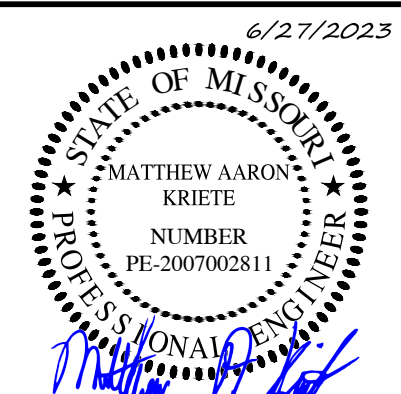


# PUBLIC IMPROVEMENTS FOR WILSHIRE HILLS PHASE III

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI  
SITE PLAN  
JUNE 27, 2023

**PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III**  
ADDRESS  
LEE'S SUMMIT, JACKSON COUNTY, MO



MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

IF ORIGINAL SIGNATURE OR DIGITAL  
AUTHENTICATION IS NOT PRESENT THIS  
MEDIA SHOULD NOT BE CONSIDERED A  
CERTIFIED DOCUMENT.

Date  
**JUNE 27, 2023**

Revised

Design: ST Drawn: MJS

COVER

Sheet  
**C0.01**

ES&S PROJECT NO. 15925

CONSTRUCTION DOCUMENTS

## MDNR PERMIT

MDNR PERMIT NO. XXXX XXXXX

## PROPERTY DESCRIPTION

## BENCH MARK

BM - MISSOURI DEPARTMENT OF TRANSPORTATION VRS NETWORK.

## PROPERTY OWNER

JEFFREY E. SMITH INVESTMENT CO, LLC  
206 PEACH WAY  
COLUMBIA, MISSOURI 65203

## ZONING NOTE

THIS PROPERTY IS ZONED "P-MIX" PLANNED MIXED USE DISTRICT

## FLOODPLAIN NOTE

THIS PROPERTY IS LOCATED IN ZONE X "AREAS DETERMINED TO BE  
OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD" AS SHOWN BY FIRM  
COMMUNITY PANEL NUMBER 29095C0430G, DATED JANUARY 20, 2017.

## NOTE

IT IS IMPORTANT TO NOTE THAT THIS PLAN IS A PART OF A LARGER PUBLIC IMPROVEMENT  
PLAN CONSTRUCTION DOCUMENT. ALL EROSION AND SEDIMENT CONTROL REQUIREMENTS ARE  
STILL APPLICABLE FOR ANY ONSITE CONSTRUCTION. PLEASE REFERENCE:

- ROAD & STORM SEWER PLAN COVER
- UTILITY EXTENSION PLAN COVER
- SANITARY SEWER EXTENSION PLAN COVER
- MASS GRADING & EROSION CONTROL PLAN COVER

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PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III

## UTILITY NOTES

THE LOCATIONS, SIZES, AND MATERIAL TYPES OF UNDERGROUND UTILITIES  
INDICATED ON THE PLAT, NOT VISIBLE OR APPARENT FROM THE SURFACE, ARE  
SHOWN IN THEIR APPROXIMATE LOCATIONS FROM A MISSOURI ONE CALL SYSTEM  
LOCATE, OR UTILITY COMPANY RECORDS AND WERE NOT VERIFIED IN THE FIELD.

### WATER

JACKSON COUNTY PWS #14  
CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: PUBLIC WORKS DEPARTMENT 816-969-1800  
12" DI ALONG THE NORTH SIDE OF MEADOWVIEW DRIVE.  
30" PCP ALONG THE WEST PROPERTY LINE.

### SANITARY SEWER

CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: WES OWEN 816-969-1955  
AS SHOWN

### STORM SEWER

CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: SHAWN GRAFF 816-969-1800  
AS SHOWN

### ELECTRIC

EVERGY  
1300 SE HAMBLIN ROAD  
LEE'S SUMMIT, MISSOURI 64081  
CONTACT: 888-471-5275

### FIBER OPTIC

GOOGLE FIBER  
2812 WEST 47TH STREET  
KANSAS CITY, KS 66103  
CONTACT: CRAIG YOUNG 870-219-5630

### GAS

MISSOURI GAS ENERGY  
3025 SE CLOVER ROAD  
LEE'S SUMMIT, MISSOURI 64081  
CONTACT: BECCA ORR 816-969-2230

### TELECOM

AT&T  
215 N. SPRING STREET, 2nd FLOOR  
INDEPENDENCE, MO 64050  
CONTACT: MARK MANION 816-275-2341  
AS SHOWN

### TIME WARNER CABLE

CONTACT: ROY BELLIS 913-643-1914  
AS SHOWN

### COMCAST CABLE COMMUNICATIONS

3400 NW DUNCAN ROAD  
BLUE SPRINGS, MO 64015  
CONTACT: BARBARA BROWN 816-795-2255  
AS SHOWN



## IMPERVIOUS AREA

### PRE PROJECT

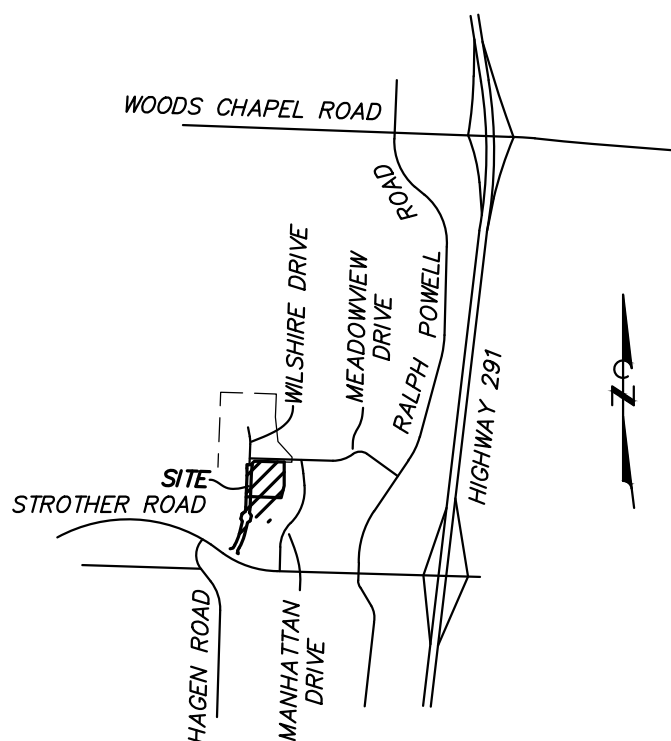
PERVIOUS = 8.65 ACRE  
IMPERVIOUS = 0.00 ACRE  
TOTAL = 8.65 ACRE

### POST PROJECT

PERVIOUS = 7.87 ACRE  
IMPERVIOUS = 0.78 ACRE  
TOTAL = 8.65 ACRE

## DESIGN REQUIREMENTS

WILSHIRE DRIVE  
FUNCTIONAL CLASSIFICATION  
COMMERCIAL LOCAL = STA. 4+62.67 - 8+57.76  
RESIDENTIAL LOCAL = STA. 8+57.75 - 15+18.90  
DESIGN SPEED = 25 MPH



## VICINITY MAP

NOT TO SCALE

## LEGEND

E	PROPERTY LINE
T	ELECTRIC LINE
UE	TELECOMMUNICATIONS LINE
UT	UNDERGROUND ELECTRIC LINE
UTO	UNDERGROUND TELECOMMUNICATIONS LINE
S	UNDERGROUND FIBER OPTIC LINE
SS	SANITARY SEWER LINE
G	STORM SEWER LINE
W	GAS LINE
X	WATER LINE
...	FENCE
- - -	TREE & BRUSH LINE
- - -	DRAINAGE SWALE
- - -	EXISTING CONTOUR
+	ANCHOR
+	TEST BORING
+	IRON
△ CP#	CONTROL POINT
EM	ELECTRIC METER
FES	FLARED END SECTION
FH	FIRE HYDRANT
FL	FLOW LINE
HOPE	HIGH DENSITY POLYETHYLENE PIPE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PVC	POLYVINYL CHLORIDE PIPE
TW	TOP OF WALL
UP	UTILITY POLE
WM	WATER METER
WV	WATER VALVE
YL	YARD LIGHT
---	SILT FENCE
---	TEMPORARY DIVERSION DIKE
---	TREE PRESERVATION BARRIER
---	FINISH CONTOUR
---	TOP OF CURB ELEVATION
---	TOP OF PAVEMENT ELEVATION
---	FINISH GRADE ELEVATION
S	PROPOSED SANITARY SEWER LINE
W	PROPOSED WATER LINE
UE	PROPOSED UNDERGROUND ELECTRIC
UT	PROPOSED UNDERGROUND TELECOMMUNICATIONS
---	PROPOSED STORM SEWER
---	PROPOSED WATER VALVE
---	PROPOSED FIRE HYDRANT & VALVE
---	THRUST BLOCK
---	THRUST COLLAR
---	STANDARD DUTY CONCRETE
---	HEAVY DUTY CONCRETE



P:\GENERAL PROJECTS\159250-ES-WILSHIRE-HILLS-3-ENV\CAD\15925 COVER & DETAILS.DWG 6/27/2023

SEQUENCE OF EVENTS

PHASE 1:

- PRE-CONSTRUCTION MEETING FOR SWPPP TRAINING PRIOR TO ANY CONSTRUCTION.
- CONSTRUCT TEMPORARY CONSTRUCTION EXIT AT LOCATION SHOWN ON PLANS.
- INSTALL PERIMETER EROSION CONTROL BARRIER AS SHOWN.
- INSTALL 30,000 SQUARE FOOT STONE LAYDOWN AREA WITH 25' WIDE ACCESS DRIVE FROM LAYDOWN AREA TO CONSTRUCTION ENTRANCE AS SOON AS PRACTICAL.
- CONSTRUCT SIDE OPEN INLET, DISCHARGE PIPE, F.E.S., AND RIP RAP AS SHOWN. INSTALL INLET PROTECTION.
- STRIP TOPSOIL IN THE AREA AND STOCKPILE IN DESIGNATED LOCATION. DIG DETENTION BASIN TO GIVEN DEPTH ALONG WITH SWALES DIRECTING WATER INTO BASIN.
- BEGIN CLEARING AND GRUBBING OPERATIONS. CLEARING AND GRUBBING SHALL BE DONE ONLY IN AREAS WHERE EARTHWORK WILL BE PERFORMED AND ONLY IN AREAS WHERE BUILDING IS PLANNED TO COMMENCE WITHIN 14 DAYS (OR 7 DAYS IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL) OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH) AFTER CLEARING AND GRUBBING.
- COMMENCE SITE GRADING.
- DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS (7 DAYS IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL) OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH) SHALL BE TEMPORARILY SEEDED AND WATERED.
- SOIL STOCKPILES SHALL BE WATERED AS NEEDED TO PREVENT WIND EROSION.

PHASE 2:

- INSTALL STORM SEWER.
- INSTALL WATERLINE.
- INSTALL SANITARY SEWER.
- BUILD STREET, INCLUDING CURB & GUTTER.
- STABILIZE THE ENTIRE SITE.
- DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS (7 DAYS IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL) OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH) SHALL BE TEMPORARILY SEEDED AND WATERED.
- SOIL STOCKPILES SHALL BE WATERED AS NEEDED TO PREVENT WIND EROSION.
- ENSURE THE DETENTION BASIN EXCESSIVE SEDIMENT IS REMOVED AFTER COMPLETION OF CONSTRUCTION BACK TO SHOWN GRADING.

CONSTRUCTION NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL IDENTIFIED PROPERTY CORNERS, LAND SURVEY CORNERS, AND ACCESSORIES. THE CONTRACTOR SHALL CAUSE THE CORNERS AND ACCESSORIES TO BE REFERENCED BY A LICENSED LAND SURVEYOR, AND ANY SUCH CORNER OR ACCESSORIES DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE RESET BY THE SURVEYOR AT THE ORIGINAL LOCATION, AND FILE THE RESTORATIONS AND MONUMENT DOCUMENTS AS THE LAW REQUIRES.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEERING SURVEYS AND SERVICES FOR REVIEW AND APPROVAL FOR ALL MATERIALS BEFORE ORDERING.
- ALL DIMENSIONS ARE TO BACK OF CURB, FACE OF SIDEWALK, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
- CONCRETE DRIVEWAY APRONS SHALL BE CONSTRUCTED AS PER CITY OF LEE'S SUMMIT SPECIFICATIONS. CONTRACTOR SHALL OBTAIN PERMIT FROM CITY TO WORK WITHIN STREET RIGHT-OF-WAY.
- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- STANDARD DUTY AND HEAVY DUTY PAVEMENT MAY BE CONCRETE OR ASPHALT UNLESS OTHERWISE NOTED. INTEGRAL CURB MAY BE USED FOR CONCRETE PAVEMENT.
- ALL TRAFFIC CONTROL SHALL BE PER CURRENT MUTCD REQUIREMENTS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A TRAFFIC CONTROL PLAN WILL BE REQUIRED FOR ANY WORK WITHIN THE RIGHT-OF-WAY.
- CONTRACTOR SHALL NOTIFY ADJACENT PROPERTY OWNERS IN WRITING 30 DAYS PRIOR TO CONSTRUCTION.
- IF A CONFLICT EXISTS BETWEEN THE CIVIL PLANS AND CIVIL SPECIFICATIONS, THE CIVIL PLANS SHALL GOVERN.
- CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE BUILDING AND SITE DEVELOPMENT RIGHT-OF-WAY TECHNICIAN (874-7474) IMMEDIATELY PRIOR TO CLOSURE OF STREET, DURING CONSTRUCTION FOR INSPECTIONS AND AGAIN WHEN WORK IS COMPLETE AND STREET IS REOPENED.
- ALL INCIDENTAL ITEMS INCLUDING BUT NOT LIMITED TO SIGNS, PAVEMENT MARKING, PAVEMENT, CURBS, TRUNCATED DOMES, FENCING, LANDSCAPING, IRRIGATION, ETC. EITHER DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE RETURNED TO ORIGINAL CONDITIONS BY THE CONTRACTOR.

GRADING AND STORM SEWER CONSTRUCTION NOTES

- ALL STORM SEWER PIPES AND INLETS SHALL MEET HEAVY DUTY TRAFFIC (HS20) LOADING AND BE INSTALLED ACCORDINGLY.
- CONCRETE STORM SEWER INLETS & JUNCTION BOXES SHALL BE INSTALLED PER THE CITY OF LEE'S SUMMIT SPECIFICATIONS AND AS DETAILED IN THESE PLANS.
- REINFORCED CONCRETE PIPE (RCP) SHALL BE INSTALLED PER THE "EMBEDMENT OF RCP STORM SEWER PIPE" DETAIL. PIPE CLASS SHALL BE APPROPRIATE TO DEPTH AND BEDDING MATERIAL AS SHOWN IN SCHEDULE.
- ALL RCP PIPE JOINTS SHALL BE SOIL TIGHT PER CURRENT MODOT SPECIFICATIONS SECTION 726.3.1.
- ALL HDPE PIPE SHALL BE ADS N-12 ST SOIL TIGHT, SMOOTH INTERIOR PIPE OR APPROVED EQUAL. INSTALLATION SHALL FOLLOW THE "EMBEDMENT OF PLASTIC STORM SEWER PIPE" DETAIL.
- CONTRACTOR SHALL ADJUST ALL GRATES, MANHOLES, VALVE BOXES, ETC. TO MATCH FINISH GRADES, AS REQUIRED.
- ALL STRUCTURE CONNECTIONS SHALL BE WATERTIGHT.
- ALL CONCRETE STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED CONCRETE INVERT FROM INVERT IN TO INVERT OUT.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE FLUSH WITH FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER". TOP OF BOXES SHALL BE SLOPED TO MATCH PAVEMENT GRADE.
- PIPE LENGTHS ARE GIVEN FROM CENTER OF STRUCTURE OR DOWNSTREAM END OF FLARED END SECTIONS.
- ALL FLARED END SECTIONS FOR CONCRETE PIPE SHALL BE REINFORCED PRECAST CONCRETE. ALL FLARED END SECTIONS FOR PLASTIC PIPE SHALL BE GALVANIZED METAL UNLESS OTHERWISE NOTED.
- ALL SITES USED FOR IMPORTING OR EXPORTING OF FILL MATERIAL SHALL HAVE AN ACTIVE MISSOURI DEPARTMENT OF NATURAL RESOURCES LAND DISTURBANCE PERMIT, AS REQUIRED.
- CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS, TREES AND BRUSH, AND OTHER MATERIAL CREATED AS A RESULT OF CONSTRUCTION. MATERIAL SHALL BE DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. BURNING ON SITE SHALL BE ALLOWED BY PERMIT ONLY.
- CONTRACTOR SHALL REMOVE ALL STUMPS BY EXCAVATING TO INCLUDE REMOVAL OF ASSOCIATED ROOT SYSTEM.
- CONTRACTOR SHALL NOT ADVANCE TRENCH EXCAVATION BEYOND AMOUNT THAT CAN ACCOMMODATE PIPE INSTALLATION AND BACKFILLING AT THE END OF EACH DAY.
- ENGINEERED FILL SHOULD BE FREE OF FROZEN SOIL, ORGANICS, RUBBISH, LARGE ROCKS, WOOD, OR OTHER DELETERIOUS MATERIAL. COHESIVE FILLS SHOULD BE UNIFORMLY COMPACTED TO AT LEAST 95 PERCENT OF THE "STANDARD" MAXIMUM DRY DENSITY AND BE WITHIN -2 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT AS DESCRIBED BY ASTM D698. GRANULAR FILLS SHOULD BE UNIFORMLY COMPACTED TO AT LEAST 95 PERCENT OF THE "STANDARD" MAXIMUM DRY DENSITY. THE MOISTURE CONTENT SHOULD BE HIGH ENOUGH TO PROVIDE FOR PROPER COMPACTION, BUT LOW ENOUGH TO PREVENT UNDUE PUMPING. PLACE FILL MATERIAL IN LOOSE LIFTS NOT TO EXCEED 8 INCHES IN THICKNESS.
- ROCKS AND STONES THAT EXCEED THE THICKNESS OF THE LOOSE LIFT FILL LAYER SHOULD BE REMOVED AND DISPOSED OF OFF THE IMMEDIATE CONSTRUCTION AREA.
- IMPORTED SOILS PROPOSED FOR USE AS FILL OR BACKFILL SHOULD BE REVIEWED AND ANALYZED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE ON SITE. SOIL CLASSIFIED AS MH, OH, OL, OR PT (HIGH PLASTICITY SOILS AND ORGANIC SOILS) BY THE UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487) SHOULD NOT BE IMPORTED FOR USE AS ENGINEERED FILL. SUITABLE IMPORTED MATERIALS FOR GENERAL SITE FILL ARE THOSE THAT CLASSIFY AS GW, GM, GC, SC, AND CL IN ACCORDANCE WITH ASTM D 2487. MATERIALS CLASSIFIED AS OH SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO THEIR IMPORTATION AND ONLY USED OUTSIDE THE BUILDING PAD AT DEPTHS BELOW THE UPPER 2 FEET OF SUBGRADE. SUBJECT TO FINAL DESIGN REQUIREMENTS FOR WALL BACKFILL, SUITABLE IMPORTED MATERIALS FOR WALL AND TRENCH BACKFILL ARE THOSE THAT CLASSIFY AS GW, GP, GM, GC, SM, SW, SP, SC, AND CL IN ACCORDANCE WITH ASTM D2487.
- FILLS PLACED IN AREAS WHERE THE NATURAL SLOPE IS GREATER THAN 5H:1V (HORIZONTAL TO VERTICAL) SHOULD BE BENCHED INTO THE EXISTING GRADE TO REDUCE THE POTENTIAL FOR SLIPPAGE BETWEEN EXISTING SLOPES AND ENGINEERED FILL. BENCHES SHOULD BE LEVEL AND WIDE ENOUGH TO ACCOMMODATE COMPACTION AND EARTH MOVING EQUIPMENT.
- FILL AND SUBGRADE CONSTRUCTION SHOULD NOT BE STARTED ON FOUNDATION SOIL, PARTIALLY COMPLETED FILL, OR SUBGRADES THAT CONTAIN FROST OR ICE. FILL SHOULD NOT BE CONSTRUCTED USING FROZEN SOIL. FROZEN SOIL SHOULD BE REMOVED PRIOR TO PLACING FILL MATERIAL.
- AFTER STRIPPING AND GRUBBING OPERATIONS ARE COMPLETED AND PRIOR TO FILL PLACEMENT, AREAS TO BE FILLED SHALL BE PROOF ROLLED USING A LOADED TANDEM AXLE DUMP TRUCK TO IDENTIFY SOFT AND UNSUITABLE AREAS. SOFT MATERIAL MAY BE MOISTURE CONDITIONED AND REUSED AS ENGINEERED FILL, UNSUITABLE AND DELETERIOUS MATERIAL SHALL BE REMOVED FROM SITE.
- ALL NEW UTILITY TRENCHES SHOULD BE BACKFILLED IN ACCORDANCE WITH APPROPRIATE CONTROLLED ENGINEERED FILL SPECIFICATIONS.
- FIELD DENSITY TESTS SHOULD BE CONDUCTED IN ACCORDANCE WITH ASTM D6938 (NUCLEAR METHODS) OR ASTM D 1556 (SAND CONE METHOD). FIELD DENSITY TESTS SHOULD BE PERFORMED AT THE RATE OF ONE TEST PER 2,500 SQUARE FEET PER LIFT WITHIN THE BUILDING AND 10,000 SQUARE FEET PER LIFT BENEATH PAVEMENTS, SIDEWALKS, AND OTHER POTENTIAL STRUCTURAL AREAS WITH A MINIMUM OF 3 TESTS PER LIFT AND ONE TEST PER 150 LINEAL FEET PER LIFT FOR FOUNDATION, TRENCH AND WALL BACKFILL.
- BUILDING PAD AND PARKING AREAS SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK TO IDENTIFY ANY SOFT OR UNSUITABLE AREAS, PRIOR TO BASE ROCK PLACEMENT. THE PROOF-ROLL SHALL BE OBSERVED BY THE PROJECT GEOTECHNICAL ENGINEER. AREAS IDENTIFIED AS UNSUITABLE SHALL BE OVER EXCAVATED AND RECONSTRUCTED WITH ENGINEERED FILL.
- CONTRACTOR SHALL PLACE STOCKPILED TOPSOIL FROM SITE IN ALL LANDSCAPE AREAS TO A MINIMUM DEPTH OF 6" UNLESS NOTED OTHERWISE IN PROJECT SPECIFICATIONS. ANY EXCESS TOPSOIL SHALL BE DISPOSED OF ONSITE PER OWNER.

HAZARDOUS SUBSTANCE NOTE

- SUBSTANCES REGULATED BY FEDERAL LAW UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) OR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) WHICH ARE TRANSPORTED, STORED OR USED FOR MAINTENANCE, CLEANING OR REPAIRS SHALL BE MANAGED ACCORDING TO THE PROVISIONS OF RCRA AND CERCLA.
- ALL PAINTS, SOLVENTS, PETROLEUM PRODUCTS AND PETROLEUM WASTE PRODUCTS (EXCEPT FUELS) AND STORAGE CONTAINERS (SUCH AS DRUMS, CANS OR CARTONS) SHALL BE STORED SUCH THAT THESE MATERIALS ARE NOT EXPOSED TO STORM WATER. SUFFICIENT PRACTICES OF SPILL PREVENTION, CONTROL AND/OR MANAGEMENT SHALL BE PROVIDED TO PREVENT ANY SPILLS OF THESE POLLUTANTS FROM ENTERING A WATER OF THE STATE. ANY CONTAINMENT SYSTEM USED TO IMPLEMENT THIS REQUIREMENT SHALL BE CONSTRUCTED OF MATERIALS COMPATIBLE WITH THE SUBSTANCES CONTAINED AND SHALL ALSO PREVENT THE CONTAMINATION OF GROUNDWATER.
- THE APPLICANT SHALL NOTIFY BY TELEPHONE AND IN WRITING THE DEPARTMENT OF NATURAL RESOURCES, WATER POLLUTION CONTROL PROGRAM, POST OFFICE BOX 176, JEFFERSON CITY, MO 65102, 1-800-361-4827, OF ANY OIL SPILLS OR IF HAZARDOUS SUBSTANCES ARE FOUND DURING THE PROSECUTION OF WORK UNDER THIS PERMIT.

