FOR

MARKET STREET CENTER

ADDRESS: M291 AND SW MARKET STREET

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

FIRE ACCESS ROAD NOTE:

ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF SUPPORTING 75,000-POUNDS.

OIL-GAS WELLS:

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STATE OIL & GAS COUNCIL WELLS, LOCATED

PRE-CONSTRUCTION MEETING NOTE:

INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

UTILITY COMPANIES:

LEE'S SUMMIT, MO 64081

LEE'S SUMMIT, MO 64063

MISSOURI GAS ENERGY (816) 969-2218 LUCAS WALLS (LUCAS.WALLS@SUG.COM) 3025 SOUTHEAST CLOVER DRIVE LEE'S SUMMIT, MO 64082

(816) 347-4339 PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM) RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM) (816) 347-4316 1300 HAMBLEN ROAD

STORM SEWER (PUBLIC WORKS DEPARTMENT) (816) 969-1800 220 SE GREEN STREET

SANITARY SEWER & WATER (WATER UTILITIES DEPT.) (816)-969-1900 1200 SE HAMBLEM ROAD,

LEE'S SUMMIT, MO 64081 AT&T (913) 383-4929

(913) 383-4849-FAX MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) 9444 NALL AVENUE OVERLAND PARK, KANSAS 66207



CO COVER SHEET CO.1 DEMOLITION PLAN

C1 OVERALL SITE PLAN C1.1 ENLARGED SITE PLAN

C2 OVERALL GRADING PLAN C2.1-C2.3 ENLARGED GRADING PAN

> C3 OVERALL UTILITY PLAN C3.1 ENLARGED UTILITY PLAN

C4 STORM SEWER PLAN & PROFILES C5-C5.1 DRAINAGE MAPS

C6 DETENTION BASIN PLAN & DETAILS C7-C7.1 EROSION CONTROL PLAN & DETAILS

C8-C8.4 | STANDARD DETAILS LS1-LS2 LANDSCAPE PLAN

PREPARED & SUBMITTED BY:

PHELPS ENGINEERING, INC. 1270 N. WINCHESTER OLATHE, KS 66061 913-393-1155 OFFICE 913-393-1166 FAX CONTACT: JUDD CLAUSSEN, P.E.

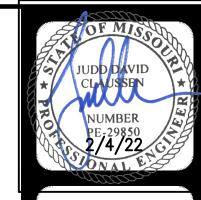
DEVELOPER:

FORESIGHT REAL ESTATE SERVICES, LLC 105 NORTH STEWART COURT, SUITE 225 816-918-1612 CONTACT: JOHN R. DAVIS, JR.

NE1/4 SE1/4 SW1/4

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

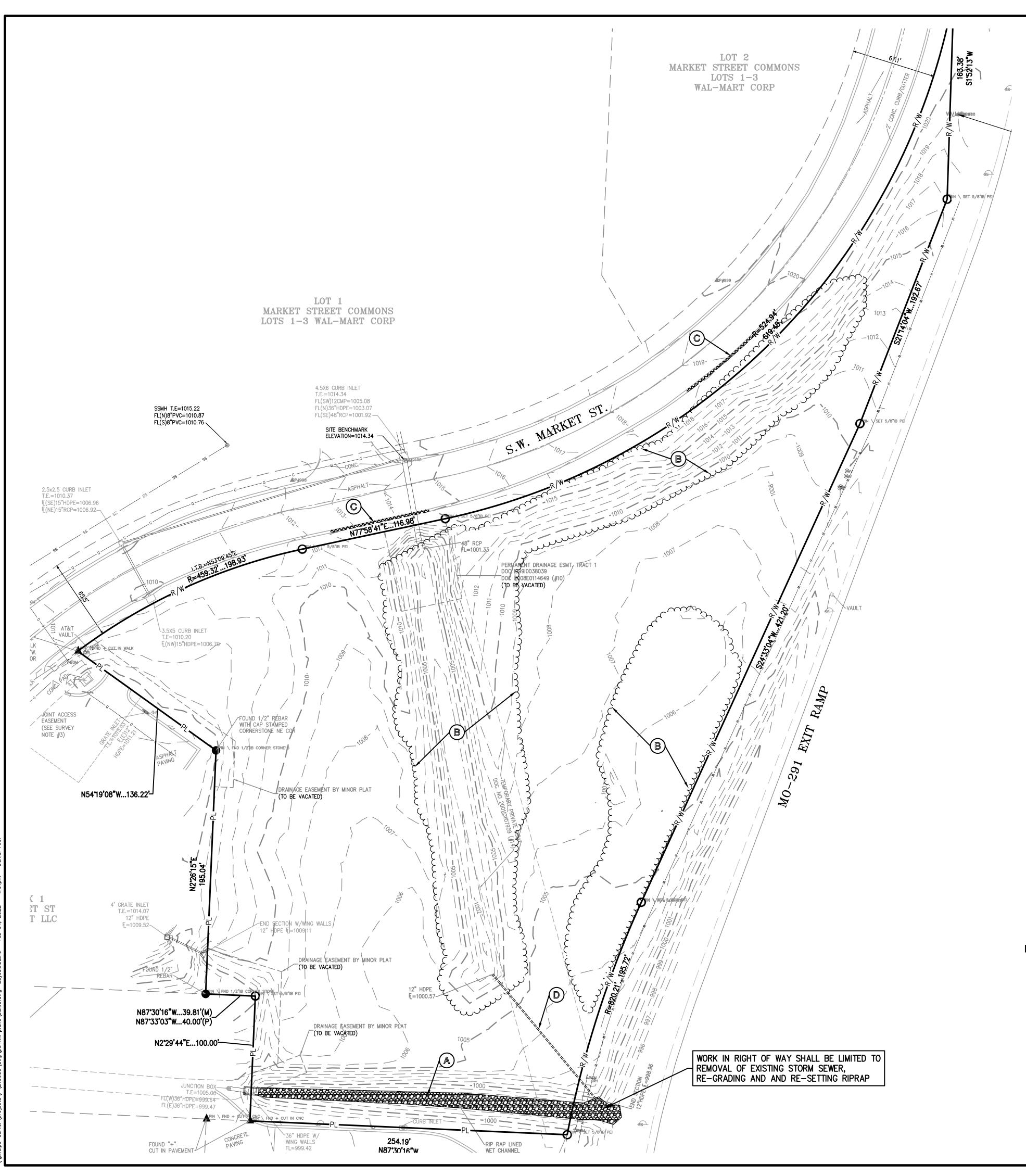
Know what's below. Call before you dig.

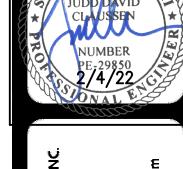


SHEET

VICINITY MAP SEC. 29-47-31

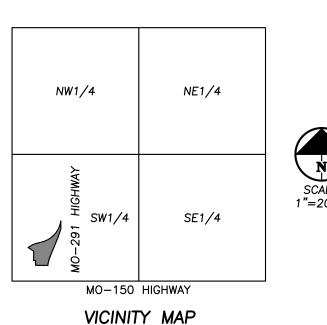
NW1/4

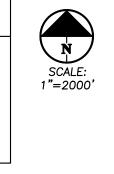




DEMOLITION KEY NOTES:

- THE CONTRACTOR SHALL REMOVE EXISTING RIPRAP LINER (TYP). CONTRACTOR TO DOCUMENT EXISTING RIPRAP WITH ENGINEER FOR POTENTIAL RE-USE.
- THE CONTRACTOR SHALL REMOVE ALL GROUND VEGETATION, TREES, SHRUBS, BRUSH AND DEBRIS SPECIFICALLY SHOWN TO BE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF CLEARED ITEMS.
- THE CONTRACTOR SHALL REMOVE EXISTING CONCRETE CURB & GUTTER FOR NEW DRIVE ENTRANCE.
- THE CONTRACTOR SHALL REMOVE EXISTING 12" HDPE STORM SEWER.





UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
LESSOR, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811. Know what's below.

Call before you dig.

