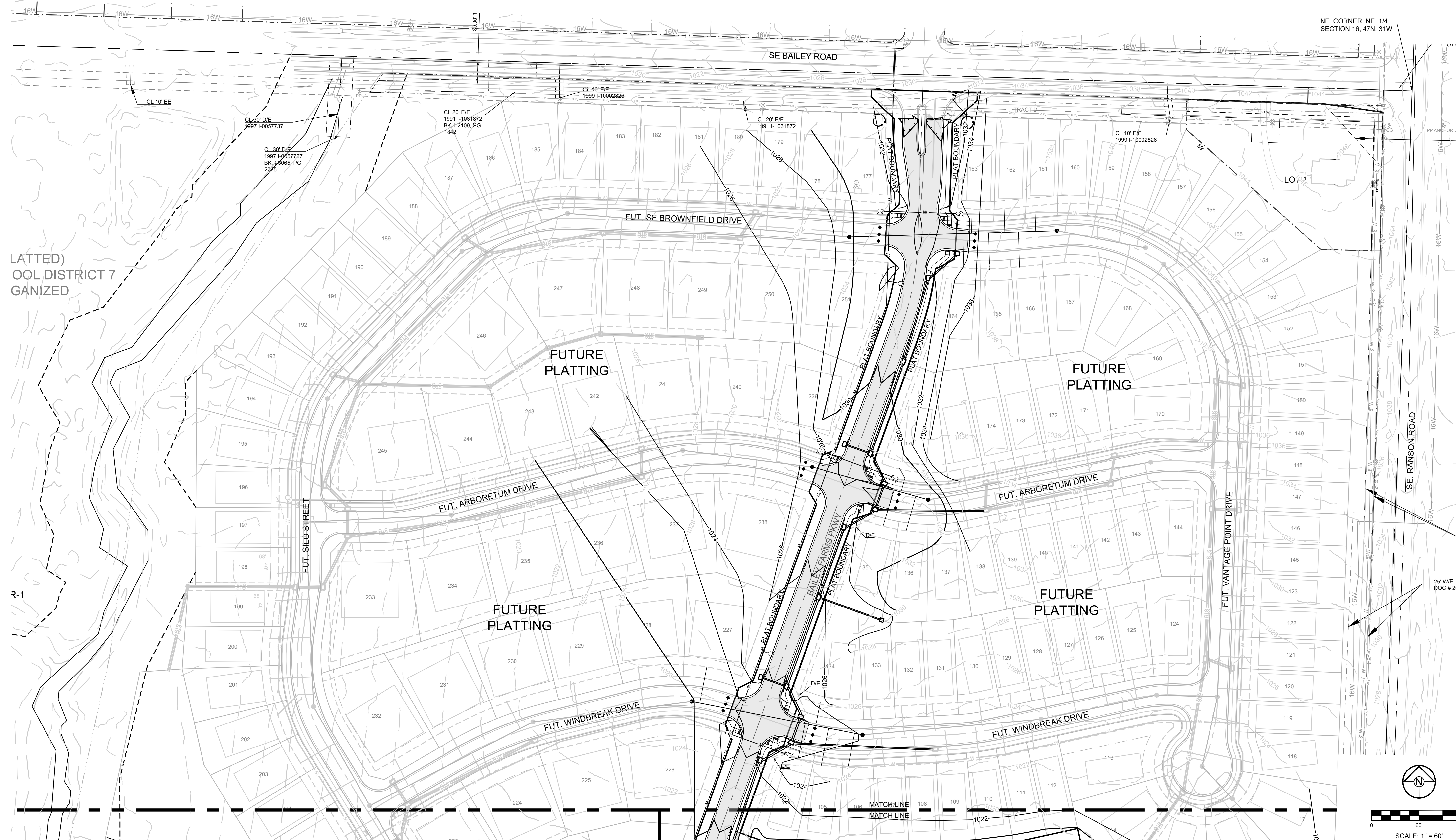
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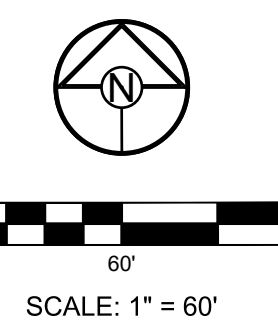
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SCHLAGEL & ASSOCIATES, P.A.



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MANOR 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
1/21/2022	CITY Comments dated 12/19/2021

DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	1/16/2021
PROJ. NUMBER:	21-130

MASTER
 DRAINAGE
 PLAN-GRADING
 PLAN- NORTH
 SHEET
5

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MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

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ELEV. = 1046.25

BASIS OF BEARINGS:

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

NOTES:

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

GRADING LEGEND:

- - - 1023 - - - EXISTING CONTOUR
- 1023 — PROPOSED CONTOUR
- - - MWSE



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PREPARED BY:



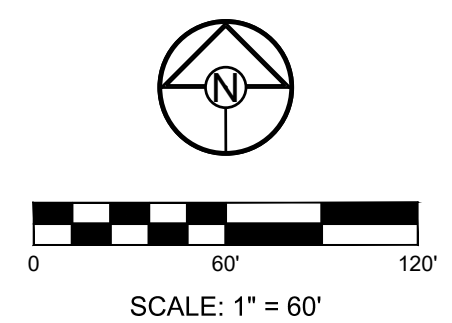
1/31/2022
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MANOR AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1/21/2022	City Comments dated 12/19/2021

MASTER DRAINAGE PLAN-GRADING PLAN-EAST

SHEET
6



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**MISSOURI GEOGRAPHIC REFERENCE SYSTEM
BENCHMARK:**

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BASIS OF BEARINGS:

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

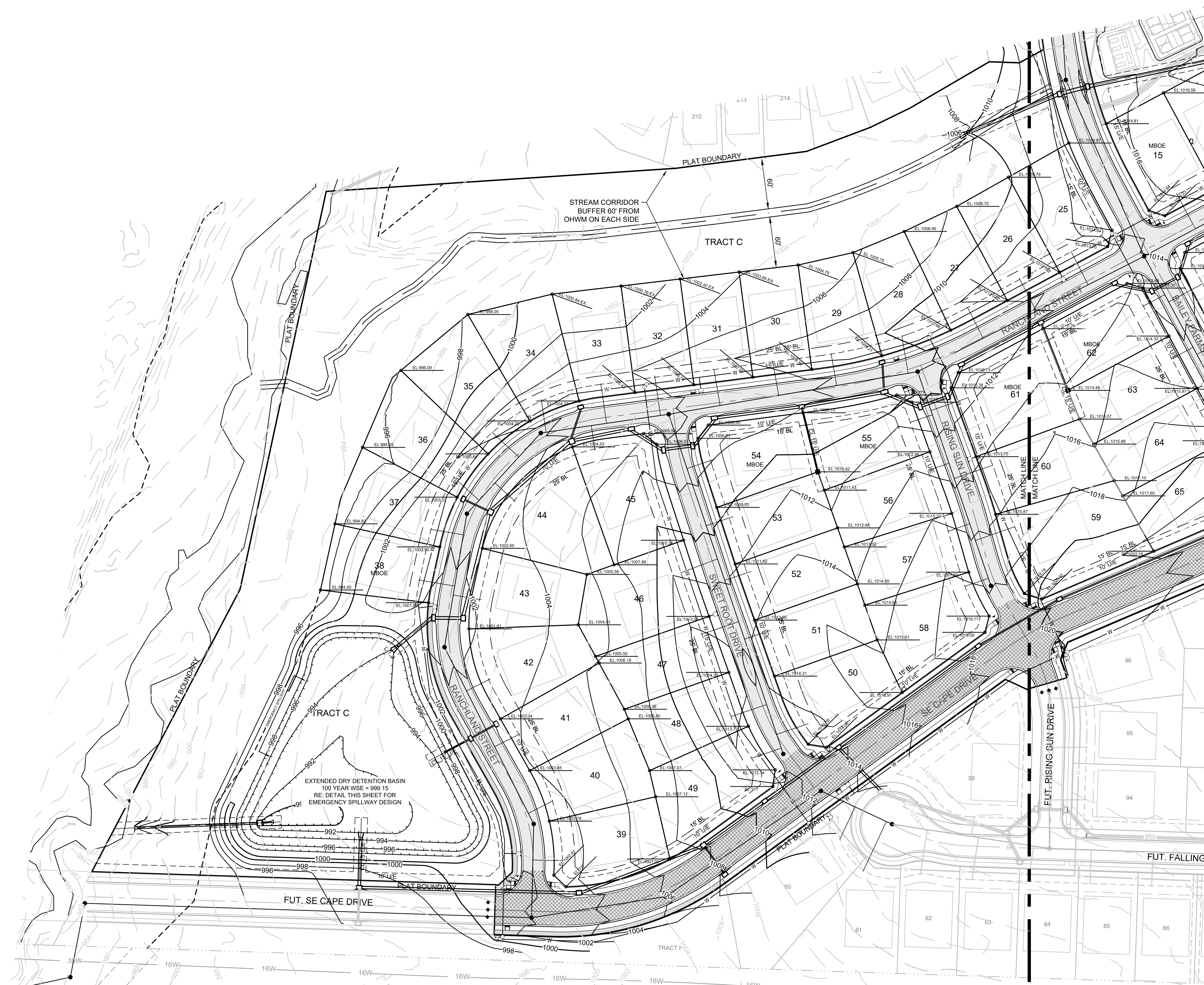
NOTES:

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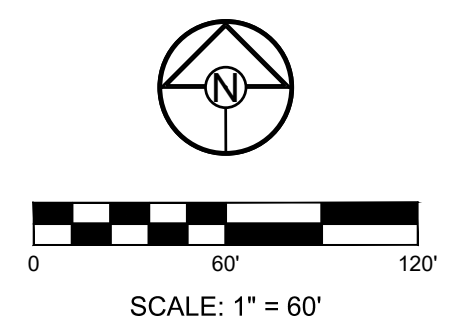
THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.

GRADING LEGEND:

- 1023 --- EXISTING CONTOUR
- 1023 — PROPOSED CONTOUR
- - - - - MWSE

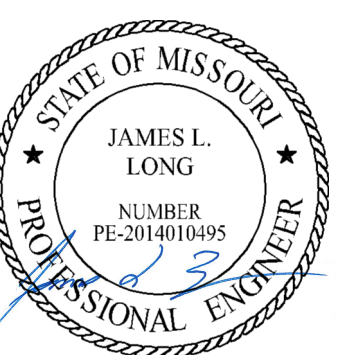


EXTENDED DRY DETENTION BASIN
100 YEAR WSE = 999.15
RE: DETAIL THIS SHEET FOR
EMERGENCY SPILLWAY DESIGN



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Missouri State Certificates of Authority
#E2002003690F #LAC2001005237 #LS2002008659F

PREPARED BY:



1/31/2022
SCHLAGEL & ASSOCIATES, P.A.

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

REVISION DATE	DESCRIPTION
1/21/2022	City Comments dated 12/19/2021

MASTER
DRAINAGE
PLAN-GRADING
PLAN-WEST

SHEET
7

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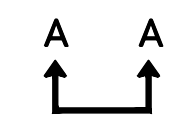
MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

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.

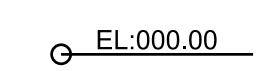
ELEV. = 1046.25

GRADING LEGEND:

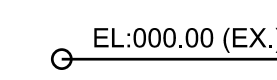
- - - 1023 - - - EXISTING CONTOUR
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- - - MWSE



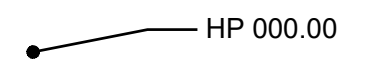
DENOTES OVERFLOW SWALE



EL.000.00 DENOTES FINISHED GRADE ELEVATION



EL.000.00 (EX.) DENOTES EXISTING GRADE ELEVATION



HP 000.00 DENOTES LOT HIGH POINT ELEVATION

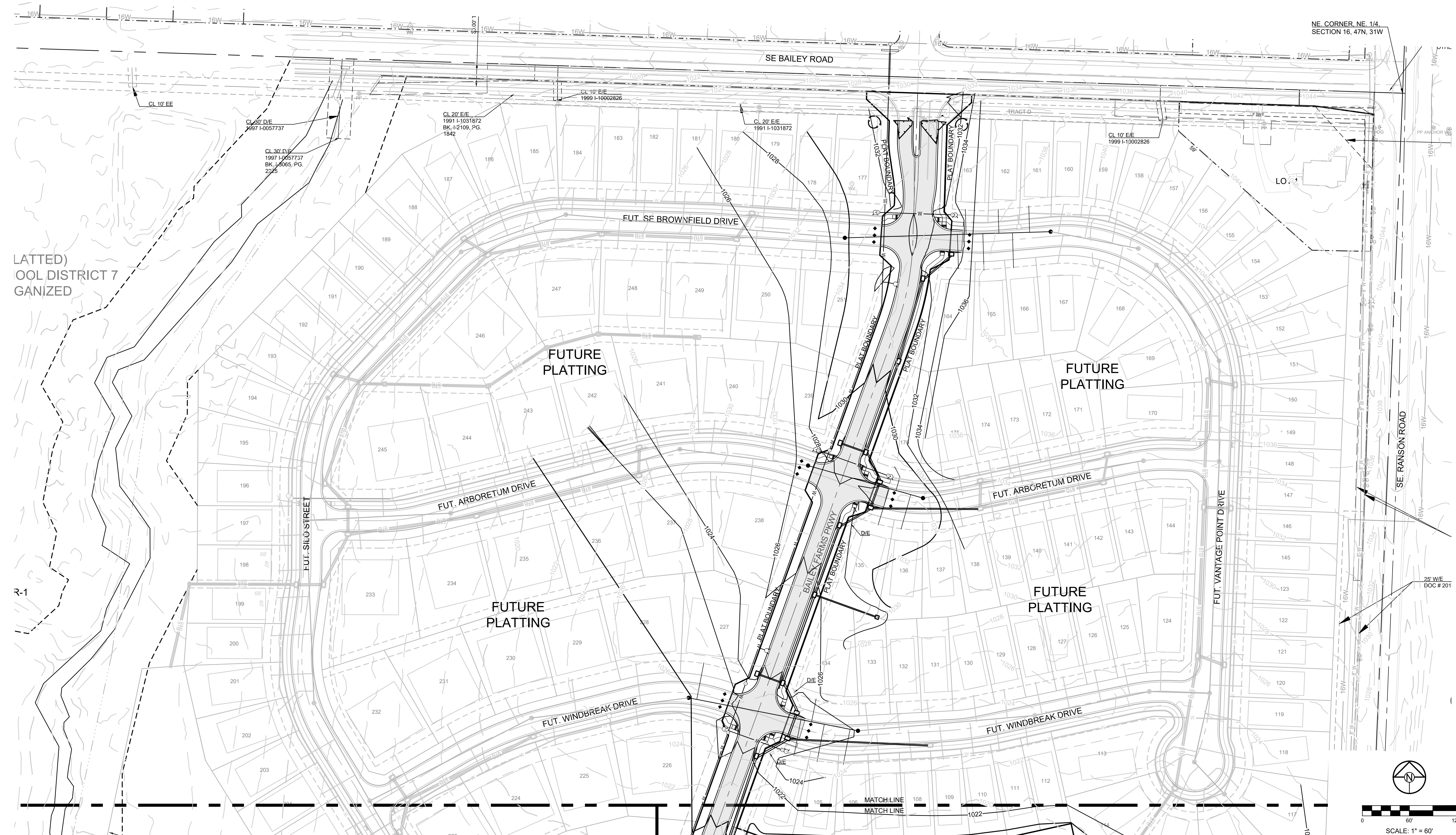
BASIS OF BEARINGS:

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

NOTES:

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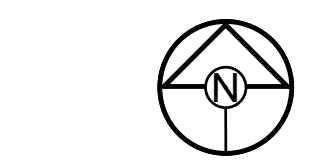
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LATTED) OOL DISTRICT 7 GANIZED

R-1

NE CORNER, NE 1/4, SECTION 16, 47N, 31W



SCALE: 1" = 60'

PREPARED BY:



1/31/2022
 SCHLAGEL & ASSOCIATES, P.A.

MANOR 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
1/21/2022	CITY Comments dated 12/19/2021

DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	1/10/2021
PROJ. NUMBER:	21-130

MASTER DRAINAGE PLAN-LOT INFO-NORTH

SHEET
8

MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

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BASIS OF BEARINGS:

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- ↑ A ↑ DENOTES OVERFLOW SWALE
- EL.000.00 DENOTES FINISHED GRADE ELEVATION
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- HP 000.00 DENOTES LOT HIGH POINT ELEVATION

NOTES:

1. MBOE = MINIMUM BUILDING OPENING ELEVATION FOR HOUSES ADJACENT TO ENGINEERED OVERFLOW SWALES SHALL BE MINIMUM 2 FEET ABOVE THE 100 YR WATER SURFACE ELEVATION.
2. EGL = ENERGY GRADE LINE (100 YR)
3. WSE = WATER SURFACE ELEVATION (100 YR)
4. 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.
5. MBOE'S ADJACENT TO SUMPED INLETS SHALL BE A MINIMUM OF 1' ABOVE TOP OF ADJACENT BERM

LOT TYPE TABLE			LOT TYPE TABLE		
LOT #	BASEMENT TYPE	MBOE	LOT #	BASEMENT TYPE	MBOE
1	STANDARD	1033.00	33	DAYLIGHT	1002.00
2	STANDARD	1030.00	34	DAYLIGHT	1001.00
3	STANDARD	1025.00	35	DAYLIGHT	1001.00
4	STANDARD	1027.00	36	WALKOUT	996.00
5	STANDARD	1029.00	37	WALKOUT	996.00
6	STANDARD	1027.00	38	STANDARD	1002.00
7	STANDARD	1025.00	39	STANDARD	1003.00
8	DAYLIGHT	1022.00	40	STANDARD	1004.00
9	DAYLIGHT	1022.00	41	STANDARD	1004.00
10	STANDARD	1021.00	42	STANDARD	1003.00
11	STANDARD	1021.00	43	STANDARD	1002.00
12	STANDARD	1018.00	44	STANDARD	1004.00
13	STANDARD	1020.00	45	STANDARD	1005.00
14	STANDARD	1020.00	46	WALKOUT	1006.00
15	STANDARD	1020.00	47	WALKOUT	1007.00
16	STANDARD	1018.00	48	DAYLIGHT	1011.00
17	STANDARD	1020.00	49	DAYLIGHT	1010.00
18	STANDARD	1021.00	50	STANDARD	1014.00
19	DAYLIGHT	1026.00	51	STANDARD	1014.00
20	DAYLIGHT	1030.00	52	STANDARD	1014.00
21	STANDARD	1023.00	53	STANDARD	1012.00
22	STANDARD	1019.00	54	STANDARD	1014.00
23	STANDARD	1016.00	55	STANDARD	1014.00
24	STANDARD	1014.00	56	STANDARD	1015.00
25	STANDARD	1013.00	57	STANDARD	1017.00
26	DAYLIGHT	1010.00	58	STANDARD	1019.00
27	DAYLIGHT	1009.00	59	STANDARD	1019.00
28	DAYLIGHT	1008.00	60	STANDARD	1017.00
29	DAYLIGHT	1006.00	61	STANDARD	1017.00
30	DAYLIGHT	1005.00	62	STANDARD	1017.00
31	DAYLIGHT	1004.00	63	STANDARD	1016.00
32	DAYLIGHT	1003.00	64	STANDARD	1019.00
33	DAYLIGHT	1002.00	65	STANDARD	1023.00

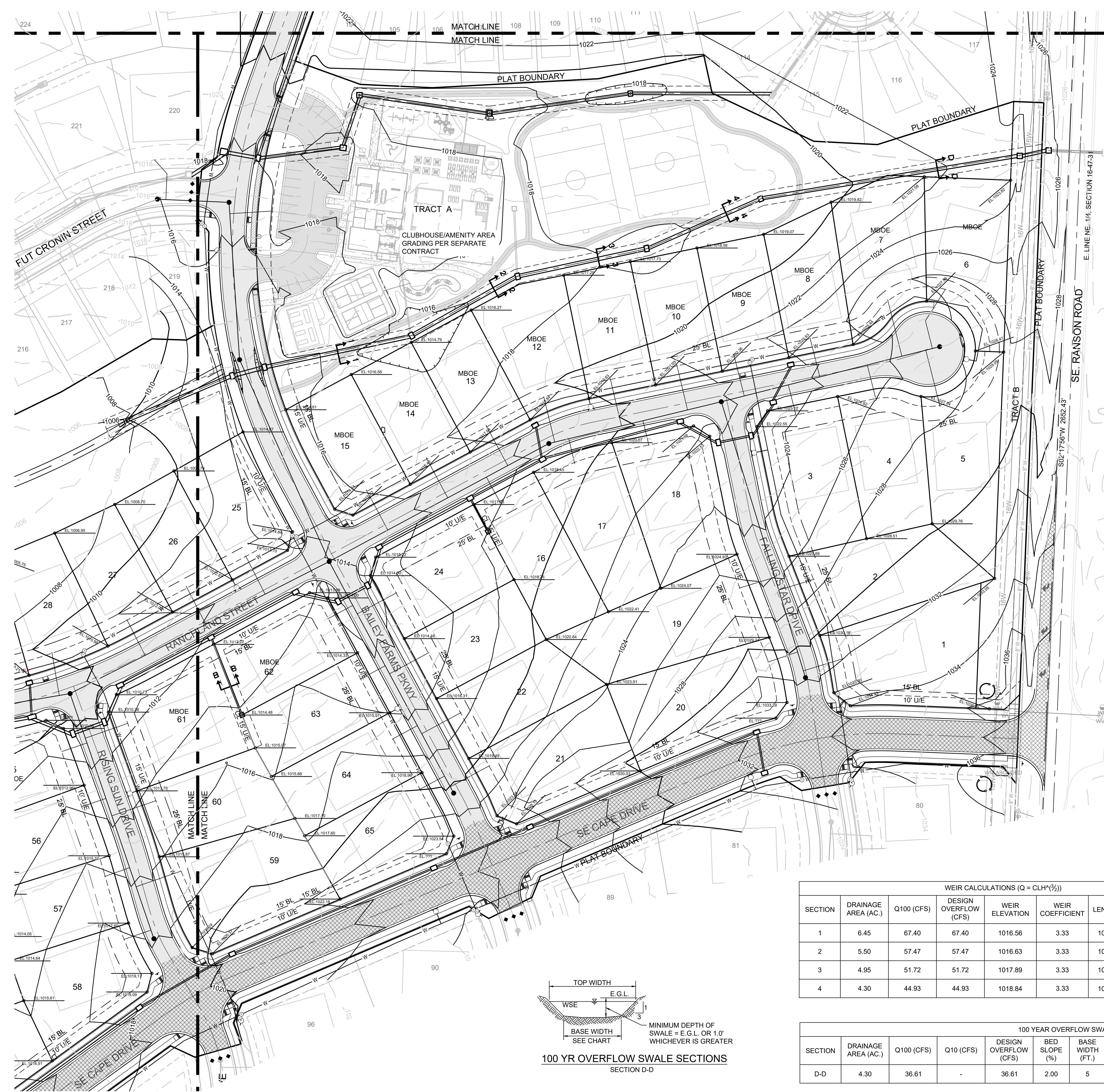
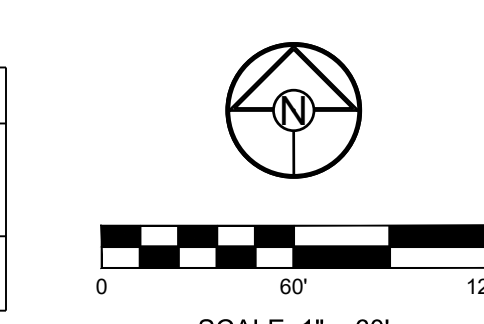
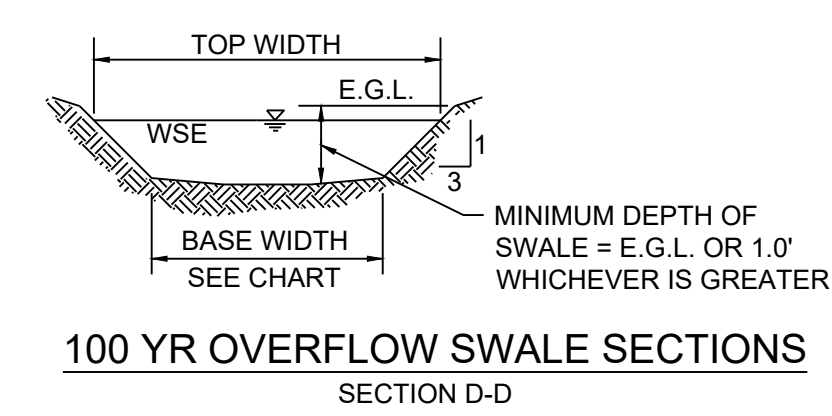
WEIR CALCULATIONS (Q = CLH^{3/2})

SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	DESIGN OVERFLOW (CFS)	WEIR ELEVATION	WEIR COEFFICIENT	LENGTH	HEAD REQ'D	WSE
1	6.45	67.40	67.40	1016.56	3.33	10'-0"	1.60	1018.20
2	5.50	57.47	57.47	1016.63	3.33	10'-0"	1.44	1018.10
3	4.95	51.72	51.72	1017.89	3.33	10'-0"	1.34	1019.30
4	4.30	44.93	44.93	1018.84	3.33	10'-0"	1.22	1020.10

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.)
D-D	4.30	36.61	-	36.61	2.00	5	3:1	10.42	0.90	5.25	0.43	1.33

RUNOFF CALCULATIONS:
 $Q = K \cdot C \cdot I \cdot A$
 $K_{10} = 1.0$ $K_{100} = 1.25$ $C = 0.51$ $I =$ INTENSITY
 DESIGN OVERFLOW = $Q_{OVERFLOW} = Q_{100} \cdot Q_{10}$
 MANNINGS "n" = .030 FOR SWALES



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 #E200200360F #LAC201005237 #S200200895F

PREPARED BY:

 JAMES L. LONG
 NUMBER PE-30410495
 PROFESSIONAL ENGINEER
 1/31/2022
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
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REVISION DATE	DESCRIPTION
1/21/2022	City Comments dated 12/19/2021

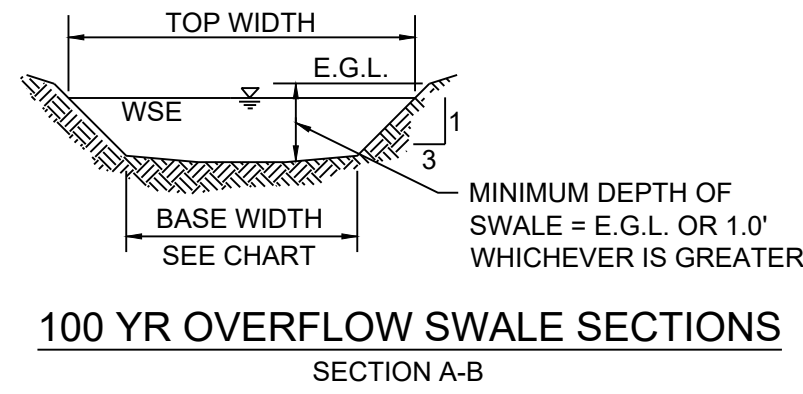
DRAWN BY: NCA
 CHECKED BY: JLL
 DATE PREPARED: 1/10/2021
 PROJ. NUMBER: 21-130

MASTER DRAINAGE PLAN-LOT INFO-EAST
 SHEET
9

I:\PROJECTS\2021\21-130\3.0 Design\3.0 DWG Plans\6.0 SS\21-130-SS-GRADE.dwg, 1/31/2022 7:21:23 AM, 1:1

NOTES:

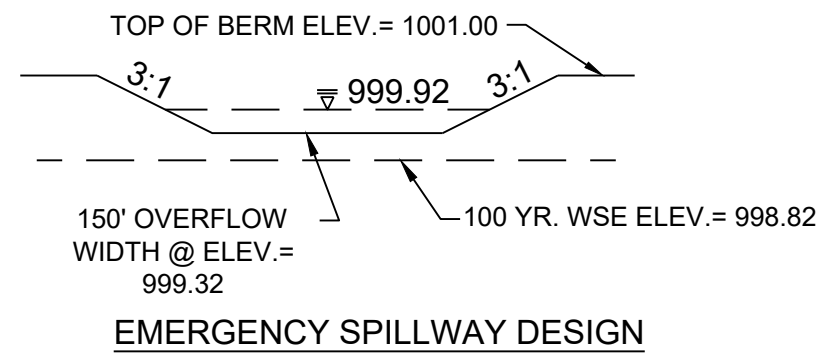
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- MBOE'S ADJACENT TO SUMPED INLETS SHALL BE A MINIMUM OF 1' ABOVE TOP OF ADJACENT BERM



DETENTION STORAGE:
100 YEAR, 24 HR. RAINFALL - MAXIMUM WSE = 998.82 (SEE FINAL STORMWATER MGMT. PLAN)

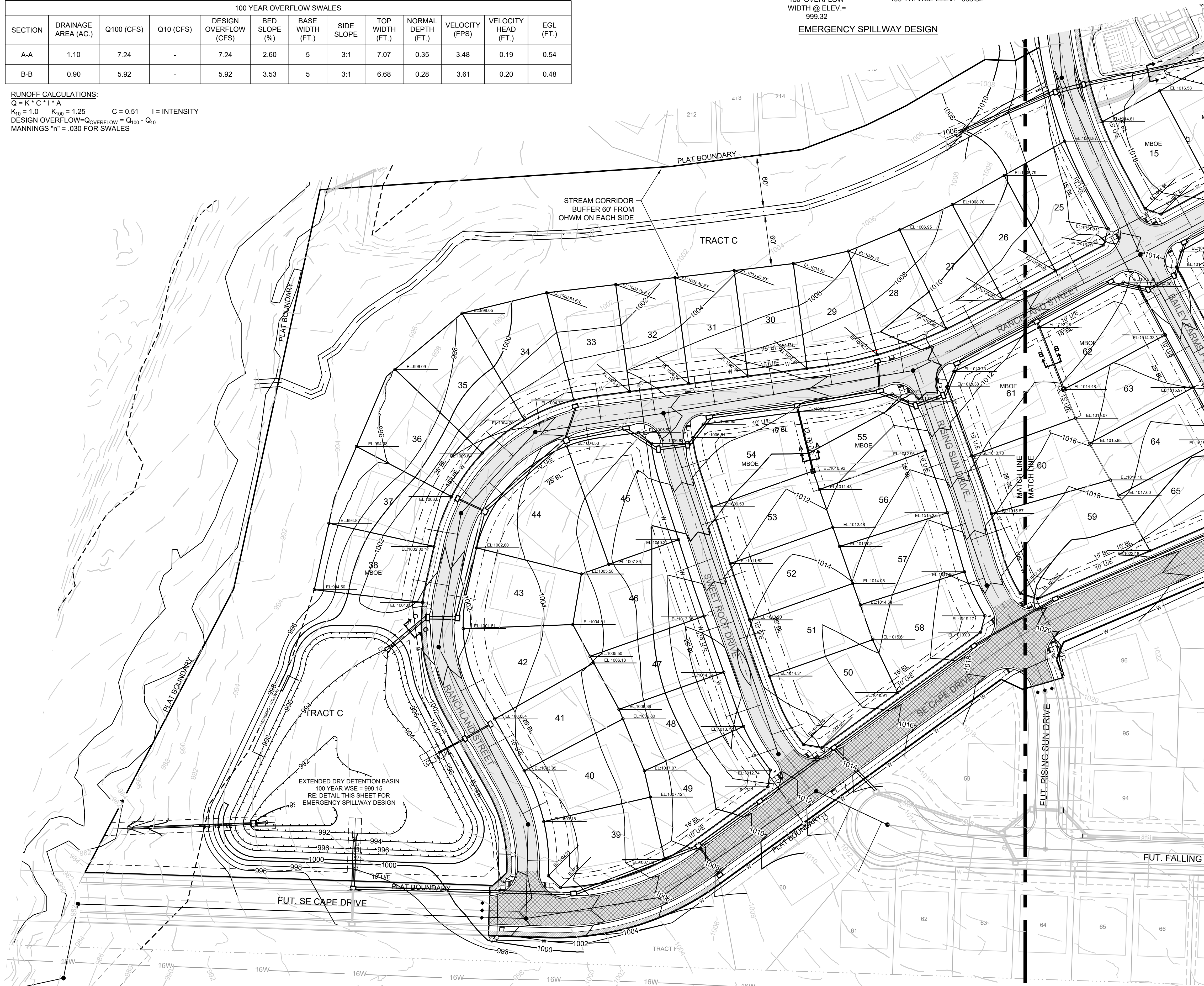
AUXILIARY SPILLWAY SET AT 0.5 FEET ABOVE MAX. WSE, SPILLWAY ELEV. = 999.32

AUXILIARY SPILLWAY DESIGN:
Q(100) = 229.30 CFS, Q-CLH*(3/2), C=3.33, L= 150 FT., 229.30 CFS = 3.33 * 150 FT. * (H^(3/2)), H=0.60 FT.



