

- SYMBOLS LEGEND**
- IRON REBAR FOUND
 - IRON PIPE FOUND
 - 5/8" CAPPED IRON REBAR SET
 - CHISELED MARK FOUND
 - CHISELED MARK SET
 - PK NAIL FOUND
 - SANITARY MANHOLE
 - SANITARY CLEANOUT
 - GREASE TRAP
 - DRAINAGE MANHOLE
 - CURB INLET
 - CATCH BASIN
 - SURFACE DOWN SPOUT
 - UNDERGROUND DOWN SPOUT
 - AUTO. SPRINKLER/FIRE DEPT. CON.
 - HYDRANT
 - WATER METER
 - BACKFLOW PREVENTER
 - WATER VALVE
 - IRRIGATION CONTROL VALVE
 - POST INDICATOR VALVE
 - WATER SPIGOT
 - MAILBOX
 - GAS METER
 - GAS VALVE
 - AREA LIGHT
 - CONCRETE BASE LIGHT POLE
 - WALL MOUNTED FLOOD LIGHT
 - ELECTRIC MANHOLE
 - ELECTRIC METER
 - ELECTRIC PULLBOX
 - ELECTRIC VAULT
 - TELEPHONE MANHOLE
 - TELEPHONE PEDESTAL
 - TELEPHONE PULLBOX
 - CABLE TV PEDESTAL
 - POWER POLE
 - TEMPORARY BENCHMARK
 - SIGN

- TRAFFIC CONTROL LEGEND**
- HANDICAP PARKING
 - PAINTED SOLID WHITE LINE
 - PAINTED SOLID YELLOW LINE
 - PAINTED DASHED WHITE LINE
 - PAINTED DASHED YELLOW LINE
 - TRAFFIC FLOW
 - LEFT TURN ONLY LANE
 - RIGHT TURN ONLY LANE
 - STRAIGHT OR LEFT TURN LANE
 - STRAIGHT OR RIGHT TURN LANE

- LINE LEGEND**
- EASEMENT LINE
 - BUILDING SETBACK LINE
 - PROPERTY LINE
 - OHT OVERHEAD TELEPHONE
 - ST S DRAIN, SEWER LINE TYPE AND SIZE
 - W WATER LINE AND SIZE OF PIPE
 - SAN SANITARY SEWER LINE AND SIZE
 - P OVERHEAD POWER
 - P&T OVERHEAD POWER & TELEPHONE CABLE
 - UGE UNDERGROUND ELECTRIC CABLE
 - UGT UNDERGROUND TELEPHONE CABLE
 - FO UNDERGROUND FIBER OPTIC CABLE
 - GAS GAS LINE AND SIZE
 - FENCE
 - P&CATV OVERHEAD POWER AND CATV

811
Know what's below.
Call before you dig.

OKLAHOMA DIG INFORMATION
TICKET NUMBER: 22070511032535
CITY COWETA OF T09602-WATER
CITY COWETA OF T09602-SEWER
OKLAHOMA NATURAL GAS-GAS
PUBLIC SERVICES OF OK/AEP S00153-ELECTRIC
WAGONER CO RWD4 T10032-SEWER
WAGONER CO RWD4 T10032-WATER
WINDSTREAM WINOK-TELECOM

MARKED/NO MAPS PROVIDED
MARKED/NO MAPS PROVIDED
MARKED/NO MAPS PROVIDED
CLEAR
CLEAR
CLEAR

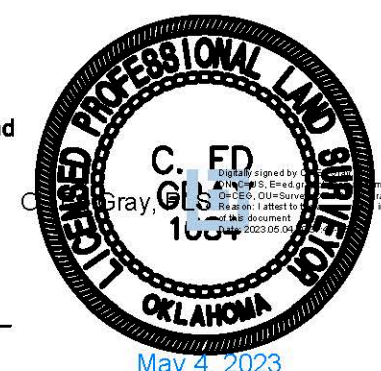
- NOTES:**
- THE STREET ADDRESS OF THE PROPERTY SHOWN ON THIS SURVEY IS TO BE ASSIGNED.
 - THE TAX PARCEL NUMBER FOR THIS PROPERTY IS 730008081 OWNER OF LOT SHOWN HEREON IS: ROLAND INVESTMENTS, LTD
 - THE AREA OF THE PROPERTY SURVEYED CONTAINING 148,802 SQ.FT. OR 3.42 ACRES, MORE OR LESS.
 - THE PROPERTY AREA WAS DETERMINED BY THE COORDINATE COMPUTATION METHOD.
 - DISTANCES SHOWN HEREON ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
 - THE CURRENT ZONING OF THIS PROPERTY IS PLANNED UNIT DEVELOPMENT (PUD-02). SETBACKS, HEIGHTS AND USE ARE NOT SPECIFIED IN THE PUD DOCUMENT. THE PARCEL SHALL BE CONTAINED WITHIN 3.42 ACRES OF LAND, LESS THAN 20 ACRES IN A PUD-R ZONING IS (RM-1) RESIDENTIAL MULTI-FAMILY. THE MINIMUM BUILDING SETBACK DISTANCES ARE AS FOLLOWS:
FRONT YARD (ABUTTING NON-ARTERIAL STREET): 15 FEET
REAR YARD: 17.5 FEET
SIDE YARD NOT ABUTTING A STREET: 10'
SETBACKS CREATED PER CITY OF COWETA, OKLAHOMA ORDINANCE NO. 856 RECORDED IN BOOK 2785, PAGE 539. SETBACKS SHOWN UNDER THE "MINIMUM YARD SETBACKS MULTIFAMILY AND ELDERLY RESIDENTIAL CARE FACILITIES"
 - ANY UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. ALTHOUGH HE DOES STATE THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. BEFORE BEGINNING ANY CONSTRUCTION OR BORINGS CONTACT THE UTILITIES PROTECTION SERVICE CENTER AT OKLAHOMA 1-CALL: 811/1-800-522-6543.
 - THE SUBJECT PROPERTY IS LOCATED ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 40145C0250H, DATED: APRIL 17, 2012.
 - ALL CORNERS NOT LABELED ARE TO BE CONSIDERED POINTS.
 - THIS IS A SURVEY OF THE PROPERTY REFERENCED IN DEED BOOK 2569 IN THE 354 COUNTY REGISTER'S OFFICE.
 - THE REFERENCE BEARING FOR THIS DRAWING IS BASED ON OKLAHOMA S.P.C. PROVIDED BY OPUS OBSERVATION BY GLOBAL POSITIONING SYSTEM. NAD 83 OKLAHOMA STATE PLANES, 3501 OK N ZONE, US FOOT.
COMBINED FACTOR=0.99992302
CONVERGENCE ANGLE=1.37296867
ELEVATIONS FOR THIS DRAWING ARE BASED ON NAVD88
HORIZONTAL AND VERTICAL CONTROL POINTS USED:
PID DESIGNATION LATITUDE LONGITUDE DISTANCE(m)
DH7119 ARCY FAYETTEVILLE CORRS ARP N360856.851 W0941048.135 135287.6
DE8101 OKTU TULSA CORRS ARP N361238.113 W0955115.782 28371.5
DE7174 OKTE TECUMSEH CORRS ARP N351536.669 W0965352.107 137342.2
 - THERE ARE NO VISIBLE AND/OR APPARENT ENCROACHMENTS OR PROJECTIONS OTHER THAN THOSE SHOWN ON THIS PLAT OF SURVEY.
 - AT THE TIME OF THE SURVEY, THE SURVEYOR NOTICED OBSERVABLE EVIDENCE OF THE FOLLOWING UTILITIES: SANITARY SEWER, STORM SEWER, WATER, ELECTRIC, TELEPHONE, GAS, FIBER OPTICS, CATV.
 - NO LOCAL ROADWAY MILE MARKERS APPARENT.
 - ALL ACTIVE DRAINAGE PIPES, STRUCTURES AND SANITARY MANHOLES ARE PRECAST AND IN FAIR CONDITION.
 - NO OBSERVED EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
 - NO EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
 - ALL CONTIGUOUS/APPURTENANT EASEMENTS AND ENCUMBRANCES AFFECTING SUBJECT PARCEL AS PROVIDED BY TITLE POLICY, COMMITMENT NO.: 21-0564SW COMMITMENT DATE: JULY 19, 2022 AT 05:01 PM, ARE SHOWN HEREON. OTHER OFFSITE EASEMENTS AND ENCUMBRANCES COULD EXIST BUT CAN NOT BE DETERMINED WITHOUT TITLE FOR ADJOINING PROPERTIES.
 - SUBJECT PARCEL HAS DIRECT ACCESS TO SOUTH 273RD EAST AVE, A PUBLIC RIGHT-OF-WAY.
 - DATE OF THE FIELD SURVEY: 7/12/22-7/14/22
 - PROPERTY CORNERS SET 12/09/2022.

CERTIFICATION:

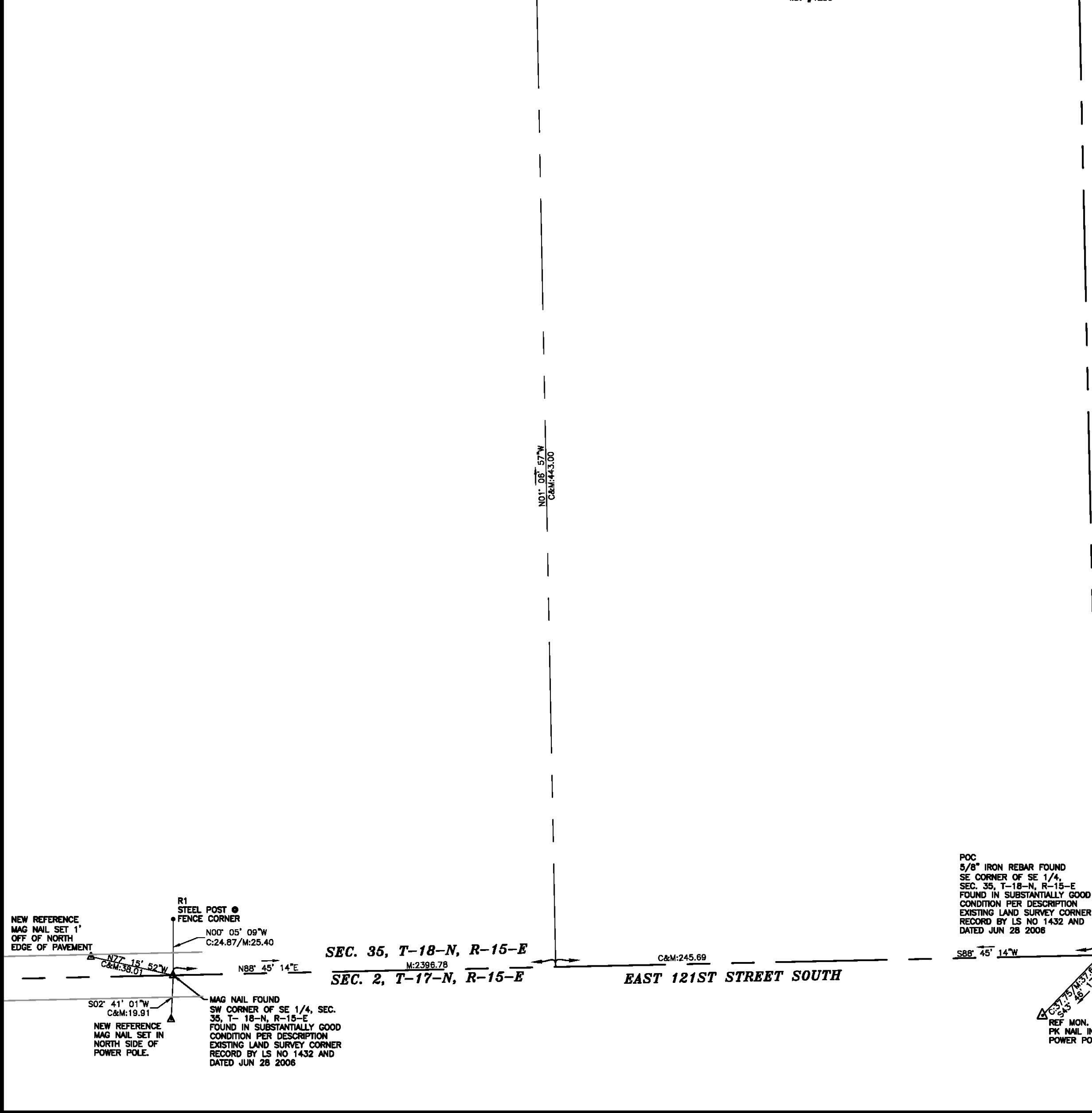
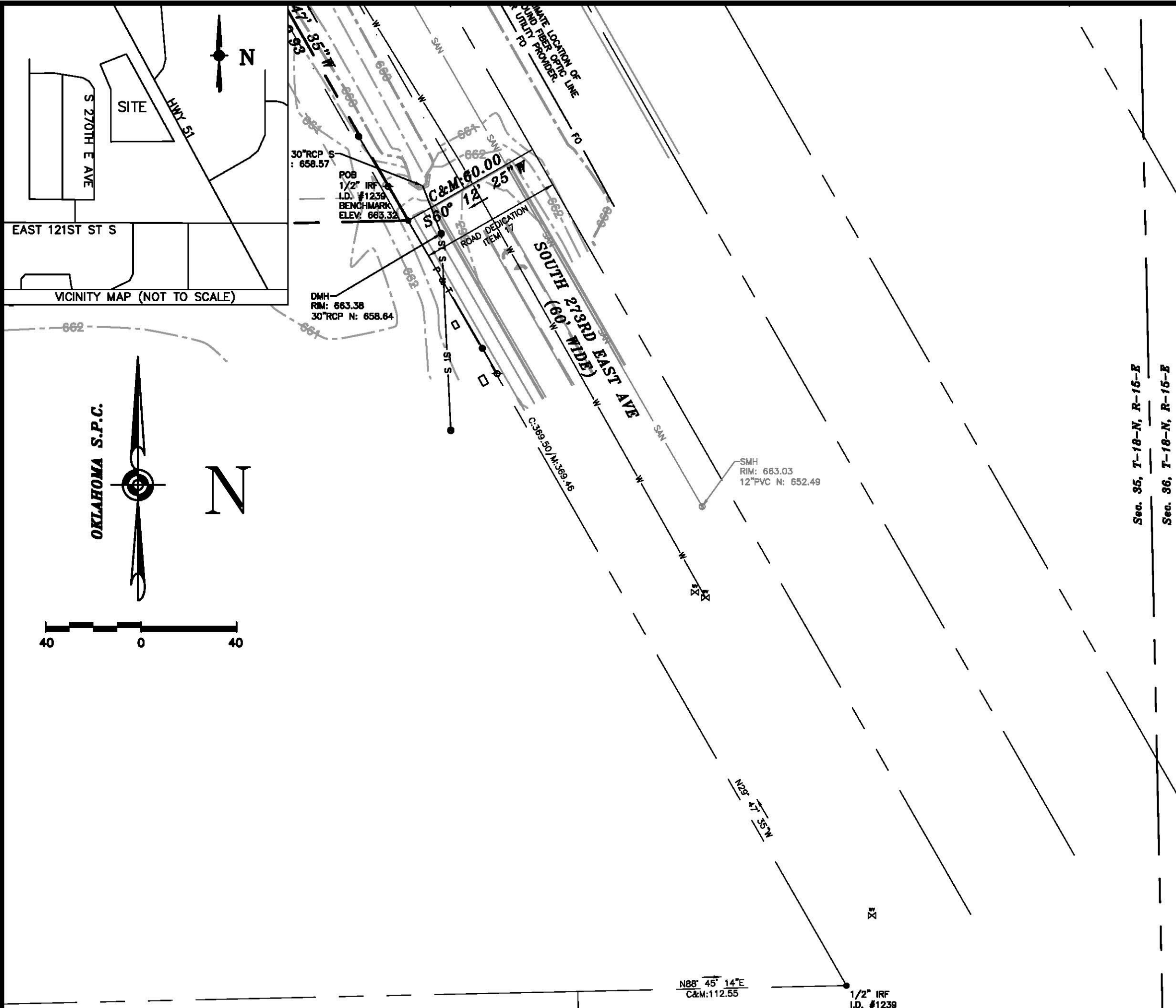
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 6(a), 6(b), 7(A), 7(B)(1), 7(C) 8, 9, 11 (A), 13, 18 - 19. The fieldwork was completed on May 31 - May 33, 2022 & July 15, 2022

May 4 2023
Date

C. Ed Gray, PLS
ED GRAY RPLS No. 1684



ALTA/NSPS LAND TITLE SURVEY
FOR
TRINITY HOUSING DEVELOPMENT, LLC
SE 1/4, SEC. 35, T-18-N, R-15-E, COWETA, WAGONER COUNTY, OKLAHOMA
ED GRAY, RPLS
501 E CENTERTON BLVD
APT #1917
CENTERTON, AR 72719
SCALE: 1" = 40'
DATE: 5/3/2023
DRAWING FILE: COWETA II
DRAWN BY: DGR/DCS/JSJ
JOB No. TRINITY
SHEET 1 OF 2



FIDELITY NATIONAL TITLE INSURANCE
SCHEDULE B, PART II
EXCEPTIONS

COMMITMENT NO.: 21-0564SW
COMMITMENT DATE: JULY 19, 2022 AT 05:01 PM

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET. **NOT A SURVEY RELATED ITEM.**

2. RIGHTS OR CLAIMS OF PARTIES OR TENANTS IN POSSESSION BY VIRTUE OF RECORDED OR UNRECORDED LEASES. **NOT A SURVEY RELATED ITEM.**

3. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORDS. **NONE OBSERVED.**

4. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE SURVEY OF THE LAND. **CONCRETE CURB, PAYEMENT, STORM SEWER AND BASKETBALL LOCATED AT THE END OF E. 119TH STREET S, SHOWN HEREON; SHED LOCATED AT NORTHWESTERLY CORNER OF SUBJECT PARCEL, SHOWN HEREON.**

5. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS. **NOT A SURVEY RELATED ITEM.**

6. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS. **NOT A SURVEY RELATED ITEM.**

7. AD VALOREM TAXES FOR THE YEAR 2022 AND SUBSEQUENT YEARS, WHICH ARE NOT YET DUE AND PAYABLE. **NOT A SURVEY RELATED ITEM.**

8. ASSESSMENTS TO THE CITY OF COWETA, OKLAHOMA, FOR THE YEAR 2022 AND SUBSEQUENT YEARS, WHICH ARE NOT YET DUE AND PAYABLE. **NOT A SURVEY RELATED ITEM.**

9. ASSESSMENTS TO THE RURAL WATER DISTRICT #4, OKLAHOMA, FOR THE YEAR 2022 AND SUBSEQUENT YEARS, WHICH ARE NOT YET DUE AND PAYABLE. **NOT A SURVEY RELATED ITEM.**

10. ALL INTEREST IN AND TO ALL OF THE OIL, GAS, COAL, METALLIC ORES AND OTHER MINERALS IN AND UNDER AND THAT MAY BE PRODUCED FROM THE LAND, AND ALL RIGHTS, INTERESTS AND ESTATES OF WHATSOEVER NATURE INCIDENT TO OR GROWING OUT OF SAID OUTSTANDING MINERALS. **NOT A SURVEY RELATED ITEM.**

11. STATUTORY SECTION LINE ROADS TO THE EXTENT THEY AFFECT THE SUBJECT PROPERTY. **DOES NOT AFFECT SUBJECT PARCEL.**

12. RIGHT OF WAY DEED IN FAVOR OF THE PRAIRIE PIPE LINE COMPANY, A CORPORATION, DATED APRIL 29, 1929, FILED JULY 6, 1929, AND RECORDED IN THE OFFICE OF THE WAGONER COUNTY CLERK IN BOOK 198 AT PAGE 467. **AFFECTS SUBJECT PARCEL, EASEMENT BLANKET IN NATURE ACROSS ENTIRITY OF THE SE 1/4 OF SECTION 35, TOWNSHIP 18 NORTH, RANGE 15 EAST. (CANNOT BE PLOTTED)**

13. RIGHT-OF-WAY EASEMENT IN FAVOR OF PUBLIC SERVICE COMPANY OF OKLAHOMA, AN OKLAHOMA CORPORATION, DATED AUGUST 27, 1984, FILED SEPTEMBER 20, 1984, AND RECORDED IN THE OFFICE OF THE WAGONER COUNTY CLERK IN BOOK 659 AT PAGE 160. **DOES NOT AFFECT SUBJECT PARCEL.**

14. UTILITY EASEMENT IN FAVOR OF THE CITY OF COWETA, WAGONER COUNTY, OKLAHOMA, A MUNICIPAL CORPORATION, DATED JUNE 24, 1985, FILED JUNE 25, 1985, AND RECORDED IN THE OFFICE OF THE WAGONER COUNTY CLERK IN BOOK 675 AT PAGE 39. **DOES NOT AFFECT SUBJECT PARCEL.**

15. EASEMENT DEED BY COURT ORDER IN SETTLEMENT OF LANDOWNER ACTION, CASE NO. CIV-11-1475-W, IN THE DISTRICT COURT FOR THE WESTERN DISTRICT, OKLAHOMA, DATED NOVEMBER 28, 2012, FILED AUGUST 19, 2013, AND RECORDED IN THE OFFICE OF THE WAGONER COUNTY CLERK IN BOOK 2106 AT PAGE 507. **"EXHIBIT 1", NOT ATTACHED TO CASE NO. CIV-11-1475-W. "EXHIBIT 1" LIST ALL AFFECTED PARCELS. NO DESCRIPTION OF EASEMENTS IN DEED. COULD NOT DETERMINE IF ITEM 15 AFFECTS SUBJECT PARCEL.**

16. ORDINANCE NO. 796, ADOPTING AN AMENDMENT, DATED JANUARY 8, 2018, FILED JANUARY 10, 2018, AND RECORDED IN THE OFFICE OF THE WAGONER COUNTY CLERK IN BOOK 2408 AT PAGE 502. **AFFECTS SUBJECT PARCEL, APPROVES ZONING CHANGE TO PUD-02.**

17. DEED OF DEDICATION IN FAVOR OF THE CITY OF COWETA, OKLAHOMA, DATED MARCH 26, 2020, FILED APRIL 2, 2020, AND RECORDED IN THE OFFICE OF THE WAGONER COUNTY CLERK IN BOOK 2569 AT PAGE 349. **BENEFITS SUBJECT PARCEL, SHOWN HEREON.**

18. ORDINANCE NO. 856, AMENDING A PLANNED UNIT DEVELOPMENT OVERLAY, DATED MARCH 7, 2022, FILED MARCH 9, 2022, AND RECORDED IN THE OFFICE OF THE WAGONER COUNTY CLERK IN BOOK 2785 AT PAGE 539. **AFFECTS SUBJECT PARCEL, APPROVES ZONING CHANGE.**

19. INSTRUMENTS FILED UNDER THE UNIFORM COMMERCIAL CODE AFFECTING THE PROPERTY. **NO INSTRUMENTS PROVIDED.**

FIDELITY NATIONAL TITLE INSURANCE
SCHEDULE C
LEGAL DESCRIPTION

COMMITMENT NO.: 21-0564SW
COMMITMENT DATE: JULY 19, 2022 AT 05:01 PM

THE LAND IS DESCRIBED AS FOLLOWS:

ALL THAT PART OF THE NE/4 OF SECTION 35, TOWNSHIP 18 NORTH, RANGE 15 EAST, OF THE INDIAN BASE AND MERIDIAN, ACCORDING TO THE U.S. GOVERNMENT SURVEY THEREOF, WAGONER COUNTY, STATE OF OKLAHOMA, AND WEST OF THE M.K. & T. RAILROAD AND A TRACT OF PARCEL OF LAND IN THE SE/4 OF SECTION 35, TOWNSHIP 18 NORTH, RANGE 15 EAST OF THE INDIAN BASE AND MERIDIAN, ACCORDING TO THE U.S. GOVERNMENT SURVEY THEREOF, WAGONER COUNTY, STATE OF OKLAHOMA, SAID TRACT LYING WEST OF THE M.K. & T. RAILROAD IN SAID SECTION 35 AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO-WIT:

BEGINNING AT THE SE CORNER OF SAID SE/4; THENCE S 89°52'11" W AND ALONG THE SOUTH LINE OF SAID SE/4 A DISTANCE OF 245.69 FEET TO A POINT THAT IS THE SE CORNER OF STEEPLECHASE APARTMENTS, A SUBDIVISION IN SAID SE/4; THENCE N 00° E AND ALONG THE EAST LINE OF SAID SUBDIVISION A DISTANCE OF 443 FEET TO THE NE CORNER THEREOF; THENCE S 89°52'11" W AND ALONG THE NORTH LINE OF SAID SUBDIVISION A DISTANCE OF 470 FEET TO THE EAST LINE OF TIMBER RIDGE PLAZA, A SUBDIVISION IN SAID SE/4; THENCE N 00° E AND ALONG THE EAST LINE THEREOF A DISTANCE OF 787.61 FEET; THENCE CONTINUING ALONG THE NORTHERLY LINE OF SAID SUBDIVISION THE FOLLOWING, N 28°34'33" W A DISTANCE OF 231.25 FEET; THENCE N 5° W FOR 272.94 FEET; THENCE N 90° W FOR 212.87 FEET; THENCE N 00° E FOR 121.52 FEET; THENCE N 90° W FOR 90 FEET TO THE EAST LINE OF TIMBER RIDGE ESTATES, A SUBDIVISION IN SAID SE/4; THENCE N 00° W AND ALONG THE EASTERLY LINE THEREOF TO THE NORTH LINE OF SAID SE/4; THENCE EASTERLY ALONG SAID NORTH LINE TO THE WESTERLY RIGHT-OF-WAY LINE OF THE M.K. & T. RAILROAD; THENCE S 29°03'54" E AND ALONG SAID WESTERLY RIGHT-OF-WAY LINE TO THE EAST LINE OF SAID SE/4; THENCE SOUTHERLY ALONG SAID EAST LINE TO THE SE CORNER OF SAID SE/4 AND THE POINT OF BEGINNING.

LESS AND EXCEPT THE FOLLOWING 3 TRACTS:

A TRACT OF LAND IN THE SE/4 OF SECTION 35, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE SE/4; THENCE S 88°44'55" W ALONG THE SOUTH LINE OF SAID SE/4 A DISTANCE OF 245.69 FEET; THENCE N 01°07'16" W ALONG THE BOUNDARY OF STEEPLECHASE APARTMENTS, ACCORDING TO THE RECORDED PLAT NO. PLC4-336 A DISTANCE OF 443.00 FEET TO THE POINT OF BEGINNING; THENCE S 88°44'55" W ALONG THE BOUNDARY OF SAID STEEPLECHASE APARTMENTS A DISTANCE OF 470.00 FEET TO THE BOUNDARY OF TIMBER RIDGE PLAZA, ACCORDING TO THE RECORDED PLAT NO. PLC4-310; THENCE N 01°07'16" W ALONG THE BOUNDARY OF SAID TIMBER RIDGE PLAZA, A DISTANCE OF 324.58 FEET; THENCE N 88°44'55" EA DISTANCE OF 405.24 FEET; THENCE S 29°47'54" E ALONG A LINE BEING PARALLEL AND 60.00 FEET WEST OF THE PRESENT RAILROAD RIGHT-OF-WAY A DISTANCE OF 369.50 FEET; THENCE S 88°44'55" W A DISTANCE OF 112.55 FEET TO THE POINT OF BEGINNING.

AND LESS

A TRACT OF LAND LOCATED IN THE SE/4 OF SECTION 35, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF THE SE/4 OF SECTION 35; THENCE S 88°44'55" W ALONG THE SOUTH LINE OF SAID SE/4 A DISTANCE OF 35.25 FEET; THENCE N 01°24'11" W A DISTANCE OF 266.21 FEET; THENCE N 29°47'54" W A DISTANCE OF 570.76 FEET; THENCE N 60°12'06" EA DISTANCE OF 60.00 FEET TO THE PRESENT RAILROAD RIGHT-OF-WAY; THENCE S 29°47'54" E ALONG SAID PRESENT RAILROAD RIGHT-OF-WAY A DISTANCE OF 533.89 FEET TO THE EAST LINE OF SAID SE/4; THENCE S 01°24'11" E ALONG THE EAST LINE OF SAID SE/4 A DISTANCE OF 327.26 FEET TO THE POINT OF BEGINNING.

AND LESS

A TRACT OF LAND LOCATED IN THE SE/4 OF SECTION 35, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE SE/4 OF SECTION 35; THENCE S 88°44'55" W ALONG THE SOUTH LINE OF SAID SE/4 A DISTANCE OF 35.25 FEET TO THE POINT OF BEGINNING; THENCE S 88°44'55" W ALONG THE SOUTH LINE OF SAID SE/4 A DISTANCE OF 210.44 FEET; THENCE N 01°07'16" W ALONG THE BOUNDARY OF STEEPLECHASE APARTMENTS, ACCORDING TO THE RECORDED PLAT NO. PLC4-336 A DISTANCE OF 443.00 FEET; THENCE N 88°44'55" EA DISTANCE OF 112.55 FEET; THENCE S 29°47'54" EA DISTANCE OF 201.26 FEET; THENCE S 01°24'11" EA DISTANCE OF 266.21 FEET TO THE POINT OF BEGINNING.

SURVEY LEGAL DESCRIPTION

SITUATED IN THE SOUTHEAST 1/4 OF SECTION 35, TOWNSHIP 18 NORTH, RANGE 15 EAST, OF THE INDIAN BASE AND MERIDIAN ACCORDING TO THE U.S. GOVERNMENT SURVEY THEREOF, IN THE CITY OF COWETA, COUNTY OF WAGONER AND STATE OF OKLAHOMA AND BEING A PART OF LAND CONVEYED TO ROLAND INVESTMENTS, LTD BY DEED RECORDED IN DEED BOOK 2569, PAGE 354 IN THE WAGONER COUNTY CLERKS OFFICE AND IS FURTHER BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND 5/8" IRON REBAR FOUND AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4, SECTION 35, TOWNSHIP 18 NORTH, RANGE 15 EAST; THENCE SOUTH 88°45'14" WEST A DISTANCE OF 245.69 FEET; THENCE NORTH 01°06'57" WEST A DISTANCE OF 443.00 FEET TO A POINT LYING IN A SOUTHERLY LINE OF LAND CONVEYED TO COWETA TRAILS, LP BY DEED RECORDED IN DEED BOOK 2591, PAGE 799 RECORDED IN THE WAGONER COUNTY CLERK'S OFFICE; THENCE ALONG SAID SOUTHERLY LINE NORTH 88°45'14" EAST A DISTANCE OF 112.55 FEET TO A 1/2" IRON REBAR, I.D. #1239, AT A SOUTHEASTERLY CORNER THEREOF SAID CORNER LYING IN A SOUTHWESTERLY RIGHT-OF-WAY OF SOUTH 273RD EAST AVENUE (60' WIDE); THENCE ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY NORTH 29°47'35" EAST A DISTANCE OF 369.46 FEET TO A 1/2" IRON REBAR FOUND, I.D. #1239 AT A NORTHEASTERLY CORNER OF LAND SO CONVEYED TO COWETA TRAILS, LP AND BEING THE POINT OF BEGINNING OF THE PREMISES HEREIN INTENDED TO BE DESCRIBED;

THENCE ALONG SAID NORTHERLY LINE SOUTH 88°44'45" WEST A DISTANCE OF 405.18 FEET TO A 1/2" IRON REBAR, I.D. #1239, LYING IN AN EASTERLY LINE OF LOT 5 OF THE TIMBER RIDGE PLAZA RECORDED BY PLAT IN PLAT NUMBER PLC4-310 IN THE WAGONER COUNTY CLERK'S OFFICE; THENCE ALONG SAID EASTERLY LINE OF SAID SUBDIVISION NORTH 01°22'13" WEST A DISTANCE OF 461.62 FEET TO A 1/2" IRON REBAR, I.D. #1239, FOUND AT AN ANGLE POINT IN THE EASTERLY LINE OF LOT 42 OF SAID SUBDIVISION; THENCE CONTINUING ALONG SAID EASTERLY LINE NORTH 29°48'21" WEST A DISTANCE OF 178.91 FEET TO A CAPPED 5/8" IRON REBAR SET, I.D. C. ED GRAY #1684; THENCE SOUTH 75°32'28" EAST A DISTANCE OF 100.62 FEET TO A CAPPED 5/8" IRON REBAR SET, I.D. C. ED GRAY #1684 AT AN ANGLE POINT THEREIN; THENCE SOUTH 67°29'59" EAST A DISTANCE OF 55.37 FEET TO A CAPPED 5/8" IRON REBAR SET, I.D. C. ED GRAY #1684 AT AN ANGLE POINT THEREIN; THENCE SOUTH 58°48'02" EAST A DISTANCE OF 82.33 FEET TO A CAPPED 5/8" IRON REBAR SET, I.D. C. ED GRAY #1684 LYING IN THE EXTENDED SAID SOUTHWESTERLY RIGHT-OF-WAY SOUTH 273RD EAST AVENUE; THENCE ALONG SAID EXTENDED SOUTHWESTERLY RIGHT-OF-WAY SOUTH 29°47'35" EAST A DISTANCE OF 609.93 FEET TO THE PLACE OF BEGINNING CONTAINING 148,802 SQ. FT. OR 3.42 ACRES (MORE OR LESS) OF LAND.



ALTA/NSPS LAND TITLE SURVEY FOR TRINITY HOUSING DEVELOPMENT, LLC		
SE 1/4, SEC. 35, T-18-N, R-15-E, COWETA, WAGONER COUNTY, OKLAHOMA		
ED GRAY, RPLS 501 E CENTERTON BLVD APT #1917 CENTERTON, AR 72719		
SCALE: 1"=40' DATE: 5/3/2023	DRAWING FILE: COWETA II BY: DCR/DCS/JSL	JOB No. TRINITY SHEET 2 OF 2

EROSION & SEDIMENTATION
CONTROL PLAN/SITE MAP,
SHEET 1 OF 5, MUST BE
POSTED IN JOB TRAILER.

A

B

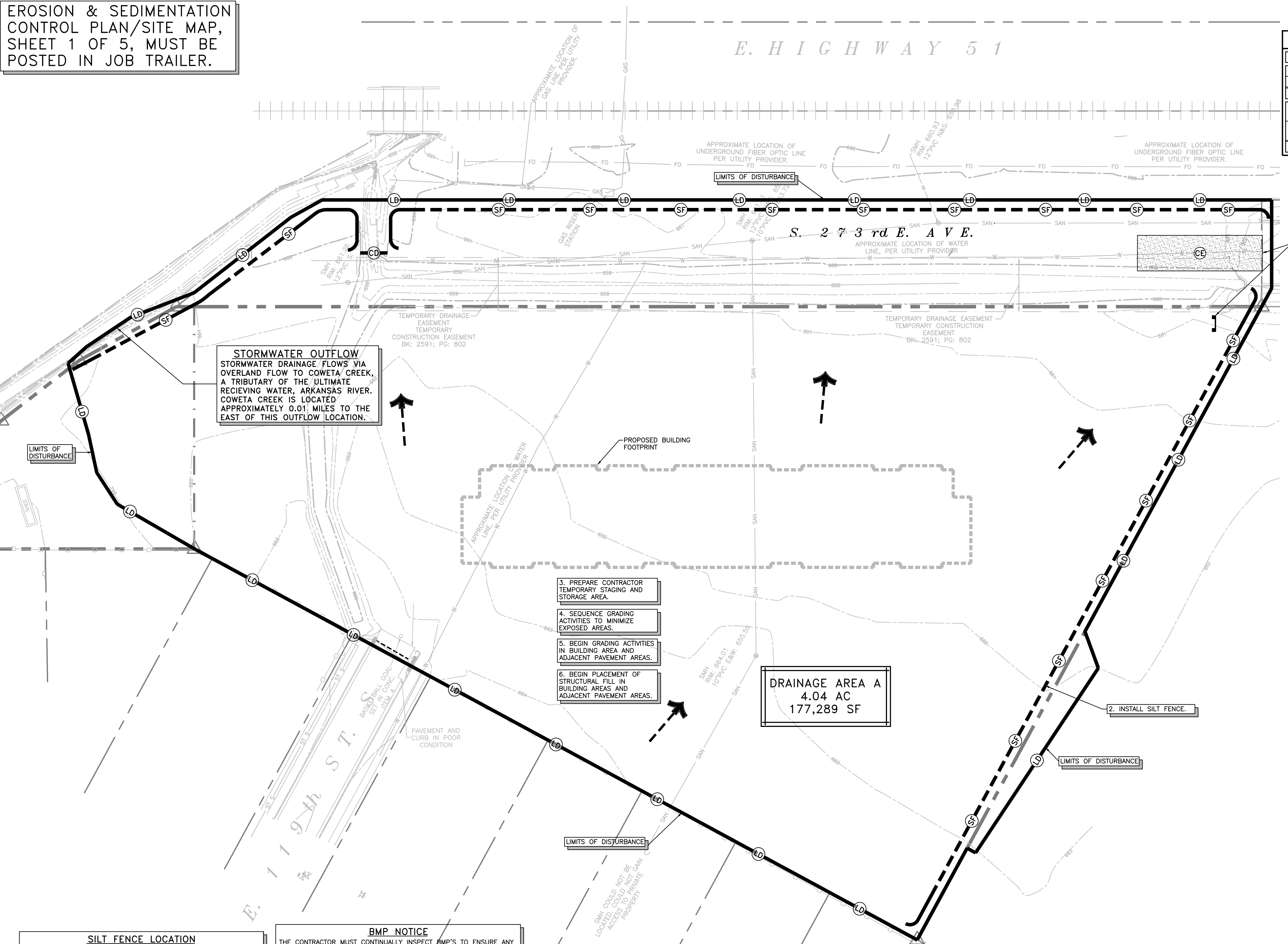
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D

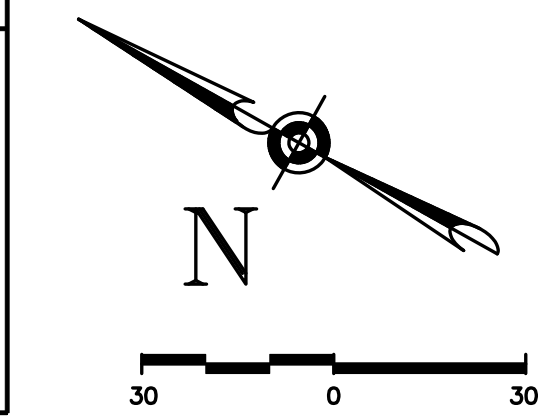
E

F

G



ACREAGE SUMMARY	
TOTAL PROJECT AREA	3.42 ACRES
ON-SITE DISTURBED AREA	3.23 ACRES
OFF-SITE DISTURBED AREA	0.84 ACRES
TOTAL DISTURBED AREA	4.07 ACRES
IMPERVIOUS AREA AT COMPLETION	1.30 ACRES
PERVIOUS/SEEDED AREA AT COMPLETION	2.12 ACRES
TOTAL AREA	3.42 ACRES



- LEGEND**
- PROPERTY LINE
 - LIMITS OF DISTURBANCE
 - SEDIMENTATION/SILT FENCE
 - ROCK CHECK DAM
 - STONE CONSTRUCTION EXIT
 - DRAINAGE PATTERN
 - SWPPP INFORMATION SIGN

BEST MANAGEMENT PRACTICES SEQUENCE

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC. IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ALL AREAS WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

- PHASE I - EROSION CONTROL SEQUENCING**
1. INSTALL STONE CONSTRUCTION EXIT AND SWPPP INFORMATION SIGN.
 2. INSTALL SILT FENCE AND CHECK DAM IN ALL AREAS SHOWN. SILT FENCE MUST BE IN PLACE PRIOR TO SUBGRADE DISTURBING ACTIVITIES.
 3. PREPARE CONTRACTOR TEMPORARY STAGING AND STORAGE AREA.
 4. SEQUENCE GRADING ACTIVITIES TO MINIMIZE EXPOSED AREAS.
 5. BEGIN GRADING ACTIVITIES IN BUILDING AREA AND ADJACENT PAVEMENT AREAS.
 6. BEGIN PLACEMENT OF STRUCTURAL FILL IN BUILDING AREAS AND ADJACENT PAVEMENT AREAS.

- PHASE II - EROSION CONTROL SEQUENCING**
1. TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE. ALL AREAS AT FINAL GRADE MUST BE PAVED OR STABILIZED WITH SPECIFIED GROUND COVER PER LANDSCAPE PLAN WITHIN 14 DAYS AFTER COMPLETION OF WORK IN THESE AREAS.
 2. INSTALL, REPLACE, REPAIR, OR MAINTAIN INLET PROTECTION, SILT FENCE, TEMPORARY CONSTRUCTION FENCE, STONE CONSTRUCTION EXIT, CHECK DAMS, AND SWPPP INFORMATION SIGN AS NEEDED.
 3. PREPARE/MAINTAIN TEMPORARY STAGING AND STORAGE AREA AS NEEDED.
 4. BEGIN INSTALLATION OF STORMWATER PIPES WITH INLET PROTECTION AS SOON AS POSSIBLE FOR USE AS SEDIMENT TRAPS.
 5. COMPLETE ALL OTHER GRADING ACTIVITIES AT THIS TIME.
 6. IMMEDIATELY INSTALL PERMANENT GROUND COVER, FERTILIZE, MULCH, AND WATER AREAS IN ACCORDANCE WITH THE PLANTING PLAN AND SITEWORK SPECIFICATIONS.
 7. CONTINUE INSPECTION REQUIREMENTS UNTIL FINAL STABILIZATION HAS BEEN OBTAINED AND THE NOTICE OF TERMINATION HAS BEEN FILED AND APPROVED.

RECEIVING WATERS
- STORMWATER DRAINAGE FLOWS VIA OVERLAND FLOW TO COWETA CREEK, A TRIBUTARY OF THE ULTIMATE RECEIVING WATER, ARKANSAS RIVER. COWETA CREEK IS LOCATED APPROXIMATELY 0.01 MILES TO THE EAST OF THIS OUTFLOW LOCATION.

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- ACCORDING TO THE NATIONAL WETLANDS INVENTORY, THERE ARE NO WETLANDS IN THE VICINITY OF THE PROJECT SITE.

NATURE AND PURPOSE OF PROJECT
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EXISTING VEGETATION
- ENTIRE SITE CONSISTS OF GRASS FIELDS AND LIGHTLY WOODED AREAS.

100 YEAR FLOODPLAINS, FLOODWAY FRINGES, AND FLOODWAYS
- THIS PROPERTY LIES IN FLOOD ZONE "X", AREAS DETERMINED TO BE OF MINIMAL FLOOD HAZARD. INFORMATION PROVIDED BY FEMA'S FLOOD INSURANCE RATE MAP NUMBER 40145C0260H WITH AN EFFECTIVE DATE OF APRIL 17, 2012.

SOIL TYPE
- THERE ARE TWO (2) SOIL TYPES FOR THE PROJECT SITE LISTED IN THE SOIL SURVEY OF WAGONER COUNTY, OKLAHOMA, AS FOLLOWS:

SYMBOL	SOIL NAME	SLOPE	HYDRIC CLASSIFICATION
- OAK	OKEMAH SILT LOAM	02-1%	NON-HYDRIC
- DCE	DENNIS SILT LOAM	02-15%	NON-HYDRIC

TEMPORARY SEEDING:
- SEED: MIXTURE 70% RYEGRASS/30% WINTER WHEAT - 4 LB / 1,000 SQ FT
- AREAS TO RECEIVE SEED ARE TO BE FERTILIZED WITH A COMPLETE FERTILIZER (13-13-13), 25 LBS PER 1,000 SF

PERMANENT SEEDING:
- COMMON BERMUDA GRASS
- AREAS TO RECEIVE SOD ARE TO BE FERTILIZED PER THE LOCAL EXTENSION SERVICE'S RECOMMENDATIONS.

DEVELOPER: TRINITY HOUSING DEVELOPMENT 3556 S. CULPEPPER CIRCLE, SUITE 4 SPRINGFIELD, MO 65908 (417) 882-1701
SITE OPERATOR/GENERAL CONTRACTOR:
SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.



Know what's below.
Call before you dig.

CAUTION - NOTICE TO CONTRACTOR
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 UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE IMPROVEMENTS SHOWN BY THESE PLANS.

STORMWATER OUTFLOW
STORMWATER DRAINAGE FLOWS VIA OVERLAND FLOW TO COWETA CREEK, A TRIBUTARY OF THE ULTIMATE RECEIVING WATER, ARKANSAS RIVER. COWETA CREEK IS LOCATED APPROXIMATELY 0.01 MILES TO THE EAST OF THIS OUTFLOW LOCATION.

3. PREPARE CONTRACTOR TEMPORARY STAGING AND STORAGE AREA.
4. SEQUENCE GRADING ACTIVITIES TO MINIMIZE EXPOSED AREAS.
5. BEGIN GRADING ACTIVITIES IN BUILDING AREA AND ADJACENT PAVEMENT AREAS.
6. BEGIN PLACEMENT OF STRUCTURAL FILL IN BUILDING AREAS AND ADJACENT PAVEMENT AREAS.

DRAINAGE AREA A
4.04 AC
177,289 SF

SILT FENCE LOCATION

SILT FENCE LOCATION SHOWN ON PLAN HAS BEEN OFFSET FOR CLARITY WHERE SILT FENCE IS SHOWN ADJACENT TO LIMITS OF DISTURBANCE IT IS THE INTENTION THAT SILT FENCE BE INSTALLED ALONG LIMITS OF DISTURBANCE (NO DISTURBANCE BEYOND SILT FENCE). SILT FENCE SHALL FOLLOW CONTOURS.

LIMITS OF DISTURBANCE

CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ELIMINATE TRACK-OUT FROM THE LIMITS OF DISTURBANCE. NO STOCKPILING, TEMPORARY STORAGE OR STAGING OF EITHER NEW, SALVAGED OR WASTE MATERIAL SHALL BE ALLOWED BEYOND THE LIMITS OF BMP PROTECTED AREAS. THE CONTRACTOR SHALL INSTALL APPROPRIATE BMP'S AROUND THE TOE OF ANY STOCKPILED MATERIAL AS NEEDED TO CONTROL SEDIMENT. ANY GROUND DISTURBING ACTIVITIES BEYOND THE PROJECT LIMITS OF DISTURBANCE IS STRICTLY PROHIBITED.

CAUTION NOTICE TO CONTRACTOR

IF PROPERLY IMPLEMENTED, THIS PLAN WILL PROVIDE AN EFFECTIVE MEANS FOR CONTROLLING EROSION. HOWEVER, IT IS ACKNOWLEDGED THAT NO ONE PLAN CAN BE PREPARED THAT WILL DEPICT ALL POSSIBLE CONTROL MEASURES NECESSARY FOR VARIOUS STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID ADEQUATE FUNDS TO PROVIDE ALL EROSION CONTROL MEASURES NECESSARY TO COMPLY WITH CODES FOR THE DURATION OF THE CONSTRUCTION PROJECT.

BMP NOTICE

THE CONTRACTOR MUST CONTINUALLY INSPECT BMP'S TO ENSURE ANY PONDING DOES NOT PRESENT HAZARDS TO THE PUBLIC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MODIFY BMP'S AS NEEDED TO PROTECT THE PUBLIC AT ALL TIMES AND PROVIDE PROTECTION FROM SEDIMENT RELEASE.