SEC. 29-47-31

— - LL — —	
-R/W	RIGHT-OF-WAY
~~~~~	REMOVE EXISTING CURB & GUTTER
	EXISTING BUILDING TO BE REMOVED
	EXISTING ASPHALT PAVEMENT TO BE REMOVED
	EXISTING CONCRETE PAVEMENT/SIDEWALK TO BE REMOVED
	EXISTING GRAVEL TO BE REMOVED
	EXISTING TREE TO REMAIN
	REMOVE TREE
—— вт——	EXISTING BURIED TELEPHONE
CATV	EXISTING CABLE TELEVISION LINE
——— FO ———	EXISTING FIBER OPTIC LINE
w	EXISTING WATER LINE
	EXISTING GAS LINE
———ВЕ———	EXISTING BURIED ELECTRIC
OHP	EXISTING OVERHEAD POWER LINE
——— ss ———	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
Ø	EXISTING FIRE HYDRANT
LP - - -	EXISTING LIGHT POLE

—x—x—x— EXISTING CHAIN LINK FENCE

LEGEND

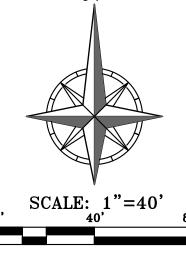
PROPERTY LINE

DEMOLITION NOTES:

. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL CURBS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL.

2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.

DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE. 4. CONTRACTOR MUST COORDINATE WITH OWNER PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES.







Know what's **below. Call** before you dig.

LEGAL DESCRIPTION:

ALL THAT PART OF THE SOUTHWEST QUARTER OF SECTION 29, TOWNSHIP 47 NORTH, RANGE 31 WEST, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT TO THE NORTHEAST CORNER OF LOT 2, QUIKTRIP 200R, A PLATTED SUBDIVISION OF LAND IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, SAID POINT ALSO BEING ON THE WEST RIGHT-OF-WAY LINE OF MISSOURI ROUTE 291 HIGHWAY, AS NOW ESTABLISHED; THENCE N 87'30'16" W, ALONG THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 254.19 FEET, TO AN ANGLE POINT ON THE EAST LINE OF LOT 1A, QUIKTRIP 200R LOT 1A, A SUBDIVISION OF LAND IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI; THENCE N 2°29'44" E, ALONG SAID EAST LINE OF SAID LOT 1A, A DISTANCE OF 100.00 FEET, TO THE NORTHEAST CORNER OF SAID LOT 1A; THENCE N 87°30'16" W, ALONG THE NORTH LINE OF SAID LOT 1A, A DISTANCE OF 39.81 FEET, TO THE SOUTHEAST CORNER OF LOT 1, BLOCK 1, OF FIRESTONE SW MARKET STREET, A LOT 1, BLOCK 1, A DISTANCE OF 195.04 FEET, TO THE NORTHEAST CORNER OF SAID LOT 1, BLOCK 1; THENCE N 5419'08" W. ALONG THE NORTHERLY LINE OF SAID LOT 1, BLOCK 1, A DISTANCE OF 136.22 FEET, TO THE NORTH MOST CORNER OF SAID LOT 1, BLOCK 1, FIRESTONE SW MARKET STREET, SAID POINT ALSO BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF SW MARKET STREET, AS NOW ESTABLISHED; THENCE NORTHEASTERLY ALONG SAID EASTERLY RIGHT-OF-WAY LINE FOR THE FOLLOWING THREE (3) COURSES; THENCE ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF N 53°09'45" THENCE NORTHERLY ALONG A CURVE TO THE LEFT, BEING TANGENT TO THE LAST COURSE, HAVING A RADIUS OF 524.94 FEET, AND AN ARC LENGTH OF 619.48 FEET, TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF MISSOURI ROUTE 291 HIGHWAY, AS THENCE S 1°52'13" W, A DISTANCE OF 163.38 FEET; THENCE S 21°14'04" W, A DISTANCE OF 192.67 FEET; THENCE S 24°33'04 W, A DISTANCE OF 421.20 FEET; THENCE SOUTH ALONG A CURVE TO THE LEFT BEING TANGENT TO THE LAST DESCRIBED COURSE, HAVING A RADIUS OF 820.21 FEET, AND AN ARC LENGTH OF 195.72 FEET, TO THE POINT OF BEGINNING, CONTAINING 219,027.21 SQUARE FEET, OR 5.028 ACRES, MORE OR LESS, OF UNPLATTED LAND.

SITE PLAN NOTES:

- All construction materials and procedures on this project shall conform to the latest revision of the following governing requirements, incorporated herein by reference:
 City ordinances & O.S.H.A. Regulations.
- B) The City of Lee's Summit Technical Specifications and Municipal Code.

 $AREA = \pm 5.028 ACRES / \pm 219,027.21 SQ.FT.$

- 2. The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the appropriate Design and Construction Standards and Specifications at the job site at all times.
- 3. The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City of Lee's Summit, Missouri, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits, bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- 4. The contractor is responsible for coordination of his and his sub—contractor's work. The contractor shall assume all responsibility for protecting and maintaining his work during the construction period and between the various trades/sub—contractors constructing the work.
- 5. The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with all local, state and federal regulations.
- 6. Contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainage, sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with governing authorities specifications and shall be approved by such. All cost shall be included in base bid.
- 7. All existing utilities indicated on the drawings are according to the best information available to the Engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All underground utilities shall be protected at the contractor's expense. All utilities, shown and unshown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.
- 8. The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other features not designated for removal. The contractor shall repair all damages at his expense.
- 9. The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings prior to the start of construction. Notify the engineer of any discrepancies.
- 10. <u>SAFETY NOTICE TO CONTRACTOR:</u> In accordance with generally accepted construction practices, the contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on or near the construction site.
- 11. Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

SITE DIMENSION NOTES:

1. BUILDING TIES SHOWN ARE TO THE OUTSIDE FACE OF PROPOSED WALLS. THE SUBCONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SPECIFIC DIMENSIONS AND LAYOUT INFORMATION FOR THE BUILDINGS.

2. ALL DIMENSIONS SHOWN FOR THE PARKING LOT AND CURBS ARE MEASURED FORM BACK OF CURB TO BACK OF CURB.

PAVEMENT MARKING AND SIGNAGE NOTES:

1. PARKING STALL MARKING STRIPES SHALL BE FOUR INCH (4") WIDE WHITE STRIPES. DIRECTIONAL ARROW AND HANDICAP STALL MARKINGS SHALL BE FURNISHED AT LOCATIONS SHOWN ON PLANS.

- 2. HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT) AND STATE LAWS AND REGULATIONS.
- 3. TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- 4. STOP SIGNS SHALL BE PROVIDED AT ALL LOCATIONS AS SHOWN ON PLANS AND SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". SIGNS SHALL BE 18" X 12", 18 GAUGE STEEL AND SHALL BE ENGINEER GRADE REFLECTIVE.

5. TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S-W TRAFFIC MARKING SERIES B-29Y2 OR APPROVED EQUAL. THE PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. APPLY ON A CLEAN, DRY SURFACE AND AT A SURFACE TEMPERATURE OF NOT LESS THAN 70°F AND THE AMBIENT AIR TEMPERATURE SHALL NOT BE LESS THAN 60°F AND RISING. TWO COATS SHALL BE APPLIED.

ZONING:

THIS PROPERTY IS ZONED CP-2, DEFINED AS PLANNED COMMUNITY COMMERCIAL DISTRICT.

OIL-GAS WELLS:

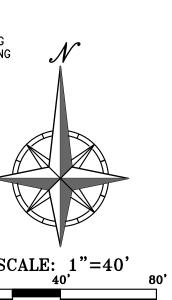
SUPPORTING 75,000-POUNDS.

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STATE OIL & GAS COUNCIL WELLS, LOCATED AT www.dnr.mo.gov/geology/geosrv/oilandgas.htm, THERE ARE NO OIL OR GAS WELLS ON THE PROPERTY SHOWN HEREON

PRE-CONSTRUCTION MEETING NOTE:

THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

FIRE ACCESS ROAD NOTE:
ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF



JUDD DAVID CLAUSSEN *
NUMBER PE-29850
2/4/22
CONAL E

HELPS ENGINEERING, IN.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1166

LANNING NGINEERING APLEMENTATION

ET STREET CENTER
D SW MARKET STREET

Date Revisions: By

DATE: 10–14–21 DRAWN:MRR
CHECKED: DAF APPROVED: JDC
CERTIFICATE OF AUTHORIZATION
KANSAS
LAND SURVETING – LS–82
ENGINEERING – E–391
CERTIFICATE OF AUTHORIZATION
MISSOURI

SHEET C1







SITE KEY NOTES:

- CONSTRUCT PRIVATE 2' TYPE "B" CONCRETE CURB & GUTTER (TYPICAL).
- (B) CONSTRUCT PRIVATE CONCRETE SIDEWALK (TYPICAL).
- CONSTRUCT PRIVATE SIDEWALK CURB RAMP (OMIT DETECTABLE WARNING).
- (D) CONSTRUCT ELECTRICAL UTILITY PAD (RE: EVERGY WORKORDER).
