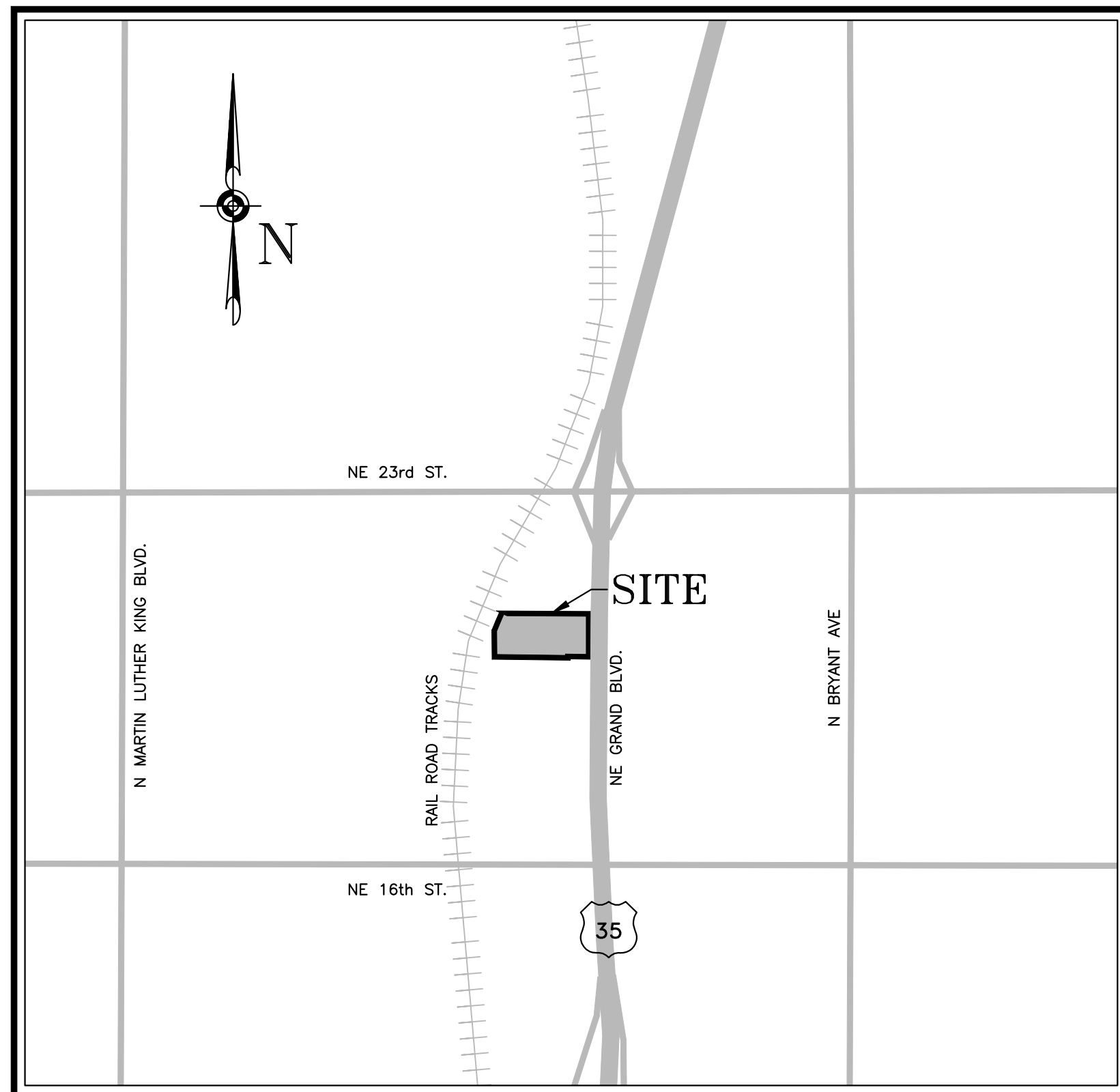


SITE DEVELOPMENT PLANS

CROSSROADS AT N.E. GRAND BLVD.

N.E. GRAND BLVD.

OKLAHOMA CITY, OKLAHOMA COUNTY, OKLAHOMA



VICINITY MAP
NTS

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

WATER GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO CURRENT OKLAHOMA CITY STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS AND SHALL BE UNDER STRICT SUPERVISION OF THE CITY ENGINEER OF THE CITY OF OKLAHOMA CITY.
- ALL WORK NOT CLASSIFIED AS A PAY ITEM SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION. COST OF WHICH SHOULD BE INCLUDED IN THE COST OF OTHER PAY ITEMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL LANDSCAPING IN AS GOOD OR BETTER CONDITION AS EXISTING LANDSCAPING.
- IN ACCORDANCE WITH ODEQ REGULATIONS, THE CITY PROVIDES WATER AT A MINIMUM PRESSURE OF 25 PSI. THE DEVELOPER IS RESPONSIBLE FOR DESIGNING AND CONSTRUCTION OF ALL FIXTURES TO PROVIDE ADEQUATE DOMESTIC AND FIRE PROTECTION UNDER MINIMUM PRESSURE CONDITIONS. THE DEVELOPER WILL BE RESPONSIBLE FOR ANY FAILURE OF DOMESTIC AND FIRE PROTECTION SYSTEMS WHICH REQUIRE WATER PRESSURE IN EXCESS OF 25 PSI.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND DEPTHS PRIOR TO CONSTRUCTION BY MEANS OF UTILITY SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF ALL PRIVATE & PUBLIC UTILITIES DAMAGED DURING CONSTRUCTION.
- ALL SERVICES ARE TO BE CONNECTED TO EXISTING METER WITH MATERIAL PER CURRENT CITY OF OKLAHOMA CITY SPECIFICATIONS FROM PROPOSED WATER MAIN.
- STANDARD DEPTH OF COVER SHALL BE A MINIMUM OF 4.0 FEET. MINIMUM DEPTH OF 5.0 FEET REQUIRE ALONG SECTION ROADS.
- ALL CROSSINGS AND PROPOSED TIE-IN LOCATIONS SHALL BE EXCAVATED AHEAD OF CONSTRUCTION TO VERIFY THE FLOWLINE OF EXISTING WATER MAINS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION STAKING. THE STAKING MUST BE DONE BY AN OKLAHOMA REGISTERED PROFESSIONAL LAND SURVEYOR WHICH WILL BE VERIFIED BY CITY INSPECTORS.
- THE AIR RELEASE AND VACUUM VALVE SHALL MEET CURRENT CITY OF OKLAHOMA CITY SPECIFICATIONS.
- HYDRANTS SHALL CONFORM TO AWWA STANDARD C502, LATEST REVISION & MEET CURRENT CITY OF OKLAHOMA CITY SPECIFICATIONS.
- ALL VERTICAL AND HORIZONTAL FITTINGS REQUIRE MECHANICAL JOINT RESTRAINTS PER CITY OF OKLAHOMA CITY SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO DRAIN AS GOOD OR BETTER THAN EXISTING CONDITIONS.
- THE CONTRACTOR SHALL PROVIDE SEVEN (7) DAYS NOTICE TO OKLAHOMA CITY LINE MAINTENANCE DIVISION AND THE PROPERTY OWNERS PRIOR TO TAKING ANY WATER MAIN OUT OF SERVICE. THE CONTRACTOR IS NOT ALLOWED TO OPERATE ANY VALVE CONNECTED TO OKLAHOMA CITY WATER MAINS.
- WHEN PVC PIPE IS SPECIFIED AND USED ON THIS PROJECT, CONTRACTOR SHALL INSTALL ONE STRAND OF NO. 12 GAUGE COPPER TRACER WIRE ALONG TOP OF ALL PVC PIPES. BRING THE TRACER WIRE TO TOP OF GROUND AND ANCHOR AT ALL VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GPS "AS-BUILT" SURVEY, FOLLOWING THE INSTALLATION OF WATER MAINS, FOR EVERY 100' ALONG THE ALIGNMENT OF THE PROJECT, COORDINATES OF THE VALVES, FIRE HYDRANTS, EXISTING WATER METERS, AND SIMILAR APPURTENANCES. AN AUTOCAD DRAWING AND COORDINATES DATA SHEET SHALL BE SUBMITTED TO THE PRIVATE DEVELOPMENT DIVISION FOR APPROVAL. THIS TASK MUST BE PERFORMED BY A REGISTERED PROFESSIONAL LAND SURVEYOR. DATA SUBMITTED SHALL BE TIED TO OKLAHOMA STATE PLANE COORDINATE SYSTEM.
- WATER METERS AND FIRE HYDRANTS MUST SIT WITHIN THE ROW OR UTILITY EASEMENT LOCATED IN A GRASSY AREA OUTSIDE OF PAVING FOR SIDEWALKS, STREETS, & DRIVEWAYS.
- ON APRIL 30, 2013, THE CITY OF OKLAHOMA CITY ADOPTED A RESOLUTION ESTABLISHING A PERMANENT MANDATORY WATER CONSERVATION PROGRAM RESTRICTING WATERING TO EVERY OTHER DAY WITH PROPERTIES WITH ODD NUMBERED ADDRESSES BEING PERMITTED TO WATER ONLY ON ODD NUMBERED DAYS AND PROPERTIES WITH EVEN NUMBERED ADDRESSES BEING PERMITTED TO WATER ONLY ON EVEN NUMBERED DAYS. SHOULD CONDITIONS INCLUDING BUT NOT LIMITED TO DECREASED WATER SUPPLY STORAGE LEVELS OR DROUGHT CAUSE CONDITIONS TO DETERIORATE INCREASED WATER RESTRICTIONS MAY COME INTO EFFECT. THESE CURRENT AND FUTURE CONSERVATION REQUIREMENTS AND WATER AND WATERING RESTRICTIONS ARE APPLICABLE TO ALL PROJECTS AND CONTRACTORS JUST AS THEY ARE APPLICABLE TO OKLAHOMA CITY CITIZENS. SEE DETAILS AT: <http://www.squeezeeverydrop.com/> THE CITY OF OKLAHOMA CITY HAS ALSO ESTABLISHED A VARIANCE PROGRAM FOR IRRIGATION OF NEW LANDSCAPING. CONTRACTOR WILL BE RESPONSIBLE FOR TIMELY OBTAINING AND, IF AND AS GRANTED, FOR COMPLIANCE WITH THE VARIANCE PROGRAM REQUIREMENTS. SEE DETAILS AT: <http://www.squeezeeverydrop.com/WaterConservationProgram/VarianceProgram.aspx> FAILURE TO COMPLY WITH THE CURRENT AND FUTURE RESTRICTIONS AND REQUIREMENTS OF THE MANDATORY WATER CONSERVATION PROGRAM OR THE VARIANCE, IF AND AS GRANTED, MAY RESULT IN THE RECEIPT OF A CITATION AND/OR THE REVOCATION FOR THE VARIANCE.
- FINAL GRADING MUST BE COMPLETE PRIOR TO INSTALLATION OF WATER AND SANITARY SEWER MAINS.
- TYPE 'A' AGGREGATE BACKFILL SHALL BE PLACED IN ALL TRENCHES UP TO GROUND LEVEL WHERE LINES CROSS UNDER PROPOSED OR EXISTING PAVING. TYPE 'A' AGGREGATE BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH THE CITY OF OKLAHOMA CITY STANDARD SPECIFICATIONS. THE MAXIMUM PAY QUANTITY FOR TYPE 'A' AGGREGATE BACKFILL IS THAT QUANTITY REQUIRED TO FILL A NEAT MINIMUM WIDTH DITCH, LISTED IN THE TRENCH WIDTH DETAIL, FROM THE FLOWLINE OF THE PIPE TO THE PAVEMENT SUBGRADE. ELEVATION TO 5' BACK OF CURB ON EACH SIDE OF THE STREET. ANY ADDITIONAL TYPE 'A' AGGREGATE REQUIREMENTS ARE CONSIDERED INCIDENTAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL UTILITIES, BOTH UNDERGROUND & OVERHEAD, EITHER PUBLIC OR PRIVATE, AS TO THEIR ACTUAL LOCATION PRIOR TO COMMENCING CONSTRUCTION.
- SIDEWALKS MUST BE SHOWN ON LAYOUT & PLAN & PROFILE SHEETS.
- NO ENTRY SIGNS ARE ALLOWED TO BE OVER ANY PROPOSED OR EXISTING WATER AND/OR WASTEWATER MAIN. MUST SIT 5 FT FROM MAIN. IF PLACED IN THE ROW OR U/E, A REVOCABLE PERMIT IS REQUIRED TO BE SUBMITTED AND APPROVED PRIOR TO CONSTRUCTION OF ENTRY SIGN.

TRAFFIC NOTES

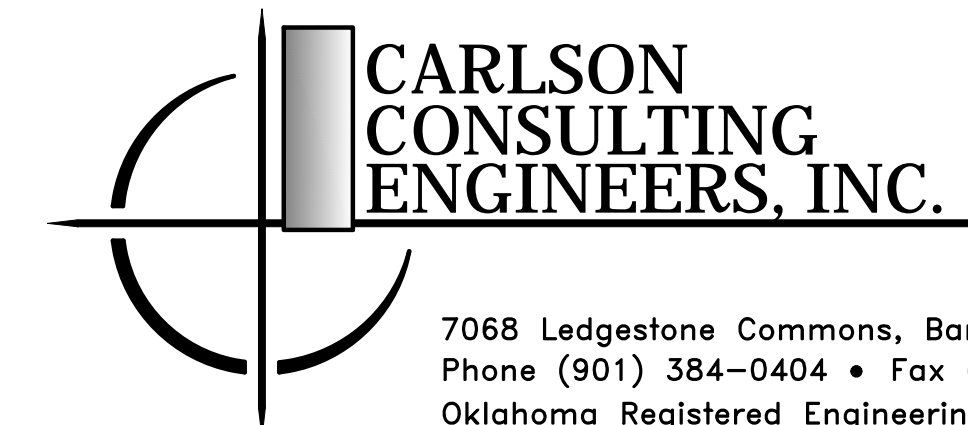
- A WORK ZONE PERMIT MUST BE OBTAINED FROM THE TRAFFIC MANAGEMENT DIVISION AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF WORK AND/OR PLACING OR REMOVING ANY BARRICADES OR MODIFYING EXISTING TRAFFIC CONTROL DEVICES. EMAIL WORKZONES@OKC.GOV TO OBTAIN AN APPLICATION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT MARKINGS THAT WILL BE IN CONFLICT WITH THE PROPOSED WORK.
- THE CONTRACTOR SHALL CONTACT OKLAHOMA CITY TRAFFIC OPERATIONS AT (405) 297-2085 FOR THE MARKING OF TRAFFIC SIGNAL CONDUIT AND APPURTENANCES AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AND/OR PLACING OR REMOVING ANY BARRICADES OR MODIFYING EXISTING TRAFFIC CONTROL DEVICES. CALL (405) 297-2531 TO OBTAIN A COPY OF THIS FORM.

EROSION CONTROL NOTES

- CONSTRUCTION ACTIVITIES THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE (1) ACRE, OR LESS THAN ONE (1) ACRE IF THEY ARE PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT TOTALS AT LEAST ONE (1) ACRE MUST OBTAIN A PERMIT FROM ODEQ (FORM 606-002A) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. THIS MEANS THAT LAND DISTURBANCE OF ONE (1) ACRE OR MORE MUST PERMIT WITH ODEQ AND THE CITY OF OKLAHOMA CITY, STORM WATER QUALITY.
- THE USGS 7.5 MINUTES QUADRANGLE SHEETS ARE USED TO INDICATE THE "WATERS OF THE UNITED STATES" AND "WETLANDS" EXIST WITHIN THIS PROJECT AREAS. THE ISSUE OF "WATERS OF THE UNITED STATES" AND "WETLANDS" FALLS UNDER THE CORP OF ENGINEERS (COE) TULSA DISTRICT REGULATORY DIVISION, BUT THE CITY IS OBLIGATED TO ENSURE THAT ALL NECESSARY STATE AND FEDERAL PERMITS HAVE BEEN OBTAINED, PURSUANT TO 40CFR 122.21 THEREFORE, THE APPLICANT IS REQUIRED TO SUBMIT DOCUMENTATION FROM THE COE SHOWING COE APPROVAL FOR PROPOSED WORK, IF APPLICABLE.
- LIST EROSION CONTROL QUANTITIES AND WHO WILL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE EROSION CONTROLS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- A COPY OF THE EROSION CONTROL SITE PLAN MUST ALWAYS BE ON SITE AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST.
- BLOCK OFF ACCESS OR ADD CONSTRUCTION ENTRANCE.
- A MINIMUM OF 18" OF SOD IS REQUIRED ALONG ALL CURBS & FLUMES.
- THE CONTRACTOR MAY BE REQUIRED TO INSTALL ADDITIONAL EROSION CONTROL DEVICES BEFORE FLUSHING WATERLINE TO MINIMIZE EROSION AND TO REMAIN IN COMPLIANCE WITH STORM WATER QUALITY REQUIREMENTS.
- IF A FLOODPLAIN ACTIVITY (FPA) PERMIT IS REQUIRED FOR THIS PROJECT. THIS PERMIT MUST BE OBTAINED BEFORE A STORM WATER QUALITY (SWQ) PERMIT WILL BE ISSUED.
- A NOTICE OF INTENT (NOI) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHOULD BE SUBMITTED 30 DAYS PRIOR TO THE INITIAL DISTURBANCE OF SOILS.

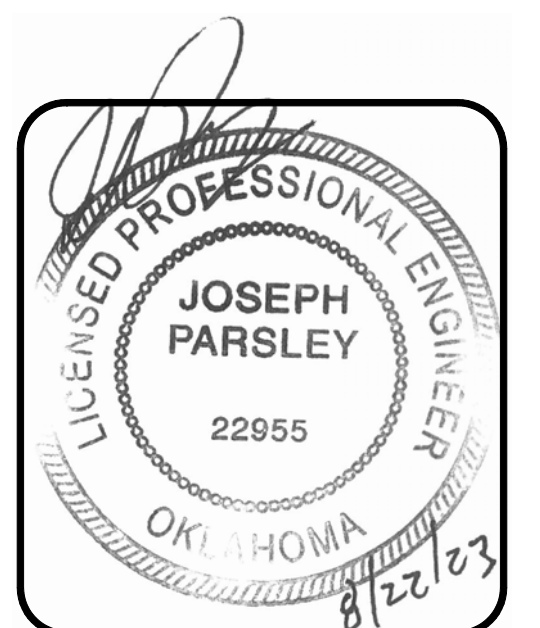
INDEX OF SHEETS

SHEET	TITLE
SHEET 1	TITLE SHEET
SHEET 2	ALTA/NSPS LAND TITLE SURVEY
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SHEET 4	PHASE II EROSION & SEDIMENTATION CONTROL PLAN (SHEET 1 OF 2)
SHEET 5	EROSION CONTROL DETAILS
SHEET 6	EROSION CONTROL DETAILS
SHEET 7	SITE PLAN
SHEET 8	GRADING PLAN (SHEET 1 OF 2)
SHEET 9	GRADING PLAN (SHEET 2 OF 2)
SHEET 10	UTILITY PLAN
SHEET 11	PLANTING PLAN
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SHEET 13	PLANTING ENLARGEMENTS (SHEET 2 OF 2)
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SHEET 15	IRRIGATION PLAN
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SHEET 18	IRRIGATION DETAILS
SHEET 19	CIVIL DETAILS
SHEET 20	CIVIL DETAILS
SHEET 21	CIVIL DETAILS
SHEET 22	CIVIL DETAILS
SHEET 23	CITY WATER DETAILS
SHEET 24	CITY WATER DETAILS



CARLSON
CONSULTING
ENGINEERS, INC.

7068 LedgeStone Commons, Bartlett, TN 38133
Phone (901) 384-0404 • Fax (901) 384-0710
Oklahoma Registered Engineering Firm CA 3224
(EXPIRES: 30 JUNE, 2022)



ENGINEER OF RECORD

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.

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.

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.

DEVELOPER:
IRONWOOD DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
(417) 882-1701

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

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

ACREAGE SUMMARY

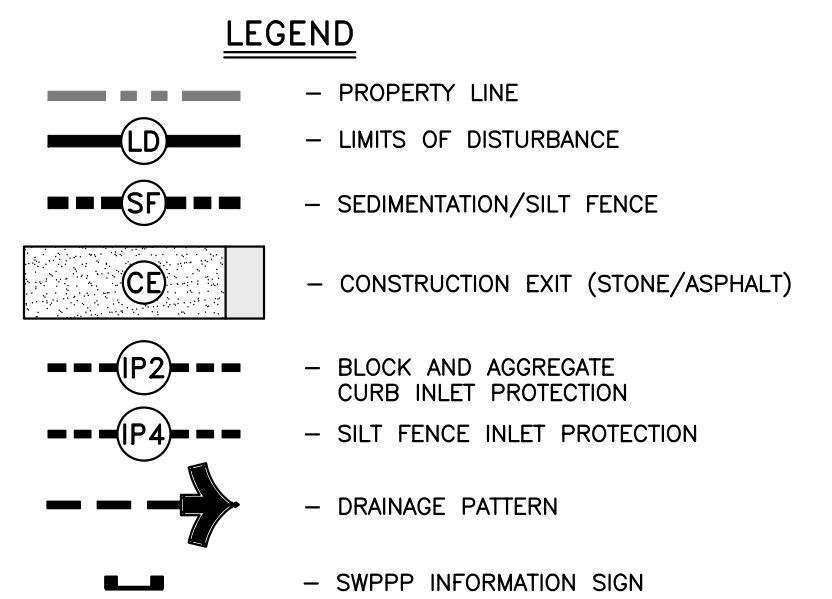
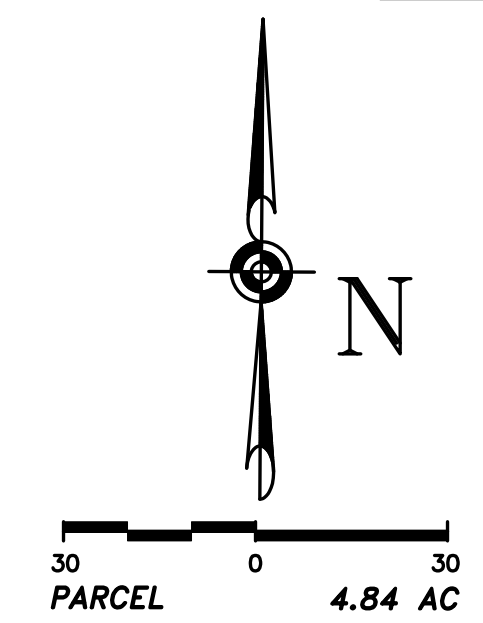
TOTAL PROJECT AREA	4.84 ACRES
ON-SITE DISTURBED AREA	4.84 ACRES
OFF-SITE DISTURBED AREA	0.00 ACRES
TOTAL DISTURBED AREA	4.84 ACRES
IMPERVIOUS AREA AT COMPLETION	2.95 ACRES
PERVIOUS/SEEDED AREA AT COMPLETION	1.89 ACRES
TOTAL AREA	4.84 ACRES

PHASE I EROSION & SEDIMENTATION CONTROL PLAN SHEET 1 OF 4, MUST BE POSTED IN JOB TRAILER.

ISSUED FOR CONSTRUCTION

NO	REVISIONS

PROJECT BENCHMARKS
TBM #1 - IRON REBAR SET WITH TRAVERSE CAP
ELEV: 1204.16
TBM #2 - IRON REBAR FOUND
ELEV: 1228.78

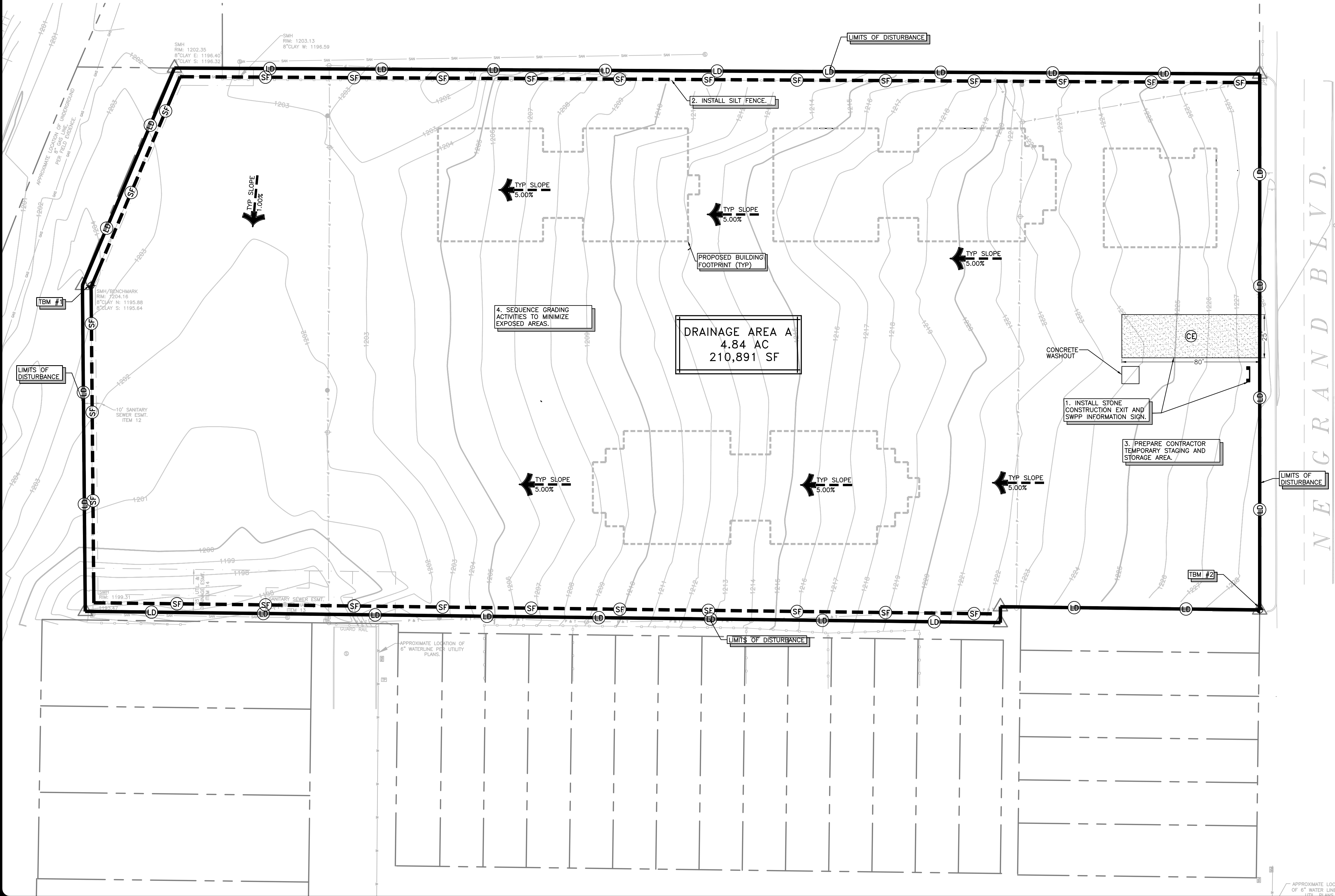


BEST MANAGEMENT PRACTICES SEQUENCE

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 IN ALL AREAS SHOWN. BMP'S 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.



DEVELOPER:
IRONWOOD DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH: (417) 882-1701

PHASE I EROSION & SEDIMENTATION CONTROL PLAN
CROSSROADS AT N.E. GRAND BLVD. OKLAHOMA CITY, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
1058 Lakeshore Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710



DRAWN	DPS
CHECKED	TB
DATE	09/19/2023
SCALE	1"=30'
JOB No.	N/A
SHEET	3 OF 24 SHEET

C2.0

PHASE I EROSION & SEDIMENTATION CONTROL PLAN
SHEET 2 OF 4, MUST BE POSTED IN JOB TRAILER.

ISSUED FOR
CONSTRUCTION

NO	REVISIONS

SILT FENCE LOCATION
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LIMITS OF DISTURBANCE
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SPECIFICATIONS REQUIREMENTS
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DEVELOPER:
IRONWOOD DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65804
(417) 882-1701

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

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

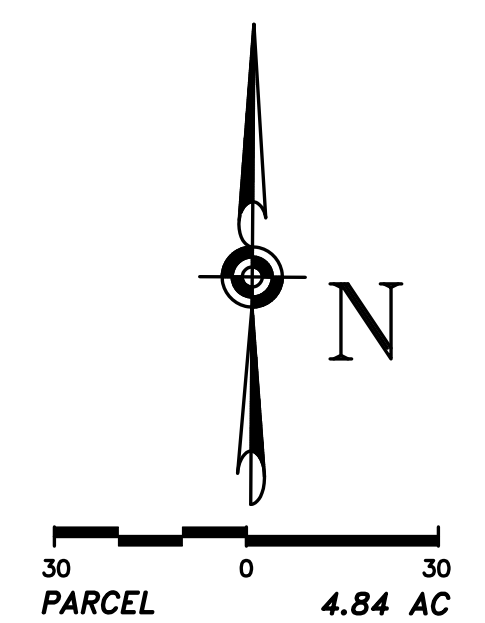
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TOTAL PROJECT AREA	4.84 ACRES
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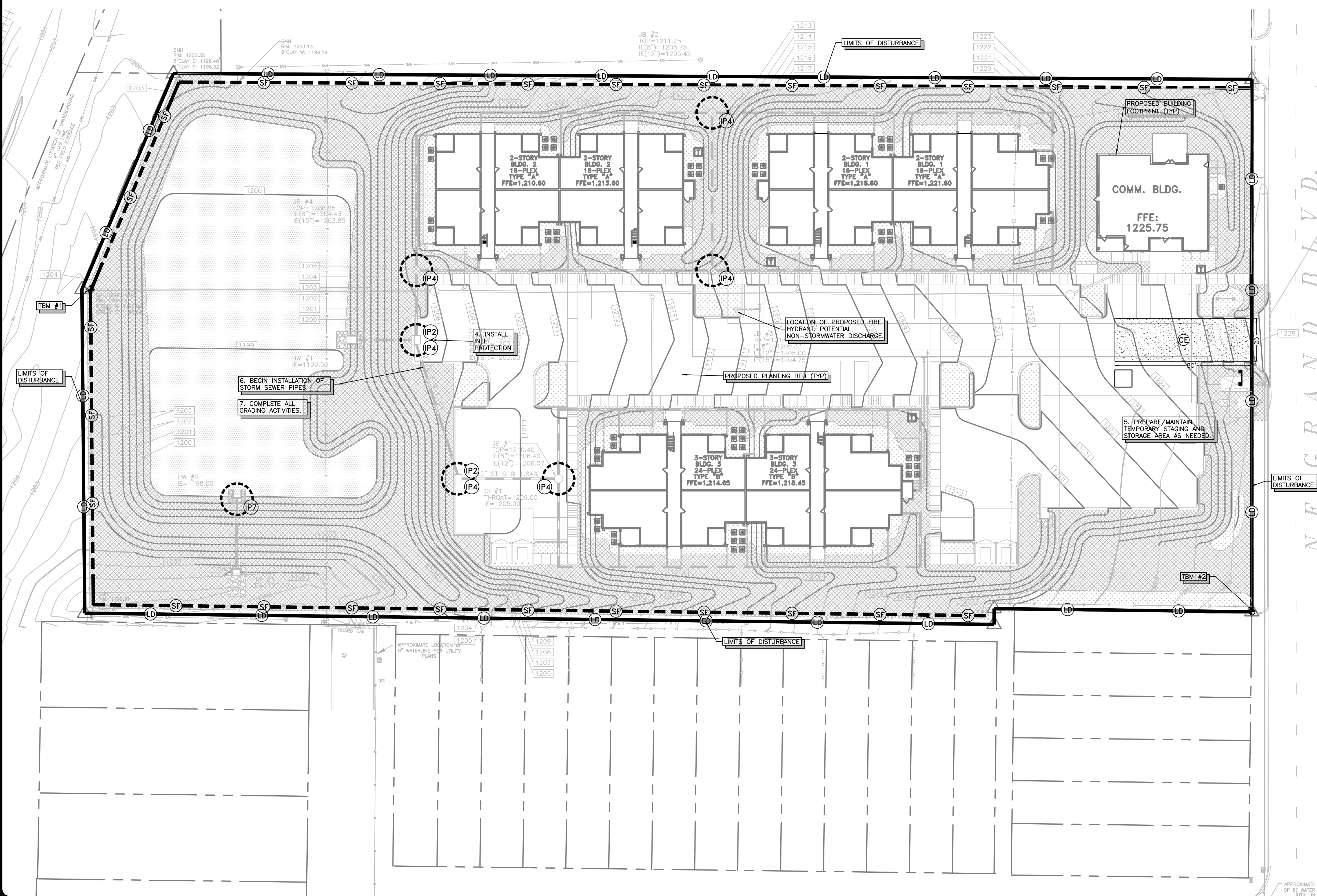
PROJECT BENCHMARKS

TBM #1 - IRON REBAR SET WITH TRAVERSE CAP
ELEV: 1204.16

TBM #2 - IRON REBAR FOUND
ELEV: 1228.78



- LEGEND**
- PROPERTY LINE
 - LD --- LIMITS OF DISTURBANCE
 - SF --- SEDIMENTATION/SILT FENCE
 - CE --- CONSTRUCTION EXIT (STONE/ASPHALT)
 - IP2 --- BLOCK AND AGGREGATE CURB INLET PROTECTION
 - IP4 --- SILT FENCE INLET PROTECTION
 - IP7 --- INLET HEADWALL SEDIMENTATION PROTECTION
 - RIP-RAP PAD
 - SEEDED AREA
 - SODDED AREA
 - PLANTING BED: MULCH, GROUNDCOVER, ETC. SEE PLANTING PLAN FOR SPECIFIC INFORMATION
 - SWPPP INFORMATION SIGN



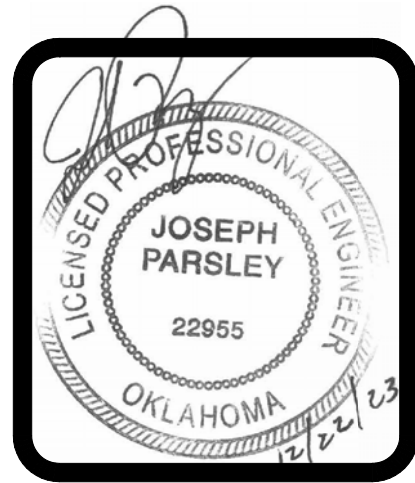
- BEST MANAGEMENT PRACTICES SEQUENCE**
- NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC. IMMEDIATELY DENOTE THEM ON THE SITE MAPS 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 II - EROSION CONTROL SEQUENCING**
1. CONSTRUCT DETENTION BASIN TO USE AS A SEDIMENT TRAP.
 2. BEGIN GRADING ACTIVITIES IN THE BUILDING AND PARKING AREAS.
 3. TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION, DENUDE AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE. ALL AREAS AT FINAL GRADE MUST BE PAVED OR STABILIZED WITH SPECIFIED GROUNDCOVER PER LANDSCAPE PLAN WITHIN 14 DAYS AFTER COMPLETION OF WORK IN THESE AREAS.
 4. INSTALL, REPLACE, REPAIR, OR MAINTAIN SILT FENCE, STONE CONSTRUCTION EXIT, AND SWPPP INFORMATION SIGN AS NEEDED.
 5. MAINTAIN TEMPORARY STAGING AND STORAGE AREA AS NEEDED.
 6. BEGIN INSTALLATION OF STORMWATER PIPES WITH INLET PROTECTION AS SOON AS POSSIBLE FOR USE AS SEDIMENT TRAPS.
 7. COMPLETE ALL GRADING ACTIVITIES AT THIS TIME.
 8. IMMEDIATELY INSTALL PERMANENT GROUNDCOVER, FERTILIZE, MULCH, AND WATER AREAS IN ACCORDANCE WITH THE PLANTING PLAN AND SITEMARK SPECIFICATIONS.
 9. CONTINUE INSPECTION REQUIREMENTS UNTIL FINAL STABILIZATION HAS BEEN OBTAINED AND THE NOTICE OF TERMINATION HAS BEEN FILED PER THE GENERAL PERMIT.

DEVELOPER:
IRONWOOD DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH: (417) 882-1701

PHASE II EROSION & SEDIMENTATION CONTROL PLAN

CROSSROADS AT N.E. GRAND BLVD. OKLAHOMA CITY, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
1058 Westmoreland Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710

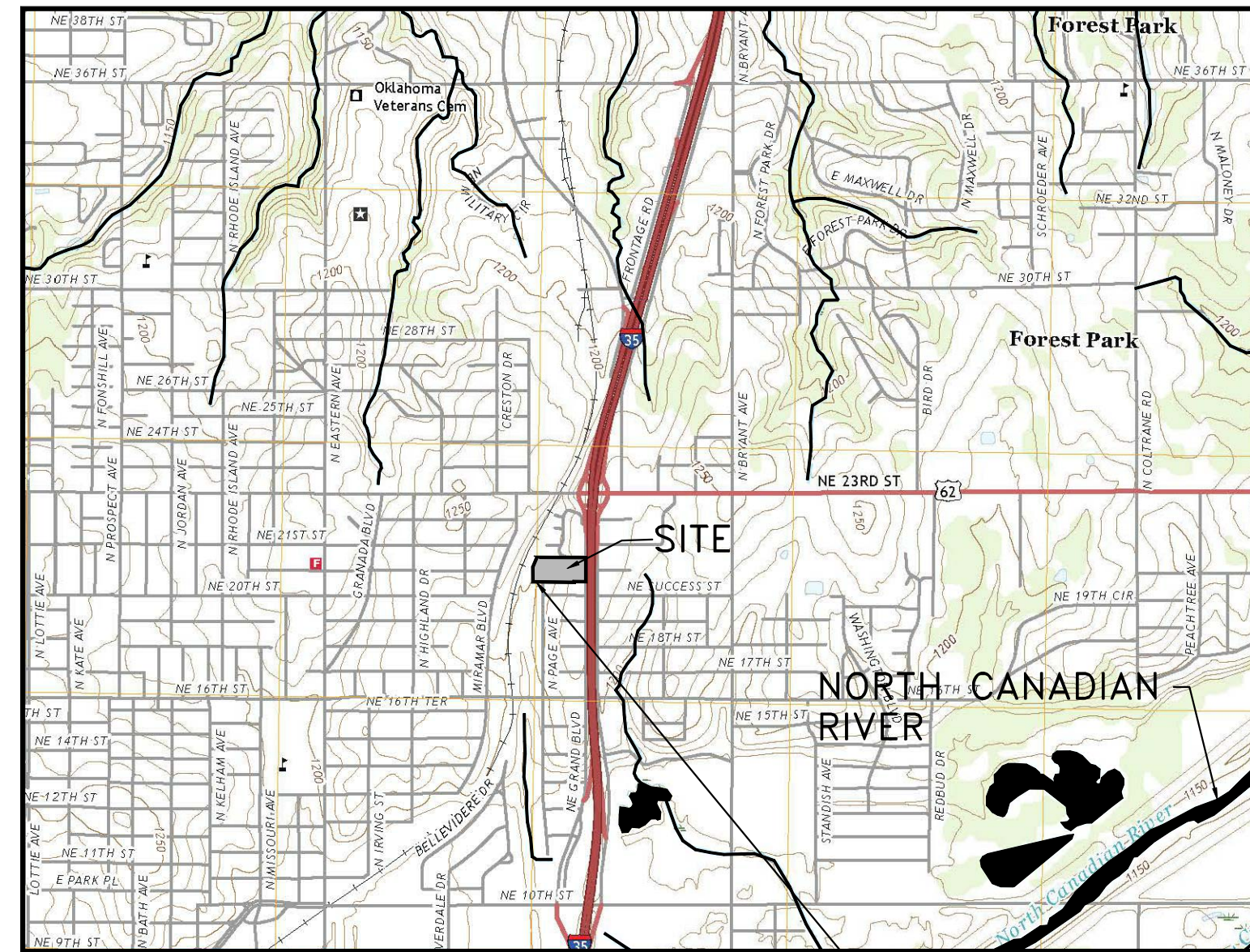


DRAWN	DPS
CHECKED	TB
DATE	09/19/2023
SCALE	1"=30'
JOB No.	N/A
SHEET	4 OF 24 SHEET

C2.1

- NOTES:**
- THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("SITE MAP"), THE STANDARD DETAILS, SPECIFICATIONS SECTION 02370 ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
 - ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
 - CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
 - BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
 - SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS, PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
 - CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
 - GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND ARE FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. CONTRACTOR SHALL CONSTRUCT TEMPORARY BERM ON DOWN STREAM SIDES IN COMPLIANCE WITH 02370 SPECIFICATION.
 - ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
 - SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
 - DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
 - RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS MUST NOT BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
 - ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
 - ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE, MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST-GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS AS SHOWN ON SITE MAP.
 - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SOODED, AND/OR VEGETATED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR PLANTING PLAN.
 - IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
 - ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
 - CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
 - ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGHOUT THE IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
 - SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
 - DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCE, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
 - SEE SITE PLAN FOR PERMANENT SIGNAGE.
 - GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
 - REFER TO THE SWPPP FOR REPORTABLE SPILL QUANTITIES OF PETROLEUM PRODUCTS AND/OR HAZARDOUS WASTES.
 - CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.
 - REFER TO 02370 SPECIFICATION FOR RUN-OFF SAMPLING/MONITORING REQUIREMENTS IF APPLICABLE TO SITE DURING CONSTRUCTION.