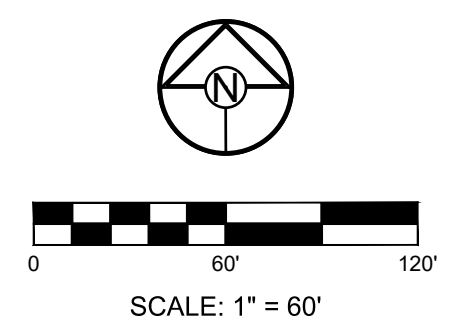
100 YEAR OVERFLOW SWALES												
SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	Q10 (CFS)	DESIGN OVERFLOW (CFS)	BED SLOPE (%)	BASE WIDTH (FT.)	SIDE SLOPE	TOP WIDTH (FT.)	NORMAL DEPTH (FT.)	VELOCITY (FPS)	VELOCITY HEAD (FT.)	EGL (FT.)
A-A	1.10	7.24	-	7.24	2.60	5	3:1	7.07	0.35	3.48	0.19	0.54
B-B	0.90	5.92	-	5.92	3.53	5	3:1	6.68	0.28	3.61	0.20	0.48

RUNOFF CALCULATIONS:
Q = K * C * I * A
K₁₀ = 1.0 K₁₀₀ = 1.25 C = 0.51 I = INTENSITY
DESIGN OVERFLOW = Q_{DESIGN OVERFLOW} = Q₁₀₀ - Q₁₀
MANNINGS "n" = .030 FOR SWALES



- GRADING LEGEND:**
- - - 1023 - - - EXISTING CONTOUR
 - 1023 — PROPOSED CONTOUR
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 - ↑ A A ↑ DENOTES OVERFLOW SWALE
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5	STANDARD	1029.00
6	STANDARD	1027.00
7	STANDARD	1025.00
8	DAYLIGHT	1022.00
9	DAYLIGHT	1022.00
10	STANDARD	1021.00
11	STANDARD	1021.00
12	STANDARD	1018.00
13	STANDARD	1020.00
14	STANDARD	1020.00
15	STANDARD	1020.00
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18	STANDARD	1021.00
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20	DAYLIGHT	1030.00
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22	STANDARD	1019.00
23	STANDARD	1016.00
24	STANDARD	1014.00
25	STANDARD	1013.00
26	DAYLIGHT	1010.00
27	DAYLIGHT	1009.00
28	DAYLIGHT	1008.00
29	DAYLIGHT	1006.00
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31	DAYLIGHT	1004.00
32	DAYLIGHT	1003.00
33	DAYLIGHT	1002.00
34	DAYLIGHT	1001.00
35	DAYLIGHT	1001.00
36	WALKOUT	996.00
37	WALKOUT	996.00
38	STANDARD	1002.00
39	STANDARD	1003.00
40	STANDARD	1004.00
41	STANDARD	1004.00
42	STANDARD	1003.00
43	STANDARD	1002.00
44	STANDARD	1004.00
45	STANDARD	1005.00
46	WALKOUT	1006.00
47	WALKOUT	1007.00
48	DAYLIGHT	1011.00
49	DAYLIGHT	1010.00
50	STANDARD	1014.00
51	STANDARD	1014.00
52	STANDARD	1014.00
53	STANDARD	1012.00
54	STANDARD	1014.00
55	STANDARD	1014.00
56	STANDARD	1015.00
57	STANDARD	1017.00
58	STANDARD	1019.00
59	STANDARD	1019.00
60	STANDARD	1017.00
61	STANDARD	1017.00
62	STANDARD	1017.00
63	STANDARD	1016.00
64	STANDARD	1019.00
65	STANDARD	1023.00



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ELEV. = 1046.25

BASIS OF BEARINGS:

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PREPARED BY:
JAMES L. LONG
NUMBER PE-30410495
PROFESSIONAL ENGINEER
1/31/2022
SCHLAGEL & ASSOCIATES, P.A.

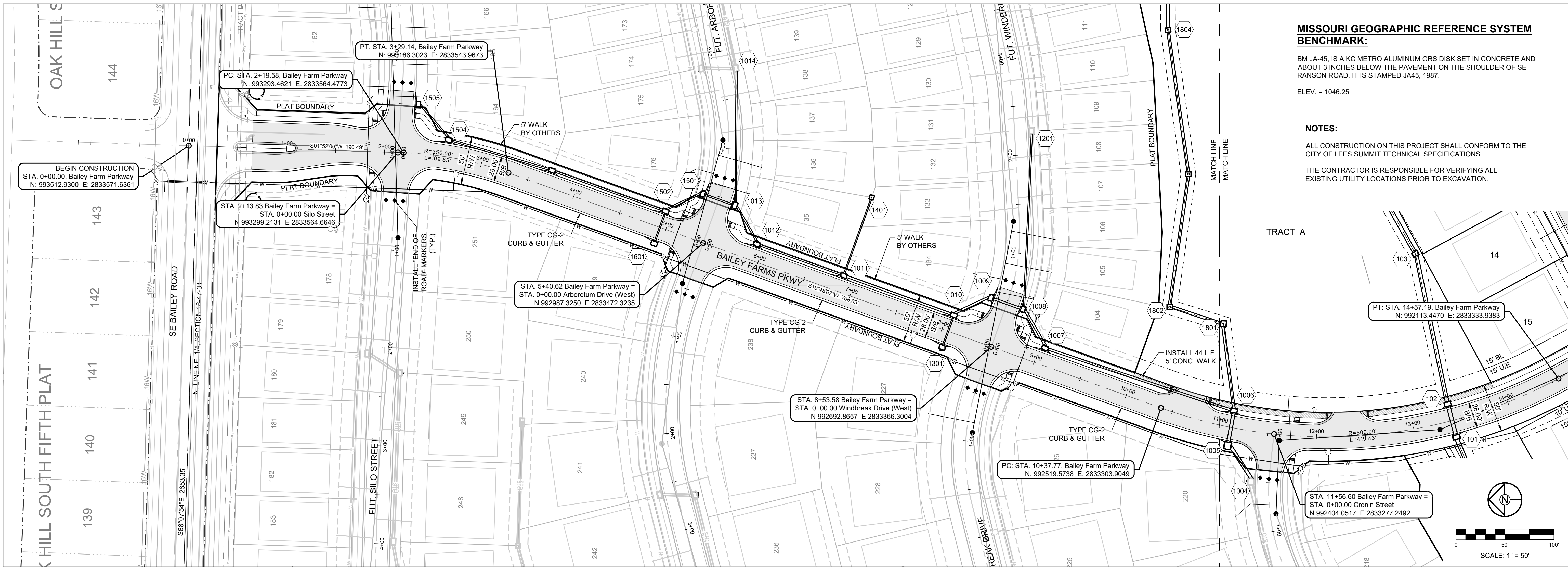
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1/21/2022	City Comments dated 12/19/2021

DRAWN BY:	CHECKED BY:	DATE PREPARED:	PROJ. NUMBER:
NCA	JLL	1/16/2021	21-130

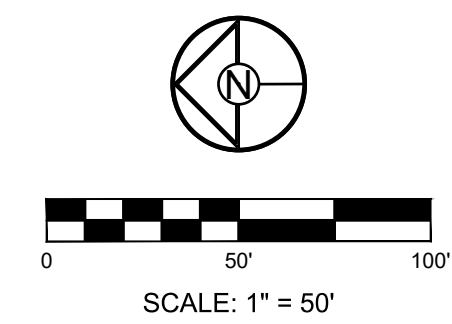
MASTER DRAINAGE INFO-LOT PLAN-WEST
SHEET **10**

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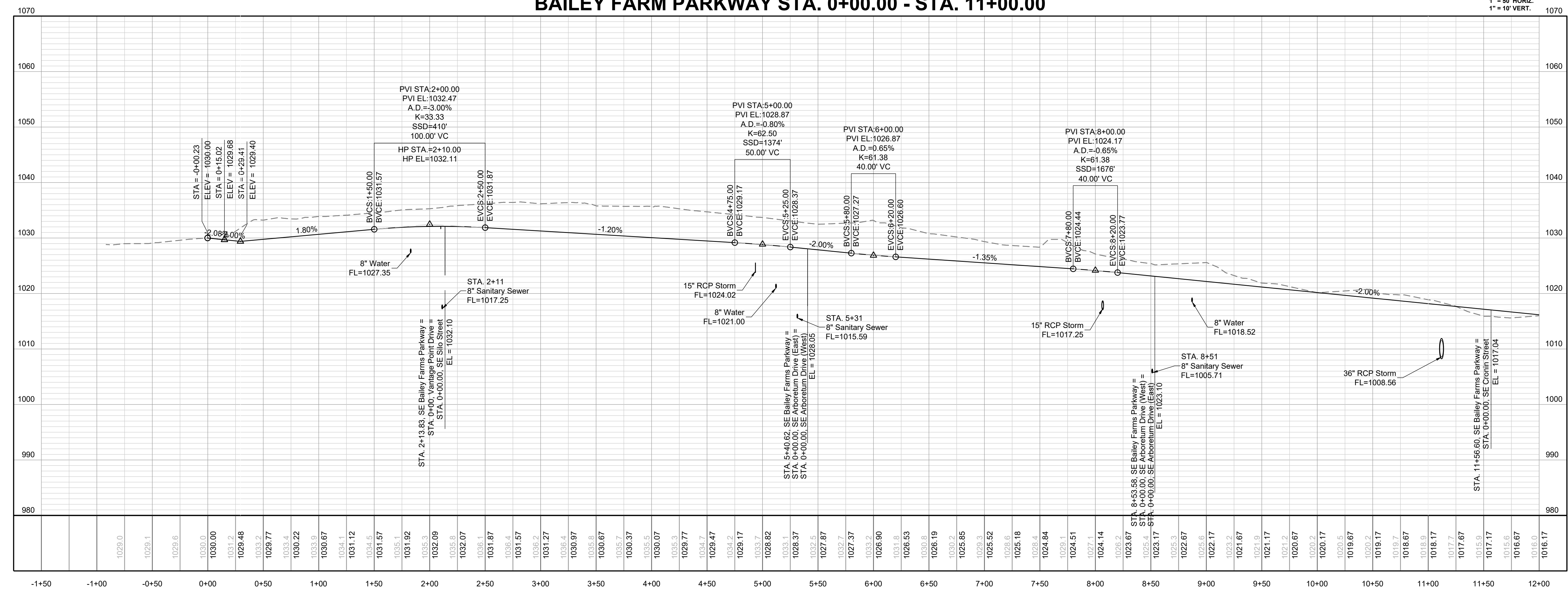


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BAILEY FARM PARKWAY STA. 0+00.00 - STA. 11+00.00



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PREPARED BY:

 JAMES L. LONG
 NUMBER PE-30440495
 STATE OF MISSOURI
 PROFESSIONAL ENGINEER
 1/31/2022
 SCHLAGEL & ASSOCIATES, P.A.

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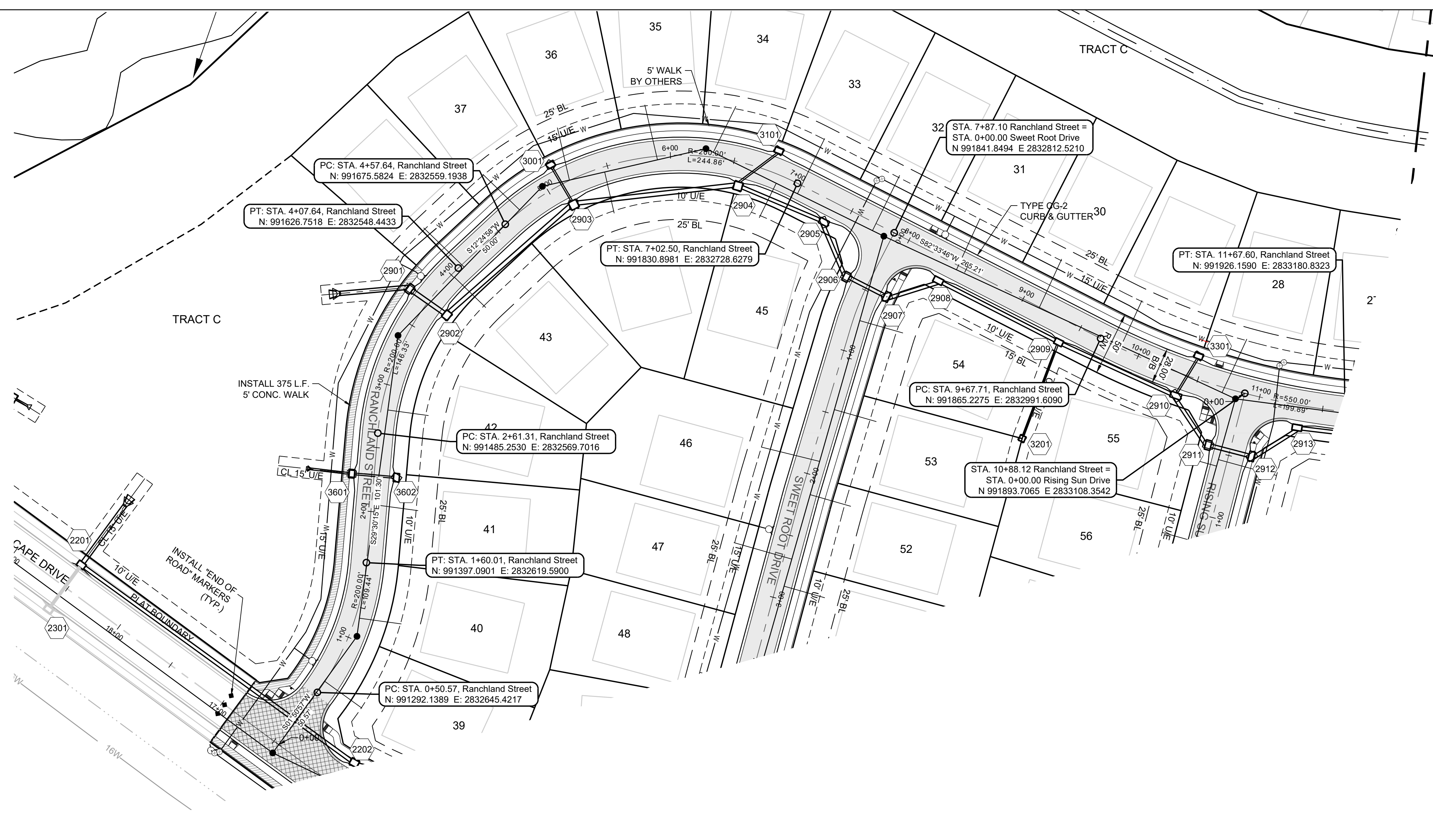
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DRAWN BY:	NCA
CHECKED BY:	JLL
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PROJ. NUMBER:	21-130

**BAILEY FARMS
 PKWY NORTH
 PLAN & PROFILE**

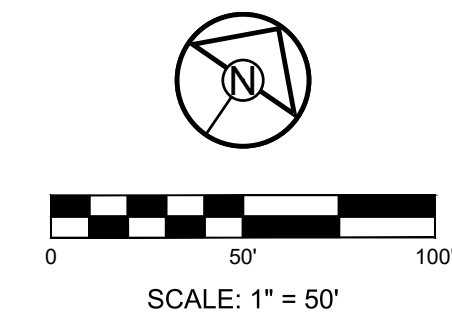
SHEET
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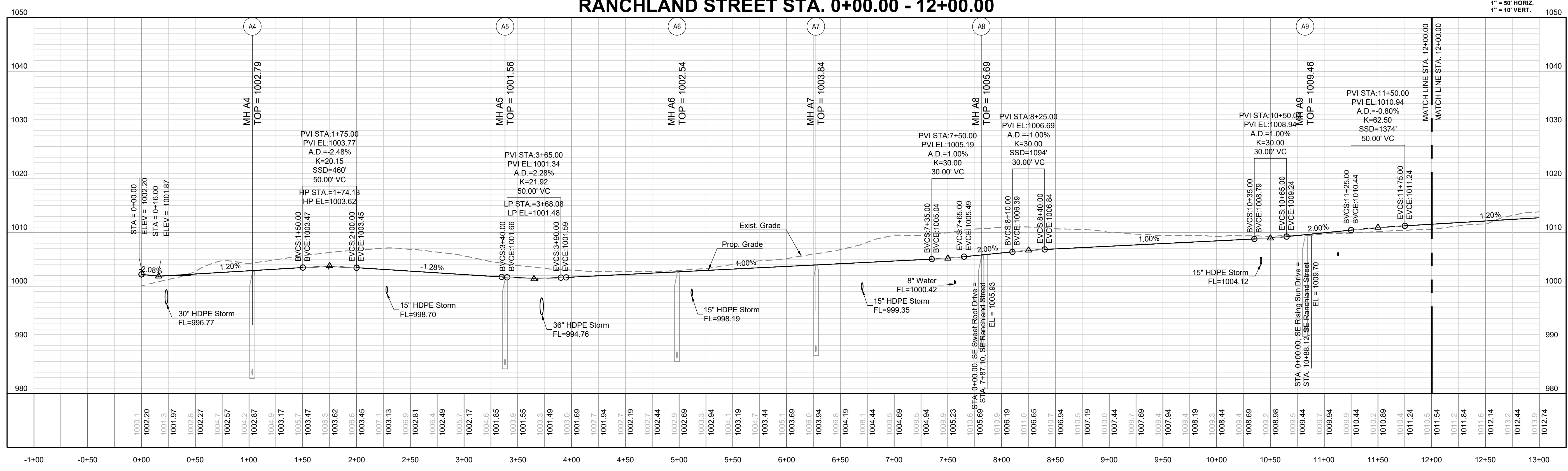


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 1/31/2022
 SCHLAGEL & ASSOCIATES, P.A.

RANCHLAND STREET STA. 0+00.00 - 12+00.00



MANOR AT BAILEY FARMS, FIRST PLAT
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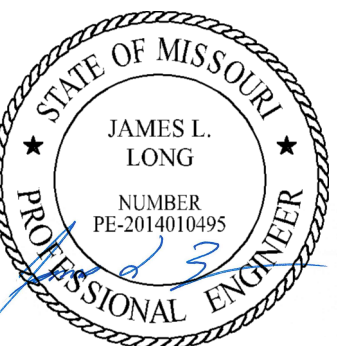
DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	11/05/2021
PROJ. NUMBER:	21-130

RANCHLAND ST WEST PLAN & PROFILE

SHEET
14

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PREPARED BY:



1/31/2022

SCHLAGEL & ASSOCIATES, P.A.

MANOR 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
1/21/2022	City Comments dated 12/19/2021

DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	1/10/2021
PROJ. NUMBER:	21-130

SWEET ROOT DR
 & RISING SUN DR
 PLAN & PROFILE

SHEET

MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

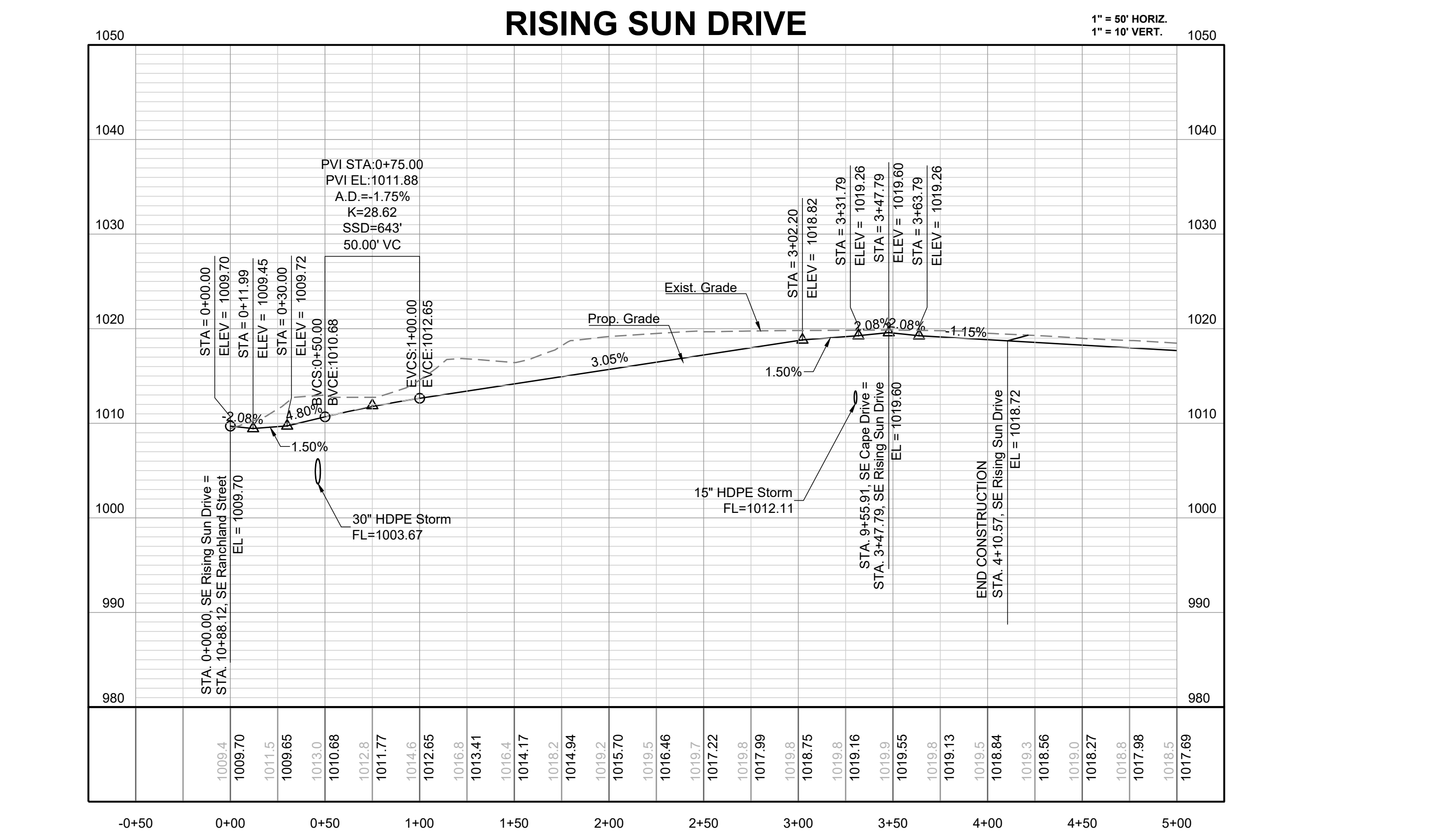
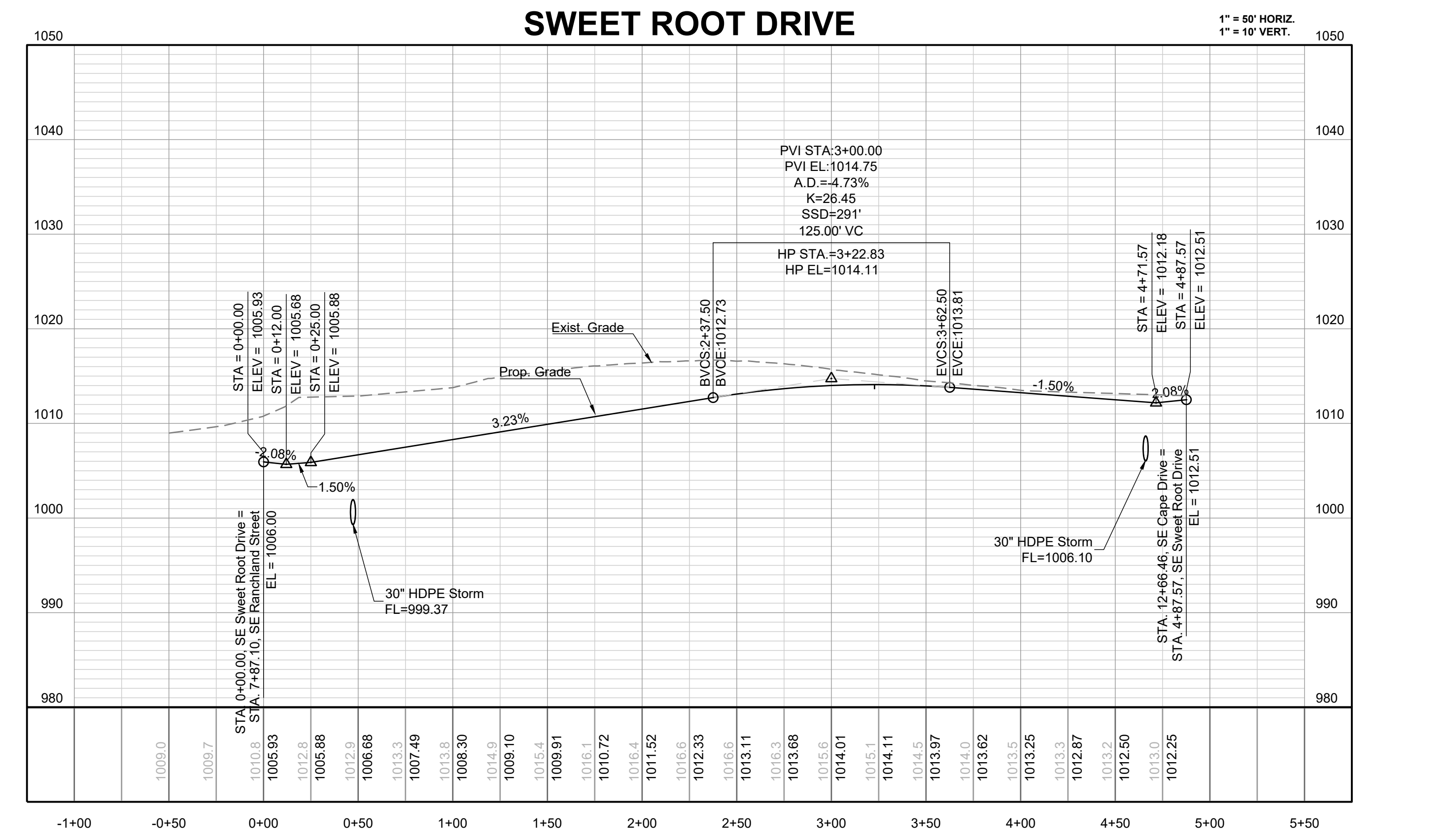
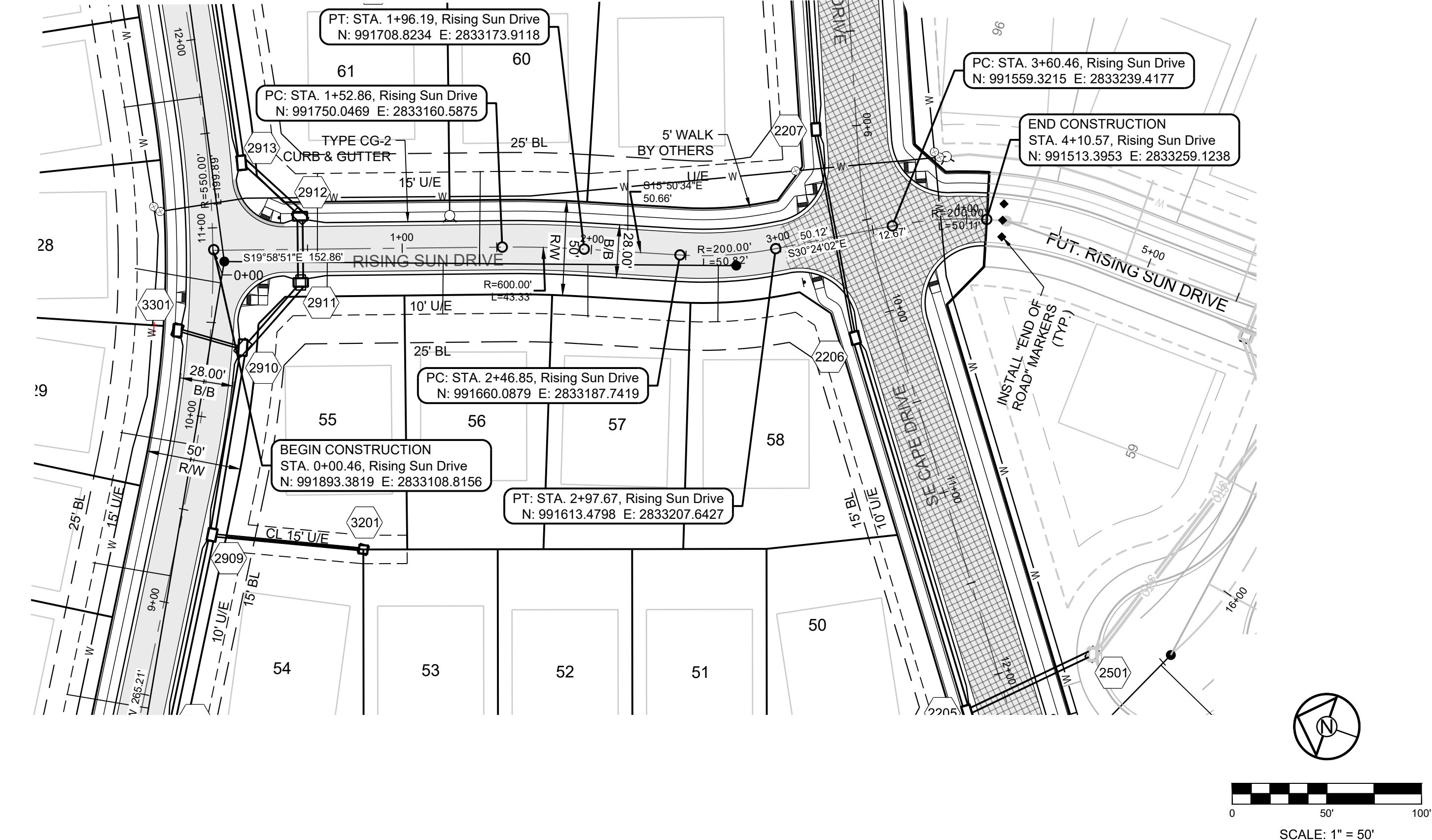
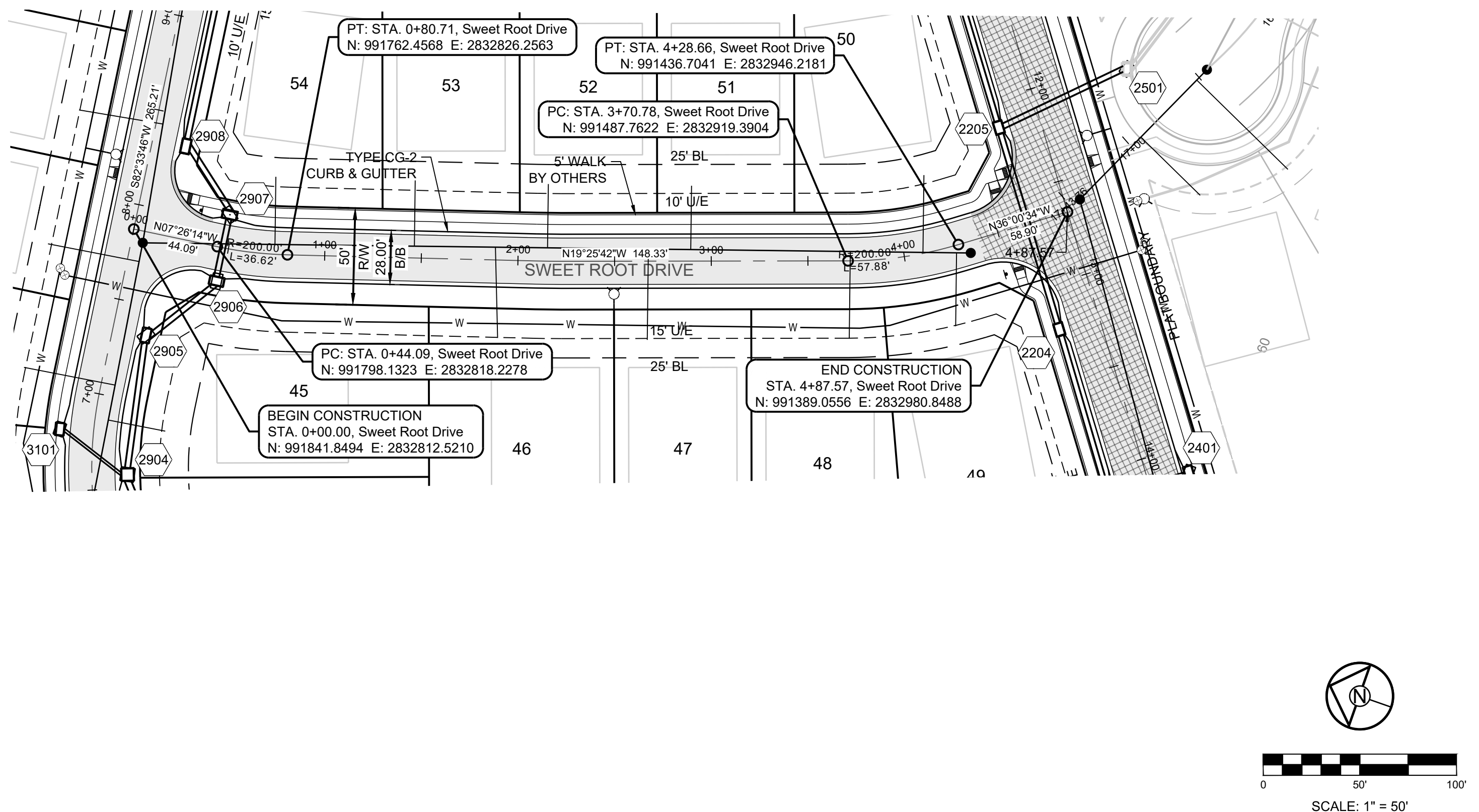
BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

