ASPHALT PAVEMENT - PROPOSED

CONCRETE PAVEMENT - EXISTING

ASPHALT PAVEMENT - EXISTING

CONCRETE SIDEWALK - EXISTING

CONCRETE SIDEWALK - PROPOSED

CURB & GUTTER - EXISTING

EXISTING LOT AND R/W LINES

EXISTING PLAT LINES

— SANITARY SEWER MAIN

STORM SEWER - EXISTING

—— SANITARY SEWER MAIN - EXIST.

----- FOC_x ----- FIBER OPTIC CABLE - EXISTING

---- OHP_y ---- OVERHEAD POWER LINE - EXIST

----- UGE_x ----- UNDERGROUND ELECTRIC - EX.

LIGHT - EXISTING

EXISTING MANHOLE

EXISTING AREA INLET

EXISTING CURB INLET

EXISTING GRATE INLET

EXISTING JUNCTION BOX

EXISTING STORM MANHOLE

EXISTING SANITARY MANHOLE

PROPOSED SANITARY MANHOLE

CURB & GUTTER

TREELINE

P/L PROPERTY LINES

—— STO—— STORM SEWER

---- CATV_x ---- CABLE TV - EXISTING

——Ty—— TELEPHONE LINE - EXIST.

GAS LINE - EXISTING

CLEANOUT

Steve Holloway

(816) 607-2186

Brent Jones

(816) 399-9633

Ron Dejarnette

Michael Park

(816) 969-1800

Barbara Brown

(816) 795-2255

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220 SE Green Street

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Mark Manion or Marty Loper

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PUBLIC WATER SUPPLY DISTRICT

Kansas City, MO 64106

COMCAST CABLE

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EVERGY (formerly KCP&L)

MISSOURI GAS ENERGY (MGE)

CITY OF LEES SUMMIT PUBLIC WORKS



FINAL DEVELOPMENT PLANS TOWER PARK COMM. - LOT 7 - NORTH BLDG.

IN THE CITY OF LEE'S SUMMIT JACKSON COUNTY, MISSOURI

GENERAL NOTES

- ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS
- ADOPTED BY ORDINANCE 5813. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE
- ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS. NOT SLOPE
- MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND
- 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 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
- WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE
- BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
- ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE
- THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION,
- AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS. 13. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE
- CONCRETE THEREON. IN ALL CASES WHERE SUBSOIL IS MUCKY OR WORKS INTO MUD OR MUCK DURING SUCH OPERATIONS, A SEAL COURSE OF EITHER CONCRETE OR ROCK SHALL BE PLACED BELOW SUBGRADE TO PROVIDE A FIRM BASE FOR WORKING AND FOR PLACING THE FLOOR SLAB.
- THE CONTRACTOR SHALL CONTACT PUBLIC WORKS INSPECTIONS AT: 816-969-1800 TO OBTAIN A PUBLIC WORKS CONSTRUCTION PERMIT. A MINIMUM 48 HOUR NOTICE SHALL BE GIVEN PRIOR TO PERMIT ISSUANCE. 16. THE CONTRACTOR SHALL CONTACT THE CITY'S EROSION CONTROL SPECIALIST AT: 816-969-1800 PRIOR TO
- ANY LAND DISTURBANCE. 17. 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. 18. 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). ALL SANITARY SEWER LATERALS SHALL HAVE A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL, INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH. TO 12 INCHES ABOVE PIPE. FOR A MINIMUM LENGTH OF 12 INCHES. TRENCH CHECK SHALL BE LOCATED AT LEAST 5 FEET FROM SANITARY MAIN.

GRADING/EARTHWORK NOTES

- 1. REFER TO GEOTECHNICAL REPORT FOR ALL COMPACTION REQUIREMENTS AND ASPHALT AND CONCRETE RECOMMENDED THICKNESS AND SUBGRADE TREATMENTS.
- 2. RECOMMEND A GEOTECHNICAL ENGINEER REVIEW ALL EARTHWORK ACTIVITY TO MAKE SURE RECOMMENDATIONS IN GEOTECHNICAL REPORT ARE FOLLOWED.
- 3. PRIOR TO PLACEMENT OF PAVEMENT, GEOTECHNICAL ENGINEER MUST APPROVE SUBGRADE IN WRITTEN FORM TO THE OWNER AND PROJECT ENGINEER.
- 4. ALL UTILITY INSTALLATIONS UNDER PAVED AREAS MUST BE COMPACTED AS PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL REPORT.
- 5. ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.

EARTHWORK:

- 1. IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER OBSERVE AND DOCUMENT ALL EARTHWORK
- 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.
- 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 JULY 18TH, 2016. THE CONTOUR ELEVATIONS PROVIDED MAY NOT BE EXACT GROUND ELEVATIONS, BUT RATHER INTERPRETATIONS OF 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.
- 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
- MOWABLE CONDITION AND POSITIVE DRAINAGE MAINTAINED THROUGHOUT UNLESS OTHERWISE NOTED, ALL EARTHWORK IS CONSIDERED UNCLASSIFIED. NO ADDITIONAL

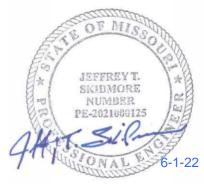
- UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL REPORT, ALL FILLS SHALL BE PLACED IN MAXIMUM
- SUBGRADE FOR BUILDING PAD SHALL INCLUDE A MINIMUM OF 18-INCHES OF LOW VOLUME CHANGE (LVC) MATERIAL, OR AS IDENTIFIED IN THE SITE SPECIFIC GEOTECHNICAL REPORT 12. FILL MATERIALS SHALL BE PER GEOTECHNICAL REPORT AND SHALL NOT INCLUDE ORGANIC MATTER, DEBRIS
- OR TOPSOIL. ALL FILLS PLACED ON SLOPES GREATER THAN 6:1 SHALL BE BENCHED.
- 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
- 14. 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 15. A.D.A. PARKING STALLS SHALL NOT BE SLOPED GREATER THEN 2% IN ANY DIRECTION AND CONSTRUCTED
- PER A.D.A. REQUIREMENTS. 16. 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
- 17. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODDED.
- 18. UNDERDRAINS ARE RECOMMENDED FOR ALL PAVED AREAS ADJACENT TO IRRIGATED TURF AND LANDSCAPED BEDS.
- 19. 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:

- 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
- 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 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
- UTILITY SEPARATION: WATERLINES SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL AND 2 FEET VERTICAL SEPARATION FROM ALL SANITARY AND STORM SEWER LINES. IF MINIMUM SEPARATIONS CAN NOT BE OBTAINED, CONCRETE ENCASEMENT OF THE SANITARY OR STORM SEWER LINE SHALL BE REQUIRED 10 FEET IN EACH DIRECTION OF THE CONFLICT.
- 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.
- 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.
- 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.

	Sheet List Table
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	SITE PLAN
C2.0	GRADING PLAN
C3.0	STORM SEWER PLAN AND PROFILE
C4.0	SITE UTILITY PLAN
C5.0	EROSION CONTROL PLAN
C6.0	EROSION CONTROL DETAILS
C7.0	SIDEWALK & CURB DETAILS
C8.0	PAVEMENT DETAILS
C9.0	STORM SEWER DETAILS
C10.0	UTILITY DETAILS
L1.0	LANDSCAPE PLAN

PREPARED AND SUBMITTED BY



SCHLAGEL & ASSOCIATES, P.A.

OWNER/DEVELOPER

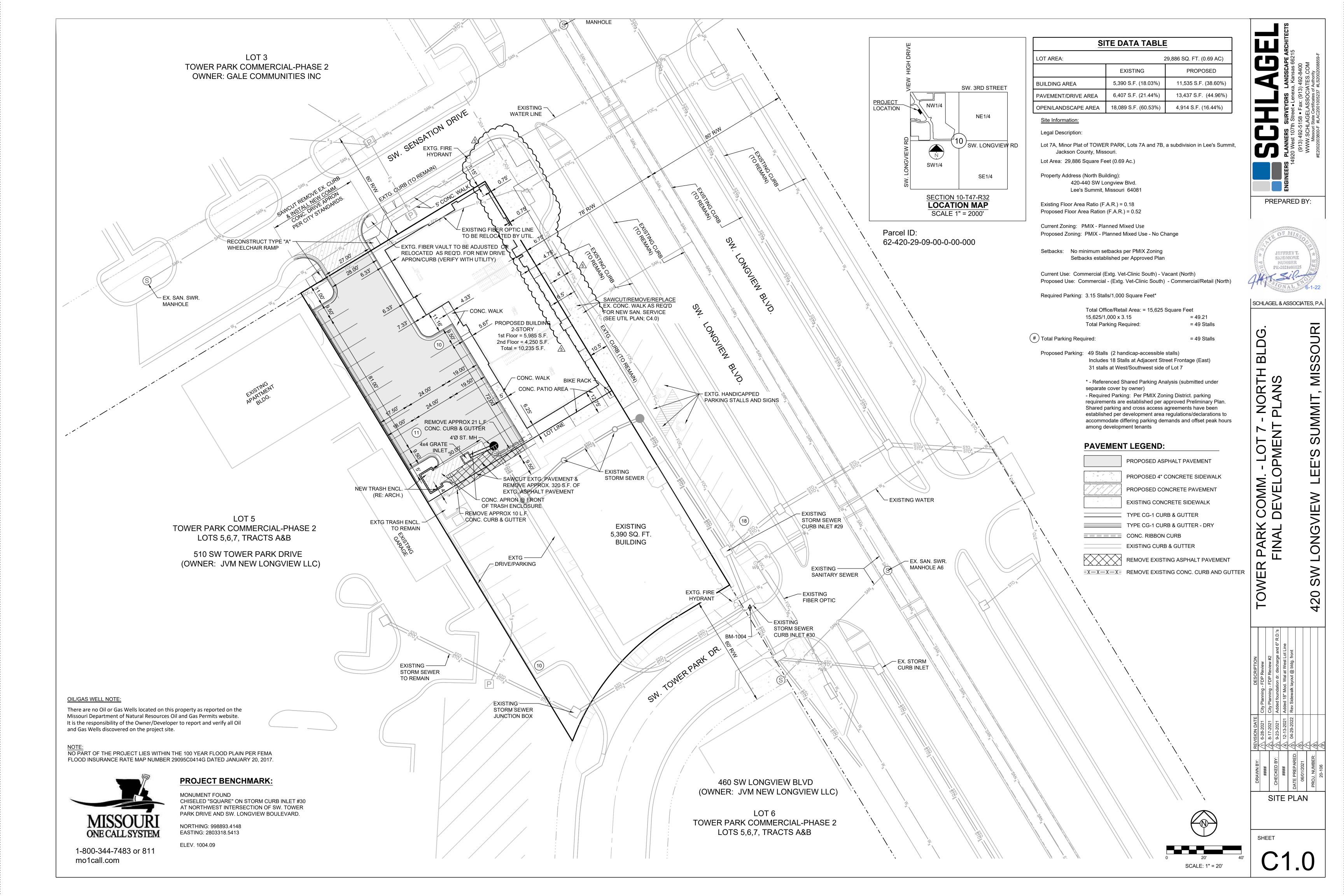
NLVC, LLC/BOX REAL ESTATE DEV. RUSSEL G. PEARSON 3152 SW GRAND CIRCLE LEE'S SUMMIT, MO 64081 p (816) 589-4415 RPEARSON@BOXCEVCO.COM

