

★ LOCATION MAP ★

for LION & ROSE RESTAURANT AT DOMINION CREEK 23330 I-10 W SAN ANTONIO, TX 78257

LEGAL DESCRIPTION

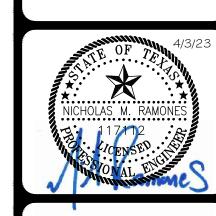
(1.800 ACRES)
LOT 3, BLOCK 110, NCB 16386
PLAT: DOMINION RETAIL
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SAN ANTONIO, BEXAR COUNTY, TEXAS

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RESTAURANT AT DOMINION CREEK

ROSE

CHECKED: ______

GENERAL CONSTRUCTION NOTES

- 1. 1ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
- 2. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, SIGNS, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVES. (NO SEPARATE PAY ITEM.)
- 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR USING THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS. IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC. THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
- 5. IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 6. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.171 C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
- 7. CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
- 8. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE
- 9. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:

210-233-2010

210-622-3901

210-207-8048

210-207-7765

1-800-344-8377/811

SAN ANTONIO WATER SYSTEM (SAWS) ATASCOSA WATER COSA DRAINAGE COSA SIGNAL OPERATIONS TEXAS STATE WIDE ONE CALL LOCATOR - CITY PUBLIC SERVICE ENERGY -TIME WARNER -AT&T

-MCI -WEST TEXAS GAS

- 10. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTH MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING
- 11. ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.
- 12. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
- 13. THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND/OR TRACKED CONSTRUCTION MATERIALS AND/OR DEBRIS.
- 14. IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE HISTORIC PRESERVATION OFFICE AT 207-7306 OR 207-3327 FOR AN ARCHAEOLOGICAL INVESTIGATION. THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY. IF MORE THAN THREE (3) DAYS ARE REQUIRED FOR INVESTIGATION(NOT INCLUDING HOLIDAY AND WEEKENDS) AND IF THE CONTRACTOR IS UNABLE TO WORK IN OTHER AREAS, THEN THE CONTRACTOR WILL BE ALLOWED TO NEGOTIATE FOR ADDITIONAL CONSTRUCTION TIME UPON WRITTEN REQUEST WITHIN TEN (1) DAYS AFTER THE FIRST NOTICE TO THE CITY OF ARCHAEOLOGICAL INVESTIGATION FOR EACH EVENT. IF THE TIME REQUIRED FOR INVESTIGATION IS LESS THAN OR EQUAL TO THREE (3) DAYS FOR EACH EVENT, CONTRACT DURATION WILL NOT BE EXTENDED.
- 15. IF SUSPECTED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS, C.O.S.A. SHALL BE NOTIFIED IMMEDIATELY WHEN CONTAMINATED SOILS AND/OR GROUNDWATER ARE ENCOUNTERED AT LOCATIONS NOT IDENTIFIED IN THE PLANS. THE NOTIFICATION SHOULD INCLUDE THE STATION NUMBER. TYPE OF CONTAMINATED MEDIA. EVIDENCE OF CONTAMINATION AND MEASURES TAKEN TO CONTAIN THE CONTAMINATED MEDIA AND PREVENT PUBLIC ACCESS. THE CONTAMINATED SOIL AND/OR GROUNDWATER SHALL NOT BE REMOVED FROM THE LOCATION WITHOUT PRIOR C.O.S.A. APPROVAL. THE CONTRACTOR MUST STOP THE EXCAVATION IMMEDIATELY AND CONTACT THE C.O.S.A. INSPECTOR. THE CONTRACTOR CANNOT BEGIN EXCAVATION ACTIVITIES WITHOUT WRITTEN PERMISSION FROM THE CITY.

SAWS GENERAL CONSTRUCTION NOTES COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

GENERAL SECTION

- 1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:
 - A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
 - B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE"
 - C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION"
 - D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION". E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).
- 2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
- 3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.
- 4. THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO BEGINNING ANY WORK.
- 5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
- 6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:

* SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES * COSA DRAINAGE (210) 207-0724 OR (210) 207-6026 * COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480

- * COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951 * TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.
- 8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS
- 9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
- 10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
- 11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

WEEKEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.

- 12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
- 13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.

- 1. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.
 - * FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATIONS CENTER (210) 233-2014
- 2. ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS-CONTAINING MATERIAL (ACM), MAY BE LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCURS. SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000, "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE".
- 3. VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN, THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)
- 4. SUITABLE ANCHORAGE/THRUST BLOCKING OR JOINT RESTRAINT SHALL BE PROVIDED AT ALL OF THE FOLLOWING MAIN LOCATIONS: DEAD ENDS, PLUGS, CAPS, TEES, CROSSES, VALVES, AND BENDS, IN ACCORDANCE WITH THE STANDARD DRAWINGS DD-839 SERIES AND ITEM NO. 839, IN THE SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- 5. ALL VALVES SHALL READ "OPEN RIGHT"

- 6. PRVS REQUIRED: CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW ______ FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT, ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOT(S) IF *PRV IS/ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. *NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE (PRV).
- 7. PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR FEET. (ITEM NO. 847.3): MAINS SHALL BE DISINFECTED WITH DRY HTH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.
- 8. BACKFLOW PREVENTION DEVICES:

OTHER FEDERAL, STATE OR LOCAL AGENCIES.

- * ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE REQUIRED TO HAVE BACKFLOW PREVENTION DEVICES.
- * ALL COMMERCIAL BACKFLOW PREVENTION DEVICES MUST BE APPROVED BY SAWS PRIOR TO
- 9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED, AND SAWS HAS RELEASED THE MAIN FOR TIE-IN AND USE.

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:
- A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT (210) 233-2014. PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR
- B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO. C. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF
- D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
- E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS F. MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING

AND TELEVISING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA, TCEQ AND/OR ANY

NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

- 2. IF BYPASS PUMPING IS REQUIRED, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION FOR WATER AND SANITARY SEWER CONSTRUCTION, ITEM NO. 864, "BYPASS
- 3. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973 AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.
- 4 . SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241. TAC 217.53 AND TCEQ 290.44(E)(4)(B). CONTRACTOR SHALL CENTER A 20' JOINT OF 160 PSI PRESSURE RATED PVC AT THE PROPOSED WATER CROSSING.
- 5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECT'S IMPROVEMENTS. (NSPI)
- 6. SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER: ALL SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER, RECYCLED WATER, PETROLEUM PRODUCTS, OR CHEMICALS MUST BE REPORTED IMMEDIATELY TO THE SAWS INSPECTOR ASSIGNED TO THE COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP). THIS REQUIREMENT APPLIES TO EVERY SPILL, OVERFLOW, OR DISCHARGE REGARDLESS OF
- 7. MANHOLE AND DEFLECTION (MANDREL) TESTING AND THE TV INSPECTION MUST BE PERFORMED AND PASSED PRIOR TO FINAL FIELD ACCEPTANCE BY SAWS CONSTRUCTION INSPECTION DIVISION.
- 8. ALL PVC PIPE OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH WITH MINIMUM PIPE STIFFNESS OF 115

CAUTION UNDERGROUND UTILITIES

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING GAS MAINS AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS EXISTING GAS MAIN COMPANIES, AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, TELEPHONE, AND FIBER OPTIC LINES, SITE PRIMARY ELECTRICAL DUCT BANKS, AND GAS LINES. THE CONTRACTOR MUST CONTACT 1-800-DIG-TESS AND CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION AND/OR START OF CONSTRUCTION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTORS SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

CAUTION OVERHEAD UTILITIES

CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING UNDER "HIGH VOLTAGE TRANSMISSION LINES" A WORKING HEIGHT OF 30' FROM GROUND ELEVATION WILL BE OBSERVED WHEN WORKING UNDER THE HIGH VOLTAGE LINE. COORDINATE ALL WORK WITH THE LOCAL UTILITY PROVIDER. FEDERAL LAW STIPPULATES IF WORKING INSIDE A 20 FT. CLEARANCE ZONE FROM HIGH-VOLTAGE OF THE ENERGIZED LINES AFFECTED. A SPECIFIC WORK PLAN MUST BE DEVELOPED BY THE OPERATOR TO ENSURE NO ENCROACHMENT TO THE CLEARANCE ZONE. THE HIGHER THE VOLTAGE IN THE LINES, THE GREATER THE

CLEARANCE REQUIREMENTS (REFER TO TABLE A BELOW)

UP TO 50kV - 10 FT OVER 50kV TO 200 kV - 15 FT OVER 200kV TO 350kV - 20 FT. OVER 350 kV TO 500 kV - 25 FT. OVER 500kV TO 750 kV - 35 FT.

PAVEMENT NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY OR TXDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).

2. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.

- 3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT OR LIMITS OF DIMENSIONS NECESSARY FOR CONSTRUCTION OF THE
- 4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

SITE UTILITY NOTES

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING GAS MAINS PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING

2. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING GAS MAINS. ALL UTILITIES SHALL BE VERIFIED IN THE FIELD WHETHER SHOWN ON THIS PLAN OR NOT PRIOR TO INSTALLATION OF ANY NEW LINES.

3. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL JURISDICTION WITH REGARDS TO MATERIALS AND INSTALLATION OF THE UTILITIES AND STORM DRAINS.

4. CONTRACTOR SHALL COORDINATE WITH ALL EXISTING GAS MAIN COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.

5. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.

6. CONTRACTOR SHALL PROTECT ALL EXISTING FENCES, PAVING, EXISTING GAS MAINS, SCHEDULED TO REMAIN.

7. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL FINAL UTILITY AS-BUILT MEASUREMENTS, TOPS AND LENGTHS OF SERVICE CONNECTIONS OF THE PROJECT.

8. ALL GARBAGE FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

9. GAS AND ELECTRIC ALIGNMENTS SHOWN ON THIS DRAWING ARE CONCEPTUAL. THE ACTUAL DESIGN AND LOCATIONS SHALL BE DETERMINED BY THE LOCAL SERVICE PROVIDER OR MEP ENGINEER.

10. THE CONSTRUCTION OF UNDERGROUND PRIMARY ELECTRIC AND GAS DISTRIBUTION SYSTEMS SHALL BE GOVERNED BY THE ENGINEERING CONSTRUCTION PLANS PREPARED BY THE LOCAL SERVICE PROVIDER. THIS DRAWING SHALL SERVE ONLY AS REFERENCE DOCUMENT TO COORDINATE LOCATION OF THE PROPOSED PRIMARY ELECTRIC AND GAS DISTRIBUTION SYSTEM. THE LOCAL SERVICE PROVIDER'S CONSTRUCTION DRAWINGS AND CONSTRUCTION DETAILS SHALL GOVERN.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY **CONTRIBUTING ZONE PLAN GENERAL CONSTRUCTION NOTES**

- 1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE: THE NAME OF APPROVED PROJECT
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
- 2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN (CZP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ONSITE.
- 3. NO HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE
- 4. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S)
- CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- 5. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES,
- 6. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY
- 7. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
- 8. ALL EXCAVATED MATERIAL THAT WILL BE STORED ON-SITE MUST HAVE PROPER E&S CONTROLS. 9. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14THE DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY,
- 10. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

- THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE
- THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
- 11. THE HOLDER OF ANY APPROVED EDWARDS AQUIFER PROTECTION PLANS MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
- ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURES, INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY
- ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED
- ANY CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
- ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

SAN ANTONIO REGIONAL OFFICE 14250 JUDSON ROAD SAN ANTONO, TEXAS 78233-4480 PHONE (210) 492-3096 FAX (210)545-4329

REVISIONS:







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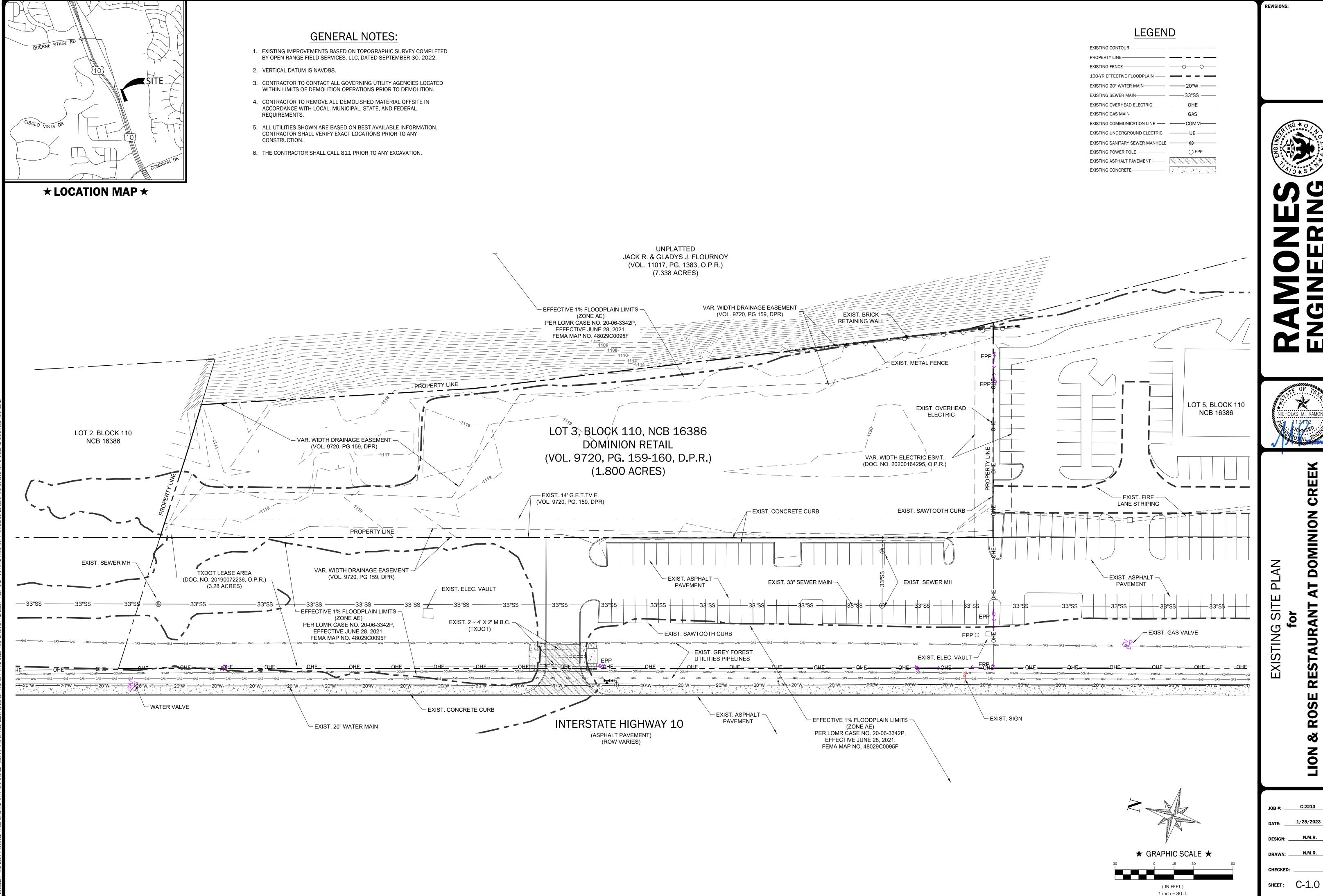
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C-2213 1/28/2023

N.M.R. N.M.R.

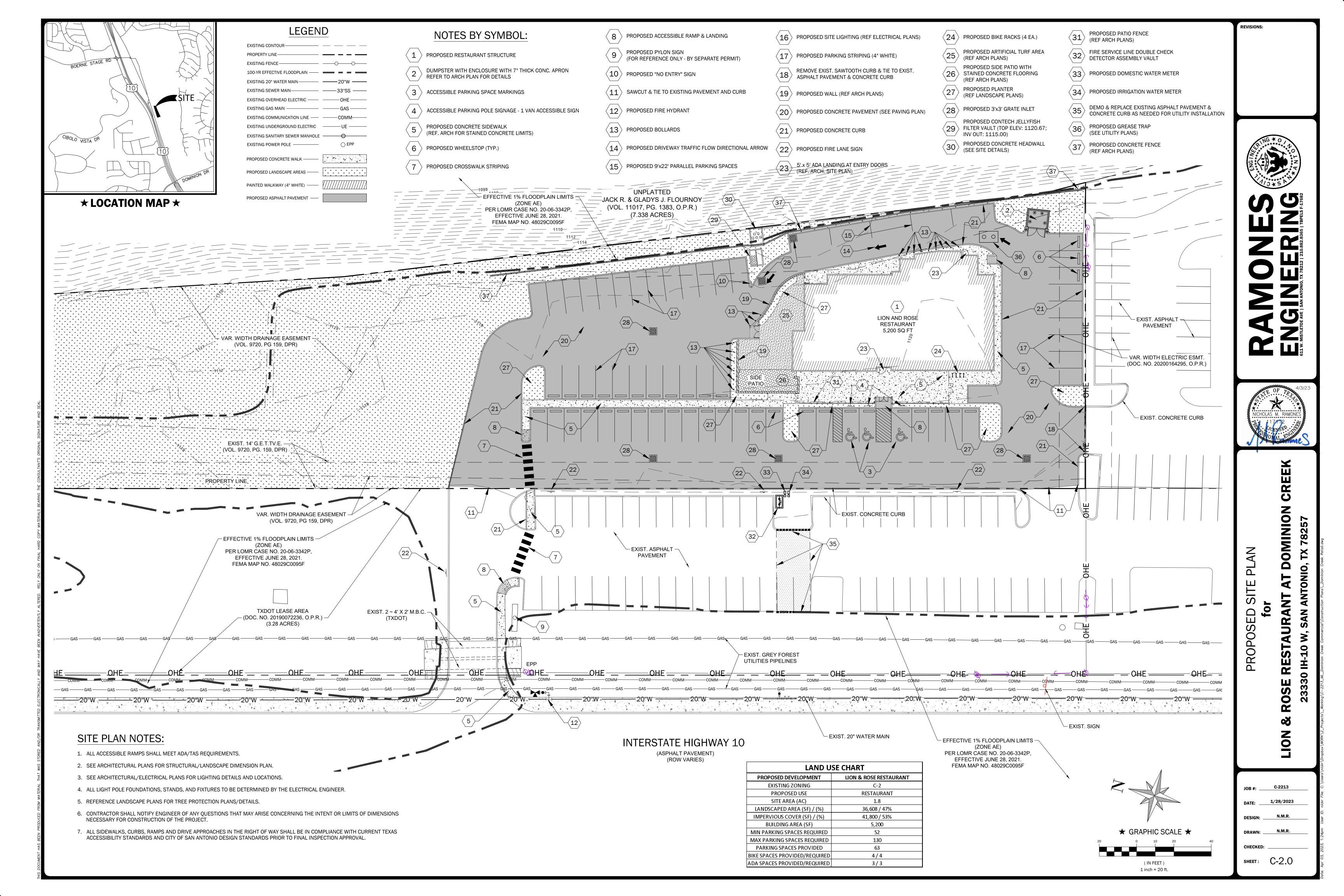
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SHEET: **C-0.1**



DOMINION

JOB #: ______C-2213 DATE: 1/28/2023 DESIGN: N.M.R. DRAWN: N.M.R.



★ LOCATION MAP ★

PAVEMENT NOTES:

- 1. SEE PAVING DETAILS AND NOTES FOR ADDITIONAL INFORMATION. PAVEMENT SUBGRADE PREPARATION SHOULD BE IN CONFORMANCE WITH THE PROJECT GEOTECHNICAL REPORT. PAVEMENT SECTION THICKNESS AND COMPACTION RATINGS TO BE VERIFIED WITH GEOTECHNICAL REPORT RECOMMENDATIONS.
- 2. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-89 (REV. 92).
- 3. PORTLAND CEMENT SHALL BE A SINGLE BRAND CONFORMING TO ASTM C-150, TYPE I OR TYPE III.
- 4. CONCRETE MIXES SHALL BE DESIGNED TO PROVIDE A MINIMUM COMPRESSIVE STRENGTH PSI AT 28 DAYS OF 4,000 PSI.
- 5. CONCRETE SHALL HAVE A MINIMUM SEVEN DAY FLEXURAL STRENGTH OF 600 PSI.
- 6. ALL CONCRETE SHALL BE AIR ENTRAINED AT MINIMUM 2% BY VOLUME, +/-1.5%.
- 7. CONCRETE SLUMPS SHALL BE NOT LESS THAN 3" NOR MORE THAN 5", ASTM C143.
- 8. THE PAVEMENT SURFACE SHALL BE MOIST-CURED WITH A MEMBRANE OR CURING COMPOUND FOR NOT LESS THAN SEVEN DAYS.
- 9. JOINTS OR SCORE MARKS ARE TO BE SHARP AND CLEAN WITHOUT SHOWING EDGES OF JOINTING TOOL
- 10. SAW-CUT TIE-INS AT EXISTING CURBS AS NECESSARY TO INSURE SMOOTH TRANSITIONS. CONTRACTOR SHALL SAW-CUT AND TRANSITION TO MEET EXISTING PAVEMENT AS NECESSARY AND AS DIRECTED BY INSPECTOR TO ENSURE POSITIVE DRAINAGE (TYP. ALL INTERSECTIONS).
- 11. PROVIDE LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS AT 15' MAXIMUM EACH WAY. CONTRACTION JOINTS SHALL BE 1/4" X 1/4 DEPTH OF PAVEMENT. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONTRACTION JOINTS. JOINTS SHALL BE CONTINUOUS THROUGH CURBS. SAW-CUTTING SHALL BE COMPLETED BEFORE 8 HOURS HAVE ELAPSED SINCE CONCRETE PLACEMENT. JOINTS SHALL BE SEALED FOLLOWING SAW-CUTTING.
- 12. PROVIDE 3/4" EXPANSION JOINTS TO ISOLATE ALL FIXED OBJECTS ABUTTING OR WITHIN THE PAVING AREA SUCH AS BUILDINGS, EXISTING PAVEMENT, UTILITY APPURTENANCES, POLE BASES, AND SIDEWALKS. DO NOT PERMIT REINFORCEMENT TO EXTEND CONTINUOUSLY THROUGH ANY EXPANSION FILL JOINTS TO FULL DEPTH WITH EXPANSION JOINT MATERIAL (BITUMINOUS MATERIAL). IN CURBS, LOCATE JOINTS AT THE BEGINNING AND END OF CURVES. IN CURBS AND PAVING, DEPRESS 3/4" JOINT MATERIAL BELOW FINISHED GRADE AND SEAL EXPOSED JOINTS WITH JOINT SEALER.

- 13. PROVIDE CONSTRUCTION JOINTS AT END OF EACH DAY'S WORK OR WHEN CONCRETE PLACEMENT IS STOPPED MORE THAN 1/2 HOUR.
- 14. ALL SAW-CUT SURFACES OF THE EXISTING PAVEMENT SHALL BE CLEANED AND COATED WITH AN APPROVED BONDING COMPOUND IMMEDIATELY BEFORE THE NEW CONCRETE IS PLACED.
- 15. CONCRETE PLACED IN HOT WEATHER SHALL BE POURED IN THE EARLY MORNING SO THAT THE CONCRETE CAN ACHIEVE ITS INITIAL SET BY 9:00 AM.
- 16. PROVIDE MONOLITHIC OR EXTRUDED CURB AT ALL PERIMETER PAVING UNLESS NOTED OTHERWISE.
- 17. CONCRETE CURB SHALL BE OF THE SAME COMPRESSIVE STRENGTH AS THE CONCRETE PAVEMENT.

23. THE MAXIMUM NOMINAL SIZE OF COARSE AGGREGATE SHALL BE 1-1/2 INCH.

- 18. MILD STEEL REINFORCEMENT AND ACCESSORIES SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH ACI SP-66.
- 19. MILD STEEL REINFORCEMENT SHALL BE PLACED AND SECURED IN ACCORDANCE WITH CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS." PROVIDE METAL OR PLASTIC CHAIRS OR SPACERS (NOT WOOD BLOCKS OR BRICK BATS) TO PROVIDE SUPPORT FOR REINFORCING BARS.
- 20. MINIMUM CONCRETE PROTECTION FOR ALL REINFORCEMENT SHALL BE 2-INCH CLEAR COVER BETWEEN ANY CONCRETE SURFACE AND NEAREST EDGE OF ANY REBAR. THERE SHALL BE MIN. 3 INCH OF COVER BETWEEN BOTTOM (TOP OF BASE MATERIAL OR SUBGRADE) AND EDGE OF REINFORCEMENT.
- 21. REINFORCING BARS SHALL BE CONTACT LAP SPLICED UNLESS SHOWN OTHERWISE. LAP SPLICES SHALL CONFORM TO ACI REQUIREMENTS, BUT SHALL IN NO CASE BE LESS THAN 40 BAR DIAMETERS LONG.
- 22. NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C-33. ALL CONCRETE SHALL USE NORMAL WEIGHT AGGREGATES, UNLESS NOTED OTHERWISE.
- 24. ALL ADDITIVES FOR AIR ENTRAINMENT, WATER REDUCTION, AND SET CONTROL SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS.

