

SITE DEVELOPMENT PLANS
FOR
WESTLAKE ACE HARDWARE
ADDRESS: 3511 SW MARKET STREET
IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

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LEGAL DESCRIPTION:

LOT 2, MARKET STREET CENTER SECOND PLAT, A PLATTED SUBDIVISION OF LAND IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

AREA = ±2.58 ACRES / ± 112,481 SQ.FT.

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 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.

UTILITY COMPANIES:

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

EVERGY (816) 347-4339
PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM)
RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM) (816) 347-4316
1300 HAMBLEN ROAD
LEE'S SUMMIT, MO 64081

STORM SEWER (PUBLIC WORKS DEPARTMENT) (816) 969-1800
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

SANITARY SEWER & WATER (WATER UTILITIES DEPT.) (816)-969-1900
1200 SE HAMBLEN ROAD,
LEE'S SUMMIT, MO 64081

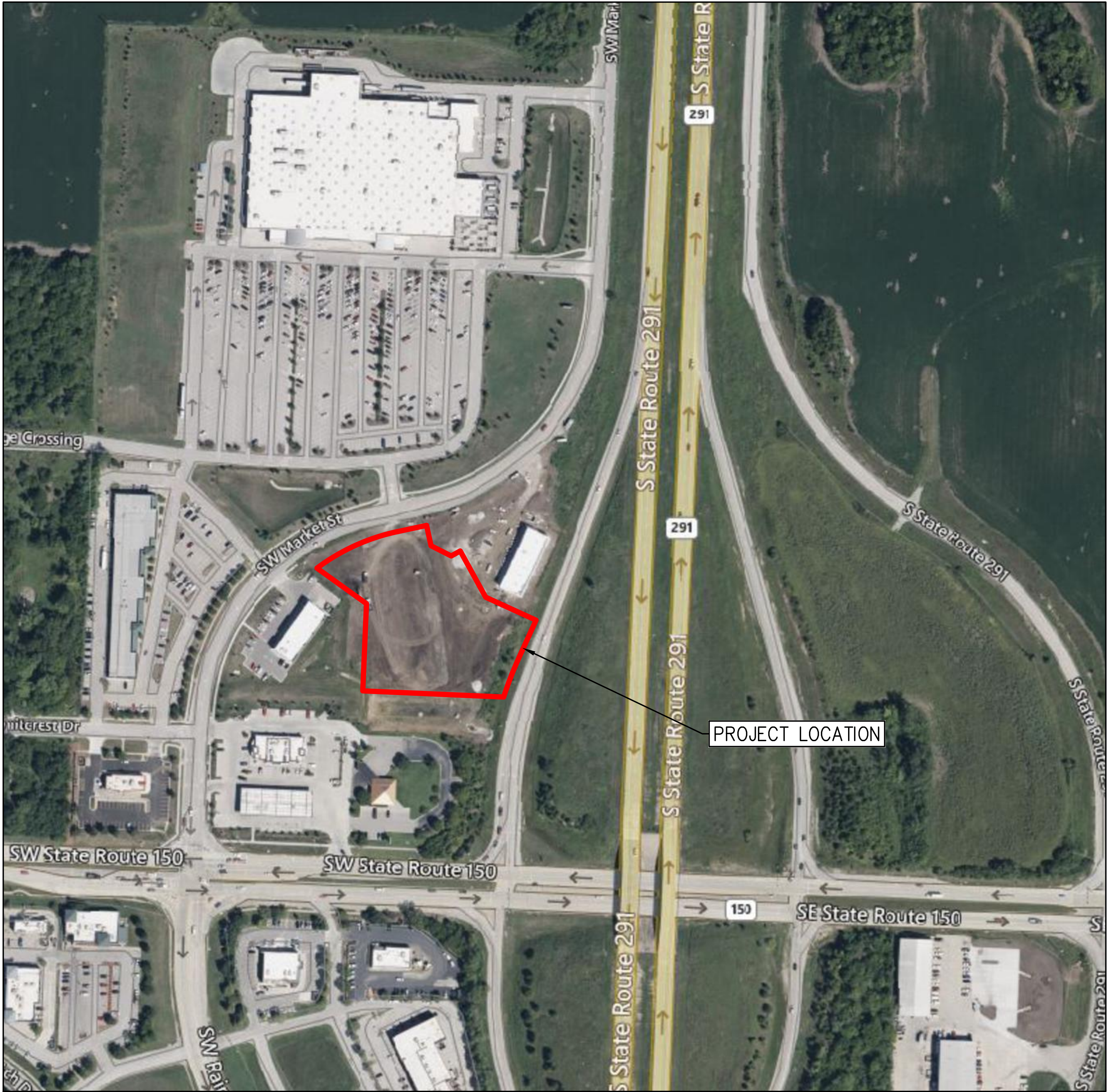
AT&T (913) 383-4929
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) (913) 383-4849-FAX
9444 NALL AVENUE
OVERLAND PARK, KANSAS 66207

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.

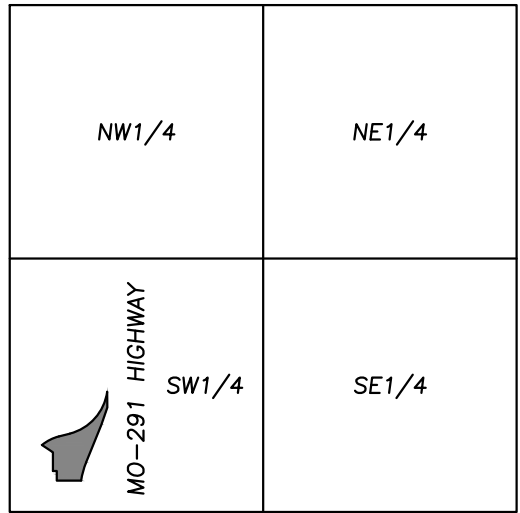


PREPARED & SUBMITTED BY:

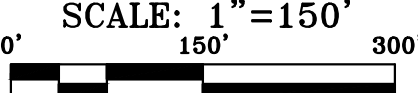
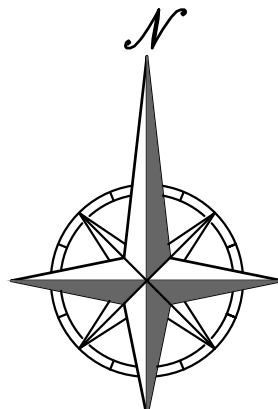
PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
OLATHE, KS 66061
913-393-1155 OFFICE
913-393-1166 FAX
CONTACT: JUDD CLAUSSEN, P.E.

OWNER/DEVELOPER

LEES SUMMIT RETAIL PARTNERS, LLC
4706 BROADWAY BLVD, SUITE 240
KANSAS CITY, MO
816-285-9550
CONTACT: DAN CARR



VICINITY MAP
SEC. 29-47-31



a new store for
Westlake ACE Hardware
3511 SW Market Street
Lee's Summit, Missouri 64082

date

drawn by

checked by

revisions

COVER
SHEET

sheet number

C0

drawing type
PDP

project number
22185

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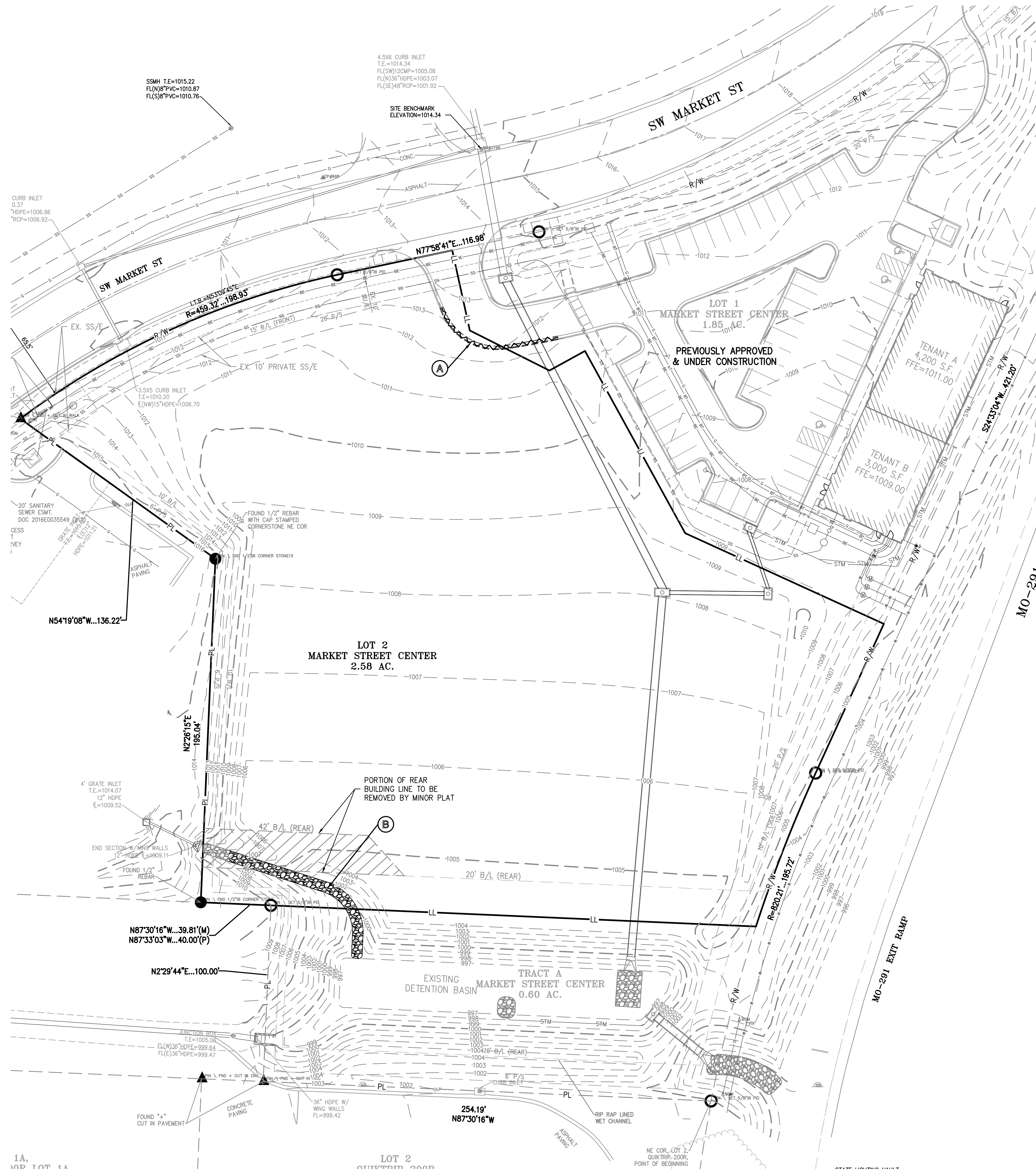
DEMOLITION PLAN

sheet number

C0.1

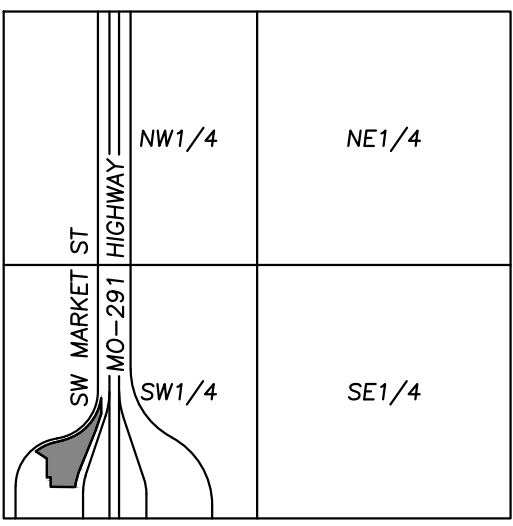
drawing type
PDP

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DEMOLITION KEY NOTES:

- (A) THE CONTRACTOR SHALL REMOVE EXISTING PRIVATE CONCRETE CURB & GUTTER.
(B) THE CONTRACTOR SHALL REMOVE PORTION OF EXISTING RIPRAP DITCH LINER AS INDICATED ON PLAN.



VICINITY MAP
SEC. 29-47-31



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DEMOLITION NOTES:

1. 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.
3. 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.



SCALE: 1"=20'
0' 20' 40'

LEGAL DESCRIPTION:

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AREA = ±2.58 ACRES / ± 112,481 SQ.FT.

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:
A) City ordinances & O.S.H.A. Regulations.
B) The City of Lee's Summit Technical Specifications and Municipal Code.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- SAFETY NOTICE TO CONTRACTOR:** 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.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

SITE DIMENSION NOTES:

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

PAVEMENT MARKING AND SIGNAGE NOTES:

- 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.
- HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT) AND STATE LAWS AND REGULATIONS.
- TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- 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.
- TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S-W TRAFFIC MARKING SERIES B-2912 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:

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FIRE ACCESS ROAD NOTE:

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

SITE KEY NOTES:

- CONSTRUCT PRIVATE TYPE CO-1 CONCRETE CURB & GUTTER, TYP. SEE DETAIL GEN-4 ON SHEET C7.
- CONSTRUCT 4" PRIVATE CONCRETE SIDEWALK, TYP. SEE "PRIVATE CONCRETE SIDEWALKS (NON-REINFORCED)" DETAIL ON SHEET C7.1.
- CONSTRUCT PRIVATE SIDEWALK CURB RAMP (OMIT DETECTABLE WARNING). SEE "PRIVATE SIDEWALK RAMP" DETAIL ON SHEET C7.1.
- CONSTRUCT TRANSFORMER PAD (RE: ENERGY WORKORDER).
- INSTALL ACCESSIBLE PAVEMENT MARKINGS AND CONCRETE WHEEL STOPS PER ADA SPECIFICATIONS. SEE "ACCESSIBLE PARKING SPACE DETAIL" DETAIL ON SHEET C7.1.
- INSTALL ACCESSIBLE PARKING SIGN. SEE "ACCESSIBLE SIGN" DETAILS ON SHEET C7.1.
- INSTALL VAN ACCESSIBLE PARKING SIGN. SEE "ACCESSIBLE SIGN" DETAILS ON SHEET C7.1.
- CONSTRUCT PRIVATE TURN DOWN SIDEWALK AT ALL LOCATIONS WHERE SIDEWALK IS ADJACENT TO PAVED AREA. SEE "TURN DOWN SIDEWALK DETAIL" ON SHEET C7. SEE GRADING PLAN FOR SIDEWALK AND PAVEMENT ELEVATIONS.
- INSTALL SCORED CONCRETE CROSSWALK. SEE "CROSSWALK DETAIL" ON SHEET C7.1.
- INSTALL TRASH ENCLOSURE (RE: ARCH PLANS).
- INSTALL MONUMENT SIGN (RE: ARCH PLANS).
- INSTALL STANDARD ASPHALT PAVEMENT. SEE "STANDARD ASPHALT PAVING" DETAIL ON SHEET C7.
- INSTALL HEAVY DUTY ASPHALT PAVEMENT. SEE "HEAVY DUTY ASPHALT PAVING" DETAIL ON SHEET C7.
- INSTALL CONCRETE PAVEMENT. SEE "CONCRETE PAVING" DETAIL ON SHEET C7.
- INSTALL LANDSCAPE RETAINING WALL. SEE "LANDSCAPE RETAINING WALL" DETAIL ON SHEET C7.2.
- PROPOSED PROPANE TANK AND FILLING AREA (RE: BUILDING PLANS)
- PROPOSED CONTAINER STORAGE (RE: BUILDING PLANS)
- CONSTRUCT CONCRETE FLUME. SEE "CONCRETE FLUME" DETAIL ON SHEET C7.
- PROPOSED PARKING LOT LIGHT POLE (RE: MEP PLANS).
- CONSTRUCT 6" PRIVATE CONCRETE SIDEWALK UNDER FRONT CANOPY, TYP. SEE "PRIVATE CONCRETE SIDEWALKS (NON-REINFORCED)" DETAIL ON SHEET C7.1.

BUILDING & LOT DATA

Zoning	CP-2
Lot 2	
Site Area	2.58 Ac.
Retail Building	
No. of Stories	1 Story
Building S.F.	15,455 S.F.
Building Footprint	15,455 S.F.
FAR / Building Coverage	0.1374
Impervious Area	1.64 Ac. (64%)
Open Space	0.94 Ac. (36%)

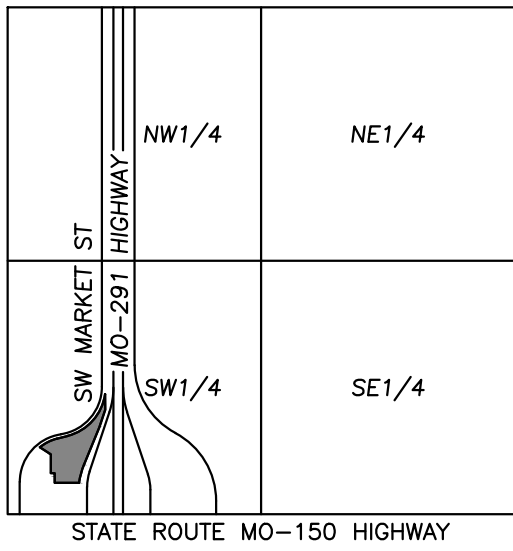
PARKING SUMMARY

Lot 2A	
Parking Required:	
Retail Sales (5 / 1,000 S.F.)	
Total Required Parking	78 Spaces
Parking Provided:	
Standard Parking Provided	86 Spaces
Accessible Parking Spaces Provided	4 Spaces
Total Provided Parking	90 Spaces
Parking Lot, Aisles, and Drives Area	48,292 SF
Parking Lot Landscape Islands, Strips, Planting Areas	32,538 SF (67%)

LEGEND

PL	PROPERTY LINE
LL	LOT LINE
-R/W-	RIGHT-OF-WAY
2" CURB & GUTTER	
6" CURB	
B/L	BUILDING SETBACK LINE
P/S	PARKING SETBACK LINE
HEAVY DUTY ASPHALT PAVEMENT	
STANDARD DUTY ASPHALT PAVEMENT	
PROPOSED BUILDING	
CONCRETE PAVEMENT	
CONCRETE SIDEWALK	

UTILITY NOTES:
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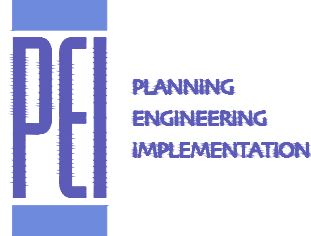


VICINITY MAP
SEC. 29-47-31

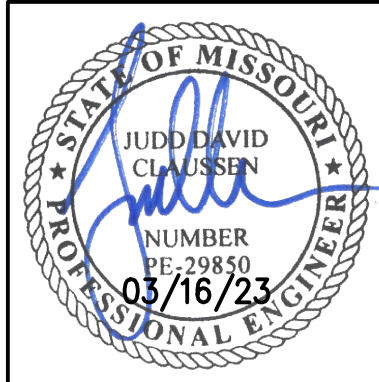


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Call before you dig.

4301 Indian Creek Parkway
Overland Park, KS 66207
phone: 813.451.9390
fax: 813.451.9391
www.davidsonae.com



PHILIPS ENGINEERING, INC.
1320 N. Winchester
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SITE PLAN

sheet number

C1

drawing type

PDP

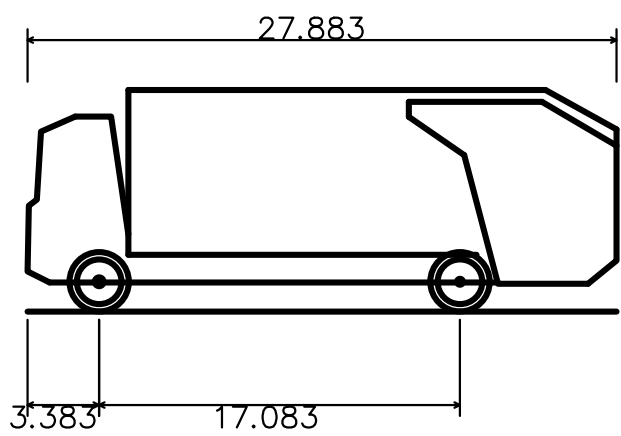
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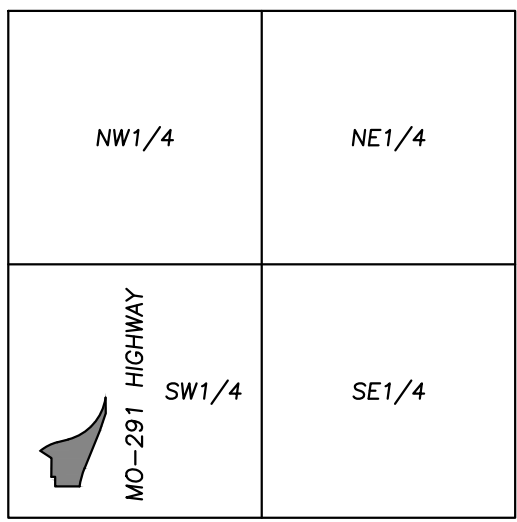


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Hino 338 M + Wayne Royal GT14 Refuse Truck
Overall Length 27.883ft
Overall Width 8.042ft
Overall Body Height 10.488ft
Min Body Ground Clearance 1.318ft
Track Width 8.042ft
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 27.400ft



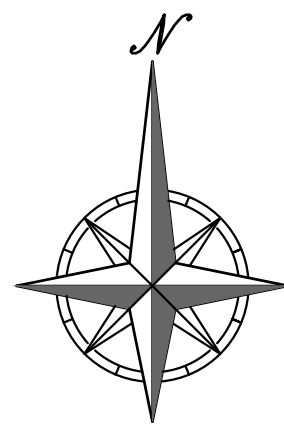
VICINITY MAP
SEC. 29-47-31



SCALE:
1"=2000'

LEGEND

- PL PROPERTY LINE
- LL LOT LINE
- R/W RIGHT-OF-WAY
- 2' CURB & GUTTER
- 6" CURB
- B/L BUILDING SETBACK LINE
- P/S PARKING SETBACK LINE
- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD ASPHALT PAVEMENT
- PROPOSED BUILDING
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK



SCALE: 1"=20'
0' 20' 40'

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03-08-23 CITY COMMENTS
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TRUCK
TURN
PLANS

sheet number

C1.1

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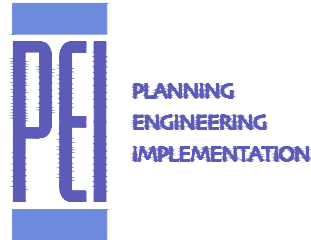
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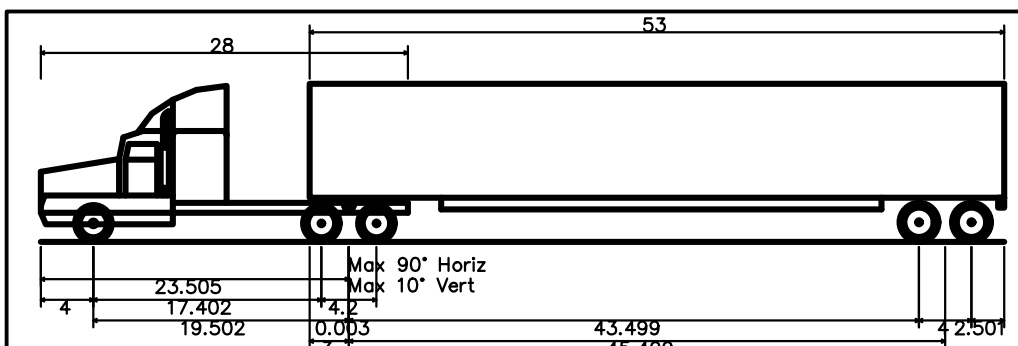
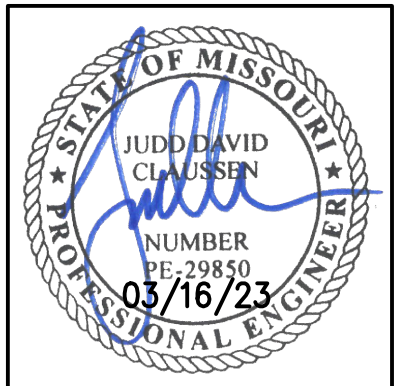
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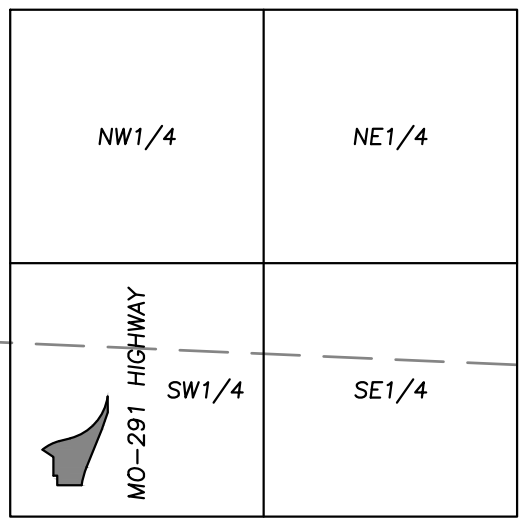
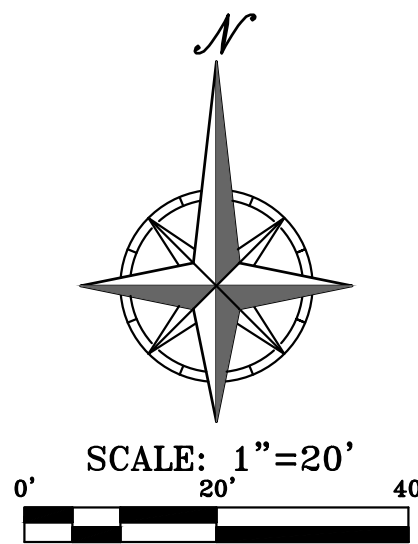


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WB-67 - Interstate Semi-Trailer
Overall Length 73.505ft
Overall Width 8.500ft
Overall Body Height 12.052ft
Min Body Ground Clearance 1.34ft
Max Track Width 8.500ft
Lock-to-lock time 6.00s
Max Steering Angle (Virtual) 28.40°

- LEGEND**
- PL PROPERTY LINE
 - LL LOT LINE
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 - 2' CURB & GUTTER
 - 6" CURB
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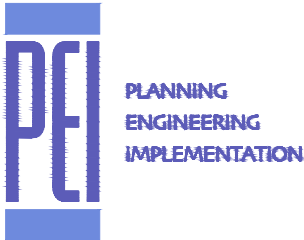
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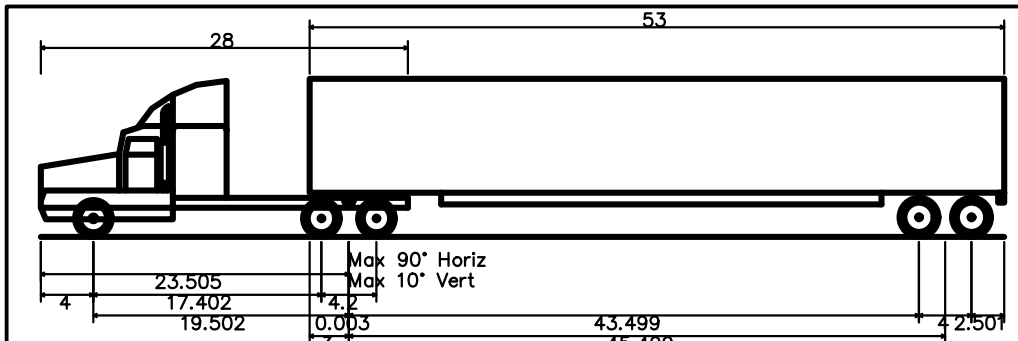
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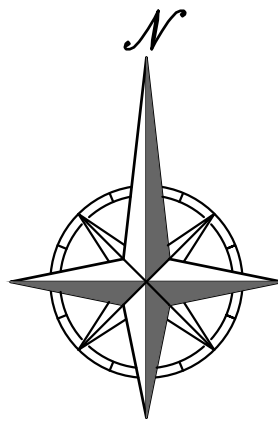
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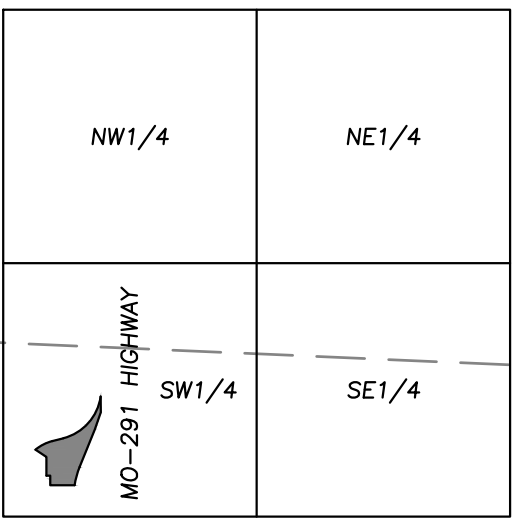
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SCALE: 1"=20'
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TRUCK
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PLANS

sheet number

C1.3

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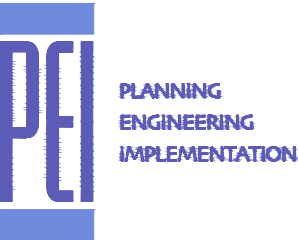
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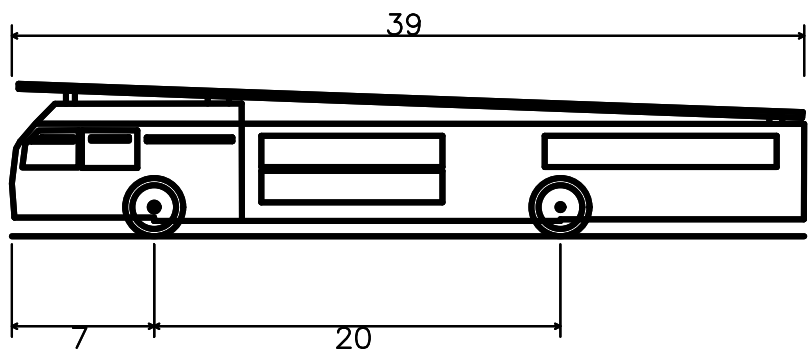
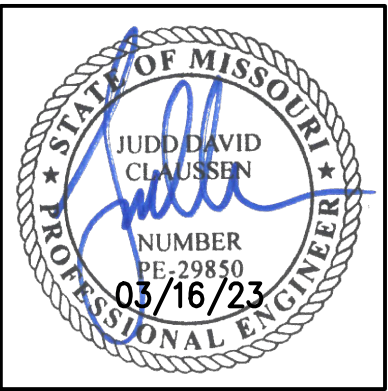
Know what's below.
Call before you dig.

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.

4301 Indian Creek Parkway
Overland Park, KS 66207
phone: 813.451.9390
fax: 813.451.9391
www.davidsonae.com



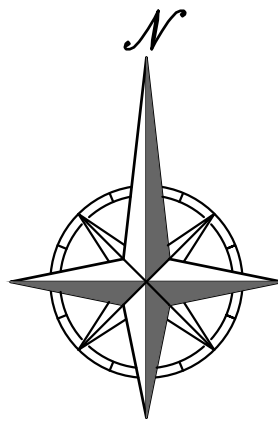
PHILIPS ENGINEERING, INC.
1320 N. Winchester
Olathe, Kansas 66061
(913) 399-7155
Fax: (913) 399-7666
www.philipsengineering.com



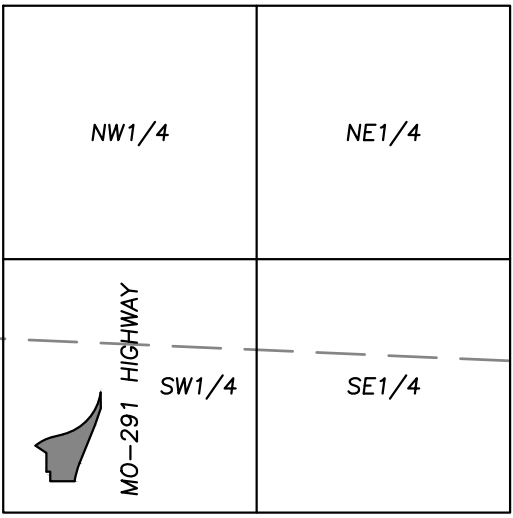
Aerial Fire Truck	39.000ft
Overall Length	8.167ft
Overall Width	7.500ft
Overall Body Height	0.750ft
Min Body Ground Clearance	8.167ft
Track Width	5.00s
Lock-to-lock time	45.00°
Max Wheel Angle	

LEGEND

— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
=====	2' CURB & GUTTER
=====	6" CURB
— B/L —	BUILDING SETBACK LINE
— P/S —	PARKING SETBACK LINE
[Dark Gray Box]	HEAVY DUTY ASPHALT PAVEMENT
[Light Gray Box]	STANDARD ASPHALT PAVEMENT
[Dotted Box]	PROPOSED BUILDING
[Stippled Box]	CONCRETE PAVEMENT
[Patterned Box]	CONCRETE SIDEWALK



SCALE: 1"=20'
0' 20' 40'



VICINITY MAP
SEC. 29-47-31



SCALE:
1"=2000'

a new store for
Westlake ACE Hardware
3511 SW Market Street
Lee's Summit, Missouri 64082

date

drawn by

checked by

revisions

03-08-23	CITY COMMENTS
03-16-23	CITY COMMENTS

TRUCK
TURN
PLANS

sheet number

C1.4

drawing type
PDP

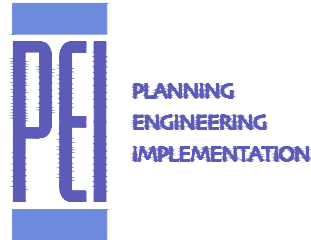
project number
22185



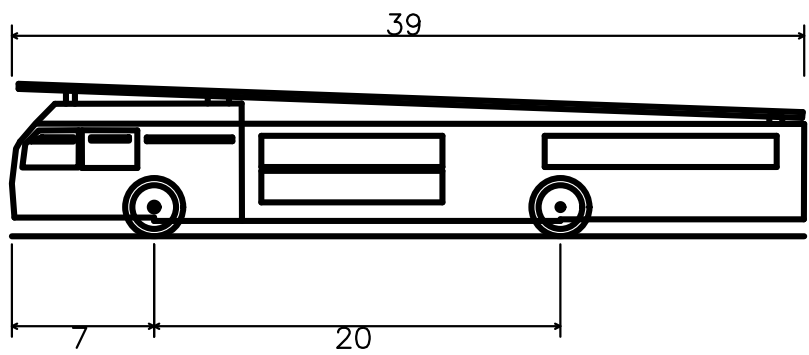
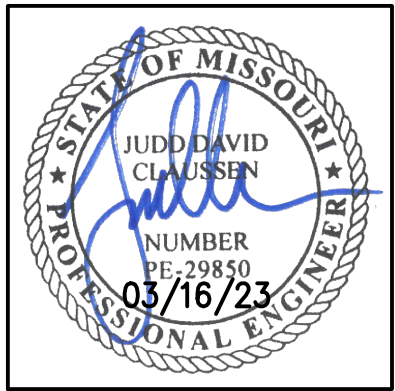
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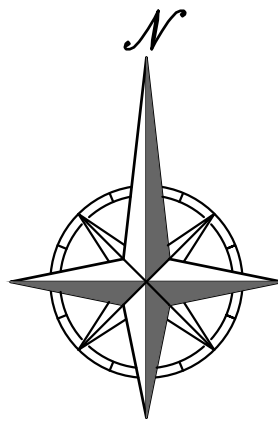
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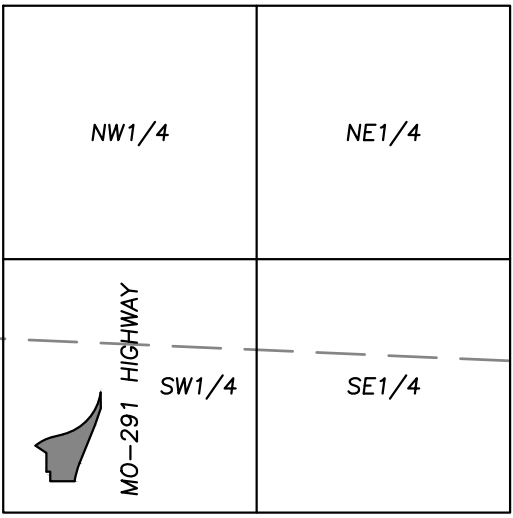
Aerial Fire Truck
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Overall Width 8.167ft
Overall Body Height 7.500ft
Min Body Ground Clearance 0.750ft
Track Width 8.167ft
Lock-to-lock time 5.00s
Max Wheel Angle 45.00°

LEGEND

- PL PROPERTY LINE
- LL LOT LINE
- R/W RIGHT-OF-WAY
- 2' CURB & GUTTER
- 6" CURB
- B/L BUILDING SETBACK LINE
- P/S PARKING SETBACK LINE
- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD ASPHALT PAVEMENT
- PROPOSED BUILDING
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK



SCALE: 1"=20'
0' 20' 40'



VICINITY MAP
SEC. 29-47-31

a new store for
Westlake ACE Hardware
3511 SW Market Street
Lee's Summit, Missouri 64082

date

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revisions

03-08-23	CITY COMMENTS
03-16-23	CITY COMMENTS

TRUCK
TURN
PLANS

sheet number

C1.5

drawing type
PDP

project number
22185

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.
4. 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 I.T.L.
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 requirements.
 - 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 shall 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 excavation.
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:

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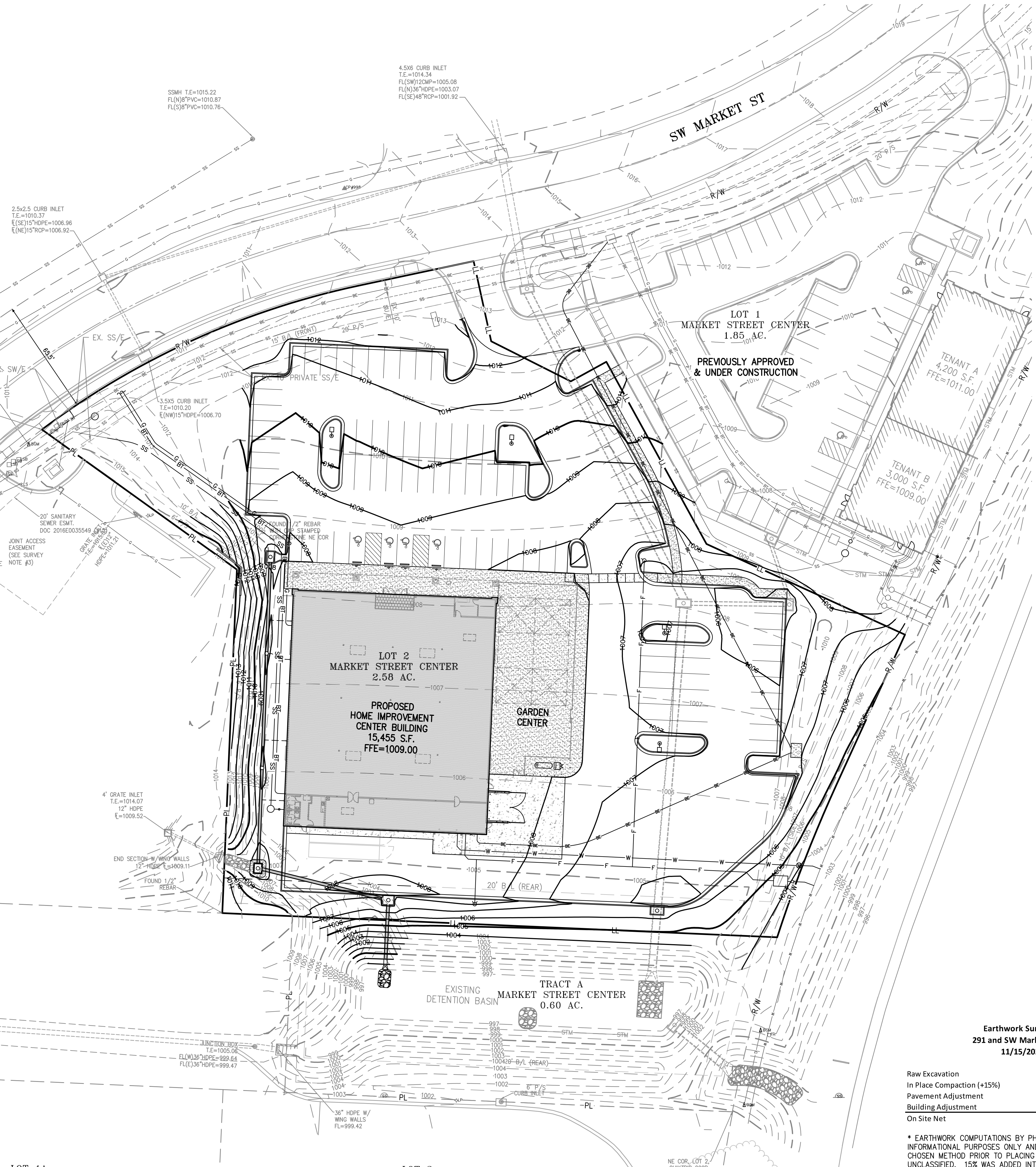
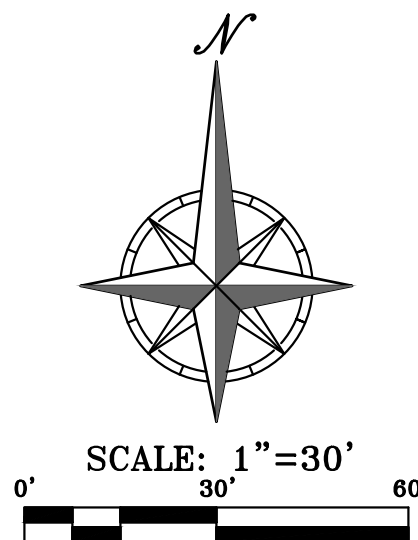
BENCHMARK:

VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MDOOT VRS

1. FOUND "C" CUT IN CONCRETE SIDEWALK AT SOUTHWEST CORNER OF ADJACENT PROPERTY.
ELEVATION = 987.14
2. SET "L" CUT IN SOUTHWEST CORNER OF BACK OF CURB IN ADJACENT PARKING LOT TO THE NORTH AT NORTHWEST CORNER OF SURVEYED PROPERTY.
ELEVATION = 990.19

LEGEND

- PL PROPERTY LINE
- LL LOT LINE
- R/W RIGHT-OF-WAY
- 2' CURB & GUTTER
- EXISTING CONTOURS
- PROPOSED CONTOURS
- 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
- PROPOSED WET CURB & GUTTER
- PROPOSED DRY CURB & GUTTER
- PROPOSED RETAINING WALL



Earthwork Summary
291 and SW Market Street
11/15/2021

Raw Excavation	1,276 Cu. Yds.
In Place Compaction (+15%)	-4,030 Cu. Yds.
Pavement Adjustment	1,458 Cu. Yds. (assume 10" of additional excavation)
Building Adjustment	1,148 Cu. Yds. (assume 24" of additional excavation)
On Site Net	-147 Cu. Yds.