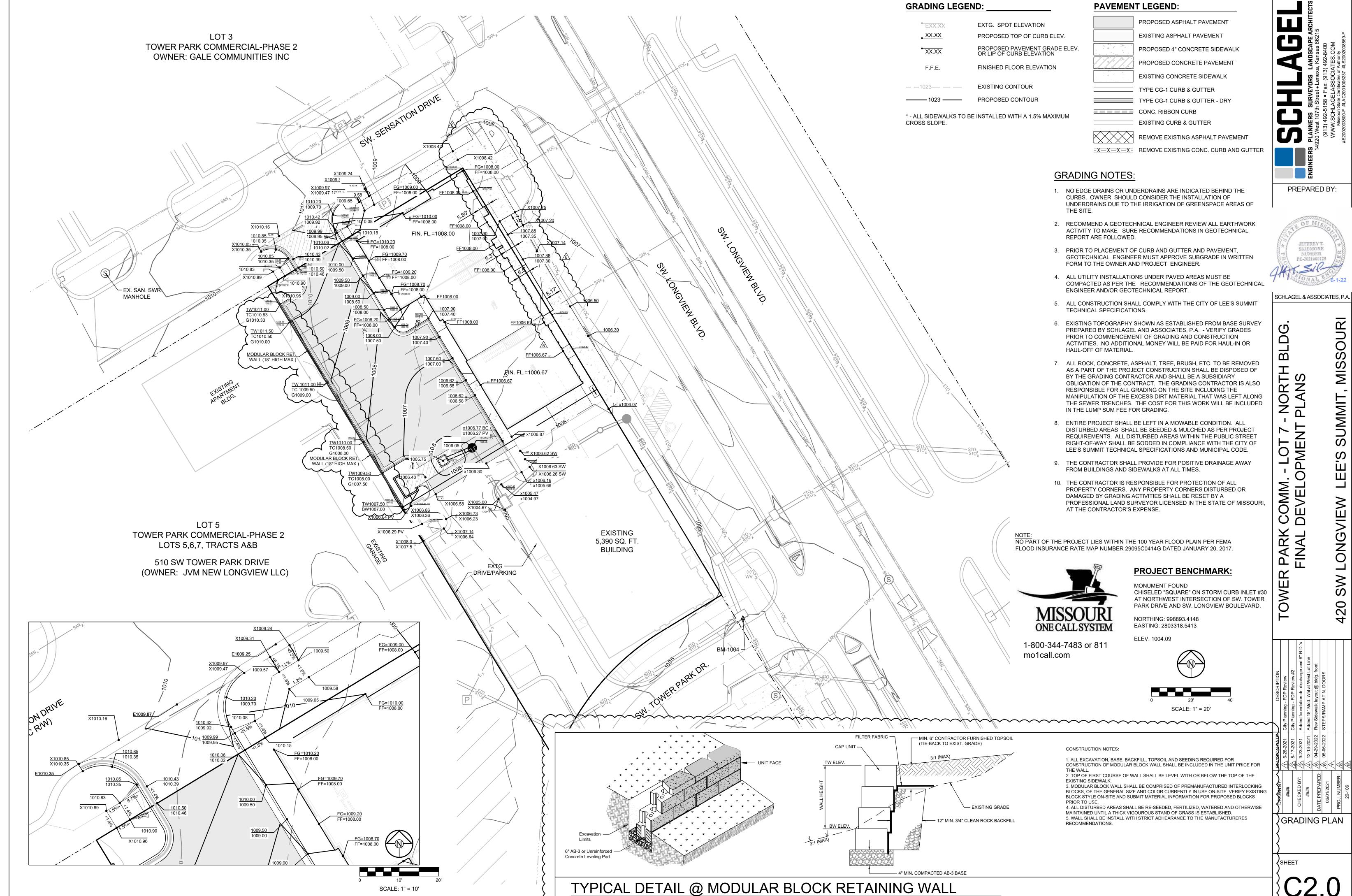
PREPARED BY

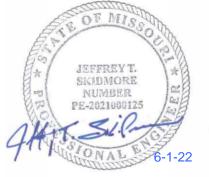
SCHLAGEL & ASSOCIATES, P.A.

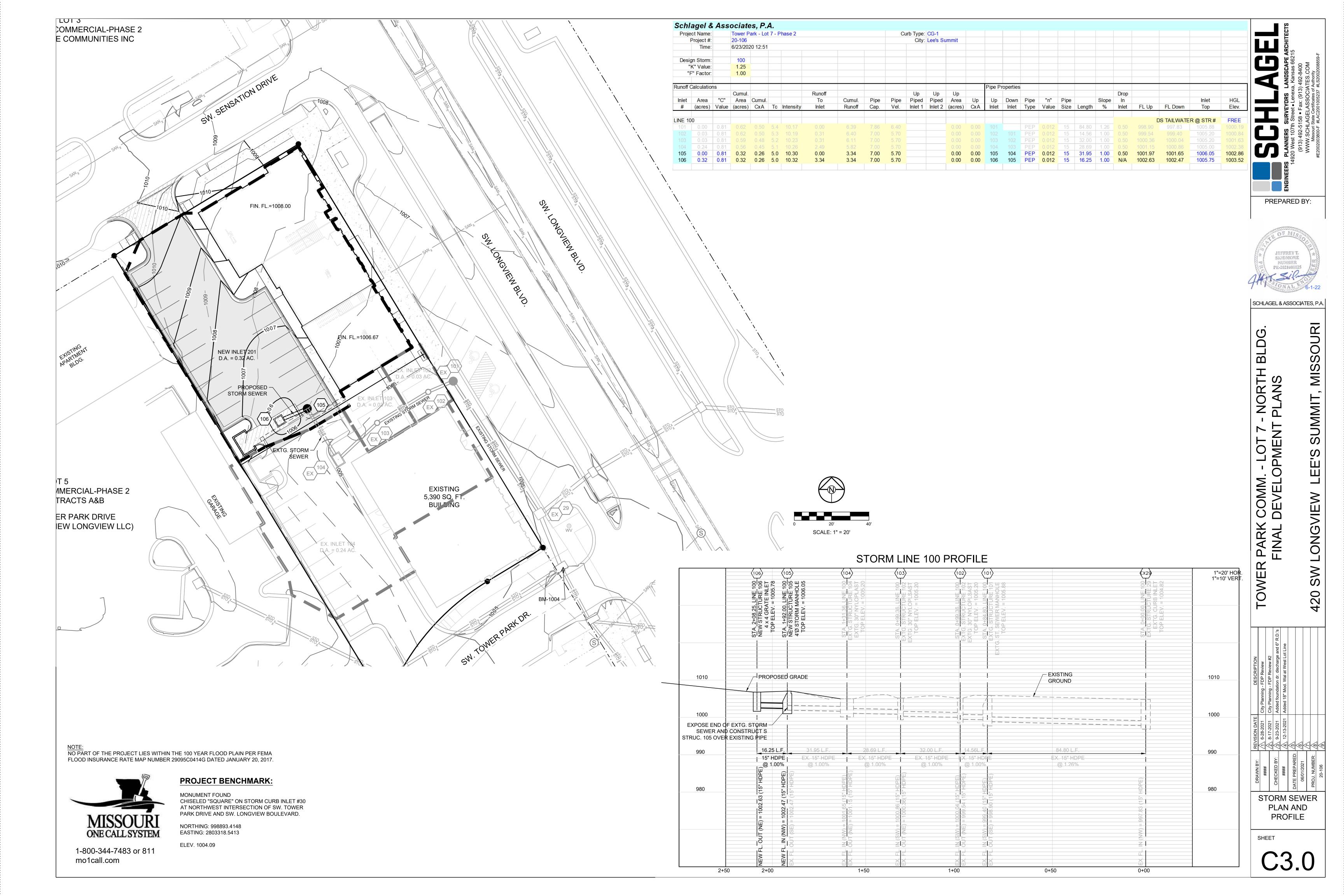
City Planning - FDP Review City Planning - FDP Review #2 Added foundation dr. discharge and 6" F Added 18" Mod. Wal at West Lot Line	(1) 6-28-2021 (2) 8-17-2021 (3) 9-23-2021 (4) 12-13-2021 (6) (6)	#### ECKED BY: #### PREPARED: W01/2021
		J. NUMBER:
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		PREPARED.
	\ <u>\</u>	
Added 18" Mod. Wal at West Lot Li	4 12-13-2021	####
Added foundation dr. discharge and	3 9-23-2021	CKED BY:
City Planning - FDP Review #2	8-17-2021	
City Planning - FDP Review	<u>/1</u> \ 6-28-2021	####