LEGEND

PROPERTY LINE----PROPOSED CONCRETE WALK -PROPOSED LANDSCAPE AREAS -PROPOSED 6" CONCRETE PAVEMENT

PROPOSED 7" CONCRETE PAVEMENT —

Point Table

Point # Northing Easting

1 | 13789613.0073 | 2087669.9527

2 | 13789617.9061 | 2087742.4976

4 | 13789600.3048 | 2087768.3935

6 | 13789605.1756 | 2087786.0209

8 | 13789492.4895 | 2087821.0334

9 | 13789490.5881 | 2087821.3344

10 | 13789476.4796 | 2087845.0917

11 | 13789480.4536 | 2087853.3869

12 | 13789422.8402 | 2087883.2424

27 | 13789307.8715 | 2087811.5966

28 | 13789300.7520 | 2087813.8380 29 | 13789293.2445 | 2087789.9919

30 | 13789294.4507 | 2087789.6121

31 | 13789296.4114 | 2087785.8497 32 | 13789292.2670 | 2087772.6860

33 | 13789321.3351 | 2087760.7616

34 | 13789583.7848 | 2087705.3878

35 | 13789591.3794 | 2087729.2719

36 | 13789592.8755 | 2087733.9769

37 | 13789586.5850 | 2087746.4680

38 | 13789582.7543 | 2087744.5390

39 | 13789578.2085 | 2087730.2463

40 | 13789483.8633 | 2087760.2460

41 | 13789492.7879 | 2087788.3062

42 | 13789490.8423 | 2087792.0730 43 | 13789478.8236 | 2087795.9140

44 | 13789483.6018 | 2087794.3870

45 | 13789485.4639 | 2087800.2134

46 | 13789478.6984 | 2087819.6822 47 | 13789467.3988 | 2087836.5942 48 | 13789414.0124 | 2087865.8441

49 | 13789389.6922 | 2087877.2304 50 | 13789370.9463 | 2087876.5873

13789603.8062 2087766.7080

13789598.8810 | 2087772.3514

13789498.9018 | 2087834.9584

Point Table

61 | 13789350.6922 | 2087781.6047

62 | 13789355.2376 | 2087795.8995

77 | 13789412.8370 | 2087861.8276 78 | 13789413.5870 | 2087864.1933

79 | 13789401.9533 | 2087869.6285

80 | 13789389.5623 | 2087873.5564 81 | 13789388.9043 | 2087871.4808

82 | 13789380.6076 | 2087874.1217

83 | 13789377.3256 | 2087864.2212

84 | 13789369.1016 | 2087866.8204

85 | 13789353.4574 | 2087817.4703

86 | 13789406.4531 | 2087800.6704

87 | 13789413.1840 | 2087798.1870

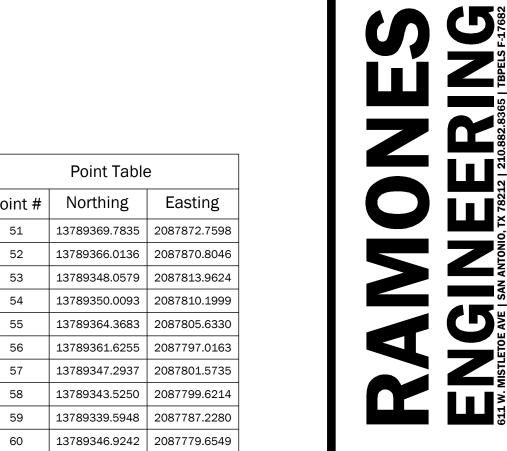
88 | 13789501.8660 | 2087850.3999

89 | 13789495.4935 | 2087853.2967

90 | 13789497.7277 | 2087841.2963

91 | 13789491.3552 | 2087844.1931

Point # | Northing |





~ O DOMINION **DIMENSION**

AT **STAURANT 0**S

8

AVING

0

JOB #: _____C-2213 DATE: _____1/28/2023 N.M.R. DESIGN: __ DRAWN: N.M.R.

CHECKED: _

SHEET: C-3.0

1 inch = 20 ft.

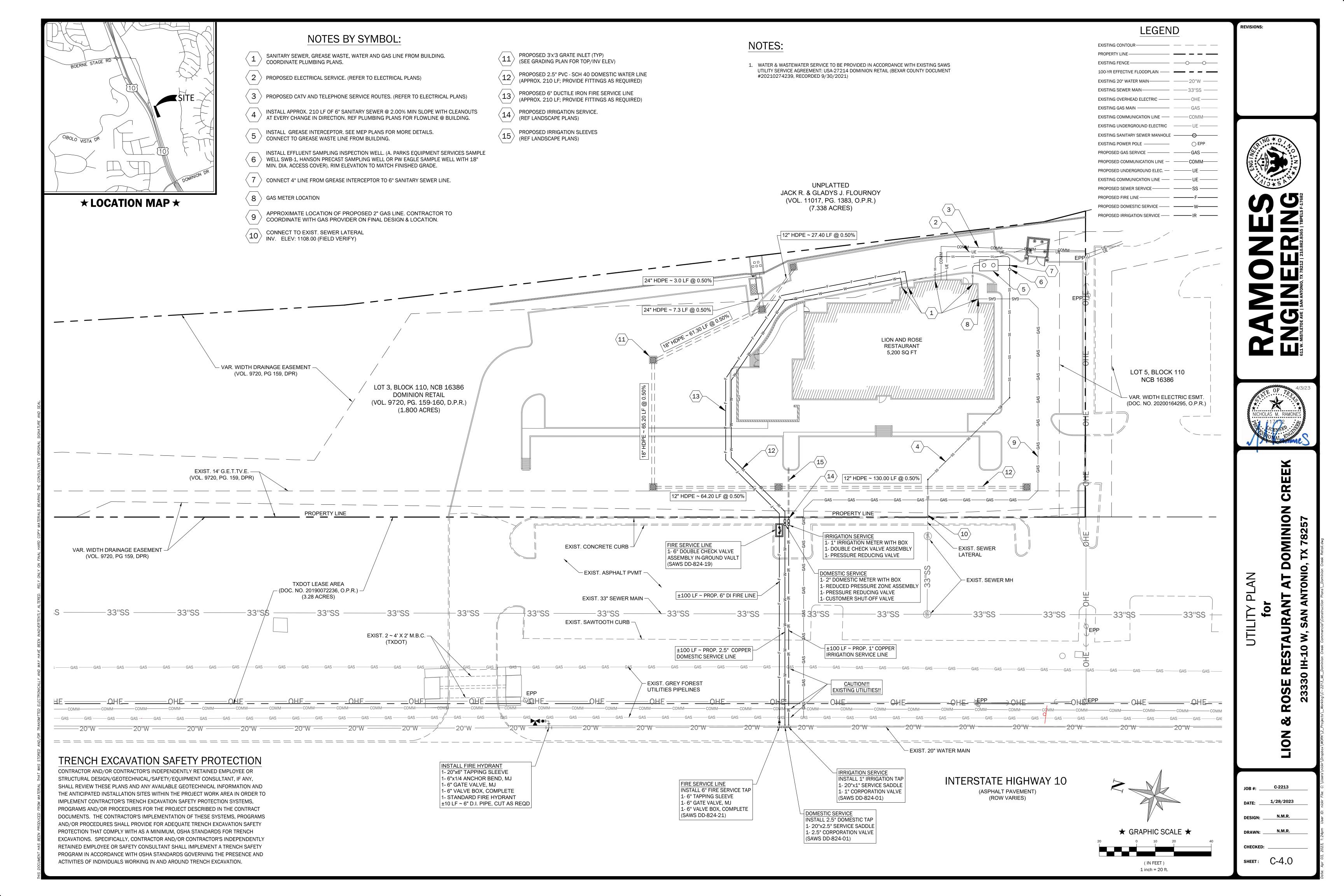
★ GRAPHIC SCALE ★

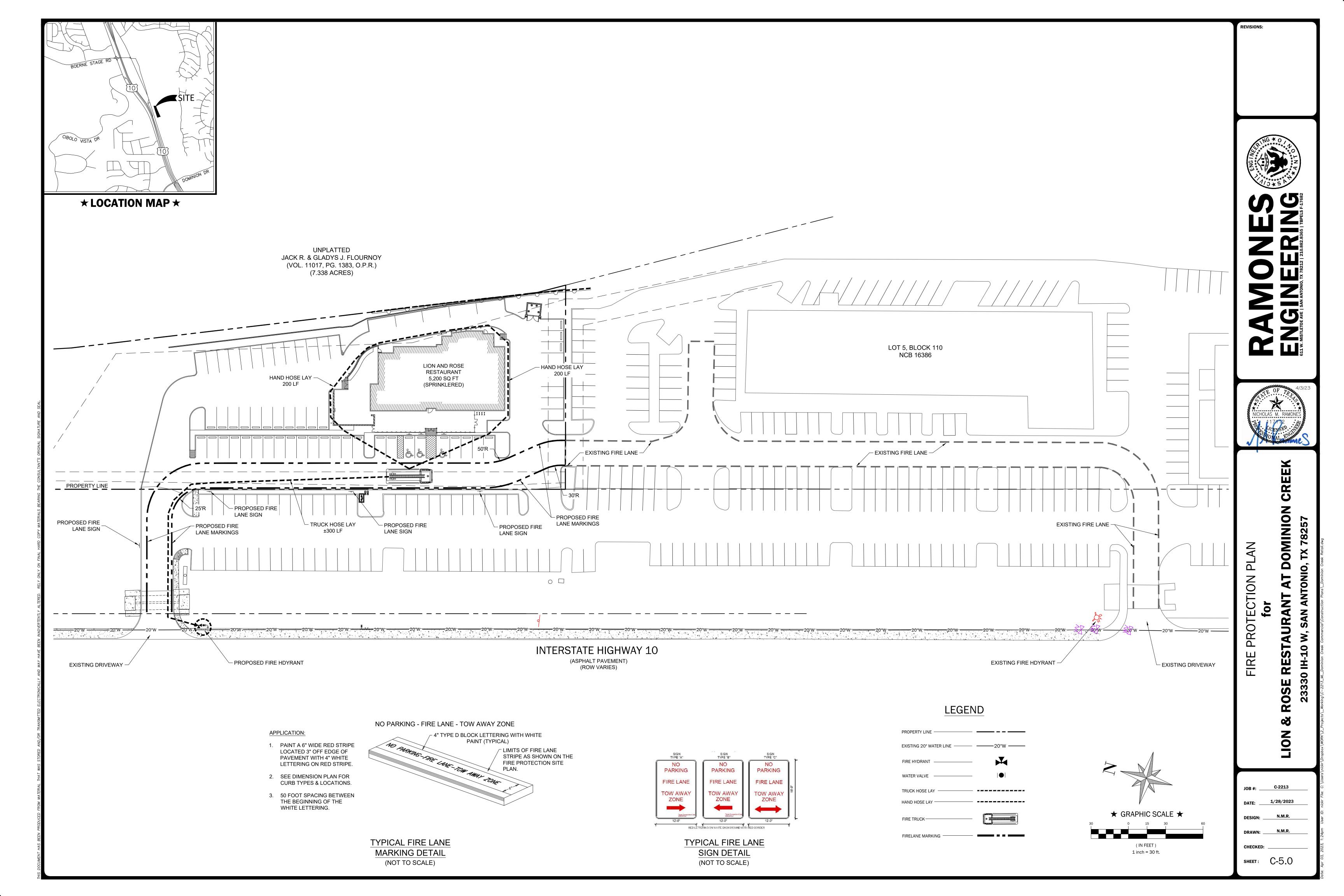
UNPLATTED JACK R. & GLADYS J. FLOURNOY (VOL. 11017, PG. 1383, O.P.R.) (7.338 ACRES) LION AND ROSE RESTAURANT EXIST. ASPHALT 5,200 SQ FT PAVEMENT MILL 27 28 - EXIST. CONCRETE CURB · PROPERTY LINE - EXIST. ASPHALT PAVEMENT

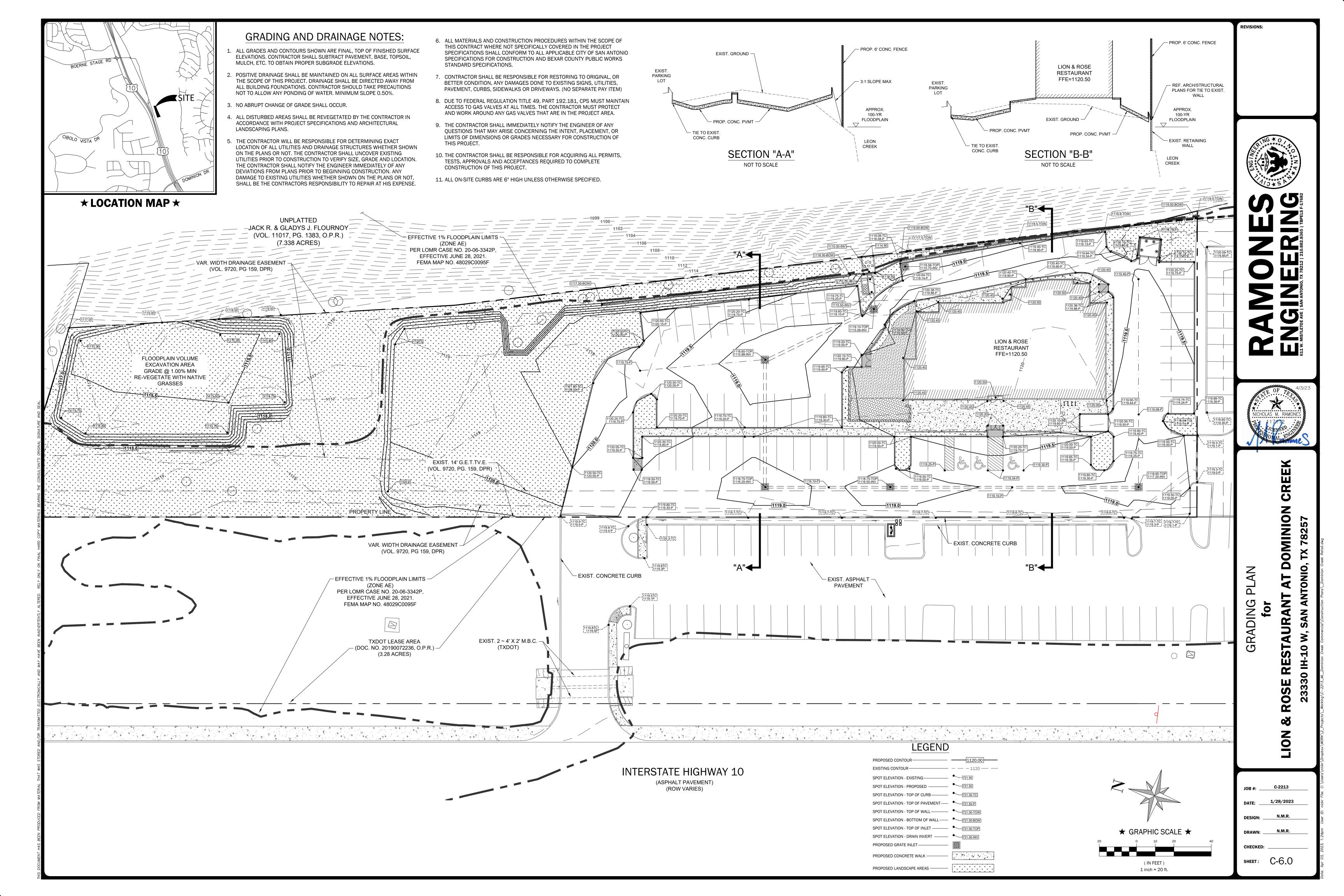
INTERSTATE HIGHWAY 10 (ASPHALT PAVEMENT)

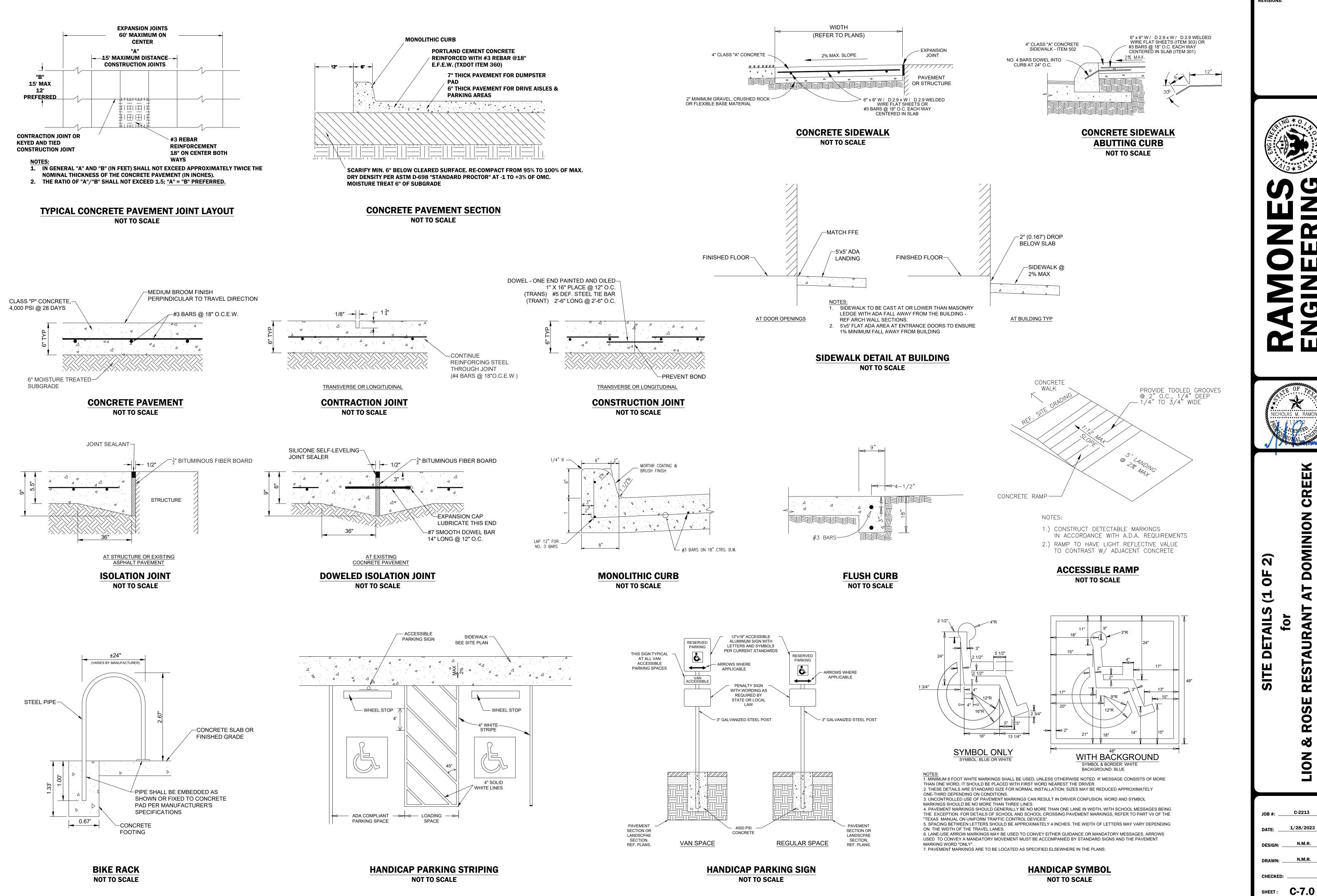
(ROW VARIES)

13 | 13789381.1945 | 2087902.7401 63 | 13789400.0274 | 2087781.6560 14 | 13789378.1424 | 2087895.4223 64 | 13789407.8167 | 2087779.1805 15 | 13789375.1672 | 2087893.5842 65 | 13789584.1713 | 2087723.1036 13789363.1173 | 2087892.1069 66 | 13789579.0199 | 2087706.9029 67 | 13789456.7010 | 2087784.3919 17 | 13789360.5446 | 2087894.4217 18 | 13789360.8993 | 2087896.1067 68 | 13789463.3490 | 2087805.3634 19 | 13789362.9674 | 2087905.9331 69 | 13789457.3256 | 2087807.2729 20 | 13789351.2247 | 2087908.4046 70 | 13789464.8802 | 2087831.1041 71 | 13789453.1322 | 2087834.8283 21 | 13789349.1651 | 2087898.6190 22 | 13789348.6363 | 2087896.1065 72 | 13789454.6744 | 2087839.6930 23 | 13789330.8004 | 2087901.7792 73 | 13789421.8366 | 2087850.1027 24 | 13789306.3455 | 2087824.5589 74 | 13789422.3354 | 2087851.6762 25 | 13789319.5236 | 2087820.3676 75 | 13789418.1734 | 2087852.9955 26 | 13789320.9830 | 2087815.6676 76 | 13789420.2052 | 2087859.4262









O

DOMINION A STAURAN ~ OSE

C-2213 1/28/2023 N.M.R.

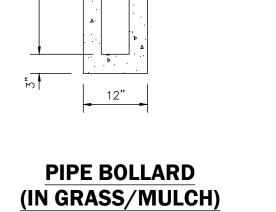
LION

N.M.R. CHECKED:

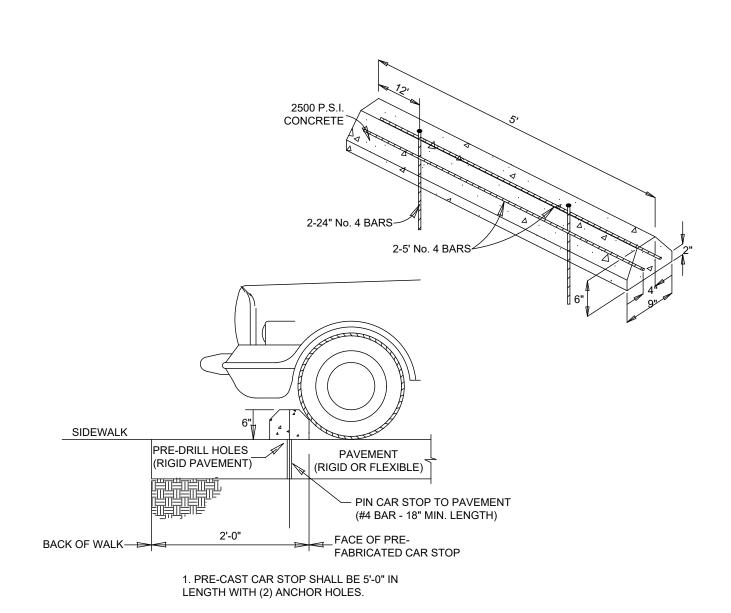
PIPE BOLLARD

(IN PAVEMENT)

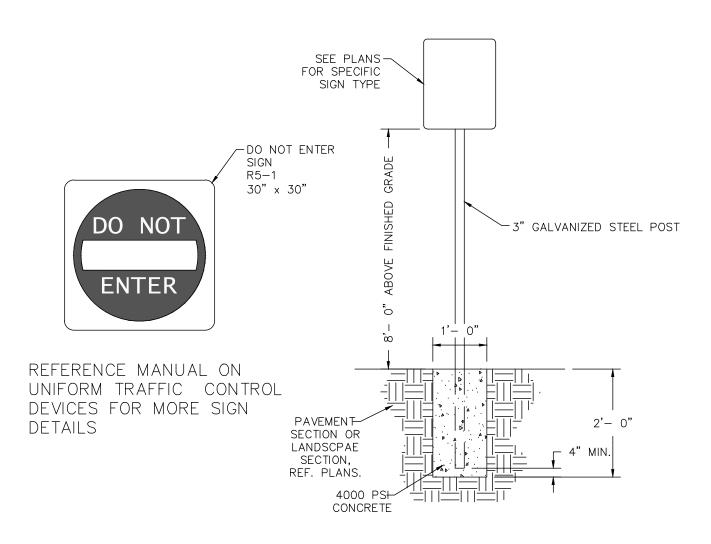
NOT TO SCALE



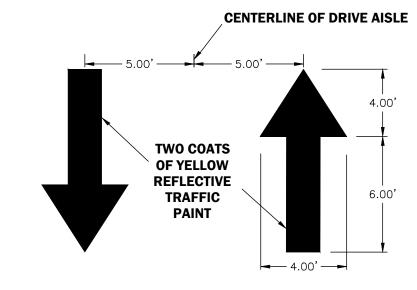
NOT TO SCALE



WHEEL STOP NOT TO SCALE



NO ENTRY SIGN NOT TO SCALE

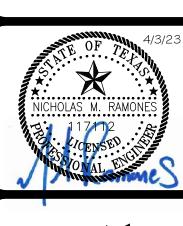


NOTE: TEMPLATE AVAILABLE FROM SIGN VENDORS.

TRAFFIC FLOW DIRECTIONAL ARROW NOT TO SCALE







LION & ROSE RESTAURANT AT DOMINION CREE

7

0F

SITE DETAILS (2

SHEET: **C-7.1**





DET/

OSE

LION

JOB #: _____C-2213

DATE: _____1/28/2023

DRAWN: N.M.R.

SHEET: **C-7.2**

DESIGN: _

CHECKED:

N.M.R.

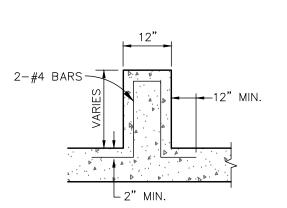
1. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4"

 ALL CONCRETE SHALL BE A MINIMUM CLASS "A" 3000 psi. @ 28 DAYS UNLESS NOTED. 3. COVER FOR REINFORCING STEEL IS 2" UNLESS NOTED.