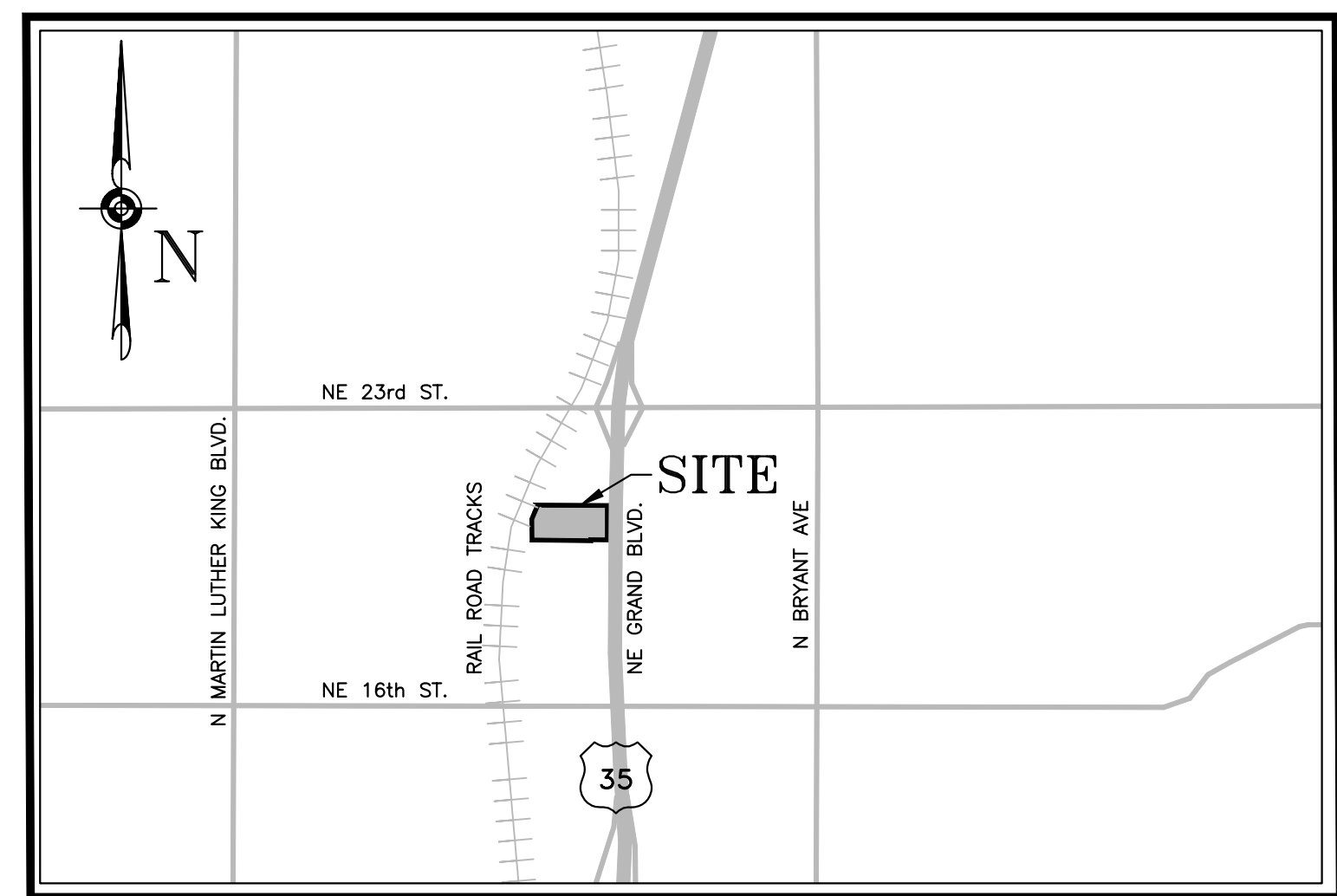
- MAINTENANCE REQUIREMENTS:**
- ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
 - ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEED AS NEEDED.
 - SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
 - THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT AS CONDITIONS DEMAND.
 - THE TEMPORARY PARKING AND STORAGE AREAS SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
 - PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS, AND DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.



USGS QUADRANGLE MAP
SCALE: 1"=2,000'

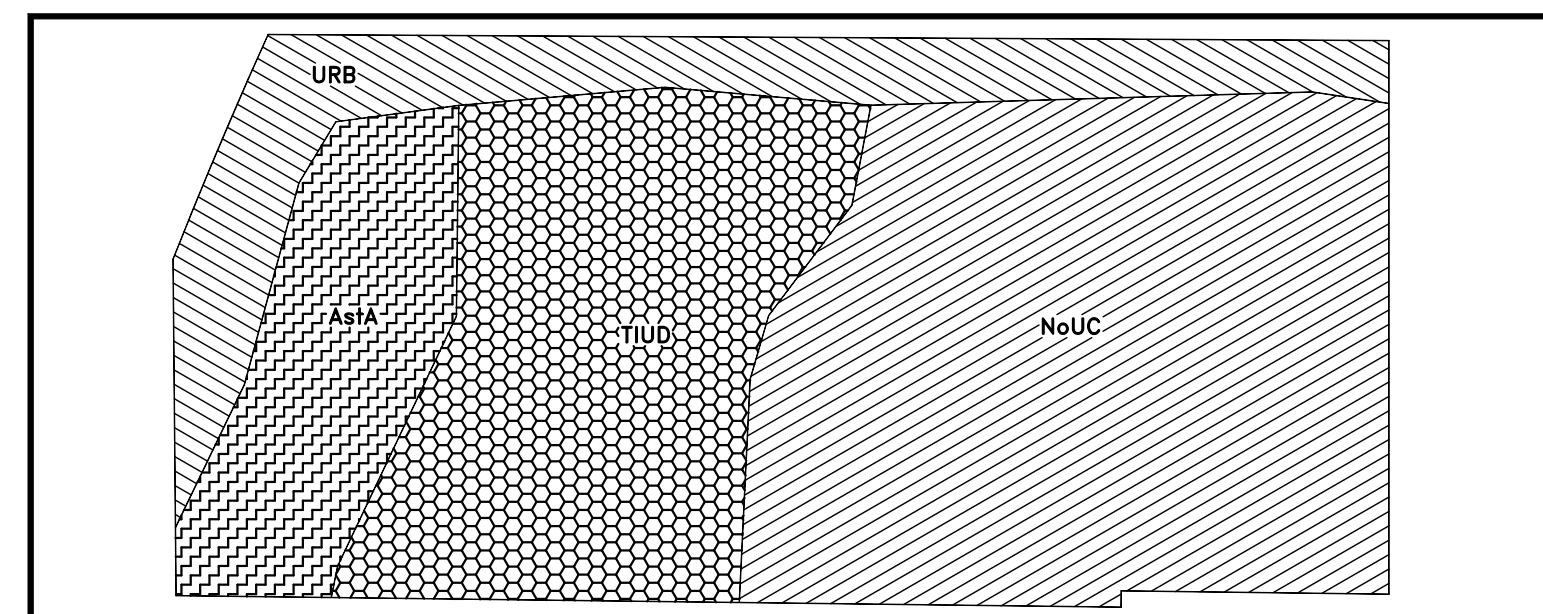
STORMWATER OUTFLOW
STORMWATER FROM THE SITE DISCHARGES INTO AN UNNAMED TRIBUTARY AT THE SOUTHWEST CORNER. THE TRIBUTARY DISCHARGES INTO THE NORTH CANADIAN RIVER, THE ULTIMATE RECEIVING WATERS, 1.4 MILES TO THE SOUTHEAST.

QUADRANGLE MAP



VICINITY MAP
NTS

VICINITY MAP



SOIL MAP
NTS

SOIL SURVEY AREA MAP UNIT SYMBOL	SOIL NAME	SLOPES HYDRIC CLASSIFICATION
As1A	ASHPORT SILT LOAM	0-1% NON-HYDRIC
NoUC	NORGE-URBAN LAND COMPLEX	1-5% NON-HYDRIC
TIUD	TELLER-URBAN LAND COMPLEX	1-8% NON-HYDRIC
URB	URBAN LAND	0% NON-HYDRIC

SOIL MAP

EROSION CONTROL DETAILS,
SHEET 3 OF 4, MUST BE POSTED IN JOB TRAILER.

ISSUED FOR
CONSTRUCTION

NO	REVISIONS

HAZARDOUS MATERIAL MANAGEMENT & SPILL REPORTING

ANY HAZARDOUS OR POTENTIALLY HAZARDOUS MATERIAL THAT IS BROUGHT ONTO THE CONSTRUCTION SITE SHALL BE HANDLED PROPERLY TO REDUCE THE POTENTIAL FOR STORMWATER POLLUTION. ALL MATERIALS USED ON THIS CONSTRUCTION SITE SHALL BE PROPERLY STORED, HANDLED, DISPENSED AND DISPOSED OF FOLLOWING ALL APPLICABLE LABEL DIRECTIONS, FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE STORED AND HANDLED ACCORDING TO APPLICABLE REGULATIONS, AND, AT A MINIMUM, ACCORDING TO 29 CFR 1926.152. ONLY APPROVED CONTAINERS AND PORTABLE TANKS SHALL BE USED FOR STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.

MATERIAL SAFETY DATA SHEETS (MSDS) INFORMATION SHALL BE KEPT ON SITE FOR ANY AND ALL APPLICABLE MATERIALS. HOWEVER, MSDS MAY ALSO BE ACCESSED VIA TELEPHONE OR OTHER ELECTRONIC MEANS OR APPARATUS.

IN THE EVENT OF AN ACCIDENTAL SPILL, IMMEDIATE ACTION SHALL BE TAKEN BY THE GC TO CONTAIN AND REMOVE THE SPILLED MATERIAL. THE SPILL SHALL BE REPORTED TO THE APPROPRIATE AGENCIES IN THE REQUIRED TIME FRAMES, AS REQUIRED UNDER THE PROVISIONS OF THE CLEAN WATER ACT, ANY SPILL OR DISCHARGE ENTERING WATERS OF THE UNITED STATES SHALL BE PROPERLY REPORTED.

ALL HAZARDOUS MATERIALS, INCLUDING CONTAMINATED SOIL AND LIQUID CONCRETE WASTE, SHALL BE DISPOSED OF BY THE CONTRACTOR IN THE MANNER SPECIFIED BY FEDERAL, STATE AND LOCAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS.

THE GC SHALL PREPARE A WRITTEN RECORD OF ANY SPILL AND ASSOCIATED CLEAN-UP ACTIVITIES OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF 1 GALLON OR REPORTABLE QUANTITIES, WHICHEVER IS LESS, ON THE DAY OF THE SPILL. THE GC SHALL PROVIDE NOTICE TO OWNER, VIA THE ONLINE CRITICAL INCIDENT REPORT, IMMEDIATELY UPON IDENTIFICATION OF ANY SPILL. SPILL REPORT FORMS ARE AVAILABLE IN THE ONLINE SWPPP REPORTING SYSTEM PROVIDED BY THE OWNER. COPIES OF SPILL CRITICAL INCIDENT REPORTS SHALL BE PRINTED AND MAINTAINED IN THE JOBSITE BINDER.

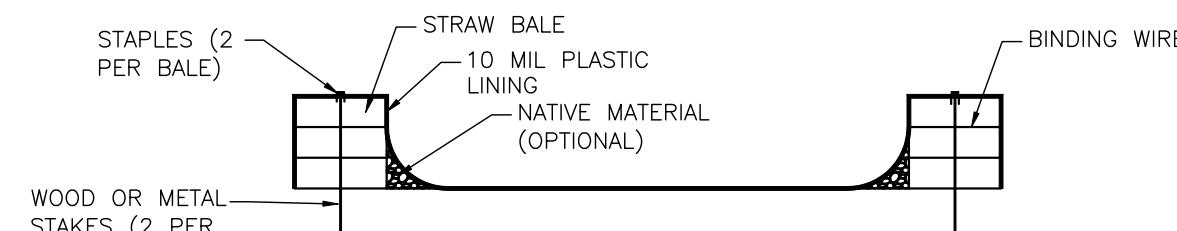
ANY SPILLS OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF REPORTABLE QUANTITIES AS DEFINED BY EPA OR THE STATE OR LOCAL AGENCY REGULATIONS, SHALL BE IMMEDIATELY REPORTED TO THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802) AND THE COUNTY LOCAL EMERGENCY PLANNING COMMITTEE (405) 713-1360.

OKLAHOMA DEQ AND THE OKLAHOMA CORPORATION COMMISSION MUST BE NOTIFIED BY PHONE WITHIN 24 HOURS OF SPILL AND A WRITTEN REPORT FILED WITHIN 20 DAYS.

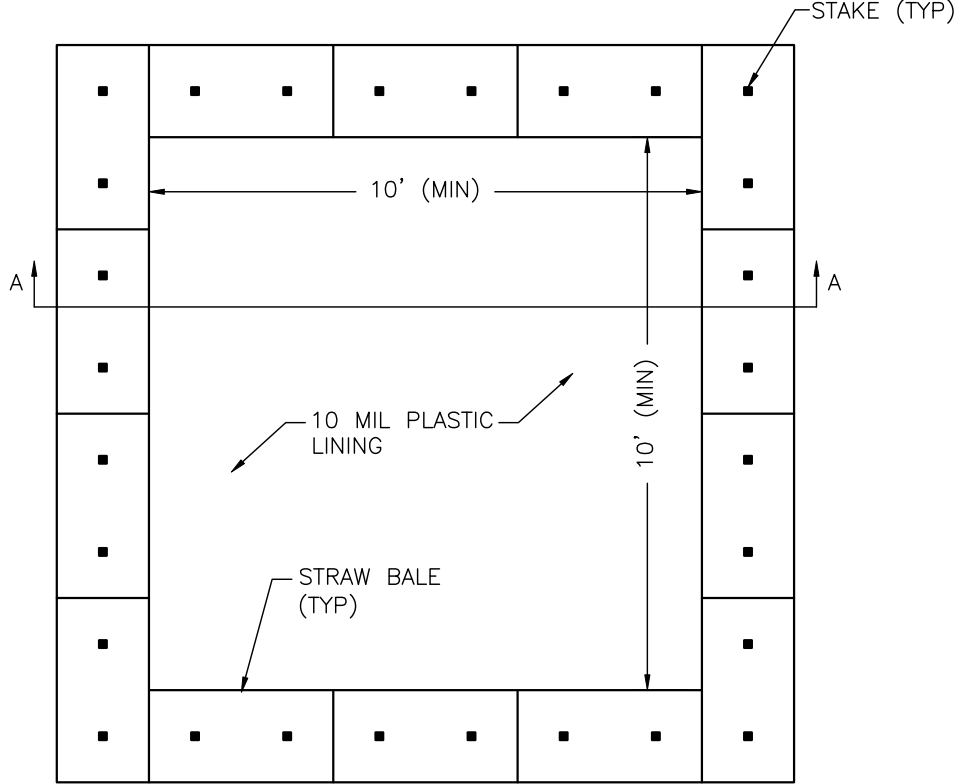
THE REPORTABLE QUANTITY FOR HAZARDOUS MATERIALS CAN BE FOUND IN 40 CFR 302.

TO MINIMIZE THE POTENTIAL FOR A SPILL OF PETROLEUM PRODUCT OR HAZARDOUS MATERIALS TO COME IN CONTACT WITH STORMWATER, THE FOLLOWING STEPS SHALL BE IMPLEMENTED:

- ALL MATERIALS WITH HAZARDOUS PROPERTIES, SUCH AS PESTICIDES, PETROLEUM PRODUCTS, FERTILIZERS, SOAPS, DETERGENTS, CONSTRUCTION CHEMICALS, ACIDS, BASES, PAINTS, PAINT SOLVENTS, ADDITIVES FOR SOIL STABILIZATION, CONCRETE, CURING COMPOUNDS AND ADDITIVES, ETC., SHALL BE STORED IN A SECURE LOCATION, UNDER COVER AND IN APPROPRIATE, TIGHTLY SEALED CONTAINERS WHEN NOT IN USE.
- THE MINIMUM PRACTICAL QUANTITY OF ALL SUCH MATERIALS SHALL BE KEPT ON THE JOB SITE AND SCHEDULED FOR DELIVERY AS CLOSE TO TIME OF USE AS PRACTICAL.
- A SPILL CONTROL AND CONTAINMENT KIT (CONTAINING FOR EXAMPLE, ABSORBENT MATERIAL SUCH AS KITTY LITTER OR SAWDUST, ACID, BASE, NEUTRALIZING AGENT, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, PLASTIC AND METAL TRASH CONTAINERS, ETC.) SHALL BE PROVIDED AT THE CONSTRUCTION SITE AND ITS LOCATION(S) SHALL BE IDENTIFIED WITH LEGIBLE SIGNAGE AND SHOWN ON SITE MAPS.
 - THE SPILL CONTROL AND CONTAINMENT KIT SUPPLIES SHALL BE OF SUFFICIENT QUANTITIES AND APPROPRIATE CONTENT TO CONTAIN A SPILL FROM THE LARGEST ANTICIPATED PIECE OF EQUIPMENT AND FROM THE LARGEST ANTICIPATED QUANTITIES OF PRODUCTS STORED ON THE SITE AT ANY GIVEN TIME.
 - CONTENTS SHALL BE INSPECTED DAILY DURING THE DAILY STORMWATER INSPECTION.
- ALL PRODUCTS SHALL BE STORED IN AND USED FROM THE ORIGINAL CONTAINER WITH THE ORIGINAL PRODUCT LABEL. CONTAINERS MUST BE STORED IN A MANNER TO PROTECT THEM FROM THE ELEMENTS AND INCIDENTAL DAMAGE.
- ALL PRODUCTS SHALL BE USED IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL.
- THE DISPOSAL OF EXCESS OR USED PRODUCTS SHALL BE IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL AND REGULATIONS.



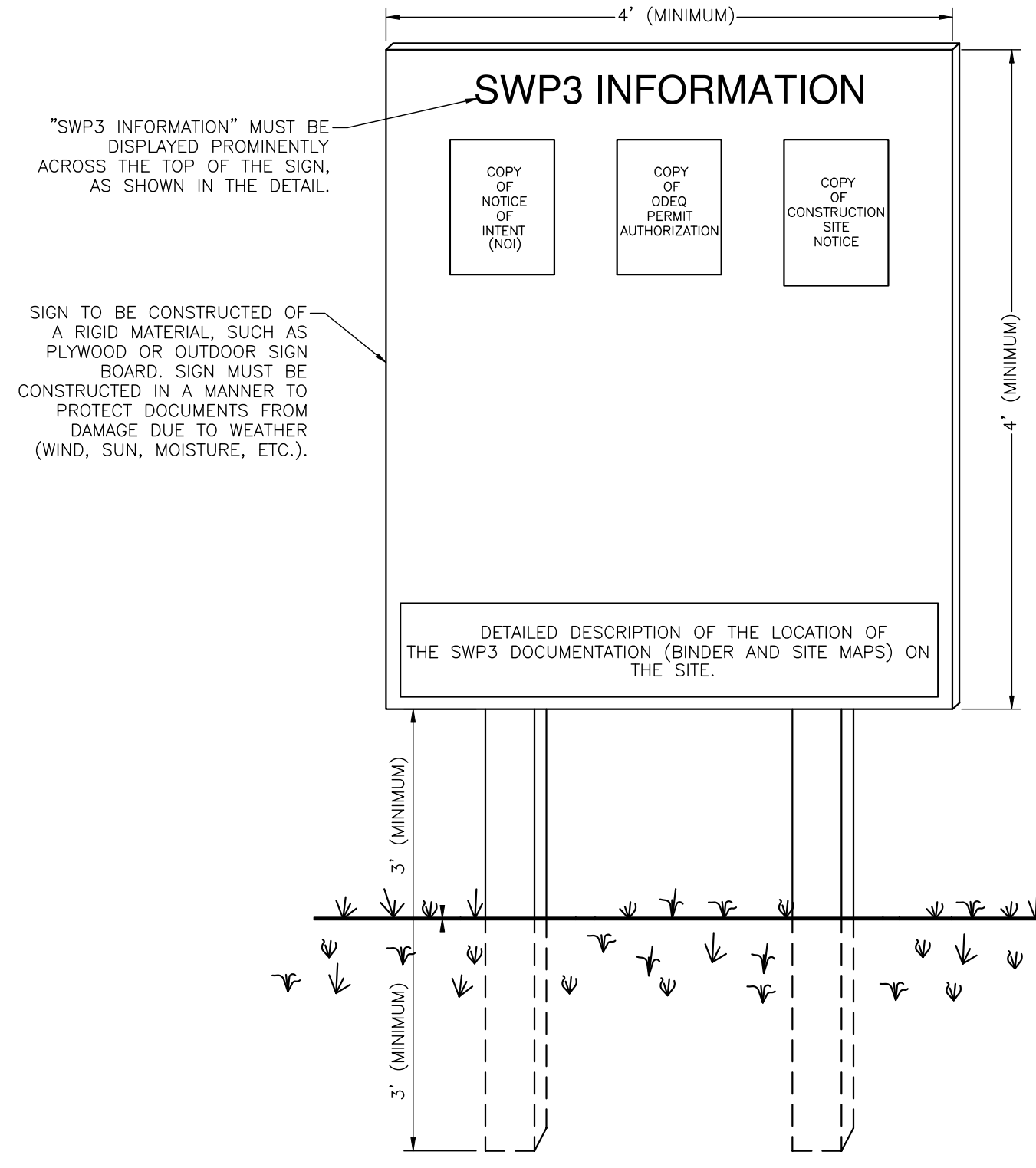
SECTION A-A



PLAN VIEW

CW CONCRETE WASHOUT
N.T.S.

CONCRETE WASHOUT DETAIL



- 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.
 - THE 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.

SWPPP INFORMATION SIGN

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. 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.

C2.2

DEVELOPER:
IRONWOOD DEVELOPMENT, LLC
35566 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH. (417) 882-1701

EROSION CONTROL DETAILS
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
1708A Wedgewood Commons
Bartlett, TN 38133
Phone (601) 984-0404
Fax (601) 984-0710

JOSEPH PARSELY
22995
LICENSED PROFESSIONAL ENGINEER
OKLAHOMA

DRAWN
DPS
CHECKED
TB
DATE
09/19/2023
SCALE
1"=30'
JOB No.
N/A
SHEET
5 OF 24 SHEET

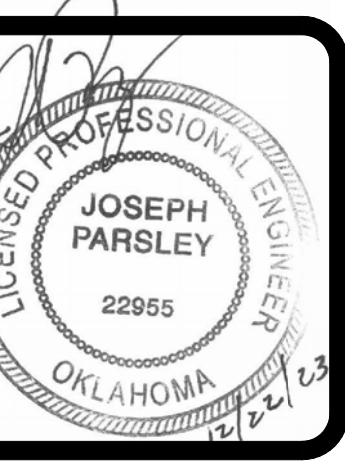
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NO	REVISIONS

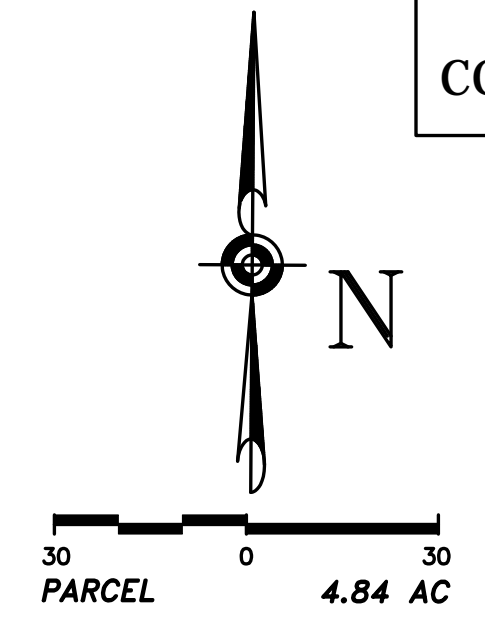
DEVELOPER:
IRONWOOD DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH: (417) 882-1701

SITE PLAN
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
1058 Westchase Commons
Bartlett, TN 38133
Phone (901) 384-0404
Fax (901) 384-0710



DRAWN	DPS
CHECKED	TB
DATE	09/19/2023
SCALE	1"=30'
JOB No.	N/A
SHEET	7 OF 24 SHEET



LEGEND

- PROPERTY LINE
- - - - - APPROXIMATE SAWCUT LIMITS
- [Pattern] BUILDING SIDEWALK/PATIO (REFERENCE ARCHITECTURAL PLAN)
- [Pattern] HEAVY DUTY CONCRETE
- [Pattern] HEAVY DUTY ASPHALT
- [Pattern] STANDARD DUTY ASPHALT
- [Symbol] HANDICAP PARKING SYMBOL
- [Symbol] 6" RAISED CONCRETE CURB
- [Symbol] PARKING COUNT
- [Symbol] SIGN
- [Symbol] TRANSFORMER
- [Symbol] LIGHT POLE W/ DOUBLE FIXTURES
- [Symbol] HVAC UNIT

PROJECT INFORMATION

GROSS UNIT DATA

BLDG '1' & '2'		
1 BEDROOM / 1 BATH	12	
2 BEDROOM / 1 BATH	16	
3 BEDROOM / 2 BATH	4	
TOTAL UNITS	32	
BLDG '3'		
2 BEDROOM / 1 BATH	12	
3 BEDROOM / 2 BATH	12	
TOTAL UNITS	24	
BLDG 'D' OFFICE/COMMUNITY BUILDING (2,961 SF)	1	

ACCESSIBLE UNITS - 4 REQUIRED/PROVIDED:
(1) 1 BEDROOM / 1 BATH UNIT
(1) 2 BEDROOM / 1 BATH UNIT
(2) 3 BEDROOM / 2 BATH UNITS

HEARING/VISUALLY IMPAIRED UNITS - 2 REQUIRED/PROVIDED:
(1) 1 BEDROOM / 1 BATH UNIT
(1) 2 BEDROOM / 1 BATH UNIT

PARKING DATA

REQUIRED PARKING:		
COMMUNITY BUILDING (2,961 SF) 1/300 SF	10 SPACES	
MULTI-FAMILY RESIDENTIAL:		
1.5 SPACES / 1 BEDROOM UNIT	18 SPACES	
2 SPACES / 2 OR MORE BEDROOM UNITS	88 SPACES	
TOTAL	116 SPACES	
PROVIDED PARKING:		
COMMUNITY BUILDING + MULTI-FAMILY RESIDENTIAL	118 SPACES	
ACCESSIBLE PARKING STALLS REQUIRED:	5 SPACES	
ACCESSIBLE PARKING STALLS PROVIDED:	7 SPACES	

SITE INFORMATION

LAND AREA:	4.9 AC (TOTAL)
EXISTING USE:	VACANT
CURRENT ZONING:	PUD
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL
PROPOSED ZONING:	N/A
DENSITY:	11.4 UNITS PER ACRE

LOT INFORMATION

REGULATIONS WITHIN THE PUD DISTRICT	
MINIMUM LOT AREA:	7,500 SF
MINIMUM LOT WIDTH:	100 FEET
MINIMUM FRONT YARD:	25 FEET
MINIMUM REAR YARD:	15 FEET
MINIMUM SIDE YARD:	5 FEET

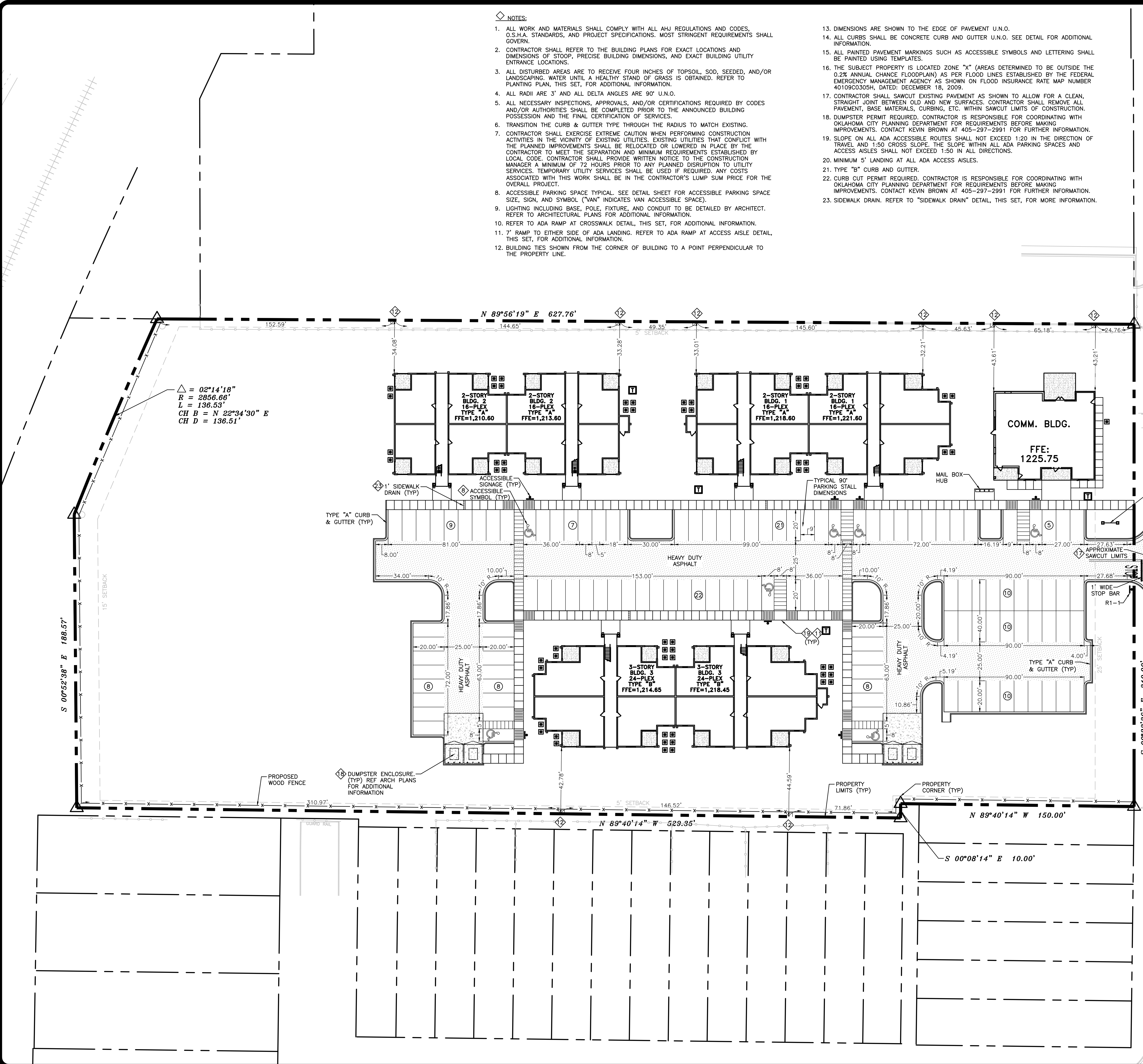
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C3.1

NOTES:

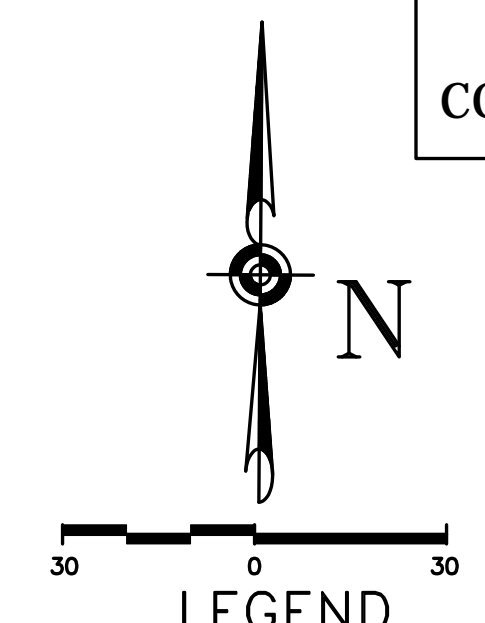
- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL AHJ REGULATIONS AND CODES, O.S.H.A. STANDARDS, AND PROJECT SPECIFICATIONS. MOST STRINGENT REQUIREMENTS SHALL GOVERN.
- CONTRACTOR SHALL REFER TO THE BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF STOOP, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SOD, SEED, 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.
- TRANSITION THE CURB & GUTTER TYPE THROUGH THE RADIUS TO MATCH EXISTING.
- 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.
- ACCESSIBLE PARKING SPACE TYPICAL. SEE DETAIL SHEET FOR ACCESSIBLE PARKING SPACE SIZE, SIGN, AND SYMBOL ("VAN" INDICATES VAN ACCESSIBLE SPACE).
- LIGHTING INCLUDING BASE, POLE, FIXTURE, AND CONDUIT TO BE DETAILED BY ARCHITECT. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
- REFER TO ADA RAMP AT CROSSWALK DETAIL, THIS SET, FOR ADDITIONAL INFORMATION.
- 7' RAMP TO EITHER SIDE OF ADA LANDING. REFER TO ADA RAMP AT ACCESS AISLE DETAIL, THIS SET, FOR ADDITIONAL INFORMATION.
- BUILDING TIES SHOWN FROM THE CORNER OF BUILDING TO A POINT PERPENDICULAR TO THE PROPERTY LINE.
- DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT U.N.O.
- ALL CURBS SHALL BE CONCRETE CURB AND GUTTER U.N.O. SEE DETAIL FOR ADDITIONAL INFORMATION.
- ALL PAINTED PAVEMENT MARKINGS SUCH AS ACCESSIBLE SYMBOLS AND LETTERING SHALL BE PAINTED USING TEMPLATES.
- 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 4010900305H, DATED: DECEMBER 18, 2009.
- CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT AS SHOWN TO ALLOW FOR A CLEAN, STRAIGHT JOINT BETWEEN OLD AND NEW SURFACES. CONTRACTOR SHALL REMOVE ALL PAVEMENT, BASE MATERIALS, CURBING, ETC. WITHIN SAWCUT LIMITS OF CONSTRUCTION.
- DUMPSTER PERMIT REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH OKLAHOMA CITY PLANNING DEPARTMENT FOR REQUIREMENTS BEFORE MAKING IMPROVEMENTS. CONTACT KEVIN BROWN AT 405-297-2991 FOR FURTHER INFORMATION.
- SLOPE ON ALL ADA ACCESSIBLE ROUTES SHALL NOT EXCEED 1:20 IN THE DIRECTION OF TRAVEL AND 1:50 CROSS SLOPE. THE SLOPE WITHIN ALL ADA PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 1:50 IN ALL DIRECTIONS.
- MINIMUM 5' LANDING AT ALL ADA ACCESS AISLES.
- TYPE "B" CURB AND GUTTER.
- CURB CUT PERMIT REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH OKLAHOMA CITY PLANNING DEPARTMENT FOR REQUIREMENTS BEFORE MAKING IMPROVEMENTS. CONTACT KEVIN BROWN AT 405-297-2991 FOR FURTHER INFORMATION.
- SIDEWALK DRAIN. REFER TO "SIDEWALK DRAIN" DETAIL, THIS SET, FOR MORE INFORMATION.