* EARTHWORK COMPUTATIONS BY PHILIPS ENGINEERING, INC. ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE VERIFIED BY CONTRACTORS BY THEIR CHOSEN METHOD PRIOR TO PLACING BID. ALL EARTHWORK SHALL BE CONSIDERED UNCLASSIFIED. 15% WAS ADDED INTO RAW FILL QUANTITY TO ACCOUNT FOR SHRINKAGE.



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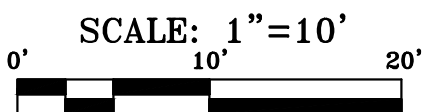
2. SET "C" CUT IN NORTHWEST CORNER OF BACK OF CURB IN ADJACENT PARKING LOT TO THE NORTH AT NORTHWEST CORNER OF SURVEYED PROPERTY.
ELEVATION = 990.19



VICINITY MAP
SEC. 29-47-31

LEGEND

— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
— 920 —	2' CURB & GUTTER
— 918 —	EXISTING CONTOURS
— 920 —	PROPOSED CONTOURS
— 918 —	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
— — — — —	PROPOSED RETAINING WALL



a new store for

Westlake ACE Hardware

3511 SW Market Street
Lee's Summit, Missouri 64082

data
drawn by
checked by
revisions

ENLARGED GRADING PLAN

sheet number
C2.1
drawing type
PDP
project number
22185



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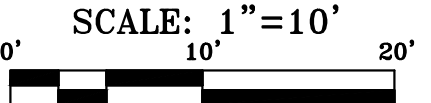
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ELEVATION = 990.19

VICINITY MAP
SEC. 29-47-31

LEGEND


— PL —	PROPERTY LINE
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— R/W —	RIGHT-OF-WAY
=====	2' CURB & GUTTER
=====	EXISTING CONTOURS
=====	PROPOSED CONTOURS
=====	PROPOSED SPOT ELEVATION
=====	LG UP 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
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=====	TS TOP OF STEPS
=====	BW BOTTOM OF WALL
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=====	PROPOSED WET CURB & GUTTER
=====	PROPOSED DRY CURB & GUTTER
=====	PROPOSED RETAINING WALL



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date _____
drawn by _____
checked by _____
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ENLARGED GRADING PLAN

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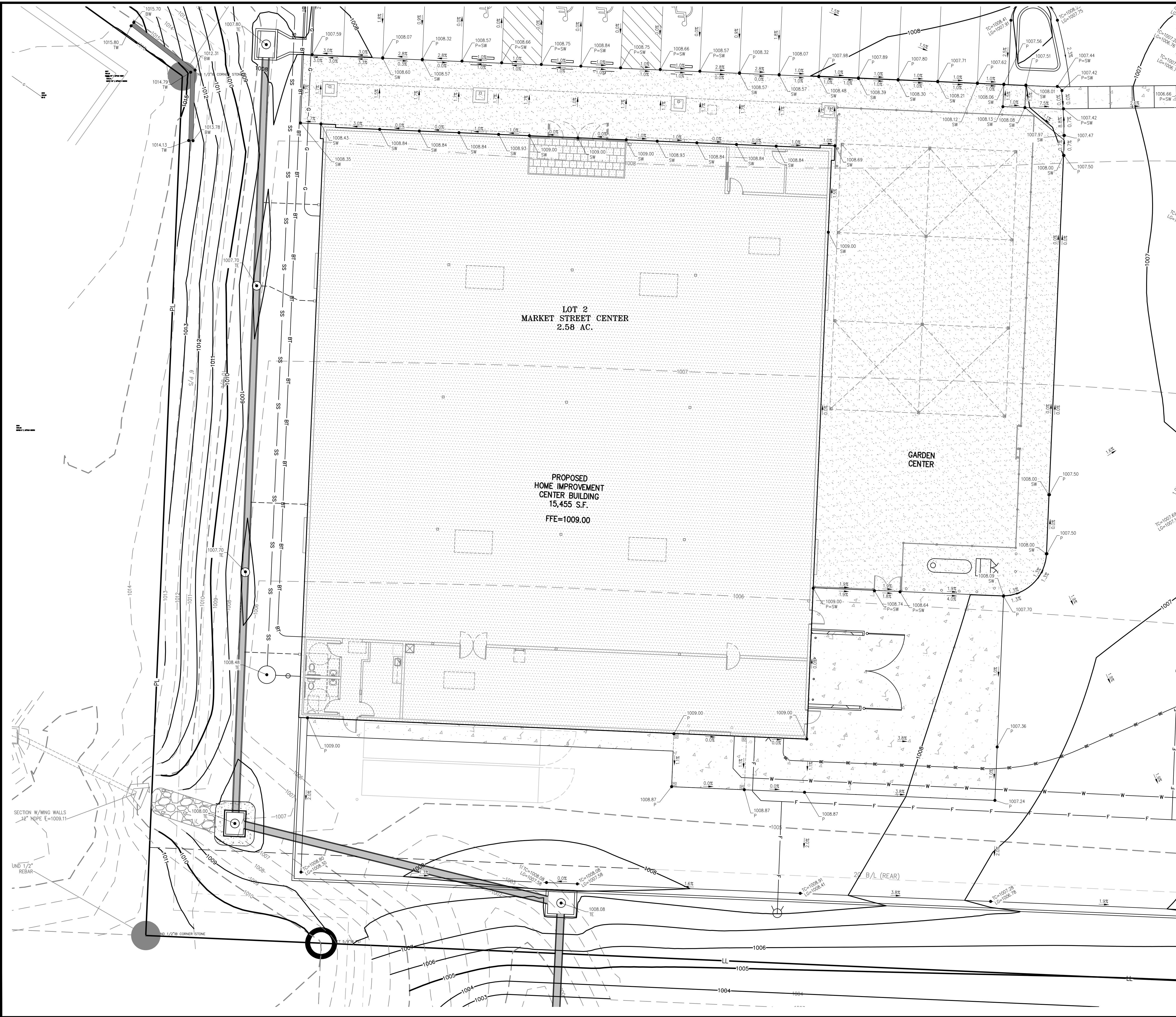
C2.2

drawing type
PDP

project number
22185

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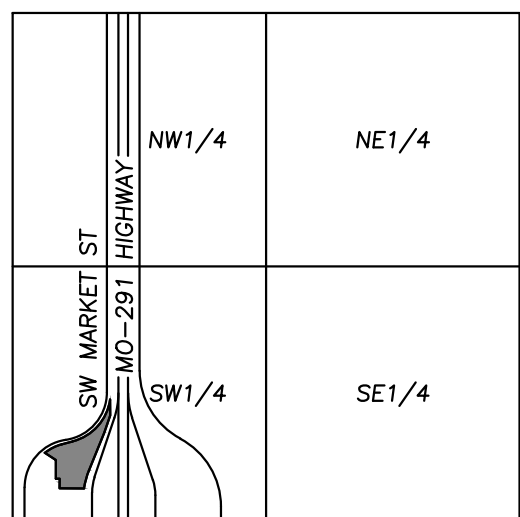


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VICINITY MAP
SEC. 29-47-31

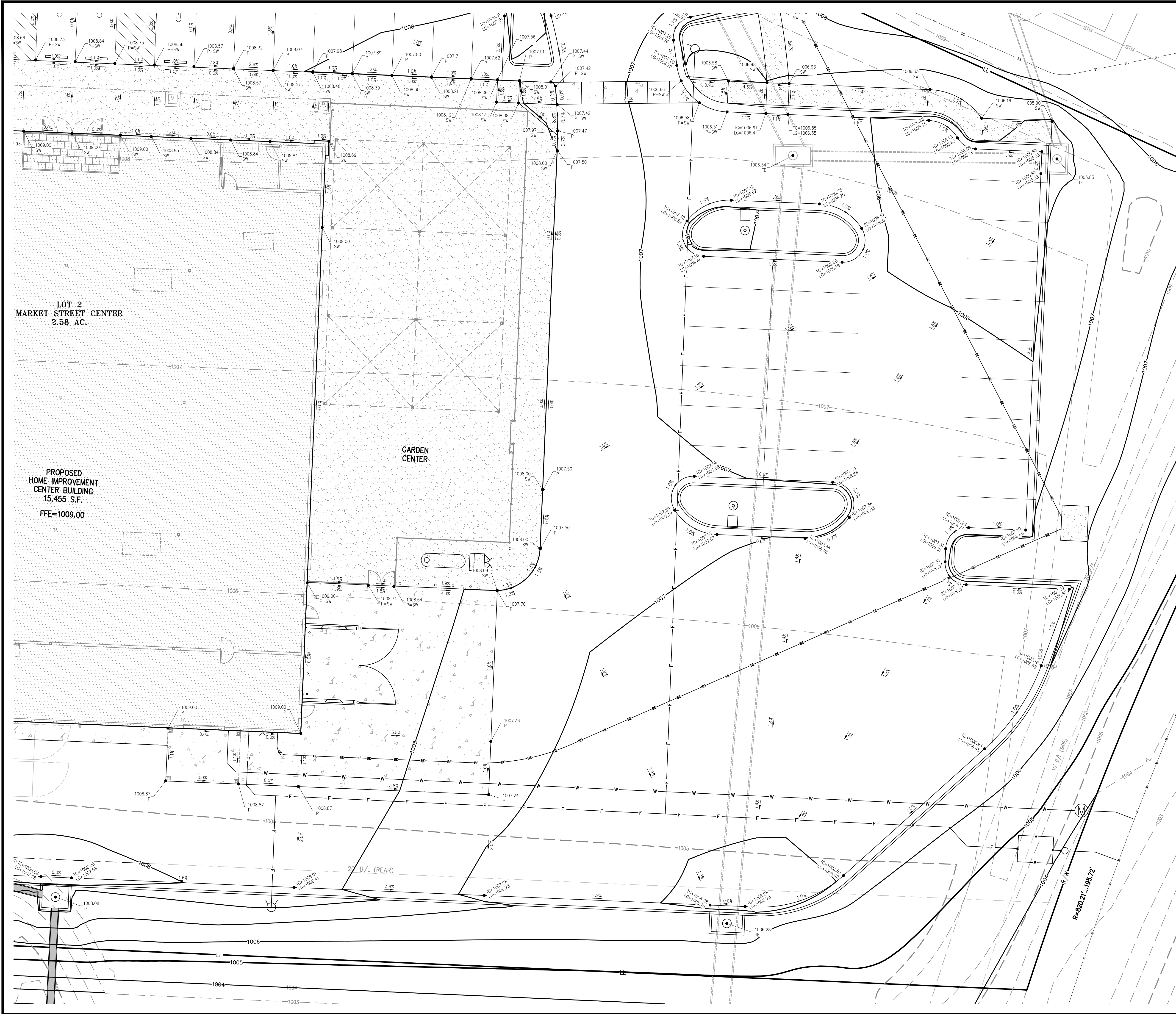
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- PROPOSED WET CURB & GUTTER
- PROPOSED DRY CURB & GUTTER
- PROPOSED RETAINING WALL



SCALE: 1"=10'
0' 10' 20'

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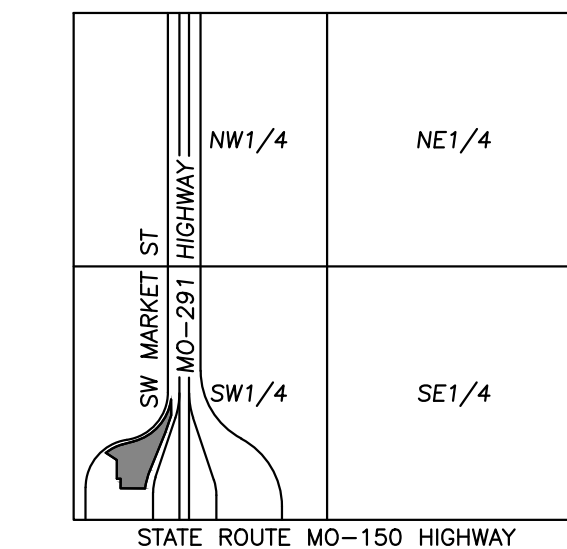


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VICINITY MAP
SEC. 29-47-31

LEGEND

- | | |
|--------------------------------|----------------------------|
| — PL — | PROPERTY LINE |
| — LL — | LOT LINE |
| — R/W — | RIGHT-OF-WAY |
| — 2' CURB & GUTTER — | 2' CURB & GUTTER |
| — 920 — | EXISTING CONTOURS |
| — 918 — | PROPOSED CONTOURS |
| — 920 — | PROPOSED SPOT ELEVATION |
| — 918 — | 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 — | EXISTING STORM SEWER |
| — PROPOSED STORM PIPE — | PROPOSED STORM PIPE |
| — PROPOSED WET CURB & GUTTER — | PROPOSED WET CURB & GUTTER |
| — PROPOSED DRY CURB & GUTTER — | PROPOSED DRY CURB & GUTTER |
| — PROPOSED RETAINING WALL — | PROPOSED RETAINING WALL |



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Lee's Summit, Missouri 64082

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**ENLARGED
GRADING
PLAN**

sheet number

C2.4

drawing type
PDP

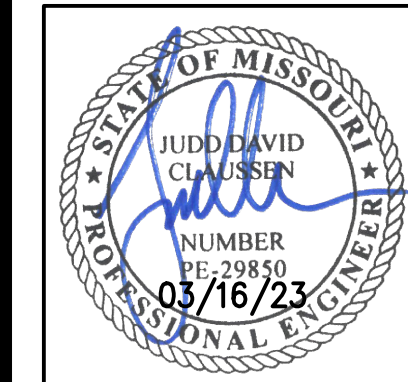
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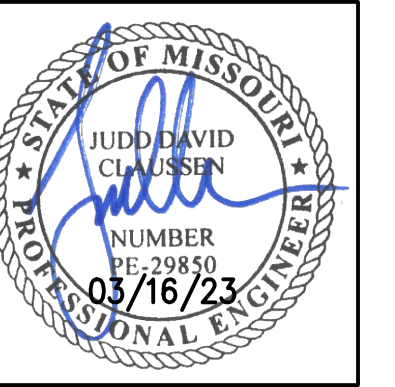
davidson
architecture & engineering

4301 Indian Creek Parkway
Overland Park, KS 66207
phone: 813.451.9390
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Lee's Summit, Missouri 64082

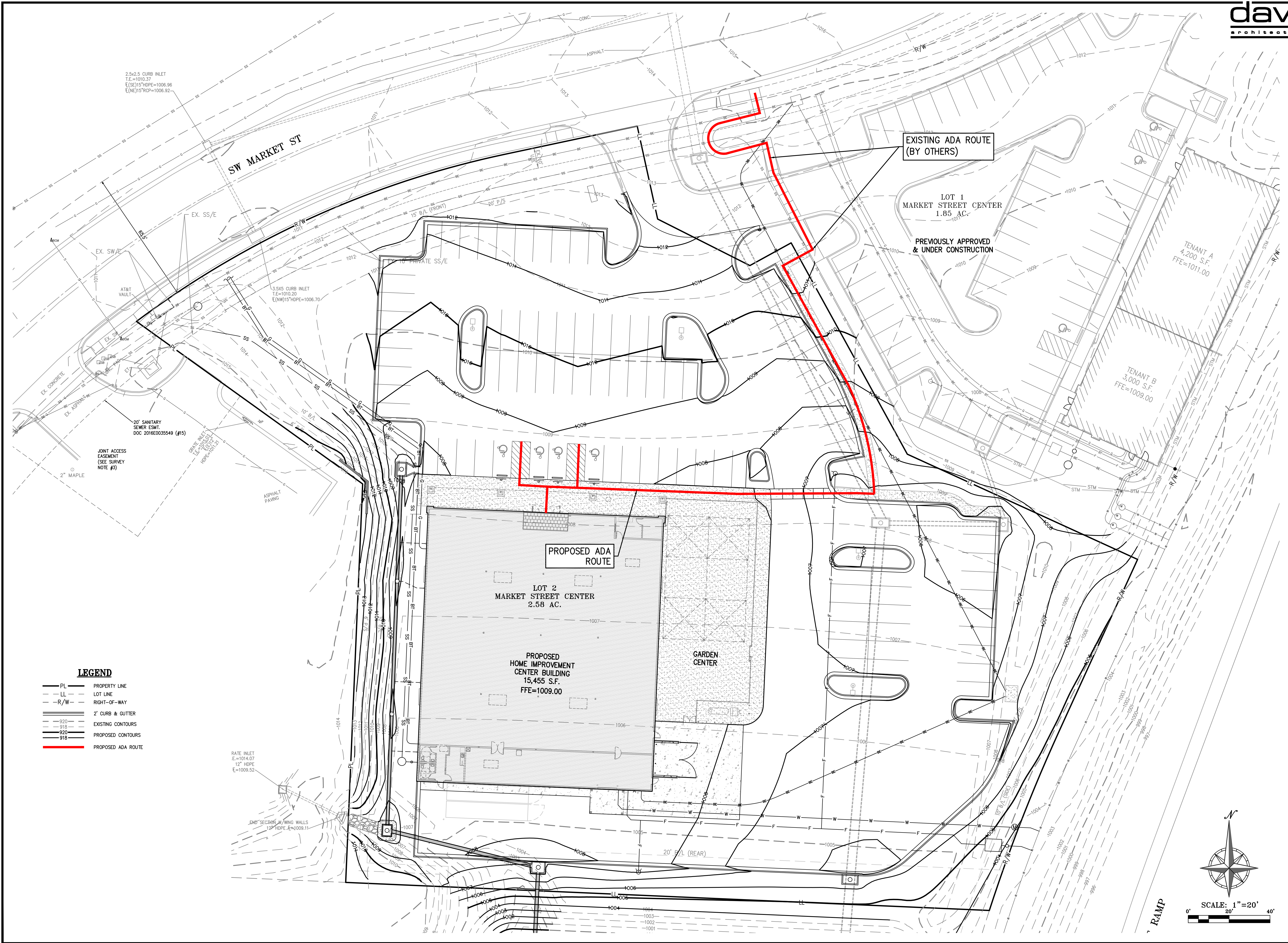
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checked by
evisions

ADA PLAN

Sheet number

2.5

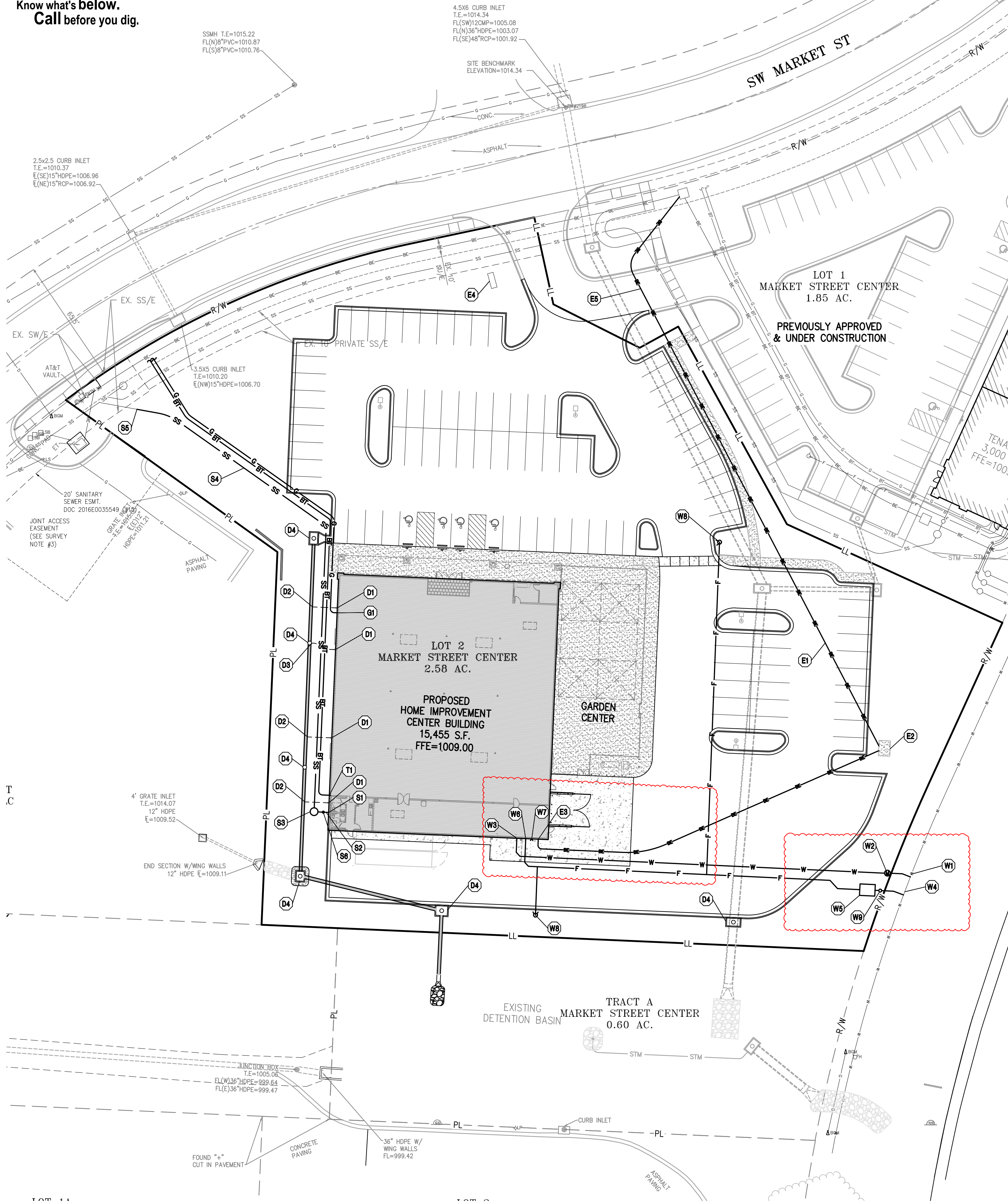
drawing type
DP
project number
2185





Know what's below.
Call before you dig.

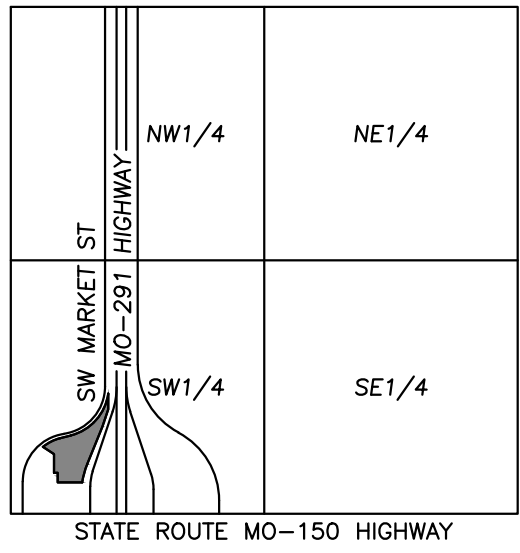
UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



UTILITY KEY NOTES:

- D1** PROPOSED ROOF DRAIN CONNECTION, RE: ARCH PLANS FOR DOWNSPOUT LOCATIONS. CONNECT DOWNSPOUTS TO EXTERNAL UNDERGROUND STORM LINE. ROOF DRAIN LINES SHALL BE 6" HDPE @ 1.0% MINIMUM SLOPE.
- D2** CONNECT TO PROPOSED PRIVATE STORM SEWER VIA INSERT-A-TEE CONNECTION. (SEE STORM SEWER PLAN & PROFILES).
- D3** CONNECT TO PROPOSED NYOPLAST DRAIN BASIN. (SEE STORM SEWER PLAN & PROFILES).
- D4** INSTALL PRIVATE STORM SEWER (SEE STORMWATER PLAN & PROFILES).
- E1** FOLLOW ELECTRIC COMPANY WORK ORDER AND SPECIFICATIONS FOR PRIMARY ELECTRICAL SERVICE ROUTING AND CONNECTION TO EXISTING.
- E2** INSTALL CONCRETE TRANSFORMER 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 WORK WITH THE ELECTRIC COMPANY.
- E3** ELECTRIC ENTRY INTO BUILDING. FOLLOW ELECTRIC COMPANY REQUIREMENTS (RE: BUILDING ELECTRIC PLAN).
- E4** CONTRACTOR TO INSTALL CONDUITS TO MONUMENT SIGN (RE: BUILDING ELECTRICAL PLANS FOR POWER REQUIREMENTS).
- E5** CONTRACTOR TO BORE PRIMARY CONDUIT UNDER EXISTING PRIVATE DRIVE. ALL OFF-SITE AREAS DISTURBED SHALL BE RESTORED IN KIND.
- G1** GAS ENTRY WITH GAS METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYPING 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 & INSTALLATION OF GAS SERVICE LINE.
- W1** CONTRACTOR TO COORDINATE 1" TAP ON EXISTING MAIN FOR DOMESTIC SERVICE LINE WITH CITY. THE CITY SHALL PERFORM THE TAP OF THE EXISTING MAIN. 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.
- W2** INSTALL 1" DOMESTIC WATER METER PIT PER CITY REQUIREMENTS. THE CITY SHALL PROVIDE THE METER, THE PIT, AND ALL OTHER MATERIALS NECESSARY FOR THE INSTALLATION. CONTRACTOR TO COORDINATE AND PAY ALL FEES. INSTALLATION BY THE CONTRACTOR'S PLUMBER SHALL BE IN ACCORDANCE WITH CITY STANDARDS.
- W3** 1-1/4" DOMESTIC WATER LINE ENTRY TO BUILDING. CONTRACTOR TO TRANSITION FROM 1" DOMESTIC WATER LINE TO 1-1/4" DOMESTIC WATER LINE DOWNSTREAM OF WATER METER. DOMESTIC WATER LINE SHALL BE 1-1/4" 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 THE DEVELOPMENT SERVICES INSPECTOR.
- W4** CONTRACTOR TO INSTALL 12"x12"x6" OUT-IN TEE FOR PROPOSED 6" PVC C900 PRIVATE FIRE LINE. CONTRACTOR TO CONTACT CITY FOR CONNECTION REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN CONNECTION.
- W5** BACKFLOW PREVENTION: BACKFLOW PIT CONTAINING BACKFLOW PREVENTION DEVICE (DOUBLE CHECK DETECTOR ASSEMBLY (DCDA)) FOR 6" FIRE LINE. REFER TO LEE'S SUMMIT STANDARD DETAIL WAT-12 ON SHEET C7.4.
- W6** 6" PRIVATE FIRE LINE ENTRY TO BUILDING (UPSTREAM OF BACKFLOW PREVENTION DEVICE). BACKFLOW PREVENTION DEVICE SHALL BE LOCATED INSIDE BUILDING (RE: BUILDING PLANS FOR BACKFLOW PREVENTION DEVICE DETAILS AND SPECIFICATIONS).
- W7** FIRE DEPARTMENT CONNECTION LOCATION (RE: MEP PLANS).
- W8** CONTRACTOR TO INSTALL PRIVATE FIRE HYDRANT. PRIVATE FIRE HYDRANT SHALL BE PAINTED RED. SEE SHEET C7.2, "PRIVATE FIRE HYDRANT" DETAIL.
- W9** INSTALL 6" GATE VALVE.
- W10** (REMOVED)
- T1** CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE TELEPHONE COMPANY FOR THE INSTALLATION OF BURIED TELEPHONE LINES. CONTRACTOR TO PROVIDE TWO (2) - 4" PVC SCH. 40 CONDUITS FROM BUILDING TO R/W. CONTRACTOR TO TERMINATE IN QUARTZITE BOX WITH PULL STRING FROM BUILDING TO TELEPHONE FEED POINT. CONTRACTOR TO VERIFY EXACT ROUTING AND FEED POINT WITH TELEPHONE COMPANY.
- S1** CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE (RE: MEP PLANS) FG=1009.00 FL 4"=1005.50
- S2** INSTALL 6 LF. 4" PVC SANITARY SEWER SERVICE LINE (SDR-26) @ 11.3% SLOPE.
- S3** INSTALL E1 DUAL GRINDER PUMPS (MODEL WH472-77) WITH POLYETHYLENE TANK AND E/ONE SENTRY ADVISOR ALARM PANEL. TE=1008.52 FL 4" IN=1004.82 FL 1-1/4" OUT=1005.32
- S4** INSTALL 1-1/4" HDPE PRIVATE SANITARY SEWER FORCE MAIN.
- S5** CONNECT TO EXISTING 1-1/4" HDPE FORCE MAIN SUB. FG AT EOS=1014.00 FL 1-1/4" AT EOS=1009.75 (PER AS-BUILTS)
- S6** INSTALL CHECK VALVE ON 4" SANITARY SEWER SERVICE LINE WITH VALVE BOX ACCESSIBLE AT GRADE.

UTILITY CROSSING NOTE:
AT ALL LOCATIONS WHERE THE SANITARY SEWER FORCE MAIN CROSSES PRIVATE STORM SEWER, THE SANITARY SEWER FORCE MAIN SHALL BE ADJUSTED VERTICALLY TO PROVIDE 1.0 FT VERTICAL CLEARANCE (MIN). THE SANITARY SEWER FORCE MAIN SHALL PROVIDE 3.0 FT COVER (MIN).



SCALE: 1"=2000'

UTILITY NOTES:

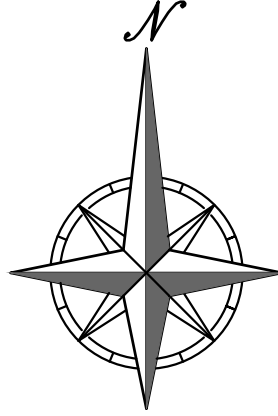
- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
- The construction of storm sewers on this project shall conform to the requirements of the City's Technical Specifications and Design Criteria.
- The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
- It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
- Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipe.
- The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
- The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, 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.
- By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
- The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
- All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
- Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- Water lines shall be as follows (unless otherwise shown on plans):
 - A. Pipe sizes less than 3-inches that are installed below grade and outside building shall comply with the following:
 - 1. Seamless Copper Tubing: Type "K" soft copper, ASTM B88.
 - 2. Fittings: Wrought copper (5/8" to 1 1/2" Antimony solder joint), ASME B 16.22.
 - B. Pipe sizes 3-inches through 48-inches that are installed below grade and outside building shall comply with one of the following:
 - 1. Gray Cast Iron Water Pipe: ANSI A21.6, thickness class 52.
 - a. Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
 - b. Elastomeric gaskets and lubricant: ASTM F477.
 - c. Cement Mortar Lining, AWWA C104.
 - 2. Ductile Iron Water Pipe: AWWA C151, thickness class 50.
 - a. Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
 - b. Elastomeric gaskets and lubricant: ASTM F477.
 - c. Cement Mortar Lining, AWWA C104.
 - 3. Polyvinyl Chloride (PVC) Water Pipe: Pipe, AWWA C900, rated DR 18 (Class 150), continually marked as required.
 - a. Elastomeric gaskets and lubricant: ASTM F477 for smaller pipes.
 - b. Pipe joints: Integrally molded bell ends, ASTM D3139.
 - c. Trace wire: Magnetic detectable conductor, (#12 Copper) brightly colored plastic covering imprinted with "Water Service" in large letters
- Minimum trench width shall be 2 feet.
- Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterone's specifications for commercial services.
- All waterlines shall be kept min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, on 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
- Sanitary conflicts will be resolved prior to permit issuance.
- In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
- All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

UTILITY COMPANIES:

MISSOURI GAS ENERGY	(816) 969-2218
LUCAS WALLS (LUCAS.WALLS@GUG.COM)	
3025 SOUTHEAST CLOVER DRIVE	
LEE'S SUMMIT, MO 64082	
EVERY	(816) 347-4339
PHILLIP INGRAM (PHILLIP.INGRAM@KCPCL.COM)	
RON DEJARNETTE (RON.DEJARNETTE@KCPCL.COM)	(816) 347-4316
1300 HAMBLEN ROAD	
LEE'S SUMMIT, MO 64081	
STORM SEWER (PUBLIC WORKS DEPARTMENT)	(816) 969-1800
220 SE GREEN STREET	
LEE'S SUMMIT, MO 64063	
SANITARY SEWER & WATER (WATER UTILITIES DEPT.)	(816)-969-1900
1200 SE HAMBLEN ROAD,	
LEE'S SUMMIT, MO 64081	
AT&T (913) 383-4929	
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM)	(913) 383-4849-FAX
9444 NALL AVENUE	
OVERLAND PARK, KANSAS 66207	

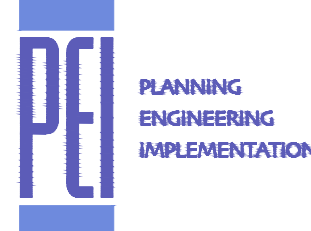
LEGEND

PL	PROPERTY LINE
LL	LOT LINE
R/W	RIGHT-OF-WAY
CATV	EXISTING CABLE TELEVISION LINE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
BE	EXISTING BURIED ELECTRIC LINE
OHP	EXISTING OVERHEAD POWER LINE
OHT	EXISTING OVERHEAD TELEPHONE LINE
SS	EXISTING SANITARY SEWER LINE
24"HDPE	EXISTING STORM SEWER LINE (& SIZE)
BT	EXISTING BURIED TELEPHONE LINE
W-6"	EXISTING WATER LINE (& SIZE)
G	PROPOSED GAS LINE
BE	PROPOSED BURIED ELECTRIC LINE
SS	PROPOSED SANITARY SEWER LINE
BT	PROPOSED BURIED TELEPHONE LINE
W	PROPOSED WATER LINE (& SIZE)

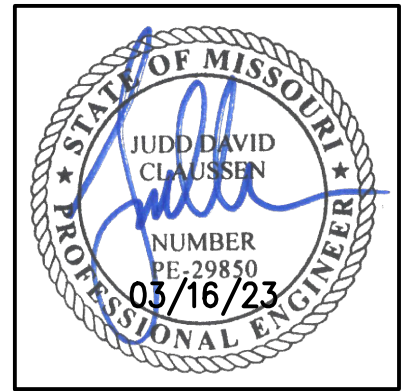


SCALE: 1"=30'

4301 Indian Creek Parkway
Overland Park, KS 66207
phone: 813.451.9390
fax: 813.451.9391
www.davidsonae.com



PHILIPS ENGINEERING, INC.
1020 N. Winchester
Olathe, Kansas 66061
(913) 399-1700
Fax (913) 399-1666
www.philipsengineering.com



a new store for
Westlake ACE Hardware
3511 SW Market Street
Lee's Summit, Missouri 64082

date
drawn by
checked by
revisions

UTILITY
PLAN
sheet number
C3
drawing type
PDP
project number
22185

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3511 SW Market Street
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date
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checked by
revisions
03-08-23 CITY COMMENTS
03-16-23 CITY COMMENTS