NOTES:

ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.

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



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

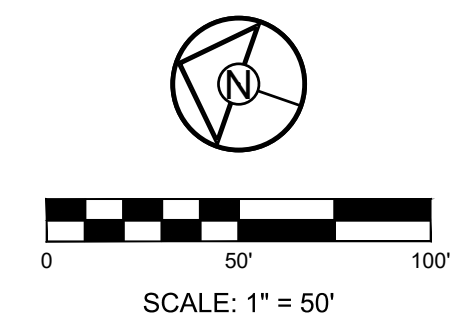
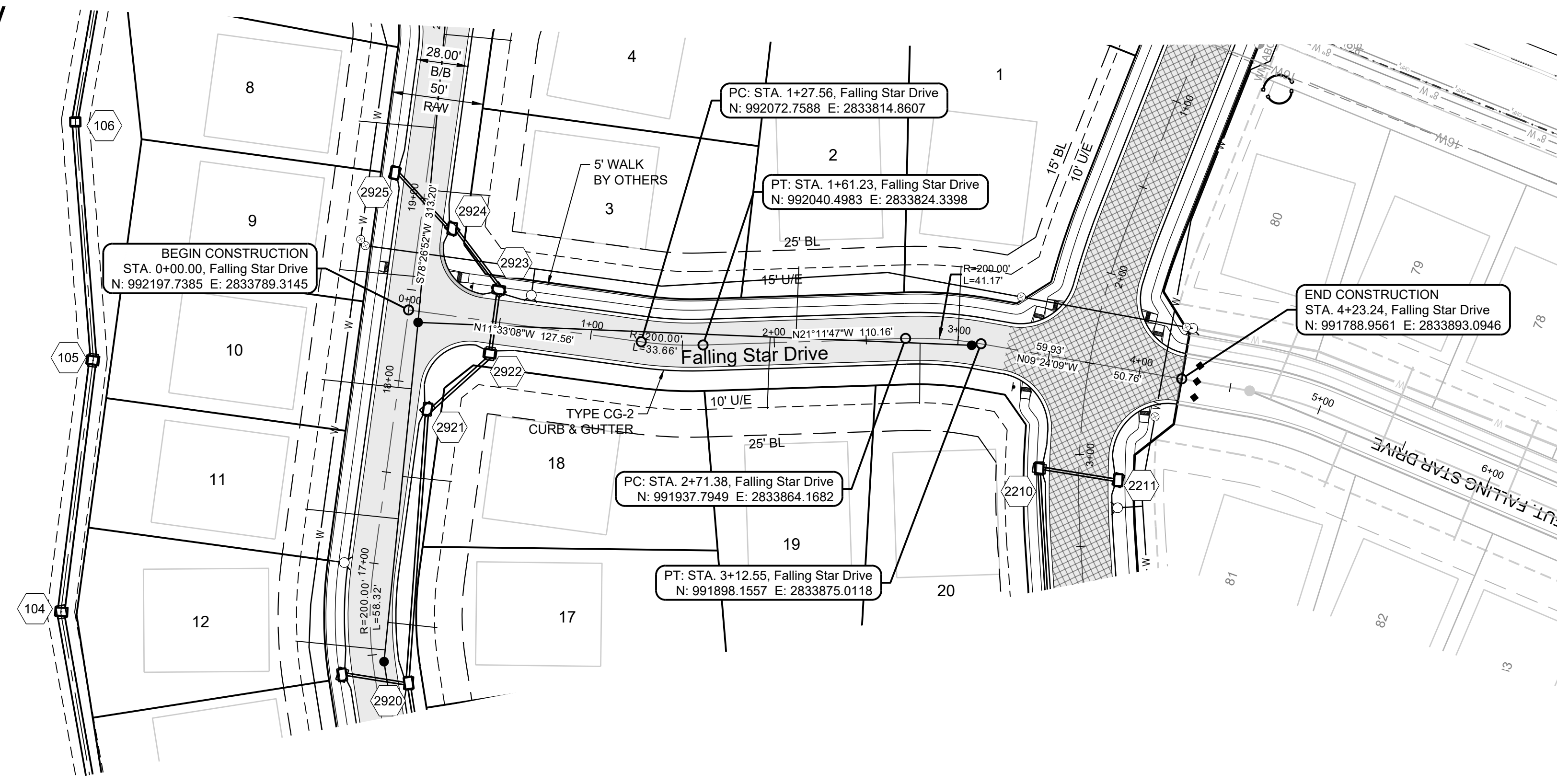
BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

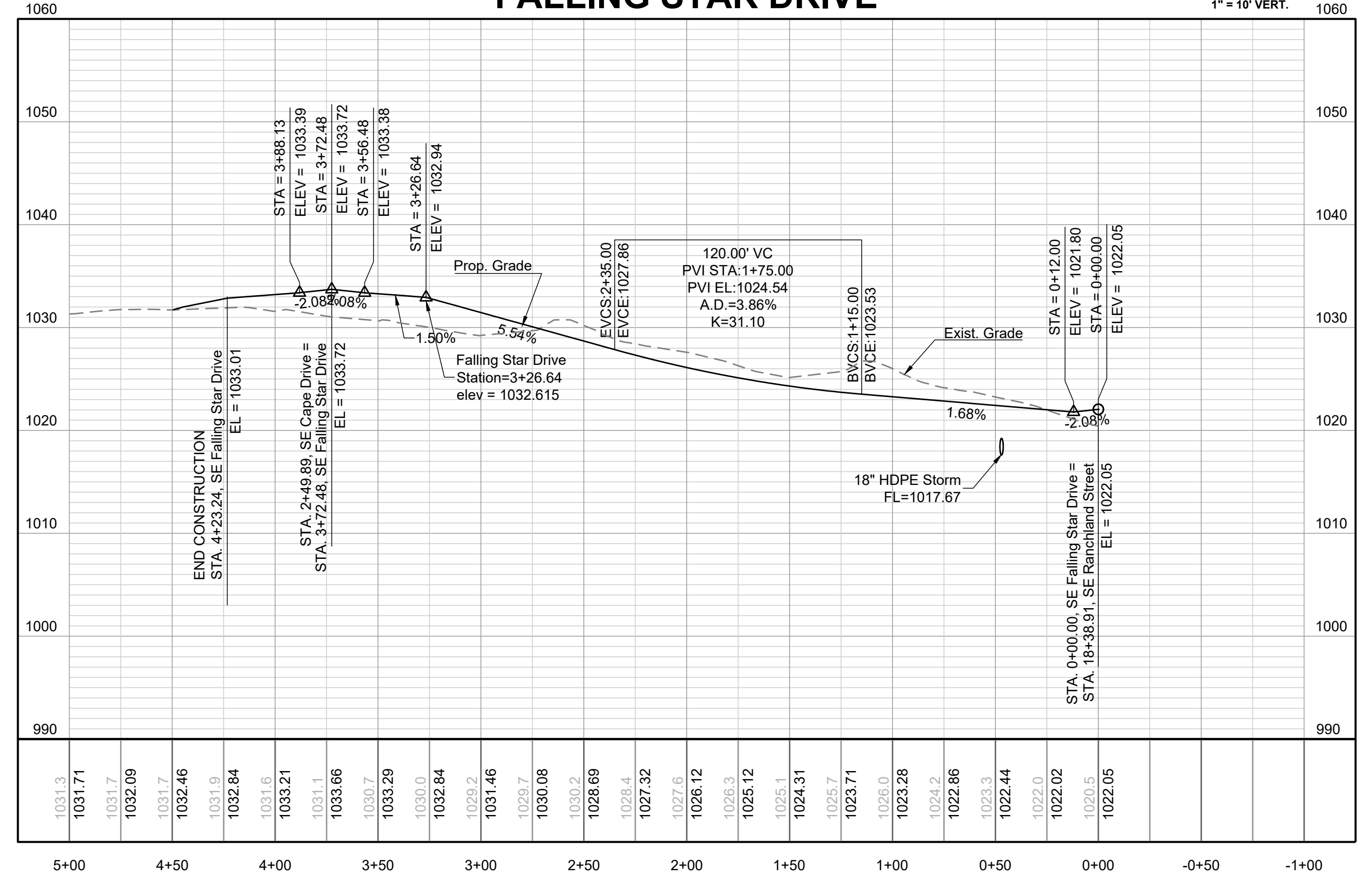
NOTES:

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.

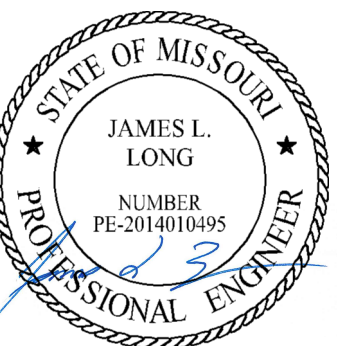


FALLING STAR DRIVE



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PREPARED BY:



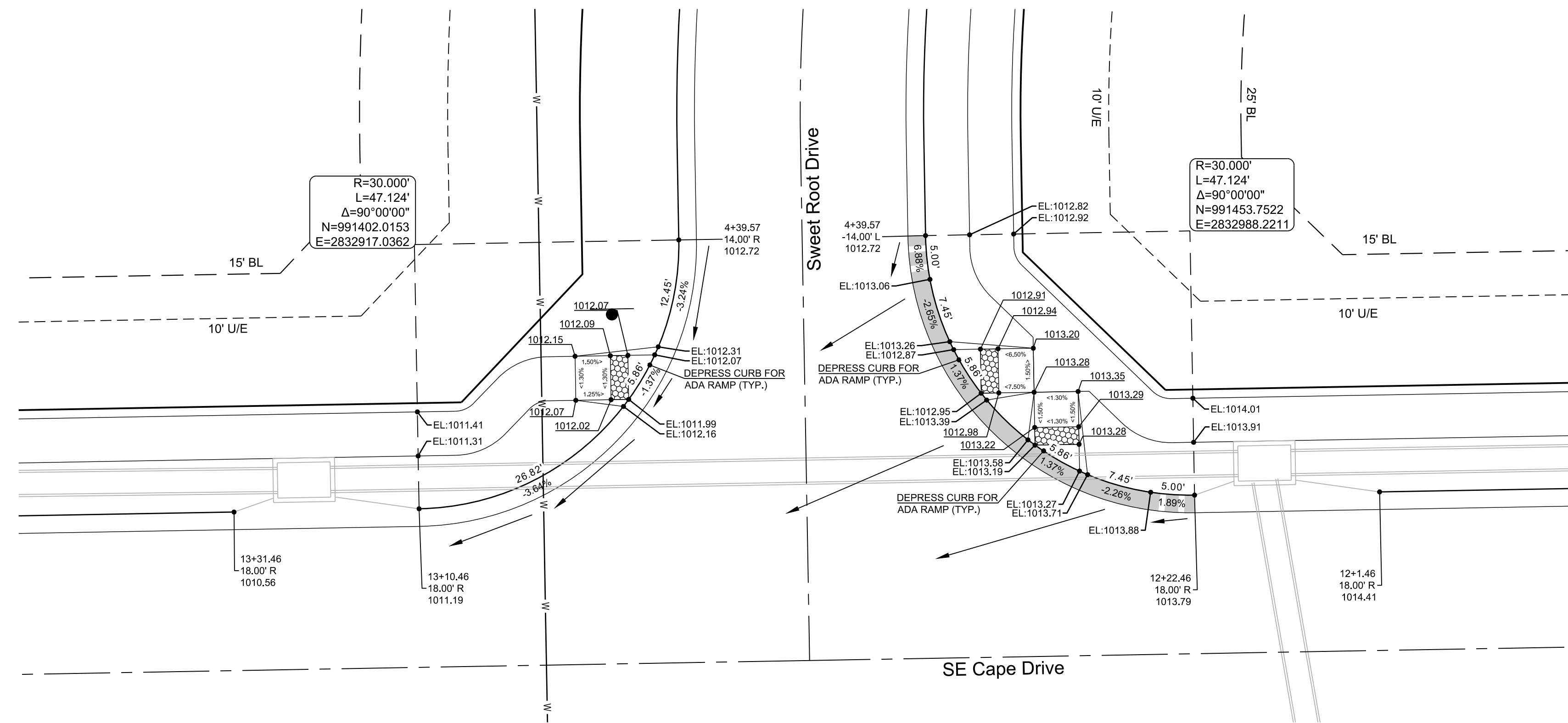
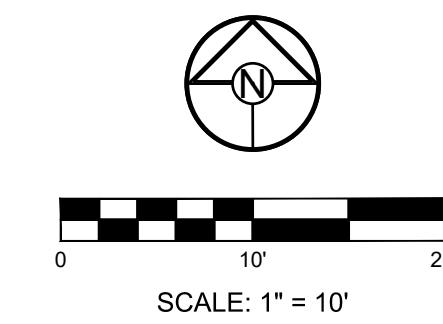
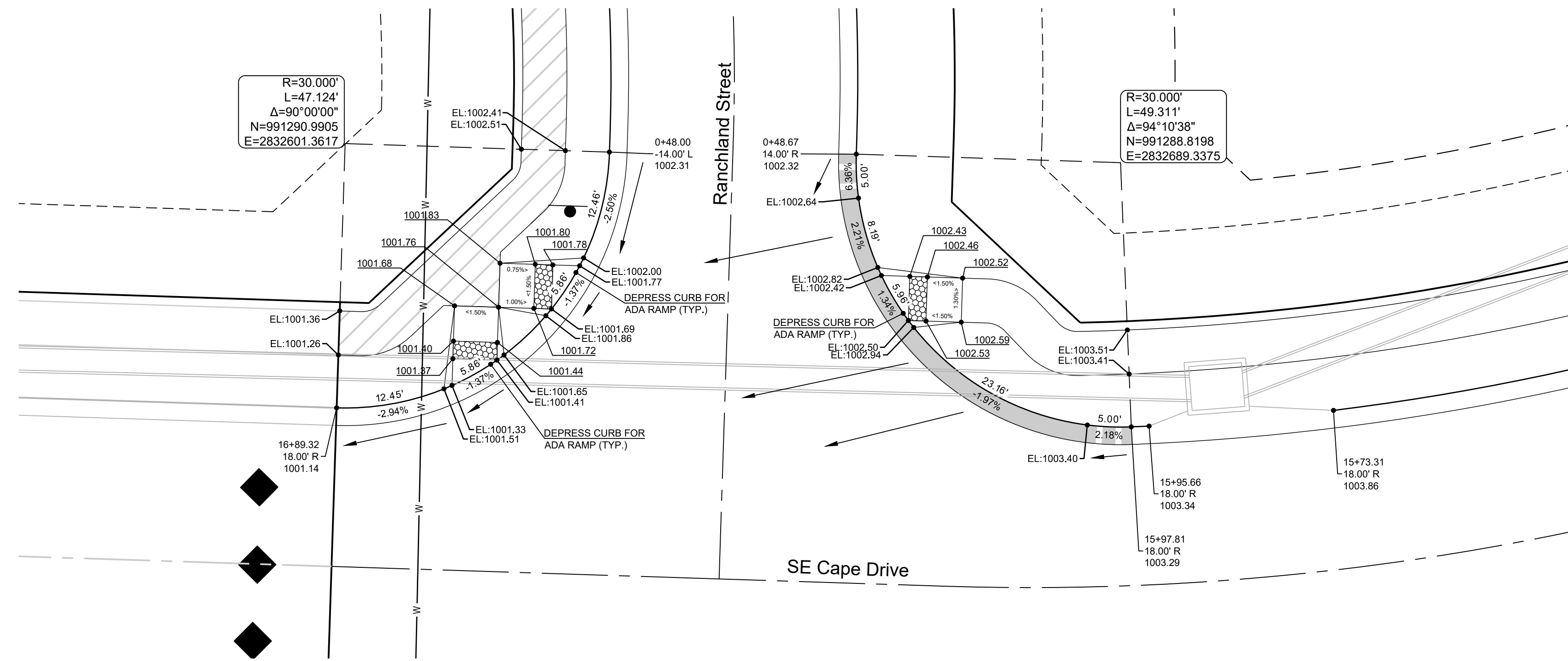
1/31/2022
SCHLAGEL & ASSOCIATES, P.A.

MANOR 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
1/21/2022	City Comments dated 12/19/2021

FALLING STAR
DR PLAN &
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"



PREPARED BY:

 JAMES L. LONG
 NUMBER PE-304401945
 PROFESSIONAL ENGINEER
 1/31/2022
 SCHLAGEL & ASSOCIATES, P.A.

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

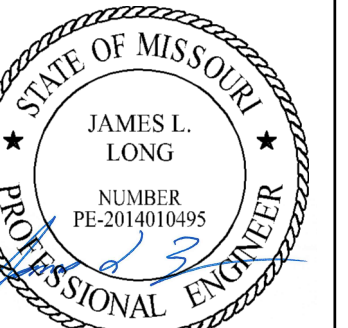
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DATE PREPARED:	1/10/2021
PROJ. NUMBER:	21-130

INTERSECTION
 DETAILS
 SHEET
19

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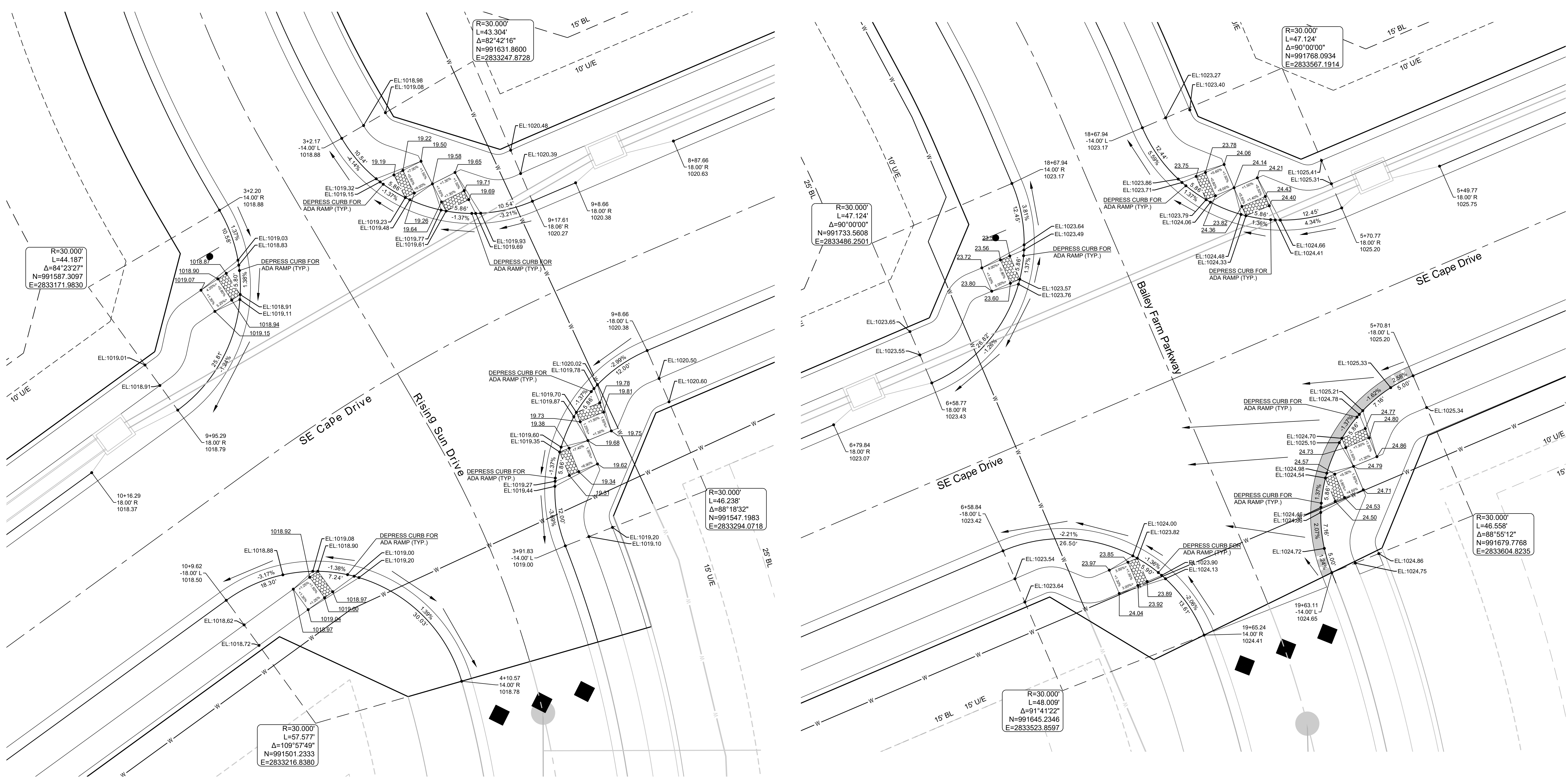
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1/31/2022

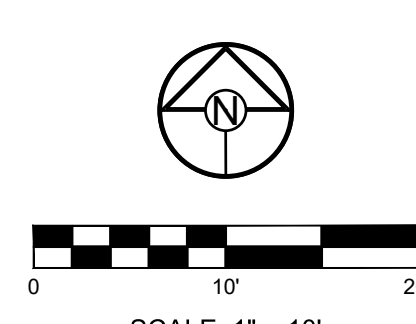
SCHLAGEL & ASSOCIATES, P.A.