SPECIFICATIONS REQUIREMENTS

THE REQUIREMENTS SHOWN ON THIS PLAN ARE SUPPLEMENTED BY THE SWPPP CONTAINED WITHIN THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICTS BETWEEN THE PLANS, SWPPP SPECIFICATIONS AND THE ACTUAL GENERAL PERMIT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

TRACK OUT PREVENTION

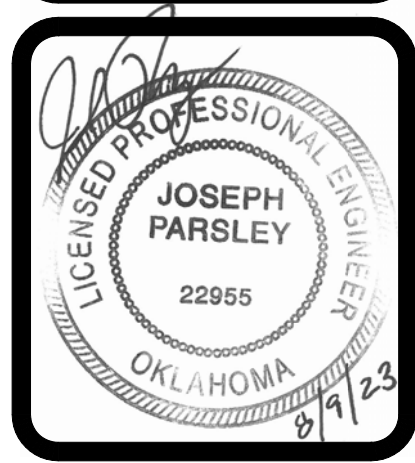
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE VEHICLES ARE ADEQUATELY CLEANED PRIOR TO EXITING THE LIMITS OF DISTURBANCE TO PREVENT TRACK OUT. IF THE ACTION OF THE STONE CONSTRUCTION EXIT DOES NOT SATISFACTORILY PREVENT TRACK OUT FROM TRAFFIC EXITING THE SITE, THE CONTRACTOR SHALL IMPLEMENT A WHEEL WASH SYSTEM AT THE CONSTRUCTION EXIT. WATER FROM THE WHEEL WASH SYSTEM SHALL BE DIRECTED TOWARDS THE CONSTRUCTION EXIT SEDIMENT TRAP FOR TREATMENT OF THE SEDIMENT LADEN WATER. THE CONTRACTOR SHALL ALSO HAVE AN ATTENDANT STATIONED AT THE CONSTRUCTION EXIT. THE ATTENDANT SHALL HAVE THE AUTHORITY TO PROHIBIT TRAFFIC FROM EXITING THE SITE IF IT APPEARS THAT VEHICLES EXITING THE SITE WILL CAUSE TRACK OUT. IT IS ULTIMATELY THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT TRAFFIC FROM THE SITE WILL NOT CAUSE TRACK OUT FROM THE PROJECT SITE. BY SUBMITTING A BID ON THE PROJECT, THE CONTRACTOR AFFIRMS THAT ADEQUATE FUNDS HAVE BEEN INCLUDED TO ADDRESS THESE REQUIREMENTS.

NO	REVISIONS

TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65904
PH. (417) 882-1701

CAPSTONE AT COWETA TRAILS II
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COWETA, OKLAHOMA

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70681 Edgemoor Commons
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Phone (901) 384-0404
Fax (901) 384-0710
Oklahoma Registered Engineering Firm #CA 1324



DRAWN DPS
CHECKED JSP
DATE 08/09/2023
SCALE 1"=30'
JOB No. N/A
SHEET 4 OF 33 SHEETS

PHASE I EROSION &
SEDIMENTATION CONTROL PLAN

EROSION & SEDIMENTATION
CONTROL PLAN/SITE MAP,
SHEET 2 OF 5, MUST BE
POSTED IN JOB TRAILER.

STORMWATER OUTFLOW
STORMWATER DRAINAGE FLOWS VIA
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A TRIBUTARY OF THE ULTIMATE
RECEIVING WATER, ARKANSAS RIVER.
COWETA CREEK IS LOCATED
APPROXIMATELY 0.01 MILES TO THE
EAST OF THIS OUTFLOW LOCATION.

REMOVE SILT FENCE AND
INSTALL CHECK DAM ONCE
SITE PROGRESS ALLOWS DUE
TO GRADING SEQUENCE.

4. CONSTRUCT CURB INLETS
WITH INLET FILTERS AS SOON
AS POSSIBLE FOR USE AS
SEDIMENT TRAPS.

4. BEGIN INSTALLATION OF
STORMWATER PIPES WITH INLET
PROTECTION AS SOON AS
POSSIBLE FOR USE AS
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1. TEMPORARILY STABILIZE
DENUDEED AREAS THAT WILL
BE INACTIVE FOR 14 DAYS
OR MORE.

3. PREPARE/MAINTAIN
TEMPORARY STAGING AND
STORAGE AREA AS NEEDED.

5. COMPLETE ALL OTHER
GRADING ACTIVITIES.

6. IMMEDIATELY INSTALL
PERMANENT GROUNDCOVER,
FERTILIZE, MULCH, AND
WATER AREAS IN
ACCORDANCE WITH THE
PLANTING PLAN AND
SITEWORK SPECIFICATIONS.

LIMITS OF DISTURBANCE

SILT FENCE LOCATION

BMP NOTICE

SPECIFICATIONS REQUIREMENTS

TRACK OUT PREVENTION

CAUTION NOTICE TO CONTRACTOR

CAUTION -- NOTICE TO CONTRACTOR

811

Know what's below.
Call before you dig.

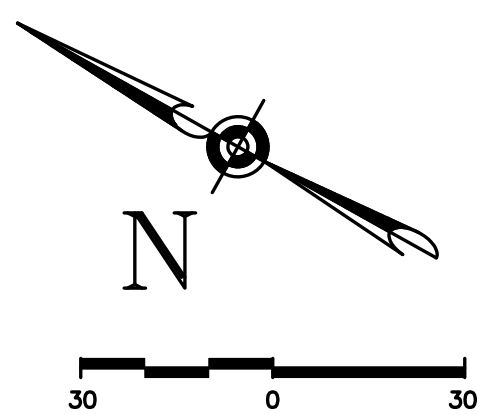
E. HIGHWAY 51

S. 273rd E. Ave.

COWETA TRAILS SENIOR APARTMENTS
THREE STORIES - 44 UNITS (TOTAL)
15,942 SF (EACH FLOOR)
47,826 SF (TOTAL)
FFE=664.00

ACREAGE SUMMARY

TOTAL PROJECT AREA	3.42 ACRES
ON-SITE DISTURBED AREA	3.23 ACRES
OFF-SITE DISTURBED AREA	0.84 ACRES
TOTAL DISTURBED AREA	4.07 ACRES
IMPERVIOUS AREA AT COMPLETION	1.30 ACRES
PERVIOUS/SEEDED AREA AT COMPLETION	2.12 ACRES
TOTAL AREA	3.42 ACRES



LEGEND

- LD - PROPERTY LINE
- LD - LIMITS OF DISTURBANCE
- SF - SEDIMENTATION/SILT FENCE
- EE - EROSION EEL
- CD - CHECK DAM
- CE - STONE CONSTRUCTION EXIT
- IP1 - BLOCK AND AGGREGATE INLET PROTECTION
- IP3 - BLOCK AND AGGREGATE FLUME PROTECTION
- IP5 - INLET PROTECTION FILTER SACK
- P7A - OCS SEDIMENT FILTER WITH HEADWALL
- RIP-RAP PAD
- SEEDED AREA
- SODDED AREA
- PLANTING BED: MULCH, GROUNDCOVER, ETC. SEE PLANTING PLAN FOR SPECIFIC INFORMATION
- SWPPP INFORMATION SIGN

BEST MANAGEMENT PRACTICES SEQUENCE

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ALL AREAS WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

- PHASE I - EROSION CONTROL SEQUENCING
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PHASE II EROSION & SEDIMENTATION CONTROL PLAN

NO	REVISIONS

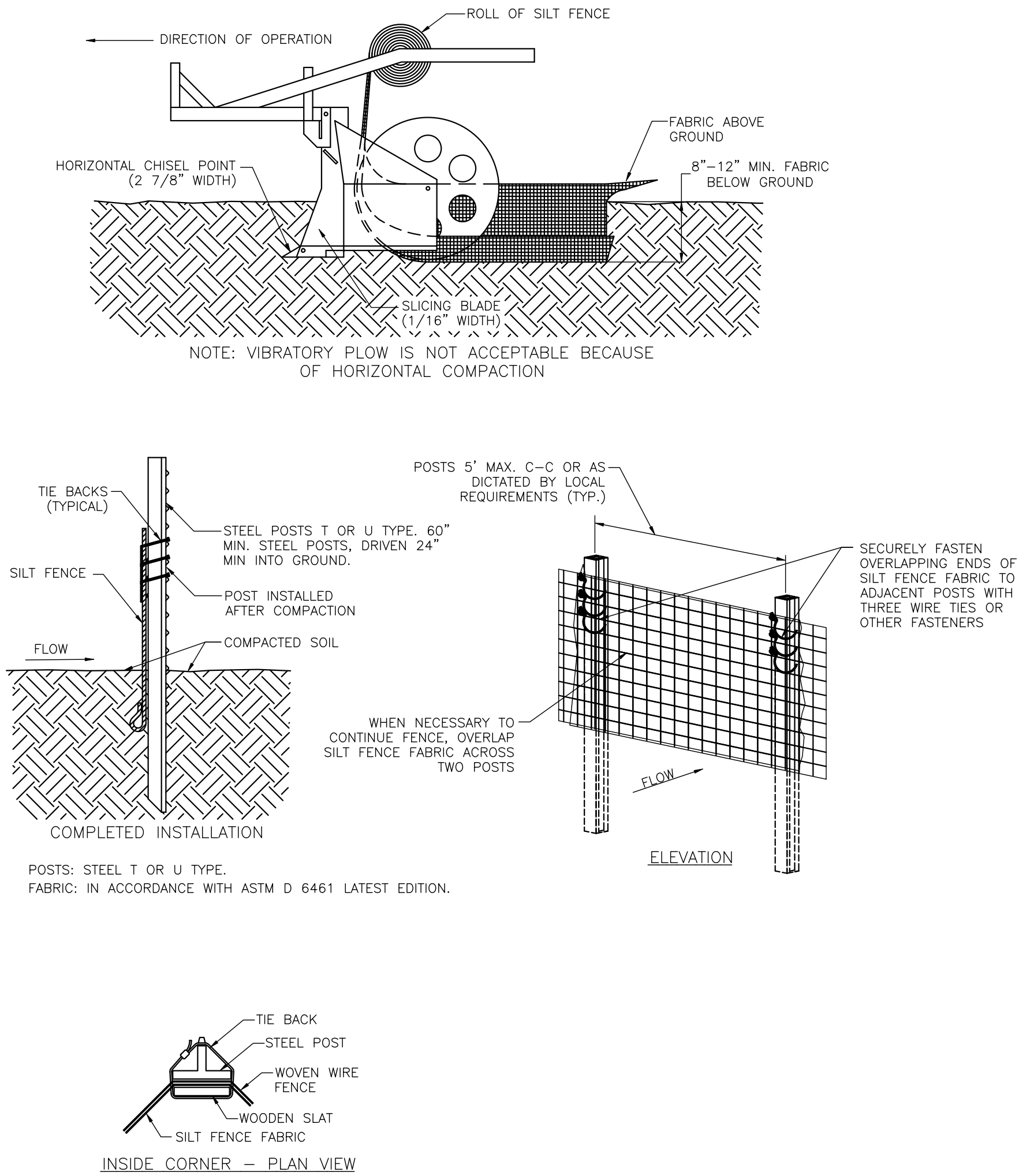
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Oklahoma Registered Engineering Firm #CA 1324

JOSEPH
PARSLEY
22955
OKLAHOMA
8/1/23

DRAWN	DPS
CHECKED	JSP
DATE	08/09/2023
SCALE	1"=30'
JOB No.	N/A
SHEET	5 OF 33 SHEETS



SPECIFICATIONS FOR STATIC SLICING METHOD FOR SILT FENCE INSTALLATION

- (STATIC SLICING SHALL BE USED TO ANCHOR SILT FENCE FABRIC IN ORDER TO NOT USE THE WOVEN WIRE BACKING.)
- SILT FENCE SHALL BE PROVIDED AND INSTALLED PER ASTM D-6462-03 LATEST EDITION.
 - INSTALL SILT FENCE AT A FAIRLY LEVEL GRADE ALONG THE CONTOUR WITH THE ENDS CURVED UPHILL TO PROVIDE SUFFICIENT UPSTREAM STORAGE VOLUME FOR ANTICIPATED RUNOFF.
 - SPECIAL ATTENTION SHOULD BE PAID TO ENSURE THAT NO UNDERMINING OF SILT FENCE HAS OCCURRED AND THAT NO BYPASS IS OCCURRING AT JOINING SECTIONS.
 - INSTALL POSTS AT A MINIMUM DEPTH OF 24" ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT UPSTREAM WATER PRESSURE ON THE FABRIC.
 - INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FENCE FABRIC.
 - ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
 - WRAP APPROXIMATELY 6" OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
 - WHEN NECESSARY TO CONTINUE FENCE, OVERLAP SILT FENCE FABRIC ACROSS TWO POSTS.
 - NO MORE THAN 24" OF A 36" FABRIC IS ALLOWED ABOVE GROUND LEVEL.
 - THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION. USE A FLAT-BLADED SHOVEL TO TUCK FABRIC DEEPER INTO THE TRENCH IF NECESSARY.
 - COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQ. INCH. COMPACT THE UPSTREAM SIDE FIRST. COMPACT EACH SIDE TWICE FOR A TOTAL OF FOUR TRIP(S).
 - WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED A MINIMUM OF 60" ACROSS TWO POSTS, AS SHOWN.
 - ADD POST CAPS AS NEEDED BASED ON SITE CONDITIONS AND APPLICABLE AGENCY REQUIREMENTS.

MAINTENANCE NOTES

- SILT FENCES SHALL BE INSPECTED ALONG ITS ENTIRETY AND MUST BE CLEANED WHEN SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE SILT FENCE. MAINTENANCE CLEANOUT MUST BE CONDUCTED REGULARLY TO PREVENT ACCUMULATED SEDIMENTS FROM REACHING ON-THIRD THE HEIGHT OF THE SILT FENCE.
- ALL MATERIAL EXCAVATED FROM BEHIND SILT FENCE SHALL BE STOCKPILED ON AN UPLAND PORTION OF THE SITE IF SUITABLE FOR REUSE.
- SPECIAL ATTENTION SHOULD BE PAID TO ENSURE THAT NO UNDERMINING OF SILT FENCE HAS OCCURRED AND THAT NO BYPASS IS OCCURRING AT JOINING SECTIONS.
- IF EXCESS SEDIMENT IS ACCUMULATING IN ANY SECTION OF SILT FENCE, THE CONTRACTOR SHOULD IMPLEMENT ADDITIONAL UPSTREAM STABILIZATION MEASURES OR ADDITIONAL BMPS (PENDING CEC APPROVAL) TO PREVENT EXCESSIVE BUILDUP ON SILT FENCE.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED.

TABLE 1 Temporary Silt Fence Material Property Requirements

	Test Method	Units	Supported ^a Silt Fence	Unsupported ^a Silt Fence	Type of Value
Grab Strength	ASTM D 4632	N (lbs)	400 (90)	500 (90)	MARV
Permittivity #	ASTM D 4491	sec-1	0.05	0.05	MARV
Apparent Opening Size [#]	ASTM D 4751	mm (US Sieve #)	0.60 (30)	0.60 (30)	Max. ARV ^c
Ultraviolet Stability	ASTM D 4355	% Retained Strength	70% after 500 h of exposure	70% after 500 h of exposure	Typical

^aSilt fence support shall consist of 14 gage steel wire with a mesh spacing of 150 mm (6 in.) or prefabricated polymer mesh of equivalent strength.

[#]These default values are based on empirical evidence with a variety of sediments. For environmentally sensitive areas, a review of previous experience and/or site or regionally specific geotechnical tests in accordance with Test Method D 5141 should be performed by the agency to confirm suitability of these requirements.

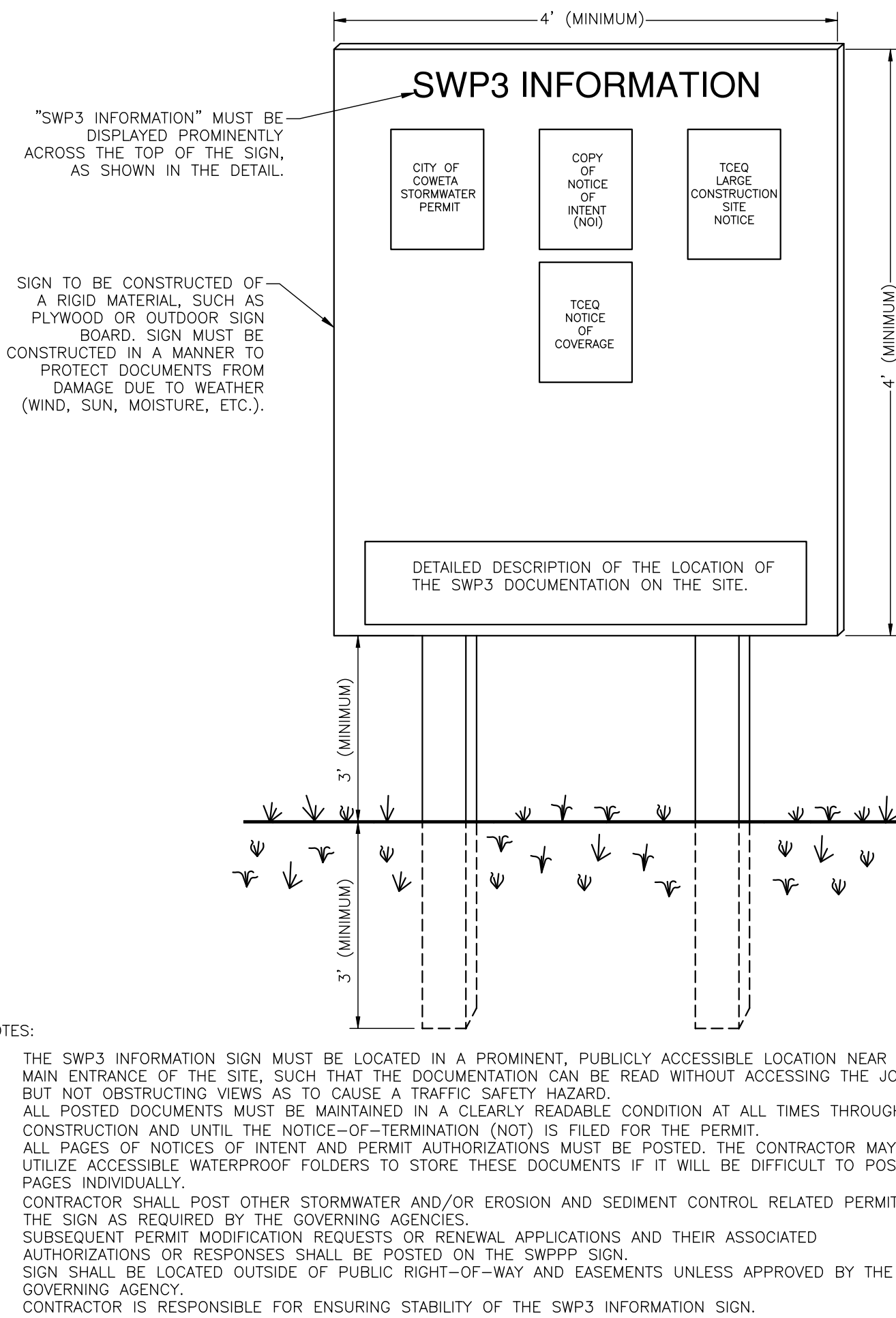
^cAs measured in accordance with Test Method D 4632.

TABLE 1 TAKEN FROM ASTM D 6461-99 (2007)

NON-WIRE BACKED SLICING METHOD FOR SILT FENCE INSTALLATION

N.T.S.

SF



NOTES:

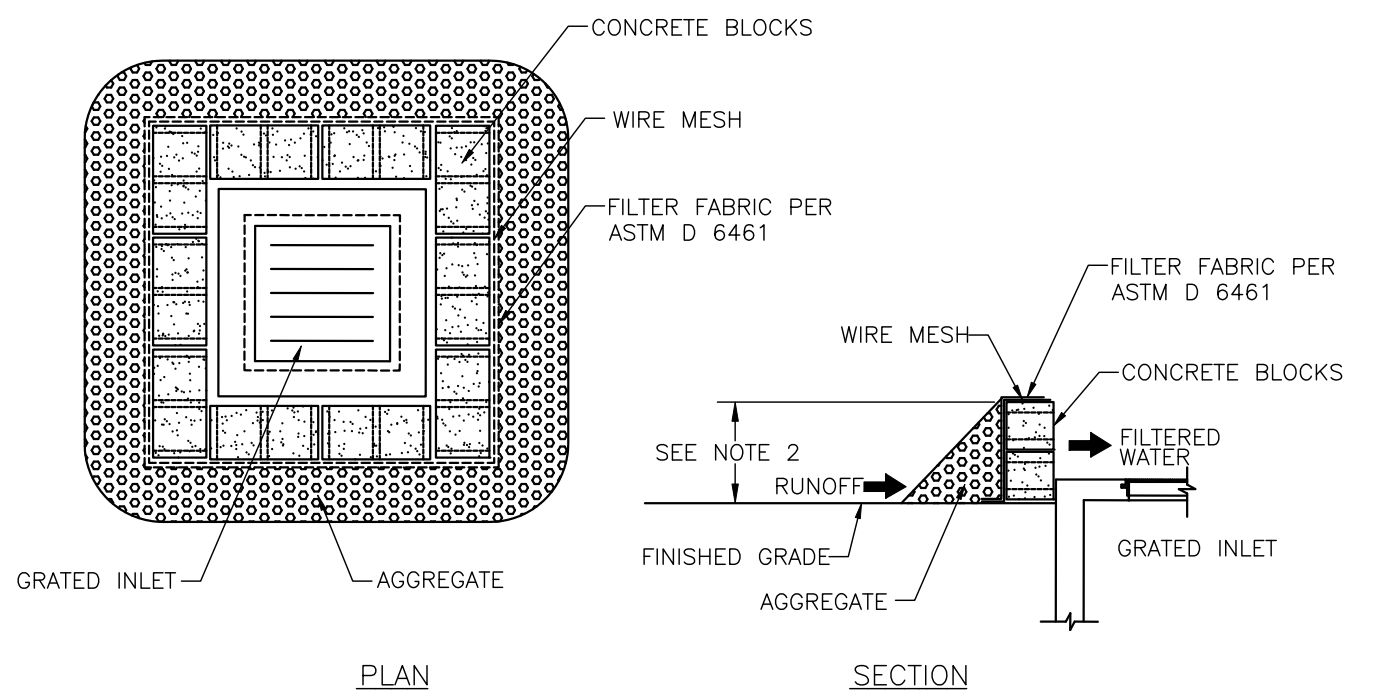
- THE SWP3 INFORMATION SIGN MUST BE LOCATED IN A PROMINENT, PUBLICLY ACCESSIBLE LOCATION NEAR THE MAIN ENTRANCE OF THE SITE, SUCH THAT THE DOCUMENTATION CAN BE READ WITHOUT ACCESSING THE JOBSITE, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A TRAFFIC SAFETY HAZARD.
- ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
- ALL PAGES OF NOTICES OF INTENT AND PERMIT AUTHORIZATIONS MUST BE POSTED. THE CONTRACTOR MAY UTILIZE ACCESSIBLE WATERPROOF FOLDERS TO STORE THESE DOCUMENTS IF IT WILL BE DIFFICULT TO POST ALL PAGES INDIVIDUALLY.
- CONTRACTOR SHALL POST OTHER STORMWATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCIES.
- SUBSEQUENT PERMIT MODIFICATION REQUESTS OR RENEWAL APPLICATIONS AND THEIR ASSOCIATED AUTHORIZATIONS OR RESPONSES SHALL BE POSTED ON THE SWPPP SIGN.
- SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
- CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWP3 INFORMATION SIGN.

SWP3 INFORMATION SIGN

N.T.S.

SS

SWPPP INFORMATION SIGN



NOTES:

- PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF INLET ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING.
- HEIGHT OF BARRIER VARIES. USE STACKS OF 4", 8", OR 12" BLOCKS. MIN. HEIGHT OF BARRIER SHALL BE 12" AND MAX. HEIGHT SHALL BE 24".
- PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS.
- THE AGGREGATE SHALL BE 3/4"-2" ANGULAR CLEAN STONE, WHICH WILL SLOW THE FLOW OF THE WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE ENTERING THE INLET.

MAINTENANCE NOTES:

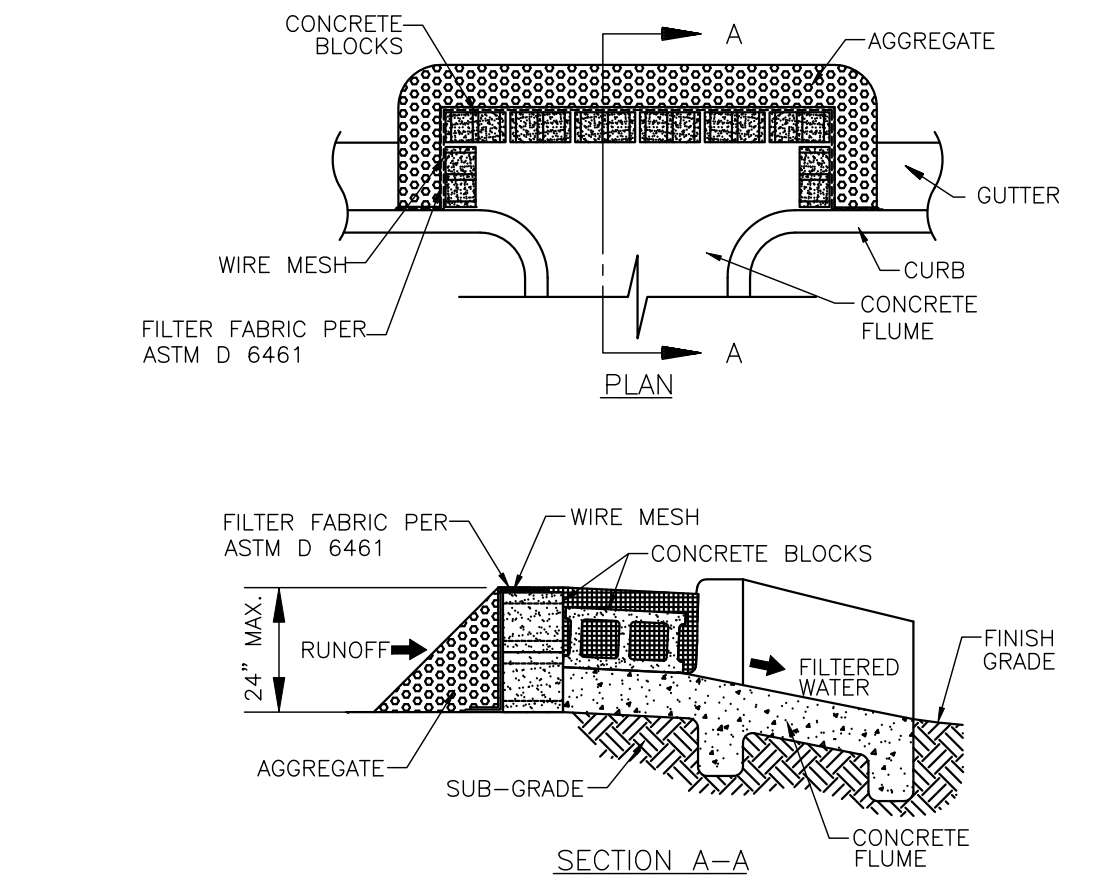
- INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UP/DOWNSTREAM OF THE INLET.
- REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
- INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROPER FLOW-RATES THAT MAY CAUSE DOWNSTREAM FLOODING.
- CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPS, ADJACENT SLOPES, ETC., DUE TO PONDING ISSUES. ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED.
- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

BLOCK AND AGGREGATE INLET PROTECTION

N.T.S.

IP1

BLOCK AND AGGREGATE INLET PROTECTION



NOTES:

- PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF FLUME ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING.
- HEIGHT OF BARRIER VARIES. USE STACKS OF 4", 8", OR 12" BLOCKS. TOP OF BARRIER MUST BE LOWER THAN TOP OF CURB ELEVATIONS ADJACENT TO FLUME. MAX. HEIGHT SHALL BE 24".
- PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS.
- THE AGGREGATE SHALL BE 3/4" - 2" ANGULAR CLEAN STONE WHICH WILL SLOW THE FLOW OF WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE ENTERING THE FLUME.
- IF ROAD OR PARKING AREA IS OPEN TO PUBLIC, VERIFY SUITABILITY OF BMP WITH AGENCIES HAVING JURISDICTION AND WITH CEC.

MAINTENANCE NOTES:

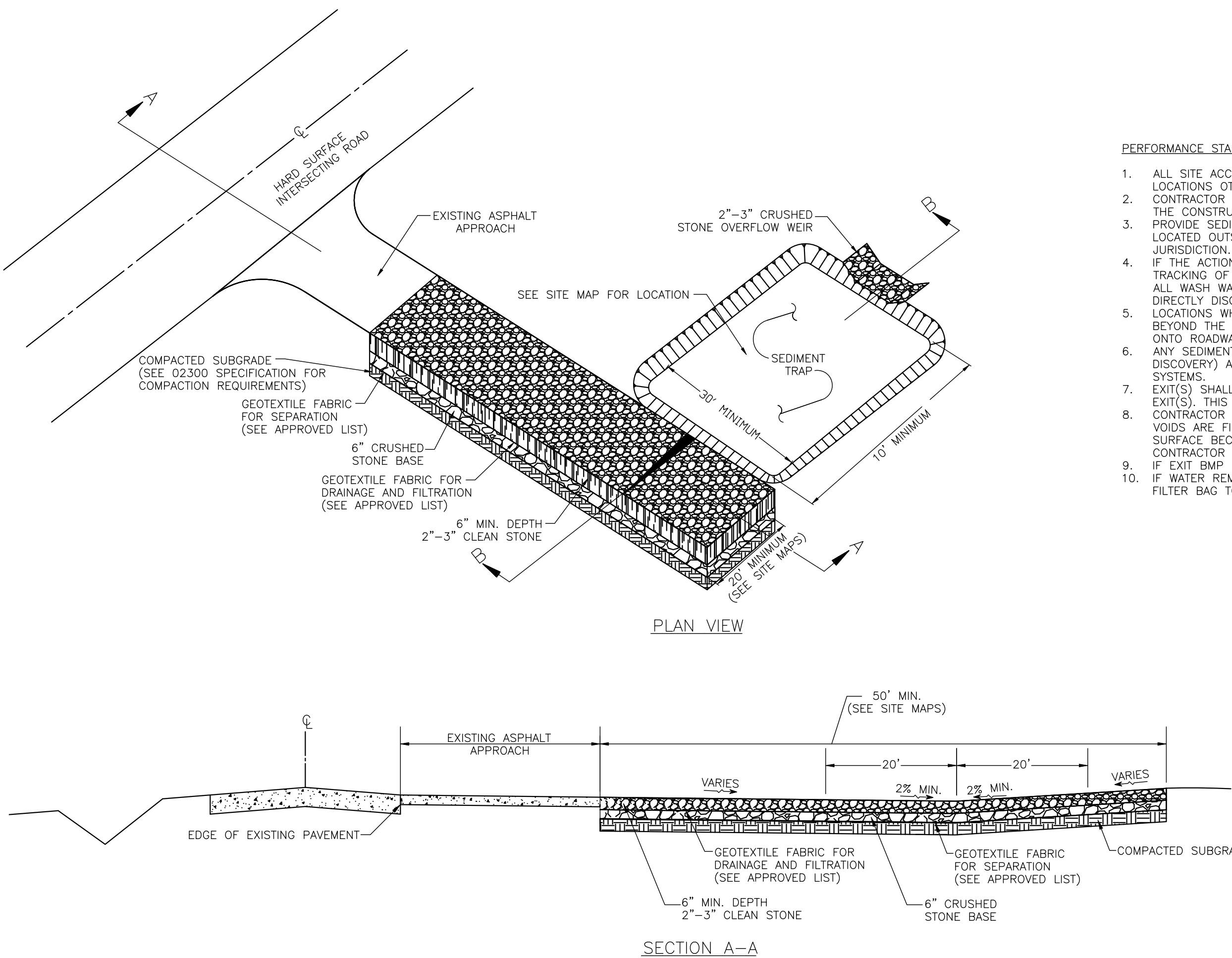
- INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UP/DOWNSTREAM OF THE INLET.
- REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
- INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROPER FLOW-RATES THAT MAY CAUSE DOWNSTREAM FLOODING.
- CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPS, ADJACENT SLOPES, ETC., DUE TO PONDING ISSUES. ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED.
- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

BLOCK AND AGGREGATE FLUME PROTECTION

N.T.S.

IP3

BLOCK AND AGGREGATE FLUME PROTECTION



PERFORMANCE STANDARDS:

- ALL SITE ACCESS MUST BE CONFINED TO THE CONSTRUCTION EXIT(S). BARRICADE TO PREVENT USE OF ANY LOCATIONS OTHER THAN THE CONSTRUCTION EXIT(S) WHERE VEHICLES OR EQUIPMENT MAY ACCESS THE SITE.
- CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION EXIT TO PREVENT CONSTRUCTION TRAFFIC FROM SHORT CIRCUITING/BYPASSING THE EXIT.
- PROVIDE SEDIMENT TRAP ON DOWN GRADIENT SIDE (OR BOTH SIDES) AS REQUIRED. SEDIMENT TRAP SHALL BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND AT A MINIMUM SETBACK DISTANCE AS REQUIRED PER LOCAL JURISDICTION.
- IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT(S) IS NOT SUFFICIENT TO PREVENT TRACKING OF DIRT, DUST OR MUD, THEN TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. ALL WASH WATER MUST BE ROUTED TO A SEDIMENT TRAP OR OTHER TREATMENT AREA AND SHALL NOT BE DIRECTLY DISCHARGED OFF-SITE.
- LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT TRACKING BEYOND THE PERMITTED PROJECT AREA. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEEP AS NECESSARY (AND WITHIN THE SAME DAY AS DISCOVERY) AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS.
- EXIT(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD BEYOND THE EXIT(S). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT(S) AS CONDITIONS DEMAND.
- CONTRACTOR SHALL BE PERMITTED TO TURN THE STONE WHEN THE SURFACE BECOMES SMOOTH AND SURFACE VOIDS ARE FILLED TO MAINTAIN EFFECTIVENESS OF CONSTRUCTION EXIT UNTIL SUCH TIME THAT VOIDS BELOW THE SURFACE BECOME FILLED AND THE CONSTRUCTION EXIT IS NO LONGER INEFFECTIVE. AT SUCH A TIME THE CONTRACTOR SHALL REMOVE THE INEFFECTIVE STONE, AND REPLACE PER DETAIL.
- IF EXIT BMP IS STILL INEFFECTIVE, GC MUST CONTACT THE ENGINEER AND SUBMIT AN RFI AS NECESSARY.
- IF WATER REMAINS IN SEDIMENT TRAP FOR MORE THAN 48 HOURS, THE WATER SHALL BE PUMPED OUT THROUGH A FILTER BAG TO ENSURE DESIGN VOLUME IS AVAILABLE FOR FUTURE STORM EVENTS.

APPROVED GEOTEXTILE FABRICS:

- MIRAFI HP 370 OR HP 570 BY MIRAFI
- SF40 OR SF56 BY DUPONT
- LIHQ GTF-200 OR 300 BY LIHQ
- TERRATEX HD BY WEBTEC

NOTE TO GC: THE GOAL OF A CONSTRUCTION EXIT AND ASSOCIATED WHEEL WASH AREAS IS TO ELIMINATE TRACK OUT. SIMPLY MANAGING TRACK OUT THROUGH DESIGNATED OR CONTINUAL STREET SWEEPING IS NOT AN ACCEPTABLE PRACTICE. WHILE STREET SWEEPING IS AN ACCEPTABLE PRACTICE FOR REMOVING DUST AND MINIMAL AMOUNTS OF FINE SEDIMENT, OBSERVABLE TRACK OUT FROM THE PROJECT SHALL TRIGGER THE USE OF ADDITIONAL MEASURES (WHEEL WASH), CONSIDERATION OF ALTERNATE EXITS, OR DISCONTINUING VEHICLE TRAFFIC UNTIL CONDITIONS ON-SITE HAVE IMPROVED. TRACK OUT IS A SEDIMENT RELEASE. ALL SEDIMENT RELEASES MUST BE REPORTED TO THE SWCT VIA THE ONLINE CRITICAL INCIDENT REPORT.

NO	REVISIONS

TRINITY HOUSING DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

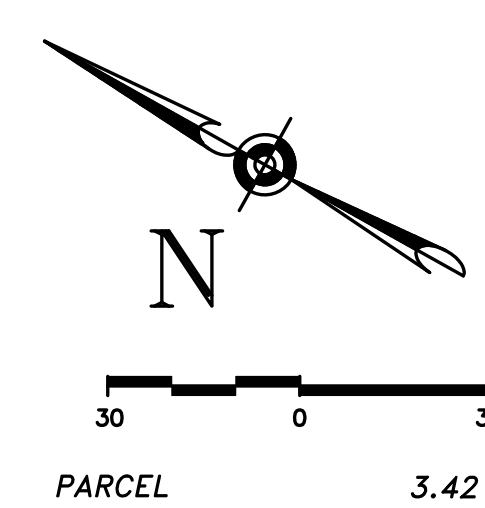
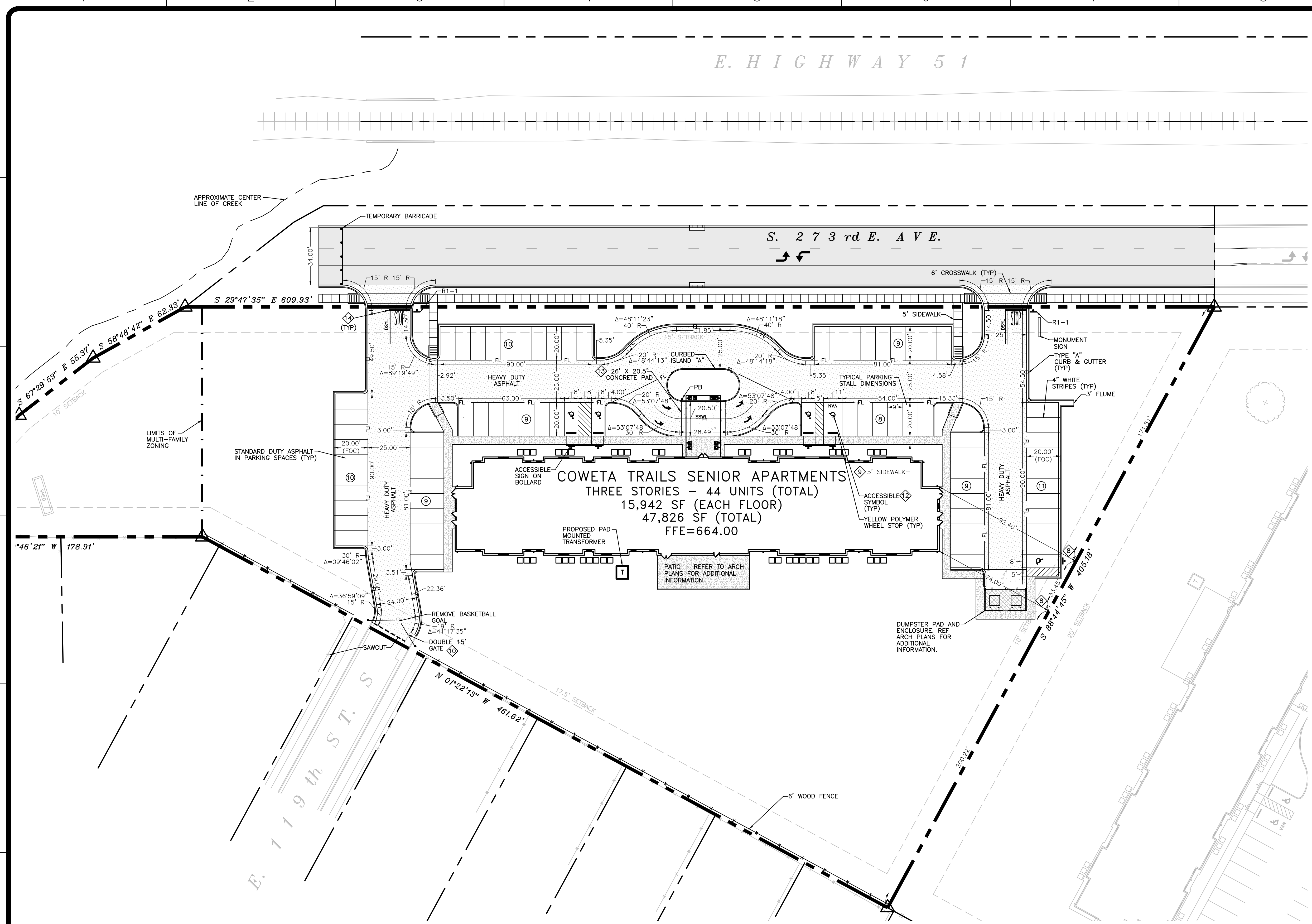
CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
10581 Leighton Commons
Bartlett, TN 38193
Phone (901) 384-0404
Fax (901) 384-0710
Oklahoma Registered Engineering Firm #CA 1324

LICENSED PROFESSIONAL ENGINEER
JOSEPH PARSLEY
22955
OKLAHOMA
8/7/23

DRAWN
DPS
CHECKED
JSP
DATE
08/09/2023
SCALE
NTS
JOB No.
N/A
SHEET
7 OF 33 SHEETS

EROSION CONTROL DETAILS



LEGEND	
	PROPERTY LINE
	HEAVY DUTY CONCRETE
	BUILDING SIDEWALK
	HEAVY DUTY ASPHALT
	ROW PAVEMENT
	DUMPSTER PAD
	PIPE BOLLARD
	HANDICAP PARKING SYMBOL
	6" RAISED CONCRETE CURB
	CURBED TRAFFIC ISLAND
	PARKING COUNT
	DOUBLE SOLID YELLOW LINE
	SINGLE SOLID WHITE LINE
	FACE OF CURB
	SIGN
	FIRE LANE

- NOTES:
- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL AHJ REGULATIONS AND CODES, O.S.H.A. STANDARDS, AND PROJECT SPECIFICATIONS. MOST STRINGENT REQUIREMENTS SHALL GOVERN.
 - CONTRACTOR SHALL REFER TO THE BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF STOOP, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
 - ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SOD, AND/OR LANDSCAPING. WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. REFER TO PLANTING PLAN, THIS SET, FOR ADDITIONAL INFORMATION.
 - ALL RADII ARE 3' AND ALL DELTA ANGLES ARE 90° U.N.O.
 - ALL NECESSARY INSPECTIONS, APPROVALS, AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR AUTHORITIES SHALL BE COMPLETED PRIOR TO THE ANNOUNCED BUILDING POSSESSION AND THE FINAL CERTIFICATION OF SERVICES.
 - THE GENERAL CONTRACTOR IS RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF THE EXISTING CONDITIONS OF THE SITE, AND OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE HIM OF ANY RESPONSIBILITY FOR PERFORMING HIS WORK PROPERLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE TO THE FAILURE OF THE GENERAL CONTRACTOR TO FAMILIARIZE WORKERS WITH THIS KNOWLEDGE.
 - CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN PERFORMING CONSTRUCTION ACTIVITIES IN THE VICINITY OF EXISTING UTILITIES. EXISTING UTILITIES THAT CONFLICT WITH THE PLANNED IMPROVEMENTS SHALL BE RELOCATED OR LOWERED IN PLACE BY THE CONTRACTOR TO MEET THE SEPARATION AND MINIMUM REQUIREMENTS ESTABLISHED BY LOCAL CODE. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER A MINIMUM OF 72 HOURS PRIOR TO ANY PLANNED DISRUPTION TO UTILITY SERVICES. TEMPORARY UTILITY SERVICES SHALL BE USED IF REQUIRED. ANY COSTS ASSOCIATED WITH THIS WORK SHALL BE IN THE CONTRACTOR'S LUMP SUM PRICE FOR THE OVERALL PROJECT.
 - BUILDING TIES SHOWN FROM THE CORNER OF BUILDING TO A POINT PERPENDICULAR TO THE PROPERTY LINE.
 - REFER TO BUILDING SIDEWALK DETAIL FOR ADDITIONAL INFORMATION.
 - GATE SHALL HAVE A KNOX-BOX 3200 SERIES SURFACE MOUNTED TO THE GATE POST.
 - REFER TO DETAIL SHEET FOR FIRE LANE STRIPING AND SIGNAGE REQUIRED FOR THIS PROJECT.
 - ACCESSIBLE PARKING SPACE TYPICAL. SEE DETAIL SHEET FOR ACCESSIBLE PARKING SPACE SIZE, SIGN, AND SYMBOL ("VAN" INDICATES VAN ACCESSIBLE SPACE).
 - REFER TO THE CONCRETE PAVING SECTION FOR THE CONCRETE PAD REQUIREMENTS.
 - 1' STOP BAR SHALL BE 4' IN ADVANCE OF THE CROSSWALK.
 - SEE DETAIL SHEETS FOR CURBED ISLAND DETAILS.
 - FIRE APPARATUS ACCESS ROADS AND FIRE DEPARTMENT WATER LINES SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO VERTICAL CONSTRUCTION AND SHALL REMAIN SERVICEABLE DURING THE TIME OF CONSTRUCTION. TEMPORARY FIRE APPARATUS ACCESS ROADS ARE REQUIRED TO PROVIDE ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AND ALSO HOLD THE IMPOSED LOAD OF 75,000 LBS. TEMPORARY SIGNAGE IS REQUIRED DURING CONSTRUCTION DESIGNATING FIRE APPARATUS ACCESS ROADS.