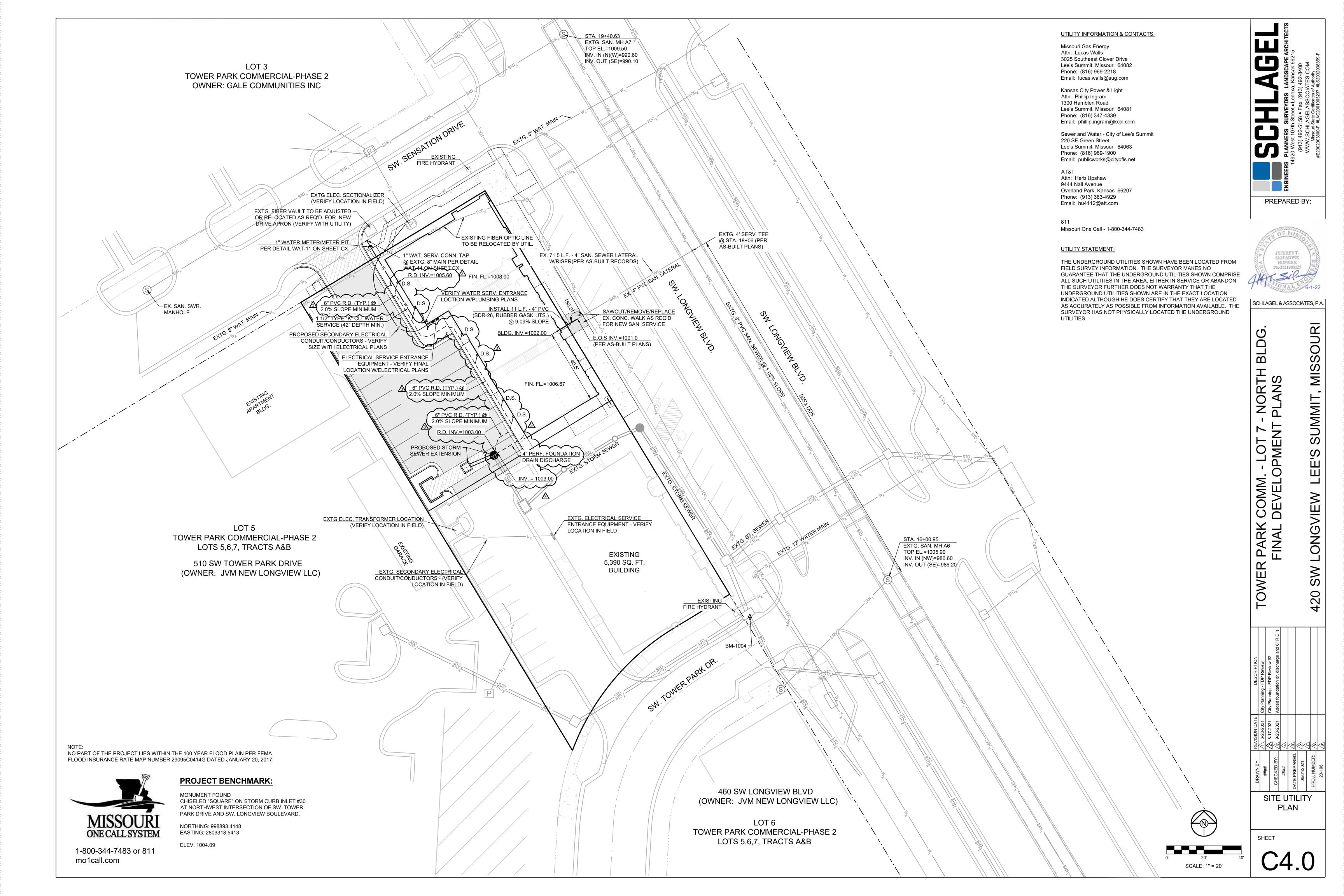
COVER SHEET

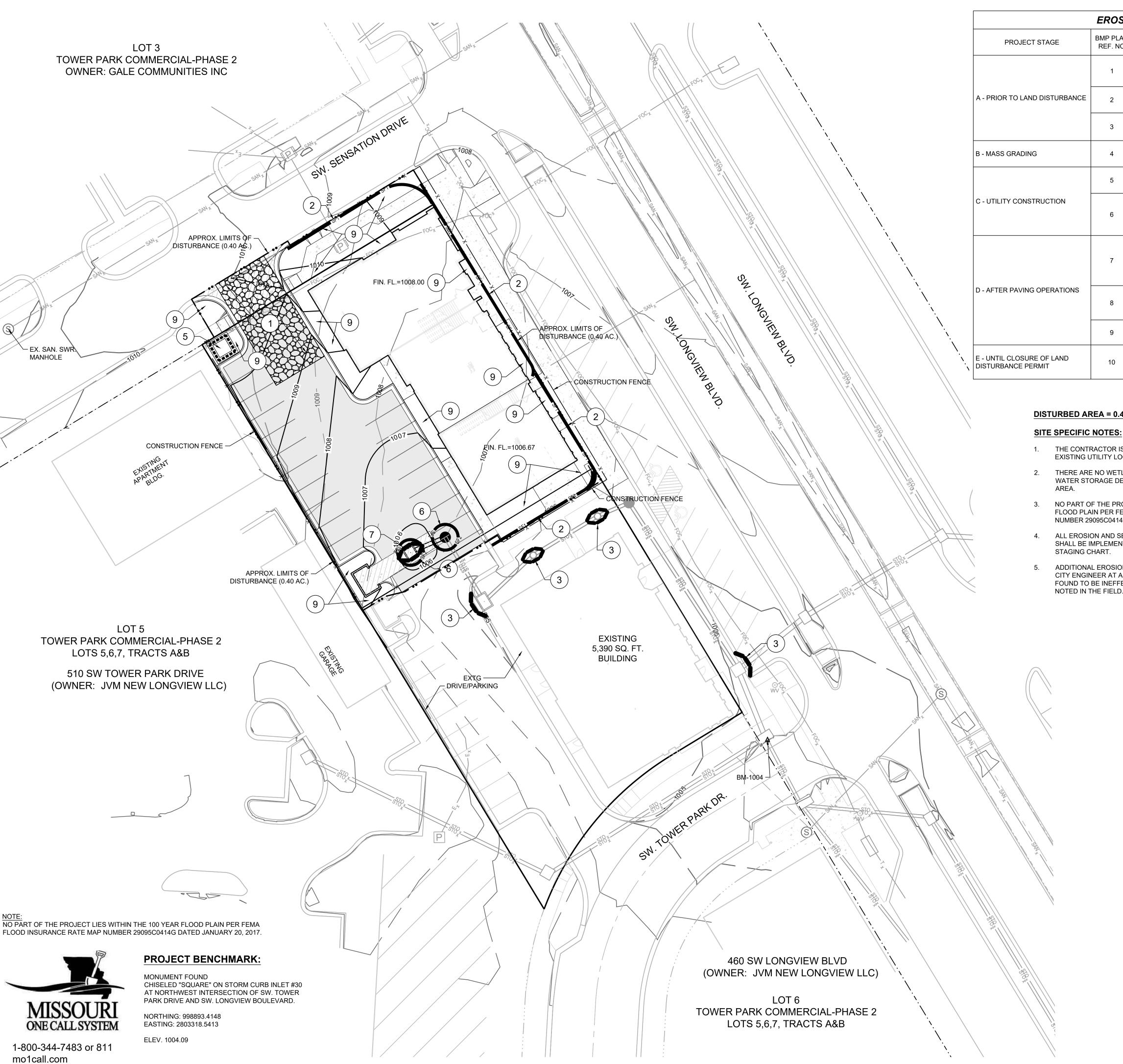


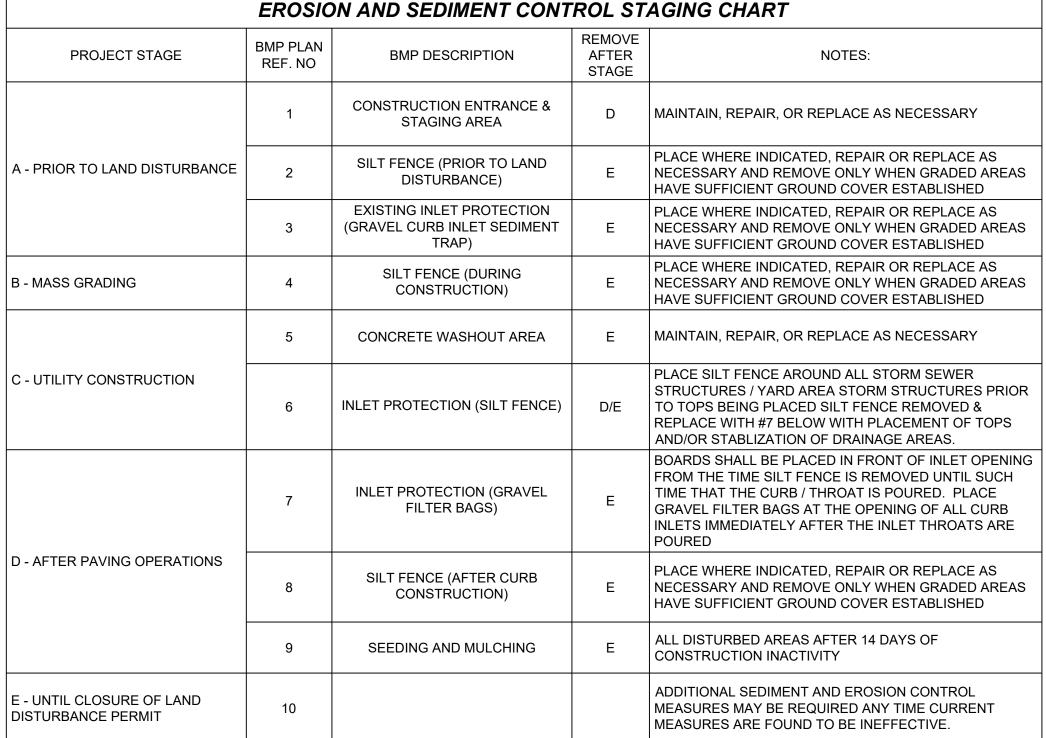






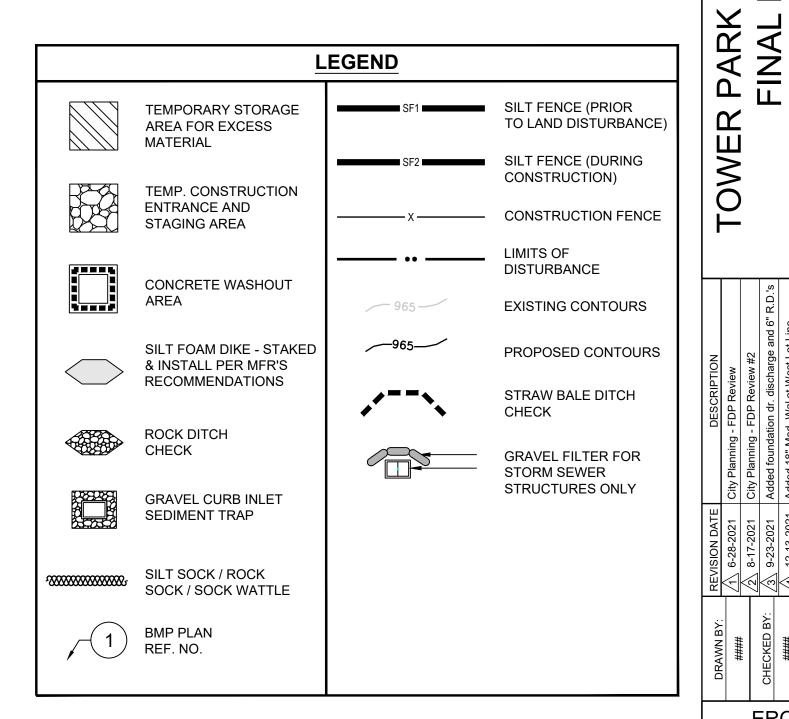


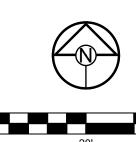




DISTURBED AREA = 0.40 A.C.

- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
- THERE ARE NO WETLANDS, NATURAL OR ARTIFICIAL WATER STORAGE DETENTION AREAS IN THE PROJECT
- NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0414G DATED JANUARY 20, 2017.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED ACCORDING TO THE BMP
- ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE CITY ENGINEER AT ANY TIME EXISTING MEASURES ARE FOUND TO BE INEFFECTIVE OR PROBLEMATIC AREAS ARE NOTED IN THE FIELD.
- STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE SOIL STABILIZING BMPS. INITIAL STABILIZATION ACTIVITIES MUST BE COMPLETED WITHIN 14 DAYS AFTER SOIL DISTURBING ACTIVITIES CEASE.
- ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN.
- SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE GRADING BEGINS WILL BE MAINTAINED BY THE GRADING
- AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE.





SCALE: 1" = 20'

EROSION CONTROL PLAN

SHEET

PREPARED BY:

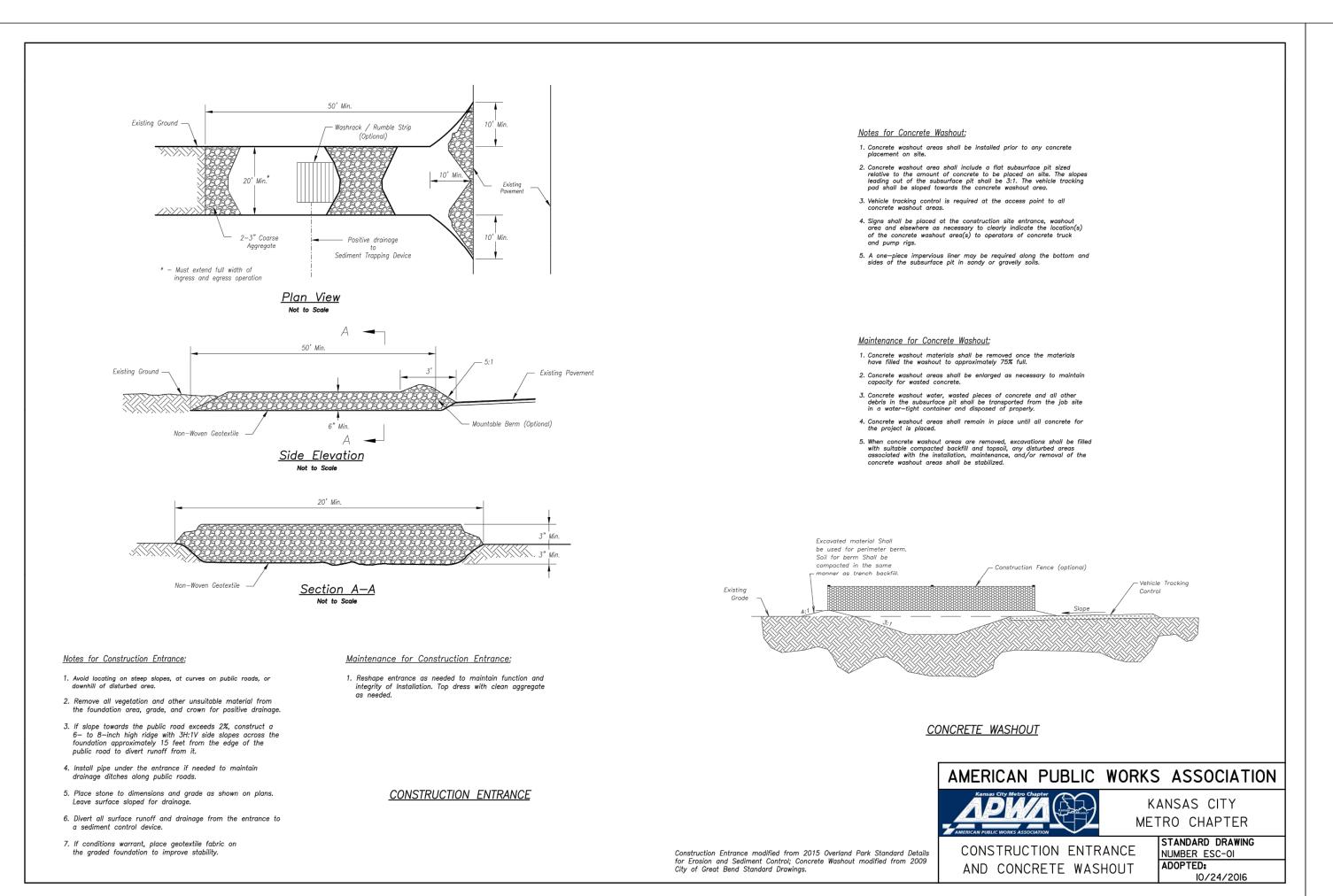
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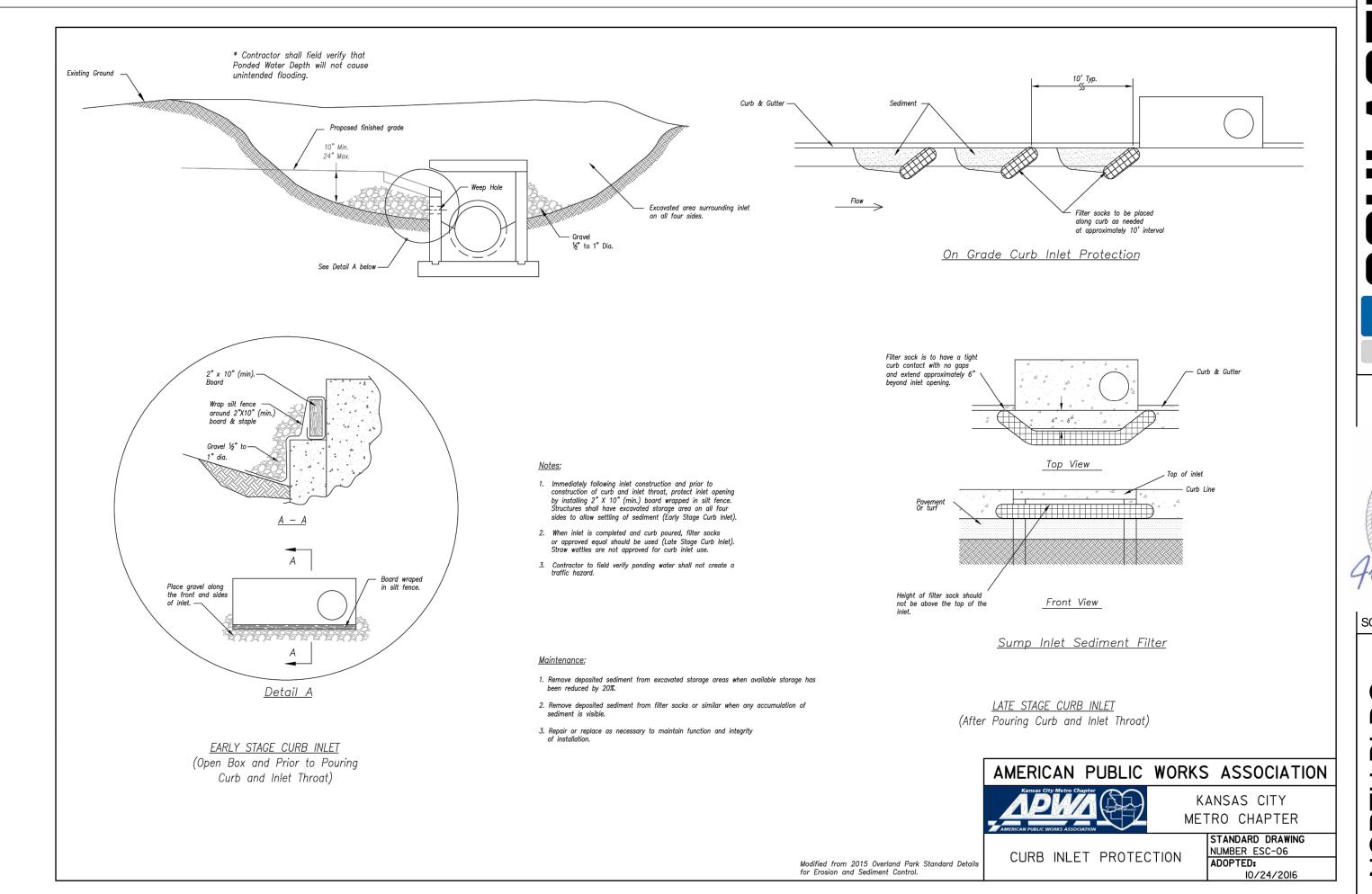
SCHLAGEL & ASSOCIATES, P.A.

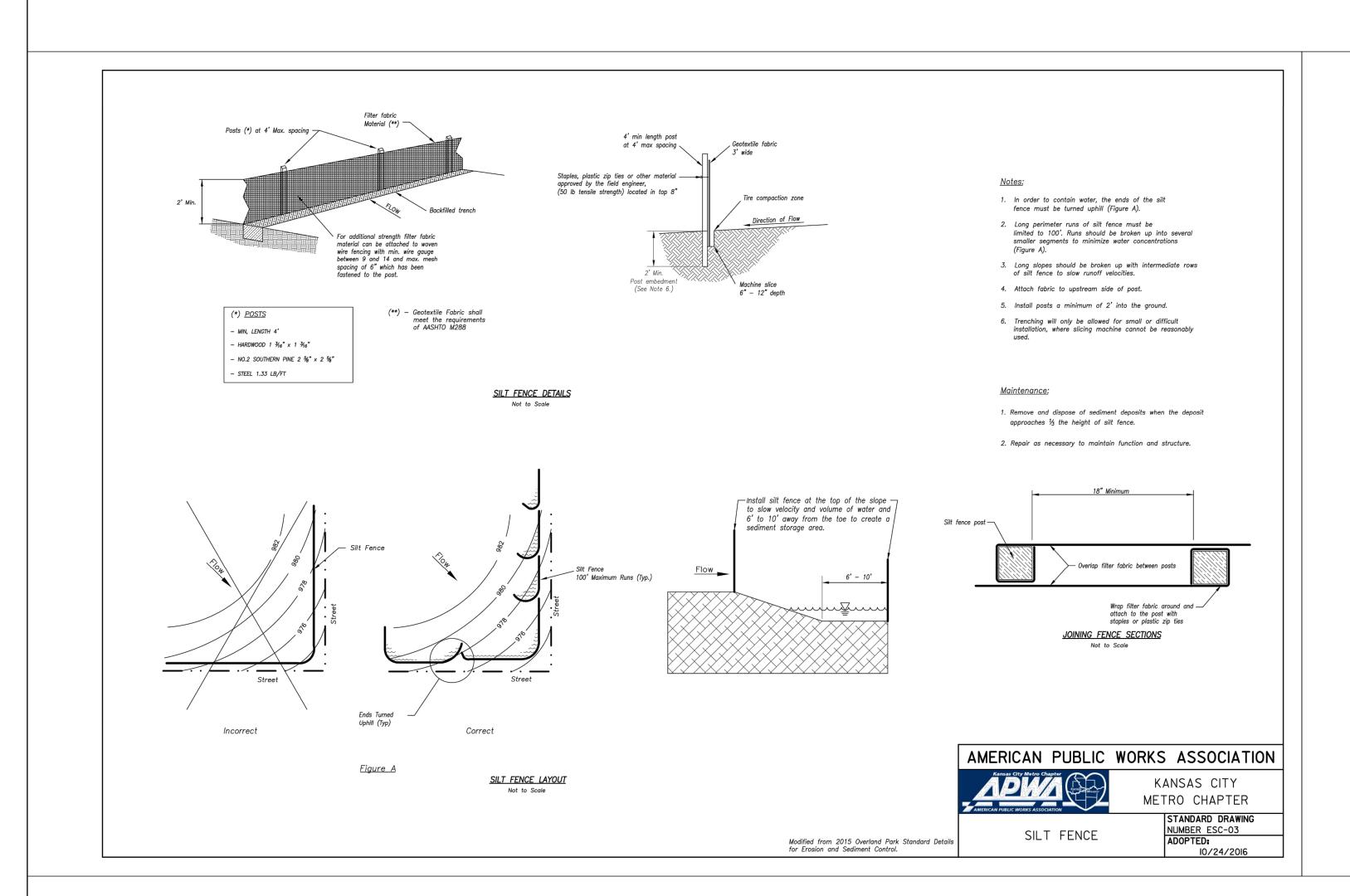
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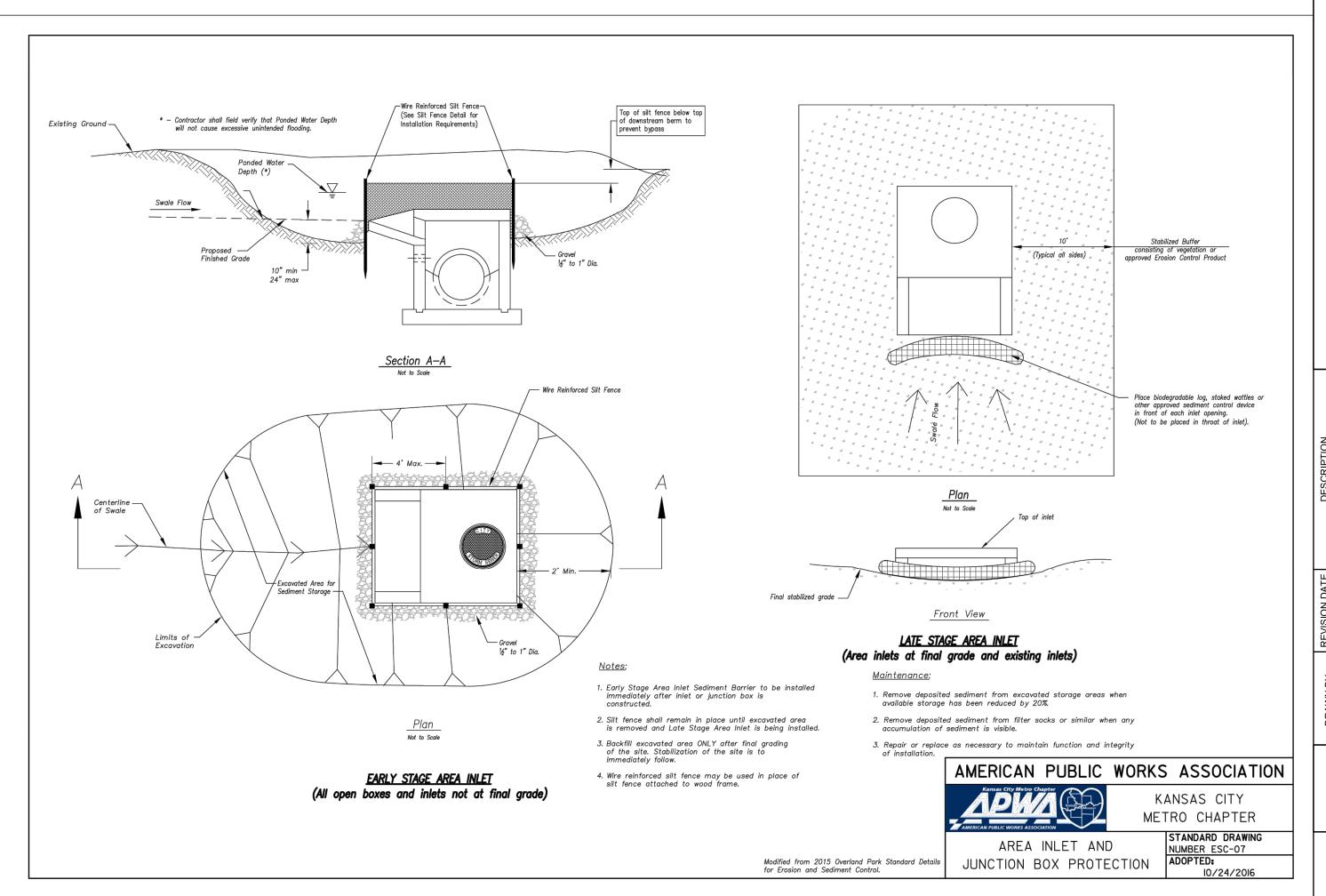
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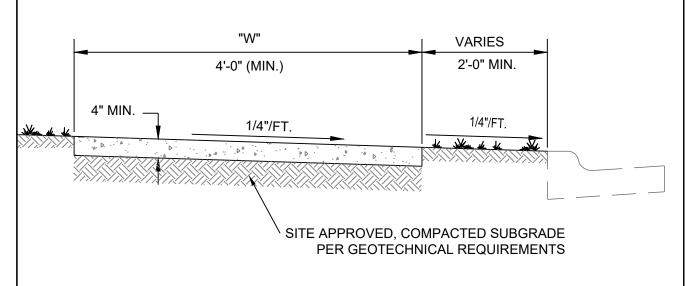