- INSTALL ACCESSIBLE PAVEMENT MARKINGS PER ADA SPECIFICATIONS.
- F INSTALL ACCESSIBLE PARKING SIGN.
- (G) INSTALL VAN ACCESSIBLE PARKING SIGN.
- (H) CONSTRUCT PRIVATE 6" MONOLITHIC CONCRETE CURB.
- (|) INSTALL SCORED CONCRETED CROSSWALK.
- (J) INSTALL TRASH ENCLOSURE (RE: ARCH PLANS).
- (K) INSTALL MONUMENT SIGN (RE: ARCH PLANS).
- INSTALL CONCRETE COMMERCIAL ENTRANCE PER CITY STANDARD DETAIL.
- CONSTRUCT PUBLIC SIDEWALK RAMP (OMIT DETECTABLE WARNING) (RE: LEE'S SUMMIT STANDARD DETAIL GEN-3A).
- CONSTRUCT PUBLIC CONCRETE SIDEWALK (RE: LEE'S SUMMIT STANDARD DETAIL GEN-3A).

BUILDING & LOT DATA

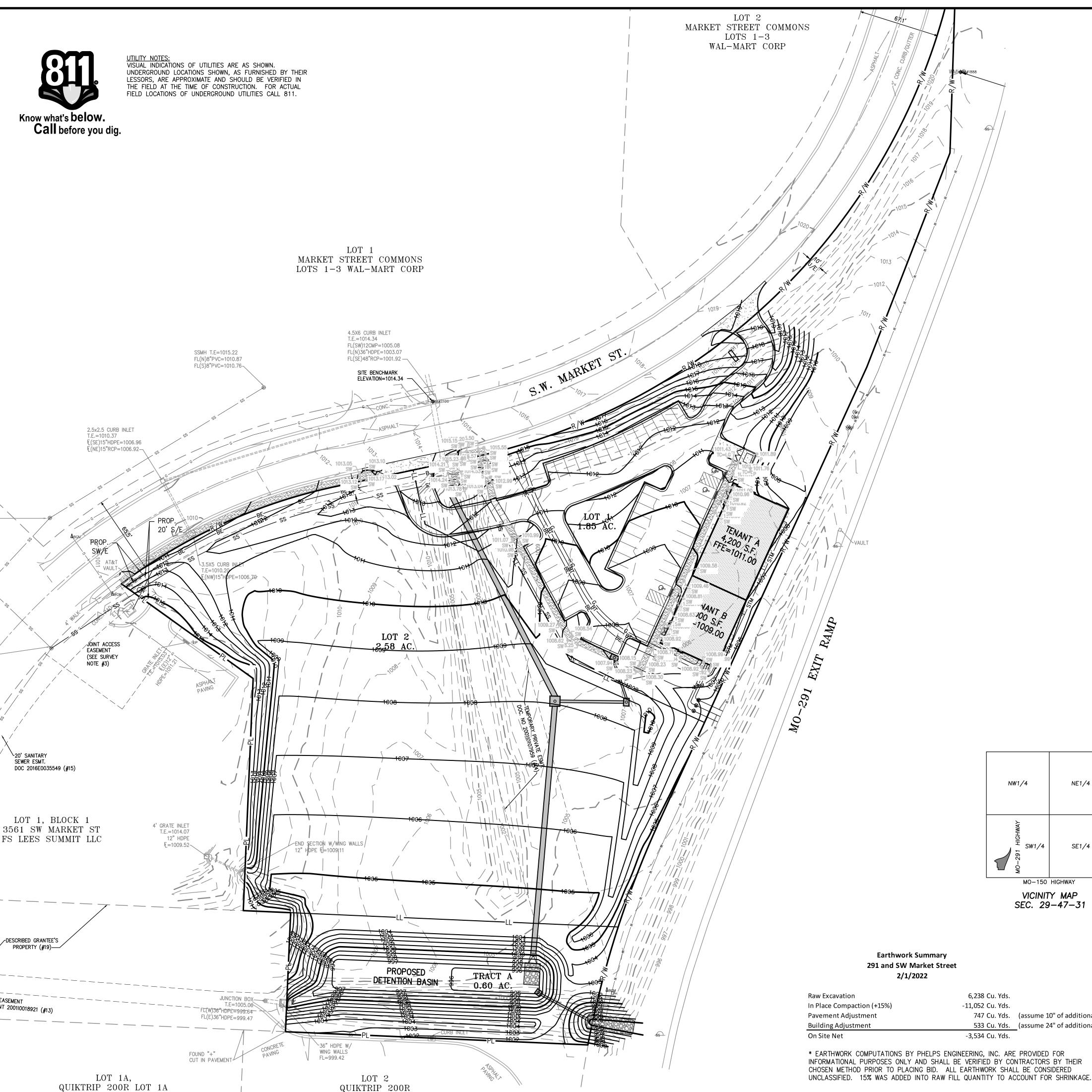
Zoning	CP-2
Lot 1	
Site Area	1.85 Ad
Retail Building	
No. of Stories	1 Story
Building S.F.	7,200 S.F.
Building Footprint	7,200 S.F.
FAR / Building Coverage	0.0893
Impervious Area	0.75 Ac. (41%)
Open Space	1.10 Ac. (59%)

PARKING SUMMARY

Lot 1	
Parking Required:	
Retail Sales (5 / 1,000 S.F.)	
Total Required Parking	36 Spaces
· · · · · · · · · · · · · · · · · · ·	·
Parking Provided	
Standard Parking Provided	48 Spaces
Accessible Parking Spaces Provided	3 Spaces
Total Provided Parking	51 Spaces
Parking Lot, Aisles, and Drives Area	39,000 SF
Parking Lot Landscape Islands, Strips, Planting Areas	14,000 SF (36%

——PL ——	PROPERTY LINE
- $ LL$ $ -$	LOT LINE
- -R/W- $-$	RIGHT-OF-WAY
	2' CURB & GUTTER
	6" CURB
<u>B/L</u>	BUILDING SETBACK L
<u>P/S</u>	PARKING SETBACK LI
	ASPHALT PAVEMENT
	PROPOSED BUILDING
.4 4 4.	CONCRETE PAVEMENT
[· · · · · · · · · · · · · · · · · · ·	





PIED CREEK MISSOURI LLC

COMMERCIAL FEDERAL BANK

SITE GRADING NOTES:

- 1. CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted, proposed contours and elevations shown represent approximate finish grade. Contractor shall hold down subgrades to allow for pavement and sub-base thicknesses.
- 2. If the contractor does not accept existing topography as shown on the plans, without exception, he shall have made at his expense, a topographic survey by a registered land surveyor and submit it to the owner for review.
- 3. CLEARING AND GRUBBING: Prior to beginning preparation of subgrade, all areas under pavements or building shall be stripped of all topsoil, vegetation, large rock fragments (greater than 6 inches in any dimension) and any other deleterious material. The actual stripping depth should be based on visual examination during construction and the results of proof-rolling operations. The root systems of all trees (not designated to remain) shall be removed in their entirety. Stripping materials shall not be incorporated into structural fills.
- TOPSOIL STRIPPING: Prior to the start of site grading, the contractor shall strip all topsoil from areas to be graded, and stockpiled at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. At that time, and prior to the installation of landscaping or irrigation, all topsoil graded areas shall be visually inspected and accepted by the owner and ITL.
- 5. Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fit and continuous grade. Contractor shall assure positive drainage away from buildings for all natural and paved areas.
- 6. SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proofrolled and approved under the direction of the Geotechnical Engineer or his representative.
- 7. PROOFROLLING: Subsequent to completion of stripping and over-excavation, all building and pavement areas to receive engineered fill should be systematically proof-rolled using a tandem axle dump truck loaded to approximately 20,000 pounds per axle. Also, any finished subgrade areas to receive paving shall be proof-rolled within 48 hours of paving. Unsuitable soils that are detected and that can not be recompacted should be over-excavated and replaced with controlled structural fill.
- 8. EARTHWORK:
 - A) GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report. Said report and its recommendations are herein incorporated into the project requirements by reference. Prior to beginning construction, the contractor shall obtain a copy of and become familiar with the geotechnical report. Unless specifically noted on the plans, the recommendations in the geotechnical report are hereby incorporated into the project requirements and specifications.
 - B) SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.
 - C) FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil and debris. In areas where the thickness of the engineered fill is greater than five, feet building and pavement construction should not commence until so authorized by the on-site geotechnical engineer to allow for consolidation.
 - D) BUILDING SUBGRADE: As specified in the Geotechnical Engineering Report, the upper section of building subgrade shall consist of Low Volume Change (LVC) material defined as approved, compacted granular fill or low to moderate plasticity cohesive soil materials stabilized with Class C Flyash. Granular fill shall consist of compacted granular materials with a maximum particle size of two (2) inches or less, such as limestone screenings. Refer to geotechnical report for complete
 - E) EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). The benches should be cut wide enough to accommodate the compaction equipment. Fill material shall be placed and compacted in horizontal lifts not exceeding nine inches (9") (loose lift measurement), unless otherwise approved by the Geotechnical Engineer.
 - F) COMPACTION REQUIREMENTS: The upper 9 inches of pavement subgrade areas shall be compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall within a range of 0% below to 4% above optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.
- 9. All cut or fill slopes shall be 3:1 or flatter. All asphalt parking areas shall be a minimum of 1% slope but not more than 5% slope unless otherwise noted. All pavements within ADA parking areas shall not exceed 2% total slope. All grades around building shall be held down 6" from finish floor and slope away another 6" in 10 feet. Contractor shall notify engineer prior to final subgrade construction of any areas not within this slope requirement.
- 10. TESTING AND INSPECTION: Owner's Independent Testing Laboratory (ITL) shall make tests of earthwork during construction and observe the placement of fills and other work performed on this project to verify that work has been completed in accordance with Geotechnical Engineering Report, Project Specifications and within industry standards. The ITL will be selected by the owner and the cost of testing will be the owner's responsibility.
- 11. CLASSIFICATION: All excavation shall be considered unclassified. No separate or additional payments shall be made for rock
- 12. PERMANENT RESTORATION: All areas disturbed by earthwork operations shall be sodded, unless shown otherwise by the landscaping plan or erosion control plan.
- 13. UTILITIES: 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 48 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.
- 14. LAND DISTURBANCE: The contractor shall adhere to all terms & conditions as outlined in the EPA or applicable state N.P.D.E.S. permit for storm water discharge associated with construction activities. Refer to project S.W.P.P.P. requirements.

FLOOD NOTE:

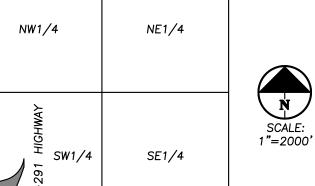
THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0436G, AND DATED JANUARY 20, 2017.

BENCHMARK:

- VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS 1. FOUND "" CUT IN CONCRETE SIDEWALK AT SOUTHWEST CORNER OF ADJACENT PROPERTY.
- ELEVATION = 987.14

ELEVATION = 990.19

2. SET "" CUT IN SOUTHWEST CORNER OF BACK OF CURB IN ADJACENT PARKING LOT TO THE NORTH AT NORTHWEST CORNER OF SURVEYED PROPERTY.



VICINITY MAP SEC. 29-47-31

Raw Excavation	6,238 Cu. Yds.	
In Place Compaction (+15%)	-11,052 Cu. Yds.	
Pavement Adjustment	747 Cu. Yds.	(assume 10" of additional excavation