$\Delta = 02^{\circ}14'18''$
 $R = 2856.66'$
 $L = 136.53'$
 $CH B = N 22^{\circ}34'30'' E$
 $CH D = 136.51'$



ISSUED FOR CONSTRUCTION

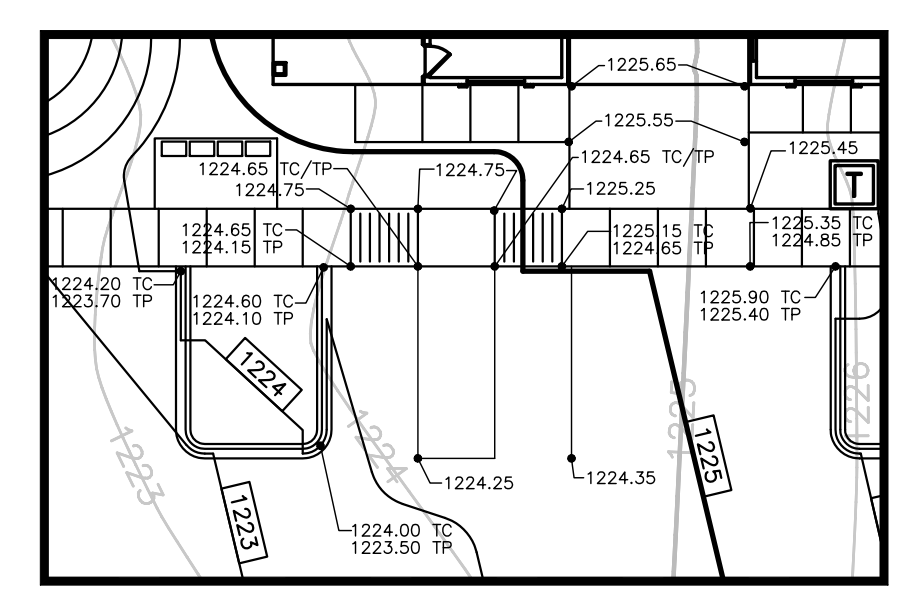
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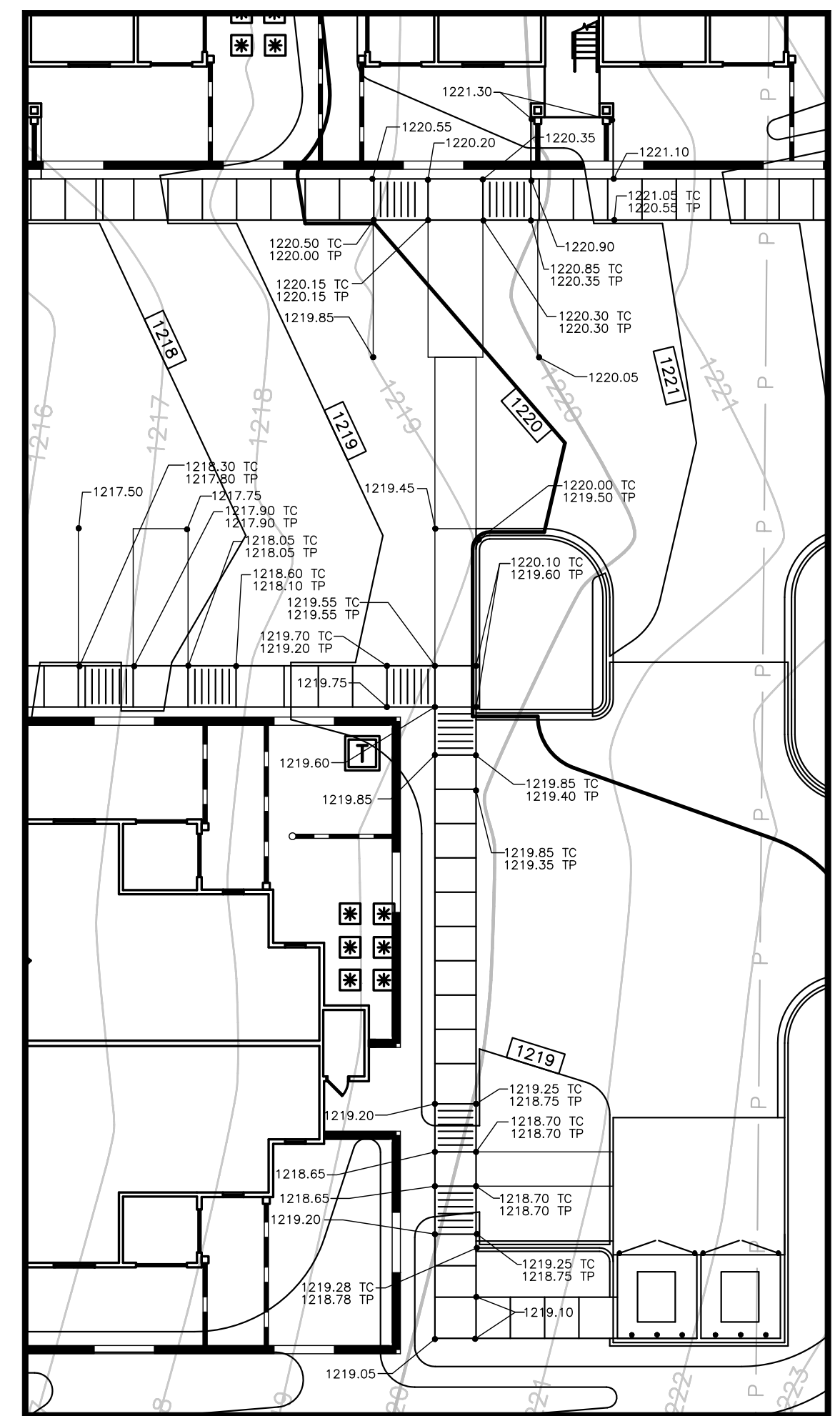
- LEGEND**
- - - - - PROPERTY LINE
 - - - - - STORM SEWER
 - CURB INLET/CATCH BASIN
 - JUNCTION BOX
 - CLEAN OUT
 - ▭ HEADWALL
 - ▭ RIP-RAP
 - SPOT ELEVATION
 - HP HIGH POINT
 - TC TOP OF CURB
 - TG TOP OF GROUND
 - TP TOP OF PAVEMENT
 - - - - - TREE PROTECTION FENCE

◆ NOTES:

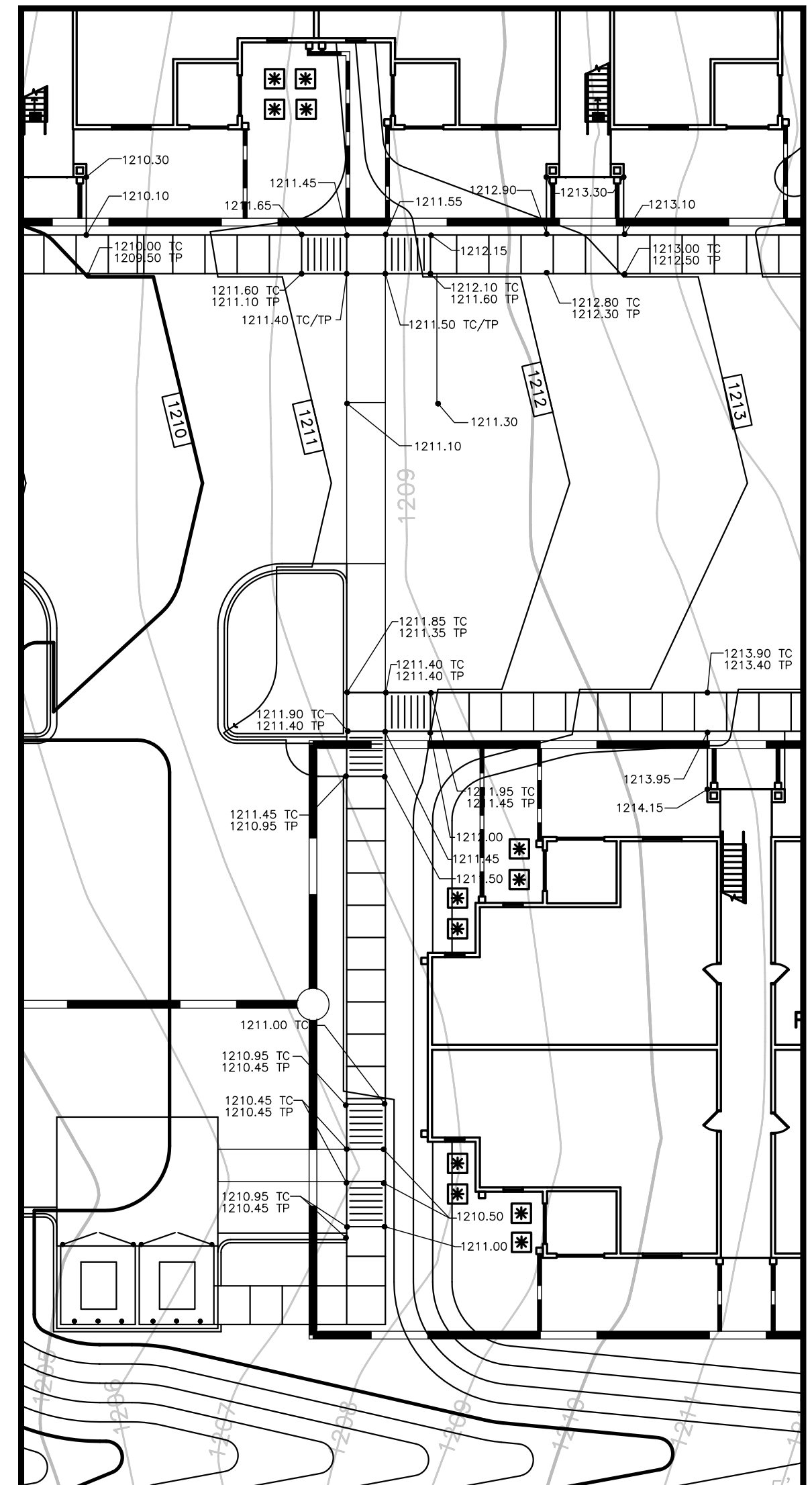
1. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL SOD AND/OR LANDSCAPING. WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. REFER TO PLANTING PLAN, THIS SET, FOR ADDITIONAL INFORMATION.
2. ACCEPTABLE STORM SEWER MATERIALS (THERE WILL BE NO SUBSTITUTIONS ALLOWED FOR PIPES SHOWN TO BE RCP)
 - 1) REINFORCED CONCRETE PIPE
 - 2) SPIRAL RIB METAL PIPE
 - 3) CORRUGATED POLYETHYLENE (N-12)
 - 4) POLYVINYL CHLORIDE (PVC) - ONLY PERMITTED IN 15" DIAMETER OR LESS.
3. SLOPES WITHIN ALL ADA STALLS AND ACCESS AISLES SHALL NOT EXCEED 1:50 IN ALL DIRECTIONS.
4. SLOPE ON ALL ADA ACCESSIBLE ROUTES SHALL NOT EXCEED 1:20. CROSS SLOPE OF ADA ROUTES SHALL NOT EXCEED 1:50.
5. 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.
6. ALL SLOPES STEEPER THAN 3:1 SHALL BE PROTECTED WITH A STABILIZATION FABRIC.
7. DOWNSPOUT COLLECTION SYSTEM. STORM SEWER PIPES EXITING BUILDING SHALL BE AT LEAST 8" IN DIAMETER, HAVE A MINIMUM COVER OF 1 FEET AND MINIMUM SLOPE OF 1%. SEE ARCH PLANS FOR ADDITIONAL DETAILS.
8. CONTRACTOR SHALL PROVIDE AND INSTALL ALL FITTINGS, BENDS, TEES, ETC. REQUIRED FOR DOWNSPOUT COLLECTION SYSTEM.
9. THROAT ELEVATIONS SHOWN ON CURB INLETS INCLUDE 3" SUMP U.N.O.
10. RIP-RAP PADS WILL BE PLACED IN ACCORDANCE WITH THE SIZES INDICATED ON THIS PLAN AND AS SHOWN ON THE DETAIL SHEETS.
11. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
12. ALL CLEANOUTS AND DOWNSPOUT JUNCTION BOXES WITHIN PAVED AREAS SHALL BE FLUSH WITH FINAL GRADE AND SHALL HAVE HEAVY DUTY ASSEMBLY OR TRAFFIC BEARING RING AND COVERS.
13. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
14. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
16. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM Poured MORTAR INVERT FROM INVERT IN TO INVERT OUT.
17. SEE PROJECT SITE WORK SPECIFICATIONS FOR SITE PREPARATION PROCEDURES.



INSET "A"
SCALE: 1"=20'



INSET "B"
SCALE: 1"=20'



INSET "C"
SCALE: 1"=20'

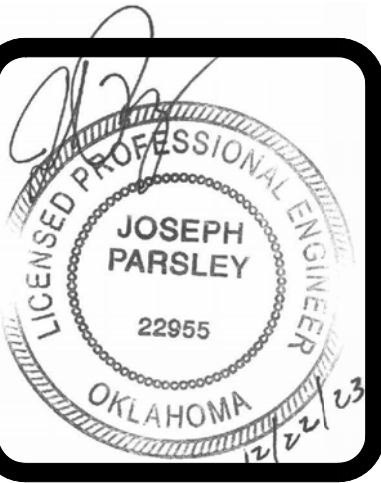


C4.1

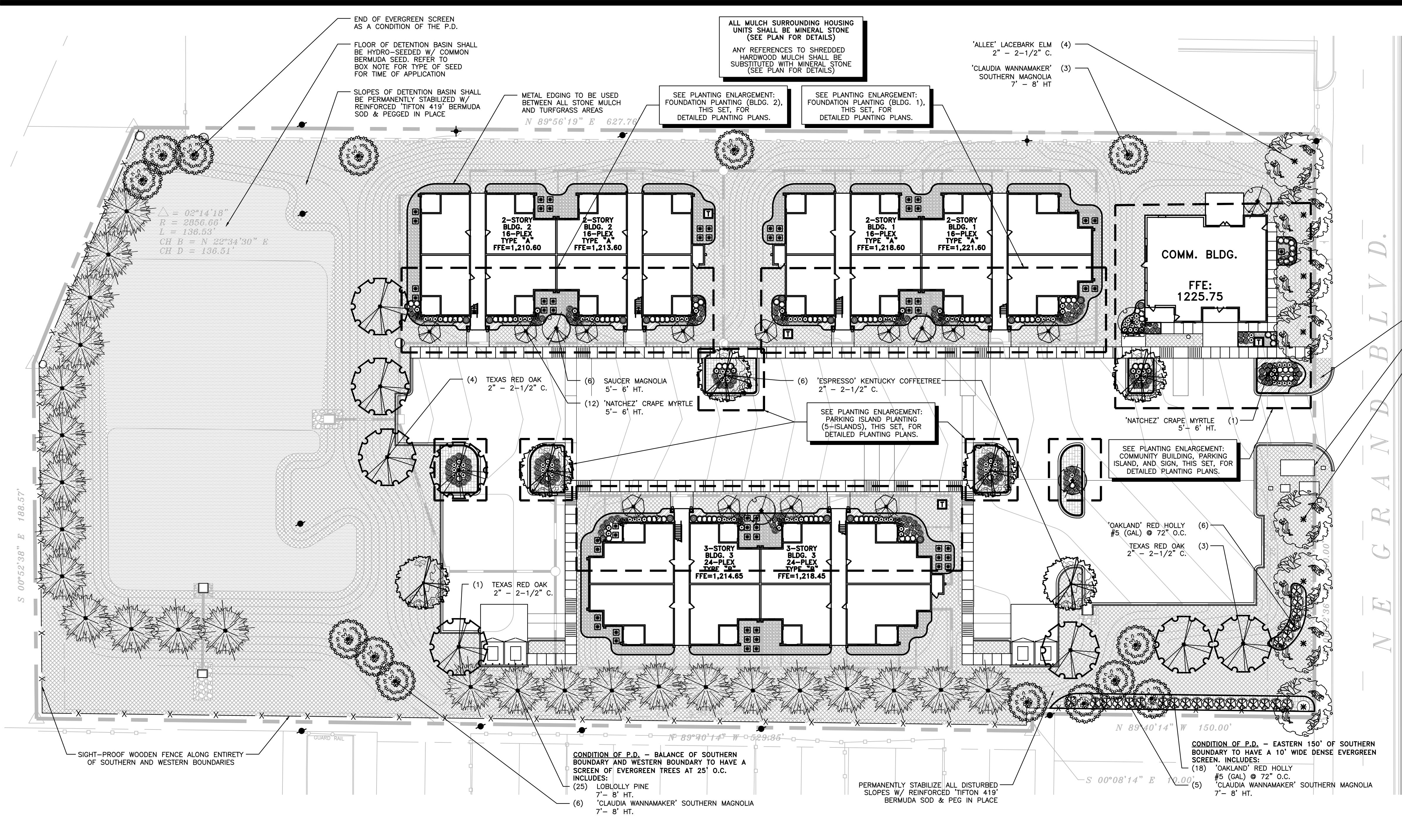
DEVELOPER:
IRONWOOD DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH. (417) 882-1701

GRADING INSET PLAN
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
1058 Lakeshore Commons
Bartlett, TN 38133
Phone (601) 384-0404
Fax (601) 384-0710



DRAWN	DPS
CHECKED	TB
DATE	09/19/2023
SCALE	
JOB No.	N/A
SHEET	9 OF 24 SHEET



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.

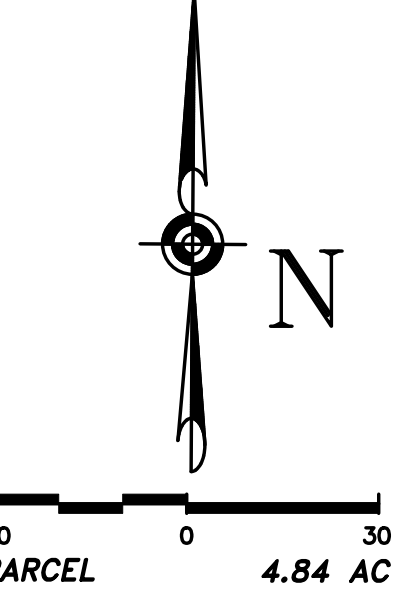
SOD SHALL BE PEGGED ON ALL 3:1 SLOPES OR STEEPER IN ORDER TO HOLD SOD IN PLACE. SEE SITESPECIFICATIONS FOR OTHER REQUIREMENTS.

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.

ISSUED FOR CONSTRUCTION



PERMANENTLY STABILIZE DISTURBED AREA IN ROW W/ 'TIFTON 419' BERMUDA SOD

3' MIN. STRIP OF SOD AROUND UTILITY STRUCTURE. SEE UTILITY PLAN FOR EXACT SIZE AND LOCATION

(4) 'ALLEE' LACEBARK ELM 2" - 2-1/2" C.

LANDSCAPE POINTS SUMMARY

SITE POINTS:
 REQUIRED: 1 PT/ 200 S.F. OF DEVELOPED AREA
 210,891 S.F. OF DEVELOPED AREA / 200 S.F. = 1,055 PTS.

PARKING LOT POINTS:
 REQUIRED: 2 PT/ REQUIRED PARKING SPACE +
 1 PT/ ADDITIONAL PARKING SPACE
 (116 REQ'D PKG SP x 2PTS) + (2 ADD PKG SP x 1PT)
 232 + 2 = 234 PTS.

LANDSCAPE POINTS REQUIREMENTS: 1,289 PTS.

ADDITIONAL REQUIREMENTS:
STREETSCAPE REQUIREMENTS:
 REQUIRED: 1 MED. TREE/ 40 L.F. OF FRONTAGE
 310.00 L.F. OF FRONTAGE / 40 L.F. = 7.75 OR 8 MED. TREES
 8 MED. DECIDUOUS TREES x 12 PTS = 96.0 PTS. REQ'D.
 8 MED. DECIDUOUS TREES = 8 TREES, 96.0 PTS. PROVIDED

MONUMENT SIGNAGE REQUIREMENTS:
 REQUIRED: 1 PT/ 2 S.F. OF SIGN FACE W/IN 10' OF SIGN
 DOUBLE-SIDED SIGN 4'x8' = 32 S.F. x 2 OR 64 S.F.
 64 S.F. / (1 PT/ 2 S.F.) = 32 PTS. REQ'D.
 32 POINTS PROVIDED

SIGHT-PROOF SCREEN / P.D. BUFFER REQUIREMENTS:
 REQUIRED BY P.D.: EASTERN 150' OF SOUTHERN BOUNDARY TO HAVE A 10'-WIDE DENSE EVERGREEN SCREEN. (MAY BE PART OF REQUIRED LANDSCAPE POINTS TOTAL)
 150.00 L.F. OF ABUTMENT (EASTERN 150 L.F. OF SOUTHERN BOUNDARY) =
 18 x 3 PTS = 54.0 PTS. OF SCREEN PROVIDED.
 5 x 12 PTS = 60.0 PTS. OF SCREEN PROVIDED.
 114.0 PTS. SUBTOTAL

REQUIRED BY P.D.: BALANCE OF SOUTHERN BOUNDARY AND WESTERN BOUNDARY TO HAVE 9 PTS/ 25 L.F. OF ABUTMENT (MAY BE PART OF REQUIRED LANDSCAPE POINTS TOTAL)
 854.45 L.F. OF ABUTMENT (BALANCE OF SOUTHERN AND WESTERN BOUNDARY)/25 L.F. =
 34.2 x 9 PTS = 307.8 PTS. OF SCREEN PROVIDED.
 31 MED. EVERGR. TREES x 12 PTS = 372.0 PTS. OF SCREEN PROVIDED

421.8 POINTS PROVIDED
 486.0 POINTS PROVIDED

LANDSCAPE POINTS SUMMARY: TOTAL

LANDSCAPE POINTS REQUIREMENTS: 1,289.00 PTS.
 STREETSCAPE POINTS REQUIREMENTS: 96.00 PTS.
 MONUMENT SIGNAGE REQUIREMENTS: 32.00 PTS.
 SIGHT-PROOF SCREEN REQUIREMENTS: (421.8 PTS.)

TOTAL POINTS REQUIRED: 1,417.00 PTS.
TOTAL POINTS PROVIDED: 1,946.75 PTS.

LOCATION AND MATERIAL PERCENTAGE REQUIREMENTS:

REQUIRED: 60% TO BE IN FRONT & SIDE YARDS:
 1,289 POINTS x 60% = 773.40 PTS. 60.6% PROVIDED
 781.00 POINTS PROVIDED

REQUIRED: 25% TO BE EVERGREEN:
 1,289 POINTS x 25% = 322.25 PTS. 85.4% PROVIDED
 1,101.50 POINTS PROVIDED

REQUIRED: 25% (MAX.) TO BE TURF:
 1,289 POINTS x 25% = 322.25 PTS. (MAX.)
 (105,600 S.F. TURF / 9 S.F./S.Y. = 11,733.33 S.Y. TURF)
 (11,733.33 S.Y. TURF x 0.25 PTS./S.Y. = 2,933.33 PTS. TOTAL)
 322.25 - MAXIMUM THRESHOLD PROVIDED

REQUIRED: 15% (MAX.) TO BE PERENNIAL PLANTS:
 1,289 POINTS x 15% = 193.35 PTS. (MAX.)
 8 POINTS PROVIDED

ARTICLE XI. LANDSCAPING AND SCREENING REGULATIONS

59-11200. STEPS REQUIRED FOR APPROVAL OF THE LANDSCAPE PLAN.

- CALCULATE POINTS:** DETERMINE THE NUMBER OF SITE POINTS, PARKING LOT POINTS, OR FRONTAGE TREE REQUIREMENTS THAT APPLY TO THE DEVELOPMENT BASED ON ITS USE UNIT CLASSIFICATION AND ZONING DISTRICT.
- DETERMINE PLANT REQUIREMENTS:** DETERMINE THE PERCENTAGES AND LOCATION OF PLANTINGS, QUANTITY, TYPE, AND SIZE OF PLANT MATERIALS NEEDED TO MEET POINT REQUIREMENTS.
- DETERMINE ADDITIONAL REQUIREMENTS:** DETERMINE WHETHER RESIDENTIAL, SUBDIVISION OR OTHER BUFFERS APPLY TO THE DEVELOPMENT.
- DEVELOP A LANDSCAPE PLAN:** DEVELOP A LANDSCAPE OR PLANTING PLAN WITH PLANTINGS THAT MEET POINT REQUIREMENTS, INCLUDING ANY APPLICABLE BUFFER.

C. ALL OTHER RESIDENTIAL (EXCLUDING SINGLE-FAMILY, DUPLEX, AND MOBILE HOME), HORTICULTURAL, OFFICE, CIVIC, (EXCLUDING USE UNIT HEAVY PUBLIC PROTECTION AND UTILITY (8250.9)) AND COMMERCIAL USE UNITS IN THE FOLLOWING DISTRICTS: R-1, R-1ZL, R-MH-1, R-MH-2, R-2, R-3, R-3M, R-4, R-4M, O-1, O-2, C-1, C-2, C-3, C-4, C-HC, I-1, I-2, I-3, HP, NC, SPUD, AND PUD.

- ALL REQUIRED FRONT, SIDE AND REAR YARDS SHALL BE LANDSCAPED, EXCEPT WALKWAYS, PARKING, PERTINENT EQUIPMENT, DRAINAGE UTILITIES AND OTHER ACCESSORY STRUCTURES PERMITTED BY THIS CHAPTER. THE LANDSCAPING OF THESE YARDS SHALL CONSIST OF A COMBINATION OF LIVING VEGETATION, SUCH AS TREES, SHRUBS, GRASSES OR GROUNDCOVER MATERIALS, PLANTED AND MAINTAINED, OR PRESERVED AS EXISTING NATURAL VEGETATION AREAS (E.G. WOODS OR THICKETS).
- ALL TREES AND SHRUBS SHALL BE PLANTED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN (A COPY OF WHICH IS ON FILE IN THE PLANNING DEPARTMENT). ALL NEWLY PLANTED TREES AND SHRUBS SHALL BE MULCHED AND MAINTAINED TO GIVE A CLEAN AND WEED-FREE APPEARANCE.
- LANDSCAPING WITHIN ANY DEVELOPED AREA MUST EQUAL OR EXCEED A MINIMUM NUMBER OF POINTS IN ORDER TO OBTAIN APPROVAL. SITE POINTS ARE DETERMINED BY THE SIZE OF THE DEVELOPED AREA, AND PARKING LOT POINTS ARE DETERMINED BY THE NUMBER OF PARKING SPACES.
 - NUMBER OF POINTS REQUIRED FOR DEVELOPED AREA EXCEEDING 500 SQUARE FEET:
 - SITE POINTS: ONE POINT FOR EACH 200 SQUARE FEET OF DEVELOPED AREA WITH A MINIMUM OF 25 POINTS.
 - PARKING LOT POINTS: TWO POINTS FOR EACH REQUIRED PARKING SPACE AND ONE POINT FOR EACH ADDITIONAL PARKING SPACE.
 - A MINIMUM OF 60 PERCENT OF SITE POINTS SHALL BE USED FOR LANDSCAPING IN FRONT AND SIDE YARDS.
 - A MINIMUM OF 25 PERCENT OF REQUIRED POINTS SHALL BE USED FOR EVERGREEN PLANTINGS.
 - A MAXIMUM OF 25 PERCENT OF REQUIRED POINTS MAY BE USED FOR TURF GRASS. TURF LOCATED WITHIN THE STREET RIGHT-OF-WAY IS EXCLUDED.
 - A MAXIMUM OF 15 PERCENT OF REQUIRED SITE POINTS MAY BE USED FOR PERENNIAL PLANTINGS.
 - ANY ADDITION TO EXISTING BUILDING(S) OR ALTERATIONS TO AN EXISTING SITE WITH A DEVELOPED AREA EXCEEDING 500 SQUARE FEET SHALL REQUIRE ONE POINT OF LANDSCAPING FOR EVERY 200 SQUARE FEET OF DEVELOPED AREA, WITH A MINIMUM OF TEN POINTS PLUS TWO POINTS OF LANDSCAPING FOR EVERY PARKING SPACE CONSTRUCTED FOR THE BUILDING ADDITION.
 - ANY FREESTANDING ACCESSORY SIGN SHALL BE LANDSCAPED IN ACCORDANCE WITH SECTION 3-83(H) OF CHAPTER 3 OF THE OKLAHOMA CITY MUNICIPAL CODE.

(LANDSCAPING: ALL FREE-STANDING ACCESSORY SIGNS SHALL PROVIDE A LANDSCAPED AREA CONTAINING ONE POINT PER TWO SQUARE FEET OF SIGN OR FRACTION THEREOF LOCATED WITHIN TEN FEET OF THE BASE OF ANY FREESTANDING ACCESSORY SIGN. THIS LANDSCAPING MAY BE APPLIED TO FULL-FUL SITE OR PARKING POINT REQUIREMENTS. TURF GRASS SHALL NOT BE USED TO SATISFY THIS REQUIREMENT (SEE ARTICLE XI, § 59-11250 LANDSCAPING REQUIREMENTS).)

E. AUTOMOTIVE PARKING LOT LANDSCAPE REQUIREMENTS FOR ALL OTHER RESIDENTIAL (EXCLUDING SINGLE-FAMILY, DUPLEX, AND MOBILE HOME), OFFICE, CIVIC, COMMERCIAL USE UNITS AND THE HORTICULTURAL USE UNIT IN THE FOLLOWING DISTRICTS: R-1, R-1ZL, R-MH-1, R-MH-2, R-2, R-3, R-3M, R-4, R-4M, O-1, O-2, C-1, C-2, C-3, C-4, I-1, I-2, I-3, HP, NBD, NC, SYD, SPUD, PUD, BC, C-CBD, DBD, DTD-1, DTD-2 AND C-HC.

THE PURPOSE OF PARKING LOT ISLANDS AND/OR PARKING LOT PENINSULAS IS TO HELP REDUCE GLARE AND HEAT BUILDUP, PROMOTE INTERIOR ISLANDS FOR PEDESTRIAN SAFETY AND TRAFFIC SEPARATION, VISUALLY BREAK UP LARGE EXPANSIONS OF PAVEMENT, AND REDUCE SURFACE RUNOFF. ALL NON-COVERED, STREET-LEVEL PARKING FACILITIES ESTABLISHED AND GOVERNED BY THIS CHAPTER SHALL BE LANDSCAPED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

- IN ADDITION TO THE NUMBER OF SITE POINTS, IF REQUIRED, TWO ADDITIONAL POINTS SHALL BE USED TO INSTALL PARKING LOT PLANTINGS FOR EACH PARKING SPACE PROVIDED. PARKING LOT PLANTINGS SHALL BE LOCATED:
 - WITHIN THE PARKING LOT PERIMETER WHERE PARKING LOTS ARE LOCATED ADJACENT TO THE PUBLIC RIGHT-OF-WAY, AS FOLLOWS:
 - EVERGREEN SHRUBS REACHING A MATURE HEIGHT OF AT LEAST THREE FEET AND SPACED A MAXIMUM OF FIVE FEET ON CENTER, AND/OR
 - TREES PLANTED BETWEEN 15 AND 35 FEET ON CENTER. SELECTION OF SPECIES AND RECOMMENDED SPACINGS SHALL BE DIRECTED BY THE DOCUMENT "TREES AND PLANTS FOR OKLAHOMA CITY," AS REFERENCED IN § 59-11150.P.
 - WITHIN INTERNAL LANDSCAPED AREAS DISBURSED THROUGHOUT THE PARKING LOT BY:
 - INTERIOR PARKING LOT ISLAND OR PENINSULA, AND/OR
 - CONTINUOUS LANDSCAPED STRIP A MINIMUM OF FIVE FEET IN WIDTH.
 - WHERE A CONTINUOUS LANDSCAPED STRIP IS INSTALLED ALONG ANY INTERNAL PEDESTRIAN ACCESS WAY, THE LANDSCAPED STRIP MAY BE DIVIDED ON BOTH SIDES OF THE ACCESS WAY, AS LONG AS THE COMBINED WIDTH MAINTAINS A MINIMUM OF FIVE FEET.
- EACH PARKING LOT ISLAND AND PENINSULA SHALL BE A MINIMUM OF 100 SQUARE FEET OF PLANTING AREA WITH A MINIMUM AVERAGE WIDTH OF FIVE FEET FROM INSIDE CURB TO INSIDE CURB.
- INTERNAL LANDSCAPED AREAS IN PARKING LOTS, SUCH AS PARKING LOT ISLANDS, PENINSULAS, AND LANDSCAPED STRIPS BETWEEN ROWS OF PARKING, ARE ENCOURAGED TO BE DESIGNED WITH LOW IMPACT DEVELOPMENT TECHNIQUES AND UTILIZED FOR STORMWATER MANAGEMENT.
- A MINIMUM OF 25 PERCENT OF POINTS USED FOR PARKING LOT PLANTINGS SHALL BE EVERGREEN.
- THE DISTANCE BETWEEN ANY PARKING SPACE AND A MEDIUM SHADE TREE SHALL BE NO MORE THAN 75 FEET. SELECTION OF SPECIES AND RECOMMENDED SPACINGS SHALL BE DIRECTED BY THE DOCUMENT "TREES AND PLANTS FOR OKLAHOMA CITY," AS REFERENCED IN § 59-11150.P.
- REQUIRED PARKING LOT PLANTINGS SHALL BE IN-GROUND AND NOT PLACED UPON A PAVED SURFACE.
- ALL INTERNAL LANDSCAPED AREAS SHALL BE PROTECTED WITH CONCRETE CURBS, PARKING STOPS, OR EQUIVALENT BARRIERS.
- EACH TREE SHALL BE PLANTED A MINIMUM OF TWO AND ONE-HALF FEET AWAY FROM THE OUTSIDE OF ANY PERMANENT BARRIER OF A LANDSCAPED AREA OR EDGE OF THE PARKING AREA. TREES SHALL BE PLANTED WHERE TRUNKS WILL NOT BE DAMAGED BY CAR DOORS AND BUMPERS.
- GROUNDCOVER OR GRASSES SHALL BE PLANTED TO COVER EACH PARKING LOT PLANTING AREA WITHIN THREE YEARS FROM THE DATE OF ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. ALL GROUNDCOVER SHALL HAVE A MATURE HEIGHT OF NOT MORE THAN 24 INCHES. LOOSE ROCK, GRAVEL, DECORATIVE ROCK OR STONE, OR MULCH SHALL NOT EXCEED 20 PERCENT OF THE PARKING LOT PLANTING AREA.

(10) PLANTINGS APPLIED TO SATISFY PARKING LOT PLANTING REQUIREMENTS SHALL BE IN ADDITION TO ANY REQUIRED FRONT, SIDE AND REAR YARD BUFFER REQUIREMENTS.

(11) STAND-ALONE PARKING LOTS SHALL REQUIRE THREE POINTS OF LANDSCAPING TO BE USED FOR PARKING LOT PLANTINGS FOR EACH PARKING SPACE INSTALLED, AND SHALL BE EXEMPT FROM SITE POINTS FOR THE DEVELOPED AREA.

(12) ANY CONSTRUCTION WITHIN, EXPANSION OR RECONSTRUCTION IN EXCESS OF 500 SQUARE FEET OF EXISTING PARKING FACILITIES SHALL BE REQUIRED TO COME INTO COMPLIANCE WITH LANDSCAPE REQUIREMENTS AS FOLLOWS:

- ONE POINT OF LANDSCAPING FOR EVERY 200 SQUARE FEET OF PROPOSED DEVELOPED AREA OF THE PARKING FACILITY, WITH A MINIMUM OF TEN POINTS.
- ONE POINT OF LANDSCAPING TO BE USED FOR PARKING LOT PLANTINGS FOR EVERY ADDITIONAL PARKING SPACE PROVIDED.

PERMANENT SEEDING SHALL BE APPLIED BASED ON THE TIME OF YEAR AND TEMPERATURE OF SOIL.

MAY 1 - JULY 30 (OR ONCE SOIL TEMP. IS ABOVE 60°) APPLY HULLED BERMUDA SEED @ MIN 4 LBS / 1000 SF.

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 FALL/WINTER SEASON.

SEPTEMBER 1 - FEBRUARY 28 (OR ONCE SOIL TEMP. IS BELOW 60°) - APPLY UNHULLED BERMUDA SEED @ MIN 8 LBS / 1000 SF AND OVERSEED WITH TEMPORARY SEED MIX AS DESCRIBED IN THE SEEDING AND SODDING NOTES.

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.

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.



NO	REVISIONS

DEVELOPER:
 FILSON DEVELOPMENT, LLC
 3556 S. CULPEPPER CIR.CLE, SUITE 4
 SPRINGFIELD, MO 65908
 PH. (417) 882-1701

PLANTING PLAN
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

C. R. WALKER, PLA
 7058 Lakeshore Commons
 Bartlett, TN 38133
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DRAWN	DPS
CHECKED	TB
DATE	06/07/2023
SCALE	1"=30'
JOB NO.	N/A
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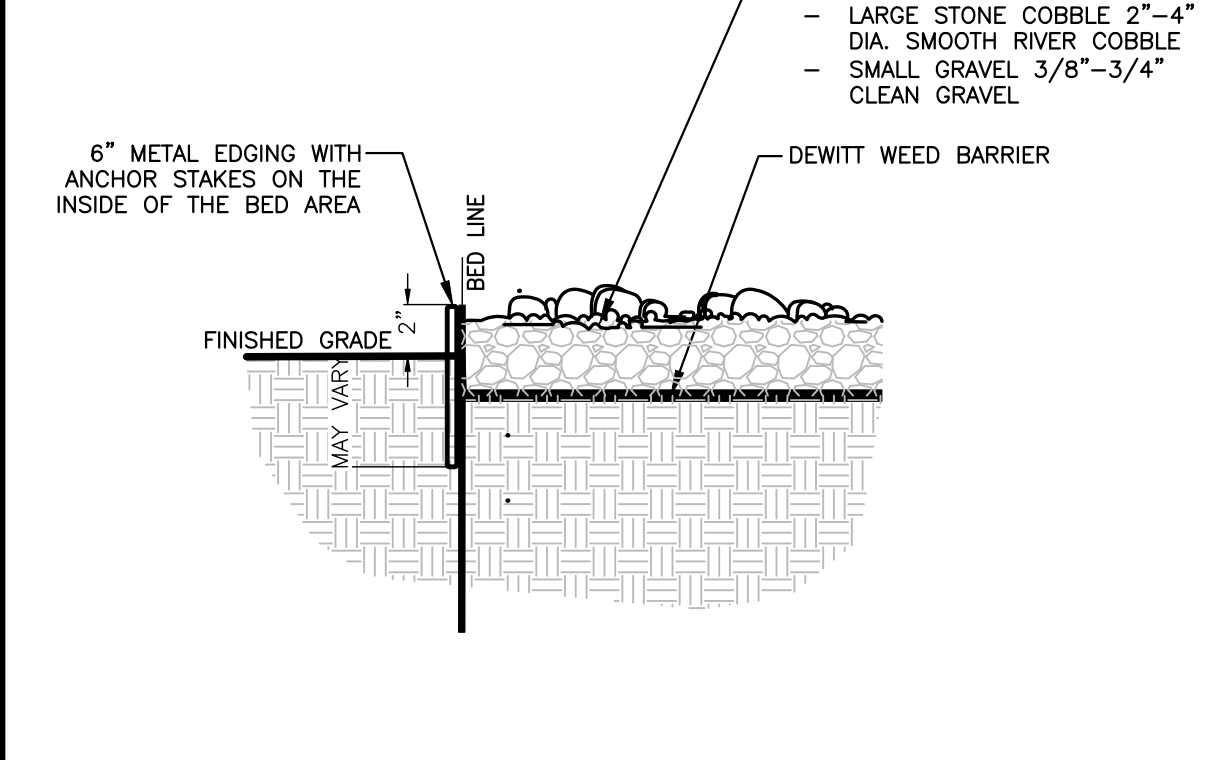
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PLANTING NOTES

- 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 APPURTENANCES, ETC WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION TO 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 MATERIAL.
- 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 PLANT LIST.
- ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
- AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
- ALL LANDSCAPED AREAS SHALL BE SPRAYED WITH HERBICIDE 4 WEEKS PRIOR TO INSTALLATION OF LANDSCAPING. THE EXISTING MATERIAL SHALL BE REMOVED BEFORE ANY INSTALLATION OF PLANT MATERIAL OR SEED.
- THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION. IF PLANT MATERIAL IS INSTALLED PRIOR TO LOCATION APPROVAL, THE CONTRACTOR MAY BE REQUIRED TO RELOCATE MATERIAL AT HIS OWN EXPENSE.
- ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
- ALL NEW TREES SHALL HAVE 'MYCOR TREE SAVER' OR EQUAL MYCORIZAL FUNGAL TREATMENT INSTALLED AT RATE RECOMMENDED BY MANUFACTURER AT THE TIME OF INSTALLATION.
- ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
- ALL SHRUB BED AREAS SHALL RECEIVE A MIN OF 8" OF PLANTING BED MIX AS DESCRIBED IN PLANTING BED PREP DETAIL.
- ALL BED AREAS SHALL BE BERMED A MINIMUM OF 8" TO PROMOTE GOOD BED DRAINAGE (AFTER GENTLE TOPSOIL TAMPING). BEDS WILL BE MOUNDED FROM SIDES TO CENTER, PROMOTING GOOD DRAINAGE.
- ALL CONSTRUCTION AREAS TO RECEIVE TURFGRASS SHALL RECEIVE A 4" MIN DEPTH OF SUITABLE TOPSOIL MIX PER DETAILS AND SPECIFICATIONS. RESULTS OF TOPSOIL ANALYSIS ARE TO BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR THE APPROVAL PRIOR TO ANY TURFGRASS OPERATIONS TAKING PLACE.
- PRIOR TO PLANTING OR SEEDING, MULTIPLE REPRESENTATIVE SAMPLES OF THE TOPSOIL SHALL BE TAKEN AND SENT TO THE STATE EXTENSION AGENCY FOR ANALYSIS. FERTILIZE SUITABLE TOPSOIL IN TURFGRASS AREAS AS PER EXTENSION SERVICE'S RECOMMENDATIONS FOR TURFGRASS SPECIES SPECIFIED ON PLANS. THE PLANTING BED MIX TO BE USED IN SHRUB PLANTING BEDS IS TO BE FERTILIZED AS PER EXTENSION SERVICE'S RECOMMENDATIONS FOR ORNAMENTAL PLANTINGS.
- ALL PLANTING BEDS SHALL HAVE 'SURFLAN' OR EQUAL PRE-EMERGENT HERBICIDE BROADCAST AT RATE RECOMMENDED BY MANUFACTURER.
- PLANTING OPERATIONS SHOULD ONLY TAKE PLACE DURING SUITABLE WEATHER CONDITIONS. PLANTS ARE NOT TO BE INSTALLED WHEN THE SOIL IS EITHER HIGHLY SATURATED OR FROZEN.
- ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFLOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
- DURING THE GROWING SEASON ALL ANNUALS SHALL REMAIN IN A HEALTHY, VIABLE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL PLANTING AREAS, SHRUB, GROUND COVER AND SEASONAL COLOR ANNUAL PLANTING BEDS, ARE TO BE COMPLETELY COVERED WITH SHREDDED HARDWOOD MULCH AND SHALL MAINTAIN A MINIMUM LAYER OF (4") FOUR INCHES IN DEPTH AFTER SETTLING.
- THERE IS NO SEPARATE PAY ITEM FOR DRESSING OUT SHRUB BEDS OR TREE SAUCERS WITH SHREDDED HARDWOOD MULCH, IT SHALL BE INCLUDED WITH THE COST OF ALL PLANT MATERIALS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. ALL PLANT MATERIALS QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
- ALL DISTURBED AREAS ARE TO RECEIVE A 4" LAYER OF SUITABLE TOPSOIL AND HYDROSEED AND/OR SOD (WHERE SHOWN). WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. THIS IS EXCLUDING ALL LANDSCAPED ISLANDS AND ENTRANCE AREAS.
- ALL PLANT MATERIALS SHALL BE GUARANTEED FOR 12 MONTHS BEGINNING ON THE DATE OF TOTAL ACCEPTANCE. PLANTS NOT IN A HEALTHY GROWING CONDITION SHALL BE REMOVED FROM THE SITE AT THE DIRECTION OF THE LANDSCAPE ARCHITECT AND THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS WITH PLANTS ALL GUARANTEED FOR THE REMAINDER OF THE 12 MONTH WARRANTY.
- CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL GUY WIRES AT THE END OF THE 1 YEAR WARRANTY PERIOD.
- REFER TO PROJECT SITEWORK SPECIFICATIONS FOR ALL INFORMATION NEEDED FOR IMPLEMENTATION OF PLANTING PLANS.

PLANTING NOTES

- NOTE:**
- INSTALL A SINGLE LAYER OF LARGE STONE THROUGHOUT ENTIRE STONE MULCH BED AREA.
 - INFILL GAPS / VOIDS IN LARGE STONE COBBLE W/ CLEAN GRAVEL TO A CONTINUOUS MIN DEPTH OF 3".