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EROSION

CONTROL **DETAILS**

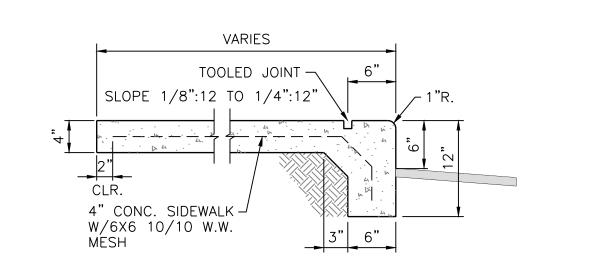


TYPE 1 JOINTS SHALL BE PLACED "W" CENTERS

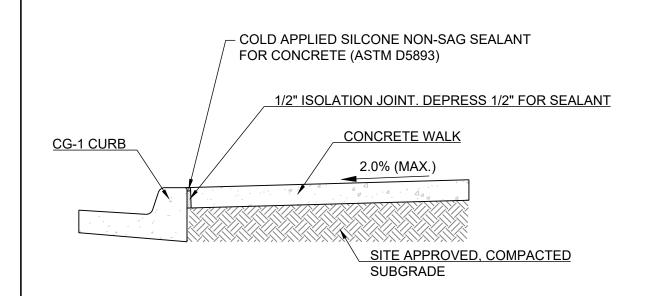
- 2. TYPE THREE JOINTS SHALL BE PLACED AT 250' CENTERS AND WHERE WALK ABUTS
- EXISTING CONCRETE.
- ALL CONCRETE SHALL BE KCMMB-4K. 4. WHEN UTILITY SERVICE BOXES, METER BOXES, ETC. WHICH MEASURE LESS THAN 1 FT. SQUARE MUST BE PLACED IN THE SIDEWALK, THE UTILITY SERVICE BOXES,
- ETC. SHALL BE NO CLOSER TO ANY EDGE OF THE SIDEWALK PANEL THAN 1 FT. WHEN UTILITY BOXES, METER BOXES, ETC. GREATER THAN 1 FT. IN ANY
- DIMENSION MUST BE PLACED IN THE SIDEWALK, THEY SHALL BE PLACED IN THE
- CORNER OF THE SIDEWALK PANEL
- AN ISOLATION JOINT SHALL BE PLACED BETWEEN THE CONCRETE AND ANY UTILITY BOX, ETC. WHICH IS PLACED IN THE SIDEWALK.
- NO SECTION OF SIDEWALK LESS THEN 12" IN ANY DIMENSION. (HORIZONTAL) AB-3 MAY BE USED AS A LEVELING COURSE. AB-3 MUST BE MOIST (MIN. 5% MOISTURE) AND COMPACTED. DEPTH OF LEVELING COURSE SHALL NOT EXCEED

TYPICAL CONCRETE SIDEWALK DETAILS

6". CLEAN ROCK WILL NOT BE ALLOWED.

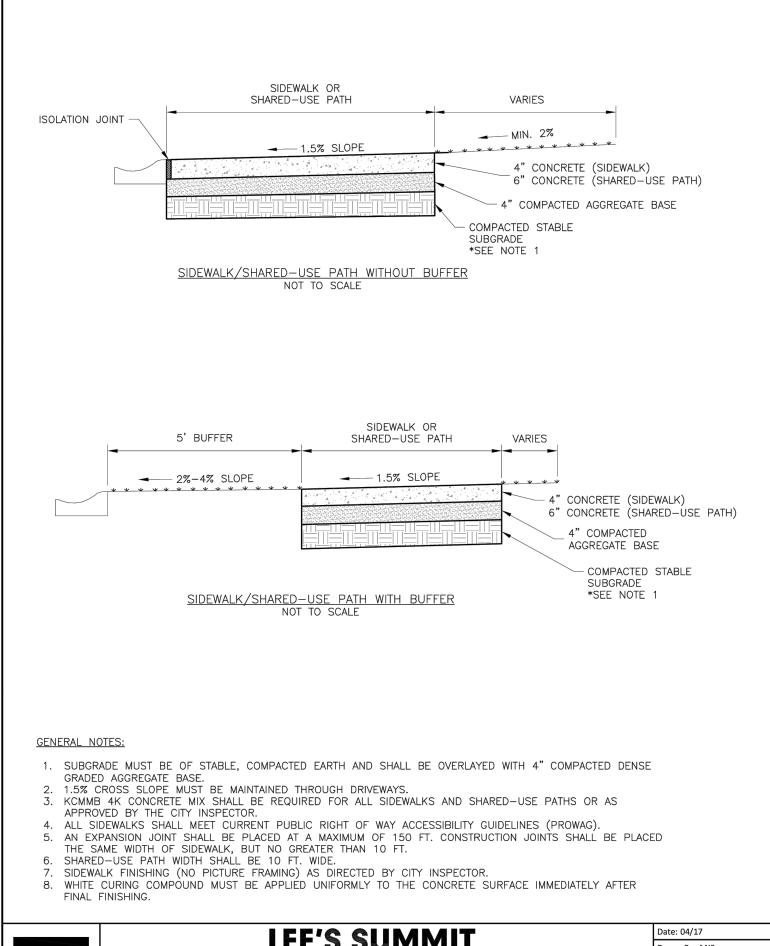


INTEGRAL CURB/SIDEWALK DETAIL

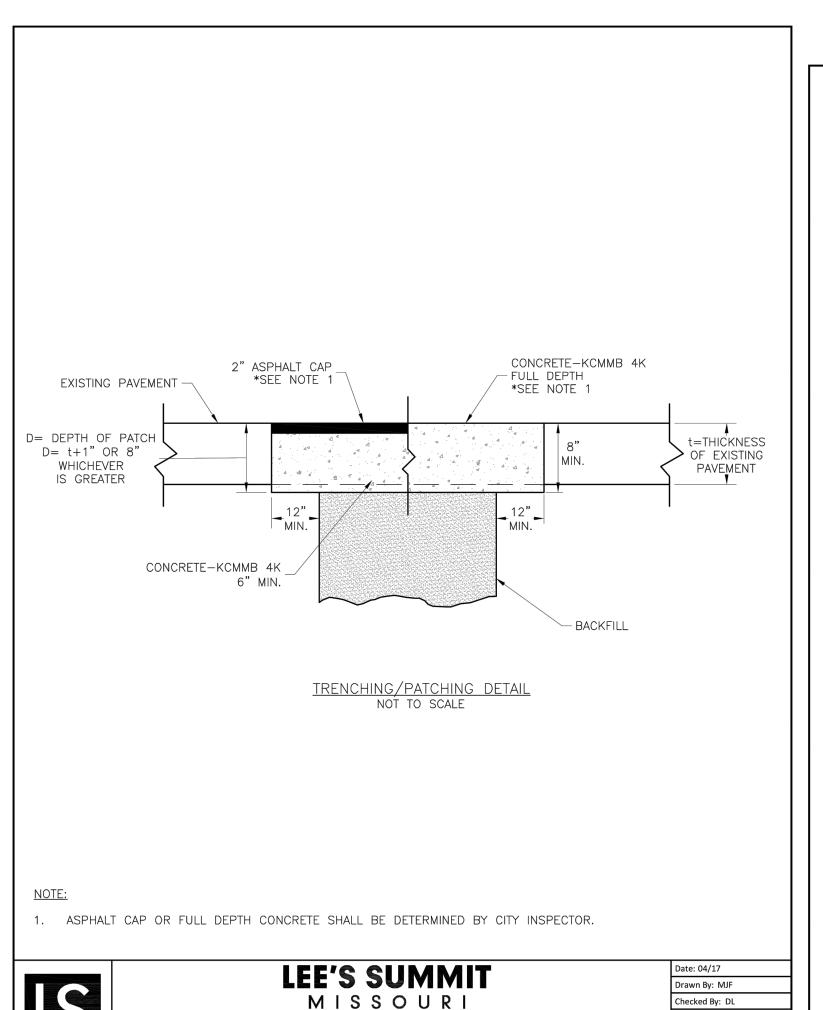


A. Expansion- and Isolation-Joint-Filler Strips: ASTM D994, D1751 or D1752. B. Cold Applied Joint Sealant : Single Component, Nonsag, Silicone Joint Sealant for Concrete: ASTM D5893, Type NS