Building Adjustment	533 Cu. Yds.	_(assume 24" of additional excavation
On Site Net	-3,534 Cu. Yds.	

<u>LE</u> (<u>GEND</u>
—— PL —— —— LL —— —— R/W——	PROPERTY LINE LOT LINE RIGHT-OF-WAY
	2' CURB & GUTTER
— —920— — — —918— —	EXISTING CONTOURS
920—— 918——	PROPOSED CONTOURS
	PROPOSED SPOT ELEVATION
TW XXX.XX	LG LIP OF GUTTER TC TOP OF CURB SW SIDEWALK ME MATCH EXISTING HP HIGH POINT LP LOW POINT P TOP OF PAVEMENT TE TOP OF STRUCTURE GR GROUND ELEVATION BS BOTTOM OF STEPS TS TOP OF STEPS BW BOTTOM OF WALL TW TOP OF WALL
	EXISTING STORM SEWER
	PROPOSED STORM PIPE
	PROPOSED WET CURB & GUT
	PROPOSED DRY CURB & GUT

PROPOSED RETAINING WALL



GRADING
STREET CEN
SW MARKET
JACKSON C

0







EN

FLOOD NOTE:

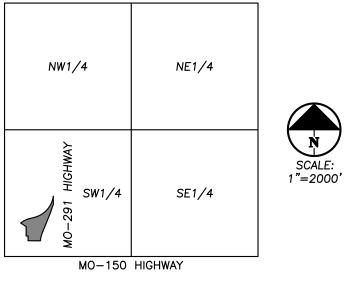
THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0436G, AND DATED JANUARY 20, 2017.

BENCHMARK:

VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS 1. FOUND "D" CUT IN CONCRETE SIDEWALK AT SOUTHWEST CORNER OF ADJACENT PROPERTY.

ELEVATION = 987.14

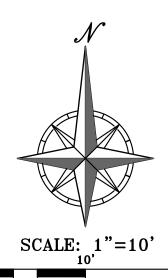
2. SET " CUT IN SOUTHWEST CORNER OF BACK OF CURB IN ADJACENT PARKING LOT TO THE NORTH AT NORTHWEST CORNER OF SURVEYED PROPERTY. ELEVATION = 990.19



VICINITY MAP SEC. 29-47-31

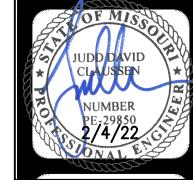
LEGEND

PL —— - LL — — -R/W— —	PROPERTY LINE LOT LINE RIGHT-OF-WAY
000	2' CURB & GUTTER
- 920 	EXISTING CONTOURS
- 920 -918 	PROPOSED CONTOURS
	PROPOSED SPOT ELEVATION
XXX.XX TW	LG LIP OF GUTTER TC TOP OF CURB SW SIDEWALK ME MATCH EXISTING HP HIGH POINT LP LOW POINT P TOP OF PAVEMENT TE TOP OF STRUCTURE GR GROUND ELEVATION BS BOTTOM OF STEPS TS TOP OF STEPS BW BOTTOM OF WALL TW TOP OF WALL
	EXISTING STORM SEWER
	PROPOSED STORM PIPE
	PROPOSED WET CURB & GUTTER
	PROPOSED DRY CURB & GUTTER











EN

SHEET

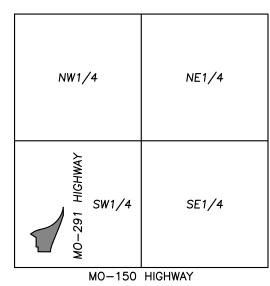
FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0436G, AND DATED JANUARY 20, 2017.

BENCHMARK:

VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS

2. SET "" CUT IN SOUTHWEST CORNER OF BACK OF CURB IN ADJACENT PARKING LOT TO THE NORTH AT NORTHWEST CORNER OF SURVEYED PROPERTY.



SCALE: 1"=2000'

VICINITY MAP SEC. 29-47-31

LEGEND

——PL ——	PROPERTY LINE
LL	LOT LINE
R/W	RIGHT-OF-WAY
	2' CURB & GUTTER
- —920— — - —918— —	EXISTING CONTOURS
920—— 918——	PROPOSED CONTOURS
	PROPOSED SPOT ELEVATION
TW XXX.XX	LG LIP OF GUTTER TC TOP OF CURB SW SIDEWALK ME MATCH EXISTING HP HIGH POINT LP LOW POINT P TOP OF PAVEMENT TE TOP OF STRUCTURE GR GROUND ELEVATION BS BOTTOM OF STEPS TS TOP OF STEPS

BW BOTTOM OF WALL
TW TOP OF WALL

EXISTING STORM SEWER

PROPOSED STORM PIPE PROPOSED DRY CURB & GUTTER







GRADING STREET CENT W MARKET ST

EN

SHEET

FLOOD NOTE:

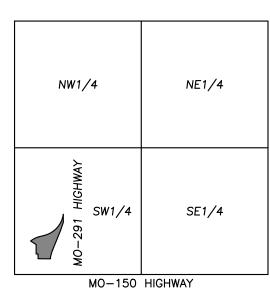
THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0436G, AND DATED JANUARY 20, 2017.

BENCHMARK:

VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS 1. FOUND "D" CUT IN CONCRETE SIDEWALK AT SOUTHWEST CORNER OF ADJACENT PROPERTY.

ELEVATION = 987.14

2. SET "□" CUT IN SOUTHWEST CORNER OF BACK OF CURB IN ADJACENT PARKING LOT TO THE NORTH AT NORTHWEST CORNER OF SURVEYED PROPERTY. ELEVATION = 990.19



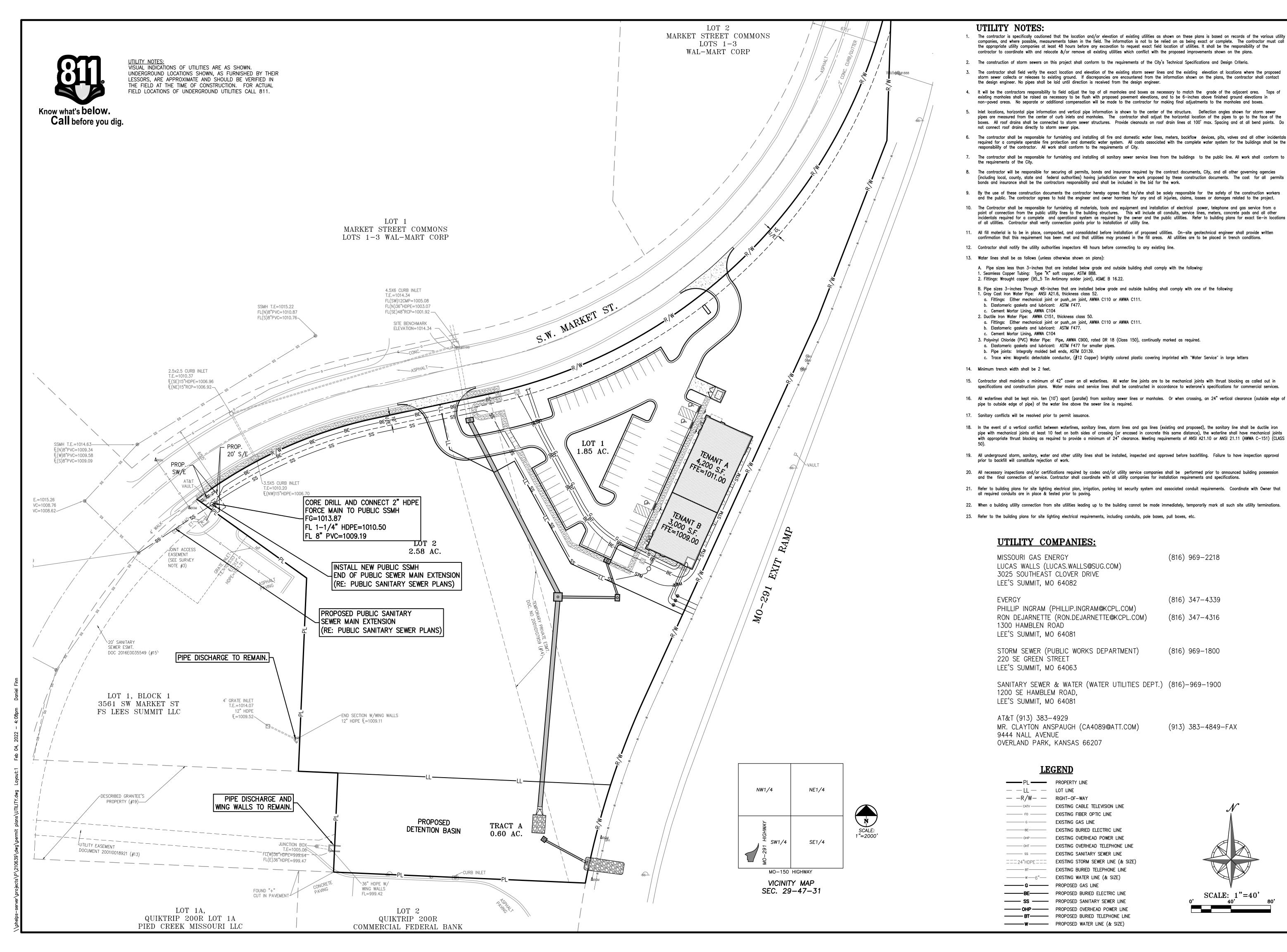
SCALE: 1"=2000'

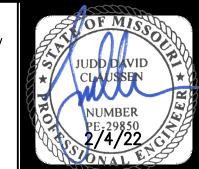
VICINITY MAP SEC. 29-47-31

LEGEND

	<u> </u>
PL — PL — — — — — — — — — — — — — — — —	PROPERTY LINE LOT LINE RIGHT-OF-WAY
	2' CURB & GUTTER
	EXISTING CONTOURS
920 	PROPOSED CONTOURS
XXX.XX TW	PROPOSED SPOT ELEVATION LG LIP OF GUTTER TC TOP OF CURB SW SIDEWALK ME MATCH EXISTING HP HIGH POINT LP LOW POINT P TOP OF PAVEMENT TE TOP OF STRUCTURE GR GROUND ELEVATION BS BOTTOM OF STEPS TS TOP OF STEPS BW BOTTOM OF WALL TW TOP OF WALL
	EXISTING STORM SEWER

PROPOSED STORM PIPE





PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1166

PLANNING ENGINEERING IMPLEMENTAT

R REET JNTY, MISSOURI

MARKET STREET CE M291 AND SW MARKET

Revisions: By App.

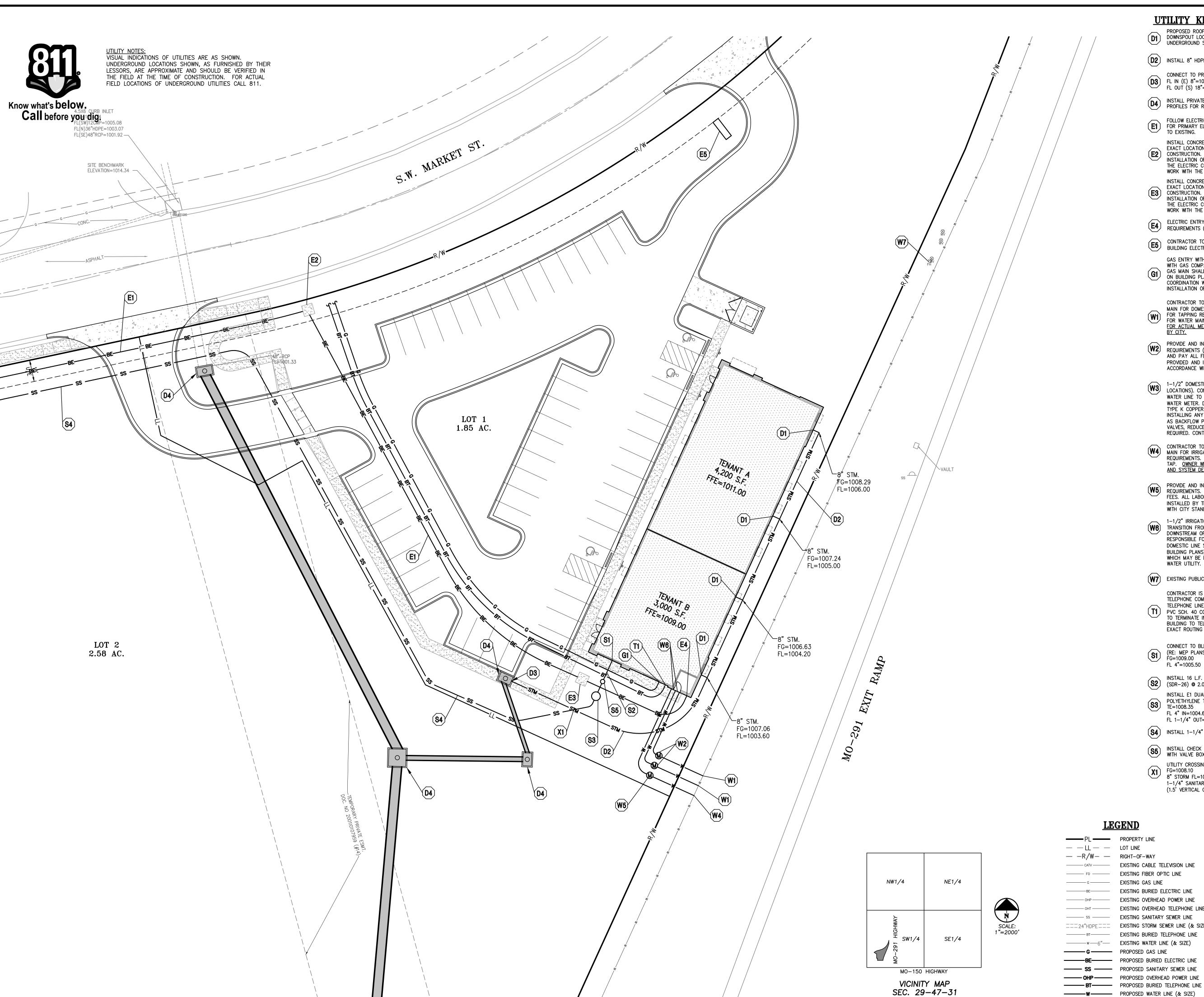
TE: 10–14–21 | DRAWN:MRR

IECKED: DAF | APPROVED: JDC

REPRICATE OF AUTHORIZATION
AND SURVEYING — LS–82
GINEERING — E–391

SSOUR!

SHEET C3



UTILITY KEY NOTES:

- PROPOSED ROOF DRAIN CONNECTION. RE: ARCH PLANS FOR DOWNSPOUT LOCATIONS. CONNECT DOWNSPOUTS TO EXTERNAL UNDERGROUND STORM LINE.
- (D2) INSTALL 8" HDPE PRIVATE STORM SEWER.
- CONNECT TO PROPOSED PRIVATE CURB INLET. FL IN (E) 8"=1002.39
 FL OUT (S) 18"=1002.2
- FL OUT (S) 18"=1002.29
- INSTALL PRIVATE STORM STRUCTURE. SEE STORMWATER PLAN & PROFILES FOR RIM ELEVATION & INVERT ELEVATIONS.
- FOLLOW ELECTRIC COMPANY WORK ORDER AND SPECIFICATIONS FOR PRIMARY ELECTRICAL SERVICE ROUTING AND CONNECTION TO FXISTING
- INSTALL CONCRETE SECTIONALIZER PAD. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH ELECTRIC COMPANY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD AND CONDUIT AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID
- INSTALL CONCRETE TRANSFORMER PAD. CONTRACTOR TO VERIFY INSTALLATION OF CONCRETE PAD AND CONDUIT AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.

WORK WITH THE ELECTRIC COMPANY.

ELECTRIC ENTRY INTO BUILDING. FOLLOW ELECTRIC COMPANY REQUIREMENTS (RE: BUILDING ELECTRIC PLAN.)

INSTALLATION OF GAS SERVICE LINE.

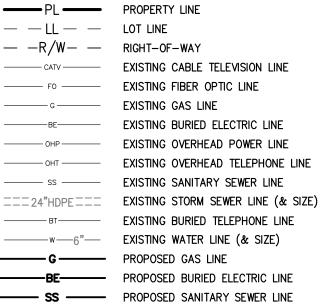
- CONTRACTOR TO INSTALL CONDUITS TO MONUMENT SIGN (RE: BUILDING ELECTRICAL PLANS FOR POWER REQUIREMENTS)
- GAS ENTRY WITH GAS METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYING OF INDIVIDUAL METER. SIZE OF GAS MAIN SHALL BE AS DETERMINED BY UTILITY OR AS SHOWN ON BUILDING PLANS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH GAS COMPANY REGARDING THE SIZE &
- CONTRACTOR TO PERFORM AND COORDINATE 1" TAP ON EXISTING MAIN FOR DOMESTIC SERVICE LINE (2 LOCATIONS). CONTACT CITY FOR TAPPING REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR ACTUAL METER AND SYSTEM DEVELOPMENT FEES ASSESSED BY CITY.
- PROVIDE AND INSTALL 1" DOMESTIC WATER METER PIT PER CITY REQUIREMENTS (2 LOCATIONS). CONTRACTOR TO COORDINATE AND PAY ALL FEES. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER IN ACCORDANCE WITH CITY STANDARDS.
- W3 1-1/2" DOMESTIC WATER LINE ENTRY TO BUILDING (2 LOCATIONS). CONTRACTOR TO TRANSITION FROM 1" DOMESTIC WATER LINE TO 1-1/2" DOMESTIC WATER LINE DOWNSTREAM OF WATER METER. DOMESTIC WATER LINE SHALL BE 1-1/2" SOFT TYPE K COPPER.CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH WATER UTILITY.
- CONTRACTOR TO PERFORM AND COORDINATE 1" TAP ON EXISTING MAIN FOR IRRIGATION LINE. CONTACT CITY FOR TAPPING REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR ACTUAL METER AND SYSTEM DEVELOPMENT FEES ASSESSED BY CITY.
- PROVIDE AND INSTALL 1" IRRIGATION METER PIT PER CITY REQUIREMENTS. CONTRACTOR TO COORDINATE AND PAY ALL FEES. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER IN ACCORDANCE WITH CITY STANDARDS.
- 1-1/2" IRRIGATION LINE ENTRY TO BUILDING. CONTRACTOR TO TRANSITION FROM 1" IRRIGATION LINE TO 1-1/2" IRRIGATION LINE DOWNSTREAM OF WATER METER. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH
- (W7) EXISTING PUBLIC FIRE HYDRANT TO REMAIN.

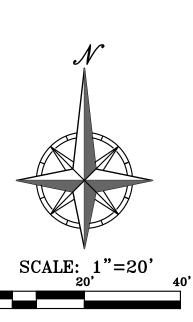
FL 4"=1005.50

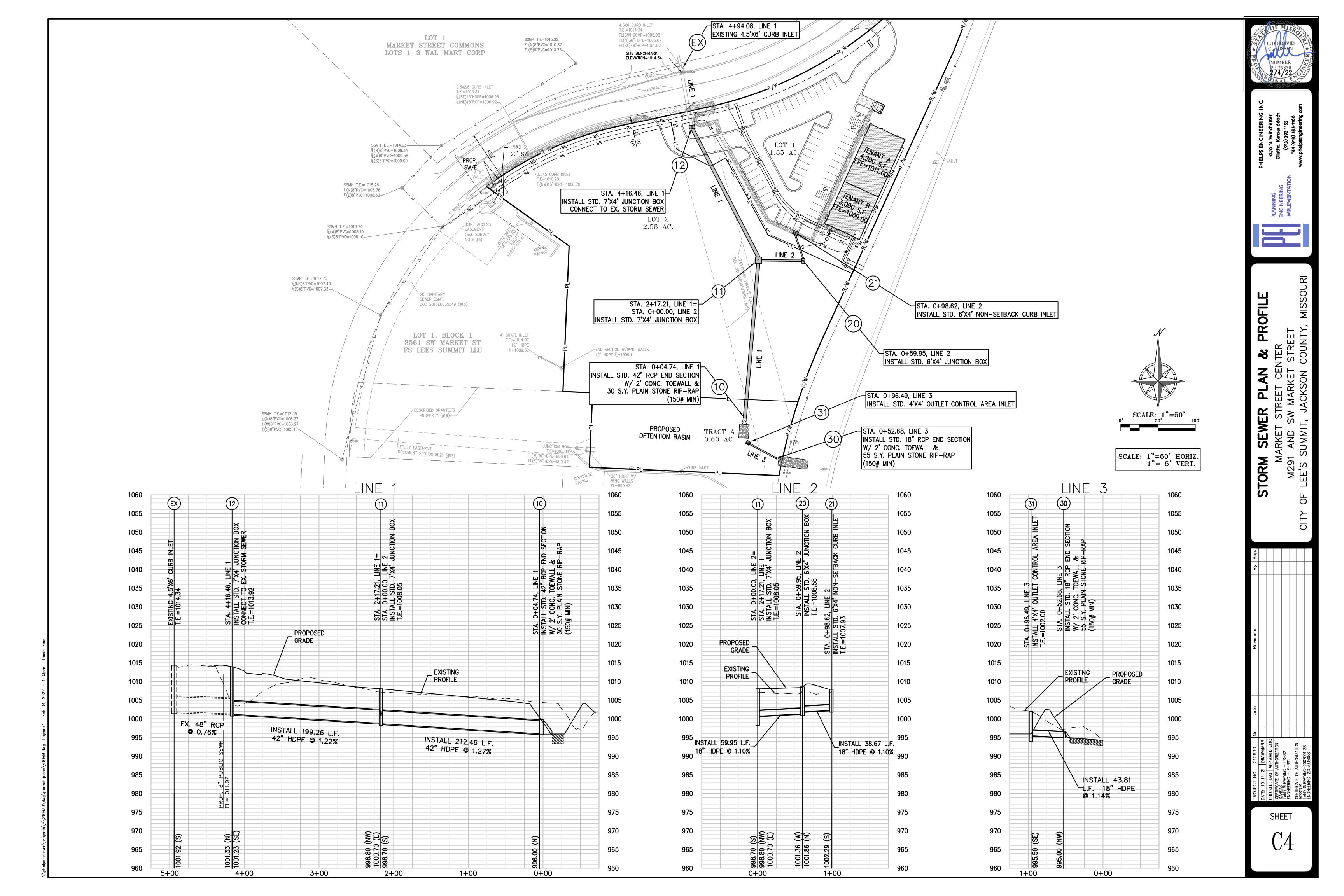
- CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE TELEPHONE COMPANY FOR THE INSTALLATION OF BURIED TELEPHONE LINES. CONTRACTOR TO PROVIDE THREE (3) - 4"
- (T1) PVC SCH. 40 CONDUITS FROM BUILDING TO R/W. CONTRACTOR TO TERMINATE IN QUAZITE BOX WITH PULL STRING FROM BUILDING TO TELEPHONE FEED POINT. CONTRACTOR TO VERIFY EXACT ROUTING AND FEED POINT WITH TELEPHONE COMPANY.
- CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE (RE: MEP PLANS) FG=1009.00
- INSTALL 16 L.F. 4" PVC SANITARY SEWER SERVICE LINE (SDR-26) © 2.0% MIN. SLOPE.
- INSTALL E1 DUAL GRINDER PUMPS (MODEL WH472-77) WITH POLYETHYLENE TANK AND E/ONE SENTRY ADVISOR ALARM PANEL. TE=1008.35 FL 4" IN=1004.66 FL 1-1/4" OUT=1005.15
- (\$4) INSTALL 1-1/4" HDPE PRIVATE SANITARY SEWER FORCE MAIN.