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



CURB LEGEND

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



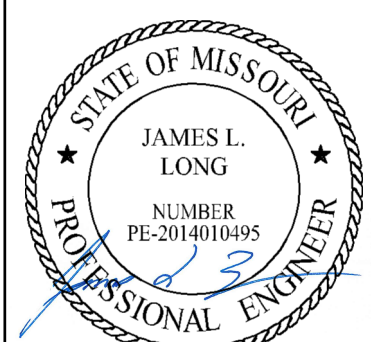
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PROJ. NUMBER:	21-130

INTERSECTION
 DETAILS

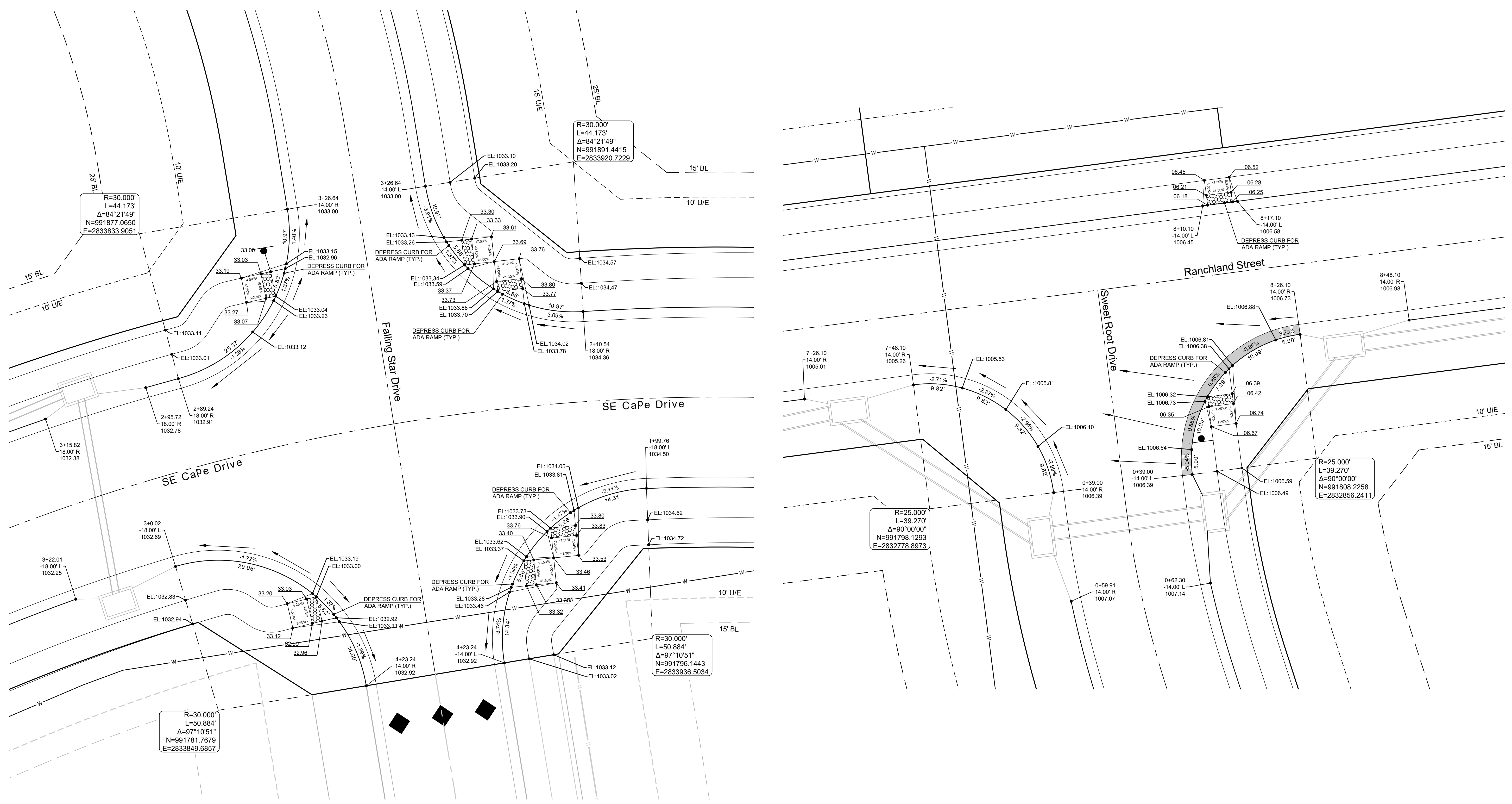
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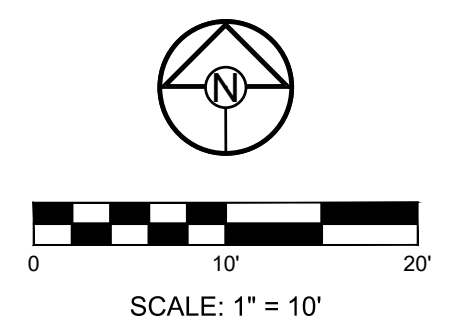
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MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI



CURB LEGEND

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PROJ. NUMBER:	21-130

INTERSECTION
 DETAILS

SHEET
21

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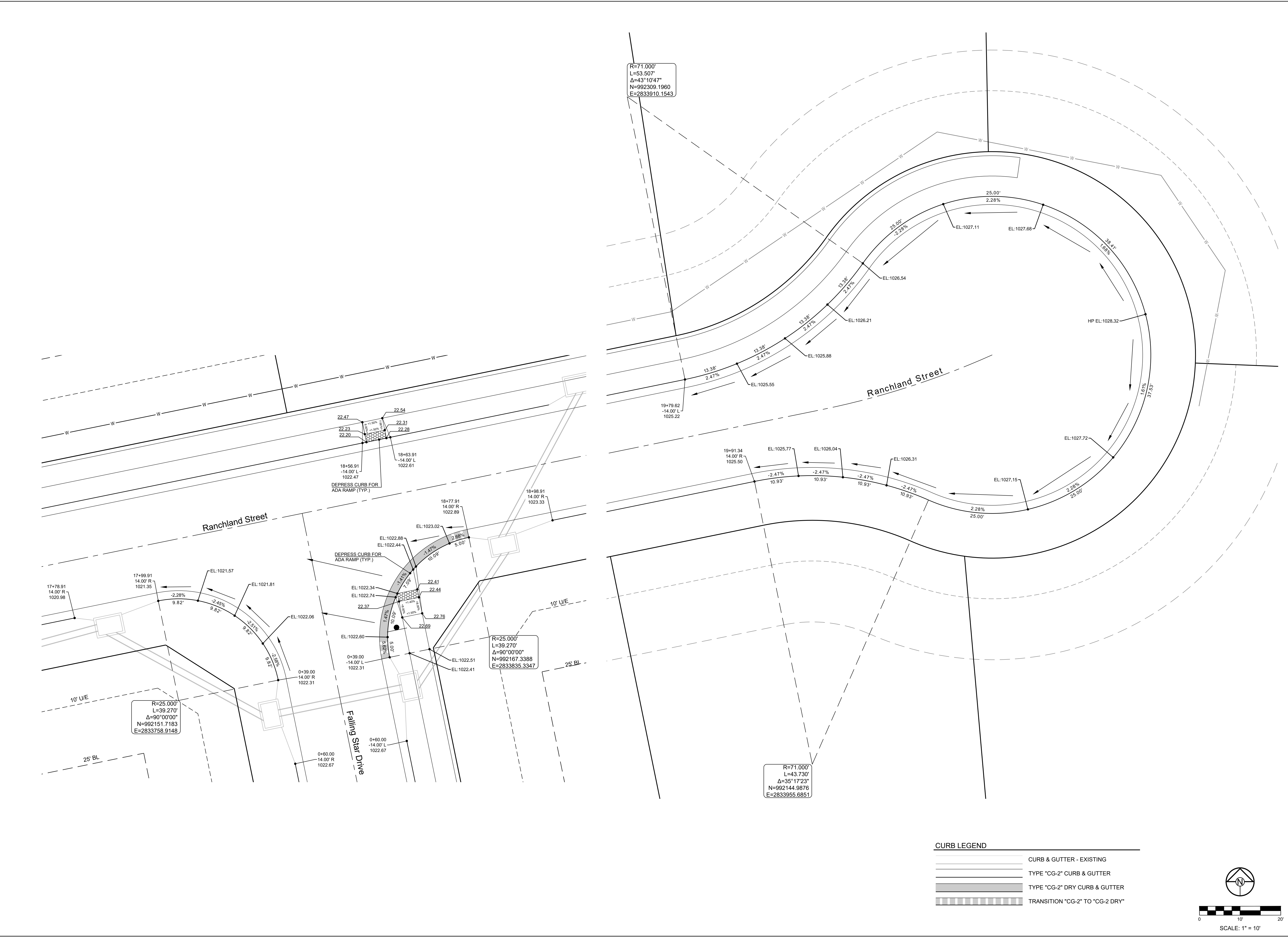
1/31/2022
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MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
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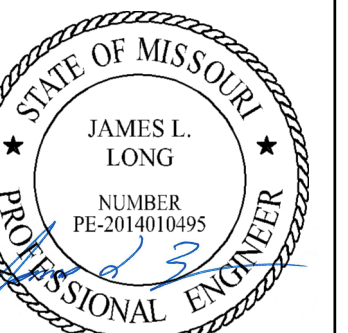
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 DETAILS

SHEET



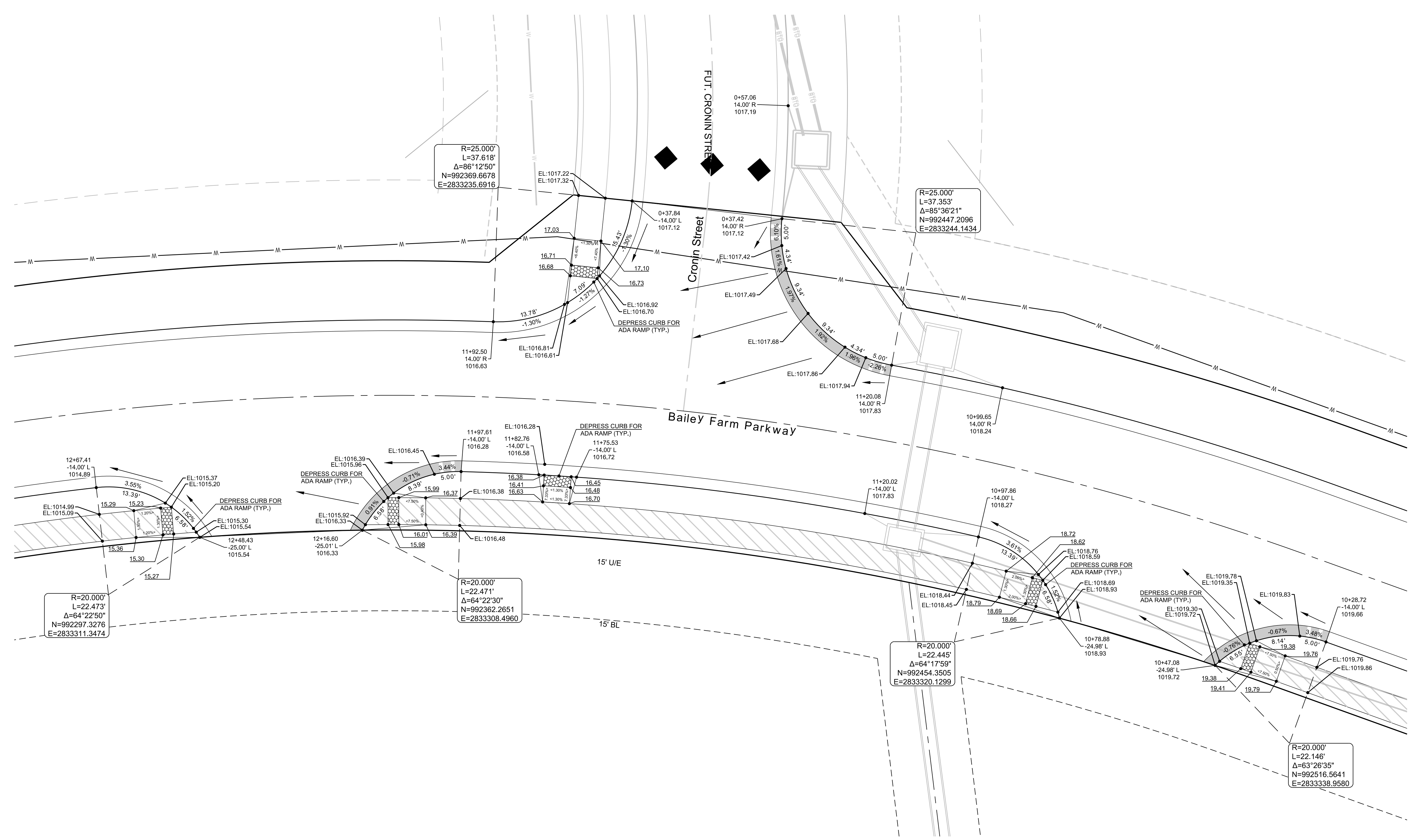
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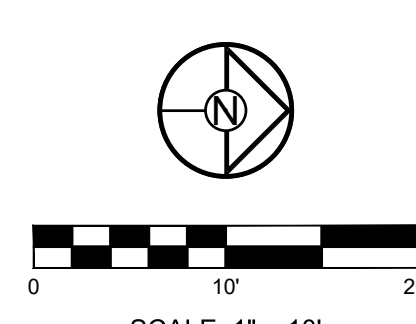
SCHLAGEL & ASSOCIATES, P.A.



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

CURB LEGEND

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



REVISION DATE	DESCRIPTION
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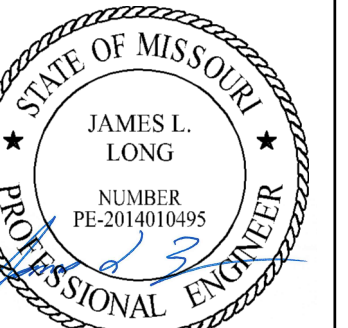
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PROJ. NUMBER:	21-130

INTERSECTION
 DETAILS

SHEET
24

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1/31/2022

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MANOR AT BAILEY FARMS, FIRST PLAT
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PROJ. NUMBER:	21-130

MASTER
 DRAINAGE
 PLAN-DRAINAGE
 MAP

SHEET

27

**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



10-YEAR RUNOFF CALCULATIONS

Table containing 10-year runoff calculations for lines 100, 1000, 1200, 1300, 1400, 1500, 1600, 1800, 2200, 2400, 2900, 3000, 3100, 3200, 3300, 3400, 3500, 3600, and 3700. Columns include Inlet #, Area, C-factor, Intensity, Cumul. Runoff, Pipe Cap., Pipe Vel., Up Piped Inlet 1, Up Piped Inlet 2, Up Area, Up CFA, Up Inlet, Up Down Inlet, Pipe Type, Pipe Size, Length, Slope, Drop In Inlet, and Inlet Top.

100-YEAR RUNOFF CALCULATIONS

Table containing 100-year runoff calculations for lines 100, 1000, 1200, 1300, 1400, 1500, 1600, 1800, 2200, 2400, 2900, 3000, 3100, 3200, 3300, 3400, 3500, 3600, and 3700. Columns include Inlet #, Area, C-factor, Intensity, Cumul. Runoff, Pipe Cap., Pipe Vel., Up Piped Inlet 1, Up Piped Inlet 2, Up Area, Up CFA, Up Inlet, Up Down Inlet, Pipe Type, Pipe Size, Length, Slope, Drop In Inlet, and Inlet Top.

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PREPARED BY: JAMES L. LONG, LICENSED PROFESSIONAL ENGINEER, NUMBER PEA0101095

1/31/2022 SCHLAGEP & ASSOCIATES, P.A.

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

REVISION DATE: 1/17/2022. DESCRIPTION: City Comments dated 12/19/2021. DRAWN BY: NCA. CHECKED BY: JLL. DATE PREPARED: 1/10/2021. PROJ. NUMBER: 21-130. SHEET: 28

PREPARED BY:



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

GUTTER SPREAD AND INLET CAPACITY CALCULATIONS - MANORS AT BAILEY FARMS, 1ST PLAT

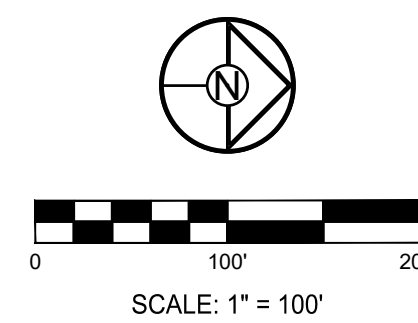
DESIGN STORM 10 CURB TYPE "A" = LAZY BACK
 "K" FACTOR 1.00 CURB TYPE "B" = HIGH BACK

RUNOFF CALCULATIONS										INLET DESIGN						GUTTER DESIGN							
LINE #	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 1																							
101	0.66	0.32	5	7.35	1.55					0.00	1.55	SUMP	2.08	A	6	4.8	13.44	0.00	SUMP	2.08	< 0.21	< 10.50	
102	0.66	1.10	5	7.35	5.34	3701	1006			0.67	6.00	SUMP	2.08	A	6	4.8	13.44	0.00	SUMP	2.08	< 0.21	< 10.50	
LINE 1000																							
1005	0.66	0.25	5	7.35	1.21					0.00	1.21	2.00	2.08	A	6	6	1.10	0.11	2.00	2.08	0.13	6.82	
1006	0.66	0.25	5	7.35	1.21	1007				0.32	1.53	2.00	2.08	A	6	6	1.35	0.18	2.00	2.08	0.14	7.39	
1007	0.66	0.15	5	7.35	0.73	1008	1009	1010		1.29	2.02	2.00	2.08	A	6	6	1.70	0.32	2.00	2.08	0.16	8.14	
1008	0.66	0.25	5	7.35	1.21					0.00	1.21	2.00	2.08	A	6	6	1.14	0.07	2.00	2.08	0.14	7.45	
1009	0.66	0.95	5	7.35	4.61					0.00	4.61	2.00	2.08	A	6	6	3.48	1.13	2.00	2.08	0.24	11.97	
1010	0.66	0.20	5	7.35	0.97				1011	0.11	1.08	2.00	2.08	A	6	6	0.99	0.09	2.00	2.08	0.13	6.54	
1011	0.66	0.25	5	7.35	1.21				1012	0.17	1.38	1.35	2.08	A	6	6	1.27	0.11	1.35	2.08	0.15	7.63	
1012	0.66	0.30	5	7.35	1.46	1013	1501	1502		0.24	1.70	1.35	2.08	A	6	6	1.53	0.17	1.35	2.08	0.16	8.21	
1013	0.66	0.20	5	7.35	0.97					0.00	0.97	1.20	2.08	A	6	6	0.93	0.04	1.20	2.08	0.13	6.89	
LINE 1300																							
1301	0.66	0.30	5	7.35	1.46					0.00	1.46	2.00	2.08	A	6	6	1.29	0.16	2.00	2.08	0.14	7.26	
LINE 1500																							
1501	0.66	0.35	5	7.35	1.70					0.00	1.70	1.20	2.08	A	6	6	1.55	0.15	1.20	2.08	0.16	8.39	
1502	0.66	0.20	5	7.35	0.97				1503	0.05	1.02	1.20	2.08	A	6	6	0.97	0.05	1.20	2.08	0.14	7.00	
1503	0.66	0.20	5	7.35	0.97				1504	0.03	1.00	1.20	2.08	A	6	6	0.96	0.05	1.20	2.08	0.13	6.97	
1504	0.66	0.10	5	7.35	0.49				1505	0.37	0.86	1.20	2.08	A	6	6	0.83	0.03	1.20	2.08	0.13	6.61	
1505	0.66	0.35	5	7.35	1.70					0.00	1.70	4.19	2.08	A	6	6	1.32	0.37	4.19	2.08	0.13	6.74	
LINE 1600																							
1601	0.66	0.30	5	7.35	1.46					0.00	1.46	1.20	2.08	A	6	6	1.35	0.11	1.20	2.08	0.15	7.94	
LINE 2200																							
2201	0.51	0.30	5	7.35	1.12	2202				0.06	1.18	2.34	2.08	A	6	6	1.06	0.12	2.34	2.08	0.13	6.58	
2202	0.51	0.20	5	7.35	0.75	2203				0.11	0.86	2.34	2.08	A	6	6	0.80	0.06	2.34	2.08	0.11	5.88	
2203	0.51	0.15	5	7.35	0.56	2204				0.47	1.03	2.96	2.08	A	6	6	0.92	0.11	2.96	2.08	0.11	6.02	
2204	0.51	0.55	5	7.35	2.06	2205				0.09	2.15	2.96	2.08	A	6	6	1.68	0.47	2.96	2.08	0.15	7.77	
2205	0.51	0.25	5	7.35	0.94	2206				0.01	0.95	2.96	2.08	A	6	6	0.86	0.09	2.96	2.08	0.11	5.85	
2206	0.51	0.10	5	7.35	0.37	2207				0.07	0.44	2.00	2.08	A	6	6	0.43	0.01	2.00	2.08	0.09	4.82	
2207	0.51	0.25	5	7.35	0.94	2208				0.03	0.96	2.00	2.08	A	6	6	0.90	0.07	2.00	2.08	0.12	6.29	
2208	0.51	0.15	5	7.35	0.56	2209				0.07	0.64	2.00	2.08	A	6	6	0.61	0.03	2.00	2.08	0.10	5.46	
2209	0.51	0.25	5	7.35	0.94	2210				0.06	1.00	2.00	2.08	A	6	6	0.93	0.07	2.00	2.08	0.12	6.38	
2210	0.51	0.25	5	7.35	0.94					0.00	0.94	2.00	2.08	A	6	6	0.87	0.06	2.00	2.08	0.12	6.23	
2211	0.51	0.20	5	7.35	0.75					0.00	0.75	2.00	2.08	A	6	6	0.71	0.04	2.00	2.08	0.11	5.77	
LINE 2400																							
2401	0.51	1.05	1.05	7.35	3.94	2211				0.04	3.97	2.96	2.08	A	6	6	2.52	1.45	2.96	2.08	0.19	9.66	
LINE 2900																							
2901	0.51	0.30	5	7.35	1.12	3001	3601			0.06	1.18	SUMP	2.08	A	6	4.8	16.80	0.00	SUMP	2.08	< 0.21	< 10.50	
2902	0.51	1.55	5	7.35	5.81	3602	2903			0.96	6.77	SUMP	2.08	A	6	4.8	16.80	0.00	SUMP	2.08	< 0.21	< 10.50	
2903	0.51	0.15	5	7.35	0.56	2904				0.00	0.57	1.00	3.08	A	6	6	0.55	0.01	1.00	3.08	0.11	5.91	
2904	0.51	0.10	5	7.35	0.37	2905				0.09	0.47	1.00	4.08	A	6	6	0.46	0.00	1.00	4.08	0.10	5.54	
2905	0.51	0.15	5	7.35	0.56	2906	2907	2908		0.90	1.47	1.00	5.08	A	6	6	1.37	0.09	1.00	5.08	0.16	8.22	
2906	0.51	0.36	5	7.35	1.35					0.00	1.35	3.25	6.08	A	6	6	1.15	0.20	3.25	6.08	0.12	6.50	
2907	0.51	0.65	5	7.35	2.44					0.00	2.44	3.25	7.08	A	6	6	1.81	0.63	3.25	7.08	0.16	7.99	
2908	0.51	0.35	5	7.35	1.31	2909				0.01	1.32	1.00	8.08	A	6	6	1.24	0.07	1.00	8.08	0.15	7.92	
2909	0.51	0.10	5	7.35	0.37	2910				0.12	0.50	1.00	9.08	A	6	6	0.49	0.01	1.00	9.08	0.11	5.65	
2910	0.51	0.15	5	7.35	0.56	2911	2912	2913		1.09	1.65	1.00	10.08	A	6	6	1.53	0.12	1.00	10.08	0.17	8.57	
2911	0.51	0.35	5	7.35	1.31					0.00	1.31	3.07	11.08	A	6	6	1.13	0.18	3.07	11.08	0.12	6.50	
2912	0.51	0.76	5	7.35	2.85					0.00	2.85	3.07	12.08	A	6	6	2.03	0.81	3.07	12.08	0.17	8.53	
2913	0.51	0.36	5	7.35	1.35	2914				0.01	1.36	1.20	13.08	A	6	6	1.27	0.09	1.20	13.08	0.15	7.76	
2914	0.51	0.15	5	7.35	0.56	2915				0.01	0.57	1.20	14.08	A	6	6	0.56	0.01	1.20	14.08	0.11	5.75	
2915	0.51	0.15	5	7.35	0.56					0.00	0.56	1.20	15.08	A	6	6	0.55	0.01	1.20	15.08	0.11	5.71	
2916	0.51	0.35	5	7.35	1.31					0.00	1.31	SUMP	16.08	A	6	4.8	16.80	0.00	SUMP	16.08	< 0.21	< 10.50	
2917	0.51	0.75	5	7.35	2.81	2918				0.12	2.93	SUMP	17.08	A	6	4.8	16.80	0.00	SUMP	17.08	< 0.21	< 10.50	
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2919	0.51	0.70	5	7.35	2.62	2920				0.11	2.74	1.69	19.08	A	6	6	2.22	0.52	1.69	19.08	0.18	9.34	
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2921	0.51	0.15	5	7.35	0.56																		



(LINE ATTEN)
1720 SE RANSON ROAD
OWNER: WHITANCE DAVID E &
NANCY L

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



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PREPARED BY:

1/31/2022
SCHLAGEL & ASSOCIATES, P.A.

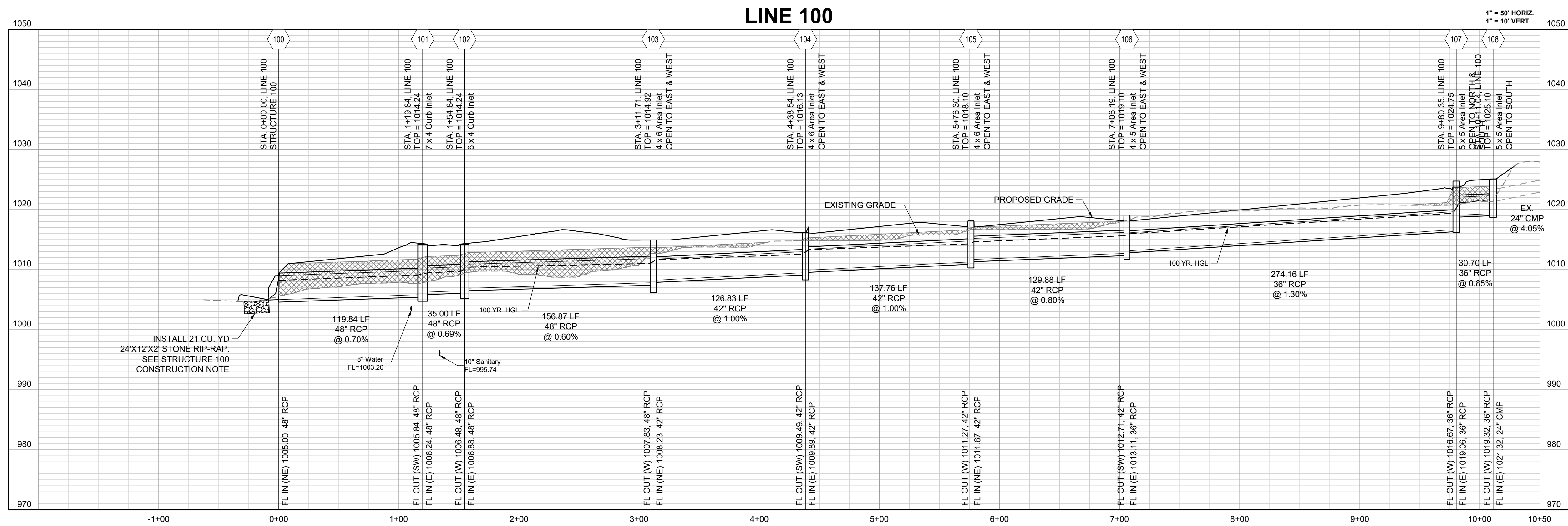
MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1/21/2022	City Comments dated 12/19/2021

DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	1/10/2021
PROJ. NUMBER:	21-130

STORM PLAN
SHEET
30

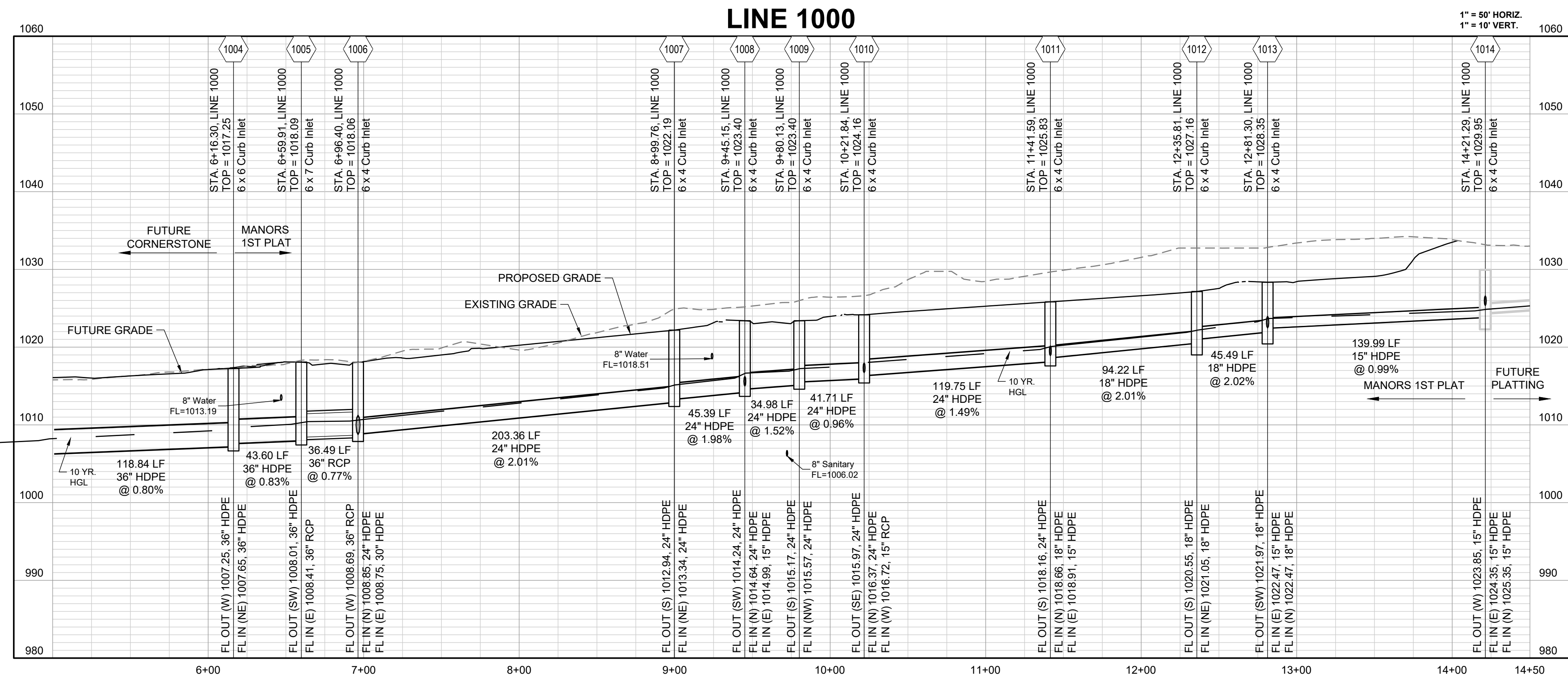
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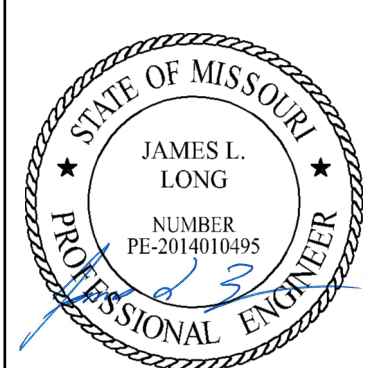
INSTALL 21 CU. YD
24\"/>