SIDEWALK @ BACK OF CURB DETAIL

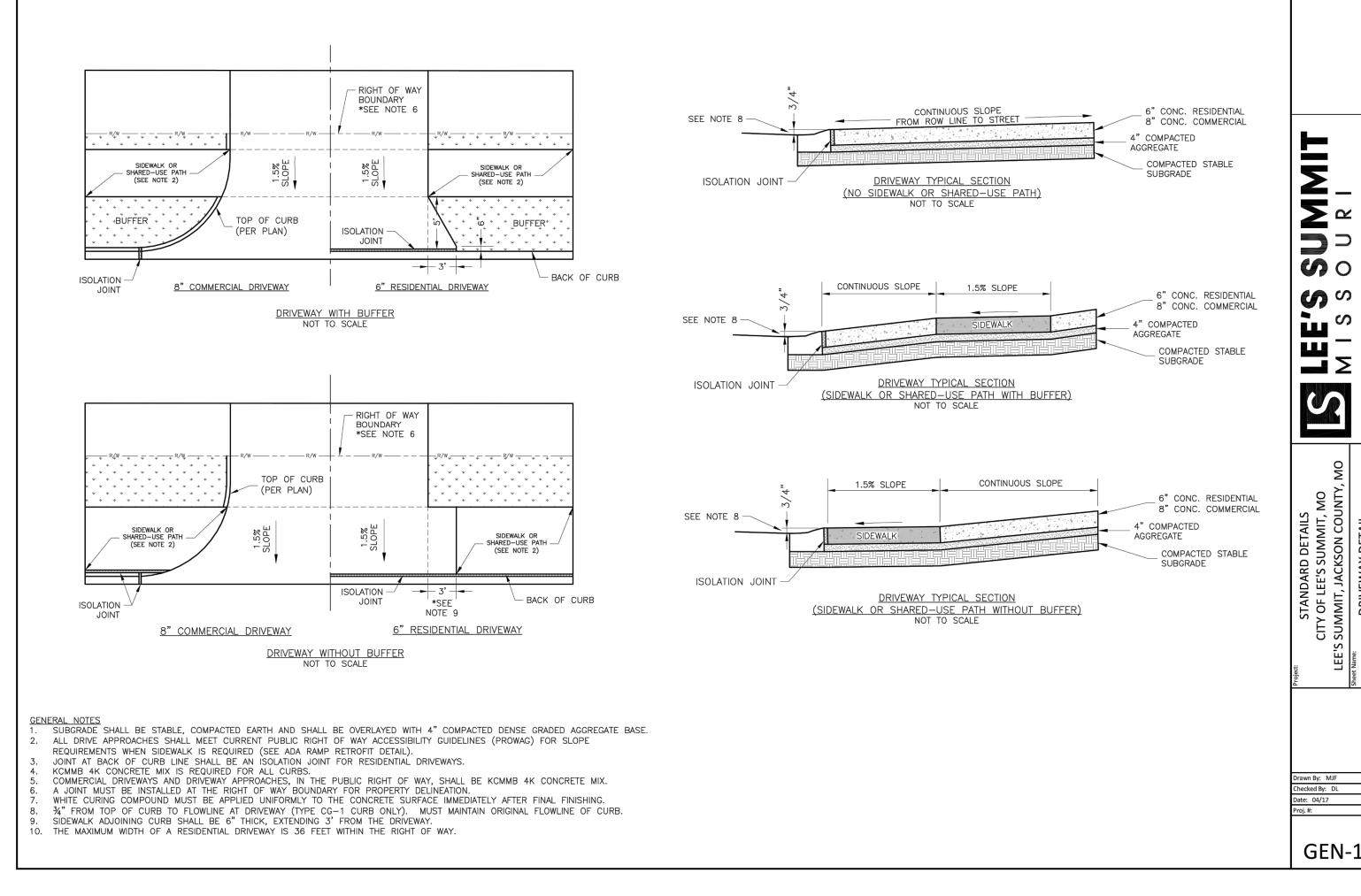




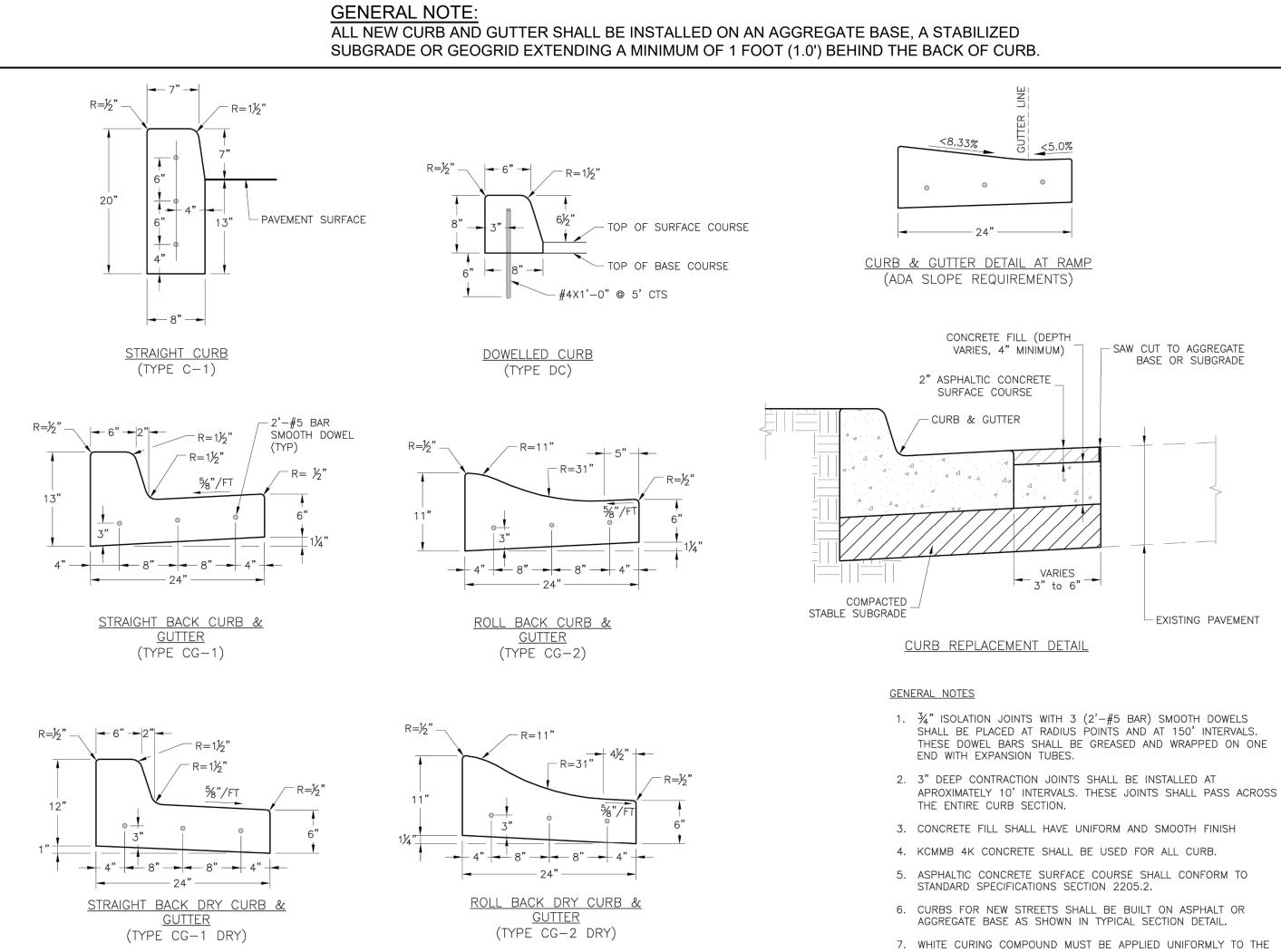


TRENCHING/PATCHING ROADWAYS DETAIL

GEN-5









SCHLAGEL & ASSOCIATES, P.A.

ORTH -ANS \Box

BASE OR SUBGRADE

- EXISTING PAVEMENT

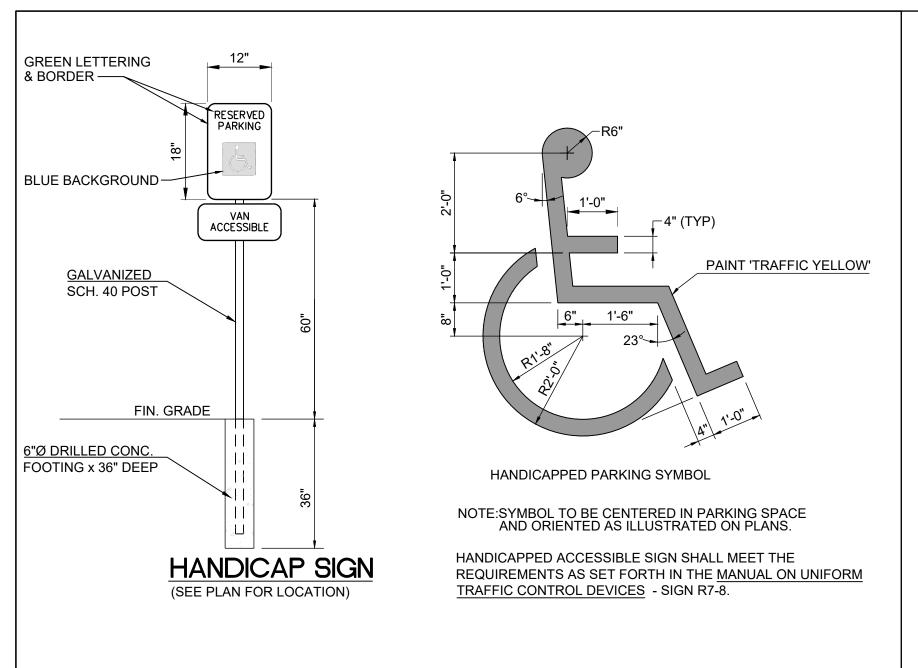
CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

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GEN-4

SIDEWALK & **CURB DETAILS**



TYPICAL HANDICAPPED PARKING DETAILS

PARKING/DRIVE AREAS

The pavement subgrades be proofrolled and the moisture content and density of the top 12 inches of subgrade

be checked within two days prior to commencement of actual paving operations. If any significant event, such

prior to placing the pavement. The subgrade should be in its finished form at the time of the final review.

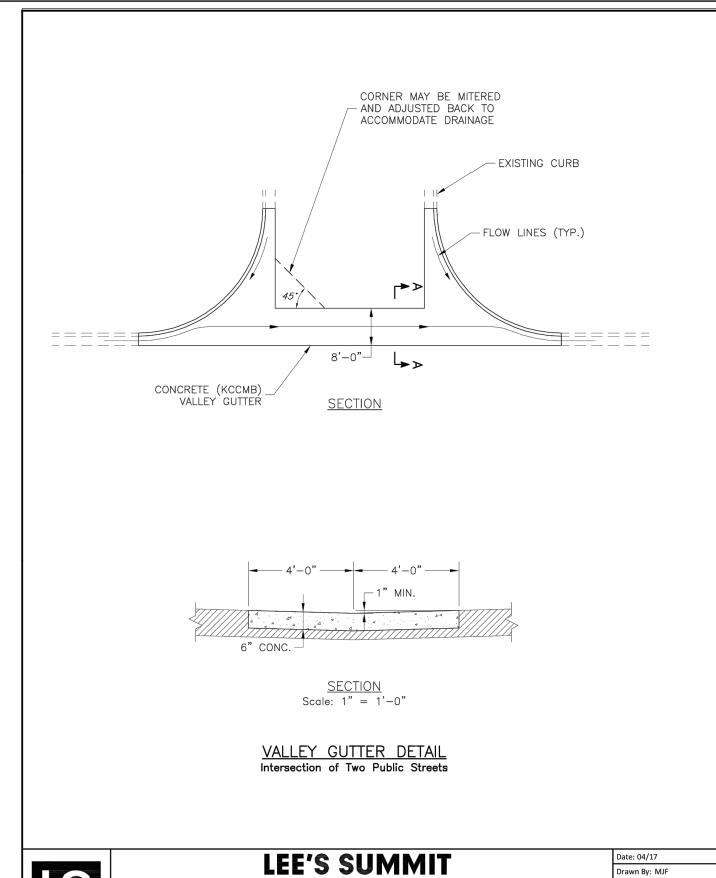
as precipitation, occurs after proofrolling, the subgrade should be reviewed by qualified personnel immediately