STORM WATER POLLUTION PREVENTION PLAN NOTES

- CONTRACTOR SHALL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES. A COPY OF THIS PLAN, SWPPP, AND ALL PERMITS SHALL REMAIN ON SITE THROUGHOUT CONSTRUCTION.
- CONTRACTORS ARE REQUIRED TO SUBMIT TO CITY INSPECTION STAFF COPIES OF THEIR INSPECTION REPORTS REQUIRED BY THE SWPPP ON A MONTHLY BASIS.
- NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVAL HAS BEEN RECEIVED FROM ALL GOVERNING AUTHORITIES.
- IMMEDIATELY UPON COMPLETION OF FINISH GRADING IN EACH AREA, ALL LANDSCAPING AREAS SHALL BE STABILIZED PER PLANS AND/OR SPECIFICATIONS.
- SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED IN THE SWPPP.
- SITE INSPECTION SHOULD OCCUR ON A REGULAR SCHEDULE AND WITHIN 24 HOURS OF A STORM EVENT OF 0.25 INCHES OR GREATER. REGULARLY SCHEDULED INSPECTION SHALL BE A MINIMUM OF ONCE EVERY 7 CALENDAR DAYS. ANY DEFICIENCIES SHALL BE NOTED IN A WEEKLY REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE REPORT.
- THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
- CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
- ALL SLOPES GREATER THAN 3:1 SHALL BE REINFORCED BY NORTH AMERICAN GREEN P300 PERMANENT TURF REINFORCEMENT MAT OR APPROVED EQUAL.
- ALL ROLLED EROSION CONTROL MATS, BIONETS, BLANKETS, ETC. SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. INSTALLATION SHALL RESULT IN A PRODUCT THAT IS TIGHTLY SECURED TO THE GROUND THAT FORCES RUNOFF TO DRAIN OVER, NOT UNDER, THE PRODUCT. GRASS SHALL BE PLANTED PRIOR TO PRODUCT PLACEMENT SO IT WILL GROW THRU THE BLANKET. ALL ASPECTS OF THE PRODUCT SHALL BE FIRMLY SECURED TO THE GROUND SO IT CAN BE MOVED OVER WITHOUT GETTING TANGLED IN THE MOWER.
- CONTRACTOR SHALL REMOVE ALL TRASH, DEBRIS, TREES & BRUSH AND OTHER MATERIAL CREATED AS A RESULT OF THE CONSTRUCTION WORK AND THE SITE SHALL BE RETURNED TO ITS ORIGINAL CONDITION.
- ALL PERIMETER LANDSCAPED AREAS SHALL BE GRASS COVERED.
- IN ORDER TO TERMINATE A MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) STATE OPERATING PERMIT, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR TERMINATION OF OPERATING PERMIT FORM TO MDNR. A PERMIT IS ELIGIBLE FOR TERMINATION WHEN EITHER PERENNIAL VEGETATION, PAVEMENT, BUILDINGS, OR STRUCTURES USING PERMANENT MATERIALS COVER ALL AREAS THAT HAVE BEEN DISTURBED. VEGETATIVE COVER SHOULD BE AT LEAST 70% OF FULLY ESTABLISHED PLANT DENSITY OVER 100% OF THE DISTURBED AREA. A COPY OF THE REQUEST FOR TERMINATION OF OPERATING PERMIT FORM SHALL BE SUBMITTED TO THE CITY OF LEE'S SUMMIT AT WHICH TIME THE CITY WILL REMOVE THE PROJECT FROM ITS INSPECTION SCHEDULE.
- THE SITE CONTRACTOR SHALL INCLUDE MAINTENANCE OF ALL BMP'S AS PART OF THEIR CONTRACT AND SHALL BE RESPONSIBLE FOR THE PROJECT UNTIL THE NPDES PERMIT IS TERMINATED.
- SOIL STOCKPILES SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT ORDINANCE.

UTILITY CONSTRUCTION NOTES

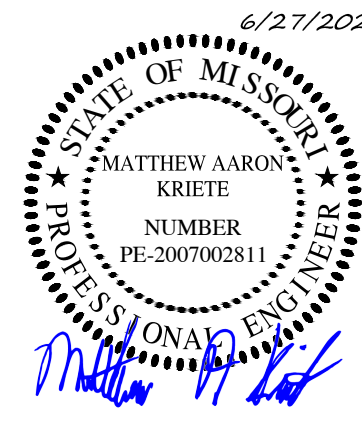
- LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY CONTRACTOR AND THE PROPER UTILITY COMPANY PROVIDING SERVICE PRIOR TO THE START OF CONSTRUCTION.
- EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
- UTILITY TIE-INS ARE SHOWN IN APPROXIMATE LOCATIONS. REFER TO MEP PLANS FOR EXACT TIE-IN OF ALL UTILITIES.
- SITE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF LEE'S SUMMIT WATER AND LIGHT DEPARTMENT AND CITY OF LEE'S SUMMIT PUBLIC WORKS WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES, RESPECTIVELY.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS, BACKFILL OF TRENCHES THROUGH ANY IMPROVED AREAS, SUCH AS STREET, DRIVES OR PARKING LOTS SHALL BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR DENSITY (ASTM D-698).
- ALL UNDERGROUND UTILITY CONDUITS SHALL BE PLACED 48" BELOW FINISH GRADE UNLESS NOTED OTHERWISE.
- ALL UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
- TOPS OF EXISTING ELECTRIC, SANITARY, STORM, WATER, TELECOMMUNICATION, GAS, IRRIGATION, CHILLED WATER, AND STEAM STRUCTURES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED FINISHED ELEVATIONS.
- ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 P.S.I.
- STUBS FOR FUTURE UTILITIES SHOULD BE CLEARLY MARKED AND ES&S CONTACTED FOR DATA COLLECTION.



Engineering Surveys  
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973-449-2646  
802 El Dorado Drive, Jefferson City, MO 65101  
873-636-3303  
1775 West Main Street, Sedalia, MO 65201  
660-826-8618  
www.ess-inc.com  
MO Engineering Corp. # 2004005018

WILSHIRE HILLS PHASE III  
ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO



MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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Date

JUNE 27, 2023

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Design: ST Drawn: MJS

GENERAL NOTES

Sheet

C0.02


ES&S PROJECT NO. 15925

CONSTRUCTION DOCUMENTS



ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO

6/27/2023



STATE OF MISSOURI  
MATTHEW AARON  
KRIETE  
NUMBER  
PE-2007002811  
PROFESSIONAL ENGINEER

*Matthew A Kriete*

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Revised

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Design: ST      Drawn: MJS

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OVERALL PUBLIC PLAN

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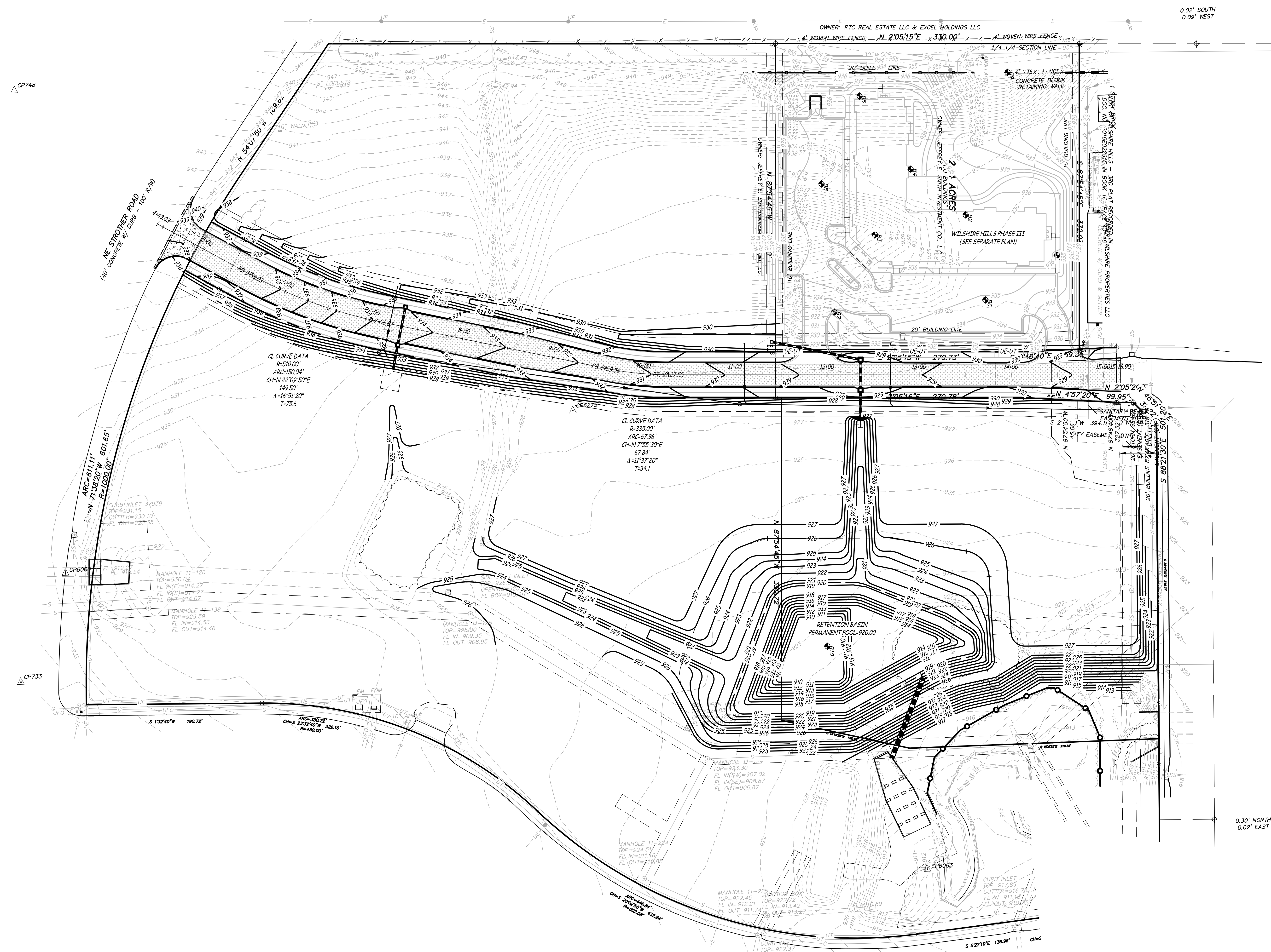
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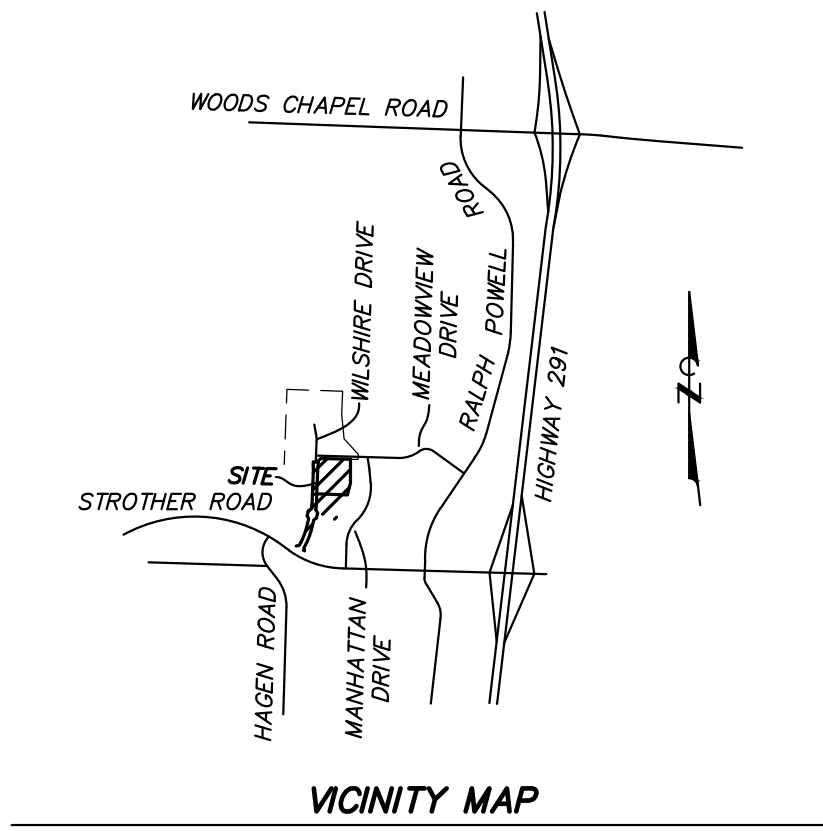
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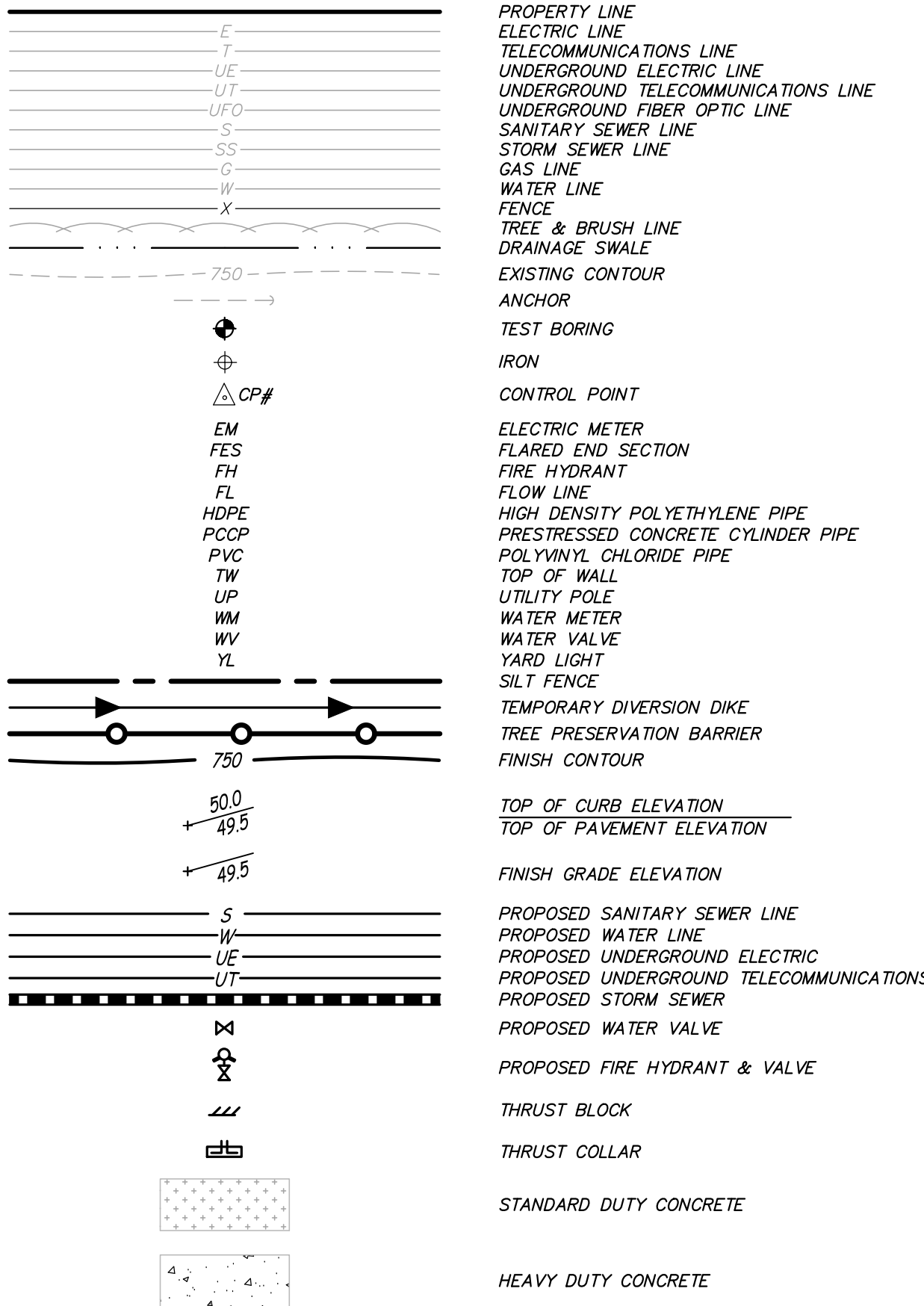
P:\GENERAL PROJECTS\15925E-KS-WILSHIRE-HILLS-3-ENV\CAD\15925 COVER & DETAILS.DWG 6/27/2023



VICINITY MAP

NOT TO SCALE

LEGEND



IMPERVIOUS AREA

PRE PROJECT	
PERVIOUS	= 8.65 ACRE
IMPERVIOUS	= 0.00 ACRE
TOTAL	= 8.65 ACRE

POST PROJECT	
PERVIOUS	= 7.87 ACRE
IMPERVIOUS	= 0.78 ACRE
TOTAL	= 8.65 ACRE

DESIGN REQUIREMENTS

WILSHIRE DRIVE  
FUNCTIONAL CLASSIFICATION  
COMMERCIAL LOCAL = STA. 4+82.67 - 8+57.76  
RESIDENTIAL LOCAL = STA. 8+57.75 - 15+18.90  
DESIGN SPEED = 25 MPH

FLOODPLAIN NOTE

THIS PROPERTY IS LOCATED IN ZONE X "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD" AS SHOWN BY FIRM COMMUNITY PANEL NUMBER 29095C0430G, DATED JANUARY 20, 2017.

ZONING NOTE

THIS PROPERTY IS ZONED "P-MIX" PLANNED MIXED USE DISTRICT

# ROAD & STORM SEWER PLAN

## WILSHIRE HILLS PHASE III

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

## SITE PLAN

### JUNE 27, 2023

STORM WATER POLLUTION PREVENTION PLAN NOTES

- CONTRACTOR SHALL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES. A COPY OF THIS PLAN, SWPPP, AND ALL PERMITS SHALL REMAIN ON SITE THROUGHOUT CONSTRUCTION.
- CONTRACTORS ARE REQUIRED TO SUBMIT TO CITY INSPECTION STAFF COPIES OF THEIR INSPECTION REPORTS REQUIRED BY THE SWPPP ON A MONTHLY BASIS.
- NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVAL HAS BEEN RECEIVED FROM ALL GOVERNING AUTHORITIES.
- IMMEDIATELY UPON COMPLETION OF FINISH GRADING IN EACH AREA, ALL LANDSCAPING AREAS SHALL BE STABILIZED PER PLANS AND/OR SPECIFICATIONS.
- SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED IN THE SWPPP.
- SITE INSPECTION SHOULD OCCUR ON A REGULAR SCHEDULE AND WITHIN 24 HOURS OF A STORM EVENT OF 0.25 INCHES OR GREATER. REGULARLY SCHEDULED INSPECTION SHALL BE A MINIMUM OF ONCE EVERY 7 CALENDAR DAYS. ANY DEFICIENCIES SHALL BE NOTED IN A WEEKLY REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE REPORT.
- THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
- CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
- ALL SLOPES GREATER THAN 3:1 SHALL BE REINFORCED BY NORTH AMERICAN GREEN P300 PERMANENT TURF REINFORCEMENT MAT OR APPROVED EQUAL.
- ALL ROLLED EROSION CONTROL MATS, BIONETS, BLANKETS, ETC. SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. INSTALLATION SHALL RESULT IN A PRODUCT THAT IS TIGHTLY SECURED TO THE GROUND THAT FORCES RUNOFF TO DRAIN OVER, NOT UNDER, THE PRODUCT. GRASS SHALL BE PLANTED PRIOR TO PRODUCT PLACEMENT SO IT WILL GROW THRU THE BLANKET. ALL ASPECTS OF THE PRODUCT SHALL BE FIRMLY SECURED TO THE GROUND SO IT CAN BE MOVED OVER WITHOUT GETTING TANGLED IN THE MOWER.
- CONTRACTOR SHALL REMOVE ALL TRASH, DEBRIS, TREES & BRUSH AND OTHER MATERIAL CREATED AS A RESULT OF THE CONSTRUCTION WORK AND THE SITE SHALL BE RETURNED TO ITS ORIGINAL CONDITION.
- ALL PERIMETER LANDSCAPED AREAS SHALL BE GRASS COVERED.
- IN ORDER TO TERMINATE A MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) STATE OPERATING PERMIT, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR TERMINATION OF OPERATING PERMIT FORM TO MDNR. A PERMIT IS ELIGIBLE FOR TERMINATION WHEN EITHER PERENNIAL VEGETATION, PAVEMENT, BUILDINGS, OR STRUCTURES USING PERMANENT MATERIALS COVER ALL AREAS THAT HAVE BEEN DISTURBED. VEGETATIVE COVER SHOULD BE AT LEAST 70% OF FULLY ESTABLISHED PLANT DENSITY OVER 100% OF THE DISTURBED AREA. A COPY OF THE REQUEST FOR TERMINATION OF OPERATING PERMIT FORM SHALL BE SUBMITTED TO THE CITY OF LEE'S SUMMIT AT WHICH TIME THE CITY WILL REMOVE THE PROJECT FROM ITS INSPECTION SCHEDULE.
- THE SITE CONTRACTOR SHALL INCLUDE MAINTENANCE OF ALL BMP'S AS PART OF THEIR CONTRACT AND SHALL BE RESPONSIBLE FOR THE PROJECT UNTIL THE NPDES PERMIT IS TERMINATED.
- SOIL STOCKPILES SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT ORDINANCE.