10-YEAR HGL
100-YEAR HGL

 COMPACTED FILL TO BE PLACED A MINIMUM OF
18\"/>



PREPARED BY:



1/31/2022
SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
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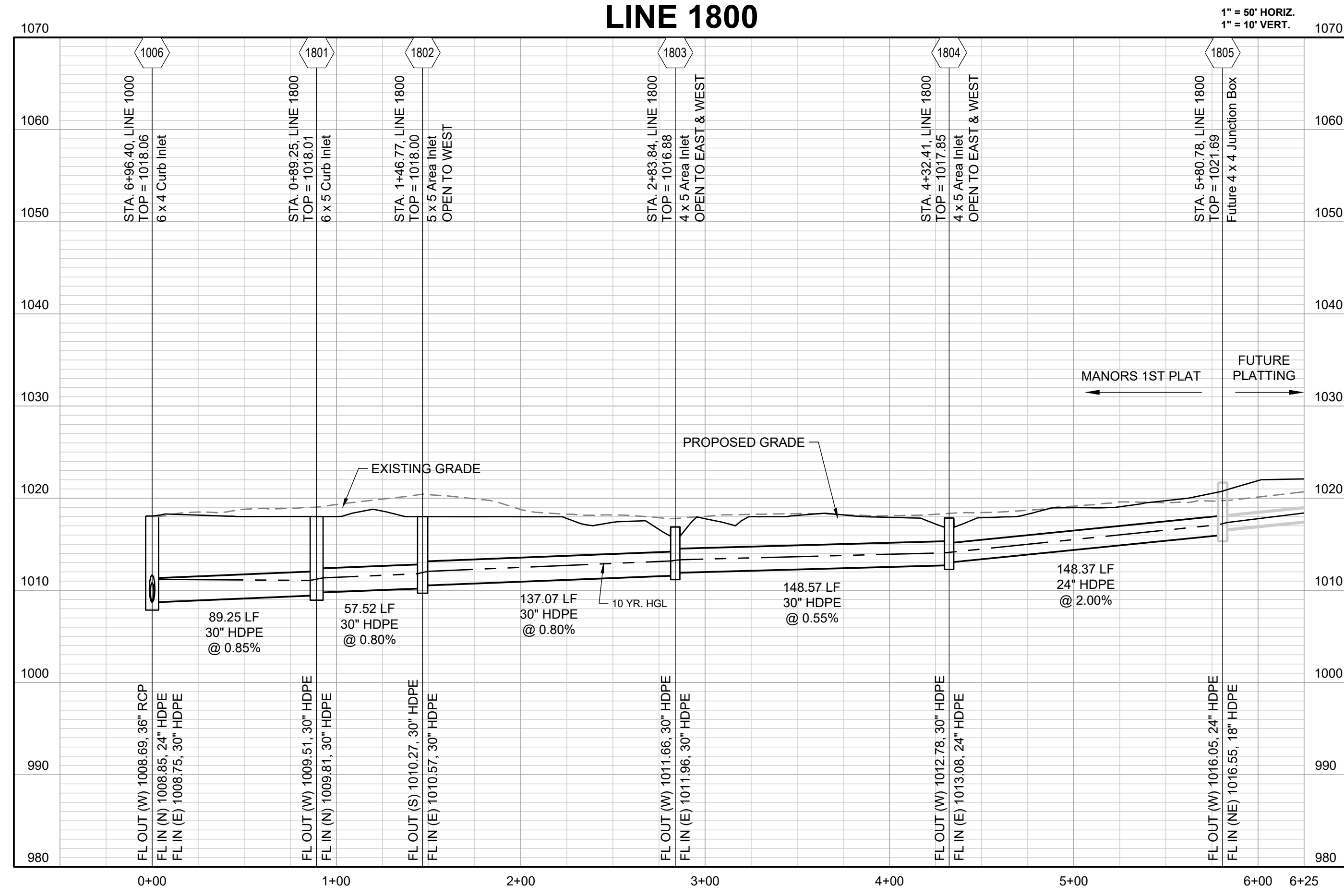
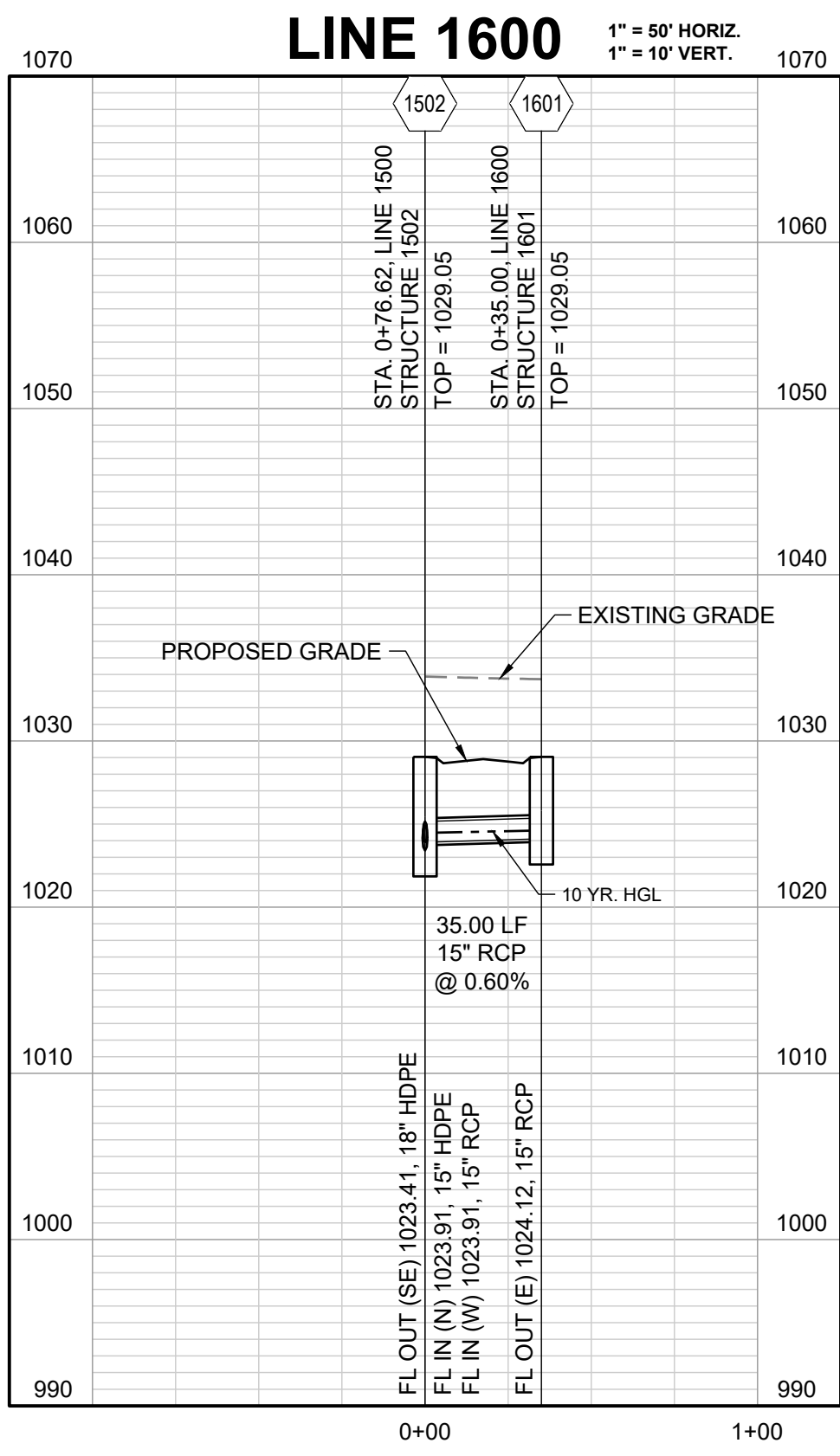
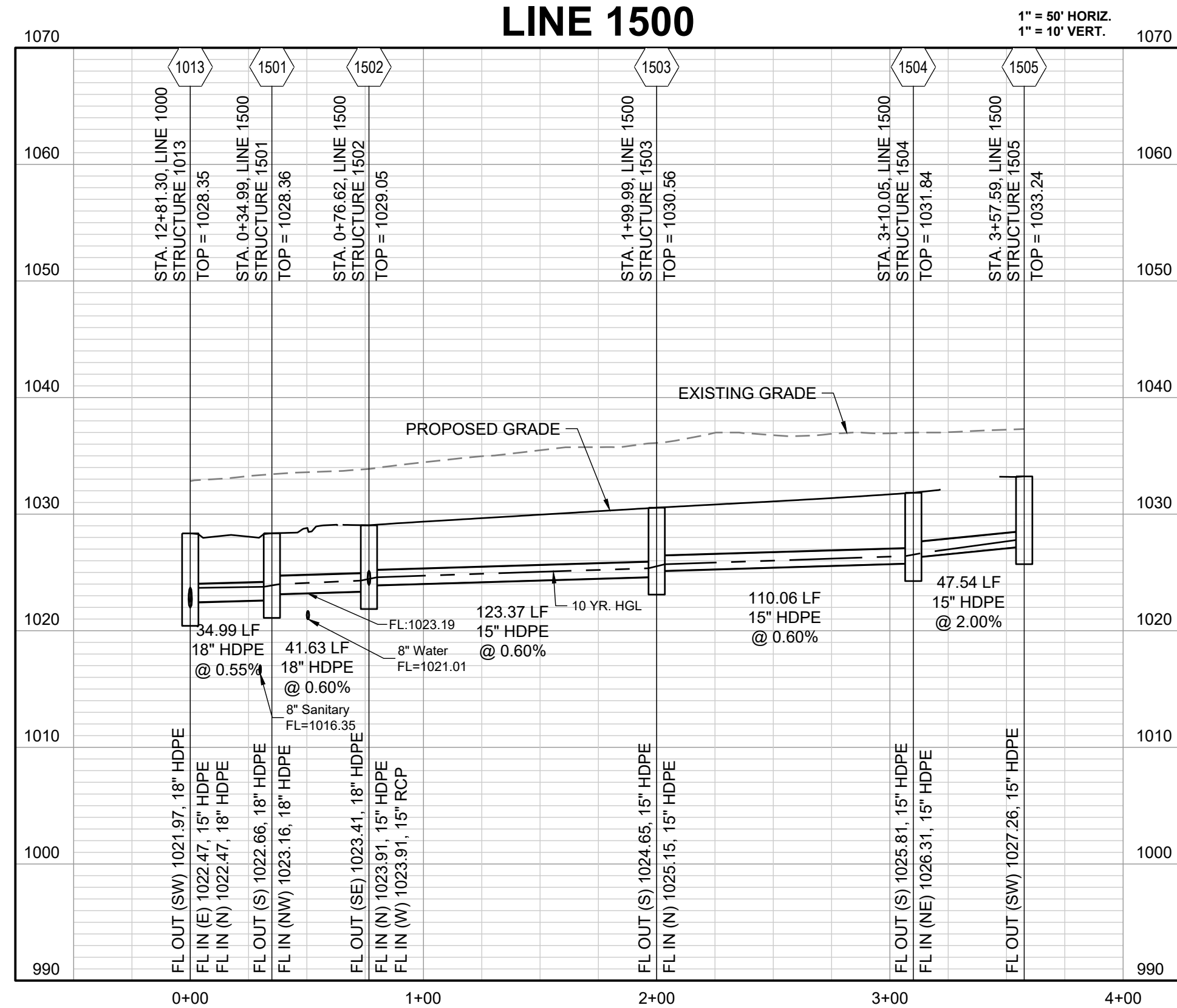
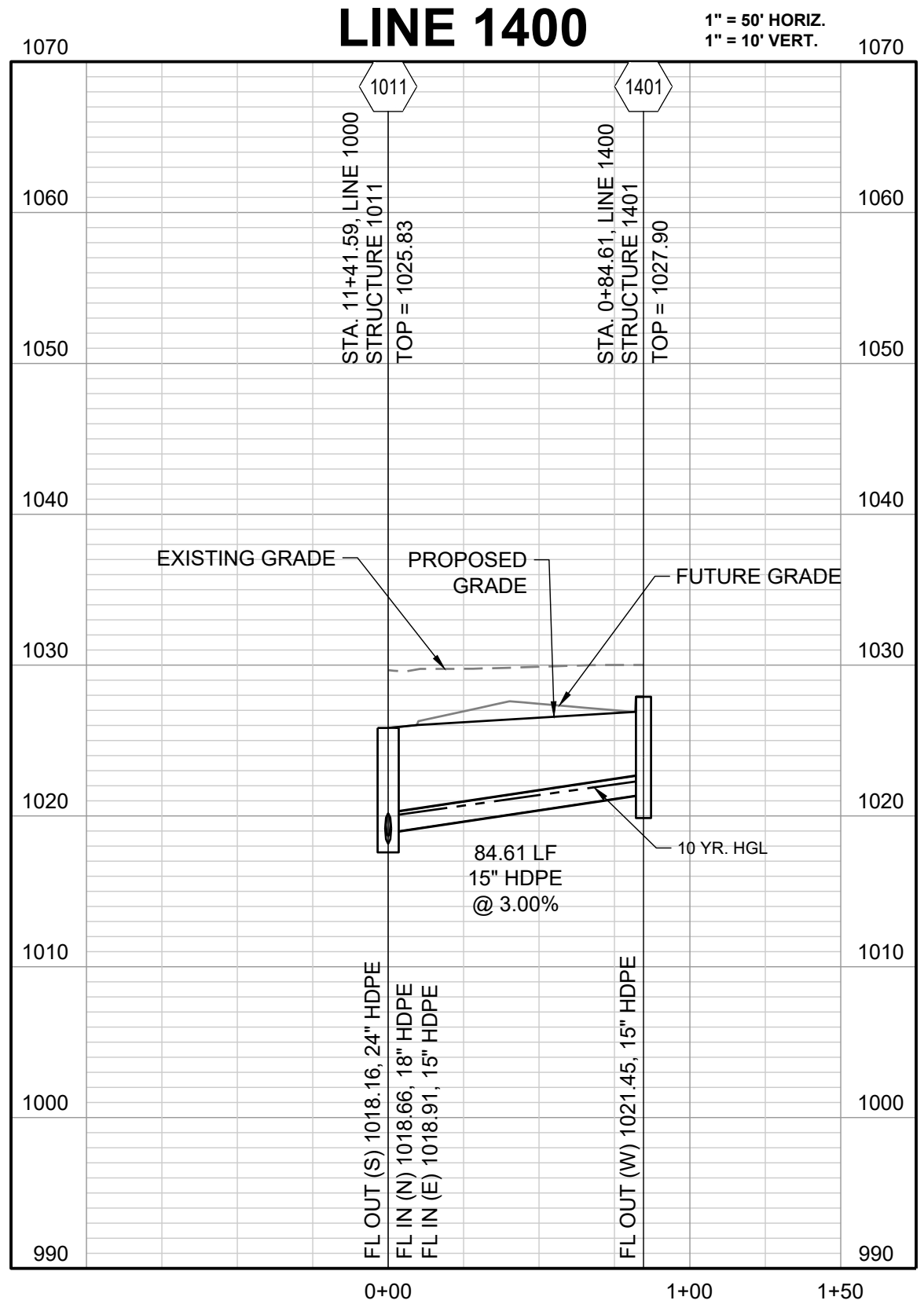
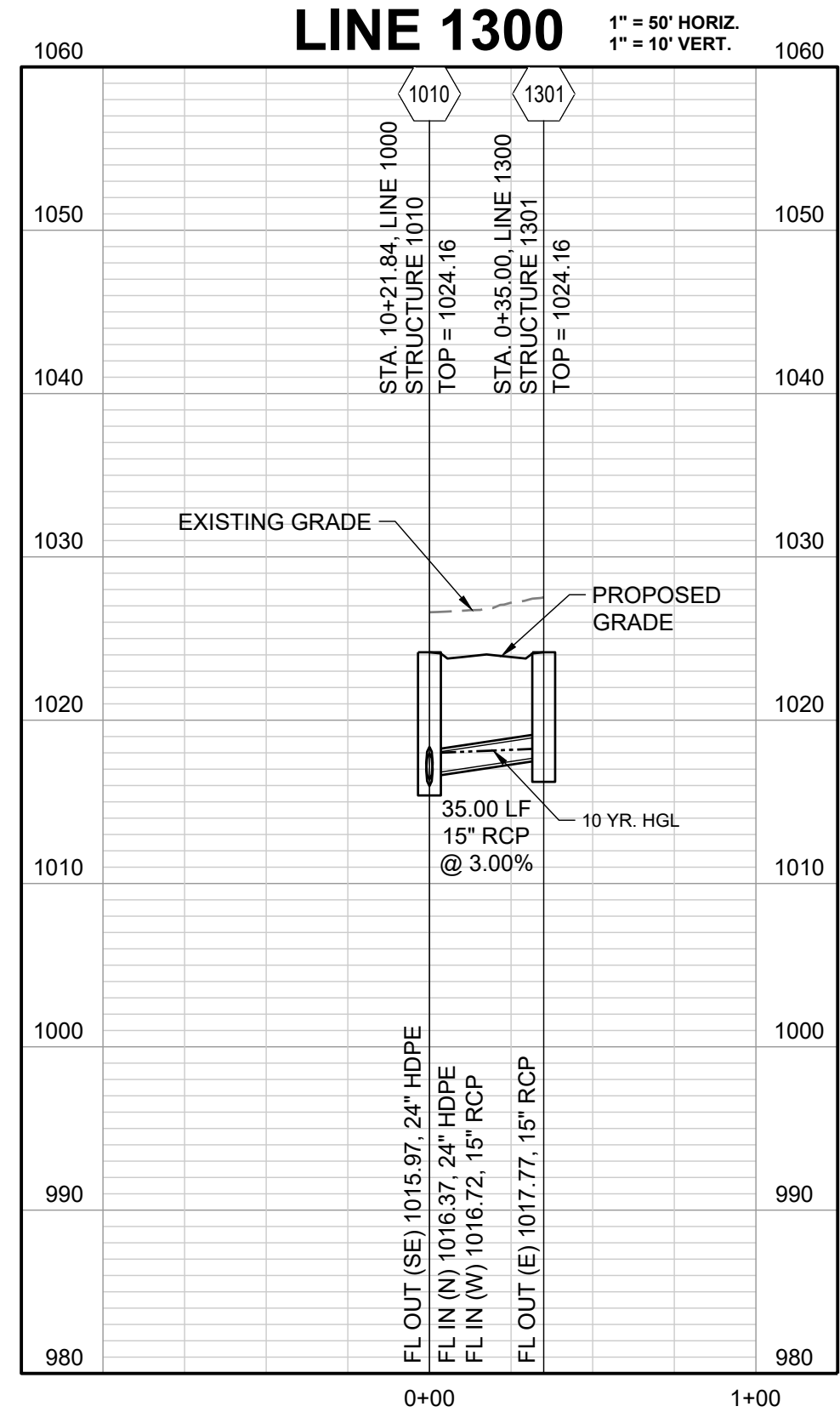
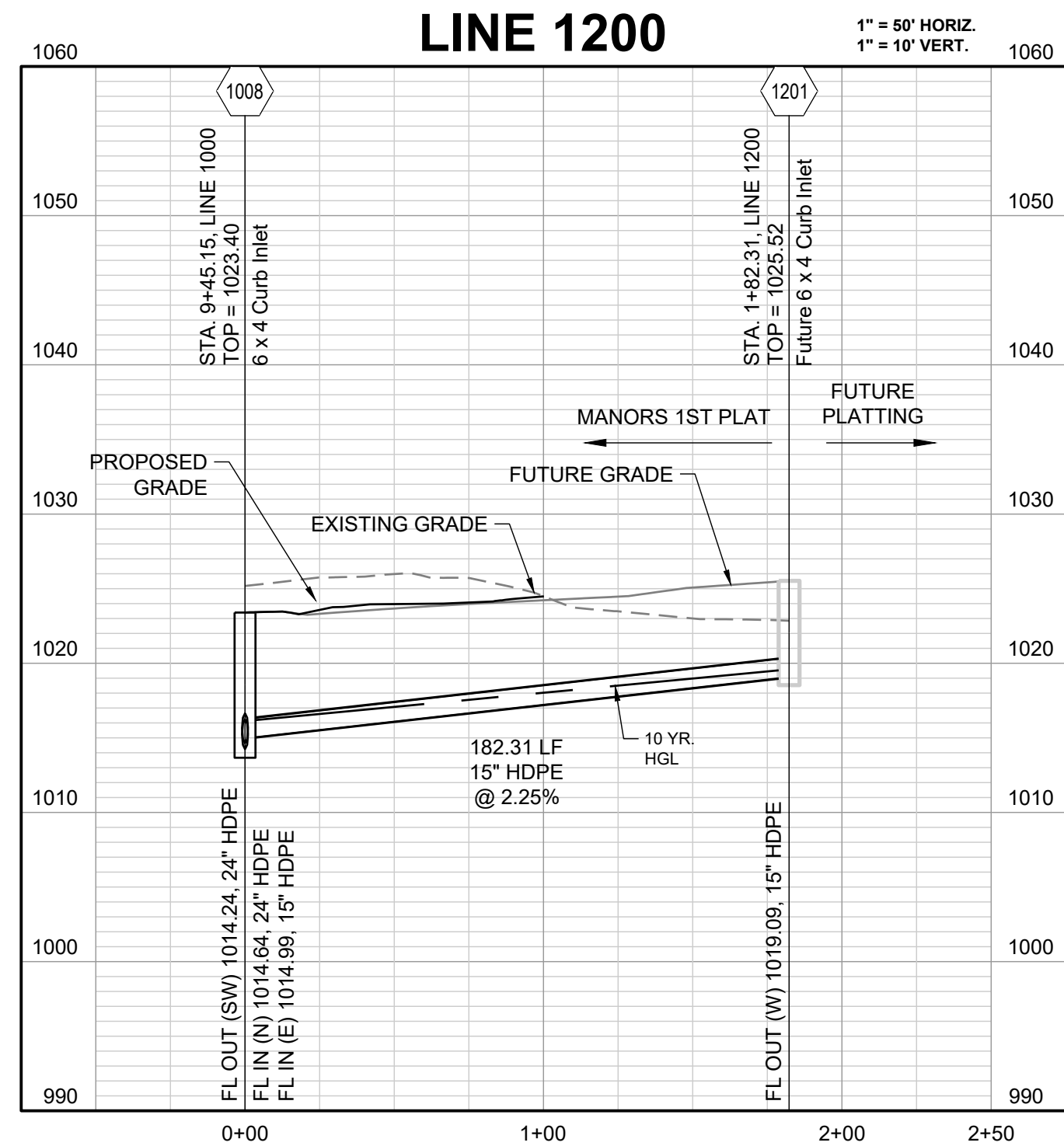
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DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	1/10/2021
PROJ. NUMBER:	21-130

STORM PROFILE

SHEET

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10-YEAR HGL -----

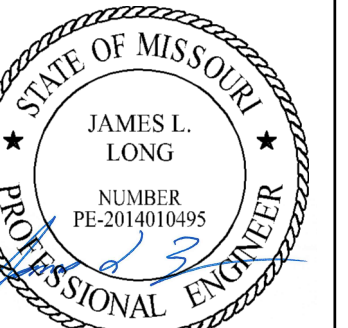
REVISION DATE	DESCRIPTION
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PROJ. NUMBER:	21-130

STORM PROFILES

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PREPARED BY:



1/31/2022

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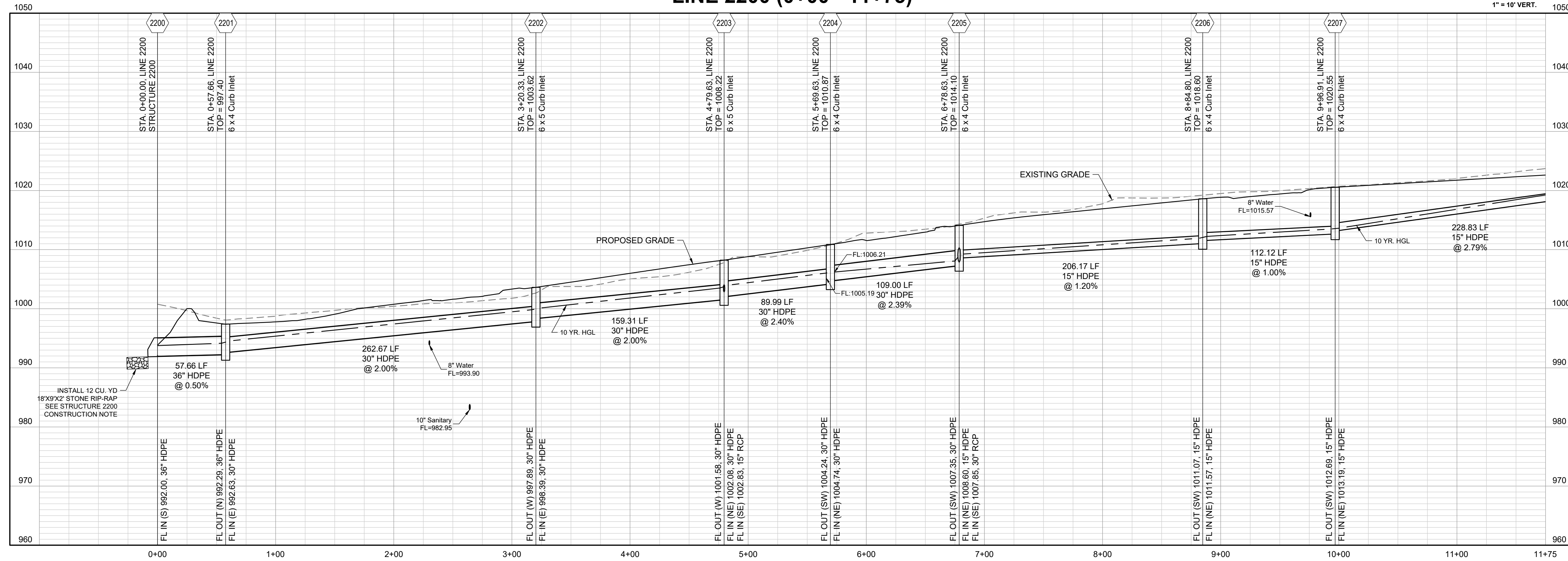
MANOR AT BAILEY FARMS, FIRST PLAT
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 SE BAILEY ROAD AND SE RANSON ROAD
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STORM PROFILES

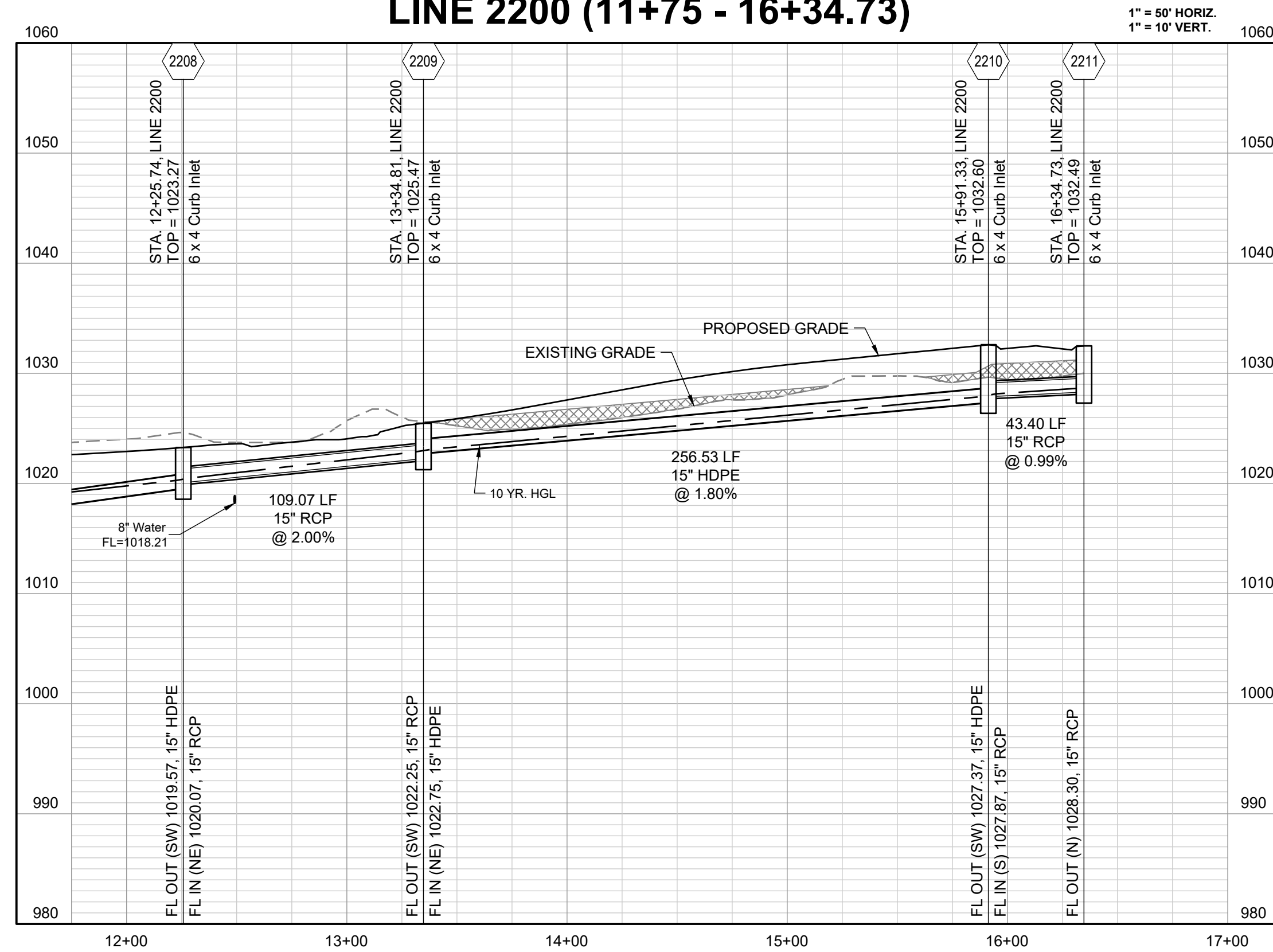
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LINE 2200 (0+00 - 11+75)