**FIRE
HOSE
PLAN**

sheet number

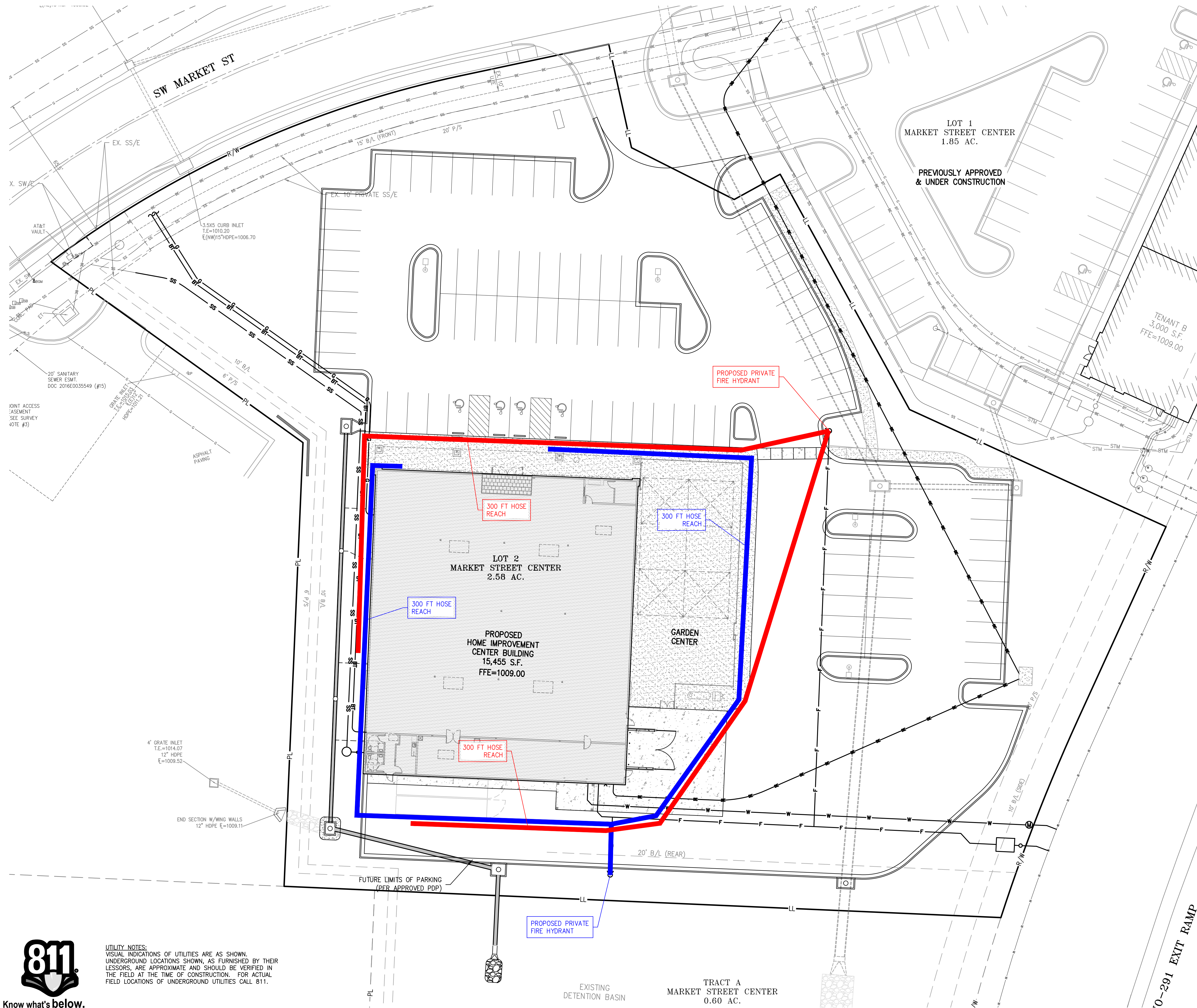
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drawing type

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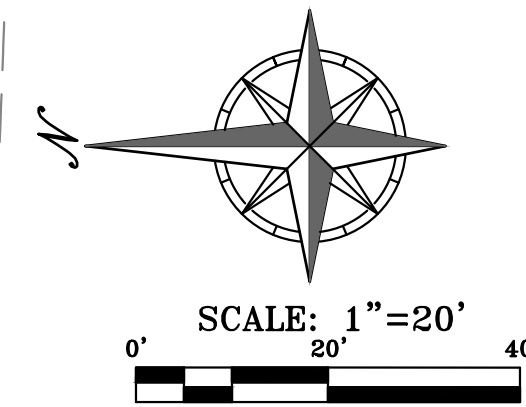
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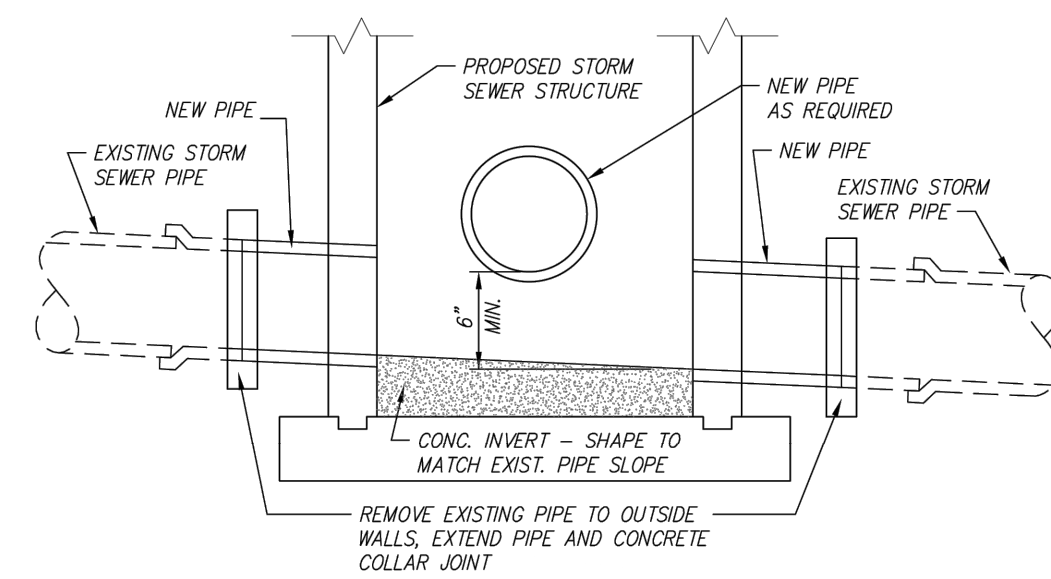
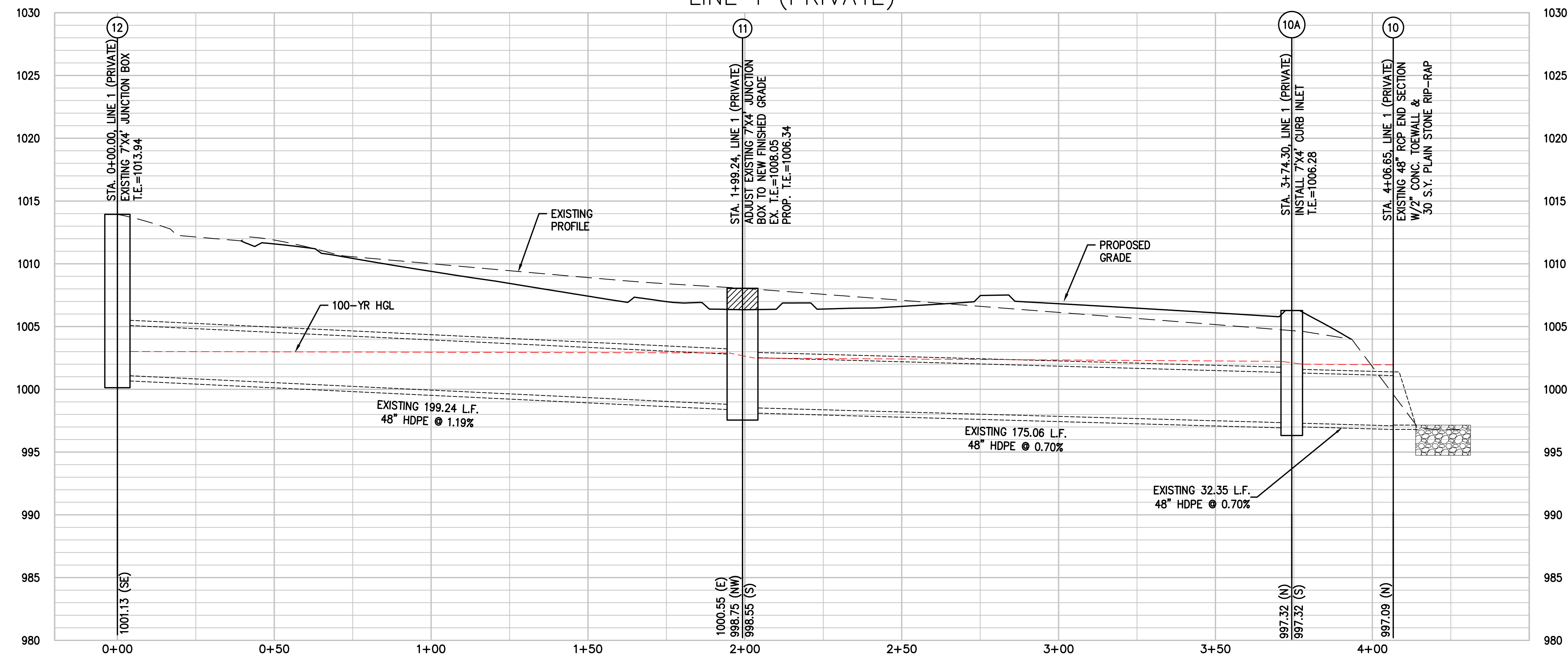
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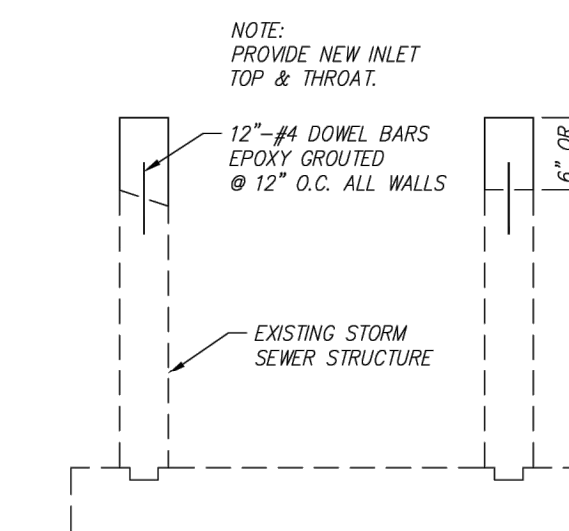


SCALE: 1"=20' HORIZ.
1"= 5' VERT.

LINE 1 (PRIVATE)



DRAINAGE STRUCTURE
OVER EXISTING STORM SEWER



ADJUSTMENT OF EXISTING
STRUCTURE (6" OR GREATER)

a new store for

Westlake ACE Hardware

3511 SW Market Street
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revisions

STORM SEWER PLAN & PROFILE

sheet number

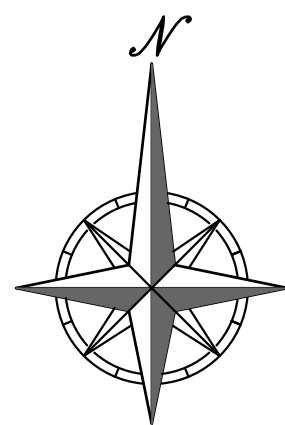
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drawing type

PDP

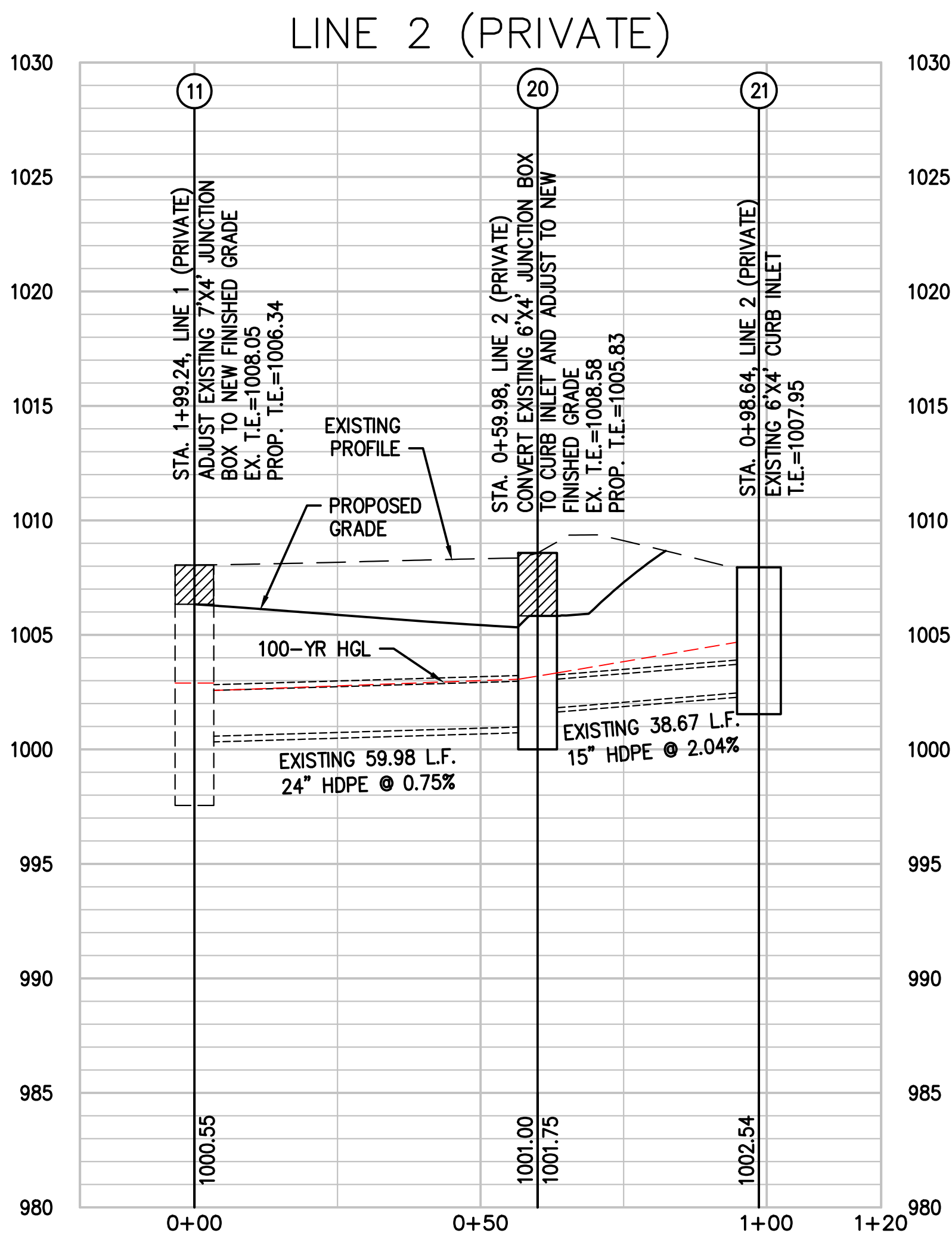
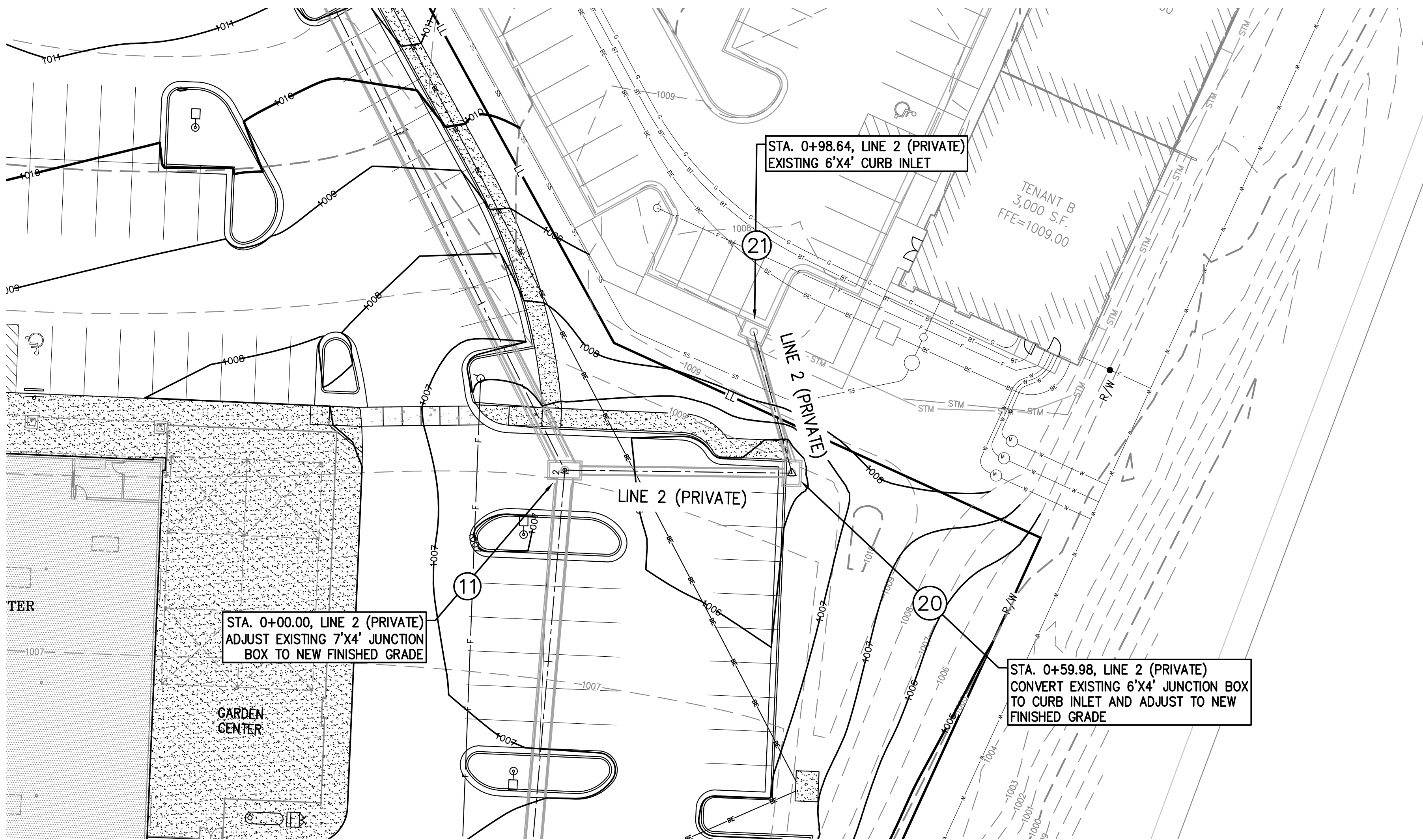
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SCALE: 1"=20'
0' 20' 40'

SCALE: 1"=20' HORIZ.
1"= 5' VERT.



GENERAL NOTES

GENERAL

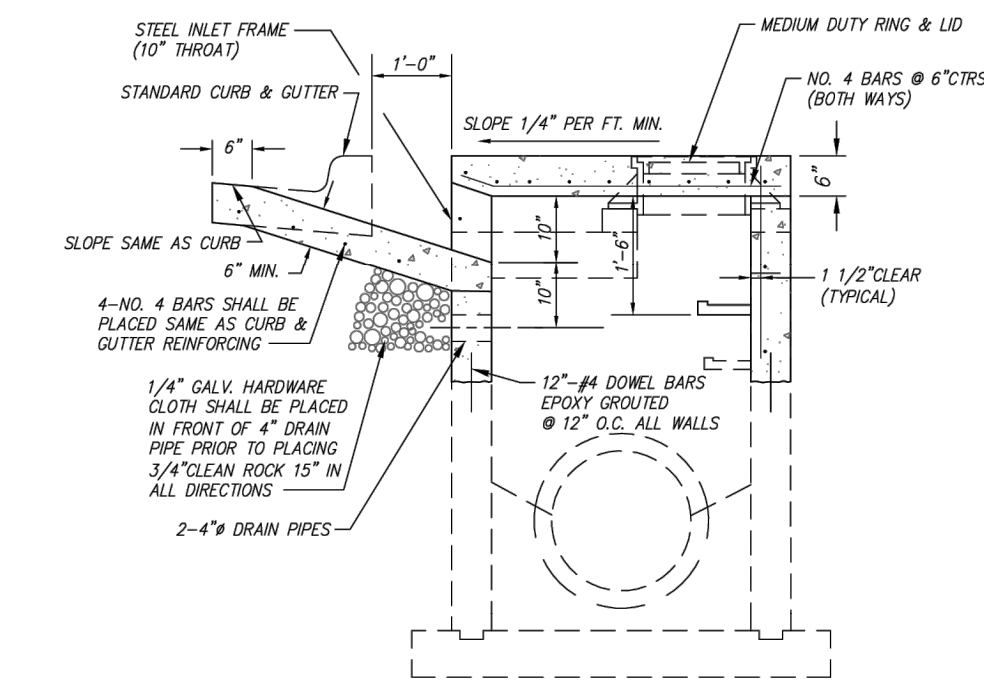
1. ALL STORM SEWER STRUCTURES SHALL BE PRECAST OR POURED IN PLACE. TOPS SHALL BE POURED IN PLACE AND WALL STEEL SHALL BE LEFT EXPOSED TO A HEIGHT 2' BELOW THE FINISH TOP ELEVATION, OR AS DIRECTED BY THE CITY ENGINEER.
2. PRECAST SHOP DRAWINGS ARE TO BE APPROVED BY THE CITY ENGINEER (OR REPRESENTATIVE THEREOF) FOR PUBLICLY FINANCED OR DONATED PROJECTS. PRECAST SHOP DRAWINGS FOR PRIVATELY FINANCED PROJECTS ARE TO BE SUBMITTED TO THE ENGINEER.
3. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "X" DIMENSION. THE SECOND DIMENSION IS THE "Y" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHALL BE FOR BOXES WITH (1) "X" AND (2) "Y" LESS THAN OR EQUAL TO 20' FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20'. A SPECIAL DESIGN IS REQUIRED.
5. HEAVY DUTY RING & COVER TO BE EAST JORDAN IRON WORKS #200020 OR APPROVED EQUAL. MEDIUM DUTY RING & COVER TO BE EAST JORDAN IRON WORKS #200120, MEXAM #2001, OR APPROVED EQUAL.

CONCRETE

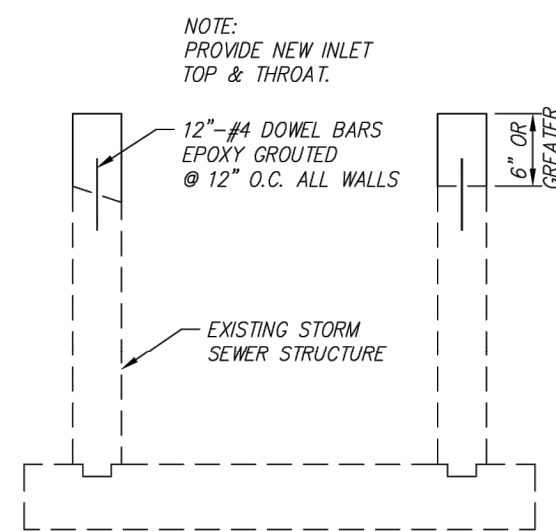
6. CONCRETE USED IN THIS WORK SHALL BE NOMINALLY FOR ALL PRECAST STRUCTURAL COMPONENTS, AND NOMINALLY FOR ALL POURED-IN-PLACE CONCRETE AS APPROVED BY THE KANSAS CITY METROPOLITAN MATERIALS BOARD, AND SHALL MEET THE REQUIREMENTS OF THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL.
7. CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
8. INLET FLOORS SHALL BE SLOPED WITH NON-REINFORCED CONCRETE TO PROVIDE SMOOTH FLOW.
9. REVEAL ALL EXPOSED EDGES WITH 1/4" TRIANGULAR ROLLING.
10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A601, AND SHALL BE BENT TO THE REQUIRED SHAPE.
11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/- 1/4" SHALL BE PERMITTED.

REINFORCING STEEL

12. ALL LAP SPICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
13. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS 8" MINIMUM SPACING.
14. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STOPPING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
15. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SECONDAL CONCRETE. ALL SECONDAL TOPS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SECONDAL ARE POURED BEFORE REMOVAL. TOPS SHALL BE IMMEDIATELY TREATED WITH MOISTURE CURING COMPOUND.
16. PIPE CONNECTIONS TO PRE-CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
17. ALL STRUCTURES THAT HAVE DOWELS SHALL BE BACKFILLED WITH FLOWABLE FILL TO UNDEVELOPED GROUND. FLOWABLE FILL SHALL BE BROUGHT TO 12" BELOW FINISHED GRADE. REMAINING BACKFILL SHALL MEET THE STANDARD DETAILS FOR SIDEWALK CONSTRUCTION.
18. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE AS SPECIFIED IN THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL.
19. ALL TOPS SHALL BE POURED-IN-PLACE USING KOMBARK.
20. ALL INVERTS & CONNECTIONS SHALL BE CONSIDERED SUBSIDIARY TO INSTALLATION OF STRUCTURE.



JUNCTION BOX TO CURB INLET
CONVERSION DETAIL



ADJUSTMENT OF EXISTING
STRUCTURE (6" OR GREATER)

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STORM
SEWER
PLAN &
PROFILE

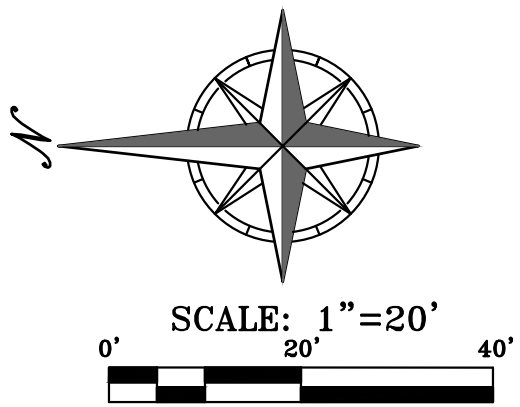
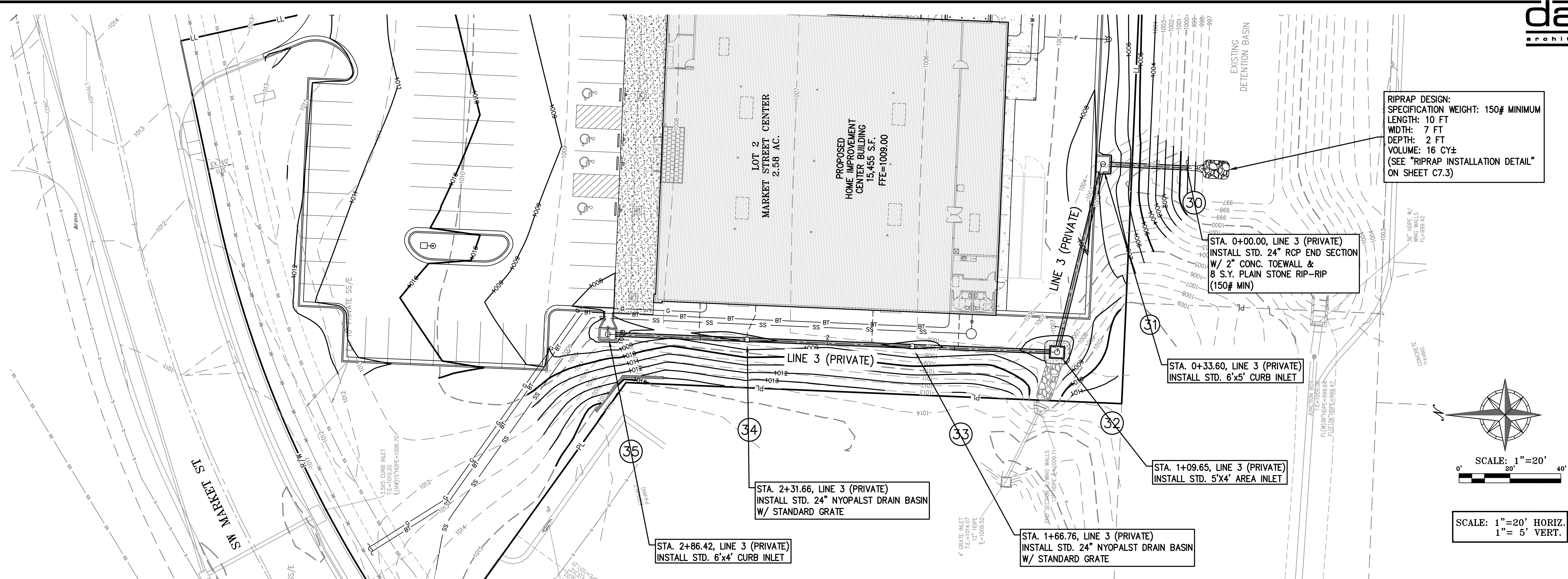
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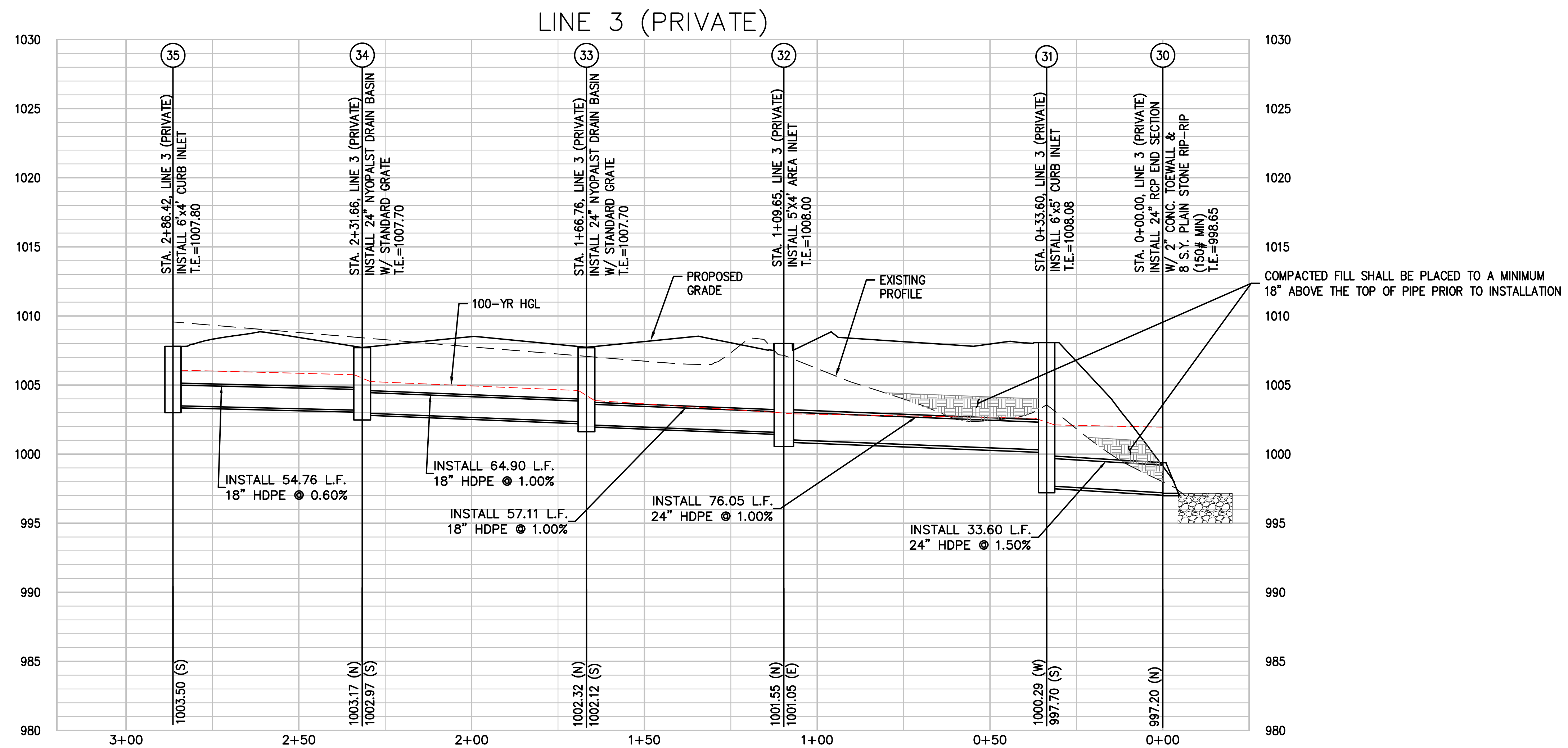
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project number
22185

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SCALE: 1"=20' HORIZ.
1"= 5' VERT.



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3511 SW Market Street

Lee's Summit, Missouri 64082

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STORM
SEWER
PLAN &
PROFILE

sheet number

C4.2

drawing type
PDP

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**DRAINAGE
MAP**

sheet number

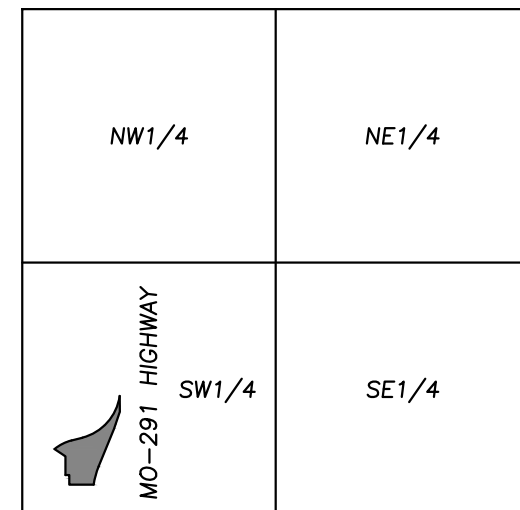
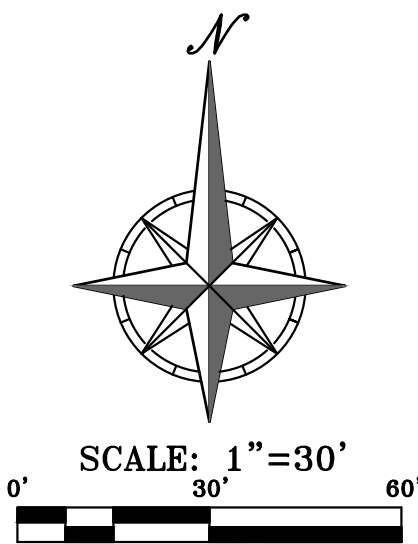
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drawing type

PDP

project number

22185



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. 29095C05326, AND DATED JANUARY 20, 2017

LEGEND

- XXX--- EXISTING CONTOURS
- XXX--- PROPOSED CONTOURS
- XXX--- DENOTES DRAINAGE AREA
- XXX--- DENOTES FLOW DIRECTION
- XXX Ac.--- DENOTES DRAINAGE AREA TO STRUCTURE
- XX--- DENOTES STRUCTURE NUMBER

STORM DRAINAGE CALCULATIONS

DESIGN CRITERIA: K ₂₅ = 1.1; K ₁₀₀ = 1.25; n = 0.013 (RCP); STORM FREQUENCY = 25 YEAR																				
N L U M B E R	S T R U C T U R E	I. RUNOFF									III. PIPE DESIGN								REMARKS	
		INCREMENTAL			CUMULATIVE			SYSTEM TIME OF CONCENTRATION "T _c " AT STRUCTURE (MINS)	RAINFALL INTENSITY "I ₂₅ " / I ₁₀₀ " (IN/HR)	ANTECEDENT PRECIPITATION FACTOR "K ₂₅ " / K ₁₀₀ "	RUNOFF "Q ₂₅ " / Q ₁₀₀ " (CFS)	STRUCTURE		PIPE						
		RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	C x A	AREA "A" (ACRES)	C x A	Upstream Structure Number					Downstream Structure Number	Diameter "D" (IN)	Slope "S" (FT/FT)	Velocity Full V _F (FPS)	Runoff Q ₂₅ (CFS)	Runoff Q ₁₀₀ (CFS)	Full Flow Q _F (CFS)		
1	12	0.81	13.73	11.12	13.73	11.12	6.00	8.19	1.10	100.1	12	11	48	0.0190	15.8	100.1	137.9	198.0		
								9.92	1.25	137.9										
	11	0.81	0.00	0.00	15.77	12.77	6.00	8.19	1.10	115.0	11	10A	48	0.0070	9.6	115.0	158.4	120.2		
								9.92	1.25	158.4										
	10A	0.81	0.29	0.23	16.06	13.00	6.00	8.19	1.10	117.1	10A	10	48	0.0070	9.6	117.1	161.2	120.2		
								9.92	1.25	161.2										
2	21	0.81	1.20	0.97	1.20	0.97	6.00	8.19	1.10	8.7	21	20	15	0.0204	7.6	8.7	12.0	9.2		
								9.92	1.25	12.0										
	20	0.81	0.84	0.68	2.04	1.65	6.00	8.19	1.10	14.9	20	11	24	0.0075	6.3	14.9	20.5	19.6		
								9.92	1.25	20.5										
3	35	0.81	0.80	0.65	0.80	0.65	6.00	8.19	1.10	5.9	35	34	18	0.0060	4.6	5.9	8.1	8.1		
								9.92	1.25	8.1										
	34	0.81	0.23	0.19	1.03	0.84	6.00	8.19	1.10	7.6	34	33	18	0.0100	6.0	7.6	10.4	10.5		
								9.92	1.25	10.4										
	33	0.81	0.23	0.19	1.26	1.03	6.00	8.19	1.10	9.3	33	32	18	0.0100	6.0	9.3	12.8	10.5		
								9.92	1.25	12.8										
	32	0.81	1.05	0.85	2.31	1.88	6.00	8.19	1.10	16.9	32	31	24	0.0100	7.2	16.9	23.3	22.6		
								9.92	1.25	23.3										
31	0.81	0.10	0.08	2.41	1.96	6.00	8.19	1.10	17.6	31	30	24	0.0150	8.9	17.6	24.3	27.7			
							9.92	1.25	24.3											

INLET CAPACITY CALCULATIONS

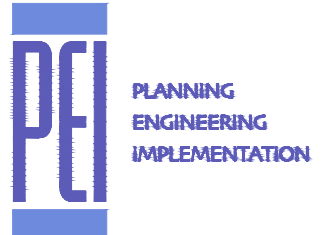
DESIGN CRITERIA: K ₂₅ = 1.1; K ₁₀₀ = 1.25; n = 0.013 (RCP); STORM FREQUENCY = 25 YEAR													
N L U M B E R	S T R U C T U R E	I. RUNOFF						II. STRUCTURE ANALYSIS				REMARKS	
		INCREMENTAL			SYSTEM TIME OF CONCENTRATION "T _c " AT STRUCTURE (MIN)			STRUCTURE					
		RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	C x A	RAINFALL INTENSITY "I ₂₅ " / I _{100"} (IN/HR)	ANTECEDENT PRECIPITATION FACTOR "K ₂₅ " / K _{100"}	RUNOFF "Q ₂₅ " / Q _{100"} (CFS)	Type of Structure	Structure Setting	Inlet Capacity (CFS)	Check		
1	10A	0.81	0.29	0.23	6.00	8.19	1.10	2.1	7x4 Curb Inlet	Sump	11.9	OK	
2	20	0.81	0.84	0.68	6.00	8.19	1.10	6.1	6x4 Curb Inlet	Sump	10.2	OK	
3	35	0.81	0.80	0.65	6.00	8.19	1.10	5.9	6x4 Curb Inlet	Sump	10.2	OK	
	34	0.81	0.23	0.19	6.00	9.92	1.25	8.1	24" Nyoplast Basin Std Grate	Sump	3.5	OK	
	33	0.81	0.23	0.19	6.00	8.19	1.10	1.7	24" Nyoplast Basin Std Grate	Sump	3.5	OK	
	32	0.81	1.05	0.85	6.00	9.92	1.25	2.4					
	31	0.81	0.10	0.08	6.00	8.19	1.10	7.7	5x4 Area Inlet	Sump	34	OK	
						9.92	1.25	10.5	(openings on all sides)	Sump	10.2	OK	

Notes
Nyoplast Basin Capacity based on water surface elevation = 1008.0 which provides 1 ft of freeboard from FFE
Curb and area inlet capacities calculated per APWA 5600 for sump conditions



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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.