SITE DATA	
LOT SIZE	3.42 ACRES
ZONING	PUD-02/RM1
JURISDICTION	CITY OF COWETA

BUILDING DATA	
LIVING UNITS	
1 BEDROOM	26 UNITS
2 BEDROOM	18 UNITS
TOTAL	44 UNITS
NUMBER OF FLOORS	3
BUILDING SIZE	
GSF/FLR	15,942 SF
TOTAL GSF	47,826 SF

PARKING DATA	
PARKING REQUIRED	
STANDARD STALLS	72
ADA STALLS	3
TOTAL REQUIRED	75
PARKING PROVIDED	
STANDARD STALLS	70
ADA STALLS	5
TOTAL PROVIDED	75

Know what's below.
Call before you dig.
SITE PLAN

NO	REVISIONS

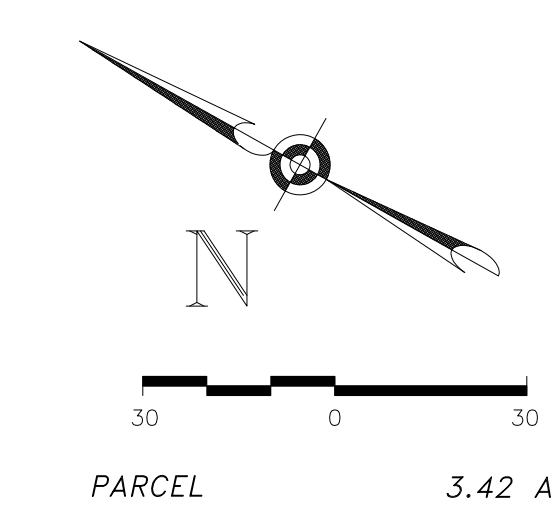
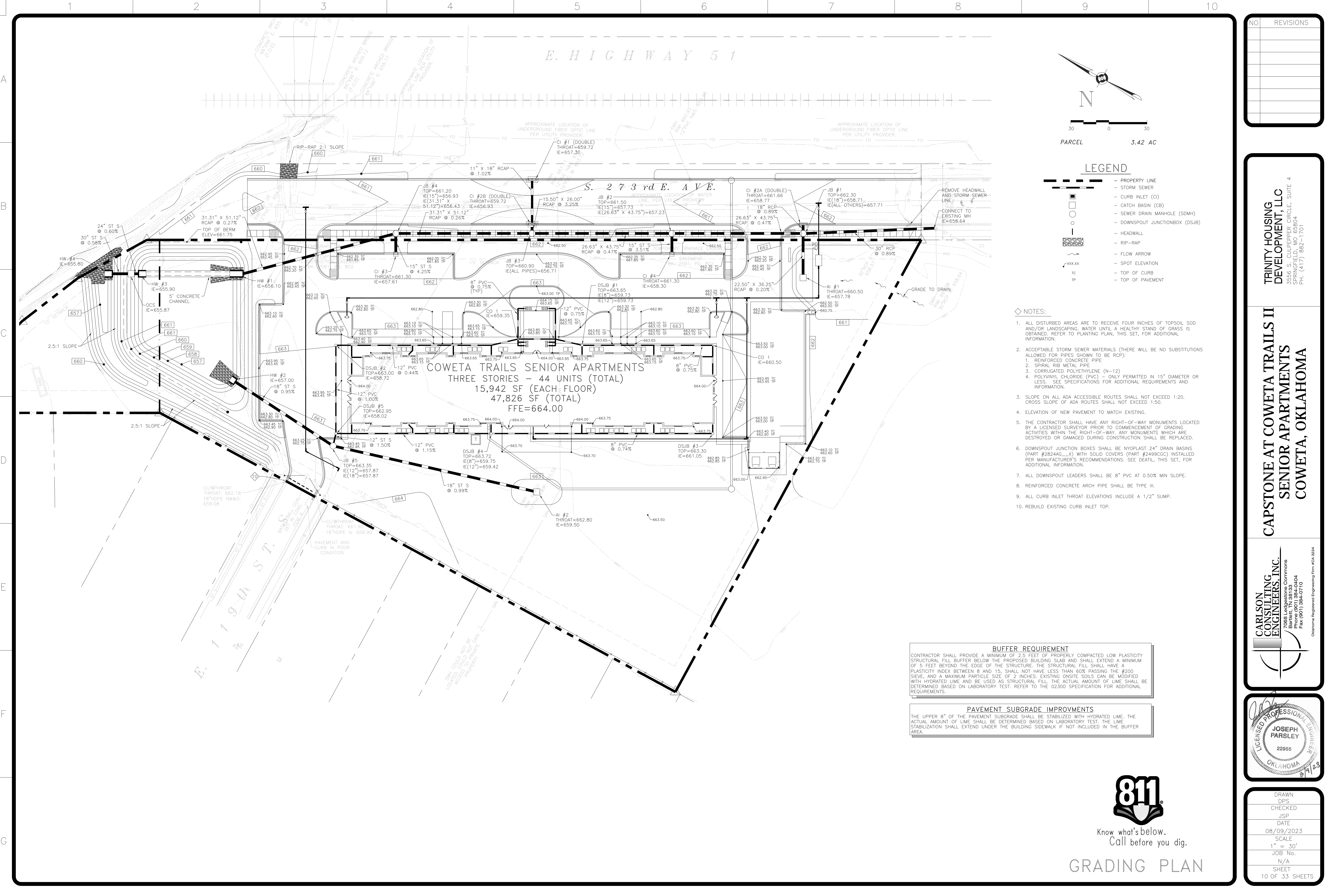
TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CUPPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

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SENIOR APARTMENTS
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CARLSON
CONSULTING
ENGINEERS, INC.
70681 Ledgestone Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710
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JOSEPH
PARSLEY
22955
OKLAHOMA
8/1/23

DRAWN	DPS
CHECKED	JSP
DATE	08/09/2023
SCALE	1" = 30'
JOB No.	N/A
SHEET	9
OF 33 SHEETS	



LEGEND

- PROPERTY LINE
- STORM SEWER
- CURB INLET (CI)
- CATCH BASIN (CB)
- SEWER DRAIN MANHOLE (SDMH)
- DOWNSPOUT JUNCTIONBOX (DSJB)
- HEADWALL
- RIP-RAP
- FLOW ARROW
- SPOT ELEVATION
- TOP OF CURB
- TOP OF PAVEMENT

NOTES:

- ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL SOD AND/OR LANDSCAPING. WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. REFER TO PLANTING PLAN, THIS SET, FOR ADDITIONAL INFORMATION.
- ACCEPTABLE STORM SEWER MATERIALS (THERE WILL BE NO SUBSTITUTIONS ALLOWED FOR PIPES SHOWN TO BE RCP):
 - REINFORCED CONCRETE PIPE
 - SPIRAL RIB METAL PIPE
 - CORRUGATED POLYETHYLENE (N-12)
 - POLYVINYL CHLORIDE (PVC) - ONLY PERMITTED IN 15" DIAMETER OR LESS. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- SLOPE ON ALL ADA ACCESSIBLE ROUTES SHALL NOT EXCEED 1:20. CROSS SLOPE OF ADA ROUTES SHALL NOT EXCEED 1:50.
- ELEVATION OF NEW PAVEMENT TO MATCH EXISTING.
- THE CONTRACTOR SHALL HAVE ANY RIGHT-OF-WAY MONUMENTS LOCATED BY A LICENSED SURVEYOR PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES WITHIN THE RIGHT-OF-WAY. ANY MONUMENTS WHICH ARE DESTROYED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED.
- DOWNSPOUT JUNCTION BOXES SHALL BE NYOPLAST 24" DRAIN BASINS (PART #2824G-X) WITH SOLID COVERS (PART #2499CGC) INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SEE DETAIL, THIS SET, FOR ADDITIONAL INFORMATION.
- ALL DOWNSPOUT LEADERS SHALL BE 8" PVC AT 0.50% MIN SLOPE.
- REINFORCED CONCRETE ARCH PIPE SHALL BE TYPE III.
- ALL CURB INLET THROAT ELEVATIONS INCLUDE A 1/2" SUMP.
- REBUILD EXISTING CURB INLET TOP.

BUFFER REQUIREMENT

CONTRACTOR SHALL PROVIDE A MINIMUM OF 2.5 FEET OF PROPERLY COMPACTED LOW PLASTICITY STRUCTURAL FILL BUFFER BELOW THE PROPOSED BUILDING SLAB AND SHALL EXTEND A MINIMUM OF 5 FEET BEYOND THE EDGE OF THE STRUCTURE. THE STRUCTURAL FILL SHALL HAVE A PLASTICITY INDEX BETWEEN 8 AND 15, SHALL NOT HAVE LESS THAN 60% PASSING THE #200 SIEVE, AND A MAXIMUM PARTICLE SIZE OF 2 INCHES. EXISTING ON-SITE SOILS CAN BE MODIFIED WITH HYDRATED LIME AND BE USED AS STRUCTURAL FILL. THE ACTUAL AMOUNT OF LIME SHALL BE DETERMINED BASED ON LABORATORY TEST. REFER TO THE 02300 SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

PAVEMENT SUBGRADE IMPROVEMENTS

THE UPPER 8" OF THE PAVEMENT SUBGRADE SHALL BE STABILIZED WITH HYDRATED LIME. THE ACTUAL AMOUNT OF LIME SHALL BE DETERMINED BASED ON LABORATORY TEST. THE LIME STABILIZATION SHALL EXTEND UNDER THE BUILDING SIDEWALK IF NOT INCLUDED IN THE BUFFER AREA.



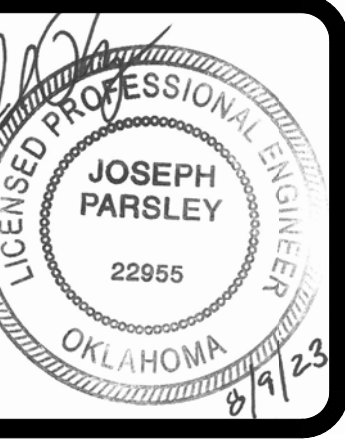
GRADING PLAN

NO	REVISIONS

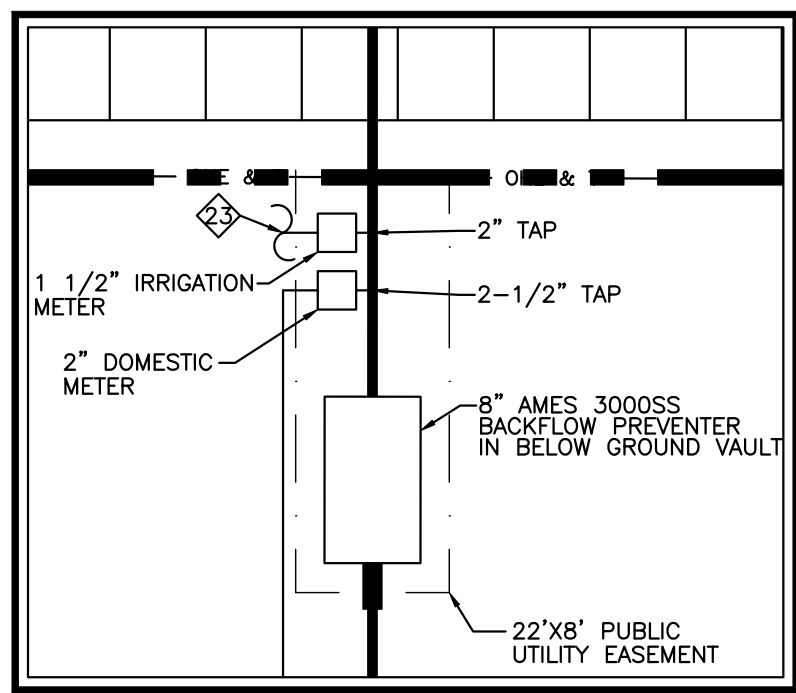
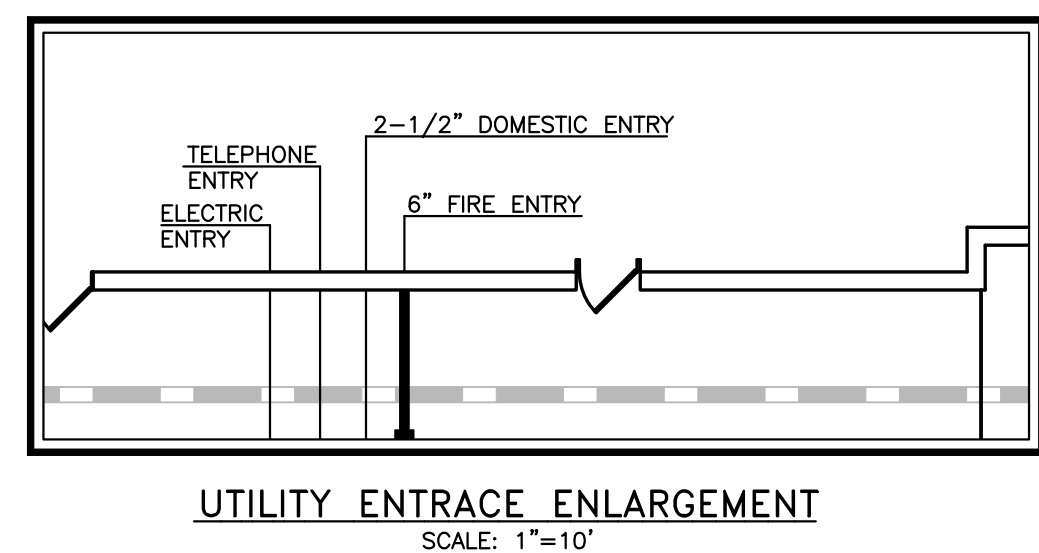
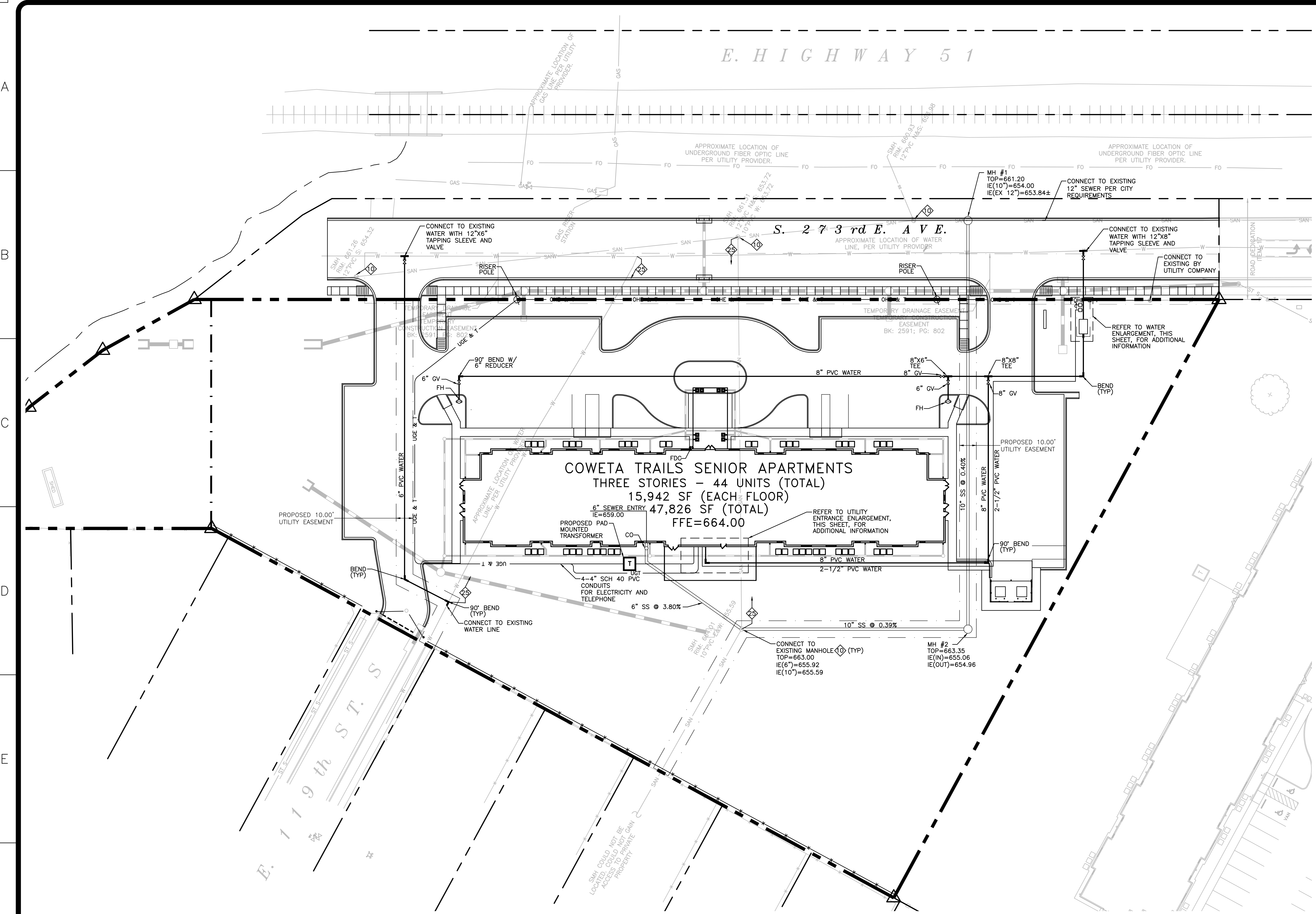
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WATER LINE PERMIT REQUIREMENTS

THE DESIGN ENGINEER IS REQUIRED TO PROVIDE CERTIFICATION THAT THE WATER SYSTEM HAS BEEN INSTALLED AS PER THE PLANS AND SPECIFICATIONS PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR MUST ADHERE TO THE FOLLOWING REQUIREMENTS IN ORDER FOR THE ENGINEER TO PROVIDE THE REQUIRED CERTIFICATION.

1. PROVIDE BACKFILL DENSITY TEST RESULTS, AS TAKEN BY THE OWNER'S ON SITE TESTING LABORATORY, TO THE ENGINEER.
2. PERFORM REQUIRED FINAL PRESSURE AND LEAKAGE TESTING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. PROVIDE WRITTEN RESULTS OF THE PRESSURE AND LEAKAGE TESTING TO THE ENGINEER.
4. PROVIDE WRITTEN RESULTS OF THE BACTERIOLOGICAL TESTS, FROM AN APPROVED LABORATORY AND IN A FORM APPROVED BY THE STATE, TO THE ENGINEER.
5. PROVIDE AN AS-BUILT SURVEY OF THE WATER SYSTEM IMPROVEMENTS, CERTIFIED BY A LICENSED SURVEYOR, TO THE ENGINEER.

SEWER LINE PERMIT REQUIREMENTS

THE DESIGN ENGINEER IS REQUIRED TO PROVIDE CERTIFICATION THAT THE SEWER SYSTEM HAS BEEN INSTALLED AS PER THE PLANS AND SPECIFICATIONS PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR MUST ADHERE TO THE FOLLOWING REQUIREMENTS IN ORDER FOR THE ENGINEER TO PROVIDE THE REQUIRED CERTIFICATION.

1. PROVIDE BACKFILL DENSITY TEST RESULTS, AS TAKEN BY THE OWNER'S ON SITE TESTING LABORATORY, TO THE ENGINEER.
2. PERFORM REQUIRED FINAL EXFILTRATION AND DEFECTION TEST IN ACCORDANCE WITH CONTRACT DOCUMENTS.
3. PROVIDE WRITTEN RESULTS OF ALL REQUIRED TESTS TO THE ENGINEER.
4. PROVIDE AN AS-BUILT SURVEY OF THE SEWER SYSTEM IMPROVEMENTS, CERTIFIED BY A LICENSED SURVEYOR AND WHICH SHOWS BOTH HORIZONTAL AND VERTICAL ALIGNMENT, TO THE ENGINEER.

- LEGEND**
- PROPERTY LINE
 - UNDERGROUND ELECTRIC
 - UNDERGROUND TELEPHONE
 - SANITARY SEWER
 - FIRE HYDRANT
 - FIRE DEPARTMENT CONNECTION (FDC)
 - WATER METER
- NOTES:**
1. ALL UTILITIES SHALL BE INSTALLED IN A TRENCH CONDITION IN ACCORDANCE WITH THE UTILITY TRENCHING DETAIL, THIS SET.
 2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS A MINIMUM OF 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM APPROPRIATE UTILITY COMPANIES AND CONTRACTOR HAS BEEN NOTIFIED.
 3. SANITARY SEWER PIPE MATERIAL SHALL BE IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.
 4. WATER LINE PIPE MATERIAL SHALL BE IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.
 5. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
 6. WATER AND SEWER LINES SHALL BE KEPT NINE (9') APART (PARALLEL) OR WHEN CROSSING TWO (2') VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
 7. CONTRACTOR SHALL MAINTAIN MINIMUM BURIAL DEPTHS AS REQUIRED BY THE UTILITY PROVIDER AND THE PROJECT SPECIFICATIONS.
 8. SEE SURVEY FOR DESCRIPTION OF EXISTING EASEMENTS.
 9. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
 10. TOPS OF EXISTING MANHOLES SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH FINAL GRADE.
 11. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
 12. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
 13. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
 14. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES (ANY CITY) WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
 15. 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 SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE START OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR ANY DAMAGE, INCURRED BY ANY UTILITY COMPANY, TO THEIR LINES AS A RESULT OF HIS ACTIVITIES, WHETHER THESE LINES ARE SHOWN ON THE CONSTRUCTION PLANS OR NOT.
 16. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES. THIS AND THE FINAL CONNECTIONS OF THE SERVICE SHALL BE COMPLETED 30 DAYS PRIOR TO SUBSTANTIAL COMPLETION.
 17. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS. ALL UTILITY CONSTRUCTION SHALL CONFORM WITH THE MOST STRINGENT REQUIREMENTS OF THE UTILITY COMPANY OR THE SPECIFICATIONS.
 18. REFER TO BUILDING/MEP PLANS FOR SITE LIGHTING ELECTRICAL PLAN.
 19. CONTRACTOR SHALL VERIFY AS-BUILT INVERT ELEVATION AND ADVISE ENGINEER OF ANY DISCREPANCIES.
 20. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR.
 21. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING CONDUIT FOR UNDERGROUND UTILITIES AS PER THE UTILITY COMPANY REQUIREMENTS.
 22. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING PIPE BOLLARD PROTECTION AROUND UTILITY ENTRANCES AND METER LOCATIONS. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR EXACT REQUIREMENTS.
 23. REFER TO IRRIGATION PLAN FOR CONTINUATION OF LINE.
 24. AN ECCENTRIC CONE SHALL BE USED TO PROVIDE MANHOLE ACCESS IN THE ROAD.
 25. REMOVED EXISTING SANITARY SEWER AND WATER LINE ONCE THE NEW MAINS HAVE BEEN INSTALLED AND ACCEPTED BY THE CITY.
 26. LINE STOPS MAY BE REQUIRED TO RELOCATE THE EXISTING WATER MAIN IF EXISTING VALVES CANNOT BE FOUND.



UTILITY PLAN

NO	REVISIONS

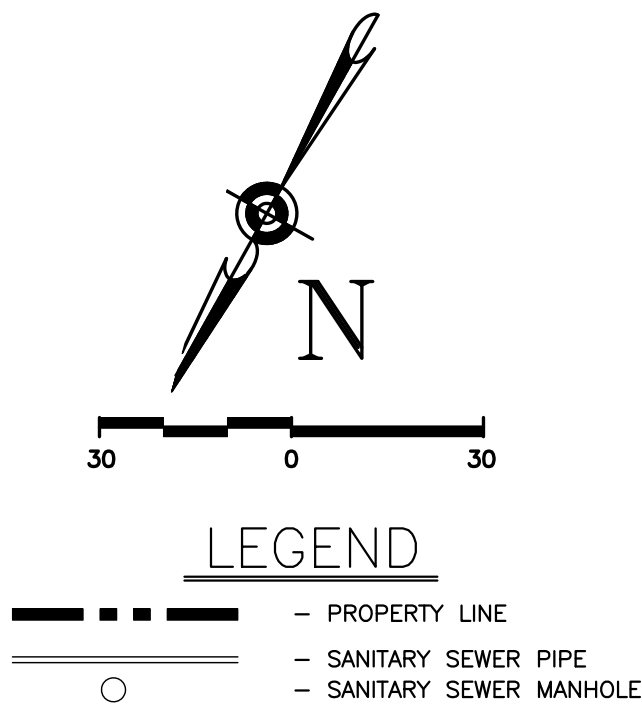
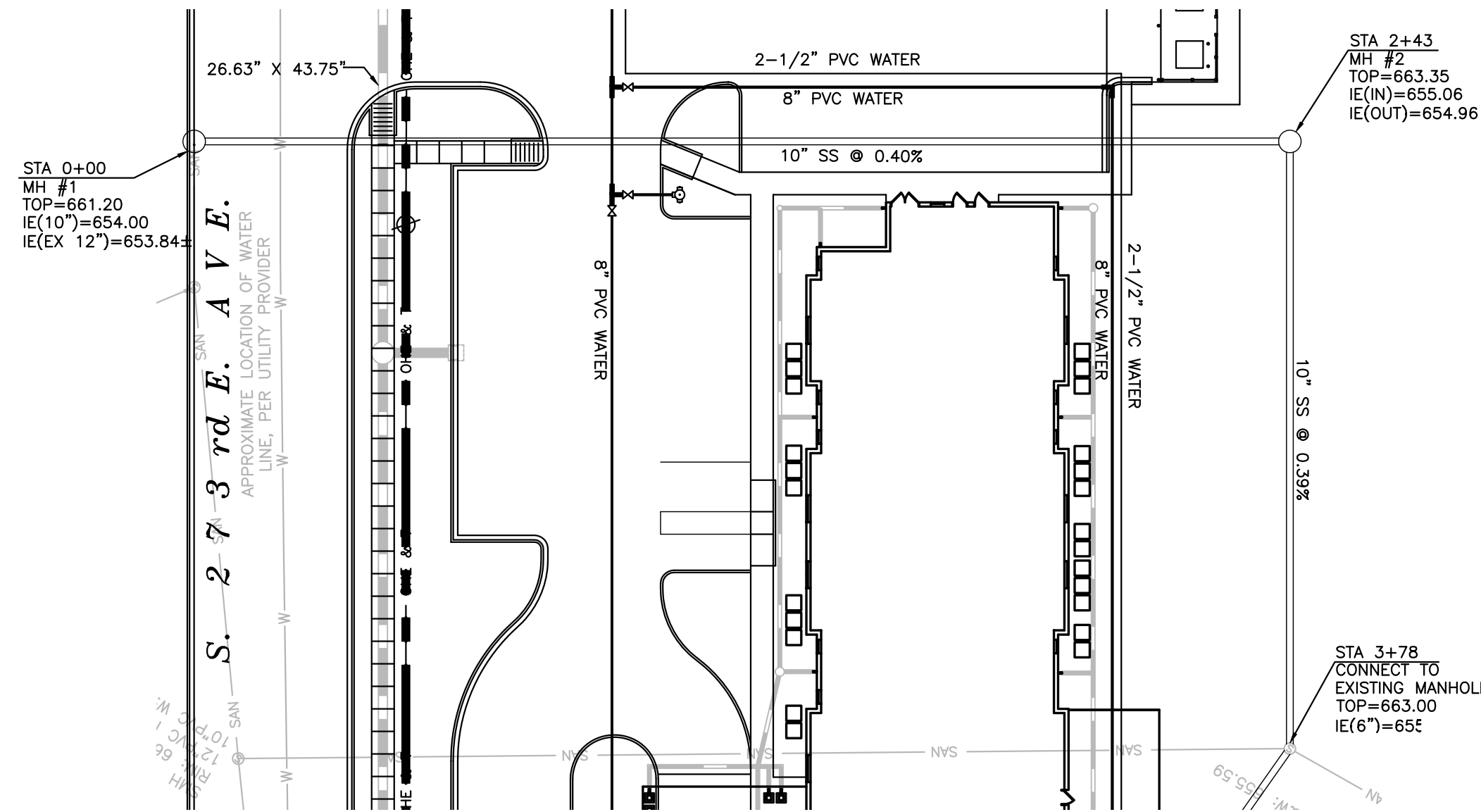
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SENIOR APARTMENTS
COWETA, OKLAHOMA

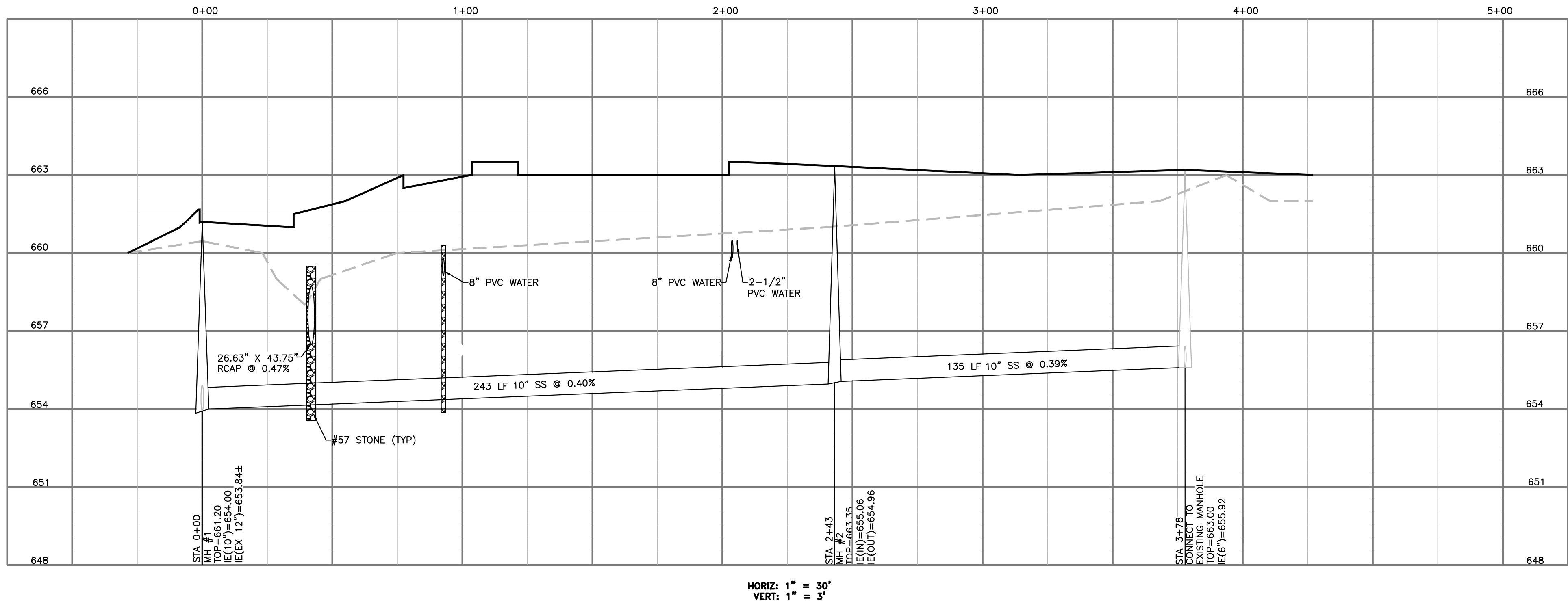
CARLSON CONSULTING ENGINEERS, INC.
10581 Leighton Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710
Oklahoma Registered Engineering Firm RCE 3224



DRAWN	DPS
CHECKED	JSP
DATE	08/09/2023
SCALE	1" = 30'
JOB No.	N/A
SHEET	11 OF 33 SHEETS



- NOTES
1. ALL DESIGN, CONSTRUCTION AND MATERIAL SHALL BE IN COMPLIANCE WITH THE CITY OF COWETA SPECIFICATIONS AND STANDARDS.
 2. ALL NEWLY CUT AND/OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED, AND/OR SODDED, FERTILIZED, AND MULCHED IN ACCORDANCE WITH THE PLANTING PLAN.
 3. THE CONTRACTOR SHALL NOT ENTER UPON, WORK UPON NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT PRIOR PERMISSION FROM SAID PROPERTY OWNERS.
 4. ALL FILL AND/OR TRENCH BACKFILL SHALL BE COMPACTED AS PER THE SPECIFICATIONS.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF ANY CONSTRUCTION ON THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME THE RESPONSIBILITY FOR ANY DAMAGE INCURRED BY ANY UTILITY COMPANY TO THEIR UTILITY LINES, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT.
 6. THE CONTRACTOR MUST HAVE WRITTEN APPROVAL FROM THE CITY OF COWETA AND THE PROJECT ENGINEER BEFORE ANY CHANGE IN DESIGN IS MADE.
 7. MAINTAIN A MINIMUM 10' HORIZONTAL AND 18" VERTICAL SEPARATION AT ALL WATER AND SEWER CROSSINGS.



SEWER LINE PERMIT REQUIREMENTS

THE DESIGN ENGINEER IS REQUIRED TO PROVIDE CERTIFICATION THAT THE SEWER SYSTEM HAS BEEN INSTALLED AS PER THE PLANS AND SPECIFICATIONS PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR MUST ADHERE TO THE FOLLOWING REQUIREMENTS IN ORDER FOR THE ENGINEER TO PROVIDE THE REQUIRED CERTIFICATION.

1. PROVIDE BACKFILL DENSITY TEST RESULTS, AS TAKEN BY THE OWNER'S ON SITE TESTING LABORATORY, TO THE ENGINEER.
2. PERFORM REQUIRED FINAL EXFILTRATION AND DELECTION TEST IN ACCORDANCE WITH CONTRACT DOCUMENTS.
3. PROVIDE WRITTEN RESULTS OF ALL REQUIRED TESTS TO THE ENGINEER.
4. PROVIDE AN AS-BUILT SURVEY OF THE SEWER SYSTEM IMPROVEMENTS, CERTIFIED BY A LICENSED SURVEYOR AND WHICH SHOWS BOTH HORIZONTAL AND VERTICAL ALIGNMENT, TO THE ENGINEER.

CAUTION - NOTICE TO CONTRACTOR

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 UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, APPURTENANCES AND IMPROVEMENTS WHICH CONFLICT WITH THE IMPROVEMENTS SHOWN BY THESE PLANS.



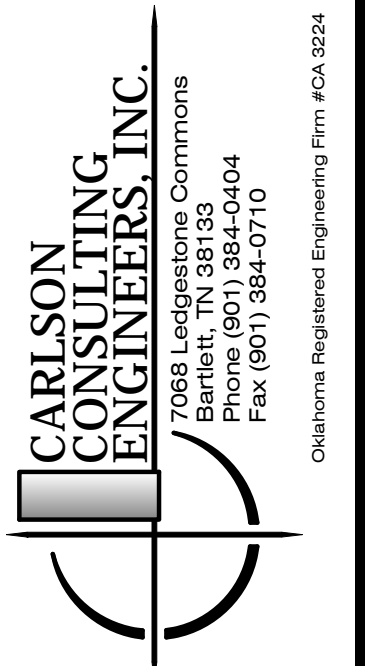
Know what's below.
Call before you dig.

SANITARY SEWER PLAN AND PROFILE

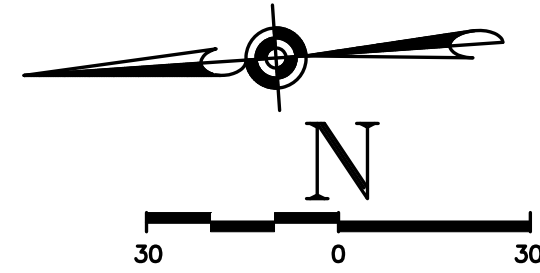
NO	REVISIONS

TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA

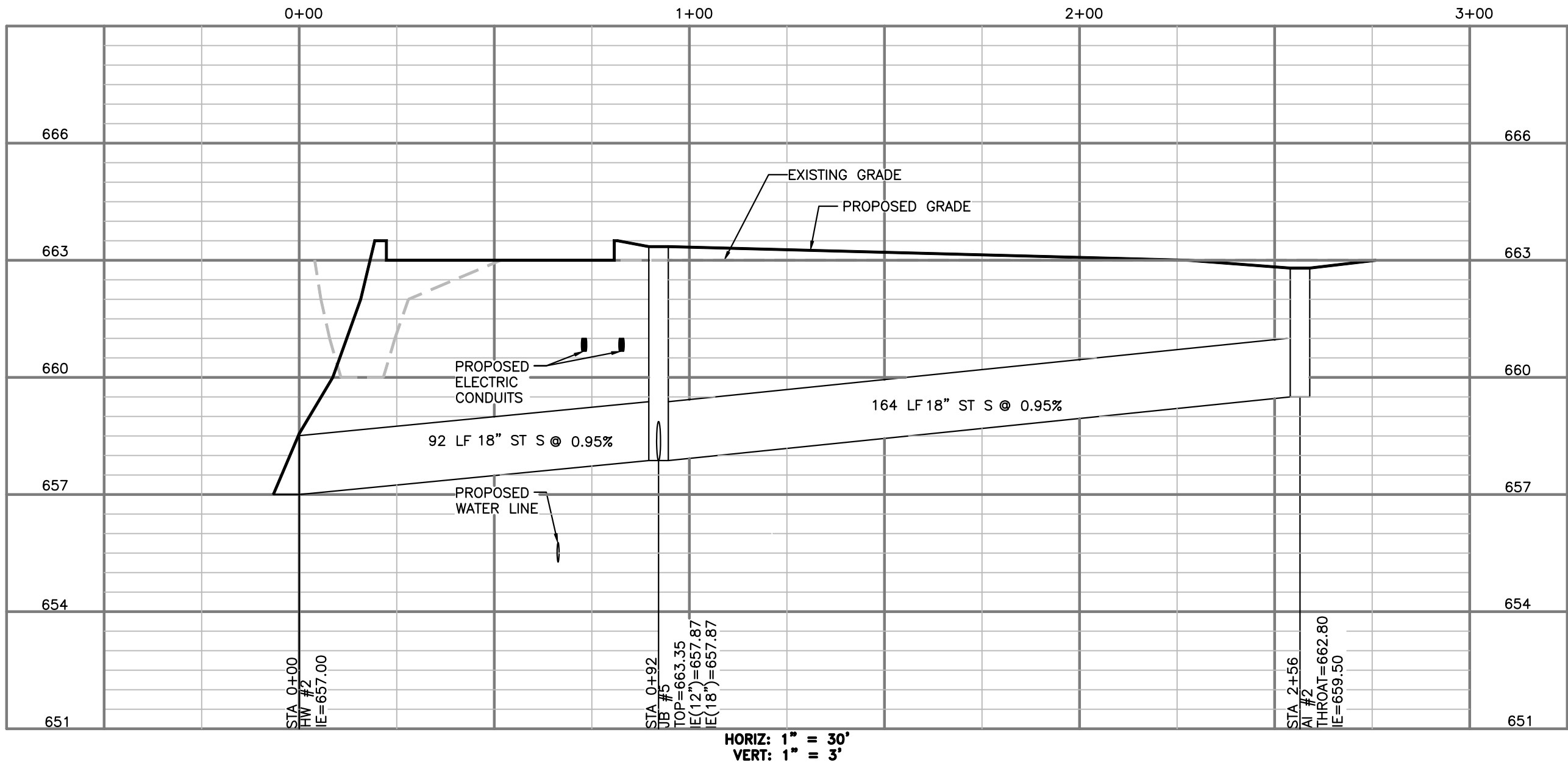
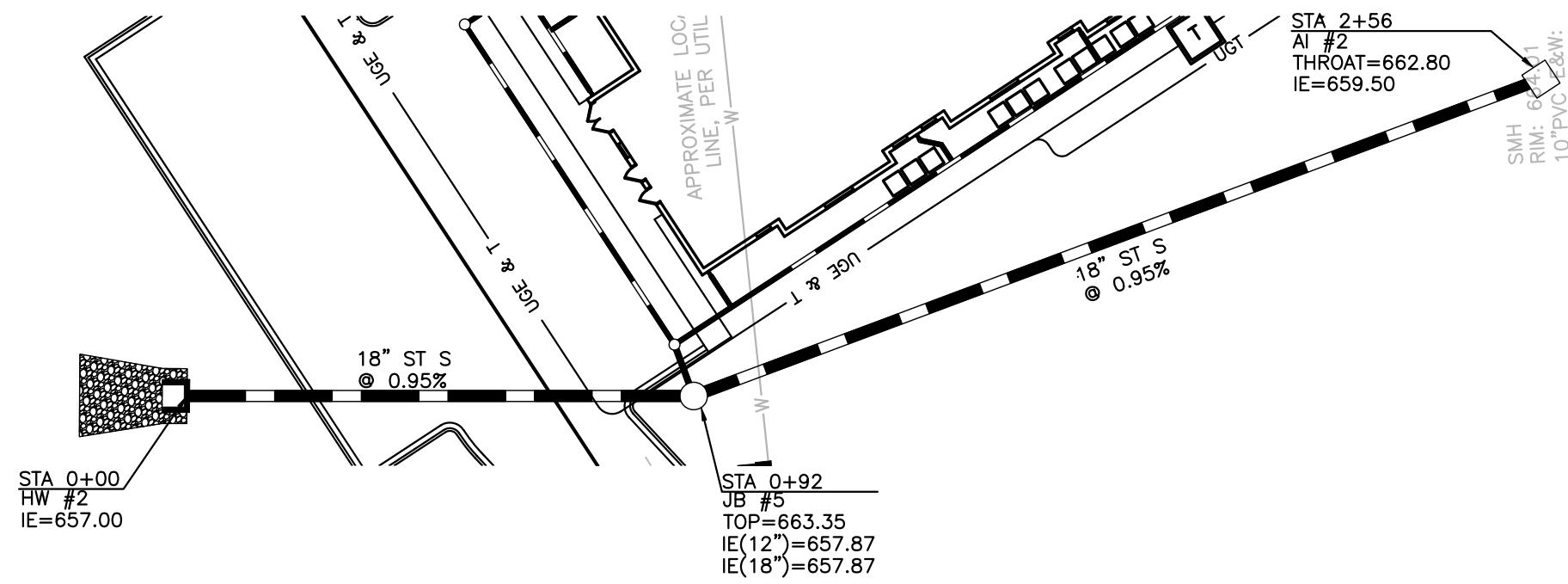


DRAWN	DPS
CHECKED	JSP
DATE	08/09/2023
SCALE	AS NOTED
JOB No.	N/A
SHEET	12 OF 33 SHEETS



NOTES:

- ALL DESIGN, CONSTRUCTION AND MATERIAL SHALL BE IN COMPLIANCE WITH THE CITY OF COWETA SPECIFICATIONS AND REQUIREMENTS.
- THE CONTRACTOR MUST HAVE WRITTEN APPROVAL FROM THE CITY ENGINEER AND THE PROJECT ENGINEER BEFORE ANY CHANGE IN DESIGN IS MADE.



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Call before you dig.

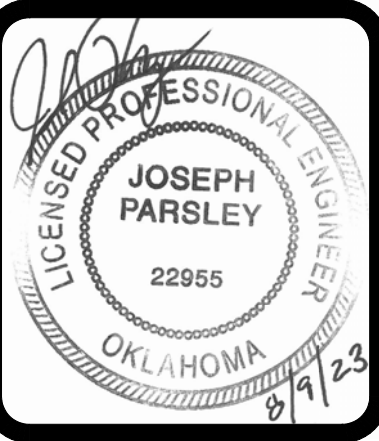
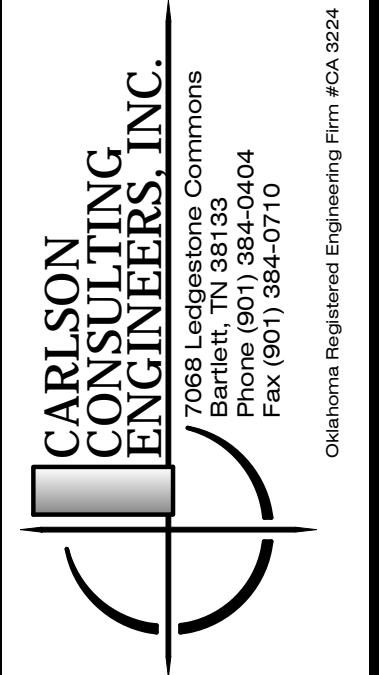
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NO	REVISIONS

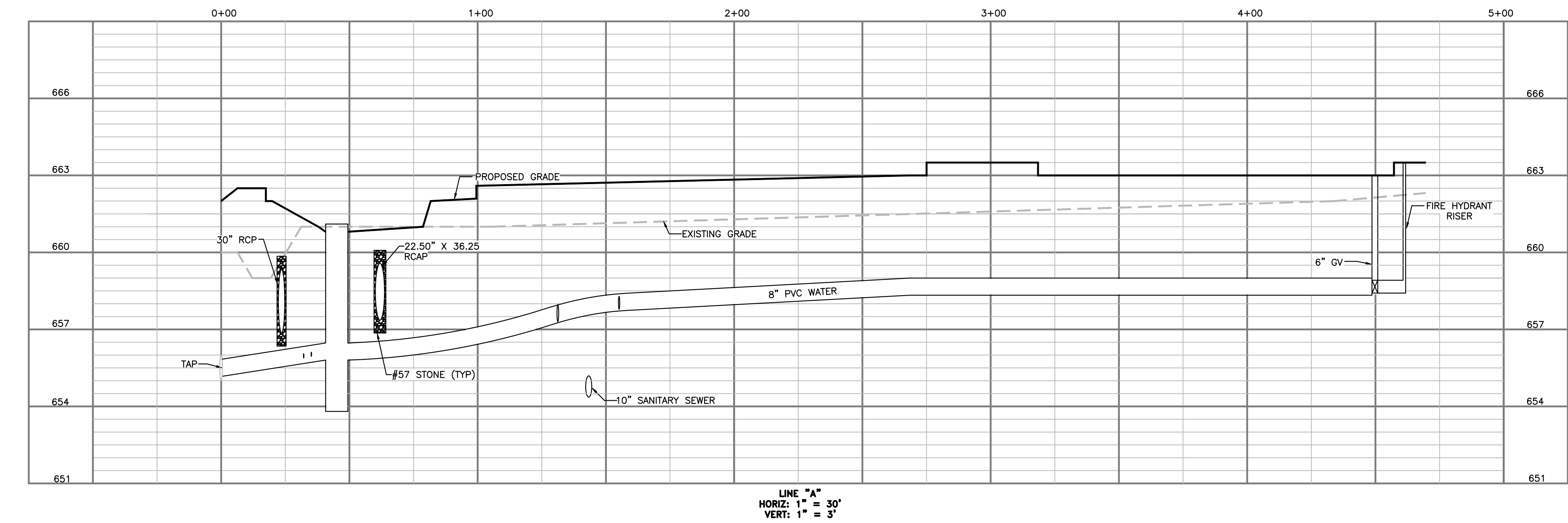
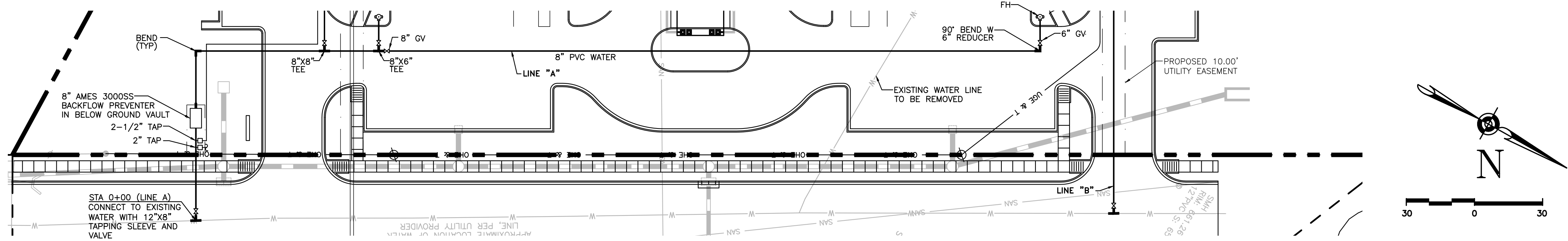
TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA

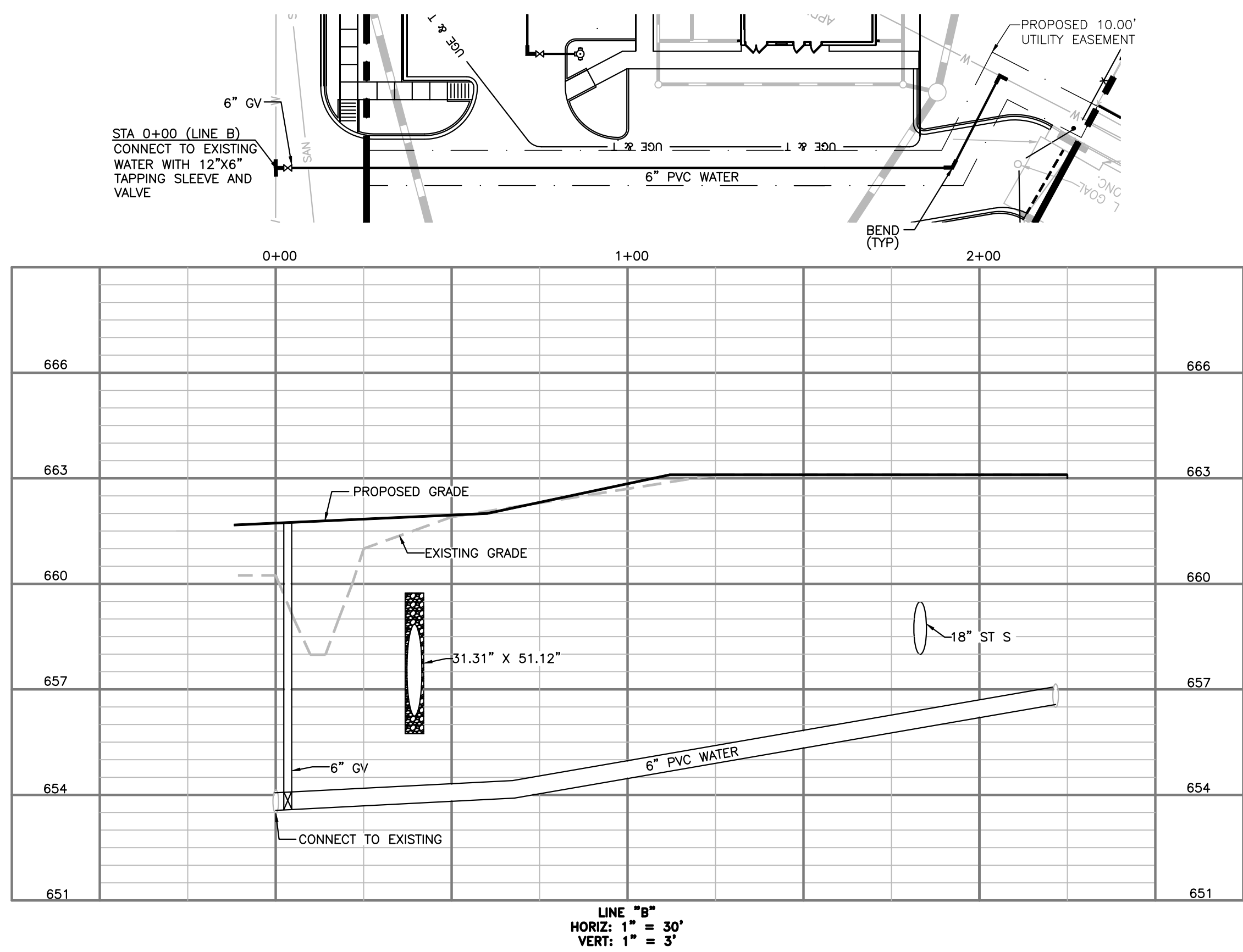


DRAWN	DPS
CHECKED	JSP
DATE	08/09/2023
SCALE	AS NOTED
JOB No.	N/A
SHEET	13 OF 33 SHEETS

STORM SEWER PLAN AND PROFILE



- NOTES:
- ALL DESIGN, CONSTRUCTION AND MATERIAL SHALL BE IN COMPLIANCE WITH THE CITY OF COWETA SPECIFICATIONS AND REQUIREMENTS.
 - ALL FILL AND/OR TRENCH BACKFILL SHALL BE COMPACTED AS PER THE PROJECT SPECIFICATIONS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF AND CONSTRUCTION ON THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME THE RESPONSIBILITY FOR ANY DAMAGE INCURRED BY ANY UTILITY COMPANY TO THEIR UTILITY LINES, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT.
 - THE CONTRACTOR MUST HAVE WRITTEN APPROVAL FROM THE CITY ENGINEER AND THE PROJECT ENGINEER BEFORE ANY CHANGE IN DESIGN IS MADE.