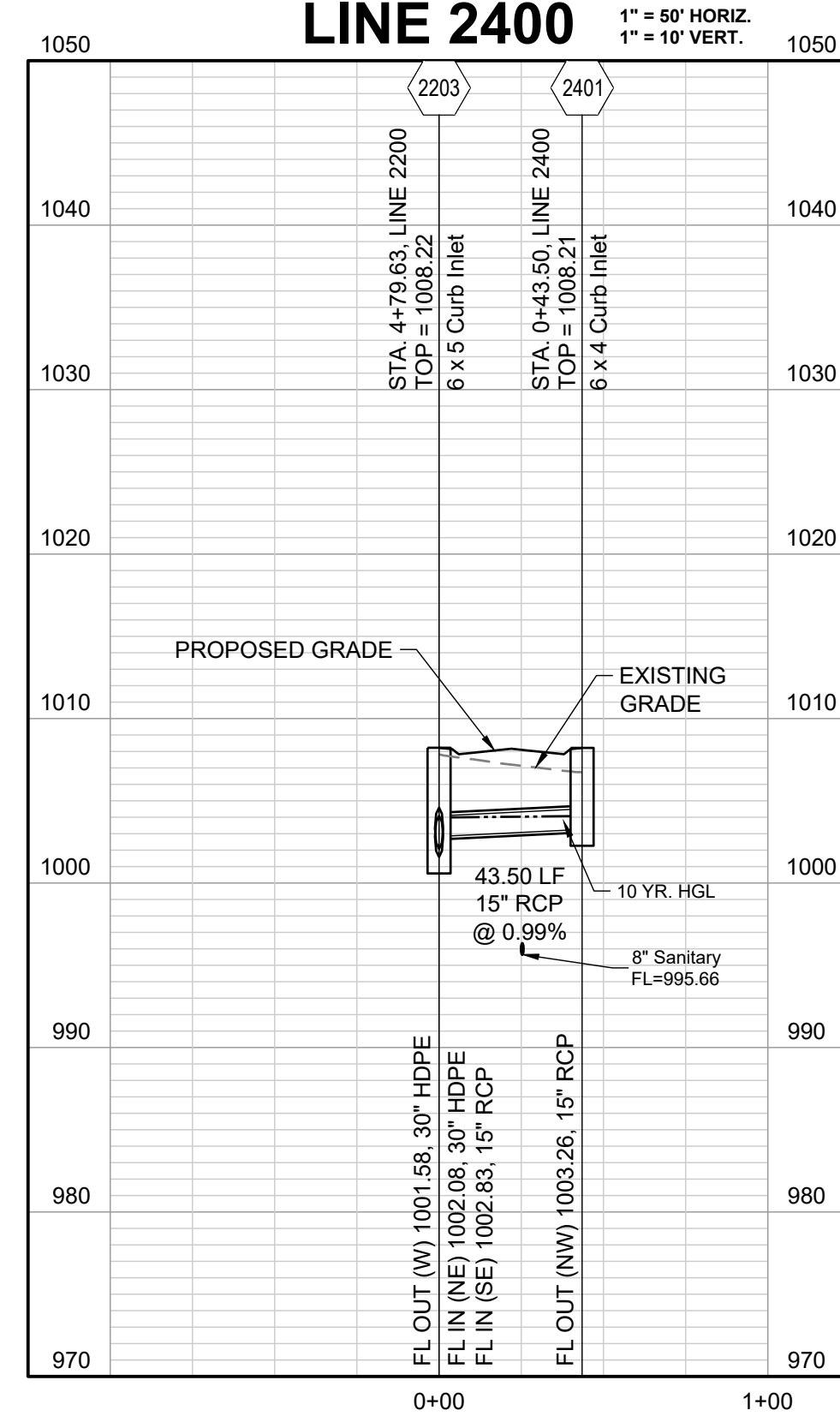


COMPACTED FILL TO BE PLACED A MINIMUM OF 18\"/>

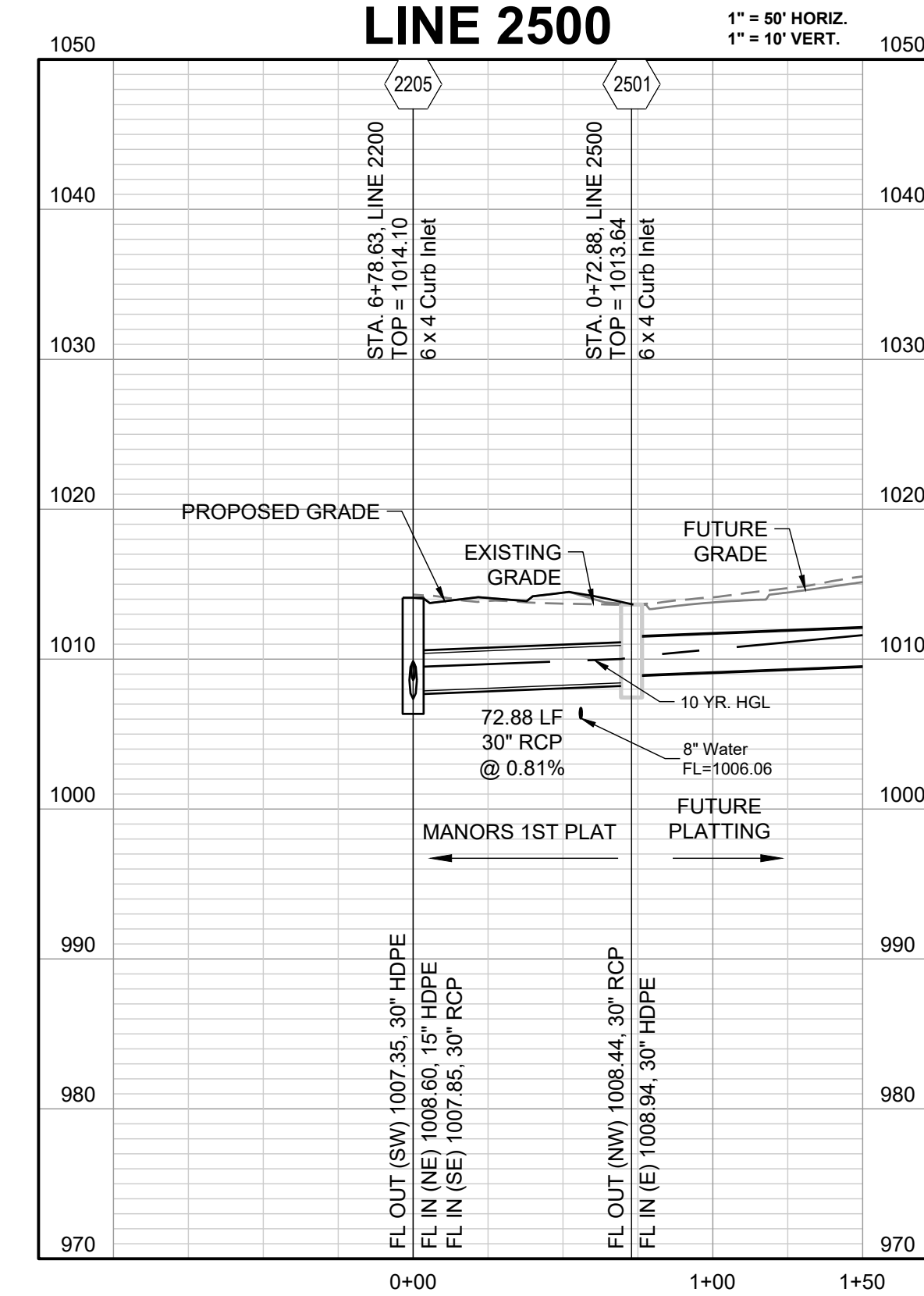
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LINE 2400



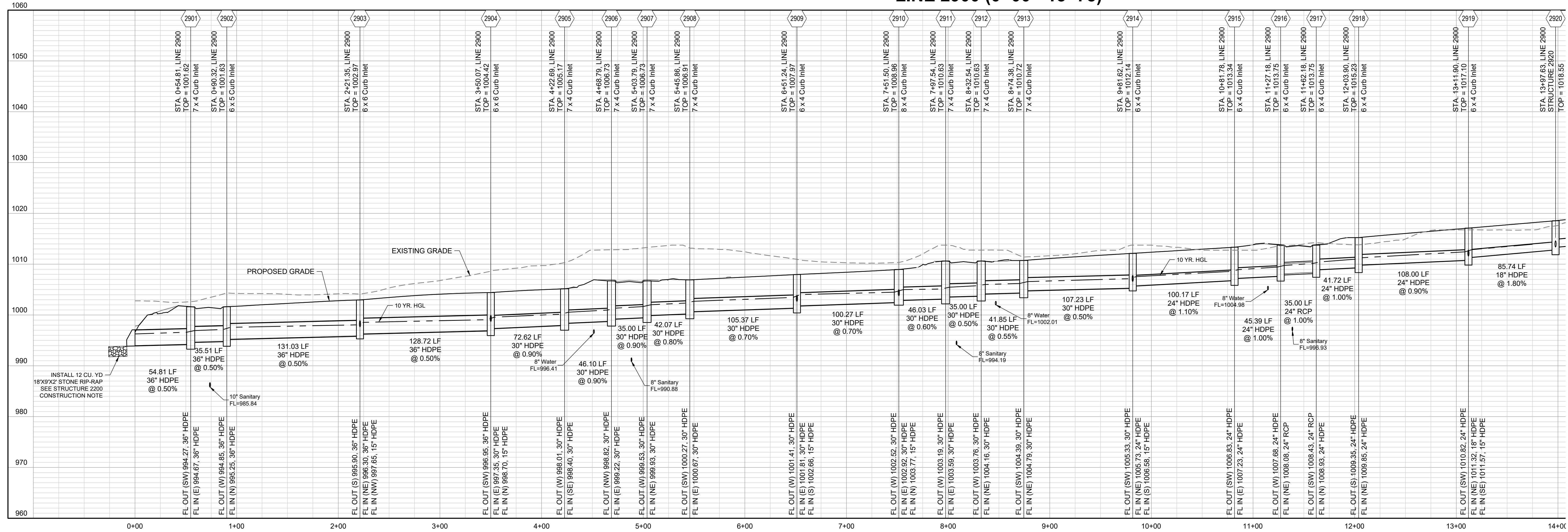
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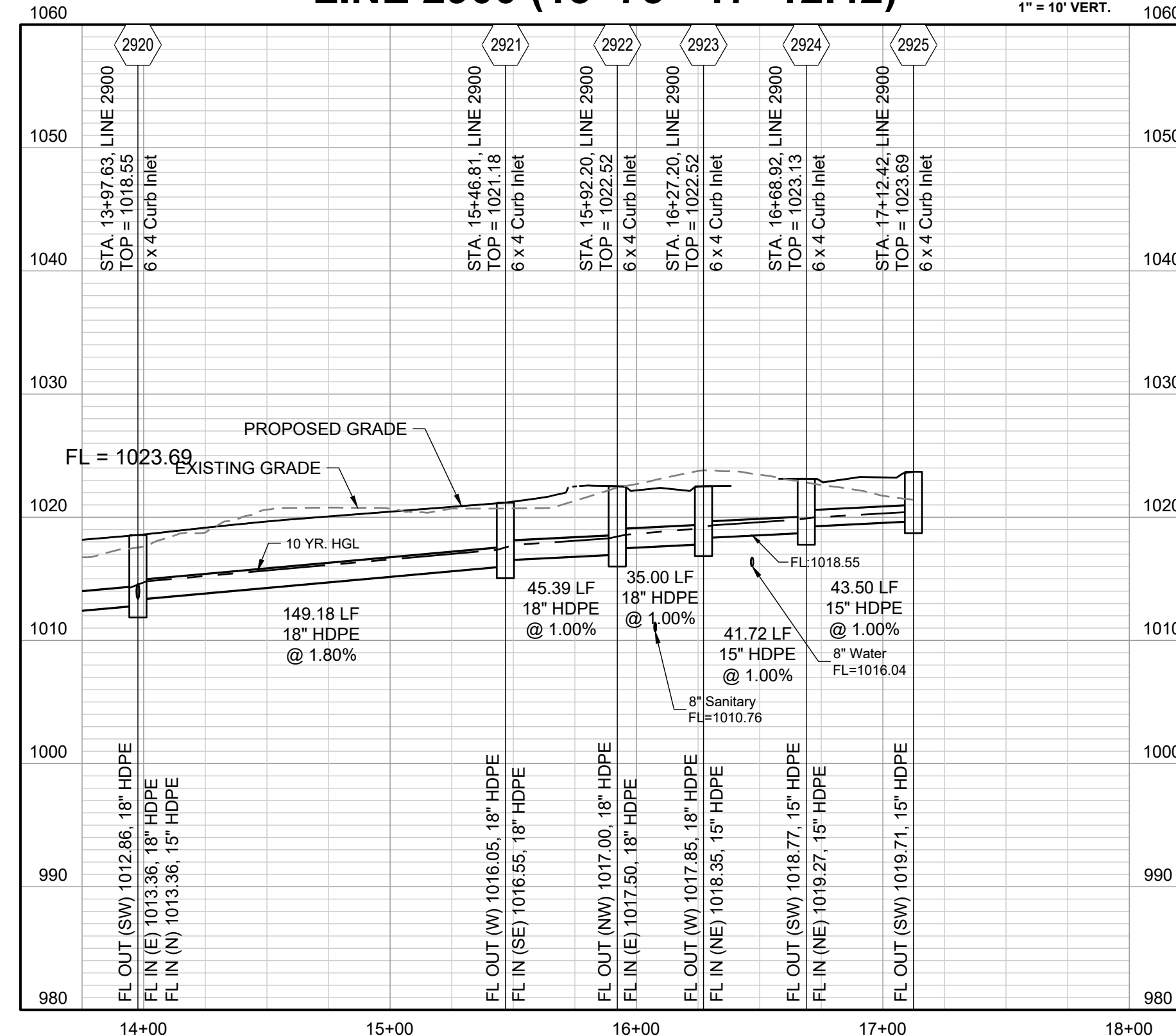
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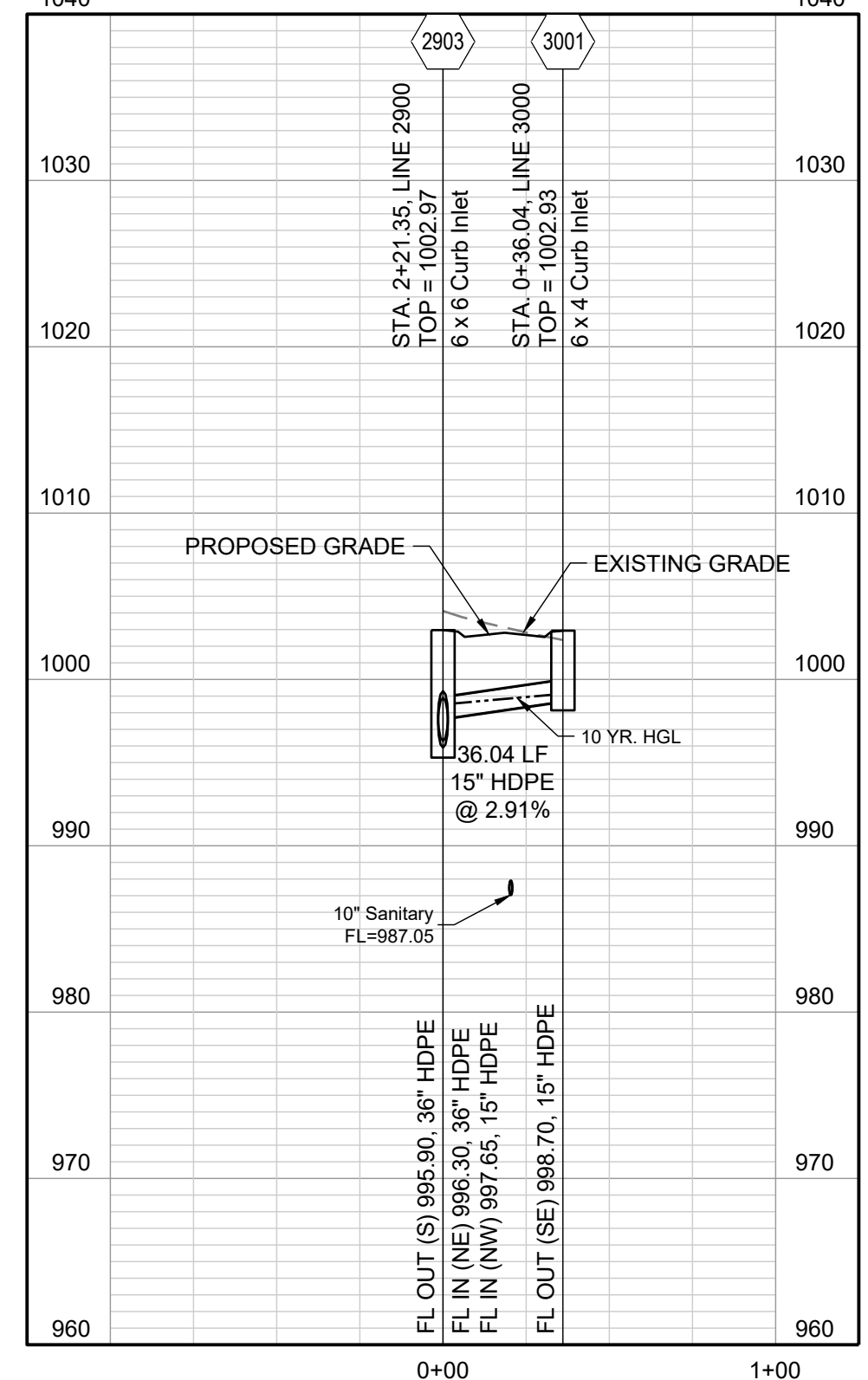


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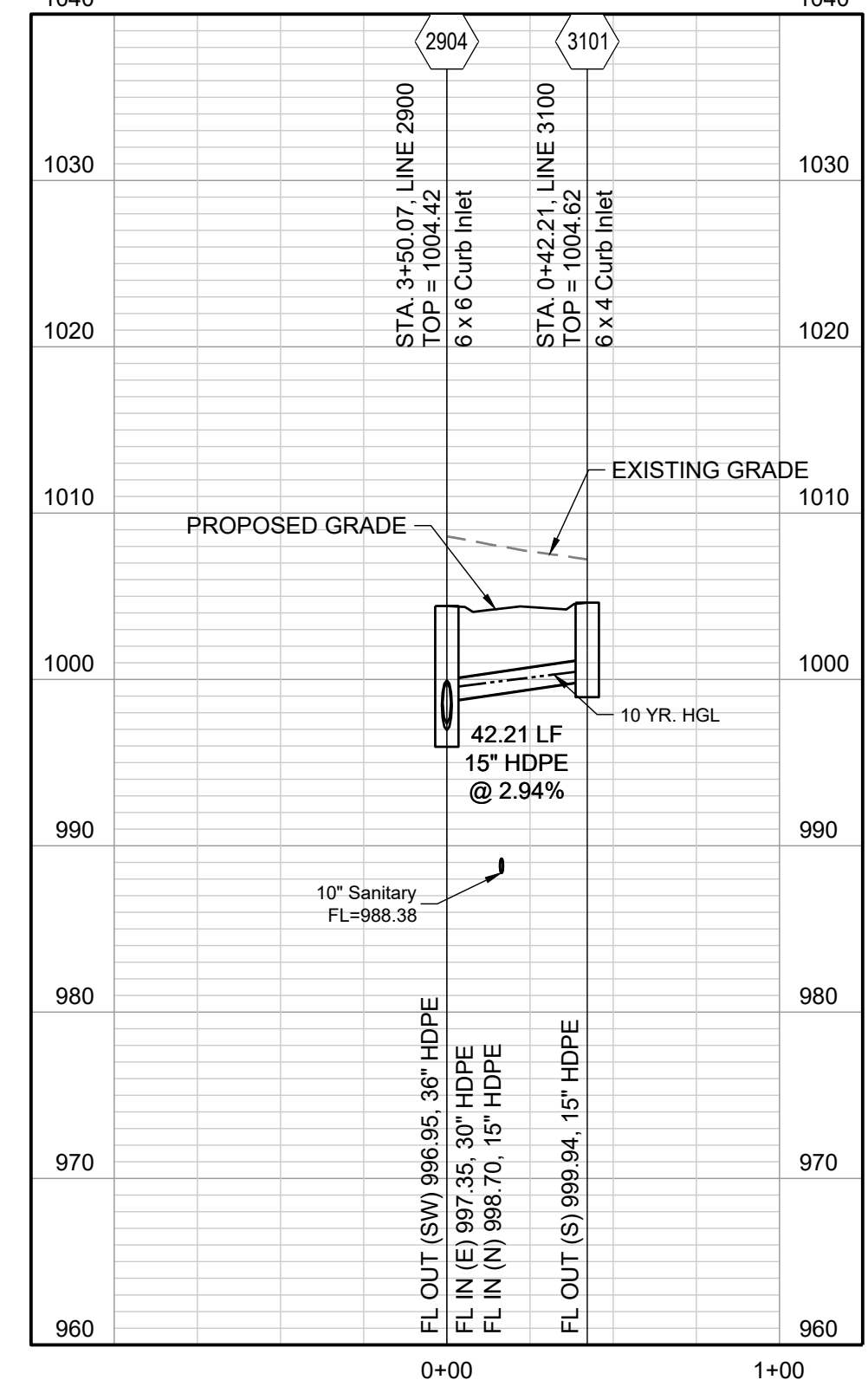
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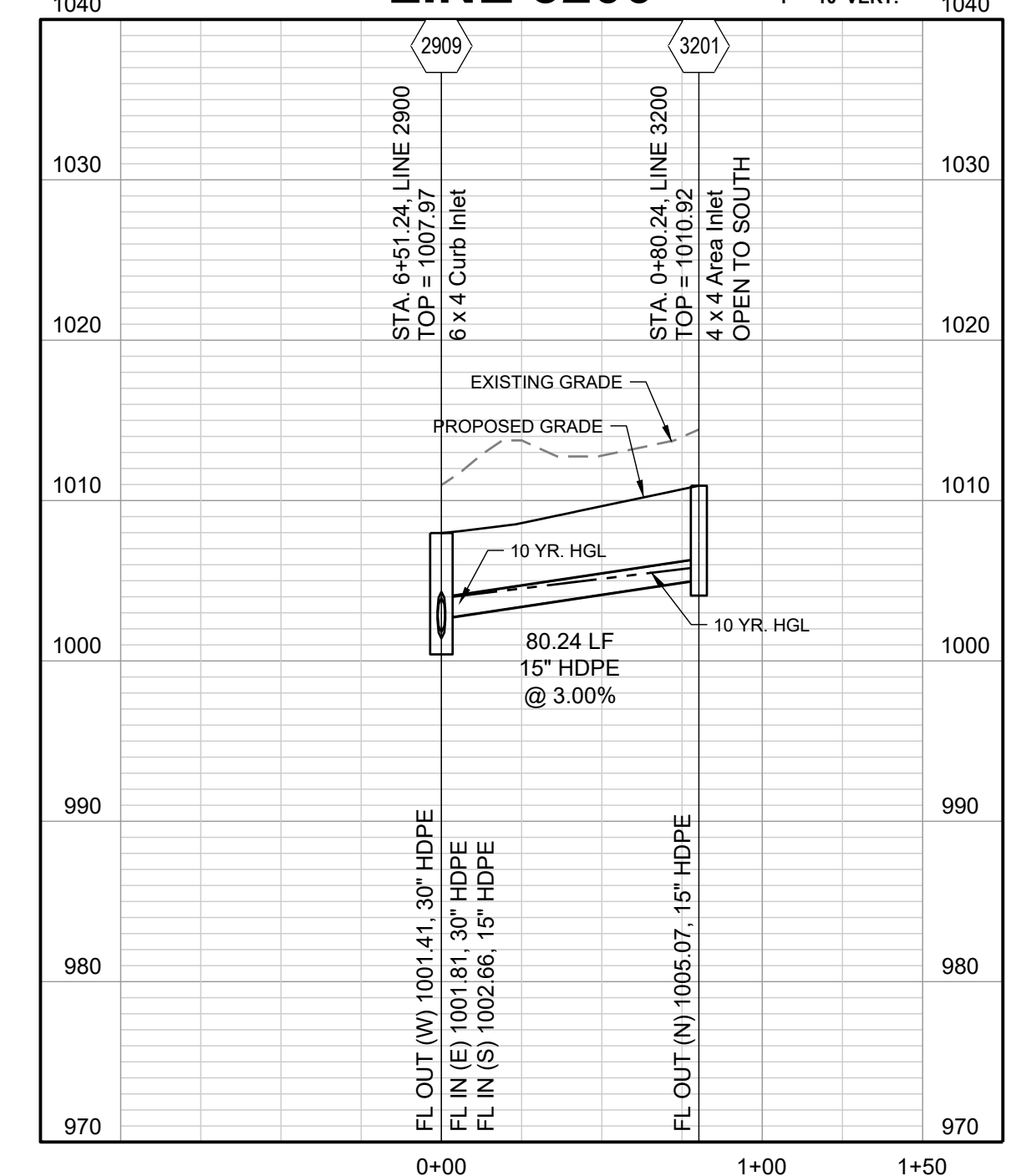
LINE 3000



LINE 3100



LINE 3200



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SCHLAGEL & ASSOCIATES, P.A.