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Fax (913) 399-1666
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EROSION AND SEDIMENT CONTROL GENERAL NOTES:

- Prior to Land Disturbance activities, the contractor shall:
 - Delineate the outer limits of any tree or stream preservation designated to remain with construction fencing.
 - Construct a stabilized entrance/parking/delivery area and install all perimeter sediment controls on the site.
 - Install and request the inspection of the preconstruction erosion and sediment control measures designated on the approved erosion and sediment control plan.
 - Land disturbance work shall not proceed until there is a satisfactory inspection.
 - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, placement of physical barriers or other means acceptable to the contractor and the City inspector.
- Erosion and sediment control devices protecting the public right-of-way shall be installed as soon as the right-of-way has been backfilled and graded.
- The contractor shall comply with all requirements of City Ordinances or State permit requirements, such as:
 - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
 - The contractor shall perform inspections of erosion and sediment control measures at least once every 14 days and within 24 hours following each rainfall event of 1/4" or more within any 24-hour period.
 - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The log shall be available for review by the City, the State of Missouri, or other authorities having jurisdiction.
- The contractor shall maintain installed erosion and sediment control devices on a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, tree preservation areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel. Failure to do so is a violation of the provisions of City Ordinances and State permit requirements.
- The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMP's in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.
- Concrete wash or rinsewater from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc., may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place and excess water evaporated or infiltrated into the ground.
- Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials store outside must be in closed and sealed water-proof containers and located outside of drainageways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.

MAINTENANCE: ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLANATION, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
- THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

STAGING CHART

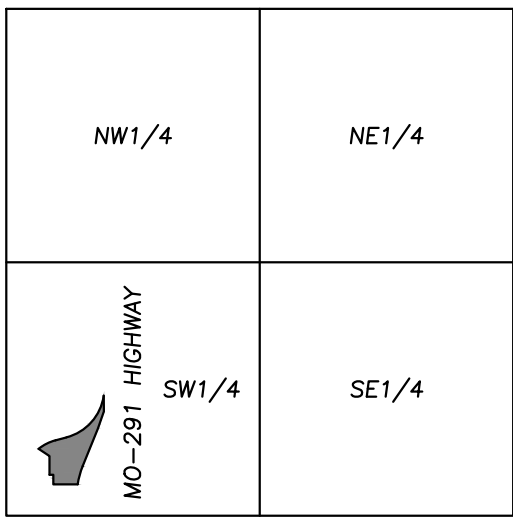
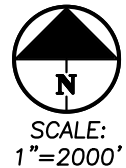
	Project Stage	Order	BMP Description	Remove after Stage:	Notes:
Phase I	A. Prior to Land Disturbance and During Construction.	①	Sediment Fence	C	Place downstream project site perimeter. (APWA ESC-10)
		②	Constr Entrance & Staging Area	C	Maintain during all construction. Include concrete washout. (APWA ESC-01)
		③	Inlet Protection at Existing Inlets	C	Install inlet protection. (APWA Details ESC-06 & ESC-07)
Phase II	B. Mass Grading & Utility Installation	④	Inlet Protection at Proposed Inlets	C	Install inlet protection. (APWA Details ESC-06 & ESC-07)
Phase III	C. Final Stabilization Prior to closure of Land Disturbance Permit		Final Stabilization	N/A	Final Stabilization of all disturbed areas.

Refer to Overall Grading Plan and Landscape Plan for final contours and final land cover.

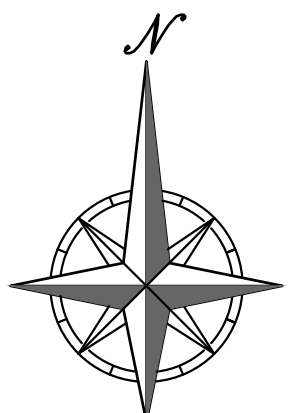
DISTURBED AREA = 2.7± ACRES

LEGEND

- STABILIZED ROCK ENTRANCE
- LIMITS OF DISTURBED AREA
- PROPOSED SILT FENCE
- CULVERT INLET PROTECTION



VICINITY MAP
SEC. 29-47-31

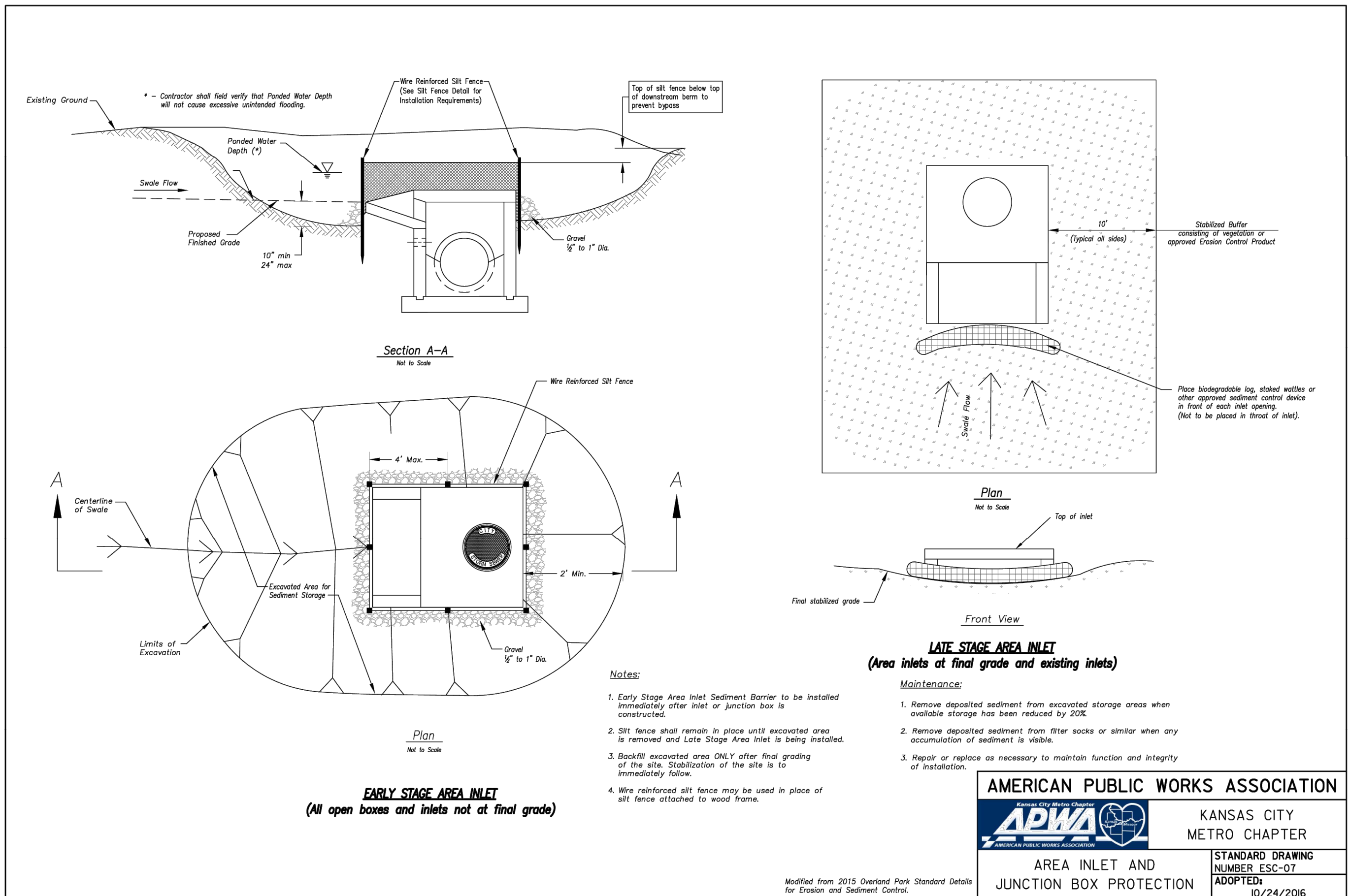
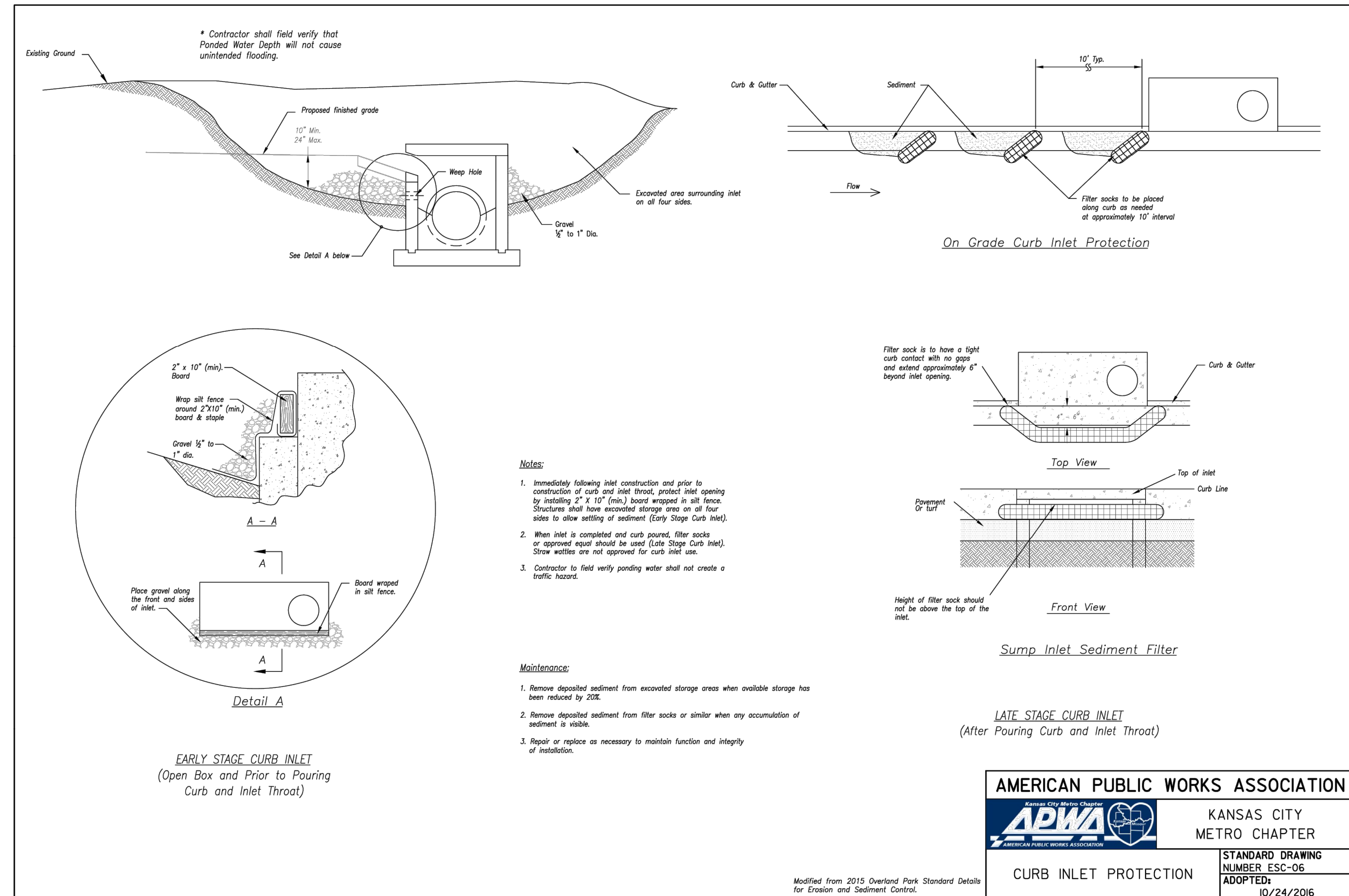
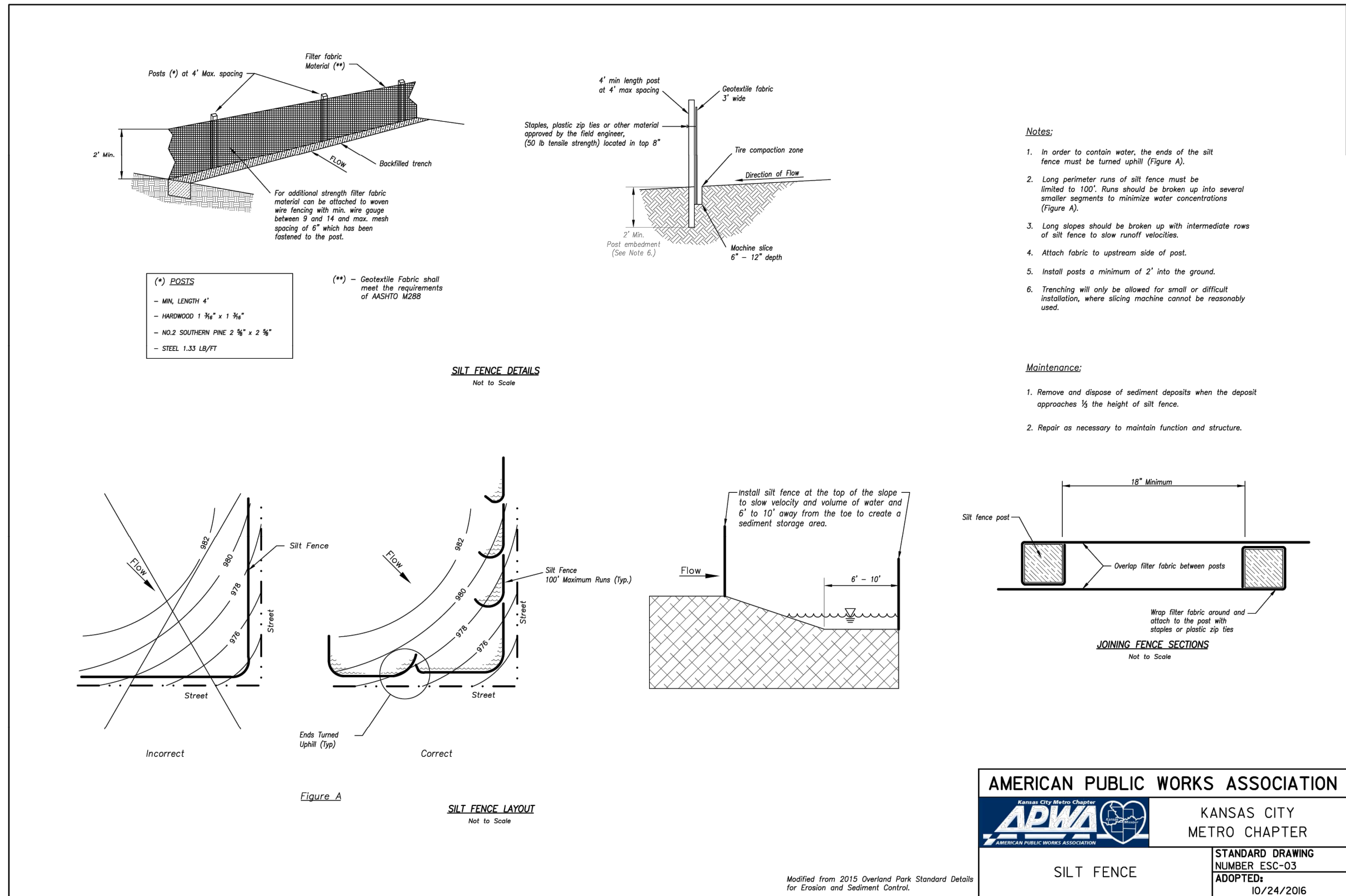
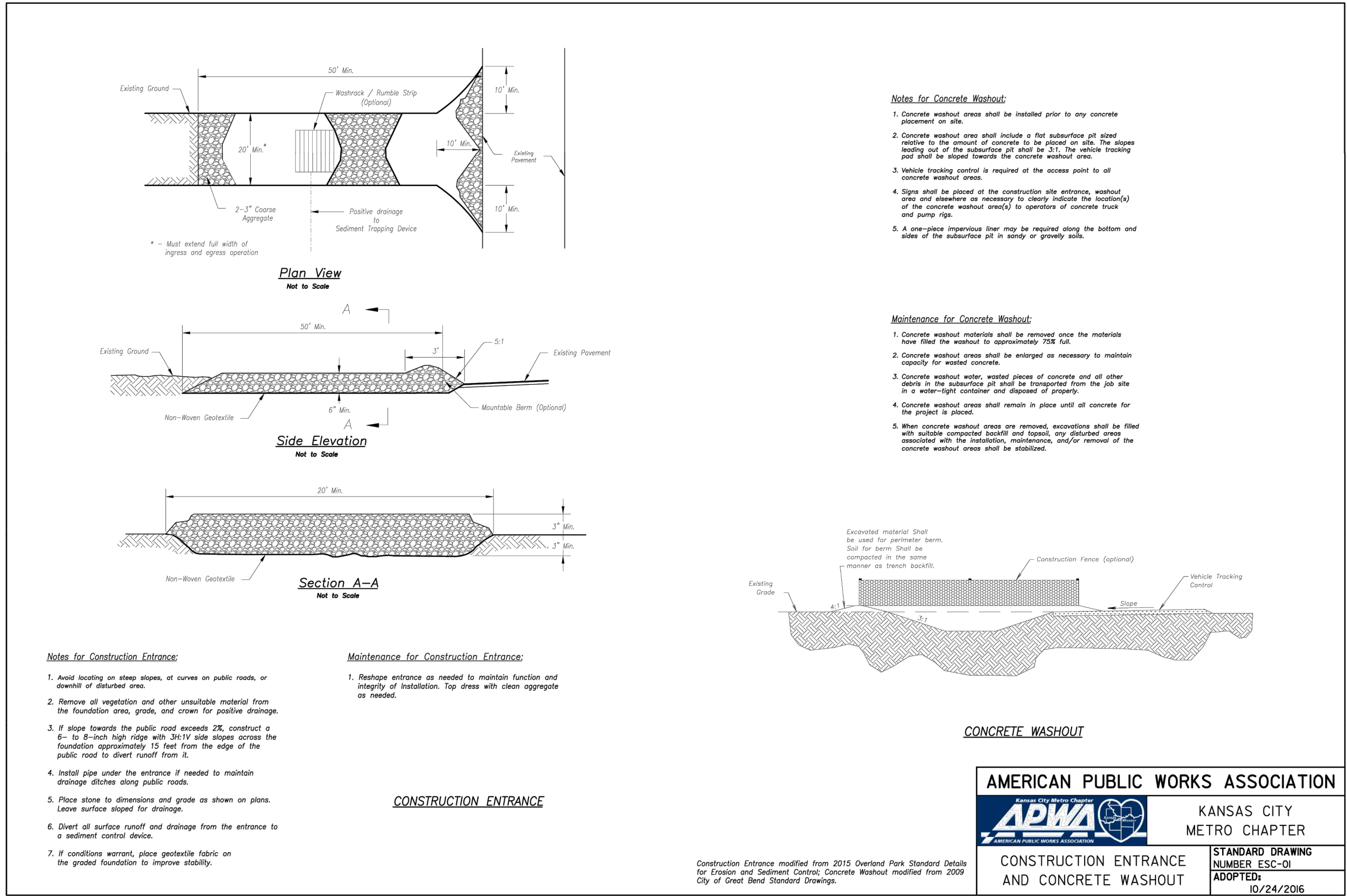


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date
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revisions
03-08-23 CITY COMMENTS
03-16-23 CITY COMMENTS

EROSION CONTROL PLAN

sheet number
C6
drawing type
PDP
project number
22185



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EROSION
DETAILS

sheet number

C6.1

drawing type
PDP

project number
22185

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Dowel size*			
Slab depth, in. (mm)	Dowel diameter, in. (mm)	Dowel embedment, in. (mm)	Total dowel length, in. (mm)†
5 (125)	5/8 (16)	5 (125)	12 (300)
6 (150)	3/4 (19)	6 (150)	14 (360)
7 (180)	7/8 (22)	6 (150)	14 (360)
8 (200)	1 (25)	6 (150)	14 (360)
9 (230)	1-1/8 (29)	7 (180)	16 (400)

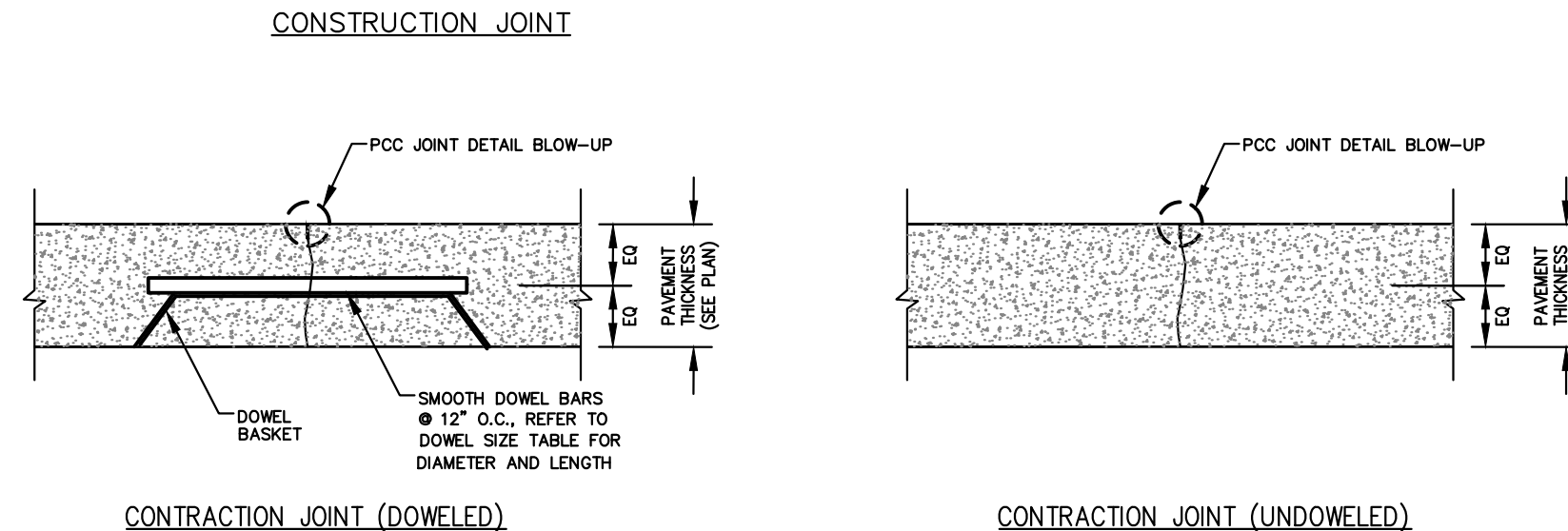
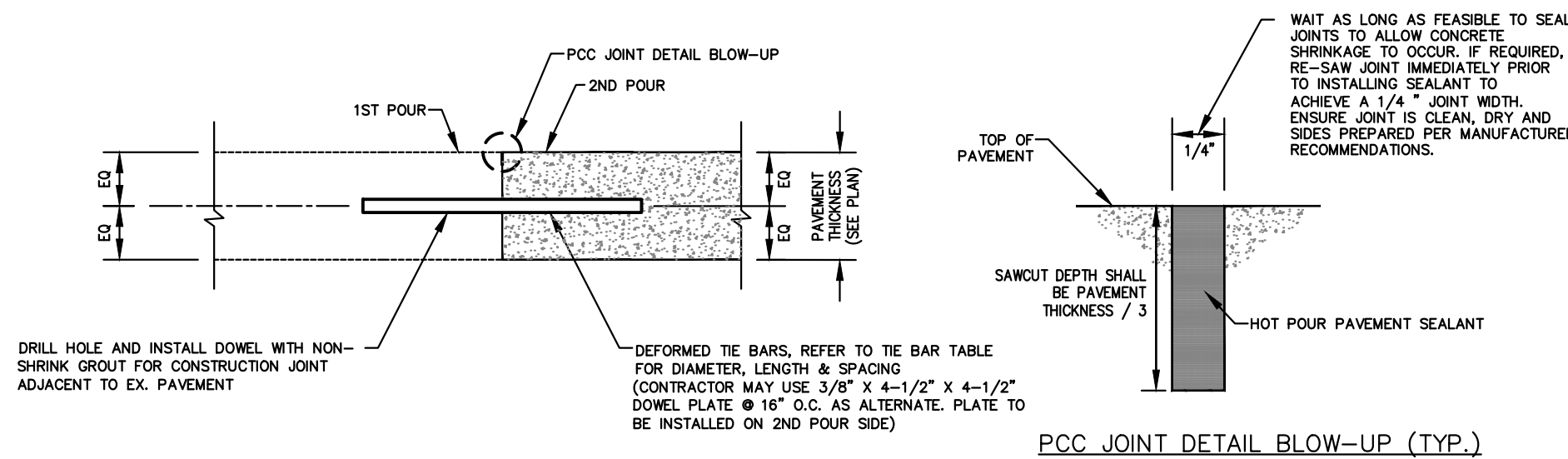
*All dowels spaced at 12 in. (300 mm) centers.

†On each side of joint.

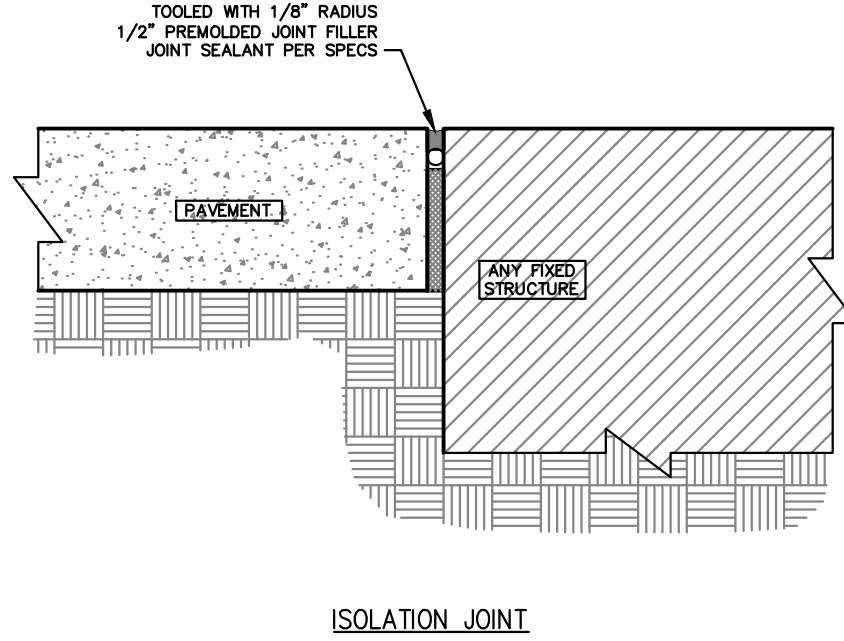
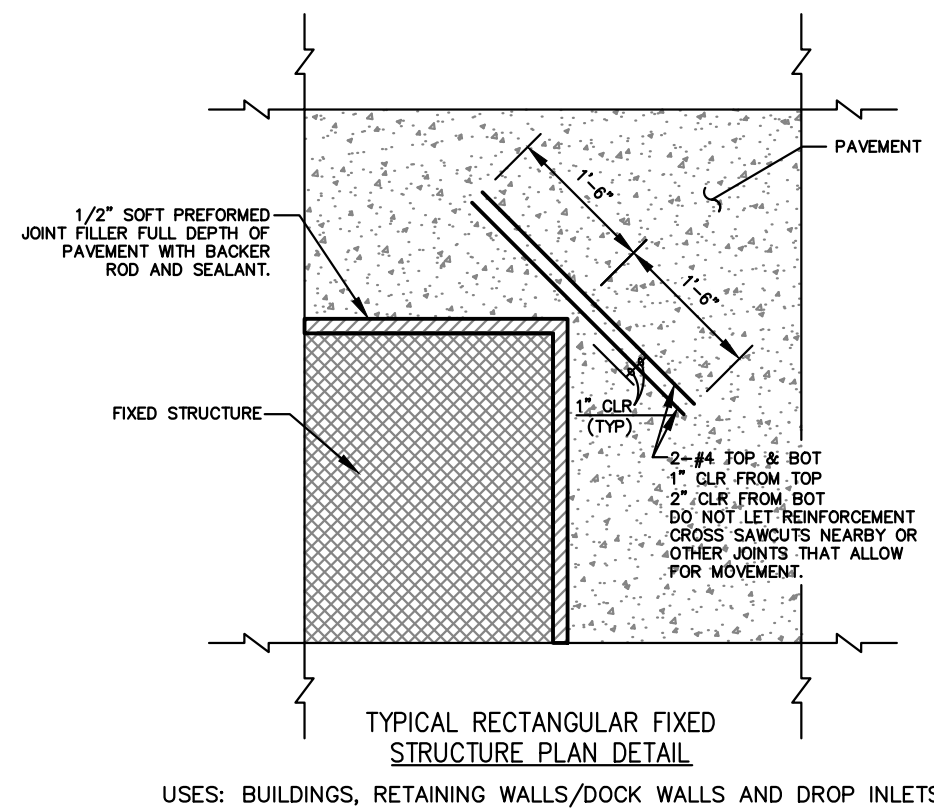
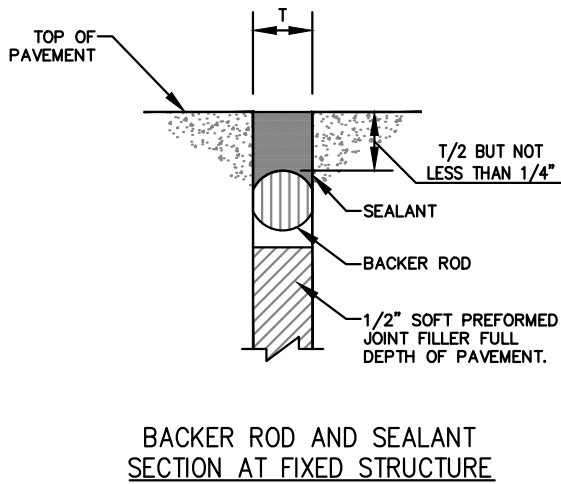
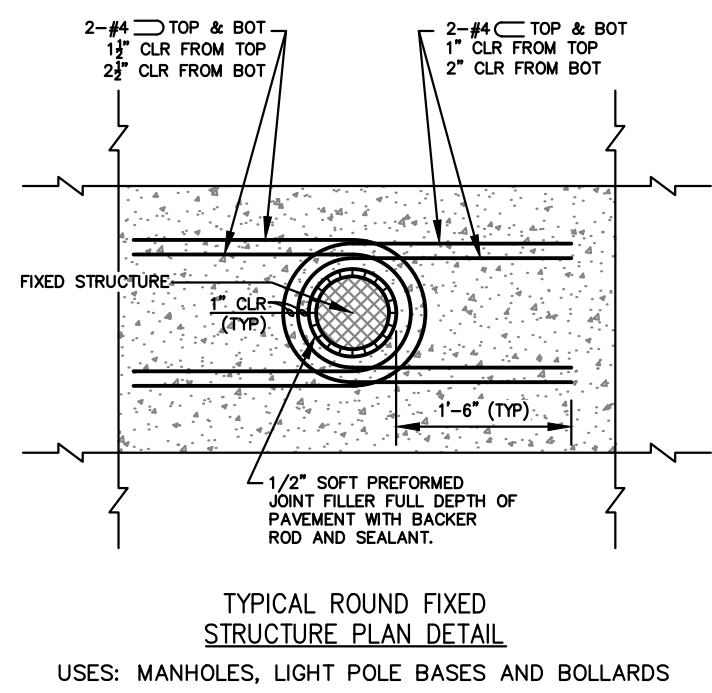
‡Allowance made for joint openings and for minor errors in positioning dowels.

Tie bar dimensions

Slab depth, in. (mm)	Tiebar size, in. (mm)	Tiebar spacing			
		Distance to nearest free edge or to nearest joint where movement can occur			
		10 ft. in. (mm)	12 ft. in. (mm)	14 ft. in. (mm)	24 ft. in. (mm)
5 (125)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	28 (710)
5-1/2 (140)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	25 (630)
6 (150)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	23 (580)
6-1/2 (165)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	21 (530)
7 (180)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	20 (510)
7-1/2 (190)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	18 (460)
8 (200)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	28 (710)	17 (430)
8-1/2 (215)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	36 (910)	16 (410)
9 (230)	1/2 x 30 (13 x 760)	36 (910)	36 (910)	---	24 (610)

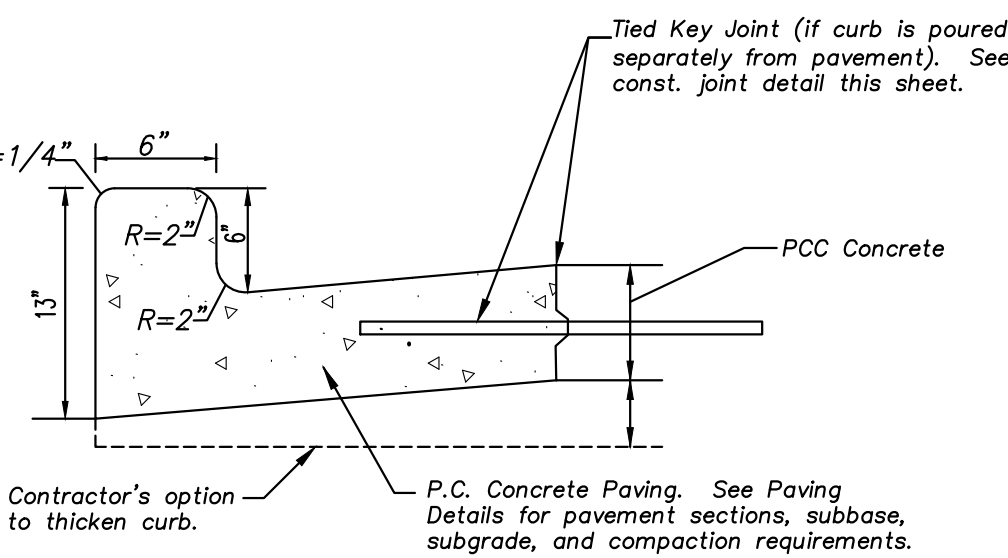
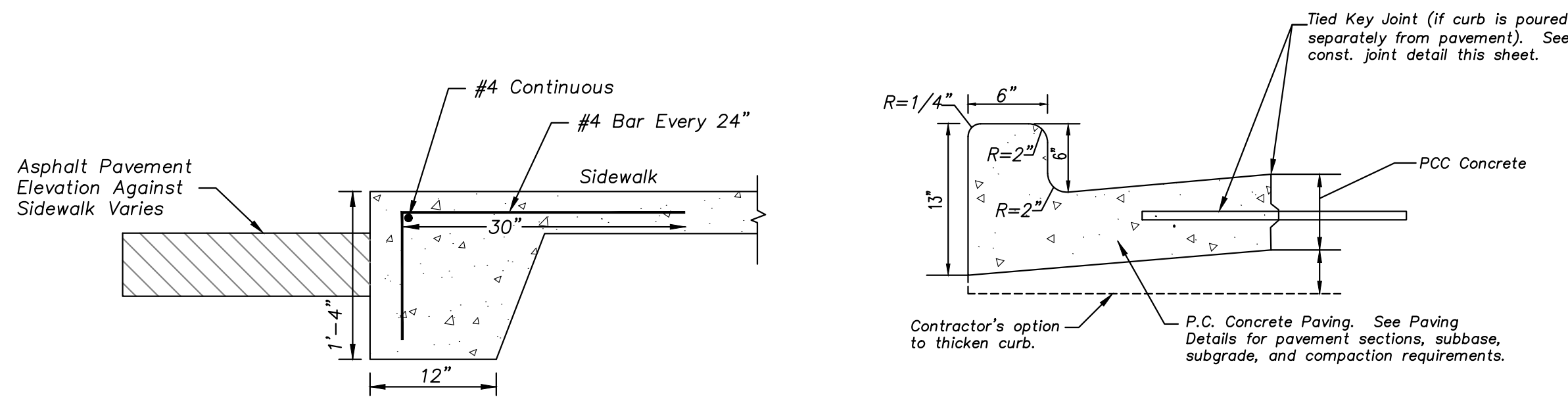


CONCRETE JOINT DETAILS
SCALE: N.T.S.