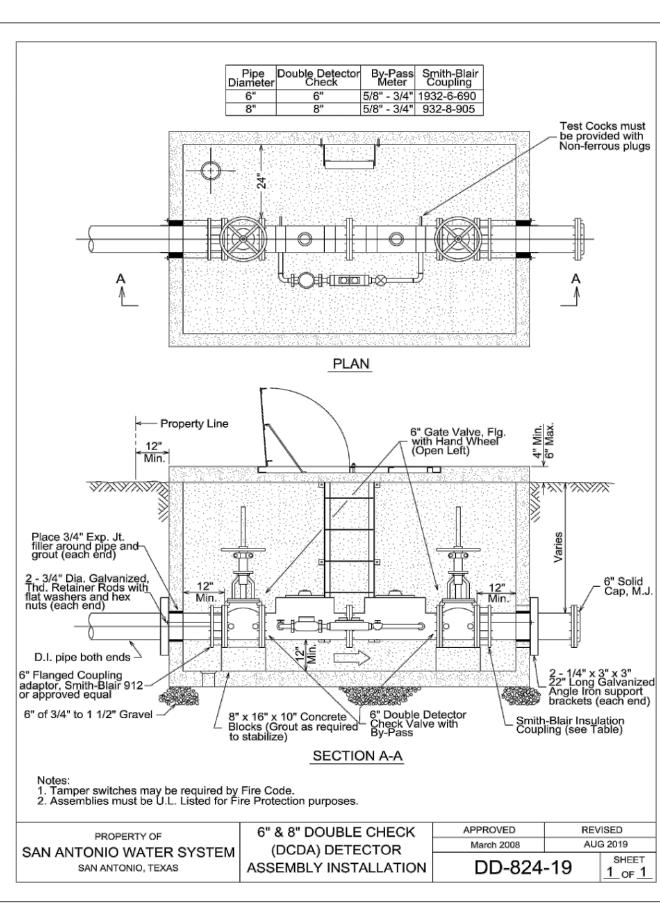
CONCRETE NOTES

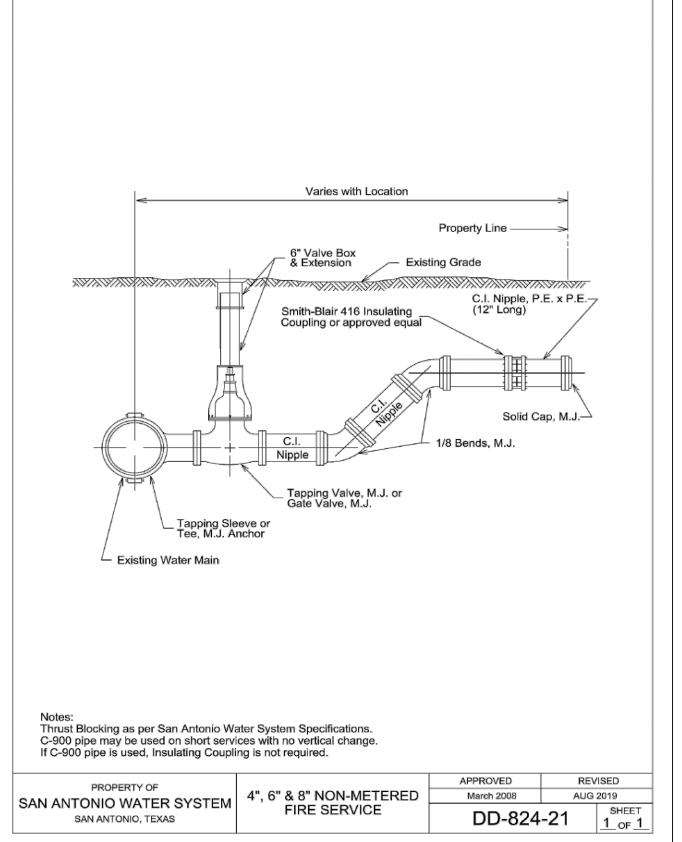
4. MINIMUM BAR DEVELOPMENT LENGTH FOR SPLICE AND

BENDS SHALL BE 24 INCHES.



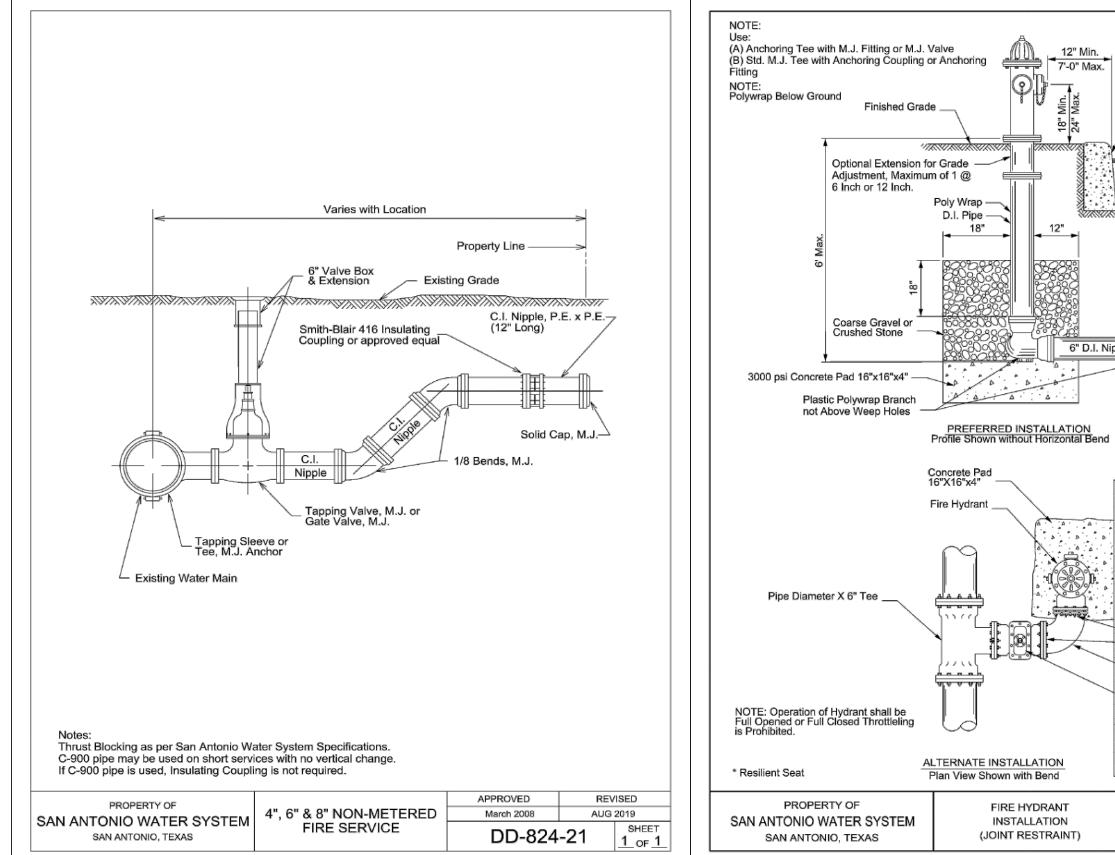
SPLASH BLOCK NOT TO SCALE

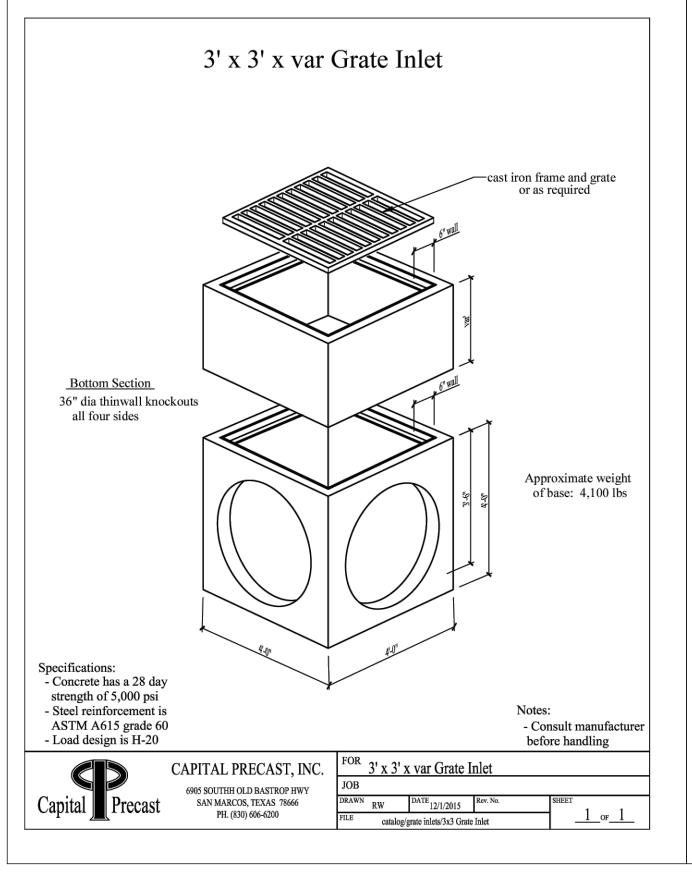


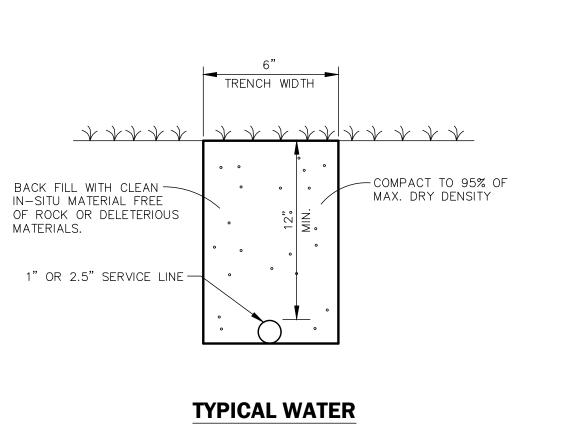


TWO-WAY CLEANOUT

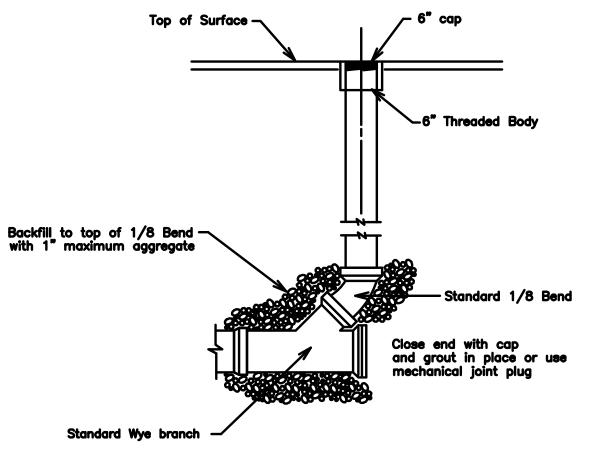
NOT TO SCALE

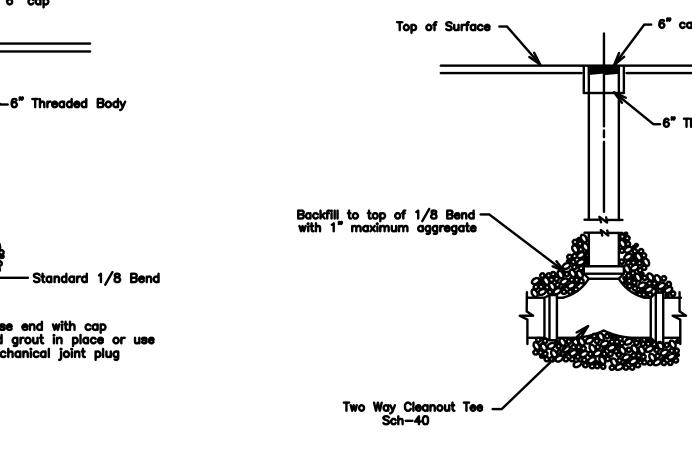




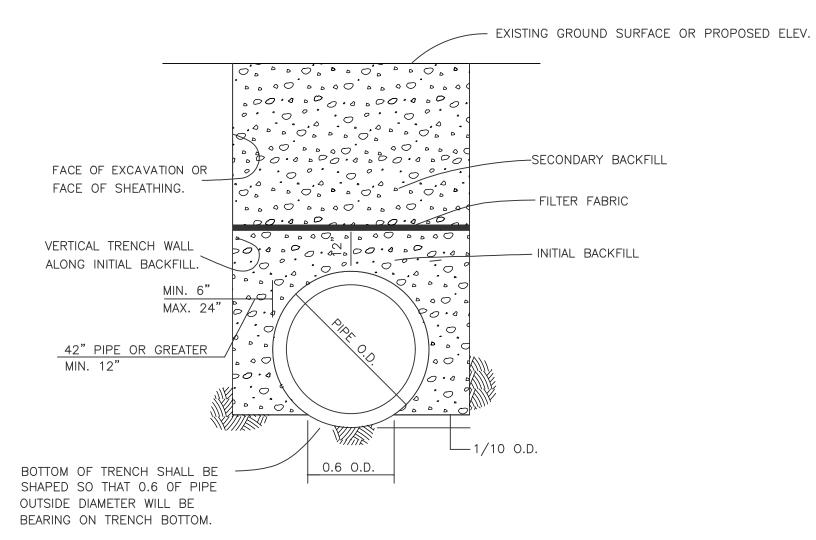


SERVICE TRENCH NOT TO SCALE

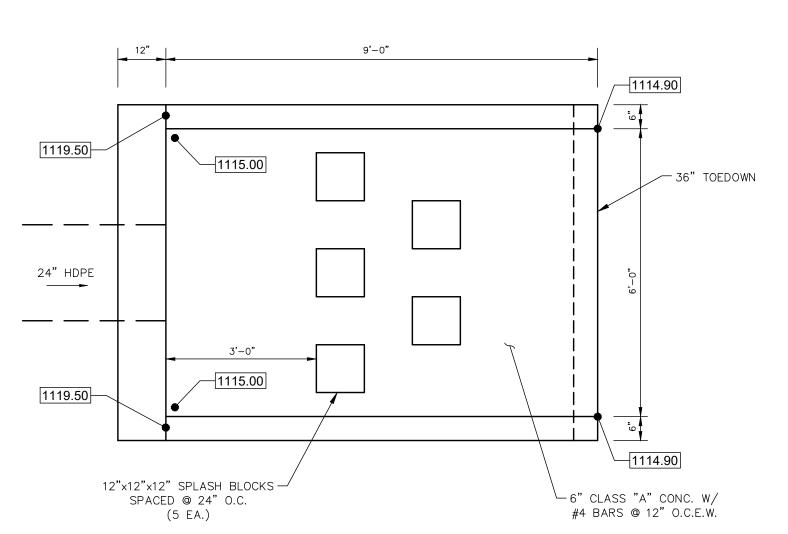




ON-WAY CLEANOUT NOT TO SCALE



STORM PIPE TRENCH **NOT TO SCALE**



Finished Grade _

Optional Extension for Grade — Adjustment, Maximum of 1 @ 6 Inch or 12 Inch.

3000 psi Concrete Pad 16"x16"x4" -

Pipe Diameter X 6" Tee ___

NOTE: Operation of Hydrant shall be Full Opened or Full Closed Throttleling is Prohibited.

PROPERTY OF

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

* Resilient Seat

Plastic Polywrap Branch

not Above Weep Holes

D.I. Pipe -

Concrete Pad 16"X16"x4"

Fire Hydrant

ALTERNATE INSTALLATION
Plan View Shown with Bend

FIRE HYDRANT

INSTALLATION

(JOINT RESTRAINT)

PREFERRED INSTALLATION Profile Shown without Horizontal Bend

6" Gate Valve, M.J.

Joint Restraints

— 6" ¼ Bend, M.J.

6" Gate Valve, M.J. - with Box *

APPROVED REVISED
MAY 2013 AUG 2019

DD-834-01

NOT TO SCALE

DRAIN OUTFALL HEADWALL

2. LOCATIONS OF CONSTRUCTION ENTRANCE/EXITS, CONCRETE WASHOUT PITS, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARDS TO BE DETERMINED IN THE FIELD.

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. CONTRACTOR, TO THE EXTENT PRACTICAL, SHALL MINIMIZE THE AMOUNT OF AREA DISTURBED. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.

7. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.

8. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED.

9. ALL TEMPORARY BMPs WILL BE REMOVED ONCE WATERSHED IS STABILIZED.

10. MUD OR DIRT INADVERTENTLY TRACKED OFF-SITE AND ONTO EXISTING STREETS SHALL BE REMOVED IMMEDIATELY BY HAND OR MECHANICAL BROOM SWEEPING.

11. PRIOR TO INITIATION OF SUBSEQUENT PHASES OF CONSTRUCTION, TEMPORARY BMPs INCLUDING SILT FENCING, CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND CONSTRUCTION STAGING AREA SHALL BE FIELD LOCATED AS APPROPRIATE FOR THE AREA OF CONSTRUCTION.

12. TEMPORARY POLLUTION ABATEMENT MEASURES SHOWN ON THE PLAN ARE FOR THE OVERALL DEVELOPMENT. TEMPORARY BMPs MAY REQUIRE ADJUSTMENT BASED ON PHASING OF CONSTRUCTION OF THE DEVELOPMENT. RECORDS OF ADJUSTMENTS AND REVISIONS SHALL BE MAINTAINED AS APPROPRIATE.

13. TEMPORARY BMPs SHOWN ON THIS SHEET ARE FOR GRAPHICAL PURPOSES AND MAY NOT BE TO SCALE. BMPs SHALL BE LOCATED WITHIN THE PROJECT LIMITS.

14. UPON COMPLETION OF THE PROJECT AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND REMOVAL OF TEMPORARY POLLUTION ABATEMENT MEASURES THAT CONFLICT WITH SITE IMPROVEMENTS SUCH AS LANDSCAPING AND FENCES SO AS TO PREVENT SEDIMENT FROM ESCAPING THE PROJECT SITE.

GALVINIZED WELDED WIRE MESH

(12.5 GAUGE MINIMUM). MAXIMUM

WOVEN FILTER-

ISOMETRIC VIEW

FABRIC

OPENING SIZE SHALL BE 2" x 4"

ATTACH THE W.W.M. AND FABRIC ON END POSTS USING

PLACE 4" TO 6" OF FABRIC AGAINST THE TRENCH SIDE AND

DIRECTION. MINIMUM TRENCH SIZE SHALL BE 6" SQUARE.

BACKFILL AND HAND TAMP.

APPROXIMATELY 2" ACROSS TRENCH BOTTOM IN UPSTREAM

4 T-CLIPS OR SEWN VERTICAL POCKETS FOR STEEL POSTS.

4' MINIMUM STEEL POSTS SPACED AT 6' TO 8'.

REINFORCEMENT SHEETS OR ROLLS A MINIMUM OF 6 TIMES WITH HOG RINGS.

FASTEN FABRIC TO TOP STRAND OF

RINGS OR CORD AT A MAXIMÚM

SPACING OF 15".

WELDED WIRE MESH (W.W.M.) BY HOG

PERMANENT POLLUTION ABATEMENT NOTES:

1.) TEMPORARY BMP'S WILL BE MAINTAINED UNTIL THE SITE IMPROVEMENTS ARE COMPLETED AND THE SITE HAS BEEN STABILIZED, INCLUDING SUFFICIENT VEGETATION BEING ESTABLISHED.

2.) DURING CONSTRUCTION, TO THE EXTENT PRACTICAL, CONTRACTOR SHALL MINIMIZE THE AREA OF SOIL DISTURBANCE. AREAS OF DISTURBED SOIL SHALL BE REVEGETATED TO STABILIZE SOIL. SEE DETAIL ON TEMPORARY POLLUTION

ABATEMENT DETAIL SHEET AND REFER TO SECTION 1.3.11 IN TCEQ'S TECHNICAL GUIDANCE MANUAL RG-348 (2005). SOD SHOULD BE USED IN CHANNELS AND ON SLOPES > 15%. THE CONTRACTOR MAY SUBSTITUTE THE USE OF SOD WITH THE PLACEMENT OF TOP SOIL AND A FRIABLE SEED BED WITH A PROTECTIVE MATTING OR HYDRAULIC MULCH ALONG WITH WATERING UNTIL VEGETATION IS ESTABLISHED. APPLICATIONS AND PRODUCTS SHALL BE THOSE APPROVED BY TXDOT AS OF FEBRUARY 2001 AND IN COMPLIANCE WITH THE TGM RG-348 (2005). SEED MIXTURE AND/OR GRASS TYPE TO BE DETERMINED BY OWNER AND SHOULD BE IN COMPLIANCE WITH TGM RG-348 (2005) GUIDELINES. IRRIGATION MAY BE REQUIRED IN ORDER TO ESTABLISH SUFFICIENT VEGETATION.

3.) FOR DISTURBED AREAS WHERE INSUFFICIENT SOIL EXISTS TO ESTABLISH VEGETATION, CONTRACTOR SHALL PLACE A MINIMUM OF 6" OF TOPSOIL PRIOR TO REVEGETATION.

4.) PERMANENT BMP'S FOR THIS SITE INCLUDE NATURAL AND ENGINEERED VEGETATIVE FILTER STRIPS. THESE PERMANENT BMP'S HAVE BEEN DESIGNED TO REMOVE AT LEAST 80% OF THE INCREASED TOTAL SUSPENDED SOLIDS (TSS) FOR THE 26.1

(TGM) RG-348 (2005). 5.) TYPICAL SLOPES ON THIS PROJECT RANGE FROM APPROXIMATELY

1.4% TO 34%.

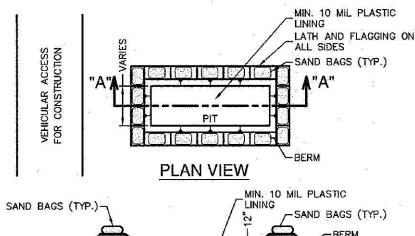
ACRES IN ACCORDANCE WITH THE TCEQ'S TECHNICAL GUIDANCE MANUAL

6.) SILT FENCING AND ROCK BERMS, WHERE APPROPRIATE, WILL BE MAINTAINED UNTIL THE ROADWAY, UTILITY, DRAINAGE IMPROVMENTS, AND BUILDING CONSTRUCTION ARE COMPLETED.

7.) ENERGY DISSIPATORS (TO HELP REDUCE EROSION) WILL BE PROVIDED AT POINTS OF CONCENTRATED DISCHARGE WHERE EXCESSIVE VELOCITIES MAY BE ENCOUNTERED.

8.) CONTRACTOR SHALL INSTALL AND ESTABLISH VEGETATION FOR SOIL STABILIZATION PRIOR TO SITE CLOSEOUT.

9.) ALL PERMANENT BMP'S MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.



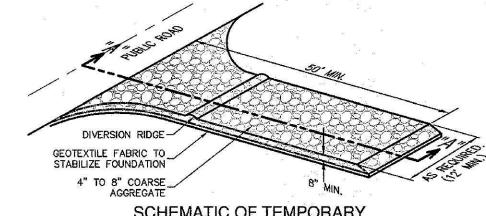
SAND BAGS (TYP. **SECTION "A-A"**

GENERAL NOTES DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF. 4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES OR WATER BODIES. 5. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED 2. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED 3. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE

CONCRETE TRUCK WASHOUT PIT DETAIL



SCHEMATIC OF TEMPORARY CONSTRUCTION ENTRANCE/EXIT

MATERIALS

1. THE AGGREGATE SHOULD CONSIST OF 4-INCH TO 8-INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN. 2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD2, A MULLEN BURST RATING OF 140 LB/IN2, AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.

4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4—INCH DIAMETER WASHED STONE OR COMMERCIAL ROCK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OR

1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE 2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER. 3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.

4. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6-INCHES TO 8-INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES, ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD. 5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

SURFACE SMOOTH AND SLOPE FOR DRAINAGE. 7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN. 8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD

6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE

SECTION "A-A" OF A CONSTRUCTION ENTRANCE/EXIT

COMMON TROUBLE POINTS . INADEQUATE RUNOFF CONTROL-SEDIMENT WASHES ONTO PUBLIC ROAD. 2. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL. 3. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC-EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY

4. PAD NOT FLARED SUFFICIENTLY AT ROAD SURFACE, RESULTS IN MUD BEING TRACKED ON TO ROAD AND POSSIBLE DAMAGE TO ROAD. 5. UNSTABLE FOUNDATION - USE GEOTEXTILE FABRIC UNDER PAD AND/OR IMPROVE FOUNDATION DRAINAGE.

INSPECTION AND MAINTENANCE GUIDELINES 1. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES

2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR. 3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. 4. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. 5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL

NOT-TO-SCALE

ISOMETRIC PLAN VIEW

THE PURPOSE OF A ROCK BERM IS TO SERVE AS A CHECK DAM IN AREAS OF CONCENTRATED FLOW, TO INTERCEPT SEDIMENT—LADEN RUNOFF, DETAIN THE SEDIMENT AND RELEASE THE WATER IN SHEET FLOW. THE ROCK BERM SHOULD BE USED WHEN THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 5

SHOULD BE USED WHEN THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 5 ACRES. ROCK BERMS ARE USED IN AREAS WHERE THE VOLUME OF RUNOFF IS TOO GREAT FOR A SILT FENCE TO CONTAIN. THEY ARE LESS EFFECTIVE FOR SEDIMENT REMOVAL THAN SILT FENCES, PARTICULARLY FOR FINE PARTICLES, BUT ARE ABLE TO WITHSTAND HIGHER FLOWS THAN A SILT FENCE. AS SUCH, ROCK BERMS ARE OFTEN USED IN AREAS OF CHANNEL FLOWS (DITCHES, GULLIES, ETC.). ROCK BERMS ARE MOST EFFECTIVE AT REDUCING BED LOAD IN CHANNELS AND SHOULD NOT BE SUBSTITUTED FOR OTHER EROSION AND SEDIMENT CONTROL MEASURES FARTHER UP THE WATERSHED.

INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.

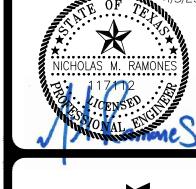
2. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT WILL NOT CAUSE ANY ADDITIONAL SILTATION.

4. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.

5. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS,

6. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS

3. REPAIR ANY LOOSE WIRE SHEATHING.



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C-2213

1/28/2023

N.M.R.