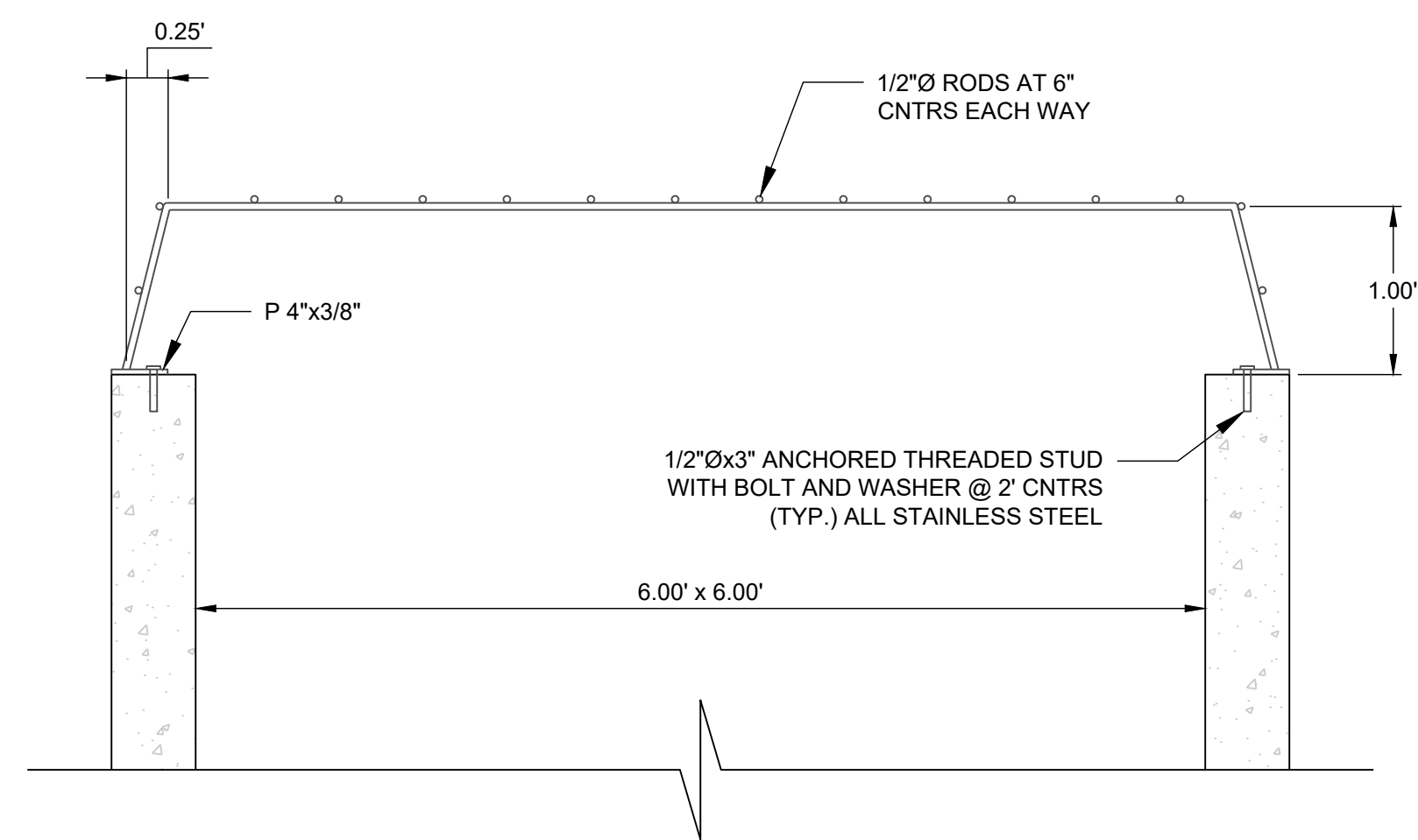
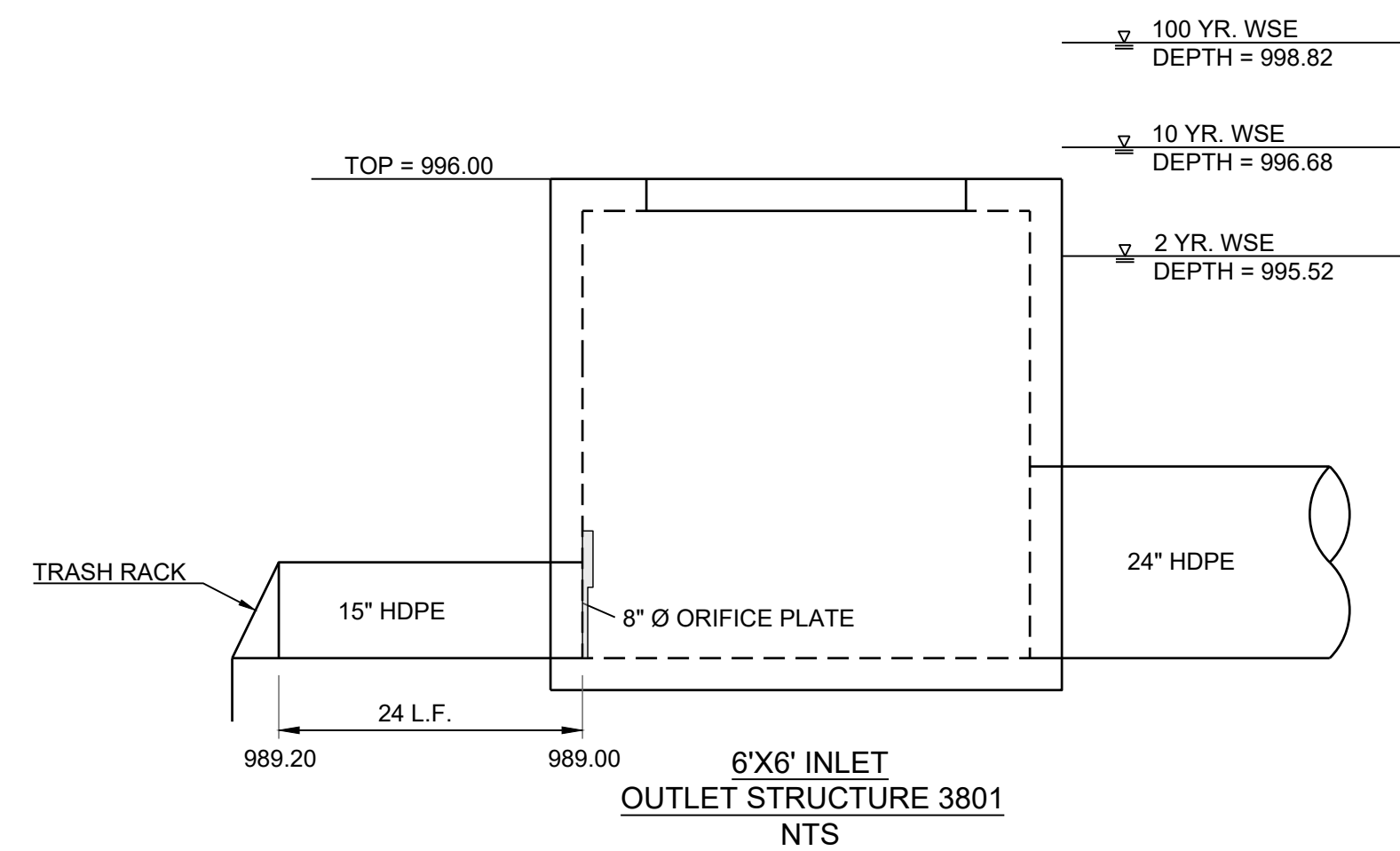
MANOR AT BAILEY FARMS, FIRST PLAT
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DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

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1/21/2022	
1/21/2022	
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1/21/2022	

STORM PROFILES

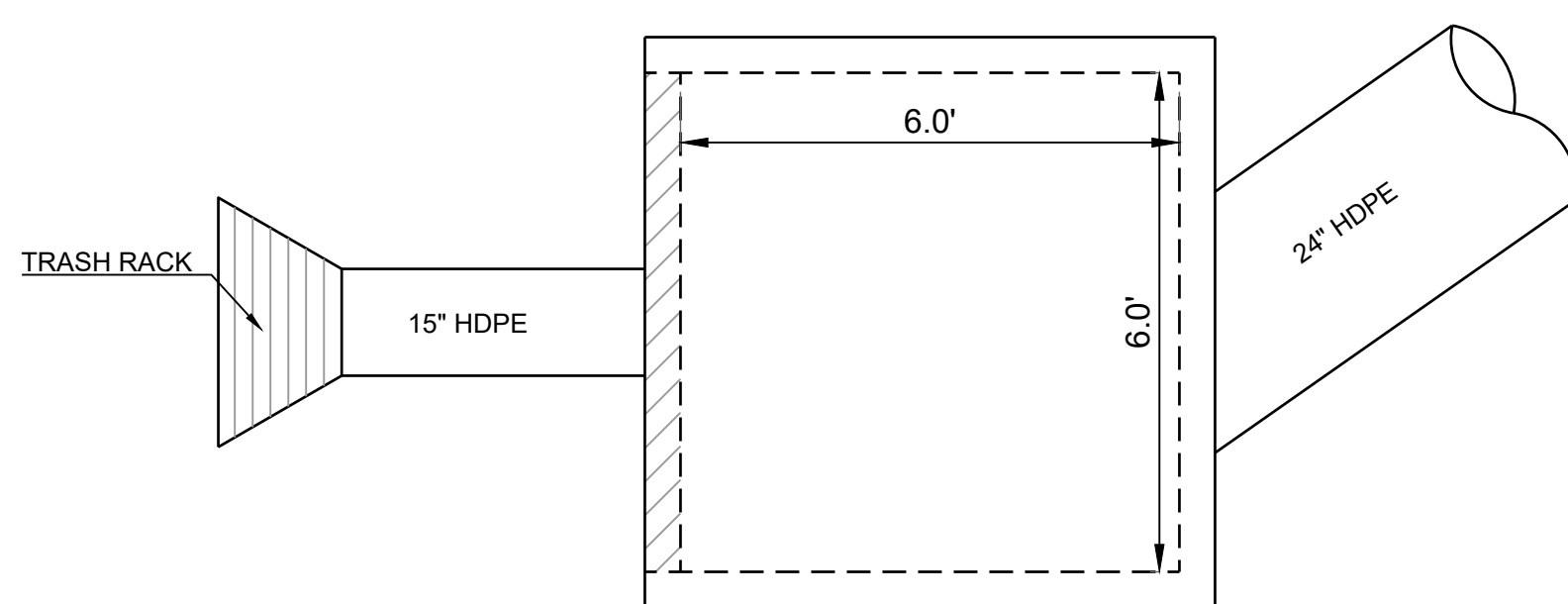
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TRASH RACK DETAIL (NOT TO SCALE)

- NOTES:
1. ALL METAL PARTS TO BE GALVANIZED
 2. PROVIDE ACCESS THROUGH TRASH RACK
 3. PROVIDE LATCH TO ENABLE THE HATCH TO BE LOCKED.
 4. OUTFLOW STRUCTURE TO BE WATERTIGHT.
 5. BAR GRATING TO BE INSTALLED OVER V-NOTCH CASTING AFTER THE REMOVAL OF THE TEMPORARY SEDIMENT PERFORATED STEEL PLATE. (RE: EROSION CONTROL PLAN)



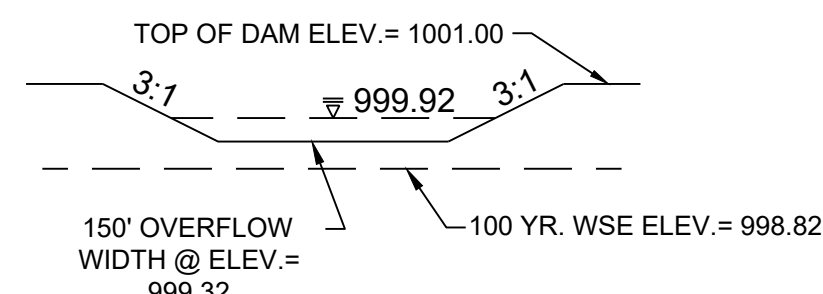
TOP VIEW 6'X6' INLET
OUTLET STRUCTURE 3801
NTS

NOTE:
DETENTION BASIN SHALL BE CONSTRUCTED ALONG WITH ALL OTHER EROSION CONTROL AND SEDIMENT CONTROL DEVICES AND PRIOR TO ANY INFRASTRUCTURE BEING CONSTRUCTED.

DETENTION STORAGE:
100 YEAR, 24 HR. RAINFALL - MAXIMUM WSE = 998.82 (SEE FINAL STORMWATER MGMT. PLAN)

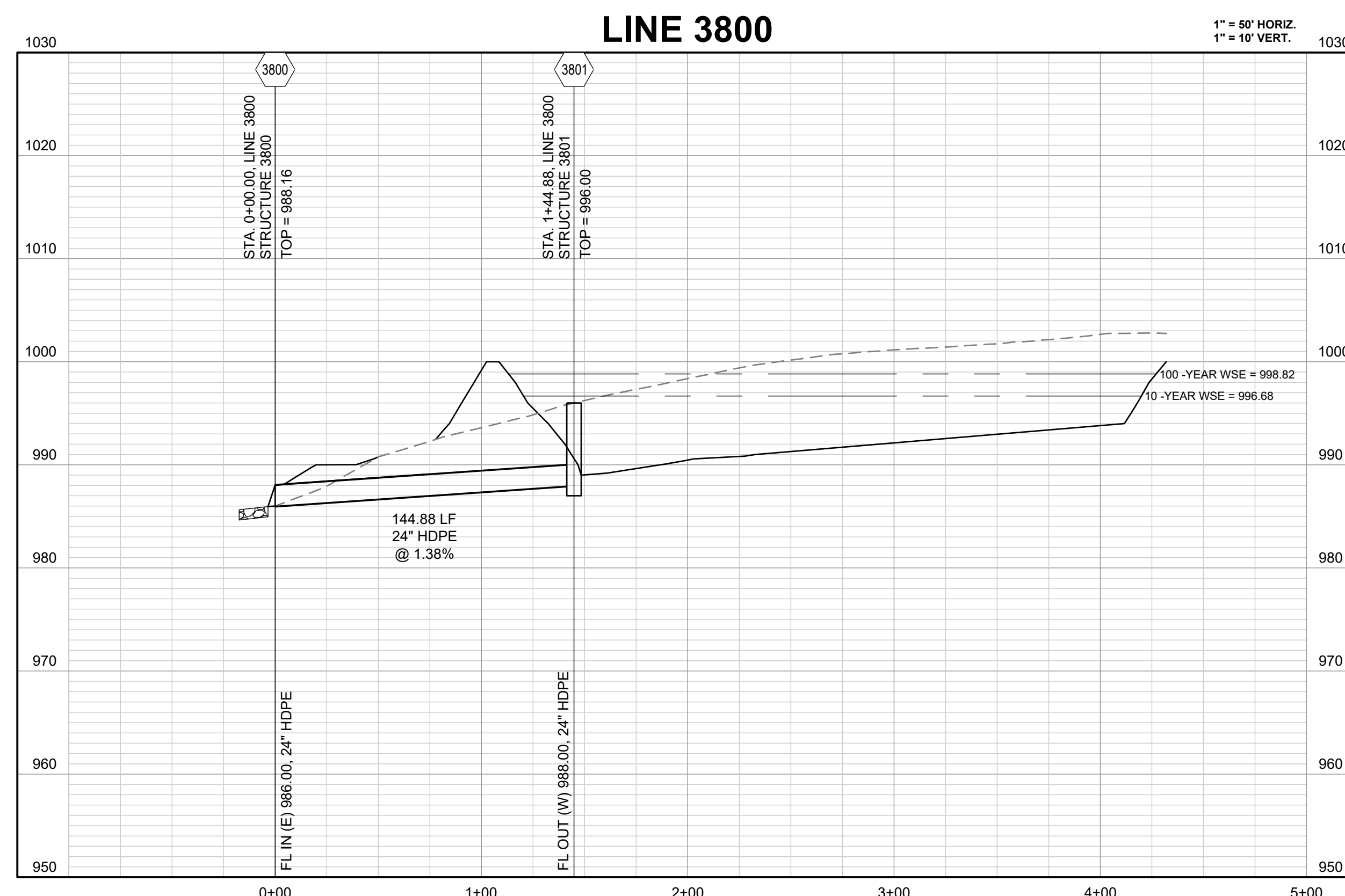
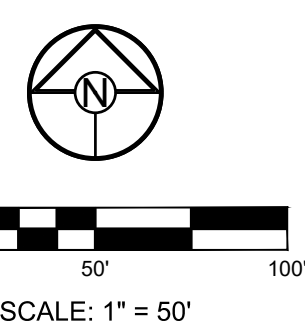
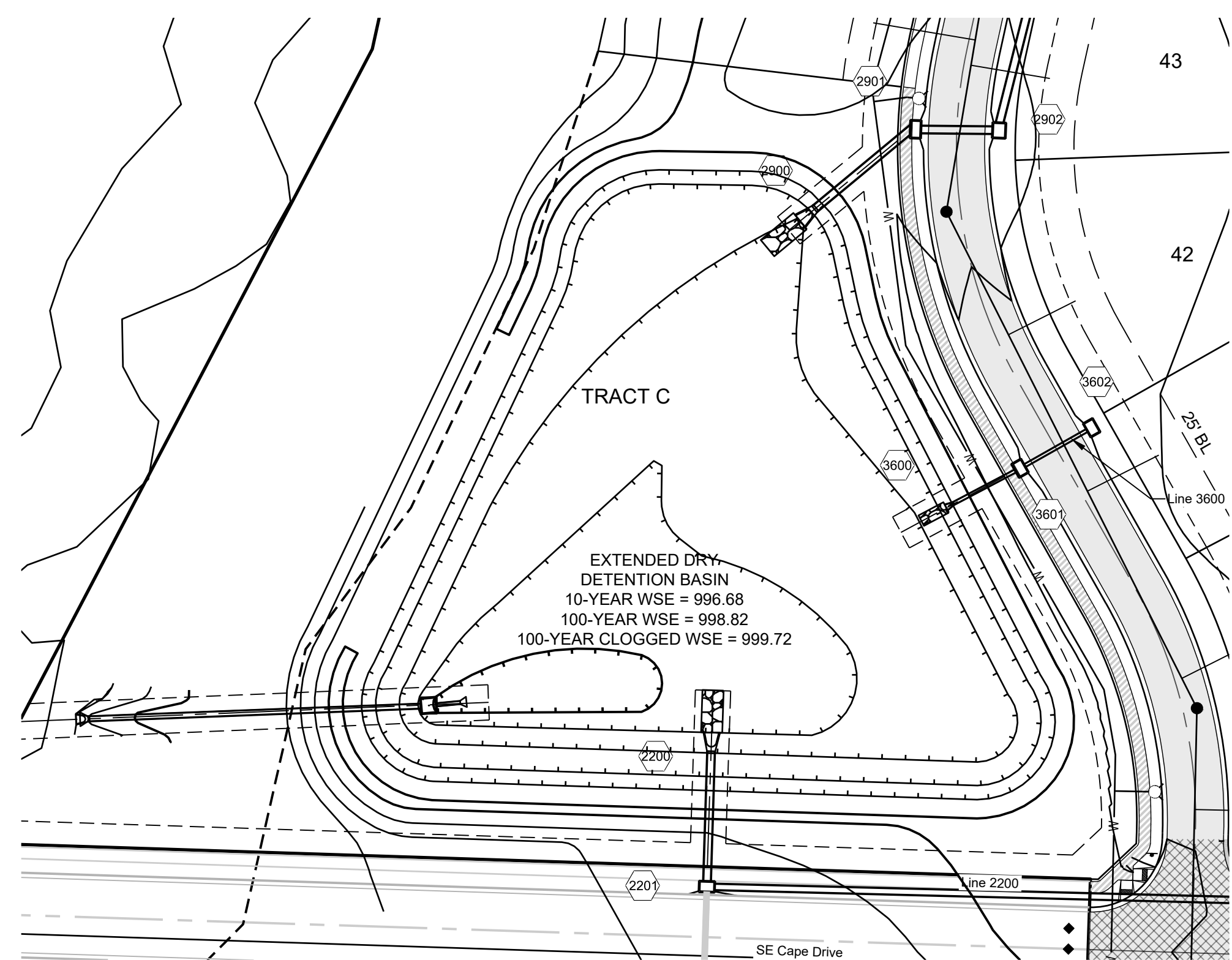
AUXILIARY SPILLWAY SET AT 0.5 FEET ABOVE MAX. WSE. SPILLWAY ELEV. = 999.32

AUXILIARY SPILLWAY DESIGN:
Q(100) = 229.30 CFS, Q = CLH^{3/2}, C = 3.33, L = 150 FT., 229.30 CFS = 3.33 * 150 FT. * (H^{3/2}), H = 0.60 FT.

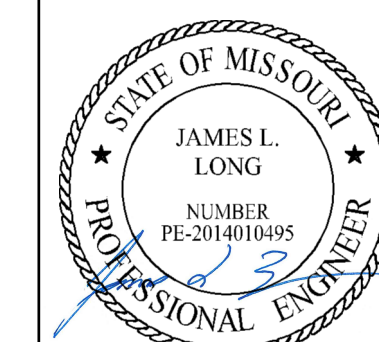


EMERGENCY SPILLWAY DESIGN

DETENTION BASIN STORAGE VOLUME	
DESIGN STORM	VOLUME (CUBIC FEET)
2-YEAR	122,153
10-YEAR	177,372
100-YEAR	290,369



PREPARED BY:



1/31/2022

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

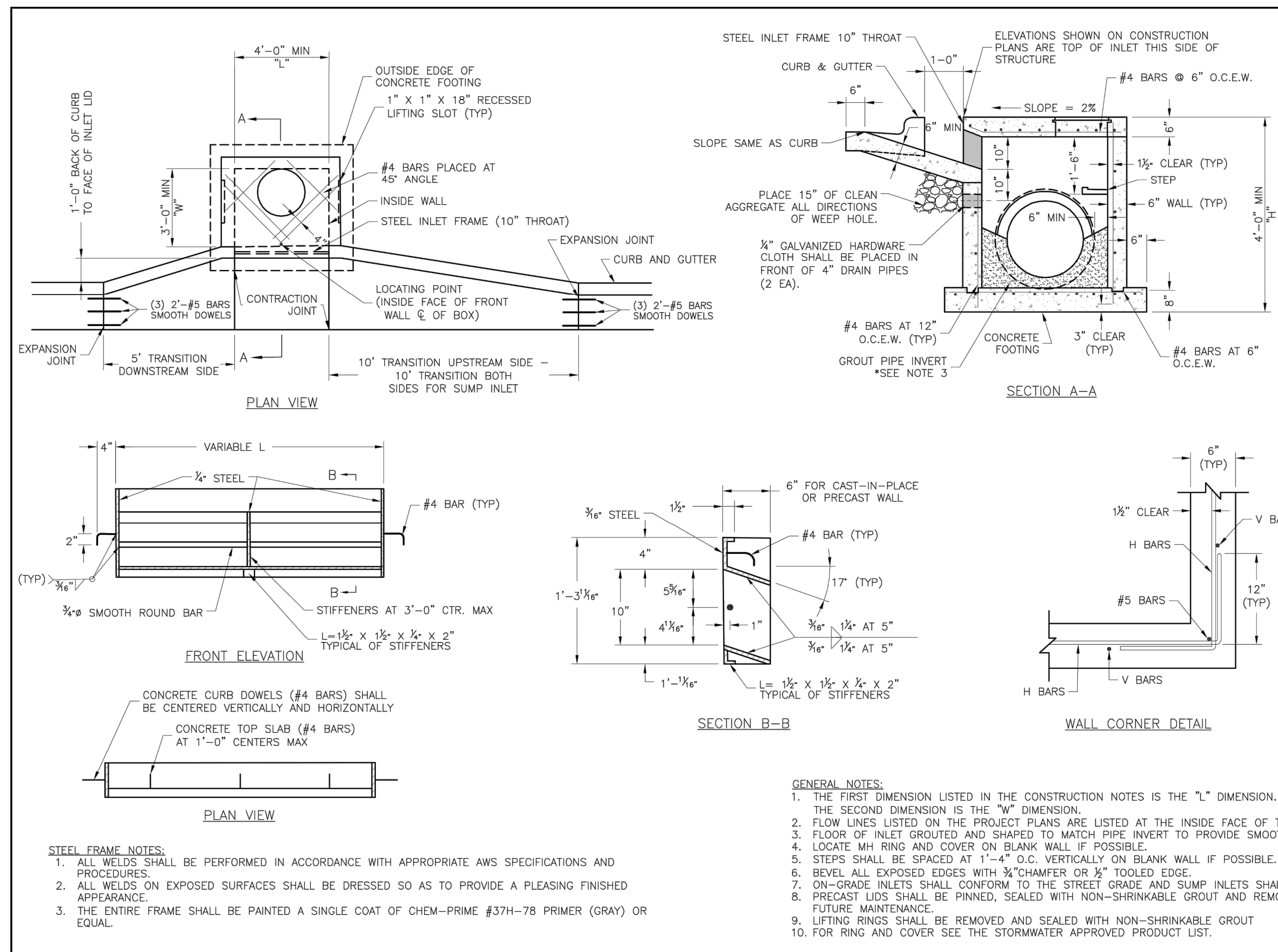
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1/21/2022	City Comments dated 12/19/2021

DRAWN BY:	NCA
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DATE PREPARED:	1/16/2021
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DETENTION
BASIN DETAILS