CONSTRUCTION NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, LAND SURVEY CORNERS, AND ACCESSORIES. THE CONTRACTOR SHALL CAUSE THE CORNERS AND ACCESSORIES TO BE REFERENCED BY A LICENSED LAND SURVEYOR, AND ANY SUCH CORNER OR ACCESSORIES DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE RESET BY THE SURVEYOR AT THE ORIGINAL LOCATION, AND FILE THE RESTORATIONS AND MONUMENT DOCUMENTS AS THE LAW REQUIRES.
  - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEERING SURVEYS AND SERVICES FOR REVIEW AND APPROVAL FOR ALL MATERIALS BEFORE ORDERING.
  - ALL DIMENSIONS ARE TO BACK OF CURB, FACE OF SIDEWALK, OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
  - CONCRETE DRIVEWAY APRONS SHALL BE CONSTRUCTED AS PER CITY OF LEE'S SUMMIT SPECIFICATIONS. CONTRACTOR SHALL OBTAIN PERMIT FROM CITY TO WORK WITHIN STREET RIGHT-OF-WAY.
  - CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
  - STANDARD DUTY AND HEAVY DUTY PAVEMENT MAY BE CONCRETE OR ASPHALT UNLESS OTHERWISE NOTED. INTEGRAL CURB MAY BE USED FOR CONCRETE PAVEMENT.
  - ALL TRAFFIC CONTROL SHALL BE PER CURRENT MUTCD REQUIREMENTS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A TRAFFIC CONTROL PLAN WILL BE REQUIRED FOR ANY WORK WITHIN THE RIGHT-OF-WAY.
  - CONTRACTOR SHALL NOTIFY ADJACENT PROPERTY OWNERS IN WRITING 30 DAYS PRIOR TO CONSTRUCTION.
  - IF A CONFLICT EXISTS BETWEEN THE CIVIL PLANS AND CIVIL SPECIFICATIONS, THE CIVIL PLANS SHALL GOVERN.
  - CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE BUILDING AND SITE DEVELOPMENT RIGHT-OF-WAY TECHNICIAN (874-7474) IMMEDIATELY PRIOR TO CLOSURE OF STREET, DURING CONSTRUCTION FOR INSPECTIONS AND AGAIN WHEN WORK IS COMPLETE AND STREET IS REOPENED.
  - ALL INCIDENTAL ITEMS INCLUDING BUT NOT LIMITED TO SIGNS, PAVEMENT MARKING, PAVEMENT, CURBS, TRUNCATED DOMES, FENCING, LANDSCAPING, IRRIGATION, ETC. EITHER DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE RETURNED TO ORIGINAL CONDITIONS BY THE CONTRACTOR.
- ALL STORM SEWER PIPES AND INLETS SHALL MEET HEAVY DUTY TRAFFIC (HS20) LOADING AND BE INSTALLED ACCORDINGLY.
  - CONCRETE STORM SEWER INLETS & JUNCTION BOXES SHALL BE INSTALLED PER THE CITY OF LEE'S SUMMIT SPECIFICATIONS AND AS DETAILED IN THESE PLANS.
  - REINFORCED CONCRETE PIPE (RCP) SHALL BE INSTALLED PER THE "EMBEDMENT OF RCP STORM SEWER PIPE" DETAIL. PIPE CLASS SHALL BE APPROPRIATE TO DEPTH AND BEDDING MATERIAL AS SHOWN IN SCHEDULE.
  - ALL RCP PIPE JOINTS SHALL BE SOIL TIGHT PER CURRENT MODOT SPECIFICATIONS SECTION 726.3.1.
  - ALL HDPE PIPE SHALL BE ADS N-12 ST SOIL TIGHT, SMOOTH INTERIOR PIPE OR APPROVED EQUAL. INSTALLATION SHALL FOLLOW THE "EMBEDMENT OF PLASTIC STORM SEWER PIPE" DETAIL.
  - CONTRACTOR SHALL ADJUST ALL GRATES, MANHOLES, VALVE BOXES, ETC. TO MATCH FINISH GRADES, AS REQUIRED.
  - ALL STRUCTURE CONNECTIONS SHALL BE WATERTIGHT.
  - ALL CONCRETE STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED CONCRETE INVERT FROM INVERT IN TO INVERT OUT.
  - ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE FLUSH WITH FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER". TOP OF BOXES SHALL BE VERIFIED TO MATCH PAVEMENT GRADE.
  - PIPE LENGTHS ARE GIVEN FROM CENTER OF STRUCTURE OR DOWNSTREAM END OF FLARED END SECTIONS.
  - ALL FLARED END SECTIONS FOR CONCRETE PIPE SHALL BE REINFORCED PRECAST CONCRETE. ALL FLARED END SECTIONS FOR PLASTIC PIPE SHALL BE GALVANIZED METAL UNLESS OTHERWISE NOTED.
  - ALL SITES USED FOR IMPORTING OR EXPORTING OF FILL MATERIAL SHALL HAVE AN ACTIVE MISSOURI DEPARTMENT OF NATURAL RESOURCES LAND DISTURBANCE PERMIT, AS REQUIRED.
  - CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS, TREES AND BRUSH, AND OTHER MATERIAL CREATED AS A RESULT OF CONSTRUCTION. MATERIAL SHALL BE DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. BURNING ON SITE SHALL BE ALLOWED BY PERMIT ONLY.
  - CONTRACTOR SHALL REMOVE ALL STUMPS BY EXCAVATING TO INCLUDE REMOVAL OF ASSOCIATED ROOT SYSTEM.
  - CONTRACTOR SHALL NOT ADVANCE TRENCH EXCAVATION BEYOND AMOUNT THAT CAN ACCOMMODATE PIPE INSTALLATION AND BACKFILL AT THE END OF EACH DAY.
  - ENGINEERED FILL SHOULD BE FREE OF FROZEN SOIL, ORGANICS, RUBBISH, LARGE ROCKS, WOOD, OR OTHER DELETERIOUS MATERIAL. COHESIVE FILLS SHOULD BE UNIFORMLY COMPACTED TO AT LEAST 95 PERCENT OF THE "STANDARD" MAXIMUM DRY DENSITY AND BE WITHIN -2 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT AS DESCRIBED BY ASTM D698. GRANULAR FILLS SHOULD BE UNIFORMLY COMPACTED TO AT LEAST 95 PERCENT OF THE "STANDARD" MAXIMUM DRY DENSITY. THE MOISTURE CONTENT SHOULD BE HIGH ENOUGH TO PROVIDE FOR PROPER COMPACTION BUT LOW ENOUGH TO PREVENT UNDUE PUMPING. PLACE FILL MATERIAL IN LOOSE LIFTS NOT TO EXCEED 6 INCHES IN THICKNESS.
  - ROCKS AND STONES THAT EXCEED THE THICKNESS OF THE LOOSE LIFT FILL LAYER SHOULD BE REMOVED AND DISPOSED OF OFF THE IMMEDIATE CONSTRUCTION AREA.
  - IMPORTED SOILS PROPOSED FOR USE AS FILL OR BACKFILL SHOULD BE REVIEWED AND ANALYZED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE ON SITE. SOIL CLASSIFIED AS MH, OH, CL, OR PT (HIGH PLASTICITY SOILS AND ORGANIC SOILS) BY THE UNITED SOIL CLASSIFICATION SYSTEM (ASTM D2487) SHOULD NOT BE IMPORTED FOR USE AS ENGINEERED FILL. SUITABLE IMPORTED MATERIALS FOR GENERAL SITE FILL ARE THOSE THAT CLASSIFY AS GW, GM, GC, SC, AND CL IN ACCORDANCE WITH ASTM D 2487. MATERIALS CLASSIFIED AS CH SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO THEIR IMPORTATION AND ONLY USED OUTSIDE THE BUILDING PAD AT DEPTHS BELOW THE UPPER 2 FEET OF SUBGRADE. SUBJECT TO FINAL DESIGN REQUIREMENTS FOR WALL BACKFILL, SUITABLE IMPORTED MATERIALS FOR WALL AND TRENCH BACKFILL ARE THOSE THAT CLASSIFY AS GW, GP, GM, GC, SM, SW, SP, SC, AND CL IN ACCORDANCE WITH ASTM D2487.
  - FILLS PLACED IN AREAS WHERE THE NATURAL SLOPE IS GREATER THAN 5H:1V (HORIZONTAL TO VERTICAL) SHOULD BE BEDDED INTO THE EXISTING GRADE TO REDUCE THE POTENTIAL FOR SURFACE BETWEEN EXISTING SLOPES AND ENGINEERED FILL. BENCHES SHOULD BE LEVEL AND WIDE ENOUGH TO ACCOMMODATE COMPACTION AND EARTH MOVING EQUIPMENT.
  - FILL AND SUBGRADE CONSTRUCTION SHOULD NOT BE STARTED ON FOUNDATION SOIL, PARTIALLY COMPLETED FILL, OR SUBGRADES THAT CONTAIN FROST OR ICE. FILL SHOULD NOT BE CONSTRUCTED USING FROZEN SOIL. FROZEN SOIL SHOULD BE REMOVED PRIOR TO PLACING FILL MATERIAL.
  - AFTER STRIPPING AND GRUBBING OPERATIONS ARE COMPLETED AND PRIOR TO FILL PLACEMENT, AREAS TO BE FILLED SHALL BE PROOF ROLLED USING A LOADED TANDEM AXLE DUMP TRUCK TO IDENTIFY SOFT AND UNSUITABLE AREAS. SOFT MATERIAL MAY BE MOISTURE CONDITIONED AND REUSED AS ENGINEERED FILL. UNSUITABLE AND DELETERIOUS MATERIAL SHALL BE REMOVED FROM SITE.
  - ALL NEW UTILITY TRENCHES SHOULD BE BACKFILLED IN ACCORDANCE WITH APPROPRIATE CONTROLLED ENGINEERED FILL SPECIFICATIONS.
  - FIELD DENSITY TESTS SHOULD BE CONDUCTED IN ACCORDANCE WITH ASTM D6938 (NUCLEAR METHODS) OR ASTM D 1556 (SAND CONE METHOD). FIELD DENSITY TESTS SHOULD BE PERFORMED AT THE RATE OF ONE TEST PER 2,500 SQUARE FEET PER LIFT WITHIN THE BUILDING AND 10,000 SQUARE FEET PER LIFT BENEATH PAVEMENTS, SIDEWALKS, AND OTHER POTENTIAL STRUCTURAL AREAS WITH A MINIMUM OF 3 TESTS PER LIFT AND ONE TEST PER 150 LINEAL FEET PER LIFT FOR FOUNDATION, TRENCH AND WALL BACKFILL.
  - BUILDING PAD AND PARKING AREAS SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK TO IDENTIFY ANY SOFT OR UNSUITABLE AREAS. PRIOR TO BASE ROCK PLACEMENT, THE PROOF-ROLL SHALL BE OBSERVED BY THE PROJECT GEOTECHNICAL ENGINEER. AREAS IDENTIFIED AS UNSUITABLE SHALL BE OVER EXCAVATED AND RECONSTRUCTED WITH ENGINEERED FILL.
  - CONTRACTOR SHALL PLACE STOCKPILED TOPSOIL FROM SITE IN ALL LANDSCAPE AREAS TO A MINIMUM DEPTH OF 4-6". UNLESS NOTED OTHERWISE IN PROJECT SPECIFICATIONS, ANY EXCESS TOPSOIL SHALL BE DISPOSED OF ONSITE PER OWNER.

HAZARDOUS SUBSTANCE NOTE

- SUBSTANCES REGULATED BY FEDERAL LAW UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) OR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) WHICH ARE TRANSPORTED, STORED OR USED FOR MAINTENANCE, CLEANING OR REPAIRS SHALL BE MANAGED ACCORDING TO THE PROVISIONS OF RCRA AND CERCLA.
- ALL PAINTS, SOLVENTS, PETROLEUM PRODUCTS AND PETROLEUM WASTE PRODUCTS (EXCEPT FUELS) AND STORAGE CONTAINERS (SUCH AS DRUMS, CANS OR CARTONS) SHALL BE STORED SUCH THAT THESE MATERIALS ARE NOT EXPOSED TO STORM WATER. SUFFICIENT PRACTICES OF SPILL PREVENTION, CONTROL AND/OR MANAGEMENT SHALL BE PROVIDED TO PREVENT ANY SPILLS OF THESE POLLUTANTS FROM ENTERING A WATER OF THE STATE. ANY CONTAINMENT SYSTEM USED TO IMPLEMENT THIS REQUIREMENT SHALL BE CONSTRUCTED OF MATERIALS COMPATIBLE WITH THE SUBSTANCES CONTAINED AND SHALL ALSO PREVENT THE CONTAMINATION OF GROUNDWATER.
- THE APPLICANT SHALL NOTIFY BY TELEPHONE AND IN WRITING THE DEPARTMENT OF NATURAL RESOURCES, WATER POLLUTION CONTROL PROGRAM, POST OFFICE BOX 176, JEFFERSON CITY, MO 65102, 1-800-361-4827, OF ANY OIL SPILLS OR IF HAZARDOUS SUBSTANCES ARE FOUND DURING THE PROSECUTION OF WORK UNDER THIS PERMIT.

MDNR PERMIT

MDNR PERMIT NO. XXXX XXXXX

PROPERTY DESCRIPTION

BENCH MARK

BM - MISSOURI DEPARTMENT OF TRANSPORTATION VRS NETWORK.

PROPERTY OWNER

JEFFREY E. SMITH INVESTMENT CO, LLC  
206 PEACH WAY  
COLUMBIA, MISSOURI 65203

UTILITY NOTES

THE LOCATIONS, SIZES, AND MATERIAL TYPES OF UNDERGROUND UTILITIES INDICATED ON THE PLAT, NOT VISIBLE OR APPARENT FROM THE SURFACE, ARE SHOWN IN THEIR APPROXIMATE LOCATIONS FROM A MISSOURI ONE CALL SYSTEM LOCATE, OR UTILITY COMPANY RECORDS AND WERE NOT VERIFIED IN THE FIELD.

WATER

JACKSON COUNTY PWS# #14  
CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: PUBLIC WORKS DEPARTMENT 816-969-1800  
12" DI ALONG THE NORTH SIDE OF MEADOWMEW DRIVE.  
30" PCOP ALONG THE WEST PROPERTY LINE.

SANITARY SEWER

CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: SHAWN GRAFF 816-969-1800  
AS SHOWN

STORM SEWER

CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: SHAWN GRAFF 816-969-1800  
AS SHOWN

ELECTRIC

EVERGY  
1300 SE HAMBLEN ROAD  
LEE'S SUMMIT, MISSOURI 64081  
CONTACT: 888-471-5275

FIBER OPTIC

GOOGLE FIBER  
2812 WEST 47TH STREET  
KANSAS CITY, KS 66103  
CONTACT: CRAIG YOUNG 870-219-5630

GAS

MISSOURI GAS ENERGY  
3025 SE CLOVER ROAD  
LEE'S SUMMIT, MISSOURI 64081  
CONTACT: BECCA ORR 816-275-2341

TELECOM

AT&T  
2812 WEST 47TH STREET, 2nd FLOOR  
INDEPENDENCE, MO 64050  
CONTACT: MARK MANION 816-275-2341  
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TIME WARNER CABLE  
CONTACT: ROY BELLUS 913-643-1914  
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COMCAST CABLE COMMUNICATIONS  
3400 NW DUNCAN ROAD  
BLUE SPRINGS, MO 64015  
CONTACT: BARBARA BROWN 816-795-2255  
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SHEET INDEX

C2.01	ROAD & STORM SEWER PLAN COVER
C2.02	TYPICAL ROAD SECTIONS
C2.03--C2.04	ROAD PLAN & PROFILE
C2.05--C2.09	WILSHIRE DRIVE EXTENSION CROSS SECTIONS
C2.10--C2.12	GRADING & STORM SEWER PLAN
C2.13	STORM SEWER PROFILES
C2.14	ROAD DETAILS
C2.15--C2.16	STORM SEWER DETAILS
C2.17	PRE-DRAINAGE AREA MAP
C2.18	POST DRAINAGE AREA MAP
C2.19	STORM SEWER DRAINAGE AREA MAP

### ROAD & STORM SEWER PLAN

### WILSHIRE HILLS PHASE III



## PUBLIC IMPROVEMENTS FOR

## WILSHIRE HILLS PHASE III

ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO



MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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Date

JUNE 27, 2023

Revised

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COVER

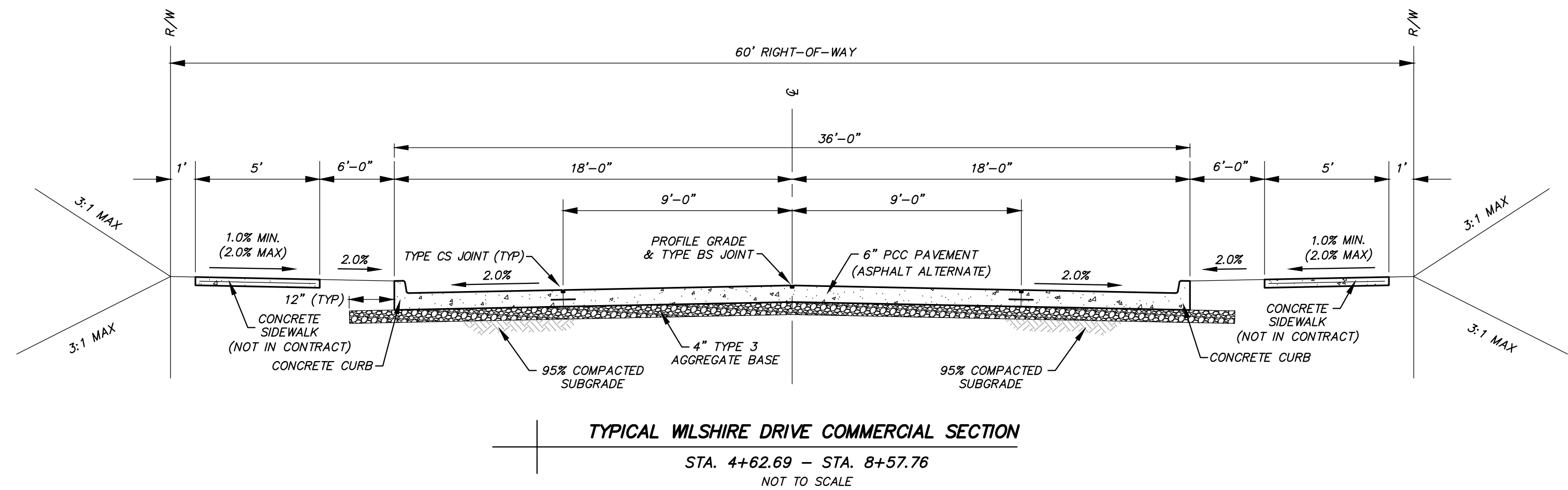
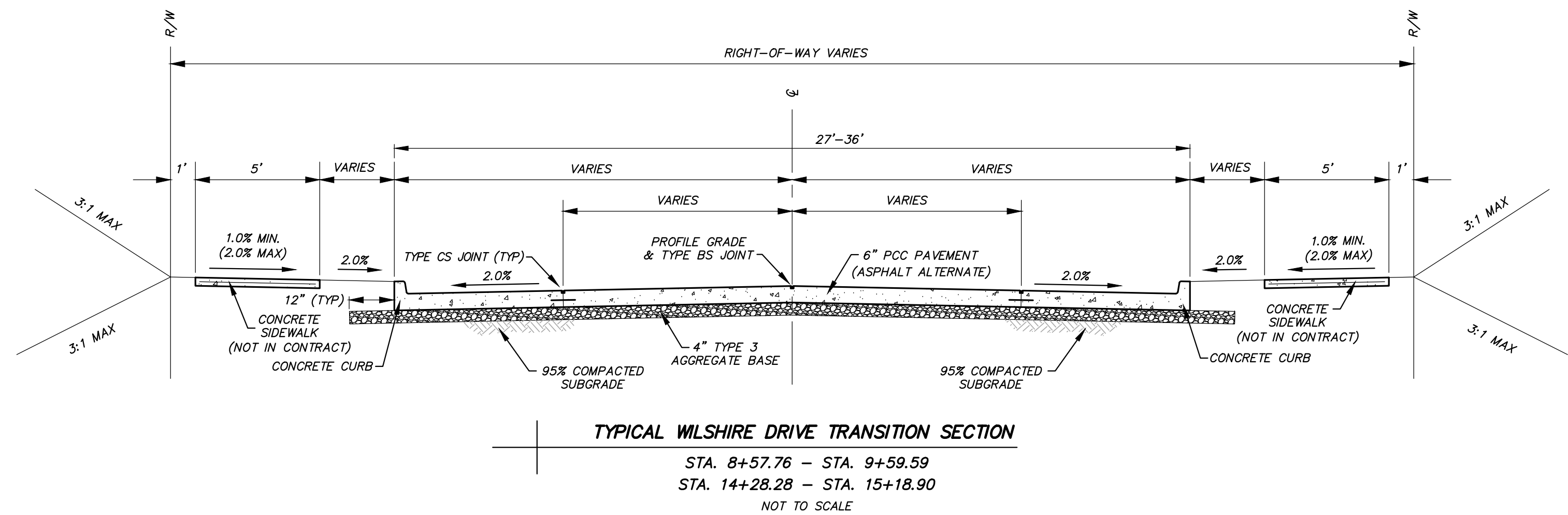
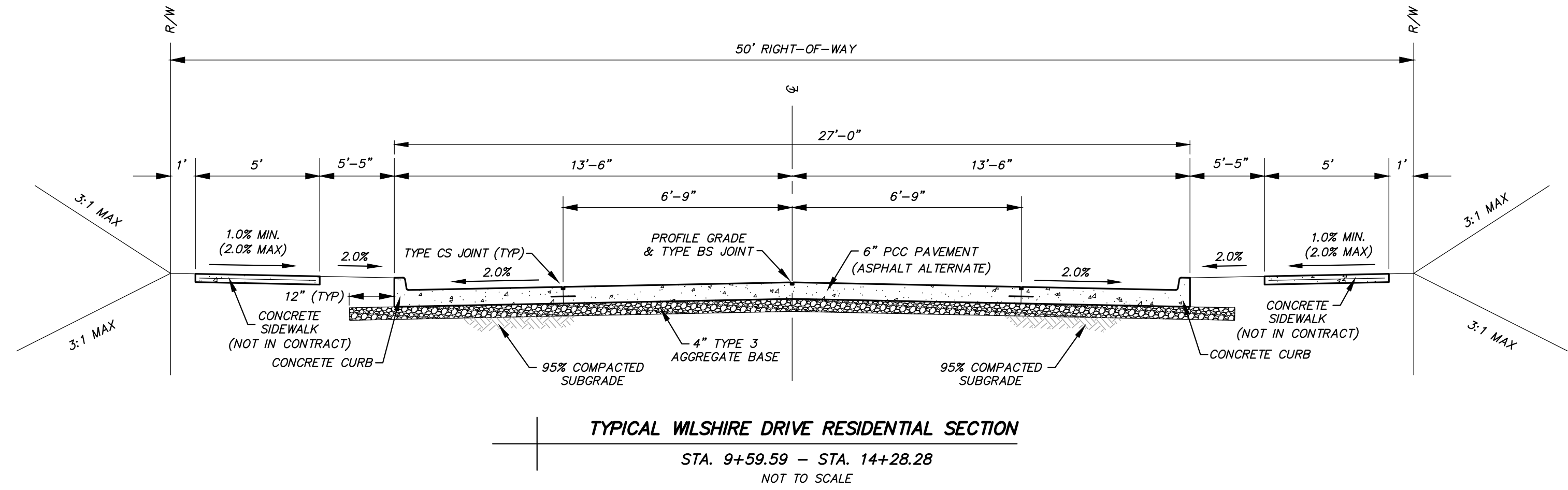
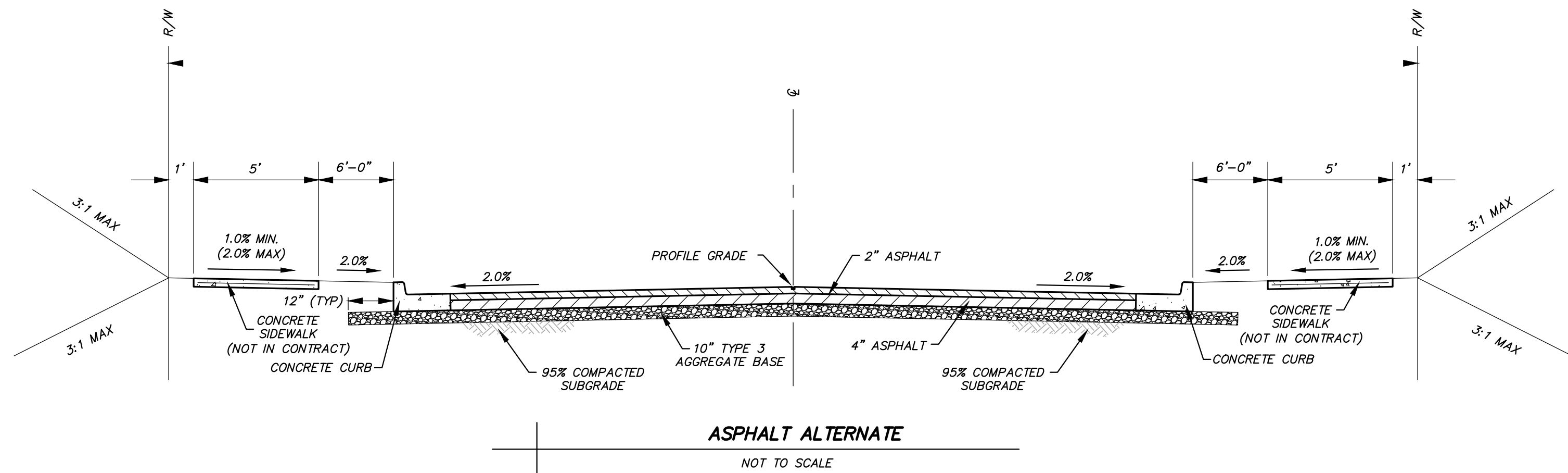
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ES&S PROJECT NO. 15925



P:\GENERAL PROJECTS\15925E-WES-WILSHIRE-HILLS-3-ENG\CAD\15925 COVER & DETAILS.DWG 6/27/2023



**PUBLIC IMPROVEMENTS FOR  
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MATTHEW A. KRIETE  
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TYPICAL ROAD SECTIONS

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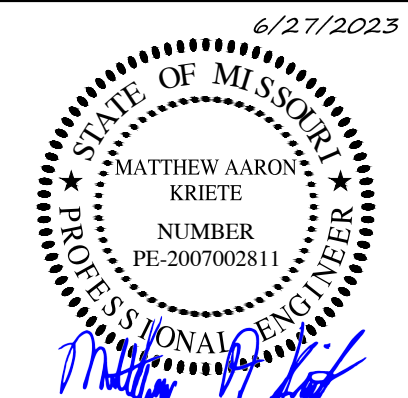
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660-826-8618  
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MO Engineering Corp. # 2004005018



0 1"  
SCALE: 1" = 20'

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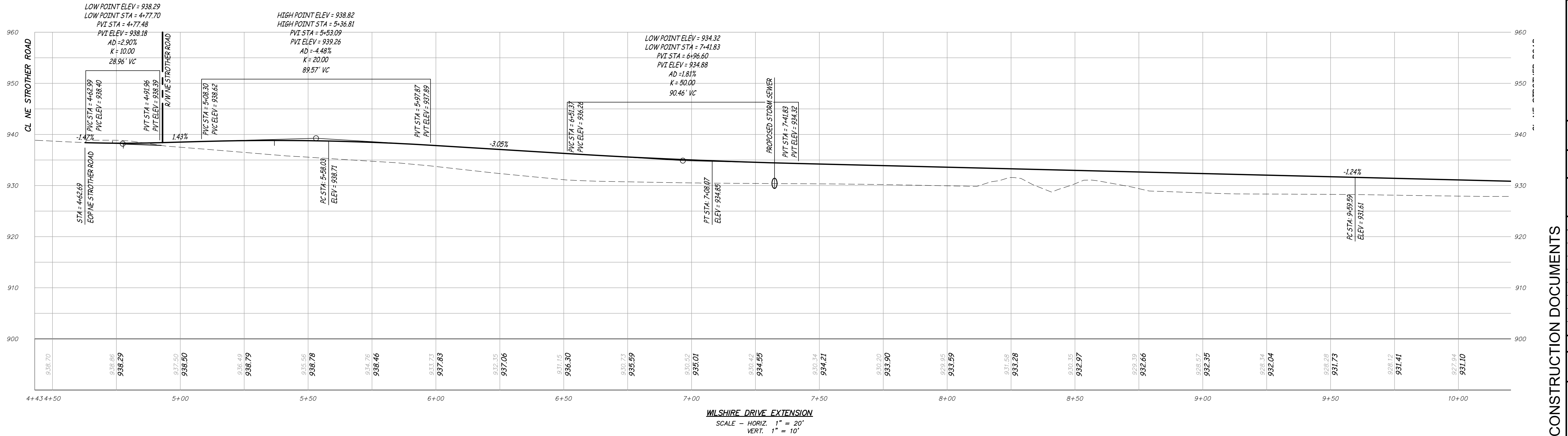
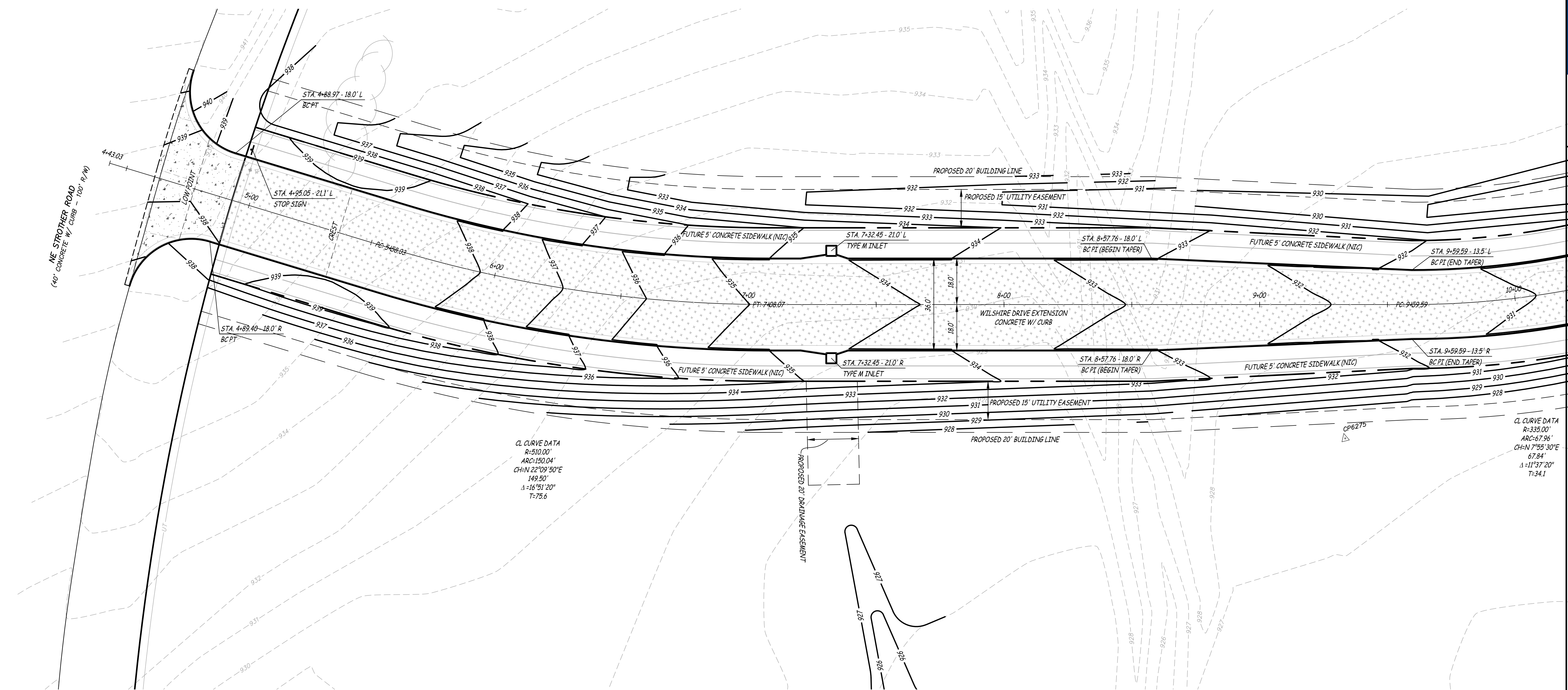
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ROAD PLAN & PROFILE