CHECKED:

SHEET: **C-7.3**

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1. THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE 2. CLEAN, OPEN GRADED 3-INCH TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5-INCH TO 8-INCH DIAMETER ROCKS MAY BE

SECTION "A-A"

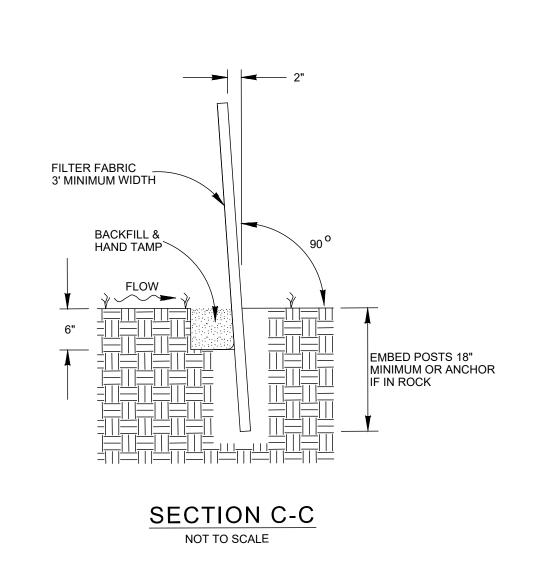
. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE. THE SHEATHING SHOULD BE 20 GAUGE WOVEN WIRE MESH WITH 1 INCH 2. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H: V) OR FLATTER. 3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM TO A HEIGHT NOT LESS THAN 18". 4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON.

5. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE OR AS NEAR AS POSSIBLE. 6. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.

COMMON TROUBLE POINTS 1. INSUFFICIENT BERM HEIGHT OR LENGTH (RUNOFF QUICKLY ESCAPES OVER THE TOP OR AROUND THE SIDES OF BERM).

2. BERM NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING

ROCK BERM DETAIL



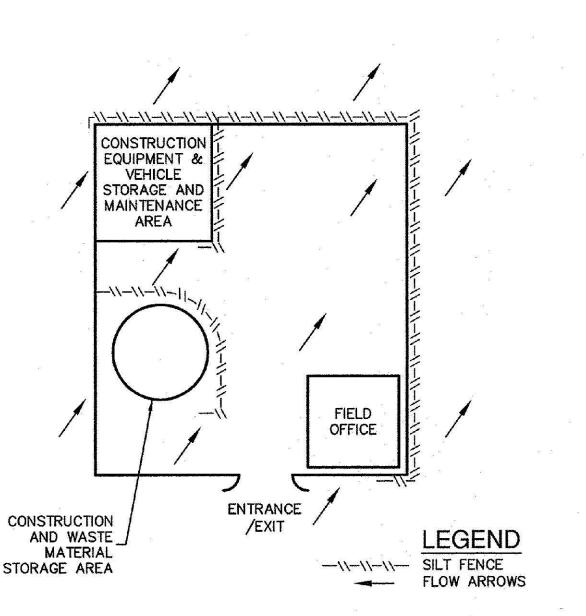
SEDIMENT CONTROL FENCE USAGE GUIDELINES

A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUN-OFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM / FT SQUARED. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.

TEMPORARY SEDIMENT CONTROL FENCE

NOT TO SCALE



CONSTRUCTION STAGING AREA

NOT-TO-SCALE

YFISH.

C

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C-2213 1/28/2023 DATE:

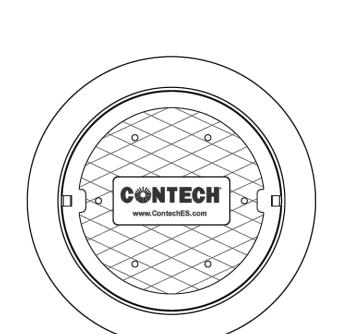
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CHECKED: SHEET: **C-7.4**

JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD

CARTRIDGE LENGTH	54"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089
MAX. TREATMENT (CFS)	1.96
DECK TO INSIDE TOP (MIN) (B)	5.00
	·



STRUCTURE	E	BASIN A					
WATER QUA		1.07					
PEAK FLOW		12.8					
RETURN PER		100					
# OF CARTR		5/2					
CARTRIDGE	LENGTH					54"	
PIPE DATA:	I.E.	MAT'L	DIA	SLOPE	- %	HGL	
INLET #1	1115.50'	HDPE	24"	0.509	6	*	
INLET #2	*	*	*	*		*	
OUTLET	1115.00'	HDPE	24"	0.509	6	*	
SEE GENERAL NOTES 6-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS. RIM ELEVATION 1121.00'							
4 N.T. E. O.T.	TION DALL	407	14/10:	T		FIGUE	
ANTI-FLOTATION BALLAST WIDTH HEIGHT * *							

* PER ENGINEER OF RECORD

SITE SPECIFIC

FRAME AND COVER (DIAMETER VARIES) N.T.S.

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE. 2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED

SOLUTIONS REPRESENTATIVE. www.ContechES.com

3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT

COVER OF 0' - 10', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.

STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.

6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION. 7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.

8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.

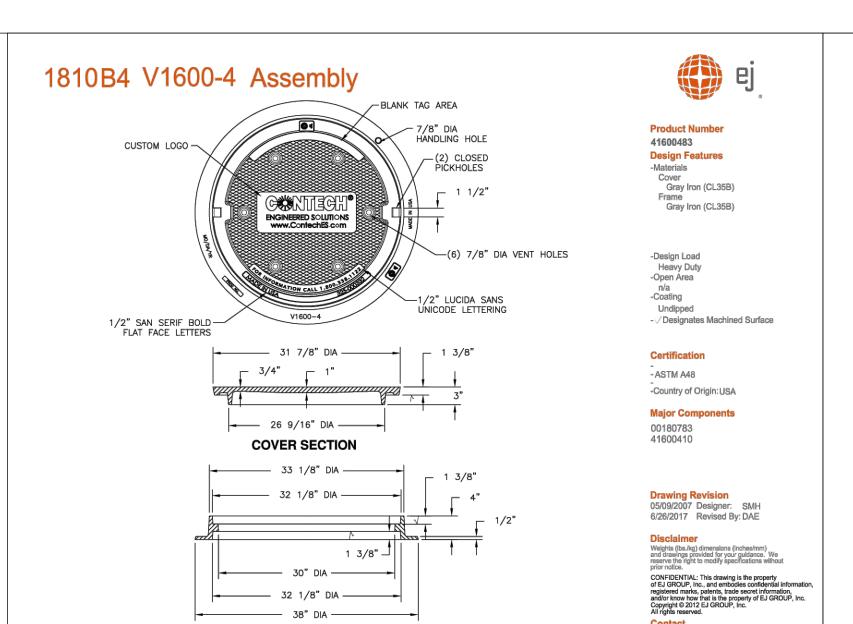
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).

D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

ENGINEERED SOLUTIONS LLC www.ContechES.com 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069

800-338-1122 513-645-7000 513-645-7993 FAX

8' x 6' JELLYFISH - 735640- 010 LION & ROSE AT DOMINION CREEK BEXAR, TX SITE DESIGNATION: BASIN A



FRAME SECTION

INLET

FLOATABLES BAFFLE

> **BYPASS** WEIR

OUTLET

CONTRACTOR TO GROUT

TO FINISHED GRADE

Ø32" OPENING FOR Ø24" HDPE -INLET PIPE

BYPASS WEIR

Ø32" OPENING

OUTLET PIPE

BOTTOM OF FLOATABLES -BAFFLE

FOR Ø24" HDPE

TOP OF

CONTECH TO PROVIDE GRADE RING/RISER · TRANSFER

OUTLET

TRANSFER

OPENING

PLAN VIEW (TOP SLAB NOT SHOWN FOR CLARITY)

OPENING

HI FLO

CARTRIDGE

BLANK HI FLO CARTRIDGE

- (LOCATION MAY VARY)

DECK

FRAME AND COVER

TOP OF STRUCTURE)

TRANSFER

CARTRIDGE

- CARTRIDGE

TRANSFER OPENING

ELEVATION VIEW

OPENING

(TRENCH COVER FLUSH WITH

ELEV. = 1121.00'

ELEV. = 1120.67'

STRUCTURE INV.

ELEV. = 1108.50'

ELEV. = 1107.83'

800 626 4653 ejco.com

BOTTOM OF STRUCTURE

FOLLOWING: U.S. PATENT NO. 8,287,726; 8,221,618; US 8,123,935; OTHER INTERNATIONAL PATENTS PENDING

TOP OF STRUCTURE

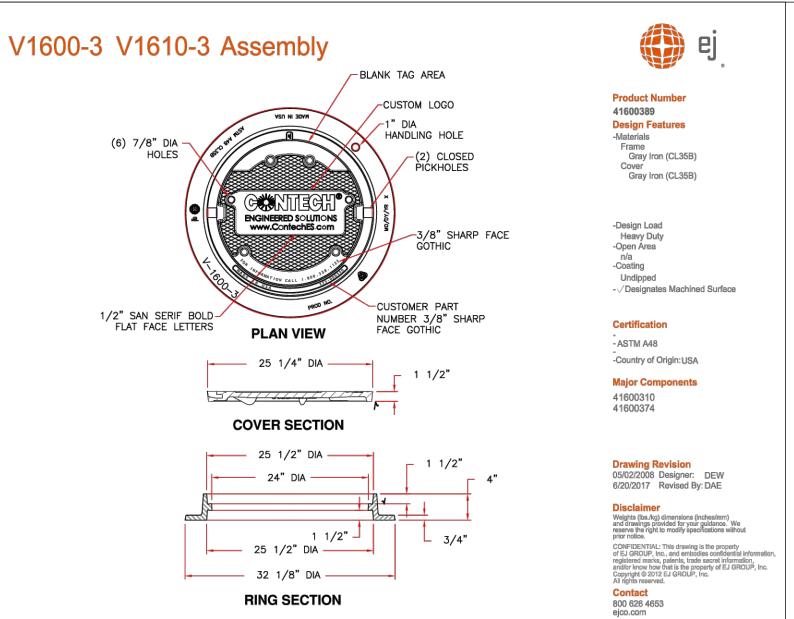
WEIR ELEV. =1116.50'

INLET INV. ELEV. = 1115.50'

OUTLET INV. ELEV. = 1115.00'

DRAINDOWN

CARTRIDGE



RATIONAL METHOD PEAK DISCHARGE CALCULATIONS									
PEAK DISCHARGE CALCULATIONS									
PEAK DISCHARGE CALCULATIONS									
POINT NO. DRAINAGE AREA (AC.) COEFFICIENT TOTAL CA	COMMENTS								
POINT NO. AREA (AC.) COEFFICIENT TOTAL CA TRATION I ₅ I ₂₅ I ₁₀₀ Q ₅ Q ₂₅ Q ₁₀₀	COMMENTS								
(MIN) IN/HR IN/HR CFS CFS CFS									
EXIST									
1 A 1.06 0.39 0.41 16.0 5.14 7.15 8.94 2.1 3.0 3.7									
2 B 0.74 0.39 0.29 16.0 5.14 7.15 8.94 1.5 2.1 2.6									
PROP/ULT									
1 A 1.06 0.87 0.92 5.2 7.86 11.02 13.88 7.2 10.2 12.8									
2 B 0.74 0.39 0.29 16.0 5.14 7.15 8.94 1.5 2.1 2.6									

PROPOSED IMPERVIOUS COVER

TOTAL SITE ACREAGE: 1.800 AC / 78,400 SF PROPOSED IMPERVIOUS COVER: 0.960 AC / 41,800 SF

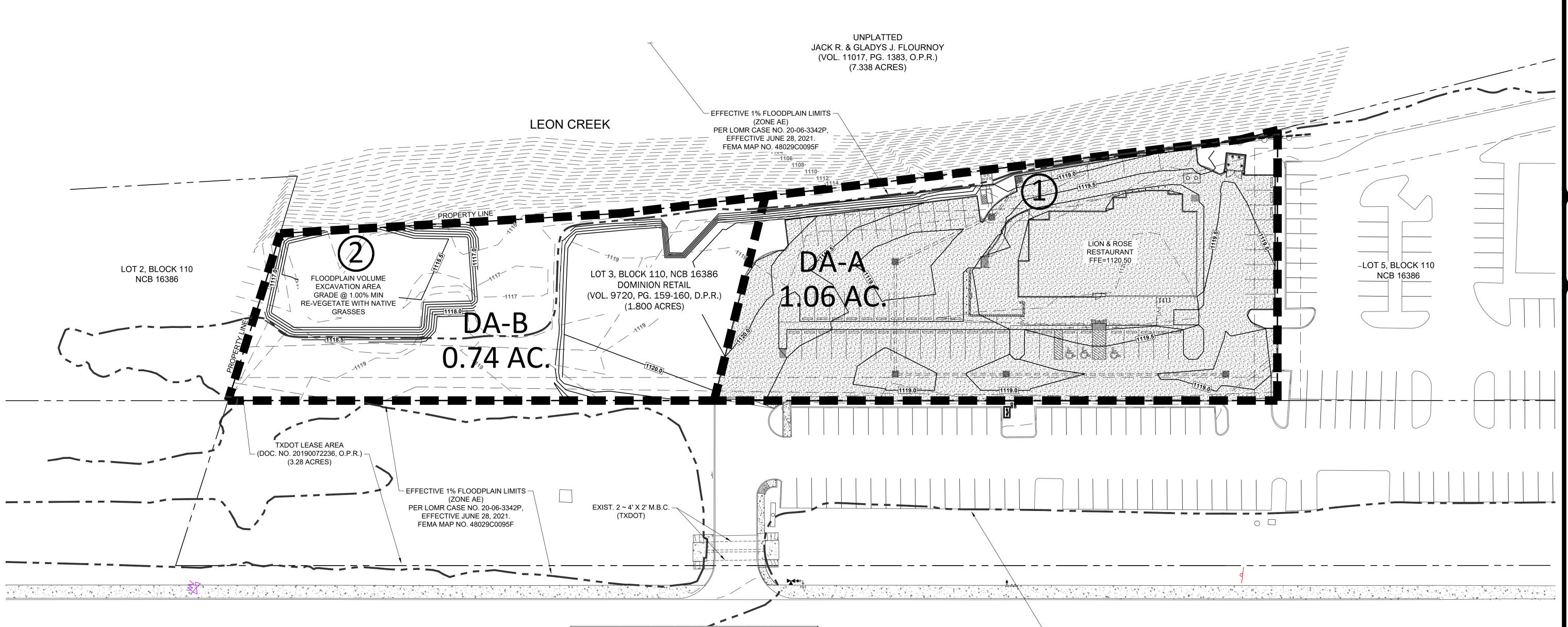
IMPERVIOUS COVER %: 53.3%

LEGEND

PROPOSED IMPERVIOUS COVER — PROPOSED CONTOUR

EXISTING CONTOUR -PROPOSED GRATE INLET-

★ LOCATION MAP ★



LION & ROSE RESTAURANT - DOMINION CREEK

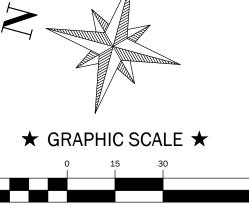
RATIONAL METHOD TIME OF CONCENTRATION CALCULATIONS

PT. NO.	(MAN	OVERLAN INING KINEM <i>I</i>		TON)		CHA (MANN				
	$T_1 = \{0.42(nL)^{0.8} / (P2)^{0.5}S^{0.4}\}$					т	TIME OF CONCENTRATION (MIN)			
	LENGTH	MANNING'S	SLOPE	TRAVEL TIME	LENGTH	MANNING'S N	SLOPE	VELOCITY	TRAVEL TIME	
	(FT)	N	(FT/FT)	(MIN)	(FT)		(FT/FT)	(FT/S)	(MIN)	
EXISTING										
1	100	0.240	0.010	16.0						16.0
2	100	0.240	0.010	16.0						16.0
PROP/ULT										
1	140	0.018	0.005	3.5	360	0.013	0.005	3.5	1.7	5.2
2	100	0.240	0.010	16.0						16.0

LION & ROSE - DOMINION CREEK							
RATIONAL METHOD							
DRAINAGE AREA CALCULATION SHEET							
	SLOPE		1%-3%				
DRAINAGE AREA	TOTAL ACRES AVG. RESIDENTIAL R-5, R-6		UNDEVELOPED	GRASS COVER > 75%	SCHOOL SITE / R-4	BUSINESS	
	Ç	₹ 67					TOTAL CA
EXIST	Ď	8 67	70	39	77	96	TOTAL CA
EXIST A	1.06	67 67					0.41
A B	-	67 67		39			
Α	1.06	AY 67		39			0.41
A B PROP/ULT A	1.06 0.74 1.06	67		1.06 0.74			0.41 0.29 0.92
A B PROP/ULT	1.06	AY 67		39		96	0.41 0.29

INTERSTATE HIGHWAY 10 (ASPHALT PAVEMENT) (ROW VARIES)

PERFECTIVE 1% FLOODPLAIN LIMITS (ZONE AE)
PER LOMR CASE NO. 20-06-3342P,
EFFECTIVE JUNE 28, 2021.
FEMA MAP NO. 48029C0095F



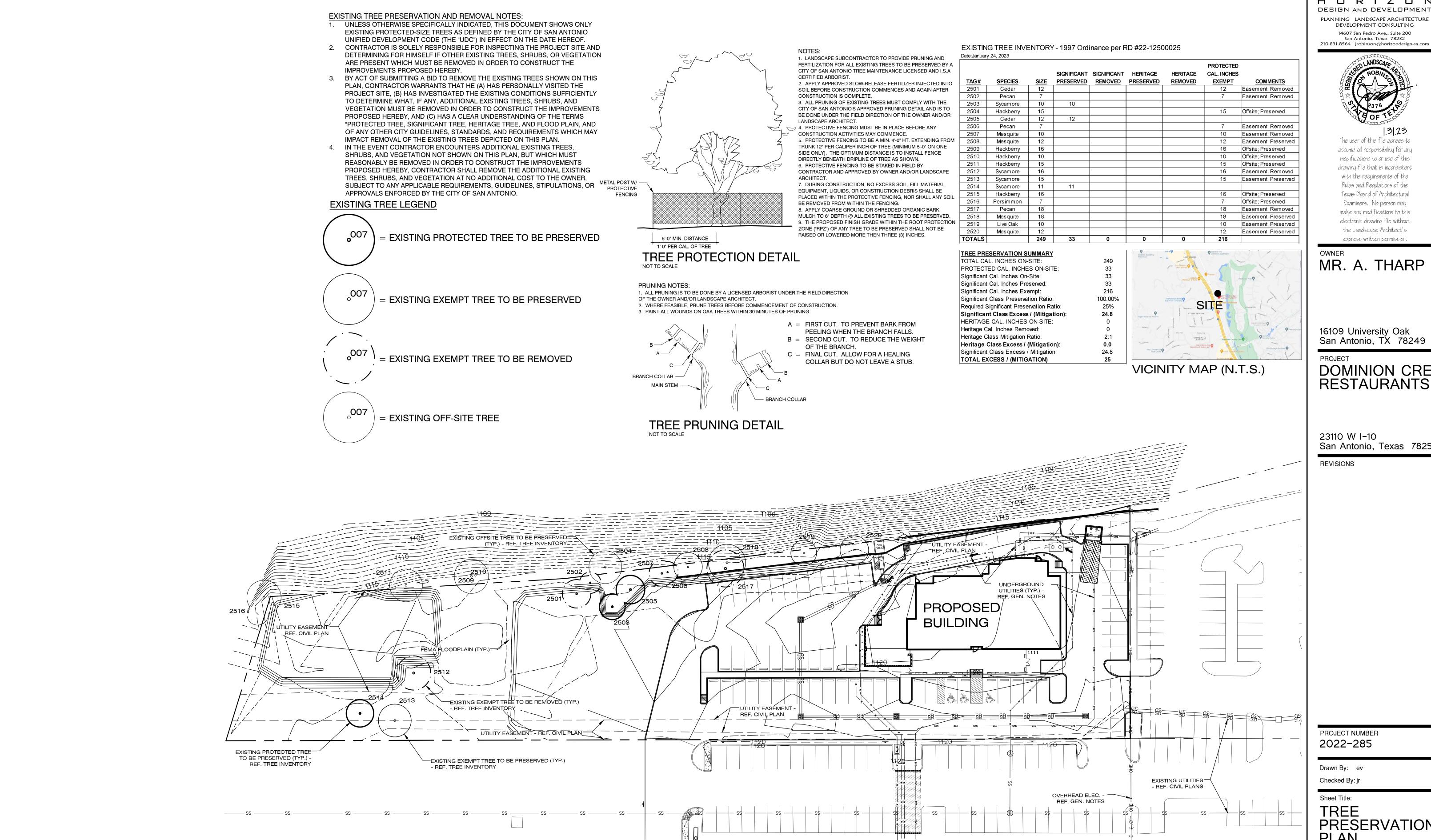
(IN FEET) 1 inch = 30 ft. CHECKED: SHEET: 1

PROP,

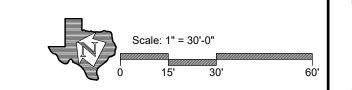
JOB #: ______C-2213 DATE: 1/28/2023 DESIGN: N.M.R. DRAWN: _____N.M.R.

ROSE

DOMINION



IH-10 Frontage Road



HORIZON DESIGN AND DEVELOPMENT PLANNING LANDSCAPE ARCHITECTURE DEVELOPMENT CONSULTING 14607 San Pedro Ave., Suite 200 San Antonio, Texas 78232



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OWNER

MR. A. THARP

16109 University Oak San Antonio, TX 78249

PROJECT

DOMINION CREEK RESTAURANTS

23110 W I-10 San Antonio, Texas 78257

REVISIONS

PROJECT NUMBER 2022-285

Drawn By: ev Checked By: jr

Sheet Title:

TREE **PRESERVATION** PLAN

Sheet Number:

LANDSCAPE ORDINANCE COMPLIANCE 60 POINT MINIMUM (1997 UDC) 1. TREE PRESERVATION **14.5 POINTS** FULL CREDIT TREES WITHIN THE STREET YARD (20 Point Maximum): 5 Points (1)15" SYCAMORE (#2513): (1) 12" SYCAMORE (#2511): 5 Points HALF CREDIT TREES OUTSIDE THE STREET YARD (15 Point Maximum): (1) 12" CEDAR (#'s 2505): 2.5 Points 1.5 Points (1) 10" SYCAMORE (#2503): 14.5 Points TOTAL POINTS: 2. PARKING LOT LANDSCAPING **25 POINTS** PROVIDED AS REQUIRED. 2. UNDERSTORY PRESERVATION **5 POINTS** PROVIDED AS REQUIRED. TOTAL: 64.5 POINTS TREE PRESERVATION ORDINANCE COMPLIANCE REF. TO TP1.0 FOR TREE INVENTORY.

TREE CANOPY and BUFFER ORDINANCE COMPLIANCE

Per RD #22-12500025, this project maintains vested development rights to June 22, 1983

and is exempt from the tree canopy and buffer Ordinance requirements.

GENERAL NOTES:

REFER TO SPECIFICATIONS FOR ALL CONTRACT PLANTING.
 INSTALL APPROVED IMPORTED PLANTING MIX TO MIN. DEPTH OF 6" IN ALL AREAS SCHEDULED AS LANDSCAPE PLANTING AREAS.

3. INSTALL APPROVED IMPORTED TOPSOIL TO 4" DEPTH IN ALL TURFGRASS AREAS. 4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES IN THE FIELD PRIOR TO INSTALLATION AND MUST REPORT ANY DEVIATION

SITE CONDITIONS TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK IN THE AFFECTED AREA.

5. WHERE SHOWN ON THESE PLANS, UTILITY INFORMATION IS PROVIDED FOR REFERENCE ONLY. REF. CIVIL AND MEP PLANS FOR ALL UTILITY

5. WHERE SHOWN ON THESE PLANS, UTILITY INFORMATION IS PROVIDED FOR REFERENCE ONLY. REF. CIVIL AND MEP PLANS FOR ALL UTILITY INFORMATION.

6. VERIFY LOCATION AND DEPTH OF ALL EXISTING AND PROPOSED UTITILIES PRIOR TO ANY EXCAVATION. IN THE EVENT POTENTIAL CONFLICT(S)
OCCUR BETWEEN UTILITIES AND LANDSCAPE IMPROVEMENTS, IMMEDIATELY CEASE WORK IN THE AFFECTED AREA, REPORT THE CONFLICT(S)
TO THE OWNER'S REPRESENTATIVE, AND DO NOT PROCEED UNTIL RECEIPT OF SPECIFIC WRITTEN DIRECTION.

URBAN DEER NOTES:

AT THE TIME THESE DOCUMENTS WERE PREPARED THE LANDSCAPE ARCHITECT WAS NOT AWARE OF A LOCAL URBAN DEER POPULATION.
 IN THE EVENT AN URBAN DEER POPULATION IS DISCOVERED, CONTRACTOR IS SOLELY RESPONSIBLE FOR PROTECTING ALL NEWLY-INSTALLED PLANTS THROUGH THE 30-DAY MAINTENANCE PERIOD.

3. APPLY "LIQUID FENCE" (OR APPROVED EQUAL) TO ALL PLANTS AS NEEDED TO DISCOURAGE BROWSING BY DEER.

4. ANY NEWLY-INSTALLED PLANTS EATEN OR BROWSED BY DEER PRIOR TO THE EXPIRATION OF THE 30-DAY MAINTENANCE PERIOD SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

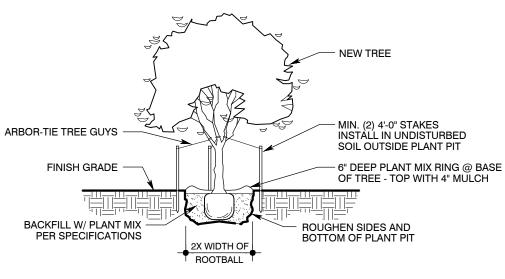
OVERHEAD ELECTRIC NOTES:

 ALL PROPOSED LARGE SPECIES TREES (AS DEFINED BY THE UNIFIED DEVELOPMENT CODE IN EFFECT HEREOF) SHALL BE PLANTED NO CLOSER THAN 20' TO ALL OVERHEAD ELECTRIC UTILITY LINES.

2. CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD LOCATING ALL OVERHEAD ELECTRIC UTILITY LINES AND ENSURING THAT NO LARGE SPECIES TREES ARE PLANTED WITHIN 20' OF ANY OVERHEAD ELECTRIC UTILITY LINES.

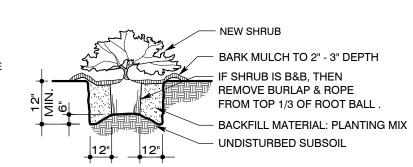
3. WHERE CITY INSPECTORS FIND ANY PROPOSED LARGE SPECIES TREES TO BE IN VIOLATION OF PROXIMITY TO OVERHEAD ELECTRIC UTILITY LINES, THE CONTRACTOR SHALL RELOCATE TREES AT NO ADDITIONAL COST TO THE OWNER.

	PLAN	IT SCHEDULE					SIZE = CALIPER OR SPREAD			
	SYM.	SCIENTIFIC NAME	COMMON NAME	HGT.	SIZE	CONDITION	REMARKS			
	TREES	3								
/—	- CS	Cupressus sempervirens	MEDITERRANEAN CYPRESS		15 - GAL	. B and B	EVERGREEN / SINGLE STEM			
	QS	Quercus shumardii	SHUMARD OAK	-	3" CAL.	B and B	DECIDUOUS / SINGLE STEM			
	QV	Quercus virginiana	LIVE OAK		3" CAL.	B and B	EVERGREEN / SINGLE STEM			
	SS	Sophora secundiflora	MOUNTAIN LAUREL	-	2" CAL.	B and B	EVERGREEN / MULTI-TRUNKED			
	UC	Ulmus crassifolia	CEDAR ELM	-	3" CAL.	B and B	DECIDUOUS / SINGLE STEM			
	SHRUBS									
	DW	Dasylirion wheeleri	SOTOL	-	5 GAL.		ACCENT / PLANT AT AS SHOWN			
	LMY	Lantana montevidensis 'New Gold'	'NEW GOLD' LANTANA	-	1 GAL.		PERENNIAL / PLANT AT 30" O.C.			
	NT	Nassella tenuissima	INDIAN FEATHER GRASS	-	1 GAL.		ACCENT / PLANT AS SHOWN			
	ROP	Rosmarinus officianallis 'Prostrata'	PROSTRATE ROSEMARY	-	1 GAL.		EVERGREEN / PLANT @ 24" O.C.			
	SG	Salvia greggii	RED SALVIA	•	3 GAL.		EVERGREEN / PLANT AT 30" O.C.			
	SL	Salvia leucantha	MEXICAN BUSH SAGE	-	5 GAL.		EVERGREEN / PLANT AT 3'-0" O.C.			
N IN	GROU	GROUNDCOVERS AND GRASSES								
TY		Cynodon dactylon '419'	'419' HYBRID BERMUDAGRASS	-		SOLID SOD	SEE SPECIFICATIONS			
			ANNUAL COLOR	-	4" POTS		SELECTED BY CONTRACTOR / PLANT @ 9" O.C.			
ICT(S) CT(S)			DECOMPOSED GRANITE	-		BARRIER AND PRE-E	ACTED DEPTH OVER SUBGRADE W/ GEO-TEXTILE WEED EMERGENT HERBICIDE. FILL UNDER ADJACENT SHRUBS.			
		-	3" - 4" 'TEXAS BLEND' RIVER ROCK	-			OVER COMPACTED SUBGRADE W/ GEO-TEXTILE WEED EMERGENT HERBICIDE. FILL UNDER ADJACENT SHRUBS.			
NI.			ORGANIC BARK MULCH	-		PROVIDE TO 6" DEP	TH @ EXISTING TREES TO BE PRESERVED			

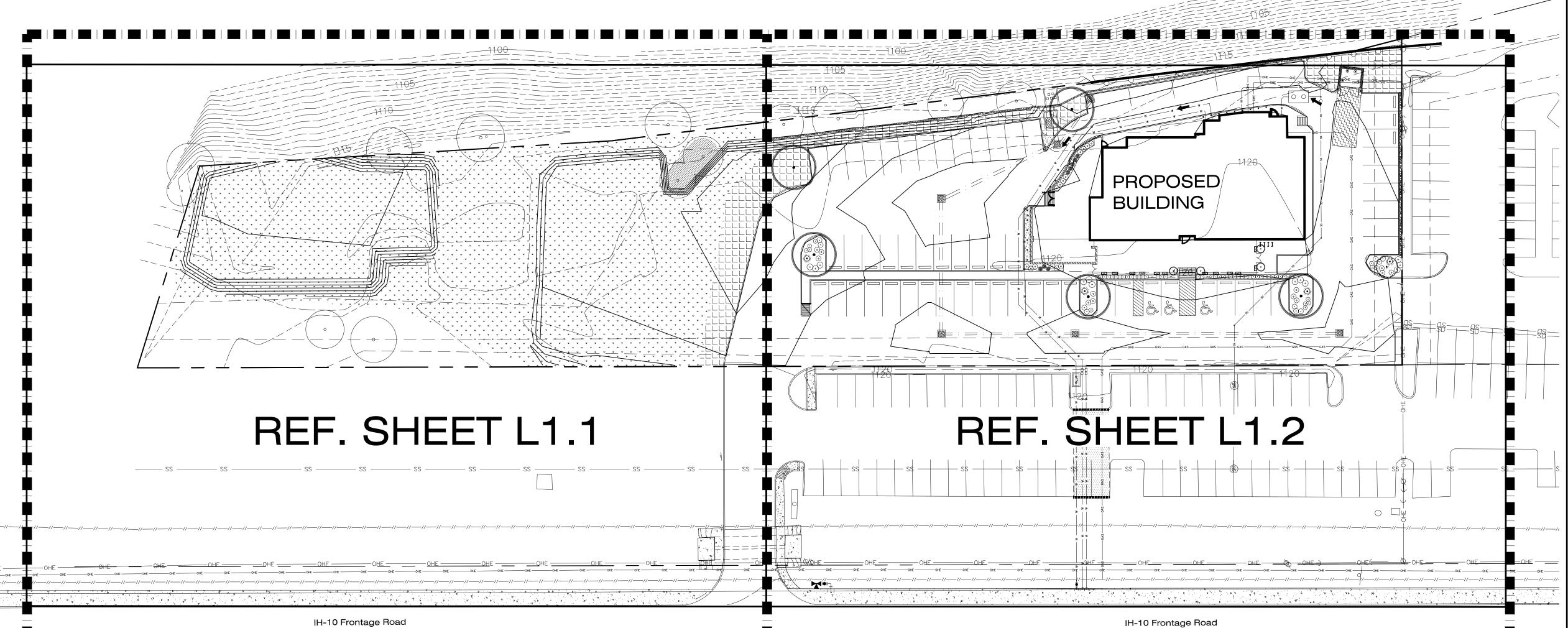




1/8" = 1'-0"



SHRUB PLANTING DETAIL
NEW SHRUBS



HORIZON

DESIGN AND DEVELOPMENT

PLANNING LANDSCAPE ARCHITECTURE

DEVELOPMENT CONSULTING

14607 San Pedro Ave., Suite 200

San Antonio, Texas 78232 210.831.8564 jrobinson@horizondesign-sa.com



3.8.2

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OWNER

MR. A. THARP

16109 University Oak San Antonio, TX 78249

PROJECT

DOMINION CREEK RESTAURANTS

23110 W I-10 San Antonio, Texas 78257

REVISIONS

Site Update
 Site Update

02/24/23 03/08/23

PROJECT NUMBER 2022-285

Drawn By:

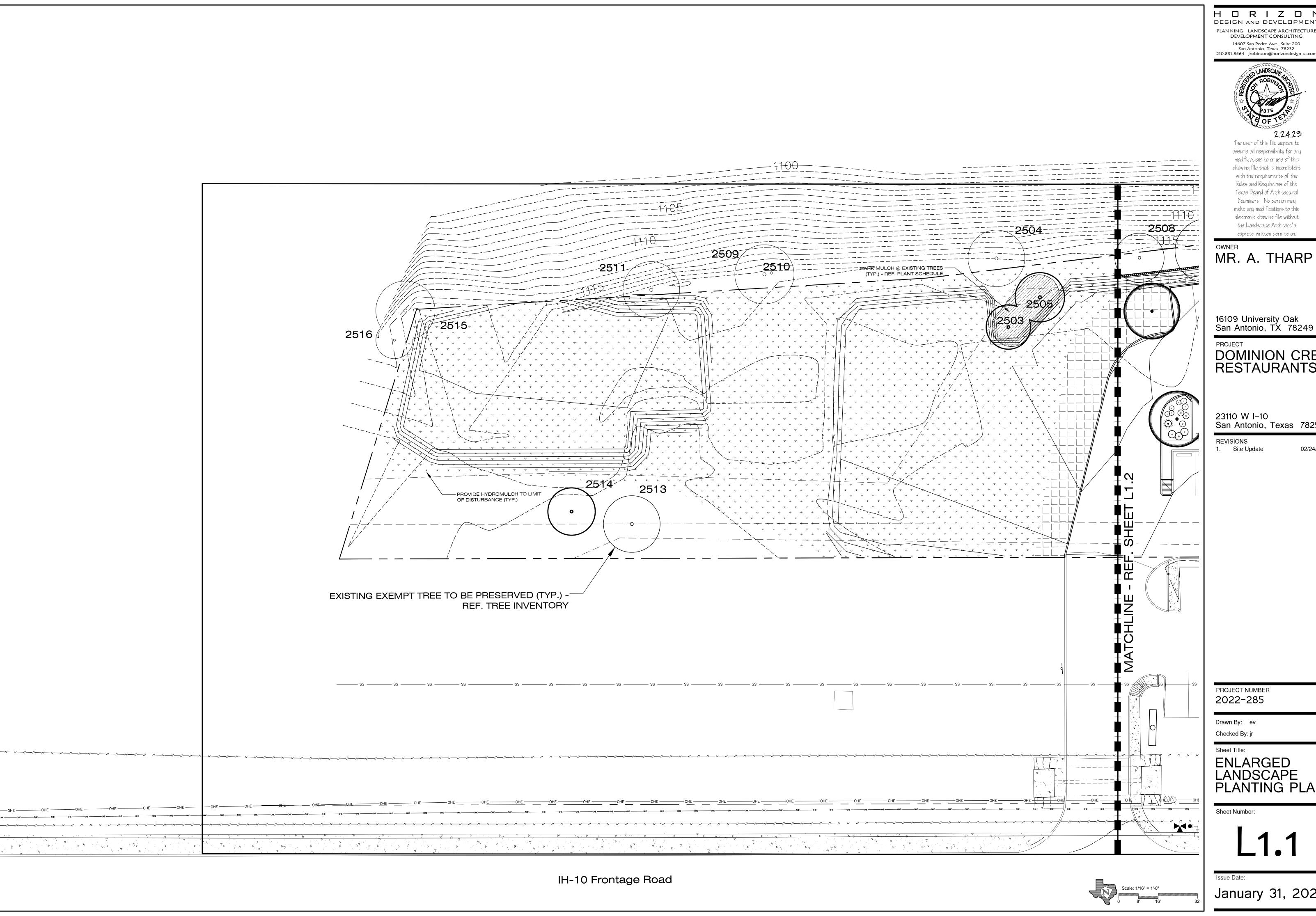
Sheet Title:

OVERALL LANDSCAPE PLANTING PLAN

Sheet Number:

L1.0

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H D R I Z D N DESIGN AND DEVELOPMENT PLANNING LANDSCAPE ARCHITECTURE DEVELOPMENT CONSULTING 14607 San Pedro Ave., Suite 200 San Antonio, Texas 78232



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DOMINION CREEK RESTAURANTS

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REVISIONS

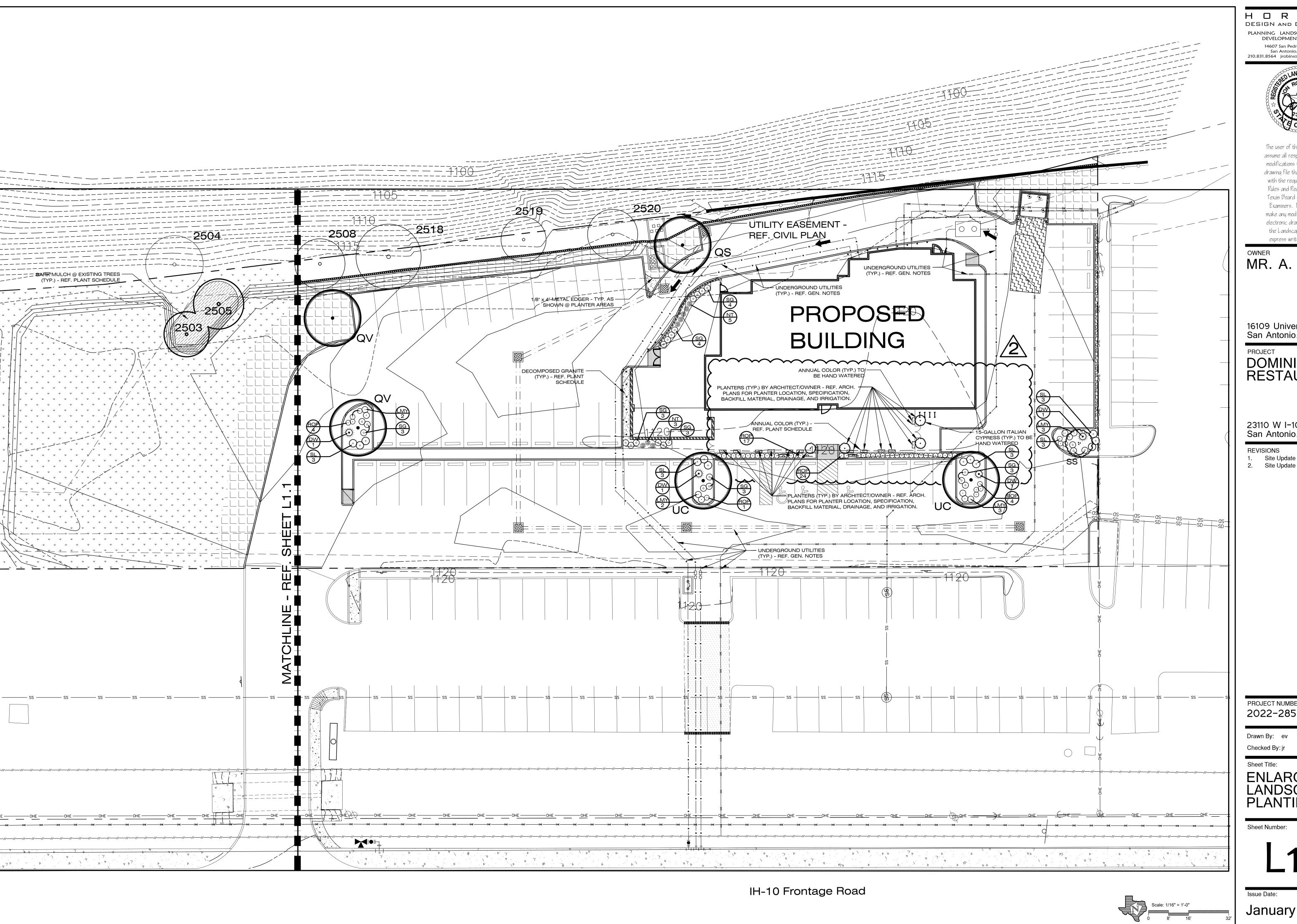
Site Update

PROJECT NUMBER 2022-285

Drawn By: ev

ENLARGED LANDSCAPE PLANTING PLAN

Sheet Number:



HORIZON DESIGN AND DEVELOPMENT PLANNING LANDSCAPE ARCHITECTUR

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REVISIONS

Site Update

PROJECT NUMBER 2022-285

ENLARGED LANDSCAPE PLANTING PLAN

PART 1 - GENERAL 1.1 Work Included A. Place and spread topsoil and planting mix. B. Install edging at planter areas. Excavate and prepare plant pits. Place plants in pits and backfill with planting mix. Prune plants. Apply mulch to planter areas. Install solid sod, hydromulch, or seed mix. Guarantee plants. Inspect plants during the Guarantee Period. 1.2 Reference Standards standards (Mount Pleasant Press, J. Horace McFarland Co., Harrisburg PA) 1.3 Submittals A. Submit weed control program in accordance with Sec. 01300 animals if applied per the manufacturer's written instructions. B. Submit topsoil sample (min. 1-gal. bag) in accordance with Sec. 01300 . Indicate topsoil supplier source. C. Submit planting mix sample (min. 1-gal. bag) in accordance with Sec. 01300 Indicate planting mix supplier source. D. Submit bark mulch sample (min. 1-gal. bag) in accordance with Sec. 01300 Indicate bark mulch supplier source. E. Submit decomposed granite sample (min. 1-gal. bag) in accordance with Sec. 01300 1. Indicate decomposed granite supplier source. F. Submit river rock sample (min. 1-gal. bag) in accordance with Sec. 01300 Indicate river rock supplier source. F. Submit irrigation system product data in accordance with Sec. 01300. 1.4 Product Delivery, Storage, and Handling D. Handle and store all materials in such a manner as to prevent damage. 1.5 Existing Conditions B. Protect identified utilities from damage during installation. 1.6 Guarantee guaranteed for an additional 12 months following their installation. 1.7 Responsibilities of Owner and Contractor irregularities which affect the guarantee. sole responsibility of the Contractor. C. The Contractor will remove and replace all dead plants. will reset any plants not installed accordingly. adequately. 1.8 Final Inspection replacing any plants. 1.9 Quality Assurance of the following submittals: work was performed, and completion date. and contact information for their bonding company. PART 2 - PRODUCTS 2.1 Materials 7% nor more than 12% clay and not more than 12% silt. 16% pine bark mulch. sources and containing available plant nutrients in the following percentages: a minimum 50% organic form. 2.2 Plant Materials A. The drawings contain a complete list of plant species, quantities, sizes, and other requirements. In the event that discrepancies occur between the quantities of plants indicated on the plant list and as indicated on the drawings, the plant quantities shown on the drawings will be given precedence. B. No substitutions of plants will be permitted without express prior written authorization by the Landscape C. All plants will comply with state and federal inspection and diseases infestation laws. D. All plants will be typical of their species or variety, with normal, well-developed branches and vigorous E. All plants will be healthy and vigorous, free from defects, disfiguration, knots, abrasions, sunscald, diseases, insect eggs or larvae, borers, and all other forms of diseases or infestations. F. All plants will be nursery stock. Any plants gathered from native stands must be kept under nursery conditions for a minimum of 1 full growing season, must be free from all foreign plants and weeds, and must meet all other requirements of the Contract Documents. G. Container-grown plants must exhibit development of fibrous roots and have a root mass that will retain its shape when removed from the container. Plants grown in smaller containers must have root growth sufficient to reach the sides of the container. Root-bound container-grown plants will be rejected. H. Container sizes of a large grade than listed in the American Standard for Nursery Stock (ASNS) shall be determined by the volume of the root ball specified in the ASNS for plants of the same size. All bare root plants must have a heavy, fibrous root system and dormant buds at the time of planting.

All plants must have average height and spread proportions and branching habit in accordance with the

appropriate sections of the ASNS.

K. All plants which have girdled roots, stem, or major branch, have deformities of the stem or major branch,

lack symmetrical growth habits, have dead or defoliated portions, or have any defect, injury, or conditions

which in the sole opinion of the Landscape Architect renders them unsuitable, will be rejected.

place by burlap and stout rope. Oversized or exceptionally heavy plants will be accepted provided the size of the root ball or spread of the roots is increased proportionally. Root balls must be tight, unbroken, and free of weed or foreign plant growth. Root balls shall have the following depth-to-diameter ratios: root ball diameters of less than 20" = minimum depth of 75% of the diameter; root ball diameters of 20" to 30" = minimum depth of 2/3 of the diameter; root ball diameters over 30" = minimum depth of 60% of the diameter. M. Plants delivered as a single unit of 25 or less of the same size, species, and variety must be clearly marked and tagged. Plants delivered in large quantities of more than 25 must be segregated as to variety, grade, and size, and 1 plant in each 25 plants, or fraction thereof, of each size, species, and variety, must be tagged. N. Plants stored under temporary conditions will be the responsibility of the Contractor and must be protected at all times from extreme weather conditions by insulating the root balls with sawdust, soil, mulch, or other approved measure. Plants stored on paved areas must be separated from the pavement with an insulating layer. A. Nomenclature and size. All plants must be true to name and size in conformance with the following O. Protecting stored plants from theft or vandalism will be the sole responsibility of the Contractor. Any stolen plants will be replaced at no cost to the Owner. B. American Joint Committee on Horticultural Nomenclature, 1942 ed. of Standardized Plant Names 2.3 Miscellaneous Materials C. American Standard of Nursery Stock, 1973 ed. (American Association of Nurserymen, Inc., Washington defects, or metal stakes. Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire, minimum 12-gauge, with zinc-coated turnbuckles. Provide minimum ½" diameter rubber or plastic hose, cut to required lengths and of uniform color, material, and size, to protect tree trunks and branches from damage by wires. All 1. Indicate chemicals to be employed, manufacturer's printed instructions as to dilution and application, new trees are to be staked. solution strength, application method, rates, and frequency, and frequency of manual weeding. 2. Submit chemical manufacturer's written certificate that material proposed for use meets local, state, and loss of moisture from plants. Deliver in manufacturer's full identified containers and mix in accordance with federal regulations for the type of material proposed and that the material is not toxic to humans and manufacturer's instructions. D. Plastic trunk protectors: Provide ArborGard+, AG 9-4+ by Deep Root Partners, L.P. (or equal), (1-800-458-7668) to protect new trees from damage by string trimmers and mowers. 2. Provide laboratory test results indicating compliance w/ topsoil composition requirements. PART 3 - EXECUTION 3.1 Inspection Provide laboratory test results indicating compliance w/ planting mixl composition requirements by subsequent construction and that existing conditions are acceptable for landscape installation. C. Report adverse conditions to the Landscape Architect and do not proceed with the work until adverse conditions have been rectified. D. Commencement of the landscape installation will constitute acceptance of the site conditions without qualification. 1. Provide manufacturers' cut sheets indicating compliance with all equipment specified in the Irrigation 3.2 Preparation of Subsoil A. Inspect subsoil for the presence of objectionable materials such as rocks (2" diameter and greater), concrete waste, building debris, weeds, grass, and other material that would be detrimental to the growth of plants and turfgrass. Protect existing underground improvements from damage. B. Cultivate the subsoil to a depth of 3" or, if the subsoil is compacted due to heavy equipment traffic or storage, cultivate to a depth of 6". A. Prior to commencement of work, investigate the site, locate and identify all existing underground utilities that may conflict with the installation of the work described in the contract documents, and notify the Landscape Architect of the conflict and do not proceed with construction in the affected area without specific direction. C. Cultivate with a mechanical tiller to break up clods and cultivate by hand in inaccessible areas. Rake until the surface is smooth. A. All plants will be guaranteed against defects, including death and unsatisfactory growth, for a period of 12 months following the date of Substantial Completion. If replacement plants are installed, they will be uniform grades that will encourage positive drainage. Continue to grade the topsoil until it is firm and settled A. The Contractor will provide monthly inspections of the project during construction and the guarantee with a smooth surface, watering, drying, and re-grading as necessary. period and immediately provide to the Owner and the Landscape Architect a written report identifying any of the subgrade. If extreme pr objectionable conditions exist, notify the Landscape Architect before B. The Contractor will monitor any construction, whether conducted by other trades or the Owner's proceeding. employees, adjacent to new and existing plants. The Contractor will identify and document any damage to the plants and immediately notify the Landscape Architect of same. The Contractor will replace any unless planting will follow the spreading of topsoil or planting mix within 48 hours. damaged plants at no expense to the Owner. Any reimbursement from other trades or contractors shall be the in accordance with the weed control program until completion of the project. D. The Contractor will ensure all plants are installed in an upright position and to proper finish grade and Protect adjacent plants from damage due to overspray of weed control chemicals. E. The Contractor will have the sole responsibility for ensuring that all plants are maintained and watered The Contractor will begin planting when other work divisions such as topsoil spreading have progressed sufficiently to permit planting. B. Planting will occur where it is shown on the Contract Documents unless obstruction overhead or A. At the conclusion of the guarantee period, the Landscape Architect will inspect the planting to assess the final acceptance of the installation. Only plants that are alive and healthy will be accepted. The Contractor will shrub or tree pits, the Contractor will locate and identify all underground utility lines, electrical cables, replace any plants that are dead or, in the sole opinion of the Landscape Architect, in an unhealthy or unsightly irrigation lines, and conduits. If such obstructions are found, promptly notify the condition or have lost their natural form due to dead or removed branches. The Contractor will bear the cost of Landscape Architect and do not proceed without clear direction. C. No planting pits will be excavated until the proposed locations and plant sizes have been reviewed and approved by the Landscape Architect. Each plant will be planted in an individual pit dug with straight vertical sides. All plants will be set such that their original soil level is equal to the ultimate finish grade. No filling will A. Before entering into a contract with any subcontractor, the General Contractor will investigate the be done around the trunks and stems. All ropes, wires, staves, etc., will be removed from the sides and top of proposed subcontractor's reputation and ability to perform the work and determine whether the subcontractor is the root ball and removed from the pit before filling. Burlap will be properly cut and removed from the sides of stable, reputable, and skilled in this area of work. The General Contractor will require and review a minimum the root ball. When a depth is specified for the plant pit, it will be construed as the depth below adjacent finish 1. Experience. The subcontractor will be a single firm specializing in landscape installation with a minimum 5 years documented experience. Documentation will demonstrate a minimum 10 installations of equal or greater size. The subcontractor will furnish the name, address, and telephone number for both the General Contractor and Owner on these projects, as well as the contract price, the company name under which the 2. Personnel. The subcontractor will provide a list of the project manager and foreman proposed to complete the work, their years of experience in the industry, any formal training, and years of service with the current company. If a separate irrigation subcontractor is to be used, the same information will be provided. 3. Business Expertise. The subcontractor will submit a current audited financial statement, current insurance certificate, contact information for their insurance company, bonding capacity and bonding company, B. Should the subcontractor selected by the General Contractor default on the contract, fail to complete the work in conformance with the Contract Documents, or enter into bankruptcy, the Owner will pay the Landscape Architect as an additional service for any additional work occasioned by the subcontractor's default A. Topsoil. Provided by the landscape subcontractor from local sources, sandy loam which is fertile, friable, surface soil. Topsoil will be free of rocks, stones, subsoil, building debris, weeds, grass, clay lumps, and other materials which would be detrimental to turfgrass growth. Topsoil composition will be not less than B. Planting Mix. Plant mix composition will be 35% compost, 33% red sand, 16% composted topsoil, and C. Commercial Fertilizer. Complete fertilizer of neutral character, with some elements derived from organic 1. For trees and shrubs - Woodace Top Dress Special (20-4-11, 8 - 9 month formula) at a rate of 5 to 10 2. For lawns - Min. 1 lb. of actual nitrogen per 100 SF of lawn area, min. 4% phosphoric acid, and min. 2% potassium. Provide nitrogen in a form that will be available to turfgrass during the initial period of growth and in

grade. Excess excavation from plant pits shall be either used elsewhere or removed from the site entirely. The Landscape Architect will review and approve the location and orientation of all plants prior to excavation of their pits. All trees will be planted in pits a minimum 24" greater in diameter than the container size or spread of their roots. In the event that solid rock is encountered in the bottom of the pit, break up and loosen the sides and bottom of the pit so that water will drain effectively. The pit will be a minimum of 9" deeper than the depth of the root ball and will have a crown from the middle to the sides in order to direct drainage away from the root ball. Place planting mix in the bottom of the pit and tamp down to prevent settling. Backfill the pits with planting mix in layers no greater than 9" and tamp down to avoid settling. Provide enough planting mix to bring to finish grade and form a saucer with a minimum 4" lip around the perimeter of the tree's root ball so water will pond and soak into the root ball. Stake trees immediately after planting, then remove the stakes after one (1) year. If deciduous trees are planted in full-leaf, spray with anti-dessicant to provide an adequate film over the trunk, branches, stems, and foliage. G. Shrubs will be planted in pits a minimum of 12" greater in width than the diameter of the root ball or container. In the event that solid rock is encountered in the

bottom of the pit, break up and loosen the sides and bottom of the pit so that water will drain effectively. The depth of the pit will be sufficient to accommodate the root ball and to set the plant at finish grade. Backfill the pit with planting mix, tamp down and settle thoroughly, bring to finish grade, and form a slight saucer to hold additional water and soak the root ball. After planting has been approved, apply bark mulch to a depth of 2" around all plants in the planting area.