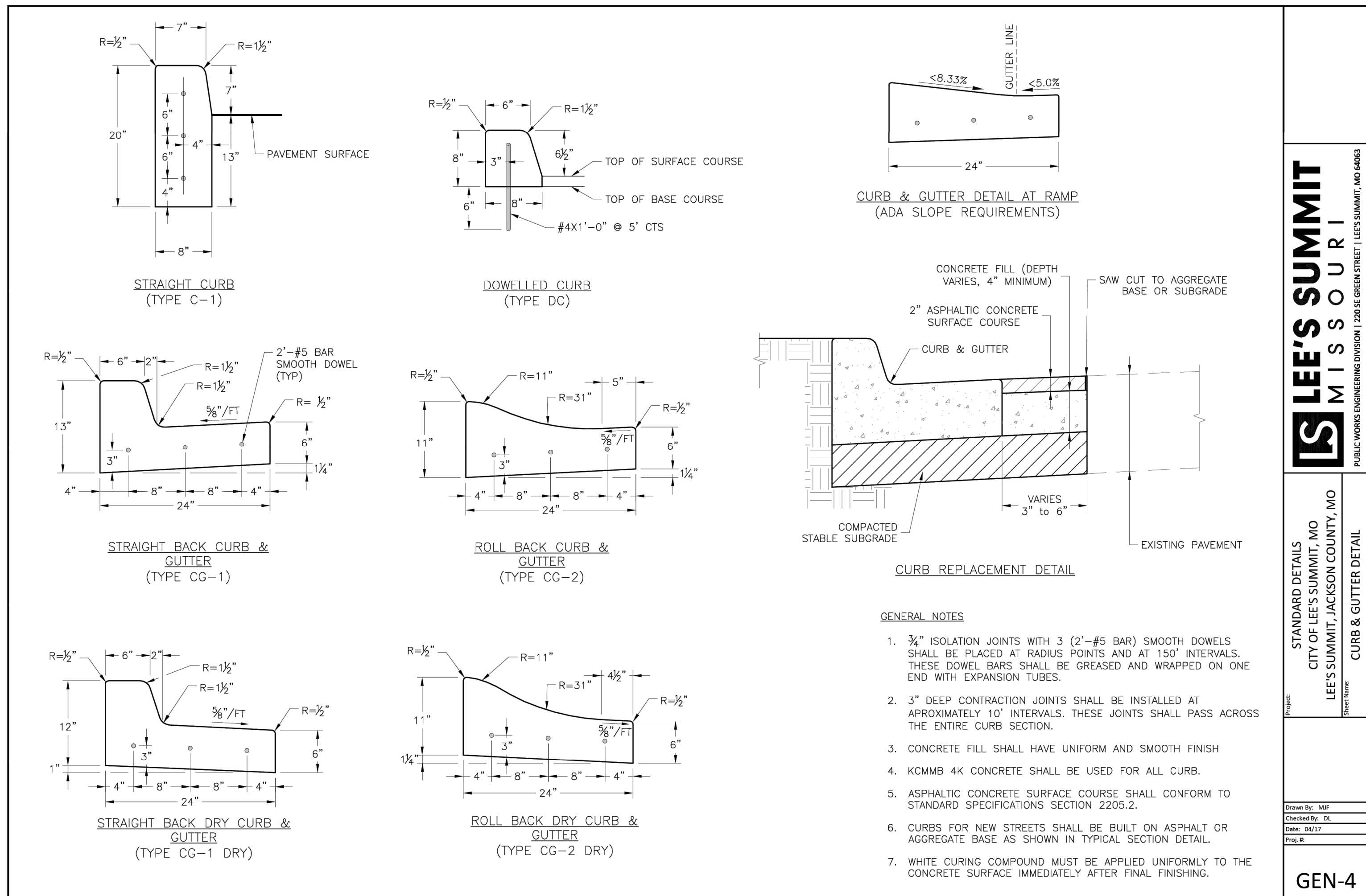
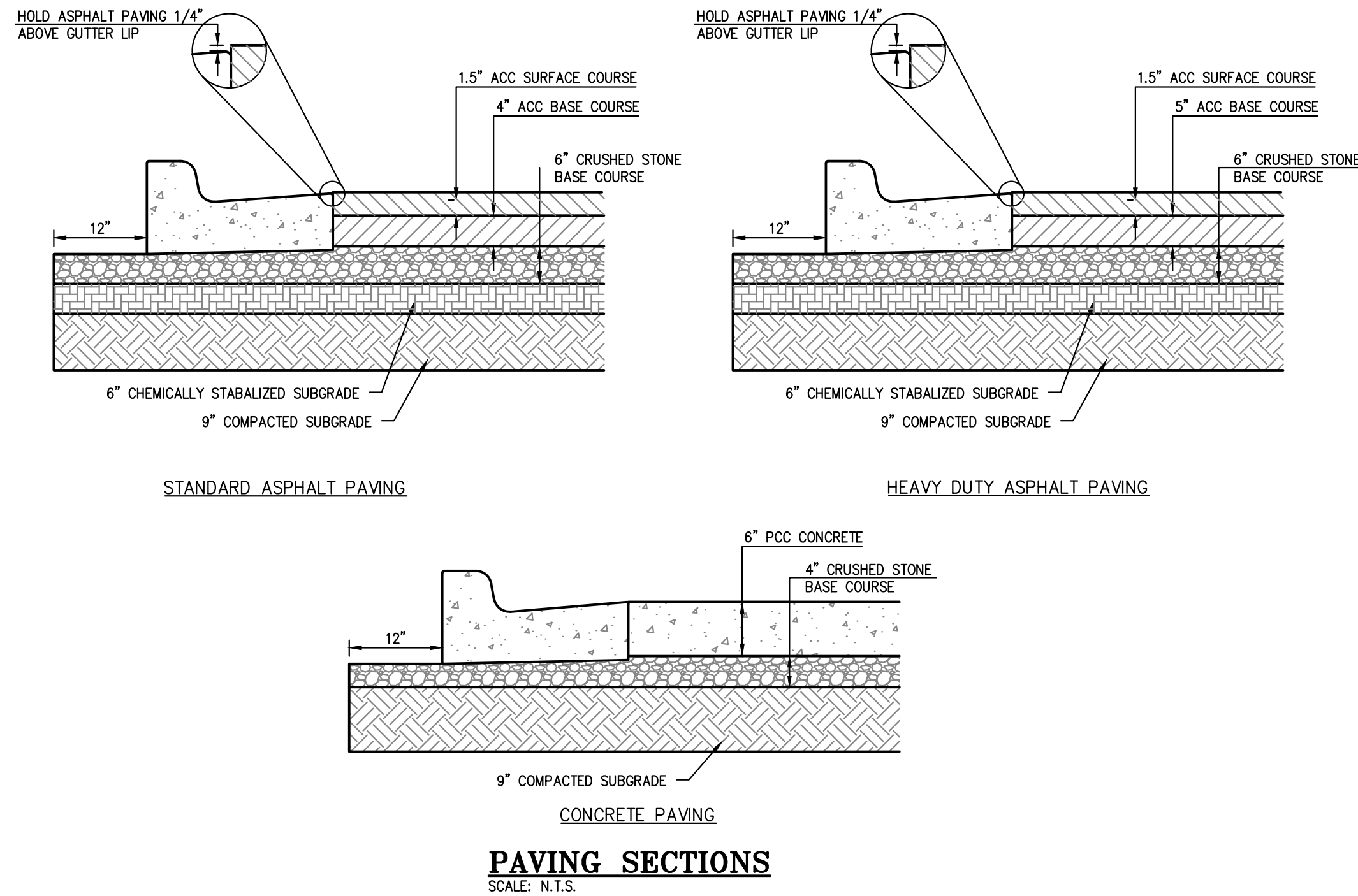
NOTES:
ISOLATION JOINT TO BE USED FOR FIXED STRUCTURES SUCH AS BUILDINGS, RETAINING WALLS/DOCK WALLS, DROP INLETS, MANHOLES, LIGHT POLE BASES AND BOLLARDS.
PAVEMENT IS NOT CONSIDERED A FIXED STRUCTURE.

ISOLATION JOINT DETAILS
SCALE: N.T.S.



GENERAL PAVING NOTES:

- 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 LOOSE 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 - 4/- 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).
- 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.
- CRUSHED STONE BASE COURSE USED BENEATH CONCRETE PAVING SHALL BE COMPACTED KDOT AB-3 OR EQUIVALENT.
- 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.
- 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.
- THE CONTRACTOR SHALL PROVIDE A TACK COAT BETWEEN LIFTS OF ASPHALT.
- 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.
- IN NEW PAVEMENT AREAS, CONTRACTOR SHALL OVER EXCAVATE AS REQUIRED TO ESTABLISH NEW COMPACTED SUBGRADE ELEVATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL PAVEMENT AND SUBGRADE MATERIALS TESTING.



LEE'S SUMMIT
MISSOURI

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

CURB & GUTTER DETAIL

GEN-4



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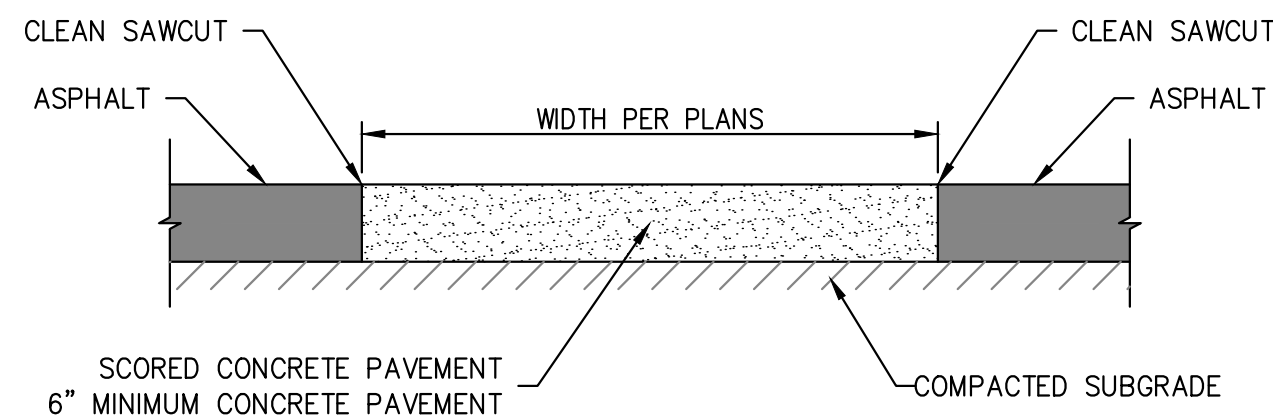


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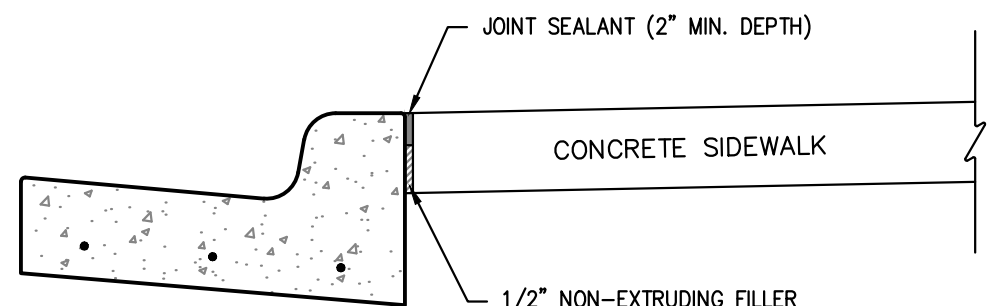
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sheet number
C7
drawing type
PDP
project number
22185

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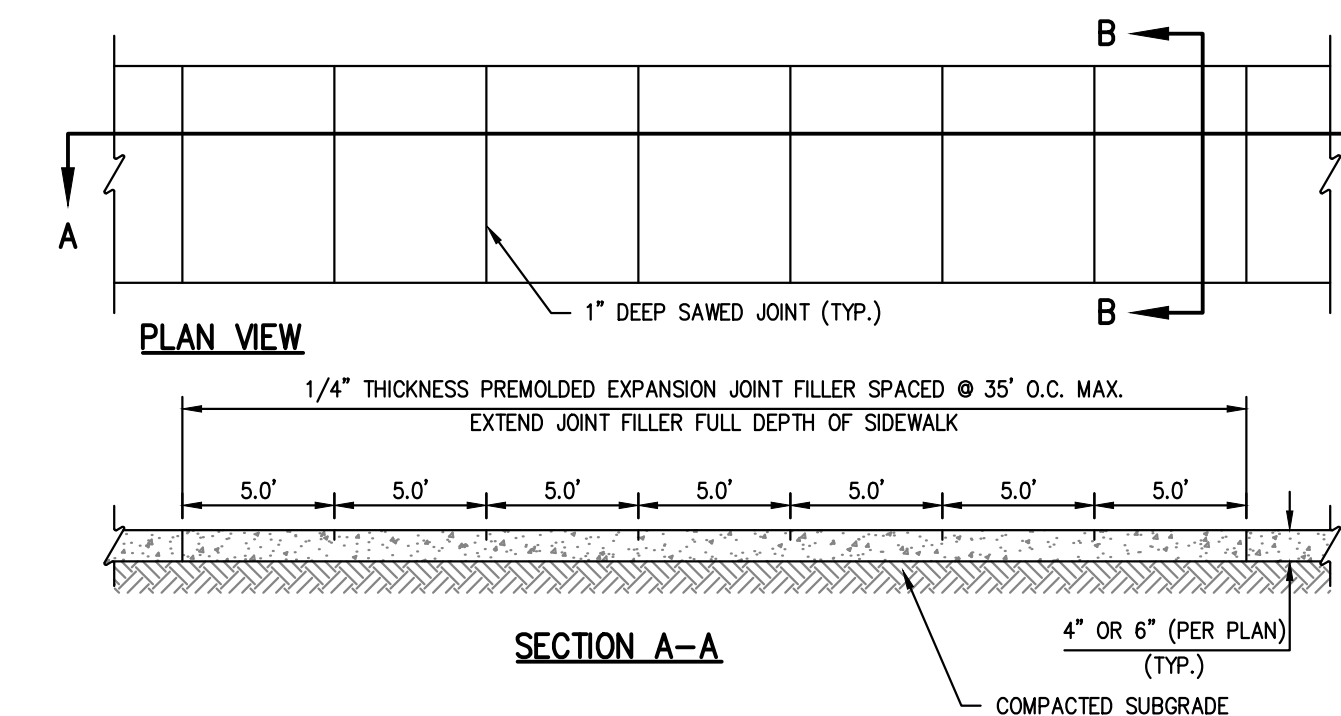
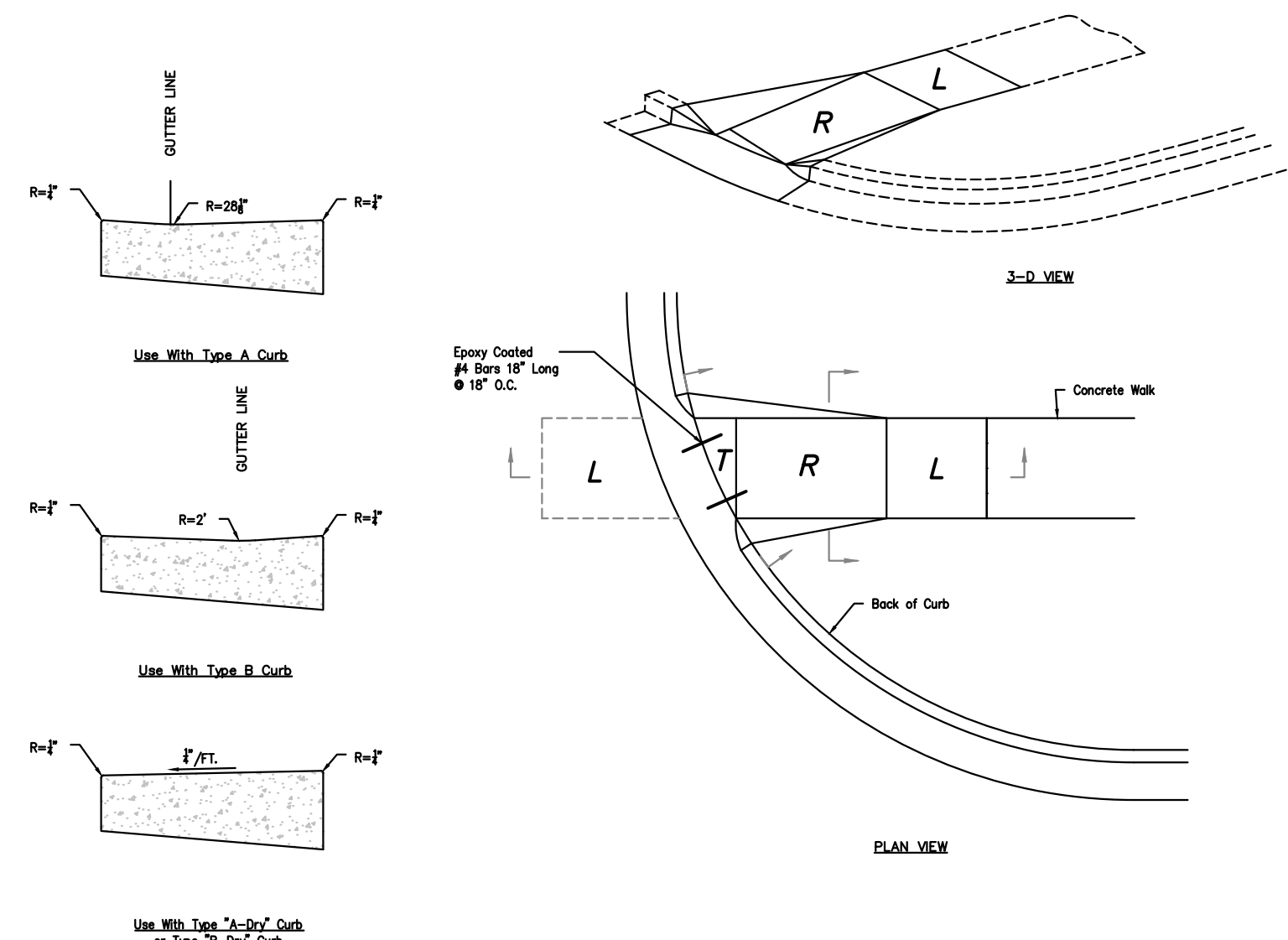
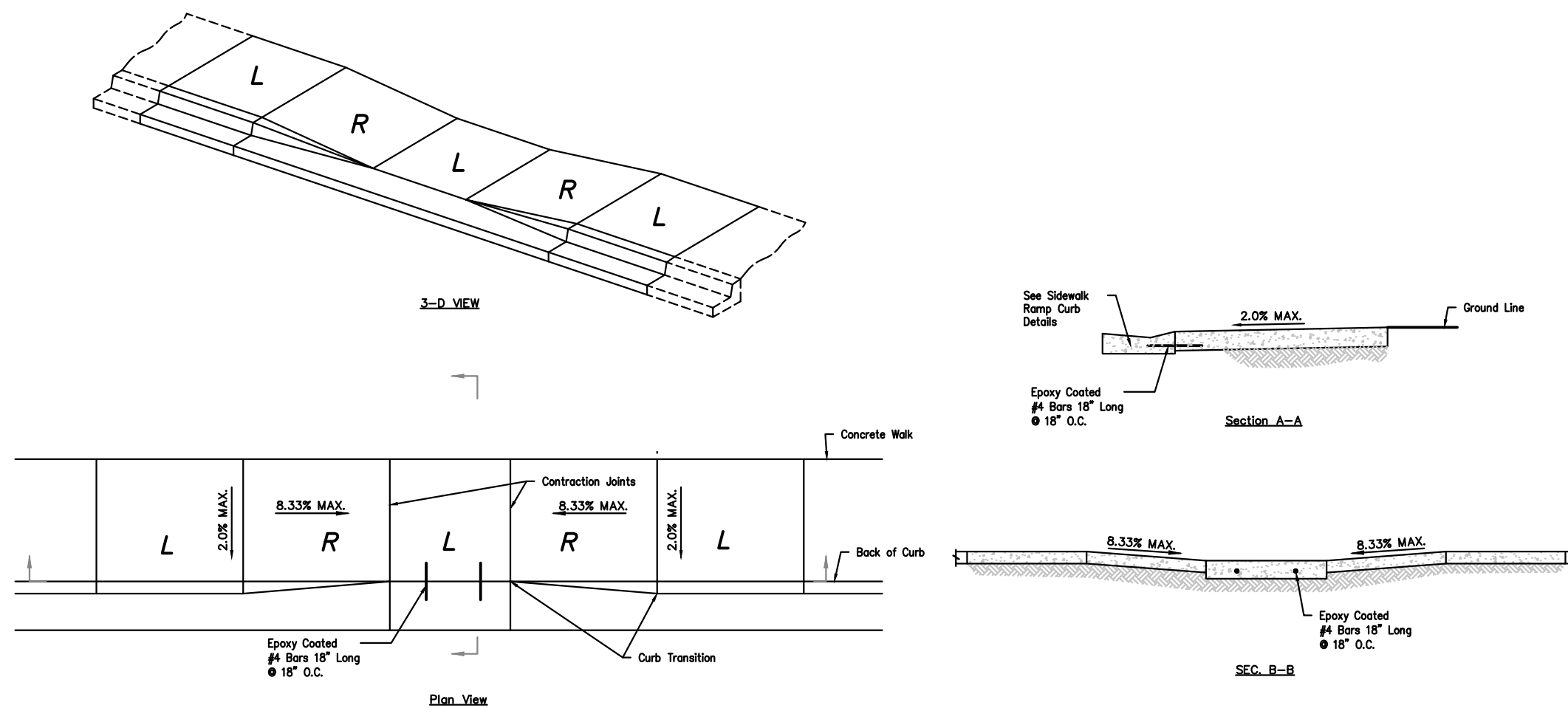


CROSSWALK DETAIL
SCALE: N.T.S.



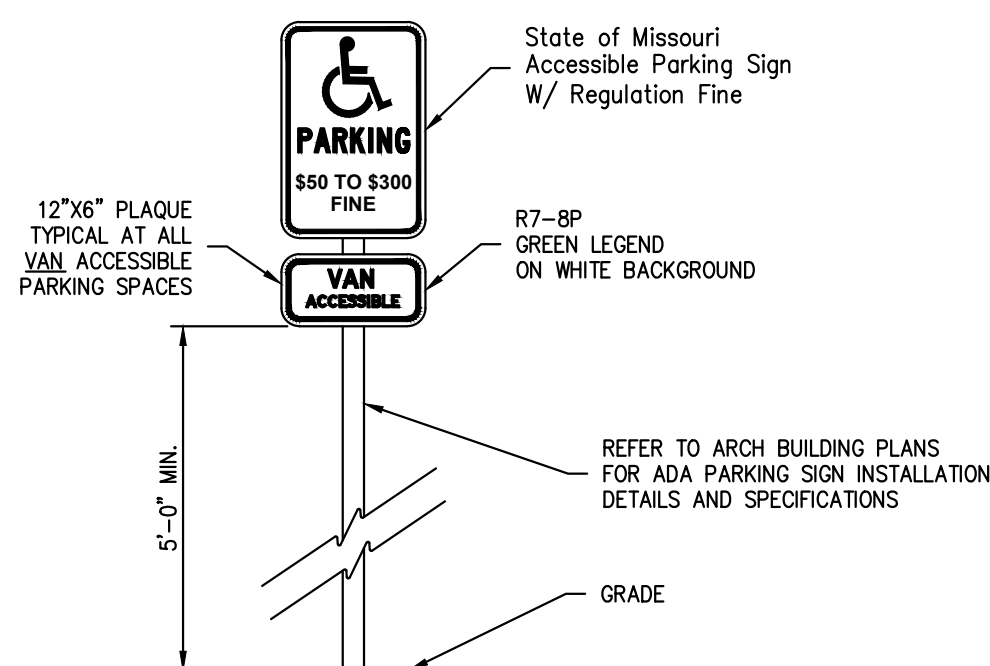
ALL OTHER DETAILS SAME AS SHOWN PER THIS SHEET.

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

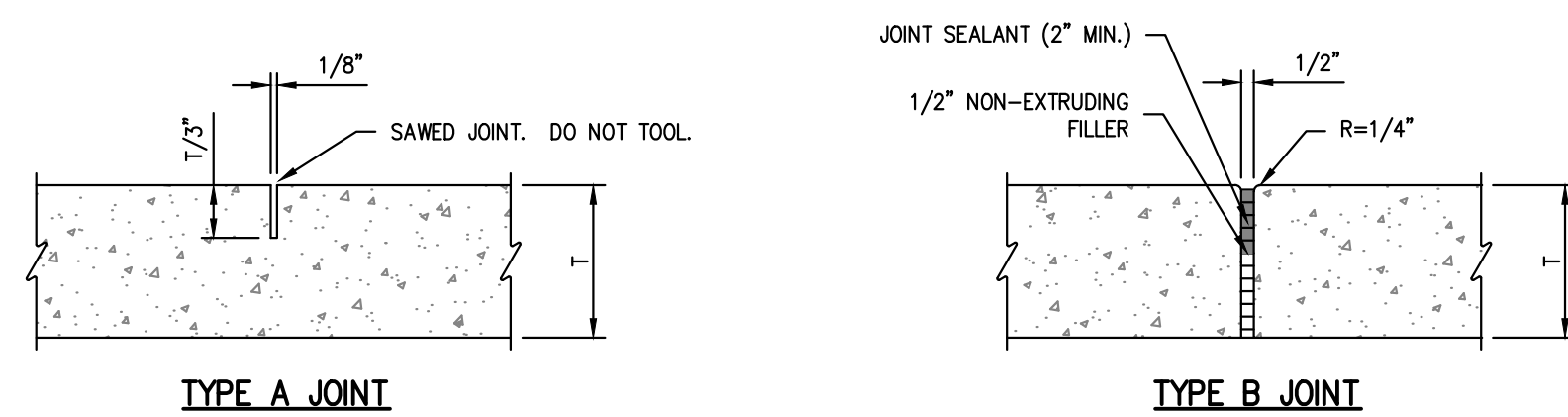


NOTE: 1. USE KANSAS CITY MATERIALS METRO BOARD (KCMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE FOR ALL PRIVATE SIDEWALKS.

PRIVATE CONCRETE SIDEWALKS (NON REINFORCED)
SCALE: N.T.S.

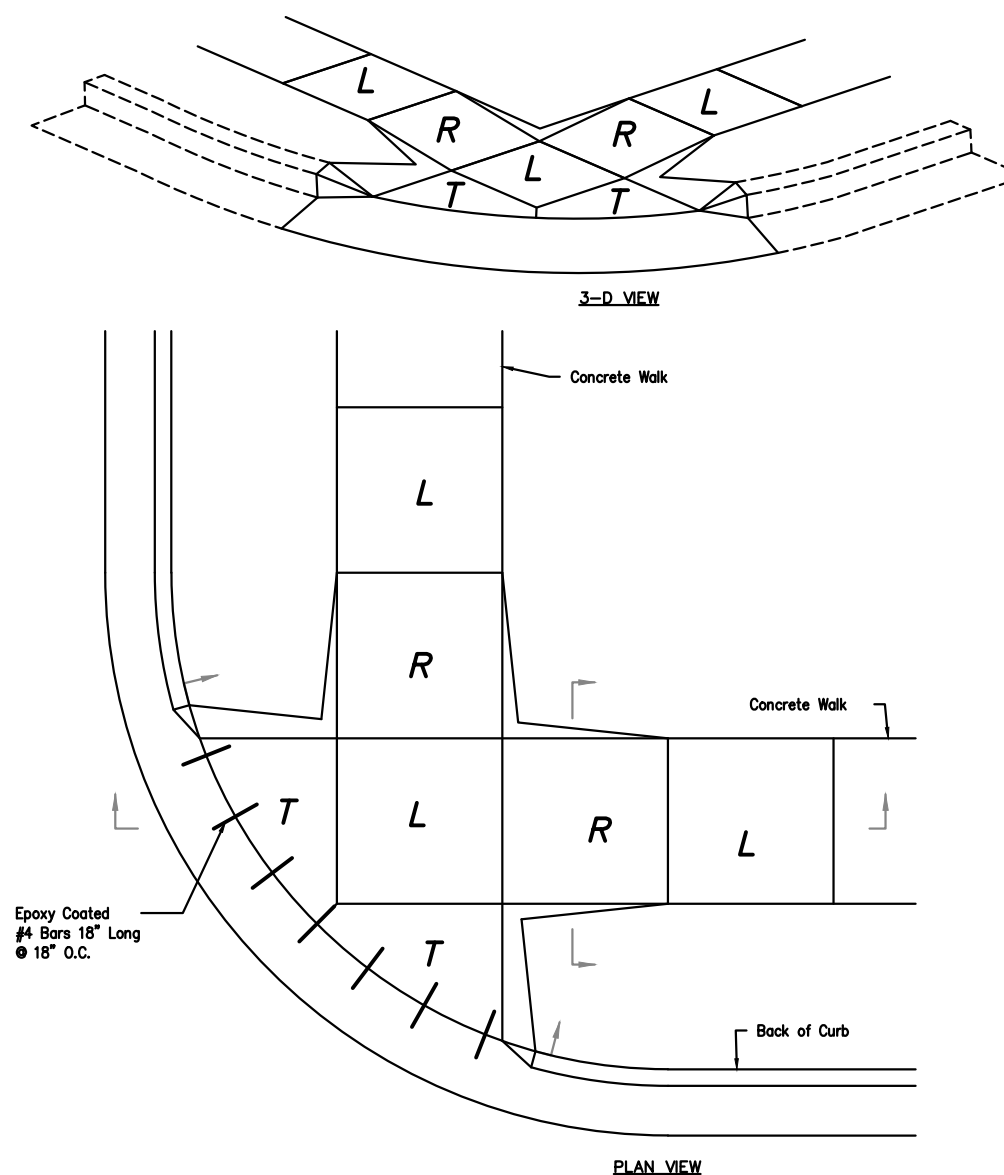
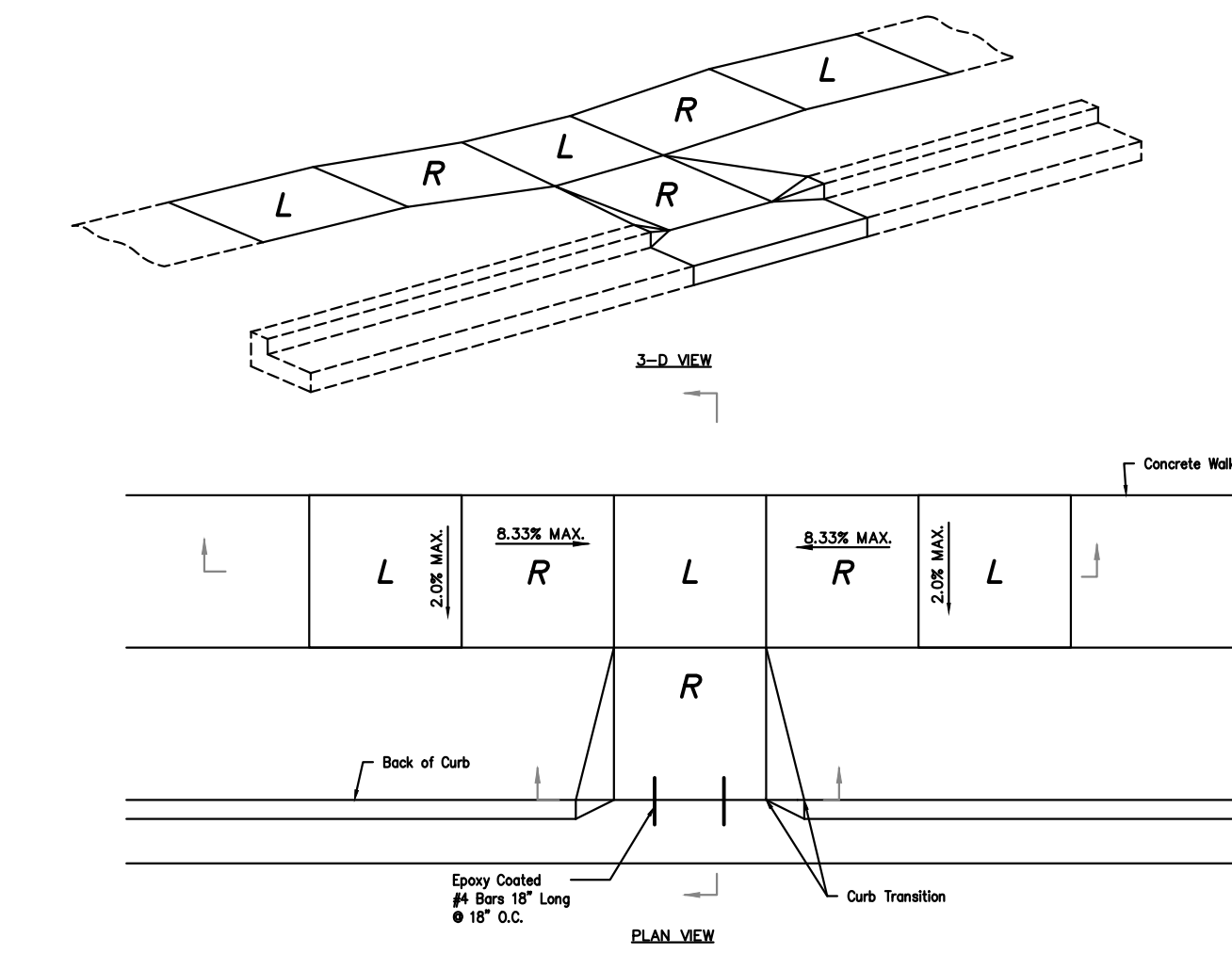


ACCESSIBLE SIGN DETAIL
SCALE: N.T.S.



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

CONCRETE SIDEWALK JOINT DETAILS
SCALE: N.T.S.

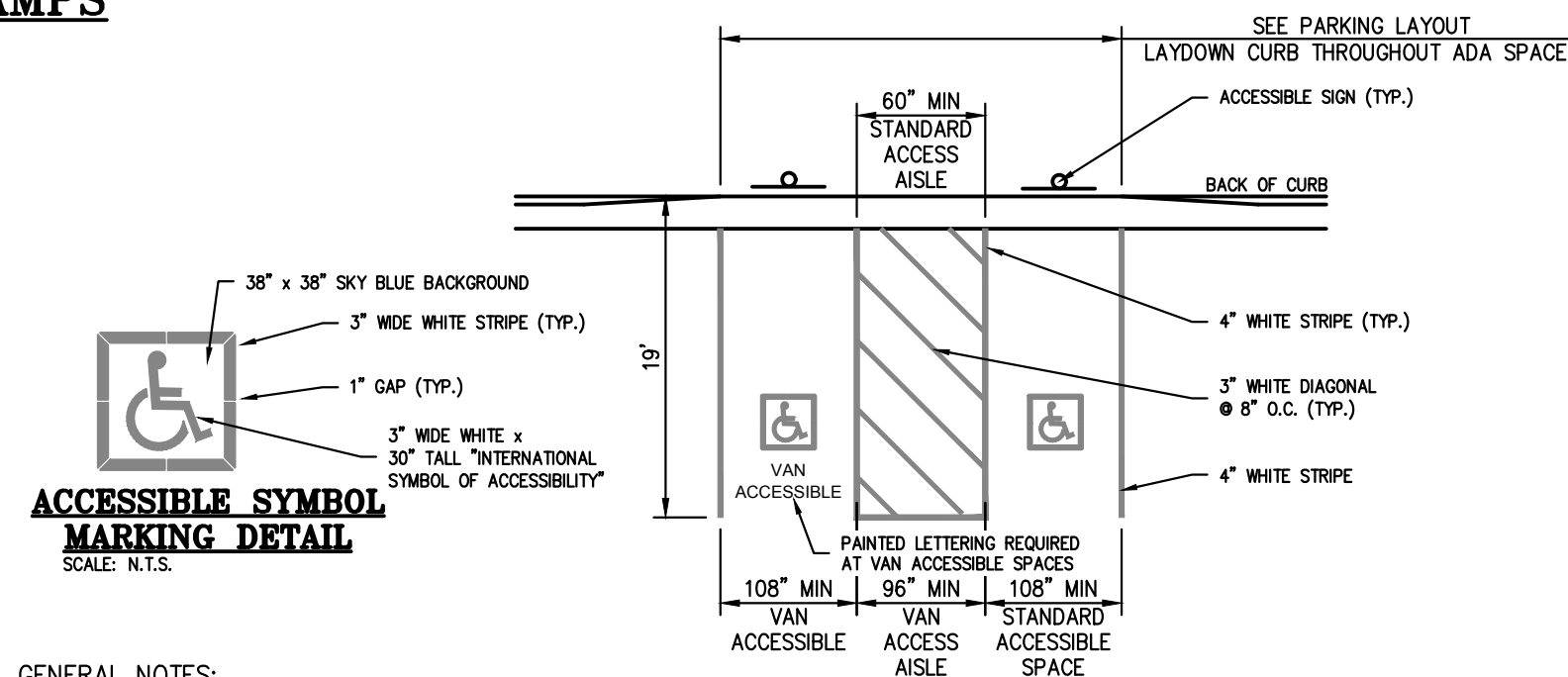


L = LANDING
R = RAMP
T = TRANSITION

RAMP (Required to transition elevation): Max. Longitudinal Slope = 8.33%
Max. Cross Slope = 2.00%
Min. Width = 5'
Min. Length = 5'

LANDING (Required to change direction of travel): Max. Longitudinal Slope = 2.00%
Max. Cross Slope = 2.00%
Min. Width = 5'

PRIVATE SIDEWALK RAMPS
SCALE: N.T.S.



GENERAL NOTES:

- ALL PAVEMENT MARKINGS SHALL BE APPLIED BY A QUALIFIED CONTRACTOR HAVING A MINIMUM 3 YEARS EXPERIENCE IN TRAFFIC GRADE PAVEMENT MARKING APPLICATIONS.
- PAINT SHALL BE A NON-BLEEDING, QUICK-DRYING, ALKYL PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC-BEARING SURFACE AND SHALL MEET ITS TYP-BSE & MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION.
- SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL & DUST.
- APPLY TWO (2) COATS OF PAINT AT MANUFACTURER RECOMMENDED RATE WITHOUT THE ADDITION OF THINNER, WITH A MAXIMUM OF 100 SQUARE FEET PER GALLON. APPLY WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. AT SIDEWALK, CURBS, AND CROSSWALKS USE A STRAIGHTEDGE TO ENSURE A UNIFORM, CLEAN, & STRAIGHT STROKE.
- THE FOLLOWING ITEMS SHALL BE PAINTED WITH THE COLORS NOTED BELOW:
A. HANDICAP SYMBOLS: SEE DETAIL THIS SHEET.
B. PARKING STALL STRIPING: WHITE.
- ACCESSIBLE PARKING SPACE DESIGN LAYOUT SHALL BE IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- SEE SITE PLANS FOR COMPLETE PARKING LAYOUT.

ACCESSIBLE PARKING SPACE DETAIL
SCALE: N.T.S.

date

drawn by

checked by

revisions

**STANDARD
DETAILS**

sheet number

C7.1

drawing type
PDP

project number
22185

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

Motor

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

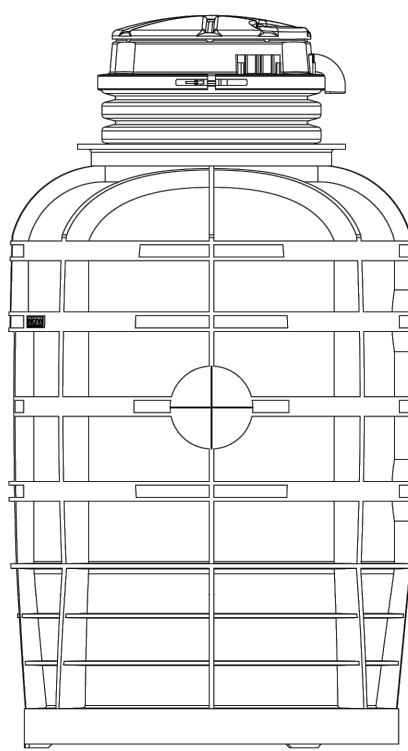
15 gpm at 0 psig (0.95 lps at 0 m)
11 gpm at 40 psig (0.69 lps at 28 m)
7.8 gpm at 80 psig (0.49 lps at 56 m)

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.