WATER LINE PERMIT REQUIREMENTS

THE DESIGN ENGINEER IS REQUIRED TO PROVIDE CERTIFICATION THAT THE WATER SYSTEM HAS BEEN INSTALLED AS PER THE PLANS AND SPECIFICATIONS PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR MUST ADHERE TO THE FOLLOWING REQUIREMENTS IN ORDER FOR THE ENGINEER TO PROVIDE THE REQUIRED CERTIFICATION.

- PROVIDE BACKFILL DENSITY TEST RESULTS, AS TAKEN BY THE OWNER'S ON SITE TESTING LABORATORY, TO THE ENGINEER.
- PERFORM REQUIRED FINAL PRESSURE AND LEAKAGE TESTING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- PROVIDE WRITTEN RESULTS OF THE PRESSURE AND LEAKAGE TESTING TO THE ENGINEER.
- PROVIDE WRITTEN RESULTS OF THE BACTERIOLOGICAL TESTS, FROM AN APPROVED LABORATORY AND IN A FORM APPROVED BY THE STATE, TO THE ENGINEER.
- PROVIDE AN AS-BUILT SURVEY OF THE WATER SYSTEM IMPROVEMENTS, CERTIFIED BY A LICENSED SURVEYOR, TO THE ENGINEER.



CAUTION — NOTICE TO CONTRACTOR

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 UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, APPURTENANCES AND IMPROVEMENTS WHICH CONFLICT WITH THE IMPROVEMENTS SHOWN BY THESE PLANS.

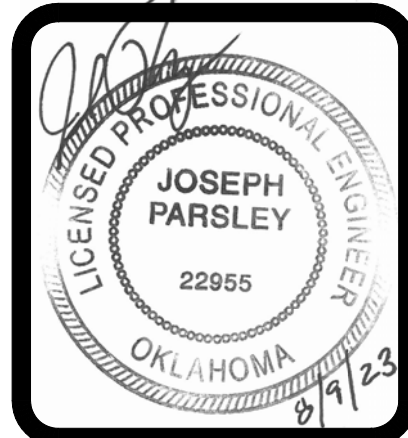
WATER PLAN AND PROFILE

NO	REVISIONS

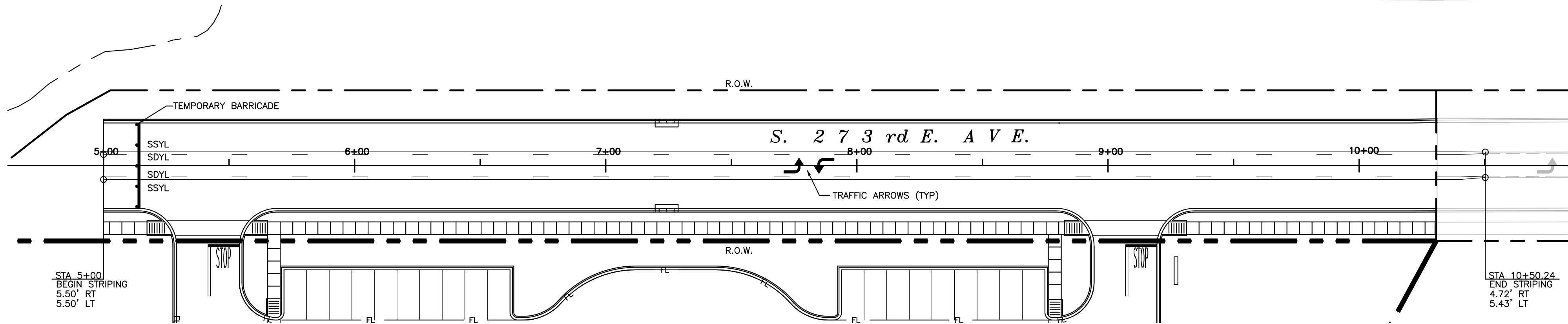
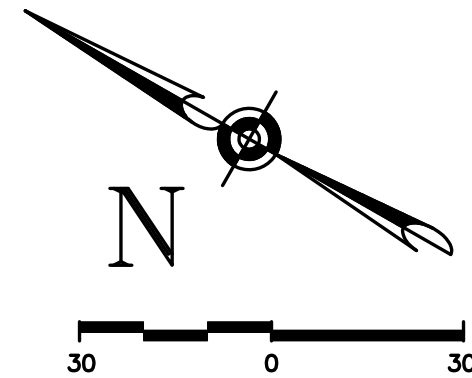
TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
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CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA

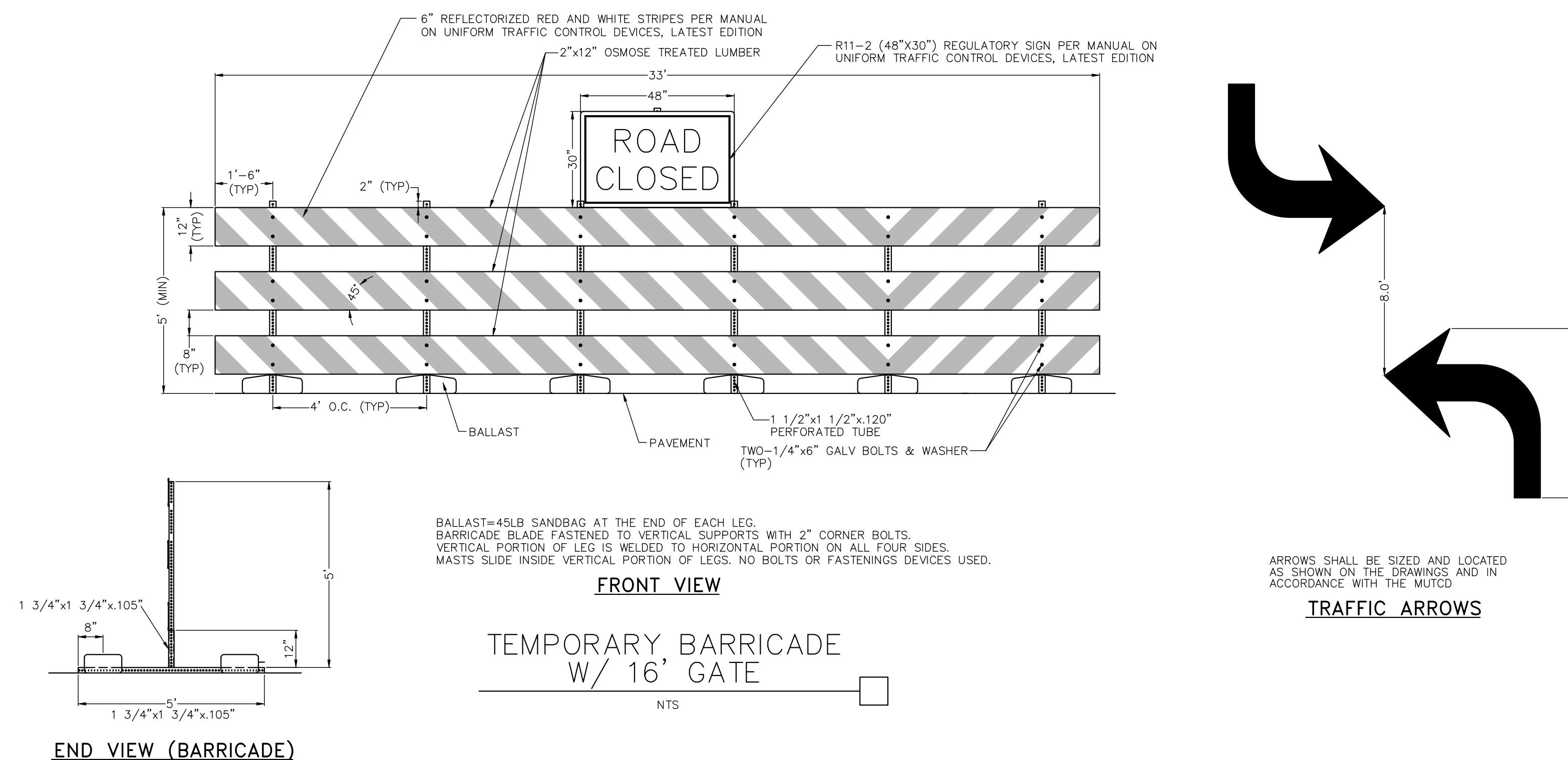
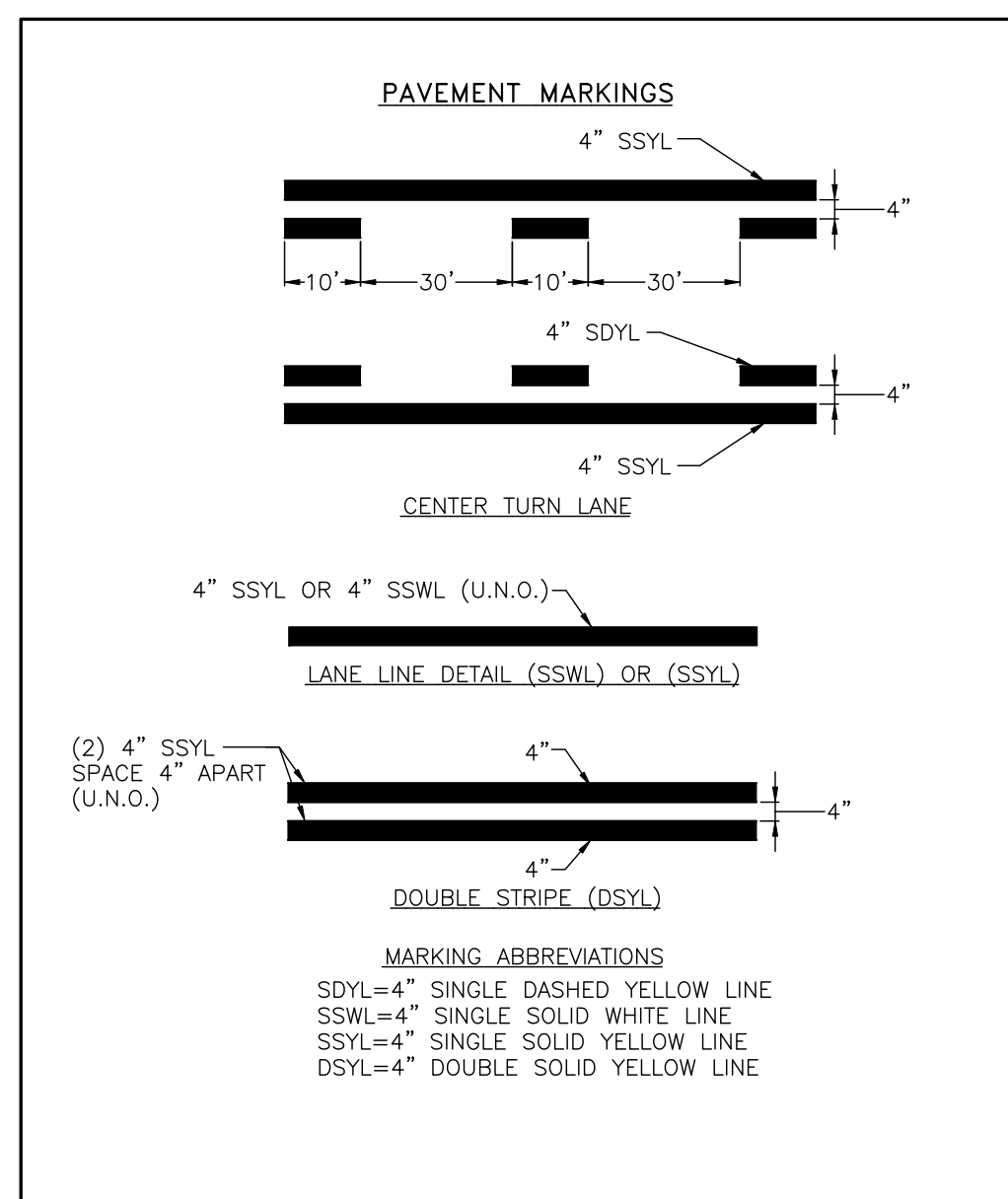
CARLSON CONSULTING ENGINEERS, INC.
70681 Ledgestone Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710
Oklahoma Registered Engineering Firm #CA 3224



DRAWN	DPS
CHECKED	JSP
DATE	08/09/2023
SCALE	AS NOTED
JOB No.	N/A
SHEET	14
OF 33 SHEETS	



- NOTES
1. ALL DESIGN, CONSTRUCTION AND MATERIAL SHALL BE IN COMPLIANCE WITH THE CITY OF COWETA SPECIFICATIONS AND REQUIREMENTS
 2. THE CONTRACTOR SHALL HAVE ANY R.O.W. MONUMENTS LOCATED BY A LICENSED SURVEYOR PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES IN THE ROW. ANY MONUMENTS WHICH ARE DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY SAME.
 3. THE CONTRACTOR SHALL NOT ENTER UPON, WORK UPON NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT PRIOR PERMISSION FROM SAID PROPERTY OWNER(S).
 4. CONTRACTOR SHALL SCHEDULE CONSTRUCTION ACTIVITIES WHICH AFFECT NEIGHBORING PROPERTY OWNER'S ACCESS ONTO PUBLIC ROADWAYS WITH THE PROPERTY OWNER. ALL EFFORTS SHOULD BE MADE TO AVOID COMPLETELY BLOCKING ACCESS TO OR FROM A DRIVE AT ANY TIME.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF ANY CONSTRUCTION ON THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME THE RESPONSIBILITY FOR ANY DAMAGE INCURRED BY ANY UTILITY COMPANY TO THEIR UTILITY LINES, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT.
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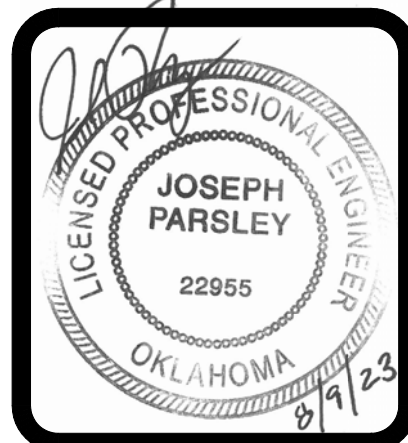
S. 273rd. E. AVE. STRIPING PLAN

NO	REVISIONS

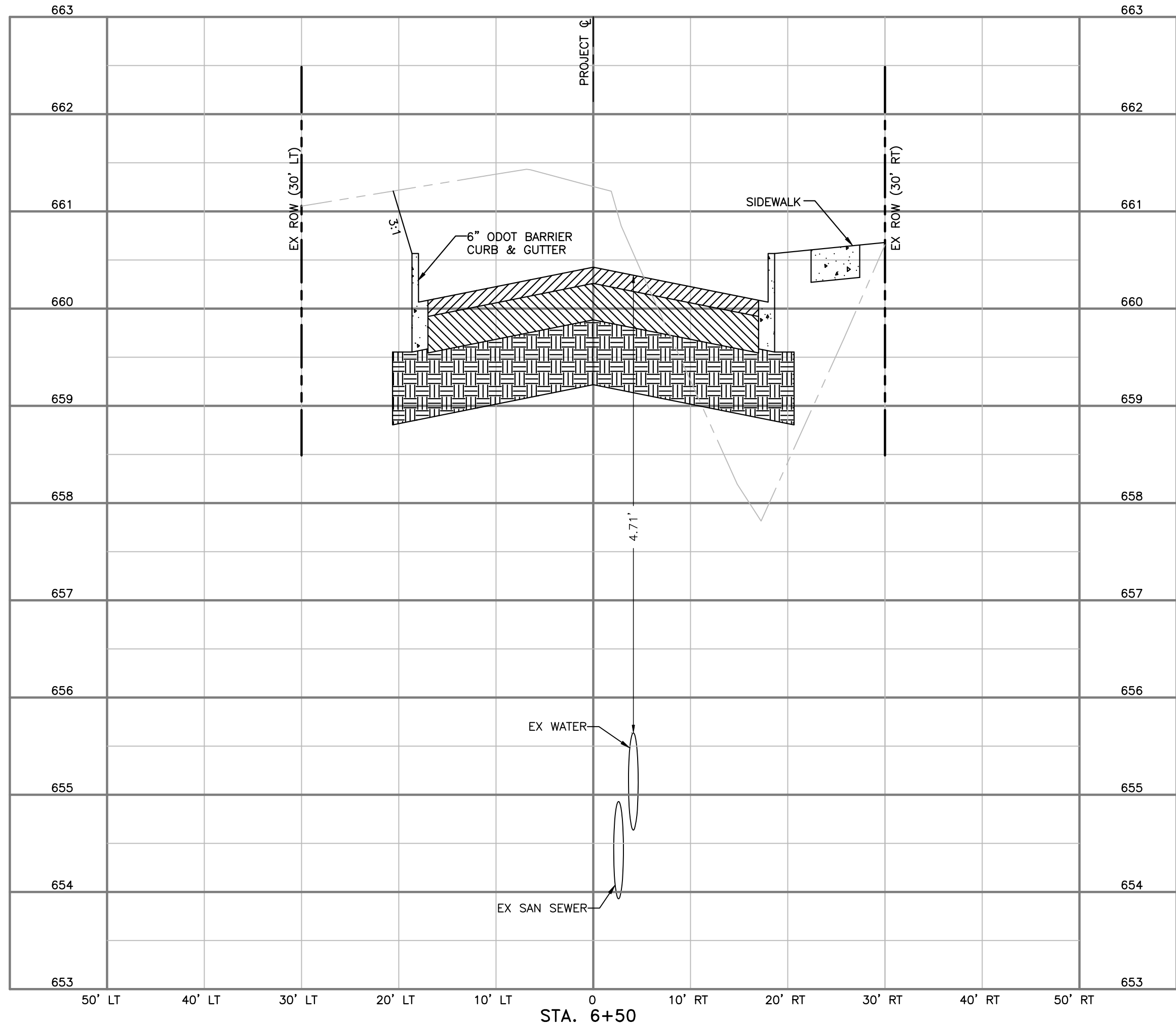
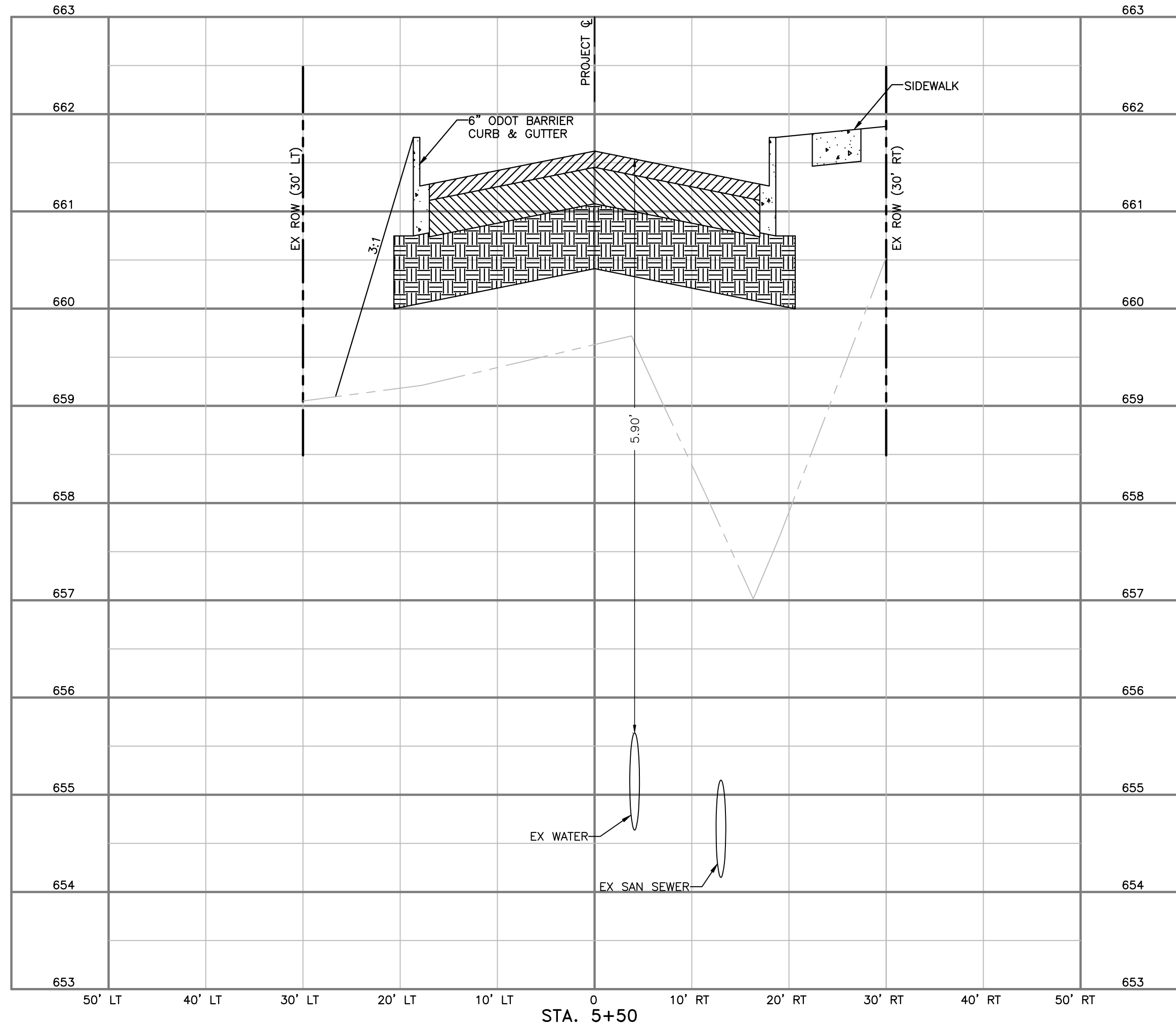
TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA

CARLSON
CONSULTING
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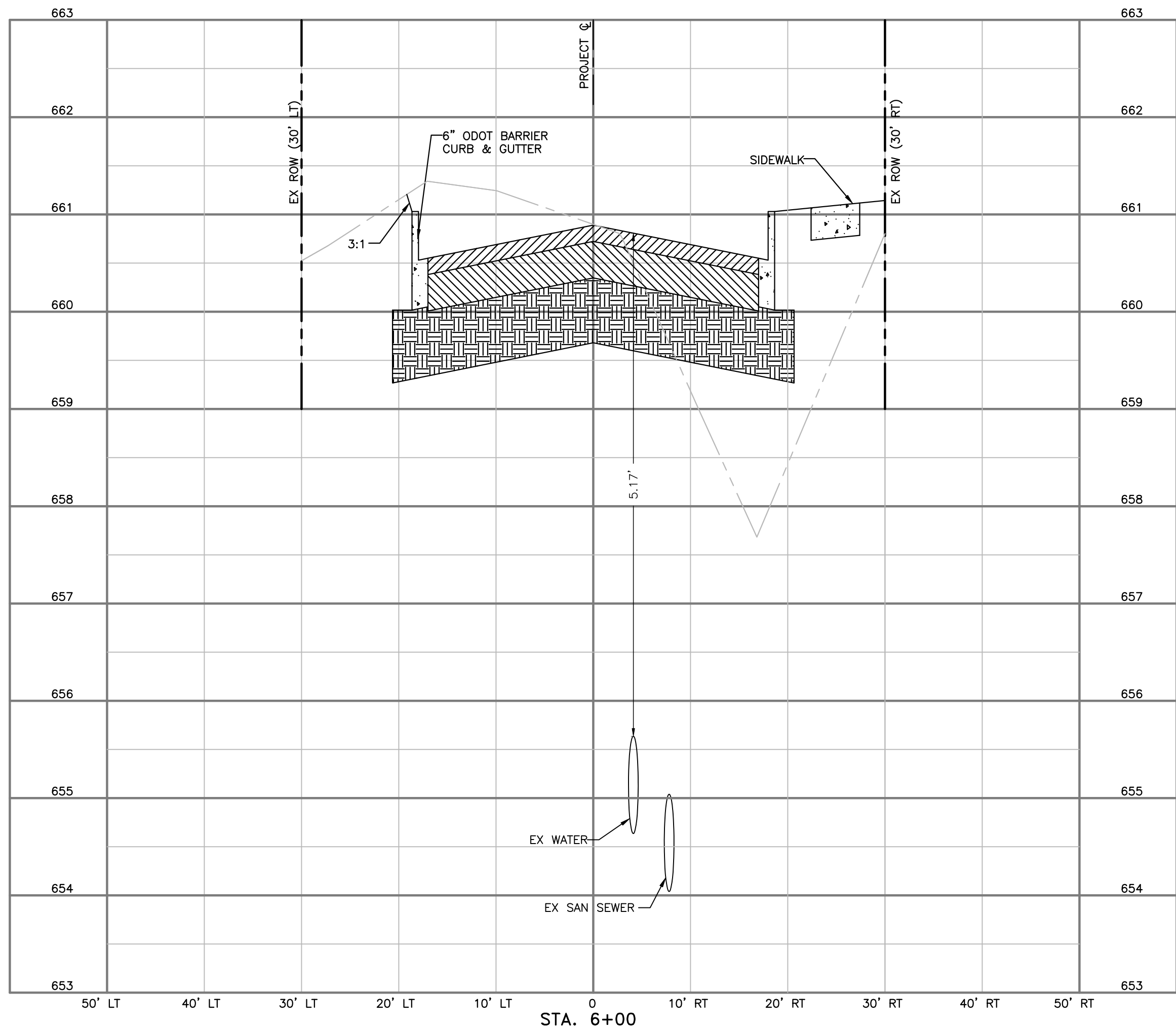
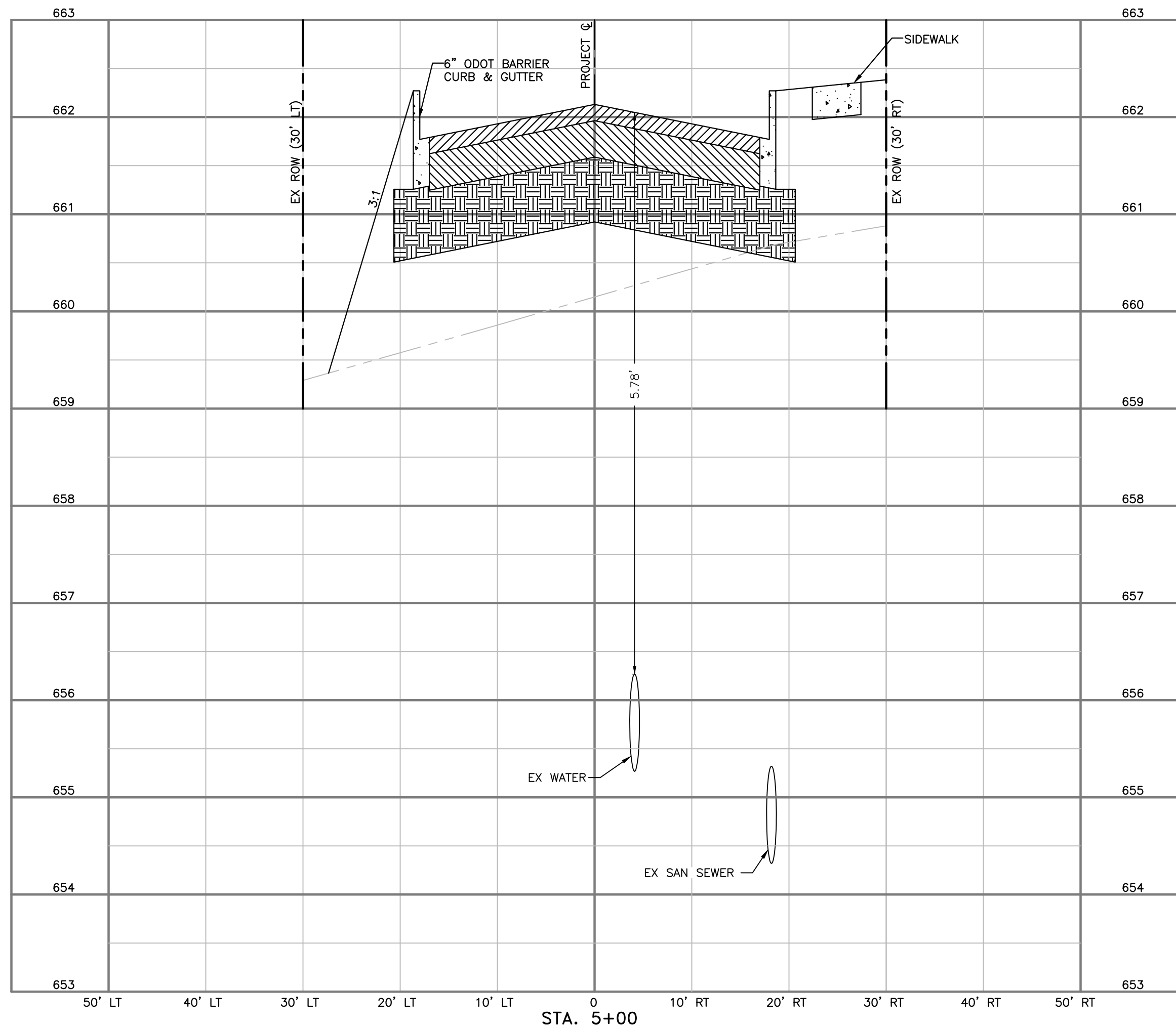
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DATE	08/09/2023
SCALE	1" = 30'
JOB No.	N/A
SHEET	16
OF 33 SHEETS	



- LEGEND**
- ASPHALT WEARING COURSE
 - ASPHALT BASE
 - MODIFIED SUBGRADE
 - SIDEWALK OR CURB AND GUTTER

NOTES:

1. UTILITY DEPTHS SHOWN WERE NOT FIELD VERIFIED AND ARE BASED UPON TYPICAL BURIAL DEPTHS FOR THE UTILITIES SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ACCURATE DEPTHS OF EXISTING UTILITIES.



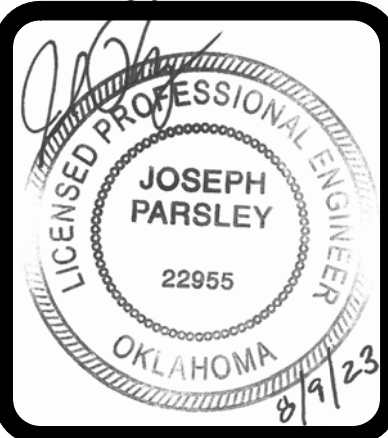
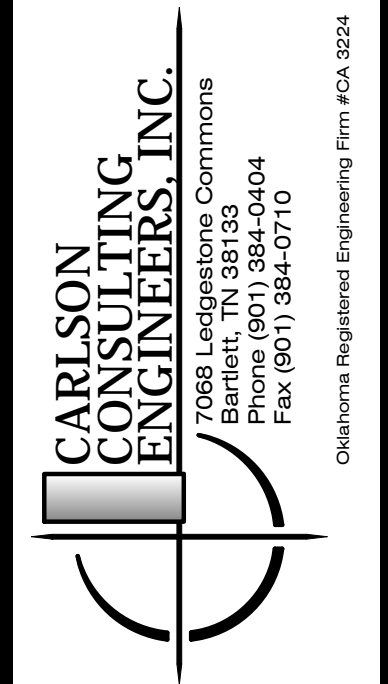
HORIZ: 1" = 10'
VERT: 1" = 1'

ROAD CROSS SECTIONS

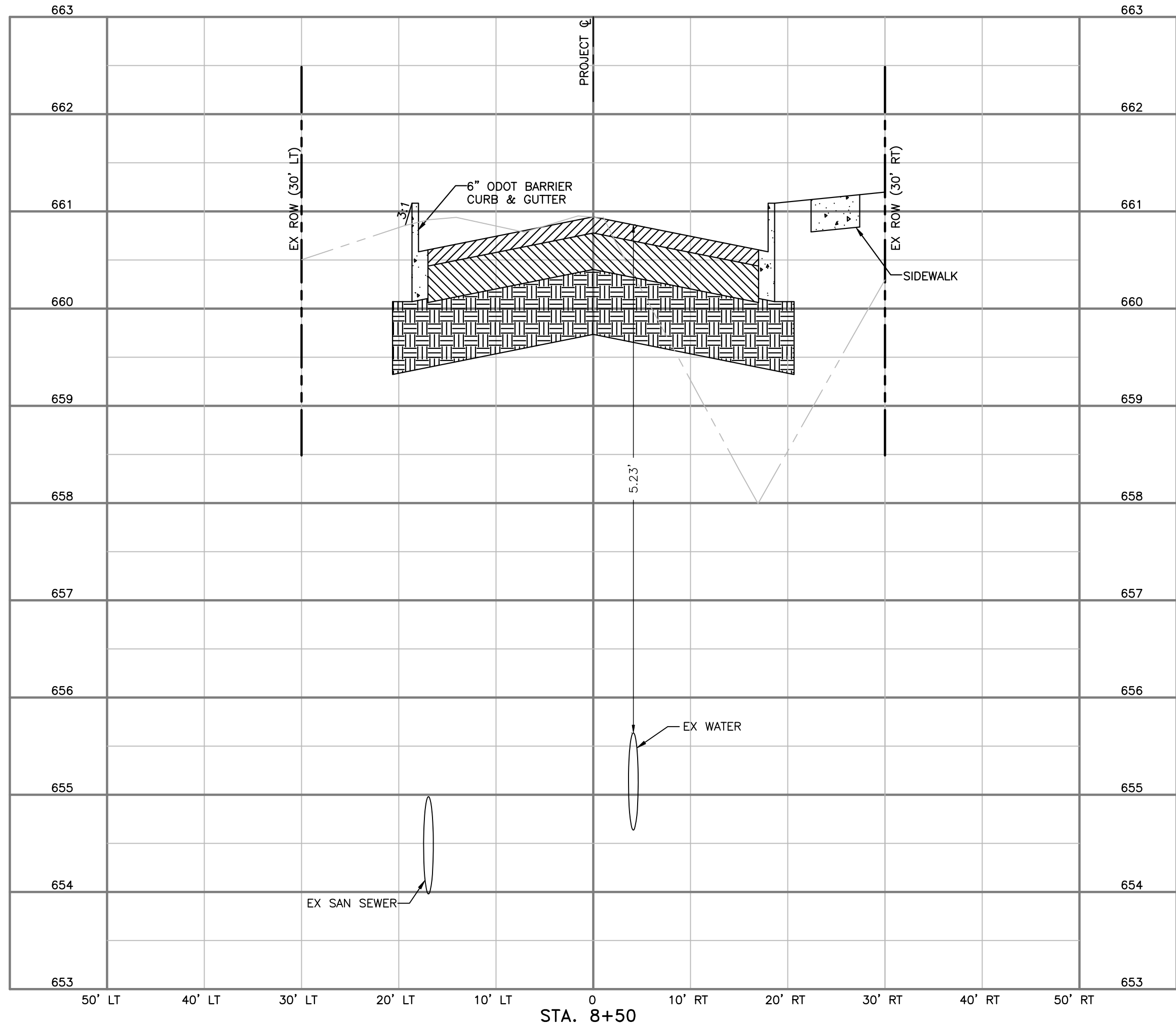
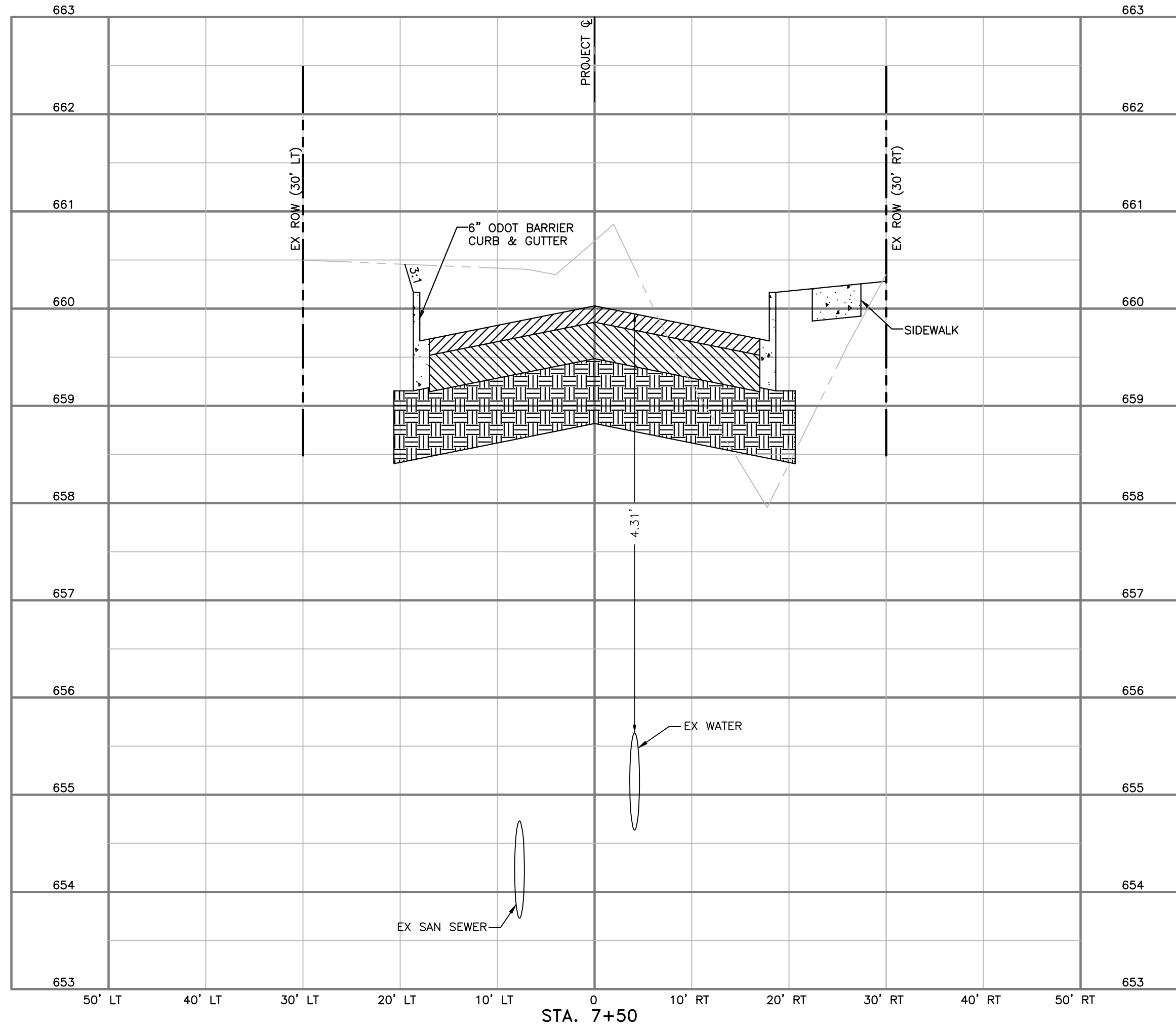
NO	REVISIONS

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CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA



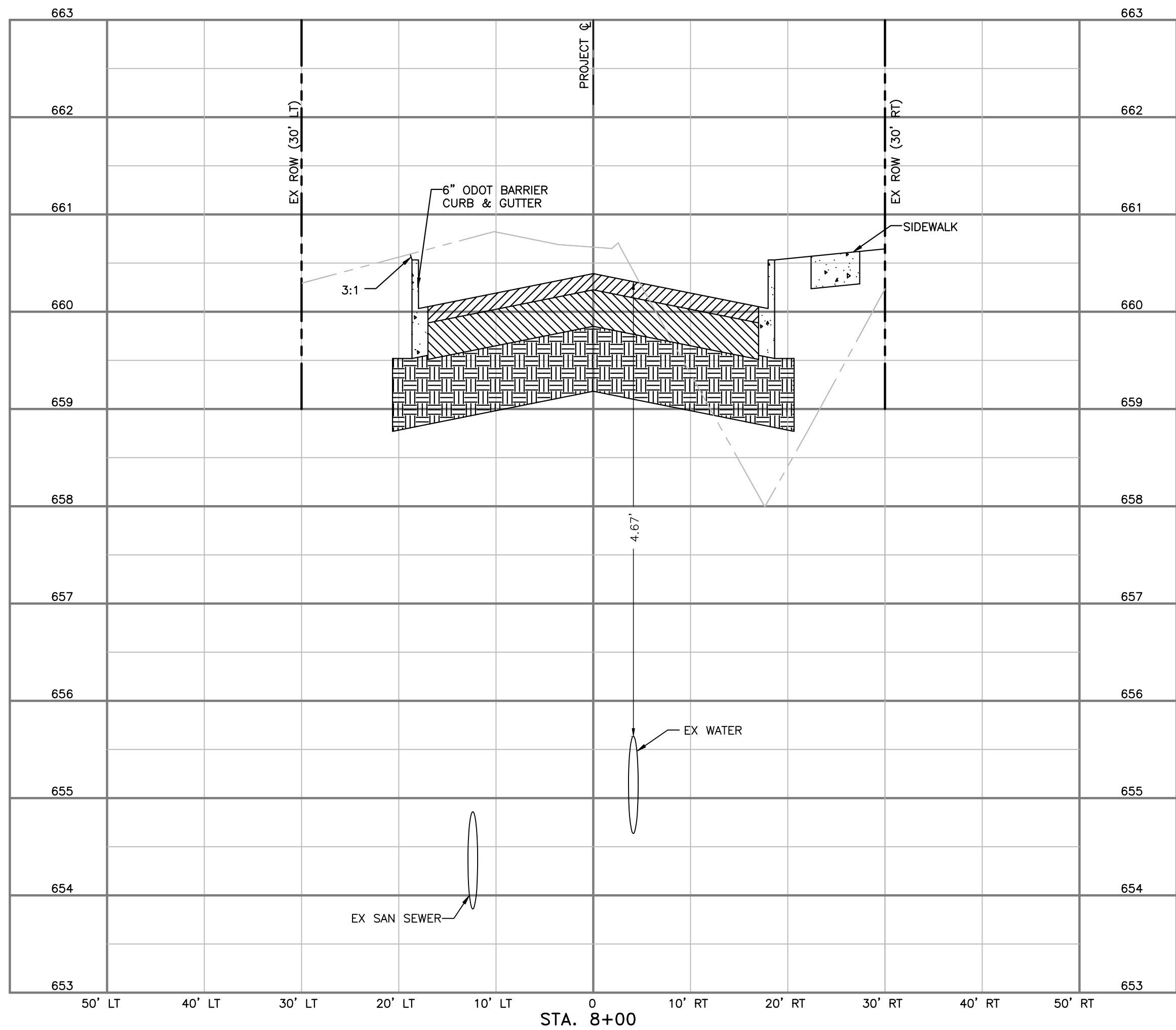
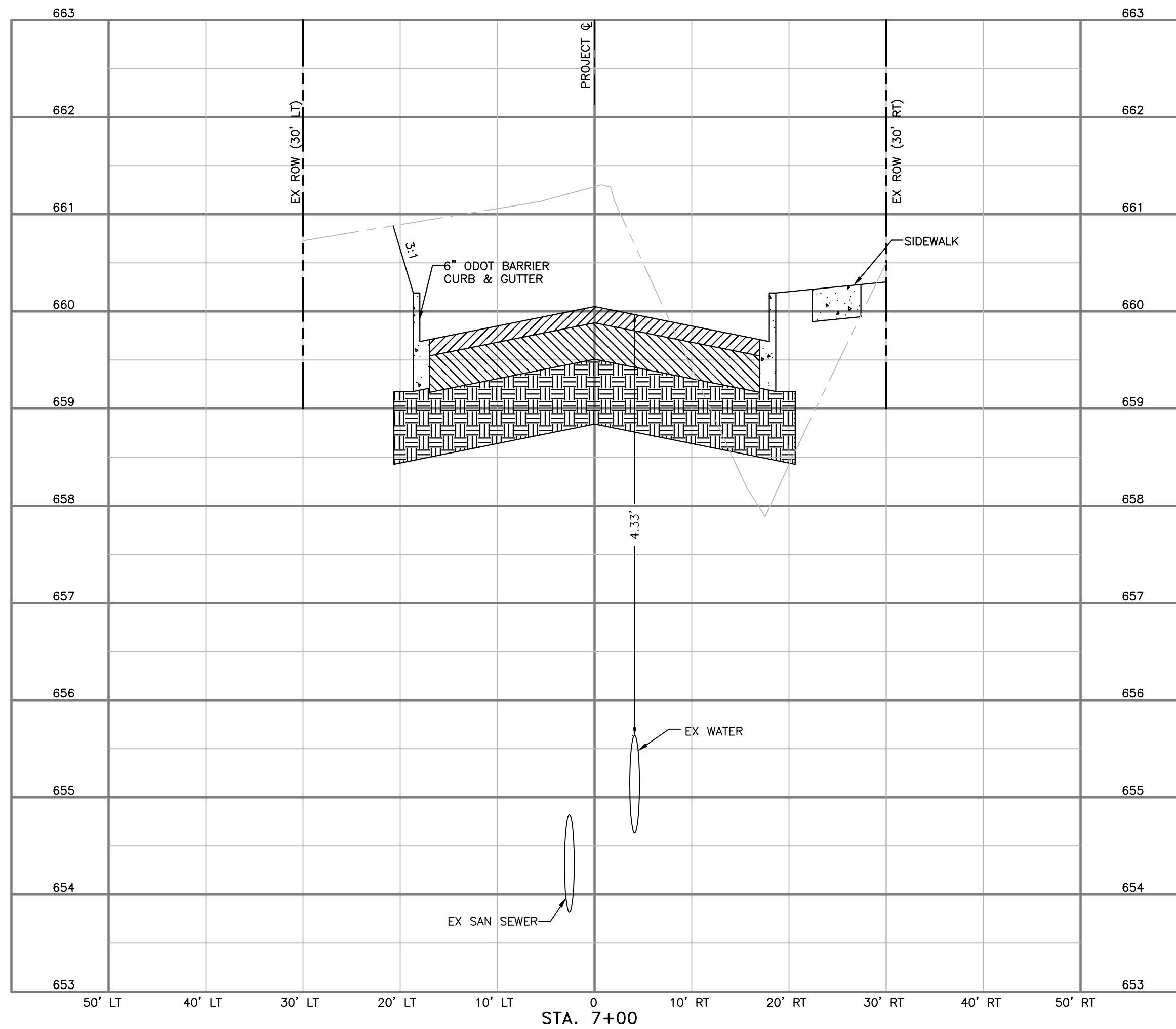
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17 OF 33 SHEETS