Balled and burlapped plants must have a solid ball of earth of minimum specified size held securely in

Mulch. Shredded native mulch applied to a depth of 4" beneath all new trees and 4" beneath all shrubs.

Anti-Dessicant: Emulsion type, film-forming agent designed to permit transpiration but retard excessive

Inspect existing site conditions and progress of other trades before commencing landscape installation.

See lawn installation for topsoil spreading procedures in turfgrass areas.

Verify that construction has progressed to a point at which the landscape will not be adversely affected

Spread topsoil and planting mix to required finish grades. Fill turfgrass areas with topsoil to a minimum

Remove from the site any foreign or objectionable material collected during cultivation.

Grade to eliminate rough spots and low spots where ponding may occur, maintaining smooth and

The landscape Contractor is solely responsible for ensuring positive drainage regardless of the condition

Mix the specified soil amendments and fertilizers with topsoil at the specified rates. Do not mix fertilizers

All planting areas must be prepared so that they remain free of debris and weeds until planting occurs.

inderground are encountered or where changes in construction have been made. Prior to the excavation of

Weed control in the planting areas will consist of killing all weeds and maintaining a weed-free condition

Stakes. Sound new hardwood, treated softwood, or redwood stakes, free of knot holes and other

All ground cover material will be planted as follows: One gallon material will be planted the same as one gallon shrubs. 4" pot material will be planted in pits the same size as or larger than the

root system, then firmly tamped by hand and watered in using a fine spray. Where settlement occurs, backfill with additional planting mix to cover exposed roots and to bring to finish grade. After planting has been reviewed and approved, apply decomposed granite to a compacted depth of 2". Thoroughly water each plant using a root stimulator solution (Green Light or equal) mixed according to

the manufacturer's recommendations. 6. Neatly prune and/or clip each plant as necessary to preserve the natural character. Conduct all pruning with sharp, clean tools and clip bruised or broken branches with a clean cut. Paint pruning cuts 2" in diameter

and larger with an approved tree wound paint. Apply water as required to keep the mulch damp at all times during germination and initial growth period or as directed by the Landscape Architect.

A. Do not commence lawn installation until after the irrigation system has been completely installed and is

Spreading Topsoil

B. Do not commence any lawn installation until the Landscape Architect has reviewed and approved all areas prepared for sodding.

3.6 Sodded Lawns

3.5 Lawn Installation

A. Prior to spreading topsoil and in all areas to receive lawn, cultivate the subsoil to a minimum depth of 4". Cultivation may be conducted by disc, spring tooth harrow, rototiller, or similar mechanical means, and should be done in a direction perpendicular to the natural flow of water. B. After the topsoil has been spread, mechanically till the area to a depth of 4", then roll rake and drag to remove all large clods, rocks, debris, and litter over 1" in diameter. Dispose of clutter at an off-site location.

Using a lightweight, water-filled roller, roll the raked topsoil in two (2) opposite directions. Rake the rolled topsoil to a smooth, level surface, removing ridges and filling depressions. Remove all remaining rocks and debris over 1" in diameter.

Hold the finish grade 1-1/2" below adjacent curbs, sidewalks, paving, and other hard surfaces. Apply the fertilizer at a rate of 2 lbs. per 1000 SF.

Rake the fertilizer into the surface soil at a depth of $\frac{1}{2}$ " to 1".

Roll the fertilized topsoil in one (1) direction, water lightly of the surface soil is dry, then allow to dry. Lay the sod within 24 hours of stripping. Working from plywood boards to avoid disturbing the topsoil or sod, but the ends and sides of sod strips without overlapping, stagger strips to offset joints in adjacent courses, and tamp or roll lightly to ensure good contact with the surface soil. Sift topsoil into minor cracks between sod pieces, then remove excess from the top. Do not lay dormant sod.

On slopes in excess of 20% (5:1), anchor sod with wooden stakes. Water sod thoroughly with a fine spray immediately after application.

Erect a barrier of stakes and ropes around the perimeter of the sodded areas and post warning signs to deter foot traffic

M. Water as necessary to keep the sod damp at all times through germination and initial growth period.

3.7 Hydromulch

Fresh, clean, new-crop seed, meeting USDA rules and regulations under the Federal Seed Act and Texas Seed Law for purity and germination.

Treated with approved fungicide by a commercial or state laboratory not more than 6 months prior to the date of planting.

4. Wet, moldy, or damaged seed will not be accepted.

2. Free of objectionable foreign material.

Seed Mixture: If planting occurs between May 15 and September 1, provide Sultan bermudagrass seed at 2 lbs. PLS per 1000 SF of seeded area

ii. If planting occurs between September 2 and May 14, provide Gulf annual ryegrass seed at 8 lbs. PLS per 1000 SF of seeded area. Return to jobsite between May 15 and May 30 after all ryegrass has died, till the hydromulch area, and re-apply the hydromulch with Sultan bermudagrass seed at 2 lbs. PLS per 1000 SF of

iii. If planting in shaded areas between September 2 and May 14, provide Hound Dog Fescue seed at 3 lbs. PLS per 1000 SF of seeded area.

Accessories Fertilizer: Commercial lawn fertilizer, water soluble, 50% slow release

Water: Clean, fresh, and free from foreign substances or material. Glue agent: Contractor's standard type, non-detrimental to seed.

Wood mulching agent: Contractor's standard type, non-detrimental to seed.

Stakes: Softwood lumber, chisel pointed. String: Organic fiber.

Hydromulching Slurry Mix

Mix specified seed, fertilizer, and wood mulching agent in water, using equipment specifically designed for hydroseed application. Continue mixing until blended uniformly into a homogenous slurry suitable for hydraulic application.

Proportion slurry mix as follows: Wood mulching agent: 45 lbs. per 1000 SF of seeded area

Water soluble fertilizer: 5 lbs. per 1000 of seeded area

Glue agent: 1 lb. per 1000 SF of seeded area

Subsoil Preparation

Remove from subsoil all objectionable material such as concrete waste, building debris, rubbish, weeds grass, stumps, and rocks greater than 1" in diameter.

Protect existing underground improvements. Cultivate to a depth of 3" in areas to receive topsoil. If subsoil is compacted due to equipment traffic or storage, cultivate to a depth of 6". Topsoil Spreading

Spread topsoil at minimum specified depth to required finish grade.

Cultivate topsoil with a mechanical tiller to break up clods. In areas inaccessible by tiller, cultivate by

Rake until topsoil surface is smooth. Remove from the site any objectionable materials collected during cultivation. Fine grade to eliminate rough and low spots where ponding or marcelling would occur. Maintain smooth,

uniform grades, working topsoil, watering, drying, and re-grading as necessary to produce a firm, smooth, and settled soil profile. 6. The landscape subcontractor shall be responsible for assuring positive drainage regardless of the subgrade condition. If extreme or objectionable subgrade conditions exist, notify the Landscape Architect prior

to spreading topsoil. 7. Mix the specified soil amendments and fertilizer with topsoil at rates specified. Do not mix fertilizers if hydromulch will not be applied within 3 days. Maintain all prepared planting areas free of weeds and debris.

9. Planting area weed control shall consist of removing all existing weeds and maintaining a weed-free condition in accordance with the approved weed control plan until project completion. 10. Protect adjacent vegetation from damage due to overspray or misplaced application of weed control chemicals. Replace all plants mistakenly treated with weed control chemicals at no cost to the Owner.

Examination Verify that the topsoil profile has been prepared in accordance with this Section and is ready to receive ii. Apply seeded slurry with a hydraulic seeder evenly in 2 intersecting directions.

Identify seeded areas with stakes and string around the entire perimeter. Space stakes at max. 15 feet O.C. and set string height to 12" above adjacent finish grade.

Maintain the construction, storage, and planting areas free from the accumulation of waste materials and

2. Clean all paved areas that become soiled during landscape installation. Remove dirt, planting materials, 3. Clean in accordance with Sections 01500 and 01700.

3.8 Cultivation and Cleanup

A. Upon completion of the planting, all excess material shall be removed and disposed of at a location off-site. Bring the finish grade in planter areas to a uniform grade, 1-1/2" below all adjacent paving or hard surfaces. Loosen the soil surrounding each individual plant to a distance of three (3) feet around each new tree and large shrub and 12" around each new small shrub and ground cover.

3.9 Maintenance and Restoration

A. The Contractor will ensure adequate and proper care of all plants and work done on this project until final acceptance, but in no case less than 30 days following Substantial Completion. This will include keeping all plants in a healthy growing

weeds and grass, litter, and debris, and retaining the finish grade in a neat and uniform manner. Plant crowns, runners, and branches will be kept free of mulch at all times. B. Protect all lawn areas from vehicle and pedestrian traffic.

Repair all sod areas damaged by any cause prior to final acceptance.

D. The lawn establishment period will begin immediately after the lawn planting area has been accepted by the Landscape Architect, will extend for a minimum of 30 days or until the end of the contract, and will consist of caring for all lawn areas within the project limits of work.

condition by watering, cultivating, pruning, and spraying, keeping the planting areas free from insect infestation,

E. During the lawn establishment period, the Contractor will be responsible for ensuring healthy growth of the turfgrass. This responsibility includes all labor and materials necessary keep the project in a presentable condition, including, but not limited to, litter removal, mowing, trimming, weed control, removal of grass clipping. edging, and any necessary re-sodding and repair.

F. During the lawn establishment period the Contractor will as often as conditions dictate mow the turfgrass to a cutting height of 1-1/2". The turfgrass shall never exceed 3" in height and all clipping will be removed from

G. During the months of March through September, the Contractor will edge at least once every month or as directed by the Landscape Architect. H. During the months of March through September, the Contractor will apply water to sodded areas at an

even rate of 1" of water per week, although the Landscape Architect may change this rate as conditions I. Final acceptance of the lawn areas will be based on he presence of a uniform stand of grass at a uniform grade at the time of final inspection. Areas 24" square and large that are bare, have a poor stand of

grass, or have an finish grade that is not uniform will be at the Contractor's expense re-graded, re-sodded, and fertilized as specified herein. J. Upon completion of the initial planting, the Landscape Architect will make an inspection of all plantings and notify the Contractor in writing of any replacements or corrective actions necessary to meet the provisions of the Contract Documents. The Contract will then replace all the rejected or missing plants and perform the specified corrective measures.

K. All replacement plants will be of the same species, size, and quality. All rejected plants will be replaced within 30 days of notification.

3.10 Acceptance

A. Upon receipt of a written request from the Contractor at least seven (7) prior, the Landscape Architect will inspect the planting and maintenance to determine its completion and the beginning of the guarantee period. All plants must be alive and healthy in order for the installation to be considered complete. Where inspected work does not comply with the requirements of the Contract Documents, replace rejected work and continue to perform the specified maintenance until the Landscape Architect re-inspects the work and finds it acceptable. Remove rejected plants and materials from the site.

END OF SECTION

210.831.8564 jrobinson@horizondesign-sa.com

HORIZON

DESIGN AND DEVELOPMENT

PLANNING LANDSCAPE ARCHITECTURE

DEVELOPMENT CONSULTING

14607 San Pedro Ave., Suite 200

San Antonio, Texas 78232

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Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's

OWNER

express written permission.

16109 University Oak San Antonio, TX 78249

PROJECT

DOMINION CREEK

23110 W I-10

San Antonio, Texas 78257

REVISIONS

PROJECT NUMBER 2022-285

Drawn By: ev Checked By: jr

Sheet Title:

LANDSCAPE

Sheet Number:

PRESSURE REQUIREMENT CALCULATIONS @ ZONE No. 2							
DESIGN STATISTICS FOR CALCULATIONS							
Total Zone Flow:	11.4 g.p.m.						
Electric Valve Size:							
Static Pressure Less 10% (static @ 65 psi): 58.5							
ACCUMULATIVE LOSSES FROM CITY MAIN TO FURTHEST HEAD							
Sprinkler head requirement:	40 p.s.i.						
Zone Pipe/Fitting Loss:	1.9 p.s.i.						
1" Electric Valve Loss:	2.3 p.s.i.						
Elevation Net Loss (+- FT.):							
System Mainline Loss (1.5" Sch-40 Main): 2.4 p.s							
Backflow Preventer Loss (1"):	4.0 p.s.i.						
Water Meter Loss (5/8"): 5.1							
Master Electric Valve Loss (1"):	2.3 p.s.i.						
Type K Copper Service Loss:							
Total Net Loss:	18.00 p.s.i.						
Design Pressure: 58.00 p.s.i.							
Notes: System requires a minimum of 58 psi static pressure for system to operate							

Notes: System requires a minimum of 58 psi static pressure for system to operate properly. Irrigation Contractor shall conduct on site pressure test to verify site pressure prior to starting work. Contractor shall notify Owner's Representative of pressure deficiencies or any other on site problems that may alter the effectiveness of the system. Pipe has been size to insure that velocity does not exceed 5 FPS. do not change pipe size in the field without consulting system designer.

TYPICAL WEEKLY SCHEDULE BASED ON PRECIPITATION RATE

Precipitation Rat (in/hr)	е	Water Desired (in/wk)	Time/Cycle (min)	No. of Zones		Time * Hrs.	
Turf Rotor Zone MP Rotator Spray Turf Drip Zones Drip Zones	.64 .44 .85 .55	.80 .80 .80	107.0	2	214	3.5	
Tree Bubblers	3.87	.80	12.0	1	12	.20	
Total System Hours of Operation Per Week							

* IT WILL BE NECESSARY TO WATER MULTIPLE ZONES AT ONE TIME TO MEET WATERING WINDOW . A TYPICAL SCHEDULE WOULD ALLOW WATERING TO OCCUR TWO TIMES PER WEEK. TOTAL WATERING TIME WOULD BE DIVIDED BY THE NUMBER OF WATERING DAYS. THIS SCHEDULE IS DESIGNED FOR SUMMER WATER USAGE AND ESTABLISHMENT OF NEW PLANTING.

- IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH THE SPECIFICATIONS AND ALL SUBMITTAL REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE FOR SITE INSPECTIONS AS SPECIFIED IN THE SPECIFICATIONS. FAILURE TO NOTIFY THE OWNER'S REPRESENTATIVE DOES NOT RELIEVE THE CONTRACTOR FROM INSPECTION APPROVAL AND WILL REQUIRE THE CONTRACTOR TO UNCOVER WORK AS REQUIRED FOR APPROVAL AT THE COST OF THE CONTRACTOR. IRRIGATION CONTRACTOR IS TO INFORM OWNER'S REPRESENTATIVE OF THE START
- 2. THE IRRIGATION CONTRACTOR IS REQUIRED BY LAW TO NOTIFY TEXAS ONE CALL (800-245-4545) 72 HOURS PRIOR TO ANY EXCAVATION. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. IRRIGATION CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES WHETHER OR NOT TEXAS ONE CALL IS NOTIFIED.
- 3. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WITHOUT VERIFYING ACTUAL ON-SITE WATER PRESSURE FROM THE SOURCE. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- 4. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH OTHER CONTRACTORS AS REQUIRED TO ACCOMPLISH IRRIGATION INSTALLATION.
- 5. DUE TO SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS SLEEVES, ETC., WHICH MAY BE REQUIRED. IRRIGATION CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS AND WITHIN PROPERTY LINES.
- 6. DURING INSTALLATION IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO COORDINATE PIPING WITH THE LANDSCAPE SUBCONTRACTOR TO AVOID CONFLICT WITH PROPOSED PLANTING. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION SUBCONTRACTOR TO MOVE PIPING TO ALLOW PROPER PLACEMENT OF PLANT MATERIAL. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
- NO MACHINE TRENCHING IS TO BE DONE WITHIN THE DRIPLINE OF EXISTING TREES. TRENCHING IS TO BE DONE BY HAND, AIR-SPADE OR BY TUNNELING UNDER ROOT SYSTEM BY METHOD APPROVED BY LANDSCAPE ARCHITECT. PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND EXISTING TREES AS POSSIBLE TO AVOID DAMAGE TO THE ROOT SYSTEMS. DO NOT CUT ANY ROOT OVER 3/4" DIAMETER UNLESS APPROVAL FROM THE LANDSCAPE ARCHITECT IS FIRST OBTAINED. ANY CUTS MADE SHALL BE CLEAN AND WITHOUT
- 8. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR SLEEVES AND CHASES WHEREVER PIPING OR CONDUIT PASSES, UNDER ALL PAVING, THROUGH WALLS, ETC. ALL SLEEVE LOCATIONS MAY NOT BE SHOWN ON PLAN, COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS, GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS AS REQUIRED. ALL SLEEVE AND CHASE LOCATIONS ARE NOT NOTED ON PLAN. ALL SLEEVES 4" OR LESS SHALL BE SCH-40 PVC, ALL SLEEVES 6" OR GREATER SHALL BE CLASS-200 PVC. ALL SLEEVES TO BE SIZED TWICE THE DIAMETER OF PIPE OR COMBINATION OF PIPES ENCLOSED WITHIN THE SLEEVE.
- 9. CONFIRM STATIC WATER PRESSURE AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS LESS THAN STATED IN PRESSURE CALCULATIONS DO NOT PROCEED UNTIL DIRECTED SO BY THE LANDSCAPE ARCHITECT. IF ACTUAL SITE STATIC PRESSURE EXCEEDS DESIGN PRESSURE BY 15 P.S.I. IN ANY ZONE, A PRESSURE REDUCING VALVE SHALL BE INSTALLED. REFER TO DETAILS FOR MODEL.
- 10. ADJUSTABLE FLOW CONTROLS SHALL BE REQUIRED ON CIRCUIT REMOTE CONTROL VALVE. PRESSURE AT ANY POINT WITHIN A ZONE SHALL NOT VARY BY MORE THAN 10% FROM THE DESIGN SPRINKLER OPERATING PRESSURE. SEE SPECIFICATIONS FOR TESTING.
- 11. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN THE STATE OF TEXAS. CONTRACTOR MUST CONFORM TO ALL CODES AS STATED IN SECTION 344 OF THE TEXAS WATER CODE AS OUTLINED BY TCEQ.
- 12. OBTAIN COVERAGE TEST APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO PLANTING, SODDING OR SEEDING.
- 13. ALL UNDESIGNATED END LATERAL PIPING SHALL BE $\frac{1}{2}$ " IN SPRAY ZONES AND $\frac{3}{4}$ " IN ROTOR ZONES.
- 14. SPRINKLER HEAD SPACING SHALL NOT EXCEED 50% OF SPRAY DIAMETER BASED ON MANUFACTURERS OPERATING SPECIFICATIONS. SPRINKLER HEAD SPACING SHALL BE DESIGNED FOR HEAD-TO-HEAD COVERAGE OR HEADS SHALL BE SPACED AS PER MANUFACTURER'S RECOMMENDATIONS AND ADJUSTED FOR PREVAILING WINDS. THE SYSTEM SHALL BE DESIGNED SO THAT IRRIGATION IS NOT APPLIED TO VEHICULAR TRAFFIC LANES, OTHER PAVEMENT OR STRUCTURES.
- 15. ALL ROTORS SHALL BE LOCATED 12" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE, ALL SPRAY HEADS SHALL BE LOCATED 6" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE.
- 16. VALVE AND CIRCUITS SHALL BE SEPARATED BASED ON WATER USE, SO THAT TURF AREAS ARE WATERED SEPARATELY FROM SHRUB AND GROUND COVER AREAS. IRRIGATION HEADS IN THE TURF AREAS WILL BE VALVED SEPARATELY FROM SHRUB AND/OR GROUND COVER AREAS. IT IS RECOMMENDED THAT SEASONAL COLOR AREAS BE WATERED SEPARATELY. UNDER NO CIRCUMSTANCES ARE ZONE TYPES TO BE COMBINED I.E. ROTARY HEADS WITH SPRAYS, TURF AREAS WITH PLANTING BEDS
- 17. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM STATIC PRESSURE ON SITE PRIOR TO STARTING WORK. REFER TO NOTES #9 AND #10.
- 18. IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO SECURE ALL REQUIRED PERMITS AND PAY ALL ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES CONTAINED IN THESE DOCUMENTS.
- 19. UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY. INSTALL PIPES IN ADJACENT SLEEVES WITHIN LANDSCAPE AREAS.
- 20. 120 VAC ELECTRICAL POWER SOURCE AT CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION FROM THE ELECTRICAL SOURCE TO THE CONTROLLER WITH A HARDWIRE CONNECTION APPROVED AND INSTALLED BY A LICENSED ELECTRICIAN.
- 21. SPRINKLER HEADS SHALL HAVE MATCHED PRECIPITATION RATES WITHIN EACH CONTROL VALVE CIRCUIT.
- 22. SERVICEABLE CHECK VALVES SHALL BE REQUIRED ADJACENT TO PAVED AREAS WHERE ELEVATION DIFFERENCES MAY CAUSE LOW HEAD DRAINAGE.
- 23. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A CONTROLLER CAPABLE OF DUAL OR MULTIPLE PROGRAMMING. CONTROLLERS SHALL HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM, INCLUDING THE CAPABILITY OF BEING SET TO WATER EVERY FIVE DAYS. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A RAIN SENSOR SHUT-OFF DEVICE.
- 24. ALL IRRIGATION WIRES SHALL BE UL LISTED FOR DIRECT UNDERGROUND BURIAL AND SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATIONS. 3M-DBY WATERPROOF CONNECTORS TO BE USED ON ALL WIRE CONNECTIONS. SUBMIT SAMPLE TO
- 25. ALL IRRIGATION HEADS SHALL BE ADJUSTED TO MINIMIZE OVER-SPRAY ONTO ALL IMPERVIOUS SURFACES.
- 26. ALL PIPE CONNECTIONS SHALL BE PRIMED WITH AN APPROVED COLOR PRIMER BEFORE BEING CHEMICAL WELDED.
- 27. AFTER AWARD OF CONTRACT AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE ORDERED FROM SUPPLIERS OR DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEM MATERIALS, OR PROCESSES PROPOSED TO BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT. THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE WILL ALLOW NO SUBSTITUTIONS WITHOUT PRIOR WRITTEN ACCEPTANCE. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.
- 28. IRRIGATION CLOSEOUT DOCUMENTS SHALL INCLUDE A WATER BUDGET. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE IRRIGATION CONTROLLER DOOR.
 - A. CHART CONTAINING ZONE NUMBER, PRECIPITATION RATE AND GPM. B. LOCATION OF EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE.