- INSTALL CHECK VALVE ON 4" SANITARY SEWER SERVICE LINE WITH VALVE BOX ACCESSIBLE AT GRADE.
- UTILITY CROSSING FG=1008.10 8" STORM FL=1 8" STORM FL=1002.70

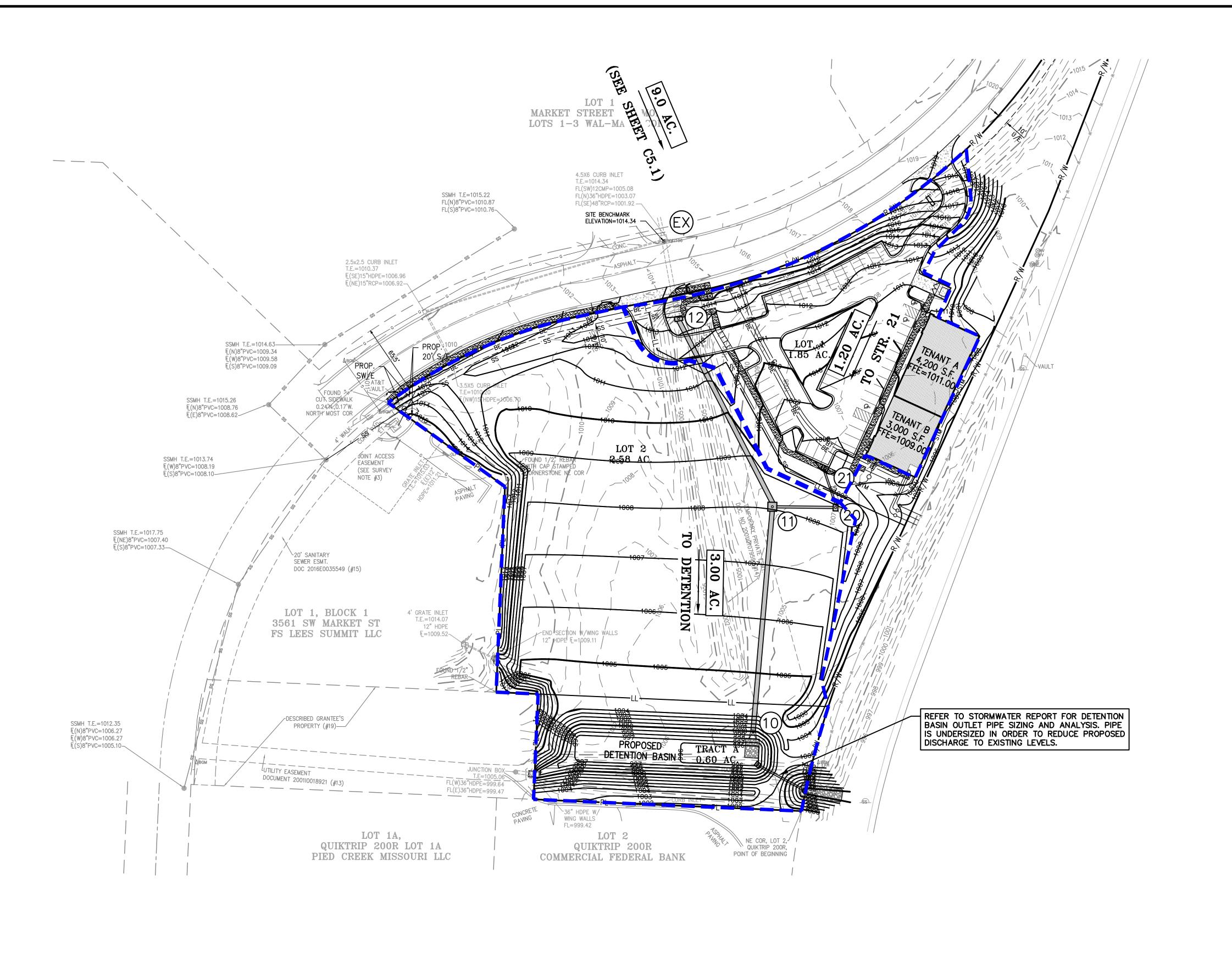
1-1/4" SANITARY FL=1004.90 (1.5' VERTICAL CLARENCE MIN.)

LEGEND









NW1/4 NE1/4 SCALE: 1"=2000' SW1/4 SE1/4 MO-150 HIGHWAY VICINITY MAP SEC. 29-47-31

LEGEND

EXISTING CONTOURS ——XXX—— PROPOSED CONTOURS —XXX— ---- DENOTES DRAINAGE AREA DENOTES FLOW DIRECTION

X.XX Ac.

DENOTES DRAINAGE AREA TO STRUCTURE

DENOTES STRUCTURE NUMBER

STORM DRAINAGE CALCULATIONS

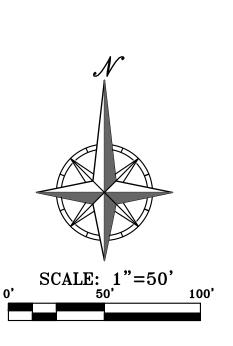
FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREA OF MINIMAL FLOOD HAZARD, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, MISSOURI, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0532G, AND DATED JANUARY 20, 2017

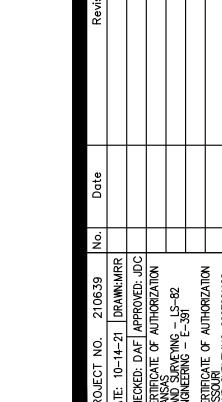


UTILITY NOTES: VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

					I.	. RUNOF	F										III. PIPE	DESIGN							REMARKS
	S	INCR	EMENT AL		CUMUL	ATIVE						STRU	CTURE						PI	IPE					
N L U I M N B E E R	R U C T U R E	RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	CxA	AREA "A" (ACRES)	CxA	SYSTEM TIME OF CONCENTRATION "T _C " AT STRUCTURE (MIN)	KAINFALL	ANTECEDENT PRECIPITATION FACTOR " K_{25} / K_{100} "	RUNOFF "Q ₂₅ / Q ₁₀₀ " (CFS)	Upstream Structure Number	Downstream Structure Number	Upstream Structure Rim Elevation	Height of Structure (FT)	Diameter "D" (IN)	Length "L" (FT)	Upstream Invert Elevation	Downstream Invert Elevation	Slope "S" (FT/FT)	Travel Time in Pipe "TT" (min)	Velocity Full V_p (FPS)	Runoff Q ₂₅ (CFS)	Runoff Q ₁₀₀ (CFS)	Full Flow Q _p (CFS)	
	12	0.81	9.00	7.29	9.00	7.29	5.00	8.53	1.10	68.4	12	11	1013.92	12.69	42	199.26	1001.23	998.80	0.0122	0.29	11.6	68.4	94.1	111.1	
1								10.32	1.25	94.1															
1	11	0.81	0.00	0.00	10.20	8.26	5.00	8.53	1.10	77.5	11	10	1008.05	9.35	42	212.46	998.70	996.00	0.0127	0.30	11.8	77.5	106.6	113.4	
								10.32	1.25	106.6															
	22	0.81	1.20	0.97	1.20	0.97	5.00	8.53	1.10	9.1	22	21	1007.93	5.64	18	38.67	1002.29	1001.86	0.0111	0.10	6.3	9.1	12.5	11.1	
2								10.32	1.25	12.5															
2	21	0.81	0.00	0.00	1.20	0.97	5.00	8.53	1.10	9.1	21	11	1008.58	7.22	18	59.95	1001.36	1000.70	0.0110	0.16	6.3	9.1	12.5	11.0	
								10.32	1.25	12.5															



OF





LEGEND

VICINITY MAP SEC. 29-47-31

---XXX---- EXISTING CONTOURS _____XXX_____

PROPOSED CONTOURS DENOTES DRAINAGE AREA DENOTES FLOW DIRECTION

NE1/4

DENOTES DRAINAGE AREA TO STRUCTURE

DENOTES STRUCTURE NUMBER

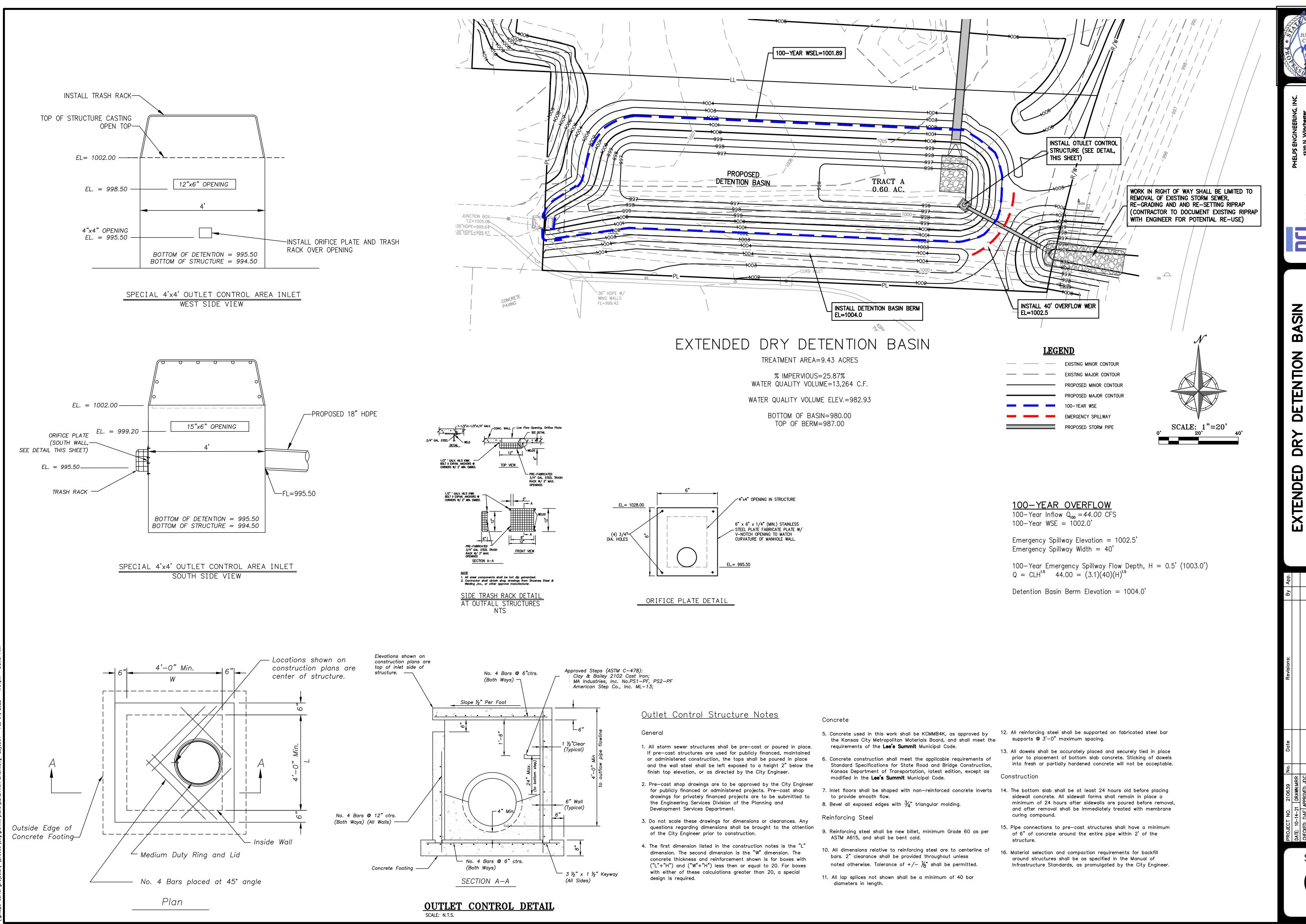
FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREA OF MINIMAL FLOOD HAZARD, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, MISSOURI, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0532G, AND DATED JANUARY 20, 2017



UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

Know what's **below. Call** before you dig.



JUDD DAVID
CLAUSSEN
*
NUMBER
PE-29850
2/4/22
CONAL

PHELPS ENGINEERING, IN 1270 N. Winchester Olathe, Kansas 66061 (タ13) 393-1155 Fax (913) 303-1166

> PLANNING ENGINEERING IMPLEMENTATI

Z ₩ ≥

ON BASIN TER STREET

ED DRY DETENTION BAS MARKET STREET CENTER 31 AND SW MARKET STREET

MA M291 CITY OF LEE'S SI

No. Date Revisions:

DATE: 10–14–21 | DRAWN:MRR

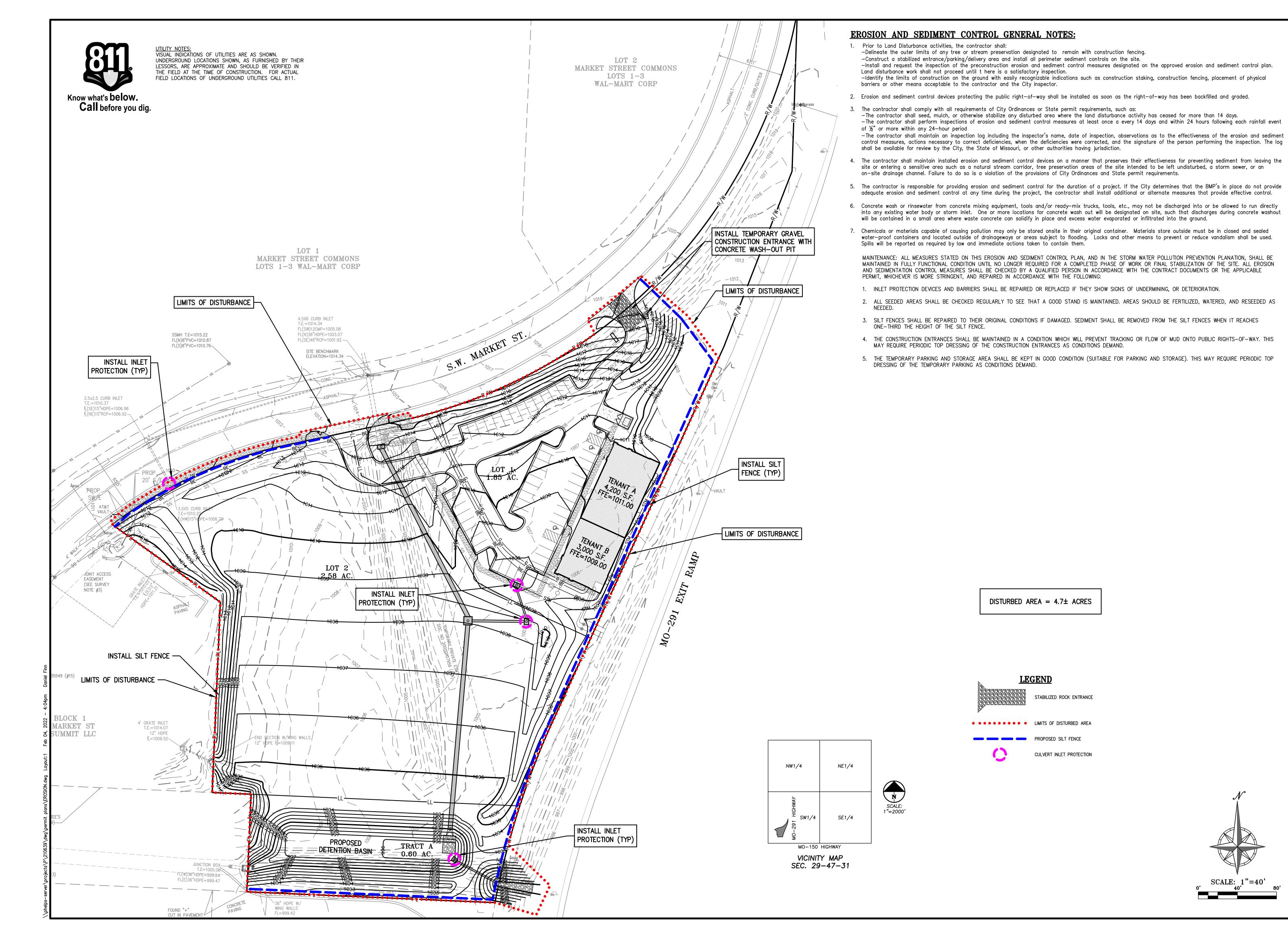
CHECKED: DAF | APPROVED: JDC

CERTIFICATE OF AUTHORIZATION
KANSAS
LAND SURVEYING – LS–82
ENGINEERING – E–391

CERTIFICATE OF AUTHORIZATION
MISSOLIRI

SHEET

C6



JUDD DAVID CLAUSSEN *
NUMBER PE-29850
2/4/22

ELPS ENGINEERING, INC. 1270 N. Winchester Olathe, Kansas 66061 (913) 393-1155 Fax (913) 393-1166

> PLANNING ENGINEERING IMPLEMENTATION

PLAN ENG

> T 'Y, MISSOURI

OSION CONTROL PLAN
MARKET STREET CENTER
91 AND SW MARKET STREET
5 SUMMIT, JACKSON COUNTY.

 O.
 210639
 No.
 Date
 Revisions:

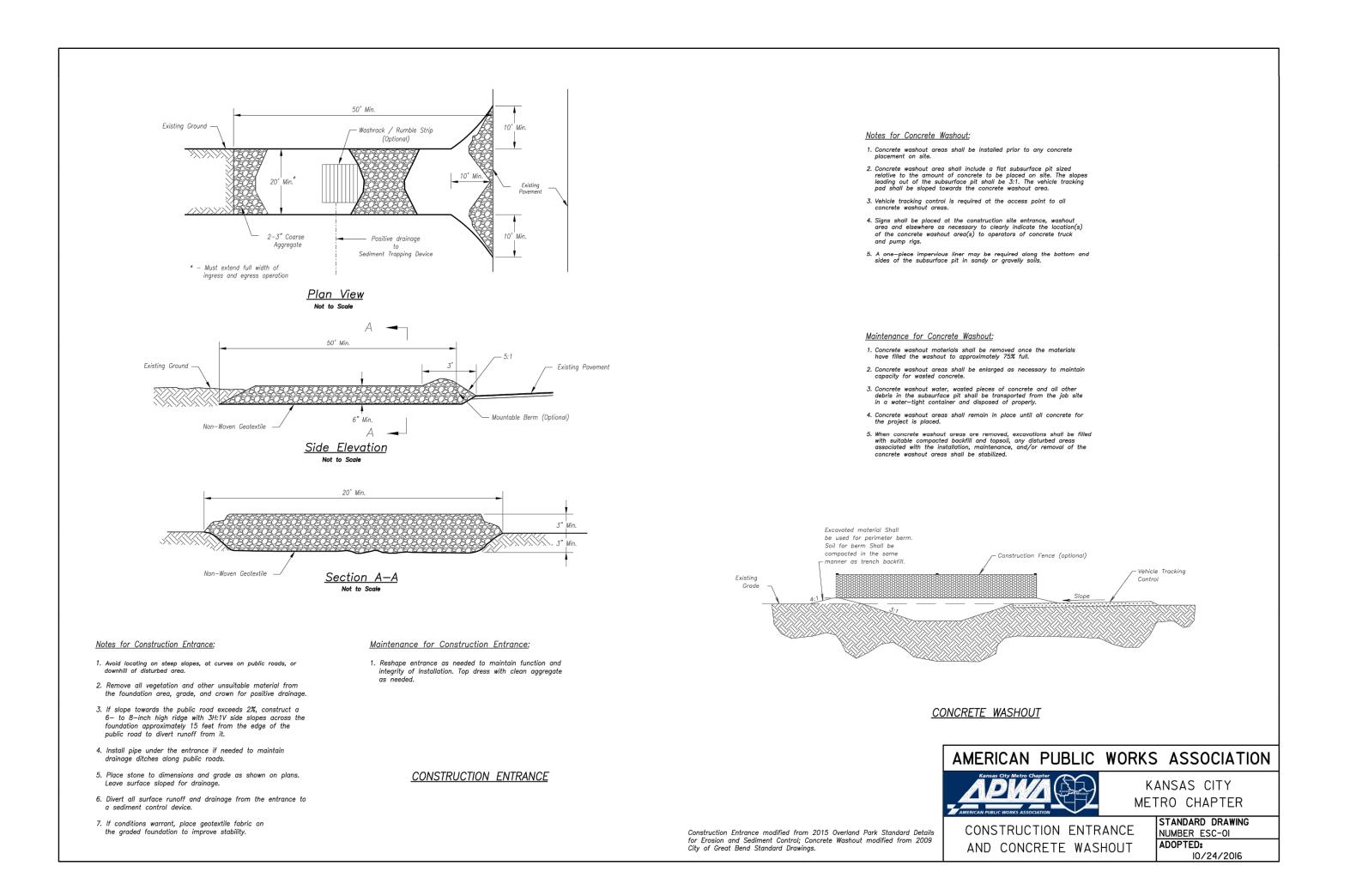
 -21
 DRAWN:MRR
 PROVED: JDC
 PROVED: JDC</t

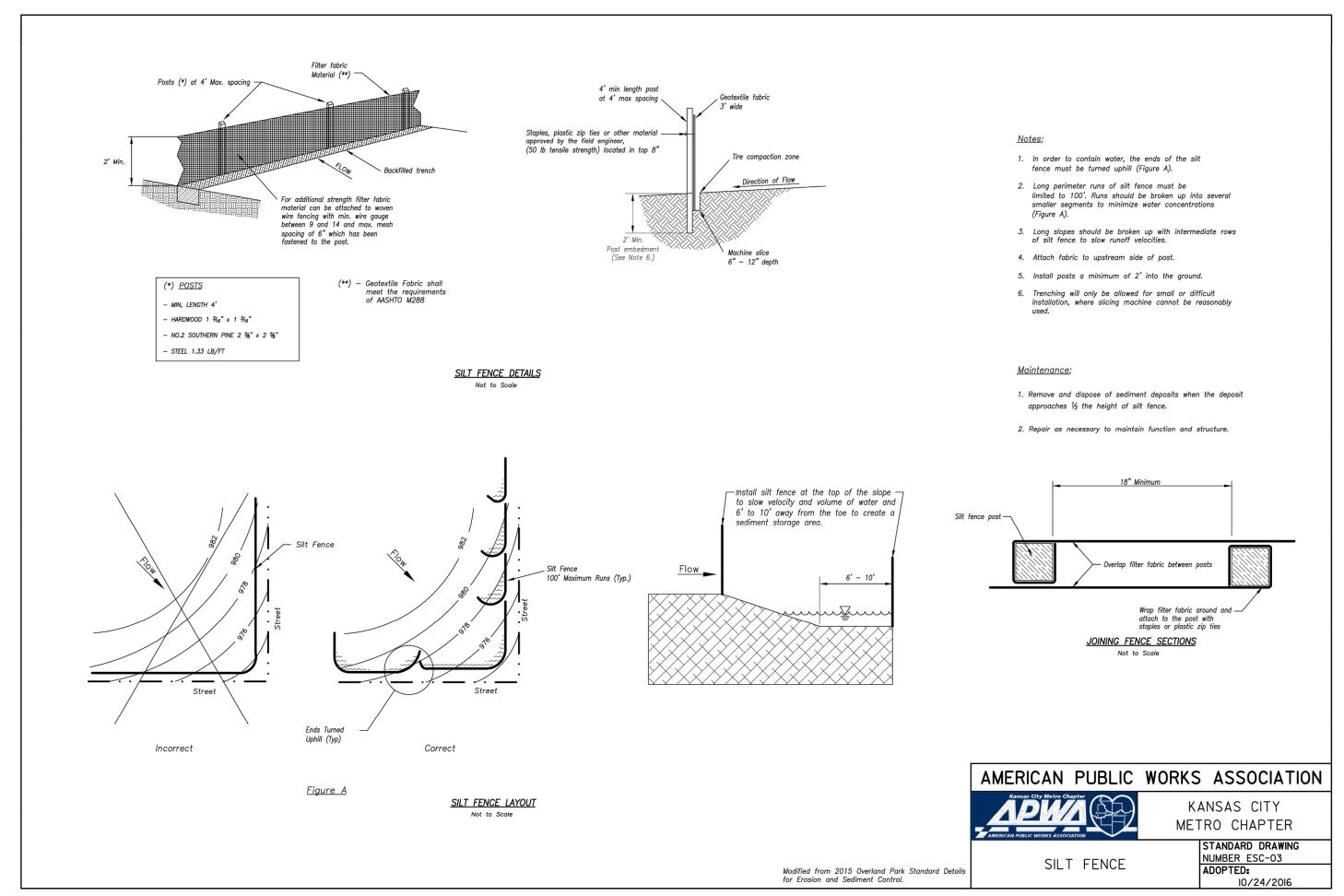
CHECKED: DAF APPROVED: JDC

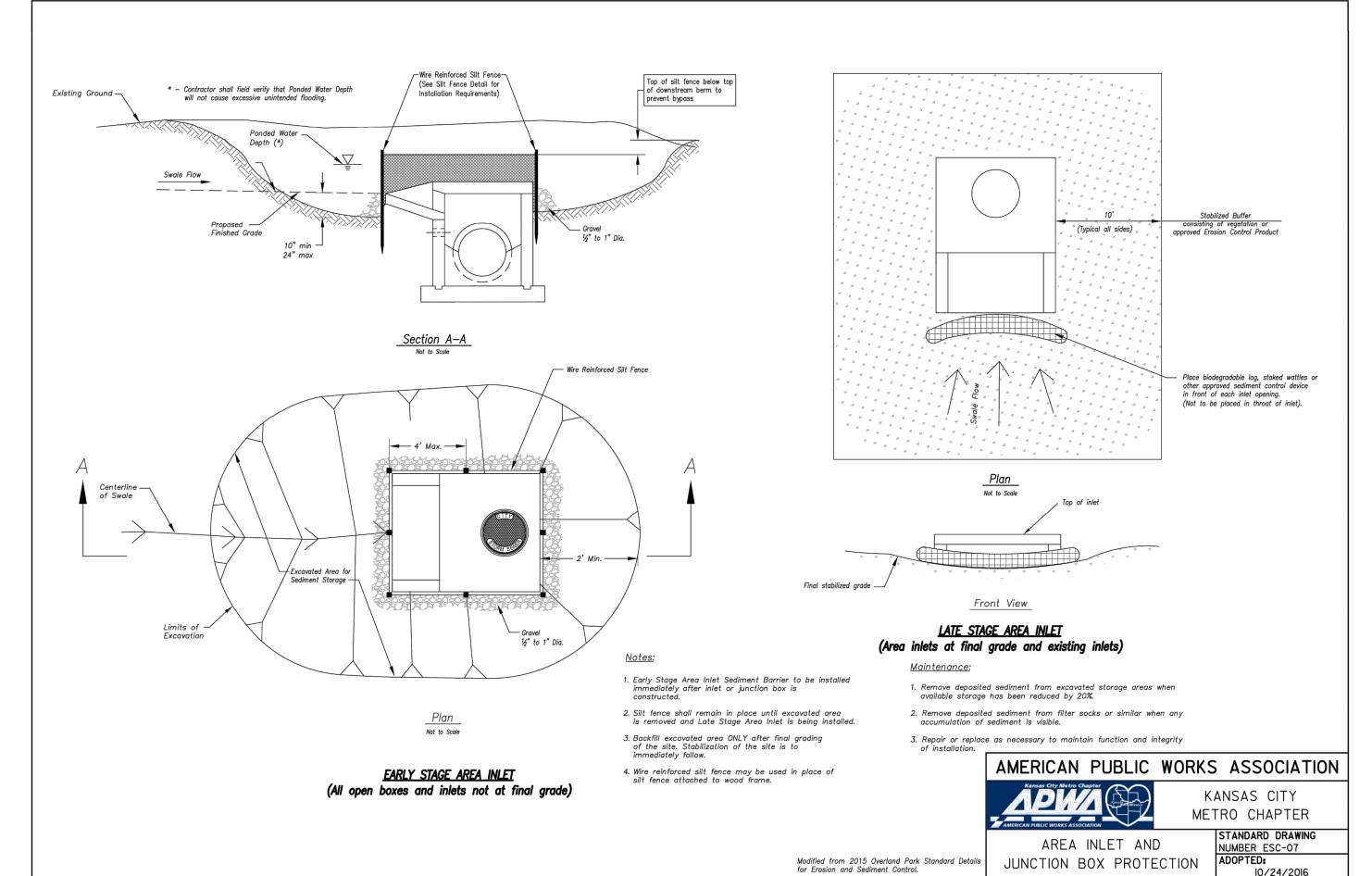
CERTIFICATE OF AUTHORIZATION

MASSON IRA

C7









PHELPS ENGINEERING, IN 1270 N. Winchester Olathe, Kansas 66061 (913) 393-1155 Fax (913) 393-1166

PLANNING ENGINEERING IMPLEMENTATION

E E E

EROSION CONTROL DETAIL MARKET STREET CENTER

OF

o. Date Revisions: By App.

CHECKED: DAF | DKAWN:MRK
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION
KANSAS
LAND SURVETING - LS-82
ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVETING-200700128
ENGINEERING-2007005058

SHEET

C7.1

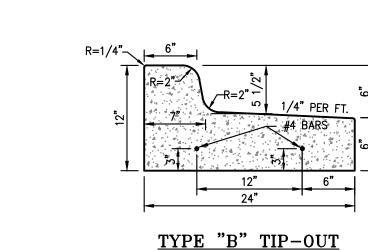
P

SHEET

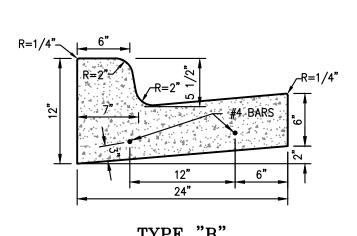
SIDEWALK AT CURB DETAIL
SCALE: N.T.S.

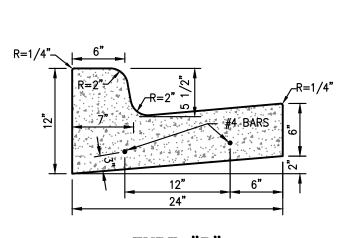
JOINT SEALANT (2" MIN. DEPTH) CONCRETE SIDEWALK 1/2" NON-EXTRUDING FILLER ALL OTHER DETAILS SAME AS SHOWN PER THIS SHEET.

TYPE "B" CURB & GUTTER

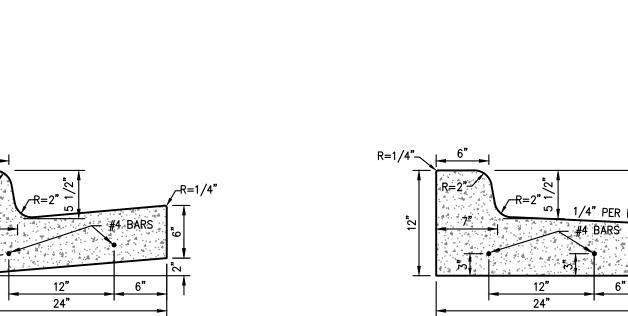


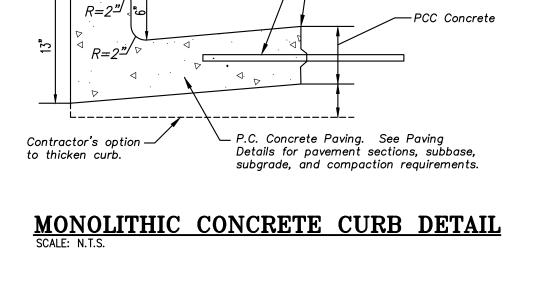
TYPE "B" TIP-OUT CURB & GUTTER





PRIVATE TYPE "B" CONCRETE CURB & GUTTER DETAILS SCALE: N.T.S.





_Tied Key Joint (if curb is poured

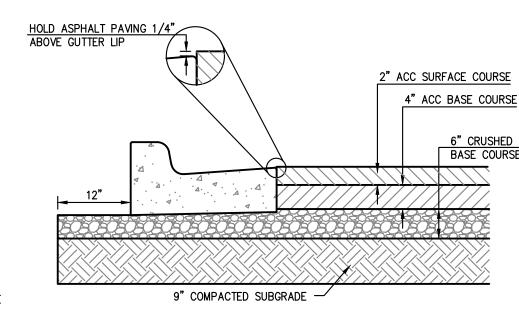
separately from pavement). See

const. joint detail this sheet.

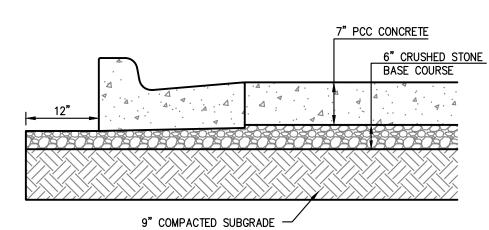
GENERAL PAVING NOTES:

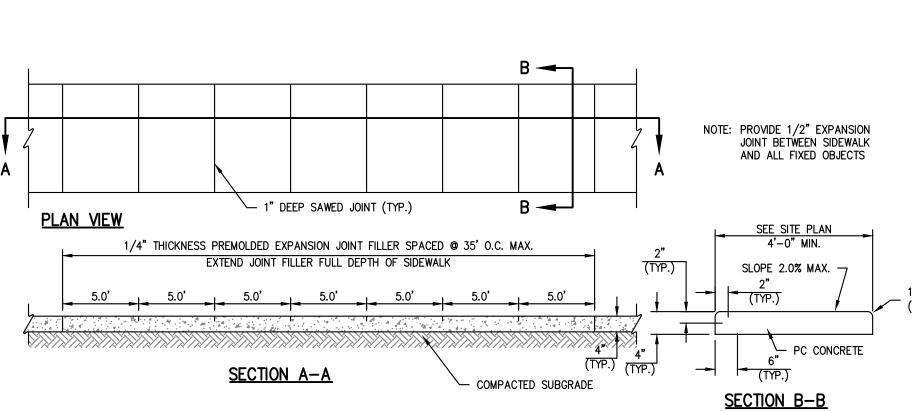
- 1. PRIOR TO PLACEMENT OF GRANULAR BASE OR ASPHALT, PROOF ROLL AND RE-COMPACT THE EXPOSED SURFACES UP TO A MINIMUM LATERAL DISTANCE OF TWO (2) FEET OUTSIDE THE PAVEMENT. ANY LOCALIZED SOFT, WET, OR LOOSÉ AREAS IDENTIFIED DURING THE PROOF ROLLING SHOULD BE REPAIRED PRIOR TO PAVING. FILL MATERIAL SHOULD BE PLACED IN LOOSE LIFTS UP TO A MAXIMUM OF EIGHT (8) INCHES IN THICKNESS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 AT MOISTURE CONTENTS WITHIN 0% AND +4% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF GREATER THAN 40, AND - +/- 3% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF LESS THAN 40. MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT SHOULD BE DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D 698).
- 2. PROOFROLL WITH A 25 TON RUBBER TIRE VEHICLE AND REPAIR SUBGRADE DEFICIENCIES. IF ANY SIGNIFICANT EVENT, SUCH AS PRECIPITATION, OCCURS AFTER PROOFROLLING, THE SUBGRADE SHOULD BE REVIEWED BY QUALIFIED PERSONNEL IMMEDIATELY PRIOR TO PLACING THE PAVEMENT.
- 3. CRUSHED STONE BASE COURSE USED BENEATH CONCRETE PAVING SHALL BE COMPACTED KDOT AB-3 OR EQUIVALENT.
- 4. ASPHALTIC SURFACE COURSE SHALL BE APWA TYPE 3. THE SURFACE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 97% MARSHALL DENSITY (ASTM SPECIFICATION D 1559). 30% RAP IS ALLOWED.
- 5. ASPHALTIC BASE COURSE SHALL BE APWA TYPE 1. THE BASE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 95% MARSHALL DENSITY (ASTM SPECIFICATION D 1559). 30% RAP IS ALLOWED.
- 6. THE CONTRACTOR SHALL PROVIDE A TACK COAT BETWEEN LIFTS OF
- 7. ALL SITE CONCRETE (CURBS, PAVEMENTS, SIDEWALKS, ETC.) SHALL MEET KANSAS CITY MATERIALS METRO BOARD (KCMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE.
- 8. IN NEW PAVEMENT AREAS, CONTRACTOR SHALL OVER EXCAVATE AS REQUIRED TO ESTABLISH NEW COMPACTED SUBGRADE ELEVATIONS.
- 9. CONTRACTOR IS RESPONSIBLE FOR ALL PAVEMENT AND SUBGRADE MATERIALS TESTING.

SCALE: N.T.S.



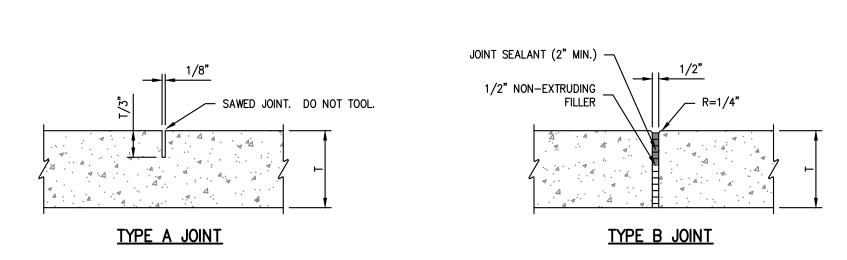
ASPHALT PAVING - CAR DRIVE AREAS





PRIVATE CONCRETE SIDEWALKS (NON REINFORCED)

1. USE KANSAS CITY MATERIALS METRO BOARD (KCMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE FOR ALL PRIVATE SIDEWALKS.



NOTE: TYPE A JOINTS SHALL NOT EXCEED 20 TIMES THE PAVEMENT THICKNESS (T).

CONCRETE SIDEWALK JOINT DETAILS

1/2" SOFT PREFORMED -JOINT FILLER FULL DEPTH OF PAVEMENT WITH BACKER ROD AND SEALANT.

FIXED STRUCTURE-

Dowel size

in. (mm)

5/8 (16)

3/4 (19)

7/8 (22)

1 (25)

1-1/8 (29)

[‡]Allowance made for joint openings and for minor errors in positioning dowels.

*All dowels spaced at 12 in. (300 mm) centers

DRILL HOLE AND INSTALL DOWEL WITH NON-