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**C2.03**

ES&S PROJECT NO. 15925

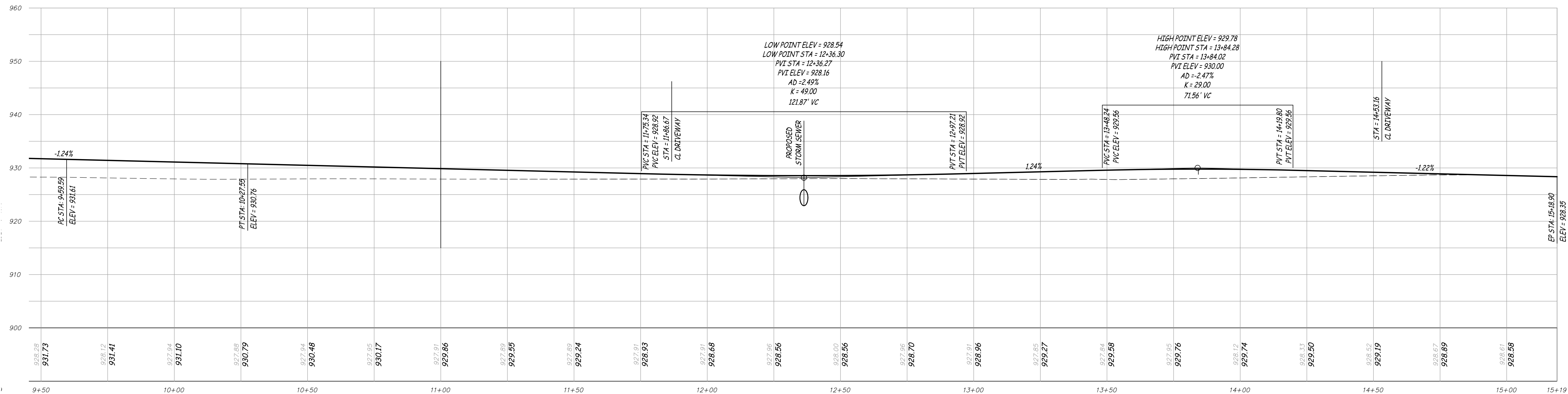
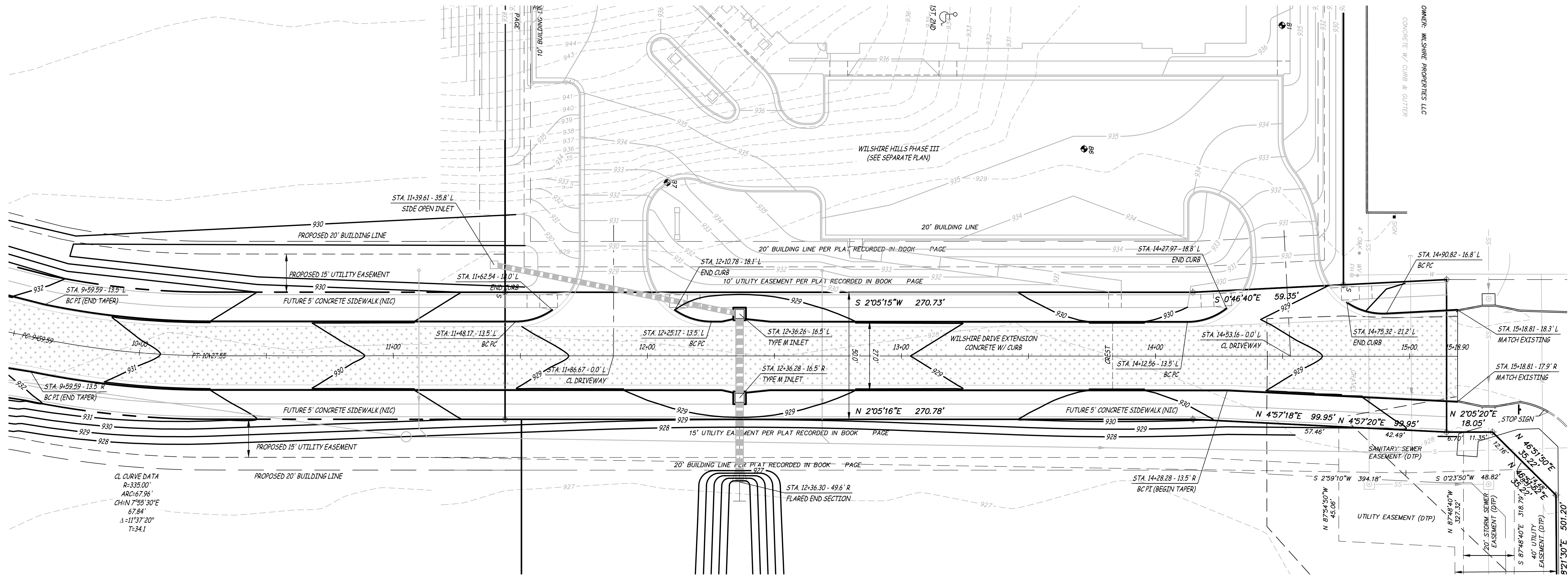
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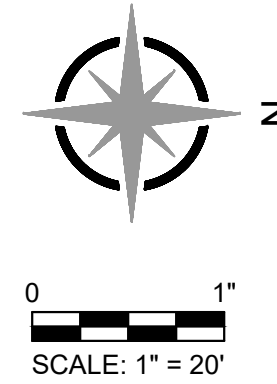
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P:\GENERAL PROJECTS\15925E-KES-WILSHIRE-HILLS-3-ENG\CAD\15925 SITE PLANDWG 6/27/2023



WILSHIRE DRIVE EXTENSION  
SCALE - HORIZ. 1" = 20'  
VERT. 1" = 10'



**PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III**  
ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO



Matthew A. Kriete  
Professional Engineer  
PE-2007002811

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**JUNE 27, 2023**

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Design: ST Drawn: MJS

ROAD PLAN & PROFILE

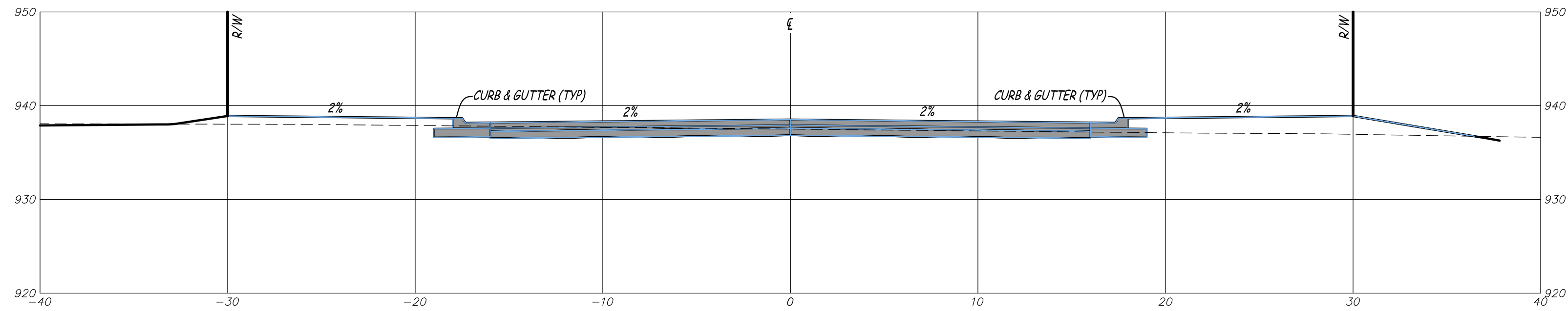
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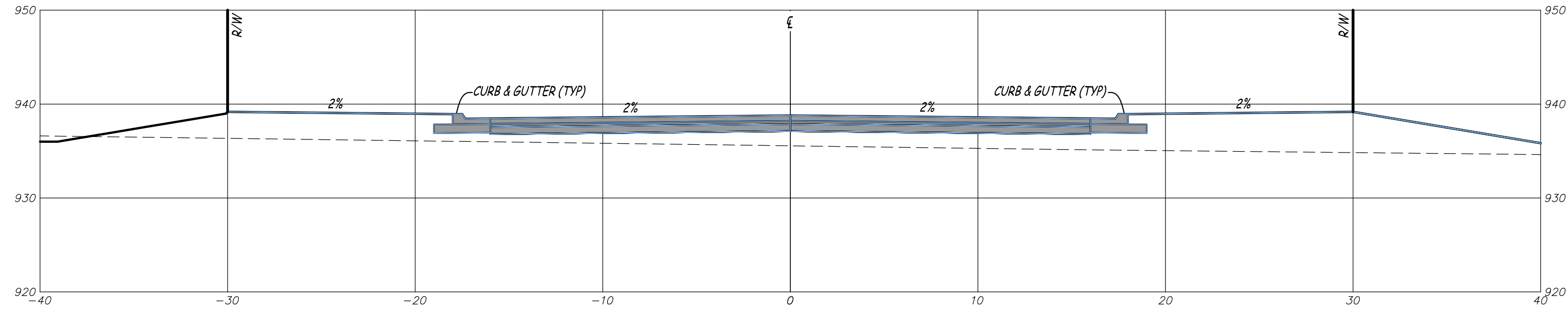
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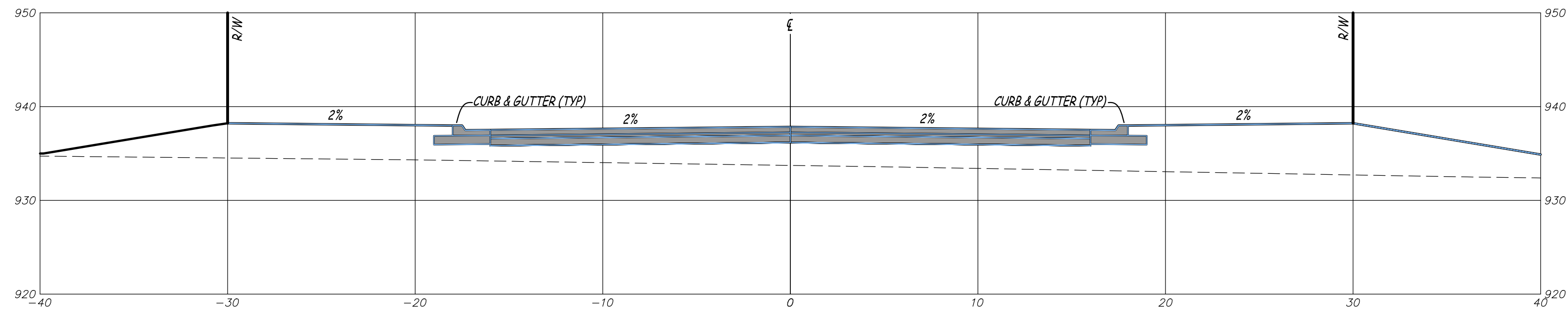
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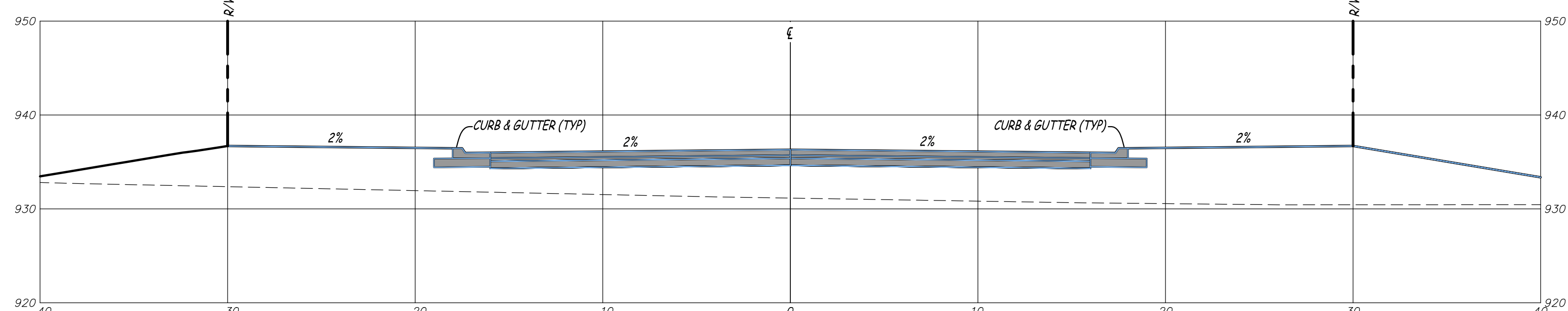
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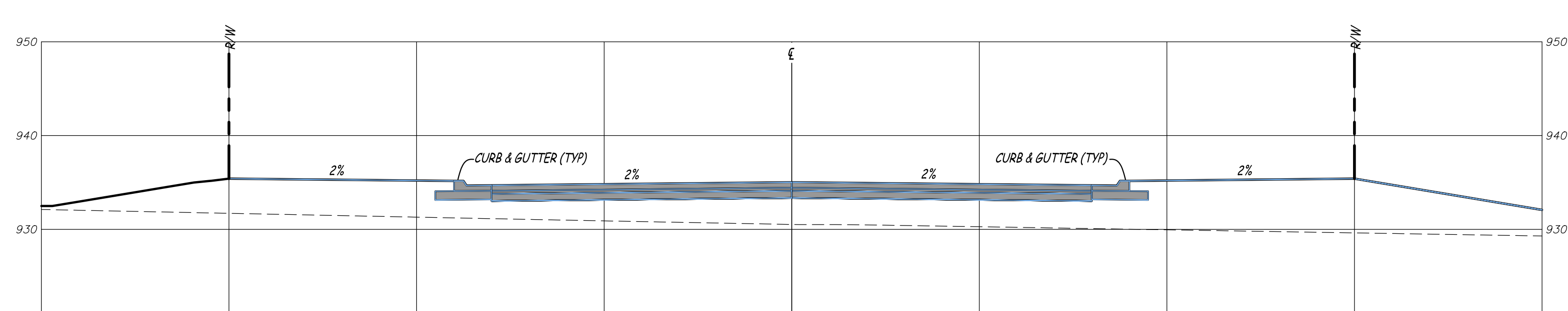
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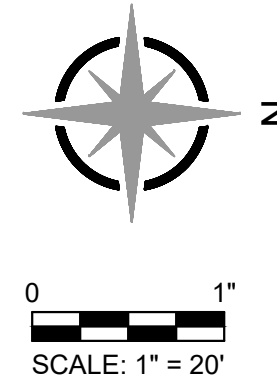
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STA. 7+00  
SCALE - HORIZ. 1" = 5'  
VERT. 1" = 10'



**PUBLIC IMPROVEMENTS FOR  
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ADDRESS  
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MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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**JUNE 27, 2023**

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Design: ST Drawn: MJS

WILSHIRE DRIVE EXTENSION  
CROSS SECTIONS

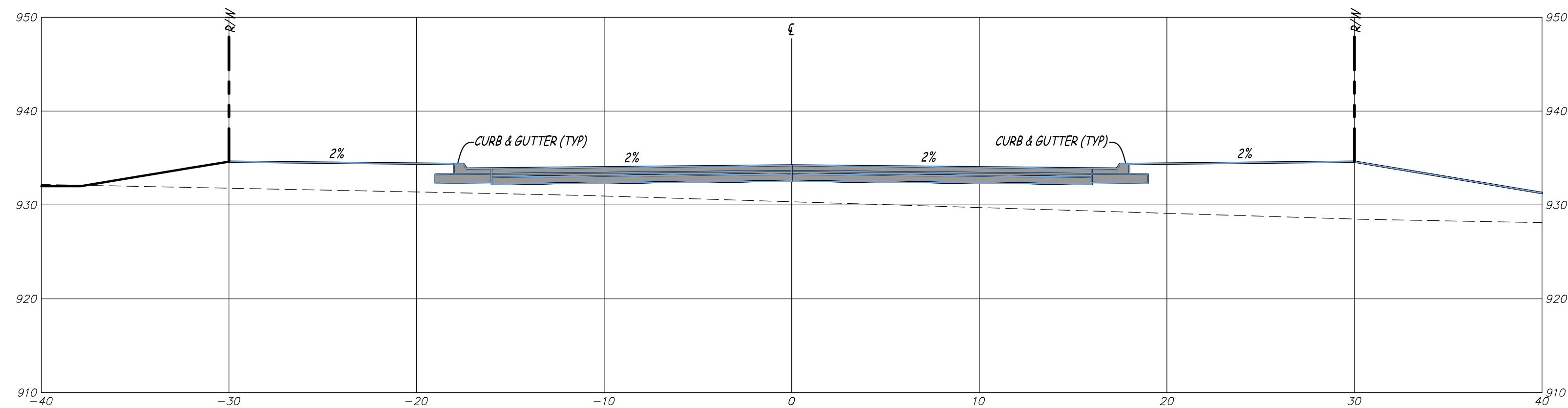
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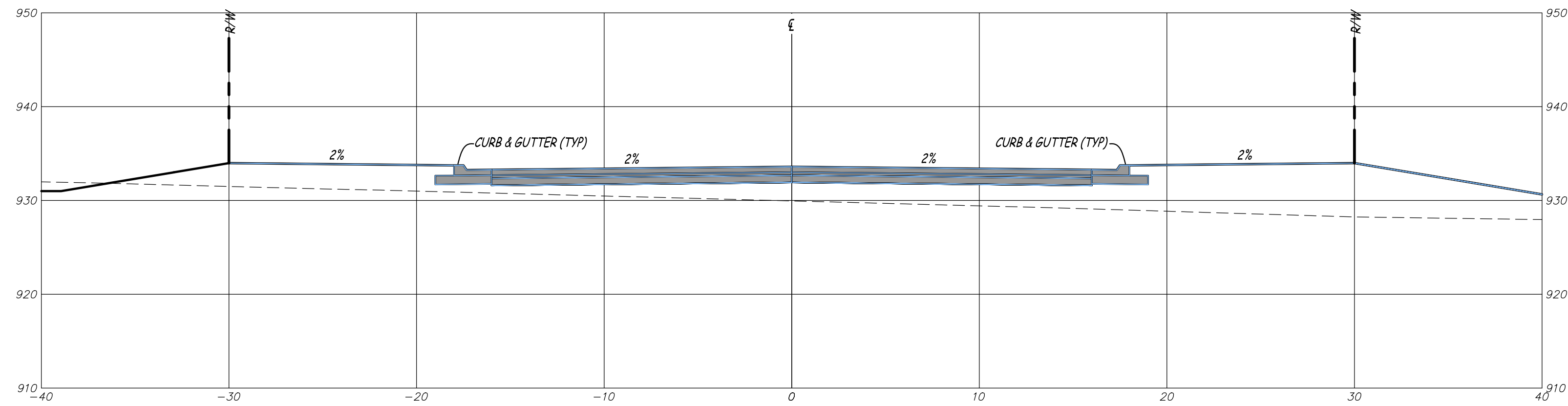
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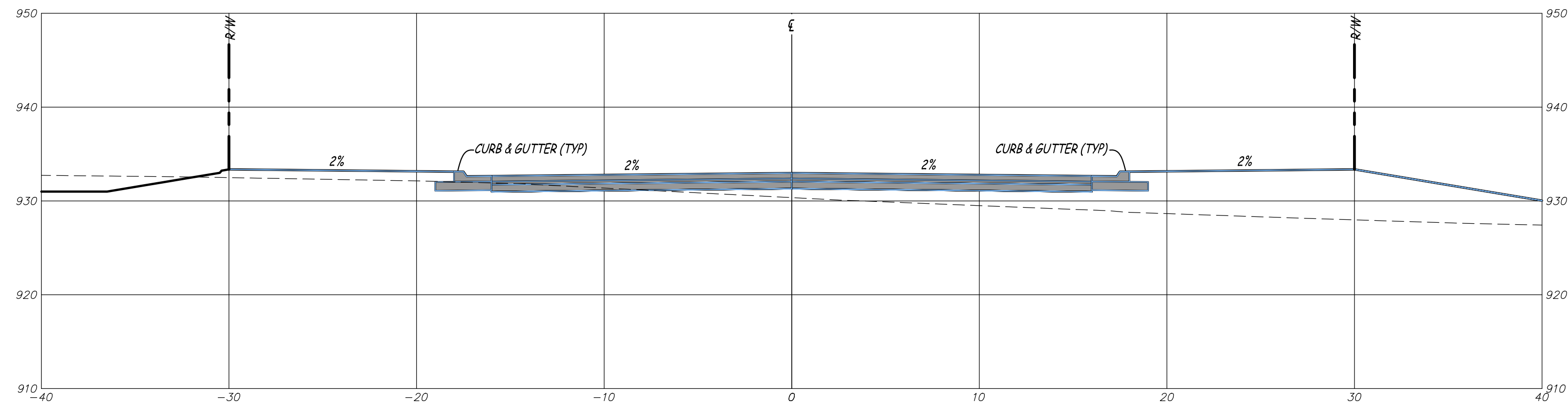
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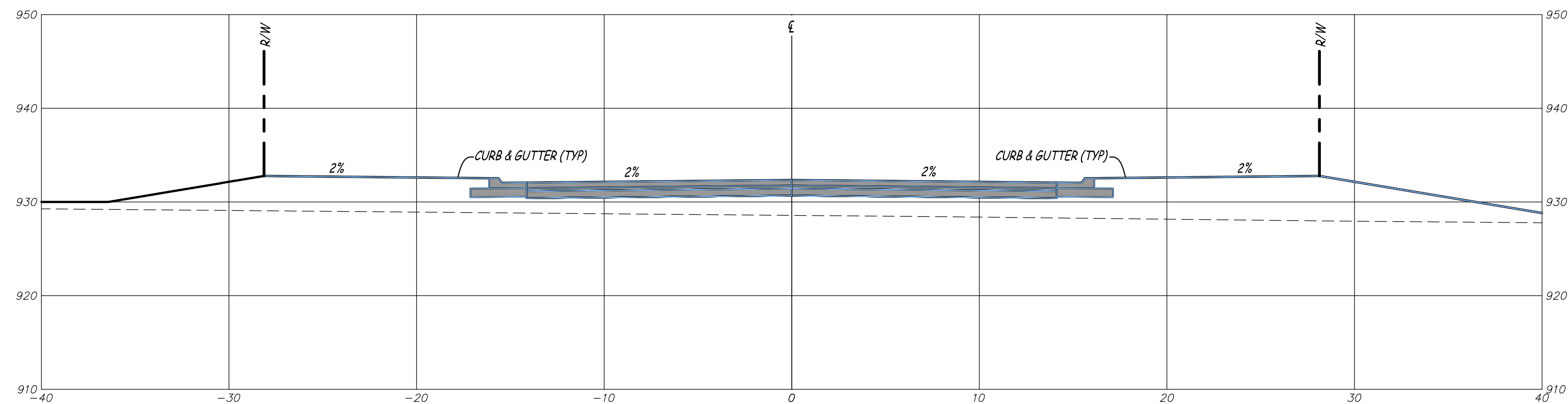
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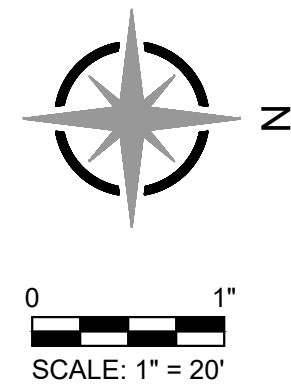
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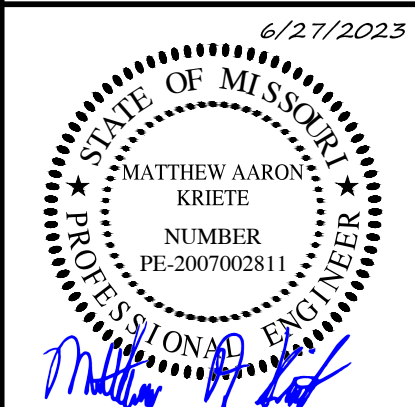
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ADDRESS  
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Design: ST Drawn: MJS  
WILSHIRE DRIVE EXTENSION  
CROSS SECTIONS