W DEDICATED 5/8" IRRIGATION WATER METER.

DOUBLE CHECK BACKFLOW DEVICE, 1" WATTS 007 PER LOCAL

MM MASTER VALVE, SUPERIOR SPV100 NORMALLY CLOSED VALVE

MP ROTATOR NOZZLE 90°-210°; SIZE AS SPECIFIED ON PLAN.

MP ROTATOR NOZZLE 210°-270°; SIZE AS SPECIFIED ON PLAN. MP ROTATOR NOZZLE 360°; SIZE AS SPECIFIED ON PLAN.

M# MP ROTATOR; M35-M3500, M3-MP 3000, M2-MP 2000, M1-MP 1000, M8-M800SR, MC-MP CORNER, MR, MS, ML- MP SIDESTRIPS AND END STRIPS NOTE: ALL MP ROTATOR SPRAY HEADS ARE TO BE HUNTER PROS-06-PRS40-CV SPRAY BODY; PROVIDE CHECK VALVE AT LOW HEAD

(1) INSTALL TWO ROWS OF DRIP LINE EVENLY SPACED. USE TLHCVXR7-18. IF BED AREA EXCEEDS 36", INSTALL THREE ROWS EVENLY SPACED. INSTALL STAPLES @ MAX. 3' O.C TO SECURE

© NETAFIM DRIP CONTROL ZONE VALVE - REFERENCE DETAILS

REMOTE CONTROL VALVE, SUPERIOR SPV-PRS-MOD, SIZE AS INDICATED ON PLANS

HUNTER HQ-33-DRC QUICK COUPLING VALVE WITH HK-33 KEY MANUAL VALVE- SIZE OF MAINLINE

ZONE IDENTIFICATION
#"|## ZONE SIZE IN GALLONS PER MINUTE VALVE SIZE THIS ZONE

ZONE IDENTIFICATION

— ZONE SIZE IN GALLONS PER MINUTE

----- HATCH PATTERN INDICATES BED/TURF AREAS TO BE INCLUDED THIS ZONE — VALVE SIZE THIS ZONE

REF. ZONE I.I DRIP SUPPLY LINE, SCH 40 PVC, SIZE PER PLAN.

TREE BUBBLER ASSEMBLY ON 6" POP UP

(C) CONTROLLER - HUNTER PRO-C CONTROLLER, FINAL LOCATION IS TO BE DETERMINED AFTER CONSULTING WITH LANDSCAPE ARCHITECT.

(W) WEATHER SENSOR - HUNTER SOLAR-SYNC WEATHER SENSOR. FINAL LOCATION IS TO BE DETERMINED AFTER CONSULTING WITH LANDSCAPE

— — — — MAIN LINE - USE SCH-40 PVC PIPE, SIZE AS INDICATED ON PLANS

1-1/2" LATERAL LINE - USE CLASS 315 ON 1/2" PIPE AND CLASS 200 IPS PVC ON 3/4" AND LARGER PIPE. DO NOT DEVIATE ON SIZING WITHOUT CONSULTING WITH PROJECT DESIGNER.

SLEEVE - USE TWO (2) SIZES LARGER THAN SPRINKLER PIPE DESIGNATED FOR CROSSING PAVING ON ALL LATERAL LINES. USE SCH-40 PVC PIPE, VALVE WIRING MAY BE RUN IN THE SAME

NOTE: REFER TO SHEET LI 2.1 to LI 2.2 FOR DETAILS

FIELD LOCATE BY STAKING, THE CONTROLLER, WATER METER, BACKFLOW DEVICE, MASTER VALVE AND FLOW SENSOR FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

STATEMENT OF IRRIGATION DESIGN STANDARDS CONFORMITY: This plan is complete and conforms to the design and installation parameters of the irrigation design and equipment standards set out 35-510(j) and 35-511(c)(6) of the City of San Antonio Unified Development Code.

Wade O. Radlet TX LI # 22397

SPECIAL NOTES:

1. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND CODES AND WILL SECURE ALL REQUIRED PERMITS.

2. ALL WIRES, CONTROL VALVES, AND PRESSURIZED WATER SUPPLY LINES SHALL NOT BE LOCATED WITHIN THE EXISTING ROW OR OUTSIDE PROPERTY BOUNDARIES.

"Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-178, PO Box 13087, Austin, Texas 78711-3087 TCEQ's website is: www.tceq.state.tx.us"

> PROJECT NUMBER 2022-285

Drawn By: pra Checked By: jr

Sheet Title: IRRIGATION **NOTES & LEGEND**

HORIZON DESIGN AND DEVELOPMENT PLANNING LANDSCAPE ARCHITECTURE

DEVELOPMENT CONSULTING

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16109 University Oak

23110 W I-10

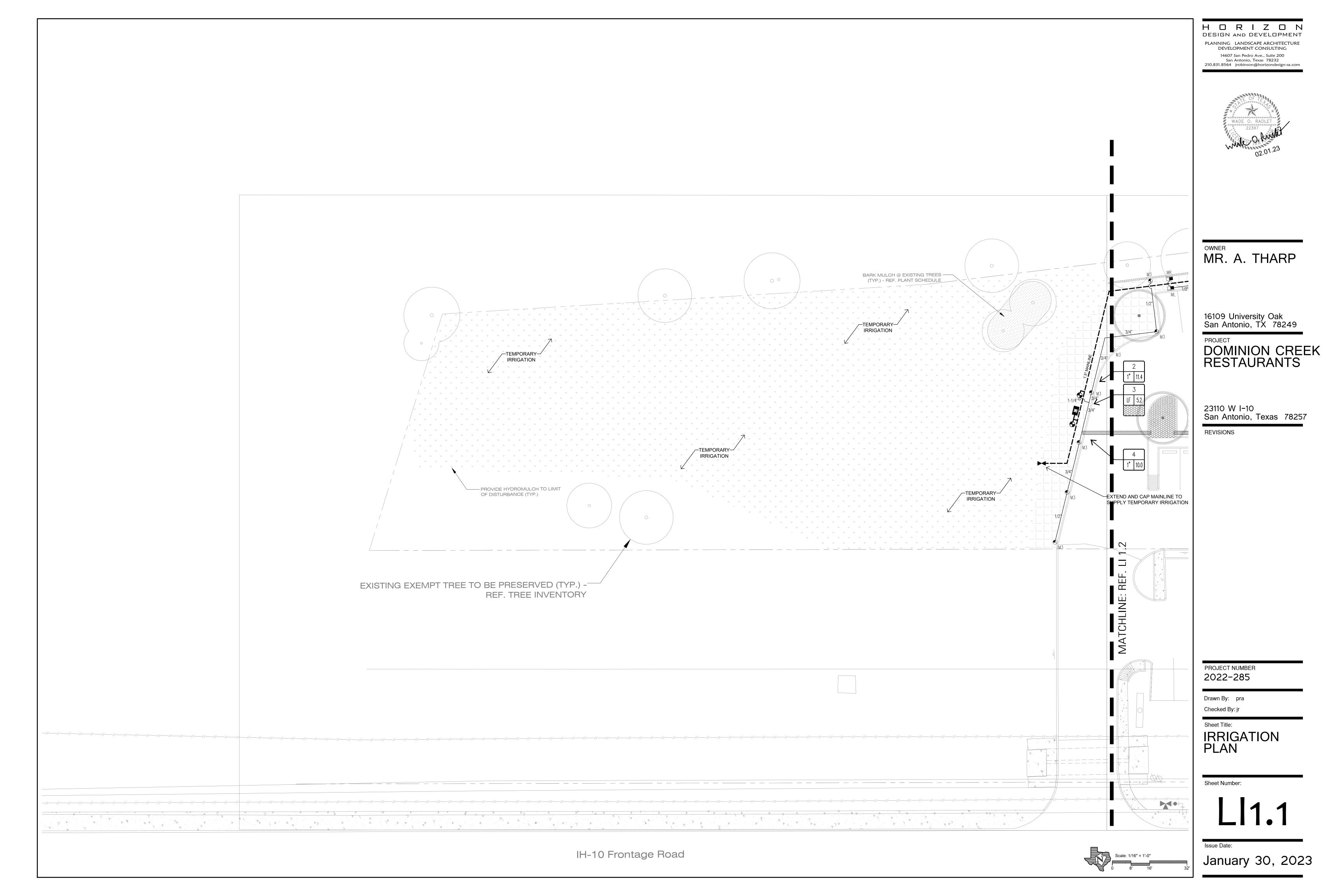
REVISIONS

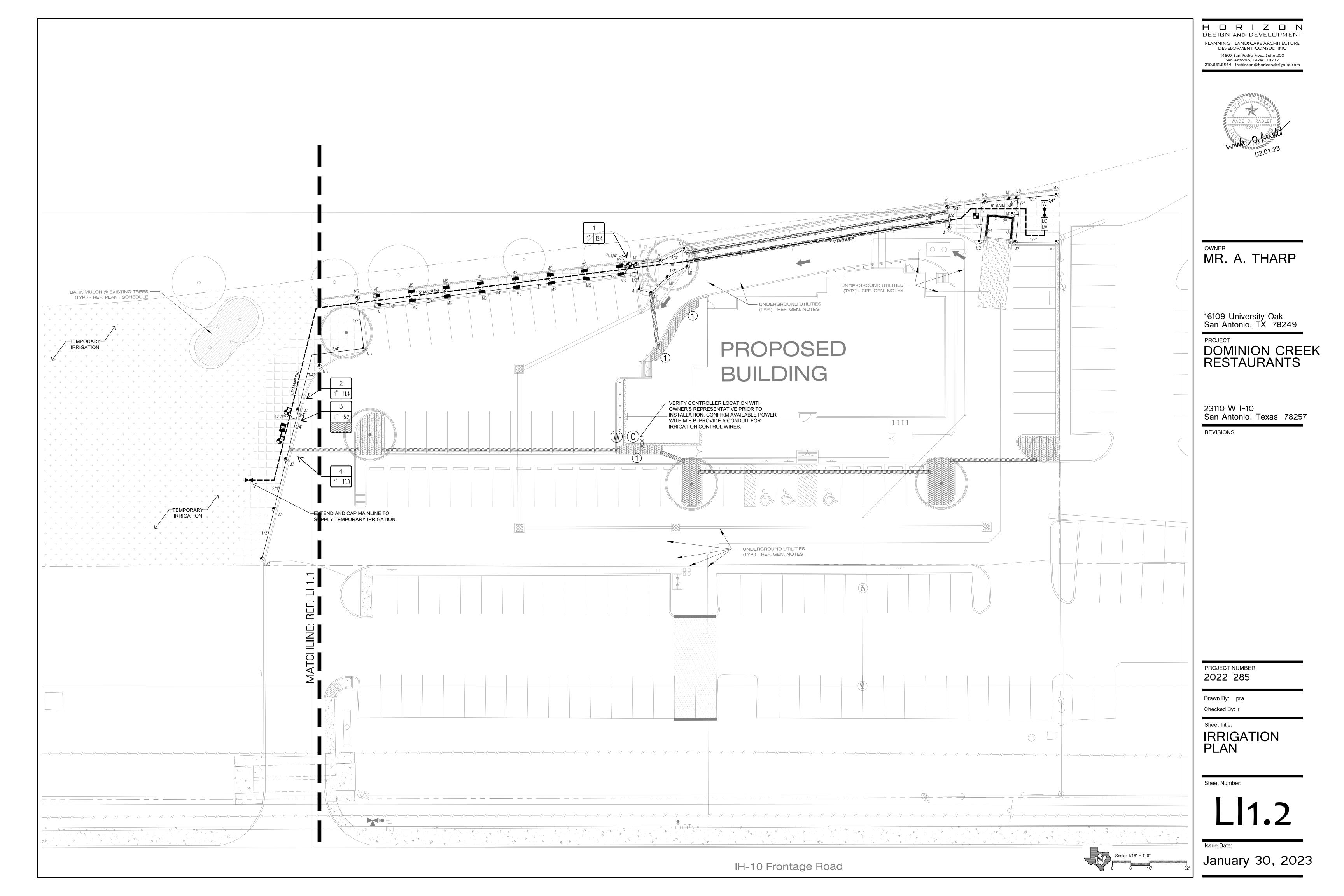
San Antonio, TX 78249

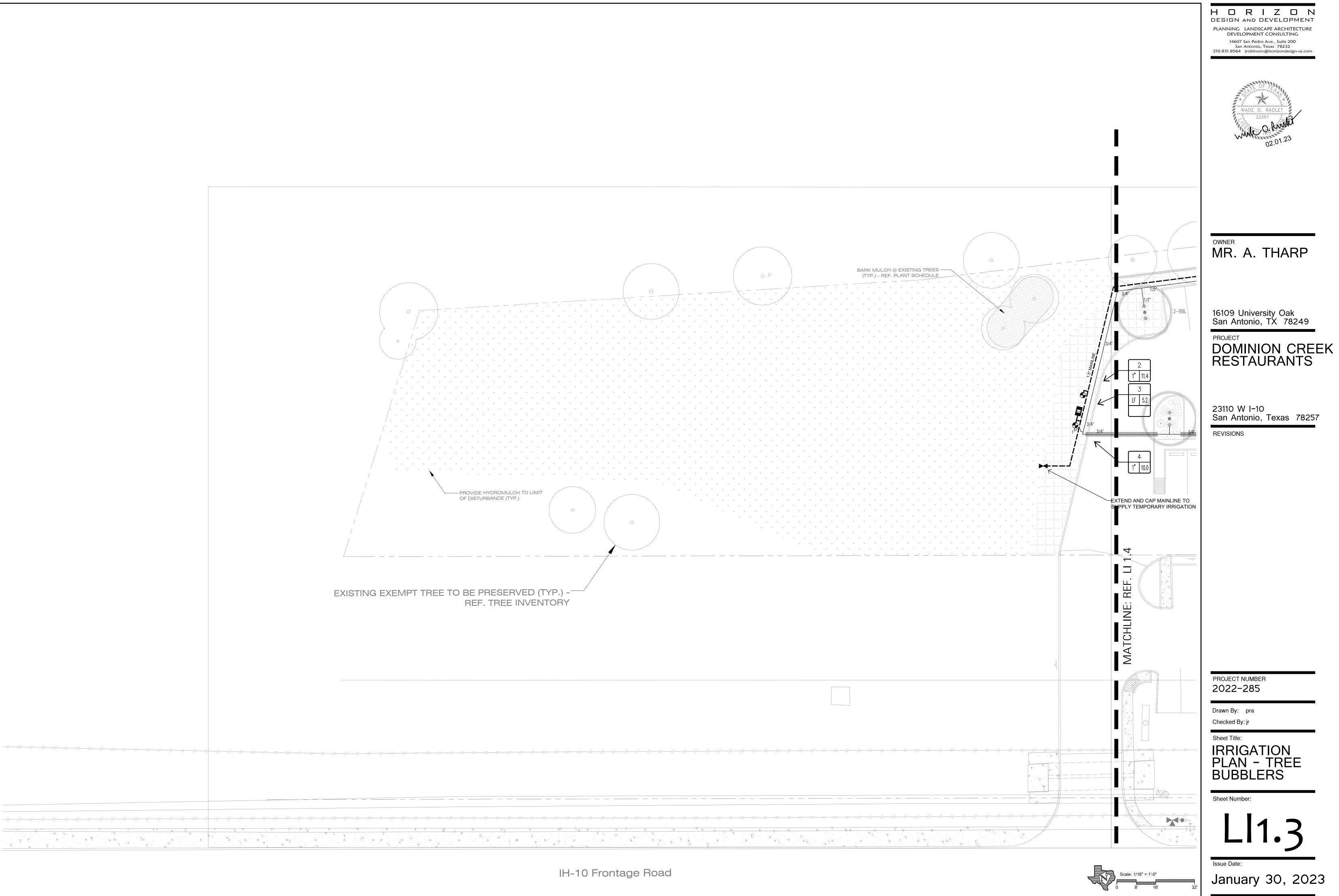
DOMINION CREEK

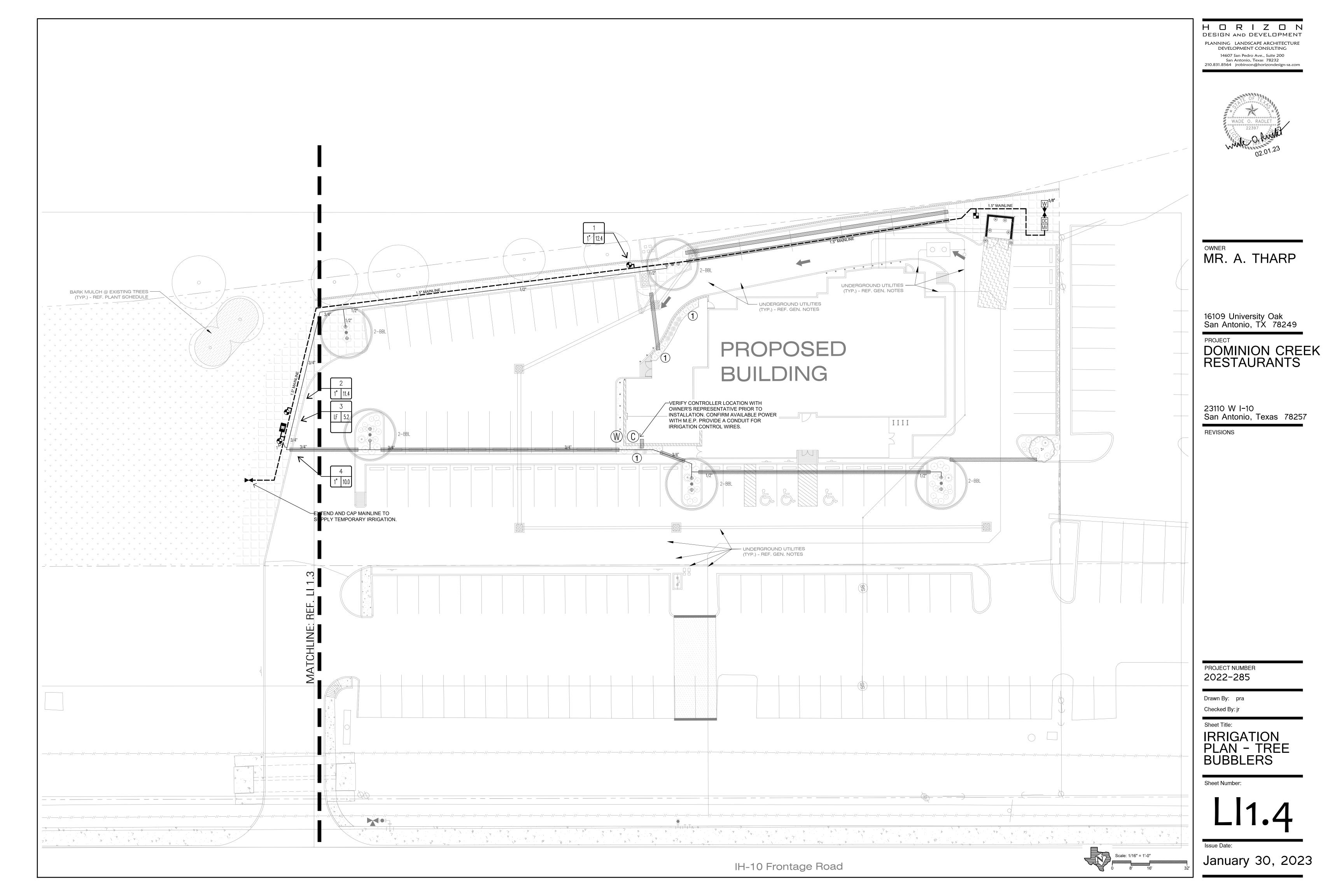
San Antonio, Texas 78257

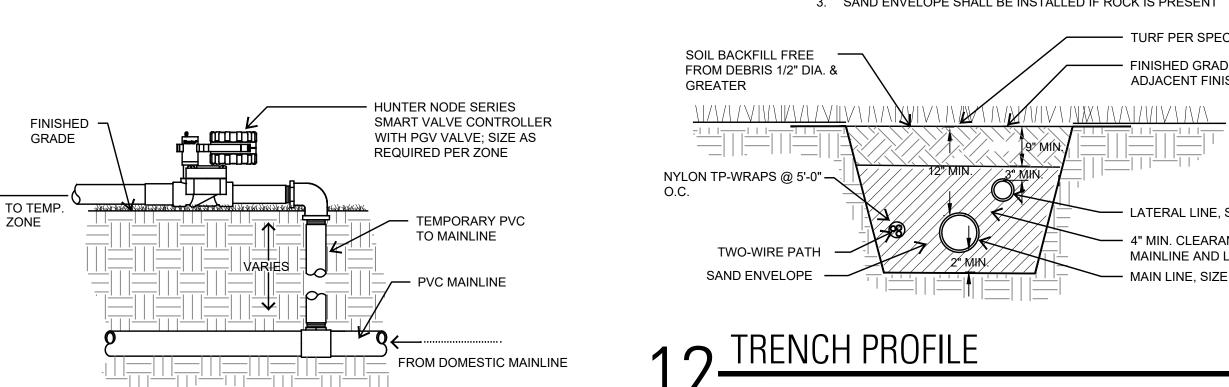
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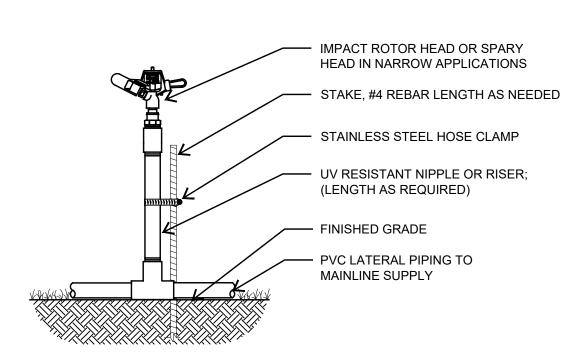






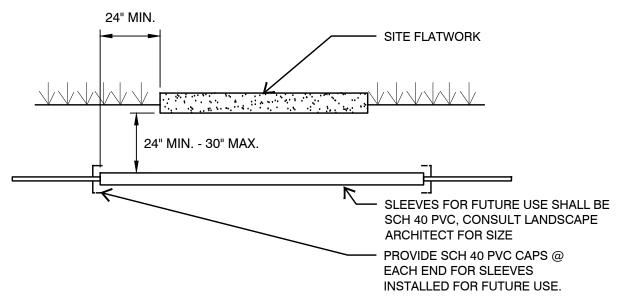






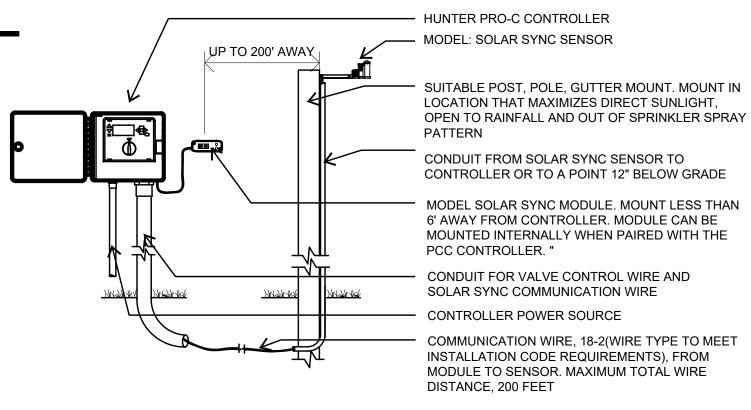
- TEMPORARY IRRIGATION SYSTEMS MUST BE INSTALLED BY A LICENSED IRRIGATOR OR AN RRIGATION TECHNICIAN UNDER THE SUPERVISION OF A LICENSED IRRIGATOR.
- TEMPORARY IRRIGATION SYSTEMS MUST MEET THE BACKFLOW PREVENTION REQUIREMENTS IN SUBCHAPTER E OF THIS CHAPTER (RELATING TO BACKFLOW PREVENTION AND CROSS-CONNECTIONS).
- 3. TEMPORARY IRRIGATION SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH §344.1(45) OF THIS TITLE (RELATING TO DEFINITIONS). 4. TEMPORARY IRRIGATION SYSTEMS MUST HAVE ESTABLISHED A DEFINITE END DATE AT
- WHICH TIME THE TEMPORARY IRRIGATION SYSTEM MUST BE REMOVED. 5. ALL COVERAGE SHALL BE HEAD TO HEAD.
- 6. SYSTEM SHALL BE DESIGNED TO AVOID ANY OVERSPRAY ONTO SIDEWALKS AND STREETS TEMPORARY IRRIGATION SYSTEM ZONE VALVES SHALL BE HUNTER NODE CONTROLLER VALVES, CONTRACTOR SHALL CLUSTER VALVE LOCATIONS WHERE POSSIBLE TO COMBINE ZONES ON MULTIPLE VALVE CONTROLLERS (NODE-200, NODE-400, ETC...) 8. NO PIPING SHALL BE RUN WITHIN THE PROTECTION ZONE OF EXISTING TREES UNLESS
- APPROVED BY LANDSCAPE ARCHITECT.
- 9. CONTRACTOR SHALL VERIFY ON-SITE AND BY CONSULTING WITH LANDSCAPE ARCHITECT AREAS THAT WILL REQUIRE TEMPORARY IRRIGATION PRIOR TO DESIGN AND INSTALLATION
- 10. USE #4 X 24" REBAR ROD WITH "J" HOOKED RADIUS AT ONE END TO HOLD PIPE SECURELY