- LEGEND**
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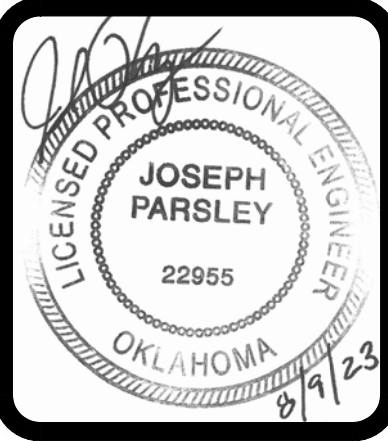
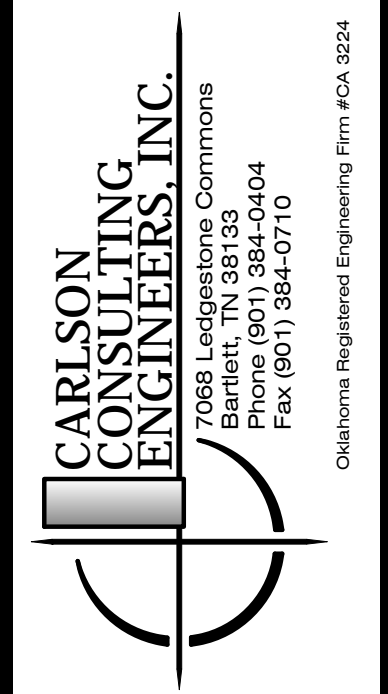
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ROAD CROSS SECTIONS

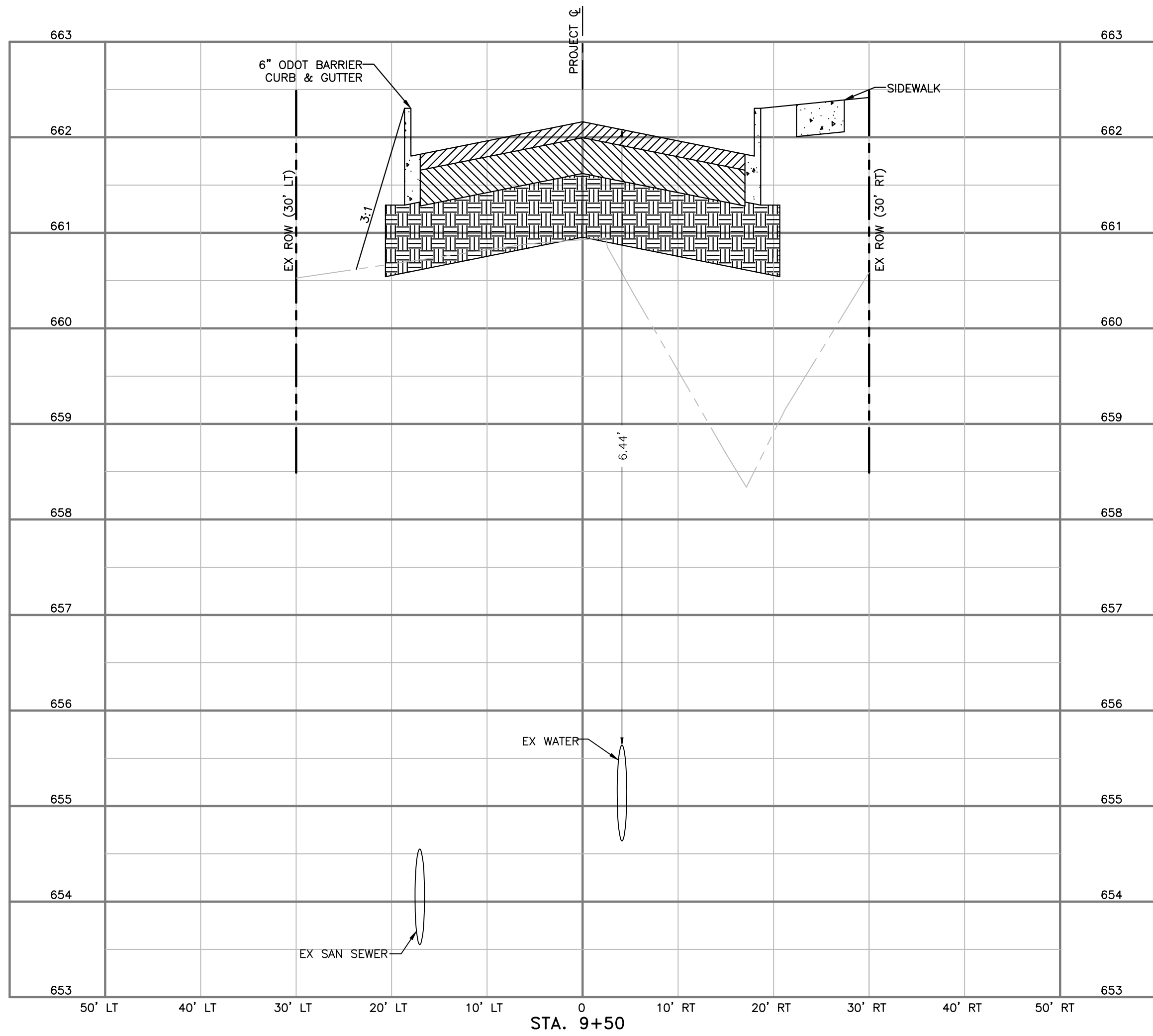
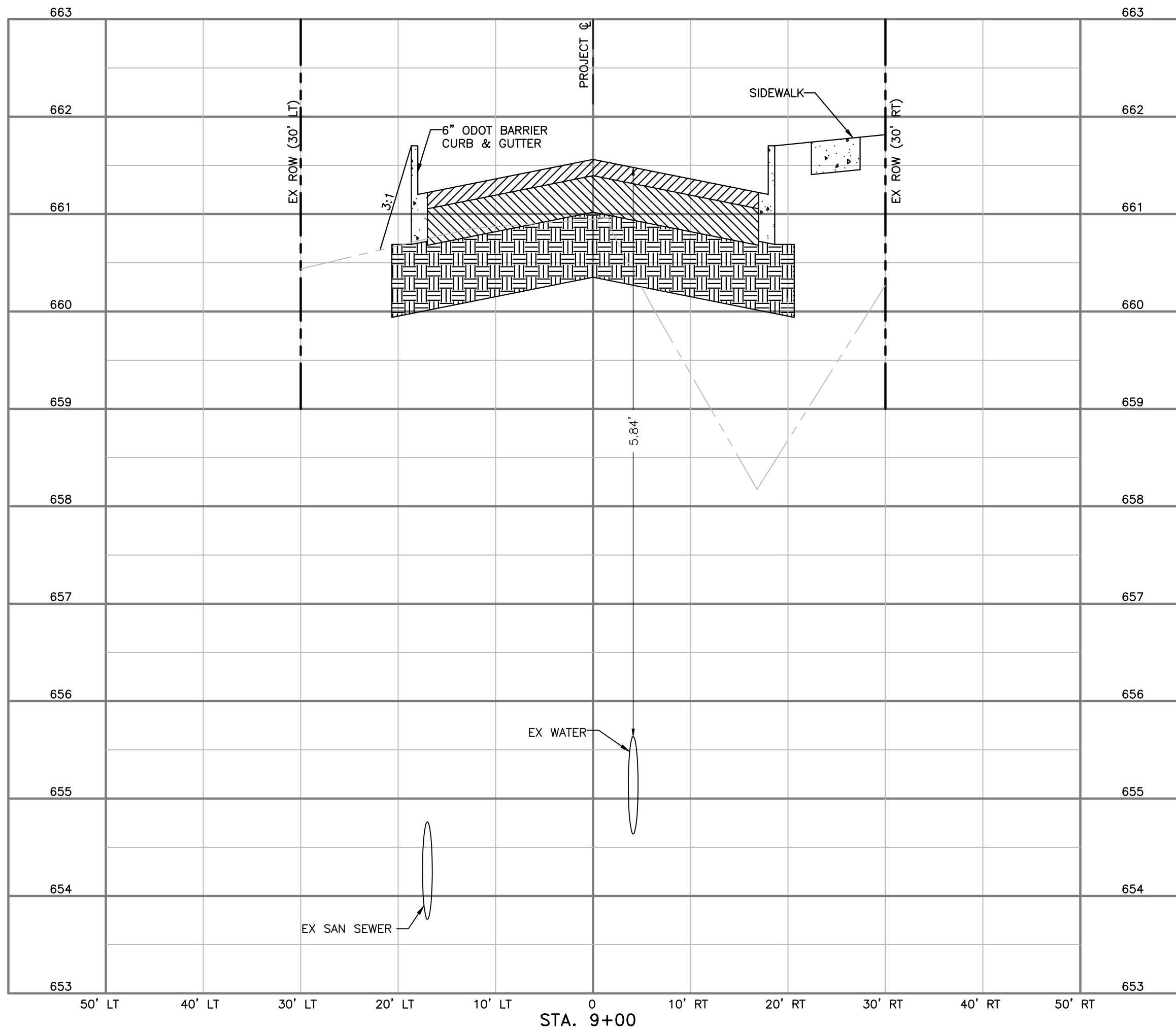
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CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA



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SCALE	AS NOTED
JOB No.	N/A
SHEET	18
OF 33 SHEETS	



- LEGEND
- ASPHALT WEARING COURSE
 - ASPHALT BASE
 - MODIFIED SUBGRADE
 - SIDEWALK OR CURB AND GUTTER

NOTES:

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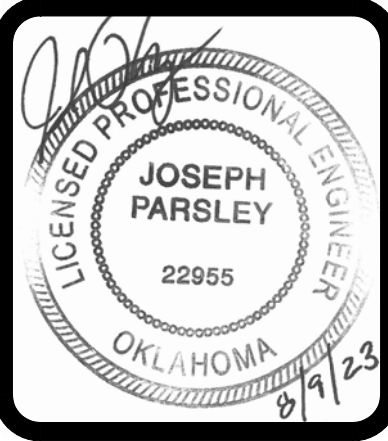
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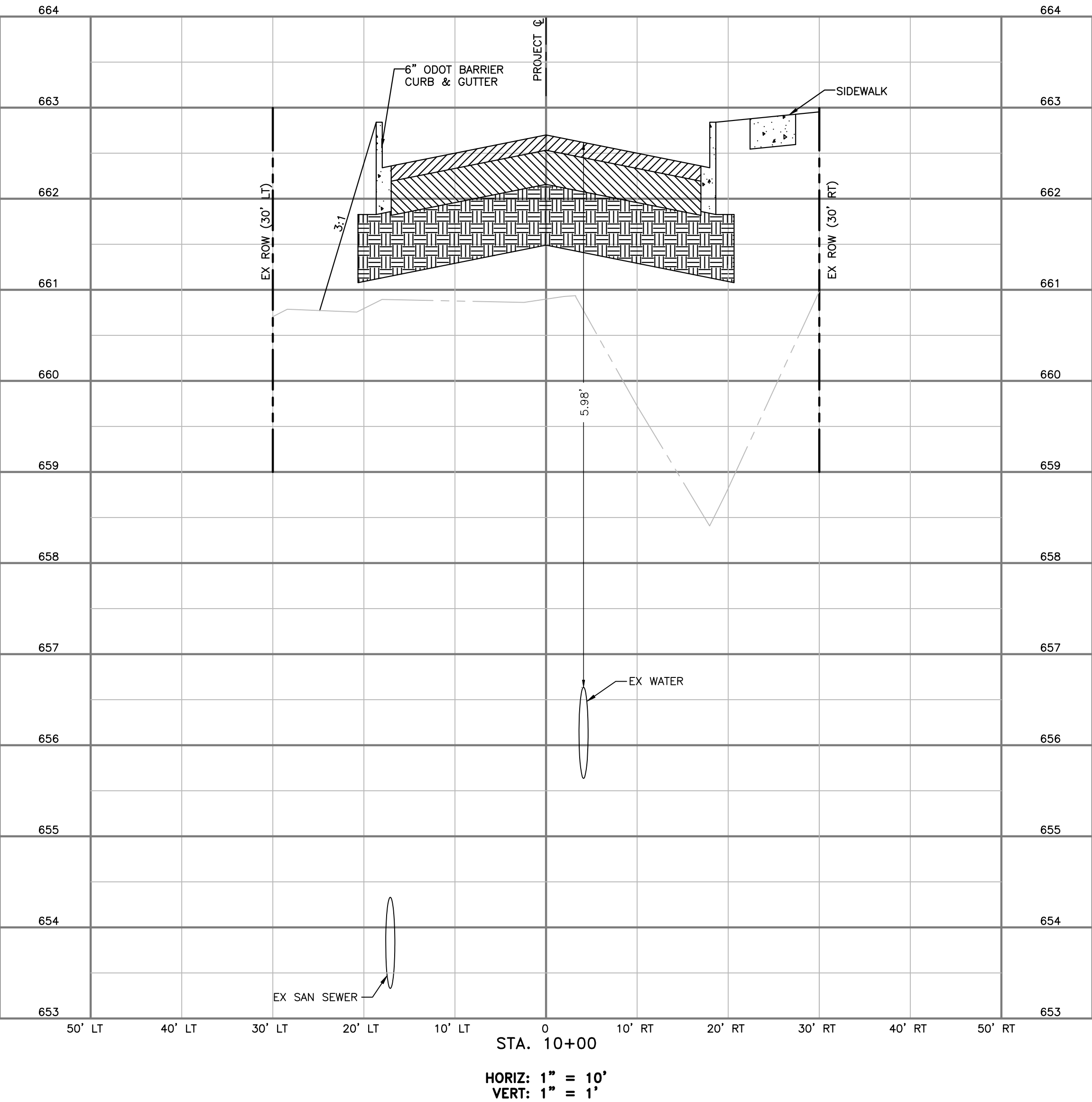
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COWETA, OKLAHOMA

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1068 Ledgestone Commons
Bartlett, TN 38133
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Oklahoma Registered Engineering Firm #CA 0224



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SHEET
19 OF 33 SHEETS



LEGEND	
	- ASPHALT WEARING COURSE
	- ASPHALT BASE
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NO	REVISIONS

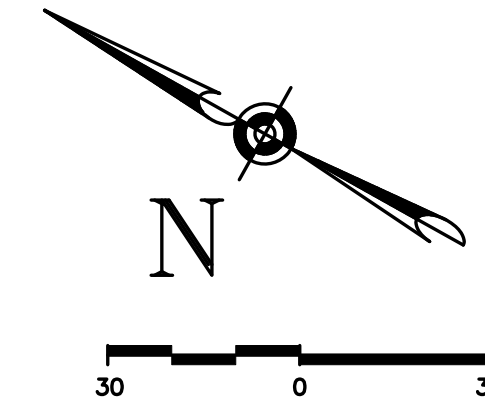
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N/A
SHEET
20 OF 33 SHEETS

ROAD CROSS SECTIONS



CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MAINTENANCE AND A WARRANTY ON ALL PLANT MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.

ALL UNSURFACED AREAS SHALL RECEIVE A 4" LAYER OF SUITABLE TOPSOIL AND SOD. WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

SOD SHALL BE PEGGED ON ALL 3:1 SLOPES OR STEEPER IN ORDER TO HOLD SOD IN PLACE. SEE SITEWORK SPECIFICATIONS FOR OTHER REQUIREMENTS.

UNLESS SHOWN OTHERWISE, ALL LARGE CANOPY TREES SHALL MAINTAIN 25' HORIZONTAL CLEARANCE FROM ALL OVERHEAD UTILITY LINES AND 10' HORIZONTAL CLEARANCE FROM ALL UNDERGROUND UTILITY LINES.

ALL LANDSCAPE AREAS SHALL BE FULLY IRRIGATED AS SHOWN ON THE IRRIGATION PLAN. SEE IRRIGATION PLAN, THIS SET, FOR ADDITIONAL INFORMATION.

TREE PROTECTION FENCING TO BE REMOVED JUST PRIOR TO THE INSTALLATION OF ALL LANDSCAPE PLANTING.

LANDSCAPE CALCULATIONS:

- 1 TREE FOR EVERY 1,500 S.F. OF STREET YARD AREA.
• TREES TO BE CANOPY ALONG FRONTAGE OF LOT
- STREET YARD AREA: 6,162 S.F. (0.14 ACRES) @1,500 S.F./1 TREE
= 4.1 OR 5 TREES REQUIRED
MINIMUM SIZE OF CANOPY TREES: 1-1/2" C. / 8'-0" HT.
= 7 SMALLER UTILITY COMPATIBLE TREES PROVIDED
- 1 TREE FOR EVERY 10 PARKING SPACES.
• TREES TO BE INTERIOR TO PARKING LOT
• 75' MAXIMUM SEPARATION BETWEEN TREES AND ANY PARKING SPACE
• MINIMUM OF 1 TREE PER PARKING ISLAND
• MINIMUM SIZE OF PARKING ISLAND IS 100 S.F. w/ 7' WIDTH
- TOTAL PARKING SPACES: 65 @ 10 SP./1 TREE
= 6.5 OR 7 TREES REQUIRED
MINIMUM SIZE OF CANOPY TREES: 1-1/2" C. / 8'-0" HT.
= 8 TREES PROVIDED

SITE AREA CALCULATIONS:

TOTAL SITE AREA:	148,803 S.F. (3.42-ACRES)
BUILDING FOOTPRINT	15,942 S.F. (0.37-ACRES)
TOTAL AREA OFF-STREET PARKING AND RELATED DRIVES:	40,257 S.F. (1.12-ACRES)
TOTAL AREA OF IMPERVIOUS SURFACE:	56,199 S.F. (1.29-ACRES)
TOTAL LANDSCAPE AREA:	92,604 S.F. (2.13-ACRES)
TOTAL STREETSCAPE AREA:	5,601 S.F. (0.13-ACRES)
TOTAL LANDSCAPE PARKING AREA:	2,201 S.F. (0.05-ACRES)
TOTAL INTERNAL LANDSCAPE AREA:	84,802 S.F. (1.95-ACRES)

PLANT SCHEDULE

QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE (BOTH MIN'S TO BE MET)	SPACING	CONDITION	REMARKS
TREES:							
4		ACER SACCHARUM 'CADD0'	'CADD0' MAPLE	1-1/2" - 2" C / 10'-12' HT	AS SHOWN	CONT	FULL CANOPY, HEALTHY, GOOD FORM
8		LAGERSTROMIA INDICA	'DALLAS RED' CRAPE MYRTLE	1" C / 6'-7' HT	AS SHOWN	CONT	FULL CANOPY, HEALTHY, GOOD FORM MULTI-TRUNK, 3-CANE MINIMUM
8		QUERCUS MACROCARPA	BUR OAK	1-1/2" - 2" C / 10'-12' HT	AS SHOWN	B&B	FULL CANOPY, HEALTHY, GOOD FORM STONG CENTRAL LEADER
7		ACER CAMPESTRE	HEDGE MAPLE	1-1/2" - 2" C / 8'-10' HT	AS SHOWN	B&B	FULL CANOPY, HEALTHY, GOOD FORM STONG CENTRAL LEADER
SHRUBS:							
37		BERBERIS THUNBERGII	CRIMSON PIGMY BARBERRY	#3 (GAL) / 15" MIN. HT	30" O.C.	CONT	FULL, EVEN GROWTH, HEALTHY
30		PENNISETUM ALOPECUROIDES 'HADELIN'	'HADELIN' FOUNTAIN GRASS	#3 (GAL) / 18" MIN. HT	30" O.C.	CONT	FULL, HEALTHY
12		PODOCARPUS MACROPHYLLUS 'MIU'	'ROMAN CANDLE' PODOCARPUS	#5 (GAL) / 30" MIN. HT	60" O.C.	CONT	FULL, EVEN GROWTH, HEALTHY
28		RHAPHIOLEPIS INDICA	'SNOW' INDIAN HAWTHORN	#3 (GAL) / 18" MIN. HT	36" O.C.	CONT	FULL, EVEN GROWTH, HEALTHY
97		ROSA X 'NOARE'	'FLOWER CARPET' RED ROSE	#2 (GAL) / 15" MIN. HT	30" O.C.	CONT	FULL, HEALTHY, RED BLOOM

GROUNDCOVERS:							
FILL AREA		CYNODON DACTYLON	COMMON BERMUDAGRASS	4 LBS./1,000 S.F.	SOLID	SEED	99% PURE - 99% GERM RATE
FILL AREA		CYNODON DACTYLON 'TIFTON 419'	'TIFTON 419' BERMUDA SOD	SLAB / ROLL	SOLID	SOD	WEED FREE & ACTIVELY GROWING
209		SANTOLINA PINNATA 'NEAPOLITANA'	GREEN SANTOLINA	#1 (GAL) / 6" MIN. HT	24" O.C.	CONT	FULL, HEALTHY
7		LANTANA SELLOWIANA 'MONPUR'	'PURPLE PATRIOT' TRAILING LANTANA	#1 (GAL) / 10" - 12" SPD.	24" O.C.	CONT	ROUND, FULL HEAD - UNIFORM SHAPE
FILL AREA		STONE MULCH		2" - 6" SMOOTH COBBLE	N/A	N/A	LOCALLY AVAILABLE

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PERMANENT SEEDING OPERATIONS WITH BERMUDAGRASS SEED SHALL NOT TAKE PLACE DURING MARCH - APRIL. IF SEEDING IS REQUIRED, APPLY THE TEMPORARY SEED MIX TO STABILIZE THE SOIL, AND RE-SEED WITH THE PERMANENT SEED MIX DURING THE SUMMER SEASON.

SOD SHALL BE PEGGED ON ALL SLOPES 4:1 AND GREATER IN ORDER TO HOLD SOD IN PLACE. SEE SITEWORK SPECIFICATIONS FOR OTHER REQUIREMENTS.

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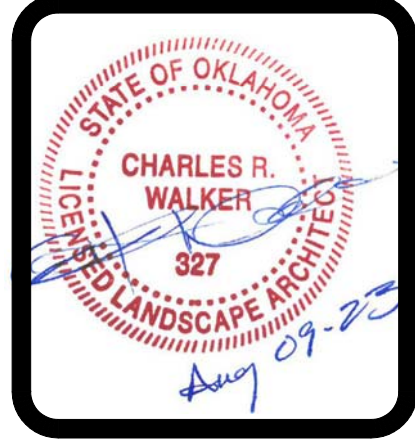
PLANTING PLAN

NO	REVISIONS

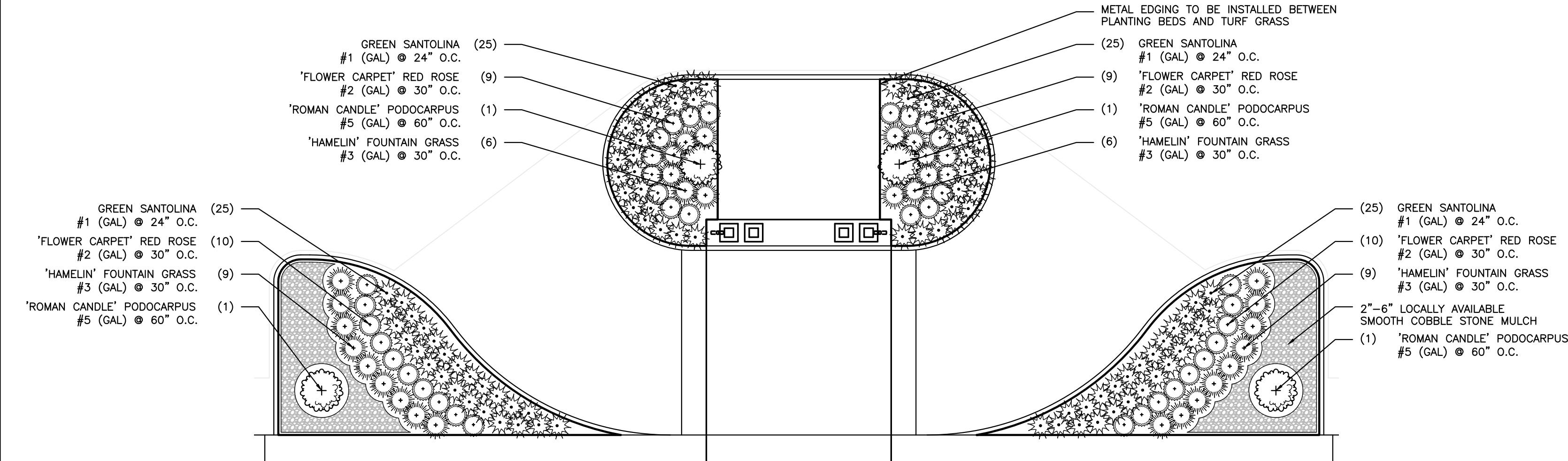
TRINITY HOUSING DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA

C. R. WALKER, PLA
7068 Ledgestone Commons
Bartlett, TN 38133
Phone (901) 394-0404
Fax (901) 394-0710
Oklahoma Registered Engineering Firm PCA 5224

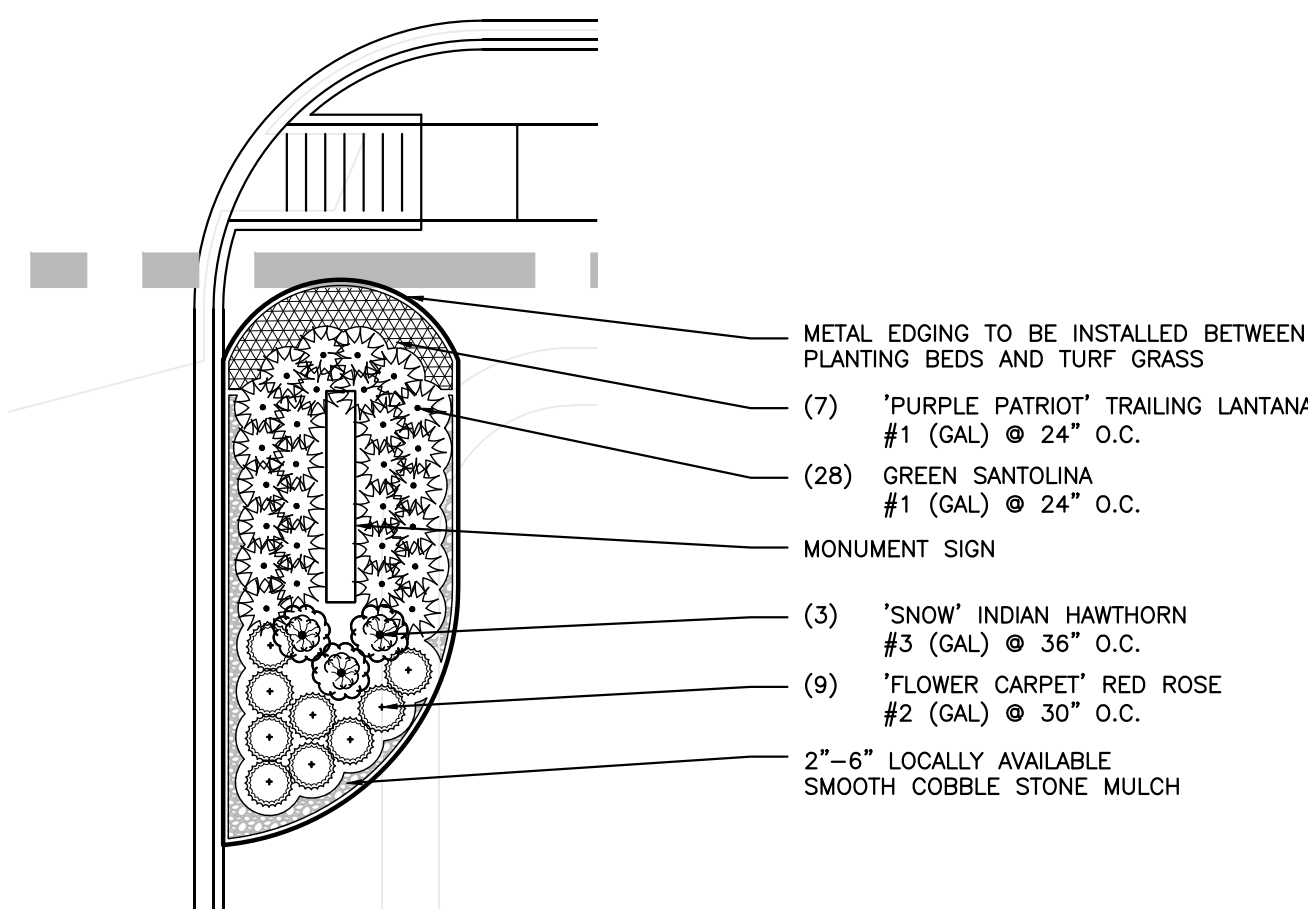


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CHECKED	JSP
DATE	04/07/2023
SCALE	1" = 30'
JOB No.	N/A
SHEET	21 OF 33 SHEETS



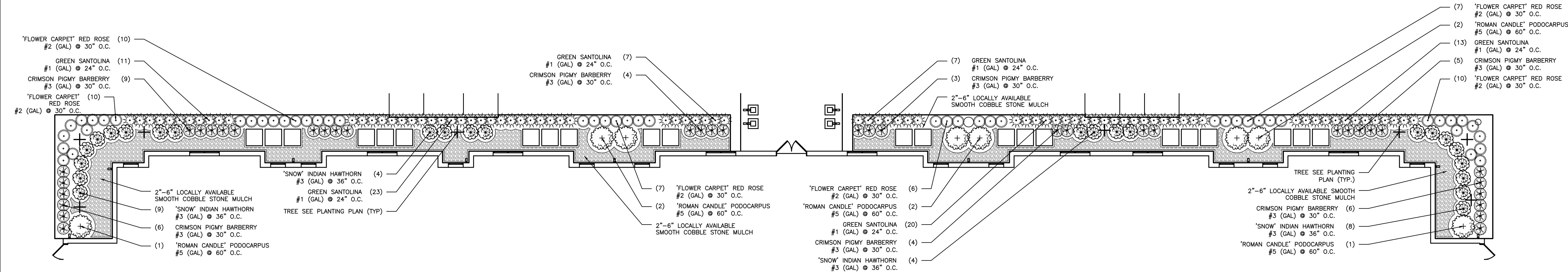
PLANTING ENLARGEMENT: BUILDING FRONT DRIVE

SCALE: 1"= 10'-0"



PLANTING ENLARGEMENT: MONUMENT SIGN PLANTING

SCALE: 1"= 10'-0"



PLANTING ENLARGEMENT: FRONT OF BUILDING

SCALE: 1"= 10'-0"

PLANT SCHEDULE

NOTE: ALL SIZES AND CONDITION OF NURSERY STOCK SHALL MEET THE STANDARDS ESTABLISHED IN THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE (BOTH MIN'S TO BE MET)	SPACING	CONDITION	REMARKS
TREES:							
4		ACER SACCHARUM 'CADD0'	'CADD0' MAPLE	1-1/2" - 2" C / 10'-12' HT	AS SHOWN	CONT	FULL CANOPY, HEALTHY, GOOD FORM
8		LAGERSTROMIA INDICA	'DALLAS RED' CRAPE MYRTLE	1" C / 6'-7' HT	AS SHOWN	CONT	FULL CANOPY, HEALTHY, GOOD FORM MULTI-TRUNK, 3-CANE MINIMUM
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7		ACER CAMPESTRE	HEDGE MAPLE	1-1/2" - 2" C / 8'-10' HT	AS SHOWN	B&B	FULL CANOPY, HEALTHY, GOOD FORM STRONG CENTRAL LEADER
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FILL AREA		CYNODON DACTYLON 'TIFTON 419'	'TIFTON 419' BERMUDA SOD	SLAB / ROLL	SOLID	SOD	WEED FREE & ACTIVELY GROWING
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7		LANTANA SELLOWIANA 'MONPUR'	'PURPLE PATRIOT' TRAILING LANTANA	#1 (GAL) / 10" - 12" SPD.	24" O.C.	CONT	ROUND, FULL HEAD - UNIFORM SHAPE
FILL AREA		STONE MULCH		2" - 6" SMOOTH COBBLE	N/A	N/A	LOCALLY AVAILABLE

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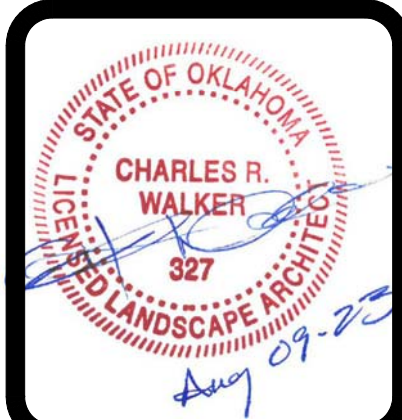
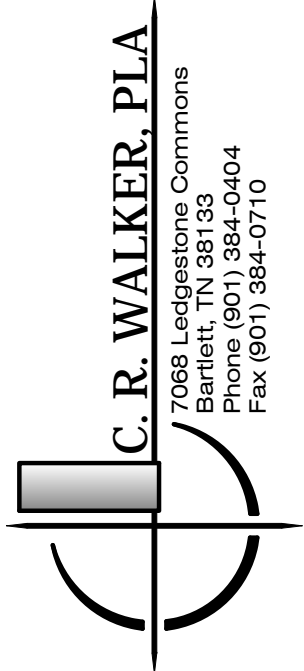
Know what's below.
Call before you dig.

PLANTING ENLARGEMENTS

NO	REVISIONS

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DEVELOPMENT, LLC
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CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA



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SCALE
1" = 10'
JOB No.
N/A
SHEET
22 OF 33 SHEETS

BEFORE TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION. OWNER'S SATISFACTION, AT NO ADDITIONAL COST. NO PLANTING SHALL BE INSTALLED IN CONFLICT WITH UTILITIES.

LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON THE BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF UTILITY LINES ON THE PROJECT SITE AND ADJACENT TO THE WORK AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS PRIOR TO PROCEEDING IF UNFORESEEN CIRCUMSTANCES ARE ENCOUNTERED, THE CONTRACTOR IS TO STOP WORK AND CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY.

SAFE, CLEARLY MARKED PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.

STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT

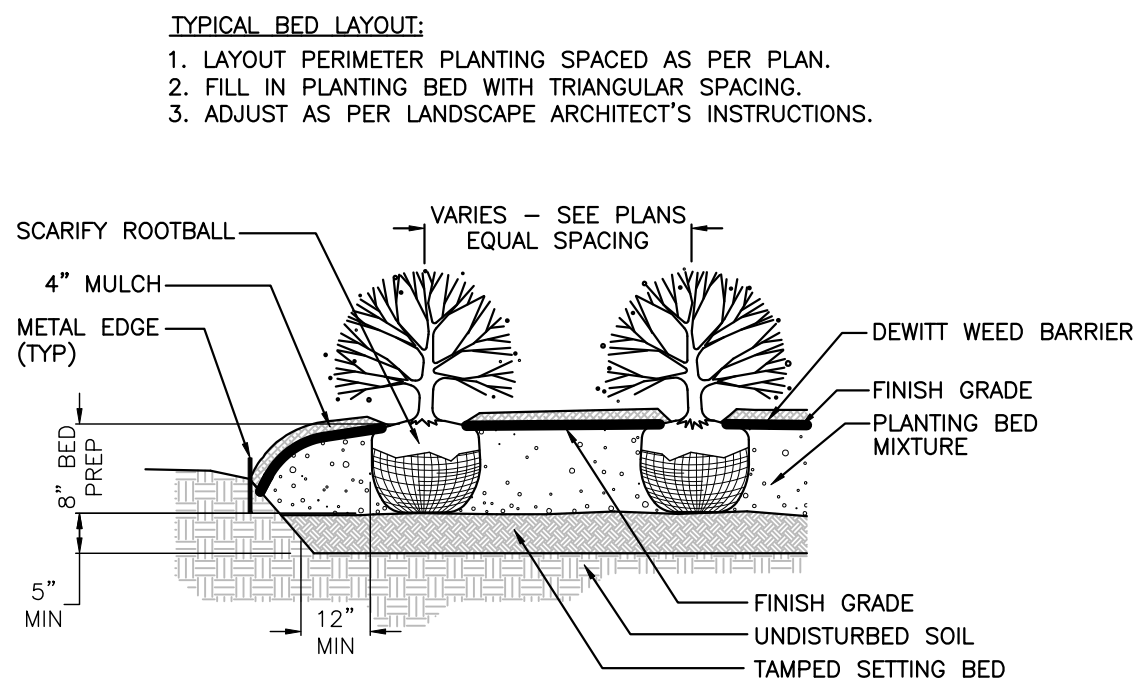
ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.

ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE

ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS

TYPE 4 (SMALL SPREADING TREES)
ACER PALMATUM
ACER GRISEUM
CORNUS <i>SPP</i>
LAGERSTROMIA <i>SPP</i>
MAGNOLIA SOULANGIANA
MAGNOLIA STELLATA
VITEX <i>SPP</i>

ALL MINIMUM SIZES SHALL BE MET:
CALIBER, HEIGHT, AND FOOT BALL

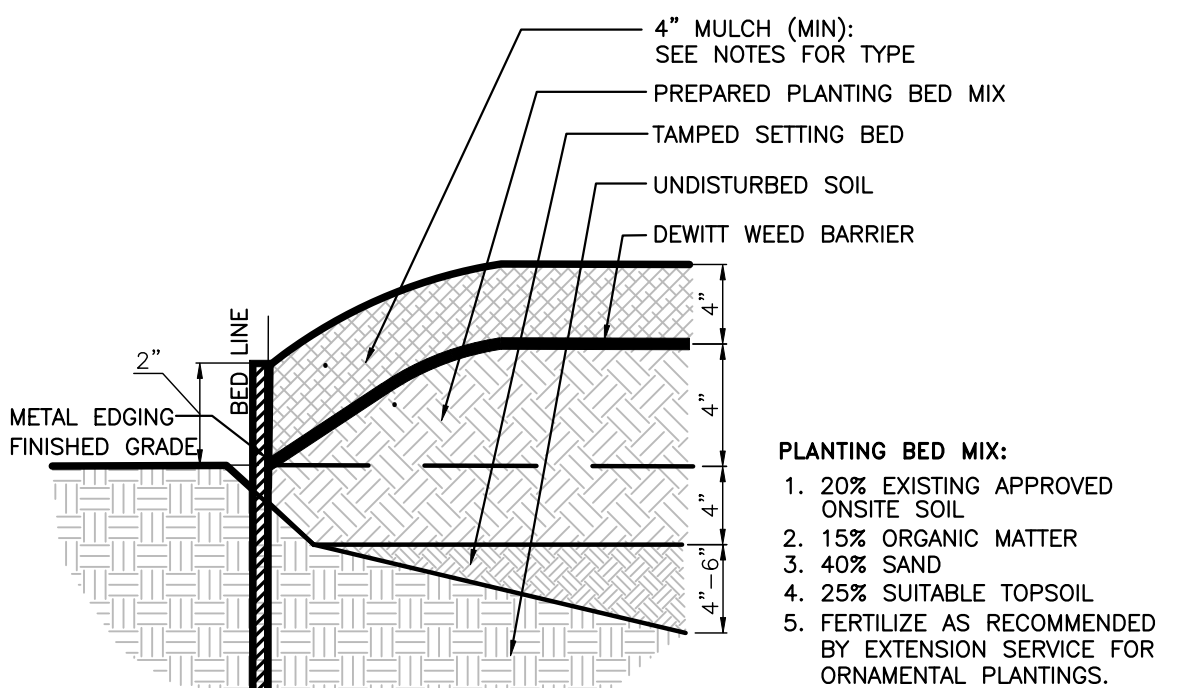


* NOTE: NTS
MULCH SHALL BE A 4" LAYER OF SHREDDED HARDWOOD MULCH
AFTER SETTLING - UNLESS OTHERWISE NOTED

*MULCH SHALL BE KEPT AWAY FROM THE TRUNK OF ALL PLANT MATERIAL.

PLANTING BED PREPARATION:

1. LAYOUT BED LINE USING SMOOTH FLOWING CURVES.
2. CUT INTO EXISTING SOIL AT APPROXIMATELY A 60° ANGLE, TURNING SOIL BACK INTO BED AREA.
3. ADD AMENDMENTS AND TILL BED UNTIL BLENDED.
4. MAINTAIN CUT EDGE AT 3" DEPTH TO HOLD MULCH IN PLACE.



*MULCH SHALL BE KEPT AWAY FROM THE TRUNK OF ALL PLANT MATERIAL

TURF AREA PREPARATION
ALL AREAS TO RECEIVE SOD ON PROJECT SITE)

1. TOP 6" OF EXPOSED UNSUITABLE SUBSOIL TO BE DISKED
2. ADD 4" OF SUITABLE TOPSOIL MIX
3. BLEND THOROUGHLY

The diagram illustrates the cross-section of the turf area preparation. It shows three distinct layers:

- GRADE**: The top surface, with a thickness of t_1 .
- SUBGRADE**: The layer below the grade, with a thickness of t_2 .
- UNDISTURBED SUBSOIL**: The bottom layer, with a thickness of t_3 .

The layers are labeled as follows:

- ADDED SUITABLE TOPSOIL**: The top layer, indicated by a dashed line and a thickness of t_1 .
- UNUSABLE SUBSOIL DISKED**: The middle layer, indicated by a dashed line and a thickness of t_2 .
- UNDISTURBED SUBSOIL**: The bottom layer, indicated by a solid line and a thickness of t_3 .

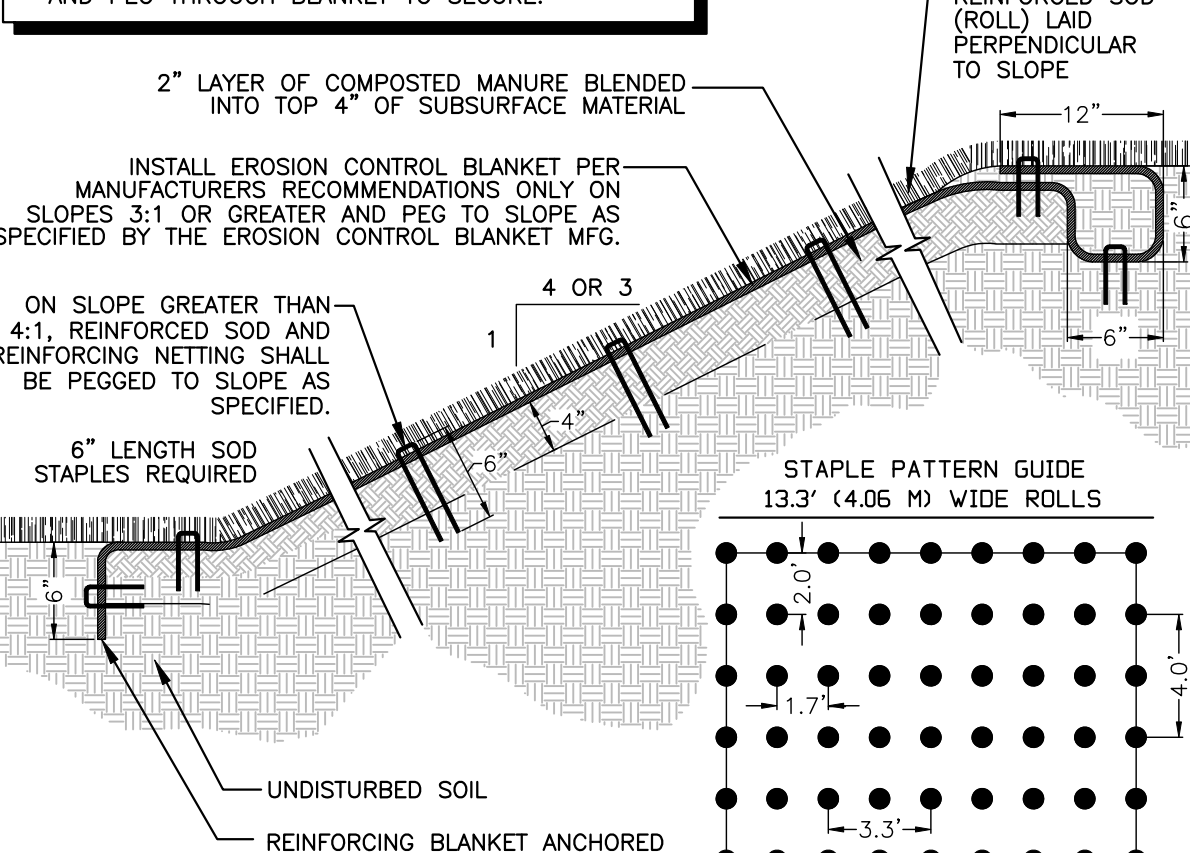
The diagram also shows a cross-section of the turf area preparation, with a dashed line indicating the boundary between the topsoil and the subsoil. The layers are labeled as follows:

- ADDED SUITABLE TOPSOIL**: The top layer, indicated by a dashed line and a thickness of t_1 .
- UNUSABLE SUBSOIL DISKED**: The middle layer, indicated by a dashed line and a thickness of t_2 .
- UNDISTURBED SUBSOIL**: The bottom layer, indicated by a solid line and a thickness of t_3 .

- INSTALL EROSION CONTROL BLANKET AS SPECIFIED BY THE MANUFACTURER.
- FILL SPACES IN BLANKET AND COVER WITH UP TO 1/2" OF SAND TO REMOVE ALL AIR SPACES.
- INSTALL SOD OVER SAND AND REINFORCING BLANKET AND PEG THROUGH BLANKET TO SECURE

ANY SLOPE GREATER THAN 4:1 SHALL HAVE SOD PEGGED IN PLACE (WITHOUT USE OF BLANKET)

REINFORCED SOD



SOD ON SLOPE

TEMPORARY SEEDING
SEED: MIXTURE 70% RYEGRASS/30% WINTER WHEAT 4 LBS / 1,000 SQ FT.
AREAS TO RECEIVE SEED SHALL BE FERTILIZED WITH A COMPLETE FERTILIZER PER EXTENSION SERVICE'S RECOMMENDATIONS.

SEED MIX B: COMMON BERMUDA (REFER TO BOX NOTE BELOW FOR SEED TYPE FOR TIME OF APPLICATION)

AREAS TO RECEIVE HYDRO-SEED SHALL BE FERTILIZED WITH A COMPLETE FERTILIZER PER EXTENSION SERVICE'S RECOMMENDATIONS

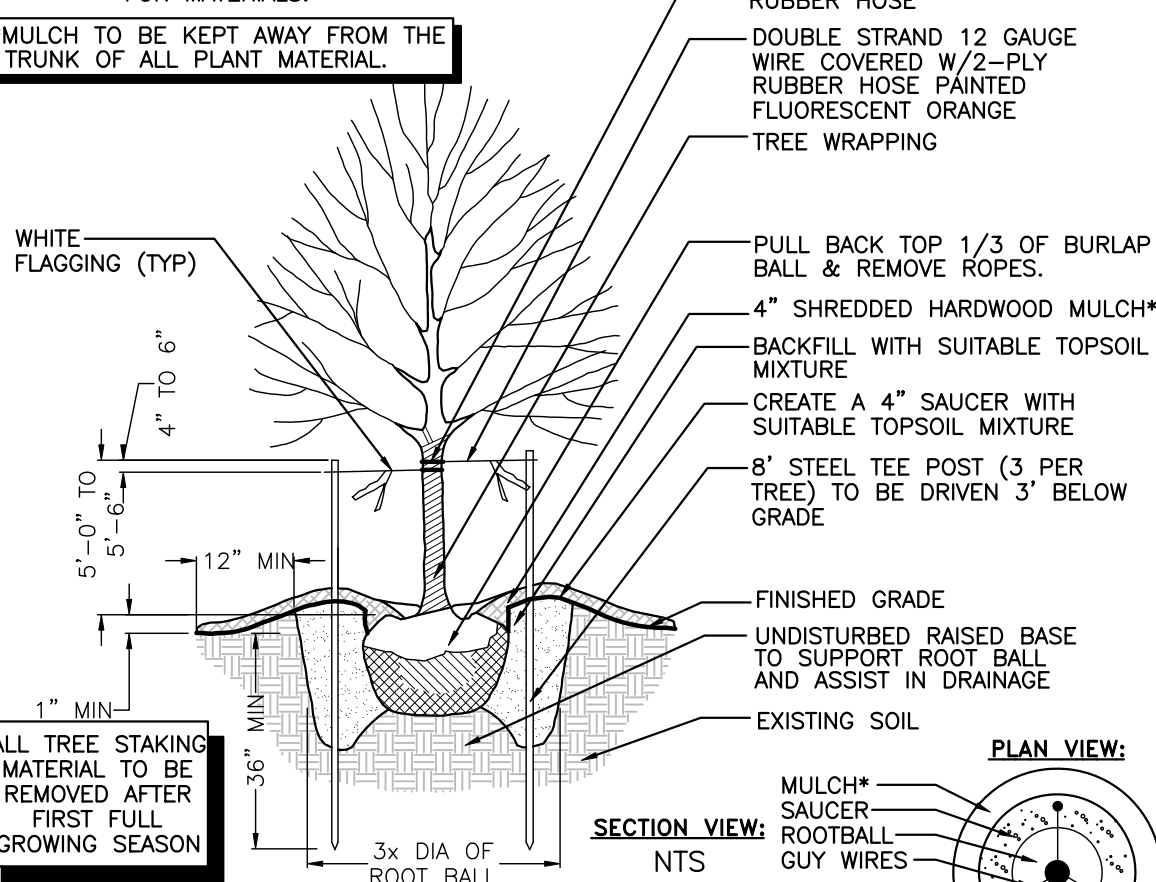
SEED MIX B: COMMON BERMUDA (REFER TO BOX NOTE BELOW FOR SEED TYPE AT TIME OF APPLICATION)

ALL DISTURBED AREAS NOT RECEIVING SOD SHALL BE HYDRO-SEEDED WITH SEED MIX UNLESS NOTED OTHERWISE.