SHRINK GROUT FOR CONSTRUCTION JOINT

2-#4 TOP & BOT -1½" CLR FROM TOP 2½" CLR FROM BOT

ADJACENT TO EX. PAVEMENT

in. (mm)

5 (125)

6 (150)

7 (180)

8 (200)

9 (230)

†On each side of joint.

Dowel diameter, Dowel embedment, Total dowel

in. (mm)[†]

5 (125)

6 (150)

6 (150)

6 (150)

7 (180)

length, in. (mm)[‡]

12 (300)

14 (360)

14 (360)

14 (360)

16 (400)

CONSTRUCTION JOINT

CONTRACTION JOINT (DOWELED)

- 2-#4 TOP & BOT
1" CLR FROM TOP
2" CLR FROM BOT

/ 1/2" SOFT PREFORMED
JOINT FILLER FULL DEPTH OF
PAVEMENT WITH BACKER
ROD AND SEALANT.

TYPICAL ROUND FIXED

STRUCTURE PLAN DETAIL

USES: MANHOLES, LIGHT POLE BASES AND BOLLARDS

TYPICAL RECTANGULAR FIXED

STRUCTURE PLAN DETAIL USES: BUILDINGS, RETAINING WALLS/DOCK WALLS AND DROP INLETS

PCC JOINT DETAIL BLOW-UP

@ 12" O.C., REFER TO DOWEL SIZE TABLE FOR Tie bar dimensions

10 ft, in. (mm)

30 (760)

30 (760)

30 (760)

30 (760)

30 (760)

36 (910)

TOP OF-PAVEMENT

SAWCUT DEPTH SHALL BE PAVEMENT THICKNESS / 3

Tiebar size, in.

5 (125) 1/2 x 24 (13 x 610)

8 (200) 1/2 x 24 (13 x 610)

9 (230) 1/2 x 30 (13 x 760)

8-1/2 (215) 1/2 x 24 (13 x 610)

DEFORMED TIE BARS, REFER TO TIE BAR TABLE

CONCRETE JOINT DETAILS
SCALE: N.T.S.

(CONTRACTOR MAY USE 3/8" X 4-1/2" X 4-1/2"

DOWEL PLATE @ 16" O.C. AS ALTERNATE. PLATE TO

FOR DIAMETER, LENGTH & SPACING

BE INSTALLED ON 2ND POUR SIDE)

(mm)

/2 x 24 (13 x 610

1/2 x 24 (13 x 610)

/2 x 24 (13 x 610

1/2 x 24 (13 x 610

1/2 x 24 (13 x 610

Slab depth, in.

(mm)

5-1/2 (140)

6(150)

6-1/2 (165)

7-1/2 (190)

PCC JOINT DETAIL BLOW-UP

Tiebar spacing

Distance to nearest free edge or to nearest joint where

30 (760)

30 (760)

36 (910)

30 (760)

12 ft, in. (mm) 14 ft., in. (mm) 24 ft, in. (mm)

30 (760)

30 (760)

30 (760)

30 (760)

28 (710)

HOT POUR PAVEMENT SEALANT

PCC JOINT DETAIL BLOW-UP (TYP.)

CONTRACTION JOINT (UNDOWELED)

BACKER ROD AND SEALANT SECTION AT FIXED STRUCTURE

ISOLATION JOINT

ISOLATION JOINT TO BE USED FOR FIXED STRUCTURES

SUCH AS BUILDINGS, RETAINING WALLS/DOCK WALLS, DROP INLETS, MANHOLES, LIGHT POLE BASES AND

PAVEMENT IS NOT CONSIDERED A FIXED STRUCTURE.

TOOLED WITH 1/8" RADIUS 1/2" PREMOLDED JOINT FILLER
JOINT SEALANT PER SPECS -

PAVEMENT

ISOLATION JOINT DETAILS
SCALE: N.T.S.

PCC JOINT DETAIL BLOW-UP

28 (710)

25 (630)

23 (580)

21 (530)

20 (510)

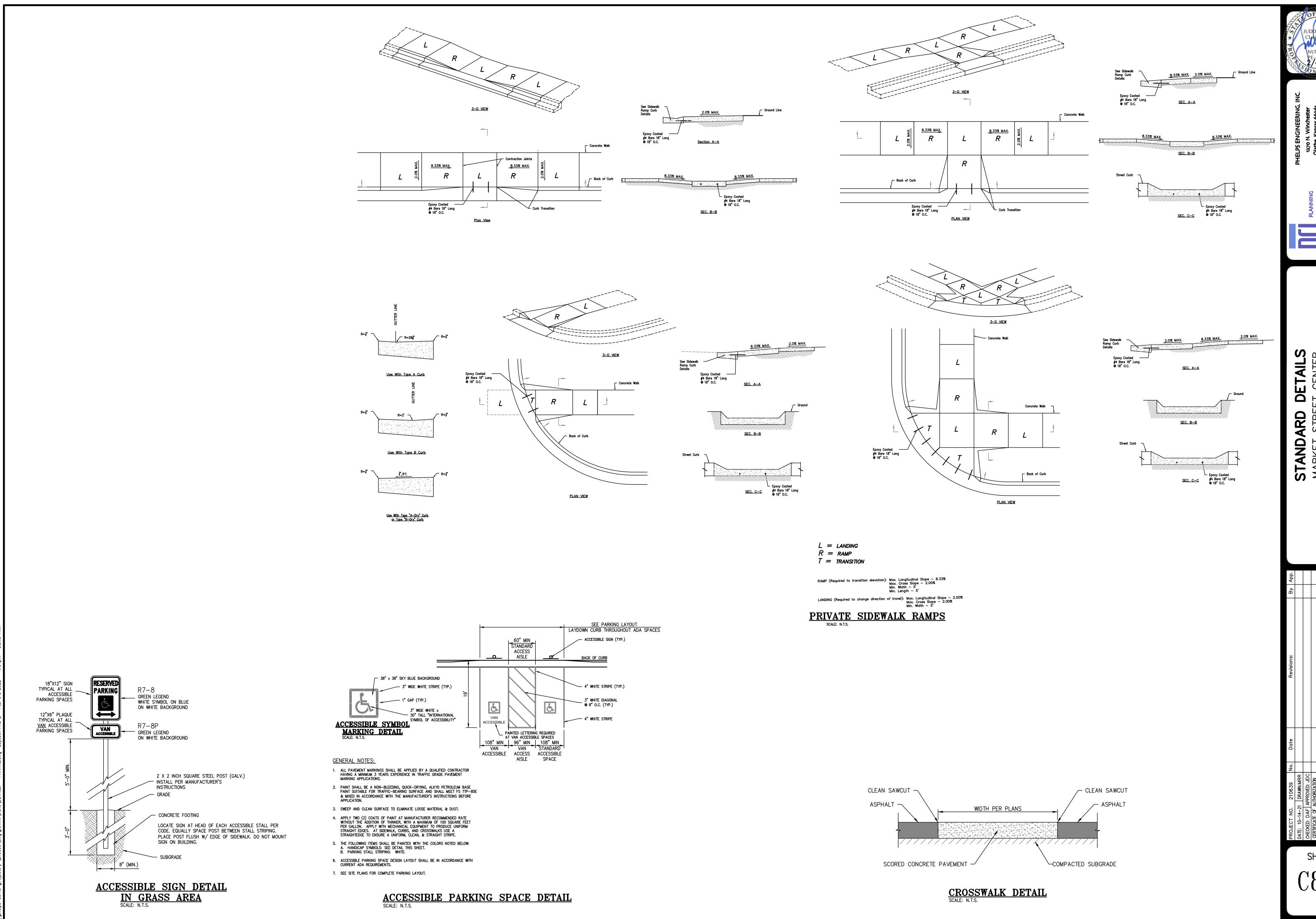
18 (460)

17 (430)

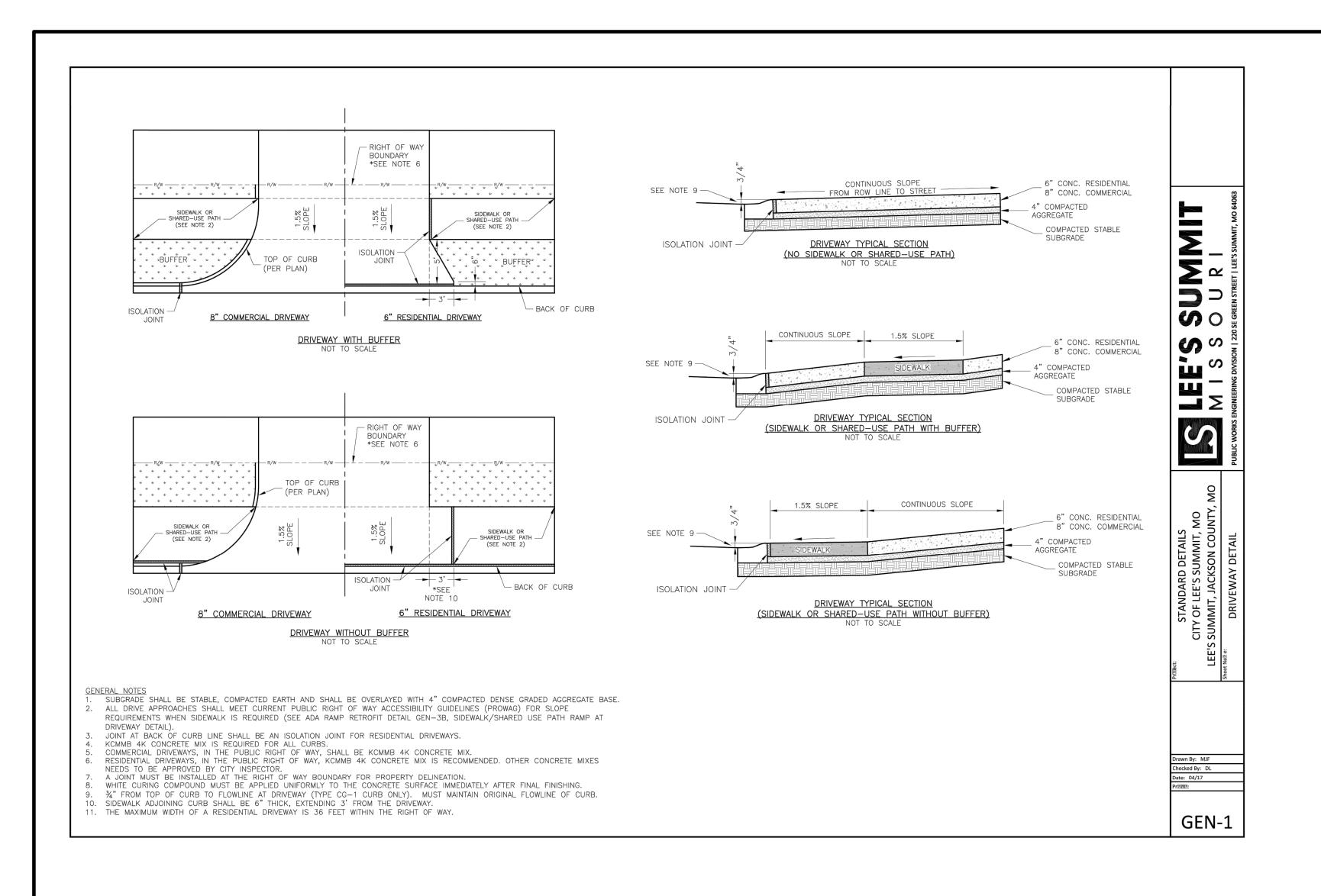
24 (610)

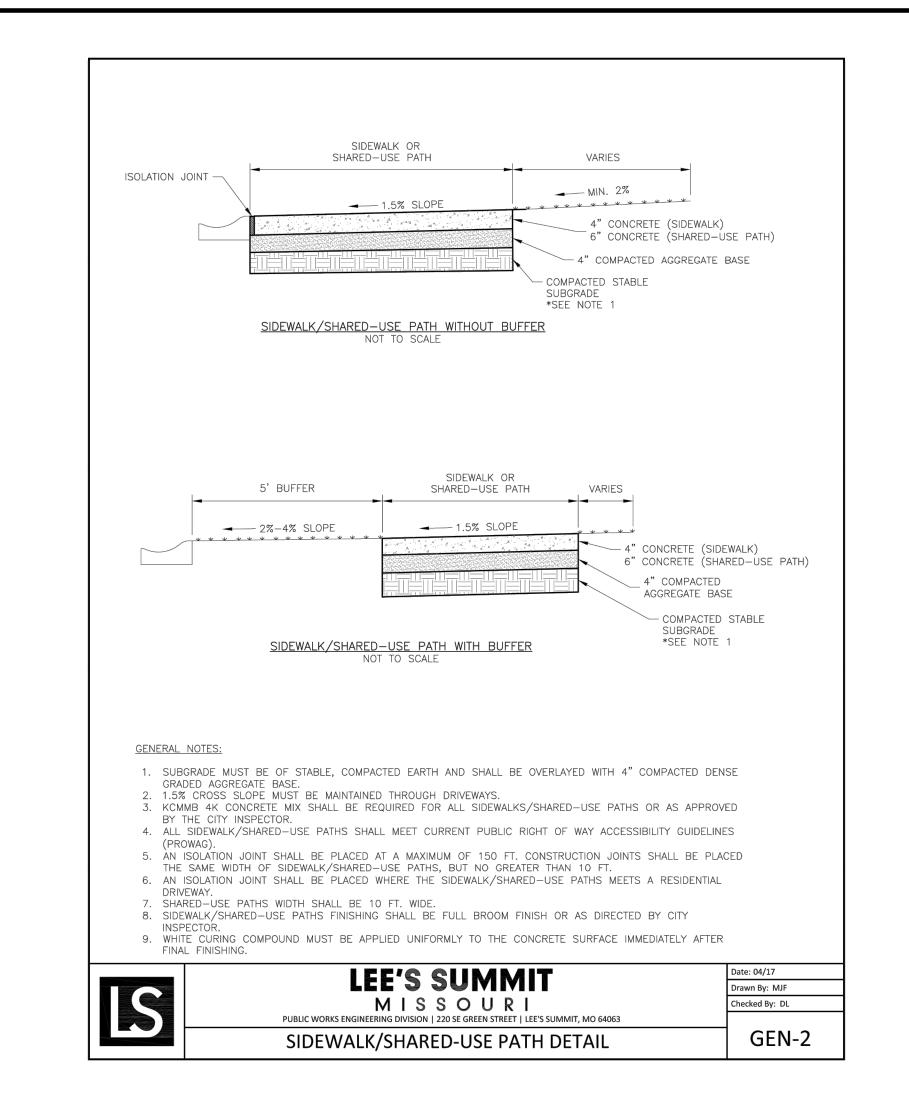
WAIT AS LONG AS FEASIBLE TO SEAL JOINTS TO ALLOW CONCRETE SHRINKAGE TO OCCUR. IF REQUIRED, RE-SAW JOINT IMMEDIATELY PRIOR TO INSTALLING SEALANT TO

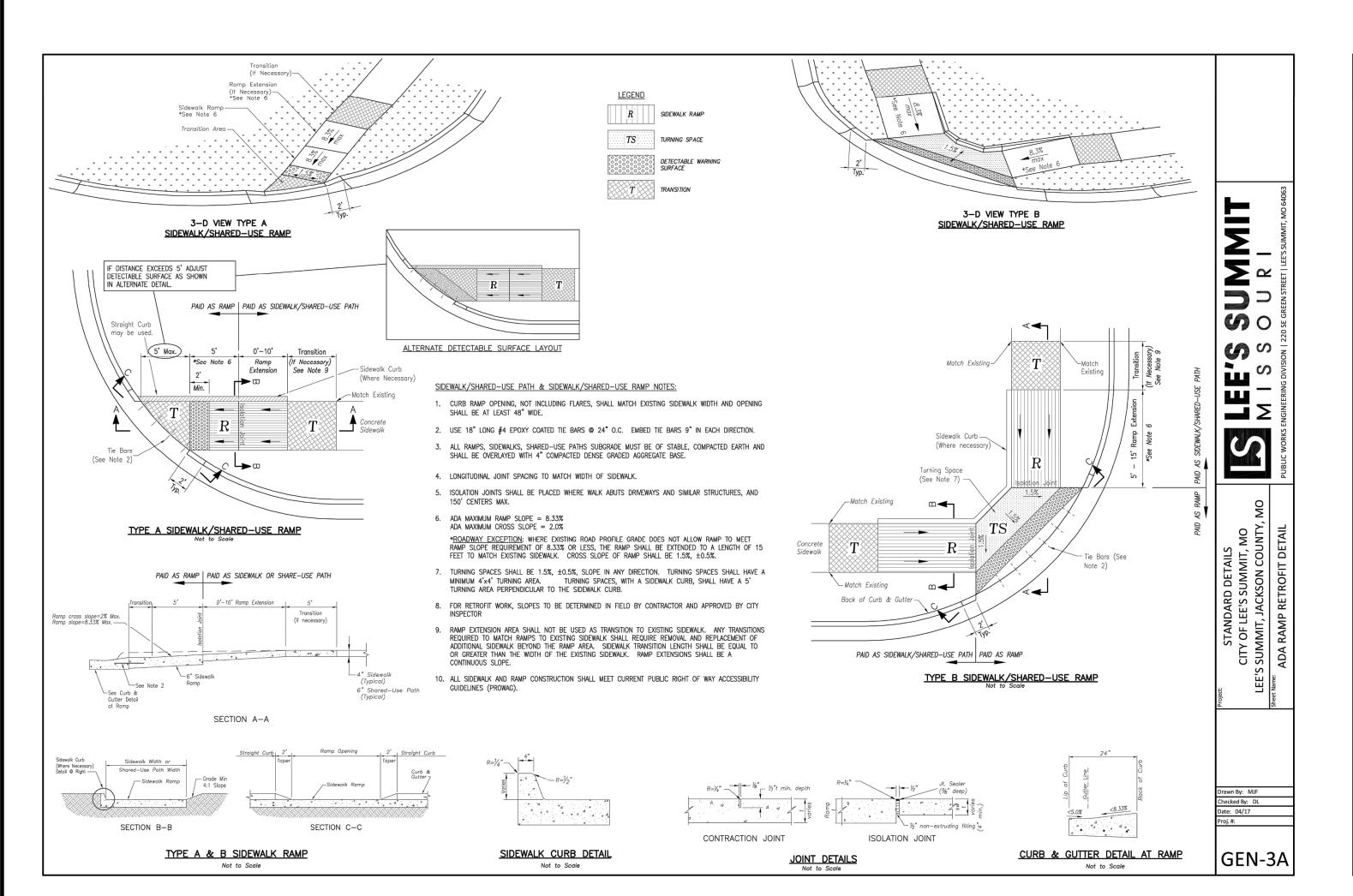
ACHIEVE A 1/4 " JOINT WIDTH.
ENSURE JOINT IS CLEAN, DRY AND
SIDES PREPARED PER MANUFACTURER
RECOMMENDATIONS.

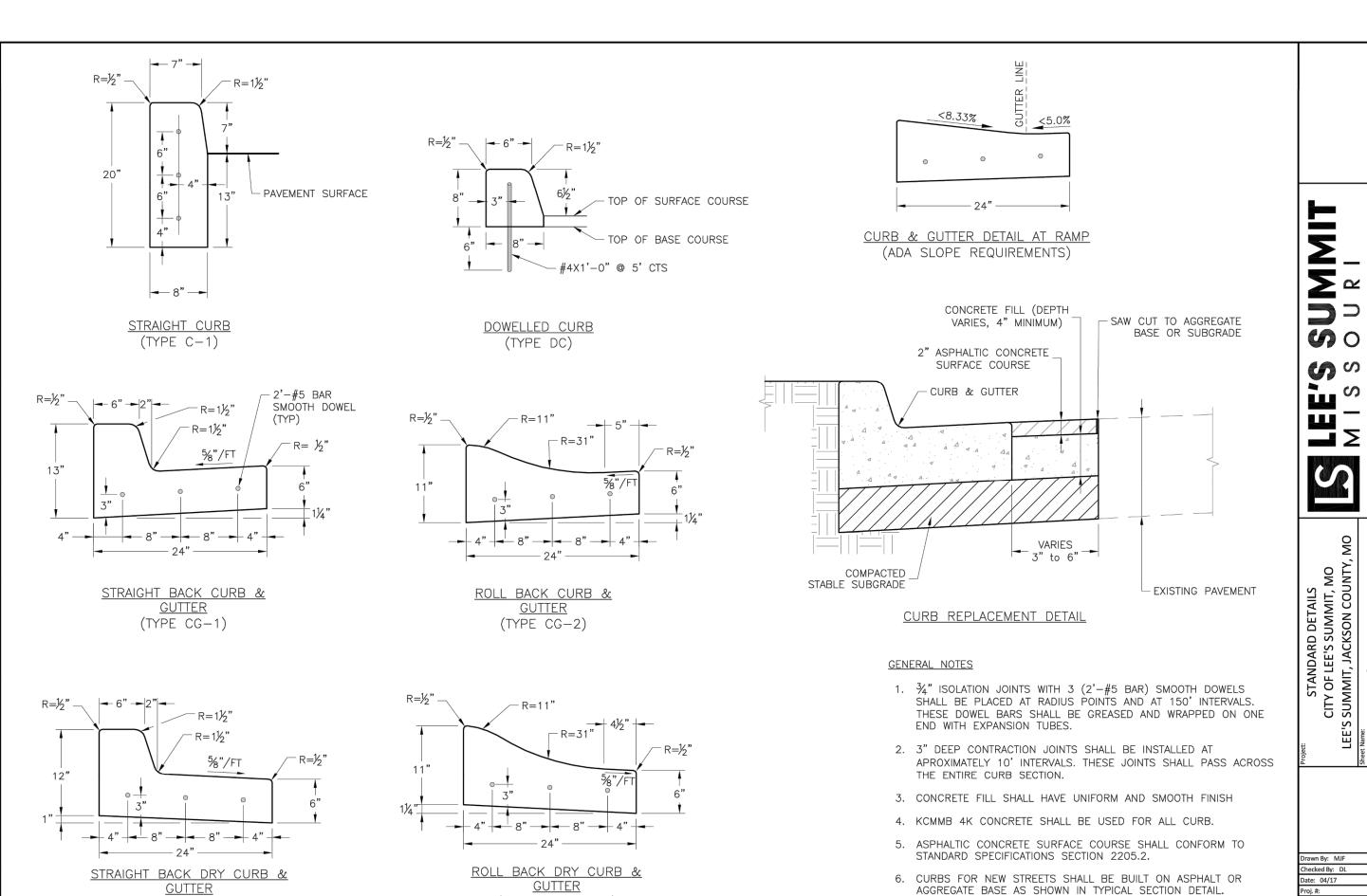


OF









(TYPE CG-2 DRY)

(TYPE CG-1 DRY)



Pricing Civiling Civi

PLANNING ENGINEERING IMPLEMENTATION

PLANNIN

DARD DETAILS IT STREET CENTER

MARKET STREET CEN M291 AND SW MARKET

Date Revisions: By App.

DATE: 10-14-21 | DRAWN:MRR

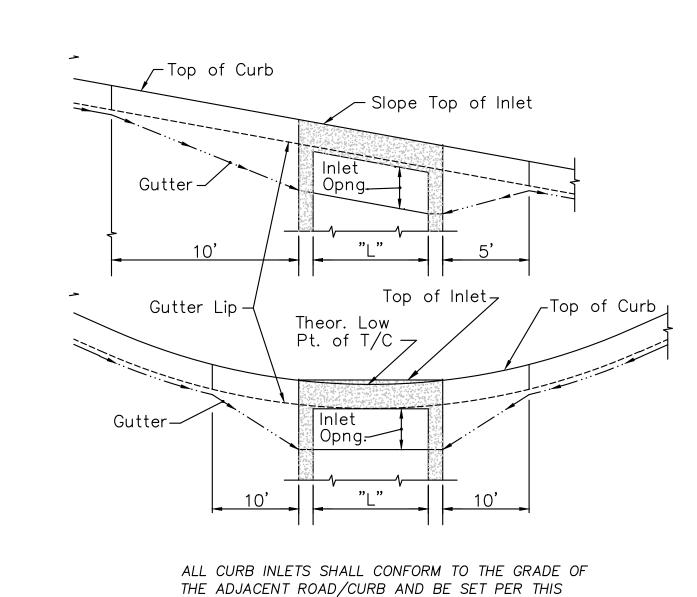
CHECKED: DAF | APPROVED: JDC

CERTIFICATE OF AUTHORIZATION
KANSAS
LAND SURVEYING - LS-82
ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-20070001128
ENGINEERING-2007005058

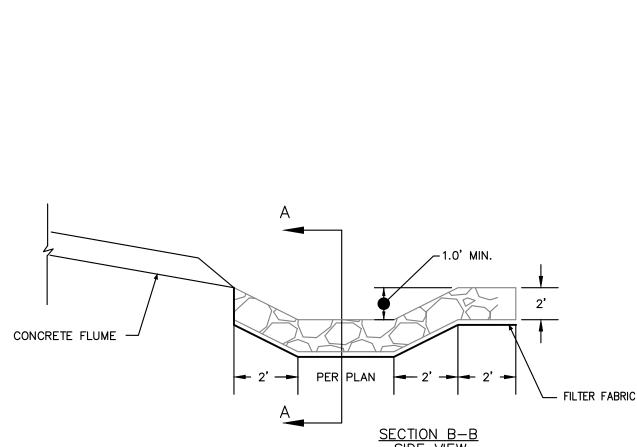
18 2

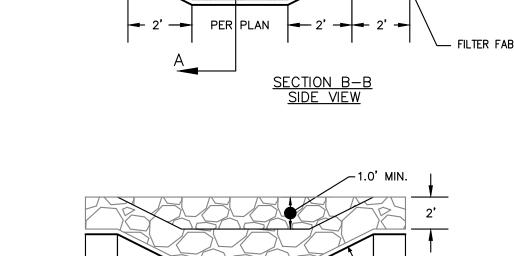
GEN-4

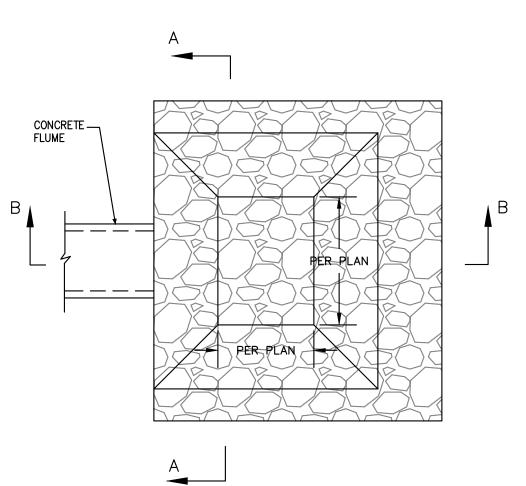
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.



DETAIL SHOWN THUS. **INLET SETTING DIAGRAM**







RIPRAP INSTALLATION DETAIL

Filter Fabric: Filter fabric shall consist of a synthetic fiber consisting of polypropylene, nylon or polyester filaments in either a woven or non-woven fabric. The percent of open area shall be not less than four percent nor more than ten percent. The fabric shall provide an Equivalent Opening Size (EOP) no finer than the U.S. Standard Sieve Size No. 70. In addition, the filter fabric shall meet the following physical requirements:

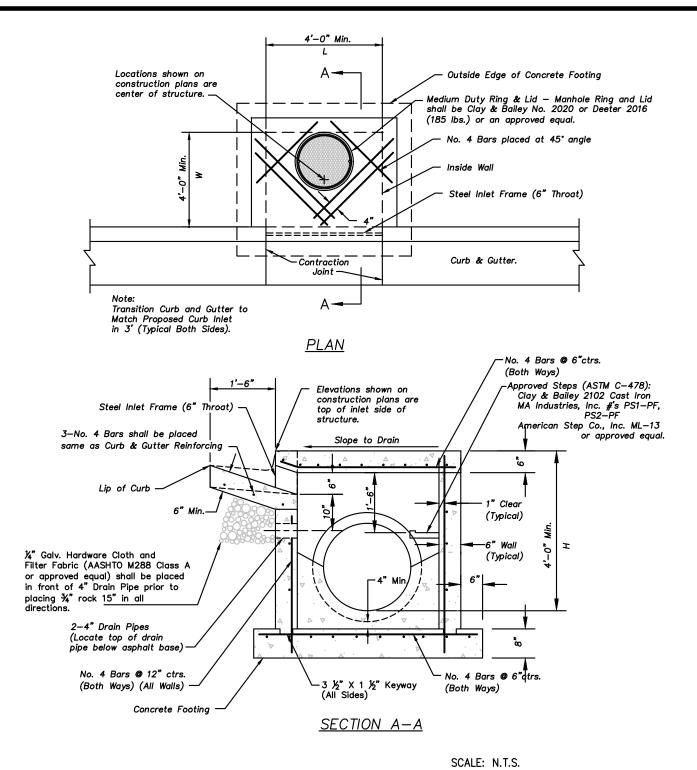
a. Tensile Strength: Minimum grab tensile strength, both warpwise and fillingwise, shall be 200 pounds, when tested in accordance with ASTM D 5034, using a four inch by six inch specimen and a jaw speed of twelve inches per minute.

b. Elongation: Grab elongation shall be not less than fifteen percent nor more than 60 percent, both warpwise and fillingwise, when tested in accordance with ASTM D 5034.

c. Tear Strength: Minimum trapezoidal tear strength shall be 100 pounds, both warpwise and fillingwise. Method of test for woven fabrics shall be in accordance with ASTM D 1117.

d. Bursting Strength: Minimum bursting strength shall be 200 psi when tested in accordance with ASTM D 3887.

e. Width: Filter fabrics shall be furnished in widths of not less than six feet.

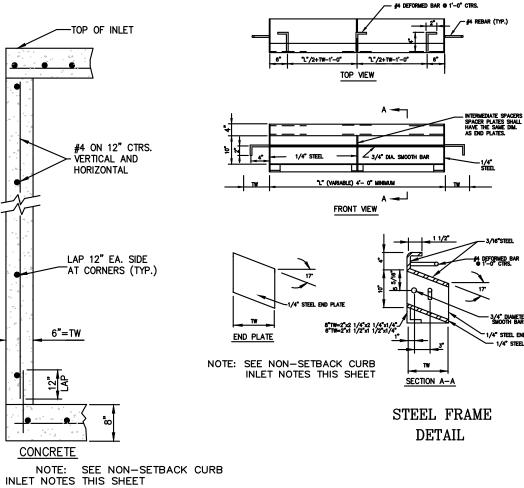


Non-Setback Curb Inlet Notes

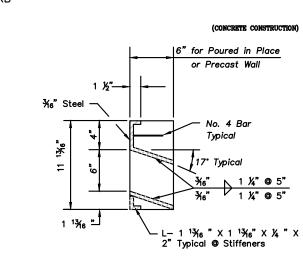
- 1. All storm sewer structures shall be pre—cast or poured in place. If pre—cast structures are used for publicly financed, maintained or administered construction, the tops shall be poured in place and the wall steel shall be left exposed to a height 2" below the
- Pre—cast shop drawings are to be approved by the City Engineer for publicly financed or administered projects.
- Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the City Engineer prior to construction.
- 4. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with ("L"+"H") and ("W"+"H") less then or equal to 20. For boxes with either of these calculations greater than 20, a special
- 5. Concrete used in this work shall be KCMMB4K, as approved by
- the Kansas City Metropolitan Materials Board, and shall meet the requirements of the City of Olathe. Concrete construction shall meet the applicable requirements of the City of Olathe's Technical Specifications.
- 7. Inlet floors shall be shaped with non-reinforced concrete inv erts 8. Bevel all exposed edges with $\frac{3}{4}$ " triangular molding.

Reinforcing Steel

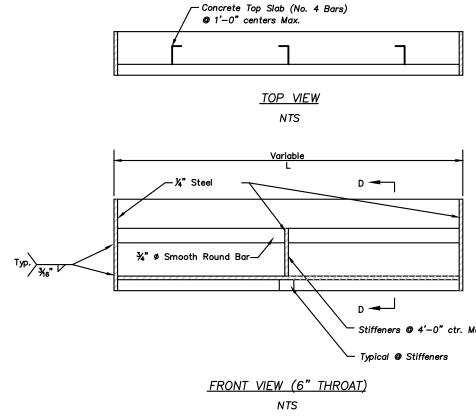
- Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
- 10. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of $+/-\frac{1}{8}$ " shall be permitted.
- 11. All lap splices not shown shall be a minimum of 40 bar
- All reinforcing steel shall be supported on fabricated steel bar supports 3'-0" maximum spacing.
- 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 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
- 15. Pipe connections to pre—cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the
- Material selection and compaction requirements for backfill around structures shall be as specified in City of Olathe's Technical Specifications.



WALL SECTIONS



SECTION D-D (6" THROAT) NTS



All welds sind be periorited in accordance with appropriate AWS Specifications and Procedures.

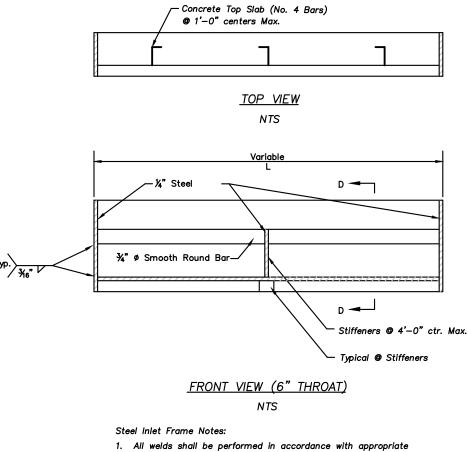
All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.

The entire frame shall be hot dip zinc coated in accordance with ASTA A 127

with ASTM A-123.

NON-SETBACK CURB INLET

SCALE: N.T.S.



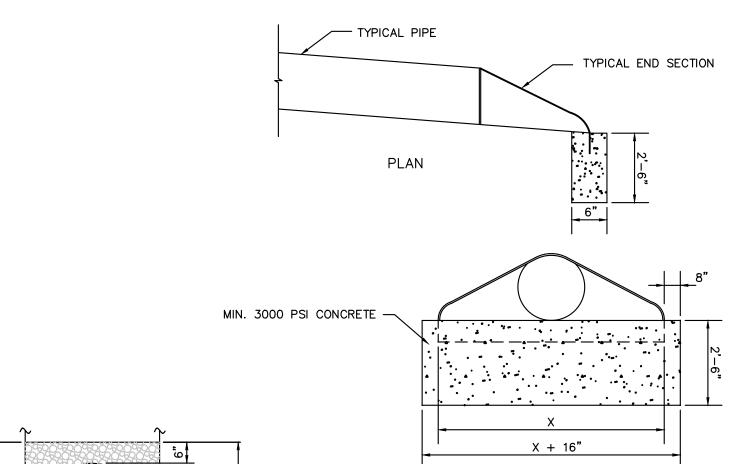
ARD

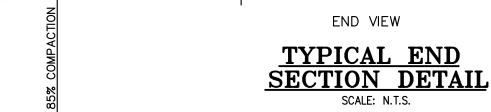
AND

OF

CIT

SHEET





<u>LEGEND</u>

a EMBEDMENT BELOW PIPE

GRANULAR EMBEDMENT

1. ALL MATERIALS ARE CLASSIFIED IN

OPTIMUM MOISTURE CONTENT.

LARGER THAN 3".

SPECIFICATIONS)

ACCORDANCE WITH ASTM D 2321-89.

2. ALL MATERIALS SHALL BE INSTALLED IN

MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE

WITH ASTM D 698. CLASS III AND IV-A

MATERIALS SHALL BE COMPACTED NEAR

3. FILL SALVAGED FROM EXCAVATION SHALL BE

4. ALL TRENCH EXCAVATIONS SHALL BE SLOPED,

SHORED, SHEETED, BRACED, OR OTHERWISE

REGULATIONS AND LOCAL ORDINANCES. (SEE

SUPPORTED IN COMPLIANCE WITH OSHA

FREE OF DEBRIS, ORGANICS AND ROCKS

D NOMINAL PIPE SIZE

BACKFILL

TABLE OF EMBEDMENT DEPTH BELOW PIPE LESS THAN 60" 60" OR LARGER