STONE-COBBLE MULCH WITH EDGING

ALL MINIMUM SIZES LISTED IN PLANT SCHEDULE SHALL BE MET: CALIPER, HEIGHT, AND ROOT BALL

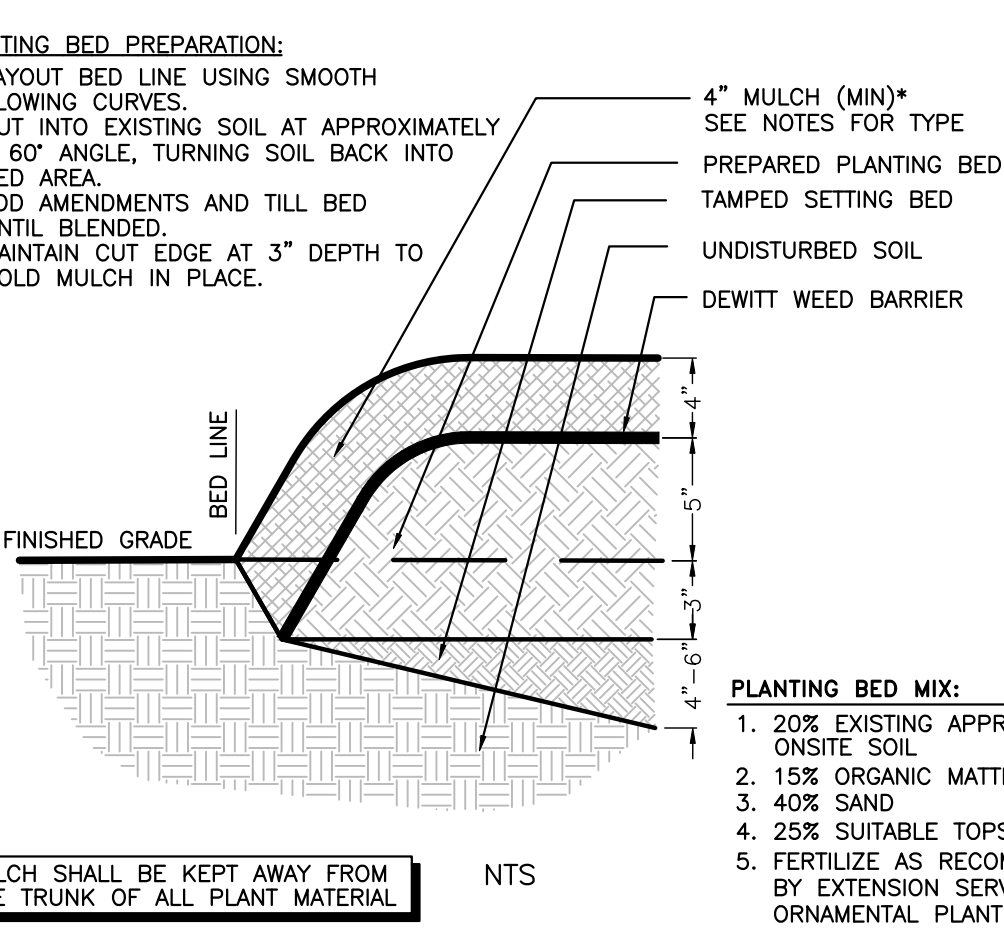
MEASURED 6" ABOVE GRADE	SHADE AND FLOWERING TREES				
	CALIPER	HEIGHT TYPE 1	HEIGHT TYPE 2	MINIMUM DIAMETER BALL	BALL DEPTH
1"	8"-10"	6'-7"	15"	12"	
1-1/2"	10"-12"	8'-9"	20"	15"	
2"	12"-14"	8'-10"	24"	18"	
2-1/2"	12"-14"	8'-10"	28"	18"	
3"	14"-16"	10'-12"	32"	19"	
3-1/2"	14"-16"	10'-12"	38"	23"	
4"	16"-18"	10'-12"	42"	25"	
4-1/2"	16"-18"	10'-12"	48"	29"	
5"	18"-20"	12'-2"	54"	32"	
5-1/2"	18"-20"	12'-2"	57"	34"	
6"	20"-24"	14'-4"	60"	36"	
7"	24"-28"	16'-4"	70"	42"	
8"	26"-30"	18'-4"	80"	48"	

SOURCE: AMERICAN STANDARD FOR NURSERY STOCK CALIPER TAKES PRECEDENCE OVER HEIGHT FOR TYPE 1 SHADE TREES. BOTH MINIMUMS MUST BE MET.

TYPE 1 (LARGE SHADE TREES)		TYPE 2 (MEDIUM/SLOW SHADE TREES)	
ACER RUBRUM	PLATANUS SPP	AESCULUS SPP	MAGNOLIA GRANDIFLORA
ACER SACCHARUM	QUERCUS SPP	CELTIS SPP	NYSSA SPP
BETULA SPP	TAXODIUM SPP	CLADRASIS LUTEA	OLEA EUROPA
GINKGO SPP	SALIX SPP	FAGUS SYLVATICA	QUERCUS ALBA
KOELREUTERIA SPP	ZELKOVA SPP	KOELREUTERIA SPP	SORBUS SPP
		LABURNUM SPP	TILIA CORDATA
		LIQUIDAMBAR SPP	ULMUS PARVIFOLIA

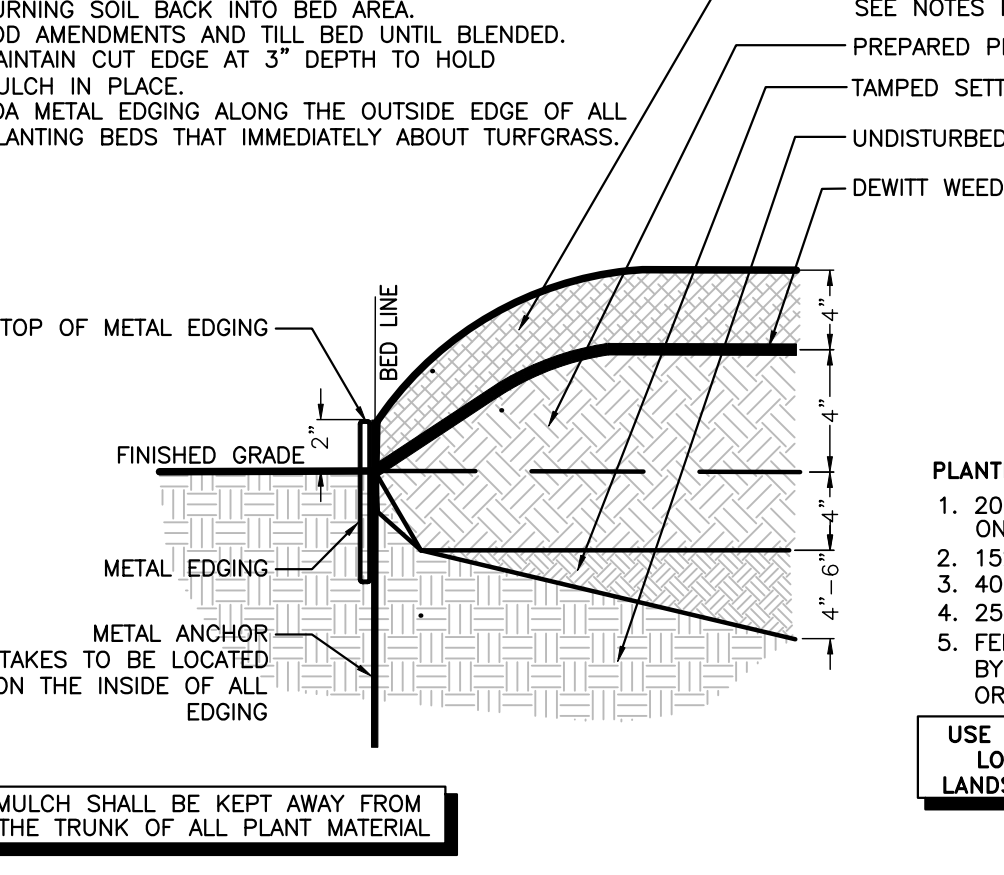
TYPE 3 (SMALL UPRIGHT TREES)		TYPE 4 (SMALL SPREADING TREES)	
ACER CAMPESTRE	MAGNOLIA VIRGINIANA	ACER PALMATUM	ACER ORISEUM
AMELANCHIER SPP	PRUNUS SPP	CORNUS SPP	CORNUS SPP
CARPINUS SPP	PYRUS SPP	LACERSTROMIA SPP	MAGNOLIA SOULANGIANA
CERCIS SPP	STYRAX SPP	MAGNOLIA SOULANGIANA	MAGNOLIA STELLATA
CRATAEGUS SPP	SYRINGA RETICULATA	VITEX SPP	
OXYDENDRUM SPP			

TREE SIZE/ROOT BALL RELATIONSHIP

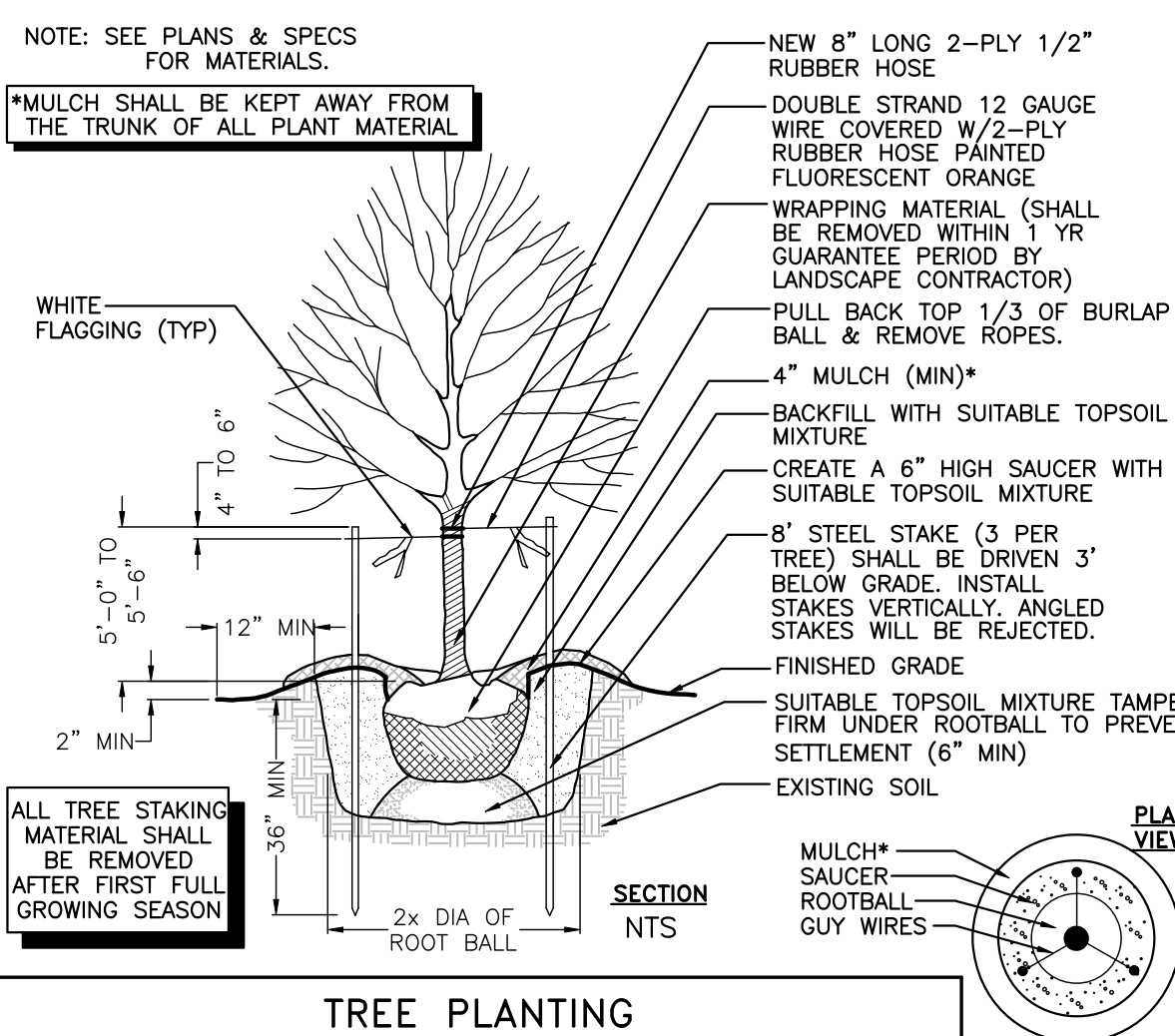


TREE SIZE/ROOT BALL RELATIONSHIP

PLANTING BED PREP



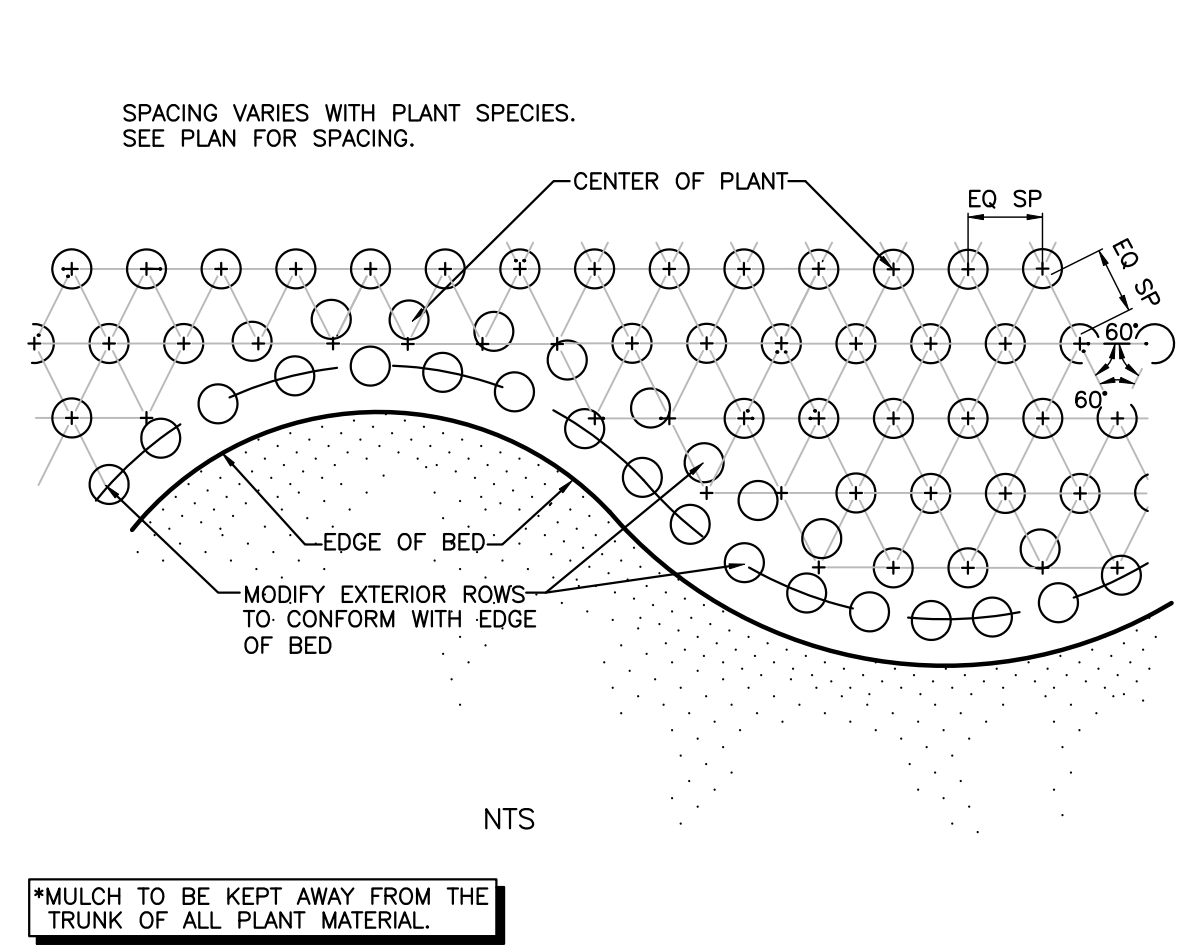
PLANTING BED PREP w/ METAL EDGING



TREE PLANTING

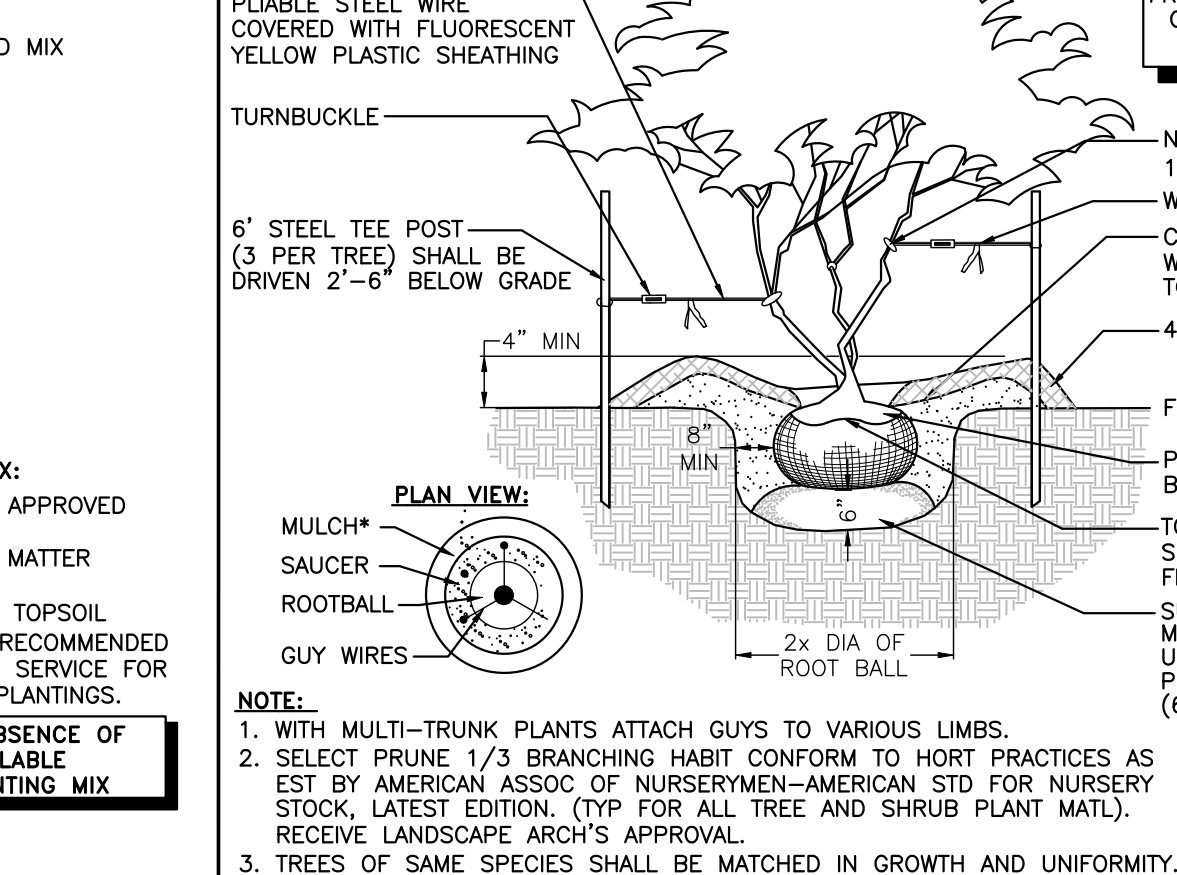
- SOD:**
- ALL SODDED AREAS SHALL BE 'TIFTON 419' HYBRID BERMOUDA.
 - ALL CURBED ISLANDS SHALL BE SODDED UNLESS NOTED OTHERWISE.
 - SLOPES 3:1 OR GREATER SHALL BE PEGGED TO HOLD SOD IN PLACE.
 - ALL AREAS TO BE SODDED SHALL RECEIVE A MINIMUM 4" LAYER OF SUITABLE TOPSOIL THAT MEETS THE CONDITIONS LISTED BELOW AND THAT HAS BEEN TILLED, FINE GRADED, AND HAS HAD ALL STONES, ROOTS, DEBRIS, ETC REMOVED.
 - SUITABLE TOPSOIL SHALL MEET THE FOLLOWING REQUIREMENTS:
 - IT SHALL ALL BE A RICH EASILY FRABLE BROWN OR BLACK LOAMY TO SANDY LOAM SOIL
 - SOIL PH OF 5.5 - 7.0
 - 5% ORGANIC MATERIAL WITH A PH RANGE OF 5.5 - 8.0
 - FREE OF WEEDS, LITTER, STIFF CLAY, OR STONES GREATER THAN 1" IN DIAMETER
 - HEAVY CLAYS AND FINE SILTY SOILS ARE NOT ACCEPTABLE
 - SOD SHALL BE LAID AS SOON AS IT IS DELIVERED TO PLANTING AREAS. ONLY HEALTHY MOST GREEN SOD IS TO BE LAID. ANY SOD WHICH IS BROWN AND UNDER STRESS IS UNACCEPTABLE. ANY SOD WHICH IS NOT LAID WITHIN 24 HOURS OF DELIVERY SHALL BE 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 AND UNIFORM GROWING 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.

SODDING NOTES



SODDING NOTES

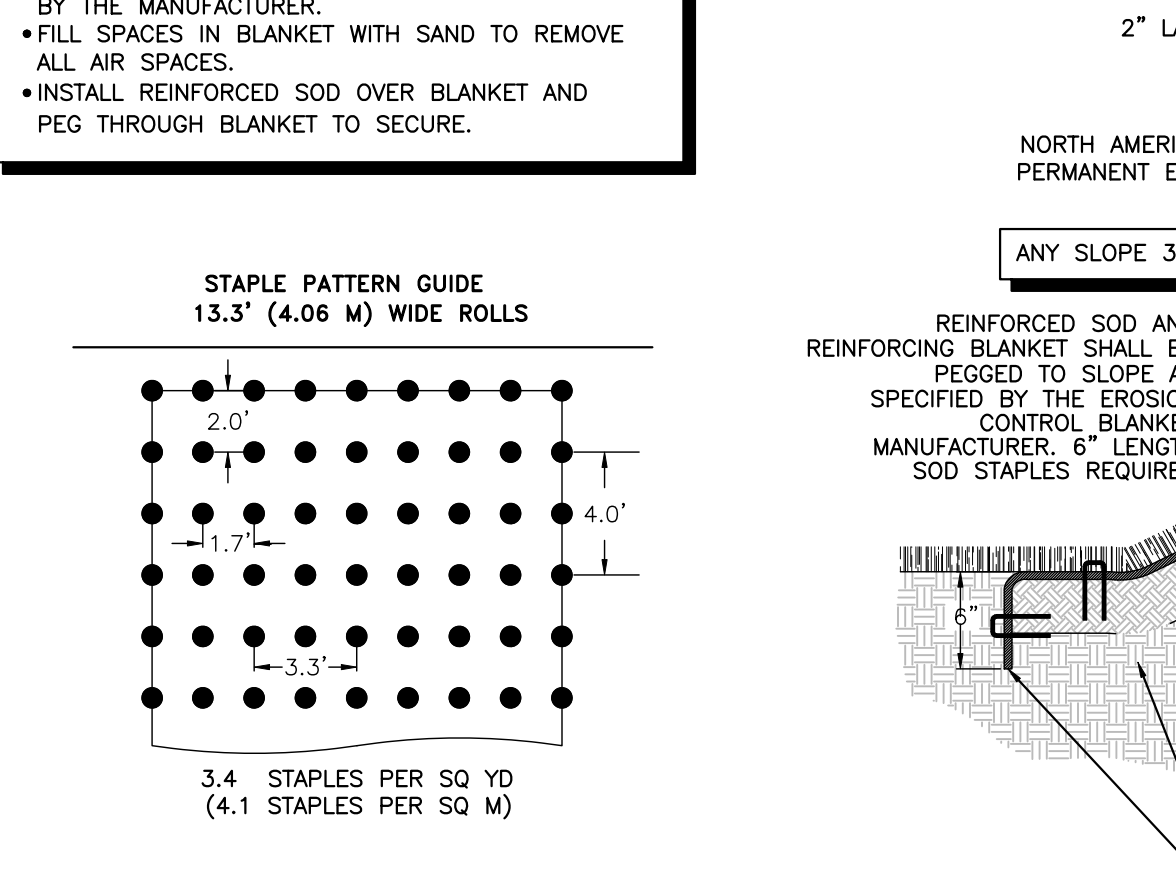
PLANT SPACING



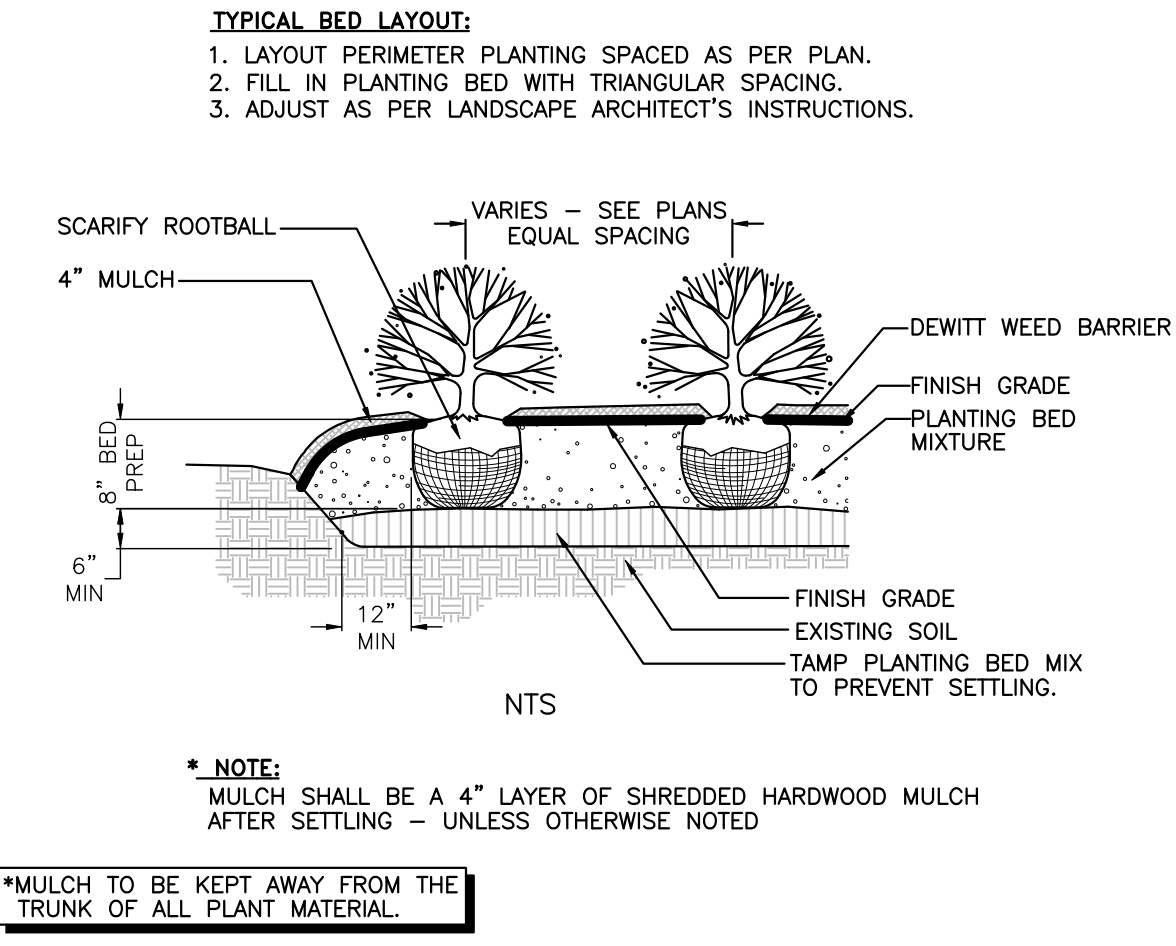
MULTI-TRUNKED TREE PLANTING

- PARKING LOT ISLAND PREPARATION**
- REMOVE ALL THE COMPACTED STONE AND FILL DIRT OUT OF THE CENTER OF THE ISLANDS DOWN TO A DEPTH OF 28" BELOW THE TOP OF THE CONCRETE CURB.
 - LINE BOTTOM OF PIT W/ NON-WOVEN GEOTEXTILE FABRIC AND ADD A 4" - 8" LAYER (SLOPED BOTTOM) OF WASHED GRAVEL IN THE BOTTOM OF THE ISLAND TO PROVIDE ADEQUATE DRAINAGE.
 - COVER ENTIRE GRAVEL LAYER WITH NON-WOVEN GEOTEXTILE FABRIC (AS SPECIFIED BY LANDSCAPE CONTRACTOR).
 - ADD PLANTING BED MIX AND FIRMLY TAMP TO CREATE A SETTING BED (6" MIN) UNDER ROOTBALL.
 - ADD 24" OF SUITABLE PLANTING BED MIX ON TOP OF THE WASHED GRAVEL. LIGHTLY TAMP THE PLANTING BED MIX IN 8" LIFTS.
 - ADD ANOTHER LAYER OF PLANTING BED MIX IN ADDITION TO THE 24" LAYER TO ACHIEVE THE CORRECT BERMING HEIGHT. MAKE SURE TO ADD THE NECESSARY AMOUNT OF PLANTING BED MIX TO ACHIEVE THE CORRECT BERMING HEIGHT.
 - INSTALL DEWITT WEED BARRIER ON TOP OF THE PLANTING BED MIX AND PLACE 4" OF SHREDDED HARDWOOD MULCH THROUGHOUT THE ENTIRE ISLAND.

TYPICAL ISLAND

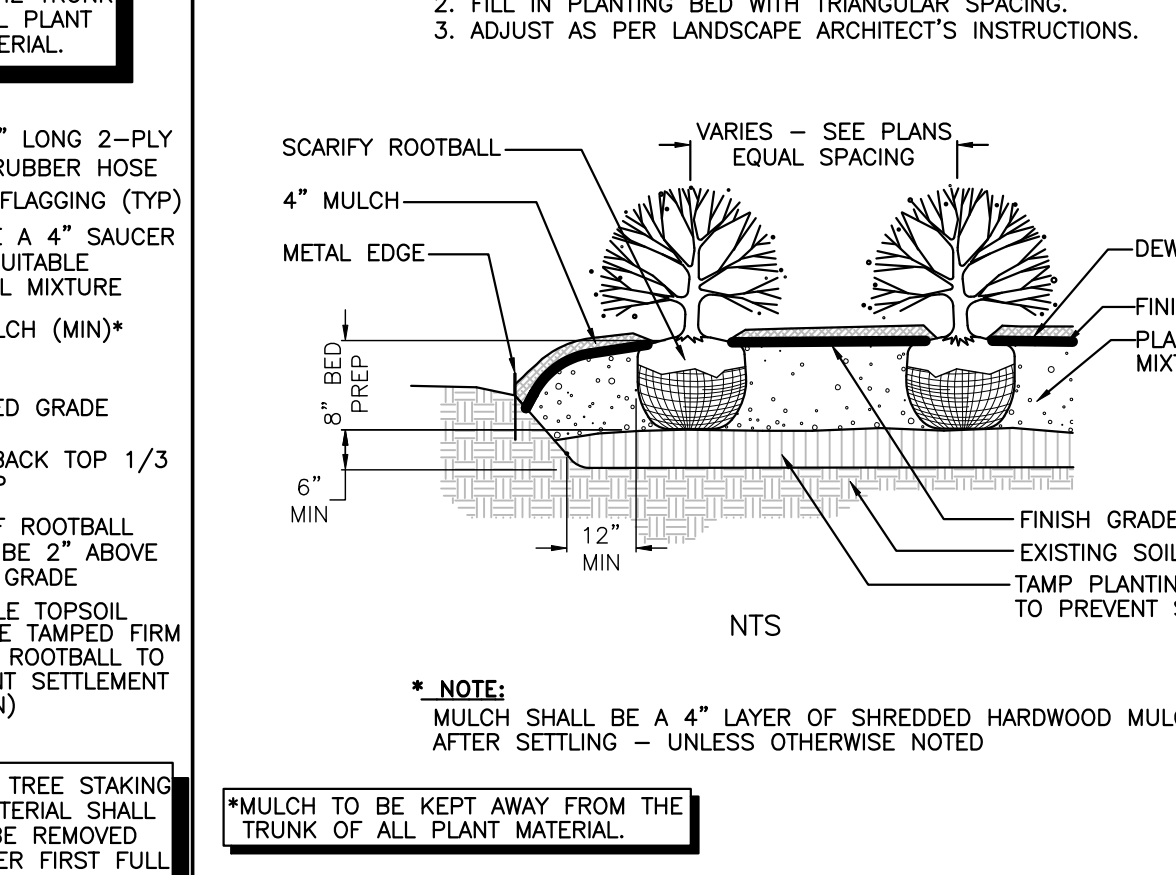


SODDING ON SLOPES

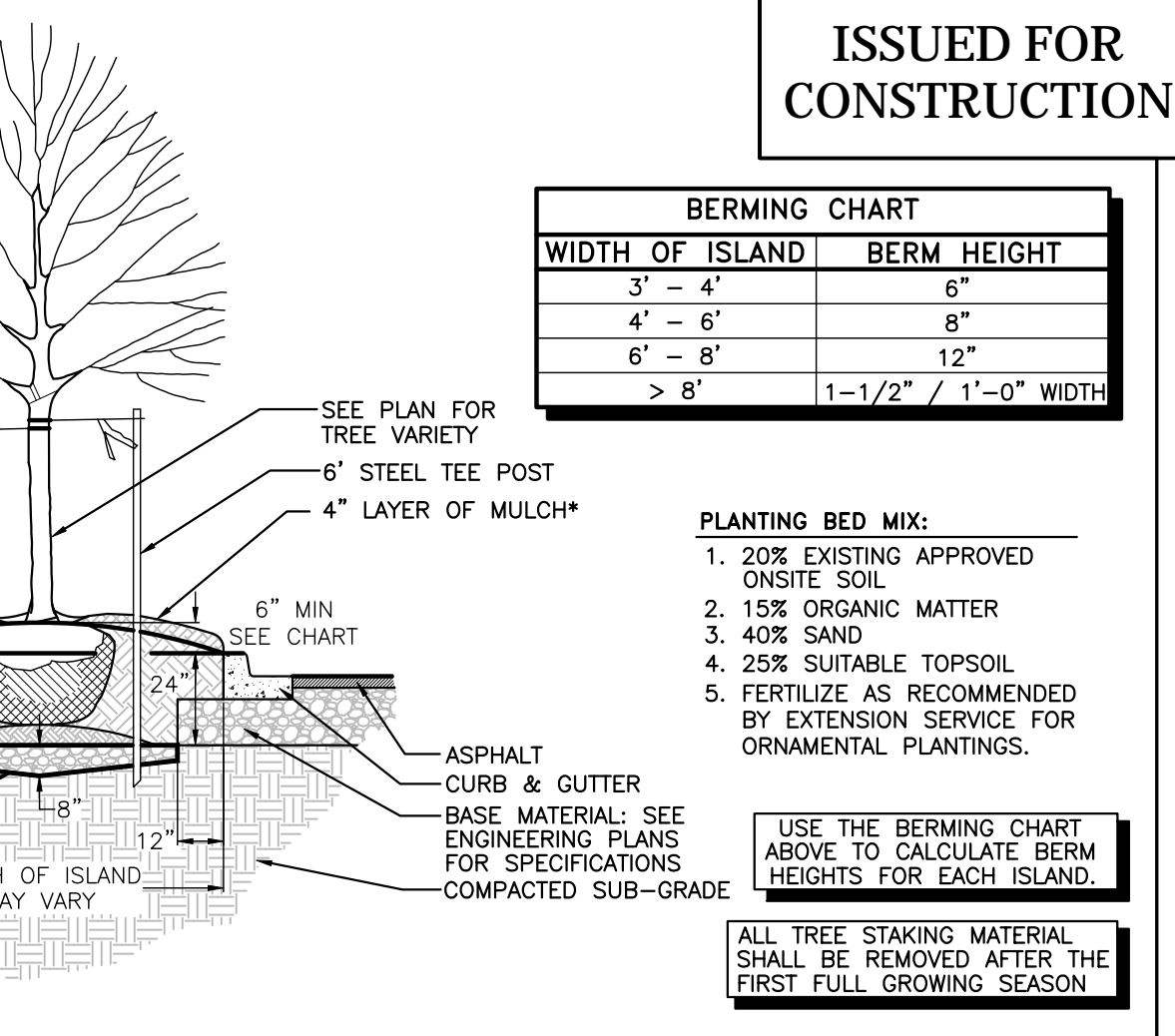


SODDING ON SLOPES

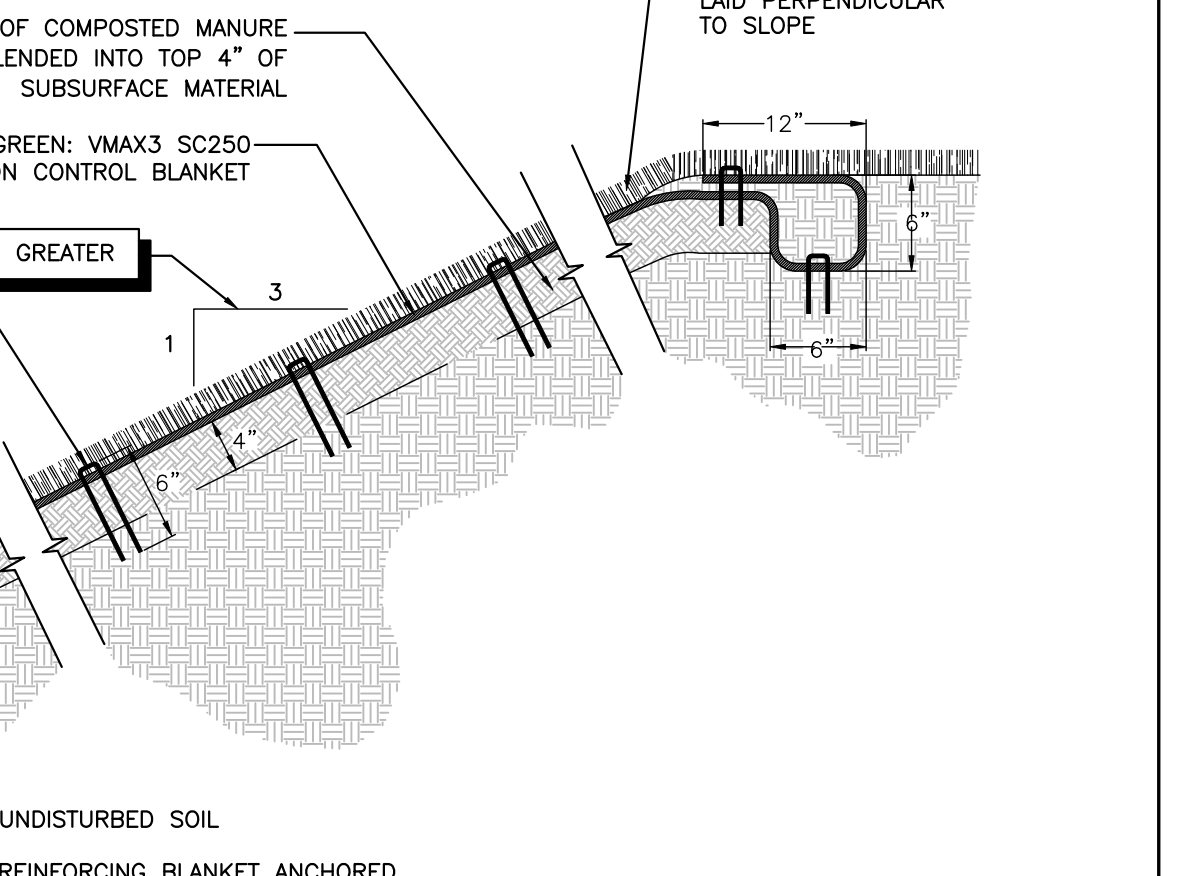
SHRUB AND GROUND COVER PLANTINGS



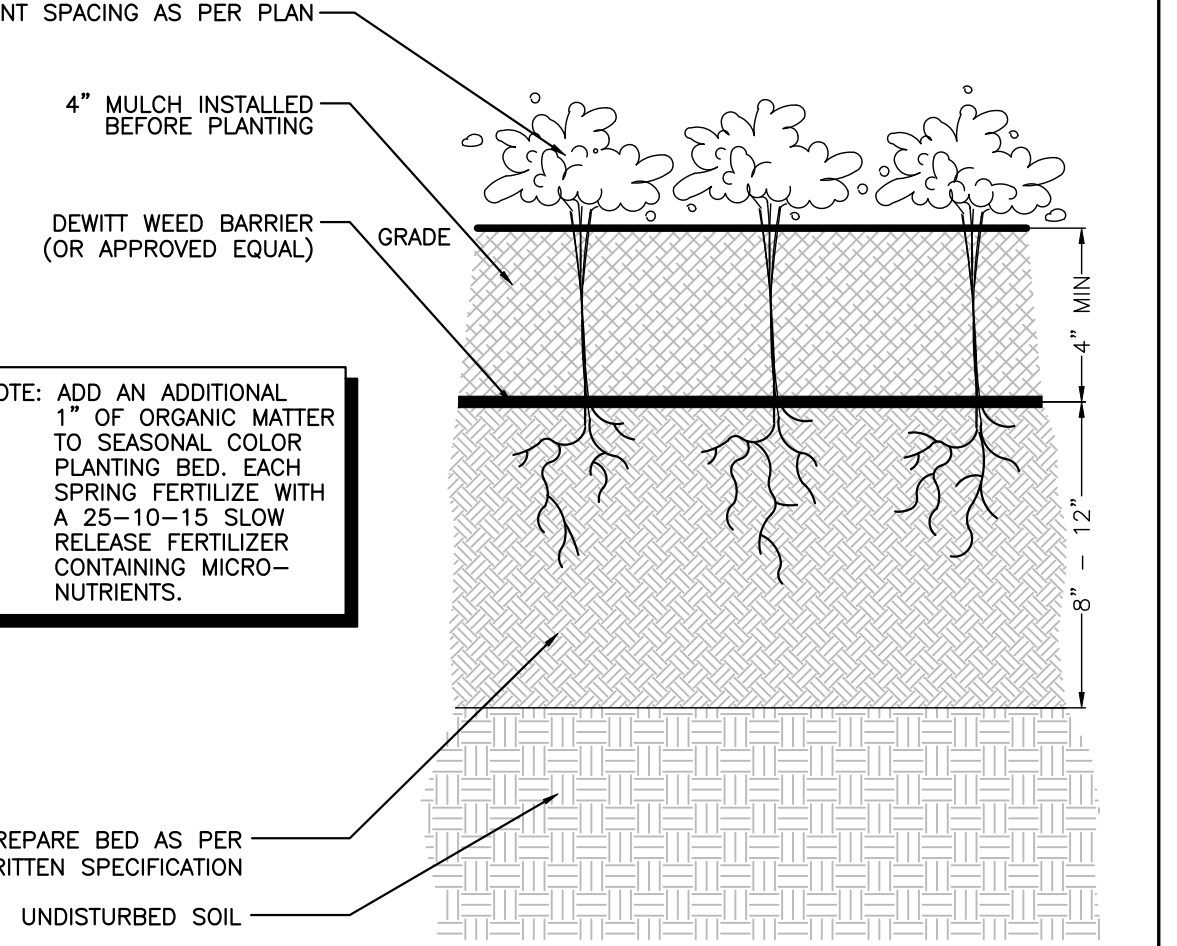
SHRUB AND GROUND COVER PLANTINGS W/ EDGING



BERMING CHART

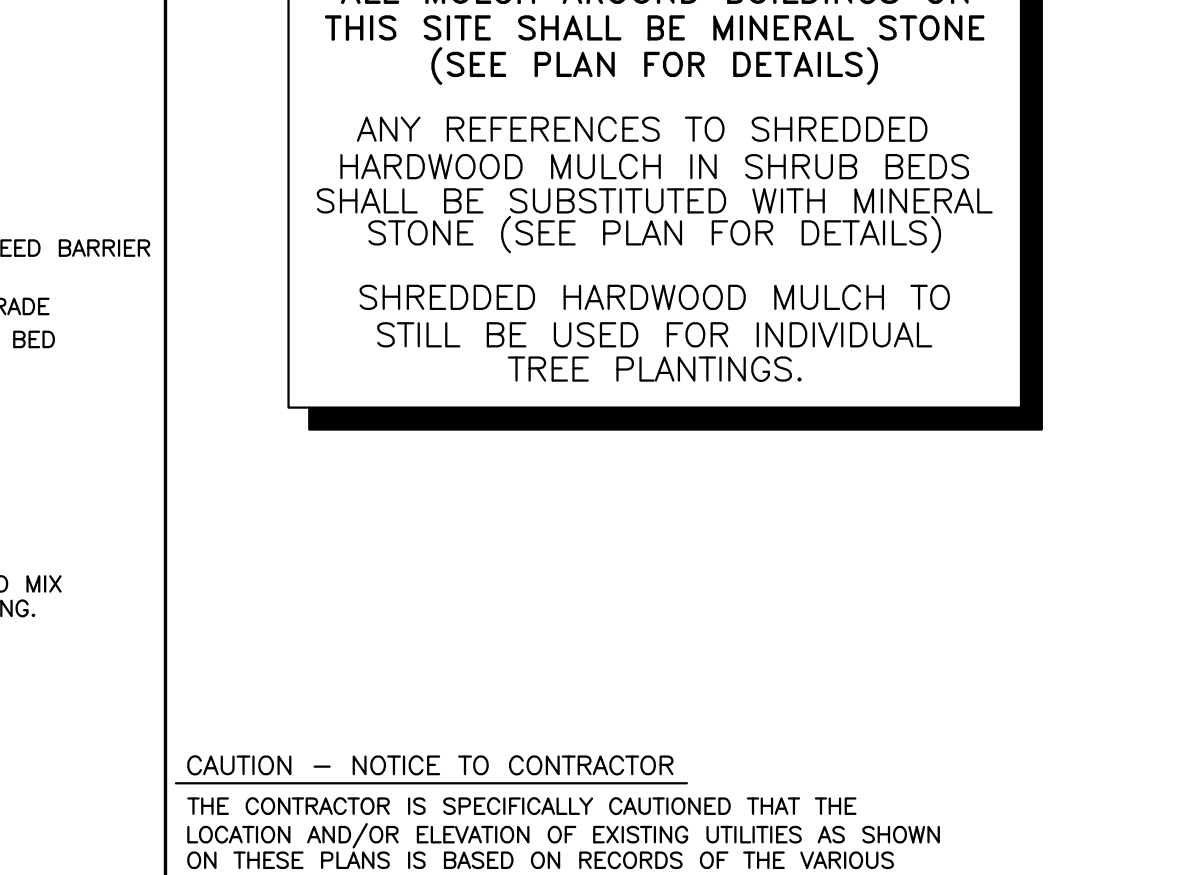


PLANTING BED MIX



SEASONAL COLOR BED

SHRUB AND GROUND COVER PLANTINGS



SHRUB AND GROUND COVER PLANTINGS W/ EDGING

ISSUED FOR CONSTRUCTION

NO	REVISIONS

DEVELOPER: FILSON DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH: (417) 882-1701