- PREPARATION OF ALL AREAS TO BE HYDRO-SEEDED SHALL CONSIST OF THOROUGHLY LOOSENING OR SCARIFYING THE SOIL TO A DEPTH OF TWO (2) TO FOUR (4) INCHES USING A TRACTOR DISC OR OTHER APPROVED METHOD. AREAS TO BE HYDRO-SEEDED SHALL BE CLEARED OF ANY WEEDS, STICKS, OR OTHER DEBRIS. HYDRO-SEEDING MAY BE USED ON AREAS WHERE THE HYDRO-SEEDING BED HAS REMAINED IN GOOD FRABLE CONDITION AND HAS NOT BECOME WET. WATER ALL HYDRO-SEEDED SOIL IMMEDIATELY AFTER HYDRO-SEEDING USING SPRAY NOZZLES OR ANOTHER ACCEPTABLE METHOD WHICH DOES NOT CAUSE SOIL OR HYDRO-SEED TO WASH AWAY.
- SUITABLE TOPSOIL SHALL MEET THE FOLLOWING REQUIREMENTS:
- IT SHALL ALL BE A RICH EASILY FRABLE BROWN OR BLACK LOAMY TO SANDY LOAM SOIL
 - 5% ORGANIC MATERIAL
 - PH OF 5.5 - 7.4
 - FREE OF WEEDS, LITTER, STIFF CLAY, OR STONES GREATER THAN 1" IN DIAMETER
 - HEAVY CLAYS AND FINE SILTY SOILS ARE NOT ACCEPTABLE
- ALL AREAS WHERE THE HYDRO-SEEDING BED IS NOT FIRM OR BLOW AWAY OR DOES NOT GERMINATE SHALL BE RE-GRADED AND RE-SEED-ED UNTIL AREA HAS A FULL, AND HEALTHY STAND OF TURFGRASS.

SEEDING & SODDING NOTES

NOTE: SEE PLANS & SPECS FOR MATERIALS.



PARKING LOT ISLAND PREPARATION

1. REMOVE ALL THE COMPACTED STONE AND FILL DIRT OUT OF THE CENTER OF THE ISLANDS DOWN TO A DEPTH OF 24" BELOW THE TOP OF THE CONCRETE CURB.
2. ADD PLANTING BED MIX AND FIRMLY TAMP TO CREATE A SETTING BED (6" MIN) UNDER ROOTBALL.
5. ADD 24" OF SUITABLE PLANTING BED MIX ON TOP OF THE WASHED GRAVEL. LIGHTLY TAMP THE PLANTING BED MIX IN 8" LIFTS.
6. ADD ANOTHER LAYER OF PLANTING BED MIX IN ADDITION TO THE 24" LAYER TO ACHIEVE THE REQUIRED BERMING EFFECT. MAKE SURE TO ADD THE NECESSARY AMOUNT OF PLANTING BED MIX TO ACHIEVE THE CORRECT BERMING HEIGHT.

NOTE:
SEE PLANS & SPECS FOR MATERIALS.

USE THE BERMING CHART ABOVE TO CALCULATE BERM HEIGHTS FOR EACH ISLAND.

ALL TREE STAKING MATERIAL IS TO BE REMOVED AFTER THE FIRST FULL GROWING SEASON

PLANTING BED MIX TO BE FLUSH W/ BACK OF CURB

6" TAMPED SETTING BED TO PREVENT SETTLEMENT

FINISHED GRADE

*MULCH IS TO BE KEPT AWAY FROM THE TRUNK OF ALL PLANT MATERIAL.

- AREAS TO RECEIVE HYDRO-SEED SHALL BE FERTILIZED WITH A COMPLETE FERTILIZER AS PER EXTENSION SERVICE'S RECOMMENDATIONS FOR SPECIFIED TURFGRASS SPECIES.
- CONTRACTOR SHALL SEQUENCE HYDRO-SEEDING TO PROVIDE A HEALTHY STAND OF GRASS AT THE TIME OF THE OWNER'S POSSESSION.

SOD:

- ALL SODDED AREAS SHALL BE "TIFTON 419" HYBRID BERMUDA.
- ALL CURBED ISLANDS SHALL BE SODDED UNLESS NOTED OTHERWISE.
- SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- SLOPES GREATER THAN 3:1 SHALL BE REINFORCED AND PEGGED.
- ALL AREAS TO BE SODDED SHALL RECEIVE A MINIMUM 4" LAYER OF SUITABLE TOPSOIL THAT MEETS THE CONDITIONS LISTED ABOVE AND THAT HAS BEEN TILLED, FINE GRADED, AND HAS HAD ALL STONES, ROOTS, DEBRIS, ETC. REMOVED.

- SOD SHALL BE LAID AS SOON AS IT IS DELIVERED TO PLANTING AREAS. ONLY HEALTHY MOIST GREEN SOD SHALL BE LAID. ANY SOD WHICH IS BROWN AND UNDER STRESS IS UNACCEPTABLE. ANY SOD WHICH IS NOT LAID WITHIN 24 HOURS OF DELIVERY IS UNACCEPTABLE.
- SOD SHALL BE A MINIMUM OF 3/4" THICK, FREE OF WEEDS AND PESTS, AND CUT NO MORE THAN 24 HOURS PRIOR TO PLANTING.
- SOD PANELS SHALL BE LAID TIGHTLY TOGETHER AND END JOINTS STAGGERED SO AS TO MAKE A SOLID SODDED AREA.
- ANY JOINTS OR SEAMS THAT MAY EXIST AFTER LAYING SOD SHALL BE FILLED WITH SAND SO AS TO CREATE A SMOOTH, UNIFORM GRASS SURFACE.
- SOD SHALL BE ROLLED AND WATERED AT THE TIME OF INSTALLATION TO ENSURE GOOD SOD-SOIL CONTACT AND TO PROVIDE A SMOOTH, UNIFORM WALKING SURFACE.

The diagram illustrates the construction of a tree planting pit. Key components and dimensions are labeled as follows:

- SEE PLAN FOR TREE VARIETY**: Points to the tree trunk.
- 6" STEEL TEE POST**: Points to the vertical post supporting the tree.
- 4" LAYER OF SHREDDED HARDWOOD MULCH**: Points to the mulch layer within the pit.
- 6" MIN SEE CHART**: Points to the height of the mulch layer.
- 24"**: Dimension for the depth of the pit.
- 12"**: Dimension for the width of the pit at the base.
- WIDTH OF ISLAND**: Dimension for the width of the island at the base.
- ASPHALT**: Points to the road surface.
- CURB & GUTTER**: Points to the curb and gutter area.
- BASE MATERIAL: SEE ENGINEERING PLANS FOR SPECIFICATIONS**: Points to the base material layer.
- COMPACTED SUB-GRADE**: Points to the compacted sub-grade layer.

BERMING CHART

WIDTH OF ISLAND	BERM HEIGHT
3' - 4'	6"
4' - 6'	8"
6' - 8'	12"
> 8'	1-1/2" / 1'-0" WIDTH

PLANTING BED MIX:

- 20% OF EXISTING SOIL
- 15% PEAT MOSS, HUMUS, OR SOIL CONDITIONER
- 40% SAND
- 25% TOPSOIL

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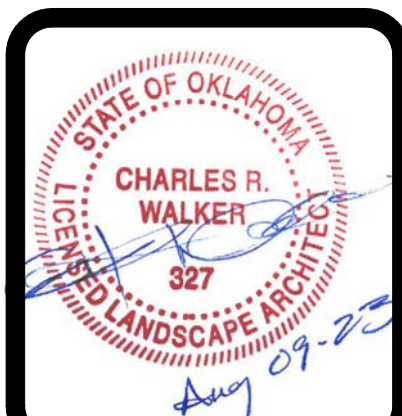
PLANTING DETAILS

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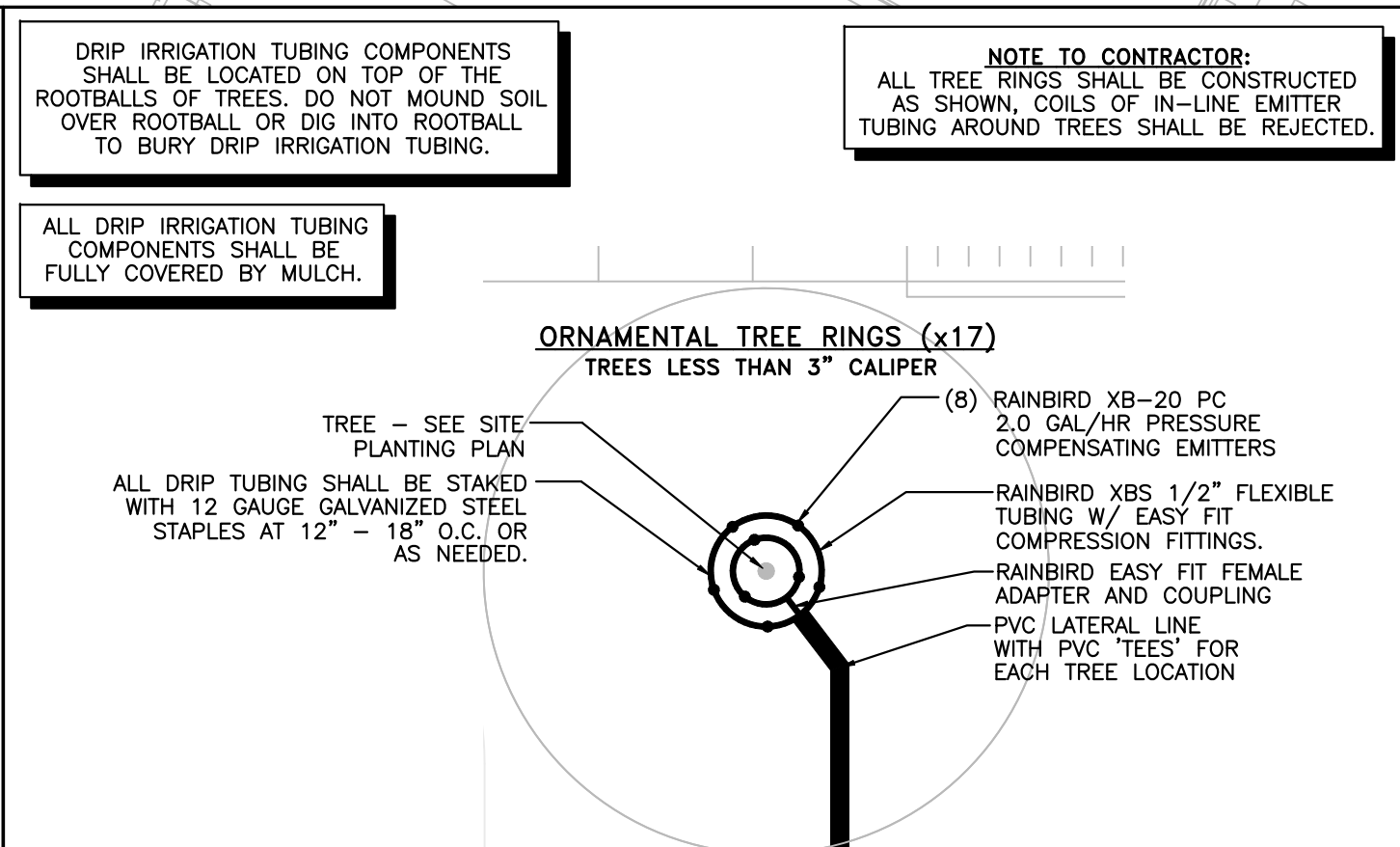
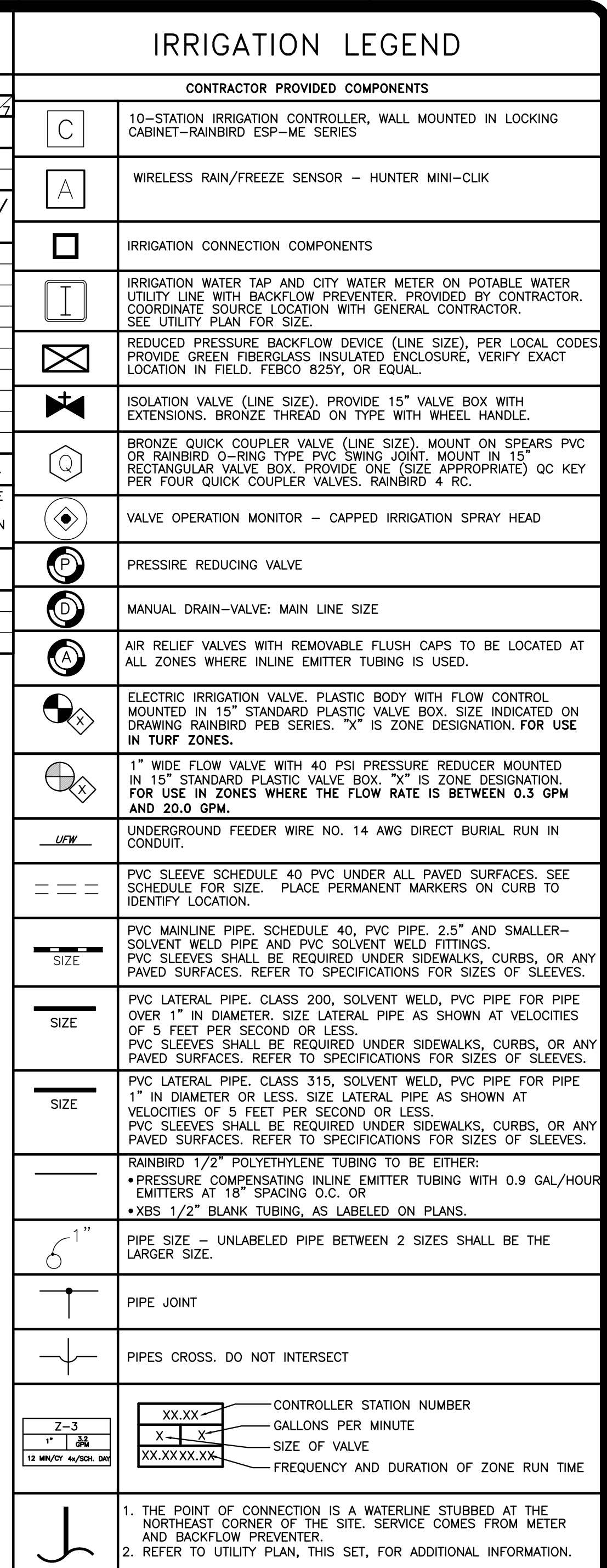
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














**CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA**

R. WALKER, PLA
7068 Ledgerstone Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710



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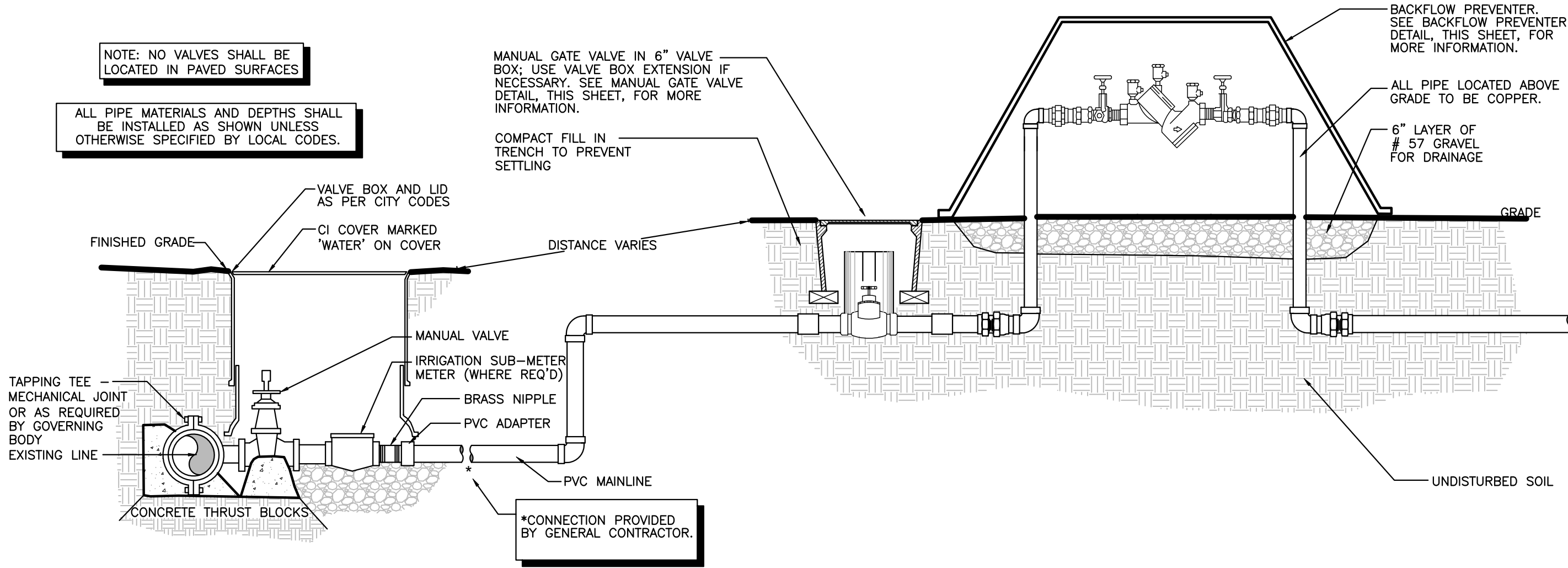
MP ROTATOR INFORMATION							
SYM	MANUFAC.	HEAD	NOZZLE	PSI	GPM	ARC	RADIUS
	HUNTER	PRS40	MP1000-90"	35	0.18	90'	13'
	HUNTER	PRS40	MP1000-180"	35	0.35	180'	13'
	HUNTER	PRS40	MP1000-210"	35	0.41	210'	13'
	HUNTER	PRS40	MP1000-270"	35	0.54	270'	13'
	HUNTER	PRS40	MP1000-360"	35	0.71	360'	13'
SYM	MANUFAC.	HEAD	NOZZLE	PSI	GPM	ARC	RADIUS
	HUNTER	PRS40	MP1CS515	35	0.21	90'	5'X15'
	HUNTER	PRS40	MPRCS515	35	0.21	90'	5'X15'
	HUNTER	PRS40	MPSS530	35	0.41	180'	5'X30'
SYM	MANUFAC.	HEAD	NOZZLE	PSI	GPM	ARC	RADIUS
	HUNTER	PRS40	MP2000-90"	35	0.37	90'	18'
	HUNTER	PRS40	MP2000-180"	35	0.69	180'	18'
	HUNTER	PRS40	MP2000-210"	35	0.80	210'	18'
	HUNTER	PRS40	MP2000-270"	35	1.03	270'	18'
	HUNTER	PRS40	MP2000-360"	35	1.37	360'	18'
SYM	MANUFAC.	HEAD	NOZZLE	PSI	GPM	ARC	RADIUS
	HUNTER	PRS40	MP3000-90"	35	0.80	90'	28'
	HUNTER	PRS40	MP3000-180"	35	1.70	180'	28'
	HUNTER	PRS40	MP3000-210"	35	1.99	210'	28'
	HUNTER	PRS40	MP3000-270"	35	2.55	270'	28'
	HUNTER	PRS40	MP3000-360"	35	3.40	360'	28'
SYM	MANUFAC.	HEAD	NOZZLE	PSI	GPM	ARC	RADIUS
	HUNTER	PGP-ULTRA	2.0 BLUE-90"	35	1.7	90'	33'
	HUNTER	PGP-ULTRA	2.5 BLUE-90"	35	2.1	120'	35'
	HUNTER	PGP-ULTRA	4.0 BLUE-180"	35	3.5	180'	39'
	HUNTER	PGP-ULTRA	5.0 BLUE-210"	35	4.5	210'	39'
	HUNTER	PGP-ULTRA	6.0 BLUE-270"	35	5.6	270'	40'
	HUNTER	PGP-ULTRA	8.0 BLUE-360"	35	7.0	360'	41'

IRRIGATION PLAN

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1" = 30'
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24 OF 33 SHEETS

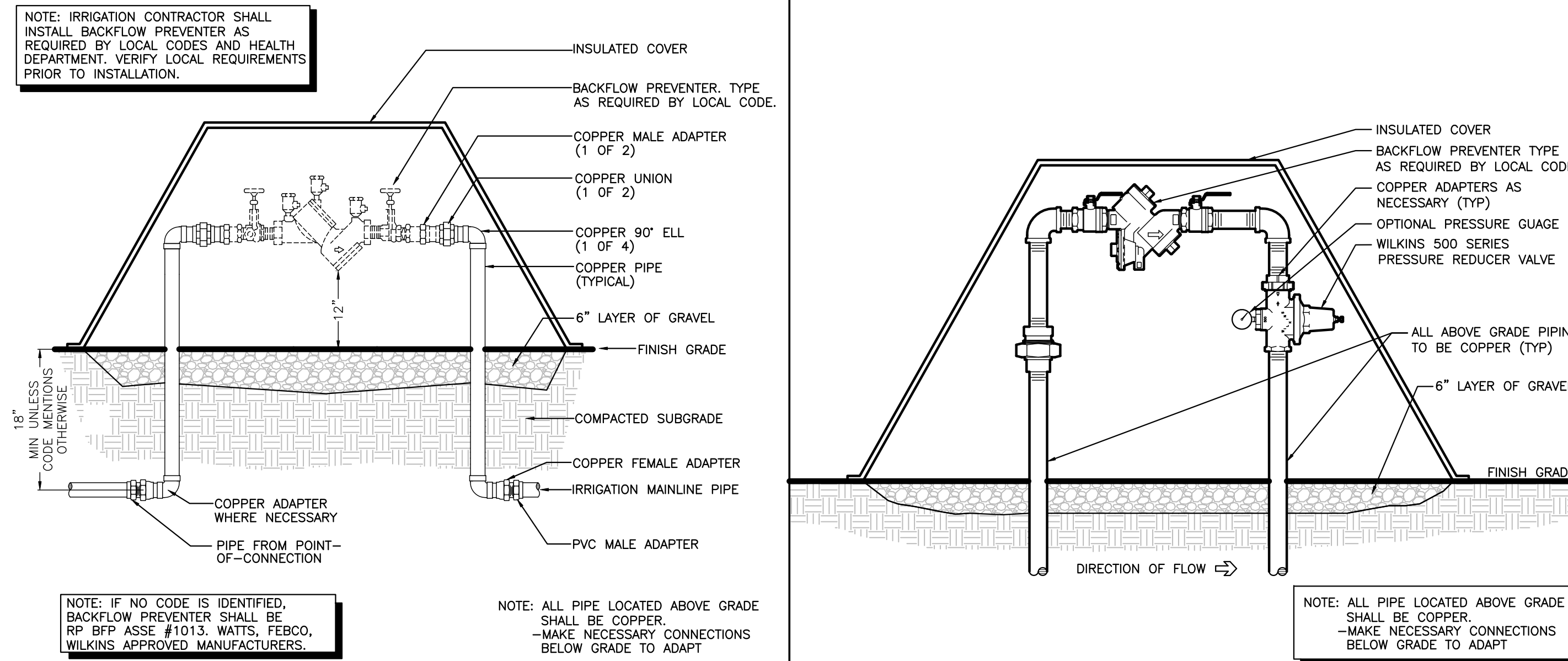
IRRIGATION NOTES

1. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE PROJECT SPECIFICATIONS PRIOR TO BIDDING. THE PROJECT SPECIFICATIONS ARE A PART OF THESE PLANS AND SHALL BE CONSULTED BY THE IRRIGATION CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING WORK AS SPECIFIED IN THE PROJECT SPECIFICATIONS AND ON THE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND LABOR TO FULLY EXECUTE, GUARANTEE, AND MAINTAIN THE SYSTEM AS REQUIRED. THE TOTAL WORK SHOWN ON THIS PLAN SHALL BE DONE IN ACCORDANCE WITH SPECIFICATIONS, AND ALSO AS PER INSTRUCTIONS OF THE CONTRACTING OFFICER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK.
4. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING OR CONTINUING WORK.
5. ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTANCES, ETC WHICH OCCURS AS A RESULT OF THE IRRIGATION CONSTRUCTION TO OWNER'S SATISFACTION, AT NO ADDITIONAL COST.
7. NO PART OF THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFLICT WITH UTILITIES. THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS IN THE PROPOSED IRRIGATION SYSTEM TO AVOID CONFLICTS WITH EXISTING STRUCTURES, PAVING, AND UTILITIES.
8. ALL CALCULATIONS INDICATED ON THIS SHEET ARE SAMPLE CALCULATIONS AND SHOULD NOT BE CONSTRUED AS ACCURATE.
9. 57.0 PSI STATIC WATER PRESSURE IS REQUIRED FOR THE EFFICIENT OPERATION OF THE IRRIGATION SYSTEM AS DESIGNED. VERIFY 75.0 PSI STATIC WATER PRESSURE IS AVAILABLE AT THE PROJECT SITE PRIOR TO BEGINNING THE IRRIGATION INSTALLATION. NOTIFY THE LANDSCAPE ARCHITECT IF THE MINIMUM WATER PRESSURE IS NOT AVAILABLE.
10. IRRIGATION CONTRACTOR TO VERIFY ACTUAL AVAILABLE WATER PRESSURE BEFORE BEGINNING INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE WATER PRESSURE EXCEEDS 5 PSI HIGHER OR LOWER THAN MINIMUM REQUIRED WATER PRESSURE.
11. IF STATIC WATER PRESSURES ARE NOT ADEQUATE TO OPERATE IRRIGATION SYSTEM, A PUMP SYSTEM IS TO BE DESIGNED BY AN IRRIGATION SYSTEM DESIGNER. IRRIGATION PUMP AND INSTALLATION MUST BE COORDINATED WITH THE ELECTRICAL CONTRACTOR. PUMP MUST BE INSTALLED WITHIN A TAMPER PROOF ENCLOSURE.
12. IF STATIC WATER PRESSURES EXCEEDS 75 PSI, PRESSURE COMPENSATING HEADS MUST BE USED.
13. IRRIGATION SYSTEMS CONNECTED TO POTABLE WATER SUPPLY SHALL HAVE A WATTS, FEBCO, OR WILKINS REDUCED PRESSURE BACKFLOW PREVENTER (ASSE# 1013) INSTALLED, OR AS REQUIRED BY LOCAL CODES.
14. ELECTRICAL SERVICE TO ALL EQUIPMENT SHALL BE PROVIDED TO A JUNCTION BOX AT THE EQUIPMENT LOCATION.
15. THE LOCATION OF THE AUTOMATIC CONTROL CLOCK IS GENERALLY INDICATED ON THE DRAWING AND WILL BE SPECIFICALLY LOCATED ON-SITE BY THE CONTRACTING OFFICER. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL CONNECTIONS FROM CONTROL VALVES TO THE CONTROL CLOCK.
16. EACH CONTROL CLOCK HAS STATIONS THAT ARE NOT BEING UTILIZED. THERE IS TO BE A FIELD WIRE INSTALLED TO THE FURTHEST CONTROL VALVE IN ANY ONE DIRECTION FROM THE CONTROL CLOCK FOR EVERY VACANT STATION PLUS ONE SPARE WIRE IS TO BE INSTALLED IN CASE OF A FAULTY WIRE.
17. VALVE WIRE SHALL BE #14 GAUGE UL-US SINGLE STRAND DIRECT BURIAL COPPER RUN IN A BURIED CONDUIT. ALL SPLICES ARE TO BE MADE WITH MANUFACTURER'S PACKAGED KIT CONSISTING OF INSULATING SPRING-TYPE CONNECTOR OR GRAMPED JOINT AND EPOXY RESIN MOISTURE SEAL. SUITABLE FOR DIRECT BURIAL. COIL WIRE EVERY 100' FOR EXPANSION AND CONTRACTION PURPOSES.
18. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO HAVE ALL PLANTING AREAS FLAGGED BY THE LANDSCAPE CONTRACTOR PRIOR TO INSTALLATION. REFER TO THE PLANTING PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS.
19. EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
20. THE CONTRACTOR SHALL PROTECT ALL EXISTING LANDSCAPE IMPROVEMENTS DURING THE EXECUTION OF THIS WORK. NO SOIL SHALL BE PLACED DIRECTLY UPON EXISTING LANDSCAPING. ANY MATERIALS WHICH, IN THE OPINION OF THE LANDSCAPE ARCHITECT, ARE DAMAGED DURING THE EXECUTION OF THIS WORK SHALL BE IMMEDIATELY REPLACED BY THE IRRIGATION CONTRACTOR AT HIS EXPENSE.
21. LINE LOCATIONS AS INDICATED ON THE PLAN ARE SCHEMATIC. THE CONTRACTOR SHALL LOCATE ALL LINES IN SUCH A WAY AS TO CAUSE THE LEAST CONFLICT WITH THE LOCATION OF OTHER SITE AMENITIES SHOWN OR SETBACKS. OFFSET IN SOME HARDSCAPE AREAS AND OUTSIDE OF PROPERTY LINES FOR GRAPHIC CLARITY ONLY. ADJUST HEADS AND LINE LOCATIONS ON SITE TO ACCOMMODATE EXISTING JOB CONDITIONS AND ACHIEVE COMPLETE COVERAGE. PIPE LINES DRAWN SIDE BY SIDE MAY BE LAID IN THE SAME TRENCH, BUT THEY MUST MAINTAIN A MINIMUM OF 3" HORIZONTAL AND VERTICAL CLEARANCE FROM ALL OTHER PIPES.
22. ALL HEADS, VALVES, AND ACCESSORIES SHALL BE NELSON, HUNTER, RAIN BIRD, OR APPROVED EQUAL.
23. ALL CONTROL VALVES, GATE VALVES, AND QUICK COUPLERS SHALL BE INSTALLED IN LOCKING VALVE BOXES.
24. ALL VALVE BOXES ARE TO BE LOCATED IN PLANT BED OR NATURAL AREAS WHENEVER POSSIBLE.
25. ALL MAIN LINES AND SLEEVES SHALL BE SCHEDULE 40 PVC, ALL LATERAL LINES SHALL BE 125 PSI, STANDARD INSIDE DIMENSION RATIO (SIDR) 11.5 POLYETHYLENE PIPE.
26. POLYETHYLENE (PE) PIPE SHALL BE CONNECTED WITH BARBED FITTINGS AND CLAMPED WITH STAINLESS STEEL CLAMPS. THE CLAMP SHOULD BE PLACED OVER THE BARBED PORTION. FOR PIPES 1-1/2" AND LARGER, TWO STAINLESS STEEL CLAMPS PER BARB SHALL BE USED.
27. ALL MAIN LINES SHALL BE INSTALLED A MAXIMUM OF 2' FROM THE BACK OF CURB WHERE POSSIBLE. LATERAL LINES SHALL BE INSTALLED LIKEWISE WHERE POSSIBLE.
28. ALL LINES LOCATED BENEATH WALKS, CURBS, OR CONCRETE PAVING SHALL BE LOCATED WITHIN SLEEVES. ALL IRRIGATION SLEEVING TO BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL UNDER PAVING SLEEVING IS TO BE ACCESSIBLE AND FREE OF OBSTRUCTION. SLEEVE SIZES ARE TO BE ACCORDING TO THE ATTACHED SLEEVE SCHEDULE. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES. SEE SLEEVING DETAIL. UNSIZED PIPE BETWEEN TWO (2) GIVEN SIZES IS ASSUMED TO BE THE LARGER SIZE.
30. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR AND WITHIN 1/2" OF FINISHED GRADES. ALL SPRINKLER HEADS SHALL BE INSTALLED A MINIMUM OF EIGHTEEN INCHES FROM THE BACK OF CURBS AND A MINIMUM OF TWO INCHES FROM SIDEWALKS.
31. ALL IRRIGATION HEADS AT THE LOWER ELEVATIONS OF EACH CONTROL VALVE ZONE SHALL HAVE POP-UP BODIES WITH BUILT-IN CHECK VALVES TO PREVENT LOW HEAD DRAINAGE.
32. EACH CONTROL VALVE ZONE SHALL HAVE AN AUTOMATIC DRAIN VALVE AND A 12" x 24" GRAVEL SUMP INSTALLED AT THE LOWEST POINT WITHIN THE ZONE.
33. ALL RISERS SHALL BE INSTALLED 18" FROM ANY WALL AND A MINIMUM OF 12" FROM ANY SIDEWALK OR ROAD AND SHALL HAVE 2 COATS OF SEMI-FLAT BLACK ENAMEL PAINT.
34. THE CONTRACTOR SHALL ADJUST THE RADIUS AND ARC OF EACH HEAD TO PROVIDE 100% COVERAGE OF ALL PLANTED OR GRASSED ISLANDS, TO MINIMIZE "OVERTHROW", AND TO ELIMINATE DRY SPOTS.
35. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY AND INSTALLATION OF ADDITIONAL HEADS TO COVER "DRY SPOTS" OR SLIGHT VARIATIONS FROM THE PLAN TO THE SITE. THE IRRIGATION CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS, DELETIONS, OR ADDITIONS TO THIS PLAN FOR APPROVAL.
36. THROTTLE ALL IRRIGATION CONTROL VALVES AS REQUIRED TO PREVENT FOGGING.
37. FINAL ADJUSTMENTS TO IRRIGATION SYSTEM & SPRAY PATTERNS ARE TO BE MADE PRIOR TO FINAL INSPECTION.
38. ALL BACKFILLED TRENCHES SHALL BE THOROUGHLY COMPACTED. SEE SPECIFICATIONS FOR BACKFILL MATERIAL AND COMPACTION REQUIREMENTS.
39. THE CONTRACTOR SHALL SET THE IRRIGATION CONTROL SYSTEM TO OPERATE BETWEEN THE HOURS OF 2:00 am AND 6:00 am OR AS DIRECTED BY STORE MANAGER.
40. IRRIGATION CONTRACTOR SHALL OPTIMIZE WATER USAGE AND WATER CONSERVATION TIME ALLOTTED FOR INDIVIDUAL ZONE OPERATION SHALL ALLOW FOR WATER PENETRATION TO A MINIMUM DEPTH OF 6" IN SHRUB BEDS AND 6" IN TURF AREAS.
41. IRRIGATION CONTRACTOR SHALL REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH THE OWNER'S REPRESENTATIVE.
42. THE CONTRACTOR SHALL BE RESPONSIBLE AT TIME OF COMPLETION FOR PROVIDING "AS BUILT" DRAWINGS TO INCLUDE THE EXACT LOCATIONS OF ALL CONTROL VALVES (AUTOMATIC AND MANUAL), QUICK COUPLER VALVES, BACKFLOW DEVICES, AND CONTROLLER, WITH TRIANGULATED MEASUREMENTS TO EACH; AS WELL AS ANY DEVIATIONS IN LOCATION OF PIPING AND HEADS REPRESENTED AS REPRESENTED BY THE CONTRACT DOCUMENTS.
43. ALL WORK, ADJUSTMENTS, AND INSPECTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
44. REFER TO SITEWORK SPECIFICATIONS FOR ADDITIONAL INFORMATION NEEDED FOR IMPLEMENTATION OF IRRIGATION PLANS.



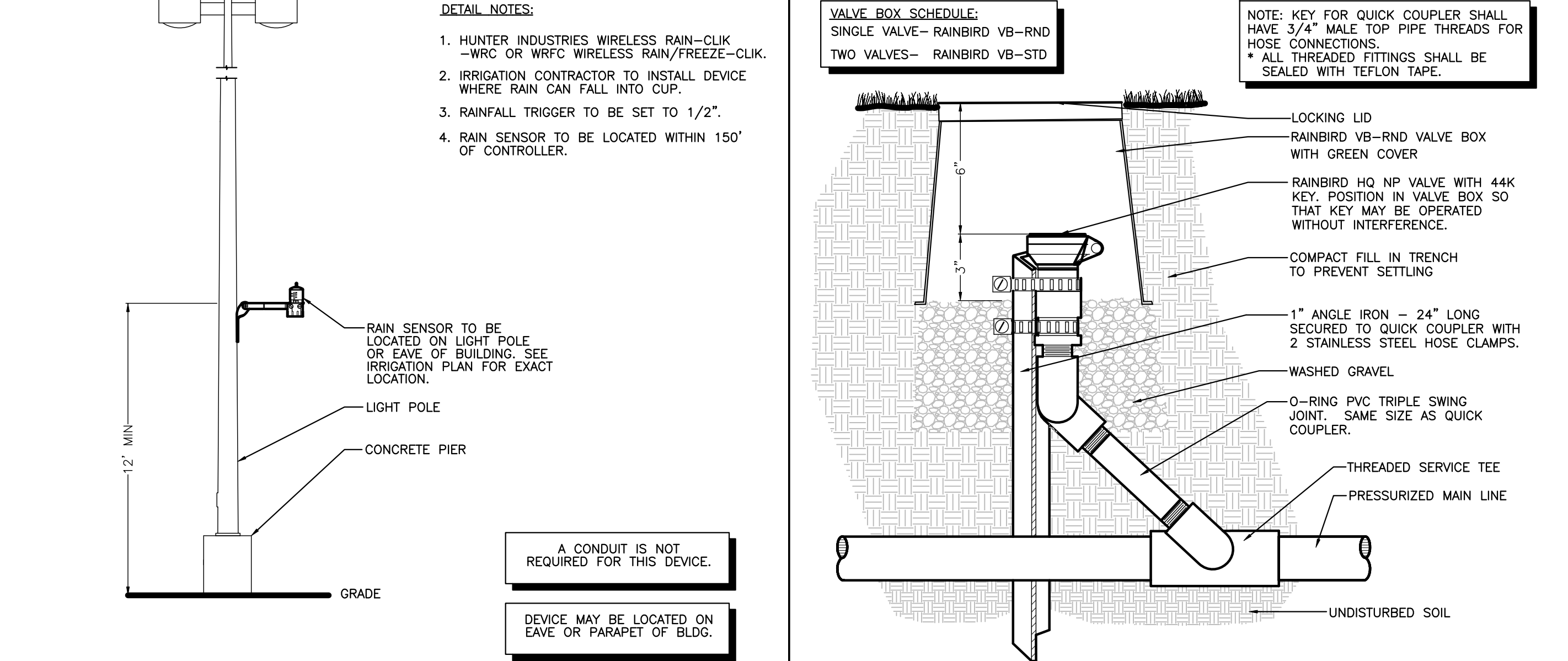
TAP AT WATER MAIN & IRR HOOKUP

NTS



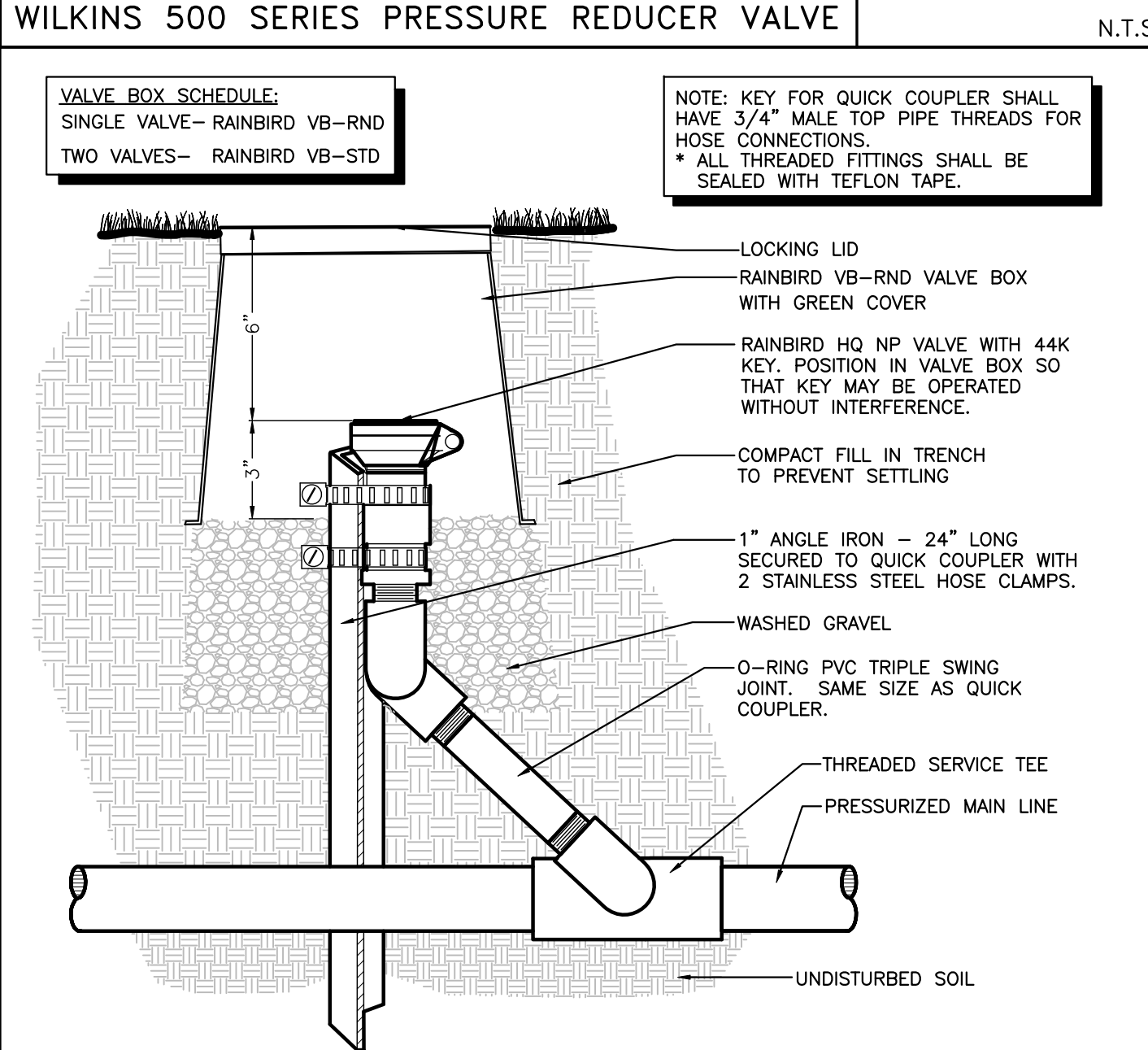
BACKFLOW PREVENTER

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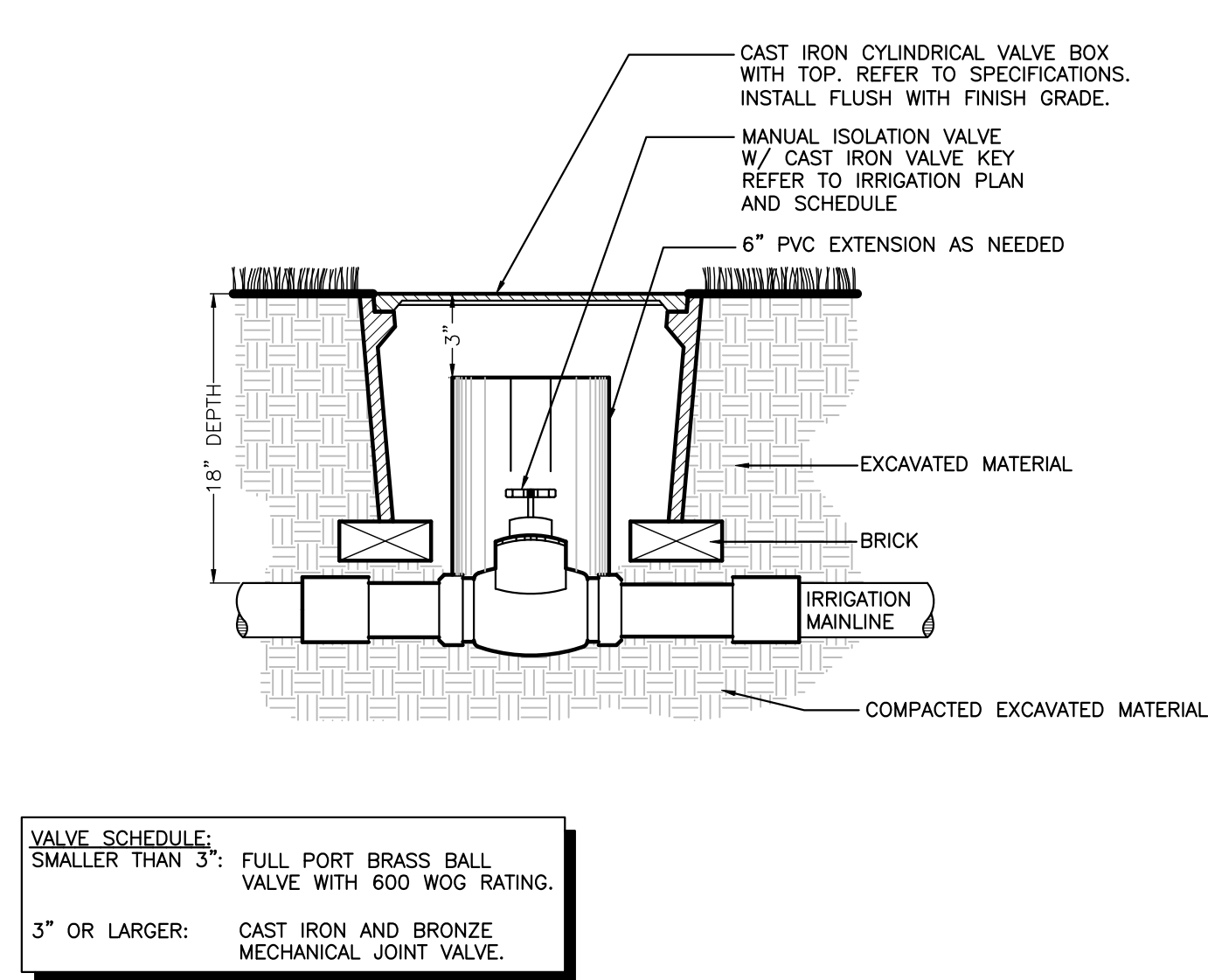
AUTOMATIC RAIN SHUT-OFF DEVICE