SHEET

37

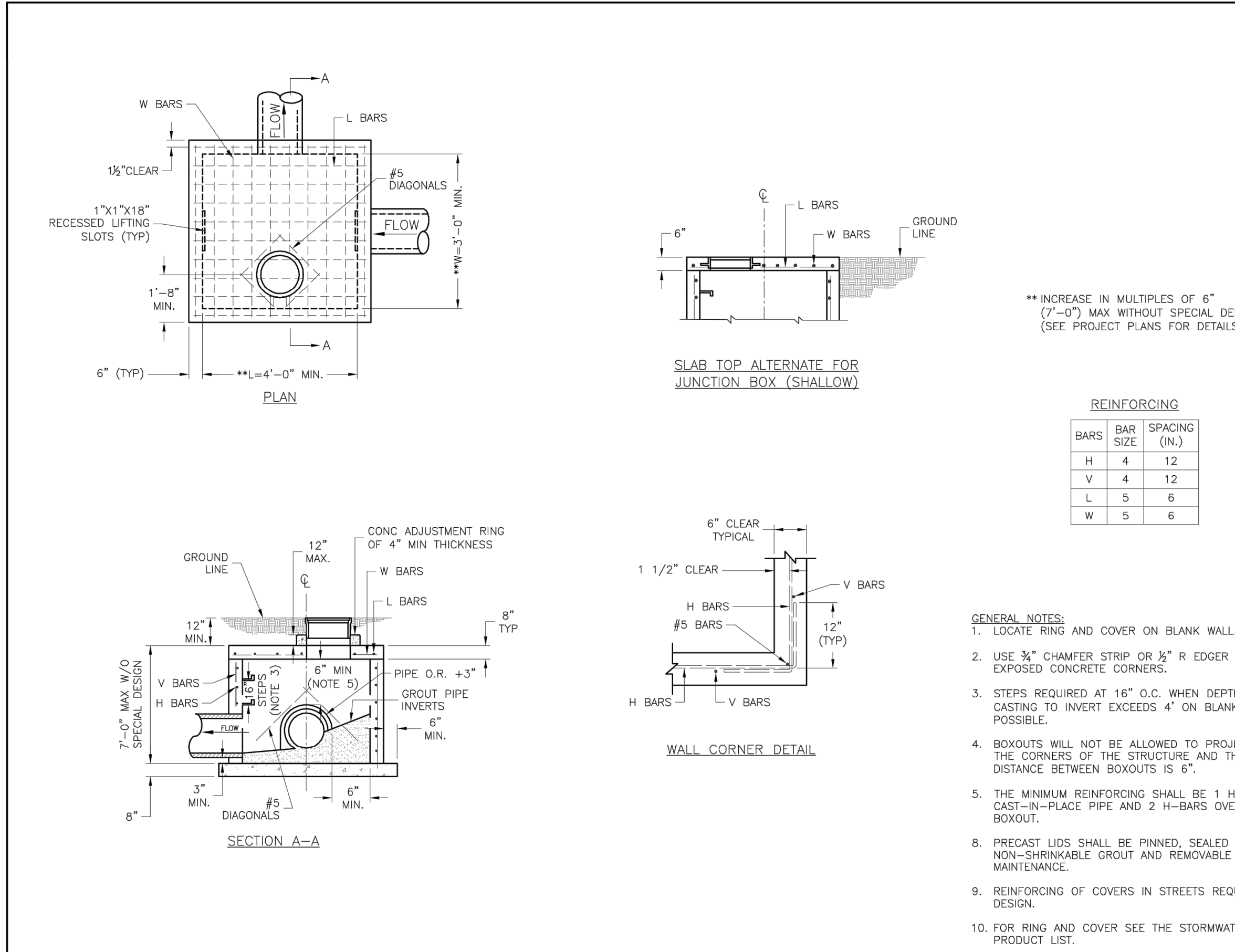


LEE'S SUMMIT MISSOURI

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

Drawn By: MIF
Checked By: DL
Date: 04/17
Proj. #: STM-1

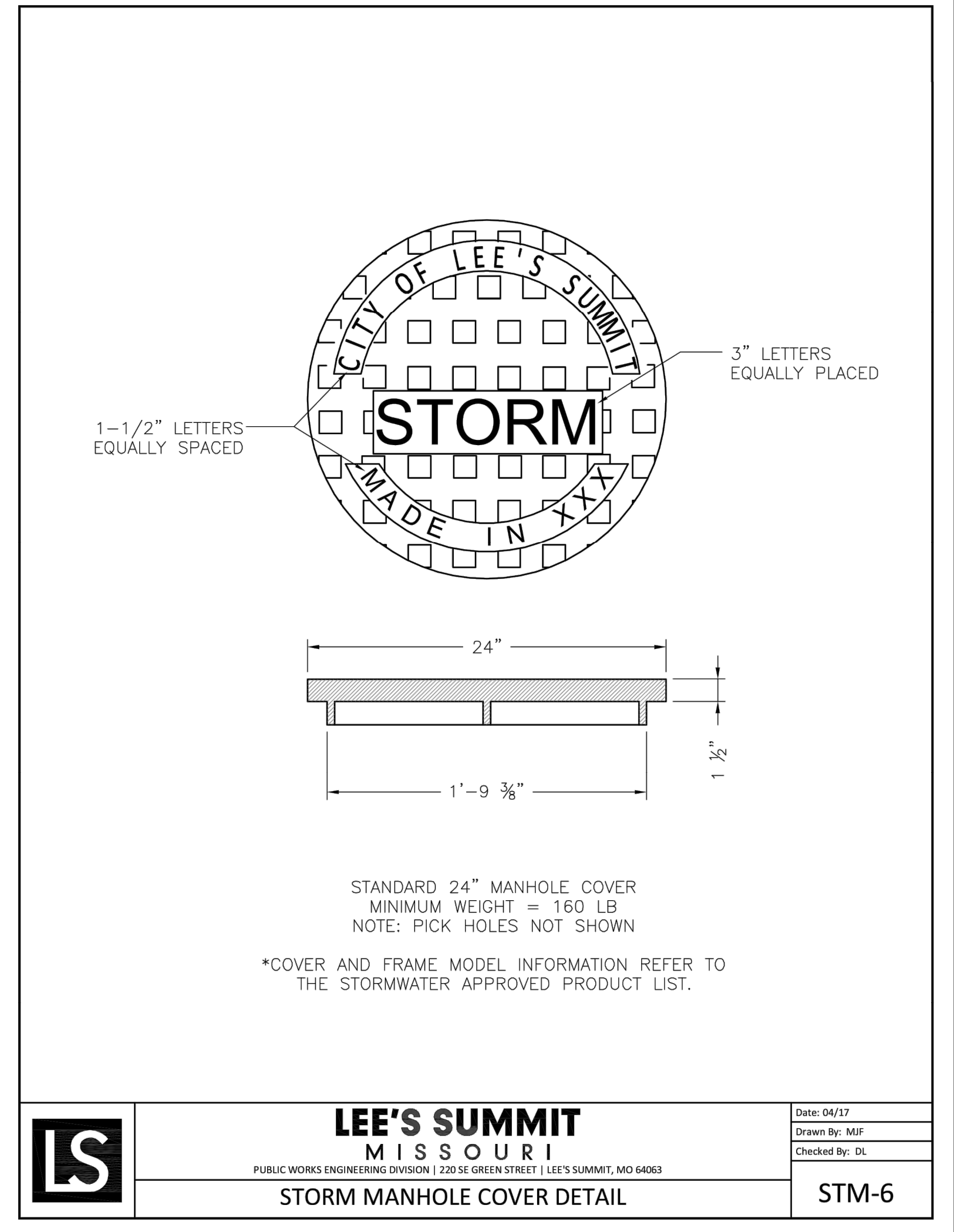
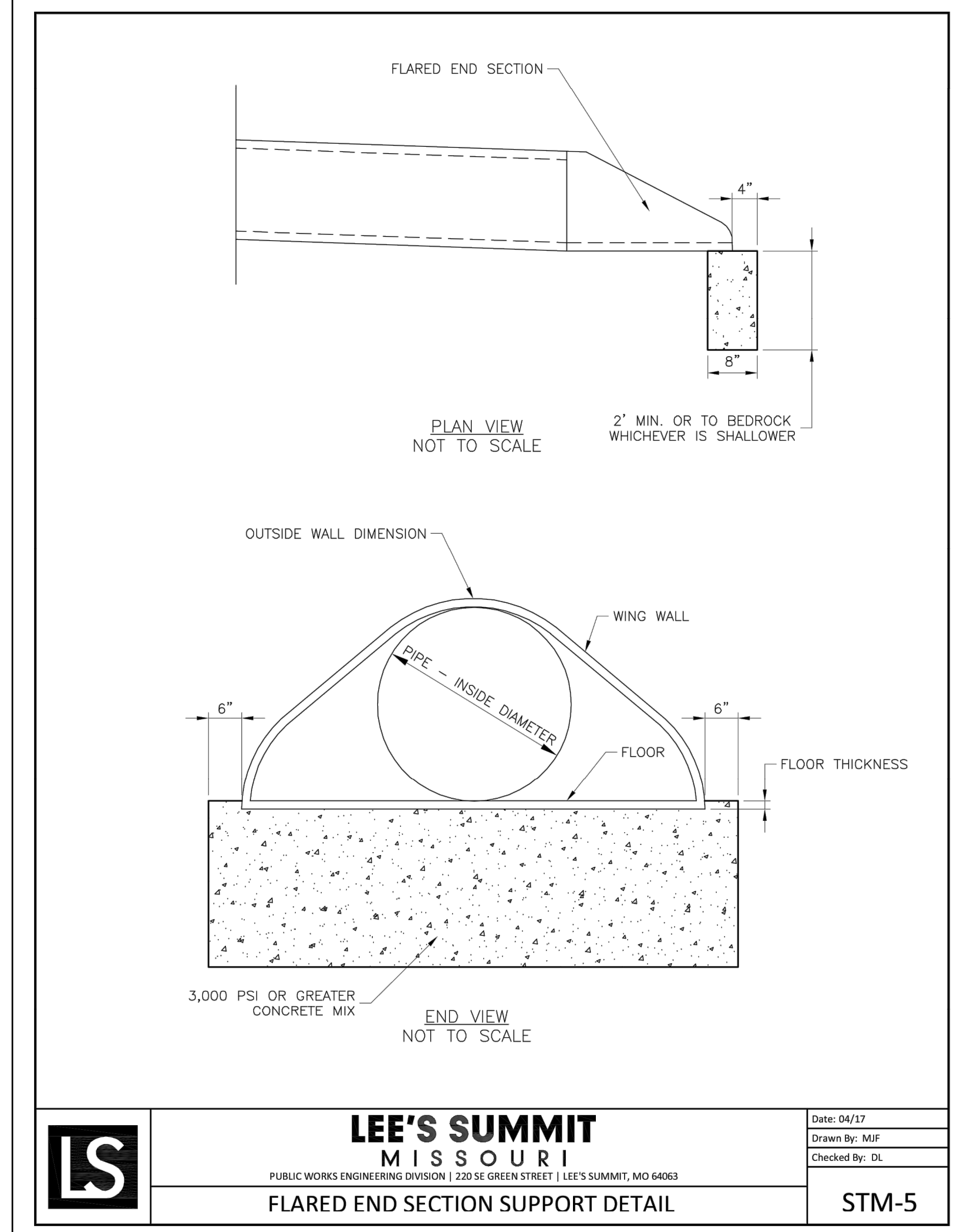


LEE'S SUMMIT MISSOURI

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

Drawn By: MIF
Checked By: DL
Date: 04/17
Proj. #: STM-3



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PREPARED BY:

JAMES L. LONG

NUMBER PE-30410495
PROFESSIONAL ENGINEER

1/31/2022
SCHLAGEL & ASSOCIATES, P.A.

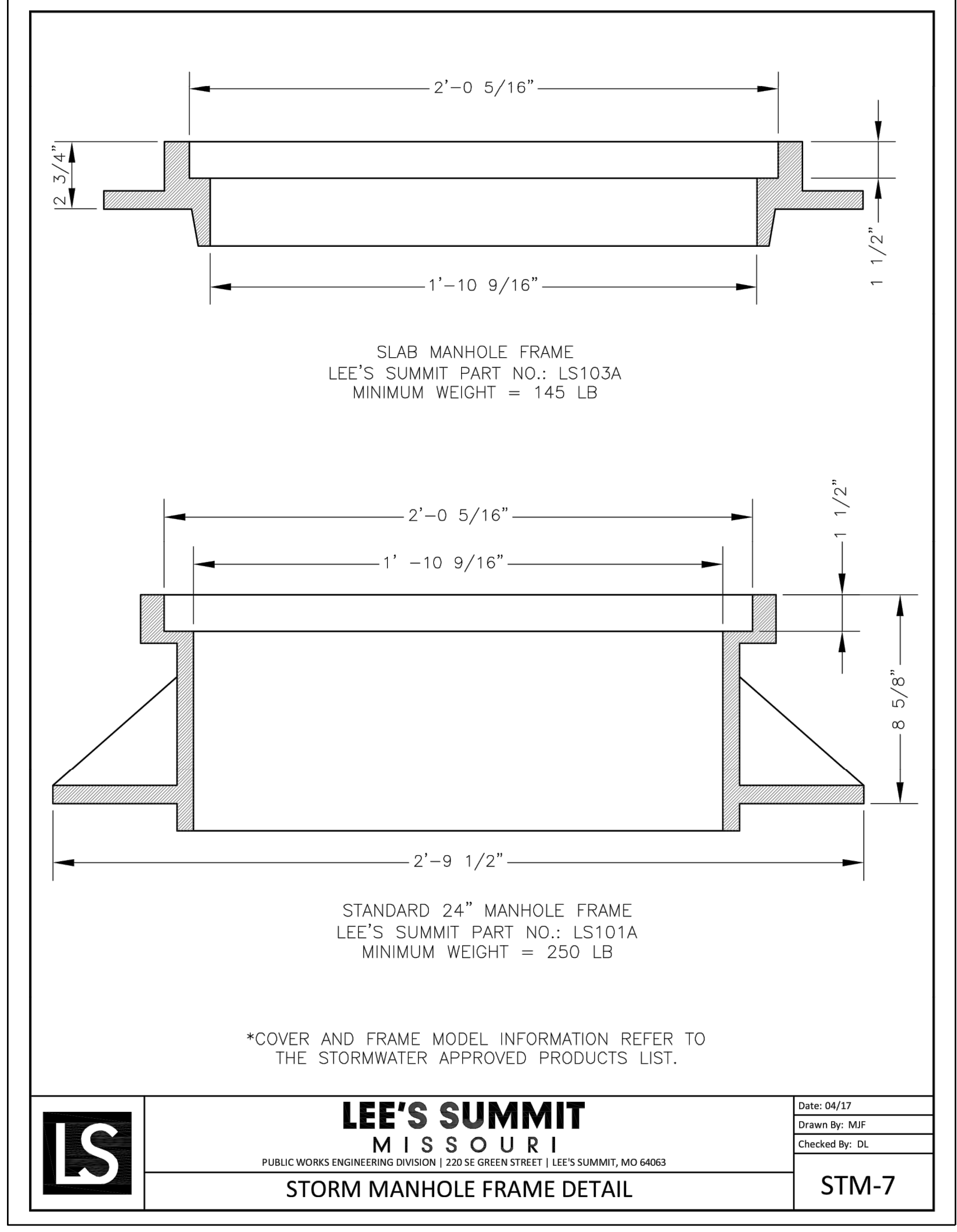
MANOR AT BAILEY FARMS, FIRST PLAT
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DRAINAGE PLAN

SE BAILEY ROAD AND SE RANSON ROAD
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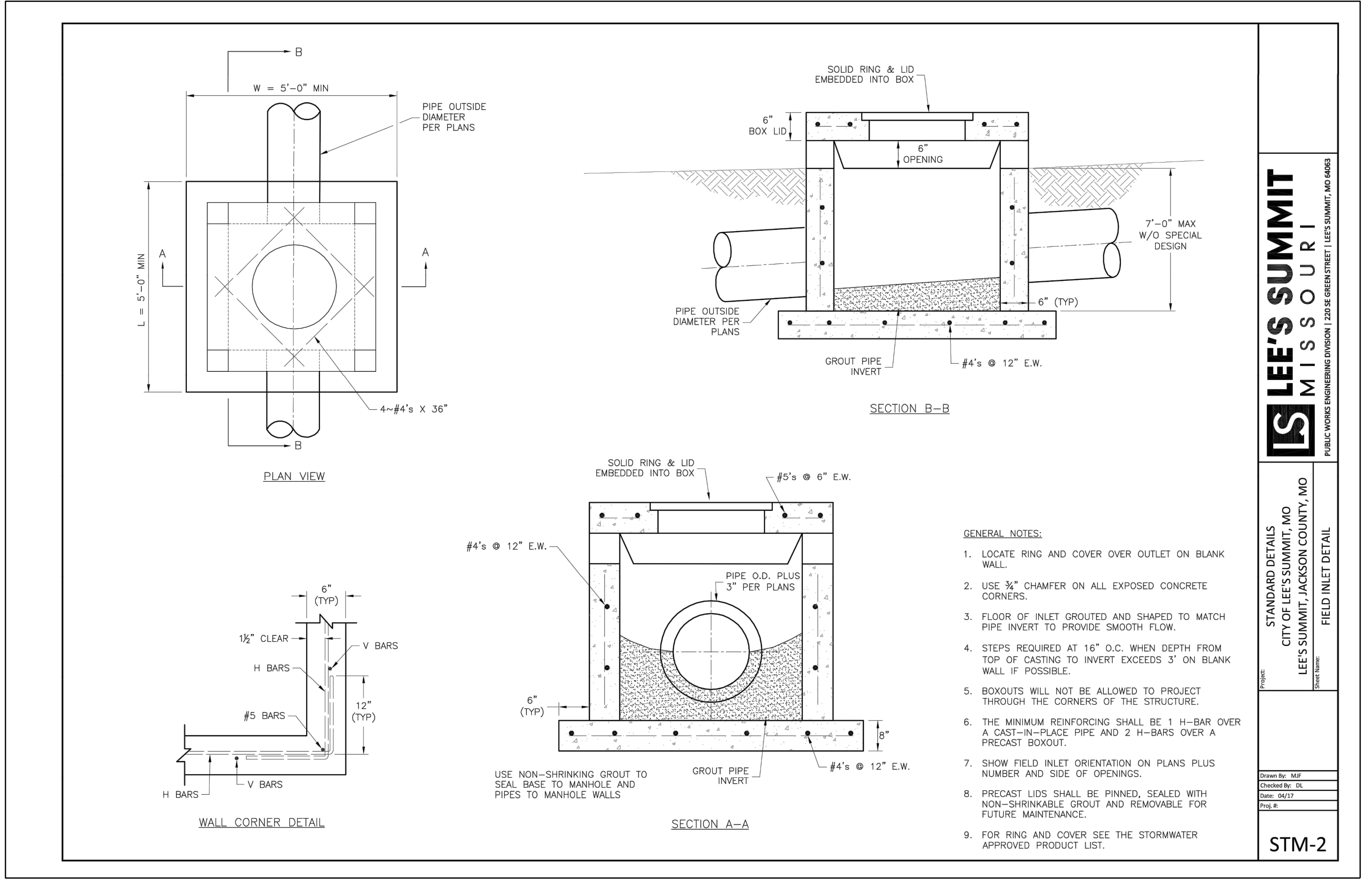
STORM DETAIL SHEET

SHEET **40**



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

Date: 04/27
Drawn By: MJF
Checked By: DL
STM-7



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: 04/27
Proj. #: STM-7

STM-2

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PREPARED BY:

JAMES L. LONG
NUMBER PE-304491945
PROFESSIONAL ENGINEER

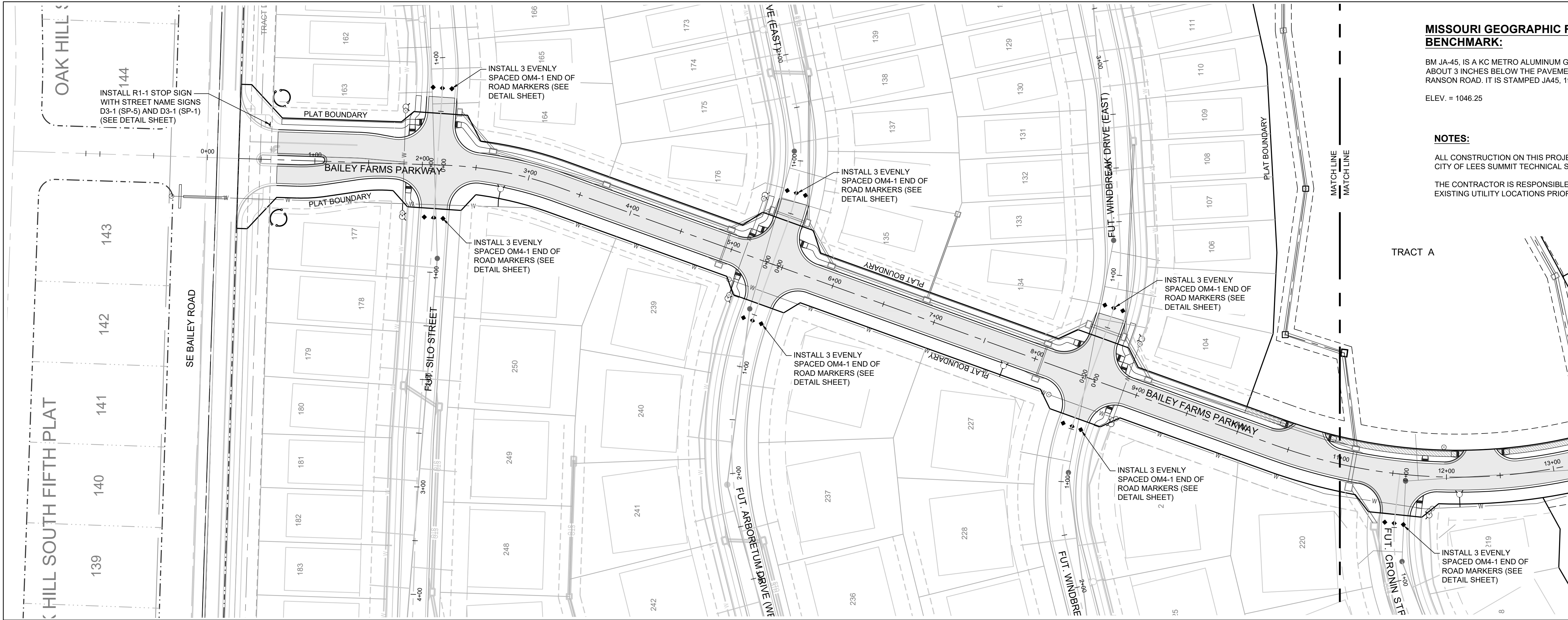
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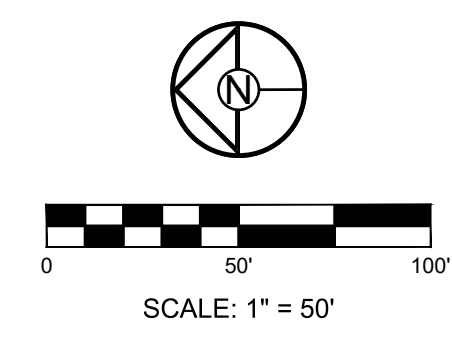
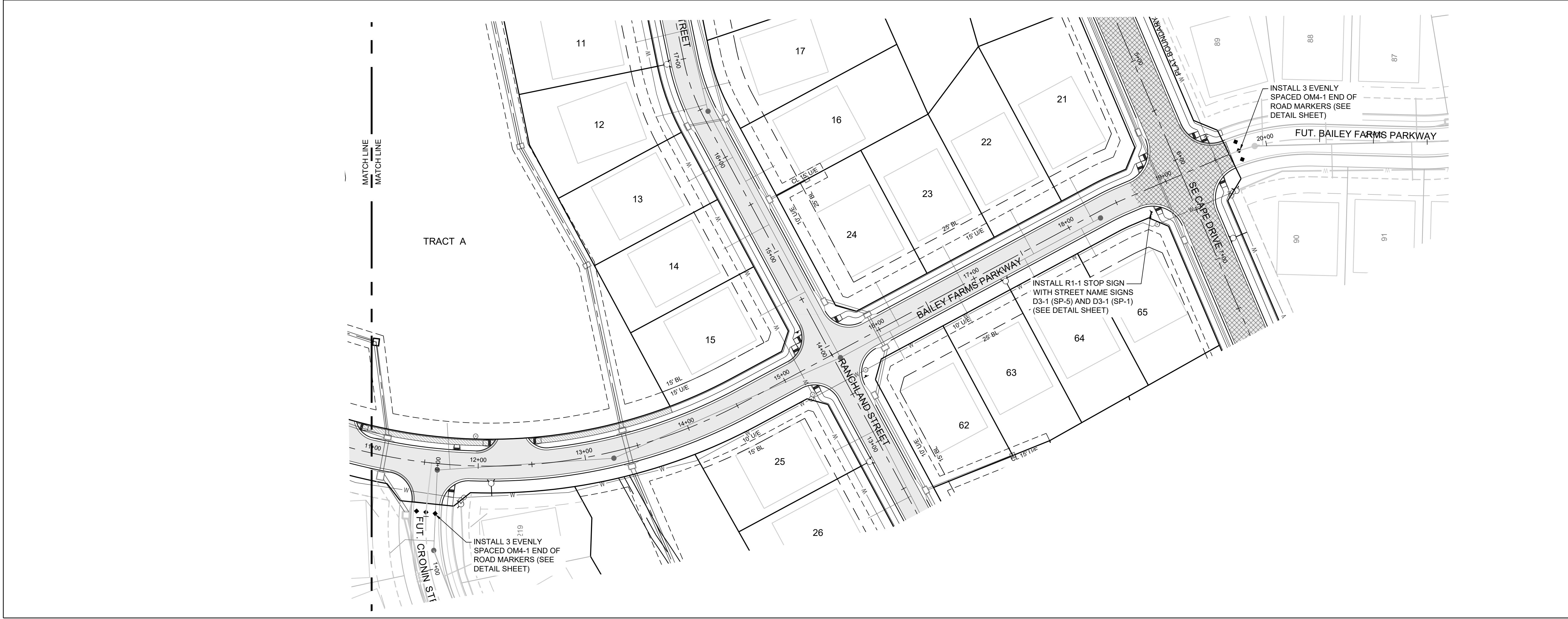
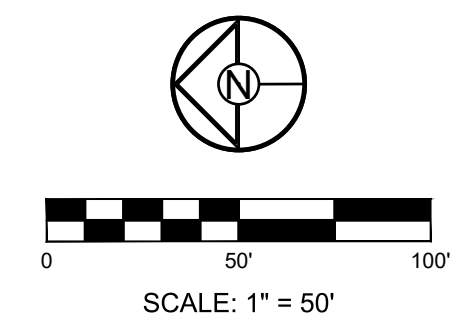
STORM DETAIL SHEET

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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

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.



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 NUMBER PE-30410495
 PROFESSIONAL ENGINEER
 1/31/2022
 SCHLAGEL & ASSOCIATES, P.A.

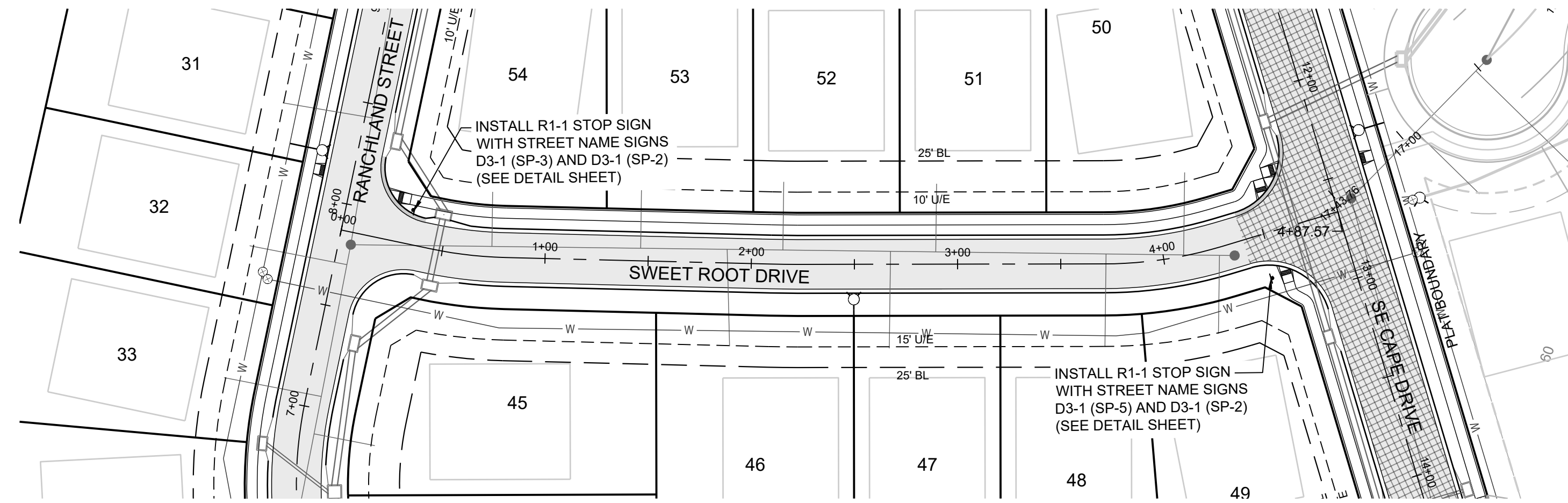
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PROJ. NUMBER:	21-130

BAILEY FARMS
 PKWY SIGN PLAN
 SHEET
42

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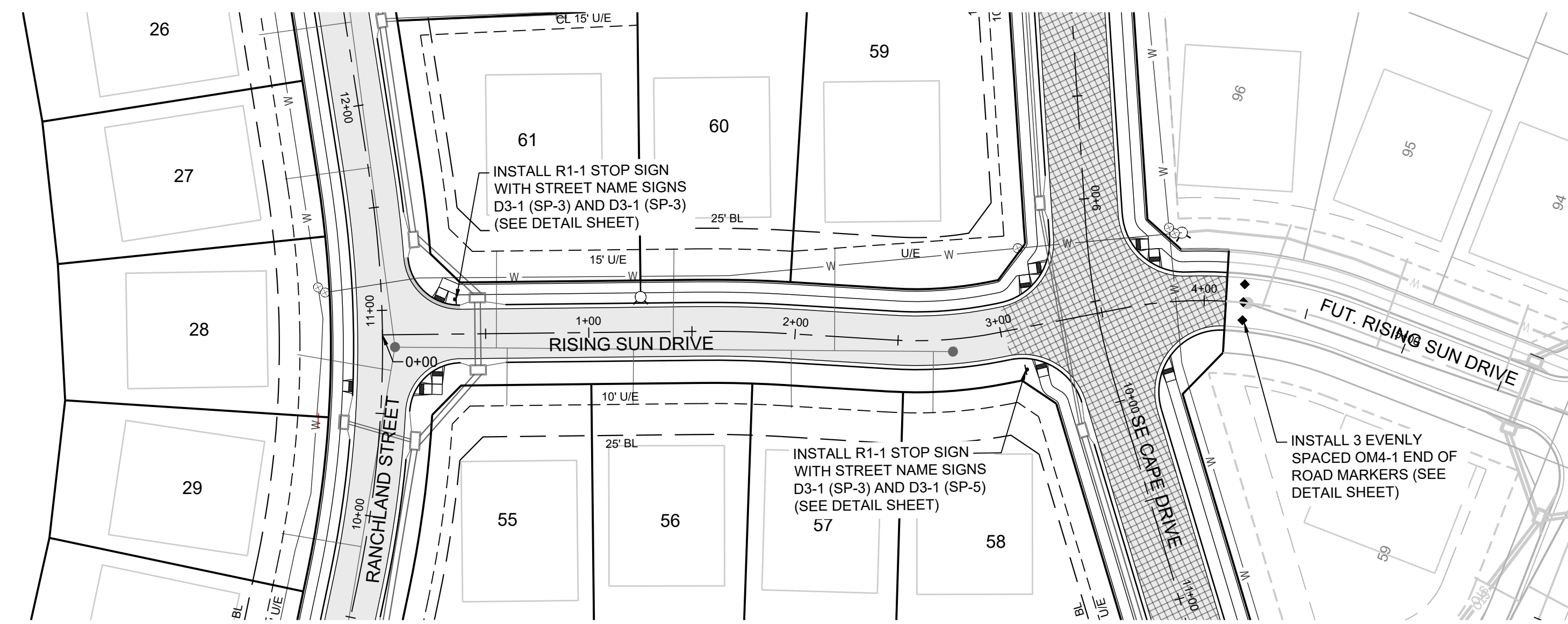
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 Missouri State Certificates of Authority
 #E200200360P-F #LAC2001005237 #LS2002008695-F

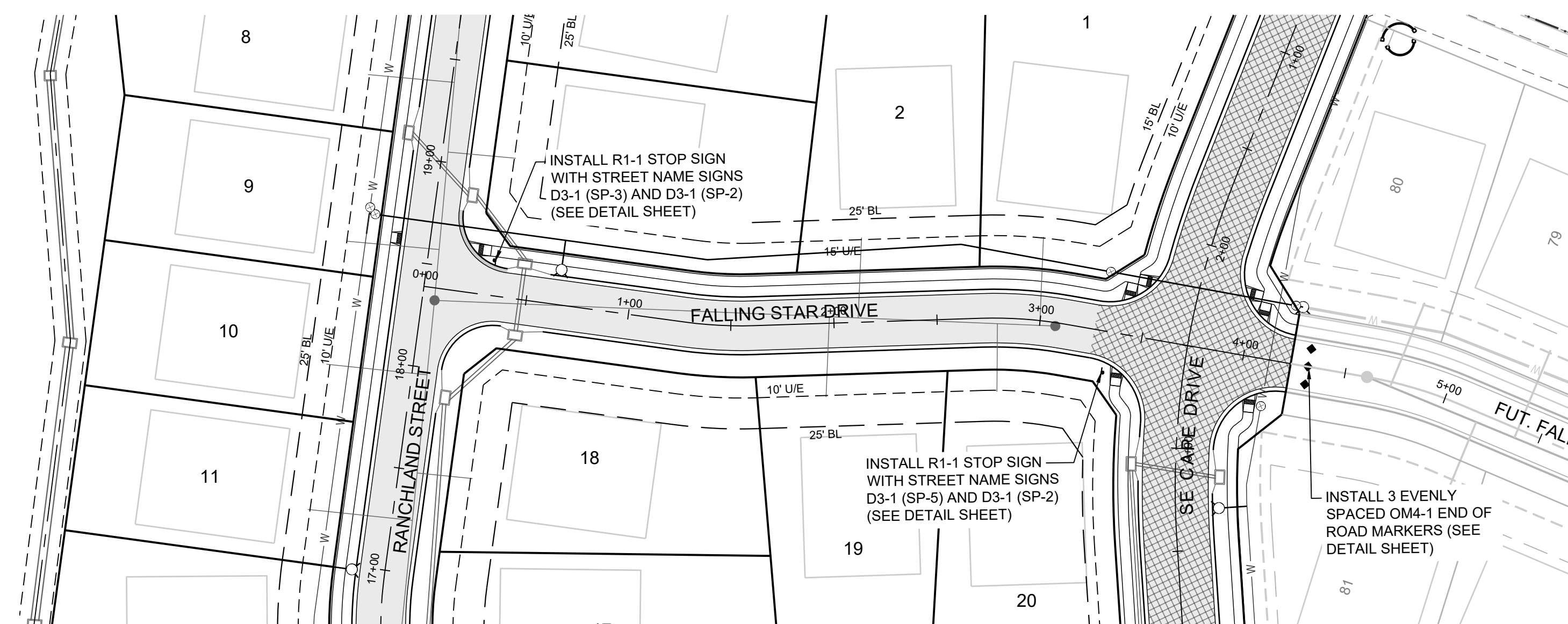
PREPARED BY:

1/31/2022

SCHLAGEL & ASSOCIATES, P.A.



MANOR 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
1/21/2022	City Comments dated 12/19/2021

DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	1/10/2021
PROJ. NUMBER:	21-130

SWEET ROOT DR
 RISING SUN DR
 FALLING STAR DR
 DR SIGN PLAN

SHEET

45

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