PLANTING DETAILS
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

C. R. WALKER, P.L.A.
Professional Landscape Architect
Barrett, TN 38133
Phone (901) 984-0404
Fax (901) 984-0710

STATE OF OKLAHOMA
LICENSED LANDSCAPE ARCHITECT
327
CHARLES R. WALKER

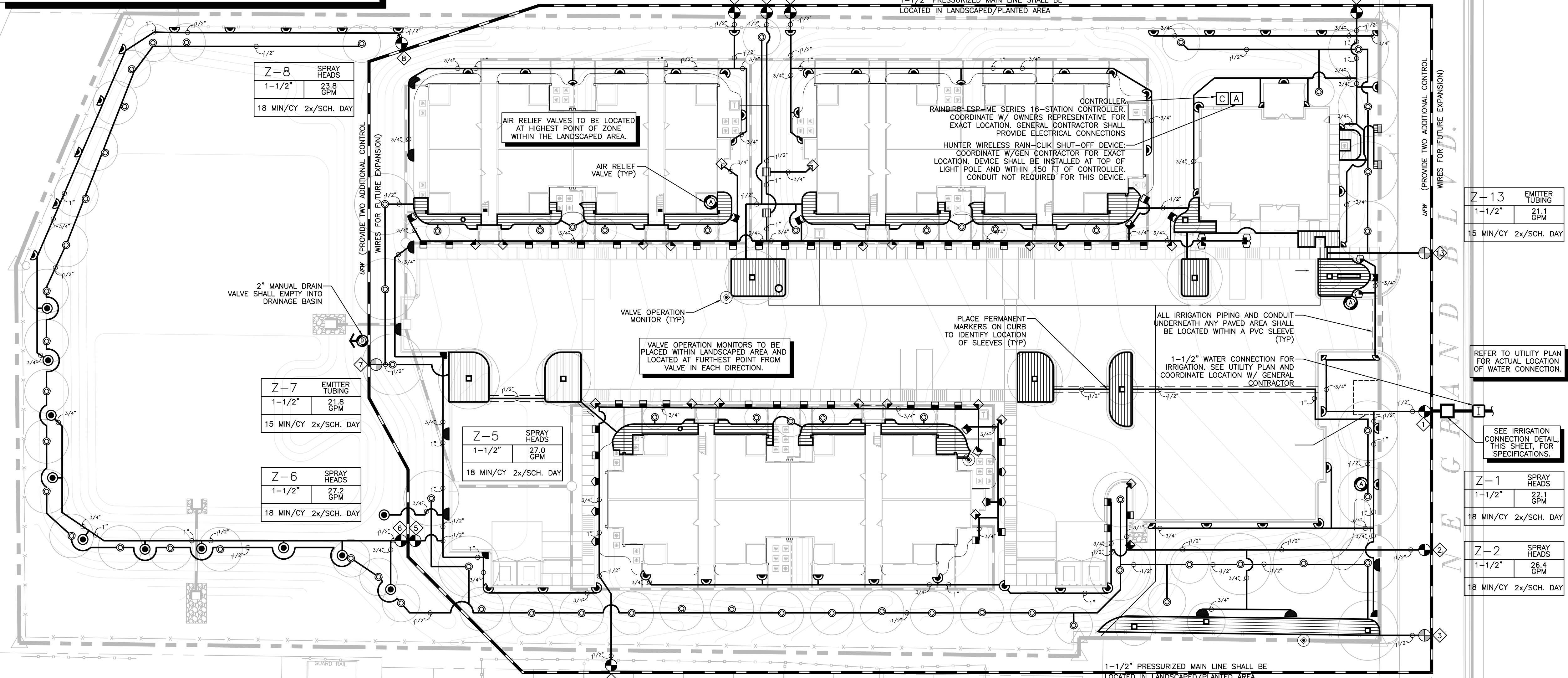
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NOTE:
PVC LATERAL LINE "SPINE" IN EACH DRIP IRRIGATION ZONE IS TO REDUCE THE LAG TIME AND FACILITATE THE RAPID DISTRIBUTION OF WATER THROUGHOUT EACH ZONE. THE INLINE EMITTER TUBING NETWORK SHALL ONLY CONNECT TO THE PVC LATERAL LINE AS NECESSARY FOR THE EFFICIENT AND UNIFORM DISTRIBUTION OF WATER TO THE PLANTING BEDS. USE OF 1/2" FLEXIBLE TUBING MANIFOLDS ARE RECOMMENDED IN LIEU OF ALL PVC-EMITTER TUBING CONNECTIONS SHOWN

ISSUED FOR CONSTRUCTION

NO	REVISIONS



IRRIGATION LEGEND

CONTRACTOR PROVIDED COMPONENTS

- C 16-STATION IRRIGATION CONTROLLER, WALL MOUNTED IN LOCKING CABINET-RAINBIRD ESP-ME SERIES
- A WIRELESS RAIN/FREEZE SENSOR - HUNTER MINI-CLK

IRRIGATION CONNECTION COMPONENTS

- I IRRIGATION WATER TAP AND CITY WATER METER ON POTABLE WATER UTILITY LINE WITH BACKFLOW PREVENTER, PROVIDED BY CONTRACTOR. COORDINATE SOURCE LOCATION WITH GENERAL CONTRACTOR. SEE UTILITY PLAN FOR SIZE.
- ⊗ REDUCED PRESSURE BACKFLOW DEVICE (LINE SIZE), PER LOCAL CODES PROVIDE GREEN FIBERGLASS INSULATED BACKFLOW PREVENTER. VERIFY EXACT LOCATION IN FIELD. FEBCO 825Y, OR EQUAL.
- ⊕ ISOLATION VALVE (LINE SIZE). PROVIDE 15" VALVE BOX WITH EXTENSIONS. BRONZE THREAD ON TYPE WITH WHEEL HANDLE.
- ⊙ BRONZE QUICK COUPLER VALVE (LINE SIZE). MOUNT ON SPEARS PVC OR RAINBIRD O-RING TYPE PVC SWING JOINT. MOUNT IN 15" RECTANGULAR VALVE BOX. PROVIDE ONE (SIZE APPROPRIATE) QC KEY PER FOUR QUICK COUPLER VALVES. RAINBIRD 4 RC.
- ⊖ VALVE OPERATION MONITOR - CAPPED IRRIGATION SPRAY HEAD
- ⊕ AIR RELIEF VALVES WITH REMOVABLE FLUSH CAPS TO BE LOCATED AT ALL ZONES WHERE INLINE EMITTER TUBING IS USED.
- ⊕ ELECTRIC IRRIGATION VALVE. PLASTIC BODY WITH FLOW CONTROL MOUNTED IN 15" STANDARD PLASTIC VALVE BOX. "X" IS ZONE DESIGNATION. FOR USE IN DRIP ZONES.
- ⊕ 1" MEDIUM FLOW VALVE WITH 40 PSI PRESSURE REDUCER MOUNTED IN 15" STANDARD PLASTIC VALVE BOX. "X" IS ZONE DESIGNATION. FOR USE IN ZONES WHERE THE FLOW RATE IS BETWEEN 4.0 GPM AND 15.0 GPM.
- UFW UNDERGROUND FEEDER WIRE NO. 14 AWG DIRECT BURIAL RUN IN CONDUIT.
- PVC SLEEVE SCHEDULE 40 PVC UNDER ALL PAVED SURFACES. SEE SCHEDULE FOR SIZE. PLACE PERMANENT MARKERS ON CURB TO IDENTIFY LOCATION.
- PVC MAINLINE PIPE. SCHEDULE 40, PVC PIPE 2.5" AND SMALLER - SOLVENT WELD PIPE AND PVC SOLVENT WELD FITTINGS. PVC SLEEVES SHALL BE REQUIRED UNDER SIDEWALKS, CURBS, OR ANY PAVED SURFACES. REFER TO SPECIFICATIONS FOR SIZES OF SLEEVES.
- PVC LATERAL PIPE. CLASS 200, SOLVENT WELD, PVC PIPE FOR PIPE OVER 1" IN DIAMETER. SIZE LATERAL PIPE AS SHOWN AT VELOCITIES OF 5 FEET PER SECOND OR LESS.
- PVC SLEEVES SHALL BE REQUIRED UNDER SIDEWALKS, CURBS, OR ANY PAVED SURFACES. REFER TO SPECIFICATIONS FOR SIZES OF SLEEVES.
- PVC LATERAL PIPE. CLASS 315, SOLVENT WELD, PVC PIPE FOR PIPE 1" IN DIAMETER OR LESS. SIZE LATERAL PIPE AS SHOWN AT VELOCITIES OF 5 FEET PER SECOND OR LESS.
- PVC SLEEVES SHALL BE REQUIRED UNDER SIDEWALKS, CURBS, OR ANY PAVED SURFACES. REFER TO SPECIFICATIONS FOR SIZES OF SLEEVES.
- RAINBIRD 1/2" POLYETHYLENE TUBING TO BE EITHER:
 - PRESSURE COMPENSATING INLINE EMITTER TUBING WITH 0.9 GAL/HOUR EMITTERS AT 18" SPACING O.C. OR
 - XBS 1/2" BLANK TUBING, AS LABELED ON PLANS.
- 6" PIPE SIZE - UNLABELED PIPE BETWEEN 2 SIZES SHALL BE THE LARGER SIZE.
- PIPE JOINT
- PIPES CROSS. DO NOT INTERSECT

CONTROLLER (RAINBIRD ESP-ME SERIES 16-STATION CONTROLLER) PROGRAMMING SCHEDULE

IRRIGATION INTERVAL	EVERY DAY
# OF START TIMES/SCHEDULED DAY	2
SCHEDULED START TIMES FOR PROGRAM	10:00 PM 2:30 AM

ZONE	ZONE DESCRIPTION	RUN TIME	TOTAL RUN TIME/SCHEDULED DAY
Z-1	TURF-E TURFGRASS	18 MIN/CYCLE	36 MIN
Z-2	TURF-SE TURFGRASS	18 MIN/CYCLE	36 MIN
Z-3	DRIP-NE BUILDING FRONTAGE	15 MIN/CYCLE	30 MIN
Z-4	TURF-S BUILDING	18 MIN/CYCLE	36 MIN
Z-5	TURF-SW TURFGRASS	18 MIN/CYCLE	36 MIN
Z-6	TURF-S RETAINING POND	18 MIN/CYCLE	36 MIN
Z-7	DRIP-S BUILDING FRONTAGE	15 MIN/CYCLE	30 MIN
Z-8	TURF-N RETAINING POND	18 MIN/CYCLE	36 MIN
Z-9	TURF-NW BUILDING	18 MIN/CYCLE	36 MIN
Z-10	TURF-N TURFGRASS	18 MIN/CYCLE	36 MIN
Z-11	TURF-NE BUILDING	18 MIN/CYCLE	36 MIN
Z-12	DRIP-COMMUNITY BUILDING	18 MIN/CYCLE	36 MIN
Z-13	DRIP-PERIMETER TREE RINGS	15 MIN/CYCLE	30 MIN
Z-14	OPEN	-	-
Z-15	OPEN	-	-
Z-16	OPEN	-	-

RUN TIME TOTALS
3 HRS 45 MIN PER SCHEDULED DAY / 7 HRS 30 MIN PER SCHEDULED DAY

CONTROLLER PROGRAMMING SCHEDULE IS BASED UPON THE BEST KNOWLEDGE OF THE ANTICIPATED POST CONSTRUCTION SITE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING SITE CONDITIONS AND ADJUSTING IRRIGATION WATERING SCHEDULE AS NECESSARY TO MAINTAIN PLANT HEALTH.

PLANT WATER REQUIREMENTS

PLANT TYPE	ETc	WEEKLY REQUIREMENT
TREES	0.21"/DAY	1.47"/WEEK
TURFGRASS	0.21"/DAY	1.47"/WEEK
SHRUB PLANTER	0.30"/DAY	2.10"/WEEK

DEVELOPER:
FILSON DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH: (417) 882-1701

IRRIGATION PLAN
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

C. R. WALKER, P.L.A.
Professional Landscaping Consultants
Barnett, TN 38133
Phone (901) 984-0404
Fax (901) 984-0710



THE DOMESTIC STATIC BOR PRESSURE AT THE F.F.E. FOR THIS SITE WAS NOT AVAILABLE WHEN THE IRRIGATION PLAN WAS PREPARED.

THE IRRIGATION SYSTEM REQUIRES A MINIMUM OF: 58.5 PSI FOR EFFICIENT OPERATION.

THE CONTRACTOR SHALL CONFIRM THAT THE AVAILABLE WATER PRESSURE AT THE SITE MEETS THE MINIMUM NECESSARY FOR EFFICIENT OPERATION.

REFER TO THE IRRIGATION NOTES (THIS SET) FOR ADDITIONAL INFORMATION.

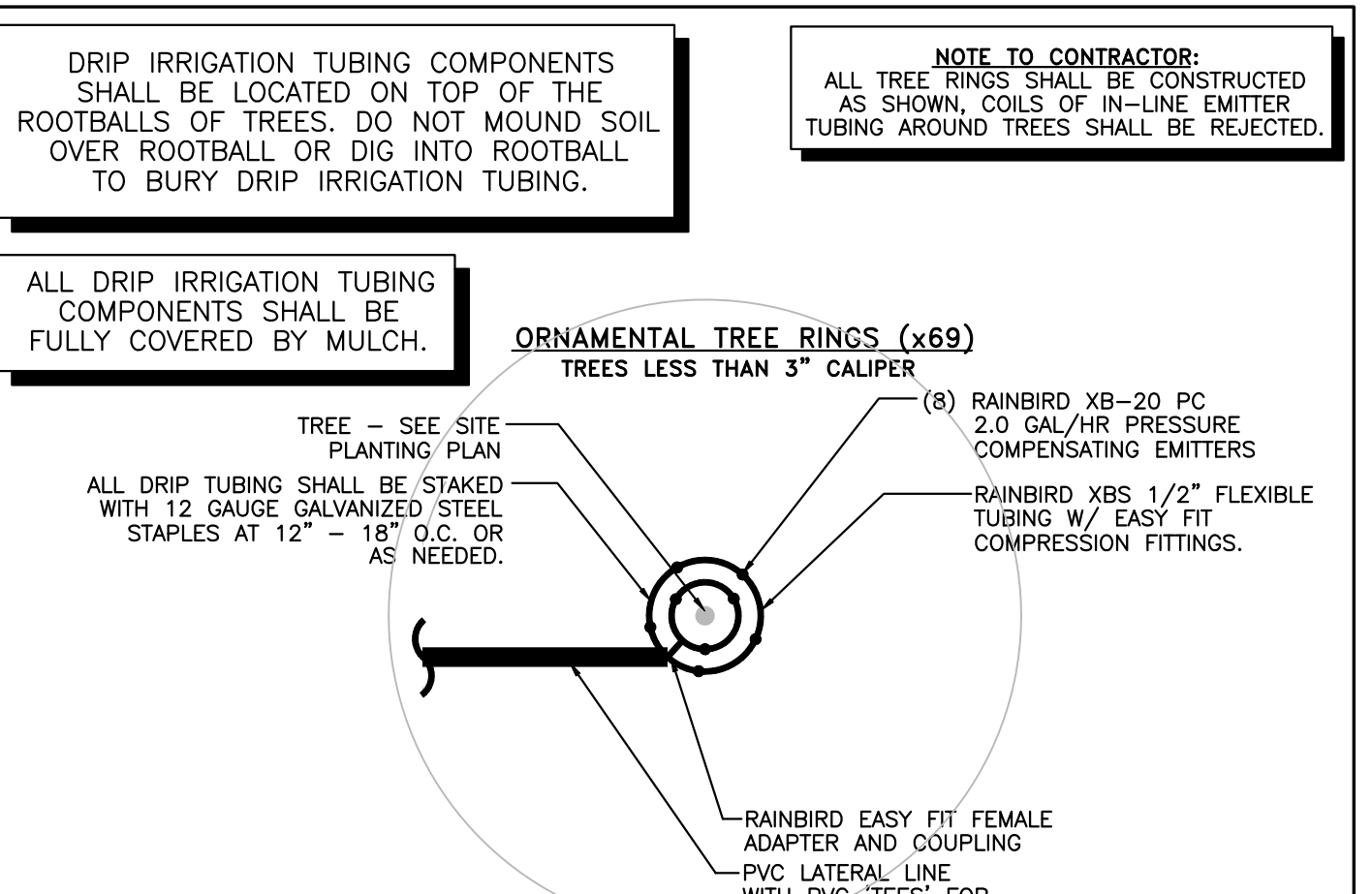
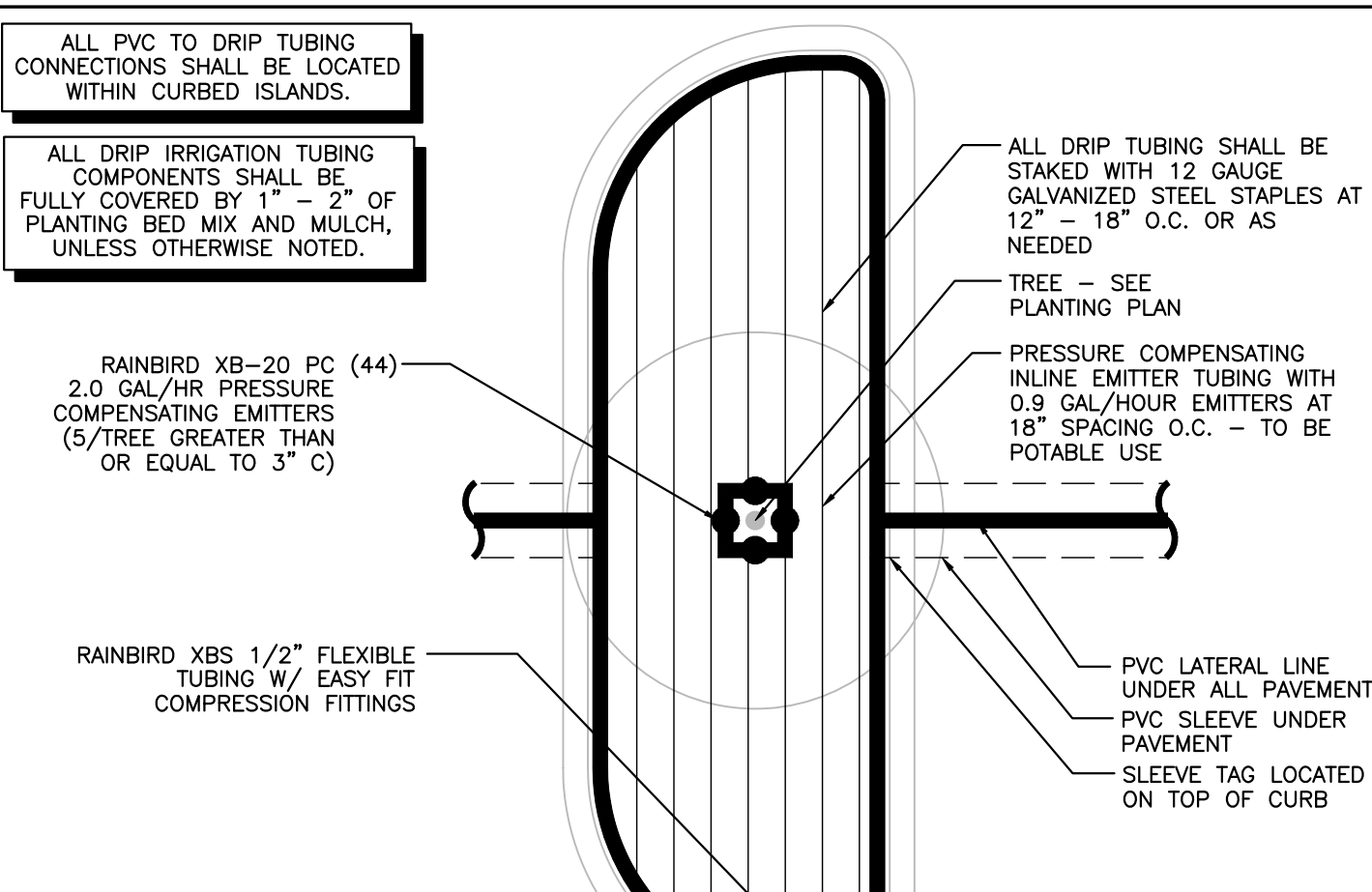
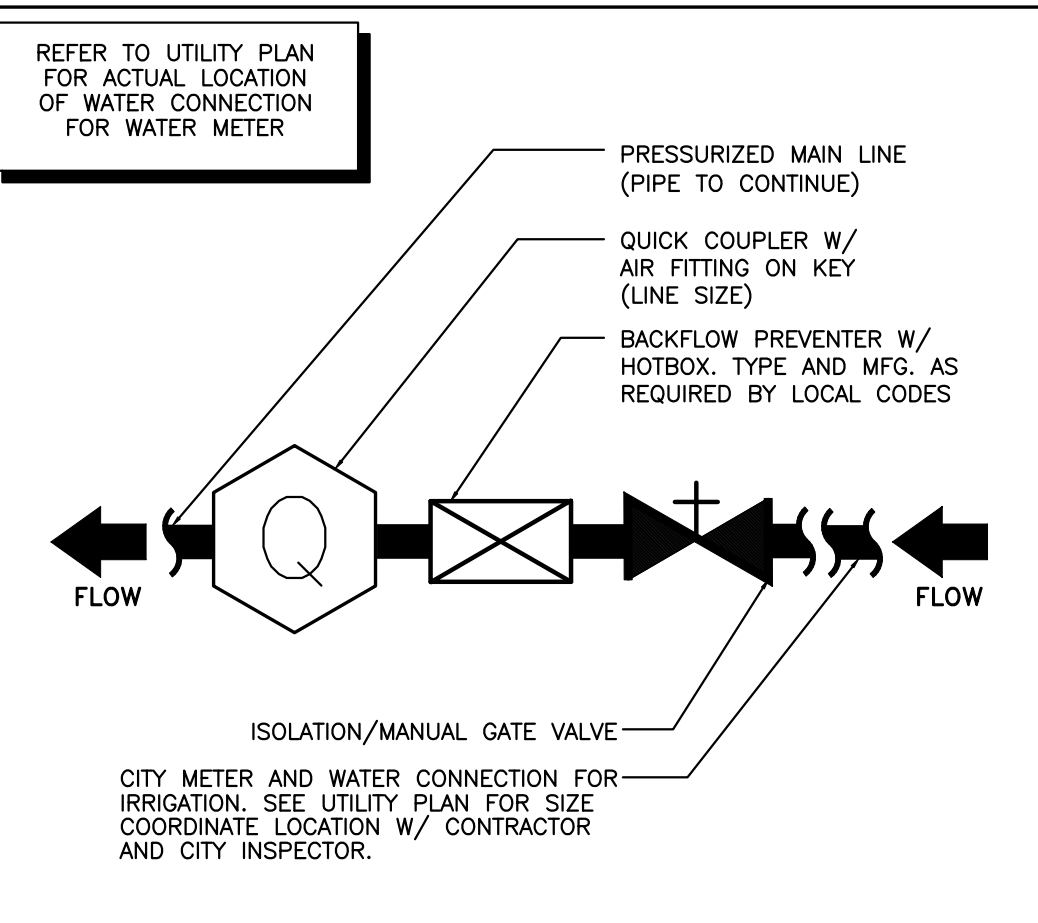
MAINLINE FOR IRRIGATION SYSTEM SHALL BE BEDDED WITHIN TRENCH AS PER WATERLINE SPECIFICATIONS. LATERAL LINES MAY BE AND SHALL BE BACKFILLED AS PER SPECIFICATIONS IN A COMMON TRENCH WITH THE MAIN LINE PROVIDED MINIMUM SEPARATION IS PROVIDED.

GENERAL CONTRACTOR SHALL ENSURE THAT SLEEVES INSTALLED ARE LARGE ENOUGH TO ACCOMMODATE ALL NECESSARY PIPING, AS PER SPECIFICATIONS.

PERMANENT MARKERS SHALL BE PLACED ON CURBS TO IDENTIFY LOCATIONS OF ALL IRRIGATION SLEEVES.

CONTRACTOR SHALL CONTACT 811 FOR LOCATION OF ALL UTILITIES AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION

ALL IRRIGATION HEADS SHALL BE LOCATED SO THAT OTHER SITE FEATURES DO NOT OBSTRUCT SPRAY OF IRRIGATION HEADS.



CAUTION - NOTICE TO CONTRACTOR

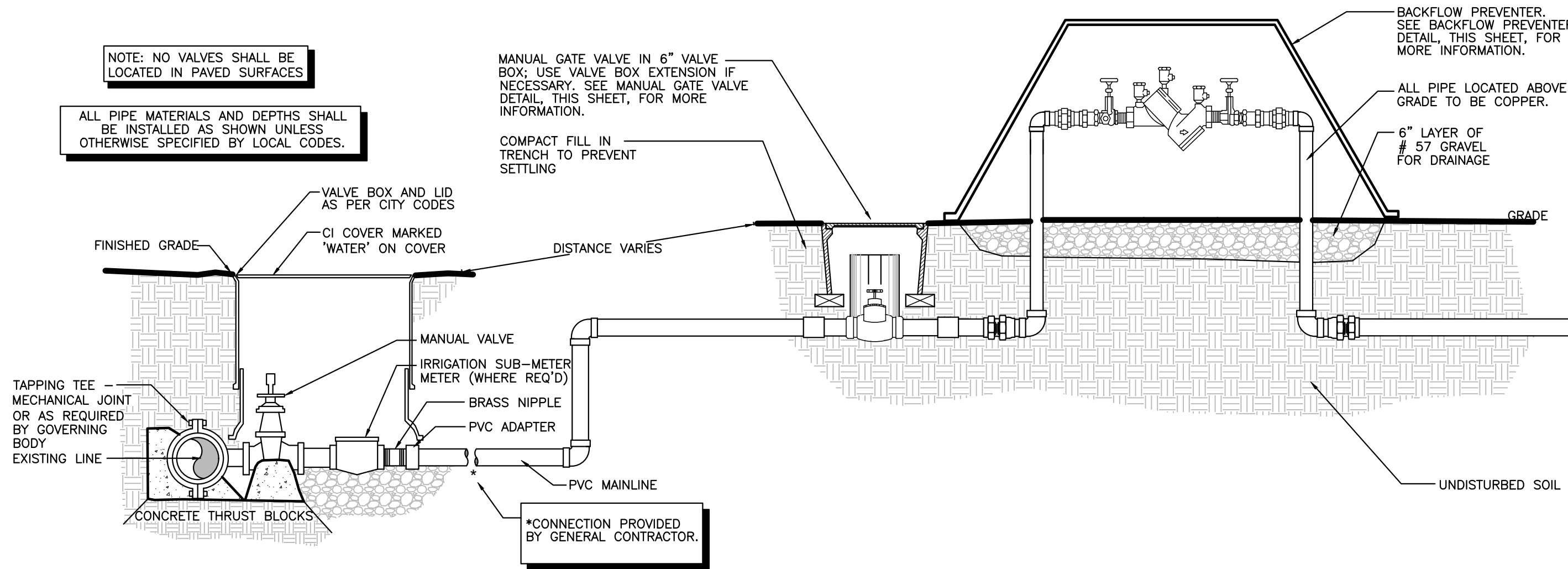
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE 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.

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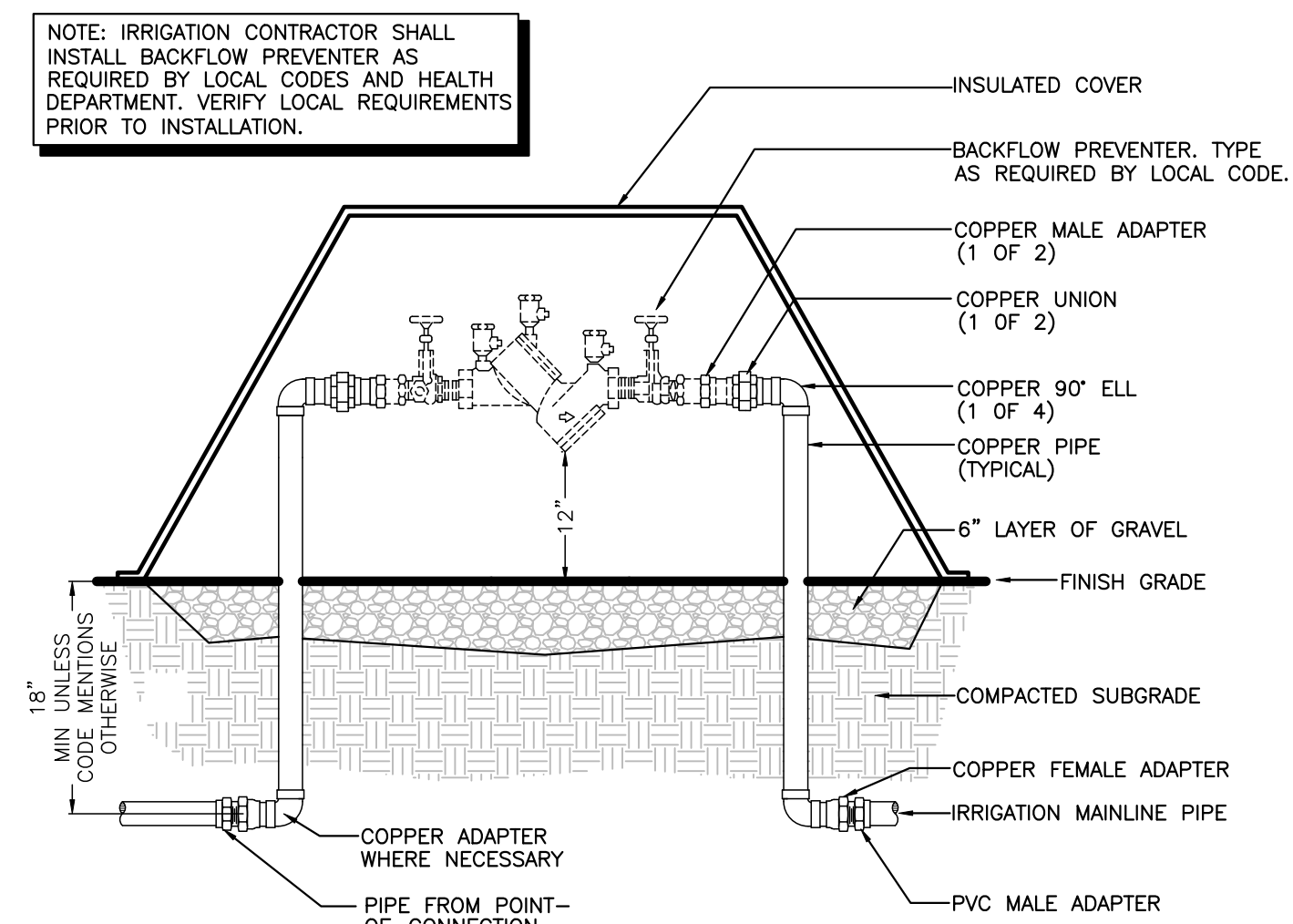
IRRIGATION NOTES

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. 58.5 PSI STATIC WATER PRESSURE IS REQUIRED FOR THE EFFICIENT OPERATION OF THE IRRIGATION SYSTEM AS DESIGNED. VERIFY 60.0 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-UF SINGLE STRAND DIRECT BURIAL COPPER RUN IN A BURIED CONDUIT. ALL WIRING SHALL BE MADE WITH MANUFACTURER'S PACKAGED KIT CONSISTING OF INSULATING SPRING-TYPE CONNECTOR OR GRIMMED 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. LINES MAY BE SHOWN OFFSET IN SOME 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. THROTTLE ALL IRRIGATION CONTROL VALVES AS REQUIRED TO PREVENT FOGGING.
36. FINAL ADJUSTMENTS TO IRRIGATION SYSTEM & SPRAY PATTERNS ARE TO BE MADE PRIOR TO FINAL INSPECTION.
37. ALL BACKFILLED TRENCHES SHALL BE THOROUGHLY COMPACTED. SEE SPECIFICATIONS FOR BACKFILL MATERIAL AND COMPACTION REQUIREMENTS.
38. 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.
39. 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.
40. IRRIGATION CONTRACTOR SHALL REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH THE OWNER'S REPRESENTATIVE.
41. 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.
42. ALL WORK, ADJUSTMENTS, AND INSPECTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
43. REFER TO SITEMARK SPECIFICATIONS FOR ADDITIONAL INFORMATION NEEDED FOR IMPLEMENTATION OF IRRIGATION PLANS.