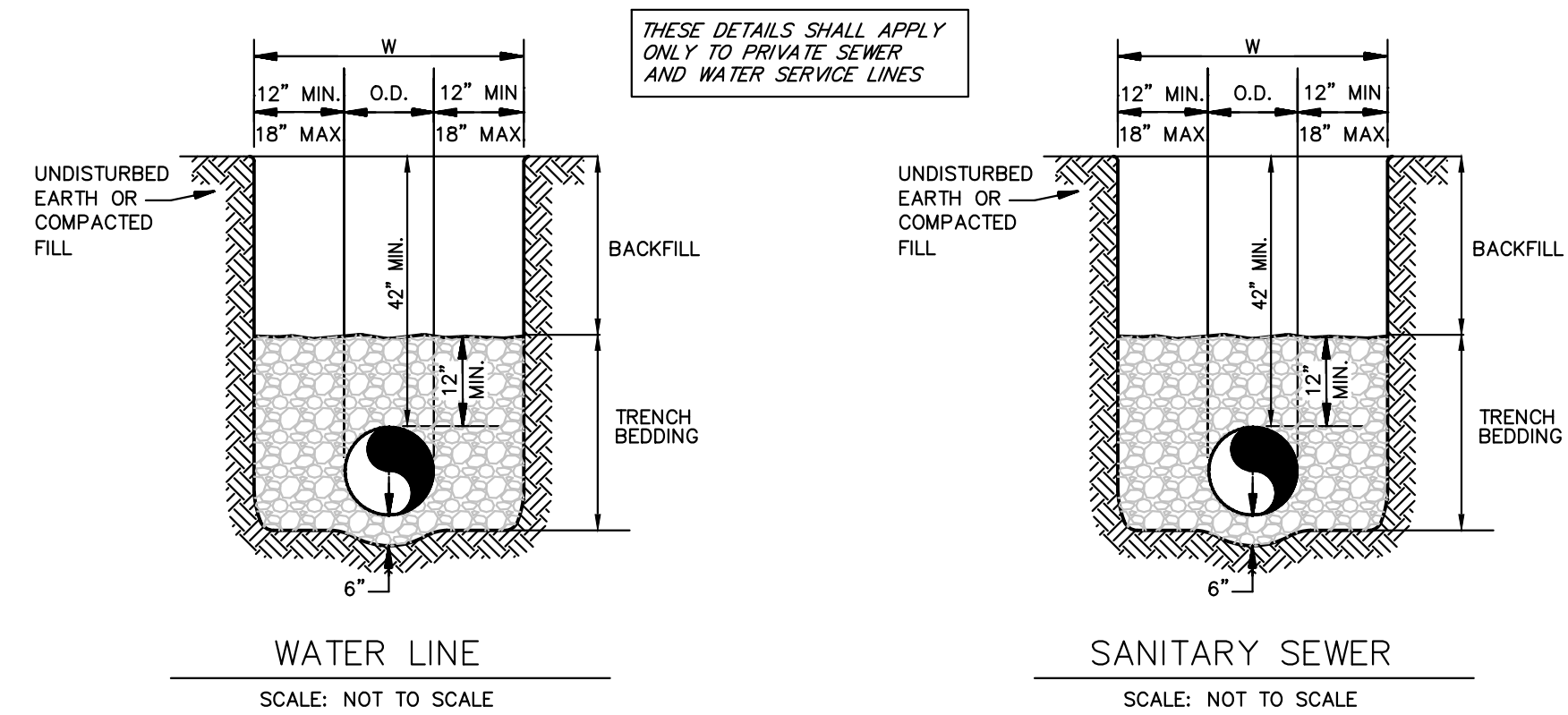
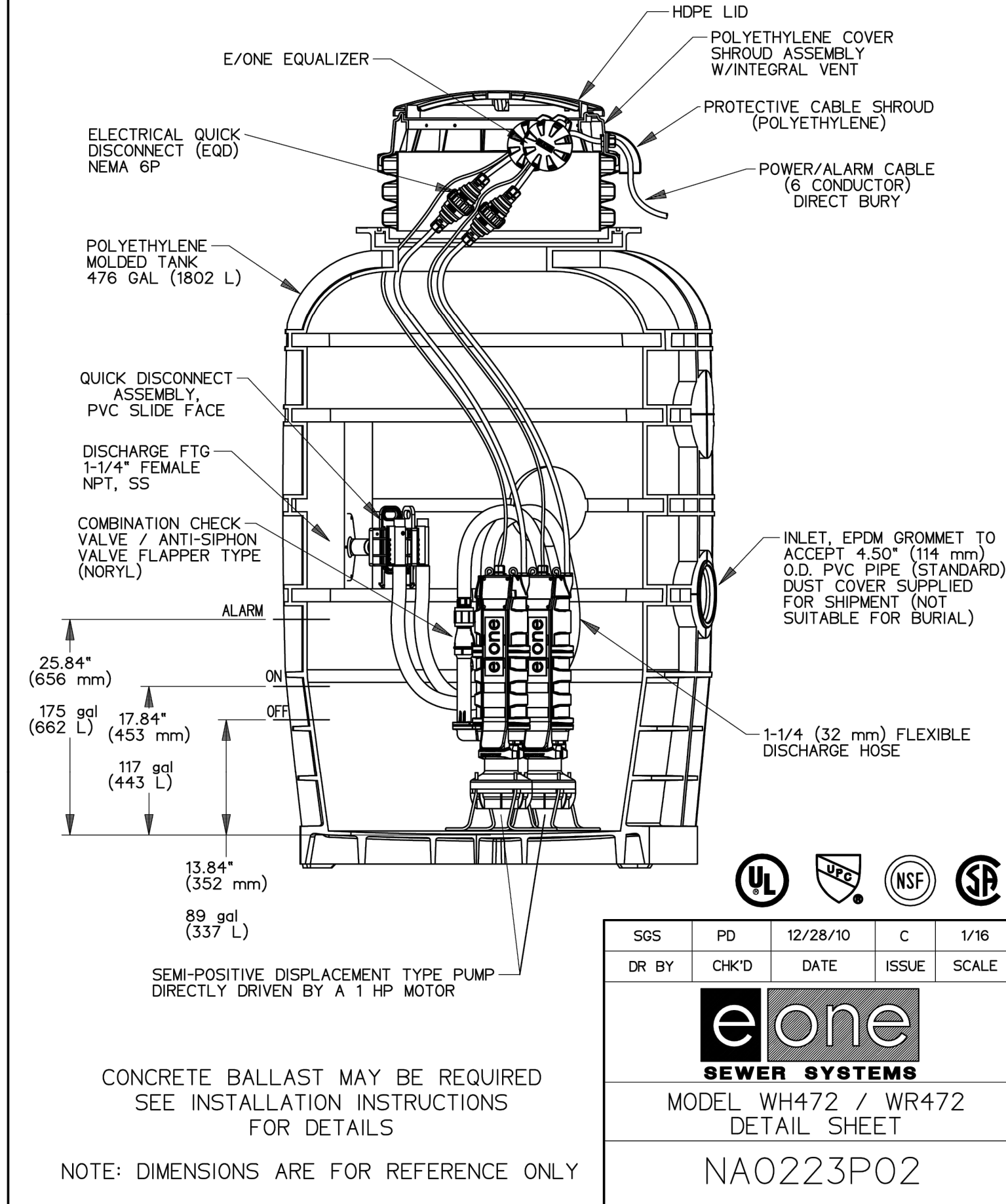
Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

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



NA0223P01 Rev E

OPTIONS : ☐ WH472 (HARD WIRED LEVEL CONTROLS)
☐ WR472 (WIRELESS LEVEL CONTROLS)



REQUIREMENTS PER APWA 2100 AS FOLLOWS:

Sanitary Sewer Bedding Material Gradation Limits (% Passing)		
Sieve Size	3/4"	3/8"
1"	100	100
3/4"	90 - 100	20 - 55
No. 4	0 - 5	0 - 2
No. 8	0 - 2	0 - 2

Storm Sewer Bedding Material Gradation Limits (% Passing)			
Sieve Size	3/4"	1/2"	3/8"
1"	100	100	100
3/4"	90 - 100	80 - 100	20 - 55
1/2"	20 - 55	40 - 77	100
No. 4	0 - 10	0 - 15	30 - 40
No. 8	0 - 5	0 - 5	0 - 4

Waterline Bedding Material Gradation (% Passing)				
Sieve Size	Type 1 (1/2")	Type 2 (Buckshot)	Type 3 (Man. Sand)	Type 4 (River Sand)
3/4"	95 - 100	100	90 - 100	100
1/2"	40 - 60	100	85 - 90	100
No. 4	0 - 5	0 - 15	10 - 25	35 - 75
No. 8	0 - 5	0 - 15	10 - 25	35 - 75
No. 50	0	0	0 - 10	0 - 10
No. 200	0	0	0 - 10	0 - 10

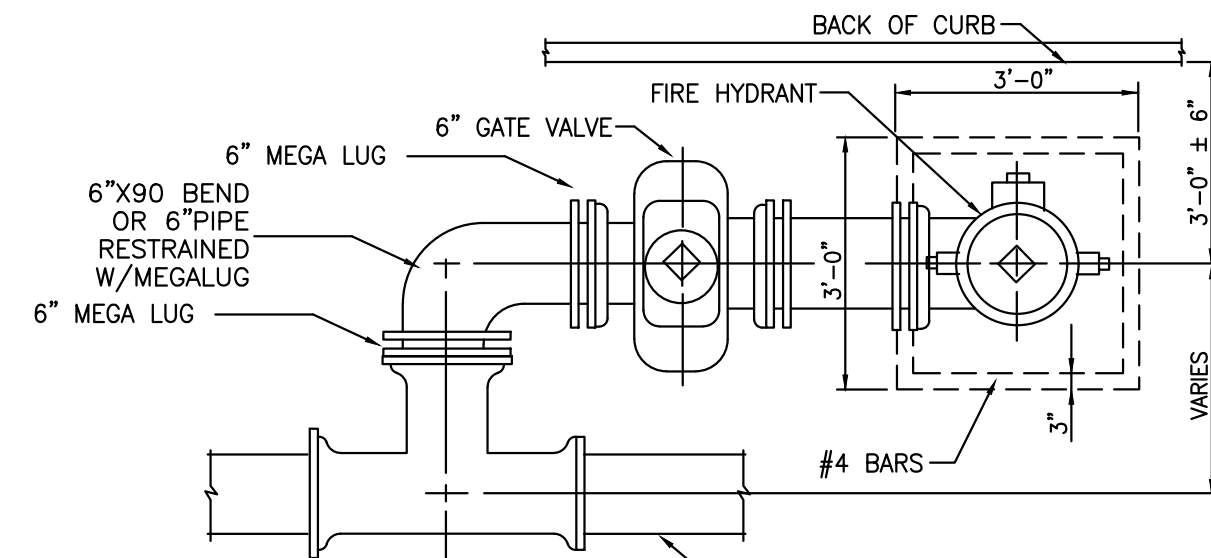
Trench Backfill

- Backfill shall not be placed when material contains frost, is frozen, or a blanket of snow prevents proper compaction.
- The Contractor shall remove from the project site waste material, trees, organic material, rubbish, or other deleterious materials.
- 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 or structures.
- 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.

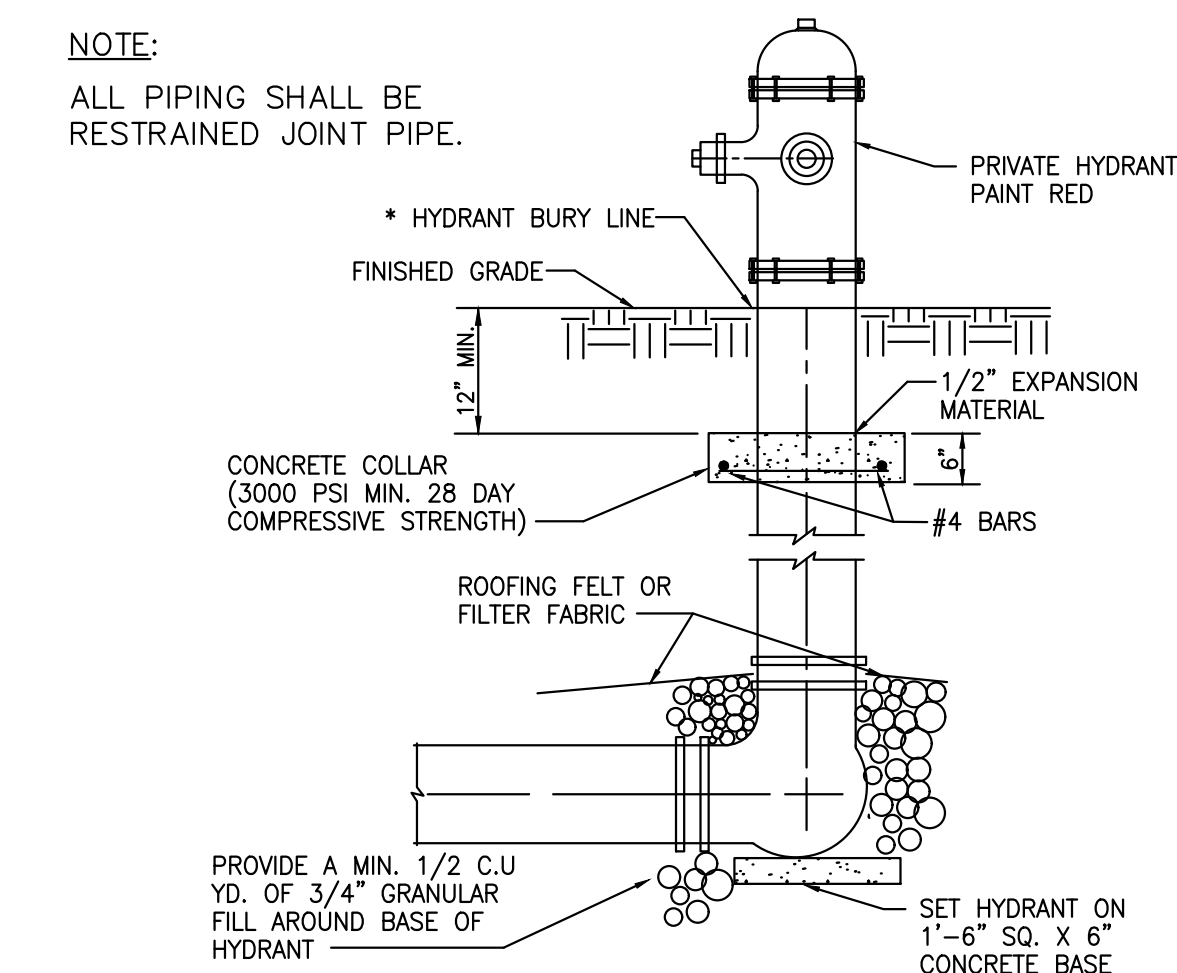
Pipe Embedment: All water, sanitary sewer, and storm sewer pipe shall be bedded in bedding aggregate as specified herein.

- 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 through 3.
- 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 recommendations.
- 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 spaced to be placed under haunches and compacted at the springline elevation prior to placing additional bedding material.
- The third layer of bedding material shall be placed to 12 inches over the top of pipe.
- 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

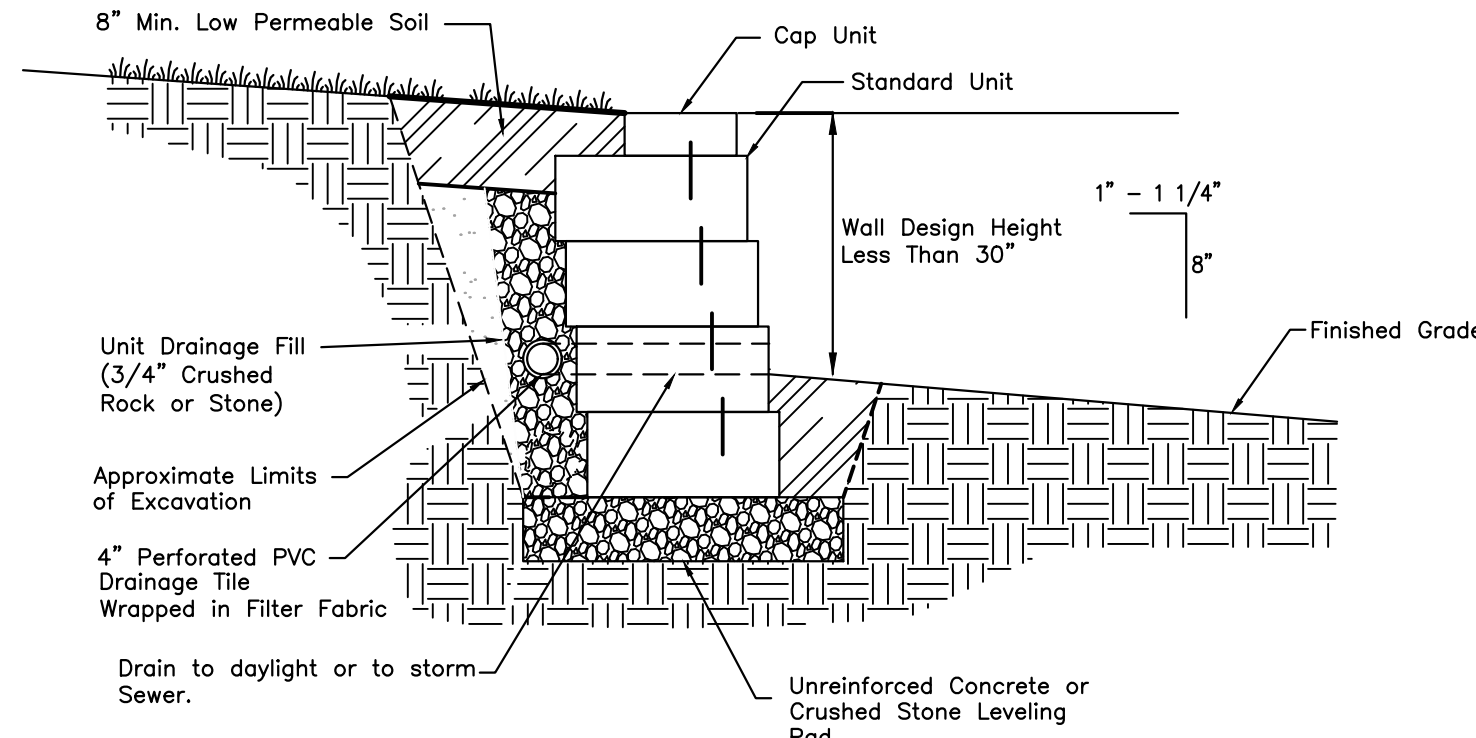


NOTE:
ALL PIPING SHALL BE RESTRAINED JOINT PIPE.



NOTE:
WHEN FIRE HYDRANT'S GATE VALVE EXCEEDS THE DISTANCE OF 5'-0" FROM CENTER OF GATE VALE TO CENTERLINE OF TEE, GATE VALVE SHALL BE ASSEMBLED TO WATER MAIN'S TEE.

PRIVATE FIRE HYDRANT INSTALLATION DETAIL

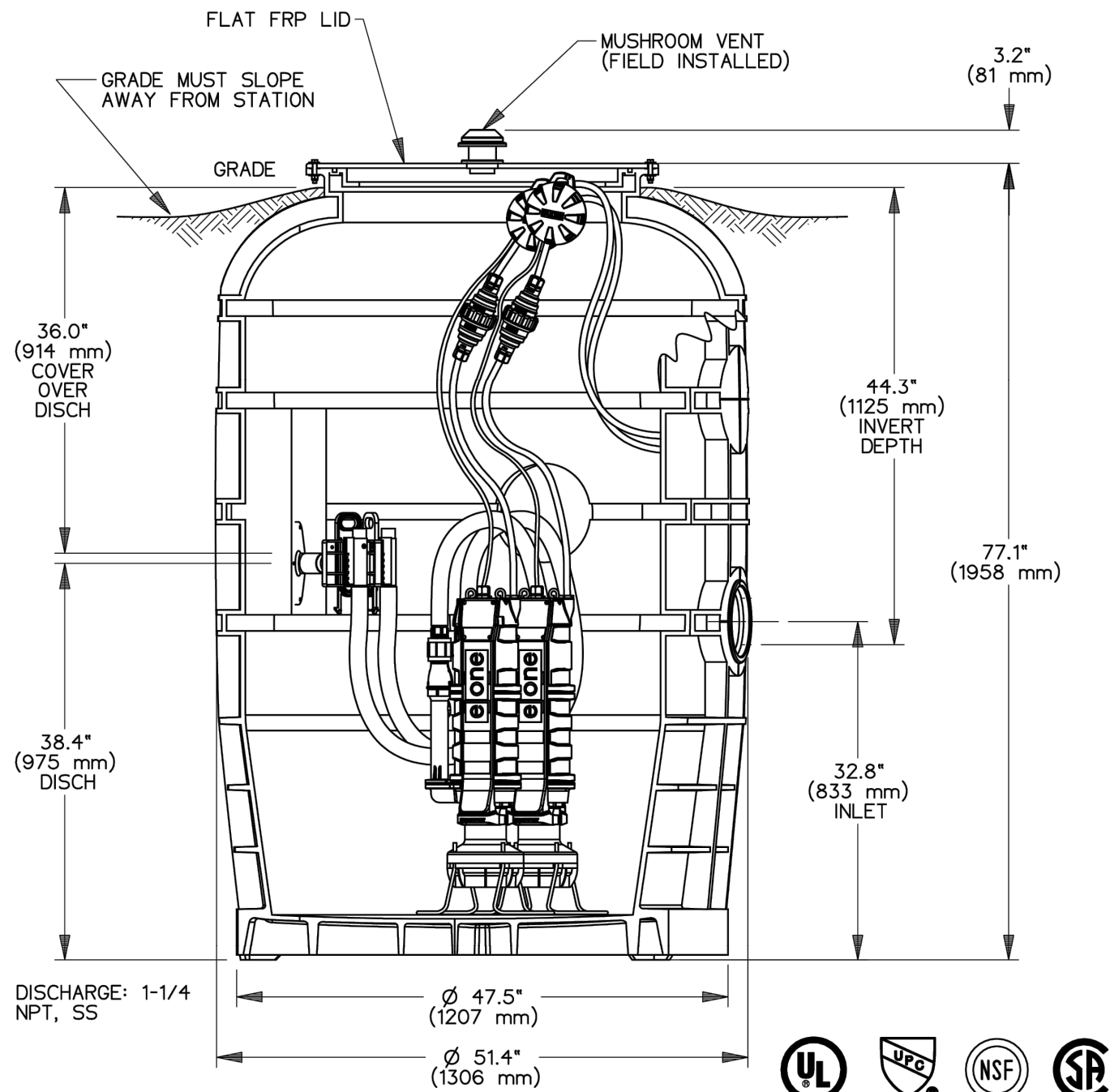


LANDSCAPE RETAINING WALL

SCALE: N.T.S.

OPTIONS : ☐ WH472-77 (HARD WIRED LEVEL CONTROLS)
☐ WR472-77 (WIRELESS LEVEL CONTROLS)

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



a new store for

Westlake ACE Hardware

3511 SW Market Street
Lee's Summit, Missouri 64082

date

drawn by

checked by

revisions

STANDARD
DETAILS

sheet number

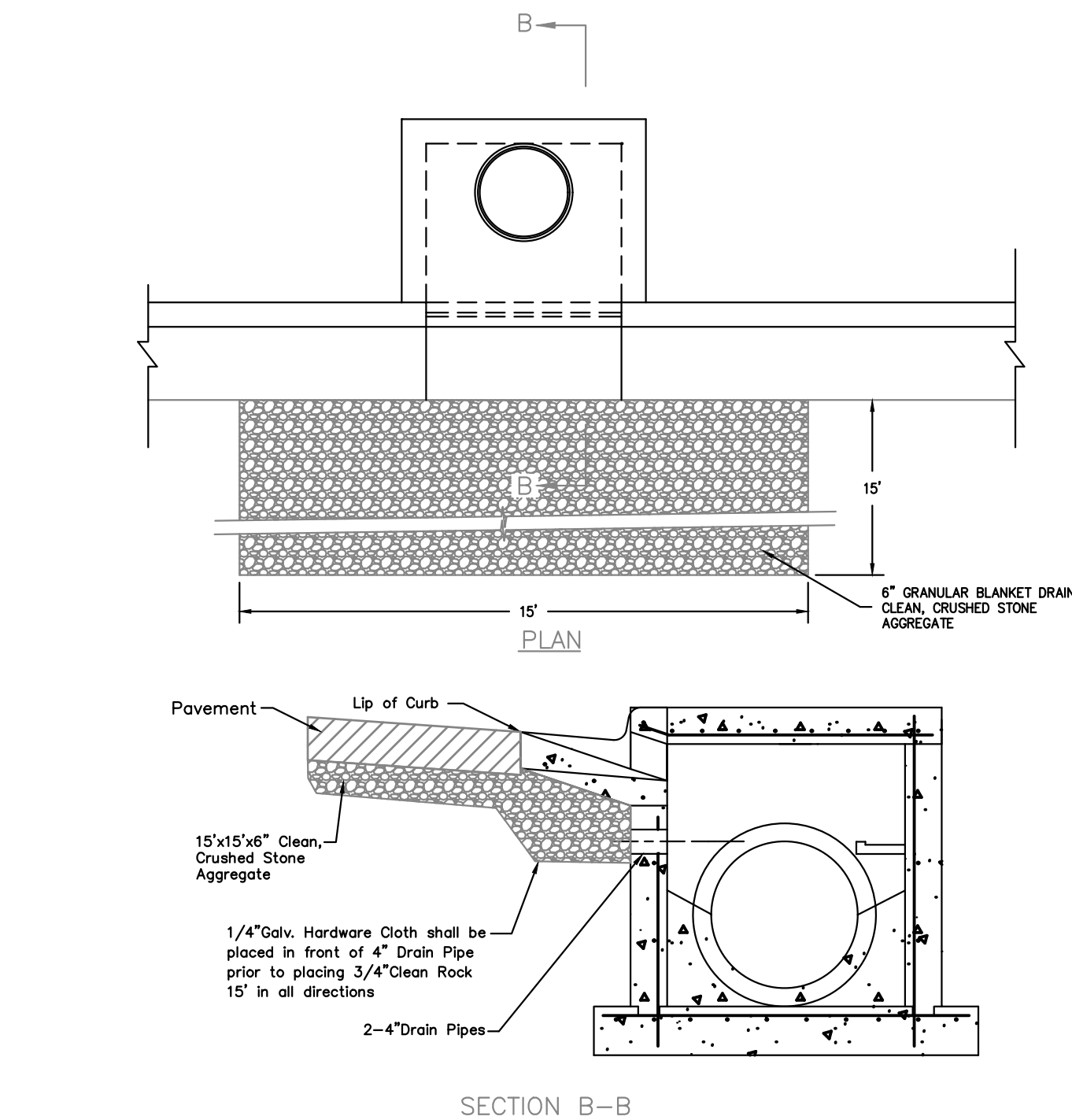
C7.2

drawing type

PDP

project number

22185



GRANULAR BLANKET DRAIN ADJACENT TO CURB INLETS
SCALE: N.T.S.

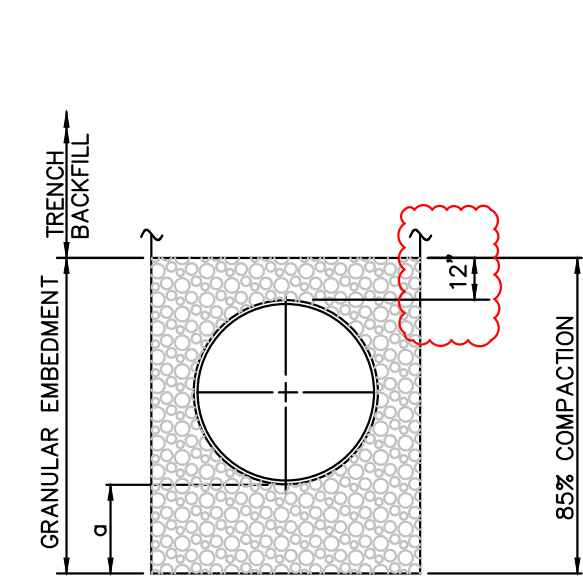


TABLE OF EMBEDMENT DEPTH BELOW PIPE		
D	MIN. SOIL	MIN. ROCK
LESS THAN 60"	4"	6"
60" OR LARGER	6"	12"

LEGEND
D NOMINAL PIPE SIZE
o EMBEDMENT BELOW PIPE
GRANULAR EMBEDMENT

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	PERCENT RETAINED
1-INCH	0
3/4-INCH	0-20
3-INCH	40-70
No. 8	95-100

GRANULAR EMBEDMENT FROM THE TOP OF PIPE DOWN SHALL BE COMPACTED TO 85% MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.

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.

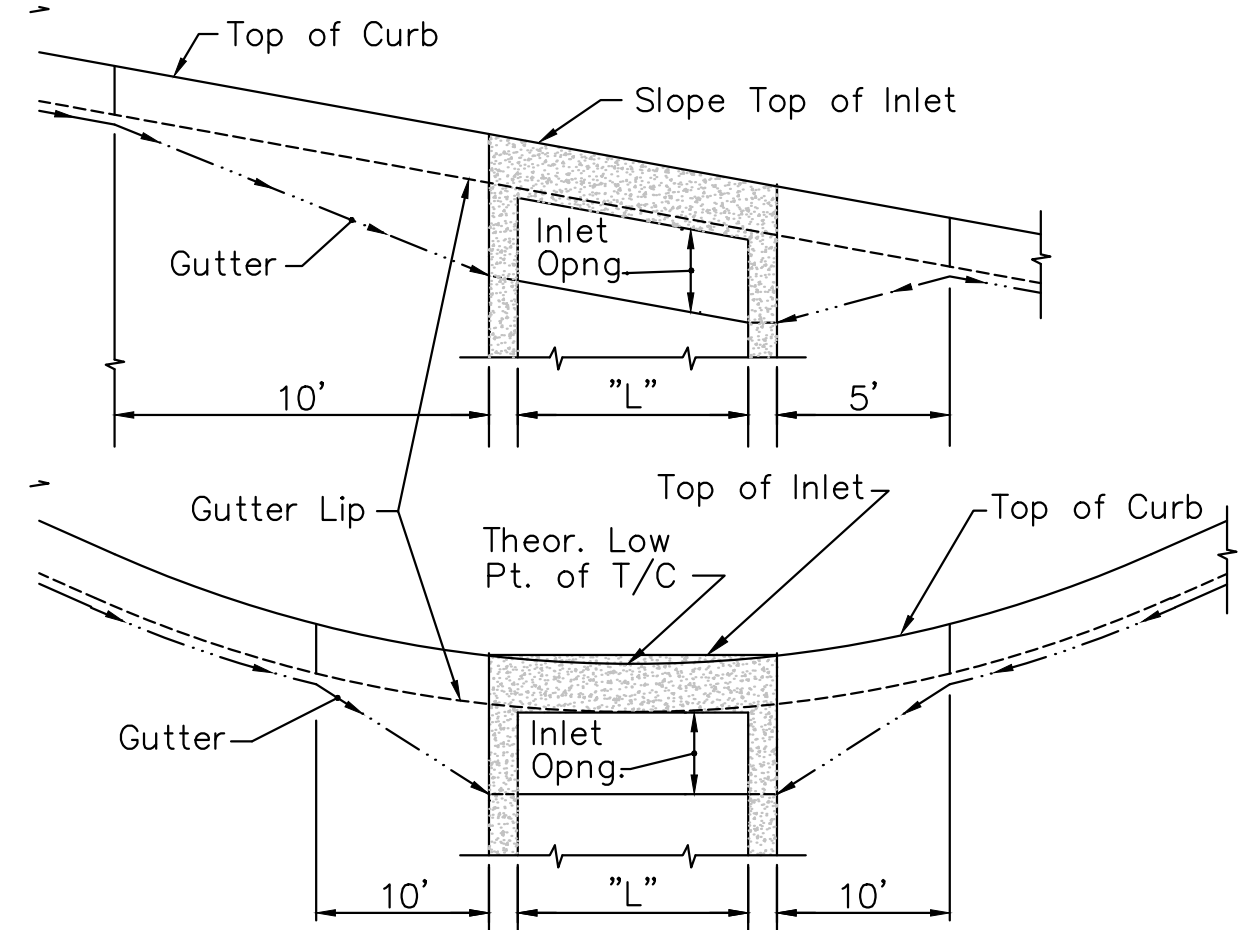
3. TRENCH WIDTHS SHALL BE LIMITED BELOW AN ELEVATION OF ONE (1) FOOT ABOVE THE TOP OF THE INSTALLED PIPE AS FOLLOWS: NOT LESS THAN FIFTEEN (15) INCHES NOR MORE THAN TWENTY-FOUR (24) INCHES GREATER THAN THE NOMINAL OUTSIDE DIAMETER OF THE PIPE.

EMBEDMENTS FOR STORM SEWER PIPE

SCALE: N.T.S.

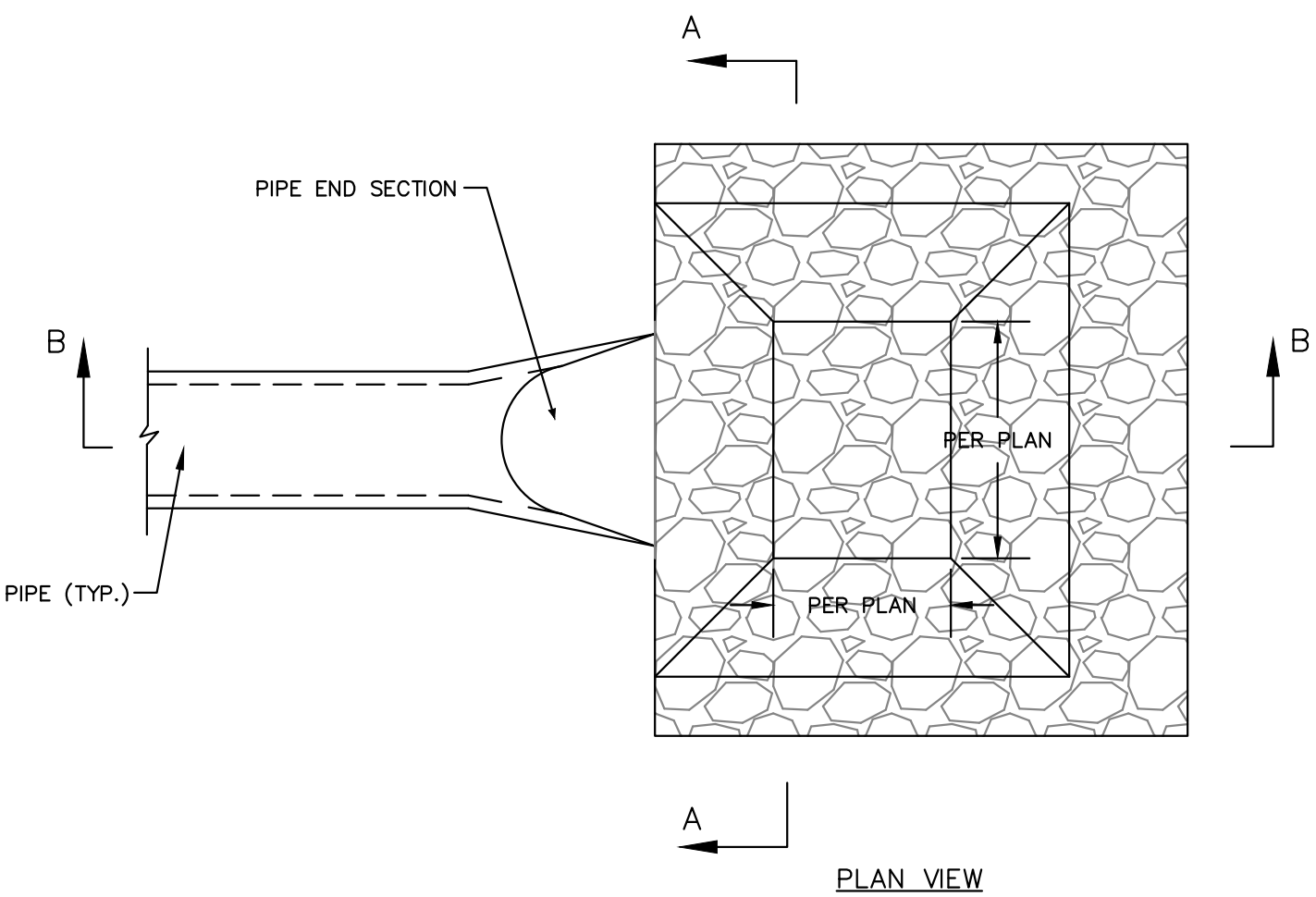
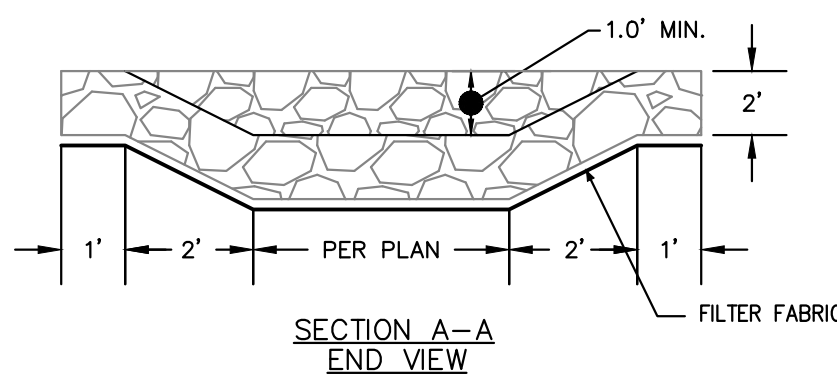
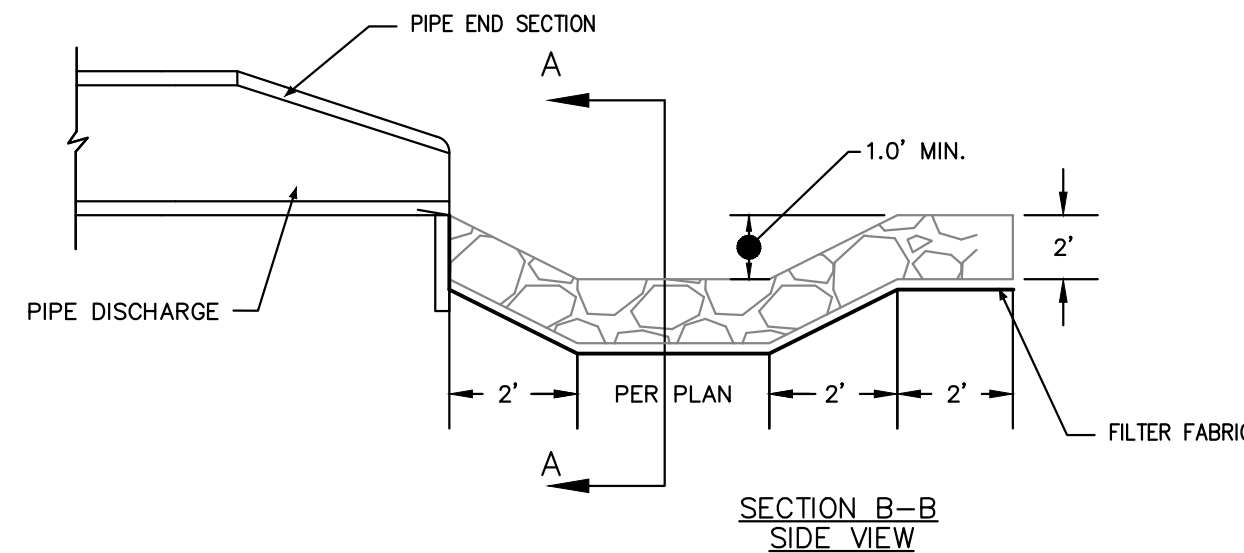
BACKFILL

- ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
- 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 OPTIMUM MOISTURE CONTENT.
- FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
- ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)



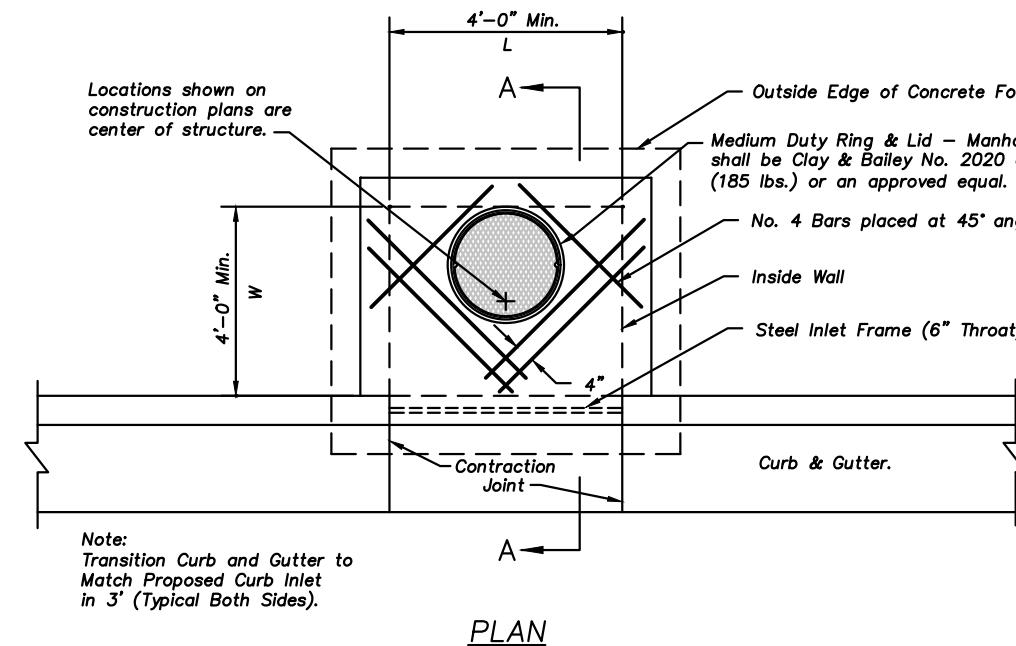
INLET SETTING DIAGRAM

SCALE: N.T.S.