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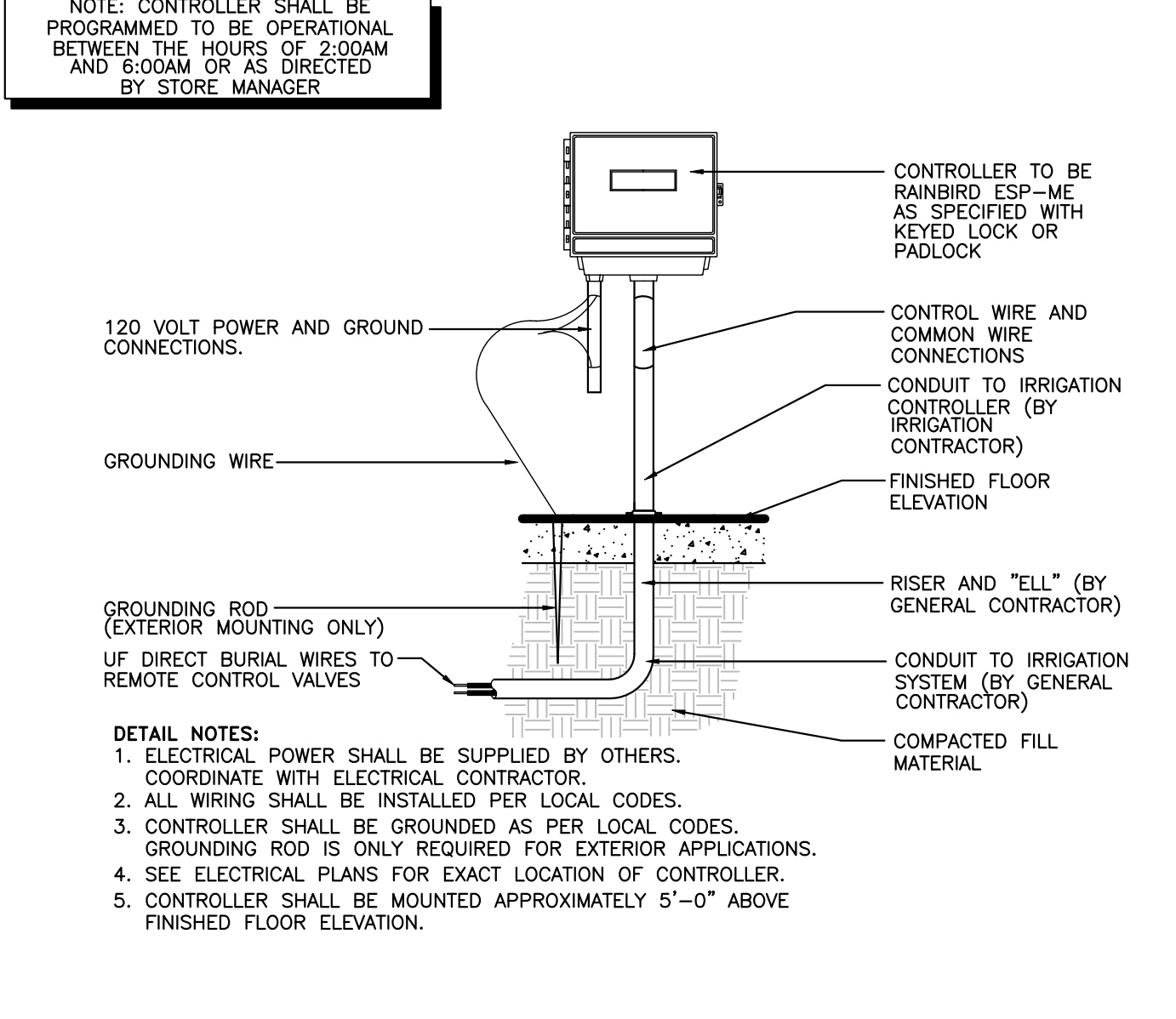
QUICK COUPLER VALVE

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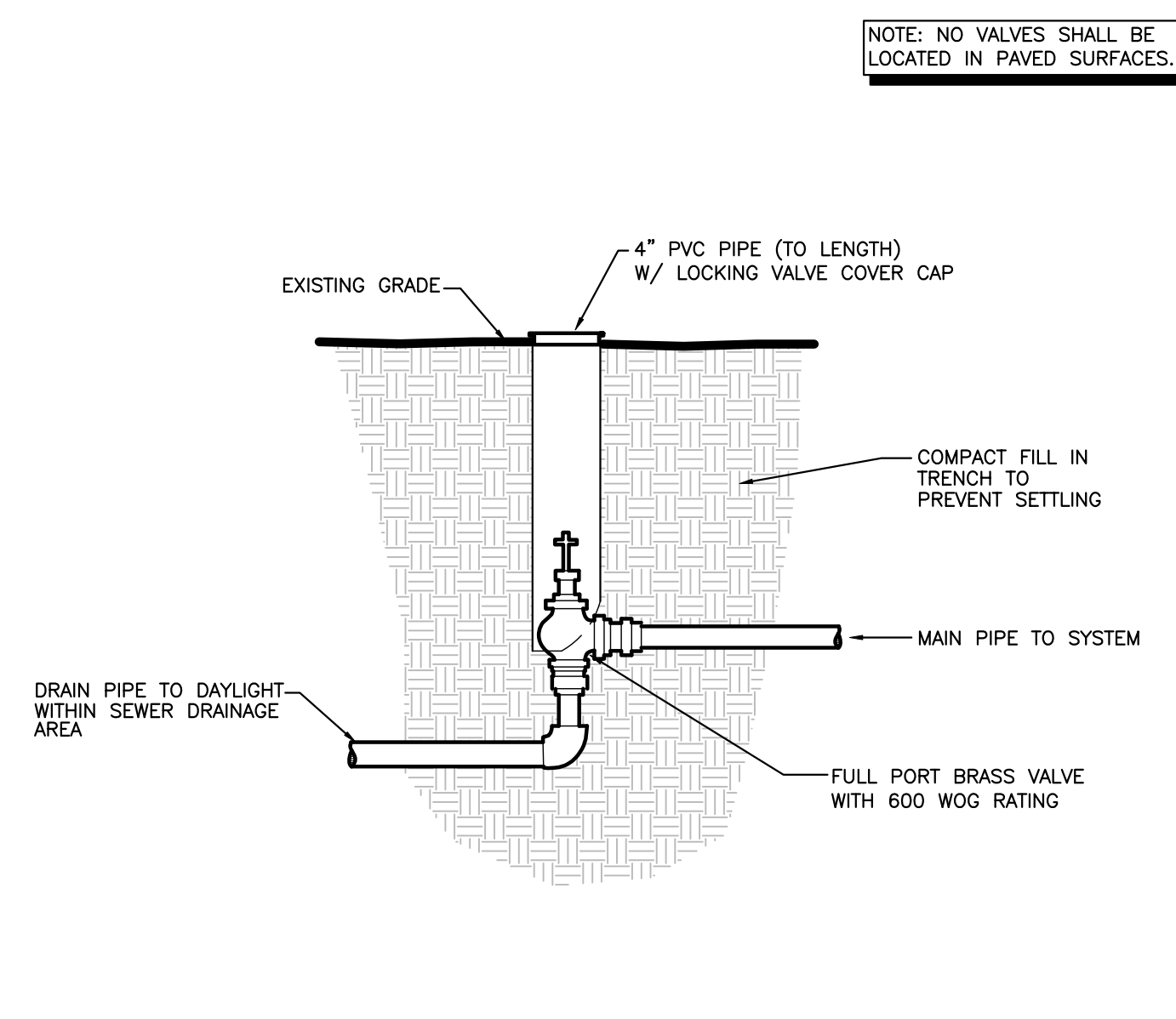
MANUAL ISOLATION VALVE

NTS



WALL MOUNTED CONTROLLER

NTS



MANUAL DRAIN VALVE

NTS

NO	REVISIONS

CAPSTONE AT COWETA TRAILS II

SENIOR APARTMENTS

COWETA, OKLAHOMA

C. R. WALKER, PLA

70681 Ledgestone Commons

Bartlett, TN 38133

Phone (901) 984-0404

Fax (901) 358-0710

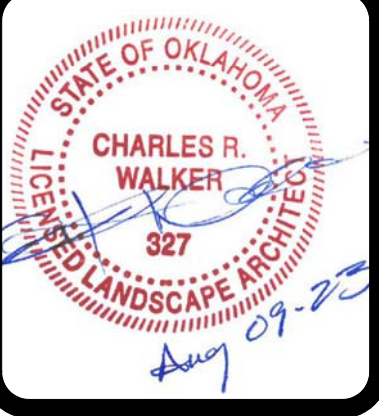
Oklahoma Registered Engineering Firm #CA 3224

TRINITY HOUSING DEVELOPMENT, LLC

3556 S. CULPEPPER CIRCLE, SUITE 4

SPRINGFIELD, MO 65804

PH. (417) 862-1701



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IRRIGATION DETAILS

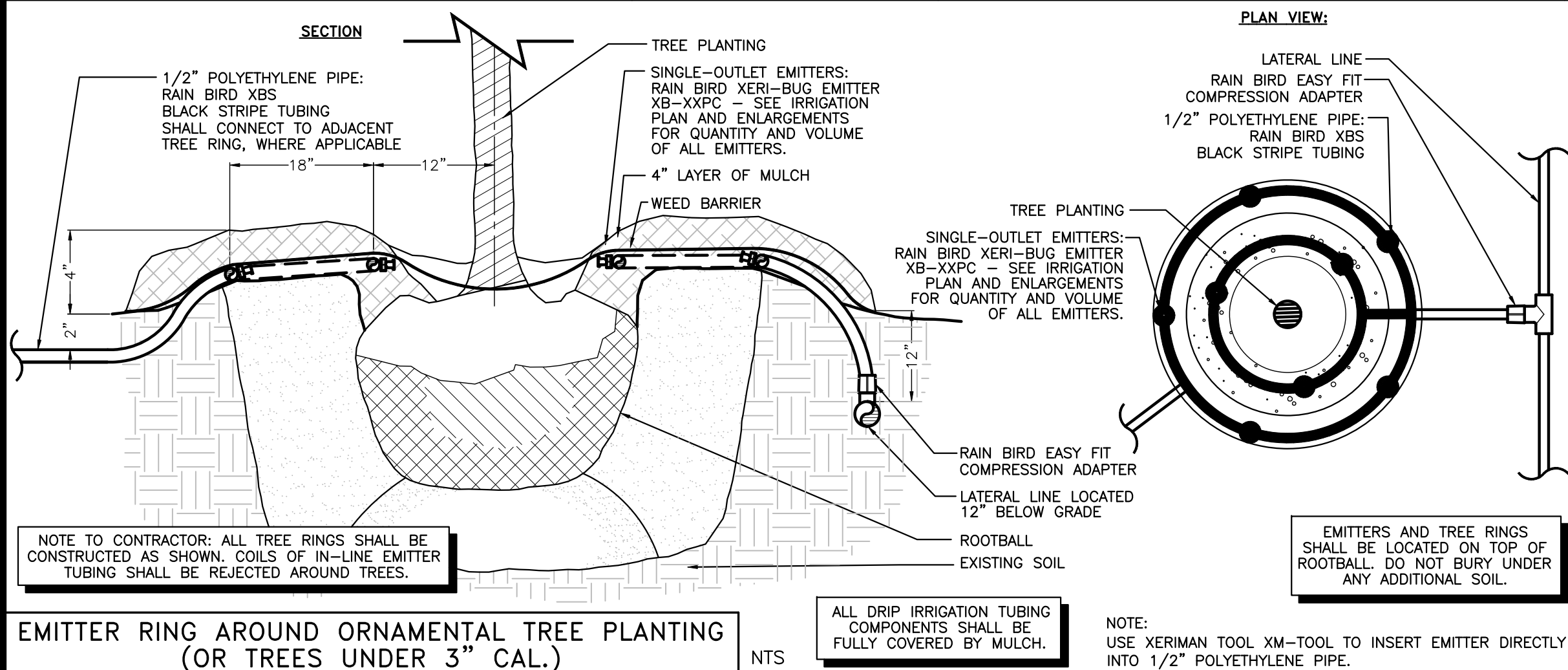
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HUNTER MP ROTATOR POP-UP - VALVE OPERATION MONITOR



NTS



EMITTER RING AROUND ORNAMENTAL TREE PLANTING
(OR TREES UNDER 3" CAL.)

ALL DRIP IRRIGATION TUBING
COMPONENTS SHALL BE
FULLY COVERED BY MULCH.


NOTE:
USE XERIMAN TOOL XM—TOOL TO INSERT EMITTER DIRECTLY
INTO 1/2" POLYETHYLENE PIPE.

EMITTERS AND TREE RINGS
SHALL BE LOCATED ON TOP OF
ROOTBALL. DO NOT BURY UNDER
ANY ADDITIONAL SOIL.

[illegible]

**TRINITY HOUSING
DEVELOPMENT, LLC**
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**CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA**

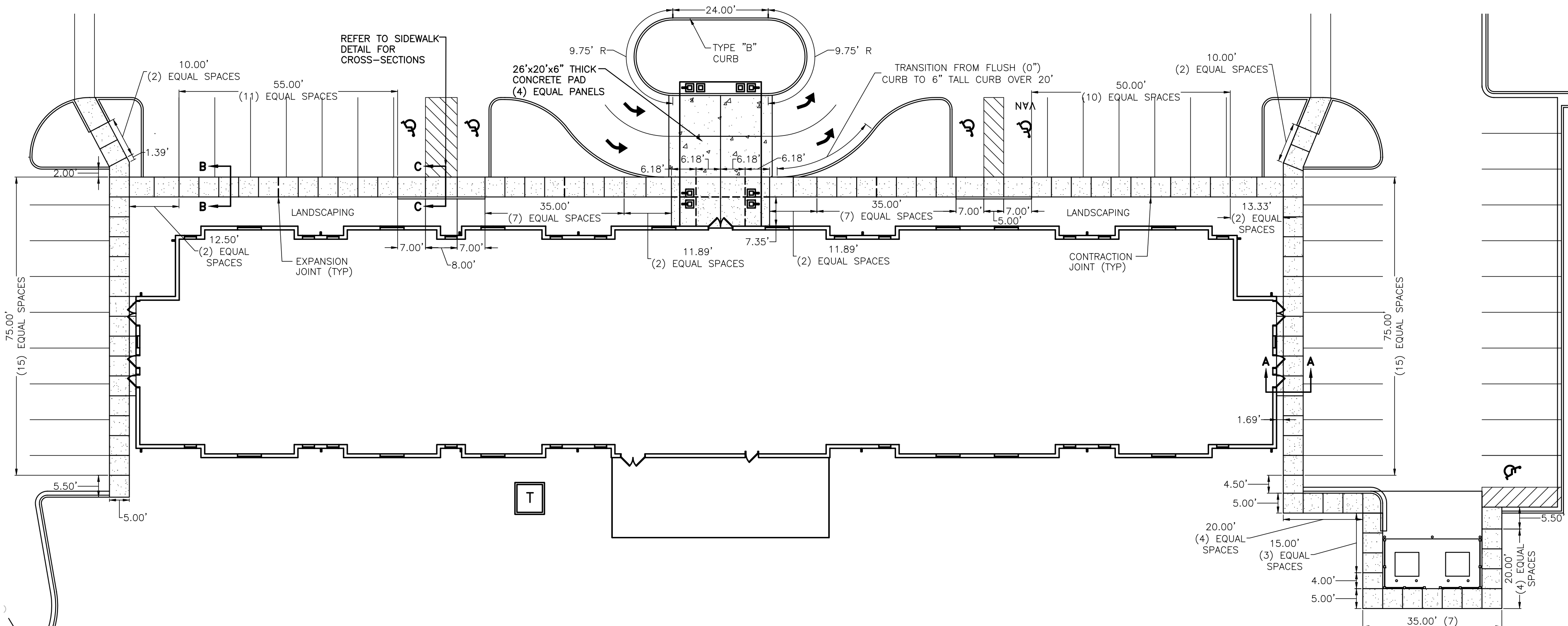


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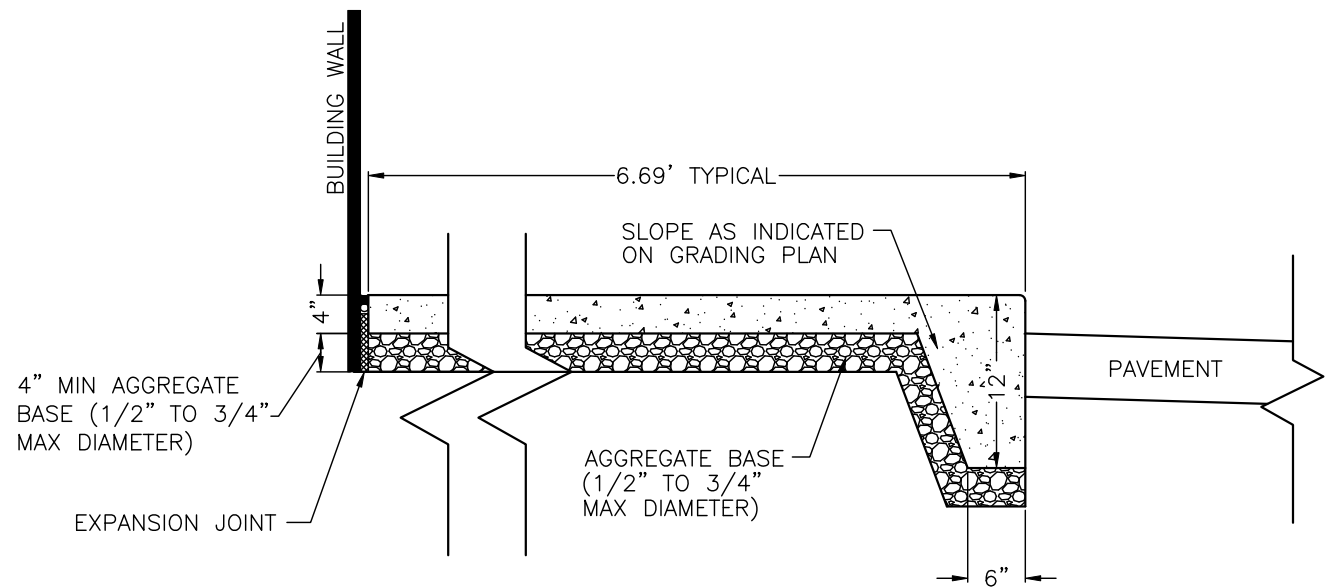
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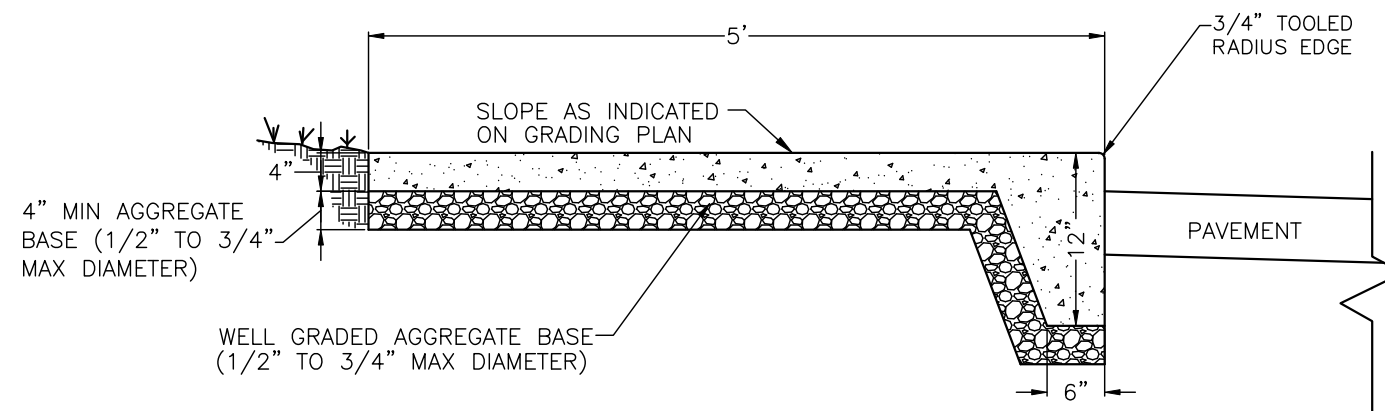


BUILDING SIDEWALK
SCALE: 1" = 20'

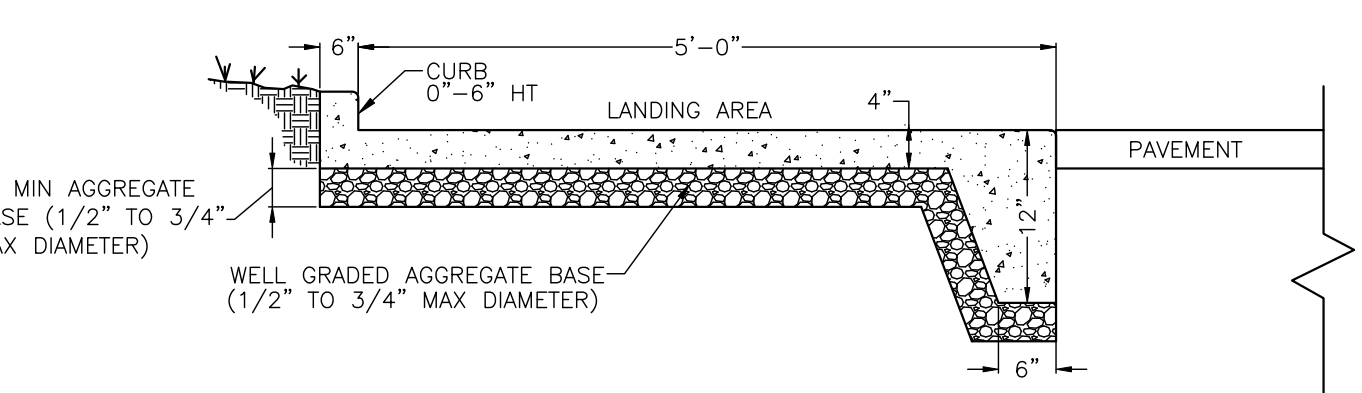
BUILDING SIDEWALK



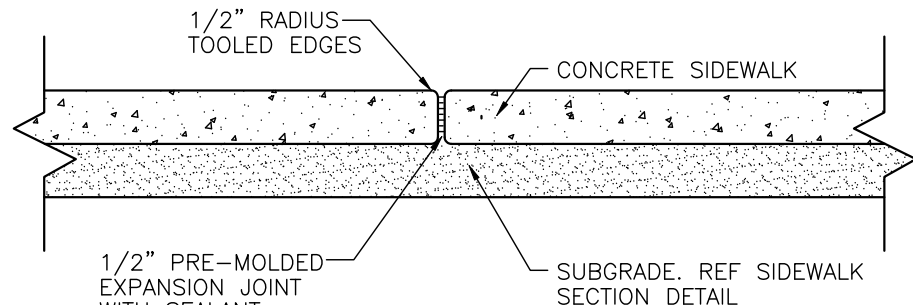
SIDEWALK SECTION A-A
SCALE: NTS



SIDEWALK SECTION B-B
SCALE: NTS

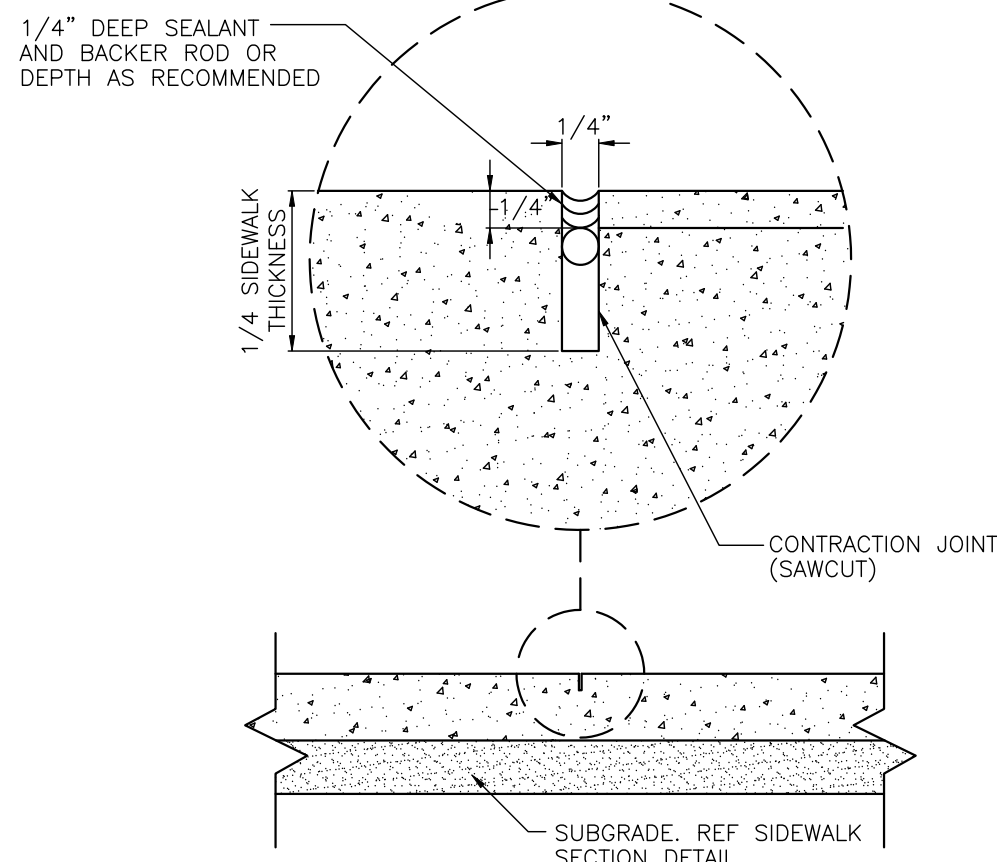


SIDEWALK SECTION C-C
SCALE: NTS

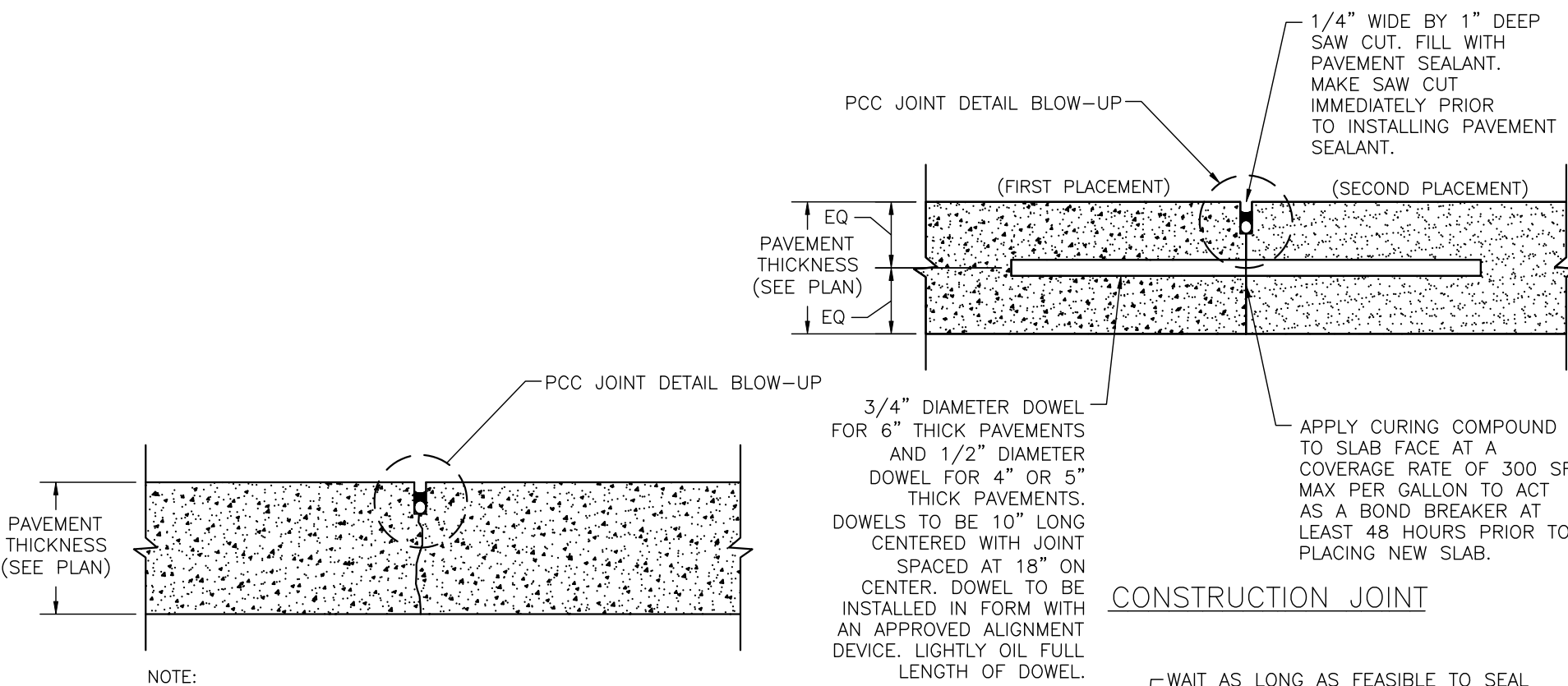


NOTES:
1. ENSURE JOINTS ARE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE JOINT SEALANT.
2. JOINT SEALANT APPLICATION SHALL BE IN STRICT COMPLIANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.

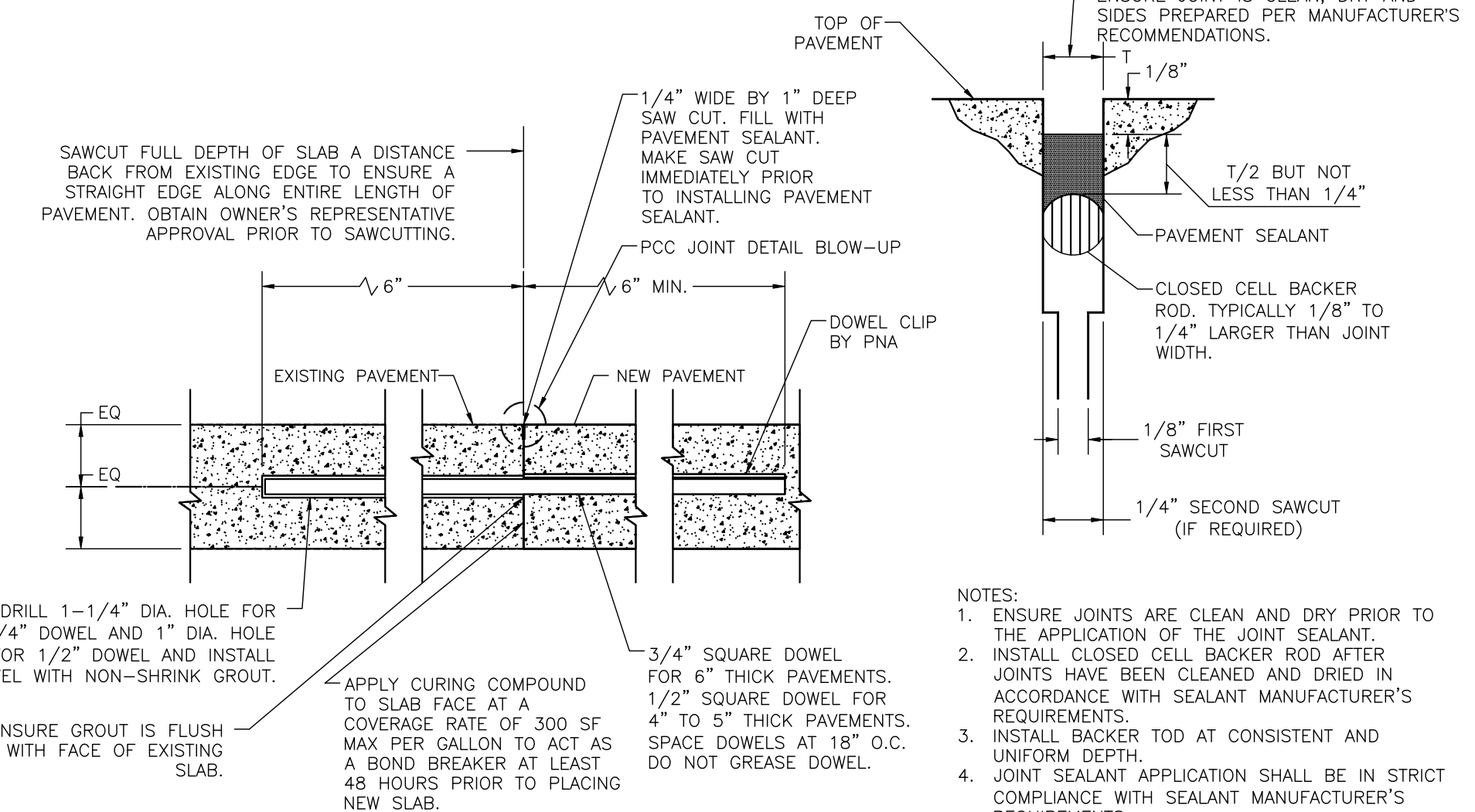
EXTERIOR SIDEWALK
EXPANSION JOINT DETAIL
SCALE: NTS



EXTERIOR SIDEWALK
CONTRACTION JOINT DETAIL
SCALE: NTS

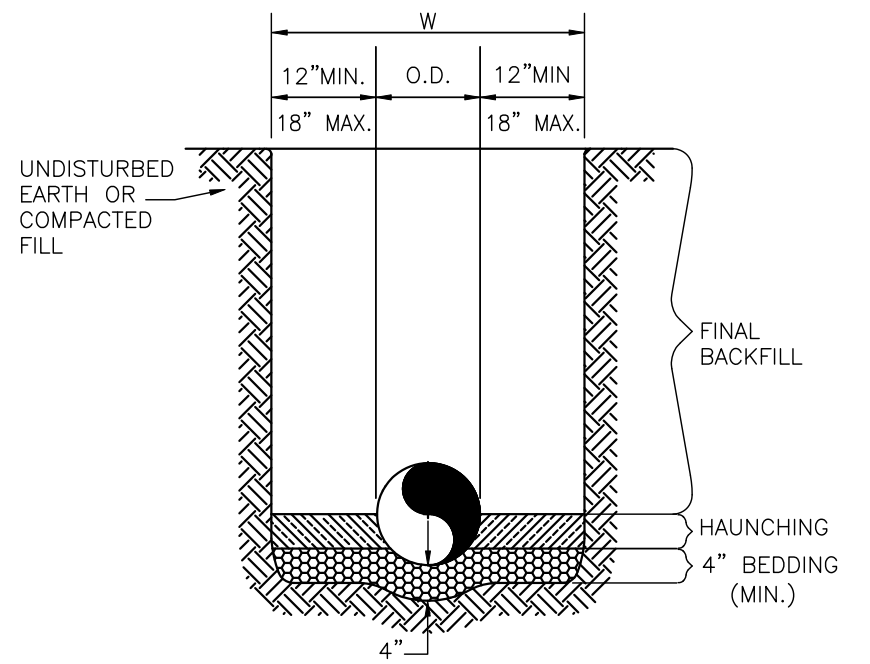


CONTRACTION JOINT
SCALE: NTS

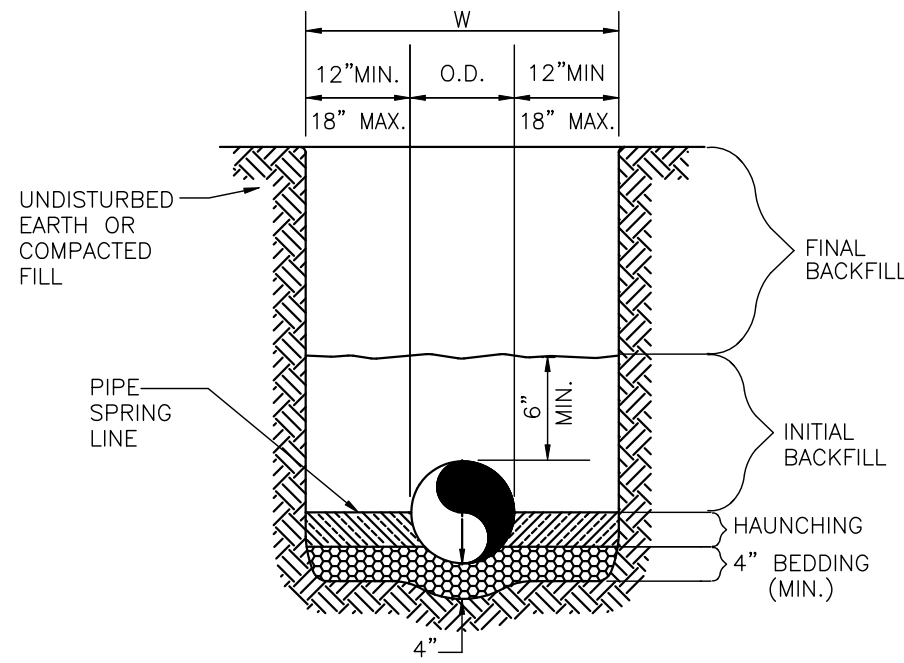


CONSTRUCTION JOINT TO EXISTING PAVEMENT
SCALE: NTS

PCC JOINT DETAIL BLOW-UP (TYP.)
SCALE: NTS



REINFORCED CONCRETE PIPE (RCP)
SCALE: NTS



ALL OTHER PIPES
SCALE: NTS

GENERAL NOTES

1. BEDDING SHALL BE CLASS I WORKED BY HAND OR CLASS II COMPACTED TO 90% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I OR CLASS II COMPACTED TO 90% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I WORKED BY HAND OR CLASS II COMPACTED TO 90% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED TO 98% STANDARD PROCTOR.
6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV COMPACTED TO 95% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-11.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698, CLASS II AND IV MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)
11. ANY OPEN-GRADED MATERIAL MEETING THE REQUIREMENTS OF ASTM D 2321-11 MAY BE USED ONLY IF THE MATERIAL IS WRAPPED IN AN APPROVED FILTER OR DRAINAGE FABRIC (REFER TO SITEMARK SPECIFICATION SECTION 02300 FOR TYPE) AND WITH WRITTEN PERMISSION FROM THE CEC.
12. THE UPPER 12" OF FINAL BACKFILL (MAY BE REDUCED TO 9" IN LIMITED AREAS WHERE BURIAL DEPTH WILL NOT ALLOW FOR 12" CAP) FOR ALL TRENCHES IN NON-PAVEMENT AREAS SHALL BE A LOW PLASTICITY COHESIVE FILL. REFER TO SITEMARK SPECIFICATION SECTION 02300 FOR ALLOWABLE "SATISFACTORY MATERIALS" AND COMPACTION REQUIREMENTS.
13. BEDDING, HAUNCHING, AND INITIAL AND FINAL BACKFILL MATERIALS USED IN CONJUNCTION WITH ANY PIPES WHICH PENETRATE A LEVEE OR ROAD EMBANKMENT, SHALL BE A LOW PERMEABILITY, COHESIVE SOIL. SOILS EXHIBITING HIGH SHRINK/SWELL POTENTIAL OR CONTAINING GREATER THAN 5% ORGANICS SHALL NOT BE USED.

DETAILS

NO	REVISIONS

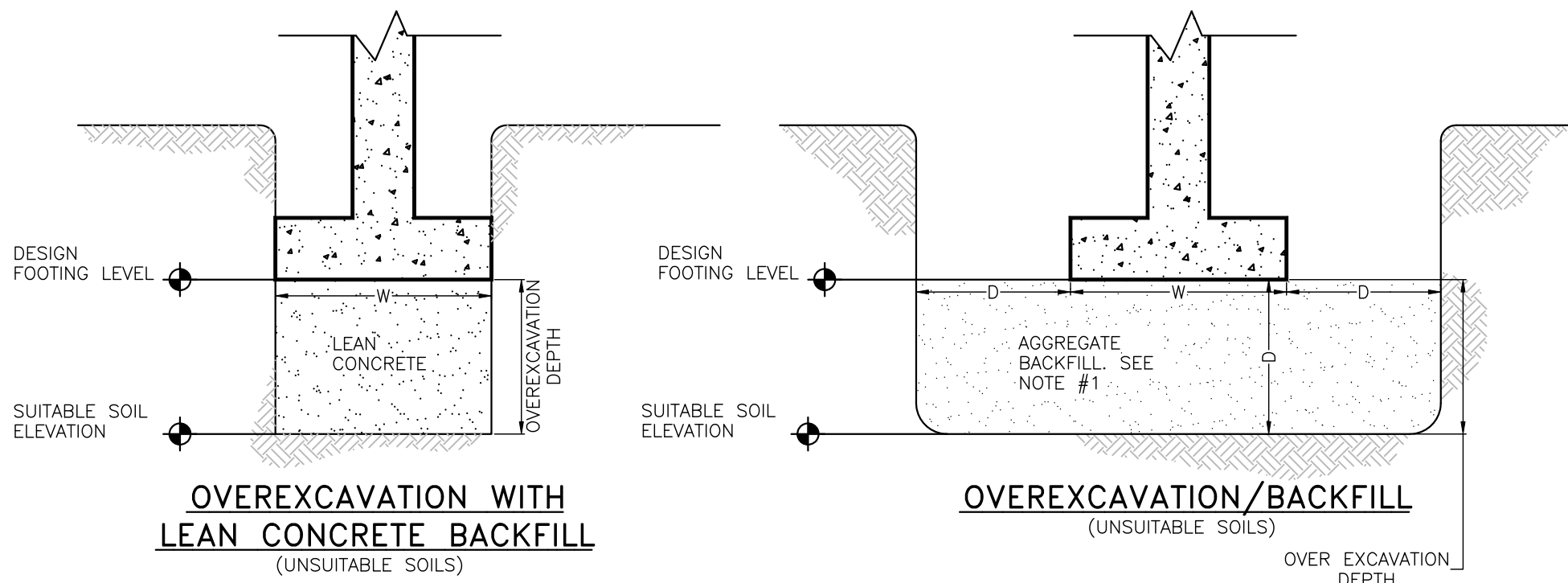
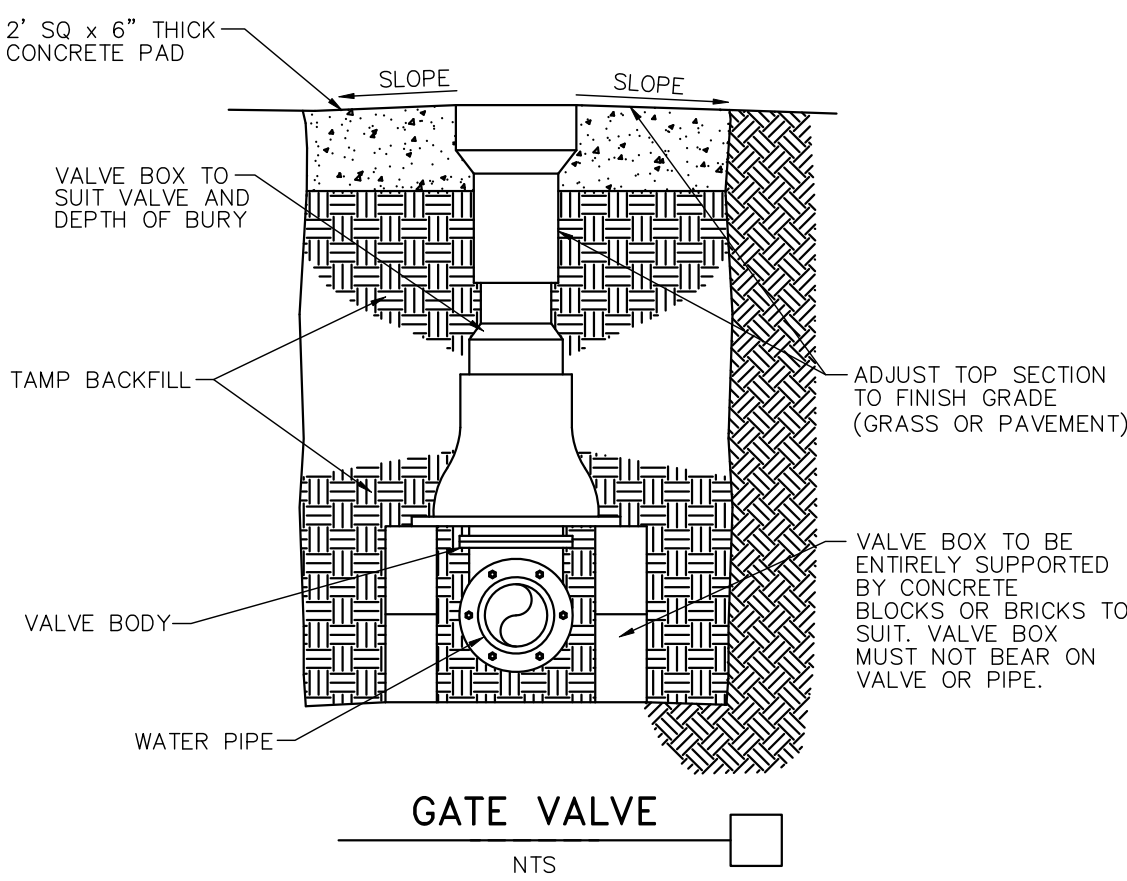
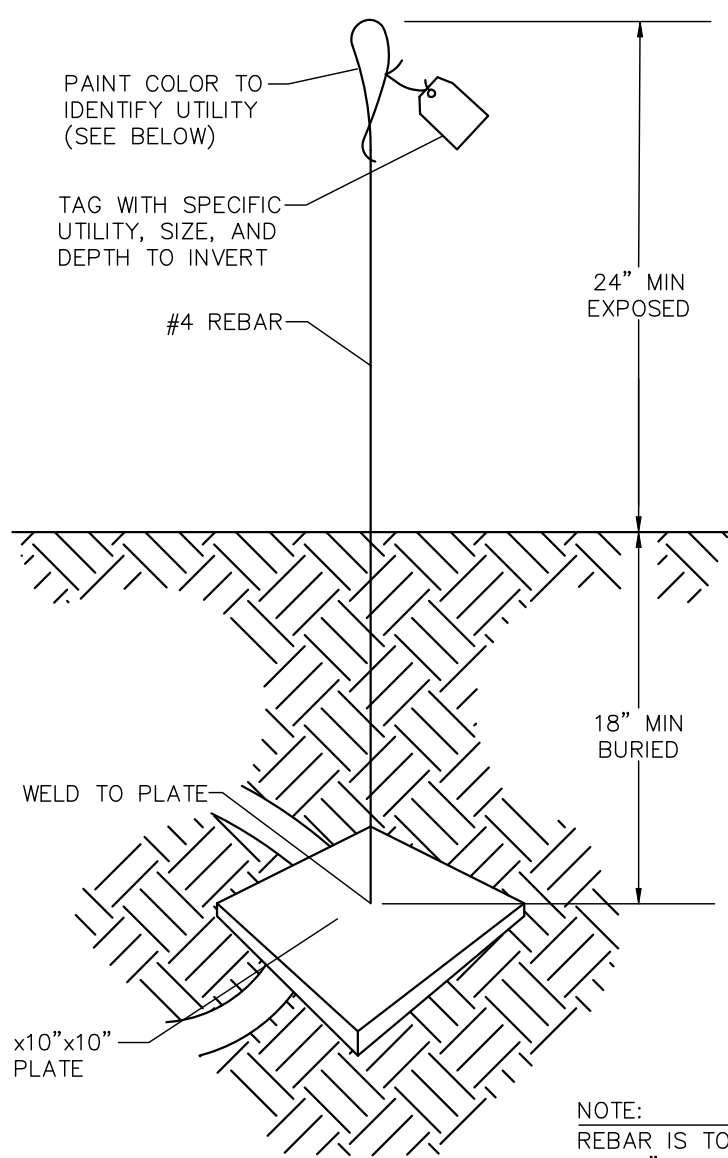
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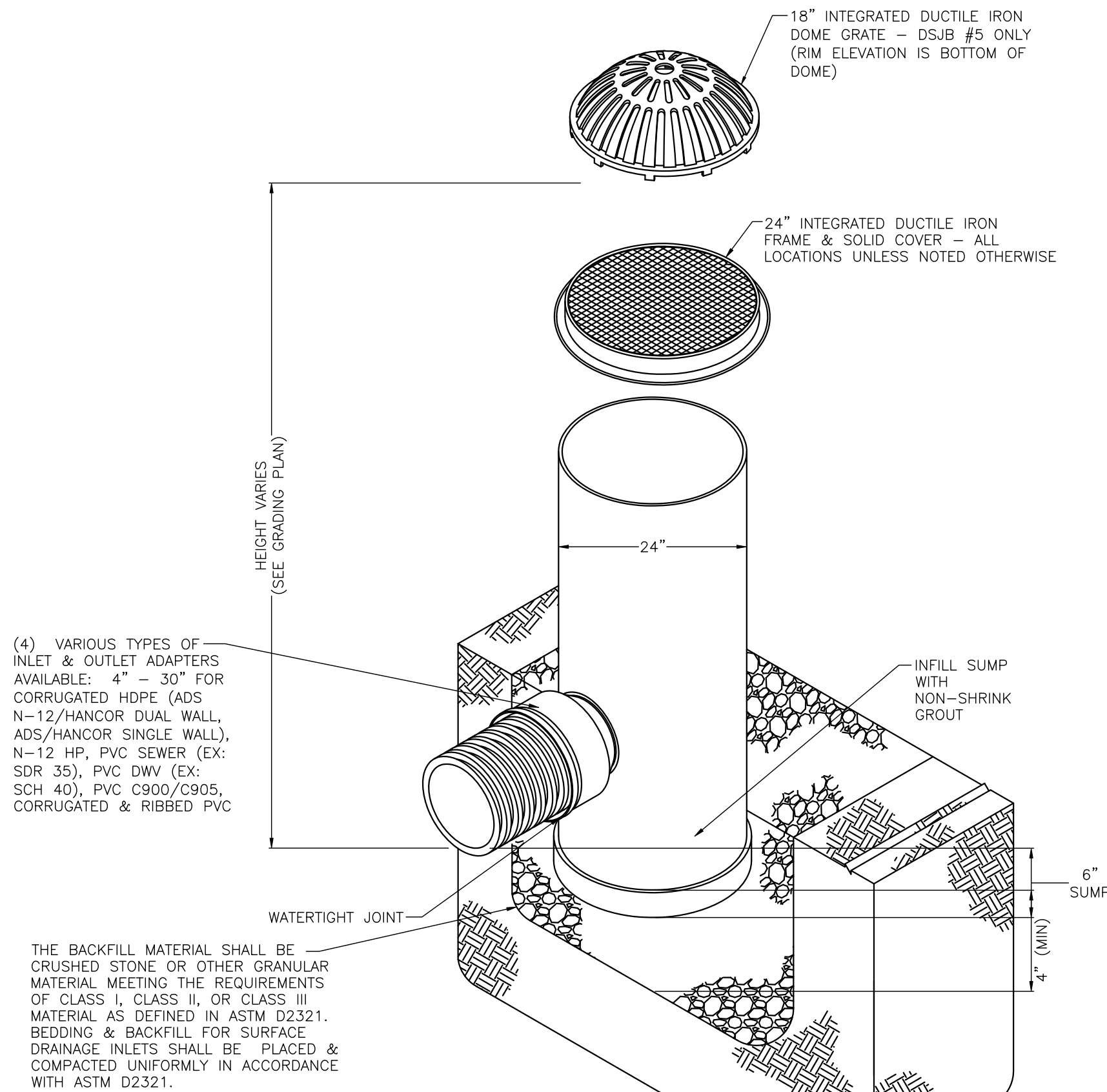
CARLSON
CONSULTING
ENGINEERS, INC.
10581 Ledgestone Commons
Bartlett, TN 38133
Phone (601) 384-0404
Fax (601) 384-0710
Oklahoma Registered Engineering Firm #CA 1324

JOSEPH
PARSLEY
22955
OKLAHOMA
8/7/23

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- NOTE: EXCAVATIONS IN SKETCHES SHOWN VERTICAL FOR CONVENIENCE. EXCAVATIONS SHOULD BE SLOPED AS NECESSARY FOR SAFETY.
- NOTES:
1. AGGREGATE FILL SHALL BE WELL GRADED GRANULAR MATERIAL PLACED IN 9" (MAX) LIFTS AND COMPACTED TO A MIN OF 98% OF THE MATERIALS MAXIMUM DRY DENSITY PER STANDARD PROCTOR (ASTM D-698).
 2. DETAIL IS TO BE USED ONLY WHERE SOFT SOILS ARE ENCOUNTERED BELOW FOOTINGS.