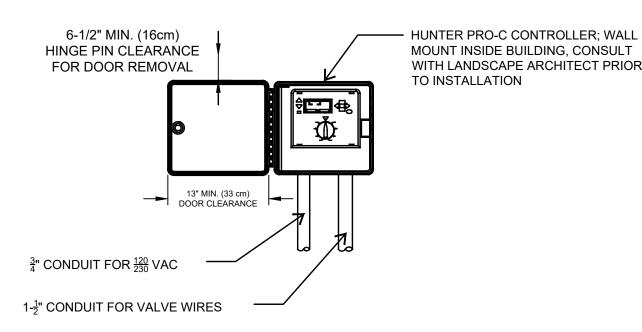
IN PLACE. INSTALL AT INTERVALS OF 10 FEET. EMPORARY IRRIGATION HEAD



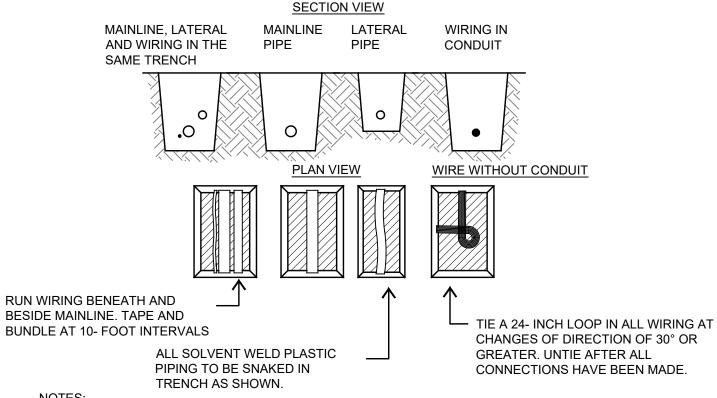
- 1. PIPING AND CONTROL WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES UNDER PAVING. REFER TO IRRIGATION SLEEVE PLAN FOR SIZE AND LOCATION.
- 2. SLEEVE ELEVATION SHALL BE TWENTY-FOUR (24") INCHES BELOW TOP OF PAVEMENT. 3. SLEEVES SHALL EXTEND ONE (1') FOOT BEYOND THE EDGE OF PAVEMENT AND BE STAKED FOR LOCATION.
- 4. ALL SLEEVES 4" OR LESS, SHALL BE SCH-40 PVC, ALL SLEEVES GREATER THAN 4" SHALL BE CLASS-200 SDR-21. SLEEVES SHALL BE CAPPED ON BOTH ENDS AND SIZED A MIN. OF TWO (2) TIMES THE DIAMETER OF THE PIPE INSIDE THE SLEEVE.
- 5. SLEEVE LOCATIONS SHALL BE MARKED ONTO THE TOP OF CURB WITH A SAW-CUT OF TWO PARALLEL LINES THAT ARE TWO (2") INCHES LONG AND ONE (1") INCH APART ON BOTH SIDES OF
- THE STREET OR CROSSING. 6. THE CONTRACTOR RESPONSIBLE FOR INSTALLATION OF SLEEVES SHALL ALSO BE RESPONSIBLE TO LOCATE ANY SLEEVE WHICH CANNOT BE FOUND DURING THE INSTALLATION OF THE

1. MAINLINE DEPTH MAY VARY BETWEEN 12" AND 24" WITH 12" MIN. AT TOP LATERAL DEPTH MAY VARY BETWEEN 12" AND 18" WITH 12" MIN. . SAND ENVELOPE SHALL BE INSTALLED IF ROCK IS PRESENT TURF PER SPECIFICATIONS FINISHED GRADE TO MATCH ADJACENT FINISH GRADE - LATERAL LINE, SIZE PER PLAN 4" MIN. CLEARANCE FROM MAINLINE AND LATERALS MAIN LINE, SIZE PER PLAN





1. All electrical work to comply with applicable codes. 2. Provide remote control unit per spec.



NOTES: 1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH-40 PVC TWICE THE

DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN 2. FOR PIPE AND WIRE BURIAL DEPTHS SEE TRENCH PROFILE DETAIL

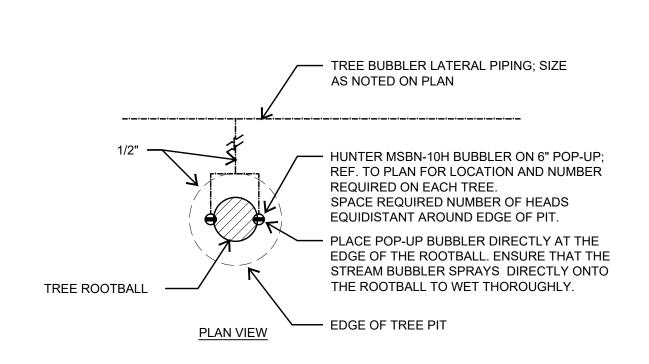
FINISH GRADE/TOP OF MULCH **HUNTER PROS-06-CV**

SECTION VIEW

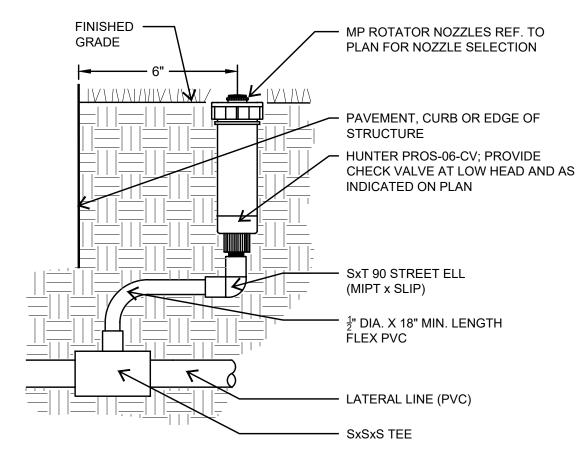
- SWING JOINT ASSEMBLY; HUNTER SJ-712
- PVC SCH-40 TEE OR ELL
- (5) PVC LATERAL PIPE
- PLANT ROOT BALL (7) UNDISTURBED SOIL
- PLACE POP-UP BUBBLER DIRECTLY AT THE EDGE OF THE ROOTBALL. ENSURE THAT THE STREAM BUBBLER SPRAYS DIRECTLY ONTO THE ROOTBALL TO WET THOROUGHLY.

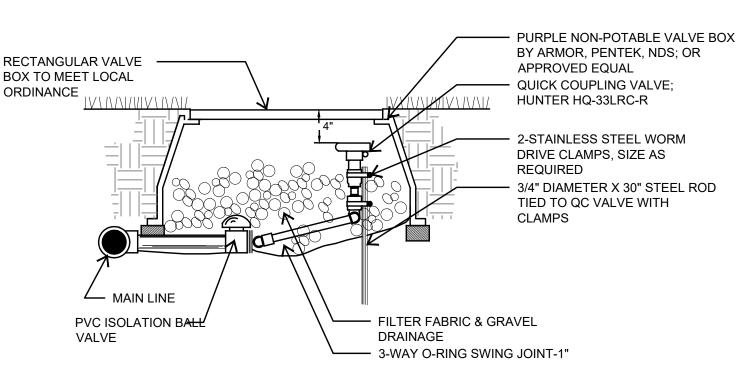
FINISHED GRADE SCH-80 NIPPLE, SIZE AND ——— LINE SIZE SCH-80 PVC BALL VALVE LENGTH AS NEEDED UNION EA. SIDE VALVE BOX BY ARMOR, PENTEK, NDS; OR APPROVED EQUAL OF VALVE - MIN. 3" CLEARANCE BETWEEN VALVE HANDLE AND VALVE BOX MAIN LINE -FILTER FABRIC & GRAVEL DRAINAGE, 4" MIN. DEPTH

8 TREE BUBBLER ASSEMBLY- SECTION



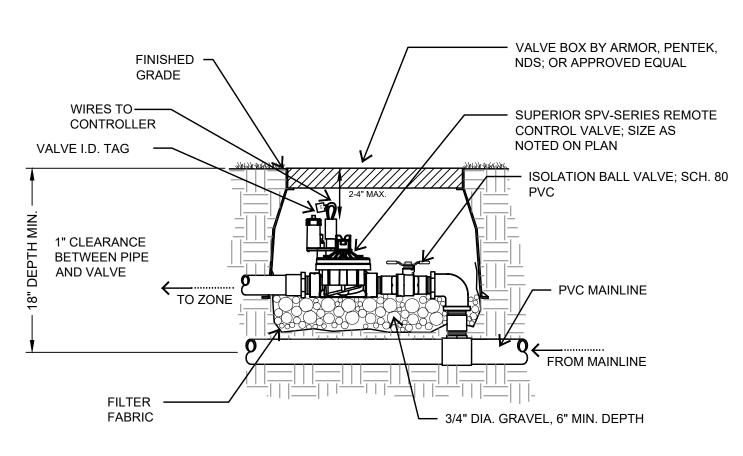
TREE BUBBLER ASSEMBLY- PLAN

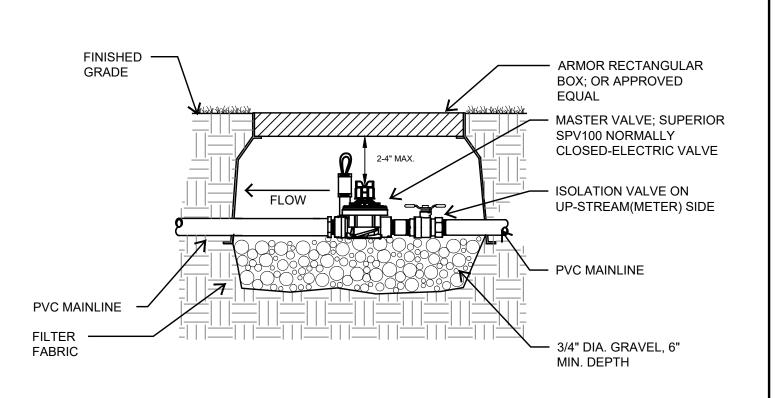


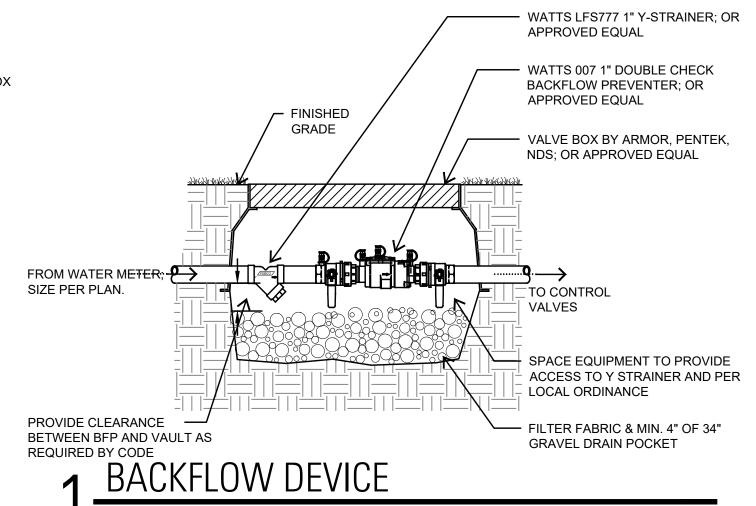


QUICK COUPLER VALVE

MANUAL ISOLATION VALVE







HORIZON DESIGN AND DEVELOPMENT PLANNING LANDSCAPE ARCHITECTURE DEVELOPMENT CONSULTING 14607 San Pedro Ave., Suite 200 San Antonio, Texas 78232 210.831.8564 jrobinson@horizondesign-sa.com



MR. A. THARP

16109 University Oak San Antonio, TX 78249

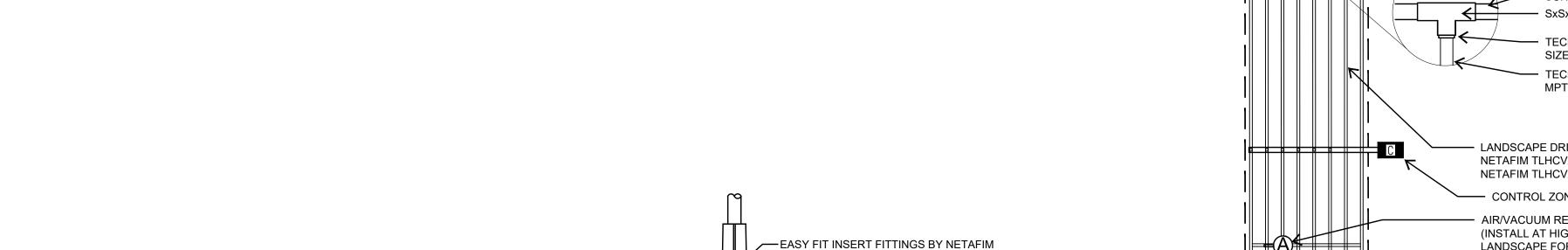
PROJECT

DOMINION CREEK RESTAURANTS

23110 W I-10 San Antonio, Texas 78257

REVISIONS

PROJECT NUMBER 2022-285 Drawn By: pra Checked By: jr Sheet Title: IRRIGATION **DETAILS** Sheet Number:



- EASY FIT COMPRESSION TEE OR INSERT

NETAFIM TLHCVXR7-18 FOR PLANTING

NETAFIM TLHCVXR5-12 FOR TURF

- EASY FIT COMPRESSION COUPLING OR

- TOP OF MULCH/TURF

- LINE FLUSHING VALVE: TLFV-1 OR TL050MFV-1

LANDSCAPE DRIPLINE TUBING;

3 INCH MIN. DEPTH OF $\frac{3}{4}$ " WASHED GRAVEL

NETAFIM TLHCVXR7-18 FOR PLANTING NETAFIM TLHCVXR5-12 FOR TURF

VALVE BOX BY ARMOR, PENTEK,

NDS; OR APPROVED EQUAL

INSERT FITTINGS BY NETAFIM

- EASY FIT COMPRESSION FLUSH CAP OR FIGURE 8 LINE END BY

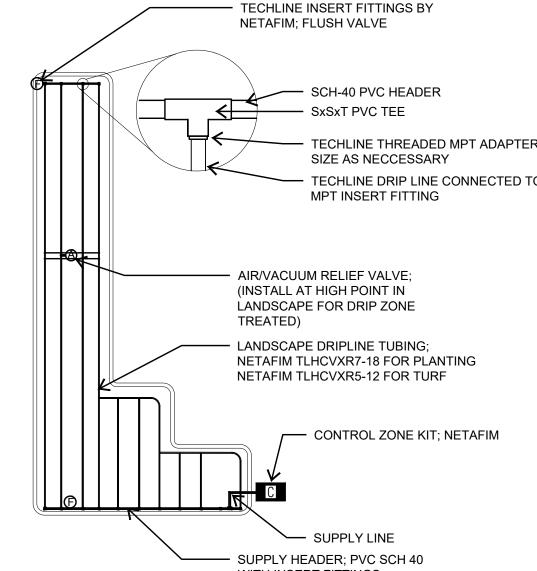
NETAFIM

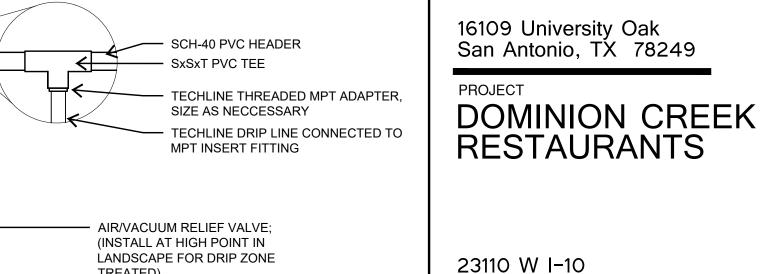
FITTINGS BY NETAFIM

LANDSCAPE DRIPLINE TUBING;

TECHLINE INSERT FITTINGS BY NETAFIM; FLUSH VALVE — SCH-40 PVC HEADER —— SxSxT PVC TEE TECHLINE THREADED MPT ADAPTER, SIZE AS NECCESSARY TECHLINE DRIP LINE CONNECTED TO MPT INSERT FITTING LANDSCAPE DRIPLINE TUBING; NETAFIM TLHCVXR7-18 FOR PLANTING NETAFIM TLHCVXR5-12 FOR TURF — CONTROL ZONE KIT; NETAFIM AIR/VACUUM RELIEF VALVE; (INSTALL AT HIGH POINT IN LANDSCAPE FOR DRIP ZONE TREATED) SUPPLY HEADER; PVC SCH 40 WITH INSERT FITTINGS

DRIPLINE INSTALLATION (CENTER FEED)





HORIZON

DESIGN AND DEVELOPMENT PLANNING LANDSCAPE ARCHITECTURE DEVELOPMENT CONSULTING

> 14607 San Pedro Ave., Suite 200 San Antonio, Texas 78232

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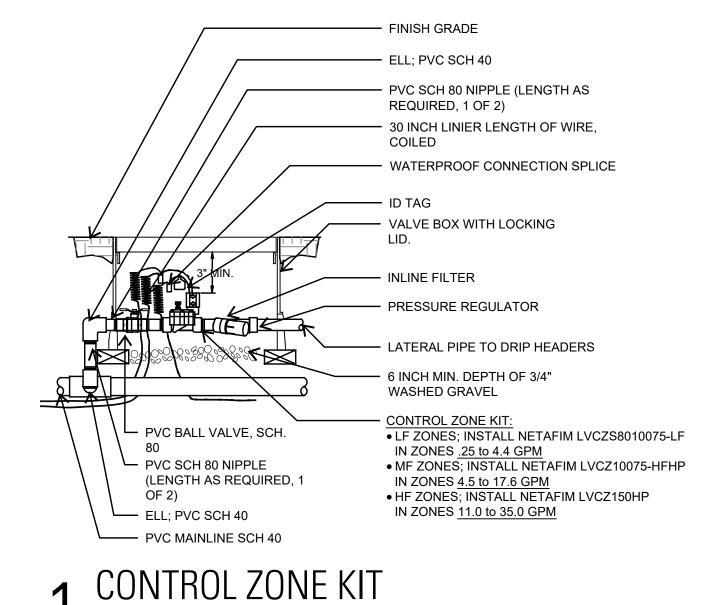
WADE O. RADLE

MR. A. THARP

San Antonio, Texas 78257

REVISIONS

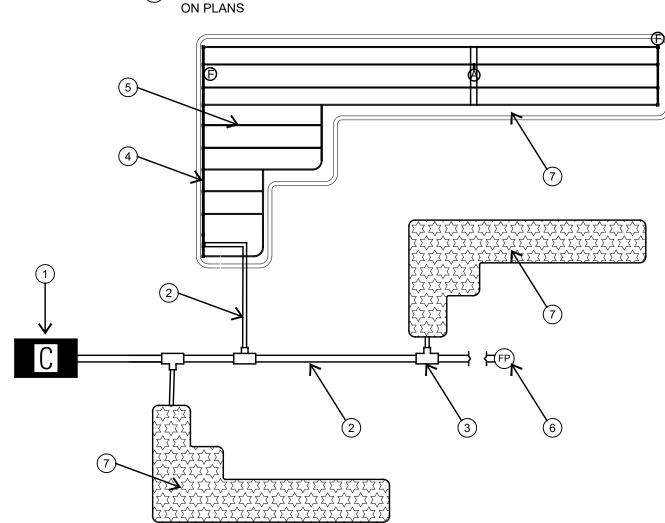
DRIPLINE INSTALLATION (END FEED)

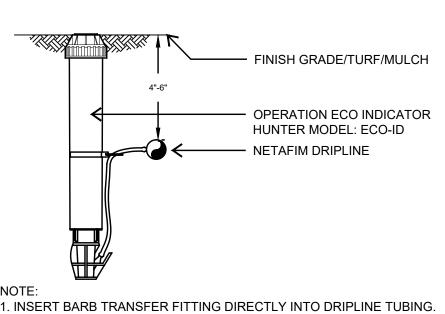


- (1) CONTROL ZONE KIT; NETAFIM
- 2 PVC SUPPLY LINE; SIZE PER CHART BELOW

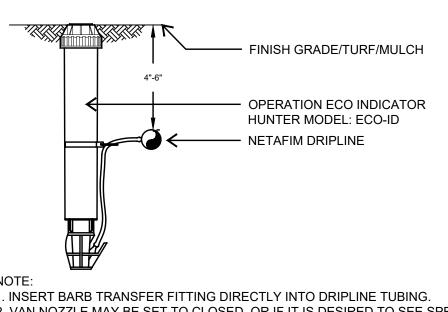
TOTAL LENGTH OF DRIPLINE	MINIMUM PIPE SIZE
UP TO 300 FT	1/2" SCH 40 PVC or 1/2" CLASS 315 PVC
300 TO 550 FT	3/4" CLASS 200 PVC
550 TO 850 FT	1" CLASS 200 PVC
850 TO 1700 FT	1-1/4" CLASS 200 PVC
1700 TO 2450 FT	1-1/2" CLASS 200 PVC

- (3) PVC SCH-40 TEE OR EL (TYPICAL)
- (4) SUPPLY HEADER; PVC SCH 40 WITH INSERT FITTINGS
- (5) LANDSCAPE DRIPLINE TUBING; NETAFIM TLHCVXR7-18 FOR PLANTING NETAFIM TLHCVXR5-12 FOR TURF
- (6) DRIPLINE FLUSH POINT (SEE NETAFIM DETAIL: FLUSH VALVE)
- (7) DRIP AREA; DEFINED BY HATCH ASSOCIATED TO ZONE TAG





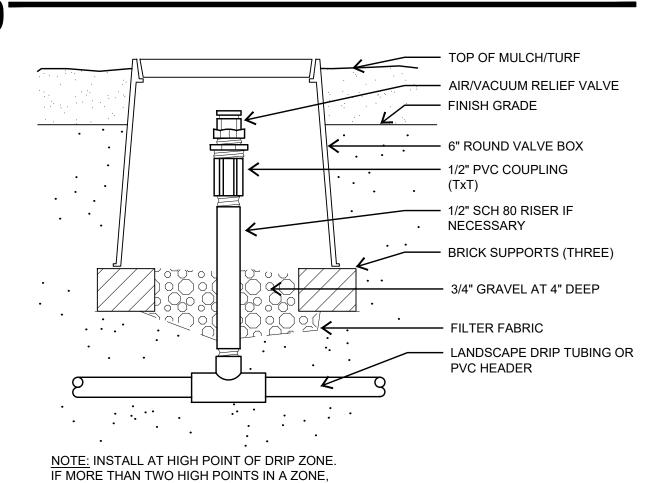
1. INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING. 2. VAN NOZZLE MAY BE SET TO CLOSED, OR IF IT IS DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE ARC TO ¼ PATTERN. THE FLOW FROM THE NOZZLE, 0.3



GPM, SHOULD BE ACCOUNTED FOR IN THE SYSTEM DESIGN.

WITH INSERT FITTINGS

NOTE: INSTALL AT FARTHEST POINT OF DRIP ZONE. INSTALL AT EACH END POINT.



INSTALL AT EACH HIGH POINT.

PROJECT NUMBER 2022-285

> Drawn By: pra Checked By: jr

Sheet Title: IRRIGATION DETAILS

Sheet Number:

January 30, 2023

IN TURF AREAS.

WETTING PATTERN

INSTALLATION SPECIFICATIONS.

RECOMMENDED SPECIFICATIONS.

(17MM HCVXR SERIES DRIPLINE)

TOTAL ZONE FLOW

UP TO 5 GPM

5.1 TO 8 GPM

8.1 TO 13 GPM

13.1 TO 22 GPM

22.1 TO 31 GPM

1.) DRIP LINE SHALL BE BURIED 3" TO 5" BELOW FINISHED SOIL GRADE IN PLANTING

2.) STAGGER EMITTER SPACING IN PARALLEL ROWS TO CREATE TRIANGULAR

MANUFACTURER SPACED A MAX. OF 3' ON CENTER.

5.) NETAFIM HCVXR SERIES DRIP LINE SHALL BE USED AS FOLLOWS;

6.) WHEN CONFLICTS OCCUR BETWEEN THESE DRAWINGS AND THE

TURF AREAS; TLHCVXR5-12, ROWS SPACED AT 12 INCHES

BED AREAS; TLHCVXR7-18, ROWS SPACED AT 18 INCHES

BED AREAS WITH SLOPE 3:1 OR MORE; TLHCVXR7-12

PROPER SIZING OF SUPPLY AND EXHAUST HEADERS

3.) ALL DRIP LINE SHALL BE SECURED USING SOIL STAPLES AS SUPPLIED BY THE

METHODS DESCRIBED IN DTLS. 2/3-LI 2.2. AND NETAFIM'S RECOMMENDED

MANUFACTURER'S SPECIFICATIONS DEFER TO THE MANUFACTURER'S

7.) EACH DRIP ZONE SHALL HAVE A DRIP SYSTEM OPERATION INDICATOR, AS

3/4" CLASS 200 PVC

1-1/4" CLASS 200 PVC

1-1/2" CLASS 200 PVC

1" CLASS 200 PVC

AND MAXIMIZE ZONE SIZE WHEN INSTALLING HCVXR SERIES DRIPLINE.

MANUFACTURED BY NETAFIM. INSTALL PER NETAFIM RECOMMENDATIONS.

1/2" SCH 40 PVC or 1/2" CLASS 315 PVC

NOTE: A 45 PSI PRESSURE REGULATOR IS RECOMMENDED TO OBTAIN MAXIMUM RUN LENGTHS

4.) DRIP LATERALS SHOWN ON THE PLANS ARE USED TO INDICATE ZONING SIZES AND

RELATIONSHIPS. INSTALLATION OF DRIP ZONES SHALL FOLLOW ONE OF THE TWO

BEDS AFTER PLANTING AND BEFORE MULCH AND 4" TO 6" BELOW FINISHED GRADE