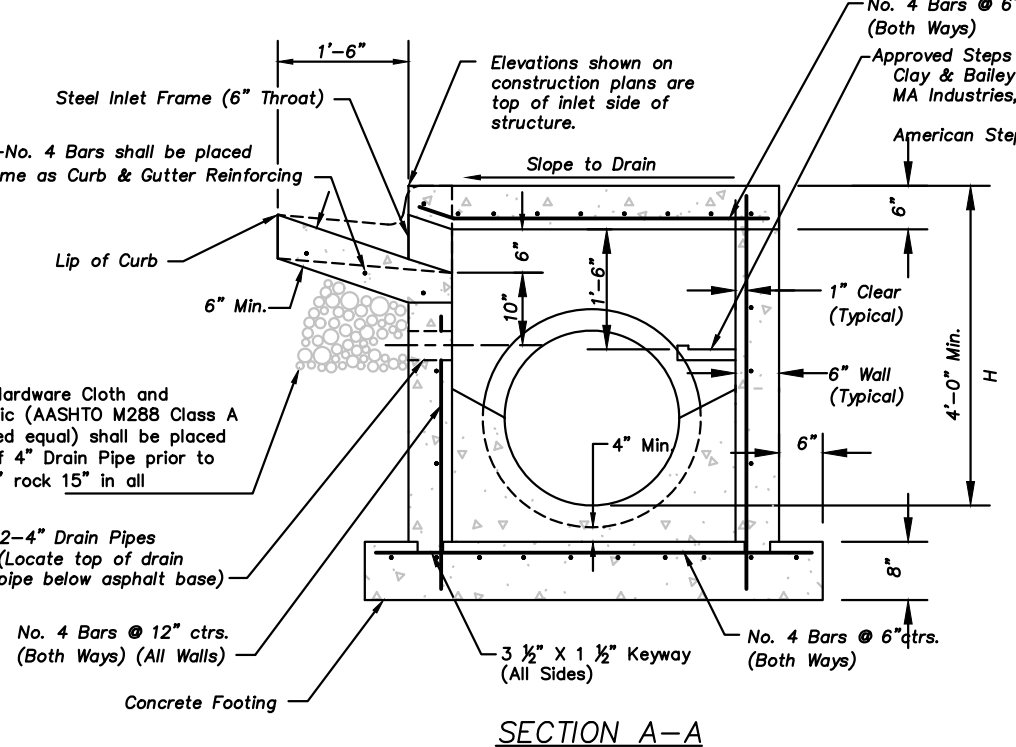


RIPRAP INSTALLATION DETAIL

SCALE: N.T.S.



PLAN



SECTION A-A

SCALE: N.T.S.

Non-Setback Curb Inlet Notes

General

- 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 finish top elevation, or as directed by the City Engineer.
- 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.
- 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 than or equal to 20. For boxes with either of these calculations greater than 20, a special design is required.

Concrete

- Concrete used in this work shall be KCMBAK, 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.
- Inlet floors shall be shaped with non-reinforced concrete inverts to provide smooth flow.
- Bevel all exposed edges with 3/4" triangular molding.

Reinforcing Steel

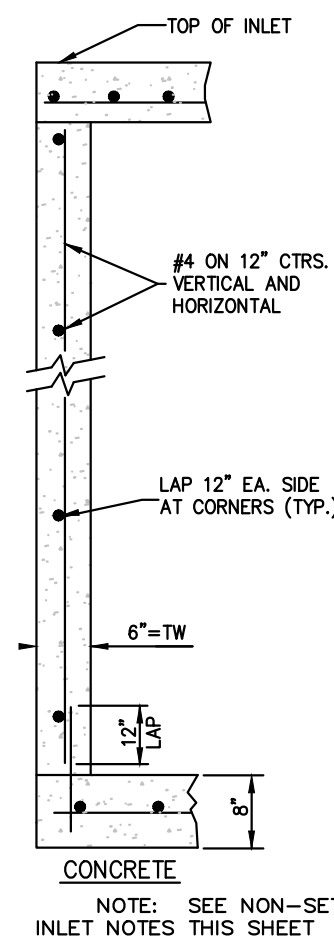
- Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
- All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/- 1/8" shall be permitted.
- All lap splices not shown shall be a minimum of 40 bar diameters in length.
- All reinforcing steel shall be supported on fabricated steel bar supports @ 5'-0" maximum spacing.

Construction

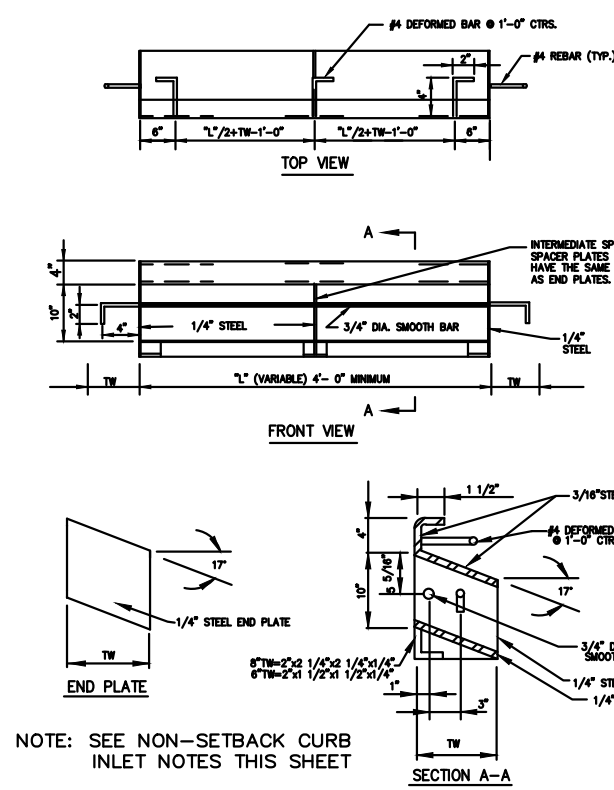
- The bottom slab shall be at least 24 hours old before placing sidewalk concrete. All sidewalk forms shall remain in place a minimum of 24 hours after sidewalks are poured before removal, and after removal shall be immediately treated with membrane curing compound.
- Pipe connections to pre-cast structures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

NON-SETBACK CURB INLET

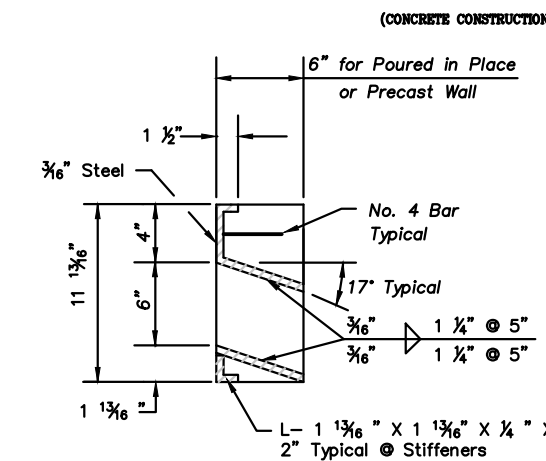
(6" Throat)
SCALE: N.T.S.



WALL SECTIONS

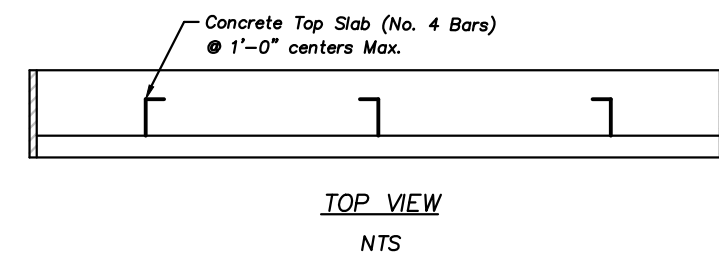


**STEEL FRAME
DETAIL**



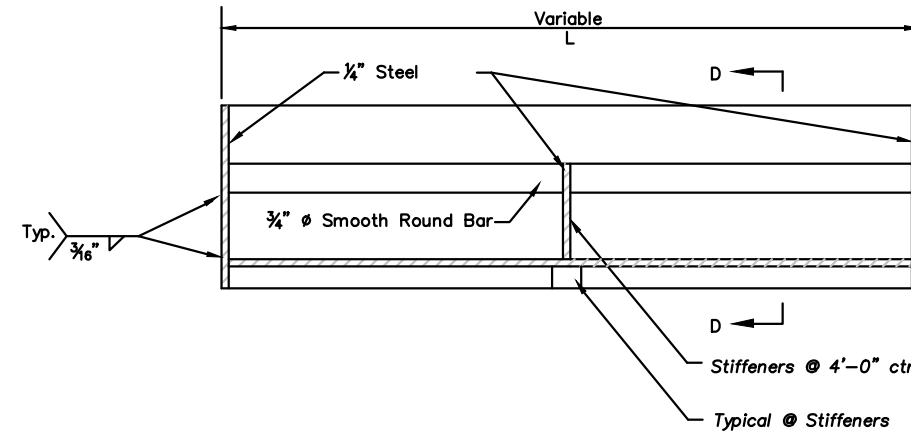
SECTION D-D (6\"/>

NTS



TOP VIEW

NTS

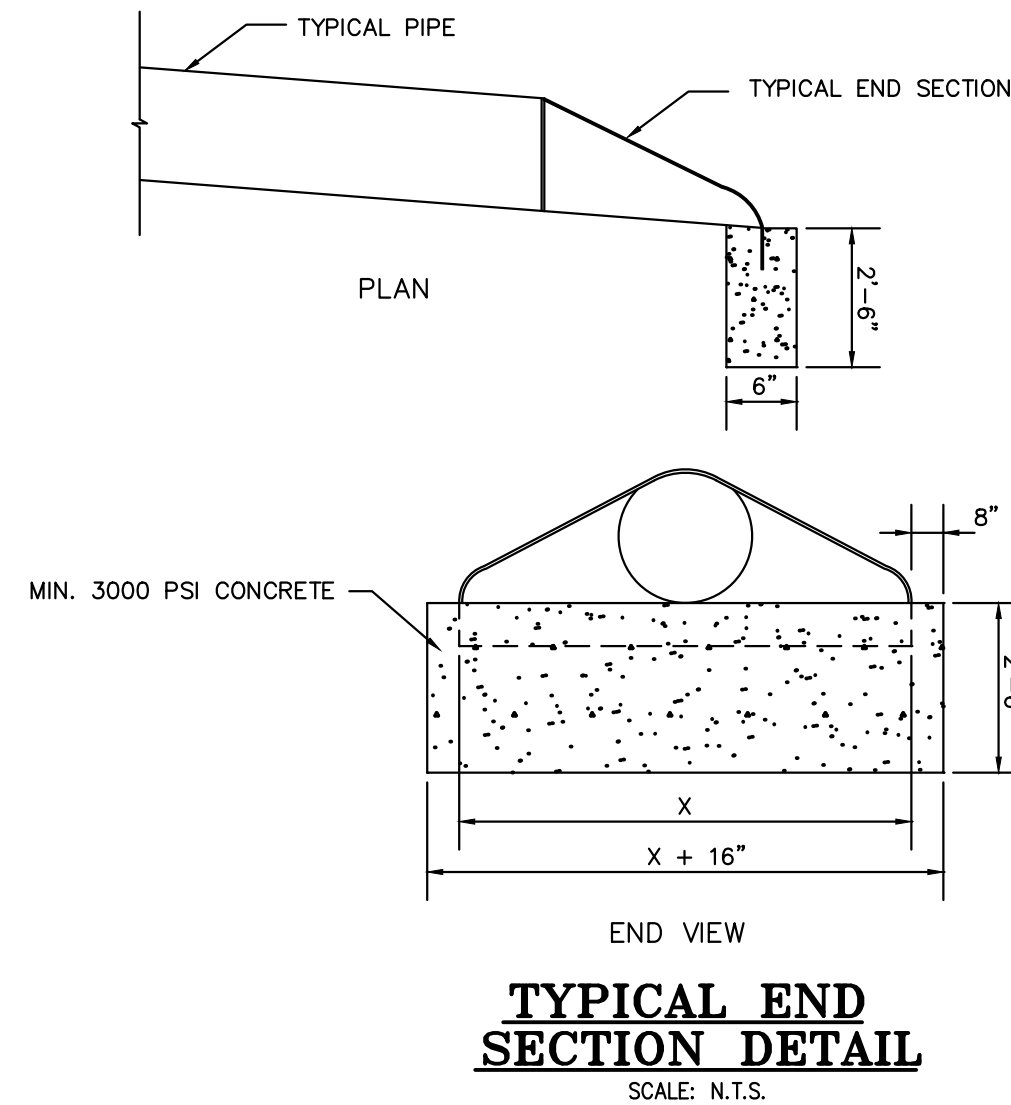


FRONT VIEW (6\"/>

NTS

Steel Inlet Frame Notes:

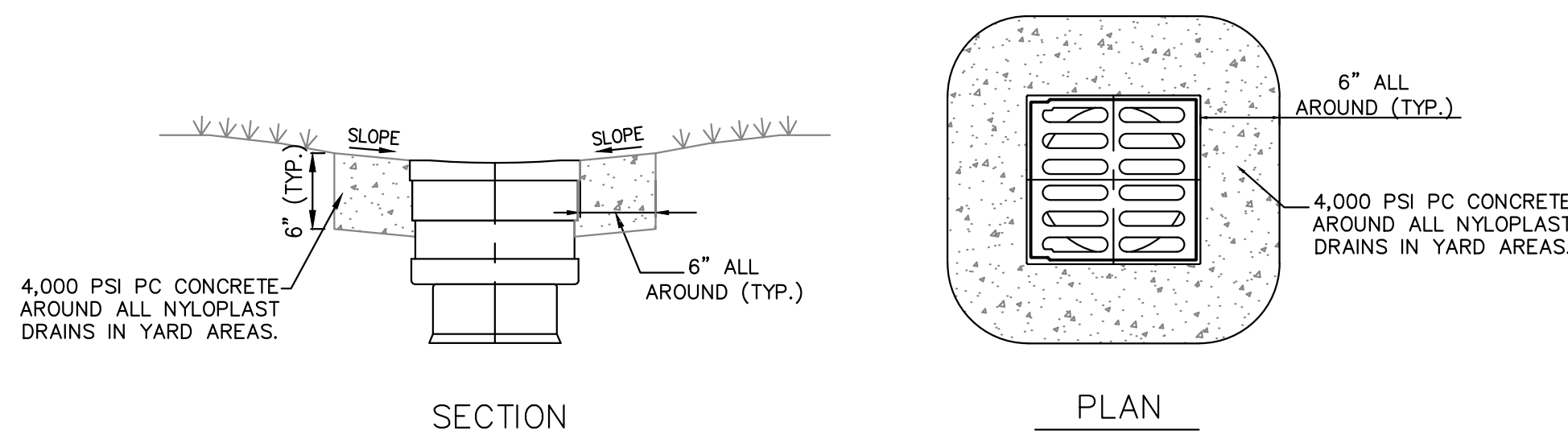
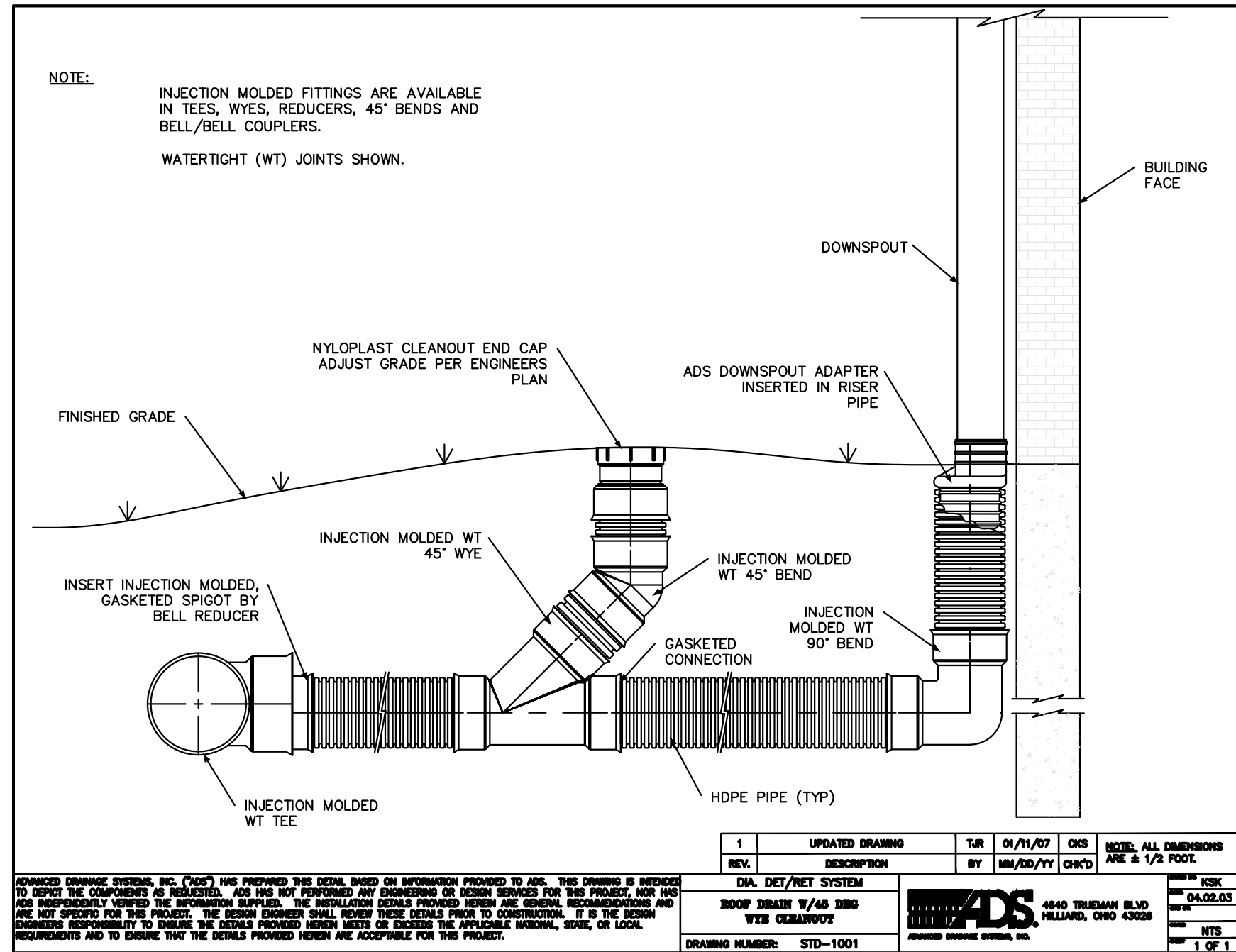
- All welds shall be performed in accordance with appropriate AWS Specifications and Procedures.
- All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.
- The entire frame shall be not dip zinc coated in accordance with ASTM A-123.



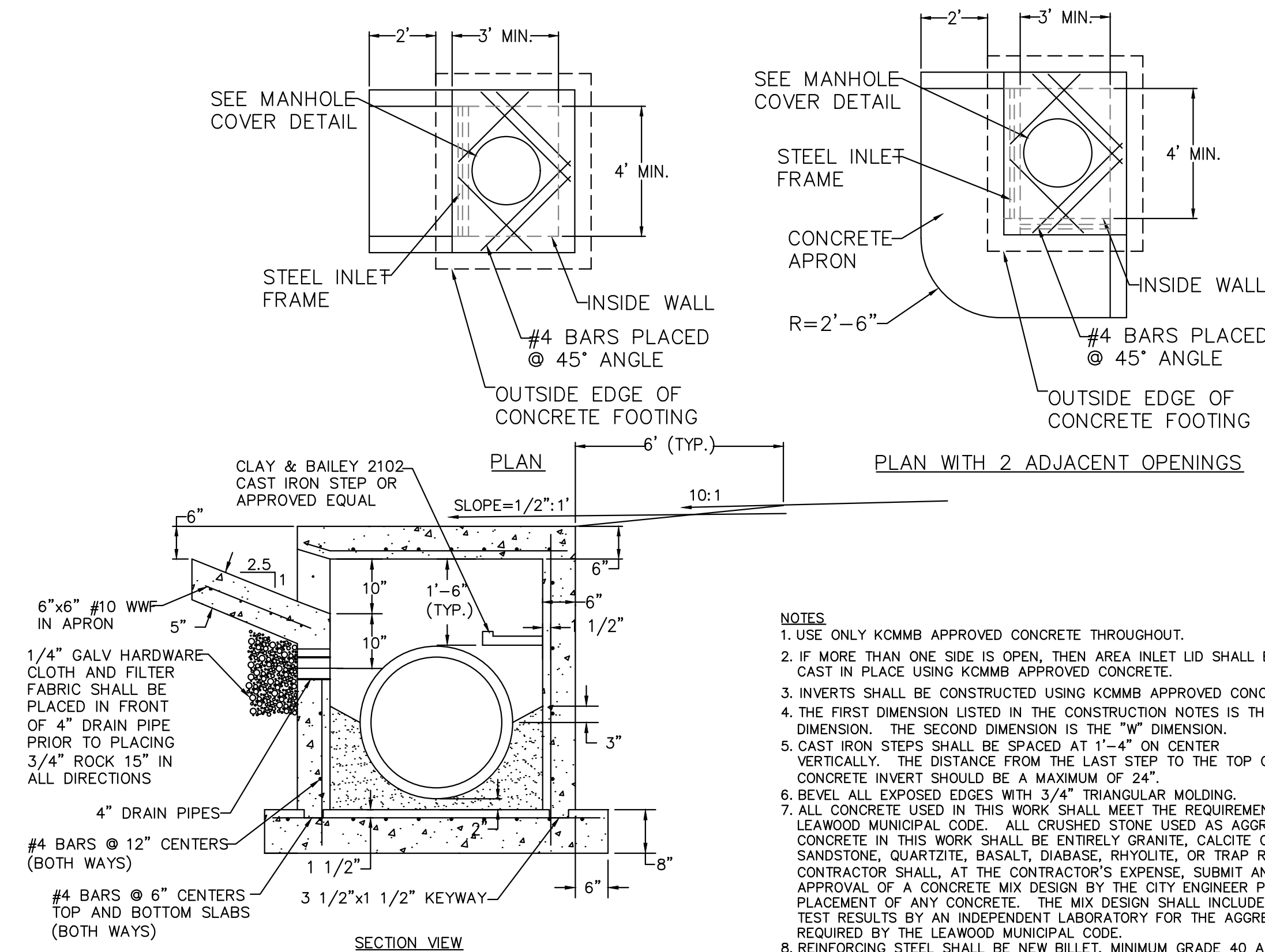
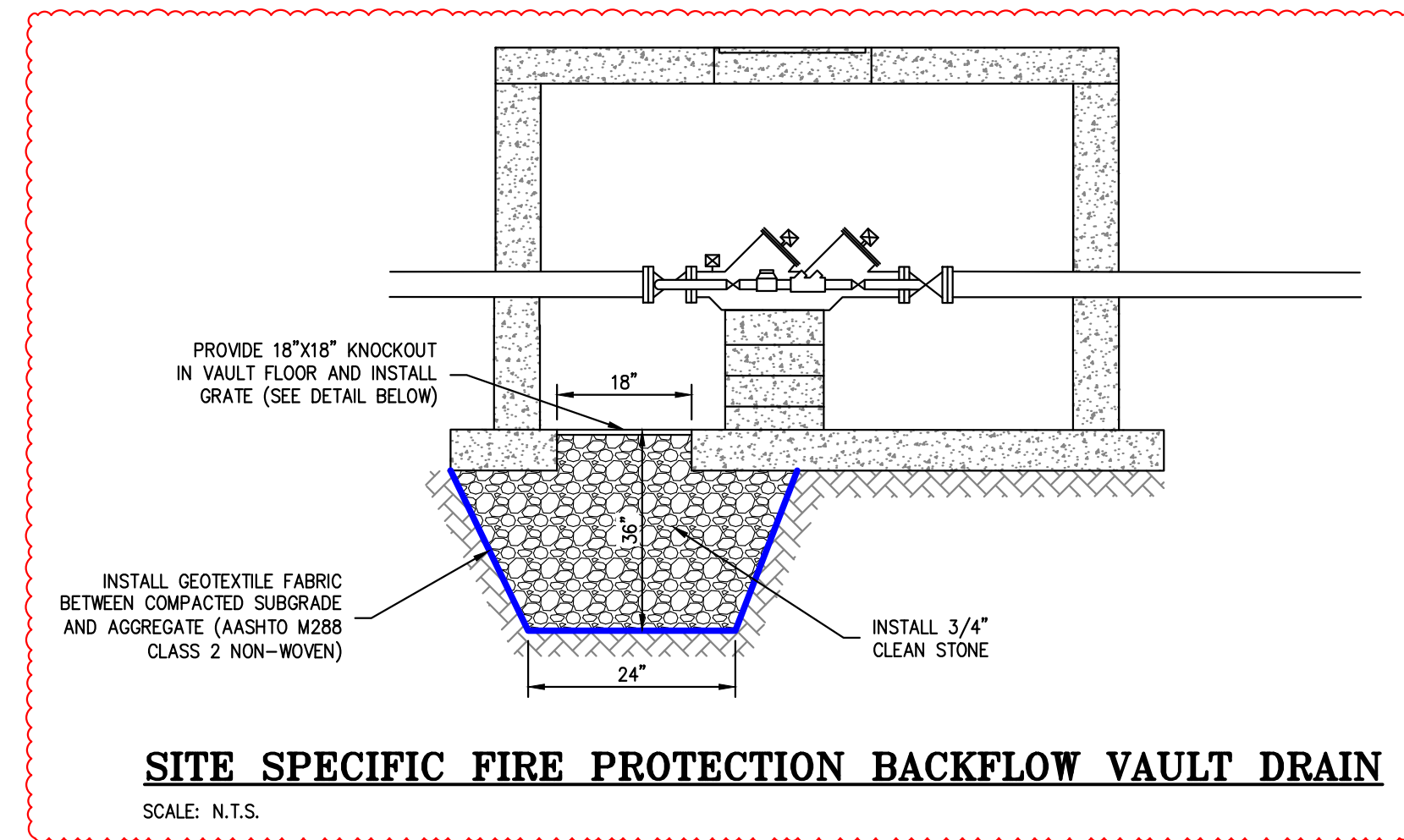
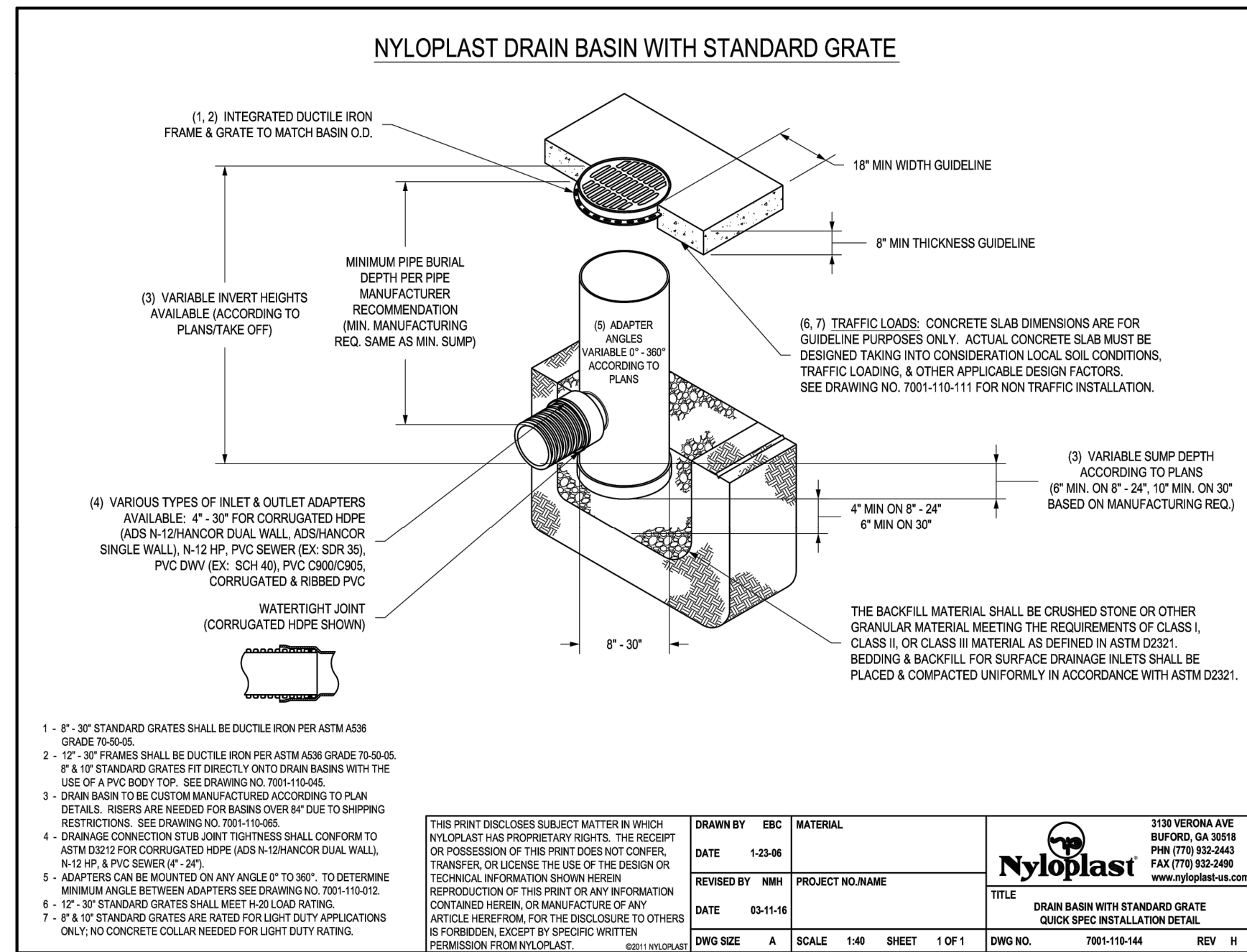
**TYPICAL END
SECTION DETAIL**

SCALE: N.T.S.

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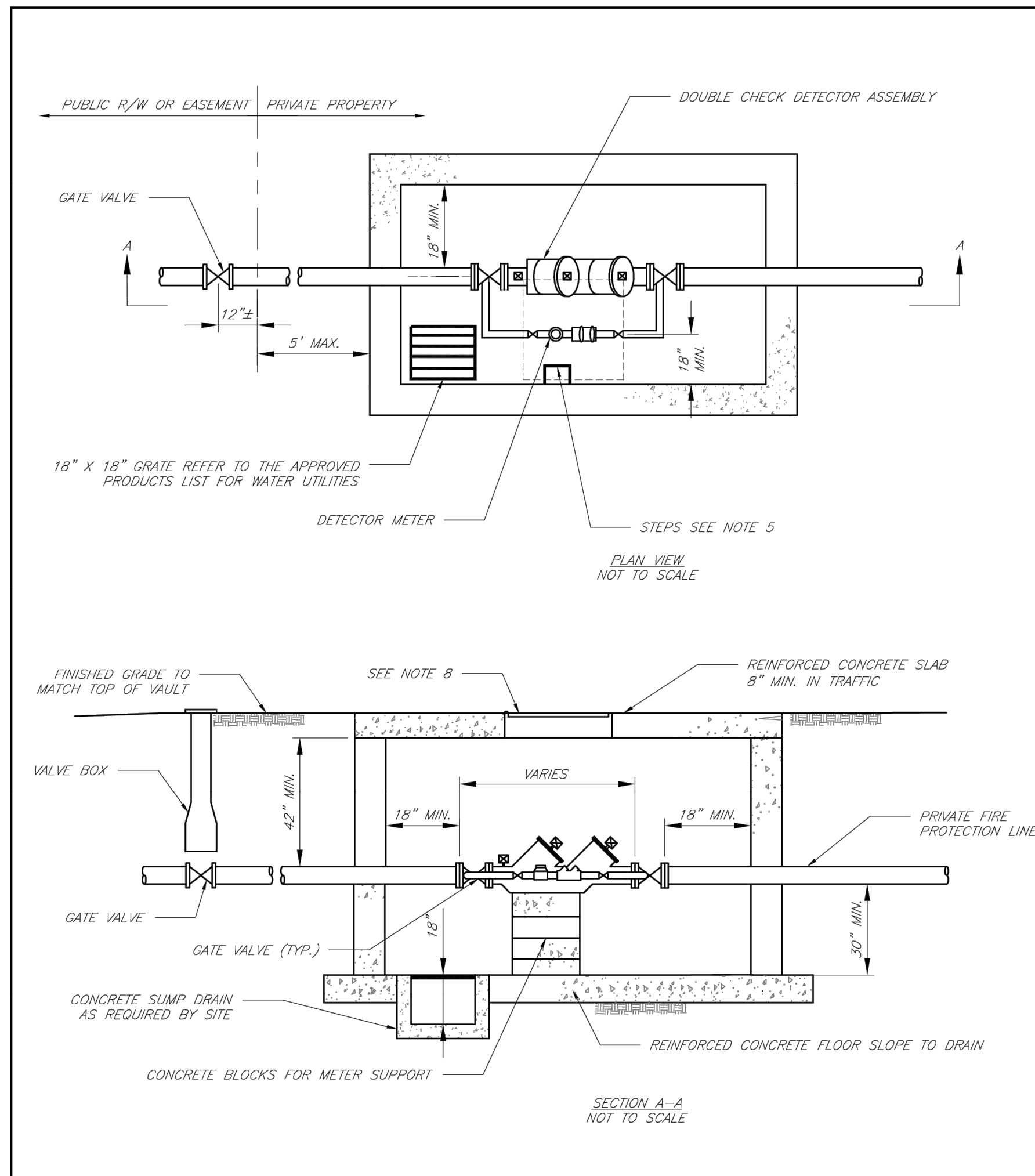


DRAIN GRATE CONCRETE BUFFER DETAIL



- NOTES:
1. USE ONLY KCMCB APPROVED CONCRETE THROUGHOUT.
 2. IF MORE THAN ONE SIDE IS OPEN, THEN AREA INLET LID SHALL BE CAST IN PLACE USING KCMCB APPROVED CONCRETE.
 3. INVERTS SHALL BE CONSTRUCTED USING KCMCB APPROVED CONCRETE.
 4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
 5. CAST IRON STEPS SHALL BE SPACED AT 1'-4" ON CENTER VERTICALLY. THE DISTANCE FROM THE LAST STEP TO THE TOP OF THE CONCRETE INVERT SHOULD BE A MAXIMUM OF 24".
 6. BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOLDING.
 7. ALL CONCRETE USED IN THIS WORK SHALL MEET THE REQUIREMENTS OF THE LEAWOOD MUNICIPAL CODE. ALL CRUSHED STONE USED AS AGGREGATE FOR CONCRETE IN THIS WORK SHALL BE ENTIRELY GRANITE, CALCITE CEMENTED SANDSTONE, QUARTZITE, BASALT, DIABASE, RHYOLITE, OR TRAP ROCK. THE CONTRACTOR SHALL, AT THE CONTRACTOR'S EXPENSE, SUBMIT AND RECEIVE APPROVAL OF A CONCRETE MIX DESIGN BY THE CITY ENGINEER PRIOR TO PLACEMENT OF ANY CONCRETE. THE MIX DESIGN SHALL INCLUDE CERTIFIED TEST RESULTS BY AN INDEPENDENT LABORATORY FOR THE AGGREGATE TESTS REQUIRED BY THE LEAWOOD MUNICIPAL CODE.
 8. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
 9. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS OTHERWISE NOTED. TOLERANCE OF +/- 1/8" SHALL BE PERMITTED.
 10. ALL CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, LATEST EDITION, AND SPECIAL PROVISIONS, EXCEPT AS MODIFIED IN THE LEAWOOD MUNICIPAL CODE.
 11. 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.
 12. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BOUGHT TO THE ATTENTION OF THE CITY ENGINEER PRIOR TO CONSTRUCTION.
 13. 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.
 14. PIPE CANNOT PROJECT MORE THAN 3" BEYOND THE FACE OF THE STRUCTURE.
 15. ENGINEER SHALL SUBMIT STRUCTURAL DETAILS FOR ILETS GREATER THAN 7' IN DEPTH FOR THE CITY ENGINEER'S REVIEW.
 16. SUBMIT SHOP DRAWINGS FOR CAST IN PLACE STRUCTURES.

AREA INLET



GENERAL NOTES:

1. METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE. METER VAULT ROOF TO BE REINFORCED CONCRETE WITH OPENING CENTERED OVER DETECTOR METER. REINFORCED WALLS AND SLABS ARE TO BE DESIGNED BY THE OWNER'S ENGINEER OR PRECAST ENGINEER.
2. METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA AND WHERE SURFACE WATER WILL NOT DRAIN INTO IT. PROVIDE CONCRETE SUMP TO DRAIN TO AN ABOVE GROUND DISCHARGE POINT.
3. ALL PIPE AND FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
4. ALL FITTINGS FOR THE DETECTOR METER TO BE BRASS.
5. STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 18" CENTERS.
6. A DEPARTMENT OF NATURAL RESOURCES APPROVED DOUBLE CHECK DETECTOR ASSEMBLY BACKFLOW PREVENTER MUST BE USED. FOR A COPY OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES APPROVED BACKFLOW PREVENTER ASSEMBLIES, CONTACT WATER UTILITIES AT 816-969-1900.
7. ALL VALVES SHALL HAVE RISING STEMS.
8. MANHOLE COVER SHALL BE A BILCO K-1 MODEL UNLESS IN A VEHICLE TRAFFIC AREA. SEE THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR TRAFFIC CONDITIONS. THE COVER SHALL HAVE A 1-3/4" Ø HOLE DRILLED FOR A TOUCH/READ DEVICE.
9. A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.
10. CONTACT PUBLIC WORKS ENGINEERING FOR VAULTS THAT INCLUDE A FIRE DEPARTMENT CONNECTION OR A 3" OR LARGER METER.