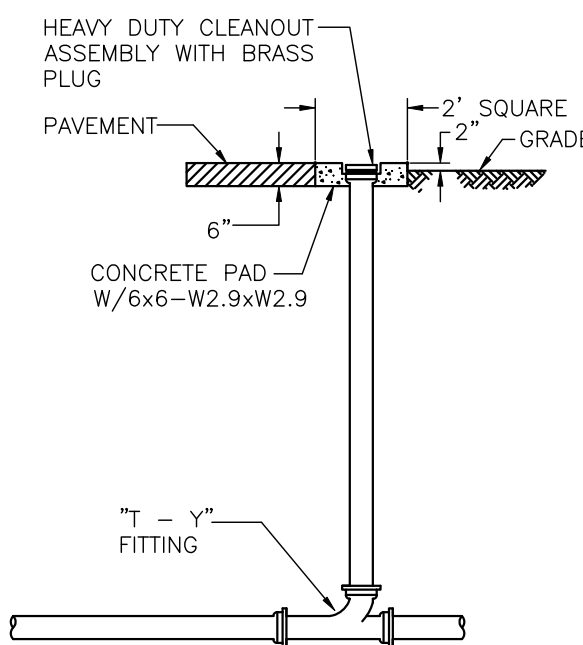


1. 24" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.
4. DRAINAGE CONNECTION SUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").

NYLOPLAST 24" DRAIN BASIN (2824AG__X)
WITH 24" SOLID COVER (2499CGC)

NTS

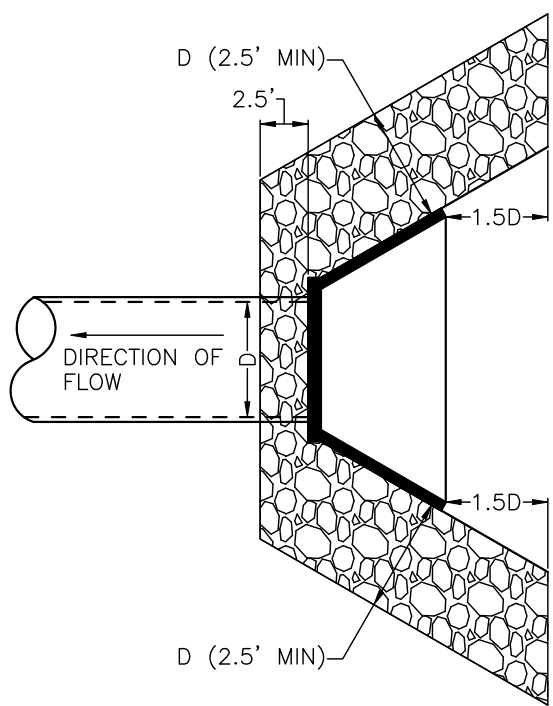
UTILITY MARKING



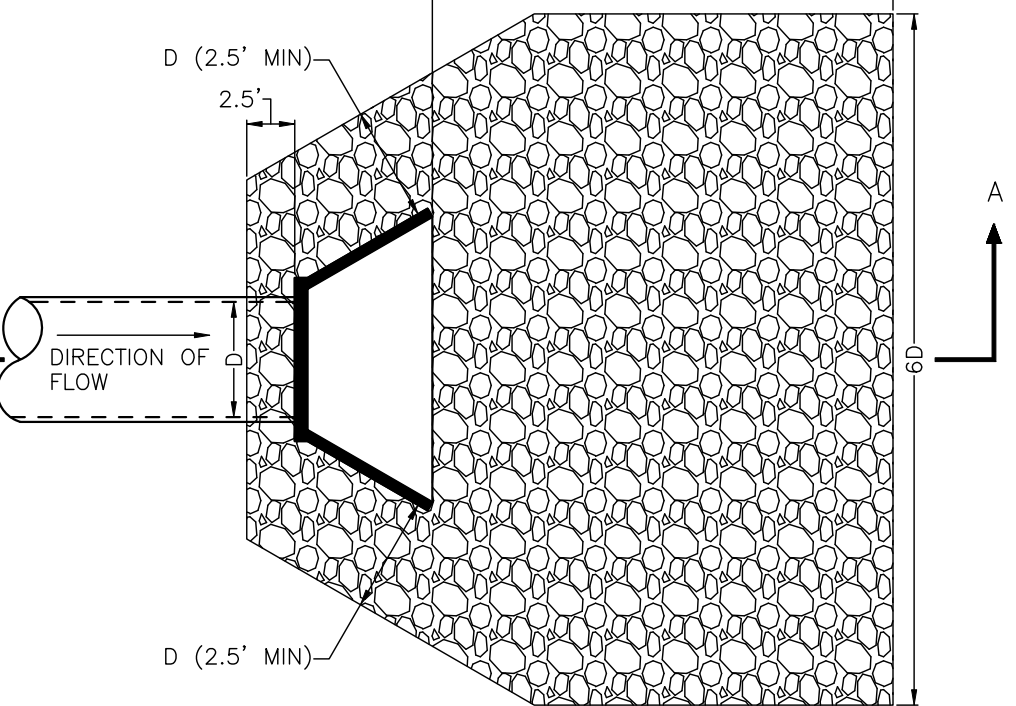
STORM SEWER CLEANOUT

GATE VALVE

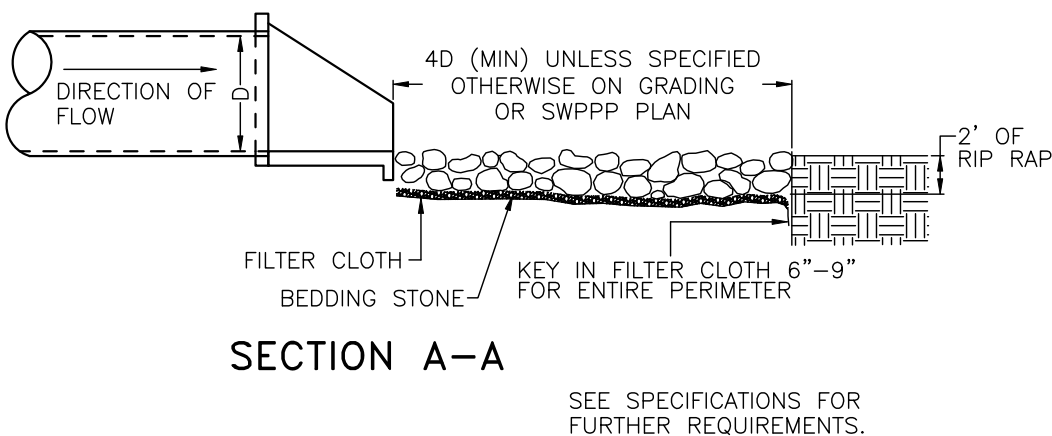
FOOTING OVEREXCAVATION



RIP-RAP

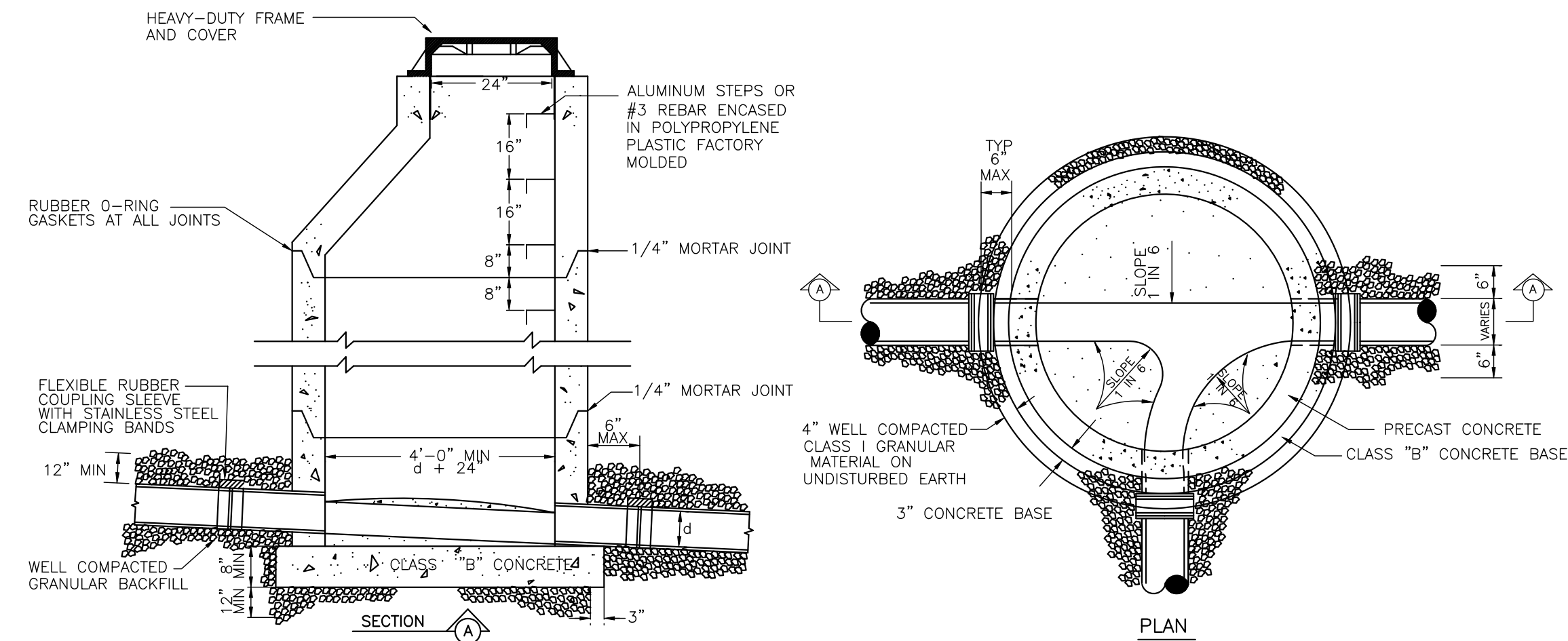


PLAN VIEW

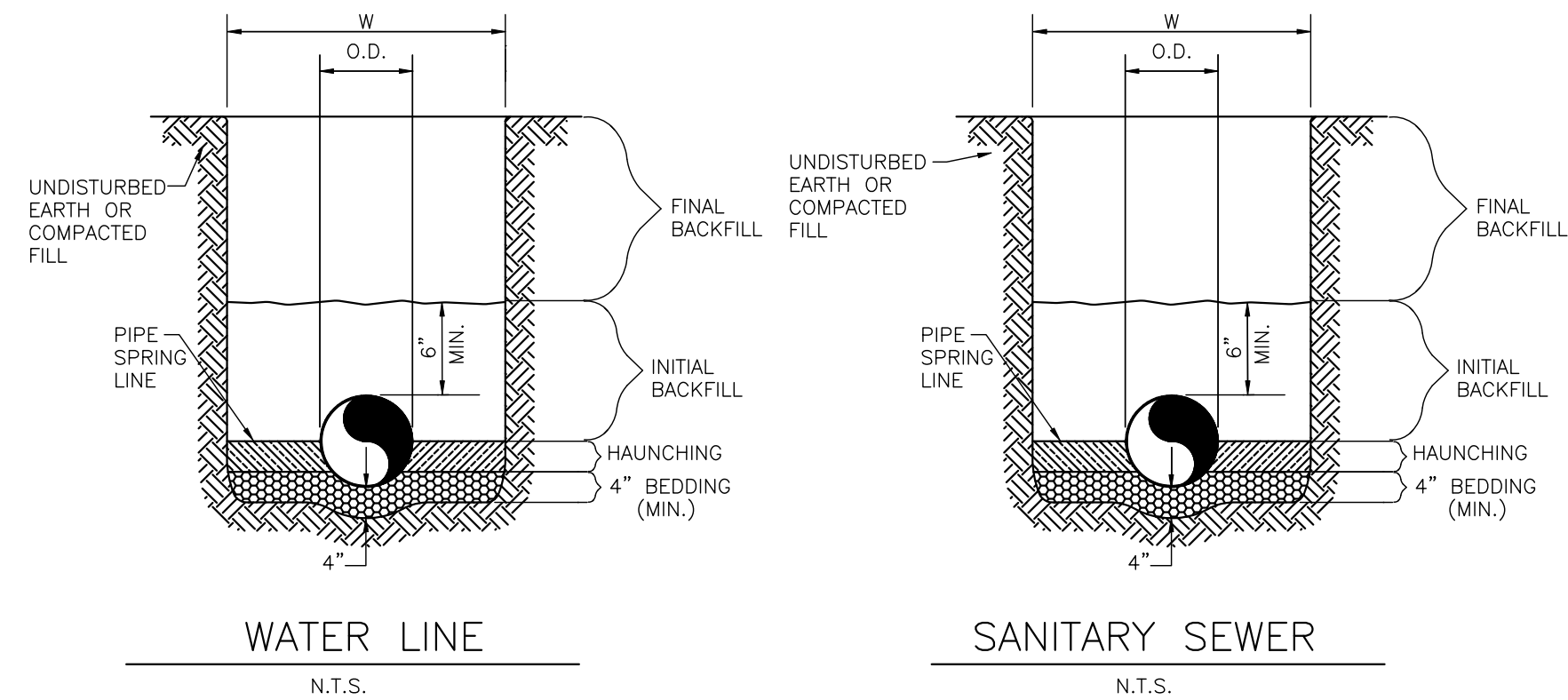


SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

DOWNSPOUT JUNCTION BOX



SANITARY SEWER MANHOLE

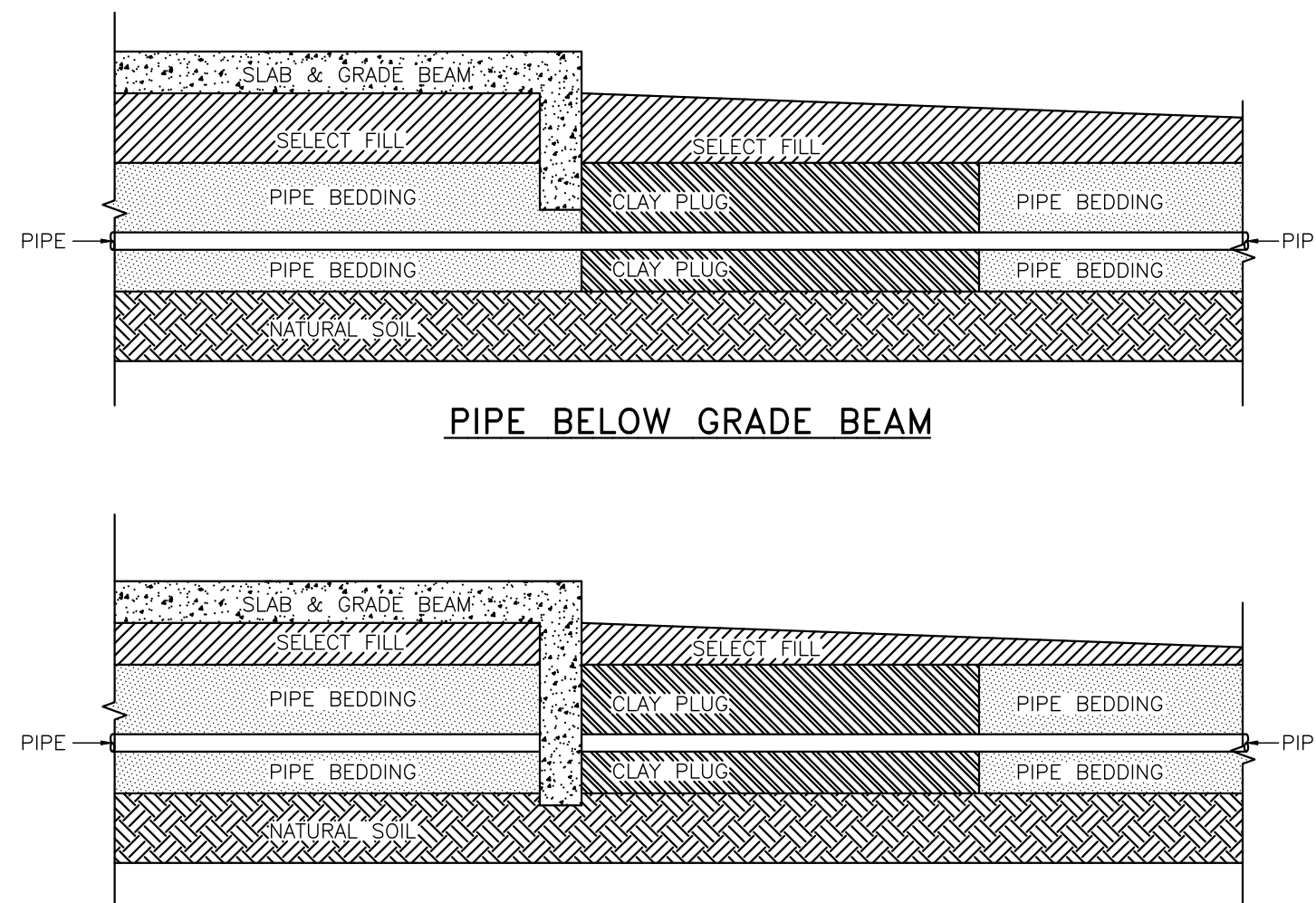


PIPE DIA.	W
<12"	O.D. OF PIPE + (12" TO 18")
>12"	> O.D. OF PIPE + 18"

GENERAL NOTES

1. BEDDING SHALL BE CLASS I WORKED BY HAND OR CLASS II COMPACTED TO 90% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I OR CLASS II COMPACTED TO 90% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I WORKED BY HAND OR CLASS II COMPACTED TO 90% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED TO 98% STANDARD PROCTOR.
6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV COMPACTED TO 98% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-11.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)
11. ANY OPEN-GRADED MATERIAL MEETING THE REQUIREMENTS OF ASTM D 2321-11 MAY BE USED ONLY IF THE MATERIAL IS WRAPPED IN AN APPROVED FILTER OR DRAINAGE FABRIC (REFER TO SPECIFICATION SECTION 02300 FOR TYPE) AND WITH WRITTEN PERMISSION FROM THE CEC.
12. THE UPPER 12 INCHES OF FINAL BACKFILL FOR ALL TRENCHES IN NON-PAVEMENT AREAS SHALL BE A LOW PLASTICITY COHESIVE FILL. REFER TO SITEWORK SPECIFICATION SECTION 02300 FOR ALLOWABLE "SATISFACTORY MATERIALS" AND COMPACTION REQUIREMENTS.

UTILITY TRENCHING



PIPE PENETRATION THROUGH GRADE BEAM

CLAY PLUG

DETAILS

NO	REVISIONS

TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

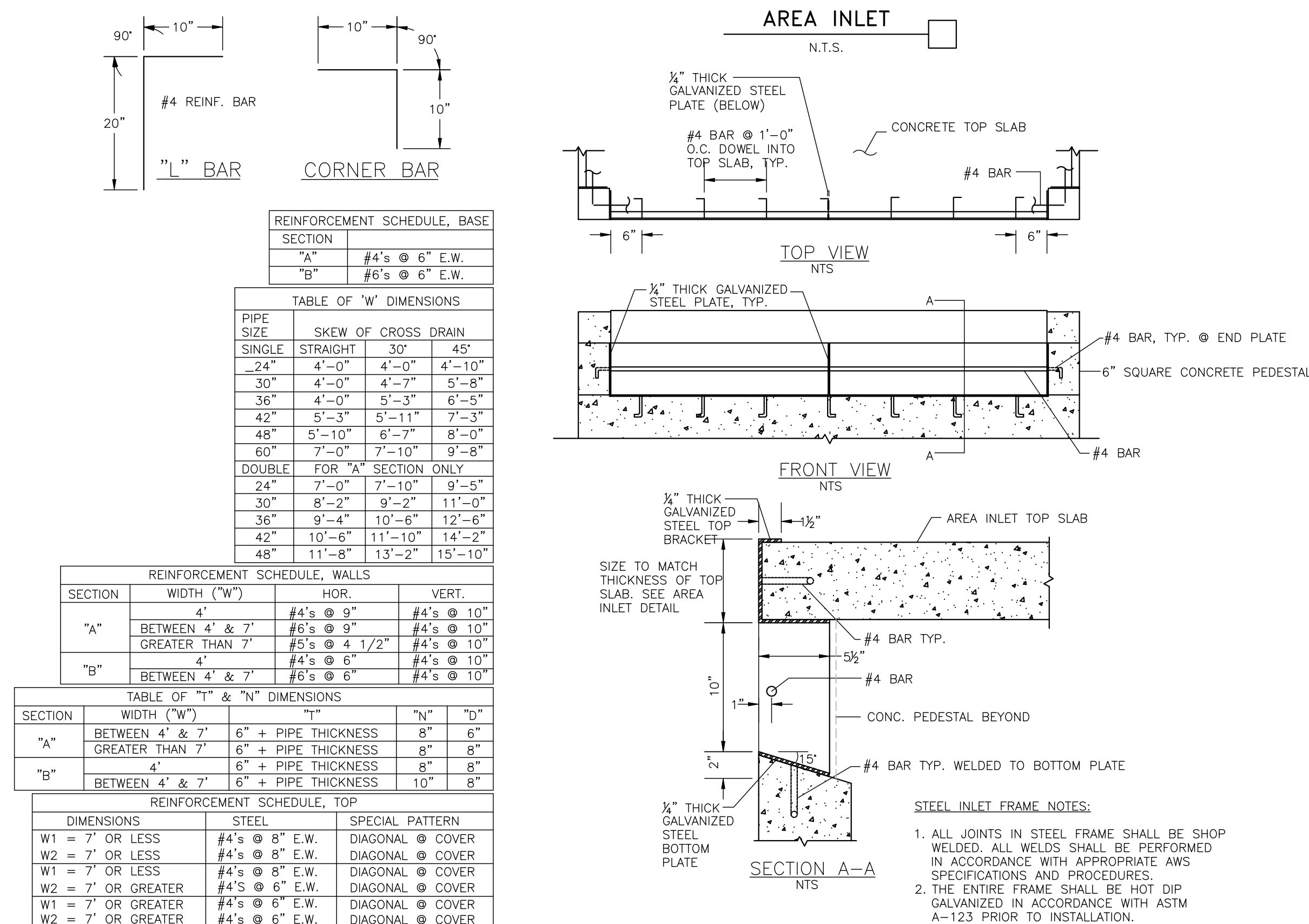
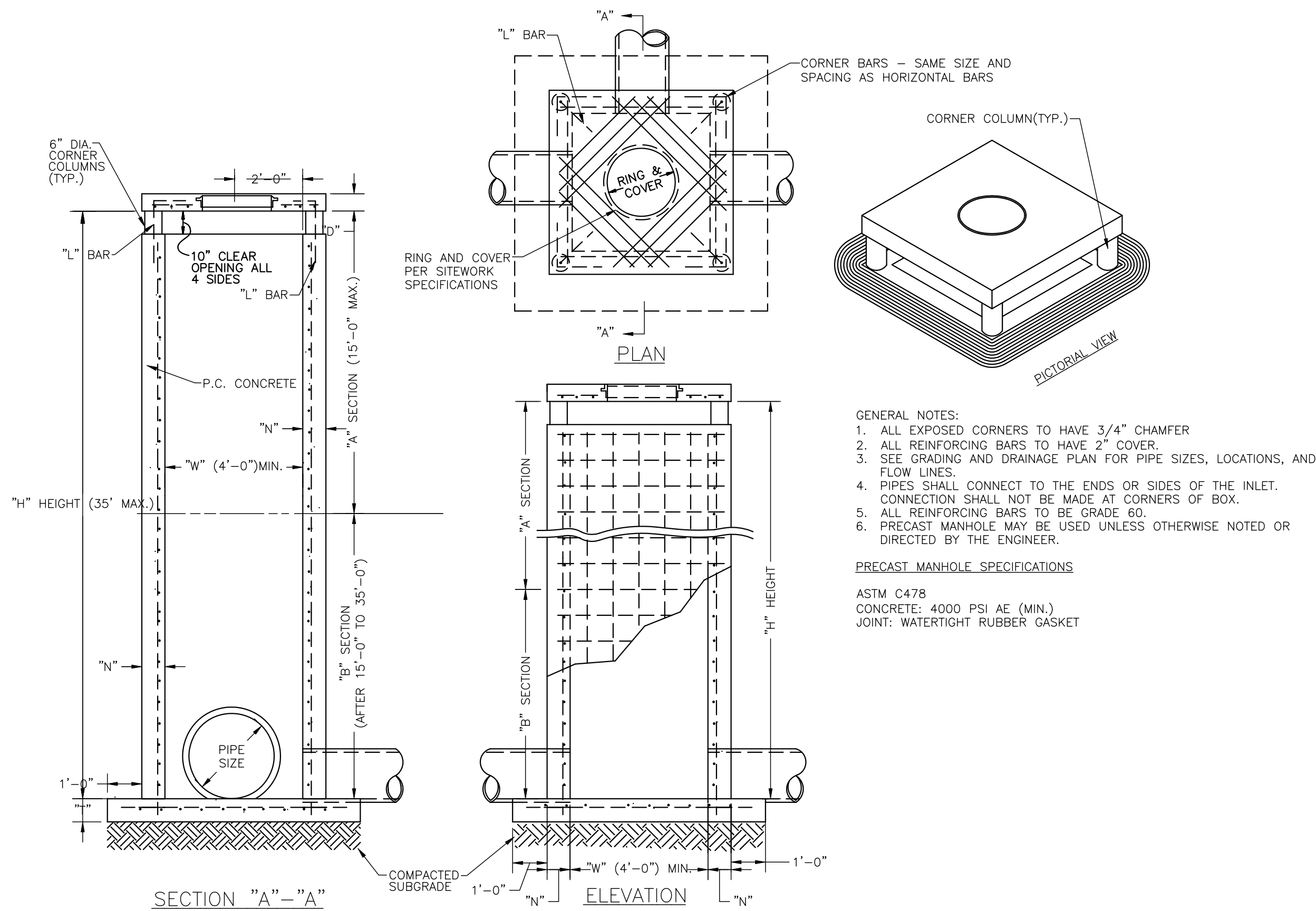
CAPSTONE AT COWETA TRAILS II
SENIOR APARTMENTS
COWETA, OKLAHOMA

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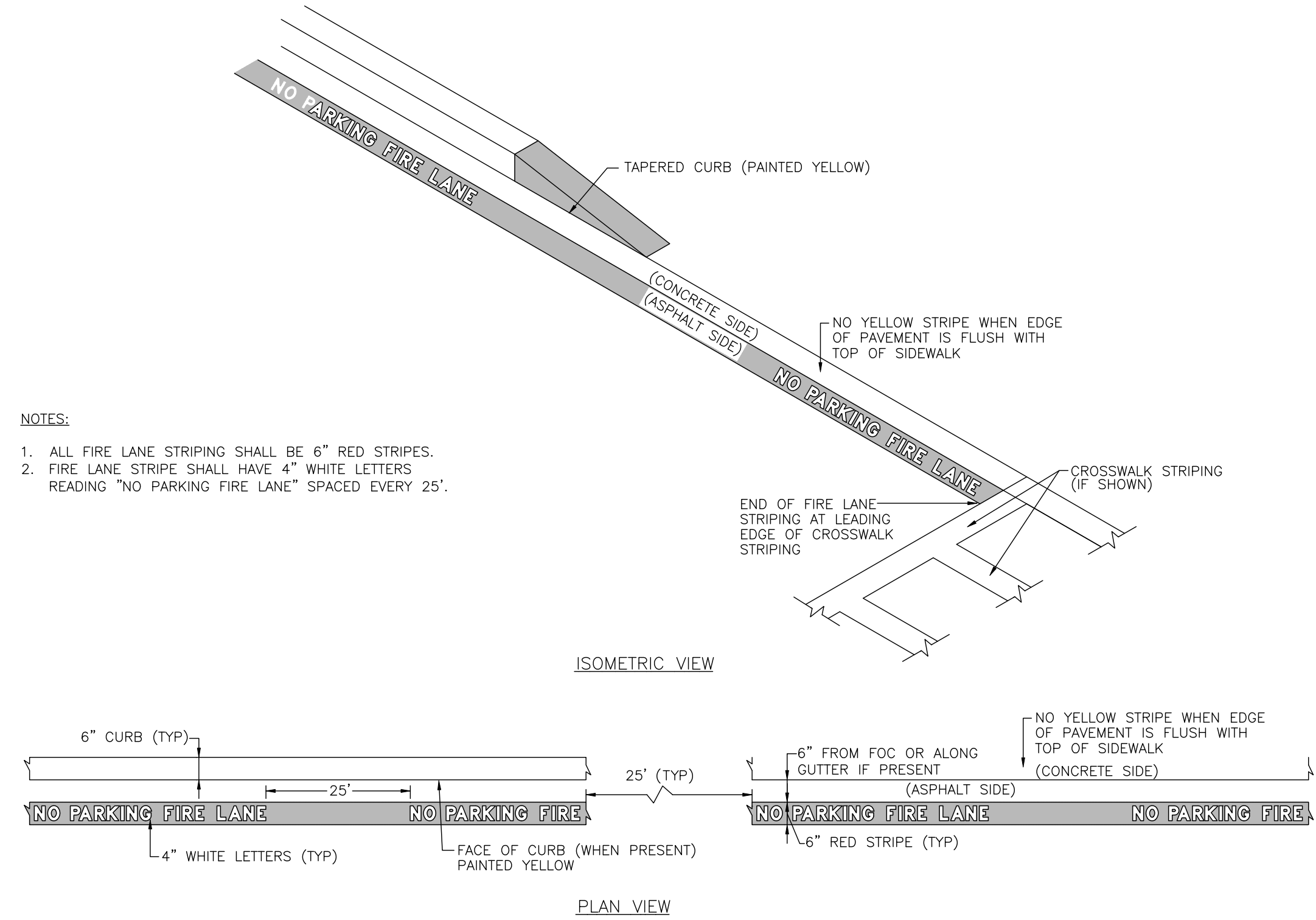
10081 Ledestone Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710
Oklahoma Registered Engineering Firm #CA 1224

JOSEPH
PARSLEY
22955
OKLAHOMA
8/1/23

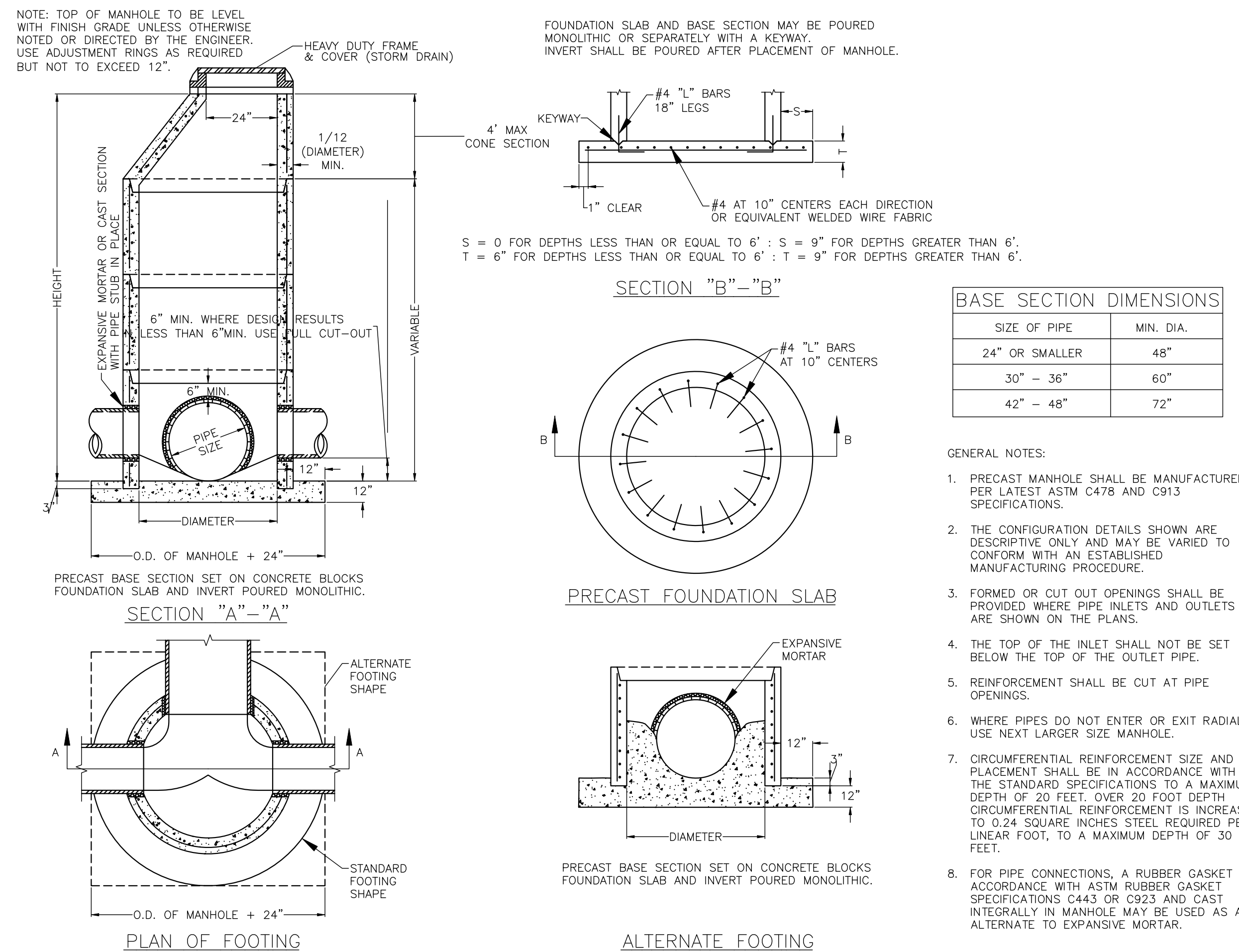
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AREA INLET
N.T.S.



FIRE LANE STRIPING



JUNCTION BOX

DETAILS

NO	REVISIONS

TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 862-1701

CAPSTONE AT COWETA TRAILS II
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CONSULTING
ENGINEERS, INC.
10581 Ledgestone Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710
Oklahoma Registered Engineering Firm #CA 9224

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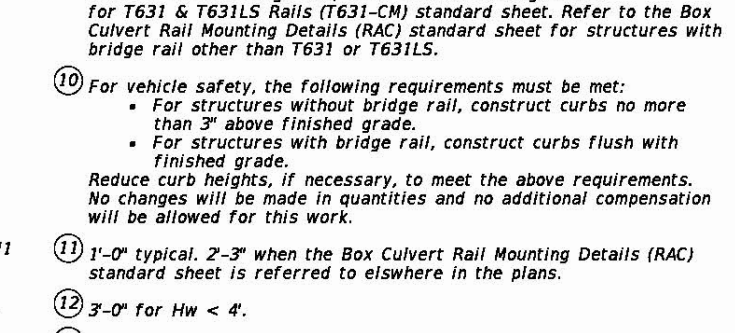
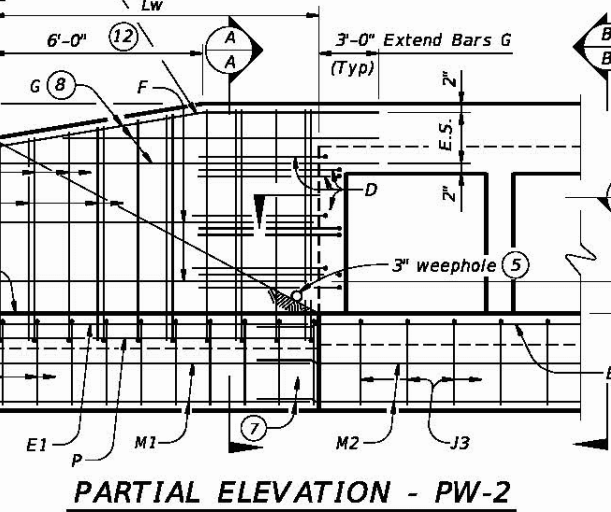
TABLE OF WINGWALL REINFORCING (Z-wings)			
Bar	Size	No.	Spa
D1	#6	1	1'-0"
D2	#6	—	1'-0"
E1	#4	1	1'-0"
E	#4	1	1'-0"
C	#6	8	8"
M1	#6	4	—
P	#4	1	1'-0"
V	#4	1	1'-0"

TABLE OF TOWERLL REINFORCING			
Bar	Size	No.	Spa
M2	#6	1	1'-0"
E2	#4	1	1'-0"

- ① Skew = 0°
- ② At discharge end, chamfer may be ¾" minimum.
- ③ For 15° skew = 1"
For 30° skew = 2"
For 45° skew = 3"
- ④ Quantities shown are for two Type PW-1 wings. Adjust concrete volume for Type PW-2 wings. To determine estimated quantities for two wings, multiply the calculated values by Lw. Quantities shown do not include weight of Bars D.
- ⑤ Provide weepholes for Hw = 5'-0" and greater. Fill around weepholes with coarse gravel.
- ⑥ Extend Bars E2 1'-6" minimum into the wingwall footing.

- skew

Hw	=	Height of wingwall
Lw	=	Length of wingwall
Ltw	=	Culvert toewall length
N	=	Number of culvert spans
SL:1	=	Channel slope ratio, (horizontal: 1 vertical, usual value is 2:1)
θ	=	Culvert skew



13) σ for HW = 4.

DESIGNER NOTES:

- Type PW-1 can be used for all applications and must be used if falling is to be mounted to the wingwall.
- Type PW-2 can only be used in applications without a railing mounted to the wingwall.

MATERIAL NOTES:

- Provide Class C concrete (for 8000 psi).
- Provide Grade 60 reinforcing steel.
- Provide galvanized reinforcing steel if required elsewhere in the plans.

GENERAL NOTES:

- Designed in accordance with AASHTO LRFD Bridge Design Specifications.
- Depth of toe/walls for wingwalls and curbs may be reduced or eliminated and embedded on solid rock, when directed by the Engineer.
- Use Box Culvert Supplement (BCS) standard sheet for wingwall type and additional dimensions and information.
- Quantities for concrete and reinforcing steel

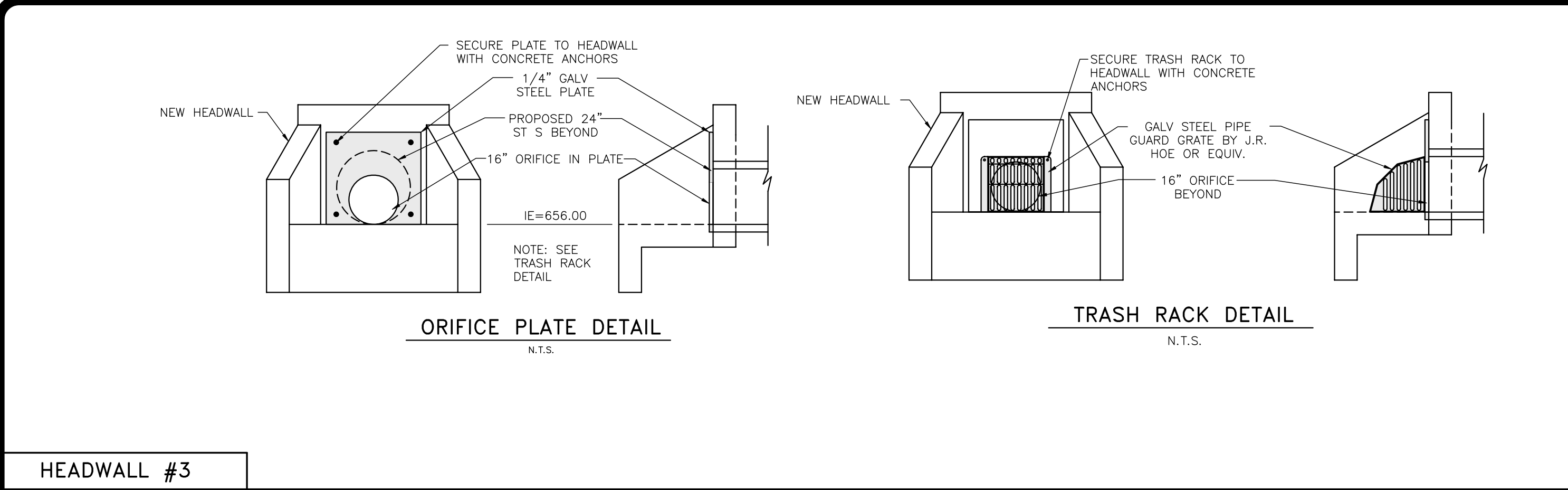
resulting from the formulas given on this sheet are
for the Contractor's information only.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing dimensions are out-to-out of bars.

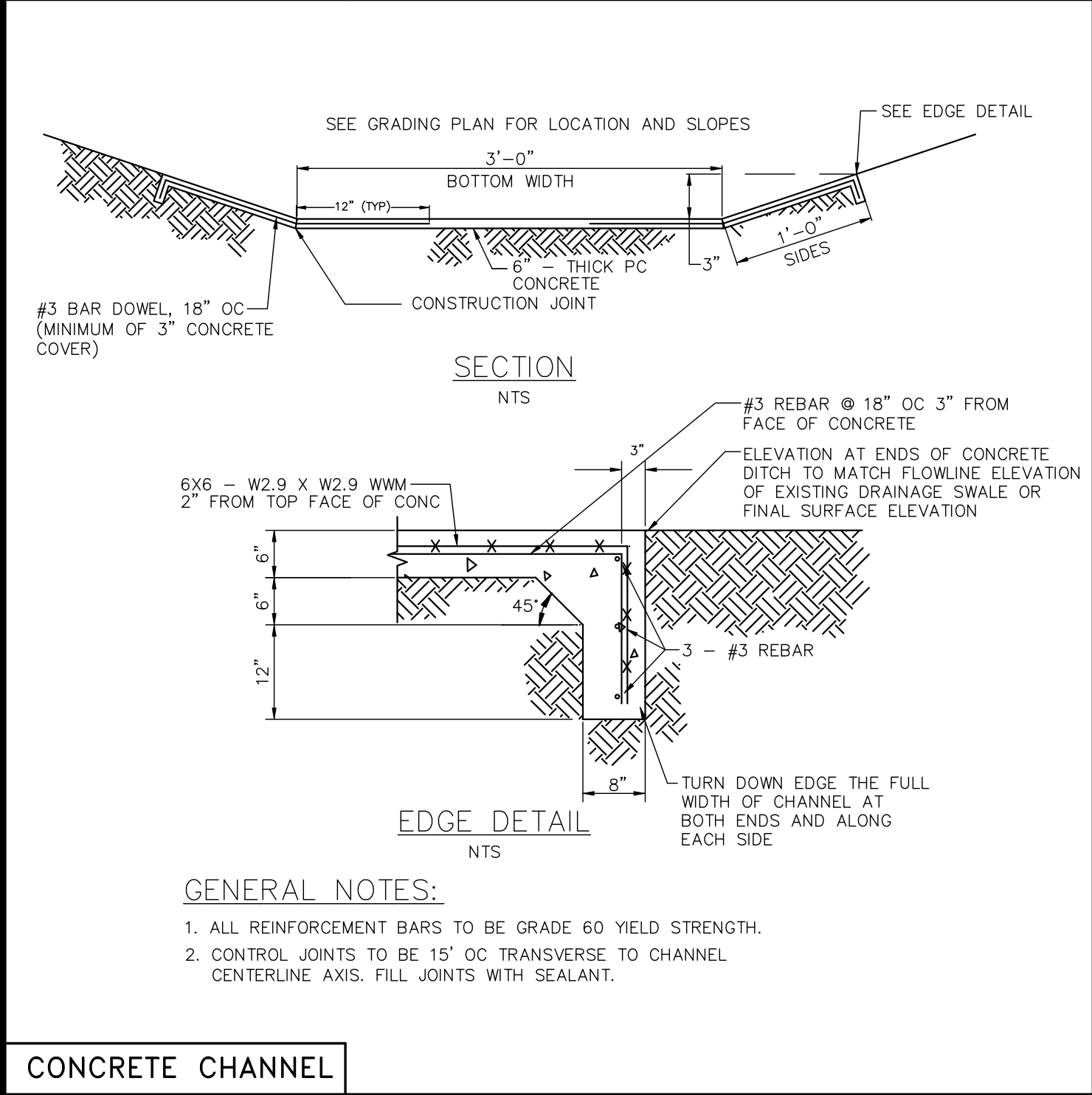
ODOT CURB INLET

OUTLET CONTROL STRUCTURE

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HEADWALL #3



CONCRETE CHANNEL

DETAILS

NO	REVISIONS

TRINITY HOUSING
DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
PH. (417) 882-1701

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