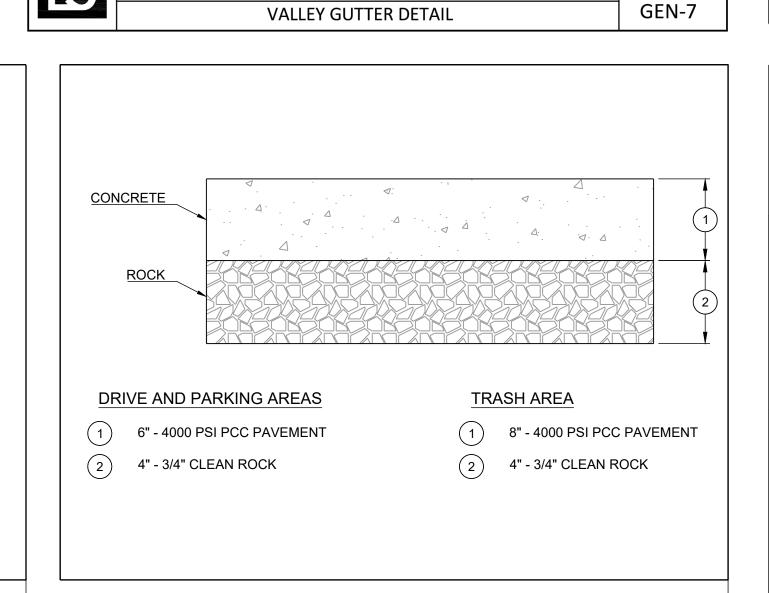
1.5" - KCAPWA TYPE 5

4" - KCAPWA TYPE 5

6" - GRANULAR BASE AND

6" FLYASH TREATED SUBGRADE



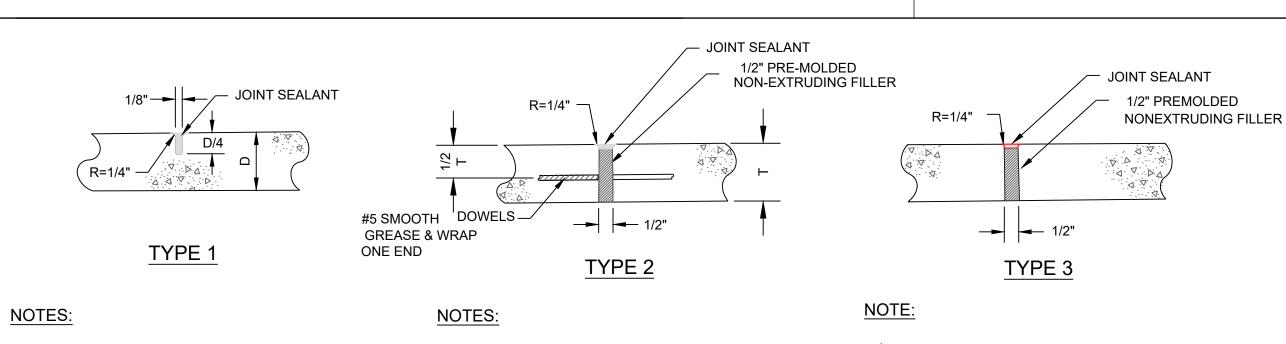


CONCRETE PAVEMENT SECTION

MISSOURI

Checked By: DL

ASPHALT PAVEMENT SECTION



SURFACE COURSE

BASE COURSE

SUB GRADE

1. TYPE 1 JOINTS MAY BE CONSTRUCTED WITH A GROOVING TOOL OR WITH A CONCRETE SAW AFTER THE CONCRETE IS SET.

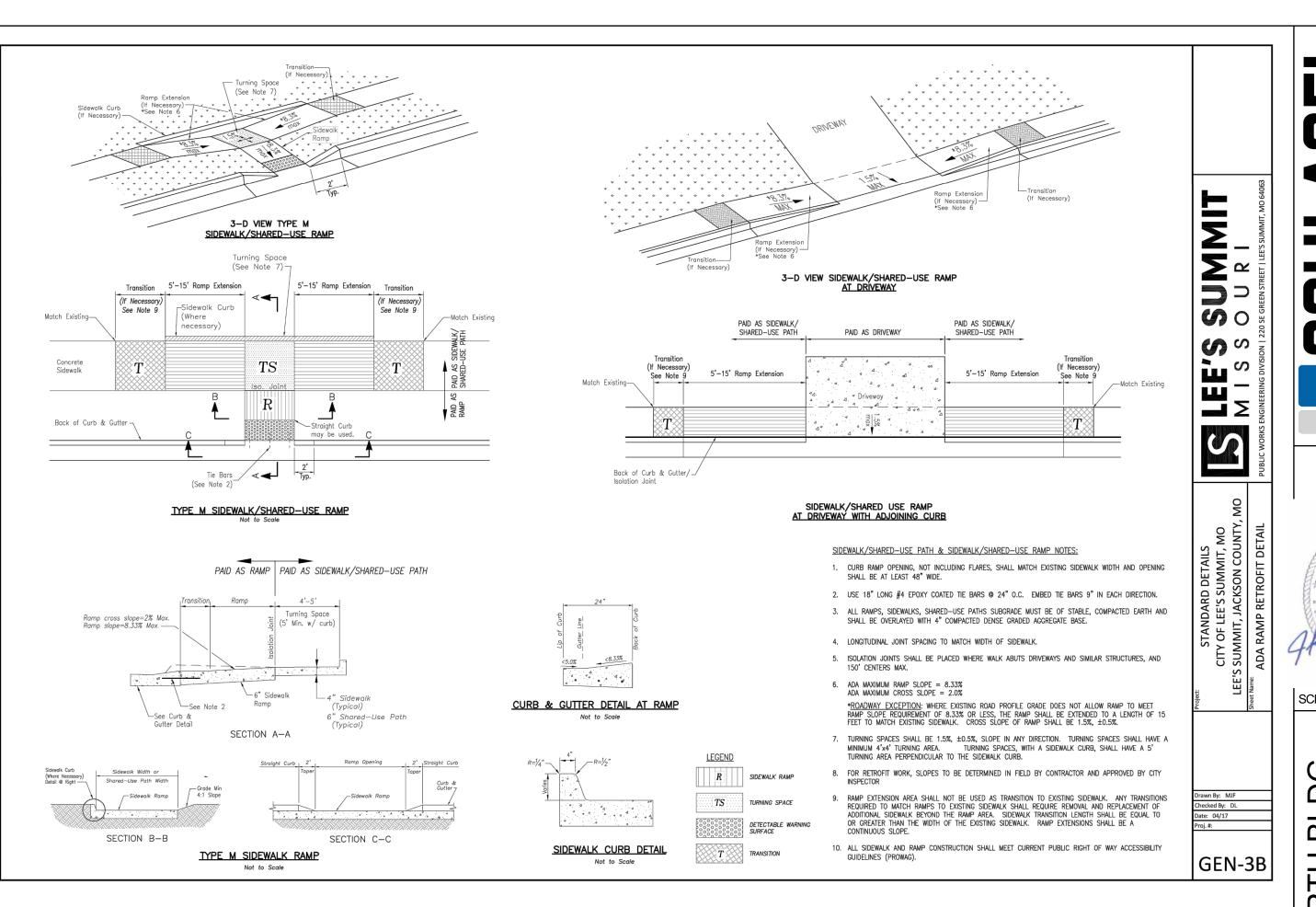
2. TYPE 1 JOINTS SHALL BE SPACE TO EQUAL THE WIDTH OF THE SIDEWALK.

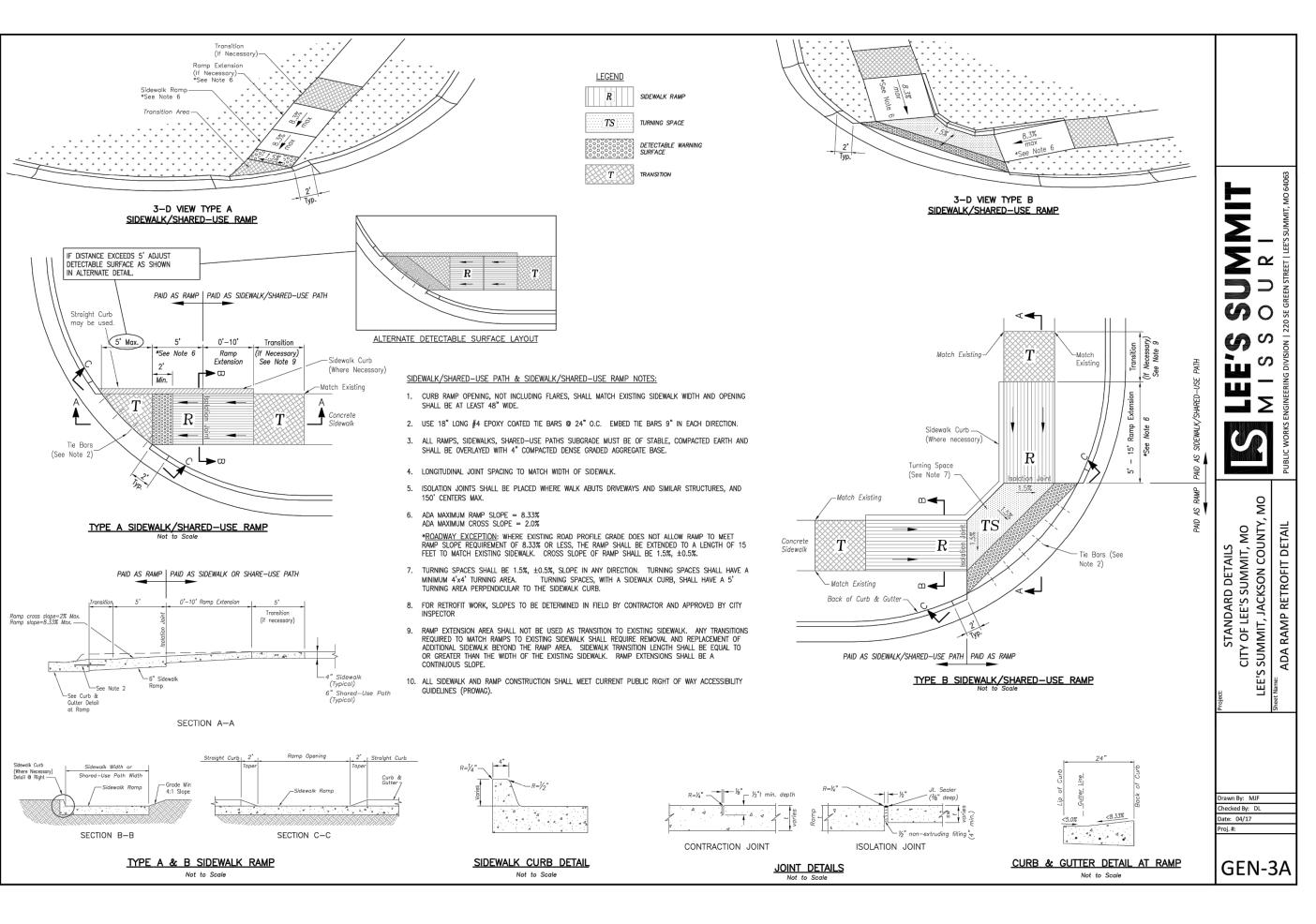
1. TYPE 2 JOINTS SHALL BE PLACED @ ALL P.C.'s, P.T.'s AND TRANSITIONS, AND WHERE NEW WALK TIES INTO EXISTING WALK.

2. SMOOTH BARS SHALL BE 24" LONG.

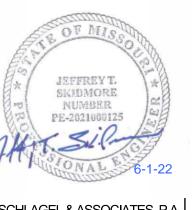
1. TYPE 3 JOINTS SHALL BE PLACED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE AND IN AREAS WHERE DOWEL BARS ARE NOT REQUIRED BY THE ENGINEER.