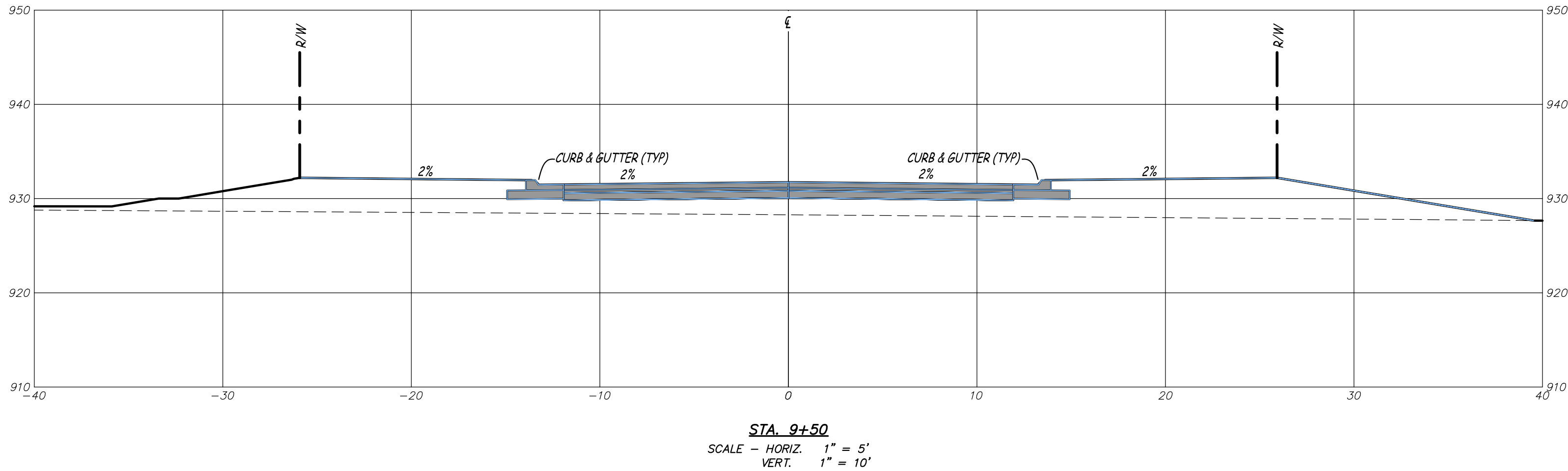
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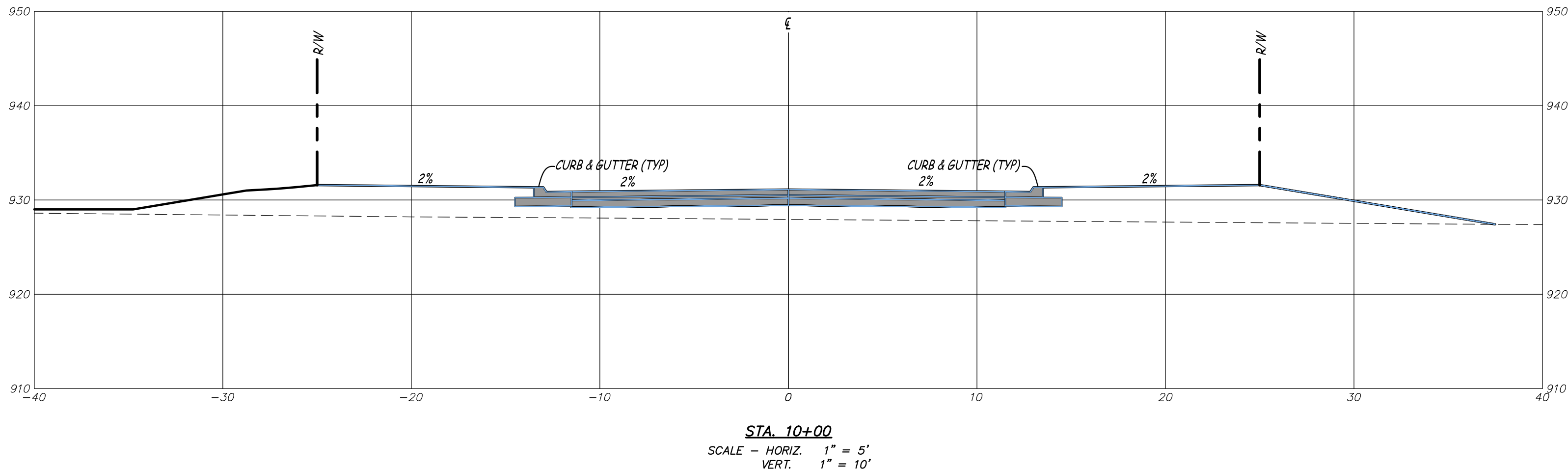
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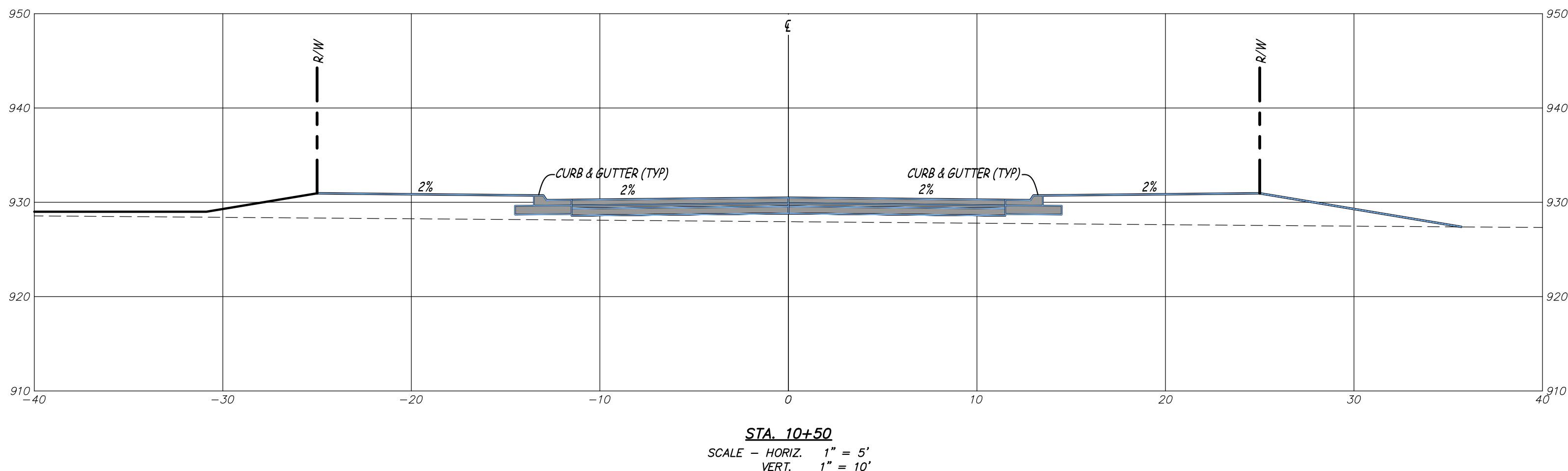
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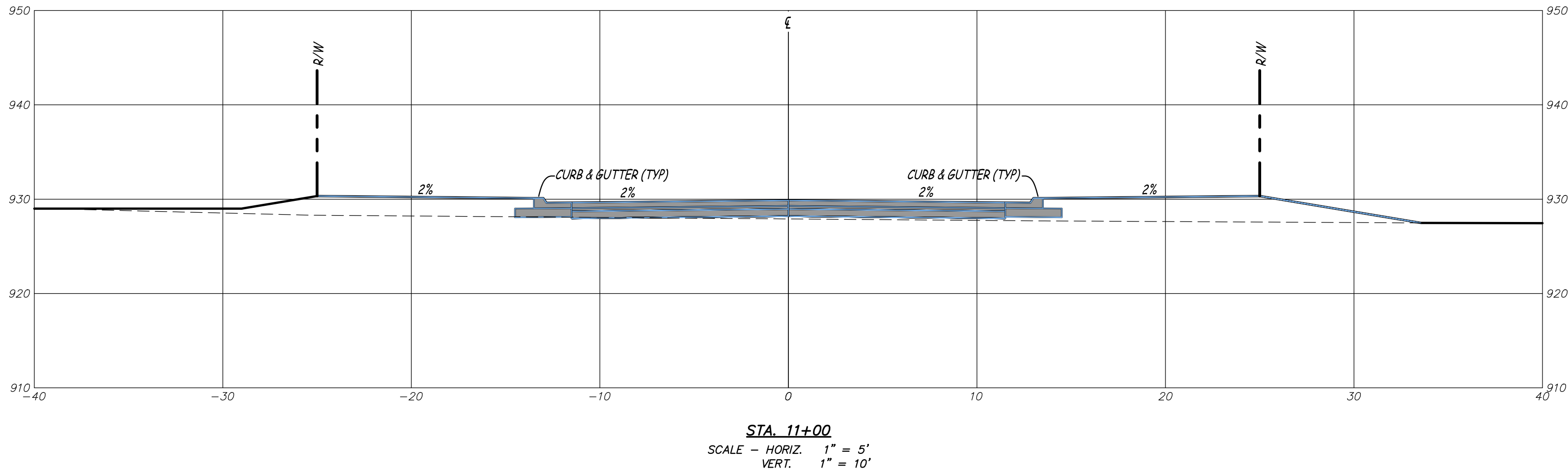
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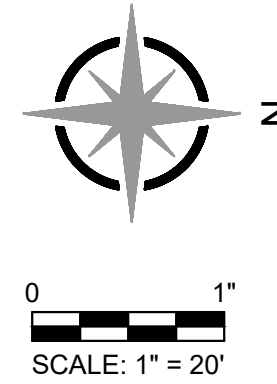
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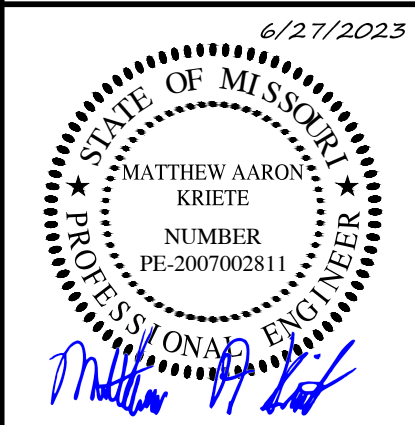
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WILSHIRE DRIVE EXTENSION  
CROSS SECTIONS

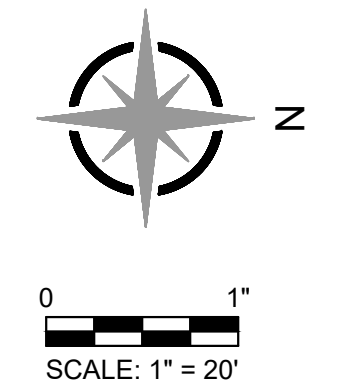
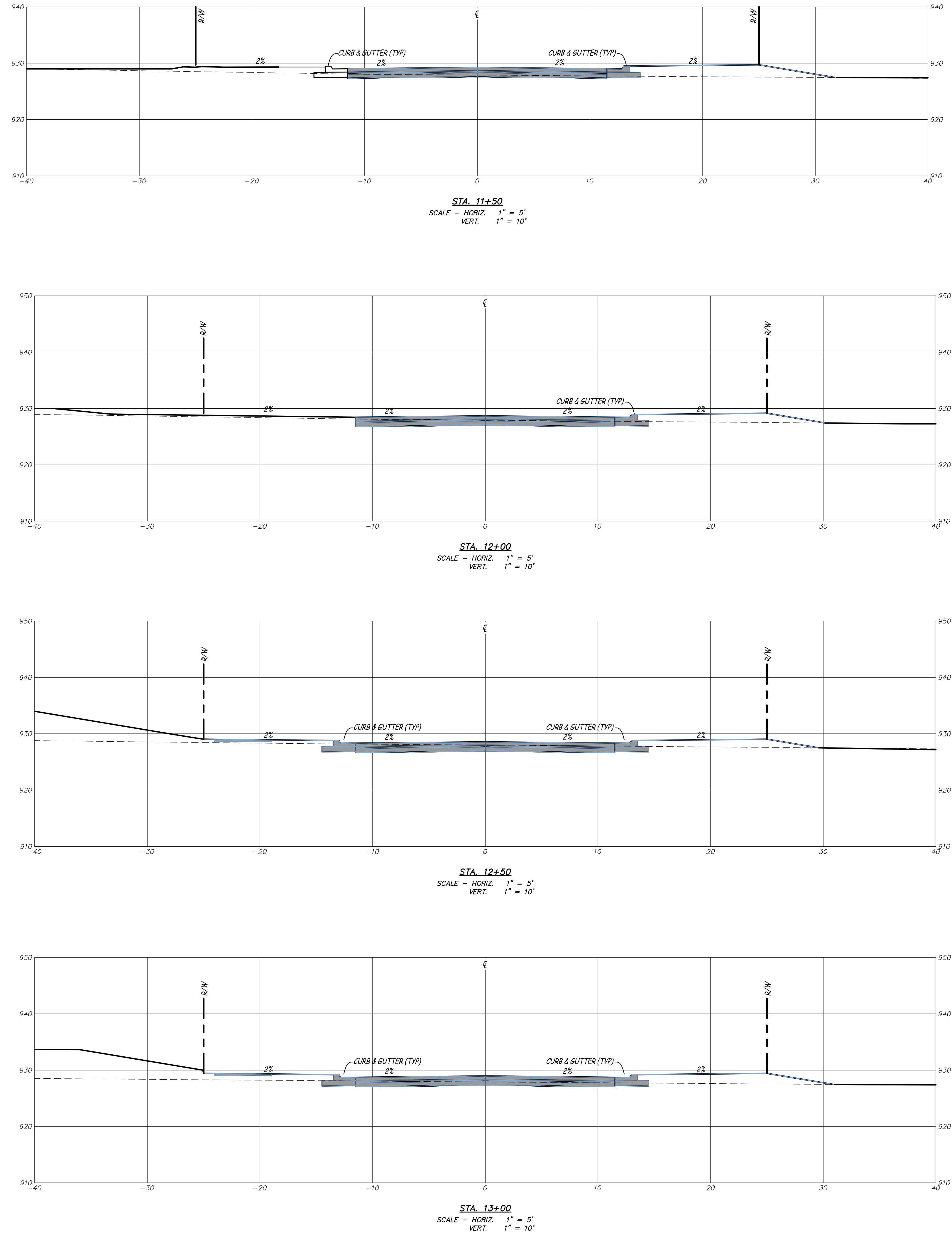
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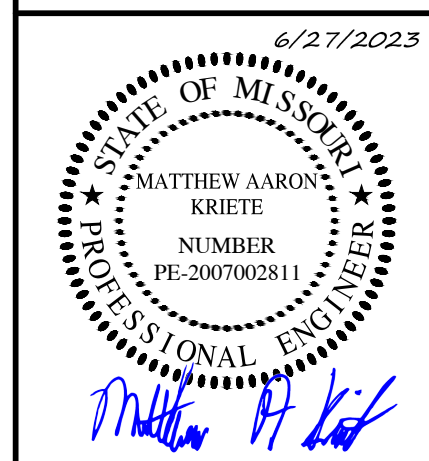
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**PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III**  
ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO



MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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**JUNE 27, 2023**

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Design: ST Drawn: MJS

WILSHIRE DRIVE EXTENSION  
CROSS SECTIONS

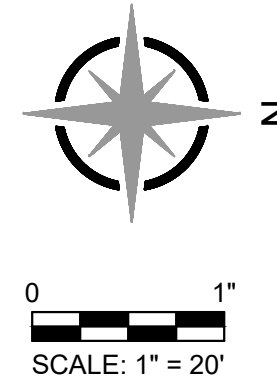
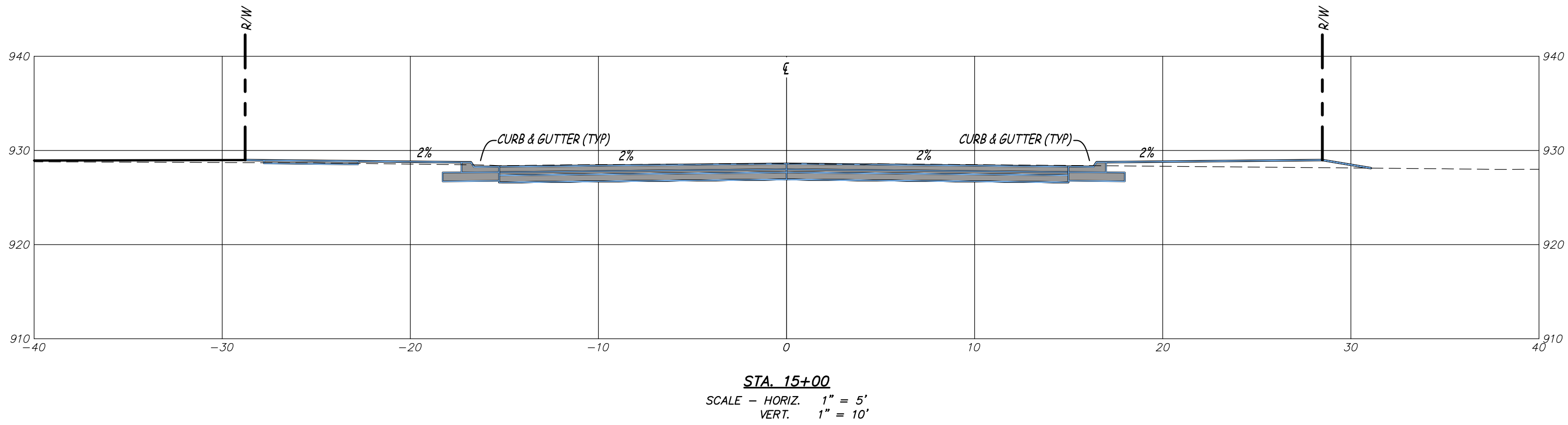
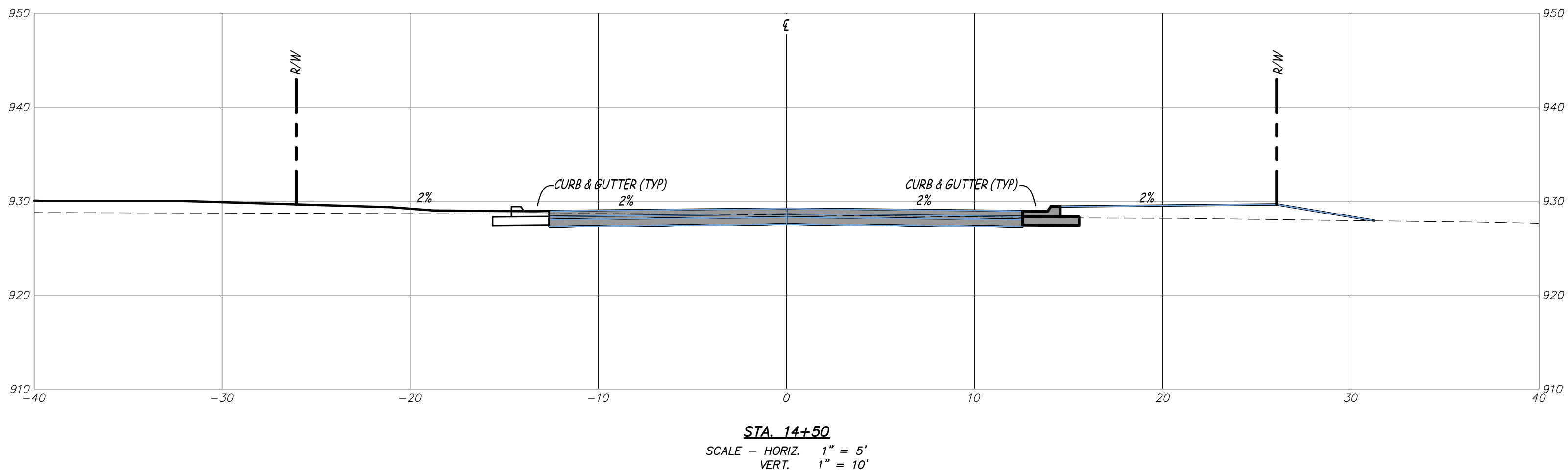
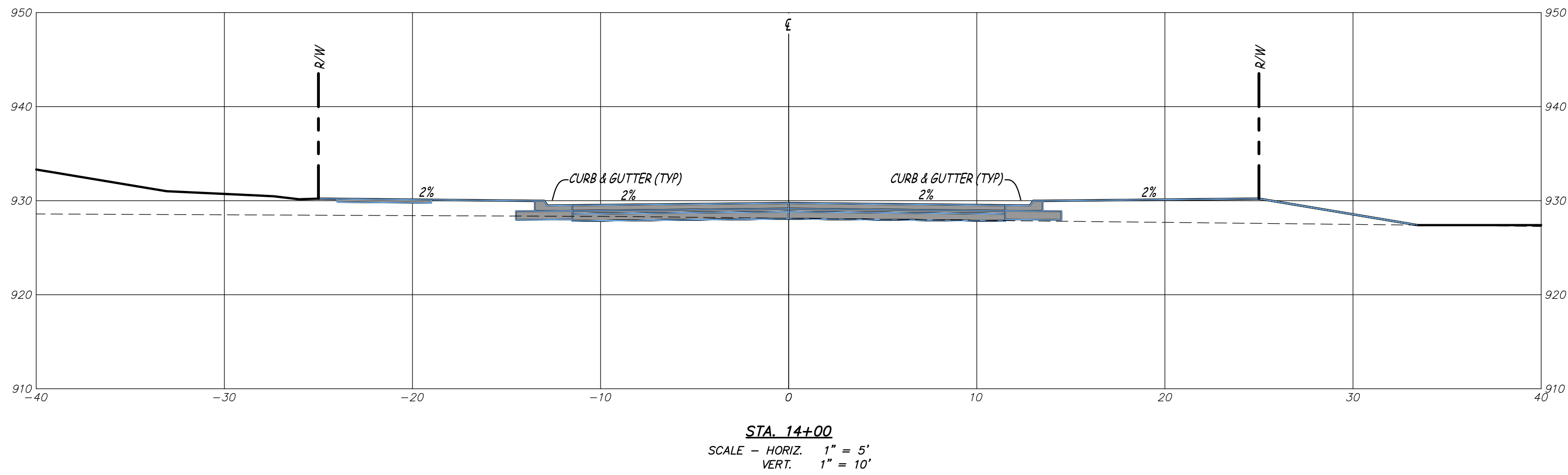
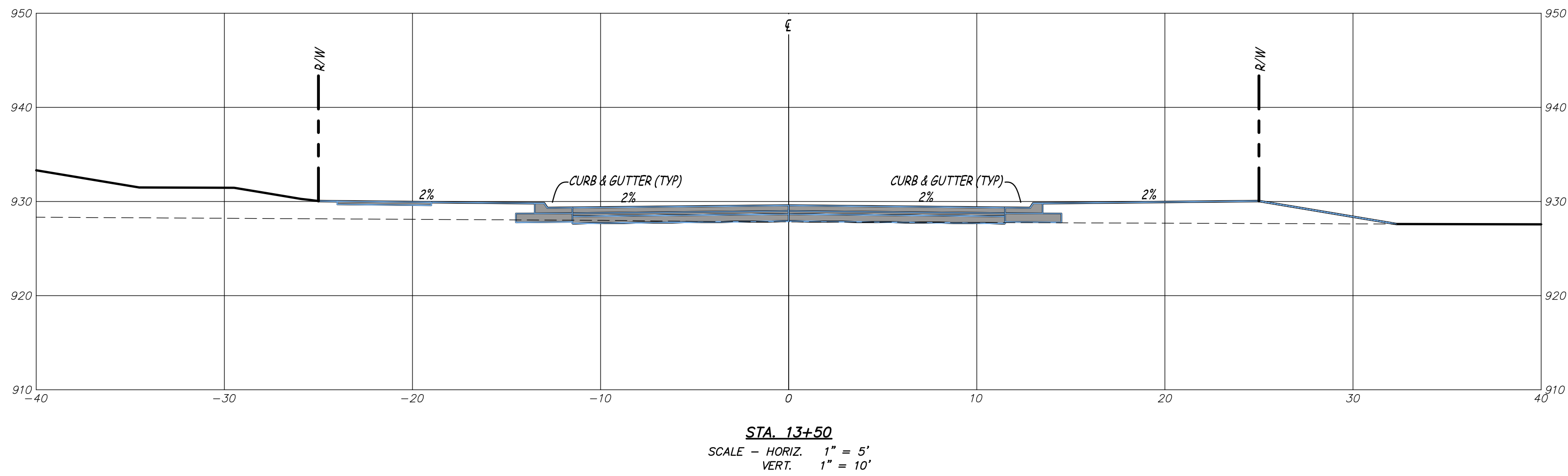
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CONSTRUCTION DOCUMENTS



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**PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III**  
ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO



MATTHEW A. KRIETE  
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Design: ST Drawn: MJS