TRENCH BEDDING

1. GRANULAR EMBEDMENT SHALL BE KDOT STD. SPEC. SECT. 1100, PB-2 COURSE AGGREGATE FOR CONCRETE, WASHED STONE OR GRAVEL, MEETING THE FOLLOWING CONDITIONS:

SIEVE SIZE 1-INCH 3—INCH 0-20 ਫ਼ੋ−INCH 40-70 95-100

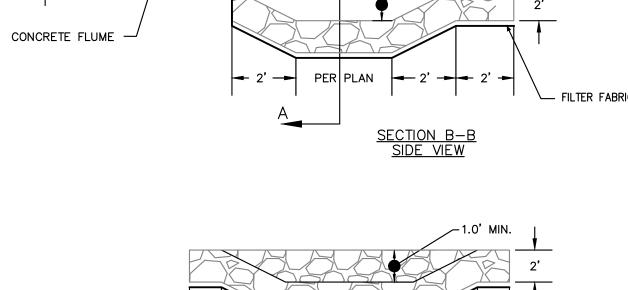
GRANULAR EMBEDMENT FROM THE TOP OF PIPE DOWN SHALL BE COMPACTED TO 85% MAXIMUM DENSITY AS DETERMINED BY ASTM

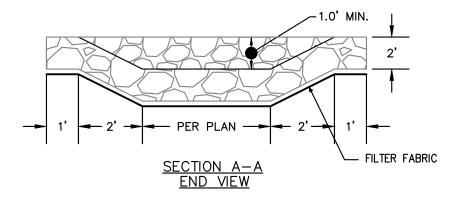
GRANULAR EMBEDMENT ABOVE TOP OF PIPE SHALL BE AN UN-COMPACTED LAYER FOR ALL INSTALLATIONS.

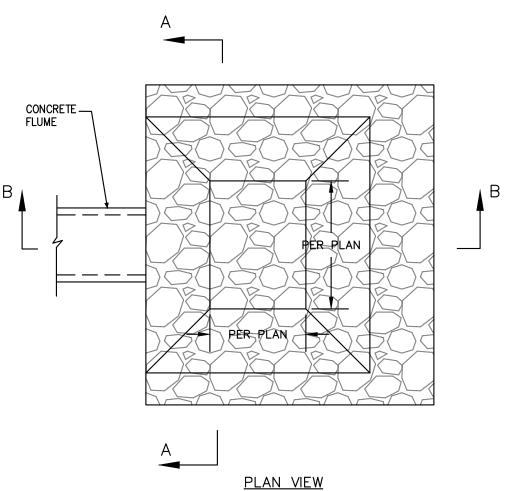
2. TRENCH OUTLINES DO NOT INDICATE ACTUAL TRENCH EXCAVATION SHAPE, SOIL CONDITIONS, OR PRESENCE OF SHEETING LEFT IN PLACE. EMBEDMENT MATERIAL SHALL EXTEND THE FULL WIDTH OF THE ACTUAL TRENCH EXCAVATION.

3. TRENCH WIDTHS SHALL BE LIMITED BELOW AN ELEVATION OF ONE (1) FOOT ABOVE THE TOP OF THE INSTALLED PIPE AS FOLLOWS: NOT LESS THAN FIFTEEN (15) INCHES NOR MORE THAN TWENTY-FOUR (24) INCHES GREATER THAN THE NOMINAL OUTSIDE DIAMETER OF THE PIPE.

EMBEDMENTS FOR STORM SEWER PIPE SCALE: N.T.S.









WH472/WR472

General Features

The model WH472 or WR472 grinder pump station is a complete unit that includes: two grinder pumps, check valve, polyethylene tank, controls, and alarm panel. Designed specifically for higher-flow applications where local codes dictate higher storage requirements. The lower portion of the tank has a smaller diameter, tapered down to a dish-shaped bottom. The tank access opening is ideally sized for smaller diameter, low-profile covers for minimal "footprint."

- Rated for flows of 3500 gpd (13,249 lpd)
- 476 gallons (1802 liters) of capacity
- Standard outdoor heights range from 77 inches to 122 inches

The WH472 is the "hardwired," or "wired," model where a cable connects the motor controls to the level controls through watertight penetrations.

The WR472 is the "radio frequency identification" (RFID), or "wireless," model that uses wireless technology to communicate between the level controls and the motor controls.

Operational Information

1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

Inlet Connections

4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

Discharge Connections

Pump discharge terminates in 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes.

Discharge

15 gpm at 0 psig (0.95 lps at 0 m) 11 gpm at 40 psig (0.69 lps at 28 m) 7.8 gpm at 80 psig (0.49 lps at 56 m)

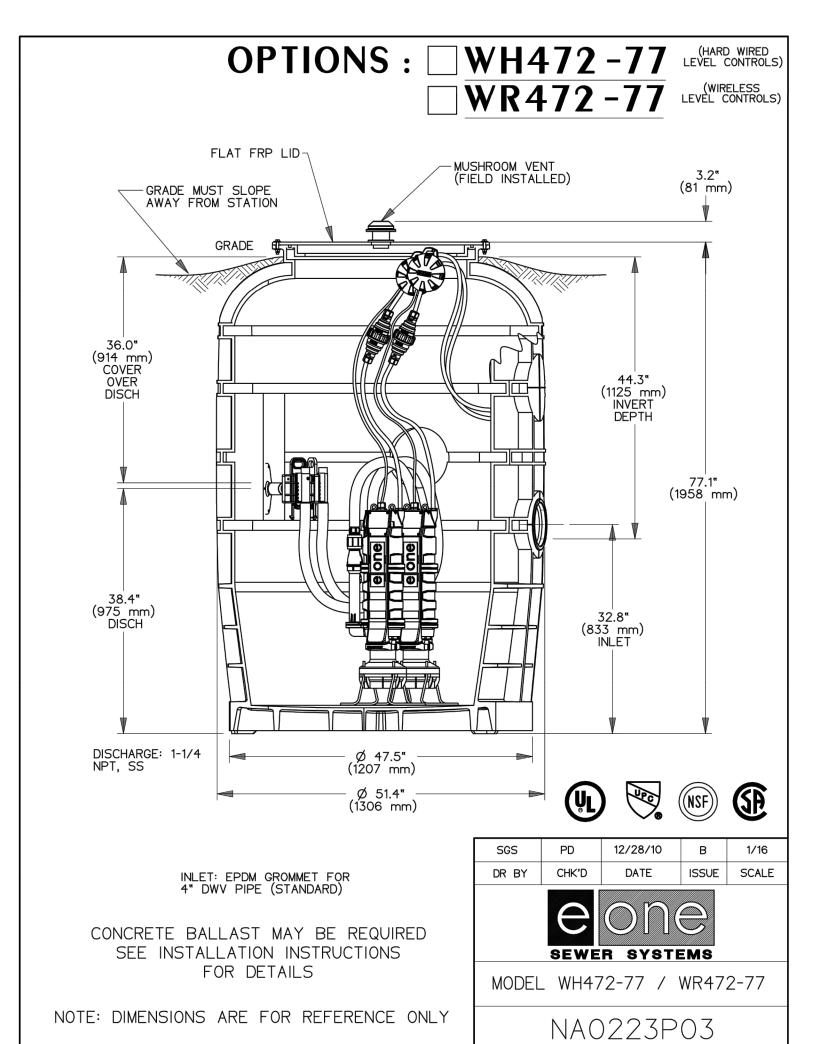
Accessories

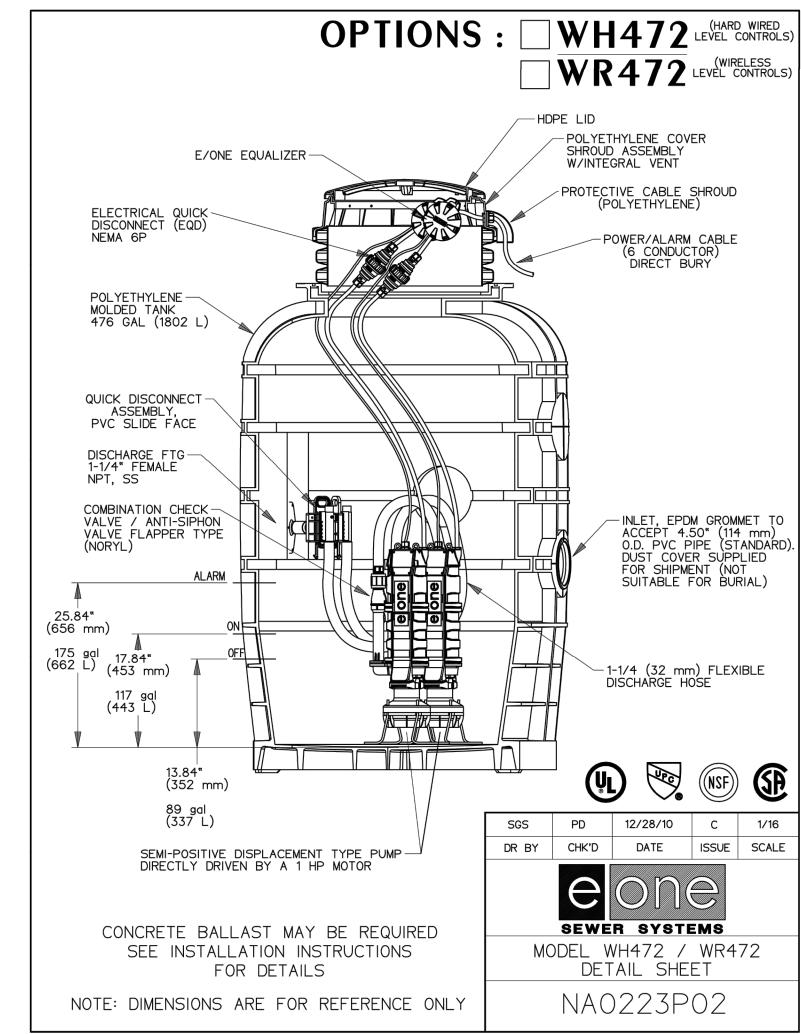
E/One requires that the Uni-Lateral, E/One's own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

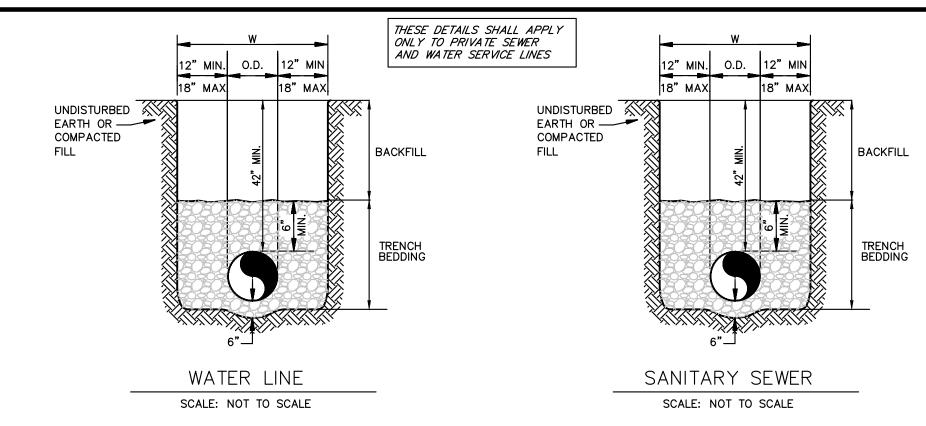
NA0223P01 Rev E

The Remote Sentry is ideal for installations where the alarm panel may be hidden from view.





GRINDER PUMP SYSTEM TO INCLUE E/ONE SENTRY ADVISOR ALARM PANEL



REQUIREMENTS PER APWA 2100 AS FOLLOWS:

Sie	ive Size		3/4"					
	1"		100					
	3/4"	90	90 – 100					
	3/8"	2	0 – 55					
•	No. 4		0 – 5					
	No. 8		0-2					
Sieve Size	3/4"	1 1/2"	378"					
Sieve Size	3/4"	1/2"	3/8"					
1"	100		3/8"					
1" 3/4"		100	3/8"					
1"	100		100					
1" 3/4" 1/2"	100 90 – 100	100 80 – 100						

60 - 80

0-5 0-15

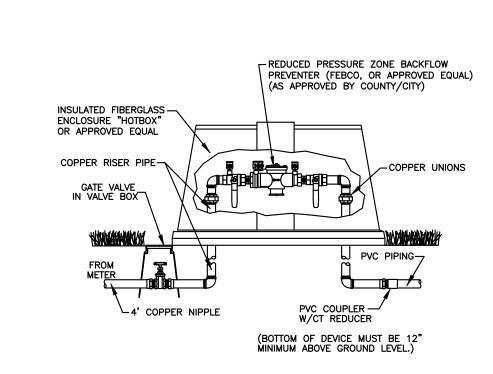
Type 3 (Man. Sand) Type 4 (River Sand)

85 – 90

35 – 75

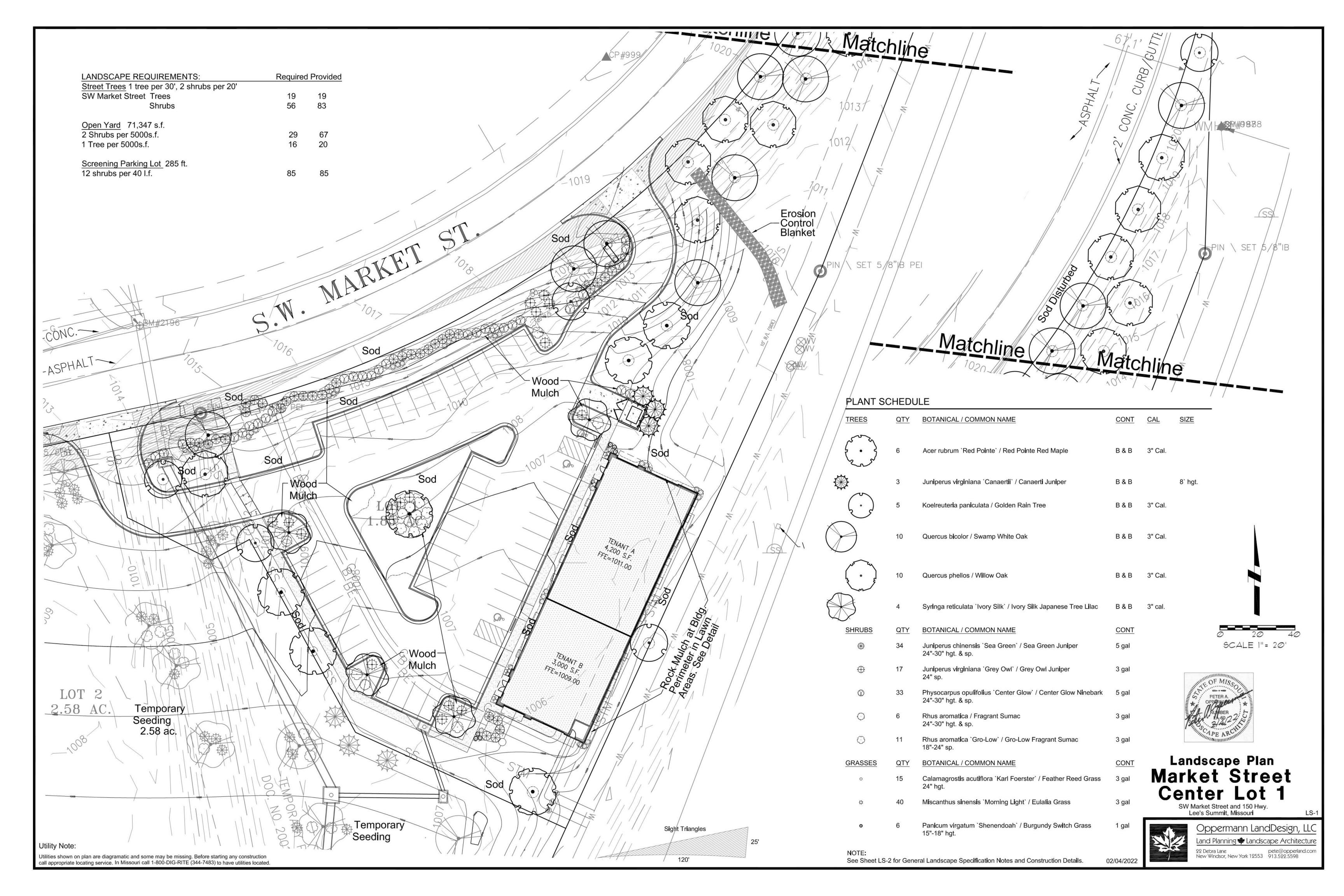
- Backfill shall not be placed when material contains frost, is frozen, or a blanket of snow prevents
- The Contractor shall remove from the project site waste material, trees, organic material, rubbish, or
- 3. All trash and debris shall be removed from the pipeline excavation prior to backfilling.
- Backfill material shall be carefully placed to avoid damage to or displacement of the pipe, other utilities
- Unless otherwise specified, all trenches and excavations around structures shall be backfilled to the original ground surface.
- Outside of paved areas, the backfill material shall be placed in layers not exceeding 8-inches in loose thickness and be compacted to at least 90% of maximum density. Compaction testing shall be at the discretion of the Engineer.
- The method of compaction and the equipment used shall be appropriate for the material to be
- compacted and shall not transmit damaging shocks to the pipe. The combination of the thickness of the layer, the method of compaction and the type of compaction equipment used shall be at the discretion of the Contractor subject to obtaining the required densities. Pipe Embedment. All water, sanitary sewer, and storm sewer pipe shall be bedded in bedding aggregate as
- Bedding shall cover the entire width of trench.
- The first layer of bedding placed on the bottom of excavation shall be in accordance with Figures 1
- Bedding at bottom of trench, in the middle 1/3 of trench under the pipe shall be loose.
- After pipe is placed, bedding material shall be placed in layers in accordance with manufacturer's
- Second layer of bedding material shall be placed under the lower haunches of the pipe up to the springline (center of pipe). Material shall be spaded to be place under haunches and compacted at the springline elevation prior to placing additional bedding material.
- 6. The third layer of bedding material shall be placed to 12 inches over the top of pipe.
- 7. Contractor shall take measures to prevent pipe from floating during placement of bedding material so that pipe maintains proper line and grade as shown on the Plans.

UTILITY TRENCH AND BEDDING



IRRIGATION BACKFLOW PREVENTOR

百



Dedicated Design Irrigation System:

- 1. If an irrigation system is not provided with the Landscape Plans, the Contractor is to design a 100 percent coverage irrigation system, including comprehensive engineering analysis by a qualified Professional Engineer, using performance requirements and design criteria indicated per Owner's direction. Design shall include all public right-of-way and be approved by owner prior to construction.
- 2. Irrigation Contractor to design and install irrigation system and shall include all required components including, but not limited to, rain shut off sensor, controller, taps, backflow preventers, all approvals, and all fees required by city. Components to be manufactured by Rainbird or Hunter unless alternate manufacturer is expressly approved by the Owner or Owner's Representative.
- 3. Irrigation Contractor shall submit a copy of plan to Owner's Representative or Project Landscape Architect for review prior to installation of system.
- 4. Irrigation Contractor shall conduct a training session with the owner (or representatives) demonstrating the operation of the system and the controller. As part of this training, Contractor shall provide one spring start-up and one fall shutdown of the system.
- 5. Irrigation system shall be tested and approved by Owner's Representative or Landscape Architect prior to backfilling trenches. Irrigation system shall be fully operational prior to the installation of any plant materials.
- 6. All planting beds shall be watered by a DRIP irrigation system.
- General Contractor to supply all power required to operate irrigation system.
- 8. Irrigation Contractor shall notify Owner's Representative or Project Landscape Architect of any changes to irrigation conduit locations or sizes.
- 9. It is the Landscape Contractor's responsibility to determine water application rates and timer cycling. The Irrigation Contractor will instruct the Owner on the operation and programming of the controller.
- 10. All zones and main lines will be pressure-tested at the time of installation and again prior to building turnover. Results shall be submitted in writing to Project Landscape Architect and Owner or Owner's Representative.
- Irrigation shall not spray on building, sidewalks, and drives.
- 12. Irrigation controller location shall be coordinated with other wall-mounted service panels per Owner's approval.