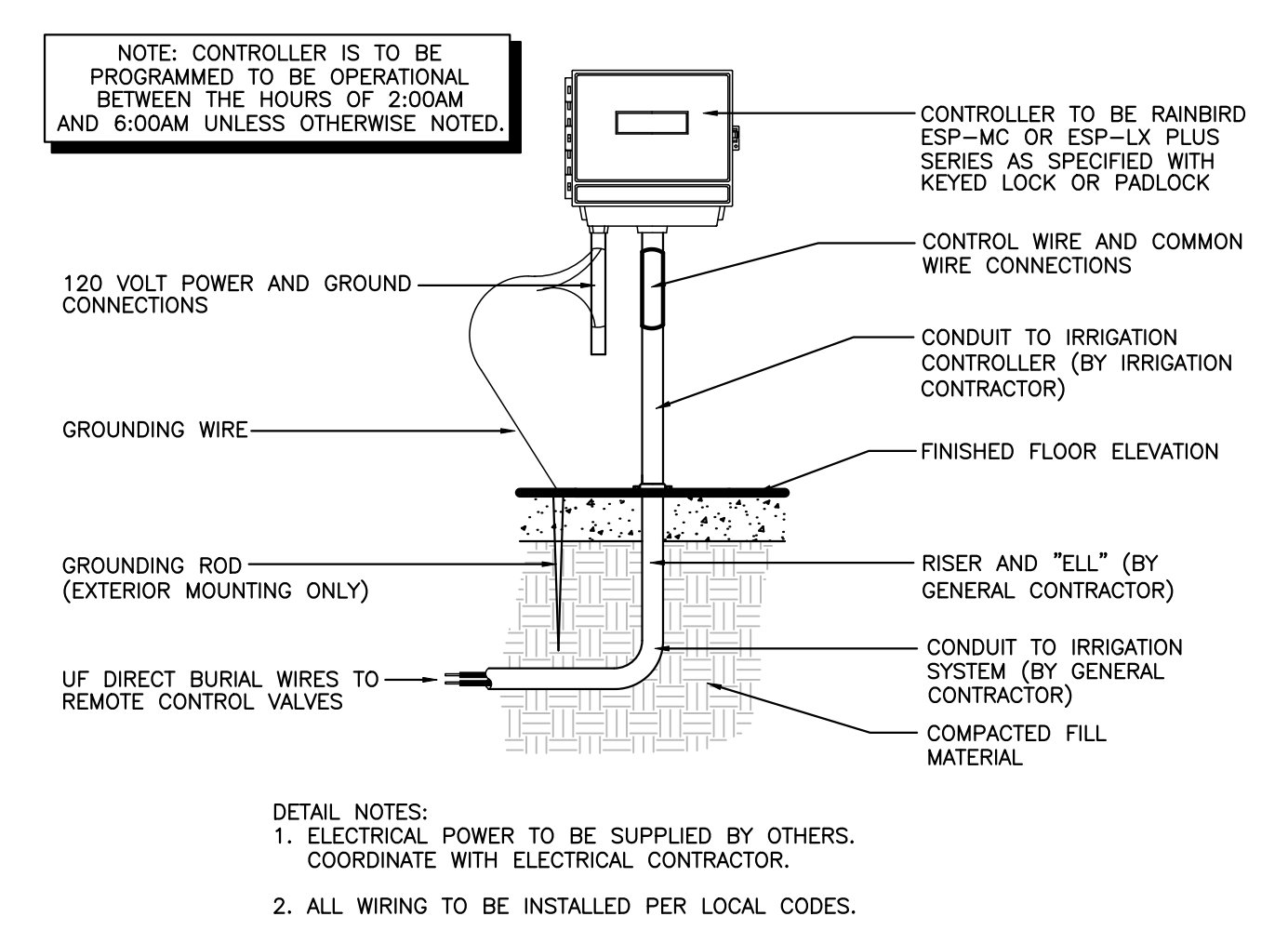
TAP AT WATER MAIN & IRR HOOKUP

NTS



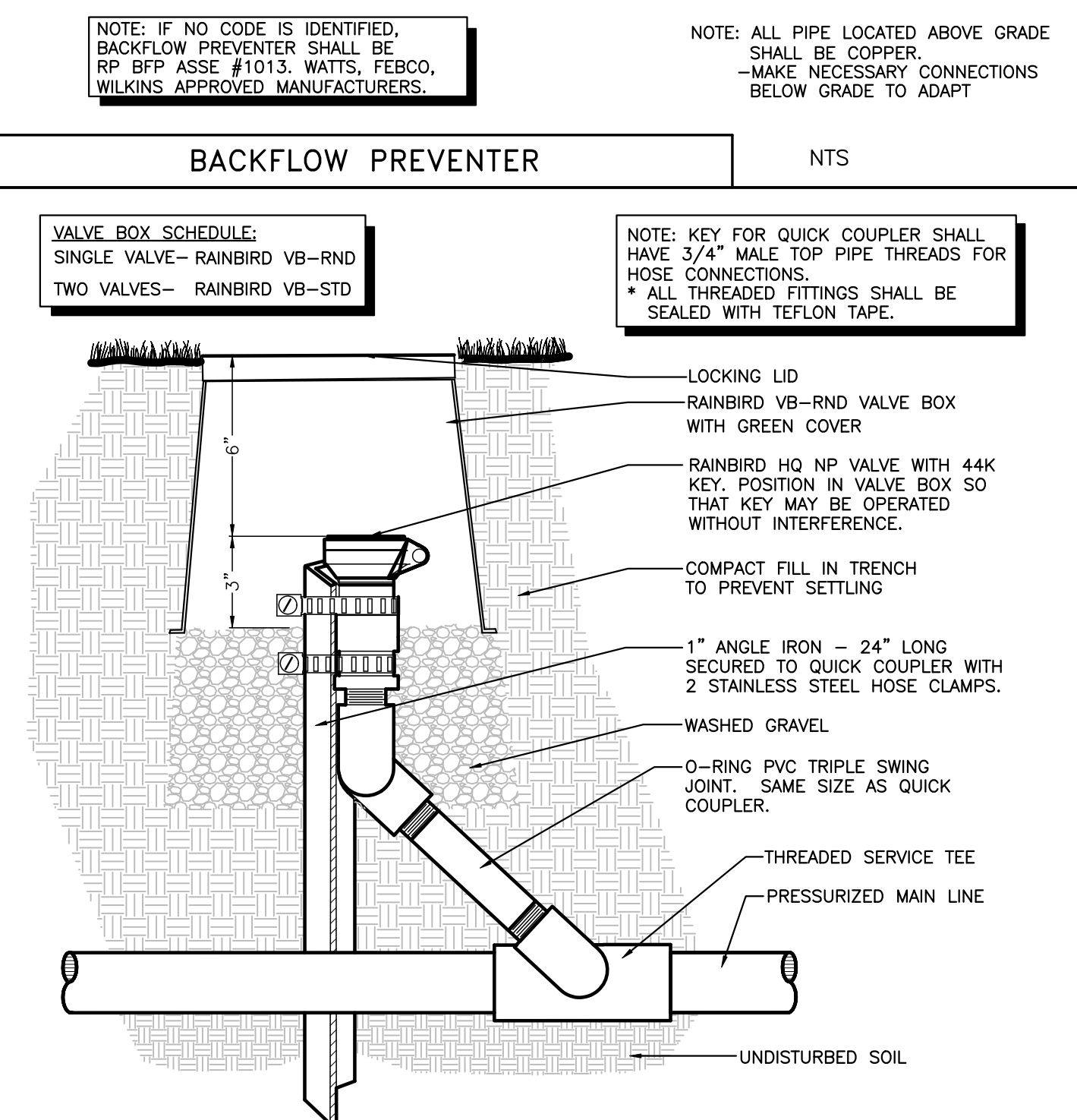
BACKFLOW PREVENTER

NTS



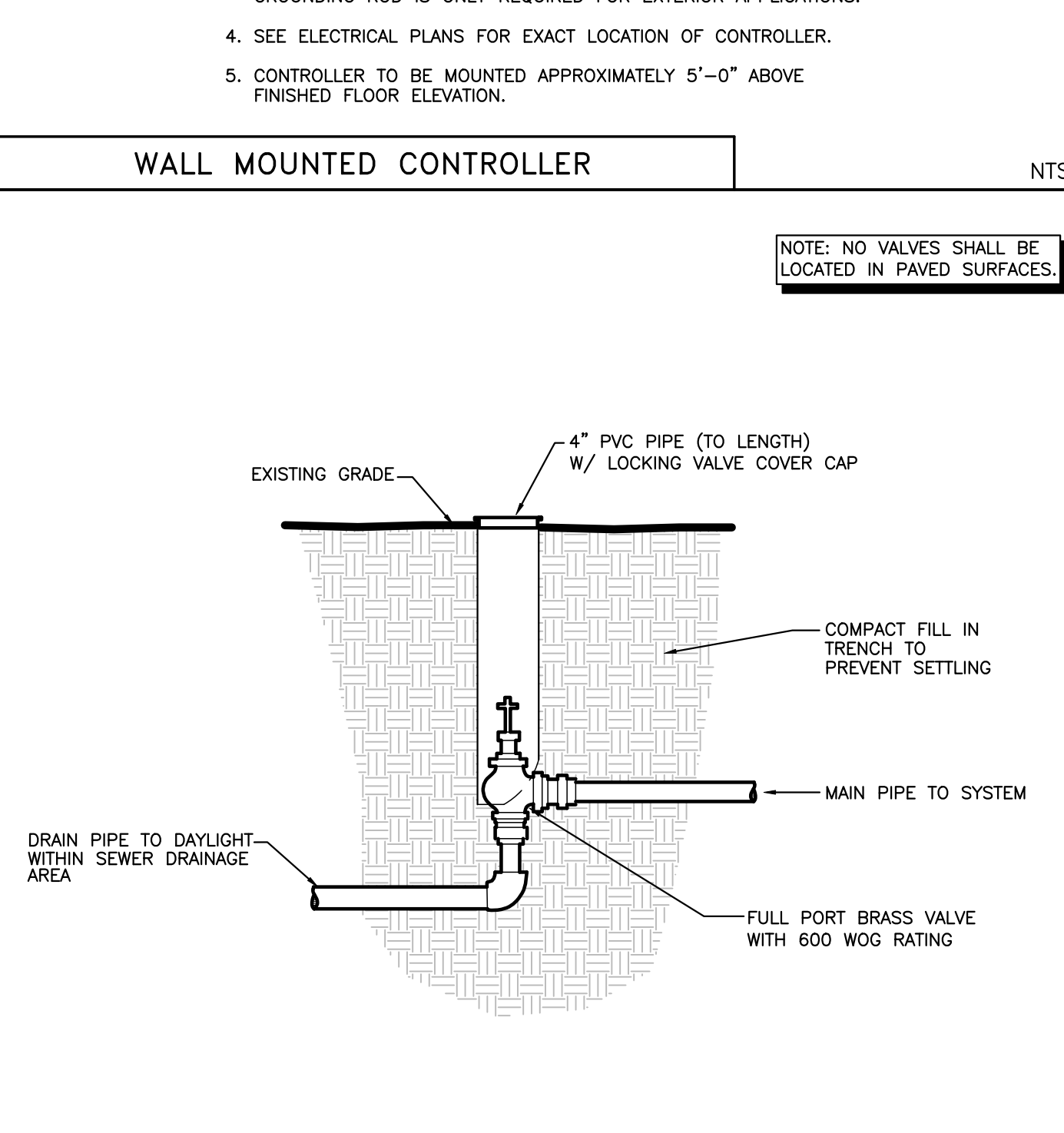
WALL MOUNTED CONTROLLER

NTS



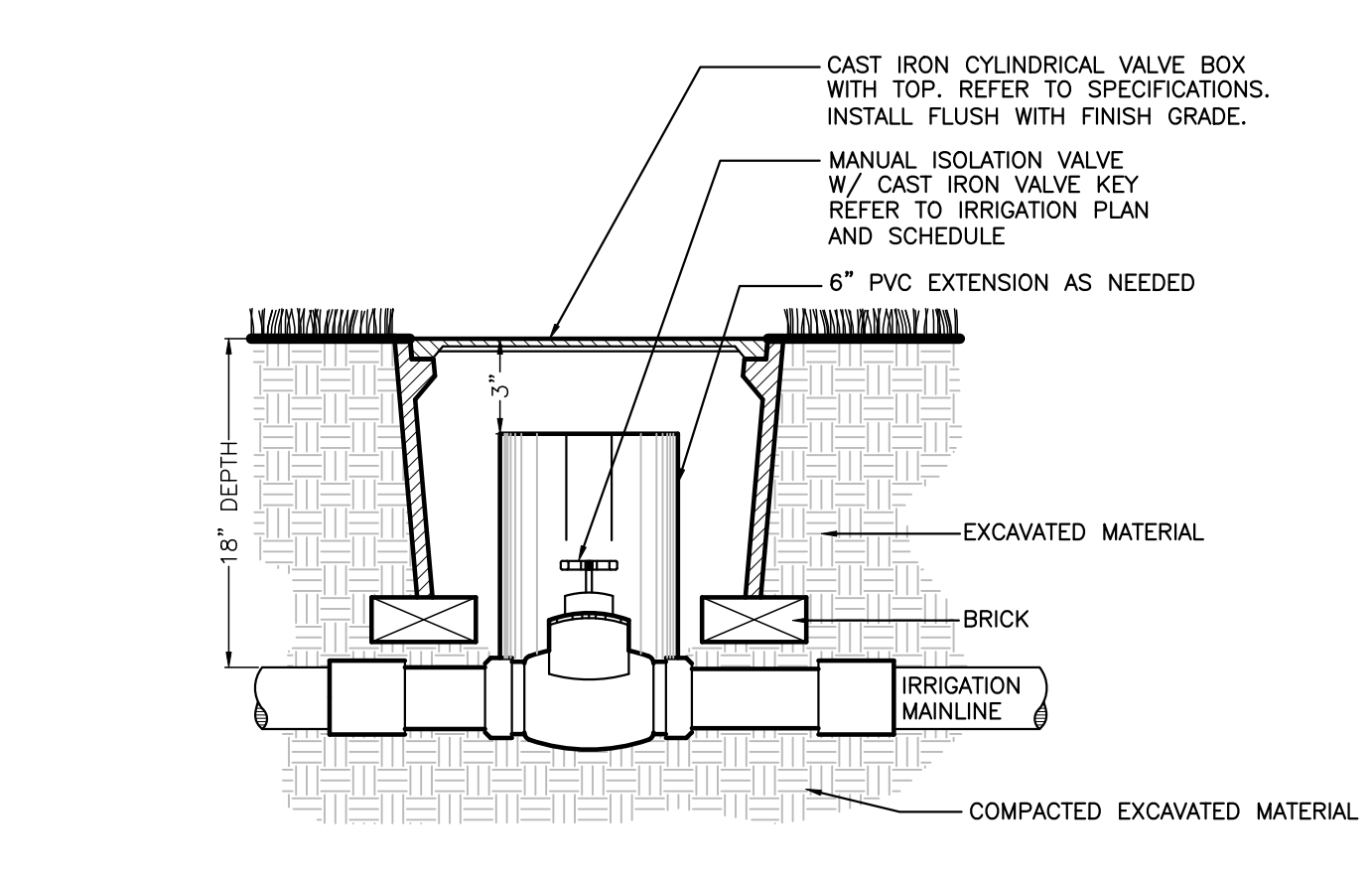
QUICK COUPLER VALVE

NTS



MANUAL DRAIN VALVE

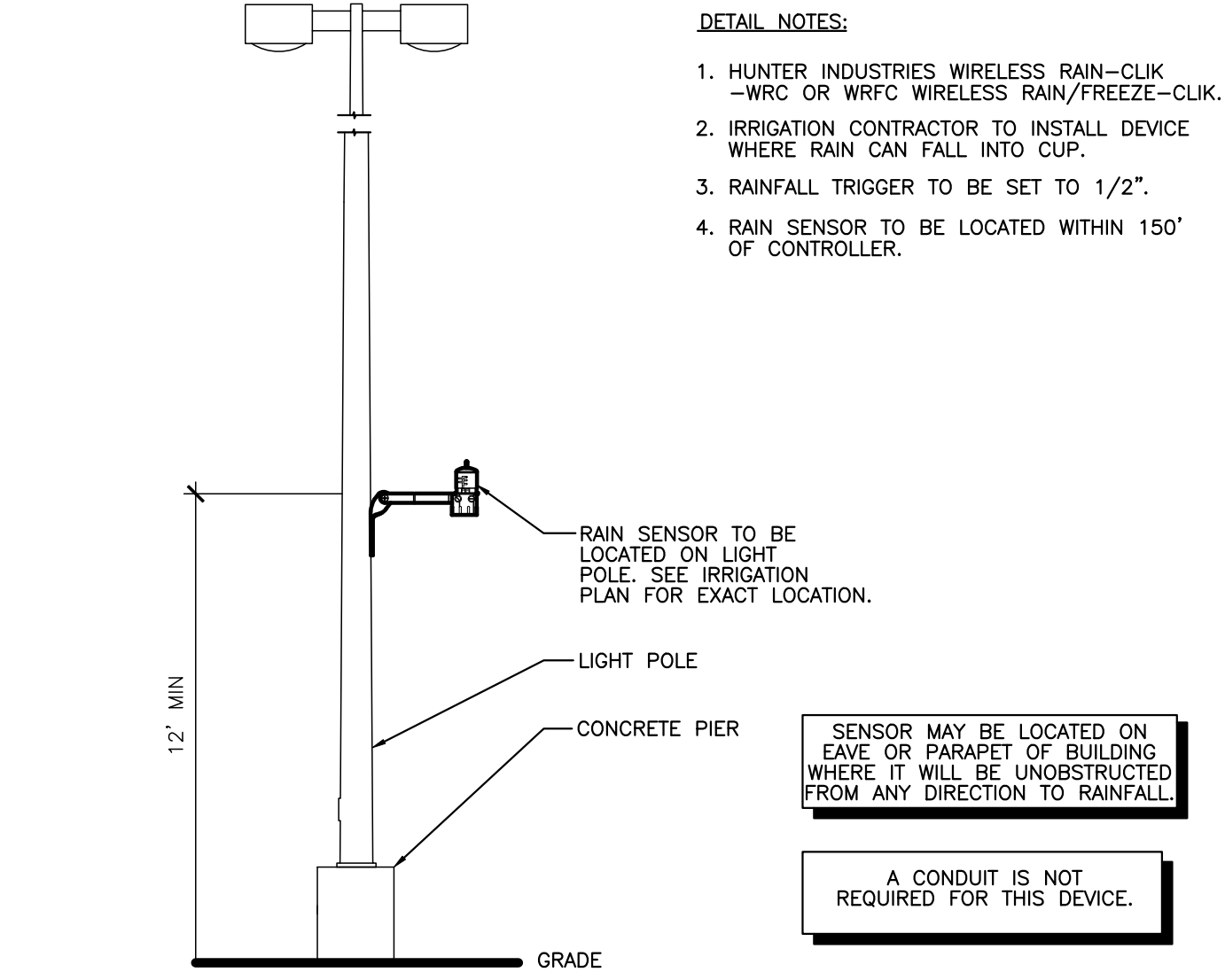
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MANUAL ISOLATION VALVE

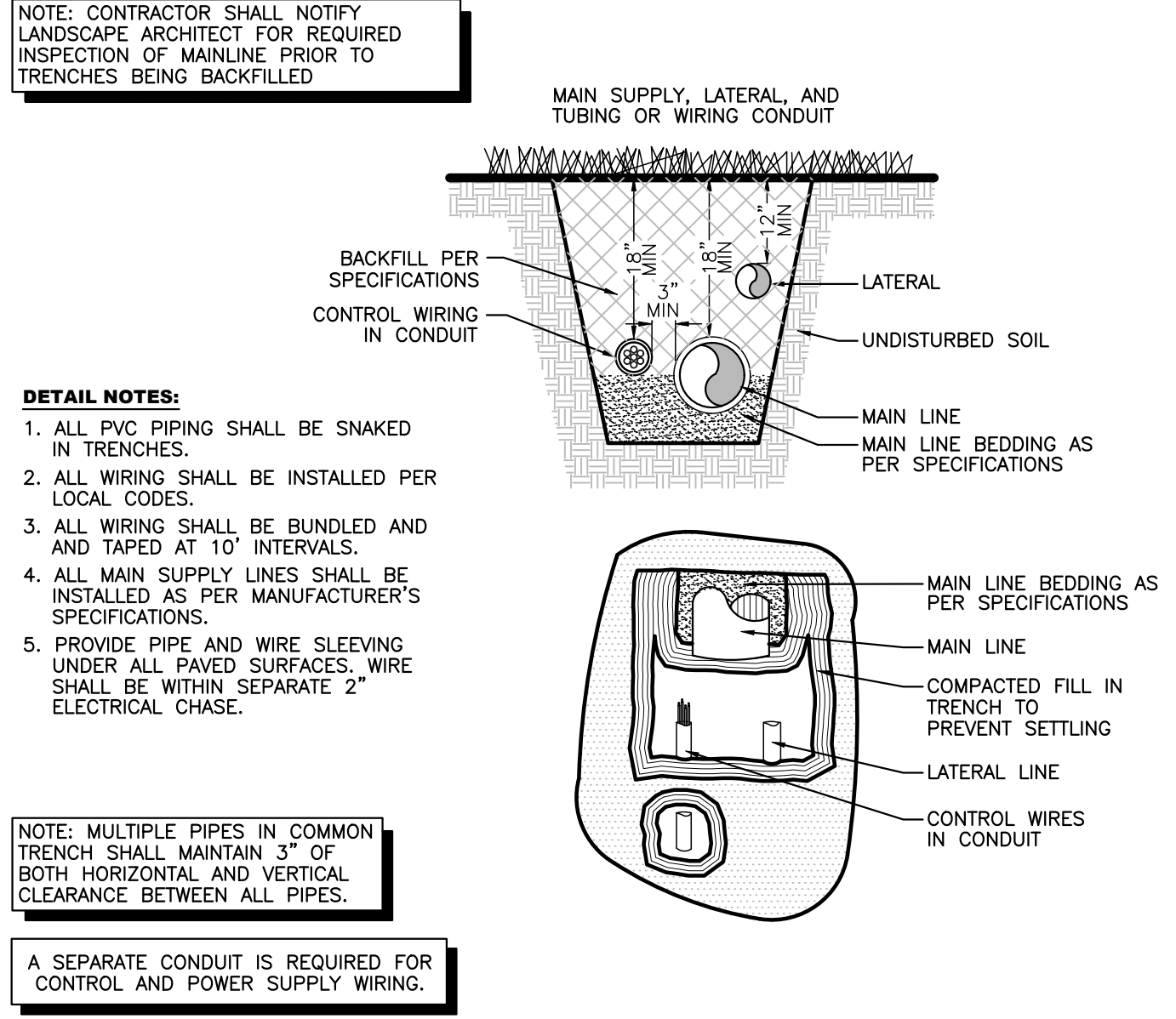
NTS

VALVE SCHEDULE:
SMALLER THAN 3": FULL PORT BRASS BALL VALVE WITH 600 WOG RATING.
3" OR LARGER: CAST IRON AND BRONZE MECHANICAL JOINT VALVE.



AUTOMATIC RAIN SHUT-OFF DEVICE

NTS



TYPICAL TRENCHING

NTS

ISSUED FOR CONSTRUCTION

NO	REVISIONS

DEVELOPER:
FILSON DEVELOPMENT, LLC
3556 S. CULPEPPER CIRCLE, SUITE 4
SPRINGFIELD, MO 65908
PH. (417) 882-1701

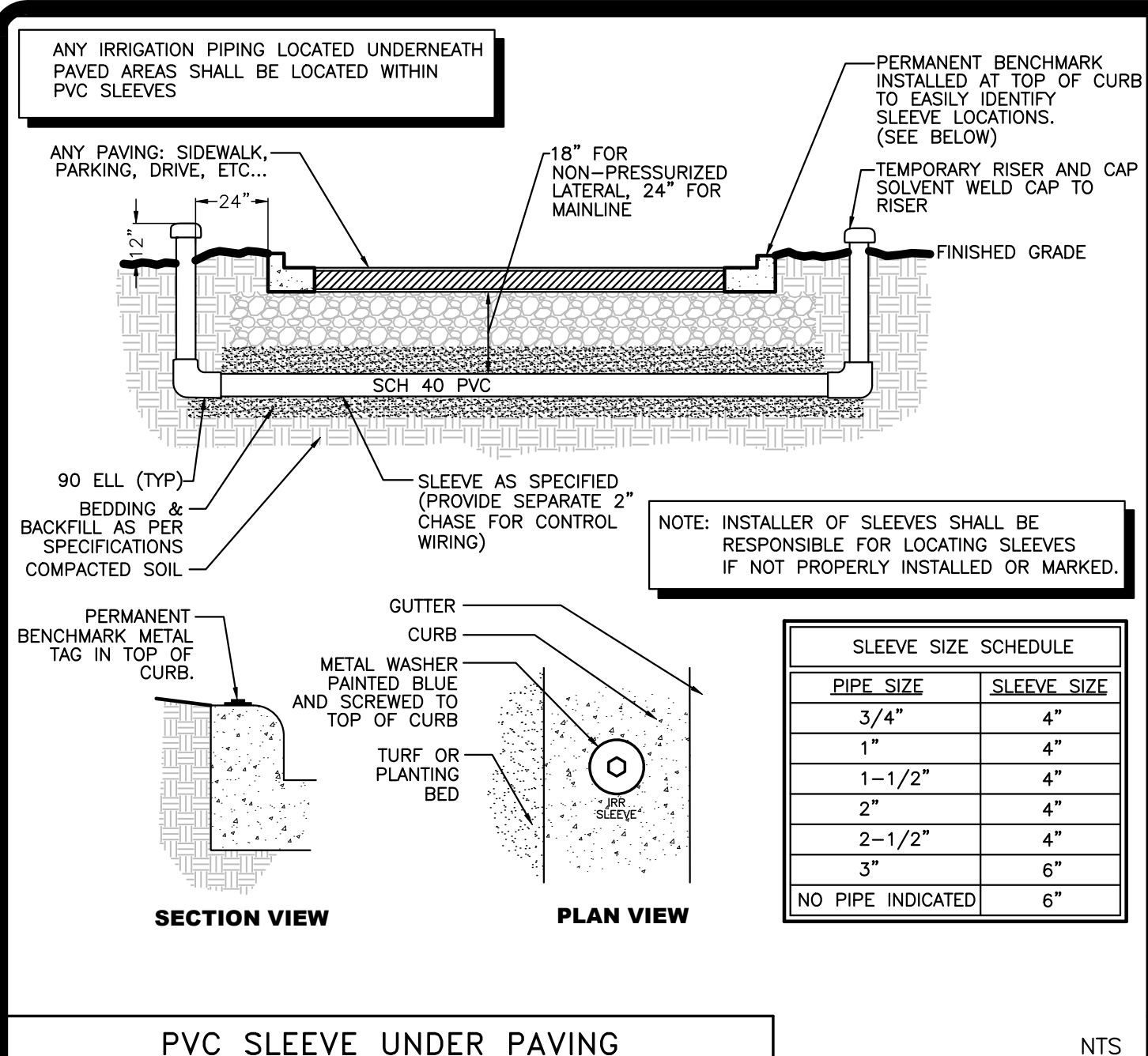
IRRIGATION DETAILS
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

C. R. WALKER, PLA
10081 Redstone Commons
Bartlett, TN 38133
Phone (901) 984-0404
Fax (901) 984-0710

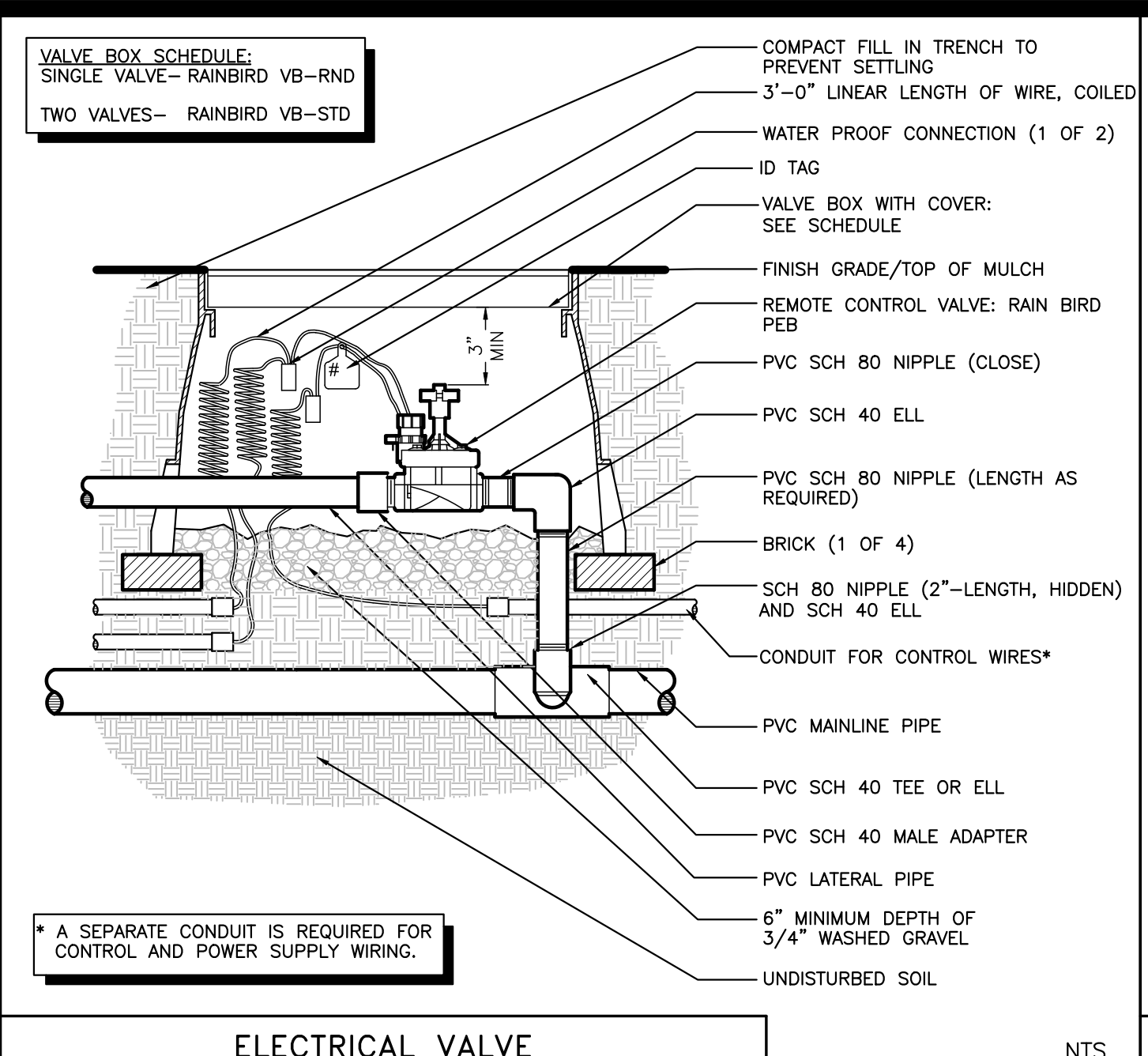
STATE OF OKLAHOMA
LICENSED LANDSCAPE ARCHITECT
CHARLES R. WALKER
327

DRAWN	DPS
CHECKED	TB
DATE	06/07/2023
SCALE	1"=30'
JOB No.	N/A
SHEET	N/A
16 OF 24 SHEET	

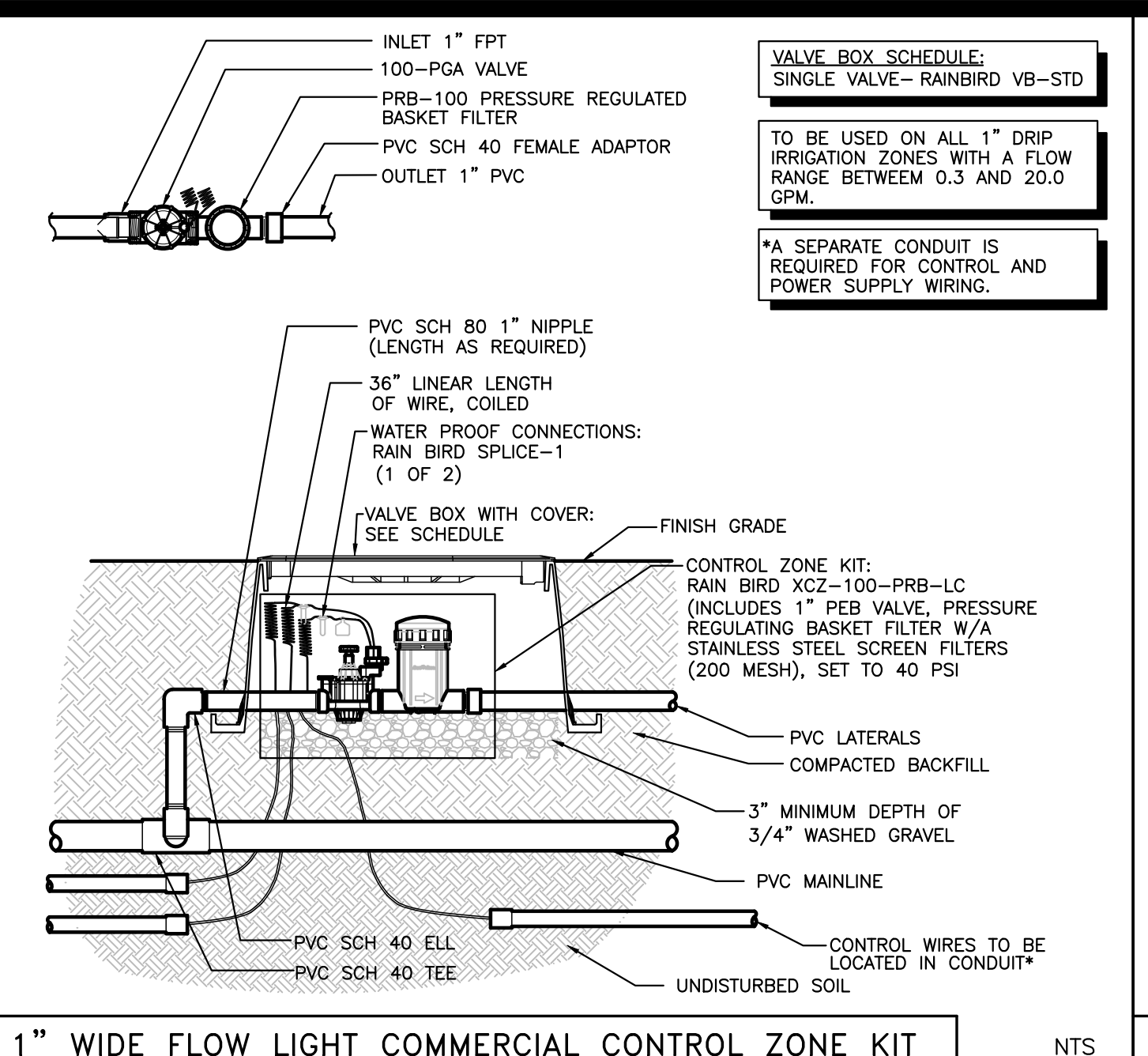
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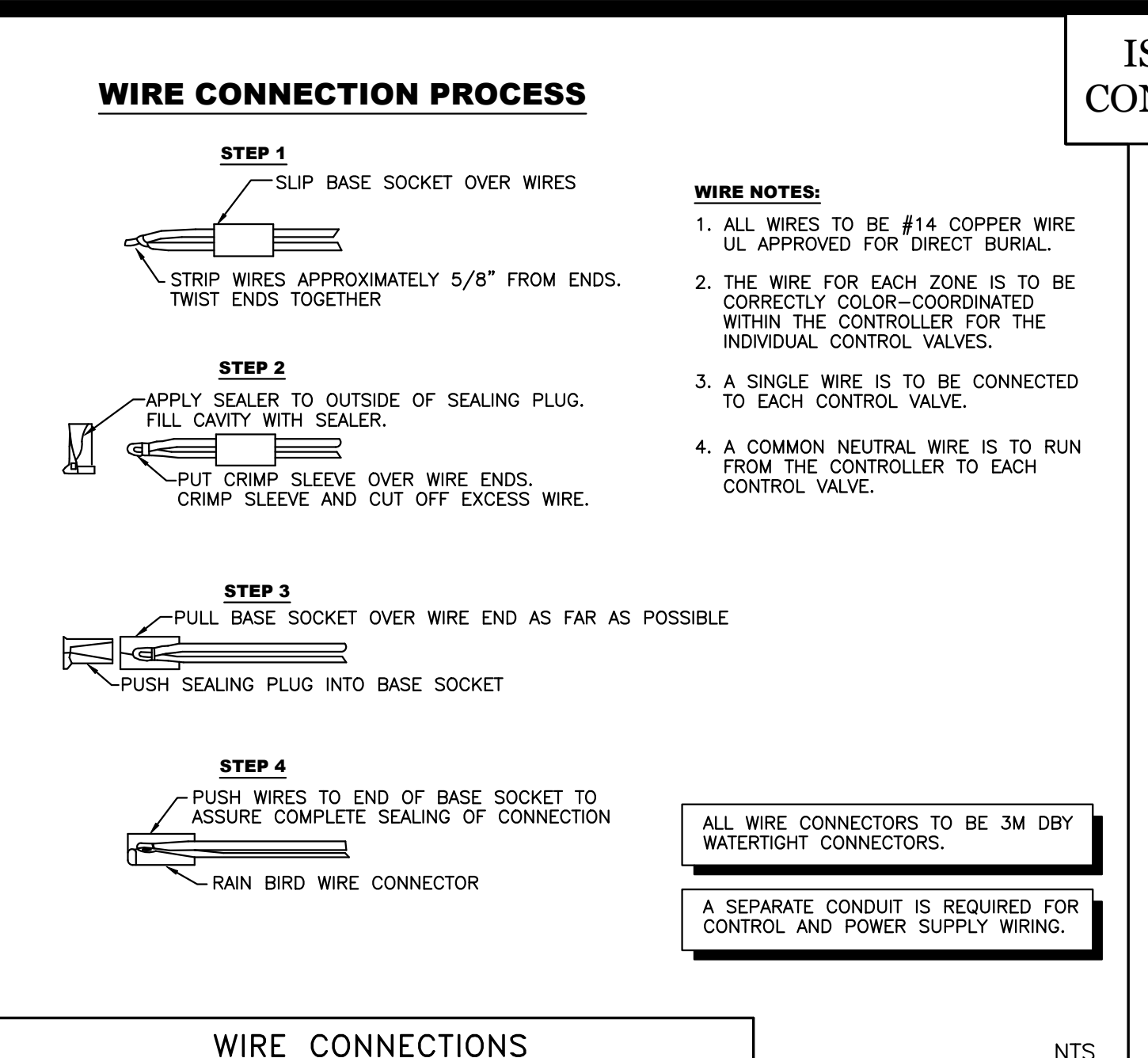
PVC SLEEVE UNDER PAVING NTS