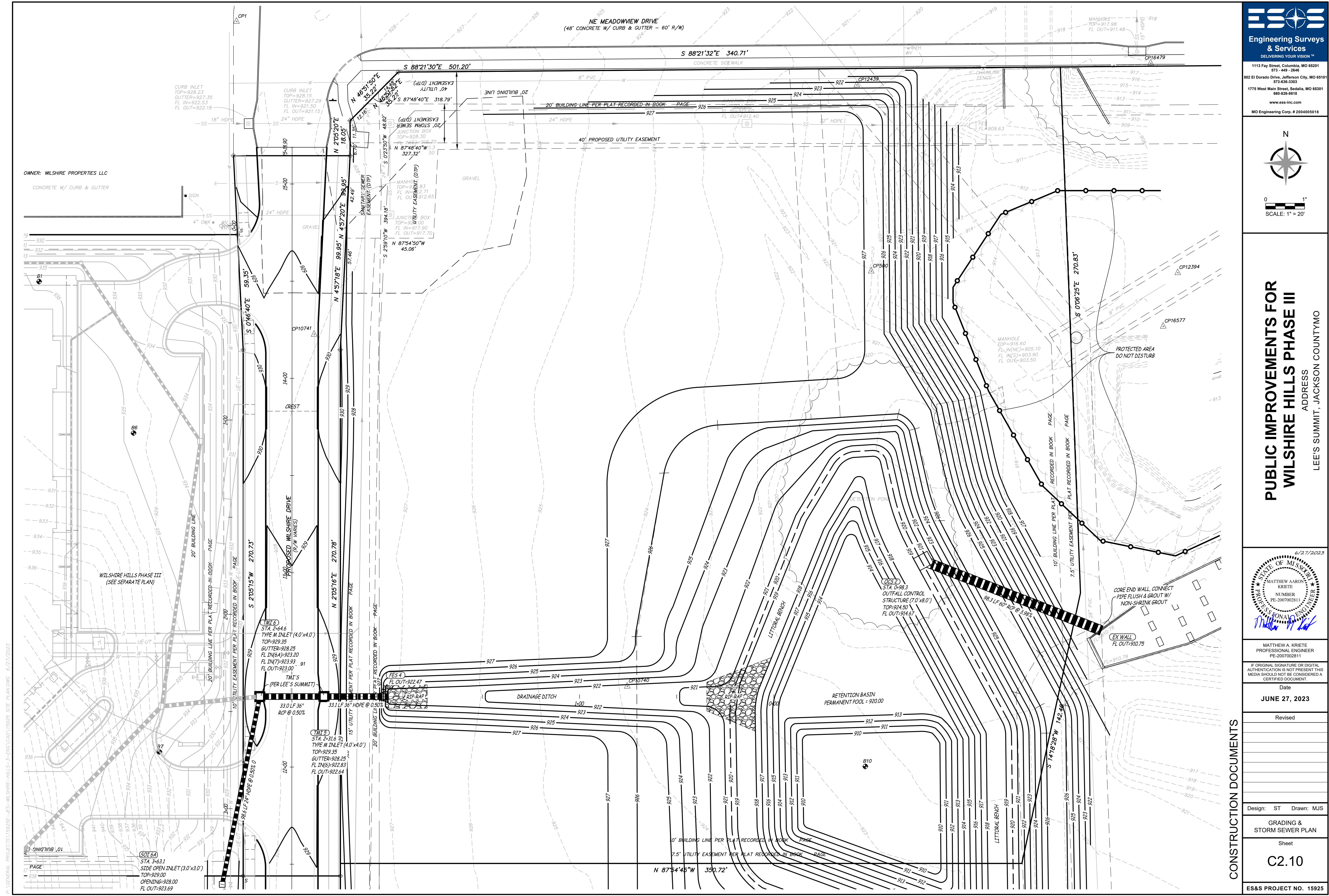
WILSHIRE DRIVE EXTENSION  
CROSS SECTIONS

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**C2.09**

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660-826-8618  
www.ess-inc.com  
MO Engineering Corp. # 2004005018

N

0 1"  
SCALE: 1" = 20'

**PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III**

ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO

6/27/2023

MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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Date  
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Design: ST Drawn: MJS

GRADING &  
STORM SEWER PLAN

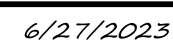
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ESS&S PROJECT NO. 15925

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LEE'S SUMMIT, JACKSON COUNTY



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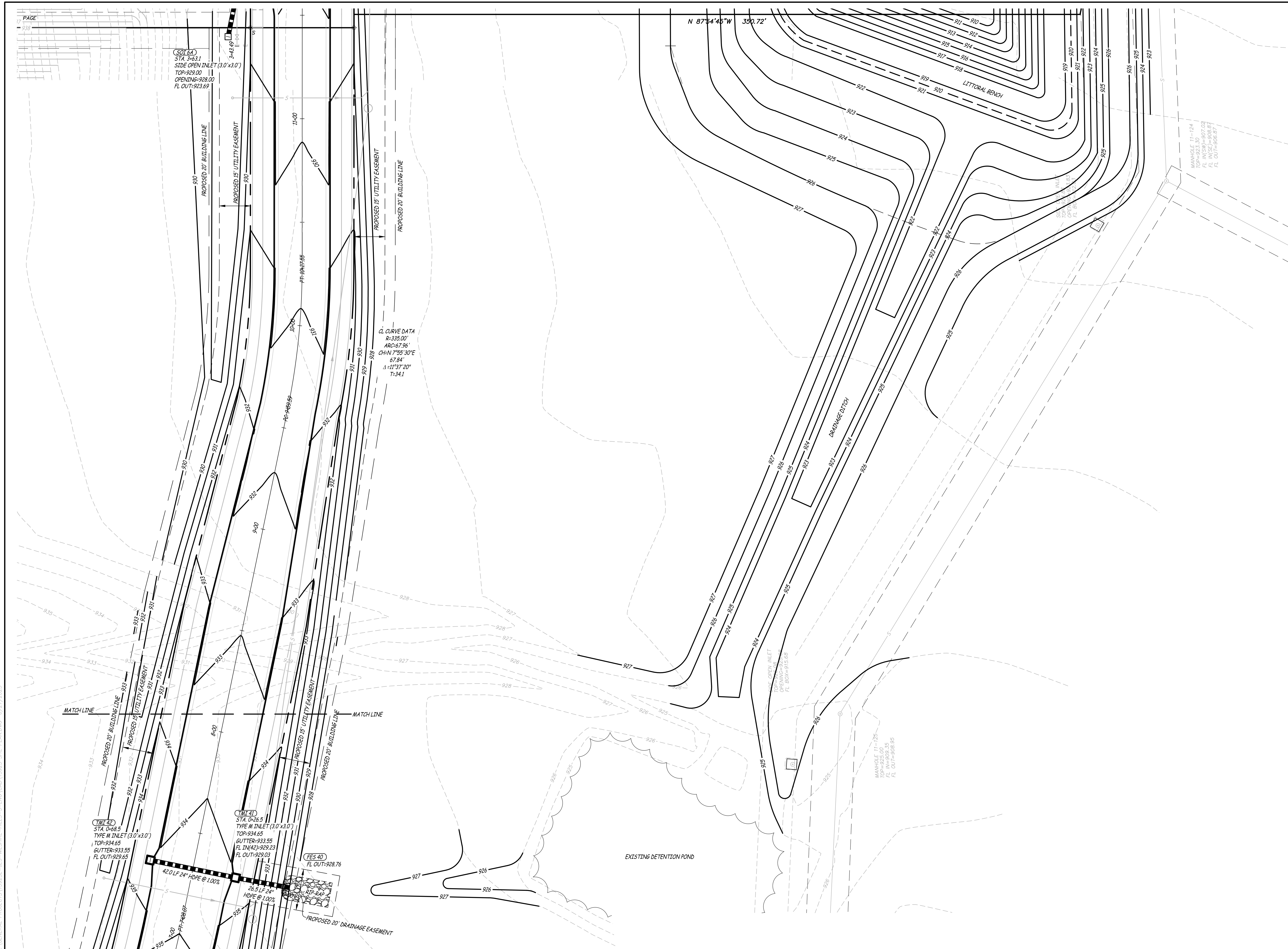
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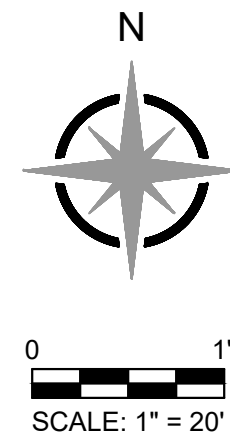
ES&S PROJECT NO. 15925

## CONSTRUCTION DOCUMENTS





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WILSHIRE HILLS PHASE III**  
ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO



MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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Design: ST Drawn: MJS

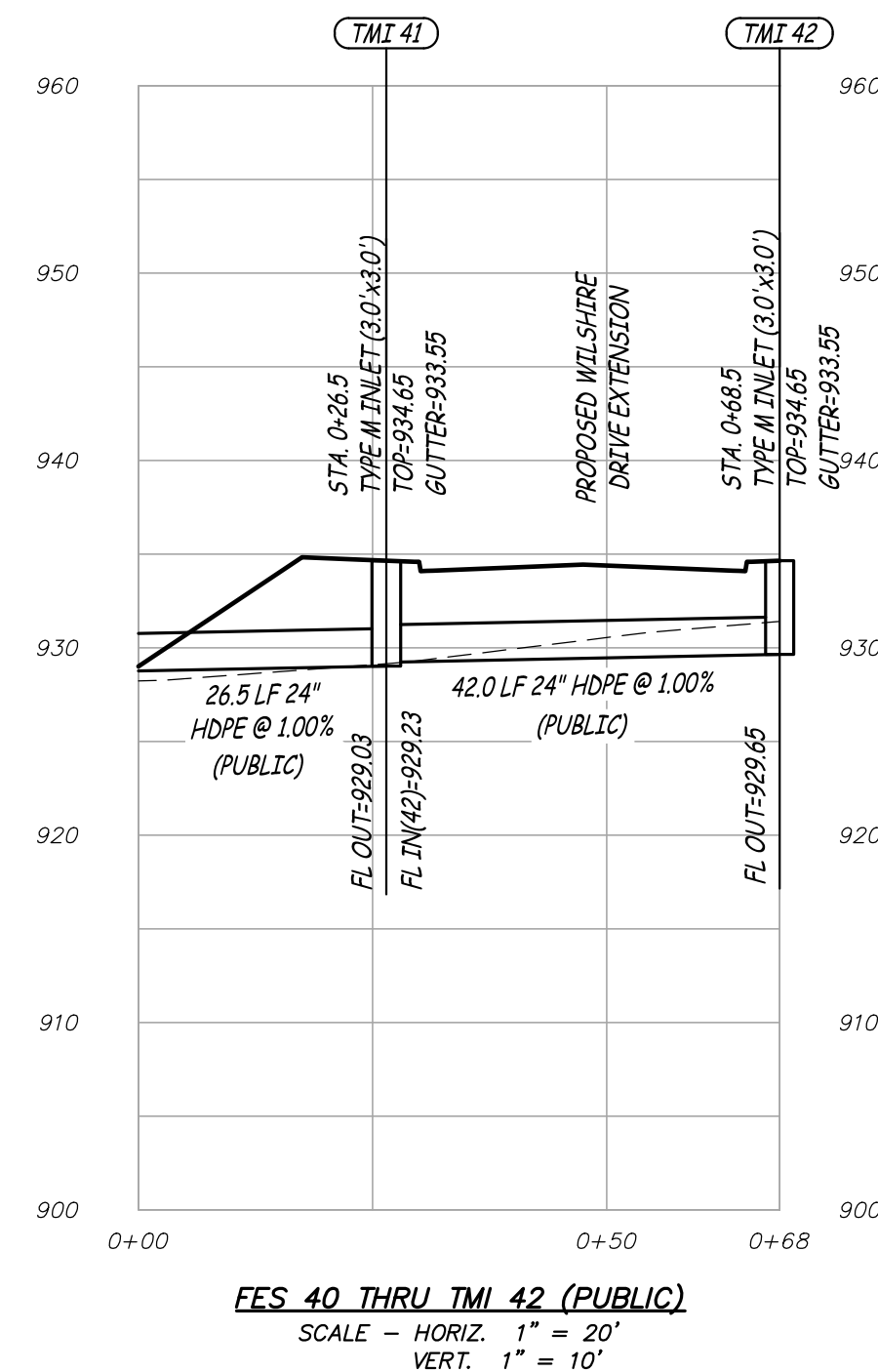
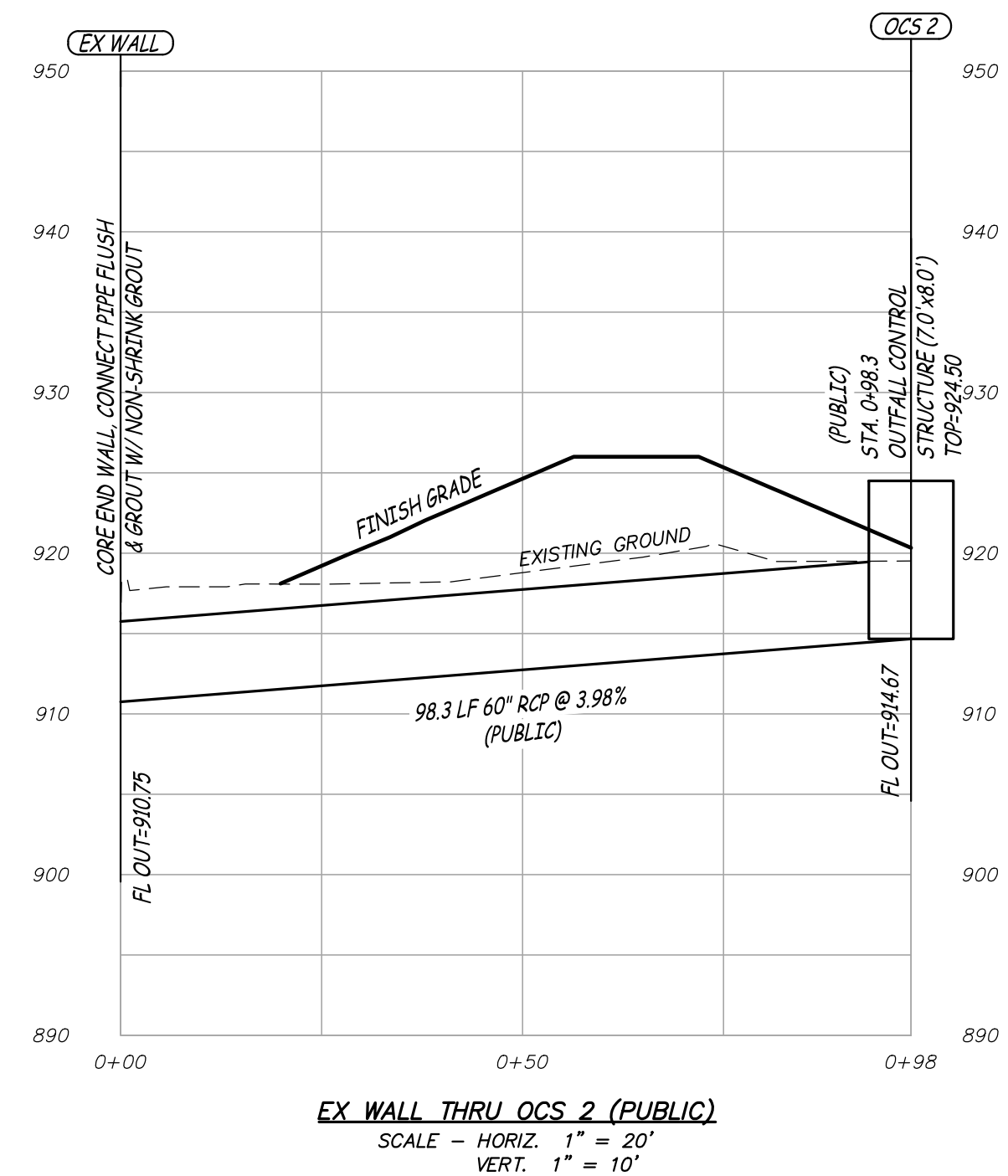
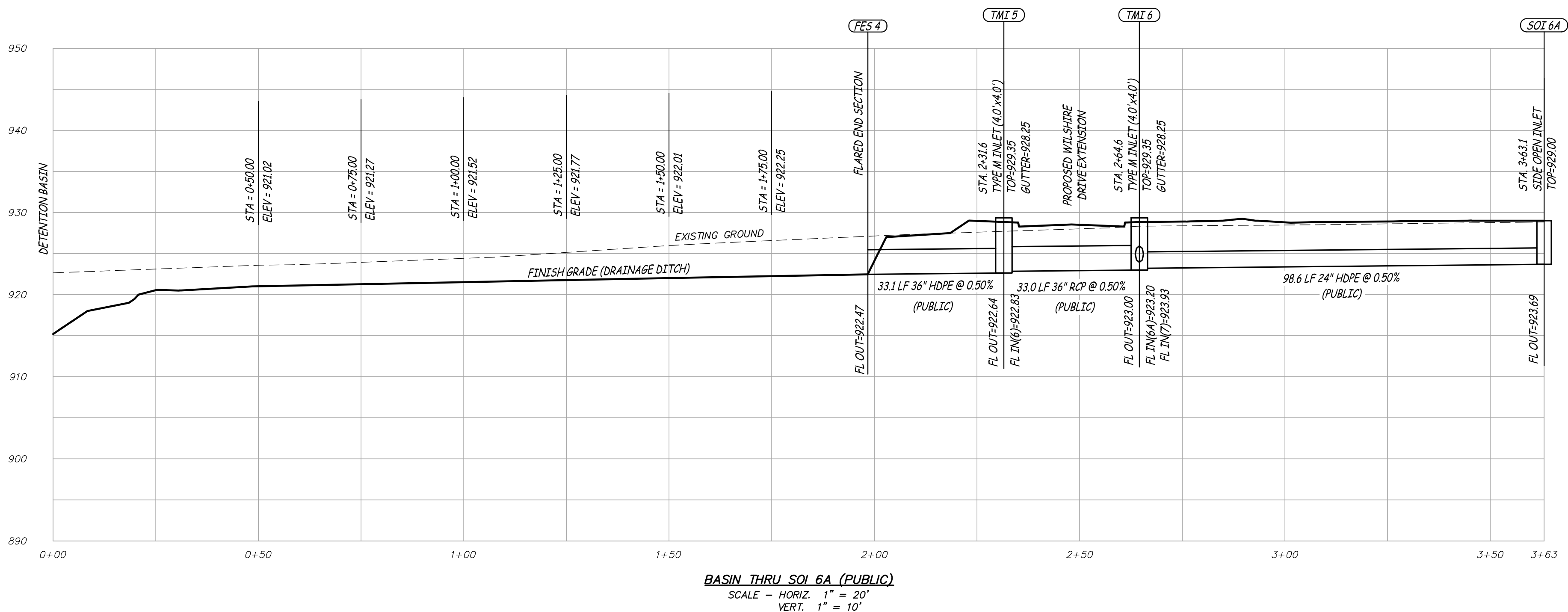
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STORM SEWER PLAN

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ADDRESS  
LEE'S SUMMIT, JACKSON COUNTYMO