- 13. Landscape Contractor shall hand-water all trees, and turf grass areas until substantial completion.
- 14. Treegator bags (or approved equal) shall be used for all proposed trees on site.

WALL **ROCK BELOW ANY -**WEEP HOLES OF BLDG. 3" OF KANSAS -LARGE (2") RIVER SOD OR SHRUB BED-MULCH SLOPE AWAY-FROM BUILDING FELT TYPE SOIL-SEPARATOR

BUILDING EXTERIOR-

BLDG. PERIMETER WHEREVER THERE IS NOT CONCRETE OR ASPHALT

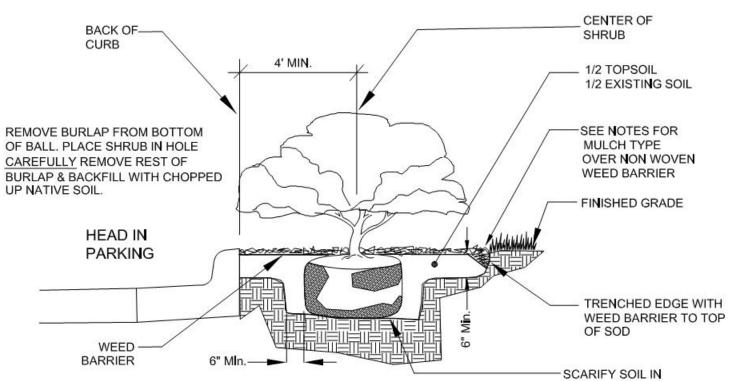
STEEL FENCE POST DISH WHEN ON-- EDGE OF BALL SLOPED GROUND EDGE OF HOLE

STEEL FENCE POST-STAKING PLAN & DISH ON SLOPE **DIRECTION OF TREE STAKES:**

REMAIN PARTIALLY VISIBLE ONE SOUTHEAST AFTER PLANTING ONE SOUTHWEST TOP OF ROOT BALL TO BE ONE NORTH 1" ABOVE FINISHED GRADE PLASTIC SPIRAL TREE WRAP COIL FROM BASE — 2" WELL AGED MANURE TO LOWEST BRANCHES TOPPED W/ 1" OF SHREDDED DYED BROWN WEBBED ARBOR TIE TAPE MULCH W/ PRE-EMERGENT OOP AROUND TREE TO BE 6"-8" LARGER THAN AWAY FROM TRUNK) TRUNK DIAMETER (3) 6' STEEL "T POSTS TOP OF ROOTBALL AT FINISHED GRADE DIG SHALLOW, BROAD HOLE: 3 TIMES THE DIAMETER OF ROOT BALL AND ONLY AS DEEP FILL HOLE GENTLY, BUT AS ROOT BALL. BACKFILL WITH FIRMLY. ADD WATER TO SETTLE EXISTING SOIL AND 1 TOPSOIL THE SOIL. UNDISTURBED SOIL **CUT AND REMOVE BURLAP** (REMOVE METAL CAGE FROM SIDES AND TOP OF BALL TO PREVENT SETTLING TREE PLANTING DETAIL

NO SCALE

SCALE 1" = 20"



SHRUB BED & PARKING

SETBACK DETAIL

NO SCALE

Landscape Plan Market Street Center Lot 1

SW Market Street and 150 Hwy.

Lee's Summit, Missouri Oppermann LandDesign, LLC and Planning 🌳 Landscape Architecture. 22 Debra Lane pete@opperland.com New Windsor, New York 12553 p13.522.5598

shall be subsidiary to other planting items.

Temporar

NF COR LOT 2 -

Seeding

TRACT A

Transplant Additives:

2. Transplant additive shall be Horticultural Alliance "DIEHARD Transplant" (or approved equal) mycorrizal fungal transplant innoculant or equivilent equal containing the appropriate species of mycorrhizal fungi and bacteria, fungi stimulant, water retaining agents, mineral & organic nutrients and Inert Ingredlents.

1. Apply a commercial transplant additive (approved by the Landscape Architect) to all trees,

shrubs and groundcover at rates recommended by the manufacturer during the planting. This item

- 3. Demonstrate installation of all transplant additives for this project to the Landscape Architect. Provide actual additive product as evidence of sufficient quantity of product. (Empty product bags to be stockplied for inspection by the Landscape Architect prior to disposal).
- 4. Number of transplant additive packets per tree, shrub or grouncover shall be applied according to the manufacturer's recommended rates and instructions. For all plants the packet mix shall be evenly distributed into the upper approximately 8" of backfill soll next to the rootball. Do not place mix in the bottom of the planting pit.
- 5. Furnishing and application of transplant additive shall be subsidiary to the planting operations.

BUILDING ROCK EDGE NO SCALE *PLACE ROCK AROUND ENTIRE

IDENTIFY TRUNK FLARE TO HERBICIDE (KEEP MULCH 2" 1" ABOVE SURROUNDING FIRMLY COMPACT ANY NEW OR DISTURBED SOIL UNDER ROOT

Detention Basin Seeding

Seeding, Hydromulch,

And Blanket

PROPOSED DETENTION BASIN

Utility Note: Utilities shown on plan are diagramatic and some may be missing. Before starting any construction call appropriate locating service. In Missouri call 1-800-DIG-RITE (344-7483) to have utilities located.

PAVING

36" HDPE W/

WING WALLS

FL=999.42

BOTTOM OF PIT

02/04/2022

GENERAL LANDSCAPE NOTES:

STARTING ANY WORK.

LANDSCAPE ARCHITECT.

MANUFACTURER'S INSTRUCTIONS.

CONTRACTED BY THE OWNER.

SOIL SEPARATOR.

AND/OR LANDSCAPE ARCHITECT.

BUILDING WHERE SHOWN.

CONSTRUCTION.

INSTALLATION.

INSTALLATION.

CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE

CONTRACTOR SHALL VERIFY ALL LANDSCAPE MATERIAL QUANTITIES AND SHALL

CONTRACTOR SHALL MAKE NO SUBSTITUTIONS WITHOUT THE APPROVAL OF THE

4. CONTRACTOR SHALL STAKE LAYOUT PLAN IN THE FIELD AND SHALL HAVE THE LAYOUT

ALL LANDSCAPE BEDS SHALL BE TREATED WITH THE PRE-EMERGENT HERBICIDE PRE

FERTILIZER FOR FESCUE SODDED AND SEEDED LAWN, TREES AND CONTAINER STOCK

AREAS SHALL BE A BALANCED FERTILIZER BASED ON RECOMMENDATIONS FROM A SOIL TEST SUPPLIED BY THE LANDSCAPE CONTRACTOR FROM AN APPROVED TESTING

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE PLANTS UNTIL

CONTRACTOR SHALL WARRANTY ALL LANDSCAPE WORK AND PLANT MATERIAL FOR A

PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE OF THE WORK BY THE OWNER.

10. CONTRACTOR SHALL PROVIDE MAINTENANCE OF ALL TREES AND SHRUBS FOR A

11. ANY PLANT MATERIAL WHICH DIES DURING THE ONE YEAR WARRANTY PERIOD SHALL

BE REPLACED BY THE CONTRACTOR DURING NORMAL PLANTING SEASONS.

12. ALL PLANT NAMES ON THE PLANT LIST CONFORM TO THE STANDARDIZED PLANT

NAMES PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL

13. ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY STOCK AS DETERMINED IN THE

GROWTH OF THE SPECIES AND HAVING A HEALTHY, NORMAL ROOT SYSTEM.

14. SIZES INDICATED ON THE PLANT LIST ARE THE MINIMUM, ACCEPTABLE SIZE. IN NO

INSTALLATION EXCEPT FOR THOSE BRANCHES THAT HAVE BEEN DAMAGED IN SOME

MANUFACTURER'S RECOMMENDED RATES AND INSTRUCTIONS FOR APPLICATION.

19. WOOD MULCH SHALL BE 3" OF DYE BROWN SHREDDED HARDWOOD OVER A FELT TYPE

21. SOD SHALL BE A TURF-TYPE-TALL FESCUE GRASS BLEND. CONTRACTOR SHALL BE

22. PERMANENT SEEDING SHALL BE A TURF-TYPE-TALL FESCUE BLEND WITH 10%

23. SEEDING OPERATIONS OF DETENTION BASIN BESIDES DRILL SEEDING AND

24. TEMPORARY SEEDING AREAS SHALL BE THE SAME SEED, HYDROMULCH AND

25. SUCCESSFUL LANDSCAPE BIDDER SHALL BE RESPONSIBLE FOR THE DESIGN AND

METHODS EXCEPT DRILL SEED AT A RATE OF 5 POUNDS PER 1000 S.F.

STURGIS MATERIALS OR APPROVED EQUAL. OVER A FELT TYPE SOIL SEPARATOR CUT

INTO THE GROUND WITH A TRENCHED EDGE. SEE TREE DETAIL FOR DIFFERENT MULCH

RESPONSIBLE FOR AN ACCEPTABLE STAND OF TURF TO BE APPROVED BY THE OWNER

PERENNIAL RYE DRILL SEEDED AT A RATE OF 9#/1000S.F. AND HYDRO MULCHED AS A

SEPARATE OPERATION AT A RATE OF 2000#/ACRE OF VIRGIN WOOD FIBRE WITH A

DYED BLUE TACKIFIER. CONTRACTOR SHALL BE RESPONSIBLE FOR AN ACCEPTABLE

STAND OF TURF GRASS OF AT LEAST 90% COVERAGE OF SOIL SURFACE PER SQUARE

HYDROMULCH, SHALL INCLUDE NORTH AMERICAN GREEN SC150BN EROSION BLANKET INSTALLED PER MANUFACTURER'S SPECIFICATIONS. APPLY SAME BLANKET NE OF

INSTALLATION OF AN IRRIGATION SYSTEM TO BE APPROVED BY THE OWNER PRIOR TO

CASE WILL SIZES LESS THAN THE SPECIFIED SIZES BE ACCEPTED.

15. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY TO THE SITE OR AFTER

16. PLANTS SHALL NOT HAVE NAME TAGS REMOVED PRIOR TO FINAL INSPECTION.

17. ALL PLANTINGS SHALL RECEIVE A COMMERCIAL TRANSPLANT ADDITIVE PER

18. ROCK MULCH SHALL BE 3" DEPTH OF KANSAS LARGE 2" SIZE AVAILABLE FROM

20. SEE PLANTING DETAILS FOR SOIL MIX IN PLANTING HOLES.

"AMERICAN STANDARDS FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN, FREE OF PLANT DISEASES AND PESTS, OF TYPICAL

NOMENCLATURE OR TO NAMES GENERALLY ACCEPTED IN THE NURSERY TRADE.

PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION IF

COMPLETION OF THE JOB AND ACCEPTANCE BY THE OWNER.

APPROVED BY THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE

M 60 DG (GRANULAR) OR AN APPROVED EQUAL IN ACCORDANCE WITH THE

ALL LANDSCAPE BEDS SHALL RECEIVE A TRENCHED EDGE. SEE SHRUB PLANTING

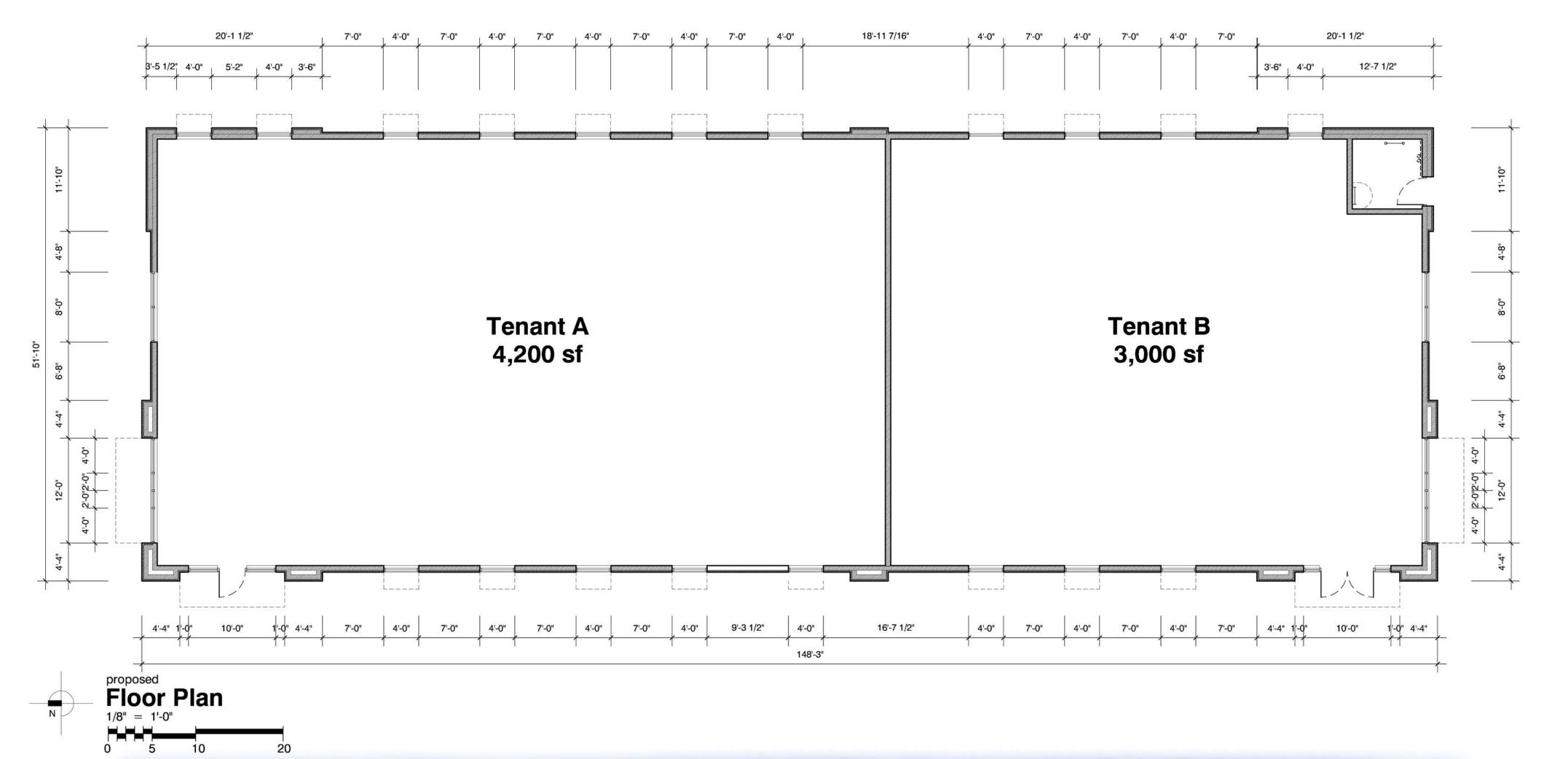
REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT PRIOR TO



Proposed

East Elevation

1/8" = 1'-0"





west Elevation

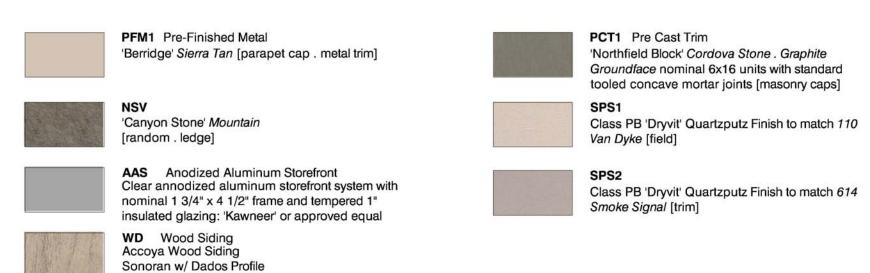
1/8" = 1'-0"

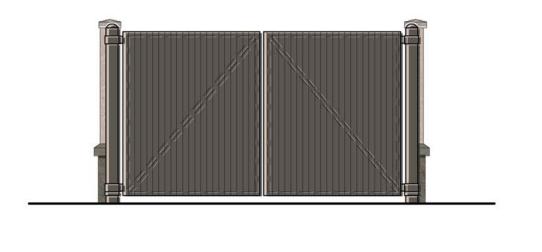


North Elevation

1/8" = 1'-0"

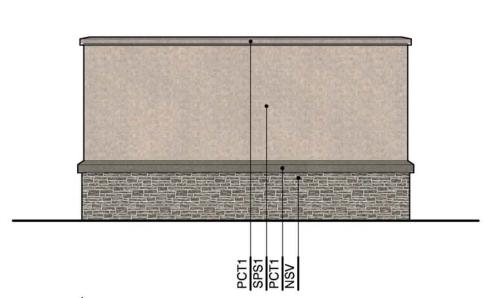
Exterior Finish Schedule







Proposed Building for Lee's Summit



Trash Enclosure



South Elevation
1/8" = 1'-0"