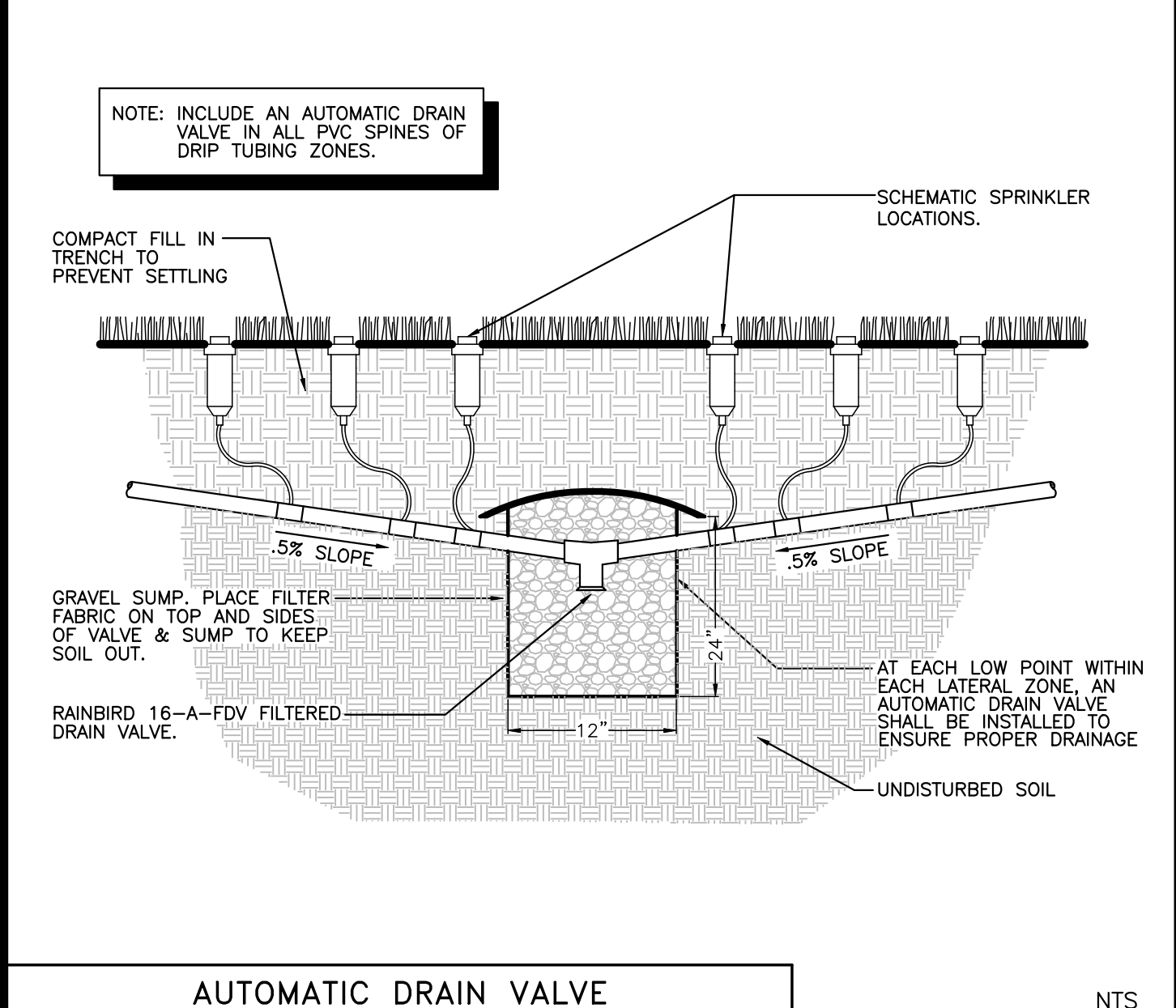
ELECTRICAL VALVE NTS



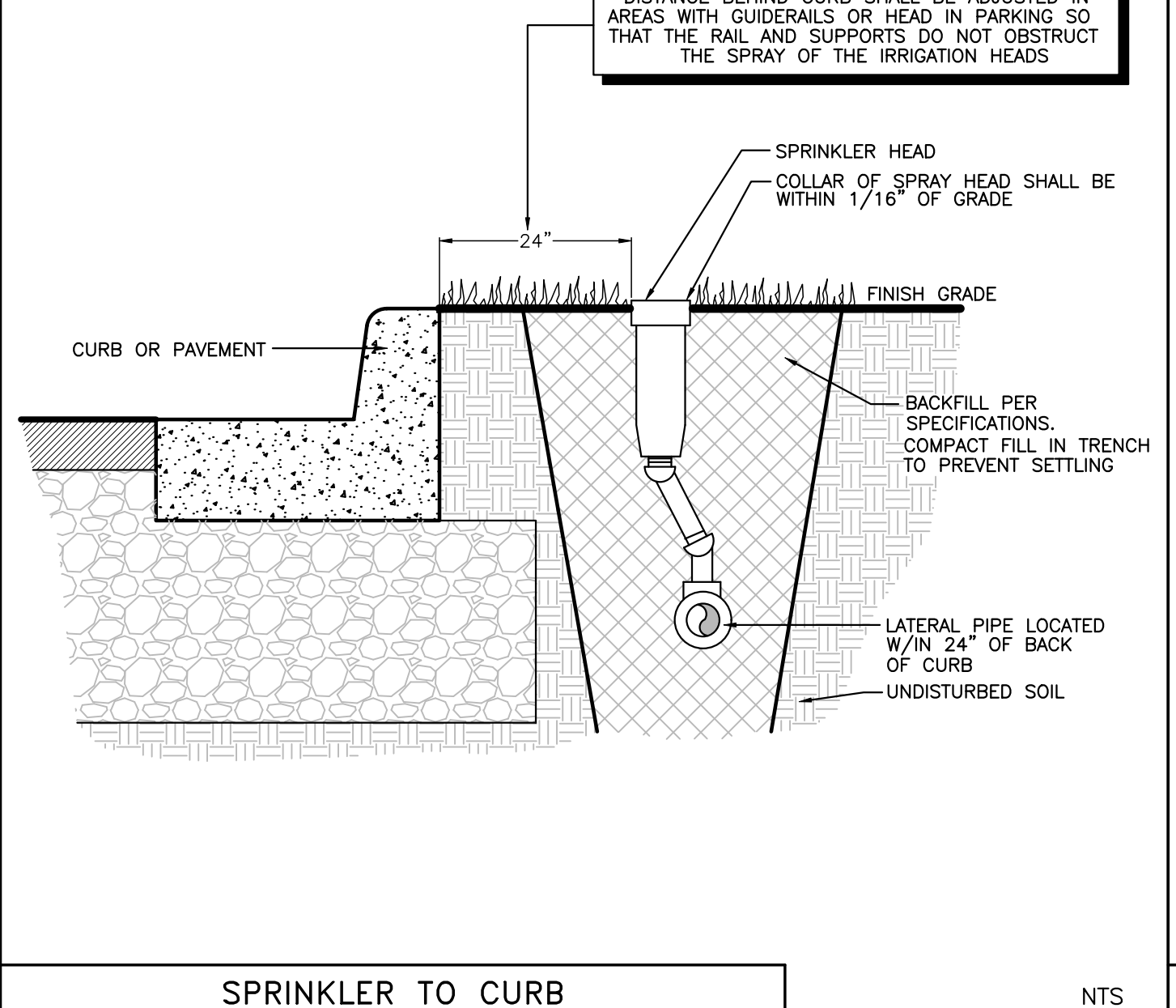
1" WIDE FLOW LIGHT COMMERCIAL CONTROL ZONE KIT NTS



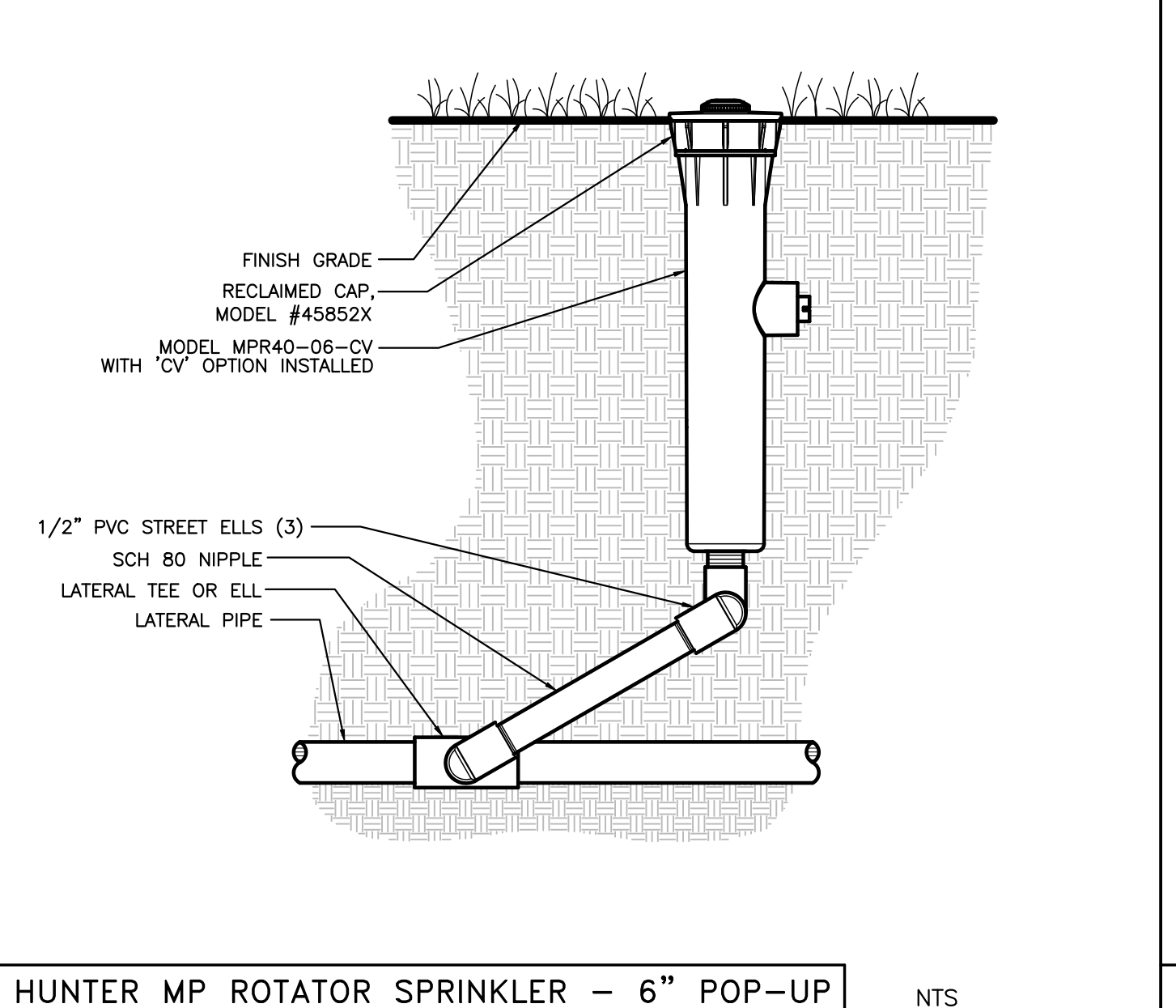
WIRE CONNECTIONS NTS



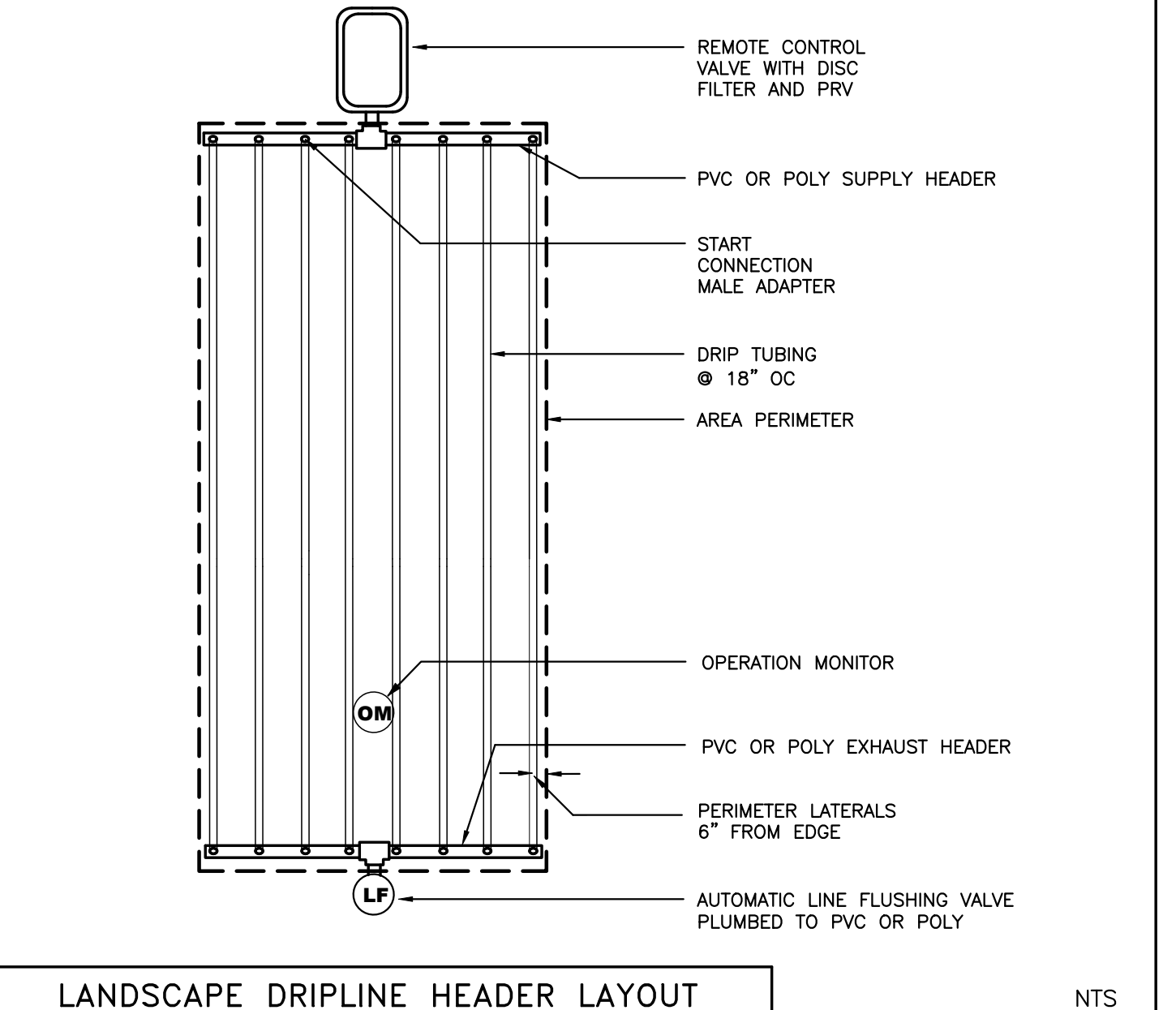
AUTOMATIC DRAIN VALVE NTS



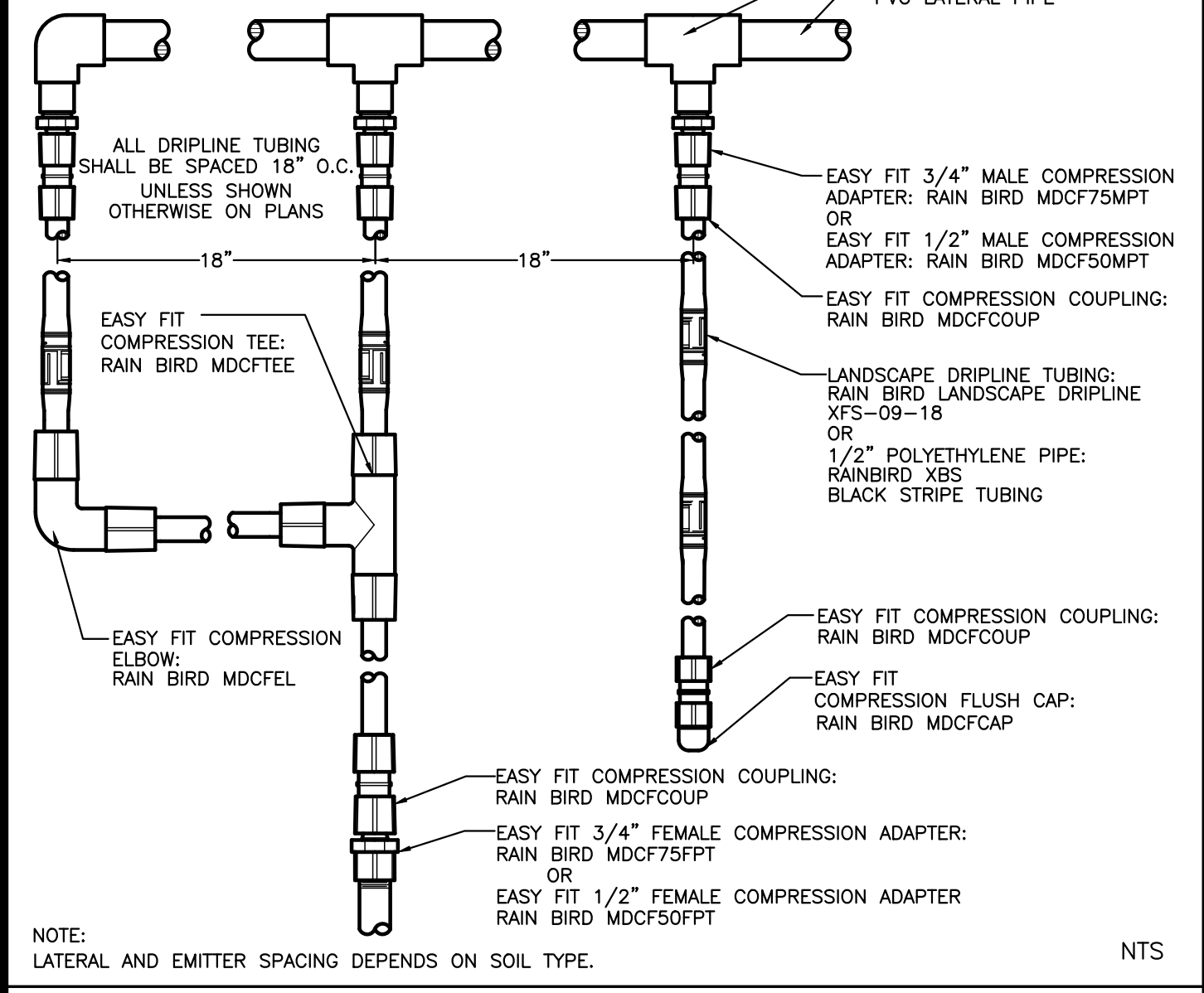
SPRINKLER TO CURB NTS



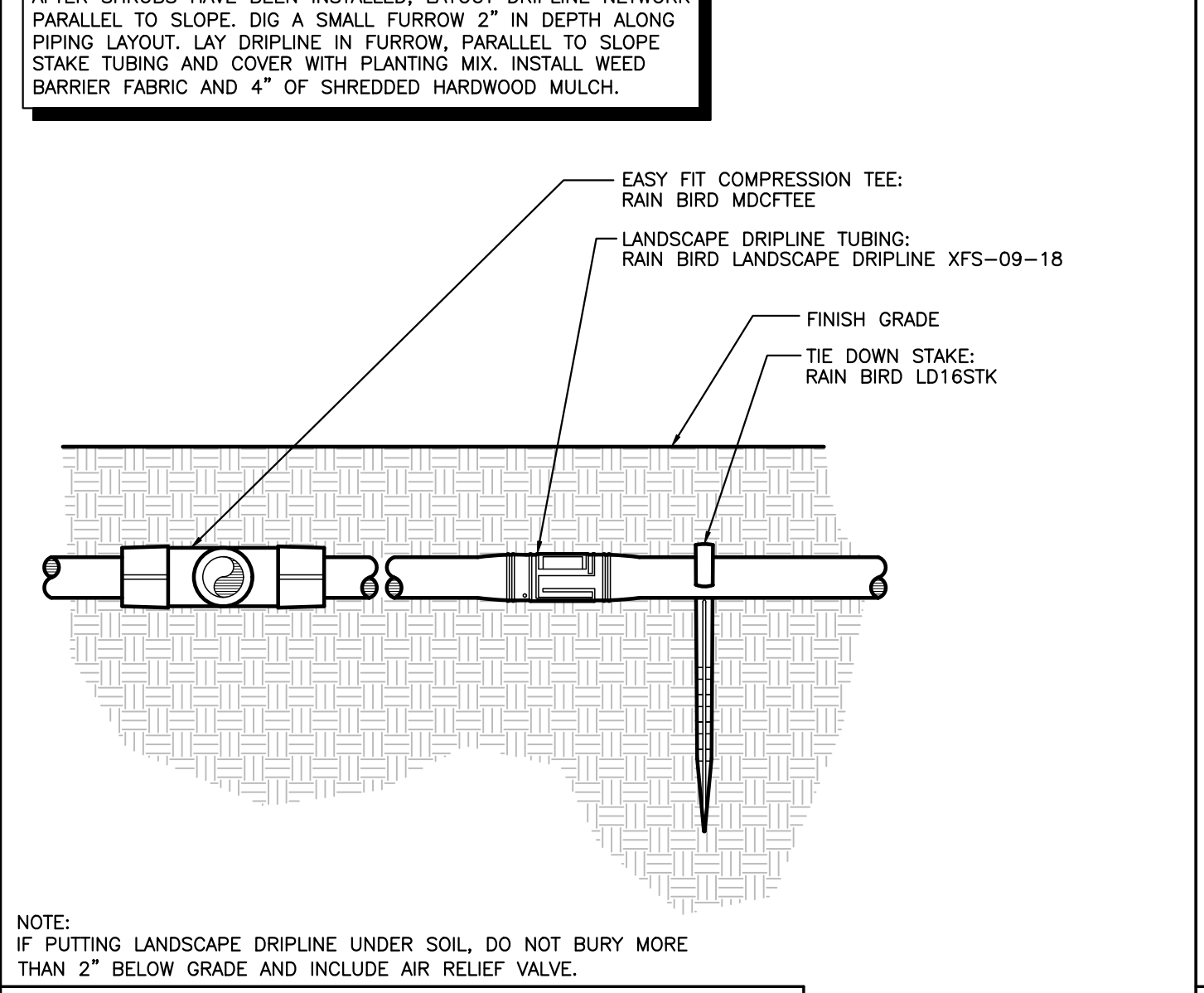
HUNTER MP ROTATOR SPRINKLER - 6" POP-UP NTS



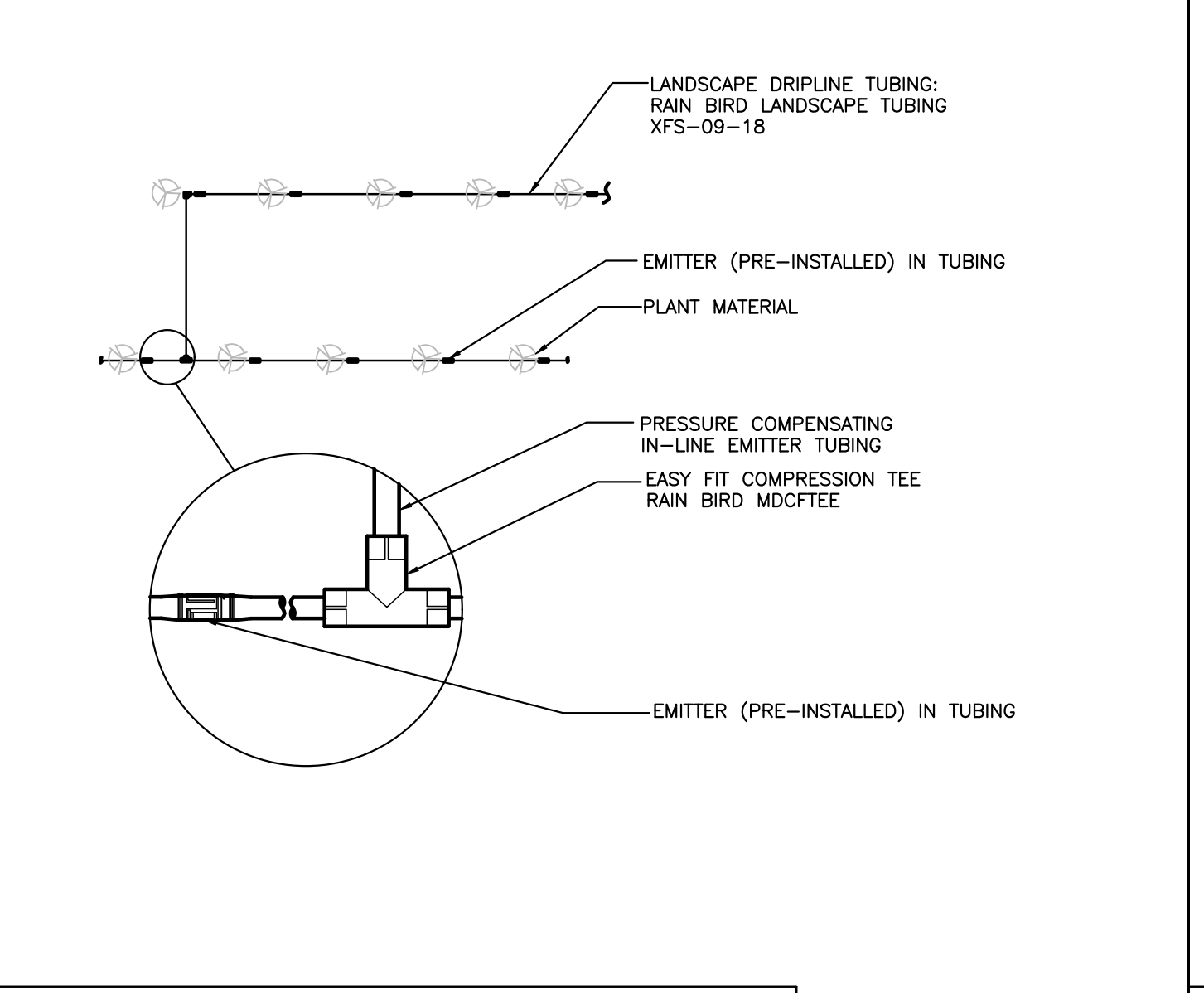
LANDSCAPE DRIPLINE HEADER LAYOUT NTS



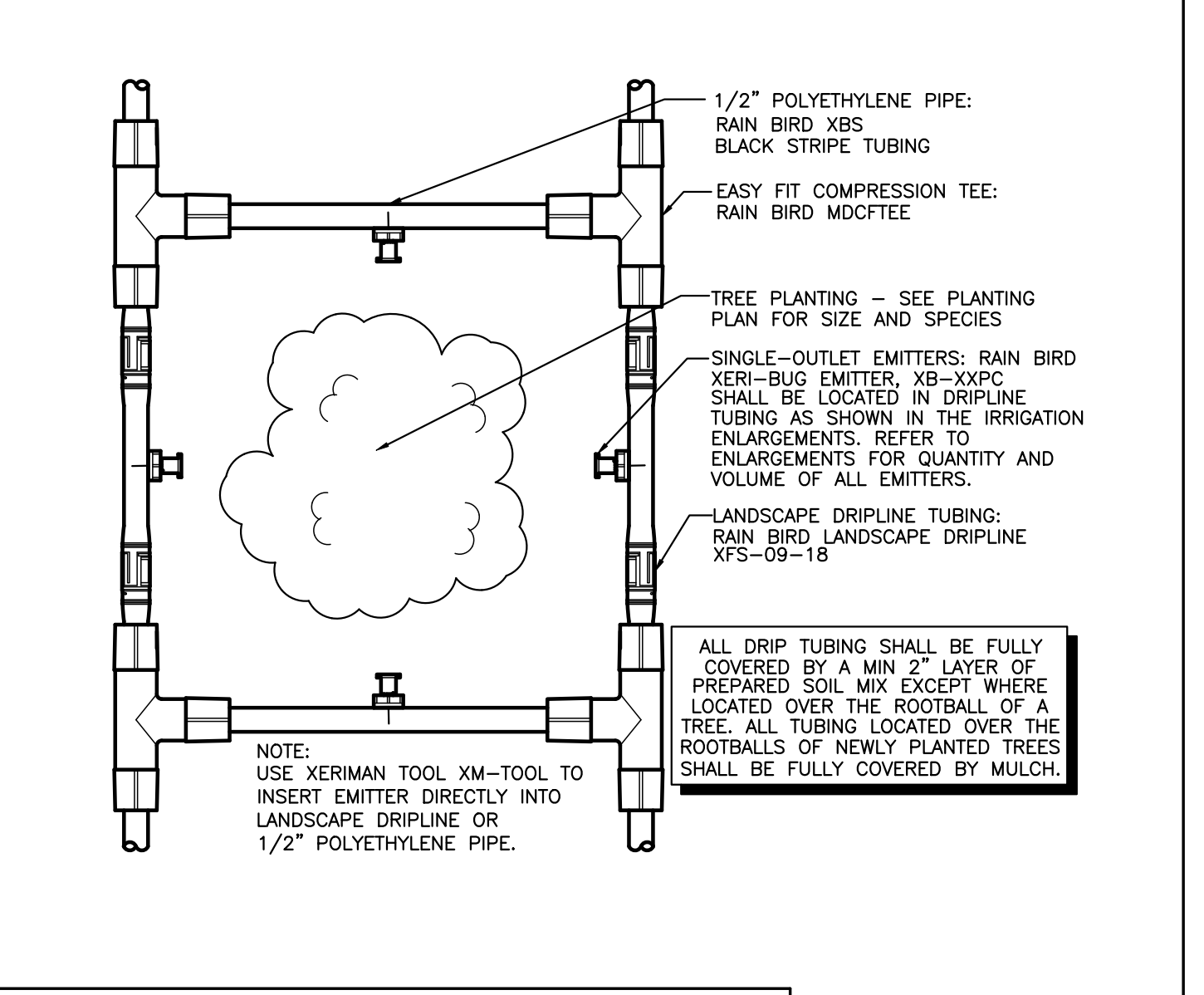
LANDSCAPE DRIPLINE LATERALS: FITTINGS & ADAPTERS (POTABLE) NTS



DRIPLINE 2" BELOW GRADE (POTABLE) NTS



DRIPLINE CONNECTIONS (POTABLE) NTS



DRIPLINE WITH SUPPLEMENTAL EMITTERS NTS

ISSUED FOR CONSTRUCTION

NO	REVISIONS

DEVELOPER: FILLSON DEVELOPMENT, LLC
 3556 S. CULPEPPER CIR/CL, SUITE 4
 SPRINGFIELD, MO 65908
 PH: (417) 882-1701

IRRIGATION DETAILS
 CROSSROADS AT N.E. GRAND BLVD.
 OKLAHOMA CITY, OKLAHOMA

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

STATE OF OKLAHOMA
 CHARLES R. WALKER
 327
 LANDSCAPE ARCHITECT

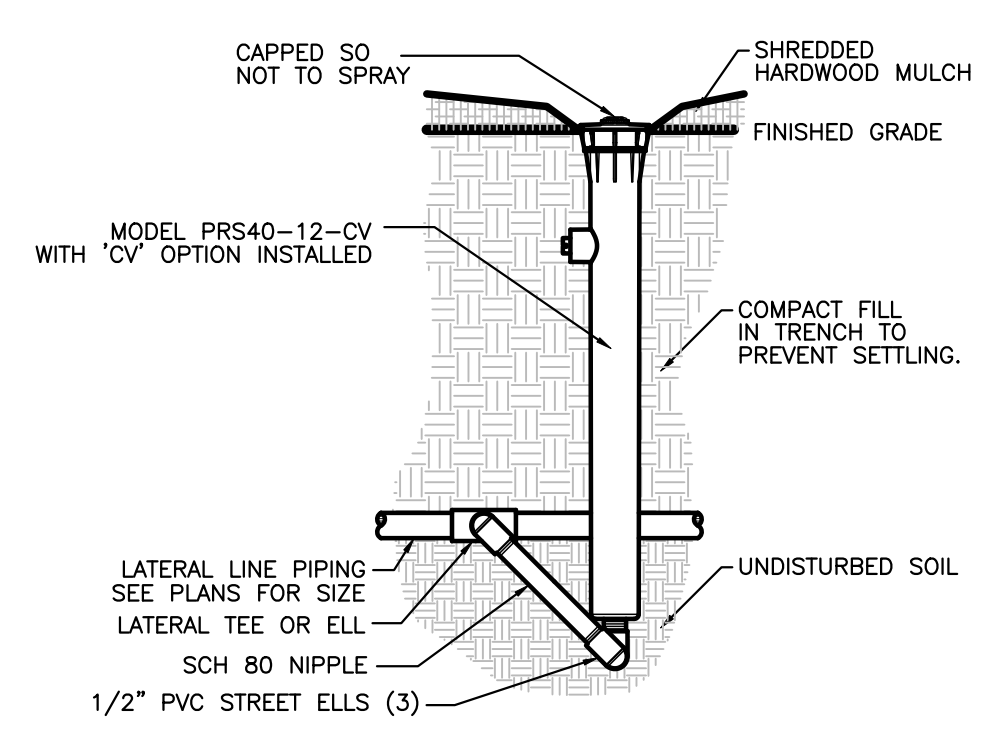
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CHECKED	TB
DATE	06/07/2023
SCALE	1"=30'
JOB No.	N/A
SHEET	17 OF 24 SHEET

L1.0

ISSUED FOR CONSTRUCTION

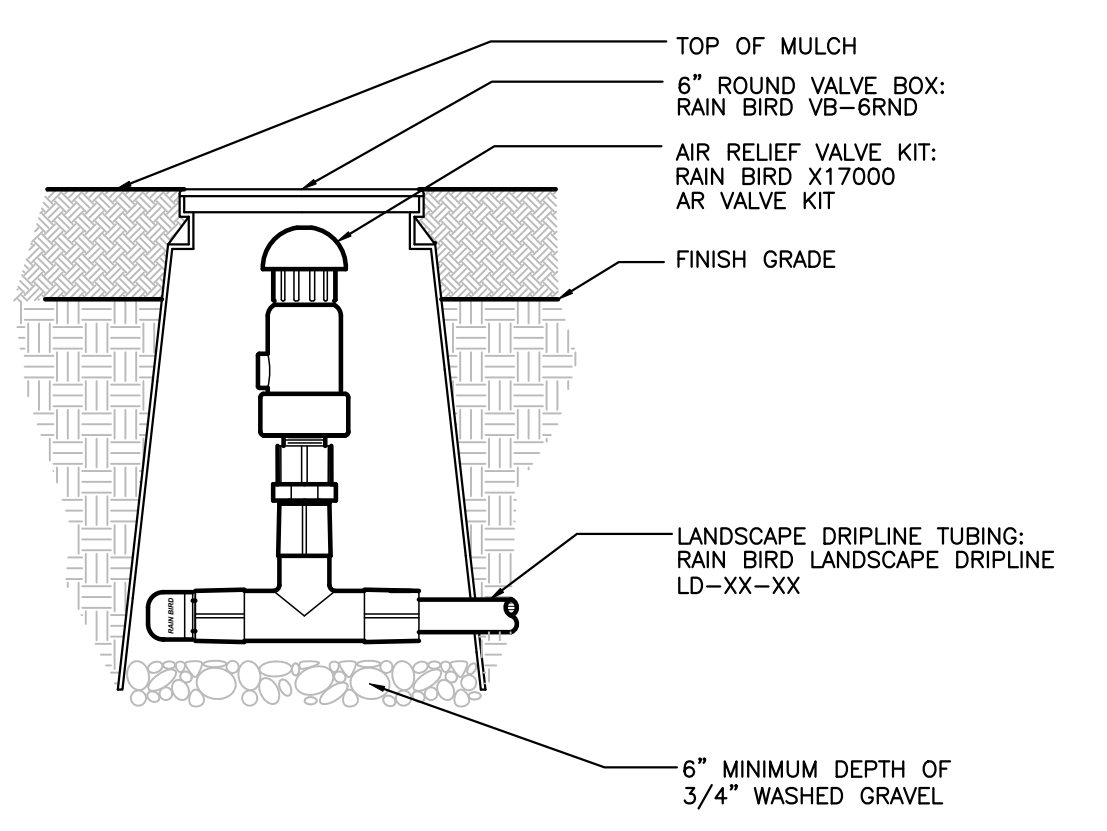
NO	REVISIONS

ALL POP-UP HEADS TO BE USED AS ZONE MARKERS SHALL BE CAPPED AND SHALL NOT SPRAY. HEAD SHALL SERVE AS A VISUAL MARKER TO IDENTIFY THE END OF ZONE AND SHOW THAT THE VALVE IS OPERATIONAL

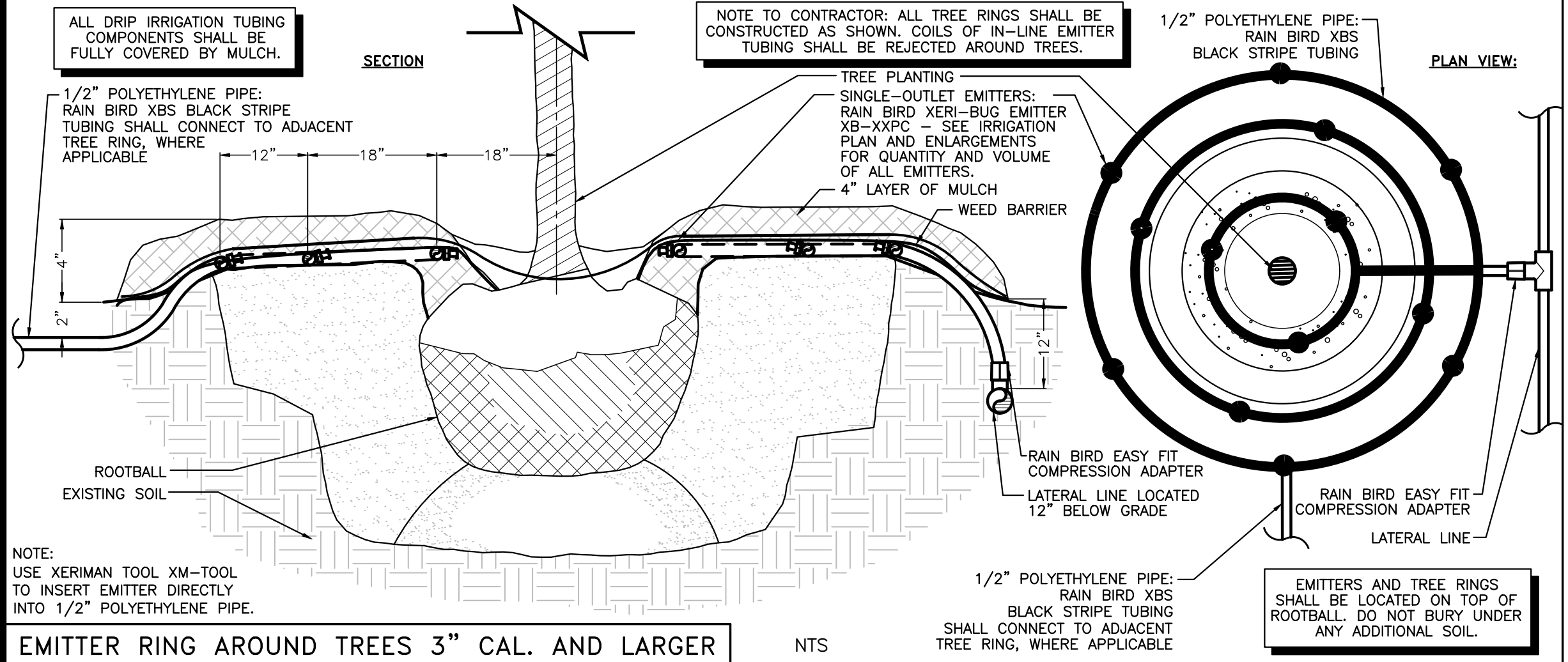


HUNTER MP ROTATOR POP-UP - VALVE OPERATION MONITOR NTS

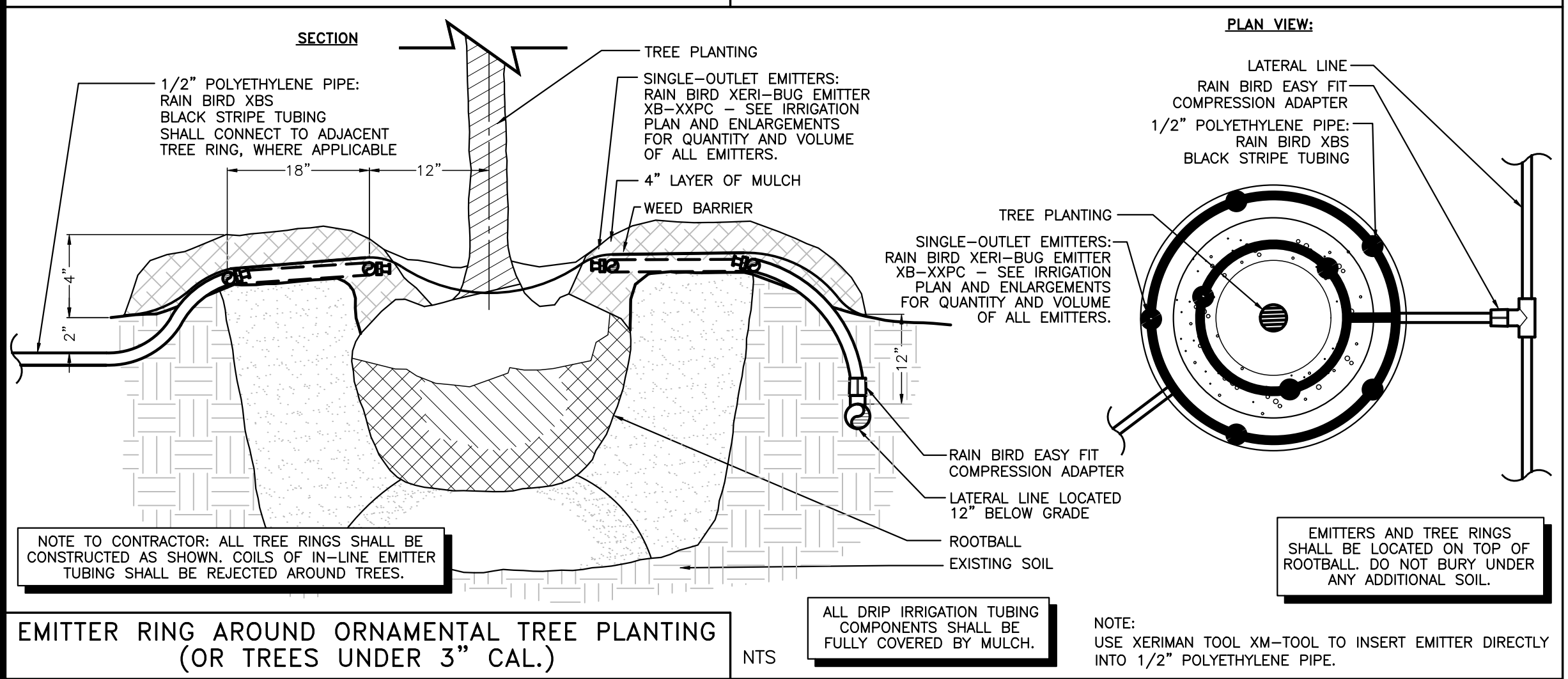
AIR RELIEF VALVES ARE TO BE INSTALLED AT ALL HIGH POINTS OF SUB-SURFACE ZONES. MORE THAN 1 AIR RELIEF VALVE MAY BE REQUIRED DEPENDING ON LAYOUT AND TOPOGRAPHY.