6/27/2023

STATE OF MISSOURI  
MATTHEW AARON KRIETE  
PROFESSIONAL ENGINEER  
NUMBER PE-2007002811

MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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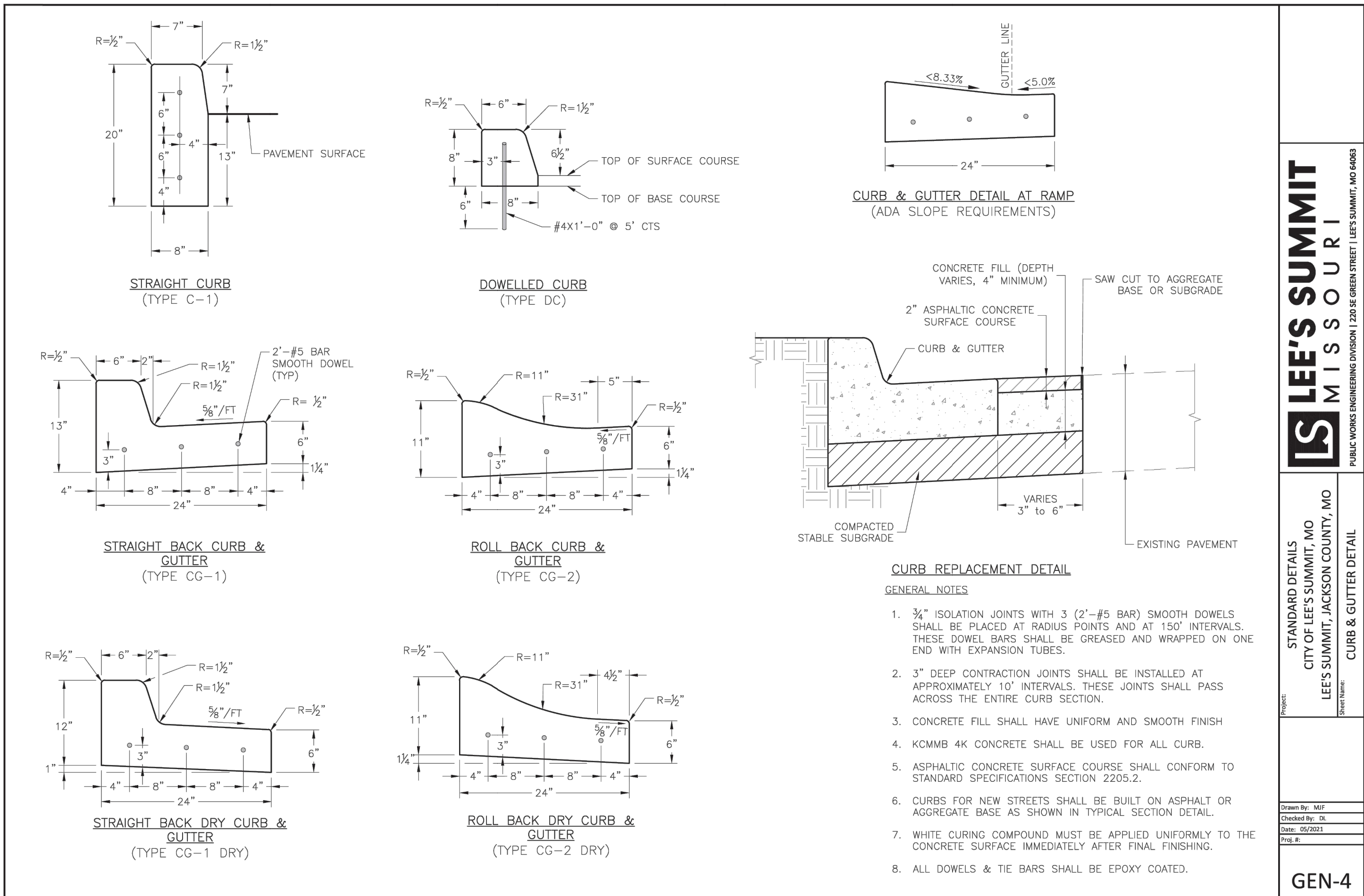
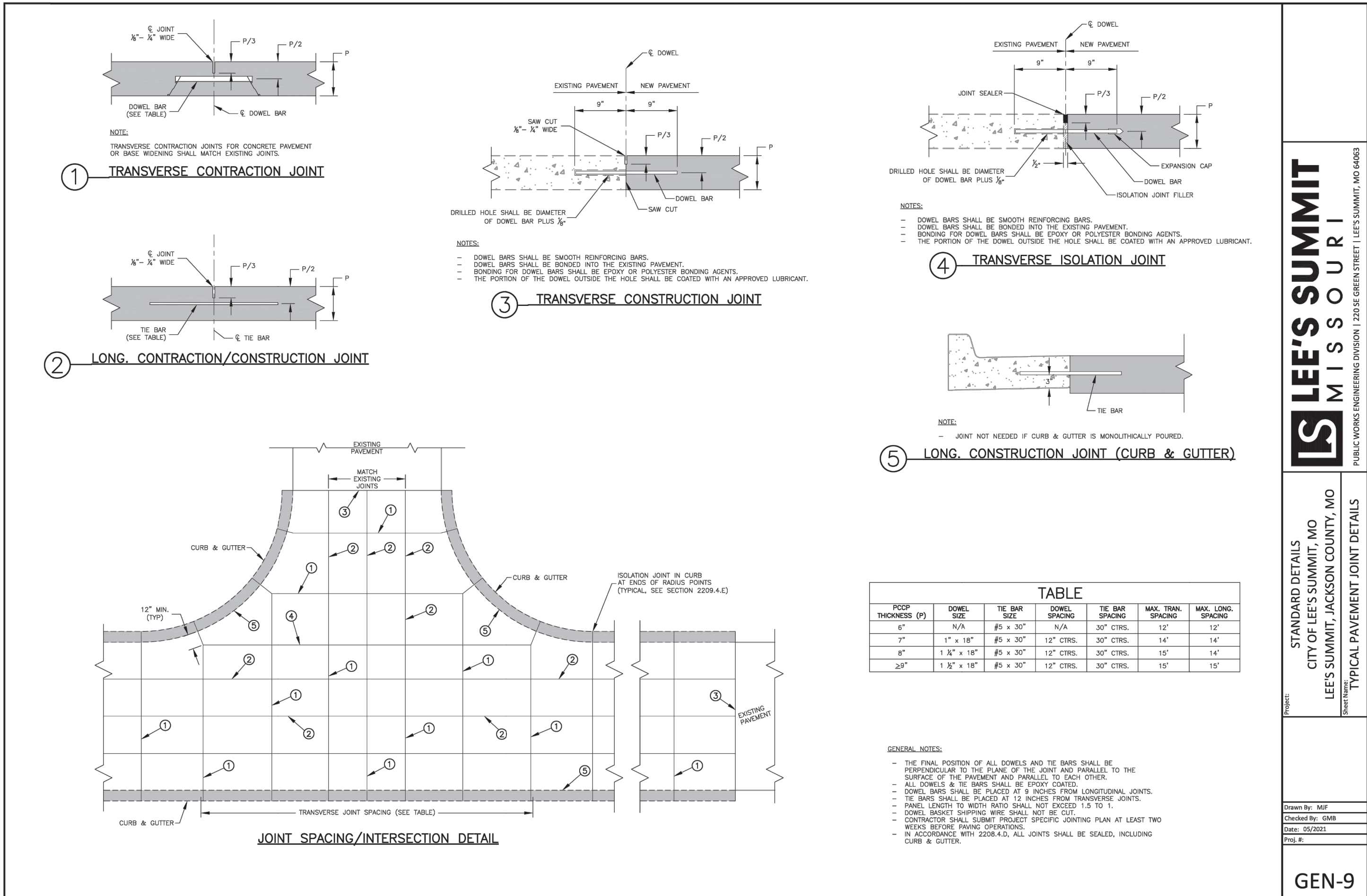
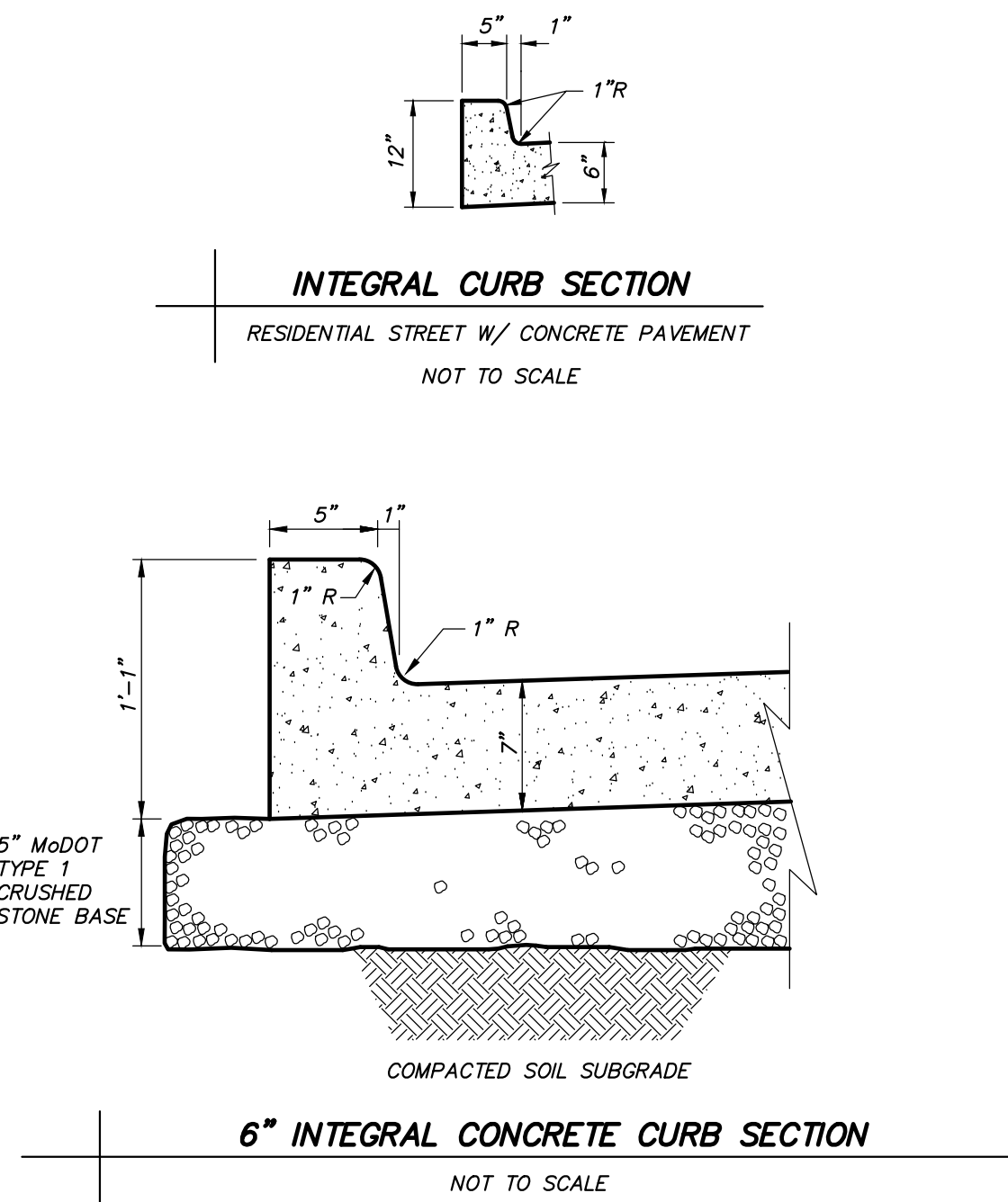
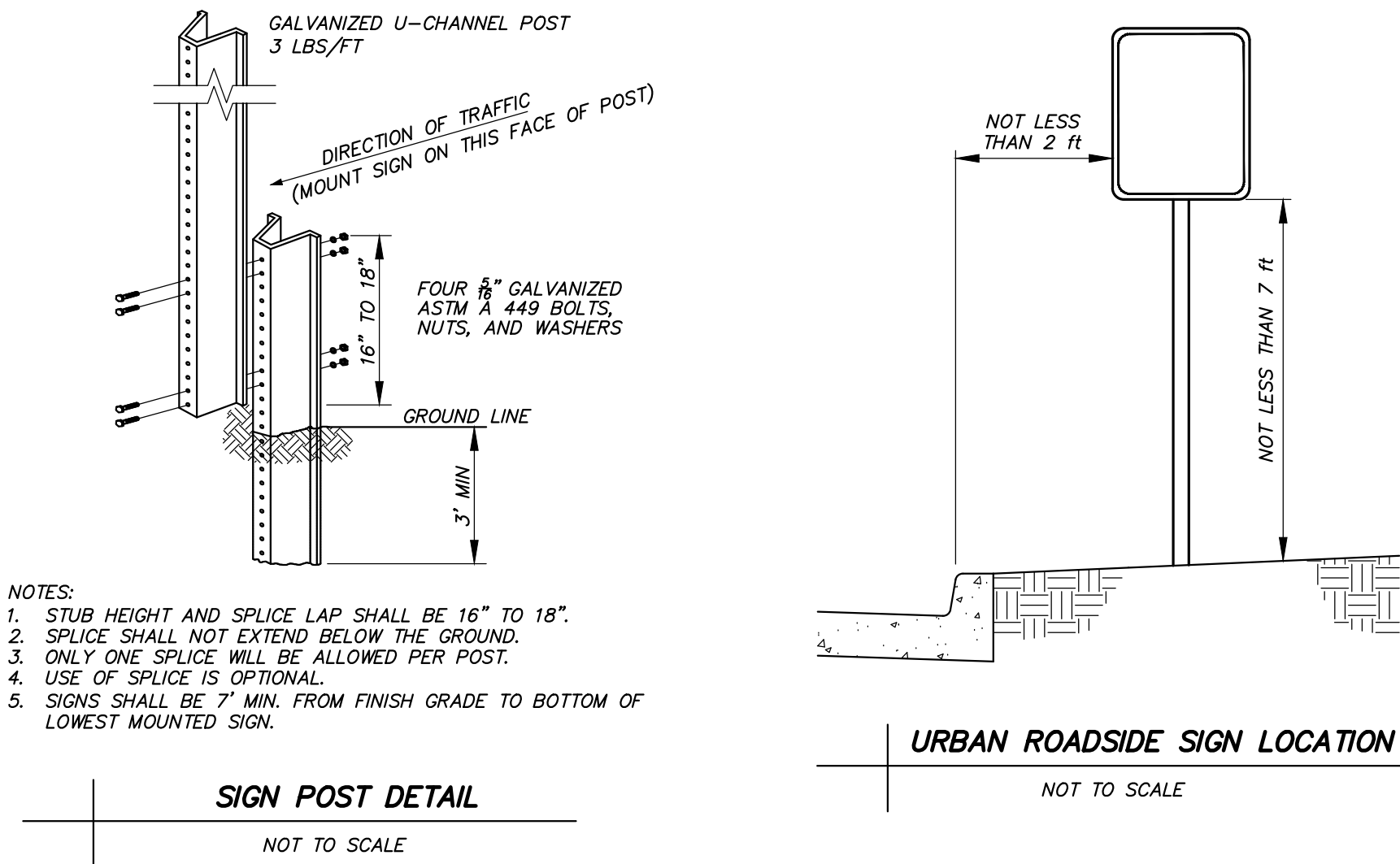
STORM SEWER PROFILES

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ES&S PROJECT NO. 15925

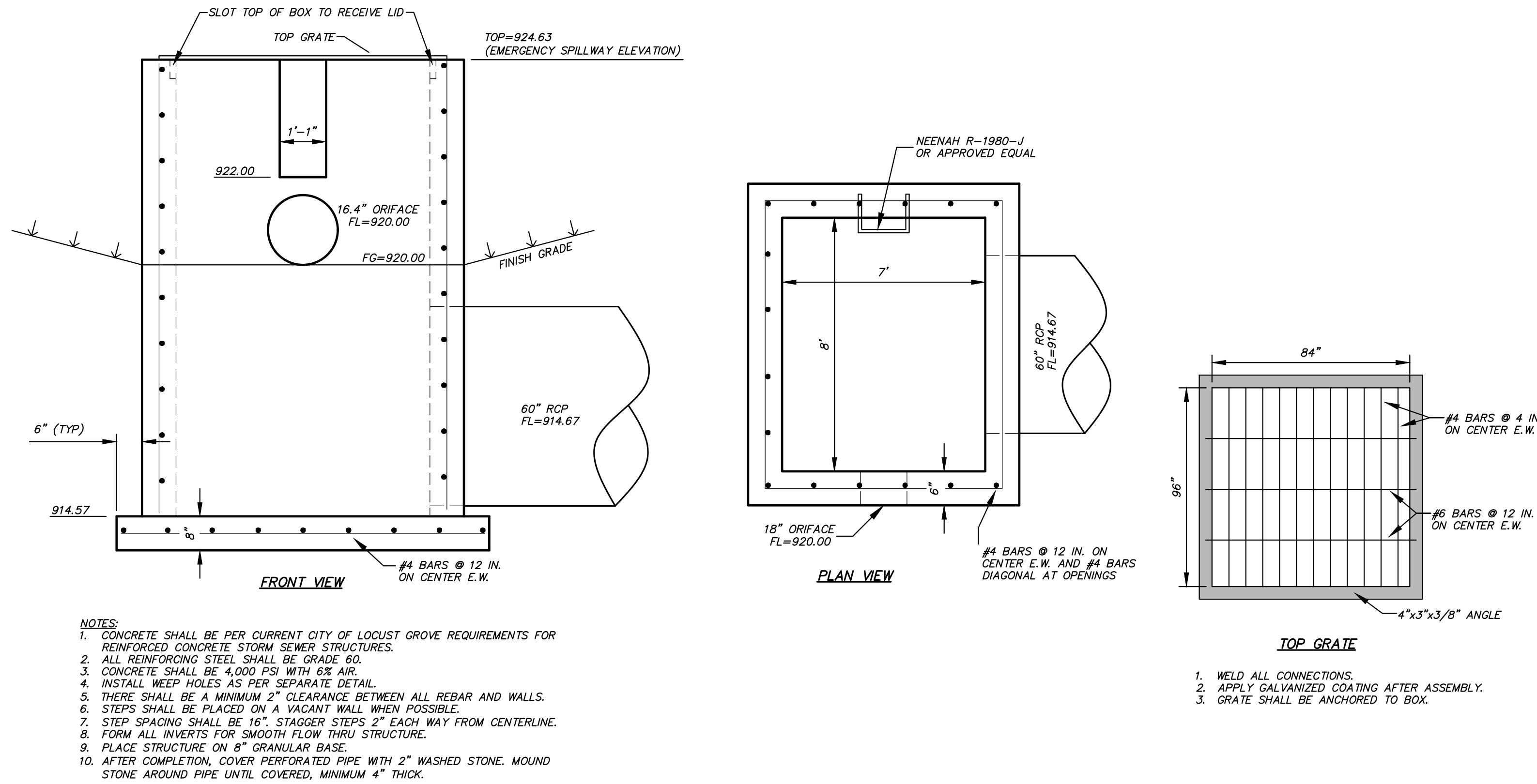


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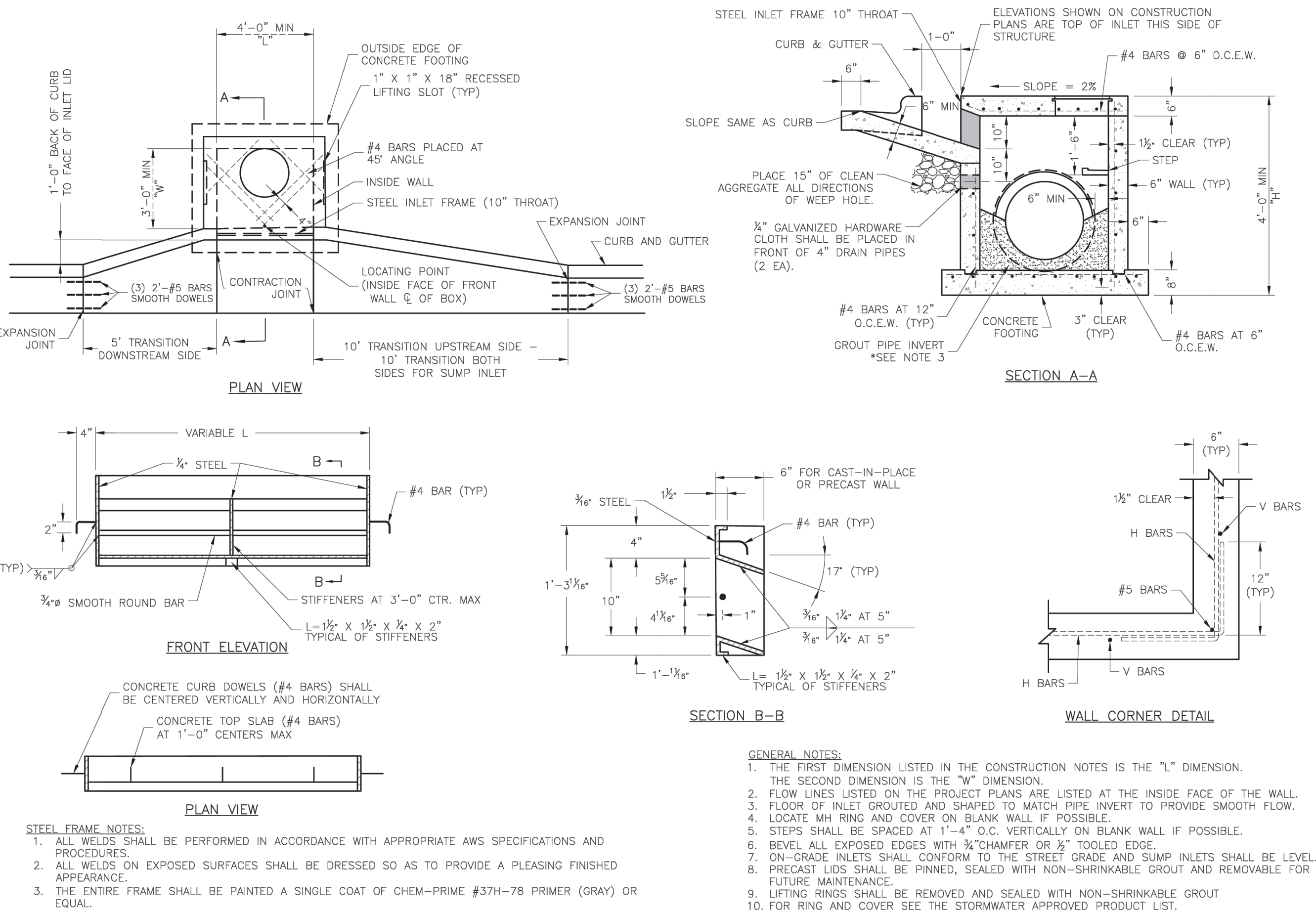


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OUTFALL STRUCTURE 2 (OCS 2)

NOT TO SCALE



LEE'S SUMMIT  
MISSOURI

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

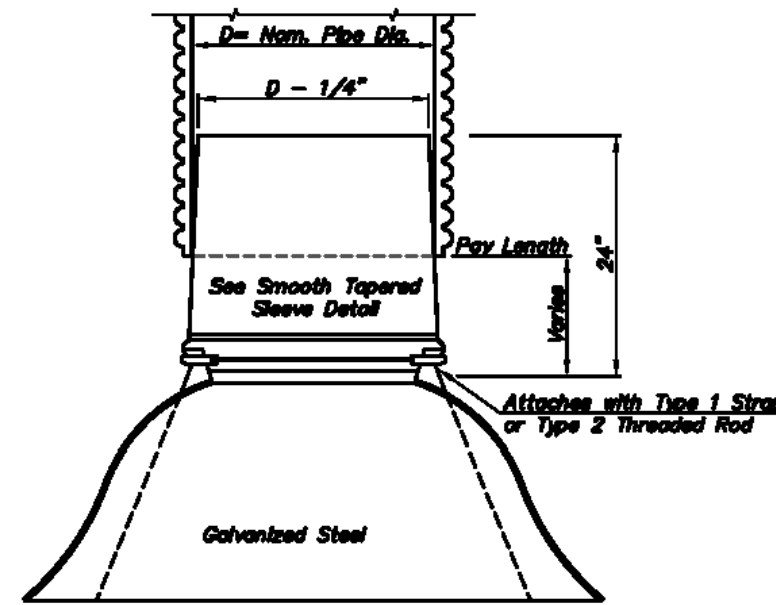
STM-1

END SECTIONS FOR HDPE PIPE									
Dia.	Gauge	Weight	* A	* H	* L	* W	Slope	Overall	
6"	16	10	4	3	8	12	2	20"	
8"	16	14	5 3/4	4	14 1/2	18	2 1/4	27 1/2"	
10"	16	17	7 5/8	6	14 1/2	20	2 1/2	35 1/4"	
12"	16	25	7	6	21	24	2 1/2	38"	
15"	16	33	8	8	28	30	2 1/2	48"	
18"	16	42	8	8	31	36	2 1/2	52"	
21"	16	49	9	9	36	42	2 1/2	60"	
24"	16	65	10	9	41	48	2 1/2	68"	
30"	14	123	12	9	51	60	2 1/2	84"	
36"	14	139	14	9	60	72	2 1/2	100"	
42"	12	320	16	11	69	84	2 1/2	116"	
48"	12	375	18	12	78	90	2 1/4	126"	
54"	12	440	18	12	84	102	2 1/4	136"	
60"	12/10	610	18	12	87	114	2	150"	

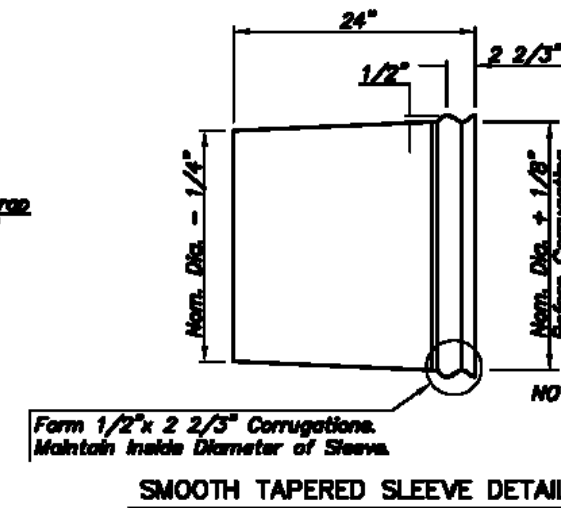
The plate extensions where specified, to be punched to match holes in open lip. 3/8" bolts to be furnished. The length of toe plate to be as follows: W + 10" for 12" to 30" diameter pipes inclusive. W + 20" for 36" to 60" diameter pipes inclusive.

Multiple panel and sections shall have lap seams which are to be tightly jointed by bolts. Corner plate, and toe plate to be same gauge as end section.

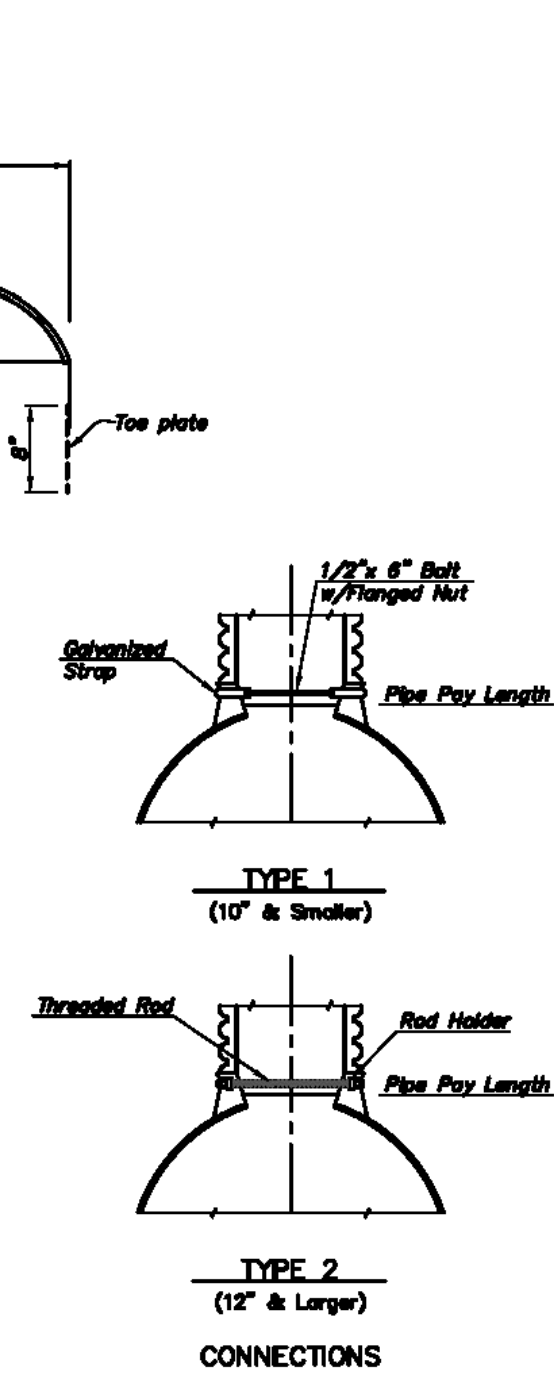
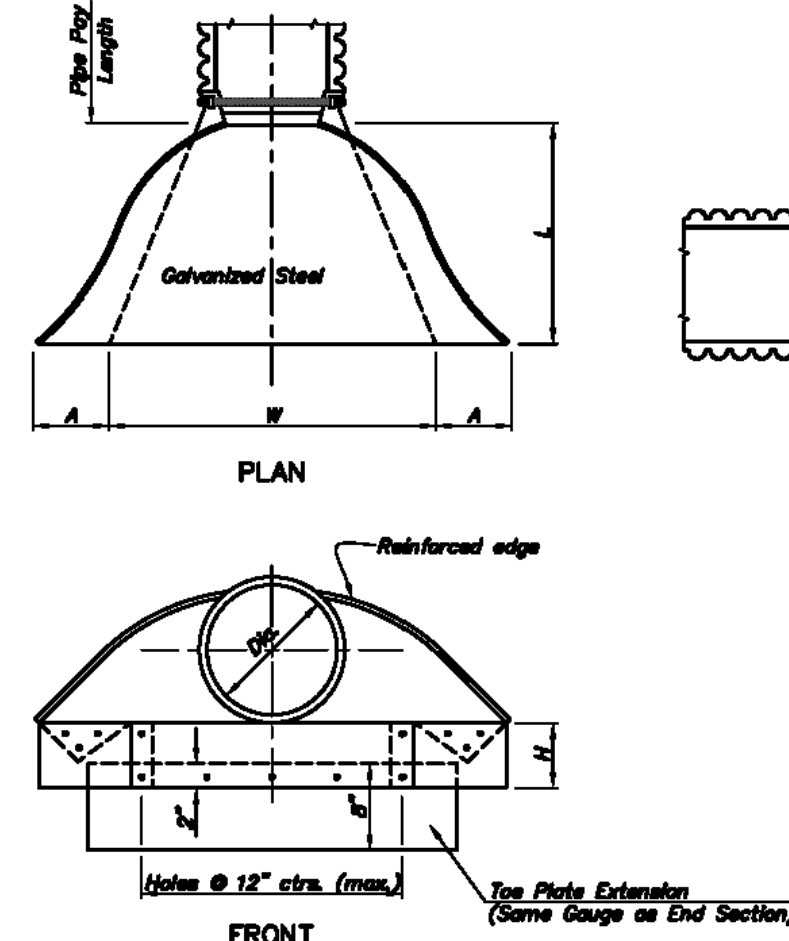
\* - Dimensions in inches Plus or Minus Standard Shop Tolerance.