TYPICAL CONCRETE PAVEMENT - JOINT DETAILS







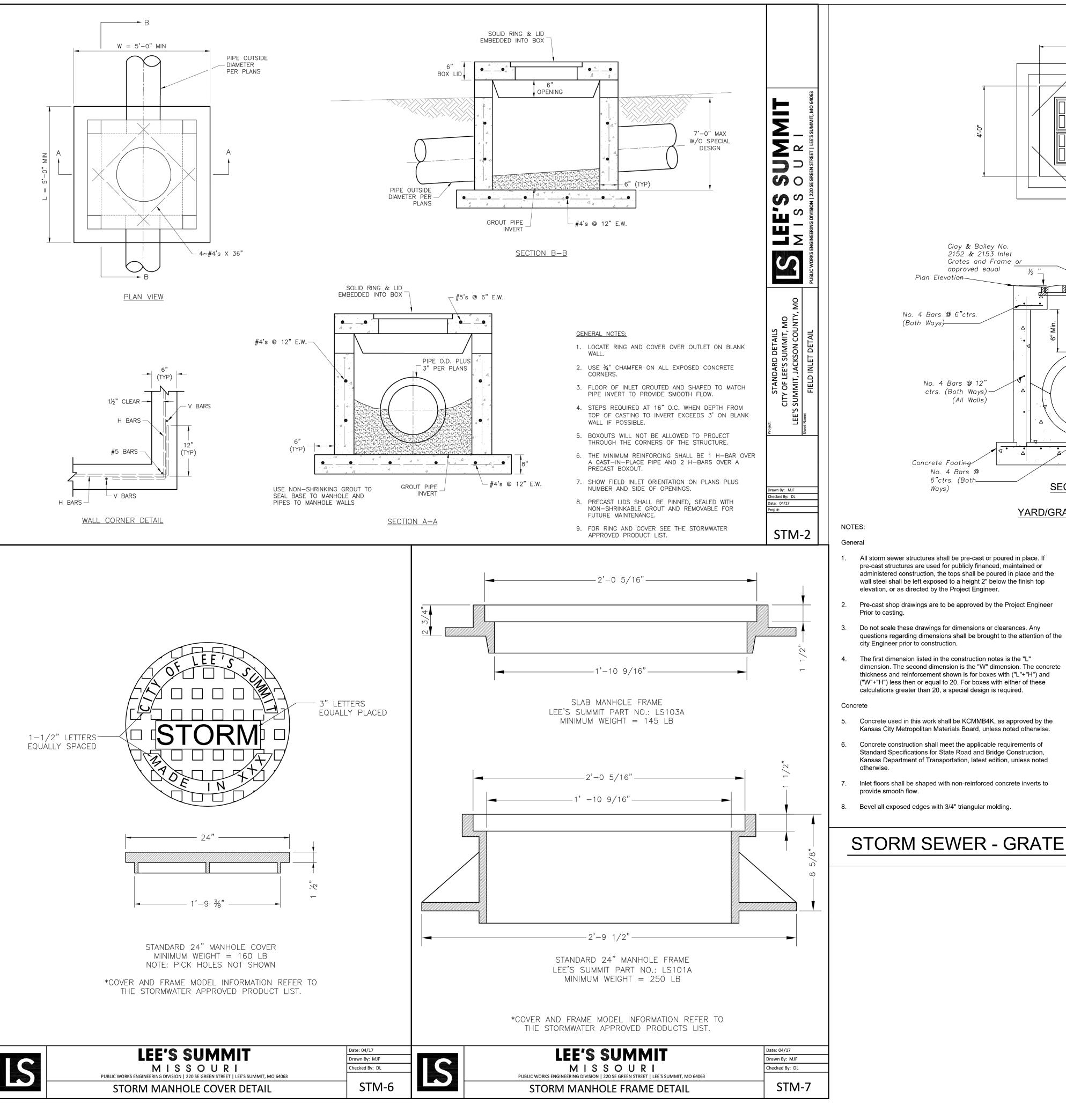


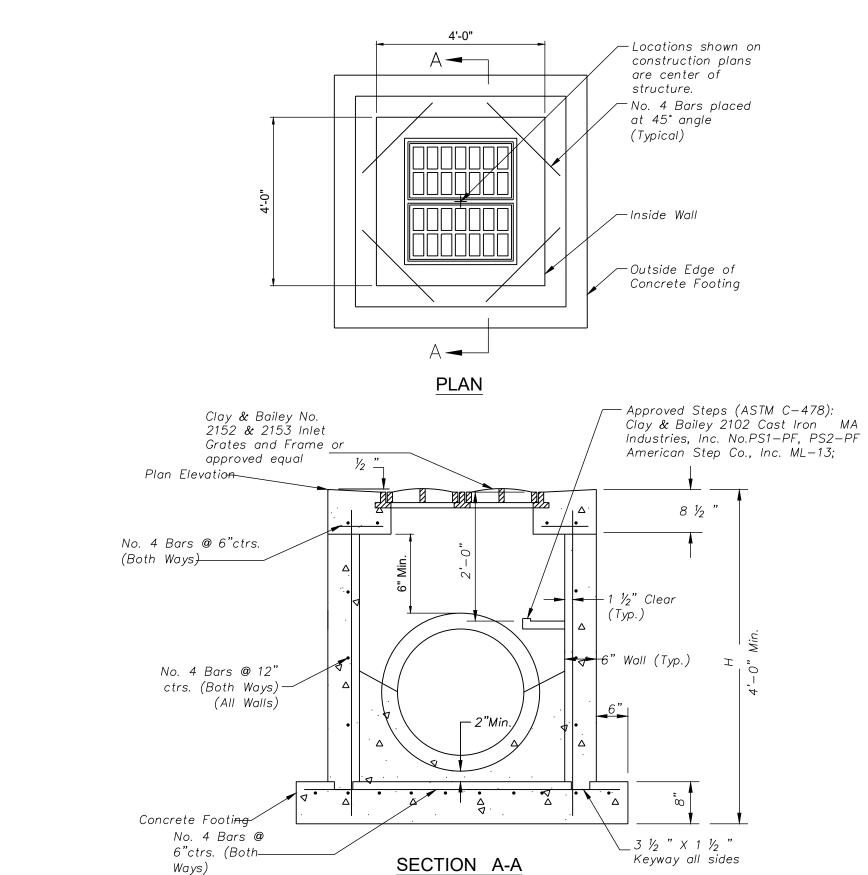
SCHLAGEL & ASSOCIATES, P.A.

COMM. -

PARK FINAL

PAVEMENT DETAILS





YARD/GRATE INLET DETAILS

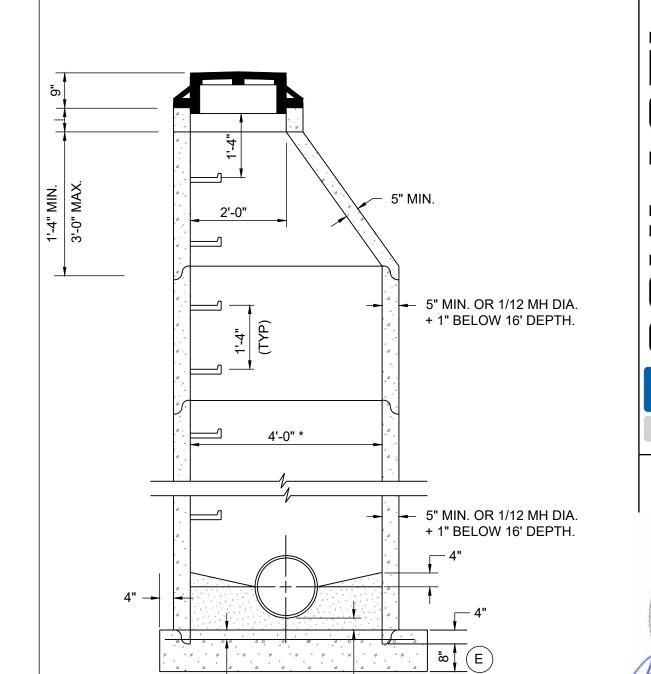
Reinforcing Steel

- 9. Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
- 10. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/- 1/8" shall be permitted.
- 11. All lap splices not shown shall be a minimum of 40 bar diameters in
- 12. All reinforcing steel shall be supported on fabricated steel bar supports
- 13. All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.

Construction

@ 3'-0" maximum spacing.

- 14. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
- 15. Pipe connections to pre-cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure.
- 16. Material selection and compaction requirements for backfill around structures shall be as specified in the project manual.



* UNLESS OTHERWISE NOTED ON PLANS

3" MIN. FROM DOWNSTREAM INVERT

GENERAL NOTES:

2" MIN.

- All manhole rings shall be set in a minimum of two (2) rows of 3/4 to 1 inch pre-formed bitumastic joint sealer.
- All manhole rings to be placed in pavement or in areas to be subsequently paved shall have "Machined Horizontal Bearing Surfaces" and shall comply with Class #25 as established in ASTM A-48.
- The inside diameter of the manhole shall be 4'-0" for pipe diameters from 8" thru 24" and shall be 5'-0" for pipe
- diameters from 27" thru 36". All manhole bases (pre-cast or poured-in-place) shall have No. 4 reinforcing bars placed on 12" centers both ways.
- All standard manhole rings and covers to be Deeter 1315-ics, Neenah NF-15360009/B (frame) and NF-15360010/B (cover), or approved equal.
- All manhole rings and covers shown in plans to be "boltdown" to be Clay & Bailey Manufacturing Co. No. 20140R, Neenah R-1915-F2 or approved equal. An extra payment for furnishing "bolt-down" ring and cover as shown in plans will
- not be made, but shall be considered as subsidiary to the item, "Standard Manhole -6". Standard cast iron manhole steps to be Clay & Bailey Manufacturing Co. No. 2102 or approved equal. Steel core,
- plastic coated steps may be used (M.A. Ind., Inc. No. PS1-PF, PS2-PF, or approved equal).
- Maximum grade adjustment allowable is 12". Minimum allowable vertical thickness for precast concrete grade adjustment ring is 2". Concrete used in this work shall be KCMMB4K, as approved by the Kansas City Metropolitan Materials Board.

GENERAL NOTES FOR PRE-CAST MANHOLES

- Reinforcement in all sections shall equal or exceed A.S.T.M. C-478 specifications. 2. Mastic material to be used at all sections joints. O-Rings may be used for joints below the cone section, but the cone section itself shall not have O-ring
- 3. Approved gasket and concrete mortar to be used around pipe in knock-outs.

STORM SEWER - GRATE INLET DETAIL

STORM SEWER - MANHOLE DTL.

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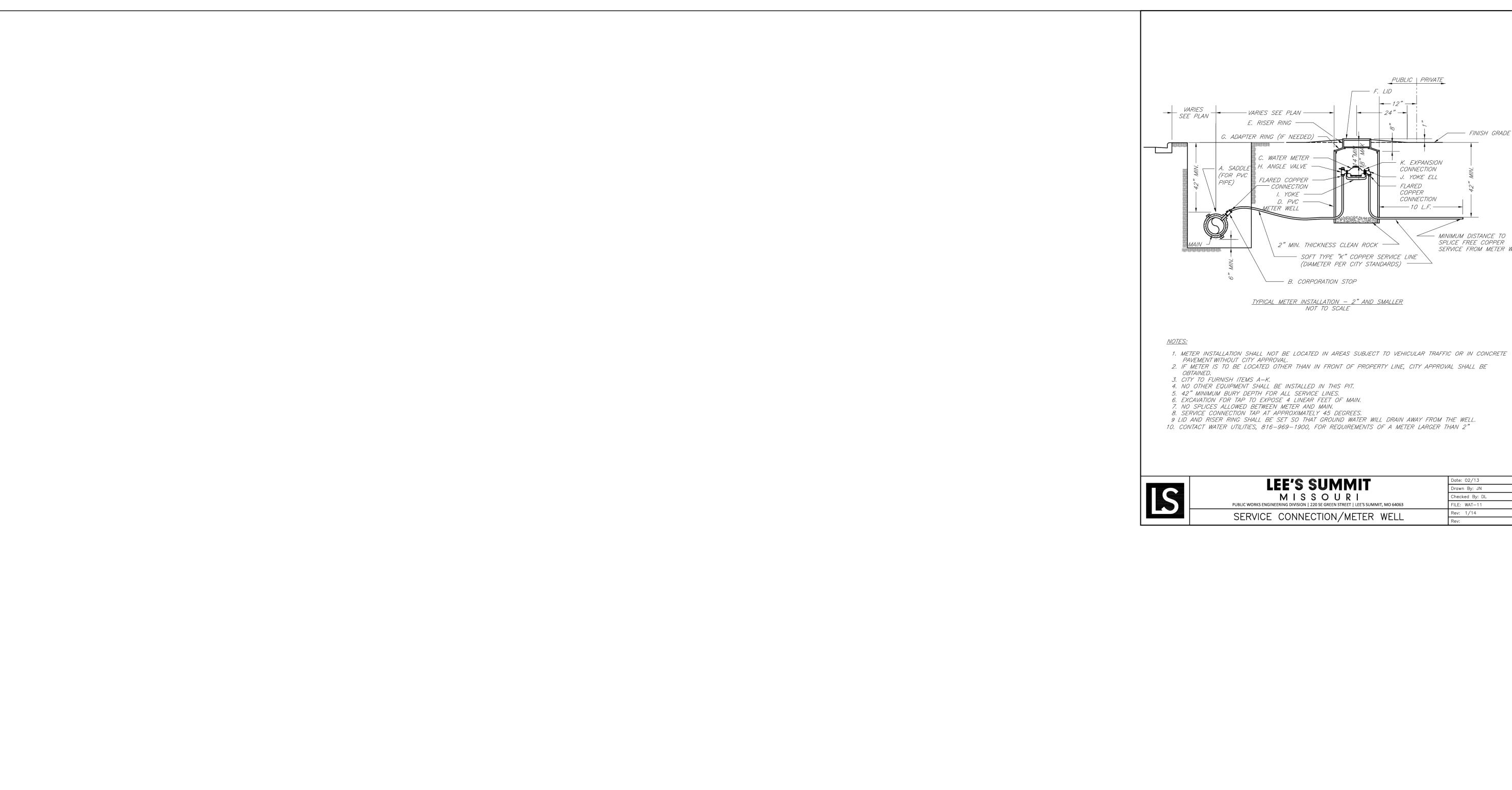
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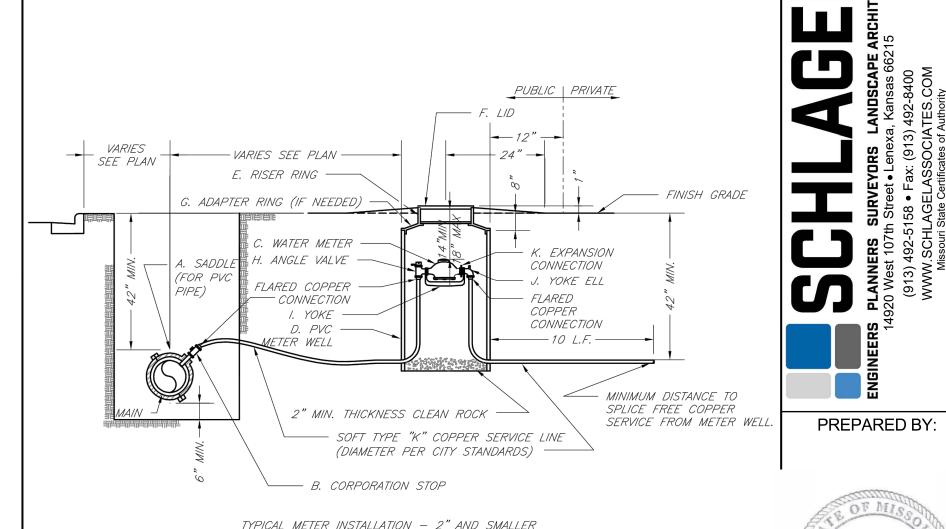
PREPARED BY:

SKIDMORE

SCHLAGEL & ASSOCIATES, P.A.

STORM SEWER **DETAILS**





SCHLAGEL & ASSOCIATES, P.A.

SKIDMORE

BLD

Checked By: DL FILE: WAT-11

- NORTH PLANS

420 SW LONGVIEW LEI

UTILITY DETAILS