AIR RELIEF VALVE NTS



EMITTER RING AROUND TREES 3" CAL. AND LARGER NTS



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

DEVELOPER:
 FILLSON DEVELOPMENT, LLC
 3556 S. CULPEPPER CIRCLE, SUITE 4
 SPRINGFIELD, MO 65908
 PH. (417) 882-1701

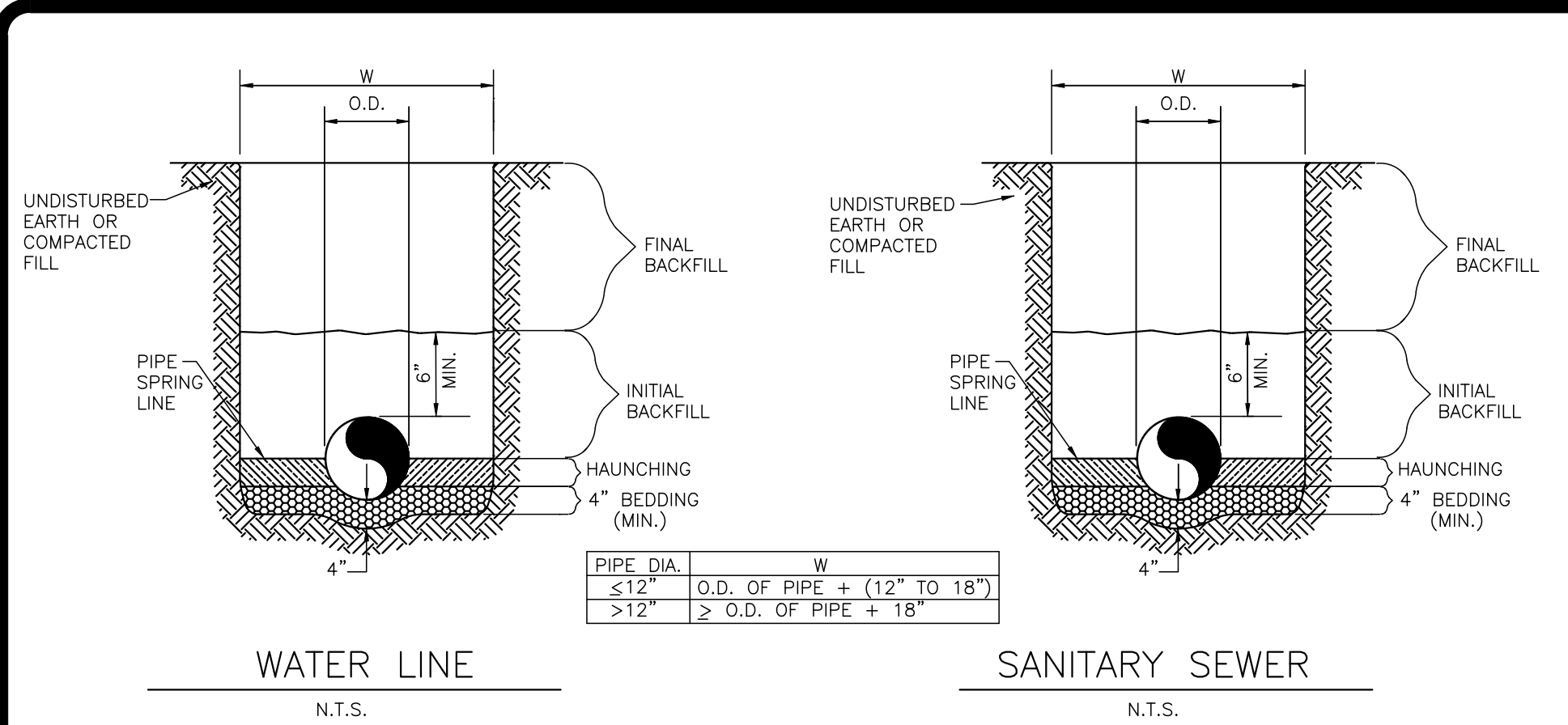
IRRIGATION DETAILS
 CROSSROADS AT N.E. GRAND BLVD.
 OKLAHOMA CITY, OKLAHOMA

C. R. WALKER, P.L.A.
 7068 Ledgestone Commons
 Bartlett, TN 38133
 Phone (901) 384-0404
 Fax (901) 384-0710



DRAWN	DPS
CHECKED	TB
DATE	06/07/2023
SCALE	1"=30'
JOB No.	N/A
SHEET	18 OF 24 SHEET

L1.0



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

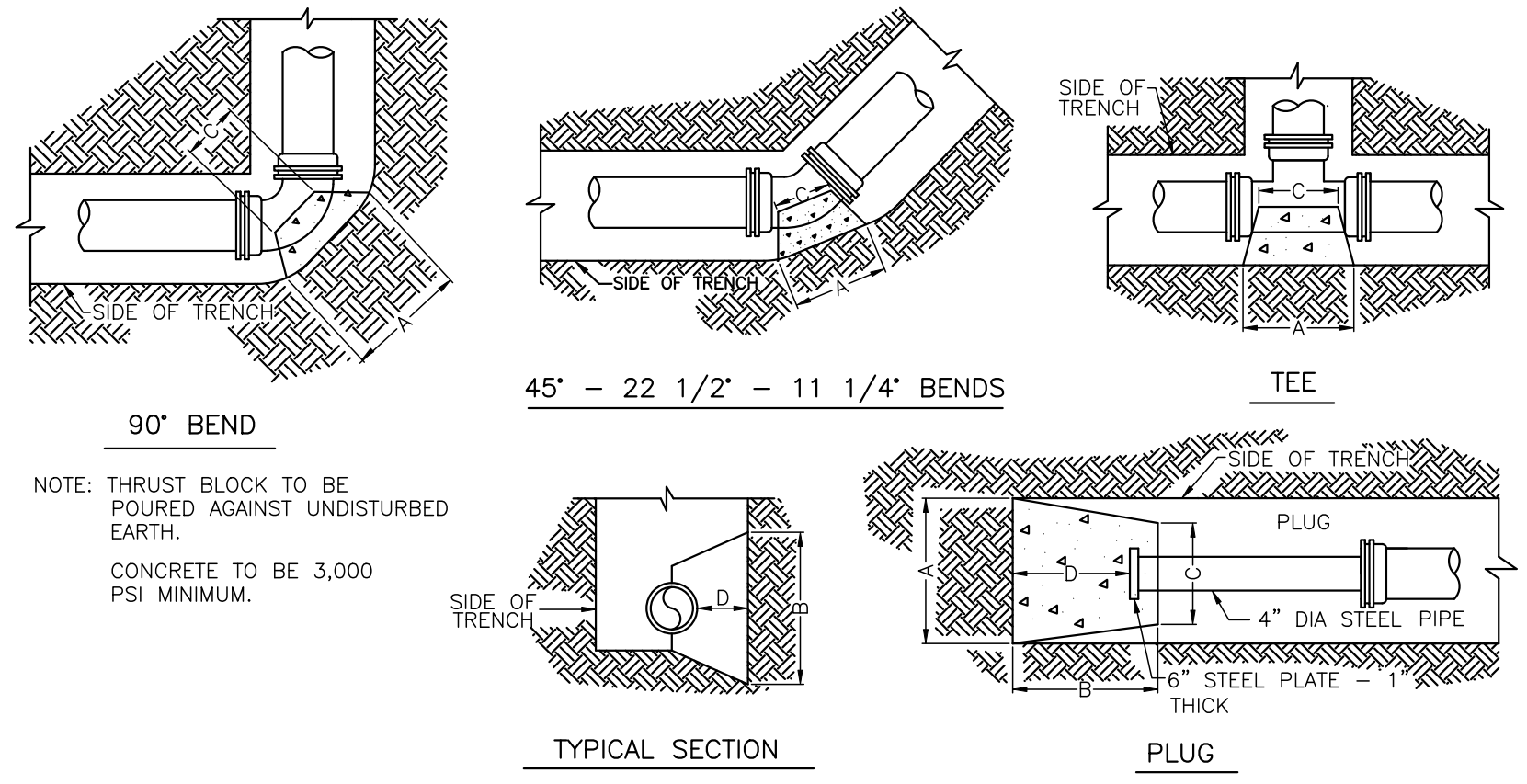
GENERAL NOTES

- BEDDING SHALL BE CLASS I WORKED BY HAND OR CLASS II COMPACTED TO 90% STANDARD PROCTOR.
- HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I OR CLASS II COMPACTED TO 90% PROCTOR.
- INITIAL BACKFILL SHALL BE CLASS I WORKED BY HAND OR CLASS II COMPACTED TO 90% STANDARD PROCTOR.
- INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
- FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED TO 98% STANDARD PROCTOR.
- FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV COMPACTED TO 95% STANDARD PROCTOR.
- ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-11.
- 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.
- FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
- ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)
- 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.
- THE UPPER 12 INCHES OF FINAL BACKFILL 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.

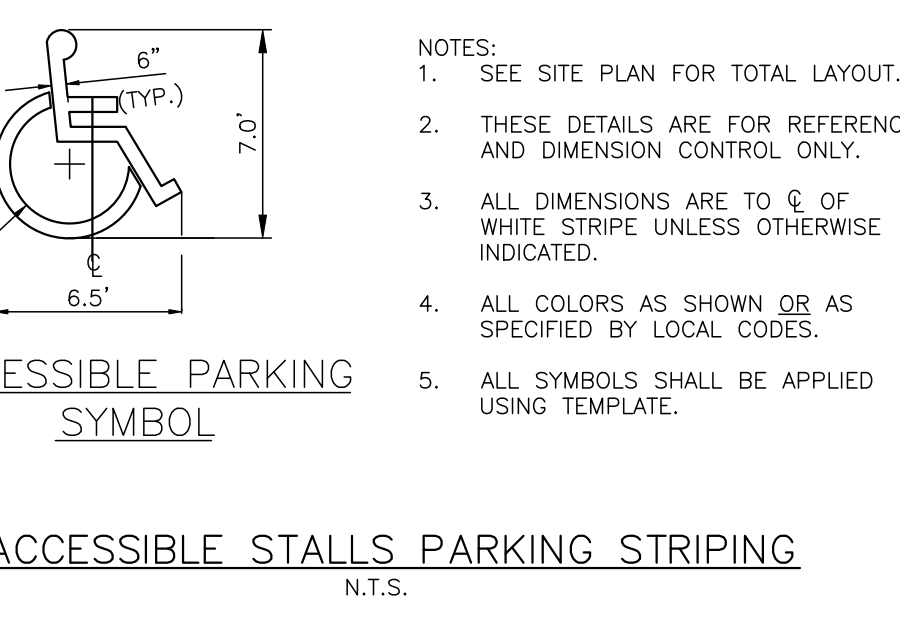
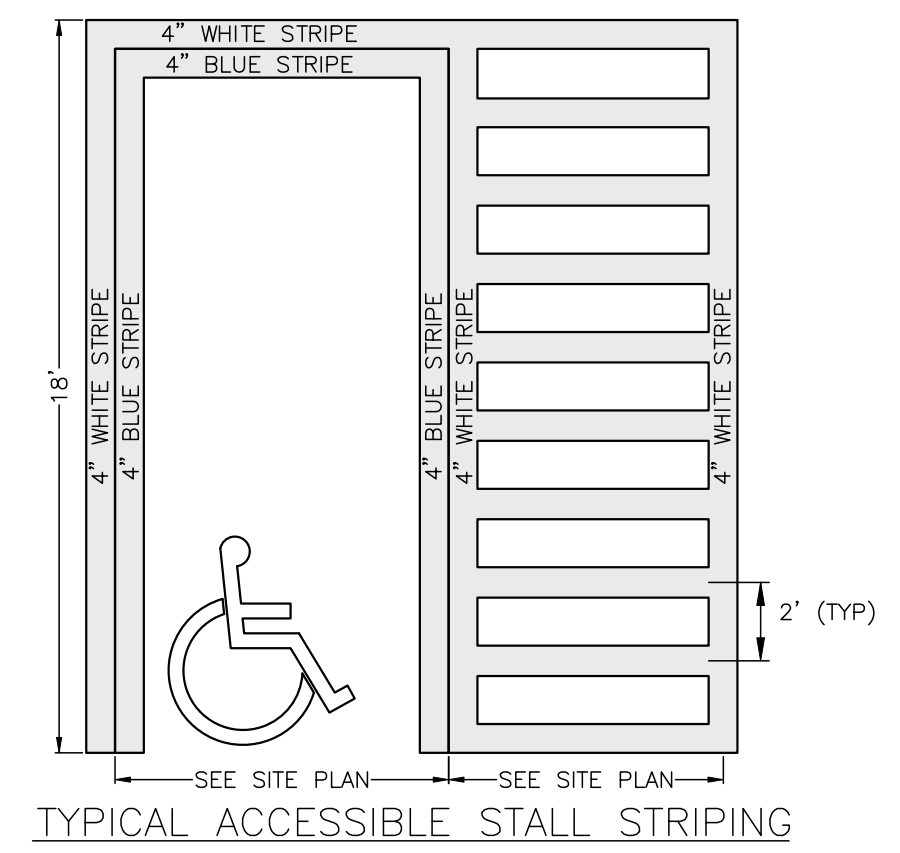
90 DEGREE BEND								PLUG							
SIZE	2"	4"	6"	8"	10"	12"	18"	SIZE	2"	4"	6"	8"	10"	12"	18"
A	16"	16"	26"	33"	40"	50"	70"	A	26"	26"	26"	34"	43"	52"	70"
B	16"	16"	24"	33"	40"	50"	70"	B	26"	26"	26"	34"	43"	52"	70"
C	9"	9"	12"	12"	15"	16"	22"	C	12"	12"	12"	12"	12"	12"	30"
D	6"	12"	12"	12"	12"	13"	16"	D	11"	12"	12"	15"	22"	32"	32"

45 DEGREE BEND								11-1/4 DEGREE BEND							
SIZE	2"	4"	6"	8"	10"	12"	18"	SIZE	2"	4"	6"	8"	10"	12"	18"
A	12"	12"	18"	24"	31"	37"	52"	A	9"	9"	11"	13"	16"	18"	30"
B	12"	12"	18"	24"	31"	37"	52"	B	9"	9"	11"	13"	16"	18"	30"
C	8"	8"	10"	12"	14"	16"	14"	C	8"	8"	10"	12"	14"	16"	15"
D	6"	12"	12"	12"	12"	13"	16"	D	12"	12"	12"	12"	12"	12"	16"

22-1/2 DEGREE BEND								TEE							
SIZE	2"	4"	6"	8"	10"	12"	18"	MAIN	2"-6"	8"-12"	8"-10"	12"	12"	18"	
A	9"	9"	13"	18"	23"	26"	40"	A	26"	26"	43"	26"	43"	52"	70"
B	9"	9"	13"	18"	23"	26"	40"	B	26"	26"	43"	26"	43"	52"	70"
C	8"	8"	10"	12"	14"	16"	15"	C	12"	12"	12"	12"	12"	12"	30"
D	4"	12"	12"	12"	12"	13"	16"	D	13"	13"	21"	21"	26"	26"	24"

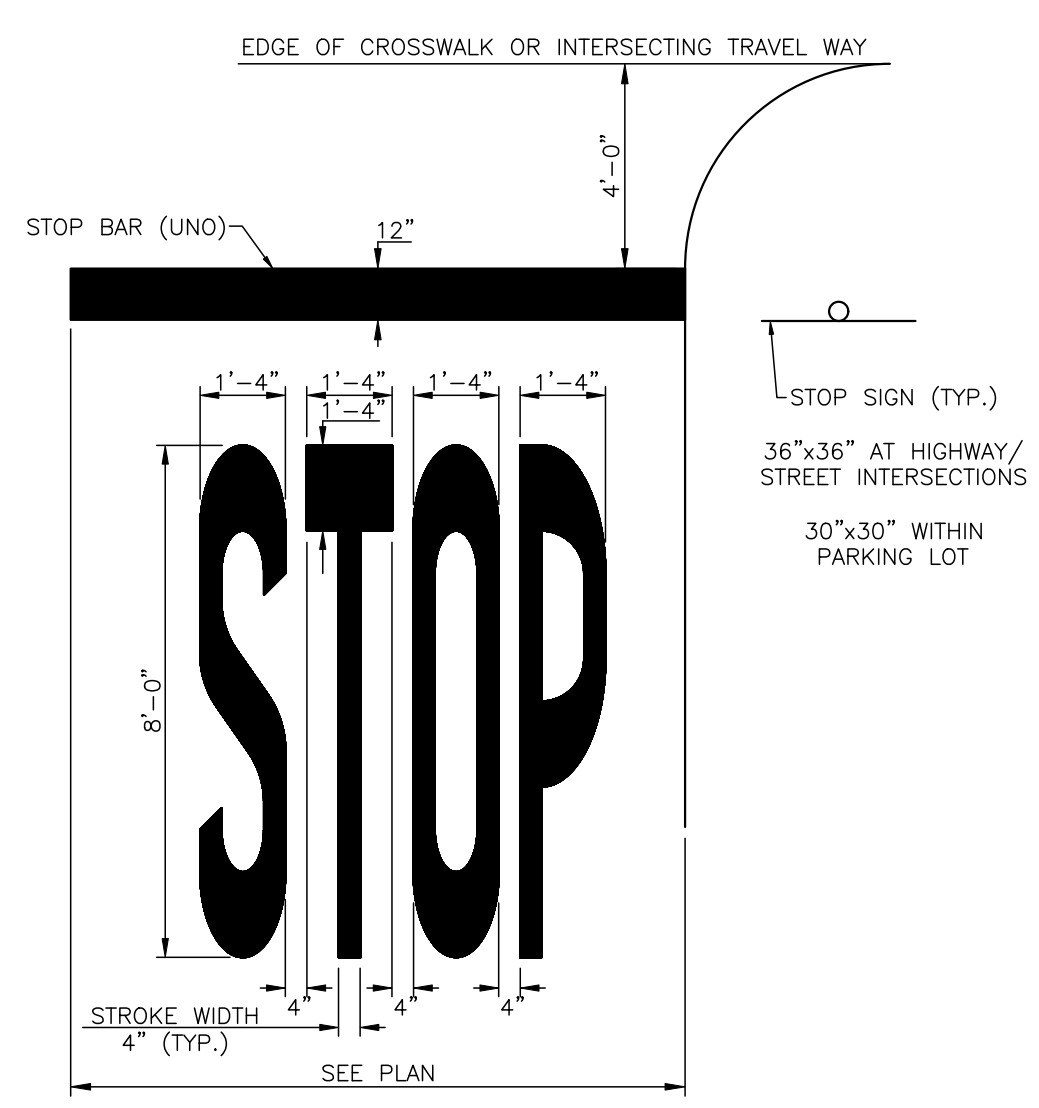


THRUST BLOCKING



ACCESSIBLE PARKING STALL

ISSUED FOR CONSTRUCTION



STOP SIGNAGE AND MARKING

NO	REVISIONS

DEVELOPER: IRONWOOD DEVELOPMENT, LLC
 3556 S. CULPEPPER CIRCLE, SUITE 4
 SPRINGFIELD, MO 65908
 PH. (417) 862-1701

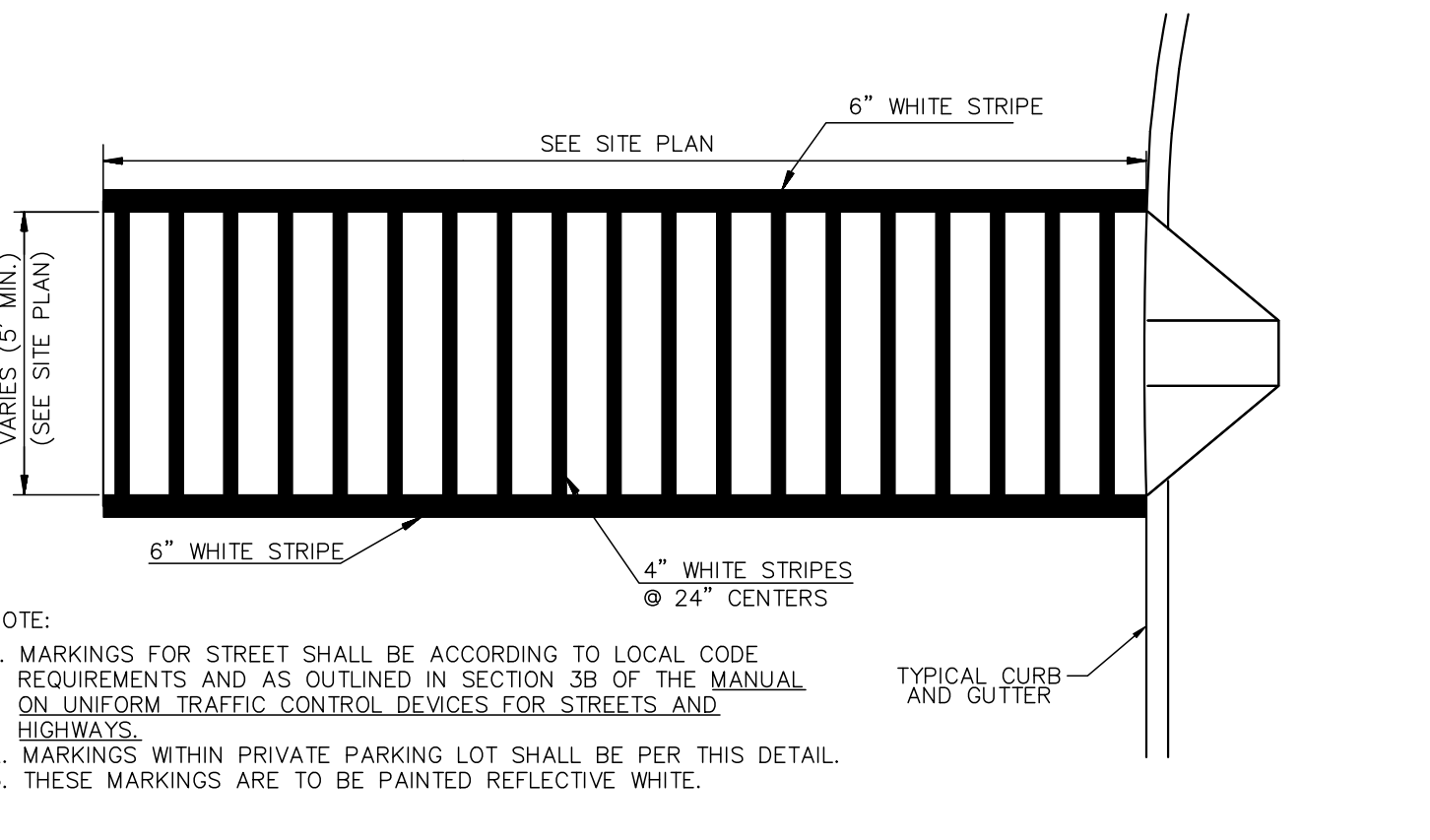
DETAILS
CROSSROADS AT N.E. GRAND BLVD.
OKLAHOMA CITY, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
 7066 Ledgestone Commons
 Bartlett, MO 63835
 Fax (801) 384-0710

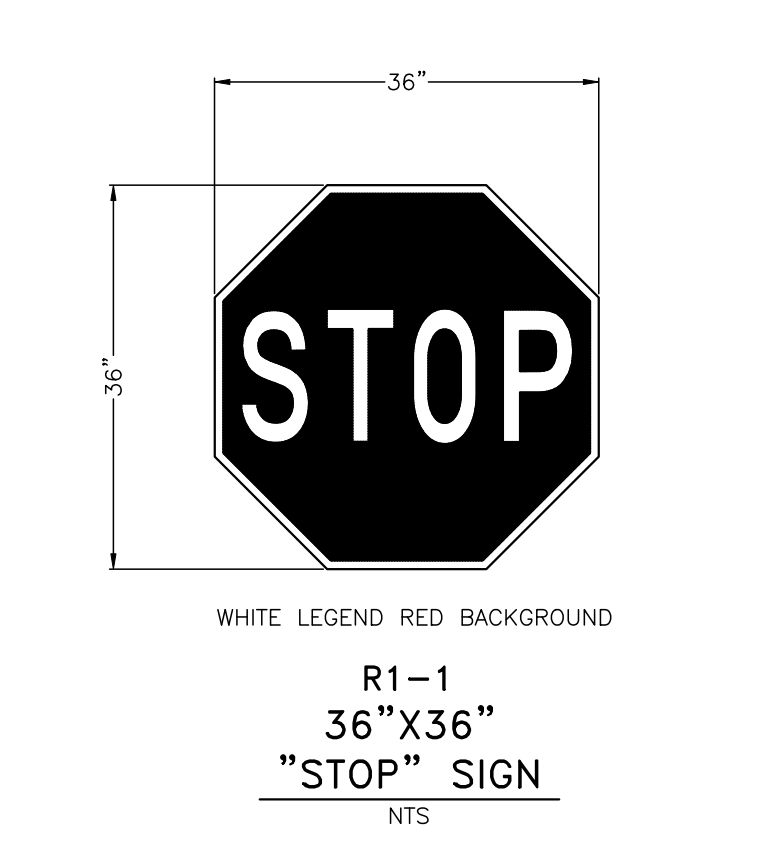
JOSEPH PARSLEY
 LICENSED PROFESSIONAL ENGINEER
 22955
 OKLAHOMA
 12/22

DRAWN: DPS
 CHECKED: TB
 DATE: 09/19/2023
 SCALE: N.T.S.
 JOB No.: N/A
 SHEET: 21
 OF 24 SHEET

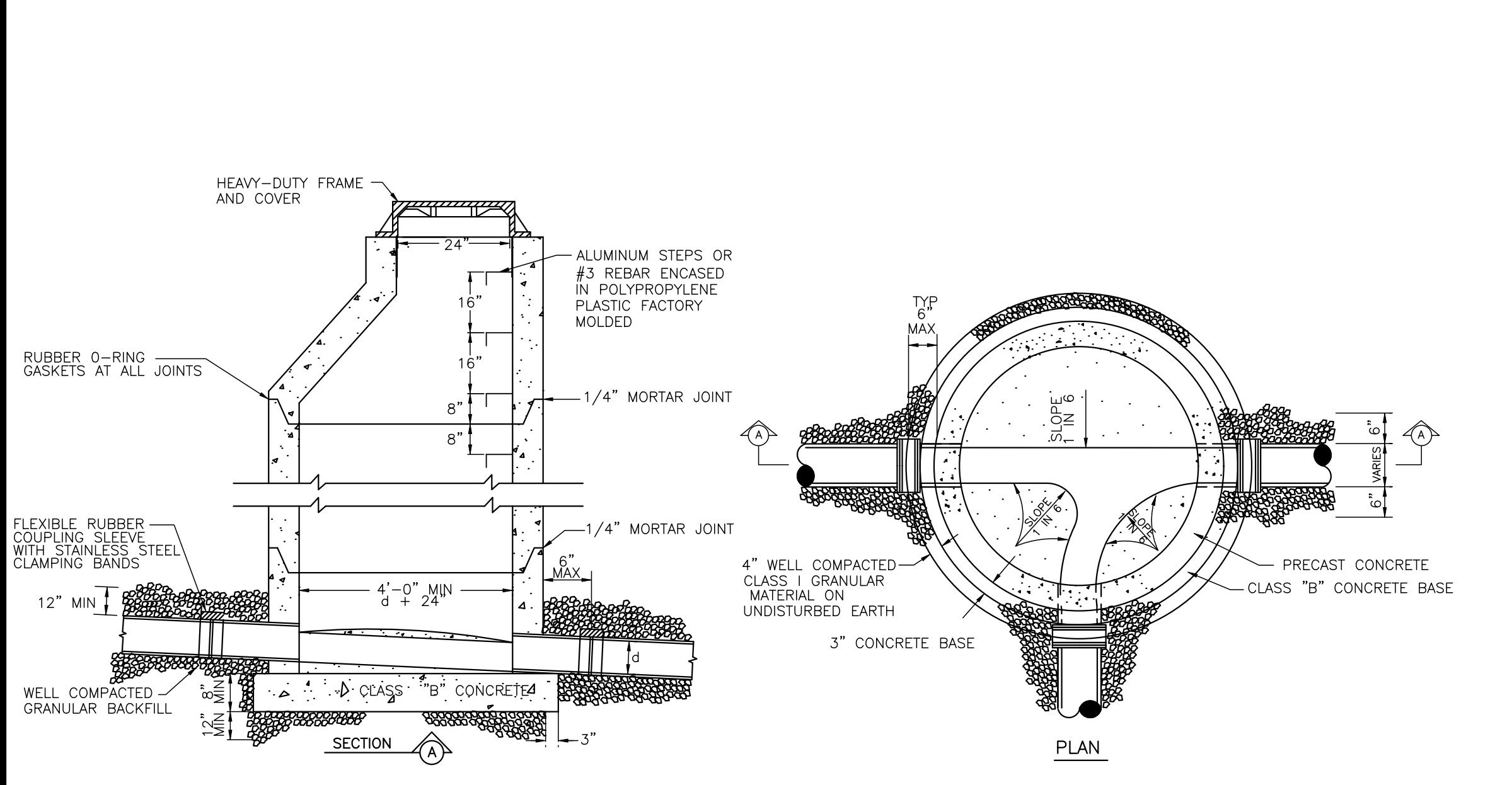
UTILITY TRENCH & BEDDING



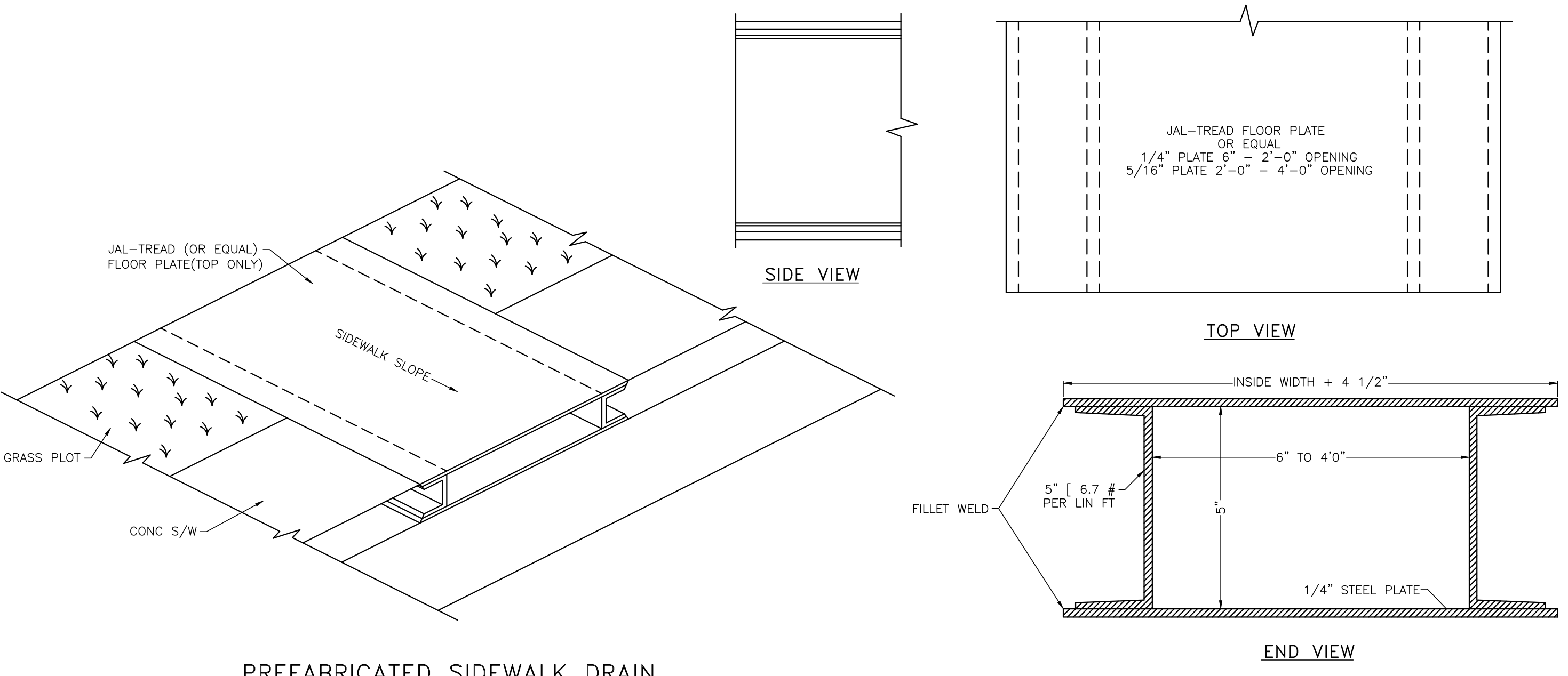
CROSSWALK MARKING



STOP SIGN



OFFSET PRECAST CONCRETE MANHOLE



SIDEWALK DRAIN

C5.2

CIVIL DETAILS

ISSUED FOR CONSTRUCTION

NO	REVISIONS

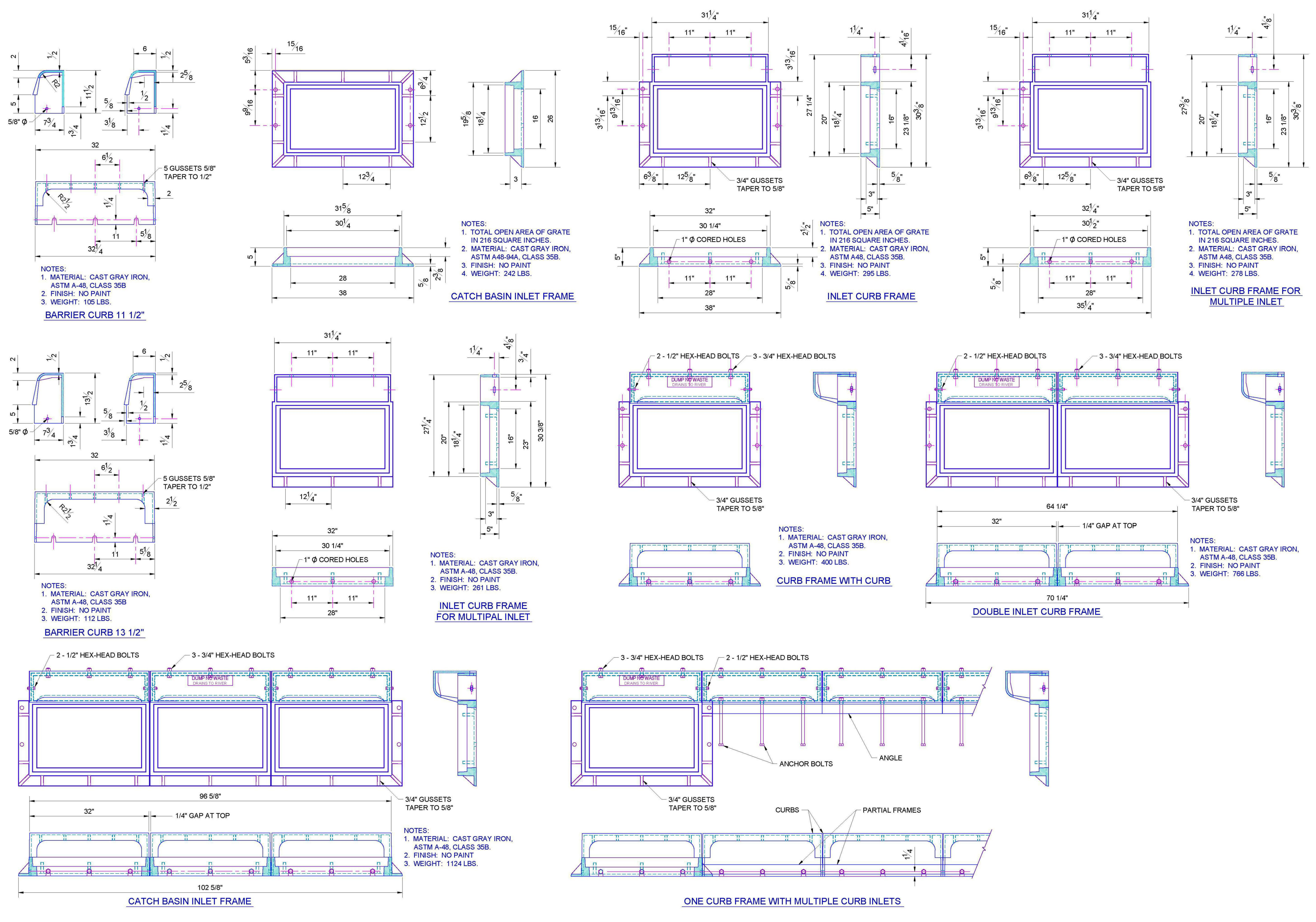
DEVELOPER: IRONWOOD DEVELOPMENT, LLC
 3556 S. CULPEPPER CIRCLE, SUITE 4
 SPRINGFIELD, MO 65908
 PH. (417) 862-1701

DETAILS
 CROSSROADS AT N.E. GRAND BLVD.
 OKLAHOMA CITY, OKLAHOMA

CARLSON CONSULTING ENGINEERS, INC.
 7066 Ledgestone Commons
 Bartlett, MO 63833
 Fax (801) 384-0710

JOSEPH PARSLEY
 LICENSED PROFESSIONAL ENGINEER
 22955
 OKLAHOMA

DRAWN: DPS
 CHECKED: TB
 DATE: 09/19/2023
 SCALE: N.T.S.
 JOB No.: N/A
 SHEET: 22 OF 24 SHEET



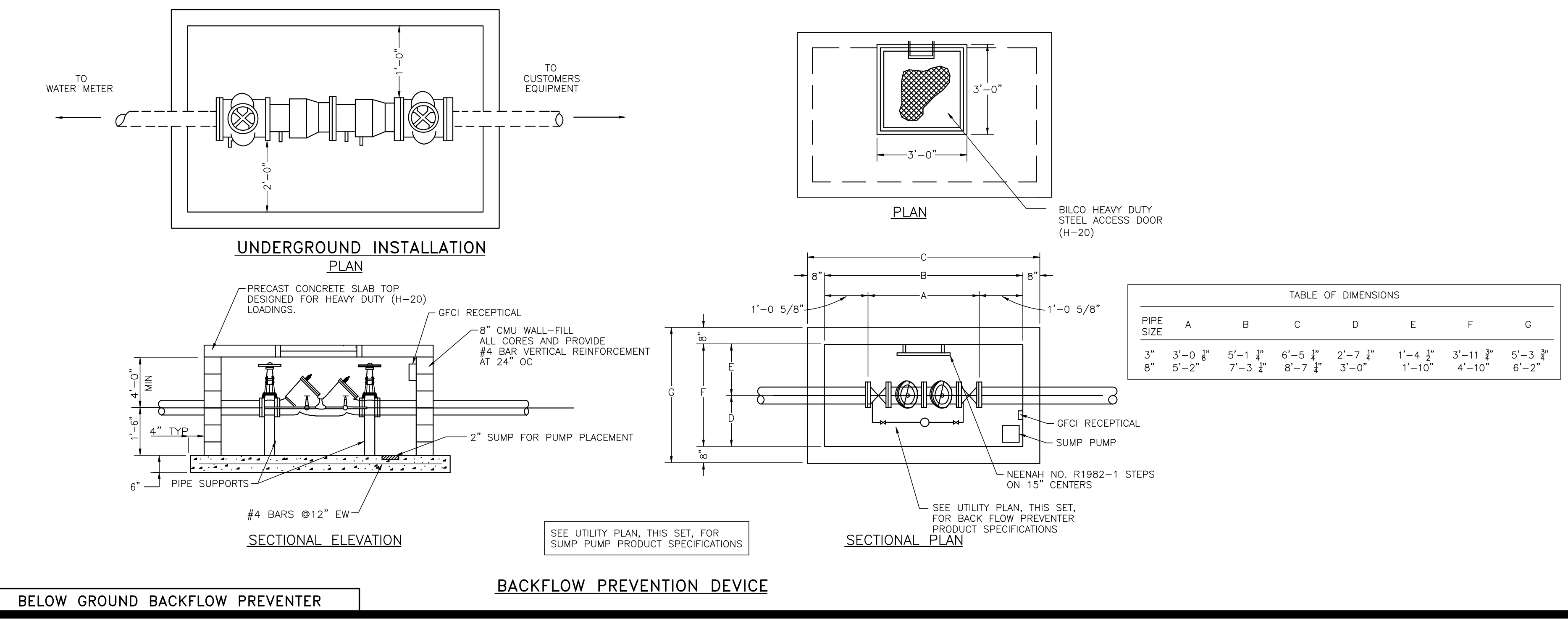
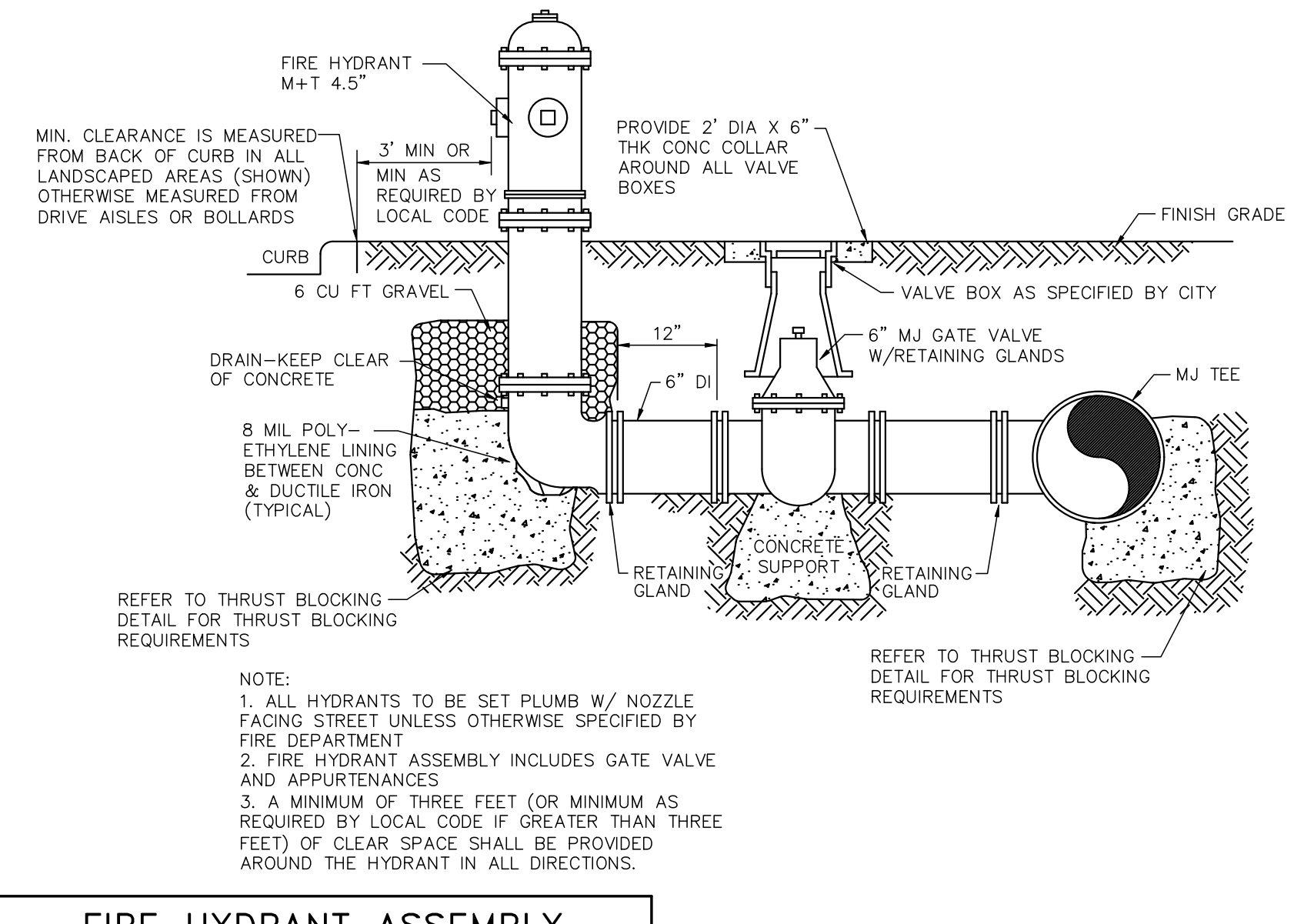
The City of Oklahoma City
 Public Works Department
 Engineering Division

APPROVED BY: ERIC WENZEL, P.E. CITY ENGINEER
 DATE: 02-01-13

DRAWN: VSC
 DATE: 02-01-13

CURB / CATCH BASIN INLET FRAME DETAILS

Drawing Number: D-109



C5.3
 CIVIL DETAILS

NO	REVISIONS

DEVELOPER: DEVELOPMENT, LLC
 IRONWOOD DEVELOPMENT, LLC
 3556 S. CULPEPPER CIRCLE, SUITE 4
 SPRINGFIELD, MO 65908
 PH. (417) 862-1701

DETAILS
 CROSSROADS AT N.E. GRAND BLVD.
 OKLAHOMA CITY, OKLAHOMA

7066 Ledgestone Commons
 Bartlett, MO 63830
 Ph (636) 251-0044
 Fax (636) 251-0710

DETAILS BY OTHERS

DRAWN	DPS
CHECKED	TB
DATE	09/19/2023
SCALE	N.T.S.
JOB No.	N/A
SHEET	23
OF 24 SHEET	

C5.4

CITY WATER DETAILS