TAPERED SLEEVE FOR ATTACHING STEEL END SECTIONS TO SMOOTH PIPE



SMOOTH TAPERED SLEEVE DETAIL



STANDARD END SECTION FOR HDPE PIPES

CONSTRUCTION DOCUMENTS

PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III  
ADDRESS  
LEE'S SUMMIT, JACKSON COUNTY, MO



MATTHEW A. KRIETE  
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PE-2007002811

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Date  
JUNE 27, 2023

Revised

Design: ST Drawn: MJ5

STORM SEWER DETAILS

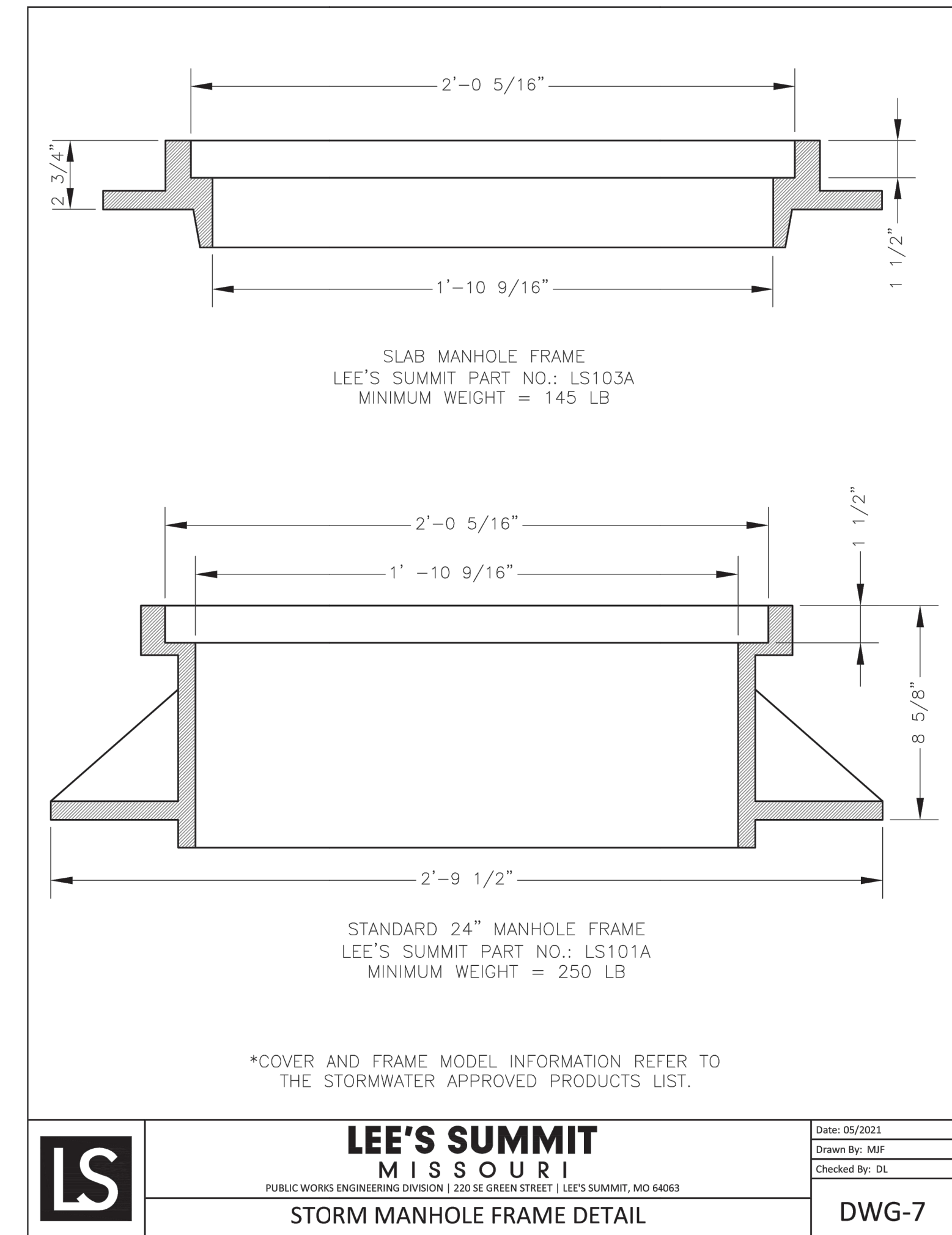
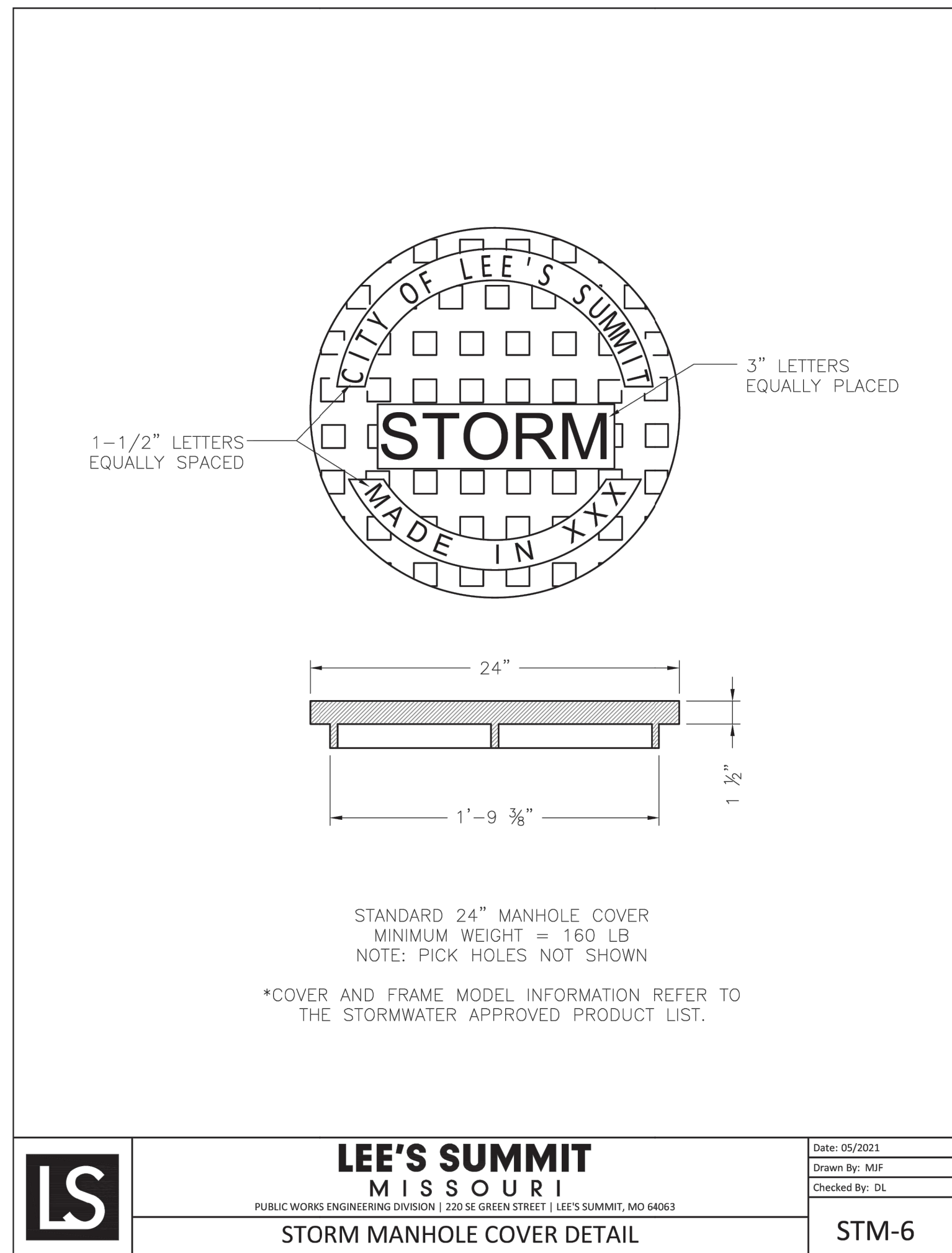
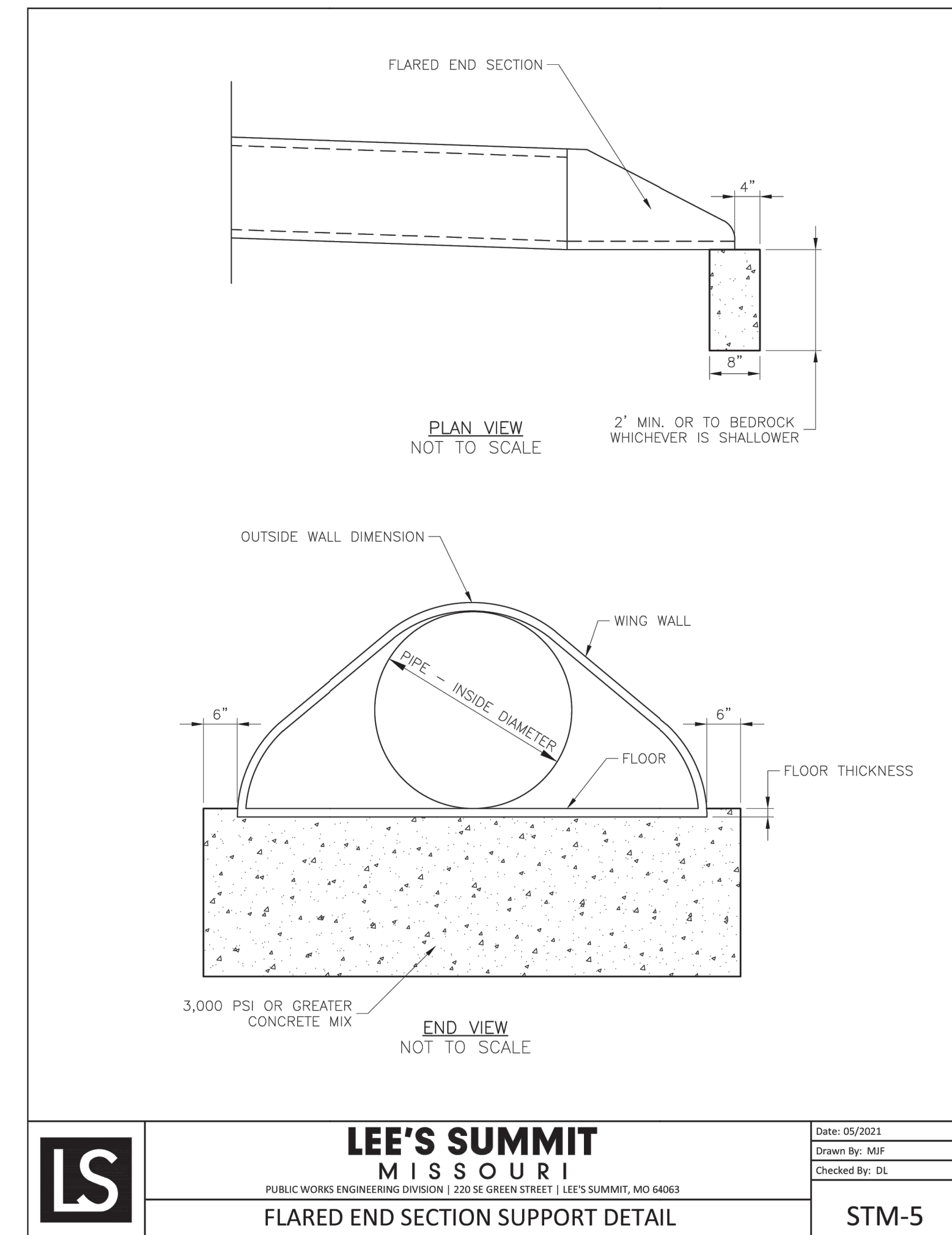
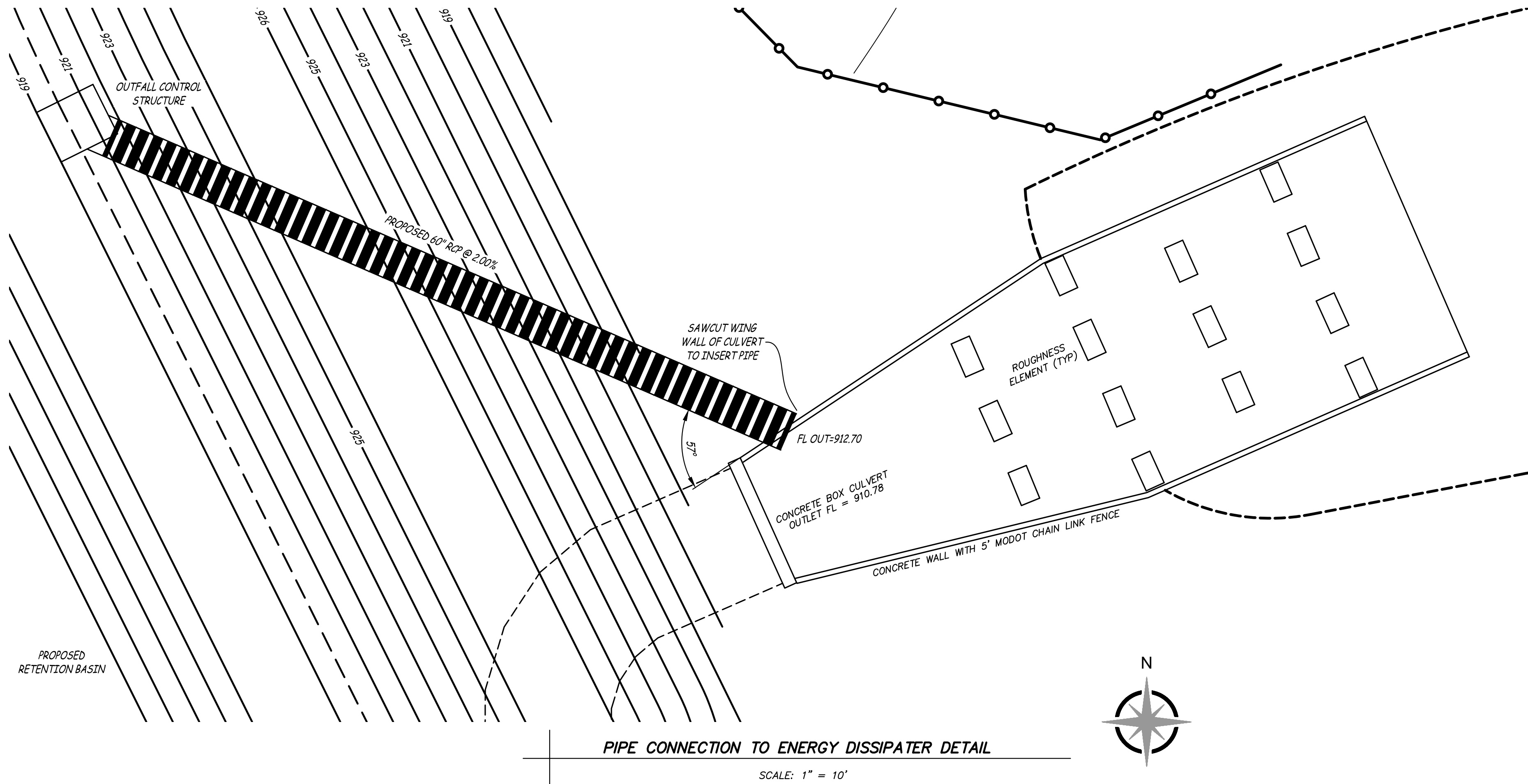
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C2.15

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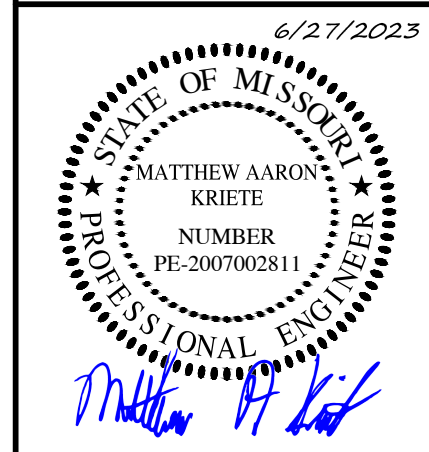


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**PUBLIC IMPROVEMENTS FOR  
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ADDRESS  
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MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

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STORM SEWER DETAILS

Sheet  
**C2.16**


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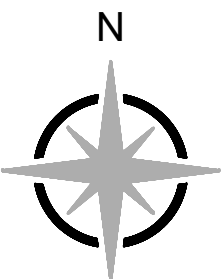


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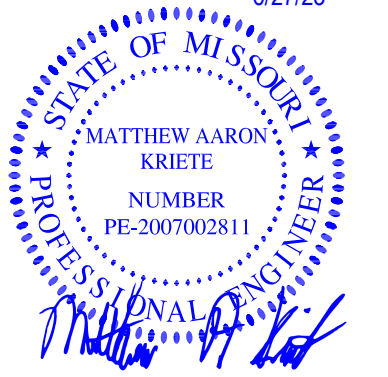


N

0 1"  
SCALE: 1" = 60'

**WILSHIRE HILLS PHASE III**  
STREET ADDRESS  
LEE'S SUMMIT JACKSON COUNTY, MO

6/27/23



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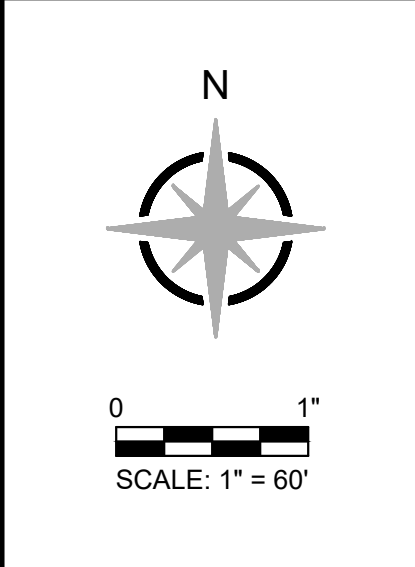
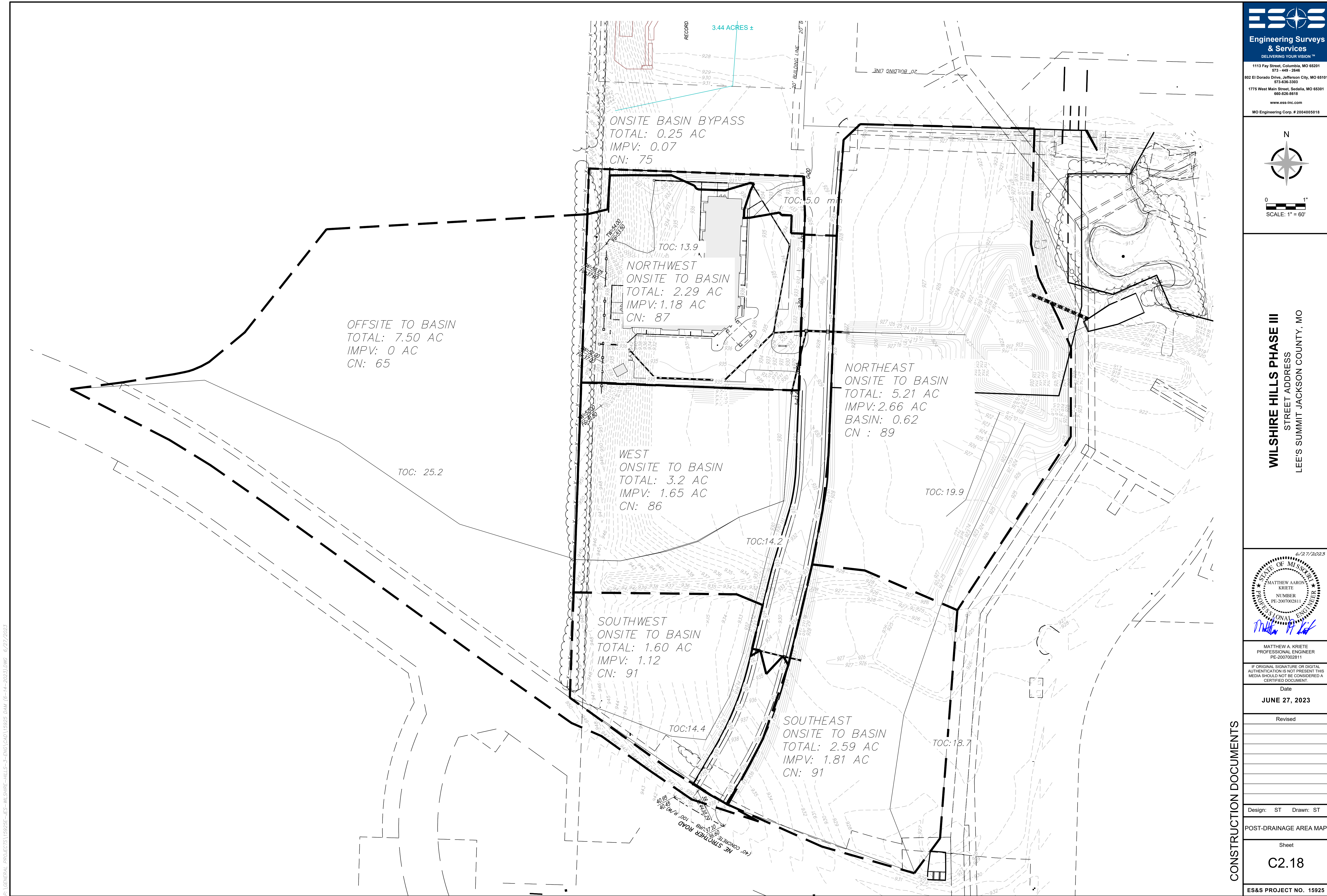
PRE-DRAINAGE AREA MAP

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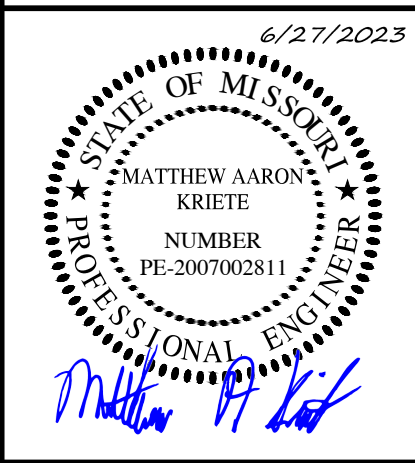
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POST-DRAINAGE AREA MAP

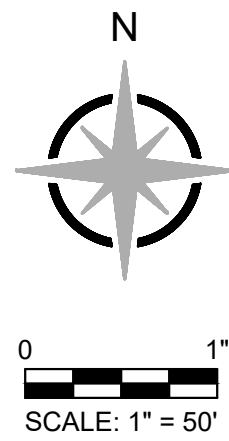
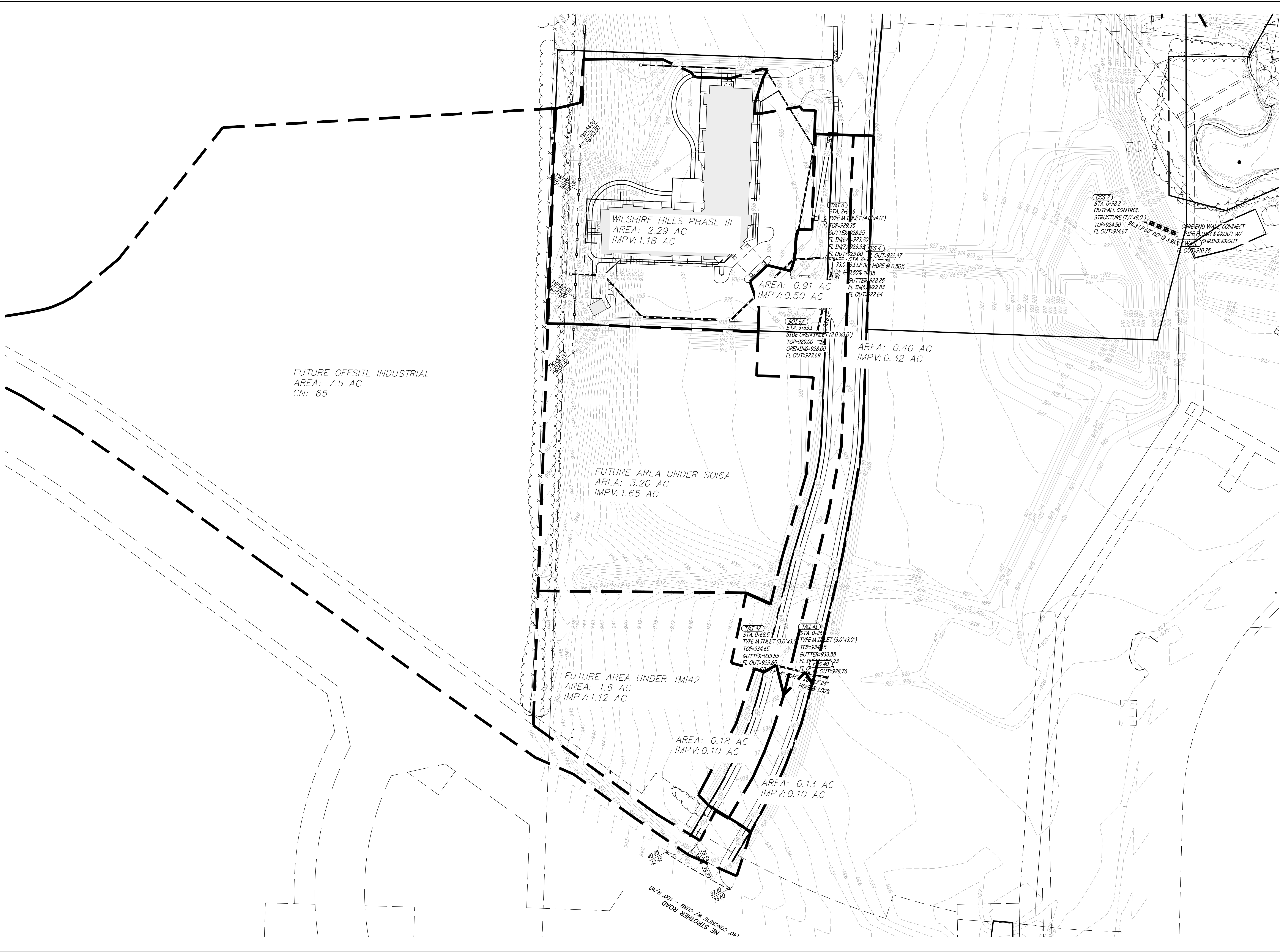
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STORM SEWER DRAINAGE AREA MAP
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