CITY OF LEE'S SUMMIT, MO
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
LEE'S SUMMIT, MO 64083

STANDARD DRAWINGS
VALLT FOR DOUBLE CHECK DETECTOR CHECK

Drawn By: AS
Checked By: AS
Date: 1/14
Rev: 1/14
or
WAT-12

a new store for

Westlake ACE Hardware

3511 SW Market Street

Lee's Summit, Missouri 64082

date

drawn by

checked by

revisions

STANDARD DETAILS

sheet number

C7.4

drawing type

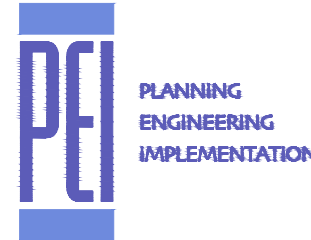
PDP

project number

22185

davidson
architecture & engineering

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Overland Park, KS 66207
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fax: 813.451.9391
www.davidsonae.com

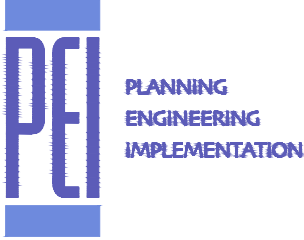


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www.phelpsengineering.com

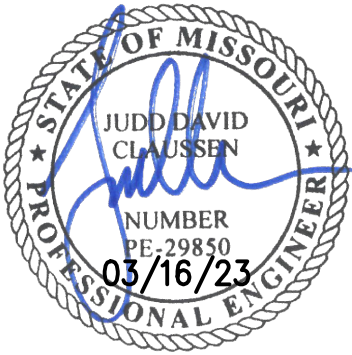


\\PHILIPS-SERVER\SERVER\Projects\A\220885\Draw\Permit Plans\DETAILS - PRIVATE.dwg Layout:STORM 3 Mar 16, 2023 - 4:39pm Daniel Finn

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a new store for
Westlake ACE Hardware
3511 SW Market Street
Lee's Summit, Missouri 64082

date

drawn by

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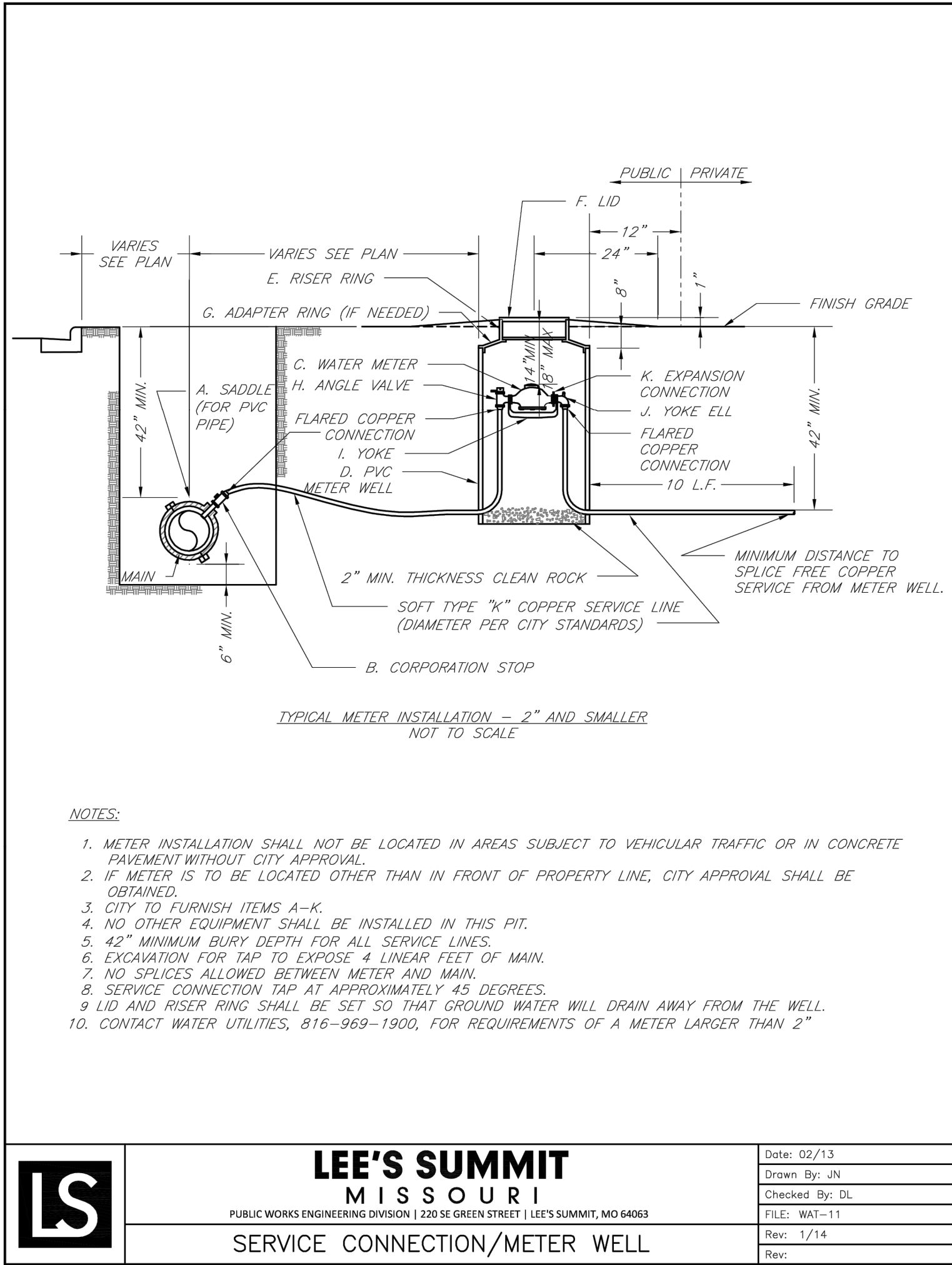
**STANDARD
DETAILS**

sheet number

C7.5

drawing type
PDP

project number
22185



LANDSCAPE REQUIREMENTS:

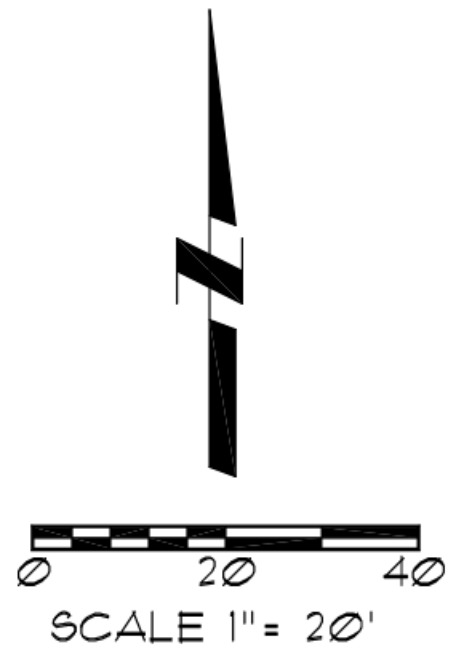
	Required	Provided
Street Trees 1 tree per 30', 1 shrub per 20' (263lf)		
SW Market Street Trees	9	9
Shrubs	13	14

Open Yard 97,104 s.f.		
2 Shrubs per 5000s.f.	39	51
1 Tree per 5000s.f.	19.4	28

Screening Parking Lot		
Market Street (182 lf)		
12 shrubs per 40 l.f.	54.6	55

Hwy. 291 (188 lf)		
12 shrubs per 40 l.f.	56.4	*31

*11-8ft Evergreen trees substituted for 25 shrubs

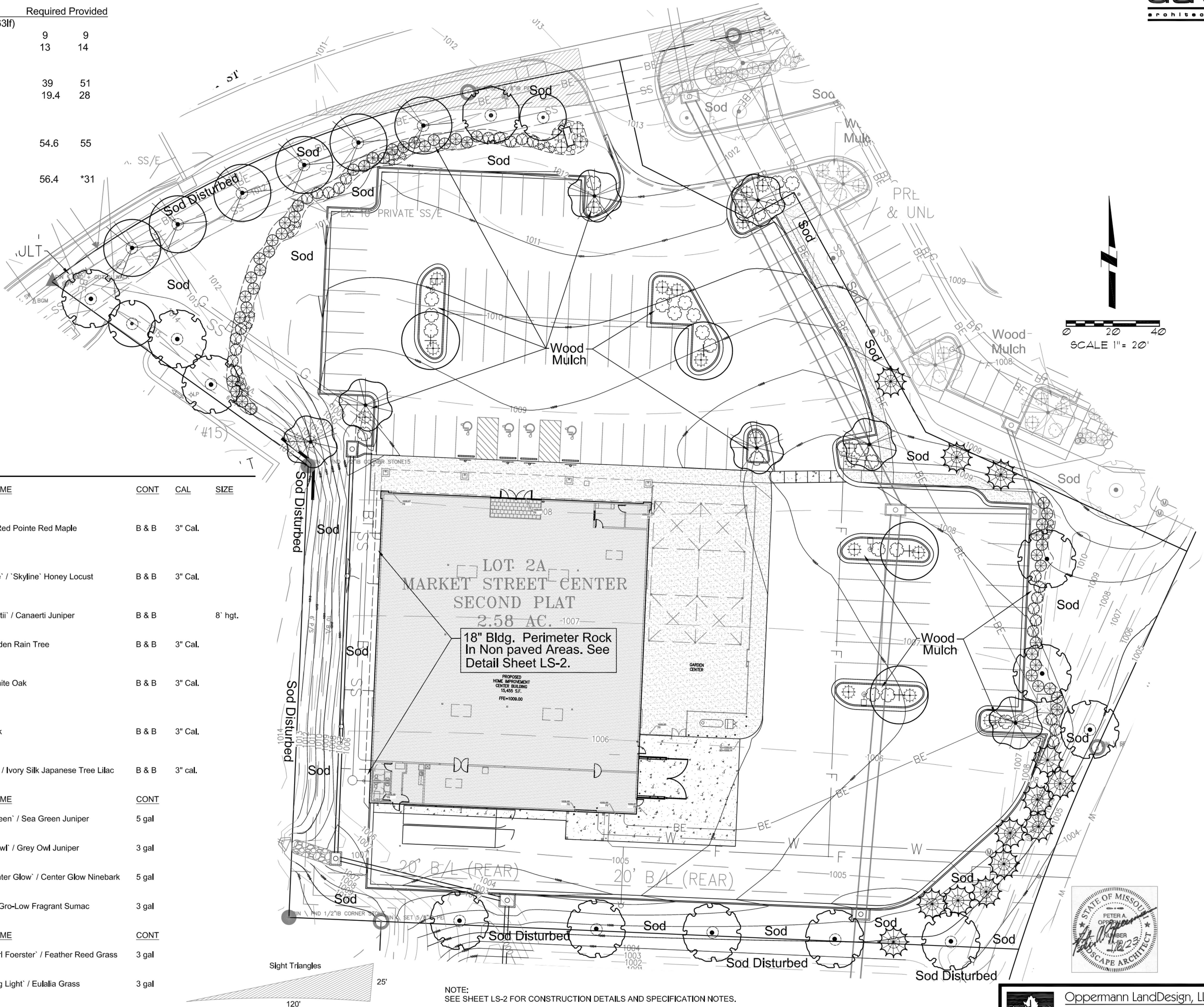


PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
	11	Acer rubrum 'Red Pointe' / Red Pointe Red Maple	B & B	3" Cal.	
	4	Gleditsia triacanthos 'Skyline' / 'Skyline' Honey Locust	B & B	3" Cal.	
	13	Juniperus virginiana 'Canaertii' / Canaertii Juniper	B & B		8' hgt.
	2	Koelreuteria paniculata / Golden Rain Tree	B & B	3" Cal.	
	6	Quercus bicolor / Swamp White Oak	B & B	3" Cal.	
	1	Quercus phellos / Willow Oak	B & B	3" Cal.	
	7	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	B & B	3" cal.	
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT		
	45	Juniperus chinensis 'Sea Green' / Sea Green Juniper 24"-30" hgt. & sp.	5 gal		
	23	Juniperus virginiana 'Grey Owl' / Grey Owl Juniper 24" sp.	3 gal		
	24	Physocarpus opulifolius 'Center Glow' / Center Glow Ninebark 24"-30" hgt. & sp.	5 gal		
	25	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac 18"-24" sp.	3 gal		
GRASSES	QTY	BOTANICAL / COMMON NAME	CONT		
	6	Calamagrostis acutiflora 'Karl Foerster' / Feather Reed Grass 24" hgt.	3 gal		
	18	Miscanthus sinensis 'Morning Light' / Eulalia Grass	3 gal		

Utility Note:

Utilities shown on plan are diagrammatic and some may be missing. Before starting any construction



NOTE:
SEE SHEET LS-2 FOR CONSTRUCTION DETAILS AND SPECIFICATION NOTES.

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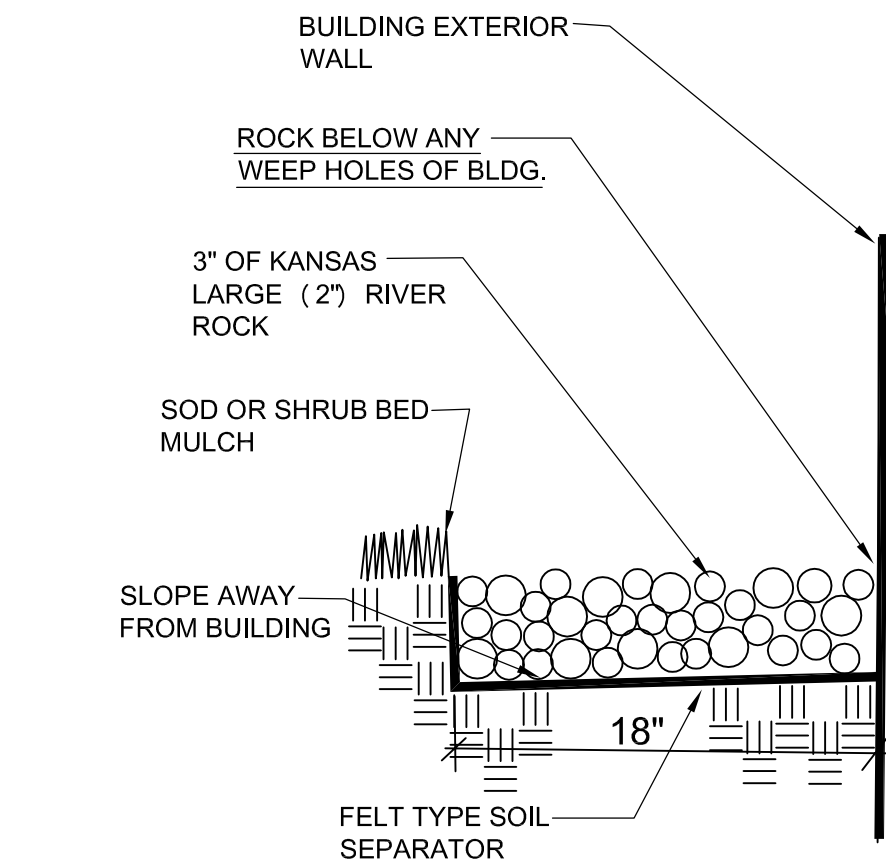
sheet number

LS-1

drawing type
Landscape Plan

GENERAL LANDSCAPE NOTES:

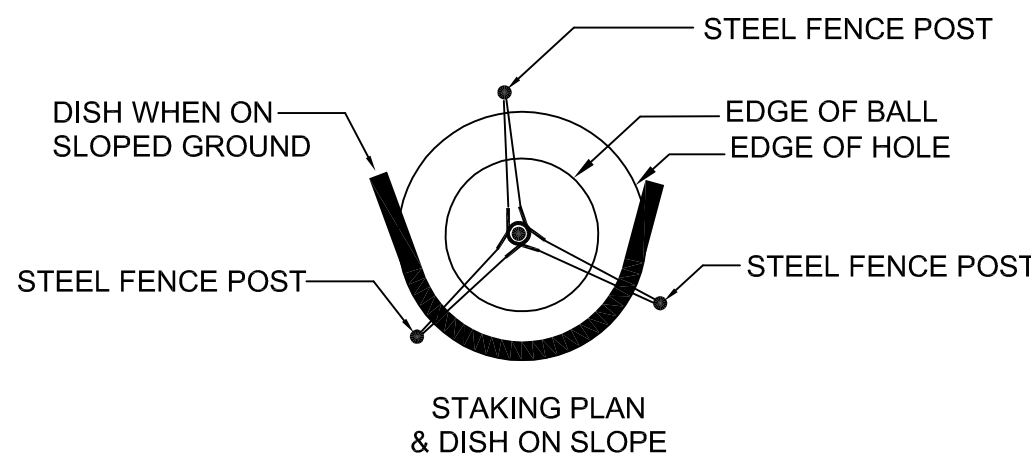
- CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE STARTING ANY WORK.
- CONTRACTOR SHALL VERIFY ALL LANDSCAPE MATERIAL QUANTITIES AND SHALL REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- CONTRACTOR SHALL MAKE NO SUBSTITUTIONS WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL STAKE LAYOUT PLAN IN THE FIELD AND SHALL HAVE THE LAYOUT APPROVED BY THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE INSTALLATION.
- ALL LANDSCAPE BEDS SHALL BE TREATED WITH THE PRE-EMERGENT HERBICIDE PRE M 60 DG (GRANULAR) OR AN APPROVED EQUAL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ALL LANDSCAPE BEDS SHALL RECEIVE A TRENCHED EDGE. SEE SHRUB PLANTING DETAIL.
- FERTILIZER FOR FESCUE SODDED 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 LAB.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE PLANTS UNTIL COMPLETION OF THE JOB AND ACCEPTANCE BY THE OWNER.
- 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.
- CONTRACTOR SHALL PROVIDE MAINTENANCE OF ALL TREES AND SHRUBS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION IF CONTRACTED BY THE OWNER.
- ANY PLANT MATERIAL WHICH DIES DURING THE ONE YEAR WARRANTY PERIOD SHALL BE REPLACED BY THE CONTRACTOR DURING NORMAL PLANTING SEASONS.
- ALL PLANT NAMES ON THE PLANT LIST CONFORM TO THE STANDARDIZED PLANT NAMES PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE OR TO NAMES GENERALLY ACCEPTED IN THE NURSERY TRADE.
- ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY STOCK AS DETERMINED IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN, FREE OF PLANT DISEASES AND PESTS, OF TYPICAL GROWTH OF THE SPECIES AND HAVING A HEALTHY, NORMAL ROOT SYSTEM.
- SIZES INDICATED ON THE PLANT LIST ARE THE MINIMUM, ACCEPTABLE SIZE. IN NO CASE WILL SIZES LESS THAN THE SPECIFIED SIZES BE ACCEPTED.
- PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY TO THE SITE OR AFTER INSTALLATION EXCEPT FOR THOSE BRANCHES THAT HAVE BEEN DAMAGED IN SOME WAY.
- PLANTS SHALL NOT HAVE NAME TAGS REMOVED PRIOR TO FINAL INSPECTION.
- ALL PLANTINGS SHALL RECEIVE A COMMERCIAL TRANSPLANT ADDITIVE PER MANUFACTURER'S RECOMMENDED RATES AND INSTRUCTIONS FOR APPLICATION.
- BUILDING PERIMETER ROCK MULCH SHALL BE 3" DEPTH OF KANSAS LARGE 2" SIZE AVAILABLE FROM 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 AROUND TREES.
- WOOD MULCH SHALL BE 3" OF DYE BROWN SHREDDED HARDWOOD OVER A FELT TYPE SOIL SEPARATOR.
- SEE PLANTING DETAILS FOR SOIL MIX IN PLANTING HOLES.
- SOD SHALL BE A TURF-TYPE-TALL FESCUE GRASS BLEND. CONTRACTOR SHALL BE RESPONSIBLE FOR AN ACCEPTABLE STAND OF TURF TO BE APPROVED BY THE OWNER AND/OR LANDSCAPE ARCHITECT.
- SUCCESSFUL LANDSCAPE BIDDER SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF AN IRRIGATION SYSTEM TO BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.



BUILDING ROCK EDGE

NO SCALE

*PLACE ROCK AROUND ENTIRE BLDG. PERIMETER WHEREVER THERE IS NOT CONCRETE OR ASPHALT



DIRECTION OF TREE STAKES:
ONE SOUTHEAST
ONE SOUTHWEST
ONE NORTH

PLASTIC SPIRAL TREE
WRAP COIL FROM BASE
TO LOWEST BRANCHES

WEBBED ARBOR TIE TAPE
LOOP AROUND TREE TO BE
6"-8" LARGER THAN
TRUNK DIAMETER

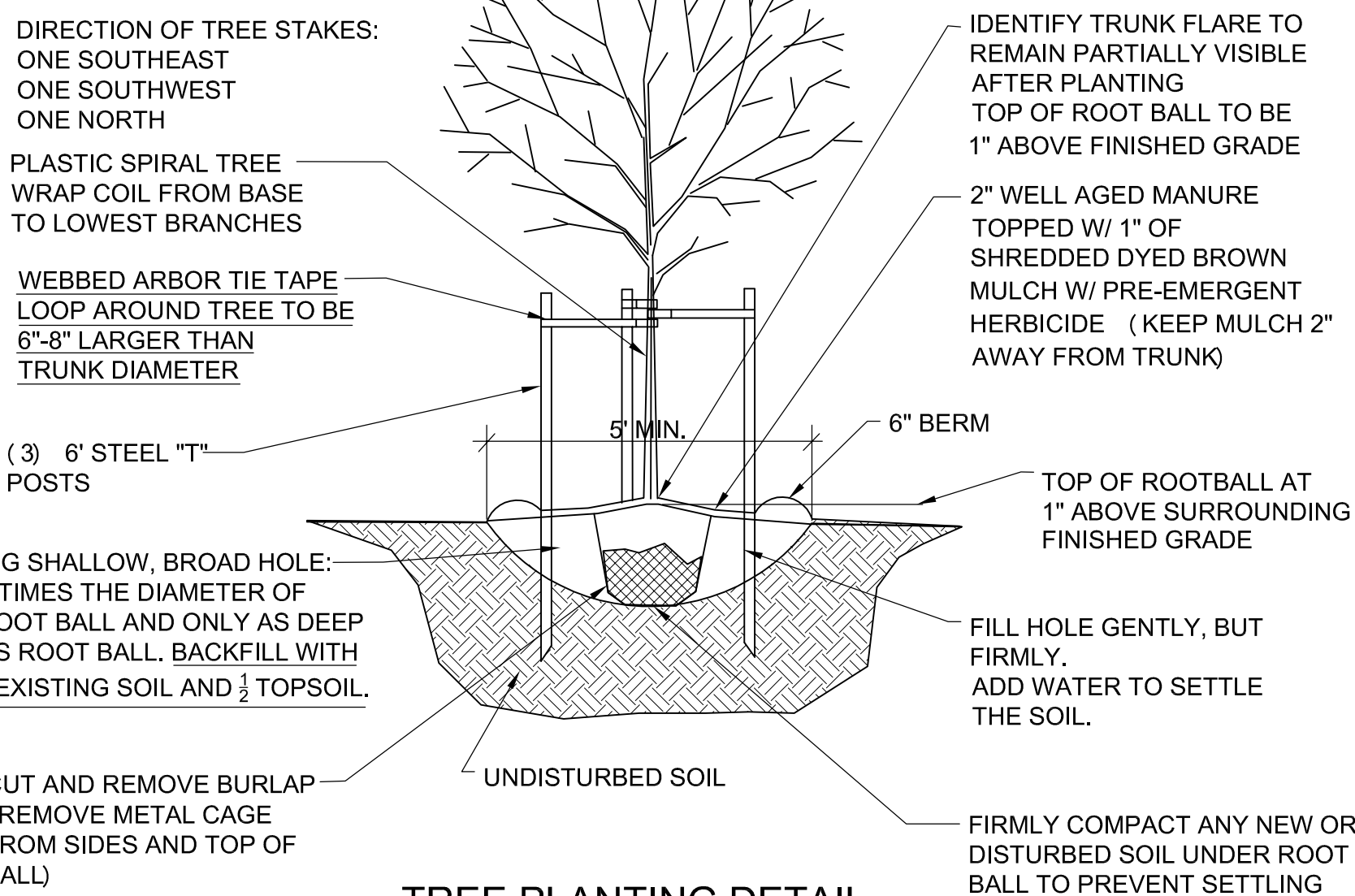
(3) 6" STEEL "T"
POSTS

DIG SHALLOW, BROAD HOLE:
3 TIMES THE DIAMETER OF
ROOT BALL AND ONLY AS DEEP
AS ROOT BALL. BACKFILL WITH
1/2 EXISTING SOIL AND 1/2 TOPSOIL.

CUT AND REMOVE BURLAP
(REMOVE METAL CAGE
FROM SIDES AND TOP OF
BALL)

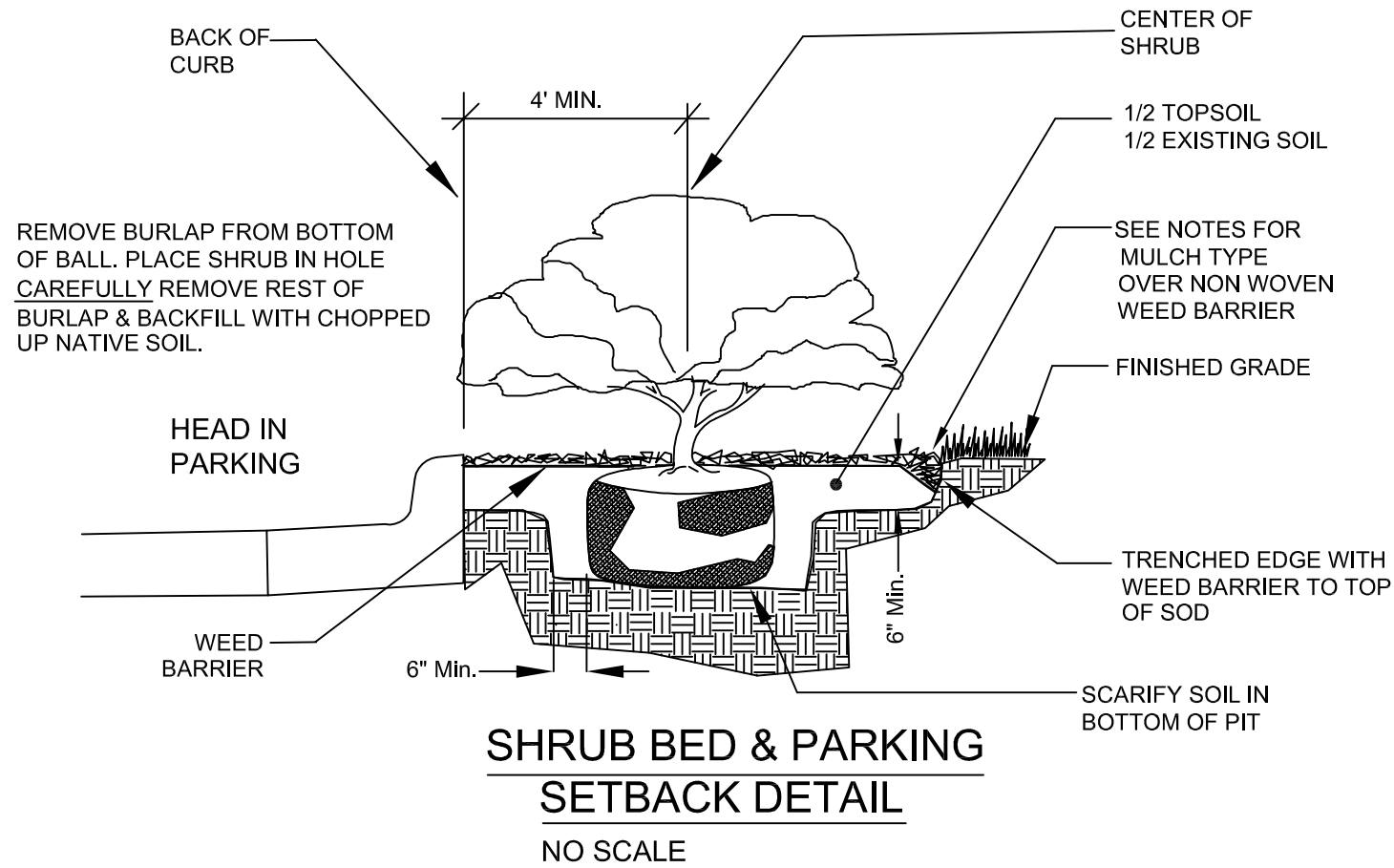
TREE PLANTING DETAIL

NO SCALE



Dedicated Design Irrigation System:

- 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.
- 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.
- Irrigation Contractor shall submit a copy of plan to Owner's Representative or Project Landscape Architect for review prior to installation of system.
- 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 shut-down of the system.
- 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.
- All planting beds shall be watered by a DRIP irrigation system.
- General Contractor to supply all power required to operate irrigation system.
- Irrigation Contractor shall notify Owner's Representative or Project Landscape Architect of any changes to irrigation conduit locations or sizes.
- 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.
- 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.
- Irrigation controller location shall be coordinated with other wall-mounted service panels per Owner's approval.
- Landscape Contractor shall hand-water all trees, and turf grass areas until substantial completion.
- Treegator bags (or approved equal) shall be used for all proposed trees on site.



SHRUB BED & PARKING
SETBACK DETAIL

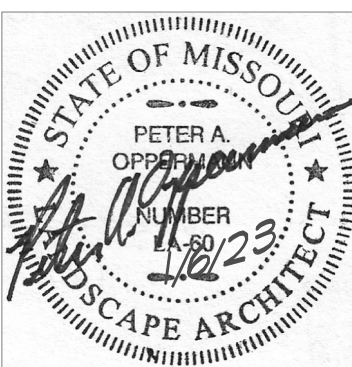
NO SCALE

Utility Note:

Utilities shown on plan are diagrammatic 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.



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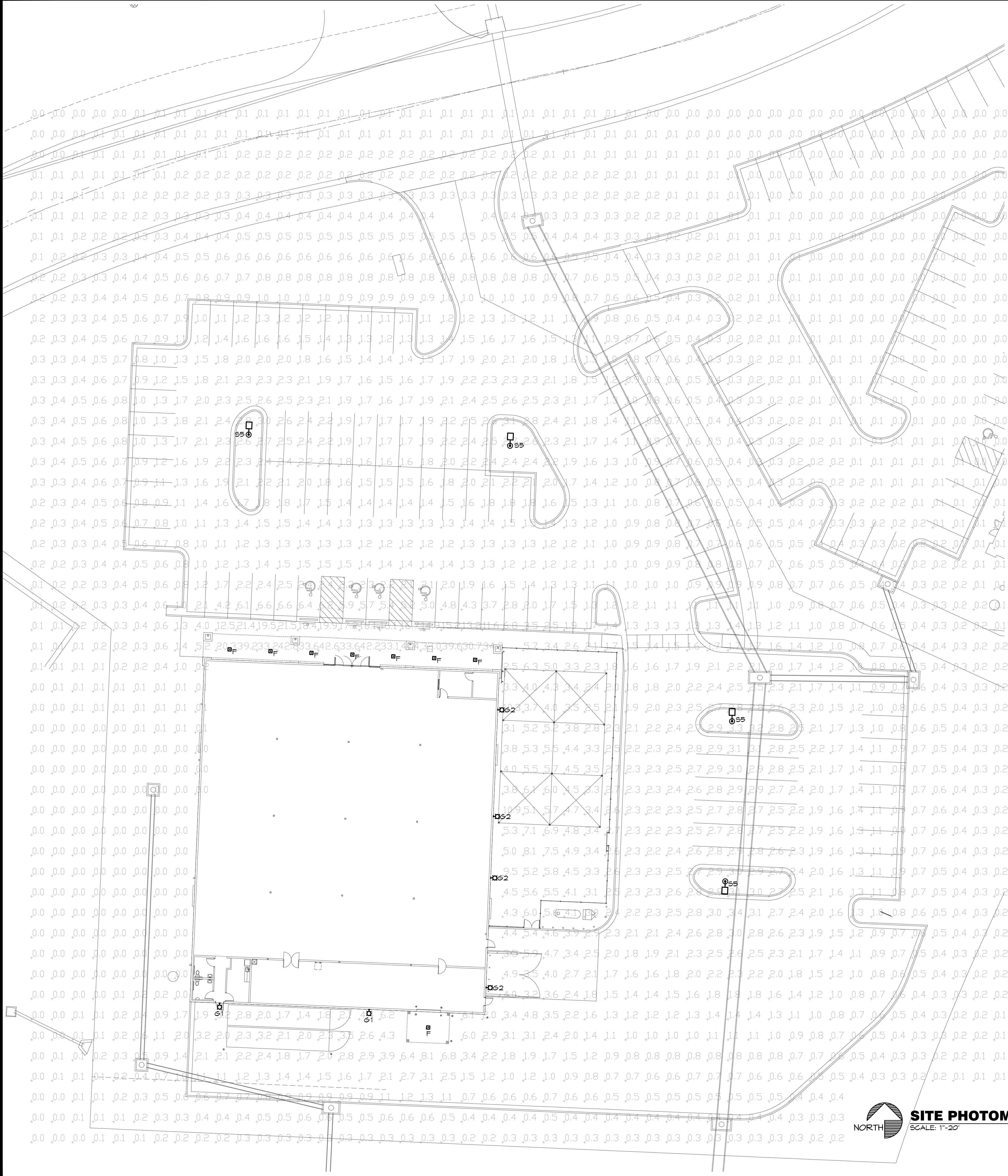
LS-2

drawing type

Landscape Details

project number

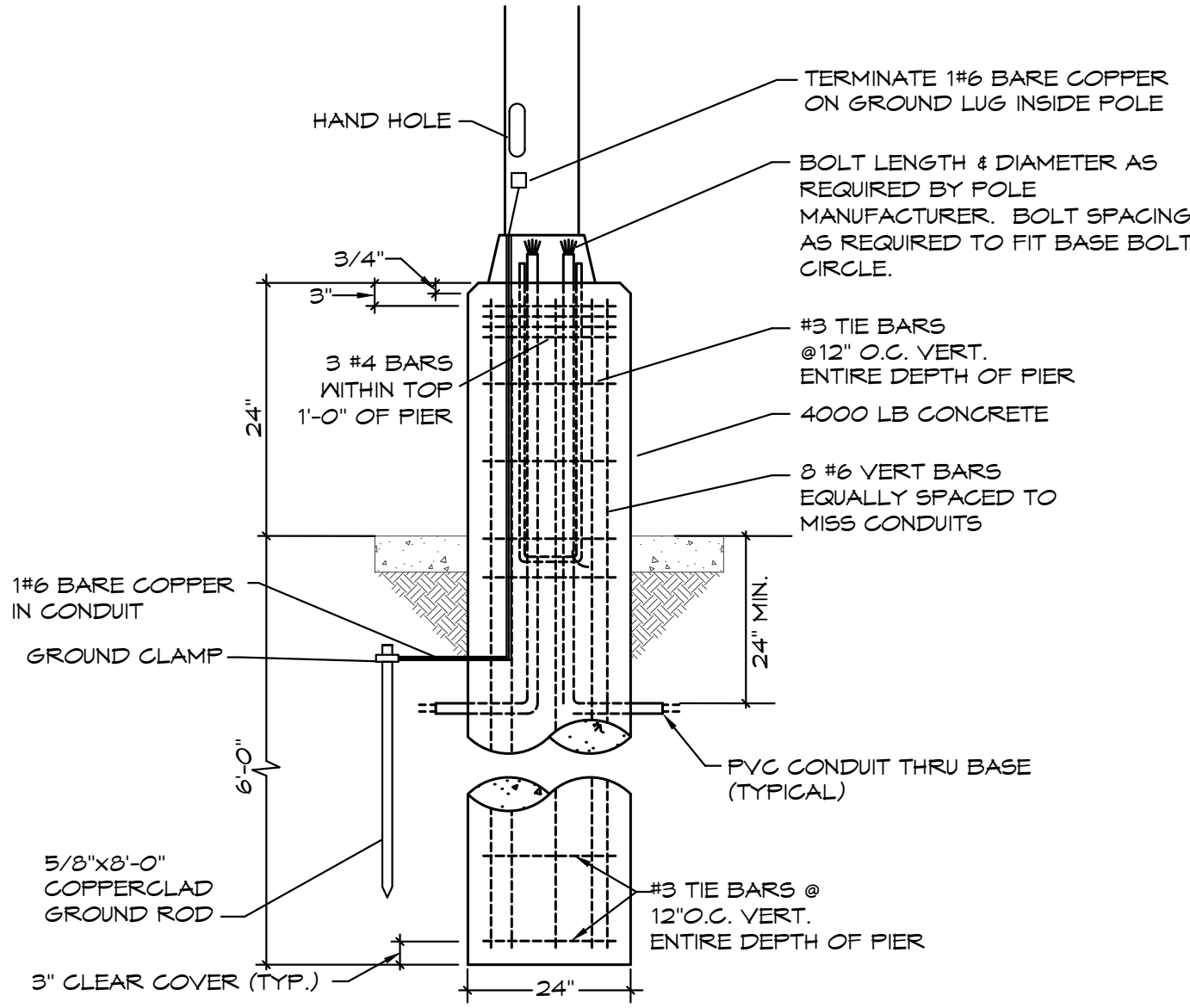
22185



SITE PHOTOMETRIC PLAN
SCALE: 1"=20'

LIGHT FIXTURE SCHEDULE					
MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LAMPS	DESCRIPTION	EQUIVALENT MANUFACTURERS
F	CREE CPY250-C-13L-5TK7-D-JUL-DN-WH	120 26	LED 5700K 13000 LUMS	DIRECT MOUNTED LED CANOPY LIGHT WITH DROPPED LENS AND WHITE FINISH.	OR EQUAL AS APPROVED BY WESTLAKE
61	BEACON LIGHTING TRV-D-24NB-55-SK-T4-UNV-SYS	120 55	LED 5000K 6000 LUMS	WALL MOUNTED LED FULL CUTOFF FIXTURE WITH GRAY SMOOTH FINISH. TYPE 4 DISTRIBUTION MOUNT FIXTURE AT 15'-0"	OR EQUAL AS APPROVED BY WESTLAKE
62	BEACON LIGHTING TRV-D-36NB-80-SK-T4-UNV-SYS	120 80	LED 5000K 9000 LUMS	WALL MOUNTED LED FULL CUTOFF FIXTURE WITH GRAY SMOOTH FINISH. TYPE 4 DISTRIBUTION MOUNT FIXTURE AT 15'-0"	OR EQUAL AS APPROVED BY WESTLAKE
55	BEACON LIGHTING VP-L-16L-330-5K7-5R-UNV-A-BL VV 555-B-25-40-A-1-B3-BLT POLE	208 220	LED 5000K 25000 LUMS	FLAT LENS LED POLE LIGHT, TYPE V DISTRIBUTION, 5000°K, MOUNT ON 25" SQUARE STEEL POLE ON 2" CONCRETE POLE BASE. BLACK FINISH. MAX FIXTURE HEIGHT SHALL BE 21' PER CITY ORDINANCE.	OR EQUAL AS APPROVED BY WESTLAKE
NOTES:					

STATISTICS					
Description	Avg	Min	Max	Avg/Min	Max/Min
PAVED AREA	1.9	0.5	8.1	3.8/1	16.2/1
GARDEN CENTER	4.4	1.8	10.9	2.4/1	6.1/1



POLE FOUNDATION DETAIL
SCALE: NONE

BC PROJECT #: 22784
MISSOURI FE COA #2009003629
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a new store for

Westlake ACE Hardware

3511 SW Market Street

Lee's Summit, Missouri 64082

sheet number

PH1

drawing type
FDP SUBMITTAL

project number
22185



